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"ANNUAL OPERATION AND MAINTENANCE STATUS REPORT FOR NUTRIENT INJECTION SYSTEM AT BUILDING 46 FORMER TANKS 46R, 46D, 46SUL AND 46UL FROM 18 JANUARY TO 31 DECEMBER 2001 NAS CECIL FIELD FL"
2/1/2002
CH2MHILL CONSTRUCTORS INC

Annual Operation and Maintenance Status Report

Nutrient Injection System

Building 46, Former Tanks 46R, 46D, 46SUL, and 46UL

January 18, 2001 – December 31, 2001

Naval Air Station Cecil Field
Jacksonville, Florida

Contract No. N62467-98-D-0995
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Acronyms

acfh	actual cubic feet per hour
acfm	actual cubic feet per minute
bls	below land surface
BTEX	benzene, toluene, ethylbenzene, and xylene
CCI	CH2M HILL Constructors, Inc.
cfm	cubic feet per minute
CTO	Contract Task Order
EPA	U.S. Environmental Protection Agency
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FID	flame ionization detector
FL PRO	Florida Petroleum Residual Organic
GCTL	groundwater cleanup target level
HLA	Harding Lawson Associates
LNAPL	light non-aqueous phase liquids
µg/L	micrograms per liter
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MTBE	methyl-tert butyl ether
NAS	Naval Air Station
NAVFAC	Naval Facilities Engineering Command
O&M	operation and maintenance
OVA	organic vapor analyzer
PAHs	polynuclear aromatic hydrocarbons
psig	pounds per square inch gauge
SAR	Site Assessment Report
SCTL	soil cleanup target level
TEP	triethylphosphate
TRPH	total recoverable petroleum hydrocarbon
TtNUS	Tetra Tech NUS, Inc.
UST	underground storage tank

1.0 Introduction

CH2M HILL Constructors, Inc. (CCI) has been contracted by the Department of the Navy, Southern Division Naval Facilities Engineering Command (NAVFAC), to provide operation and maintenance (O&M) services at Building 46, Naval Air Station (NAS) Cecil Field, Jacksonville, Florida, under Response Action Contract No. N62467-98-D-0995, Contract Task Order (CTO) No. 0002. The purpose of this Annual 2001 O&M Report is to provide a summary of activities performed at the site during the period of January 18, 2001, to December 31, 2001.

1.1 Objective

The objective of the remedial action at the Building 46 site is to reduce the concentrations of petroleum related contaminants in the groundwater and unsaturated soils to target levels specified by Florida Administrative Code (FAC) 62-777. Nutrient injection using the PHOSter Nutrient Injection System is the technology being utilized to achieve this objective.

1.2 Site History

Building 46 was the former base gas station that operated from 1946 to 1987. The station had a total of eight underground storage tanks (USTs), all of which were removed in June 1988. Four of the tanks, labeled as 46R, 46D, 46SUL, and 46UL, were installed in 1970 and were used to store regular and unleaded gasoline and diesel fuel. These tanks were located adjacent to Building 46. The other four tanks were installed prior to 1970 and the contents of these tanks are unknown. They were located just south of Building 46 (Tetra Tech NUS, Inc. [TtNUS], June 2000).

A Site Assessment Report (SAR) prepared for Building 46 (Harding Lawson Associates [HLA], 1998) concluded that operation of the USTs had resulted in contamination of soil and groundwater with fuel-related compounds, including benzene, toluene, ethylbenzene, and xylenes (BTEX), methyl-tert-butyl ether (MTBE), naphthalene, and total recoverable petroleum hydrocarbons (TRPH). The SAR determined that an area of soil approximately 5,500 square feet in size at the location of the former USTs was highly contaminated to a depth of 7 feet below land surface (bls) and acted as a source of groundwater contamination. The SAR also established that groundwater contamination extends to the shallow (7 to 25 feet bls), intermediate (25 to 50 feet bls) and deep (50 to 92 feet bls) zones of the surficial aquifer over an area approximately 25,300 square feet, 95,700 square feet, and 31,000 square feet, respectively.

A nutrient injection system was installed at the site during the period of November 2000 to January 2001 to treat the impacted soil and groundwater to achieve state mandated cleanup target levels. The nutrient injection system commenced operation on January 18, 2001.

1.3 Remediation System/Technology Description

The PHOSter Nutrient Injection System provides subsurface delivery of oxygen, nitrogen, and phosphorus to enhance the development of naturally occurring heterotrophic bacteria that have the capability of metabolizing petroleum wastes. A compressor is used to inject air as the oxygen source and the air flow is mixed with nitrous oxide and vapor-phase triethylphosphate (TEP) to provide nitrogen and phosphorus, respectively. Toward the end of cleanup operations, when contaminant concentrations have been reduced to the point where insufficient food (contaminants) is available to sustain and effective microorganism population, propane is also injected as a carbon source (TtNUS, June 2000).

The Building 46 Nutrient Injection System consists of two separate systems, labeled as the west system and the east system. Two separate systems allow for even gas distribution and more effectively treat the relatively large extent of the contaminant plume. The west system consists of 8 intermediate injection wells (labeled CEF-46-I1 through CEF-46-I8) and 3 deep injection wells (labeled CEF-46-D1 through CEF-46-D3) and a temporary trailer containing air compressors, injection gas storage containers, and associated piping and instrumentation. The east system consists of 8 intermediate injection wells (labeled CEF-46-BI1 through CEF-46-BI8) and 11 deep injection wells (labeled CEF-46-BD1 through CEF-46-BD11); and a temporary trailer containing air compressors, injection gas storage containers, and associated piping and instrumentation. The intermediate injection wells are 40 feet in depth with a screen interval from 35 to 40 feet bls and the deep injection wells are 90 feet in depth with a screen interval of 85 to 90 feet bls. The nutrient injection system is designed for each injection well to operate at a flow rate of 3 to 5 cubic feet per minute (cfm) at an injection pressure of 20 pounds per square inch gauge (psig) for the intermediate wells and 50 psig for the deep wells. A map showing the locations of the injection wells is provided in Appendix A.

2.0 System Performance Monitoring

O&M checks of the system were performed daily for the first week of operation and periodically thereafter. System checks were performed daily during the first week of operation and periodically thereafter to coincide with the O&M check.

During an O&M check, a preventative maintenance checklist (based upon manufacturer's recommendations) is completed, and any required maintenance activity is performed. A system check consists of an O&M check and system performance monitoring, including reading of all meters and gauges.

2.1 Operational Efficiencies

2.1.1 Nutrient Injection System—West System

	Period	To Date
Hours of Possible Operation	8352	8352
Hours of Actual Operation	6942	6942
Percent hours of Operation	83.1	83.1

2.1.2 Nutrient Injection System—East System

	Period	To Date
Hours of Possible Operation	8352	8352
Hours of Actual Operation	6402	6402
Percent hours of Operation	76.7	76.7

2.2 Summary of Maintenance and System Downtime

2.2.1 Nutrient Injection System—West System

During the period of January 18, 2001, to December 31, 2001, the west nutrient injection system ran a total of 289.3 days out of a possible 348 days, experiencing 1,410 hours of downtime. The system downtime was mainly the result of manual shutdowns for sampling and data collection. Other causes of downtime were power outages from electrical storms and equipment maintenance.

2.2.2 Nutrient Injection System—East System

During the period of January 18, 2001, to December 31, 2001, the east nutrient injection system ran a total of 266.8 days out of a possible 348 days, experiencing in 1,950 hours of downtime. The system downtime was mainly the result of manual shutdowns for sampling and data collection. Other causes of downtime were power outages from electrical storms and equipment maintenance. The east system experienced more downtime than the west

system due to a mechanical failure of the air compressors, which were subsequently replaced under warranty.

2.3 Pressure/Flow Rate Monitoring

2.3.1 Nutrient Injection System – West System

The west injection system is divided into two manifold legs. Leg #1 consists of intermediate injection wells CEF-46-I1, CEF-46-I2, CEF-46-I3, CEF-46-I4, CEF-46-I5, and CEF-46-I8. Leg #2 consists of intermediate injection wells CEF-46-I6 and CEF-46-I7, and deep injection wells CEF-46-D1, CEF-46-D2, and CEF-46-D3. During the first year of operation, the injection pressure at the compressors averaged 42.3 psig. The design pressure is 20 psig for intermediate injection wells and 50 psig for deep injection wells. Each individual injection well has its own separate pressure regulator. Individual injection well pressures are not measured; adjustments are based upon flow rates not pressure. The total gas injection flow rate averaged 12.5 actual cubic feet per minute (acfm) for Leg #1 and 10.1 acfm for Leg #2, compared to the combined design total gas injection flow rate of 18 to 30 acfm. The nitrous oxide injection rate averaged 1.63 actual cubic feet per hour (acfh) which is 0.12 percent by volume of airflow, compared to the design nitrous oxide injection rate of 0.07 to 0.10 percent by volume of airflow. The TEP injection mass for the first year of operation totaled 25 pounds, compared to the design injection mass of 99 pounds per year. The data for the injection wells and injection system are tabulated in Tables 2-1 and 2-3, respectively.

2.3.2 Nutrient Injection System – East System

The east injection system is divided into two manifold legs. Leg #1 consists of intermediate injection wells CEF-46-BI2, CEF-46-BI3, CEF-46-BI4, CEF-46-BI5, CEF-46-BI6, CEF-46-BI7, and CEF-46-BI8, and deep injection wells CEF-46-BD9, CEF-46-BD10, and CEF-46-BD11. Leg #2 consists of intermediate injection well CEF-46-BI1, and deep injection wells CEF-46-BD1, CEF-46-BD2, CEF-46-BD3, CEF-46-BD4, CEF-46-BD5, CEF-46-BD6, CEF-46-BD7 and CEF-46-BD8. During the first year of operation, the injection pressure at the compressors averaged 45.2 psig. The design pressure is 20 psig for intermediate injection wells and 50 psig for deep injection wells. Each individual injection well has its own separate pressure regulator. Individual injection well pressures are not measured, adjustments are based upon flow rates not pressure. The total gas injection flow rate averaged 11.3 acfm for Leg #1 and 19.2 acfm for Leg #2, compared to the combined design total gas injection flow rate of 30 to 50 acfm. The nitrous oxide injection rate averaged 1.91 acfh which is 0.10 percent by volume of airflow, compared to the design nitrous oxide injection rate of 0.07 to 0.10 percent by volume of airflow. The TEP injection mass for the first year of operation totaled 27 pounds, compared to the design injection mass of 171 pounds per year. The data for the injection wells and injection system are tabulated in Tables 2-2 and 2-4, respectively.

TABLE 2-1
Injection Well Measurements - West System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-46-I1	01/19/2001	50	2.75
(Leg #1)	02/28/2001	50	NA
	03/30/2001	50	NA
	04/13/2001	25	2
	05/10/2001	25	2
	06/07/2001	25	2
	07/02/2001	25	2
	08/06/2001	25	2
	09/11/2001	25	2
	10/03/2001	0	0
	11/12/2001	0	0
	12/11/2001	0	0
CEF-46-I2	01/19/2001	50	2.75
(Leg #1)	02/28/2001	50	NA
	03/30/2001	50	NA
	04/13/2001	25	2
	05/10/2001	25	2
	06/07/2001	25	2
	07/02/2001	25	2
	08/06/2001	25	2
	09/11/2001	25	2
	10/03/2001	50	3
	11/12/2001	50	3
	12/11/2001	50	3
CEF-46-I3	01/19/2001	50	2.75
(Leg #1)	02/28/2001	50	NA
	03/30/2001	50	NA
	04/13/2001	25	2
	05/10/2001	25	2
	06/07/2001	25	2
	07/02/2001	25	2
	08/06/2001	25	2
	09/11/2001	25	2
	10/03/2001	0	0
	11/12/2001	0	0
	12/11/2001	0	0
CEF-46-I4	01/19/2001	50	2.75
(Leg #1)	02/28/2001	100	NA
	03/30/2001	50	NA
	04/13/2001	25	2
CEF-46-I4	05/10/2001	25	2
(Leg #1)	06/07/2001	25	2
	07/02/2001	25	2
	08/06/2001	25	2
	09/11/2001	25	2
	10/03/2001	50	3
	11/12/2001	50	3
	12/11/2001	50	3
CEF-46-I5	01/19/2001	100	2.75
(Leg #1)	02/28/2001	50	NA
	03/30/2001	100	NA
	04/13/2001	25	2
	05/10/2001	2	2
	06/07/2001	2	2
	07/02/2001	5	2
	08/06/2001	25	2
	09/11/2001	25	2
	10/03/2001	25	3
	11/12/2001	25	3
	12/11/2001	25	3

TABLE 2-1
Injection Well Measurements - West System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-46-I6	01/19/2001	40	2.5
(Leg #2)	02/28/2001	25	NA
	03/30/2001	25	NA
	04/13/2001	25	2
	05/10/2001	25	2
	06/07/2001	25	2
	07/02/2001	25	2
	08/06/2001	50	3
	09/11/2001	50	2
	10/03/2001	60	3
	11/12/2001	60	3
	12/11/2001	60	3
CEF-46-I7	01/19/2001	40	2.5
(Leg #2)	02/28/2001	100	NA
	03/30/2001	25	NA
	04/13/2001	25	2
	05/10/2001	25	2
	06/07/2001	25	2
	07/02/2001	25	2
	08/06/2001	25	2
CEF-46-I7	09/11/2001	25	2
(Leg #2)	10/03/2001	0	0
	11/12/2001	0	0
	12/11/2001	0	0
CEF-46-I8	01/19/2001	50	2.75
(Leg #1)	02/28/2001	25	NA
	03/30/2001	50	NA
	04/13/2001	25	2
	05/10/2001	5	2
	06/07/2001	5	2
	07/02/2001	5	2
	08/06/2001	25	2
	09/11/2001	25	2
	10/03/2001	60	3
	11/12/2001	60	3
	12/11/2001	60	3
CEF-46-D1	01/19/2001	100	2.5
(Leg #2)	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	100	2
	05/10/2001	100	2
	06/07/2001	100	2
	07/02/2001	100	2
	08/06/2001	100	4
	09/11/2001	100	2
	10/03/2001	100	2
	11/12/2001	100	2
	12/11/2001	100	2
CEF-46-D2	01/19/2001	60	2.5
(Leg #2)	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	75	2
	05/10/2001	100	2
	06/07/2001	100	2
	07/02/2001	100	2
	08/06/2001	100	4
	09/11/2001	100	2
	10/03/2001	100	2
	11/12/2001	100	2
	12/11/2001	100	2

TABLE 2-1
Injection Well Measurements - West System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-46-D3	01/19/2001	60	2.5
(Leg #2)	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	50	2
	05/10/2001	100	2
	06/07/2001	100	2
	07/02/2001	100	2
	08/06/2001	100	4
	09/11/2001	100	2
	10/03/2001	0	0
	11/12/2001	0	0
	12/11/2001	0	0

NA = Not Available

TABLE 2-2
Injection Well Measurements - East System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-46-BI1	01/19/2001	100	1.5
(Leg #2)	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	25	NA
	05/10/2001	25	2
	06/07/2001	25	2
	07/02/2001	5	1
	08/06/2001	0	0
	09/11/2001	0	0
	10/03/2001	0	0
	11/12/2001	0	0
	12/11/2001	0	0
CEF-46-BI2	01/19/2001	100	1.75
(Leg #1)	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	25	NA
	05/10/2001	25	0.5
	06/07/2001	25	0.5
	07/02/2001	5	1
	08/06/2001	25	2
	09/11/2001	25	0.5
	10/03/2001	0	0
	11/12/2001	0	0
	12/11/2001	0	0
CEF-46-BI3	01/19/2001	100	1.75
(Leg #1)	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	25	NA
	05/10/2001	25	1.5
	06/07/2001	25	1.5
	07/02/2001	5	1
	08/06/2001	0	0
	09/11/2001	0	0
	10/03/2001	40	2
	11/12/2001	40	2
	12/11/2001	40	4
CEF-46-BI4	01/19/2001	100	1.75
(Leg #1)	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	25	NA

TABLE 2-2
Injection Well Measurements - East System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-46-BI4	05/10/2001	25	1.75
(Leg #1)	06/07/2001	25	1.75
	07/02/2001	5	1
	08/06/2001	0	0
	09/11/2001	50 *	1.5
	10/03/2001	0	0
	11/12/2001	0	0
	12/11/2001	20	4
CEF-46-BI5	01/19/2001	100	1.75
(Leg #1)	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	25	NA
	05/10/2001	25	1.75
	06/07/2001	25	1.75
	07/02/2001	5	1
	08/06/2001	0	0
	09/11/2001	0	0
	10/03/2001	0	0
	11/12/2001	0	0
	12/11/2001	20	4
CEF-46-BI6	01/19/2001	100	1.75
(Leg #1)	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	25	NA
	05/10/2001	25	2
	06/07/2001	25	2
	07/02/2001	5	1
	08/06/2001	0	0
	09/11/2001	0	0
	10/03/2001	40	2
	11/12/2001	40	2
	12/11/2001	40	4
CEF-46-BI7	01/19/2001	100	1.75
(Leg #1)	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	25	NA
	05/10/2001	25	2
	06/07/2001	25	2
	07/02/2001	5	1
	08/06/2001	0	0
CEF-46-BI7	09/11/2001	0	0
(Leg #1)	10/03/2001	40	2
	11/12/2001	40	2
	12/11/2001	40	4
CEF-46-BI8	01/19/2001	100	1.75
(Leg #1)	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	25	NA
	05/10/2001	25	2
	06/07/2001	25	2
	07/02/2001	5	1
	08/06/2001	0	0
	09/11/2001	0	0
	10/03/2001	0	0
	11/12/2001	0	0
	12/11/2001	0	0
CEF-46-BD1	01/19/2001	100	1.5
(Leg #2)	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	100	3
	05/10/2001	100	2.5
	06/07/2001	100	2.5
	07/02/2001	100	3
	08/06/2001	35	3

TABLE 2-2
Injection Well Measurements - East System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-46-BD1	09/11/2001	35	1.5
(Leg #2)	10/03/2001	100	1.5
(cont)	11/12/2001	100	1.5
	12/11/2001	100	3
CEF-46-BD2	01/19/2001	100	1.5
(Leg #2)	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	100	2
	05/10/2001	100	2
	06/07/2001	100	2
	07/02/2001	100	3
	08/06/2001	100	4
	09/11/2001	100	2
	10/03/2001	100	2
	11/12/2001	100	2
	12/11/2001	100	4
CEF-46-BD3	01/19/2001	100	1.5
(Leg #2)	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	100	3
	05/10/2001	100	2
	06/07/2001	100	2
	07/02/2001	100	3
	08/06/2001	100	4
	09/11/2001	100	2.5
	10/03/2001	100	2
	11/12/2001	100	2
	12/11/2001	50	2
CEF-46-BD4	01/19/2001	100	1.5
(Leg #2)	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	100	3
	05/10/2001	100	2.5
	06/07/2001	100	2.5
	07/02/2001	100	3
	08/06/2001	35	3
	09/11/2001	35	2.5
	10/03/2001	100	2
	11/12/2001	100	2
	12/11/2001	100	4
CEF-46-BD5	01/19/2001	100	1.5
(Leg #2)	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	100	3
	05/10/2001	100	2
	06/07/2001	100	2
	07/02/2001	100	3
	08/06/2001	35	3
	09/11/2001	35	2.5
	10/03/2001	100	2
	11/12/2001	100	2
	12/11/2001	100	4
CEF-46-BD6	01/19/2001	100	1.5
(Leg #2)	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	100	2
CEF-46-BD6	05/10/2001	100	2
(Leg #2)	06/07/2001	100	2
	07/02/2001	100	3
	08/06/2001	35	3
	09/11/2001	35	2.5
	10/03/2001	100	2
	11/12/2001	35	2
	12/11/2001	35	4

TABLE 2-2
Injection Well Measurements - East System

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-46-BD7	01/19/2001	100	1.5
(Leg #2)	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	100	2
	05/10/2001	100	1.5
	06/07/2001	100	1.5
	07/02/2001	100	3
	08/06/2001	100	4
	09/11/2001	100	2
	10/03/2001	100	2
	11/12/2001	100	2
	12/11/2001	100	4
CEF-46-BD8	01/19/2001	100	1.5
(Leg #2)	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	100	3
	05/10/2001	100	2
	06/07/2001	100	2
	07/02/2001	100	3
	08/06/2001	0	0
	09/11/2001	0	0
	10/03/2001	0	0
	11/12/2001	0	0
	12/11/2001	0	0
CEF-46-BD9	01/19/2001	100	1.75
(Leg #1)	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	100	2.5
	05/10/2001	25	2
	06/07/2001	25	2
	07/02/2001	50	1
	08/06/2001	10	1
CEF-46-BD9	09/11/2001	10	1
(Leg #1)	10/03/2001	0	0
	11/12/2001	0	0
	12/11/2001	0	0
CEF-46-BD10	01/19/2001	100	1.75
(Leg #1)	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	100	2
	05/10/2001	100	1
	06/07/2001	100	1
	07/02/2001	100	3
	08/06/2001	25	2
	09/11/2001	25	1
	10/03/2001	0	0
	11/12/2001	0	0
	12/11/2001	0	0
CEF-46-BD11	01/19/2001	100	1.75
(Leg #1)	02/28/2001	100	NA
	03/30/2001	100	NA
	04/13/2001	100	2
	05/10/2001	100	1
	06/07/2001	100	1
	07/02/2001	100	3
	08/06/2001	35	3
	09/11/2001	35	1.5
	10/03/2001	0	0
	11/12/2001	0	0
	12/11/2001	0	0

NA = Not Available
* = opened for pressure relief

TABLE 2-3
Injection System Data - West System

Date	Air Supply Pressure (psig)	Total Gas Flow (acfm)	NOX Flow (acfh)	TEP Injection (pounds)
01/19/2001	22	29	1	initial startup
02/28/2001	22	NA	1	0.00
03/30/2001	28	NA	3	1.34
04/13/2001	38	22	2.5	0.00
05/10/2001	50	22	1.5	3.12
06/07/2001	48	22	1.5	2.68
07/02/2001	48	22	1.5	1.78
08/06/2001	50	29	1.5	1.78
09/11/2001	50	22	1.5	8.12
10/03/2001	52	19	1.5	1.34
11/12/2001	50	19	1.5	2.41
12/11/2001	50	19	1.5	2.14

NA = Not Available
psig = pounds per square inch gauge
acfm = actual cubic feet per minute
acfh = actual cubic feet per hour

TABLE 2-4
Injection System Data - East System

Date	Air Supply Pressure (psig)	Total Gas Flow (acfm)	NOX Flow (acfh)	TEP Injection (pounds)
01/09/2001	40	31	1.5	initial startup
02/28/2001	38	NA	1	0.00
03/30/2001	8	NA	1	1.78
04/13/2001	40	NA	NA	0.00
05/10/2001	42	34	3.5	2.68
06/07/2001	42	34	2.25	7.14
07/02/2001	41	39	2.25	0.00
08/06/2001	50	32	3.5	4.02
09/11/2001	65	21	1.5	5.98
10/03/2001	46	19.5	1.5	1.25
11/12/2001	65	19.5	1.5	1.87
12/11/2001	65	45	1.5	2.05

NA = Not Available
psig = pounds per square inch gauge
acfm = actual cubic feet per minute
acfh = actual cubic feet per hour

2.4 Water Level Measurements

Depth to water measurements were recorded at selected monitoring wells on a monthly basis during the monitoring period. The tops of casing elevation, depth to water measurements, and calculated water level elevations are tabulated in Table 2-5. A map showing the groundwater flow direction for the deep aquifer as measured on December 17

and 18, 2001, is provided in Appendix A. The shallow aquifer could not be mapped because water level measurements were available for only two shallow monitoring wells. The intermediate aquifer could not be mapped because of anomalies caused by the injection system.

Light non-aqueous phase liquid (LNAPL) was not noted in any monitoring well during the monitoring period.

TABLE 2-5
Groundwater Monitoring Well - Water Level and Free Product Data

Well Identification	Well Total Depth (feet bls)	Date	Top of Casing Elevation (feet)	Depth to Product (feet)	Depth to Water (feet)	Water Level Elevation (feet)
CEF-46-1S	14.24	12/21/2000	79.08	no product	4.94	74.14
		01/25/2001		no product	6.46	72.62
		02/01/2001		no product	5.46	73.62
		02/08/2001		no product	5.32	73.76
		02/15/2001		no product	5.55	73.53
		02/22/2001		no product	6.00	73.08
		03/08/2001		no product	6.04	73.04
		03/21/2001		no product	4.90	74.18
		04/03/2001		NM	NM	NM
		04/18/2001		no product	5.30	73.78
		05/02/2001		no product	5.71	73.37
		06/29/2001		no product	5.47	73.61
		07/25/2001		no product	3.90	75.18
		08/20/2001		no product	3.74	75.34
		09/18/2001		no product	1.65	77.43
		10/24/2001		no product	3.69	75.39
		11/15/2001		no product	4.10	74.98
		12/17/2001		no product	4.02	75.06
CEF-46-2S	13.88	12/21/2000	79.08	no product	5.02	74.06
		01/25/2001		no product	5.10	73.98
		02/01/2001		no product	5.60	73.48
		02/08/2001		no product	5.69	73.39
		02/15/2001		no product	5.67	73.41
		02/22/2001		no product	6.07	73.01
		03/08/2001		no product	6.14	72.94
		03/21/2001		no product	5.00	74.08
		04/03/2001		NM	NM	NM
		04/18/2001		no product	5.41	73.67
		05/02/2001		no product	5.78	73.30
		06/29/2001		no product	6.18	72.90
		07/25/2001		no product	4.11	74.97
		08/20/2001		no product	3.19	75.89
		09/18/2001		no product	1.55	77.53
CEF-46-2S		10/24/2001		no product	3.88	75.20
		11/15/2001		no product	3.95	75.13
		12/17/2001		no product	4.26	74.82
CEF-46-5I	49.65	12/21/2000	79.18	no product	5.81	73.37
		01/25/2001		no product	5.12	74.06
		02/01/2001		no product	9.21	69.97
		02/08/2001		no product	8.17	71.01
		02/15/2001		no product	7.07	72.11
		02/22/2001		no product	8.35	70.83
		03/08/2001		no product	8.26	70.92
		03/21/2001		no product	5.96	73.22
		04/03/2001		NM	NM	NM
		04/18/2001		no product	6.93	72.25
		05/02/2001		no product	7.04	72.14
		06/29/2001		no product	7.45	71.73
		07/25/2001		NM	flowing	NM
		08/21/2001		no product	4.27	74.91
		09/18/2001		no product	3.16	76.02
		10/23/2001		no product	5.80	73.38

TABLE 2-5
Groundwater Monitoring Well - Water Level and Free Product Data

Well Identification	Well Total Depth (feet bls)	Date	Top of Casing Elevation (feet)	Depth to Product (feet)	Depth to Water (feet)	Water Level Elevation (feet)
CEF-46-5I (cont.)		11/15/2001		no product	6.50	72.68
		12/18/2001		no product	6.61	72.57
CEF-46-6D	79.82	12/21/2000	79.17	no product	7.40	71.77
		01/25/2001		NM	NM	NM
		02/01/2001		NM	NM	NM
		02/08/2001		no product	11.90	67.27
		02/15/2001		NM	NM	NM
		02/22/2001		NM	NM	NM
		03/08/2001		NM	NM	NM
		03/21/2001		NM	NM	NM
		04/03/2001		NM	NM	NM
		04/18/2001		NM	NM	NM
		05/02/2001		NM	NM	NM
		06/29/2001		NM	NM	NM
CEF-46-6D		07/25/2001		NM	NM	NM
		08/21/2001		no product	8.15	71.02
		09/18/2001		no product	4.75	74.42
		10/23/2001		no product	flowing	NM
		11/15/2001		no product	8.20	70.97
		12/18/2001		no product	9.75	69.42
CEF-46-7I	29.68	12/21/2000	79.02	no product	5.45	73.57
		01/25/2001		NM	NM	NM
		02/01/2001		NM	NM	NM
		02/08/2001		NM	NM	NM
		02/15/2001		NM	NM	NM
		02/22/2001		no product	7.17	71.85
		03/08/2001		NM	NM	NM
		03/21/2001		NM	NM	NM
		04/03/2001		NM	NM	NM
		04/18/2001		NM	NM	NM
		05/02/2001		NM	NM	NM
		06/29/2001		NM	NM	NM
		07/25/2001		NM	flowing	NM
		08/20/2001		no product	3.70	75.32
		09/18/2001		no product	1.85	77.17
		10/24/2001		no product	4.76	74.26
		11/15/2001		no product	4.52	74.50
		12/18/2001		no product	3.88	75.14
CEF-46-9I	48.81	12/21/2000	79.05	no product	5.67	73.38
		01/25/2001		no product	5.91	73.14
		02/01/2001		no product	7.37	71.68
		02/08/2001		no product	6.53	72.52
		02/15/2001		no product	6.03	73.02
		02/22/2001		no product	7.51	71.54
		03/08/2001		no product	6.61	72.44
		03/21/2001		no product	5.70	73.35
		04/03/2001		NM	NM	NM
CEF-46-9I		04/18/2001		no product	6.30	72.75
		05/02/2001		no product	6.52	72.53
		06/29/2001		no product	6.11	72.94
		07/25/2001		no product	4.61	74.44
		08/20/2001		no product	3.74	75.31
		09/18/2001		no product	1.93	77.12
		10/23/2001		no product	4.72	74.33
		11/15/2001		no product	4.69	74.36
		12/18/2001		no product	5.42	73.63
CEF-46-12I	29.61	12/21/2000	78.73	no product	5.23	73.50
		01/25/2001		no product	6.44	72.29
		02/01/2001		no product	6.50	72.23
		02/08/2001		no product	6.71	72.02
		02/15/2001		no product	5.66	73.07
		02/22/2001		no product	6.73	72.00
		03/08/2001		no product	8.24	70.49

TABLE 2-5
Groundwater Monitoring Well - Water Level and Free Product Data

Well Identification	Well Total Depth (feet bls)	Date	Top of Casing Elevation (feet)	Depth to Product (feet)	Depth to Water (feet)	Water Level Elevation (feet)
CEF-46-12I (cont.)		03/21/2001		no product	5.20	73.53
		04/03/2001		NM	NM	NM
		04/18/2001		no product	5.75	72.98
		05/02/2001		no product	5.97	72.76
		06/29/2001		no product	5.59	73.14
		07/25/2001		no product	4.14	74.59
		08/20/2001		no product	3.20	75.53
		09/17/2001		no product	1.59	77.14
		10/23/2001		no product	4.20	74.53
		11/15/2001		no product	4.10	74.63
		12/18/2001		no product	4.85	73.88
CEF-46-13I	39.56	12/21/2000	78.87	no product	5.43	73.44
		01/25/2001		no product	5.86	73.01
		02/01/2001		no product	7.06	71.81
		02/08/2001		no product	6.39	72.48
		02/15/2001		no product	5.77	73.10
		02/22/2001		no product	7.15	71.72
CEF-46-13I		03/08/2001		no product	6.37	72.50
		03/21/2001		no product	5.40	73.47
		04/03/2001		NM	NM	NM
		04/18/2001		no product	6.07	72.80
		05/02/2001		no product	6.23	72.64
		06/29/2001		no product	5.87	73.00
		07/25/2001		no product	4.35	74.52
		08/20/2001		no product	3.44	75.43
		09/17/2001		no product	1.75	77.12
		10/23/2001		no product	4.52	74.35
		11/15/2001		no product	4.37	74.50
		12/18/2001		no product	5.18	73.69
CEF-46-14D	78.79	12/21/2000	78.88	no product	6.86	72.02
		01/25/2001		no product	4.65	74.23
		02/01/2001		no product	11.45	67.43
		02/08/2001		no product	8.84	70.04
		02/15/2001		no product	7.76	71.12
		02/22/2001		no product	8.74	70.14
		03/08/2001		no product	7.84	71.04
		03/21/2001		no product	6.96	71.92
		04/03/2001		NM	NM	NM
		04/18/2001		no product	7.93	70.95
		05/02/2001		no product	7.74	71.14
		06/29/2001		no product	7.36	71.52
		07/25/2001		no product	5.47	73.41
		08/20/2001		no product	5.35	73.53
		09/17/2001		no product	3.29	75.59
		10/23/2001		no product	7.40	71.48
		11/15/2001		no product	8.32	70.56
		12/18/2001		no product	7.01	71.87
CEF-46-15I	29.77	12/21/2000	79.75	no product	6.33	73.42
		01/25/2001		no product	6.99	72.76
		02/01/2001		no product	7.45	72.30
CEF-46-15I		02/08/2001		no product	7.35	72.40
		02/15/2001		no product	6.75	73.00
		02/22/2001		no product	7.75	72.00
		03/08/2001		no product	7.23	72.52
		03/21/2001		no product	6.16	73.59
		04/03/2001		NM	NM	NM
		04/18/2001		no product	6.95	72.80
		05/02/2001		no product	7.21	72.54
		06/29/2001		no product	7.15	72.60
		07/25/2001		no product	5.75	74.00
		08/20/2001		no product	4.21	75.54
		09/17/2001		no product	2.70	77.05
		10/23/2001		no product	5.29	74.46

TABLE 2-5
Groundwater Monitoring Well - Water Level and Free Product Data

Well Identification	Well Total Depth (feet bls)	Date	Top of Casing Elevation (feet)	Depth to Product (feet)	Depth to Water (feet)	Water Level Elevation (feet)
CEF-46-15I (cont.)		11/15/2001		no product	5.15	74.60
		12/18/2001		no product	5.87	73.88
CEF-46-21I	29.70	12/21/2000	79.33	no product	6.02	73.31
		01/25/2001		no product	1.50	77.83
		02/01/2001		no product	7.90	71.43
		02/08/2001		no product	8.15	71.18
		02/15/2001		no product	5.02	74.31
		02/22/2001		no product	8.28	71.05
		03/08/2001		NM	NM	NM
		03/21/2001		NM	NM	NM
		04/03/2001		NM	NM	NM
		04/18/2001		NM	NM	NM
		05/02/2001		NM	NM	NM
		06/29/2001		NM	NM	NM
		07/25/2001		NM	flowing	NM
		08/21/2001		no product	4.15	75.18
		09/18/2001		no product	2.15	77.18
		10/24/2001		no product	5.16	74.17
		11/16/2001		no product	5.25	74.08
		12/18/2001		no product	6.03	73.30
CEF-46-24D	90.45	12/21/2000	78.74	no product	7.30	71.44
		01/25/2001		no product	8.20	70.54
		02/01/2001		no product	11.45	67.29
		02/08/2001		no product	10.87	67.87
		02/15/2001		no product	8.91	69.83
		02/22/2001		no product	9.39	69.35
		03/08/2001		no product	9.40	69.34
		03/21/2001		no product	7.25	71.49
		04/03/2001		NM	NM	NM
		04/18/2001		no product	8.15	70.59
		05/02/2001		NM	NM	NM
		06/29/2001		NM	NM	NM
		07/25/2001		no product	5.93	72.81
		08/21/2001		no product	5.82	72.92
		09/18/2001		no product	3.40	75.34
		10/24/2001		no product	7.35	71.39
		11/16/2001		no product	6.50	72.24
		12/18/2001		no product	7.24	71.50
CEF-46-25I	50.45	12/21/2000	79.17	no product	6.25	72.92
		01/25/2001		no product	5.55	73.62
		02/01/2001		no product	8.26	70.91
		02/08/2001		no product	7.87	71.30
		02/15/2001		no product	9.05	70.12
		02/22/2001		no product	8.56	70.61
		03/08/2001		no product	8.70	70.47
		03/21/2001		no product	6.00	73.17
		04/03/2001		NM	NM	NM
		04/18/2001		no product	7.19	71.98
		05/02/2001		no product	7.04	72.13
		06/29/2001		no product	6.90	72.27
		07/25/2001		no product	4.86	74.31
		08/21/2001		no product	3.92	75.25
		09/18/2001		no product	1.92	77.25
CEF-46-25I		10/24/2001		no product	4.82	74.35
		11/16/2001		no product	4.84	74.33
		12/18/2001		no product	5.61	73.56
CEF-46-26I	47.76	12/21/2000	79.43	no product	7.09	72.34
		01/25/2001		no product	5.89	73.54
		02/01/2001		no product	9.45	69.98
		02/08/2001		no product	8.12	71.31
		02/15/2001		no product	8.77	70.66
		02/22/2001		no product	8.73	70.70
		03/08/2001		no product	8.47	70.96

TABLE 2-5
Groundwater Monitoring Well - Water Level and Free Product Data

Well Identification	Well Total Depth (feet bls)	Date	Top of Casing Elevation (feet)	Depth to Product (feet)	Depth to Water (feet)	Water Level Elevation (feet)
CEF-46-26I (cont.)		03/21/2001		no product	6.40	73.03
		04/03/2001		NM	NM	NM
		04/18/2001		no product	7.40	72.03
		05/02/2001		no product	7.32	72.11
		06/29/2001		NM	NM	NM
		07/25/2001		no product	5.21	74.22
		08/21/2001		no product	4.27	75.16
		09/18/2001		no product	2.21	77.22
		10/24/2001		no product	5.16	74.27
		11/16/2001		no product	5.21	74.22
		12/18/2001		no product	6.02	73.41

bls = below land surface
NM = Not Measured
Elevation is referenced to National Geodetic Vertical Datum 1929 (NGVD 1929)
Depth to product measured from top of casing
Depth to water measured from top of casing

3.0 Summary of Sampling and Laboratory Analytical Results

3.1 Soil Monitoring

Soil screening and sampling was conducted on a quarterly basis during the first year of operation. Three soil borings (SB-1, SB-2, and SB-14) were installed in the soil contamination area identified during the Site Assessment. The soil was screened using an organic vapor analyzer (OVA) meter equipped with a flame ionization detector (FID) and a sample from each soil boring was collected at 2 to 5 feet bls for laboratory analysis. The most recent (fourth quarter 2001) OVA/FID results are presented below in Table 3-1. The water table was encountered at 4.5 to 5.5 feet bls.

TABLE 3-1
Summary of OVA/FID Readings

Date	Soil Boring No.	Depth (feet bls)	OVA/FID Unfiltered	OVA/FID Filtered	OVA/FID Net
12/12/01	SB-1	2	1	--	1
12/12/01	SB-1	4	387	79	308
12/12/01	SB-2	2	20000	32	19968
12/12/01	SB-2	4	30000	31	29969
12/12/01	SB-14	2	3800	51	3749
12/12/01	SB-14	3	2900	350	2550

Laboratory soil samples were analyzed for BTEX and MTBE by U. S. Environmental Protection Agency (EPA) Method 8021B, naphthalene and polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8310, and total recoverable petroleum hydrocarbon (TRPH) by the Florida Petroleum Residual Organic (FL PRO) Method. The results indicated that BTEX, MTBE, Naphthalene, and TRPH levels have decreased from the baseline soil sampling event conducted on January 4, 2001, but BTEX, and TRPH levels still exceed the Leachability and/or Direct Exposure Residential Soil Cleanup Target Levels (SCTLs) per Chapter 62-777 FAC. A site map showing the location of the soil borings is provided in Appendix A. Copies of the analytical laboratory report from the soil sampling event are provided in Appendix B, and analytical results are summarized in Table 3-2.

TABLE 3-2
Soil Analytical Results

Soil Boring Number	Sample Date	Benzene	Ethyl Benzene	Toluene	Xylene	BETX	Methyl tert-butyl ether	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo (a) anthracene	Chrysene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Indeno (1, 2, 3-cd) pyrene	Dibenzo (a,h) anthracene	Benzo (g,h,i) perylene	TRPH (mg/kg)
SB-1	01/04/2001	<0.9	65	14	390	469	3.1	73	<0.18	<1.8	1.235	0.67	<0.18	0.179	0.039	<.018	0.48	0.02	0.024	0.01	0.006	<0.018	<0.018	9900
	06/27/2001	0.61	34	9.1	110	153.71	<0.0012	1.4	<0.18	0.16	0.15	0.15	<0.18	0.051	0.012	0.022	0.19	0.012	0.013	0.006	0.007	<0.018	0.0049	150
	09/20/2001	0.65	6.1	0.69	40	47.44	<0.15	8.8	<0.2	<0.2	<0.2	0.28	<0.2	0.11	0.019	<0.02	0.15	0.034	0.026	0.018	0.011	0.026	0.024	1500
	12/12/2001	0.069	0.13	0.013	0.55	0.762	0.0084	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	19
SB-2	01/04/2001	7.1	120	10	610	747.1	3.8	38.5	<0.18	<0.18	0.515	0.66	<0.18	0.173	0.044	0.043	<0.018	0.017	0.029	0.022	<0.018	<0.018	0.0255	3900
	06/27/2001	1.4	57	47	420	525.4	<0.0011	0.84	0.17	1	0.46	0.59	0.086	0.21	0.046	0.077	0.071	0.026	0.037	0.019	0.007	<0.019	0.0091	1300
	09/20/2001	0.51	32	6	290	525.4	<0.12	7.4	<0.2	2.1	<0.20	0.58	<0.2	0.2	0.049	0.076	0.16	0.026	<0.020	0.02	<0.020	<0.020	<0.020	430
	12/12/2001	<11	99	110	620	525.4	<11	34	<0.2	0.12	0.38	0.23	<0.2	0.043	0.018	0.017	0.15	0.01	0.007	0.007	<0.020	0.008	0.015	1800
SB-3	01/04/2001	0.00038	<0.0011	<0.0011	<0.0033	0.00038	<0.0011	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.018	<0.018	<0.018	0.031	0.008	0.004	0.007	<0.018	<0.018	<0.018	16
	06/27/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/20/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12/12/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-13	01/04/2001	0.0011	<0.0012	<0.0012	<0.0036	0.0011	<0.0012	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	0.075	0.0715	0.078	0.13	0.145	0.067	0.11	0.055	0.082	0.1025	25
	06/27/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/20/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12/12/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-14	01/04/2001	<0.001	<0.001	0.011	0.0077	0.0187	0.0081	0.23	<0.18	<0.18	<0.18	<0.18	<0.18	<0.018	<0.018	<0.018	0.785	0.015	0.008	0.012	0.008	0.01	0.016	43
	06/27/2001	0.1	0.16	<0.0011	0.15	0.41	0.015	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	0.014	<0.019	<0.019	0.44	0.006	0.007	0.019	<0.019	0.023	<0.019	270
	09/20/2001	0.0025	0.0025	0.002	0.0024	0.41	<0.0012	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.020	<0.020	<0.020	0.32	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	55
	12/12/2001	0.11	0.18	0.014	0.71	0.41	0.012	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.019	<0.019	<0.019	0.058	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	65
Direct Exposure Residential [1]		1.1	1100	380	5900	n/a	3200	40	1100	1900	2200	2000	18000	2900	2200	1.4	140	1.4	15	0.1	1.5	0.1	2300	340
Leachability from GW Criteria [1]		0.0007	0.6	0.5	0.2	n/a	0.2	1.7	27	2.1	160	250	2500	1200	880	3.2	77	10	25	8	28	30	32000	340

All values reported in milligrams per kilogram (mg/kg)
1 = Ch 62-777 FAC SCTLs reported in mg/kg
Shaded values indicate the compounds that exceed the SCTLs

3.2 Groundwater Monitoring

Fourteen monitoring wells (CEF-46-1S, CEF-46-2S, CEF-46-5I, CEF-46-6D, CEF-46-7I, CEF-46-9I, CEF-46-12I, CEF-46-13I, CEF-46-14D, CEF-46-15I, CEF-46-21I, CEF-46-24D, CEF-46-25I, and CEF-46-26I) were sampled monthly during the first year of operation.

The samples were analyzed for BTEX and MTBE by EPA Method 8021B, naphthalene and PAHs by EPA Method 8310, TRPH by FL PRO Method, and nitrate, nitrite, phosphate by EPA Method 300.0. Seven of the fourteen wells had contaminant concentrations above the Groundwater Cleanup Target Levels (GCTLs) per Chapter 62-777 FAC during the baseline sampling event conducted December 20, 2000. At the end of the first year of operation, the results of the groundwater treatment are as follows:

- One of the seven monitoring wells that exceeded the GCTLs during the baseline event, CEF-46-6D, is below the GCTLs for all contaminants of concern. The remaining six monitoring wells that exceeded the GCTLs during the baseline event (CEF-46-1S, CEF-46-2S, CEF-46-5I, CEF-46-7I, CEF-46-13I, and CEF-46-26I) continue to have contaminant concentrations above the GCTLs.

- The contaminant concentrations in monitoring wells CEF-46-1S, CEF-46-2S, CEF-46-5I, CEF-46-7I, and CEF-46-13I still exceed the GCTLs but have decreased from the baseline sampling event. Monitoring well CEF-46-1S has experienced an 85 percent decrease in benzene, 54 percent decrease in BTEX, and 11 percent decrease in naphthalene. CEF-46-2S has experienced a 93 percent decrease in benzene, 77 percent decrease in BTEX, and 99.4 percent decrease in naphthalene. CEF-46-5I experienced a 99.7 percent decrease in benzene and 90 percent decrease in BTEX (naphthalene did not exceed the GCTL). CEF-46-7I experienced a 95 percent decrease in benzene, 96 percent decrease in BTEX, and 57 percent decrease in naphthalene; and CEF-46-13I experienced a 50 percent decrease in MTBE from the post baseline event (no other contaminants exceed the GCTLs).

- The contaminant concentrations in monitoring well CEF-46-26I still exceed the GCTLs. The concentrations in this well have increased above the baseline concentrations during the year and have now decreased to concentrations equal to the baseline concentrations.

A site map showing the locations of the monitoring wells is provided in Appendix A. Copies of the analytical laboratory reports from the groundwater sampling events are provided in Appendix C, and analytical results are summarized in Table 3-3.

Field analytical tests were performed on the monitoring wells during each sampling event. The groundwater was tested for pH, conductivity, temperature, dissolved oxygen, carbon dioxide, alkalinity, ferrous iron, and hydrogen sulfide. The results from the field analytical tests are summarized in Table 3-4.

An evaluation of the field analytical tests for those monitoring wells that exceed GCTLs indicate the following:

- pH and temperature are acceptable for biological activity.

- The conductivity values have remained relatively constant indicating that the groundwater samples represent the same groundwater conditions during each sampling event.
- The dissolved oxygen levels are generally greater than 1 milligram per liter (mg/L), which indicates aerobic conditions.
- The carbon dioxide values are elevated in monitoring wells CEF-46-1S, CEF-46-2S and CEF-46-5I, indicating a high level of aerobic activity.
- Carbon dioxide levels in monitoring wells CEF-46-7I and CEF-46-13I have not increased much above the baseline levels indicating a low level of aerobic activity.
- The carbon dioxide level in monitoring wells CEF-46-26I is increased above the baseline level indicating increased aerobic activity.
- Ferrous iron values have increased in monitoring wells CEF-46-5I, CEF-46-7I, and CEF-46-26I. An increase in ferrous iron may indicate anaerobic activity and a depletion of oxygen, nitrite, and manganese.
- Hydrogen sulfide values have increased in monitoring well CEF-46-2S and remained relatively constant in all the other wells. This may indicate that sulfate-based anaerobic degradation is occurring in CEF-46-2S.

TABLE 3-3
Groundwater Analytical Results

	Date	Benzene	Ethyl Benzene	Toluene	Xylene	BETX	Methyl tert-butyl ether	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo (a) anthracene	Chrysene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Indeno (1, 2, 3-cd) pyrene	Dibenzo (a,h) anthracene	Benzo (g,h,i) perylene	Nitrate (mg/L)	Nitrite (mg/L)	Phosphate (mg/L)	TRPH (µg/L)
CEF-46-1S	12/21/2000	13000	2900	40000	19000	74900	NA	550	N/A	N/A	1.4	<1.1	0.98	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	0.085 J	0.15	<1	23000
	01/25/2001	0.28	0.44	1.4	3.2	5.32	<1.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	0.20	0.25	290
	02/01/2001	9900	2300	33000	18000	63200	300	490	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	0.20	<1.0	40000
	02/08/2001	10000	2900	42000	21000	75900	<500	510	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	0.11	<1.0	55000
	02/15/2001	9000	2400	34000	18000	63400	<1000	430	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	0.11	<1	74000
	02/22/2001	8900	2300	34000	17000	62200	<1000	600	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	0.19	<1.0	5000
	03/08/2001	11000	2900	41000	20000	74900	<500	450	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	56000
	03/21/2001	11000	2600	40000	19000	72600	<1000	440	120	150	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	37000
	04/03/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/18/2001	9500	2500	39000	20000	71000	<1000	470	41	130	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	53000
	05/02/2001	9900	2800	39000	21000	72700	<1000	420	38	130	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	0.076	<1.0	44000
	06/29/2001	2700	930	15000	12000	30630	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	NS	NS	26000
	07/25/2001	210	150	1300	1600	3260	<10	36	5.9	21	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.61	<0.40	<1.0	2900
	08/20/2001	1200	590	6900	6300	14990	520	340	43	120	<1.0	62	17	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.17	<0.40	<1.0	32000
	09/18/2001	2100	1200	13000	11000	27300	230	400	61	130	<1.1	<1.1	1.3	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	55000
	10/24/2001	2000	1500	16000	15000	34500	190	510	68	110	<1.0	<1.1	1.5	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.60	0.41	<1.0	63000
	11/15/2001	2000	1600	17000	17000	37600	160	490	60	100	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	48000
	12/17/2001	2000	1600	18000	13000	34600	190	490	48	170	<1.1	<1.1	<1.1	<1.1	<1.1	<0.22	<0.22	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	51000
CEF-46-2S	12/21/2000	300	72	51	200	623	NA	230	N/A	N/A	<1.1	5.5	3.1	0.35	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.60	<0.4	0.22	3100
	01/25/2001	7.3	0.96	1.5	3.3	13.06	7.1	11	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.083	<0.40	<1.0	540
	02/01/2001	93	28	150	71	342	9.9	18	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	860
	02/08/2001	230	67	390	180	867	<5.0	13	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	1400
	02/15/2001	360	88	630	270	1348	7.5	32	N/A	N/A	<1.1	26	3.1	2.0	2.3	0.51	0.6	0.68	0.65	0.58	0.33	0.63	0.53	0.55	0.73	<0.60	<0.40	<1.0	2100
	02/22/2001	340	88	610	260	1298	10	19	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	1900
	03/08/2001	390	76	440	160	1066	10	37	N/A	N/A	<1.0	29	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	1700
	03/21/2001	49	5.4	16	8.4	78.8	<1.0	<1.0	<1.0	<1.0	4.4	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<520
	04/03/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/18/2001	90	12	19	9.5	130.5	12	72	2.9	4.7	<1.0	34	3.7	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	1400
	05/02/2001	760	180	730	520	2190	23	78	3.8	8.3	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<6.0	<4.0	<10	1900
	06/29/2001	1600	170	23	160	1953	39	<1.0	<1.0	<1.0	4.4	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	NS	NS	NS	1100
	07/25/2001	1100	310	40	520	1970	54	27	2.3	5.7	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.61	<0.40	<1.0	980
	08/20/2001	730	160	12	220	1122	56	17	1	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	1300
	09/18/2001	21	7.6	2.4	2.7	33.7	32	0.94	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	360
	10/24/2001	120	110	4.4	40	274.4	50	3.4	<1.1	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.60	<0.40	1.2	1000

TABLE 3-3
Groundwater Analytical Results

	Date	Benzene	Ethyl Benzene	Toluene	Xylene	BETX	Methyl tert-butyl ether	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo (a) anthracene	Chrysene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Indeno (1, 2, 3-cd) pyrene	Dibenzo (a,h) anthracene	Benzo (g,h,i) perylene	Nitrate (mg/L)	Nitrite (mg/L)	Phosphate (mg/L)	TRPH (µg/L)
CEF-46-2S	11/15/2001	8.2	4.1	<1.0	5.1	17.4	60	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	550
	12/17/2001	39	82	<1.0	21	142	51	1.5	<1.1	<1.1	<1.1	<1.1	<1.0	<1.1	<1.1	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	920
CEF-46-5I	12/21/2000	850	38	13	150	1051	NA	1.6	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.6	<0.4	<1.0	<550
	01/25/2001	180	7.4	3.1	31	221.5	<1.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<520
	02/01/2001	240	12	5.3	64	321.3	5.2	0.43	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.60	<0.40	<1.0	<530
	02/08/2001	48	2.3	0.82	12	63.12	<1.0	<1.1	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	300
	02/15/2001	37	<1.0	0.59	7.3	44.89	<1.0	6.5	N/A	N/A	<1.0	2.7	2.2	3.3	3.7	0.66	0.59	0.73	0.86	0.60	0.34	0.64	0.52	0.50	0.67	<0.60	<0.40	<1.0	210
	02/22/2001	53	2.7	0.94	7.7	64.34	2.1	0.52	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.60	<0.40	<1.0	330
	03/08/2001	64	2.9	0.53	5.5	72.93	<1.0	0.45	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	400
	03/21/2001	0.13	<1.0	<1.0	<1.0	0.13	<1.0	0.52	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<520
	04/03/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/18/2001	32	1.2	<1.0	4.8	38	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<530
	05/02/2001	14	0.66	0.64	2.2	17.5	1.4	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.60	<0.40	<1.0	<530
	06/28/2001	<1.0	<1.0	1.5	9.5	11	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	0.8	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.16	<0.40	<1.0	310
	07/25/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	08/21/2001	<1.0	1.6	3.9	20	25.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	0.74	<540
	09/18/2001	1.2	2.3	5.7	30	39.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<530
	10/23/2001	0.91	2.2	4.3	22	29.41	<1.0	<1.2	<1.2	<1.2	<1.0	<1.2	<1.2	<1.2	<1.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.89	<0.40	<1.0	750
	11/15/2001	3.4	7.8	19	66	96.2	1.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<6.0	<4.0	<10.0	<510
	12/18/2001	2.9	8.5	19	74	104.4	1.1	<1.0	<1.0	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	3.4	<1.0	<520
CEF-46-6D	12/21/2000	2.8	9.9	6	18	36.7	NA	3.5	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.6	<0.4	0.22	<560
	02/08/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.1	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<500
	02/15/2001	<1.0	0.41	0.59	5.0	6	<1.0	0.55	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<540
	02/22/2001	<1.0	<1.0	<1.0	1.9	1.9	<1.0	0.46	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<500
	03/07/2001	<1.0	0.55	0.39	2.8	3.7	<1.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.60	<0.60	<520
	03/21/2001	69	2.3	0.62	4.2	76.1	<1.0	1.7	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.60	<0.40	<1.0	<520
	04/03/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/18/2001	<1.0	0.26	<1.0	0.85	1.1	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<520
	05/02/2001	0.27	<1.0	0.43	1.3	2.0	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.60	<0.40	<1.0	<520
	06/28/2001	<1.0	<1.0	<1.0	3.1	3.1	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<500
	07/25/2001	<1.0	<1.0	2.1	7.8	9.9	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.61	<0.40	<1.0	<520
	08/21/2001	<1.0	1.2	1.6	11	13.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<540
	09/18/2001	0.82	1.4	2.3	12	16.5	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	NA	NA	NA	<520

TABLE 3-3
Groundwater Analytical Results

	Date	Benzene	Ethyl Benzene	Toluene	Xylene	BETX	Methyl tert-butyl ether	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo (a) anthracene	Chrysene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Indeno (1, 2, 3-cd) pyrene	Dibenzo (a,h) anthracene	Benzo (g,h,i) perylene	Nitrate (mg/L)	Nitrite (mg/L)	Phosphate (mg/L)	TRPH (µg/L)
CEF-46-6D	10/23/2001	0.54	0.89	1.7	7.7	10.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<530
	11/15/2001	1.7	3.2	6.9	24	35.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.21	<0.20	<0.20	<0.21	<0.20	<0.20	<0.21	<6.0	<4.0	<10.0	<520
	12/18/2001	<1.0	<1.0	0.84	4.1	4.94	<1.0	<1.1	<1.0	<1.1	<1.1	<1.0	<1.1	<1.1	<1.1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<540
CEF-46-7I	12/21/2000	9100	2800	17000	15000	43900	NA	260	N/A	N/A	0.86	<1.1	0.7	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.6	<0.4	<1.0	13000
	02/22/2001	6500	1400	10000	7900	25800	6100	120	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.6	<0.4	<1.0	17000
	03/07/2001	7500	1900	12000	10000	31400	5000	170	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.6	<0.4	<1.0	16000
	03/21/2001	4400	1100	7300	6200	19000	3100	180	5.4	39	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.6	<0.4	<1.0	15000
	04/03/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/18/2001	3400	730	3900	4400	12430	6100	200	6.1	22	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.6	<0.4	<1.0	6400
	05/02/2001	5900	1200	7300	6700	21100	17000	78	1.7	14	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<120	<80	<200	5500
	06/29/2001	1100	190	590	1200	3080	5000	24	<1.0	<1.0	<1.0	2.4	0.6	<1.0	<1.0	<0.20	0.74	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	NS	NS	NS	3000
	07/25/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	08/20/2001	3900	780	6000	5300	15980	6700	68	1.5	20	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.6	<0.4	<1.0	5400
	09/18/2001	4600	1100	7700	4600	18000	4200	96	2.8	23	<1.1	<1.1	<1.1	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	NA	NA	NA	10000
	10/24/2001	1100	240	1600	1600	4540	3700	14	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	3.7	3000
	11/15/2001	3900	860	2800	5000	12560	3100	160	<1.0	11	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.6	<0.4	<1.0	5600
	12/18/2001	500	96	540	680	1816	2600	9.7	<1.1	0.53	<1.0	<1.1	<1.1	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.6	<0.4	<1.0	1900
CEF-46-9I	12/20/2000	<1.0	<1.0	<1.0	<1.0	<4.0	NA	<1.1	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.6	<0.4	<1.0	<570
	01/25/2001	<1.0	<1.0	<1.0	<1.0	<4.0	1.3	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<500
	02/01/2001	<1.0	<1.0	<1.0	0.15	0.15	<1.0	0.45	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	0.088	<0.21	0.084	0.13	0.15	0.081	0.19	0.099	<0.60	<0.40	<1.0	<520
	02/07/2001	<1.0	<1.0	<1.0	<1.0	<4.0	0.87	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<500
	02/14/2001	<1.0	0.17	<1.0	0.57	0.74	1.1	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<500
	02/21/2001	<1.0	<1.0	<1.0	<1.0	<4.0	0.93	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<540
	03/08/2001	<1.0	<1.0	<1.0	<1.0	<4.0	0.87	0.75	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	210
	03/21/2001	<1.0	<1.0	<1.0	<1.0	<4.0	0.94	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<520
	04/03/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/17/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<510
	05/02/2001	<1.0	<1.0	<1.0	<1.0	<4.0	0.82	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.6	<0.4	<1.0	<530
	06/28/2001	<1.0	<1.0	<1.0	<1.0	<4.0	1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.6	<0.4	0.37	<500
	07/25/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.61	<0.40	<1.0	<520
	08/20/2001	<1.0	<1.0	<1.0	<1.0	<4.0	1.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.6	<0.4	<1.0	330
	09/18/2001	<1.0	<1.0	<1.0	<1.0	<4.0	3.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	NA	NA	NA	<520
	10/23/2001	<1.0	<1.0	<1.0	<1.0	<4.0	0.59	<1.1	<1.1	<1.1	<1.0	<1.0	<1.1	<1.1	<1.1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.22	<0.20	<0.20	<0.20	<0.20	0.9	<0.40	<1.0	<540

TABLE 3-3
Groundwater Analytical Results

	Date	Benzene	Ethyl Benzene	Toluene	Xylene	BETX	Methyl tert-butyl ether	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo (a) anthracene	Chrysene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Indeno (1, 2, 3-cd) pyrene	Dibenzo (a,h) anthracene	Benzo (g,h,i) perylene	Nitrate (mg/L)	Nitrite (mg/L)	Phosphate (mg/L)	TRPH (µg/L)
CEF-46-9I	11/15/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.6	<0.4	<1.0	<520
	12/18/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.21	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<500
CEF-46-12I	12/20/2000	<1.0	<1.0	<1.0	<1.0	<4.0	NA	<1.1	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.6	<0.4	<1.0	<530
	01/24/2001	<1.0	<1.0	<1.0	<1.0	<4.0	14	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<520
	02/01/2001	<1.0	<1.0	<1.0	<1.0	<4.0	13	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<530
	02/07/2001	<1.0	0.13	<1.0	0.41	0.54	19	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<500
	02/14/2001	<1.0	<1.0	<1.0	<1.0	<4.0	14	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<520
	02/21/2001	0.15	0.14	0.3	0.55	1.14	15	<1.1	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<500
	03/08/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<520
	03/21/2001	<1.0	<1.0	<1.0	<1.0	<4.0	21	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<520
	04/03/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/17/2001	<1.0	<1.0	<1.0	<1.0	<4.0	14	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<540
	05/01/2001	<1.0	<1.0	<1.0	<1.0	<4.0	15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<540
	06/28/2001	<1.0	<1.0	<1.0	<1.0	<4.0	12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<500
	07/25/2001	<1.0	<1.0	<1.0	<1.0	<4.0	11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	2	<0.40	<1.0	320
	08/20/2001	<1.0	<1.0	<1.0	<1.0	<4.0	10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<520
	09/17/2001	<1.0	<1.0	<1.0	<1.0	<4.0	7.9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<520
	10/23/2001	<1.0	<1.0	<1.0	<1.0	<4.0	13	<1.1	<1.1	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1	<0.20	<0.22	<0.20	<0.20	<0.20	<0.22	<0.20	<0.20	<0.20	<0.20	0.21	<0.40	<1.0	<530
	11/15/2001	<1.0	<1.0	<1.0	<1.0	<4.0	17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<500
	12/18/2001	<1.0	<1.0	<1.0	<1.0	<4.0	12	<1.1	<1.1	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<560
CEF-46-13I	12/20/2000	<1.0	<1.0	<1.0	0.45	0.45	NA	0.89	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.6	<0.4	<1.0	<540
	01/24/2001	<1.0	<1.0	1.5	0.62	2.12	280	0.60	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	320
	02/01/2001	1.0	0.24	<1.0	0.41	1.65	190	0.39	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<530
	02/07/2001	0.59	<1.0	<1.0	0.95	1.54	300	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	250
	02/14/2001	<1.0	2	<1.0	8.4	10.4	200	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	230
	02/21/2001	<1.0	<1.0	<1.0	4	4	260	<1.1	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	290
	03/08/2001	1.5	0.73	<1.0	<1.0	2.23	250	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	510
	03/21/2001	<1.0	<1.0	<1.0	7.7	7.7	250	0.73	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<520
	04/03/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/17/2001	<1.0	<1.0	0.92	<1.0	0.92	210	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<530
	05/01/2001	<5.0	<5.0	<5.0	2	2	260	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<600
	06/28/2001	<1.0	0.2	0.99	1.4	2.59	210	<1.0	<1.0	<1.0	<1.0	0.83	<1.0	<1.0	<1.0	<0.20	0.35	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	350
	07/25/2001	<1.0	<1.0	<1.0	<1.0	<4.0	180	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.61	<0.40	<1.0	410
	08/20/2001	<1.0	<1.0	<1.0	<1.0	<4.0	190	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.61	<0.40	0.56	320

TABLE 3-3
Groundwater Analytical Results

	Date	Benzene	Ethyl Benzene	Toluene	Xylene	BETX	Methyl tert-butyl ether	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo (a) anthracene	Chrysene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Indeno (1, 2, 3-cd) pyrene	Dibenzo (a,h) anthracene	Benzo (g,h,i) perylene	Nitrate (mg/L)	Nitrite (mg/L)	Phosphate (mg/L)	TRPH (µg/L)
CEF-46-13I	09/17/2001	<1.0	<1.0	0.68	0.53	1.21	160	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	NA	NA	NA	310
	10/23/2001	<1.0	<1.0	<1.0	<1.0	<4.0	130	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<530
	11/15/2001	<1.0	<1.0	<1.0	<1.0	<4.0	170	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<530
	12/18/2001	<1.0	<1.0	<1.0	<1.0	<4.0	140	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.20	<0.21	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<540
CEF-46-14D	12/20/2000	<1.0	<1.0	0.42	0.37	0.79	NA	<1.1	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.088	<0.4	0.26	<550
	01/24/2001	<1.0	<1.0	<1.0	0.23	0.23	<1.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	0.17	<530
	02/01/2001	<1.0	<1.0	<1.0	0.33	0.33	<1.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	0.24	<520
	02/07/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	470
	02/14/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	400
	02/21/2001	0.11	<1.0	<1.0	0.35	0.46	0.41	<1.1	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	0.28	230
	03/08/2001	0.21	<1.0	<1.0	<1.0	0.21	<1.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<520
	03/21/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<500
	04/03/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/17/2001	<1.0	<1.0	<1.0	<1.0	<4.0	0.75	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<510
	05/01/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	0.24	<530
	06/28/2001	<1.0	<1.0	0.63	0.5	1.13	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	0.33	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.16	<0.40	0.44	<500
	07/25/2001	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.18	<0.40	<1.0	300
	08/20/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	0.65	<520
	09/17/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.60	<0.40	<1.0	<520
	10/23/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<0.20	<0.23	<0.20	<0.20	<0.23	<0.20	<0.20	<0.20	<0.20	<0.23	<0.60	<0.40	<1.0	<520
	11/15/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.21	<0.20	<0.20	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<500
	12/18/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.20	<0.22	<0.20	<0.22	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<540
CEF-46-15I	12/20/2000	<1.0	<1.0	<1.0	<1.0	<4.0	NA	<1.1	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.6	<0.4	<1.0	<550
	01/24/2001	0.17	<1.0	<1.0	<1.0	0.17	<1.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<530
	02/01/2001	0.21	<1.0	<1.0	<1.0	0.21	0.68	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<520
	02/07/2001	0.21	<1.0	<1.0	<1.0	0.21	<1.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<500
	02/14/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<520
	02/21/2001	0.11	<1.0	<1.0	0.25	0.36	0.27	<1.1	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<500
	03/07/2001	<1.0	<1.0	<1.0	0.38	0.38	<1.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<530
	03/21/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<530
	04/03/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/17/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<530
	05/01/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<520

TABLE 3-3
Groundwater Analytical Results

	Date	Benzene	Ethyl Benzene	Toluene	Xylene	BETX	Methyl tert-butyl ether	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo (a) anthracene	Chrysene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Indeno (1, 2, 3-cd) pyrene	Dibenzo (a,h) anthracene	Benzo (g,h,i) perylene	Nitrate (mg/L)	Nitrite (mg/L)	Phosphate (mg/L)	TRPH (µg/L)
	06/28/2001	<1.0	<1.0	1.1	<1.0	1.1	4.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	0.58	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.38	<0.40	<1.0	270
CEF-46-15I	07/25/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.17	<0.40	<1.0	<520
	08/20/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<530
	09/17/2001	<1.0	<1.0	<1.0	<1.0	<4.0	3.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<500
	10/23/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.1	<1.1	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<530
	11/15/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.21	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<530
	12/18/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.1	<1.1	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<550
CEF-46-21I	12/20/2000	<1.0	<1.0	<1.0	<1.0	<4.0	NA	<1.1	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.6	<0.4	<1.0	<550
	01/25/2001	0.25	<1.0	0.70	<1.0	0.95	<1.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	300
	02/02/2001	0.45	<1.0	0.99	0.27	1.71	<1.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<500
	02/08/2001	0.91	<1.0	<1.0	<1.0	0.91	<1.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	200
	02/16/2001	0.19	0.14	0.97	0.55	1.85	<1.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	200
	02/22/2001	<1.0	0.18	0.68	<1.0	0.86	<1.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<500
	03/08/2001	<1.0	<1.0	0.32	<1.0	0.32	<1.0	<1.1	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	230
	04/03/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/18/2001	0.26	<1.0	0.42	<1.0	0.68	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<520
	05/02/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	06/29/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.064	<0.21	<0.21	<0.21	NS	NS	NS	<550
	07/25/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	08/21/2001	1.3	<1.0	0.73	3.1	5.13	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	0.59	0.7	<520
	09/18/2001	<1.0	<1.0	<1.0	1.6	1.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	NA	NA	NA	<520
	10/24/2001	<1.0	<1.0	<1.0	0.58	0.58	<1.0	<1.1	<1.1	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1	<0.20	<0.20	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.16	<0.40	<1.0	<530
	11/16/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<520
	12/18/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.21	<0.20	<0.60	<0.40	<1.0	<530
CEF-46-24D	12/20/2000	<1.0	<1.0	0.47	0.41	0.88	NA	<1.1	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.6	<0.4	0.18	<500
	01/25/2001	8.3	0.81	1.0	2.0	12.11	<1.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	0.19	<510
	02/02/2001	0.25	<1.0	<1.0	0.40	0.65	<1.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	0.30	<500
	02/08/2001	0.28	0.13	<1.0	0.45	0.86	<1.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	0.18	340
	02/15/2001	0.16	0.11	0.60	0.54	1.41	<1.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	460
	02/24/2001	0.18	0.11	0.40	0.54	1.23	<1.0	<1.1	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.60	<0.40	<1.0	<500
	03/08/2001	0.24	<1.0	<1.0	0.4	0.64	<1.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	430
	03/21/2001	0.47	0.34	0.38	0.97	2.16	0.82	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<520
	04/03/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.60	<0.40	0.26	<510

TABLE 3-3
Groundwater Analytical Results

	Date	Benzene	Ethyl Benzene	Toluene	Xylene	BETX	Methyl tert-butyl ether	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo (a) anthracene	Chrysene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Indeno (1, 2, 3-cd) pyrene	Dibenzo (a,h) anthracene	Benzo (g,h,i) perylene	Nitrate (mg/L)	Nitrite (mg/L)	Phosphate (mg/L)	TRPH (µg/L)
	04/18/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<520
	05/02/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	0.24	650
CEF-46-24D	06/29/2001	<1.0	<1.0	<1.0	0.7	0.7	19	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	NS	NS	NS	<520
	07/25/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.61	<0.40	<1.0	380
	08/21/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.60	<0.40	<1.0	<540
	09/18/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	NA	NA	NA	<550
	10/24/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<530
	11/16/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<520
	12/18/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.1	<1.1	<1.0	<0.20	<0.22	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<500
CEF-46-25I	12/20/2000	<1.0	<1.0	<1.0	<1.0	<4.0	NA	<1.1	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.6	<0.4	<1.0	<560
	01/25/2001	0.25	<1.0	<1.0	0.42	0.67	<1.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	320
	02/02/2001	0.27	<1.0	<1.0	<1.0	0.27	<1.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	<500
	02/08/2001	0.21	0.15	<1.0	0.43	0.79	<1.0	<1.1	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.60	<0.40	<1.0	390
	02/15/2001	0.22	<1.0	0.58	0.46	1.26	<1.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	1000
	02/22/2001	0.46	<1.0	<1.0	<1.0	0.46	<1.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	610
	03/21/2001	0.42	<1.0	<1.0	<1.0	0.42	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<500
	04/03/2001	0.28	<1.0	<1.0	<1.0	0.28	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.4	<1.0	380
	04/18/2001	0.32	<1.0	0.29	<1.0	0.61	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.4	<1.0	<530
	05/02/2001	0.19	<1.0	<1.0	<1.0	0.19	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.4	<1.0	1000
	06/29/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	0.33	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	NS	NS	NS	<530
	07/25/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.61	<0.40	<1.0	<520
	08/21/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.4	<1.0	<520
	09/18/2001	<1.0	<1.0	1.3	0.81	2.11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	NA	NA	NA	<510
	10/24/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.20	<0.21	<0.20	<0.21	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	0.16	<0.40	<1.0	<530
	11/16/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.4	<1.0	<510
	12/18/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.1	<1.0	<1.0	<0.20	<0.22	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.16	<0.40	<1.0	<540
CEF-46-26I	12/20/2000	1300	78	41	310	1729	NA	<1.1	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.6	<0.4	<1.0	<530
	01/25/2001	2400	270	100	820	3590	<5.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	890
	02/02/2001	2000	150	77	600	2827	<1.0	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	590
	02/08/2001	2100	120	83	460	2763	18	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	730
	02/16/2001	2300	150	94	600	3144	10	<1.1	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.60	<0.40	<1.0	960
	02/22/2001	1800	140	240	620	2800	<100	<1.1	N/A	N/A	<1.1	<1.1	<1.1	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.60	<0.40	<1.0	610
	03/08/2001	2100	160	85	620	2965	<50	<1.0	N/A	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	1000

TABLE 3-3
Groundwater Analytical Results

	Date	Benzene	Ethyl Benzene	Toluene	Xylene	BETX	Methyl tert-butyl ether	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo (a) anthracene	Chrysene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Indeno (1, 2, 3-cd) pyrene	Dibenzo (a,h) anthracene	Benzo (g,h,i) perylene	Nitrate (mg/L)	Nitrite (mg/L)	Phosphate (mg/L)	TRPH (µg/L)
	03/21/2001	2400	190	110	750	3450	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	630
	04/03/2001	2400	190	99	810	3499	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.6	<0.4	<1.0	1200
	04/18/2001	2300	190	110	750	3350	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.6	<0.4	<1.0	810
CEF-46-26I	05/02/2001	1100	100	46	390	1636	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<30	<20	<50	410
	06/29/2001	3400	260	180	1200	5040	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	NS	NS	NS	1200
	07/25/2001	2100	180	87	790	3157	<25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.61	<0.40	<1.0	850
	08/21/2001	2000	160	49	700	2909	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.6	<0.4	<1.0	930
	09/18/2001	2100	180	110	730	3120	<20	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	NA	NA	NA	720
	10/24/2001	1300	97	22	390	1809	<20	<1.1	<1.0	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1	<0.20	<0.22	<0.20	<0.22	<0.20	<0.22	<0.20	<0.20	<0.20	<0.20	0.16	<0.40	<1.0	720
	11/16/2001	1700	120	10	430	2260	10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.12	0.15	<1.0	590
	12/18/2001	1300	68	<10	370	1738	11	<1.1	<1.0	<1.1	<1.0	<1.0	<1.1	<1.1	<1.0	<0.20	<0.22	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.6	<0.4	<1.0	720
Groundwater Criteria [1]		1	30	40	20	n/a	50	20	20	20	210	20	280	210	2100	280	210	0.2	4.8	0.2	0.5	0.2	0.2	0.2	210	10,000	1000	n/a	5000
Natural Attenuation Default Source [1]		100	300	400	200	n/a	500	200	200	200	2100	200	2800	2100	21000	2800	2100	20	480	20	50	20	20	20	2100	100000	10000	n/a	50000

All values reported in micrograms per liter (µg/L)
NS = Not Sampled
1 = Ch 62-777 FAC GCTLs reported in µg/L
NA = Not Analyzed
Shaded values indicate the compounds that exceed the GCTLs

TABLE 3-4
Groundwater Field Analytical Results

	Date	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Temperature (°C)	Carbon Dioxide (mg/L)	Alkalinity as $CaCO_3$ (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)
CEF-46-1S	12/21/2000	6.20	0.512	1.05	22.7	NR	200	1.4	1.0
	01/25/2001	6.56	0.128	4.63	22.1	70	80	0.1	0.0
	02/01/2001	6.47	0.275	1.83	20.1	>1000	>400	0.0	5.0
	02/08/2001	6.60	0.270	1.40	20.0	>1000	>400	0.0	1.0
	02/15/2001	5.20	0.240	1.50	20.0	>1000	>400	0.0	5.0
	02/22/2001	6.20	0.220	3.30	20.0	NR	NR	0.6	0.3
	03/08/2001	6.28	0.211	2.72	20.2	>1000	>400	1.0	1.0
	03/21/2001	6.20	0.220	2.30	20.0	500	340	0.2	2.0
	04/18/2001	6.30	0.280	2.80	20.0	>1000	>400	0.0	2.0
	05/02/2001	5.90	0.240	2.50	21.0	>1000	>400	0.4	2.0
	06/29/2001	5.97	0.190	NR	24.6	120	80	1.0	2.0
	07/25/2001	4.31	2.540	2.63	27.2	>1000	20	6.0	0.1
	08/20/2001	7.27	0.686	0.06	26.7	>1000	40	1.2	5.0
	09/18/2001	6.62	0.817	1.84	25.8	260	400	0.8	0.5
	10/24/2001	7.43	0.205	1.30	25.1	230	180	1.6	>5.0
	11/15/2001	8.00	0.241	0.66	24.3	150	120	1.6	5.0
	12/17/2001	6.00	0.263	1.19	23.5	180	100	2.8	0.7
CEF-46-2S	12/21/2000	6.20	0.962	1.06	23.2	352	720	1.0	0.0
	01/25/2001	6.55	0.511	2.15	19.9	400	200	1.0	0.3
	02/01/2001	6.39	0.625	1.81	20.3	>1000	>400	0.0	0.5
	02/08/2001	6.60	0.640	2.20	20.0	600	400	1.2	0.1
	02/15/2001	6.20	0.640	1.80	20.0	>1000	400	1.0	0.5
	02/22/2001	6.40	0.630	3.20	20.0	>1000	>400	0.8	0.5
	03/08/2001	6.52	0.576	1.67	20.2	80	300	0.6	1.0
	03/21/2001	6.50	0.580	2.00	20.0	360	420	1.0	0.5
	04/18/2001	6.40	0.690	2.00	20.0	440	300	1.2	0.5
	05/02/2001	6.30	0.670	3.30	21.0	400	380	1.0	2.0
	06/29/2001	6.52	0.689	NR	23.7	280	400	0.2	5.0
	07/25/2001	7.09	0.709	1.92	25.2	220	380	0.6	5.0
	08/20/2001	8.92	0.667	0.06	26.3	210	280	0.8	2.0
	09/18/2001	5.98	0.398	1.24	26.3	>1000	80	3.6	>5.0
	10/24/2001	8.13	0.530	1.89	24.9	140	220	0.2	>5.0
	11/15/2001	8.71	0.610	0.65	24.1	200	200	0.0	5.0
	12/17/2001	7.00	0.546	1.62	23.5	180	200	0.0	5.0
CEF-46-5I	12/21/2000	5.60	0.140	1.10	23.2	183	100	1.8	1.0
	01/25/2001	6.17	0.157	1.51	23.7	360	200	1.6	0.1

TABLE 3-4
Groundwater Field Analytical Results

	Date	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Temperature (°C)	Carbon Dioxide (mg/L)	Alkalinity as $CaCO_3$ (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)
CEF-46-5I	02/01/2001	5.78	0.123	0.63	24.7	160	100	2.0	0.1
(cont.)	02/08/2001	6.50	0.450	1.20	25.0	110	100	4.5	0.0
	02/15/2001	5.90	0.240	2.40	24.0	140	60	4.0	0.1
	02/22/2001	5.50	0.290	1.30	24.0	86	40	4.1	0.0
	03/08/2001	5.67	0.340	3.12	24.3	160	40	3.2	0.0
	03/21/2001	5.30	0.370	2.10	24.0	140	20	3.6	0.5
	04/18/2001	4.80	0.520	0.40	24.0	230	20	3.4	1.0
	05/02/2001	4.70	0.480	1.10	24.0	300	100	2.4	0.1
	06/29/2001	3.22	2.380	NR	24.6	400	100	4.0	0.0
	07/25/2001	NR	NR	NR	NR	NR	NR	NR	NR
	08/21/2001	NR	3.590	NR	27.1	340	20	7.4	0.0
	09/18/2001	3.02	3.440	0.47	25.6	>1000	20	7.0	0.0
	10/23/2001	5.05	5.930	1.34	25.7	500	20	8.0	0.1
	11/15/2001	3.81	6.280	0.71	25.2	>1000	20	80.0	0.0
	12/18/2001	2.00	6.200	1.60	25.5	NR	20	6.4	0.0
CEF-46-6D	12/21/2000	9.71	0.180	6.51	23.5	8	120	0.4	0.3
	02/08/2001	5.90	0.570	1.30	24.0	240	40	2.4	0.0
	02/15/2001	6.10	0.680	2.00	24.0	220	40	3.6	0.1
	02/22/2001	6.30	0.660	0.40	23.0	180	80	3.5	0.1
	03/08/2001	6.55	0.623	3.05	20.3	200	80	2.0	0.0
	03/21/2001	6.30	0.620	1.80	20.0	180	60	3.8	0.1
	04/18/2001	6.20	0.640	1.60	21.0	140	60	1.8	0.0
	05/02/2001	6.30	0.620	1.90	23.0	200	60	4.4	0.0
	06/29/2001	3.78	3.380	NR	25.2	400	60	4.4	0.2
	07/25/2001	6.83	2.430	3.19	26.7	360	20	6.0	0.0
	08/21/2001	NR	6.050	NR	27.3	>1000	20	8.0	0.0
	09/18/2001	2.74	7.040	0.19	25.4	300	20	6.5	0.0
	10/23/2001	4.92	5.890	0.76	26.1	500	20	6.2	0.0
	11/15/2001	3.80	7.770	1.76	24.8	>1000	20	10.0	0.0
	12/18/2001	2.00	6.510	0.07	24.6	NR	20	7.0	0.0
CEF-46-7I	12/21/2000	4.90	0.510	1.11	25.4	317	60	0.6	0.3
	02/22/2001	5.10	0.100	2.80	24.0	180	60	4.6	0.1
	03/08/2001	5.62	0.061	3.62	21.6	160	60	1.0	5.0
	03/21/2001	5.30	0.070	2.70	21.0	220	40	1.0	5.0
	04/18/2001	5.50	0.070	0.60	22.0	200	80	2.0	0.0
	05/02/2001	4.40	0.100	1.50	23.0	NR	NR	NR	NR

TABLE 3-4
Groundwater Field Analytical Results

	Date	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Temperature (°C)	Carbon Dioxide (mg/L)	Alkalinity as $CaCO_3$ (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)
CEF-46-7I	06/29/2001	NR	NR	NR	NR	NR	NR	NR	NR
(cont.)	07/25/2001	NR	NR	NR	NR	NR	NR	NR	NR
	08/20/2001	5.35	1.260	0.05	25.8	300	80	4.5	0.0
	09/18/2001	4.33	0.174	1.19	25.3	100	20	3.4	0.1
	10/24/2001	5.10	0.713	2.11	25.0	280	20	3.8	0.0
	11/15/2001	5.14	0.130	0.46	25.5	100	40	2.8	0.5
	12/18/2001	2.00	1.850	1.75	24.4	NR	20	5.0	0.0
CEF-46-9I	12/20/2000	5.29	0.079	1.47	24.6	84.6	20	0.8	0.3
	01/25/2001	5.06	0.068	1.70	25.1	140	60	0.6	0.1
	02/01/2001	5.18	0.079	1.99	25.5	140	60	1.0	0.2
	02/07/2001	5.00	0.070	1.70	25.0	120	40	0.6	0.2
	02/14/2001	5.00	0.070	2.20	25.0	160	40	0.8	0.3
	02/22/2001	5.00	0.070	2.30	25.0	110	20	0.7	0.2
	03/08/2001	5.04	0.069	1.43	24.9	80	20	0.2	0.0
	03/21/2001	5.00	0.070	3.00	25.0	160	20	0.2	0.1
	04/18/2001	4.60	0.040	0.70	26.0	140	20	0.8	0.3
	05/02/2001	4.40	0.070	1.90	25.0	120	40	0.6	0.5
	06/29/2001	4.73	0.690	NR	25.3	90	20	0.6	0.3
	07/25/2001	5.12	0.068	2.18	25.5	180	20	0.0	0.3
	08/20/2001	4.87	0.073	0.05	26.4	80	20	0.6	0.2
	09/18/2001	4.84	0.095	0.77	25.2	150	20	0.6	0.5
	10/23/2001	6.24	0.060	0.34	25.8	120	20	0.8	0.2
	11/15/2001	5.50	0.060	1.08	24.9	90	20	1.0	0.5
	12/18/2001	5.00	0.060	1.61	24.9	120	20	1.0	0.3
CEF-46-12I	12/20/2000	5.57	0.160	1.91	26.5	193.6	80	0.8	2.0
	01/24/2001	5.36	0.144	2.06	25.9	130	80	0.6	3.0
	02/01/2001	5.52	,152	2.07	25.7	260	80	0.5	1.0
	02/07/2001	5.30	0.152	2.82	26.0	360	60	0.6	1.0
	02/14/2001	5.30	0.150	2.70	26.0	120	100	0.6	0.8
	02/22/2001	5.20	0.150	1.90	26.0	180	80	0.4	0.5
	03/08/2001	5.46	0.148	1.94	25.4	300	40	0.2	0.5
	03/21/2001	5.30	0.150	0.70	26.0	200	40	0.2	0.7
	04/18/2001	5.00	0.150	1.60	26.0	220	80	0.8	2.0
	05/02/2001	5.00	0.150	0.80	26.0	280	40	0.6	0.3
	06/29/2001	4.99	0.015	NR	25.4	240	40	0.2	0.0
	07/25/2001	5.91	0.147	1.02	26.0	100	40	0.0	0.0

TABLE 3-4
Groundwater Field Analytical Results

	Date	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Temperature (°C)	Carbon Dioxide (mg/L)	Alkalinity as $CaCO_3$ (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)
CEF-46-12I	08/20/2001	4.86	0.164	0.05	26.6	160	40	0.6	0.0
(cont.)	09/17/2001	5.08	0.211	0.75	26.5	250	40	0.2	0.0
	10/23/2001	6.54	0.123	0.23	26.5	200	20	0.4	0.0
	11/15/2001	5.88	0.119	0.77	26.4	180	40	0.4	0.1
	12/18/2001	5.00	0.120	1.20	25.5	200	20	0.8	0.0
CEF-46-13I	12/20/2000	5.40	0.120	1.23	25.0	188	20	1.4	5.0
	01/24/2001	5.27	0.102	2.00	24.7	200	100	1.2	5.0
	02/01/2001	5.35	0.117	2.37	25.1	240	80	1.0	5.0
	02/07/2001	5.20	0.110	2.20	25.0	240	60	1.2	5.0
	02/14/2001	5.20	0.110	2.20	26.0	120	80	1.0	5.0
	02/22/2001	5.20	0.120	2.70	26.0	300	60	1.1	>5.0
	03/08/2001	5.42	0.123	1.99	25.4	220	20	0.6	0.0
	03/21/2001	5.20	0.110	1.80	25.0	260	40	1.2	5.0
	04/18/2001	5.00	0.110	0.60	26.0	340	160	0.8	2.0
	05/02/2001	5.00	0.120	2.50	27.0	200	40	1.4	1.0
	06/29/2001	4.99	0.110	NR	25.8	200	40	0.8	>5
	07/25/2001	5.62	0.113	2.37	25.8	220	60	1.0	5.0
	08/20/2001	4.29	0.110	0.05	26.4	360	40	0.6	2.0
	09/17/2001	4.93	0.148	6.60	26.0	220	20	0.8	2.0
	10/23/2001	6.33	0.093	0.89	25.9	200	40	1.0	5.0
	11/15/2001	5.89	0.093	2.07	25.7	200	20	0.8	5.0
	12/18/2001	4.00	0.093	1.16	25.3	220	20	1.0	5.0
CEF-46-14D	12/20/2000	5.87	0.109	1.52	24.9	84	540	2.4	0.3
	01/24/2001	5.77	0.093	1.63	23.4	70	160	2.2	0.5
	02/01/2001	5.78	0.099	0.58	25.8	140	100	2.4	0.7
	02/07/2001	5.60	0.090	0.60	`	140	40	2.2	0.5
	02/14/2001	5.70	0.090	1.60	25.0	110	60	2.4	0.7
	02/22/2001	5.60	0.100	0.60	25.0	100	60	1.8	0.5
	03/08/2001	6.03	0.098	3.54	23.2	120	20	2.0	2.0
	03/21/2001	5.80	0.100	2.20	24.0	100	40	2.0	1.0
	04/18/2001	5.40	0.100	1.70	25.0	120	60	2.0	0.7
	05/02/2001	5.40	0.100	1.20	1.3	120	40	2.0	0.5
	06/29/2001	5.40	0.083	NR	26.0	80	40	2.0	4.0
	07/25/2001	6.79	0.092	1.91	25.1	175	80	2.4	0.1
	08/20/2001	9.60	0.099	3.02	25.8	70	60	3.4	0.3
	09/17/2001	5.40	0.137	0.80	25.2	150	100	NR	2.0

TABLE 3-4
Groundwater Field Analytical Results

	Date	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Temperature (°C)	Carbon Dioxide (mg/L)	Alkalinity as $CaCO_3$ (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)
CEF-46-14D	10/23/2001	7.53	0.074	1.42	25.3	60	60	2.6	0.5
(cont.)	11/15/2001	6.23	0.082	1.40	24.6	100	40	2.6	1.0
	12/18/2001	5.00	0.078	0.90	24.7	110	40	2.0	2.0
CEF-46-15I	12/20/2000	5.01	0.108	1.27	22.2	86.6	40	3.2	1.0
	01/24/2001	4.56	0.142	2.06	22.5	220	40	1.2	0.0
	02/01/2001	4.36	0.197	0.68	24.1	200	40	0.4	0.0
	02/07/2001	4.13	0.205	2.77	23.4	120	40	0.8	0.0
	02/14/2001	4.00	0.210	4.60	23.0	150	60	1.4	0.7
	02/22/2001	4.00	0.190	3.40	23.0	100	20	1.2	0.0
	03/08/2001	4.27	0.191	1.27	23.1	100	40	0.8	0.0
	03/21/2001	4.30	0.180	0.70	23.0	200	40	2.4	0.0
	04/18/2001	4.00	0.180	2.30	23.0	160	20	1.6	0.0
	05/02/2001	4.20	0.160	1.20	24.0	200	20	4.0	0.0
	06/29/2001	3.49	0.208	NR	23.1	140	60	1.4	0.1
	07/25/2001	5.80	0.184	2.30	23.5	200	20	3.2	0.0
	08/20/2001	2.53	0.178	0.06	26.7	360	20	4.6	0.0
	09/17/2001	4.22	0.229	2.40	24.1	220	20	4.6	0.0
	10/23/2001	5.61	0.141	0.28	24.0	200	20	3.2	0.0
	11/15/2001	4.75	0.139	0.41	23.6	160	20	1.6	0.0
	12/18/2001	4.00	0.133	1.77	23.4	170	20	3.8	0.0
CEF-46-21I	12/20/2000	4.86	0.047	1.35	23.2	9.4	60	0.8	0.0
	01/25/2001	4.39	0.153	4.00	24.9	100	60	2.0	0.1
	02/02/2001	4.09	0.131	2.25	23.3	120	100	2.6	0.1
	02/08/2001	4.10	0.400	2.60	24.0	400	80	5.0	0.7
	02/16/2001	3.70	0.320	2.10	24.0	200	60	3.6	0.5
	02/22/2001	3.70	0.400	2.50	24.0	120	60	3.2	0.3
	03/08/2001	3.21	0.490	3.87	23.2	>1000	>400	5.0	0.1
	03/21/2001	NR	NR	NR	NR	NR	NR	NR	NR
	04/18/2001	3.10	1.400	0.80	22.0	640	20	4.2	0.0
	05/02/2001	NR	NR	NR	NR	NR	NR	NR	NR
	06/29/2001	NR	NR	NR	NR	NR	NR	NR	NR
	07/25/2001	NR	NR	NR	NR	NR	NR	NR	NR
	08/21/2001	NR	0.902	NR	26.7	500	20	5.2	0.1
	09/18/2001	3.07	2.430	2.66	26.5	400	20	4.8	0.3
	10/24/2001	6.01	0.537	1.77	26.7	240	20	2.8	0.7
	11/16/2001	2.04	0.584	1.68	26.0	NR	20	2.6	5.0

TABLE 3-4
Groundwater Field Analytical Results

	Date	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Temperature (°C)	Carbon Dioxide (mg/L)	Alkalinity as $CaCO_3$ (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)
CEF-46-21I	12/18/2001	2.00	0.785	1.23	25.8	NR	20	3.6	0.3
CEF-46-24D	12/20/2000	6.15	0.129	0.13	21.9	16.4	60	2.3	0.1
	01/25/2001	5.93	0.099	0.44	22.9	160	100	2.0	0.1
	02/02/2001	6.07	0.104	0.70	23.1	320	60	1.4	0.1
	02/08/2001	6.20	0.110	0.60	24.0	96	100	1.6	0.1
	02/15/2001	5.80	0.120	0.50	24.0	90	40	1.4	0.0
	02/22/2001	5.80	0.130	1.00	24.0	90	60	1.8	0.1
	03/08/2001	6.05	0.154	1.65	22.9	120	40	1.2	0.0
	03/21/2001	5.80	0.160	1.60	23.0	140	60	NR	0.1
	04/18/2001	5.90	0.210	2.00	24.0	120	60	3.0	0.0
	05/02/2001	3.60	0.590	5.10	23.0	100	20	0.2	0.0
	06/29/2001	3.55	0.770	NR	23.4	160	20	0.8	0.0
	07/25/2001	NR	2.500	1.76	26.5	>1000	20	4.4	0.0
	08/21/2001	NR	1.580	NR	27.9	140	20	6.4	0.1
	09/18/2001	3.56	1.140	0.50	26.7	160	20	2.2	0.1
	10/24/2001	5.51	1.380	1.13	26.8	260	20	5.0	0.0
	11/16/2001	2.33	0.774	0.96	26.0	NR	20	4.6	0.0
	12/18/2001	3.00	0.756	1.02	25.7	NR	20	5.0	0.0
CEF-46-25I	12/20/2000	5.81	0.167	2.88	24.6	20.6	120	0.6	5.0
	01/25/2001	4.92	0.066	0.22	26.4	200	40	1.2	>5.0
	02/02/2001	5.15	0.077	0.82	26.6	200	40	1.2	5.0
	02/08/2001	5.20	0.060	0.70	27.0	140	40	1.1	>5.0
	02/15/2001	4.70	0.070	0.50	27.0	150	20	1.6	>5.0
	02/22/2001	5.00	0.070	1.50	27.0	140	40	1.5	>5.0
	03/08/2001	5.14	0.063	3.41	26.2	200	20	1.4	5.0
	03/21/2001	4.90	0.070	1.90	26.0	120	20	1.4	5.0
	04/18/2001	4.90	0.070	1.00	26.0	140	2	108.0	>5
	05/02/2001	4.60	0.070	1.60	27.0	160	20	1.4	5.0
	06/29/2001	4.58	0.066	NR	26.7	80	20	1.4	5.0
	07/25/2001	NR	0.447	2.45	26.7	>1000	20	3.6	5.0
	08/21/2001	NR	0.088	NR	27.7	180	20	2.6	5.0
	09/18/2001	4.53	0.195	1.70	26.5	120	20	4.0	5.0
	10/24/2001	6.11	0.214	0.98	26.6	60	20	2.5	5.0
	11/16/2001	3.39	0.288	2.08	25.9	NR	20	4.0	>5.0
	12/18/2001	4.00	0.449	1.32	26.0	NR	20	4.0	5.0

TABLE 3-4
Groundwater Field Analytical Results

	Date	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Temperature (°C)	Carbon Dioxide (mg/L)	Alkalinity as $CaCO_3$ (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)
CEF-46-26I	12/20/2000	8.53	0.099	0.03	23.1	24.2	NR	1.4	NR
CEF-46-26I	01/25/2001	5.13	0.049	0.37	24.8	220	100	1.0	5.0
	02/02/2001	5.20	0.042	0.46	24.3	200	60	1.0	5.0
	02/08/2001	5.30	0.040	0.80	24.0	250	140	0.8	>5.0
	02/16/2001	5.00	0.040	2.10	24.0	160	40	1.0	5.0
	02/22/2001	5.10	0.040	0.80	25.0	200	60	1.2	>5.0
	03/08/2001	5.17	0.040	1.22	24.0	240	40	1.0	2.0
	03/21/2001	5.1	0.04	2.3	24.0	240	60	NR	5.0
	04/18/2001	4.9	0.04	1.2	24.0	180	40	0.2	>5
	05/02/2001	5.07	0.043	0.99	24.5	160	60	1.0	5.0
	06/29/2001	4.63	0.098	NR	24.1	20	20	3.8	5.0
	07/25/2001	NR	0.383	2.01	24.4	>1000	40	5.0	5.0
	08/21/2001	NR	0.505	NR	25.7	200	20	7.2	5.0
	09/18/2001	3.97	1.13	0.93	24.4	260	20	6.0	3.0
	10/24/2001	6.47	1.84	0.55	24.7	260	20	8.0	2.0
	11/16/2001	3.31	2.12	2.86	24.2	NR	20	4.6	>5.0
	12/18/2001	3	2.15	1.87	24.3	NR	20	8.0	5.0

NR = No Reading Taken

4.0 Conclusions and Recommendations

The soil screening results performed in the soil contamination area indicated that BTEX, MTBE, naphthalene, and TRPH levels have decreased from the baseline soil sampling event; however, BTEX and TRPH levels still exceed the SCTLs.

Seven of the fourteen groundwater monitoring wells at the site exhibited groundwater contaminant concentrations greater than the GCTLs during the baseline sampling event. At the end of the first year of operation, monitoring wells CEF-46-1S, CEF-46-2S, CEF-46-5I, CEF-46-7I, CEF-46-13I, and CEF-46-26I continued to exhibit contaminant concentrations greater than the GCTLs. The contaminant concentrations in monitoring wells CEF-46-1S, CEF-46-2S, CEF-46-5I, CEF-46-7I, and CEF-46-13I continue to exceed the GCTLs but have decreased from the baseline sampling event. The contaminant concentrations in monitoring well CEF-46-26I have increased above the baseline sampling event concentrations. LNAPL was not noted in any monitoring well during the monitoring period.

CCI recommends continuing operation of the nutrient injection system to increase the air flow rate and TEP injection rate to achieve the design specifications and to re-balance the injection rates to maximize injection in the area of monitoring wells CEF-46-1S, CEF-46-2S, CEF-46-5I, CEF-46-7I, CEF-46-13I, and CEF-46-26I. All 14 groundwater monitoring wells will continue to be sampled during the next quarter, but the frequency will change from monthly to quarterly. Soil sampling will continue to be conducted quarterly during the next annual period to monitor the soil contamination concentrations.

CCI also recommends further delineation of the groundwater contamination in the vicinity of monitoring well CEF-46-26I. Monitoring wells CEF-46-25I and CEF-46-26I were installed during system installation to verify that the contaminant plume is not expanding in the southwesterly direction. These wells are located outside the zone of influence of the nutrient injection system in the down-gradient direction from the source area. Plume delineation is required to determine the viability of extending the nutrient injection system to include this area.

5.0 References

CH2M HILL Constructors, Inc. September 2000. Work Plan Addendum No. 08 Nutrient Injection System Installations at Building 9, former Tanks 9L1 and 9L2 and building 46, Former Tanks 46R, 46D, 46SUL, and 46UL; Naval Air Station Cecil Field, Jacksonville, Florida.

Harding Lawson Associates. 1998. Site Assessment Report, NAS Cecil Field, Jacksonville, Florida.

Priester and Associates. September 2000. PHA-ER Remediation System Design Specifications, Building 46 Site, Remedial Action Plan Addendum.

Tetra Tech NUS, Inc. June 2000. Remedial Action Plan Addendum; Building 46, Former Tanks 46R, 46D, 46SUL and 46UL; Naval Air Station Cecil Field, Jacksonville, Florida.

Appendix A

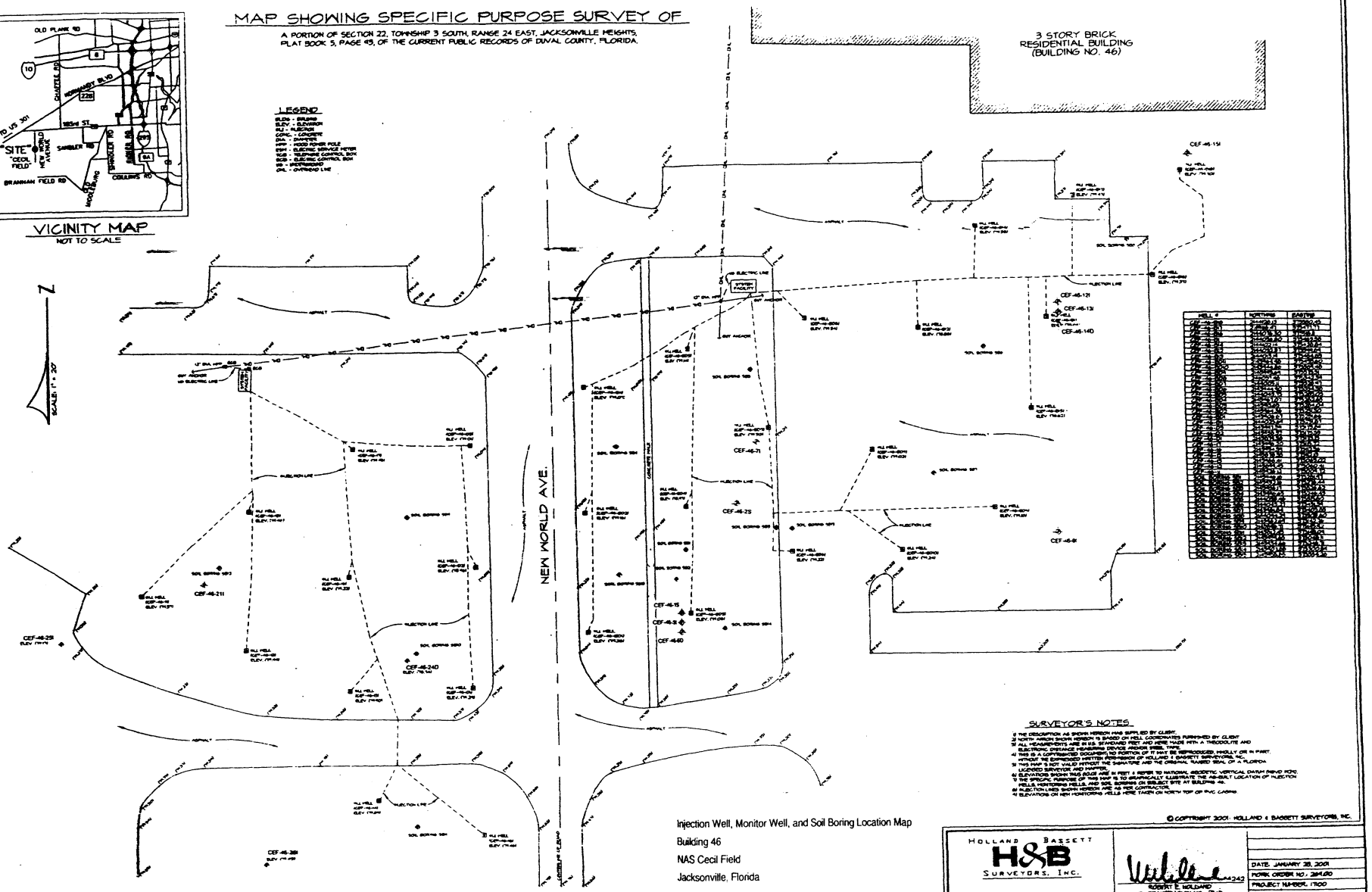
Maps

MAP SHOWING SPECIFIC PURPOSE SURVEY OF

A PORTION OF SECTION 22, TOWNSHIP 3 SOUTH, RANGE 24 EAST, JACKSONVILLE HEIGHTS, PLAT BOOK 5, PAGE 43, OF THE CURRENT PUBLIC RECORDS OF DUVAL COUNTY, FLORIDA.

VICINITY MAP
NOT TO SCALE

LEGEND
BLDG - BUILDING
ELEV - ELEVATION
ALU - ALUMINUM
CONC - CONCRETE
DIA - DIAMETER
WPP - WOOD POWER POLE
EMM - ELECTRIC SERVICE METER
TCB - TELEPHONE CONTROL BOX
ECB - ELECTRIC CONTROL BOX
SB - SPEEDBOARD
OHL - OVERHEAD LINE



WELL #	NORTHING	EASTING
[illegible]	[illegible]	[illegible]

SURVEYOR'S NOTES

1) THE DESCRIPTION AS SHOWN HEREON HAS SUPPLIED BY CLIENT.
2) NORTH ARROW SHOWN HEREON IS BASED ON WELL COORDINATES FURNISHED BY CLIENT.
3) ALL MEASUREMENTS ARE IN U.S. STANDARD FEET AND WERE MADE WITH A THEODOLITE AND ELECTRONIC DISTANCE MEASURING DEVICE ANDERS STEEL TAPE.
4) THIS IS A COPYRIGHTED DOCUMENT, NO PORTION OF IT MAY BE REPRODUCED, WHOLLY OR IN PART, WITHOUT THE EXPRESSED WRITTEN PERMISSION OF HOLLAND & BASSETT SURVEYORS, INC.
5) THIS MAP IS NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
6) ELEVATIONS SHOWN THUS 6.00 ARE IN FEET & REFER TO NATIONAL GEODETIC VERTICAL DATUM (NGVD 1929).
7) THE SPECIFIC PURPOSE OF THIS MAP IS TO GRAPHICALLY ILLUSTRATE THE AS-BUILT LOCATION OF INJECTION WELLS, MONITORING WELLS, AND SOIL BORINGS ON SELECT SITE AT BUILDING 46.
8) INJECTION LINES SHOWN HEREON ARE AS PER CONTRACTOR.
9) ELEVATIONS ON NEW MONITORING WELLS WERE TAKEN ON NORTH TOP OF PVC CASING

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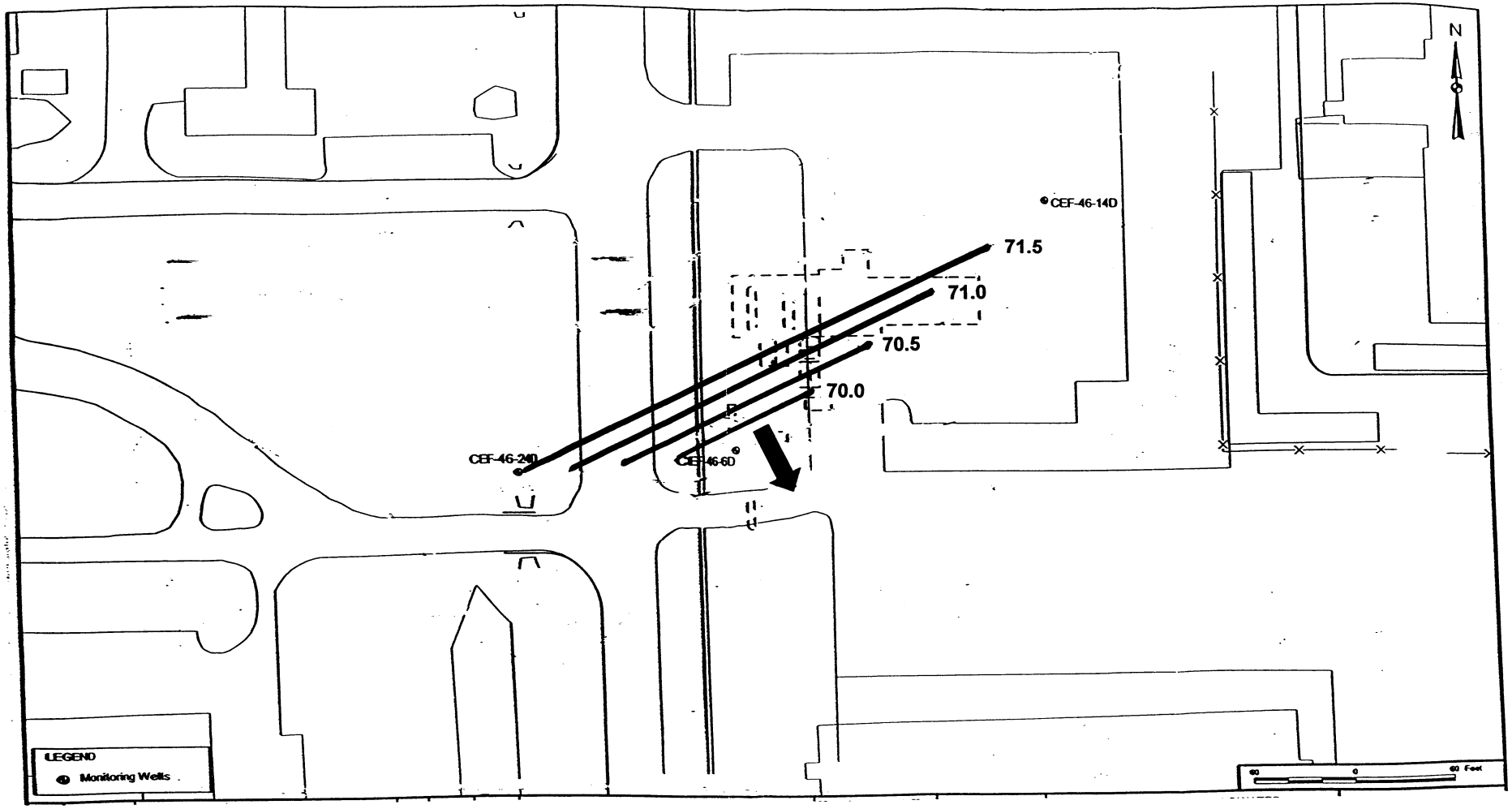
Injection Well, Monitor Well, and Soil Boring Location Map
Building 46
NAS Cecil Field
Jacksonville, Florida

HOLLAND BASSETT
H&B
SURVEYORS, INC.
1601 ALTON AVENUE
JACKSONVILLE, FLORIDA 32207
TELEPHONE (904) 398-1515
FACSIMILE (904) 398-1611
FLORIDA CERTIFICATE OF AUTHORIZATION NO. LB # 1818
ROBERT E. HOLLAND
FL REGISTRATION NO. 4242
CHARLES R. BASSETT, JR.
FL REGISTRATION NO. 4841

DATE: JANUARY 28, 2001
WORK ORDER NO.: 284.00
PROJECT NUMBER: 17000
SHEET 1 OF 1
DRAWING NO.: D-17000



= direction of groundwater flow

Groundwater Flow Map
Building 46, NAS Cecil field
Deep Aquifer
December 17 & 18, 2001

Appendix B

Laboratory Analytical Reports for Soil Samples

(provided on CD)

KEMRON REPORT L0112259

Prepared for CCI / ATL

Work ID : NAS CECIL FIELD / BUILDING 46

Summary Report **1**
Laboratory Report 2
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CCI NAVY RAC PMO
JAN - 2

1.0 Summary Report

1.1 Laboratory Report

Cover Page
Laboratory Narrative
Laboratory Results

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

L0112259

CHAIN OF CUSTODY:

The chain of custody number was 149152-181 .

SHIPMENT CONDITIONS:

The chain of custody form was received sealed in a cooler. The cooler temperature were 1 and 1 ° C.

SAMPLE MANAGEMENT:

All samples received were intact.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

REVIEWED: Stephanie L Sepe DATE: 12/13/01

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0112259

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8310

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds linear equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: The LCS associated with the extraction of sample fraction 04 yielded a percent recovery for benzo(g,h,i)perylene which was above the advisory limit. There were no positive results for this analyte for sample fraction 04. All acceptance criteria were met.
Matrix Spikes: The MS/MSD results were not associated with this sample delivery group.

SAMPLES

Surrogates: Sample fraction 02 yielded a percent recovery for the surrogate by the fluorescence detector which was above the advisory limit. The surrogate recovery for this sample fraction was within limits by the UV detector. The high surrogate recovery may be attributed to sample matrix interference for this sample fraction.

Samples: Sample fraction 02 required re-analysis at a 10X dilution in order to maintain the analysis within the range of calibration. All acceptance criteria were met.

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Analyst: RDC

REVIEWED: _____ DATE: 12/28/01

Rev. 7/14/00

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0112259

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8015

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: There were no MS/MSD results associated with water or soil sample delivery group.

SAMPLES

Samples: The soil sample fraction -02 required dilution analysis to obtain the results with in linear range of an instrument
Surrogates: Due to the dilution analysis the surrogate recivery of sample fraction -02 was flagged 'DL'

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Analyst: HV REVIEWED: DATE: 12/18/01

Rev. 7/14/00

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0112259

METHOD

Preparation: SW- 846 5030B/5035
Analysis: SW-846 8021B

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration: Averaging % drifts option used for soil CCV's WG109921-03 (file: 6G08851) and WG109998-01 (file: 6G08855) analyzed 12/13/01 and 12/14/01, respectively, on HP6. MTBE was below the lower control limit in the middle-level soil CCV WG110070-03 analyzed 12/17/01 on HP11. The analysis associated with this CCV was a dilution for which MTBE was not needed. Toluene exceeded the upper control limit in the middle-level soil CCV WG110077-01 analyzed 12/17/01 on HP12. Toluene exceeded the upper calibration standard in the sample associated with this CCV and was re-analyzed at a dilution on HP12 on 12/17/01. All other acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.
Matrix Spikes: All acceptance criteria were met.

SAMPLES

Surrogates: TFT was not detected in the un-diluted middle-level analysis of fraction 02. Reanalysis of fraction 02 to confirm sample matrix interference was not performed due to the high concentrations of target analytes. TFT was diluted out in the "M1" analysis of fraction 02. All other acceptance criteria were met.
Samples: Fraction 02 required a dilution analysis to obtain results within the calibrated range of the

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Analyst: cbn REVIEWED: [signature] DATE: 12/21/01
Rev. 6/00

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8021**

AAB # : **WG109922**

Lab Name : **Kemron Environmental Services**

Contract # : **N62467-98-D-0995**

Base/Command : **blgs 9 and 46**

Prime Contractor : **CCI**

Field sample ID	**Lab Sample ID**
002-CEF46-SB1-S-Q4-01	L0112259-01

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

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Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **21-DEC-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG109922

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-SB1-S-Q4-01 Lab Sample ID: L0112259-01 Matrix: Soil

% Solids: 83 Initial Calibration ID: HP6 12-DEC-2001

Date Received: 13-DEC-01 Date Extracted: Date Analyzed: 13-DEC-01 15:31

Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.550	1.1	69.0	.92	
Ethylbenzene	0.550	1.1	130	.92	
Methyl tert-butyl ether	0.550	1.1	8.40	.92	
Toluene	0.550	1.1	13.0	.92	
Xylenes, Total	0.550	3.3	550	.92	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	74.7	47 - 121	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8021**

AAB # : **WG110130**

Lab Name : **Kemron Environmental Services**

Contract # : **N62467-98-D-0995**

Base/Command : **blgs 9 and 46**

Prime Contractor : **CCI**

Field sample ID	**Lab Sample ID**
002-CEF46-SB2-S-Q4-01	L0112259-02

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

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Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **21-DEC-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG110130

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-SB2-S-Q4-01 Lab Sample ID: L0112259-02 Matrix: Soil

% Solids: 84 Initial Calibration ID: HP11 13-DEC-2001

Date Received: 13-DEC-01 Date Extracted: Date Analyzed: 17-DEC-01 18:03

Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	5600	11000	5580	9380	ND
Ethylbenzene	5600	11000	99000	9380	
Methyl tert-butyl ether	5600	11000	5580	9380	ND
Toluene	5600	11000	110000	9380	
Xylenes, Total	5600	34000	620000	9380	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene		47 - 121	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8021**

Lab Name : **Kemron Environmental Services**

Base/Command : **blgs 9 and 46**

AAB # : **WG110078**

Contract # : **N62467-98-D-0995**

Prime Contractor : **CCI**

Field sample ID	**Lab Sample ID**
002-CEF46-SB2-S-Q4-01	L0112259-02

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

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Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **21-DEC-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG110078

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-SB2-S-Q4-01 Lab Sample ID: L0112259-02 Matrix: Soil

% Solids: 84 Initial Calibration ID: HP12 04-DEC-2001

Date Received: 13-DEC-01 Date Extracted: Date Analyzed: 17-DEC-01 10:39

Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	56.0	110	3700	93.8	
Ethylbenzene	56.0	110	90000	93.8	I
Methyl tert-butyl ether	56.0	110	55.8	93.8	ND
Toluene	56.0	110	110000	93.8	I
Xylenes, Total	56.0	340	460000	93.8	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene		47 - 121	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8021**

AAB # : **WG109999**

Lab Name : **Kemron Environmental Services**

Contract # : **N62467-98-D-0995**

Base/Command : **blgs 9 and 46**

Prime Contractor : **CCI**

Field sample ID	**Lab Sample ID**
002-CEF46-SB14-S-Q4-01	L0112259-03

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

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Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **21-DEC-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG109999

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-SB14-S-Q4-01 Lab Sample ID: L0112259-03 Matrix: Soil

% Solids: 85 Initial Calibration ID: HP6 12-DEC-2001

Date Received: 13-DEC-01 Date Extracted: Date Analyzed: 14-DEC-01 09:07

Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.560	1.1	110	.96	
Ethylbenzene	0.560	1.1	180	.96	
Methyl tert-butyl ether	0.560	1.1	12.0	.96	
Toluene	0.560	1.1	14.0	.96	
Xylenes, Total	0.560	3.4	710	.96	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	99.8	47 - 121	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8021**

Lab Name : **Kemron Environmental Services**

Base/Command : **blgs 9 and 46**

AAB # : **WG109968**

Contract # : **N62467-98-D-0995**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF46-EQB-W-Q4-01	L0112259-04
002-CEF46-TB-W-Q4-01	L0112259-05

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

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Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **21-DEC-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG109968

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-EQB-W-Q4-01 Lab Sample ID: L0112259-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 13-DEC-2001

Date Received: 13-DEC-01 Date Extracted: Date Analyzed: 13-DEC-01 18:45

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	107	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG109968

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-TB-W-Q4-01 Lab Sample ID: L0112259-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 13-DEC-2001

Date Received: 13-DEC-01 Date Extracted: Date Analyzed: 13-DEC-01 19:19

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	99.6	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8015**

Lab Name : **Kemron Environmental Services**

Base/Command : **blgs 9 and 46**

AAB # : **WG110051**

Contract # : **N62467-98-D-0995**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF46-SB1-S-Q4-01	L0112259-01
002-CEF46-SB2-S-Q4-01	L0112259-02
002-CEF46-SB14-S-Q4-01	L0112259-03

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

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Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **21-DEC-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3550B AAB # : WG110051

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-SB1-S-Q4-01 Lab Sample ID: L0112259-01 Matrix: Soil

% Solids: 83 Initial Calibration ID: HP2 13-DEC-2001

Date Received: 13-DEC-01 Date Extracted: 14-DEC-01 Date Analyzed: 17-DEC-01 11:06

Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	6000	12000	19000	1	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	103	43 - 136	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3550B AAB # : WG110051

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-SB2-S-Q4-01 Lab Sample ID: L0112259-02 Matrix: Soil

% Solids: 84 Initial Calibration ID: HP2 13-DEC-2001

Date Received: 13-DEC-01 Date Extracted: 14-DEC-01 Date Analyzed: 14-DEC-01 12:46

Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	60000	120000	1800000	10	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl		43 - 136	DL

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3550B AAB # : WG110051

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-SB14-S-Q4-01 Lab Sample ID: L0112259-03 Matrix: Soil

% Solids: 85 Initial Calibration ID: HP2 13-DEC-2001

Date Received: 13-DEC-01 Date Extracted: 14-DEC-01 Date Analyzed: 17-DEC-01 11:22

Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	5900	12000	65000	1	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	105	43 - 136	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8015**

Lab Name : **Kemron Environmental Services**

Base/Command : **blgs 9 and 46**

AAB # : **WG110124**

Contract # : **N62467-98-D-0995**

Prime Contractor : **CCI**

Field sample ID	**Lab Sample ID**
002-CEF46-EQB-W-Q4-01	L0112259-04

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

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Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **21-DEC-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG110124

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-EQB-W-Q4-01 Lab Sample ID: L0112259-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 13-DEC-2001

Date Received: 13-DEC-01 Date Extracted: 17-DEC-01 Date Analyzed: 17-DEC-01 14:01

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	270	530	265	1.06	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	87.1	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8310**

Lab Name : **Kemron Environmental Services**

Base/Command : **blgs 9 and 46**

AAB # : **WG110266**

Contract # : **N62467-98-D-0995**

Prime Contractor : **CCI**

Field sample ID	**Lab Sample ID**
002-CEF46-EQB-W-Q4-01	L0112259-04

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

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Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **21-DEC-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110266

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-EQB-W-Q4-01 Lab Sample ID: L0112259-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 13-DEC-01 Date Extracted: 17-DEC-01 Date Analyzed: 19-DEC-01 14:27

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	0.375	1	ND
2-Methylnaphthalene	0.348	1.0	0.348	1	ND
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.295	1.0	0.295	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.579	1.0	0.579	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.372	1.0	0.372	1	ND
Phenanthrene	0.297	1.0	0.297	1	ND
Pyrene	0.0680	0.20	0.0680	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110266

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-EQB-W-Q4-01 Lab Sample ID: L0112259-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 13-DEC-01 Date Extracted: 17-DEC-01 Date Analyzed: 19-DEC-01 14:27

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	76.1	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8310**

Lab Name : **Kemron Environmental Services**

Base/Command : **blgs 9 and 46**

AAB # : **WG109975**

Contract # : **N62467-98-D-0995**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF46-SB1-S-Q4-01	L0112259-01
002-CEF46-SB2-S-Q4-01	L0112259-02
002-CEF46-SB14-S-Q4-01	L0112259-03

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **21-DEC-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG109975

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-SB1-S-Q4-01 Lab Sample ID: L0112259-01 Matrix: Soil

% Solids: 83 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 13-DEC-01 Date Extracted: 13-DEC-01 Date Analyzed: 13-DEC-01 23:24

Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	6.32	200	6.32	1	ND
2-Methylnaphthalene	5.50	200	5.50	1	ND
Acenaphthene	67.4	200	67.4	1	ND
Acenaphthylene	54.2	200	54.2	1	ND
Anthracene	49.4	200	49.4	1	ND
Benzo(a)anthracene	4.58	20	4.58	1	ND
Benzo(a)pyrene	3.49	20	3.49	1	ND
Benzo(b)fluoranthene	5.78	20	5.78	1	ND
Benzo(g,h,i)perylene	4.34	20	4.34	1	ND
Benzo(k)fluoranthene	2.41	20	2.41	1	ND
Chrysene	4.58	20	4.58	1	ND
Dibenzo(a,h)anthracene	5.42	20	5.42	1	ND
Fluoranthene	4.46	20	4.46	1	ND
Fluorene	68.7	200	68.7	1	ND
Indeno(1,2,3-cd)pyrene	3.86	20	3.86	1	ND
Naphthalene	75.9	200	75.9	1	ND
Phenanthrene	56.6	200	56.6	1	ND
Pyrene	4.46	20	4.46	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG109975

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-SB1-S-Q4-01 Lab Sample ID: L0112259-01 Matrix: Soil

% Solids: 83 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 13-DEC-01 Date Extracted: 13-DEC-01 Date Analyzed: 13-DEC-01 23:24

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	67.8	50 - 150	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG109975

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-SB2-S-Q4-01 Lab Sample ID: L0112259-02 Matrix: Soil

% Solids: 84 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 13-DEC-01 Date Extracted: 13-DEC-01 Date Analyzed: 14-DEC-01 00:21

Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	6.23	200	11000	1	I
2-Methylnaphthalene	5.42	200	16000	1	I
Acenaphthene	66.5	200	120	1	J,P
Acenaphthylene	53.6	200	53.6	1	ND
Anthracene	48.7	200	48.7	1	ND
Benzo(a)anthracene	4.51	20	17.0	1	J,P
Benzo(a)pyrene	3.44	20	17.0	1	J
Benzo(b)fluoranthene	5.70	20	10.0	1	J,P
Benzo(g,h,i)perylene	4.27	20	15.0	1	J,P
Benzo(k)fluoranthene	2.37	20	6.60	1	J,P
Chrysene	4.51	20	150	1	
Dibenzo(a,h)anthracene	5.34	20	8.10	1	J
Fluoranthene	4.39	20	43.0	1	P
Fluorene	67.7	200	380	1	
Indeno(1,2,3-cd)pyrene	3.80	20	3.80	1	ND
Naphthalene	74.8	200	23000	1	I
Phenanthrene	55.8	200	230	1	P
Pyrene	4.39	20	18.0	1	J

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG109975

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-SB2-S-Q4-01 Lab Sample ID: L0112259-02 Matrix: Soil

% Solids: 84 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 13-DEC-01 Date Extracted: 13-DEC-01 Date Analyzed: 14-DEC-01 00:21

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	792	50 - 150	*

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG109975

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-SB2-S-04-01 Lab Sample ID: L0112259-02 Matrix: Soil

% Solids: 84 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 13-DEC-01 Date Extracted: 13-DEC-01 Date Analyzed: 14-DEC-01 00:21

Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	6.23	200	5000	1	I
2-Methylnaphthalene	5.42	200	15000	1	I
Acenaphthene	66.5	200	11000	1	I,P
Acenaphthylene	53.4	200	53.4	1	ND
Anthracene	48.7	200	48.7	1	ND
Benzo(a)anthracene	4.51	20	47.0	1	P
Benzo(a)pyrene	3.44	20	16.0	1	J
Benzo(b)fluoranthene	5.70	20	23.0	1	P
Benzo(g,h,i)perylene	4.27	20	8.00	1	J,P
Benzo(k)fluoranthene	2.37	20	33.0	1	P
Chrysene	4.51	20	120	1	
Dibenzo(a,h)anthracene	5.34	20	19.0	1	J
Fluoranthene	4.39	20	130	1	P
Fluorene	67.7	200	450	1	
Indeno(1,2,3-cd)pyrene	3.80	20	3.80	1	ND
Naphthalene	74.8	200	9300	1	I
Phenanthrene	55.8	200	480	1	P
Pyrene	4.39	20	22.0	1	

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG109975

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-SB2-S-Q4-01 Lab Sample ID: L0112259-02 Matrix: Soil

% Solids: 84 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 13-DEC-01 Date Extracted: 13-DEC-01 Date Analyzed: 14-DEC-01 00:21

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	125	50 - 150	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG109975

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-SB2-S-Q4-01 Lab Sample ID: L0112259-02 Matrix: Soil

% Solids: 84 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 13-DEC-01 Date Extracted: 13-DEC-01 Date Analyzed: 20-DEC-01 10:16

Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	62.3	2000	12000	10	
2-Methylnaphthalene	54.2	2000	29000	10	
Acenaphthene	665	2000	665	10	ND
Acenaphthylene	53.6	200	53.6	1	ND
Anthracene	487	2000	487	10	ND
Benzo(a)anthracene	45.1	200	45.1	10	ND
Benzo(a)pyrene	34.4	200	34.4	10	ND
Benzo(b)fluoranthene	57.0	200	57.0	10	ND
Benzo(g,h,i)perylene	42.7	200	42.7	10	ND
Benzo(k)fluoranthene	23.7	200	23.7	10	ND
Chrysene	45.1	200	150	10	J
Dibenzo(a,h)anthracene	53.4	200	53.4	10	ND
Fluoranthene	43.9	200	43.9	10	ND
Fluorene	677	2000	677	10	ND
Indeno(1,2,3-cd)pyrene	38.0	200	38.0	10	ND
Naphthalene	748	2000	34000	10	
Phenanthrene	558	2000	558	10	ND
Pyrene	43.9	200	43.9	10	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG109975

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-SB2-S-Q4-01 Lab Sample ID: L0112259-02 Matrix: Soil

% Solids: 84 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 13-DEC-01 Date Extracted: 13-DEC-01 Date Analyzed: 20-DEC-01 10:16

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14		50 - 150	DL

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG109975

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-SB2-S-Q4-01 Lab Sample ID: L0112259-02 Matrix: Soil

% Solids: 84 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 13-DEC-01 Date Extracted: 13-DEC-01 Date Analyzed: 20-DEC-01 10:16

Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	62.3	2000	8100	10	
2-Methylnaphthalene	54.2	2000	37000	10	
Acenaphthene	665	2000	665	10	ND
Acenaphthylene	534	2000	534	10	ND
Anthracene	487	2000	487	10	ND
Benzo(a)anthracene	45.1	200	45.1	10	ND
Benzo(a)pyrene	34.4	200	34.4	10	ND
Benzo(b)fluoranthene	57.0	200	57.0	10	ND
Benzo(g,h,i)perylene	4.29	20	4.29	1	ND
Benzo(k)fluoranthene	23.7	200	23.7	10	ND
Chrysene	45.1	200	110	10	J
Dibenzo(a,h)anthracene	5.36	20	5.36	1	ND
Fluoranthene	43.9	200	43.9	10	ND
Fluorene	677	2000	677	10	ND
Indeno(1,2,3-cd)pyrene	3.81	20	3.81	1	ND
Naphthalene	748	2000	31000	10	
Phenanthrene	558	2000	558	10	ND
Pyrene	43.9	200	43.9	10	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG109975

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-SB2-S-Q4-01 Lab Sample ID: L0112259-02 Matrix: Soil

% Solids: 84 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 13-DEC-01 Date Extracted: 13-DEC-01 Date Analyzed: 20-DEC-01 10:16

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14		50 - 150	DL

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG109975

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-SB14-S-Q4-01 Lab Sample ID: L0112259-03 Matrix: Soil

% Solids: 85 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 13-DEC-01 Date Extracted: 13-DEC-01 Date Analyzed: 14-DEC-01 01:18

Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	6.17	190	6.17	1	ND
2-Methylnaphthalene	5.37	190	37.0	1	J,P
Acenaphthene	65.9	190	65.9	1	ND
Acenaphthylene	52.9	190	52.9	1	ND
Anthracene	48.2	190	48.2	1	ND
Benzo(a)anthracene	4.47	19	4.47	1	ND
Benzo(a)pyrene	3.41	19	3.41	1	ND
Benzo(b)fluoranthene	5.65	19	5.65	1	ND
Benzo(g,h,i)perylene	4.24	19	4.24	1	ND
Benzo(k)fluoranthene	2.35	19	2.35	1	ND
Chrysene	4.47	19	58.0	1	P
Dibenzo(a,h)anthracene	5.29	19	5.29	1	ND
Fluoranthene	4.35	19	4.35	1	ND
Fluorene	67.1	190	67.1	1	ND
Indeno(1,2,3-cd)pyrene	3.76	19	3.76	1	ND
Naphthalene	74.1	190	74.1	1	ND
Phenanthrene	55.3	190	55.3	1	ND
Pyrene	4.35	19	4.35	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG109975

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-SB14-S-Q4-01 Lab Sample ID: L0112259-03 Matrix: Soil

% Solids: 85 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 13-DEC-01 Date Extracted: 13-DEC-01 Date Analyzed: 14-DEC-01 01:18

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	75.5	50 - 150	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG109975

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-SB14-S-Q4-01 Lab Sample ID: L0112259-03 Matrix: Soil

% Solids: 85 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 13-DEC-01 Date Extracted: 13-DEC-01 Date Analyzed: 14-DEC-01 01:18

Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	6.17	190	6.17	1	ND
2-Methylnaphthalene	5.37	190	64.0	1	J,P
Acenaphthene	65.9	190	65.9	1	ND
Acenaphthylene	52.9	190	52.9	1	ND
Anthracene	48.2	190	48.2	1	ND
Benzo(a)anthracene	4.47	19	4.47	1	ND
Benzo(a)pyrene	3.41	19	3.41	1	ND
Benzo(b)fluoranthene	5.65	19	5.65	1	ND
Benzo(g,h,i)perylene	4.24	19	4.24	1	ND
Benzo(k)fluoranthene	2.35	19	2.35	1	ND
Chrysene	4.47	19	150	1	P
Dibenzo(a,h)anthracene	5.29	19	5.29	1	ND
Fluoranthene	4.35	19	4.35	1	ND
Fluorene	67.1	190	67.1	1	ND
Indeno(1,2,3-cd)pyrene	3.76	19	3.76	1	ND
Naphthalene	74.1	190	74.1	1	ND
Phenanthrene	55.3	190	55.3	1	ND
Pyrene	4.35	19	4.35	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3550B AAB # : WG109975

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-SB14-S-Q4-01 Lab Sample ID: L0112259-03 Matrix: Soil

% Solids: 85 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 13-DEC-01 Date Extracted: 13-DEC-01 Date Analyzed: 14-DEC-01 01:18

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	67.6	50 - 150	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **D2216-90**

AAB # : **WG110059**

Lab Name : **Kemron Environmental Services**

Contract # : **N62467-98-D-0995**

Base/Command : **blgs 9 and 46**

Prime Contractor :

Field sample ID	Lab Sample ID
002-CEF46-SB1-S-Q4-01	L0112259-01
002-CEF46-SB2-S-Q4-01	L0112259-02
002-CEF46-SB14-S-Q4-01	L0112259-03

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **21-DEC-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : D2216-90 Preparatory Method: D2216-90 AAB # : WG110059

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-SB1-S-Q4-01 Lab Sample ID: L0112259-01 Matrix: Soil

% Solids: 83 Initial Calibration ID: OVEN 14-DEC-01

Date Received: 13-DEC-01 Date Extracted: Date Analyzed: 14-DEC-01 09:20

Concentration Units: weight %

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Percent Solids	1.00	1.0	83.0	1	

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : D2216-90 Preparatory Method: D2216-90 AAB # : WG110059

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-SB2-S-04-01 Lab Sample ID: L0112259-02 Matrix: Soil

% Solids: 84 Initial Calibration ID: OVEN 14-DEC-01

Date Received: 13-DEC-01 Date Extracted: Date Analyzed: 14-DEC-01 09:20

Concentration Units: weight %

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Percent Solids	1.00	1.0	84.0	1	

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : D2216-90 Preparatory Method: D2216-90 AAB # : WG110059

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-SB14-S-Q4-01 Lab Sample ID: L0112259-03 Matrix: Soil

% Solids: 85 Initial Calibration ID: OVEN 14-DEC-01

Date Received: 13-DEC-01 Date Extracted: Date Analyzed: 14-DEC-01 09:20

Concentration Units: weight %

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Percent Solids	1.00	1.0	85.0	1	

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

1.2 Attachments

KEMRON ANALYST LIST

Ohio Valley Laboratory

11/13/2001

ADH - ANGELA D. HURST
AJF - AMANDA J. FICKIESEN
ALT - ANN L. THAYER
AMT - ANDREA M. TUCKER
ARS - ANGELINA R. SCOTT
BRG - BRENDA R. GREGORY
CAF - CHERYL A. FLOWERS
CAK - CHERYL A. KOELSCH
CBN - CHARLES B. NOLL
CEB - CHAD E. BARNES
CLC - CHRYS L. CRAWFORD
CLK - CARL L. KING
CLW - CHARISSA L. WINTERS
CMS - CRYSTAL M. STEVENS
CRC - CARLA R. COCHRAN
CSH - CHRIS S. HILL
DAM - DAN A. MUSGRAVE
DAS - DALLAS A. SULLIVAN
DAT - DEBBIE A. TORNES
DEL - DON E. LIGHTFRITZ
DEV - DAVID E. VANDENBERG
DGB - DOUGLAS G. BUTCHER
DIH - DEANNA I. HESSON
DLA - DENISE L. ADAMS
DLB - DAVID L. BUMGARNER
DLN - DEANNA L. NORTON
DLP - DOROTHY L. PAYNE
DLR - DIANNA L. RAUCH
DP - DEANNA L. PIERSON
DSM - DAVID S. MOSSOR
DST - DENNIS S. TEPE
ECL - ERIC C. LAWSON
GSG - GALEN S. GEORGE
HV - HEMA VILASAGAR
JAQ - JEROMY A. QUESENBERRY
JKW - JANE K. WARDEN
JLS - JANICE L. SCHIMMEL
JMM - JARROD M. MARTIN
JMT - JOY M. THOMAS
JWR - JOHN W. RICHARDS
JWS - JACK W. SHEAVES
JYH - JI Y. HU
KHR - KIM H. RHODES
KRA - KATHY R. ALBERTSON
KSL - KELLY S. LAUER
LKN - LINDA K. NEDEFF
LMT - LUCINDA M. TILTON
LRR - LUCYNDA R. ROBERTS
LSA - LUCINDA S. ARNOLD
LSB - LESLIE S. BUCINA
MDA - MICHAEL D. ALBERTSON
MDC - MICHAEL D. COCHRAN
MEF - MIKE E. FLANAGAN
MES - MARY E. SCHILLING
MLS - MICHAEL L. SCHIMMEL
MMB - MAREN M. BEERY
MRR - MICHELLE R. RAUCH
MSW - MATT S. WILSON
NJB - NATALIE J. BOOTH
RDC - REBECCA D. CUTLIP
REF - RON E. FERTILE
REK - ROBERT E. KYER
RJW - RHONDA J. WITTEKIND
RLW - RON L. WATSON
RSH - RENEE S. HENNES
RSS - REGINA S. SIMMONS
RVC - RUTH V. CALLIHAN
RWC - ROD W. CAMPBELL
SJK - SINDY J. KINNEY
SKH - SHARON K. HANDSCHUMACHER
SLP - SHERI L. PFALZGRAF
SLT - STEPHANIE L. TEPE
SMW - SHAUNA M. WELCH
SPL - STEVE P. LEARN
TJH - TIM J. HOEFLICH
TLD - TERESA L. DAVIS
TMM - TAMMY M. MORRIS
VC - VICKI COLLIER
VKL - VICKY K. LAUER

KEMRON Environmental Services, Inc
List of Valid Qualifiers
December 15, 2000

Standard Qualifiers

These are KEMRON's Standard Report Qualifiers

A	See the report narrative
B	Present in the method blank
C	Confirmed by GC/MS
CG	Confluent growth
D	The analyte was quantified at a secondary dilution factor
DL	Surrogate or spike was diluted out
E	Estimated concentration due to sample matrix interference
FL	Free liquid
I	Semiquantitative result, out of instrument calibration range
J	Present below nominal reporting limit
L	Sample reporting limits elevated due to matrix interference
M	Duplicate injection precision not met
N	Tentatively Identified Compound (TIC)
NA	Not applicable
ND	Not detected at or above the reporting limit (RL)
NF	Not found
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentration >40% difference between The two GC columns
QNS	Quantity not sufficient to perform analysis
R	Analyte exceeds regulatory limit
RA	Re analysis confirms reported results
RE	Re analysis confirms sample matrix Interference
S	Analyzed by method of standard addition
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TNTC	Too numerous to count
U	Analyzed for but not detected
W	Post-digestion spike for furnace AA out Of control limits
Z	Can not be resolved from isomer.***
+	Correlation coefficient for the MSA is less Than 0.995
<	Less than
>	Greater than
*	Surrogate or spike compound out of range

***** Special Notes for Organic Analytes**

1. Acrolein and acrylonitrile by method 624 are semiquantative screens only
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene
3. N-nitrosodiphenylamine cannot be separated from diphenylamine
4. 3-Methyphenol and 4-Methyphenol are unresolvable compounds
5. m-Xylene and p-Xylene are unresolvable compounds
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent

AFCEE Qualifiers

These are KEMRON's AFCEE Report Qualifiers

J	The analyte was positively identified, the quantitation is an estimation
U	The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL
F	The analyte was positively identified but the associated numerical value is below the RL
R	The data is unusable due to deficiencies in the ability to analyze the sample and meet QC criteria
B	The analyte was found in an associated blank, as well as in the sample
M	The matrix effect was present
S	To be applied to all field screening data
T	Tentatively identified compound (using GC/MS)

CH2M Hill Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No (770) 604-9182 ; Fax No (770) 604-9282

CHAIN-OF-CUSTODY RECORD

COC NUMBER
149152-181

PROJECT NAME:	PROJECT NUMBER:	LAB NAME AND CONTACT:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	RECIPIENT 1 (Address, Tel No. , and Fax No.):
N.A.S. Cecil Field Building 46	149152	Angie Hurst Kemron Environmental Services	Bill Canelos J.A Jones Env. Services	6219 Authority Road, Jacksonville, FL 32221 PH: (904) 7774812 FAX: (904) 7774262
PROJECT PHASE/SITE/TASK:	CTO OR DO NUMBER:	LAB PO NUMBER:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	RECIPIENT 2 (Address, Tel No. , and Fax No.):
Building 46 / Quarterly Soil Boring Sampling Event	0002	2329	Christelle Newsome CH2M Hill Constuctors, Inc.	115 Perimeter Center Place, N.E. Suite 700 Atlanta, GA 30346 (770)604-9182 Ext.561 FAX:604-9282
PROJECT CONTACT:	PROJECT TEL NO AND FAX NO:	LAB TEL NO AND FAX NO:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	RECIPIENT 3 (Address, Tel No. , and Fax No.):
Bill Canelos	Phone: 904-777-4812 Fax:904-777-4262	Phone: 740-373-4071 Fax: 740-373-4835		

ANALYSES REQUIRED (Include Method Numbers)

ITEM	SAMPLE IDENTIFIER	SAMPLE DESCRIPTION/LOCATION	MATRIX (see codes on back)	DATE COLLECTED	TIME COLLECTED	DATA PKG LEVEL (see codes on back)	TAT (calendar days)	BTEX and MTBE by 8021B(EnCore)	Naphthalene & 15 Methd Listed PAHs by 8310	TRPH by FL-PRO						SAMPLE TYPE (see codes on back)	COMMENTS/ SCREENING READINGS	LAB ID
1	002-CEF46-SB1-S-Q4-01	Soil Boring 1 @ 4' bls.	S	12/12/01	13:15	III/C	14	3	1	1						Grab	OVA : 308 ppm	
2	002-CEF46-SB2-S-Q4-01	Soil Boring 2 @ 5' bls.	S	12/12/01	13:00	III/C	14	3	1	1						Grab	OVA : 40,000 ppm	
3	002-CEF46-SB14-S-Q4-01	Soil Boring 14 @ 2' bls.	S	12/12/01	13:30	III/C	14	3	1	1						Grab	OVA : 3749 ppm	
4	002-CEF46-EQB-W-Q4-01	Equipment Blank	W	12/12/01	12:45	III/C	14	2	2	2								
5	002-CEF46-TB-W-Q4-01	Trip Blank	W	--	--	III/C	14	2										
6		Temperature Blank	W	--	--						1							
7																		
8																		
9																		
10																		

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:
Randy Dumaop / Sean Smith J.A. Jones Environmental Services	Federal Express Track #792471502662.

Clr Dated Slp Intact Cooler Temp 4.0

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
Randy Dumaop	12/12/01	17:00	Federal Express	12/12/01	17:00
Printed Name and Signature:			Printed Name and Signature: Brenda Gregory / Brenda Gregory	12/13/01	1000

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CCI001, Rev 02/00

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KEMRON Internal Laboratory Chain of Custody

Work Order: 1011225-9 **Client:** CCI **# of Samples:** 5 **Due Date:** **Page:**

Sample #	Analysis	Reason	Removed By ADT	Removed From	Moved To	Reliq. by	Ret'd By ADT	Ret'd To	Rec'd By	Reason
1-3A	8310	EXT	CEB 12/13/01 @1253	WALKIN	LAB	Big	CEB 12/13/01 @1310	WALKIN	Big	STORAGE
1-3	BTME	ANAL	CEB 12/13/01 @ 1255	LOGIN	ORG-3	Big	Big 12/27/01 @1500	Archive	Big	Archive
4-5	⊥	⊥	⊥	⊥	⊥	Big	⊥	⊥	⊥	⊥
1-3 A	FLA-PLO	EXT	12/14/01 @0700	walkin	LAB	JKW	CEB 12/14/01 @1101	WALKIN	Big	STORAGE
1-3	PCT-5	test	Tmm 12/14/01 @9:10	walkin	wet	Big	Tmm @1546 12/14/01	walkin	Big	Hold
04 A	FLA-PLO	EXT	12/27/01 @0700	WALKIN	LAB	CEB	CEB 12/18/01 @0730	Crusher	NN	Disposal
04 A	8310	EXT	12/27/01 @0850	walkin	LAB	Big	⊥	⊥	NN	⊥
1-3	—	Archive	Big 12/27/01 @1000	WALKIN	Archive	Big	—			

CRF #3

KEMRON Environmental Services — **SAMPLES RECEIPT FORM** — **Marietta Laboratory**

CLIENT: CCI (BRG) LMT Other _____	**DATE:** 12/13/01	**SHIPPED BY:** (✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: 108	**COOLER ID:** ACCutest	**COOLER ID:**
INDEX # : 791729820500	**INDEX # :** 792471502662	**INDEX # :**
SEALED (✓) YES ( ) NO	**SEALED** (✓) YES ( ) NO	**SEALED** ( ) YES ( ) NO
CUSTODY (✓) YES ( ) NO	**CUSTODY** (✓) YES ( ) NO	**CUSTODY** ( ) YES ( ) NO
TEMP : (C) (D) 1 °C	**TEMP :** (C) (D) 1 °C	**TEMP :** (C) (D) °C
TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO	**TEMP IN RANGE** (4°C ± 2°) ( ) YES (✓) NO	**TEMP IN RANGE** (4°C ± 2°) ( ) YES ( ) NO
WET ICE (✓) **BLUE ICE** ( )	**WET ICE** (✓) **BLUE ICE** ( )	**WET ICE** ( ) **BLUE ICE** ( )
ICE FROZEN (✓) **MELTED** ( )	**ICE FROZEN** (✓) **MELTED** ( )	**ICE FROZEN** ( ) **MELTED** ( )
RADIATION CHECKED (✓) YES ( ) NO	**RADIATION CHECKED** (✓) YES ( ) NO	**RADIATION CHECKED** ( ) YES ( ) NO
SAMPLE INTACT (✓) YES ( ) NO **SALVAGEBLE** ( ) YES ( ) NO	**SAMPLE INTACT** (✓) YES ( ) NO **SALVAGEBLE** ( ) YES ( ) NO	**SAMPLE INTACT** ( ) YES ( ) NO **SALVAGEBLE** ( ) YES ( ) NO
SAMPLE TYPE: **WATER** (✓) **SOIL** (✓) **OTHER** ( )	**SAMPLE TYPE:** **WATER** (✓) **SOIL** (✓) **OTHER** ( )	**SAMPLE TYPE:** **WATER** ( ) **SOIL** ( ) **OTHER** ( )
LABELS: INTACT (✓) YES ( ) NO **LEGIBLE** (✓) YES ( ) NO **MATCH COC** ( ) YES (✓) NO	**LABELS: INTACT** (✓) YES ( ) NO **LEGIBLE** (✓) YES ( ) NO **MATCH COC** ( ) YES (✓) NO	**LABELS: INTACT** ( ) YES ( ) NO **LEGIBLE** ( ) YES ( ) NO **MATCH COC** ( ) YES ( ) NO
pH IN RANGE (2 - >9 - >12) AS APPROPRIATE ( ) YES ( ) NO	**pH IN RANGE (2 - >9 - >12) AS APPROPRIATE** ( ) YES ( ) NO	**pH IN RANGE (2 - >9 - >12) AS APPROPRIATE** ( ) YES ( ) NO
SAMPLES FROZEN? ( ) YES (✓) NO	**SAMPLES FROZEN?** ( ) YES (✓) NO	**SAMPLES FROZEN?** ( ) YES ( ) NO
LOG-IN COMMENTS	**LOG-IN COMMENTS**	**LOG-IN COMMENTS**
C/C 180	181	

TSR COMMENTS

CONTACT:	**DATE:**	**TIME:**

COMMENTS: ( ) VOICE ( ) FAX ( ) E-MAIL

Revised 10/16/01

CRF#4

Sample Receipt Form #2

Client: CCI Project:

Date Received: 12/13/01

_____Cooler temperature > than 6 degrees Celcius

Reason_____

_____Samples received not on chain of custody

_____Samples on chain of custody not received

✓ Information on sample containers different from chain of custody

C/C 002-CEF46-TB-W-Q4-01 ~ bottles "Trip Blank"

_____Sample containers received broken, leaking or not sealed (List sample ID)

_____pH out (List sample ID & which container)

_____Insufficient sample volume

_____Air bubbles present in Voa vials (List sample ID)

_____Hold time expired (List sample ID)

TSR:

Was client notified regarding information: YES NO

Name of person contacted:_____ Company:_____

TSR:_____ Date:_____

Attach: Phone Logs, e-mails, faxes, etc.

CRF #1

COOLER RECEIPT FORM

Contractor Cooler _____
MRD Cooler # _____
Number of Coolers 2

PROJECT: NAS Cecil Field/Bldg 46 LIMS# L0112259

USE OTHER SIDE OF THIS FORM TO NOTE DETAILS CONERNING CHECK-IN PROBLEMS

A. **PRELIMINARY EXAMINATION PHASE:** Date cooler opened: 12/13/01 C-of-C Number: 149152
by (print) Brenda Gregory (sign) Brenda Gregory

1. Did cooler come with a shipping slip (air bill, etc.)? ..... YES NO
   If YES, enter carrier name & air bill number here: Fed ex - (See CRF #3)
2. Were custody seals on outside of cooler? ..... YES NO
   How many & where? 1-front, seal date: 12/12/01 seal name: Kemron
3. Were custody seals unbroken and intact at the data and time of arrival? ..... YES NO
4. Did you screen samples for radioactivity using the Geiger Counter? ..... YES NO
5. Were custody papers sealed in a plastic bag & taped inside to the lid? ..... YES NO
6. Were custody papers filled out properly (ink, signed, etc.)? ..... YES NO
7. Did you sign custody papers in the appropriate place? ..... YES NO
8. Was project identifiable from custody papers? If yes, enter project name at the top of this form ..... YES NO
9. If required, was enough ice used? ..... Type of ice: wet Temp 1/1 °C ..... YES NO
10. Have designated person initial here to acknowledge receipt of cooler: BLG (date) 12/13/01

B. **LOG-IN PHASE:** Date samples were logged-in: 12/13/01
by (print) Brenda Gregory (sign) Brenda Gregory

11. Describe type of packing in cooler: baggies; bubble wrap
12. Were all bottles sealed in separate plastic bags? ..... YES NO
13. Did all bottles arrive unbroken & were labels in good condition? ..... YES NO
14. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? ..... YES NO
15. Did all bottle labels agree with custody papers? ..... YES NO
16. Were correct containers used for the tests indicated? ..... YES NO
17. Were correct preservatives added to samples? ..... YES NO
18. Was a sufficient amount of sample sent for tests indicated? ..... YES NO
19. Were bubbles absent in volatile samples? If NO, list by Sample # _____ YES NO
20. Was the project manager called and status discussed? If YES, give details on the back of this form ..... YES NO
21. Who was called? _____ By whom? _____ (date) _____

2.0 Full Sample Data Package

2.1 Volatiles Data

2.1.3 BTEX GC Data (8021)

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0112259

METHOD

Preparation: SW- 846 5030B/5035
Analysis: SW-846 8021B

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration: Averaging % drifts option used for soil CCV's WG109921-03 (file: 6G08851) and WG109998-01 (file: 6G08855) analyzed 12/13/01 and 12/14/01, respectively, on HP6. MTBE was below the lower control limit in the middle-level soil CCV WG110070-03 analyzed 12/17/01 on HP11. The analysis associated with this CCV was a dilution for which MTBE was not needed. Toluene exceeded the upper control limit in the middle-level soil CCV WG110077-01 analyzed 12/17/01 on HP12. Toluene exceeded the upper calibration standard in the sample associated with this CCV and was re-analyzed at a dilution on HP12 on 12/17/01. All other acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.
Matrix Spikes: All acceptance criteria were met.

SAMPLES

Surrogates: TFT was not detected in the un-diluted middle-level analysis of fraction 02. Reanalysis of fraction 02 to confirm sample matrix interference was not performed due to the high concentrations of target analytes. TFT was diluted out in the "M1" analysis of fraction 02. All other acceptance criteria were met.
Samples: Fraction 02 required a dilution analysis to obtain results within the calibrated range of the

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: cbn REVIEWED: [signature] DATE: 12/21/01
Rev. 6/00

BETX-GC DATA (8021)

Login Number: L0112259

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

NA Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and quantitation report for each sample analysis and re-analysis (if re-analyzed) (Numerical order)

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data) (Chronological)

✓ Chromatograms and quantitation reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and quantitation reports (chronological)

✓ Retention time window summary (if applicable)(chronological)

D. Raw QC Data

✓ Method Blank, chromatogram and quantitation report for each matrix type (chronological)

✓ Laboratory Control Sample, chromatogram and quantitation report for each matrix type (chronological)

✓ Matrix Spike/Matrix Spike Duplicate, chromatograms and quantitation reports (if not reported as samples) and of the same client batch (chronological)

✓ Instrument runlogs (chronological)

NA Extraction bench sheets (for mid-level methanol extractions) (chronological)

✓ 5035 logs (if applicable) (chronological)

Checked By: C Brian Noll **Date:** 12/21/01

2.1.3.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0112259
Blank File ID: 6G08830
Date Analyzed: 12/13/01
Time Analyzed: 07:48
Analyst: CBN

Work Group: WG109922
Blank Sample ID: WG109922-01
Instrument ID: HP6
Method: 8021

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG109922-02	6G08831	12/13/01 08:21	
002-CEF46-SB1-S-Q4-01	L0112259-01	6G08843	12/13/01 15:31	

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0112259
Run Date: 12/13/2001
Sample ID: WG109922-01
Instrument ID: HP6
Run Time: 07:48
Method: 8021B
File ID: 6G08830
Analyst: CBN
Matrix: Solid
Workgroup (AAB#): WG109922
Units: ug/kg
Contract #:
Cal ID: HP6-12-DEC-2001

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
MTBE	0.500	1.00	0.500	1.00	ND
Benzene	0.500	1.00	0.500	1.00	ND
Toluene	0.500	1.00	0.500	1.00	ND
Ethylbenzene	0.500	1.00	0.500	1.00	ND
Total xylenes	0.500	3.00	0.500	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	83.0	47 - 121	PASS

F Analyte concentration between MDL and RDL
* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 12/06/2001
Version 1.1
Report generated 12/21/2001 14:28

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0112259
Run Date: 12/13/2001
Sample ID: WG109922-02
Instrument ID: HP6
Run Time: 08:21
Method: 8021B
File ID: 6G08831
Analyst: CBN
Matrix: Solid
Workgroup (AAB#): WG109922
Units: ug/kg
Contract #:
Cal ID: HP6-12-DEC-2001

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	18.4	92.1	64 - 123	
Benzene	20	18.3	91.5	77 - 120	
Toluene	20	18.5	92.6	75 - 120	
Ethylbenzene	20	20.2	101	79 - 122	
Total xylenes	60	59.2	98.7	78 - 120	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	88.4	47 - 121	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 12/06/2001
Version 1.1
Report generated 12/21/2001 14:29

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0112259
Instrument Id: HP6
Workgroup (AAB#): WG109922

Method: 8021
Matrix: SOLID

Sample Numbe	Dilution	Tag	1
L0112259-01	0.920		74.7

Surrogates	Surrogate Limits		
1 - a,a,a-Trifluorotoluene	47	-	121

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 12/07/2001
Version 1.1
Report generated 12/21/2001 14:29

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021 AAB#: WG109922

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
002-CEF46-SB1-S-Q4-01	12-DEC-01	13-DEC-01	13-DEC-01	14	1	13-DEC-01	14	1	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

Calibration Table Report
Method: 8021S.M
Title: METHOD 8021 SOIL - 12/12/01
Last Calibration: Wed Dec 12 15:05:02 2001

Calibration Files

Compound	1	10	20	50	100	200	300	Avg	%RSD
	[illegible].D	[illegible]11.D	[illegible]12.D	[illegible]13.D	[illegible]14.D	[illegible]15.D	[illegible]16.D		
MTBE	13854.6	12672	11106	17516	12903	11396	15335	13540	16.736
Benzene	137243	148556	119299	142651	124090	118977	132721	131934	8.801
TFT	39524	42983	40573	49132	43568	46276	48746	44400	8.523
Toluene	129940	122024	113756	132559	118993	122301	127267	123834	5.273
Chlorobenzene	128316	125641	117424	135366	122117	124511	127307	125812	4.420
Ethylbenzene	114638	119026	109871	124188	112442	109506	111973	114521	4.666
m-,p-Xylene	147640	146620	136445	147063	136333	134744	134211	140437	4.485
o-Xylene	128367	122465	116431	124384	115770	115459	115281	119737	4.424
BFB	103924	107345	108242	113423	106519	107626	106994	107725	2.662
1,3-Dichlorobenzene	156548	117540	112407	111852	106749	111511	108623	117890	14.740
1,4-Dichlorobenzene	156548	117540	112407	111852	106749	111511	108623	117890	14.740
1,2-Dichlorobenzene	88918	90160	86266	86302	82428	86456	84003	86362	3.064
BCB	120213	97838	99576	97072	93457	100363	95436	100565	8.927

Wed Dec 12 15:05:57 2001

KEMRON ENVIRONMENTAL SERVICES
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L0112259
File ID: 6G08817
ALT ID: WG109832-08
Units: ug/kg

Instrument ID: HP6
Run Date: 12/12/2001
Run Time: 14:32
Analyst: CBN
Cal ID: HP6 - 12-DEC-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	23.0	99400	15.0	
1,4-Dichlorobenzene		20	21.0	124000	5.0	
1,3-Dichlorobenzene		20	21.0	124000	5.0	
o-Xylene		20	20.2	121000	1.0	
m-,p-Xylene		40	41.1	144000	2.8	
Ethylbenzene		20	21.6	124000	8.0	
Chlorobenzene		20	21.7	137000	8.5	
Toluene		20	21.7	134000	8.5	
Benzene		20	21.4	141000	7.0	
MTBE		20	25.1	17000	25.5	*

KEMRON FORMS - Modified 10/17/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
CONTINUING CALIBRATION REPORT

Login Number: L0112259
File ID: 6G08829
CCV ID: WG109921-01
Units: ug/kg

Instrument ID: HP6
Run Date: 12/13/2001
Run Time: 07:16
Analyst: CBN
Cal ID: HP6 - 12-DEC-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	20.1	86700	0.5	
1,4-Dichlorobenzene		20	19.5	115000	2.5	
1,3-Dichlorobenzene		20	19.5	115000	2.5	
o-Xylene		20	18.8	112000	6.0	
m-,p-Xylene		40	38.7	136000	3.3	
Ethylbenzene		20	20.6	118000	3.0	
Chlorobenzene		20	20.6	130000	3.0	
Toluene		20	20.2	125000	1.0	
Benzene		20	21.2	140000	6.0	
MTBE		20	21.5	14600	7.5	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
CONTINUING CALIBRATION REPORT

Login Number: L0112259
File ID: 6G08840
CCV ID: WG109921-02
Units: ug/kg

Instrument ID: HP6
Run Date: 12/13/2001
Run Time: 13:37
Analyst: CBN
Cal ID: HP6 - 12-DEC-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	20.6	89000	3.0	
1,4-Dichlorobenzene		20	19.6	115000	2.0	
1,3-Dichlorobenzene		20	19.6	115000	2.0	
o-Xylene		20	19.7	118000	1.5	
m-,p-Xylene		40	40.1	141000	0.3	
Ethylbenzene		20	20.6	118000	3.0	
Chlorobenzene		20	20.2	127000	1.0	
Toluene		20	20.7	128000	3.5	
Benzene		20	20.6	136000	3.0	
MTBE		20	21.6	14600	8.0	

KEMRON ENVIRONMENTAL SERVICES
CONTINUING CALIBRATION REPORT

Login Number: L0112259
File ID: 6G08851
CCV ID: WG109921-03
Units: ug/kg

Instrument ID: HP6
Run Date: 12/13/2001
Run Time: 19:51
Analyst: CBN
Cal ID: HP6 - 12-DEC-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	20.5	88600	2.5	
1,4-Dichlorobenzene		20	18.9	111000	5.5	
1,3-Dichlorobenzene		20	18.9	111000	5.5	
o-Xylene		20	20.2	121000	1.0	
m-,p-Xylene		40	41.4	145000	3.5	
Ethylbenzene		20	22.0	126000	10.0	
Chlorobenzene		20	21.5	135000	7.5	
Toluene		20	21.0	130000	5.0	
Benzene		20	21.5	142000	7.5	
MTBE		20	23.9	16100	19.5	*

KEMRON FORMS - Modified 10/11/2001
Version 1.0

Injection Log

Directory: C:\HPCHEM\1\DATA\121201

WG109832
1 94

ANALYST: CE

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	6G08805.D	1.	INST CHECK 5G ✓	7,1 S-87-(37,22)	12 Dec 2001 07:
2	2	6G08806.D	1.	WG109813-01 8021 STD 20PPB 5G cc low	7,1 S-87-(37,22)	12 Dec 2001 07:
3	3	6G08807.D	1.	WG109814-01 SOIL BLANK 5G	7,1 S-87-22	12 Dec 2001 08:
4	4	6G08808.D	1.	WG109813-01 8021 STD 20PPB 5G cc low	7,1 S-87-(37,22)	12 Dec 2001 08:
5	5	6G08809.D	1.	WG109832-01 8021 STD1 1PPB 5G ✓	7,1 S-87-21,88-05	12 Dec 2001 10:
6	6	6G08810.D	1.	WG109832-01 8021 STD1 1PPB 5G ✓	7,1 S-87-21,88-05	12 Dec 2001 10:
7	6	6G08811.D	1.	WG109832-02 8021 STD2 10PPB 5G ✓	7,1 S-87-21,88-05	12 Dec 2001 11:
8	7	6G08812.D	1.	WG109832-03 8021 STD3 20PPB 5G ✓	7,1 S-87-21,88-05	12 Dec 2001 11:
9	8	6G08813.D	1.	WG109832-04 8021 STD4 50PPB 5G ✓	7,1 S-87-21,88-05	12 Dec 2001 12:
10	9	6G08814.D	1.	WG109832-05 8021 STD5 100PPB 5G ✓	7,1 S-87-21,88-05	12 Dec 2001 12:
11	10	6G08815.D	1.	WG109832-06 8021 STD6 200PPB 5G ✓	7,1 S-87-21,88-05	12 Dec 2001 13:
12	11	6G08816.D	1.	WG109832-07 8021 STD7 300PPB 5G ✓	7,1 S-87-21,88-05	12 Dec 2001 13:
13	12	6G08817.D	1.	WG109832-08 ALT SOURCE 20PPB 5G ✓	7,1 S-87-37,88-05	12 Dec 2001 14:
14	1	6G08818.D	1.	WG109894-01 SOIL BLANK 5G ✓	7,1 S-88-05	12 Dec 2001 16:
15	2	6G08819.D	1.	WG109894-02 SOIL LCS 20PPB 5G ✓	7,1 S-87-37,88-05	12 Dec 2001 17:
16	1	6G08820.D	1. ER	WG109894-03 L0112129-03 5G	7,1 S-88-05	12 Dec 2001 17:
17	2	6G08821.D	1. ALL	WG109894-04 L0112129-03 MS 5G	7,1 S-87-37,88-05	12 Dec 2001 18:
18	3	6G08822.D	1.	WG109894-05 L0112129-03 MSD 5G	7,1 S-87-37,88-05	12 Dec 2001 18:
19	4	6G08823.D	5.	L0112129-07 5X 1G	7,5 S-88-05	12 Dec 2001 19:
20	5	6G08824.D	1.	L0112087-04 5G	7,1 S-88-05	12 Dec 2001 19:
21	6	6G08825.D	1.	L0112142-01 5G	7,1 S-88-05	12 Dec 2001 20:
22	7	6G08826.D	1.	L0112142-02 5G	7,1 S-88-05	12 Dec 2001 21:
23	8	6G08827.D	1.	L0112173-12 5G	7,1 S-88-05	12 Dec 2001 21:
24	9	6G08828.D	1.	8021 STD 20PPB 5G	7,1 S-87-37,88-05	12 Dec 2001 22:

Directory: C:\HPCHEM\1\DATA\121301

Injection Log

WG109922

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	6G08829.D	1.	WG109921-01 8021 STD 20PPB 5G ✓	7,1 S-87-37,88-05	
2	2	6G08830.D	1.	WG109922-01 SOIL BLANK 5G ✓	7,1 S-88-05	13 Dec 2001 07:1
3	3	6G08831.D	1.	WG109922-02 SOIL LCS 20PPB 5G	7,1 S-87-37,88-05	13 Dec 2001 07:4
4	1	6G08832.D	1.	WG109922-03 L0112129-03 5G ✓	7,1 S-88-05	13 Dec 2001 08:2
5	2	6G08833.D	1.	WG109922-04 L0112129-03 MS 5G ✓	7,1 S-87-37,88-05	13 Dec 2001 09:1
6	3	6G08834.D	1.	WG109922-05 L0112129-03 MSD 5G ✓	7,1 S-87-37,88-05	13 Dec 2001 09:4
7	4	6G08835.D	5.	L0112129-07 5X 1G ✓	7,5 S-88-05	13 Dec 2001 10:2
8	5	6G08836.D	1.	L0112087-04 5G ✓	7,1 S-88-05	13 Dec 2001 10:54
9	6	6G08837.D	1.	L0112142-01 5G ✓ LOW SSS	7,1 S-88-05	13 Dec 2001 11:27
10	7	6G08838.D	1.	L0112142-02 5G ✓	7,1 S-88-05	13 Dec 2001 11:59
11	8	6G08839.D	1.	L0112173-12 5G ✓	7,1 S-88-05	13 Dec 2001 12:32
12	9	6G08840.D	1.	WG109921-02 8021 STD 20PPB 5G ✓	7,1 S-87-37,88-05	13 Dec 2001 13:04
13	1	6G08841.D	0.91	L0112252-01 A 5.52G 0.91X ✓	7,0.91 S-88-05	13 Dec 2001 13:37
14	2	6G08842.D	0.92	L0112258-01 A 5.42G 0.92X ✓	7,0.92 S-88-05	13 Dec 2001 14:26
15	3	6G08843.D	0.92	L0112259-01 A 5.42G 0.92X ✓	7,0.92 S-88-05	13 Dec 2001 14:59
16	4	6G08844.D	0.9	L0112259-03 A 5.55G 0.90X HIGH SSS	7,0.90 S-88-05	13 Dec 2001 15:31
17	5	6G08845.D	1.	5035 METHOD BLANK A 5G ✓	7,1 S-88-05	13 Dec 2001 16:04
18	6	6G08846.D	5.	L0112173-19 1G 5X ✓	7,5 S-88-05	13 Dec 2001 16:36
19	7	6G08847.D	1.	L0112173-39 5G ✓	7,1 S-88-05	13 Dec 2001 17:09
20	8	6G08848.D	1.	L0112142-01 5G CONF SMI	7,1 S-88-05	13 Dec 2001 17:41
21	9	6G08849.D	1.	L0112174-03 5G ✓	7,1 S-88-05	13 Dec 2001 18:14
22	10	6G08850.D	1.	L0112174-05 5G ✓	7,1 S-88-05	13 Dec 2001 18:46
23	11	6G08851.D	1.	WG109921-03 8021 STD 20PPB 5G ✓	7,1 S-87-37,88-05	13 Dec 2001 19:19
24	12	6G08852.D	1.	L0112087-08 1G ✓	7,5 S-88-05	13 Dec 2001 19:51
25	13	6G08853.D	1.	L0112173-11 1G ✓	7,5 S-88-05	13 Dec 2001 20:24
26	14	6G08854.D	1.	WG109921-03 8021 STD 20PPB 5G ✓	7,1 S-87-37,88-05	13 Dec 2001 20:57
						13 Dec 2001 21:29

REANALYSIS FILE #

L0112259-03

14 Dec 2001 07:26

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0112259
Blank File ID: 11G12831
Date Analyzed: 12/13/01
Time Analyzed: 16:25
Analyst: CBN

Work Group: WG109968
Blank Sample ID: WG109968-01
Instrument ID: HP11
Method: 8021

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG109968-02	11G12832	12/13/01 17:00	
002-CEF46-EQB-W-Q4-01	L0112259-04	11G12835	12/13/01 18:45	
002-CEF46-TB-W-Q4-01	L0112259-05	11G12836	12/13/01 19:19	

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0112259
Run Date: 12/13/2001
Sample ID: WG109968-01
Instrument ID: HP11
Run Time: 16:25
Method: 8021B
File ID: 11G12831
Analyst: CBN
Matrix: Water
Workgroup (AAB#): WG109968
Units: ug/L
Contract #:
Cal ID: HP11-13-DEC-2001

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
MTBE	0.500	1.00	0.500	1.00	ND
Benzene	0.500	1.00	0.500	1.00	ND
Toluene	0.500	1.00	0.500	1.00	ND
Ethylbenzene	0.500	1.00	0.500	1.00	ND
Total xylenes	0.500	1.00	0.520	1.00	F

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	100	70 - 130	PASS

F Analyte concentration between MDL and RDL
* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 12/06/2001
Version 1.1
Report generated 12/21/2001 14:28

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0112259
Run Date: 12/13/2001
Sample ID: WG109968-02
Instrument ID: HP11
Run Time: 17:00
Method: 8021B
File ID: 11G12832
Analyst: CBN
Matrix: Water
Workgroup (AAB#): WG109968
Units: ug/L
Contract #:
Cal ID: HP11-13-DEC-2001

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	19.1	95.4	34 - 150	
Benzene	20	19.7	98.5	79 - 120	
Toluene	20	19.9	99.4	80 - 120	
Ethylbenzene	20	19.9	99.6	80 - 120	
Total xylenes	60	58.7	97.9	78 - 120	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	109	70 - 130	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 12/06/2001
Version 1.1
Report generated 12/21/2001 14:29

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0112259
Instrument Id: HP11
Workgroup (AAB#): WG109968

Method: 8021
Matrix: WATER

Sample Numbe	Dilution	Tag	1
L0112259-04	1.00		107
L0112259-05	1.00		99.6

Surrogates	Surrogate Limits		
1 - a,a,a-Trifluorotoluene	70	-	130

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 12/07/2001
Version 1.1
Report generated 12/21/2001 14:29

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021 AAB#: WG109968

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
002-CEF46-EQB-W-Q4-01	12-DEC-01	13-DEC-01	13-DEC-01	14	1	13-DEC-01	14	1	
002-CEF46-TB-W-Q4-01	12-DEC-01	13-DEC-01	13-DEC-01	14	1	13-DEC-01	14	1	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

Calibration Table Report
Method: 8021W.M
Title: Method 8021B- WATER 12/13/01
Last Calibration: Thu Dec 13 13:25:15 2001

Calibration Files

Compound	1 11G12822.D	10 11G12823.D	20 11G12824.D	50 11G12825.D	100 11G12826.D	200 11G12827.D	300 11G12828.D	Avg	%RSD
MTBE	61628.2	60981.2	59414.5	62474.3	64034.0	62521.1	62711.9	61966.5	2.375
Benzene	147603.7	159810.5	159151.4	158266.7	161749.8	161826.2	157879.2	158041.0	3.072
TFT	43510.6	49401.8	49398.3	49787.6	49971.5	49545.5	48808.5	48632.0	4.704
Toluene	146715.8	151626.9	152542.4	154573.9	150923.4	151646.0	147988.2	150860.0	1.780
Chlorobenzene	141357.4	158279.1	157855.4	159708.4	162554.5	162565.5	160856.5	157597.0	4.696
Ethylbenzene	128153.4	137969.2	136422.0	135450.5	136319.1	135776.1	133907.3	134857.0	2.370
m-,p-Xylene	163153.6	173051.2	166291.6	161297.2	161711.6	159891.0	157122.2	163217.0	3.167
o-Xylene	135093.0	148190.7	144198.2	140977.7	141690.2	141372.7	139156.2	141526.0	2.869
BFB	116287.7	133620.0	137285.8	142724.6	145859.4	142880.2	143407.7	137438.0	7.432
1,3-Dichlorobenzene	129688.0	135946.1	138116.6	138597.0	143828.5	146382.9	143765.5	139475.0	4.097
1,4-Dichlorobenzene	141174.8	150984.1	148049.5	147259.4	148698.3	150030.7	147395.9	147656.0	2.145
1,2-Dichlorobenzene	117537.2	128548.9	121765.2	126882.5	127836.6	124686.6	121878.9	124162.0	3.209
BCB	110104.6	122939.5	131780.9	138656.9	141296.2	139517.6	140859.7	132165.0	8.884

Thu Dec 13 13:30:34 2001

KEMRON ENVIRONMENTAL SERVICES
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L0112259
File ID: 11G12830
ALT ID: WG109931-08
Units: ug/L

Instrument ID: HP11
Run Date: 12/13/2001
Run Time: 14:07
Analyst: CBN
Cal ID: HP11 - 13-DEC-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	21.2	132000	6.0	
1,4-Dichlorobenzene		20	20.4	150000	2.0	
1,3-Dichlorobenzene		20	19.8	138000	1.0	
o-Xylene		20	20.1	142000	0.5	
m-,p-Xylene		40	41.3	169000	3.3	
Ethylbenzene		20	20.8	141000	4.0	
Chlorobenzene		20	20.0	157000	0.0	
Toluene		20	20.3	153000	1.5	
Benzene		20	20.3	160000	1.5	
MTBE		20	18.6	57700	7.0	

KEMRON ENVIRONMENTAL SERVICES
CONTINUING CALIBRATION REPORT

Login Number: L0112259
File ID: 11G12824
CCV ID: WG109931-03
Units: ug/L

Instrument ID: HP11
Run Date: 12/13/2001
Run Time: 10:36
Analyst: CBN
Cal ID: HP11 - 13-DEC-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	19.8	122000	1.0	
1,4-Dichlorobenzene		20	20.3	148000	1.5	
1,3-Dichlorobenzene		20	20.8	138000	4.0	
o-Xylene		20	20.4	144000	2.0	
m-,p-Xylene		40	39.6	166000	1.0	
Ethylbenzene		20	20.5	136000	2.5	
Chlorobenzene		20	21.1	158000	5.5	
Toluene		20	20.5	153000	2.5	
Benzene		20	20.7	159000	3.5	
MTBE		20	19.4	59400	3.0	

KEMRON ENVIRONMENTAL SERVICES
CONTINUING CALIBRATION REPORT

Login Number: L0112259
File ID: 11G12841
CCV ID: WG109931-09
Units: ug/L

Instrument ID: HP11
Run Date: 12/13/2001
Run Time: 22:14
Analyst: CBN
Cal ID: HP11 - 13-DEC-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	20.4	127000	2.0	
1,4-Dichlorobenzene		20	18.4	136000	8.0	
1,3-Dichlorobenzene		20	18.6	130000	7.0	
o-Xylene		20	19.5	138000	2.5	
m-,p-Xylene		40	40.0	163000	0.0	
Ethylbenzene		20	20.4	137000	2.0	
Chlorobenzene		20	19.6	155000	2.0	
Toluene		20	20.0	151000	0.0	
Benzene		20	20.0	158000	0.0	
MTBE		20	19.4	60100	3.0	

Injection Log

Directory: C:\HPCHEM\1\DATA\121301

WG 109919 ⊥ 31 68

ANALYST: CB

e	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	1	11g12818.d	1.	WG109919-01 8021 STD 20PPB 5ML ccl4	1,1 S-87-(37,22)	13 Dec 2001 07:0
	2	11g12819.d	1.	WG109919-01 8021 STD 20PPB 5ML ⊥	1,1 S-87-(37,22)	13 Dec 2001 07:5
	3	11g12821.d	1.	WG109931-01 1PPB 8021 WATER... DNR	1,1 S-87-21 S-88-05	13 Dec 2001 08:5
	4	11g12822.d	1.	WG109931-01 1PPB 8021 WATER...✓	1,1 S-87-21 S-88-05	13 Dec 2001 09:2
	5	11g12823.d	1.	WG109931-02 10PPB 8021 WATE...✓	1,1 S-87-21 S-88-05	13 Dec 2001 10:0
	6	11g12824.d	1.	WG109931-03 20PPB 8021 WATE... ✓	1,1 S-87-21 S-88-05	13 Dec 2001 10:3
	7	11g12825.d	1.	WG109931-04 50PPB 8021 WATE...✓	1,1 S-87-21 S-88-05	13 Dec 2001 11:1
	8	11g12826.d	1.	WG109931-05 100PPB 8021 WAT... ✓	1,1 S-87-21 S-88-05	13 Dec 2001 11:4
	9	11g12827.d	1.	WG109931-06 200PPB 8021 WAT... ✓	1,1 S-87-21 S-88-05	13 Dec 2001 12:2
	10	11g12828.d	1.	WG109931-07 300PPB 8021 WAT...✓	1,1 S-87-21 S-88-05	13 Dec 2001 12:5
	11	11g12829.d	1.	SYSTEM BLANK ✓	1,1 S-87-21 S-88-05	13 Dec 2001 13:3
	11	11g12830.d	1.	WG109931-08 8021 ALT SOURCE...✓	1,1 S-87-37 S-88-05	13 Dec 2001 14:0
	1	11g12831.d	1.	WG109968-01 WATER BLANK 5ML ✓	1,1 S-87-23	13 Dec 2001 16:2
	2	11g12832.d	1.	WG109968-02 WATER LCS 20PPB... ✓	1,1 S-87-(37,23)	13 Dec 2001 17:0
	3	11g12833.d	1.	L0112203-02 A 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 17:3
	4	11g12834.d	1.	L0112252-02 A 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 18:1
	5	11g12835.d	1.	L0112259-04 A 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 18:4
	6	11g12836.d	1.	L0112259-05 A 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 19:1
	7	11g12837.d	1.	L0112173-55 A 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 19:5
	8	11g12838.d	1.	L0112173-56 A 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 20:2
	9	11g12839.d	1.	L0112173-57 A 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 21:0
	10	11g12840.d	1.	L0112183-16 A 5ML pH<2 ✓ RR (TOLUENE)	1,1 S-87-23	13 Dec 2001 21:3
	11	11g12841.d	1.	WG109931-09 8021 STD 20PPB 5ML✓	1,1 S-87-(37,23)	13 Dec 2001 22:1
	12	11g12842.d	20.	L0112173-53 A 5ML pH<2 20X RR STRT	1,20 S-87-23	13 Dec 2001 22:4
	13	11g12843.d	1.	L0112180-03 B 5ML pH<2✓	1,1 S-87-23	13 Dec 2001 23:2
	14	11g12844.d	1.	L0112180-04 B 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 23:5
	15	11g12845.d	1.	WG109968-03 L0112253-01 A 5... ✓	1,1 S-87-23	14 Dec 2001 00:3
	16	11g12846.d	1.	WG109968-04 L0112253-01 MS ...✓	1,1 S-87-(37,23)	14 Dec 2001 01:0
	17	11g12847.d	1.	WG109968-05 L0112253-01 MSD... ✓	1,1 S-87-(37,23)	14 Dec 2001 01:4
	18	11g12848.d	1.	RINSE 5G ✓	1,1 S-87-23	14 Dec 2001 02:1
	19	11g12849.d	1.	RINSE 5G ✓	1,1 S-87-23	14 Dec 2001 02:5
	20	11g12850.d	1.	WG109931-10 8021 STD 20PPB 5ML ✓	1,1 S-87-(37,23)	14 Dec 2001 03:2

REANALYSIS	FILE #
L0112183-16	
L0112173-53	

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0112259
Blank File ID: 6G08856
Date Analyzed: 12/14/01
Time Analyzed: 07:49
Analyst: CBN

Work Group: WG109999
Blank Sample ID: WG109999-01
Instrument ID: HP6
Method: 8021

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG109999-02	6G08857	12/14/01 08:22	
002-CEF46-SB14-S-Q4-01	L0112259-03	6G08858	12/14/01 09:07	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0112259
Run Date: 12/14/2001
Sample ID: WG109999-01
Instrument ID: HP6
Run Time: 07:49
Method: 8021B
File ID: 6G08856
Analyst: CBN
Matrix: Solid
Workgroup (AAB#): WG109999
Units: ug/kg
Contract #:
Cal ID: HP6-12-DEC-2001

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
MTBE	0.500	1.00	0.500	1.00	ND
Benzene	0.500	1.00	0.500	1.00	ND
Toluene	0.500	1.00	0.500	1.00	ND
Ethylbenzene	0.500	1.00	0.500	1.00	ND
Total xylenes	0.500	3.00	0.500	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	87.8	47 - 121	PASS

F Analyte concentration between MDL and RDL
* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 12/06/2001
Version 1.1
Report generated 12/21/2001 14:28

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0112259
Run Date: 12/14/2001
Sample ID: WG109999-02
Instrument ID: HP6
Run Time: 08:22
Method: 8021B
File ID: 6G08857
Analyst: CBN
Matrix: Solid
Workgroup (AAB#): WG109999
Units: ug/kg
Contract #:
Cal ID: HP6-12-DEC-2001

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	18.4	92.1	64 - 123	
Benzene	20	18.5	92.7	77 - 120	
Toluene	20	19.7	98.6	75 - 120	
Ethylbenzene	20	21.8	109	79 - 122	
Total xylenes	60	60.8	101	78 - 120	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	93.2	47 - 121	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 12/06/2001
Version 1.1
Report generated 12/21/2001 14:29

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0112259
Instrument Id: HP6
Workgroup (AAB#): WG109999

Method: 8021
Matrix: SOLID

Sample Numbe	Dilution	Tag	1
L0112259-03	0.960		99.8

Surrogates	Surrogate Limits		
1 - a,a,a-Trifluorotoluene	47	-	121

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 12/07/2001
Version 1.1
Report generated 12/21/2001 14:29

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021 AAB#: WG109999

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
002-CEF46-SB14-S-Q4-01	12-DEC-01	13-DEC-01	14-DEC-01	14	2	14-DEC-01	14	2	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

Calibration Table Report
Method: 8021B.M
Title: METHOD 8021 SOIL - 12/12/01
Last Calibration: Wed Dec 12 15:05:02 2001

Calibration Files

Compound	1 [redacted].D	10 [redacted]11.D	20 [redacted]12.D	50 [redacted]13.D	100 [redacted]14.D	200 [redacted]15.D	300 [redacted]16.D	Avg	%RSD
MTBE	13854.6	12672	11106	17516	12903	11396	15335	13540	16.736
Benzene	137243	148556	119299	142651	124090	118977	132721	131934	8.801
TFT	39524	42983	40573	49132	43568	46276	48746	44400	8.523
Toluene	129940	122024	113756	132559	118993	122301	127267	123834	5.273
Chlorobenzene	128316	125641	117424	135366	122117	124511	127307	125812	4.420
Ethylbenzene	114638	119026	109871	124188	112442	109506	111973	114521	4.666
m-,p-Xylene	147640	146620	136445	147063	136333	134744	134211	140437	4.485
o-Xylene	128367	122465	116431	124384	115770	115459	115281	119737	4.424
BFB	103924	107345	108242	113423	106519	107626	106994	107725	2.662
1,3-Dichlorobenzene	156548	117540	112407	111852	106749	111511	108623	117890	14.740
1,4-Dichlorobenzene	156548	117540	112407	111852	106749	111511	108623	117890	14.740
1,2-Dichlorobenzene	88918	90160	86266	86302	82428	86456	84003	86362	3.064
DCB	120213	97838	99576	97072	93457	100363	95436	100565	8.927

Wed Dec 12 15:05:57 2001

KEMRON ENVIRONMENTAL SERVICES
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L0112259
File ID: 6G08817
ALT ID: WG109832-08
Units: ug/kg

Instrument ID: HP6
Run Date: 12/12/2001
Run Time: 14:32
Analyst: CBN
Cal ID: HP6 - 12-DEC-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	23.0	99400	15.0	
1,4-Dichlorobenzene		20	21.0	124000	5.0	
1,3-Dichlorobenzene		20	21.0	124000	5.0	
o-Xylene		20	20.2	121000	1.0	
m-,p-Xylene		40	41.1	144000	2.8	
Ethylbenzene		20	21.6	124000	8.0	
Chlorobenzene		20	21.7	137000	8.5	
Toluene		20	21.7	134000	8.5	
Benzene		20	21.4	141000	7.0	
MTBE		20	25.1	17000	25.5	*

KEMRON ENVIRONMENTAL SERVICES
CONTINUING CALIBRATION REPORT

Login Number: L0112259
File ID: 6G08855
CCV ID: WG109998-01
Units: ug/L

Instrument ID: HP6
Run Date: 12/14/2001
Run Time: 07:17
Analyst: CBN
Cal ID: HP6 - 12-DEC-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	20.5	88600	2.5	
1,4-Dichlorobenzene		20	20.8	122000	4.0	
1,3-Dichlorobenzene		20	20.8	122000	4.0	
o-Xylene		20	19.6	117000	2.0	
m-,p-Xylene		40	40.1	141000	0.3	
Ethylbenzene		20	21.6	124000	8.0	
Chlorobenzene		20	21.2	133000	6.0	
Toluene		20	21.0	130000	5.0	
Benzene		20	22.6	149000	13.0	
MTBE		20	23.1	15600	15.5	*

KEMRON FORMS - Modified 10/11/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
CONTINUING CALIBRATION REPORT

Login Number: L0112259
File ID: 6G08866
CCV ID: WG109998-02
Units: ug/L

Instrument ID: HP6
Run Date: 12/14/2001
Run Time: 13:28
Analyst: CBN
Cal ID: HP6 - 12-DEC-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	20.3	87500	1.5	
1,4-Dichlorobenzene		20	18.8	111000	6.0	
1,3-Dichlorobenzene		20	18.8	111000	6.0	
o-Xylene		20	19.5	116000	2.5	
m-,p-Xylene		40	39.8	140000	0.5	
Ethylbenzene		20	21.0	120000	5.0	
Chlorobenzene		20	20.1	127000	0.5	
Toluene		20	20.1	125000	0.5	
Benzene		20	20.1	132000	0.5	
MTBE		20	22.2	15000	11.0	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

Injection Log

Directory: C:\HPCHEM\1\DATA\121201

WG109832
1 94

ANALYST: CC

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	6G08805.D	1.	INST CHECK 5G ✓	7,1 S-87-(37,22)	12 Dec 2001 07:
2	2	6G08806.D	1.	WG109813-01 8021 STD 20PPB 5G CCLOW	7,1 S-87-(37,22)	12 Dec 2001 07:
3	3	6G08807.D	1.	WG109814-01 SOIL BLANK 5G	7,1 S-87-22	12 Dec 2001 08:
4	4	6G08808.D	1.	WG109813-01 8021 STD 20PPB 5G CCLOW	7,1 S-87-(37,22)	12 Dec 2001 08:
5	5	6G08809.D	1.	WG109832-01 8021 STD1 1PPB 5G ✓	7,1 S-87-21,88-05	12 Dec 2001 10:
6	6	6G08810.D	1.	WG109832-01 8021 STD1 1PPB 5G INR	7,1 S-87-21,88-05	12 Dec 2001 10:
7	6	6G08811.D	1.	WG109832-02 8021 STD2 10PPB 5G ✓	7,1 S-87-21,88-05	12 Dec 2001 11:
8	7	6G08812.D	1.	WG109832-03 8021 STD3 20PPB 5G ✓	7,1 S-87-21,88-05	12 Dec 2001 11:
9	8	6G08813.D	1.	WG109832-04 8021 STD4 50PPB 5G ✓	7,1 S-87-21,88-05	12 Dec 2001 12:
10	9	6G08814.D	1.	WG109832-05 8021 STD5 100PPB 5G ✓	7,1 S-87-21,88-05	12 Dec 2001 12:
11	10	6G08815.D	1.	WG109832-06 8021 STD6 200PPB 5G ✓	7,1 S-87-21,88-05	12 Dec 2001 13:
12	11	6G08816.D	1.	WG109832-07 8021 STD7 300PPB 5G ✓	7,1 S-87-21,88-05	12 Dec 2001 13:
13	12	6G08817.D	1.	WG109832-08 ALT SOURCE 20PPB 5G ✓	7,1 S-87-37,88-05	12 Dec 2001 14:
14	1	6G08818.D	1.	WG109894-01 SOIL BLANK 5G ✓	7,1 S-88-05	12 Dec 2001 16:
15	2	6G08819.D	1.	WG109894-02 SOIL LCS 20PPB 5G ✓	7,1 S-87-37,88-05	12 Dec 2001 17:
16	1	6G08820.D	1. ER	WG109894-03 L0112129-03 5G	7,1 S-88-05	12 Dec 2001 17:
17	2	6G08821.D	1. ALL	WG109894-04 L0112129-03 MS 5G	7,1 S-87-37,88-05	12 Dec 2001 18:
18	3	6G08822.D	1.	WG109894-05 L0112129-03 MSD 5G	7,1 S-87-37,88-05	12 Dec 2001 18:
19	4	6G08823.D	5.	L0112129-07 5X 1G	7,5 S-88-05	12 Dec 2001 19:
20	5	6G08824.D	1.	L0112087-04 5G	7,1 S-88-05	12 Dec 2001 19:
21	6	6G08825.D	1.	L0112142-01 5G	7,1 S-88-05	12 Dec 2001 20:
22	7	6G08826.D	1.	L0112142-02 5G	7,1 S-88-05	12 Dec 2001 21:
23	8	6G08827.D	1.	L0112173-12 5G	7,1 S-88-05	12 Dec 2001 21:
24	9	6G08828.D	1.	8021 STD 20PPB 5G	7,1 S-87-37,88-05	12 Dec 2001 22:

Injection Log

Directory: C:\HPCHEM\1\DATA\121401

WG109999

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	6G08855.D	1.	WG109998-01 8021 STD 20PPB 5G	7,1 S-(87-37,88-05)	14 Dec 2001 07:17
2	2	6G08856.D	1.	WG109999-01 SOIL BLANK 5G	7,1 S-88-05	14 Dec 2001 07:49
3	3	6G08857.D	1.	WG109999-02 SOIL LCS 20PPB 5G	7,1 S-(87-37,88-05)	14 Dec 2001 08:22
4	1	6G08858.D	0.96	L0112~~359-01~~ 2 03 B 5.21G 0.96X	7,0.96 S-88-05	14 Dec 2001 09:07
5	2	6G08859.D	1.	5035 METHOD BLANK 5G	7,1 S-88-05	14 Dec 2001 09:40
6	3	6G08860.D	1.	L0112183-01 5G	7,1 S-88-05	14 Dec 2001 10:12
7	4	6G08861.D	1.	L0112183-02 5G	7,1 S-88-05	14 Dec 2001 10:45
8	5	6G08862.D	1.	L0112183-03 5G	7,1 S-88-05	14 Dec 2001 11:18
9	6	6G08863.D	1.	L0112183-04 5G	7,1 S-88-05	14 Dec 2001 11:50
10	7	6G08864.D	1.	L0112183-05 5G	7,1 S-88-05	14 Dec 2001 12:23
11	8	6G08865.D	1.	L0112183-06 5G	7,1 S-88-05	14 Dec 2001 12:55
12	9	6G08866.D	1.	WG109998-02 8021 STD 20PPB 5G	7,1 S-(87-37,88-05)	14 Dec 2001 13:28
13	10	6G08867.D	1.	L0112183-07 5G	7,1 S-88-05	14 Dec 2001 14:18
14	11	6G08868.D	1.	L0112183-08 5G	7,1 S-88-05	14 Dec 2001 14:50
15	12	6G08869.D	1.	L0112183-09 5G	7,1 S-88-05	14 Dec 2001 15:23
16	13	6G08870.D	1.	L0112183-10 5G	7,1 S-88-05	14 Dec 2001 15:56
17	14	6G08871.D	1.	L0112183-11 5G	7,1 S-88-05	14 Dec 2001 16:28
18	15	6G08872.D	1.	L0112183-12 5G	7,1 S-88-05	14 Dec 2001 17:01
19	16	6G08873.D	1.	WG109999-03 L0112183-13 5G	7,1 S-88-05	14 Dec 2001 17:33
20	17	6G08874.D	1.	WG109999-04 L0112183-14 MS 5G	7,1 S-(87-37,88-05)	14 Dec 2001 18:06
21	18	6G08875.D	1.	WG109999-05 L0112183-15 MSD 5G	7,1 S-(87-37,88-05)	14 Dec 2001 18:38
22	19	6G08876.D	1.	WG109998-03 8021 STD 20PPB 5G	7,1 S-(87-37,88-05)	14 Dec 2001 19:11

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0112259
Blank File ID: 12G10420
Date Analyzed: 12/17/01
Time Analyzed: 08:14
Analyst: CBN

Work Group: WG110078
Blank Sample ID: WG110078-01
Instrument ID: HP12
Method: 8021

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG110078-02	12G10421	12/17/01 08:49	
DUP	WG110078-04	12G10423	12/17/01 10:05	
002-CEF46-SB2-S-Q4-01	L0112259-02	12G10424	12/17/01 10:39	

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0112259 Run Date: 12/17/2001 Sample ID: WG110078-01
Instrument ID: HP12 Run Time: 08:14 Method: 8021B
File ID: 12G10420 Analyst: CBN Matrix: Solid
Workgroup (AAB#): WG110078 Units: ug/kg
Contract #: Cal ID: HP12-04-DEC-2001

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
MTBE	50.0	100	50.0	100	ND
Benzene	50.0	100	50.0	100	ND
Toluene	50.0	100	50.0	100	ND
Ethylbenzene	50.0	100	50.0	100	ND
Total xylenes	50.0	300	50.0	100	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	102	47 - 121	PASS

F Analyte concentration between MDL and RDL
* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 12/06/2001
Version 1.1
Report generated 12/21/2001 14:28

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0112259
Instrument ID: HP12
File ID: 12G10421
Workgroup (AAB#): WG110078
Contract #:

Run Date: 12/17/2001
Run Time: 08:49
Analyst: CBN

Sample ID: WG110078-02
Method: 8021B
Matrix: Solid
Units: ug/kg
Cal ID: HP12-04-DEC-2001

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	2000	1770	88.7	64 - 123	
Benzene	2000	1890	94.7	77 - 120	
Toluene	2000	1920	95.8	75 - 120	
Ethylbenzene	2000	1960	98.0	79 - 122	
Total xylenes	6000	5700	95.0	78 - 120	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	102	47 - 121	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 12/06/2001
Version 1.1
Report generated 12/21/2001 14:29

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0112259
Instrument Id: HP12
Workgroup (AAB#): WG110078

Method: 8021
Matrix: SOLID

Sample Numbe	Dilution	Tag	1
L0112259-02	93.8		

Surrogates	Surrogate Limits		
1 - a,a,a-Trifluorotoluene	47	-	121

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 12/07/2001
Version 1.1
Report generated 12/21/2001 14:29

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021 AAB#: WG110078

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
002-CEF46-SB2-S-Q4-01	12-DEC-01	13-DEC-01	17-DEC-01	14	5	17-DEC-01	14	5	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

Calibration Table Report
Method: 8021W.M
Title: Method 8021B Water 12/04/01
Last Calibration: Wed Dec 05 07:15:57 2001

Calibration Files

Compound	1	10	20	50	100	200	300	Avg	%RSD	
	12016236.D	12016237.D	12016238.D	12016239.D	12016240.D	12016241.D	12016242.D			
MTBE	64268.8	61102.1	58962.1	57906.3	55445.3	54249.5	52600.5	57790.7	7.039	
Benzene	326454.0	305077.4	299349.4	293667.2	295358.3	297226.7	286227.4	300480.0	4.261	
TFT	89754.4	100139.1	100170.5	95889.7	99617.9	99244.3	97127.3	97420.5	3.848	
Toluene	295658.4	298241.7	278942.9	268578.0	269481.0	270865.4	261721.4	277641.0	5.091	
Chlorobenzene	285170.1	291105.7	283533.9	277100.5	279414.2	278213.8	269776.7	280616.0	2.418	
Ethylbenzene	240226.4	246345.6	240352.4	234749.6	235715.9	234329.8	225082.9	236686.0	2.803	
m-,p-Xylene	302220.2	300076.9	291431.5	282866.7	282795.8	277851.2	265065.1	286044.0	4.548	
o-Xylene	252405.5	256128.3	248179.3	242222.5	242145.9	238430.1	229476.1	244141.0	3.677	
BFB	225954.9	237324.4	236707.0	233451.2	237119.8	235389.5	229574.7	233646.0	1.864	
1,3-Dichlorobenzene	244673.4	257872.1	253450.7	249843.6	253370.9	230377.6	211509.3	243014.0	6.800	
1,4-Dichlorobenzene	264365.6	262002.1	257310.5	253014.5	255996.5	243559.5	225378.3	251661.0	5.324	
1,2-Dichlorobenzene	481643.8	223632.4	209541.3	198534.2	194643.8	180130.5	165970.5	236300.0	46.465	LR,0.996
BCB	201839.5	224524.7	228588.3	225334.5	229045.3	225243.2	220409.3	222141.0	4.230	

Wed Dec 05 08:16:27 2001

KEMRON ENVIRONMENTAL SERVICES
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L0112259
File ID: 12G10243
ALT ID: WG109269-08
Units: ug/L

Instrument ID: HP12
Run Date: 12/04/2001
Run Time: 15:16
Analyst: CBN
Cal ID: HP12 - 04-DEC-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	20.0	227000	0.0	
1,4-Dichlorobenzene		20	21.6	271000	8.0	
1,3-Dichlorobenzene		20	22.0	268000	10.0	
o-Xylene		20	20.5	251000	2.5	
m-,p-Xylene		40	41.7	298000	4.3	
Ethylbenzene		20	21.3	252000	6.5	
Chlorobenzene		20	20.8	291000	4.0	
Toluene		20	20.7	287000	3.5	
Benzene		20	20.3	305000	1.5	
MTBE		20	20.6	59400	3.0	

KEMRON FORMS - Modified 10/17/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
CONTINUING CALIBRATION REPORT

Login Number: L0112259
File ID: 12G10419
CCV ID: WG110077-01
Units: ug/L

Instrument ID: HP12
Run Date: 12/17/2001
Run Time: 07:30
Analyst: CBN
Cal ID: HP12 - 04-DEC-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	15.4	189000	23.0	*
1,4-Dichlorobenzene		20	19.3	243000	3.5	
1,3-Dichlorobenzene		20	20.0	243000	0.0	
o-Xylene		20	19.2	234000	4.0	
m-,p-Xylene		40	39.0	279000	2.5	
Ethylbenzene		20	20.0	237000	0.0	
Chlorobenzene		20	19.3	271000	3.5	
Toluene		20	19.9	277000	0.5	
Benzene		20	19.2	288000	4.0	
MTBE		20	19.9	57400	0.5	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
CONTINUING CALIBRATION REPORT

Login Number: L0112259
File ID: 12G10430
CCV ID: WG110077-02
Units: ug/L

Instrument ID: HP12
Run Date: 12/17/2001
Run Time: 14:08
Analyst: CBN
Cal ID: HP12 - 04-DEC-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	17.3	204000	13.5	
1,4-Dichlorobenzene		20	19.6	247000	2.0	
1,3-Dichlorobenzene		20	20.4	248000	2.0	
o-Xylene		20	19.6	239000	2.0	
m-,p-Xylene		40	39.4	282000	1.5	
Ethylbenzene		20	20.0	237000	0.0	
Chlorobenzene		20	19.3	271000	3.5	
Toluene		20	26.4	366000	32.0	*
Benzene		20	19.1	287000	4.5	
MTBE		20	19.3	55800	3.5	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

Injection Log

Directory: C:\HPCHEM\2\DATA\120401

WG109269

ANALYST:

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12g10235.d	1.	WG109269-01 8021 STD1 1PPB 5ML	1,1 S-87-(37,22)	4 Dec 2001 1
2	2	12g10236.d	1.	WG109269-01 8021 STD1 1PPB 5ML ✓	1,1 S-87-(37,22)	4 Dec 2001 1
3	5	12g10237.d	1.	WG109269-02 8021 STD2 10PPB... ✓	1,1 S-87-(37,22)	4 Dec 2001 1
4	6	12g10238.d	1.	WG109269-03 8021 STD3 20PPB... ✓	1,1 S-87-(37,22)	4 Dec 2001 1
5	7	12g10239.d	1.	WG109269-04 8021 STD4 50PPB... ✓	1,1 S-87-(37,22)	4 Dec 2001 1
6	11	12g10240.d	1.	WG109269-05 8021 STD5 100PP... ✓	1,1 S-87-(37,22)	4 Dec 2001 1
7	12	12g10241.d	1.	WG109269-06 8021 STD6 200PP... ✓	1,1 S-87-(37,22)	4 Dec 2001 1
8	13	12g10242.d	1.	WG109269-07 8021 STD7 300PP... ✓	1,1 S-87-(37,22)	4 Dec 2001 1
9	14	12g10243.d	1.	WG109269-08 ALT SOURCE 20PP... ✓	1,1 S-87-(37,22)	4 Dec 2001 1

Injection Log

Directory: C:\HPCHEM\2\DATA\121701

WG110078

ANALYST: C

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	11	12g10419.d	1.	WG110077-01 8021 STD 20PPB 5ML ✓	1,1 S-88-(04,05)	17 Dec 2001 0
2	12	12g10420.d	100.	WG110078-01 EXT BLANK 5G/10ML ✓	7,100 S-88-05	17 Dec 2001 0
3	13	12g10421.d	100.	WG110078-02 EXT LCS 5G/10ML ✓	7,100 S-88-(04,05)	17 Dec 2001 0
4	11	12g10422.d	100.	WG110078-03 L0112262-01 5G/... DNR	7,100 S-88-05	17 Dec 2001 0
5	12	12g10423.d	100.	WG110078-04 L0112262-01 DUP... ⊥	7,100 S-88-05	17 Dec 2001 1
6	13	12g10424.d	93.8	L0112259-02 5.33G/10ML 93.8X MTBE ONLY BENZ	7,93.8 S-88-05	17 Dec 2001 1
7	21	12g10425.d	100.	L0112262-02 5G/10ML 100X SS CONF	7,100 S-88-05	17 Dec 2001 1
8	22	12g10426.d	1000.	L0112262-03 5G/10ML 1000X DNR	7,1000 S-88-05	17 Dec 2001 1
9	23	12g10427.d	1.	RINSE 5ML	7,1 S-88-05	17 Dec 2001 1
10	24	12g10428.d	1000.	L0112262-11 5G/10ML 1000X	7,1000 S-88-05	17 Dec 2001 1
11	25	12g10429.d	100.	L0112262-13 5G/10ML 100X ⊥	7,100 S-88-05	17 Dec 2001 1
12	5	12g10430.d	1.	WG110077-02 8021 STD 20PPB 5ML CC HIGH (TOL.)	1,1 S-88-(04,05)	17 Dec 2001 1

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0112259
Blank File ID: 11G12890
Date Analyzed: 12/17/01
Time Analyzed: 15:44
Analyst: CBN

Work Group: WG110130
Blank Sample ID: WG110130-01
Instrument ID: HP11
Method: 8021

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG110130-02	11G12891	12/17/01 16:19	
DUP	WG110130-04	11G12893	12/17/01 17:28	
002-CEF46-SB2-S-Q4-01	L0112259-02	11G12894	12/17/01 18:03	M1

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0112259 Run Date: 12/17/2001 Sample ID: WG110130-01
Instrument ID: HP11 Run Time: 15:44 Method: 8021B
File ID: 11G12890 Analyst: CBN Matrix: Solid
Workgroup (AAB#): WG110130 Units: ug/kg
Contract #: Cal ID: HP11-13-DEC-2001

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
MTBE	50.0	100	50.0	100	ND
Benzene	50.0	100	50.0	100	ND
Toluene	50.0	100	50.0	100	ND
Ethylbenzene	50.0	100	50.0	100	ND
Total xylenes	50.0	300	50.0	100	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	88.8	47 - 121	PASS

F Analyte concentration between MDL and RDL
* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 12/06/2001
Version 1.1
Report generated 12/21/2001 14:28

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0112259
Instrument ID: HP11
File ID: 11G12891
Workgroup (AAB#): WG110130
Contract #:

Run Date: 12/17/2001
Run Time: 16:19
Analyst: CBN

Sample ID: WG110130-02
Method: 8021B
Matrix: Solid
Units: ug/kg
Cal ID: HP11-13-DEC-2001

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	2000	1850	92.4	64 - 123	
Benzene	2000	1870	93.7	77 - 120	
Toluene	2000	1870	93.6	75 - 120	
Ethylbenzene	2000	1890	94.5	79 - 122	
Total xylenes	6000	5570	92.9	78 - 120	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	94.1	47 - 121	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 12/06/2001
Version 1.1
Report generated 12/21/2001 14:29

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0112259
Instrument Id: HP11
Workgroup (AAB#): WG110130

Method: 8021
Matrix: SOLID

Sample Numbe	Dilution	Tag	1
L0112259-02	9380	M1	

Surrogates	Surrogate Limits		
1 - a,a,a-Trifluorotoluene	47	-	121

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 12/07/2001
Version 1.1
Report generated 12/21/2001 14:29

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021 AAB#: WG110130

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
002-CEF46-SB2-S-Q4-01	12-DEC-01	13-DEC-01	17-DEC-01	14	5	17-DEC-01	14	5	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

Calibration Table Report
Method: 8021W.M
Title: Method 8021B- WATER 12/13/01
Last Calibration: Thu Dec 13 13:25:15 2001

Calibration Files

Compound	1 11G12822.D	10 11G12823.D	20 11G12824.D	50 11G12825.D	100 11G12826.D	200 11G12827.D	300 11G12828.D	Avg	%RSD
MTBE	61628.2	60981.2	59414.5	62474.3	64034.0	62521.1	62711.9	61966.5	2.375
Benzene	147603.7	159810.5	159151.4	158266.7	161749.8	161826.2	157879.2	158041.0	3.072
TFT	43510.6	49401.8	49398.3	49787.6	49971.5	49545.5	48808.5	48632.0	4.704
Toluene	146715.8	151626.9	152542.4	154573.9	150923.4	151646.0	147988.2	150860.0	1.780
Chlorobenzene	141357.4	158279.1	157855.4	159708.4	162554.5	162565.5	160856.5	157597.0	4.696
Ethylbenzene	128153.4	137969.2	136422.0	135450.5	136319.1	135776.1	133907.3	134857.0	2.370
m-,p-Xylene	163153.6	173051.2	166291.6	161297.2	161711.6	159891.0	157122.2	163217.0	3.167
o-Xylene	135093.0	148190.7	144198.2	140977.7	141690.2	141372.7	139156.2	141526.0	2.869
BFB	116287.7	133620.0	137285.8	142724.6	145859.4	142880.2	143407.7	137438.0	7.432
1,3-Dichlorobenzene	129688.0	135946.1	138116.6	138597.0	143828.5	146382.9	143765.5	139475.0	4.097
1,4-Dichlorobenzene	141174.8	150984.1	148049.5	147259.4	148698.3	150030.7	147395.9	147656.0	2.145
1,2-Dichlorobenzene	117537.2	128548.9	121765.2	126882.5	127836.6	124686.6	121878.9	124162.0	3.209
BCB	110104.6	122939.5	131780.9	138656.9	141296.2	139517.6	140859.7	132165.0	8.884

Thu Dec 13 13:30:34 2001

KEMRON ENVIRONMENTAL SERVICES
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L0112259
File ID: 11G12830
ALT ID: WG109931-08
Units: ug/L

Instrument ID: HP11
Run Date: 12/13/2001
Run Time: 14:07
Analyst: CBN
Cal ID: HP11 - 13-DEC-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	21.2	132000	6.0	
1,4-Dichlorobenzene		20	20.4	150000	2.0	
1,3-Dichlorobenzene		20	19.8	138000	1.0	
o-Xylene		20	20.1	142000	0.5	
m-,p-Xylene		40	41.3	169000	3.3	
Ethylbenzene		20	20.8	141000	4.0	
Chlorobenzene		20	20.0	157000	0.0	
Toluene		20	20.3	153000	1.5	
Benzene		20	20.3	160000	1.5	
MTBE		20	18.6	57700	7.0	

KEMRON ENVIRONMENTAL SERVICES
CONTINUING CALIBRATION REPORT

Login Number: L0112259
File ID: 11G12889
CCV ID: WG110070-02
Units: ug/L

Instrument ID: HP11
Run Date: 12/17/2001
Run Time: 14:26
Analyst: CBN
Cal ID: HP11 - 13-DEC-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	20.5	127000	2.5	
1,4-Dichlorobenzene		20	19.5	144000	2.5	
1,3-Dichlorobenzene		20	19.2	134000	4.0	
o-Xylene		20	19.8	140000	1.0	
m-,p-Xylene		40	40.3	164000	0.8	
Ethylbenzene		20	20.4	138000	2.0	
Chlorobenzene		20	19.5	154000	2.5	
Toluene		20	20.1	151000	0.5	
Benzene		20	20.1	159000	0.5	
MTBE		20	20.5	63700	2.5	

KEMRON ENVIRONMENTAL SERVICES
CONTINUING CALIBRATION REPORT

Login Number: L0112259
File ID: 11G12900
CCV ID: WG110070-03
Units: ug/L

Instrument ID: HP11
Run Date: 12/17/2001
Run Time: 21:33
Analyst: CBN
Cal ID: HP11 - 13-DEC-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	19.0	118000	5.0	
1,4-Dichlorobenzene		20	21.0	155000	5.0	
1,3-Dichlorobenzene		20	26.8	187000	34.0	*
o-Xylene		20	19.0	135000	5.0	
m-,p-Xylene		40	38.2	156000	4.5	
Ethylbenzene		20	19.9	134000	0.5	
Chlorobenzene		20	19.3	152000	3.5	
Toluene		20	19.3	146000	3.5	
Benzene		20	19.6	155000	2.0	
MTBE		20	5.22	16200	73.9	*

Injection Log

Directory: C:\HPCHEM\1\DATA\121301

WG 109919
1 31
68

ANALYST: CE

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g12818.d	1.	WG109919-01 8021 STD 20PPB 5ML CCCMS	1,1 S-87-(37,22)	13 Dec 2001 07:
2	2	11g12819.d	1.	WG109919-01 8021 STD 20PPB 5ML ⊥	1,1 S-87-(37,22)	13 Dec 2001 07:
3	3	11g12821.d	1.	WG109931-01 1PPB 8021 WATER... DNR	1,1 S-87-21 S-88-05	13 Dec 2001 08:
4	4	11g12822.d	1.	WG109931-01 1PPB 8021 WATER...✓	1,1 S-87-21 S-88-05	13 Dec 2001 09:
5	5	11g12823.d	1.	WG109931-02 10PPB 8021 WATE...✓	1,1 S-87-21 S-88-05	13 Dec 2001 10:
6	6	11g12824.d	1.	WG109931-03 20PPB 8021 WATE... ✓	1,1 S-87-21 S-88-05	13 Dec 2001 10:
7	7	11g12825.d	1.	WG109931-04 50PPB 8021 WATE...✓	1,1 S-87-21 S-88-05	13 Dec 2001 11:
8	8	11g12826.d	1.	WG109931-05 100PPB 8021 WAT... ✓	1,1 S-87-21 S-88-05	13 Dec 2001 11:
9	9	11g12827.d	1.	WG109931-06 200PPB 8021 WAT... ✓	1,1 S-87-21 S-88-05	13 Dec 2001 12:
10	10	11g12828.d	1.	WG109931-07 300PPB 8021 WAT...✓	1,1 S-87-21 S-88-05	13 Dec 2001 12:
11	11	11g12829.d	1.	SYSTEM BLANK ✓	1,1 S-87-21 S-88-05	13 Dec 2001 13:
12	11	11g12830.d	1.	WG109931-08 8021 ALT SOURCE...✓	1,1 S-87-37 S-88-05	13 Dec 2001 14:
13	1	11g12831.d	1.	WG109968-01 WATER BLANK 5ML ✓	1,1 S-87-23	13 Dec 2001 16:
14	2	11g12832.d	1.	WG109968-02 WATER LCS 20PPB... ✓	1,1 S-87-(37,23)	13 Dec 2001 17:
15	3	11g12833.d	1.	L0112203-02 A 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 17:
16	4	11g12834.d	1.	L0112252-02 A 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 18:
17	5	11g12835.d	1.	L0112259-04 A 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 18:
18	6	11g12836.d	1.	L0112259-05 A 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 19:
19	7	11g12837.d	1.	L0112173-55 A 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 19:
20	8	11g12838.d	1.	L0112173-56 A 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 20:
21	9	11g12839.d	1.	L0112173-57 A 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 21:
22	10	11g12840.d	1.	L0112183-16 A 5ML pH<2 ✓ RR (TOLUENE)	1,1 S-87-23	13 Dec 2001 21:
23	11	11g12841.d	1.	WG109931-09 8021 STD 20PPB 5ML✓	1,1 S-87-(37,23)	13 Dec 2001 22:
24	12	11g12842.d	20.	L0112173-53 A 5ML pH<2 20X RR STRT	1,20 S-87-23	13 Dec 2001 22:
25	13	11g12843.d	1.	L0112180-03 B 5ML pH<2✓	1,1 S-87-23	13 Dec 2001 23:
26	14	11g12844.d	1.	L0112180-04 B 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 23:
27	15	11g12845.d	1.	WG109968-03 L0112253-01 A 5... ✓	1,1 S-87-23	14 Dec 2001 00:
28	16	11g12846.d	1.	WG109968-04 L0112253-01 MS ...✓	1,1 S-87-(37,23)	14 Dec 2001 01:
29	17	11g12847.d	1.	WG109968-05 L0112253-01 MSD... ✓	1,1 S-87-(37,23)	14 Dec 2001 01:
30	18	11g12848.d	1.	RINSE 5G ✓	1,1 S-87-23	14 Dec 2001 02:
31	19	11g12849.d	1.	RINSE 5G ✓	1,1 S-87-23	14 Dec 2001 02:
32	20	11g12850.d	1.	WG109931-10 8021 STD 20PPB 5ML ✓	1,1 S-87-(37,23)	14 Dec 2001 03:

REANALYSIS	FILE #
L0112183-16	
L0112173-53	

Directory: C:\HPCHEM\1\DATA\121701

Injection Log

WG110070
1 130

Line	Vial	FileName	Multiplier	SampleName	Misc Info	ANALYS Injected
1	1	11g12879.d	1.	WG110070-01 8021 STD 20PPB 5ML CC HIGH	1,1 S-87-(37,23)	17 Dec 20
2	2	11g12880.d	1.	WG110070-01 8021 STD 20PPB 5ML ✓	1,1 S-87-(37,23)	17 Dec 20
3	2	11g12881.d	1.	WG110071-01 WATER BLANK 5ML ✓	1,1 S-87-23	17 Dec 20
4	3	11g12882.d	1.	WG110070-02 WATER LCS 20PPB...✓	1,1 S-87-(37,23)	17 Dec 20
5	1	11g12883.d	1.	L0112155-02 A 5ML pH<2 ✓	1,1 S-87-23	17 Dec 20
6	2	11g12884.d	1.	L0112289-09 A 5ML pH<2 ✓	1,1 S-87-23	17 Dec 20
7	3	11g12885.d	1000.	WG110071-03 L0112289-08 A 5...✓	1,1000 S-87-23	17 Dec 20
8	4	11g12886.d	1000.	WG110071-04 L0112289-08 MS ...✓	1,1000 S-87-23	17 Dec 20
9	5	11g12887.d	1000.	WG110071-05 L0112289-08 MSD... ✓	1,1000 S-87-23	17 Dec 20
10	6	11g12888.d	1.	L0112302-01 A 5ML ✓	1,1 S-87-23	17 Dec 20
11	7	11g12889.d	1.	WG110070-021 8021 STD 20PPB... ✓	1,1 S-87-(37,23)	17 Dec 20
12	1	11g12890.d	100.	WG110130-01 EXT BLANK 5ML ✓	7,100 S-87-23 EXT...	17 Dec 20
13	2	11g12891.d	100.	WG110130-02 EXT LCS 5ML ✓	7,100 S-87-(37,23...	17 Dec 20
14	3	11g12892.d	100.	WG110130-03 L0112262-01 100... ✓	7,100 S-87-23 EXT...	17 Dec 20
15	4	11g12893.d	100.	WG110130-04 L0112262-01 DUP...✓	7,100 S-87-23 EXT...	17 Dec 20
16	5	11g12894.d	9381.	L0112259-02 C 10000X 5ML ✓	7,9381 S-87-23 EX...	17 Dec 20
17	6	11g12895.d	100.	L0112262-02 100X 5ML ✓ HIGH SSS	7,100 S-87-23 EXT...	17 Dec 20
18	7	11g12896.d	1000.	L0112262-03 1000X 5ML ✓	7,1000 S-87-23 EX...	17 Dec 20
19	8	11g12897.d	1000.	L0112262-10 1000X 5ML ✓	7,1000 S-87-23 EX...	17 Dec 20
20	9	11g12898.d	1000.	L0112262-11 1000X 5ML ✓	7,1000 S-87-23 EX...	17 Dec 20
21	10	11g12899.d	100.	L0112262-13 100X 5ML ✓	7,100 S-87-23 EXT...	17 Dec 20
22	11	11g12900.d	1.	WG110070-03 8021 STD 20PPB 5ML ✓	1,1 S-87-(37,23)	17 Dec 20
23	12	11g12901.d	100.	L0112262-15 100X 5ML RE CCV LOW	1,100 S-87-23 EXT...	17 Dec 20
24	13	11g12902.d	1.	WG110070-04 8021 STD 20PPB 5ML CC LOW	1,1 S-87-(37,23)	17 Dec 20

REANALYSIS FILE #
L0112262-02 12G10425

VOA - GC

Date: 12/13 **Analyst:** CBN **Method:** (8021) 8015 602

Instrument: HP6 **Work Group:** WG 109922

	Analyst
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	NA
Second Source standard % Difference	✓
Continuing Calibration / Check Standards	✓
Project / Client Specific Requirements	✓
Special Standards	NA
Blanks	✓
TCL's	✓
Surrogates	✓
LCS (Laboratory Control Sample)	✓
Recoveries	✓
Surrogates	✓
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	✓
Dilutions Run	NA
Reruns	✓
Excel Spreadsheets	✓
Case Narrative	✓
Narrative Summary	NA
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: GS 12/14/01

Secondary Reviewers Initials & Date Checked: CBN 12/14/01

_____ • Check for compliance with Method and project-specific requirements
_____ • Check the completeness of the reported information
_____ • Check the information for the report narrative
_____ • Check the reasonableness of results

Supervisory Review Initials & Date Checked: _____

Comments: _____

✓ = Checked & OK
NA = Not Applicable

VOA - GC

Date: 12/18/01 **Analyst:** CBN **Method:** (8021) 8015 602

Instrument: HP11 **Work Group:** WG 109968

	Analyst
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	NA
Second Source standard % Difference	✓
Continuing Calibration / Check Standards	✓
Project / Client Specific Requirements	✓
Special Standards	NA
Blanks	✓
TCL's	✓
Surrogates	✓
LCS (Laboratory Control Sample)	✓
Recoveries	✓
Surrogates	✓
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	✓
Dilutions Run	NA
Reruns	✓
Excel Spreadsheets	✓
Case Narrative	✓
Narrative Summary	NA
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: JBS 12/17/01

Secondary Reviewers Initials & Date Checked: CBN 12/17/01

_____ • Check for compliance with Method and project-specific requirements
_____ • Check the completeness of the reported information
_____ • Check the information for the report narrative
_____ • Check the reasonableness of results

Supervisory Review Initials & Date Checked: _____

Comments: _____

✓ = Checked & OK
NA = Not Applicable

VOA - GC

Date: 12/14/01 **Analyst:** CBN **Method:** (8021) 8015 602

Instrument: HP6 **Work Group:** WG 109999

	Analyst
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	NA
Second Source standard % Difference	✓
Continuing Calibration / Check Standards	✓
Project / Client Specific Requirements	✓
Special Standards	NA
Blanks	✓
TCL's	✓
Surrogates	✓
LCS (Laboratory Control Sample)	✓
Recoveries	✓
Surrogates	✓
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	✓
Dilutions Run	NA
Reruns	I
Excel Spreadsheets	✓
Case Narrative	✓
Narrative Summary	NA
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: JS 12/18/01

Secondary Reviewers Initials & Date Checked: CBN 12/18/01

_____ • Check for compliance with Method and project-specific requirements
_____ • Check the completeness of the reported information
_____ • Check the information for the report narrative
_____ • Check the reasonableness of results

Supervisory Review Initials & Date Checked: _____

Comments: _____

✓ = Checked & OK
NA = Not Applicable

VOA - GC

Date: 12/17/01 **Analyst:** CBN **Method:** (8021) 8015 602

Instrument: HPII **Work Group:** WG 110130

	Analyst
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	NA
Second Source standard % Difference	✓
Continuing Calibration / Check Standards	✓
Project / Client Specific Requirements	✓
Special Standards	NA
Blanks	✓
TCL's	✓
Surrogates	✓
LCS (Laboratory Control Sample)	✓
Recoveries	✓
Surrogates	✓
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	✓
Dilutions Run	✓
Reruns	✓
Excel Spreadsheets	✓
Case Narrative	✓
Narrative Summary	✓
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: CBN 12/18/01

Secondary Reviewers Initials & Date Checked: GLS 12/18/01

_____ • Check for compliance with Method and project-specific requirements
_____ • Check the completeness of the reported information
_____ • Check the information for the report narrative
_____ • Check the reasonableness of results

Supervisory Review Initials & Date Checked: _____

Comments: _____

✓ = Checked & OK
NA = Not Applicable

VOA - GC

Date: 12/17/01 **Analyst:** CBN **Method:** 8021 8015 602

Instrument: HP12 **Work Group:** WG 110078

	Analyst
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	NA
Second Source standard % Difference	✓
Continuing Calibration / Check Standards	✓
Project / Client Specific Requirements	✓
Special Standards	NA
Blanks	✓
TCL's	✓
Surrogates	✓
LCS (Laboratory Control Sample)	✓
Recoveries	✓
Surrogates	✓
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	✓
Dilutions Run	✓
Reruns	✓
Excel Spreadsheets	✓
Case Narrative	✓
Narrative Summary	✓
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: CBN 12/18/01

Secondary Reviewers Initials & Date Checked: GJS 12/18/01

- ✓ • Check for compliance with Method and project-specific requirements
- ✓ • Check the completeness of the reported information
- ✓ • Check the information for the report narrative
- ✓ • Check the reasonableness of results

Supervisory Review Initials & Date Checked: [illegible] 12/18/01

Comments:

✓ = Checked & OK
NA = Not Applicable

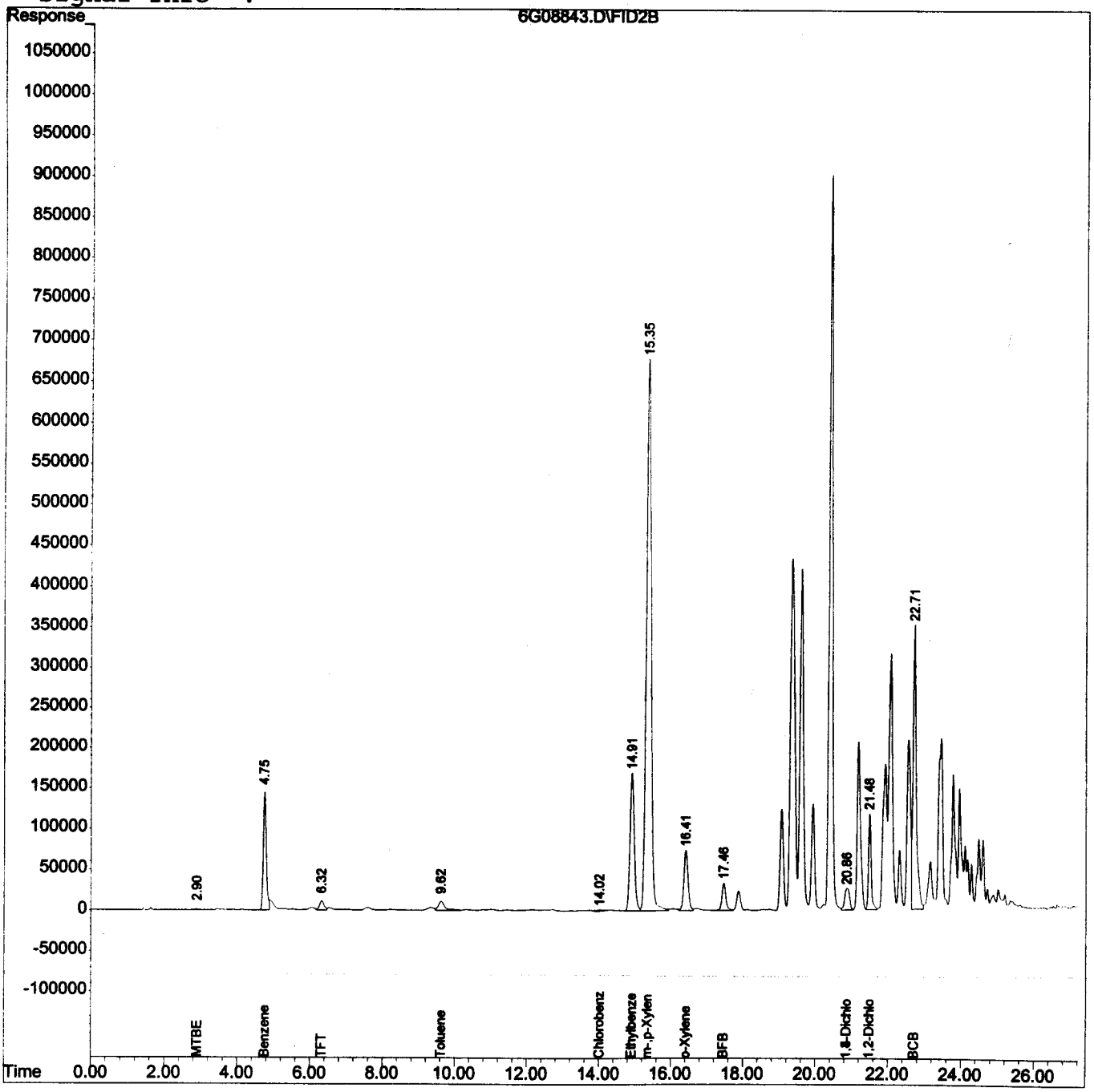
2.1.3.2 Sample Data

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121301\6G08843.D Vial: 3
Acq On : 13 Dec 2001 15:31 Operator: CBN
Sample : L0112259-01 A 5.42G 0.92X Inst : HP6
Misc : 7,0.92 S-88-05 Multiplr: 0.92
IntFile : autoint1.e
Quant Time: Dec 13 15:58 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\6G08843.D
Acq On : 13 Dec 2001 15:31
Sample : L0112259-01 A 5.42G 0.92X
Misc : 7,0.92 S-88-05
IntFile : autoint1.e
Quant Time: Dec 13 15:58 2001 Quant Results File: 8021S.RES

Vial: 3
Operator: CBN
Inst : HP6
Multiplr: 0.92

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	6.32	994808	22.4054 UG/KG
Spiked Amount 30.000	Range 47 - 121	Recovery =	74.68%
9) S BFB	17.46	2578793	23.9387 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	79.80%
13) S BCB	22.71	21773334	216.5100 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	721.70%#
Target Compounds			
1) TM MTBE	2.91	102810	6.9854 UG/KG
2) TM Benzene	4.75	8270669	57.6730 UG/KG
4) TM Toluene	9.62	1479490	10.9915 UG/KG
5) TM Chlorobenzene	14.02	163133	~~1.1929 UG/KG~~
6) TM Ethylbenzene	14.91	13896652	111.6387 UG/KG
7) TM m-,p-Xylene	15.35	62415844	408.8862 UG/KG
8) TM o-Xylene	16.41	5931373	45.5738 UG/KG
10) TM 1,3-Dichlorobenzene	20.86	2450027	~~19~~ 1197 UG/KG
11) TM 1,4-Dichlorobenzene	20.86	2450027	~~19.1197 UG~~/KG
12) TM 1,2-Dichlorobenzene	21.49	5954791	~~63.4355 UG/~~KG

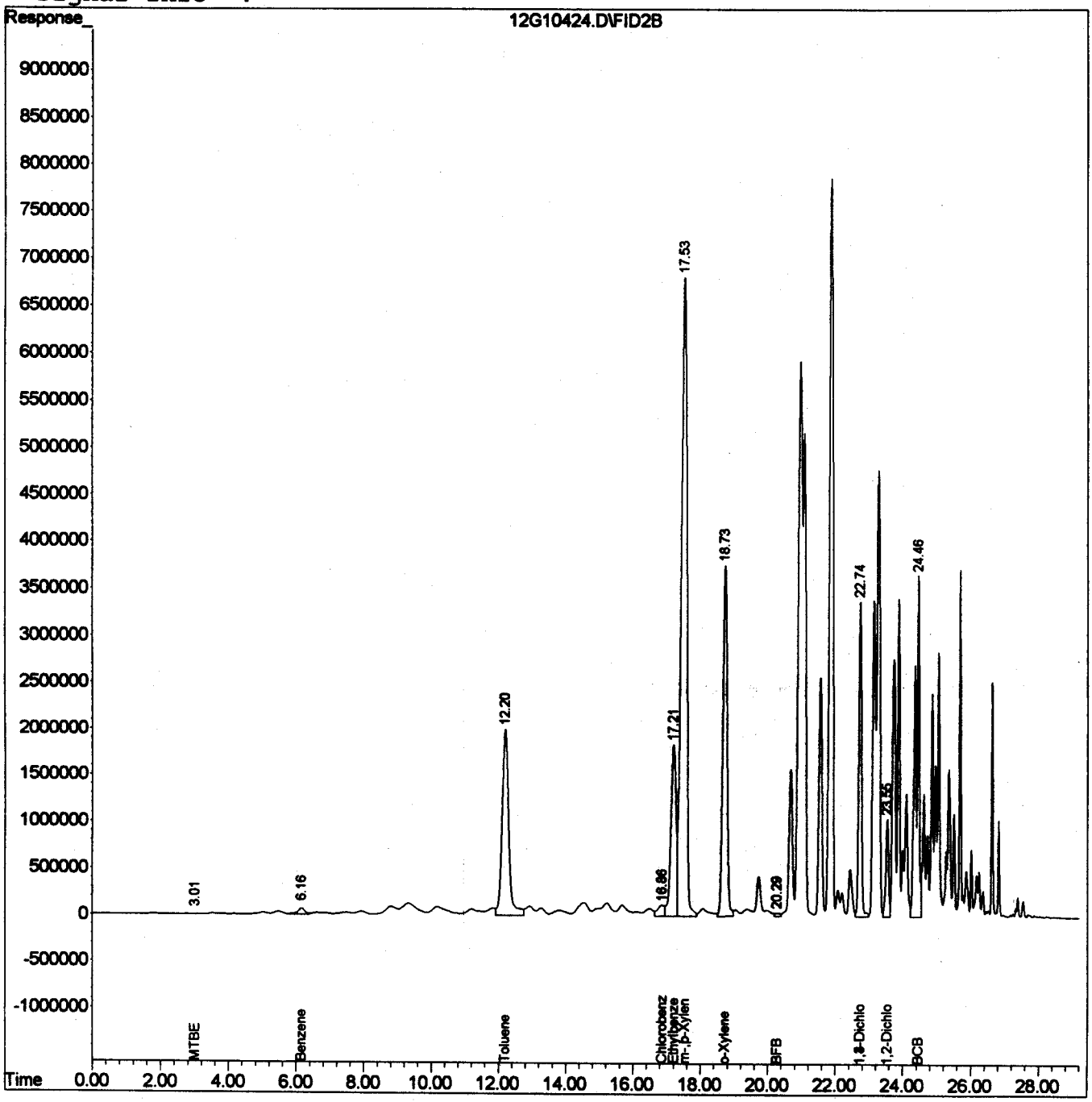
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\121701\12G10424.D Vial: 13
Acq On : 17 Dec 2001 10:39 am Operator: CBN
Sample : L0112259-02 5.33G/10ML 93.8X Inst : HP12
Misc : 7,93.8 S-88-05 Multiplr: 93.80
IntFile : autoint1.e
Quant Time: Dec 17 11:09 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 08:16:09 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\121701\12G10424.D Vial: 13
Acq On : 17 Dec 2001 10:39 am Operator: CBN
Sample : L0112259-02 5.33G/10ML 93.8X Inst : HP12
Misc : 7,93.8 S-88-05 Multiplr: 93.80
IntFile : autoint1.e
Quant Time: Dec 17 11:09 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 08:16:09 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	0.00	0	N.D. UG/L
Spiked Amount 30.0000 Range 70 - 130		Recovery =	0.00%#
9) S BFB	20.29	4023039	17.2185 UG/L
Spiked Amount 30.0000		Recovery =	57.39%
13) S BCB	24.45	274171905	1234.2265 UG/L
Spiked Amount 30.0000 Range 37 - 137		Recovery =	4114.09%#
Target Compounds			
1) TM MTBE	3.01	163162	~~264.8287 UG/L~~ NL
2) TM Benzene	6.16	10068225	3142.9692 UG/L 12/18/01
4) TM Toluene	12.20	271591408	91756.0830 UG/L I
5) TM Chlorobenzene	16.86	15781621	5275.2298 UG/L
6) TM Ethylbenzene	17.21	191502033	75893.3052 UG/L I
7) TM m-,p-Xylene	17.53	789965426	259046.7787 UG/L I
8) TM o-Xylene	18.73	332355439	127692.3101 UG/L I
10) TM 1,3-Dichlorobenzene	22.74	191272274	73828.4392 UG/L
11) TM 1,4-Dichlorobenzene	22.74	191272274	71291.6960 UG/L
12) TM 1,2-Dichlorobenzene	23.54	58372943	32123.1939 UG/L

RR @ 10000x

(f)=RT Delta > 1/2 Window (m)=manual int.

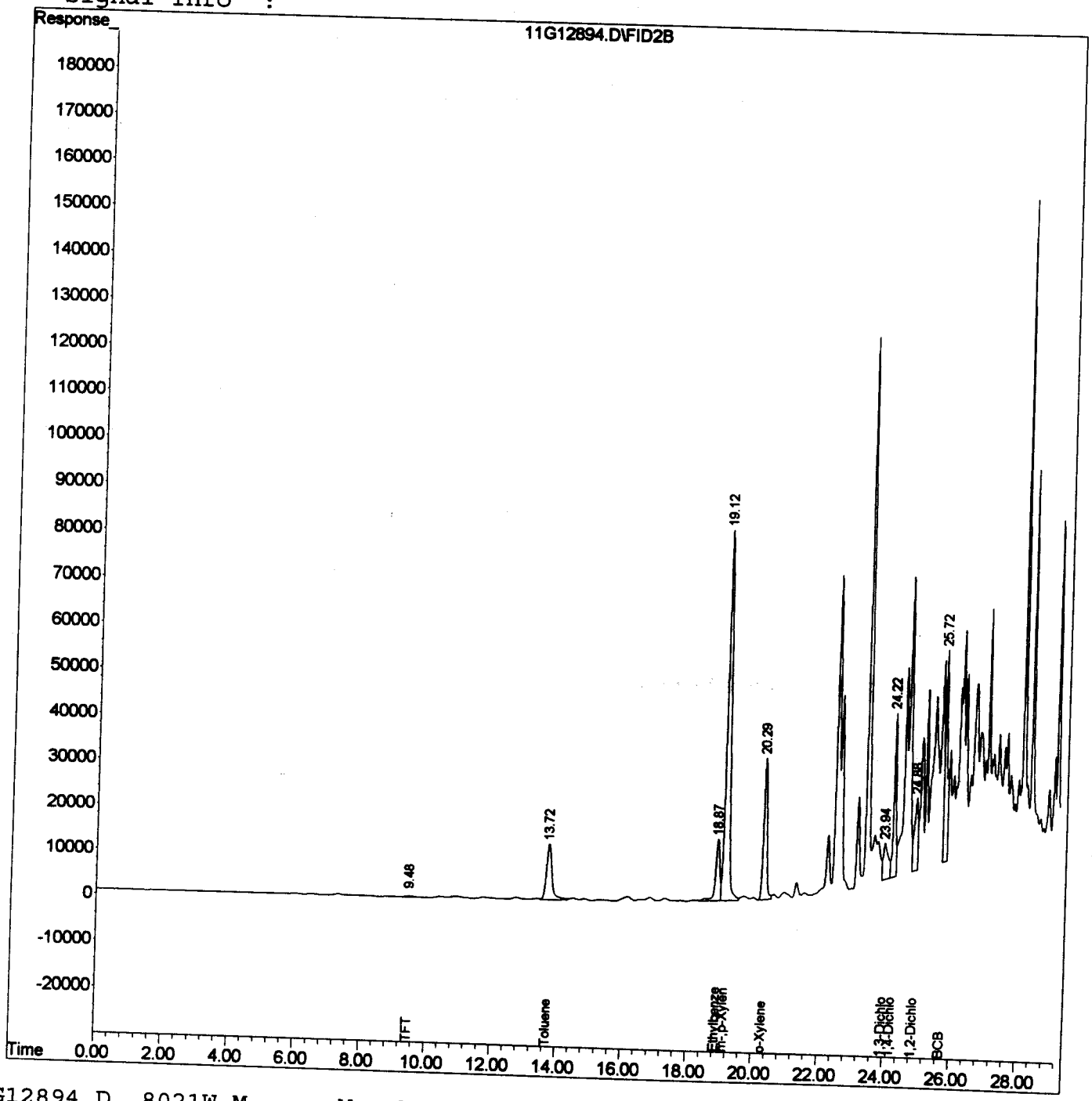
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121701\11G12894.D
Acq On : 17 Dec 2001 6:03 pm
Sample : L0112259-02 C 10000X 5ML
Misc : 7,9381 S-87-23 EXT 12/14/01
IntFile : autoint1.e
Quant Time: Dec 17 18:32 2001 Quant Results File: 8021W.RES

Vial: 5
Operator: CBN
Inst : HP11
Multiplr: 9381.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 12/13/01
Last Update : Thu Dec 13 13:25:15 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



11G12894.D 8021W.M Mon Dec 17 18:33:00 2001

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121701\11G12894.D
Acq On : 17 Dec 2001 6:03 pm
Sample : L0112259-02 C 10000X 5ML
Misc : 7,9381 S-87-23 EXT 12/14/01
IntFile : autoint1.e
Quant Time: Dec 17 18:32 2001

Vial: 5
Operator: CBN
Inst : HP11
Multiplr: 9381.00

Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 12/13/01
Last Update : Thu Dec 13 13:25:15 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.48	43427	0.8930 UG/L
Spiked Amount 30.0000 Range 70 - 130		Recovery =	2.98%# DL
9) S BFB	0.00	0	N.D. UG/L
Spiked Amount 30.0000 Range 70 - 130		Recovery =	0.00%#
13) S BCB	25.72	2428892	18.3777 UG/L
Spiked Amount 30.0000 Range 37 - 137		Recovery =	61.26%
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/L
2) TM Benzene	7.32 ✓	32875	1951.4043 UG/L
4) TM Toluene	13.72	1437516	89390.0199 UG/L
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	18.87 ✓	1192160	82929.8354 UG/L
7) TM m-,p-Xylene	19.12 ✓	6542676	376044.6735 UG/L
8) TM o-Xylene	20.29 ✓	2222360	147308.8588 UG/L
10) T 1,3-Dichlorobenzene	23.95	829000	~~55758.0503 UG/L~~
11) T 1,4-Dichlorobenzene	24.22	1757105	~~111633.7433 UG~~/L
12) T 1,2-Dichlorobenzene	24.88	1193395	~~90166.1763 UG~~/L

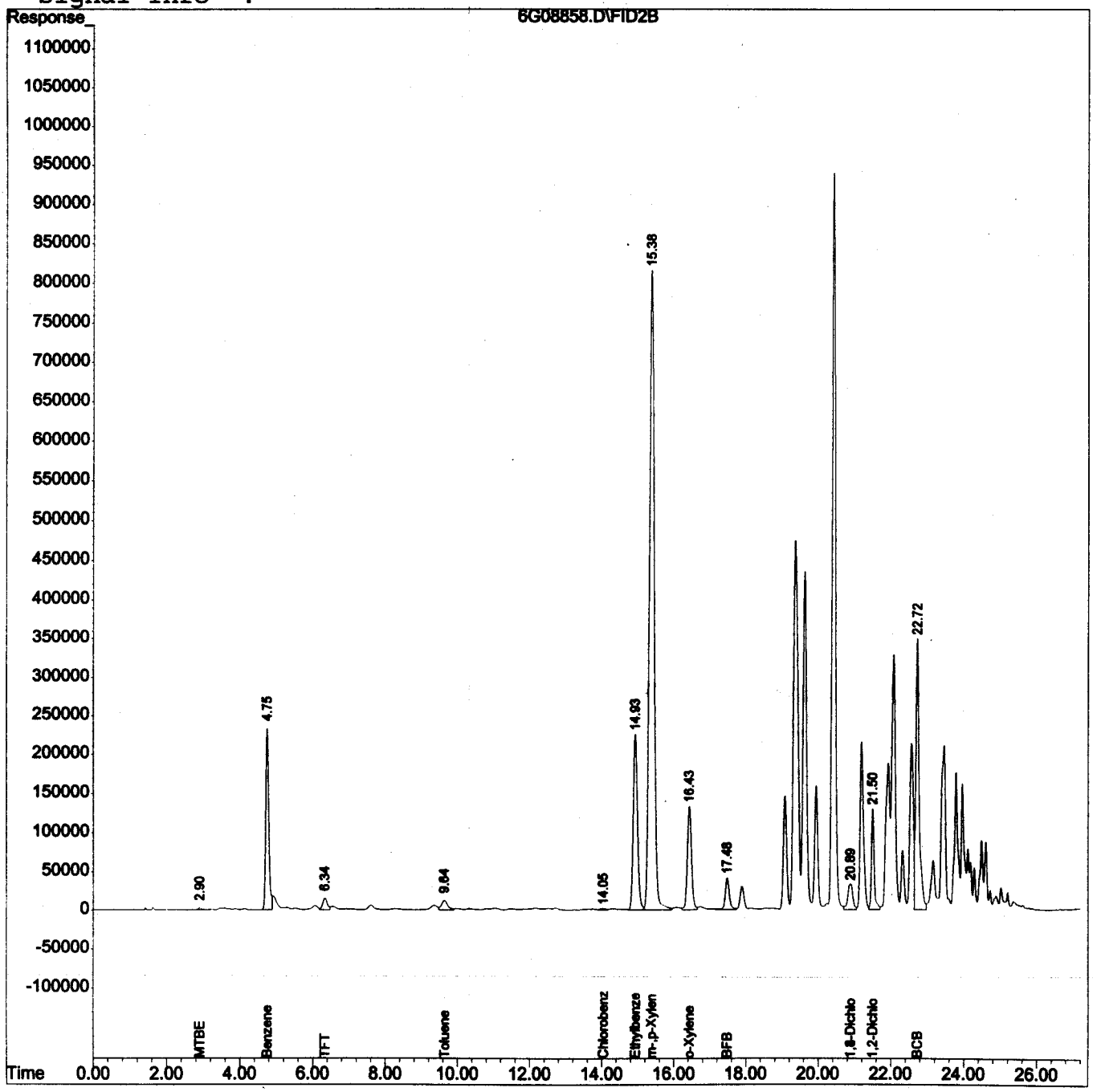
(f)=RT Delta > 1/2 Window
(m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121401\6G08858.D Vial: 1
Acq On : 14 Dec 2001 9:07 Operator: CBN
Sample : L0112259-03 B 5.21G 0.96X Inst : HP6
Misc : 7,0.96 S-88-05 Multiplr: 0.96
IntFile : autoint1.e
Quant Time: Dec 14 9:34 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121401\6G08858.D Vial: 1
Acq On : 14 Dec 2001 9:07 Operator: CBN
Sample : L0112259-03 B 5.21G 0.96X Inst : HP6
Misc : 7,0.96 S-88-05 Multiplr: 0.96
IntFile : autoint1.e
Quant Time: Dec 14 9:34 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	6.34	1329675	29.9474 UG/KG
Spiked Amount 30.000	Range 47 - 121	Recovery =	99.82% ✓
9) S BFB	17.48	3280457	30.4522 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	101.51%
13) S BCB	22.72	22631648	225.0450 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	750.15%#
Target Compounds			
1) TM MTBE	2.91 ✓	149649	10.6100 UG/KG
2) TM Benzene	4.76 ✓	13365606	97.2532 UG/KG
4) TM Toluene	9.64 ✓	1511782	11.7198 UG/KG
5) TM Chlorobenzene	14.04	260709	~~1.9893 UG~~/KG
6) TM Ethylbenzene	14.93 ✓	18373810	154.0235 UG/KG
7) TM m-,p-Xylene	15.38 ✓	75294939	514.7031 UG/KG
8) TM o-Xylene	16.43 ✓	10768225	86.3352 UG/KG
10) TM 1,3-Dichlorobenzene	20.88	3274237	~~26.6627 UG~~/KG
11) TM 1,4-Dichlorobenzene	20.88	3274237	~~26.6627 UG~~/KG
12) TM 1,2-Dichlorobenzene	21.50	6842746	~~76.0641 UG~~/KG

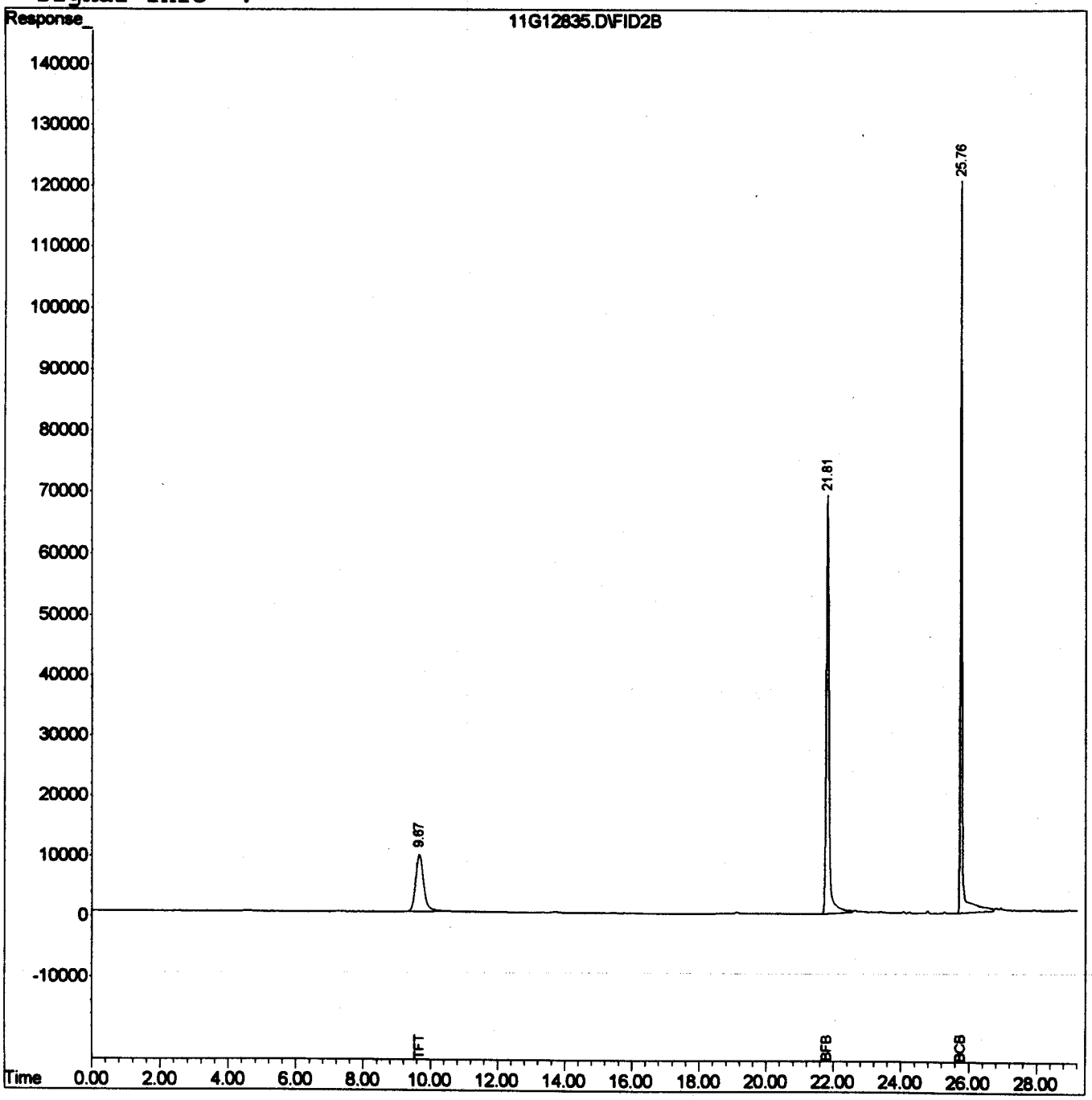
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\11G12835.D Vial: 5
Acq On : 13 Dec 2001 6:45 pm Operator: CBN
Sample : L0112259-04 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-87-23 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 19:14 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 12/13/01
Last Update : Thu Dec 13 13:25:15 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\11G12835.D Vial: 5
Acq On : 13 Dec 2001 6:45 pm Operator: CBN
Sample : L0112259-04 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-87-23 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 19:14 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 12/13/01
Last Update : Thu Dec 13 13:25:15 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.67	1555621	31.9876 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 106.63%
9) S BFB	21.81	4113405	29.9292 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 99.76%
13) S BCB	25.76	4219255	31.9241 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 106.41%
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/L
2) TM Benzene	0.00	0	N.D. UG/L
4) TM Toluene	0.00	0	N.D. UG/L
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	0.00	0	N.D. UG/L
7) TM m-,p-Xylene	19.13	20359	<MDL UG/L
8) TM o-Xylene	0.00	0	N.D. UG/L
10) T 1,3-Dichlorobenzene	24.07	9980	<MDL UG/L
11) T 1,4-Dichlorobenzene	24.25	8899	<MDL UG/L
12) T 1,2-Dichlorobenzene	24.78	18690	<MDL UG/L

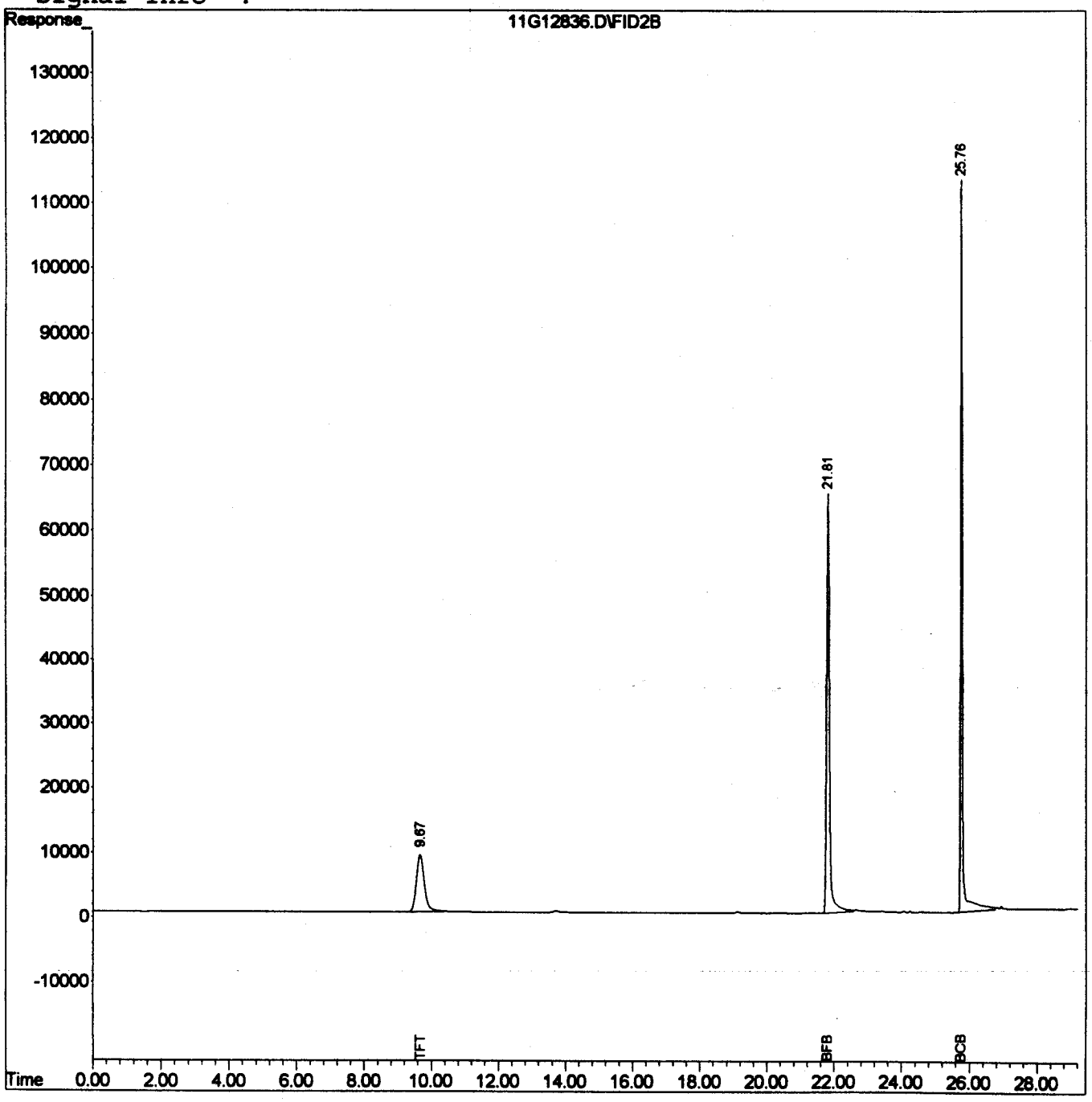
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\11G12836.D Vial: 6
Acq On : 13 Dec 2001 7:19 pm Operator: CBN
Sample : L0112259-05 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-87-23 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 19:48 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 12/13/01
Last Update : Thu Dec 13 13:25:15 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\11G12836.D Vial: 6
Acq On : 13 Dec 2001 7:19 pm Operator: CBN
Sample : L0112259-05 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-87-23 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 19:48 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 12/13/01
Last Update : Thu Dec 13 13:25:15 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.67	1452989	29.8772 UG/L ✓
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 99.59%
9) S BFB	21.81	3862830	28.1060 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 93.69%
13) S BCB	25.76	3963705	29.9906 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 99.97%
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/L
2) TM Benzene	0.00	0	N.D. UG/L
4) TM Toluene	13.72	22667	<MDL UG/L
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	0.00	0	N.D. UG/L
7) TM m-,p-Xylene	0.00	0	N.D. UG/L
8) TM o-Xylene	0.00	0	N.D. UG/L
10) T 1,3-Dichlorobenzene	24.07	8911	<MDL UG/L
11) T 1,4-Dichlorobenzene	24.07	8911	<MDL UG/L
12) T 1,2-Dichlorobenzene	0.00	0	N.D. UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

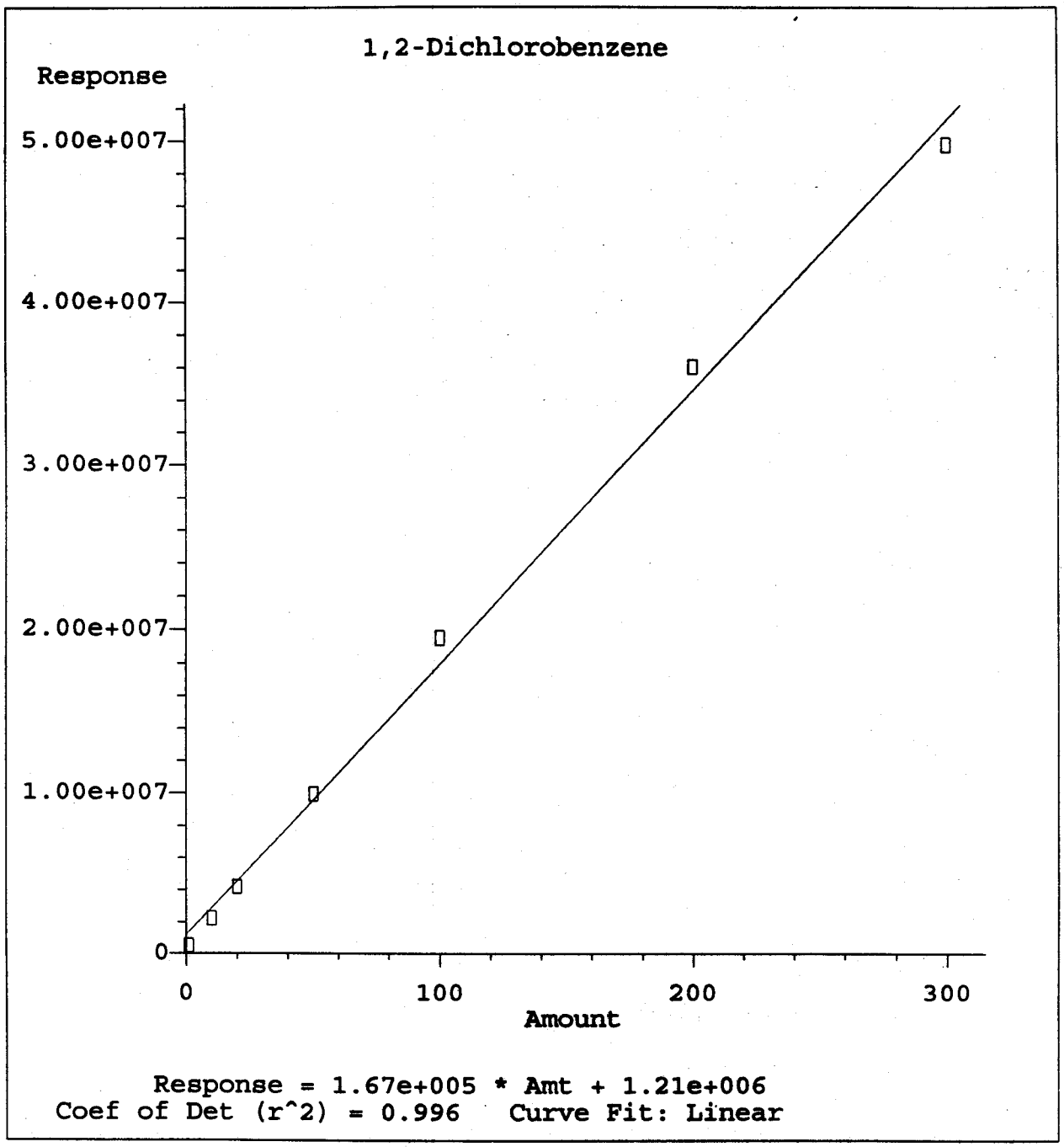
2.1.3.3 Standards Data

Calibration Table Report
Method: 8021W.M
Title: Method 8021B Water 12/04/01
Last Calibration: Wed Dec 05 07:15:57 2001

Calibration Files

Compound	1 1301[illegible].D	10 1301[illegible]7.D	20 1301[illegible].D	50 1301[illegible].D	100 1301[illegible].D	200 1301[illegible]1.D	300 1301[illegible]2.D	Avg	%RSD	
MTBE	64268.8	61102.1	58962.1	57906.3	55445.3	54249.5	52600.5	57790.7	7.039	
Benzene	326454.0	305077.4	299349.4	293667.2	295358.3	297226.7	286227.4	300480.0	4.261	
TFT	89754.4	100139.1	100170.5	95889.7	99617.9	99244.3	97127.3	97420.5	3.848	
Toluene	295658.4	298241.7	278942.9	268578.0	269481.0	270865.4	261721.4	277641.0	5.091	
Chlorobenzene	285170.1	291105.7	283533.9	277100.5	279414.2	278213.8	269776.7	280616.0	2.418	
Ethylbenzene	240226.4	246345.6	240352.4	234749.6	235715.9	234329.8	225082.9	236686.0	2.803	
m-,p-Xylene	302220.2	300076.9	291431.5	282866.7	282795.8	277851.2	265065.1	286044.0	4.548	
o-Xylene	252405.5	256128.3	248179.3	242222.5	242145.9	238430.1	229476.1	244141.0	3.677	
BFB	225954.9	237324.4	236707.0	233451.2	237119.8	235389.5	229574.7	233646.0	1.864	
1,3-Dichlorobenzene	244673.4	257872.1	253450.7	249843.6	253370.9	230377.6	211509.3	243014.0	6.800	
1,4-Dichlorobenzene	264365.6	262002.1	257310.5	253014.5	255996.5	243559.5	225378.3	251661.0	5.324	
1,2-Dichlorobenzene	481643.8	223632.4	209541.3	198534.2	194643.8	180130.5	165970.5	236300.0	46.465	LR,0.996
BCB	201839.5	224524.7	228588.3	225334.5	229045.3	225243.2	220409.3	222141.0	4.230	

Wed Dec 05 08:16:27 2001



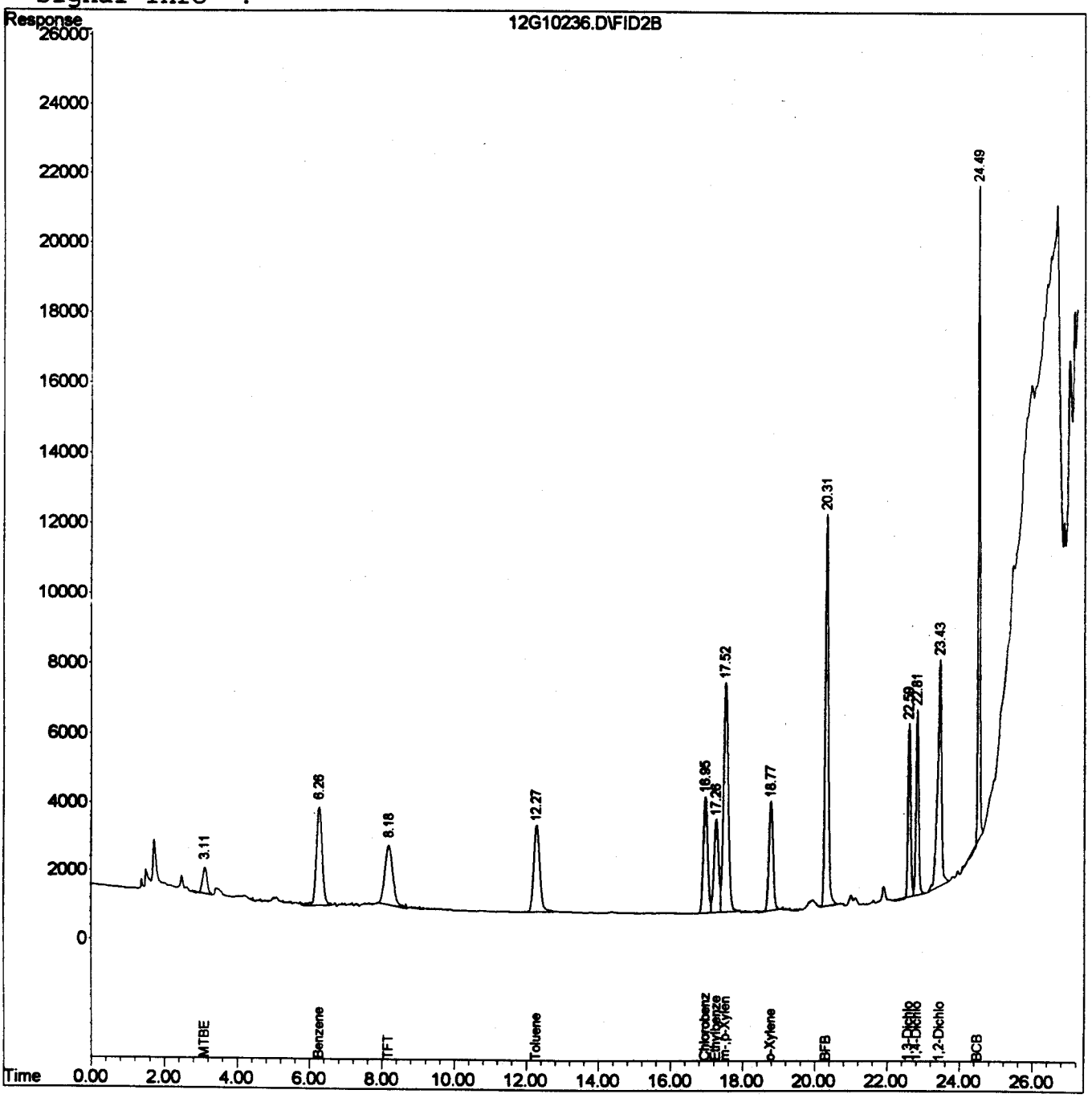
Method Name: C:\HPCHEM\2\METHODS\8021W.M
Calibration Table Last Updated: Wed Dec 05 07:15:57 2001

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\120401\12G10236.D Vial: 2
Acq On : 4 Dec 2001 11:31 Operator: CBN
Sample : WG109269-01 8021 STD1 1PPB 5ML Inst : HP12
Misc : 1,1 S-87-(37,22) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 5 7:12 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 07:11:52 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\120401\12G10236.D Vial: 2
Acq On : 4 Dec 2001 11:31 Operator: CBN
Sample : WG109269-01 8021 STD1 1PPB 5ML Inst : HP12
Misc : 1,1 S-87-(37,22) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 5 7:12 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 07:11:52 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.18	269263	2.7639 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 9.21%#			
9) S BFB	20.31	677865	2.9012 UG/L
Spiked Amount 30.000 Recovery = 9.67%			
13) S BCB	24.49	605519	2.7258 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 9.09%#			
Target Compounds			
1) TM MTBE	3.11	64269	1.1121 UG/L
2) TM Benzene	6.26	326454	1.0864 UG/L
4) TM Toluene	12.28	295658	1.0649 UG/L
5) TM Chlorobenzene	16.96	285170	1.0162 UG/L
6) TM Ethylbenzene	17.26	240226	1.0150 UG/L
7) TM m-,p-Xylene	17.52	604440	2.1131 UG/L
8) TM o-Xylene	18.77	252405	1.0339 UG/L
10) TM 1,3-Dichlorobenzene	22.59	244673	1.0068 UG/L
11) TM 1,4-Dichlorobenzene	22.81	264366	1.0879 UG/L
12) TM 1,2-Dichlorobenzene	23.43	481644	2.0383 UG/L

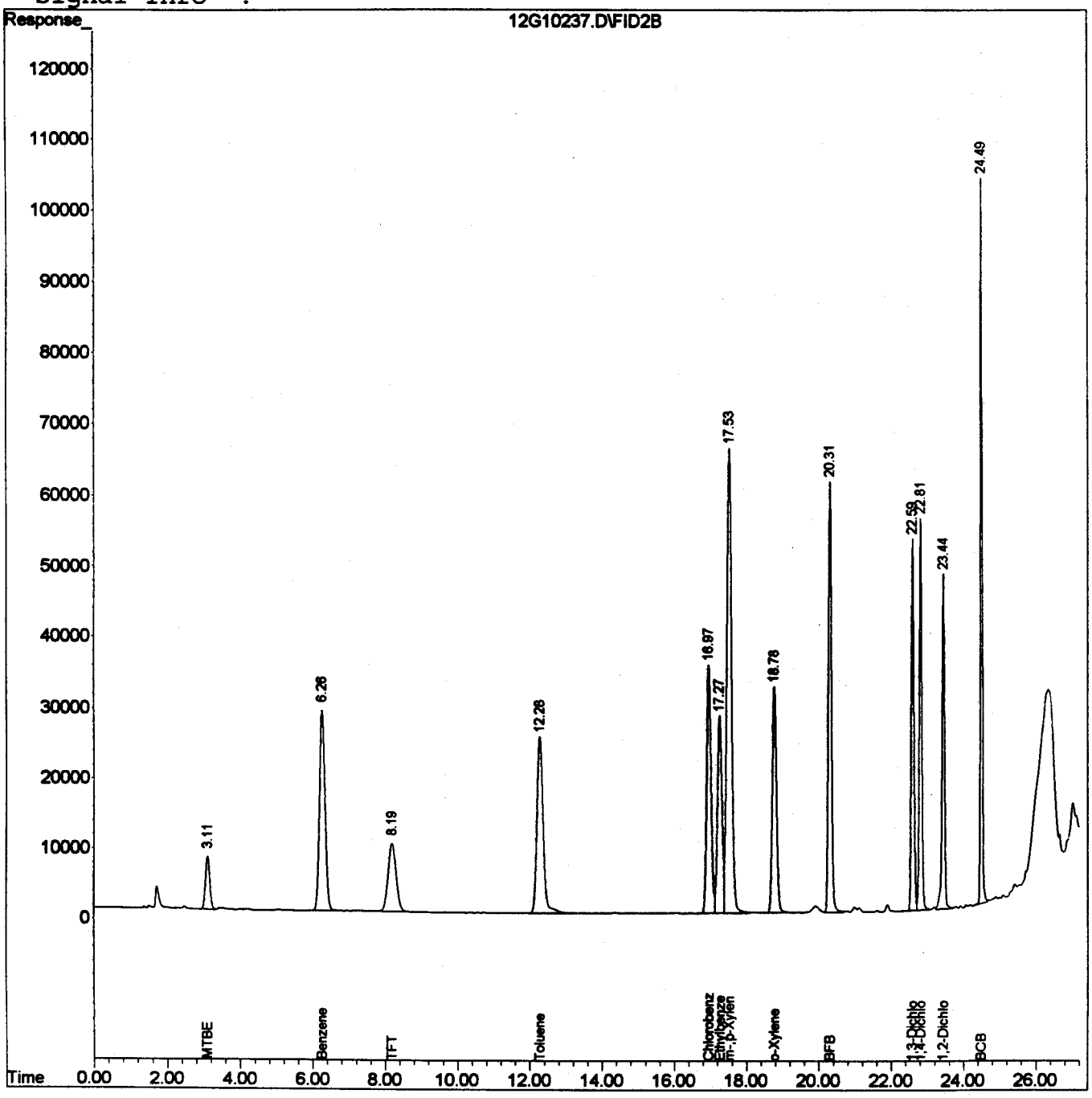
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\120401\12G10237.D Vial: 5
Acq On : 4 Dec 2001 12:03 Operator: CBN
Sample : WG109269-02 8021 STD2 10PPB 5ML Inst : HP12
Misc : 1,1 S-87-(37,22) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 5 7:13 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 07:11:52 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\120401\12G10237.D Vial: 5
Acq On : 4 Dec 2001 12:03 Operator: CBN
Sample : WG109269-02 8021 STD2 10PPB 5ML Inst : HP12
Misc : 1,1 S-87-(37,22) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 5 7:13 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 07:11:52 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

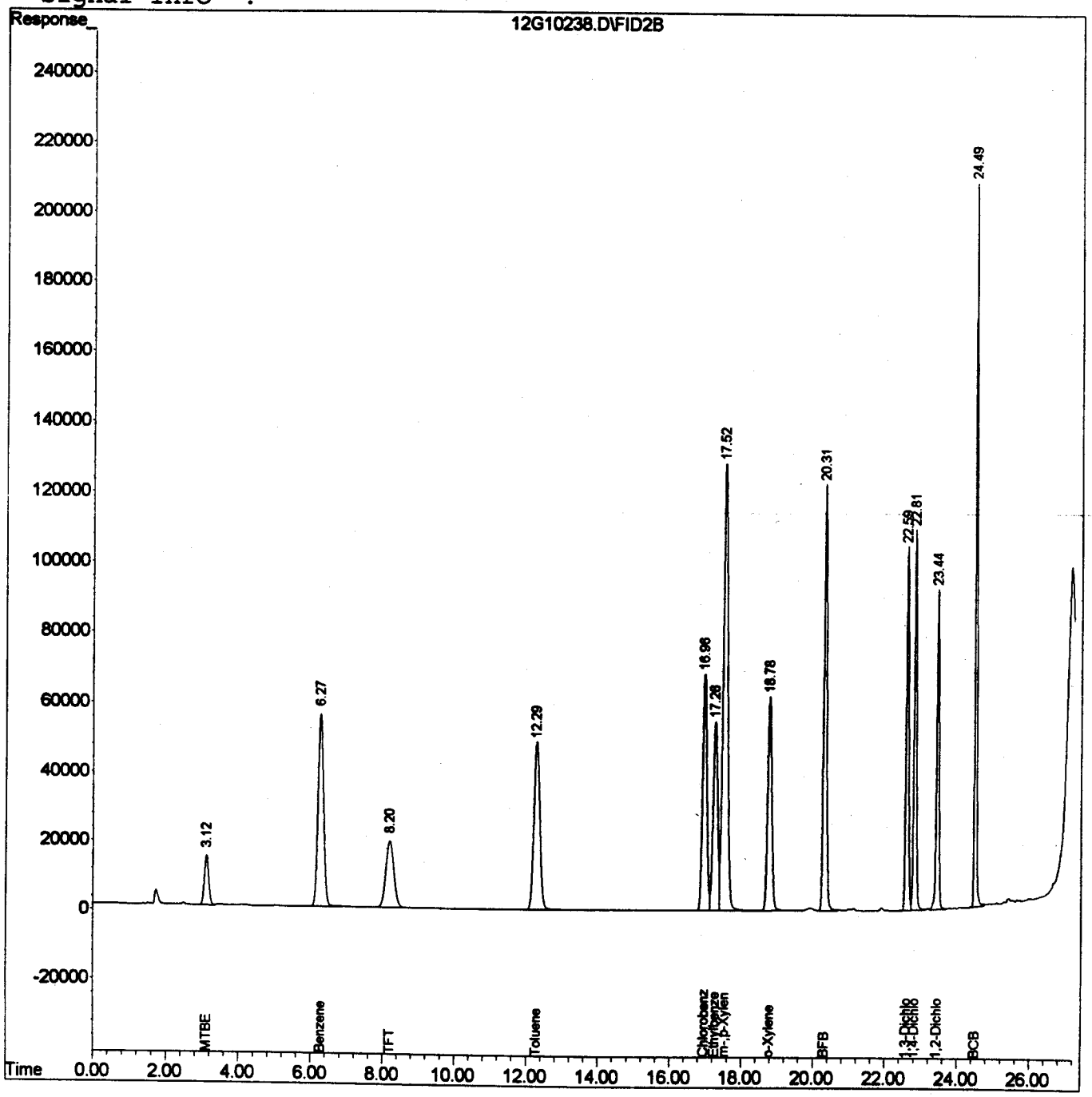
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.19	1502087	15.4186 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	51.40%#
9) S BFB	20.32	3559866	15.2362 UG/L
Spiked Amount 30.000		Recovery =	50.79%
13) S BCB	24.49	3367870	15.1610 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	50.54%
Target Compounds			
1) TM MTBE	3.11	611021	10.5730 UG/L
2) TM Benzene	6.26	3050774	10.1530 UG/L
4) TM Toluene	12.28	2982417	10.7420 UG/L
5) TM Chlorobenzene	16.97	2911057	10.3738 UG/L
6) TM Ethylbenzene	17.27	2463456	10.4081 UG/L
7) TM m-,p-Xylene	17.53	6001538	20.9812 UG/L
8) TM o-Xylene	18.78	2561283	10.4910 UG/L
10) TM 1,3-Dichlorobenzene	22.60	2578721	10.6114 UG/L
11) TM 1,4-Dichlorobenzene	22.81	2620021	10.7814 UG/L
12) TM 1,2-Dichlorobenzene	23.44	2236324	9.4639 UG/L

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\120401\12G10238.D Vial: 6
Acq On : 4 Dec 2001 12:35 Operator: CBN
Sample : WG109269-03 8021 STD3 20PPB 5ML Inst : HP12
Misc : 1,1 S-87-(37,22) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 5 7:13 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 07:11:52 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\120401\12G10238.D Vial: 6
Acq On : 4 Dec 2001 12:35 Operator: CBN
Sample : WG109269-03 8021 STD3 20PPB 5ML Inst : HP12
Misc : 1,1 S-87-(37,22) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 5 7:13 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 07:11:52 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.20	3005115	30.8469 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery = 102.82%	
9) S BFB	20.31	7101209	30.3930 UG/L
Spiked Amount 30.000		Recovery = 101.31%	
13) S BCB	24.49	6857649	30.8708 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 102.90%	
Target Compounds			
1) TM MTBE	3.12	1179243	20.4054 UG/L
2) TM Benzene	6.27	5986988	19.9247 UG/L
4) TM Toluene	12.29	5578859	20.0938 UG/L
5) TM Chlorobenzene	16.96	5670677	20.2079 UG/L
6) TM Ethylbenzene	17.26	4807048	20.3098 UG/L
7) TM m-,p-Xylene	17.53	11657260	40.7534 UG/L
8) TM o-Xylene	18.78	4963585	20.3308 UG/L
10) TM 1,3-Dichlorobenzene	22.59	5069015	20.8589 UG/L
11) TM 1,4-Dichlorobenzene	22.81	5146209	21.1766 UG/L
12) TM 1,2-Dichlorobenzene	23.44	4190826	17.7352 UG/L

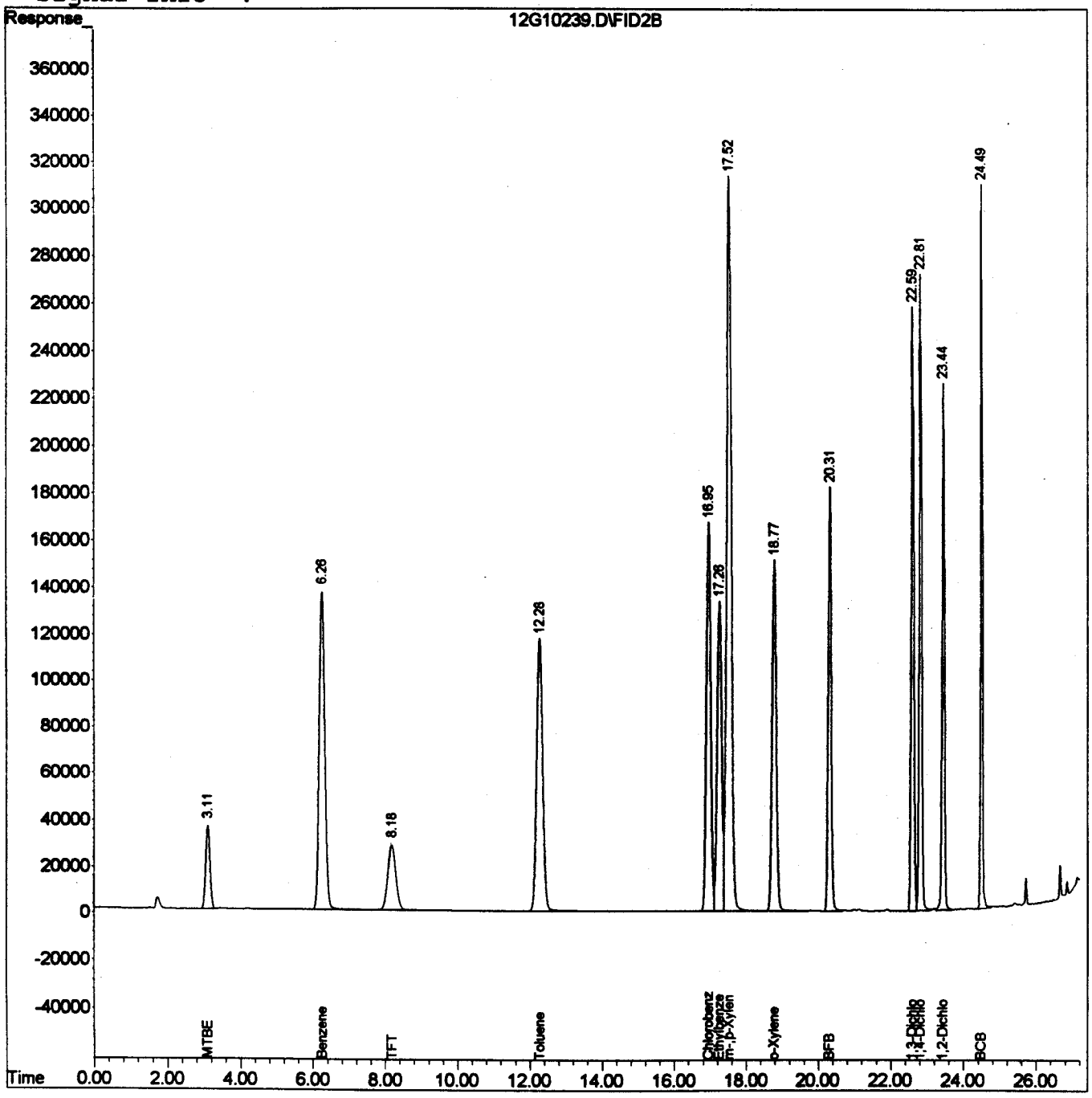
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\120401\12G10239.D Vial: 7
Acq On : 4 Dec 2001 13:07 Operator: CBN
Sample : WG109269-04 8021 STD4 50PPB 5ML Inst : HP12
Misc : 1,1 S-87-(37,22) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 5 7:13 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 07:11:52 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\120401\12G10239.D Vial: 7
Acq On : 4 Dec 2001 13:07 Operator: CBN
Sample : WG109269-04 8021 STD4 50PPB 5ML Inst : HP12
Misc : 1,1 S-87-(37,22) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 5 7:13 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 07:11:52 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.18	4315035	44.2929 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery = 147.64%#	
9) S BFB	20.31	10505306	44.9625 UG/L
Spiked Amount 30.000		Recovery = 149.88%	
13) S BCB	24.49	10140055	45.6470 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 152.16%#	
Target Compounds			
1) TM MTBE	3.11	2895316	50.1001 UG/L
2) TM Benzene	6.26	14683359	48.8663 UG/L
4) TM Toluene	12.28	13428899	48.3678 UG/L
5) TM Chlorobenzene	16.96	13855027	49.3735 UG/L
6) TM Ethylbenzene	17.26	11737481	49.5909 UG/L
7) TM m-,p-Xylene	17.52	28286673	98.8893 UG/L
8) TM o-Xylene	18.78	12111126	49.6071 UG/L
10) TM 1,3-Dichlorobenzene	22.59	12492178	51.4052 UG/L
11) TM 1,4-Dichlorobenzene	22.81	12650726	52.0576 UG/L
12) TM 1,2-Dichlorobenzene	23.44	9926712	42.0090 UG/L

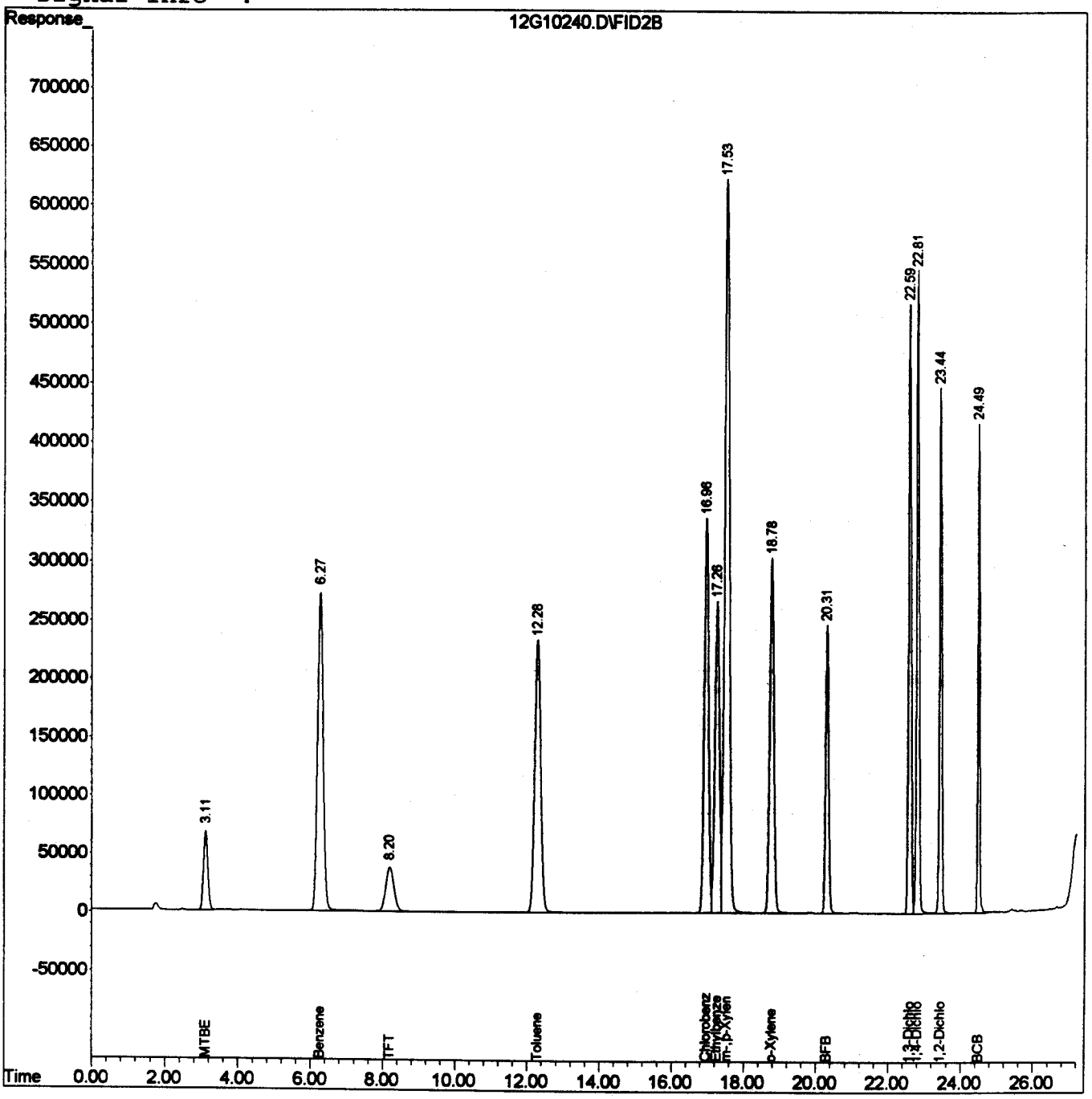
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\120401\12G10240.D Vial: 11
Acq On : 4 Dec 2001 13:39 Operator: CBN
Sample : WG109269-05 8021 STD5 100PPB 5ML Inst : HP12
Misc : 1,1 S-87-(37,22) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 5 7:13 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 07:11:52 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\120401\12G10240.D Vial: 11
Acq On : 4 Dec 2001 13:39 Operator: CBN
Sample : WG109269-05 8021 STD5 100PPB 5ML Inst : HP12
Misc : 1,1 S-87-(37,22) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 5 7:13 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 07:11:52 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

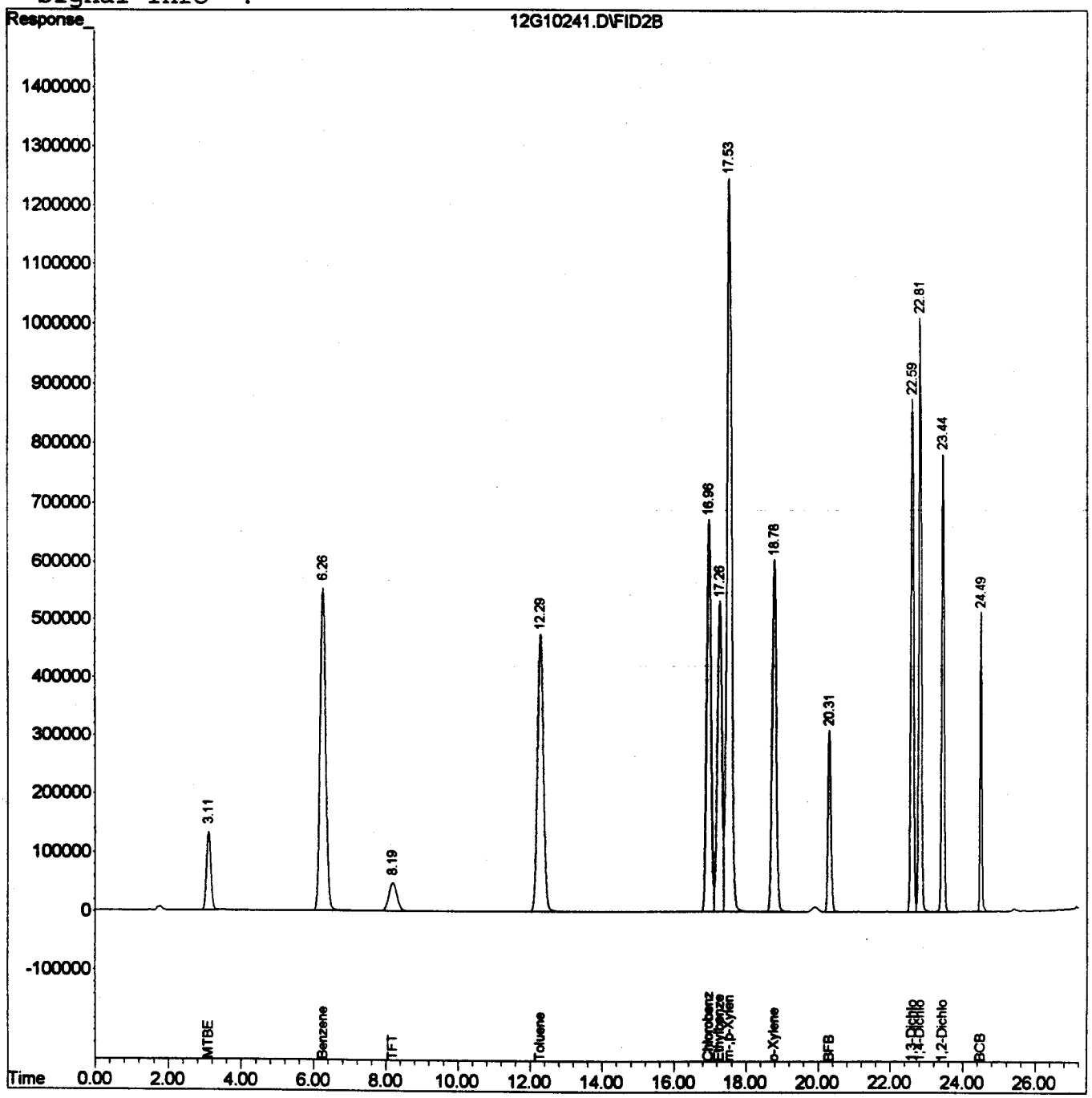
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.20	5977074	61.3534 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 204.51%#			
9) S BFB	20.31	14227186	60.8921 UG/L
Spiked Amount 30.000 Recovery = 202.97%			
13) S BCB	24.49	13742716	61.8649 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 206.22%#			
Target Compounds			
1) TM MTBE	3.11	5544525	95.9416 UG/L
2) TM Benzene	6.27	29535828	98.2955 UG/L
4) TM Toluene	12.29	26948097	97.0609 UG/L
5) TM Chlorobenzene	16.96	27941417	99.5716 UG/L
6) TM Ethylbenzene	17.27	23571595	99.5901 UG/L
7) TM m-,p-Xylene	17.53	56559162	197.7289 UG/L
8) TM o-Xylene	18.78	24214593	99.1828 UG/L
10) TM 1,3-Dichlorobenzene	22.59	25337087	104.2619 UG/L
11) TM 1,4-Dichlorobenzene	22.81	25599649	105.3423 UG/L
12) TM 1,2-Dichlorobenzene	23.44	19464379	82.3716 UG/L

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\120401\12G10241.D Vial: 12
Acq On : 4 Dec 2001 14:11 Operator: CBN
Sample : WG109269-06 8021 STD6 200PPB 5ML Inst : HP12
Misc : 1,1 S-87-(37,22) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 5 7:13 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 07:11:52 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\120401\12G10241.D Vial: 12
Acq On : 4 Dec 2001 14:11 Operator: CBN
Sample : WG109269-06 8021 STD6 200PPB 5ML Inst : HP12
Misc : 1,1 S-87-(37,22) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 5 7:13 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 07:11:52 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

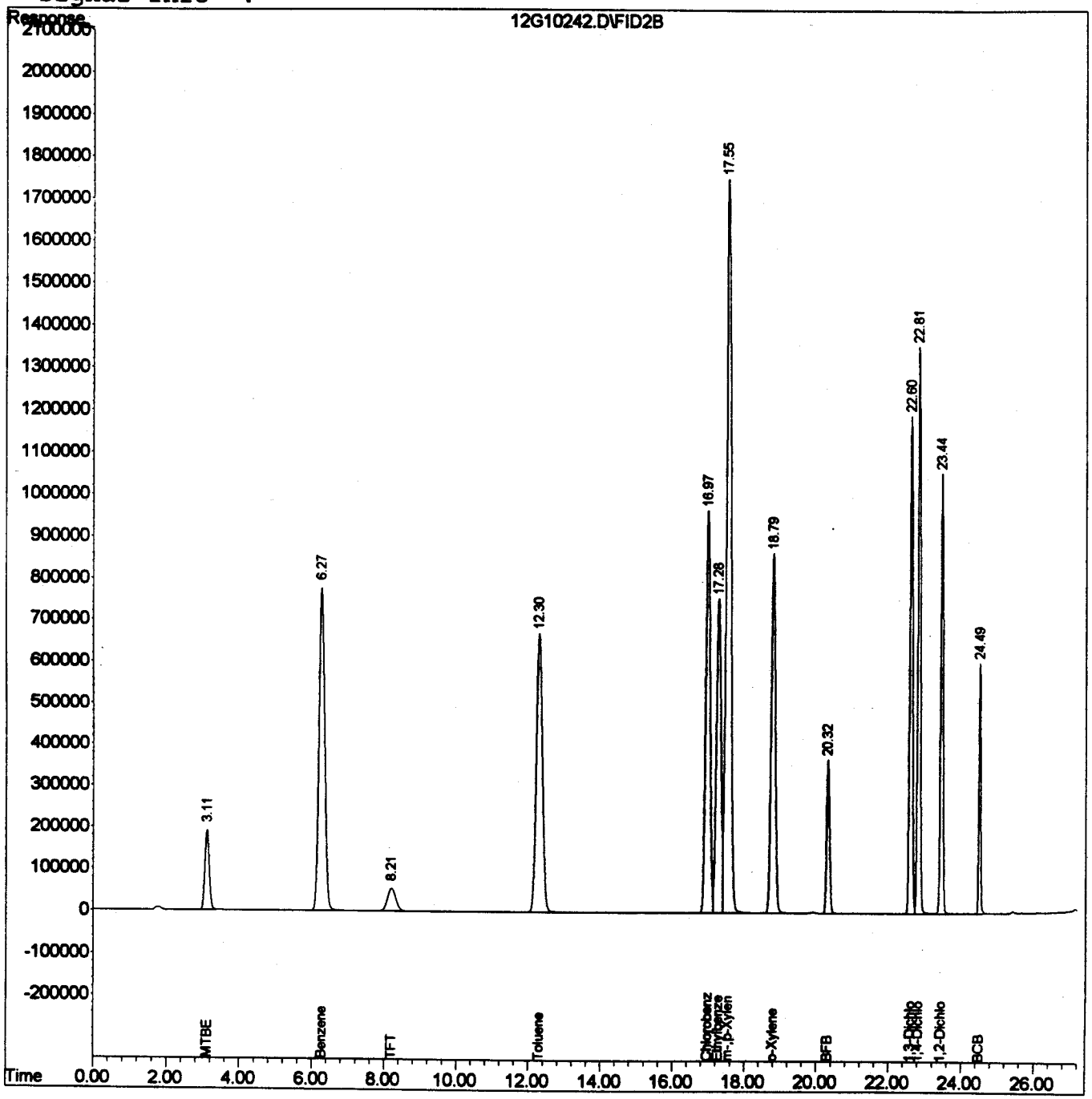
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.20	7443321	76.4041 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery = 254.68%#	
9) S BFB	20.31	17654216	75.5597 UG/L
Spiked Amount 30.000		Recovery = 251.87%	
13) S BCB	24.49	16893237	76.0475 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery = 253.49%#	
Target Compounds			
1) TM MTBE	3.11	10849898	187.7449 UG/L
2) TM Benzene	6.26	59445330	197.8345 UG/L
4) TM Toluene	12.29	54173085	195.1190 UG/L
5) TM Chlorobenzene	16.97	55642752	198.2876 UG/L
6) TM Ethylbenzene	17.27	46865958	198.0089 UG/L
7) TM m-,p-Xylene	17.53	111140493	388.5434 UG/L
8) TM o-Xylene	18.78	47686021	195.3216 UG/L
10) TM 1,3-Dichlorobenzene	22.59	46075523	189.6003 UG/L
11) TM 1,4-Dichlorobenzene	22.81	48711899	200.4490 UG/L
12) TM 1,2-Dichlorobenzene	23.44	36026102	152.4595 UG/L

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\120401\12G10242.D Vial: 13
Acq On : 4 Dec 2001 14:44 Operator: CBN
Sample : WG109269-07 8021 STD7 300PPB 5ML Inst : HP12
Misc : 1,1 S-87-(37,22) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 5 7:13 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 07:11:52 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\120401\12G10242.D Vial: 13
Acq On : 4 Dec 2001 14:44 Operator: CBN
Sample : WG109269-07 8021 STD7 300PPB 5ML Inst : HP12
Misc : 1,1 S-87-(37,22) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 5 7:13 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 07:11:52 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.21	8741461	89.7292 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery = 299.10%#	
9) S BFB	20.32	20661722	88.4318 UG/L
Spiked Amount 30.000		Recovery = 294.77%	
13) S BCB	24.49	19836833	89.2985 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery = 297.66%#	
Target Compounds			
1) TM MTBE	3.12	15780157	273.0573 UG/L
2) TM Benzene	6.27	85868231	285.7702 UG/L
4) TM Toluene	12.30	78516426	282.7981 UG/L
5) TM Chlorobenzene	16.98	80933014	288.4116 UG/L
6) TM Ethylbenzene	17.28	67524878	285.2930 UG/L
7) TM m-,p-Xylene	17.55	159039062	555.9952 UG/L
8) TM o-Xylene	18.79	68842815	281.9796 UG/L
10) TM 1,3-Dichlorobenzene	22.60	63452787	261.1076 UG/L
11) TM 1,4-Dichlorobenzene	22.81	67613494	278.2289 UG/L
12) TM 1,2-Dichlorobenzene	23.44	49791165	210.7121 UG/L

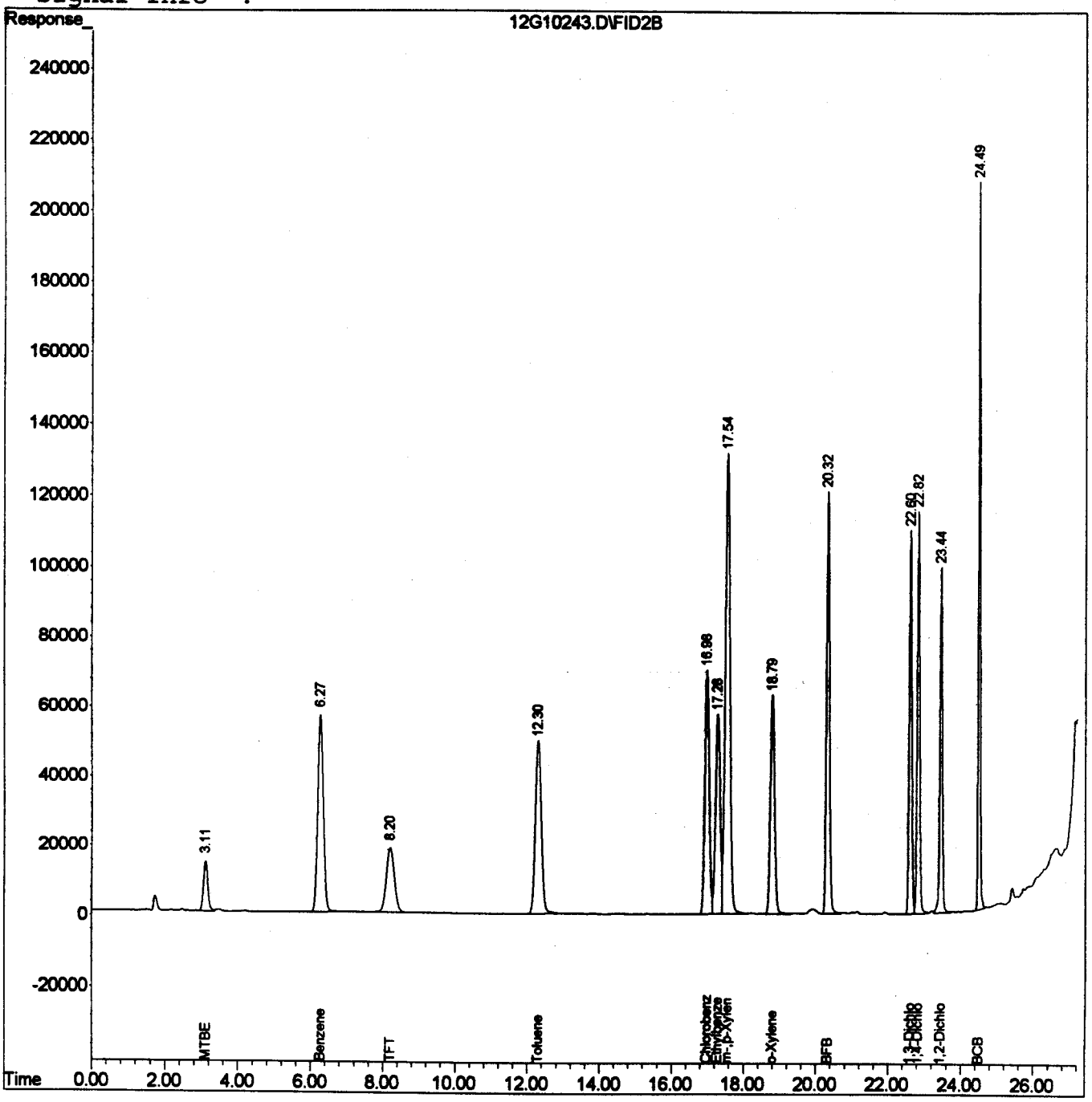
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\120401\12G10243.D Vial: 14
Acq On : 4 Dec 2001 15:16 Operator: CBN
Sample : WG109269-08 ALT SOURCE 20PPB 5ML Inst : HP12
Misc : 1,1 S-87-(37,22) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 5 8:19 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 08:16:09 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\120401\12G10243.D Vial: 14
Acq On : 4 Dec 2001 15:16 Operator: CBN
Sample : WG109269-08 ALT SOURCE 20PPB 5ML Inst : HP12
Misc : 1,1 S-87-(37,22) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 5 8:19 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 08:16:09 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.21	2895411	29.7208 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 99.07%			
9) S BFB	20.32	6998764	29.9546 UG/L
Spiked Amount 30.000 Recovery = 99.85%			
13) S BCB	24.49	6743474	30.3568 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 101.19%			
Target Compounds			
1) TM MTBE	3.11	1188267	20.5616 UG/L
2) TM Benzene	6.27	6102031	20.3076 UG/L
4) TM Toluene	12.30	5739644	20.6729 UG/L
5) TM Chlorobenzene	16.98	5829234	20.7730 UG/L
6) TM Ethylbenzene	17.28	5037890	21.2851 UG/L
7) TM m-,p-Xylene	17.54	11918255	41.6658 UG/L
8) TM o-Xylene	18.79	5014645	20.5399 UG/L
10) TM 1,3-Dichlorobenzene	22.60	5356353	22.0413 UG/L
11) TM 1,4-Dichlorobenzene	22.82	5425485	21.5587 UG/L
12) TM 1,2-Dichlorobenzene	23.44	4535694	19.9500 UG/L

Calibration Table Report
Method: 8021S.M
Title: METHOD 8021 SOIL - 12/12/01
Last Calibration: Wed Dec 12 15:05:02 2001

Calibration Files

Compound	1	10	20	50	100	200	300	Avg	%RSD
	[illegible].D	[illegible]11.D	[illegible]12.D	[illegible]13.D	[illegible]14.D	[illegible]15.D	[illegible]16.D		
MTBE	13854.6	12672	11106	17516	12903	11396	15335	13540	16.736
Benzene	137243	148556	119299	142651	124090	118977	132721	131934	8.801
TFT	39524	42983	40573	49132	43568	46276	48746	44400	8.523
Toluene	129940	122024	113756	132559	118993	122301	127267	123834	5.273
Chlorobenzene	128316	125641	117424	135366	122117	124511	127307	125812	4.420
Ethylbenzene	114638	119026	109871	124188	112442	109506	111973	114521	4.666
m-,p-Xylene	147640	146620	136445	147063	136333	134744	134211	140437	4.485
o-Xylene	128367	122465	116431	124384	115770	115459	118281	119737	4.424
BFB	103924	107345	108242	113423	106519	107626	106994	107725	2.662
1,3-Dichlorobenzene	156548	117540	112407	111852	106749	111511	108623	117890	14.740
1,4-Dichlorobenzene	156548	117540	112407	111852	106749	111511	108623	117890	14.740
1,2-Dichlorobenzene	88918	90160	86266	86302	82428	86456	84003	86362	3.064
BCB	120213	97838	99576	97072	93457	100363	95436	100565	8.927

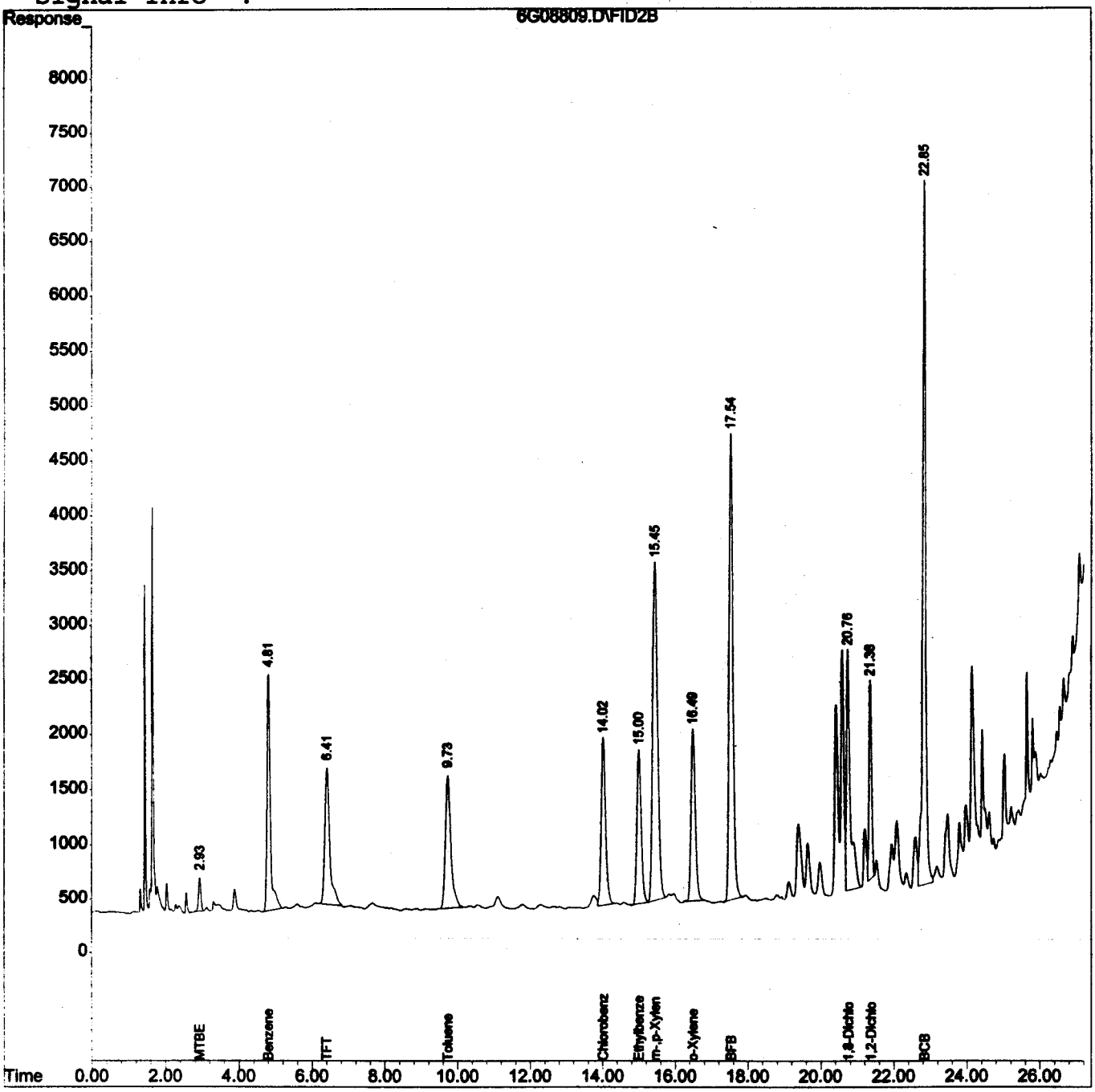
Wed Dec 12 15:05:57 2001

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121201\6G08809.D Vial: 5
Acq On : 12 Dec 2001 10:12 Operator: CBN
Sample : WG109832-01 8021 STD1 1PPB 5G Inst : HP6
Misc : 7,1 S-87-21,88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 12 11:42 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/03/01
Last Update : Fri Dec 07 09:11:47 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121201\6G08809.D Vial: 5
Acq On : 12 Dec 2001 10:12 Operator: CBN
Sample : WG109832-01 8021 STD1 1PPB 5G Inst : HP6
Misc : 7,1 S-87-21,88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 12 11:42 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/03/01
Last Update : Fri Dec 07 09:11:47 2001
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	6.41	118572	2.4406 UG/KG
Spiked Amount 30.000	Range 47 - 121	Recovery =	8.14%#
9) S BFB	17.55	311772	2.7824 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	9.27%#
13) S BCB	22.85	360640	3.6049 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	12.02%#
Target Compounds			
1) TM MTBE	2.93	13855	0.8018 UG/KG
2) TM Benzene	4.81	137243	0.9532 UG/KG
4) TM Toluene	9.73	129940	0.9217 UG/KG
5) TM Chlorobenzene	14.02	128316	0.9349 UG/KG
6) TM Ethylbenzene	15.00	114638	0.9408 UG/KG
7) TM m-,p-Xylene	15.45	295280	2.0224 UG/KG
8) TM o-Xylene	16.50	128367	1.0148 UG/KG
10) TM 1,3-Dichlorobenzene	20.76	156548	1.2804 UG/KG
11) TM 1,4-Dichlorobenzene	20.76	156548	1.2804 UG/KG
12) TM 1,2-Dichlorobenzene	21.38	88918	0.9855 UG/KG

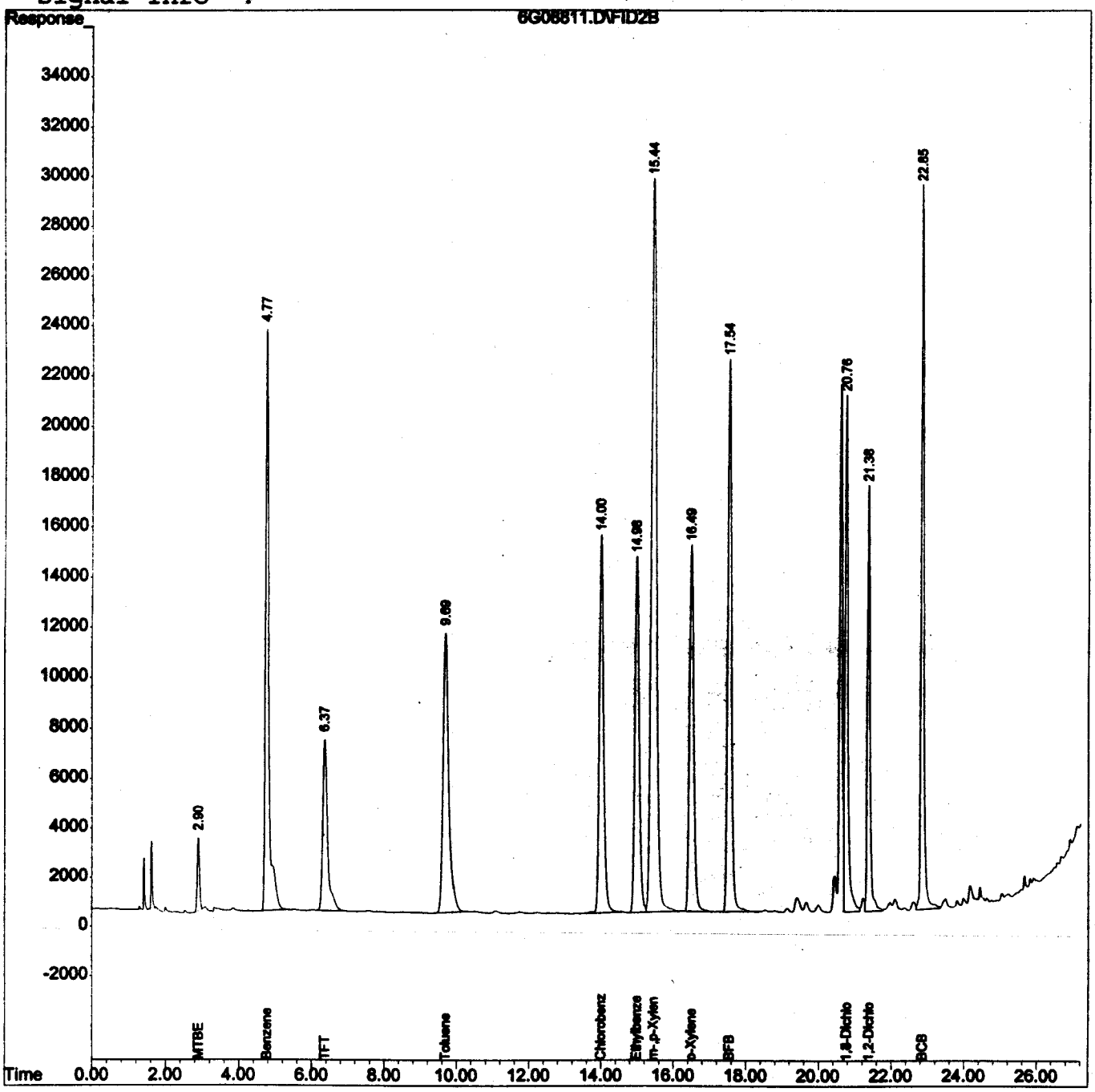
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121201\6G08811.D Vial: 6
Acq On : 12 Dec 2001 11:17 Operator: CBN
Sample : WG109832-02 8021 STD2 10PPB 5G Inst : HP6
Misc : 7,1 S-87-21,88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 12 11:44 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/03/01
Last Update : Fri Dec 07 09:11:47 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



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Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121201\6G08811.D Vial: 6
Acq On : 12 Dec 2001 11:17 Operator: CBN
Sample : WG109832-02 8021 STD2 10PPB 5G Inst : HP6
Misc : 7,1 S-87-21,88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 12 11:44 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/03/01
Last Update : Fri Dec 07 09:11:47 2001
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

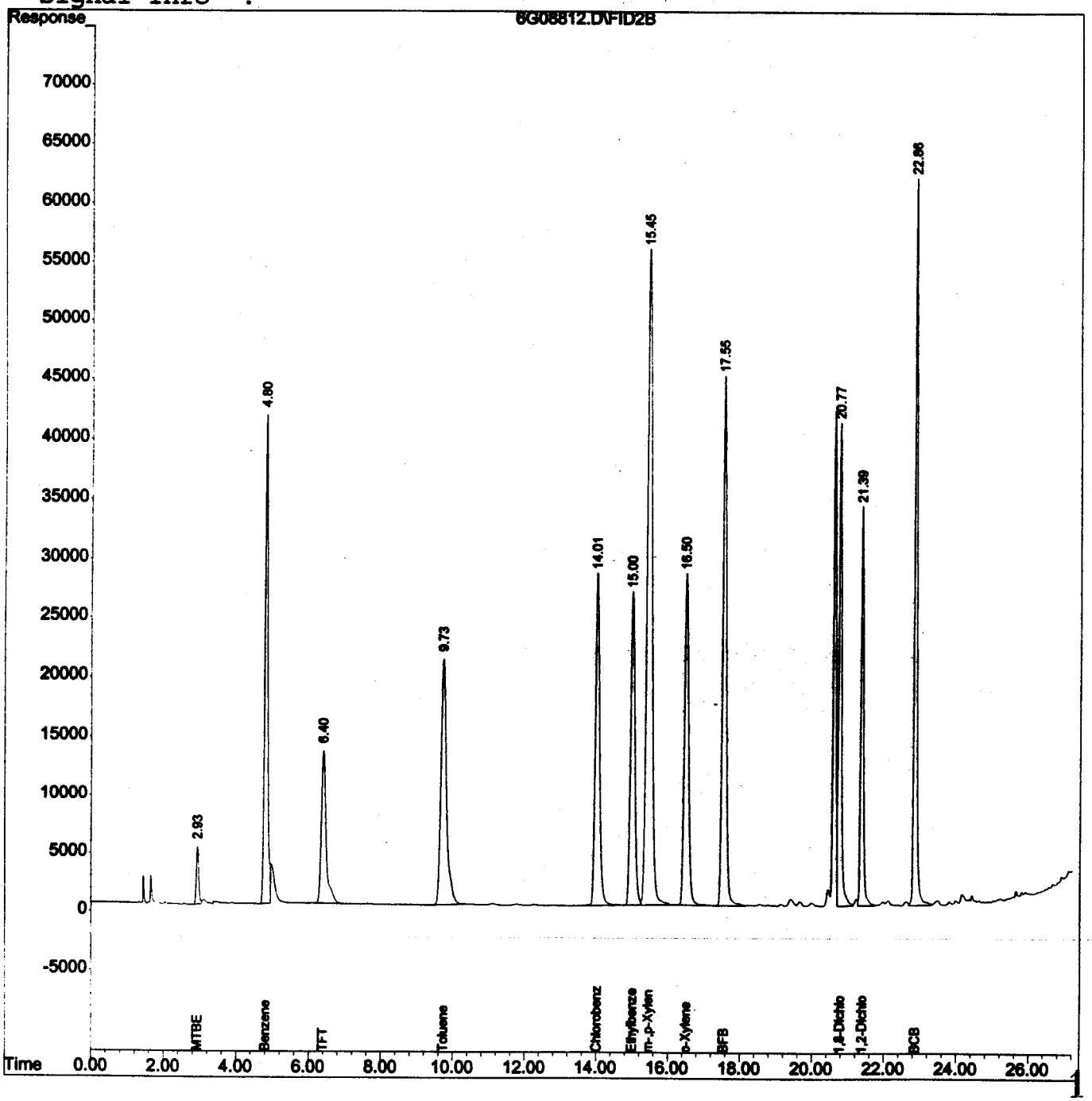
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	6.37	644741	13.2707 UG/KG
Spiked Amount 30.000 Range 47 - 121		Recovery =	44.24%#
9) S BFB	17.55	1610168	14.3700 UG/KG
Spiked Amount 30.000 Range 70 - 130		Recovery =	47.90%#
13) S BCB	22.85	1467564	14.6697 UG/KG
Spiked Amount 30.000 Range 37 - 137		Recovery =	48.90%
Target Compounds			
1) TM MTBE	2.90	126716	7.3329 UG/KG
2) TM Benzene	4.77	1485563	10.3179 UG/KG
4) TM Toluene	9.70	1220238	8.6554 UG/KG
5) TM Chlorobenzene	14.00	1256409	9.1545 UG/KG
6) TM Ethylbenzene	14.98	1190256	9.7678 UG/KG
7) TM m-,p-Xylene	15.44	2932405	20.0840 UG/KG
8) TM o-Xylene	16.50	1224652	9.6814 UG/KG
10) TM 1,3-Dichlorobenzene	20.77	1175399	9.6139 UG/KG
11) TM 1,4-Dichlorobenzene	20.77	1175399	9.6139 UG/KG
12) TM 1,2-Dichlorobenzene	21.38	901604	9.9923 UG/KG

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121201\6G08812.D Vial: 7
Acq On : 12 Dec 2001 11:49 Operator: CBN
Sample : WG109832-03 8021 STD3 20PPB 5G Inst : HP6
Misc : 7,1 S-87-21,88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 12 12:17 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/03/01
Last Update : Fri Dec 07 09:11:47 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121201\6G08812.D Vial: 7
Acq On : 12 Dec 2001 11:49 Operator: CBN
Sample : WG109832-03 8021 STD3 20PPB 5G Inst : HP6
Misc : 7,1 S-87-21,88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 12 12:17 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/03/01
Last Update : Fri Dec 07 09:11:47 2001
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

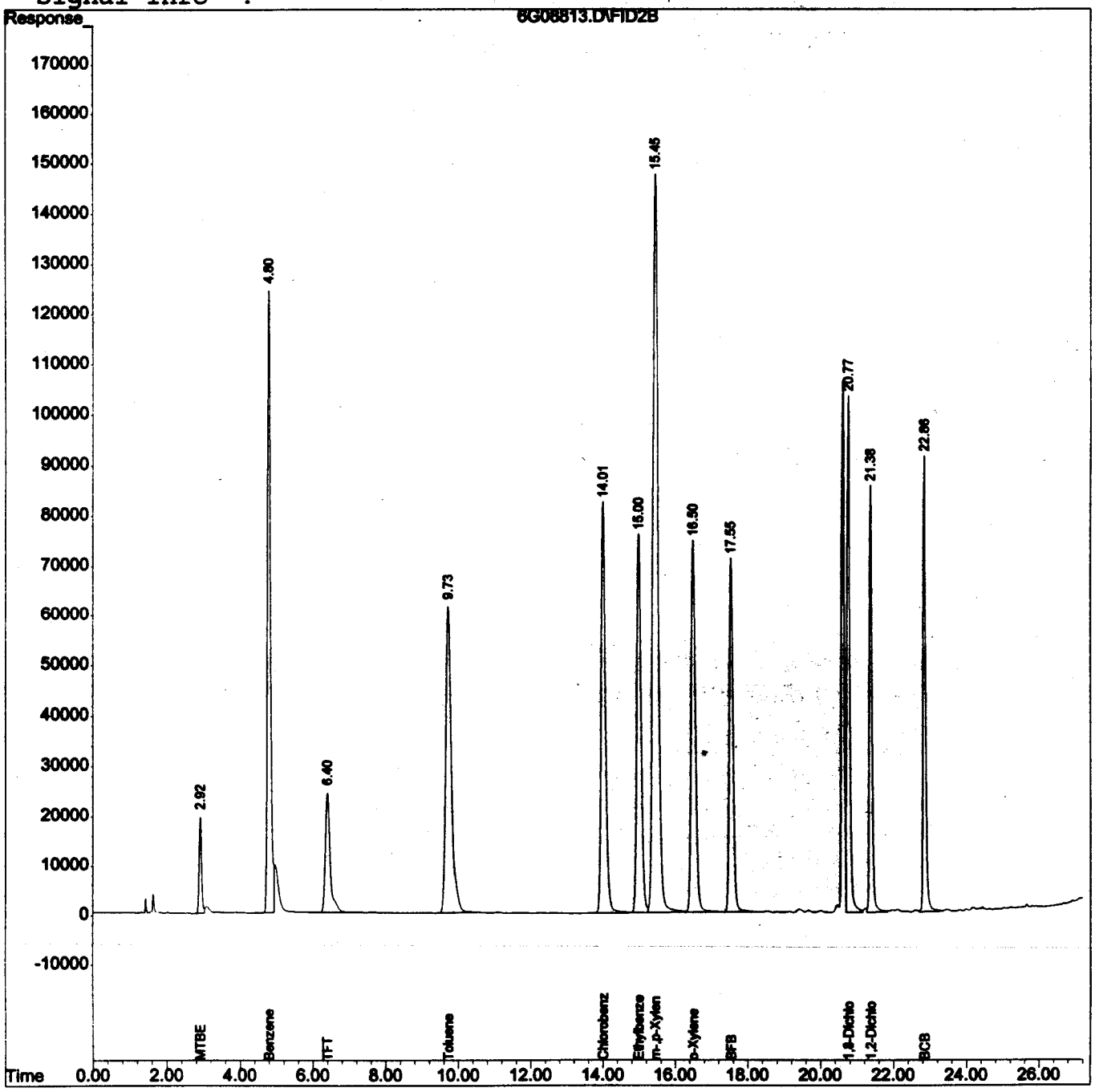
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			6.40	1217201	25.0537 UG/KG
Spiked Amount	30.000	Range	47 - 121	Recovery =	83.51%
9) S BFB			17.55	3247254	28.9803 UG/KG
Spiked Amount	30.000	Range	70 - 130	Recovery =	96.60%
13) S BCB			22.86	2987294	29.8609 UG/KG
Spiked Amount	30.000	Range	37 - 137	Recovery =	99.54%
Target Compounds					
1) TM MTBE			2.93	222127	12.8543 UG/KG
2) TM Benzene			4.80	2385979	16.5716 UG/KG
4) TM Toluene			9.73	2275116	16.1379 UG/KG
5) TM Chlorobenzene			14.02	2348480	17.1115 UG/KG
6) TM Ethylbenzene			15.00	2197419	18.0330 UG/KG
7) TM m-,p-Xylene			15.45	5457812	37.3805 UG/KG
8) TM o-Xylene			16.50	2328615	18.4087 UG/KG
10) TM 1,3-Dichlorobenzene			20.77	2248147	18.3881 UG/KG
11) TM 1,4-Dichlorobenzene			20.77	2248147	18.3881 UG/KG
12) TM 1,2-Dichlorobenzene			21.39	1725315	19.1214 UG/KG

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121201\6G08813.D Vial: 8
Acq On : 12 Dec 2001 12:22 Operator: CBN
Sample : WG109832-04 8021 STD4 50PPB 5G Inst : HP6
Misc : 7,1 S-87-21,88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 12 12:49 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/03/01
Last Update : Fri Dec 07 09:11:47 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121201\6G08813.D Vial: 8
Acq On : 12 Dec 2001 12:22 Operator: CBN
Sample : WG109832-04 8021 STD4 50PPB 5G Inst : HP6
Misc : 7,1 S-87-21,88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 12 12:49 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/03/01
Last Update : Fri Dec 07 09:11:47 2001
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	6.40	2210935	45.5077 UG/KG
Spiked Amount 30.000	Range 47 - 121	Recovery =	151.69%#
9) S BFB	17.55	5104037	45.5512 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	151.84%#
13) S BCB	22.86	4368223	43.6646 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	145.55%#
Target Compounds			
1) TM MTBE	2.92	875803	50.6819 UG/KG
2) TM Benzene	4.80	7132536	49.5385 UG/KG
4) TM Toluene	9.73	6627969	47.0138 UG/KG
5) TM Chlorobenzene	14.01	6768309	49.3153 UG/KG
6) TM Ethylbenzene	15.00	6209401	50.9570 UG/KG
7) TM m-,p-Xylene	15.45	14706333	100.7235 UG/KG
8) TM o-Xylene	16.50	6219206	49.1656 UG/KG
10) TM 1,3-Dichlorobenzene	20.77	5592613	45.7432 UG/KG
11) TM 1,4-Dichlorobenzene	20.77	5592613	45.7432 UG/KG
12) TM 1,2-Dichlorobenzene	21.39	4315123	47.8239 UG/KG

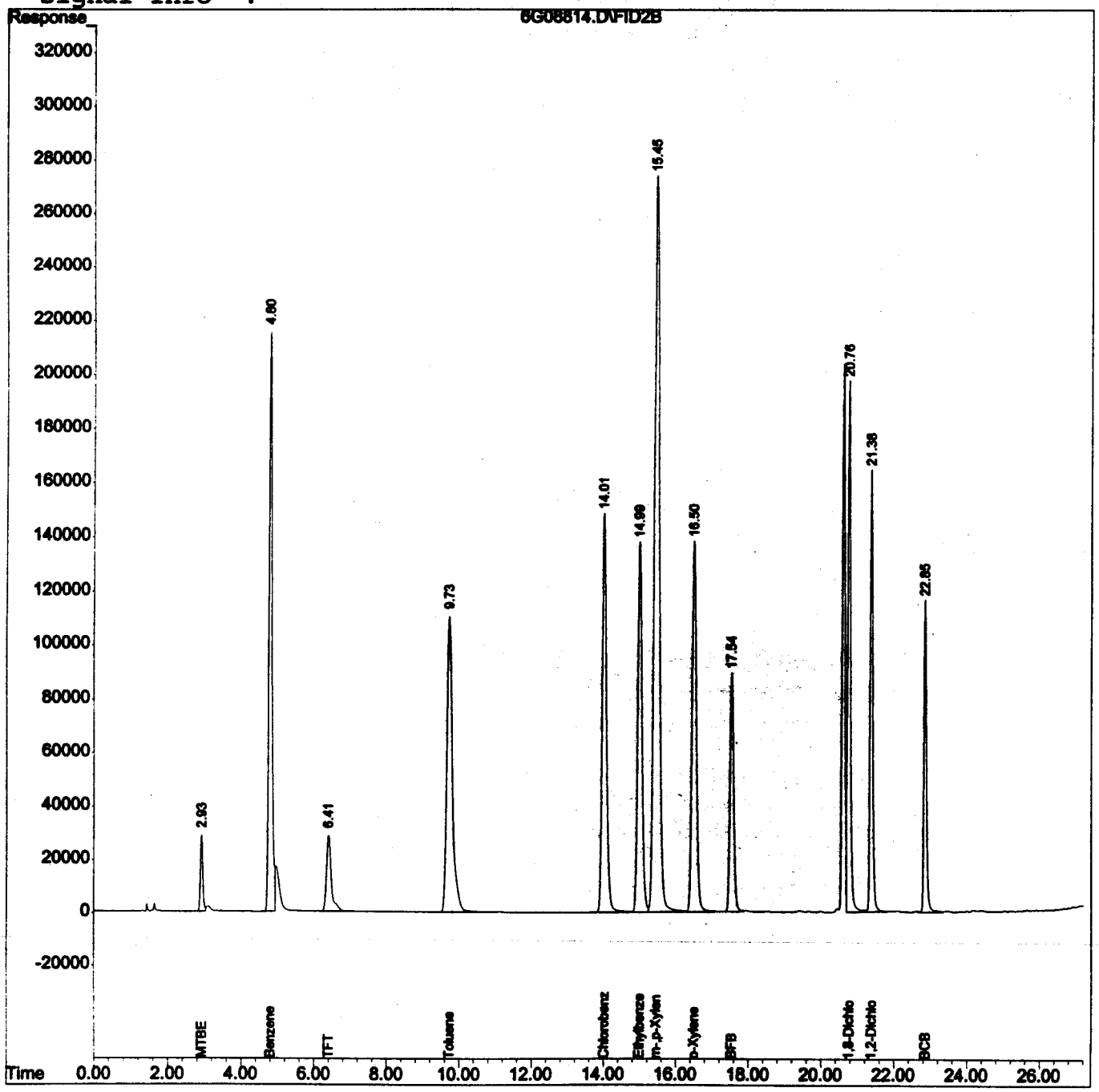
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121201\6G08814.D Vial: 9
Acq On : 12 Dec 2001 12:54 Operator: CBN
Sample : WG109832-05 8021 STD5 100PPB 5G Inst : HP6
Misc : 7,1 S-87-21,88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 12 13:22 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/03/01
Last Update : Fri Dec 07 09:11:47 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121201\6G08814.D Vial: 9
Acq On : 12 Dec 2001 12:54 Operator: CBN
Sample : WG109832-05 8021 STD5 100PPB 5G Inst : HP6
Misc : 7,1 S-87-21,88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 12 13:22 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/03/01
Last Update : Fri Dec 07 09:11:47 2001
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	6.41	2614095	53.8059 UG/KG
Spiked Amount 30.000	Range 47 - 121	Recovery =	179.35%#
9) S BFB	17.54	6391147	57.0381 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	190.13%#
13) S BCB	22.85	5607409	56.0514 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	186.84%#
Target Compounds			
1) TM MTBE	2.93	1290281	74.6675 UG/KG
2) TM Benzene	4.81	12409033	86.1860 UG/KG
4) TM Toluene	9.73	11899345	84.4049 UG/KG
5) TM Chlorobenzene	14.01	12211744	88.9774 UG/KG
6) TM Ethylbenzene	14.99	11244163	92.2745 UG/KG
7) TM m-,p-Xylene	15.45	27266533	186.7481 UG/KG
8) TM o-Xylene	16.50	11576987	91.5213 UG/KG
10) TM 1,3-Dichlorobenzene	20.76	10674906	87.3125 UG/KG
11) TM 1,4-Dichlorobenzene	20.76	10674906	87.3125 UG/KG
12) TM 1,2-Dichlorobenzene	21.38	8242802	91.3538 UG/KG

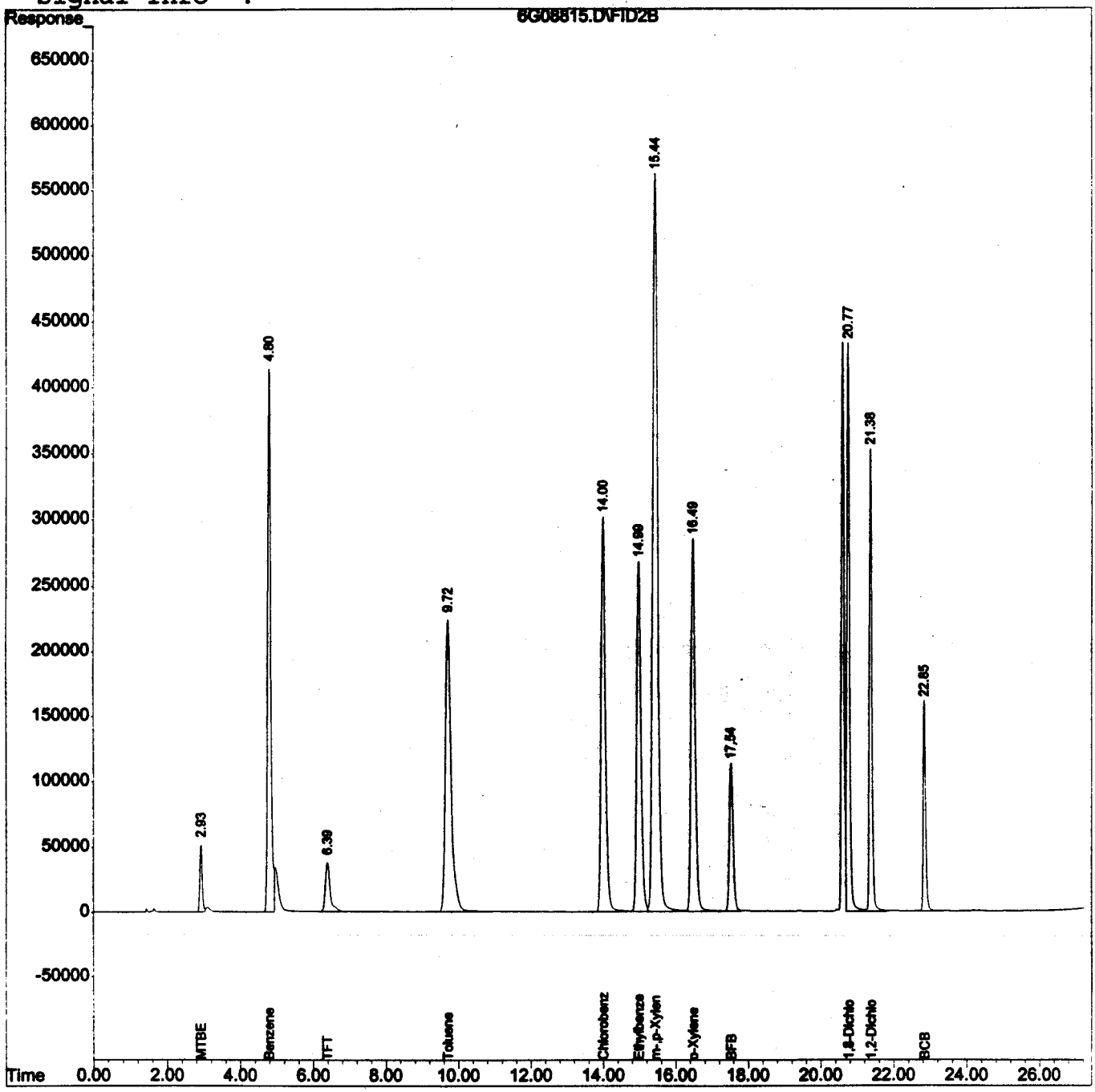
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121201\6G08815.D Vial: 10
Acq On : 12 Dec 2001 13:27 Operator: CBN
Sample : WG109832-06 8021 STD6 200PPB 5G Inst : HP6
Misc : 7,1 S-87-21,88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 12 13:54 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/03/01
Last Update : Fri Dec 07 09:11:47 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121201\6G08815.D Vial: 10
Acq On : 12 Dec 2001 13:27 Operator: CBN
Sample : WG109832-06 8021 STD6 200PPB 5G Inst : HP6
Misc : 7,1 S-87-21,88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 12 13:54 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/03/01
Last Update : Fri Dec 07 09:11:47 2001
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	6.39	3470704	71.4375 UG/KG
Spiked Amount 30.000	Range 47 - 121	Recovery = 238.13%#	
9) S BFB	17.54	8071937	72.0383 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery = 240.13%#	
13) S BCB	22.85	7527259	75.2422 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery = 250.81%#	
Target Compounds			
1) TM MTBE	2.93	2279139	131.8918 UG/KG
2) TM Benzene	4.80	23795437	165.2694 UG/KG
4) TM Toluene	9.72	24460200	173.5021 UG/KG
5) TM Chlorobenzene	14.01	24902187	181.4426 UG/KG
6) TM Ethylbenzene	14.99	21901269	179.7313 UG/KG
7) TM m-,p-Xylene	15.45	53897624	369.1441 UG/KG
8) TM o-Xylene	16.49	23091788	182.5509 UG/KG
10) TM 1,3-Dichlorobenzene	20.77	22302217	182.4148 UG/KG
11) TM 1,4-Dichlorobenzene	20.77	22302217	182.4148 UG/KG
12) TM 1,2-Dichlorobenzene	21.38	17291112	191.6350 UG/KG

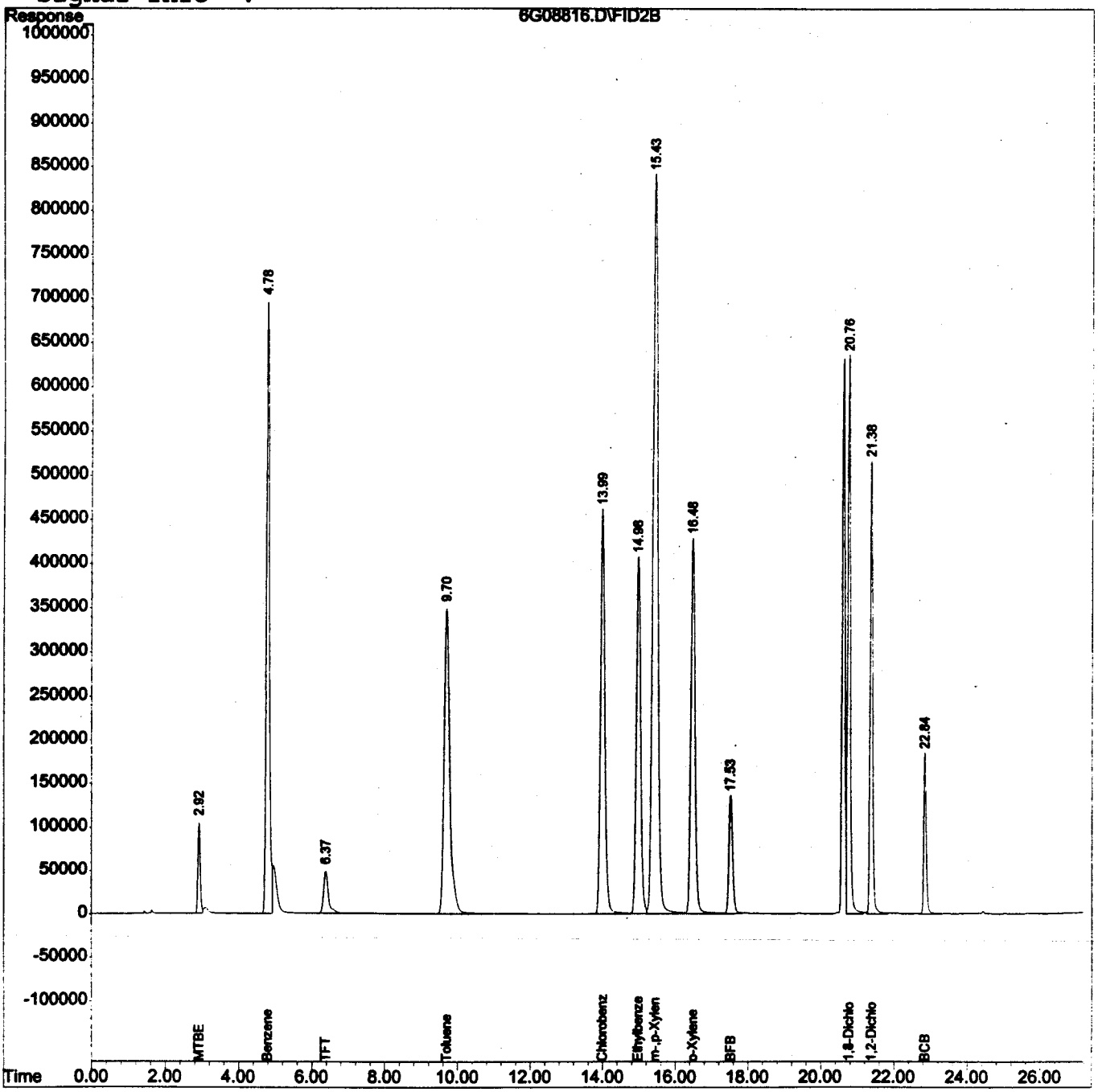
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121201\6G08816.D Vial: 11
Acq On : 12 Dec 2001 13:59 Operator: CBN
Sample : WG109832-07 8021 STD7 300PPB 5G Inst : HP6
Misc : 7,1 S-87-21,88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 12 14:27 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/03/01
Last Update : Fri Dec 07 09:11:47 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121201\6G08816.D Vial: 11
Acq On : 12 Dec 2001 13:59 Operator: CBN
Sample : WG109832-07 8021 STD7 300PPB 5G Inst : HP6
Misc : 7,1 S-87-21,88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 12 14:27 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/03/01
Last Update : Fri Dec 07 09:11:47 2001
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	6.38	4387183	90.3014 UG/KG
Spiked Amount 30.000	Range 47 - 121	Recovery =	301.00%#
9) S BFB	17.53	9629455	85.9385 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	286.46%#
13) S BCB	22.85	8589221	85.8575 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	286.19%#
Target Compounds			
1) TM MTBE	2.92	4600565	266.2307 UG/KG
2) TM Benzene	4.78	39816188	276.5403 UG/KG
4) TM Toluene	9.70	38180206	270.8214 UG/KG
5) TM Chlorobenzene	13.99	38192207	278.2766 UG/KG
6) TM Ethylbenzene	14.98	33592015	275.6706 UG/KG
7) TM m-,p-Xylene	15.44	80526353	551.5239 UG/KG
8) TM o-Xylene	16.48	34584310	273.4044 UG/KG
10) TM 1,3-Dichlorobenzene	20.76	32586993	266.5363 UG/KG
11) TM 1,4-Dichlorobenzene	20.76	32586993	266.5363 UG/KG
12) TM 1,2-Dichlorobenzene	21.38	25200789	279.2968 UG/KG

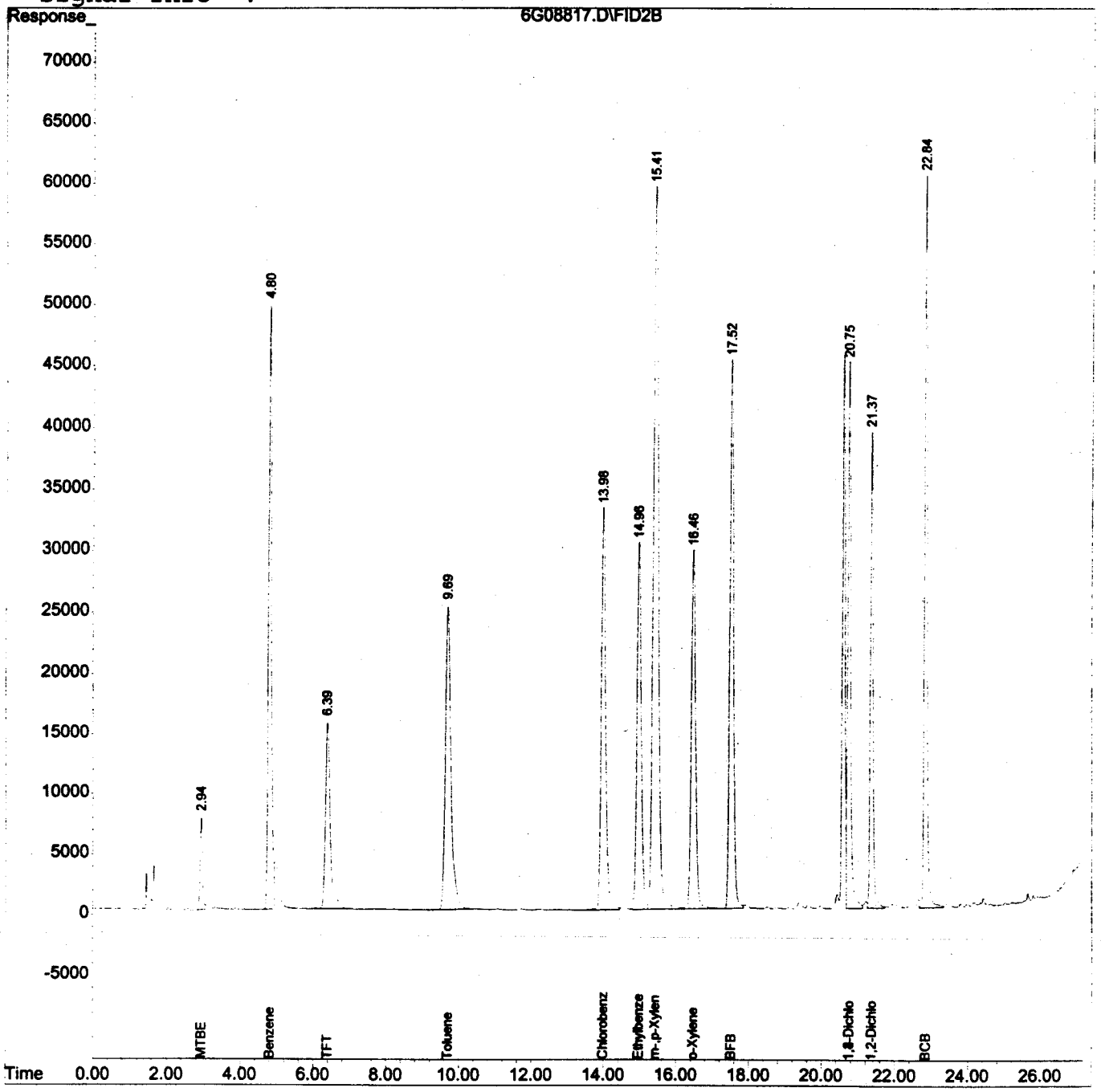
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121201\6G08817.D Vial: 12
Acq On : 12 Dec 2001 14:32 Operator: CBN
Sample : WG109832-08 ALT SOURCE 20PPB 5G Inst : HP6
Misc : 7,1 S-87-37,88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 12 15:15 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121201\6G08817.D
Acq On : 12 Dec 2001 14:32
Sample : WG109832-08 ALT SOURCE 20PPB 5G
Misc : 7,1 S-87-37,88-05
IntFile : autoint1.e
Quant Time: Dec 12 15:15 2001 Quant Results File: 8021S.RES

Vial: 12
Operator: CBN
Inst : HP6
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	6.39	1407711	31.7049 UG/KG
Spiked Amount 30.000 Range 47 - 121		Recovery = 105.68%	
9) S BFB	17.52	3224178	29.9298 UG/KG
Spiked Amount 30.000 Range 70 - 130		Recovery = 99.77%	
13) S BCB	22.84	2913965	28.9759 UG/KG
Spiked Amount 30.000 Range 37 - 137		Recovery = 96.59%	
Target Compounds			
1) TM MTBE	2.94	339627	25.0826 UG/KG
2) TM Benzene	4.81	2818186	21.3606 UG/KG
4) TM Toluene	9.70	2682889	21.6651 UG/KG
5) TM Chlorobenzene	13.98	2734138	21.7320 UG/KG
6) TM Ethylbenzene	14.96	2478966	21.6465 UG/KG
7) TM m-,p-Xylene	15.42	5767014	41.0649 UG/KG
8) TM o-Xylene	16.46	2414548	20.1655 UG/KG
10) TM 1,3-Dichlorobenzene	20.75	2473544	20.9818 UG/KG
11) TM 1,4-Dichlorobenzene	20.75	2473544	20.9818 UG/KG
12) TM 1,2-Dichlorobenzene	21.37	1987737	23.0164 UG/KG

(f)=RT Delta > 1/2 Window (m)=manual int.

Calibration Table Report
Method: 8021W.M
Title: Method 8021B- WATER 12/13/01
Last Calibration: Thu Dec 13 13:25:15 2001

Calibration Files

Compound	1 1101[illegible]22.D	10 1101[illegible]23.D	20 1101[illegible]24.D	50 1101[illegible]25.D	100 1101[illegible]26.D	200 1101[illegible]27.D	300 1101[illegible]28.D	Avg	%RSD
MTBE	61628.2	60981.2	59414.5	62474.3	64034.0	62521.1	62711.9	61966.5	2.375
Benzene	147603.7	159810.5	159151.4	158266.7	161749.8	161826.2	157879.2	158041.0	3.072
TFT	43510.6	49401.8	49398.3	49787.6	49971.5	49545.5	48808.5	48632.0	4.704
Toluene	146715.8	151626.9	152542.4	154573.9	150923.4	151646.0	147988.2	150860.0	1.780
Chlorobenzene	141357.4	158279.1	157855.4	159708.4	162554.5	162565.5	160856.5	157597.0	4.696
Ethylbenzene	128153.4	137969.2	136422.0	135450.5	136319.1	135776.1	133907.3	134857.0	2.370
m-,p-Xylene	163153.6	173051.2	166291.6	161297.2	161711.6	159891.0	157122.2	163217.0	3.167
o-Xylene	135093.0	148190.7	144198.2	140977.7	141690.2	141372.7	139156.2	141526.0	2.869
BFB	116287.7	133620.0	137285.8	142724.6	145859.4	142880.2	143407.7	137438.0	7.432
1,3-Dichlorobenzene	129688.0	135946.1	138116.6	138597.0	143828.5	146382.9	143765.5	139475.0	4.097
1,4-Dichlorobenzene	141174.8	150984.1	148049.5	147259.4	148698.3	150030.7	147395.9	147656.0	2.145
1,2-Dichlorobenzene	117537.2	128548.9	121765.2	126882.5	127836.6	124686.6	121878.9	124162.0	3.209
BCB	110104.6	122939.5	131780.9	138656.9	141296.2	139517.6	140859.7	132165.0	8.884

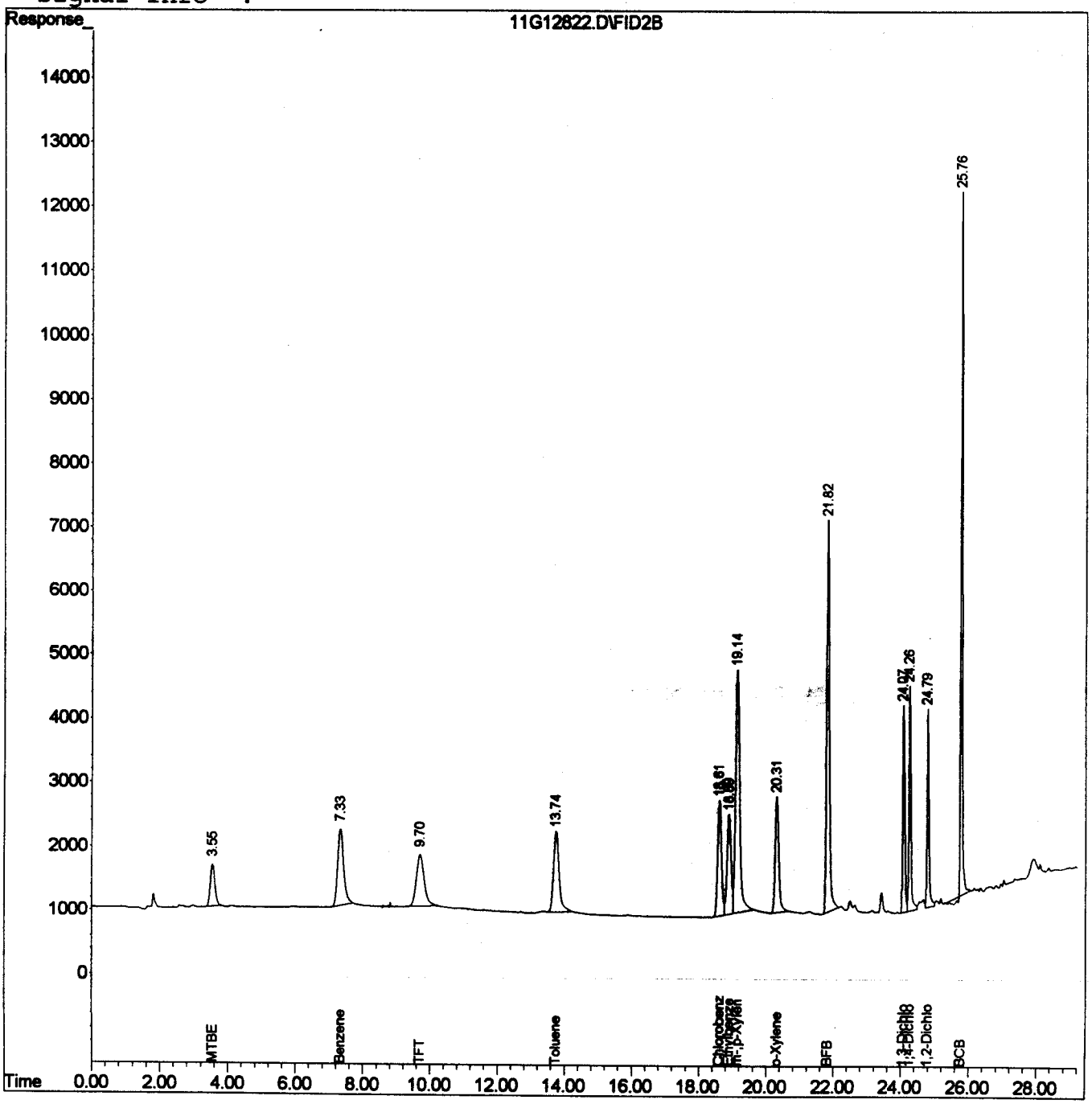
Thu Dec 13 13:30:34 2001

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\11G12822.D Vial: 4
Acq On : 13 Dec 2001 9:26 am Operator: CBN
Sample : WG109931-01 1PPB 8021 WATER STD 5ML Inst : HP11
Misc : 1,1 S-87-21 S-88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 9:56 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\11G12822.D Vial: 4
Acq On : 13 Dec 2001 9:26 am Operator: CBN
Sample : WG109931-01 1PPB 8021 WATER STD 5ML Inst : HP11
Misc : 1,1 S-87-21 S-88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 9:56 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.70	130532	2.3340 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery =	7.78%#
9) S BFB	21.83	348863	2.1655 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery =	7.22%#
13) S BCB	25.77	330314	2.0809 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery =	6.94%#
Target Compounds			
1) TM MTBE	3.55	61628	0.8338 UG/L
2) TM Benzene	7.33	147604	0.8052 UG/L
4) TM Toluene	13.75	146716	0.8272 UG/L
5) TM Chlorobenzene	18.61	141357	0.7943 UG/L
6) TM Ethylbenzene	18.90	128153	0.8392 UG/L
7) TM m-,p-Xylene	19.14	326307	1.7504 UG/L
8) TM o-Xylene	20.31	135093	0.8181 UG/L
10) T 1,3-Dichlorobenzene	24.08	129688	0.8201 UG/L
11) T 1,4-Dichlorobenzene	24.26	141175	0.8407 UG/L
12) T 1,2-Dichlorobenzene	24.79	117537	0.8174 UG/L

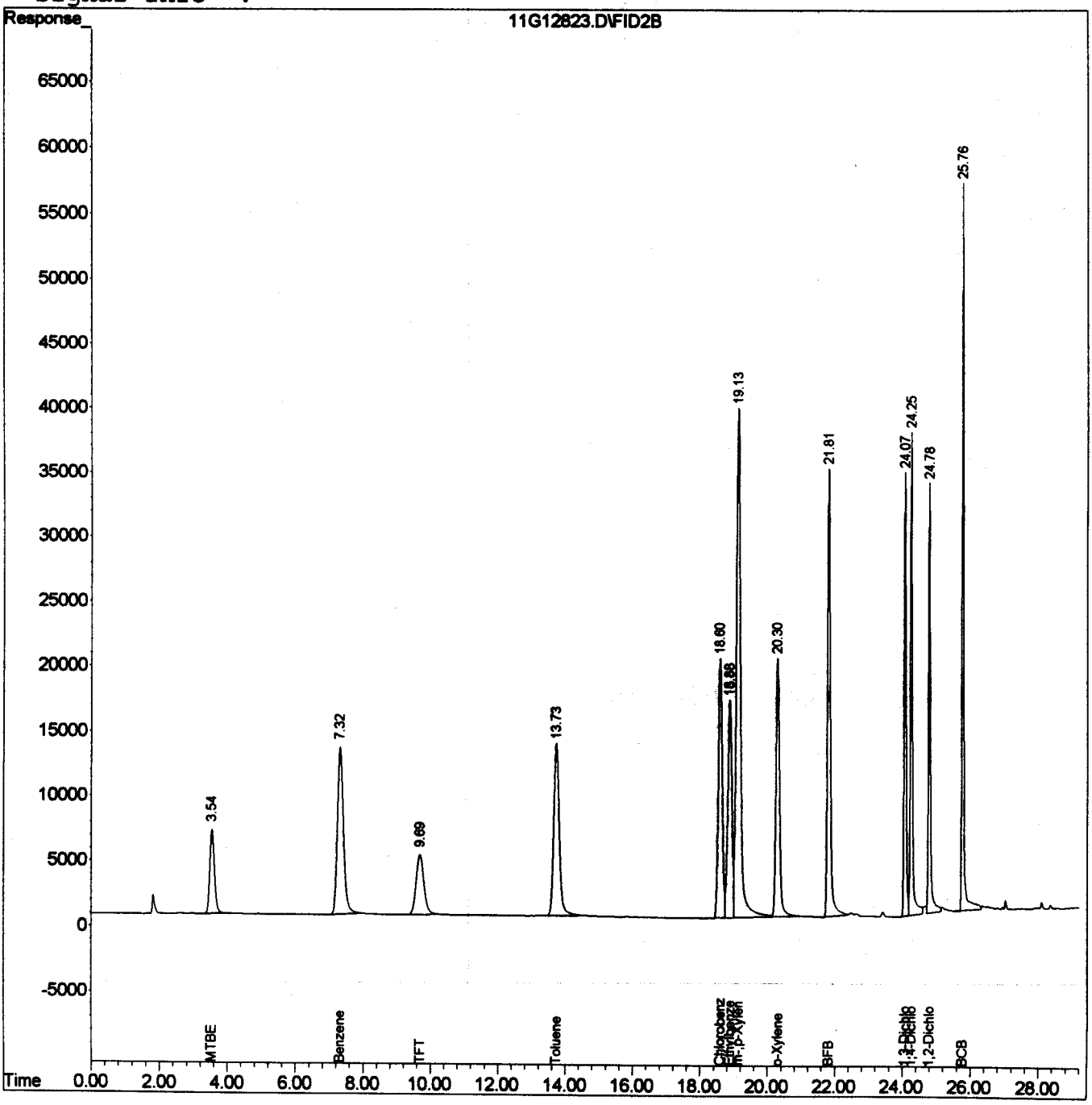
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\11G12823.D Vial: 5
Acq On : 13 Dec 2001 10:01 am Operator: CBN
Sample : WG109931-02 10PPB 8021 WATER STD 5ML Inst : HP11
Misc : 1,1 S-87-21 S-88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 10:31 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\11G12823.D Vial: 5
Acq On : 13 Dec 2001 10:01 am Operator: CBN
Sample : WG109931-02 10PPB 8021 WATER STD 5ML Inst : HP11
Misc : 1,1 S-87-21 S-88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 10:31 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.68	741028	13.2499 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 44.17%#
9) S BFB	21.82	2004300	12.4413 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 41.47%#
13) S BCB	25.76	1844093	11.6171 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 38.72%
Target Compounds			
1) TM MTBE	3.54	609812	8.2501 UG/L
2) TM Benzene	7.32	1598105	8.7174 UG/L
4) TM Toluene	13.73	1516269	8.5489 UG/L
5) TM Chlorobenzene	18.60	1582791	8.8937 UG/L
6) TM Ethylbenzene	18.88	1379692	9.0347 UG/L
7) TM m-,p-Xylene	19.13	3461023	18.5661 UG/L
8) TM o-Xylene	20.30	1481907	8.9738 UG/L
10) T 1,3-Dichlorobenzene	24.07	1359461	8.5966 UG/L
11) T 1,4-Dichlorobenzene	24.25	1509841	8.9914 UG/L
12) T 1,2-Dichlorobenzene	24.78	1285489	8.9393 UG/L

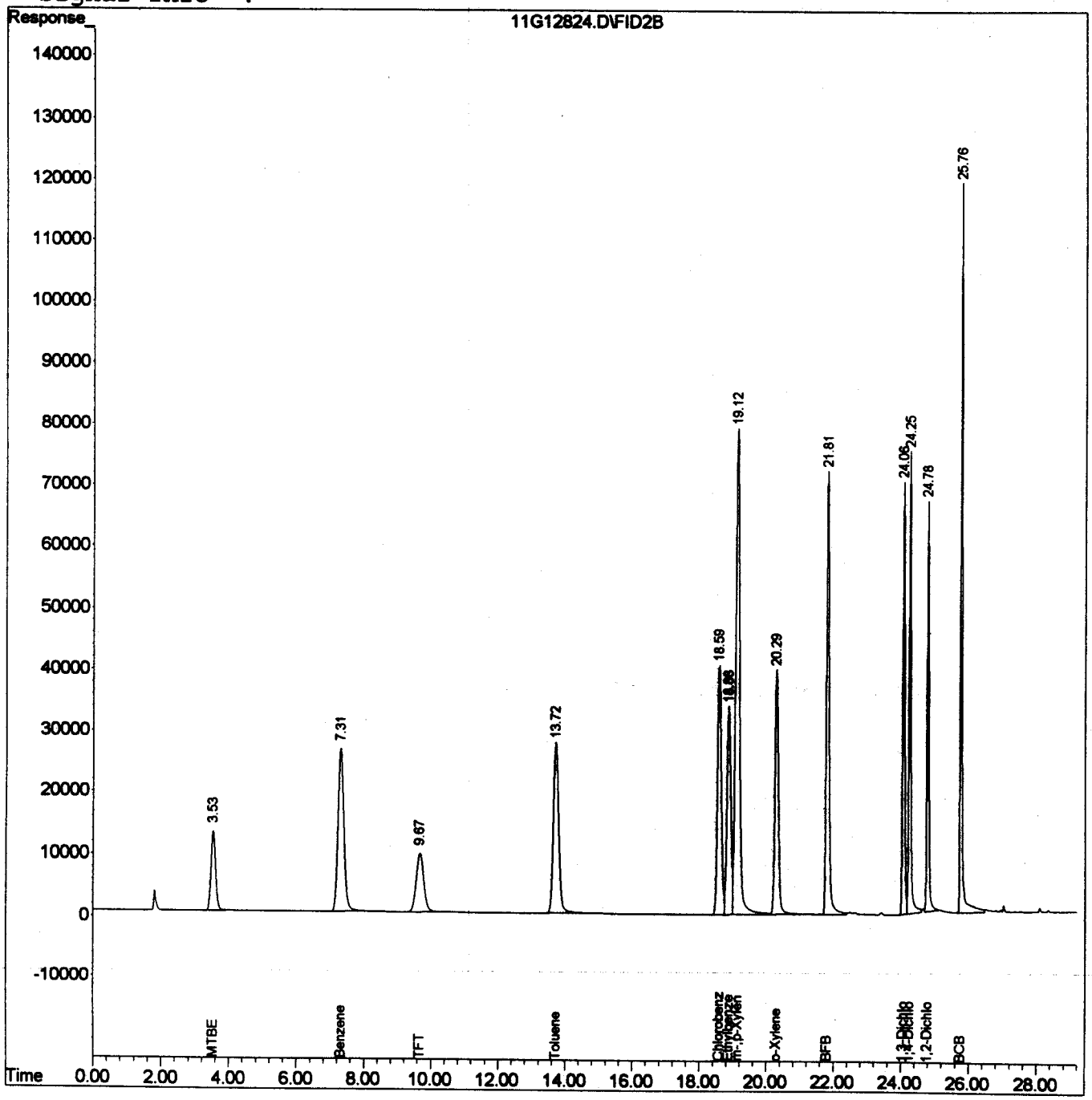
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\11G12824.D Vial: 6
Acq On : 13 Dec 2001 10:36 am Operator: CBN
Sample : WG109931-03 20PPB 8021 WATER STD 5ML Inst : HP11
Misc : 1,1 S-87-21 S-88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 11:05 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\11G12824.D Vial: 6
Acq On : 13 Dec 2001 10:36 am Operator: CBN
Sample : WG109931-03 20PPB 8021 WATER STD 5ML Inst : HP11
Misc : 1,1 S-87-21 S-88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 11:05 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.67	1481950	26.4979 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 88.33%
9) S BFB	21.81	4118573	25.5652 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 85.22%
13) S BCB	25.76	3953428	24.9051 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 83.02%
Target Compounds			
1) TM MTBE	3.54	1188290	16.0762 UG/L
2) TM Benzene	7.31	3183027	17.3630 UG/L
4) TM Toluene	13.72	3050847	17.2010 UG/L
5) TM Chlorobenzene	18.59	3157108	17.7398 UG/L
6) TM Ethylbenzene	18.88	2728441	17.8668 UG/L
7) TM m-,p-Xylene	19.12	6651664	35.6817 UG/L
8) TM o-Xylene	20.29	2883963	17.4640 UG/L
10) T 1,3-Dichlorobenzene	24.07	2762332	17.4677 UG/L
11) T 1,4-Dichlorobenzene	24.25	2960990	17.6334 UG/L
12) T 1,2-Dichlorobenzene	24.78	2435305	16.9351 UG/L

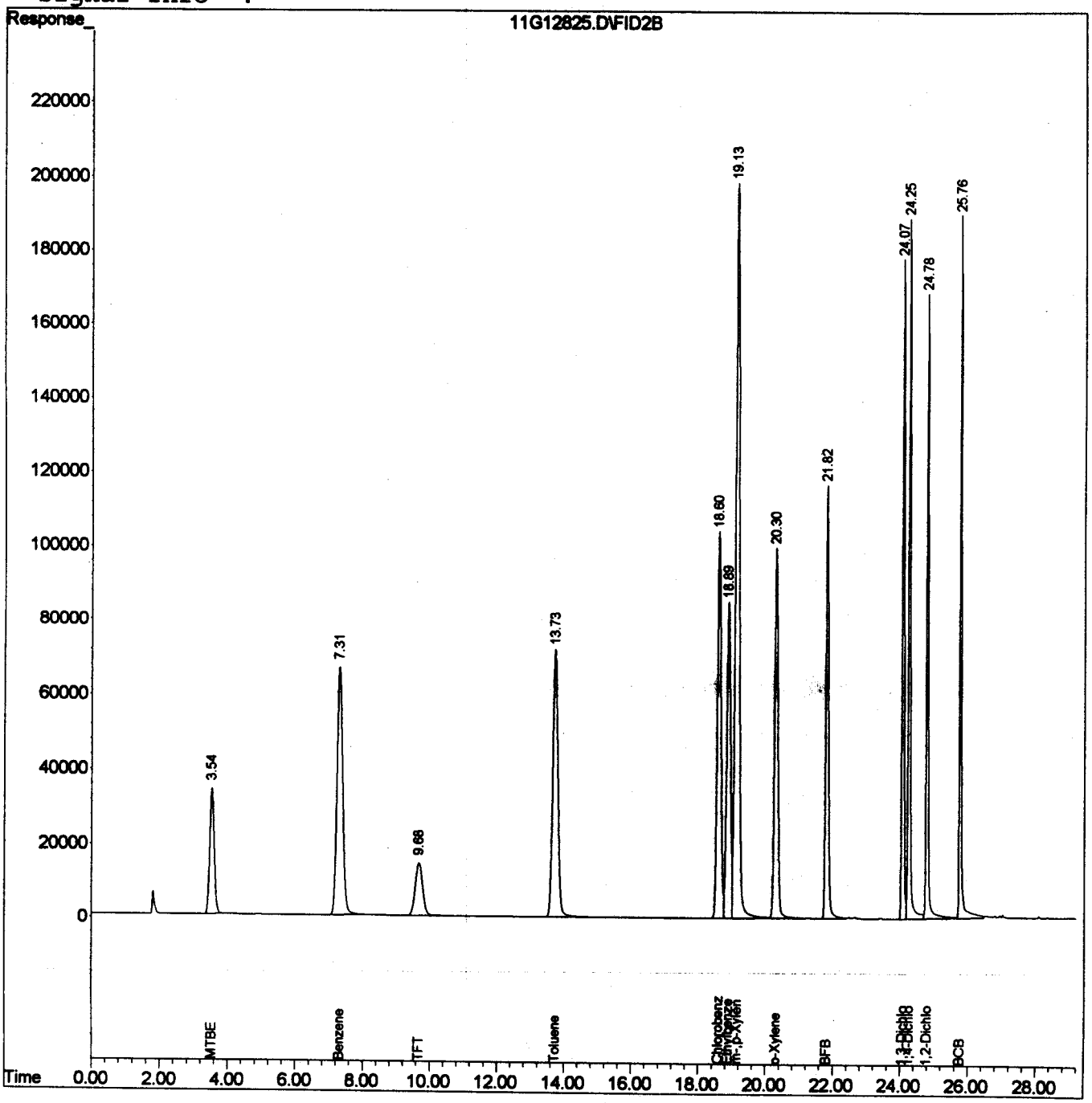
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\11G12825.D Vial: 7
Acq On : 13 Dec 2001 11:11 am Operator: CBN
Sample : WG109931-04 50PPB 8021 WATER STD 5ML Inst : HP11
Misc : 1,1 S-87-21 S-88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 11:40 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\11G12825.D Vial: 7
Acq On : 13 Dec 2001 11:11 am Operator: CBN
Sample : WG109931-04 50PPB 8021 WATER STD 5ML Inst : HP11
Misc : 1,1 S-87-21 S-88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 11:40 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.68	2240442	40.0601 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 133.53%#
9) S BFB	21.82	6422606	39.8670 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 132.89%#
13) S BCB	25.76	6239560	39.3068 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 131.02%
Target Compounds			
1) TM MTBE	3.54	3123714	42.2603 UG/L
2) TM Benzene	7.32	7913336	43.1661 UG/L
4) TM Toluene	13.73	7728696	43.5752 UG/L
5) TM Chlorobenzene	18.61	7985419	44.8700 UG/L
6) TM Ethylbenzene	18.89	6772527	44.3490 UG/L
7) TM m-,p-Xylene	19.14	16129719	86.5252 UG/L
8) TM o-Xylene	20.31	7048884	42.6849 UG/L
10) T 1,3-Dichlorobenzene	24.07	6929852	43.8210 UG/L
11) T 1,4-Dichlorobenzene	24.25	7362969	43.8481 UG/L
12) T 1,2-Dichlorobenzene	24.78	6344123	44.1171 UG/L

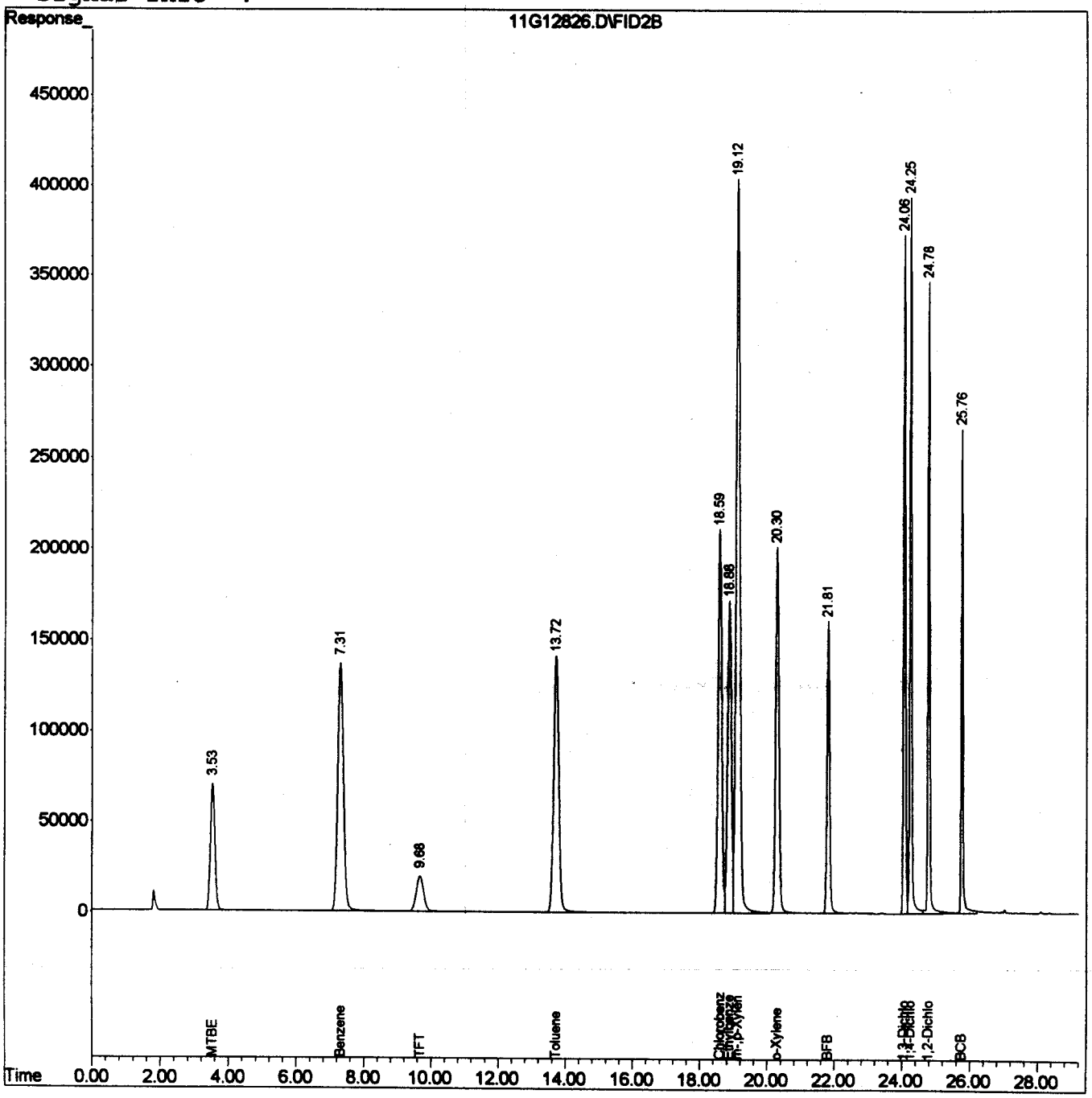
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\11G12826.D Vial: 8
Acq On : 13 Dec 2001 11:46 am Operator: CBN
Sample : WG109931-05 100PPB 8021 WATER STD 5ML Inst : HP11
Misc : 1,1 S-87-21 S-88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 12:15 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\11G12826.D Vial: 8
Acq On : 13 Dec 2001 11:46 am Operator: CBN
Sample : WG109931-05 100PPB 8021 WATER STD 5ML Inst : HP11
Misc : 1,1 S-87-21 S-88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 12:15 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.68	2998289	53.6108 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 178.70%#
9) S BFB	21.81	8751565	54.3236 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 181.08%#
13) S BCB	25.76	8477774	53.4067 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 178.02%#
Target Compounds			
1) TM MTBE	3.54	6403400	86.6308 UG/L
2) TM Benzene	7.31	16174978	88.2322 UG/L
4) TM Toluene	13.72	15092342	85.0922 UG/L
5) TM Chlorobenzene	18.59	16255448	91.3393 UG/L
6) TM Ethylbenzene	18.88	13631912	89.2668 UG/L
7) TM m-,p-Xylene	19.13	32342314	173.4949 UG/L
8) TM o-Xylene	20.30	14169020	85.8013 UG/L
10) T 1,3-Dichlorobenzene	24.07	14382852	90.9502 UG/L
11) T 1,4-Dichlorobenzene	24.25	14869827	88.5532 UG/L
12) T 1,2-Dichlorobenzene	24.78	12783660	88.8977 UG/L

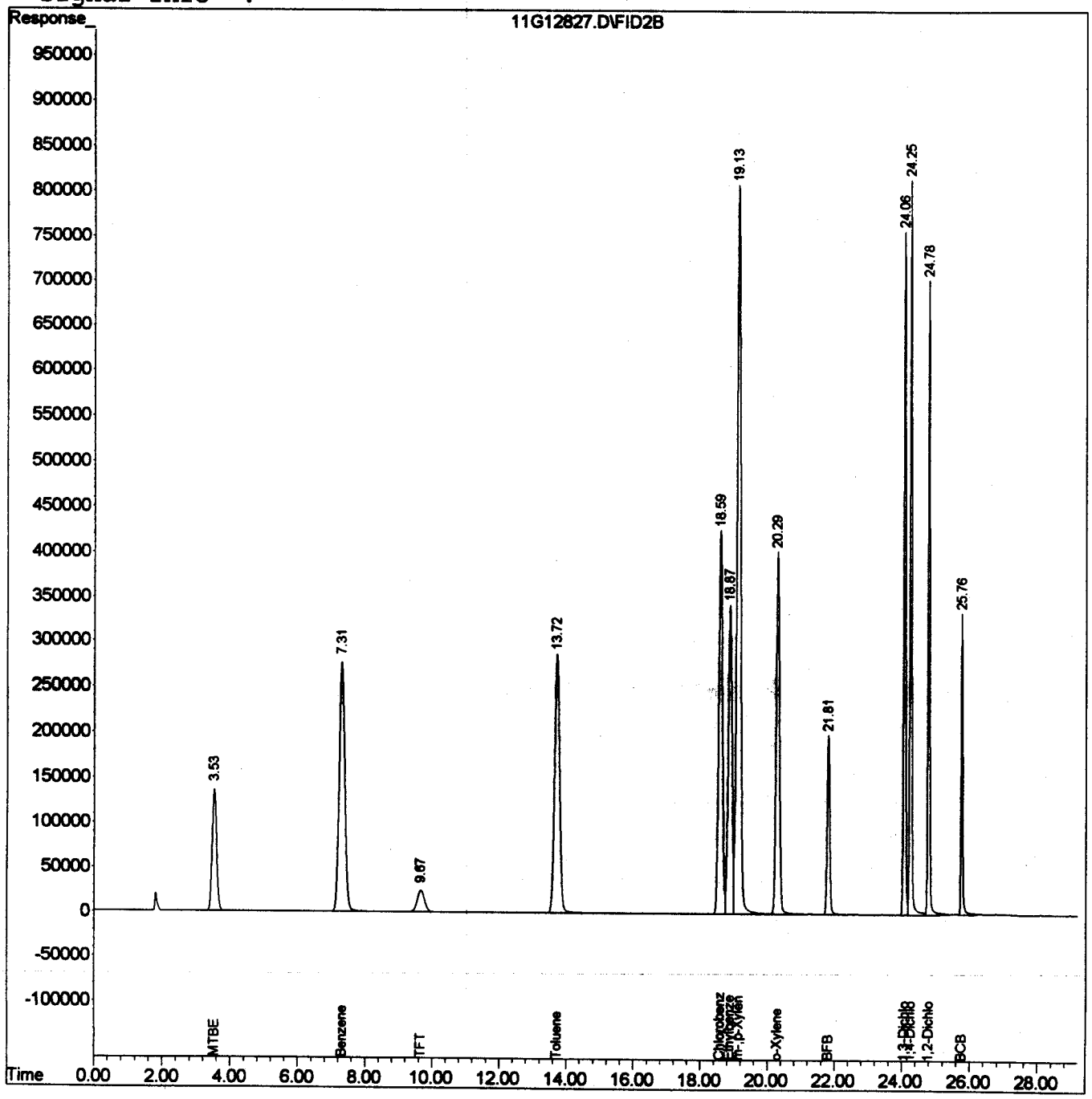
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\11G12827.D Vial: 9
Acq On : 13 Dec 2001 12:21 pm Operator: CBN
Sample : WG109931-06 200PPB 8021 WATER STD 5ML Inst : HP11
Misc : 1,1 S-87-21 S-88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 12:50 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\11G12827.D Vial: 9
Acq On : 13 Dec 2001 12:21 pm Operator: CBN
Sample : WG109931-06 200PPB 8021 WATER STD 5ML Inst : HP11
Misc : 1,1 S-87-21 S-88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 12:50 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.67	3715912	66.4422 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 221.47%#
9) S BFB	21.81	10716016	66.5175 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 221.72%#
13) S BCB	25.76	10463818	65.9180 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 219.73%#
Target Compounds			
1) TM MTBE	3.53	12504222	169.1680 UG/L
2) TM Benzene	7.31	32365239	176.5477 UG/L
4) TM Toluene	13.72	30329204	170.9993 UG/L
5) TM Chlorobenzene	18.59	32513100	182.6910 UG/L
6) TM Ethylbenzene	18.88	27155230	177.8224 UG/L
7) TM m-,p-Xylene	19.13	63956391	343.0833 UG/L
8) TM o-Xylene	20.30	28274533	171.2181 UG/L
10) T 1,3-Dichlorobenzene	24.07	29276580	185.1310 UG/L
11) T 1,4-Dichlorobenzene	24.25	30006137	178.6933 UG/L
12) T 1,2-Dichlorobenzene	24.78	24937325	173.4144 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

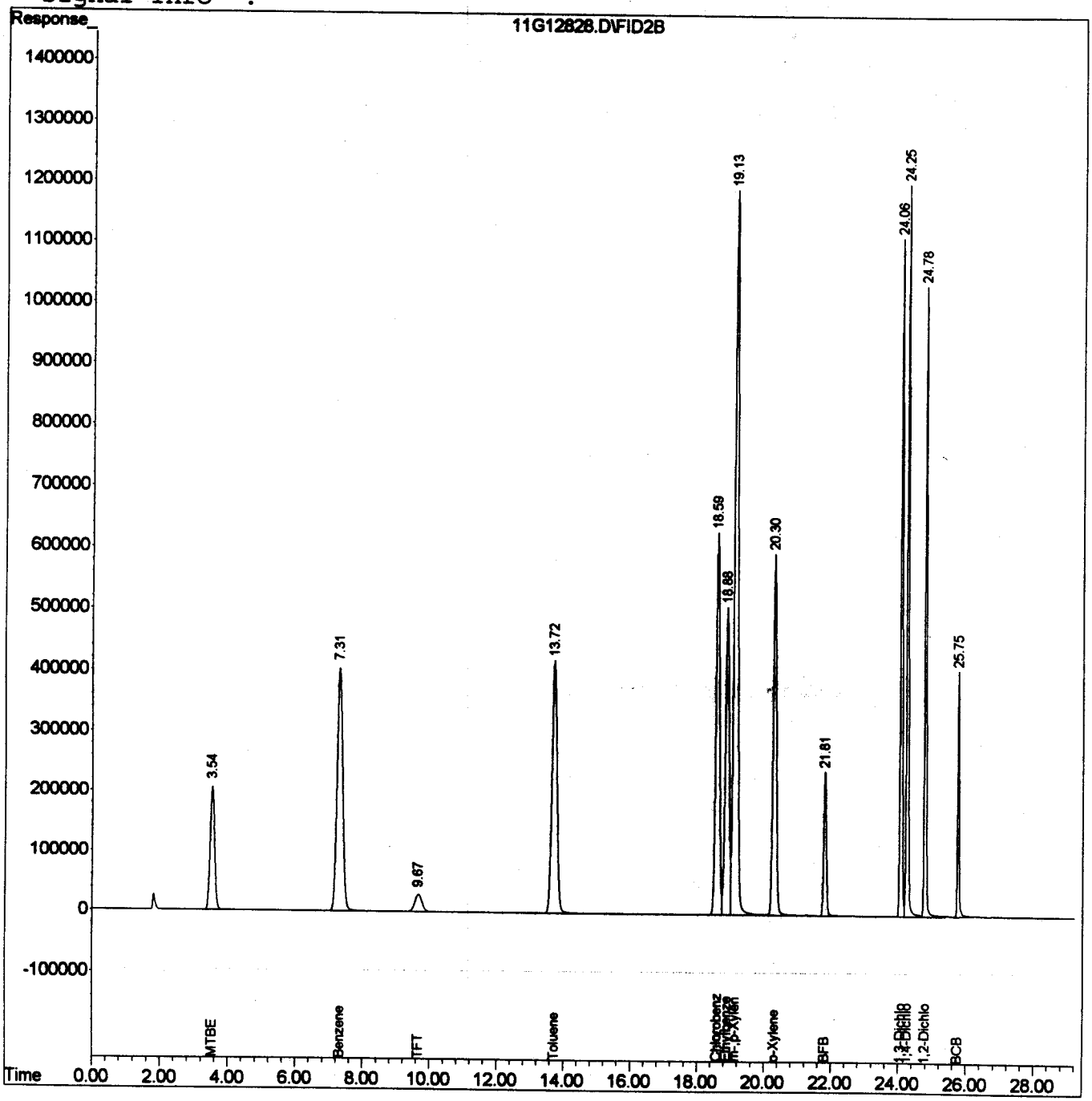
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\11G12828.D
Acq On : 13 Dec 2001 12:55 pm
Sample : WG109931-07 300PPB 8021 WATER STD 5ML
Misc : 1,1 S-87-21 S-88-05
IntFile : autoint1.e
Quant Time: Dec 13 13:25 2001 Quant Results File: 8021W.RES

Vial: 10
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\11G12828.D Vial: 10
Acq On : 13 Dec 2001 12:55 pm Operator: CBN
Sample : WG109931-07 300PPB 8021 WATER STD 5ML Inst : HP11
Misc : 1,1 S-87-21 S-88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 13:25 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.67	4392762	78.5446 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 261.82%#
9) S BFB	21.81	12906694	80.1157 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 267.05%#
13) S BCB	25.76	12677373	79.8626 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 266.21%#
Target Compounds			
1) TM MTBE	3.54	18813557	254.5262 UG/L
2) TM Benzene	7.31	47363759	258.3624 UG/L
4) TM Toluene	13.72	44396452	250.3120 UG/L
5) TM Chlorobenzene	18.59	48256939	271.1555 UG/L
6) TM Ethylbenzene	18.88	40172201	263.0623 UG/L
7) TM m-,p-Xylene	19.13	94273297	505.7132 UG/L
8) TM o-Xylene	20.30	41746851	252.8006 UG/L
10) T 1,3-Dichlorobenzene	24.07	43129654	272.7311 UG/L
11) T 1,4-Dichlorobenzene	24.25	44218777	263.3327 UG/L
12) T 1,2-Dichlorobenzene	24.78	36563658	254.2640 UG/L

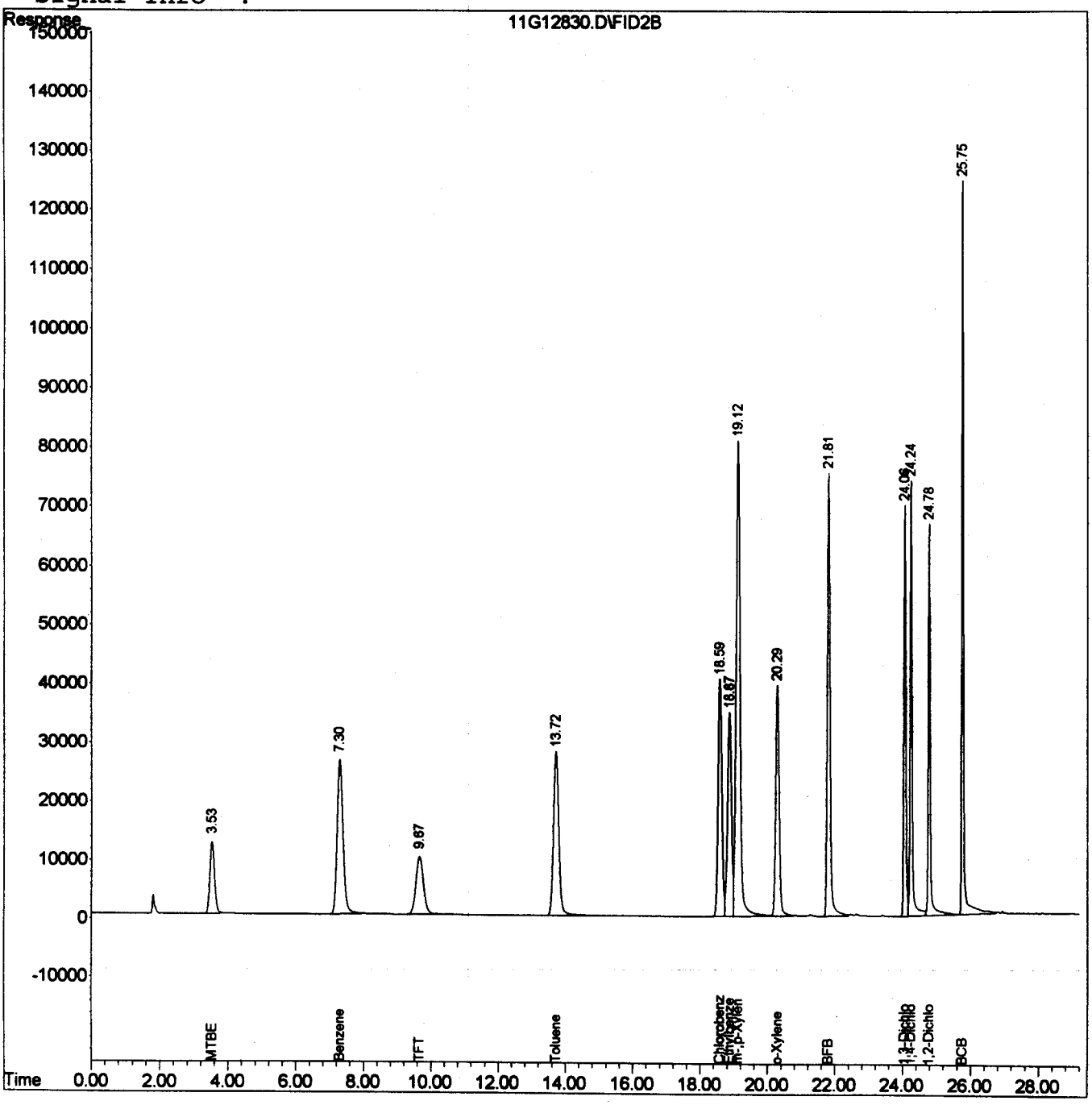
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\11G12830.D Vial: 11
Acq On : 13 Dec 2001 2:07 pm Operator: CBN
Sample : WG109931-08 8021 ALT SOURCE 20PPB 5ML Inst : HP11
Misc : 1,1 S-87-37 S-88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 14:36 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 12/13/01
Last Update : Thu Dec 13 13:25:15 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\11G12830.D Vial: 11
Acq On : 13 Dec 2001 2:07 pm Operator: CBN
Sample : WG109931-08 8021 ALT SOURCE 20PPB 5ML Inst : HP11
Misc : 1,1 S-87-37 S-88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 14:36 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 12/13/01
Last Update : Thu Dec 13 13:25:15 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.67	1559975	32.0771 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 106.92%
9) S BFB	21.81	4271324	31.0782 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 103.59%
13) S BCB	25.76	4200128	31.7794 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 105.93%
Target Compounds			
1) TM MTBE	3.53	1154130	18.6251 UG/L
2) TM Benzene	7.31	3204498	20.2764 UG/L
4) TM Toluene	13.72	3067119	20.3310 UG/L
5) TM Chlorobenzene	18.59	3148485	19.9781 UG/L
6) TM Ethylbenzene	18.87	2811234	20.8461 UG/L
7) TM m-,p-Xylene	19.12	6743799	41.3180 UG/L
8) TM o-Xylene	20.29	2848310	20.1258 UG/L
10) T 1,3-Dichlorobenzene	24.06	2755931	19.7593 UG/L
11) T 1,4-Dichlorobenzene	24.25	3009990	20.3851 UG/L
12) T 1,2-Dichlorobenzene	24.78	2637475	21.2422 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121301\6G08829.D Vial: 1
Acq On : 13 Dec 2001 7:16 Operator: CBN
Sample : WG109921-01 8021 STD 20PPB 5G Inst : HP6
Misc : 7,1 S-87-37,88-05 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	13.540	14.561	E3	-7.5	131	-0.04
2	TM	Benzene	131.934	140.098	E3	-6.2	117	-0.05
3	S	TFT	44.400	44.859	E3	-1.0	111	-0.07
4	TM	Toluene	123.834	124.794	E3	-0.8	110	-0.09
5	TM	Chlorobenzene	125.812	129.525	E3	-3.0	110	-0.07
6	TM	Ethylbenzene	114.521	118.104	E3	-3.1	107	-0.06
7	TM	m-,p-Xylene	140.437	135.920	E3	3.2	100	-0.06
8	TM	o-Xylene	119.737	112.329	E3	6.2	96	-0.06
9	S	BFB	107.725	104.008	E3	3.5	96	-0.06
10	TM	1,3-Dichlorobenzene	117.890	115.201	E3	2.3	102	-0.05
11	TM	1,4-Dichlorobenzene	117.890	115.201	E3	2.3	102	-0.05
12	TM	1,2-Dichlorobenzene	86.362	86.655	E3	-0.3	100	-0.04
13	S	BCB	100.565	90.859	E3	9.7	91	-0.04

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121301\6G08829.D Vial: 1
Acq On : 13 Dec 2001 7:16 Operator: CBN
Sample : WG109921-01 8021 STD 20PPB 5G Inst : HP6
Misc : 7,1 S-87-37,88-05 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	21.508	-7.5	131	-0.04
2	TM	Benzene	20.000	21.238	-6.2	117	-0.05
3	S	TFT	30.000	30.310	-1.0	111	-0.07
4	TM	Toluene	20.000	20.155	-0.8	110	-0.09
5	TM	Chlorobenzene	20.000	20.590	-2.9	110	-0.07
6	TM	Ethylbenzene	20.000	20.626	-3.1	107	-0.06
7	TM	m-,p-Xylene	40.000	38.714	3.2	100	-0.06
8	TM	o-Xylene	20.000	18.763	6.2	96	-0.06
9	S	BFB	30.000	28.965	3.5	96	-0.06
10	TM	1,3-Dichlorobenzene	20.000	19.544	2.3	102	-0.05
11	TM	1,4-Dichlorobenzene	20.000	19.544	2.3	102	-0.05
12	TM	1,2-Dichlorobenzene	20.000	20.068	-0.3	100	-0.04
13	S	BCB	30.000	27.105	9.6	91	-0.04

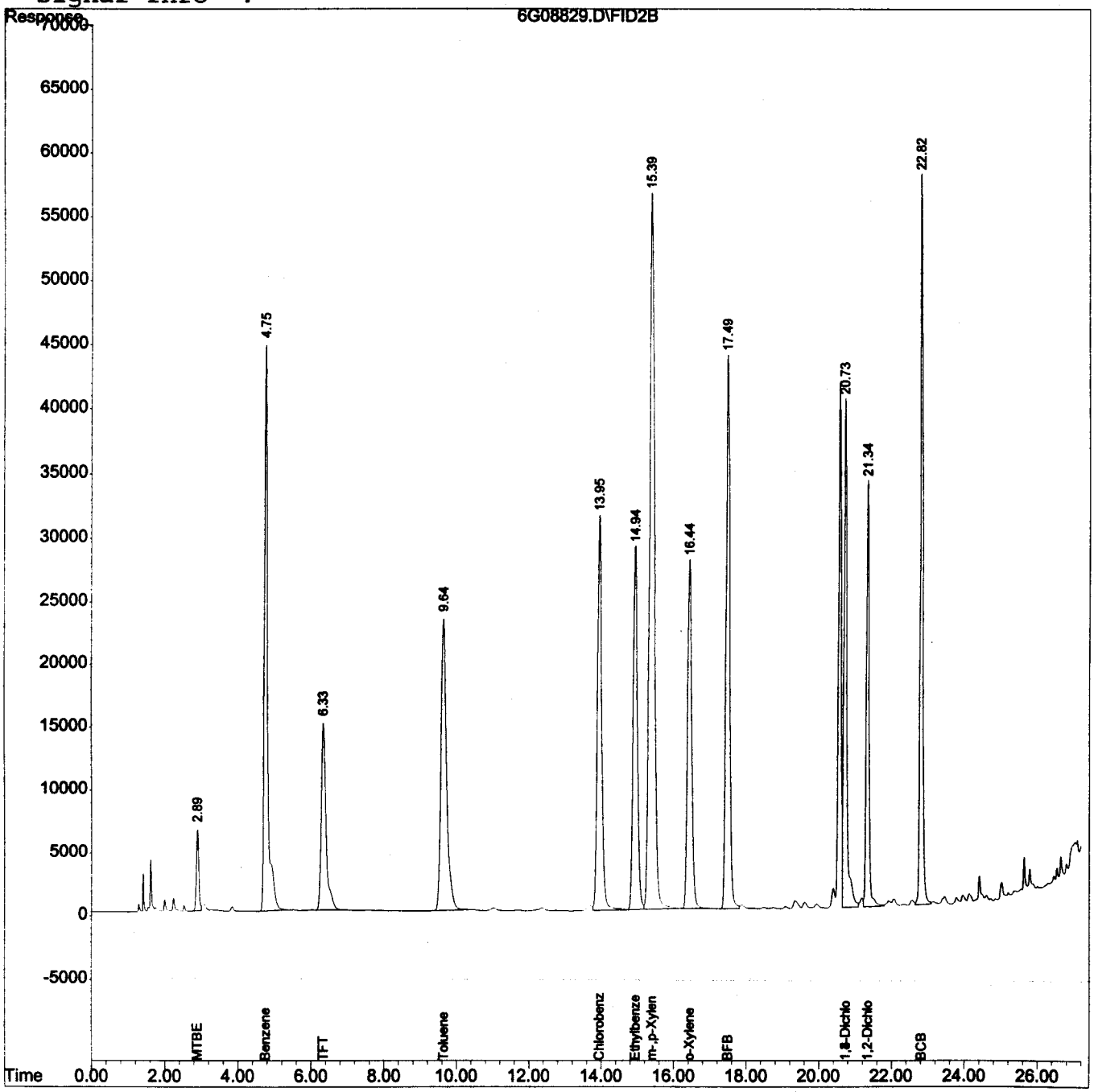
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121301\6G08829.D Vial: 1
Acq On : 13 Dec 2001 7:16 Operator: CBN
Sample : WG109921-01 8021 STD 20PPB 5G Inst : HP6
Misc : 7,1 S-87-37,88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 7:43 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\6G08829.D Vial: 1
Acq On : 13 Dec 2001 7:16 Operator: CBN
Sample : WG109921-01 8021 STD 20PPB 5G Inst : HP6
Misc : 7,1 S-87-37,88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 7:43 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	6.34	1345756	30.3096 UG/KG
Spiked Amount 30.000	Range 47 - 121	Recovery =	101.03%
9) S BFB	17.49	3120245	28.9650 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	96.55%
13) S BCB	22.82	2725769	27.1045 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	90.35%
Target Compounds			
1) TM MTBE	2.89	291226	21.5081 UG/KG
2) TM Benzene	4.75	2801962	21.2376 UG/KG
4) TM Toluene	9.64	2495881	20.1550 UG/KG
5) TM Chlorobenzene	13.95	2590493	20.5902 UG/KG
6) TM Ethylbenzene	14.94	2362075	20.6258 UG/KG
7) TM m-,p-Xylene	15.39	5436810	38.7136 UG/KG
8) TM o-Xylene	16.44	2246575	18.7626 UG/KG
10) TM 1,3-Dichlorobenzene	20.73	2304017	19.5438 UG/KG
11) TM 1,4-Dichlorobenzene	20.73	2304017	19.5438 UG/KG
12) TM 1,2-Dichlorobenzene	21.35	1733091	20.0678 UG/KG

(f)=RT Delta > 1/2 Window (m)=manual int.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121301\6G08840.D
Acq On : 13 Dec 2001 13:37
Sample : WG109921-02 8021 STD 20PPB 5G
Misc : 7,1 S-87-37,88-05
IntFile : autoint1.e

Vial: 9
Operator: CBN
Inst : HP6
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	13.540	14.636	E3	-8.1	132	-0.02
2	TM	Benzene	131.934	135.957	E3	-3.0	114	-0.04
3	S	TFT	44.400	43.908	E3	1.1	108	-0.06
4	TM	Toluene	123.834	128.010	E3	-3.4	113	-0.09
5	TM	Chlorobenzene	125.812	127.039	E3	-1.0	108	-0.07
6	TM	Ethylbenzene	114.521	118.062	E3	-3.1	107	-0.07
7	TM	m-,p-Xylene	140.437	140.733	E3	-0.2	103	-0.07
8	TM	o-Xylene	119.737	118.083	E3	1.4	101	-0.06
9	S	BFB	107.725	105.702	E3	1.9	98	-0.07
10	TM	1,3-Dichlorobenzene	117.890	115.459	E3	2.1	103	-0.05
11	TM	1,4-Dichlorobenzene	117.890	115.459	E3	2.1	103	-0.05
12	TM	1,2-Dichlorobenzene	86.362	88.974	E3	-3.0	103	-0.05
13	S	BCB	100.565	94.785	E3	5.7	95	-0.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121301\6G08840.D Vial: 9
Acq On : 13 Dec 2001 13:37 Operator: CBN
Sample : WG109921-02 8021 STD 20PPB 5G Inst : HP6
Misc : 7,1 S-87-37,88-05 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

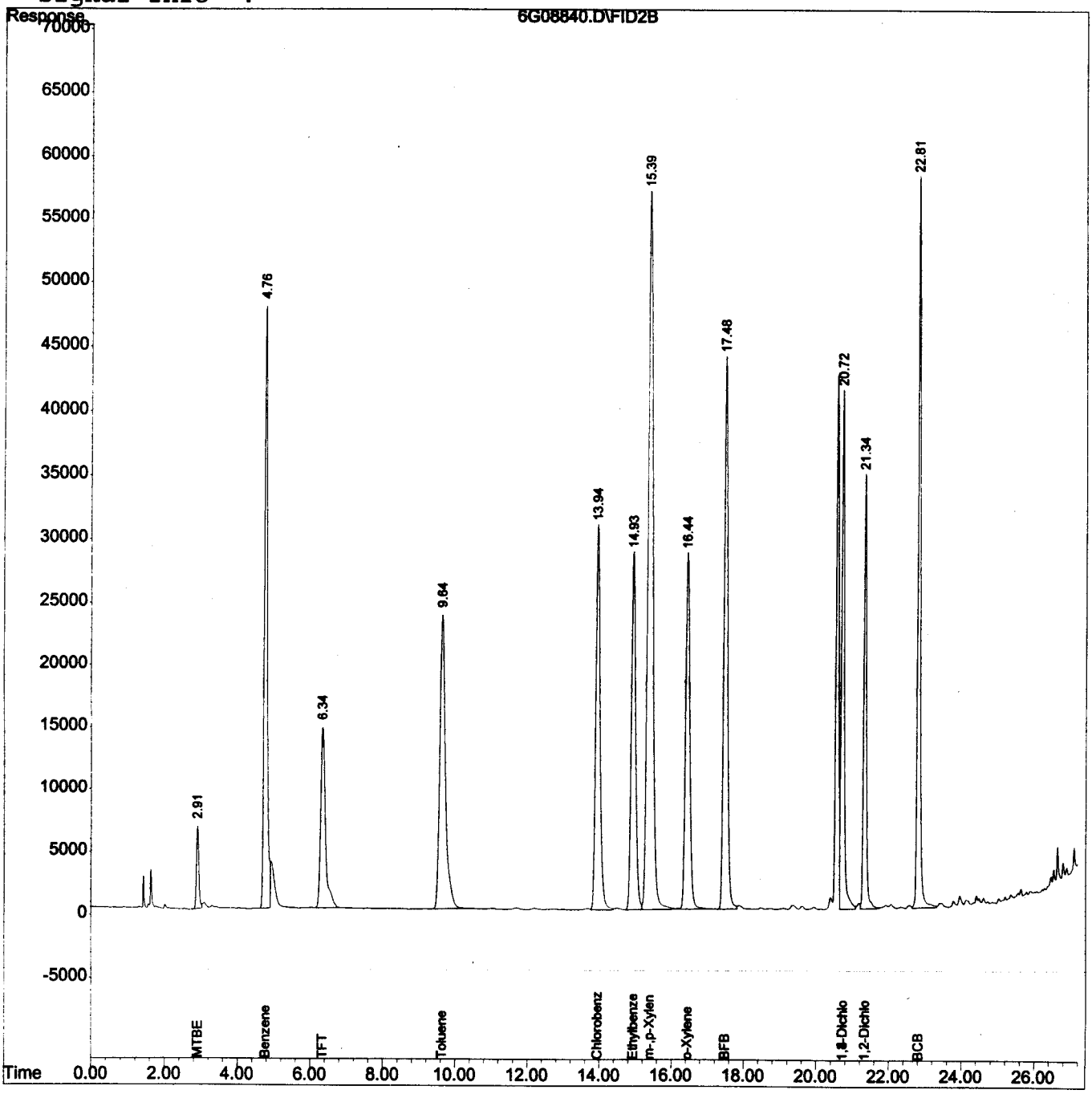
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	21.618	-8.1	132	-0.02
2	TM	Benzene	20.000	20.610	-3.0	114	-0.04
3	S	TFT	30.000	29.667	1.1	108	-0.06
4	TM	Toluene	20.000	20.674	-3.4	113	-0.09
5	TM	Chlorobenzene	20.000	20.195	-1.0	108	-0.07
6	TM	Ethylbenzene	20.000	20.619	-3.1	107	-0.07
7	TM	m-,p-Xylene	40.000	40.085	-0.2	103	-0.07
8	TM	o-Xylene	20.000	19.724	1.4	101	-0.06
9	S	BFB	30.000	29.437	1.9	98	-0.07
10	TM	1,3-Dichlorobenzene	20.000	19.587	2.1	103	-0.05
11	TM	1,4-Dichlorobenzene	20.000	19.587	2.1	103	-0.05
12	TM	1,2-Dichlorobenzene	20.000	20.605	-3.0	103	-0.05
13	S	BCB	30.000	28.276	5.7	95	-0.04

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121301\6G08840.D Vial: 9
Acq On : 13 Dec 2001 13:37 Operator: CBN
Sample : WG109921-02 8021 STD 20PPB 5G Inst : HP6
Misc : 7,1 S-87-37,88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 14:04 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\6G08840.D Vial: 9
Acq On : 13 Dec 2001 13:37 Operator: CBN
Sample : WG109921-02 8021 STD 20PPB 5G Inst : HP6
Misc : 7,1 S-87-37,88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 14:04 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	6.34	1317248	29.6675 UG/KG
Spiked Amount 30.000	Range 47 - 121	Recovery =	98.89%
9) S BFB	17.49	3171067	29.4368 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	98.12%
13) S BCB	22.82	2843565	28.2759 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	94.25%
Target Compounds			
1) TM MTBE	2.91	292714	21.6179 UG/KG
2) TM Benzene	4.76	2719141	20.6099 UG/KG
4) TM Toluene	9.64	2560209	20.6744 UG/KG
5) TM Chlorobenzene	13.95	2540778	20.1951 UG/KG
6) TM Ethylbenzene	14.93	2361244	20.6185 UG/KG
7) TM m-,p-Xylene	15.39	5629336	40.0845 UG/KG
8) TM o-Xylene	16.44	2361652	19.7237 UG/KG
10) TM 1,3-Dichlorobenzene	20.72	2309171	19.5875 UG/KG
11) TM 1,4-Dichlorobenzene	20.72	2309171	19.5875 UG/KG
12) TM 1,2-Dichlorobenzene	21.34	1779484	20.6050 UG/KG

(f)=RT Delta > 1/2 Window (m)=manual int.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121301\6G08851.D Vial: 11
Acq On : 13 Dec 2001 19:51 Operator: CBN
Sample : WG109921-03 8021 STD 20PPB 5G Inst : HP6
Misc : 7,1 S-87-37,88-05 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	13.540	16.147	E3	-19.3#	145	-0.03
2	TM	Benzene	131.934	141.631	E3	-7.3	119	-0.05
3	S	TFT	44.400	46.863	E3	-5.5	116	-0.07
4	TM	Toluene	123.834	130.083	E3	-5.0	114	-0.10
5	TM	Chlorobenzene	125.812	135.199	E3	-7.5	115	-0.08
6	TM	Ethylbenzene	114.521	125.996	E3	-10.0	115	-0.08
7	TM	m-,p-Xylene	140.437	145.343	E3	-3.5	107	-0.07
8	TM	o-Xylene	119.737	120.756	E3	-0.9	104	-0.07
9	S	BFB	107.725	110.573	E3	-2.6	102	-0.07
10	TM	1,3-Dichlorobenzene	117.890	111.463	E3	5.5	99	-0.06
11	TM	1,4-Dichlorobenzene	117.890	111.463	E3	5.5	99	-0.06
12	TM	1,2-Dichlorobenzene	86.362	88.562	E3	-2.5	103	-0.05
13	S	BCB	100.565	96.262	E3	4.3	97	-0.05

AVE= 6.11

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121301\6G08851.D Vial: 11
Acq On : 13 Dec 2001 19:51 Operator: CBN
Sample : WG109921-03 8021 STD 20PPB 5G Inst : HP6
Misc : 7,1 S-87-37,88-05 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	23.851	-19.3#	145	-0.03
2	TM	Benzene	20.000	21.470	-7.3	119	-0.05
3	S	TFT	30.000	31.664	-5.5	116	-0.07
4	TM	Toluene	20.000	21.009	-5.0	114	-0.10
5	TM	Chlorobenzene	20.000	21.492	-7.5	115	-0.08
6	TM	Ethylbenzene	20.000	22.004	-10.0	115	-0.08
7	TM	m-,p-Xylene	40.000	41.397	-3.5	107	-0.07
8	TM	o-Xylene	20.000	20.170	-0.9	104	-0.07
9	S	BFB	30.000	30.793	-2.6	102	-0.07
10	TM	1,3-Dichlorobenzene	20.000	18.910	5.4	99	-0.06
11	TM	1,4-Dichlorobenzene	20.000	18.910	5.4	99	-0.06
12	TM	1,2-Dichlorobenzene	20.000	20.509	-2.5	103	-0.05
13	S	BCB	30.000	28.716	4.3	97	-0.05

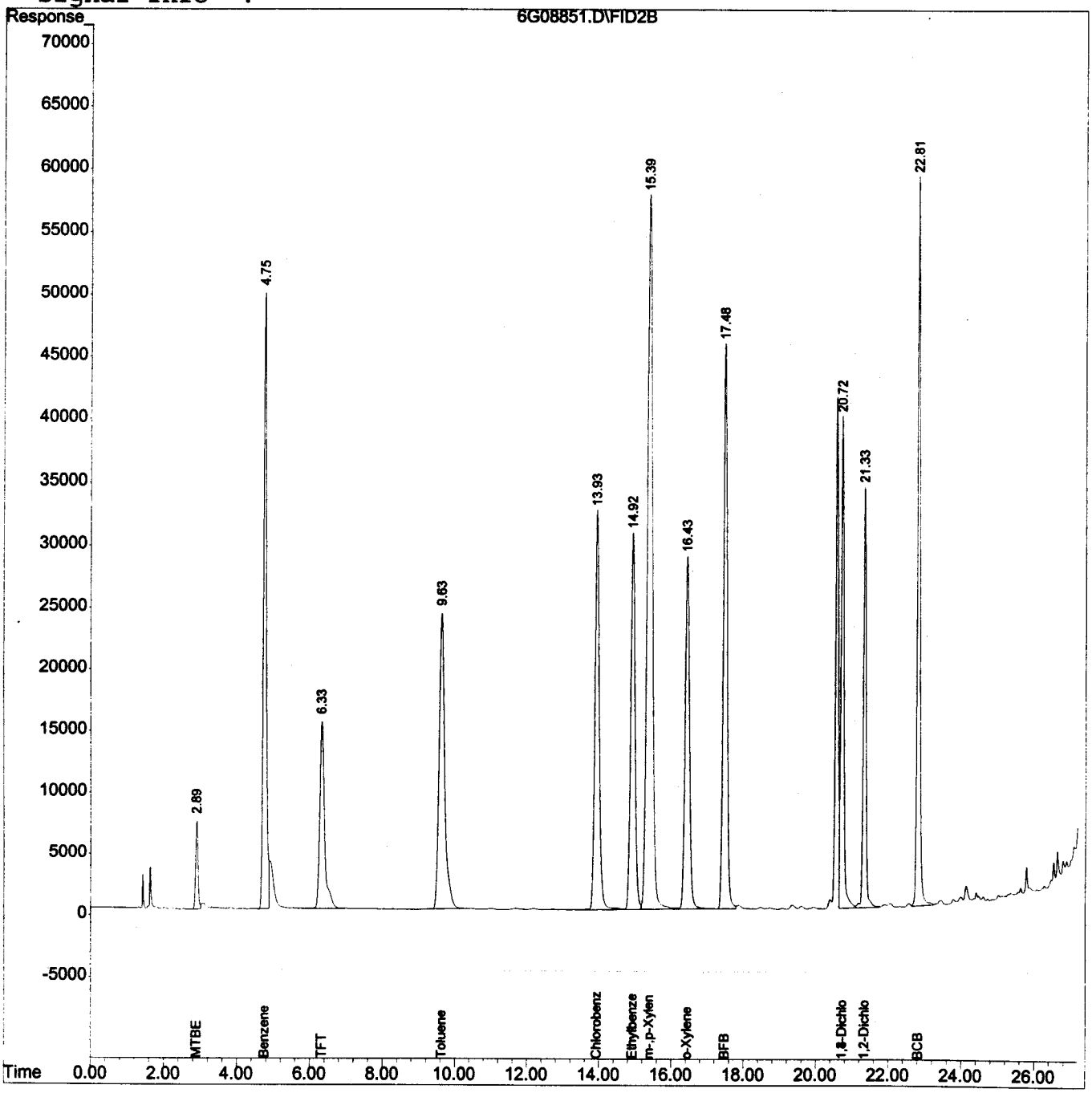
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121301\6G08851.D Vial: 11
Acq On : 13 Dec 2001 19:51 Operator: CBN
Sample : WG109921-03 8021 STD 20PPB 5G Inst : HP6
Misc : 7,1 S-87-37,88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 20:19 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\6G08851.D Vial: 11
Acq On : 13 Dec 2001 19:51 Operator: CBN
Sample : WG109921-03 8021 STD 20PPB 5G Inst : HP6
Misc : 7,1 S-87-37,88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 20:19 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	6.33	1405885	31.6638 UG/KG
Spiked Amount 30.000	Range 47 - 121	Recovery =	105.55%
9) S BFB	17.48	3317201	30.7933 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	102.64%
13) S BCB	22.81	2887853	28.7163 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	95.72%
Target Compounds			
1) TM MTBE	2.90	322944	23.8505 UG/KG
2) TM Benzene	4.75	2832615	21.4700 UG/KG
4) TM Toluene	9.63	2601668	21.0092 UG/KG
5) TM Chlorobenzene	13.93	2703974	21.4922 UG/KG
6) TM Ethylbenzene	14.93	2519922	22.0041 UG/KG
7) TM m-,p-Xylene	15.39	5813707	41.3974 UG/KG
8) TM o-Xylene	16.43	2415115	20.1702 UG/KG
10) TM 1,3-Dichlorobenzene	20.72	2229264	18.9097 UG/KG
11) TM 1,4-Dichlorobenzene	20.72	2229264	18.9097 UG/KG
12) TM 1,2-Dichlorobenzene	21.34	1771233	20.5094 UG/KG

(f)=RT Delta > 1/2 Window (m)=manual int.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121301\11G12841.D Vial: 11
Acq On : 13 Dec 2001 22:14 Operator: CBN
Sample : WG109931-09 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-87-(37,23) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 12/13/01
Last Update : Thu Dec 13 13:25:15 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	61.966	60.105	E3	3.0	101	0.00
2	TM	Benzene	158.041	158.045	E3	-0.0	99	0.00
3	S	TFT	48.632	50.305	E3	-3.4	102	0.00
4	TM	Toluene	150.860	150.595	E3	0.2	99	0.00
5	TM	Chlorobenzene	157.597	154.505	E3	2.0	98	0.00
6	TM	Ethylbenzene	134.857	137.321	E3	-1.8	101	0.00
7	TM	m-,p-Xylene	163.217	163.056	E3	0.1	98	0.00
8	TM	o-Xylene	141.526	138.110	E3	2.4	96	0.00
9	S	BFB	137.438	136.861	E3	0.4	100	0.00
10	T	1,3-Dichlorobenzene	139.475	129.711	E3	7.0	94	0.00
11	T	1,4-Dichlorobenzene	147.656	136.026	E3	7.9	92	0.00
12	T	1,2-Dichlorobenzene	124.162	126.748	E3	-2.1	104	0.00
13	S	BCB	132.165	136.246	E3	-3.1	103	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121301\11G12841.D
Acq On : 13 Dec 2001 22:14
Sample : WG109931-09 8021 STD 20PPB 5ML
Misc : 1,1 S-87-(37,23)
IntFile : autoint1.e

Vial: 11
Operator: CBN
Inst : HP11
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 12/13/01
Last Update : Thu Dec 13 13:25:15 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	19.399	3.0	101	0.00
2	TM	Benzene	20.000	20.000	0.0	99	0.00
3	S	TFT	30.000	31.032	-3.4	102	0.00
4	TM	Toluene	20.000	19.965	0.2	99	0.00
5	TM	Chlorobenzene	20.000	19.608	2.0	98	0.00
6	TM	Ethylbenzene	20.000	20.366	-1.8	101	0.00
7	TM	m-,p-Xylene	40.000	39.961	0.1	98	0.00
8	TM	o-Xylene	20.000	19.517	2.4	96	0.00
9	S	BFB	30.000	29.874	0.4	100	0.00
10	T	1,3-Dichlorobenzene	20.000	18.600	7.0	94	0.00
11	T	1,4-Dichlorobenzene	20.000	18.425	7.9	92	0.00
12	T	1,2-Dichlorobenzene	20.000	20.416	-2.1	104	0.00
13	S	BCB	30.000	30.926	-3.1	103	0.00

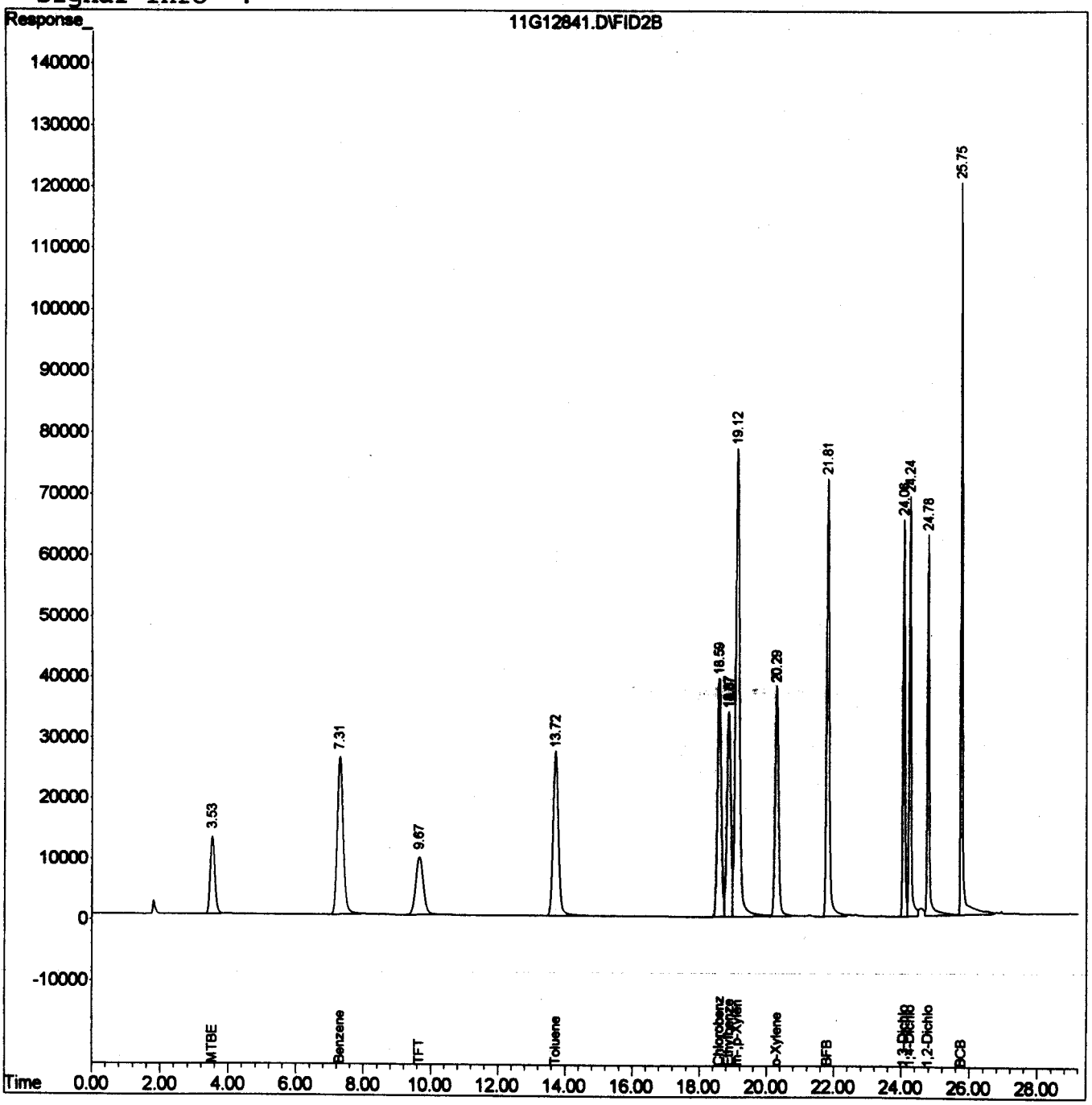
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\11G12841.D Vial: 11
Acq On : 13 Dec 2001 10:14 pm Operator: CBN
Sample : WG109931-09 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-87-(37,23) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 22:43 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 12/13/01
Last Update : Thu Dec 13 13:25:15 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\11G12841.D Vial: 11
Acq On : 13 Dec 2001 10:14 pm Operator: CBN
Sample : WG109931-09 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-87-(37,23) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 22:43 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 12/13/01
Last Update : Thu Dec 13 13:25:15 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.67	1509139	31.0318 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 103.44%
9) S BFB	21.81	4105819	29.8740 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 99.58%
13) S BCB	25.76	4087377	30.9263 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 103.09%
Target Compounds			
1) TM MTBE	3.53	1202099	19.3992 UG/L
2) TM Benzene	7.31	3160900	20.0005 UG/L
4) TM Toluene	13.72	3011908	19.9650 UG/L
5) TM Chlorobenzene	18.59	3090090	19.6076 UG/L
6) TM Ethylbenzene	18.87	2746428	20.3655 UG/L
7) TM m-,p-Xylene	19.12	6522235	39.9605 UG/L
8) TM o-Xylene	20.29	2762209	19.5174 UG/L
10) T 1,3-Dichlorobenzene	24.06	2594213	18.5999 UG/L
11) T 1,4-Dichlorobenzene	24.24	2720517	18.4247 UG/L
12) T 1,2-Dichlorobenzene	24.78	2534954	20.4165 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121401\6G08855.D Vial: 1
Acq On : 14 Dec 2001 7:17 Operator: CBN
Sample : WG109998-01 8021 STD 20PPB 5G Inst : HP6
Misc : 7,1 S-(87-37,88-05) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	13.540	15.640	E3	-15.5#	141	-0.03
2	TM	Benzene	131.934	148.837	E3	-12.8	125	-0.05
3	S	TFT	44.400	45.925	E3	-3.4	113	-0.07
4	TM	Toluene	123.834	129.760	E3	-4.8	114	-0.11
5	TM	Chlorobenzene	125.812	133.390	E3	-6.0	114	-0.09
6	TM	Ethylbenzene	114.521	123.824	E3	-8.1	113	-0.08
7	TM	m-,p-Xylene	140.437	140.907	E3	-0.3	103	-0.08
8	TM	o-Xylene	119.737	117.368	E3	2.0	101	-0.08
9	S	BFB	107.725	107.317	E3	0.4	99	-0.08
10	TM	1,3-Dichlorobenzene	117.890	122.407	E3	-3.8	109	-0.06
11	TM	1,4-Dichlorobenzene	117.890	122.407	E3	-3.8	109	-0.06
12	TM	1,2-Dichlorobenzene	86.362	88.560	E3	-2.5	103	-0.06
13	S	BCB	100.565	93.647	E3	6.9	94	-0.05

AVE = 5.41

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121401\6G08855.D
Acq On : 14 Dec 2001 7:17
Sample : WG109998-01 8021 STD 20PPB 5G
Misc : 7,1 S-(87-37,88-05)
IntFile : autoint1.e

Vial: 1
Operator: CBN
Inst : HP6
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	23.101	-15.5#	141	-0.03
2	TM	Benzene	20.000	22.562	-12.8	125	-0.05
3	S	TFT	30.000	31.030	-3.4	113	-0.07
4	TM	Toluene	20.000	20.957	-4.8	114	-0.11
5	TM	Chlorobenzene	20.000	21.205	-6.0	114	-0.09
6	TM	Ethylbenzene	20.000	21.625	-8.1	113	-0.08
7	TM	m-,p-Xylene	40.000	40.134	-0.3	103	-0.08
8	TM	o-Xylene	20.000	19.604	2.0	101	-0.08
9	S	BFB	30.000	29.886	0.4	99	-0.08
10	TM	1,3-Dichlorobenzene	20.000	20.766	-3.8	109	-0.06
11	TM	1,4-Dichlorobenzene	20.000	20.766	-3.8	109	-0.06
12	TM	1,2-Dichlorobenzene	20.000	20.509	-2.5	103	-0.06
13	S	BCB	30.000	27.936	6.9	94	-0.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0

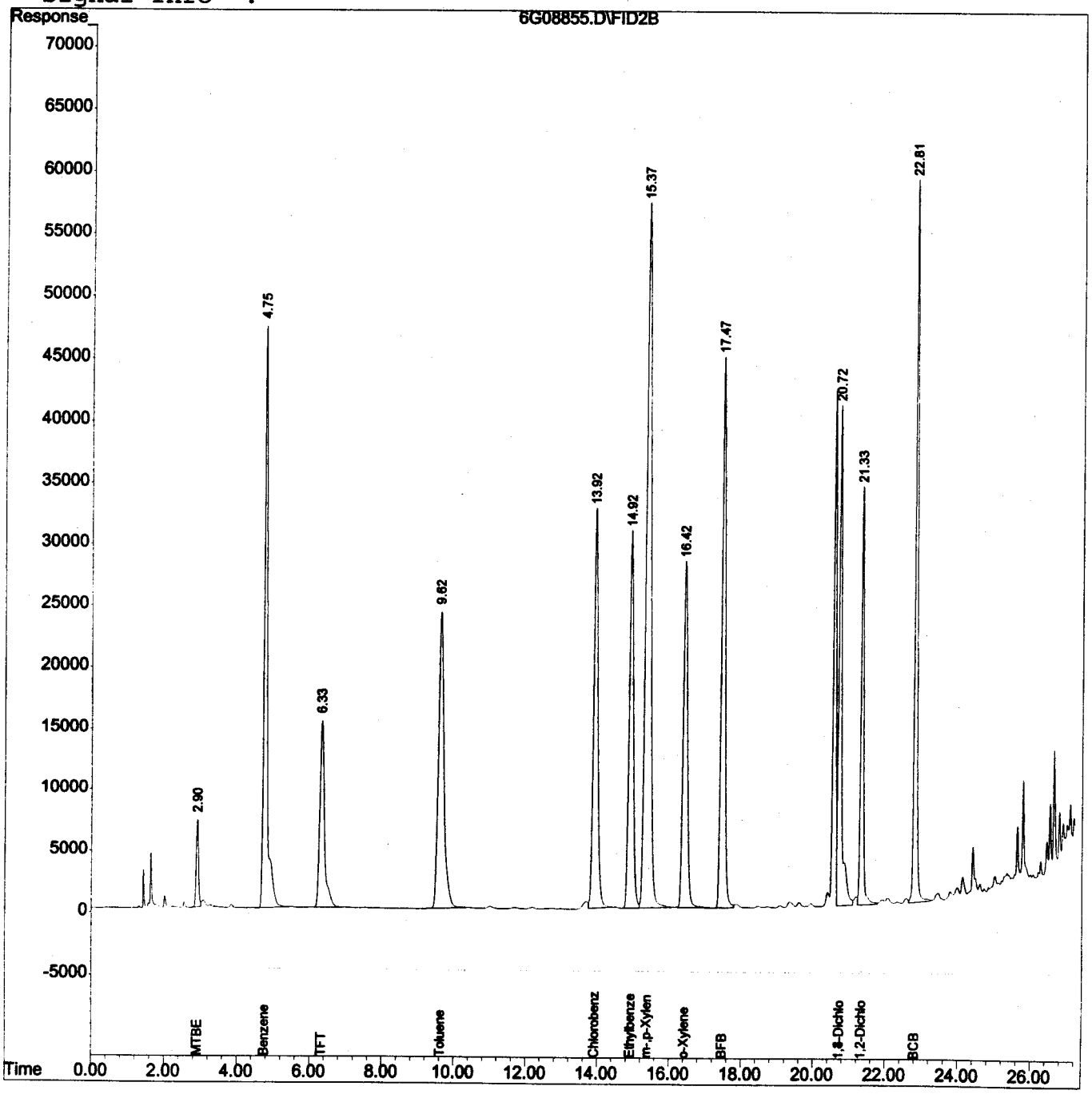
Quantitation Report

Data File : C:\HPCHEM\1\DATA\121401\6G08855.D
Acq On : 14 Dec 2001 7:17
Sample : WG109998-01 8021 STD 20PPB 5G
Misc : 7,1 S-(87-37,88-05)
IntFile : autoint1.e
Quant Time: Dec 14 7:44 2001 Quant Results File: 8021S.RES

Vial: 1
Operator: CBN
Inst : HP6
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121401\6G08855.D Vial: 1
Acq On : 14 Dec 2001 7:17 Operator: CBN
Sample : WG109998-01 8021 STD 20PPB 5G Inst : HP6
Misc : 7,1 S-(87-37,88-05) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 14 7:44 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	6.33	1377757	31.0303 UG/KG
Spiked Amount 30.000	Range 47 - 121	Recovery =	103.43%
9) S BFB	17.47	3219509	29.8865 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	99.62%
13) S BCB	22.81	2809422	27.9364 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	93.12%
Target Compounds			
1) TM MTBE	2.90	312793	23.1009 UG/KG
2) TM Benzene	4.75	2976749	22.5624 UG/KG
4) TM Toluene	9.62	2595194	20.9570 UG/KG
5) TM Chlorobenzene	13.92	2667792	21.2046 UG/KG
6) TM Ethylbenzene	14.92	2476483	21.6248 UG/KG
7) TM m-,p-Xylene	15.37	5636277	40.1340 UG/KG
8) TM o-Xylene	16.42	2347351	19.6043 UG/KG
10) TM 1,3-Dichlorobenzene	20.72	2448131	20.7662 UG/KG
11) TM 1,4-Dichlorobenzene	20.72	2448131	20.7662 UG/KG
12) TM 1,2-Dichlorobenzene	21.33	1771204	20.5091 UG/KG

(f)=RT Delta > 1/2 Window (m)=manual int.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121401\6G08866.D Vial: 9
Acq On : 14 Dec 2001 13:28 Operator: CBN
Sample : WG109998-02 8021 STD 20PPB 5G Inst : HP6
Misc : 7,1 S-(87-37,88-05) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	13.540	15.015	E3	-10.9	135	-0.03
2	TM	Benzene	131.934	132.316	E3	-0.3	111	-0.06
3	S	TFT	44.400	43.223	E3	2.7	107	-0.08
4	TM	Toluene	123.834	124.527	E3	-0.6	109	-0.12
5	TM	Chlorobenzene	125.812	126.720	E3	-0.7	108	-0.10
6	TM	Ethylbenzene	114.521	120.285	E3	-5.0	109	-0.10
7	TM	m-,p-Xylene	140.437	139.595	E3	0.6	102	-0.09
8	TM	o-Xylene	119.737	116.459	E3	2.7	100	-0.08
9	S	BFB	107.725	108.299	E3	-0.5	100	-0.08
10	TM	1,3-Dichlorobenzene	117.890	110.704	E3	6.1	98	-0.06
11	TM	1,4-Dichlorobenzene	117.890	110.704	E3	6.1	98	-0.06
12	TM	1,2-Dichlorobenzene	86.362	87.461	E3	-1.3	101	-0.06
13	S	BCB	100.565	94.488	E3	6.0	95	-0.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121401\6G08866.D Vial: 9
Acq On : 14 Dec 2001 13:28 Operator: CBN
Sample : WG109998-02 8021 STD 20PPB 5G Inst : HP6
Misc : 7,1 S-(87-37,88-05) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	22.178	-10.9	135	-0.03
2	TM	Benzene	20.000	20.058	-0.3	111	-0.06
3	S	TFT	30.000	29.204	2.7	107	-0.08
4	TM	Toluene	20.000	20.112	-0.6	109	-0.12
5	TM	Chlorobenzene	20.000	20.144	-0.7	108	-0.10
6	TM	Ethylbenzene	20.000	21.007	-5.0	109	-0.10
7	TM	m-,p-Xylene	40.000	39.760	0.6	102	-0.09
8	TM	o-Xylene	20.000	19.452	2.7	100	-0.08
9	S	BFB	30.000	30.160	-0.5	100	-0.08
10	TM	1,3-Dichlorobenzene	20.000	18.781	6.1	98	-0.06
11	TM	1,4-Dichlorobenzene	20.000	18.781	6.1	98	-0.06
12	TM	1,2-Dichlorobenzene	20.000	20.255	-1.3	101	-0.06
13	S	BCB	30.000	28.187	6.0	95	-0.05

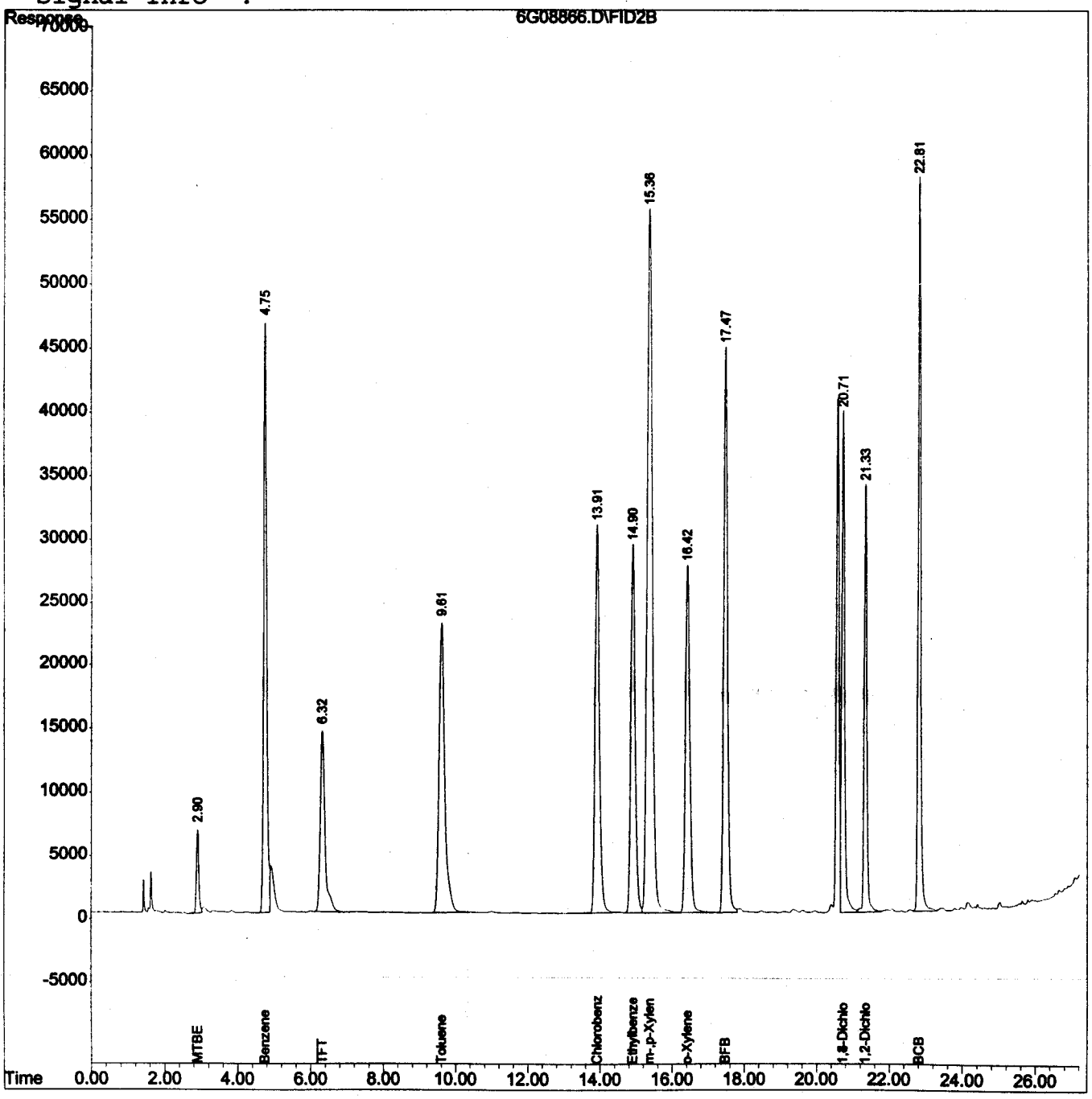
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121401\6G08866.D Vial: 9
Acq On : 14 Dec 2001 13:28 Operator: CBN
Sample : WG109998-02 8021 STD 20PPB 5G Inst : HP6
Misc : 7,1 S-(87-37,88-05) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 14 13:55 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121401\6G08866.D Vial: 9
Acq On : 14 Dec 2001 13:28 Operator: CBN
Sample : WG109998-02 8021 STD 20PPB 5G Inst : HP6
Misc : 7,1 S-(87-37,88-05) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 14 13:55 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	6.32	1296676	29.2042 UG/KG
Spiked Amount 30.000	Range 47 - 121	Recovery =	97.35%
9) S BFB	17.47	3248959	30.1599 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	100.53%
13) S BCB	22.81	2834655	28.1873 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	93.96%
Target Compounds			
1) TM MTBE	2.90	300298	22.1780 UG/KG
2) TM Benzene	4.75	2646319	20.0579 UG/KG
4) TM Toluene	9.61	2490543	20.1119 UG/KG
5) TM Chlorobenzene	13.91	2534406	20.1444 UG/KG
6) TM Ethylbenzene	14.91	2405708	21.0068 UG/KG
7) TM m-,p-Xylene	15.36	5583813	39.7604 UG/KG
8) TM o-Xylene	16.42	2329171	19.4524 UG/KG
10) TM 1,3-Dichlorobenzene	20.71	2214076	18.7808 UG/KG
11) TM 1,4-Dichlorobenzene	20.71	2214076	18.7808 UG/KG
12) TM 1,2-Dichlorobenzene	21.33	1749217	20.2545 UG/KG

(f)=RT Delta > 1/2 Window (m)=manual int.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121701\11G12889.D Vial: 7
Acq On : 17 Dec 2001 14:26 Operator: CBN
Sample : WG110070-02 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-87-(37,23) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 12/13/01
Last Update : Thu Dec 13 13:25:15 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	61.966	63.655	E3	-2.7	107	0.00
2	TM	Benzene	158.041	158.610	E3	-0.4	100	0.00
3	S	TFT	48.632	48.673	E3	-0.1	99	0.00
4	TM	Toluene	150.860	151.393	E3	-0.4	99	0.00
5	TM	Chlorobenzene	157.597	153.580	E3	2.5	97	0.00
6	TM	Ethylbenzene	134.857	137.872	E3	-2.2	101	0.00
7	TM	m-,p-Xylene	163.217	164.287	E3	-0.7	99	0.00
8	TM	o-Xylene	141.526	140.228	E3	0.9	97	0.00
9	S	BFB	137.438	135.085	E3	1.7	98	0.00
10	T	1,3-Dichlorobenzene	139.475	134.081	E3	3.9	97	0.00
11	T	1,4-Dichlorobenzene	147.656	143.959	E3	2.5	97	0.00
12	T	1,2-Dichlorobenzene	124.162	127.157	E3	-2.4	104	0.00
13	S	BCB	132.165	132.303	E3	-0.1	100	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121701\11G12889.D Vial: 7
Acq On : 17 Dec 2001 14:26 Operator: CBN
Sample : WG110070-02 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-87-(37,23) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 12/13/01
Last Update : Thu Dec 13 13:25:15 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	20.545	-2.7	107	0.00
2	TM	Benzene	20.000	20.072	-0.4	100	0.00
3	S	TFT	30.000	30.025	-0.1	99	0.00
4	TM	Toluene	20.000	20.071	-0.4	99	0.00
5	TM	Chlorobenzene	20.000	19.490	2.6	97	0.00
6	TM	Ethylbenzene	20.000	20.447	-2.2	101	0.00
7	TM	m-,p-Xylene	40.000	40.262	-0.7	99	0.00
8	TM	o-Xylene	20.000	19.817	0.9	97	0.00
9	S	BFB	30.000	29.486	1.7	98	0.00
10	T	1,3-Dichlorobenzene	20.000	19.227	3.9	97	0.00
11	T	1,4-Dichlorobenzene	20.000	19.499	2.5	97	0.00
12	T	1,2-Dichlorobenzene	20.000	20.482	-2.4	104	0.00
13	S	BCB	30.000	30.031	-0.1	100	0.00

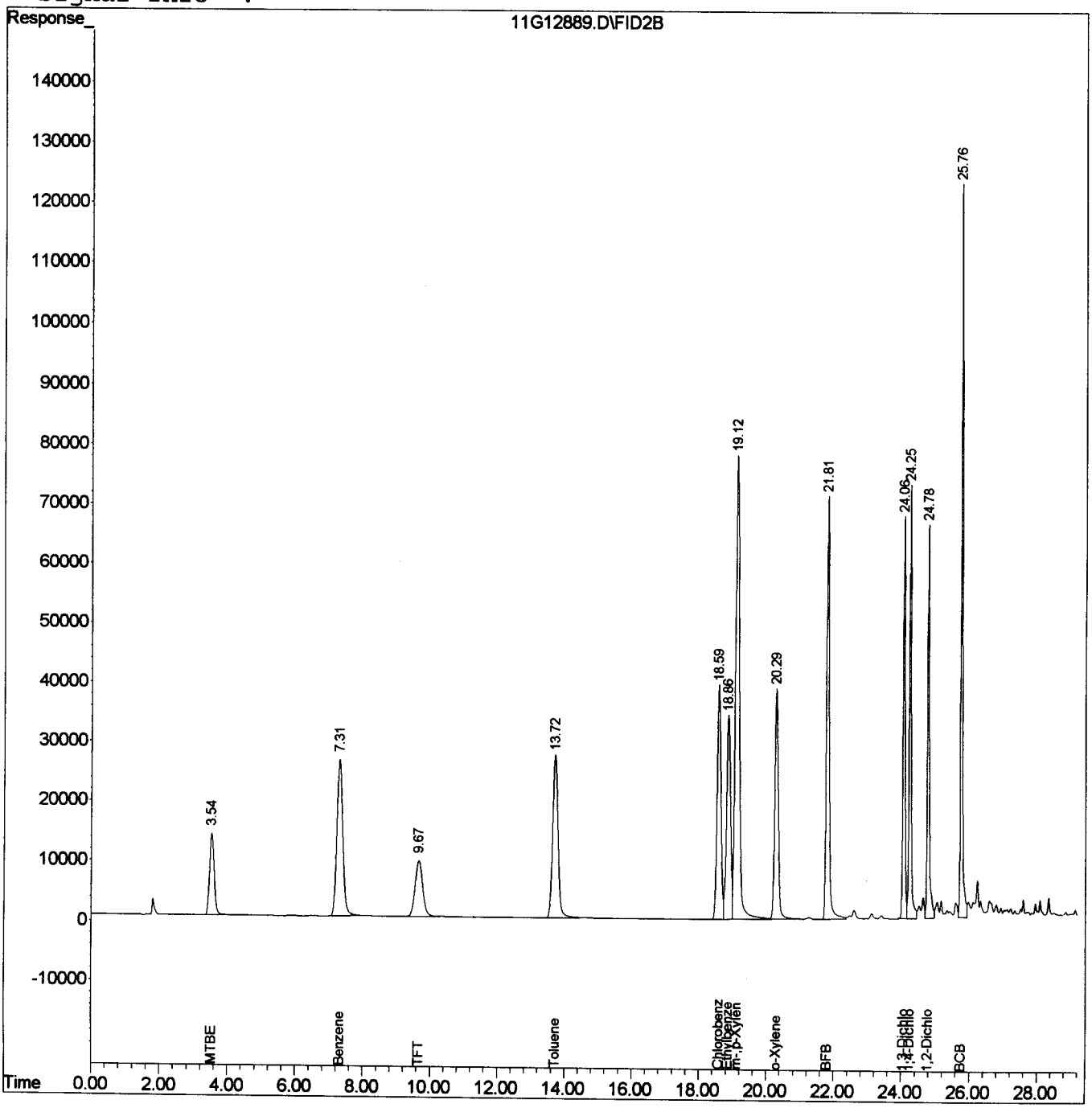
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121701\11G12889.D Vial: 7
Acq On : 17 Dec 2001 14:26 Operator: CBN
Sample : WG110070-02 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-87-(37,23) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 17 14:56 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 12/13/01
Last Update : Thu Dec 13 13:25:15 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121701\11G12889.D Vial: 7
Acq On : 17 Dec 2001 14:26 Operator: CBN
Sample : WG110070-02 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-87-(37,23) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 17 14:56 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 12/13/01
Last Update : Thu Dec 13 13:25:15 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.67	1460197	30.0255 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 100.09%
9) S BFB	21.81	4052545	29.4864 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 98.29%
13) S BCB	25.76	3969093	30.0313 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 100.10%
Target Compounds			
1) TM MTBE	3.54	1273104	20.5451 UG/L
2) TM Benzene	7.31	3172197	20.0720 UG/L
4) TM Toluene	13.72	3027861	20.0707 UG/L
5) TM Chlorobenzene	18.58	3071591	19.4902 UG/L
6) TM Ethylbenzene	18.87	2757442	20.4472 UG/L
7) TM m-,p-Xylene	19.12	6571493	40.2623 UG/L
8) TM o-Xylene	20.29	2804551	19.8166 UG/L
10) T 1,3-Dichlorobenzene	24.06	2681622	19.2265 UG/L
11) T 1,4-Dichlorobenzene	24.25	2879187	19.4993 UG/L
12) T 1,2-Dichlorobenzene	24.78	2543141	20.4824 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121701\11G12900.D
Acq On : 17 Dec 2001 21:33
Sample : WG110070-03 8021 STD 20PPB 5ML
Misc : 1,1 S-87-(37,23)
IntFile : autoint1.e

Vial: 11
Operator: CBN
Inst : HP11
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 12/13/01
Last Update : Thu Dec 13 13:25:15 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	61.966	16.166	E3	73.9#	27#	0.00
2	TM	Benzene	158.041	154.560	E3	2.2	97	0.00
3	S	TFT	48.632	46.761	E3	3.8	95	0.00
4	TM	Toluene	150.860	145.596	E3	3.5	95	0.00
5	TM	Chlorobenzene	157.597	152.449	E3	3.3	97	0.00
6	TM	Ethylbenzene	134.857	133.872	E3	0.7	98	0.00
7	TM	m-,p-Xylene	163.217	156.011	E3	4.4	94	0.00
8	TM	o-Xylene	141.526	134.679	E3	4.8	93	0.00
9	S	BFB	137.438	257.045	E3	-87.0#	187#	0.00
10	T	1,3-Dichlorobenzene	139.475	186.759	E3	-33.9#	135	0.00
11	T	1,4-Dichlorobenzene	147.656	154.718	E3	-4.8	105	0.00
12	T	1,2-Dichlorobenzene	124.162	117.995	E3	5.0	97	0.00
13	S	BCB	132.165	179.640	E3	-35.9#	136	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121701\11G12900.D
Acq On : 17 Dec 2001 21:33
Sample : WG110070-03 8021 STD 20PPB 5ML
Misc : 1,1 S-87-(37,23)
IntFile : autoint1.e

Vial: 11
Operator: CBN
Inst : HP11
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 12/13/01
Last Update : Thu Dec 13 13:25:15 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	5.218	73.9#	27	0.00
2	TM	Benzene	20.000	19.559	2.2	97	0.00
3	S	TFT	30.000	28.846	3.8	95	0.00
4	TM	Toluene	20.000	19.302	3.5	95	0.00
5	TM	Chlorobenzene	20.000	19.347	3.3	97	0.00
6	TM	Ethylbenzene	20.000	19.854	0.7	98	0.00
7	TM	m-,p-Xylene	40.000	38.234	4.4	94	0.00
8	TM	o-Xylene	20.000	19.032	4.8	93	0.00
9	S	BFB	30.000	56.108	-87.0#	187	0.00
10	T	1,3-Dichlorobenzene	20.000	26.780	-33.9#	135	0.00
11	T	1,4-Dichlorobenzene	20.000	20.957	-4.8	105	0.00
12	T	1,2-Dichlorobenzene	20.000	19.007	5.0	97	0.00
13	S	BCB	30.000	40.776	-35.9#	136	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

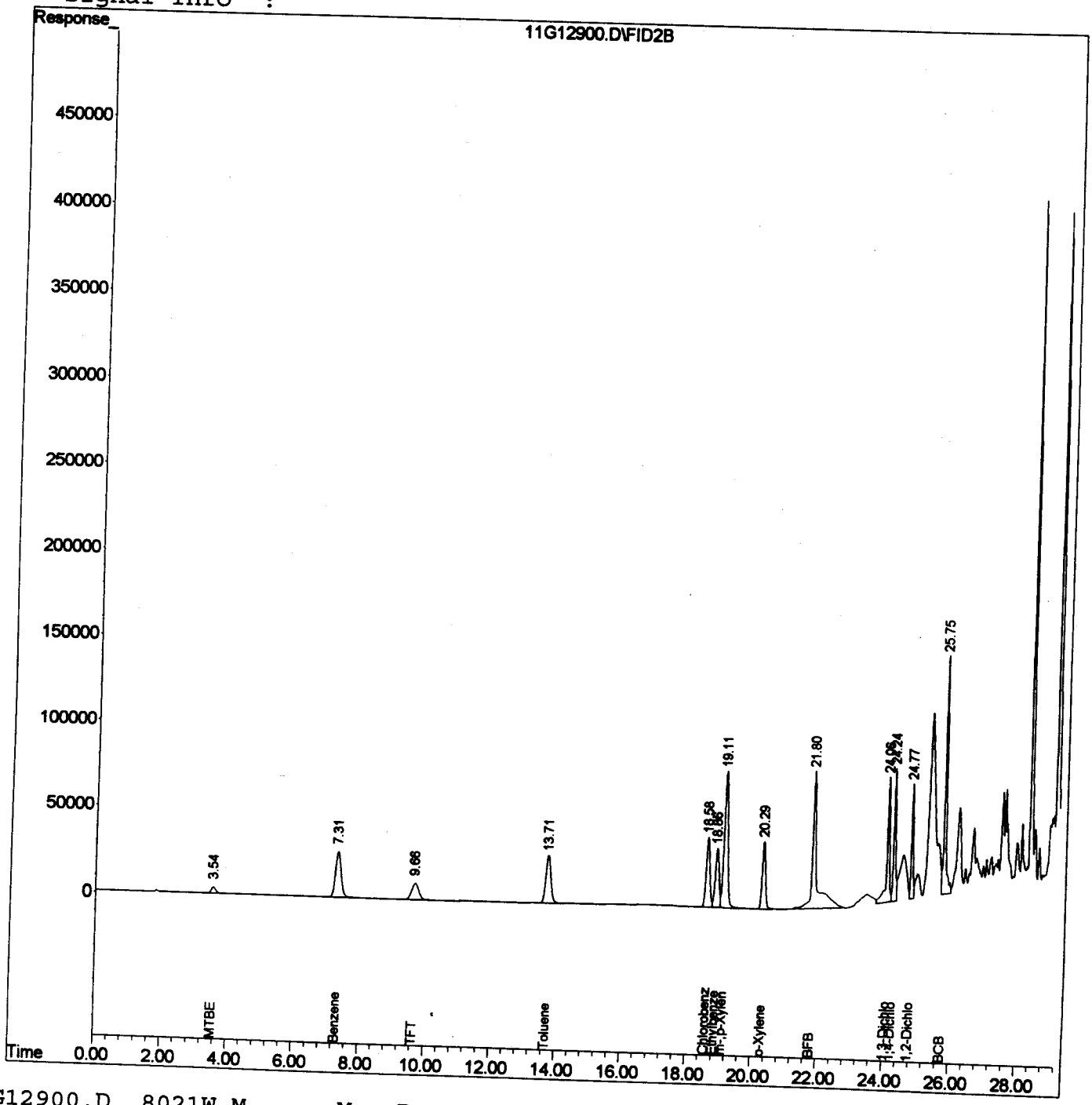
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121701\11G12900.D
Acq On : 17 Dec 2001 9:33 pm
Sample : WG110070-03 8021 STD 20PPB 5ML
Misc : 1,1 S-87-(37,23)
IntFile : autoint1.e
Quant Time: Dec 17 22:02 2001 Quant Results File: 8021W.RES

Vial: 11
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 12/13/01
Last Update : Thu Dec 13 13:25:15 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121701\11G12900.D
Acq On : 17 Dec 2001 9:33 pm
Sample : WG110070-03 8021 STD 20PPB 5ML
Misc : 1,1 S-87-(37,23)
IntFile : autoint1.e
Quant Time: Dec 17 22:02 2001

Vial: 11
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 12/13/01
Last Update : Thu Dec 13 13:25:15 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.67	1402841	28.8461 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 96.15%
9) S BFB			21.80	7711359	56.1079 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 187.03%#
13) S BCB			25.75	5389207	40.7763 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 135.92%
Target Compounds					
1) TM MTBE			3.54	323312	5.2175 UG/L
2) TM Benzene			7.32	3091203	19.5595 UG/L
4) TM Toluene			13.72	2911924	19.3022 UG/L
5) TM Chlorobenzene			18.58	3048983	19.3468 UG/L
6) TM Ethylbenzene			18.87	2677430	19.8539 UG/L
7) TM m-,p-Xylene			19.11	6240434	38.2340 UG/L
8) TM o-Xylene			20.29	2693579	19.0325 UG/L
10) T 1,3-Dichlorobenzene			24.06	3735181	26.7803 UG/L
11) T 1,4-Dichlorobenzene			24.24	3094358	20.9565 UG/L
12) T 1,2-Dichlorobenzene			24.78	2359893	19.0065 UG/L

(f)=RT Delta > 1/2 Window
(m)=manual int.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\121701\12G10419.D Vial: 11
Acq On : 17 Dec 2001 7:30 Operator: CBN
Sample : WG110077-01 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-88-(04,05) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 08:16:09 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	57.791	57.449 E3	0.6	97	-0.06
2	TM	Benzene	300.480	288.152 E3	4.1	96	-0.11
3	S	TFT	97.420	97.105 E3	0.3	97	-0.14
4	TM	Toluene	277.641	276.662 E3	0.4	99	-0.13
5	TM	Chlorobenzene	280.616	270.809 E3	3.5	96	-0.11
6	TM	Ethylbenzene	236.686	236.607 E3	0.0	98	-0.10
7	TM	m-,p-Xylene	286.044	278.865 E3	2.5	96	-0.10
8	TM	o-Xylene	244.141	234.023 E3	4.1	94	-0.09
9	S	BFB	233.646	224.063 E3	4.1	95	-0.08
10	TM	1,3-Dichlorobenzene	243.014	242.737 E3	0.1	96	-0.07
11	TM	1,4-Dichlorobenzene	251.661	242.814 E3	3.5	94	-0.06
12	TM	1,2-Dichlorobenzene	236.300	188.869 E3	20.1#	90	-0.06
13	S	BCB	222.141	217.616 E3	2.0	95	-0.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\121701\12G10419.D Vial: 11
Acq On : 17 Dec 2001 7:30 Operator: CBN
Sample : WG110077-01 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-88-(04,05) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 08:16:09 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	19.882	0.6	97	-0.06
2	TM	Benzene	20.000	19.179	4.1	96	-0.11
3	S	TFT	30.000	29.903	0.3	97	-0.14
4	TM	Toluene	20.000	19.929	0.4	99	-0.13
5	TM	Chlorobenzene	20.000	19.301	3.5	96	-0.11
6	TM	Ethylbenzene	20.000	19.993	0.0	98	-0.10
7	TM	m-,p-Xylene	40.000	38.996	2.5	96	-0.10
8	TM	o-Xylene	20.000	19.171	4.1	94	-0.09
9	S	BFB	30.000	28.770	4.1	95	-0.08
10	TM	1,3-Dichlorobenzene	20.000	19.977	0.1	96	-0.07
11	TM	1,4-Dichlorobenzene	20.000	19.297	3.5	94	-0.06
12	TM	1,2-Dichlorobenzene	20.000	15.407	23.0#	90	-0.06
13	S	BCB	30.000	29.389	2.0	95	-0.04

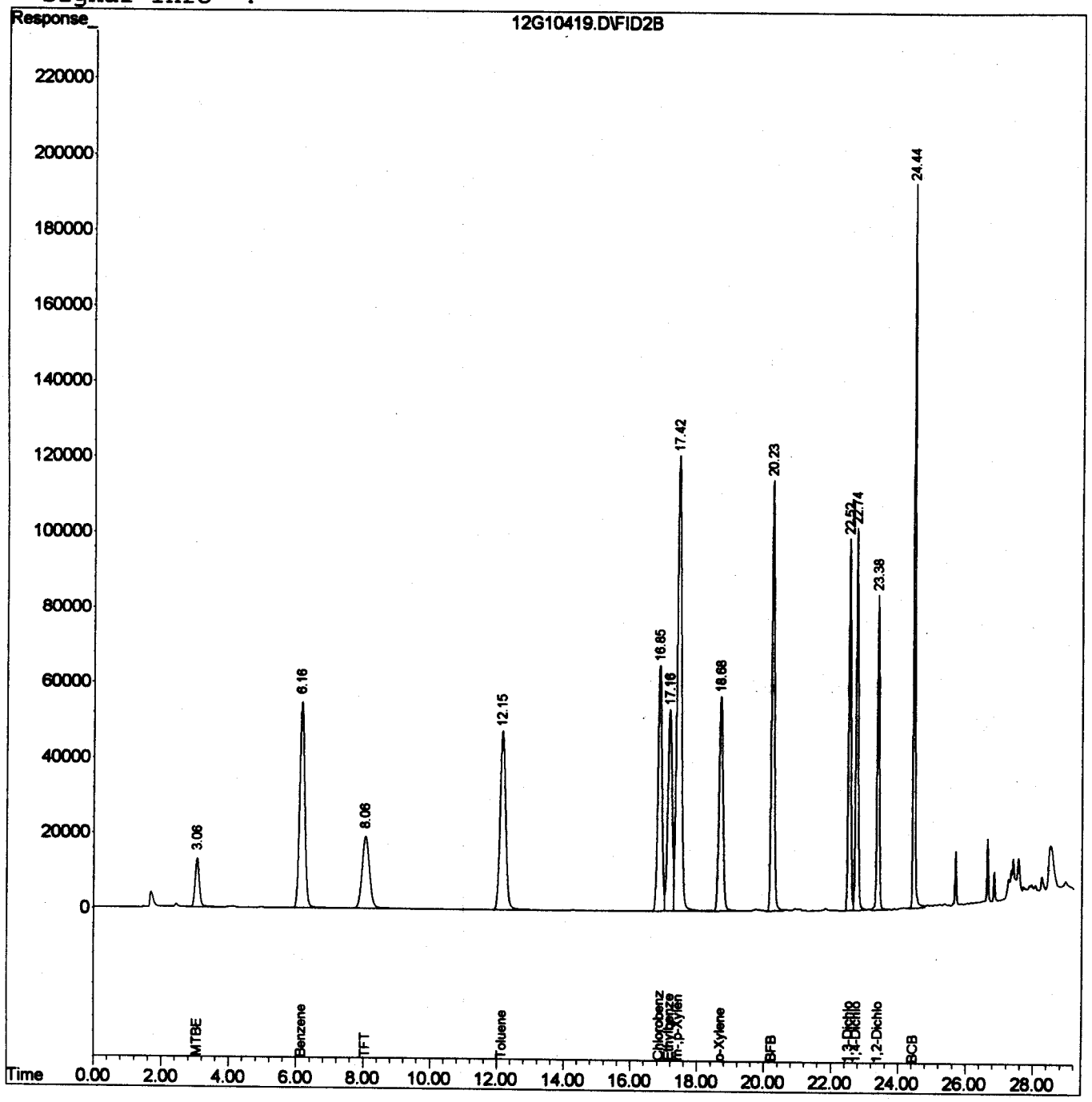
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\121701\12G10419.D Vial: 11
Acq On : 17 Dec 2001 7:30 am Operator: CBN
Sample : WG110077-01 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-88-(04,05) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 17 7:59 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 08:16:09 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\121701\12G10419.D Vial: 11
Acq On : 17 Dec 2001 7:30 am Operator: CBN
Sample : WG110077-01 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-88-(04,05) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 17 7:59 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 08:16:09 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.06	2913155	29.9029 UG/L
Spiked Amount 30.0000 Range 70 - 130 Recovery = 99.68%			
9) S BFB	20.23	6721904	28.7696 UG/L
Spiked Amount 30.0000 Recovery = 95.90%			
13) S BCB	24.45	6528488	29.3890 UG/L
Spiked Amount 30.0000 Range 37 - 137 Recovery = 97.96%			
Target Compounds			
1) TM MTBE	3.06	1148980	19.8818 UG/L
2) TM Benzene	6.16	5763033	19.1794 UG/L
4) TM Toluene	12.16	5533236	19.9294 UG/L
5) TM Chlorobenzene	16.86	5416186	19.3010 UG/L
6) TM Ethylbenzene	17.16	4732142	19.9933 UG/L
7) TM m-,p-Xylene	17.43	11154599	38.9961 UG/L
8) TM o-Xylene	18.69	4680469	19.1712 UG/L
10) TM 1,3-Dichlorobenzene	22.53	4854733	19.9772 UG/L
11) TM 1,4-Dichlorobenzene	22.75	4856281	19.2969 UG/L
12) TM 1,2-Dichlorobenzene	23.38	3777381	15.4073 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\121701\12G10430.D Vial: 5
Acq On : 17 Dec 2001 14:08 Operator: CBN
Sample : WG110077-02 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-88-(04,05) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 08:16:09 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	57.791	55.845	E3	3.4	95	-0.07
2	TM	Benzene	300.480	287.138	E3	4.4	96	-0.12
3	S	TFT	97.420	95.375	E3	2.1	95	-0.15
4	TM	Toluene	277.641	365.821	E3	-31.8#	131	-0.13
5	TM	Chlorobenzene	280.616	270.827	E3	3.5	96	-0.11
6	TM	Ethylbenzene	236.686	236.984	E3	-0.1	99	-0.11
7	TM	m-,p-Xylene	286.044	281.691	E3	1.5	97	-0.11
8	TM	o-Xylene	244.141	238.984	E3	2.1	96	-0.10
9	S	BFB	233.646	235.381	E3	-0.7	99	-0.08
10	TM	1,3-Dichlorobenzene	243.014	248.257	E3	-2.2	98	-0.07
11	TM	1,4-Dichlorobenzene	251.661	246.871	E3	1.9	96	-0.07
12	TM	1,2-Dichlorobenzene	236.300	204.344	E3	13.5	98	-0.07
13	S	BCB	222.141	247.520	E3	-11.4	108	-0.05

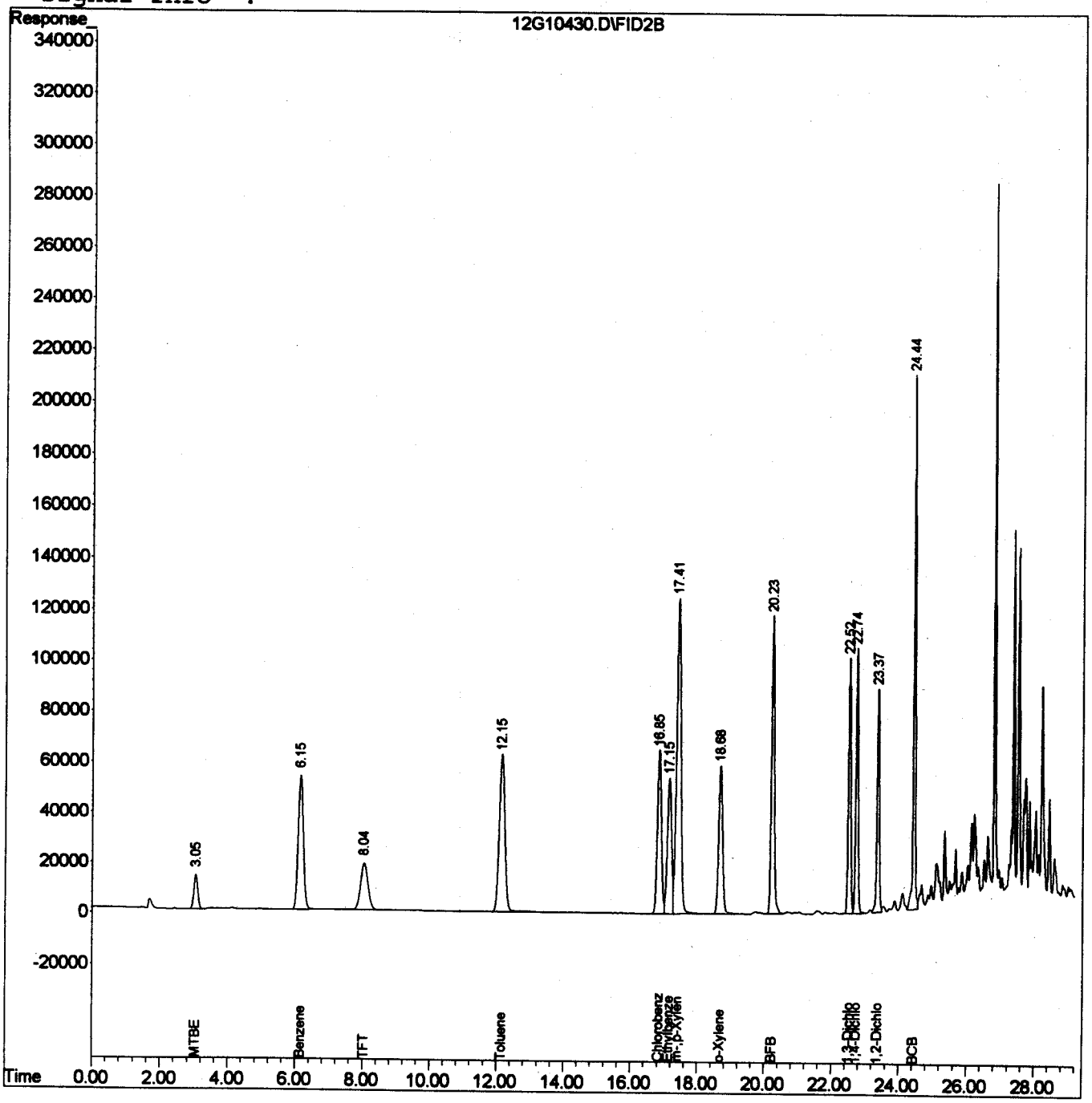
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\121701\12G10430.D Vial: 5
Acq On : 17 Dec 2001 2:08 pm Operator: CBN
Sample : WG110077-02 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-88-(04,05) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 17 14:37 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 08:16:09 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\121701\12G10430.D Vial: 5
Acq On : 17 Dec 2001 2:08 pm Operator: CBN
Sample : WG110077-02 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-88-(04,05) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 17 14:37 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 08:16:09 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.05	2861246	29.3701 UG/L
Spiked Amount 30.0000 Range 70 - 130		Recovery =	97.90%
9) S BFB	20.23	7061424	30.2228 UG/L
Spiked Amount 30.0000		Recovery =	100.74%
13) S BCB	24.44	7425591	33.4274 UG/L
Spiked Amount 30.0000 Range 37 - 137		Recovery =	111.42%
Target Compounds			
1) TM MTBE	3.05	1116899	19.3266 UG/L
2) TM Benzene	6.16	5742769	19.1120 UG/L
4) TM Toluene	12.15	7316419	26.3521 UG/L
5) TM Chlorobenzene	16.85	5416539	19.3023 UG/L
6) TM Ethylbenzene	17.15	4739689	20.0252 UG/L
7) TM m-,p-Xylene	17.42	11267640	39.3913 UG/L
8) TM o-Xylene	18.68	4779672	19.5775 UG/L
10) TM 1,3-Dichlorobenzene	22.52	4965131	20.4315 UG/L
11) TM 1,4-Dichlorobenzene	22.74	4937416	19.6193 UG/L
12) TM 1,2-Dichlorobenzene	23.37	4086879	17.2614 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 13-Dec-01
Filename: 6G08829
Sub Directory: 121301
Instrument: HP6
Matrix: SOIL

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	2.887	2.840	2.934
benzene	4.752	4.655	4.849
1,1,1-trifluorotoluene (SS)	6.336	6.197	6.475
toluene	9.643	9.443	9.843
chlorobenzene	13.949	13.779	14.119
ethylbenzene	14.938	14.774	15.102
m+p-xylene	15.392	15.233	15.551
o-xylene	16.440	16.286	16.594
bromofluorobenzene (SS)	17.494	17.340	17.648
1,3-dichlorobenzene	20.578	20.475	20.681
1,4-dichlorobenzene	20.727	20.811	20.826
1,2-dichlorobenzene	21.345	21.261	21.429
bromochlorobenzene (SS)	22.818	22.304	23.332

INSTRUMENT: HP6 **MATRIX:** SOIL
CONT STD #1: 6G07410 **DATE #1:** 8/16/01
CONT STD #2: 6G07436 **DATE #2:** 8/17/01
CONT STD #3: 6G07460 **DATE #3:** 8/20/01

Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	T Window
methyl-tert-butyl-ether	3.024	3.000	3.029	3.018	0.016	0.047
benzene	4.921	4.869	4.928	4.906	0.032	0.097
1,1,1-trifluorotoluene (SS)	6.513	6.440	6.526	6.493	0.046	0.139
toluene	9.840	9.733	9.855	9.809	0.067	0.200
chlorobenzene	14.082	13.986	14.086	14.051	0.057	0.170
ethylbenzene	15.060	14.967	15.063	15.030	0.055	0.164
m+p-xylene	15.505	15.414	15.507	15.475	0.053	0.159
o-xylene	16.549	16.458	16.545	16.517	0.051	0.154
bromofluorbenzene (SS)	17.598	17.509	17.598	17.568	0.051	0.154
1,3-dichlorobenzene	20.651	20.590	20.648	20.630	0.034	0.103
1,4-dichlorobenzene	20.799	20.740	20.795	20.778	0.033	0.099
1,2-dichlorobenzene	21.415	21.364	21.410	21.396	0.028	0.084
bromochlorobenzene (SS)	22.881	22.582	22.877	22.780	0.171	0.514

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 13-Dec-01
Filename: 11G12823
Sub Directory: 121301
Instrument: HP11
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	3.540	3.527	3.553
benzene	7.320	7.287	7.353
1,1,1-trifluorotoluene (SS)	9.684	9.639	9.729
toluene	13.731	13.687	13.775
chlorobenzene	18.598	18.557	18.639
ethylbenzene	18.883	18.844	18.922
m+p-xylene	19.130	19.092	19.168
o-xylene	20.302	20.267	20.337
bromofluorobenzene (SS)	21.816	21.786	21.846
1,3-dichlorobenzene	24.069	24.045	24.093
1,4-dichlorobenzene	24.251	24.228	24.274
1,2-dichlorobenzene	24.784	24.763	24.805
bromochlorobenzene (SS)	25.761	25.741	25.781

INSTRUMENT: HP11 **MATRIX:** SOIL
CONT STD #1: 11G11794 **DATE #1:** 10/2/2001
CONT STD #2: 11G11811 **DATE #2:** 10/3/2001
CONT STD #3: 11G11831 **DATE #3:** 10/4/2001

Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	3.550	3.549	3.542	3.547	0.004	0.013
benzene	7.315	7.310	7.294	7.306	0.011	0.033
1,1,1-trifluorotoluene (SS)	9.664	9.656	9.635	9.652	0.015	0.045
toluene	13.716	13.709	13.688	13.704	0.015	0.044
chlorobenzene	18.589	18.579	18.562	18.577	0.014	0.041
ethylbenzene	18.875	18.865	18.849	18.863	0.013	0.039
m+p-xylene	19.124	19.115	19.099	19.113	0.013	0.038
o-xylene	20.298	20.288	20.275	20.287	0.012	0.035
bromofluorobenzene (SS)	21.811	21.802	21.791	21.801	0.010	0.030
1,3-dichlorobenzene	24.066	24.057	24.050	24.058	0.008	0.024
1,4-dichlorobenzene	24.248	24.240	24.233	24.240	0.008	0.023
1,2-dichlorobenzene	24.782	24.775	24.768	24.775	0.007	0.021
bromochlorobenzene (SS)	25.761	25.754	25.748	25.754	0.007	0.020

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 14-Dec-01
Filename: 6G08855
Sub Directory: 121401
Instrument: HP6
Matrix: SOIL

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	2.904	2.857	2.951
benzene	4.754	4.657	4.851
1,1,1-trifluorotoluene (SS)	6.330	6.191	6.469
toluene	9.624	9.424	9.824
chlorobenzene	13.924	13.754	14.094
ethylbenzene	14.918	14.754	15.082
m+p-xylene	15.375	15.216	15.534
o-xylene	16.423	16.269	16.577
bromofluorobenzene (SS)	17.473	17.319	17.627
1,3-dichlorobenzene	20.566	20.463	20.669
1,4-dichlorobenzene	20.716	20.811	20.815
1,2-dichlorobenzene	21.334	21.250	21.418
bromochlorobenzene (SS)	22.809	22.295	23.323

INSTRUMENT: HP6 **MATRIX:** SOIL
CONT STD #1: 6G07410 **DATE #1:** 8/16/01
CONT STD #2: 6G07436 **DATE #2:** 8/17/01
CONT STD #3: 6G07460 **DATE #3:** 8/20/01

Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	T Window
methyl-tert-butyl-ether	3.024	3.000	3.029	3.018	0.016	0.047
benzene	4.921	4.869	4.928	4.906	0.032	0.097
1,1,1-trifluorotoluene (SS)	6.513	6.440	6.526	6.493	0.046	0.139
toluene	9.840	9.733	9.855	9.809	0.067	0.200
chlorobenzene	14.082	13.986	14.086	14.051	0.057	0.170
ethylbenzene	15.060	14.967	15.063	15.030	0.055	0.164
m+p-xylene	15.505	15.414	15.507	15.475	0.053	0.159
o-xylene	16.549	16.458	16.545	16.517	0.051	0.154
bromofluorbenzene (SS)	17.598	17.509	17.598	17.568	0.051	0.154
1,3-dichlorobenzene	20.651	20.590	20.648	20.630	0.034	0.103
1,4-dichlorobenzene	20.799	20.740	20.795	20.778	0.033	0.099
1,2-dichlorobenzene	21.415	21.364	21.410	21.396	0.028	0.084
bromochlorobenzene (SS)	22.881	22.582	22.877	22.780	0.171	0.514

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 14-Dec-01
Filename: 11G12851
Sub Directory: 121401
Instrument: HP11
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	3.536	3.523	3.549
benzene	7.315	7.282	7.348
1,1,1-trifluorotoluene (SS)	9.676	9.631	9.721
toluene	13.724	13.680	13.768
chlorobenzene	18.591	18.550	18.632
ethylbenzene	18.875	18.836	18.914
m+p-xylene	19.123	19.085	19.161
o-xylene	20.296	20.261	20.331
bromofluorobenzene (SS)	21.809	21.779	21.839
1,3-dichlorobenzene	24.064	24.040	24.088
1,4-dichlorobenzene	24.247	24.224	24.270
1,2-dichlorobenzene	24.780	24.759	24.801
bromochlorobenzene (SS)	25.757	25.737	25.777

INSTRUMENT: HP11 **MATRIX:** SOIL
CONT STD #1: 11G11794 **DATE #1:** 10/2/2001
CONT STD #2: 11G11811 **DATE #2:** 10/3/2001
CONT STD #3: 11G11831 **DATE #3:** 10/4/2001

Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	3.550	3.549	3.542	3.547	0.004	0.013
benzene	7.315	7.310	7.294	7.306	0.011	0.033
1,1,1-trifluorotoluene (SS)	9.664	9.656	9.635	9.652	0.015	0.045
toluene	13.716	13.709	13.688	13.704	0.015	0.044
chlorobenzene	18.589	18.579	18.562	18.577	0.014	0.041
ethylbenzene	18.875	18.865	18.849	18.863	0.013	0.039
m+p-xylene	19.124	19.115	19.099	19.113	0.013	0.038
o-xylene	20.298	20.288	20.275	20.287	0.012	0.035
bromofluorobenzene (SS)	21.811	21.802	21.791	21.801	0.010	0.030
1,3-dichlorobenzene	24.066	24.057	24.050	24.058	0.008	0.024
1,4-dichlorobenzene	24.248	24.240	24.233	24.240	0.008	0.023
1,2-dichlorobenzene	24.782	24.775	24.768	24.775	0.007	0.021
bromochlorobenzene (SS)	25.761	25.754	25.748	25.754	0.007	0.020

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 17-Dec-01
Filename: 11G12880
Sub Directory: 121701
Instrument: HP11
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	3.542	3.529	3.555
benzene	7.326	7.293	7.359
1,1,1-trifluorotoluene (SS)	9.693	9.648	9.738
toluene	13.738	13.694	13.782
chlorobenzene	18.599	18.558	18.640
ethylbenzene	18.884	18.845	18.923
m+p-xylene	19.131	19.093	19.169
o-xylene	20.303	20.268	20.338
bromofluorobenzene (SS)	21.815	21.785	21.845
1,3-dichlorobenzene	24.070	24.046	24.094
1,4-dichlorobenzene	24.252	24.229	24.275
1,2-dichlorobenzene	24.785	24.764	24.806
bromochlorobenzene (SS)	25.762	25.742	25.782

INSTRUMENT: HP11 **MATRIX:** SOIL
CONT STD #1: 11G11794 **DATE #1:** 10/2/2001
CONT STD #2: 11G11811 **DATE #2:** 10/3/2001
CONT STD #3: 11G11831 **DATE #3:** 10/4/2001

Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	3.550	3.549	3.542	3.547	0.004	0.013
benzene	7.315	7.310	7.294	7.306	0.011	0.033
1,1,1-trifluorotoluene (SS)	9.664	9.656	9.635	9.652	0.015	0.045
toluene	13.716	13.709	13.688	13.704	0.015	0.044
chlorobenzene	18.589	18.579	18.562	18.577	0.014	0.041
ethylbenzene	18.875	18.865	18.849	18.863	0.013	0.039
m+p-xylene	19.124	19.115	19.099	19.113	0.013	0.038
o-xylene	20.298	20.288	20.275	20.287	0.012	0.035
bromofluorobenzene (SS)	21.811	21.802	21.791	21.801	0.010	0.030
1,3-dichlorobenzene	24.066	24.057	24.050	24.058	0.008	0.024
1,4-dichlorobenzene	24.248	24.240	24.233	24.240	0.008	0.023
1,2-dichlorobenzene	24.782	24.775	24.768	24.775	0.007	0.021
bromochlorobenzene (SS)	25.761	25.754	25.748	25.754	0.007	0.020

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 17-Dec-01
Filename: 12G10419
Sub Directory: 121701
Instrument: HP12
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	3.056	3.051	3.061
benzene	6.162	6.141	6.183
1,1,1-trifluorotoluene (SS)	8.062	8.032	8.092
toluene	12.157	12.128	12.186
chlorobenzene	16.856	16.839	16.873
ethylbenzene	17.161	17.142	17.180
m+p-xylene	17.425	17.393	17.457
o-xylene	18.687	18.666	18.708
bromofluorobenzene (SS)	20.234	20.220	20.248
1,3-dichlorobenzene	22.526	22.506	22.546
1,4-dichlorobenzene	22.745	22.725	22.765
1,2-dichlorobenzene	23.380	23.362	23.398
Bromochlorobenzene (SS)	24.446	24.419	24.473

INSTRUMENT: HP12 **MATRIX:** WATER
CONT STD #1: 12G06556 **DATE #1:** 2/14/2001
CONT STD #2: 12G06582 **DATE #2:** 2/15/2001
CONT STD #3: 12G06616 **DATE #3:** 2/16/2001

Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	3.063	3.062	3.060	3.062	0.002	0.005
benzene	6.168	6.157	6.155	6.160	0.007	0.021
1,1,1-trifluorotoluene (SS)	8.082	8.078	8.063	8.074	0.010	0.030
toluene	12.178	12.179	12.162	12.173	0.010	0.029
chlorobenzene	16.882	16.874	16.871	16.876	0.006	0.017
ethylbenzene	17.186	17.188	17.176	17.183	0.006	0.019
m+p-xylene	17.450	17.461	17.440	17.450	0.011	0.032
o-xylene	18.711	18.716	18.702	18.710	0.007	0.021
bromofluorbenzene (SS)	20.253	20.251	20.244	20.249	0.005	0.014
1,3-dichlorobenzene	22.544	22.539	22.531	22.538	0.007	0.020
1,4-dichlorobenzene	22.763	22.759	22.750	22.757	0.007	0.020
1,2-dichlorobenzene	23.396	23.390	23.384	23.390	0.006	0.018
bromochlorobenzene (SS)	24.489	24.485	24.502	24.492	0.009	0.027

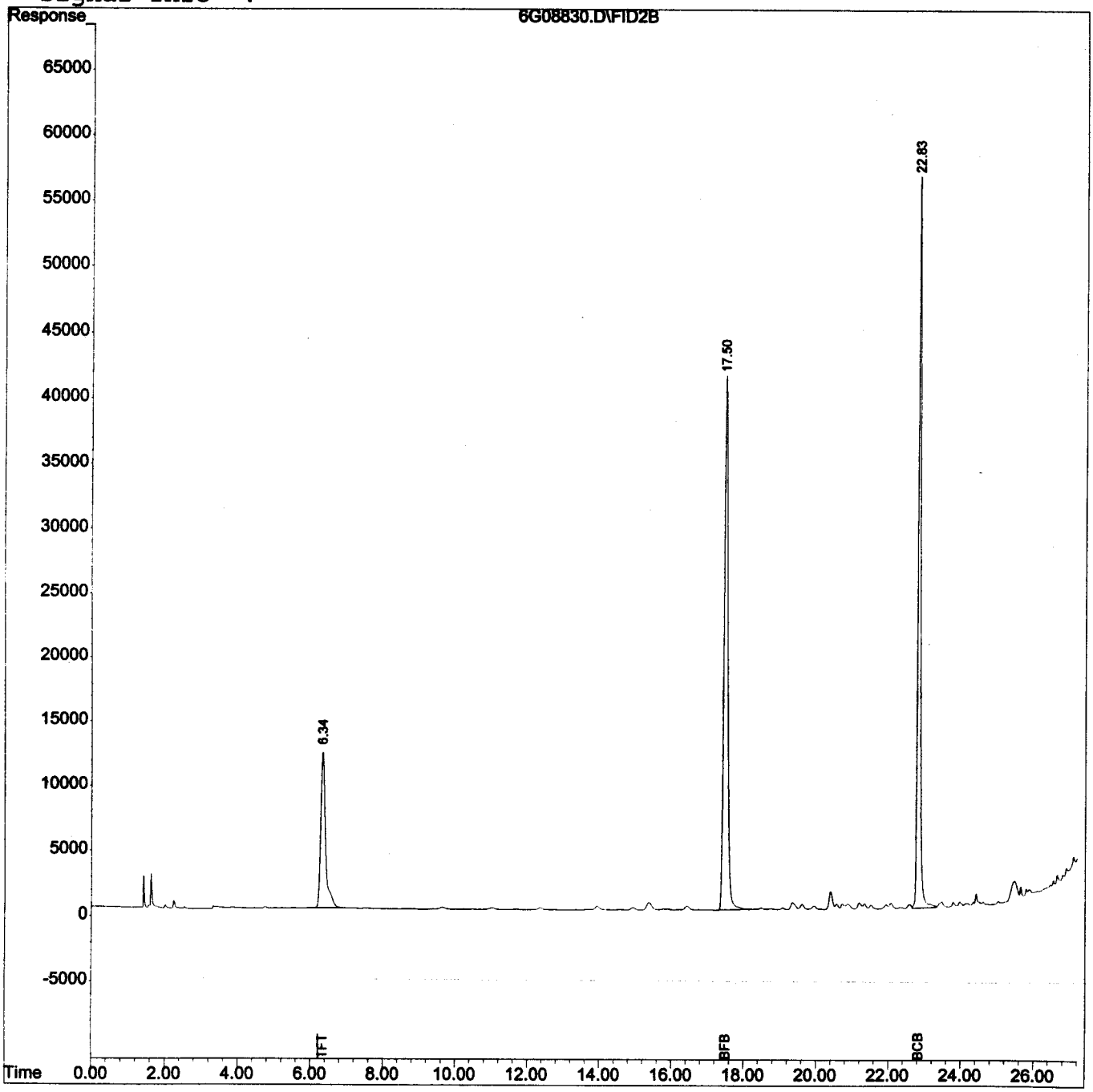
2.1.3.4 Raw Data

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121301\6G08830.D Vial: 2
Acq On : 13 Dec 2001 7:48 Operator: CBN
Sample : WG109922-01 SOIL BLANK 5G Inst : HP6
Misc : 7,1 S-88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 8:16 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\6G08830.D Vial: 2
Acq On : 13 Dec 2001 7:48 Operator: CBN
Sample : WG109922-01 SOIL BLANK 5G Inst : HP6
Misc : 7,1 S-88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 8:16 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	6.34	1105169	24.8910 UG/KG ✓
Spiked Amount 30.000	Range 47 - 121	Recovery =	82.97%
9) S BFB	17.50	3048679	28.3007 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	94.34%
13) S BCB	22.83	2780970	27.6535 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	92.18%
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/KG
2) TM Benzene	0.00	0	N.D. UG/KG
4) TM Toluene	0.00	0	N.D. UG/KG
5) TM Chlorobenzene	13.95	30065	<MDL UG/KG
6) TM Ethylbenzene	0.00	0	N.D. UG/KG
7) TM m-,p-Xylene	15.39	55471	<MDL UG/KG
8) TM o-Xylene	16.44	22663	<MDL UG/KG
10) TM 1,3-Dichlorobenzene	20.74	25459	<MDL UG/KG
11) TM 1,4-Dichlorobenzene	20.74	25459	<MDL UG/KG
12) TM 1,2-Dichlorobenzene	21.35	24847	<MDL UG/KG

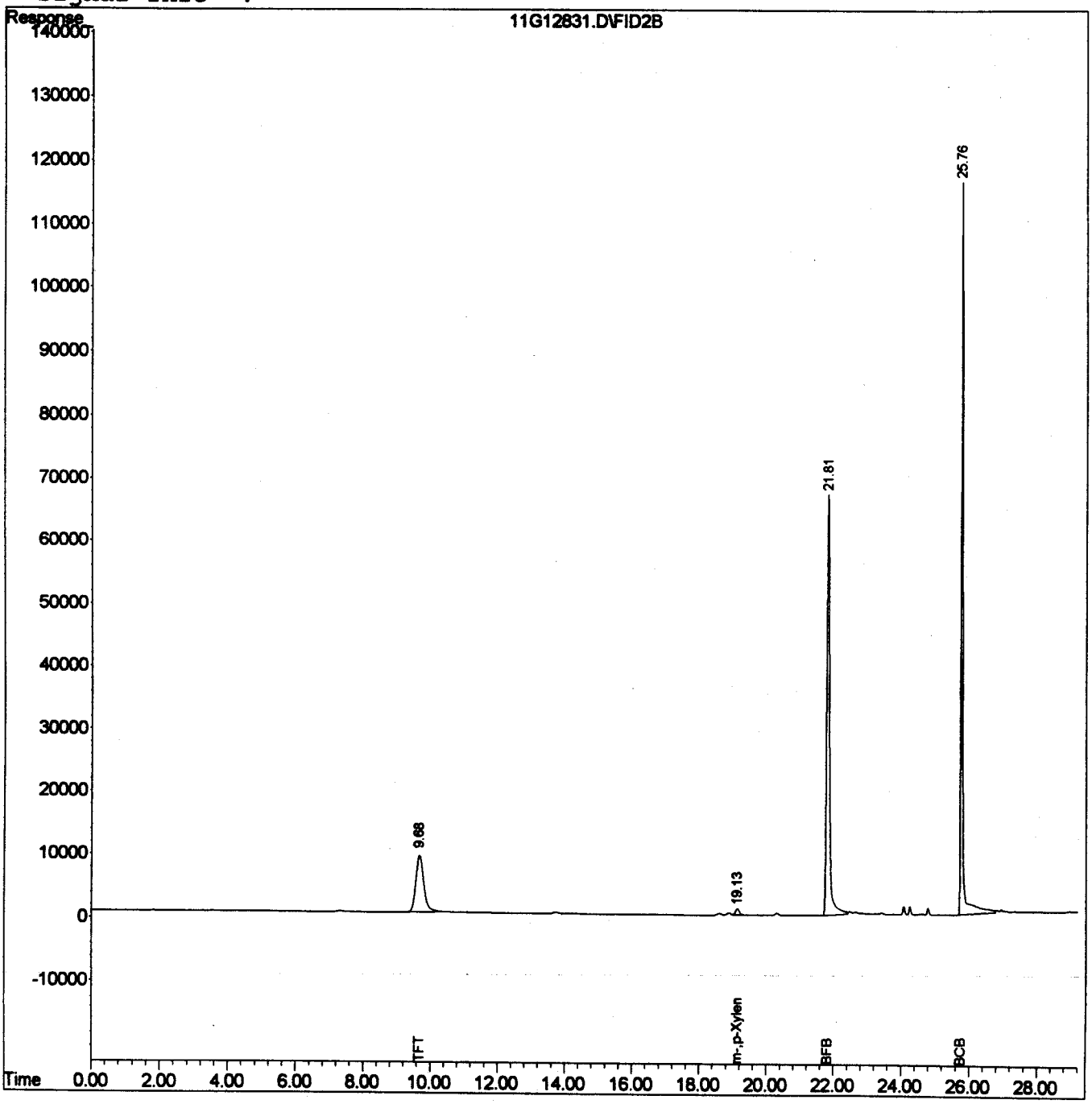
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\11G12831.D Vial: 1
Acq On : 13 Dec 2001 4:25 pm Operator: CBN
Sample : WG109968-01 WATER BLANK 5ML Inst : HP11
Misc : 1,1 S-87-23 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 16:55 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 12/13/01
Last Update : Thu Dec 13 13:25:15 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\11G12831.D Vial: 1
Acq On : 13 Dec 2001 4:25 pm Operator: CBN
Sample : WG109968-01 WATER BLANK 5ML Inst : HP11
Misc : 1,1 S-87-23 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 16:55 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 12/13/01
Last Update : Thu Dec 13 13:25:15 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.68	1461778	30.0580 UG/L ✓
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 100.19%
9) S BFB	21.81	3953999	28.7694 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 95.90%
13) S BCB	25.76	4089093	30.9393 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 103.13%
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/L
2) TM Benzene	0.00	0	N.D. UG/L
4) TM Toluene	13.73	22894	<MDL UG/L
5) TM Chlorobenzene	18.60	22555	<MDL UG/L
6) TM Ethylbenzene	18.88	28258	<MDL UG/L
7) TM m-,p-Xylene	19.13	84827	0.5197 UG/L
8) TM o-Xylene	20.31	26152	<MDL UG/L
10) T 1,3-Dichlorobenzene	24.07	54259	<MDL UG/L
11) T 1,4-Dichlorobenzene	24.25	53232	<MDL UG/L
12) T 1,2-Dichlorobenzene	24.78	39784	<MDL UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

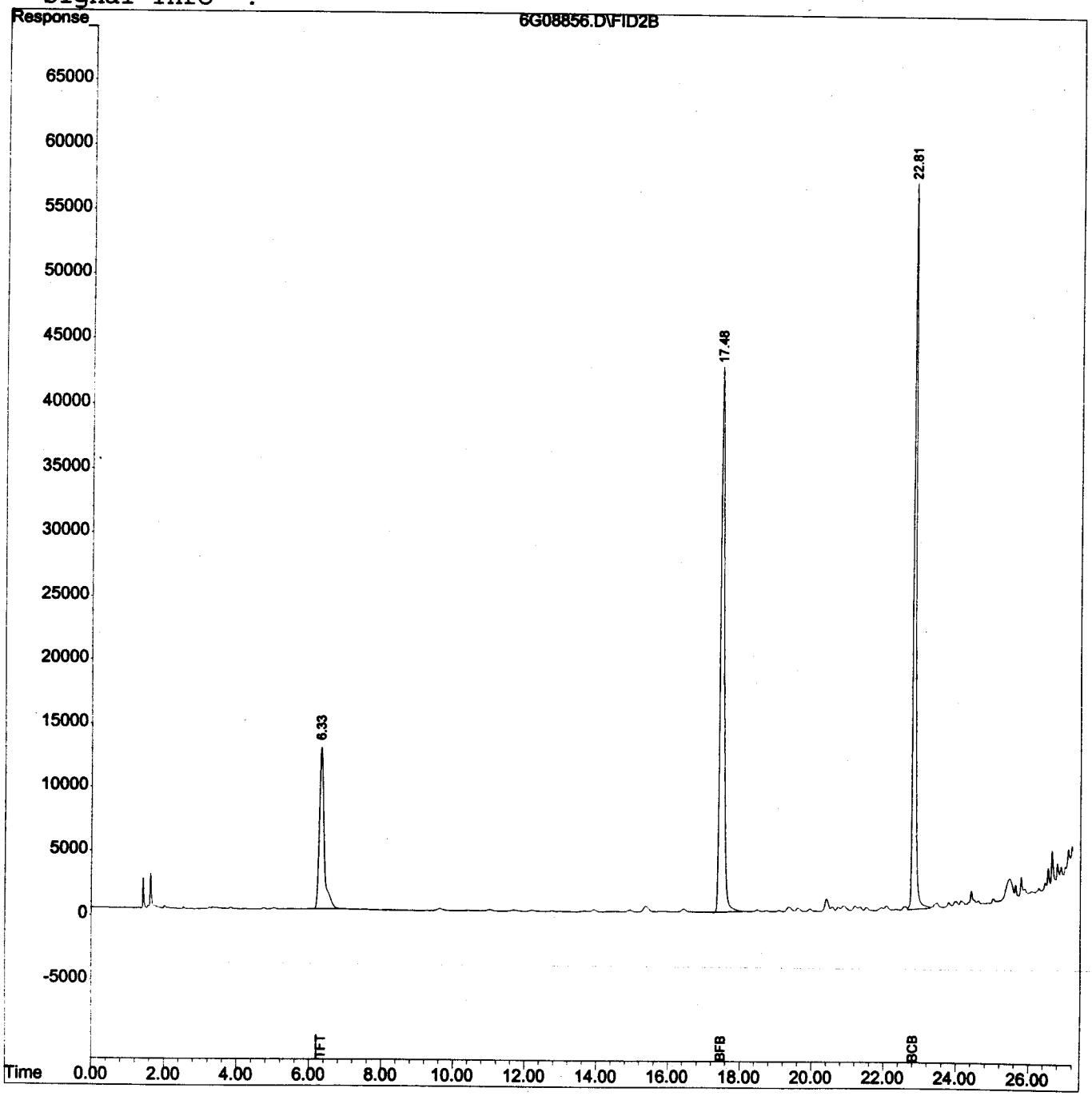
Quantitation Report

Data File : C:\HPCHEM\1\DATA\121401\6G08856.D
Acq On : 14 Dec 2001 7:49
Sample : WG109999-01 SOIL BLANK 5G
Misc : 7,1 S-88-05
IntFile : autoint1.e
Quant Time: Dec 14 8:17 2001 Quant Results File: 8021S.RES

Vial: 2
Operator: CBN
Inst : HP6
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121401\6G08856.D Vial: 2
Acq On : 14 Dec 2001 7:49 Operator: CBN
Sample : WG109999-01 SOIL BLANK 5G Inst : HP6
Misc : 7,1 S-88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 14 8:17 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	6.33	1169062	26.3300 UG/KG ✓
Spiked Amount 30.000	Range 47 - 121	Recovery =	87.77%
9) S BFB	17.48	3192924	29.6397 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	98.80%
13) S BCB	22.82	2826721	28.1084 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	93.69%
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/KG
2) TM Benzene	0.00	0	N.D. UG/KG
4) TM Toluene	0.00	0	N.D. UG/KG
5) TM Chlorobenzene	0.00	0	N.D. UG/KG
6) TM Ethylbenzene	0.00	0	N.D. UG/KG
7) TM m-,p-Xylene	15.38	41316	<MDL UG/KG
8) TM o-Xylene	16.43	17937	<MDL UG/KG
10) TM 1,3-Dichlorobenzene	20.73	17415	<MDL UG/KG
11) TM 1,4-Dichlorobenzene	20.73	17415	<MDL UG/KG
12) TM 1,2-Dichlorobenzene	21.34	18146	<MDL UG/KG

(f)=RT Delta > 1/2 Window (m)=manual int.

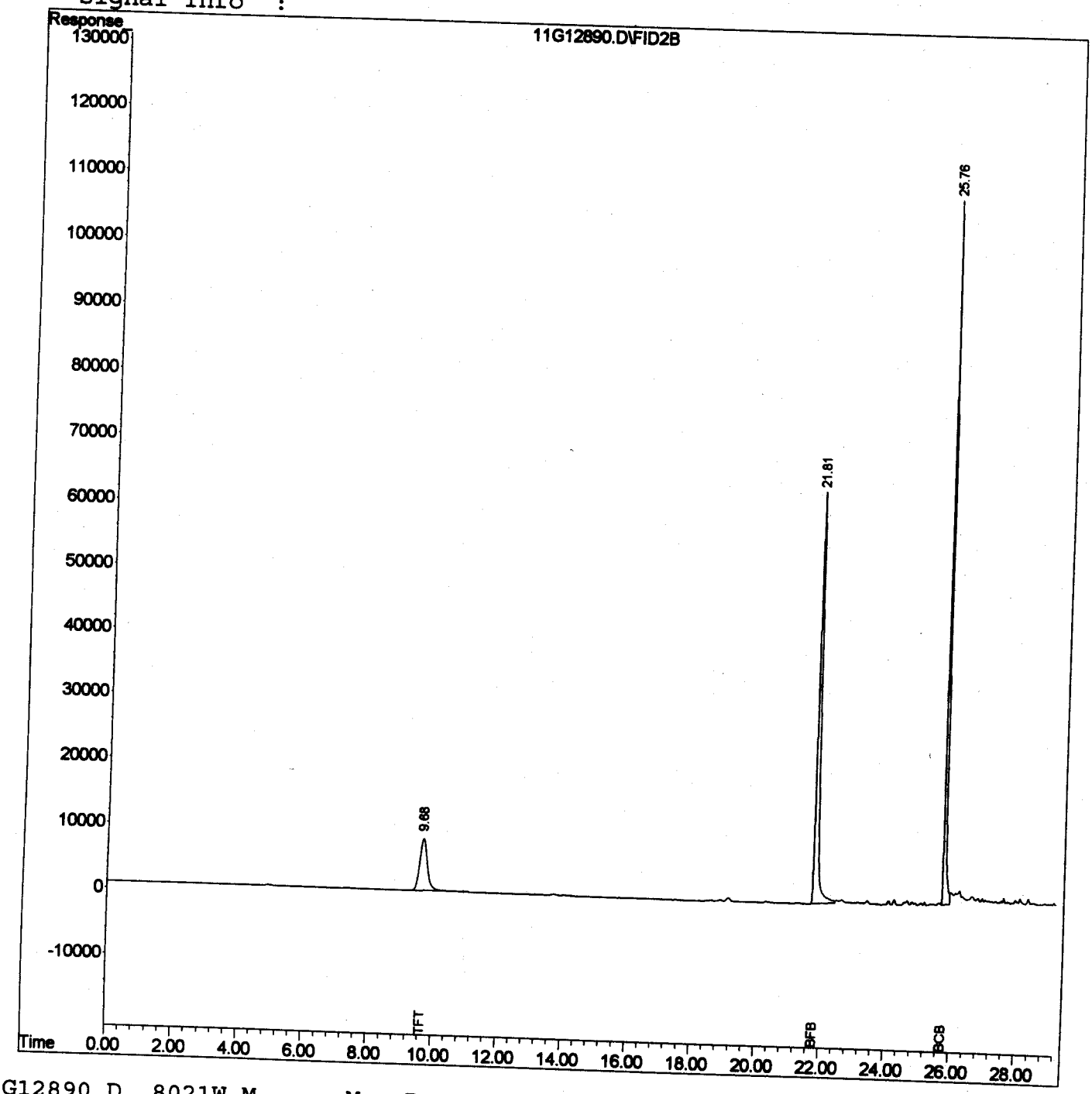
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121701\11G12890.D
Acq On : 17 Dec 2001 3:44 pm
Sample : WG110130-01 EXT BLANK 5ML
Misc : 7,100 S-87-23 EXT 12/14/01
IntFile : autoint1.e
Quant Time: Dec 17 16:13 2001 Quant Results File: 8021W.RES

Vial: 1
Operator: CBN
Inst : HP11
Multiplr: 100.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 12/13/01
Last Update : Thu Dec 13 13:25:15 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121701\11G12890.D
Acq On : 17 Dec 2001 3:44 pm
Sample : WG110130-01 EXT BLANK 5ML
Misc : 7,100 S-87-23 EXT 12/14/01
IntFile : autoint1.e
Quant Time: Dec 17 16:13 2001 Quant Results File: 8021W.RES

Vial: 1
Operator: CBN
Inst : HP11
Multiplr: 100.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 12/13/01
Last Update : Thu Dec 13 13:25:15 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.68	1295899	26.6471 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 88.82%
9) S BFB			21.81	3749588	27.2820 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 90.94%
13) S BCB			25.76	3383603	25.6013 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 85.34%
Target Compounds					
1) TM MTBE			0.00	0	N.D. UG/L
2) TM Benzene			0.00	0	N.D. UG/L
4) TM Toluene			0.00	0	N.D. UG/L
5) TM Chlorobenzene			0.00	0	N.D. UG/L
6) TM Ethylbenzene			18.88	15603	11.5703 UG/L
7) TM m-,p-Xylene			19.12	44992	27.5657 UG/L
8) TM o-Xylene			0.00	0	N.D. UG/L
10) T 1,3-Dichlorobenzene			24.07	23646	16.9534 UG/L
11) T 1,4-Dichlorobenzene			24.24	36391	24.6457 UG/L
12) T 1,2-Dichlorobenzene			24.79	18926	15.2433 UG/L

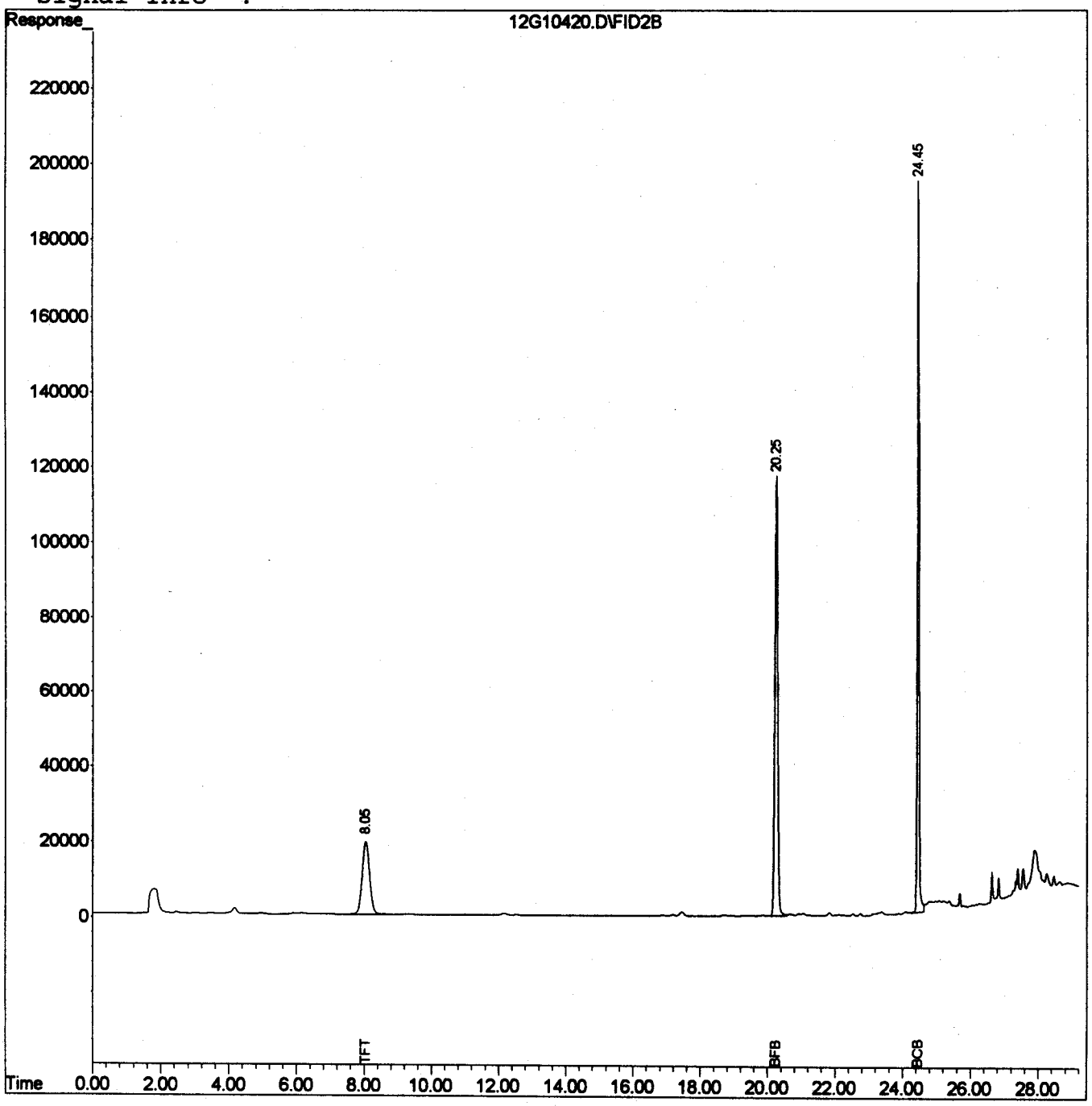
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\121401\12G10420.D Vial: 12
Acq On : 17 Dec 2001 8:14 am Operator: CBN
Sample : WG110078-01 EXT BLANK 5G/10ML Inst : HP12
Misc : 7,100 S-88-05 Multiplr: 100.00
IntFile : autoint1.e
Quant Time: Dec 17 8:43 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 08:16:09 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\121401\12G10420.D Vial: 12
Acq On : 17 Dec 2001 8:14 am Operator: CBN
Sample : WG110078-01 EXT BLANK 5G/10ML Inst : HP12
Misc : 7,100 S-88-05 Multiplr: 100.00
IntFile : autoint1.e
Quant Time: Dec 17 8:43 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 08:16:09 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.05	2983989	30.6300 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 102.10%
9) S BFB	20.25	6825429	29.2127 UG/L
Spiked Amount 30.0000		Recovery	= 97.38%
13) S BCB	24.45	6610772	29.7594 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 99.20%
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/L
2) TM Benzene	6.13	74214	24.6986 UG/L
4) TM Toluene	12.16	52179	18.7937 UG/L
5) TM Chlorobenzene	16.88	18760	6.6853 UG/L
6) TM Ethylbenzene	17.18	27972	11.8183 UG/L
7) TM m-,p-Xylene	17.45	103457	36.1684 UG/L
8) TM o-Xylene	18.71	34361	14.0743 UG/L
10) TM 1,3-Dichlorobenzene	22.53	33253	13.6834 UG/L
11) TM 1,4-Dichlorobenzene	22.75	28570	11.3525 UG/L
12) TM 1,2-Dichlorobenzene	23.39	108286	N.D. UG/L

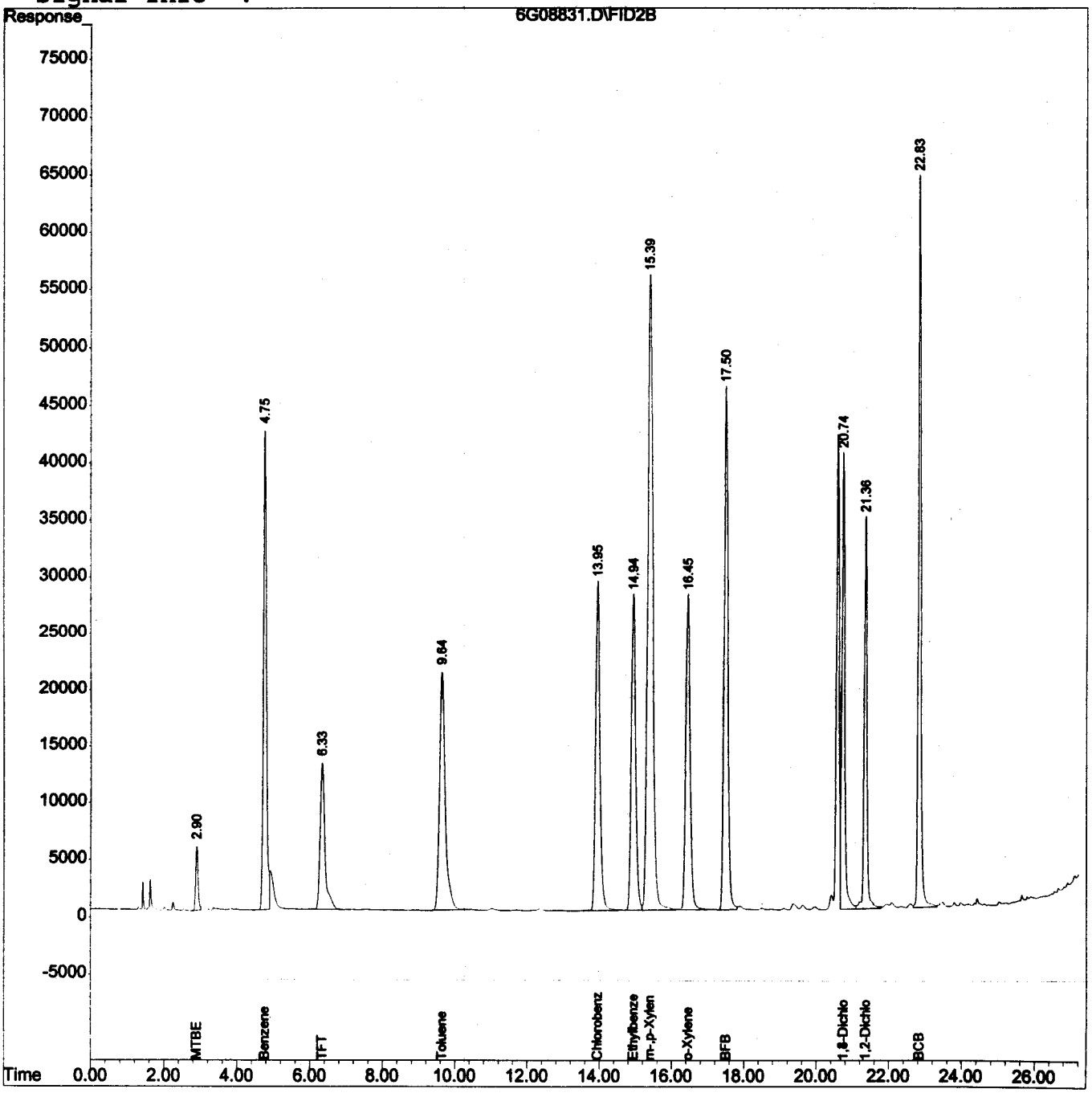
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121301\6G08831.D Vial: 3
Acq On : 13 Dec 2001 8:21 Operator: CBN
Sample : WG109922-02 SOIL LCS 20PPB 5G Inst : HP6
Misc : 7,1 S-87-37,88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 8:51 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\6G08831.D Vial: 3
Acq On : 13 Dec 2001 8:21 Operator: CBN
Sample : WG109922-02 SOIL LCS 20PPB 5G Inst : HP6
Misc : 7,1 S-87-37,88-05 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 8:51 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	6.34	1177416	26.5182 UG/KG ✓
Spiked Amount 30.000	Range 47 - 121	Recovery =	88.39%
9) S BFB	17.50	3337415	30.9810 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	103.27%
13) S BCB	22.83	3152093	31.3438 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	104.48%
Target Compounds			
1) TM MTBE	2.90	249281	18.4102 UG/KG
2) TM Benzene	4.75	2413417	18.2926 UG/KG
4) TM Toluene	9.64	2293768	18.5229 UG/KG
5) TM Chlorobenzene	13.95	2423403	19.2621 UG/KG
6) TM Ethylbenzene	14.94	2310087	20.1718 UG/KG
7) TM m-,p-Xylene	15.40	5579308	39.7283 UG/KG
8) TM o-Xylene	16.45	2333806	19.4911 UG/KG
10) TM 1,3-Dichlorobenzene	20.74	2256363	19.1395 UG/KG
11) TM 1,4-Dichlorobenzene	20.74	2256363	19.1395 UG/KG
12) TM 1,2-Dichlorobenzene	21.36	1842016	21.3290 UG/KG

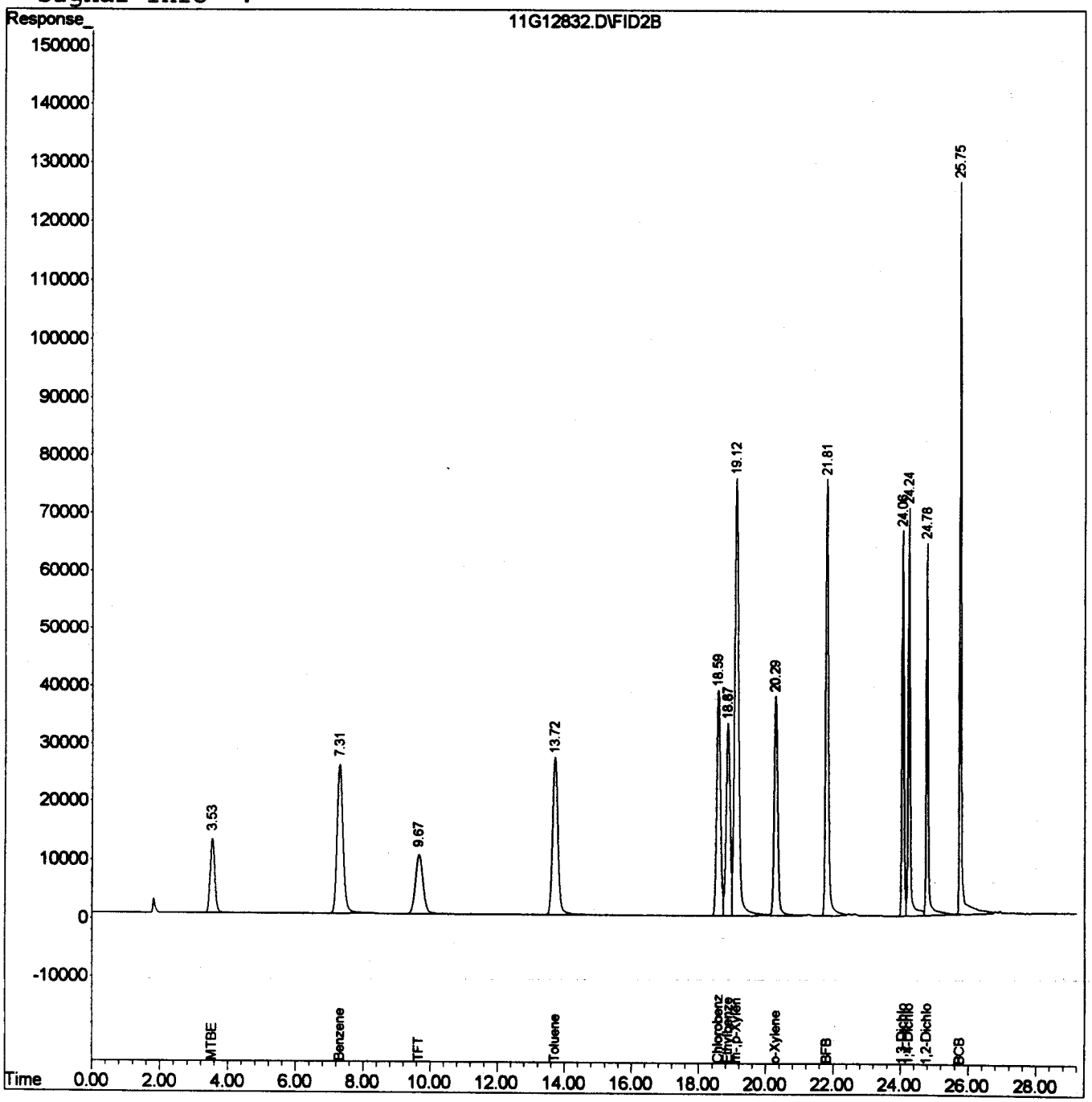
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\11G12832.D Vial: 2
Acq On : 13 Dec 2001 5:00 pm Operator: CBN
Sample : WG109968-02 WATER LCS 20PPB 5ML Inst : HP11
Misc : 1,1 S-87-(37,23) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 17:30 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 12/13/01
Last Update : Thu Dec 13 13:25:15 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\11G12832.D Vial: 2
Acq On : 13 Dec 2001 5:00 pm Operator: CBN
Sample : WG109968-02 WATER LCS 20PPB 5ML Inst : HP11
Misc : 1,1 S-87-(37,23) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 13 17:30 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 12/13/01
Last Update : Thu Dec 13 13:25:15 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.67	1588318	32.6599 UG/L ✓
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 108.87%
9) S BFB	21.81	4314213	31.3903 UG/L
Spiked Amount 30.0000	Range 70 - 130	Recovery	= 104.63%
13) S BCB	25.76	4300468	32.5386 UG/L
Spiked Amount 30.0000	Range 37 - 137	Recovery	= 108.46%
Target Compounds			
1) TM MTBE	3.53	1182125	19.0769 UG/L
2) TM Benzene	7.31	3114092	19.7043 UG/L
4) TM Toluene	13.72	2999018	19.8795 UG/L
5) TM Chlorobenzene	18.59	3029170	19.2210 UG/L
6) TM Ethylbenzene	18.87	2685309	19.9123 UG/L
7) TM m-,p-Xylene	19.12	6413491	39.2943 UG/L
8) TM o-Xylene	20.29	2753047	19.4527 UG/L
10) T 1,3-Dichlorobenzene	24.06	2637309	18.9088 UG/L
11) T 1,4-Dichlorobenzene	24.25	2887110	19.5529 UG/L
12) T 1,2-Dichlorobenzene	24.78	2552682	20.5592 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

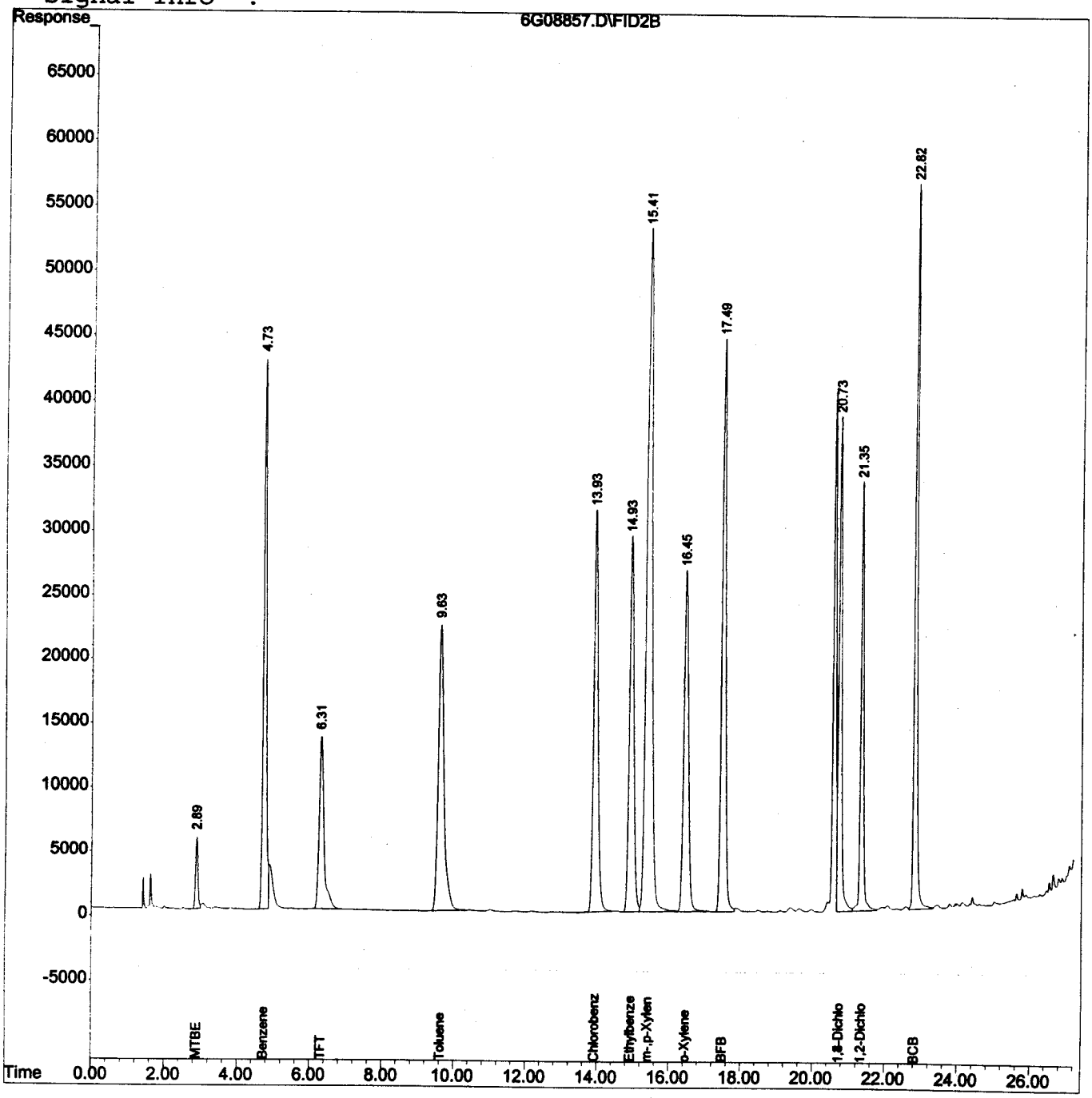
Quantitation Report

Data File : C:\HPCHEM\1\DATA\121401\6G08857.D
Acq On : 14 Dec 2001 8:22
Sample : WG109999-02 SOIL LCS 20PPB 5G
Misc : 7,1 S-(87-37,88-05)
IntFile : autoint1.e
Quant Time: Dec 14 8:49 2001 Quant Results File: 8021S.RES

Vial: 3
Operator: CBN
Inst : HP6
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121401\6G08857.D Vial: 3
Acq On : 14 Dec 2001 8:22 Operator: CBN
Sample : WG109999-02 SOIL LCS 20PPB 5G Inst : HP6
Misc : 7,1 S-(87-37,88-05) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 14 8:49 2001 Quant Results File: 8021S.RES

Quant Method : C:\HPCHEM\1\METHODS\8021S.M (Chemstation Integrator)
Title : METHOD 8021 SOIL - 12/12/01
Last Update : Wed Dec 12 15:05:02 2001
Response via : Initial Calibration
DataAcq Meth : 8021S.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	6.32	1240866	27.9472 UG/KG
Spiked Amount 30.000	Range 47 - 121	Recovery =	93.16%
9) S BFB	17.49	3325025	30.8660 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	102.89%
13) S BCB	22.82	2862101	28.4602 UG/KG
Spiked Amount 30.000	Range 37 - 137	Recovery =	94.87%
Target Compounds			
1) TM MTBE	2.89	249301	18.4117 UG/KG
2) TM Benzene	4.74	2447097	18.5479 UG/KG
4) TM Toluene	9.63	2441349	19.7146 UG/KG
5) TM Chlorobenzene	13.94	2604990	20.7055 UG/KG
6) TM Ethylbenzene	14.94	2499257	21.8237 UG/KG
7) TM m-,p-Xylene	15.41	5738154	40.8594 UG/KG
8) TM o-Xylene	16.46	2385344	19.9216 UG/KG
10) TM 1,3-Dichlorobenzene	20.73	2249926	19.0849 UG/KG
11) TM 1,4-Dichlorobenzene	20.73	2249926	19.0849 UG/KG
12) TM 1,2-Dichlorobenzene	21.35	1809905	20.9572 UG/KG

(f)=RT Delta > 1/2 Window (m)=manual int.

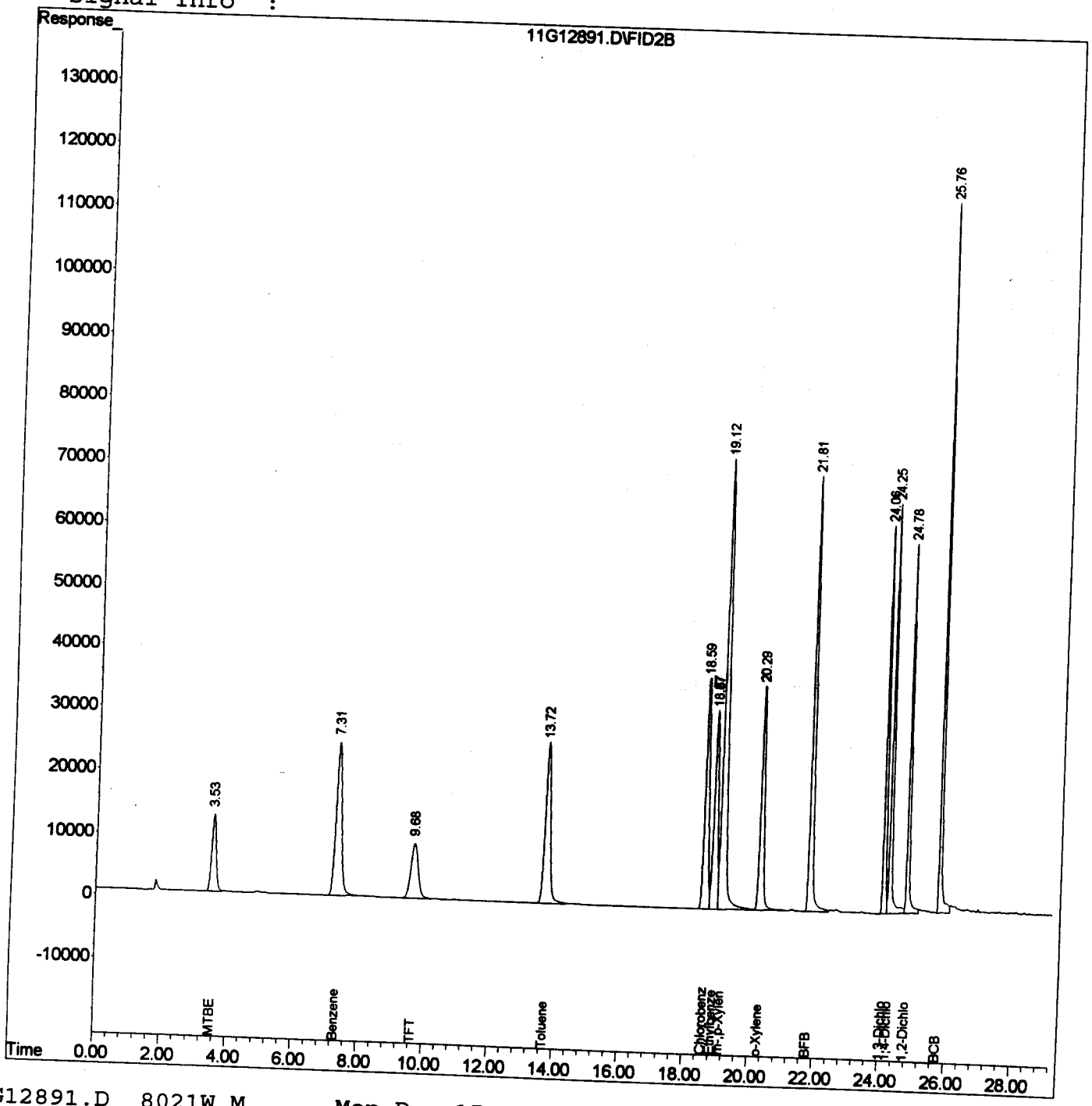
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121701\11G12891.D
Acq On : 17 Dec 2001 4:19 pm
Sample : WG110130-02 EXT LCS 5ML
Misc : 7,100 S-87-(37,23) EXT 12/14/01
IntFile : autoint1.e
Quant Time: Dec 17 16:48 2001 Quant Results File: 8021W.RES

Vial: 2
Operator: CBN
Inst : HP11
Multiplr: 100.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 12/13/01
Last Update : Thu Dec 13 13:25:15 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



11G12891.D 8021W.M Mon Dec 17 16:48:36 2001

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121701\11G12891.D
Acq On : 17 Dec 2001 4:19 pm
Sample : WG110130-02 EXT LCS 5ML
Misc : 7,100 S-87-(37,23) EXT 12/14/01
IntFile : autoint1.e
Quant Time: Dec 17 16:48 2001 Quant Results File: 8021W.RES

Vial: 2
Operator: CBN
Inst : HP11
Multiplr: 100.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 12/13/01
Last Update : Thu Dec 13 13:25:15 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.68	1372720	28.2267 UG/L ✓
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 94.09%
9) S BFB			21.81	3980100	28.9593 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 96.53%
13) S BCB			25.76	3617339	27.3699 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 91.23%
Target Compounds					
1) TM MTBE			3.54	1145107	1847.9470 UG/L
2) TM Benzene			7.32	2962788	1874.6951 UG/L
4) TM Toluene			13.72	2825488	1872.9268 UG/L
5) TM Chlorobenzene			18.59	2873321	1823.2120 UG/L
6) TM Ethylbenzene			18.87	2547716	1889.2007 UG/L
7) TM m-,p-Xylene			19.12	6093800	3733.5593 UG/L
8) TM o-Xylene			20.29	2604399	1840.2329 UG/L
10) T 1,3-Dichlorobenzene			24.06	2454434	1759.7666 UG/L
11) T 1,4-Dichlorobenzene			24.25	2685908	1819.0294 UG/L
12) T 1,2-Dichlorobenzene			24.78	2274649	1831.9966 UG/L

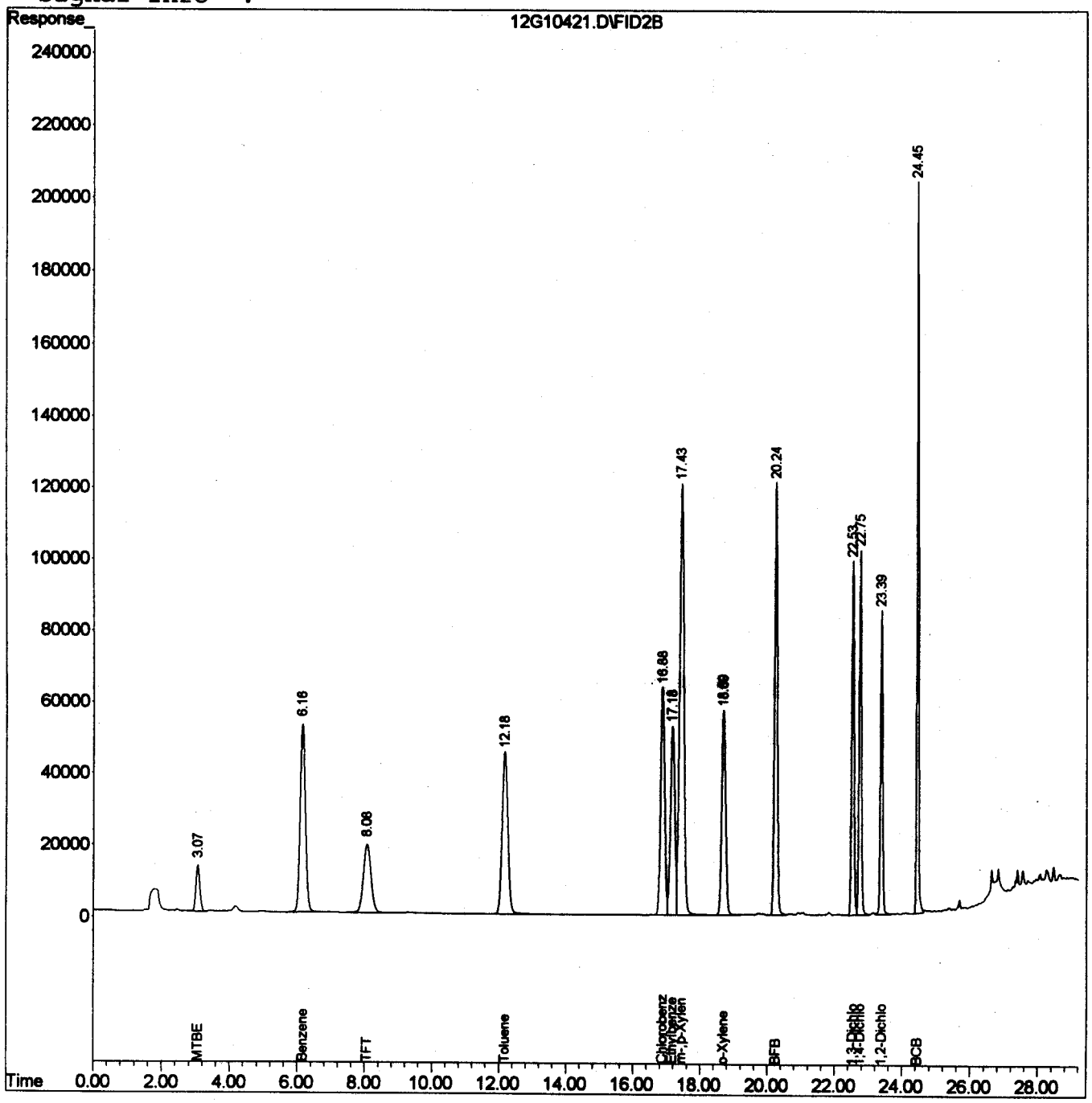
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\121401\12G10421.D Vial: 13
Acq On : 17 Dec 2001 8:49 am Operator: CBN
Sample : WG110078-02 EXT LCS 5G/10ML Inst : HP12
Misc : 7,100 S-88-(04,05) Multiplr: 100.00
IntFile : autoint1.e
Quant Time: Dec 17 9:18 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 08:16:09 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\121401\12G10421.D Vial: 13
Acq On : 17 Dec 2001 8:49 am Operator: CBN
Sample : WG110078-02 EXT LCS 5G/10ML Inst : HP12
Misc : 7,100 S-88-(04,05) Multiplr: 100.00
IntFile : autoint1.e
Quant Time: Dec 17 9:18 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 12/04/01
Last Update : Wed Dec 05 08:16:09 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.08	2983144	30.6213 UG/L
Spiked Amount 30.0000 Range 70 - 130		Recovery	= 102.07%
9) S BFB	20.25	7005468	29.9833 UG/L
Spiked Amount 30.0000		Recovery	= 99.94%
13) S BCB	24.45	6771486	30.4829 UG/L
Spiked Amount 30.0000 Range 37 - 137		Recovery	= 101.61%
Target Compounds			
1) TM MTBE	3.07	1025720	1774.8895 UG/L
2) TM Benzene	6.17	5691402	1894.1030 UG/L
4) TM Toluene	12.18	5320588	1916.3536 UG/L
5) TM Chlorobenzene	16.88	5323196	1896.9653 UG/L
6) TM Ethylbenzene	17.18	4641056	1960.8486 UG/L
7) TM m-,p-Xylene	17.44	10929282	3820.8404 UG/L
8) TM o-Xylene	18.70	4581178	1876.4467 UG/L
10) TM 1,3-Dichlorobenzene	22.53	4811711	1980.0146 UG/L
11) TM 1,4-Dichlorobenzene	22.75	4769603	1895.2491 UG/L
12) TM 1,2-Dichlorobenzene	23.39	3768279	1535.2796 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Injection Log

Directory: C:\HPCHEM\2\DATA\120401

WG109269

ANALYST: CE

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12g10235.d	1.	WG109269-01 8021 STD1 1PPB 5ML	1,1 S-87-(37,22)	4 Dec 2001 10:5
2	2	12g10236.d	1.	WG109269-01 8021 STD1 1PPB 5ML ✓	1,1 S-87-(37,22)	4 Dec 2001 11:3
3	5	12g10237.d	1.	WG109269-02 8021 STD2 10PPB... ✓	1,1 S-87-(37,22)	4 Dec 2001 12:0
4	6	12g10238.d	1.	WG109269-03 8021 STD3 20PPB... ✓	1,1 S-87-(37,22)	4 Dec 2001 12:3
5	7	12g10239.d	1.	WG109269-04 8021 STD4 50PPB... ✓	1,1 S-87-(37,22)	4 Dec 2001 13:0
6	11	12g10240.d	1.	WG109269-05 8021 STD5 100PP... ✓	1,1 S-87-(37,22)	4 Dec 2001 13:3
7	12	12g10241.d	1.	WG109269-06 8021 STD6 200PP... ✓	1,1 S-87-(37,22)	4 Dec 2001 14:1
8	13	12g10242.d	1.	WG109269-07 8021 STD7 300PP... ✓	1,1 S-87-(37,22)	4 Dec 2001 14:4
9	14	12g10243.d	1.	WG109269-08 ALT SOURCE 20PP... ✓	1,1 S-87-(37,22)	4 Dec 2001 15:1

Injection Log

Directory: C:\HPCHEM\1\DATA\121201

WG109832
1 94

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	6G08805.D	1.	INST CHECK 5G ✓	7,1 S-87-(37,22)	12 Dec 2001 07:22
2	2	6G08806.D	1.	WG109813-01 8021 STD 20PPB 5G ccl4	7,1 S-87-(37,22)	12 Dec 2001 07:54
3	3	6G08807.D	1.	WG109814-01 SOIL BLANK 5G	7,1 S-87-22	12 Dec 2001 08:27
4	4	6G08808.D	1.	WG109813-01 8021 STD 20PPB 5G ccl4	7,1 S-87-(37,22)	12 Dec 2001 08:59
5	5	6G08809.D	1.	WG109832-01 8021 STD1 1PPB 5G ✓	7,1 S-87-21,88-05	12 Dec 2001 10:12
6	6	6G08810.D	1.	WG109832-01 8021 STD1 1PPB 5G ANR	7,1 S-87-21,88-05	12 Dec 2001 10:44
7	6	6G08811.D	1.	WG109832-02 8021 STD2 10PPB 5G ✓	7,1 S-87-21,88-05	12 Dec 2001 11:17
8	7	6G08812.D	1.	WG109832-03 8021 STD3 20PPB 5G ✓	7,1 S-87-21,88-05	12 Dec 2001 11:49
9	8	6G08813.D	1.	WG109832-04 8021 STD4 50PPB 5G ✓	7,1 S-87-21,88-05	12 Dec 2001 12:22
10	9	6G08814.D	1.	WG109832-05 8021 STD5 100PPB 5G ✓	7,1 S-87-21,88-05	12 Dec 2001 12:54
11	10	6G08815.D	1.	WG109832-06 8021 STD6 200PPB 5G ✓	7,1 S-87-21,88-05	12 Dec 2001 13:27
12	11	6G08816.D	1.	WG109832-07 8021 STD7 300PPB 5G ✓	7,1 S-87-21,88-05	12 Dec 2001 13:59
13	12	6G08817.D	1.	WG109832-08 ALT SOURCE 20PPB 5G ✓	7,1 S-87-37,88-05	12 Dec 2001 14:32
14	1	6G08818.D	1.	WG109894-01 SOIL BLANK 5G ✓	7,1 S-88-05	12 Dec 2001 16:43
15	2	6G08819.D	1.	WG109894-02 SOIL LCS 20PPB 5G ✓	7,1 S-87-37,88-05	12 Dec 2001 17:15
16	1	6G08820.D	1. ER	WG109894-03 L0112129-03 5G	7,1 S-88-05	12 Dec 2001 17:48
17	2	6G08821.D	1. ALL	WG109894-04 L0112129-03 MS 5G	7,1 S-87-37,88-05	12 Dec 2001 18:21
18	3	6G08822.D	1.	WG109894-05 L0112129-03 MSD 5G	7,1 S-87-37,88-05	12 Dec 2001 18:53
19	4	6G08823.D	5.	L0112129-07 5X 1G	7,5 S-88-05	12 Dec 2001 19:26
20	5	6G08824.D	1.	L0112087-04 5G	7,1 S-88-05	12 Dec 2001 19:58
21	6	6G08825.D	1.	L0112142-01 5G	7,1 S-88-05	12 Dec 2001 20:31
22	7	6G08826.D	1.	L0112142-02 5G	7,1 S-88-05	12 Dec 2001 21:03
23	8	6G08827.D	1.	L0112173-12 5G	7,1 S-88-05	12 Dec 2001 21:36
24	9	6G08828.D	1.	8021 STD 20PPB 5G	7,1 S-87-37,88-05	12 Dec 2001 22:08

13 Dec 2001 08:12

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Directory: C:\HPCHEM\1\DATA\121301

Injection Log

WG109922

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	6G08829.D	1.	WG109921-01 8021 STD 20PPB 5G ✓	7,1 S-87-37,88-05	13 Dec 2001 07:16
2	2	6G08830.D	1.	WG109922-01 SOIL BLANK 5G ✓	7,1 S-88-05	13 Dec 2001 07:48
3	3	6G08831.D	1.	WG109922-02 SOIL LCS 20PPB 5G	7,1 S-87-37,88-05	13 Dec 2001 08:21
4	1	6G08832.D	1.	WG109922-03 L0112129-03 5G ✓	7,1 S-88-05	13 Dec 2001 09:16
5	2	6G08833.D	1.	WG109922-04 L0112129-03 MS 5G ✓	7,1 S-87-37,88-05	13 Dec 2001 09:49
6	3	6G08834.D	1.	WG109922-05 L0112129-03 MSD 5G ✓	7,1 S-87-37,88-05	13 Dec 2001 10:21
7	4	6G08835.D	5.	L0112129-07 5X 1G ✓	7,5 S-88-05	13 Dec 2001 10:54
8	5	6G08836.D	1.	L0112087-04 5G ✓	7,1 S-88-05	13 Dec 2001 11:27
9	6	6G08837.D	1.	L0112142-01 5G LOW SSS	7,1 S-88-05	13 Dec 2001 11:59
10	7	6G08838.D	1.	L0112142-02 5G ✓	7,1 S-88-05	13 Dec 2001 12:32
11	8	6G08839.D	1.	L0112173-12 5G ✓	7,1 S-88-05	13 Dec 2001 13:04
12	9	6G08840.D	1.	WG109921-02 8021 STD 20PPB 5G ✓	7,1 S-87-37,88-05	13 Dec 2001 13:37
13	1	6G08841.D	0.91	L0112252-01 A 5.52G 0.91X ✓	7,0.91 S-88-05	13 Dec 2001 14:26
14	2	6G08842.D	0.92	L0112258-01 A 5.42G 0.92X ✓	7,0.92 S-88-05	13 Dec 2001 14:59
15	3	6G08843.D	0.92	L0112259-01 A 5.42G 0.92X ✓	7,0.92 S-88-05	13 Dec 2001 15:31
16	4	6G08844.D	0.9	L0112259-03 A 5.55G 0.90X HIGH SSS	7,0.90 S-88-05	13 Dec 2001 16:04
17	5	6G08845.D	1.	5035 METHOD BLANK A 5G ✓	7,1 S-88-05	13 Dec 2001 16:36
18	6	6G08846.D	5.	L0112173-19 1G 5X ✓	7,5 S-88-05	13 Dec 2001 17:09
19	7	6G08847.D	1.	L0112173-39 5G ✓	7,1 S-88-05	13 Dec 2001 17:41
20	8	6G08848.D	1.	L0112142-01 5G CONF SMI	7,1 S-88-05	13 Dec 2001 18:14
21	9	6G08849.D	1.	L0112174-03 5G ✓	7,1 S-88-05	13 Dec 2001 18:46
22	10	6G08850.D	1.	L0112174-05 5G ✓	7,1 S-88-05	13 Dec 2001 19:19
23	11	6G08851.D	1.	WG109921-03 8021 STD 20PPB 5G ✓	7,1 S-87-37,88-05	13 Dec 2001 19:51
24	12	6G08852.D	1.	L0112087-08 1G ✓	7,5 S-88-05	13 Dec 2001 20:24
25	13	6G08853.D	1.	L0112173-11 1G ✓	7,5 S-88-05	13 Dec 2001 20:57
26	14	6G08854.D	1.	WG109921-03 8021 STD 20PPB 5G ✓	7,1 S-87-37,88-05	13 Dec 2001 21:29

REANALYSIS FILE #

L0112259-03

Injection Log

Directory: C:\HPCHEM\1\DATA\121301

WG 109919
1 31
68

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g12818.d	1.	WG109919-01 8021 STD 20PPB 5ML ccum	1,1 S-87-(37,22)	13 Dec 2001 07:08
2	2	11g12819.d	1.	WG109919-01 8021 STD 20PPB 5ML ⊥	1,1 S-87-(37,22)	13 Dec 2001 07:57
3	3	11g12821.d	1.	WG109931-01 1PPB 8021 WATER... DNR	1,1 S-87-21 S-88-05	13 Dec 2001 08:51
4	4	11g12822.d	1.	WG109931-01 1PPB 8021 WATER...✓	1,1 S-87-21 S-88-05	13 Dec 2001 09:26
5	5	11g12823.d	1.	WG109931-02 10PPB 8021 WATE...✓	1,1 S-87-21 S-88-05	13 Dec 2001 10:01
6	6	11g12824.d	1.	WG109931-03 20PPB 8021 WATE... ✓	1,1 S-87-21 S-88-05	13 Dec 2001 10:36
7	7	11g12825.d	1.	WG109931-04 50PPB 8021 WATE...✓	1,1 S-87-21 S-88-05	13 Dec 2001 11:11
8	8	11g12826.d	1.	WG109931-05 100PPB 8021 WAT... ✓	1,1 S-87-21 S-88-05	13 Dec 2001 11:46
9	9	11g12827.d	1.	WG109931-06 200PPB 8021 WAT... ✓	1,1 S-87-21 S-88-05	13 Dec 2001 12:21
10	10	11g12828.d	1.	WG109931-07 300PPB 8021 WAT...✓	1,1 S-87-21 S-88-05	13 Dec 2001 12:55
11	11	11g12829.d	1.	SYSTEM BLANK ✓	1,1 S-87-21 S-88-05	13 Dec 2001 13:30
12	11	11g12830.d	1.	WG109931-08 8021 ALT SOURCE...✓	1,1 S-87-37 S-88-05	13 Dec 2001 14:07
13	1	11g12831.d	1.	WG109968-01 WATER BLANK 5ML ✓	1,1 S-87-23	13 Dec 2001 16:25
14	2	11g12832.d	1.	WG109968-02 WATER LCS 20PPB... ✓	1,1 S-87-(37,23)	13 Dec 2001 17:00
15	3	11g12833.d	1.	L0112203-02 A 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 17:35
16	4	11g12834.d	1.	L0112252-02 A 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 18:10
17	5	11g12835.d	1.	L0112259-04 A 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 18:45
18	6	11g12836.d	1.	L0112259-05 A 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 19:19
19	7	11g12837.d	1.	L0112173-55 A 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 19:54
20	8	11g12838.d	1.	L0112173-56 A 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 20:29
21	9	11g12839.d	1.	L0112173-57 A 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 21:04
22	10	11g12840.d	1.	L0112183-16 A 5ML pH<2 ✓ RR (TOLUENE)	1,1 S-87-23	13 Dec 2001 21:39
23	11	11g12841.d	1.	WG109931-09 8021 STD 20PPB 5ML✓	1,1 S-87-(37,23)	13 Dec 2001 22:14
24	12	11g12842.d	20.	L0112173-53 A 5ML pH<2 20X RR STRT	1,20 S-87-23	13 Dec 2001 22:48
25	13	11g12843.d	1.	L0112180-03 B 5ML pH<2✓	1,1 S-87-23	13 Dec 2001 23:23
26	14	11g12844.d	1.	L0112180-04 B 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 23:58
27	15	11g12845.d	1.	WG109968-03 L0112253-01 A 5... ✓	1,1 S-87-23	14 Dec 2001 00:33
28	16	11g12846.d	1.	WG109968-04 L0112253-01 MS ...✓	1,1 S-87-(37,23)	14 Dec 2001 01:08
29	17	11g12847.d	1.	WG109968-05 L0112253-01 MSD... ✓	1,1 S-87-(37,23)	14 Dec 2001 01:43
30	18	11g12848.d	1.	RINSE 5G ✓	1,1 S-87-23	14 Dec 2001 02:18
31	19	11g12849.d	1.	RINSE 5G ✓	1,1 S-87-23	14 Dec 2001 02:53
32	20	11g12850.d	1.	WG109931-10 8021 STD 20PPB 5ML ✓	1,1 S-87-(37,23)	14 Dec 2001 03:28

REANALYSIS	FILE #
L0112183-16	
L0112173-53	

Injection Log

Directory: C:\HPCHEM\1\DATA\121401

WG109999

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	6G08855.D	1.	WG109998-01 8021 STD 20PPB 5G	7,1 S-(87-37,88-05)	14 Dec 2001 07:17
2	2	6G08856.D	1.	WG109999-01 SOIL BLANK 5G	7,1 S-88-05	14 Dec 2001 07:49
3	3	6G08857.D	1.	WG109999-02 SOIL LCS 20PPB 5G	7,1 S-(87-37,88-05)	14 Dec 2001 08:22
4	1	6G08858.D	0.96	L0112~~559-01~~ 3 03 B 5.21G 0.96X	7,0.96 S-88-05	14 Dec 2001 09:07
5	2	6G08859.D	1.	5035 METHOD BLANK 5G	7,1 S-88-05	14 Dec 2001 09:40
6	3	6G08860.D	1.	L0112183-01 5G	7,1 S-88-05	14 Dec 2001 10:12
7	4	6G08861.D	1.	L0112183-02 5G	7,1 S-88-05	14 Dec 2001 10:45
8	5	6G08862.D	1.	L0112183-03 5G	7,1 S-88-05	14 Dec 2001 11:18
9	6	6G08863.D	1.	L0112183-04 5G	7,1 S-88-05	14 Dec 2001 11:50
10	7	6G08864.D	1.	L0112183-05 5G	7,1 S-88-05	14 Dec 2001 12:23
11	8	6G08865.D	1.	L0112183-06 5G	7,1 S-88-05	14 Dec 2001 12:55
12	9	6G08866.D	1.	WG109998-02 8021 STD 20PPB 5G	7,1 S-(87-37,88-05)	14 Dec 2001 13:28
13	10	6G08867.D	1.	L0112183-07 5G	7,1 S-88-05	14 Dec 2001 14:18
14	11	6G08868.D	1.	L0112183-08 5G	7,1 S-88-05	14 Dec 2001 14:50
15	12	6G08869.D	1.	L0112183-09 5G	7,1 S-88-05	14 Dec 2001 15:23
16	13	6G08870.D	1.	L0112183-10 5G	7,1 S-88-05	14 Dec 2001 15:56
17	14	6G08871.D	1.	L0112183-11 5G	7,1 S-88-05	14 Dec 2001 16:28
18	15	6G08872.D	1.	L0112183-12 5G	7,1 S-88-05	14 Dec 2001 17:01
19	16	6G08873.D	1.	WG109999-03 L0112183-13 5G	7,1 S-88-05	14 Dec 2001 17:33
20	17	6G08874.D	1.	WG109999-04 L0112183-14 MS 5G	7,1 S-(87-37,88-05)	14 Dec 2001 18:06
21	18	6G08875.D	1.	WG109999-05 L0112183-15 MSD 5G	7,1 S-(87-37,88-05)	14 Dec 2001 18:38
22	19	6G08876.D	1.	WG109998-03 8021 STD 20PPB 5G	7,1 S-(87-37,88-05)	14 Dec 2001 19:11

Directory: C:\HPCHEM\1\DATA\121701

Injection Log

WG110070
1 130

ANALYST: c

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g12879.d	1.	WG110070-01 8021 STD 20PPB 5ML cc HIGH	1,1 S-87-(37,23)	17 Dec 2001 0
2	2	11g12880.d	1.	WG110070-01 8021 STD 20PPB 5ML ✓	1,1 S-87-(37,23)	17 Dec 2001 0
3	2	11g12881.d	1.	WG110071-01 WATER BLANK 5ML ✓	1,1 S-87-23	17 Dec 2001 0
4	3	11g12882.d	1.	WG110070-02 WATER LCS 20PPB... ✓	1,1 S-87-(37,23)	17 Dec 2001 0
5	1	11g12883.d	1.	L0112155-02 A 5ML pH<2 ✓	1,1 S-87-23	17 Dec 2001 1
6	2	11g12884.d	1.	L0112289-09 A 5ML pH<2 ✓	1,1 S-87-23	17 Dec 2001 1
7	3	11g12885.d	1000.	WG110071-03 L0112289-08 A 5... ✓	1,1000 S-87-23	17 Dec 2001 1
8	4	11g12886.d	1000.	WG110071-04 L0112289-08 MS ... ✓	1,1000 S-87-23	17 Dec 2001 1
9	5	11g12887.d	1000.	WG110071-05 L0112289-08 MSD... ✓	1,1000 S-87-23	17 Dec 2001 1
10	6	11g12888.d	1.	L0112302-01 A 5ML ✓	1,1 S-87-23	17 Dec 2001 1
11	7	11g12889.d	1.	WG110070-021 8021 STD 20PPB... ✓	1,1 S-87-(37,23)	17 Dec 2001 1
12	1	11g12890.d	100.	WG110130-01 EXT BLANK 5ML ✓	7,100 S-87-23 EXT...	17 Dec 2001 1
13	2	11g12891.d	100.	WG110130-02 EXT LCS 5ML ✓	7,100 S-87-(37,23...	17 Dec 2001 1
14	3	11g12892.d	100.	WG110130-03 L0112262-01 100... ✓	7,100 S-87-23 EXT...	17 Dec 2001 1
15	4	11g12893.d	100.	WG110130-04 L0112262-01 DUP... ✓	7,100 S-87-23 EXT...	17 Dec 2001 1
16	5	11g12894.d	9381.	L0112259-02 C 10000X 5ML ✓	7,9381 S-87-23 EX...	17 Dec 2001 1
17	6	11g12895.d	100.	L0112262-02 100X 5ML ✓ HIGH SSS	7,100 S-87-23 EXT...	17 Dec 2001 1
18	7	11g12896.d	1000.	L0112262-03 1000X 5ML ✓	7,1000 S-87-23 EX...	17 Dec 2001 1
19	8	11g12897.d	1000.	L0112262-10 1000X 5ML ✓	7,1000 S-87-23 EX...	17 Dec 2001 1
20	9	11g12898.d	1000.	L0112262-11 1000X 5ML ✓	7,1000 S-87-23 EX...	17 Dec 2001 2
21	10	11g12899.d	100.	L0112262-13 100X 5ML ✓	7,100 S-87-23 EXT...	17 Dec 2001 2
22	11	11g12900.d	1.	WG110070-03 8021 STD 20PPB 5ML ✓	1,1 S-87-(37,23)	17 Dec 2001 2
23	12	11g12901.d	100.	L0112262-15 100X 5ML RR CCV LOW	1,100 S-87-23 EXT...	17 Dec 2001 2
24	13	11g12902.d	1.	WG110070-04 8021 STD 20PPB 5ML cc LOW	1,1 S-87-(37,23)	17 Dec 2001 2

REANALYSIS	FILE #
L0112262-02	12G10425

Injection Log

Directory: C:\HPCHEM\2\DATA\121701

WG110078

ANALYST: CBM

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	11	12g10419.d	1.	WG110077-01 8021 STD 20PPB 5ML ✓	1,1 S-88-(04,05)	17 Dec 2001 07:3
2	12	12g10420.d	100.	WG110078-01 EXT BLANK 5G/10ML ✓	7,100 S-88-05	17 Dec 2001 08:1
3	13	12g10421.d	100.	WG110078-02 EXT LCS 5G/10ML ✓	7,100 S-88-(04,05)	17 Dec 2001 08:4
4	11	12g10422.d	100.	WG110078-03 L0112262-01 5G/... DNR	7,100 S-88-05	17 Dec 2001 09:3
5	12	12g10423.d	100.	WG110078-04 L0112262-01 DUP... ⊥	7,100 S-88-05	17 Dec 2001 10:0
6	13	12g10424.d	93.8	L0112259-02 5.33G/10ML 93.8X MTBE, BENZ ONLY	7,93.8 S-88-05	17 Dec 2001 10:3
7	21	12g10425.d	100.	L0112262-02 5G/10ML 100X SS CONF	7,100 S-88-05	17 Dec 2001 11:1
8	22	12g10426.d	1000.	L0112262-03 5G/10ML 1000X DNR	7,1000 S-88-05	17 Dec 2001 11:4
9	23	12g10427.d	1.	RINSE 5ML	7,1 S-88-05	17 Dec 2001 12:2
10	24	12g10428.d	1000.	L0112262-11 5G/10ML 1000X	7,1000 S-88-05	17 Dec 2001 12:5
11	25	12g10429.d	100.	L0112262-13 5G/10ML 100X ⊥	7,100 S-88-05	17 Dec 2001 13:3
12	5	12g10430.d	1.	WG110077-02 8021 STD 20PPB 5ML CC HIGH (TOL.)	1,1 S-88-(04,05)	17 Dec 2001 14:0

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18 Dec 2001 08:50

Method 5035 Pr ervation and Extraction Log
VOA Laboratory

Client	Sample #	Fraction ID	Date Collected	Time Collected (Time Zone)	Date Preserved	Time Preserved (EST)	Sample Weight (g)	Volume of Water	Volume of Methanol	Analyst Initials	Comments
OMEGASYS	L0112153-01	B	12/6/01	1445	12/8/01	1435	5.60	5ml	—	QS	□
⊥	⊥ 01	C	⊥	⊥		1437	5.60	~~5ml~~	~~10ml~~		
CCI PET-1205011-01	~~Stock of 12 #5~~	A	12/7/01	1615		1438	5.30	5ml	—		
PET-1205011-01		B				1439	5.60	⊥	—		
PET-1205011-01	⊥	C		⊥		1440	5.80	—	10ml		
	PET-1205012-01	A		1620		1441	5.53	5ml	—		
		B				1442	5.06	⊥	—		
	⊥	C	⊥	⊥		1443	5.80	—	10ml		
Blank	Blank A	A	NA	NA		1444	5.00	5ml	—		
	B	B				1445		⊥	—		
⊥	⊥ C	C	⊥	⊥	⊥	1446	⊥	—	10ml	⊥	⊥
omegasys	L0112203-01	A	12/10/01	1410	12/11/01	1040	5.65	5mL	—	MES	□
BLANK	BATCH BLANK	A	—	—	⊥	1043	5.00	⊥	—	⊥	⊥
12/14/01											
ITCorpTN-613	L0112238-01	A	12-11-01	0800	12-12-01	1345	5.08	5mL	—	CMS	□ * arms not en
⊥	⊥ -02	⊥	⊥	0805	⊥	1348	4.90	⊥	—	⊥	⊥ ⊥
URS: L0112247-01	I07-04-E-15	A	12-11-01		12-12-01	1445	6.13	5mL	—	CMS	□ • plunger not turned
BATCH BLK A	-	A	—	—	⊥	1447	5.00	⊥	—	⊥	
OMEGASYS	L0112252-01	A	12/12/01	1345	12/13/01	1112	5.52	5mL	—	CBN	□
BLANK	BLANK	⊥	—	—	⊥	1115	5.00	⊥	—	⊥	⊥
CCI	L0112258-01	A	1212	0955	12-13-01	1305	5.42	5mL	—		□
	L0112259-01			1315		1307	5.42		—		
	-02			1300		1309	5.14		—		
	⊥ -03	⊥	⊥	1330	⊥	1311	5.55	⊥	—		⊥
⊥	L0112259-02	~~B~~ CSM 12/13/01 C	12/12/01	1300	⊥	1415	5.33	—	10mL	CSH	
BLANK	BLANK	C	—	—	12-13-01	1420	5.01	—	⊥	⊥	
	L0112259-01	B	12/12/01	1315	12/14/01	0820	5.21	5mL	—	CSH	
12/14/01											

Comments: TSR NOTIFIED re SX prepped 12/12/01

Supervisor Review: [signature]

* = improperly sealed cap
• = improperly sealed plunger
▲ = hydrocarbon odor

EF = sample effervesced
□ = No $NaHSO_4$

2.2 Semivolatiles Data

2.2.5 DRO GC DATA (8015)

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0112259

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8015

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: There were no MS/MSD results associated with water or soil sample delivery group.

SAMPLES

Samples: The soil sample fraction -02 required dilution analysis to obtain the results with in linear range of an instrument
Surrogates: Due to the dilution analysis the surrogate recivery of sample fraction -02 was flagged 'DL'

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: HV

REVIEWED: DATE: 12/17/01

Rev. 7/14/00

Date: 12-14-01 / 12-17-01
Analyst: HV
Method: 8014 - FIA PRO - soil
Instrument: HP9
Work Group: WG 110051

12251 (1)
12258 (1)
12259 (1-3)
} level 4

	Analyst
System Performance Check	✓
Endrin & DDT Breakdown	NA
Initial Calibration	
Average RF	
Linear Reg or Higher Order Curve	
Second Source Standard % Difference	
Check Standards	✓
Project / Client Specific Requirements	
Special Standards	
Blanks	✓
TCL's	
Surrogates	
LCS (Laboratory Control Sample)	✓
Recoveries	
Surrogates	
MS / MSD / Duplicates	NA
Samples	✓
TCL Hits	
Surrogates	
Calculations & Correct Factors	
Dilutions Run	✓
Reruns	✓
Check Sample Histories	
Ending Check Standards	✓
Excel Spreadsheets	✓
Case Narrative	
Corrective Action	
Results Reporting / Data Qualifiers	
WorkGroups Traceability	
Client Data Package Assembly	
Check for Completeness	

Primary Reviewer Initials & Date Checked HV 12/17/01

Secondary Reviewer Initials & Date Checked RJC 12/17/01

- Check for compliance with Method and project-specific requirements
- Check the completeness of the reported information
- Check the information for the report narrative
- Check the reasonableness of results

Supervisory Review Initials & Date Checked 12/17/01

Comments: Several samples required to analyze at dilution, due to SMS ending chk. that failed in surrogate –

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

DRO-GC DATA (8015)

Login Number: L0112259

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

✓ Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data)

✓ Chromatograms and external standard reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and external standard reports (chronological)

NA Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

NA Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

✓ Extraction bench sheets

Checked By: HV Date: 12/18/01

2.2.5.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP :	WG110051	**EXT DATE :**	12-14-01	**RUN DATE :**	12-14-01	**INSTRUMENT :**	HP2
METHOD :	8015-PRO	**EXT BENCH SHEET :**	V177-P123	**SMPL ID :**	NA	**Analyst:**	HV
MATRIX :	soil	**BLK FILENAME :**	2G17254	**SMPL FLNM :**	NA		
CONCENTRATION UNITS :	ug / kg	**LCS FILENAME :**	2G17255	**MS FLNM :**	NA		
PREP WORK GRP :	WG110005	**LCS DUP FILENAME :**	2G17256	**MSD FLNM :**	NA		

ANALYTE	CONCENTRATION , ug / kg									PERCENT RECOVERY , %										PERCENT		
	RDL	BLANK	LCS SPIKE ADDED	LCS	LCS DUP	SAMPLE	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS DUP	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL
PRO (C8 - C40)	10000	ND	136000	110614	106628	NA	136000	NA	NA	NA	81.3	78.4	63	153	NA	NA	NA	62	204	4	NA	25
SURROGATE																						
o-TERPHENYL		833	800	841	878	NA	800	NA	NA	104	105	110	43	136	NA	NA	NA	43	136	4	NA	25

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP :	WG110124	**EXT DATE :**	12-17-01	**RUN DATE :**	12-17-01	**INSTRUMENT :**	HP2
METHOD :	8015-PRO	**EXT BENCH SHEET :**	V177-P139	**SMPL ID :**	NA	**Analyst:**	HV
MATRIX :	WATER	**BLK FILENAME :**	2G17272	**SMPL FLNM :**	NA		
CONCENTRATION UNITS :	ug / l	**LCS FILENAME :**	2G17273	**MS FLNM :**	NA		
PREP WORK GRP :	WG110076	**LCS DUP FILENAME :**	2G17274	**MSD FLNM :**	NA		

ANALYTE	CONCENTRATION , ug / L									PERCENT RECOVERY , %										PERCENT		
	RDL	BLANK	LCS SPIKE ADDED	LCS	LCS DUP	SAMPLE	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS DUP	LCS LCL	LCS ULC	SAMPLE	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL
PRO (C8 - C40)	500	ND	3400	2528	2254	NA	3400	NA	NA	NA	74.4	66.3	55	118	NA	NA	NA	41	101	11	NA	20
SURROGATE:																						
o-TERPHENYL		16.2	20	19.5	16.8	NA	20	NA	NA	81.2	97.3	83.8	49	174	NA	NA	NA	49	174	15	NA	20

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8015 AAB#: WG110124

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
002-CEF46-EQB-W-Q4-01	12-DEC-01	13-DEC-01	17-DEC-01	7	5	17-DEC-01	7	5	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0112259
Blank File ID: 2G17272
Date Analyzed: 12/17/01
Time Analyzed: 13:00
Analyst: HV

Work Group: WG110124
Blank Sample ID: WG110076-01
Instrument ID: HP2
Method: 8015

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG110076-02	2G17273	12/17/01 13:16	
LCS2	WG110076-03	2G17274	12/17/01 13:31	
002-CEF46-EQB-W-Q4-01	L0112259-04	2G17276	12/17/01 14:01	

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0112259
Run Date: 12/17/2001
Sample ID: WG110076-01
Instrument ID: HP2
Run Time: 13:00
Method: 8015 MOD
File ID: 2G17272
Analyst: HV
Matrix: Water
Workgroup (AAB#): WG110124
Units: ug/L
Contract #:
Cal ID: HP2-13-DEC-2001

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	250	500	250	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	81.2	49 - 174	PASS

F Analyte concentration between MDL and RDL
* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 12/06/2001
Version 1.1
Report generated 12/18/2001 14:50

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0112259
Instrument ID: HP2
File ID: 2G17273
Workgroup (AAB#): WG110124
Contract #:

Run Date: 12/17/2001
Run Time: 13:16
Analyst: HV

Sample ID: WG110076-02
Method: 8015 MOD
Matrix: Water
Units: ug/L
Cal ID: HP2-13-DEC-2001

Analytes	Expected	Found	% Rec	LCS Limits	Q
TRPH-Florida PRO	3400	2530	74.4	50 - 150	

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	97.3	49 - 174	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 12/06/2001
Version 1.1
Report generated 12/18/2001 14:51

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0112259
Instrument Id: HP2
Workgroup (AAB#): WG110124

Method: DRO
Matrix: WATER

Sample Numbe	Dilution	Tag	1
L0112259-04	1.06		87.1

Surrogates	Surrogate Limits		
1 - o-Terphenyl	49	-	174

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8015 AAB#: WG110051

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
002-CEF46-SB2-S-Q4-01	12-DEC-01	13-DEC-01	14-DEC-01	14	2	14-DEC-01	40	0	
002-CEF46-SB1-S-Q4-01	12-DEC-01	13-DEC-01	14-DEC-01	14	2	17-DEC-01	40	3	
002-CEF46-SB14-S-Q4-01	12-DEC-01	13-DEC-01	14-DEC-01	14	2	17-DEC-01	40	3	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0112259
Blank File ID: 2G17254
Date Analyzed: 12/14/01
Time Analyzed: 17:11
Analyst: HV

Work Group: WG110051
Blank Sample ID: WG110005-01
Instrument ID: HP2
Method: 8015

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
002-CEF46-SB2-S-Q4-01	L0112259-02	2G17246	12/14/01 12:46	
LCS	WG110005-02	2G17255	12/14/01 17:26	
LCS2	WG110005-03	2G17256	12/14/01 17:41	
002-CEF46-SB1-S-Q4-01	L0112259-01	2G17267	12/17/01 11:06	
002-CEF46-SB14-S-Q4-01	L0112259-03	2G17268	12/17/01 11:22	

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0112259
Run Date: 12/14/2001
Sample ID: WG110005-01
Instrument ID: HP2
Run Time: 17:11
Method: 8015 MOD
File ID: 2G17254
Analyst: HV
Matrix: Solid
Workgroup (AAB#): WG110051
Units: ug/kg
Contract #:
Cal ID: HP2-13-DEC-2001

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	5000	10000	5000	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	104	43 - 136	PASS

F Analyte concentration between MDL and RDL
* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 12/06/2001
Version 1.1
Report generated 12/18/2001 14:50

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0112259
Run Date: 12/14/2001
Sample ID: WG110005-02
Instrument ID: HP2
Run Time: 17:26
Method: 8015 MOD
File ID: 2G17255
Analyst: HV
Matrix: Solid
Workgroup (AAB#): WG110051
Units: ug/kg
Contract #:
Cal ID: HP2-13-DEC-2001

Analytes	Expected	Found	% Rec	LCS Limits	Q
TRPH-Florida PRO	136000	111000	81.6	63 - 153	

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	105	43 - 136	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 12/06/2001
Version 1.1
Report generated 12/18/2001 14:51

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0112259
Instrument Id: HP2
Workgroup (AAB#): WG110051

Method: DRO
Matrix: SOLID

Sample Numbe	Dilution	Tag	1
L0112259-01			103
L0112259-02	10.0		DL
L0112259-03			105

Surrogates	Surrogate Limits		
1 - o-Terphenyl	43	-	136

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 12/07/2001
Version 1.1
Report generated 12/18/2001 14:50

2.2.5.2 Sample Data

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121701\2G17267.D Vial: 4
Acq On : 17 Dec 2001 11:06 Operator: HV
Sample : L0112259-01 PRO soil Inst : hp2
Misc : 7,1 soil Multiplr: 40.00
IntFile : PETRO.E
Quant Time: Dec 17 11:23 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 08:15:12 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.81	406355	828.305 ppb
Spiked Amount 800.000 Range 43 - 136 Recovery = 103.54%			
3) s n-Nonatriacontane	7.46	36945	190.631 ppm
Spiked Amount 800.000 Recovery = 23.83%			
Target Compounds			
1) H Petroleum Range	3.64	6105475	15646.384 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

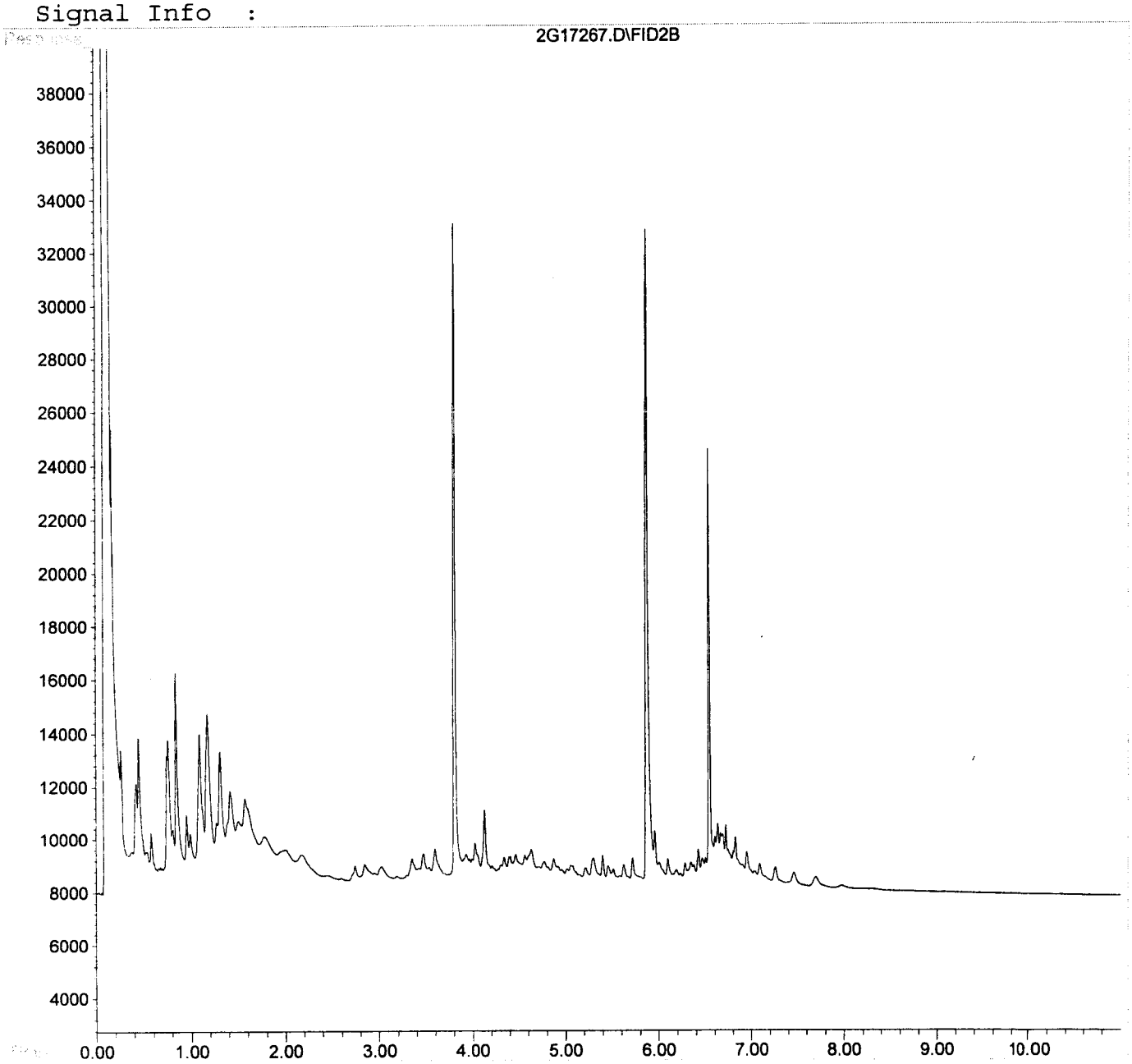
Quantitation Report

Data File : C:\HPCHEM\1\DATA\121701\2G17267.D
Acq On : 17 Dec 2001 11:06
Sample : L0112259-01 PRO soil
Misc : 7,1 soil
IntFile : PETRO.E
Quant Time: Dec 17 11:23 2001 Quant Results File: FLASHPRO.RES

Vial: 4
Operator: HV
Inst : hp2
Multiplr: 40.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 08:15:12 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121401\2G17246.D Vial: 11
Acq On : 14 Dec 2001 12:46 Operator: HV
Sample : L0112259-02 10X PRO soil Inst : hp2
Misc : 7,1 soil Multiplr: 400.00
IntFile : PETRO.E
Quant Time: Dec 14 14:40 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Fri Dec 14 13:15:20 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	77165	1572.923 ppb
Spiked Amount 800.000 Range 43 - 136 Recovery = 196.62%#			
3) s n-Nonatriacontane	7.45	1898	97.915 ppm
Spiked Amount 800.000 Recovery = 12.24%			
Target Compounds			
1) H Petroleum Range	3.64	60548043	1551653.083 ppb

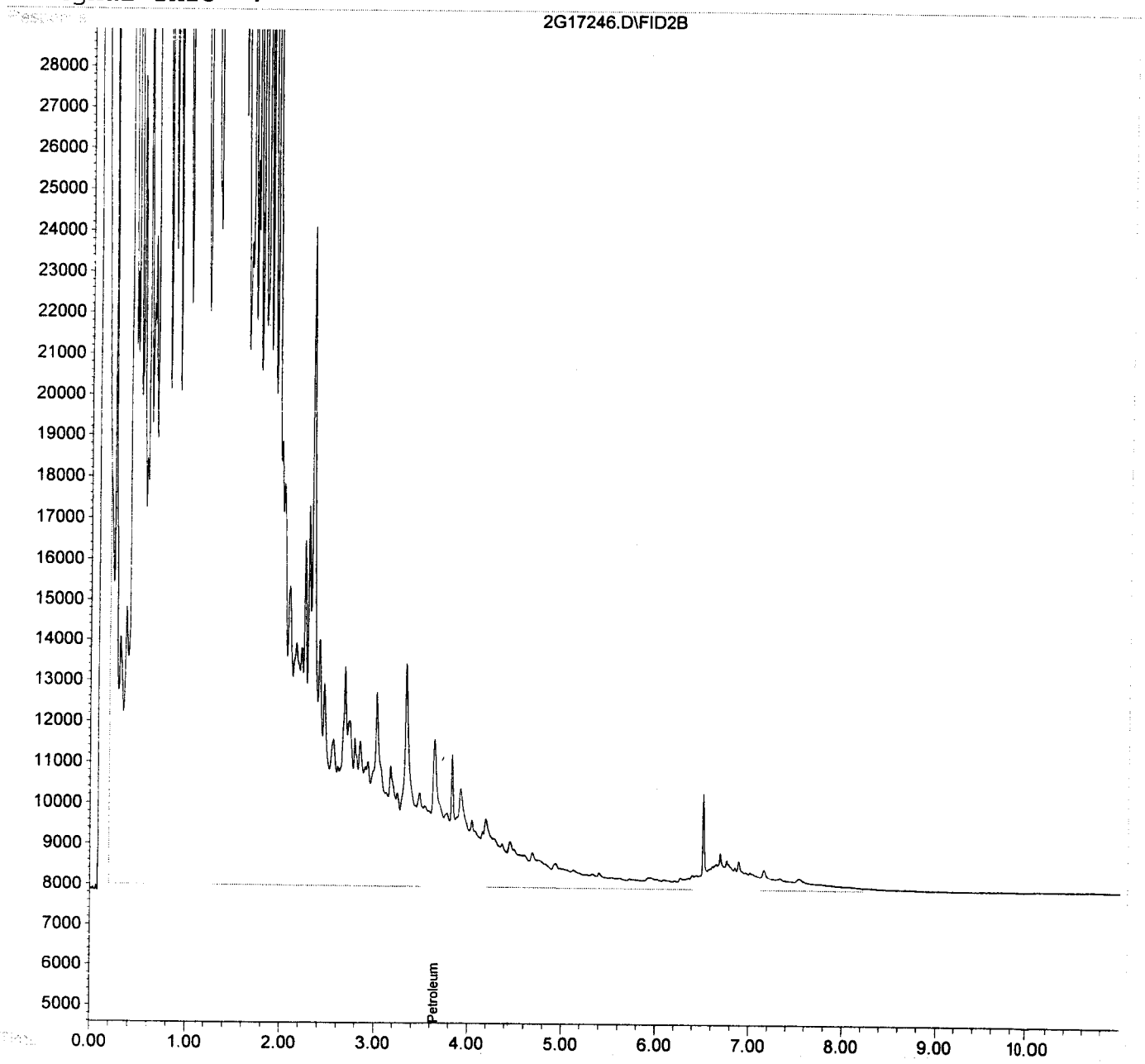
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\121401\2G17246.D
Acq On : 14 Dec 2001 12:46
Sample : L0112259-02 10X PRO soil
Misc : 7,1 soil
IntFile : PETRO.E
Quant Time: Dec 14 14:40 2001 Quant Results File: FLASHPRO.RES

Vial: 11
Operator: HV
Inst : hp2
Multiplr: 400.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Fri Dec 14 13:15:20 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\121401\2G17242.D Vial: 7
Acq On : 14 Dec 2001 11:46 Operator: HV
Sample : L0112259-02 PRO soil Inst : hp2
Misc : 7,1 soil Multiplr: 40.00
IntFile : PETRO.E
Quant Time: Dec 14 12:46 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 16:12:06 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.80	673621	1373.093 ppb
Spiked Amount 800.000 Range 43 - 136		Recovery =	171.64%#
3) s n-Nonatriacontane	7.53f	19797	102.150 ppm
Spiked Amount 800.000		Recovery =	12.77%
Target Compounds			
1) H Petroleum Range	3.64	523790137	1342306.926 ppb

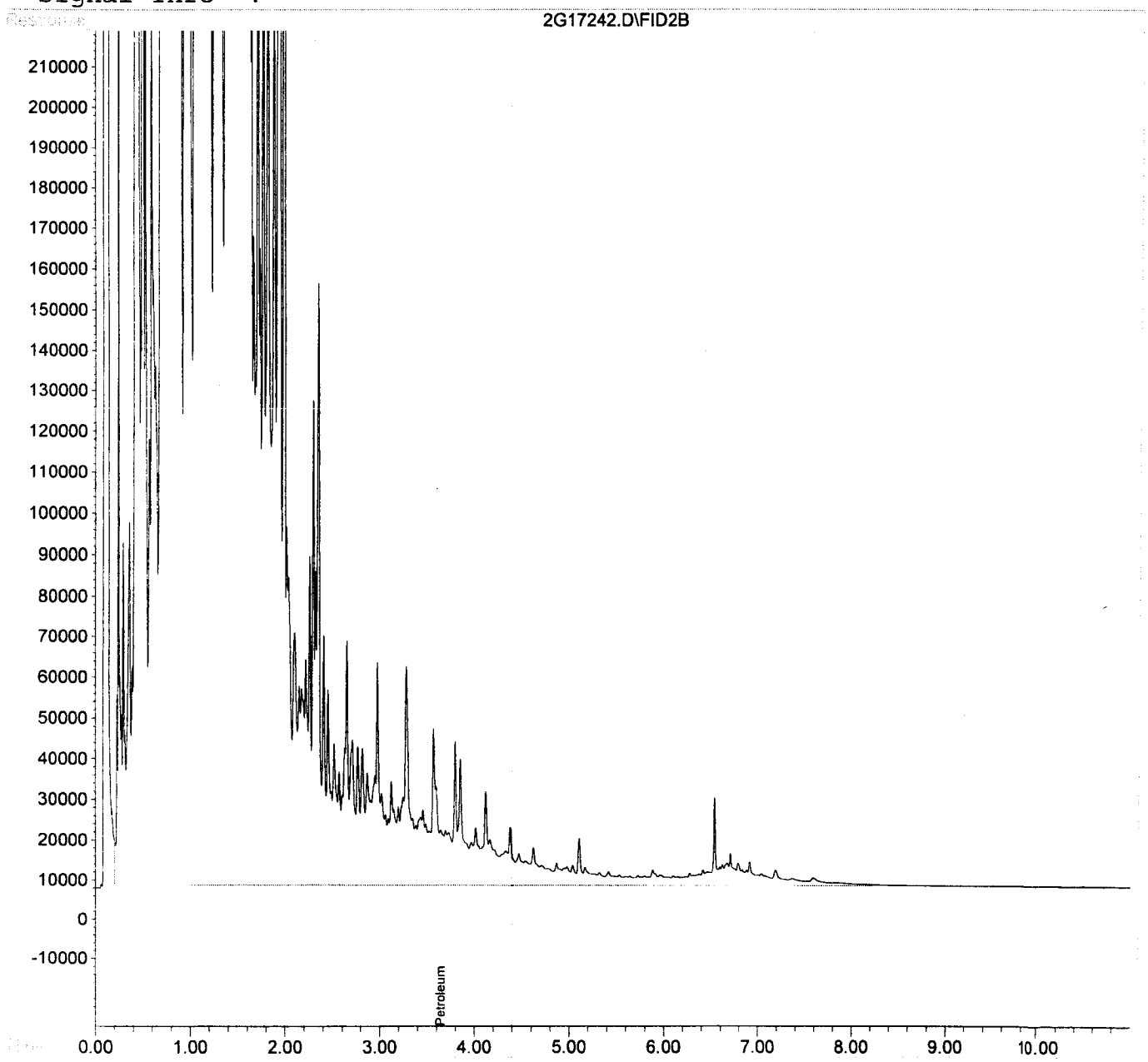
RR @ DOC (

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\121401\2G17242.D Vial: 7
Acq On : 14 Dec 2001 11:46 Operator: HV
Sample : L0112259-02 PRO soil Inst : hp2
Misc : 7,1 soil Multiplr: 40.00
IntFile : PETRO.E
Quant Time: Dec 14 12:46 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 16:12:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121701\2G17268.D
Acq On : 17 Dec 2001 11:22
Sample : L0112259-03 PRO soil
Misc : 7,1 soil
IntFile : PETRO.E
Quant Time: Dec 17 12:15 2001 Quant Results File: FLASHPRO.RES

Vial: 5
Operator: HV
Inst : hp2
Multiplr: 40.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 08:15:12 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.81	413443	842.753 ppb
Spiked Amount 800.000 Range 43 - 136		Recovery	= 105.34%
3) s n-Nonatriacontane	7.46	332135	1713.789 ppm
Spiked Amount 800.000		Recovery	= 214.22%
Target Compounds			
1) H Petroleum Range	3.64	21546909	55217.851 ppb

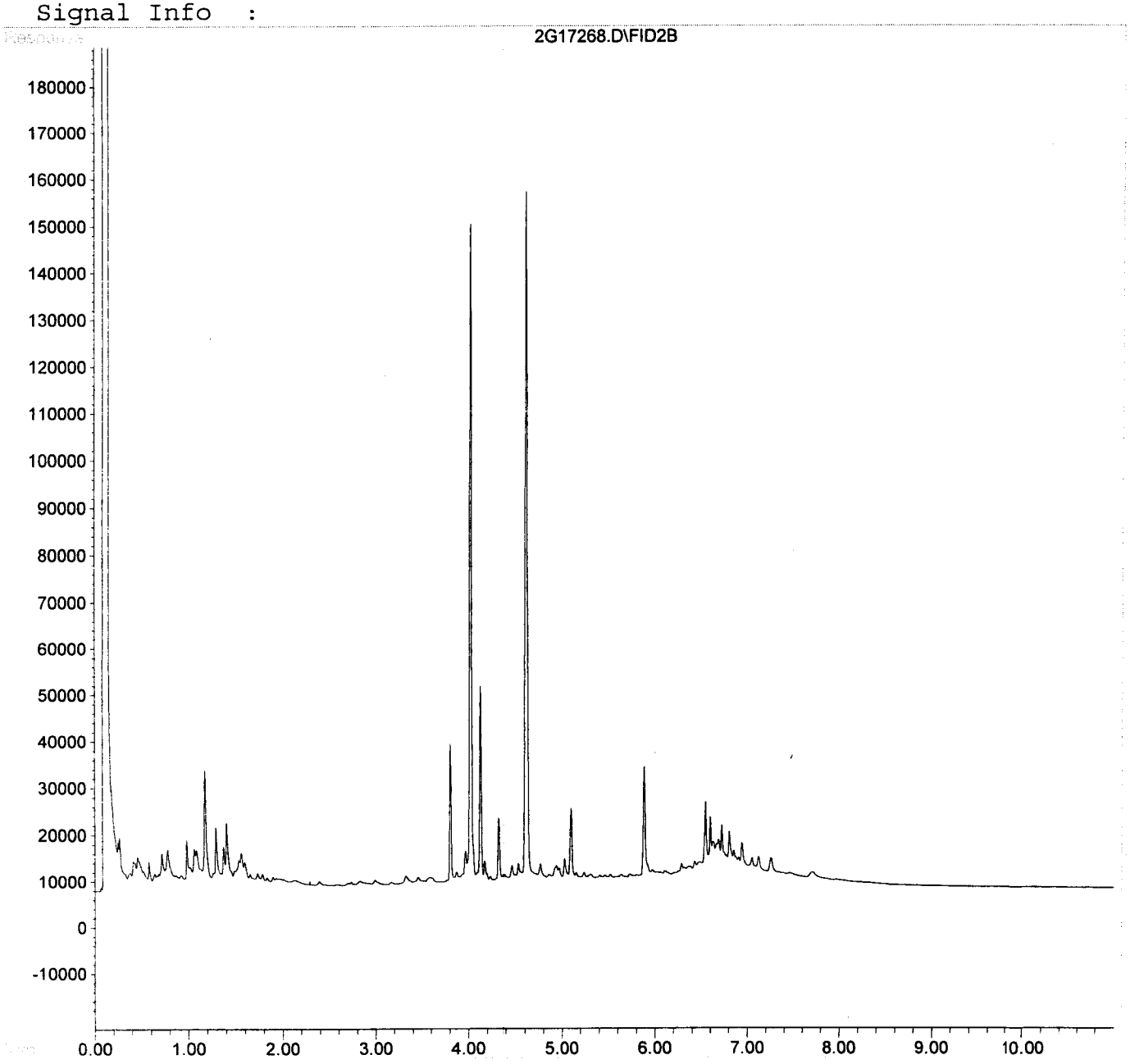
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121701\2G17268.D Vial: 5
Acq On : 17 Dec 2001 11:22 Operator: HV
Sample : L0112259-03 PRO soil Inst : hp2
Misc : 7,1 soil Multiplr: 40.00
IntFile : PETRO.E
Quant Time: Dec 17 12:15 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 08:15:12 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\121701\2G17276.D Vial: 6
Acq On : 17 Dec 2001 14:01 Operator: HV
Sample : L0112259-04 FLA PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.06
IntFile : PETRO.E
Quant Time: Dec 17 14:30 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 13:48:40 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

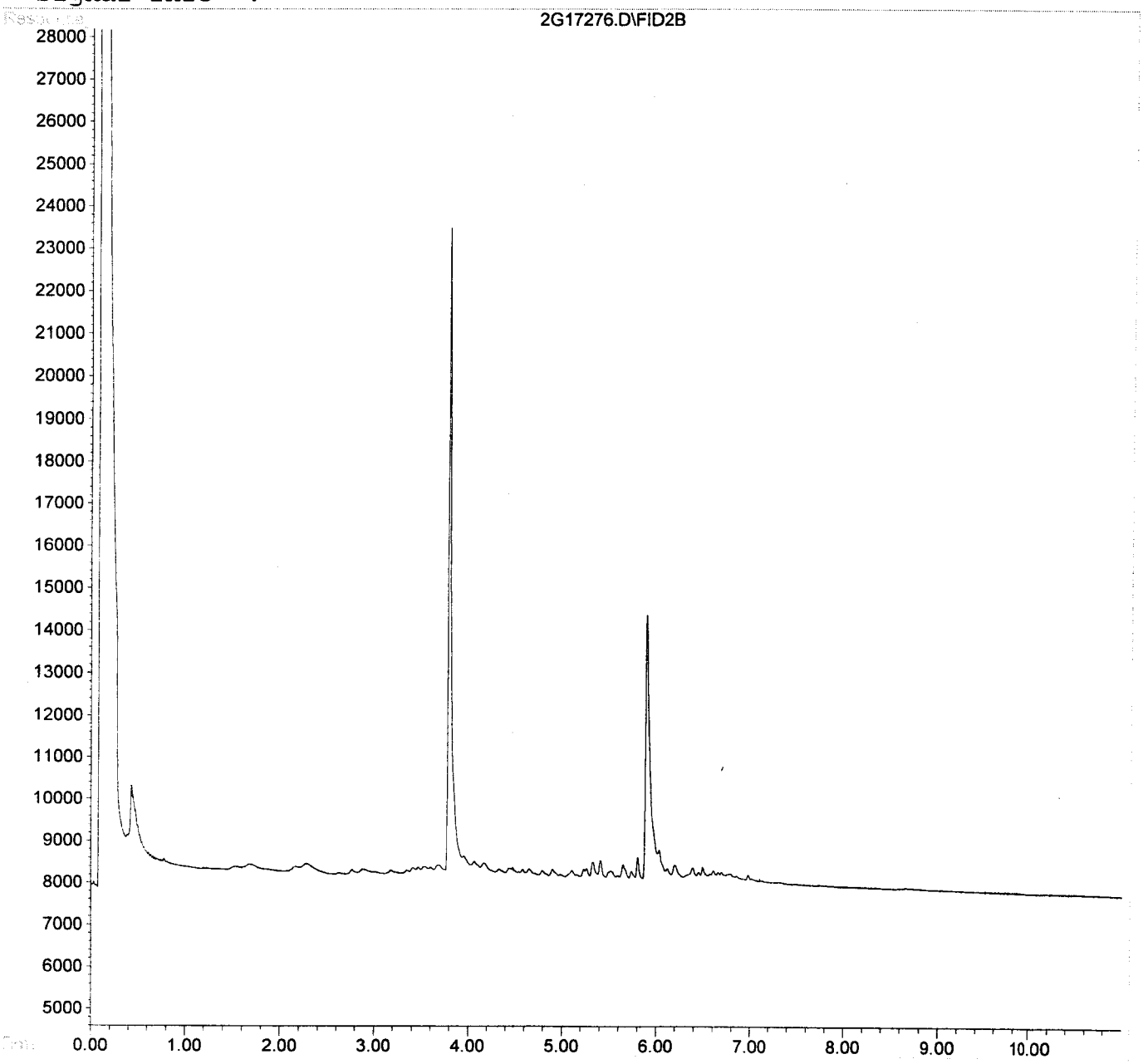
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.79	342012	17.429 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 87.15%			
3) s n-Nonatriacontane	7.45	25	0.003 ppm
Spiked Amount 20.000 Recovery = 0.02%			
Target Compounds			
1) H Petroleum Range	3.64	713718	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\121701\2G17276.D Vial: 6
Acq On : 17 Dec 2001 14:01 Operator: HV
Sample : L0112259-04 FLA PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.06
IntFile : PETRO.E
Quant Time: Dec 17 14:30 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 13:48:40 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2.2.5.3 Standards Data

Response Factor Report hp2

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:48:38 2001

Calibration Files

5	=2G17224.D	50	=2G17223.D	100	=2G17222.D
200	=2G17221.D	400	=2G17220.D	600	=2G17219.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	1.322	1.526	1.840	1.806	1.474	1.397	1.561	E4	13.74
2)	s	O-Terphenyl	2.058	1.993	2.188	2.148	1.762	1.625	1.962	E4	11.37
3)	s	n-Nonatriacontane	6.891	7.224	9.817	9.751	7.079	5.751	7.752	E3	21.38

(#) = Out of Range

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\2G17219.D Vial: 4
Acq On : 13 Dec 2001 11:50 Operator: HV
Sample : wg109976-06 PRO @600ppm Inst : hp2
Misc : 1,1 sos56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 13 14:14 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/08/01
Last Update : Thu Dec 13 14:13:52 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.91	9752484	453.918 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 2269.59%#			
3) s n-Nonatriacontane	7.51f	3450759	569.692 ppm
Spiked Amount 20.000 Recovery = 2848.46%			
Target Compounds			
1) H Petroleum Range	3.71	142529861	8884.829 ppb

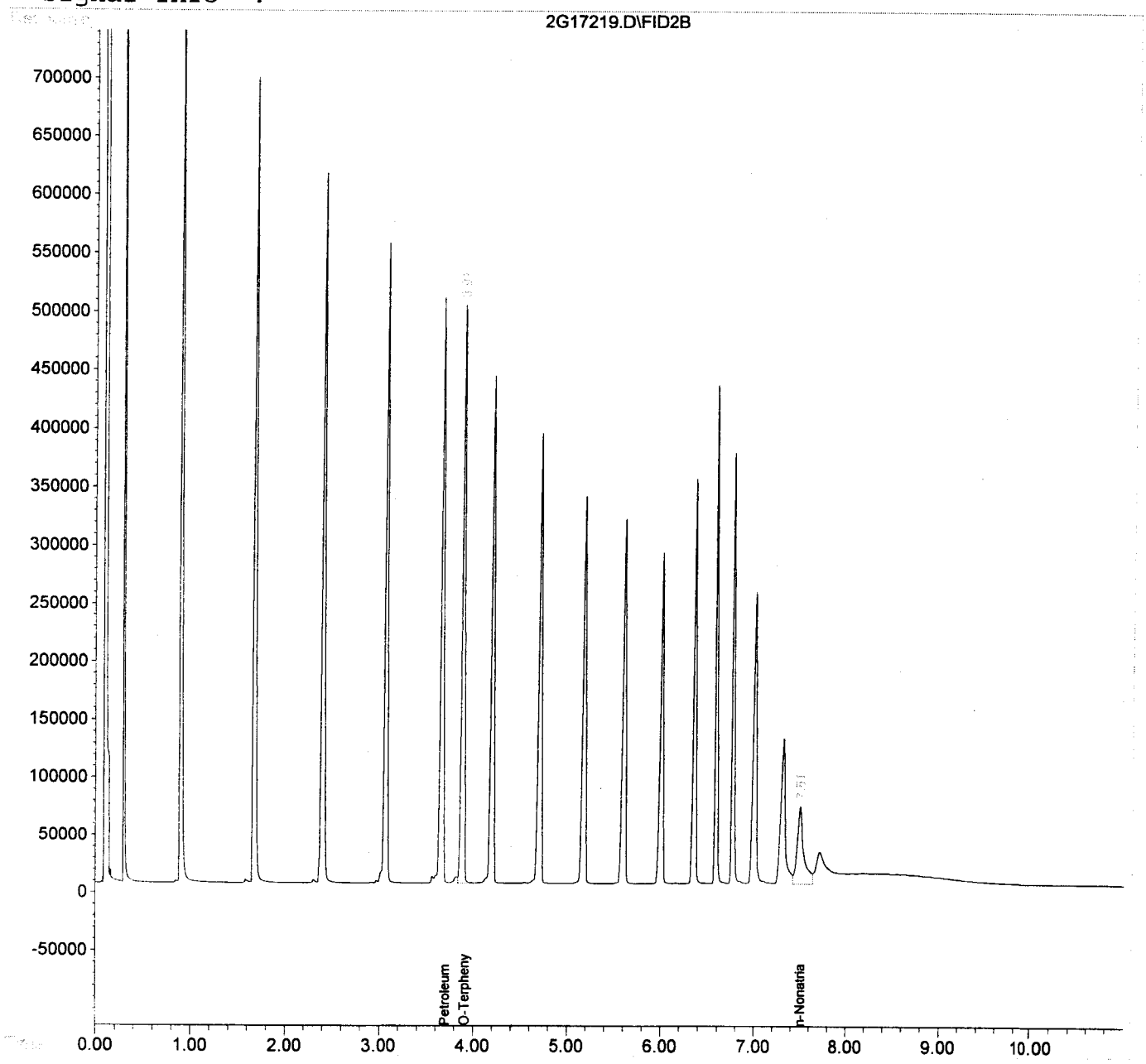
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121301\2G17219.D Vial: 4
Acq On : 13 Dec 2001 11:50 Operator: HV
Sample : wg109976-06 PRO @600ppm Inst : hp2
Misc : 1,1 sos56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 13 14:14 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/08/01
Last Update : Thu Dec 13 14:13:52 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\2G17220.D Vial: 5
Acq On : 13 Dec 2001 12:05 Operator: HV
Sample : wg109976-05 PRO @400ppm Inst : hp2
Misc : 1,1 sos56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 13 14:14 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/08/01
Last Update : Thu Dec 13 14:13:52 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.90	7049793	328.124 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 1640.62%#			
3) s n-Nonatriacontane	7.52f	2831416	467.443 ppm
Spiked Amount 20.000 Recovery = 2337.22%			
Target Compounds			
1) H Petroleum Range	3.71	100212023	6246.878 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

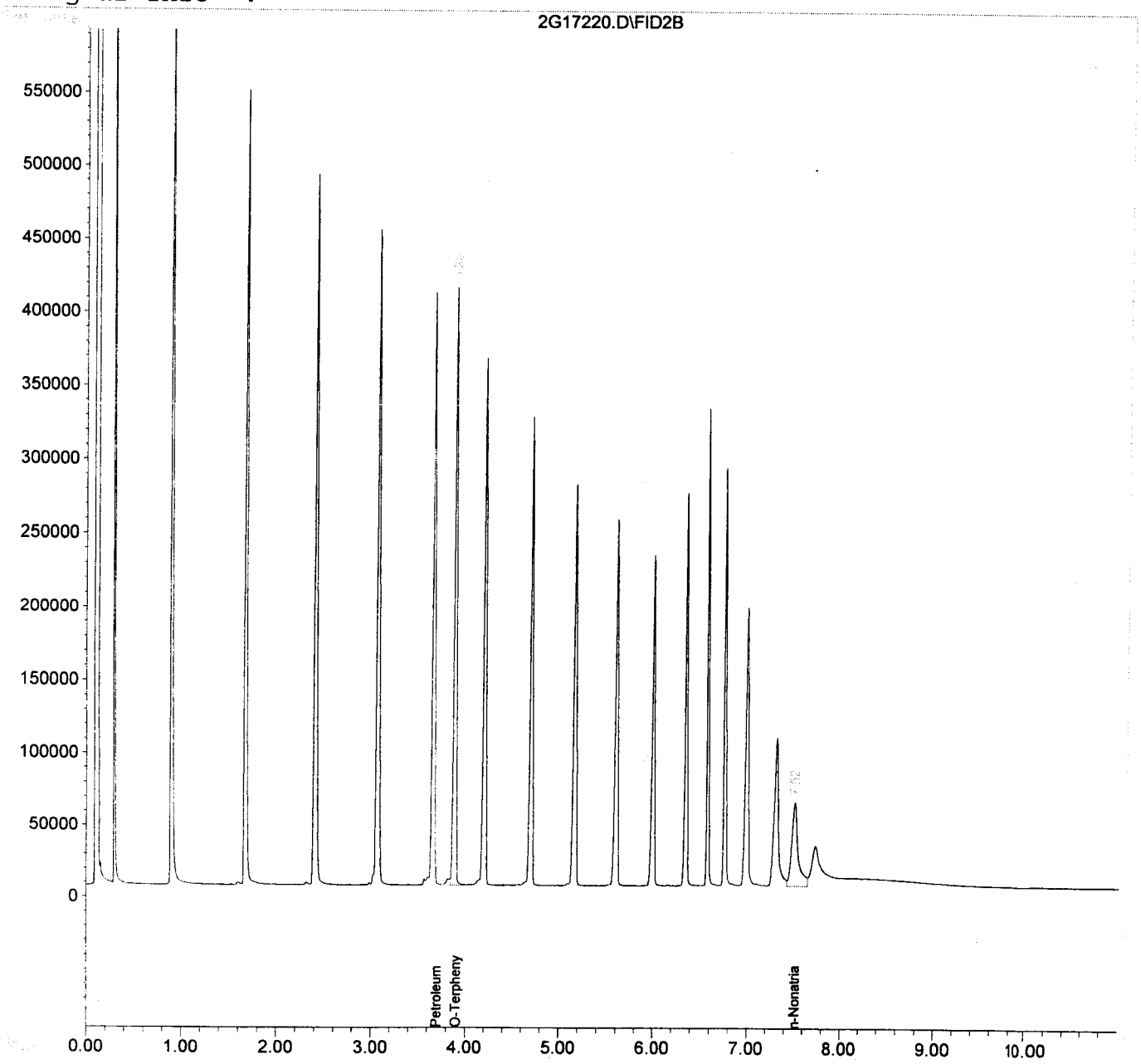
Quantitation Report

Data File : C:\HPCHEM\1\DATA\121301\2G17220.D
Acq On : 13 Dec 2001 12:05
Sample : wg109976-05 PRO @400ppm
Misc : 1,1 sos56-21
IntFile : PETRO.E
Quant Time: Dec 13 14:14 2001 Quant Results File: FLASHPRO.RES

Vial: 5
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/08/01
Last Update : Thu Dec 13 14:13:52 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\2G17221.D Vial: 6
Acq On : 13 Dec 2001 12:20 Operator: HV
Sample : wg109976-04 PRO @200ppm Inst : hp2
Misc : 1,1 sos56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 13 14:14 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/08/01
Last Update : Thu Dec 13 14:13:52 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.91	4295825	199.944 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 999.72%#			
3) s n-Nonatriacontane	7.45	1950182	321.959 ppm
Spiked Amount 20.000 Recovery = 1609.80%			
Target Compounds			
1) H Petroleum Range	3.71	61394844	3827.147 ppb

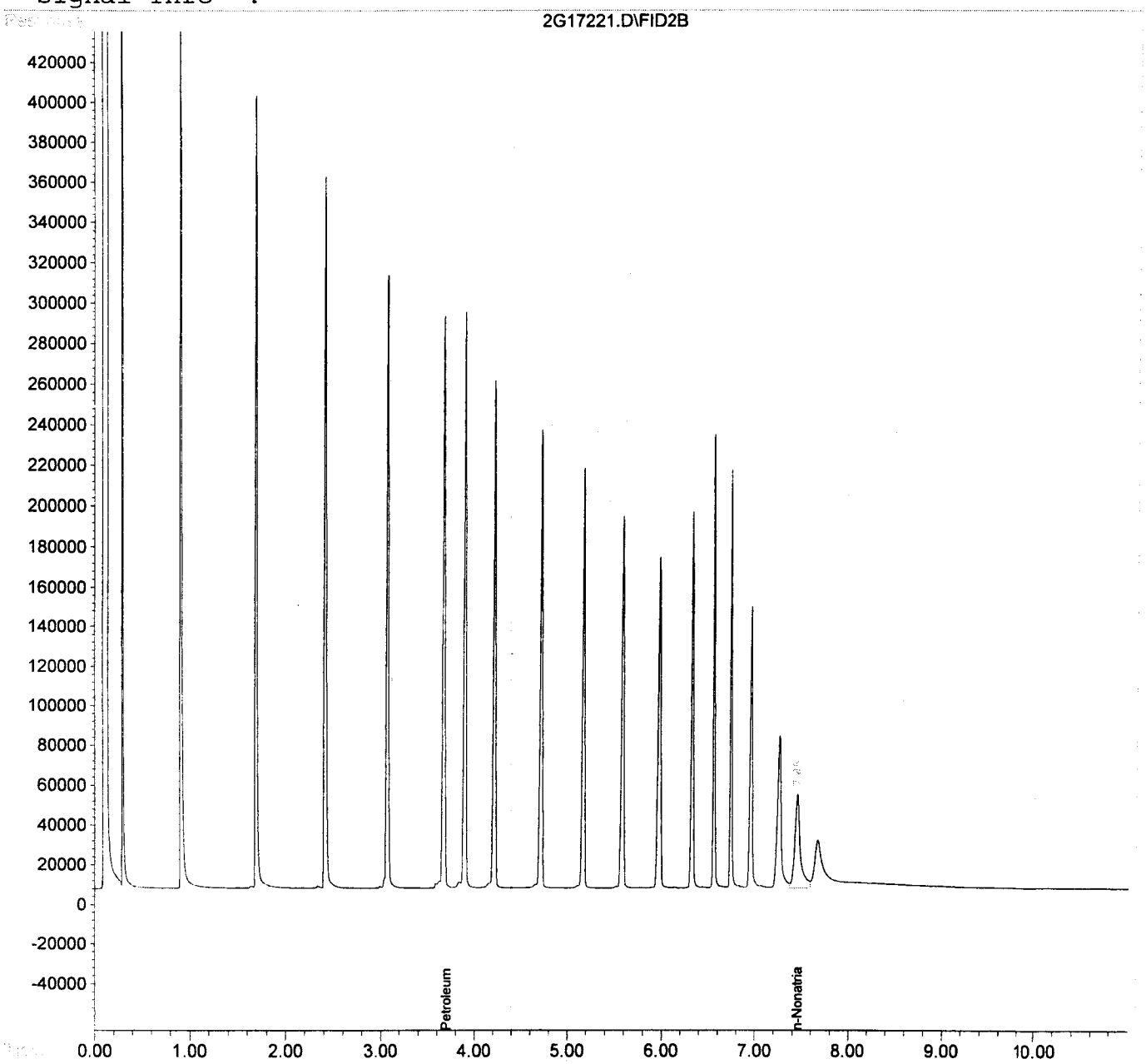
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121301\2G17221.D Vial: 6
Acq On : 13 Dec 2001 12:20 Operator: HV
Sample : wg109976-04 PRO @200ppm Inst : hp2
Misc : 1,1 sos56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 13 14:14 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/08/01
Last Update : Thu Dec 13 14:13:52 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\2G17222.D Vial: 7
Acq On : 13 Dec 2001 12:35 Operator: HV
Sample : wg109976-03 PRO @100ppm Inst : hp2
Misc : 1,1 sos56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 13 14:14 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/08/01
Last Update : Thu Dec 13 14:13:52 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.88	2187990	101.837 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 509.19%#			
3) s n-Nonatriacontane	7.45	981705	162.071 ppm
Spiked Amount 20.000 Recovery = 810.36%			
Target Compounds			
1) H Petroleum Range	3.71	31272165	1949.401 ppb

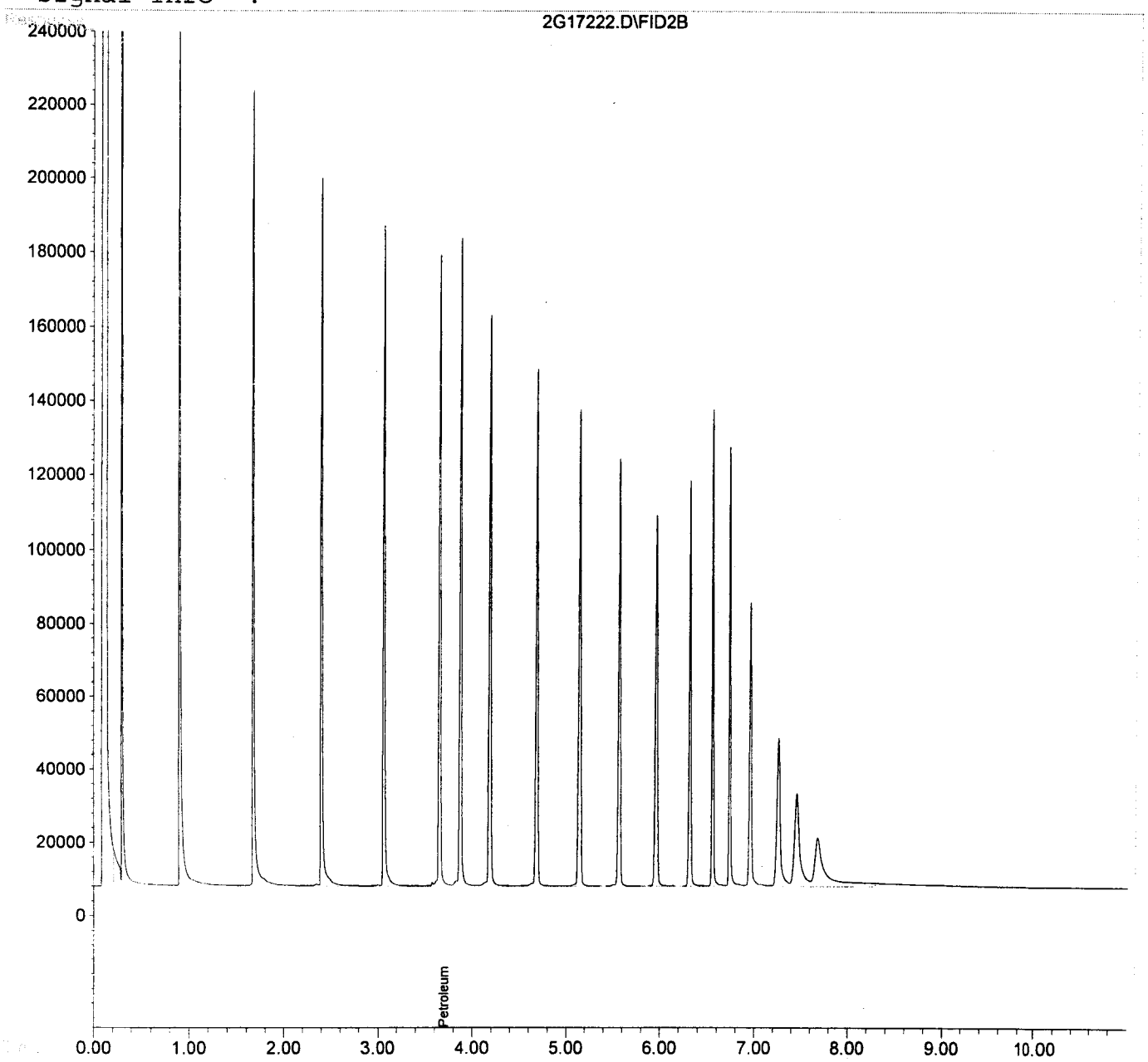
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121301\2G17222.D Vial: 7
Acq On : 13 Dec 2001 12:35 Operator: HV
Sample : wg109976-03 PRO @100ppm Inst : hp2
Misc : 1,1 sos56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 13 14:14 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/08/01
Last Update : Thu Dec 13 14:13:52 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\2G17223.D Vial: 8
Acq On : 13 Dec 2001 14:04 Operator: HV
Sample : wg109976-02 PRO @50ppm Inst : hp2
Misc : 1,1 sos56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 13 14:16 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/08/01
Last Update : Thu Dec 13 14:13:52 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.84	996401	46.376 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 231.88%#			
3) s n-Nonatriacontane	7.42	361178	59.628 ppm
Spiked Amount 20.000 Recovery = 298.14%			
Target Compounds			
1) H Petroleum Range	3.71	12974414	808.781 ppb

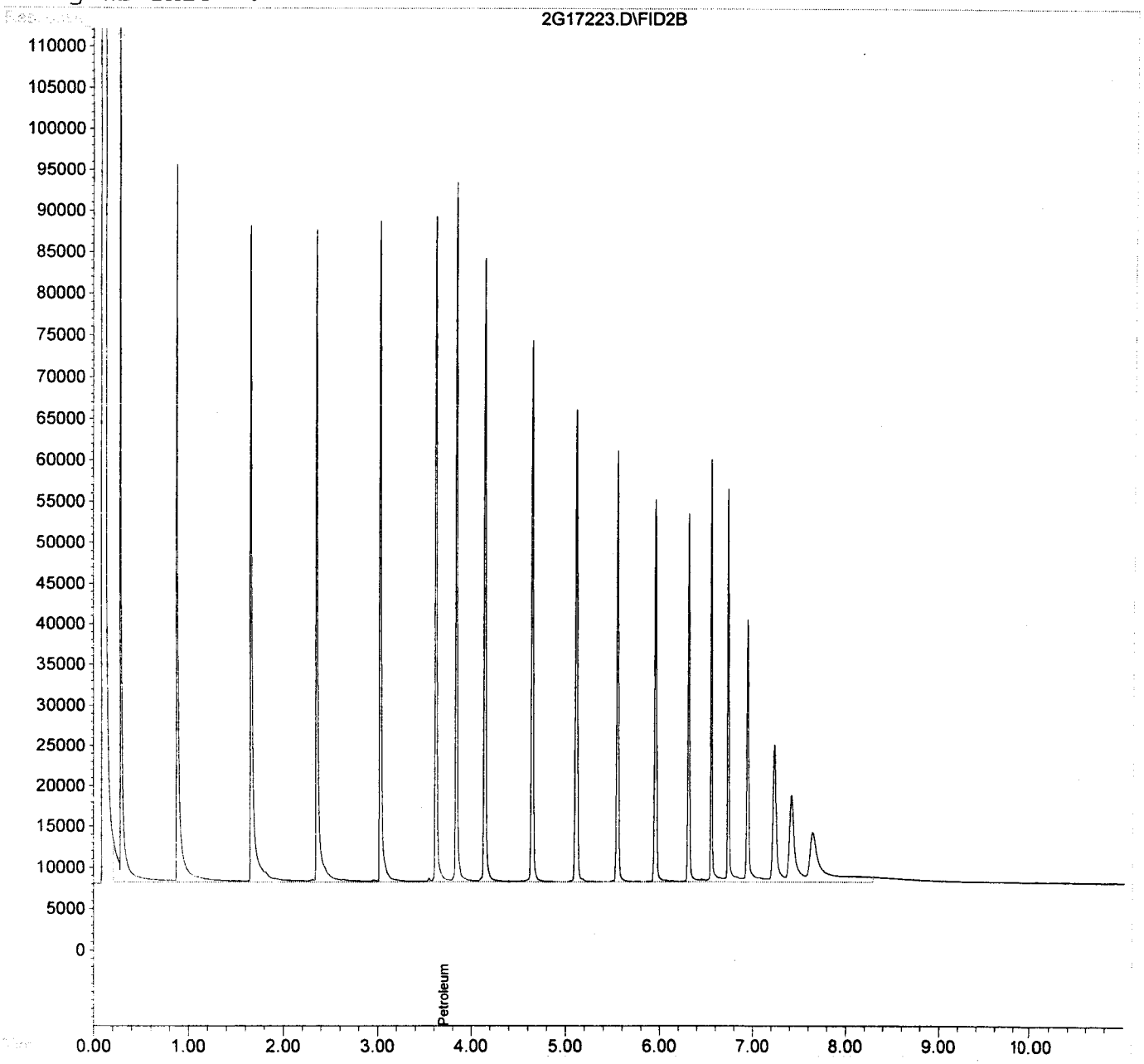
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121301\2G17223.D Vial: 8
Acq On : 13 Dec 2001 14:04 Operator: HV
Sample : wg109976-02 PRO @50ppm Inst : hp2
Misc : 1,1 sos56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 13 14:16 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/08/01
Last Update : Thu Dec 13 14:13:52 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\2G17224.D Vial: 9
Acq On : 13 Dec 2001 14:19 Operator: HV
Sample : wg109976-01 PRO @5ppm Inst : hp2
Misc : 1,1 sos56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 13 14:32 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/08/01
Last Update : Thu Dec 13 14:13:52 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.87	102876	4.788 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 23.94%#			
3) s n-Nonatriacontane	7.49	34455	5.688 ppm
Spiked Amount 20.000 Recovery = 28.44%			
Target Compounds			
1) H Petroleum Range	3.71	1124094	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

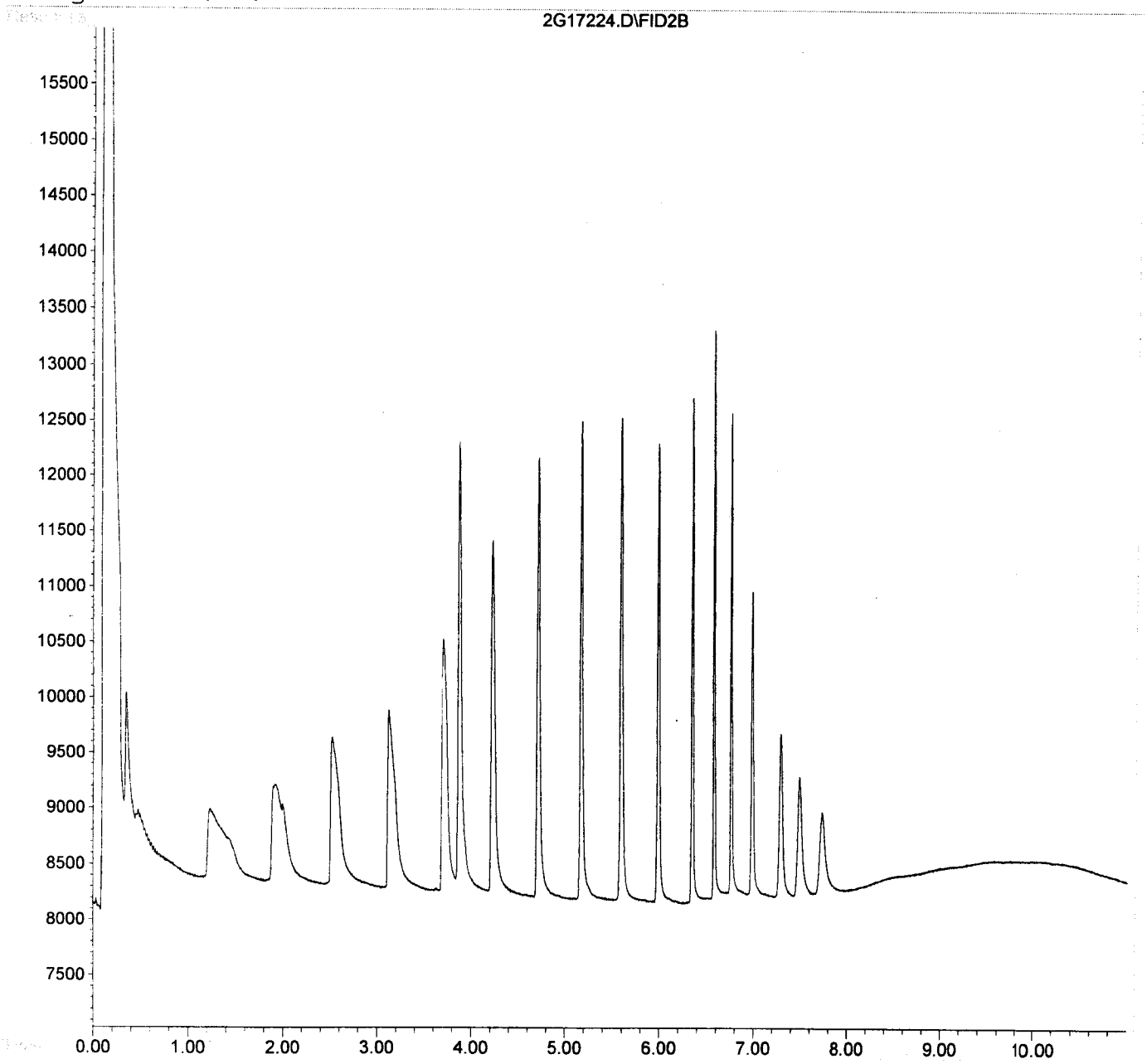
Quantitation Report

Data File : C:\HPCHEM\1\DATA\121301\2G17224.D
Acq On : 13 Dec 2001 14:19
Sample : wg109976-01 PRO @5ppm
Misc : 1,1 sos56-21
IntFile : PETRO.E
Quant Time: Dec 13 14:32 2001 Quant Results File: FLASHPRO.RES

Vial: 9
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/08/01
Last Update : Thu Dec 13 14:13:52 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121301\2G17226.D
Acq On : 13 Dec 2001 14:49
Sample : wg109976-07 ALT @200ppm
Misc : 1,1 sos56-26
IntFile : PETRO.E

Vial: 11
Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	2989.502	12.1	76	0.00
2	s	O-Terphenyl	200.000	0.930	99.5#	0	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\1\DATA\121301\2G17226.D Vial: 11
Acq On : 13 Dec 2001 14:49 Operator: HV
Sample : wg109976-07 ALT @200ppm Inst : hp2
Misc : 1,1 sos56-26 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
3 s	n-Nonatriacontane	200.000	0.000	100.0#	0	-7.45#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121301\2G17226.D
Acq On : 13 Dec 2001 14:49
Sample : wg109976-07 ALT @200ppm
Misc : 1,1 sos56-26
IntFile : PETRO.E
Quant Time: Dec 13 15:04 2001 Quant Results File: FLASHPRO.RES

Vial: 11
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:48:38 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.92	18254	0.930 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 4.65%#			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.64	46662112	2989.502 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

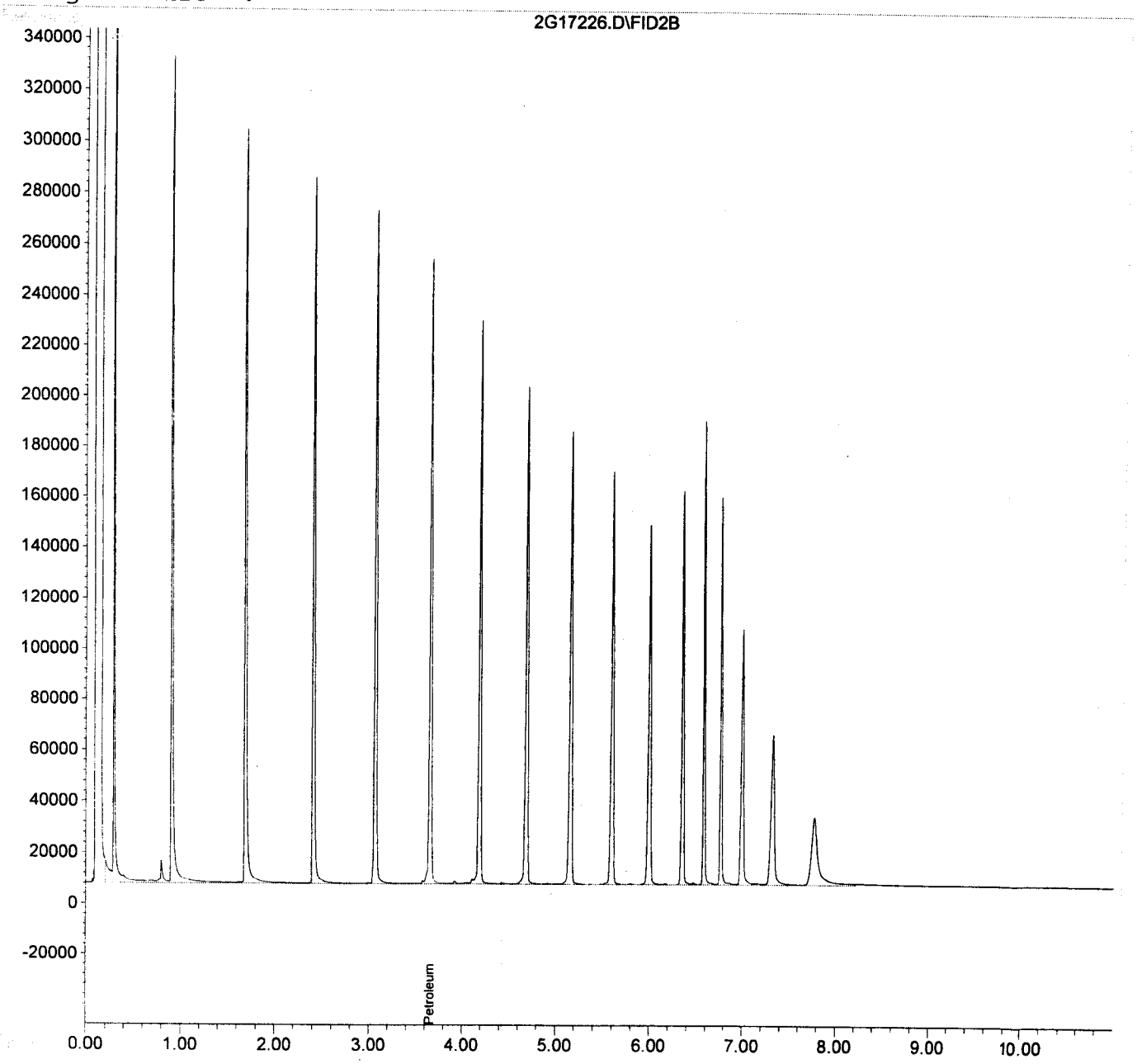
Quantitation Report

Data File : C:\HPCHEM\1\DATA\121301\2G17226.D
Acq On : 13 Dec 2001 14:49
Sample : wg109976-07 ALT @200ppm
Misc : 1,1 sos56-26
IntFile : PETRO.E
Quant Time: Dec 13 15:04 2001 Quant Results File: FLASHPRO.RES

Vial: 11
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:48:38 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\121401\2G17238.D Vial: 3
Acq On : 14 Dec 2001 10:04 Operator: HV
Sample : WG110039-01 PRO CCV Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3281.845	3.5	83	0.00
2	s	O-Terphenyl	200.000	176.356	11.8	81	0.00
3	s	n-Nonatriacontane	200.000	241.598	-20.8#	96	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\121401\2G17238.D Vial: 3
Acq On : 14 Dec 2001 10:04 Operator: HV
Sample : WG110039-01 PRO CCV Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

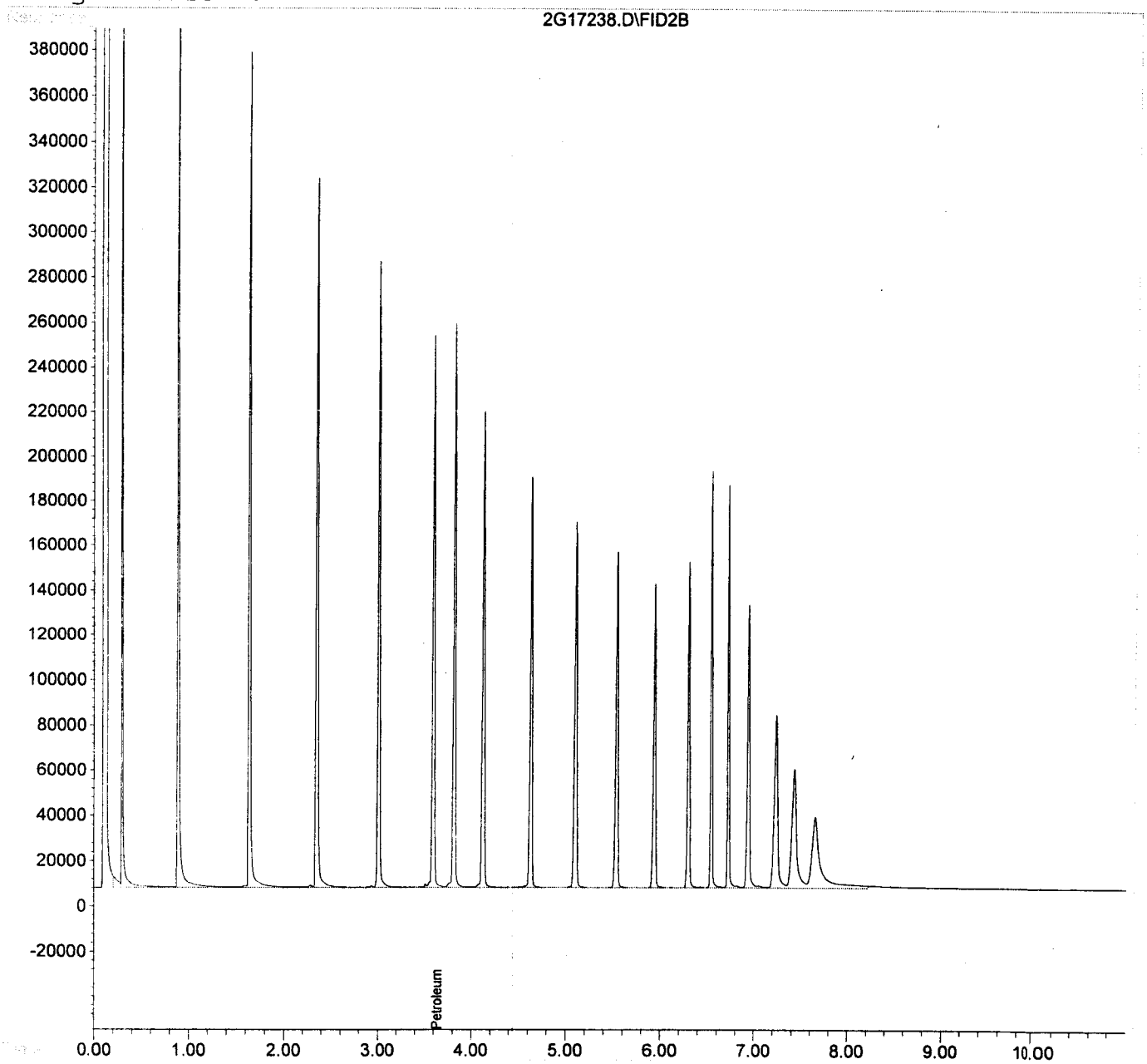
(#) = Out of Range SPCC's out = 0 CCC's out = 0

```
Data File : C:\HPCHEM\1\DATA\121401\2G17238.D            Vial: 3
Acq On    : 14 Dec 2001  10:04                        Operator: HV
Sample    : WG110039-01 PRO CCV                       Inst     : hp2
Misc      : 1,1 SOS56-21                              Multiplr: 1.00
IntFile   : PETRO.E
Quant Time: Dec 14 10:36 2001  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 12/13/01
Last Update  : Thu Dec 13 16:12:06 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                        R.T.       Response    Conc Units
---------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                  3.82        3460708  176.356 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    =  881.78%#
 3) s   n-Nonatriacontane            7.43        1872884  241.598 ppm
Spiked Amount   20.000                    Recovery      = 1207.99%

  Target Compounds
 1) H   Petroleum Range              3.64       51225187 3281.845 ppb
```

Data File : C:\HPCHEM\1\DATA\121401\2G17238.D Vial: 3
Acq On : 14 Dec 2001 10:04 Operator: HV
Sample : WG110039-01 PRO CCV Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 14 10:36 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 16:12:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121401\2G17247.D Vial: 12
Acq On : 14 Dec 2001 13:01 Operator: HV
Sample : WG110039-02-02 PRO CCV Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3310.243	2.6	84	0.00
2	s	O-Terphenyl	200.000	167.997	16.0#	77	0.00
3	s	n-Nonatriacontane	200.000	273.300	-36.7#	109	-0.07

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\121401\2G17247.D Vial: 12
Acq On : 14 Dec 2001 13:01 Operator: HV
Sample : WG110039-02-02 PRO CCV Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121401\2G17247.D
Acq On : 14 Dec 2001 13:01
Sample : WG110039-02-02 PRO CCV
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 14 13:15 2001 Quant Results File: FLASHPRO.RES

Vial: 12
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Fri Dec 14 13:15:20 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.85	3296679	167.997 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 839.99%#
3) s n-Nonatriacontane	7.38f	2118642	273.300 ppm
Spiked Amount 20.000		Recovery	= 1366.50%
Target Compounds			
1) H Petroleum Range	3.64	51668447	3310.243 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

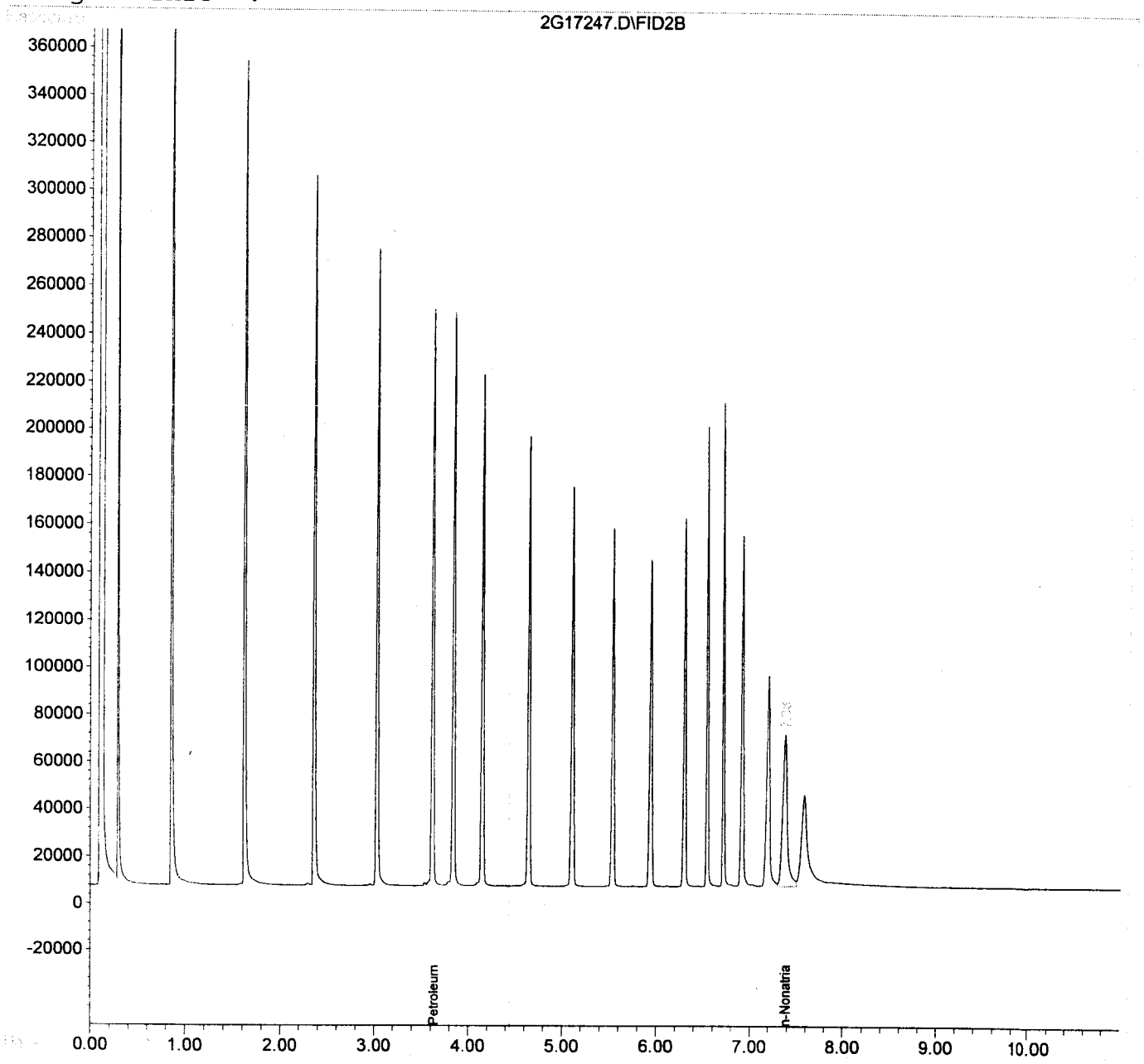
Quantitation Report

Data File : C:\HPCHEM\1\DATA\121401\2G17247.D
Acq On : 14 Dec 2001 13:01
Sample : WG110039-02-02 PRO CCV
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 14 13:15 2001 Quant Results File: FLASHPRO.RES

Vial: 12
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Fri Dec 14 13:15:20 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\121401\2G17253.D
Acq On : 14 Dec 2001 16:56
Sample : WG110039-03 PRO CCV
Misc : 1,1
IntFile : PETRO.E

Vial: 14
Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3500.573	-3.0	89	0.00
2	s	O-Terphenyl	200.000	218.651	-9.3	100	0.03
3	s	n-Nonatriacontane	200.000	222.615	-11.3	88	-0.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\121401\2G17253.D
Acq On : 14 Dec 2001 16:56
Sample : WG110039-03 PRO CCV
Misc : 1,1
IntFile : PETRO.E

Vial: 14
Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\121401\2G17253.D
Acq On : 14 Dec 2001 16:56
Sample : WG110039-03 PRO CCV
Misc : 1,1
IntFile : PETRO.E
Quant Time: Dec 14 17:15 2001 Quant Results File: FLASHPRO.RES

Vial: 14
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:48:38 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.85	4290688	218.651 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1093.26%#
3) s n-Nonatriacontane	7.41	1725727	222.615 ppm
Spiked Amount 20.000		Recovery	= 1113.08%
Target Compounds			
1) H Petroleum Range	3.64	54639235	3500.573 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

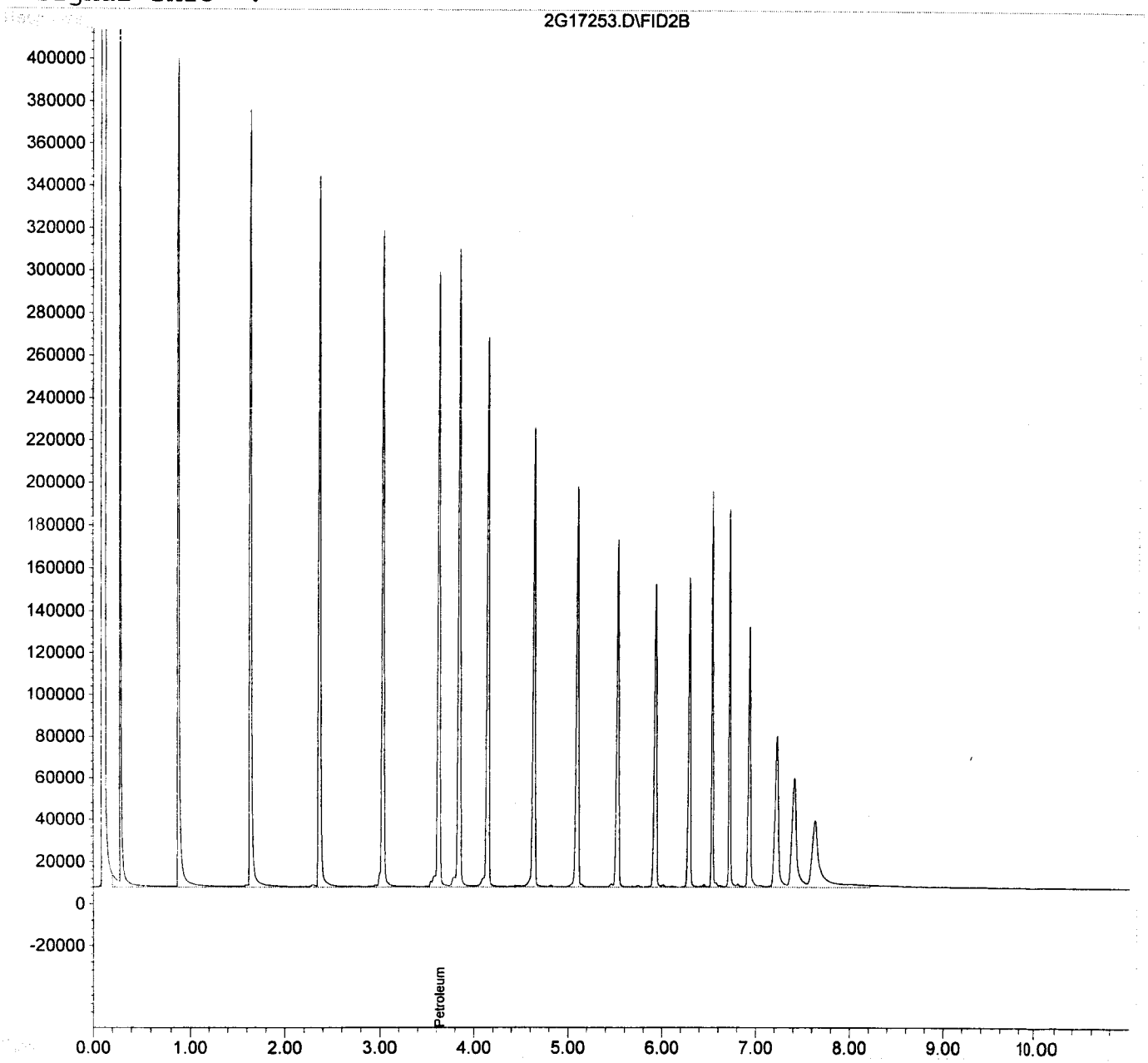
Quantitation Report

Data File : C:\HPCHEM\1\DATA\121401\2G17253.D
Acq On : 14 Dec 2001 16:56
Sample : WG110039-03 PRO CCV
Misc : 1,1
IntFile : PETRO.E
Quant Time: Dec 14 17:15 2001 Quant Results File: FLASHPRO.RES

Vial: 14
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:48:38 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121401\2G17260.D
Acq On : 14 Dec 2001 18:41
Sample : WG110039-04 PRO CCV
Misc : 1,1
IntFile : PETRO.E

Vial: 14
Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3859.302	-13.5	98	0.00
2	s	O-Terphenyl	200.000	231.304	-15.7#	106	0.03
3	s	n-Nonatriacontane	200.000	272.198	-36.1#	108	0.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\1\DATA\121401\2G17260.D Vial: 14
Acq On : 14 Dec 2001 18:41 Operator: HV
Sample : WG110039-04 PRO CCV Inst : hp2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\121401\2G17260.D
Acq On : 14 Dec 2001 18:41
Sample : WG110039-04 PRO CCV
Misc : 1,1
IntFile : PETRO.E
Quant Time: Dec 17 8:31 2001 Quant Results File: FLASHPRO.RES

Vial: 14
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 08:15:12 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.87	4538980	231.304 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1156.52%#
3) s n-Nonatriacontane	7.49	2110096	272.198 ppm
Spiked Amount 20.000		Recovery	= 1360.99%
Target Compounds			
1) H Petroleum Range	3.64	60238516	3859.302 ppb

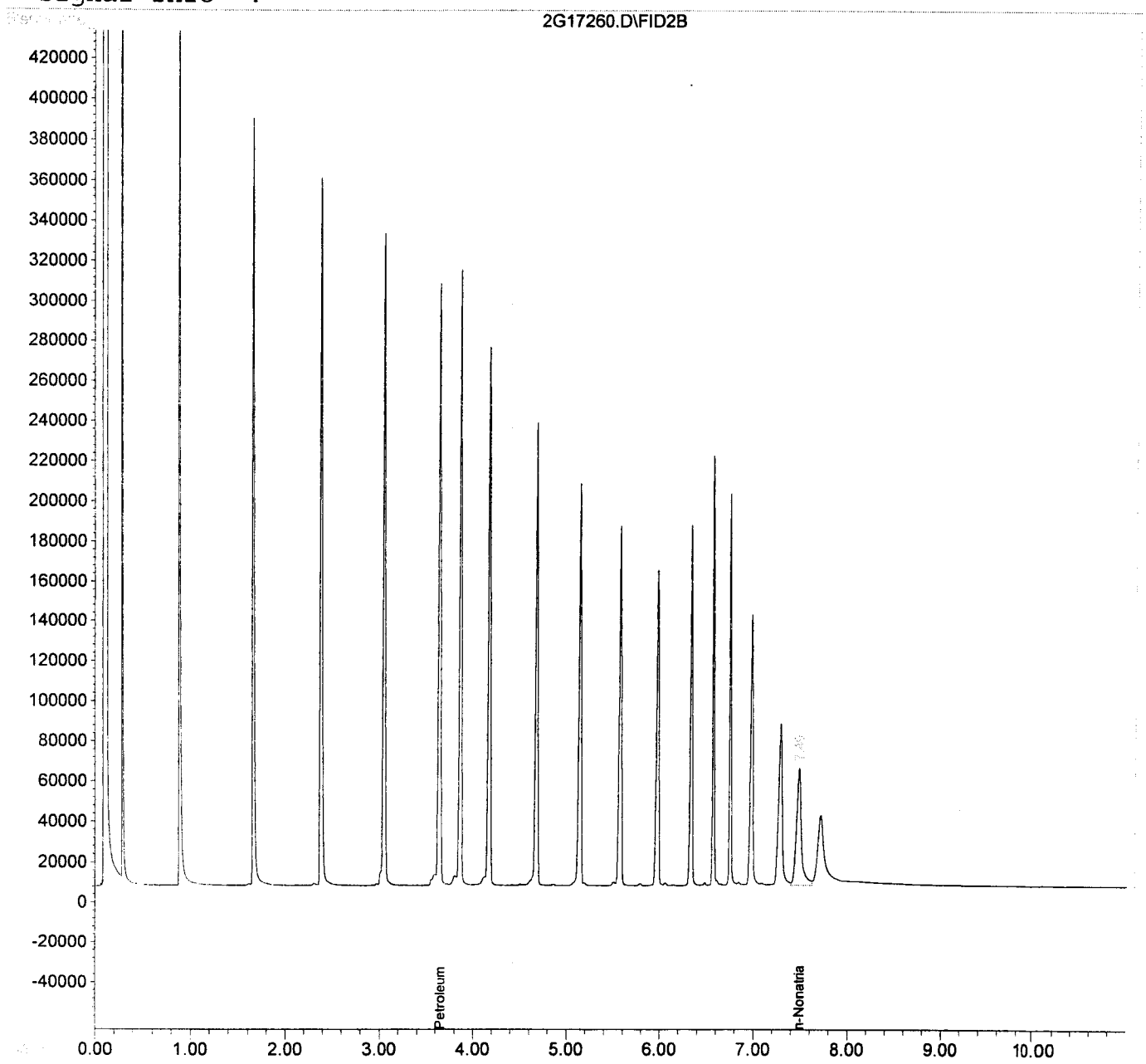
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121401\2G17260.D Vial: 14
Acq On : 14 Dec 2001 18:41 Operator: HV
Sample : WG110039-04 PRO CCV Inst : hp2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 17 8:31 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 08:15:12 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121701\2G17266.D Vial: 3
Acq On : 17 Dec 2001 10:50 Operator: HV
Sample : WG110100-01 PRO CCV Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 08:15:12 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3434.716	-1.0	87	0.00
2	s	O-Terphenyl	200.000	199.317	0.3	91	0.00
3	s	n-Nonatriacontane	200.000	215.483	-7.7	86	0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report Not Found

Data File : C:\HPCHEM\1\DATA\121701\2G17266.D Vial: 3
Acq On : 17 Dec 2001 10:50 Operator: HV
Sample : WG110100-01 PRO CCV Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 08:15:12 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\121701\2G17266.D Vial: 3
Acq On : 17 Dec 2001 10:50 Operator: HV
Sample : WG110100-01 PRO CCV Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 17 11:03 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 08:15:12 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	3911296	199.317 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 996.58%#			
3) s n-Nonatriacontane	7.48	1670438	215.483 ppm
Spiked Amount 20.000 Recovery = 1077.42%			
Target Compounds			
1) H Petroleum Range	3.64	53611301	3434.716 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

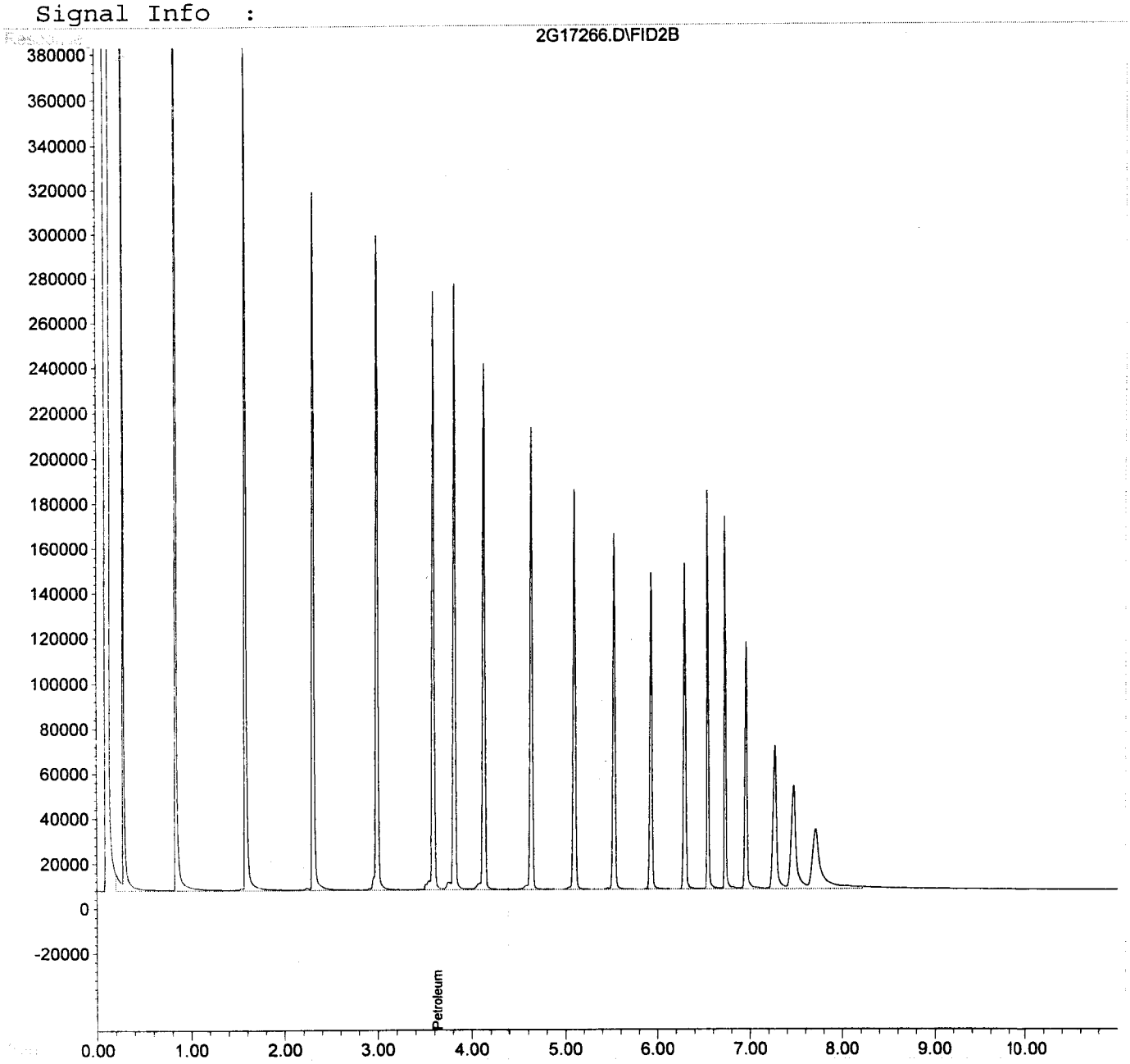
Quantitation Report

Data File : C:\HPCHEM\1\DATA\121701\2G17266.D
Acq On : 17 Dec 2001 10:50
Sample : WG110100-01 PRO CCV
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 17 11:03 2001 Quant Results File: FLASHPRO.RES

Vial: 3
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 08:15:12 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121701\2G17270.D Vial: 7
Acq On : 17 Dec 2001 11:52 Operator: HV
Sample : WG110100-02 PRO CCV Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3472.315	-2.1	88	0.00
2	s	O-Terphenyl	200.000	198.872	0.6	91	-0.01
3	s	n-Nonatriacontane	200.000	225.813	-12.9	90	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report Not Found

Data File : C:\HPCHEM\1\DATA\121701\2G17270.D Vial: 7
Acq On : 17 Dec 2001 11:52 Operator: HV
Sample : WG110100-02 PRO CCV Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\121701\2G17270.D
Acq On : 17 Dec 2001 11:52
Sample : WG110100-02 PRO CCV
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 17 12:05 2001 Quant Results File: FLASHPRO.RES

Vial: 7
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 08:15:12 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	3902548	198.872 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 994.36%#			
3) s n-Nonatriacontane	7.47	1750518	225.813 ppm
Spiked Amount 20.000 Recovery = 1129.07%			
Target Compounds			
1) H Petroleum Range	3.64	54198172	3472.315 ppb

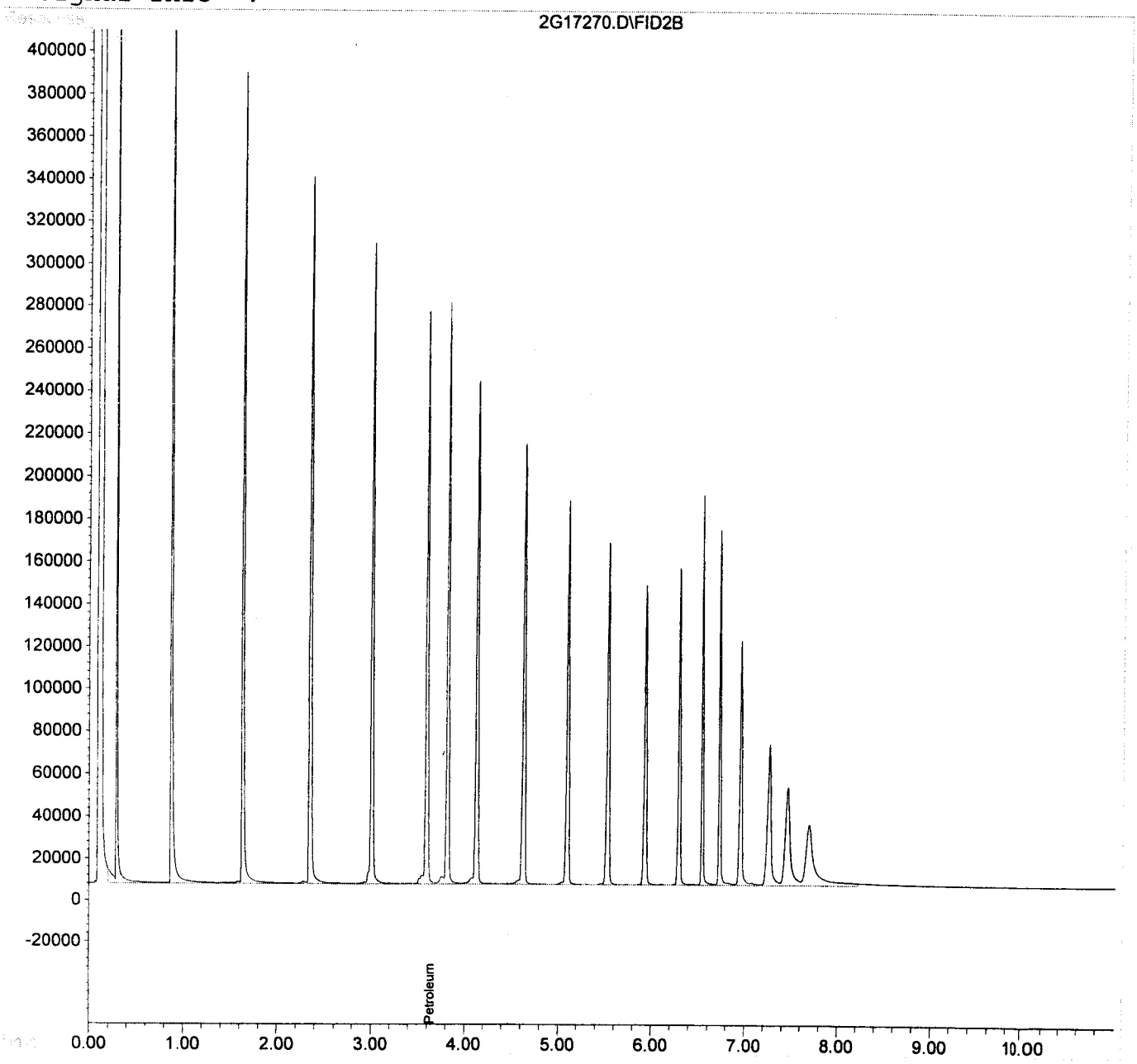
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\121701\2G17270.D
Acq On : 17 Dec 2001 11:52
Sample : WG110100-02 PRO CCV
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 17 12:05 2001 Quant Results File: FLASHPRO.RES

Vial: 7
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 08:15:12 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\121701\2G17270.D Vial: 7
Acq On : 17 Dec 2001 11:52 Operator: HV
Sample : WG110100-02 PRO CCV Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3472.315	-2.1	88	0.00
2	s	O-Terphenyl	200.000	198.872	0.6	91	0.04
3	s	n-Nonatriacontane	200.000	225.813	-12.9	90	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\121701\2G17270.D Vial: 7
Acq On : 17 Dec 2001 11:52 Operator: HV
Sample : WG110100-02 PRO CCV Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\121701\2G17270.D Vial: 7
Acq On : 17 Dec 2001 11:52 Operator: HV
Sample : WG110100-02 PRO CCV Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 17 12:05 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 08:15:12 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

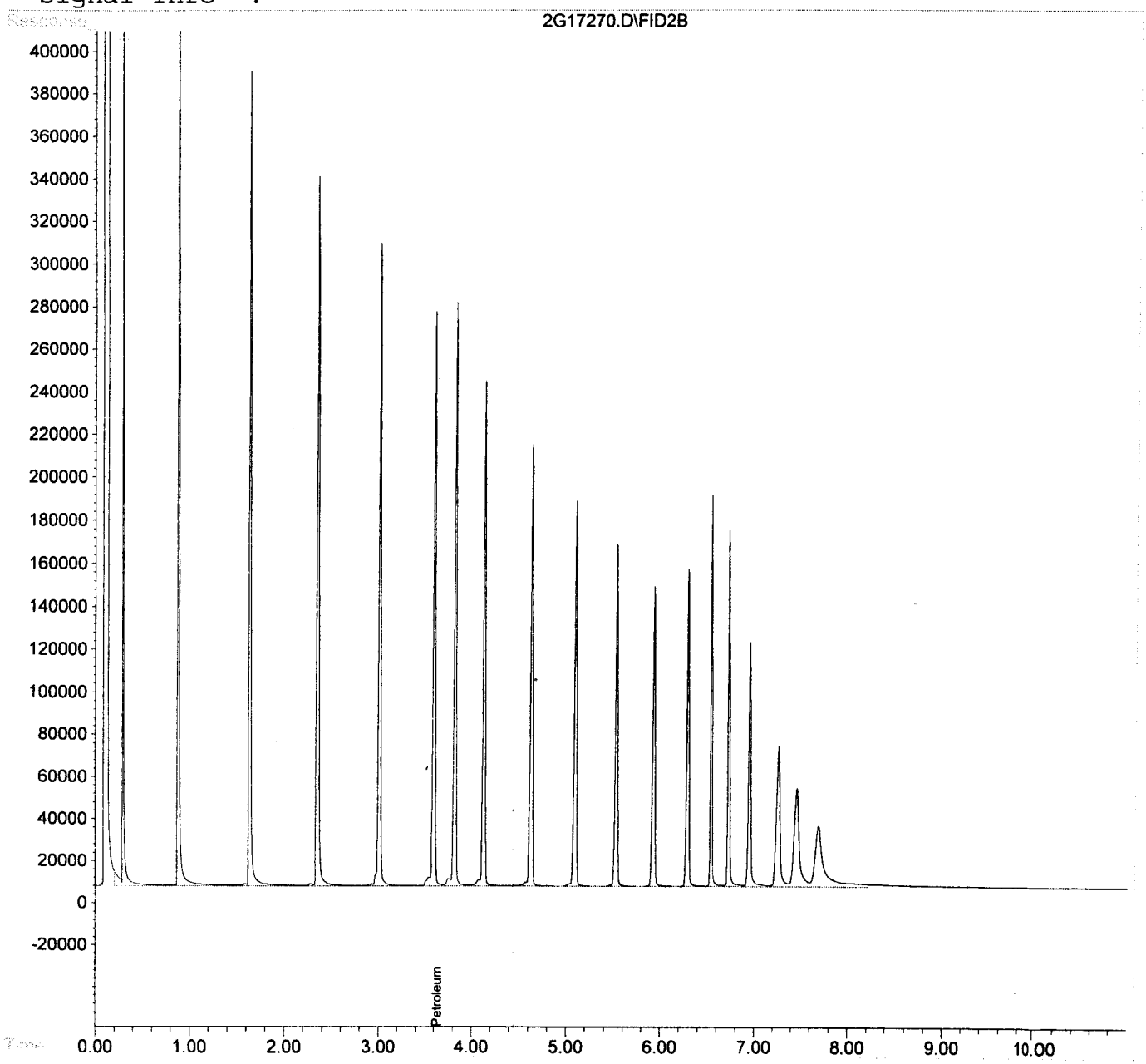
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	3902548	198.872 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 994.36%#			
3) s n-Nonatriacontane	7.47	1750518	225.813 ppm
Spiked Amount 20.000 Recovery = 1129.07%			
Target Compounds			
1) H Petroleum Range	3.64	54198172	3472.315 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\121701\2G17270.D Vial: 7
Acq On : 17 Dec 2001 11:52 Operator: HV
Sample : WG110100-02 PRO CCV Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 17 12:05 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 08:15:12 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\121701\2G17279.D Vial: 7
Acq On : 17 Dec 2001 14:47 Operator: HV
Sample : WG110100-03 PRO CCV Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 13:48:40 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3452.403	-1.5	88	0.00
2	s	O-Terphenyl	200.000	204.483	-2.2	93	0.01
3	s	n-Nonatriacontane	200.000	215.906	-8.0	86	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\121701\2G17279.D Vial: 7
Acq On : 17 Dec 2001 14:47 Operator: HV
Sample : WG110100-03 PRO CCV Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 13:48:40 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\121701\2G17279.D Vial: 7
Acq On : 17 Dec 2001 14:47 Operator: HV
Sample : WG110100-03 PRO CCV Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 17 15:00 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 13:48:40 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

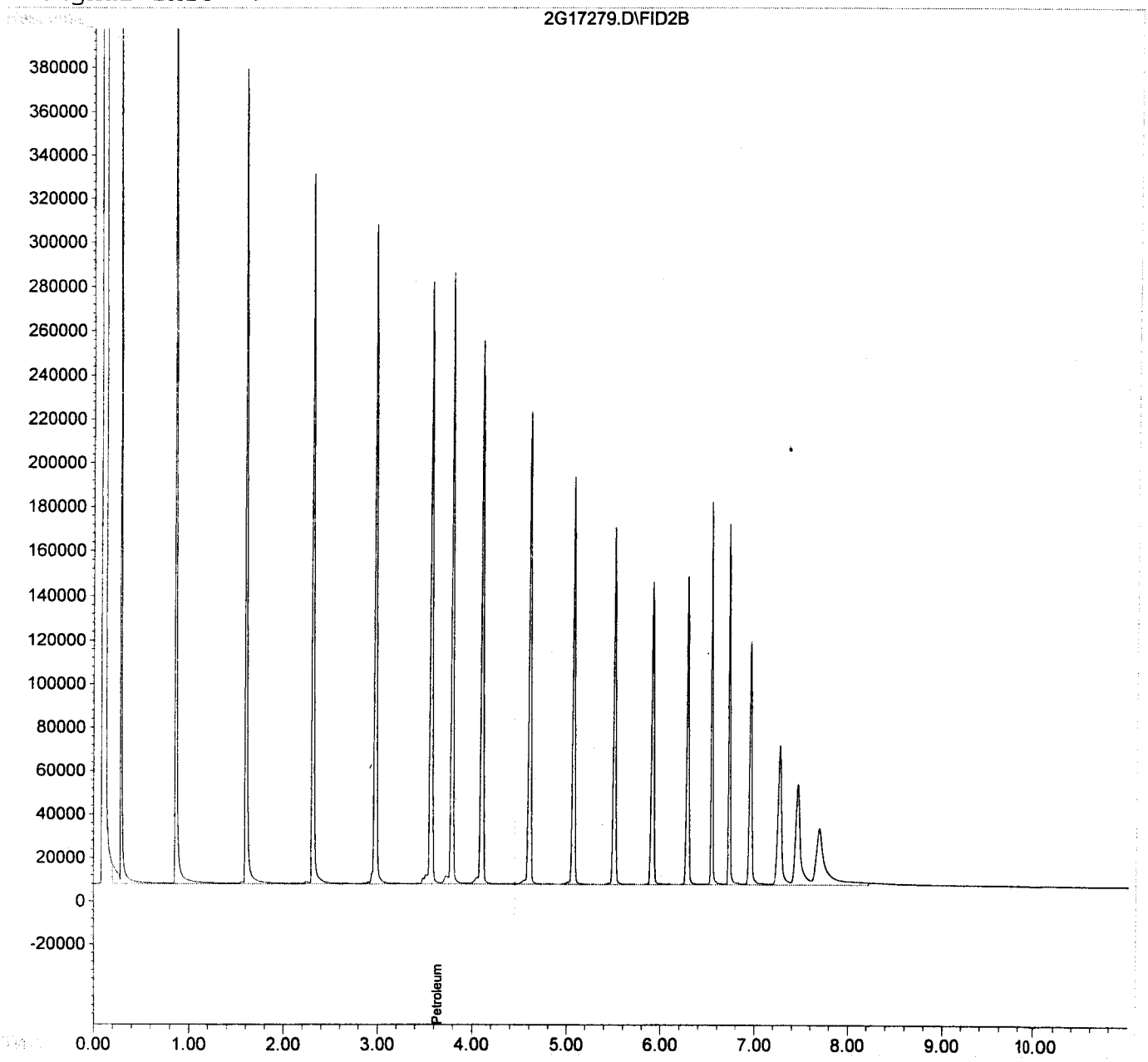
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.80	4012659	204.483 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1022.42%#
3) s n-Nonatriacontane	7.47	1673719	215.906 ppm
Spiked Amount 20.000		Recovery	= 1079.53%
Target Compounds			
1) H Petroleum Range	3.64	53887373	3452.403 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\121701\2G17279.D Vial: 7
Acq On : 17 Dec 2001 14:47 Operator: HV
Sample : WG110100-03 PRO CCV Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 17 15:00 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 13:48:40 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2.2.5.4 Raw QC Data

Data File : C:\HPCHEM\1\DATA\121401\2G17254.D
Acq On : 14 Dec 2001 17:11
Sample : WG110005-01 PRO soil BLK
Misc : 7,1 soil
IntFile : PETRO.E
Quant Time: Dec 17 8:12 2001 Quant Results File: FLASHPRO.RES

Vial: 15
Operator: HV
Inst : hp2
Multiplr: 40.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 08:12:24 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.82	408610	832.902 ppb
Spiked Amount 800.000 Range 43 - 136 Recovery = 104.11%			
3) s n-Nonatriacontane	7.40	13620	70.276 ppm
Spiked Amount 800.000 Recovery = 8.78%			
Target Compounds			
1) H Petroleum Range	3.64	1395410	3575.992 ppb ∠ MDL

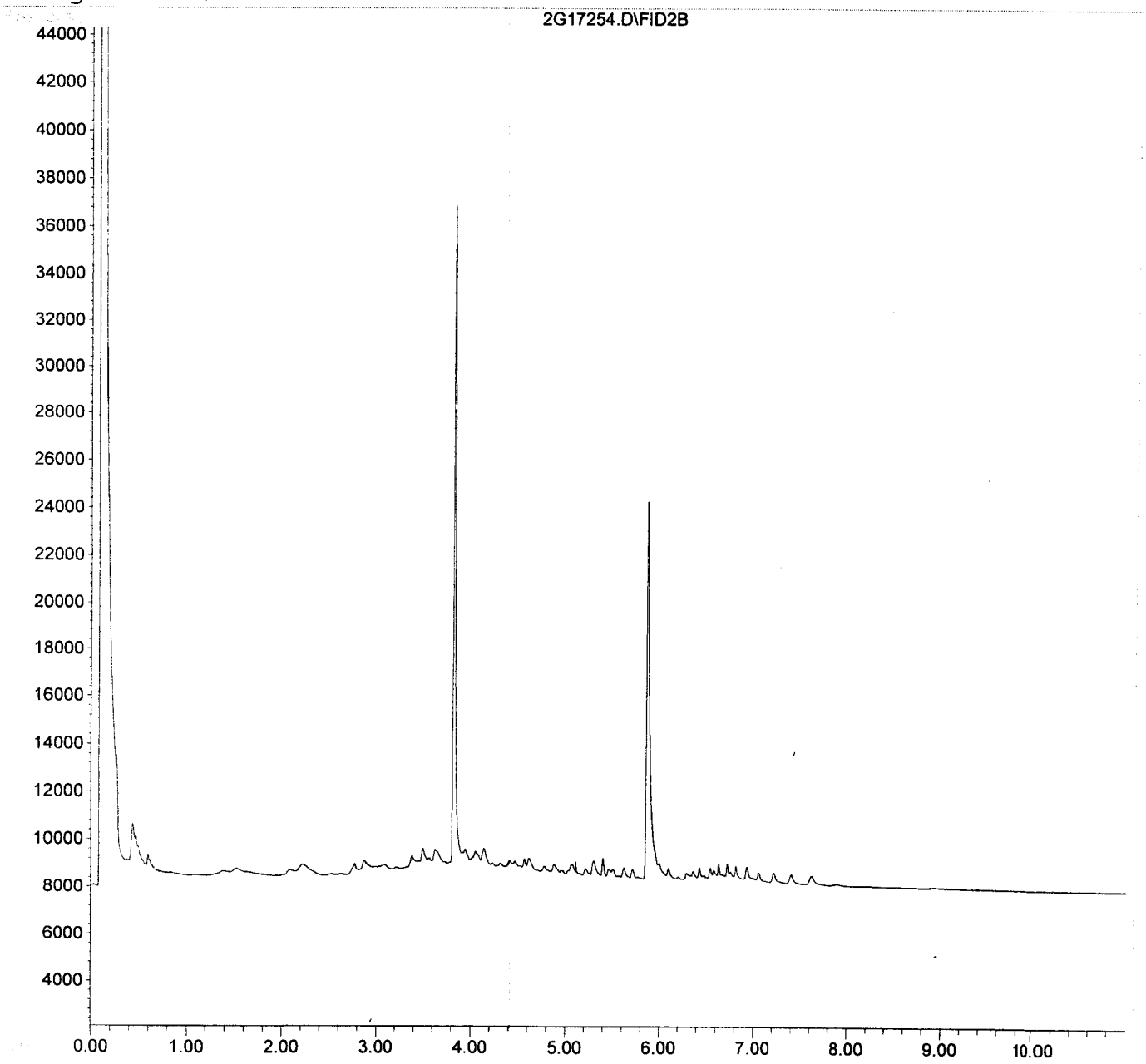
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121401\2G17254.D Vial: 15
Acq On : 14 Dec 2001 17:11 Operator: HV
Sample : WG110005-01 PRO soil BLK Inst : hp2
Misc : 7,1 soil Multiplr: 40.00
IntFile : PETRO.E
Quant Time: Dec 17 8:12 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 08:12:24 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\121701\2G17272.D Vial: 2
Acq On : 17 Dec 2001 13:00 Operator: HV
Sample : WG110076-01 PRO water BLK Inst : hp2
Misc : 1,1 V177-P139 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 17 13:48 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 13:47:47 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.80	318823	16.247 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 81.24%			
3) s n-Nonatriacontane	7.43	34225	4.415 ppm
Spiked Amount 20.000 Recovery = 22.08%			
Target Compounds			
1) H Petroleum Range	3.64	701044	<MDL ppb

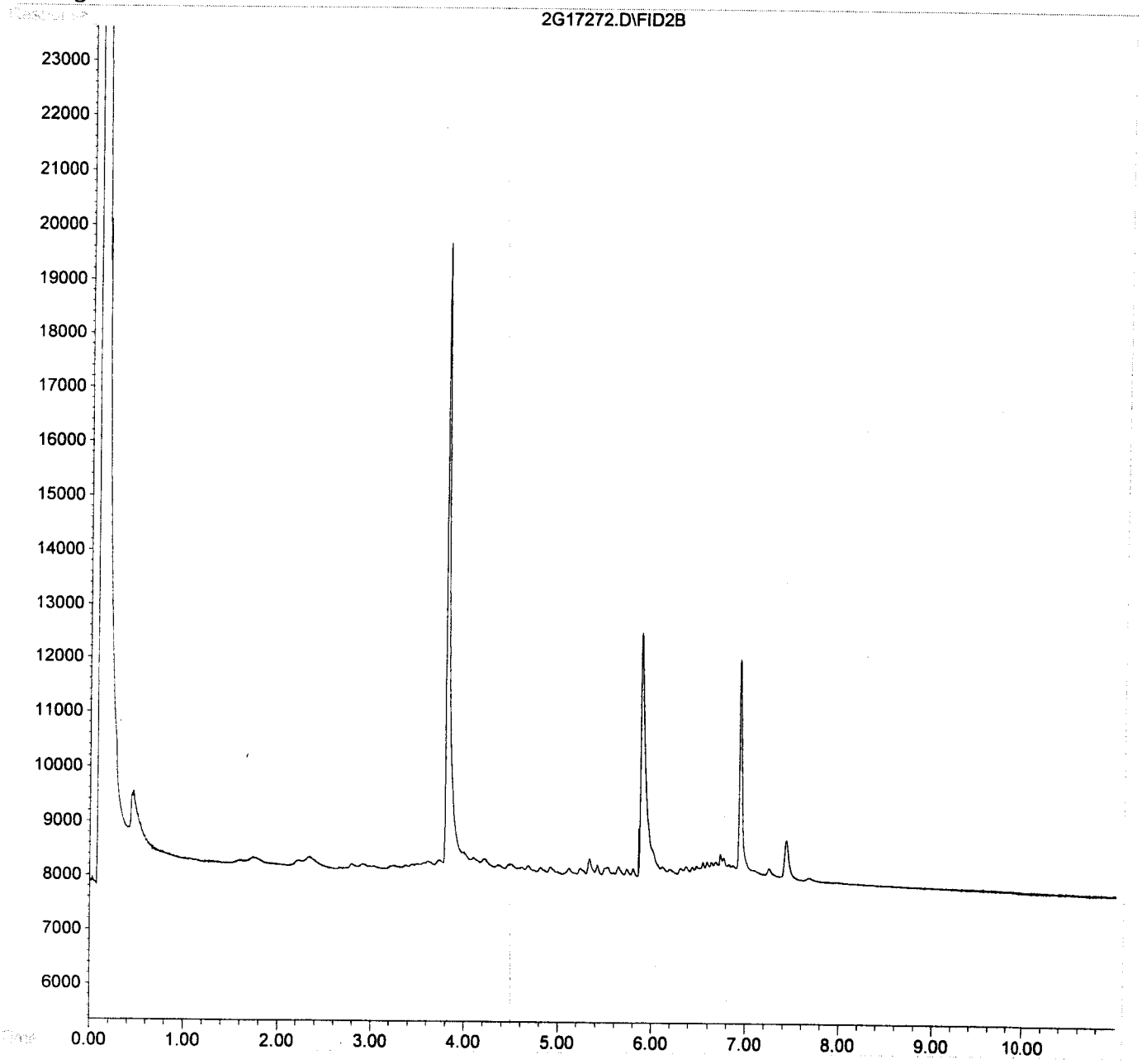
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\121701\2G17272.D
Acq On : 17 Dec 2001 13:00
Sample : WG110076-01 PRO water BLK
Misc : 1,1 V177-P139
IntFile : PETRO.E
Quant Time: Dec 17 13:48 2001 Quant Results File: FLASHPRO.RES

Vial: 2
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 13:47:47 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\121401\2G17255.D Vial: 16
Acq On : 14 Dec 2001 17:26 Operator: HV
Sample : WG110005-02 PRO soil LCS Inst : hp2
Misc : 7,1 soil Multiplr: 40.00
IntFile : PETRO.E
Quant Time: Dec 17 8:15 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 08:15:12 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

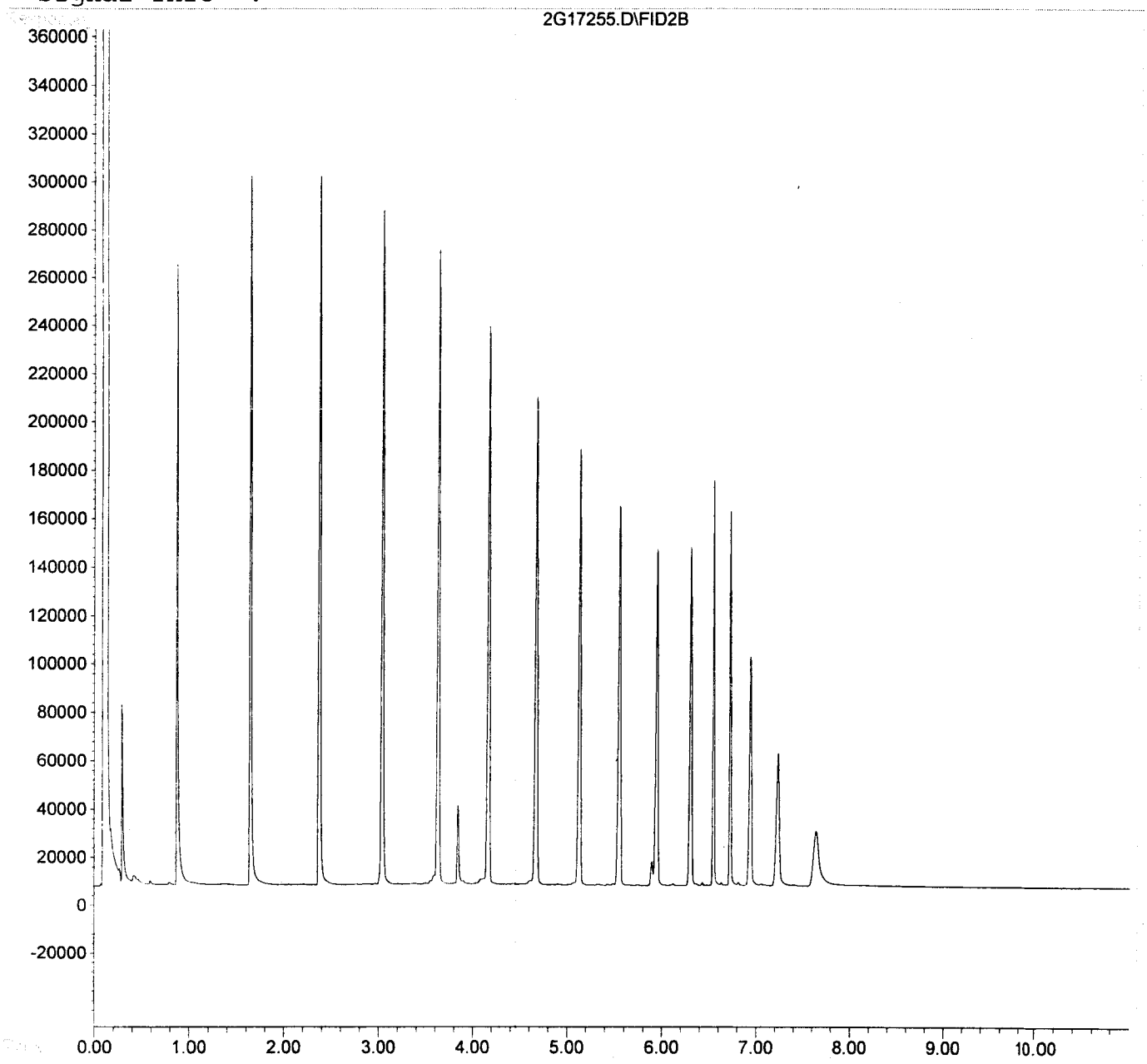
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.84	412370	840.565 ppb
Spiked Amount 800.000 Range 43 - 136 Recovery = 105.07%			
3) s n-Nonatriacontane	7.40f	27618	142.505 ppm
Spiked Amount 800.000 Recovery = 17.81%			
Target Compounds			
1) H Petroleum Range	3.64	43163249	110613.629 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\121401\2G17255.D Vial: 16
Acq On : 14 Dec 2001 17:26 Operator: HV
Sample : WG110005-02 PRO soil LCS Inst : hp2
Misc : 7,1 soil Multiplr: 40.00
IntFile : PETRO.E
Quant Time: Dec 17 8:15 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 08:15:12 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\121701\2G17273.D
Acq On : 17 Dec 2001 13:16
Sample : WG110076-02 PRO water LCS
Misc : 1,1 V177-P139
IntFile : PETRO.E
Quant Time: Dec 17 13:47 2001 Quant Results File: FLASHPRO.RES

Vial: 3
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 13:47:47 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.77	381853	19.459 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	97.30%
3) s n-Nonatriacontane	7.46	2876	0.371 ppm
Spiked Amount 20.000		Recovery =	1.86%
Target Compounds			
1) H Petroleum Range	3.64	39459465	2528.050 ppb

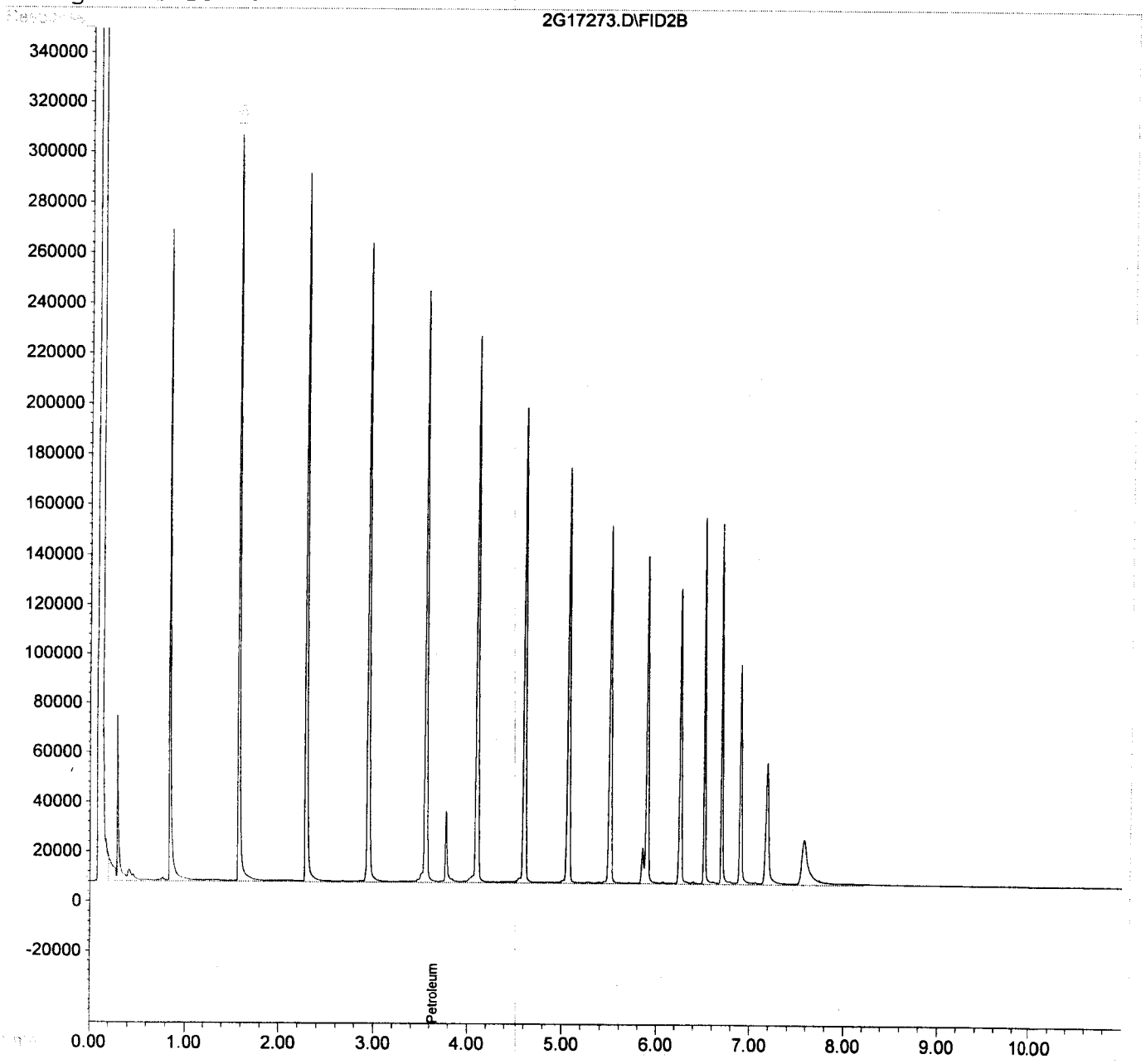
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\121701\2G17273.D
Acq On : 17 Dec 2001 13:16
Sample : WG110076-02 PRO water LCS
Misc : 1,1 V177-P139
IntFile : PETRO.E
Quant Time: Dec 17 13:47 2001 Quant Results File: FLASHPRO.RES

Vial: 3
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 13:47:47 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\121401\2G17256.D Vial: 17
Acq On : 14 Dec 2001 17:41 Operator: HV
Sample : WG110005-03 PRO soil LCS2 Inst : hp2
Misc : 7,1 soil Multiplr: 40.00
IntFile : PETRO.E
Quant Time: Dec 17 8:15 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 08:15:12 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	430932	878.401 ppb
Spiked Amount 800.000 Range 43 - 136 Recovery = 109.80%			
3) s n-Nonatriacontane	7.42	22571	116.465 ppm
Spiked Amount 800.000 Recovery = 14.56%			
Target Compounds			
1) H Petroleum Range	3.64	41608021	106628.075 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

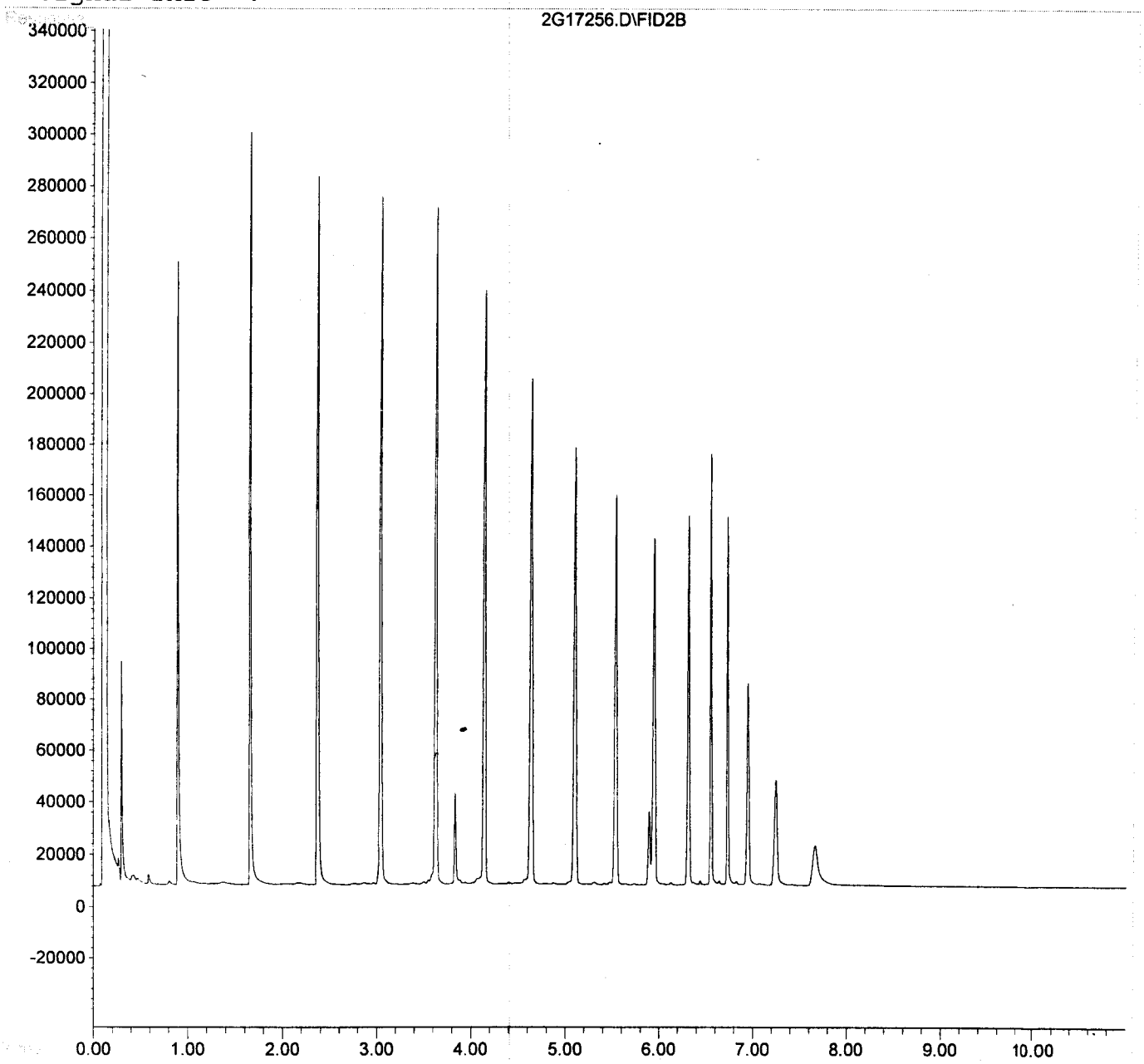
Quantitation Report

Data File : C:\HPCHEM\1\DATA\121401\2G17256.D
Acq On : 14 Dec 2001 17:41
Sample : WG110005-03 PRO soil LCS2
Misc : 7,1 soil
IntFile : PETRO.E
Quant Time: Dec 17 8:15 2001 Quant Results File: FLASHPRO.RES

Vial: 17
Operator: HV
Inst : hp2
Multiplr: 40.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 08:15:12 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\121701\2G17274.D Vial: 4
Acq On : 17 Dec 2001 13:31 Operator: HV
Sample : WG110076-03 PRO water LCS2 Inst : hp2
Misc : 1,1 V177-P139 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 17 13:48 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 13:48:40 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

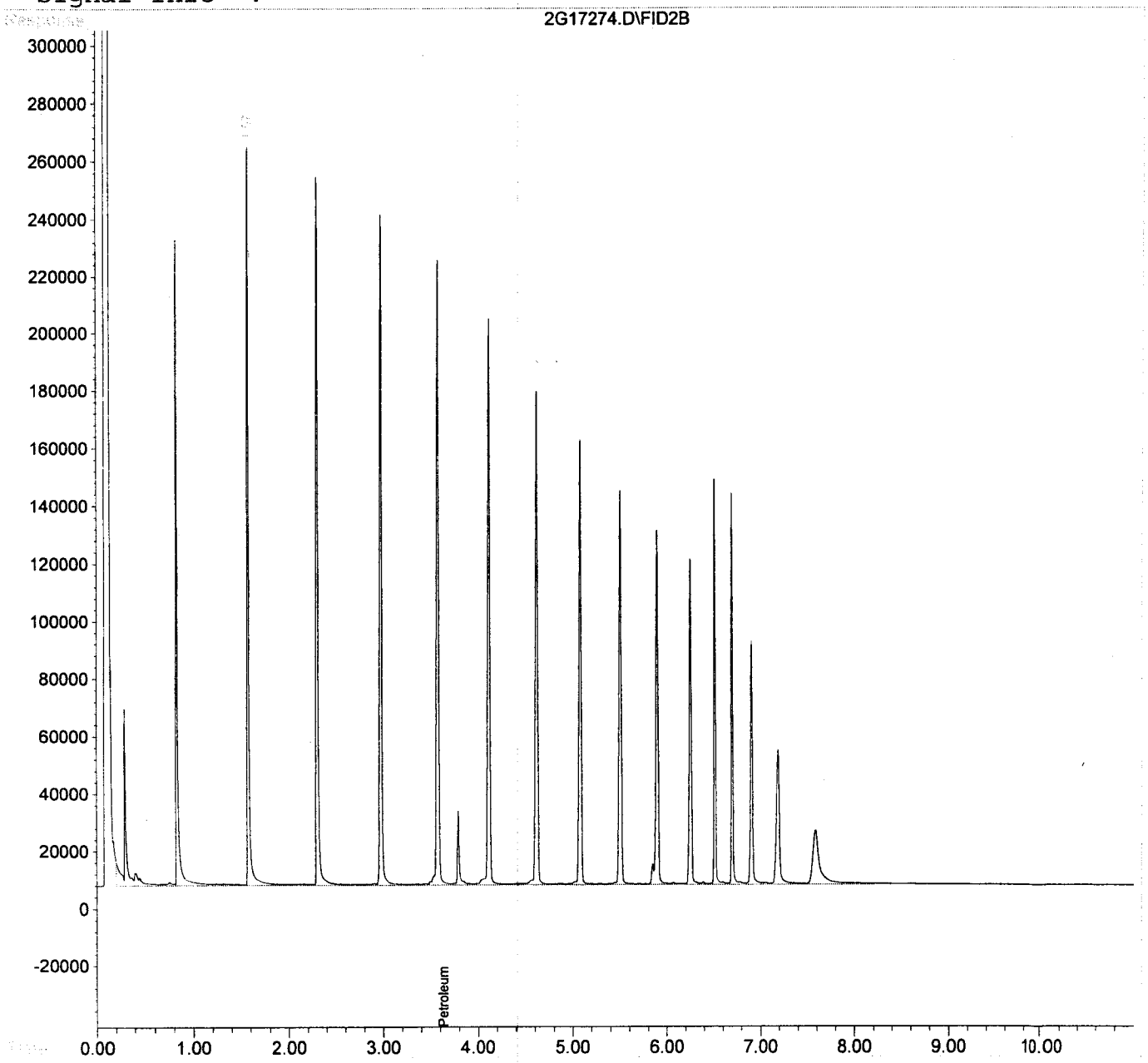
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.79	328856	16.758 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		83.79%
3) s n-Nonatriacontane	7.46	413	0.053 ppm
Spiked Amount 20.000	Recovery =		0.27%
Target Compounds			
1) H Petroleum Range	3.64	35183793	2254.121 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\121701\2G17274.D Vial: 4
Acq On : 17 Dec 2001 13:31 Operator: HV
Sample : WG110076-03 PRO water LCS2 Inst : hp2
Misc : 1,1 V177-P139 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 17 13:48 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Mon Dec 17 13:48:40 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



KEMRON Environmental Services, Inc.

Work Group Report (wk02)

13-DEC-01 03:34 PM

Work Group: WG109976

Department: 9 Semivolatile - GC

Operator: HV

Created: 13-DEC-01

Due:

Sample	Account Name	C	Product	Mat#	Matrix	Status	UA	Workdate	PR	Location
WG109976-01	STD	S	8015QC	1	Water	DONE	U	13-DEC-01		
WG109976-02	STD	S	8015QC	1	Water	DONE	U	13-DEC-01		
WG109976-03	STD	S	8015QC	1	Water	DONE	U	13-DEC-01		
WG109976-04	STD	S	8015QC	1	Water	DONE	U	13-DEC-01		
WG109976-05	STD	S	8015QC	1	Water	DONE	U	13-DEC-01		
WG109976-06	STD	S	8015QC	1	Water	DONE	U	13-DEC-01		
WG109976-07	SSCV	S	8015QC	1	Water	DONE	U	13-DEC-01		
WG109976-08	CCV	S	8015QC	1	Water	DONE	U	13-DEC-01		
WG109976-09	CCV	S	8015QC	1	Water	DONE	U	13-DEC-01		

Comments

Directory: c:\hpchem\1\data\121301

Line	Vial	FileName	Multiplier		SampleName	Misc Info	Injected
1	1	2g17215.d	1.		MECL2	1,1	13 Dec 101 13::1
2	2	2g17216.d	1.		WIN DEF STD	1,1 10x NS14-41	13 Dec 101 13::2
3	3	2g17217.d	1.	CC	PRO CONT CHK	1,1 10x NS14-41	13 Dec 101 13::1
4	1	2g17218.d	1.		mecl2	1,1 10x NS14-41	13 Dec 101 13::3
5	4	2g17219.d	1.		wg109976-06 PRO @600ppm	1,1 sos56-21	13 Dec 101 13::5
6	5	2g17220.d	1.		wg109976-05 PRO @400ppm	1,1 sos56-21	13 Dec 101 13::0
7	6	2g17221.d	1.		wg109976-04 PRO @200ppm	1,1 sos56-21	13 Dec 101 13::2
8	7	2g17222.d	1.		wg109976-03 PRO @100ppm	1,1 sos56-21	13 Dec 101 13::3
9	8	2g17223.d	1.		wg109976-02 PRO @50ppm	1,1 sos56-21	13 Dec 101 12::0
10	9	2g17224.d	1.		wg109976-01 PRO @5ppm	1,1 sos56-21	13 Dec 101 12::1
11	10	2g17225.d	1.		wg109976-07 ALT @200ppm	1,1 sos56-26	13 Dec 101 12::3
12	11	2g17226.d	1.		wg109976-07 ALT @200ppm	1,1 sos56-26	13 Dec 101 12::4
13	12	2g17227.d	40.	RR	L0112202-01 PRO soil – D 10X	7,1 soil	13 Dec 101 12::1
14	13	2g17228.d	40.		WG109778-01 PRO soil BLK	7,1 soil	13 Dec 101 12::3
15	14	2g17229.d	40.		WG109778-02 PRO soil LCS	7,1 soil	13 Dec 101 12::4
16	15	2g17230.d	40.		WG109778-03 PRO soil LCS2	7,1 soil	13 Dec 101 12::0
17	16	2g17231.d	400.		L0112202-01 10x PRO soil	7,1 soil	13 Dec 101 12::1
18	17	2g17232.d	1.		WG109976-08 PRO CCV	1,1 SOS56-21	13 Dec 101 12::3
19	18	2g17233.d	1.		EXT LAB PRO SPK	1,1 SOS56-21	13 Dec 101 12::4
20	18	2g17234.d	1.		EXT LAB PRO SPK	1,1 SOS56-21	13 Dec 101 12::0

HV 12/14/01

TRC 12/14/01

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time Dec. 13 01 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 121301
Analyst Initials HV

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # ___ PRO ✓
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____

SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS01 Rev. # ___ 8100 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
- ☐ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ☑ Change liner
- ☑ Change septum
- ☐ Clip column (___cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases _____

Returned To Control?
Yes ___ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

2g 17 227 - RR at dilution.

Reviewed By: RHC 12/14/01

KEMRON Environmental Services, Inc.

Work Group Report (wk02)

14-DEC-01 12:44 PM

Work Group: WG110039

Department: 9 Semivolatile - GC

Operator: HV

Created: 14-DEC-01

Due:

Sample	Account Name	C	Product	Mat#	Matrix	Status	UA	Workdate	PR	Location
WG110039-01	CCV	S	8015QC	1	Water	DONE	U	14-DEC-01		
WG110039-02	CCV	S	8015QC	1	Water	DONE	U	14-DEC-01		
WG110039-03	CCV	S	8015QC	1	Water	DONE	U	14-DEC-01		
WG110039-04	CCV	S	8015QC	1	Water	DONE	U	14-DEC-01		

Comments

Directory: c:\hpchem\1\data\121401

.ine	Vial	FileName	Multiplier		SampleName	Misc Info	Injected
	1	2g17235.d	1.		mecl2	1,1 SOS56-21	14 Dec 101 12::0
!	1	2g17236.d	1.		mecl2	1,1 SOS56-21	14 Dec 101 12::1
;	2	2g17237.d	1.		WIN DEF STD	1,1 NS14-41	14 Dec 101 12::3
;	3	2g17238.d	1.		WG110039-01 PRO CCV	1,1 SOS56-21	14 Dec 101 13::0
;	4	2g17239.d	40.	RR	L0112251-01 PRO soil	7,1 soil	14 Dec 101 13::0
;	5	2g17240.d	40.		L0112258-01 PRO soil	7,1 soil	14 Dec 101 13::1
'	6	2g17241.d	40.		L0112259-01 PRO soil	7,1 soil	14 Dec 101 13::3
;	7	2g17242.d	40.		L0112259-02 PRO soil	7,1 soil	14 Dec 101 13::4
)	8	2g17243.d	400.		L0112259-03 10x PRO soil	7,1 soil	14 Dec 101 13::0
0	9	2g17244.d	400.		L0112251-01 10X PRO soil	7,1 soil	14 Dec 101 13::1
1	10	2g17245.d	400.		L0112258-01 10X PRO soil	7,1 soil	14 Dec 101 13::3
2	11	2g17246.d	400.		L0112259-02 10X PRO soil	7,1 soil	14 Dec 101 13::4
3	12	2g17247.d	1.	CC	WG110039-02-02 PRO CCV	1,1 SOS56-21	14 Dec 101 12::0
4	13	2g17248.d	1.	RR	mecl2	1,1	14 Dec 101 12::4
5	13	2g17249.d	1.		mecl2	1,1	14 Dec 101 12::0
6	14	2g17250.d	1.		WG109-03 PRO CCV	1,1	14 Dec 101 12::2
7	15	2g17251.d	40.		WG110005-01 PRO soil BLK	7,1 soil	14 Dec 101 12::3
8	13	2g17252.d	1.		mecl2	1,1	14 Dec 101 12::4
9	14	2g17253.d	1.		WG110039-03 PRO CCV	1,1	14 Dec 101 12::5
0	15	2g17254.d	40.		WG110005-01 PRO soil BLK	7,1 soil	14 Dec 101 12::1
1	16	2g17255.d	40.		WG110005-02 PRO soil LCS	7,1 soil	14 Dec 101 12::2
2	17	2g17256.d	40.		WG110005-03 PRO soil LCS2	7,1 soil	14 Dec 101 12::4
3	18	2g17257.d	40.	RR	L0111259-01 PRO soil	7,1 soil	14 Dec 101 12::5
4	19	2g17258.d	40.		L0111259-03 PRO soil	7,1 soil	14 Dec 101 12::1
5	20	2g17259.d	1.		Elab PRO spike		14 Dec 101 12::2
6	14	2g17260.d	1.	CC	WG110039-04 PRO CCV	1,1	14 Dec 101 12::4

HV 12/17/01
ERC 12/17/01

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time Dec. 14 01 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 121401
Analyst Initials HV

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # ___ PRO ✓
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____

SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS01 Rev. # ___ 8100 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
- [x] Gases >500 psi

Preventative Maintenance
- [ ] Change o-ring
- [x] Change liner
- [x] Change septum
- [ ] Clip column (___cm)
- [ ] Injection port seal (goldseal)
- [ ] Change gases _____

Returned To Control?
Yes ___ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

2g17239, 2g17240, 2g17242 — RR @ dilution
2g17241 & 2g17243 — RR ~~Straight~~. Straight
2g17247 — CC - failed high in surr: O-Terphenyl
2g17260
2g17247 & -258 - RR straight
2g17248 — -252 - sequence was stopped by power failure

Reviewed By: RRC 12/19/01

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g17261.d	1.	mecl2	1,1	17 Dec 101 12::3
2	1	2g17262.d	1.	mecl2	1,1	17 Dec 101 12::4
3	2	2g17263.d	1.	WIN DEF STD	1,1	17 Dec 101 13::0
4	3	2g17264.d	1.	PRO CONT CHK	1,1	17 Dec 101 13::2
5	1	2g17265.d	1.	MECL2	1,1	17 Dec 101 13::3
6	3	2g17266.d	1.	WG110100-01 PRO CCV	1,1 SOS56-21	17 Dec 101 13::5
7	4	2g17267.d	40.	L0112259-01 PRO soil	7,1 soil	17 Dec 101 13::0
8	5	2g17268.d	40.	L0112259-03 PRO soil	7,1 soil	17 Dec 101 13::2
9	6	2g17269.d	40.	mecl2	7,1 soil	17 Dec 101 13::3
10	7	2g17270.d	1.	WG110100-02 PRO CCV	1,1 SOS56-21	17 Dec 101 13::5
11	1	2g17271.d	1.	MECL2	1,1	17 Dec 101 13::2
12	2	2g17272.d	1.	WG110076-01 PRO water BLK	1,1 V177-P139	17 Dec 101 12::0
13	3	2g17273.d	1.	WG110076-02 PRO water LCS	1,1 V177-P139	17 Dec 101 12::1
14	4	2g17274.d	1.	WG110076-03 PRO water LCS2	1,1 V177-P139	17 Dec 101 12::3
15	5	2g17275.d	1.06	L0112258-02 FLA PRO water	1,1 water	17 Dec 101 12::4
16	6	2g17276.d	1.06	L0112259-04 FLA PRO water	1,1 water	17 Dec 101 12::0
17	1	2g17277.d	1.06	mecl2	1,1 water	17 Dec 101 12::1
18	1	2g17278.d	1.	mecl2	1,1 water	17 Dec 101 12::3
19	7	2g17279.d	1.	WG110100-03 PRO CCV	1,1 SOS56-21	17 Dec 101 12::4

HV 12/17/01

RRC 12/17/01

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time Dec. 17 01 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 121701
Analyst Initials HV

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # ___ PRO ✓
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____

SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS01 Rev. # ___ 8100 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check

- ☑ Gases >500 psi

Preventative Maintenance

- ☐ Change o-ring
- ☑ Change liner
- ☑ Change septum
- ☐ Clip column (___cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases _____

Returned To Control?

Yes ___ No ____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

Reviewed By: RRC 12/17/01

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g17261.d	1.	mecl2	1,1	17 Dec 101 12::3
2	1	2g17262.d	1.	mecl2	1,1	17 Dec 101 12::4
3	2	2g17263.d	1.	WIN DEF STD	1,1	17 Dec 101 13::0
4	3	2g17264.d	1.	PRO CONT CHK	1,1	17 Dec 101 13::2
5	1	2g17265.d	1.	MECL2	1,1	17 Dec 101 13::3
6	3	2g17266.d	1.	WG110100-01 PRO CCV	1,1 SOS56-21	17 Dec 101 13::5
7	4	2g17267.d	40.	L0112259-01 PRO soil	7,1 soil	17 Dec 101 13::0
8	5	2g17268.d	40.	L0112259-03 PRO soil	7,1 soil	17 Dec 101 13::2
9	6	2g17269.d	40.	mecl2	7,1 soil	17 Dec 101 13::3
10	7	2g17270.d	1.	WG110100-02 PRO CCV	1,1 SOS56-21	17 Dec 101 13::5
11	1	2g17271.d	1.	MECL2	1,1	17 Dec 101 13::2
12	2	2g17272.d	1.	WG110076-01 PRO water BLK	1,1 V177-P139	17 Dec 101 12::0
13	3	2g17273.d	1.	WG110076-02 PRO water LCS	1,1 V177-P139	17 Dec 101 12::1
14	4	2g17274.d	1.	WG110076-03 PRO water LCS2	1,1 V177-P139	17 Dec 101 12::3
15	5	2g17275.d	1.06	L0112258-02 FLA PRO water	1,1 water	17 Dec 101 12::4
16	6	2g17276.d	1.06	L0112259-04 FLA PRO water	1,1 water	17 Dec 101 12::0
17	1	2g17277.d	1.06	mecl2	1,1 water	17 Dec 101 12::1
18	1	2g17278.d	1.	mecl2	1,1 water	17 Dec 101 12::3
19	7	2g17279.d	1.	WG110100-03 PRO CCV	1,1 SOS56-21	17 Dec 101 12::4

HV 12/17/01

RRC 12/17/01

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time Dec. 17 01 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 121701
Analyst Initials HV

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # ___ PRO ✓
SOP # GCS02 Rev. # ___ 8015B Modl (Alcohol) ____

SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS01 Rev. # ___ 8100 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
- ☑ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ☑ Change liner
- ☑ Change septum
- ☐ Clip column (___cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases _____

Returned To Control?
Yes ___ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Reviewed By: RLC 12/17/01

Sample Extract Log Sheet

Volume 177
Page 123

Parameter: FLA-PRO SOIL SOP #: EXPRO Revision #: 2
Extraction Analyst(s): RCK TV/KD Analyst(s): RCK
Date/Time Extracted: 12/14/01 @ 0830 Date TV/KD: 12/14/01
Spike/Surrogate Analyst: RCK Witness: CBB
Surrogate #: E550039-39 Earliest Hold Date: 12/26
Spike #: A = E550039-43 Spike #: B = –

Extraction Work Group WG 110005
Analytical Work Group WG 110051

Extract Relinquished By: RCK
Extract Received By & Date: [illegible] 12/14/01

	Sample ID	Test Code	pH <2	pH N	pH >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions A	Emulsions BN	Emulsions N	Comments
1	Blank					25.00 g	1 mL		1 mL	T				WG 110005-01
2	LCS							1 mL		T				WG -02
3	LCS DUP									T				-03
4	12-251-01	FLA-PRO	12/14			25.05				C				
5	12-258-01		12/25			25.00				C				
6	12-259-01					25.02				C				
7	-02					25.05				C				
8	-03		12/25			25.00				C				
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

RCK 12/14/01

Methylene Chloride Lot #: 41109
Hexane Lot #: –
Ether Lot #: –
Methanol Lot #: –
Solvent: – Lot #: –
Reagent: – Lot #: –
Reagent: – Lot #: –
Reagent: – Lot #: –
Acid: – Lot #: –
Florisil Lot #: –
Silica Gel Lot #: VJ2555
IR Analyst / Date / Time: _____
Dried Na_2SO_4 Lot #: _____

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C					
Sonication	3550B	✓				
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C	✓	Other	
Acid 3664A		N/A	
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 12/14/01

Sample Extract Log Sheet

Extraction Notes For Volume # 117 Page # 123

General Comments: none

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

Volume 177
Page 139

Sample Extract Log Sheet

Parameter: FLA-PRO H2O SOP #: EXPRO Revision #: 2
Extraction Analyst(s): RK TV/KD Analyst(s): DP
Date/Time Extracted: 12/12/01 @ 0930 Date TV/KD: 12/17/01
Spike/Surrogate Analyst: RK Witness: DP
Surrogate #: E550039-39 Earliest Hold Date: 12/19
Spike #: A = E550039-43 Spike #: B = —

Extraction Work Group WG 110076
Analytical Work Group WG 110124
Extract Relinquished By: DP
Extract Received By & Date: DP 12/17/01

	Sample ID	Test Code	pH √ <2	pH √ N	pH √ >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	Emulsions √ BN	Emulsions √ N	Comments
1	Blank		✓			1L	1mL		1mL	T				WG 110076-01
2	LCS		✓					1mL						WG
3	LCS DUP	1	✓			1	1	1	1	1				1 -02 -03
4	12-258-02	FLA-PRO	✓			940mL								
5	12-258-04	1	✓			1	1		1	1				
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 12/17/01

Methylene Chloride Lot #: 41109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: 1:1 HCL Lot #: ER1999
Florisil Lot #: —
Silica Gel Lot #: V32555
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER1979

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C	✓	Other	
Acid 3664A		N/A	
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 12/17/01

Sample Extract Log Sheet

Extraction Notes For Volume # 177 Page # 139

General Comments: None

Extraction Anomalies: Nothing to report

Concentration Anomalies: Nothing to report

Clean-Up Anomalies: Nothing to report.

Supervisor Review: _____ Date: _____

Example FLA-PRO Calculations

1.0 Calulating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = As/ Cs

Where:		Example:
	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ng/ml).	100
	RF	**100**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:

C = [(Ax)(Vf)(D)] / [(RF)(Vi)]

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	**100**
	Vi = Initial volume of sample (mL). (prep log)	1000
	C (ug/L) =	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report: C = [(Ax)(Vf)(D)] / [(RF)(Vi)]

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL).	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	100
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**3.333333**

2.2.7 PAH HPLC DATA (8310)

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0112259

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8310

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds linear equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: The LCS associated with the extraction of sample fraction 04 yielded a percent recovery for benzo(g,h,i)perylene which was above the advisory limit. There were no positive results for this analyte for sample fraction 04. All acceptance criteria were met.
Matrix Spikes: The MS/MSD results were not associated with this sample delivery group.

SAMPLES

Surrogates: Sample fraction 02 yielded a percent recovery for the surrogate by the fluorescence detector which was above the advisory limit. The surrogate recovery for this sample fraction was within limits by the UV detector. The high surrogate recovery may be attributed to sample matrix interference for this sample fraction.

Samples: Sample fraction 02 required re-analysis at a 10X dilution in order to maintain the analysis within the range of calibration. All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: RDC

REVIEWED: _____ DATE: 12/2/01

Rev. 7/14/00

PAH HPLC DATA (8310)

Login Number: L0112259

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

_____ Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data)

✓ Chromatograms and external standard reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and external standard reports (chronological)

_____ Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

NA Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

✓ Extraction bench sheets

Checked By: RPC Date: 12/27/01

2.2.7.1 QC Summary

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, Soils

ANAL WORK GRP : WG109975
METHOD : 8310
INSTRUMENT : HPLC4
ANALYST : RDC

PREP WORK GRP : WG109960
EXT DATE : 12/13/2001
EXT BENCH SHEET : V177P109

RUN DATE : 12/13/01
BLK FLNM : 4L002545
LCS FLNM : 4L002546

SAMP ID : L0112258 -01
SMPL FLNM : 4L002547
MS FLNM : 4L002548
MSD FLNM : 4L002549

ANALYTE	CONCENTRATION, µg/Kg								% RECOVERY														
	RDL	BLK	LCS SPIKE ADDED	LCS	SAMPLE	MS SPIKE ADDED	MS	MSD	BLK	LCS	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	MSD RPD	RPC UCL	BLK	LCS	MS	MSD
NAPHTHALENE	165	ND	1667	1123	ND	1667	811	818	ND	67.4	22	85	NA	48.7	49.1	22	85	0.9	50				
ACENAPTHYLENE	165	ND	1667	1189	ND	1667	993	979	ND	71.3	26	94	NA	59.6	58.7	26	94	1.4	50				
1-METHYLNAPHTHALENE	165	ND	1667	1145	ND	1667	850	856	ND	68.7	26	94	NA	51.0	51.3	26	94	0.7	50				
2-METHYLNAPHTHALENE	165	ND	1667	1157	ND	1667	855	860	ND	69.4	26	94	NA	51.3	51.6	26	94	0.5	50				
ACENAPHTHENE	165	ND	1667	1204	ND	1667	1037	1017	ND	72.2	24	100	NA	62.2	61.0	24	100	1.9	50				
FLUORENE	165	ND	1667	1265	ND	1667	1185	1187	ND	75.9	28	98	NA	71.1	71.2	28	98	0.2	50				
PHENANTHRENE	165	ND	1667	1309	ND	1667	1314	1330	ND	78.5	38	102	NA	78.8	79.8	38	102	1.2	50				
ANTHRACENE	165	ND	1667	1342	ND	1667	1350	1382	ND	80.5	40	92	NA	81.0	82.9	40	92	2.3	50				
FLUORANTHENE	16.5	ND	167	139	ND	167	137	140	ND	83.2	54	105	NA	82.0	84	54	105	2.1	50				
PYRENE	16.5	ND	167	141	ND	167	136	141	ND	84.4	50	108	NA	81.4	84.4	50	108	3.6	50				
BENZO[a]ANTHRANCENE	16.5	ND	167	145	ND	167	122	131	ND	86.8	60	107	NA	73.1	78.4	60	107	7.1	50				
CHRYSENE	16.5	ND	167	145	36.16	167	145	148	ND	86.8	60	104	NA	65.2	67.0	60	104	2.0	50				
BENZO[b]FLUORANTHENE	16.5	ND	167	147	ND	167	121	129	ND	88.0	61	108	NA	72.5	77.2	61	108	6.4	50				
BENZO[k]FLUORANTHENE	16.5	ND	83.5	73.9	ND	83.5	65.5	67.6	ND	88.5	59	112	NA	78.4	81.0	59	112	3.2	50				
BENZO[a]PYRENE	16.5	ND	167	140	ND	167	158	160	ND	83.8	51	101	NA	94.6	95.8	51	101	1.3	50				
DIBENZO[a,h]ANTHRANCENE	16.5	ND	167	147	ND	167	119	147	ND	88.0	58	113	NA	71.3	88.0	58	113	21.1	50				
BENZO[g,h,i]PERYLENE	16.5	ND	167	149	ND	167	138	142	ND	89.2	53	118	NA	82.6	85.0	53	118	2.9	50				
INDENO[1,2,3-cd]PYRENE	16.5	ND	167	145	ND	167	139	141	ND	86.8	58	105	NA	83.2	84.4	58	105	1.4	50				
SURROGATE																							
p-TERPHENYL-d14		270	333	311	295	333	317	304	81.0	93.4	50	150	88.5	95.3	91.4	50	150						

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
RDL = REPORTING DETECTION LIMIT

H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, WATERS

ANAL WORK GRP :	WG110266	**PREP WORK GRP :**	WG110089	**RUN DATE :**	12/19/01	**SAMP ID :**	NA
METHOD :	8310	**EXT DATE :**	17-Dec-01	**BLK FLNM :**	4L002556	**SMPL FLNM :**	NA
INSTRUMENT :	HPLC4	**EXT BENCH SHEET :**	V1772P141	**LCS FLNM :**	4L002557	**MS FLNM :**	NA
ANALYST :	RDC			**LCS2 FLNM :**	4L002558	**MSD FLNM :**	NA

ANALYTE	CONCENTRATION, µg/L									% RECOVERY																
	RDL	BLK	LCS SPIKE ADDED	LCS	LCS2	SAMPLE	MS SPIKE ADDED	MS	MSD	BLK	LCS	LCS2	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	LCS RPD	RPD UCL	BLK	LCS	LCS2	MS	MSD
NAPHTHALENE	1	ND	50	21.3	24.9	NA	50.0	NA	NA	ND	42.6	49.8	25	68	NA	NA	NA	25	68	15.6	50					
ACENAPTHYLENE	1	ND	50	22.0	25.7	NA	50.0	NA	NA	ND	44.0	51.4	25	77	NA	NA	NA	25	77	15.5	50					
1-METHYLNAPHTHALENE	1	ND	50	21.0	24.3	NA	50.0	NA	NA	ND	42.0	48.6	26	71	NA	NA	NA	26	71	14.6	50					
2-METHYLNAPHTHALENE	1	ND	50	21.3	24.5	NA	50.0	NA	NA	ND	42.6	49.0	26	72	NA	NA	NA	26	72	14.0	50					
ACENAPHTHENE	1	ND	50	22.0	24.7	NA	50.0	NA	NA	ND	44.0	49.4	25	78	NA	NA	NA	25	78	11.6	50					
FLUORENE	1	ND	50	24.4	26.8	NA	50.0	NA	NA	ND	48.8	53.6	29	84	NA	NA	NA	29	84	9.38	50					
PHENANTHRENE	1	ND	50	27.1	31.3	NA	50.0	NA	NA	ND	54.2	62.6	39	95	NA	NA	NA	39	95	14.4	50					
ANTHRACENE	1	ND	50	33.6	37.0	NA	50.0	NA	NA	ND	67.2	74.0	47	101	NA	NA	NA	47	101	9.63	50					
FLUORANTHENE	0.2	ND	5	3.76	4.11	NA	5.00	NA	NA	ND	75.2	82.2	55	104	NA	NA	NA	55	104	8.89	50					
PYRENE	0.2	ND	5	3.86	4.17	NA	5.00	NA	NA	ND	77.2	83.4	56	104	NA	NA	NA	56	104	7.72	50					
BENZO[a]ANTHRACENE	0.2	ND	5	4.51	4.56	NA	5.00	NA	NA	ND	90.2	91.2	50	115	NA	NA	NA	50	115	1.10	50					
CHRYSENE	0.2	ND	5	4.41	4.45	NA	5.00	NA	NA	ND	88.2	89.0	39	120	NA	NA	NA	39	120	0.90	50					
BENZO[b]FLUORANTHENE	0.2	ND	5	4.55	4.37	NA	5.00	NA	NA	ND	91.0	87.4	41	110	NA	NA	NA	41	110	4.04	50					
BENZO[k]FLUORANTHENE	0.2	ND	2.5	2.15	2.08	NA	2.50	NA	NA	ND	86.0	83.2	25	107	NA	NA	NA	25	107	3.31	50					
BENZO[a]PYRENE	0.2	ND	5	5.05	4.38	NA	5.00	NA	NA	ND	101	87.6	29	113	NA	NA	NA	29	113	14.2	50					
DIBENZO[a,h]ANTHRACENE	0.2	ND	5	4.49	3.77	NA	5.00	NA	NA	ND	89.8	75.4	10	92	NA	NA	NA	10	92	17.4	50					
BENZO[g,h,i]PERYLENE	0.2	ND	5	4.91	3.98	NA	5.00	NA	NA	ND	98.2	79.6	11	84	NA	NA	NA	11	84	20.9	50		H			
INDENO[1,2,3-cd]PYRENE	0.2	ND	5	4.19	3.82	NA	5.00	NA	NA	ND	83.8	76.4	16	98	NA	NA	NA	16	98	9.24	50					
SURROGATE																										
p-TERPHENYL-d14		7.81	10	8.73	8.73	NA	10.0	NA	NA	78.1	87.3	87.3	40	132	NA	NA	NA	40	132							

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL = REPORTING DETECTION LIMIT
D = DETECTED, RESULT MUST BE GREATER THAN ZERO

H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

2.2.7.2 Sample Data

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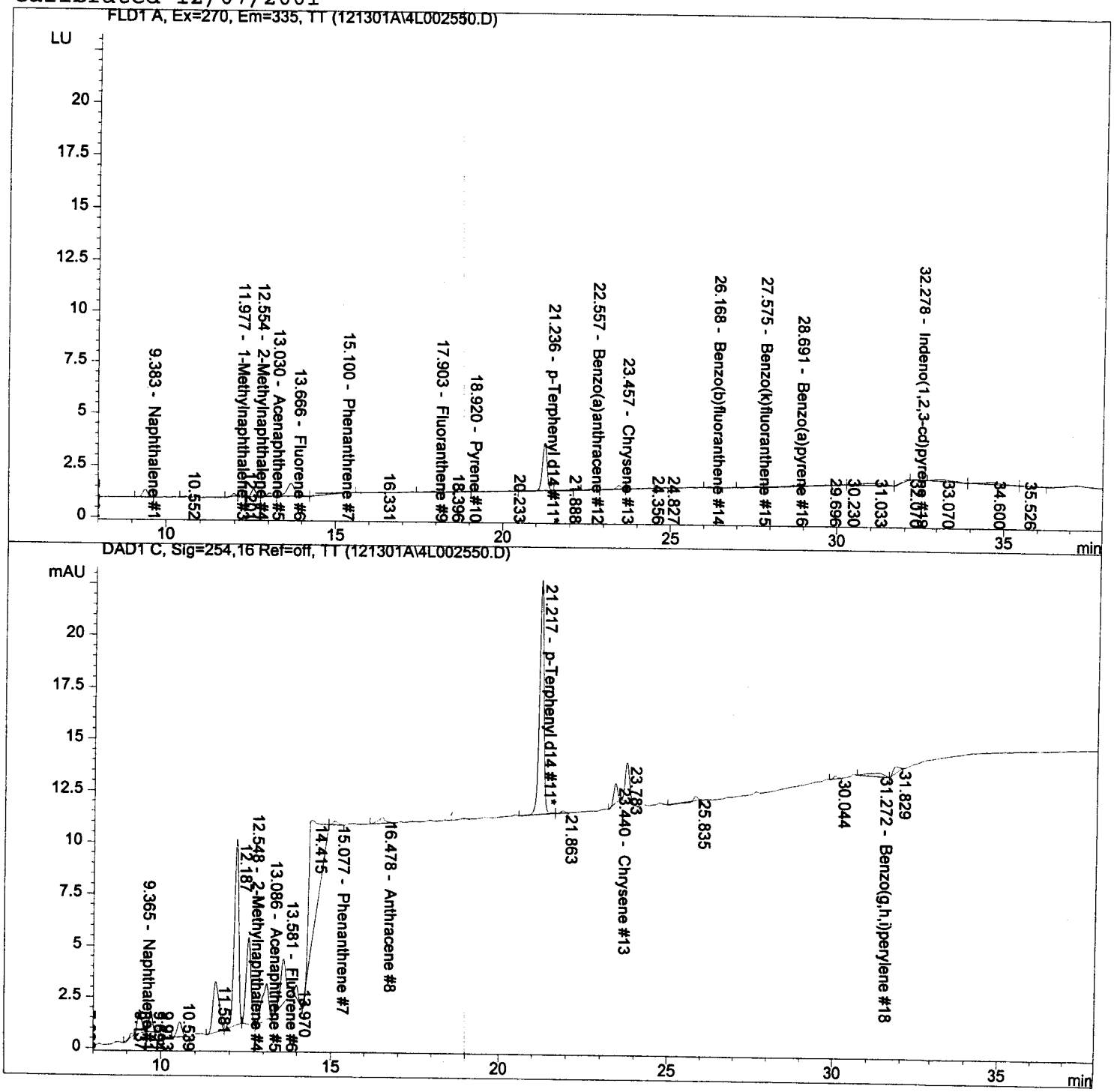
Injection Date : 12/13/2001 11:24:52 PM
Sample Name : L0112259-01 831S
Acq. Operator : RDC

Seq. Line : 8
Vial : 8
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/14/2001 3:49:23 PM by RDC
(modified after loading)

Calibrated 12/07/2001



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External Standard Report
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Sorted By : Signal
Calib. Data Modified : Wednesday, December 12, 2001 1:25:11 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.383	BBA	3.81799	2.64309e-2	1.00913e-1		Naphthalene #1
11.977	BB	9.27108e-1	2.30826e-2	2.14000e-2		1-Methylnaphthalene #3
12.554	BB	3.48402	1.77135e-2	6.17143e-2		2-Methylnaphthalene #4
13.030	BB	1.83090	1.41307e-2	2.58718e-2		Acenaphthene #5
13.666	BB	11.03060	6.55799e-3	7.23385e-2		Fluorene #6
15.100	BB	3.95979	1.72114e-1	6.81534e-1		Phenanthrene #7
16.532		-	-	-		Anthracene #8
17.903	BB	5.62617e-1	2.51883e-2	1.41714e-2		Fluoranthene #9
18.920	BB	2.87138e-1	4.52106e-2	1.29817e-2		Pyrene #10
21.236	BB	22.18755	2.98861e-1	6.63100	66.3%	p-Terphenyl d14 #11*
22.557	BB	5.07861e-1	8.29841e-3	4.21444e-3		Benzo(a)anthracene #12
23.457	BB	1.89306	4.07647e-2	7.71702e-2		Chrysene #13
26.168	BB	3.12865e-1	1.66521e-2	5.20988e-3		Benzo(b)fluoranthene #14
27.575	BB	6.43724e-1	2.77713e-3	1.78771e-3		Benzo(k)fluoranthene #15
28.691	BB	5.95720e-1	5.23910e-3	3.12104e-3		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.334		-	-	-		Benzo(g,h,i)perylene #18
32.278	BB	1.89049e-1	1.37336e-2	2.59632e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 7.71602

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT X33.3

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.365	BB	10.22310	8.11569e-3	8.29675e-2	<1mDL	Naphthalene #1
11.059		-	-	-		Acenaphthylene #2
12.007		-	-	-		1-Methylnaphthalene #3
12.548	BB	40.78579	1.10418e-2	4.50348e-1		2-Methylnaphthalene #4
13.086	BB	24.58540	1.99953e-2	4.91592e-1		Acenaphthene #5
13.581	BB	28.43354	1.72604e-2	4.90775e-1		Fluorene #6
15.077	BB	1.81912	1.70751e-2	3.10616e-2		Phenanthrene #7
16.478	BB	4.43021	1.03316e-2	4.57711e-2		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.891		-	-	-		Pyrene #10
21.217	BB	103.99054	6.51566e-2	6.77567	67.8%	p-Terphenyl d14 #11*
22.544		-	-	-		Benzo(a)anthracene #12
23.440	BB	7.40144	1.48093e-2	1.09610e-1	<mDL	Chrysene #13
26.121		-	-	-		Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.509		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
31.272	BB	5.95720	5.56826e-2	3.31712e-1		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.80950

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

7,1

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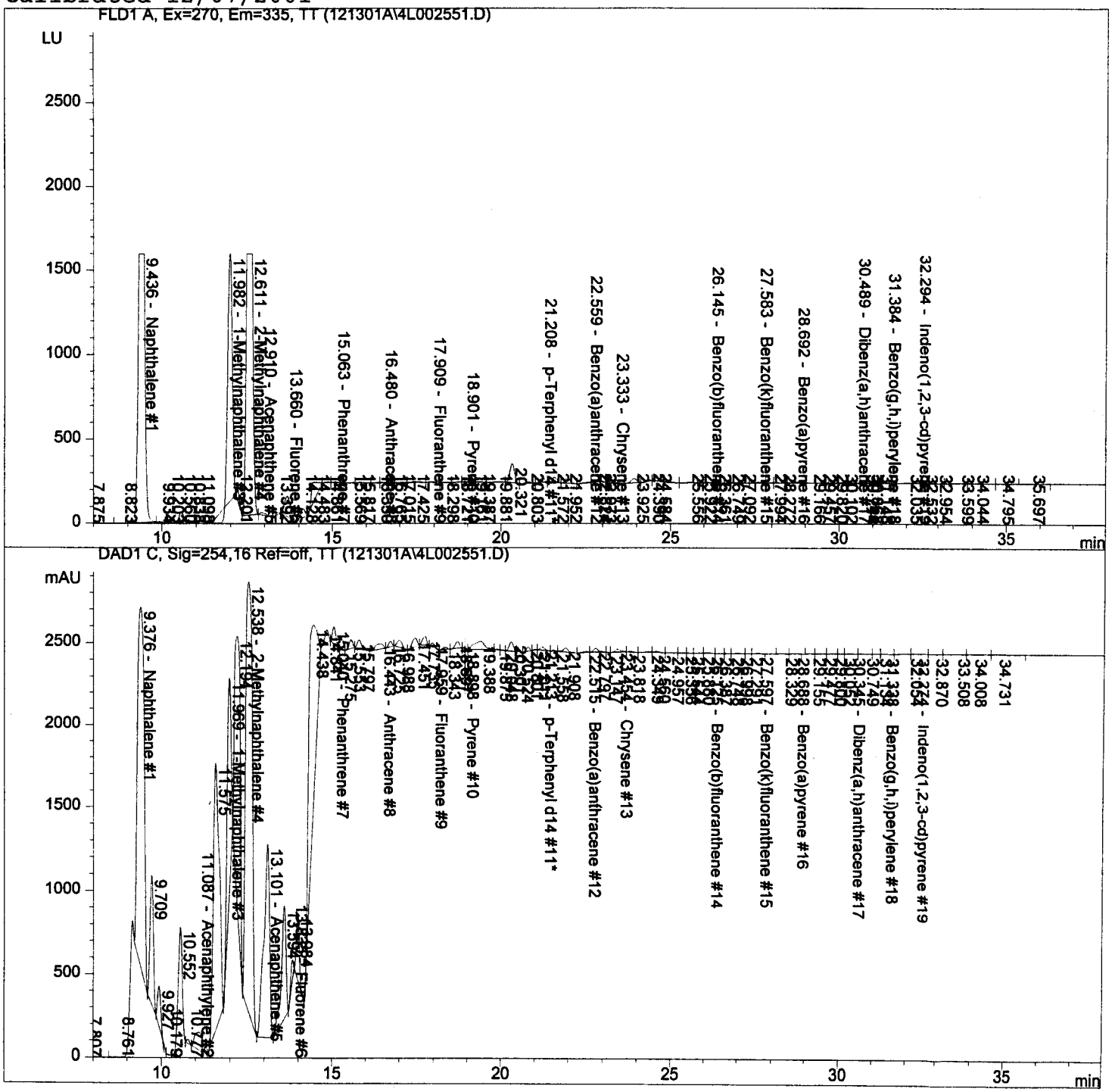
Injection Date	: 12/14/2001 12:21:29 AM	Seq. Line :	9
Sample Name	: L0112259-02 831S	Vial :	9
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/14/2001 3:50:40 PM by RDC
(modified after loading)

Calibrated 12/07/2001



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Wednesday, December 12, 2001 1:25:11 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.436	BB	2.24340e4	2.64309e-2	592.94915		Naphthalene #1
11.982	BB	1.20003e4	2.30826e-2	276.99658		1-Methylnaphthalene #3
12.611	BB	2.25171e4	1.77135e-2	398.85843		2-Methylnaphthalene #4
12.910	BB	207.97862	1.41307e-2	2.93888		Acenaphthene #5
13.660	BB	1447.83337	6.55799e-3	9.49487		Fluorene #6
15.063	BB	33.75460	1.72114e-1	5.80963		Phenanthrene #7
16.480	BB	1.18826	3.11763e-1	3.70457e-1		Anthracene #8
17.909	BB	43.35117	2.51883e-2	1.09194		Fluoranthene #9
18.901	BB	9.88106	4.52106e-2	4.46728e-1		Pyrene #10
21.208	BB	264.86755	2.98861e-1	79.15867	192%	p-Terphenyl d14 #11*
22.559	BB	52.46283	8.29841e-3	4.35358e-1		Benzo(a)anthracene #12
23.333	BB	95.76044	4.07647e-2	3.90365		Chrysene #13
26.145	BB	15.86856	1.66521e-2	2.64246e-1		Benzo(b)fluoranthene #14
27.583	BB	60.28679	2.77713e-3	1.67424e-1		Benzo(k)fluoranthene #15
28.692	BB	82.06325	5.23910e-3	4.29938e-1		Benzo(a)pyrene #16
30.489	BB	5.00916	4.06442e-2	2.03593e-1		Dibenz(a,h)anthracene #17
31.384	BB	12.80190	3.02212e-2	3.86889e-1		Benzo(g,h,i)perylene #18
32.294	BB	4.66637	1.37336e-2	6.40861e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 1373.97052

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT x 33.3 RF @ 10x

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.376	BB	2.89639e4	8.11569e-3	235.06192		Naphthalene #1
11.087	BB	1661.11194	2.94003e-2	48.83725		Acenaphthylene #2
11.969	BB	9932.08105	1.26957e-2	126.09465		1-Methylnaphthalene #3
12.538	BB	3.51264e4	1.10418e-2	387.85743		2-Methylnaphthalene #4
13.101	BB	1.36797e4	1.99953e-2	273.53018		Acenaphthene #5
13.835	BB	658.45654	1.72604e-2	11.36523		Fluorene #6
15.040	BB	708.63202	1.70751e-2	12.09995		Phenanthrene #7
16.443	BB	547.74957	1.03316e-2	5.65912		Anthracene #8
17.959	BB	149.15140	2.13939e-2	3.19093		Fluoranthene #9
18.898	BB	38.72635	1.42346e-2	5.51254e-1		Pyrene #10
21.213	BB	191.22046	6.51566e-2	12.45927	125%	p-Terphenyl d14 #11*
22.515	BB	54.15449	2.19558e-2	1.18900		Benzo(a)anthracene #12
23.454	BB	196.78375	1.48093e-2	2.91424		Chrysene #13
26.125	BB	27.95491	2.03417e-2	5.68651e-1		Benzo(b)fluoranthene #14
27.597	BB	37.28149	2.21503e-2	8.25797e-1		Benzo(k)fluoranthene #15
28.688	BB	14.37311	2.80792e-2	4.03585e-1		Benzo(a)pyrene #16
30.345	BB	5.18869	9.27377e-2	4.81187e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
31.338	BB	3.62111	5.56826e-2	2.01633e-1		Benzo(g,h,i)perylene #18
32.274	BB	7.10090	2.02125e-2	1.43527e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 1123.43479

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

7,10 SOIL 10X DIL'N. of L0112259-02

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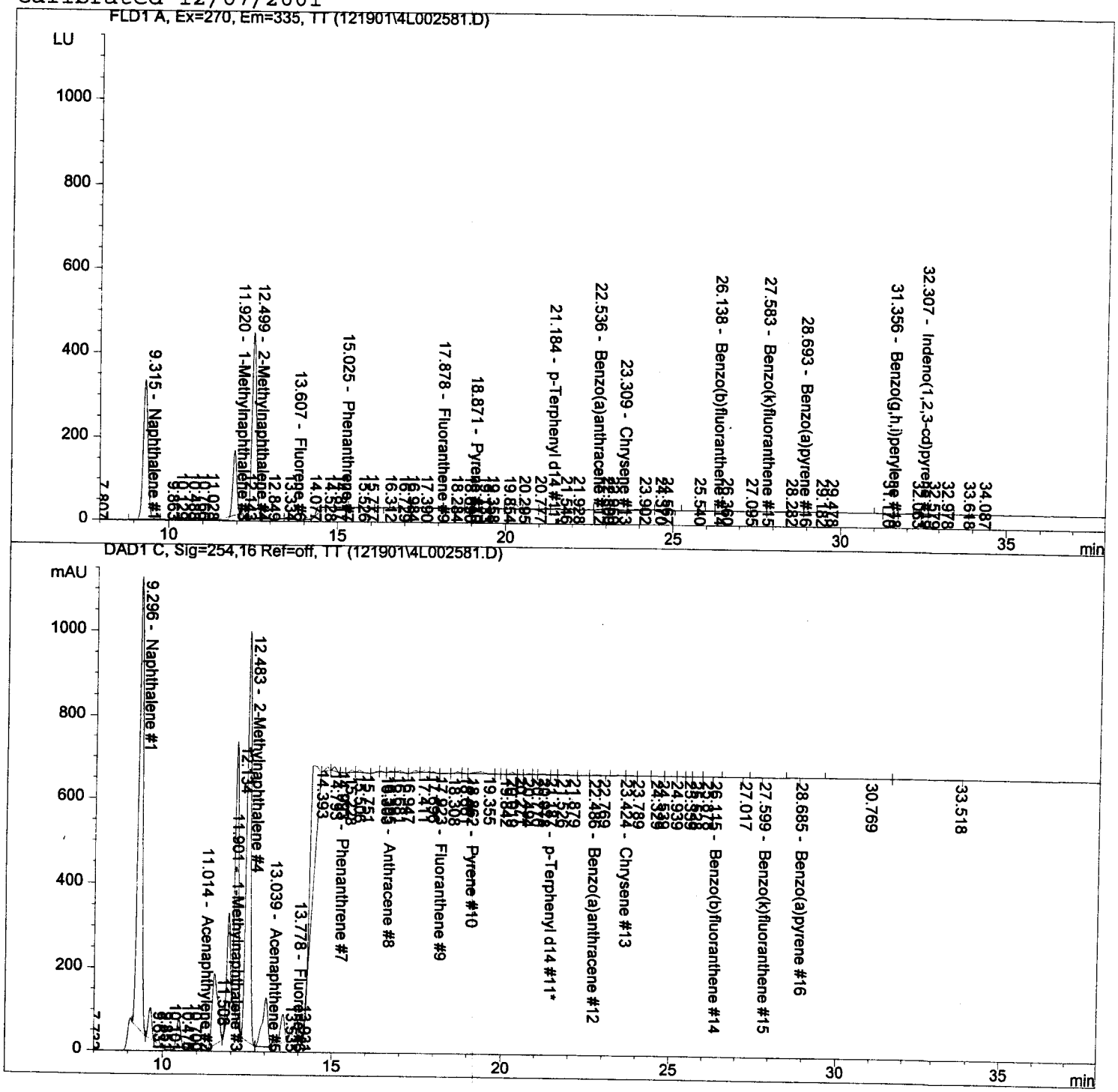
Injection Date : 12/20/2001 10:16:26 AM
Sample Name : L0112259-02 10X
Acq. Operator : RDC

Seq. Line : 28
Vial : 28
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/20/2001 1:39:21 PM by RDC
(modified after loading)

Calibrated 12/07/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:34:24 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.315	BB	3282.85522	2.64309e-2	86.76869		Naphthalene #1
11.920	BB	1269.63464	2.30826e-2	29.30641		1-Methylnaphthalene #3
12.499	BB	4106.76367	1.77135e-2	72.74533		2-Methylnaphthalene #4
13.080		-	-	-		Acenaphthene #5
13.607	BB	137.80527	6.55799e-3	9.03725e-1		Fluorene #6
15.025	BB	3.49126	1.72114e-1	6.00893e-1		Phenanthrene #7
16.532		-	-	-		Anthracene #8
17.878	BB	4.26411	2.51883e-2	1.07406e-1		Fluoranthene #9
18.871	BB	1.02074	4.52106e-2	4.61480e-2		Pyrene #10
21.184	BB	24.83894	2.98861e-1	7.42340	DL	p-Terphenyl d14 #11*
22.536	BB	5.09880	8.29841e-3	4.23119e-2		Benzo(a)anthracene #12
23.309	BB	9.26085	4.07647e-2	3.77516e-1		Chrysene #13
26.138	BB	1.55500	1.66521e-2	2.58941e-2		Benzo(b)fluoranthene #14
27.583	BB	5.69519	2.77713e-3	1.58163e-2		Benzo(k)fluoranthene #15
28.693	BB	7.58317	5.23910e-3	3.97290e-2		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.356	BB	1.50929	3.02212e-2	4.56128e-2		Benzo(g,h,i)perylene #18
32.307	BB	3.64114e-1	1.37336e-2	5.00059e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 198.45388

Results obtained with enhanced integrator!

X333

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.296	BB	9582.54102	8.11569e-3	77.76889		Naphthalene #1
11.014	BB	161.01462	2.94003e-2	4.73388		Acenaphthylene #2
11.901	BB	1609.91382	1.26957e-2	20.43897		1-Methylnaphthalene #3
12.483	BB	8556.81543	1.10418e-2	94.48247		2-Methylnaphthalene #4
13.039	BB	1373.68213	1.99953e-2	27.46717		Acenaphthene #5
13.778	BB	69.36517	1.72604e-2	1.19727		Fluorene #6
14.993	BB	71.42715	1.70751e-2	1.21962		Phenanthrene #7
16.395	BB	5.16912	1.03316e-2	5.34052e-2		Anthracene #8
17.923	BB	15.81657	2.13939e-2	3.38378e-1		Fluoranthene #9
18.862	BB	4.02757	1.42346e-2	5.73309e-2		Pyrene #10
21.187	BB	18.66179	6.51566e-2	1.21594	DL	p-Terphenyl d14 #11*
22.486	BB	5.30815	2.19558e-2	1.16544e-1		Benzo(a)anthracene #12
23.424	BB	19.05648	1.48093e-2	2.82214e-1		Chrysene #13
26.115	BB	2.81900	2.03417e-2	5.73433e-2		Benzo(b)fluoranthene #14
27.599	BB	3.71009	2.21503e-2	8.21796e-2		Benzo(k)fluoranthene #15
28.685	BB	1.52967	2.80792e-2	4.29520e-2		Benzo(a)pyrene #16
30.509		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				229.55456		

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\121801\7M14827.D Vial: 9
Acq On : 18 Dec 2001 18:39 Operator: mdc
Sample : L0112~~252~~ 259-02 10X 8310 confirmation Inst : HPMS7
Misc : Multiplr: 10.00
MS Integration Params: RTEINT.P
Quant Time: Dec 19 08:25:45 2001 Quant Results File: PAHLOW.RES

Quant Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 12/11/01
Last Update : Tue Dec 18 14:25:43 2001
Response via : Initial Calibration
DataAcq Meth : PAHL

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.21	136	1291550	1.00 ug/ml	0.00
6) Acenaphthene-d10	6.96	164	695061	1.00 ug/ml	0.00
11) Phenanthrene-d10	8.48	188	1237482	1.00 ug/ml	0.00
15) Chrysene-d12	11.49	240	1122771	1.00 ug/ml	0.00
20) Perylene-d12	14.81	264	756965	1.00 ug/ml	0.02
System Monitoring Compounds					
2) Nitrobenzene-d5	4.51	82	39314	1.0329 ug/ml	-0.02
Spiked Amount 2.500	Range 35 - 114		Recovery	= 41.20%	
7) 2-Fluorobiphenyl	6.23	172	3498	0.0456 ug/ml	0.00
Spiked Amount 2.500	Range 43 - 116		Recovery	= 2.00%#	
17) p-Terphenyl-d14	10.05	244	457775	5.5652 ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery	= 222.80%#	

Target Compounds					Qvalue
3) Naphthalene	5.22	128	16751784	14.9198 ug/ml#	1
4) 2-Methylnaphthalene	5.89	142	14200167	20.5734 ug/ml	87
5) 1-Methylnaphthalene	5.99	142	11228585	16.2088 ug/ml#	55
8) Acenaphthylene	6.80	152	131451	~~0.1323 ug~~/ml#	1
9) Acenaphthene	6.99	154	154081	0.2389 ug/ml#	83
10) Fluorene	7.51	166	311331	0.4024 ug/ml#	97
12) Phenanthrene	8.50	178	591946	0.5614 ug/ml#	91
13) Anthracene	8.55	178	254357	0.2390 ug/ml#	1
16) Pyrene	9.97	202	141565	0.1253 ug/ml#	75

X33.3

(#) = qualifier out of range (m) = manual integration

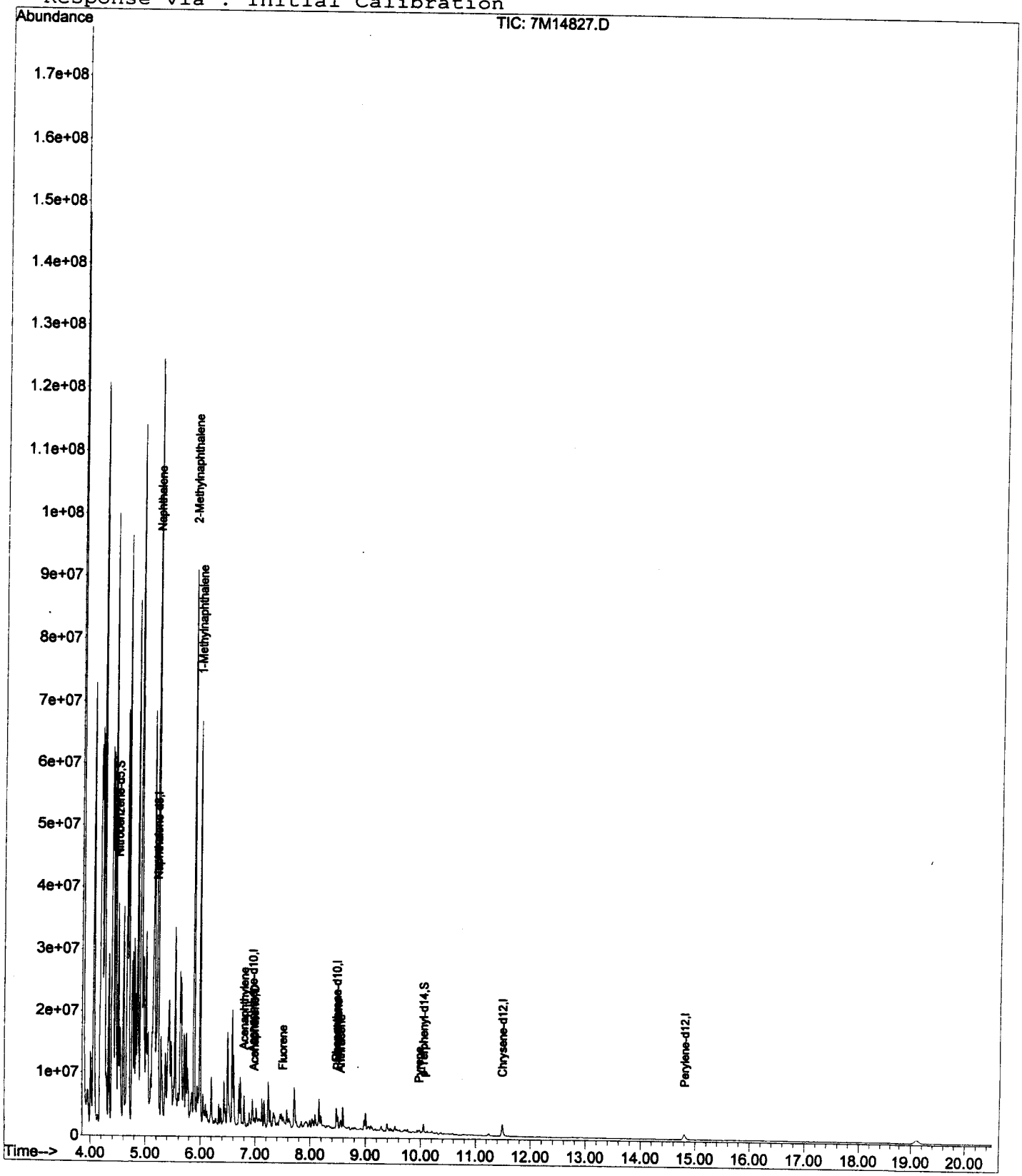
Quantitation Report (Not Reviewed)

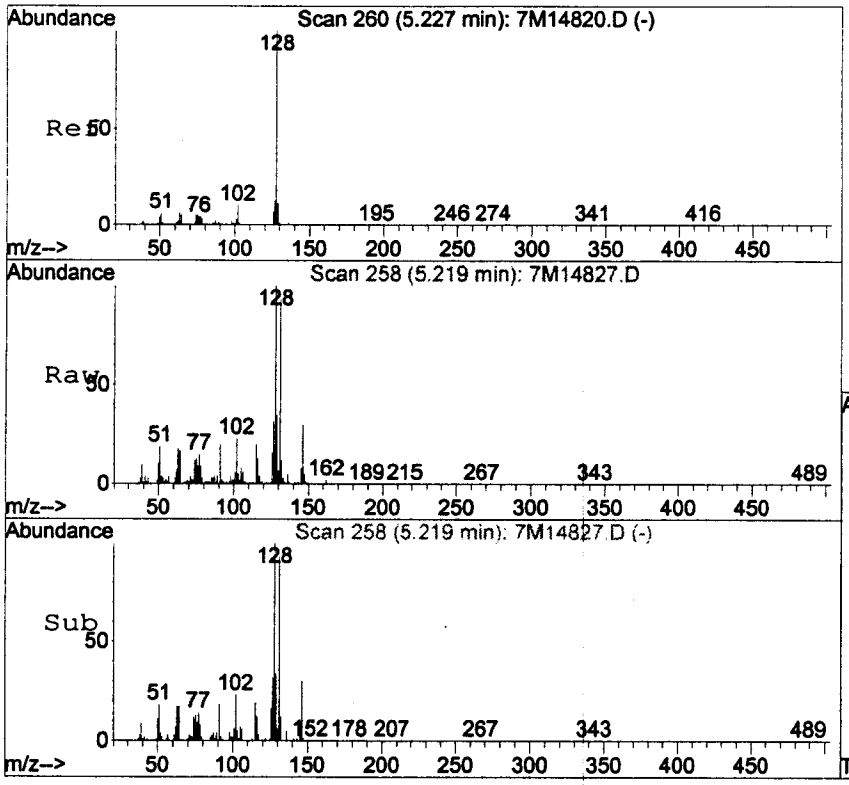
Data File : C:\MSDCHEM\1\DATA\121801\7M14827.D
Acq On : 18 Dec 2001 18:39
Sample : L0112~~252~~-02 10X 8310 confirmation
Misc : 259
MS Integration Params: RTEINT.P
Quant Time: Dec 19 8:25 2001

Vial: 9
Operator: mdc
Inst : HPMS7
Multiplr: 10.00

Quant Results File: PAHLOW.RES

Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 12/11/01
Last Update : Tue Dec 18 14:25:43 2001
Response via : Initial Calibration

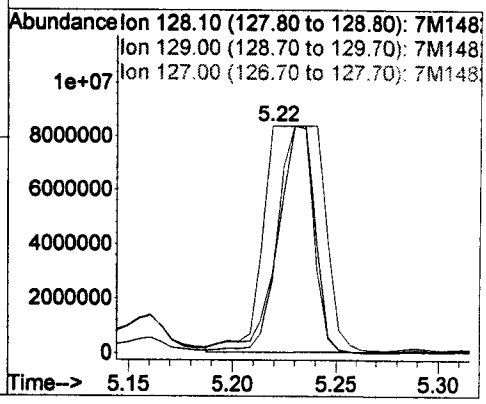


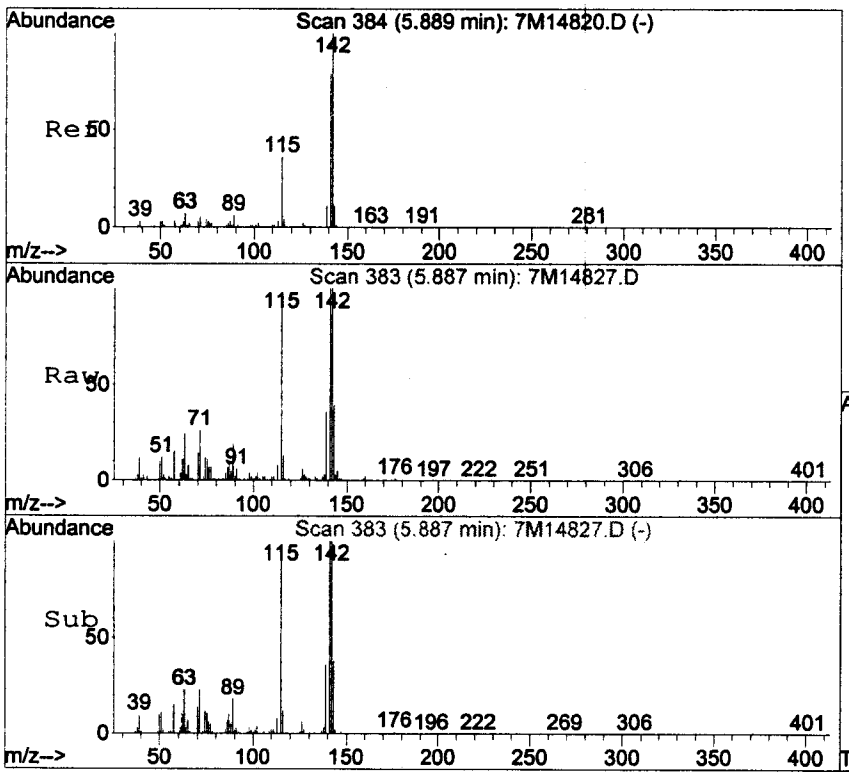


#3
Naphthalene
Concen: 14.92 ug/ml
RT: 5.22 min Scan# 258
Delta R.T. -0.00 min
Lab File: 7M14827.D
Acq: 18 Dec 2001 18:39

Tgt Ion:128 Resp:16751784

Ion	Ratio	Lower	Upper
128	100		
129	61.3	8.8	13.2#
127	61.8	10.7	16.1#

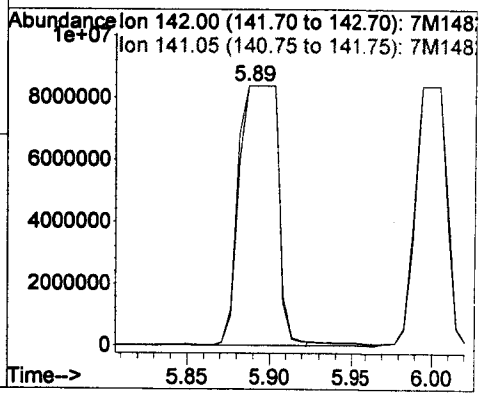


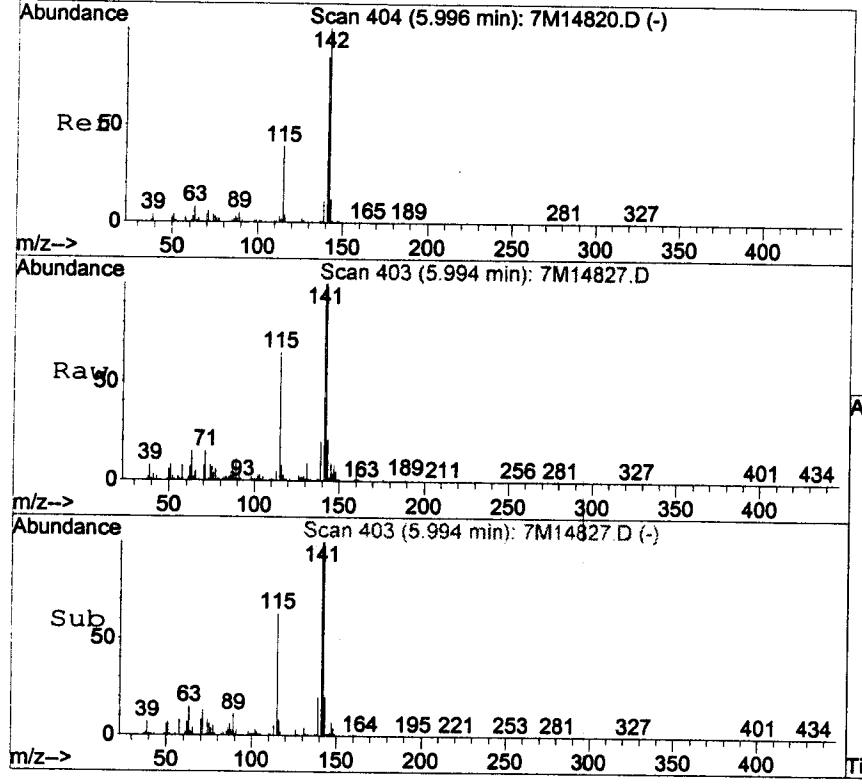


#4
2-Methylnaphthalene
Concen: 20.57 ug/ml
RT: 5.89 min Scan# 383
Delta R.T. 0.00 min
Lab File: 7M14827.D
Acq: 18 Dec 2001 18:39

Tgt Ion:142 Resp:14200167

Ion	Ratio	Lower	Upper
142	100		
141	96.6	67.7	101.5

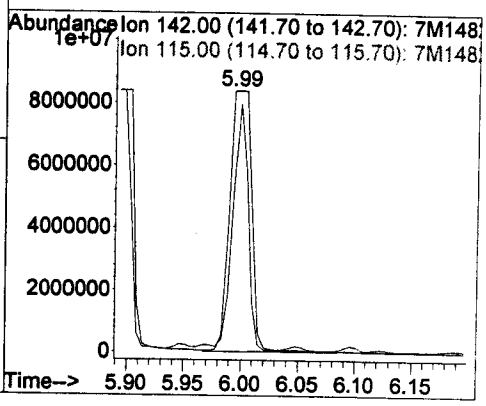


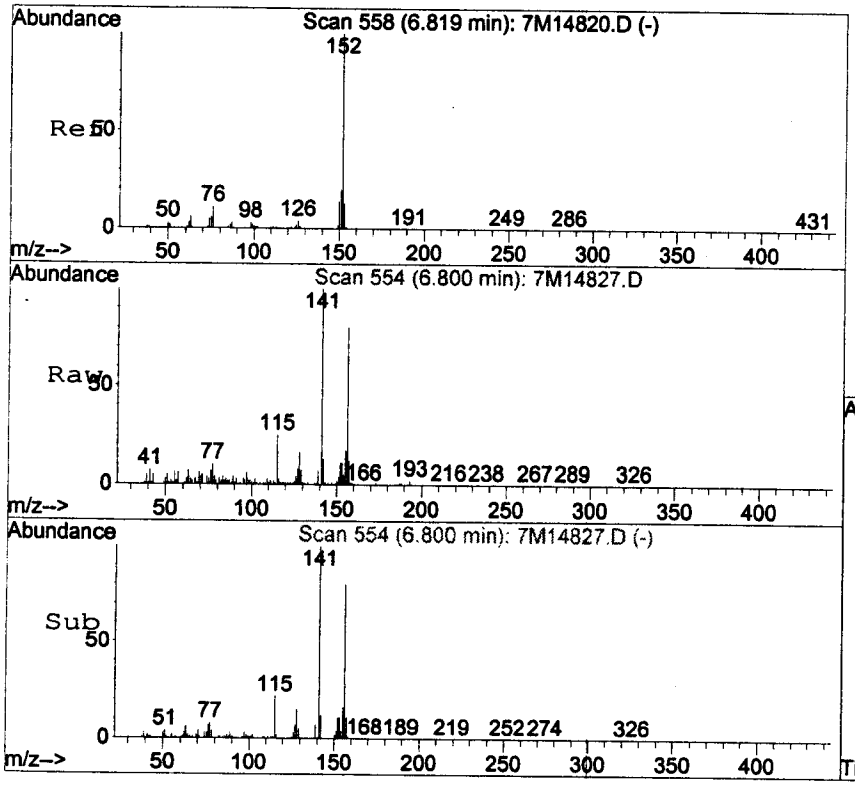


#5
1-Methylnaphthalene
Concen: 16.21 ug/ml
RT: 5.99 min Scan# 403
Delta R.T. 0.00 min
Lab File: 7M14827.D
Acq: 18 Dec 2001 18:39

Tgt Ion:142 Resp:11228585

Ion	Ratio	Lower	Upper
142	100		
115	67.0	31.6	47.4#

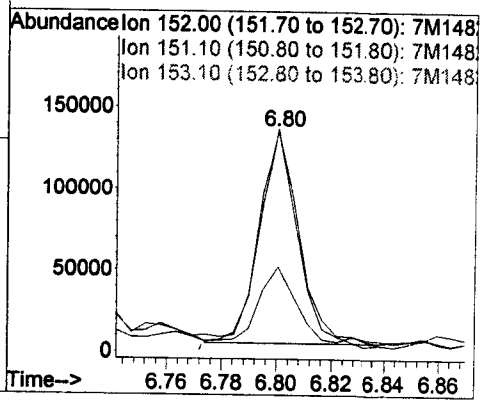


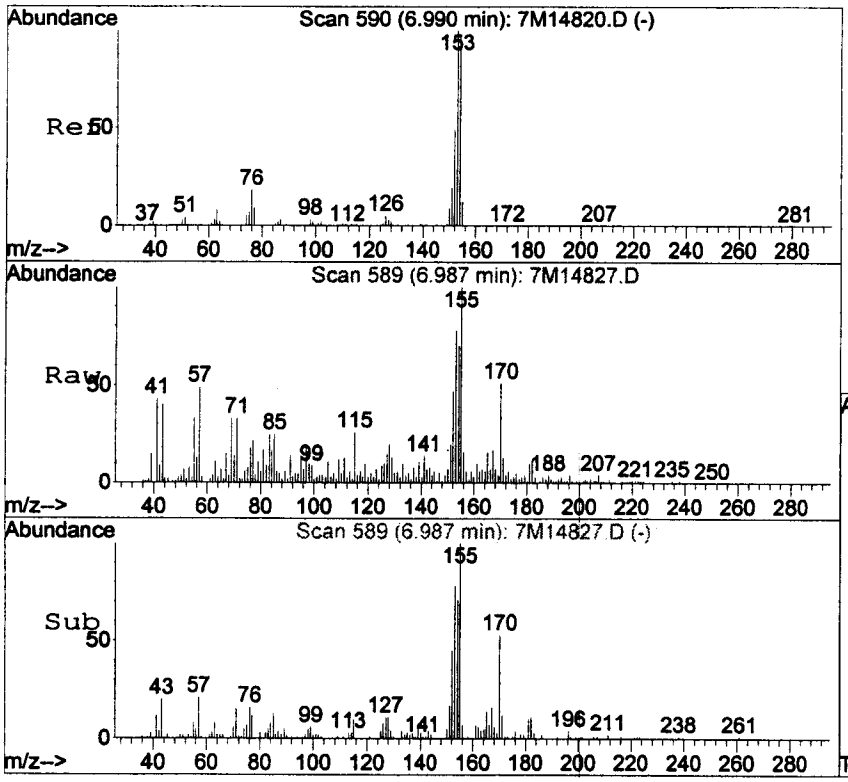


#8
Acenaphthylene
Concen: 0.13 ug/ml
RT: 6.80 min Scan# 554
Delta R.T. -0.02 min
Lab File: 7M14827.D
Acq: 18 Dec 2001 18:39

Tgt Ion:152 Resp: 131451

Ion	Ratio	Lower	Upper
152	100		
151	31.4	16.0	24.0#
153	97.5	10.6	15.8#

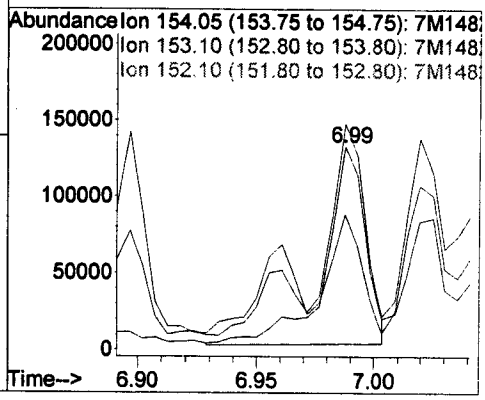


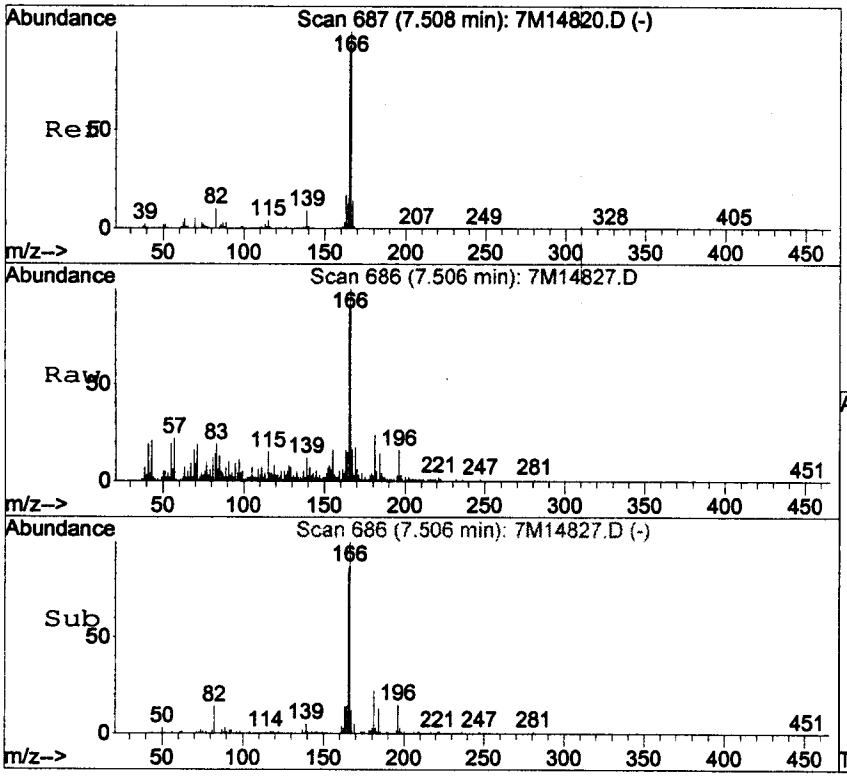


#9
Acenaphthene
Concen: 0.24 ug/ml
RT: 6.99 min Scan# 589
Delta R.T. 0.00 min
Lab File: 7M14827.D
Acq: 18 Dec 2001 18:39

Tgt Ion:154 Resp: 154081

Ion	Ratio	Lower	Upper
154	100		
153	81.9	84.2	126.2#
152	46.0	39.9	59.9

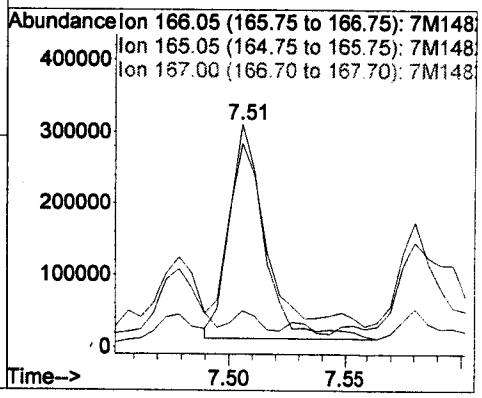


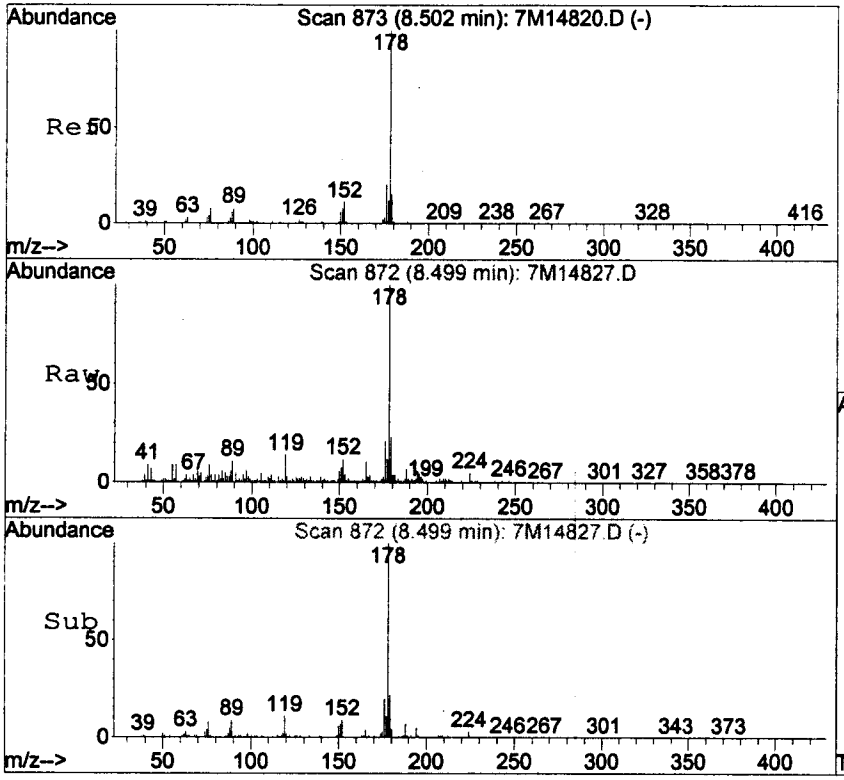


#10
Fluorene
Concen: 0.40 ug/ml
RT: 7.51 min Scan# 686
Delta R.T. 0.00 min
Lab File: 7M14827.D
Acq: 18 Dec 2001 18:39

Tgt Ion:166 Resp: 311331

Ion	Ratio	Lower	Upper
166	100		
165	92.2	72.8	109.2
167	6.3	10.2	15.2#

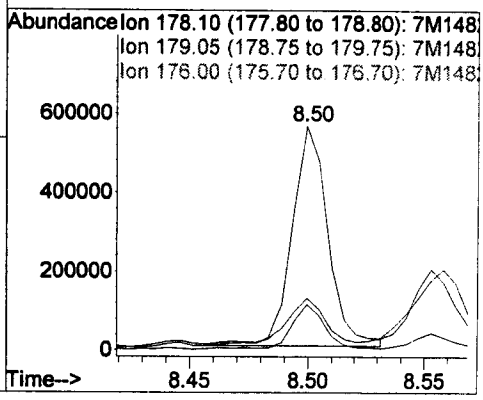


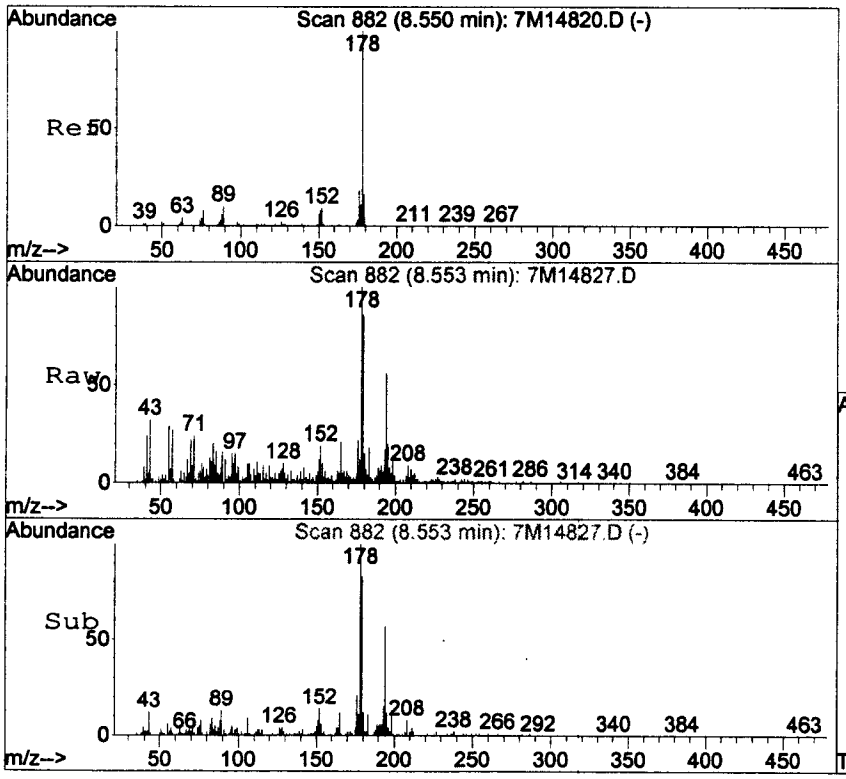


#12
Phenanthrene
Concen: 0.56 ug/ml
RT: 8.50 min Scan# 872
Delta R.T. 0.00 min
Lab File: 7M14827.D
Acq: 18 Dec 2001 18:39

Tgt Ion:178 Resp: 591946

Ion	Ratio	Lower	Upper
178	100		
179	23.0	12.7	19.1#
176	18.1	15.4	23.2

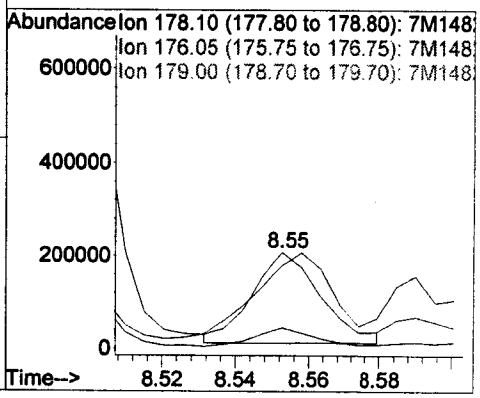


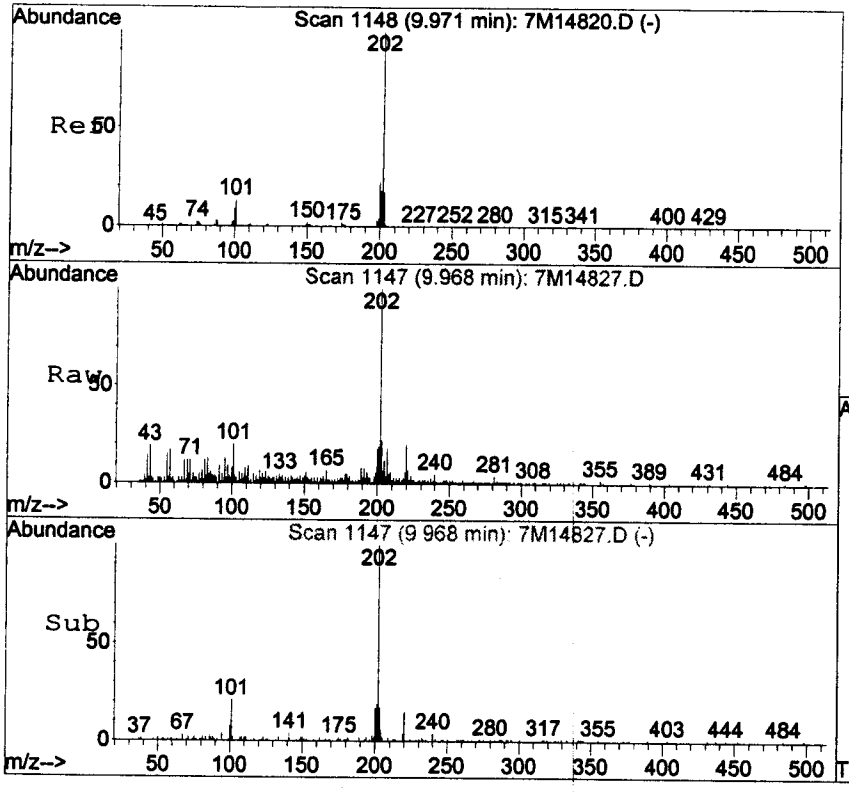


#13
Anthracene
Concen: 0.24 ug/ml
RT: 8.55 min Scan# 882
Delta R.T. 0.00 min
Lab File: 7M14827.D
Acq: 18 Dec 2001 18:39

Tgt Ion:178 Resp: 254357

Ion	Ratio	Lower	Upper
178	100		
176	20.7	15.2	22.8
179	115.1	13.0	19.6#

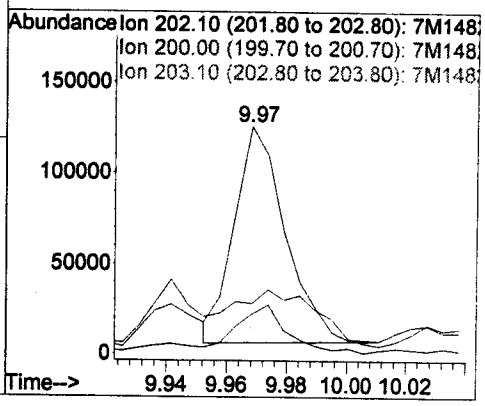




#16
Pyrene
Concen: 0.13 ug/ml
RT: 9.97 min Scan# 1147
Delta R.T. 0.00 min
Lab File: 7M14827.D
Acq: 18 Dec 2001 18:39

Tgt Ion:202 Resp: 141565

Ion	Ratio	Lower	Upper
202	100		
200	23.2	16.6	25.0
203	39.3	14.3	21.5#



7,1

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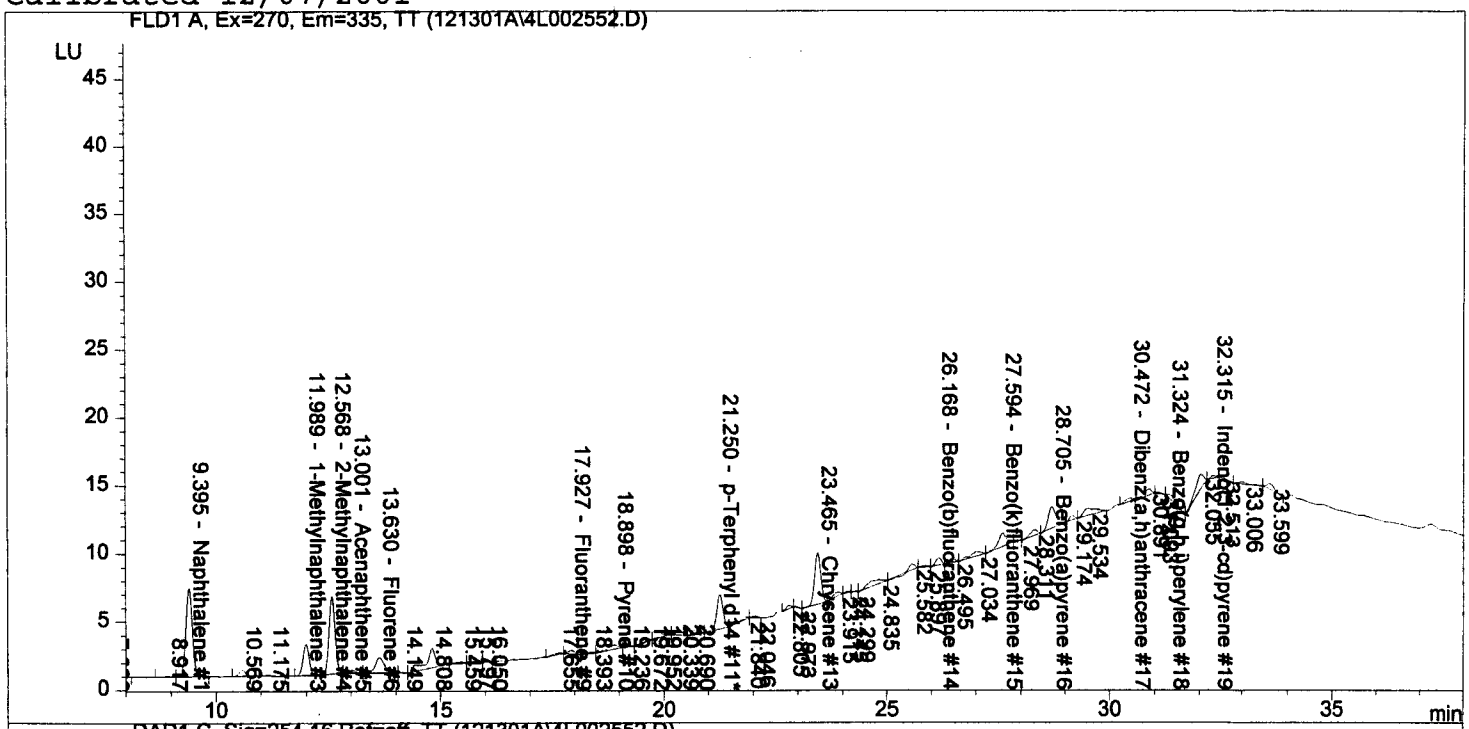
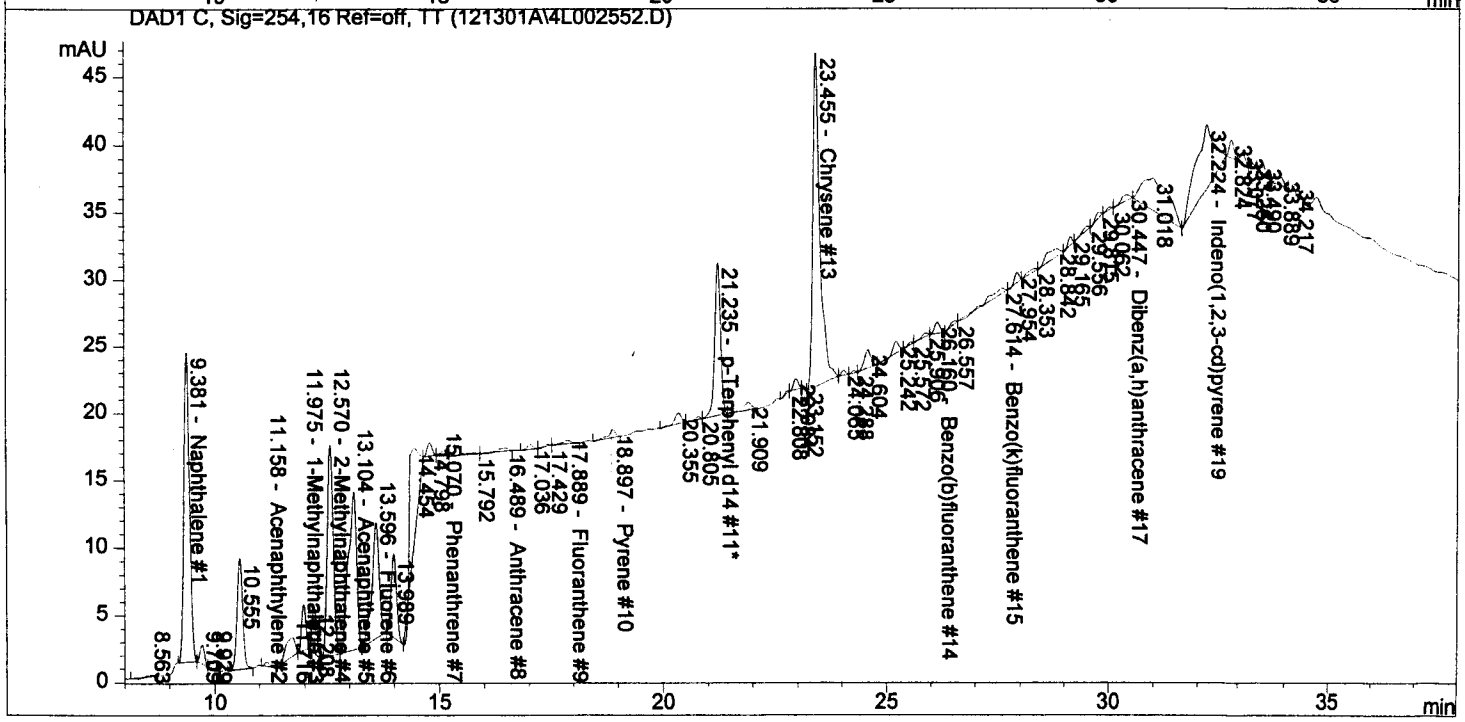
Injection Date	: 12/14/2001 1:18:08 AM	Seq. Line	: 10
Sample Name	: L0112259-03 831S	Vial	: 10
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

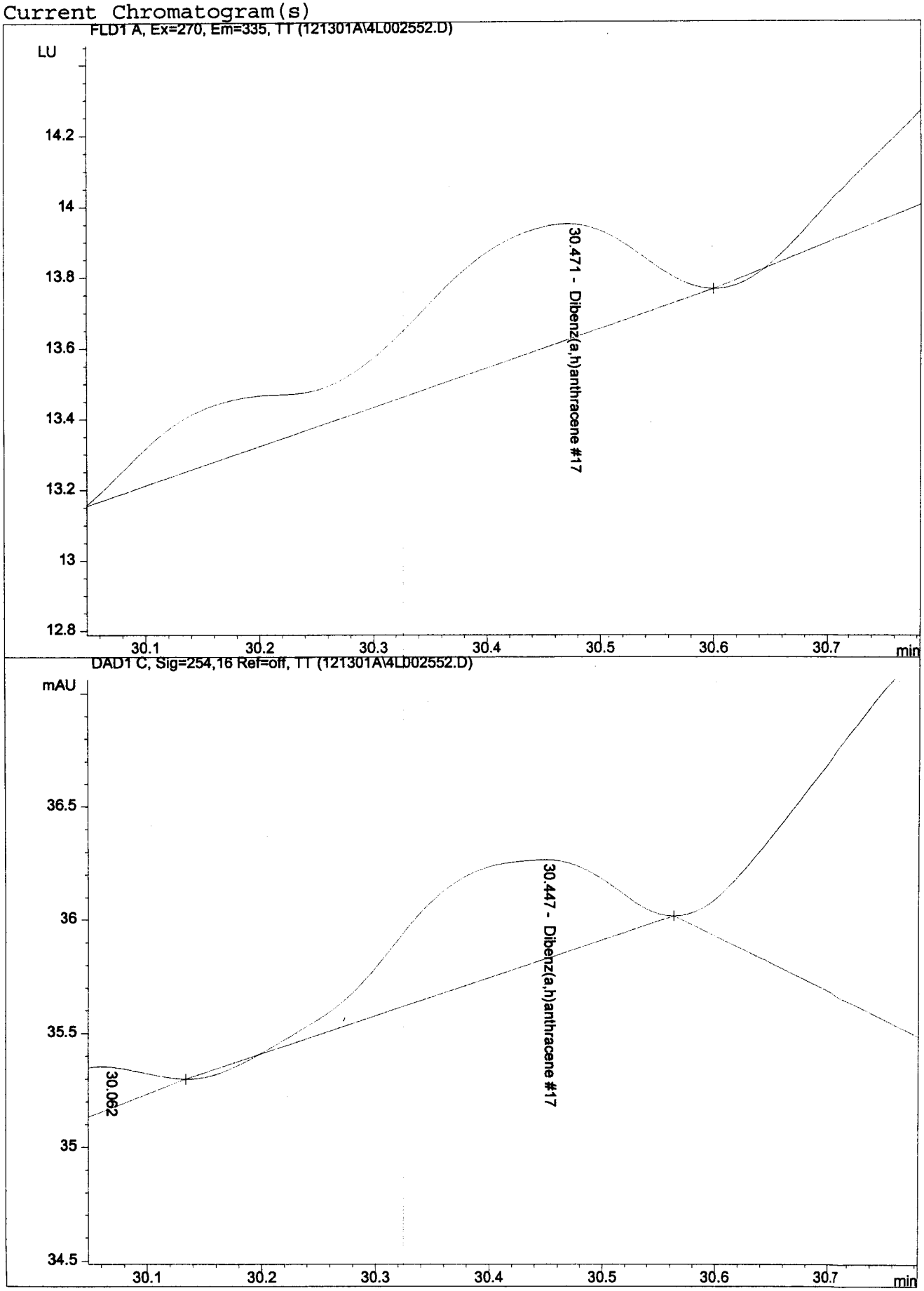
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/14/2001 3:54:26 PM by RDC
(modified after loading)

Calibrated 12/07/2001

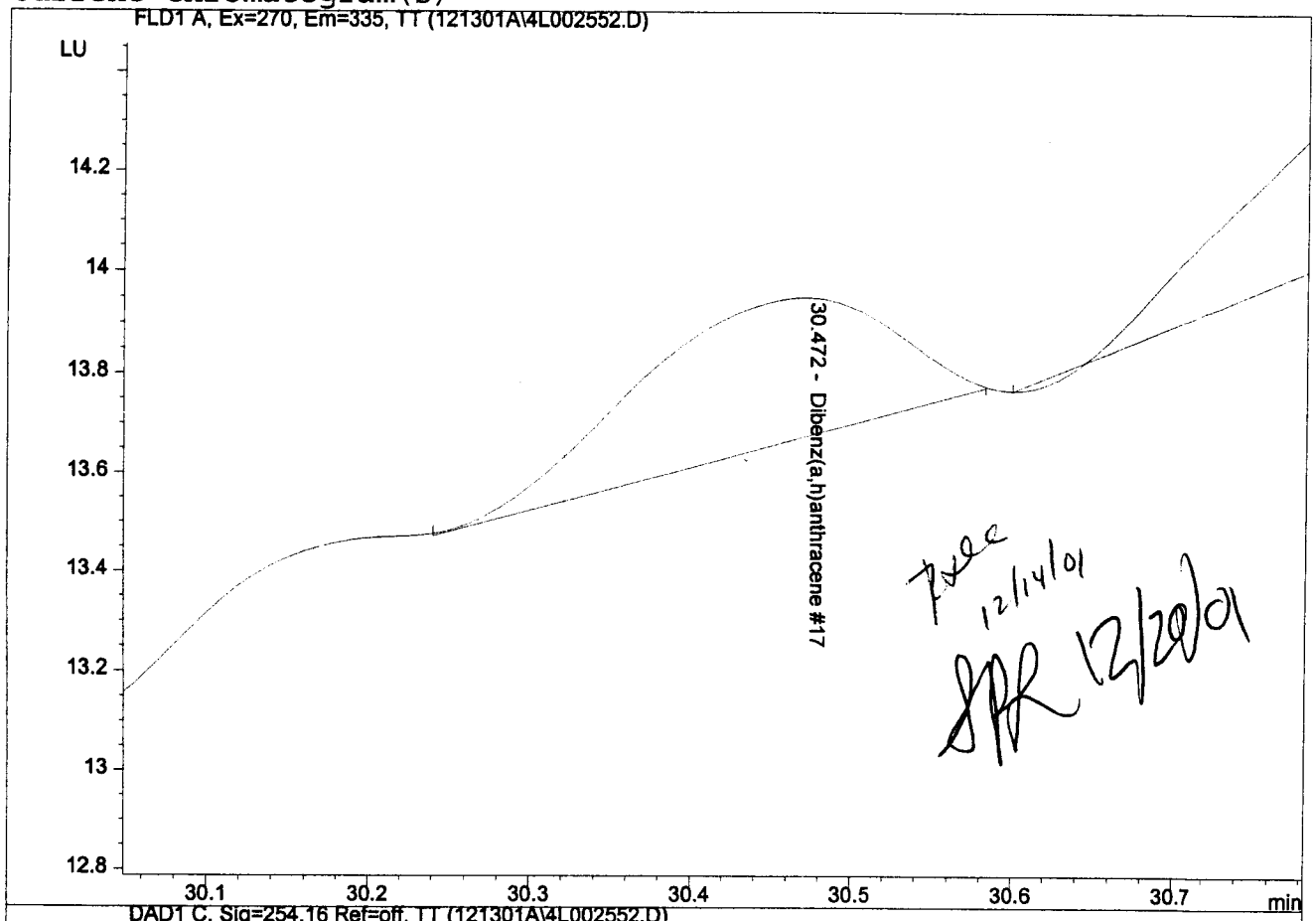


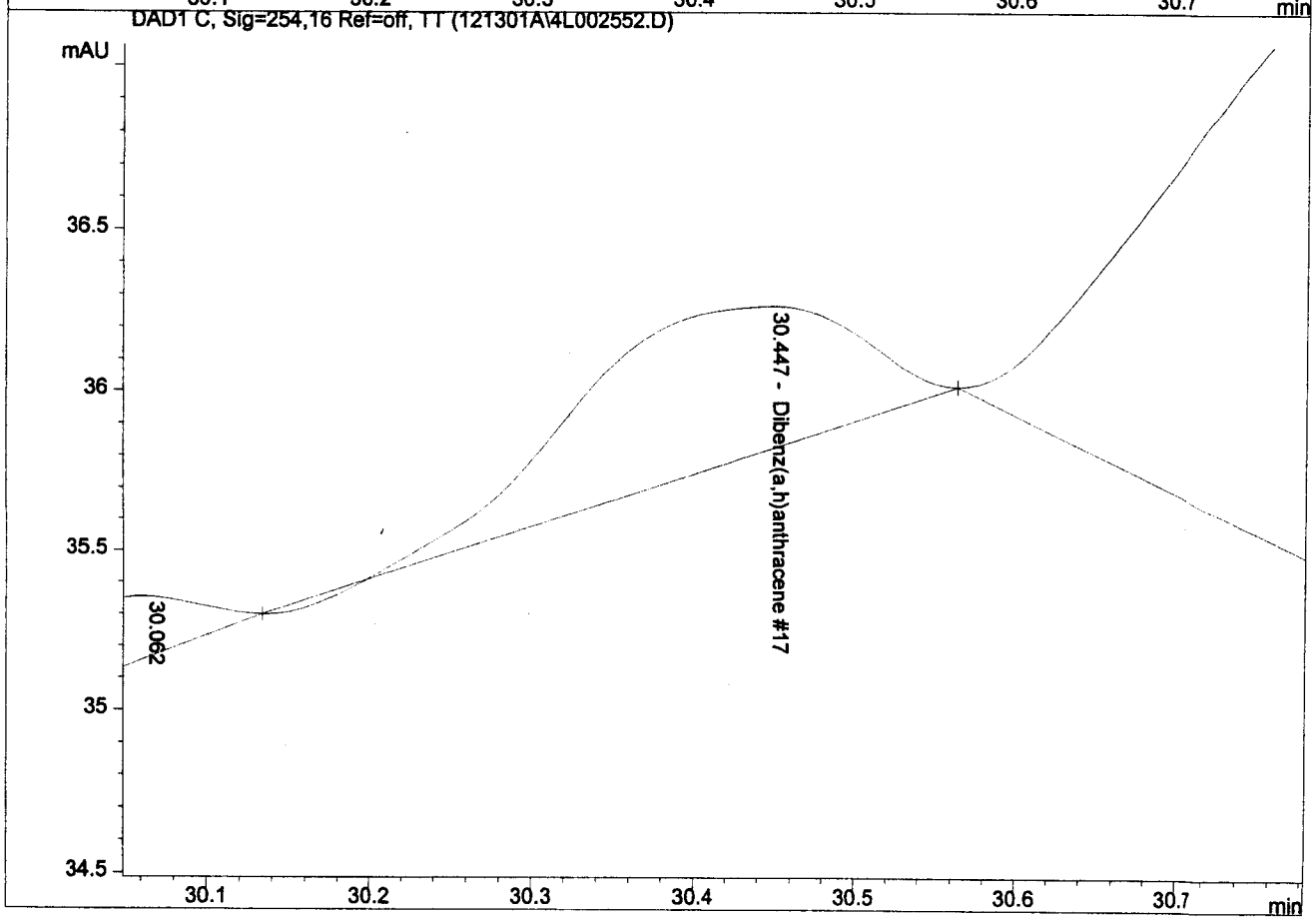


Current Chromatogram(s)



Current Chromatogram(s)





HPLC4 12/14/2001 3:53:41 PM RDC

External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, December 12, 2001 1:25:11 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/Kg]	Grp	Name
9.395	BBA	62.89950	2.64309e-2	1.66249		Naphthalene #1
11.989	BB	21.75842	2.30826e-2	5.02240e-1		1-Methylnaphthalene #3
12.568	BB	52.73711	1.77135e-2	9.34161e-1		2-Methylnaphthalene #4
13.001	BB	2.80508	1.41307e-2	3.96376e-2		Acenaphthene #5
13.630	BB	16.89741	6.55799e-3	1.10813e-1		Fluorene #6
15.126		-	-	-		Phenanthrene #7
16.532		-	-	-		Anthracene #8
17.927	BB	2.69437	2.51883e-2	6.78666e-2		Fluoranthene #9
18.898	BB	5.08893	4.52106e-2	2.30073e-1		Pyrene #10
21.250	BB	25.26729	2.98861e-1	7.55142 75.8%		p-Terphenyl d14 #11*
22.562		-	-	-		Benzo(a)anthracene #12
23.465	BB	36.16682	4.07647e-2	1.47433		Chrysene #13
26.168	BB	4.31885	1.66521e-2	7.19181e-2		Benzo(b)fluoranthene #14
27.594	BB	12.57234	2.77713e-3	3.49151e-2		Benzo(k)fluoranthene #15
28.705	BB	22.01047	5.23910e-3	1.15315e-1		Benzo(a)pyrene #16
30.472	MM	3.21692	4.06442e-2	1.30749e-1		Dibenz(a,h)anthracene #17
31.324	BB	2.46478	3.02212e-2	7.44889e-2		Benzo(g,h,i)perylene #18
32.315	BB	1.58452	1.37336e-2	2.17611e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 13.02217

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT X3.3

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
9.381	BB	200.34264	8.11569e-3	1.62592		Naphthalene #1
11.158	BB	2.38420	2.94003e-2	7.00964e-2		Acenaphthylene #2
11.975	BB	23.38717	1.26957e-2	2.96916e-1		1-Methylnaphthalene #3
12.570	BB	147.67255	1.10418e-2	1.63057		2-Methylnaphthalene #4
13.104	BB	149.65927	1.99953e-2	2.99248		Acenaphthene #5
13.596	BB	93.40358	1.72604e-2	1.61218		Fluorene #6
15.070	BB	2.10739	1.70751e-2	3.59839e-2		Phenanthrene #7
16.489	BB	3.90297	1.03316e-2	4.03238e-2		Anthracene #8
17.889	BB	3.54869	2.13939e-2	7.59203e-2		Fluoranthene #9
18.897	BB	6.74933	1.42346e-2	9.60740e-2		Pyrene #10
21.235	BB	103.79184	6.51566e-2	6.76272 67.6%		p-Terphenyl d14 #11*
22.544		-	-	-		Benzo(a)anthracene #12
23.455	BB	261.50293	1.48093e-2	3.87268		Chrysene #13
26.160	BB	7.17666	2.03417e-2	1.45986e-1		Benzo(b)fluoranthene #14
27.614	BB	9.11054	2.21503e-2	2.01801e-1		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.447	BB	5.79044	9.27377e-2	5.36992e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/Kg]	Grp	Name
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.224	BB	139.40279	2.02125e-2	2.81768		Indeno(1,2,3-cd)pyrene #1

Totals : 22.81433

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1

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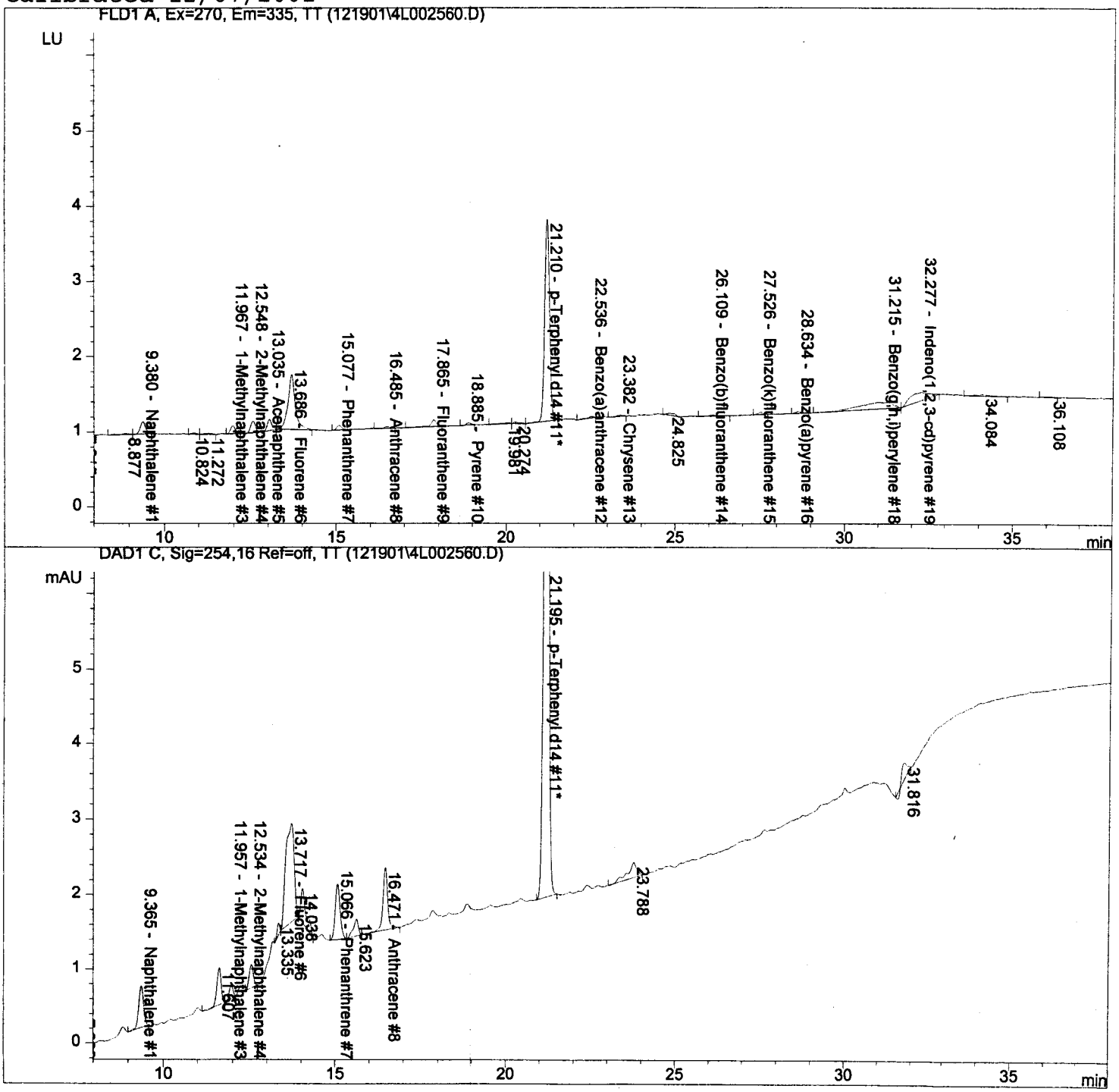
Injection Date	: 12/19/2001 2:27:06 PM	Seq. Line :	7
Sample Name	: L0112259-04 831W	Vial :	7
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:34:37 AM by RDC
Calibrated 12/07/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:34:24 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.380	BB	1.69247	2.64309e-2	4.47333e-2		Naphthalene #1
11.967	BB	1.03068	2.30826e-2	2.37908e-2		1-Methylnaphthalene #3
12.548	BB	1.54482	1.77135e-2	2.73641e-2		2-Methylnaphthalene #4
13.035	BB	1.37804	1.41307e-2	1.94726e-2		Acenaphthene #5
13.686	BBA	11.09749	6.55799e-3	7.27772e-2		Fluorene #6
15.077	PBA	6.37006e-1	1.72114e-1	1.09637e-1		Phenanthrene #7
16.485	BBA	3.04228e-1	3.11763e-1	9.48470e-2		Anthracene #8
17.865	BBA	1.02658	2.51883e-2	2.58577e-2		Fluoranthene #9
18.885	PBA	2.55814e-1	4.52106e-2	1.15655e-2		Pyrene #10
21.210	BB	26.34670	2.98861e-1	7.87401		p-Terphenyl d14 #11*
22.536	BB	2.93024e-1	8.29841e-3	2.43164e-3		Benzo(a)anthracene #12
23.382	BB	1.88575e-1	4.07647e-2	7.68720e-3		Chrysene #13
26.109	BBA	3.17281e-1	1.66521e-2	5.28342e-3		Benzo(b)fluoranthene #14
27.526	PBA	3.29979e-1	2.77713e-3	9.16396e-4		Benzo(k)fluoranthene #15
28.634	PBA	3.04906e-1	5.23910e-3	1.59744e-3		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.215	BB	6.06616	3.02212e-2	1.83327e-1		Benzo(g,h,i)perylene #18
32.277	BB	4.83357	1.37336e-2	6.63823e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 8.57168

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.365	BB	5.37378	8.11569e-3	4.36119e-2		Naphthalene #1
11.059		-	-	-		Acenaphthylene #2
11.957	BB	1.44511	1.26957e-2	1.83467e-2		1-Methylnaphthalene #3
12.534	BB	2.68948	1.10418e-2	2.96967e-2		2-Methylnaphthalene #4
13.062		-	-	-		Acenaphthene #5
13.717	BB	22.86689	1.72604e-2	3.94692e-1		Fluorene #6
15.066	BB	7.22010	1.70751e-2	1.23284e-1		Phenanthrene #7
16.471	BB	8.27503	1.03316e-2	8.54941e-2		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.891		-	-	-		Pyrene #10
21.195	PBA	116.78543	6.51566e-2	7.60934		p-Terphenyl d14 #11*
22.544		-	-	-		Benzo(a)anthracene #12
23.412		-	-	-		Chrysene #13
26.121		-	-	-		Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.509		-	-	-		Dibenz(a,h)anthracene #17

2mol

76%

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				8.30446		

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

2.2.7.3 Standards Data

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Calibration Table

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HPLC4 8310 CALIBRATION

Calib. Data Modified : Monday, December 10, 2001 11:34:24 AM

Calculate : External Standard
Based on : Peak Area

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.300 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.300 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Forced
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FLD1 A, Ex=270, Em=335, TT
Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
9.427	2	1	1.00000	115.80276	8.63537e-3			Naphthalene #1
		2	5.00000	606.36218	8.24590e-3			
		3	10.00000	1228.04895	8.14300e-3			
		4	20.00000	2515.62280	7.95032e-3			
		5	50.00000	6239.97021	8.01286e-3			
		6	100.00000	1.22730e4	8.14796e-3			
9.445	1	1	1.00000	34.14394	2.92878e-2			Naphthalene #1
		2	5.00000	175.20758	2.85376e-2			
		3	10.00000	357.36987	2.79822e-2			
		4	20.00000	737.47040	2.71197e-2			
		5	50.00000	1851.06140	2.70115e-2			
		6	100.00000	3810.46631	2.62435e-2			
11.059	2	1	1.00000	31.43988	3.18067e-2			Acenaphthylene #2
		2	5.00000	158.72070	3.15019e-2			
		3	10.00000	320.25964	3.12247e-2			
		4	20.00000	657.36005	3.04247e-2			
		5	50.00000	1651.06335	3.02835e-2			
		6	100.00000	3433.28174	2.91267e-2			
12.007	2	1	1.00000	72.32628	1.38262e-2			1-Methylnaphthalene #3

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		2	5.00000	371.50211	1.34589e-2			
		3	10.00000	751.04242	1.33148e-2			
		4	20.00000	1541.22485	1.29767e-2			
		5	50.00000	3860.07959	1.29531e-2			
		6	100.00000	7927.48535	1.26143e-2			
12.025	1	1	1.00000	39.21505	2.55004e-2			1-Methylnaphthalene #3
		2	5.00000	202.11798	2.47380e-2			
		3	10.00000	411.64304	2.42929e-2			
		4	20.00000	845.22443	2.36624e-2			
		5	50.00000	2126.27832	2.35153e-2			
		6	100.00000	4359.37695	2.29391e-2			
12.583	2	1	1.00000	84.52537	1.18308e-2			2-Methylnaphthalene #4
		2	5.00000	434.66425	1.15031e-2			
		3	10.00000	878.19104	1.13870e-2			
		4	20.00000	1800.34558	1.11090e-2			
		5	50.00000	4488.76758	1.11389e-2			
		6	100.00000	9082.16113	1.10106e-2			
12.602	1	1	1.00000	51.48040	1.94249e-2			2-Methylnaphthalene #4
		2	5.00000	265.18561	1.88547e-2			
		3	10.00000	539.40985	1.85388e-2			
		4	20.00000	1111.04944	1.80010e-2			
		5	50.00000	2777.27686	1.80032e-2			
		6	100.00000	5675.13281	1.76207e-2			
13.062	2	1	1.00000	45.57931	2.19398e-2			Acenaphthene #5
		2	5.00000	234.14653	2.13541e-2			
		3	10.00000	472.85046	2.11483e-2			
		4	20.00000	971.48230	2.05871e-2			
		5	50.00000	2437.01563	2.05169e-2			
		6	100.00000	5042.28223	1.98323e-2			
13.080	1	1	1.00000	65.08414	1.53647e-2			Acenaphthene #5
		2	5.00000	335.57715	1.48997e-2			
		3	10.00000	680.59875	1.46929e-2			
		4	20.00000	1398.43469	1.43017e-2			
		5	50.00000	3490.80957	1.43233e-2			
		6	100.00000	7107.66846	1.40693e-2			
13.719	2	1	1.00000	52.40231	1.90831e-2			Fluorene #6
		2	5.00000	269.92172	1.85239e-2			
		3	10.00000	545.33289	1.83374e-2			
		4	20.00000	1121.15540	1.78387e-2			
		5	50.00000	2817.43921	1.77466e-2			
		6	100.00000	5845.24707	1.71079e-2			
13.738	1	1	1.00000	144.45450	6.92260e-3			Fluorene #6
		2	5.00000	742.47473	6.73424e-3			
		3	10.00000	1498.75659	6.67220e-3			
		4	20.00000	3062.98730	6.52957e-3			
		5	50.00000	7578.60205	6.59752e-3			
		6	100.00000	1.52725e4	6.54773e-3			
15.107	2	1	1.00000	53.48583	1.86965e-2			Phenanthrene #7
		2	5.00000	273.70901	1.82676e-2			
		3	10.00000	553.08002	1.80806e-2			
		4	20.00000	1137.95862	1.75753e-2			
		5	50.00000	2853.04907	1.75251e-2			
		6	100.00000	5905.01465	1.69348e-2			
15.126	1	1	1.00000	5.16262	1.93700e-1			Phenanthrene #7
		2	5.00000	26.34856	1.89764e-1			
		3	10.00000	53.12293	1.88243e-1			

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		4	20.00000	110.76902	1.80556e-1			
		5	50.00000	281.05099	1.77904e-1			
		6	100.00000	587.46509	1.70223e-1			
16.513	2	1	1.00000	88.39832	1.13124e-2			Anthracene #8
		2	5.00000	456.11115	1.09622e-2			
		3	10.00000	924.44818	1.08173e-2			
		4	20.00000	1885.26465	1.06086e-2			
		5	50.00000	4812.97998	1.03886e-2			
		6	100.00000	9708.27441	1.03005e-2			
16.532	1	1	1.00000	2.73816	3.65209e-1			Anthracene #8
		2	5.00000	14.95346	3.34371e-1			
		3	10.00000	30.15903	3.31576e-1			
		4	20.00000	62.19715	3.21558e-1			
		5	50.00000	156.76224	3.18954e-1			
		6	100.00000	323.20529	3.09401e-1			
17.887	2	1	1.00000e-1	4.29404	2.32881e-2			Fluoranthene #9
		2	5.00000e-1	21.55572	2.31957e-2			
		3	1.00000	43.55686	2.29585e-2			
		4	2.00000	89.84662	2.22602e-2			
		5	5.00000	226.59413	2.20659e-2			
		6	10.00000	472.12201	2.11810e-2			
17.907	1	1	1.00000e-1	3.35839	2.97762e-2			Fluoranthene #9
		2	5.00000e-1	19.23926	2.59885e-2			
		3	1.00000	39.02326	2.56257e-2			
		4	2.00000	77.06699	2.59514e-2			
		5	5.00000	191.95184	2.60482e-2			
		6	10.00000	400.85757	2.49465e-2			
18.891	2	1	1.00000e-1	6.05919	1.65038e-2			Pyrene #10
		2	5.00000e-1	31.22189	1.60144e-2			
		3	1.00000	65.35954	1.53000e-2			
		4	2.00000	135.25577	1.47868e-2			
		5	5.00000	340.46393	1.46858e-2			
		6	10.00000	709.65320	1.40914e-2			
18.912	1	1	1.00000e-1	1.73975	5.74796e-2			Pyrene #10
		2	5.00000e-1	10.39580	4.80963e-2			
		3	1.00000	21.21303	4.71408e-2			
		4	2.00000	43.99789	4.54567e-2			
		5	5.00000	110.94641	4.50668e-2			
21.231	2	1	1.00000	13.90912	7.18953e-2			p-Terphenyl d14 #11*
		2	5.00000	71.85631	6.95833e-2			
		3	10.00000	147.07727	6.79915e-2			
		4	20.00000	301.76755	6.62762e-2			
		5	50.00000	767.66412	6.51327e-2			
		6	100.00000	1536.55896	6.50805e-2			
21.248	1	1	1.00000	3.10528	3.22032e-1			p-Terphenyl d14 #11*
		2	5.00000	15.82066	3.16042e-1			
		3	10.00000	31.79696	3.14496e-1			
		4	20.00000	65.33878	3.06097e-1			
		5	50.00000	166.28719	3.00685e-1			
		6	100.00000	335.64120	2.97937e-1			
22.544	2	1	1.00000e-1	4.04760	2.47060e-2			Benzo(a)anthracene #12
		2	5.00000e-1	20.88080	2.39454e-2			
		3	1.00000	42.08236	2.37629e-2			
		4	2.00000	87.47297	2.28642e-2			
		5	5.00000	220.45860	2.26800e-2			
		6	10.00000	460.26733	2.17265e-2			

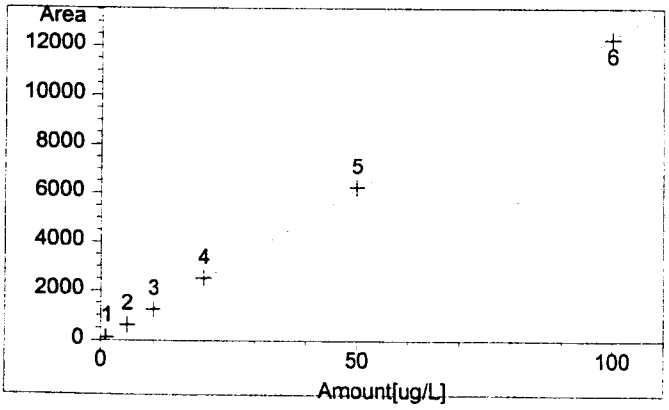
RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
22.562	1	1	1.00000e-1	10.98394	9.10420e-3			Benzo(a)anthracene #12
		2	5.00000e-1	55.03781	9.08466e-3			
		3	1.00000	111.32906	8.98238e-3			
		4	2.00000	231.59561	8.63574e-3			
		5	5.00000	583.97321	8.56204e-3			
		6	10.00000	1217.39807	8.21424e-3			
23.412	2	1	1.00000e-1	5.94315	1.68261e-2			Chrysene #13
		2	5.00000e-1	30.72799	1.62718e-2			
		3	1.00000	62.67461	1.59554e-2			
		4	2.00000	128.96687	1.55079e-2			
		5	5.00000	326.67627	1.53057e-2			
		6	10.00000	682.58563	1.46502e-2			
23.431	1	1	1.00000e-1	2.36736	4.22412e-2			Chrysene #13
		2	5.00000e-1	11.46110	4.36258e-2			
		3	1.00000	22.85746	4.37494e-2			
		4	2.00000	46.97458	4.25762e-2			
		5	5.00000	118.82884	4.20773e-2			
		6	10.00000	247.84904	4.03471e-2			
26.121	2	1	1.00000e-1	4.52168	2.21157e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	22.90010	2.18340e-2			
		3	1.00000	46.43794	2.15341e-2			
		4	2.00000	94.51936	2.11597e-2			
		5	5.00000	237.99123	2.10092e-2			
		6	10.00000	496.62497	2.01359e-2			
26.140	1	1	1.00000e-1	5.61101	1.78221e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	28.96787	1.72605e-2			
		3	1.00000	55.92225	1.78820e-2			
		4	2.00000	116.34737	1.71899e-2			
		5	5.00000	291.22507	1.71689e-2			
		6	10.00000	606.26263	1.64945e-2			
27.548	2	1	5.00000e-2	2.10015	2.38078e-2			Benzo(k)fluoranthene #
		2	2.50000e-1	11.10531	2.25118e-2			
		3	5.00000e-1	21.05570	2.37465e-2			
		4	1.00000	43.61720	2.29267e-2			
		5	2.50000	109.46035	2.28393e-2			
		6	5.00000	227.90102	2.19393e-2			
27.562	1	1	5.00000e-2	16.30576	3.06640e-3			Benzo(k)fluoranthene #
		2	2.50000e-1	83.71040	2.98649e-3			
		3	5.00000e-1	169.56526	2.94872e-3			
		4	1.00000	349.97339	2.85736e-3			
		5	2.50000	877.84839	2.84787e-3			
		6	5.00000	1814.99976	2.75482e-3			
28.658	2	1	1.00000e-1	2.59946	3.84695e-2			Benzo(a)pyrene #16
		2	5.00000e-1	15.20856	3.28762e-2			
		3	1.00000	31.26832	3.19813e-2			
		4	2.00000	67.33721	2.97013e-2			
		5	5.00000	170.42978	2.93376e-2			
		6	10.00000	361.30676	2.76773e-2			
28.676	1	1	1.00000e-1	16.72118	5.98044e-3			Benzo(a)pyrene #16
		2	5.00000e-1	86.88049	5.75503e-3			
		3	1.00000	175.19550	5.70791e-3			
		4	2.00000	364.55637	5.48612e-3			
		5	5.00000	924.72375	5.40702e-3			
		6	10.00000	1929.00012	5.18403e-3			
30.509	2	1	1.00000e-1	6.44712e-1	1.55108e-1			Dibenz(a,h)anthracene
		2	5.00000e-1	5.01077	9.97851e-2			

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		3	1.00000	13.35335	7.48876e-2			
		4	2.00000	21.45176	9.32324e-2			
		5	5.00000	51.97754	9.61954e-2			
		6	10.00000	108.58928	9.20901e-2			
30.526	1	1	1.00000e-1	2.05262	4.87183e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	11.18928	4.46856e-2			
		3	1.00000	20.45066	4.88982e-2			
		4	2.00000	45.38562	4.40668e-2			
		5	5.00000	118.41199	4.22255e-2			
		6	10.00000	249.58025	4.00673e-2			
31.312	2	1	1.00000e-1	2.00007	4.99982e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	8.76552	5.70417e-2			
		3	1.00000	17.44936	5.73087e-2			
		4	2.00000	32.76551	6.10398e-2			
		5	5.00000	84.71449	5.90218e-2			
		6	10.00000	182.81955	5.46987e-2			
31.334	1	1	1.00000e-1	3.47096	2.88105e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	15.50431	3.22491e-2			
		3	1.00000	30.57295	3.27087e-2			
		4	2.00000	61.80997	3.23572e-2			
		5	5.00000	158.65286	3.15153e-2			
		6	10.00000	335.46561	2.98093e-2			
32.264	2	1	1.00000e-1	3.57299	2.79878e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	22.66177	2.20636e-2			
		3	1.00000	44.40019	2.25224e-2			
		4	2.00000	98.87786	2.02270e-2			
		5	5.00000	239.21368	2.09018e-2			
		6	10.00000	499.46121	2.00216e-2			
32.273	1	1	1.00000e-1	6.30039	1.58720e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	34.34013	1.45602e-2			
		3	1.00000	77.95903	1.28273e-2			
		4	2.00000	142.06572	1.40780e-2			
		5	5.00000	352.51187	1.41839e-2			
		6	10.00000	734.23254	1.36197e-2			

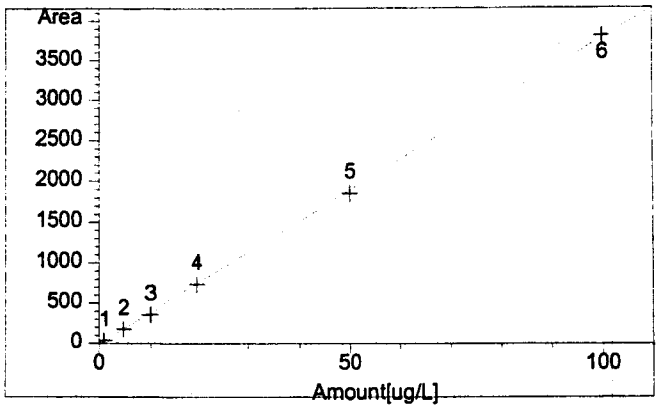
Peak Sum Table

No Entries in table

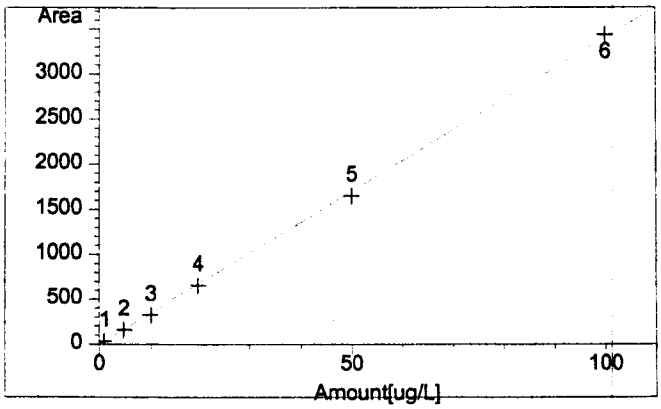
Calibration Curves



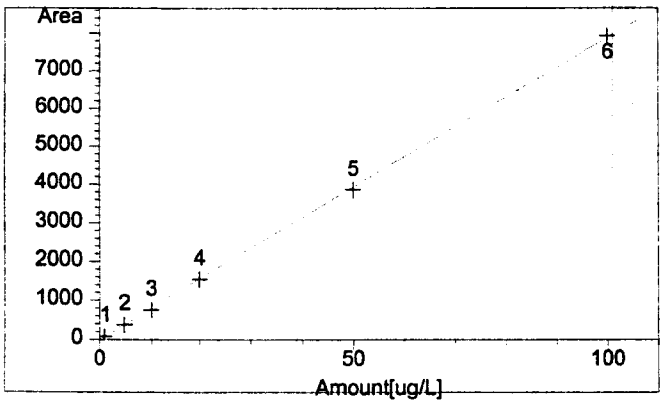
Naphthalene #1 at exp. RT: 9.427
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 47.80615
Formula: y = mx
m: 123.21818
x: Amount [ug/L]
y: Area



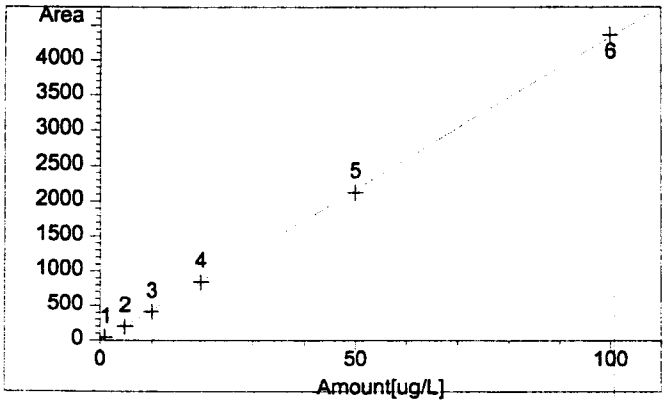
Naphthalene #1 at exp. RT: 9.445
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 26.08217
Formula: y = mx
m: 37.83456
x: Amount [ug/L]
y: Area



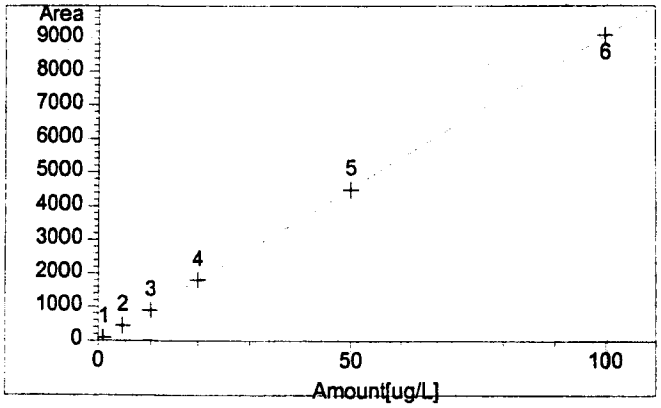
Acenaphthylene #2 at exp. RT: 11.059
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99985
Residual Std. Dev.: 30.12049
Formula: y = mx
m: 34.01322
x: Amount [ug/L]
y: Area



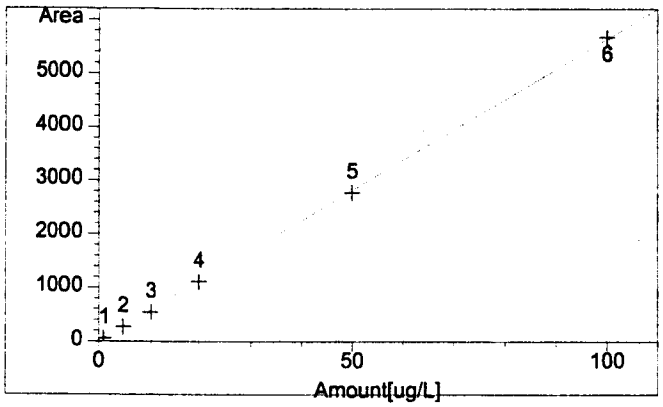
1-Methylnaphthalene #3 at exp. RT: 12.007
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 48.47901
Formula: y = mx
m: 78.76687
x: Amount [ug/L]
y: Area



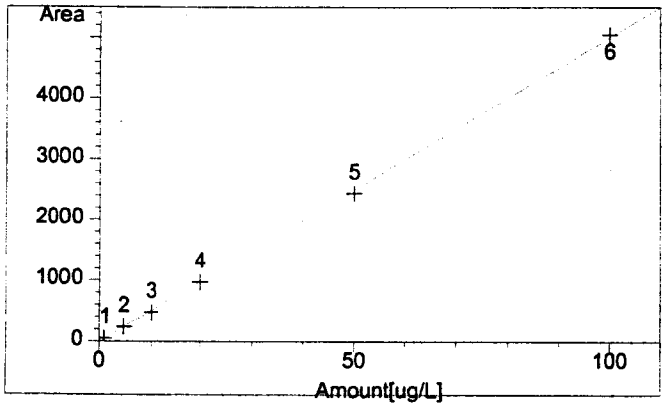
1-Methylnaphthalene #3 at exp. RT: 12.025
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 26.33210
Formula: y = mx
m: 43.32276
x: Amount [ug/L]
y: Area



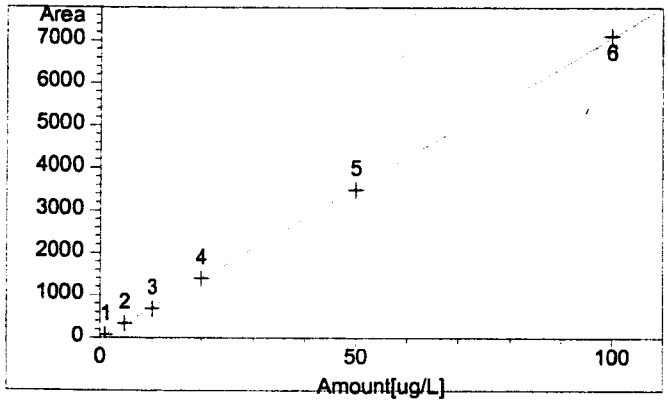
2-Methylnaphthalene #4 at exp. RT: 12.583
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 26.29692
Formula: y = mx
m: 90.56511
x: Amount[ug/L]
y: Area



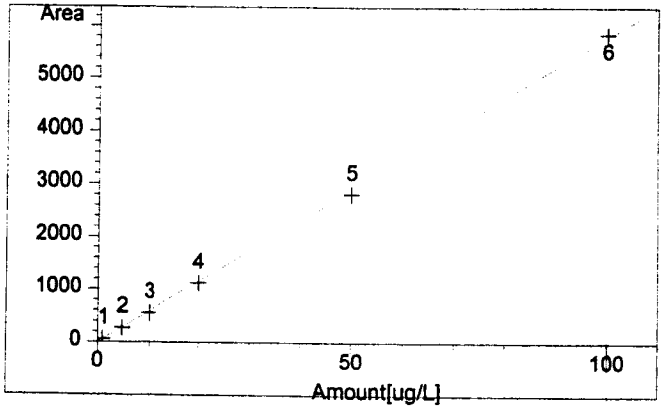
2-Methylnaphthalene #4 at exp. RT: 12.602
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 29.05354
Formula: y = mx
m: 56.45399
x: Amount[ug/L]
y: Area



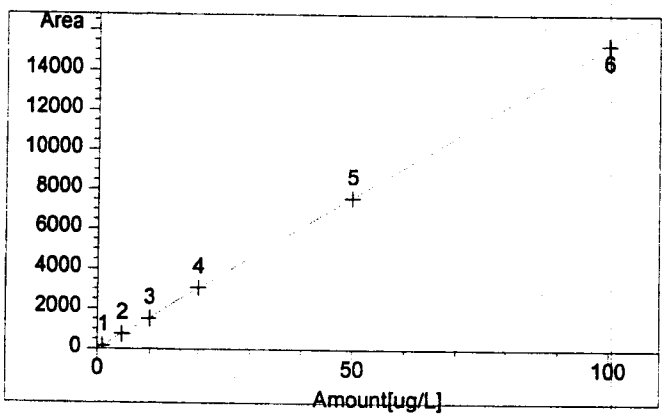
Acenaphthene #5 at exp. RT: 13.062
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99988
Residual Std. Dev.: 38.92105
Formula: y = mx
m: 50.01178
x: Amount[ug/L]
y: Area



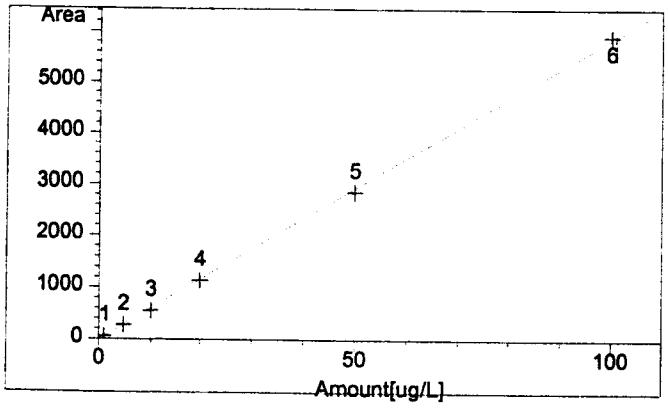
Acenaphthene #5 at exp. RT: 13.080
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99996
Residual Std. Dev.: 30.34274
Formula: y = mx
m: 70.76808
x: Amount[ug/L]
y: Area



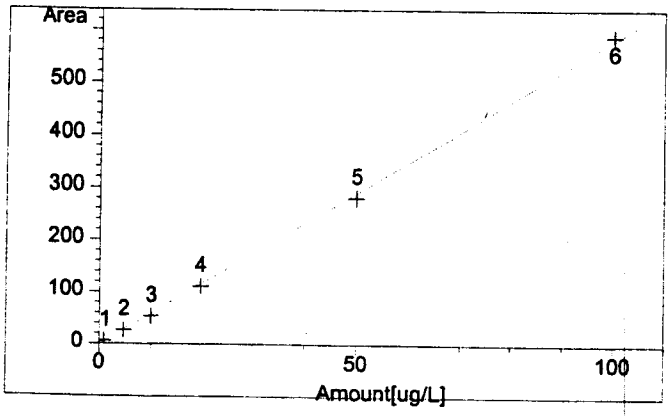
Fluorene #6 at exp. RT: 13.719
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99986
Residual Std. Dev.: 48.89890
Formula: y = mx
m: 57.93606
x: Amount [ug/L]
y: Area



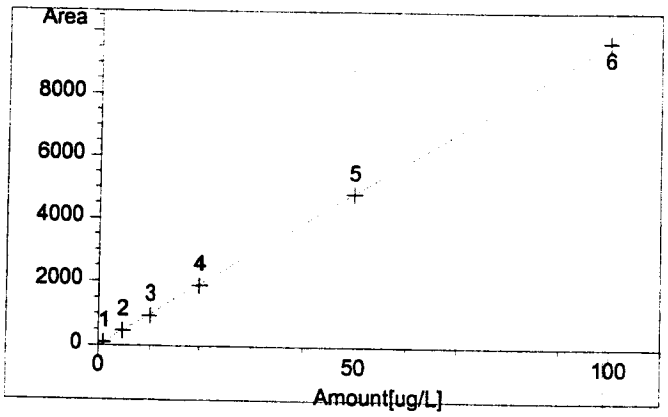
Fluorene #6 at exp. RT: 13.738
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 28.20492
Formula: y = mx
m: 152.48579
x: Amount [ug/L]
y: Area



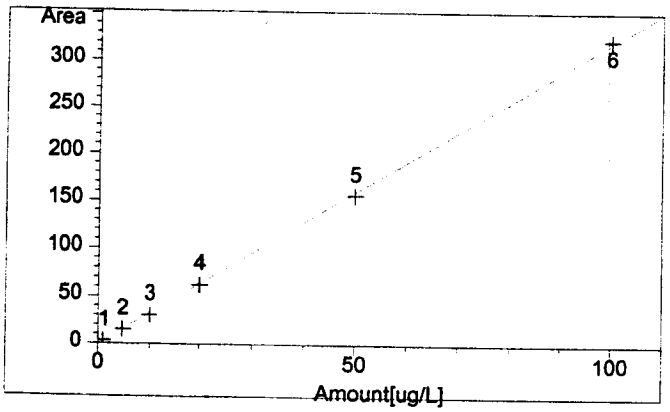
Phenanthrene #7 at exp. RT: 15.107
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99988
Residual Std. Dev.: 45.98374
Formula: y = mx
m: 58.56486
x: Amount [ug/L]
y: Area



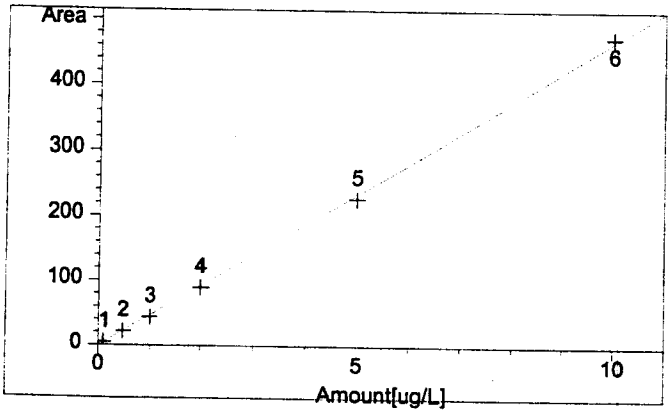
Phenanthrene #7 at exp. RT: 15.126
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99978
Residual Std. Dev.: 6.21393
Formula: y = mx
m: 5.81012
x: Amount [ug/L]
y: Area



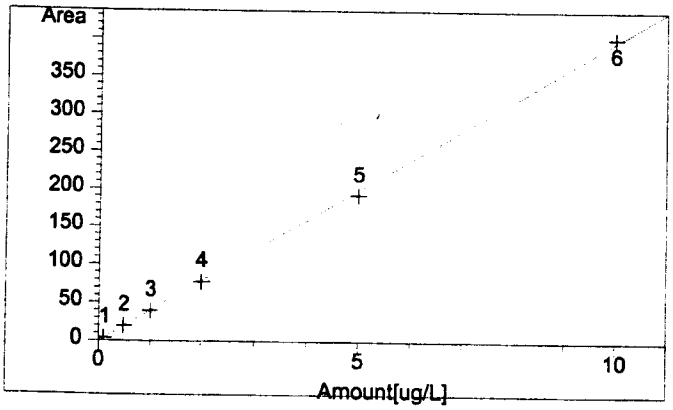
Anthracene #8 at exp. RT: 16.513
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 37.00703
Formula: y = mx
m: 96.79066
x: Amount[ug/L]
y: Area



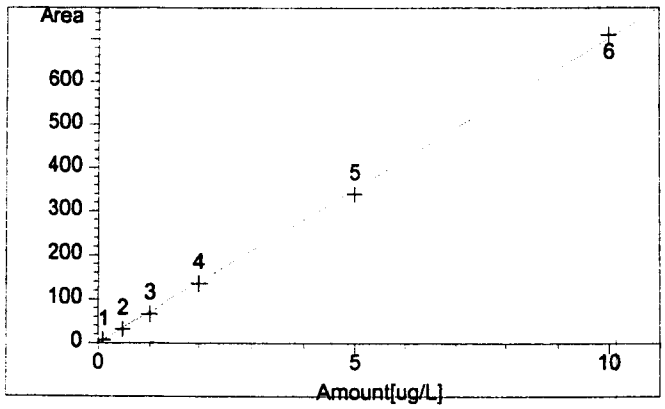
Anthracene #8 at exp. RT: 16.532
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 2.36476
Formula: y = mx
m: 3.20756
x: Amount[ug/L]
y: Area



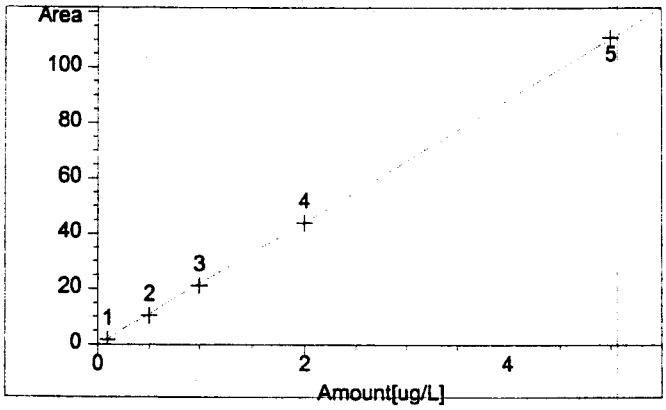
Fluoranthene #9 at exp. RT: 17.887
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99983
Residual Std. Dev.: 4.46228
Formula: y = mx
m: 46.74227
x: Amount[ug/L]
y: Area



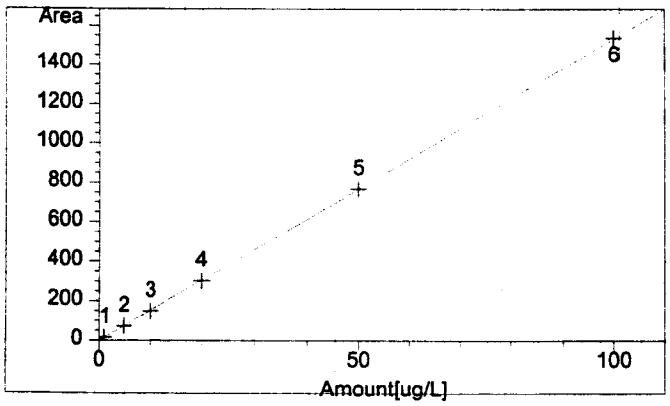
Fluoranthene #9 at exp. RT: 17.907
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99984
Residual Std. Dev.: 3.58907
Formula: y = mx
m: 39.70096
x: Amount[ug/L]
y: Area



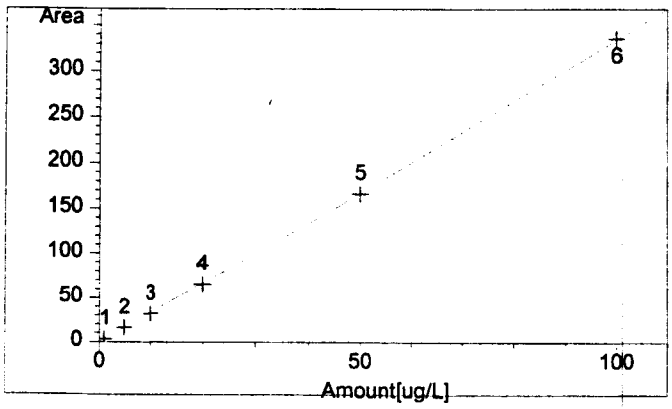
Pyrene #10 at exp. RT: 18.891
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 6.85701
Formula: y = mx
m: 70.25134
x: Amount [ug/L]
y: Area



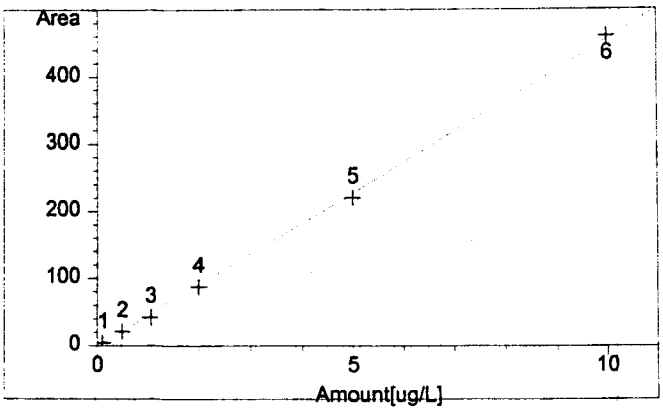
Pyrene #10 at exp. RT: 18.912
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99994
Residual Std. Dev.: 0.64524
Formula: y = mx
m: 22.11873
x: Amount [ug/L]
y: Area



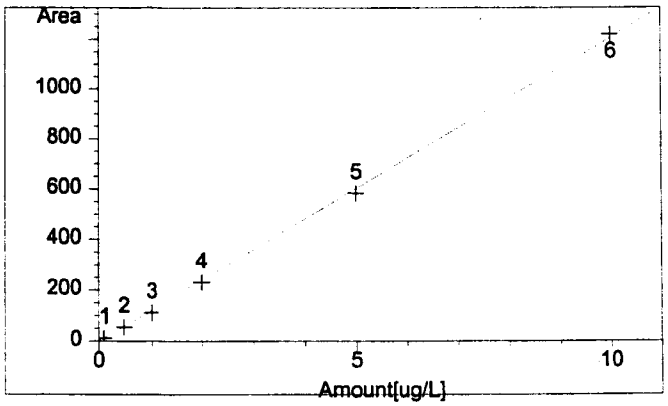
p-Terphenyl d14 #11* at exp. RT: 21.231
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 4.40544
Formula: y = mx
m: 15.34764
x: Amount [ug/L]
y: Area



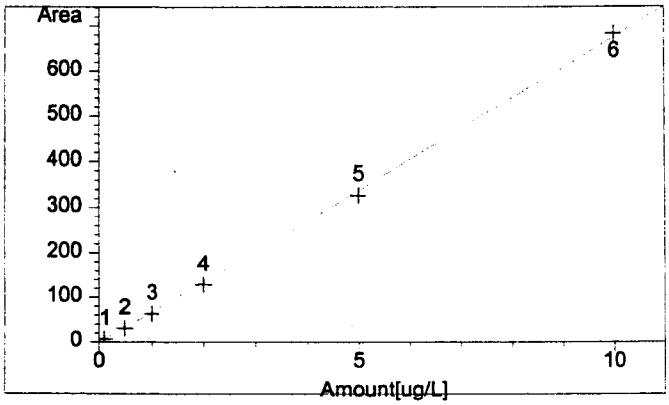
p-Terphenyl d14 #11* at exp. RT: 21.248
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 1.28536
Formula: y = mx
m: 3.34603
x: Amount [ug/L]
y: Area



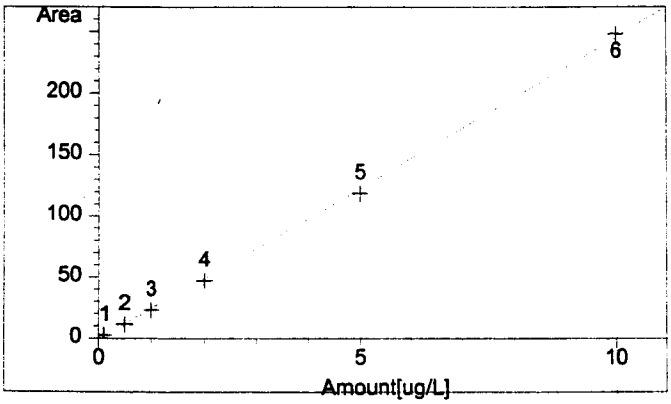
Benzo(a)anthracene #12 at exp. RT: 22.544
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99981
Residual Std. Dev.: 4.58073
Formula: y = mx
m: 45.54614
x: Amount[ug/L]
y: Area



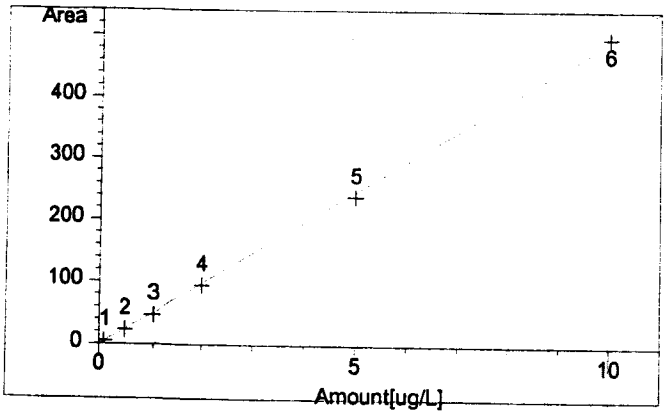
Benzo(a)anthracene #12 at exp. RT: 22.562
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99982
Residual Std. Dev.: 11.81358
Formula: y = mx
m: 120.50502
x: Amount[ug/L]
y: Area



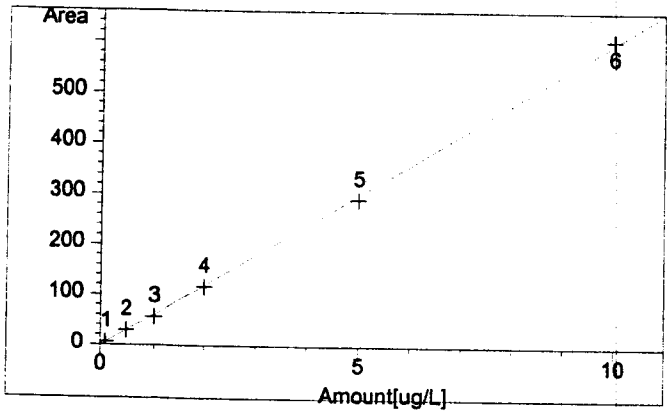
Chrysene #13 at exp. RT: 23.412
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99979
Residual Std. Dev.: 6.98685
Formula: y = mx
m: 67.52498
x: Amount[ug/L]
y: Area



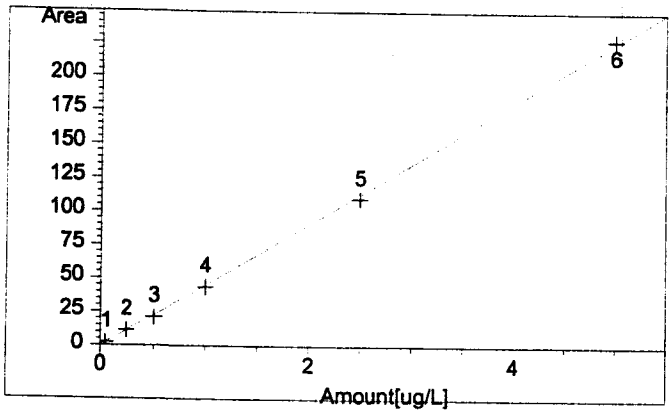
Chrysene #13 at exp. RT: 23.431
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99982
Residual Std. Dev.: 2.40411
Formula: y = mx
m: 24.53100
x: Amount[ug/L]
y: Area



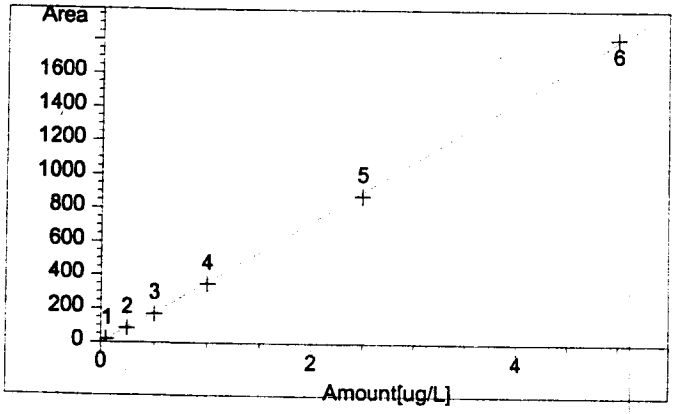
Benzo(b)fluoranthene #14 at exp. RT: 26.1
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 4.71295
Formula: y = mx
m: 49.16002
x: Amount[ug/L]
y: Area



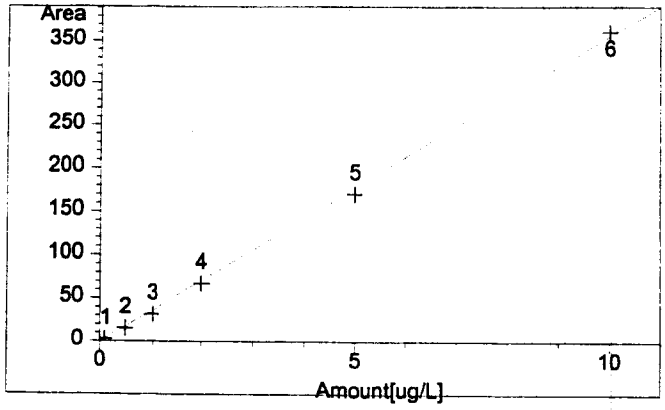
Benzo(b)fluoranthene #14 at exp. RT: 26.1
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99984
Residual Std. Dev.: 5.42310
Formula: y = mx
m: 60.05231
x: Amount[ug/L]
y: Area



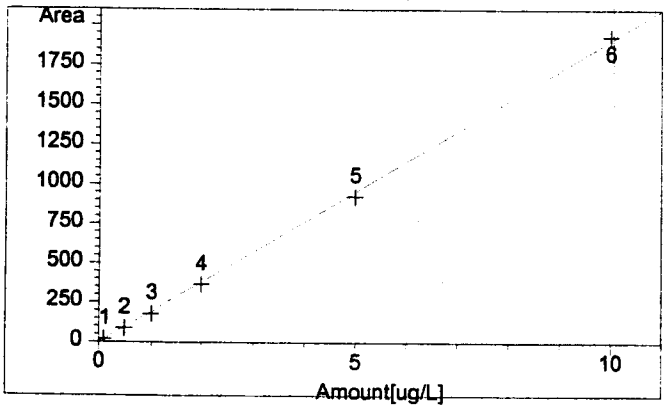
Benzo(k)fluoranthene #15 at exp. RT: 27.5
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99984
Residual Std. Dev.: 2.04948
Formula: y = mx
m: 45.14609
x: Amount[ug/L]
y: Area



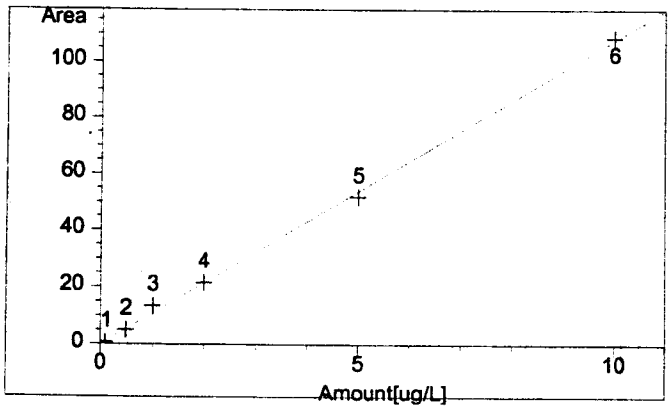
Benzo(k)fluoranthene #15 at exp. RT: 27.5
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99989
Residual Std. Dev.: 13.90903
Formula: y = mx
m: 360.08348
x: Amount[ug/L]
y: Area



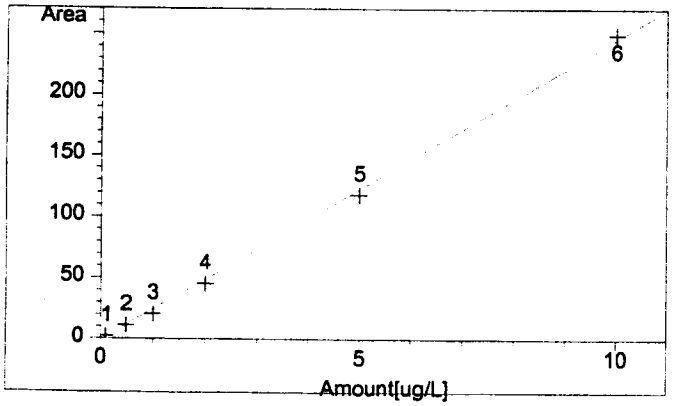
Benzo(a)pyrene #16 at exp. RT: 28.658
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99962
Residual Std. Dev.: 5.03525
Formula: y = mx
m: 35.61357
x: Amount [ug/L]
y: Area



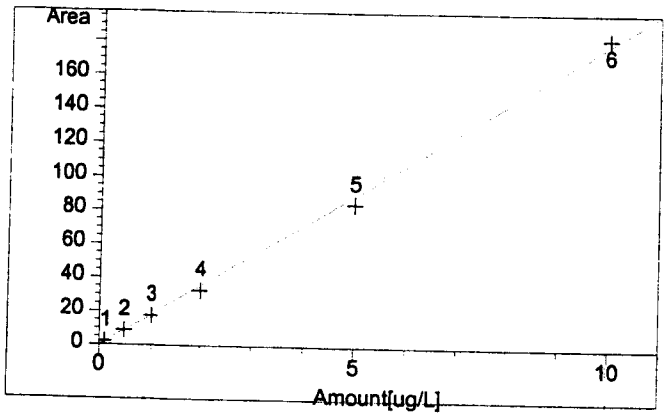
Benzo(a)pyrene #16 at exp. RT: 28.676
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99980
Residual Std. Dev.: 19.54253
Formula: y = mx
m: 190.87241
x: Amount [ug/L]
y: Area



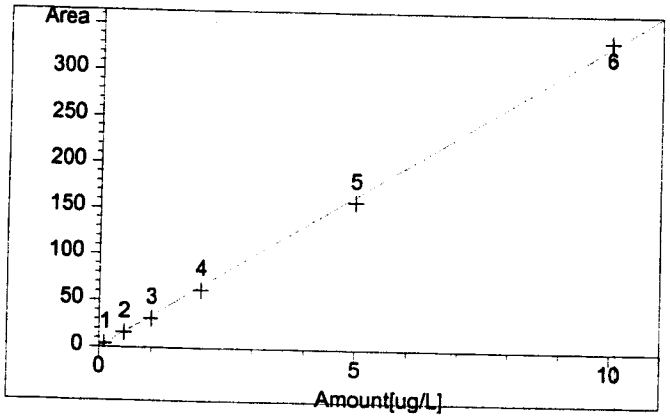
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99963
Residual Std. Dev.: 1.50220
Formula: y = mx
m: 10.78310
x: Amount [ug/L]
y: Area



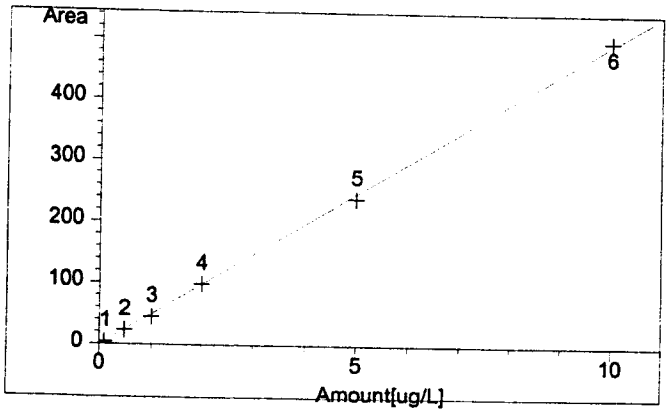
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99958
Residual Std. Dev.: 3.66148
Formula: y = mx
m: 24.60375
x: Amount [ug/L]
y: Area



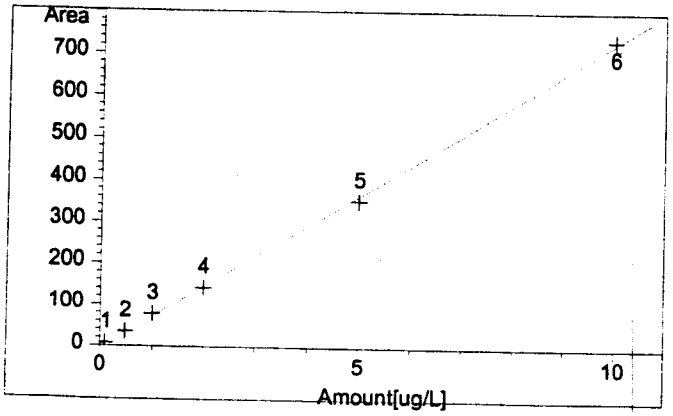
Benzo(g,h,i)perylene #18 at exp. RT: 31.3
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99945
Residual Std. Dev.: 3.05047
Formula: y = mx
m: 17.95894
x: Amount [ug/L]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.3
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99967
Residual Std. Dev.: 4.32638
Formula: y = mx
m: 33.08930
x: Amount [ug/L]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99981
Residual Std. Dev.: 4.91446
Formula: y = mx
m: 49.47432
x: Amount [ug/L]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99984
Residual Std. Dev.: 6.55904
Formula: y = mx
m: 72.81418
x: Amount [ug/L]
y: Area

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1,1 SOS56-19 level 6 surrogate 100 ppm

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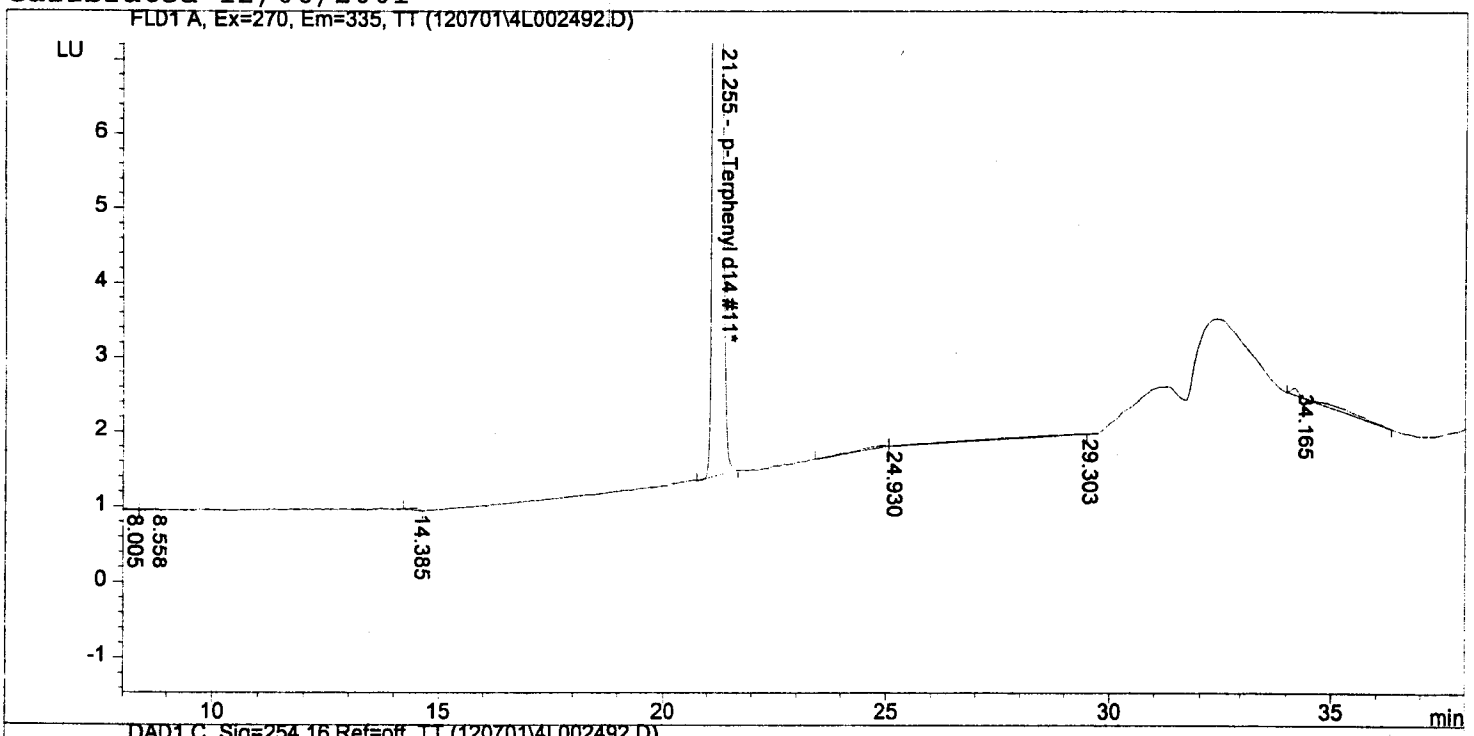
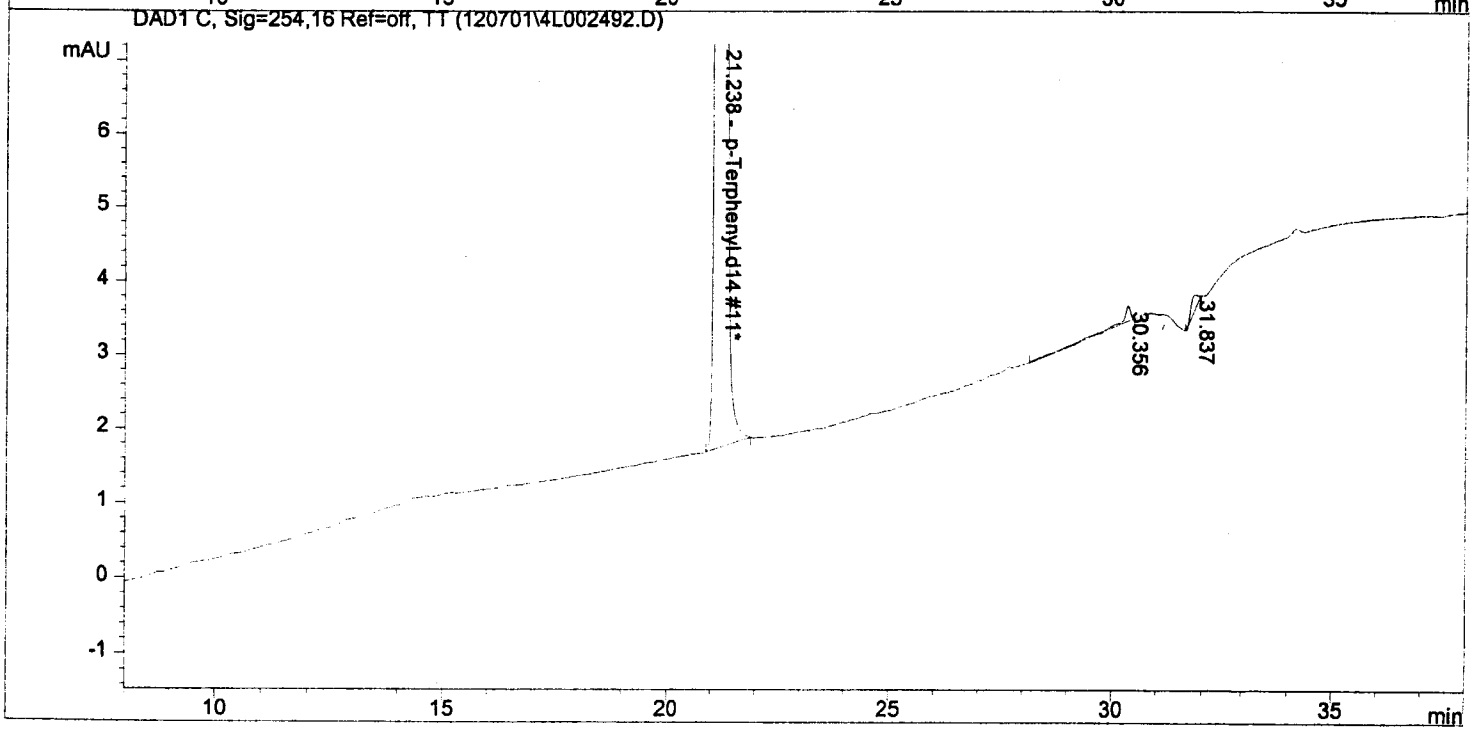
Injection Date	: 12/7/2001 5:41:55 PM	Seq. Line :	2
Sample Name	: WG109608-01	Vial :	2
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:20:37 AM by RDC
(modified after loading)
Calibrated 12/06/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:20:32 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.405		-	-	-		Naphthalene #1
11.969		-	-	-		1-Methylnaphthalene #3
12.543		-	-	-		2-Methylnaphthalene #4
13.017		-	-	-		Acenaphthene #5
13.667		-	-	-		Fluorene #6
15.061		-	-	-		Phenanthrene #7
16.484		-	-	-		Anthracene #8
17.873		-	-	-		Fluoranthene #9
18.888		-	-	-		Pyrene #10
21.255	BBA	335.64120	2.98888e-1	100.31928		p-Terphenyl d14 #11*
22.588		-	-	-		Benzo(a)anthracene #12
23.470		-	-	-		Chrysene #13
26.210		-	-	-		Benzo(b)fluoranthene #14
27.650		-	-	-		Benzo(k)fluoranthene #15
28.750		-	-	-		Benzo(a)pyrene #16
30.626		-	-	-		Dibenz(a,h)anthracene #17
31.428		-	-	-		Benzo(g,h,i)perylene #18
32.370		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				100.31928		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.385		-	-	-		Naphthalene #1
11.006		-	-	-		Acenaphthylene #2
11.949		-	-	-		1-Methylnaphthalene #3
12.523		-	-	-		2-Methylnaphthalene #4
12.997		-	-	-		Acenaphthene #5
13.647		-	-	-		Fluorene #6
15.041		-	-	-		Phenanthrene #7
16.463		-	-	-		Anthracene #8
17.853		-	-	-		Fluoranthene #9
18.867		-	-	-		Pyrene #10
21.238	PBA	1536.55896	6.52368e-2	100.24013		p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.449		-	-	-		Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.638		-	-	-		Benzo(k)fluoranthene #15
28.730		-	-	-		Benzo(a)pyrene #16
30.614		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.395		-	-	-		Benzo(g,h,i)perylene #18
32.361		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 100.24013

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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*** End of Report ***

1,1 SOS56-20 level 6 std. 100/10/5 ppm

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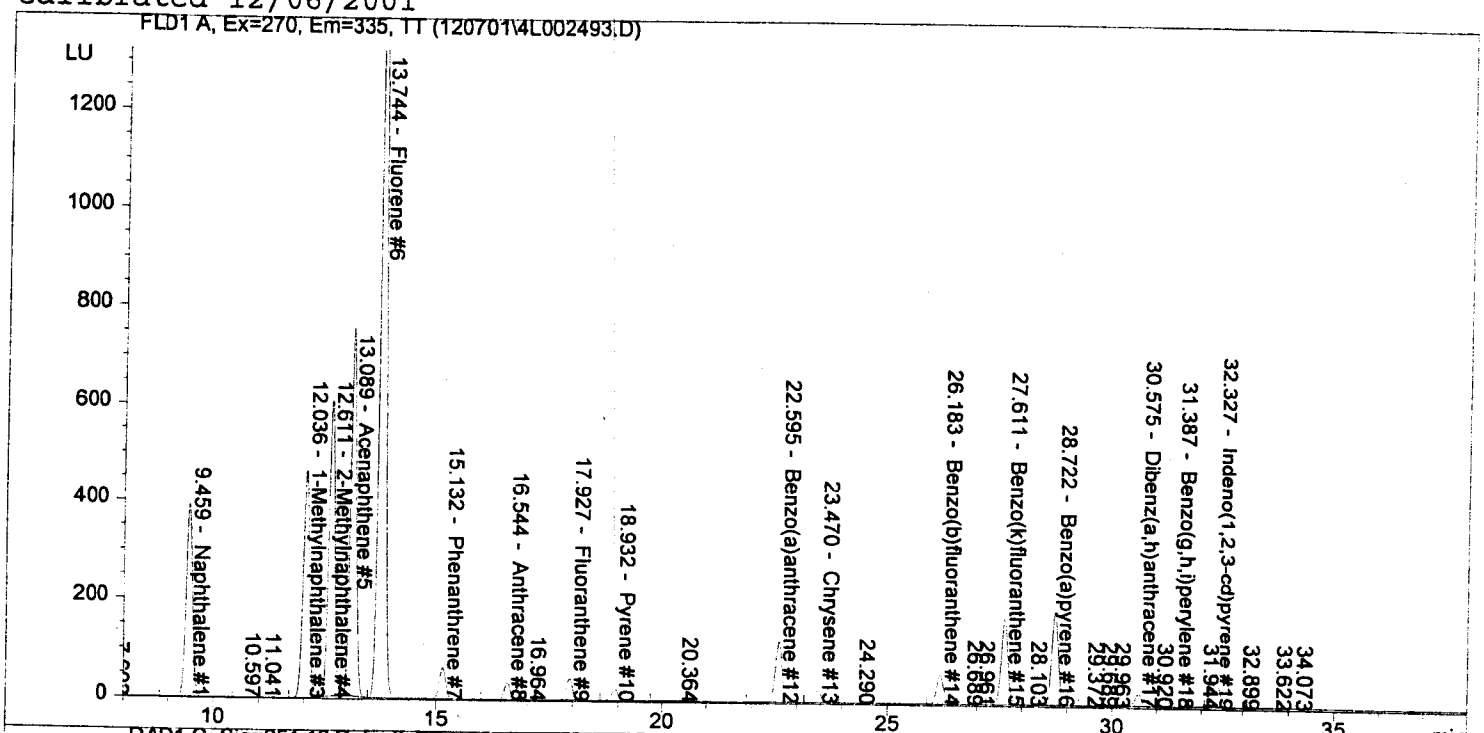
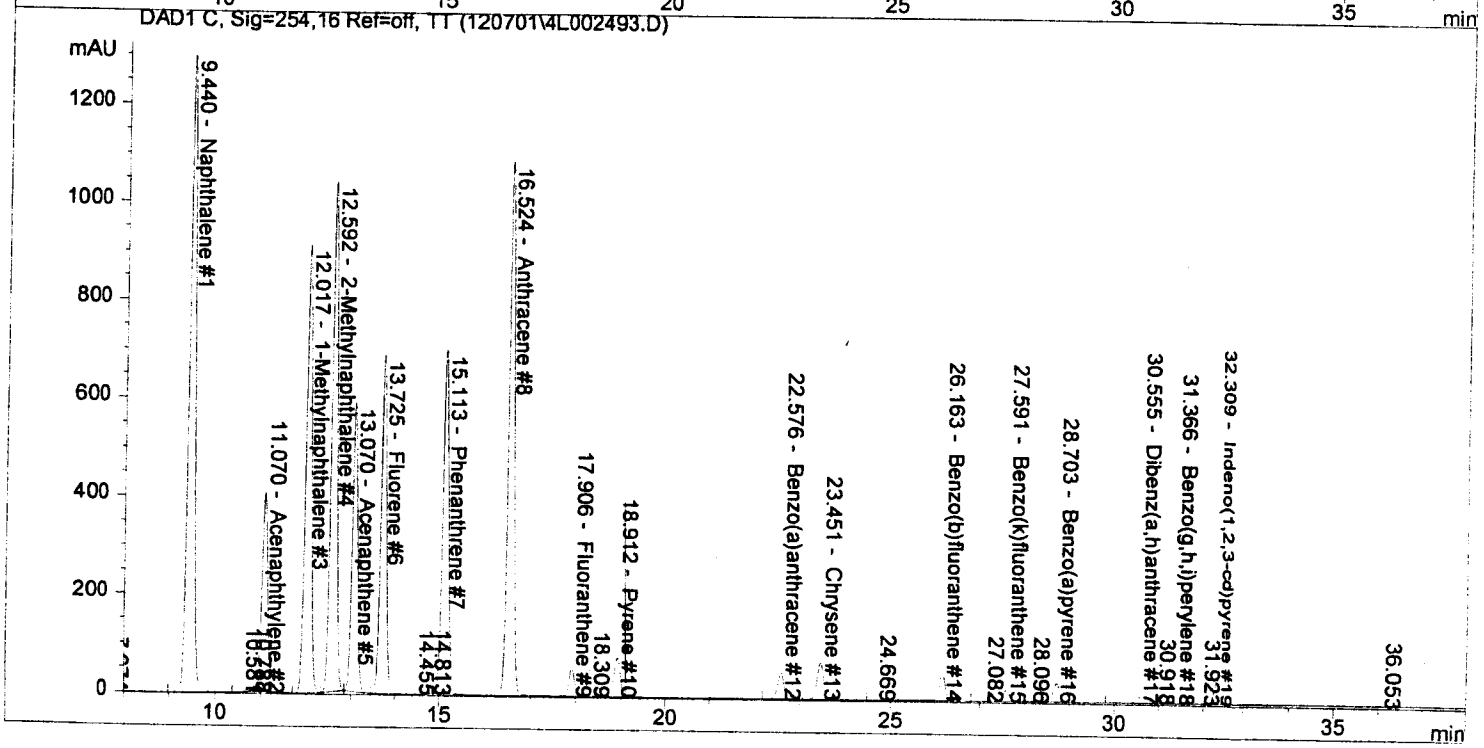
Injection Date	: 12/7/2001 6:38:30 PM	Seq. Line	: 3
Sample Name	: WG109608-02	Vial	: 3
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl
Acq. Method	: C:\HPCHEM\2\METHODS\8310.M		
Last changed	: 11/26/2001 11:42:54 AM by RDC		
Analysis Method	: C:\HPCHEM\2\METHODS\8310DATA.M		
Last changed	: 12/10/2001 11:21:54 AM by RDC (modified after loading)		

Calibrated 12/06/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:21:49 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.459	BB	3810.46631	2.61883e-2	99.78966		Naphthalene #1
12.036	BB	4359.37695	2.28975e-2	99.81872		1-Methylnaphthalene #3
12.611	BB	5675.13281	1.75970e-2	99.86544		2-Methylnaphthalene #4
13.089	BB	7107.66846	1.40652e-2	99.97090		Acenaphthene #5
13.744	BB	1.52725e4	6.55338e-3	100.08626		Fluorene #6
15.132	BBA	587.46509	1.70551e-1	100.19252		Phenanthrene #7
16.544	PB	323.20529	3.12373e-1	100.96056		Anthracene #8
17.927	BB	400.85757	2.50705e-2	10.04971		Fluoranthene #9
18.932	BBA	231.07681	4.18876e-2	9.67925		Pyrene #10
21.255		-	-	-		p-Terphenyl d14 #11*
22.595	BB	1217.39807	8.23976e-3	10.03107		Benzo(a)anthracene #12
23.470	BB	247.84904	4.04059e-2	10.01457		Chrysene #13
26.183	BB	606.26263	1.65830e-2	10.05366		Benzo(b)fluoranthene #14
27.611	BB	1814.99976	2.76980e-3	5.02719		Benzo(k)fluoranthene #15
28.722	BB	1929.00012	5.16562e-3	9.96448		Benzo(a)pyrene #16
30.575	BB	249.58025	4.03089e-2	10.06031		Dibenz(a,h)anthracene #17
31.387	BB	335.46561	2.97620e-2	9.98414		Benzo(g,h,i)perylene #18
32.327	BB	734.23254	1.37394e-2	10.08790		Indeno(1,2,3-cd)pyrene #1
Totals :				795.63632		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.440	BB	1.22730e4	8.11884e-3	99.64265		Naphthalene #1
11.070	BB	3433.28174	2.94291e-2	101.03836		Acenaphthylene #2
12.017	BB	7927.48535	1.27078e-2	100.74070		1-Methylnaphthalene #3
12.592	BB	9082.16113	1.10597e-2	100.44627		2-Methylnaphthalene #4
13.070	BB	5042.28223	2.00372e-2	101.03302		Acenaphthene #5
13.725	BB	5845.24707	1.72916e-2	101.07375		Fluorene #6
15.113	BBA	5905.01465	1.70965e-2	100.95524		Phenanthrene #7
16.524	BBA	9708.27441	1.03699e-2	100.67377		Anthracene #8
17.906	PB	472.12201	2.14272e-2	10.11627		Fluoranthene #9
18.912	BBA	709.65320	1.42906e-2	10.14134		Pyrene #10
21.238		-	-	-		p-Terphenyl d14 #11*
22.576	BBA	460.26733	2.20058e-2	10.12854		Benzo(a)anthracene #12
23.451	BBA	682.58563	1.48428e-2	10.13151		Chrysene #13
26.163	PBA	496.62497	2.03814e-2	10.12191		Benzo(b)fluoranthene #14
27.591	BB	227.90102	2.21933e-2	5.05787		Benzo(k)fluoranthene #15
28.703	BB	361.30676	2.80051e-2	10.11844		Benzo(a)pyrene #16
30.555	BB	108.58928	9.37682e-2	10.18223		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.366	BB	182.81955	5.59741e-2	10.23315		Benzo(g,h,i)perylene #18
32.309	BBA	499.46121	2.02543e-2	10.11624		Indeno(1,2,3-cd)pyrene #1

Totals : 901.95127

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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*** End of Report ***

1,1 SOS56-19/56-20 level 5 std. 50/5/2.5 ppm

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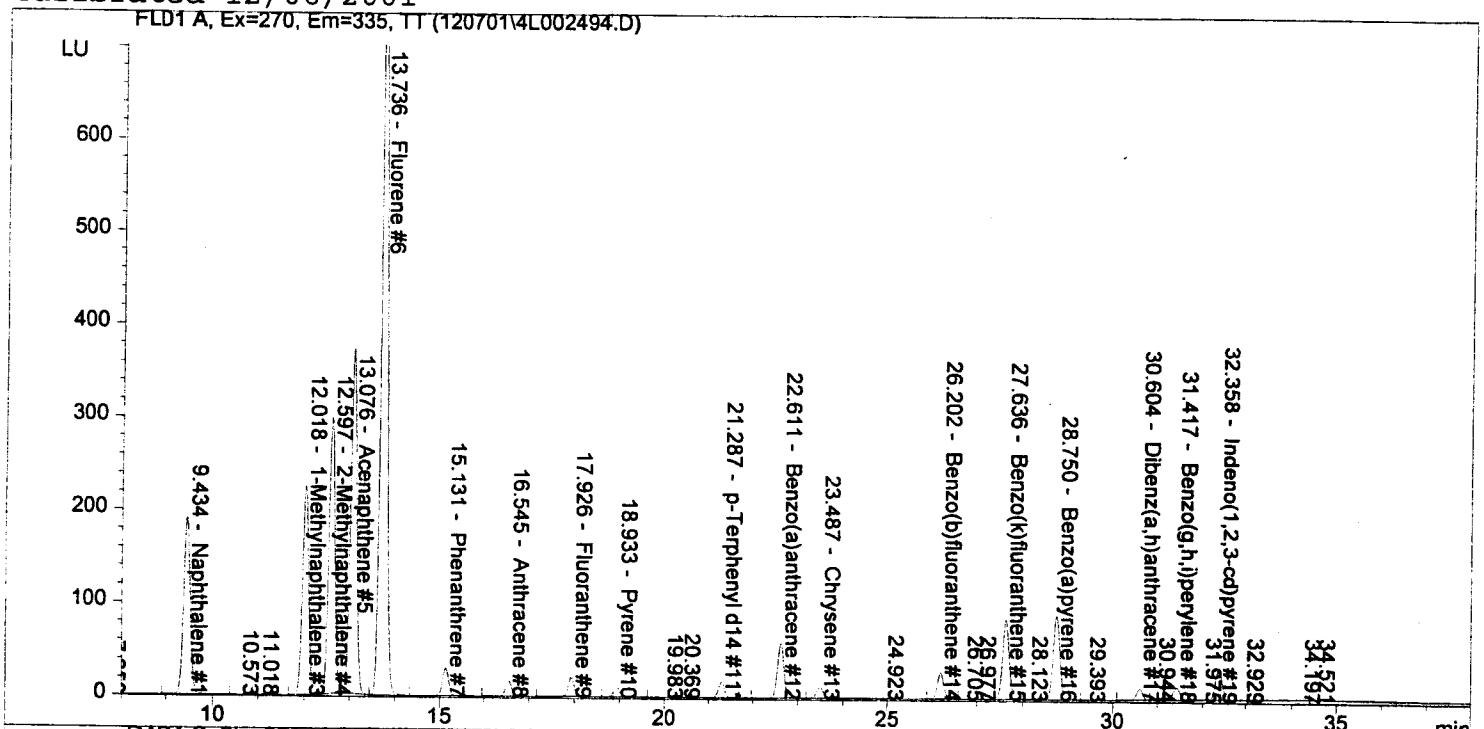
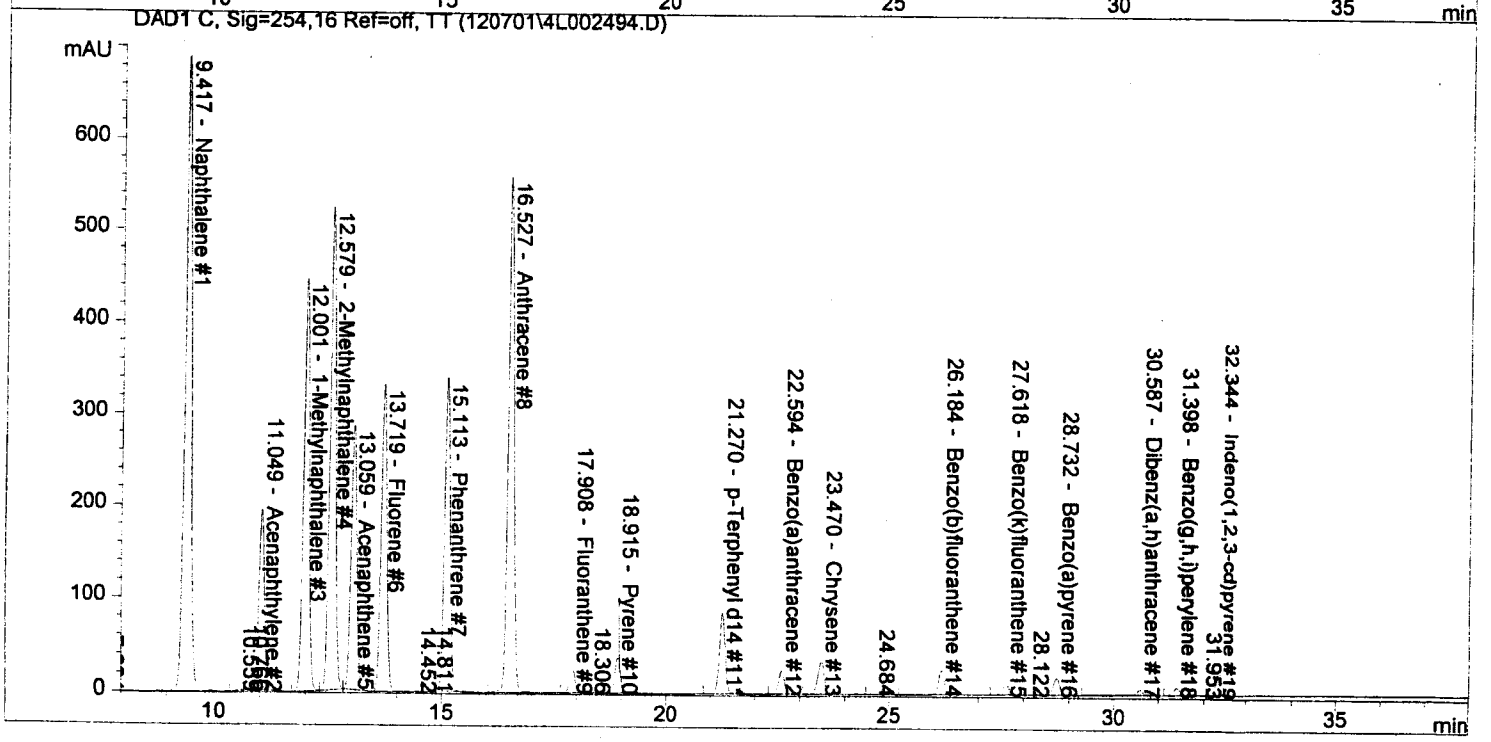
Injection Date	: 12/7/2001 7:35:10 PM	Seq. Line :	4
Sample Name	: WG109608-03	Vial :	4
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl
Acq. Method	: C:\HPCHEM\2\METHODS\8310.M		
Last changed	: 11/26/2001 11:42:54 AM by RDC		
Analysis Method	: C:\HPCHEM\2\METHODS\8310DATA.M		
Last changed	: 12/10/2001 11:22:49 AM by RDC (modified after loading)		

Calibrated 12/06/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:22:45 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.434	PB	1851.06140	2.63924e-2	48.85390		Naphthalene #1
12.018	BB	2126.27832	2.30523e-2	49.01558		1-Methylnaphthalene #3
12.597	BB	2777.27686	1.76945e-2	49.14256		2-Methylnaphthalene #4
13.076	BB	3490.80957	1.41193e-2	49.28790		Acenaphthene #5
13.736	BB	7578.60205	6.55670e-3	49.69061		Fluorene #6
15.131	BBA	281.05099	1.71845e-1	48.29711		Phenanthrene #7
16.545	PB	156.76224	3.11830e-1	48.88313		Anthracene #8
17.926	BB	191.95184	2.51930e-2	4.83585		Fluoranthene #9
18.933	BB	110.94641	4.46431e-2	4.95299		Pyrene #10
21.287	BB	166.28719	2.98838e-1	49.69290		p-Terphenyl d14 #11*
22.611	BB	583.97321	8.28880e-3	4.84044		Benzo(a)anthracene #12
23.487	BB	118.82884	4.07063e-2	4.83708		Chrysene #13
26.202	BB	291.22507	1.66409e-2	4.84625		Benzo(b)fluoranthene #14
27.636	BB	877.84839	2.77609e-3	2.43698		Benzo(k)fluoranthene #15
28.750	BB	924.72375	5.22706e-3	4.83358		Benzo(a)pyrene #16
30.604	BB	118.41199	4.06335e-2	4.81150		Dibenz(a,h)anthracene #17
31.417	BB	158.65286	3.01562e-2	4.78437		Benzo(g,h,i)perylene #18
32.358	BB	352.51187	1.37503e-2	4.84716		Indeno(1,2,3-cd)pyrene #1

Totals : 438.88988

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.417	PB	6239.97021	8.11649e-3	50.64668		Naphthalene #1
11.049	BBA	1651.06335	2.94032e-2	48.54652		Acenaphthylene #2
12.001	PB	3860.07959	1.26972e-2	49.01231		1-Methylnaphthalene #3
12.579	BB	4488.76758	1.10441e-2	49.57431		2-Methylnaphthalene #4
13.059	BB	2437.01563	2.00011e-2	48.74299		Acenaphthene #5
13.719	BB	2817.43921	1.72644e-2	48.64143		Fluorene #6
15.113	BBA	2853.04907	1.70775e-2	48.72307		Phenanthrene #7
16.527	PBA	4812.97998	1.03370e-2	49.75188		Anthracene #8
17.908	PB	226.59413	2.13955e-2	4.84809		Fluoranthene #9
18.915	BBA	340.46393	1.42440e-2	4.84958		Pyrene #10
21.270	PBA	767.66412	6.51631e-2	50.02338		p-Terphenyl d14 #11*
22.594	PBA	220.45860	2.19648e-2	4.84232		Benzo(a)anthracene #12
23.470	BBA	326.67627	1.48134e-2	4.83917		Chrysene #13
26.184	PBA	237.99123	2.03490e-2	4.84288		Benzo(b)fluoranthene #14
27.618	BB	109.46035	2.21581e-2	2.42543		Benzo(k)fluoranthene #15
28.732	BBA	170.42978	2.80552e-2	4.78145		Benzo(a)pyrene #16
30.587	PB	51.97754	9.31421e-2	4.84130		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.398	BB	84.71449	5.57356e-2	4.72161		Benzo(g,h,i)perylene #18
32.344	BBA	239.21368	2.02256e-2	4.83824		Indeno(1,2,3-cd)pyrene #1

Totals : 489.49265

Results obtained with enhanced integrator!

*** End of Report ***

1,1 SOS56-19/56-20 level 4 std. 20/2/1 ppm

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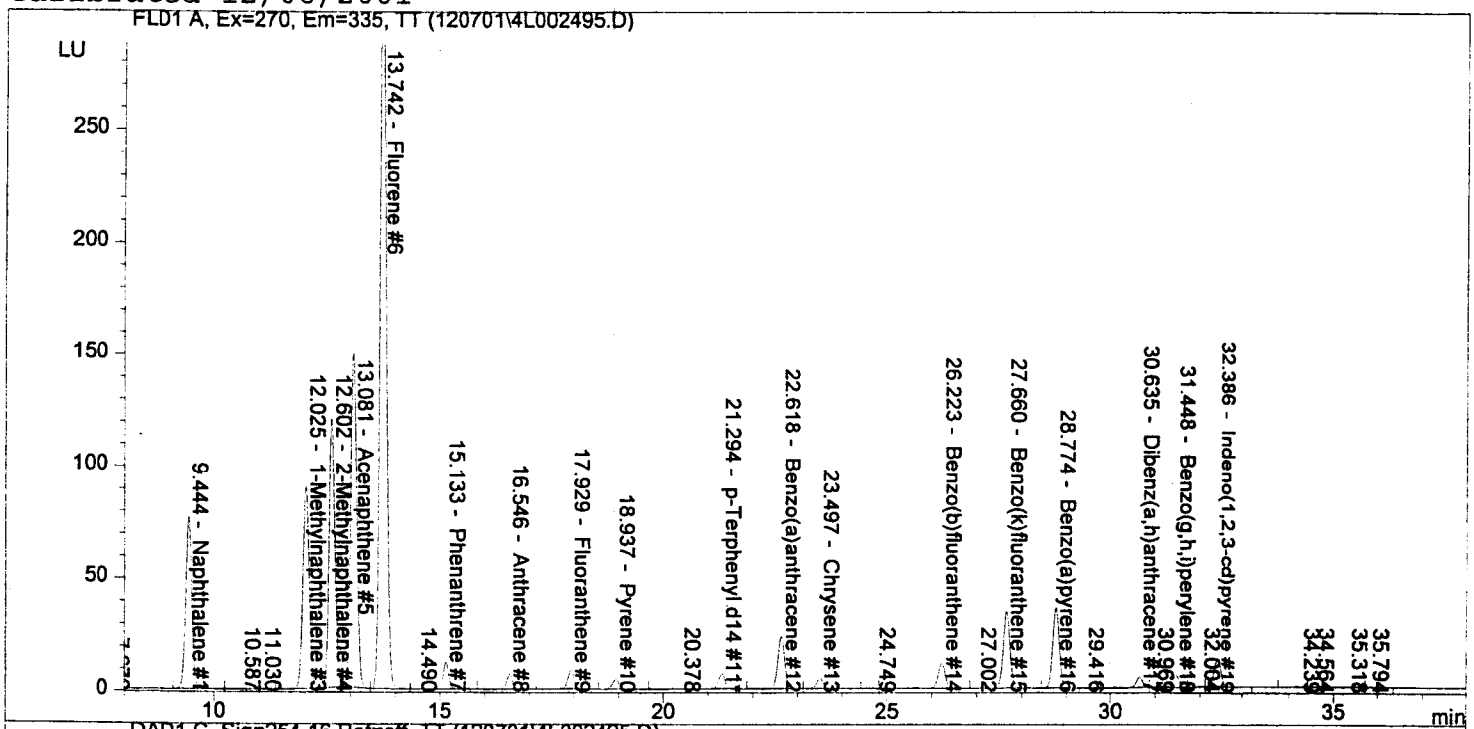
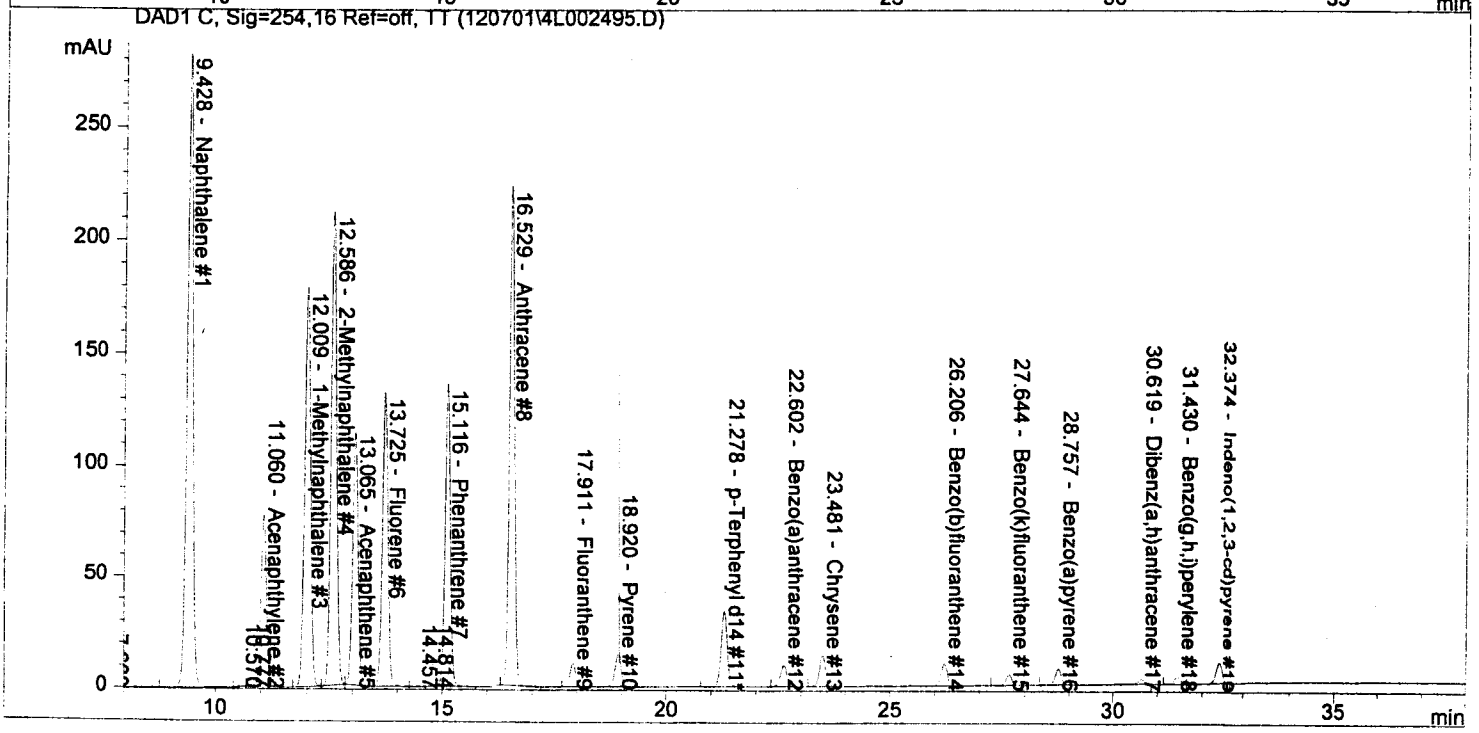
Injection Date	: 12/7/2001 8:31:48 PM	Seq. Line :	5
Sample Name	: WG109608-04	Vial :	5
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:23:28 AM by RDC
(modified after loading)

Calibrated 12/06/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:23:23 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.444	BB	737.47040	2.64211e-2	19.48480		Naphthalene #1
12.025	BB	845.22443	2.30752e-2	19.50376		1-Methylnaphthalene #3
12.602	BB	1111.04944	1.77087e-2	19.67520		2-Methylnaphthalene #4
13.081	BB	1398.43469	1.41279e-2	19.75691		Acenaphthene #5
13.742	BB	3062.98730	6.55759e-3	20.08580		Fluorene #6
15.133	BBA	110.76902	1.72061e-1	19.05906		Phenanthrene #7
16.546	PB	62.19715	3.11782e-1	19.39194		Anthracene #8
17.929	BB	77.06699	2.51999e-2	1.94208		Fluoranthene #9
18.937	BBA	43.99789	4.50817e-2	1.98350		Pyrene #10
21.294	BB	65.33878	2.98821e-1	19.52460		p-Terphenyl d14 #11*
22.618	BB	231.59561	8.29596e-3	1.92131		Benzo(a)anthracene #12
23.497	BB	46.97458	4.07482e-2	1.91413		Chrysene #13
26.223	BB	116.34737	1.66463e-2	1.93675		Benzo(b)fluoranthene #14
27.660	BB	349.97339	2.77681e-3	9.71808e-1		Benzo(k)fluoranthene #15
28.774	BB	364.55637	5.23634e-3	1.90894		Benzo(a)pyrene #16
30.635	BB	45.38562	4.06222e-2	1.84367		Dibenz(a,h)anthracene #17
31.448	BB	61.80997	3.02122e-2	1.86741		Benzo(g,h,i)perylene #18
32.386	BBA	142.06572	1.37468e-2	1.95294		Indeno(1,2,3-cd)pyrene #1

Totals : 174.72461

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.428	PBA	2515.62280	8.11579e-3	20.41627		Naphthalene #1
11.060	BBA	657.36005	2.93997e-2	19.32620		Acenaphthylene #2
12.009	PB	1541.22485	1.26959e-2	19.56718		1-Methylnaphthalene #3
12.586	BB	1800.34558	1.10420e-2	19.87950		2-Methylnaphthalene #4
13.065	BB	971.48230	1.99964e-2	19.42615		Acenaphthene #5
13.725	BB	1121.15540	1.72611e-2	19.35233		Fluorene #6
15.116	BBA	1137.95862	1.70751e-2	19.43081		Phenanthrene #7
16.529	BBA	1885.26465	1.03334e-2	19.48113		Anthracene #8
17.911	PB	89.84662	2.13940e-2	1.92218		Fluoranthene #9
18.920	BBA	135.25577	1.42363e-2	1.92554		Pyrene #10
21.278	PBA	301.76755	6.51559e-2	19.66194		p-Terphenyl d14 #11*
22.602	PBA	87.47297	2.19568e-2	1.92063		Benzo(a)anthracene #12
23.481	BBA	128.96687	1.48097e-2	1.90996		Chrysene #13
26.206	BBA	94.51936	2.03449e-2	1.92298		Benzo(b)fluoranthene #14
27.644	BB	43.61720	2.21484e-2	9.66050e-1		Benzo(k)fluoranthene #15
28.757	BB	67.33721	2.80589e-2	1.88941		Benzo(a)pyrene #16
30.619	BB	21.45176	9.29457e-2	1.99385		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.430	BB	32.76551	5.57256e-2	1.82588		Benzo(g,h,i)perylene #18
32.374	BB	98.87786	2.01948e-2	1.99682		Indeno(1,2,3-cd)pyrene #1

Totals : 194.81481

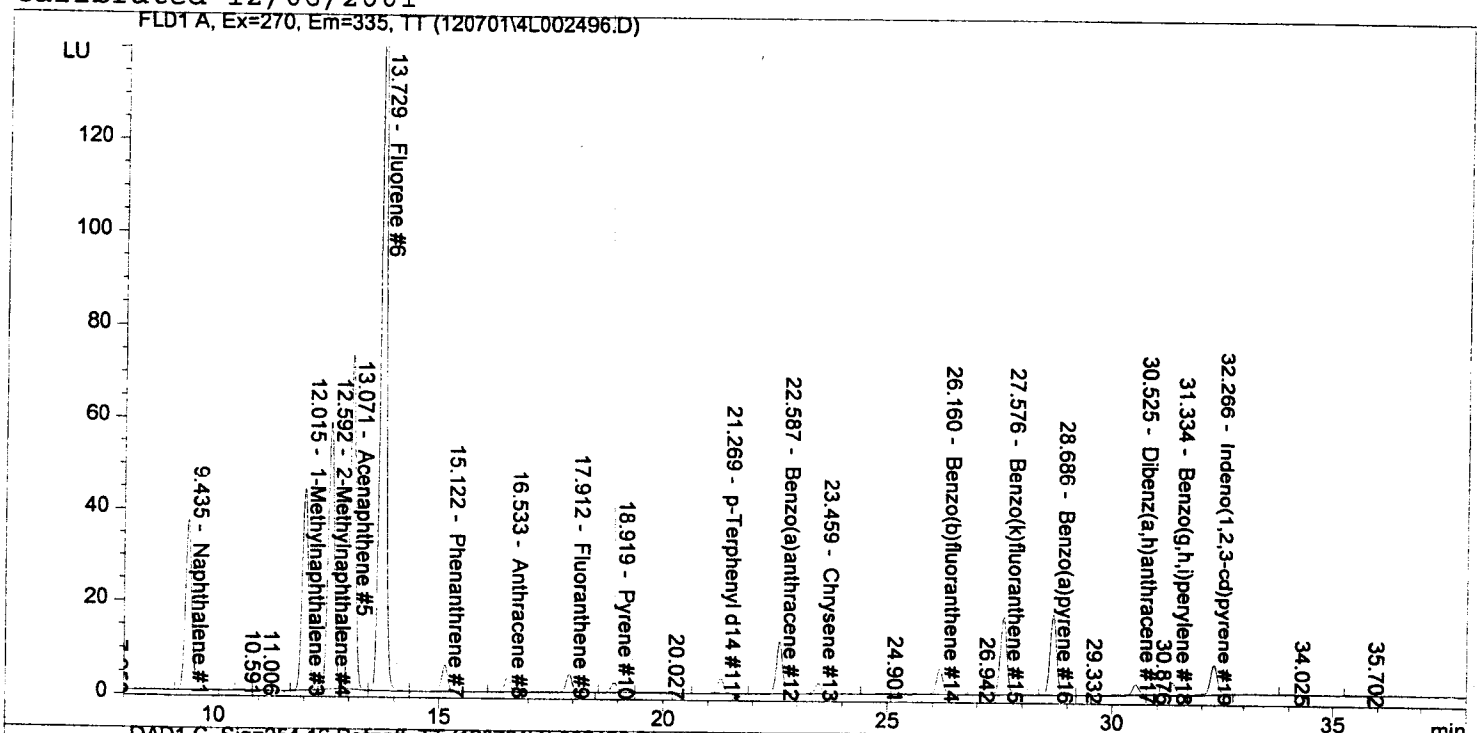
Results obtained with enhanced integrator!

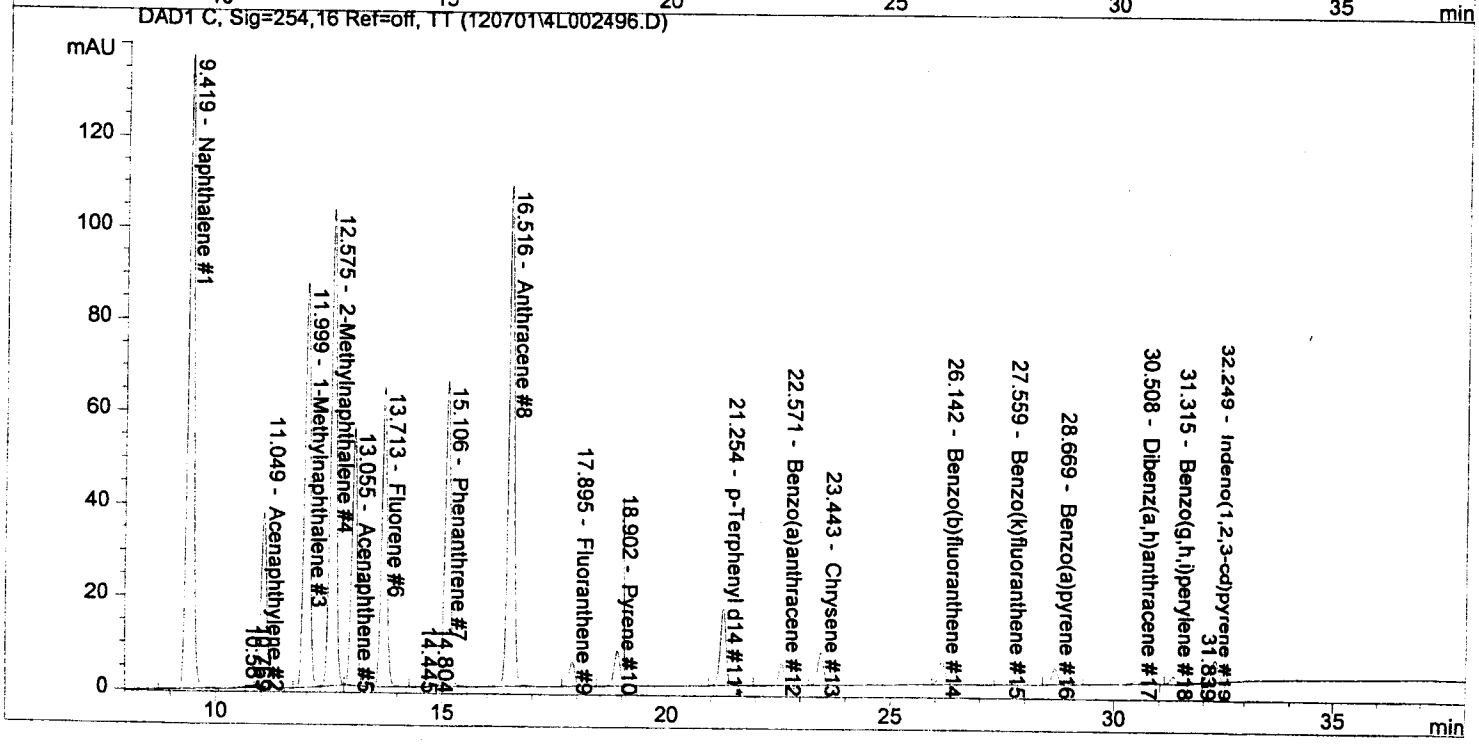
*** End of Report ***

1,1 SOS56-19/56-20 level 3 std. 10/2/1 ppm

Injection Date	: 12/7/2001 9:28:27 PM	Seq. Line	: 6
Sample Name	: WG109608-05	Vial	: 6
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl
Acq. Method	: C:\HPCHEM\2\METHODS\8310.M		
Last changed	: 11/26/2001 11:42:54 AM by RDC		
Analysis Method	: C:\HPCHEM\2\METHODS\8310DATA.M		
Last changed	: 12/10/2001 11:24:04 AM by RDC (modified after loading)		

Calibrated 12/06/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:24:01 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.435	PBA	357.36987	2.64284e-2	9.44473		Naphthalene #1
12.015	PB	411.64304	2.30808e-2	9.50106		1-Methylnaphthalene #3
12.592	BB	539.40985	1.77123e-2	9.55420		2-Methylnaphthalene #4
13.071	BB	680.59875	1.41300e-2	9.61685		Acenaphthene #5
13.729	BB	1498.75659	6.55788e-3	9.82866		Fluorene #6
15.122	BBA	53.12293	1.72104e-1	9.14266		Phenanthrene #7
16.533	BB	30.15903	3.11768e-1	9.40263		Anthracene #8
17.912	BBA	39.02326	2.51906e-2	9.83019e-1		Fluoranthene #9
18.919	BB	21.21303	4.51824e-2	9.58456e-1		Pyrene #10
21.269	PB	31.79696	2.98857e-1	9.50273		p-Terphenyl d14 #11*
22.587	BB	111.32906	8.29795e-3	9.23802e-1		Benzo(a)anthracene #12
23.459	BB	22.85746	4.07639e-2	9.31759e-1		Chrysene #13
26.160	BB	55.92225	1.66526e-2	9.31249e-1		Benzo(b)fluoranthene #14
27.576	BB	169.56526	2.77707e-3	4.70895e-1		Benzo(k)fluoranthene #15
28.686	BB	175.19550	5.23862e-3	9.17782e-1		Benzo(a)pyrene #16
30.525	BB	20.45066	4.06439e-2	8.31194e-1		Dibenz(a,h)anthracene #17
31.334	BB	30.57295	3.02209e-2	9.23943e-1		Benzo(g,h,i)perylene #18
32.266	BB	77.95903	1.37337e-2	1.07067		Indeno(1,2,3-cd)pyrene #1

Totals : 84.93630

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.419	PBA	1228.04895	8.11562e-3	9.96637		Naphthalene #1
11.049	BBA	320.25964	2.94003e-2	9.41572		Acenaphthylene #2
11.999	PB	751.04242	1.26957e-2	9.53500		1-Methylnaphthalene #3
12.575	BB	878.19104	1.10418e-2	9.69679		2-Methylnaphthalene #4
13.055	BB	472.85046	1.99955e-2	9.45486		Acenaphthene #5
13.713	BBA	545.33289	1.72605e-2	9.41272		Fluorene #6
15.106	BBA	553.08002	1.70750e-2	9.44386		Phenanthrene #7
16.516	PBA	924.44818	1.03318e-2	9.55123		Anthracene #8
17.895	PB	43.55686	2.13939e-2	9.31851e-1		Fluoranthene #9
18.902	BBA	65.35954	1.42349e-2	9.30386e-1		Pyrene #10
21.254	PBA	147.07727	6.51561e-2	9.58299		p-Terphenyl d14 #11*
22.571	PBA	42.08236	2.19560e-2	9.23962e-1		Benzo(a)anthracene #12
23.443	BBA	62.67461	1.48093e-2	9.28164e-1		Chrysene #13
26.142	BBA	46.43794	2.03417e-2	9.44628e-1		Benzo(b)fluoranthene #14
27.559	PBA	21.05570	2.21518e-2	4.66422e-1		Benzo(k)fluoranthene #15
28.669	PBA	31.26832	2.80737e-2	8.77819e-1		Benzo(a)pyrene #16
30.508	PBA	13.35335	9.27506e-2	1.23853		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.315	BB	17.44936	5.56926e-2	9.71800e-1		Benzo(g,h,i)perylene #18
32.249	BB	44.40019	2.02130e-2	8.97460e-1		Indeno(1,2,3-cd)pyrene #1
Totals :				95.17057		

Results obtained with enhanced integrator!

*** End of Report ***

1,1 SOS56-19/56-20 level 2 std. 5/.5/.25 ppm

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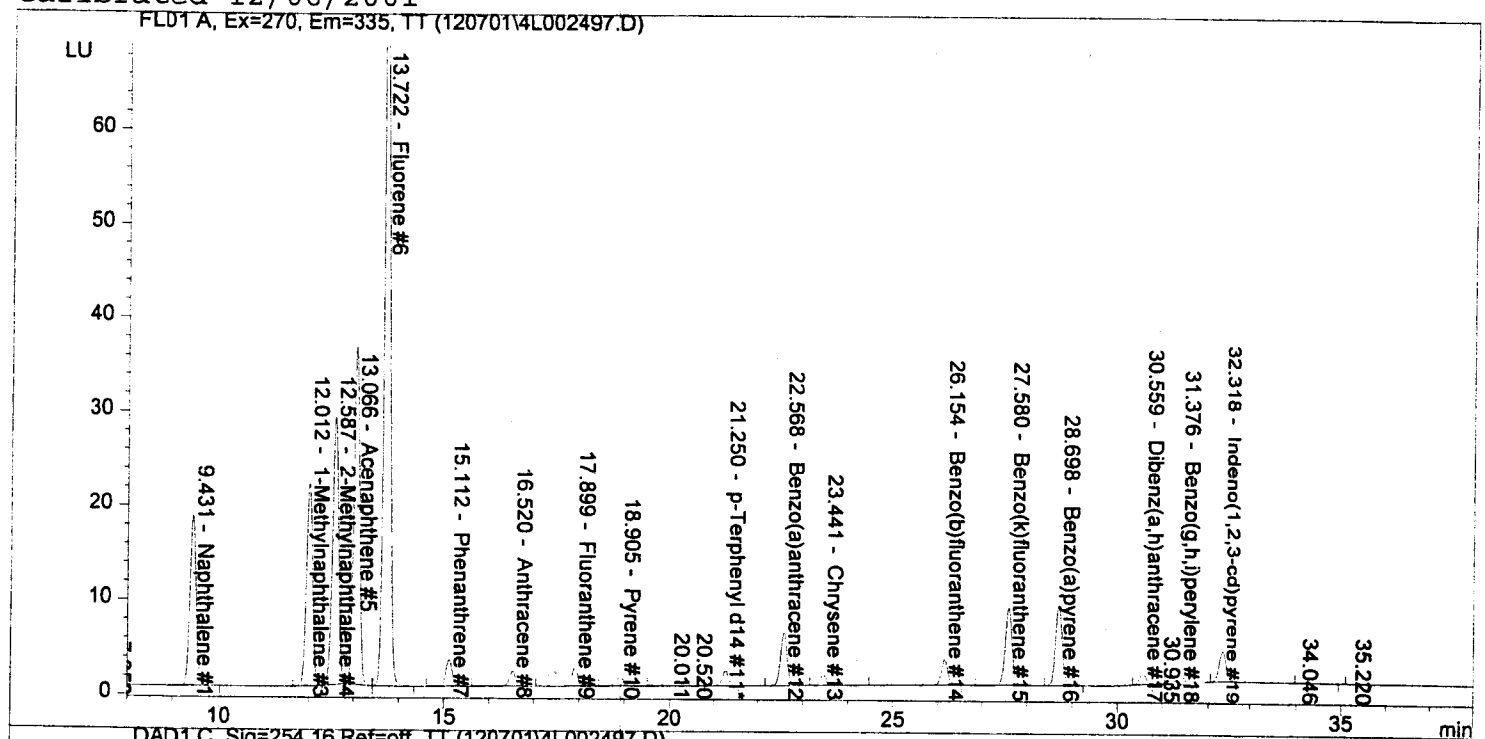
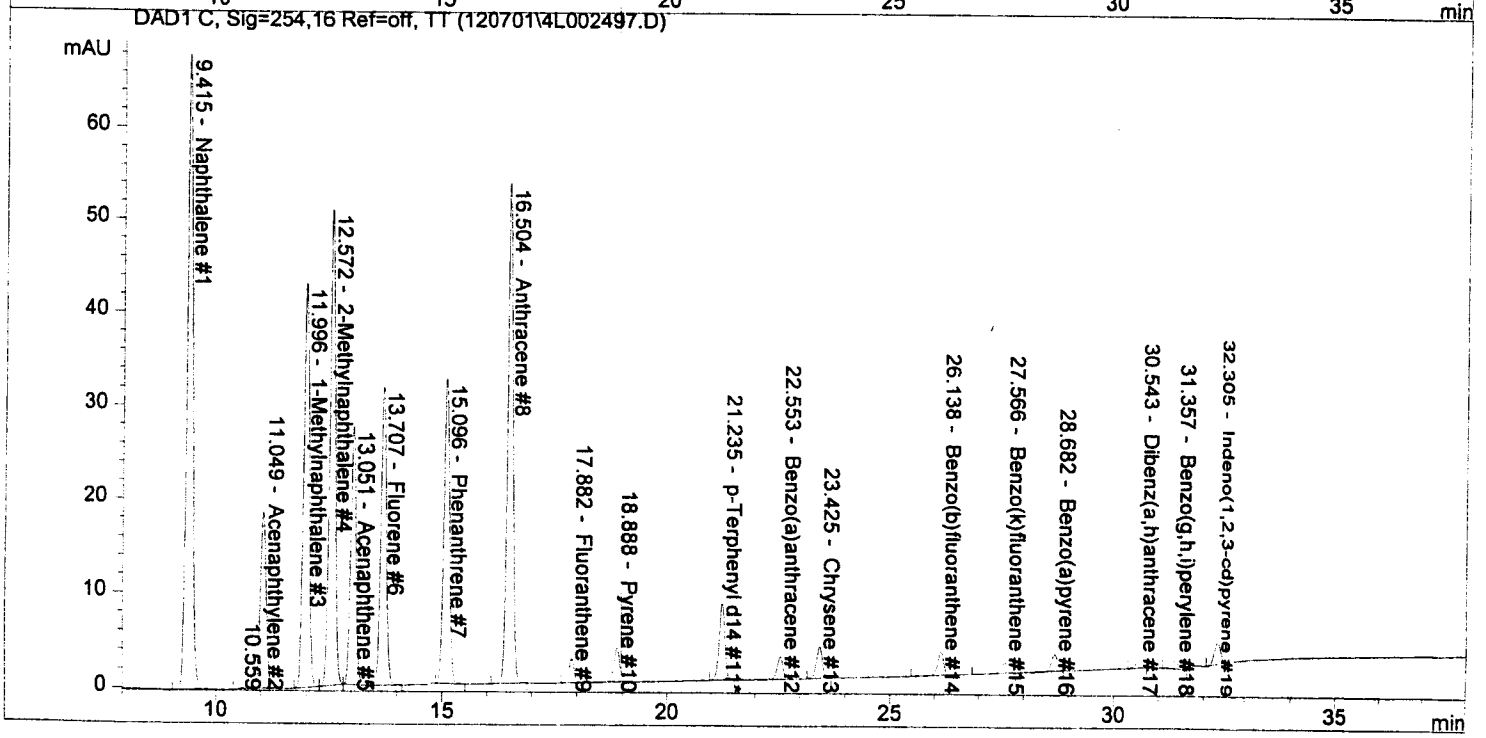
Injection Date : 12/7/2001 10:25:05 PM
Sample Name : WG109608-06
Acq. Operator : RDC

Seq. Line : 7
Vial : 7
Inj : 1
Inj Volume : 8 µl

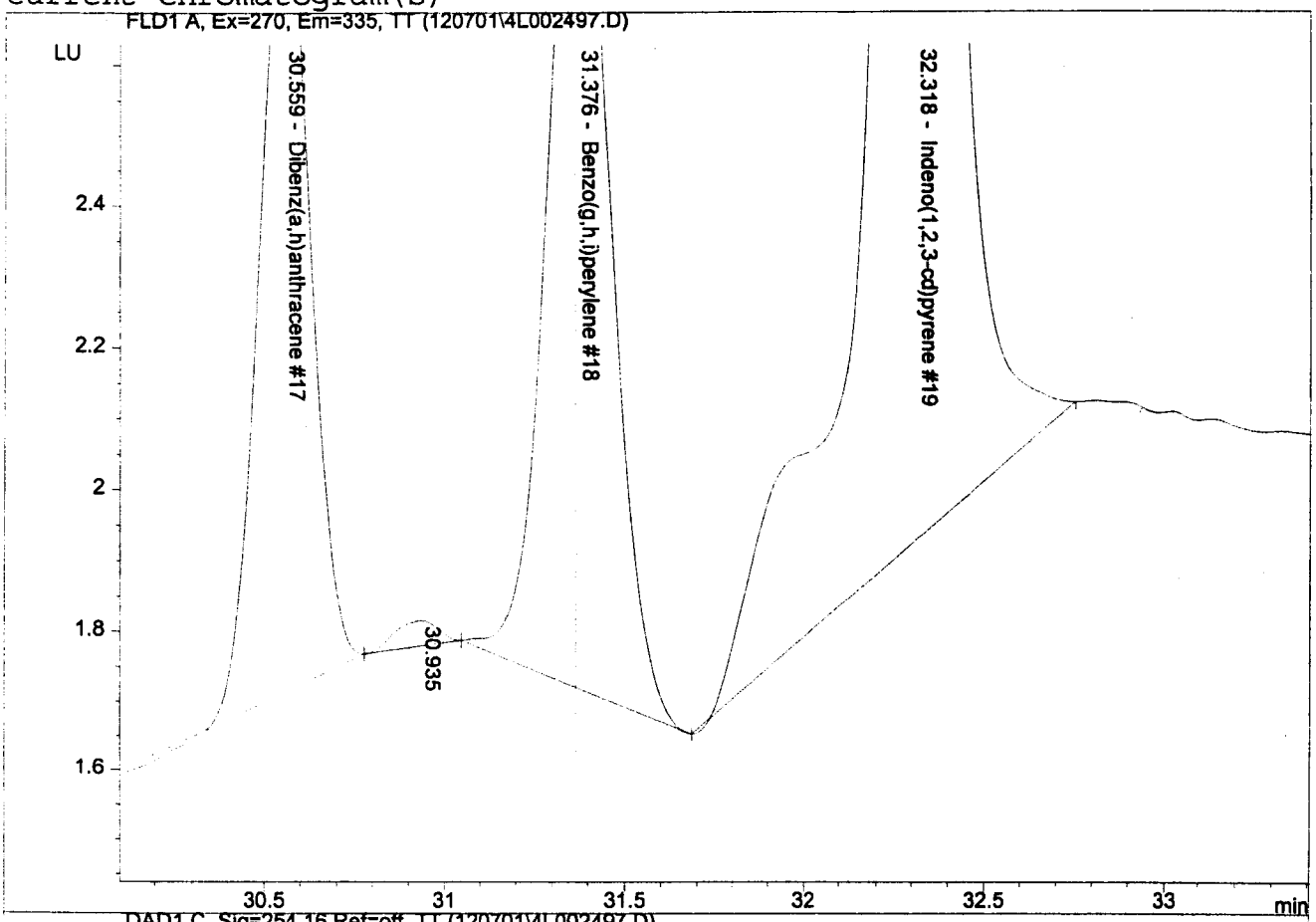
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:25:39 AM by RDC
(modified after loading)

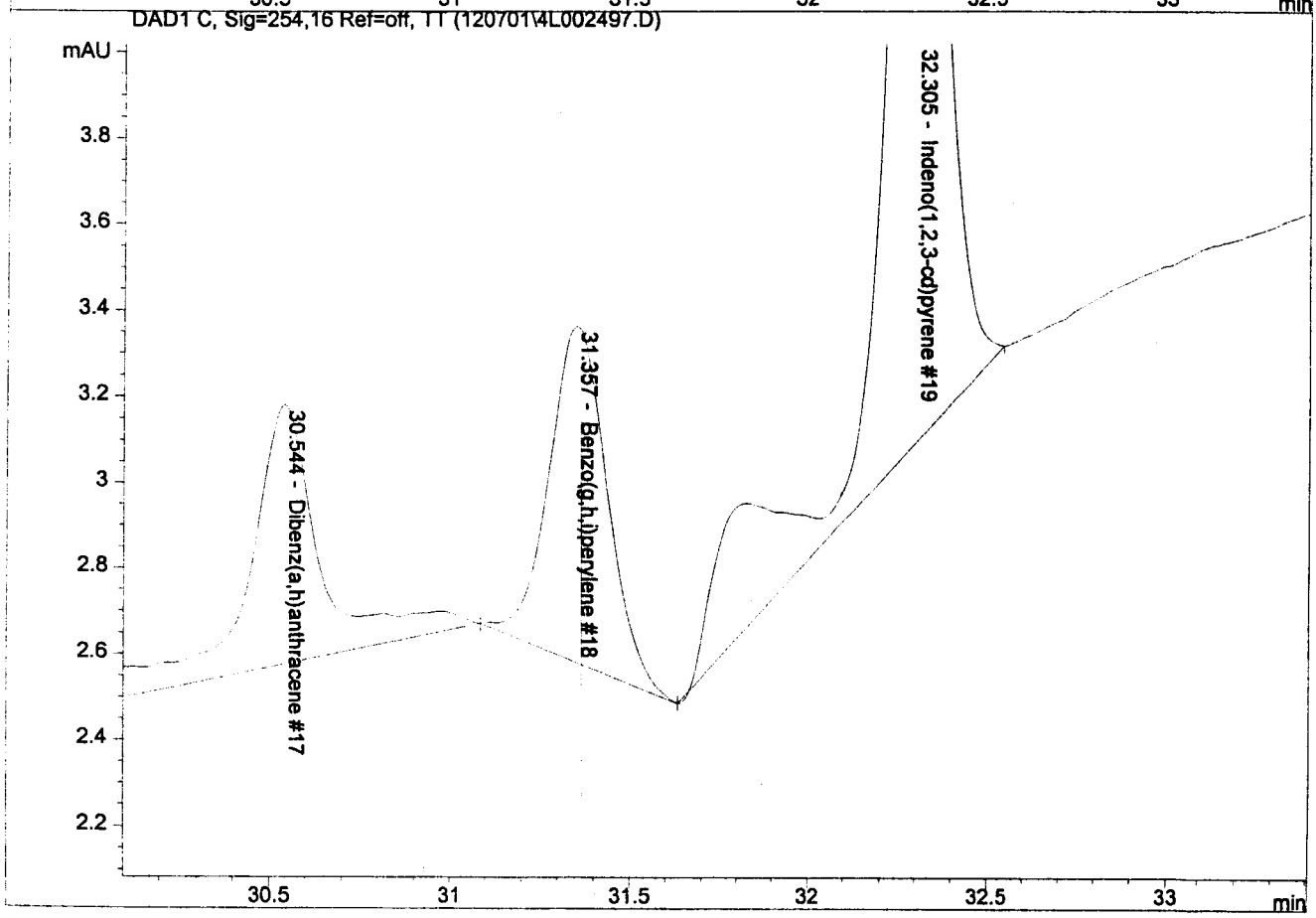
Calibrated 12/06/2001



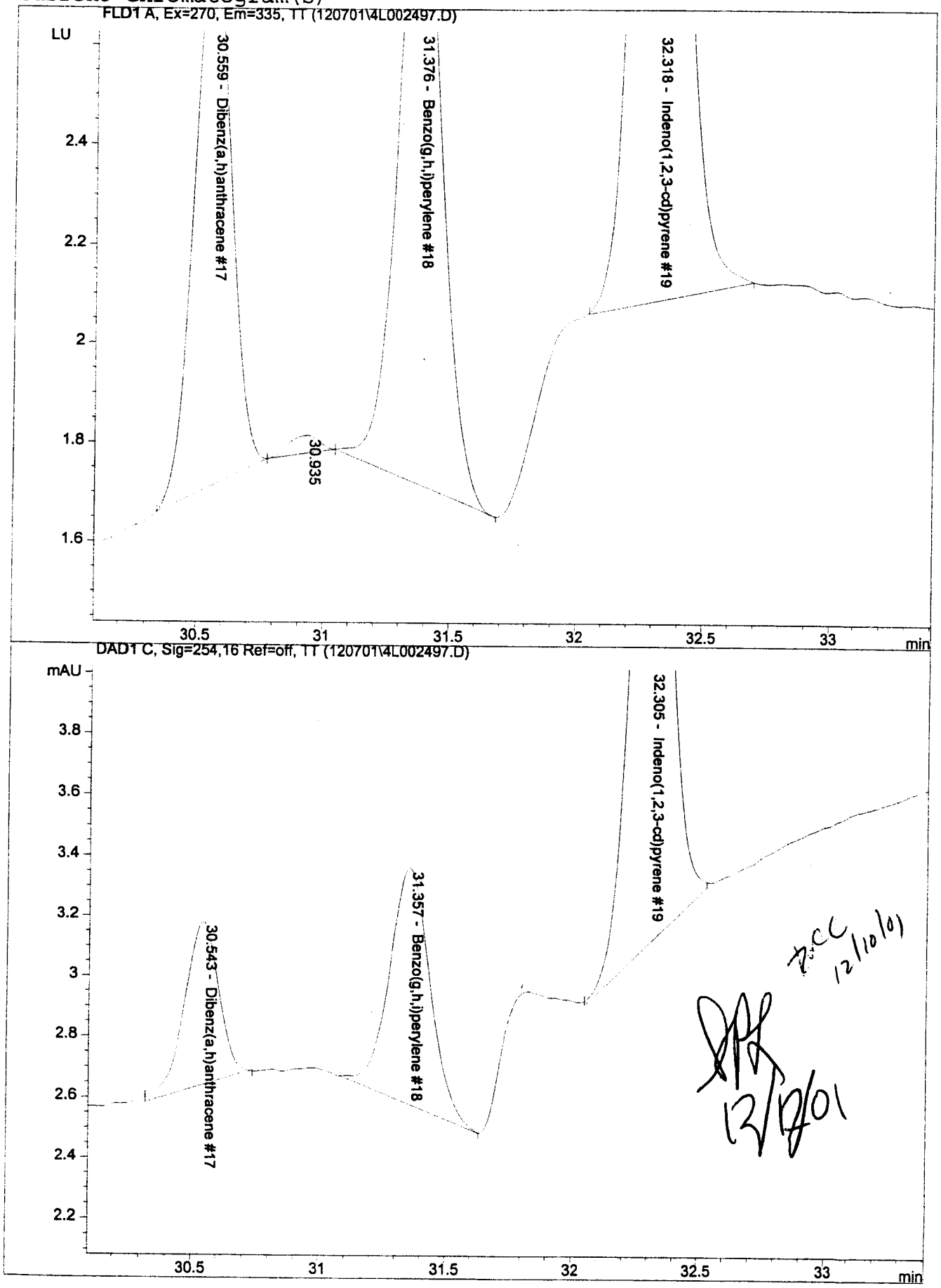


Current Chromatogram(s)





Current Chromatogram(s)



RCC 12/10/01

12/18/01

External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:25:36 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.431	BBA	175.20758	2.64308e-2	4.63087		Naphthalene #1
12.012	PB	202.11798	2.30825e-2	4.66539		1-Methylnaphthalene #3
12.587	BB	265.18561	1.77135e-2	4.69736		2-Methylnaphthalene #4
13.066	BB	335.57715	1.41306e-2	4.74192		Acenaphthene #5
13.722	BBA	742.47473	6.55798e-3	4.86914		Fluorene #6
15.112	PBA	26.34856	1.72113e-1	4.53493		Phenanthrene #7
16.520	PBA	14.95346	3.11760e-1	4.66189		Anthracene #8
17.899	PBA	19.23926	2.51881e-2	4.84601e-1		Fluoranthene #9
18.905	BBA	10.39580	4.52083e-2	4.69976e-1		Pyrene #10
21.250	BB	15.82066	2.98859e-1	4.72815		p-Terphenyl d14 #11*
22.568	BBA	55.03781	8.29841e-3	4.56726e-1		Benzo(a)anthracene #12
23.441	BB	11.46110	4.07648e-2	4.67210e-1		Chrysene #13
26.154	BBA	28.96787	1.66522e-2	4.82378e-1		Benzo(b)fluoranthene #14
27.580	PB	83.71040	2.77713e-3	2.32475e-1		Benzo(k)fluoranthene #15
28.698	BB	86.88049	5.23908e-3	4.55174e-1		Benzo(a)pyrene #16
30.559	FM	11.18928	4.06445e-2	4.54782e-1		Dibenz(a,h)anthracene #17
31.376	BB	15.50431	3.02213e-2	4.68560e-1		Benzo(g,h,i)perylene #18
32.318	MM	34.34013	1.37336e-2	4.71613e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 41.97315

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.415	PBA	606.36218	8.11567e-3	4.92104		Naphthalene #1
11.049	BBA	158.72070	2.94003e-2	4.66643		Acenaphthylene #2
11.996	PB	371.50211	1.26957e-2	4.71648		1-Methylnaphthalene #3
12.572	BB	434.66425	1.10418e-2	4.79947		2-Methylnaphthalene #4
13.051	BB	234.14653	1.99953e-2	4.68183		Acenaphthene #5
13.707	BBA	269.92172	1.72604e-2	4.65896		Fluorene #6
15.096	BBA	273.70901	1.70751e-2	4.67360		Phenanthrene #7
16.504	PBA	456.11115	1.03316e-2	4.71235		Anthracene #8
17.882	BBA	21.55572	2.13940e-2	4.61163e-1		Fluoranthene #9
18.888	BBA	31.22189	1.42346e-2	4.44432e-1		Pyrene #10
21.235	PBA	71.85631	6.51566e-2	4.68191		p-Terphenyl d14 #11*
22.553	BBA	20.88080	2.19558e-2	4.58455e-1		Benzo(a)anthracene #12
23.425	BBA	30.72799	1.48093e-2	4.55061e-1		Chrysene #13
26.138	PBA	22.90010	2.03417e-2	4.65826e-1		Benzo(b)fluoranthene #14
27.566	BBA	11.10531	2.21504e-2	2.45987e-1		Benzo(k)fluoranthene #15
28.682	BBA	15.20856	2.80787e-2	4.27036e-1		Benzo(a)pyrene #16
30.543	MM	5.01077	9.27367e-2	4.64682e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.357	BB	8.76552	5.56830e-2	4.88091e-1		Benzo(g,h,i)perylene #18
32.305	MM	22.66177	2.02125e-2	4.58050e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 46.88085

Results obtained with enhanced integrator!

*** End of Report ***

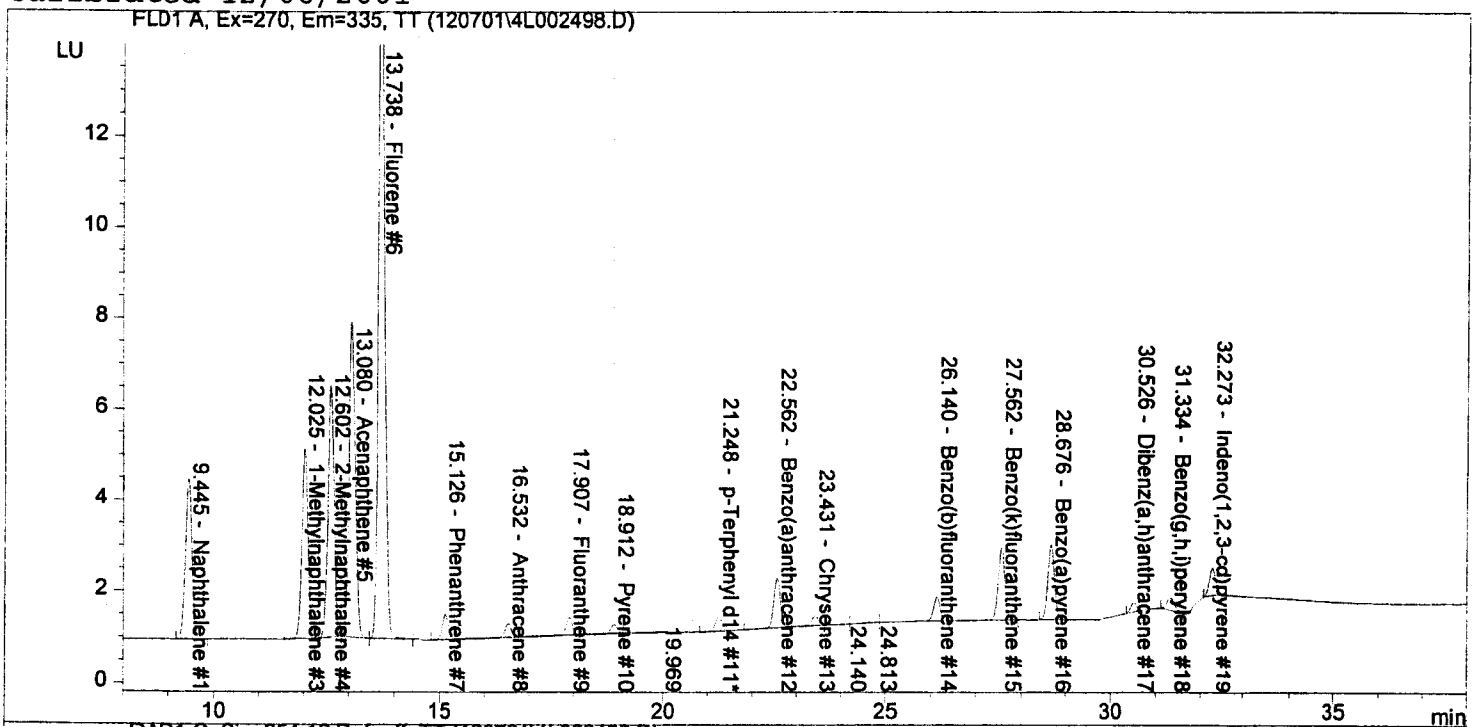
1,1 SOS56-19/56-20 level 1 std. 1/.1/.05 ppm

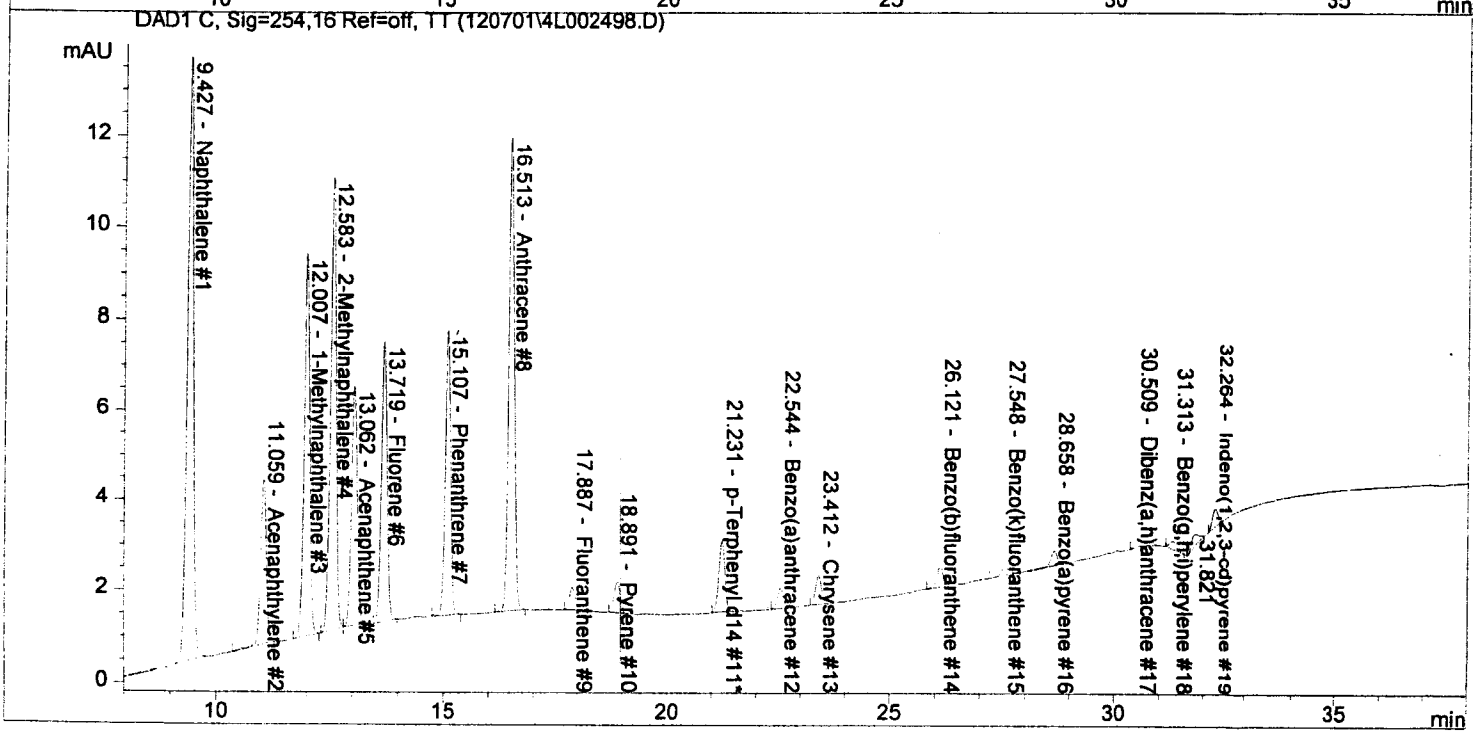
==========

Injection Date	: 12/7/2001 11:21:43 PM	Seq. Line :	8
Sample Name	: WG109608-07	Vial :	8
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

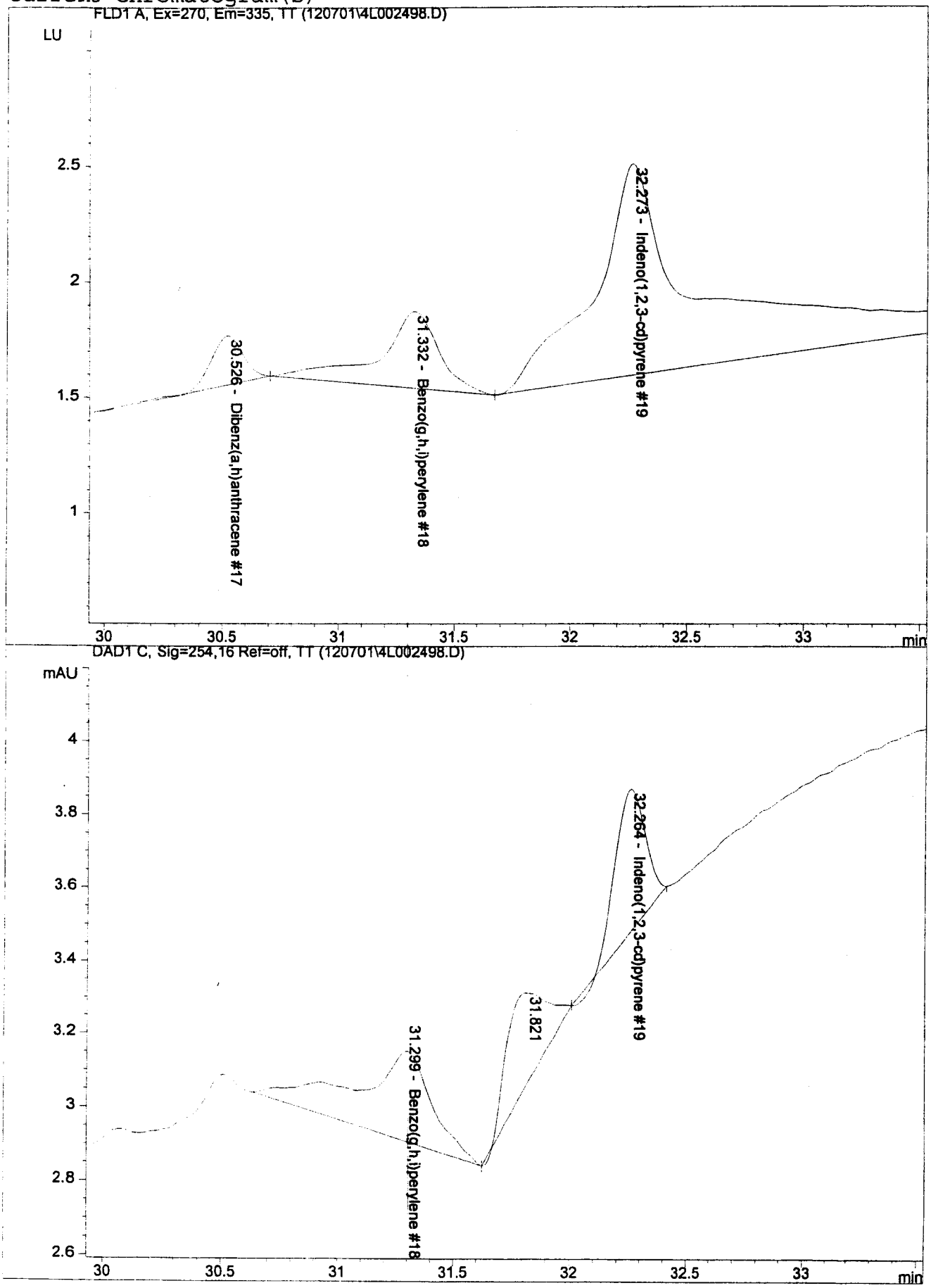
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:28:14 AM by RDC
(modified after loading)

Calibrated 12/06/2001

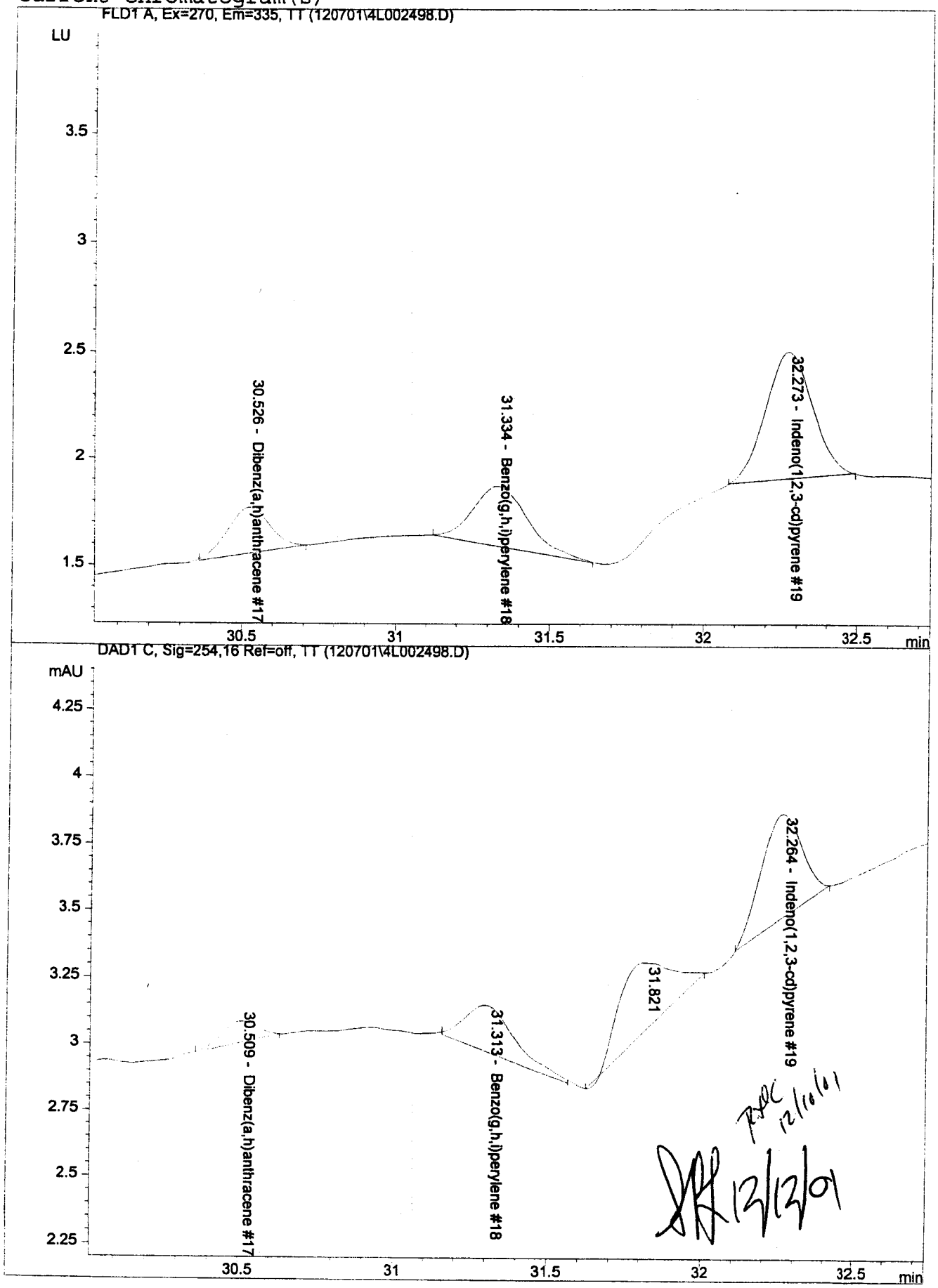




Current Chromatogram(s)



Current Chromatogram(s)



RDC 12/10/01

12/12/01

External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:28:10 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.445	PB	34.14394	2.64309e-2	9.02454e-1		Naphthalene #1
12.025	BB	39.21505	2.30826e-2	9.05184e-1		1-Methylnaphthalene #3
12.602	BB	51.48040	1.77135e-2	9.11900e-1		2-Methylnaphthalene #4
13.080	BB	65.08414	1.41307e-2	9.19682e-1		Acenaphthene #5
13.738	BBA	144.45450	6.55799e-3	9.47331e-1		Fluorene #6
15.126	PB	5.16262	1.72114e-1	8.88558e-1		Phenanthrene #7
16.532	BB	2.73816	3.11763e-1	8.53657e-1		Anthracene #8
17.907	BB	3.35839	2.51883e-2	8.45920e-2		Fluoranthene #9
18.912	BB	1.73975	4.52106e-2	7.86550e-2		Pyrene #10
21.248	BB	3.10528	2.98861e-1	9.28047e-1		p-Terphenyl d14 #11*
22.562	BB	10.98394	8.29841e-3	9.11492e-2		Benzo(a)anthracene #12
23.431	BB	2.36736	4.07647e-2	9.65047e-2		Chrysene #13
26.140	BB	5.61101	1.66521e-2	9.34354e-2		Benzo(b)fluoranthene #14
27.562	BBA	16.30576	2.77713e-3	4.52833e-2		Benzo(k)fluoranthene #15
28.676	BBA	16.72118	5.23910e-3	8.76039e-2		Benzo(a)pyrene #16
30.526	FM	2.05262	4.06442e-2	8.34270e-2		Dibenz(a,h)anthracene #17
31.334	MM	3.47096	3.02212e-2	1.04897e-1		Benzo(g,h,i)perylene #18
32.273	MM	6.30039	1.37336e-2	8.65270e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 8.10889

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.427	PBA	115.80276	8.11569e-3	9.39819e-1		Naphthalene #1
11.059	PBA	31.43988	2.94003e-2	9.24343e-1		Acenaphthylene #2
12.007	PBA	72.32628	1.26957e-2	9.18232e-1		1-Methylnaphthalene #3
12.583	PB	84.52537	1.10418e-2	9.33310e-1		2-Methylnaphthalene #4
13.062	BBA	45.57931	1.99953e-2	9.11371e-1		Acenaphthene #5
13.719	PBA	52.40231	1.72604e-2	9.04485e-1		Fluorene #6
15.107	BBA	53.48583	1.70751e-2	9.13275e-1		Phenanthrene #7
16.513	BBA	88.39832	1.03316e-2	9.13294e-1		Anthracene #8
17.887	BBA	4.29404	2.13939e-2	9.18663e-2		Fluoranthene #9
18.891	BBA	6.05919	1.42346e-2	8.62502e-2		Pyrene #10
21.231	BBA	13.90912	6.51566e-2	9.06271e-1		p-Terphenyl d14 #11*
22.544	BBA	4.04760	2.19558e-2	8.88682e-2		Benzo(a)anthracene #12
23.412	BBA	5.94315	1.48093e-2	8.80142e-2		Chrysene #13
26.121	BB	4.52168	2.03417e-2	9.19789e-2		Benzo(b)fluoranthene #14
27.548	PB	2.10015	2.21503e-2	4.65190e-2		Benzo(k)fluoranthene #15
28.658	BB	2.59946	2.80792e-2	7.29908e-2		Benzo(a)pyrene #16
30.509	MM	6.44712e-1	9.27377e-2	5.97891e-2		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.312	MM	2.00007	5.56826e-2	1.11369e-1		Benzo(g,h,i)perylene #18
32.264	FM	3.57299	2.02125e-2	7.22190e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.07427

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\120701\4L002499.D Sample Name: WG109608-08
HPLC4 12/10/2001 11:36:24 AM RDC

1,1 SOS57-27/57-28 alt level 4 std. 20/2/1 ppm

==========

Injection Date : 12/8/2001 12:18:21 AM Seq. Line : 9

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.448	20.0	18.988	-5.1
1-Methylnaphthalene #3	12.026	20.0	19.627	-1.9
2-Methylnaphthalene #4	12.603	20.0	18.646	-6.8
Acenaphthene #5	13.081	20.0	19.741	-1.3
Fluorene #6	13.736	20.0	19.908	-0.5
Phenanthrene #7	15.124	20.0	19.180	-4.1
Anthracene #8	16.531	20.0	19.722	-1.4
Fluoranthene #9	17.910	2.0	1.966	-1.7
Pyrene #10	18.916	2.0	1.877	-6.1
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.583	2.0	1.793	-10.4
Chrysene #13	23.457	2.0	1.850	-7.5
Benzo(b)fluoranthene #14	26.174	2.0	1.937	-3.2
Benzo(k)fluoranthene #15	27.601	1.0	0.860	-14.0
Benzo(a)pyrene #16	28.712	2.0	1.983	-0.9
Dibenz(a,h)anthracene #1	30.555	2.0	2.111	5.6
Benzo(g,h,i)perylene #18	31.369	2.0	1.899	-5.0
Indeno(1,2,3-cd)pyrene #	32.298	2.0	1.930	-3.5

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.431	20.0	20.166	0.8
Acenaphthylene #2	11.061	20.0	18.484	-7.6
1-Methylnaphthalene #3	12.010	20.0	19.908	-0.5
2-Methylnaphthalene #4	12.587	20.0	19.127	-4.4
Acenaphthene #5	13.065	20.0	19.623	-1.9
Fluorene #6	13.719	20.0	19.343	-3.3
Phenanthrene #7	15.107	20.0	19.002	-5.0
Anthracene #8	16.514	20.0	20.224	1.1
Fluoranthene #9	17.892	2.0	1.900	-5.0
Pyrene #10	18.899	2.0	1.854	-7.3
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.567	2.0	1.803	-9.9
Chrysene #13	23.441	2.0	1.871	-6.5
Benzo(b)fluoranthene #14	26.157	2.0	1.894	-5.3
Benzo(k)fluoranthene #15	27.584	1.0	0.858	-14.2
Benzo(a)pyrene #16	28.695	2.0	1.938	-3.1
Dibenz(a,h)anthracene #1	30.538	2.0	2.146	7.3
Benzo(g,h,i)perylene #18	31.349	2.0	1.912	-4.4
Indeno(1,2,3-cd)pyrene #	32.283	2.0	1.822	-8.9

= Failed 15.0% Criteria

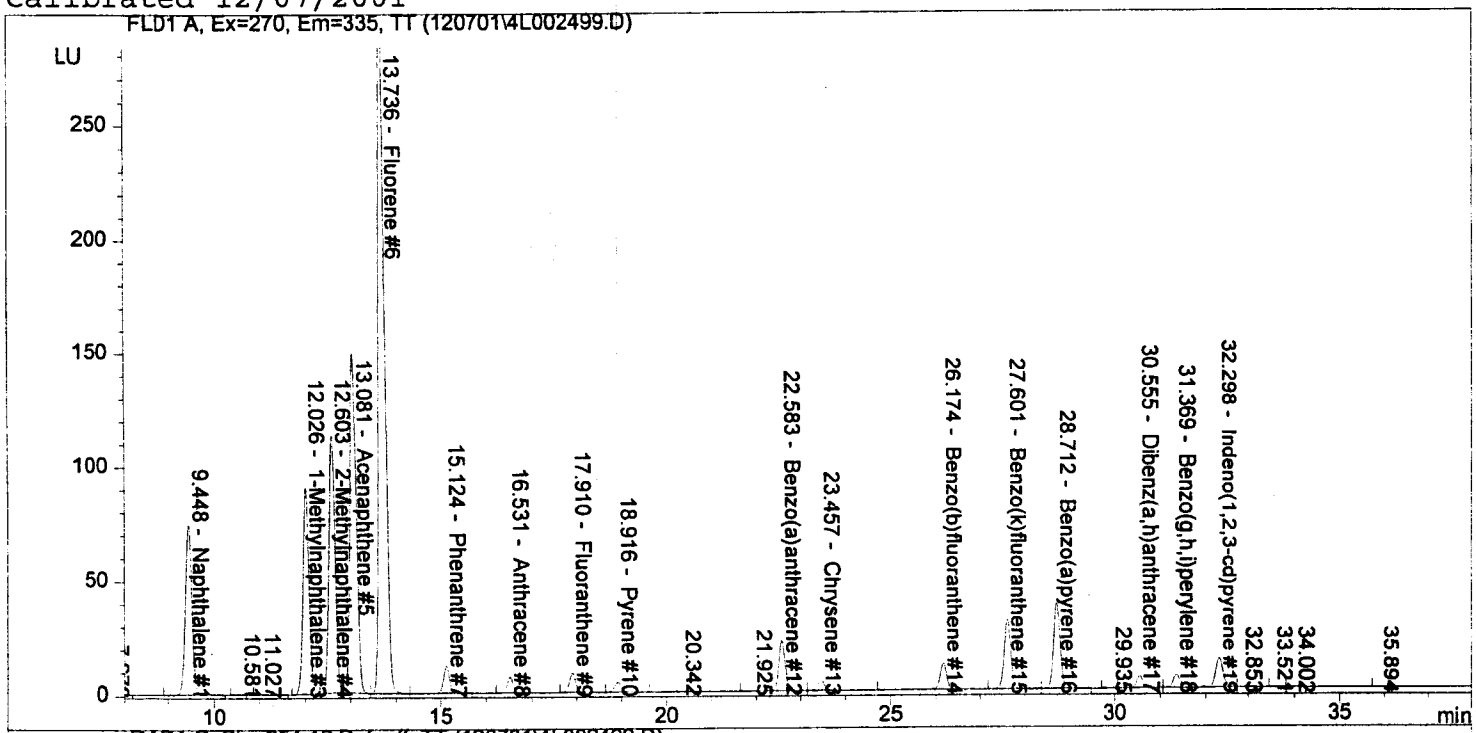
1,1 SOS57-27/57-28 alt level 4 std. 20/2/1 ppm

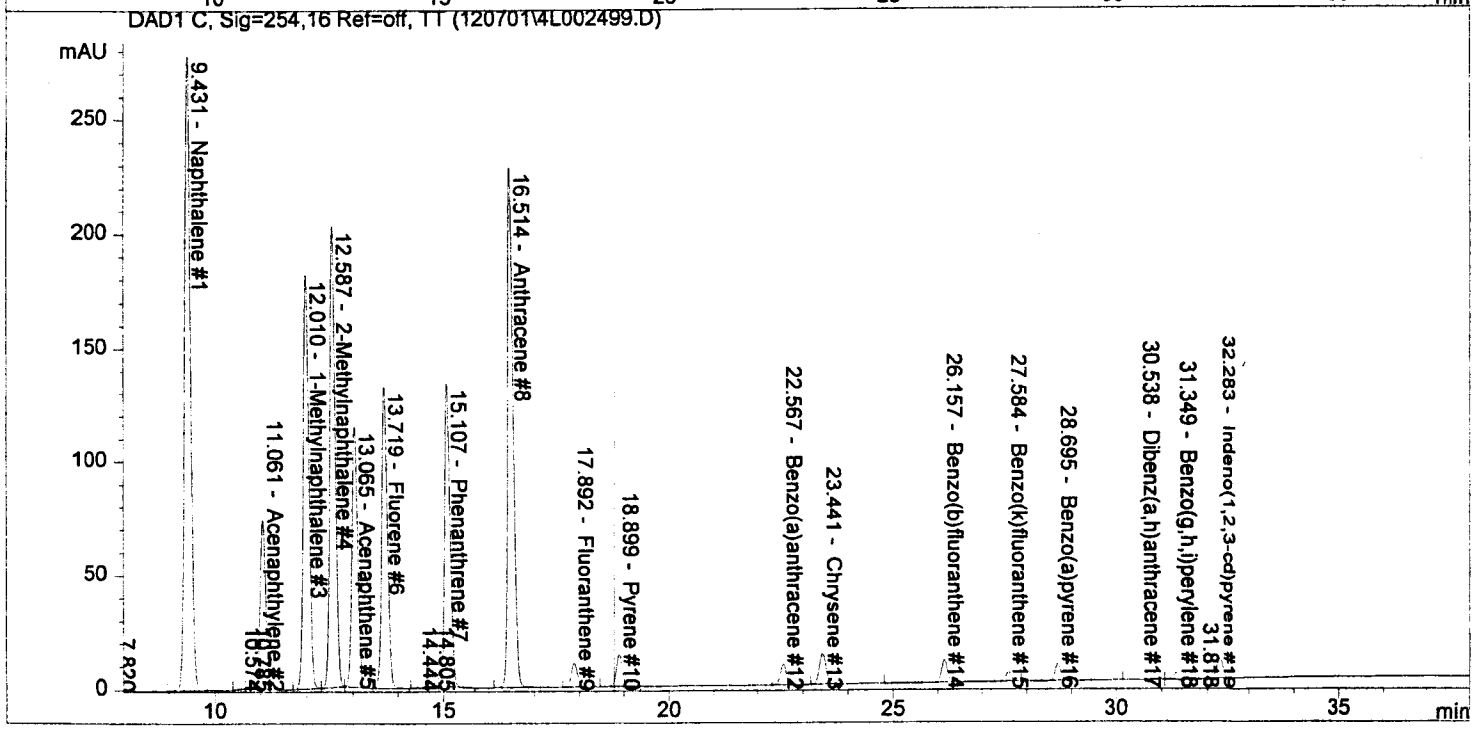
==========

Injection Date : 12/8/2001 12:18:21 AM
Sample Name : WG109608-08
Acq. Operator : RDC

Seq. Line : 9
Vial : 9
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:34:24 AM by RDC
Calibrated 12/07/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:34:24 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.448	PBA	718.41638	2.64309e-2	18.98836		Naphthalene #1
12.026	PB	850.30682	2.30826e-2	19.62725		1-Methylnaphthalene #3
12.603	BB	1052.66821	1.77135e-2	18.64648		2-Methylnaphthalene #4
13.081	BB	1397.06580	1.41307e-2	19.74147		Acenaphthene #5
13.736	BB	3035.62598	6.55799e-3	19.90760		Fluorene #6
15.124	BBA	111.43582	1.72114e-1	19.17962		Phenanthrene #7
16.531	PBA	63.26065	3.11763e-1	19.72236		Anthracene #8
17.910	PBA	78.05544	2.51883e-2	1.96608		Fluoranthene #9
18.916	BBA	41.52039	4.52106e-2	1.87716		Pyrene #10
21.248		-	-	-		p-Terphenyl d14 #11*
22.583	BB	216.05219	8.29841e-3	1.79289		Benzo(a)anthracene #12
23.457	BBA	45.38344	4.07647e-2	1.85004		Chrysene #13
26.174	BBA	116.30862	1.66521e-2	1.93679		Benzo(b)fluoranthene #14
27.601	BB	309.80493	2.77713e-3	8.60370e-1		Benzo(k)fluoranthene #15
28.712	BBA	378.43121	5.23910e-3	1.98264		Benzo(a)pyrene #16
30.555	BB	51.94407	4.06442e-2	2.11123		Dibenz(a,h)anthracene #17
31.369	BB	62.84625	3.02212e-2	1.89929		Benzo(g,h,i)perylene #18
32.298	BB	140.51279	1.37336e-2	1.92974		Indeno(1,2,3-cd)pyrene #1
Totals :				154.01938		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.431	PBA	2484.78711	8.11569e-3	20.16575		Naphthalene #1
11.061	BBA	628.69238	2.94003e-2	18.48377		Acenaphthylene #2
12.010	PB	1568.06946	1.26957e-2	19.90773		1-Methylnaphthalene #3
12.587	BB	1732.25586	1.10418e-2	19.12719		2-Methylnaphthalene #4
13.065	BB	981.37512	1.99953e-2	19.62288		Acenaphthene #5
13.719	BBA	1120.66248	1.72604e-2	19.34309		Fluorene #6
15.107	BBA	1112.86951	1.70751e-2	19.00234		Phenanthrene #7
16.514	PBA	1957.45850	1.03316e-2	20.22363		Anthracene #8
17.892	PB	88.79617	2.13939e-2	1.89970		Fluoranthene #9
18.899	BBA	130.27521	1.42346e-2	1.85442		Pyrene #10
21.231		-	-	-		p-Terphenyl d14 #11*
22.567	BBA	82.10786	2.19558e-2	1.80274		Benzo(a)anthracene #12
23.441	BBA	126.32463	1.48093e-2	1.87078		Chrysene #13
26.157	BB	93.10676	2.03417e-2	1.89395		Benzo(b)fluoranthene #14
27.584	BB	38.75732	2.21503e-2	8.58487e-1		Benzo(k)fluoranthene #15
28.695	BB	69.01395	2.80792e-2	1.93786		Benzo(a)pyrene #16
30.538	BB	23.13591	9.27377e-2	2.14557		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.349	BB	34.33689	5.56826e-2	1.91197		Benzo(g,h,i)perylene #18
32.283	BB	90.14058	2.02125e-2	1.82197		Indeno(1,2,3-cd)pyrene #1

Totals : 173.87381

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\121301A\4L002544.D Sample Name: WG109984-01 CCV
HPLC4 12/14/2001 3:08:35 PM RDC

1,1 SOS56-19/56-20 level 4 std. 20/2/1 ppm

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Injection Date : 12/13/2001 5:45:09 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.434	20.0	19.307	-3.5
1-Methylnaphthalene #3	12.010	20.0	19.395	-3.0
2-Methylnaphthalene #4	12.584	20.0	19.435	-2.8
Acenaphthene #5	13.065	20.0	19.569	-2.2
Fluorene #6	13.716	20.0	19.724	-1.4
Phenanthrene #7	15.102	20.0	19.067	-4.7
Anthracene #8	16.506	20.0	19.514	-2.4
Fluoranthene #9	17.881	2.0	1.989	-0.5
Pyrene #10	18.884	2.0	2.022	1.1
p-Terphenyl d14 #11*	21.214	20.0	19.596	-2.0
Benzo(a)anthracene #12	22.528	2.0	1.925	-3.7
Chrysene #13	23.393	2.0	1.938	-3.1
Benzo(b)fluoranthene #14	26.094	2.0	1.901	-5.0
Benzo(k)fluoranthene #15	27.505	1.0	0.958	-4.2
Benzo(a)pyrene #16	28.614	2.0	2.016	0.8
Dibenz(a,h)anthracene #1	30.455	2.0	1.939	-3.0
Benzo(g,h,i)perylene #18	31.269	2.0	1.927	-3.6
Indeno(1,2,3-cd)pyrene #	32.208	2.0	1.879	-6.1

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.417	20.0	20.084	0.4
Acenaphthylene #2	11.045	20.0	19.071	-4.6
1-Methylnaphthalene #3	11.993	20.0	19.256	-3.7
2-Methylnaphthalene #4	12.567	20.0	19.566	-2.2
Acenaphthene #5	13.048	20.0	19.139	-4.3
Fluorene #6	13.699	20.0	19.090	-4.5
Phenanthrene #7	15.085	20.0	19.132	-4.3
Anthracene #8	16.488	20.0	19.996	0.0
Fluoranthene #9	17.863	2.0	1.893	-5.3
Pyrene #10	18.866	2.0	1.899	-5.1
p-Terphenyl d14 #11*	21.197	20.0	19.377	-3.1
Benzo(a)anthracene #12	22.511	2.0	1.883	-5.8
Chrysene #13	23.376	2.0	1.890	-5.5
Benzo(b)fluoranthene #14	26.076	2.0	1.892	-5.4
Benzo(k)fluoranthene #15	27.487	1.0	0.955	-4.5
Benzo(a)pyrene #16	28.596	2.0	1.864	-6.8
Dibenz(a,h)anthracene #1	30.438	2.0	1.925	-3.8
Benzo(g,h,i)perylene #18	31.251	2.0	1.998	-0.1
Indeno(1,2,3-cd)pyrene #	32.188	2.0	1.839	-8.0

= Failed 15.0% Criteria

1,1 SOS56-19/56-20 level 4 std. 20/2/1 ppm

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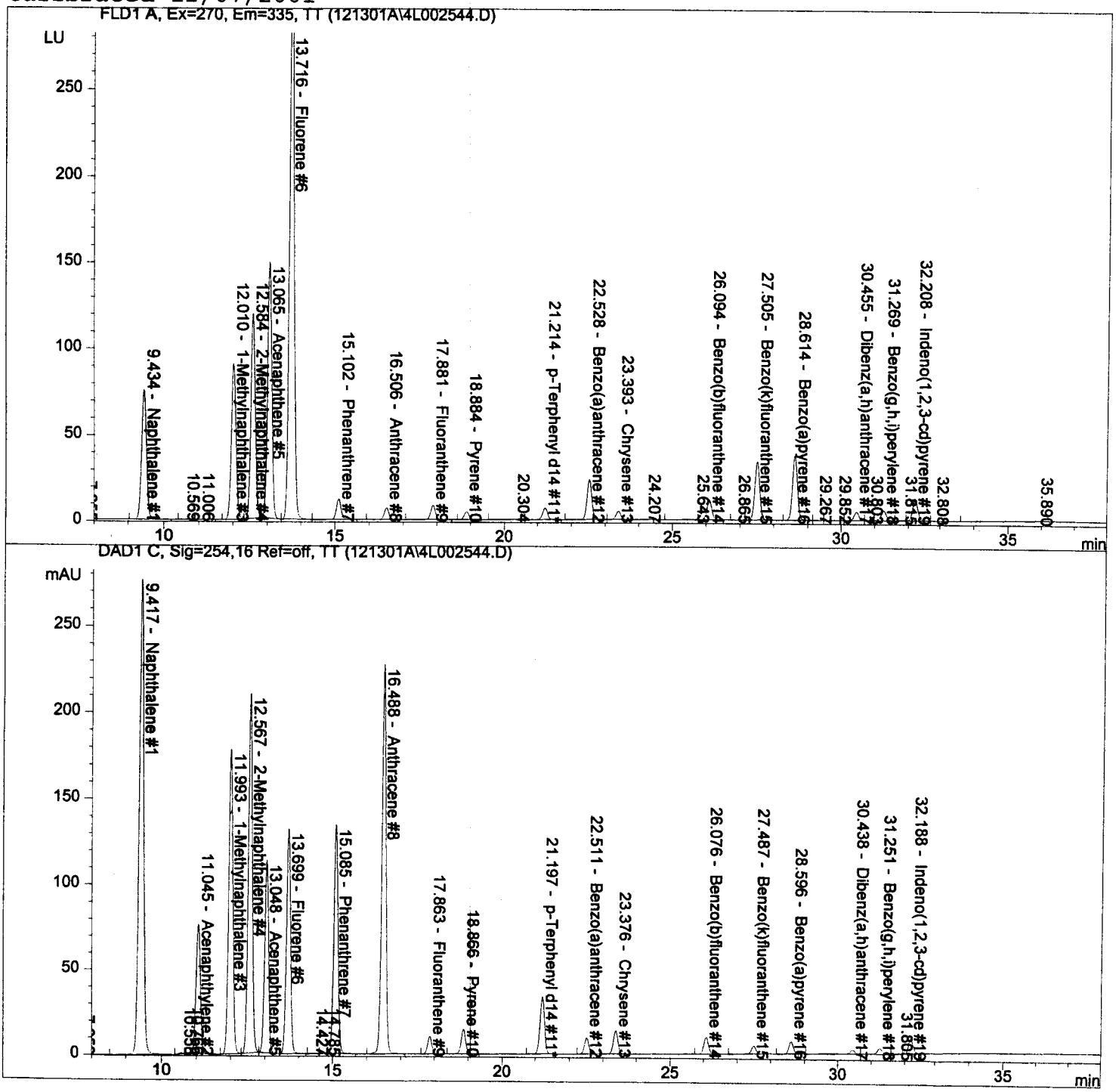
Injection Date	: 12/13/2001 5:45:09 PM	Seq. Line :	2
Sample Name	: WG109984-01 CCV	Vial :	2
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/13/2001 12:49:22 PM by RDC
(modified after loading)
Calibrated 12/07/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, December 12, 2001 1:25:11 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.434	PB	730.48486	2.64309e-2	19.30734		Naphthalene #1
12.010	BB	840.26141	2.30826e-2	19.39538		1-Methylnaphthalene #3
12.584	BB	1097.19678	1.77135e-2	19.43524		2-Methylnaphthalene #4
13.065	BB	1384.87891	1.41307e-2	19.56926		Acenaphthene #5
13.716	BB	3007.70166	6.55799e-3	19.72447		Fluorene #6
15.102	BBA	110.77906	1.72114e-1	19.06658		Phenanthrene #7
16.506	PB	62.59252	3.11763e-1	19.51406		Anthracene #8
17.881	BBA	78.98274	2.51883e-2	1.98944		Fluoranthene #9
18.884	PB	44.72297	4.52106e-2	2.02195		Pyrene #10
21.214	BB	65.56862	2.98861e-1	19.59592		p-Terphenyl d14 #11*
22.528	BB	231.99008	8.29841e-3	1.92515		Benzo(a)anthracene #12
23.393	BB	47.55079	4.07647e-2	1.93840		Chrysene #13
26.094	BB	114.15733	1.66521e-2	1.90096		Benzo(b)fluoranthene #14
27.505	BB	345.11795	2.77713e-3	9.58439e-1		Benzo(k)fluoranthene #15
28.614	BB	384.78973	5.23910e-3	2.01595		Benzo(a)pyrene #16
30.455	BB	47.71586	4.06442e-2	1.93937		Dibenz(a,h)anthracene #17
31.269	BB	63.77578	3.02212e-2	1.92738		Benzo(g,h,i)perylene #18
32.208	BB	136.78569	1.37336e-2	1.87856		Indeno(1,2,3-cd)pyrene #1
Totals :				174.10387		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.417	PBA	2474.75977	8.11569e-3	20.08437		Naphthalene #1
11.045	BBA	648.67792	2.94003e-2	19.07135		Acenaphthylene #2
11.993	PB	1516.75024	1.26957e-2	19.25620		1-Methylnaphthalene #3
12.567	BB	1772.04102	1.10418e-2	19.56649		2-Methylnaphthalene #4
13.048	BB	957.18365	1.99953e-2	19.13916		Acenaphthene #5
13.699	BBA	1106.02332	1.72604e-2	19.09041		Fluorene #6
15.085	BBA	1120.46814	1.70751e-2	19.13209		Phenanthrene #7
16.488	PBA	1935.41589	1.03316e-2	19.99589		Anthracene #8
17.863	PB	88.49272	2.13939e-2	1.89321		Fluoranthene #9
18.866	BBA	133.38237	1.42346e-2	1.89865		Pyrene #10
21.197	PBA	297.39780	6.51566e-2	19.37742		p-Terphenyl d14 #11*
22.511	PBA	85.77376	2.19558e-2	1.88323		Benzo(a)anthracene #12
23.376	BBA	127.60986	1.48093e-2	1.88982		Chrysene #13
26.076	BBA	92.98860	2.03417e-2	1.89155		Benzo(b)fluoranthene #14
27.487	BBA	43.10226	2.21503e-2	9.54729e-1		Benzo(k)fluoranthene #15
28.596	BB	66.39723	2.80792e-2	1.86438		Benzo(a)pyrene #16
30.438	BB	20.75574	9.27377e-2	1.92484		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.251	BB	35.88356	5.56826e-2	1.99809		Benzo(g,h,i)perylene #18
32.188	BB	91.00345	2.02125e-2	1.83941		Indeno(1,2,3-cd)pyrene #1
Totals :				192.75127		

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\121301A\4L002553.D Sample Name: WG109984-02 CCV
HPLC4 12/14/2001 3:10:05 PM RDC

1,1 SOS56-19/56-20 level 4 std. 20/2/1 ppm

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Injection Date : 12/14/2001 2:14:47 AM Seq. Line : 11

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.378	20.0	19.562	-2.2
1-Methylnaphthalene #3	11.972	20.0	19.623	-1.9
2-Methylnaphthalene #4	12.551	20.0	19.715	-1.4
Acenaphthene #5	13.033	20.0	19.836	-0.8
Fluorene #6	13.695	20.0	19.977	-0.1
Phenanthrene #7	15.090	20.0	19.051	-4.7
Anthracene #8	16.504	20.0	19.999	0.0
Fluoranthene #9	17.888	2.0	2.027	1.3
Pyrene #10	18.899	2.0	2.020	1.0
p-Terphenyl d14 #11*	21.255	20.0	19.359	-3.2
Benzo(a)anthracene #12	22.579	2.0	1.928	-3.6
Chrysene #13	23.456	2.0	1.923	-3.8
Benzo(b)fluoranthene #14	26.176	2.0	1.911	-4.4
Benzo(k)fluoranthene #15	27.606	1.0	0.959	-4.1
Benzo(a)pyrene #16	28.717	2.0	2.035	1.7
Dibenz(a,h)anthracene #1	30.579	2.0	1.905	-4.8
Benzo(g,h,i)perylene #18	31.387	2.0	2.026	1.3
Indeno(1,2,3-cd)pyrene #	32.323	2.0	1.946	-2.7

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.357	20.0	20.216	1.1
Acenaphthylene #2	10.996	20.0	19.185	-4.1
1-Methylnaphthalene #3	11.952	20.0	19.375	-3.1
2-Methylnaphthalene #4	12.531	20.0	19.693	-1.5
Acenaphthene #5	13.013	20.0	19.271	-3.6
Fluorene #6	13.674	20.0	19.162	-4.2
Phenanthrene #7	15.069	20.0	19.247	-3.8
Anthracene #8	16.484	20.0	20.420	2.1
Fluoranthene #9	17.866	2.0	1.896	-5.2
Pyrene #10	18.877	2.0	1.912	-4.4
p-Terphenyl d14 #11*	21.234	20.0	19.300	-3.5
Benzo(a)anthracene #12	22.559	2.0	1.905	-4.8
Chrysene #13	23.435	2.0	1.893	-5.4
Benzo(b)fluoranthene #14	26.155	2.0	1.848	-7.6
Benzo(k)fluoranthene #15	27.585	1.0	0.897	-10.3
Benzo(a)pyrene #16	28.696	2.0	1.948	-2.6
Dibenz(a,h)anthracene #1	30.559	2.0	1.855	-7.3
Benzo(g,h,i)perylene #18	31.365	2.0	2.063	3.1
Indeno(1,2,3-cd)pyrene #	32.304	2.0	1.914	-4.3

= Failed 15.0% Criteria

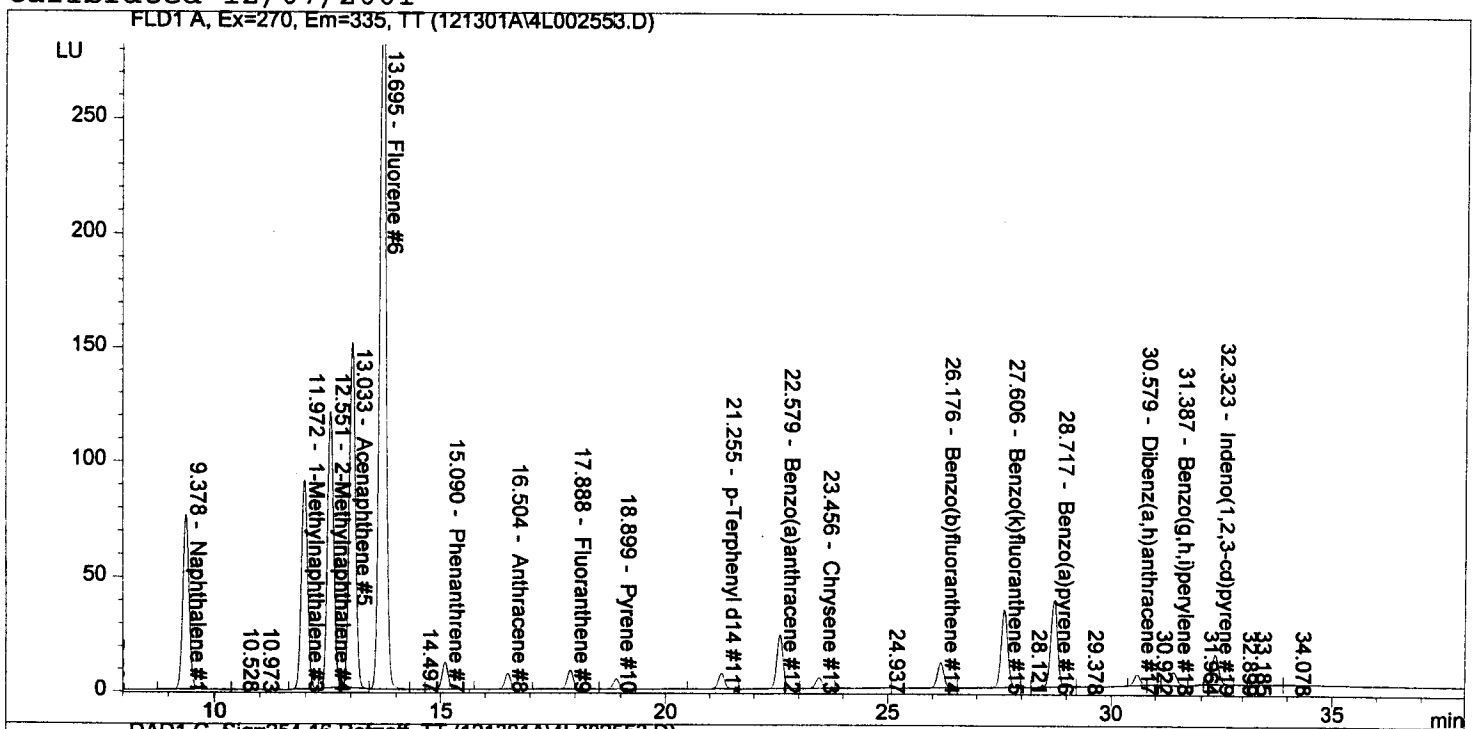
1,1 SOS56-19/56-20 level 4 std. 20/2/1 ppm

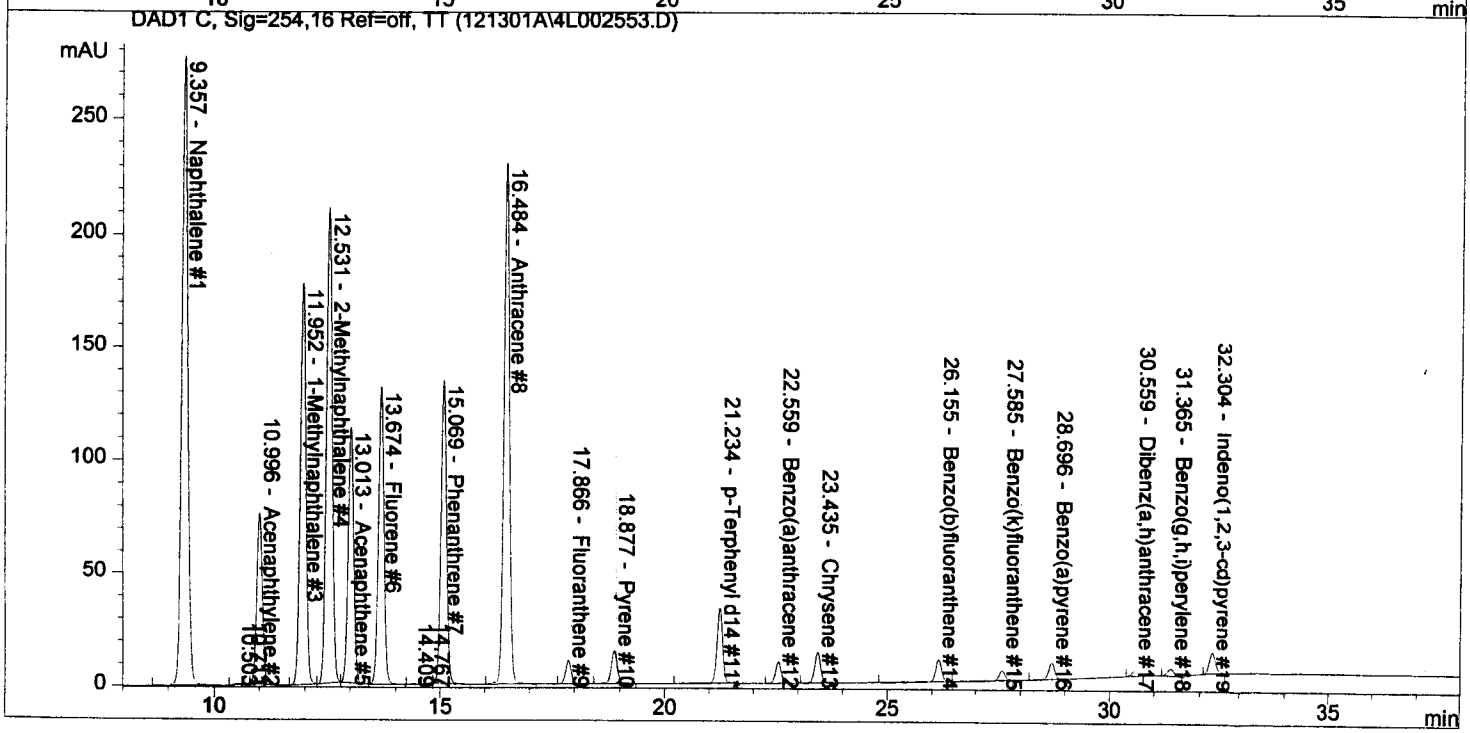
==========

Injection Date	: 12/14/2001 2:14:47 AM	Seq. Line	: 11
Sample Name	: WG109984-02 CCV	Vial	: 2
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

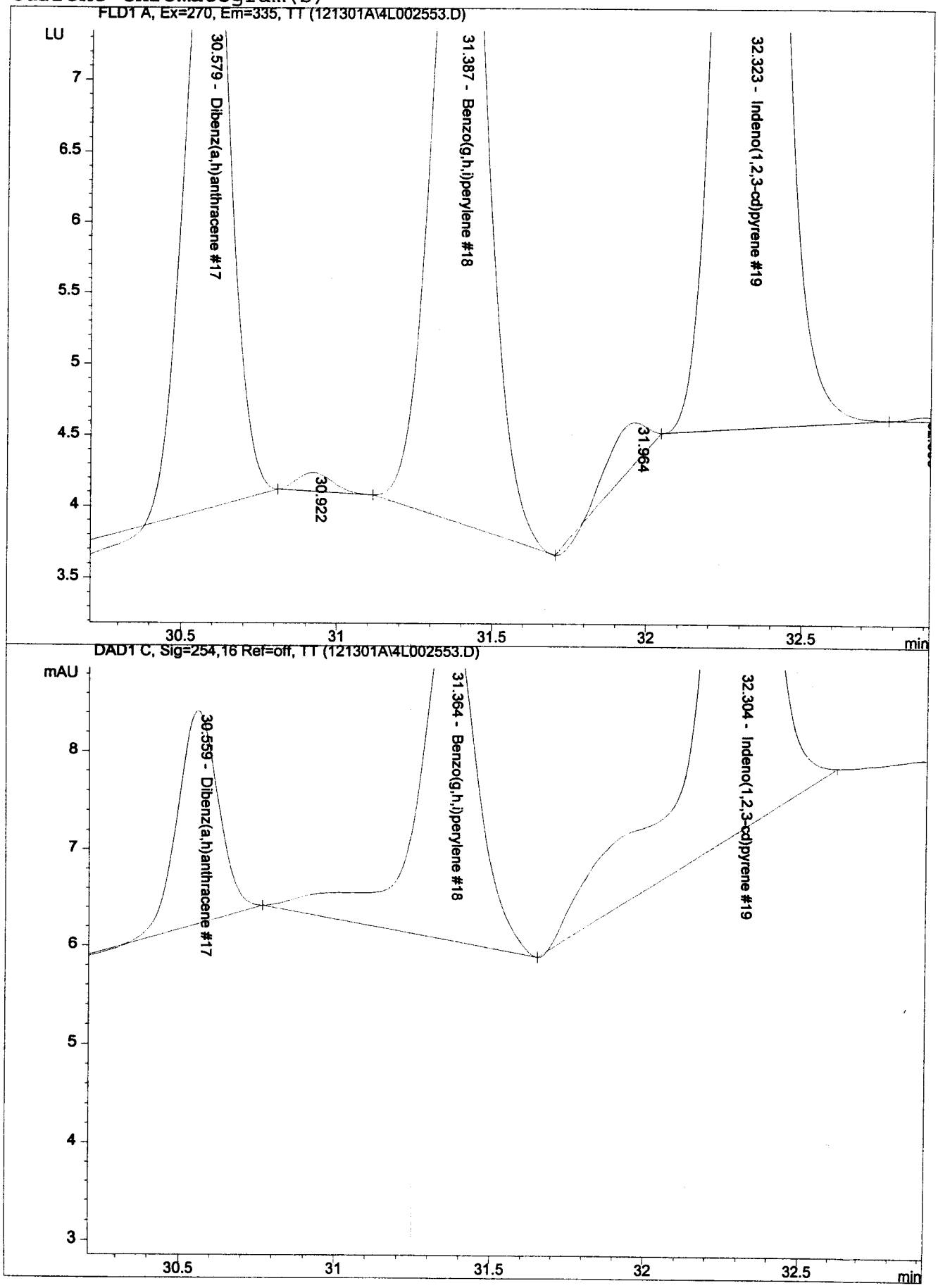
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/13/2001 12:49:22 PM by RDC
(modified after loading)

Calibrated 12/07/2001

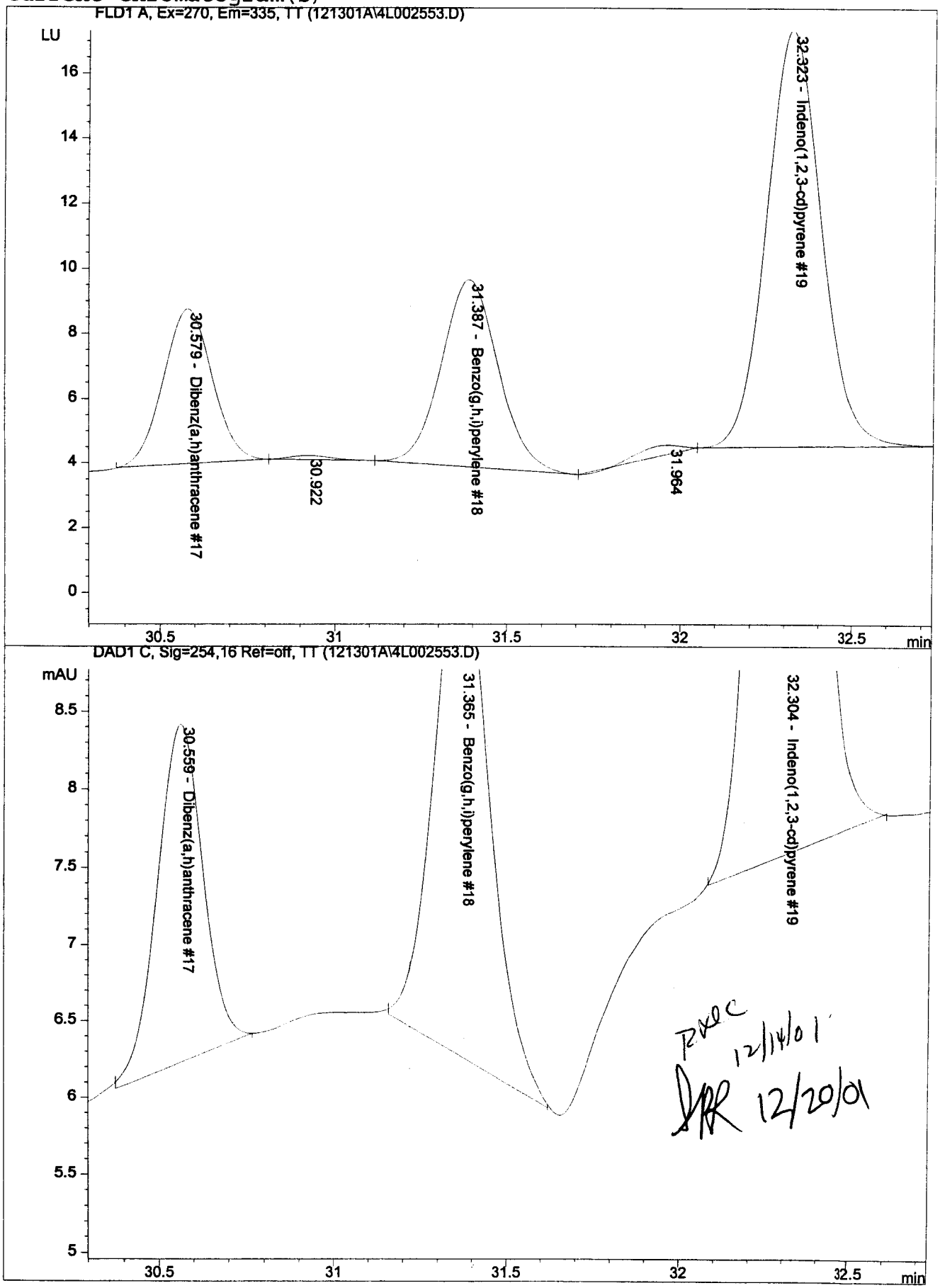




Current Chromatogram(s)



Current Chromatogram(s)



External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, December 12, 2001 1:25:11 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.378	PB	740.12653	2.64309e-2	19.56218		Naphthalene #1
11.972	BB	850.11090	2.30826e-2	19.62273		1-Methylnaphthalene #3
12.551	BB	1112.98486	1.77135e-2	19.71490		2-Methylnaphthalene #4
13.033	BB	1403.71985	1.41307e-2	19.83550		Acenaphthene #5
13.695	BB	3046.13184	6.55799e-3	19.97650		Fluorene #6
15.090	BBA	110.68744	1.72114e-1	19.05081		Phenanthrene #7
16.504	PB	64.14818	3.11763e-1	19.99906		Anthracene #8
17.888	BB	80.45851	2.51883e-2	2.02661		Fluoranthene #9
18.899	BB	44.67535	4.52106e-2	2.01980		Pyrene #10
21.255	BB	64.77541	2.98861e-1	19.35887		p-Terphenyl d14 #11*
22.579	BB	232.32527	8.29841e-3	1.92793		Benzo(a)anthracene #12
23.456	BB	47.17711	4.07647e-2	1.92316		Chrysene #13
26.176	BB	114.78053	1.66521e-2	1.91134		Benzo(b)fluoranthene #14
27.606	BB	345.17279	2.77713e-3	9.58591e-1		Benzo(k)fluoranthene #15
28.717	BB	388.33478	5.23910e-3	2.03453		Benzo(a)pyrene #16
30.579	FM	46.87026	4.06442e-2	1.90500		Dibenz(a,h)anthracene #17
31.387	BB	67.02573	3.02212e-2	2.02560		Benzo(g,h,i)perylene #18
32.323	BB	141.69006	1.37336e-2	1.94591		Indeno(1,2,3-cd)pyrene #1
Totals :				175.79902		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.357	PBA	2490.95483	8.11569e-3	20.21581		Naphthalene #1
10.996	BBA	652.54102	2.94003e-2	19.18492		Acenaphthylene #2
11.952	PB	1526.14697	1.26957e-2	19.37549		1-Methylnaphthalene #3
12.531	BB	1783.45361	1.10418e-2	19.69250		2-Methylnaphthalene #4
13.013	BB	963.79785	1.99953e-2	19.27142		Acenaphthene #5
13.674	BBA	1110.16772	1.72604e-2	19.16195		Fluorene #6
15.069	BBA	1127.19397	1.70751e-2	19.24693		Phenanthrene #7
16.484	PBA	1976.42896	1.03316e-2	20.41962		Anthracene #8
17.866	PB	88.64554	2.13939e-2	1.89647		Fluoranthene #9
18.877	BBA	134.29735	1.42346e-2	1.91167		Pyrene #10
21.234	PBA	296.20859	6.51566e-2	19.29994		p-Terphenyl d14 #11*
22.559	PBA	86.74597	2.19558e-2	1.90457		Benzo(a)anthracene #12
23.435	PBA	127.79596	1.48093e-2	1.89257		Chrysene #13
26.155	BB	90.86937	2.03417e-2	1.84844		Benzo(b)fluoranthene #14
27.585	BB	40.47584	2.21503e-2	8.96553e-1		Benzo(k)fluoranthene #15
28.696	BB	69.39249	2.80792e-2	1.94848		Benzo(a)pyrene #16
30.559	FM	19.99796	9.27377e-2	1.85456		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.365	MM	37.04281	5.56826e-2	2.06264		Benzo(g,h,i)perylene #18
32.304	MM	94.69643	2.02125e-2	1.91405		Indeno(1,2,3-cd)pyrene #1

Totals : 193.99861

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\121901\4L002555.D Sample Name: WG110267-01 CCV
HPLC4 12/19/2001 12:15:22 PM RDC

1,1 SOS56-19/56-20 level 4 std. 20/2/1 ppm

==========
Injection Date : 12/19/2001 9:44:00 AM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.414	20.0	20.640	3.2
1-Methylnaphthalene #3	11.998	20.0	20.686	3.4
2-Methylnaphthalene #4	12.575	20.0	20.602	3.0
Acenaphthene #5	13.055	20.0	20.564	2.8
Fluorene #6	13.710	20.0	20.135	0.7
Phenanthrene #7	15.100	20.0	20.061	0.3
Anthracene #8	16.510	20.0	20.088	0.4
Fluoranthene #9	17.888	2.0	2.057	2.8
Pyrene #10	18.892	2.0	2.397	19.8 #
p-Terphenyl d14 #11*	21.220	20.0	20.000	0.0
Benzo(a)anthracene #12	22.546	2.0	2.052	2.6
Chrysene #13	23.414	2.0	2.064	3.2
Benzo(b)fluoranthene #14	26.120	2.0	1.969	-1.5
Benzo(k)fluoranthene #15	27.537	1.0	0.982	-1.8
Benzo(a)pyrene #16	28.651	2.0	2.296	14.8
Dibenz(a,h)anthracene #1	30.504	2.0	1.991	-0.4
Benzo(g,h,i)perylene #18	31.318	2.0	2.312	15.6 #
Indeno(1,2,3-cd)pyrene #	32.258	2.0	1.923	-3.8

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.396	20.0	20.199	1.0
Acenaphthylene #2	11.028	20.0	19.172	-4.1
1-Methylnaphthalene #3	11.980	20.0	19.369	-3.2
2-Methylnaphthalene #4	12.557	20.0	19.682	-1.6
Acenaphthene #5	13.037	20.0	19.278	-3.6
Fluorene #6	13.692	20.0	19.212	-3.9
Phenanthrene #7	15.082	20.0	19.246	-3.8
Anthracene #8	16.491	20.0	20.468	2.3
Fluoranthene #9	17.869	2.0	1.901	-5.0
Pyrene #10	18.873	2.0	1.890	-5.5
p-Terphenyl d14 #11*	21.202	20.0	19.660	-1.7
Benzo(a)anthracene #12	22.527	2.0	1.900	-5.0
Chrysene #13	23.396	2.0	1.888	-5.6
Benzo(b)fluoranthene #14	26.102	2.0	1.897	-5.1
Benzo(k)fluoranthene #15	27.519	1.0	0.943	-5.7
Benzo(a)pyrene #16	28.632	2.0	2.082	4.1
Dibenz(a,h)anthracene #1	30.486	2.0	2.001	0.0
Benzo(g,h,i)perylene #18	31.298	2.0	2.232	11.6
Indeno(1,2,3-cd)pyrene #	32.238	2.0	1.894	-5.3

= Failed 15.0% Criteria

1,1 SOS56-19/56-20 level 4 std. 20/2/1 ppm

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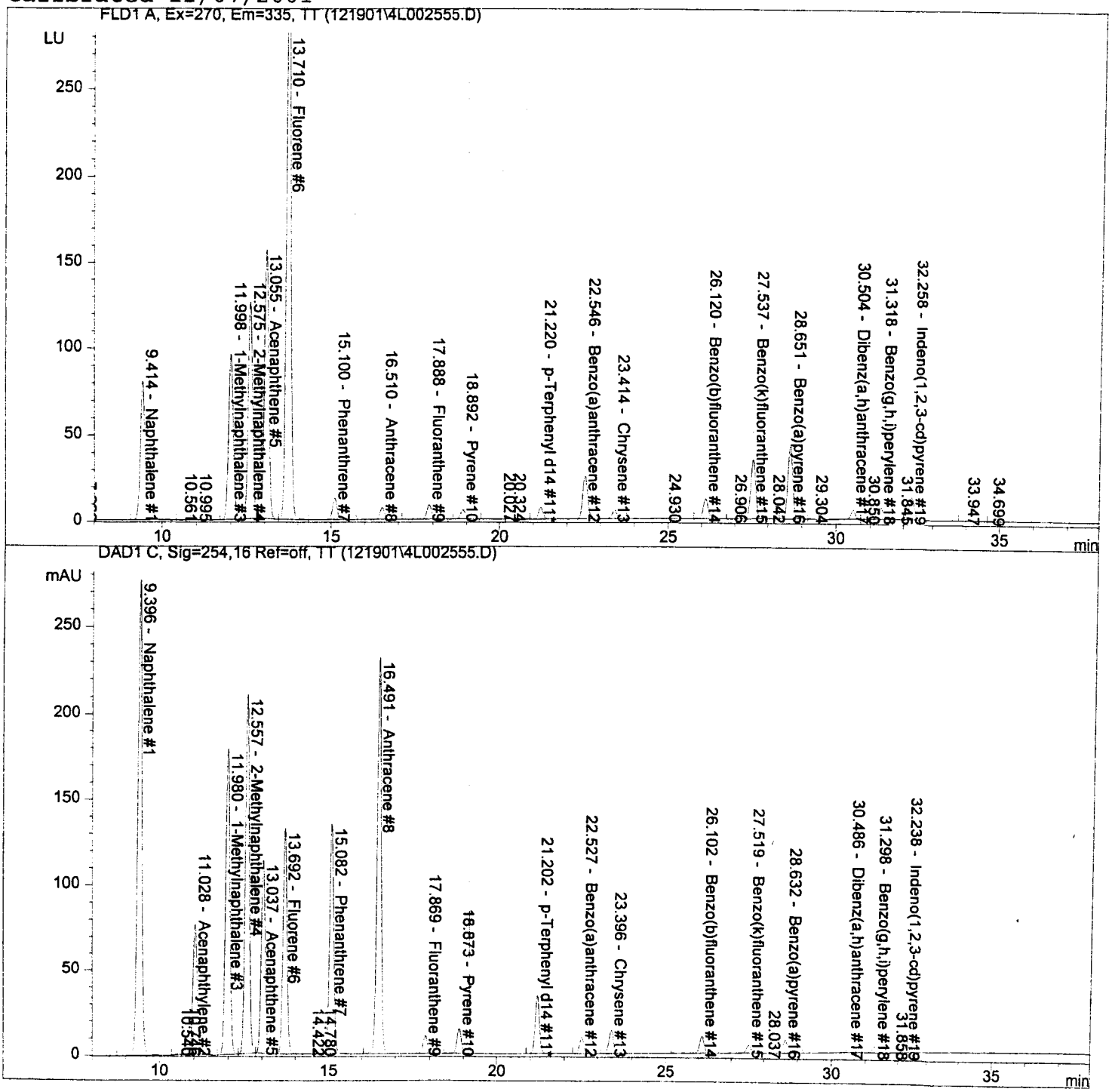
Injection Date	: 12/19/2001 9:44:00 AM	Seq. Line	: 2
Sample Name	: WG110267-01 CCV	Vial	: 2
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:34:37 AM by RDC
Calibrated 12/07/2001



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:34:24 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.414	BB	780.89008	2.64309e-2	20.63960		Naphthalene #1
11.998	PB	896.16266	2.30826e-2	20.68572		1-Methylnaphthalene #3
12.575	BB	1163.08594	1.77135e-2	20.60237		2-Methylnaphthalene #4
13.055	BB	1455.28821	1.41307e-2	20.56419		Acenaphthene #5
13.710	BB	3070.33838	6.55799e-3	20.13524		Fluorene #6
15.100	BBA	116.55586	1.72114e-1	20.06085		Phenanthrene #7
16.510	PB	64.43264	3.11763e-1	20.08774		Anthracene #8
17.888	BBA	81.65026	2.51883e-2	2.05663		Fluoranthene #9
18.892	PBA	53.01725	4.52106e-2	2.39694		Pyrene #10
21.220	BB	66.92066	2.98861e-1	20.00000		p-Terphenyl d14 #11*
22.546	BB	247.27220	8.29841e-3	2.05197		Benzo(a)anthracene #12
23.414	BB	50.63445	4.07647e-2	2.06410		Chrysene #13
26.120	BB	118.25377	1.66521e-2	1.96918		Benzo(b)fluoranthene #14
27.537	BB	353.75052	2.77713e-3	9.82413e-1		Benzo(k)fluoranthene #15
28.651	BB	438.20651	5.23910e-3	2.29581		Benzo(a)pyrene #16
30.504	BB	48.98871	4.06442e-2	1.99111		Dibenz(a,h)anthracene #17
31.318	BB	76.49146	3.02212e-2	2.31167		Benzo(g,h,i)perylene #18
32.258	BB	140.04890	1.37336e-2	1.92337		Indeno(1,2,3-cd)pyrene #1

Totals : 182.81889

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.396	PBA	2488.90698	8.11569e-3	20.19919		Naphthalene #1
11.028	BBA	652.10071	2.94003e-2	19.17198		Acenaphthylene #2
11.980	PB	1525.67407	1.26957e-2	19.36949		1-Methylnaphthalene #3
12.557	BB	1782.52039	1.10418e-2	19.68220		2-Methylnaphthalene #4
13.037	BB	964.10974	1.99953e-2	19.27765		Acenaphthene #5
13.692	BB	1113.08667	1.72604e-2	19.21233		Fluorene #6
15.082	BBA	1127.11536	1.70751e-2	19.24559		Phenanthrene #7
16.491	BBA	1981.08447	1.03316e-2	20.46772		Anthracene #8
17.869	PB	88.83972	2.13939e-2	1.90063		Fluoranthene #9
18.873	BBA	132.74471	1.42346e-2	1.88957		Pyrene #10
21.202	PBA	301.73758	6.51566e-2	19.66019		p-Terphenyl d14 #11*
22.527	PBA	86.52181	2.19558e-2	1.89965		Benzo(a)anthracene #12
23.396	BBA	127.47562	1.48093e-2	1.88783		Chrysene #13
26.102	PBA	93.26725	2.03417e-2	1.89722		Benzo(b)fluoranthene #14
27.519	PBA	42.56195	2.21503e-2	9.42761e-1		Benzo(k)fluoranthene #15
28.632	BBA	74.16414	2.80792e-2	2.08247		Benzo(a)pyrene #16
30.486	PB	21.57375	9.27377e-2	2.00070		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.298	BB	40.07715	5.56826e-2	2.23160		Benzo(g,h,i)perylene #18
32.238	BB	93.69237	2.02125e-2	1.89376		Indeno(1,2,3-cd)pyrene #1

Totals : 194.91252

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\121901\4L002561.D Sample Name: WG110267-02 CCV
HPLC4 12/20/2001 11:54:39 AM RDC

1,1 SOS56-19/56-20 level 4 std. 20/2/1 ppm

==========

Injection Date : 12/19/2001 3:23:41 PM Seq. Line : 8

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.385	20.0	19.656	-1.7
1-Methylnaphthalene #3	11.979	20.0	19.754	-1.2
2-Methylnaphthalene #4	12.557	20.0	19.796	-1.0
Acenaphthene #5	13.038	20.0	19.909	-0.5
Fluorene #6	13.694	20.0	19.957	-0.2
Phenanthrene #7	15.083	20.0	19.279	-3.6
Anthracene #8	16.491	20.0	19.734	-1.3
Fluoranthene #9	17.869	2.0	2.028	1.4
Pyrene #10	18.876	2.0	2.096	4.8
p-Terphenyl d14 #11*	21.216	20.0	20.061	0.3
Benzo(a)anthracene #12	22.533	2.0	1.967	-1.7
Chrysene #13	23.400	2.0	1.968	-1.6
Benzo(b)fluoranthene #14	26.108	2.0	1.925	-3.8
Benzo(k)fluoranthene #15	27.524	1.0	0.968	-3.2
Benzo(a)pyrene #16	28.633	2.0	2.077	3.9
Dibenz(a,h)anthracene #1	30.482	2.0	1.944	-2.8
Benzo(g,h,i)perylene #18	31.290	2.0	2.039	1.9
Indeno(1,2,3-cd)pyrene #	32.224	2.0	1.917	-4.1

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.370	20.0	20.228	1.1
Acenaphthylene #2	11.009	20.0	19.211	-3.9
1-Methylnaphthalene #3	11.964	20.0	19.402	-3.0
2-Methylnaphthalene #4	12.541	20.0	19.713	-1.4
Acenaphthene #5	13.023	20.0	19.278	-3.6
Fluorene #6	13.678	20.0	19.219	-3.9
Phenanthrene #7	15.068	20.0	19.277	-3.6
Anthracene #8	16.475	20.0	20.116	0.6
Fluoranthene #9	17.853	2.0	1.906	-4.7
Pyrene #10	18.860	2.0	1.893	-5.4
p-Terphenyl d14 #11*	21.201	20.0	19.666	-1.7
Benzo(a)anthracene #12	22.517	2.0	1.913	-4.4
Chrysene #13	23.385	2.0	1.891	-5.4
Benzo(b)fluoranthene #14	26.092	2.0	1.900	-5.0
Benzo(k)fluoranthene #15	27.508	1.0	0.954	-4.6
Benzo(a)pyrene #16	28.617	2.0	2.001	0.0
Dibenz(a,h)anthracene #1	30.467	2.0	1.934	-3.3
Benzo(g,h,i)perylene #18	31.274	2.0	2.049	2.5
Indeno(1,2,3-cd)pyrene #	32.206	2.0	1.873	-6.4

= Failed 15.0% Criteria

1,1 SOS56-19/56-20 level 4 std. 20/2/1 ppm

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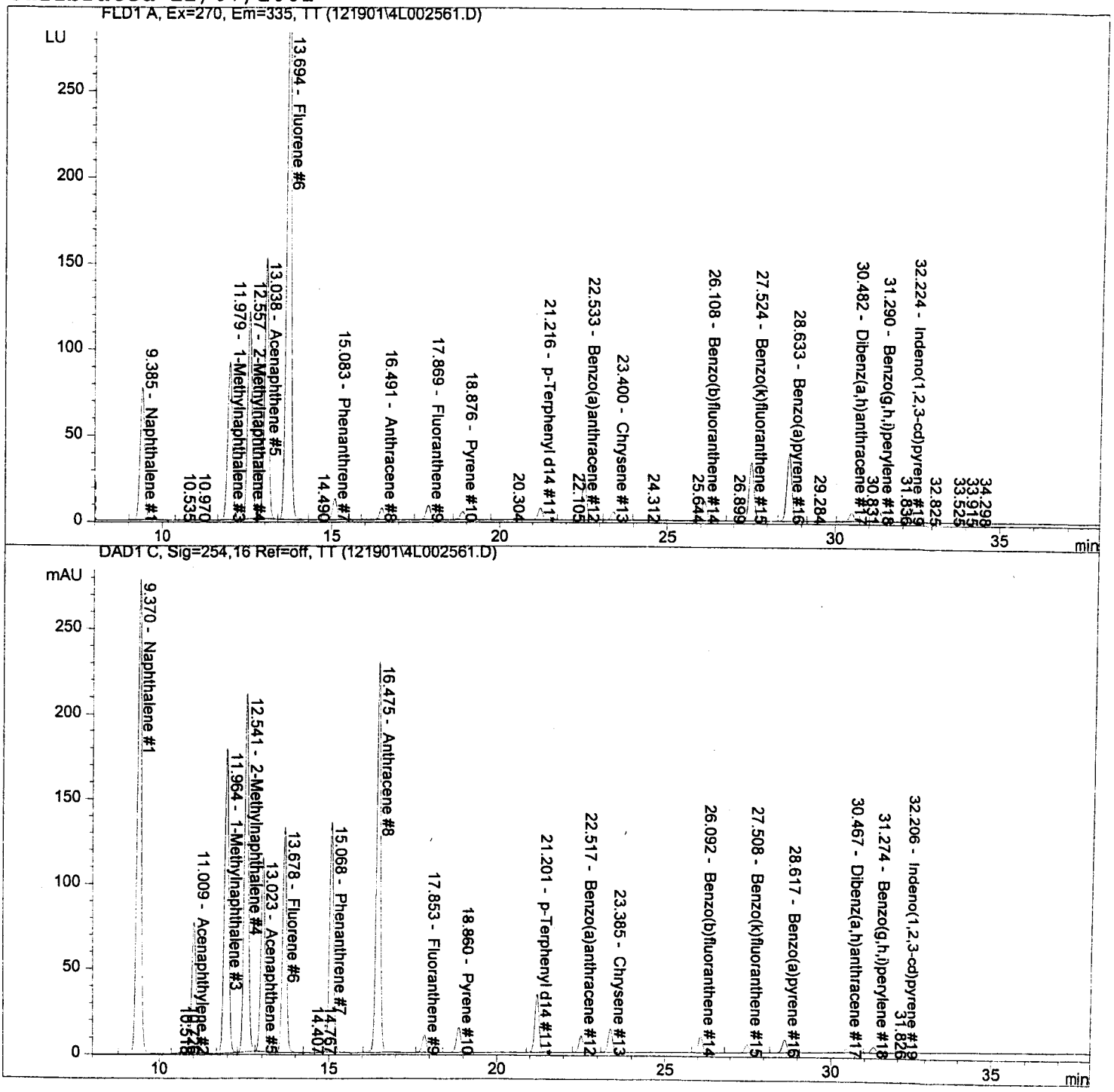
Injection Date	: 12/19/2001 3:23:41 PM	Seq. Line	: 8
Sample Name	: WG110267-02 CCV	Vial	: 8
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:34:37 AM by RDC
Calibrated 12/07/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:34:24 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.385	BBA	743.67645	2.64309e-2	19.65601		Naphthalene #1
11.979	BB	855.81219	2.30826e-2	19.75433		1-Methylnaphthalene #3
12.557	BB	1117.57544	1.77135e-2	19.79622		2-Methylnaphthalene #4
13.038	BB	1408.94080	1.41307e-2	19.90927		Acenaphthene #5
13.694	BB	3043.16040	6.55799e-3	19.95701		Fluorene #6
15.083	BBA	112.01334	1.72114e-1	19.27902		Phenanthrene #7
16.491	PBA	63.29950	3.11763e-1	19.73447		Anthracene #8
17.869	PBA	80.51553	2.51883e-2	2.02805		Fluoranthene #9
18.876	BBA	46.36762	4.52106e-2	2.09631		Pyrene #10
21.216	BB	67.12491	2.98861e-1	20.06104		p-Terphenyl d14 #11*
22.533	BB	237.02682	8.29841e-3	1.96695		Benzo(a)anthracene #12
23.400	BB	48.28241	4.07647e-2	1.96822		Chrysene #13
26.108	BB	115.58603	1.66521e-2	1.92476		Benzo(b)fluoranthene #14
27.524	BB	348.73691	2.77713e-3	9.68489e-1		Benzo(k)fluoranthene #15
28.633	BB	396.47925	5.23910e-3	2.07720		Benzo(a)pyrene #16
30.482	BB	47.82090	4.06442e-2	1.94364		Dibenz(a,h)anthracene #17
31.290	BB	67.45325	3.02212e-2	2.03852		Benzo(g,h,i)perylene #18
32.224	BB	139.59027	1.37336e-2	1.91708		Indeno(1,2,3-cd)pyrene #1
Totals :				177.07656		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.370	PBA	2492.43481	8.11569e-3	20.22782		Naphthalene #1
11.009	BBA	653.42755	2.94003e-2	19.21099		Acenaphthylene #2
11.964	PB	1528.23376	1.26957e-2	19.40199		1-Methylnaphthalene #3
12.541	BB	1785.29260	1.10418e-2	19.71281		2-Methylnaphthalene #4
13.023	BB	964.12671	1.99953e-2	19.27799		Acenaphthene #5
13.678	BBA	1113.48706	1.72604e-2	19.21924		Fluorene #6
15.068	BBA	1128.92847	1.70751e-2	19.27655		Phenanthrene #7
16.475	PBA	1947.08081	1.03316e-2	20.11641		Anthracene #8
17.853	PB	89.10999	2.13939e-2	1.90641		Fluoranthene #9
18.860	BBA	132.98395	1.42346e-2	1.89297		Pyrene #10
21.201	PBA	301.83105	6.51566e-2	19.66628		p-Terphenyl d14 #11*
22.517	PBA	87.12578	2.19558e-2	1.91291		Benzo(a)anthracene #12
23.385	BBA	127.69934	1.48093e-2	1.89114		Chrysene #13
26.092	BBA	93.39716	2.03417e-2	1.89986		Benzo(b)fluoranthene #14
27.508	BBA	43.07663	2.21503e-2	9.54161e-1		Benzo(k)fluoranthene #15
28.617	BB	71.25577	2.80792e-2	2.00080		Benzo(a)pyrene #16
30.467	BB	20.84957	9.27377e-2	1.93354		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.274	BB	36.80598	5.56826e-2	2.04945		Benzo(g,h,i)perylene #18
32.206	BB	92.65092	2.02125e-2	1.87271		Indeno(1,2,3-cd)pyrene #1

Totals : 194.42403

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\121901\4L002572.D Sample Name: WG110267-03 CCV
HPLC4 12/20/2001 1:24:43 PM RDC

1,1 SOS56-19/56-20 level 4 std. 20/2/1 ppm

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Injection Date : 12/20/2001 1:46:35 AM Seq. Line : 19

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.336	20.0	19.368	-3.2
1-Methylnaphthalene #3	11.933	20.0	19.372	-3.1
2-Methylnaphthalene #4	12.513	20.0	19.496	-2.5
Acenaphthene #5	12.996	20.0	19.671	-1.6
Fluorene #6	13.654	20.0	19.917	-0.4
Phenanthrene #7	15.050	20.0	19.269	-3.7
Anthracene #8	16.461	20.0	19.993	0.0
Fluoranthene #9	17.843	2.0	2.014	0.7
Pyrene #10	18.851	2.0	1.999	-0.1
p-Terphenyl d14 #11*	21.194	20.0	20.061	0.3
Benzo(a)anthracene #12	22.508	2.0	1.928	-3.6
Chrysene #13	23.375	2.0	1.922	-3.9
Benzo(b)fluoranthene #14	26.079	2.0	1.908	-4.6
Benzo(k)fluoranthene #15	27.493	1.0	0.964	-3.6
Benzo(a)pyrene #16	28.600	2.0	2.084	4.2
Dibenz(a,h)anthracene #1	30.453	2.0	1.892	-5.4
Benzo(g,h,i)perylene #18	31.263	2.0	2.007	0.4
Indeno(1,2,3-cd)pyrene #	32.193	2.0	1.903	-4.9

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.317	20.0	20.296	1.5
Acenaphthylene #2	10.960	20.0	19.276	-3.6
1-Methylnaphthalene #3	11.914	20.0	19.441	-2.8
2-Methylnaphthalene #4	12.493	20.0	19.756	-1.2
Acenaphthene #5	12.977	20.0	19.366	-3.2
Fluorene #6	13.634	20.0	19.286	-3.6
Phenanthrene #7	15.030	20.0	19.336	-3.3
Anthracene #8	16.441	20.0	20.486	2.4
Fluoranthene #9	17.822	2.0	1.902	-4.9
Pyrene #10	18.830	2.0	1.905	-4.8
p-Terphenyl d14 #11*	21.174	20.0	19.719	-1.4
Benzo(a)anthracene #12	22.488	2.0	1.918	-4.1
Chrysene #13	23.355	2.0	1.900	-5.0
Benzo(b)fluoranthene #14	26.059	2.0	1.901	-5.0
Benzo(k)fluoranthene #15	27.473	1.0	0.960	-4.0
Benzo(a)pyrene #16	28.580	2.0	1.976	-1.2
Dibenz(a,h)anthracene #1	30.433	2.0	1.990	-0.5
Benzo(g,h,i)perylene #18	31.243	2.0	2.236	11.8
Indeno(1,2,3-cd)pyrene #	32.168	2.0	1.889	-5.6

= Failed 15.0% Criteria

1,1 SOS56-19/56-20 level 4 std. 20/2/1 ppm

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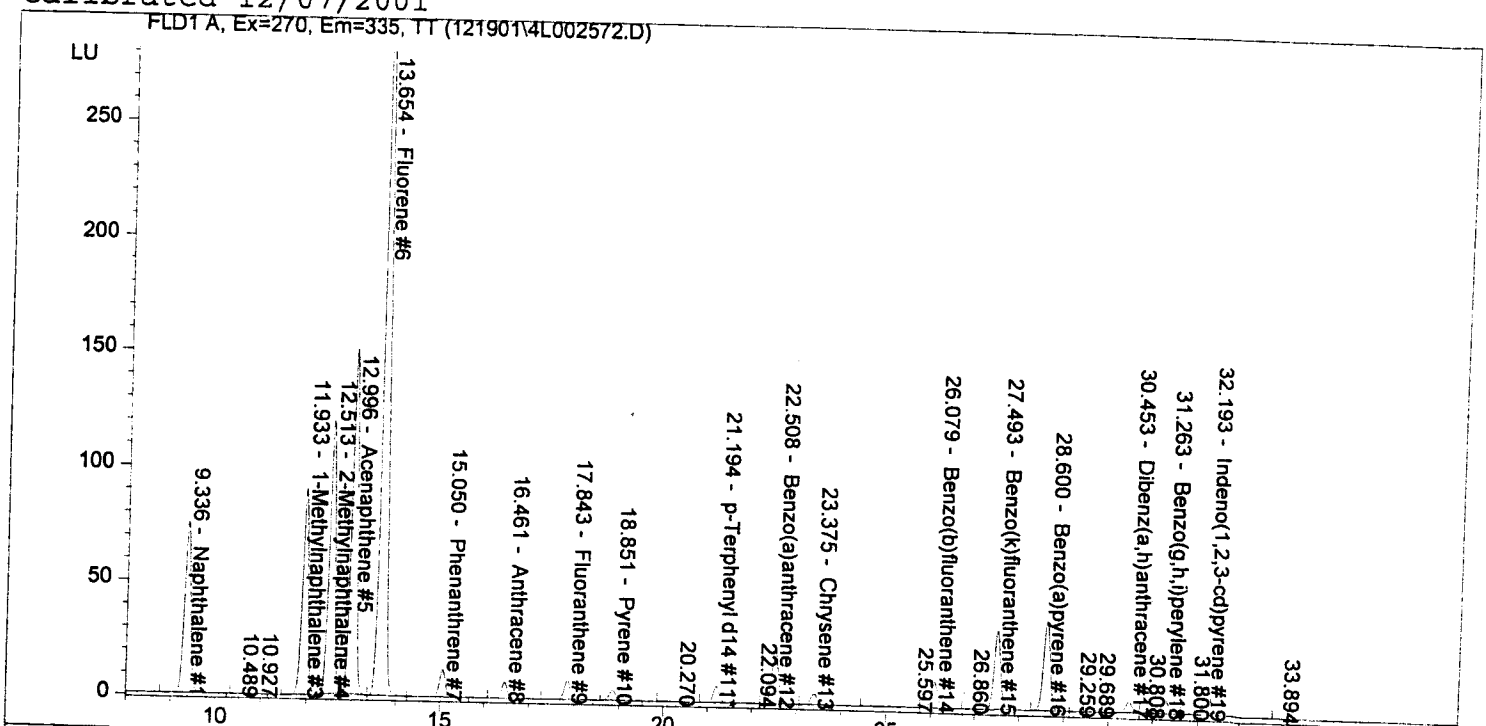
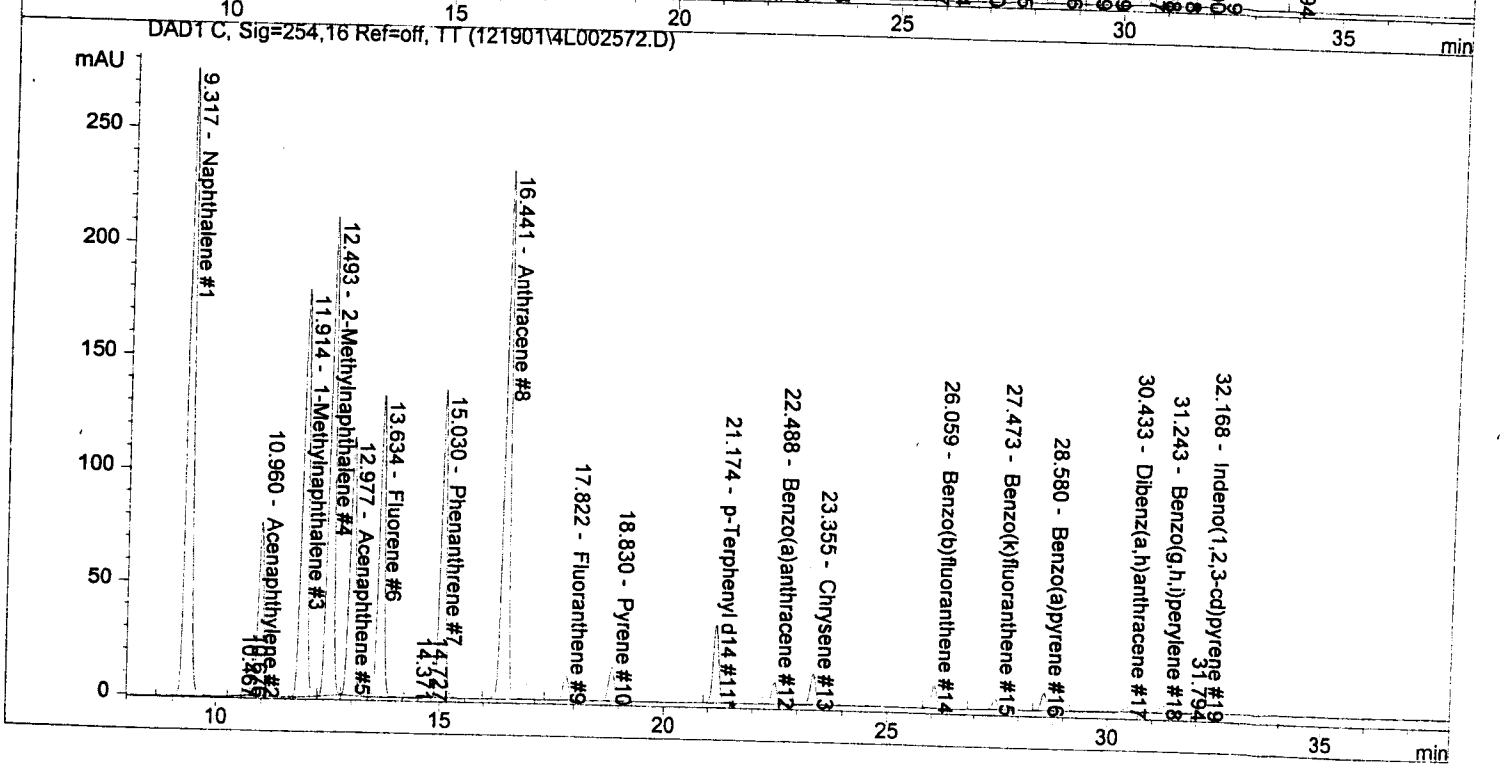
Injection Date : 12/20/2001 1:46:35 AM
Sample Name : WG110267-03 CCV
Acq. Operator : RDC

Seq. Line : 19
Vial : 19
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:34:37 AM by RDC
Calibrated 12/07/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:34:24 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.336	BBA	732.77991	2.64309e-2	19.36800		Naphthalene #1
11.933	BB	839.23553	2.30826e-2	19.37170		1-Methylnaphthalene #3
12.513	BB	1100.59900	1.77135e-2	19.49551		2-Methylnaphthalene #4
12.996	BB	1392.04932	1.41307e-2	19.67058		Acenaphthene #5
13.654	BB	3036.99316	6.55799e-3	19.91656		Fluorene #6
15.050	BBA	111.95587	1.72114e-1	19.26913		Phenanthrene #7
16.461	PB	64.12800	3.11763e-1	19.99277		Anthracene #8
17.843	BBA	79.95046	2.51883e-2	2.01382		Fluoranthene #9
18.851	BB	44.20723	4.52106e-2	1.99863		Pyrene #10
21.194	BB	67.12396	2.98861e-1	20.06076		p-Terphenyl d14 #11*
22.508	BB	232.32736	8.29841e-3	1.92795		Benzo(a)anthracene #12
23.375	BBA	47.15191	4.07647e-2	1.92214		Chrysene #13
26.079	BB	114.57164	1.66521e-2	1.90786		Benzo(b)fluoranthene #14
27.493	BB	347.13672	2.77713e-3	9.64045e-1		Benzo(k)fluoranthene #15
28.600	BB	397.80286	5.23910e-3	2.08413		Benzo(a)pyrene #16
30.453	BB	46.54641	4.06442e-2	1.89184		Dibenz(a,h)anthracene #17
31.263	BB	66.41383	3.02212e-2	2.00711		Benzo(g,h,i)perylene #18
32.193	BB	138.56567	1.37336e-2	1.90300		Indeno(1,2,3-cd)pyrene #1
Totals :				175.76553		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.317	PBA	2500.84863	8.11569e-3	20.29610		Naphthalene #1
10.960	BBA	655.64917	2.94003e-2	19.27630		Acenaphthylene #2
11.914	PB	1531.32239	1.26957e-2	19.44120		1-Methylnaphthalene #3
12.493	BB	1789.21704	1.10418e-2	19.75614		2-Methylnaphthalene #4
12.977	BB	968.52228	1.99953e-2	19.36588		Acenaphthene #5
13.634	BBA	1117.35901	1.72604e-2	19.28607		Fluorene #6
15.030	BBA	1132.41956	1.70751e-2	19.33616		Phenanthrene #7
16.441	PBA	1982.89954	1.03316e-2	20.48648		Anthracene #8
17.822	PB	88.88225	2.13939e-2	1.90154		Fluoranthene #9
18.830	BBA	133.80525	1.42346e-2	1.90466		Pyrene #10
21.174	BBA	302.63925	6.51566e-2	19.71894		p-Terphenyl d14 #11*
22.488	PBA	87.37507	2.19558e-2	1.91839		Benzo(a)anthracene #12
23.355	PBA	128.31345	1.48093e-2	1.90024		Chrysene #13
26.059	BBA	93.43134	2.03417e-2	1.90056		Benzo(b)fluoranthene #14
27.473	BBA	43.32637	2.21503e-2	9.59693e-1		Benzo(k)fluoranthene #15
28.580	BB	70.38770	2.80792e-2	1.97643		Benzo(a)pyrene #16
30.433	BB	21.45428	9.27377e-2	1.98962		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.243	BB	40.15855	5.56826e-2	2.23613		Benzo(g,h,i)perylene #18
32.168	BBA	93.44720	2.02125e-2	1.88880		Indeno(1,2,3-cd)pyrene #1
Totals :				195.53933		

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\121901\4L002582.D Sample Name: WG110267-04 CCV
HPLC4 12/20/2001 1:39:55 PM RDC

1,1 SOS56-19/56-20 level 4 std. 20/2/1 ppm

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Injection Date : 12/20/2001 11:13:05 AM Seq. Line : 29

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.335	20.0	19.822	-0.9
1-Methylnaphthalene #3	11.931	20.0	19.908	-0.5
2-Methylnaphthalene #4	12.510	20.0	19.995	0.0
Acenaphthene #5	12.992	20.0	20.128	0.6
Fluorene #6	13.649	20.0	20.097	0.5
Phenanthrene #7	15.039	20.0	19.364	-3.2
Anthracene #8	16.455	20.0	20.248	1.2
Fluoranthene #9	17.841	2.0	2.047	2.3
Pyrene #10	18.852	2.0	2.106	5.3
p-Terphenyl d14 #11*	21.210	20.0	19.968	-0.2
Benzo(a)anthracene #12	22.531	2.0	1.982	-0.9
Chrysene #13	23.407	2.0	1.981	-0.9
Benzo(b)fluoranthene #14	26.138	2.0	1.946	-2.7
Benzo(k)fluoranthene #15	27.575	1.0	0.976	-2.4
Benzo(a)pyrene #16	28.691	2.0	2.113	5.6
Dibenz(a,h)anthracene #1	30.558	2.0	1.917	-4.2
Benzo(g,h,i)perylene #18	31.367	2.0	2.090	4.5
Indeno(1,2,3-cd)pyrene #	32.303	2.0	1.948	-2.6

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.320	20.0	20.360	1.8
Acenaphthylene #2	10.959	20.0	19.367	-3.2
1-Methylnaphthalene #3	11.917	20.0	19.552	-2.2
2-Methylnaphthalene #4	12.495	20.0	19.890	-0.6
Acenaphthene #5	12.978	20.0	19.528	-2.4
Fluorene #6	13.634	20.0	19.357	-3.2
Phenanthrene #7	15.024	20.0	19.450	-2.8
Anthracene #8	16.440	20.0	20.532	2.7
Fluoranthene #9	17.826	2.0	1.921	-4.0
Pyrene #10	18.836	2.0	1.921	-3.9
p-Terphenyl d14 #11*	21.196	20.0	19.833	-0.8
Benzo(a)anthracene #12	22.516	2.0	1.932	-3.4
Chrysene #13	23.393	2.0	1.922	-3.9
Benzo(b)fluoranthene #14	26.123	2.0	1.923	-3.9
Benzo(k)fluoranthene #15	27.560	1.0	0.982	-1.8
Benzo(a)pyrene #16	28.676	2.0	2.035	1.8
Dibenz(a,h)anthracene #1	30.543	2.0	1.928	-3.6
Benzo(g,h,i)perylene #18	31.351	2.0	2.034	1.7
Indeno(1,2,3-cd)pyrene #	32.287	2.0	1.924	-3.8

= Failed 15.0% Criteria

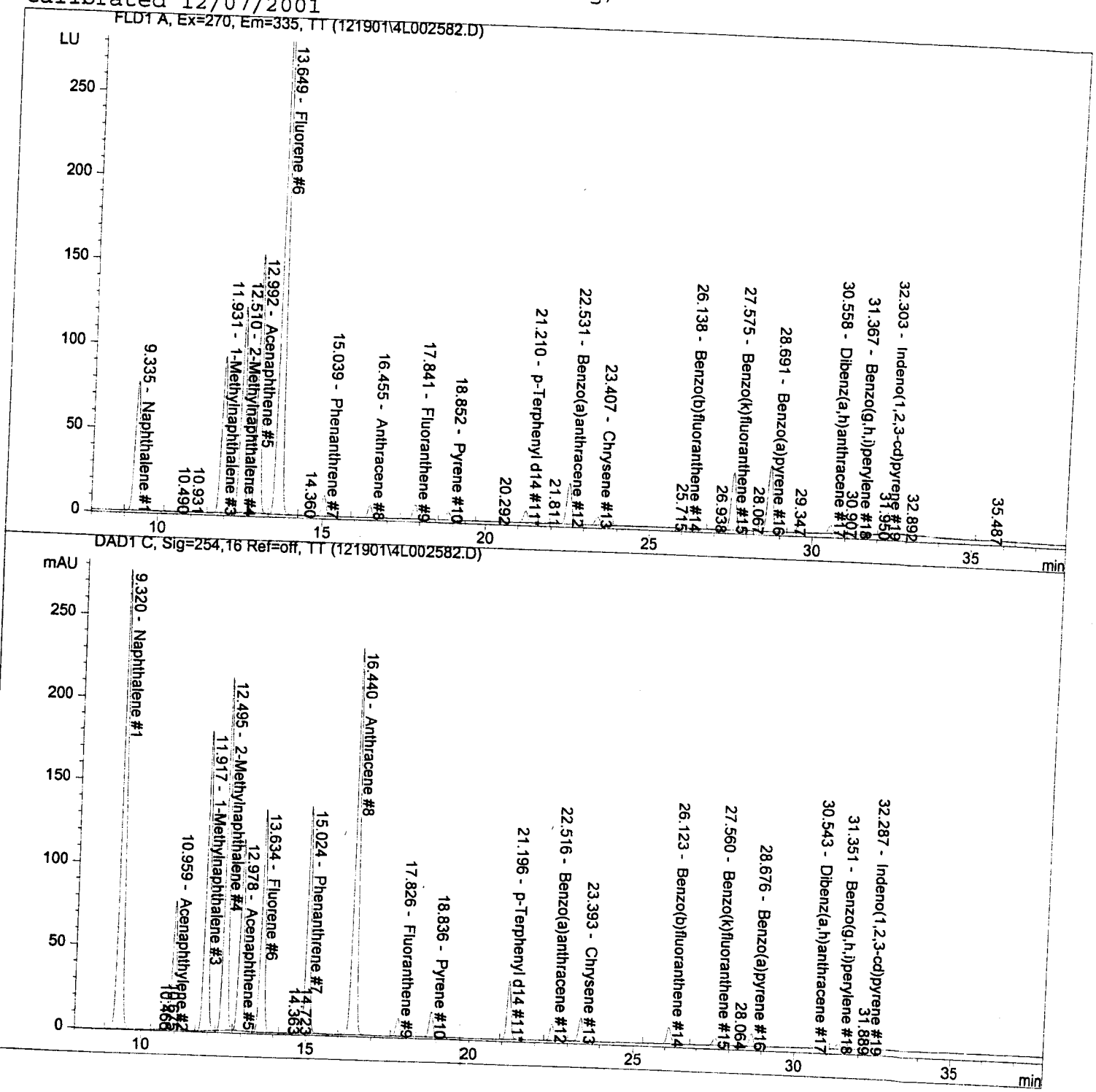
==========

Injection Date : 12/20/2001 11:13:05 AM
Sample Name : WG110267-04 CCV
Acq. Operator : RDC

Seq. Line : 29
Vial : 19
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/20/2001 1:39:21 PM by RDC
(modified after loading)

Calibrated 12/07/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:34:24 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.335	BBA	749.94928	2.64309e-2	19.82180		Naphthalene #1
11.931	BB	862.46069	2.30826e-2	19.90779		1-Methylnaphthalene #3
12.510	BB	1128.79980	1.77135e-2	19.99504		2-Methylnaphthalene #4
12.992	BB	1424.39404	1.41307e-2	20.12764		Acenaphthene #5
13.649	BB	3064.43335	6.55799e-3	20.09652		Fluorene #6
15.039	BBA	112.50610	1.72114e-1	19.36383		Phenanthrene #7
16.455	PBA	64.94707	3.11763e-1	20.24812		Anthracene #8
17.841	PBA	81.26759	2.51883e-2	2.04699		Fluoranthene #9
18.852	BBA	46.57216	4.52106e-2	2.10555		Pyrene #10
21.210	BB	66.81271	2.98861e-1	19.96774		p-Terphenyl d14 #11*
22.531	BB	238.79767	8.29841e-3	1.98164		Benzo(a)anthracene #12
23.407	BB	48.60495	4.07647e-2	1.98137		Chrysene #13
26.138	BB	116.85297	1.66521e-2	1.94585		Benzo(b)fluoranthene #14
27.575	BB	351.52377	2.77713e-3	9.76229e-1		Benzo(k)fluoranthene #15
28.691	BB	403.28207	5.23910e-3	2.11284		Benzo(a)pyrene #16
30.558	BB	47.16200	4.06442e-2	1.91686		Dibenz(a,h)anthracene #17
31.367	BB	69.15968	3.02212e-2	2.09009		Benzo(g,h,i)perylene #18
32.303	BB	141.84358	1.37336e-2	1.94802		Indeno(1,2,3-cd)pyrene #1
Totals :				178.63393		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.320	PBA	2508.69189	8.11569e-3	20.35975		Naphthalene #1
10.959	BBA	658.73242	2.94003e-2	19.36695		Acenaphthylene #2
11.917	PB	1540.05579	1.26957e-2	19.55208		1-Methylnaphthalene #3
12.495	BB	1801.33093	1.10418e-2	19.88990		2-Methylnaphthalene #4
12.978	BB	976.64227	1.99953e-2	19.52824		Acenaphthene #5
13.634	BBA	1121.49683	1.72604e-2	19.35749		Fluorene #6
15.024	BBA	1139.06299	1.70751e-2	19.44960		Phenanthrene #7
16.440	PBA	1987.33081	1.03316e-2	20.53226		Anthracene #8
17.826	PB	89.77870	2.13939e-2	1.92072		Fluoranthene #9
18.836	BBA	134.97229	1.42346e-2	1.92128		Pyrene #10
21.196	PBA	304.38901	6.51566e-2	19.83295		p-Terphenyl d14 #11*
22.516	BBA	87.97906	2.19558e-2	1.93165		Benzo(a)anthracene #12
23.393	BBA	129.77362	1.48093e-2	1.92186		Chrysene #13
26.123	PBA	94.51910	2.03417e-2	1.92268		Benzo(b)fluoranthene #14
27.560	PB	44.34573	2.21503e-2	9.82272e-1		Benzo(k)fluoranthene #15
28.676	BB	72.48521	2.80792e-2	2.03533		Benzo(a)pyrene #16
30.543	BB	20.78556	9.27377e-2	1.92760		Dibenz(a,h)anthracene #17

[min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.351	BB	36.53463	5.56826e-2	2.03434		Benzo(g,h,i)perylene #18
32.287	BB	95.16743	2.02125e-2	1.92357		Indeno(1,2,3-cd)pyrene #1
Totals :				196.39052		

Results obtained with enhanced integrator!

*** End of Report ***

2.2.7.4 Raw QC Data

7,1 V177P109 121301 BLK

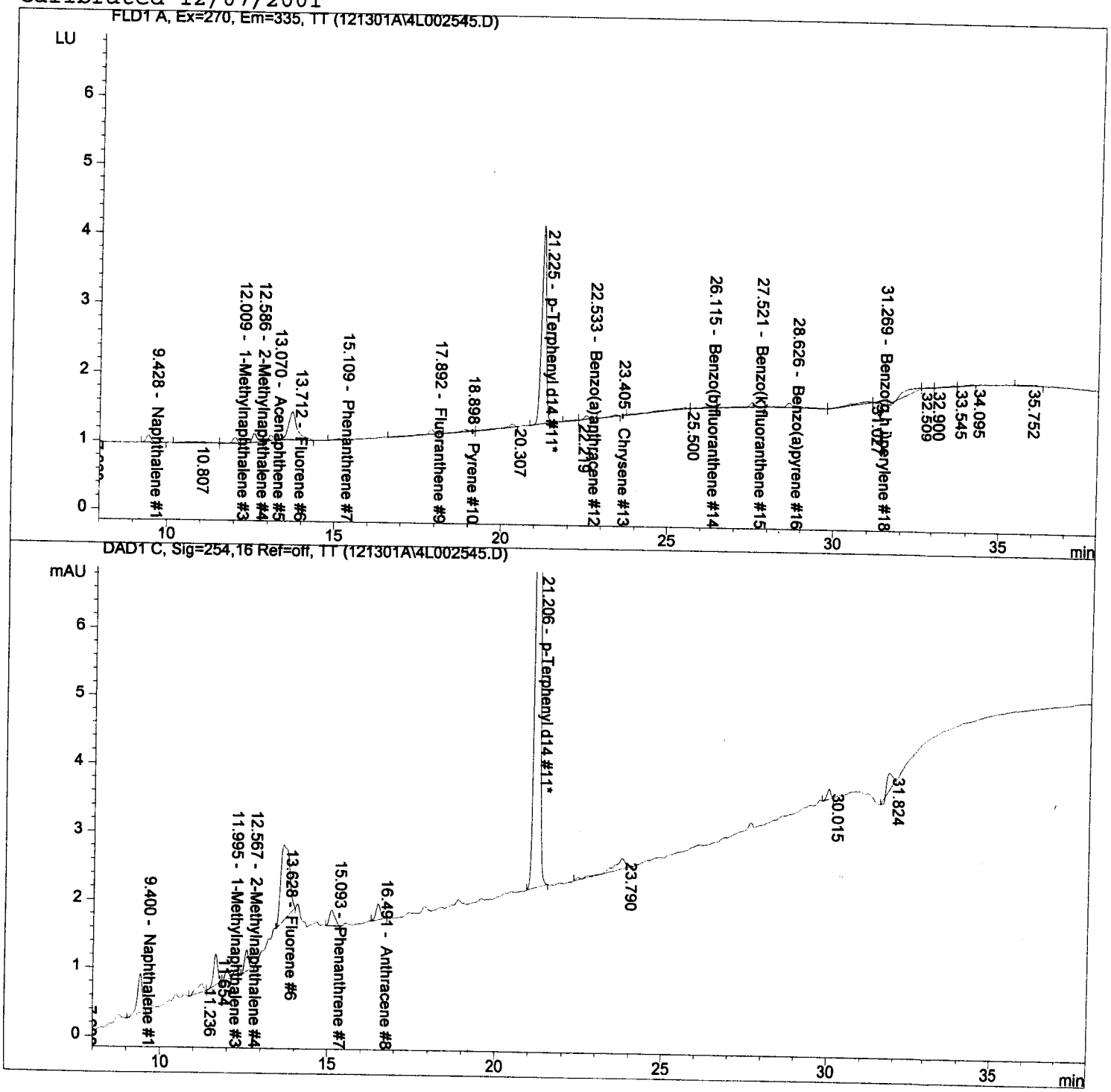
==========

Injection Date : 12/13/2001 6:41:46 PM
Sample Name : WG109960-02 SBLK
Acq. Operator : RDC

Seq. Line : 3
Vial : 3
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/13/2001 12:49:22 PM by RDC
(modified after loading)

Calibrated 12/07/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, December 12, 2001 1:25:11 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.428	BB	1.15373	2.64309e-2	3.04940e-2		Naphthalene #1
12.009	BB	8.00384e-1	2.30826e-2	1.84749e-2		1-Methylnaphthalene #3
12.586	BB	1.40840	1.77135e-2	2.49477e-2		2-Methylnaphthalene #4
13.070	BB	7.05049e-1	1.41307e-2	9.96281e-3		Acenaphthene #5
13.712	BB	7.55371	6.55799e-3	4.95371e-2		Fluorene #6
15.109	PB	1.74888e-1	1.72114e-1	3.01007e-2		Phenanthrene #7
16.532		-	-	-		Anthracene #8
17.892	BBA	6.39152e-1	2.51883e-2	1.60991e-2		Fluoranthene #9
18.898	BB	4.86361e-1	4.52106e-2	2.19887e-2		Pyrene #10
21.225	BB	27.50395	2.98861e-1	8.21987	82.2%	p-Terphenyl d14 #11*
22.533	BB	4.21230e-1	8.29841e-3	3.49554e-3		Benzo(a)anthracene #12
23.405	BB	2.94809e-1	4.07647e-2	1.20178e-2		Chrysene #13
26.115	BB	2.91055e-1	1.66521e-2	4.84670e-3		Benzo(b)fluoranthene #14
27.521	BB	9.76158e-1	2.77713e-3	2.71092e-3		Benzo(k)fluoranthene #15
28.626	BB	1.35618	5.23910e-3	7.10516e-3		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.269	BB	2.61705e-1	3.02212e-2	7.90906e-3		Benzo(g,h,i)perylene #18
32.273		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.45956

Results obtained with enhanced integrator!

X33.3

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.400	BB	5.66548	8.11569e-3	4.59793e-2	<mDL	Naphthalene #1
11.059		-	-	-		Acenaphthylene #2
11.995	BB	1.16507	1.26957e-2	1.47913e-2		1-Methylnaphthalene #3
12.567	BB	2.76732	1.10418e-2	3.05562e-2		2-Methylnaphthalene #4
13.062		-	-	-		Acenaphthene #5
13.628	BB	20.30321	1.72604e-2	3.50442e-1	<mDL	Fluorene #6
15.093	BB	2.47520	1.70751e-2	4.22643e-2	<mDL	Phenanthrene #7
16.491	BBA	2.32425	1.03316e-2	2.40131e-2		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.891		-	-	-		Pyrene #10
21.206	PBA	124.26300	6.51566e-2	8.09655		p-Terphenyl d14 #11*
22.544		-	-	-		Benzo(a)anthracene #12
23.412		-	-	-	81.0%	Chrysene #13
26.121		-	-	-		Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.509		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				8.60460		

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

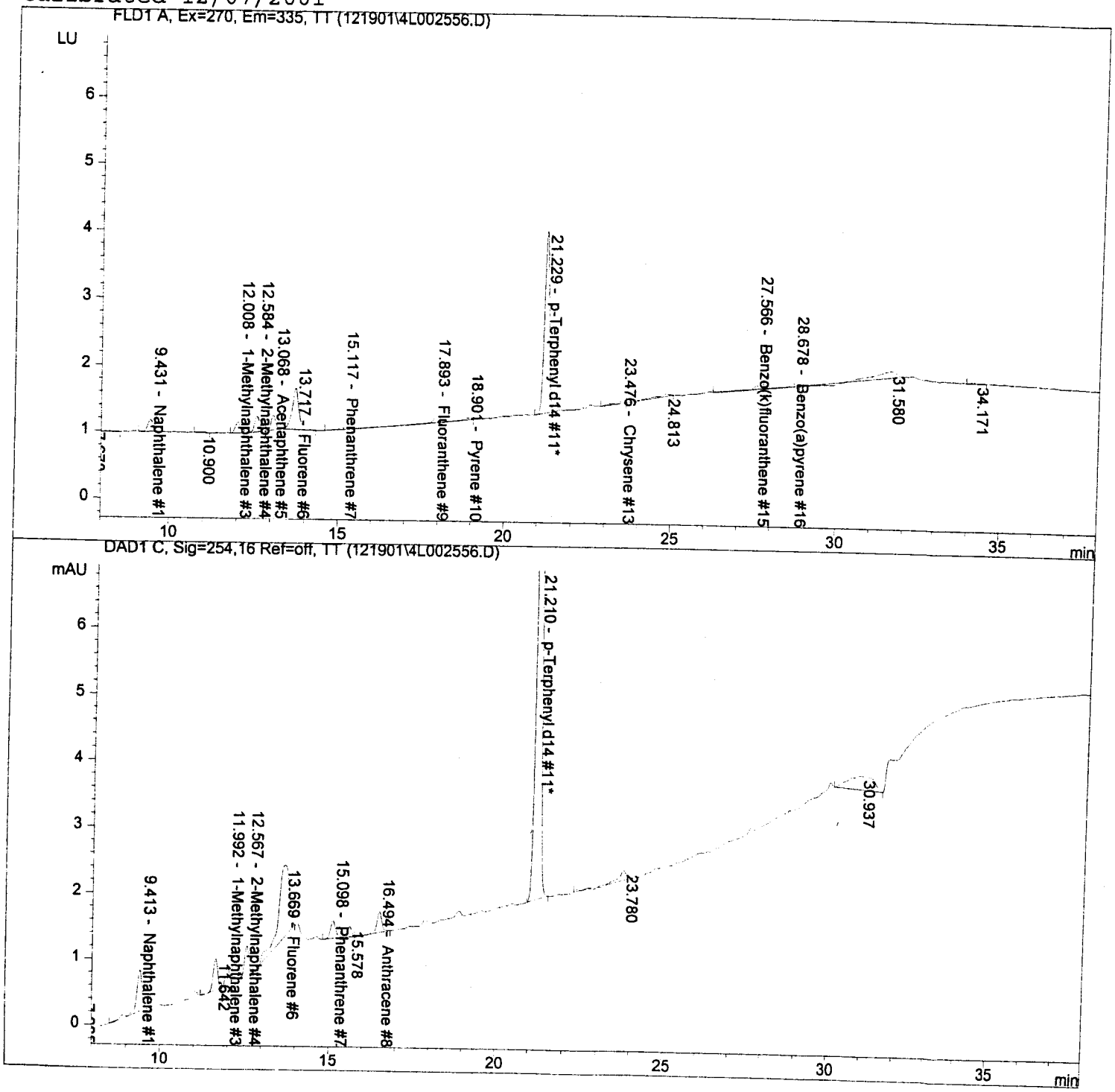
1,1 V177P141 BLANK 121701

==========

Injection Date : 12/19/2001 10:40:39 AM
Sample Name : WG110089-01 WBLK
Acq. Operator : RDC

Seq. Line : 3
Vial : 3
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:34:37 AM by RDC
Calibrated 12/07/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:34:24 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.431	BBA	1.90134	2.64309e-2	5.02540e-2		Naphthalene #1
12.008	BB	1.66325	2.30826e-2	3.83921e-2		1-Methylnaphthalene #3
12.584	BB	2.42437	1.77135e-2	4.29442e-2		2-Methylnaphthalene #4
13.068	BB	2.15390	1.41307e-2	3.04361e-2		Acenaphthene #5
13.717	BBA	9.07309	6.55799e-3	5.95012e-2		Fluorene #6
15.117	PB	3.86477e-1	1.72114e-1	6.65179e-2		Phenanthrene #7
16.532		-	-	-		Anthracene #8
17.893	BB	5.20951e-1	2.51883e-2	1.31219e-2		Fluoranthene #9
18.901	BB	2.94835e-1	4.52106e-2	1.33296e-2		Pyrene #10
21.229	BB	26.89375	2.98861e-1	8.03750		p-Terphenyl d14 #11*
22.562		-	-	-		Benzo(a)anthracene #12
23.476	BB	6.58620e-1	4.07647e-2	2.68485e-2		Chrysene #13
26.140		-	-	-		Benzo(b)fluoranthene #14
27.566	BB	3.73706e-1	2.77713e-3	1.03783e-3		Benzo(k)fluoranthene #15
28.678	BB	4.45199e-1	5.23910e-3	2.33244e-3		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.334		-	-	-		Benzo(g,h,i)perylene #18
32.273		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.38222

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.413	PB	6.92299	8.11569e-3	5.61848e-2	LMDL	Naphthalene #1
11.059		-	-	-		Acenaphthylene #2
11.992	BB	2.13038	1.26957e-2	2.70466e-2		1-Methylnaphthalene #3
12.567	BB	3.82138	1.10418e-2	4.21948e-2		2-Methylnaphthalene #4
13.062		-	-	-		Acenaphthene #5
13.669	BB	23.83099	1.72604e-2	4.11333e-1	NC	Fluorene #6
15.098	BB	2.82535	1.70751e-2	4.82431e-2	amol	Phenanthrene #7
16.494	BB	3.14748	1.03316e-2	3.25184e-2		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.891		-	-	-		Pyrene #10
21.210	PBA	119.93246	6.51566e-2	7.81439		p-Terphenyl d14 #11*
22.544		-	-	-	78.1%	Benzo(a)anthracene #12
23.412		-	-	-		Chrysene #13
26.121		-	-	-		Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.509		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				8.43191		

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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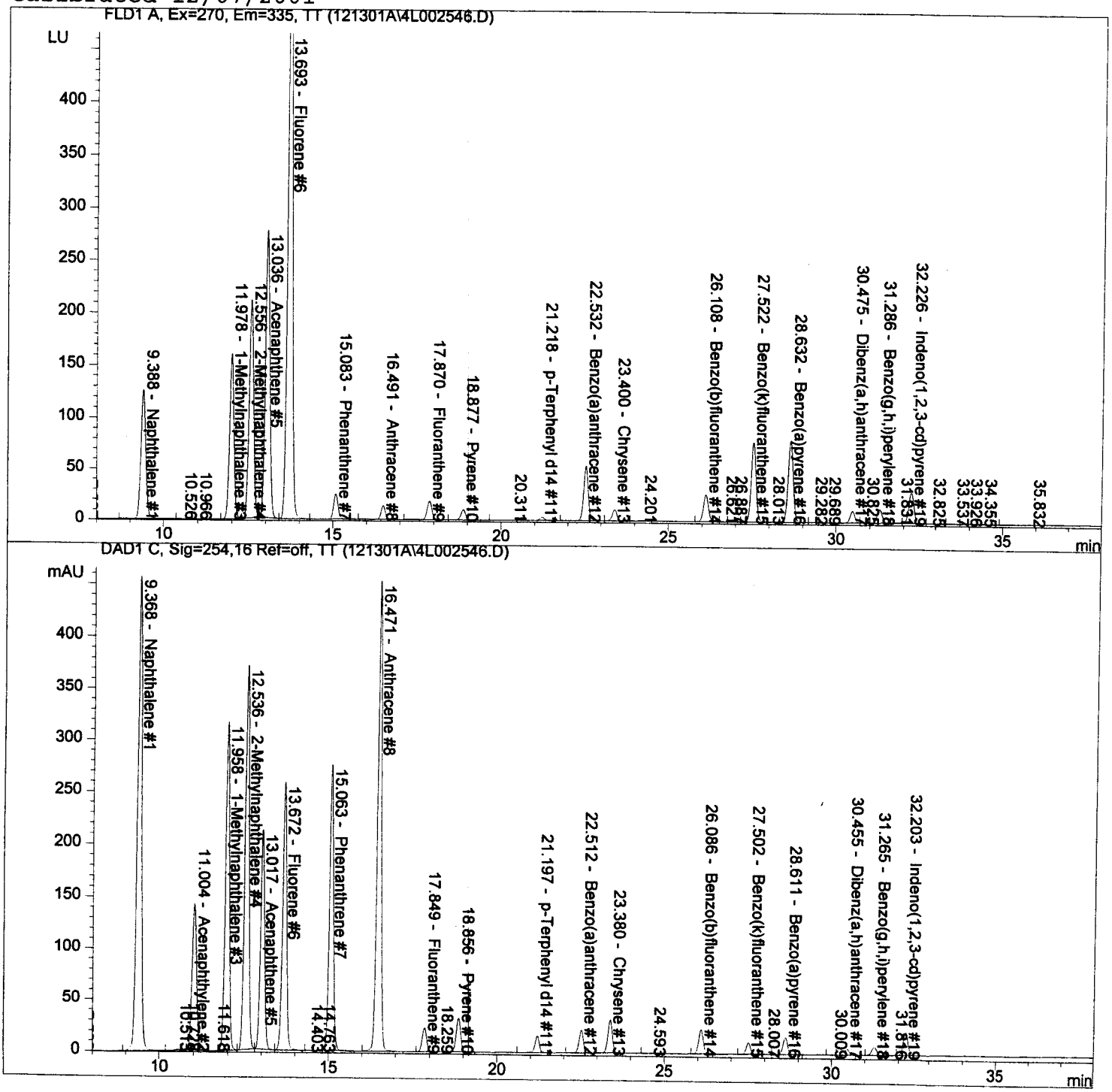
*** End of Report ***

7,1 V177P109 121301 LCS

==========

Injection Date	: 12/13/2001 7:38:22 PM	Seq. Line	: 4
Sample Name	: WG109960-03 SLCS	Vial	: 4
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/13/2001 12:49:22 PM by RDC
(modified after loading)
Calibrated 12/07/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, December 12, 2001 1:25:11 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.388	BB	1228.73682	2.64309e-2	32.47657		Naphthalene #1
11.978	PB	1504.82849	2.30826e-2	34.73528		1-Methylnaphthalene #3
12.556	BB	1952.71277	1.77135e-2	34.58946		2-Methylnaphthalene #4
13.036	BB	2597.01392	1.41307e-2	36.69753		Acenaphthene #5
13.693	BB	5852.96875	6.55799e-3	38.38370		Fluorene #6
15.083	BBA	229.44437	1.72114e-1	39.49050		Phenanthrene #7
16.491	PB	126.08442	3.11763e-1	39.30851		Anthracene #8
17.870	BB	173.17256	2.51883e-2	4.36192		Fluoranthene #9
18.877	BBA	99.89771	4.52106e-2	4.51643		Pyrene #10
21.218	BB	32.58073	2.98861e-1	9.73712	97.3%	p-Terphenyl d14 #11*
22.532	BB	533.59485	8.29841e-3	4.42799		Benzo(a)anthracene #12
23.400	BB	110.59707	4.07647e-2	4.50846		Chrysene #13
26.108	BB	266.49249	1.66521e-2	4.43767		Benzo(b)fluoranthene #14
27.522	BB	800.77307	2.77713e-3	2.22385		Benzo(k)fluoranthene #15
28.632	BB	822.80212	5.23910e-3	4.31074		Benzo(a)pyrene #16
30.475	BB	110.75293	4.06442e-2	4.50147		Dibenz(a,h)anthracene #17
31.286	BB	149.02238	3.02212e-2	4.50364		Benzo(g,h,i)perylene #18
32.226	BB	318.47806	1.37336e-2	4.37385		Indeno(1,2,3-cd)pyrene #1
Totals :				307.58470		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

-133.3

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.368	BBA	4155.79541	8.11569e-3	33.72713		Naphthalene #1
11.004	BB	1214.64319	2.94003e-2	35.71092		Acenaphthylene #2
11.958	BB	2709.00562	1.26957e-2	34.39270		1-Methylnaphthalene #3
12.536	BB	3147.63403	1.10418e-2	34.75548		2-Methylnaphthalene #4
13.017	BB	1807.58484	1.99953e-2	36.14318		Acenaphthene #5
13.672	BBA	2200.46924	1.72604e-2	37.98100		Fluorene #6
15.063	BBA	2301.47534	1.70751e-2	39.29789		Phenanthrene #7
16.471	PBA	3900.92725	1.03316e-2	40.30272		Anthracene #8
17.849	PB	195.78200	2.13939e-2	4.18854		Fluoranthene #9
18.856	BBA	296.43668	1.42346e-2	4.21966		Pyrene #10
21.197	BBA	143.28648	6.51566e-2	9.33606	93.3%	p-Terphenyl d14 #11*
22.512	BBA	198.68076	2.19558e-2	4.36219		Benzo(a)anthracene #12
23.380	PB	294.28821	1.48093e-2	4.35821		Chrysene #13
26.086	PBA	216.46584	2.03417e-2	4.40329		Benzo(b)fluoranthene #14
27.502	BB	100.17431	2.21503e-2	2.21889		Benzo(k)fluoranthene #15
28.611	BB	149.91011	2.80792e-2	4.20935		Benzo(a)pyrene #16
30.455	BB	47.69766	9.27377e-2	4.42337		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.265	BB	80.28757	5.56826e-2	4.47062		Benzo(g,h,i)perylene #18
32.203	BB	215.81206	2.02125e-2	4.36210		Indeno(1,2,3-cd)pyrene #1

Totals : 342.86330

Results obtained with enhanced integrator!

*** End of Report ***

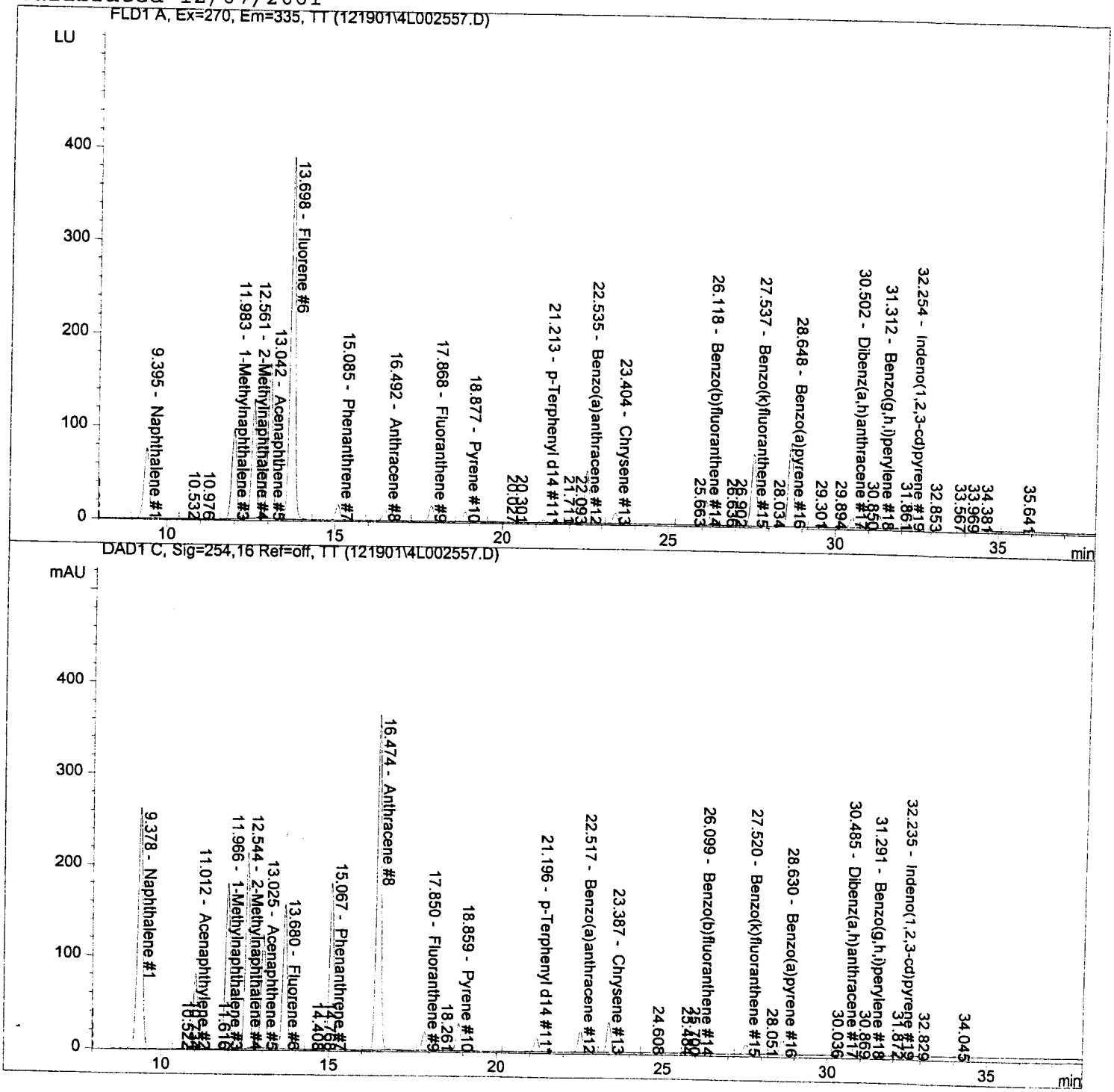
1,1 V177P141 LCS 121701

==========

Injection Date : 12/19/2001 11:37:14 AM
Sample Name : WG110089-02 WLCS
Acq. Operator : RDC

Seq. Line : 4
Vial : 4
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:34:37 AM by RDC
Calibrated 12/07/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:34:24 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.395	BB	799.64868	2.64309e-2	21.13540		Naphthalene #1
11.983	BB	948.22229	2.30826e-2	21.88739		1-Methylnaphthalene #3
12.561	BB	1231.79541	1.77135e-2	21.81946		2-Methylnaphthalene #4
13.042	BB	1638.32715	1.41307e-2	23.15065		Acenaphthene #5
13.698	BB	3812.01001	6.55799e-3	24.99912		Fluorene #6
15.085	BBA	162.47876	1.72114e-1	27.96480		Phenanthrene #7
16.492	PB	106.03532	3.11763e-1	33.05793		Anthracene #8
17.868	BBA	159.57559	2.51883e-2	4.01944		Fluoranthene #9
18.877	BBA	100.83131	4.52106e-2	4.55864		Pyrene #10
21.213	BB	29.57775	2.98861e-1	8.83965	78.4%	p-Terphenyl d14 #11*
22.535	BB	568.09302	8.29841e-3	4.71427		Benzo(a)anthracene #12
23.404	BBA	116.01419	4.07647e-2	4.72929		Chrysene #13
26.118	BB	271.95123	1.66521e-2	4.52857		Benzo(b)fluoranthene #14
27.537	BB	799.46985	2.77713e-3	2.22023		Benzo(k)fluoranthene #15
28.648	BB	915.92639	5.23910e-3	4.79863		Benzo(a)pyrene #16
30.502	BB	103.74905	4.06442e-2	4.21680		Dibenz(a,h)anthracene #17
31.312	BB	148.64294	3.02212e-2	4.49218		Benzo(g,h,i)perylene #18
32.254	BB	307.04160	1.37336e-2	4.21678		Indeno(1,2,3-cd)pyrene #1

Totals : 225.34924

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.378	PBA	2626.54932	8.11569e-3	21.31625		Naphthalene #1
11.012	BB	748.14941	2.94003e-2	21.99584		Acenaphthylene #2
11.966	BB	1655.15308	1.26957e-2	21.01331		1-Methylnaphthalene #3
12.544	BB	1930.05859	1.10418e-2	21.31128		2-Methylnaphthalene #4
13.025	BB	1101.83142	1.99953e-2	22.03144		Acenaphthene #5
13.680	BB	1410.82275	1.72604e-2	24.35138		Fluorene #6
15.067	BBA	1587.78723	1.70751e-2	27.11160		Phenanthrene #7
16.474	PBA	3249.23779	1.03316e-2	33.56974		Anthracene #8
17.850	PB	175.74498	2.13939e-2	3.75987		Fluoranthene #9
18.859	BBA	271.05035	1.42346e-2	3.85829		Pyrene #10
21.196	BBA	133.98799	6.51566e-2	8.73020	77.3%	p-Terphenyl d14 #11*
22.517	PBA	205.21956	2.19558e-2	4.50575		Benzo(a)anthracene #12
23.387	PB	297.83051	1.48093e-2	4.41067		Chrysene #13
26.099	BBA	223.83917	2.03417e-2	4.55328		Benzo(b)fluoranthene #14
27.520	BB	96.94230	2.21503e-2	2.14730		Benzo(k)fluoranthene #15
28.630	BB	179.84167	2.80792e-2	5.04981		Benzo(a)pyrene #16
30.485	BB	48.41371	9.27377e-2	4.48977		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.291	BB	88.14428	5.56826e-2	4.90810		Benzo(g,h,i)perylene #18
32.235	BB	207.18149	2.02125e-2	4.18766		Indeno(1,2,3-cd)pyrene #1
Totals :				243.30155		

Results obtained with enhanced integrator!

*** End of Report ***

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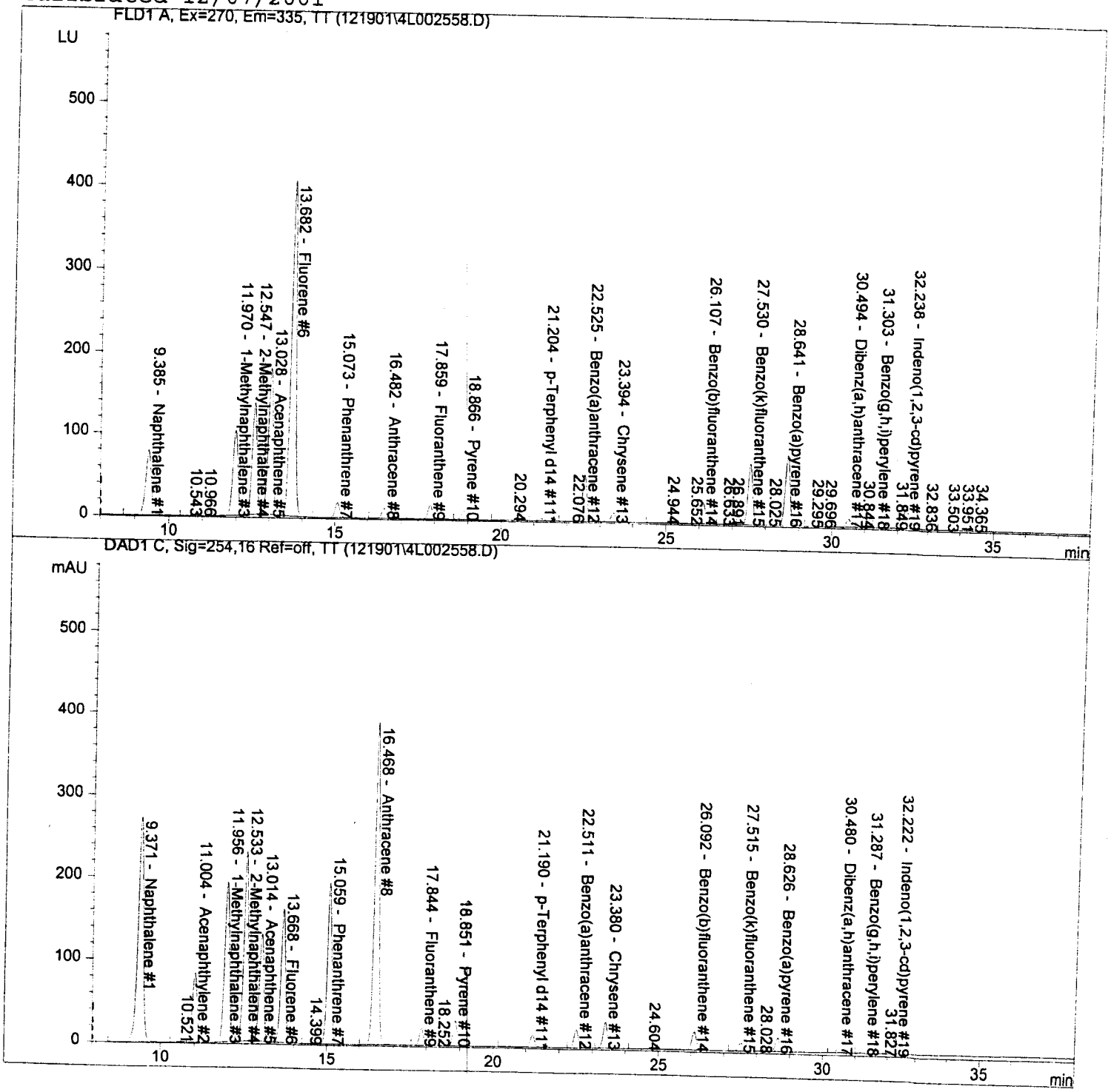
Injection Date : 12/19/2001 12:33:50 PM
Sample Name : WG110089-03 WLCS
Acq. Operator : RDC

Seq. Line : 5
Vial : 5
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:34:37 AM by RDC
Calibrated 12/07/2001



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External Standard Report
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Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:34:24 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.385	BB	924.90363	2.64309e-2	24.44600		Naphthalene #1
11.970	BB	1074.97900	2.30826e-2	24.81326		1-Methylnaphthalene #3
12.547	BB	1397.28406	1.77135e-2	24.75085		2-Methylnaphthalene #4
13.028	BB	1828.19397	1.41307e-2	25.83360		Acenaphthene #5
13.682	BB	4199.77783	6.55799e-3	27.54209		Fluorene #6
15.073	BBA	183.25040	1.72114e-1	31.53988		Phenanthrene #7
16.482	BB	117.87708	3.11763e-1	36.74976		Anthracene #8
17.859	BBA	173.09352	2.51883e-2	4.35993		Fluoranthene #9
18.866	BBA	105.86030	4.52106e-2	4.78600		Pyrene #10
21.204	BBA	29.47525	2.98861e-1	8.80901	93.1%	p-Terphenyl d14 #11*
22.525	BBA	569.48975	8.29841e-3	4.72586		Benzo(a)anthracene #12
23.394	BBA	116.06640	4.07647e-2	4.73142		Chrysene #13
26.107	BB	265.90356	1.66521e-2	4.42787		Benzo(b)fluoranthene #14
27.530	BB	761.89465	2.77713e-3	2.11588		Benzo(k)fluoranthene #15
28.641	BB	873.96741	5.23910e-3	4.57880		Benzo(a)pyrene #16
30.494	BB	95.53736	4.06442e-2	3.88304		Dibenz(a,h)anthracene #17
31.303	BB	136.10458	3.02212e-2	4.11325		Benzo(g,h,i)perylene #18
32.238	BB	280.69583	1.37336e-2	3.85496		Indeno(1,2,3-cd)pyrene #1

Totals : 246.06147

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.371	PBA	3066.81860	8.11569e-3	24.88933		Naphthalene #1
11.004	BB	873.71191	2.94003e-2	25.68742		Acenaphthylene #2
11.956	BB	1911.96179	1.26957e-2	24.27368		1-Methylnaphthalene #3
12.533	BB	2223.00928	1.10418e-2	24.54598		2-Methylnaphthalene #4
13.014	BB	1237.06885	1.99953e-2	24.73555		Acenaphthene #5
13.668	BB	1554.12427	1.72604e-2	26.82482		Fluorene #6
15.059	BBA	1831.94360	1.70751e-2	31.28059		Phenanthrene #7
16.468	PBA	3585.95044	1.03316e-2	37.04852		Anthracene #8
17.844	BB	192.22861	2.13939e-2	4.11252		Fluoranthene #9
18.851	BBA	293.01111	1.42346e-2	4.17090		Pyrene #10
21.190	BBA	133.95248	6.51566e-2	8.72789	87.3%	p-Terphenyl d14 #11*
22.511	PBA	207.55806	2.19558e-2	4.55709		Benzo(a)anthracene #12
23.380	PB	300.60706	1.48093e-2	4.45179		Chrysene #13
26.092	BB	215.03264	2.03417e-2	4.37414		Benzo(b)fluoranthene #14
27.515	BB	93.77538	2.21503e-2	2.07715		Benzo(k)fluoranthene #15
28.626	BB	156.15649	2.80792e-2	4.38475		Benzo(a)pyrene #16
30.480	BB	40.61555	9.27377e-2	3.76659		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.287	BB	71.49704	5.56826e-2	3.98114		Benzo(g,h,i)perylene #18
32.222	BB	189.15144	2.02125e-2	3.82322		Indeno(1,2,3-cd)pyrene #1
Totals :				267.71307		

Results obtained with enhanced integrator!

*** End of Report ***

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG109608-01	8310	1	Sample		
3	3	WG109608-02	8310	1	Sample		
4	4	WG109608-03	8310	1	Sample		
5	5	WG109608-04	8310	1	Sample		
6	6	WG109608-05	8310	1	Sample		
7	7	WG109608-06	8310	1	Sample		
8	8	WG109608-07	8310	1	Sample		
9	9	WG109608-08	8310	1	Sample		
10	10	WG109418-01 WBLK	8310	1	Sample		
11	11	WG109418-02 WLCS	8310	1	Sample		
12	12	WG109418-03 WLCS	8310	1	Sample		
13	13	L0112048-09 610W	8310	1	Sample		
14	14	L0112048-12 610W	8310	1	Sample		
15	15	L0112048-15 610W	8310	1	Sample		
16	16	L0112048-18 610W	8310	1	Sample		
17	17	L0112048-05 610W	8310	1	Sample		
18	18	L0112048-07 610W	8310	1	Sample		
19	19	WG109609-01 CCV	8310	1	Sample		
20	20	WG109116-02 SBLK	8310	1	Sample		
21	21	WG109116-03 SLCS	8310	1	Sample		
22	22	WG109116-01 SREF	8310	1	Sample		
23	23	WG109116-04 SMS	8310	1	Sample		
24	24	WG109116-05 SMSD	8310	1	Sample		
25	25	L0111540-05 831S	8310	1	Sample		
26	26	L0111540-06 831S	8310	1	Sample		
27	27	L0111540-07 831S	8310	1	Sample		
28	28	L0111540-08 831S	8310	1	Sample		
29	29	L0111540-09 831S	8310	1	Sample		
30	30	WG109609-02 CCV	8310	1	Sample		
31	31	L0111540-11 831S	8310	1	Sample		
32	32	L0111540-10 831S	8310	1	Sample		
33	33	L0111540-06 5X	8310	1	Sample		
34	34	L0111540-07 2X	8310	1	Sample		
35	30	WG109609-03 CCV	8310	1	Sample		

Partial Sequence: C:\HPCHEM\2\SEQUENCE\DEC07.S

RDC 12/10/01

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L002491	01:01		accn blk
No	2	2	8310	4L002492 SOS56-19	02:01		WG109608-01
No	3	3	8310	4L002493 SOS56-20	03:01		WG109608-02
No	4	4	8310	4L002494	04:01		WG109608-03
No	5	5	8310	4L002495	05:01	SOS 56-19/	WG109608-04
No	6	6	8310	4L002496	06:01	56-20	WG109608-05
No	7	7	8310	4L002497	07:01		WG109608-06
No	8	8	8310	4L002498	08:01		WG109608-07
No	9	9	8310	4L002499	09:01	SOS 57-27/57-27	WG109608-08
No	10	10	8310	4L002500	10:01		WG109418-01 WB
No	11	11	8310	4L002501	11:01		WG109418-02 WL
No	12	12	8310	4L002502	12:01		WG109418-03 WL
No	13	13	8310	4L002503	13:01		L0112048-09 61
No	14	14	8310	4L002504	14:01		L0112048-12 61
No	15	15	8310	4L002505	15:01		L0112048-15 61
No	16	16	8310	4L002506	16:01		L0112048-18 61
No	17	17	8310	4L002507	17:01		L0112048-05 61
No	18	18	8310	4L002508	18:01		L0112048-07 61
No	19	19	8310	4L002509	19:01	SOS 56-19/56-20	WG109609-01 CC
No	20	20	8310	4L002510	20:01		WG109116-02 SB
No	21	21	8310	4L002511	21:01		WG109116-03 SL
No	22	22	8310	4L002512	22:01		WG109116-01 SR
No	23	23	8310	4L002513	23:01		WG109116-04 SM
No	24	24	8310	4L002514	24:01		WG109116-05 SM
No	25	25	8310	4L002515	25:01		L0111540-05 83
No	26	26	8310	4L002516	26:01	RR 5X	L0111540-06 83
No	27	27	8310	4L002517	27:01	RR 2X	L0111540-07 83
No	28	28	8310	4L002518	28:01		L0111540-08 83
No	29	29	8310	4L002519	29:01		L0111540-09 83
No	30	30	8310	4L002520	30:01	SOS 56-19/56-20	WG109609-02 CC
No	31	31	8310	4L002521	31:01		L0111540-11 83
No	32	32	8310	4L002522	32:01		L0111540-10 83
No	33	33	8310	4L002523	33:01		L0111540-06 5X
No	34	34	8310	4L002524	34:01		L0111540-07 2X
No	35	30	8310	4L002525	35:01	SOS 56-19/56-20	WG109609-03 CC

RDC 12/10/01

EC 12/10/01

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Dec. 07, 2001 **Instrument ID** HPLC4 **Column ID** LC-PAH **Data Subdirectory** 120701
Analyst Initials RDC **SOP # HPLC01 Rev. #** 3 ✓ **8310** **SOP # HPLC02 Rev. #** ____ **8330**

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 107 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Reviewed By: EC 12/10/01

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG109984-01 CCV	8310	1	Sample		
3	3	WG109960-02 SBLK	8310	1	Sample		
4	4	WG109960-03 SLCS	8310	1	Sample		
5	5	WG109~~8~~60-01 SREF	8310	1	Sample		
6	6	WG109~~8~~60-04 SMS	8310	1	Sample		
7	7	WG109~~8~~60-05 SMSD	8310	1	Sample		
8	8	L0112259-01 831S	8310	1	Sample		
9	9	L0112259-02 831S	8310	1	Sample		
10	10	L0112259-03 831S	8310	1	Sample		
11	2	WG109984-02 CCV	8310	1	Sample		

Partial Sequence: C:\HPCHEM\2\SEQUENCE\DEC13A.S

Page 1 of 2

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L002543	01:01		accn blk
No	2	2	8310	4L002544	02:01	50 56-19/56-20	WG109984-01 CC
No	3	3	8310	4L002545	03:01		WG109960-02 SB
No	4	4	8310	4L002546	04:01		WG109960-03 SL
No	5	5	8310	4L002547	05:01		WG109960-01 SR
No	6	6	8310	4L002548	06:01		WG109960-04 SM
No	7	7	8310	4L002549	07:01		WG109960-05 SM
No	8	8	8310	4L002550	08:01		L0112259-01 83
No	9	9	8310	4L002551	09:01 RR		L0112259-02 83
No	10	10	8310	4L002552	10:01		L0112259-03 83
No	11	2	8310	4L002553	11:01	50 56-19/56-20	WG109984-02 CC

RJC 12/14/01

ECZ 12/18/01

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Dec. 12, 2001 **Instrument ID** HPLC4 **Column ID** PAC 12/14/01 LC-PAH **Data Subdirectory** 121301A
Analyst Initials PAC **SOP # HPLC01 Rev. #** 3 ✓ 8310 **SOP # HPLC02 Rev. #** ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 103 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

L0112259-02 need conf. of acenaphthylene & a 10x dil'n.

Reviewed By: ECZ 12/18/01

Sequence: C:\HPCHEM\2\SEQUENCE\DEC19.S

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG110267-01 CCV	8310	1	Sample		S0556-19/56-20 *
3	3	WG110089-01 WBLK	8310	1	Sample		
4	4	WG110089-02 WLCS	8310	1	Sample		
5	5	WG110089-03 WLCS	8310	1	Sample		
6	6	L0112258-02 831W	8310	1	Sample		
7	7	L0112259-04 831W	8310	1	Sample		
8	8	WG110267-02 CCV	8310	1	Sample		S0556 19/56-20
9	9	WG110257-02 WBLK	8310	1	Sample		
10	10	WG110257-03 WLCS	8310	1	Sample		
11	11	L0112348-01 831W	8310	1	Sample		
12	12	L0112348-02 831W	8310	1	Sample		
13	13	L0112348-03 831W	8310	1	Sample		
14	14	WG110257-01 WREF	8310	1	Sample		
15	15	WG110257-04 WMS	8310	1	Sample		
16	16	WG110257-05 WMSD	8310	1	Sample		
17	17	L0112348-07 831W	8310	1	Sample		
18	18	L0112348-08 831W	8310	1	Sample		
19	19	WG110267-03 CCV	8310	1	Sample		S0556-19/56-20
20	20	L0112348-09 831W	8310	1	Sample		
21	21	L0112349-01 831W	8310	1	Sample		RR - 5x dil'n & conf. accuracy
22	22	L0112349-02 831W	8310	1	Sample		
23	23	WG110285-01 SBLK	8310	1	Sample		
24	24	WG110285-02 SLCS	8310	1	Sample		
25	25	WG110285-03 SLCS	8310	1	Sample		
26	26	L0112362-01 831S	8310	1	Sample		
27	27	L0112362-01 10X	8310	1	Sample		NOT NEEDED
28	28	L0112259-02 10X	8310	1	Sample		
29	19	WG110267-04 CCV	8310	1	Sample		S0556-19/56-20

Partial Sequence: C:\HPCHEM\2\SEQUENCE\DEC19.S

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L002554	01:01		accn blk
No	2	2	8310	4L002555	02:01		WG110267-01 CC
No	3	3	8310	4L002556	03:01		WG110089-01 WB
No	4	4	8310	4L002557	04:01		WG110089-02 WL
No	5	5	8310	4L002558	05:01		WG110089-03 WL
No	6	6	8310	4L002559	06:01		L0112258-02 83
No	7	7	8310	4L002560	07:01		L0112259-04 83
No	8	8	8310	4L002561	08:01		WG110267-02 CC
No	9	9	8310	4L002562	09:01		WG110257-02 WB
No	10	10	8310	4L002563	10:01		WG110257-03 WL
No	11	11	8310	4L002564	11:01		L0112348-01 83
No	12	12	8310	4L002565	12:01		L0112348-02 83
No	13	13	8310	4L002566	13:01		L0112348-03 83
No	14	14	8310	4L002567	14:01		WG110257-01 WR
No	15	15	8310	4L002568	15:01		WG110257-04 WM
No	16	16	8310	4L002569	16:01		WG110257-05 WM
No	17	17	8310	4L002570	17:01		L0112348-07 83
No	18	18	8310	4L002571	18:01		L0112348-08 83
No	19	19	8310	4L002572	19:01		WG110267-03 CC
No	20	20	8310	4L002573	20:01		L0112348-09 83
No	21	21	8310	4L002574	21:01		L0112349-01 83
No	22	22	8310	4L002575	22:01		L0112349-02 83
No	23	23	8310	4L002576	23:01		WG110285-01 SB
No	24	24	8310	4L002577	24:01		WG110285-02 SL
No	25	25	8310	4L002578	25:01		WG110285-03 SL
No	26	26	8310	4L002579	26:01		L0112362-01 83
No	27	27	8310	4L002580	27:01		L0112362-01 10
No	28	28	8310	4L002581	28:01		L0112259-02 10
No	29	19	8310	4L002582	29:01		WG110267-04 CC

TOC
12/20/01
mdu 12/20/01

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Dec 19, 2001 Instrument ID #2C4 Column ID LC-[illegible] Data Subdirectory 121901
Analyst Initials [illegible] SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check
- ✓ Mobile phase reservoir
- ✓ System pressure 111 bar
- ✓ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: ____

Action Taken: ____

Comments

* MF10267-01 / 4L0025555 CCV failed high for propane & benzo(g,h,i) perylene by FLD, there were no hits to calc

Reviewed By: mdc 12/20/01

Sample Extract Log Sheet

Volume 177
Page 109

Parameter: 8310-Soil SOP #: EXHPLC2 Revision #: 6
Extraction Analyst(s): JAQ TV/KD Analyst(s): JAQ
Date/Time Extracted: 12/13/01 13:15 Date TV/KD: 12/13/01
Spike/Surrogate Analyst: JAQ Witness: [illegible]
Surrogate #: ES5003 9-27 Earliest Hold Date: 12/26
Spike #: A = ES5003 9-22 Spike #: B = —

Extraction Work Group WG 109960
Analytical Work Group WG 109975

Extract Relinquished By: JAQ
Extract Received By & Date: HW 12/13/01

	Sample ID	Test Code	pH √ <2	pH √ N	pH √ >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	Emulsions √ BN	Emulsions √ N	Comments
1	Blank					30.05g	100 µl		1ml	T				WG 109960-02
2	LCS					30.06g		500 µl		C				WG 109960-03
3	12-259-01	8310				30.00g				O				WG 109960-01
4	01MS					30.03g		500 µl		T				WG 109960-04
5	01MSD					30.01g				C				WG 109960-05
6	12-259-01													
7	02					30.08g								
8	03					30.00g								
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

12/13/01 JAQ

Methylene Chloride Lot #: 41109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetone Lot #: V35807
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER 1979

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C					
Sonication	3550B	✓				
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3664A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: Cheryl F. Powers Date: 12-13-01

Sample Extract Log Sheet

Extraction Notes For Volume # 177 Page # 109

General Comments: nothing to report

Extraction Anomalies: nothing to report

Concentration Anomalies: nothing to report

Clean-Up Anomalies: N/A

Reviewed: _____ Date: _____

Sample Extract Log Sheet

Volume 177
Page 141

Parameter: 8310-H_2O SOP #: EXHPLC1 Revision #: 6
Extraction Analyst(s): CSH TV/KD Analyst(s): CSH
Date/Time Extracted: 12/17/01 @ 1070 Date TV/KD: 12/17/01
Spike/Surrogate Analyst: CSH Witness: DP
Surrogate #: E550039-27 Earliest Hold Date: 12/19/01
Spike #: A = E550039-22 Spike #: B = —

Extraction Work Group WG 110089
Analytical Work Group WG 110266

Extract Relinquished By: [illegible]
Extract Received By & Date: [illegible] 12/17/01

	Sample ID	Test Code	pH <2	pH N	pH >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions A	Emulsions BN	Emulsions N	Comments
1	Blank			✓		1L	100 µL		1 mL	T				WG 110089-01
2	LCS			✓				500 µL		T				WG -02
3	LCS DUP			✓				—		T				WG -03
4	12-258-02	8310		✓		880 mL				T				
5	12-259-04			✓		965 mL				T				
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

[illegible] 12/17/01

Methylene Chloride Lot #: 41109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetonitrile Lot #: V35807
Reagent: Fortified Lot #: CR2002
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: CR1979

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3664A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 12/17/01

Sample Extract Log Sheet

Extraction Notes For Volume # 177 Page # 141

General Comments: NONE

Extraction Anomalies: NONE

Concentration Anomalies: NONE

Clean-Up Anomalies: NA

Supervisor Review: _____ Date: _____

Semi-Volatile 8310 Checklist

Run Date: 7-Dec-01

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG109171 11-540	12/7/2001	FPT
WG109610 12-048	12/11/2001	M

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadriatic regression	√
	Alt Source Check	√
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
	Surrogates	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	√
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Surrogates	√
	Correct Factors	√
	Dilutions	√
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:

This is a re-calib. and re-analysis of SDG L0111540. The initial run resulted in failure of analytes for the CCV via the fluorescence detector.

Sample fractions 06 and 07 required dil'n. and re-analysis.

Sample fractions 01, 01MS, 01MSD, 07, 09, and 11 recovered surr. > UCL. Sample fraction recovered surr. > UCL for both detectors. "J" flags were used for positive results.

L0111540 12/12/01

For SDG ~~L0112048 the~~ non-client requested MS/MSD recovered high for several analytes.

Primary Reviewer: C 12/12/01

Secondary Reviewer: 12/12/01

Supervisor Review: 12/12/01

√ = Checked & OK

NA = Not Applicable

Semi-Volatile 8310 Checklist

Run Date: 12/13/01A

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG109975 12-258	12/20/2001	
WG109975 12-259	12/20/2001	

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadriatic regression	NA
	Alt Source Check	NA
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
	Surrogates	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	√
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Surrogates	√
	Correct Factors	√
	Dilutions	√
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:

L0112259-02 needs a 10X dil'n. and conf. of acenaphthylene.

Surrogate recovery high for L0112259-02 by fluorescence detector. Recovery by UV was within limits, therefore, SMI is suspected.

Primary Reviewer: RDC 12/20/01

Secondary Reviewer: 12/20/01

Supervisor Review: 12/20/01

√ = Checked & OK

NA = Not Applicable

Semi-Volatile 8310 Checklist

Run Date: 19-Dec-01

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG109975 12-259	12/20/2001	
WG110304 12-362	12/21/2001	FPT
WG110293 12-348	12/26/2001	PFF
WG110293 12-349	12/26/2001	PFF
WG110266 12-258	12/20/2001	
WG110266 12-259	12/20/2001	

(dil'n.)

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadriatic regression	NA
	Alt Source Check	NA
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
	Surrogates	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	√
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Surrogates	√
	Correct Factors	√
	Dilutions	√
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:

L0112349-01 needs 5X dil'n. and conf. of acenaphthylene.

MS/MSD reproducibility for 2 analytes is >UCL for L0112348-05 & 06.

LCS WG110089 for 12-258 and 12-259 water recovered high for benzo(g,h,i)perylene but there were no hits of this analyte in the samples.

L0112362-01 surrogate recovered high but chromatogram indicates SMI. Positive results were "J" flagged.

Primary Reviewer: RDC 12/20/01

Secondary Reviewer: 12/21/01

Supervisor Review: 12/21/01

√ = Checked & OK

NA = Not Applicable

Example 8310 Calculations

1.0 Calulating the Calibration Factor (CF) from the initial calibration (ICAL) data:

CF = Cs/As

Where:		Example:
	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ug/ml).	100
	CF	**0.01**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:

C = [(Ax)(Vf)(D)(CF)(1000)] / Vi

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	CF = Calibration factor from ICAL calculated above.	**0.01**
	Vi = Initial volume of sample (mL). (prep log)	1000
	1000 = conversion to ppb	
	C (ug/L) =	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report: C = [(Ax)(Vf)(D)(Cf)] / Vi

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL).	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	CF = Calibration factor from ICAL calculated above.	0.01
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**3.333333**

2.4 General Chemistry Data

PERCENT SOLIDS DATA

Login Number: L0112259

✓ **Analysis benchsheet**

✓ **Calculation spreadsheet**

Example calculation:

[(WT3 - WT1)/(WT2 - WT1)] * 100 = % solids

100 - (% solids) = % moisture

where: WT1 = Weight (grams) of empty container
WT2 = Weight (grams) of container and wet sample
WT3 = Weight (grams) of container and dry sample
100 = factor to get units as percent weight

Checked By: dwh Date: 12/17/01

PERCENT SOLIDS

Workgroup: 110059 Approval: dlh 12/17/01
ADT (on): Imm 12/14/01 @ 920 ADT (off): DLN 12/17/01 @ 0900

Sample	Empty Pan WT 1	WET WT 2	DRY WT 3A	DRY WT 3B	DRY WT 3C
12-270-01	1.27	32.04	27.28		
02	1.27	22.90	19.98		
03	1.26	26.51	23.16		
04	1.27	29.34	25.76		
05	1.26	23.19	20.05		
06	1.27	24.60	21.80		
12-266-01	1.26	29.27	22.79		
02	1.27	22.69	18.66		
03	1.29	22.13	19.71		
04	1.27	30.44	25.65		
05	1.27	31.93	26.49		
06	1.28	22.67	17.61		
07-08	1.29	19.28	16.12		
12-252-01	1.30	22.26	19.56		
12-258-01	1.27	~~22.22~~ Imp	27.15	22.08	
12-259-01	1.30	31.17	26.11		
02	1.32	29.16	24.76		
03	1.30	28.41	24.21		
12-146-05	1.29	29.96	26.95		
06	1.28	23.75	20.08		
Duplicate 12-270-02	1.26	23.09	19.99		

Workgroup: 110060 Approval: dlh 12/17/01
ADT (on): Imm 12/14/01 @ ADT (off): DLN 12/17/01 @ 0900

Sample	Empty Pan WT 1	WET WT 2	DRY WT 3A	DRY WT 3B	DRY WT 3C
12-146-07	1.32	27.97	24.21		
08	1.29	30.26	27.12		
09	1.31	26.68	24.21		
10	1.29	21.84	16.77		
17-18-19	1.26	16.90	13.41		
20	1.26	21.88	15.85		
21	1.28	19.97	14.59		
22	1.27	29.42	21.85		
23	1.30	20.66	16.42		
24	1.30	28.02	21.35		
25	1.31	23.19	18.82		
26	1.32	24.71	19.03		
27	1.26	20.42	15.67		
28	1.33	22.76	16.56		
29	1.30	32.50	23.53		
30	1.32	24.59	21.28		
31	1.28	25.54	22.52		
32	1.28	23.66	20.45		
33	1.32	40.59	38.48		
34	1.32	21.44	17.85		
Duplicate 12-146-28	1.32	23.92	17.71		

KEMRON Environmental Services

TEST CODE: PCT_S NAME: PERCENT SOLIDS

METHOD: ASTM

UNITS: % ADT: TMM12/14/01@0920

SamN	WT1	WT2	WT3	Level	Results	Units
12-270-01	1.27	32.04	27.28	84.53	85	%
02	1.27	22.9	19.98	86.5	87	%
03	1.26	26.51	23.16	86.733	87	%
04	1.27	29.34	25.76	87.246	87	%
05	1.26	23.19	20.05	85.682	86	%
06	1.27	24.6	21.8	87.998	88	%
12-266-01	1.26	29.27	22.79	76.865	77	%
02	1.27	22.69	18.66	81.186	81	%
03	1.29	22.13	19.71	88.388	88	%
04	1.27	30.44	25.65	83.579	84	%
05	1.27	31.93	26.49	82.257	82	%
06	1.28	22.67	17.61	76.344	76	%
07,08	1.29	19.28	16.12	82.435	82	%
12-252-01	1.3	22.26	19.56	87.118	87	%
12-258-01	1.27	27.15	22.08	80.41	80	%
12-259-01	1.3	31.17	26.11	83.06	83	%
02	1.32	29.16	24.76	84.195	84	%
03	1.3	28.41	24.21	84.508	85	%
12-146-05	1.29	29.96	26.95	89.501	90	%
06	1.28	23.75	20.08	83.667	84	%
270-02DUP	1.26	23.09	19.99	85.799	86	%

Appendix C

Laboratory Analytical Reports for Groundwater Samples

(provided on CD)

KEMRON REPORT L0110485

Prepared for CCI

Work ID : NAS CECIL FIELD / BLDG. 46

Summary Report 1
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1.0 Summary Report

1.1 Laboratory Report

Cover Page
Laboratory Narrative
Laboratory Results

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

L0110485

CHAIN OF CUSTODY:

The chain of custody number was 149152-174.

SHIPMENT CONDITIONS:

The chain of custody was received sealed in a cooler. The cooler temperatures were 0, 4, 0, 0 and 0. °C.

SAMPLE MANAGEMENT:

One Fl-Pro fraction of CEF46-15I was received broken. There was enough volume remaining to allow for analysis. All other samples were received intact.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

REVIEWED Stephanie L Lepe DATE: 10/25/01

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0110485

METHOD

Preparation: SW- 846 5030B
Analysis: SW-846 8021B

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.
Matrix Spikes: All acceptance criteria were met.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: CBN

REVIEWED: [signature] DATE: 11/2/01

Rev. 6/00

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No .: L0110485

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8015

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD results were not associated with re-extracted group.

SAMPLES

Samples: Sample fractions -07 and -08 were re-extracted within holding time.The surrogate recovery for sample -07 was acceptable ,but for sample -08 the surrogate recovery was still outside the limits and it's re-analysis confirmed the sample matrix interference on surrogate recovery. For these samples , the results were reported from re-extracted analyses. However sample -08 could not be re-extracted second time because of insufficient sample volume.

Surrogates: Sample fractions -07 and -08 yielded a %recovery for the surrogate that was outside advisory limits. These samples were re-extracted within holding time. But for sample -08 ,the surrogate recovery was still outside the limits and it's re-analysis confirmed the sample matrix interference on surrogate recovery.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: HV REVIEWED: _____ DATE: 4/9/01

Rev. 7/14/00

KEMRON Login No.: L0110485

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8310

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: The LCS yielded % recoveries for five analytes that were above advisory limits. These analytes were not found in any samples. All other acceptance criteria were met.
Matrix Spikes: The MS/MSD results were not associated with this sample delivery group.

SAMPLES

Surrogates: Sample fractions 07 and 08 yielded % recoveries for the surrogate that were below acceptable limits. These samples were re-extracted within holding time. Fraction 08 confirmed sample matrix effects. Both runs have been reported. Sample fractions 07 yielded a surrogate recovery that was within limits. Only the re-extract was reported.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: RDC

REVIEWED: Steve Brown DATE: 11/7/01

Rev. 7/14/00

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L010485

METHOD

Analysis: SW-846 9056

HOLDING TIMES

Sample Analysis:
All acceptance criteria were met.

PREPARATION
Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration: A large amount of SO4 in the initial samples starting the analysis interrupted the efficacy of the curve. After recalibration, PO4-P continued to fail on the check standards. Although no PO4 was found in the original samples, after system equilibration, they were re-analyzed out of hold for comparison using a working curve and check standards.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Samples: All acceptance criteria were met.

Matrix Spikes: Sample fraction -05 and -06 were chosen externally for the MS/MSD of sample -04, yielding % recoveries which were below the advisory limits. The MS/MSD outliers were found to be acceptable in the associated LCS. All acceptance criteria were met.

SAMPLES: Samples were re-analyzed at a dilution in order to maintain the analyses within the range of calibration. All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: GSG REVIEWED: DATE: 1/6/01

Rev. 7/14/00

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8021**

AAB # : **WG107053**

Lab Name : **Kemron Environmental Services**

Contract # : **N62467-98-D-0995**

Base/Command : **blgs 9 and 46**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF46-5I-Q4-01-09	L0110485-01
002-CEF46-6D-Q4-01-09	L0110485-02
002-CEF46-9I-Q4-01-09	L0110485-03
002-CEF46-12I-Q4-01-09	L0110485-04
002-CEF46-12I-Q4-01-09 MS	L0110485-05
002-CEF46-12I-Q4-01-09 MSD	L0110485-06
002-CEF46-13I-Q4-01-09	L0110485-07
002-CEF46-14D-Q4-01-09	L0110485-08
002-CEF46-15I-Q4-01-09	L0110485-09
002-46TB1-Q4-01-09	L0110485-10

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **05-NOV-01**

Title: **Laboratory Director**

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG107053

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-5I-Q4-01-09 Lab Sample ID: L0110485-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 03-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 15:13

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.910	1	J
Ethylbenzene	0.500	1.0	2.20	1	
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	4.30	1	
Xylenes, Total	0.500	1.0	22.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	92.4	70 – 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG107053

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-6D-Q4-01-09 Lab Sample ID: L0110485-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 03-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 15:45

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.540	1	J
Ethylbenzene	0.500	1.0	0.890	1	J
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	1.40	1	
Xylenes, Total	0.500	1.0	7.70	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	100	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG107053

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-9I-Q4-01-09 Lab Sample ID: L0110485-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 03-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 16:17

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.590	1	J
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	86.0	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG107053

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-09 Lab Sample ID: L0110485-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 03-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 16:50

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	13.0	1	
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	98.6	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG107053

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-09 MS Lab Sample ID: L0110485-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 03-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 17:22

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	18.0	1	
Ethylbenzene	0.500	1.0	19.0	1	
Methyl tert-butyl ether	0.500	1.0	30.0	1	
Toluene	0.500	1.0	18.0	1	
Xylenes, Total	0.500	1.0	54.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	93.6	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG107053

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-09 MS Lab Sample ID: L0110485-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 03-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 17:55

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	20.0	1	
Ethylbenzene	0.500	1.0	20.0	1	
Methyl tert-butyl ether	0.500	1.0	35.0	1	
Toluene	0.500	1.0	20.0	1	
Xylenes, Total	0.500	1.0	59.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	105	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG107053

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-13I-Q4-01-09 Lab Sample ID: L0110485-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 03-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 18:27

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	130	1	
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	94.1	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG107053

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-14D-Q4-01-09 Lab Sample ID: L0110485-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 03-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 18:59

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	99.5	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG107053

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-15I-Q4-01-09 Lab Sample ID: L0110485-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 03-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 20:04

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	96.5	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG107053

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46TB1-Q4-01-09 Lab Sample ID: L0110485-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 03-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 20:37

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	98.5	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8015**

AAB # : **WG107063**

Lab Name : **Kemron Environmental Services**

Contract # : **N62467-98-D-0995**

Base/Command : **blgs 9 and 46**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF46-5I-Q4-01-09	L0110485-01
002-CEF46-6D-Q4-01-09	L0110485-02
002-CEF46-9I-Q4-01-09	L0110485-03
002-CEF46-12I-Q4-01-09	L0110485-04
002-CEF46-12I-Q4-01-09 MS	L0110485-05
002-CEF46-12I-Q4-01-09 MSD	L0110485-06
002-CEF46-15I-Q4-01-09	L0110485-09

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **05-NOV-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG107063

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-5I-Q4-01-09 Lab Sample ID: L0110485-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-OCT-2001

Date Received: 24-OCT-01 Date Extracted: 24-OCT-01 Date Analyzed: 29-OCT-01 11:52

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	258	520	750	1.03	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	64.7	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG107063

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-6D-Q4-01-09 Lab Sample ID: L0110485-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-OCT-2001

Date Received: 24-OCT-01 Date Extracted: 24-OCT-01 Date Analyzed: 29-OCT-01 12:07

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	263	530	263	1.05	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	66.2	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG107063

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-9I-Q4-01-09 Lab Sample ID: L0110485-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-OCT-2001

Date Received: 24-OCT-01 Date Extracted: 24-OCT-01 Date Analyzed: 29-OCT-01 12:22

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	268	540	268	1.07	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	84.9	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG107063

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-09 Lab Sample ID: L0110485-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-OCT-2001

Date Received: 24-OCT-01 Date Extracted: 24-OCT-01 Date Analyzed: 29-OCT-01 12:37

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	265	530	265	1.06	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	80.3	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG107063

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-09 MS Lab Sample ID: L0110485-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-OCT-2001

Date Received: 24-OCT-01 Date Extracted: 24-OCT-01 Date Analyzed: 29-OCT-01 13:11

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	260	520	3300	1.04	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	84.8	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG107063

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-09 MS Lab Sample ID: L0110485-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-OCT-2001

Date Received: 24-OCT-01 Date Extracted: 24-OCT-01 Date Analyzed: 29-OCT-01 13:26

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	263	530	2500	1.05	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	68.8	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG107063

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-15I-Q4-01-09 Lab Sample ID: L0110485-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-OCT-2001

Date Received: 24-OCT-01 Date Extracted: 24-OCT-01 Date Analyzed: 29-OCT-01 14:12

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	263	530	263	1.05	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	68.2	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8015**

AAB # : **WG107378**

Lab Name : **Kemron Environmental Services**

Contract # : **N62467-98-D-0995**

Base/Command : **blgs 9 and 46**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF46-13I-Q4-01-09	L0110485-07
002-CEF46-14D-Q4-01-09	L0110485-08

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **05-NOV-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG107378

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-13I-Q4-01-09 Lab Sample ID: L0110485-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-OCT-2001

Date Received: 24-OCT-01 Date Extracted: 24-OCT-01 Date Analyzed: 31-OCT-01 10:54

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	265	530	265	1.06	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	82.1	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG107378

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-14D-Q4-01-09 Lab Sample ID: L0110485-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-OCT-2001

Date Received: 24-OCT-01 Date Extracted: 24-OCT-01 Date Analyzed: 31-OCT-01 11:10

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	260	520	260	1.04	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	33.0	49 – 174	*

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8310**

Lab Name : **Kemron Environmental Services**

Base/Command : **blgs 9 and 46**

AAB # : **WG107068**

Contract # : **N62467-98-D-0995**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF46-5I-Q4-01-09	L0110485-01
002-CEF46-6D-Q4-01-09	L0110485-02
002-CEF46-9I-Q4-01-09	L0110485-03
002-CEF46-12I-Q4-01-09	L0110485-04
002-CEF46-12I-Q4-01-09 MS	L0110485-05
002-CEF46-12I-Q4-01-09 MSD	L0110485-06
002-CEF46-14D-Q4-01-09	L0110485-08
002-CEF46-15I-Q4-01-09	L0110485-09

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **05-NOV-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107068

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-5I-Q4-01-09 Lab Sample ID: L0110485-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 24-OCT-01 Date Extracted: 24-AUG-01 Date Analyzed: 26-OCT-01 07:14

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.421	1.2	0.421	1	ND
2-Methylnaphthalene	0.391	1.2	0.391	1	ND
Acenaphthene	0.483	1.2	0.483	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.331	1.2	0.331	1	ND
Benzo(a)anthracene	0.030	0.20	0.030	1	ND
Benzo(a)pyrene	0.053	0.20	0.053	1	ND
Benzo(b)fluoranthene	0.034	0.20	0.034	1	ND
Benzo(g,h,i)perylene	0.050	0.20	0.050	1	ND
Benzo(k)fluoranthene	0.0837	0.23	0.0837	1	ND
Chrysene	0.024	0.20	0.024	1	ND
Dibenzo(a,h)anthracene	0.077	0.20	0.077	1	ND
Fluoranthene	0.050	0.20	0.050	1	ND
Fluorene	0.650	1.2	0.650	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.417	1.2	0.417	1	ND
Phenanthrene	0.334	1.2	0.334	1	ND
Pyrene	0.068	0.20	0.068	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107068

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-5I-04-01-09 Lab Sample ID: L0110485-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 24-OCT-01 Date Extracted: 24-AUG-01 Date Analyzed: 26-OCT-01 07:14

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	60.1	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107068

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-6D-04-01-09 Lab Sample ID: L0110485-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 24-OCT-01 Date Extracted: 24-AUG-01 Date Analyzed: 26-OCT-01 08:11

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.350	1.0	0.350	1	ND
Acenaphthene	0.432	1.0	0.432	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.297	1.0	0.297	1	ND
Benzo(a)anthracene	0.030	0.20	0.030	1	ND
Benzo(a)pyrene	0.053	0.20	0.053	1	ND
Benzo(b)fluoranthene	0.034	0.20	0.034	1	ND
Benzo(g,h,i)perylene	0.050	0.20	0.050	1	ND
Benzo(k)fluoranthene	0.072	0.20	0.072	1	ND
Chrysene	0.024	0.20	0.024	1	ND
Dibenzo(a,h)anthracene	0.077	0.20	0.077	1	ND
Fluoranthene	0.050	0.20	0.050	1	ND
Fluorene	0.582	1.0	0.582	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.374	1.0	0.374	1	ND
Phenanthrene	0.287	1.0	0.287	1	ND
Pyrene	0.0708	0.21	0.0708	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107068

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-6D-Q4-01-09 Lab Sample ID: L0110485-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 24-OCT-01 Date Extracted: 24-AUG-01 Date Analyzed: 26-OCT-01 08:11

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	59.0	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107068

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-9I-Q4-01-09 Lab Sample ID: L0110485-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 24-OCT-01 Date Extracted: 24-AUG-01 Date Analyzed: 26-OCT-01 09:13

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.402	1.1	0.402	1	ND
2-Methylnaphthalene	0.373	1.1	0.373	1	ND
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.317	1.1	0.317	1	ND
Benzo(a)anthracene	0.030	0.20	0.030	1	ND
Benzo(a)pyrene	0.053	0.20	0.053	1	ND
Benzo(b)fluoranthene	0.034	0.20	0.034	1	ND
Benzo(g,h,i)perylene	0.050	0.20	0.050	1	ND
Benzo(k)fluoranthene	0.080	0.22	0.080	1	ND
Chrysene	0.024	0.20	0.024	1	ND
Dibenzo(a,h)anthracene	0.077	0.20	0.077	1	ND
Fluoranthene	0.050	0.20	0.050	1	ND
Fluorene	0.621	1.1	0.621	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.399	1.1	0.399	1	ND
Phenanthrene	0.319	1.1	0.319	1	ND
Pyrene	0.068	0.20	0.068	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107068

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-9I-Q4-01-09 Lab Sample ID: L0110485-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 24-OCT-01 Date Extracted: 24-AUG-01 Date Analyzed: 26-OCT-01 09:13

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	73.2	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107068

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-09 Lab Sample ID: L0110485-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 26-OCT-01

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 26-OCT-01 10:10

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.402	1.1	0.402	1	ND
2-Methylnaphthalene	0.373	1.1	0.373	1	ND
Acenaphthene	0.461	1.1	0.461	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.317	1.1	0.317	1	ND
Benzo(a)anthracene	0.030	0.20	0.030	1	ND
Benzo(a)pyrene	0.053	0.20	0.053	1	ND
Benzo(b)fluoranthene	0.034	0.20	0.034	1	ND
Benzo(g,h,i)perylene	0.050	0.20	0.050	1	ND
Benzo(k)fluoranthene	0.080	0.22	0.080	1	ND
Chrysene	0.024	0.20	0.024	1	ND
Dibenzo(a,h)anthracene	0.077	0.20	0.077	1	ND
Fluoranthene	0.050	0.20	0.050	1	ND
Fluorene	0.621	1.1	0.621	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.399	1.1	0.399	1	ND
Phenanthrene	0.319	1.1	0.319	1	ND
Pyrene	0.0756	0.22	0.0756	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107068

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-09 Lab Sample ID: L0110485-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 26-OCT-01

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 26-OCT-01 10:10

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	39.3	40 - 132	*

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107068

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-09 MS Lab Sample ID: L0110485-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 24-OCT-01 Date Extracted: 24-OCT-01 Date Analyzed: 26-OCT-01 11:07

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.377	1.0	27.0	1	
2-Methylnaphthalene	0.350	1.0	28.0	1	
Acenaphthene	0.432	1.0	29.0	1	
Acenaphthylene	0.366	1.0	29.0	1	
Anthracene	0.297	1.0	34.0	1	
Benzo(a)anthracene	0.0313	0.21	2.70	1	
Benzo(a)pyrene	0.0552	0.21	2.00	1	
Benzo(b)fluoranthene	0.0354	0.21	2.00	1	
Benzo(g,h,i)perylene	0.0521	0.21	1.80	1	
Benzo(k)fluoranthene	0.075	0.21	0.890	1	
Chrysene	0.025	0.21	2.70	1	
Dibenzo(a,h)anthracene	0.0802	0.21	1.30	1	
Fluoranthene	0.0521	0.21	3.70	1	
Fluorene	0.582	1.0	30.0	1	
Indeno(1,2,3-cd)pyrene	0.0833	0.21	1.60	1	
Naphthalene	0.374	1.0	27.0	1	
Phenanthrene	0.299	1.0	36.0	1	
Pyrene	0.0708	0.21	3.60	1	

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107068

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-09 MS Lab Sample ID: L0110485-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 24-OCT-01 Date Extracted: 24-OCT-01 Date Analyzed: 26-OCT-01 11:07

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	37.7	40 - 132	*

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107068

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-09 MS Lab Sample ID: L0110485-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 24-OCT-01 Date Extracted: 24-OCT-01 Date Analyzed: 26-OCT-01 12:03

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.385	1.1	22.0	1	
2-Methylnaphthalene	0.357	1.1	22.0	1	
Acenaphthene	0.441	1.1	22.0	1	
Acenaphthylene	0.373	1.1	22.0	1	
Anthracene	0.303	1.1	25.0	1	
Benzo(a)anthracene	0.0319	0.21	1.70	1	
Benzo(a)pyrene	0.0564	0.21	1.20	1	
Benzo(b)fluoranthene	0.0362	0.21	1.20	1	
Benzo(g,h,i)perylene	0.0532	0.21	1.00	1	
Benzo(k)fluoranthene	0.0766	0.21	0.550	1	
Chrysene	0.0255	0.21	1.60	1	
Dibenzo(a,h)anthracene	0.0819	0.21	0.760	1	
Fluoranthene	0.0532	0.21	2.70	1	
Fluorene	0.595	1.1	23.0	1	
Indeno(1,2,3-cd)pyrene	0.0851	0.21	0.860	1	
Naphthalene	0.382	1.1	22.0	1	
Phenanthrene	0.305	1.1	27.0	1	
Pyrene	0.0723	0.21	2.60	1	

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107068

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-09 MS Lab Sample ID: L0110485-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 24-OCT-01 Date Extracted: 24-OCT-01 Date Analyzed: 26-OCT-01 12:03

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	28.8	40 - 132	*

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107068

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-14D-Q4-01-09 Lab Sample ID: L0110485-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 24-OCT-01 Date Extracted: 24-AUG-01 Date Analyzed: 26-OCT-01 14:53

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.421	1.2	0.421	1	ND
2-Methylnaphthalene	0.391	1.2	0.391	1	ND
Acenaphthene	0.483	1.2	0.483	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.331	1.2	0.331	1	ND
Benzo(a)anthracene	0.030	0.20	0.030	1	ND
Benzo(a)pyrene	0.053	0.20	0.053	1	ND
Benzo(b)fluoranthene	0.0395	0.23	0.0395	1	ND
Benzo(g,h,i)perylene	0.0581	0.23	0.0581	1	ND
Benzo(k)fluoranthene	0.072	0.20	0.072	1	ND
Chrysene	0.024	0.20	0.024	1	ND
Dibenzo(a,h)anthracene	0.077	0.20	0.077	1	ND
Fluoranthene	0.050	0.20	0.050	1	ND
Fluorene	0.650	1.2	0.650	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.417	1.2	0.417	1	ND
Phenanthrene	0.334	1.2	0.334	1	ND
Pyrene	0.0791	0.23	0.0791	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107068

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-14D-Q4-01-09 Lab Sample ID: L0110485-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 24-OCT-01 Date Extracted: 24-AUG-01 Date Analyzed: 26-OCT-01 14:53

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	30.0	40 - 132	*

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107068

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-15I-Q4-01-09 Lab Sample ID: L0110485-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 24-OCT-01 Date Extracted: 24-AUG-01 Date Analyzed: 26-OCT-01 15:50

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.411	1.1	0.411	1	ND
2-Methylnaphthalene	0.382	1.1	0.382	1	ND
Acenaphthene	0.472	1.1	0.472	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.324	1.1	0.324	1	ND
Benzo(a)anthracene	0.030	0.20	0.030	1	ND
Benzo(a)pyrene	0.053	0.20	0.053	1	ND
Benzo(b)fluoranthene	0.034	0.20	0.034	1	ND
Benzo(g,h,i)perylene	0.050	0.20	0.050	1	ND
Benzo(k)fluoranthene	0.072	0.20	0.072	1	ND
Chrysene	0.024	0.20	0.024	1	ND
Dibenzo(a,h)anthracene	0.077	0.20	0.077	1	ND
Fluoranthene	0.050	0.20	0.050	1	ND
Fluorene	0.635	1.1	0.635	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.408	1.1	0.408	1	ND
Phenanthrene	0.326	1.1	0.326	1	ND
Pyrene	0.068	0.20	0.068	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107068

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-15I-Q4-01-09 Lab Sample ID: L0110485-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 24-OCT-01 Date Extracted: 24-AUG-01 Date Analyzed: 26-OCT-01 15:50

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	55.1	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8310**

AAB # : **WG107449**

Lab Name : **Kemron Environmental Services**

Contract # : **N62467-98-D-0995**

Base/Command : **blgs 9 and 46**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF46-13I-Q4-01-09	L0110485-07
002-CEF46-14D-Q4-01-09	L0110485-08

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **05-NOV-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107449

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-13I-Q4-01-09 Lab Sample ID: L0110485-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 24-OCT-01 Date Extracted: 29-OCT-01 Date Analyzed: 01-NOV-01 03:13

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.357	1.1	0.357	1	ND
Acenaphthene	0.441	1.1	0.441	1	ND
Acenaphthylene	0.373	1.1	0.373	1	ND
Anthracene	0.303	1.1	0.303	1	ND
Benzo(a)anthracene	0.030	0.20	0.030	1	ND
Benzo(a)pyrene	0.053	0.20	0.053	1	ND
Benzo(b)fluoranthene	0.034	0.20	0.034	1	ND
Benzo(g,h,i)perylene	0.050	0.20	0.050	1	ND
Benzo(k)fluoranthene	0.072	0.20	0.072	1	ND
Chrysene	0.024	0.20	0.024	1	ND
Dibenzo(a,h)anthracene	0.077	0.20	0.077	1	ND
Fluoranthene	0.050	0.20	0.050	1	ND
Fluorene	0.595	1.1	0.595	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.382	1.1	0.382	1	ND
Phenanthrene	0.305	1.1	0.305	1	ND
Pyrene	0.0723	0.21	0.0723	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107449

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-13I-Q4-01-09 Lab Sample ID: L0110485-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 24-OCT-01 Date Extracted: 29-OCT-01 Date Analyzed: 01-NOV-01 03:13

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	42.7	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107449

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-14D-Q4-01-09 Lab Sample ID: L0110485-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 24-OCT-01 Date Extracted: 29-OCT-01 Date Analyzed: 01-NOV-01 04:10

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.378	1.1	0.378	1	ND
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.320	1.1	0.320	1	ND
Benzo(a)anthracene	0.030	0.20	0.030	1	ND
Benzo(a)pyrene	0.0596	0.22	0.0596	1	ND
Benzo(b)fluoranthene	0.034	0.20	0.034	1	ND
Benzo(g,h,i)perylene	0.050	0.20	0.050	1	ND
Benzo(k)fluoranthene	0.0809	0.22	0.0809	1	ND
Chrysene	0.027	0.22	0.027	1	ND
Dibenzo(a,h)anthracene	0.0865	0.22	0.0865	1	ND
Fluoranthene	0.050	0.20	0.050	1	ND
Fluorene	0.628	1.1	0.628	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.359	1.0	0.359	1	ND
Phenanthrene	0.322	1.1	0.322	1	ND
Pyrene	0.0764	0.22	0.0764	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107449

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-14D-Q4-01-09 Lab Sample ID: L0110485-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 24-OCT-01 Date Extracted: 29-OCT-01 Date Analyzed: 01-NOV-01 04:10

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	18.5	40 - 132	*

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **9056**

AAB # : **WG107114**

Lab Name : **Kemron Environmental Services**

Contract # : **N62467-98-D-0995**

Base/Command : **blgs 9 and 46**

Prime Contractor : **CCI**

Field sample ID	**Lab Sample ID**
002-CEF46-5I-Q4-01-09	L0110485-01

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **05-NOV-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107114

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-5I-Q4-01-09 Lab Sample ID: L0110485-01 Matrix: Water

% Solids: 0 Initial Calibration ID: FILTER

Date Received: 24-OCT-01 Date Extracted: 24-OCT-01 Date Analyzed:

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.067	1	ND
Nitrite	0.061	0.40	0.061	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **9056**

Lab Name : **Kemron Environmental Services**

Base/Command : **blgs 9 and 46**

AAB # : **WG107000**

Contract # : **N62467-98-D-0995**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF46-5I-Q4-01-09	L0110485-01
002-CEF46-6D-Q4-01-09	L0110485-02
002-CEF46-9I-Q4-01-09	L0110485-03
002-CEF46-12I-Q4-01-09	L0110485-04
002-CEF46-12I-Q4-01-09 MS	L0110485-05
002-CEF46-12I-Q4-01-09 MSD	L0110485-06
002-CEF46-13I-Q4-01-09	L0110485-07
002-CEF46-14D-Q4-01-09	L0110485-08
002-CEF46-15I-Q4-01-09	L0110485-09

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **05-NOV-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107000

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-5I-Q4-01-09 Lab Sample ID: L0110485-01 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 05-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 24-OCT-01 13:19

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.890	1	
Nitrite	0.061	0.40	0.061	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107000

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-5I-04-01-09 Lab Sample ID: L0110485-01 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 25-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 17:26

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	6.70	60	6.70	100	ND
Nitrite	6.10	40	6.10	100	ND
Phosphate	16.3	100	16.3	100	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107000

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-5I-Q4-01-09 Lab Sample ID: L0110485-01 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 25-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 15:10

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	33.5	300	33.5	500	ND
Nitrite	30.5	200	30.5	500	ND
Phosphate	81.5	500	81.5	500	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107000

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-5I-Q4-01-09 Lab Sample ID: L0110485-01 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 25-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 15:21

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.900	1	
Nitrite	0.061	0.40	0.061	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107000

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-6D-Q4-01-09 Lab Sample ID: L0110485-02 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 05-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 24-OCT-01 13:42

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.067	1	ND
Nitrite	0.061	0.40	0.061	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107000

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-6D-Q4-01-09 Lab Sample ID: L0110485-02 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 25-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 14:58

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	33.5	300	33.5	500	ND
Nitrite	30.5	200	30.5	500	ND
Phosphate	81.5	500	81.5	500	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107000

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-9I-Q4-01-09 Lab Sample ID: L0110485-03 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 05-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 24-OCT-01 13:53

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.900	1	
Nitrite	0.061	0.40	0.061	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107000

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-04-01-09 Lab Sample ID: L0110485-04 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 05-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 24-OCT-01 14:05

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.210	1	J
Nitrite	0.061	0.40	0.061	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107000

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-09 Lab Sample ID: L0110485-04 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 25-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 15:45

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.190	1	J
Nitrite	0.061	0.40	0.061	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107000

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-09 MS Lab Sample ID: L0110485-05 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 05-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 24-OCT-01 14:16

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	4.30	1	
Nitrite	0.061	0.40	3.90	1	
Phosphate	0.163	1.0	5.70	1	

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107000

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-09 MS Lab Sample ID: L0110485-05 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 25-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 16:08

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	4.00	1	
Nitrite	0.061	0.40	3.60	1	
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107000

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-09 MS Lab Sample ID: L0110485-06 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 05-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 24-OCT-01 14:28

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	4.30	1	
Nitrite	0.061	0.40	3.90	1	
Phosphate	0.163	1.0	5.90	1	

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107000

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-09 MS Lab Sample ID: L0110485-06 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 25-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 16:19

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	4.10	1	
Nitrite	0.061	0.40	3.60	1	
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107000

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-13I-04-01-09 Lab Sample ID: L0110485-07 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 05-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 24-OCT-01 14:51

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.067	1	ND
Nitrite	0.061	0.40	0.061	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107000

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-13I-Q4-01-09 Lab Sample ID: L0110485-07 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 25-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 16:31

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.067	1	ND
Nitrite	0.061	0.40	0.061	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107000

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-14D-Q4-01-09 Lab Sample ID: L0110485-08 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 05-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 24-OCT-01 15:02

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.067	1	ND
Nitrite	0.061	0.40	0.061	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107000

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-14D-Q4-01-09 Lab Sample ID: L0110485-08 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 25-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 14:35

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.067	1	ND
Nitrite	0.061	0.40	0.061	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107000

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-14D-Q4-01-09 Lab Sample ID: L0110485-08 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 25-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 14:47

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.134	1.2	0.134	2	ND
Nitrite	0.122	0.80	0.122	2	ND
Phosphate	0.326	2.0	0.326	2	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107000

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-15I-Q4-01-09 Lab Sample ID: L0110485-09 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 05-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 24-OCT-01 15:14

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.067	1	ND
Nitrite	0.061	0.40	0.061	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107000

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-15I-Q4-01-09 Lab Sample ID: L0110485-09 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 25-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 17:03

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.067	1	ND
Nitrite	0.061	0.40	0.061	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107000

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-15I-Q4-01-09 Lab Sample ID: L0110485-09 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 25-OCT-2001

Date Received: 24-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 17:14

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.134	1.2	0.134	2	ND
Nitrite	0.122	0.80	0.122	2	ND
Phosphate	0.326	2.0	0.326	2	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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1.2 Attachments

KEMRON ANALYST LIST

Ohio Valley Laboratory

11/01/2001

ADH - ANGELA D. HURST
AJF - AMANDA J. FICKIESEN
ALT - ANN L. THAYER
AMT - ANDREA M. TUCKER
ARS - ANGELINA R. SCOTT
BRG - BRENDA R. GREGORY
CAF - CHERYL A. FLOWERS
CAK - CHERYL A. KOELSCH
CBN - CHARLES B. NOLL
CEB - CHAD E. BARNES
CLC - CHRYS L. CRAWFORD
CLK - CARL L. KING
CLW - CHARISSA L. WINTERS
CMS - CRYSTAL M. STEVENS
CRC - CARLA R. COCHRAN
CSH - CHRIS S. HILL
DAM - DAN A. MUSGRAVE
DAS - DALLAS A. SULLIVAN
DAT - DEBBIE A. TORNES
DEL - DON E. LIGHTFRITZ
DEV - DAVID E. VANDENBERG
DGB - DOUGLAS G. BUTCHER
DIH - DEANNA I. HESSON
DLA - DENISE L. ADAMS
DLB - DAVID L. BUMGARNER
DLN - DEANNA L. NORTON
DLP - DOROTHY L. PAYNE
DLR - DIANNA L. RAUCH
DP - DEANNA L. PIERSON
DSM - DAVID S. MOSSOR
DST - DENNIS S. TEPE
ECL - ERIC C. LAWSON
GSG - GALEN S. GEORGE
HV - HEMA VILASAGAR
JAQ - JEROMY A. QUESENBERRY
JKW - JANE K. WARDEN
JLS - JANICE L. SCHIMMEL
JMM - JARROD M. MARTIN
JMT - JOY M. THOMAS
JRM - JAY R. MCDOUGAL
JWR - JOHN W. RICHARDS
JWS - JACK W. SHEAVES
JYH - JI Y. HU
KHR - KIM H. RHODES
KRA - KATHY R. ALBERTSON
KSL - KELLY S. LAUER
LKN - LINDA K. NEDEFF
LMT - LUCINDA M. TILTON
LRR - LUCYNDA R. ROBERTS
LSA - LUCINDA S. ARNOLD
LSB - LESLIE S. BUCINA
MDA - MICHAEL D. ALBERTSON
MDC - MICHAEL D. COCHRAN
MEF - MIKE E. FLANAGAN
MES - MARY E. SCHILLING
MLS - MICHAEL L. SCHIMMEL
MMB - MAREN M. BEERY
MRR - MICHELLE R. RAUCH
MSW - MATT S. WILSON
NJB - NATALIE J. BOOTH
RDC - REBECCA D. CUTLIP
REF - RON E. FERTILE
REK - ROBERT E. KYER
RJW - RHONDA J. WITTEKIND
RLW - RON L. WATSON
RSH - RENEE S. HENNES
RSS - REGINA S. SIMMONS
RVC - RUTH V. CALLIHAN
RWC - ROD W. CAMPBELL
SJK - SINDY J. KINNEY
SKH - SHARON K. HANDSCHUMACHER
SLP - SHERI L. PFALZGRAF
SLT - STEPHANIE L. TEPE
SMW - SHAUNA M. WELCH
SPL - STEVE P. LEARN
TJH - TIM J. HOEFLICH
TLD - TERESA L. DAVIS
TMM - TAMMY M. MORRIS
VC - VICKI COLLIER
VKL - VICKY K. LAUER

KEMRON Environmental Services, Inc
List of Valid Qualifiers
December 15, 2000

Standard Qualifiers

These are KEMRON's Standard Report Qualifiers

A	See the report narrative
B	Present in the method blank
C	Confirmed by GC/MS
CG	Confluent growth
D	The analyte was quantified at a secondary dilution factor
DL	Surrogate or spike was diluted out
E	Estimated concentration due to sample matrix interference
FL	Free liquid
I	Semiquantitative result, out of instrument calibration range
J	Present below nominal reporting limit
L	Sample reporting limits elevated due to matrix interference
M	Duplicate injection precision not met
N	Tentatively Identified Compound (TIC)
NA	Not applicable
ND	Not detected at or above the reporting limit (RL)
NF	Not found
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentration >40% difference between The two GC columns
QNS	Quantity not sufficient to perform analysis
R	Analyte exceeds regulatory limit
RA	Re analysis confirms reported results
RE	Re analysis confirms sample matrix Interference
S	Analyzed by method of standard addition
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TNTC	Too numerous to count
U	Analyzed for but not detected
W	Post-digestion spike for furnace AA out Of control limits
Z	Can not be resolved from isomer.***
+	Correlation coefficient for the MSA is less Than 0.995
<	Less than
>	Greater than
*	Surrogate or spike compound out of range

***** Special Notes for Organic Analytes**

1. Acrolein and acrylonitrile by method 624 are semiquantative screens only
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene
3. N-nitrosodiphenylamine cannot be separated from diphenylamine
4. 3-Methyphenol and 4-Methyphenol are unresolvable compounds
5. m-Xylene and p-Xylene are unresolvable compounds
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent

AFCEE Qualifiers

These are KEMRON's AFCEE Report Qualifiers

J	The analyte was positively identified, the quantitation is an estimation
U	The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL
F	The analyte was positively identified but the associated numerical value is below the RL
R	The data is unusable due to deficiencies in the ability to analyze the sample and meet QC criteria
B	The analyte was found in an associated blank, as well as in the sample
M	The matrix effect was present
S	To be applied to all field screening data
T	Tentatively identified compound (using GC/MS)

H:\DATA\COMMON\Qualifier List 12-15-00.doc

CH2M Hill Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No (770) 604-9182 ; Fax No (770) 604-9282

CHAIN-OF-CUSTODY RECORD

COC NUMBER
149152-174 page _1_ of _1_

PROJECT NAME:	PROJECT NUMBER:	LAB NAME AND CONTACT:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	RECIPIENT 1 (Address, Tel No. , and Fax No.):
N.A.S. Cecil Field Building 46	149152	Debbie Tornes Kemron Environmental Services	Jennifer Zimmerman J.A Jones Env. Services	6219 Authority Road, Jacksonville, FL 32221 PH: (904) 7774812 FAX: (904) 7774262
PROJECT PHASE/SITE/TASK:	CTO OR DO NUMBER:	LAB PO NUMBER:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	RECIPIENT 2 (Address, Tel No. , and Fax No.):
Building 46 / Monthly GW Sampling Event	0002	2329	Christelle Newsome CH2M Hill Constuctors, Inc.	115 Perimeter Center Place, N.E. Suite 700 Atlanta, GA 30346 PH:(770)604-9182 Ext.561 FAX:604-9282
PROJECT CONTACT:	PROJECT TEL NO AND FAX NO:	LAB TEL NO AND FAX NO:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	RECIPIENT 3 (Address, Tel No. , and Fax No.):
Randy Dumaop	Phone: 904-777-4812 Fax:904-777-4262	Phone: 740-373-4071 Fax: 740-373-4835		

ANALYSES REQUIRED (Include Method Numbers)

ITEM	SAMPLE IDENTIFIER	SAMPLE DESCRIPTION/LOCATION	MATRIX	DATE COLLECTED	TIME COLLECTED	~~DATA PKG~~ LEVEL	TAT (calendar days)	BTEX by 8021B	Naphthalene & 15 Method Listed PAHs by 8310	TRPH by FL-PRO	NO2 NO3 PO4 by EPA Method 300.0				SAMPLE TYPE (see codes on back)	COMMENTS/ SCREENING READINGS	LAB ID
1	002-CEF46-5I-Q4-01-09	CEF-46-5I	W	10/23/01	15:05	III/C	14	2	2	2	1				Grab	Turbid	
2	002-CEF46-6D-Q4-01-09	CEF-46-6D	W	10/23/01	14:50	III/C	14	2	2	2	1				Grab		
3	002-CEF46-9I-Q4-01-09	CEF-46-9I	W	10/23/01	11:45	III/C	14	2	2	2	1				Grab		
4	002-CEF46-12I-Q4-01-09	CEF-46-12I	W	10/23/01	10:40	III/C	14	6	6	6	3				Grab	Turbid	
5	002-CEF46-13I-Q4-01-09	CEF-46-13I	W	10/23/01	11:25	III/C	14	2	2	2	1				Grab		
6	002-CEF46-14D-Q4-01-09	CEF-46-14D	W	10/23/01	13:50	III/C	14	2	2	2	1				Grab	Turbid	
7	002-CEF46-15I-Q4-01-09	CEF-46-15I	W	10/23/01	10:10	III/C	14	2	2	2	1						
8	002-46TB1-Q4-01-09	Trip Blank	W	NA	NA	III/C	14	2								Prepared by Lab	
9	NA	Temperature Blank	W	NA	NA	III/C	14									Prepared by Lab	
10																	

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:
Randy Dumaop / Bill Canelos / Roger Deisler J.A. Jones Environmental Services	Federal Express Track #791685674692, 791685675048, 791685675129, 790194759678, 790194759770.

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	10/23/01	18:00	Federal Express	10/23/01	18:00
Printed Name and Signature:			Printed Name and Signature:		

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CH2M Hill Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No (770) 604-9182 ; Fax No (770) 604-9282

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1	002-CEF46-5I-Q4-01-09	CEF-46-5I	W	10/23/01	15:05	III/C	14	2	2	2	1				Grab	Turbid	
2	002-CEF46-6D-Q4-01-09	CEF-46-6D	W	10/23/01	14:50	III/C	14	2	2	2	1				Grab		
3	002-CEF46-9I-Q4-01-09	CEF-46-9I	W	10/23/01	11:45	III/C	14	2	2	2	1				Grab		
4	002-CEF46-12I-Q4-01-09	CEF-46-12I	W	10/23/01	10:40	III/C	14	6	6	6	3				Grab	Turbid	
5	002-CEF46-13I-Q4-01-09	CEF-46-13I	W	10/23/01	11:25	III/C	14	2	2	2	1				Grab		
6	002-CEF46-14D-Q4-01-09	CEF-46-14D	W	10/23/01	13:50	III/C	14	2	2	2	1				Grab	Turbid	
7	002-CEF46-15I-Q4-01-09	CEF-46-15I	W	10/23/01	10:10	III/C	14	2	2	2	1						
8	002-46TB1-Q4-01-09	Trip Blank	W	NA	NA	III/C	14	2								Prepared by Lab	
9	NA	Temperature Blank	W	NA	NA	III/C	14									Prepared by Lab	
10																	

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2	002-CEF46-6D-Q4-01-09	CEF-46-6D	W	10/23/01	14:50	III/C	14	2	2	2	1				Grab		
3	002-CEF46-9I-Q4-01-09	CEF-46-9I	W	10/23/01	11:45	III/C	14	2	2	2	1				Grab		
4	002-CEF46-12I-Q4-01-09	CEF-46-12I	W	10/23/01	10:40	III/C	14	6	6	6	3				Grab	Turbid	
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8	002-46TB1-Q4-01-09	Trip Blank	W	NA	NA	III/C	14	2								Prepared by Lab	
9	NA	Temperature Blank	W	NA	NA	III/C	14									Prepared by Lab	
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3	002-CEF46-9I-Q4-01-09	CEF-46-9I	W	10/23/01	11:45	III/C	14	2	2	2	1				Grab		
4	002-CEF46-12I-Q4-01-09	CEF-46-12I	W	10/23/01	10:40	III/C	14	6	6	6	3				Grab	Turbid	
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6	002-CEF46-14D-Q4-01-09	CEF-46-14D	W	10/23/01	13:50	III/C	14	2	2	2	1				Grab	Turbid	
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COC NUMBER
149152-174 page _1_ of _1_

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1	002-CEF46-5I-Q4-01-09	CEF-46-5I	W	10/23/01	15:05	III/C	14	2	2	2	1				Grab	Turbid	
2	002-CEF46-6D-Q4-01-09	CEF-46-6D	W	10/23/01	14:50	III/C	14	2	2	2	1				Grab		
3	002-CEF46-9I-Q4-01-09	CEF-46-9I	W	10/23/01	11:45	III/C	14	2	2	2	1				Grab		
4	002-CEF46-12I-Q4-01-09	CEF-46-12I	W	10/23/01	10:40	III/C	14	6	6	6	3				Grab	Turbid MS|MSD	10/24/01
5	002-CEF46-13I-Q4-01-09	CEF-46-13I	W	10/23/01	11:25	III/C	14	2	2	2	1				Grab		
6	002-CEF46-14D-Q4-01-09	CEF-46-14D	W	10/23/01	13:50	III/C	14	2	2	2	1				Grab	Turbid	
7	002-CEF46-15I-Q4-01-09	CEF-46-15I	W	10/23/01	10:10	III/C	14	2	2	2	1					(2) FL-PRO rec'd broken	10/24/01
8	002-46TB1-Q4-01-09	Trip Blank	W	NA	NA	III/C	14	2								Prepared by Lab	
9	NA	Temperature Blank	W	NA	NA	III/C	14									Prepared by Lab	
10																	

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:	
Randy Dumaop / Bill Canelos / Roger Deisler J.A. Jones Environmental Services	Federal Express Track #791685674692, 791685675048, 791685675129, 790194759678, 790194759770.	C/C Dated Coolers Damped 01/10/01

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	10/23/01	18:00	Federal Express	10/23/01	18:00
Printed Name and Signature:			Printed Name and Signature:		
			Brenda Gregory / Brenda Gregory	10/24/01	1014

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CCI001, Rev 02/00

KEMRON Internal Laboratory Chain of Custody

Work Order: L0110485 **Client:** CCI **# of Samples:** 10 **Due Date:** _____ **Page:** _____

Sample #	Analysis	Reason	Removed By ADT	Removed From	Moved To	Reliq. by	Ret'd By ADT	Ret'd To	Rec'd By	Reason
1-9A	9056	EXT	10/24/01 @ 12:15	109 IN	SV	BIG	BIG 11-8-01 @ 1350	ARCHIVE	LMT	ARCHIVE
1-9A	FLA-PRO	EXT	10/24/01 @ 1430	WALKIN	SLAB	NB	LMT @ 9:45 10/25/01	Crusher	DP	Disposal
1-9A	8310	EXT	CEB 10/24/01 @ 1555	WALKIN	EZAB	BIG	LMT @ 9:45 10/25/01	Crusher	DP	Disposal
1-10	BTME	ATNAL	LBN 10/25/01 @ 0820	U-1	ORG-4	CEB	BIG 11/13/01 @ 1045 @ 8:20	Archive	BIG	Archive
7,8B	8310	Re-ext	10/29/01 @ 0850	WALKIN	SLAB	BIG	LMT 10/29/01 @ 9:45	Crusher	CEB	Disposal
7,8B	FLA-PRO	Re-ext	10/30/01 @ 1000	WALKIN	ELAB	NB	JFA 10/31/01	Crusher	DP	disposal

Report Sent To Client 11-8-01

KEMRON Environmental Services

SAMPLES RECEIPT FORM

Marietta Laboratory

CLIENT: CCI	DATE: 10/24/01	SHIPPED BY: (✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT
BRG LMT Other		

COOLER ID: KL1088	COOLER ID: KL1084	COOLER ID: ~~KL479~~ KL427
INDEX #: 79019475977 0	INDEX #: 79019475967 8	INDEX #: 791685675048
SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO
CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO
TEMP: (C) (D) 0 °C	TEMP: (C) (D) 4 °C	TEMP: (C) (D) 0 °C
TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO	TEMP IN RANGE (4°C ± 2°) (✓) YES ( ) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO
WET ICE (✓) BLUE ICE ( )	WET ICE (✓) BLUE ICE ( )	WET ICE (✓) BLUE ICE ( )
ICE FROZEN (✓) MELTED ( )	ICE FROZEN (✓) MELTED ( )	ICE FROZEN (✓) MELTED ( )
RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED (✓) YES ( ) NO
SAMPLE INTACT (✓) YES ( ) NO	SAMPLE INTACT ( ) YES (✓) NO	SAMPLE INTACT (✓) YES ( ) NO
SALVAGEBLE ( ) YES ( ) NO	SALVAGEBLE ( ) YES (✓) NO	SALVAGEBLE ( ) YES ( ) NO
SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )
LABELS: INTACT (✓) YES ( ) NO	LABELS: INTACT (✓) YES ( ) NO	LABELS: INTACT (✓) YES ( ) NO
LEGIBLE (✓) YES ( ) NO	LEGIBLE (✓) YES ( ) NO	LEGIBLE (✓) YES ( ) NO
MATCH COC (✓) YES ( ) NO	MATCH COC (✓) YES ( ) NO	MATCH COC (✓) YES ( ) NO
pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO
SAMPLES NOT FROZEN ( ) YES (✓) NO	SAMPLES NOT FROZEN ( ) YES ( ) NO	SAMPLES NOT FROZEN ( ) YES (✓) NO
LOG-IN COMMENTS 1505 VOS	LOG-IN COMMENTS 1040 (1010 Fl-Pro broken) 1010	LOG-IN COMMENTS 1450 1350

TSR COMMENTS

CONTACT:	DATE:	TIME:

COMMENTS: ( ) VOICE ( ) FAX ( ) E-MAIL

Revised 10/16/01

KEMRON Environmental Services | **SAMPLES RECEIPT FORM** | Marietta Laboratory

CLIENT: CCI ~~BRG~~ LMT Other _____	**DATE:** 10/24/01	**SHIPPED BY:** (✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: KL1008	**COOLER ID:** KL1089	**COOLER ID:**
INDEX # : 791685674692	**INDEX # :** 791685675129	**INDEX # :**
SEALED (✓) YES ( ) NO	**SEALED** (✓) YES ( ) NO	**SEALED** ( ) YES ( ) NO
CUSTODY (✓) YES ( ) NO	**CUSTODY** (✓) YES ( ) NO	**CUSTODY** ( ) YES ( ) NO
TEMP : (C) (D) 0 °C	**TEMP :** (C) (D) 0 °C	**TEMP :** (C) (D) °C
TEMP IN RANGE ( ) YES (✓) NO (4°C ± 2°)	**TEMP IN RANGE** ( ) YES (✓) NO (4°C ± 2°)	**TEMP IN RANGE** ( ) YES ( ) NO (4°C ± 2°)
WET ICE (✓) **BLUE ICE** ( )	**WET ICE** (✓) **BLUE ICE** ( )	**WET ICE** ( ) **BLUE ICE** ( )
ICE FROZEN (✓) **MELTED** ( )	**ICE FROZEN** (✓) **MELTED** ( )	**ICE FROZEN** ( ) **MELTED** ( )
RADIATION CHECKED (✓) YES ( ) NO	**RADIATION CHECKED** (✓) YES ( ) NO	**RADIATION CHECKED** ( ) YES ( ) NO
SAMPLE INTACT (✓) YES ( ) NO **SALVAGEBLE** ( ) YES ( ) NO	**SAMPLE INTACT** (✓) YES ( ) NO **SALVAGEBLE** ( ) YES ( ) NO	**SAMPLE INTACT** ( ) YES ( ) NO **SALVAGEBLE** ( ) YES ( ) NO
SAMPLE TYPE: **WATER** (✓) **SOIL** ( ) **OTHER** ( )	**SAMPLE TYPE:** **WATER** (✓) **SOIL** ( ) **OTHER** ( )	**SAMPLE TYPE:** **WATER** ( ) **SOIL** ( ) **OTHER** ( )
LABELS: INTACT (✓) YES ( ) NO **LEGIBLE** (✓) YES ( ) NO **MATCH COC** (✓) YES ( ) NO	**LABELS: INTACT** (✓) YES ( ) NO **LEGIBLE** (✓) YES ( ) NO **MATCH COC** (✓) YES ( ) NO	**LABELS: INTACT** ( ) YES ( ) NO **LEGIBLE** ( ) YES ( ) NO **MATCH COC** ( ) YES ( ) NO
pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	**pH IN RANGE (2 - >9 - >12) AS APPROPRIATE** (✓) YES ( ) NO	**pH IN RANGE (2 - >9 - >12) AS APPROPRIATE** ( ) YES ( ) NO
SAMPLES NOT FROZEN ( ) YES (✓) NO	**SAMPLES NOT FROZEN** ( ) YES (✓) NO	**SAMPLES NOT FROZEN** ( ) YES ( ) NO
LOG-IN COMMENTS 1125	**LOG-IN COMMENTS**	**LOG-IN COMMENTS**
1145	1040 (MS)	
	MSD	

TSR COMMENTS

CONTACT:	**DATE:**	**TIME:**

COMMENTS: ( ) VOICE ( ) FAX ( ) E-MAIL

Revised 10/16/01

CRF#4

Sample Receipt Form #2

Client: CCI Project:
Date Received: 10/24/01

_____Cooler temperature > than 6 degrees Celcius
Reason_____

_____Samples received not on chain of custody

_____Samples on chain of custody not received

✓ Information on sample containers different from chain of custody
C/C 002-46TB1-Q4-01-09 ~ Vials "Trip Blank"

✓ Sample containers received broken, leaking or not sealed (List sample ID)
CEF46-15I ~ (1) Fl-Pro rec'd broken

_____pH out (List sample ID & which container)

_____Insufficient sample volume

_____Air bubbles present in Voa vials (List sample ID)

_____Hold time expired (List sample ID)

TSR:
Was client notified regarding information: YES NO
Name of person contacted:_____ Company:_____
TSR:_____ Date:_____
Attach: Phone Logs, e-mails, faxes, etc.

COOLER RECEIPT FORM

Contractor Cooler _____
MRD Cooler # _____
Number of Coolers _____

PROJECT: _____ LIMS# _____

USE OTHER SIDE OF THIS FORM TO NOTE DETAILS CONERNING CHECK-IN PROBLEMS

A. **PRELIMINARY EXAMINATION PHASE:** Date cooler opened: _____ C-of-C Number: _____

by (print) _____ (sign) _____

1. Did cooler come with a shipping slip (air bill, etc.)? ..... YES NO

   If YES, enter carrier name & air bill number here: _____

2. Were custody seals on outside of cooler? ..... YES NO

   How many & where? 1-front, seal date: 10/23/01 seal name: QEC

3. Were custody seals unbroken and intact at the data and time of arrival? ..... YES NO
4. Did you screen samples for radioactivity using the Geiger Counter? ..... YES NO
5. Were custody papers sealed in a plastic bag & taped inside to the lid? ..... YES NO
6. Were custody papers filled out properly (ink, signed, etc.)? ..... YES NO
7. Did you sign custody papers in the appropriate place? ..... YES NO
8. Was project identifiable from custody papers? If yes, enter project name at the top of this form ..... YES NO
9. If required, was enough ice used? ..... Type of ice: _____ Temp _____°C ..... YES NO
10. Have designated person initial here to acknowledge receipt of cooler: _____ (date) _____

B. **LOG-IN PHASE:** Date samples were logged-in: _____

by (print) _____ (sign) _____

11. Describe type of packing in cooler: _____
12. Were all bottles sealed in separate plastic bags? ..... YES NO
13. Did all bottles arrive unbroken & were labels in good condition? ..... YES NO
14. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? ..... YES NO
15. Did all bottle labels agree with custody papers? ..... YES NO
16. Were correct containers used for the tests indicated? ..... YES NO
17. Were correct preservatives added to samples? ..... YES NO
18. Was a sufficient amount of sample sent for tests indicated? ..... YES NO
19. Were bubbles absent in volatile samples? If NO, list by Sample # _____ YES NO
20. Was the project manager called and status discussed? If YES, give details on the back of this form ..... YES NO
21. Who was called? _____ By whom? _____ (date) _____

2.0 Full Sample Data Package

2.1 Volatiles Data

2.1.3 BTEX GC Data (8021)

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0110485

METHOD

Preparation: SW- 846 5030B
Analysis: SW-846 8021B

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.
Matrix Spikes: All acceptance criteria were met.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: CBN REVIEWED: [signature] DATE: 11/2/01

Rev. 6/00

BETX-GC DATA (8021)

Login Number: L0110485

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

NA Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and quantitation report for each sample analysis and re-analysis (if re-analyzed) (Numerical order)

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data) (Chronological)

✓ Chromatograms and quantitation reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and quantitation reports (chronological)

✓ Retention time window summary (if applicable)(chronological)

D. Raw QC Data

✓ Method Blank, chromatogram and quantitation report for each matrix type (chronological)

✓ Laboratory Control Sample, chromatogram and quantitation report for each matrix type (chronological)

✓ Matrix Spike/Matrix Spike Duplicate, chromatograms and quantitation reports (if not reported as samples) and of the same client batch (chronological)

✓ Instrument runlogs (chronological)

NA Extraction bench sheets (for mid-level methanol extractions) (chronological)

NA 5035 logs (if applicable) (chronological)

Checked By: C Brian Noll **Date:** 10/30/01

2.1.3.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0110485
Blank File ID: 12G09949
Date Analyzed: 10/25/01
Time Analyzed: 07:57
Analyst: CBN

Work Group: WG107053
Blank Sample ID: WG107053-01
Instrument ID: HP12
Method: 8021

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG107053-02	12G09950	10/25/01 08:29	01
002-CEF46-5I-Q4-01-09	L0110485-01	12G09962	10/25/01 15:13	01
002-CEF46-6D-Q4-01-09	L0110485-02	12G09963	10/25/01 15:45	01
002-CEF46-9I-Q4-01-09	L0110485-03	12G09964	10/25/01 16:17	01
002-CEF46-12I-Q4-01-09	L0110485-04	12G09965	10/25/01 16:50	01
002-CEF46-12I-Q4-01-09 MS	L0110485-05	12G09966	10/25/01 17:22	01
002-CEF46-12I-Q4-01-09 MSD	L0110485-06	12G09967	10/25/01 17:55	01
002-CEF46-13I-Q4-01-09	L0110485-07	12G09968	10/25/01 18:27	01
002-CEF46-14D-Q4-01-09	L0110485-08	12G09969	10/25/01 18:59	01
002-CEF46-15I-Q4-01-09	L0110485-09	12G09971	10/25/01 20:04	01
002-46TB1-Q4-01-09	L0110485-10	12G09972	10/25/01 20:37	01

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0110485
Instrument ID: HP12
File ID: 12G09949
Workgroup (AAB#): WG107053
Contract #:

Run Date: 10/25/2001
Run Time: 07:57
Analyst: CBN

Sample ID: WG107053-01
Method: 8021B
Matrix: Water
Units: ug/L
Cal ID: HP12-03-OCT-2001

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
MTBE	.5	1	0.500	1.00	ND
Benzene	.5	1	0.500	1.00	ND
Toluene	.5	1	0.500	1.00	ND
Ethylbenzene	.5	1	0.500	1.00	ND
Total xylenes	.5	1	0.500	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	95.3	70 - 130	PASS

F Analyte concentration between MDL and RDL
* Analyte detected above RDL

KEMRON FORMS - Modified 10/16/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0110485
Run Date: 10/25/2001
Sample ID: WG107053-02
Instrument ID: HP12
Run Time: 08:29
Method: 8021B
File ID: 12G09950
Analyst: CBN
Matrix: Water
Workgroup (AAB#): WG107053
Units: ug/L
Contract #:
Cal ID: HP12-03-OCT-2001

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	18.9	94.5	56 - 149	
Benzene	20	19.4	97.0	78 - 122	
Toluene	20	19.3	96.5	78 - 123	
Ethylbenzene	20	19.8	99.0	80 - 129	
Total xylenes	60	58.1	96.8	80 - 124	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	97.2	70 - 130	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 10/16/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
MS/MSD REPORT

Loginnum: L0110485 Cal ID: HP12-03-OCT-2001 Worknum: WG107053
Instrument ID: HP12 Contract #: Method: 8021B
Parent ID: L0110485-04 File ID: 12G09965 Matrix: Water
Sample ID: L0110485-05 MS File ID: 12G09966 Units: ug/L
Sample ID: L0110485-06 MSD File ID: 12G09967

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Benzene	0	20.0	18.3	91.5	20.0	20.1	101	9.38	78 - 122	20	
Ethylbenzene	0	20.0	18.6	93.0	20.0	20.2	101	8.25	80 - 129	20	
Methyl tert-butyl ether	12.9	20.0	30.4	87.5	20.0	34.9	110	13.8	56 - 149	20	
Toluene	0	20.0	18.1	90.5	20.0	19.8	99.0	8.95	78 - 123	20	
Xylenes, Total	0	60.0	54.3	90.5	60.0	59.1	98.5	8.47	80 - 124	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021

AAB#: WG107053

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
002-CEF46-5I-Q4-01-09	23-OCT-01	24-OCT-01	25-OCT-01	14	2	25-OCT-01	14	2	
002-CEF46-6D-Q4-01-09	23-OCT-01	24-OCT-01	25-OCT-01	14	2	25-OCT-01	14	2	
002-CEF46-9I-Q4-01-09	23-OCT-01	24-OCT-01	25-OCT-01	14	2	25-OCT-01	14	2	
002-CEF46-12I-Q4-01-09	23-OCT-01	24-OCT-01	25-OCT-01	14	2	25-OCT-01	14	2	
002-CEF46-12I-Q4-01-09 MS	23-OCT-01	24-OCT-01	25-OCT-01	14	2	25-OCT-01	14	2	
002-CEF46-12I-Q4-01-09 MSD	23-OCT-01	24-OCT-01	25-OCT-01	14	2	25-OCT-01	14	2	
002-CEF46-13I-Q4-01-09	23-OCT-01	24-OCT-01	25-OCT-01	14	2	25-OCT-01	14	2	
002-CEF46-14D-Q4-01-09	23-OCT-01	24-OCT-01	25-OCT-01	14	2	25-OCT-01	14	2	
002-CEF46-15I-Q4-01-09	23-OCT-01	24-OCT-01	25-OCT-01	14	2	25-OCT-01	14	2	
002-46TB1-Q4-01-09	23-OCT-01	24-OCT-01	25-OCT-01	14	2	25-OCT-01	14	2	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0110485
Instrument Id: HP12
Workgroup (AAB#): WG107053

Method: 8021
Matrix: WATER

Sample Numbe	Dilution	Tag	1
L0110485-01	1.00		92.4
L0110485-02	1.00		100
L0110485-03	1.00		86.0
L0110485-04	1.00		98.6
L0110485-05	1.00		93.6
L0110485-06	1.00		105
L0110485-07	1.00		94.1
L0110485-08	1.00		99.5
L0110485-09	1.00		96.5
L0110485-10	1.00		98.5
WG107053-01	1.00		95.3
WG107053-02	1.00		97.2

Surrogates	Surrogate Limits		
1 - a,a,a-Trifluorotoluene	70	-	130

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 10/18/2001
Version 1.0

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001

Calibration Files

1	=12G09676.D	10	=12G09677.D	20	=12G09678.D
50	=12G09679.D	100	=12G09680.D	200	=12G09681.D

		Compound	1	10	20	50	100	200	Avg		%RS
1)	TM	MTBE	5.501	5.055	5.309	4.819	5.339	5.014	5.173	E4	4.8
2)	TM	Benzene	2.434	2.628	2.609	2.515	2.531	2.510	2.538	E5	2.8
3)	S	TFT	7.849	8.485	8.473	8.349	8.569	8.620	8.391	E4	3.3
4)	TM	Toluene	2.310	2.417	2.431	2.333	2.353	2.313	2.359	E5	2.2
5)	TM	Chlorobenzene	2.356	2.481	2.482	2.386	2.516	2.389	2.435	E5	2.7
6)	TM	Ethylbenzene	1.965	2.092	2.074	2.006	2.078	1.984	2.033	E5	2.6
7)	TM	m-,p-Xylene	2.390	2.520	2.501	2.414	2.372	2.369	2.428	E5	2.7
8)	TM	o-Xylene	1.915	2.149	2.147	2.074	2.121	2.049	2.076	E5	4.2
9)	S	BFB	2.194	2.022	2.024	2.008	2.053	2.041	2.057	E5	3.3
10)	TM	1,3-Dichlorobenzene	1.973	2.213	2.231	2.185	2.174	2.061	2.139	E5	4.7
11)	TM	1,4-Dichlorobenzene	1.973	2.213	2.231	2.185	2.174	2.061	2.139	E5	4.7
12)	TM	1,2-Dichlorobenzene	2.245	1.764	1.828	1.703	1.784	1.605	1.821	E5	12.1
13)	S	BCB	2.770	1.949	1.981	1.983	2.189	1.995	2.145	E5	14.8

(#) = Out of Range

Login Number: L0110485
File ID: 12G09682
ALT ID: WG105716-07
Units: ug/L

Instrument ID: HP12
Run Date: 10/03/2001
Run Time: 11:20
Analyst: CBN
Cal ID: HP12 - 03-OCT-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	20.1	183000	0.5	
1,4-Dichlorobenzene		20	21.3	228000	6.5	
1,3-Dichlorobenzene		20	21.3	228000	6.5	
o-Xylene		20	20.8	216000	4.0	
m-,p-Xylene		40	42.2	256000	5.5	
Ethylbenzene		20	21.3	216000	6.5	
Chlorobenzene		20	20.4	249000	2.0	
Toluene		20	20.7	245000	3.5	
Benzene		20	20.5	260000	2.5	
MTBE		20	19.3	49800	3.5	

KEMRON FORMS - Modified 10/17/2001
Version 1.0

Login Number: L0110485
File ID: 12G09948
CCV ID: WG107052-01
Units: ug/L

Instrument ID: HP12
Run Date: 10/25/2001
Run Time: 07:24
Analyst: CBN
Cal ID: HP12 - 03-OCT-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	19.8	180000	1.0	
1,4-Dichlorobenzene		20	19.7	211000	1.5	
1,3-Dichlorobenzene		20	19.7	211000	1.5	
o-Xylene		20	19.4	201000	3.0	
m-,p-Xylene		40	39.5	239000	1.3	
Ethylbenzene		20	20.1	204000	0.5	
Chlorobenzene		20	19.1	233000	4.5	
Toluene		20	19.6	231000	2.0	
Benzene		20	19.6	249000	2.0	
MTBE		20	18.6	48100	7.0	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

Login Number: L0110485
File ID: 12G09959
CCV ID: WG107052-02
Units: ug/L

Instrument ID: HP12
Run Date: 10/25/2001
Run Time: 13:29
Analyst: CBN
Cal ID: HP12 - 03-OCT-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	19.8	180000	1.0	
1,4-Dichlorobenzene		20	19.9	213000	0.5	
1,3-Dichlorobenzene		20	19.9	213000	0.5	
o-Xylene		20	19.3	201000	3.5	
m-,p-Xylene		40	39.1	237000	2.3	
Ethylbenzene		20	19.9	202000	0.5	
Chlorobenzene		20	19.2	234000	4.0	
Toluene		20	19.4	229000	3.0	
Benzene		20	19.6	249000	2.0	
MTBE		20	18.5	47800	7.5	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

Login Number: L0110485
File ID: 12G09970
CCV ID: WG107052-03
Units: ug/L

Instrument ID: HP12
Run Date: 10/25/2001
Run Time: 19:32
Analyst: CBN
Cal ID: HP12 - 03-OCT-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	18.5	168000	7.5	
1,4-Dichlorobenzene		20	19.5	209000	2.5	
1,3-Dichlorobenzene		20	19.5	209000	2.5	
o-Xylene		20	19.1	199000	4.5	
m-,p-Xylene		40	38.7	235000	3.3	
Ethylbenzene		20	19.8	201000	1.0	
Chlorobenzene		20	19.1	232000	4.5	
Toluene		20	19.2	227000	4.0	
Benzene		20	19.5	247000	2.5	
MTBE		20	18.1	46800	9.5	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

Login Number: L0110485
File ID: 12G09973
CCV ID: WG107052-04
Units: ug/L

Instrument ID: HP12
Run Date: 10/25/2001
Run Time: 21:10
Analyst: CBN
Cal ID: HP12 - 03-OCT-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	19.1	174000	4.5	
1,4-Dichlorobenzene		20	19.2	205000	4.0	
1,3-Dichlorobenzene		20	19.2	205000	4.0	
o-Xylene		20	18.9	196000	5.5	
m-,p-Xylene		40	38.2	232000	4.5	
Ethylbenzene		20	19.4	198000	3.0	
Chlorobenzene		20	18.8	229000	6.0	
Toluene		20	19.1	225000	4.5	
Benzene		20	19.1	242000	4.5	
MTBE		20	18.2	47100	9.0	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

Directory: C:\HPCHEM\2\DATA\00301

WG105716
1 67

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	20	12g09675.d	1.	WG105716-01 8021 STD1 1PPB 5ML DNR	1,1 S-84-(17,38)	3 Oct 2001 07:2
2	21	12g09676.d	1.	WG105716-01 8021 STD1 1PPB 5ML ✓	1,1 S-84-(17,38)	3 Oct 2001 07:5
3	22	12g09677.d	1.	WG105716-02 8021 STD2 10PPB... ✓	1,1 S-84-(17,38)	3 Oct 2001 08:3
4	23	12g09678.d	1.	WG105716-03 8021 STD3 20PPB... ✓	1,1 S-84-(17,38)	3 Oct 2001 09:0
5	24	12g09679.d	1.	WG105716-04 8021 STD4 50PPB... ✓	1,1 S-84-(17,38)	3 Oct 2001 09:3
6	25	12g09680.d	1.	WG105716-05 8021 STD5 100PP... ✓	1,1 S-84-(17,38)	3 Oct 2001 10:0
7	30	12g09681.d	1.	WG105716-06 8021 STD6 200PP... ✓	1,1 S-84-(17,38)	3 Oct 2001 10:3
8	31	12g09682.d	1.	WG105716-07 ALT SOURCE 20PP... ✓	1,1 S-(85-01,84-38)	3 Oct 2001 11:2
9	2	12g09683.d	100.	WG105767-01 EXT BLANK 10/03... ✓	7,100 S-84-38	3 Oct 2001 12:0
10	3	12g09684.d	100.	WG105767-01 EXT LCSK 10/03/... ✓	7,100 S-(85-01,84...	3 Oct 2001 12:3
11	20	12g09685.d	125.	L0109340-01 4.02G/10ML 125X ✓	7,125,RE S-84-38	3 Oct 2001 13:1
12	21	12g09686.d	1000.	L0109340-02 4.88G/10ML 1000X ✓	7,1000 S-84-38	3 Oct 2001 13:4
13	22	12g09687.d	900.	L0109360-04 5.49G/10ML 900X ✓ SSS only	7,900 S-84-38	3 Oct 2001 14:1
14	23	12g09688.d	80.	L0109360-05 6.08G/10ML 80X CONF SMI	7,80,RE S-84-38	3 Oct 2001 14:4
15	24	12g09689.d	85.	L0109360-06 5.88G/10ML 85X ✓	7,85 S-84-38	3 Oct 2001 15:2
16	25	12g09690.d	900.	L0109360-07 5.69G/10ML 900X RE @ 9000X	7,900 S-84-38	3 Oct 2001 15:5
17	30	12g09691.d	75.	L0109360-08 6.53G/10ML 75X SSS CONF only	7,75 S-84-38	3 Oct 2001 16:2
18	31	12g09692.d	90.	L0109360-09 5.68G/10ML 90X HIGH SSS	7,90 S-84-38	3 Oct 2001 16:5
19	32	12g09693.d	1.	WG105716-09 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,84-38)	3 Oct 2001 17:2
20	15	12g09694.d	75.	L0109360-08 6.53G/10ML 75X HIGH SSS	7,75,RE S-84-38	3 Oct 2001 18:0
21	16	12g09695.d	90.	L0109360-09 5.68G/10ML 90X CONF SMI	7,90,RE S-84-38	3 Oct 2001 18:3
22	17	12g09696.d	900.	L0109360-07 5.69G/10ML 900X BAD AREAS	7,900,RE S-84-38	3 Oct 2001 19:0
23	18	12g09697.d	900.	L0109360-04 5.49G/10ML 900X ✓	7,900,RE S-84-38	3 Oct 2001 19:3
24	19	12g09698.d	500000.	L0110002-01 1G/10ML 500000X ✓	1,500000 S-84-38	3 Oct 2001 20:1
25	20	12g09699.d	500000.	L0110002-01 DUP 1G/10ML 500... ✓	1,500000 S-84-38	3 Oct 2001 20:4
26	21	12g09700.d	50000.	L0110002-01 1G/10ML 50000X ✓	1,50000 S-84-38	3 Oct 2001 21:1
27	22	12g09701.d	1.	RINSE	1,1 S-84-38	3 Oct 2001 21:4
28	23	12g09702.d	1.	WG105716-10 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,84-38)	3 Oct 2001 22:2

Directory: C:\HPCHEM\2\DATA\102501

WG107053

ANALYST: CBI

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	11	12g09948.d	1.	WG107052-01 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,86-08)	25 Oct 2001 07:2
2	12	12g09949.d	1.	WG107053-01 WATER BLANK 5ML ✓	1,1 S-86-08	25 Oct 2001 07:5
3	13	12g09950.d	1.	WG107053-02 WATER LCS 20PPB... ✓	1,1 S-(85-01,86-08)	25 Oct 2001 08:2
4	5	12g09951.d	1.	L0110464-01 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 09:0
5	6	12g09952.d	1.	L0110464-02 A 5ML pH<2 HIGH SSS	1,1 S-86-08	25 Oct 2001 09:4
6	7	12g09953.d	1.	L0110464-03 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 10:1
7	8	12g09954.d	1.	WG107053-03 L0110464-04 A 5... ✓	1,1 S-86-08	25 Oct 2001 10:4
8	11	12g09955.d	1.	WG107053-04 L0110464-05 MS ... ✓	1,1 S-(85-01,86-08)	25 Oct 2001 11:1
9	12	12g09956.d	1.	WG107053-05 L0110464-06 MSD... ✓	1,1 S-(85-01,86-08)	25 Oct 2001 11:5
10	13	12g09957.d	1.	L0110464-07 A 5ML pH<2 HIGH SSS	1,1 S-86-08	25 Oct 2001 12:2
11	14	12g09958.d	1.	L0110464-08 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 12:5
12	15	12g09959.d	1.	WG107052-02 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,86-08)	25 Oct 2001 13:2
13	23	12g09960.d	1.	L0110464-09 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 14:0
14	24	12g09961.d	1.	L0110464-10 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 14:4
15	11	12g09962.d	1.	L0110485-01 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 15:1
16	12	12g09963.d	1.	L0110485-02 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 15:4
17	13	12g09964.d	1.	L0110485-03 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 16:1
18	14	12g09965.d	1.	WG107053-03 L0110485-04 A 5... ✓	1,1 S-86-08	25 Oct 2001 16:5
19	15	12g09966.d	1.	WG107053-04 L0110485-05 MS ... ✓	1,1 S-(85-01,86-08)	25 Oct 2001 17:2
20	16	12g09967.d	1.	WG107053-05 L0110485-06 MSD... ✓	1,1 S-(85-01,86-08)	25 Oct 2001 17:5
21	30	12g09968.d	1.	L0110485-07 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 18:2
22	31	12g09969.d	1.	L0110485-08 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 18:5
23	32	12g09970.d	1.	WG107052-03 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,86-08)	25 Oct 2001 19:3
24	1	12g09971.d	1.	L0110485-09 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 20:0
25	2	12g09972.d	1.	L0110485-10 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 20:3
26	5	12g09973.d	1.	WG107052-04 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,86-08)	25 Oct 2001 21:1
27	6	12g09974.d	1.	RINSE 5ML ✓	1,1 S-86-08	25 Oct 2001 21:4
28	7	12g09975.d	1.	RINSE 5ML ✓	1,1 S-86-08	25 Oct 2001 22:1

VOA - GC

Date: 10/25/01 **Analyst:** CBN **Method:** 8021 8015 602

Instrument: MP12 **Work Group:** WG 107053

	Analyst
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	NA
Second Source standard % Difference	✓
Continuing Calibration / Check Standards	✓
Project / Client Specific Requirements	✓
Special Standards	NA
Blanks	✓
TCL's	✓
Surrogates	✓
LCS (Laboratory Control Sample)	✓
Recoveries	✓
Surrogates	✓
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	✓
Dilutions Run	NA
Reruns	✓
Excel Spreadsheets	✓
Case Narrative	✓
Narrative Summary	NA
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: MS 10/26/01

Secondary Reviewers Initials & Date Checked: CBN 10/30/01

_____ • Check for compliance with Method and project-specific requirements
_____ • Check the completeness of the reported information
_____ • Check the information for the report narrative
_____ • Check the reasonableness of results

Supervisory Review Initials & Date Checked: _____

Comments: _____

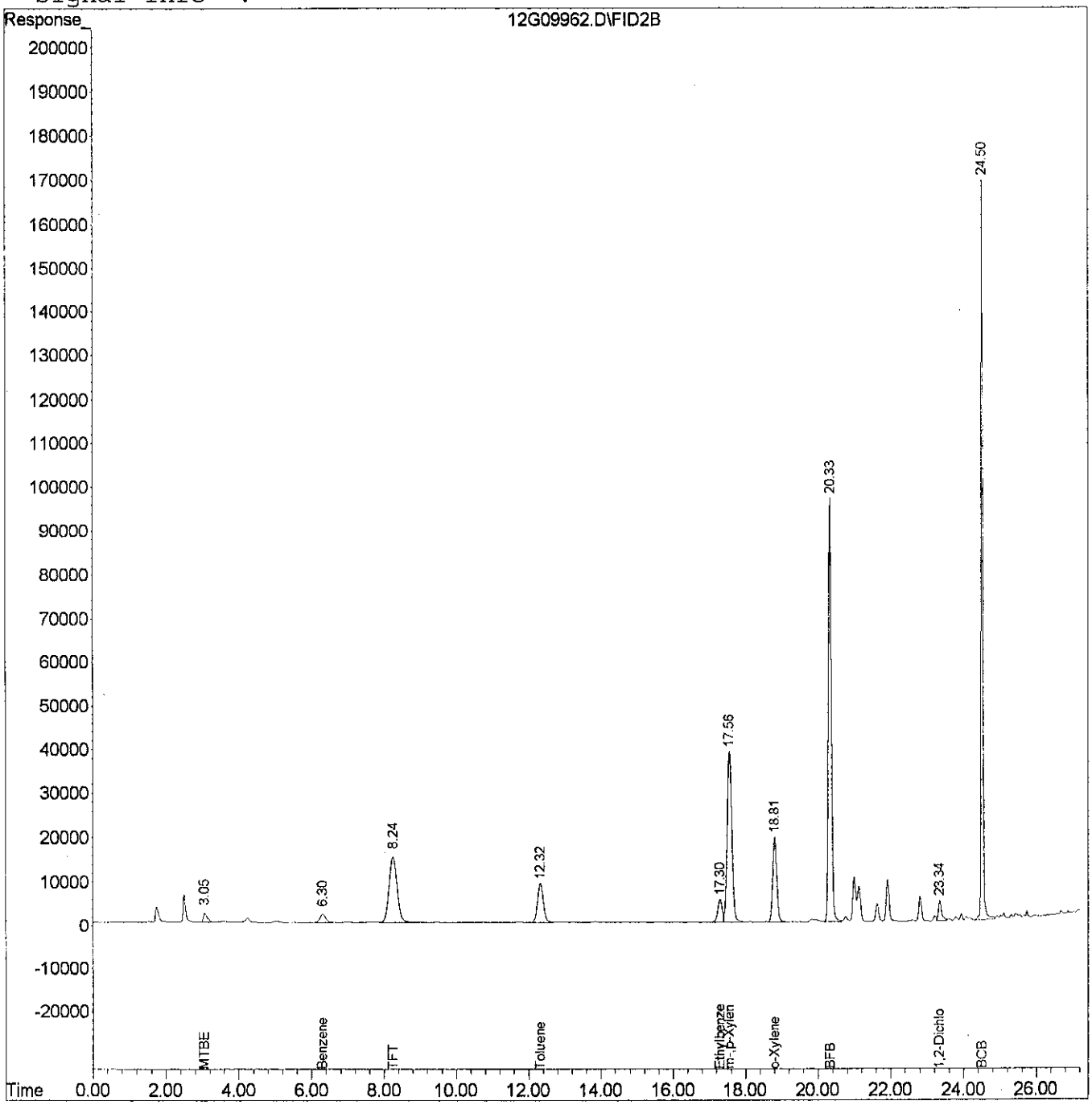
✓ = Checked & OK
NA = Not Applicable

2.1.3.2 Sample Data

Data File : C:\HPCHEM\2\DATA\102501\12G09962.D Vial: 11
Acq On : 25 Oct 2001 15:13 Operator: CBN
Sample : L0110485-01 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 15:40 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102501\12G09962.D Vial: 11
Acq On : 25 Oct 2001 15:13 Operator: CBN
Sample : L0110485-01 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 15:40 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

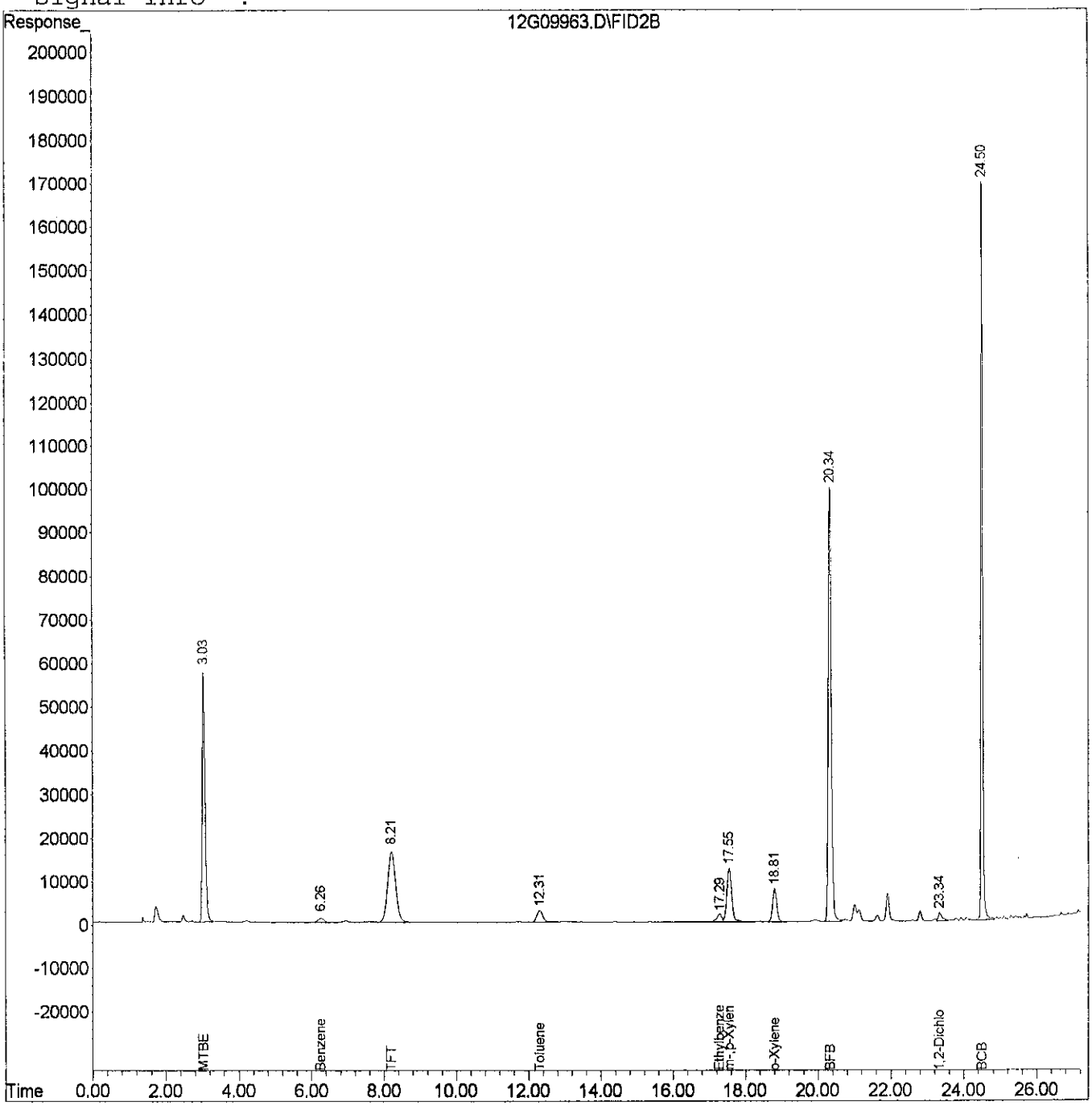
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.24 *	2325757	27.718 UG/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery =	92.39%
9) S BFB	20.33	5594922	27.201 UG/L
Spiked Amount 30.000		Recovery =	90.67%
13) S BCB	24.51	5648530	26.339 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	87.80%
Target Compounds			
1) TM MTBE	3.05	161549	~~3.123 UG/L~~
2) TM Benzene	6.30	229816	0.906 UG/L F
4) TM Toluene	12.32 ✓	1009256	4.278 UG/L
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	17.30 ✓	455972	2.243 UG/L
7) TM m-,p-Xylene	17.56 ✓	3492637	14.388 UG/L
8) TM o-Xylene	18.81 ✓	1531773	7.379 UG/L
10) TM 1,3-Dichlorobenzene	22.61	23556	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.61	23556	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.34	296295	~~1.627 UG/L~~

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09962.D 8021W.M Thu Oct 25 15:40:46 2001 Page 1

Data File : C:\HPCHEM\2\DATA\102501\12G09963.D Vial: 12
Acq On : 25 Oct 2001 15:45 Operator: CBN
Sample : L0110485-02 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 16:12 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102501\12G09963.D Vial: 12
Acq On : 25 Oct 2001 15:45 Operator: CBN
Sample : L0110485-02 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 16:12 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

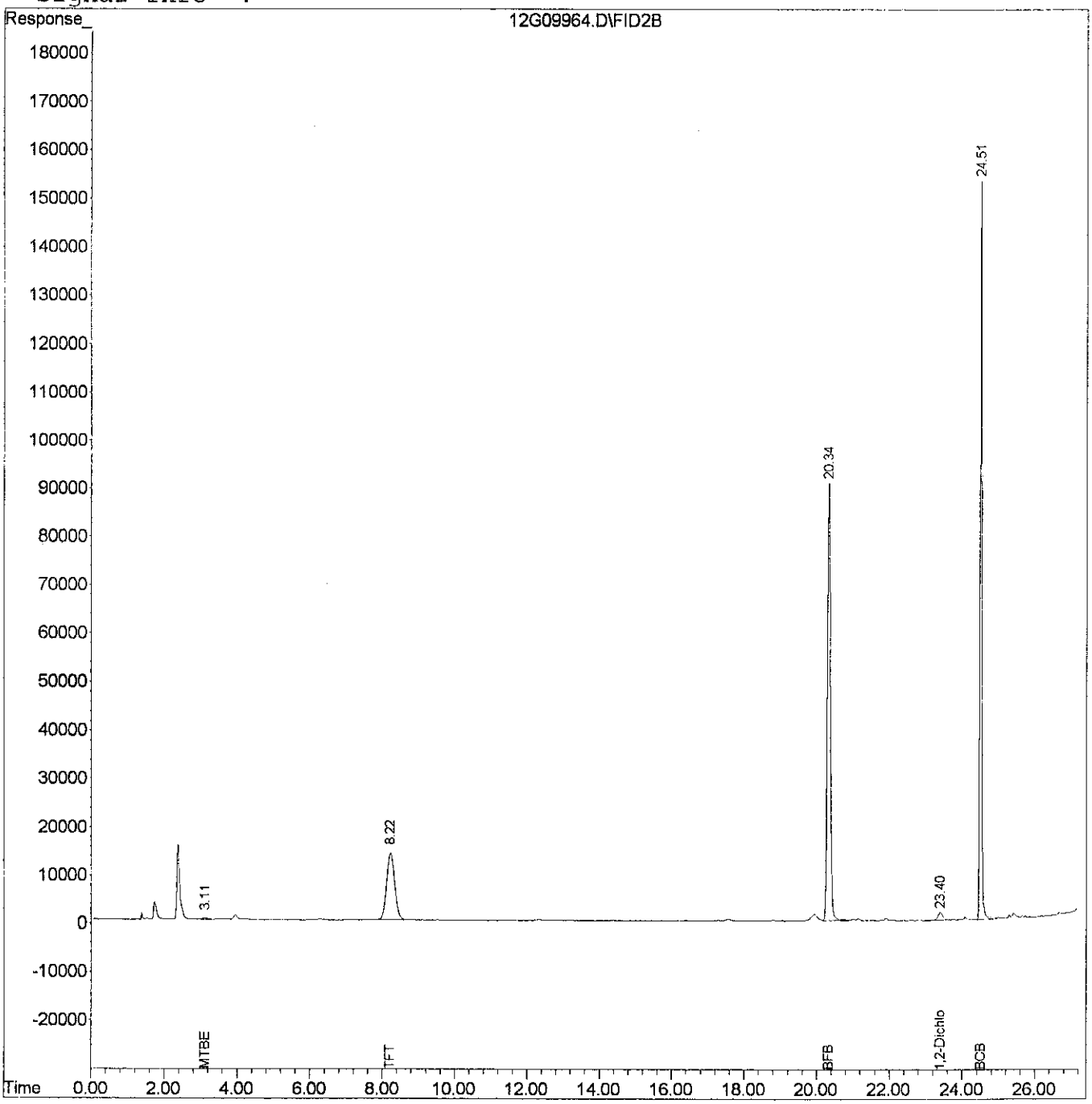
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.21 ✓	2523133	30.071 UG/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery =	100.24%
9) S BFB	20.34 *	5790797	28.153 UG/L
Spiked Amount 30.000		Recovery =	93.84%
13) S BCB	24.50	5675774	26.466 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	88.22%
Target Compounds			
1) TM MTBE	3.03	3024693	~~58.470 UG/L~~
2) TM Benzene	6.26	137476	0.542 UG/L F
4) TM Toluene	12.31 ✓	325617	1.380 UG/L
5) TM Chlorobenzene	0.00 ✓	0	N.D. UG/L
6) TM Ethylbenzene	17.29 ✓	181599	0.893 UG/L F
7) TM m-,p-Xylene	17.55 ✓	1153497	4.752 UG/L
8) TM o-Xylene	18.81 ✓	615581	2.965 UG/L
10) TM 1,3-Dichlorobenzene	22.61	15288	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.61	15288	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.34	140984	0.774 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\102501\12G09964.D Vial: 13
Acq On : 25 Oct 2001 16:17 Operator: CBN
Sample : L0110485-03 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 16:45 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102501\12G09964.D Vial: 13
Acq On : 25 Oct 2001 16:17 Operator: CBN
Sample : L0110485-03 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 16:45 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

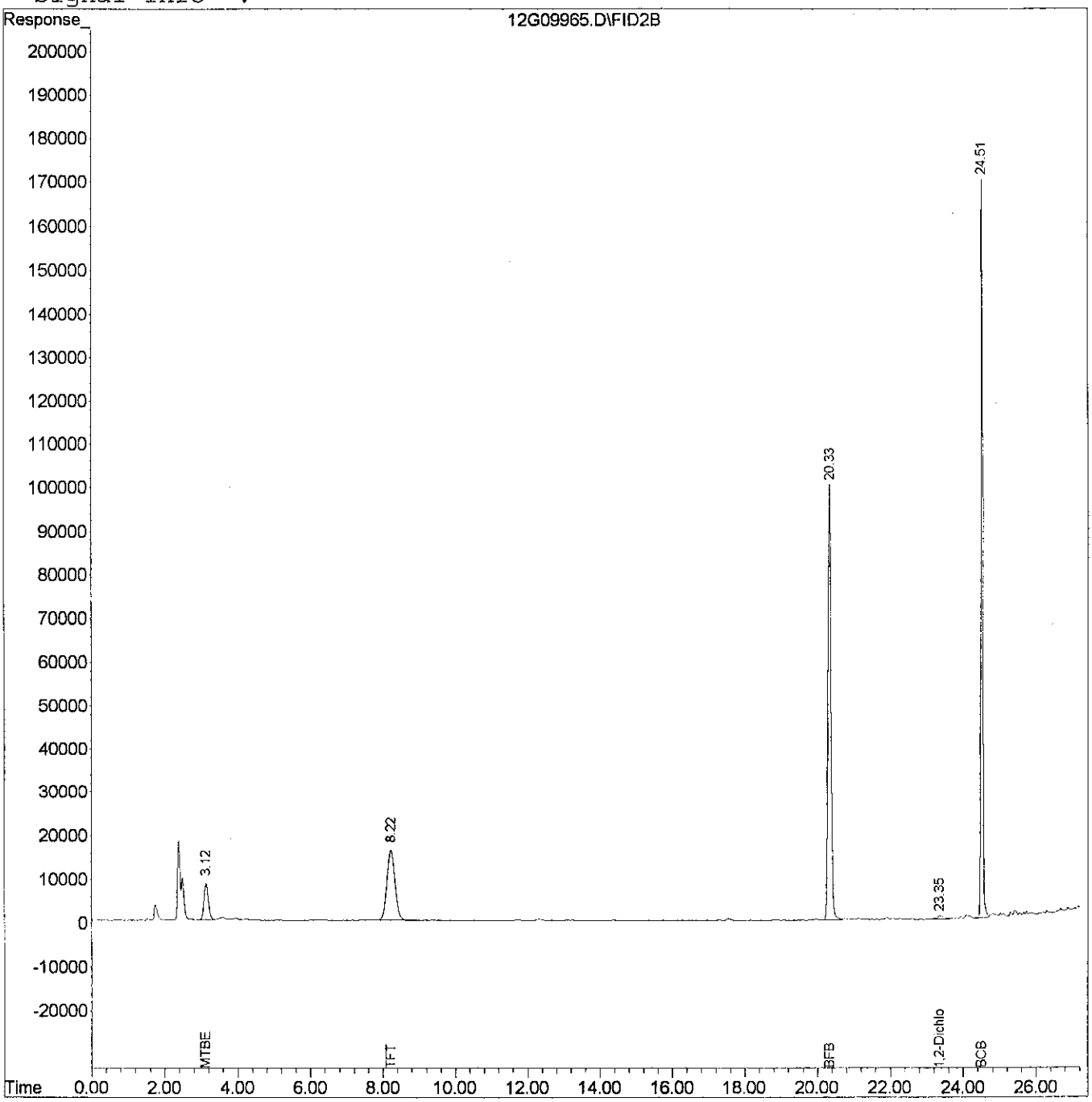
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.22	2165635	25.810 UG/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	86.03%
9) S BFB	20.34	5296063	25.748 UG/L
Spiked Amount 30.000		Recovery =	85.83%
13) S BCB	24.51	5117196	23.862 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	79.54%
Target Compounds			
1) TM MTBE	3.11 ✓	30699	0.593 UG/L f
2) TM Benzene	0.00	0	N.D. UG/L
4) TM Toluene	12.30	5605	<MDL UG/L
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	0.00	0	N.D. UG/L
7) TM m-,p-Xylene	17.57	30965	<MDL UG/L
8) TM o-Xylene	0.00	0	N.D. UG/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. UG/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. UG/L
12) TM 1,2-Dichlorobenzene	23.40	148029	~~0.813 UG/L~~

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\102501\12G09965.D Vial: 14
Acq On : 25 Oct 2001 16:50 Operator: CBN
Sample : WG107053-03 L0110485-04 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 17:17 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102501\12G09965.D Vial: 14
Acq On : 25 Oct 2001 16:50 Operator: CBN
Sample : WG107053-03 L0110485-04 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 17:17 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

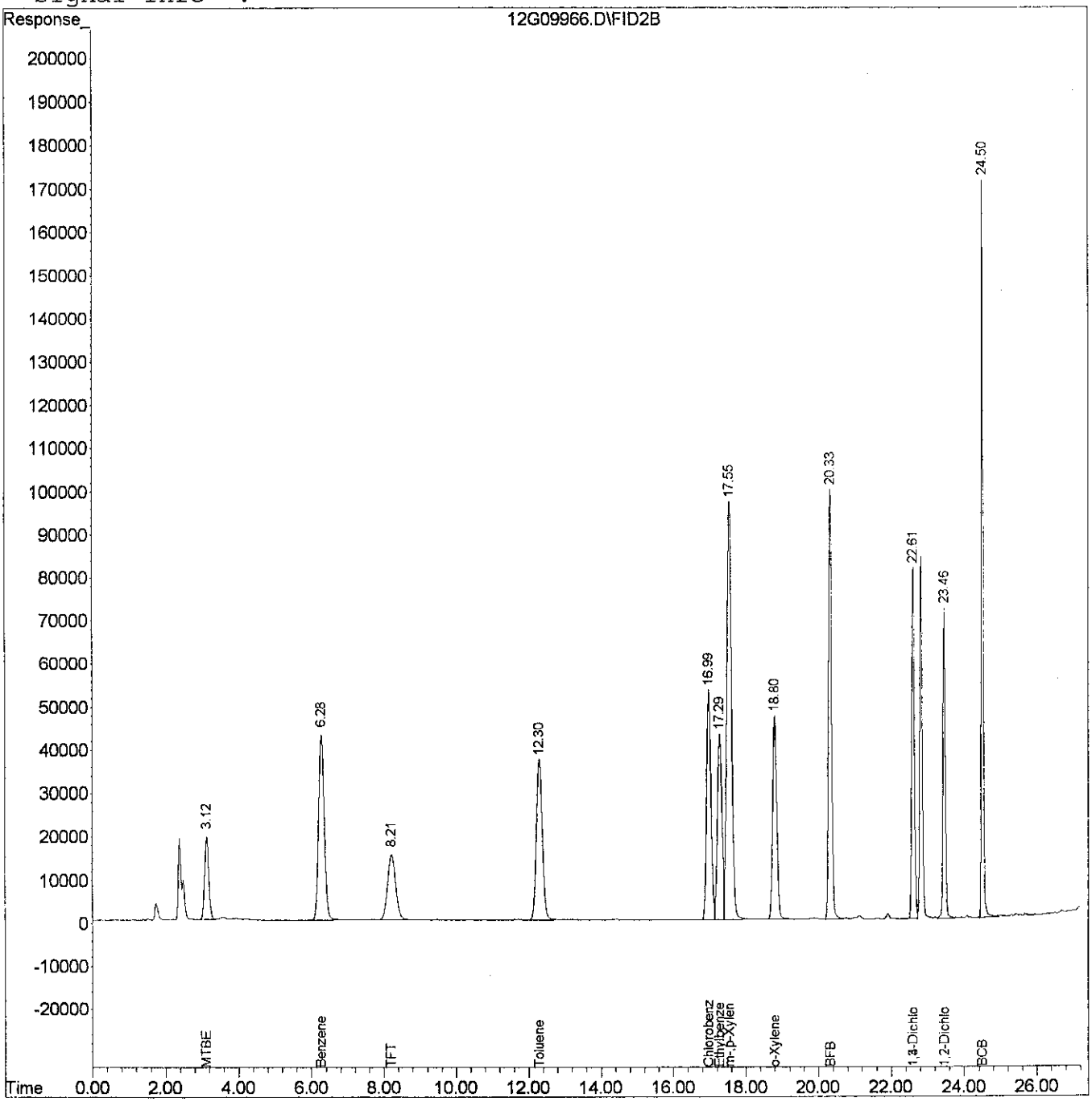
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.21	2482094	29.581 UG/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery =	98.60%
9) S BFB	20.34	5759055	27.999 UG/L
Spiked Amount 30.000		Recovery =	93.33%
13) S BCB	24.51	5602503	26.125 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	87.08%
Target Compounds			
1) TM MTBE	3.12 ✓	667854	12.910 UG/L
2) TM Benzene	0.00	0	N.D. UG/L
4) TM Toluene	12.29	25799	<MDL UG/L
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	0.00	0	N.D. UG/L
7) TM m-,p-Xylene	17.55	28590	<MDL UG/L
8) TM o-Xylene	0.00	0	N.D. UG/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. UG/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. UG/L
12) TM 1,2-Dichlorobenzene	23.35	107937	~~0.593 UG/L~~

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\102501\12G09966.D Vial: 15
Acq On : 25 Oct 2001 17:22 Operator: CBN
Sample : WG107053-04 L0110485-05 MS A 5ML pH<2 Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 17:50 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102501\12G09966.D Vial: 15
Acq On : 25 Oct 2001 17:22 Operator: CBN
Sample : WG107053-04 L0110485-05 MS A 5ML pH<2 Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 17:50 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

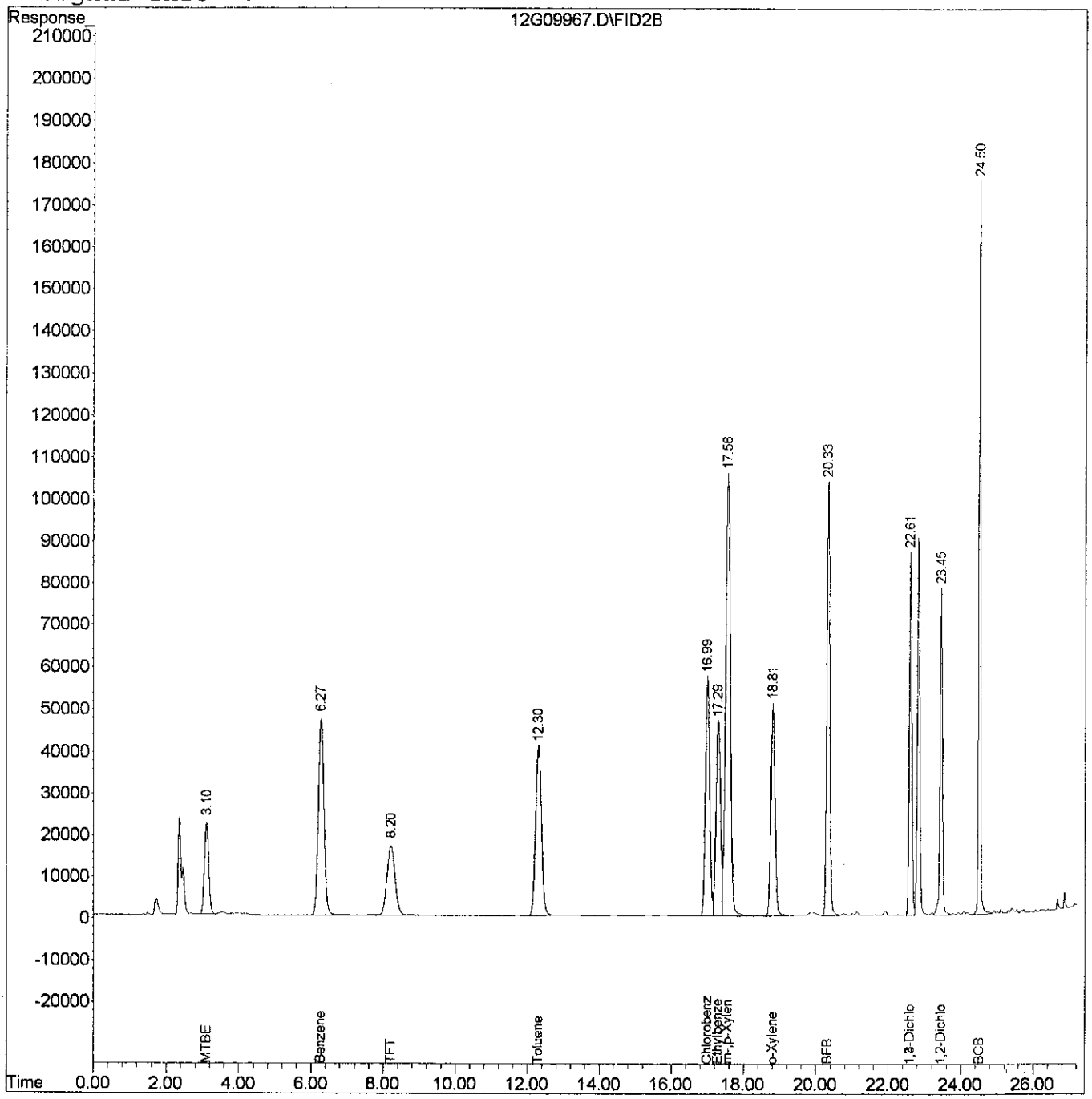
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.21	2356651	28.086 UG/L ✓
Spiked Amount 30.000 Range 70 - 130 Recovery = 93.62%			
9) S BFB	20.33	5731555	27.865 UG/L
Spiked Amount 30.000 Recovery = 92.88%			
13) S BCB	24.51	5676550	26.470 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 88.23%			
Target Compounds			
1) TM MTBE	3.12	1570045	30.350 UG/L
2) TM Benzene	6.28	4644972	18.302 UG/L
4) TM Toluene	12.30	4265253	18.077 UG/L
5) TM Chlorobenzene	16.99	4392444	18.037 UG/L
6) TM Ethylbenzene	17.29	3774798	18.566 UG/L
7) TM m-,p-Xylene	17.55	8807797	36.283 UG/L
8) TM o-Xylene	18.80	3744468	18.038 UG/L
10) TM 1,3-Dichlorobenzene	22.61	3932452	18.380 UG/L
11) TM 1,4-Dichlorobenzene	22.61	3932452	18.380 UG/L
12) TM 1,2-Dichlorobenzene	23.46	3159560	17.347 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\102501\12G09967.D Vial: 16
Acq On : 25 Oct 2001 17:55 Operator: CBN
Sample : WG107053-05 L0110485-06 MSD A 5ML pH<2 Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 18:22 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102501\12G09967.D Vial: 16
Acq On : 25 Oct 2001 17:55 Operator: CBN
Sample : WG107053-05 L0110485-06 MSD A 5ML pH<2 Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 18:22 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

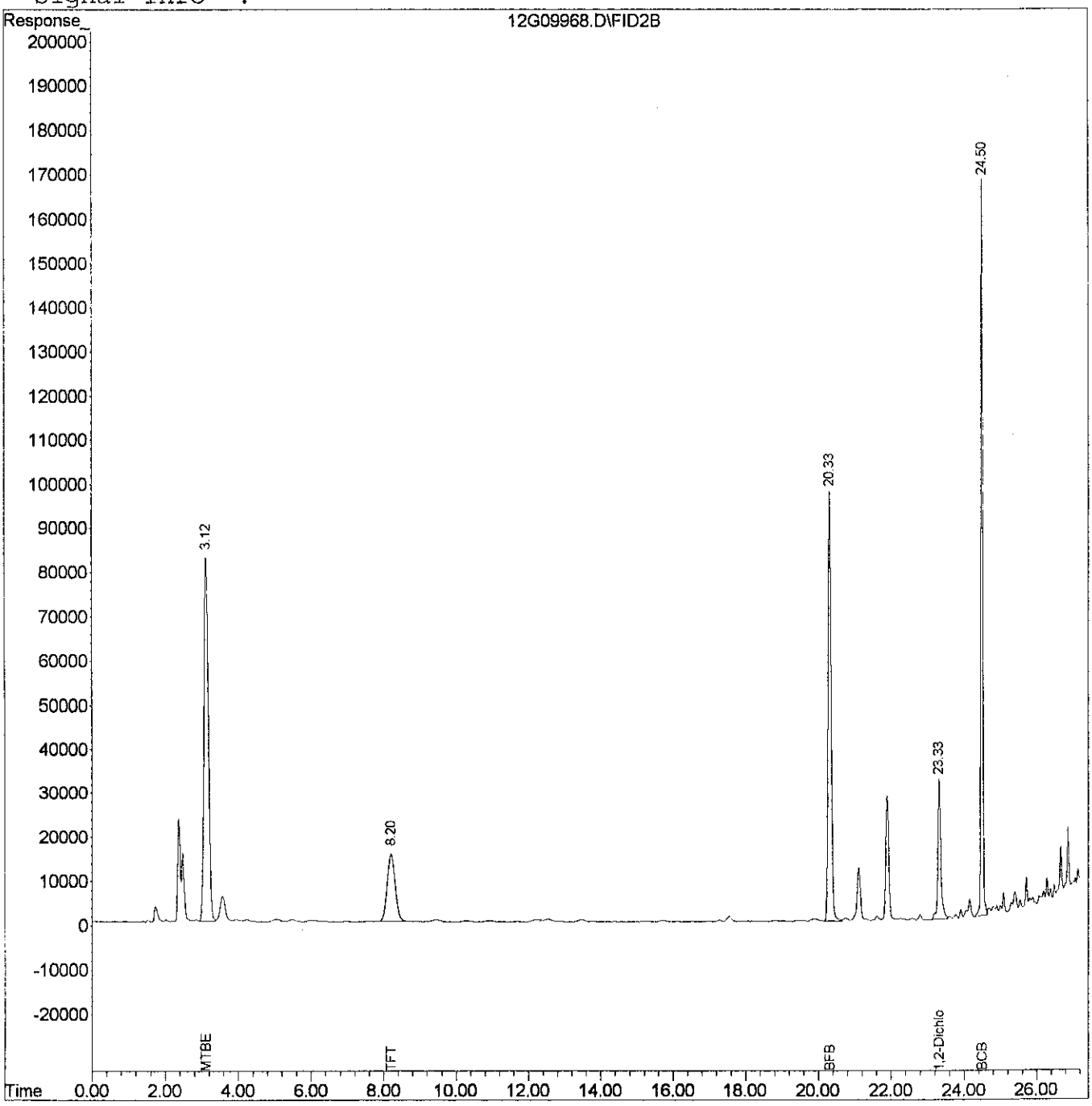
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.20	2635657	31.412 UG/L ✓
Spiked Amount 30.000 Range 70 - 130 Recovery = 104.71%			
9) S BFB	20.34	5974634	29.047 UG/L
Spiked Amount 30.000 Recovery = 96.82%			
13) S BCB	24.50	5836358	27.215 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 90.72%			
Target Compounds			
1) TM MTBE	3.10	1806455	34.920 UG/L
2) TM Benzene	6.27	5091550	20.062 UG/L
4) TM Toluene	12.30	4665221	19.772 UG/L
5) TM Chlorobenzene	16.99	4745703	19.487 UG/L
6) TM Ethylbenzene	17.30	4098987	20.161 UG/L
7) TM m-,p-Xylene	17.56	9600529	39.548 UG/L
8) TM o-Xylene	18.81	4063160	19.573 UG/L
10) TM 1,3-Dichlorobenzene	22.61	4219801	19.723 UG/L
11) TM 1,4-Dichlorobenzene	22.61	4219801	19.723 UG/L
12) TM 1,2-Dichlorobenzene	23.45	3585194	19.684 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\102501\12G09968.D Vial: 30
Acq On : 25 Oct 2001 18:27 Operator: CBN
Sample : L0110485-07 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 18:54 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102501\12G09968.D Vial: 30
Acq On : 25 Oct 2001 18:27 Operator: CBN
Sample : L0110485-07 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 18:54 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

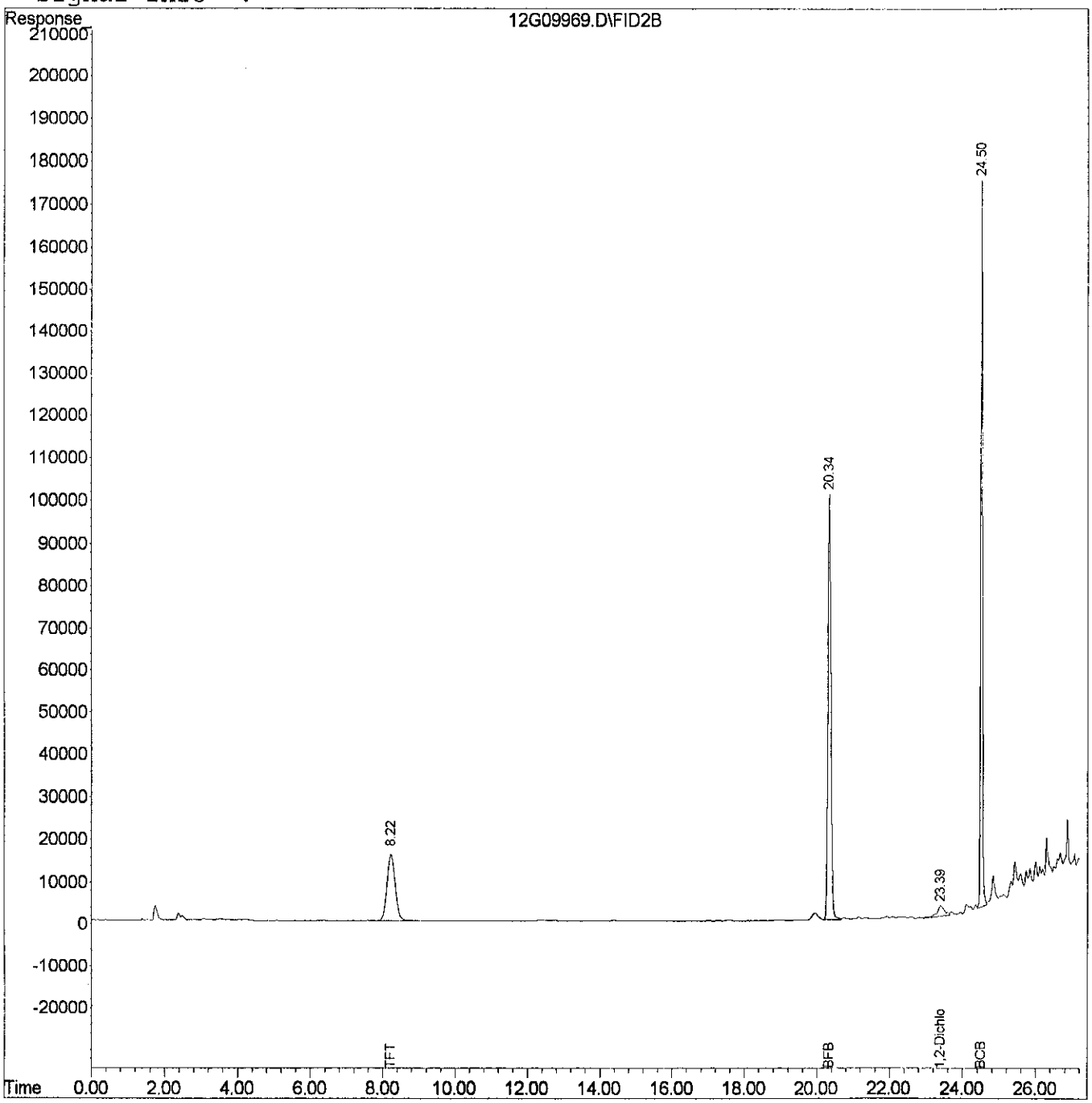
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.21	2369094	28.235 UG/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery =	94.12%
9) S BFB	20.33	5632289	27.383 UG/L
Spiked Amount 30.000		Recovery =	91.28%
13) S BCB	24.50	5516808	25.725 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	85.75%
Target Compounds			
1) TM MTBE	3.12 ✓	6801459	131.478 UG/L
2) TM Benzene	6.00	61232	<MDL UG/L
4) TM Toluene	12.22	86289	<MDL UG/L
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	17.29	29529	<MDL UG/L
7) TM m-,p-Xylene	17.56	102053	<MDL UG/L
8) TM o-Xylene	18.82	15501	<MDL UG/L
10) TM 1,3-Dichlorobenzene	22.60	29719	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.60	29719	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.33	1781083	~~9.779 UG/L~~

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\102501\12G09969.D Vial: 31
Acq On : 25 Oct 2001 18:59 Operator: CBN
Sample : L0110485-08 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 19:27 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102501\12G09969.D Vial: 31
Acq On : 25 Oct 2001 18:59 Operator: CBN
Sample : L0110485-08 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 19:27 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

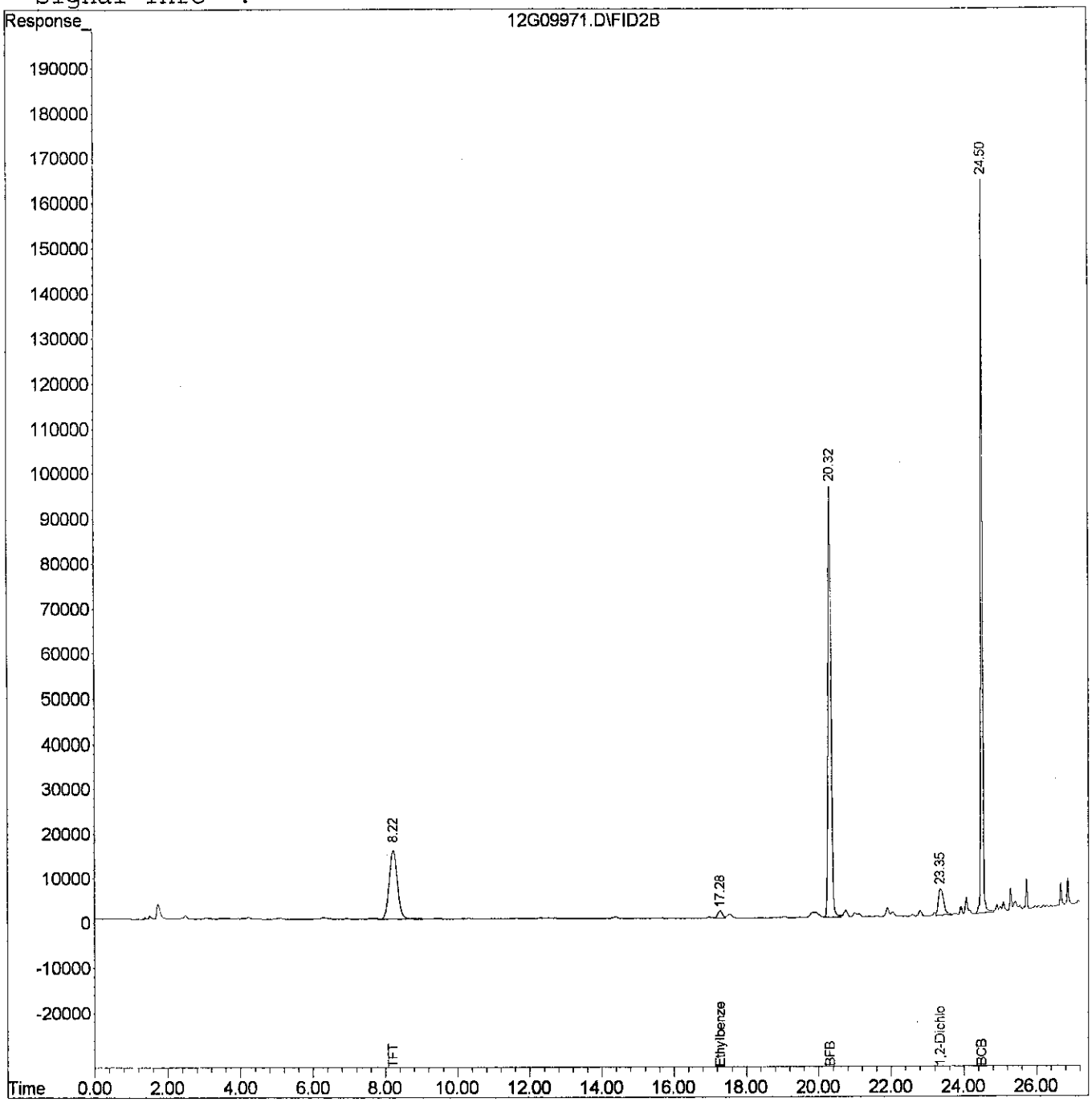
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.22	2504577	29.849 UG/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery =	99.50%
9) S BFB	20.34	5800724	28.201 UG/L
Spiked Amount 30.000		Recovery =	94.00%
13) S BCB	24.50	5613233	26.175 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	87.25%
Target Compounds			
1) TM MTBE	3.05	25539	<MDL UG/L
2) TM Benzene	0.00	0	N.D. UG/L
4) TM Toluene	0.00	0	N.D. UG/L
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	0.00	0	N.D. UG/L
7) TM m-,p-Xylene	17.56	21369	<MDL UG/L
8) TM o-Xylene	0.00	0	N.D. UG/L
10) TM 1,3-Dichlorobenzene	22.59	25677	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.59	25677	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.39	348448	~~1.913 UG/L~~

Data File : C:\HPCHEM\2\DATA\102501\12G09971.D Vial: 1
Acq On : 25 Oct 2001 20:04 Operator: CBN
Sample : L0110485-09 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 20:32 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102501\12G09971.D Vial: 1
Acq On : 25 Oct 2001 20:04 Operator: CBN
Sample : L0110485-09 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 20:32 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

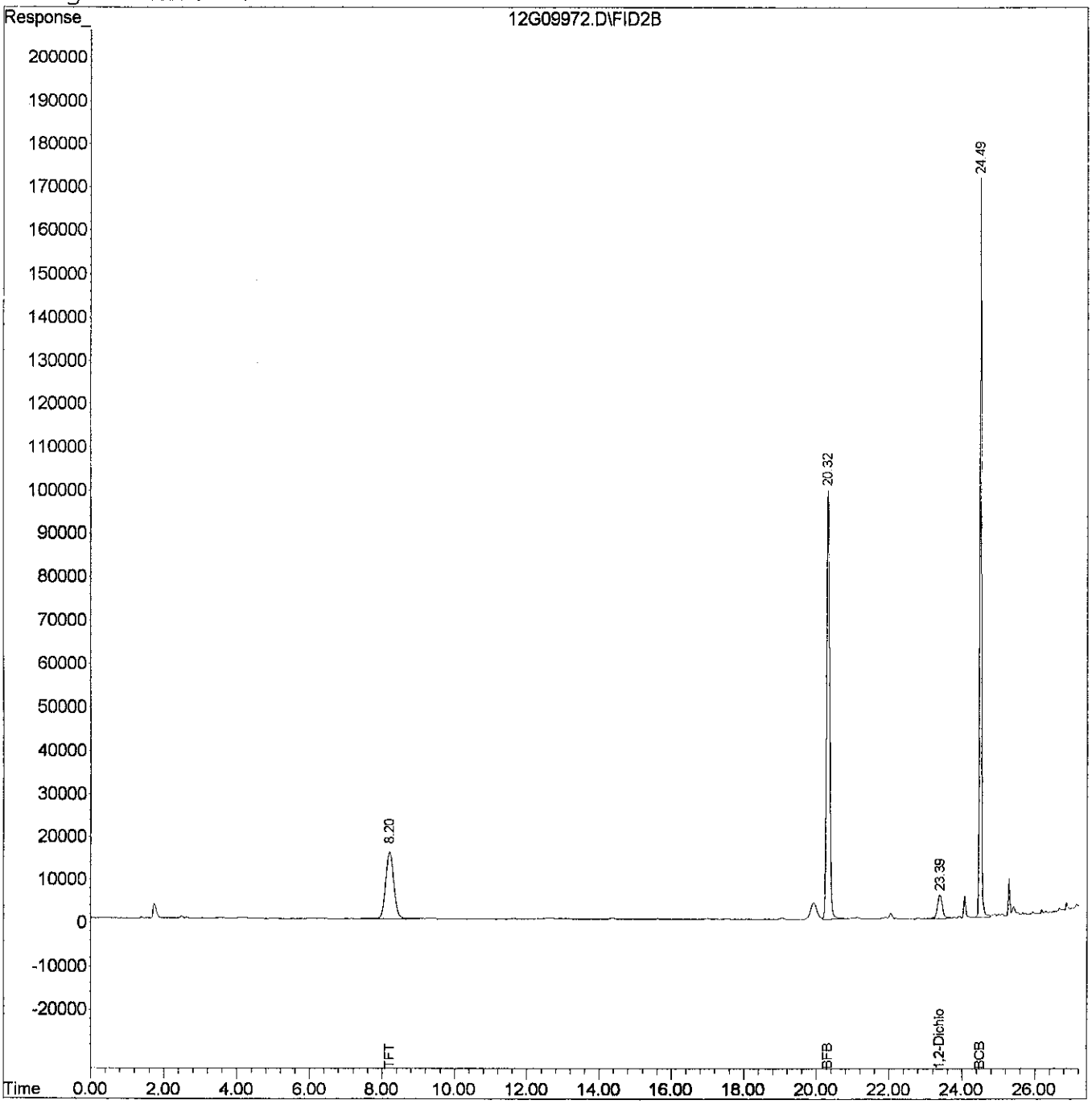
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.22	2429198	28.951 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	96.50%
9) S BFB	20.32	5533849	26.904 UG/L
Spiked Amount 30.000		Recovery =	89.68%
13) S BCB	24.50	5465955	25.488 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	84.96%
Target Compounds			
1) TM MTBE	3.05	18572	<MDL UG/L
2) TM Benzene	6.30	56052	<MDL UG/L
4) TM Toluene	12.32	6927	<MDL UG/L
5) TM Chlorobenzene	16.99	18901	<MDL UG/L
6) TM Ethylbenzene	17.29	145320	~~0.715 UG/L~~
7) TM m-,p-Xylene	17.54	76254	<MDL UG/L
8) TM o-Xylene	0.00	0	N.D. UG/L
10) TM 1,3-Dichlorobenzene	22.60	18343	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.60	18343	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.36	611732	~~5.359 UG/L~~

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\102501\12G09972.D Vial: 2
Acq On : 25 Oct 2001 20:37 Operator: CBN
Sample : L0110485-10 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 21:04 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102501\12G09972.D Vial: 2
Acq On : 25 Oct 2001 20:37 Operator: CBN
Sample : L0110485-10 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 21:04 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.20	2478575	29.539 UG/L ✓
Spiked Amount 30.000 Range 70 - 130 Recovery = 98.46%			
9) S BFB	20.32	5774993	28.076 UG/L
Spiked Amount 30.000 Recovery = 93.59%			
13) S BCB	24.50	5644118	26.319 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 87.73%			
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/L
2) TM Benzene	0.00	0	N.D. UG/L
4) TM Toluene	0.00	0	N.D. UG/L
5) TM Chlorobenzene	16.99	18497	<MDL UG/L
6) TM Ethylbenzene	0.00	0	N.D. UG/L
7) TM m-,p-Xylene	0.00	0	N.D. UG/L
8) TM o-Xylene	0.00	0	N.D. UG/L
10) TM 1,3-Dichlorobenzene	22.80	10803	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.80	10803	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.39	531429	~~3.918 UG/L~~

(f)=RT Delta > 1/2 Window (m)=manual int.

2.1.3.3 Standards Data

Response Factor Report

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001

Calibration Files
1 =12G09676.D 10 =12G09677.D 20 =12G09678.D
50 =12G09679.D 100 =12G09680.D 200 =12G09681.D

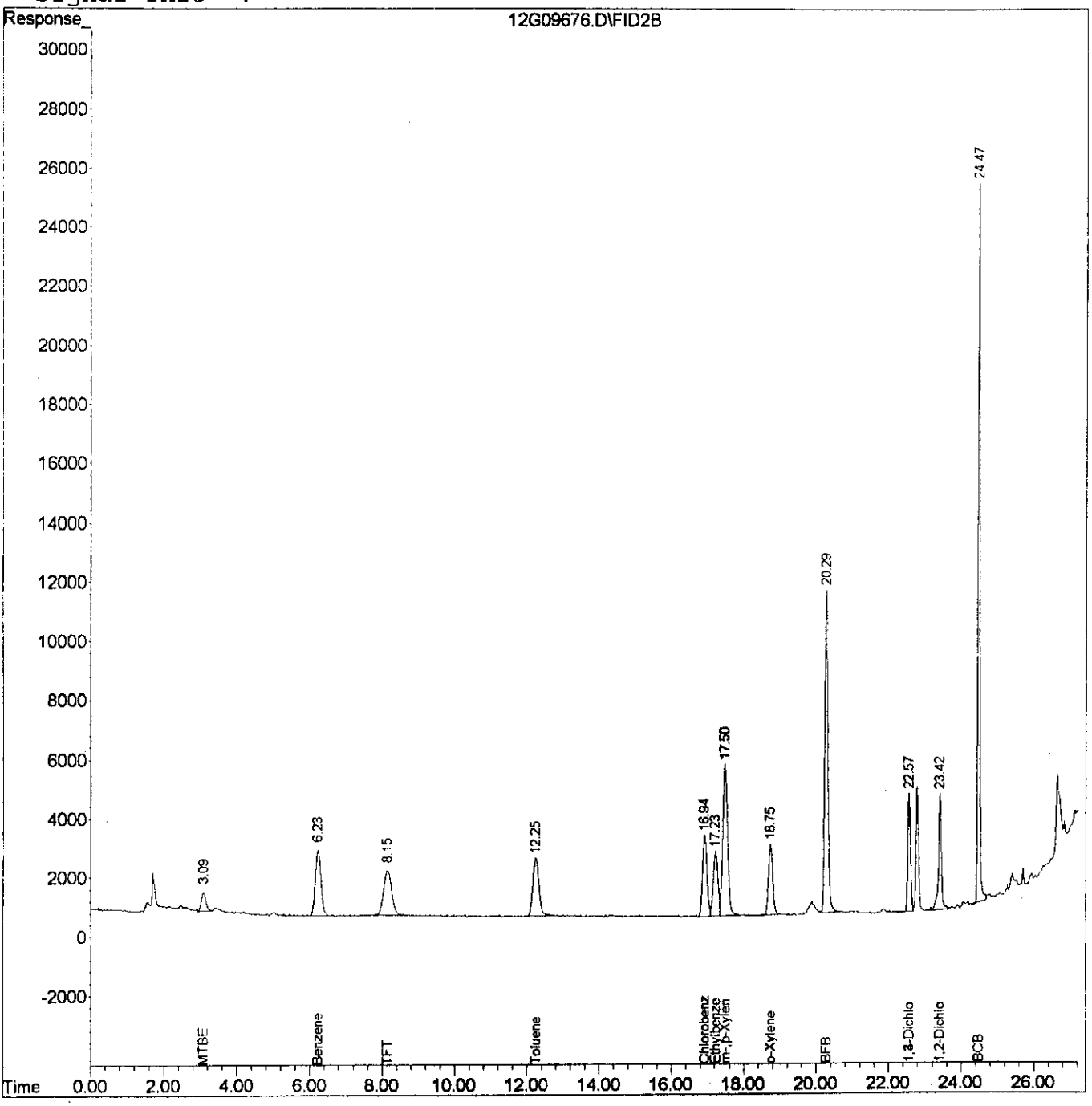
		Compound	1	10	20	50	100	200	Avg		%RS
1)	TM	MTBE	5.501	5.055	5.309	4.819	5.339	5.014	5.173	E4	4.8
2)	TM	Benzene	2.434	2.628	2.609	2.515	2.531	2.510	2.538	E5	2.8
3)	S	TFT	7.849	8.485	8.473	8.349	8.569	8.620	8.391	E4	3.3
4)	TM	Toluene	2.310	2.417	2.431	2.333	2.353	2.313	2.359	E5	2.2
5)	TM	Chlorobenzene	2.356	2.481	2.482	2.386	2.516	2.389	2.435	E5	2.7
6)	TM	Ethylbenzene	1.965	2.092	2.074	2.006	2.078	1.984	2.033	E5	2.6
7)	TM	m-,p-Xylene	2.390	2.520	2.501	2.414	2.372	2.369	2.428	E5	2.7
8)	TM	o-Xylene	1.915	2.149	2.147	2.074	2.121	2.049	2.076	E5	4.2
9)	S	BFB	2.194	2.022	2.024	2.008	2.053	2.041	2.057	E5	3.3
10)	TM	1,3-Dichlorobenzene	1.973	2.213	2.231	2.185	2.174	2.061	2.139	E5	4.7
11)	TM	1,4-Dichlorobenzene	1.973	2.213	2.231	2.185	2.174	2.061	2.139	E5	4.7
12)	TM	1,2-Dichlorobenzene	2.245	1.764	1.828	1.703	1.784	1.605	1.821	E5	12.1
13)	S	BCB	2.770	1.949	1.981	1.983	2.189	1.995	2.145	E5	14.8

(#) = Out of Range

Data File : C:\HPCHEM\2\DATA\100301\12G09676.D Vial: 21
Acq On : 3 Oct 2001 7:58 Operator: CBN
Sample : WG105716-01 8021 STD1 1PPB 5ML Inst : HP12
Misc : 1,1 S-84-(17,38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 3 8:25 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\100301\12G09676.D Vial: 21
Acq On : 3 Oct 2001 7:58 Operator: CBN
Sample : WG105716-01 8021 STD1 1PPB 5ML Inst : HP12
Misc : 1,1 S-84-(17,38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 3 8:25 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

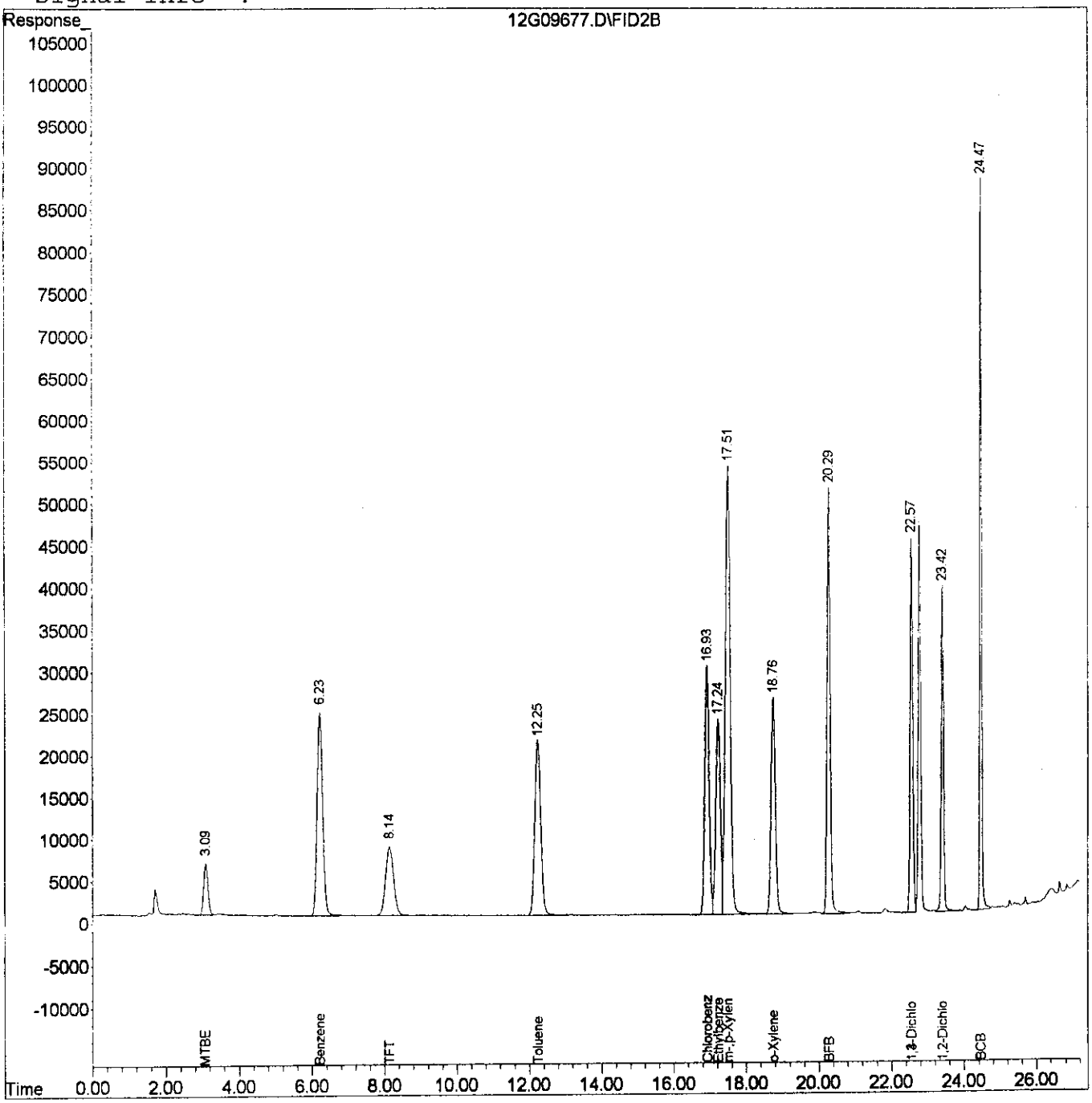
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.15	235472	3.188 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 10.63%#			
9) S BFB	20.29	658079	3.582 UG/L
Spiked Amount 30.000 Recovery = 11.94%			
13) S BCB	24.47	830956	4.341 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 14.47%#			
Target Compounds			
1) TM MTBE	3.09	55014	1.160 UG/L
2) TM Benzene	6.24	243374	1.042 UG/L
4) TM Toluene	12.26	230994	1.095 UG/L
5) TM Chlorobenzene	16.94	235618	1.062 UG/L
6) TM Ethylbenzene	17.24	196522	1.068 UG/L
7) TM m-,p-Xylene	17.50	477946	2.149 UG/L
8) TM o-Xylene	18.75	191529	1.002 UG/L
10) TM 1,3-Dichlorobenzene	22.57	197265	0.983 UG/L
11) TM 1,4-Dichlorobenzene	22.57	197265	0.975 UG/L
12) TM 1,2-Dichlorobenzene	23.42	224462	1.392 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\100301\12G09677.D Vial: 22
Acq On : 3 Oct 2001 8:30 Operator: CBN
Sample : WG105716-02 8021 STD2 10PPB 5ML Inst : HP12
Misc : 1,1 S-84-(17,38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 3 11:07 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:07:56 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\100301\12G09677.D Vial: 22
Acq On : 3 Oct 2001 8:30 Operator: CBN
Sample : WG105716-02 8021 STD2 10PPB 5ML Inst : HP12
Misc : 1,1 S-84-(17,38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 3 11:07 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:07:56 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

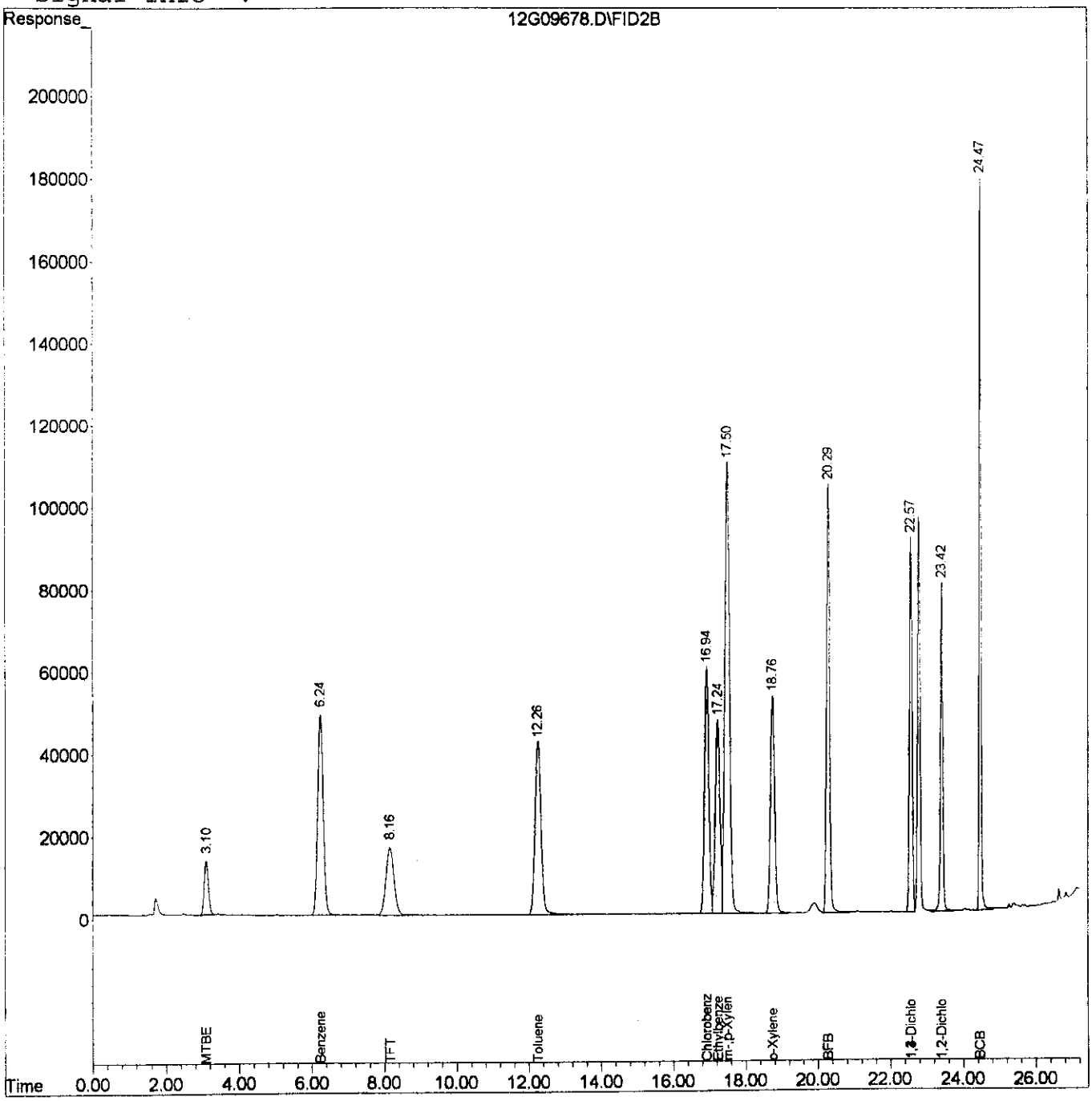
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.15	1272756	15.696 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 52.32%#			
9) S BFB	20.29	3032370	14.548 UG/L
Spiked Amount 30.000 Recovery = 48.49%			
13) S BCB	24.48	2923603	12.902 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 43.01%			
Target Compounds			
1) TM MTBE	3.09	505535	7.020 UG/L
2) TM Benzene	6.23	2628477	9.921 UG/L
4) TM Toluene	12.25	2416597	10.086 UG/L
5) TM Chlorobenzene	16.94	2481188	10.270 UG/L
6) TM Ethylbenzene	17.24	2091952	10.155 UG/L
7) TM m-,p-Xylene	17.51	5040004	19.702 UG/L
8) TM o-Xylene	18.76	2149268	10.620 UG/L
10) TM 1,3-Dichlorobenzene	22.57	2212958	10.320 UG/L
11) TM 1,4-Dichlorobenzene	22.57	2212958	10.320 UG/L
12) TM 1,2-Dichlorobenzene	23.42	1764156	8.054 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\100301\12G09678.D Vial: 23
Acq On : 3 Oct 2001 9:02 Operator: CBN
Sample : WG105716-03 8021 STD3 20PPB 5ML Inst : HP12
Misc : 1,1 S-84-(17,38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 3 11:07 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:07:57 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\100301\12G09678.D Vial: 23
Acq On : 3 Oct 2001 9:02 Operator: CBN
Sample : WG105716-03 8021 STD3 20PPB 5ML Inst : HP12
Misc : 1,1 S-84-(17,38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 3 11:07 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:07:57 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

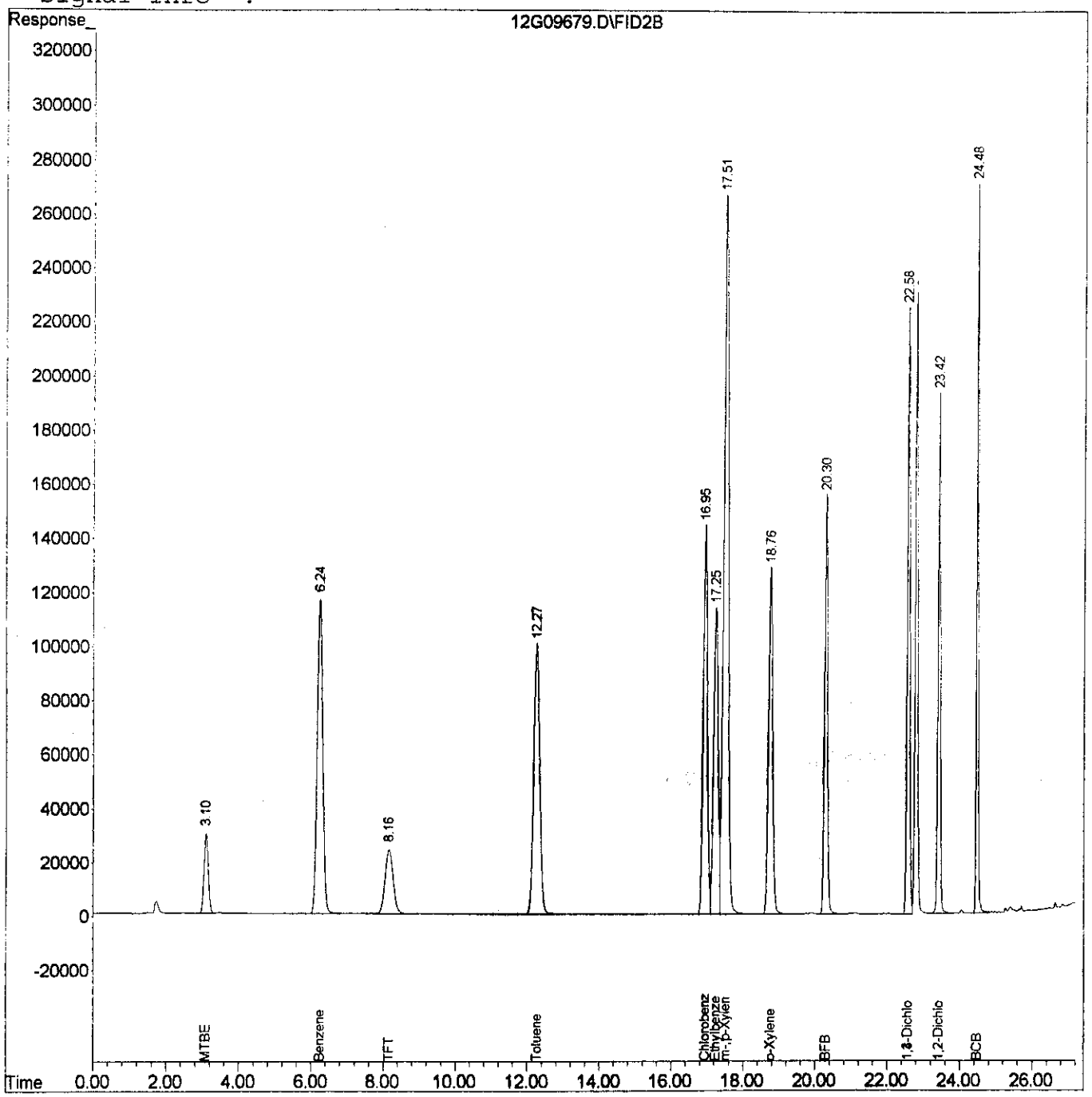
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.16	2541771	30.636 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 102.12%			
9) S BFB	20.29	6070676	29.570 UG/L
Spiked Amount 30.000 Recovery = 98.57%			
13) S BCB	24.47	5942809	28.198 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 93.99%			
Target Compounds			
1) TM MTBE	3.10	1061749	17.326 UG/L
2) TM Benzene	6.24	5217769	19.773 UG/L
4) TM Toluene	12.27	4862704	20.208 UG/L
5) TM Chlorobenzene	16.94	4964617	20.276 UG/L
6) TM Ethylbenzene	17.24	4147254	19.978 UG/L
7) TM m-,p-Xylene	17.51	10003274	39.398 UG/L
8) TM o-Xylene	18.76	4294399	20.581 UG/L
10) TM 1,3-Dichlorobenzene	22.57	4462397	20.482 UG/L
11) TM 1,4-Dichlorobenzene	22.57	4462397	20.482 UG/L
12) TM 1,2-Dichlorobenzene	23.42	3655710	18.489 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\100301\12G09679.D Vial: 24
Acq On : 3 Oct 2001 9:35 Operator: CBN
Sample : WG105716-04 8021 STD4 50PPB 5ML Inst : HP12
Misc : 1,1 S-84-(17,38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 3 11:07 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:07:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\100301\12G09679.D Vial: 24
Acq On : 3 Oct 2001 9:35 Operator: CBN
Sample : WG105716-04 8021 STD4 50PPB 5ML Inst : HP12
Misc : 1,1 S-84-(17,38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 3 11:07 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:07:58 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

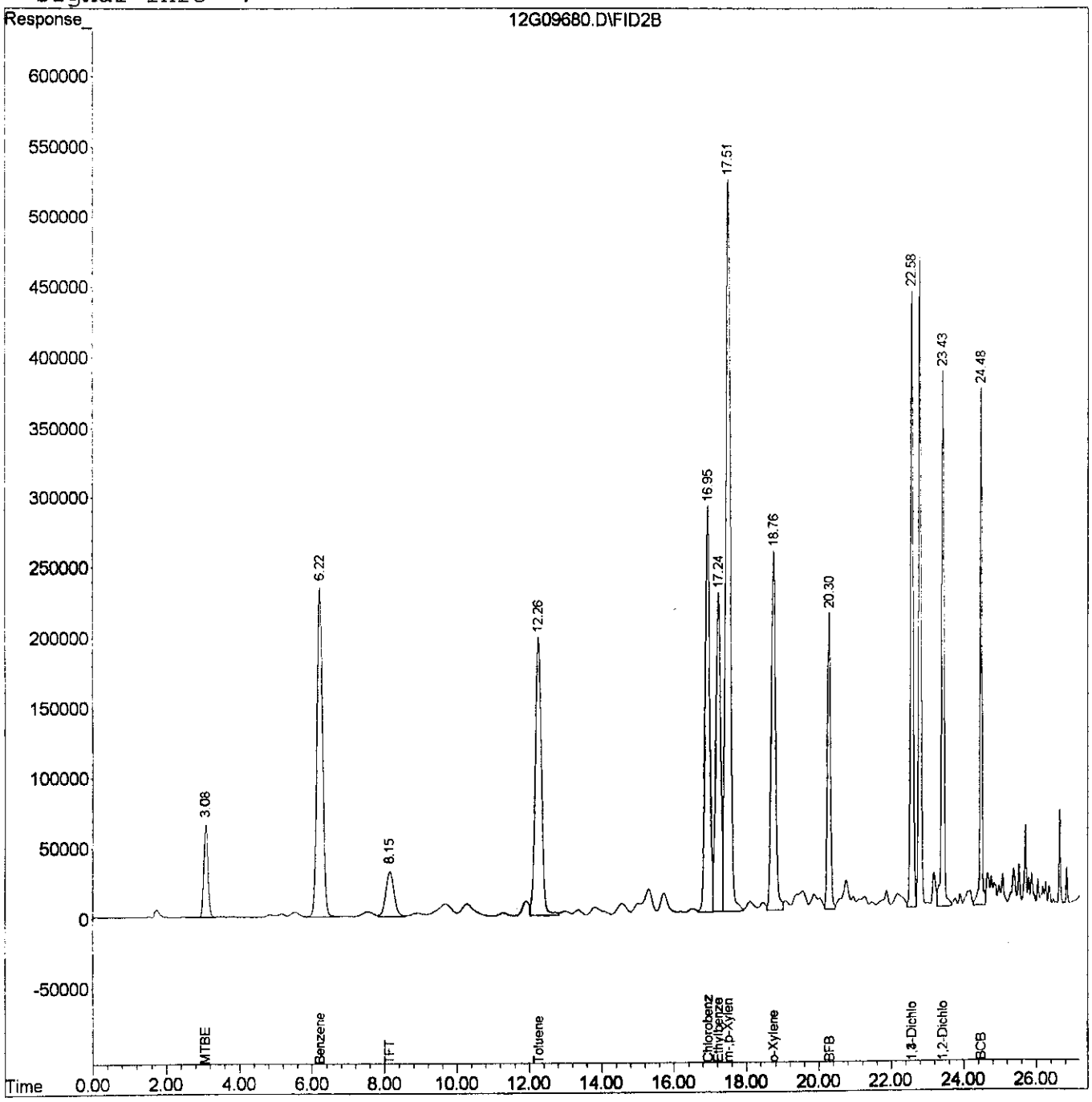
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.16	3756902	44.964 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 149.88%#			
9) S BFB	20.30	9037874	44.234 UG/L
Spiked Amount 30.000 Recovery = 147.45%			
13) S BCB	24.48	8925541	43.216 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 144.05%#			
Target Compounds			
1) TM MTBE	3.10	2409675	41.155 UG/L
2) TM Benzene	6.24	12574949	47.834 UG/L
4) TM Toluene	12.27	11666746	48.316 UG/L
5) TM Chlorobenzene	16.95	11932167	48.508 UG/L
6) TM Ethylbenzene	17.25	10031084	48.338 UG/L
7) TM m-,p-Xylene	17.51	24144379	95.572 UG/L
8) TM o-Xylene	18.76	10368723	49.217 UG/L
10) TM 1,3-Dichlorobenzene	22.58	10926589	49.753 UG/L
11) TM 1,4-Dichlorobenzene	22.58	10926589	49.753 UG/L
12) TM 1,2-Dichlorobenzene	23.43	8512725	44.166 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\100301\12G09680.D Vial: 25
Acq On : 3 Oct 2001 10:07 Operator: CBN
Sample : WG105716-05 8021 STD5 100PPB 5ML Inst : HP12
Misc : 1,1 S-84-(17,38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 3 11:07 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:07:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\100301\12G09680.D Vial: 25
Acq On : 3 Oct 2001 10:07 Operator: CBN
Sample : WG105716-05 8021 STD5 100PPB 5ML Inst : HP12
Misc : 1,1 S-84-(17,38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 3 11:07 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:07:58 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

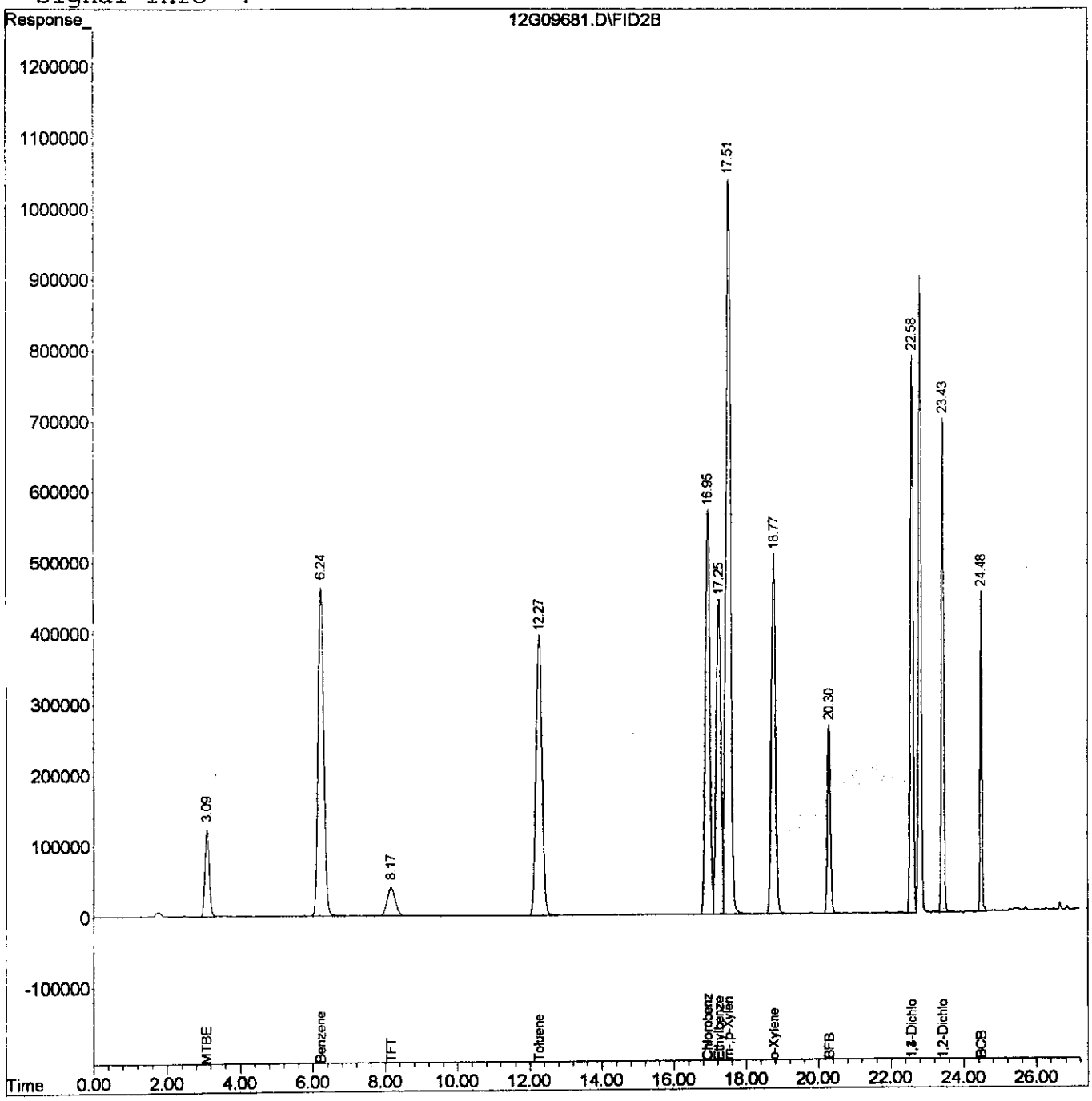
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.15	5141306	61.545 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 205.15%#			
9) S BFB	20.30	12316488	60.538 UG/L
Spiked Amount 30.000 Recovery = 201.79%			
13) S BCB	24.48	13132671	64.223 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 214.08%#			
Target Compounds			
1) TM MTBE	3.08	5339399	95.412 UG/L
2) TM Benzene	6.22	25310093	97.331 UG/L
4) TM Toluene	12.26	23525402	98.255 UG/L
5) TM Chlorobenzene	16.95	25164997	103.073 UG/L
6) TM Ethylbenzene	17.25	20781660	100.983 UG/L
7) TM m-,p-Xylene	17.51	47430270	189.847 UG/L
8) TM o-Xylene	18.77	21209781	101.071 UG/L
10) TM 1,3-Dichlorobenzene	22.58	21742032	99.122 UG/L
11) TM 1,4-Dichlorobenzene	22.58	21742032	99.122 UG/L
12) TM 1,2-Dichlorobenzene	23.43	17842123	95.350 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\100301\12G09681.D Vial: 30
Acq On : 3 Oct 2001 10:39 Operator: CBN
Sample : WG105716-06 8021 STD6 200PPB 5ML Inst : HP12
Misc : 1,1 S-84-(17,38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 3 11:08 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:00 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\100301\12G09681.D Vial: 30
Acq On : 3 Oct 2001 10:39 Operator: CBN
Sample : WG105716-06 8021 STD6 200PPB 5ML Inst : HP12
Misc : 1,1 S-84-(17,38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 3 11:08 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:00 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

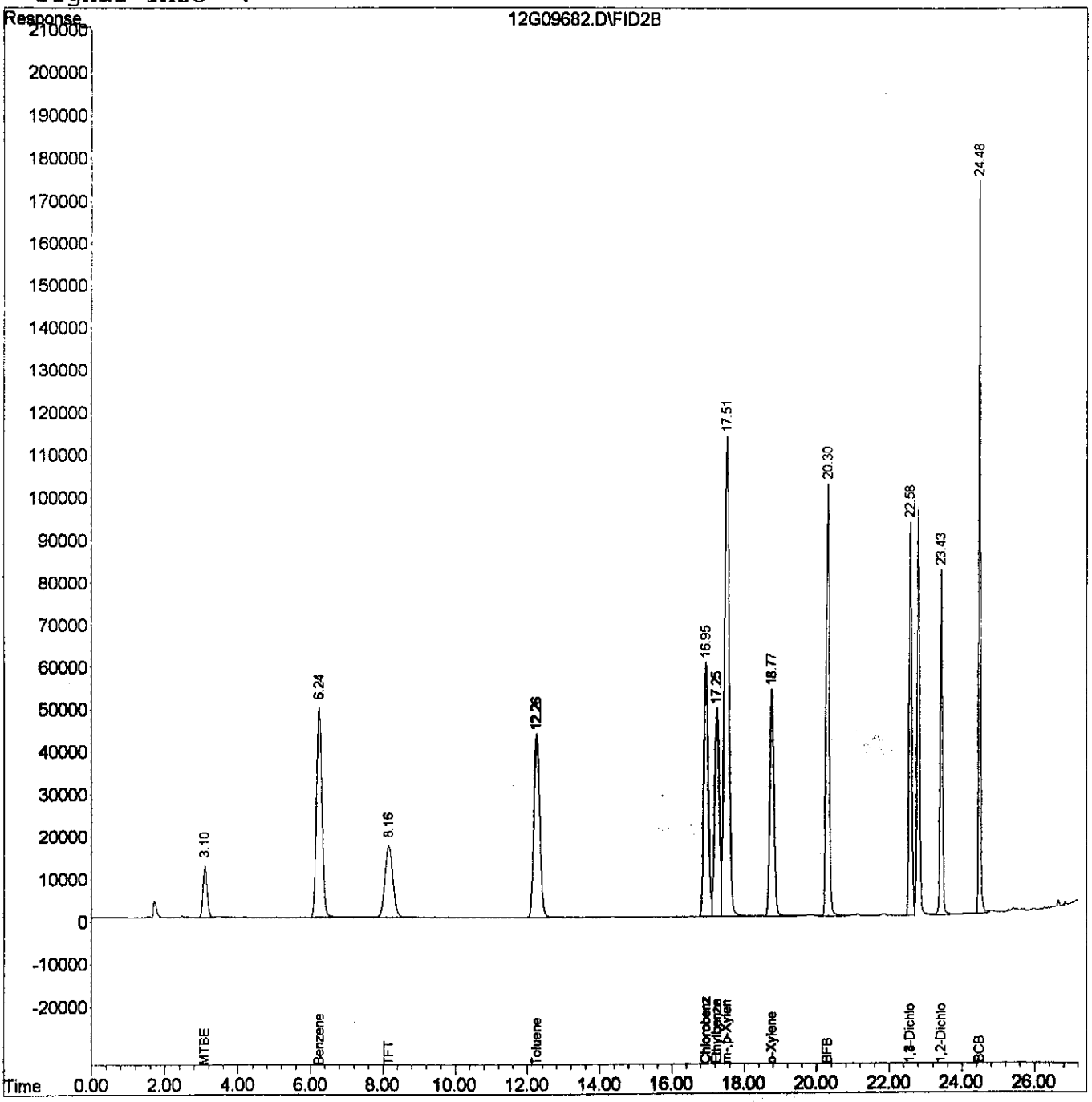
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.17	6465120	76.996 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	256.65%#
9) S BFB	20.30	15310610	75.120 UG/L
Spiked Amount 30.000		Recovery =	250.40%
13) S BCB	24.48	14963176	72.159 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	240.53%#
Target Compounds			
1) TM MTBE	3.09	10028501	180.863 UG/L
2) TM Benzene	6.24	50209468	194.119 UG/L
4) TM Toluene	12.28	46258679	193.878 UG/L
5) TM Chlorobenzene	16.95	47782873	194.518 UG/L
6) TM Ethylbenzene	17.25	39677132	192.422 UG/L
7) TM m-,p-Xylene	17.52	94748799	383.137 UG/L
8) TM o-Xylene	18.77	40974059	194.836 UG/L
10) TM 1,3-Dichlorobenzene	22.58	41212194	188.217 UG/L
11) TM 1,4-Dichlorobenzene	22.58	41212194	188.217 UG/L
12) TM 1,2-Dichlorobenzene	23.43	32095080	173.129 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\100301\12G09682.D Vial: 31
Acq On : 3 Oct 2001 11:20 Operator: CBN
Sample : WG105716-07 ALT SOURCE 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,84-38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 3 11:53 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\100301\12G09682.D Vial: 31
Acq On : 3 Oct 2001 11:20 Operator: CBN
Sample : WG105716-07 ALT SOURCE 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,84-38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 3 11:53 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.16	2573427	30.670 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	102.23%
9) S BFB	20.30	5974010	29.044 UG/L
Spiked Amount 30.000		Recovery =	96.81%
13) S BCB	24.48	5786345	26.982 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	89.94%
Target Compounds			
1) TM MTBE	3.10	996119	19.256 UG/L
2) TM Benzene	6.24	5202342	20.498 UG/L
4) TM Toluene	12.26	4894424	20.744 UG/L
5) TM Chlorobenzene	16.95	4975202	20.430 UG/L
6) TM Ethylbenzene	17.25	4329551	21.295 UG/L
7) TM m-,p-Xylene	17.52	10255610	42.247 UG/L
8) TM o-Xylene	18.77	4323718	20.829 UG/L
10) TM 1,3-Dichlorobenzene	22.58	4551152	21.272 UG/L
11) TM 1,4-Dichlorobenzene	22.58	4551152	21.272 UG/L
12) TM 1,2-Dichlorobenzene	23.43	3667759	20.138 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\102501\12G09948.D
Acq On : 25 Oct 2001 7:24
Sample : WG107052-01 8021 STD 20PPB 5ML
Misc : 1,1 S-(85-01,86-08)
IntFile : autoint1.e

Vial: 11
Operator: CBN
Inst : HP12
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	51.731	48.145 E3	6.9	91	0.00
2	TM	Benzene	253.793	248.722 E3	2.0	95	0.02
3	S	TFT	83.907	83.370 E3	0.6	98	0.03
4	TM	Toluene	235.945	231.039 E3	2.1	95	0.01
5	TM	Chlorobenzene	243.529	233.080 E3	4.3	94	0.02
6	TM	Ethylbenzene	203.317	204.454 E3	-0.6	99	0.02
7	TM	m-,p-Xylene	242.754	239.467 E3	1.4	96	0.01
8	TM	o-Xylene	207.586	201.115 E3	3.1	94	0.02
9	S	BFB	205.689	192.017 E3	6.6	95	0.02
10	TM	1,3-Dichlorobenzene	213.949	211.220 E3	1.3	95	0.02
11	TM	1,4-Dichlorobenzene	213.949	211.220 E3	1.3	95	0.02
12	TM	1,2-Dichlorobenzene	182.136	180.247 E3	1.0	99	0.02
13	S	BCB	214.453	187.645 E3	12.5	95	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09948.D 8021W.M Thu Oct 25 09:31:21 2001 Page 1

Data File : C:\HPCHEM\2\DATA\102501\12G09948.D Vial: 11
Acq On : 25 Oct 2001 7:24 Operator: CBN
Sample : WG107052-01 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

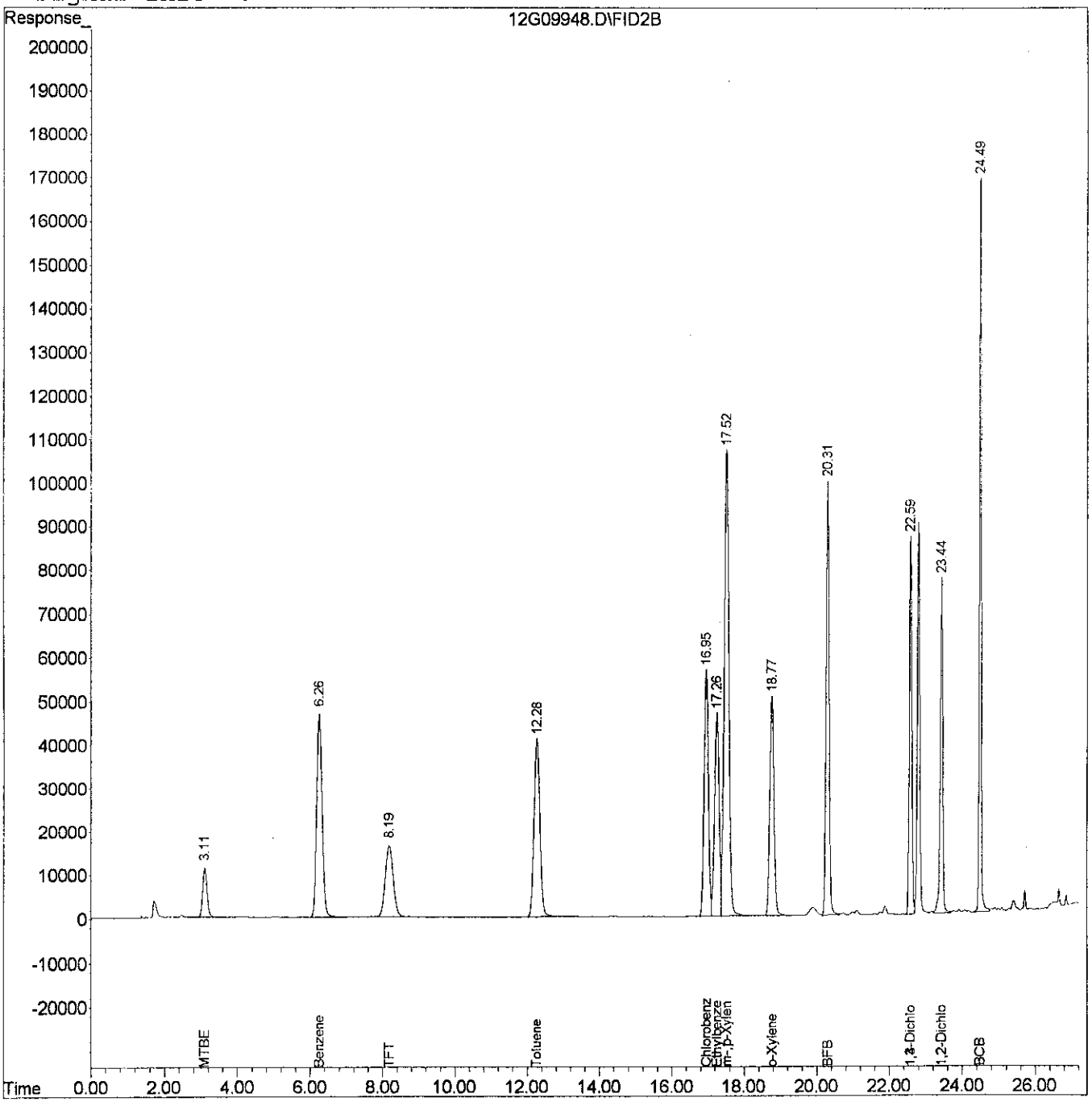
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.614	6.9	91	0.00
2	TM	Benzene	20.000	19.600	2.0	95	0.02
3	S	TFT	30.000	29.808	0.6	98	0.03
4	TM	Toluene	20.000	19.584	2.1	95	0.01
5	TM	Chlorobenzene	20.000	19.142	4.3	94	0.02
6	TM	Ethylbenzene	20.000	20.112	-0.6	99	0.02
7	TM	m-,p-Xylene	40.000	39.458	1.4	96	0.01
8	TM	o-Xylene	20.000	19.376	3.1	94	0.02
9	S	BFB	30.000	28.006	6.6	95	0.02
10	TM	1,3-Dichlorobenzene	20.000	19.745	1.3	95	0.02
11	TM	1,4-Dichlorobenzene	20.000	19.745	1.3	95	0.02
12	TM	1,2-Dichlorobenzene	20.000	19.793	1.0	99	0.02
13	S	BCB	30.000	26.250	12.5	95	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09948.D 8021W.M Thu Oct 25 09:31:22 2001 Page 1

Data File : C:\HPCHEM\2\DATA\102501\12G09948.D Vial: 11
Acq On : 25 Oct 2001 7:24 Operator: CBN
Sample : WG107052-01 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 7:51 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102501\12G09948.D Vial: 11
Acq On : 25 Oct 2001 7:24 Operator: CBN
Sample : WG107052-01 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 7:51 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.19	2501105	29.808 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	99.36%
9) S BFB	20.31	5760516	28.006 UG/L
Spiked Amount 30.000		Recovery =	93.35%
13) S BCB	24.49	5629350	26.250 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	87.50%
Target Compounds			
1) TM MTBE	3.11	962909	18.614 UG/L
2) TM Benzene	6.26	4974450	19.600 UG/L
4) TM Toluene	12.28	4620787	19.584 UG/L
5) TM Chlorobenzene	16.96	4661604	19.142 UG/L
6) TM Ethylbenzene	17.26	4089086	20.112 UG/L
7) TM m-,p-Xylene	17.52	9578677	39.458 UG/L
8) TM o-Xylene	18.78	4022295	19.376 UG/L
10) TM 1,3-Dichlorobenzene	22.59	4224397	19.745 UG/L
11) TM 1,4-Dichlorobenzene	22.59	4224397	19.745 UG/L
12) TM 1,2-Dichlorobenzene	23.44	3604943	19.793 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\102501\12G09959.D Vial: 15
Acq On : 25 Oct 2001 13:29 Operator: CBN
Sample : WG107052-02 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	51.731	47.820 E3	7.6	90	0.03
2	TM	Benzene	253.793	249.109 E3	1.8	95	0.05
3	S	TFT	83.907	80.650 E3	3.9	95	0.06
4	TM	Toluene	235.945	229.286 E3	2.8	94	0.04
5	TM	Chlorobenzene	243.529	233.808 E3	4.0	94	0.03
6	TM	Ethylbenzene	203.317	202.124 E3	0.6	97	0.03
7	TM	m-,p-Xylene	242.754	237.222 E3	2.3	95	0.03
8	TM	o-Xylene	207.586	200.829 E3	3.3	94	0.03
9	S	BFB	205.689	194.859 E3	5.3	96	0.03
10	TM	1,3-Dichlorobenzene	213.949	213.326 E3	0.3	96	0.04
11	TM	1,4-Dichlorobenzene	213.949	213.326 E3	0.3	96	0.04
12	TM	1,2-Dichlorobenzene	182.136	180.075 E3	1.1	99	0.04
13	S	BCB	214.453	193.421 E3	9.8	98	0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09959.D 8021W.M Tue Oct 30 09:38:03 2001 Page 1

Data File : C:\HPCHEM\2\DATA\102501\12G09959.D Vial: 15
Acq On : 25 Oct 2001 13:29 Operator: CBN
Sample : WG107052-02 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

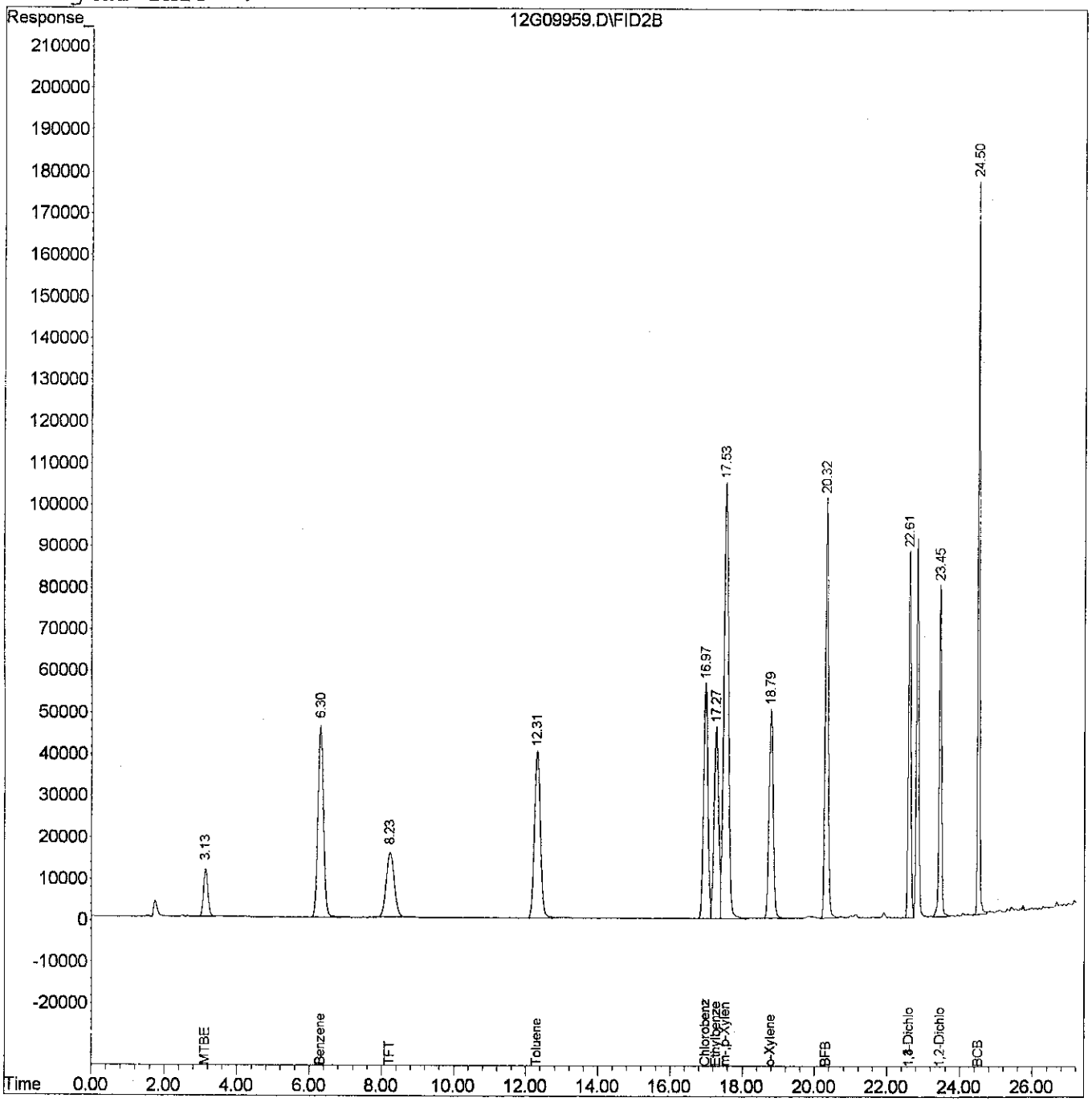
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.488	7.6	90	0.03
2	TM	Benzene	20.000	19.631	1.8	95	0.05
3	S	TFT	30.000	28.835	3.9	95	0.06
4	TM	Toluene	20.000	19.436	2.8	94	0.04
5	TM	Chlorobenzene	20.000	19.202	4.0	94	0.03
6	TM	Ethylbenzene	20.000	19.883	0.6	97	0.03
7	TM	m-,p-Xylene	40.000	39.088	2.3	95	0.03
8	TM	o-Xylene	20.000	19.349	3.3	94	0.03
9	S	BFB	30.000	28.420	5.3	96	0.03
10	TM	1,3-Dichlorobenzene	20.000	19.942	0.3	96	0.04
11	TM	1,4-Dichlorobenzene	20.000	19.942	0.3	96	0.04
12	TM	1,2-Dichlorobenzene	20.000	19.774	1.1	99	0.04
13	S	BCB	30.000	27.058	9.8	98	0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09959.D 8021W.M Tue Oct 30 09:38:00 2001 Page 1

Data File : C:\HPCHEM\2\DATA\102501\12G09959.D Vial: 15
Acq On : 25 Oct 2001 13:29 Operator: CBN
Sample : WG107052-02 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 13:56 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102501\12G09959.D Vial: 15
Acq On : 25 Oct 2001 13:29 Operator: CBN
Sample : WG107052-02 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 13:56 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.23	2419494	28.835 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 96.12%			
9) S BFB	20.32	5845766	28.420 UG/L
Spiked Amount 30.000 Recovery = 94.73%			
13) S BCB	24.50	5802620	27.058 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 90.19%			
Target Compounds			
1) TM MTBE	3.13	956404	18.488 UG/L
2) TM Benzene	6.30	4982172	19.631 UG/L
4) TM Toluene	12.31	4585721	19.436 UG/L
5) TM Chlorobenzene	16.98	4676157	19.202 UG/L
6) TM Ethylbenzene	17.28	4042485	19.883 UG/L
7) TM m-,p-Xylene	17.54	9488875	39.088 UG/L
8) TM o-Xylene	18.79	4016587	19.349 UG/L
10) TM 1,3-Dichlorobenzene	22.61	4266519	19.942 UG/L
11) TM 1,4-Dichlorobenzene	22.61	4266519	19.942 UG/L
12) TM 1,2-Dichlorobenzene	23.45	3601502	19.774 UG/L

Data File : C:\HPCHEM\2\DATA\102501\12G09970.D Vial: 32
Acq On : 25 Oct 2001 19:32 Operator: CBN
Sample : WG107052-03 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	51.731	46.781	E3	9.6	88	0.03
2	TM	Benzene	253.793	246.879	E3	2.7	95	0.06
3	S	TFT	83.907	82.882	E3	1.2	98	0.07
4	TM	Toluene	235.945	227.078	E3	3.8	93	0.04
5	TM	Chlorobenzene	243.529	231.992	E3	4.7	93	0.05
6	TM	Ethylbenzene	203.317	200.927	E3	1.2	97	0.04
7	TM	m-,p-Xylene	242.754	235.161	E3	3.1	94	0.04
8	TM	o-Xylene	207.586	198.542	E3	4.4	92	0.04
9	S	BFB	205.689	195.435	E3	5.0	97	0.04
10	TM	1,3-Dichlorobenzene	213.949	208.746	E3	2.4	94	0.04
11	TM	1,4-Dichlorobenzene	213.949	208.746	E3	2.4	94	0.04
12	TM	1,2-Dichlorobenzene	182.136	168.178	E3	7.7	92	0.03
13	S	BCB	214.453	191.447	E3	10.7	97	0.03

Data File : C:\HPCHEM\2\DATA\102501\12G09970.D Vial: 32
Acq On : 25 Oct 2001 19:32 Operator: CBN
Sample : WG107052-03 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration

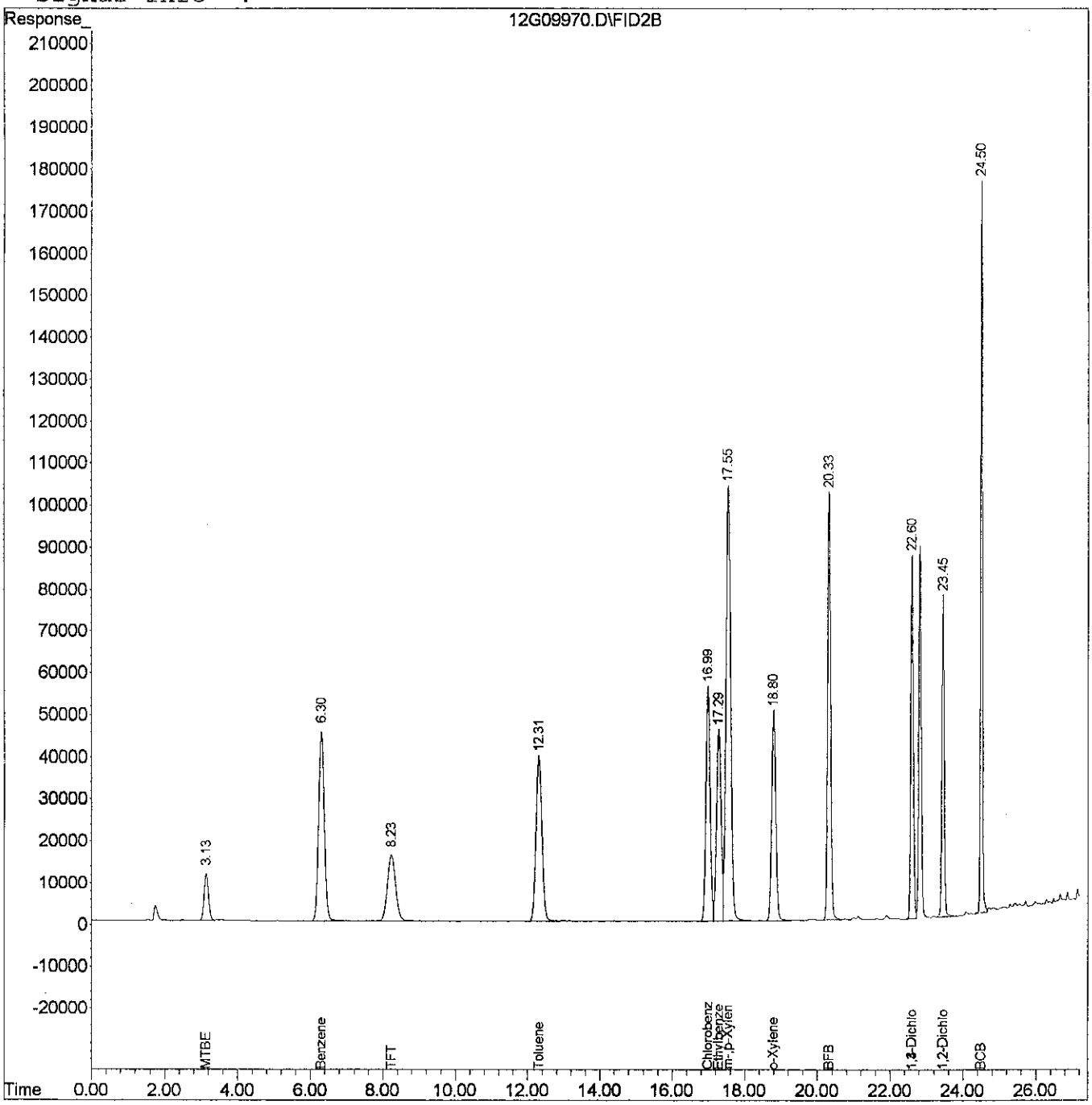
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.086	9.6	88	0.03
2	TM	Benzene	20.000	19.455	2.7	95	0.06
3	S	TFT	30.000	29.633	1.2	98	0.07
4	TM	Toluene	20.000	19.248	3.8	93	0.04
5	TM	Chlorobenzene	20.000	19.053	4.7	93	0.05
6	TM	Ethylbenzene	20.000	19.765	1.2	97	0.04
7	TM	m-,p-Xylene	40.000	38.749	3.1	94	0.04
8	TM	o-Xylene	20.000	19.129	4.4	92	0.04
9	S	BFB	30.000	28.504	5.0	97	0.04
10	TM	1,3-Dichlorobenzene	20.000	19.514	2.4	94	0.04
11	TM	1,4-Dichlorobenzene	20.000	19.514	2.4	94	0.04
12	TM	1,2-Dichlorobenzene	20.000	18.467	7.7	92	0.03
13	S	BCB	30.000	26.782	10.7	97	0.03

Data File : C:\HPCHEM\2\DATA\102501\12G09970.D Vial: 32
Acq On : 25 Oct 2001 19:32 Operator: CBN
Sample : WG107052-03 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 19:59 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102501\12G09970.D Vial: 32
Acq On : 25 Oct 2001 19:32 Operator: CBN
Sample : WG107052-03 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 19:59 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.23	2486456	29.633 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 98.78%			
9) S BFB	20.33	5863048	28.504 UG/L
Spiked Amount 30.000 Recovery = 95.01%			
13) S BCB	24.50	5743399	26.782 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 89.27%			
Target Compounds			
1) TM MTBE	3.13	935614	18.086 UG/L
2) TM Benzene	6.30	4937571	19.455 UG/L
4) TM Toluene	12.31	4541559	19.248 UG/L
5) TM Chlorobenzene	16.99	4639846	19.053 UG/L
6) TM Ethylbenzene	17.29	4018535	19.765 UG/L
7) TM m-,p-Xylene	17.55	9406425	38.749 UG/L
8) TM o-Xylene	18.80	3970845	19.129 UG/L
10) TM 1,3-Dichlorobenzene	22.61	4174916	19.514 UG/L
11) TM 1,4-Dichlorobenzene	22.61	4174916	19.514 UG/L
12) TM 1,2-Dichlorobenzene	23.45	3363558	18.467 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\102501\12G09973.D Vial: 5
Acq On : 25 Oct 2001 21:10 Operator: CBN
Sample : WG107052-04 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	51.731	47.083	E3	9.0	89	0.02
2	TM	Benzene	253.793	242.068	E3	4.6	93	0.04
3	S	TFT	83.907	81.247	E3	3.2	96	0.05
4	TM	Toluene	235.945	224.850	E3	4.7	92	0.03
5	TM	Chlorobenzene	243.529	228.905	E3	6.0	92	0.04
6	TM	Ethylbenzene	203.317	197.685	E3	2.8	95	0.03
7	TM	m-,p-Xylene	242.754	231.535	E3	4.6	93	0.03
8	TM	o-Xylene	207.586	196.344	E3	5.4	91	0.03
9	S	BFB	205.689	195.296	E3	5.1	97	0.03
10	TM	1,3-Dichlorobenzene	213.949	205.117	E3	4.1	92	0.03
11	TM	1,4-Dichlorobenzene	213.949	205.117	E3	4.1	92	0.03
12	TM	1,2-Dichlorobenzene	182.136	174.179	E3	4.4	95	0.03
13	S	BCB	214.453	191.101	E3	10.9	96	0.02

Data File : C:\HPCHEM\2\DATA\102501\12G09973.D Vial: 5
Acq On : 25 Oct 2001 21:10 Operator: CBN
Sample : WG107052-04 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration

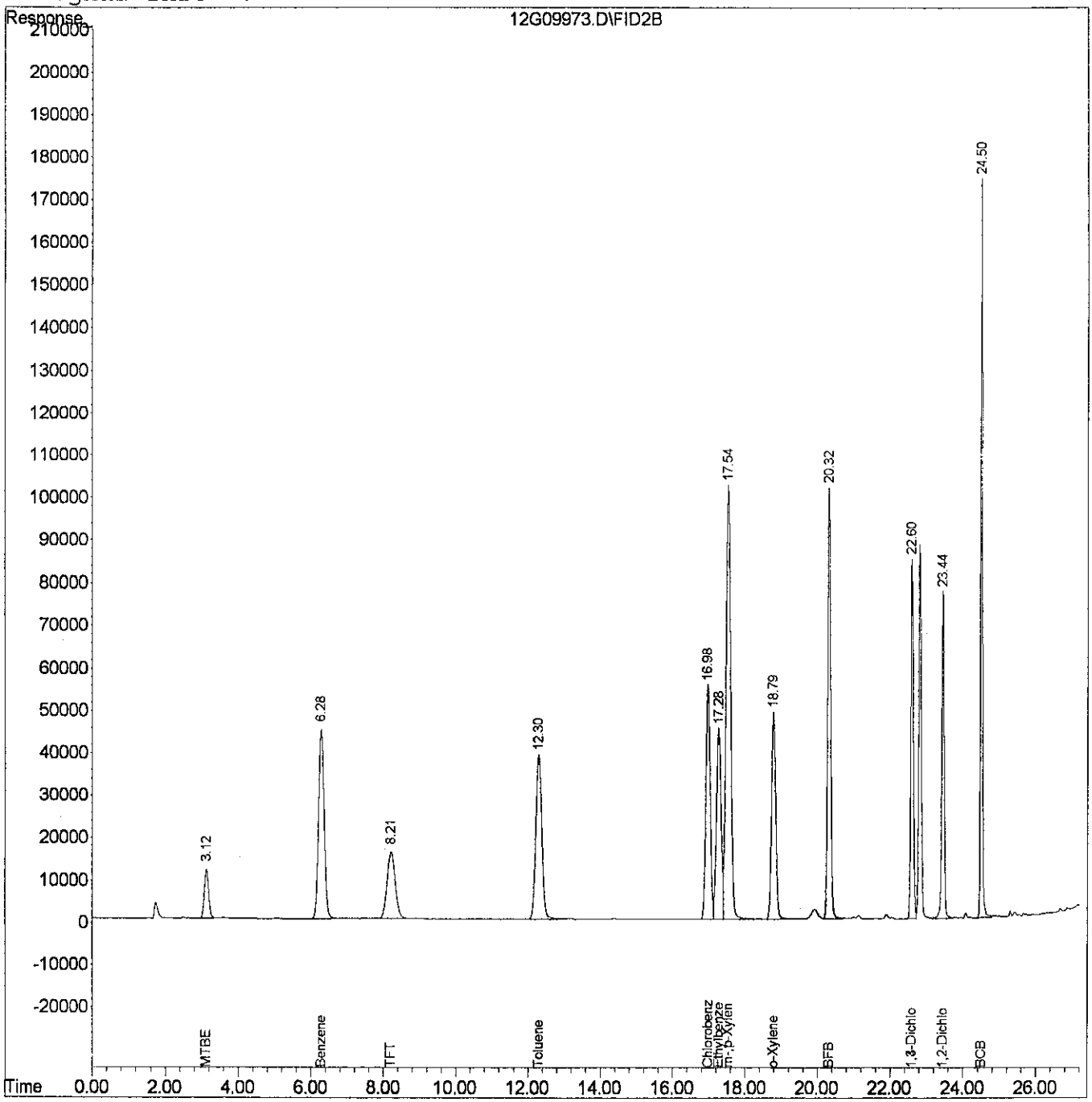
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.203	9.0	89	0.02
2	TM	Benzene	20.000	19.076	4.6	93	0.04
3	S	TFT	30.000	29.049	3.2	96	0.05
4	TM	Toluene	20.000	19.060	4.7	92	0.03
5	TM	Chlorobenzene	20.000	18.799	6.0	92	0.04
6	TM	Ethylbenzene	20.000	19.446	2.8	95	0.03
7	TM	m-,p-Xylene	40.000	38.151	4.6	93	0.03
8	TM	o-Xylene	20.000	18.917	5.4	91	0.03
9	S	BFB	30.000	28.484	5.1	97	0.03
10	TM	1,3-Dichlorobenzene	20.000	19.174	4.1	92	0.03
11	TM	1,4-Dichlorobenzene	20.000	19.174	4.1	92	0.03
12	TM	1,2-Dichlorobenzene	20.000	19.126	4.4	95	0.03
13	S	BCB	30.000	26.733	10.9	96	0.02

Data File : C:\HPCHEM\2\DATA\102501\12G09973.D Vial: 5
Acq On : 25 Oct 2001 21:10 Operator: CBN
Sample : WG107052-04 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 21:37 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102501\12G09973.D Vial: 5
Acq On : 25 Oct 2001 21:10 Operator: CBN
Sample : WG107052-04 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 21:37 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.21	2437403	29.049 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 96.83%			
9) S BFB	20.32	5858881	28.484 UG/L
Spiked Amount 30.000 Recovery = 94.95%			
13) S BCB	24.50	5733041	26.733 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 89.11%			
Target Compounds			
1) TM MTBE	3.12	941653	18.203 UG/L
2) TM Benzene	6.28	4841353	19.076 UG/L
4) TM Toluene	12.30	4497004	19.060 UG/L
5) TM Chlorobenzene	16.98	4578102	18.799 UG/L
6) TM Ethylbenzene	17.28	3953695	19.446 UG/L
7) TM m-,p-Xylene	17.54	9261400	38.151 UG/L
8) TM o-Xylene	18.79	3926873	18.917 UG/L
10) TM 1,3-Dichlorobenzene	22.60	4102343	19.174 UG/L
11) TM 1,4-Dichlorobenzene	22.60	4102343	19.174 UG/L
12) TM 1,2-Dichlorobenzene	23.45	3483582	19.126 UG/L

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 25-Oct-01
Filename: 12G09948
Sub Directory: 102501
Instrument: HP12
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	3.108	3.103	3.113
benzene	6.262	6.241	6.283
1,1,1-trifluorotoluene (SS)	8.189	8.159	8.219
toluene	12.279	12.250	12.308
chlorobenzene	16.959	16.942	16.976
ethylbenzene	17.260	17.241	17.279
m+p-xylene	17.522	17.490	17.554
o-xylene	18.776	18.755	18.797
bromofluorobenzene (SS)	20.310	20.296	20.324
1,3-dichlorobenzene	22.591	22.571	22.611
1,4-dichlorobenzene	22.809	22.789	22.829
1,2-dichlorobenzene	23.438	23.420	23.456

INSTRUMENT: HP12 **MATRIX:** WATER
CONT STD #1: 12G06556 **DATE #1:** 2/14/2001
CONT STD #2: 12G06582 **DATE #2:** 2/15/2001
CONT STD #3: 12G06616 **DATE #3:** 2/16/2001

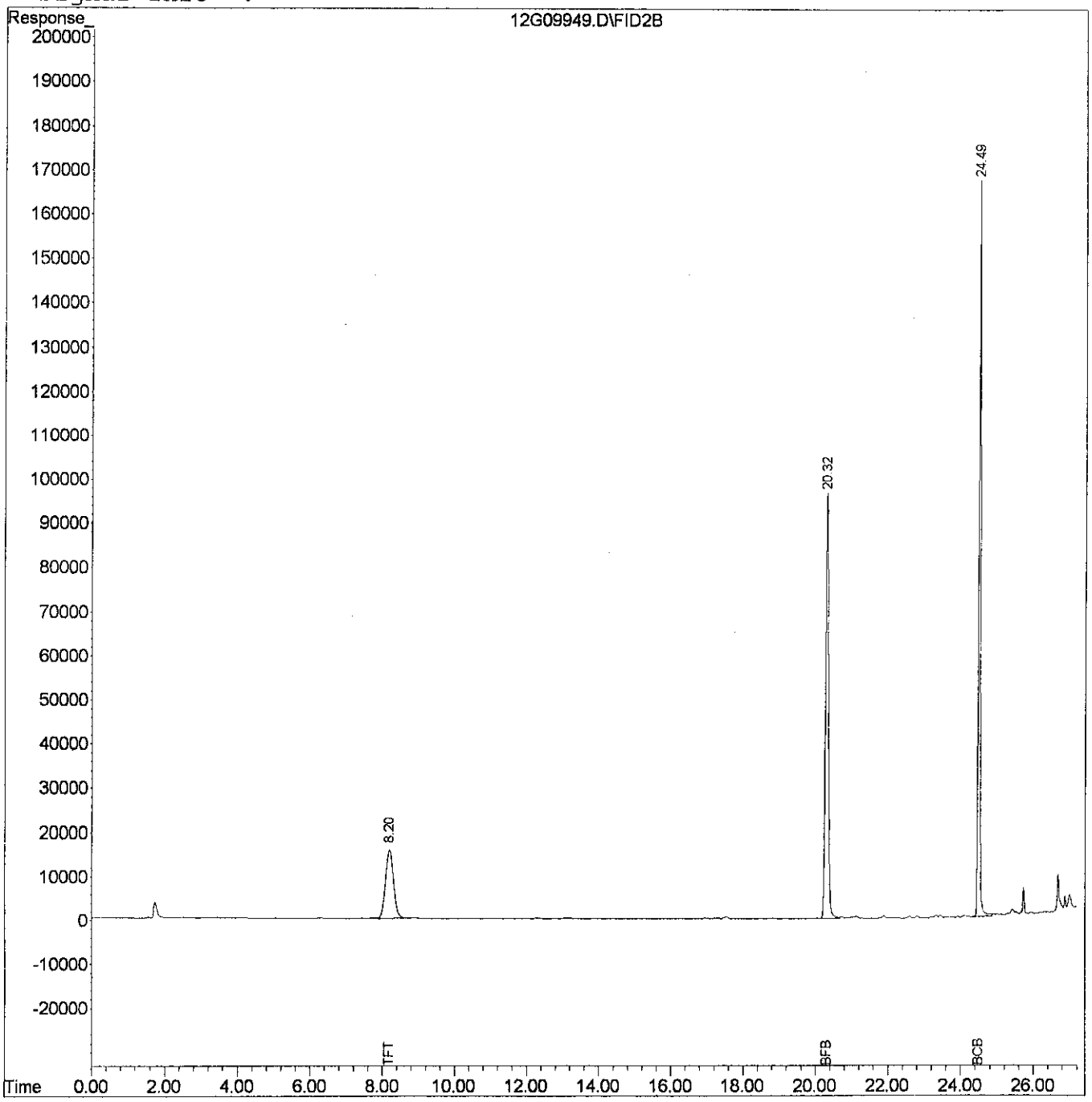
Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	3.063	3.062	3.060	3.062	0.002	0.005
benzene	6.168	6.157	6.155	6.160	0.007	0.021
1,1,1-trifluorotoluene (SS)	8.082	8.078	8.063	8.074	0.010	0.030
toluene	12.178	12.179	12.162	12.173	0.010	0.029
chlorobenzene	16.882	16.874	16.871	16.876	0.006	0.017
ethylbenzene	17.186	17.188	17.176	17.183	0.006	0.019
m+p-xylene	17.450	17.461	17.440	17.450	0.011	0.032
o-xylene	18.711	18.716	18.702	18.710	0.007	0.021
bromofluorbenzene (SS)	20.253	20.251	20.244	20.249	0.005	0.014
1,3-dichlorobenzene	22.544	22.539	22.531	22.538	0.007	0.020
1,4-dichlorobenzene	22.763	22.759	22.750	22.757	0.007	0.020
1,2-dichlorobenzene	23.396	23.390	23.384	23.390	0.006	0.018

2.1.3.4 Raw Data

Data File : C:\HPCHEM\2\DATA\102501\12G09949.D Vial: 12
Acq On : 25 Oct 2001 7:57 Operator: CBN
Sample : WG107053-01 WATER BLANK 5ML Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 8:24 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102501\12G09949.D Vial: 12
Acq On : 25 Oct 2001 7:57 Operator: CBN
Sample : WG107053-01 WATER BLANK 5ML Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 8:24 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

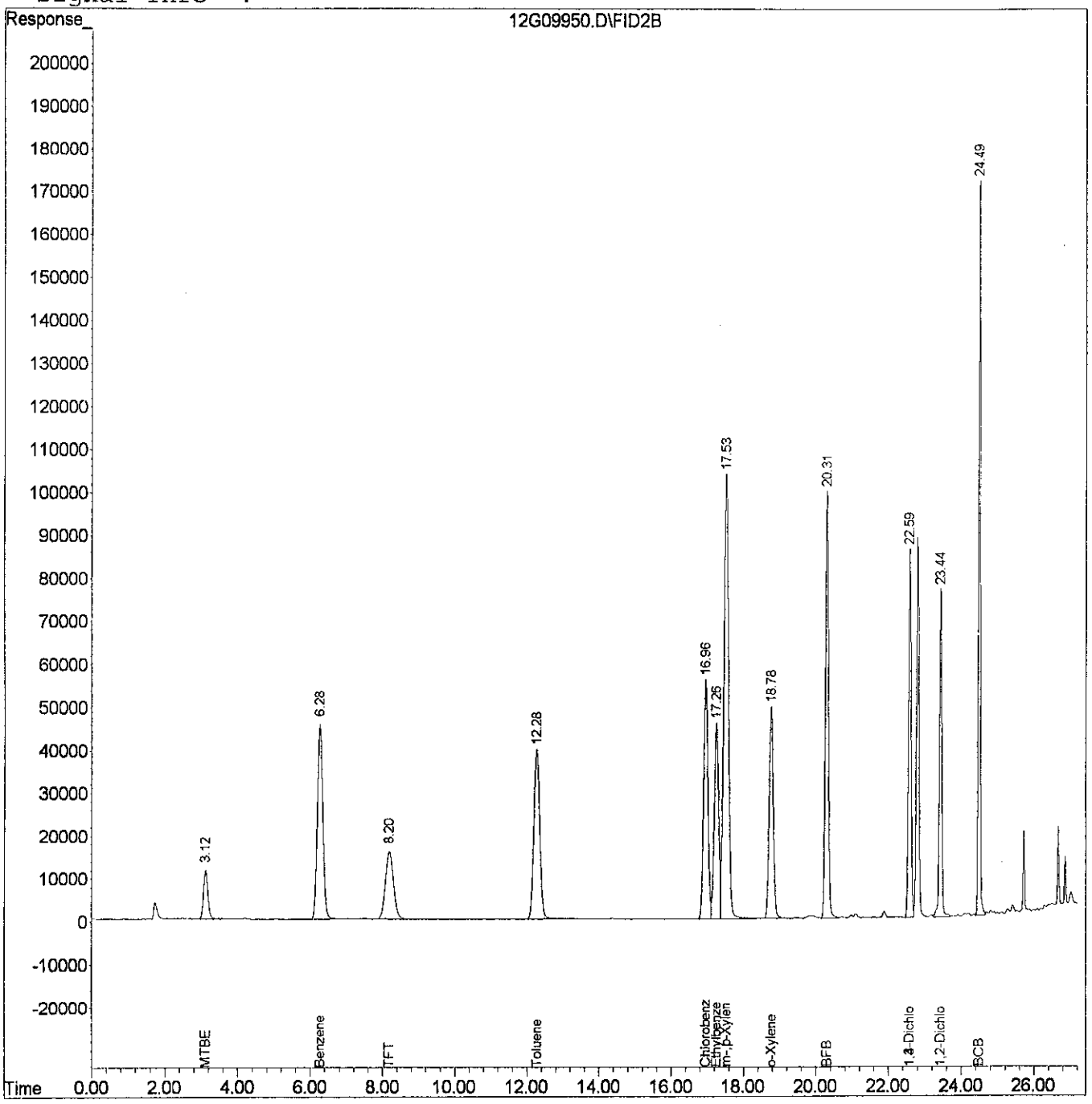
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.20	2398254	28.582 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 95.27%			
9) S BFB	20.32	5594167	27.197 UG/L
Spiked Amount 30.000 Recovery = 90.66%			
13) S BCB	24.50	5613917	26.178 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 87.26%			
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/L
2) TM Benzene	0.00	0	N.D. UG/L
4) TM Toluene	0.00	0	N.D. UG/L
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	0.00	0	N.D. UG/L
7) TM m-,p-Xylene	17.53	31983	<MDL UG/L
8) TM o-Xylene	0.00	0	N.D. UG/L
10) TM 1,3-Dichlorobenzene	22.59	25546	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.59	25546	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.44	31015	<MDL UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\102501\12G09950.D Vial: 13
Acq On : 25 Oct 2001 8:29 Operator: CBN
Sample : WG107053-02 WATER LCS 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 8:56 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102501\12G09950.D Vial: 13
Acq On : 25 Oct 2001 8:29 Operator: CBN
Sample : WG107053-02 WATER LCS 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 8:56 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.20	2446815	29.161 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 97.20%			
9) S BFB	20.31	5762950	28.018 UG/L
Spiked Amount 30.000 Recovery = 93.39%			
13) S BCB	24.49	5627862	26.243 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 87.48%			
Target Compounds			
1) TM MTBE	3.12	979396	18.933 UG/L
2) TM Benzene	6.27	4915632	19.369 UG/L
4) TM Toluene	12.28	4545199	19.264 UG/L
5) TM Chlorobenzene	16.96	4625546	18.994 UG/L
6) TM Ethylbenzene	17.26	4029803	19.820 UG/L
7) TM m-,p-Xylene	17.52	9449772	38.927 UG/L
8) TM o-Xylene	18.78	3983322	19.189 UG/L
10) TM 1,3-Dichlorobenzene	22.59	4182442	19.549 UG/L
11) TM 1,4-Dichlorobenzene	22.59	4182442	19.549 UG/L
12) TM 1,2-Dichlorobenzene	23.44	3467089	19.036 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

WG105716
1 67

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	20	12g09675.d	1.	WG105716-01 8021 STD1 1PPB 5ML DNR	1,1 S-84-(17,38)	3 Oct 2001 07:2
2	21	12g09676.d	1.	WG105716-01 8021 STD1 1PPB 5ML ✓	1,1 S-84-(17,38)	3 Oct 2001 07:5
3	22	12g09677.d	1.	WG105716-02 8021 STD2 10PPB... ✓	1,1 S-84-(17,38)	3 Oct 2001 08:3
4	23	12g09678.d	1.	WG105716-03 8021 STD3 20PPB... ✓	1,1 S-84-(17,38)	3 Oct 2001 09:0
5	24	12g09679.d	1.	WG105716-04 8021 STD4 50PPB... ✓	1,1 S-84-(17,38)	3 Oct 2001 09:3
6	25	12g09680.d	1.	WG105716-05 8021 STD5 100PP... ✓	1,1 S-84-(17,38)	3 Oct 2001 10:0
7	30	12g09681.d	1.	WG105716-06 8021 STD6 200PP... ✓	1,1 S-84-(17,38)	3 Oct 2001 10:3
8	31	12g09682.d	1.	WG105716-07 ALT SOURCE 20PP... ✓	1,1 S-(85-01,84-38)	3 Oct 2001 11:2
9	2	12g09683.d	100.	WG105767-01 EXT BLANK 10/03... ✓	7,100 S-84-38	3 Oct 2001 12:0
10	3	12g09684.d	100.	WG105767-01 EXT LCSK 10/03/... ✓	7,100 S-(85-01,84...	3 Oct 2001 12:3
11	20	12g09685.d	125.	L0109340-01 4.02G/10ML 125X ✓	7,125,RE S-84-38	3 Oct 2001 13:1
12	21	12g09686.d	1000.	L0109340-02 4.88G/10ML 1000X ✓	7,1000 S-84-38	3 Oct 2001 13:4
13	22	12g09687.d	900.	L0109360-04 5.49G/10ML 900X ✓ SSS ONLY	7,900 S-84-38	3 Oct 2001 14:1
14	23	12g09688.d	80.	L0109360-05 6.08G/10ML 80X CONF SMI	7,80,RE S-84-38	3 Oct 2001 14:4
15	24	12g09689.d	85.	L0109360-06 5.88G/10ML 85X ✓	7,85 S-84-38	3 Oct 2001 15:2
16	25	12g09690.d	900.	L0109360-07 5.69G/10ML 900X RE @ 9000	7,900 S-84-38	3 Oct 2001 15:5
17	30	12g09691.d	75.	L0109360-08 6.53G/10ML 75X SSS CONF ONLY	7,75 S-84-38	3 Oct 2001 16:2
18	31	12g09692.d	90.	L0109360-09 5.68G/10ML 90X HIGH SSS	7,90 S-84-38	3 Oct 2001 16:5
19	32	12g09693.d	1.	WG105716-09 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,84-38)	3 Oct 2001 17:2
20	15	12g09694.d	75.	L0109360-08 6.53G/10ML 75X HIGH SSS	7,75,RE S-84-38	3 Oct 2001 18:0
21	16	12g09695.d	90.	L0109360-09 5.68G/10ML 90X CONF SMI	7,90,RE S-84-38	3 Oct 2001 18:3
22	17	12g09696.d	900.	L0109360-07 5.69G/10ML 900X BAD PULLING	7,900,RE S-84-38	3 Oct 2001 19:0
23	18	12g09697.d	900.	L0109360-04 5.49G/10ML 900X ✓	7,900,RE S-84-38	3 Oct 2001 19:3
24	19	12g09698.d	500000.	L0110002-01 1G/10ML 500000X ✓	1,500000 S-84-38	3 Oct 2001 20:1
25	20	12g09699.d	500000.	L0110002-01 DUP 1G/10ML 500... ✓	1,500000 S-84-38	3 Oct 2001 20:4
26	21	12g09700.d	50000.	L0110002-01 1G/10ML 50000X ✓	1,50000 S-84-38	3 Oct 2001 21:1
27	22	12g09701.d	1.	RINSE	1,1 S-84-38	3 Oct 2001 21:4
28	23	12g09702.d	1.	WG105716-10 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,84-38)	3 Oct 2001 22:2

Directory: C:\HPCHEM\2\DATA\102501

WG107053

ANALYST: CBI

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	11	12g09948.d	1.	WG107052-01 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,86-08)	25 Oct 2001 07:2
2	12	12g09949.d	1.	WG107053-01 WATER BLANK 5ML ✓	1,1 S-86-08	25 Oct 2001 07:5
3	13	12g09950.d	1.	WG107053-02 WATER LCS 20PPB... ✓	1,1 S-(85-01,86-08)	25 Oct 2001 08:2
4	5	12g09951.d	1.	L0110464-01 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 09:0
5	6	12g09952.d	1.	L0110464-02 A 5ML pH<2 HIGH SSS	1,1 S-86-08	25 Oct 2001 09:4
6	7	12g09953.d	1.	L0110464-03 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 10:1
7	8	12g09954.d	1.	WG107053-03 L0110464-04 A 5... ✓	1,1 S-86-08	25 Oct 2001 10:4
8	11	12g09955.d	1.	WG107053-04 L0110464-05 MS ... ✓	1,1 S-(85-01,86-08)	25 Oct 2001 11:1
9	12	12g09956.d	1.	WG107053-05 L0110464-06 MSD... ✓	1,1 S-(85-01,86-08)	25 Oct 2001 11:5
10	13	12g09957.d	1.	L0110464-07 A 5ML pH<2 HIGH SSS	1,1 S-86-08	25 Oct 2001 12:2
11	14	12g09958.d	1.	L0110464-08 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 12:5
12	15	12g09959.d	1.	WG107052-02 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,86-08)	25 Oct 2001 13:2
13	23	12g09960.d	1.	L0110464-09 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 14:0
14	24	12g09961.d	1.	L0110464-10 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 14:4
15	11	12g09962.d	1.	L0110485-01 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 15:1
16	12	12g09963.d	1.	L0110485-02 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 15:4
17	13	12g09964.d	1.	L0110485-03 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 16:1
18	14	12g09965.d	1.	WG107053-03 L0110485-04 A 5... ✓	1,1 S-86-08	25 Oct 2001 16:5
19	15	12g09966.d	1.	WG107053-04 L0110485-05 MS ... ✓	1,1 S-(85-01,86-08)	25 Oct 2001 17:2
20	16	12g09967.d	1.	WG107053-05 L0110485-06 MSD... ✓	1,1 S-(85-01,86-08)	25 Oct 2001 17:5
21	30	12g09968.d	1.	L0110485-07 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 18:2
22	31	12g09969.d	1.	L0110485-08 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 18:5
23	32	12g09970.d	1.	WG107052-03 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,86-08)	25 Oct 2001 19:3
24	1	12g09971.d	1.	L0110485-09 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 20:0
25	2	12g09972.d	1.	L0110485-10 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 20:3
26	5	12g09973.d	1.	WG107052-04 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,86-08)	25 Oct 2001 21:1
27	6	12g09974.d	1.	RINSE 5ML ✓	1,1 S-86-08	25 Oct 2001 21:4
28	7	12g09975.d	1.	RINSE 5ML ✓	1,1 S-86-08	25 Oct 2001 22:1

2.2 Semivolatiles Data

2.2.5 DRO GC DATA (8015)

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No .: L0110485

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8015

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD results were not associated with re-extracted group.

SAMPLES

Samples: Sample fractions -07 and -08 were re-extracted within holding time.The surrogate recovery for sample -07 was acceptable ,but for sample -08 the surrogate recovery was still outside the limits and it's re-analysis confirmed the sample matrix interference on surrogate recovery. For these samples , the results were reported from re-extracted analyses. However sample -08 could not be re-extracted second time because of insufficient sample volume.

Surrogates: Sample fractions -07 and -08 yielded a %recovery for the surrogate that was outside advisory limits. These samples were re-extracted within holding time. But for sample -08 ,the surrogate recovery was still outside the limits and it's re-analysis confirmed the sample matrix interference on surrogate recovery.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: HV REVIEWED: _____ DATE: 4/9/01

Rev. 7/14/00

Analyst: HV
Method: 8014 PRO water 10485 (1-6 & 9) level 4
Instrument: HP2
Work Group: KG 10-7063

	Analyst
System Performance Check	✓
Endrin & DDT Breakdown	NA
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	
Second Source Standard % Difference	✓
Check Standards	✓
Project / Client Specific Requirements	
Special Standards	
Blanks	✓
TCL's	
Surrogates	
LCS (Laboratory Control Sample)	✓
Recoveries	
Surrogates	
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	
Surrogates	
Calculations & Correct Factors	
Dilutions Run	
Reruns	
Check Sample Histories	
Ending Check Standards	✓
Excel Spreadsheets	✓
Case Narrative	
Corrective Action	
Results Reporting / Data Qualifiers	
WorkGroups Traceability	
Client Data Package Assembly	
Check for Completeness	

Primary Reviewer Initials & Date Checked HV 10/30/01

Secondary Reviewer Initials & Date Checked SRR 10/31/01

- Check for compliance with Method and project-specific requirements
- Check the completeness of the reported information
- Check the information for the report narrative
- Check the reasonableness of results

Supervisory Review Initials & Date Checked SRR 10/31/01

Comments: Sample fractions -07 & -08 were sent for RE due to low surrogate rec. This pkg. does not include -07 & -08 results.

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

Analyst: HV
Method: 8011 - TLA PRD water
Instrument: HP2
Work Group: WG 107378

1048h (07, 08) RE - level 4

	Analyst
System Performance Check	✓
Endrin & DDT Breakdown	NA
Initial Calibration	
Average RF	
Linear Reg or Higher Order Curve	
Second Source Standard % Difference	
Check Standards	✓
Project / Client Specific Requirements	
Special Standards	
Blanks	✓
TCL's	
Surrogates	
LCS (Laboratory Control Sample)	✓
Recoveries	
Surrogates	
MS / MSD / Duplicates	NA
Samples	✓
TCL Hits	
Surrogates	
Calculations & Correct Factors	
Dilutions Run	
Reruns	
Check Sample Histories	
Ending Check Standards	✓
Excel Spreadsheets	✓
Case Narrative	
Corrective Action	
Results Reporting / Data Qualifiers	
WorkGroups Traceability	
Client Data Package Assembly	
Check for Completeness	

Primary Reviewer Initials & Date Checked HV 10/31/01

Secondary Reviewer Initials & Date Checked [illegible] 10/31/01

- Check for compliance with Method and project-specific requirements
- Check the completeness of the reported information
- Check the information for the report narrative
- Check the reasonableness of results

Supervisory Review Initials & Date Checked [illegible] 10/31/01

Comments: The surrogate rec. for sample -07 was good from 'RE' analysis, but the surr. rec. for -08 fraction was still low, which confirmed EHS and results for these samples were reported from 'RE' analysis -

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

DRO-GC DATA (8015)

Login Number: L0110485

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

✓ Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data)

✓ Chromatograms and external standard reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and external standard reports (chronological)

NA Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

✓ Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

✓ Extraction bench sheets

Checked By: HV Date: 11/2/01

2.2.5.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP : WG107063 | EXT DATE : 10-24-01 | RUN DATE : 10-29-01 | INSTRUMENT : HP2
METHOD : 8015-PRO | EXT BENCH SHEET : V174-P113 | SMPL ID : L0110485-04 | Analyst: HV
MATRIX : WATER | BLK FILENAME : 2G16171 | SMPL FLNM : 2G16176
CONCENTRATION UNITS : ug / l | LCS FILENAME : 2G16172 | MS FLNM : 2G16178
PREP WORK GRP : WG107022 | LCS DUP FILENAME : NA | MSD FLNM : 2G16179

ANALYTE	CONCENTRATION , ug / L									PERCENT RECOVERY , %										PERCENT		
	RDL	BLANK	LCS SPIKE ADDED	LCS	LCS DUP	SAMPLE	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS DUP	LCS LCL	LCS ULC	SAMPLE	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL
PRO (C8 - C40)	500	ND	3400	2508	NA	ND	3536	3262	2447	ND	73.8	NA	55	118	ND	92.3	69.2	41	101	NA	29	20
SURROGATE																						
o-TERPHENYL		15.1	20	22.1	NA	32.1 40	20	17.0	13.8	75.5	111	NA	49	174	80.3	84.8	68.8	49	174	NA	21	20

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP : WG107378
METHOD : 8015-PRO
MATRIX : WATER
CONCENTRATION UNITS : ug / l
PREP WORK GRP : WG107309

EXT DATE : 10-30-01
EXT BENCH SHEET : V174-P155
BLK FILENAME : 2G16244
LCS FILENAME : 2G16245
LCS DUP FILENAME : 2G16246

RUN DATE : 10-31-01
SMPL ID : NA
SMPL FLNM : NA
MS FLNM : NA
MSD FLNM : NA

INSTRUMENT : HP2
Analyst: HV

ANALYTE	CONCENTRATION , ug / L									PERCENT RECOVERY , %										PERCENT		
	RDL	BLANK	LCS SPIKE ADDED	LCS	LCS DUP	SAMPLE	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS DUP	LCS LCL	LCS ULC	SAMPLE	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL
PRO (C8 - C40)	500	ND	3400	2601	2655	NA	3400	NA	NA	NA	76.5	78.1	55	118	NA	NA	NA	41	101	2	NA	20
SURROGATE																						
o-TERPHENYL		21.8	20	23.2	21.2	NA	20	NA	NA	109	116	106	49	174	NA	NA	NA	49	174	9	NA	20

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

2.2.5.2 Sample Data

Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 29 Oct 2001 11:52 Operator: HV
Sample : L0110485-01 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Oct 29 14:24 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.82	267200	12.935 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	64.68%
3) s n-Nonatriacontane	7.48	229	0.024 ppm
Spiked Amount 20.000		Recovery =	0.12%
Target Compounds			
1) H Petroleum Range	3.59	12380557	745.924 ppb

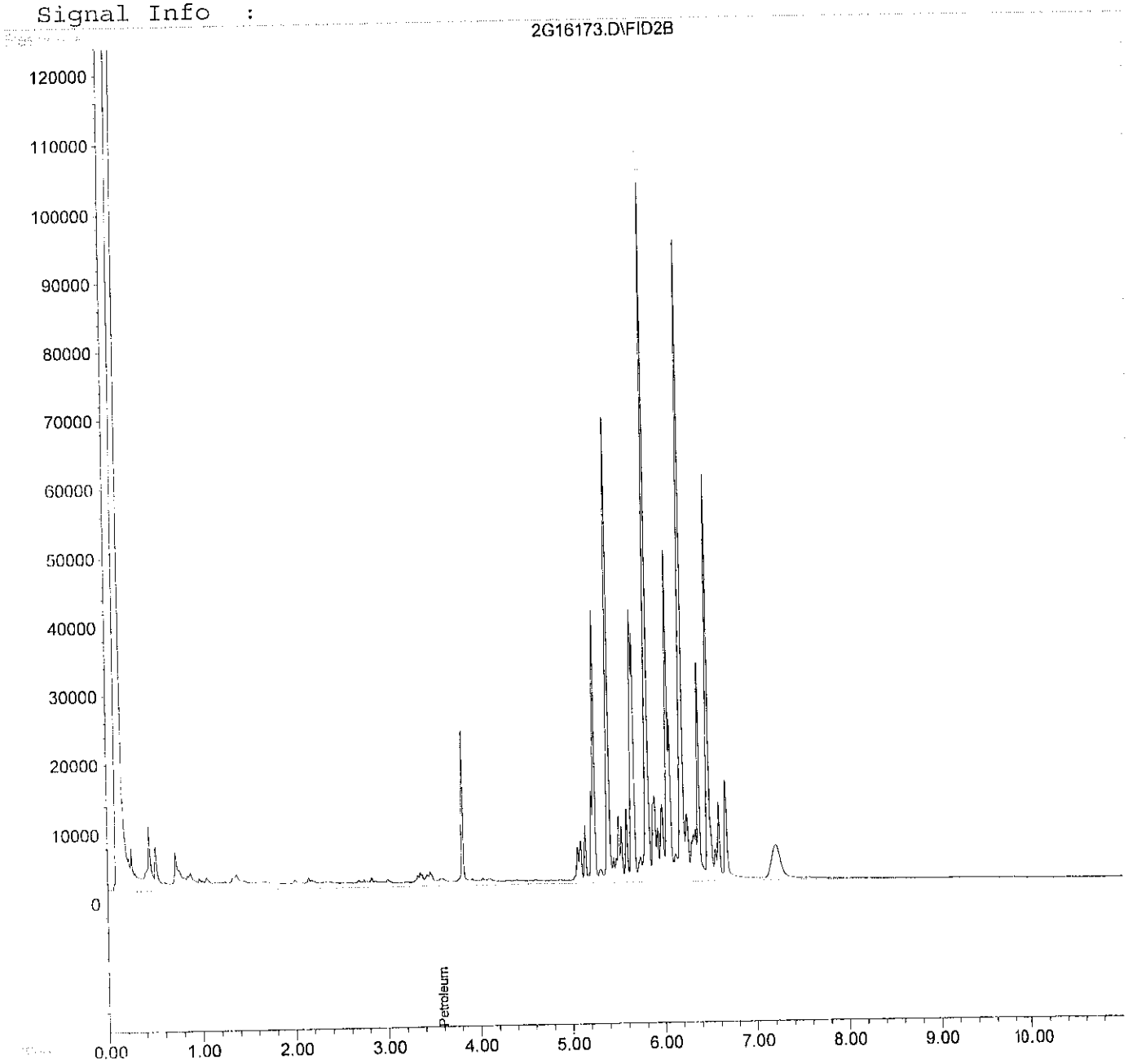
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\102901\2G16173.D
Acq On : 29 Oct 2001 11:52
Sample : L0110485-01 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Oct 29 14:24 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.04

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 29 Oct 2001 12:07 Operator: hv
Sample : L0110485-02 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Oct 29 14:24 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

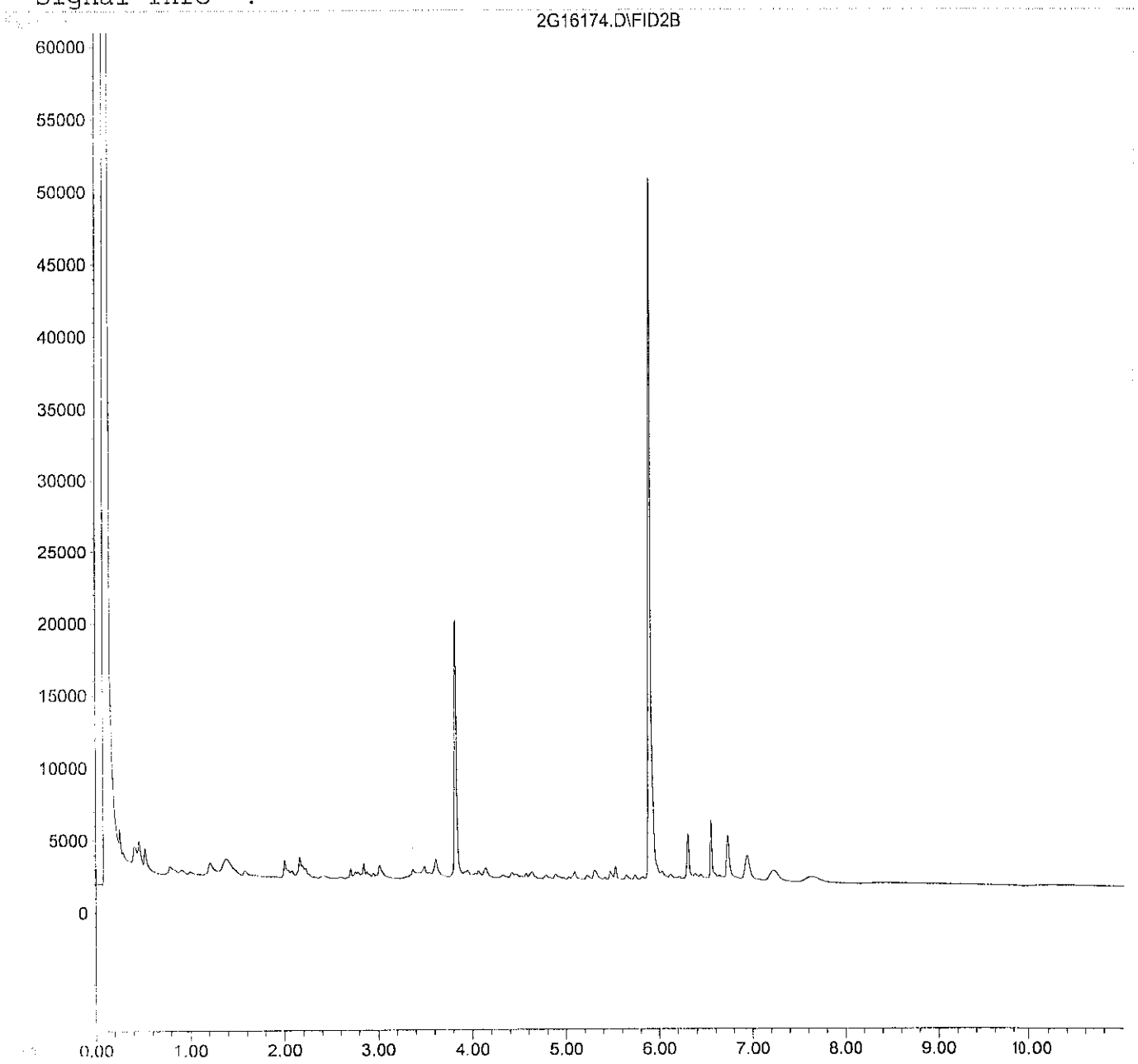
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	273585	13.244 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	66.22%
3) s n-Nonatriacontane	7.48	338	0.036 ppm
Spiked Amount 20.000		Recovery =	0.18%
Target Compounds			
1) H Petroleum Range	3.59	2442203	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16174.D FLASHPRO.M Mon Oct 29 14:24:18 2001 Page 1

Acq On : 29 Oct 2001 12:07 Operator: HV
Sample : L0110485-02 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Oct 29 14:24 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data Path : C:\HPCHEM\1\DATA\2G16175\ Vial: 7

Acq On : 29 Oct 2001 12:22 Operator: HV
Sample : L0110485-03 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.07
IntFile : PETRO.E
Quant Time: Oct 29 14:24 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

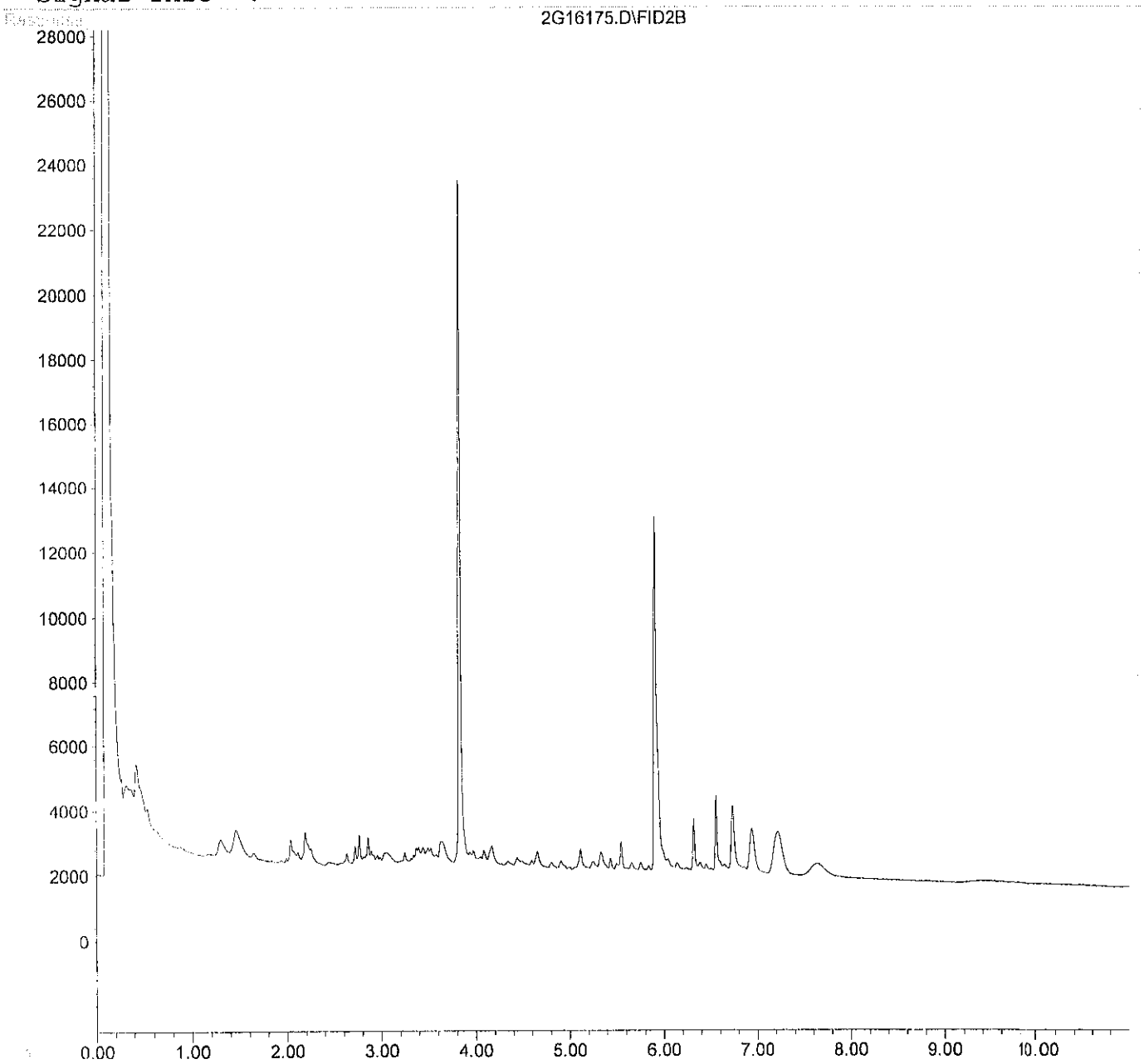
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	350921	16.987 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	84.93%
3) s n-Nonatriacontane	7.47	659	0.069 ppm
Spiked Amount 20.000		Recovery =	0.35%
Target Compounds			
1) H Petroleum Range	3.59	1449876	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 29 Oct 2001 12:22 Operator: HV
Sample : L0110485-03 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.07
IntFile : PETRO.E
Quant Time: Oct 29 14:24 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\[illegible]\[illegible] Vial: [illegible]
Acq On : 29 Oct 2001 12:37 Operator: HV
Sample : L0110485-04 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.06
IntFile : PETRO.E
Quant Time: Oct 29 14:24 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

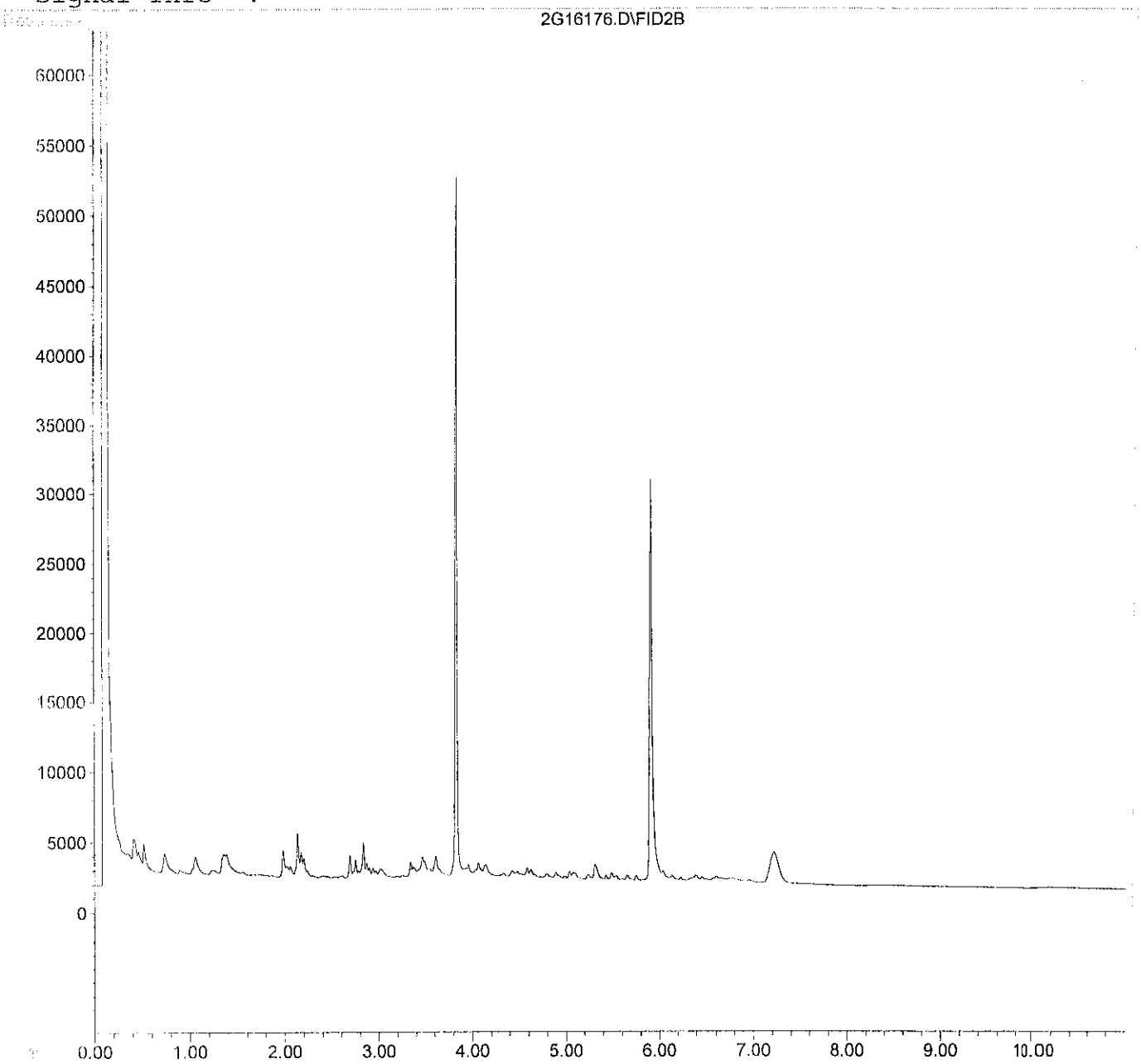
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	663414	32.115 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	160.58% 80.3%
3) s n-Nonatriacontane	7.52	105	0.011 ppm
Spiked Amount 20.000		Recovery =	0.05%
Target Compounds			
1) H Petroleum Range	3.59	1944418	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16176.D FLASHPRO.M Mon Oct 29 14:24:42 2001 Page 1

Acq On : 29 Oct 2001 12:37 Operator: HV
Sample : L0110485-04 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.06
IntFile : PETRO.E
Quant Time: Oct 29 14:24 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



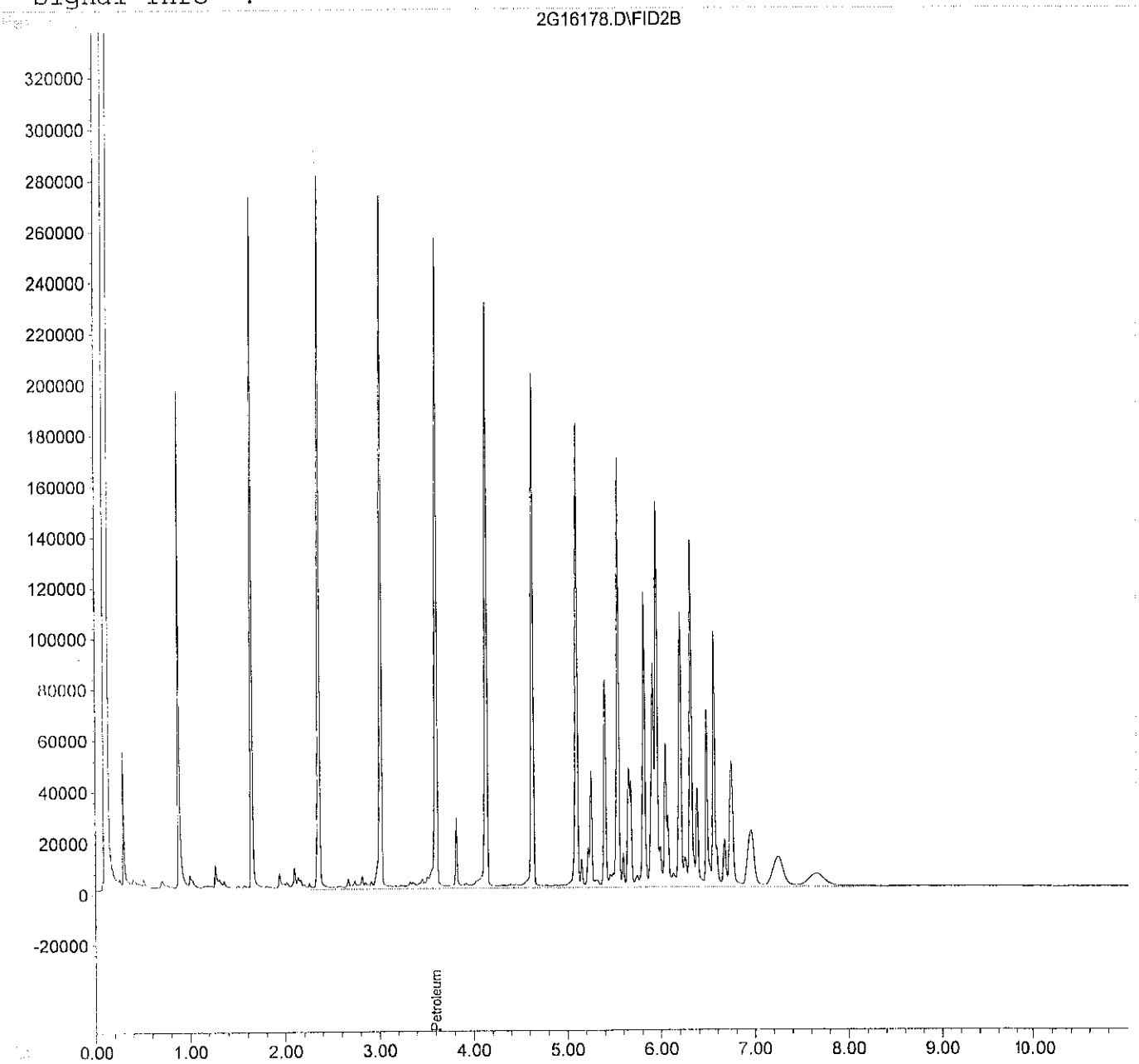
```
Acq On      : 29 Oct 2001  13:11                          Operator: HV
Sample      : L0110485-05 MS NPRO water                   Inst    : hp2
Misc        : 1,1  water                                  Multiplr: 1.04
IntFile     : PETRO.E
Quant Time: Oct 29 14:26 2001  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 10/26/01
Last Update  : Mon Oct 29 11:18:10 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
---------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                    3.82         350311   16.958 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    =   84.79%
 3) s   n-Nonatriacontane              0.00              0    N.D.  ppm
Spiked Amount   20.000                    Recovery       =    0.00%

  Target Compounds
 1) H   Petroleum Range                3.59       54144260 3262.173 ppb
```

Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 29 Oct 2001 13:11 Operator: HV
Sample : L0110485-05 MS NPRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Oct 29 14:26 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 29 Oct 2001 13:26 Operator: HV
Sample : L0110485-06 MSD PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Oct 29 14:27 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

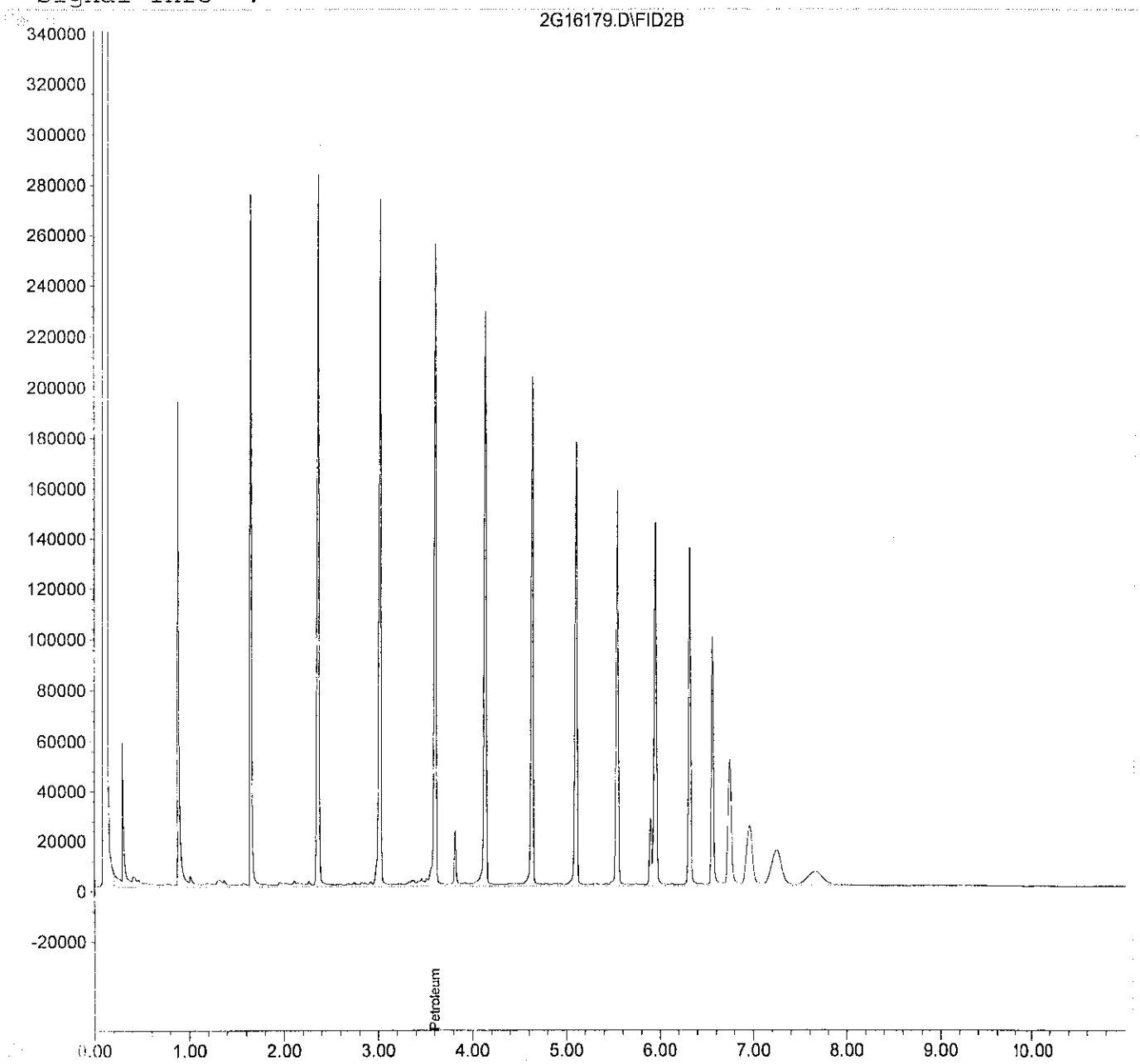
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.82	284209	13.758 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	68.79%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.59	40224998	2446.845 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16179.D FLASHPRO.M Mon Oct 29 14:27:12 2001 Page 1

Acq On : 29 Oct 2001 13:26 Operator: HV
Sample : L0110485-06 MSD PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Oct 29 14:27 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 29 Oct 2001 13:41 Operator: HV
Sample : L0110485-07 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 29 14:28 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

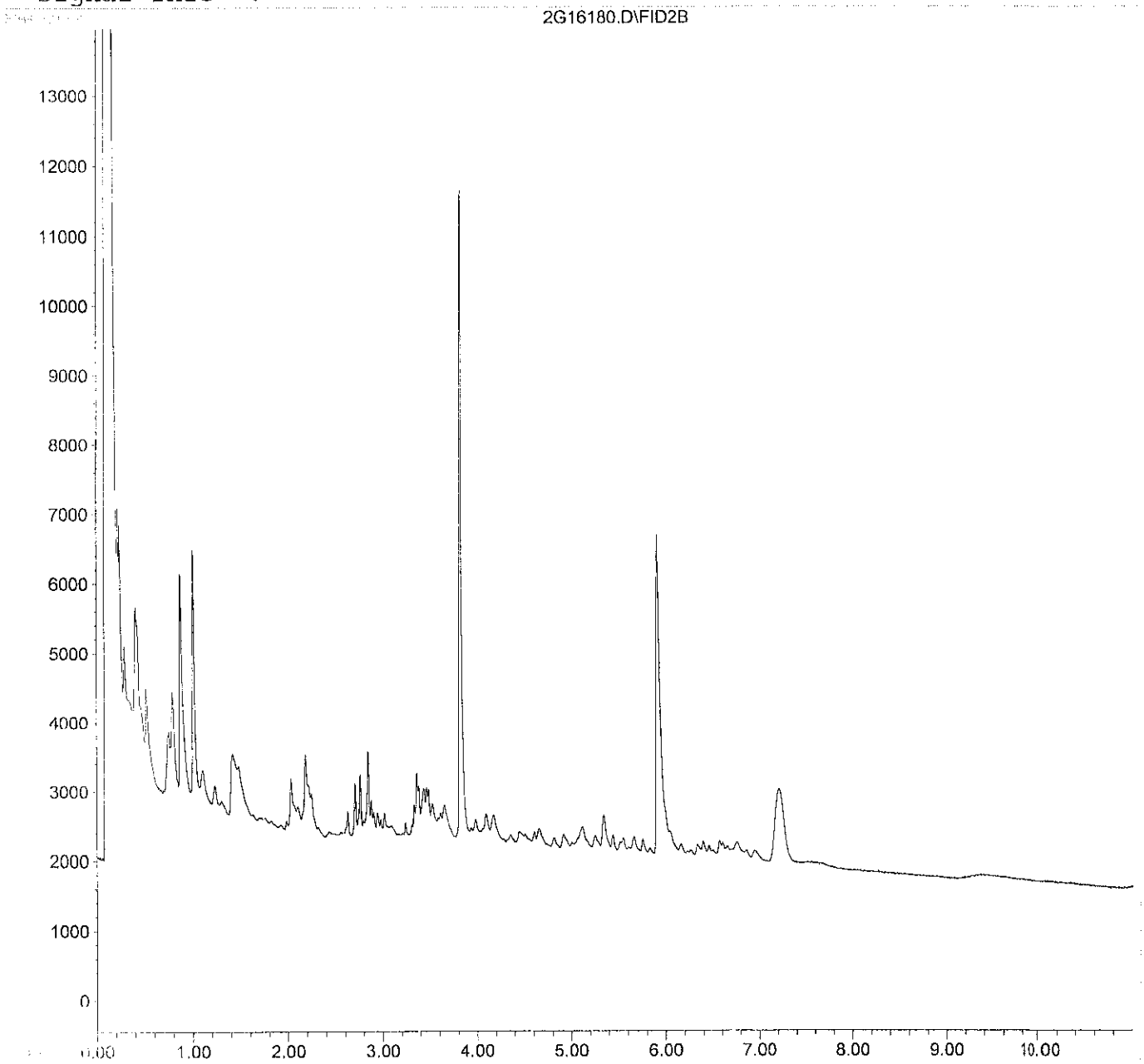
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.82	160514	7.770 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	38.85%#
3) s n-Nonatriacontane	7.48	630	0.066 ppm
Spiked Amount 20.000		Recovery =	0.33%
Target Compounds			
1) H Petroleum Range	3.59	1383680	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16180.D FLASHPRO.M Mon Oct 29 14:28:11 2001 Page 1

Acq On : 29 Oct 2001 13:41 Operator: HV
Sample : L0110485-07 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 29 14:28 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 31 Oct 2001 10:54 Operator: HV
Sample : L0110485-07 PRO water RE Inst : hp2
Misc : 1,1 V174-P155 Multiplr: 1.06
IntFile : PETRO.E
Quant Time: Oct 31 11:06 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Wed Oct 31 09:25:20 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.86	339198	16.420 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		82.10%
3) s n-Nonatriacontane	7.56	47	0.005 ppm
Spiked Amount 20.000	Recovery =		0.03%
Target Compounds			
1) H Petroleum Range	3.58	2327685	<MDL ppb

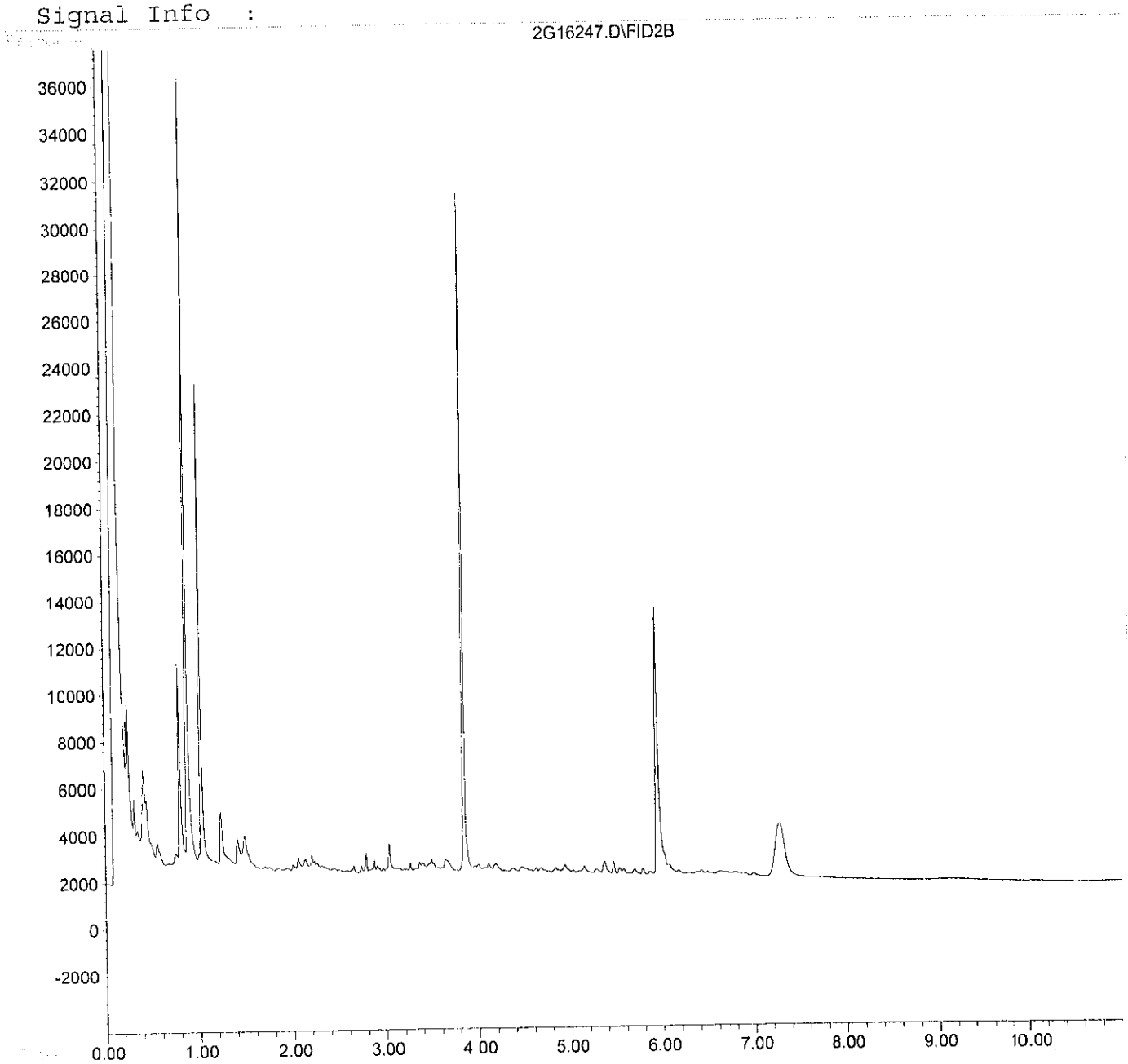
(f)=RT Delta > 1/2 Window (m)=manual int.
2G16247.D FLASHPRO.M Wed Oct 31 11:06:54 2001 Page 1

Acq On : 31 Oct 2001 10:54
Sample : L0110485-07 PRO water RE
Misc : 1,1 V174-P155
IntFile : PETRO.E
Quant Time: Oct 31 11:06 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.06

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Wed Oct 31 09:25:20 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 29 Oct 2001 13:56 Operator: HV
Sample : L0110485-08 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.07
IntFile : PETRO.E
Quant Time: Oct 29 14:28 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Initial Calibration
DatAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	116974	5.662 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 28.31%#			
3) s n-Nonatriacontane	7.49	119	0.012 ppm
Spiked Amount 20.000 Recovery = 0.06%			
Target Compounds			
1) H Petroleum Range	3.59	1859148	<MDL ppb

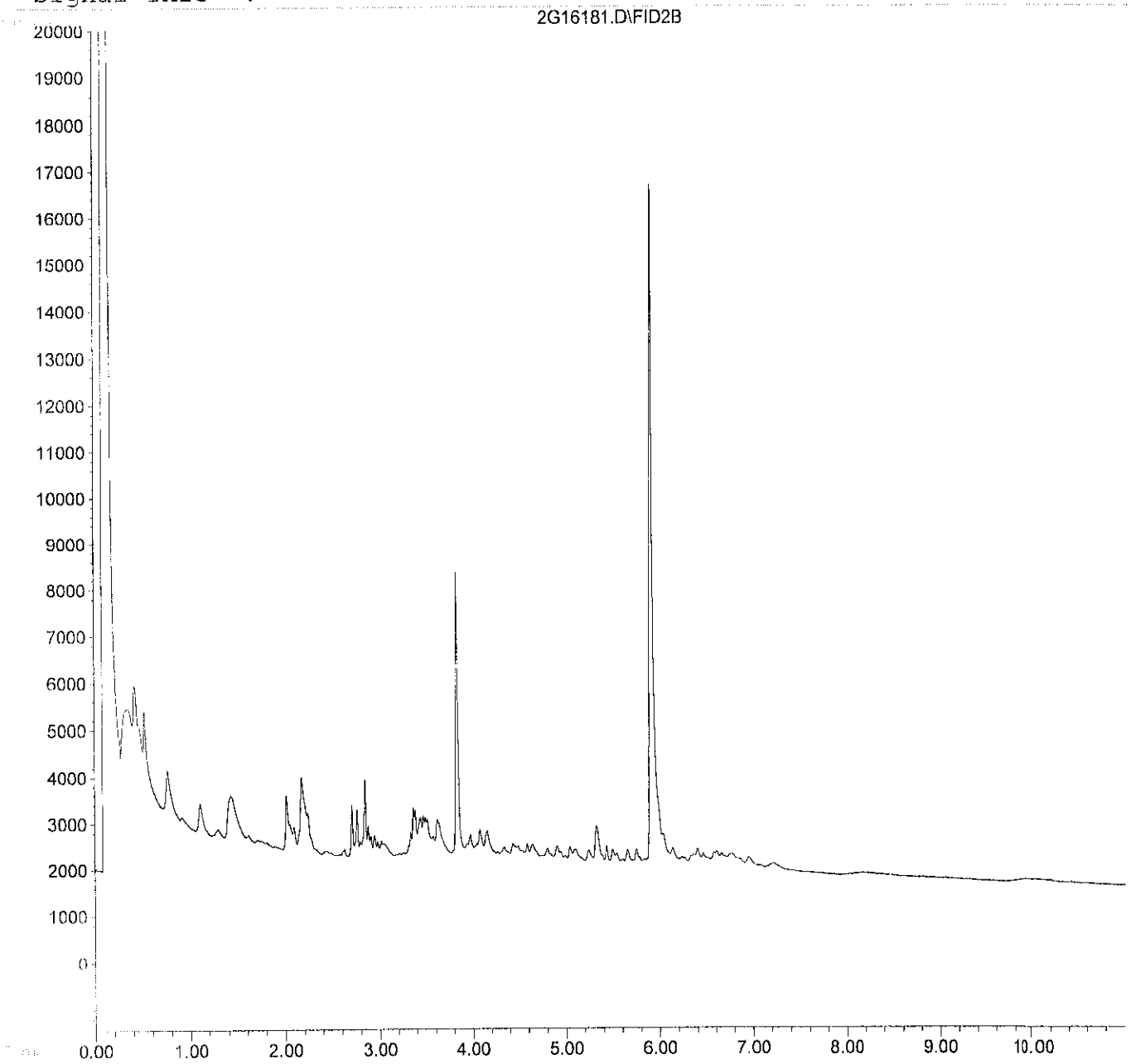
RE

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16181.D FLASHPRO.M Mon Oct 29 14:28:40 2001 Page 1

Acq On : 29 Oct 2001 13:56 Operator: HV
Sample : L0110485-08 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.07
IntFile : PETRO.E
Quant Time: Oct 29 14:28 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 31 Oct 2001 11:10 Operator: HV
Sample : L0110485-08 PRO water RE Inst : hp2
Misc : 1,1 V174-P155 Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Oct 31 11:25 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Wed Oct 31 09:25:20 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

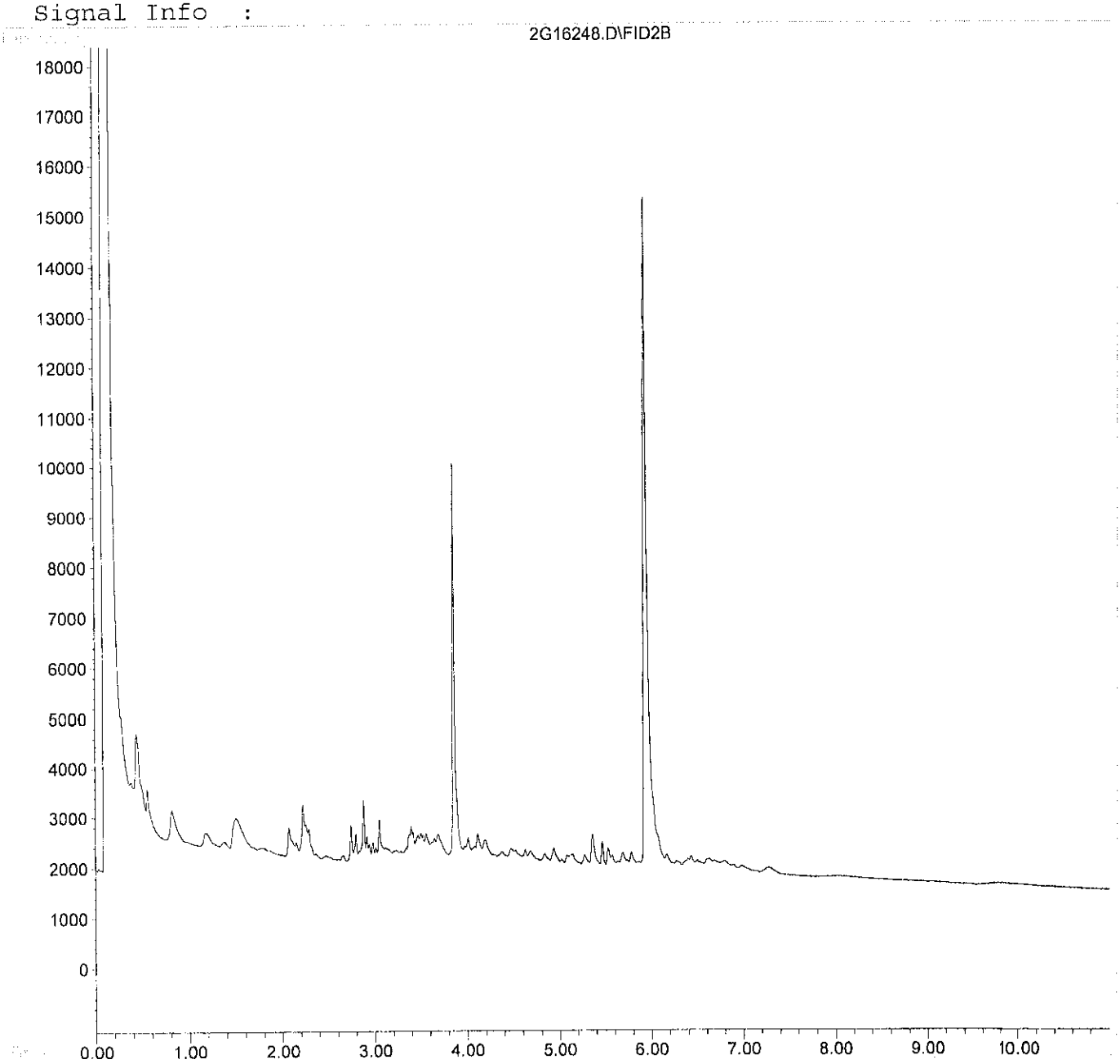
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.86	136201	6.593 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		32.97%#
3) s n-Nonatriacontane	7.56	124	0.013 ppm
Spiked Amount 20.000	Recovery =		0.07%
Target Compounds			
1) H Petroleum Range	3.58	1395312	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16248.D FLASHPRO.M Wed Oct 31 11:25:24 2001 Page 1

Acq On : 31 Oct 2001 11:10 Operator: HV
Sample : L0110485-08 PRO water RE Inst : hp2
Misc : 1,1 V174-P155 Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Oct 31 11:25 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Wed Oct 31 09:25:20 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 29 Oct 2001 14:12
Sample : L0110485-09 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Oct 29 14:29 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.05

Quant method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

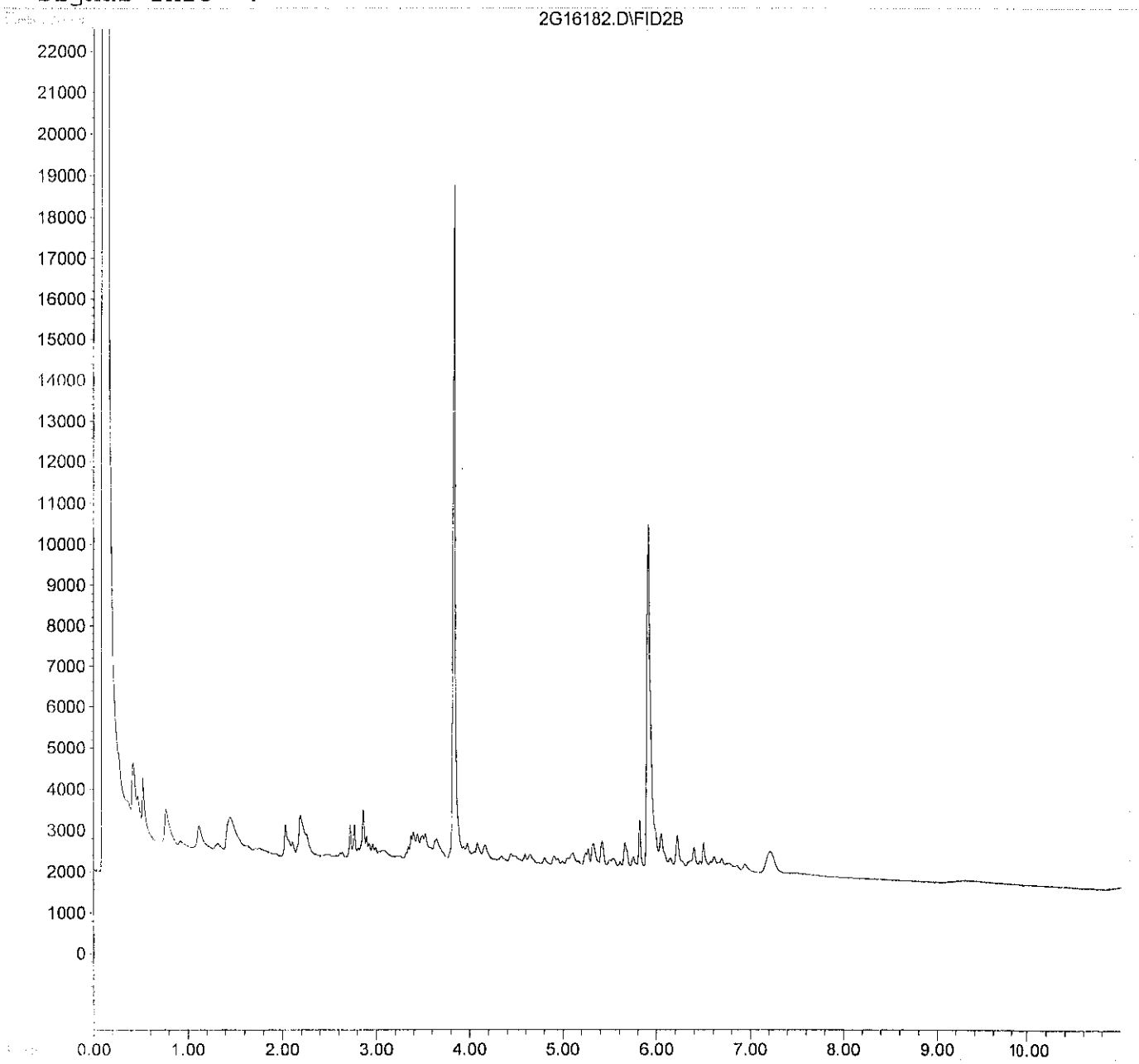
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	281890	13.646 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		68.23%
3) s n-Nonatriacontane	7.48	1550	0.163 ppm
Spiked Amount 20.000	Recovery =		0.82%
Target Compounds			
1) H Petroleum Range	3.59	1145079	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16182.D FLASHPRO.M Mon Oct 29 14:29:08 2001 Page 1

Acq On : 29 Oct 2001 14:12 Operator: HV
Sample : L0110485-09 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Oct 29 14:29 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2.2.5.3 Standards Data

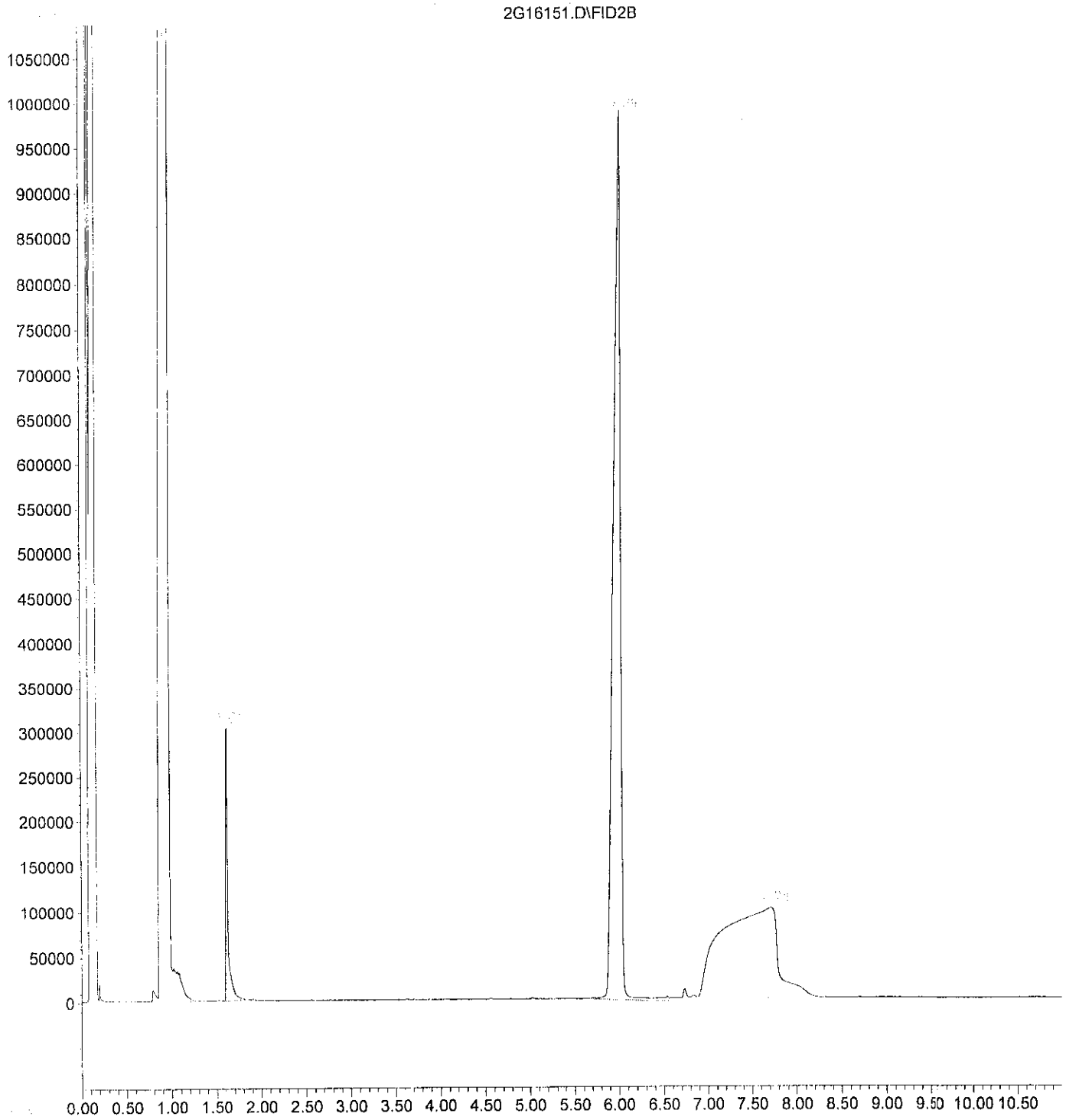
Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Fri Sep 28 14:40:54 2001

Calibration Files
5 =2G16158.D 50 =2G16157.D 100 =2G16156.D
200 =2G16155.D 400 =2G16154.D 600 =2G16153.D

		Compound	5	50	100	200	400	600	Avg	%RSD
1)	H	Petroleum Range	1.653	1.947	1.874	1.761	1.571	1.550	1.726 E4	9.42
2)	s	O-Terphenyl	2.298	2.364	2.214	2.053	1.744	1.720	2.066 E4	13.49
3)	s	n-Nonatriacontane	1.020	1.003	0.959	1.044	0.799	0.871	0.949 E4	10.07

(#) = Out of Range

File : C:\HPCHEM\1\DATA\102601\2G16151.D
Operator : HV
Acquired : 26 Oct 2001 9:10 using AcqMethod FLASHPRO.M
Instrument : hp2
Sample Name: WIN DEF STD
Misc Info : 1,1 NS 13-45
Vial Number: 2



```
Acq On     : 26 Oct 2001  10:11                          Operator: HV
Sample     : WG107152-01 PRO STD 600ppm                  Inst     : hp2
Misc       : 1,1  SOS 56-21                              Multiplr: 1.00
IntFile    : PETRO.E
Quant Time: Oct 26 11:39 2001  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 10/25/01
Last Update  : Fri Oct 26 09:10:34 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                        R.T.       Response    Conc Units
---------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                  3.82       10320196  504.971 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    = 2524.86%#
 3) s   n-Nonatriacontane            7.44f       5223993  660.011 ppm  m
Spiked Amount   20.000                   Recovery       = 3300.06%

  Target Compounds
 1) H   Petroleum Range              3.59      158124863 9681.982 ppb
```

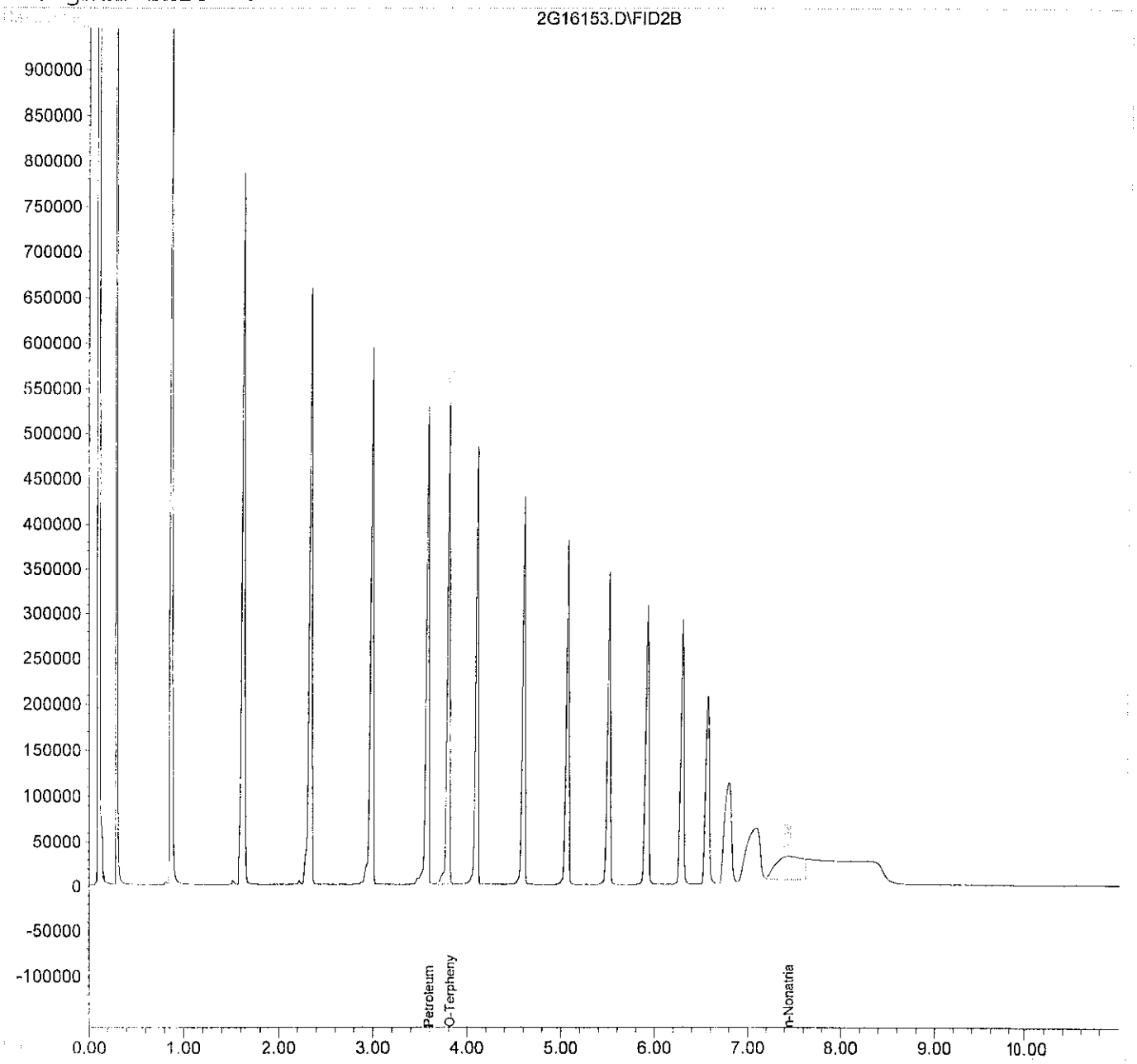
(f)=RT Delta > 1/2 Window (m)=manual int.

2G16153.D FLASHPRO.M Fri Oct 26 11:48:21 2001 Page 1

Acq On : 26 Oct 2001 10:11 Operator: HV
Sample : WG107152-01 PRO STD 600ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 11:39 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri Oct 26 09:10:34 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

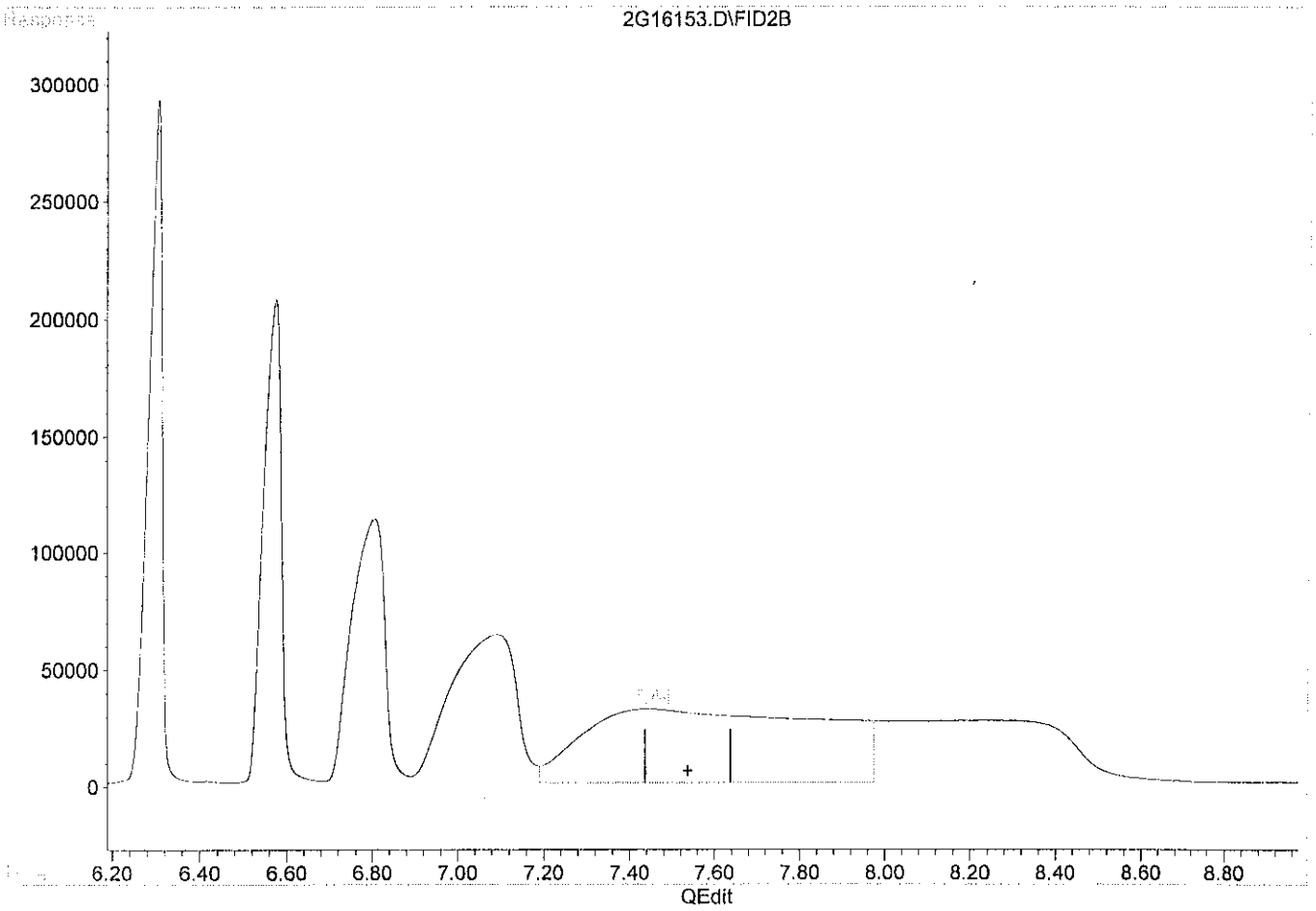
Volume Inj. :
Signal Phase :
Signal Info :



2G16153.D FLASHPRO.M Fri Oct 26 11:48:22 2001 Page 2

Data File : C:\HPCHEM\1\DATA\261001\2G16153.D Vial: 1
Acq On : 26 Oct 2001 10:11 Operator: HV
Sample : WG107152-01 PRO STD 600ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 10:56 2001 Quant Results File: FLASHPRO.RES

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration



(3) n-Nonatriacontane (s)

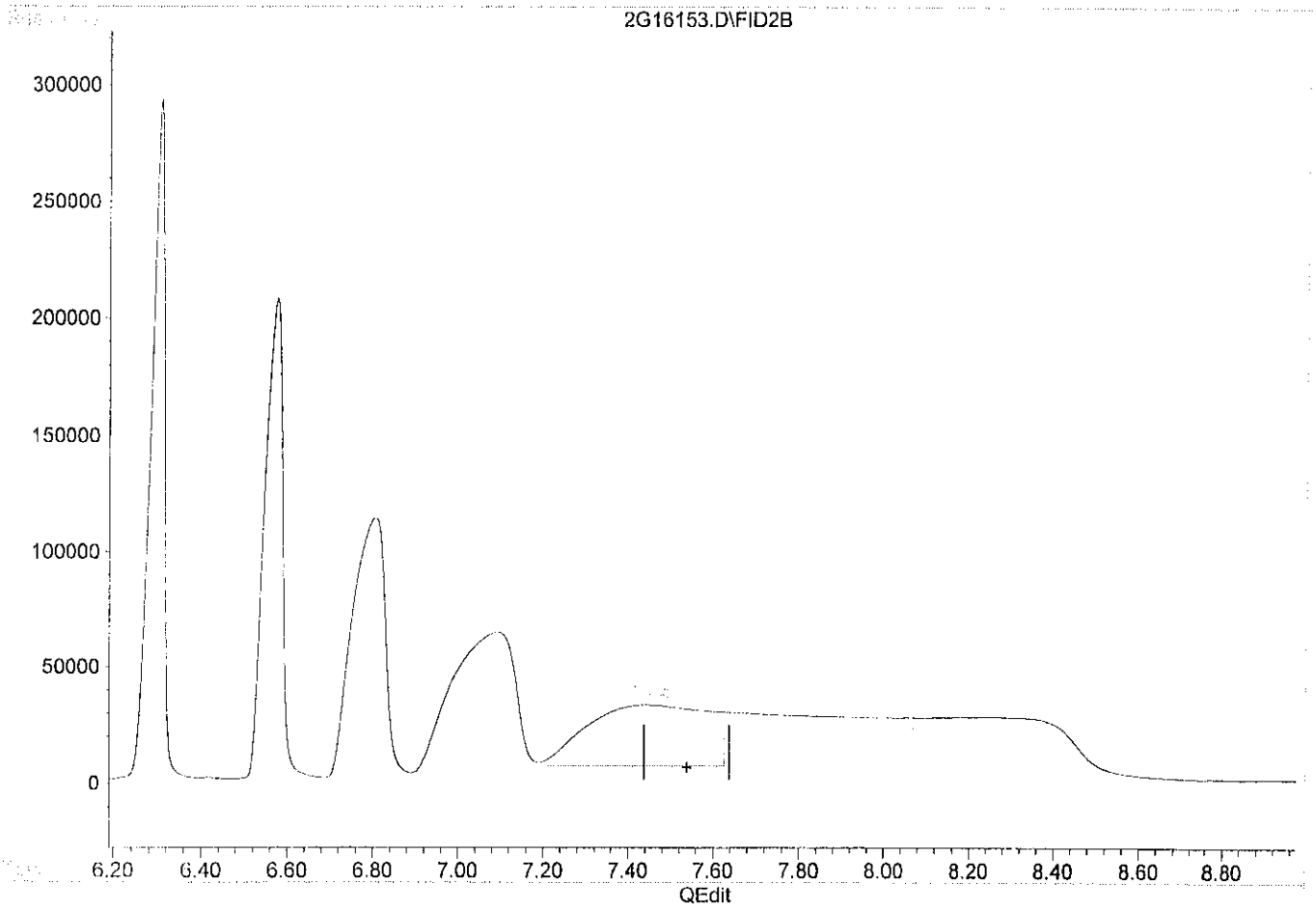
7.44min 1575.896ppm

response 12473230

(+) = Expected Retention Time
2G16153.D FLASHPRO.M Fri Oct 26 11:39:23 2001

Data File : C:\HPCHEM\1\DATA\102601\2G16153.D Vial: 4
Acq On : 26 Oct 2001 10:11 Operator: HV
Sample : WG107152-01 PRO STD 600ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 10:56 2001 Quant Results File: FLASHPRO.RES

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration



(3) n-Nonatriacontane (s)

7.44min 660.011ppm m

response 5223993

(+) = Expected Retention Time
2G16153.D FLASHPRO.M Fri Oct 26 11:39:52 2001

```
Acq On     : 26 Oct 2001  10:27                          Operator: HV
Sample     : WG107152-02 PRO STD 400ppm                  Inst     : hp2
Misc       : 1,1  SOS 56-21                              Multiplr: 1.00
IntFile    : PETRO.E
Quant Time: Oct 26 11:40 2001  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 10/25/01
Last Update  : Fri Oct 26 10:57:36 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
---------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                    3.81        6976551  341.365 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    = 1706.83%#
 3) s   n-Nonatriacontane              7.62f       3195608  403.740 ppm  m
Spiked Amount   20.000                    Recovery       = 2018.70%

  Target Compounds
 1) H   Petroleum Range                3.59      106859249 6542.990 ppb
```

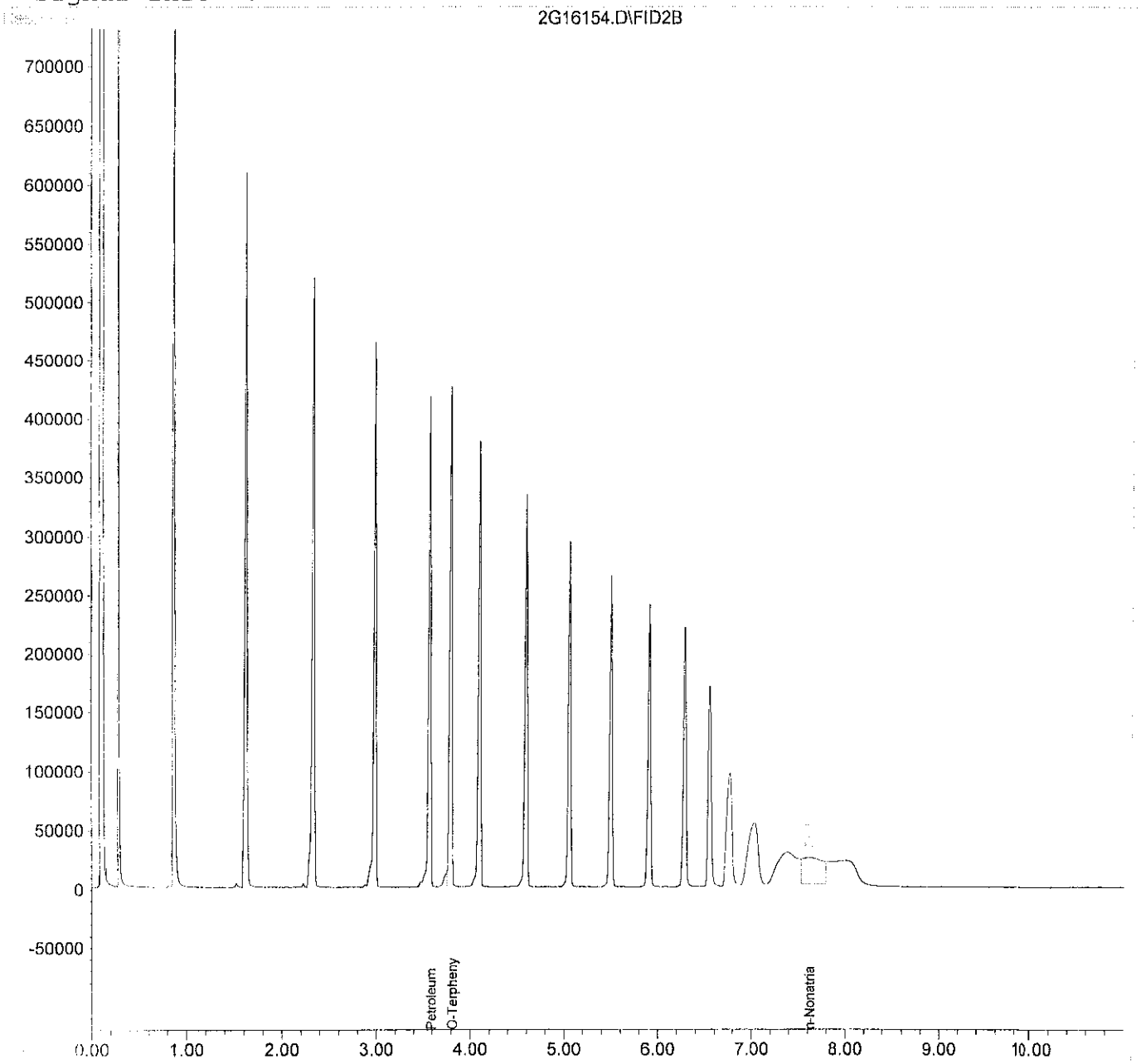
(f)=RT Delta > 1/2 Window (m)=manual int.

2G16154.D FLASHPRO.M Fri Oct 26 11:49:00 2001 Page 1

Data File : C:\HPCHEM\1\DATA\102601\2G16154.D Vial: 5
Acq On : 26 Oct 2001 10:27 Operator: HV
Sample : WG107152-02 PRO STD 400ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 11:40 2001 Quant Results File: FLASHPRO.RES

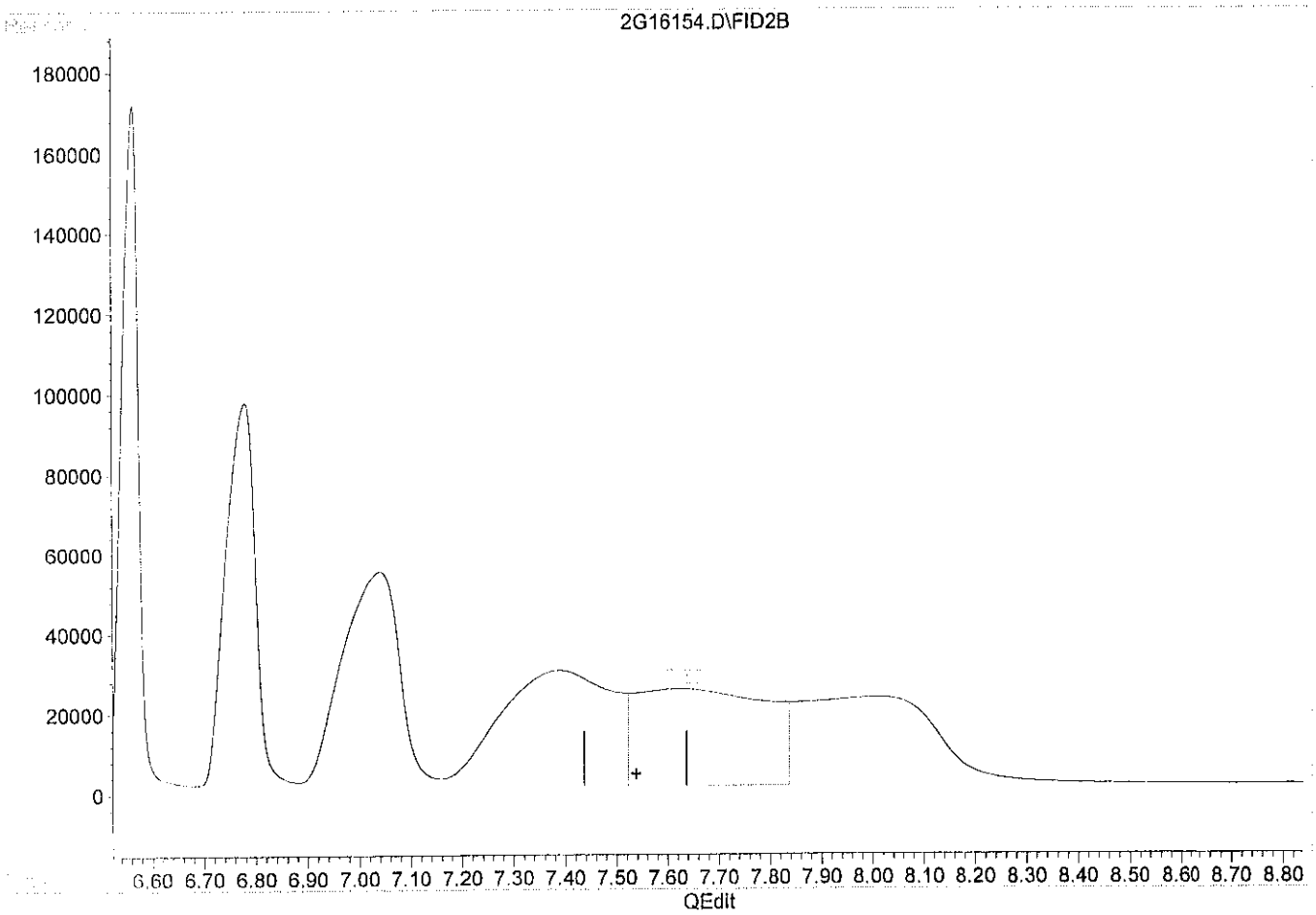
Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri Oct 26 10:57:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 26 Oct 2001 10:27 Operator: HV
Sample : WG107152-02 PRO STD 400ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 11:40 2001 Quant Results File: FLASHPRO.RES

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration



(3) n-Nonatriacontane (s)

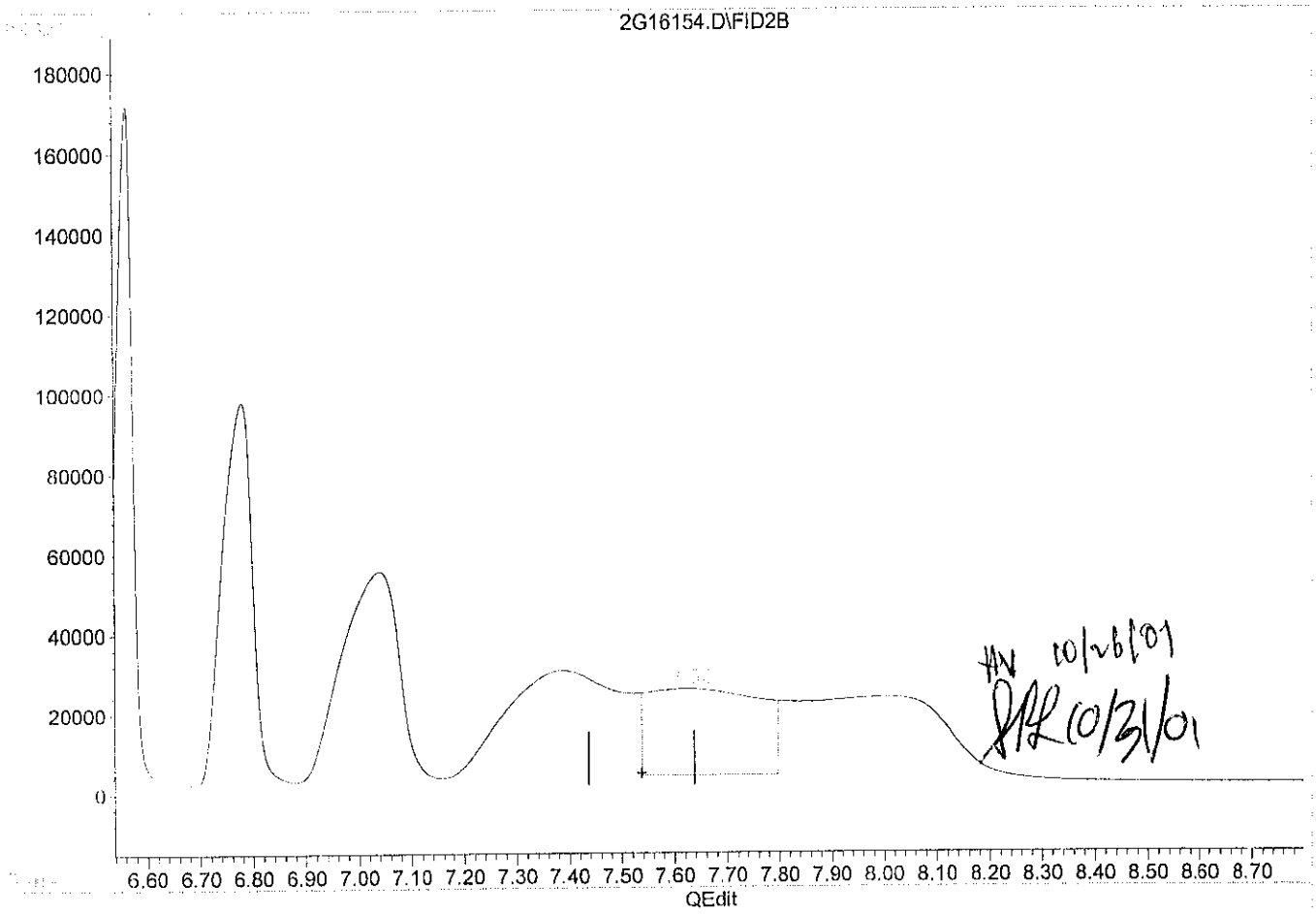
7.63min 539.924ppm

response 4273503

(+) = Expected Retention Time
2G16154.D FLASHPRO.M Fri Oct 26 11:40:29 2001

Data File : C:\HPCHEM\1\DATA\102601\2G16154.D
Acq On : 26 Oct 2001 10:27 Operator: HV
Sample : WG107152-02 PRO STD 400ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 11:40 2001 Quant Results File: FLASHPRO.RES

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration



(3) n-Nonatriacontane (s)

7.62min 403.740ppm m

response 3195608

(+) = Expected Retention Time
2G16154.D FLASHPRO.M Tue Oct 30 12:29:59 2001

Data File : C:\HPCHEM\1\DATA\[illegible]\[illegible] Vial: [illegible]
Acq On : 26 Oct 2001 10:42 Operator: HV
Sample : WG107152-03 PRO STD 200ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 10:57 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri Oct 26 10:57:36 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

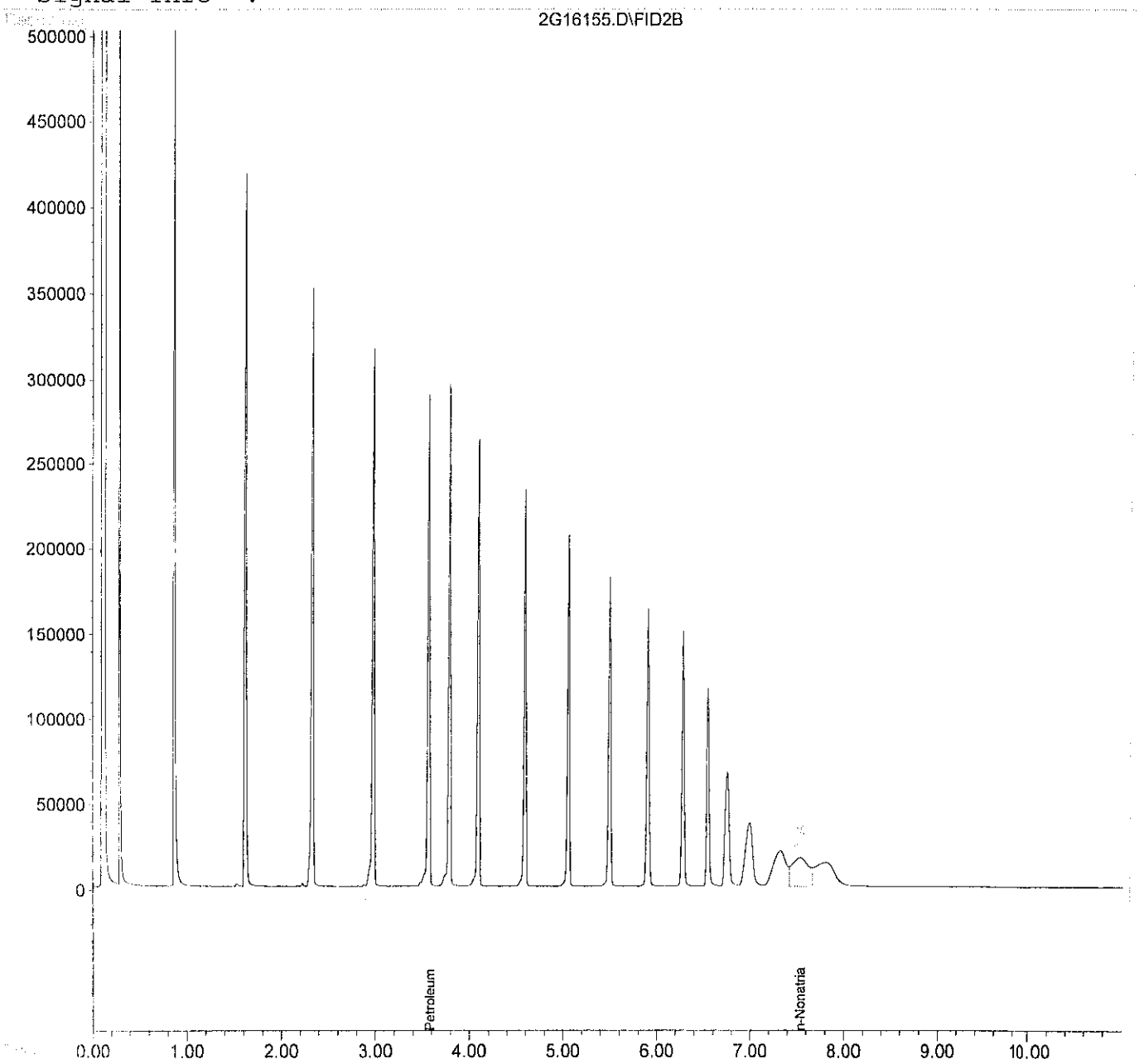
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.80	4106952	200.954 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 1004.77%#			
3) s n-Nonatriacontane	7.54	2087199	263.701 ppm
Spiked Amount 20.000 Recovery = 1318.51%			
Target Compounds			
1) H Petroleum Range	3.59	59874757	3666.130 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16155.D FLASHPRO.M Fri Oct 26 11:49:17 2001 Page 1

Acq On : 26 Oct 2001 10:42 Operator: HV
Sample : WG107152-03 PRO STD 200ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 10:57 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri Oct 26 10:57:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 26 Oct 2001 10:58 Operator: HV
Sample : WG107152-04 PRO STD 100ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 11:38 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri Oct 26 10:57:36 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

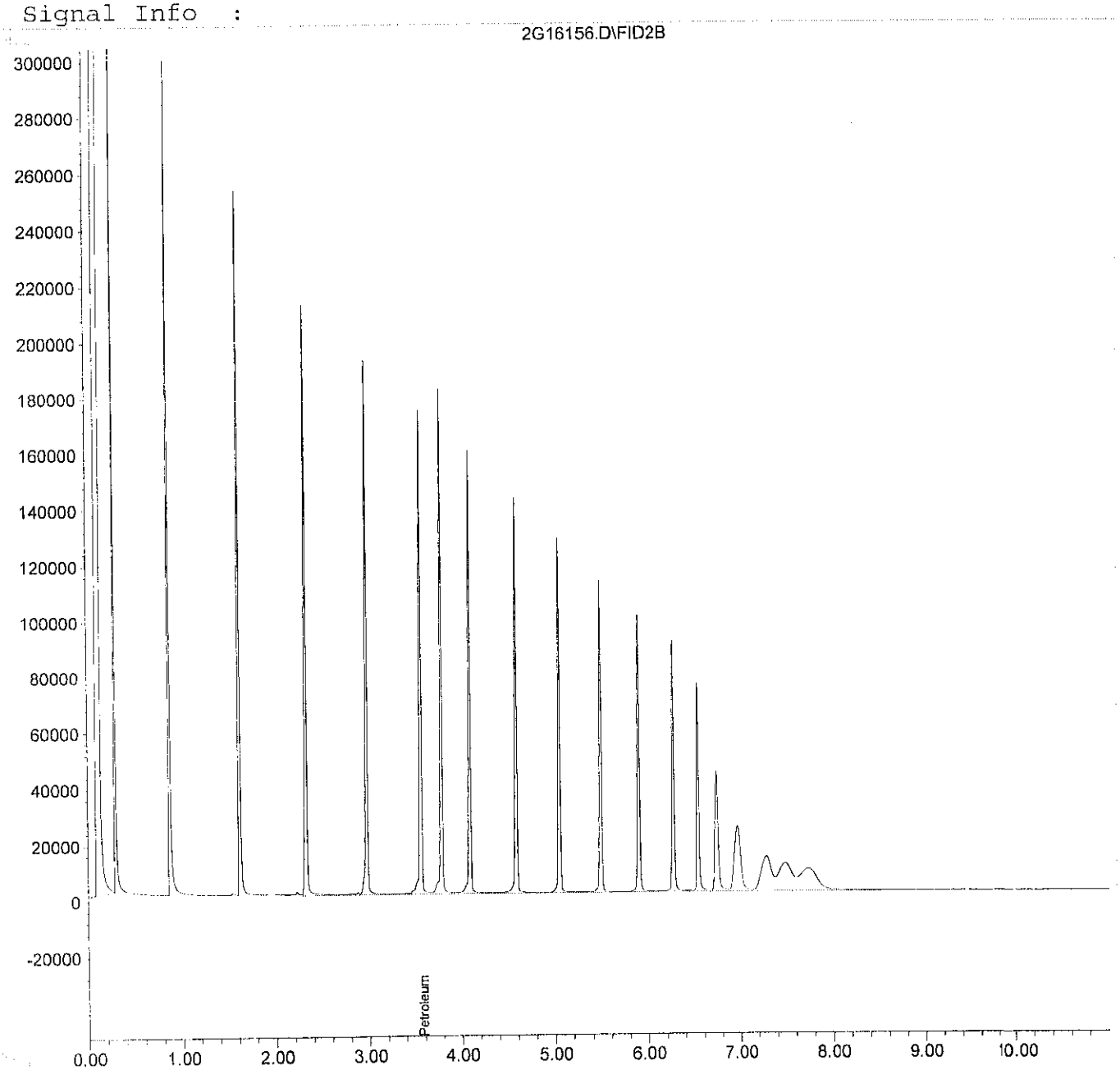
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.79	2214255	108.344 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 541.72%#			
3) s n-Nonatriacontane	7.49	959014	121.164 ppm
Spiked Amount 20.000 Recovery = 605.82%			
Target Compounds			
1) H Petroleum Range	3.59	31862334	1950.930 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\102601\2G16156.D
Acq On : 26 Oct 2001 10:58 Operator: HV
Sample : WG107152-04 PRO STD 100ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 11:38 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri Oct 26 10:57:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\102601\2G16157.D Vial: 6
Acq On : 26 Oct 2001 11:13 Operator: HV
Sample : WG107152-05 PRO STD 50ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 11:38 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri Oct 26 10:57:36 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.78	1182236	57.847 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	289.24%#
3) s n-Nonatriacontane	7.46f	501652	63.380 ppm
Spiked Amount 20.000		Recovery =	316.90%
Target Compounds			
1) H Petroleum Range	3.59	16548104	1013.240 ppb

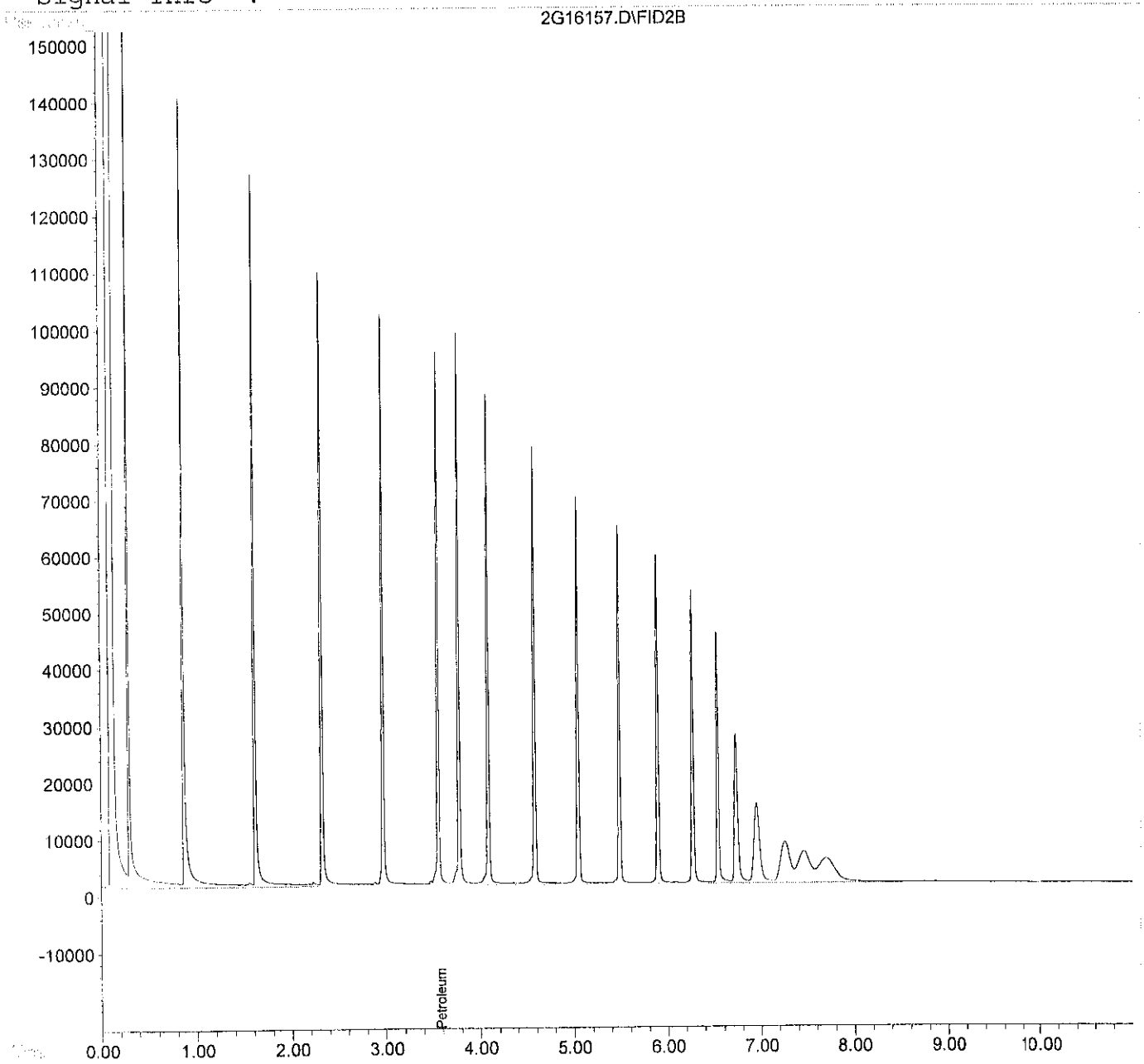
(f)=RT Delta > 1/2 Window (m)=manual int.
2G16157.D FLASHPRO.M Fri Oct 26 11:49:49 2001 Page 1

Data File : C:\HPCHEM\1\DATA\102601\2G16157.D

Acq On : 26 Oct 2001 11:13 Operator: HV
Sample : WG107152-05 PRO STD 50ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 11:38 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri Oct 26 10:57:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\102601\2G16158.D Vial: 5
Acq On : 26 Oct 2001 11:29 Operator: HV
Sample : WG107152-06 PRO STD 5ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 11:40 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri Oct 26 10:57:36 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

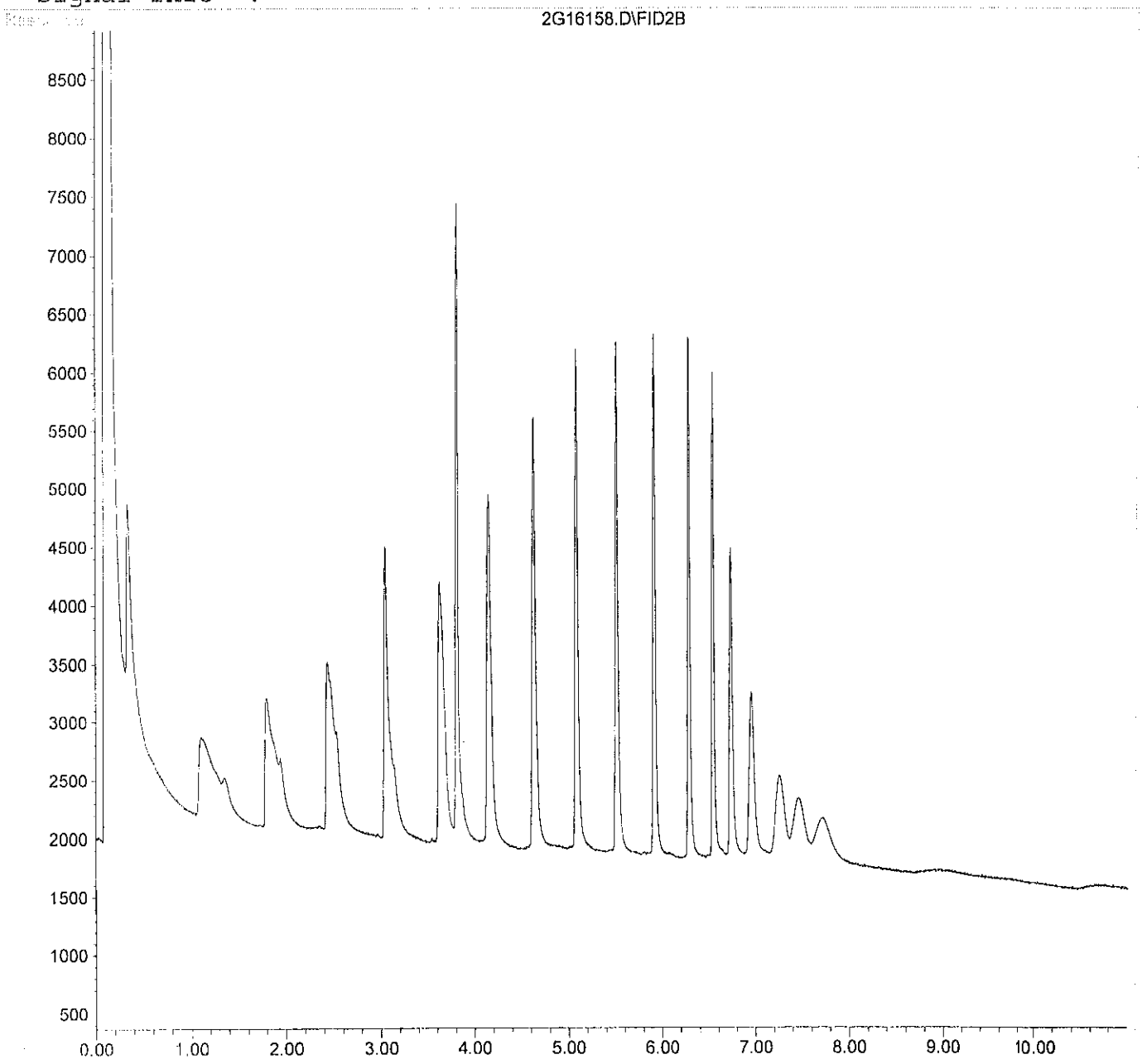
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.81	114914	5.623 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		28.12%#
3) s n-Nonatriacontane	7.47f	51001	6.444 ppm
Spiked Amount 20.000	Recovery =		32.22%
Target Compounds			
1) H Petroleum Range	3.59	1405127	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16158.D FLASHPRO.M Fri Oct 26 11:59:42 2001 Page 1

Data File : C:\HPCHEM\1\DATA\102601\2G16158.D Vial: 5
Acq On : 26 Oct 2001 11:29 Operator: HV
Sample : WG107152-06 PRO STD 5ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 11:40 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri Oct 26 10:57:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 26 Oct 2001 12:02 Operator: HV
Sample : WG107152-07 ALT PRO @200ppm Inst : hp2
Misc : 1,1 SOS 56-26 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3419.061	-0.6	99	0.00
2	s	O-Terphenyl	200.000	1.673	99.2#	1	0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16159.D FLASHPRO.M Fri Oct 26 12:34:03 2001 Page 1

Acq On : 26 Oct 2001 12:02 Operator: HV
Sample : WG107152-07 ALT PRO @200ppm Inst : hp2
Misc : 1,1 SOS 56-26 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
3 s	n-Nonatriacontane	200.000	0.000	100.0#	0	-7.54#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 26 Oct 2001 12:02 Operator: HV
Sample : WG107152-07 ALT PRO @200ppm Inst : hp2
Misc : 1,1 SOS 56-26 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 12:14 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Fri Oct 26 10:57:36 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	34552	1.673 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		8.37%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000	Recovery =		0.00%
Target Compounds			
1) H Petroleum Range	3.59	59018165	3419.061 ppb

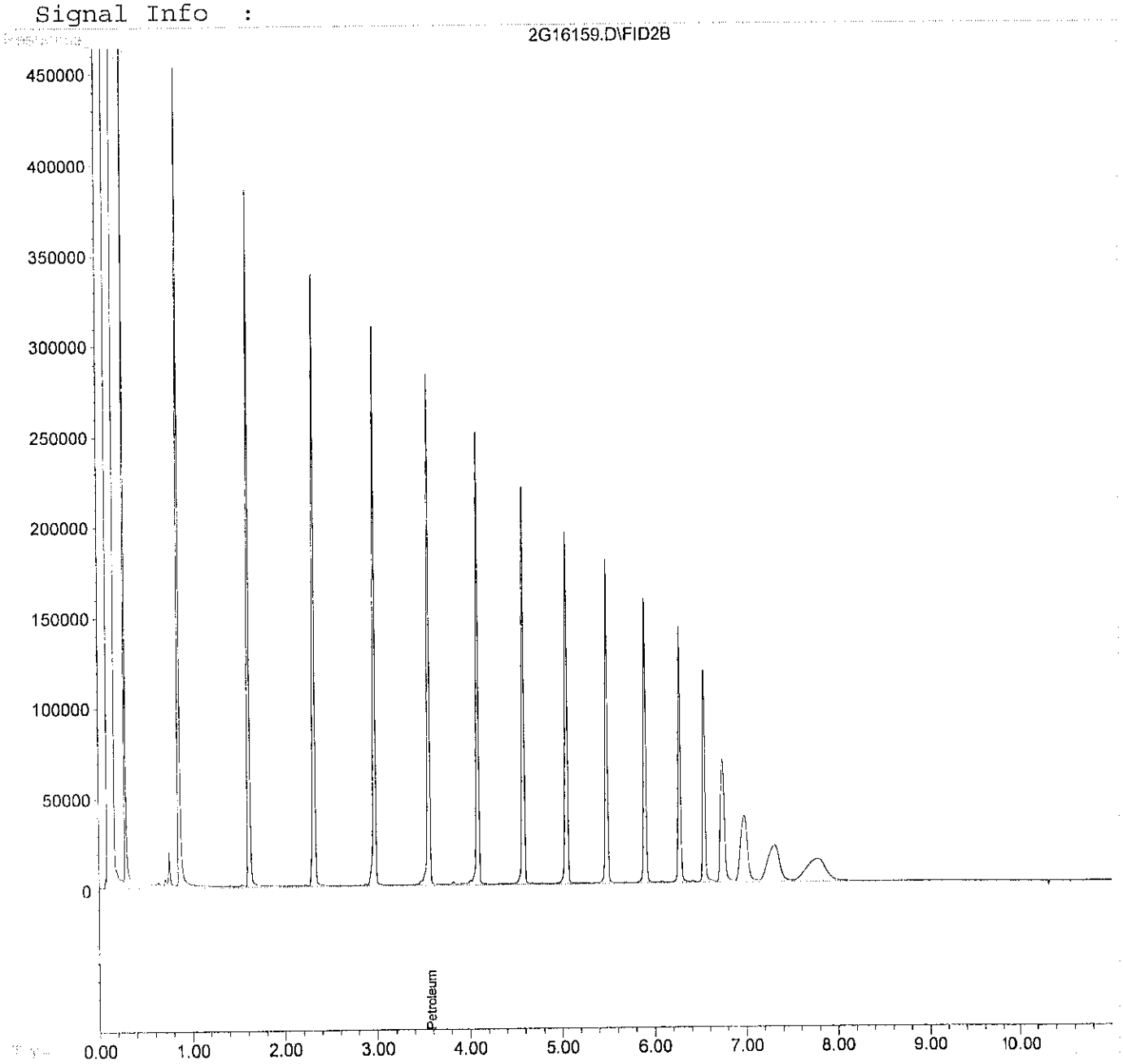
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\[illegible]

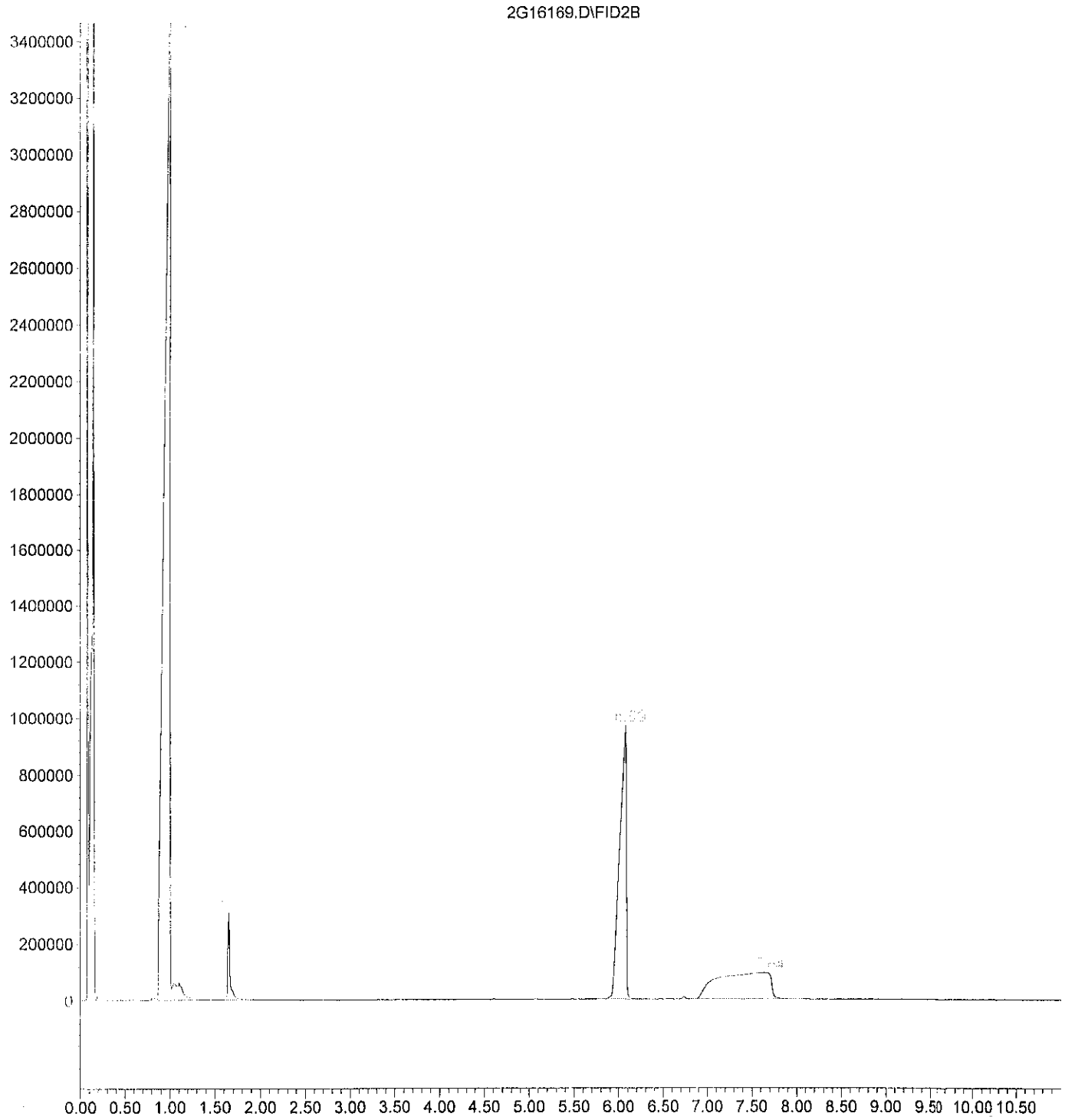
Acq On : 26 Oct 2001 12:02 Operator: HV
Sample : WG107152-07 ALT PRO @200ppm Inst : hp2
Misc : 1,1 SOS 56-26 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 12:14 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Fri Oct 26 10:57:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



File : C:\HPCHEM\1\DATA\102901\2G16169.D
Operator : HV
Acquired : 29 Oct 2001 9:55 using AcqMethod FLASHPRO.M
Instrument : hp2
Sample Name: WIN DEF STD
Misc Info : 1,1 NS 13-45
Vial Number: 1



Data File : C:\HPCHEM\1\DATA\[illegible]\[illegible].D Vial: 2
Acq On : 29 Oct 2001 10:11 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3195.030	6.0	92	0.00
2	s	O-Terphenyl	200.000	206.132	-3.1	104	0.00
3	s	n-Nonatriacontane	200.000	159.061	20.5#	72	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16170.D FLASHPRO.M Mon Oct 29 14:22:14 2001 Page 1

Data File : C:\HPCHEM\1\DATA\[illegible]\2G16170.D Vial: 2
Acq On : 29 Oct 2001 10:11 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\[illegible]\[illegible] Page: 1
Acq Date : 29 Oct 2001 10:11 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 29 11:18 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

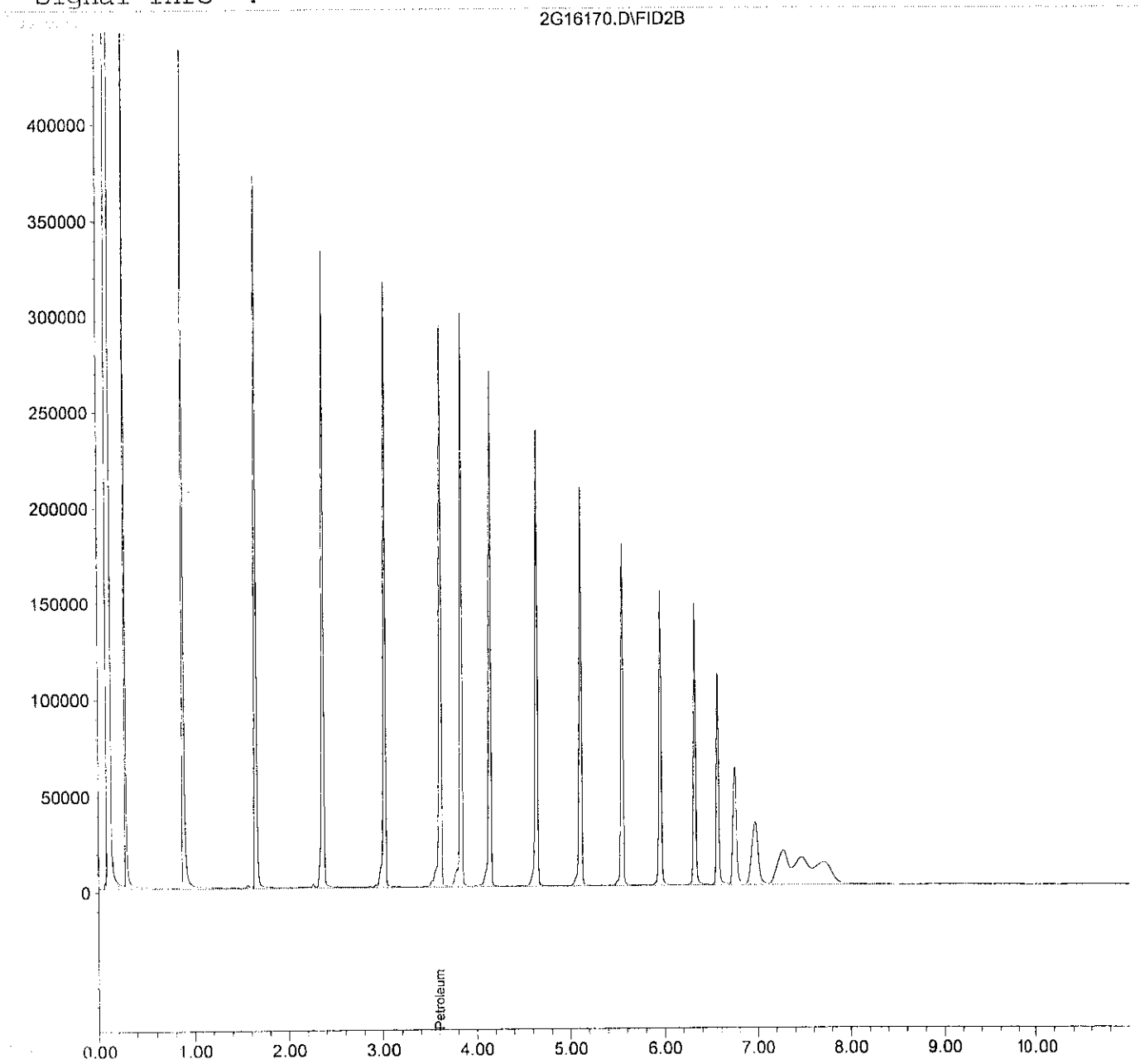
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s [illegible]erphenyl	3.85	4258229	206.132 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1030.66%#
3) s n-Nonatriacontane	7.48	1509884	159.061 ppm
Spiked Amount 20.000		Recovery	= 795.31%
Target Compounds			
1) H Petroleum Range	3.59	55151045	3195.030 ppb

(f)=RT Delta 1/2 Window (m)=manual int.
2G16170.D FLASHPRO.M Mon Oct 29 14:22:18 2001 Page 1

Data File : C:\HPCHEM\1\DATA\102901\2G16170.D Vial: 2
Acq On : 29 Oct 2001 10:11 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 29 11:18 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 29 Oct 2001 12:52
Sample : WG107234-02 PRO CONT.
Misc : 1,1 SOS 56-21
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3174.492	6.6	92	0.00
2	s	o-Terphenyl	200.000	184.080	8.0	93	0.00
3	s	n-Nonatriacontane	200.000	190.127	4.9	86	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16177.D FLASHPRO.M Mon Oct 29 14:25:43 2001 Page 1

Acq On : 29 Oct 2001 12:52 Operator: HV
Sample : WG107234-02 PRO CONT. Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Acq On : 29 Oct 2001 12:52 Operator: HV
Sample : WG107234-02 PRO CONT. Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 29 13:07 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

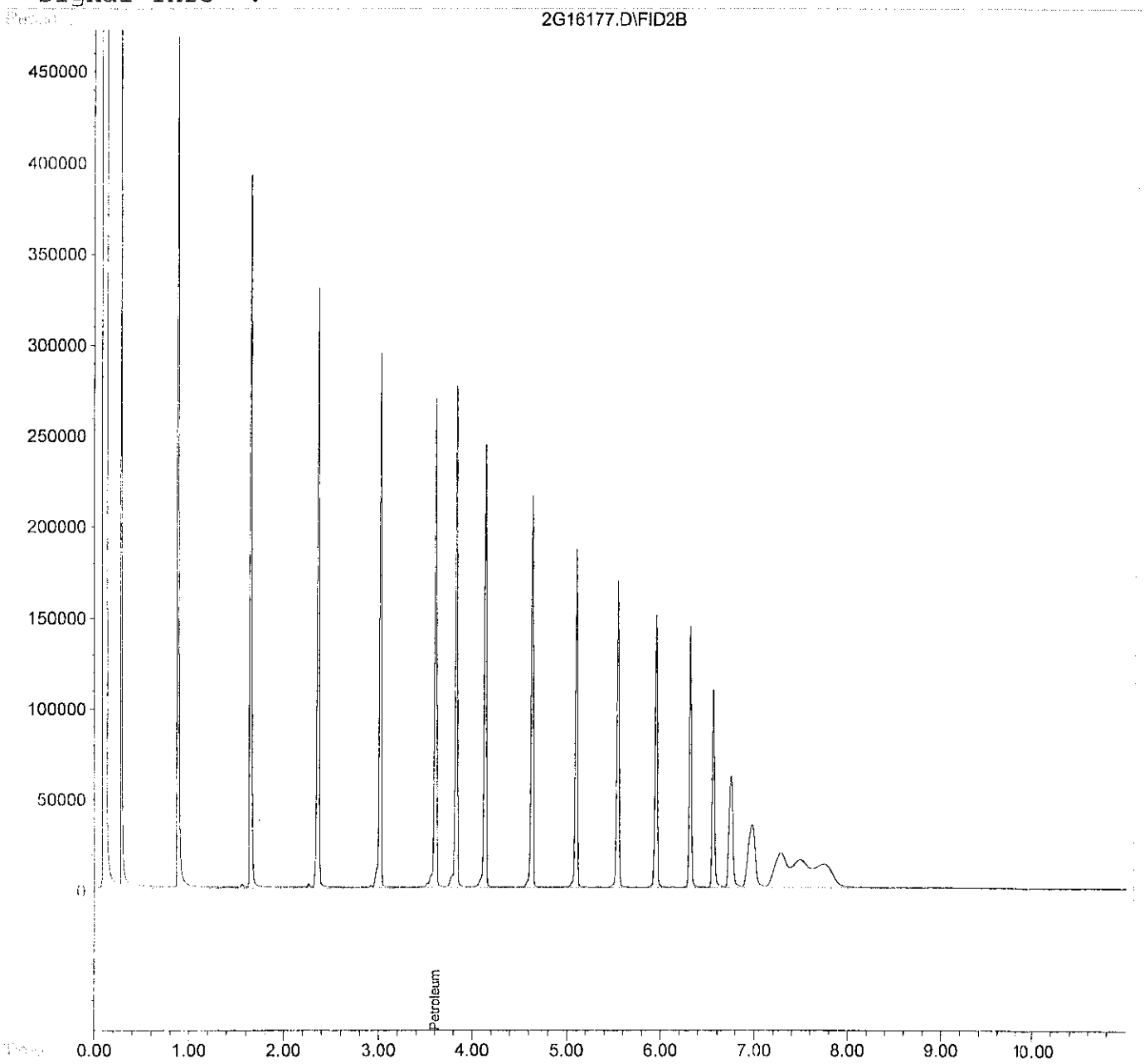
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.84	3802684	184.080 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 920.40%#
3) s n-Dotriacontane	7.50	1804783	190.127 ppm
Spiked Amount 20.000		Recovery	= 950.64%
Target Compounds			
1) H Petroleum Range	3.59	54796530	3174.492 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16177.D FLASHPRO.M Mon Oct 29 14:25:48 2001 Page 1

Acq On : 29 Oct 2001 12:52 Operator: HV
Sample : WG107234-02 PRO CONT. Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 29 13:07 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 29 Oct 2001 14:27 Operator: HV
Sample : WG107234-03 PRO CONT Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3290.249	3.2	95	0.00
2	s	O-Terphenyl	200.000	190.136	4.9	96	0.00
3	s	n-Nonatriacontane	200.000	193.024	3.5	88	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16183.D FLASHPRO.M Mon Oct 29 15:01:23 2001 Page 1

Acq On : 29 Oct 2001 14:27 Operator: HV
Sample : WG107234-03 PRO CONT Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Acq On : 29 Oct 2001 14:27 Operator: HV
Sample : WG107234-03 PRO CONT Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 29 14:40 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

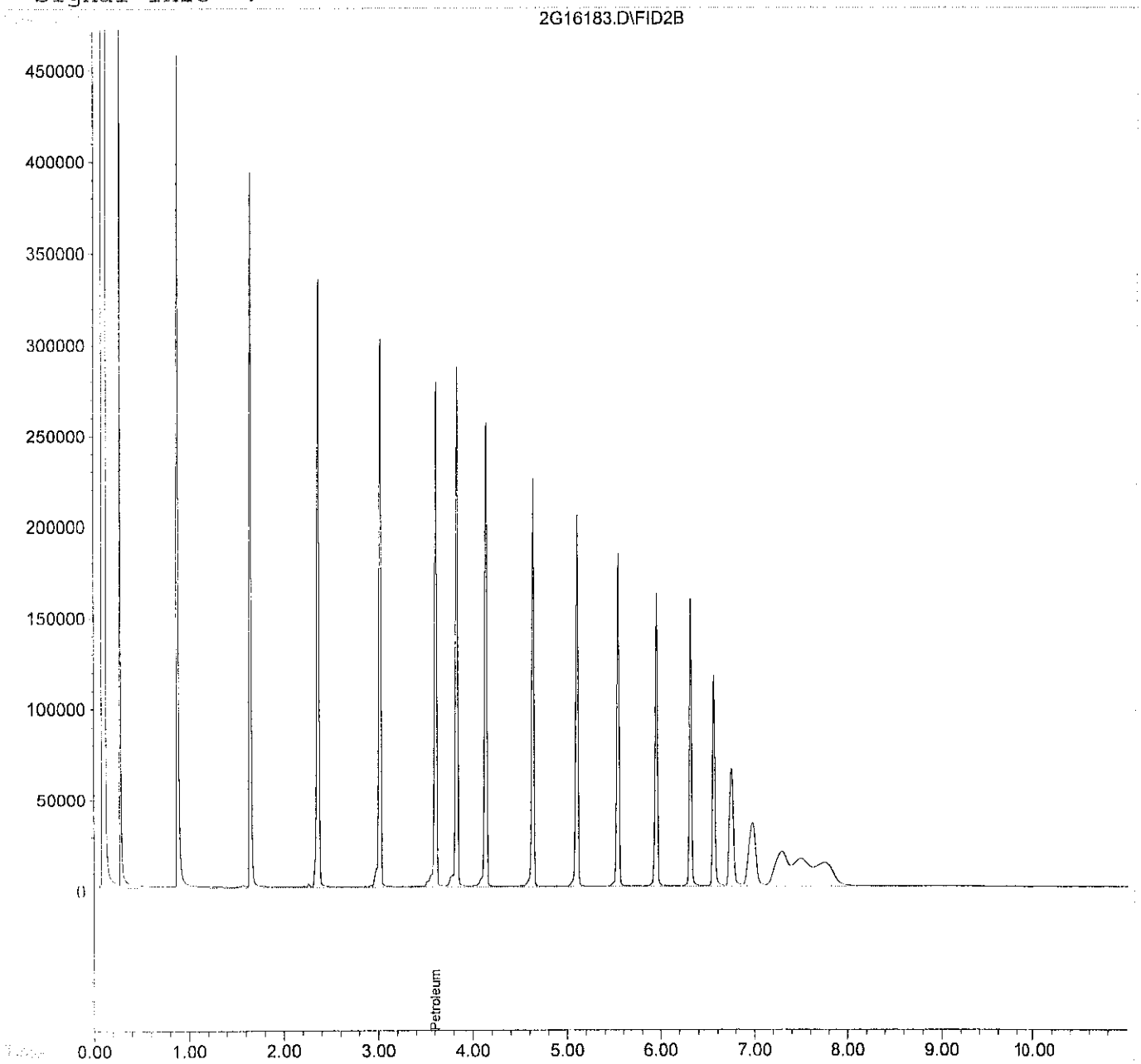
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.84	3927784	190.136 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 950.68%#			
3) s n-Nonatriacontane	7.50	1832280	193.024 ppm
Spiked Amount 20.000 Recovery = 965.12%			
Target Compounds			
1) H Petroleum Range	3.59	56794671	3290.249 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16183.D FLASHPRO.M Mon Oct 29 15:01:27 2001 Page 1

Acq On : 29 Oct 2001 14:27 Operator: HV
Sample : WG107234-03 PRO CONT Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 29 14:40 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 31 Oct 2001 9:38 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3594.894	-5.7	104	0.00
2	s	O-Terphenyl	200.000	216.041	-8.0	109	0.01
3	s	n-Nonatriacontane	200.000	181.549	9.2	83	0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16243.D FLASHPRO.M Wed Oct 31 11:00:22 2001 Page 1

Acq On : 31 Oct 2001 9:38 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : [illegible]

Acq On : 31 Oct 2001 9:38 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 31 10:04 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Wed Oct 31 09:25:20 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

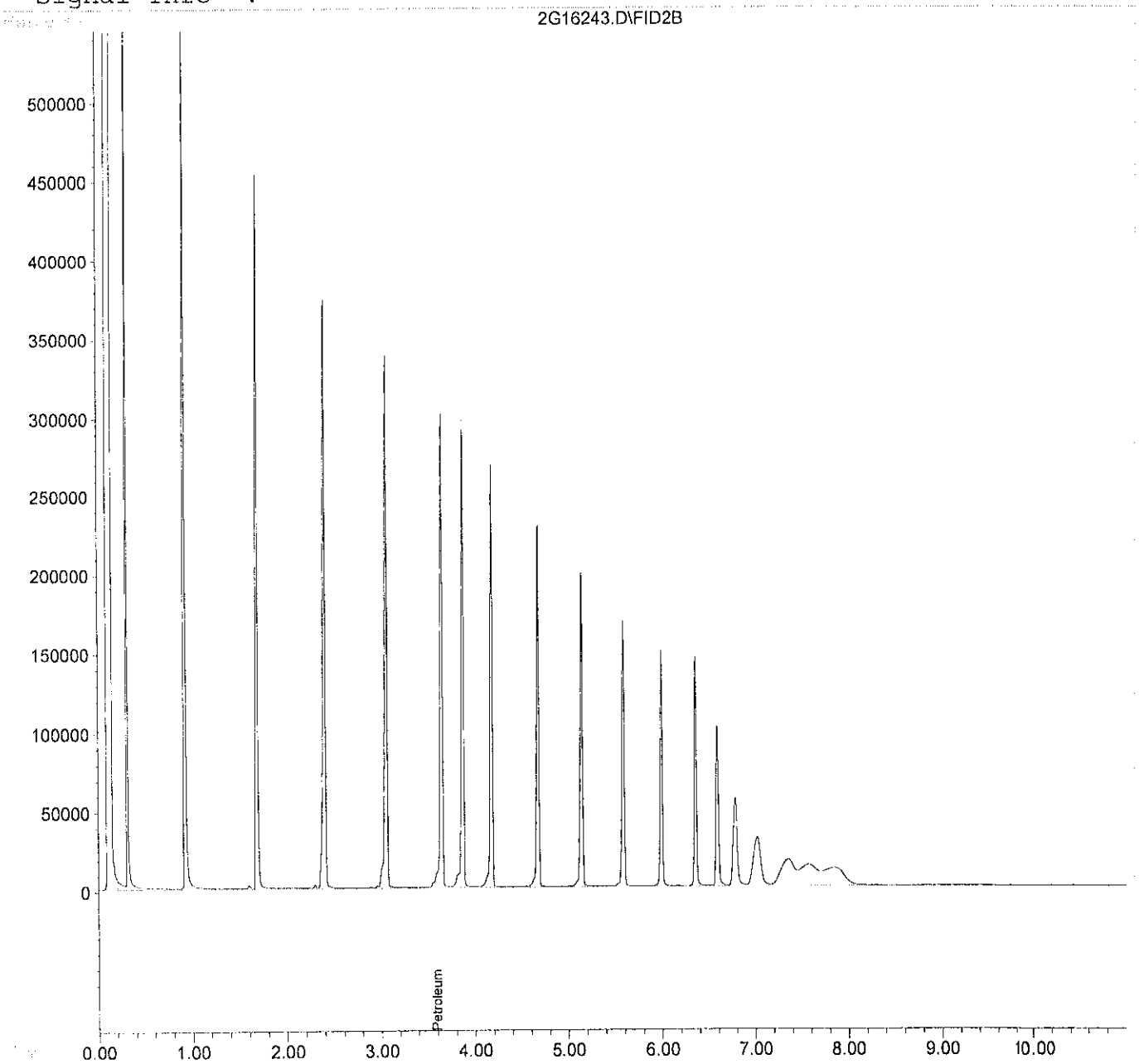
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.88	4462925	216.041 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1080.21%#
3) s n-Nonatriacontane	7.58	1723356	181.549 ppm
Spiked Amount 20.000		Recovery	= 907.75%
Target Compounds			
1) H Petroleum Range	3.58	62053307	3594.894 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16243.D FLASHPRO.M Wed Oct 31 11:00:26 2001 Page 1

Acq On : 31 Oct 2001 9:38 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 31 10:04 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Wed Oct 31 09:25:20 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 31 Oct 2001 11:40
Sample : PRO CONT CHK
Misc : 1,1 SOS 56-21
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3400.548	-0.0	98	0.00
2	s	O-Terphenyl	200.000	209.328	-4.7	105	0.00
3	s	n-Nonatriacontane	200.000	169.817	15.1#	77	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16250.D FLASHPRO.M Wed Oct 31 11:55:19 2001 Page 1

Acq On : 31 Oct 2001 11:40
Sample : PRO CONT CHK
Misc : 1,1 SOS 56-21
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Acq On : 31 Oct 2001 11:40 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 31 11:55 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Wed Oct 31 09:25:20 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

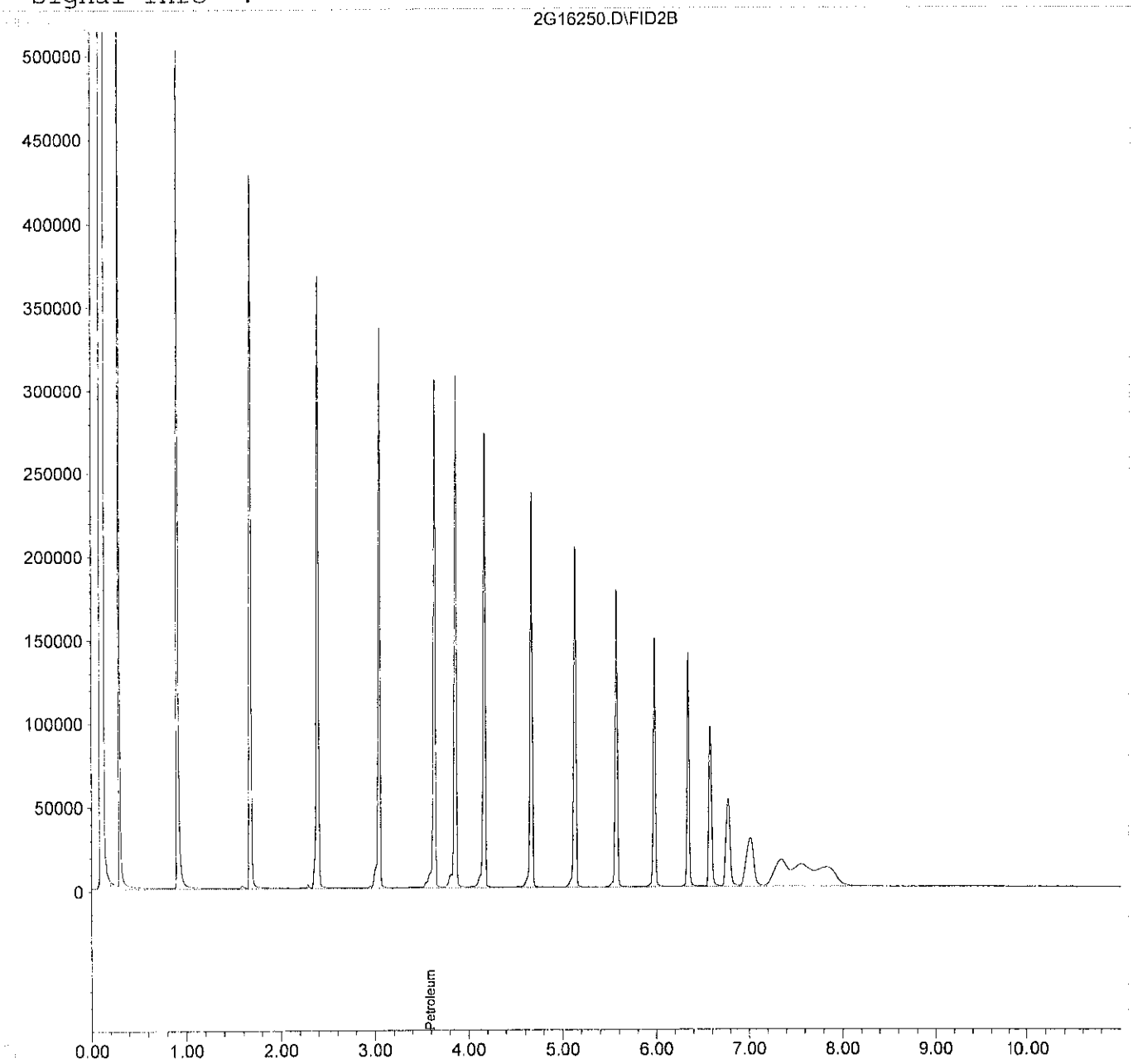
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.88	4324253	209.328 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1046.64%#
3) s n-Nonatriacontane	7.57	1611985	169.817 ppm
Spiked Amount 20.000		Recovery	= 849.09%
Target Compounds			
1) H Petroleum Range	3.58	58698604	3400.548 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16250.D FLASHPRO.M Wed Oct 31 11:55:23 2001 Page 1

Acq On : 31 Oct 2001 11:40 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 31 11:55 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Wed Oct 31 09:25:20 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2.2.5.4 Raw QC Data

Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 29 Oct 2001 11:21 Operator: HV
Sample : WG107022-02 PRO water BLK Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 29 14:23 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

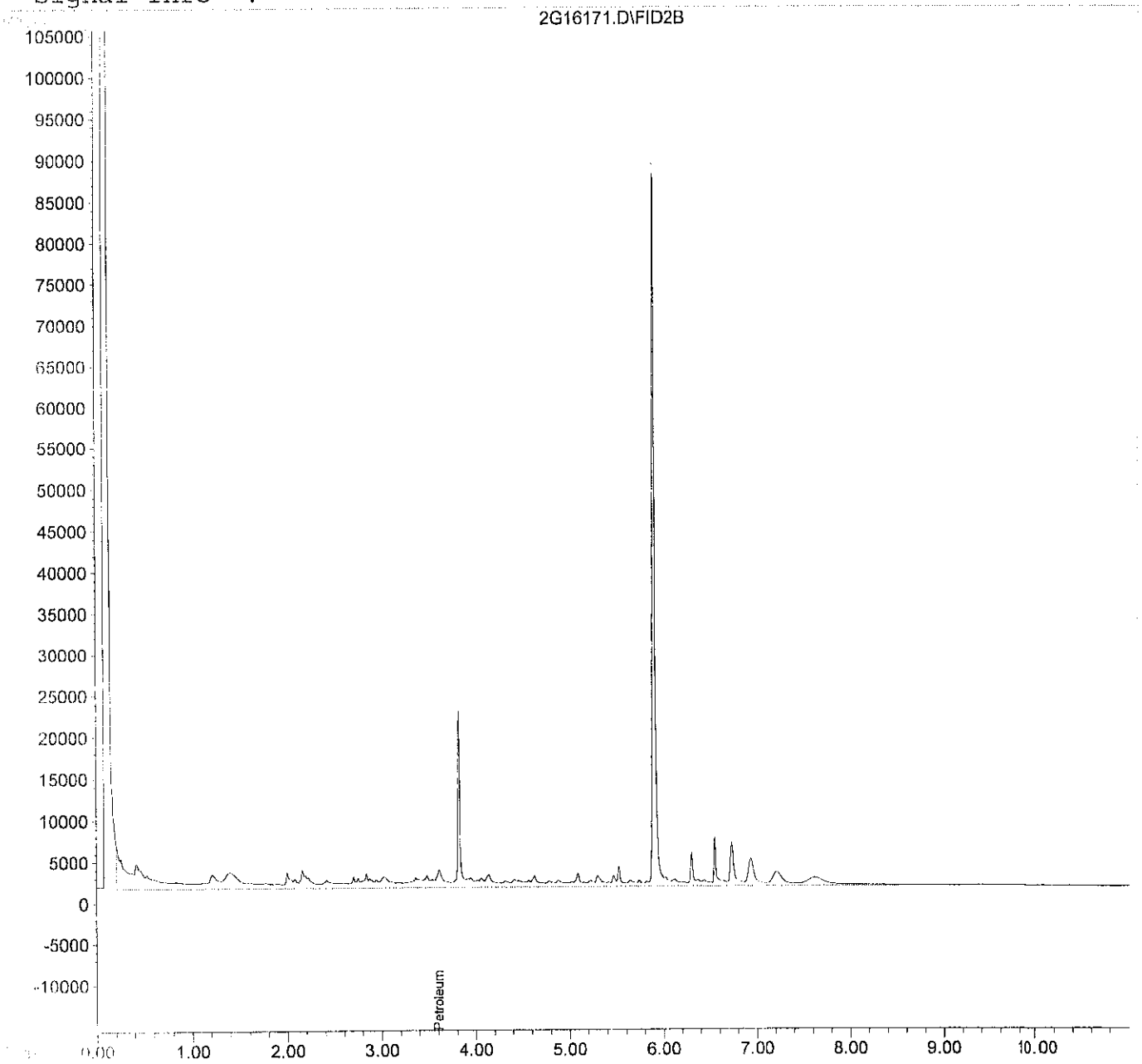
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.82	311797	15.093 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	75.47%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.59	3302113	191.299 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\102901\2G16171.D Vial: 3
Acq On : 29 Oct 2001 11:21 Operator: HV
Sample : WG107022-02 PRO water BLK Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 29 14:23 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\102901\2G16172.D Vial: 4
Acq On : 29 Oct 2001 11:37 Operator: HV
Sample : WG107022-03 PRO water LCS Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 29 14:23 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

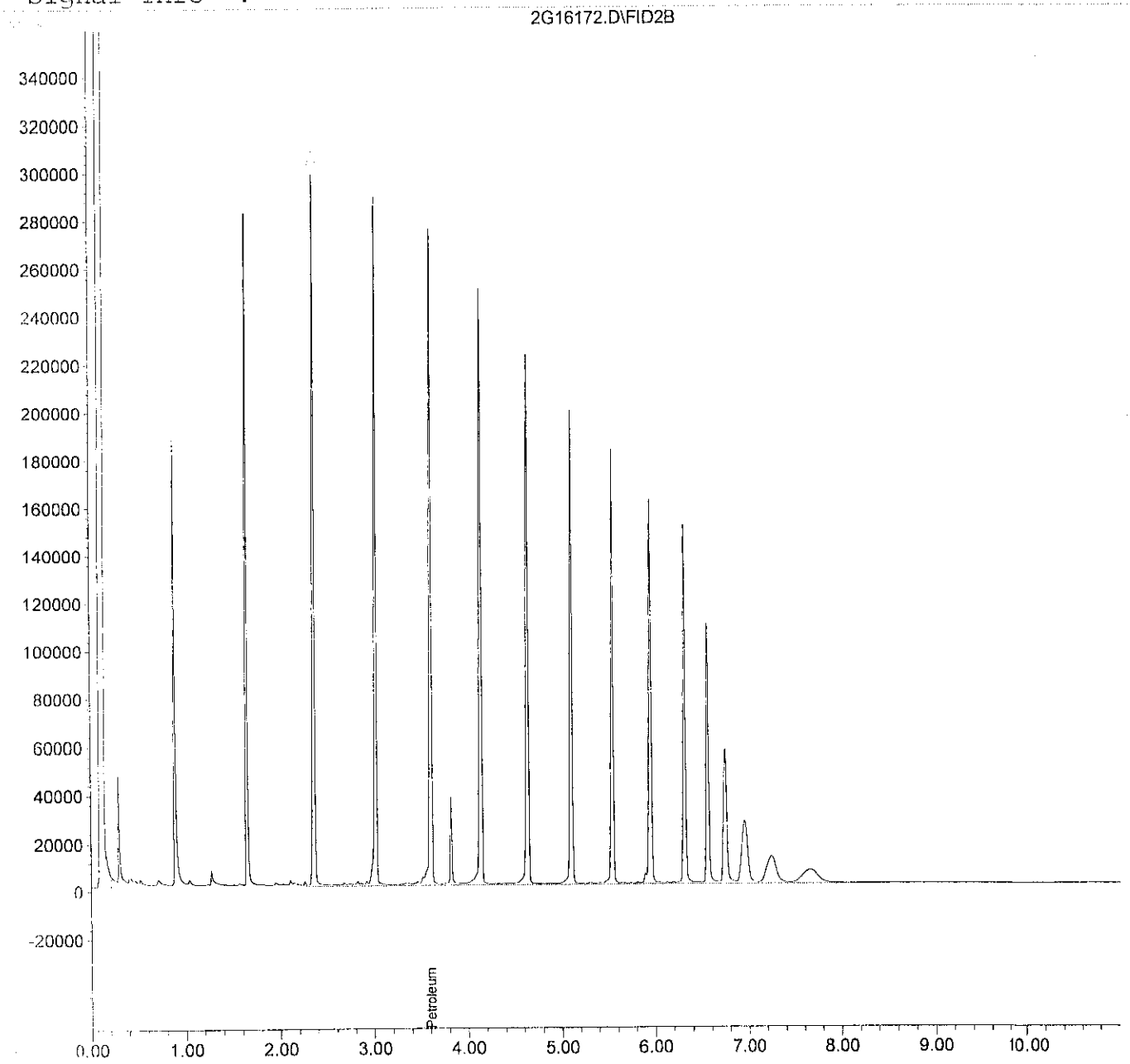
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s o-Terphenyl	3.82	457382	22.141 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 110.71%			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.59	43288378	2507.798 ppb

(f)=RT Delta 1/2 Window (m)=manual int.
2G16172.D FLASHPRO.M Mon Oct 29 14:23:49 2001 Page 1

Data File : C:\HPCHEM\1\DATA\102901\2G16172.D
Acq On : 29 Oct 2001 11:37 Operator: HV
Sample : WG107022-03 PRO water LCS Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 29 14:23 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

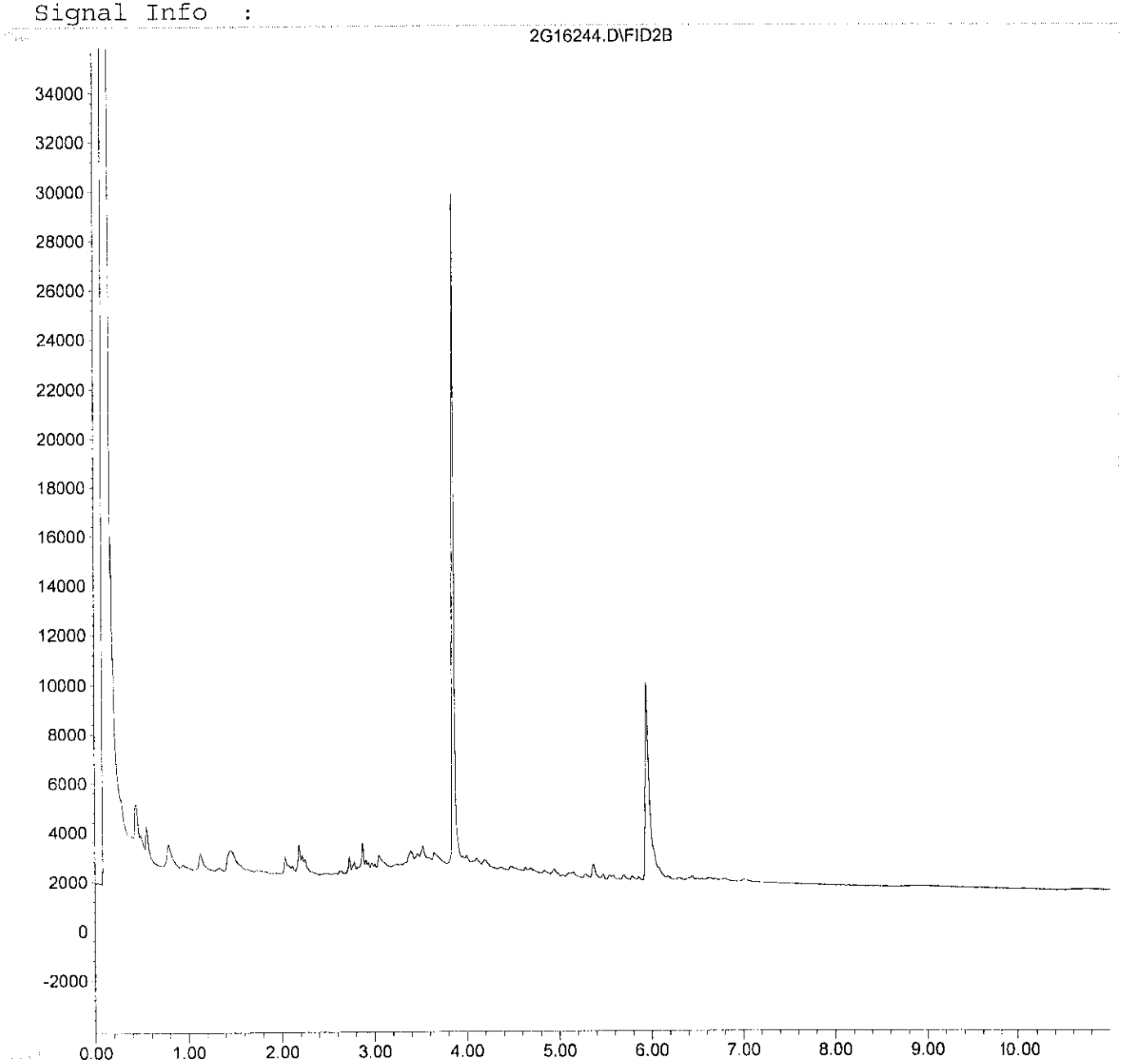


```
Acq On     : 31 Oct 2001  10:08                          Operator: HV
Sample     : WG107309-01 PRO water BLK                   Inst    : hp2
Misc       : 1,1 V174-P155                               Multiplr: 1.00
IntFile    : PETRO.E
Quant Time: Oct 31 11:00 2001  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 10/26/01
Last Update  : Wed Oct 31 09:25:20 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

    Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                   3.86         451296   21.846 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    =  109.23%
 3) s   n-Nonatriacontane             7.56            261    0.027 ppm
Spiked Amount   20.000                    Recovery       =    0.14%

  Target Compounds
 1) H   Petroleum Range               3.58        1628096    <MDL  ppb


-----------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window                                  (m)=manual int.
2G16244.D  FLASHPRO.M      Wed Oct 31 11:00:48 2001                  Page 1
```

Acq On : 31 Oct 2001 10:08 Operator: HV
Sample : WG107309-01 PRO water BLK Inst : hp2
Misc : 1,1 V174-P155 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 31 11:00 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Wed Oct 31 09:25:20 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 31 Oct 2001 10:24 Operator: HV
Sample : WG107309-02 PRO water LCS Inst : hp2
Misc : 1,1 V174-P155 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 31 11:00 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Wed Oct 31 09:25:20 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

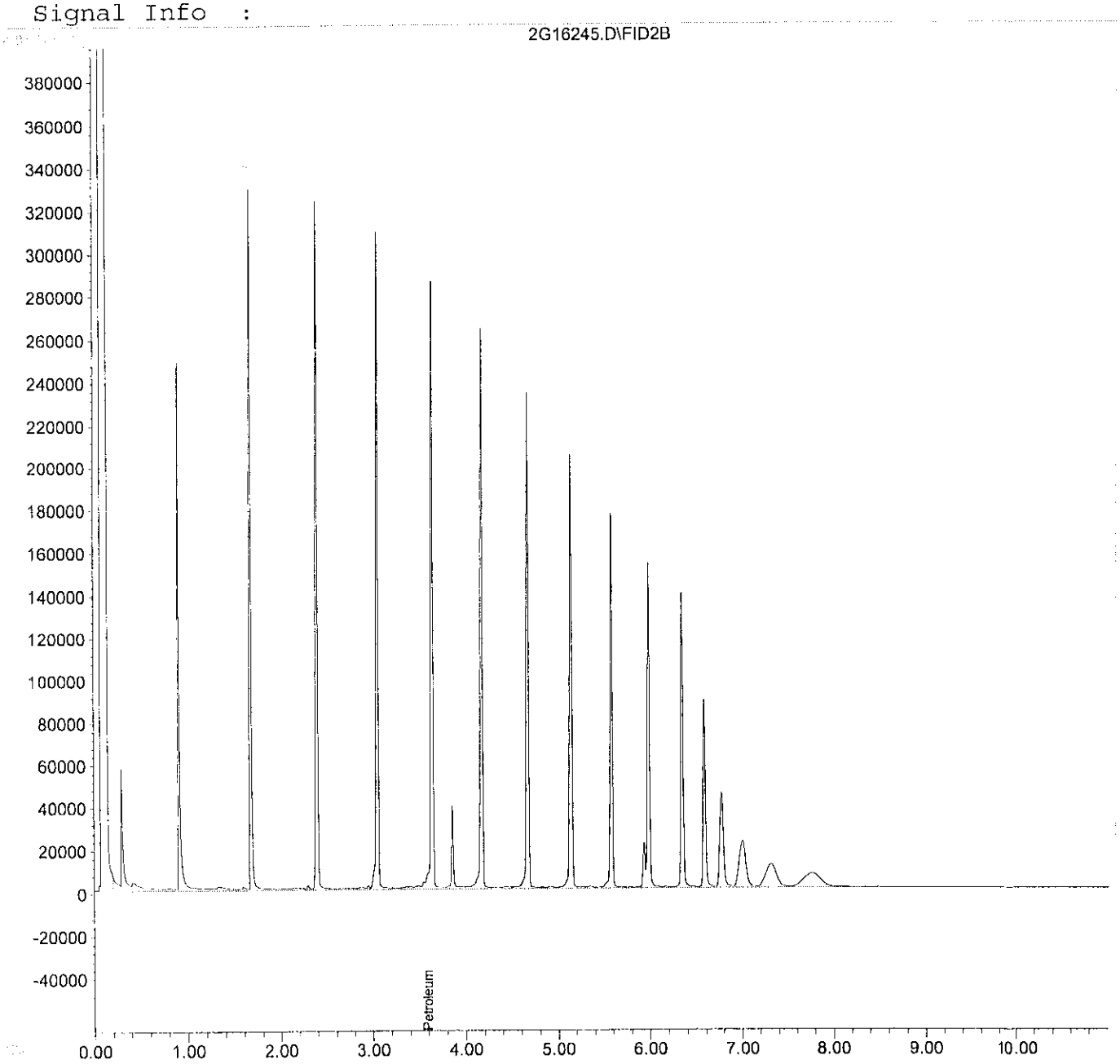
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.86	478716	23.174 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery	=	115.87%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000	Recovery	=	0.00%
Target Compounds			
1) H Petroleum Range	3.58	44898350	2601.067 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16245.D FLASHPRO.M Wed Oct 31 11:00:57 2001 Page 1

Acq On : 31 Oct 2001 10:24 Operator: HV
Sample : WG107309-02 PRO water LCS Inst : hp2
Misc : 1,1 V174-P155 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 31 11:00 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Wed Oct 31 09:25:20 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

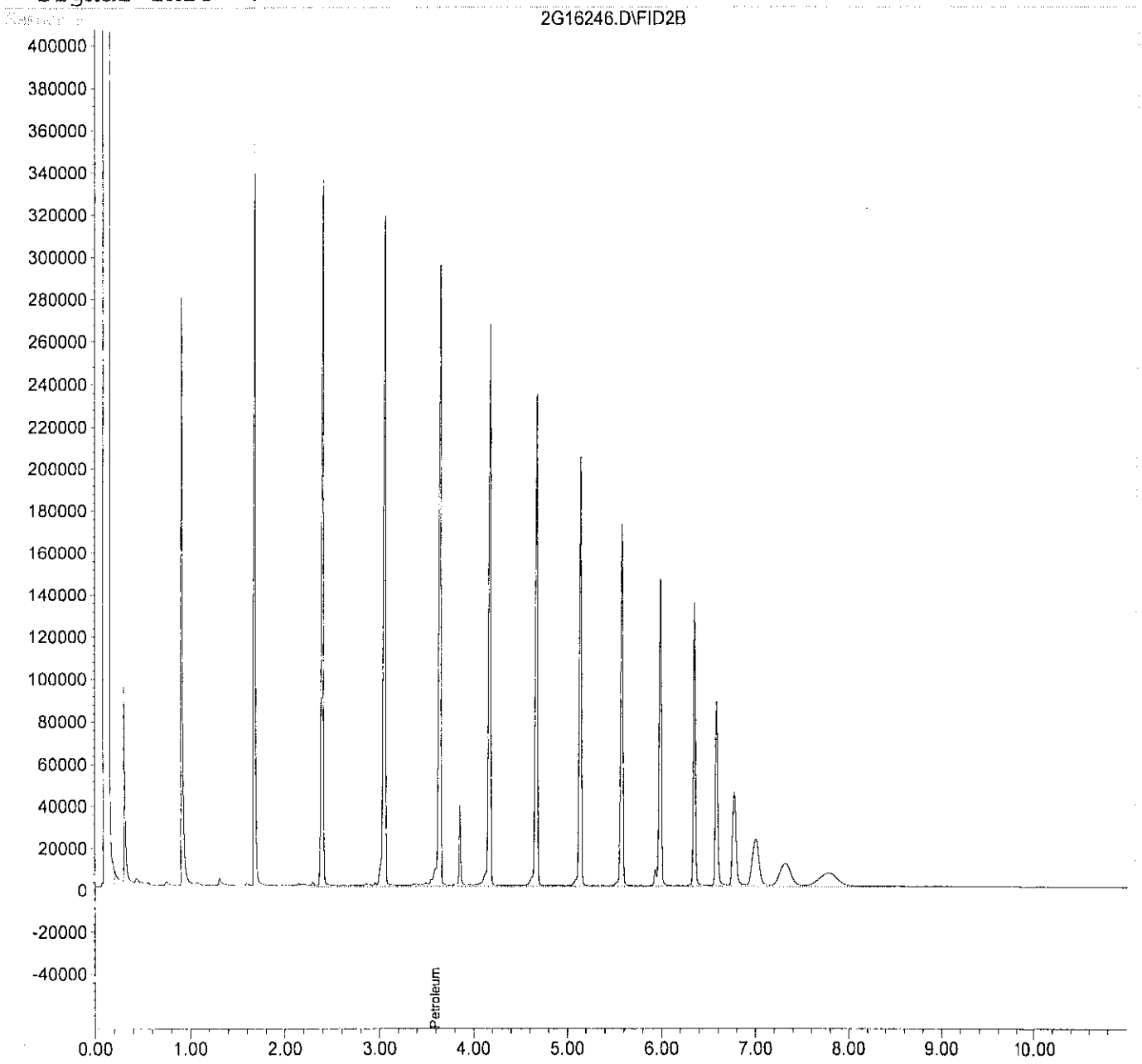


```
Acq On     : 31 Oct 2001  10:39                          Operator: HV
Sample     : WG107309-03 PRO water LCS DUP               Inst     : hp2
Misc       : 1,1 V174-P155                               Multiplr: 1.00
IntFile    : PETRO.E
Quant Time: Oct 31 11:01 2001  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 10/26/01
Last Update  : Wed Oct 31 09:25:20 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                        R.T.       Response    Conc Units
---------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                  3.86         438026   21.204 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    =  106.02%
 3) s   n-Nonatriacontane            0.00              0    N.D.  ppm
Spiked Amount   20.000                   Recovery       =    0.00%

  Target Compounds
 1) H   Petroleum Range              3.58       45823347 2654.654 ppb


---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window                          (m)=manual int.
2G16246.D  FLASHPRO.M      Wed Oct 31 11:01:09 2001                Page 1
```

Acq On : 31 Oct 2001 10:39 Operator: HV
Sample : WG107309-03 PRO water LCS DUP Inst : hp2
Misc : 1,1 V174-P155 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 31 11:01 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Wed Oct 31 09:25:20 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Work Group Report (WK02)

29-OCT-01 03:04 PM

Work Group: WG107152 **Created:** 26-OCT-01

Department: 9 Semivolatile - GC **Operator:** HV **Due:**

Sample	Account Name	C	Product	Mat#	Matrix	Status	UA	Workdate	PR	Location
WG107152-12	STD	S	8015QC	1	Water	DONE	U	26-OCT-01		
WG107152-13	STD	S	8015QC	1	Water	DONE	U	26-OCT-01		
WG107152-14	CCV	S	8015QC	1	Water	DONE	U	26-OCT-01		
WG107152-15	STD	S	8015QC	1	Water	DONE	U	26-OCT-01		
WG107152-16	STD	S	8015QC	1	Water	DONE	U	26-OCT-01		
WG107152-17	STD	S	8015QC	1	Water	DONE	U	26-OCT-01		
WG107152-18	SSCV	S	8015QC	1	Water	DONE	U	26-OCT-01		
WG107152-19	CCV	S	8015QC	1	Water	DONE	U	26-OCT-01		
WG107152-20	CCV	S	8015QC	1	Water	DONE	U	26-OCT-01		
WG107152-21	CCV	S	8015QC	1	Water	DONE	U	26-OCT-01		
WG107152-22	CCV	S	8015QC	1	Water	DONE	U	26-OCT-01		

Comments

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	1	2g16150.d	1.	mecl2	1,1 SOS 56-21	26 Oct 101 12::5
2	2	2g16151.d	1.	✓ WIN DEF STD	1,1 NS 13-45	26 Oct 101 12::1
3	3	2g16152.d	1.	ee PRO CONT CHK	1,1 SOS 56-21	26 Oct 101 12::4
4	4	2g16153.d	1.	✓ WG107152-01 PRO STD 600ppm	1,1 SOS 56-21	26 Oct 101 13::1
5	5	2g16154.d	1.	WG107152-02 PRO STD 400ppm	1,1 SOS 56-21	26 Oct 101 13::2
6	6	2g16155.d	1.	WG107152-03 PRO STD 200ppm	1,1 SOS 56-21	26 Oct 101 13::4
7	7	2g16156.d	1.	WG107152-04 PRO STD 100ppm	1,1 SOS 56-21	26 Oct 101 13::5
8	8	2g16157.d	1.	WG107152-05 PRO STD 50ppm	1,1 SOS 56-21	26 Oct 101 13::1
9	9	2g16158.d	1.	WG107152-06 PRO STD 5ppm	1,1 SOS 56-21	26 Oct 101 13::2
10	10	2g16159.d	1.	WG107152-07 ALT PRO @200ppm	1,1 SOS 56-26	26 Oct 101 13::0
11	1	2g16160.d	1.	dro cont chk	1,1 SOS 56-26	26 Oct 101 13::2
12	2	2g16161.d	1.	EXT LAB DRO SPK	1,1 SS0039-16	26 Oct 101 13::3
13	1	2g16162.d	1.	RR WG107022-02 PRO water BLK	1,1 water	26 Oct 101 13::4
14	2	2g16163.d	1.	WG107022-03 PRO water LCS	1,1 water	26 Oct 101 12::0
15	3	2g16164.d	1.04	L0110485-01 PRO water	1,1 water	26 Oct 101 12::1
16	4	2g16165.d	1.05	L0110485-02 PRO water	1,1 water	26 Oct 101 12::3
17	5	2g16166.d	1.07	L0110485-03 PRO water	1,1 water	26 Oct 101 12::5
18	6	2g16167.d	1.	MECL2	1,1 water	26 Oct 101 12::0

HN 10/29/01

TRC 10/29/01

Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 10 26 01 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 102601
Analyst Initials HV

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # ___ PRO ✓
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____

SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS01 Rev. # ___ 8100 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
- [x] Gases >500 psi

Preventative Maintenance
- [ ] Change o-ring
- [x] Change liner
- [x] Change septum
- [ ] Clip column (___cm)
- [ ] Injection port seal (goldseal)
- [ ] Change gases _____

Returned To Control?
Yes ___ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

29 16 162 - RR - There was no ending check
(sequence was stopped by the comp. error -)

Reviewed By: RR 10/29/01

200

Work Group Report (wk02)

29-OCT-01 09:54 AM

Work Group: WG107234 **Created:** 29-OCT-01

Department: 9 Semivolatile - GC **Operator:** HV **Due:**

Sample	Account Name	C	Product	Mat#	Matrix	Status	UA	Workdate	PR	Location
WG107234-01	CCV	S	8015QC	1	Water	DONE	U	29-OCT-01		
WG107234-02	CCV	S	8015QC	1	Water	DONE	U	29-OCT-01		
WG107234-03	CCV	S	8015QC	1	Water	DONE	U	29-OCT-01		
WG107234-04	CCV	S	8015QC	1	Water	DONE	U	29-OCT-01		
WG107234-05	CCV	S	8015QC	1	Water	DONE	U	29-OCT-01		
WG107234-06	CCV	S	8015QC	1	Water	DONE	U	29-OCT-01		

Comments

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g16168.d	1.	mecl2	1,1 water	29 Oct 101 12::4
2	1	2g16169.d	1.	WIN DEF STD	1,1 NS 13-45	29 Oct 101 12::5
3	2	2g16170.d	1.	PRO CONT CHK	1,1 SOS 56-21	29 Oct 101 13::1
4	3	2g16171.d	1.	WG107022-02 PRO water BLK	1,1 water	29 Oct 101 13::2
5	4	2g16172.d	1.	WG107022-03 PRO water LCS	1,1 water	29 Oct 101 13::3
6	5	2g16173.d	1.04	L0110485-01 PRO water	1,1 water	29 Oct 101 12::5
7	6	2g16174.d	1.05	L0110485-02 PRO water	1,1 water	29 Oct 101 13::0
8	7	2g16175.d	1.07	L0110485-03 PRO water	1,1 water	29 Oct 101 13::2
9	8	2g16176.d	1.06	L0110485-04 PRO water	1,1 water	29 Oct 101 13::3
10	9	2g16177.d	1.	WG107234-02 PRO CONT.	1,1 SOS 56-21	29 Oct 101 12::5
11	10	2g16178.d	1.04	L0110485-05 MS NPRO water	1,1 water	29 Oct 101 12::1
12	11	2g16179.d	1.05	L0110485-06 MSD PRO water	1,1 water	29 Oct 101 12::2
13	12	2g16180.d	1.	L0110485-07 PRO water	1,1 water	29 Oct 101 12::4
14	13	2g16181.d	1.07	L0110485-08 PRO water	1,1 water	29 Oct 101 12::5
15	14	2g16182.d	1.05	L0110485-09 PRO water	1,1 water	29 Oct 101 12::1
16	15	2g16183.d	1.	WG107234-03 PRO CONT	1,1 water	29 Oct 101 12::2
17	1	2g16184.d	1.	WG107094-01 PRO water BLK	1,1 water	29 Oct 101 12::4
18	2	2g16185.d	1.	WG107094-02 PRO water LCS	1,1 water	29 Oct 101 12::0
19	3	2g16186.d	1.	WG107094-03 PRO water LCS DUP	1,1 water	29 Oct 101 12::1
20	4	2g16187.d	1.07	RR L0110522-01 PRO water D 10X	1,1 water	29 Oct 101 12::3
21	5	2g16188.d	1.04	L0110522-02 PRO water	1,1 water	29 Oct 101 12::4
22	6	2g16189.d	1.04	L0110522-03 PRO water	1,1 water	29 Oct 101 12::0
23	7	2g16190.d	1.	WG107234-04 PRO CONT SOS 56-21	1,1 water	29 Oct 101 12::1
24	8	2g16191.d	1.04	mecl2	1,1 water	29 Oct 101 12::3
25	9	2g16192.d	1.	WG107234-05 PRO CONT SOS 56-21	1,1 water	29 Oct 101 12::5
26	10	2g16193.d	1.06	L0110522-04 PRO water	1,1 water	29 Oct 101 12::1
27	11	2g16194.d	1.05	L0110522-05 PRO water	1,1 water	29 Oct 101 12::2
28	12	2g16195.d	1.05	L0110522-06 PRO water	1,1 water	29 Oct 101 12::4
29	13	2g16196.d	1.05	RR L0110522-07 PRO water	1,1 water	29 Oct 101 12::5
30	14	2g16197.d	1.08	L0110522-08 PRO water	1,1 water	29 Oct 101 12::1
31	15	2g16198.d	1.08	L0110522-09 PRO water	1,1 water	29 Oct 101 12::2
32	16	2g16199.d	10.7	L0110522-01 10X PRO water	1,1 water	29 Oct 101 12::4
33	17	2g16200.d	1.	CC PRO CONT CHK	1,1 SOS 56-21	29 Oct 101 12::5
34	18	2g16201.d	1.	RR WG107230-01 PRO water BLK	1,1 water	29 Oct 101 12::1
35	19	2g16202.d	1.	WG107230-01 PRO water LCS	1,1 water	29 Oct 101 12::2
36	20	2g16203.d	1.	WG107230-01 PRO water LCS DUP	1,1 water	29 Oct 101 12::4
37	21	2g16204.d	1.05	L0110464-01 PRO water	1,1 water	29 Oct 101 12::5
38	22	2g16205.d	1.05	mecl2	1,1 water	29 Oct 101 12::1
39	17	2g16206.d	1.	PRO CONT CHK	1,1 water	29 Oct 101 12::2

HV 10/30/01

RRC 10/30/01

Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 10-29-01 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 102901
Analyst Initials HV

SOP # GCS09 Rev. # ___ 8081A ___
SOP # GCS04 Rev. # ___ 8151A ___
SOP # GCS03 Rev. # ___ PRO ✓
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ___

SOP # GCS10 Rev. # ___ 8082 ___
SOP # GCS01 Rev. # ___ 8100 ___
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ___
SOP # GCS07 Rev. # ___ 8011 ___

Analysis Date/Time ___ Instrument ID ___ Column ID ___ Data Subdirectory ___

Daily Check
- ☑ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ☑ Change liner
- ☑ Change septum
- ☐ Clip column (___cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases ___

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: ___

Action Taken: ___

Comments

29 1b 187 - RR at 10x dilution
29 1b 191 - changed liner & septa
29 1b 196 - RR1, ccv (ending) failed high in surrogate and it was detected -
29 1b 200 - failed high in surrogate
29 1b 201 — 29 1b 204 - RR since beginning ccv failed in surrogate -

Reviewed By: RDC 10/30/01

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g16239.d	1.	MECL2	1,1 NS 14-25	31 Oct 101 12::2
2	2	2g16240.d	1.	WIN DEF STD	1,1 NS 13-45	31 Oct 101 12::5
3	3	2g16241.d	1.	PRO CONT CHK	1,1 SOS 56-21	31 Oct 101 12::0
4	4	2g16242.d	1.	EXT LAB PRO SPK	1,1 SOS 56-21	31 Oct 101 12::2
5	5	2g16243.d	1.	PRO CONT CHK	1,1 SOS 56-21	31 Oct 101 12::3
6	6	2g16244.d	1.	WG107309-01 PRO water BLK	1,1 V174-P155	31 Oct 101 13::0
7	7	2g16245.d	1.	WG107309-02 PRO water LCS	1,1 V174-P155	31 Oct 101 13::2
8	8	2g16246.d	1.	WG107309-03 PRO water LCS DUP	1,1 V174-P155	31 Oct 101 13::3
9	9	2g16247.d	1.06	L0110485-07 PRO water RE	1,1 V174-P155	31 Oct 101 13::5
10	10	2g16248.d	1.04	L0110485-08 PRO water RE	1,1 V174-P155	31 Oct 101 13::1
11	11	2g16249.d	1.	MECL2	1,1 SOS 56-21	31 Oct 101 13::2
12	12	2g16250.d	1.	PRO CONT CHK	1,1 SOS 56-21	31 Oct 101 13::4

HV 10/31/01
TAC 10/31/01

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 10-31-01 Instrument ID HP2 Column ID DBX-5 Data Subdirectory 103101
Analyst Initials HV

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ✓
SOP # GCS03 Rev. # ___ PRO ✓
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____

SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS01 Rev. # ___ 8100 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
- ☐ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ☐ Change liner
- ☐ Change septum
- ☐ Clip column (___cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases _____

Returned To Control?
Yes ___ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Reviewed By: RRC 10/31/01

Parameter: PRO-H_2O SOP #: EXPRO Revision #: 2
Extraction Analyst(s): JAQ TV/KD Analyst(s): JAQ
Date/Time Extracted: 10/24/01 @ 1510 Date TV/KD: 10/24/01
Spike/Surrogate Analyst: JAQ Witness: LMT
Surrogate #: 6550038-48 Earliest Hold Date: 10/30/01
Spike #: A = 6550039-02 Spike #: B = —

Extraction Work Group WG 107022
Analytical Work Group WG 107063

Extract Relinquished By: [illegible]
Extract Received By & Date: [illegible] 10/25/01

	Sample ID	Test Code	pH ✓ <2	pH ✓ N	pH ✓ >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions ✓ A	Emulsions ✓ BN	Emulsions ✓ N	Comments
1	Blank		✓			1L	1ml		1ml	T				WG 107022-02
2	LCS		✓			↓	↓	1ml	↓	↓				WG ↓ -03
3	10-485-01	FLA-PRO	✓			965ml	↓	↓	↓	↓				
4	-02	↓	✓			950	↓	↓	↓	↓				
5	-03	↓	✓			930	↓	↓	↓	↓				
6	-04	↓	✓			940	↓	↓	↓	↓				WG 107022-01
7	-05MS	↓	✓			965	↓	1ml	↓	↓				↓ -04
8	-06MSD	↓	✓			950 ↓	↓	↓	↓	↓				↓ -05
9	-07	↓	✓			1L	↓	↓	↓	↓				
10	-08	↓	✓			930ml	↓	↓	↓	↓				
11	-09	↓	✓			950 ↓	↓	↓	↓	↓				
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

10/24/01 JAQ

Methylene Chloride Lot #: 41109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: 1:1 HCl Lot #: ER1915
Florisil Lot #: —
Silica Gel Lot #: V32555
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER 1889

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C	✓	Other	
Acid 3664A		N/A	
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 10/25/01

Extraction Notes For Volume # 1 + 4 Page # 113

General Comments: * MS and MSD for 10-485-04

Extraction Anomalies: (*) 10-485-04 may have been surrogated twice.

Concentration Anomalies: nothing to report

Clean-Up Anomalies: nothing to report

Supervisor Review: _____ Date: _____

Parameter: FLA-PRO SOP #: EXPRO Revision #: 2
Extraction Analyst(s): JAQ TV/KD Analyst(s): JAQ
Date/Time Extracted: 10/30/01 10:00 Date TV/KD: 10/30/01
Spike/Surrogate Analyst: JAQ Witness: LM
Surrogate #: Essoo 39-18 Earliest Hold Date: 10/30
Spike #: A = Essoo 39-02 Spike #: B = —

Extraction Work Group WG 107309
Analytical Work Group WG 107375

Extract Relinquished By: JAQ
Extract Received By & Date: HY 10/30/01

	Sample ID	Test Code	pH √ <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	BN	N	Comments
1	Blank		✓			1L	1ml		1ml	T				WG 107309-01
2	LCS		✓			↓	↓	1ml	↓	↓				WG 107309-02
3	LCSD-1		✓			↓	↓	↓	↓	↓				WG 107309-03
4	10-405-07	FLA-PRO	✓			940ml	↓		↓	↓				
5	↓ 08	↓	✓			965ml	↓		↓	↓				
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

10/30/01 JAQ

Methylene Chloride Lot #: 41109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: 1:1 HCl Lot #: FR 915
Florisil Lot #: —
Silica Gel Lot #: V32555
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: FR 999

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C	✓	Other	
Acid 3664A		N/A	
Sulfur 3660B			

Peer Reviewed By: Donna Pierson Date: 10/30/01

Extraction Notes For Volume # 174 Page # 155

General Comments: Re ext w/in hold

Extraction Anomalies: Nothing to report

Concentration Anomalies: Nothing to report

Clean-Up Anomalies: Nothing to report

Supervisor Review: _____ Date: _____

KEMRON Environmental Services
Analytical Corrective Action Report

Date: 10-29-01 **Department:** SV **Employee:** HV

Prep WG# 107022 **Preparation Date:** 10-24-01 **Parameter:** 9L-PRO water

I. Description of Non-Conformance:

Samples 10485-07, -08 recovered low in surrogate

Re-extracts needed PPR 10/29

II. Action Taken:

These fractions were also re-extracted for 8310

Re-extracted within hold + 10/30/01

New wb # 107309

10/30/01

III. Return to Control?:	Not Applicable ____	Yes ____	No ____

IV. Further Action Required?: (required if no checked in III.)

Approvals:

Department Supervisor: _____ Date: _____

QA/QC Supervisor: _____ Date: _____

Director/Manager: _____ Date: _____

Form NC02

915

Example FLA-PRO Calculations

1.0 Calulating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = As/ Cs

Where:		Example:
	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ng/ml).	100
	RF	**100**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:

C = [(Ax)(Vf)(D)] / [(RF)(Vi)]

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	**100**
	Vi = Initial volume of sample (mL). (prep log)	1000
	C (ug/L) =	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report: C = [(Ax)(Vf)(D)] / [(RF)(Vi)]

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL).	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	100
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**3.333333**

2.2.7 PAH HPLC DATA (8310)

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0110485

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8310

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples:The LCS yielded % recoveries for five analytes that were above advisory limits. These analytes were not found in any samples. All other acceptance criteria were met.
Matrix Spikes: The MS/MSD results were not associated with this sample delivery group.

SAMPLES

Surrogates: Sample fractions 07 and 08 yielded % recoveries for the surrogate that were below acceptable limits. These samples were re-extracted within holding time. Fraction 08 confirmed sample matrix effects. Both runs have been reported. Sample fractions 07 yielded a surrogate recovery that was within limits. Only the re-extract was reported.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: RDC REVIEWED: Steve Barrow DATE: 11/7/01

Rev. 7/14/00

Semi-Volatile 8310 Checklist

Workorders: Due Date: Priority:

Run Date: 8-Aug-01

Analyst: RDC

Instrument: HPLC4

		Analyst
Initial Calibration:	Average RF	
	Linear or quadriatic regression	√
	Alt Source Check	√
Continuing Calibration:	Continuing Calibration	
	Client Specific Requirements	
	Special Standards	
Blanks:	Quant Report/Chromatogram	
	Surrogates	
Laboratory Control Sample:	Quant Report/Chromatogram	
	Surrogates	
	Spike Compounds	
	MS/MSD	
	Excel Spreadsheet	
Samples:	TCL Hits	
	Surrogates	
	Correct Factors	
	Dilutions	
	Check Sample Histories	
	Corrective Action	
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:

Re-calibration curve only.....

Primary Reviewer: RDC 8/10/01

Secondary Reviewer: 8/10/01

Supervisor Review: 8/10/01

√ = Checked & OK

NA = Not Applicable

Run Date: 25-Oct-01

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG107068 10-485	10/31/2001	PFF
WG106998 10-464	10/30/2001	PFF
WG106998 10-465	10/30/2001	FF

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadriatic regression	NA
	Alt Source Check	NA
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
	Surrogates	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	√
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Surrogates	√
	Correct Factors	√
	Dilutions	√
	Check Sample Histories	NA
	Corrective Action	√
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:

L0110464-01,02,&08 and L0110485-07&08 sent for re-ext. due to surr. rec. <LCL.

L0110485-07 & 08 require conf.

V174P115 LCS (WG107068) recovered high for 5 analytes. Associated L0110485 samples did not have hits of these analytes.

Middle and ending CCVs failed low for benzo(g,h,i)perylene by FLD. There were no hits of this analyte which required FLD confirmation.

- "WG" data + L0110465-01 was uploaded by MWILSON/ There is no batch upload sheet for these samples /RDC

Primary Reviewer: RDC 10/31/01 (Submitted 11/01/01 due to upload problems)

Secondary Reviewer: ~~10~~ 11/2/01

Supervisor Review: 11/2/01

√ = Checked & OK

NA = Not Applicable

Run Date: 31-Oct-01

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG107348 10-521	11/1/2001	FF
WG107439 10-522 RE	11/1/2001	PFF
WG107439 10-613	11/6/2001	FF
WG107439 10-614	11/6/2001	FF
WG107469 10-562 RE	11/2/2001	FP
WG107449 10-464 RE	10/30/2001	PFF
WG107449 10-485 RE	10/31/2001	PFF

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadriatic regression	NA
	Alt Source Check	NA
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
	Surrogates	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	√
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Surrogates	√
	Correct Factors	√
	Dilutions	√
	Check Sample Histories	NA
	Corrective Action	√
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:

L0110521-01 surrogate recovered > UCL Sample extract was colored and opaque. Chromatogram exhibited matrix "hump". SMI is presumed.

L0110464-01 & 08 re-ext. surr. recovery was acceptable. Re-ext. data only will be reported. L0110464-02 re-ext. confirms low surr. recovery and both results will be reported.

L0110485-07 re-ext. surr. rec. was acceptable and only the re-ext. data will be reported. L0110485-08 re-ext. confirms low surr. rec. and both results will be reported.

L0110522-01 re-ext. confirmed the low surr. recovery of the initial ext. Both results will be reported.
(ALL RE-EXT. WERE WITHIN HOLDING TIME)

L0110613-04 yielded a % rec. for the surr. which was < LCL. Re-ext. was requested but there was a QNS for this sample.

L0110562-03 re-ext. in hold confirms low surr. recovery. Both results will be reported. L0110562-06 & 07 re-ext. in hold recovered acceptable surr. Only the re-ext. will be reported. (L0110562-03 was R flagged for all analytes because of surr. recovery.)

Primary Reviewer: RDC 11/2/01

Secondary Reviewer: 11/2/01

Supervisor Review: 11/2/01

√ = Checked & OK

NA = Not Applicable

PAH HPLC DATA (8310)

Login Number: 10-485

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

✓ Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data)

✓ Chromatograms and external standard reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and external standard reports (chronological)

_____ Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

NA Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

✓ Extraction bench sheets

Checked By: Christina Crawford Date: 11-7-01

2.2.7.1 QC Summary

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, WATERS

ANAL WORK GRP : WG107068
METHOD : 8310
INSTRUMENT : HPLC4
ANALYST : RDC

PREP WORK GRP : WG107031
EXT DATE : 24-Oct-01
EXT BENCH SHEET : V174P115

RUN DATE : 10/25/01
BLK FLNM : 4L002211
LCS FLNM : 4L002212
LCS2 FLNM : NA

SAMP ID : L0110485 -04
SMPL FLNM : 4L002227
MS FLNM : 4L002228
MSD FLNM : 4L002229

ANALYTE	CONCENTRATION, µg/L									% RECOVERY															
	RDL	BLK	LCS SPIKE ADDED	LCS	LCS2	SAMPLE	MS SPIKE ADDED	MS	MSD	BLK	LCS	LCS2	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	MSD RPD	RPC UCL	BLK	CS	CS2	MS	MSD
NAPHTHALENE	1	ND	50	35.2	NA	ND	50.0	26.2	20.5	ND	70.4		25	68	NA	52.4	41.0	25	68	24	50		H			
ACENAPTHYLENE	1	ND	50	39.7	NA	ND	50.0	27.7	21.1	ND	79.4		25	77	NA	65.4	42.2	25	77	27	50		H			
1-METHYLNAPHTHALENE	1	ND	50	36.9	NA	ND	50.0	26.3	20.4	ND	73.8		26	71	NA	52.6	40.8	26	71	25	50		H			
2-METHYLNAPHTHALENE	1	ND	50	37.1	NA	ND	50.0	26.6	20.7	ND	74.2		26	72	NA	53.2	41.4	26	72	25	50		H			
ACENAPHTHENE	1	ND	50	39.9	NA	ND	50.0	27.7	21.0	ND	79.8		25	78	NA	55.4	42.0	77	25	28	50		H		L	L
FLUORENE	1	ND	50	41.9	NA	ND	50.0	28.9	21.8	ND	83.8		29	84	NA	57.8	43.6	29	84	28	50					
PHENANTHRENE	1	ND	50	43.4	NA	ND	50.0	34.1	25.4	ND	86.8		39	95	NA	68.2	50.8	39	95	29	50					
ANTHRACENE	1	ND	50	42.6	NA	ND	50.0	32.4	23.2	ND	85.2		47	101	NA	64.8	46.4	47	101	33	50					L
FLUORANTHENE	0.2	ND	5	4.56	NA	ND	5.00	3.55	2.52	ND	91.2		55	104	NA	71.0	50.4	55	104	34	50					L
PYRENE	0.2	ND	5	4.38	NA	ND	5.00	3.45	2.42	ND	87.6		56	104	NA	69.0	48.4	56	104	35	50					L
BENZO[a]ANTHRACENE	0.2	ND	5	4.75	NA	ND	5.00	2.57	1.64	ND	95.0		50	115	NA	51.4	32.8	50	115	44	50					L
CHRYSENE	0.2	ND	5	4.68	NA	ND	5.00	2.65	1.53	ND	93.6		39	120	NA	51.0	30.6	39	120	50	50					L
BENZO[b]FLUORANTHENE	0.2	ND	5	4.39	NA	ND	5.00	1.96	1.17	ND	87.8		41	110	NA	39.2	23.4	41	110	50	50				L	L
BENZO[k]FLUORANTHENE	0.2	ND	2.5	2.12	NA	ND	2.50	0.86	0.52	ND	84.8		25	107	NA	34.3	20.8	25	107	49	50					L
BENZO[a]PYRENE	0.2	ND	5	4.11	NA	ND	5.00	1.91	1.11	ND	82.2		29	113	NA	38.2	22.2	29	113	53	50					L
DIBENZO[a,h]ANTHRACENE	0.2	ND	5	3.78	NA	ND	5.00	1.27	0.71	ND	75.6		10	92	NA	25.4	14.3	10	92	56	50					
BENZO[g,h,i]PERYLENE	0.2	ND	5	3.65	NA	ND	5.00	1.75	0.95	ND	73.0		11	84	NA	35.0	19.0	11	84	59	50					
INDENO[1,2,3-cd]PYRENE	0.2	ND	5	3.88	NA	ND	5.00	1.53	0.81	ND	77.6		16	98	NA	30.6	16.2	16	98	61	50					
SURROGATE p-TERPHENYL-d14		7.85	10	8.97	NA	3.93	10.0	3.77	2.88	78.5	89.7		40	132	39.3	37.7	28.8	40	132					L	L	L

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL = REPORTING DETECTION LIMIT
D = DETECTED, RESULT MUST BE GREATER THAN ZERO

H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, WATERS

ANAL WORK GRP : WG107449
METHOD : 8310
INSTRUMENT : HPLC4
ANALYST : RDC

PREP WORK GRP : WG107228
EXT DATE : 29-Oct-01
EXT BENCH SHEET : V174P141

RUN DATE : 10/31/01
BLK FLNM : 4L002284
LCS FLNM : 4L002285
LCS2 FLNM : 4L002286

SAMP ID : NA
SMPL FLNM : NA
MS FLNM : NA
MSD FLNM : NA

ANALYTE	CONCENTRATION, µg/L									% RECOVERY																
	RDL	BLK	LCS SPIKE ADDED	LCS	LCS2	SAMPLE	MS SPIKE ADDED	MS	MSD	BLK	LCS	LCS2	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	LCS RPD	RPC UCL	BLK	LCS	LCS2	MS	MSD
NAPHTHALENE	1	ND	50	27.6	28.2	NA	50.0	NA	NA	ND	55.2	56.4	25	68	NA	NA	NA	25	68	2.15	50					
ACENAPTHYLENE	1	ND	50	29.5	29.5	NA	50.0	NA	NA	ND	59.0	59.0	25	77	NA	NA	NA	25	77	0.00	50					
1-METHYLNAPHTHALENE	1	ND	50	28.1	28.7	NA	50.0	NA	NA	ND	56.2	57.4	26	71	NA	NA	NA	26	71	2.11	50					
2-METHYLNAPHTHALENE	1	ND	50	28.4	29.1	NA	50.0	NA	NA	ND	56.8	58.2	26	72	NA	NA	NA	26	72	2.43	50					
ACENAPHTHENE	1	ND	50	30.0	30.0	NA	50.0	NA	NA	ND	60.0	60.0	25	78	NA	NA	NA	25	78	0.01	50					
FLUORENE	1	ND	50	31.6	30.9	NA	50.0	NA	NA	ND	63.2	61.8	29	84	NA	NA	NA	29	84	2.24	50					
PHENANTHRENE	1	ND	50	36.7	32.8	NA	50.0	NA	NA	ND	73.4	65.6	39	95	NA	NA	NA	39	95	11.2	50					
ANTHRACENE	1	ND	50	39.7	36.8	NA	50.0	NA	NA	ND	79.4	73.6	47	101	NA	NA	NA	47	101	7.58	50					
FLUORANTHENE	0.2	ND	5	4.41	3.79	NA	5.00	NA	NA	ND	88.2	75.8	55	104	NA	NA	NA	55	104	15.1	50					
PYRENE	0.2	ND	5	4.38	3.77	NA	5.00	NA	NA	ND	87.6	75.4	56	104	NA	NA	NA	56	104	15.0	50					
BENZO[a]ANTHRACENE	0.2	ND	5	4.31	3.55	NA	5.00	NA	NA	ND	86.2	71.0	50	115	NA	NA	NA	50	115	19.3	50					
CHRYSENE	0.2	ND	5	4.06	2.79	NA	5.00	NA	NA	ND	81.2	55.8	39	120	NA	NA	NA	39	120	37.1	50					
BENZO[b]FLUORANTHENE	0.2	ND	5	3.63	2.69	NA	5.00	NA	NA	ND	72.6	53.8	41	110	NA	NA	NA	41	110	29.7	50					
BENZO[k]FLUORANTHENE	0.2	ND	2.5	1.68	1.06	NA	2.50	NA	NA	ND	67.2	42.4	25	107	NA	NA	NA	25	107	45.3	50					
BENZO[a]PYRENE	0.2	ND	5	3.42	2.34	NA	5.00	NA	NA	ND	68.4	46.8	29	113	NA	NA	NA	29	113	37.5	50					
DIBENZO[a,h]ANTHRACENE	0.2	ND	5	3.06	1.62	NA	5.00	NA	NA	ND	61.2	32.4	10	92	NA	NA	NA	10	92	61.5	50					
BENZO[g,h,i]PERYLENE	0.2	ND	5	2.92	1.42	NA	5.00	NA	NA	ND	58.4	28.4	11	84	NA	NA	NA	11	84	69.1	50					
INDENO[1,2,3-cd]PYRENE	0.2	ND	5	3.00	1.72	NA	5.00	NA	NA	ND	60.0	34.4	16	98	NA	NA	NA	16	98	54.2	50					
SURROGATE p-TERPHENYL-d14		8.14	10	7.43	5.08	NA	10.0	NA	NA	81.4	74.3	50.8	40	132	NA	NA	NA	40	132							

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL = REPORTING DETECTION LIMIT
D = DETECTED, RESULT MUST BE GREATER THAN ZERO

H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

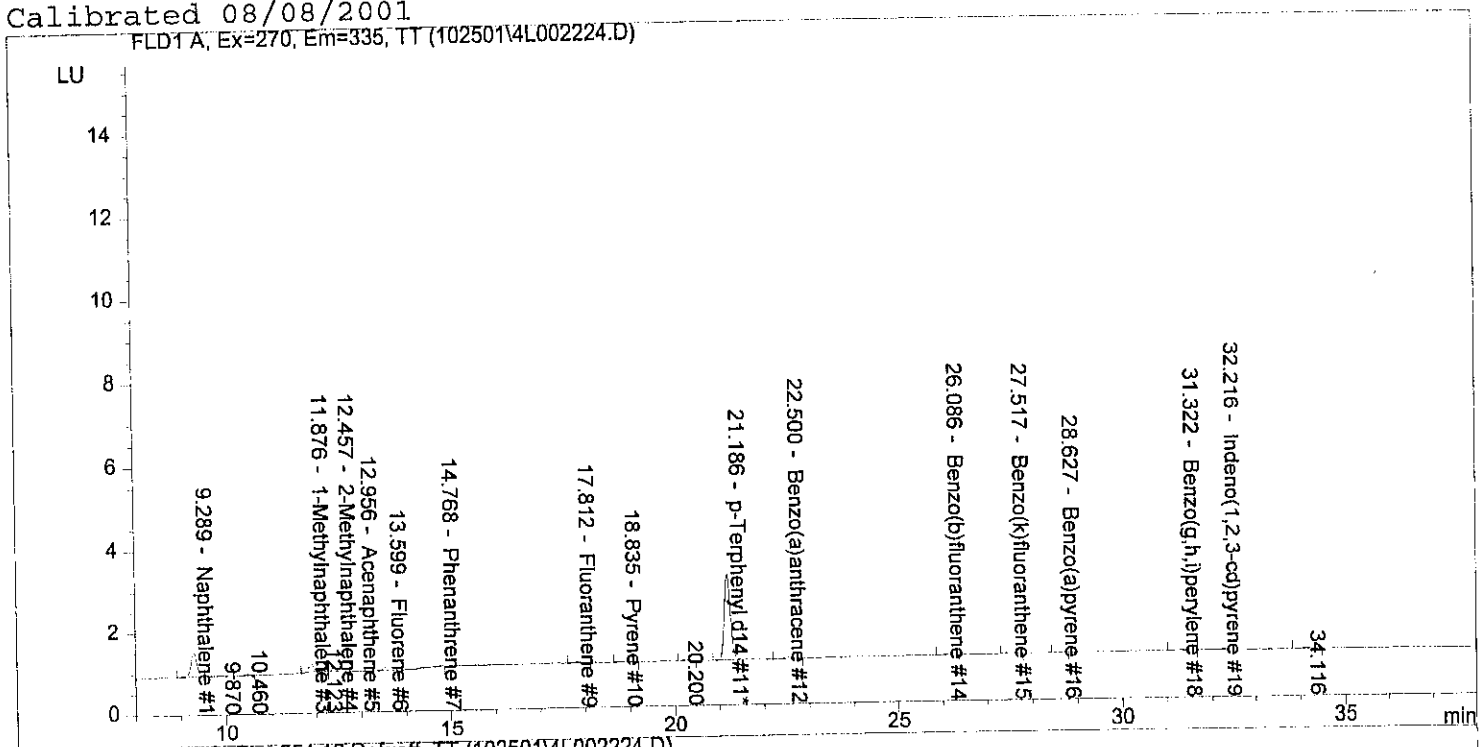
2.2.7.2 Sample Data

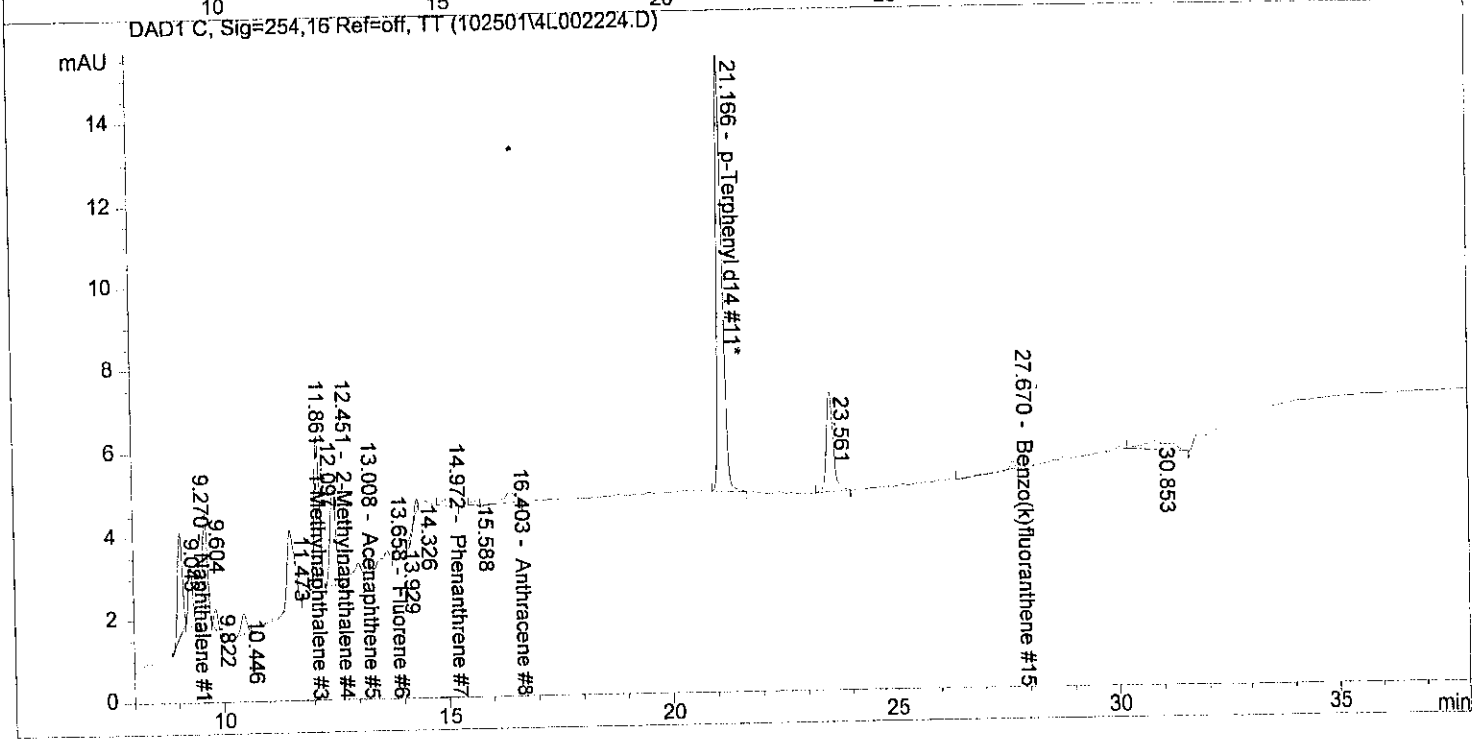
==========

Injection Date : 10/26/2001 7:14:42 AM
Sample Name : L0110485-01 831W
Acq. Operator : RDC

Seq. Line : 18
Vial : 18
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/26/2001 9:03:32 AM by RDC
Calibrated 08/08/2001





External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 10/26/2001 8:59:27 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.289	BB	5.52219	2.52962e-2	1.39690e-1		Naphthalene #1
11.876	BB	1.66616	2.21330e-2	3.68770e-2		1-Methylnaphthalene #3
12.457	BB	3.63778	1.70635e-2	6.20733e-2		2-Methylnaphthalene #4
12.956	BB	5.71971e-1	1.38416e-2	7.91698e-3		Acenaphthene #5
13.599	BB	1.64009	6.62187e-3	1.08605e-2		Fluorene #6
14.768	BB	2.92967e-1	1.63652e-1	4.79447e-2		Phenanthrene #7
16.407		-	-	-		Anthracene #8
17.812	BBA	3.04471e-1	2.32678e-2	7.08439e-3		Fluoranthene #9
18.835	PBA	2.24736e-1	3.86587e-2	8.68801e-3		Pyrene #10
21.186	BB	20.06788	2.97423e-1	5.96865		p-Terphenyl d14 #11*
22.500	BB	6.76086e-1	7.91256e-3	5.34957e-3		Benzo(a)anthracene #12
23.379		-	-	-		Chrysene #13
26.086	PBA	1.75303e-1	1.63222e-2	2.86133e-3		Benzo(b)fluoranthene #14
27.517	BBA	7.97560e-1	2.76572e-3	2.20582e-3		Benzo(k)fluoranthene #15
28.627	PBA	4.80241e-1	4.57119e-3	2.19527e-3		Benzo(a)pyrene #16
30.529		-	-	-		Dibenz(a,h)anthracene #17
31.322	BB	2.51914e-1	2.65165e-2	6.67989e-3		Benzo(g,h,i)perylene #18
32.216	BBA	8.42713e-1	1.38204e-2	1.16466e-2		Indeno(1,2,3-cd)pyrene #1
Totals :				6.32072		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.270	BB	11.05994	8.25405e-3	9.12893e-2	LMDL	Naphthalene #1
10.913		-	-	-		Acenaphthylene #2
11.861	BB	1.38197	1.29459e-2	1.78908e-2		1-Methylnaphthalene #3
12.451	BB	20.57104	1.12393e-2	2.31204e-1		2-Methylnaphthalene #4
13.008	BB	3.85873	2.03163e-2	7.83954e-2		Acenaphthene #5
13.658	BB	3.01884	1.75240e-2	5.29022e-2		Fluorene #6
14.972	BB	2.15645	1.72982e-2	3.73028e-2		Phenanthrene #7
16.403	BB	4.88093	1.04262e-2	5.08895e-2		Anthracene #8
17.777		-	-	-		Fluoranthene #9
18.789		-	-	-		Pyrene #10
21.166	BBA	91.58962	6.56733e-2	6.01499		p-Terphenyl d14 #11*
22.483		-	-	-		Benzo(a)anthracene #12
23.362		-	-	-	60.1%	Chrysene #13
26.095		-	-	-		Benzo(b)fluoranthene #14
27.670	BB	6.43834e-1	2.25837e-2	1.45402e-2	LMDL	Benzo(k)fluoranthene #15
28.644		-	-	-		Benzo(a)pyrene #16
30.513		-	-	-		Dibenz(a,h)anthracene #17

[min]	[mAU*s]		[ug/L]	
31.318	-	-	-	Benzo(g,h,i)perylene #18
32.265	-	-	-	Indeno(1,2,3-cd)pyrene #1

Totals : 6.58940

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

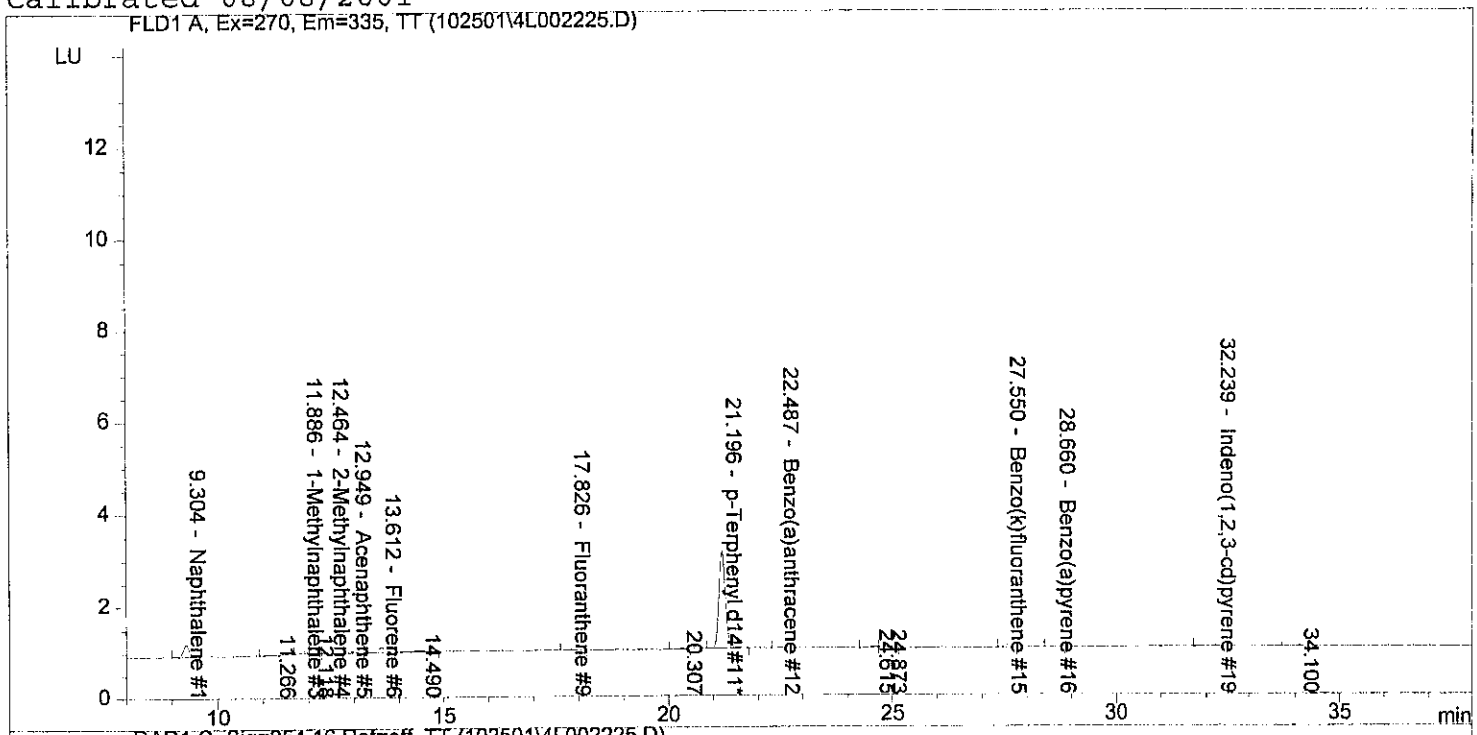
*** End of Report ***

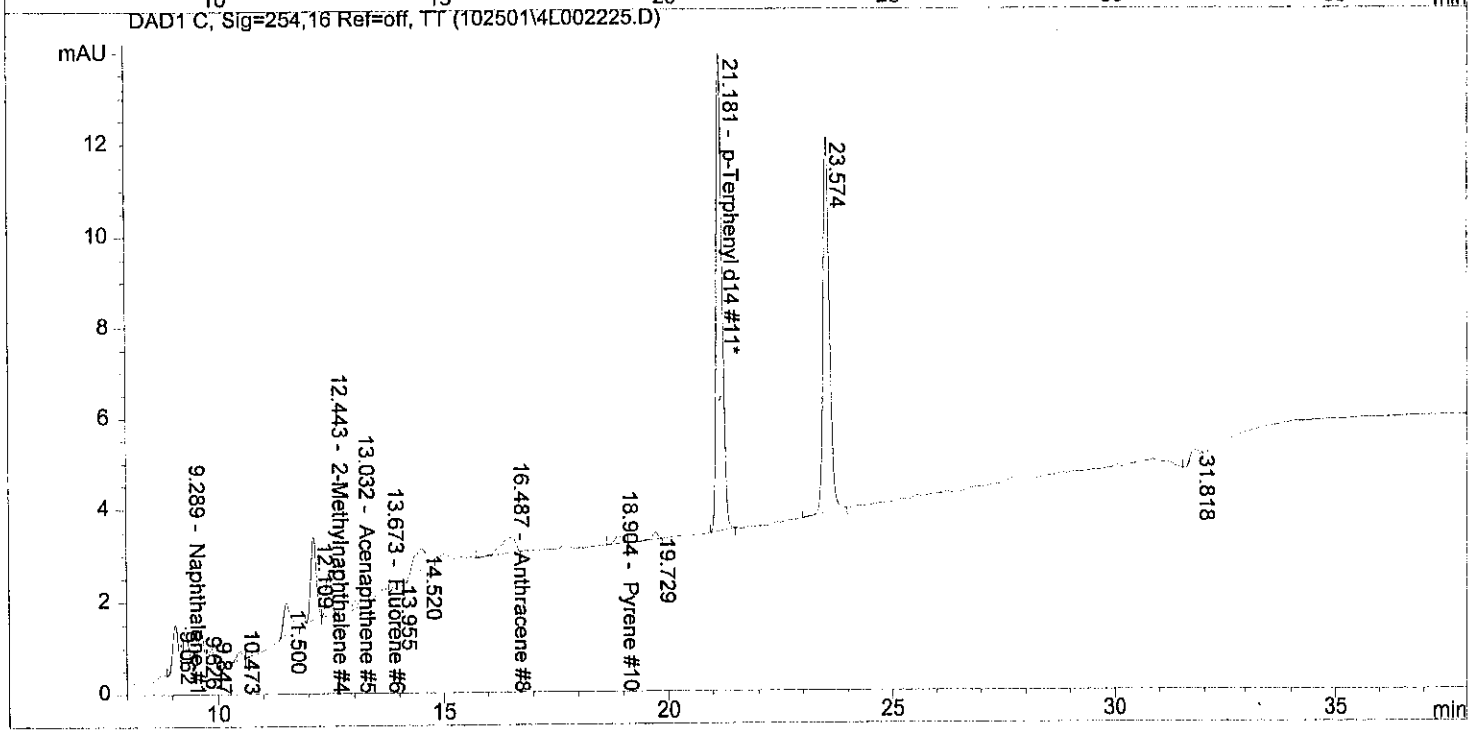
==========

Injection Date : 10/26/2001 8:11:19 AM
Sample Name : L0110485-02 831W
Acq. Operator : RDC

Seq. Line : 19
Vial : 19
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/26/2001 9:03:32 AM by RDC
Calibrated 08/08/2001





External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	10/26/2001 8:59:27 AM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.304	BB	2.76798	2.52962e-2	7.00194e-2		Naphthalene #1
11.886	BB	4.90191e-1	2.21330e-2	1.08494e-2		1-Methylnaphthalene #3
12.464	BBA	1.15850	1.70635e-2	1.97680e-2		2-Methylnaphthalene #4
12.949	BB	4.91572e-1	1.38416e-2	6.80413e-3		Acenaphthene #5
13.612	BB	1.37444	6.62187e-3	9.10137e-3		Fluorene #6
14.902		-	-	-		Phenanthrene #7
16.407		-	-	-		Anthracene #8
17.826	BBA	2.57252e-1	2.32678e-2	5.98569e-3		Fluoranthene #9
18.806		-	-	-		Pyrene #10
21.196	BBA	20.39858	2.97423e-1	6.06700		p-Terphenyl d14 #11*
22.487	PB	2.00082e-1	7.91256e-3	1.58316e-3		Benzo(a)anthracene #12
23.379		-	-	-		Chrysene #13
26.113		-	-	-		Benzo(b)fluoranthene #14
27.550	PBA	4.97936e-1	2.76572e-3	1.37715e-3		Benzo(k)fluoranthene #15
28.660	PBA	3.32664e-1	4.57119e-3	1.52067e-3		Benzo(a)pyrene #16
30.529		-	-	-		Dibenz(a,h)anthracene #17
31.336		-	-	-		Benzo(g,h,i)perylene #18
32.239	BB	2.53053e-1	1.38204e-2	3.49730e-3		Indeno(1,2,3-cd)pyrene #1
Totals :				6.19751		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.289	BB	5.22994	8.25405e-3	4.31681e-2		Naphthalene #1
10.913		-	-	-		Acenaphthylene #2
11.875		-	-	-		1-Methylnaphthalene #3
12.443	BB	8.99719	1.12393e-2	1.01122e-1		2-Methylnaphthalene #4
13.032	BB	2.02077	2.03163e-2	4.10546e-2		Acenaphthene #5
13.673	BB	2.27567	1.75240e-2	3.98789e-2		Fluorene #6
14.982		-	-	-		Phenanthrene #7
16.487	BB	7.47207	1.04262e-2	7.79052e-2		Anthracene #8
17.777		-	-	-		Fluoranthene #9
18.904	BB	1.79046	1.43052e-2	2.56130e-2		Pyrene #10
21.181	PBA	89.90125	6.56733e-2	5.90411		p-Terphenyl d14 #11*
22.483		-	-	-		Benzo(a)anthracene #12
23.362		-	-	-		Chrysene #13
26.095		-	-	-		Benzo(b)fluoranthene #14
27.535		-	-	-		Benzo(k)fluoranthene #15
28.644		-	-	-		Benzo(a)pyrene #16
30.513		-	-	-		Dibenz(a,h)anthracene #17

Lmol

59.0%

[min]		[mAU*s]		[ug/L]		
31.318		-	-	-		Benzo(g,h,i)perylene #18
32.265		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 6.23285

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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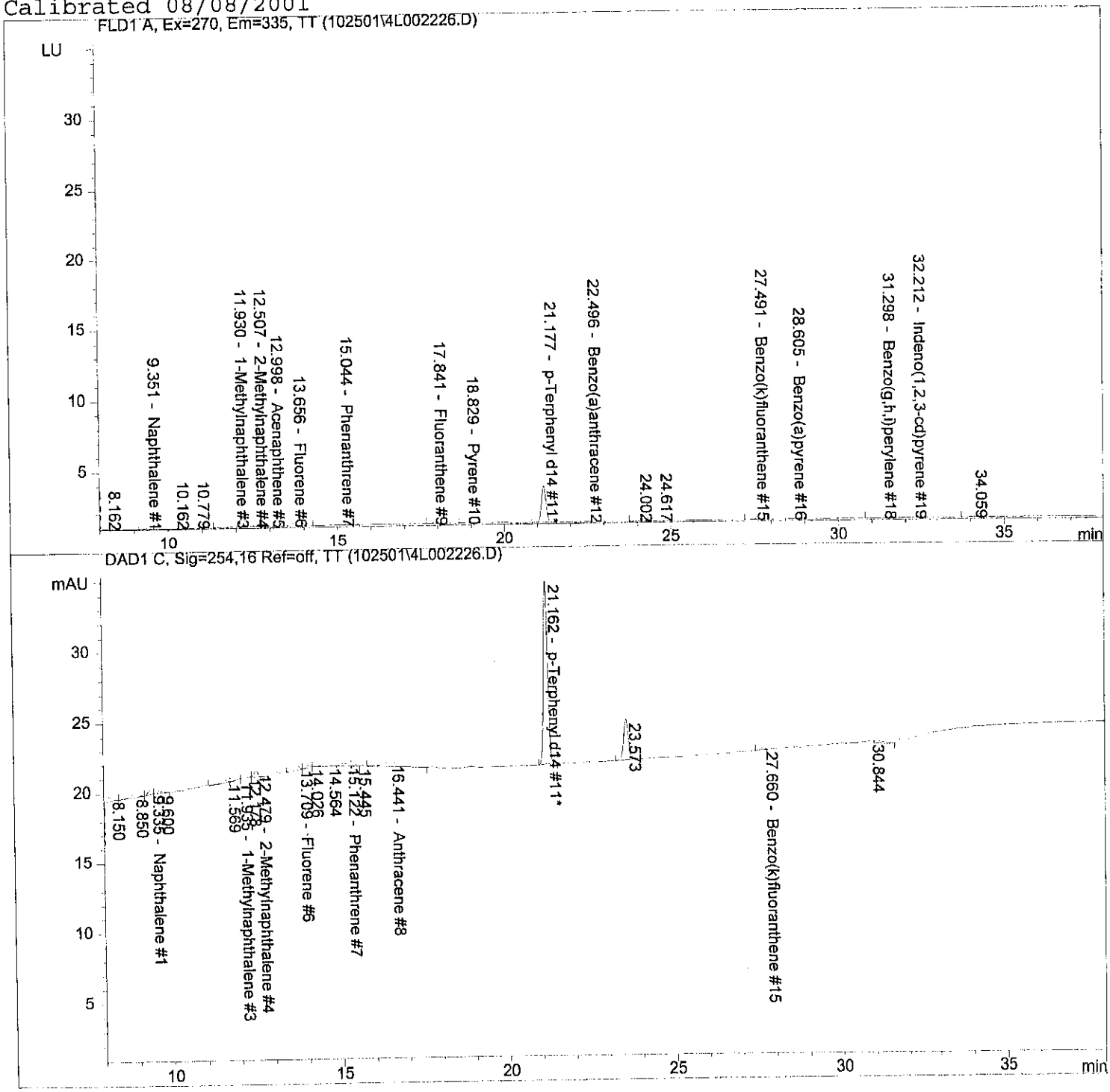
Injection Date : 10/26/2001 9:13:59 AM
Sample Name : L0110485-03 831W
Acq. Operator : RDC

Seq. Line : 20
Vial : 20
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/26/2001 9:03:32 AM by RDC
Calibrated 08/08/2001



External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	10/26/2001 8:59:27 AM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.351	BB	9.05815e-1	2.52962e-2	2.29137e-2		Naphthalene #1
11.930	BB	9.34499e-1	2.21330e-2	2.06832e-2		1-Methylnaphthalene #3
12.507	BB	1.24861	1.70635e-2	2.13057e-2		2-Methylnaphthalene #4
12.998	BBA	9.35296e-1	1.38416e-2	1.29460e-2		Acenaphthene #5
13.656	BB	2.52527	6.62187e-3	1.67220e-2		Fluorene #6
15.044	BB	1.17329	1.63652e-1	1.92012e-1		Phenanthrene #7
16.407		-	-	-		Anthracene #8
17.841	PBA	3.09529e-1	2.32678e-2	7.20208e-3		Fluoranthene #9
18.829	BBA	1.70145e-1	3.86587e-2	6.57759e-3		Pyrene #10
21.177	BB	24.78152	2.97423e-1	7.37059		p-Terphenyl d14 #11*
22.496	BB	5.78359e-1	7.91256e-3	4.57630e-3		Benzo(a)anthracene #12
23.379		-	-	-		Chrysene #13
26.113		-	-	-		Benzo(b)fluoranthene #14
27.491	BBA	6.13181e-1	2.76572e-3	1.69588e-3		Benzo(k)fluoranthene #15
28.605	PBA	3.75967e-1	4.57119e-3	1.71862e-3		Benzo(a)pyrene #16
30.529		-	-	-		Dibenz(a,h)anthracene #17
31.298	BB	3.88754e-1	2.65165e-2	1.03084e-2		Benzo(g,h,i)perylene #18
32.212	BB	3.84051e-1	1.38204e-2	5.30774e-3		Indeno(1,2,3-cd)pyrene #1
Totals :				7.69456		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.335	BB	1.94119	8.25405e-3	1.60227e-2	LMDL	Naphthalene #1
10.913		-	-	-		Acenaphthylene #2
11.935	BB	7.84967e-1	1.29459e-2	1.01621e-2		1-Methylnaphthalene #3
12.479	BB	3.93824	1.12393e-2	4.42630e-2		2-Methylnaphthalene #4
12.934		-	-	-		Acenaphthene #5
13.709	BB	3.97590	1.75240e-2	6.96737e-2		Fluorene #6
15.122	BB	2.42454	1.72982e-2	4.19403e-2		Phenanthrene #7
16.441	BB	10.18146	1.04262e-2	1.06154e-1		Anthracene #8
17.777		-	-	-		Fluoranthene #9
18.789		-	-	-		Pyrene #10
21.162	BBA	111.53383	6.56733e-2	7.32479		p-Terphenyl d14 #11*
22.483		-	-	-		Benzo(a)anthracene #12
23.362		-	-	-	73.2%	Chrysene #13
26.095		-	-	-		Benzo(b)fluoranthene #14
27.660	PB	1.11498	2.25837e-2	2.51803e-2	LMDL	Benzo(k)fluoranthene #15
28.644		-	-	-		Benzo(a)pyrene #16
30.513		-	-	-		Dibenz(a,h)anthracene #17

Retime [min]	Type	[mAU*s]		[ug/L]		
31.318		-	-	-		Benzo(g,h,i)perylene #18
32.265		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				7.63819		

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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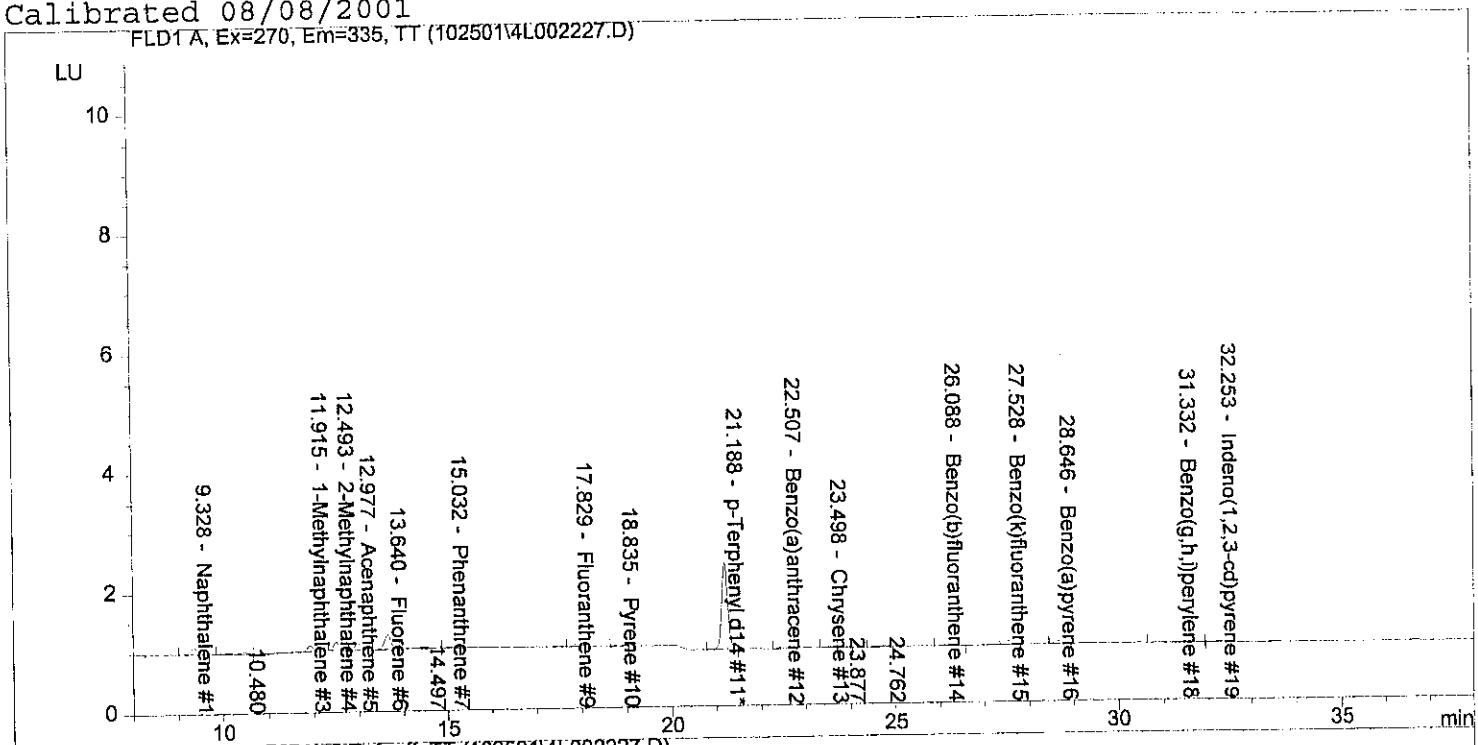
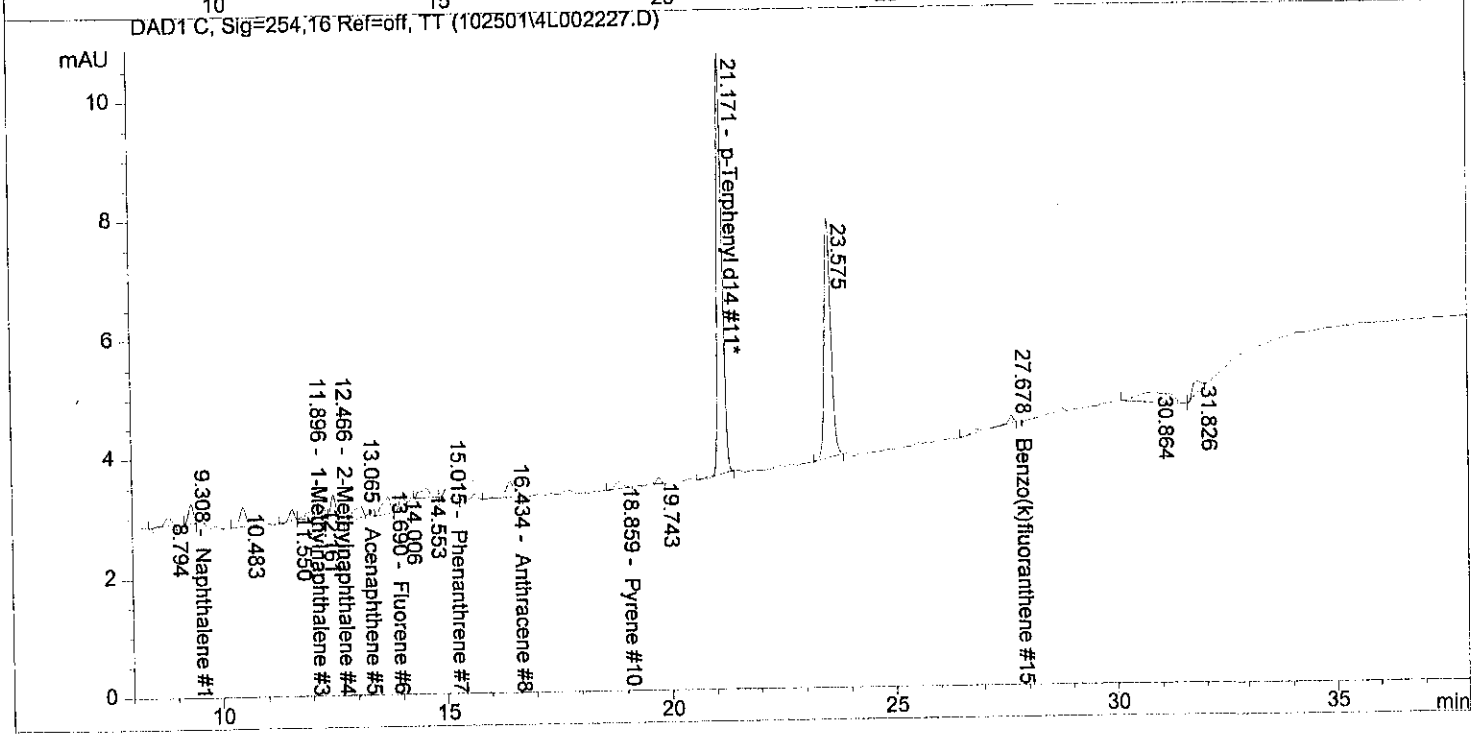
Injection Date : 10/26/2001 10:10:39 AM
Sample Name : WG107031-01 WREF
Acq. Operator : RDC

Seq. Line : 21
Vial : 21
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/26/2001 9:03:32 AM by RDC
Calibrated 08/08/2001





External Standard Report

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Sorted By : Signal
Calib. Data Modified : 10/26/2001 8:59:27 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.328	BB	1.16695	2.52962e-2	2.95194e-2		Naphthalene #1
11.915	BB	8.71859e-1	2.21330e-2	1.92968e-2		1-Methylnaphthalene #3
12.493	BB	1.21841	1.70635e-2	2.07903e-2		2-Methylnaphthalene #4
12.977	BB	1.23587	1.38416e-2	1.71064e-2		Acenaphthene #5
13.640	BB	2.57405	6.62187e-3	1.70450e-2		Fluorene #6
15.032	BBA	1.75133e-1	1.63652e-1	2.86610e-2		Phenanthrene #7
16.407		-	-	-		Anthracene #8
17.829	PBA	2.81752e-1	2.32678e-2	6.55577e-3		Fluoranthene #9
18.835	PBA	3.52142e-1	3.86587e-2	1.36133e-2		Pyrene #10
21.188	BB	13.88534	2.97423e-1	4.12982		p-Terphenyl d14 #11*
22.507	BB	5.50664e-1	7.91256e-3	4.35716e-3		Benzo(a)anthracene #12
23.498	BB	2.01292e-1	3.90495e-2	7.86034e-3		Chrysene #13
26.088	PBA	2.63461e-1	1.63222e-2	4.30026e-3		Benzo(b)fluoranthene #14
27.528	PBA	6.94894e-1	2.76572e-3	1.92188e-3		Benzo(k)fluoranthene #15
28.646	PBA	5.03223e-1	4.57119e-3	2.30033e-3		Benzo(a)pyrene #16
30.529		-	-	-		Dibenz(a,h)anthracene #17
31.332	BB	3.90655e-1	2.65165e-2	1.03588e-2		Benzo(g,h,i)perylene #18
32.253	BB	1.88145e-1	1.38204e-2	2.60024e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 4.31610

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.308	BB	2.45860	8.25405e-3	2.02934e-2	<MDL	Naphthalene #1
10.913		-	-	-		Acenaphthylene #2
11.896	BB	1.22516	1.29459e-2	1.58608e-2		1-Methylnaphthalene #3
12.466	BB	3.14997	1.12393e-2	3.54034e-2		2-Methylnaphthalene #4
13.065	BB	3.26381	2.03163e-2	6.63087e-2		Acenaphthene #5
13.690	BB	3.72576	1.75240e-2	6.52902e-2		Fluorene #6
15.015	BB	2.11908	1.72982e-2	3.66564e-2		Phenanthrene #7
16.434	BB	4.48076	1.04262e-2	4.67173e-2		Anthracene #8
17.777		-	-	-		Fluoranthene #9
18.859	BB	1.61681	1.43052e-2	2.31288e-2		Pyrene #10
21.171	BBA	59.85917	6.56733e-2	3.93115		p-Terphenyl d14 #11*
22.483		-	-	-		Benzo(a)anthracene #12
23.362		-	-	- 39.3%		Chrysene #13
26.095		-	-	-		Benzo(b)fluoranthene #14
27.678	PB	2.14988	2.25837e-2	4.85523e-2	NG	Benzo(k)fluoranthene #15
28.644		-	-	-		Benzo(a)pyrene #16
30.513		-	-	-		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.318		-	-	-		Benzo(g,h,i)perylene #18
32.265		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 4.28936

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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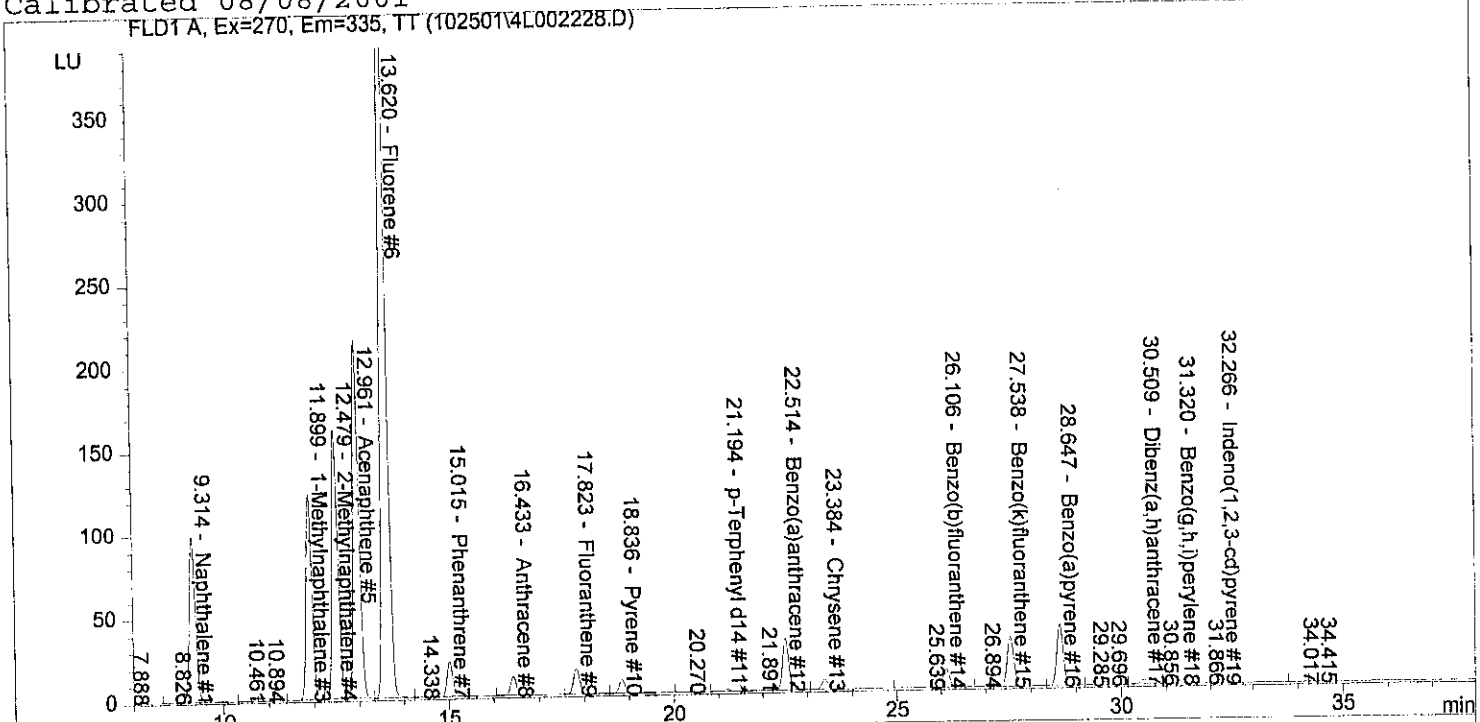
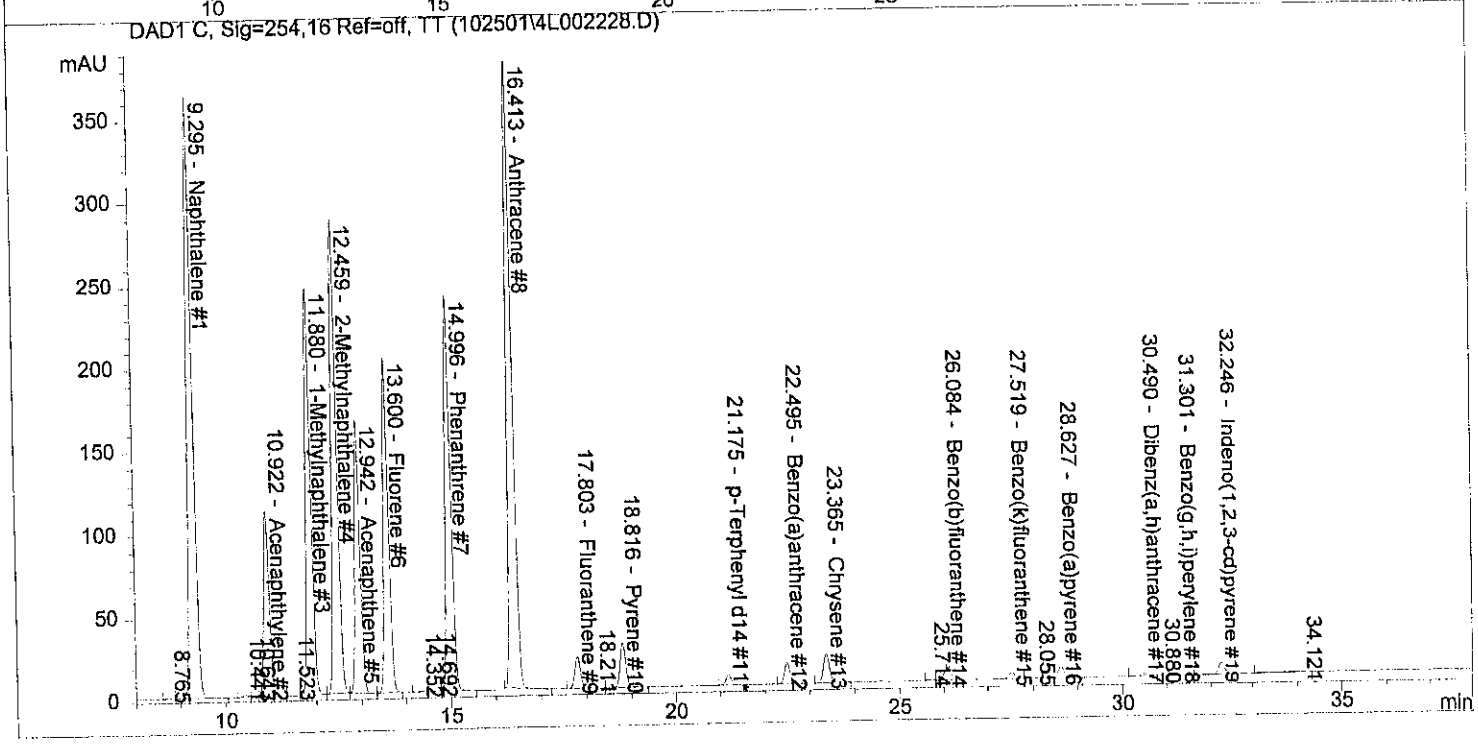
Injection Date : 10/26/2001 11:07:17 AM
Sample Name : WG107031-04 WMS
Acq. Operator : RDC

Seq. Line : 22
Vial : 22
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/26/2001 9:03:32 AM by RDC
Calibrated 08/08/2001





External Standard Report

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Sorted By : Signal
Calib. Data Modified : 10/26/2001 8:59:27 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.314	BB	939.48181	2.52962e-2	23.76532		Naphthalene #1
11.899	BB	1126.85547	2.21330e-2	24.94064		1-Methylnaphthalene #3
12.479	BB	1474.04407	1.70635e-2	25.15234		2-Methylnaphthalene #4
12.961	BB	1961.75061	1.38416e-2	27.15370		Acenaphthene #5
13.620	BB	4497.54687	6.62187e-3	29.78215		Fluorene #6
15.015	BBA	194.04810	1.63652e-1	31.75641		Phenanthrene #7
16.433	PB	102.08951	3.10196e-1	31.66779		Anthracene #8
17.823	BB	147.20465	2.32678e-2	3.42514		Fluoranthene #9
18.836	BBA	81.75641	3.86587e-2	3.16060		Pyrene #10
21.194	BB	12.78180	2.97423e-1	3.80160		p-Terphenyl d14 #11*
22.514	BB	308.27151	7.91256e-3	2.43922		Benzo(a)anthracene #12
23.384	BB	59.95026	3.90495e-2	2.34103		Chrysene #13
26.106	BBA	113.36633	1.63222e-2	1.85039		Benzo(b)fluoranthene #14
27.538	BB	308.11465	2.76572e-3	8.52158e-1		Benzo(k)fluoranthene #15
28.647	BB	367.93375	4.57119e-3	1.68190		Benzo(a)pyrene #16
30.509	BB	27.19445	3.93496e-2	1.07009		Dibenz(a,h)anthracene #17
31.320	BB	51.09501	2.65165e-2	1.35486		Benzo(g,h,i)perylene #18
32.266	BBA	101.50064	1.38204e-2	1.40278		Indeno(1,2,3-cd)pyrene #1
Totals :				217.59809		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.295	BBA	3179.51270	8.25405e-3	26.24386		Naphthalene #1
10.922	BB	933.52106	2.96975e-2	27.72326		Acenaphthylene #2
11.880	BB	2034.64233	1.29459e-2	26.34019		1-Methylnaphthalene #3
12.459	BB	2369.16992	1.12393e-2	26.62776		2-Methylnaphthalene #4
12.942	BB	1363.74365	2.03163e-2	27.70628		Acenaphthene #5
13.600	BB	1646.80029	1.75240e-2	28.85854		Fluorene #6
14.996	BBA	1972.13904	1.72982e-2	34.11454		Phenanthrene #7
16.413	BBA	3108.10522	1.04262e-2	32.40568		Anthracene #8
17.803	PB	163.56592	2.17006e-2	3.54948		Fluoranthene #9
18.816	BBA	241.41252	1.43052e-2	3.45347		Pyrene #10 SMT
21.175	BBA	57.41898	6.56733e-2	3.77089		p-Terphenyl d14 #11*
22.495	PBA	115.34576	2.22694e-2	2.56868		Benzo(a)anthracene #12
23.365	PBA	168.49899	1.51453e-2	2.55197		Chrysene #13
26.084	BBA	94.34982	2.07330e-2	1.95615		Benzo(b)fluoranthene #14
27.519	PB	38.00677	2.25837e-2	8.58333e-1		Benzo(k)fluoranthene #15
28.627	BBA	72.98322	2.61680e-2	1.90983		Benzo(a)pyrene #16
30.490	BB	13.52038	9.41116e-2	1.27243		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.301	BB	31.19663	5.60829e-2	1.74960		Benzo(g,h,i)perylene #18
32.246	BB	74.21244	2.05608e-2	1.52587		Indeno(1,2,3-cd)pyrene #1

Totals : 255.18678

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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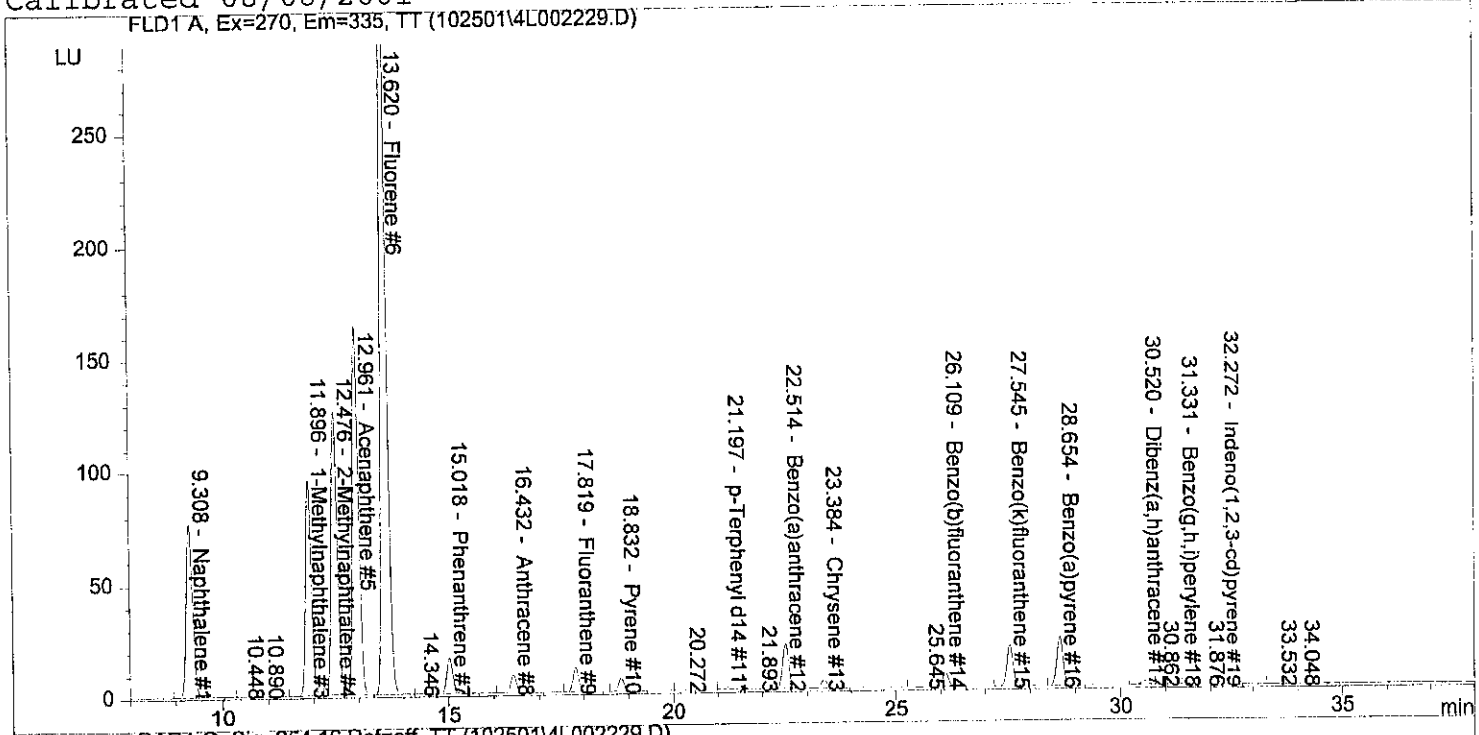
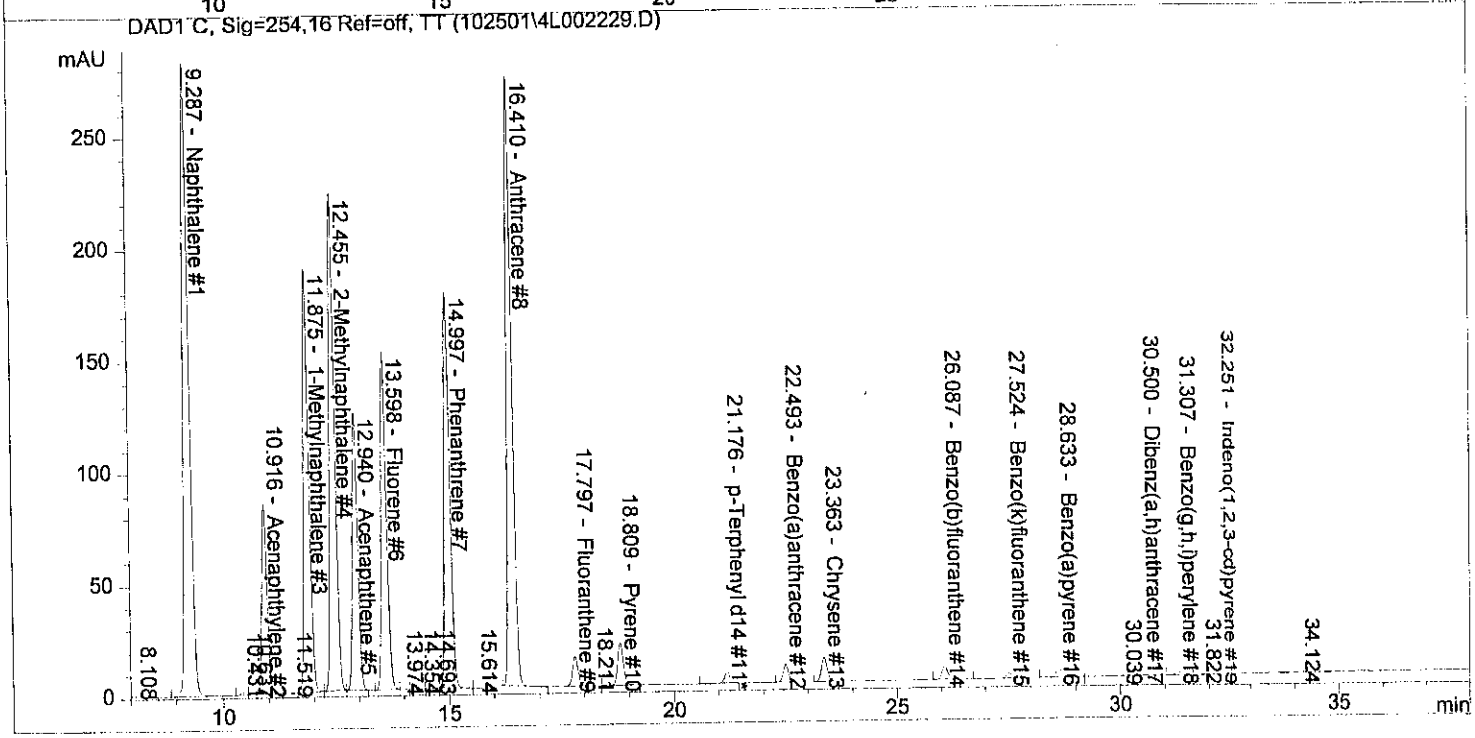
Injection Date : 10/26/2001 12:03:54 PM
Sample Name : WG107031-05 WMSD
Acq. Operator : RDC

Seq. Line : 23
Vial : 23
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/26/2001 9:03:32 AM by RDC
Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 10/26/2001 8:59:27 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.308	BB	733.50995	2.52962e-2	18.55501		Naphthalene #1
11.896	BB	873.41650	2.21330e-2	19.33129		1-Methylnaphthalene #3
12.476	BB	1146.36182	1.70635e-2	19.56094		2-Methylnaphthalene #4
12.961	BB	1496.32849	1.38416e-2	20.71153		Acenaphthene #5
13.620	BB	3409.58936	6.62187e-3	22.57785		Fluorene #6
15.018	BBA	144.28296	1.63652e-1	23.61223		Phenanthrene #7
16.432	BBA	73.85134	3.10196e-1	22.90842		Anthracene #8
17.819	BBA	104.07251	2.32678e-2	2.42154		Fluoranthene #9
18.832	BBA	57.42746	3.86587e-2	2.22007		Pyrene #10
21.197	BBA	9.96948	2.97423e-1	2.96515		p-Terphenyl d14 #11*
22.514	BB	196.55334	7.91256e-3	1.55524		Benzo(a)anthracene #12
23.384	BBA	37.96546	3.90495e-2	1.48253		Chrysene #13
26.109	BBA	68.41017	1.63222e-2	1.11660		Benzo(b)fluoranthene #14
27.545	BBA	183.30234	2.76572e-3	5.06962e-1		Benzo(k)fluoranthene #15
28.654	PB	217.47050	4.57119e-3	9.94099e-1		Benzo(a)pyrene #16
30.520	BB	15.91141	3.93496e-2	6.26107e-1		Dibenz(a,h)anthracene #17
31.331	BB	28.06717	2.65165e-2	7.44243e-1		Benzo(g,h,i)perylene #18
32.272	BB	58.17429	1.38204e-2	8.03992e-1		Indeno(1,2,3-cd)pyrene #1
Totals :				162.69380		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.287	BBA	2487.05762	8.25405e-3	20.52830		Naphthalene #1
10.916	BB	711.17029	2.96975e-2	21.11999		Acenaphthylene #2
11.875	BB	1574.43213	1.29459e-2	20.38237		1-Methylnaphthalene #3
12.455	BB	1839.58447	1.12393e-2	20.67560		2-Methylnaphthalene #4
12.940	BB	1034.29761	2.03163e-2	21.01315		Acenaphthene #5
13.598	BB	1242.95178	1.75240e-2	21.78149		Fluorene #6
14.997	BB	1465.63831	1.72982e-2	25.35297		Phenanthrene #7
16.410	BBA	2228.72534	1.04262e-2	23.23710		Anthracene #8
17.797	PB	116.10229	2.17006e-2	2.51949		Fluoranthene #9
18.809	BBA	168.87939	1.43052e-2	2.41586		Pyrene #10 >MF
21.176	BBA	43.80349	6.56733e-2	2.87672 28.7%		p-Terphenyl d14 #11*
22.493	PBA	73.65737	2.22694e-2	1.64031	*	Benzo(a)anthracene #12
23.363	PB	100.86694	1.51453e-2	1.52766		Chrysene #13
26.087	BBA	56.59465	2.07330e-2	1.17338		Benzo(b)fluoranthene #14
27.524	PBA	23.02568	2.25837e-2	5.20005e-1		Benzo(k)fluoranthene #15
28.633	BB	42.49449	2.61680e-2	1.11200		Benzo(a)pyrene #16
30.500	BB	7.58892	9.41116e-2	7.14206e-1		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.307	BB	16.89500	5.60829e-2	9.47521e-1		Benzo(g,h,i)perylene #18
32.251	BB	39.52911	2.05608e-2	8.12749e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 190.35085

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

==========
*** End of Report ***

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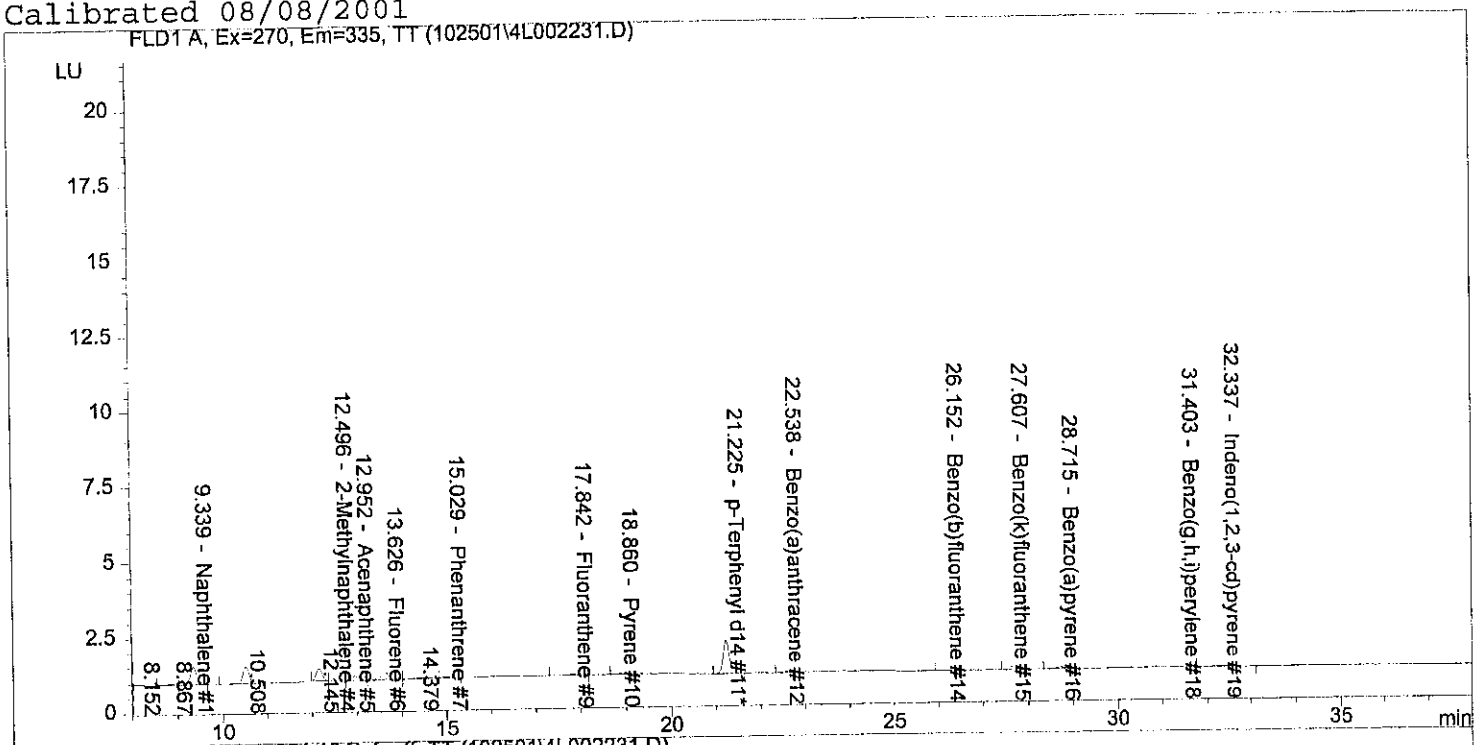
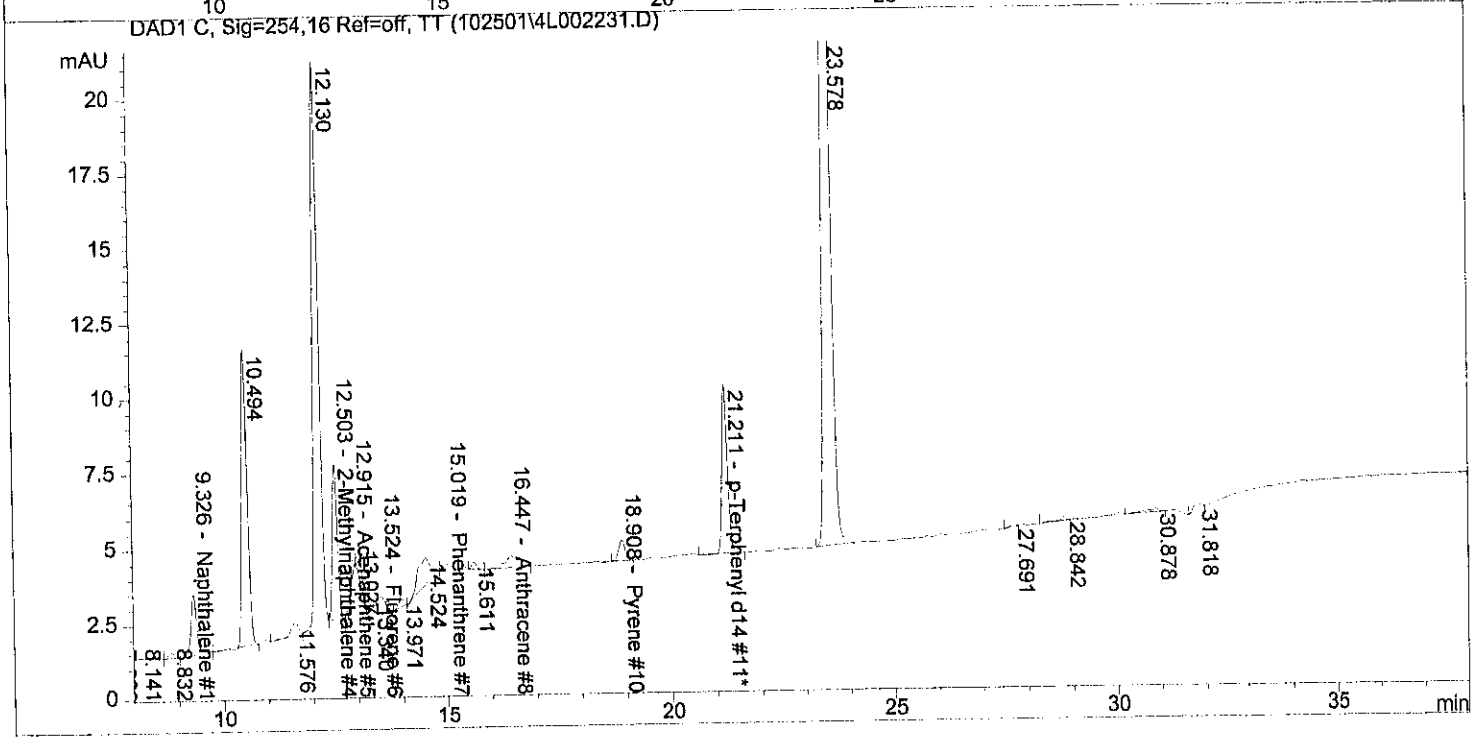
Injection Date : 10/26/2001 1:57:13 PM
Sample Name : L0110485-07 831W
Acq. Operator : RDC

Seq. Line : 25
Vial : 25
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/26/2001 9:03:32 AM by RDC
Calibrated 08/08/2001





External Standard Report

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Sorted By : Signal
Calib. Data Modified : 10/26/2001 8:59:27 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.339	BBA	5.41807	2.52962e-2	1.37057e-1		Naphthalene #1
11.892		-	-	-		1-Methylnaphthalene #3
12.496	BB	7.19827e-1	1.70635e-2	1.22828e-2		2-Methylnaphthalene #4
12.952	BB	1.67359	1.38416e-2	2.31651e-2		Acenaphthene #5
13.626	BB	2.92886	6.62187e-3	1.93945e-2		Fluorene #6
15.029	BBA	2.11871e-1	1.63652e-1	3.46731e-2		Phenanthrene #7
16.407		-	-	-		Anthracene #8
17.842	BBA	5.15187e-1	2.32678e-2	1.19873e-2		Fluoranthene #9
18.860	BBA	2.73154e-1	3.86587e-2	1.05598e-2		Pyrene #10
21.225	BB	10.91623	2.97423e-1	3.24673		p-Terphenyl d14 #11*
22.538	PB	4.57608e-1	7.91256e-3	3.62085e-3		Benzo(a)anthracene #12
23.379		-	-	-		Chrysene #13
26.152	PBA	2.40467e-1	1.63222e-2	3.92495e-3		Benzo(b)fluoranthene #14
27.607	BBA	9.34313e-1	2.76572e-3	2.58404e-3		Benzo(k)fluoranthene #15
28.715	BBA	6.44971e-1	4.57119e-3	2.94828e-3		Benzo(a)pyrene #16
30.529		-	-	-		Dibenz(a,h)anthracene #17
31.403	BB	2.91125e-1	2.65165e-2	7.71961e-3		Benzo(g,h,i)perylene #18
32.337	BB	8.14925e-1	1.38204e-2	1.12626e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 3.52791

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.326	BB	18.36596	8.25405e-3	1.51594e-1	imbl	Naphthalene #1
10.913		-	-	-		Acenaphthylene #2
11.875		-	-	-		1-Methylnaphthalene #3
12.503	BB	42.91227	1.12393e-2	4.82303e-1		2-Methylnaphthalene #4
12.915	BB	4.21722e-1	2.03163e-2	8.56785e-3		Acenaphthene #5
13.524	BB	1.18439	1.75240e-2	2.07552e-2		Fluorene #6
15.019	BB	2.08914	1.72982e-2	3.61384e-2		Phenanthrene #7
16.447	BB	7.90433	1.04262e-2	8.24120e-2		Anthracene #8
17.777		-	-	-		Fluoranthene #9
18.908	BB	6.86988	1.43052e-2	9.82753e-2	NC	Pyrene #10
21.211	BB	48.34687	6.56733e-2	3.17510		p-Terphenyl d14 #11*
22.483		-	-	-		Benzo(a)anthracene #12
23.362		-	-	-	31.3%	Chrysene #13
26.095		-	-	-		Benzo(b)fluoranthene #14
27.535		-	-	-		Benzo(k)fluoranthene #15
28.644		-	-	-		Benzo(a)pyrene #16
30.513		-	-	-		Dibenz(a,h)anthracene #17

[min]	[mAU*s]		[ug/L]		
31.318	-	-	-		Benzo(g,h,i)perylene #18
32.265	-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 4.05514

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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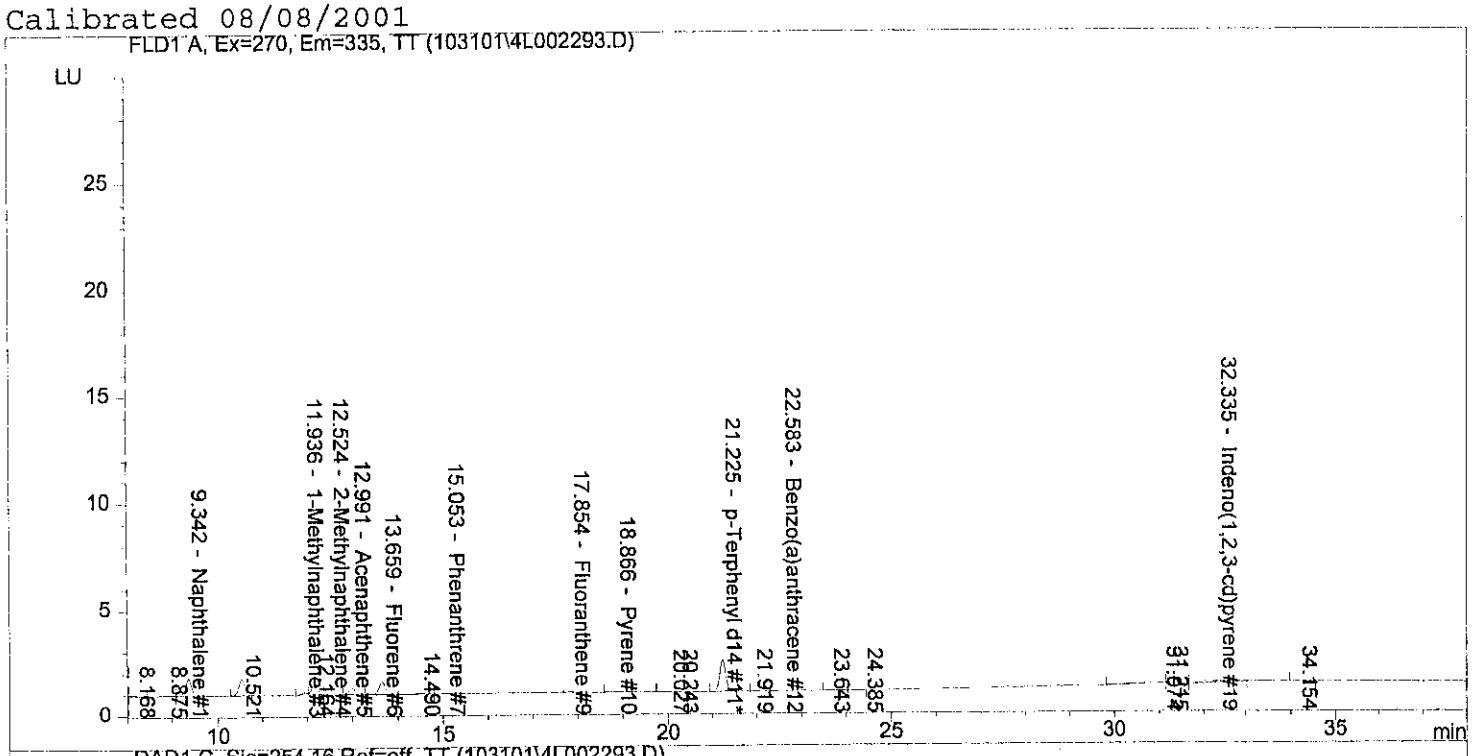
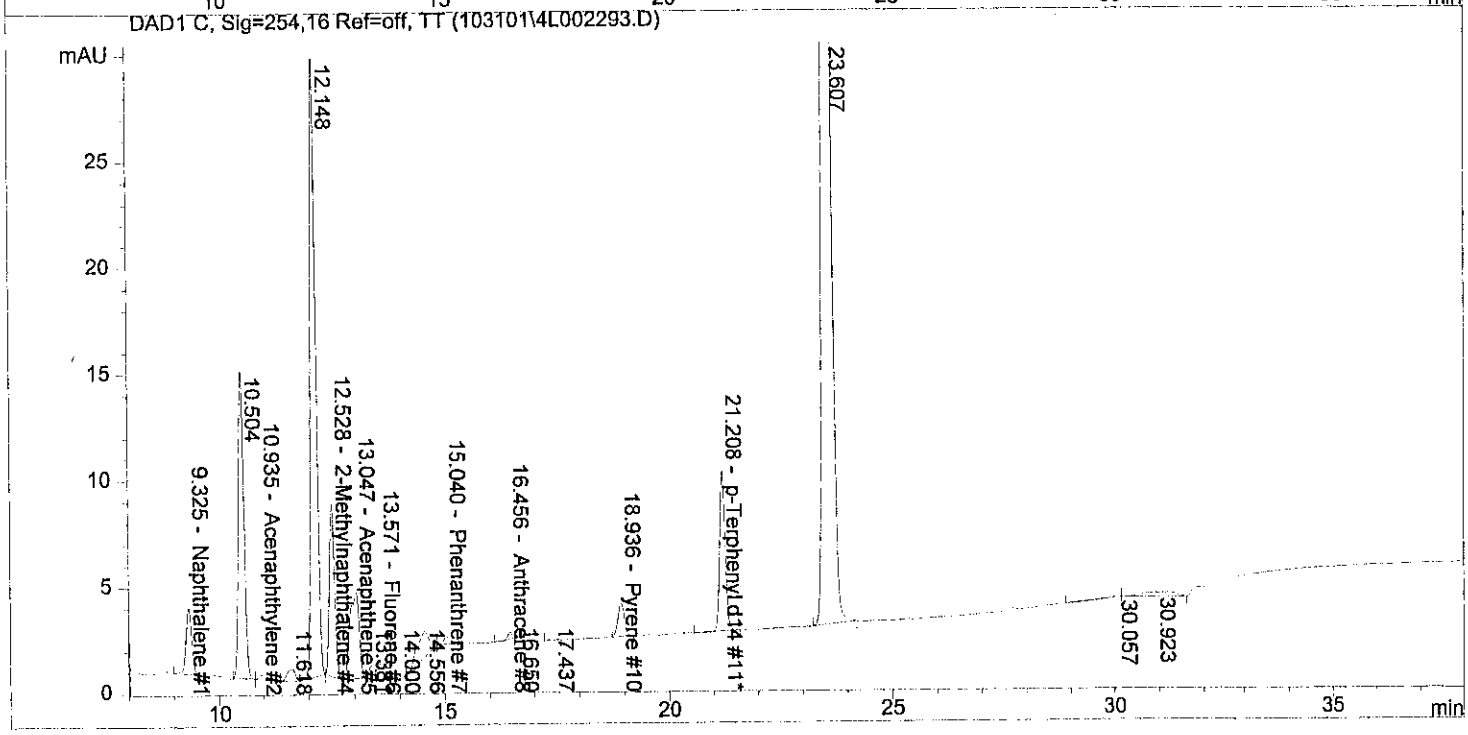
Injection Date : 11/1/2001 3:13:38 AM
Sample Name : L0110485-07 REEX
Acq. Operator : RDC

Seq. Line : 18
Vial : 18
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/1/2001 8:37:21 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

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Sorted By : Signal
Calib. Data Modified : Wednesday, October 31, 2001 9:15:43 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.342	BB	8.05694	2.52962e-2	2.03810e-1		Naphthalene #1
11.936	BB	4.83211e-1	2.21330e-2	1.06949e-2		1-Methylnaphthalene #3
12.524	BB	2.28642	1.70635e-2	3.90143e-2		2-Methylnaphthalene #4
12.991	BB	3.33870	1.38416e-2	4.62128e-2		Acenaphthene #5
13.659	BB	6.48247	6.62187e-3	4.29261e-2		Fluorene #6
15.053	BBA	3.31096e-1	1.63652e-1	5.41846e-2		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.854	BBA	3.65353e-1	2.32678e-2	8.50098e-3		Fluoranthene #9
18.866	PBA	3.61161e-1	3.86587e-2	1.39620e-2		Pyrene #10
21.225	BB	14.37134	2.97423e-1	4.27436		p-Terphenyl d14 #11*
22.583	BB	3.24933e-1	7.91256e-3	2.57105e-3		Benzo(a)anthracene #12
23.473		-	-	-		Chrysene #13
26.210		-	-	-		Benzo(b)fluoranthene #14
27.662		-	-	-		Benzo(k)fluoranthene #15
28.769		-	-	-		Benzo(a)pyrene #16
30.650		-	-	-		Dibenz(a,h)anthracene #17
31.455		-	-	-		Benzo(g,h,i)perylene #18
32.335	BB	4.15897	1.38204e-2	5.74787e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 4.75372

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.325	BBA	27.61922	8.25405e-3	2.27970e-1	<mDL	Naphthalene #1
10.935	BB	1.39879	2.96975e-2	4.15407e-2	↓	Acenaphthylene #2
11.930		-	-	-		1-Methylnaphthalene #3
12.528	BB	67.78194	1.12393e-2	7.61820e-1	NC	2-Methylnaphthalene #4
13.047	BB	58.02040	2.03163e-2	1.17876	NC	Acenaphthene #5
13.571	BB	4.06899	1.75240e-2	7.13051e-2	<mDL	Fluorene #6
15.040	BB	3.57612	1.72982e-2	6.18606e-2	↓	Phenanthrene #7
16.456	PB	1.93987	1.04262e-2	2.02254e-2		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.936	BBA	15.92741	1.43052e-2	2.27845e-1	NC	Pyrene #10
21.208	BBA	65.06989	6.56733e-2	4.27335		p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.453		-	-	-		Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.642		-	-	-		Benzo(k)fluoranthene #15
28.749		-	-	-		Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.433		-	-	-		Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 6.86468

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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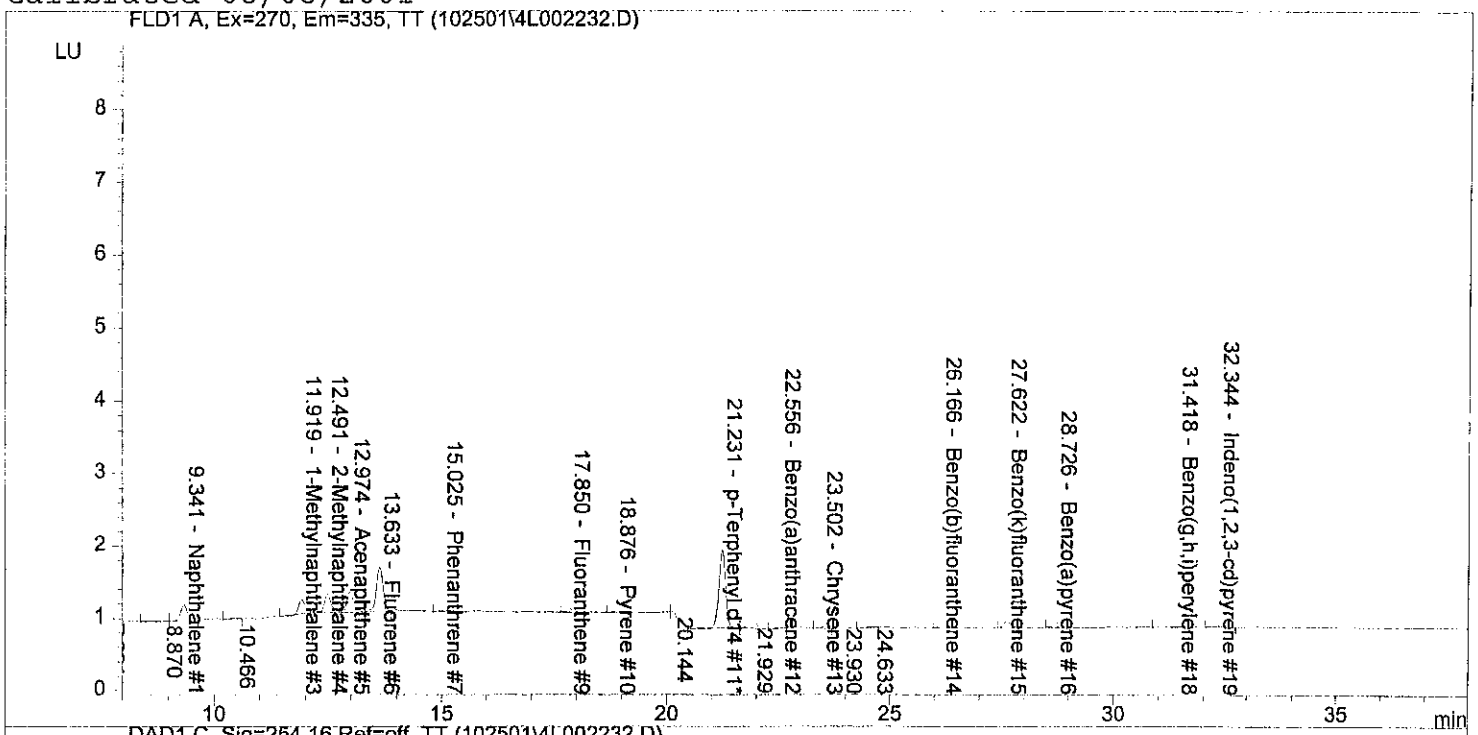
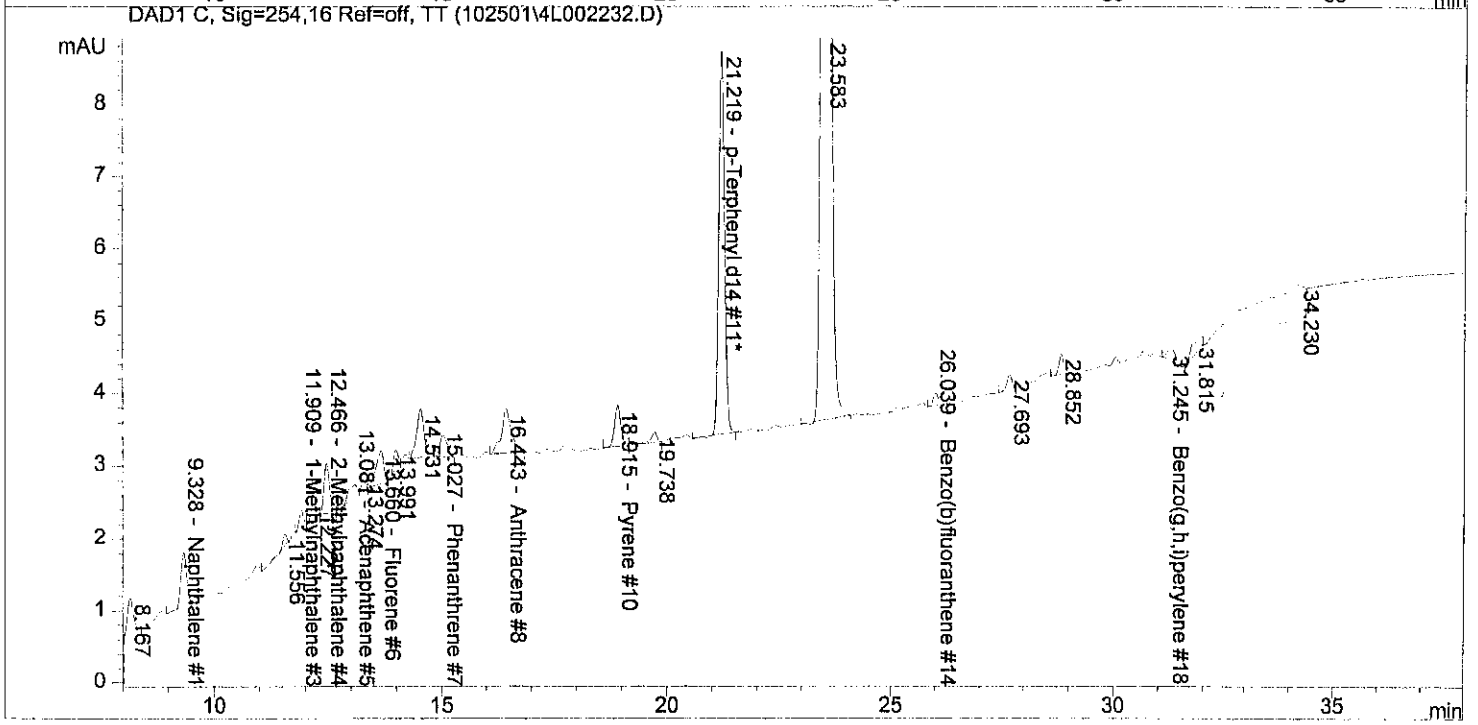
Injection Date : 10/26/2001 2:53:50 PM
Sample Name : L0110485-08 831W
Acq. Operator : RDC

Seq. Line : 26
Vial : 26
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/26/2001 9:03:32 AM by RDC
Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 10/26/2001 8:59:27 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.341	BB	2.14565	2.52962e-2	5.42768e-2		Naphthalene #1
11.919	BB	1.70857	2.21330e-2	3.78156e-2		1-Methylnaphthalene #3
12.491	BB	2.57560	1.70635e-2	4.39488e-2		2-Methylnaphthalene #4
12.974	BB	2.72394	1.38416e-2	3.77036e-2		Acenaphthene #5
13.633	BBA	6.11402	6.62187e-3	4.04862e-2		Fluorene #6
15.025	PBA	4.39686e-1	1.63652e-1	7.19555e-2		Phenanthrene #7
16.407		-	-	-		Anthracene #8
17.850	BBA	4.67402e-1	2.32678e-2	1.08754e-2		Fluoranthene #9
18.876	BBA	1.94131e-1	3.86587e-2	7.50487e-3		Pyrene #10
21.231	BB	11.00278	2.97423e-1	3.27248		p-Terphenyl d14 #11*
22.556	BB	4.81670e-1	7.91256e-3	3.81125e-3		Benzo(a)anthracene #12
23.502	BB	3.49247e-1	3.90495e-2	1.36379e-2		Chrysene #13
26.166	PBA	2.58832e-1	1.63222e-2	4.22471e-3		Benzo(b)fluoranthene #14
27.622	BBA	9.37897e-1	2.76572e-3	2.59396e-3		Benzo(k)fluoranthene #15
28.726	BBA	8.06376e-1	4.57119e-3	3.68610e-3		Benzo(a)pyrene #16
30.529		-	-	-		Dibenz(a,h)anthracene #17
31.418	BB	2.18238e-1	2.65165e-2	5.78692e-3		Benzo(g,h,i)perylene #18
32.344	BB	3.56764e-1	1.38204e-2	4.93063e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 3.61571

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.328	BB	5.99953	8.25405e-3	4.95204e-2	LMDL	Naphthalene #1
10.913		-	-	-		Acenaphthylene #2
11.909	BB	1.58315	1.29459e-2	2.04953e-2		1-Methylnaphthalene #3
12.466	BB	5.71370	1.12393e-2	6.42179e-2		2-Methylnaphthalene #4
13.081	BB	1.98506	2.03163e-2	4.03291e-2		Acenaphthene #5
13.660	BB	5.20374	1.75240e-2	9.11903e-2		Fluorene #6
15.027	BB	3.33900	1.72982e-2	5.77588e-2		Phenanthrene #7
16.443	BB	9.26276	1.04262e-2	9.65753e-2		Anthracene #8
17.777		-	-	-		Fluoranthene #9
18.915	BB	5.90844	1.43052e-2	8.45217e-2	NC	Pyrene #10
21.219	BBA	45.66047	6.56733e-2	2.99867		p-Terphenyl d14 #11*
22.483		-	-	-	* 30.0%	Benzo(a)anthracene #12
23.362		-	-	-		Chrysene #13
26.039	BB	1.79856	2.07330e-2	3.72895e-2	LMDL	Benzo(b)fluoranthene #14
27.535		-	-	-		Benzo(k)fluoranthene #15
28.644		-	-	-		Benzo(a)pyrene #16
30.513		-	-	-		Dibenz(a,h)anthracene #17

[min]		[mAU*s]	[ug/L]			
31.245	BB	1.96912	5.60829e-2	1.10434e-1	NC	Benzo(g,h,i)perylene #18
32.265		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 3.65100

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1 RE-EXT WITHIN HOLD

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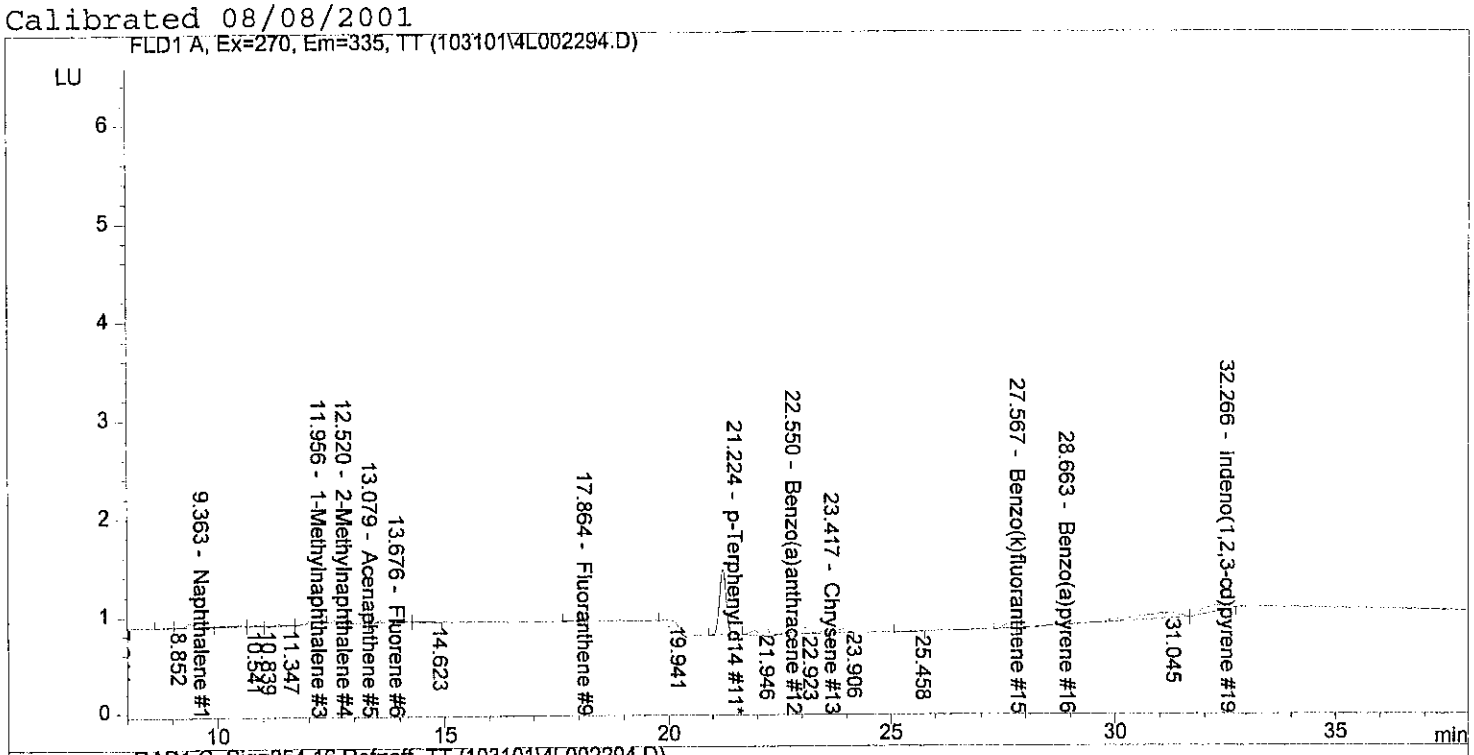
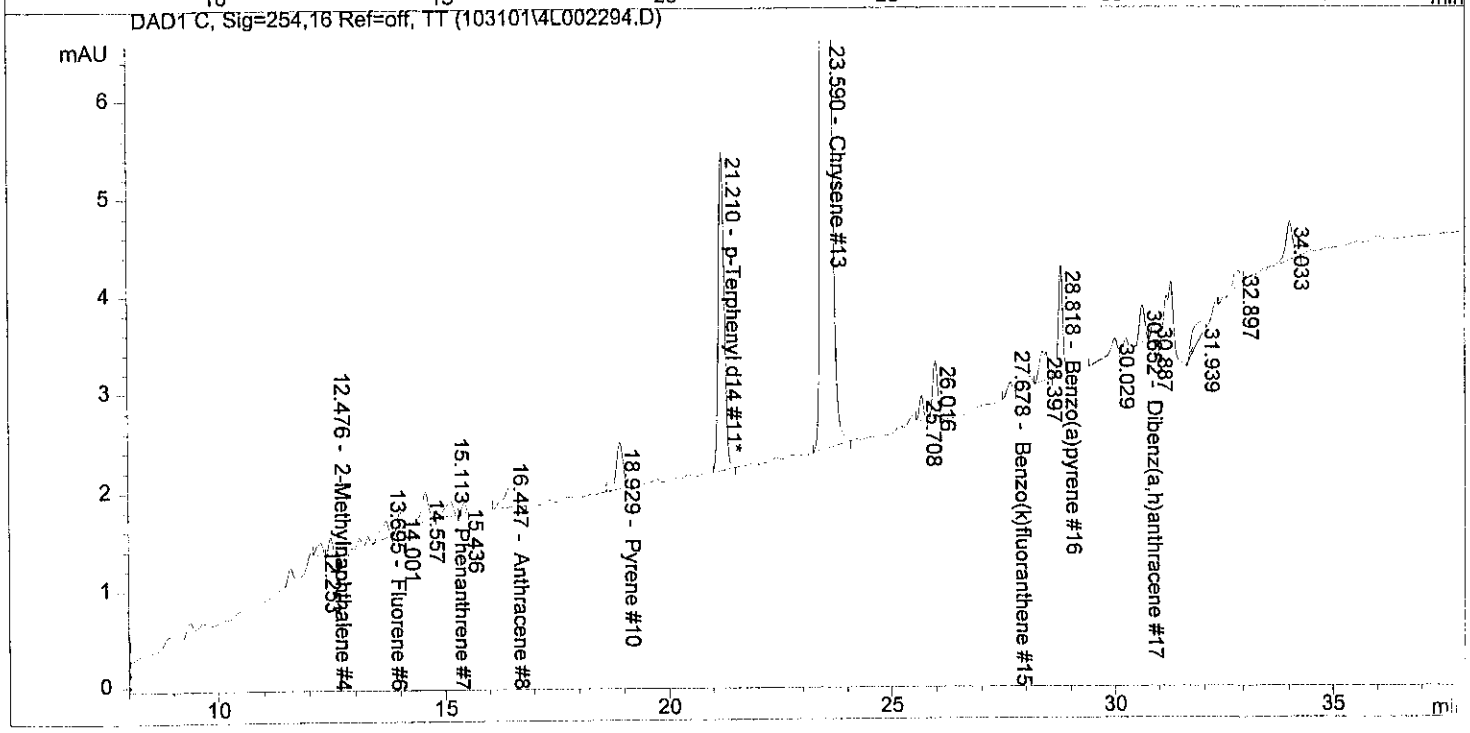
Injection Date : 11/1/2001 4:10:15 AM
Sample Name : L0110485-08 REEX
Acq. Operator : RDC

Seq. Line : 19
Vial : 19
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/1/2001 8:37:21 AM by RDC
(modified after loading)

Calibrated 08/08/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Wednesday, October 31, 2001 9:15:43 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.363	BB	6.22086e-1	2.52962e-2	1.57364e-2		Naphthalene #1
11.956	BB	1.87256e-1	2.21330e-2	4.14453e-3		1-Methylnaphthalene #3
12.520	BB	3.43401e-1	1.70635e-2	5.85963e-3		2-Methylnaphthalene #4
13.079	BB	2.90319e-1	1.38416e-2	4.01847e-3		Acenaphthene #5
13.676	BB	9.23985e-1	6.62187e-3	6.11851e-3		Fluorene #6
15.072		-	-	-		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.864	BBA	1.84824e-1	2.32678e-2	4.30045e-3		Fluoranthene #9
18.890		-	-	-		Pyrene #10
21.224	BBA	6.71441	2.97423e-1	1.99702		p-Terphenyl d14 #11*
22.550	BB	2.07726e-1	7.91256e-3	1.64364e-3		Benzo(a)anthracene #12
23.417	BB	4.17750e-1	3.90495e-2	1.63129e-2		Chrysene #13
26.210		-	-	-		Benzo(b)fluoranthene #14
27.567	PB	4.67989e-1	2.76572e-3	1.29433e-3		Benzo(k)fluoranthene #15
28.663	BB	2.27012e-1	4.57119e-3	1.03772e-3		Benzo(a)pyrene #16
30.650		-	-	-		Dibenz(a,h)anthracene #17
31.455		-	-	-		Benzo(g,h,i)perylene #18
32.266	BB	2.35952	1.38204e-2	3.26095e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 2.09009

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.347		-	-	-		Naphthalene #1
10.981		-	-	-		Acenaphthylene #2
11.930		-	-	-		1-Methylnaphthalene #3
12.476	BB	1.55980	1.12393e-2	1.75311e-2	2MNX	2-Methylnaphthalene #4
12.990		-	-	-		Acenaphthene #5
13.695	BB	2.17553	1.75240e-2	3.81240e-2		Fluorene #6
15.113	BB	1.90784	1.72982e-2	3.30023e-2		Phenanthrene #7
16.447	BB	3.61246	1.04262e-2	3.76642e-2		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.929	BBA	4.78210	1.43052e-2	6.84090e-2	NC	Pyrene #10
21.210	BBA	28.13334	6.56733e-2	1.84761	17.5%	p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.590	PBA	322.61026	1.51453e-2	4.88603	NC	Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.678	PB	9.46140e-1	2.25837e-2	2.13673e-2	NC	Benzo(k)fluoranthene #15
28.818	BB	7.46276	2.61680e-2	1.95286e-1		Benzo(a)pyrene #16
30.652	BB	2.91590	9.41116e-2	2.74420e-1		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.433		-	-	-		Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 7.41944

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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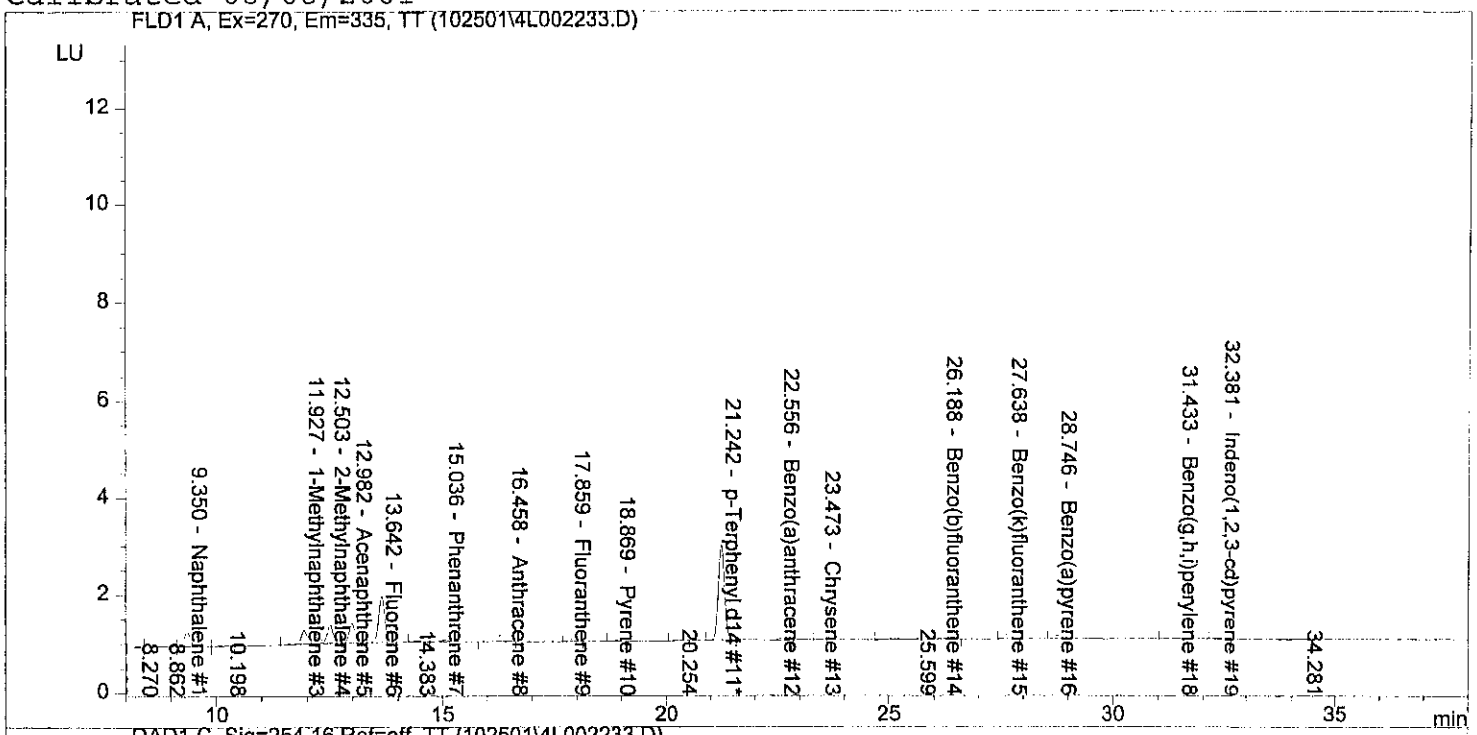
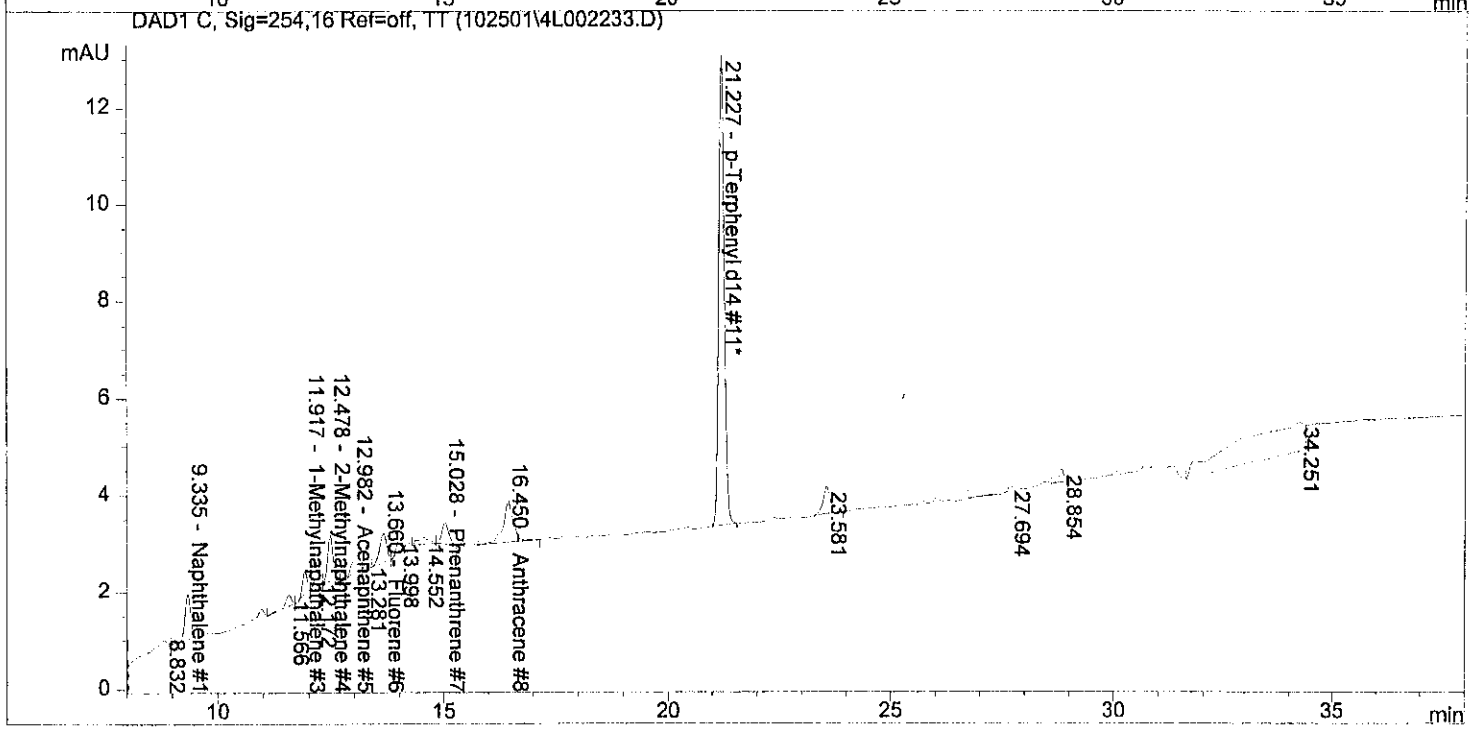
Injection Date : 10/26/2001 3:50:25 PM
Sample Name : L0110485-09 831W
Acq. Operator : RDC

Seq. Line : 27
Vial : 27
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/26/2001 9:03:32 AM by RDC
Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 10/26/2001 8:59:27 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.350	BB	2.93043	2.52962e-2	7.41287e-2		Naphthalene #1
11.927	BBA	2.47370	2.21330e-2	5.47504e-2		1-Methylnaphthalene #3
12.503	BB	3.52674	1.70635e-2	6.01784e-2		2-Methylnaphthalene #4
12.982	BB	3.92886	1.38416e-2	5.43815e-2		Acenaphthene #5
13.642	BBA	9.07357	6.62187e-3	6.00840e-2		Fluorene #6
15.036	BBA	5.40328e-1	1.63652e-1	8.84259e-2		Phenanthrene #7
16.458	BBA	1.69888e-1	3.10196e-1	5.26986e-2		Anthracene #8
17.859	PBA	4.27655e-1	2.32678e-2	9.95061e-3		Fluoranthene #9
18.869	BBA	2.34191e-1	3.86587e-2	9.05352e-3		Pyrene #10
21.242	BB	18.52221	2.97423e-1	5.50893		p-Terphenyl d14 #11*
22.556	BB	4.88970e-1	7.91256e-3	3.86901e-3		Benzo(a)anthracene #12
23.473	BB	1.45488e-1	3.90495e-2	5.68126e-3		Chrysene #13
26.188	BBA	3.88027e-1	1.63222e-2	6.33345e-3		Benzo(b)fluoranthene #14
27.638	PBA	9.33641e-1	2.76572e-3	2.58219e-3		Benzo(k)fluoranthene #15
28.746	BBA	6.08757e-1	4.57119e-3	2.78275e-3		Benzo(a)pyrene #16
30.529		-	-	-		Dibenz(a,h)anthracene #17
31.433	BB	1.93956e-1	2.65165e-2	5.14303e-3		Benzo(g,h,i)perylene #18
32.381	BB	3.08333e-1	1.38204e-2	4.26129e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 6.00323

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.335	BB	8.05843	8.25405e-3	6.65147e-2	LMDL	Naphthalene #1
10.913		-	-	-		Acenaphthylene #2
11.917	BB	3.34066	1.29459e-2	4.32477e-2		1-Methylnaphthalene #3
12.478	BB	7.98016	1.12393e-2	8.96913e-2		2-Methylnaphthalene #4
12.982	BB	2.45778	2.03163e-2	4.99331e-2		Acenaphthene #5
13.660	BB	6.54321	1.75240e-2	1.14663e-1		Fluorene #6
15.028	BB	4.78941	1.72982e-2	8.28484e-2		Phenanthrene #7
16.450	BB	13.85830	1.04262e-2	1.44489e-1		Anthracene #8
17.777		-	-	-		Fluoranthene #9
18.789		-	-	-		Pyrene #10
21.227	BBA	83.92196	6.56733e-2	5.51143		p-Terphenyl d14 #11*
22.483		-	-	-	55.1%	Benzo(a)anthracene #12
23.362		-	-	-		Chrysene #13
26.095		-	-	-		Benzo(b)fluoranthene #14
27.535		-	-	-		Benzo(k)fluoranthene #15
28.644		-	-	-		Benzo(a)pyrene #16
30.513		-	-	-		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.318		-	-	-		Benzo(g,h,i)perylene #18
32.265		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 6.10282

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

2.2.7.3 Standards Data

==========
Calibration Table
==========

HPLC4 8310 CALIBRATION

Calib. Data Modified : 8/9/2001 2:38:03 PM

Calculate : External Standard
Based on : Peak Area

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.300 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.300 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Forced
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FLD1 A, Ex=270, Em=335, TT
Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
9.446	2	1	1.00000	122.72835	8.14808e-3			Naphthalene #1
		2	5.00000	597.19745	8.37244e-3			
		3	10.00000	1248.26221	8.01114e-3			
		4	20.00000	2499.14551	8.00274e-3			
		5	50.00000	6202.44971	8.06133e-3			
		6	100.00000	1.20244e4	8.31644e-3			
9.462	1	1	1.00000	37.17168	2.69022e-2			Naphthalene #1
		2	5.00000	181.76619	2.75079e-2			
		3	10.00000	381.56079	2.62081e-2			
		4	20.00000	771.00281	2.59402e-2			
		5	50.00000	1948.04333	2.56668e-2			
		6	100.00000	3973.55249	2.51664e-2			
11.077	2	1	1.00000	32.52021	3.07501e-2			Acenaphthylene #2
		2	5.00000	157.20731	3.18051e-2			
		3	10.00000	328.40460	3.04502e-2			
		4	20.00000	660.92621	3.02606e-2			
		5	50.00000	1657.23242	3.01708e-2			
		6	100.00000	3384.39795	2.95474e-2			
12.023	2	1	1.00000	75.33028	1.32749e-2			1-Methylnaphthalene #3

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		2	5.00000	365.03561	1.36973e-2			
		3	10.00000	763.85205	1.30915e-2			
		4	20.00000	1534.10083	1.30370e-2			
		5	50.00000	3838.97803	1.30243e-2			
		6	100.00000	7740.20703	1.29196e-2			
12.040	1	1	1.00000	42.88826	2.33164e-2			1-Methylnaphthalene #3
		2	5.00000	209.24336	2.38956e-2			
		3	10.00000	438.85303	2.27867e-2			
		4	20.00000	887.93890	2.25241e-2			
		5	50.00000	2235.18970	2.23695e-2			
		6	100.00000	4535.38281	2.20489e-2			
12.601	2	1	1.00000	88.22273	1.13349e-2			2-Methylnaphthalene #4
		2	5.00000	428.27109	1.16748e-2			
		3	10.00000	894.31500	1.11817e-2			
		4	20.00000	1794.47327	1.11453e-2			
		5	50.00000	4469.53662	1.11868e-2			
		6	100.00000	8884.32324	1.12558e-2			
12.617	1	1	1.00000	56.35436	1.77449e-2			2-Methylnaphthalene #4
		2	5.00000	274.39529	1.82219e-2			
		3	10.00000	575.43298	1.73782e-2			
		4	20.00000	1160.72327	1.72306e-2			
		5	50.00000	2909.70630	1.71839e-2			
		6	100.00000	5875.01660	1.70212e-2			
13.080	2	1	1.00000	47.72895	2.09516e-2			Acenaphthene #5
		2	5.00000	231.24211	2.16224e-2			
		3	10.00000	483.56268	2.06798e-2			
		4	20.00000	971.18744	2.05933e-2			
		5	50.00000	2433.60547	2.05456e-2			
		6	100.00000	4940.15088	2.02423e-2			
13.096	1	1	1.00000	70.47864	1.41887e-2			Acenaphthene #5
		2	5.00000	342.62488	1.45932e-2			
		3	10.00000	718.90424	1.39101e-2			
		4	20.00000	1445.95483	1.38317e-2			
		5	50.00000	3605.74121	1.38668e-2			
		6	100.00000	7228.99854	1.38332e-2			
13.740	2	1	1.00000	54.47855	1.83558e-2			Fluorene #6
		2	5.00000	266.30728	1.87753e-2			
		3	10.00000	557.46277	1.79384e-2			
		4	20.00000	1121.39856	1.78349e-2			
		5	50.00000	2816.46851	1.77527e-2			
		6	100.00000	5731.11230	1.74486e-2			
13.757	1	1	1.00000	154.16187	6.48669e-3			Fluorene #6
		2	5.00000	746.17523	6.70084e-3			
		3	10.00000	1559.63367	6.41176e-3			
		4	20.00000	3112.09448	6.42654e-3			
		5	50.00000	7656.80322	6.53014e-3			
		6	100.00000	1.50256e4	6.65533e-3			
15.136	2	1	1.00000	55.64261	1.79718e-2			Phenanthrene #7
		2	5.00000	270.24643	1.85016e-2			
		3	10.00000	565.66064	1.76784e-2			
		4	20.00000	1137.18030	1.75874e-2			
		5	50.00000	2852.19556	1.75304e-2			
		6	100.00000	5806.07617	1.72233e-2			
15.153	1	1	1.00000	5.49988	1.81822e-1			Phenanthrene #7
		2	5.00000	27.27178	1.83340e-1			
		3	10.00000	58.15233	1.71962e-1			

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		4	20.00000	116.85247	1.71156e-1			
		5	50.00000	295.27972	1.69331e-1			
		6	100.00000	617.71191	1.61888e-1			
16.549	2	1	1.00000	95.56687	1.04639e-2			Anthracene #8
		2	5.00000	465.29129	1.07460e-2			
		3	10.00000	973.54010	1.02718e-2			
		4	20.00000	1952.77490	1.02418e-2			
		5	50.00000	4858.51855	1.02912e-2			
		6	100.00000	9552.15625	1.04688e-2			
16.566	1	1	1.00000	3.13834	3.18640e-1			Anthracene #8
		2	5.00000	15.29622	3.26878e-1			
		3	10.00000	32.12813	3.11254e-1			
		4	20.00000	63.99872	3.12506e-1			
		5	50.00000	159.95667	3.12585e-1			
		6	100.00000	323.14050	3.09463e-1			
17.931	2	1	1.00000e-1	4.46854	2.23787e-2			Fluoranthene #9
		2	5.00000e-1	21.37060	2.33966e-2			
		3	1.00000	44.25564	2.25960e-2			
		4	2.00000	89.62297	2.23157e-2			
		5	5.00000	226.24062	2.21004e-2			
		6	10.00000	463.67642	2.15668e-2			
17.948	1	1	1.00000e-1	3.92854	2.54548e-2			Fluoranthene #9
		2	5.00000e-1	19.73562	2.53349e-2			
		3	1.00000	41.21679	2.42620e-2			
		4	2.00000	83.17304	2.40463e-2			
		5	5.00000	210.50659	2.37522e-2			
		6	10.00000	432.79266	2.31058e-2			
18.944	2	1	1.00000e-1	6.23924	1.60276e-2			Pyrene #10
		2	5.00000e-1	31.33940	1.59544e-2			
		3	1.00000	67.74028	1.47623e-2			
		4	2.00000	135.53003	1.47569e-2			
		5	5.00000	342.22821	1.46101e-2			
		6	10.00000	703.95166	1.42055e-2			
18.961	1	1	1.00000e-1	2.27570	4.39426e-2			Pyrene #10
		2	5.00000e-1	11.52839	4.33712e-2			
		3	1.00000	24.49013	4.08328e-2			
		4	2.00000	50.45357	3.96404e-2			
		5	5.00000	130.27173	3.83813e-2			
21.302	2	1	1.00000	14.08348	7.10052e-2			p-Terphenyl d14 #11*
		2	5.00000	70.24126	7.11832e-2			
		3	10.00000	145.31215	6.88174e-2			
		4	20.00000	299.12198	6.68624e-2			
		5	50.00000	752.44629	6.64499e-2			
		6	100.00000	1529.22424	6.53926e-2			
21.319	1	1	1.00000	3.07342	3.25370e-1			p-Terphenyl d14 #11*
		2	5.00000	15.32359	3.26294e-1			
		3	10.00000	31.73221	3.15137e-1			
		4	20.00000	64.98736	3.07752e-1			
		5	50.00000	163.61835	3.05589e-1			
		6	100.00000	339.18564	2.94824e-1			
22.628	2	1	1.00000e-1	4.00703	2.49561e-2			Benzo(a)anthracene #12
		2	5.00000e-1	20.54964	2.43313e-2			
		3	1.00000	43.83417	2.28133e-2			
		4	2.00000	87.18385	2.29400e-2			
		5	5.00000	220.89987	2.26347e-2			
		6	10.00000	451.58978	2.21440e-2			

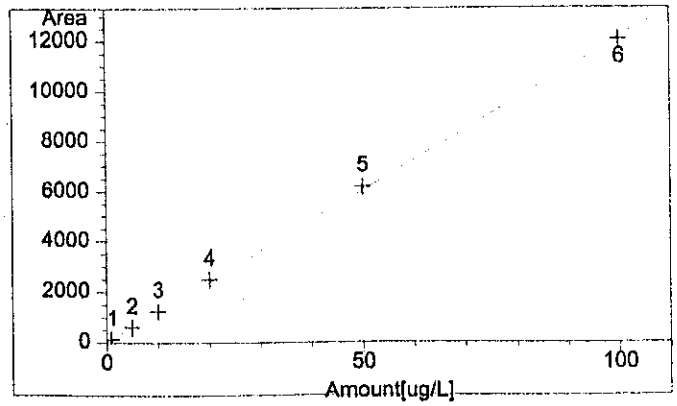
RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
22.644	1	1	1.00000e-1	11.54687	8.66035e-3			Benzo(a)anthracene #12
		2	5.00000e-1	56.84493	8.79586e-3			
		3	1.00000	119.82957	8.34519e-3			
		4	2.00000	242.58244	8.24462e-3			
		5	5.00000	616.44403	8.11104e-3			
		6	10.00000	1274.56396	7.84582e-3			
23.513	2	1	1.00000e-1	6.06011	1.65013e-2			Chrysene #13
		2	5.00000e-1	30.26713	1.65196e-2			
		3	1.00000	63.60076	1.57231e-2			
		4	2.00000	128.16238	1.56052e-2			
		5	5.00000	324.43796	1.54113e-2			
		6	10.00000	664.28351	1.50538e-2			
23.528	1	1	1.00000e-1	2.41118	4.14734e-2			Chrysene #13
		2	5.00000e-1	11.43981	4.37070e-2			
		3	1.00000	24.17820	4.13596e-2			
		4	2.00000	48.77195	4.10072e-2			
		5	5.00000	124.43752	4.01808e-2			
		6	10.00000	258.58917	3.86714e-2			
26.253	2	1	1.00000e-1	4.43454	2.25503e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	22.12707	2.25968e-2			
		3	1.00000	46.71288	2.14074e-2			
		4	2.00000	93.81008	2.13197e-2			
		5	5.00000	236.98158	2.10987e-2			
		6	10.00000	485.19955	2.06101e-2			
26.269	1	1	1.00000e-1	5.57386	1.79409e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	27.63313	1.80942e-2			
		3	1.00000	58.33105	1.71435e-2			
		4	2.00000	118.32101	1.69032e-2			
		5	5.00000	299.93723	1.66702e-2			
		6	10.00000	617.15186	1.62035e-2			
27.699	2	1	5.00000e-2	2.30033	2.17360e-2			Benzo(k)fluoranthene #
		2	2.50000e-1	10.19696	2.45171e-2			
		3	5.00000e-1	21.84682	2.28866e-2			
		4	1.00000	43.54576	2.29643e-2			
		5	2.50000	108.82767	2.29721e-2			
		6	5.00000	222.55347	2.24665e-2			
27.716	1	1	5.00000e-2	16.87873	2.96231e-3			Benzo(k)fluoranthene #
		2	2.50000e-1	83.81139	2.98289e-3			
		3	5.00000e-1	176.43927	2.83384e-3			
		4	1.00000	355.36359	2.81402e-3			
		5	2.50000	893.52496	2.79791e-3			
		6	5.00000	1815.06726	2.75472e-3			
28.826	2	1	1.00000e-1	3.45270	2.89628e-2			Benzo(a)pyrene #16
		2	5.00000e-1	16.98781	2.94329e-2			
		3	1.00000	35.68842	2.80203e-2			
		4	2.00000	71.60413	2.79313e-2			
		5	5.00000	186.41614	2.68217e-2			
		6	10.00000	385.80145	2.59201e-2			
28.843	1	1	1.00000e-1	19.26282	5.19135e-3			Benzo(a)pyrene #16
		2	5.00000e-1	96.67756	5.17183e-3			
		3	1.00000	203.54648	4.91288e-3			
		4	2.00000	414.51672	4.82490e-3			
		5	5.00000	1063.36975	4.70203e-3			
		6	10.00000	2209.61670	4.52567e-3			
30.713	2	1	1.00000e-1	1.04021	9.61345e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	6.85372	7.29531e-2			

RetTime [min]	Lvl Sig		Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		3	1.00000	10.35146	9.66047e-2			
		4	2.00000	21.07817	9.48849e-2			
		5	5.00000	52.55205	9.51438e-2			
		6	10.00000	106.53020	9.38701e-2			
30.721	1	1	1.00000e-1	2.12374	4.70867e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	10.91603	4.58042e-2			
		3	1.00000	23.53592	4.24882e-2			
		4	2.00000	47.95410	4.17066e-2			
		5	5.00000	122.84724	4.07010e-2			
		6	10.00000	257.09790	3.88957e-2			
31.544	2	1	1.00000e-1	8.44691e-1	1.18386e-1			Benzo(g,h,i)perylene #
		2	5.00000e-1	5.61006	8.91256e-2			
		3	1.00000	13.18469	7.58455e-2			
		4	2.00000	33.12908	6.03699e-2			
		5	5.00000	87.58637	5.70865e-2			
		6	10.00000	180.23679	5.54826e-2			
31.563	1	1	1.00000e-1	3.08265	3.24397e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	15.83937	3.15669e-2			
		3	1.00000	33.85759	2.95355e-2			
		4	2.00000	69.49560	2.87788e-2			
		5	5.00000	181.30618	2.75777e-2			
		6	10.00000	382.48065	2.61451e-2			
32.469	2	1	1.00000e-1	4.35778	2.29475e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	21.11818	2.36763e-2			
		3	1.00000	45.97294	2.17519e-2			
		4	2.00000	91.52023	2.18531e-2			
		5	5.00000	239.26749	2.08971e-2			
		6	10.00000	489.90164	2.04123e-2			
32.473	1	1	1.00000e-1	6.64809	1.50419e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	32.35181	1.54551e-2			
		3	1.00000	69.61817	1.43641e-2			
		4	2.00000	140.75026	1.42096e-2			
		5	5.00000	354.48691	1.41049e-2			
		6	10.00000	728.48004	1.37272e-2			

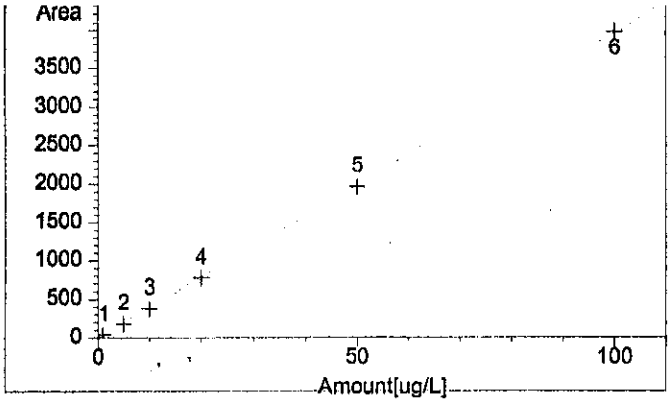
Peak Sum Table

No Entries in table

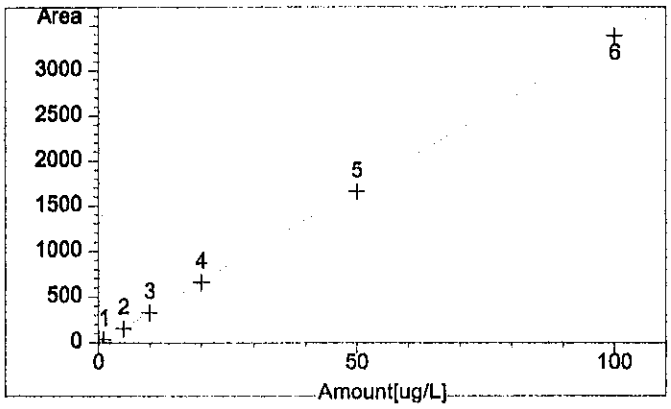
Calibration Curves



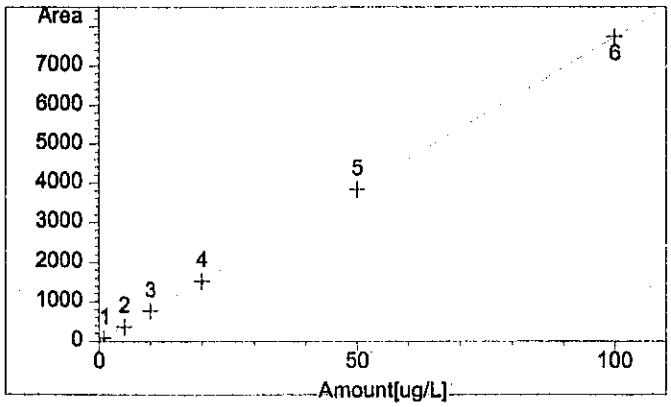
Naphthalene #1 at exp. RT: 9.446
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 85.37927
Formula: y = mx
m: 121.15265
x: Amount [ug/L]
y: Area



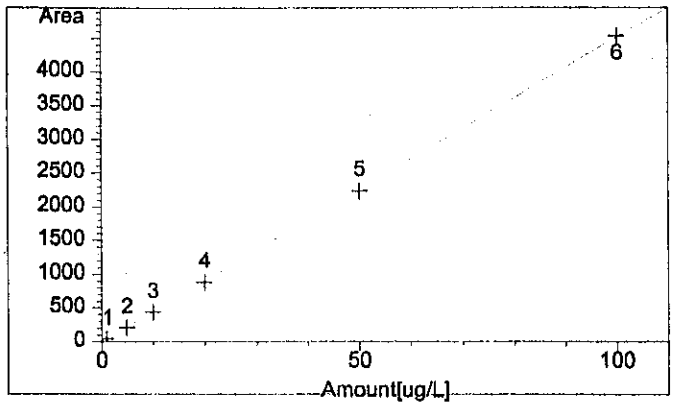
Naphthalene #1 at exp. RT: 9.462
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 20.31169
Formula: y = mx
m: 39.53164
x: Amount [ug/L]
y: Area



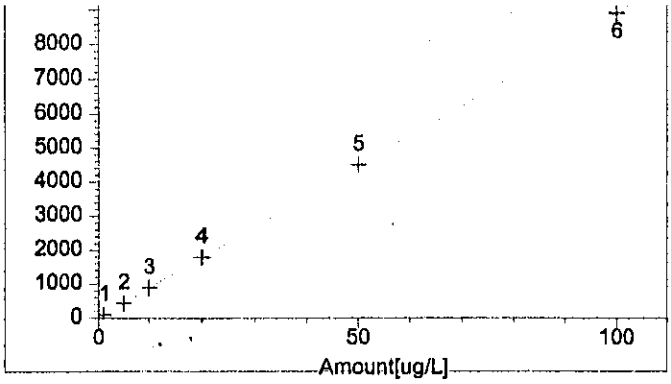
Acenaphthylene #2 at exp. RT: 11.077
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 16.38572
Formula: y = mx
m: 33.67285
x: Amount [ug/L]
y: Area



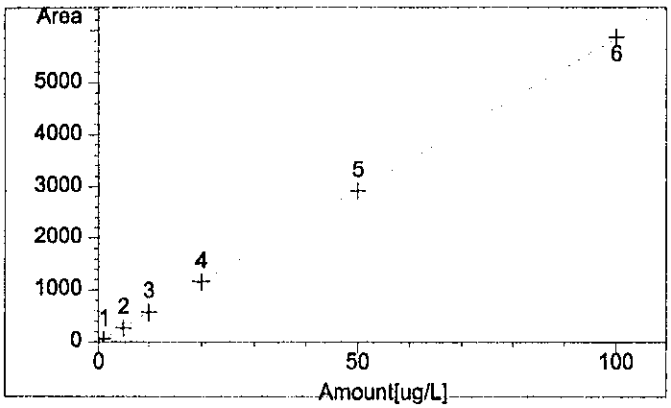
1-Methylnaphthalene #3 at exp. RT: 12.023
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 16.92039
Formula: y = mx
m: 77.24479
x: Amount [ug/L]
y: Area



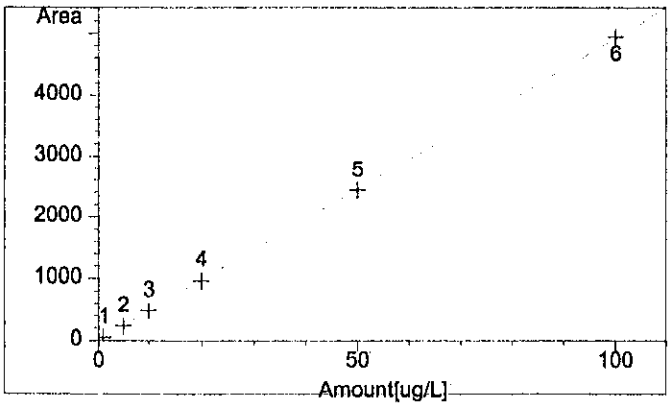
1-Methylnaphthalene #3 at exp. RT: 12.040
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 17.68985
Formula: y = mx
m: 45.18150
x: Amount [ug/L]
y: Area



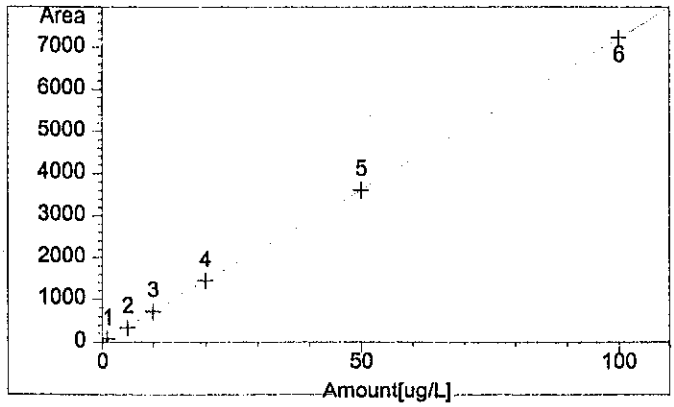
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 15.01321
Formula: y = mx
m: 88.97369
x: Amount[ug/L]
y: Area



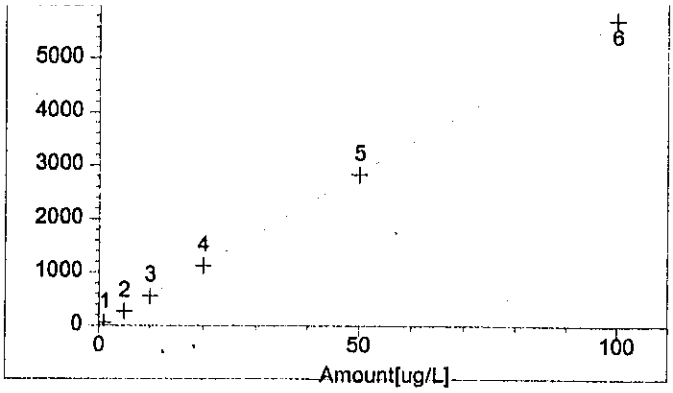
2-Methylnaphthalene #4 at exp. RT: 12.617
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 15.66561
Formula: y = mx
m: 58.60464
x: Amount[ug/L]
y: Area



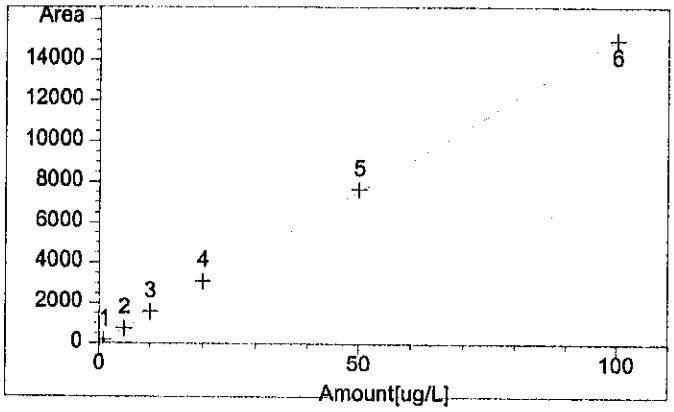
Acenaphthene #5 at exp. RT: 13.080
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 17.61841
Formula: y = mx
m: 49.22146
x: Amount[ug/L]
y: Area



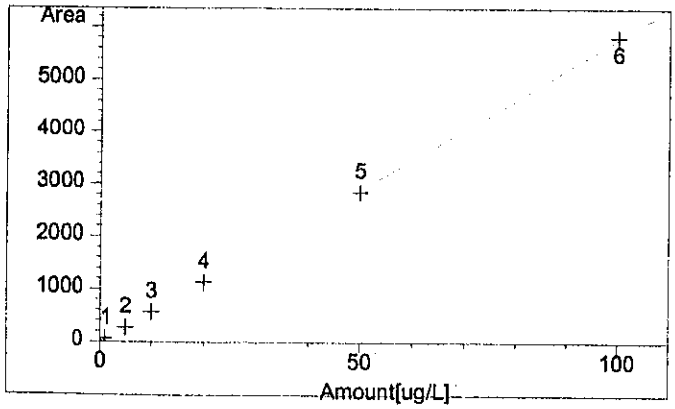
Acenaphthene #5 at exp. RT: 13.096
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 9.22337
Formula: y = mx
m: 72.24617
x: Amount[ug/L]
y: Area



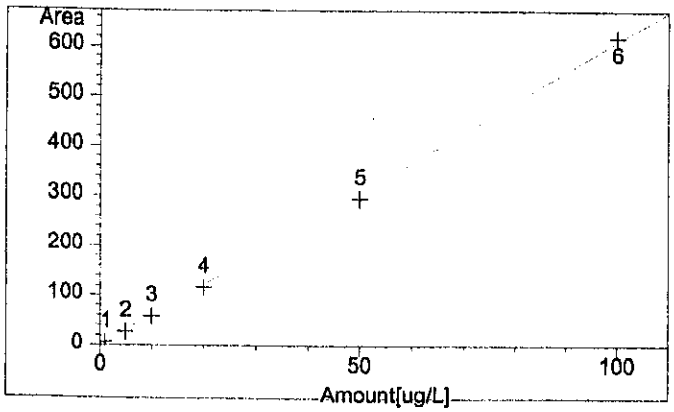
Fluorene #6 at exp. RT: 13.740
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 24.07063
Formula: y = mx
m: 57.06458
x: Amount [ug/L]
y: Area



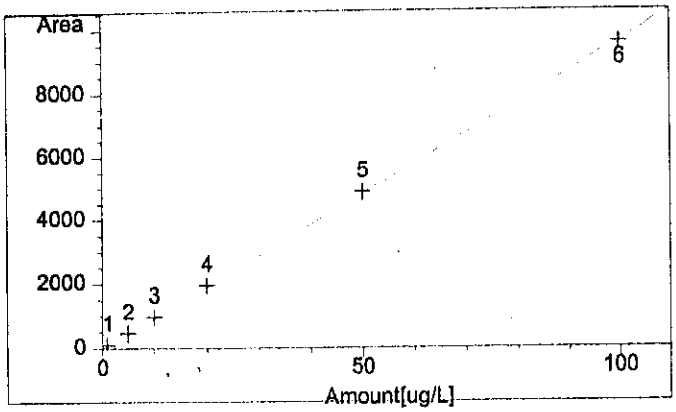
Fluorene #6 at exp. RT: 13.757
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 74.80461
Formula: y = mx
m: 151.01482
x: Amount [ug/L]
y: Area



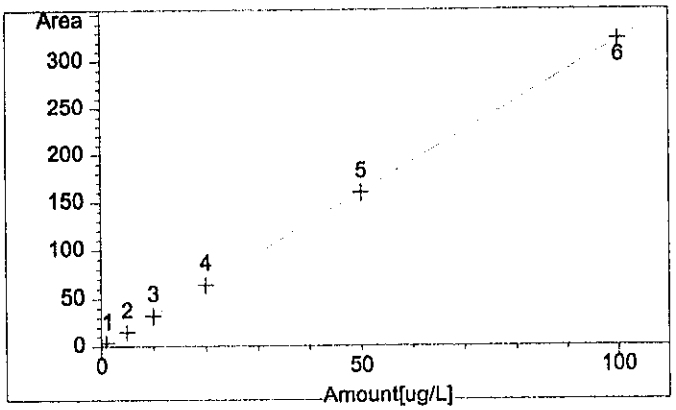
Phenanthrene #7 at exp. RT: 15.136
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 24.37539
Formula: y = mx
m: 57.80934
x: Amount [ug/L]
y: Area



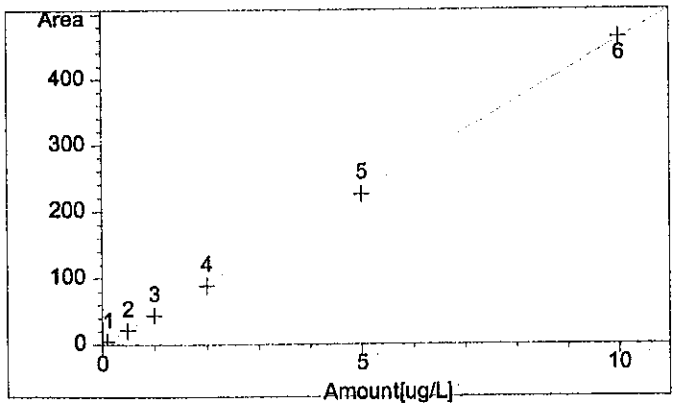
Phenanthrene #7 at exp. RT: 15.153
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99980
Residual Std. Dev.: 6.29133
Formula: y = mx
m: 6.11052
x: Amount [ug/L]
y: Area



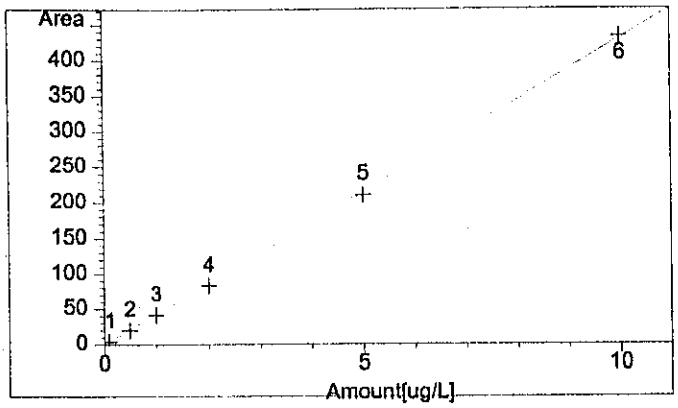
Anthracene #8 at exp. RT: 16.549
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 37.64962
Formula: y = mx
m: 95.91237
x: Amount [ug/L]
y: Area



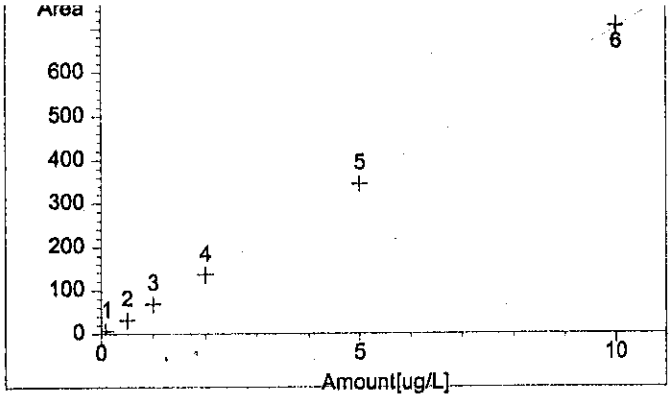
Anthracene #8 at exp. RT: 16.566
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 0.77764
Formula: y = mx
m: 3.22376
x: Amount [ug/L]
y: Area



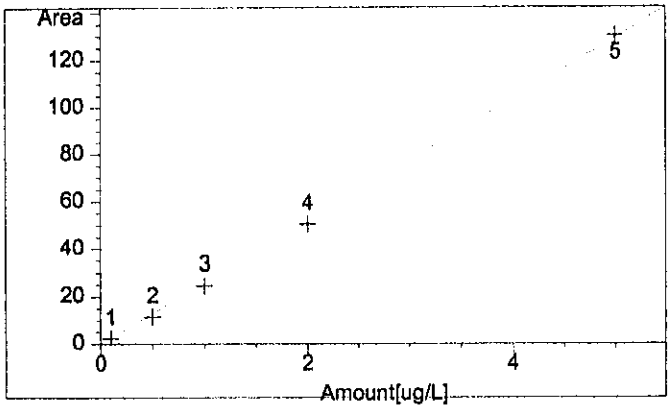
Fluoranthene #9 at exp. RT: 17.931
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 2.76207
Formula: y = mx
m: 46.08169
x: Amount [ug/L]
y: Area



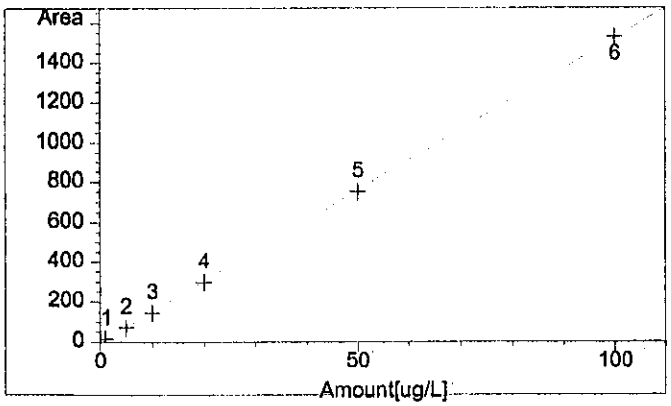
Fluoranthene #9 at exp. RT: 17.948
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 2.91025
Formula: y = mx
m: 42.97776
x: Amount [ug/L]
y: Area



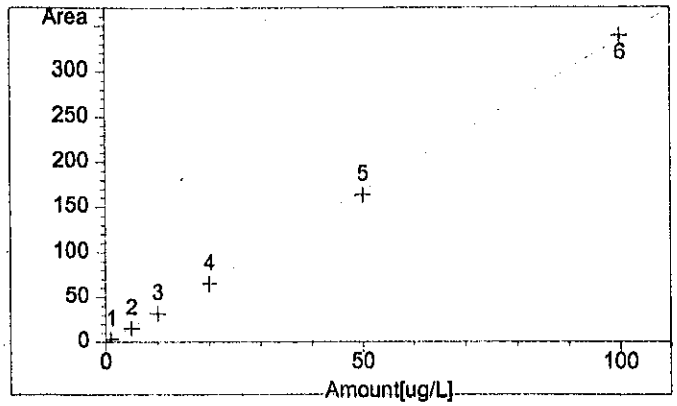
Pyrene #10 at exp. RT: 18.944
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99991
Residual Std. Dev.: 4.77268
Formula: y = mx
m: 69.90443
x: Amount [ug/L]
y: Area



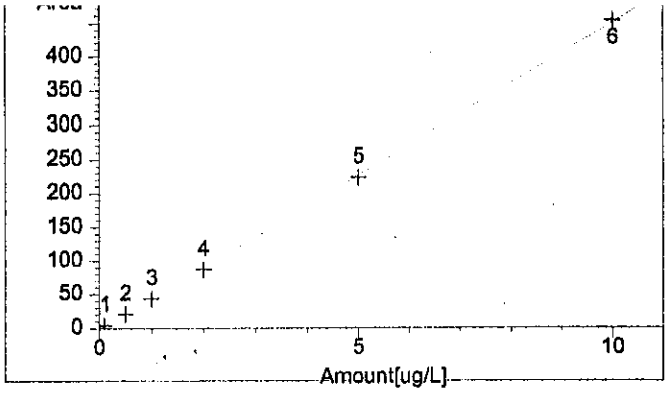
Pyrene #10 at exp. RT: 18.961
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99984
Residual Std. Dev.: 1.27317
Formula: y = mx
m: 25.86740
x: Amount [ug/L]
y: Area



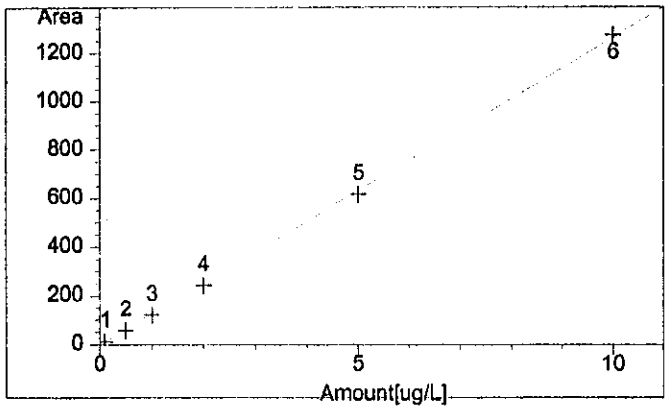
p-Terphenyl d14 #11* at exp. RT: 21.302
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 6.86516
Formula: y = mx
m: 15.22690
x: Amount [ug/L]
y: Area



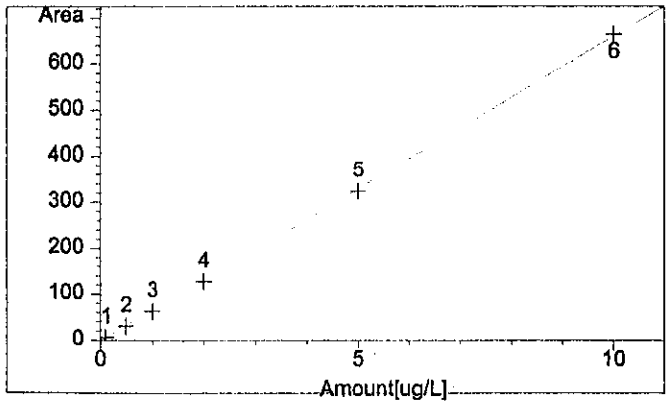
p-Terphenyl d14 #11* at exp. RT: 21.319
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99986
Residual Std. Dev.: 2.82593
Formula: y = mx
m: 3.36222
x: Amount [ug/L]
y: Area



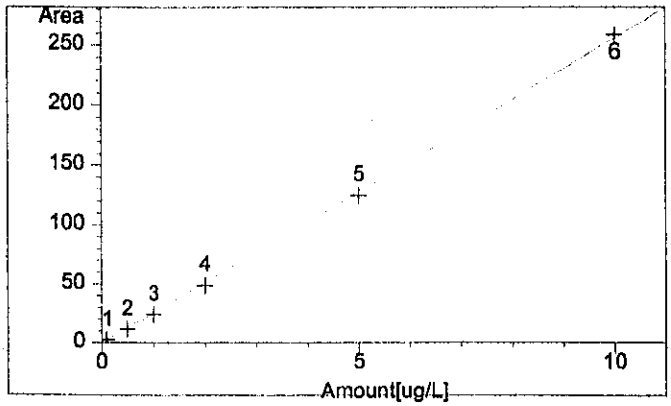
Benzo(a)anthracene #12 at exp. RT: 22.628
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.50958
Formula: y = mx
m: 44.90461
x: Amount [ug/L]
y: Area



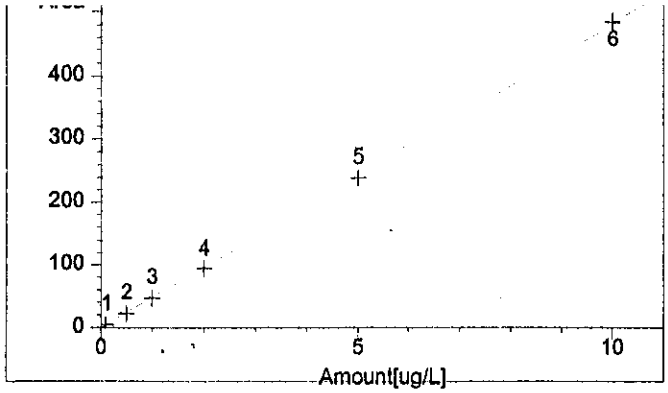
Benzo(a)anthracene #12 at exp. RT: 22.644
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99987
Residual Std. Dev.: 10.41817
Formula: y = mx
m: 126.38133
x: Amount [ug/L]
y: Area



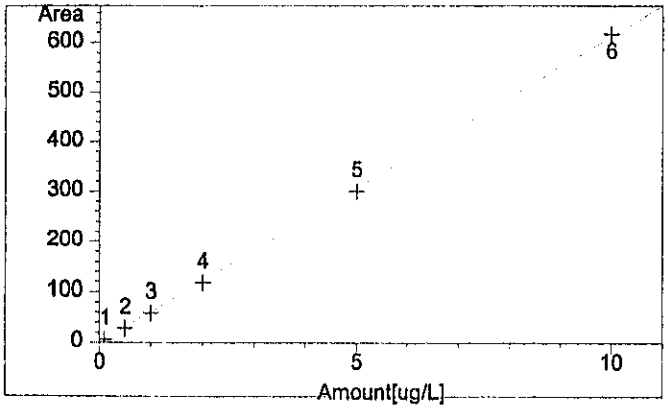
Chrysene #13 at exp. RT: 23.513
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 3.93530
Formula: y = mx
m: 66.02710
x: Amount [ug/L]
y: Area



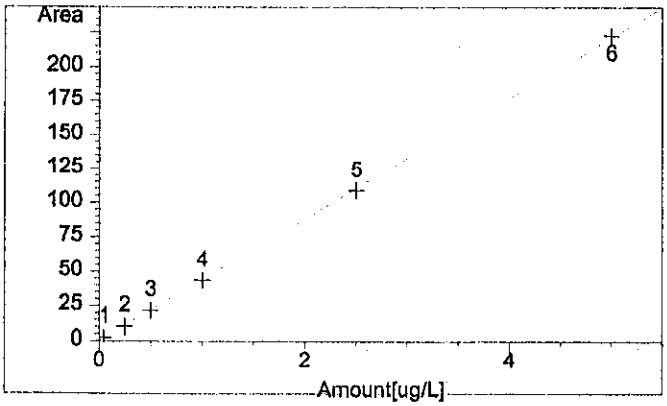
Chrysene #13 at exp. RT: 23.528
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99983
Residual Std. Dev.: 2.41557
Formula: y = mx
m: 25.60849
x: Amount [ug/L]
y: Area



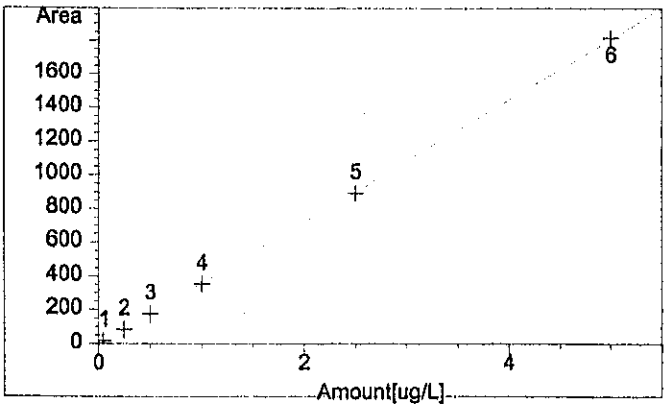
Benzo(b)fluoranthene #14 at exp. RT: 26.2
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.80032
Formula: y = mx
m: 48.23233
x: Amount [ug/L]
y: Area



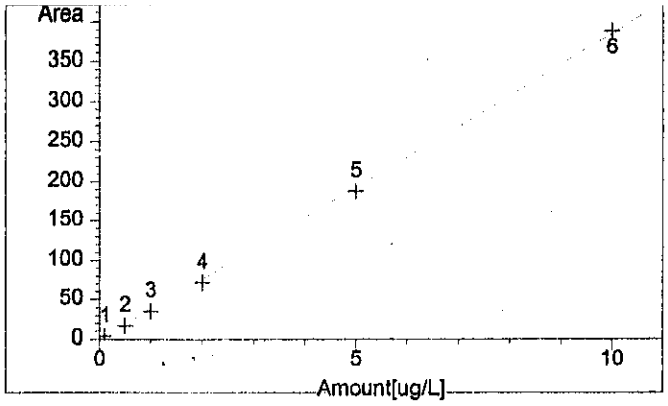
Benzo(b)fluoranthene #14 at exp. RT: 26.2
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 4.39762
Formula: y = mx
m: 61.26633
x: Amount [ug/L]
y: Area



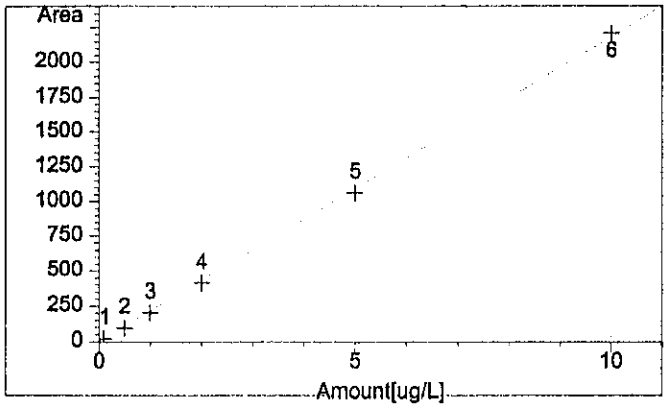
Benzo(k)fluoranthene #15 at exp. RT: 27.6
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 1.11632
Formula: y = mx
m: 44.27975
x: Amount [ug/L]
y: Area



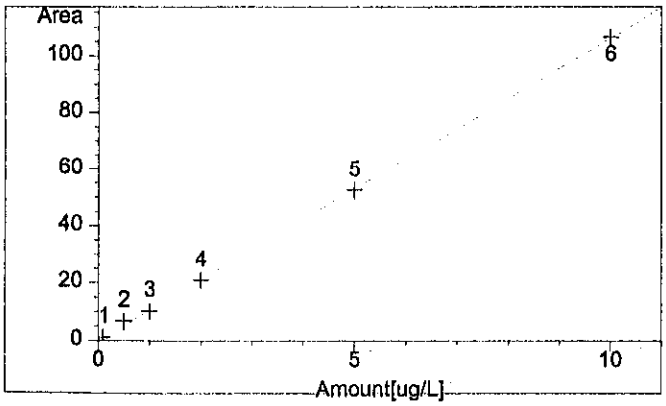
Benzo(k)fluoranthene #15 at exp. RT: 27.7
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 7.24438
Formula: y = mx
m: 361.57005
x: Amount [ug/L]
y: Area



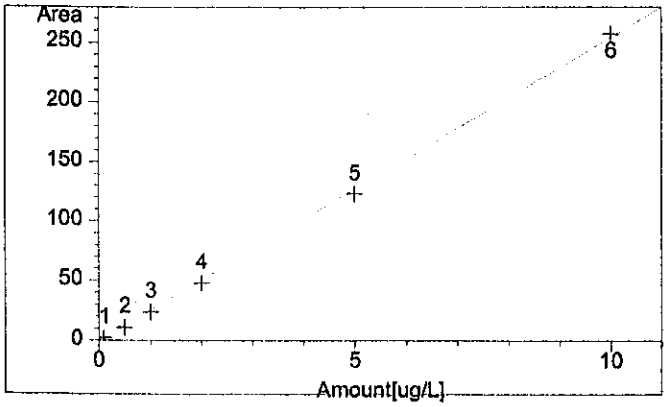
Benzo(a)pyrene #16 at exp. RT: 28.826
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 3.72397
Formula: y = mx
m: 38.21458
x: Amount[ug/L]
y: Area



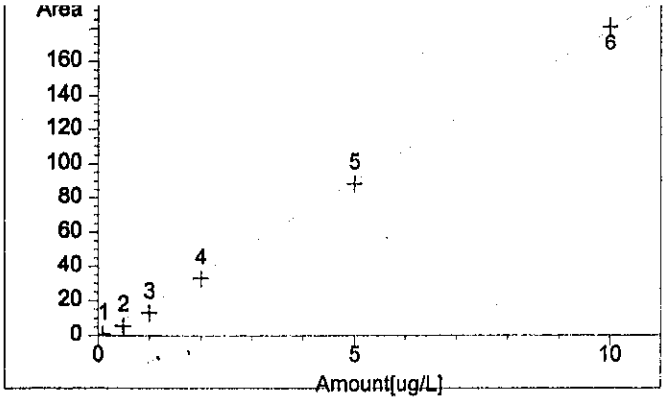
Benzo(a)pyrene #16 at exp. RT: 28.843
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99981
Residual Std. Dev.: 21.63108
Formula: y = mx
m: 218.76141
x: Amount[ug/L]
y: Area



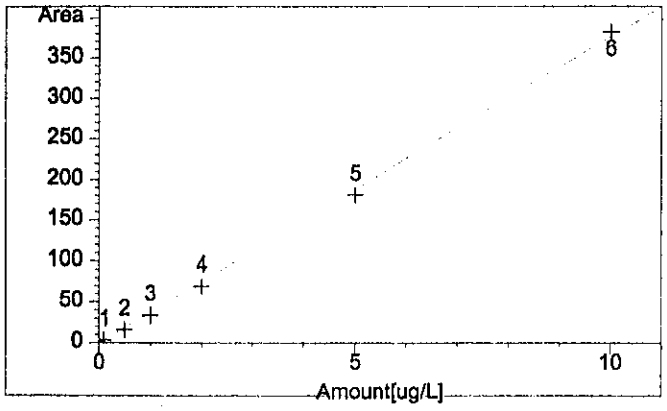
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 0.75986
Formula: y = mx
m: 10.62568
x: Amount[ug/L]
y: Area



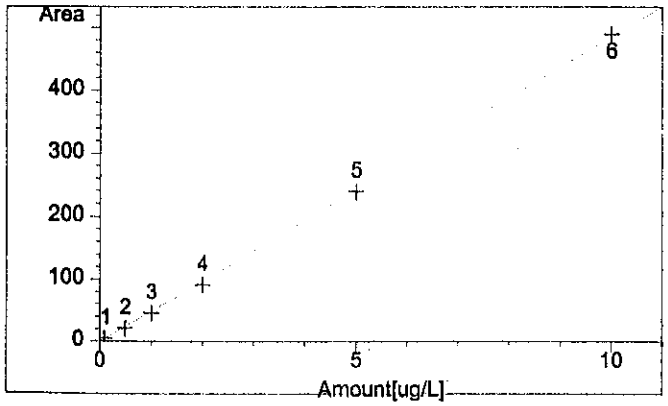
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99975
Residual Std. Dev.: 2.88961
Formula: y = mx
m: 25.41325
x: Amount[ug/L]
y: Area



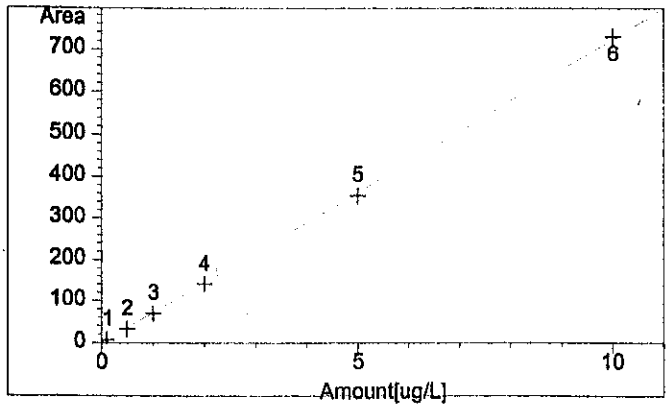
Benzo(g,h,i)perylene #18 at exp. RT: 31.5
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99945
Residual Std. Dev.: 3.03261
Formula: y = mx
m: 17.83074
x: Amount[ug/L]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.5
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99962
Residual Std. Dev.: 5.30907
Formula: y = mx
m: 37.71238
x: Amount[ug/L]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99987
Residual Std. Dev.: 3.96284
Formula: y = mx
m: 48.63628
x: Amount[ug/L]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 4.80774
Formula: y = mx
m: 72.35678
x: Amount[ug/L]
y: Area

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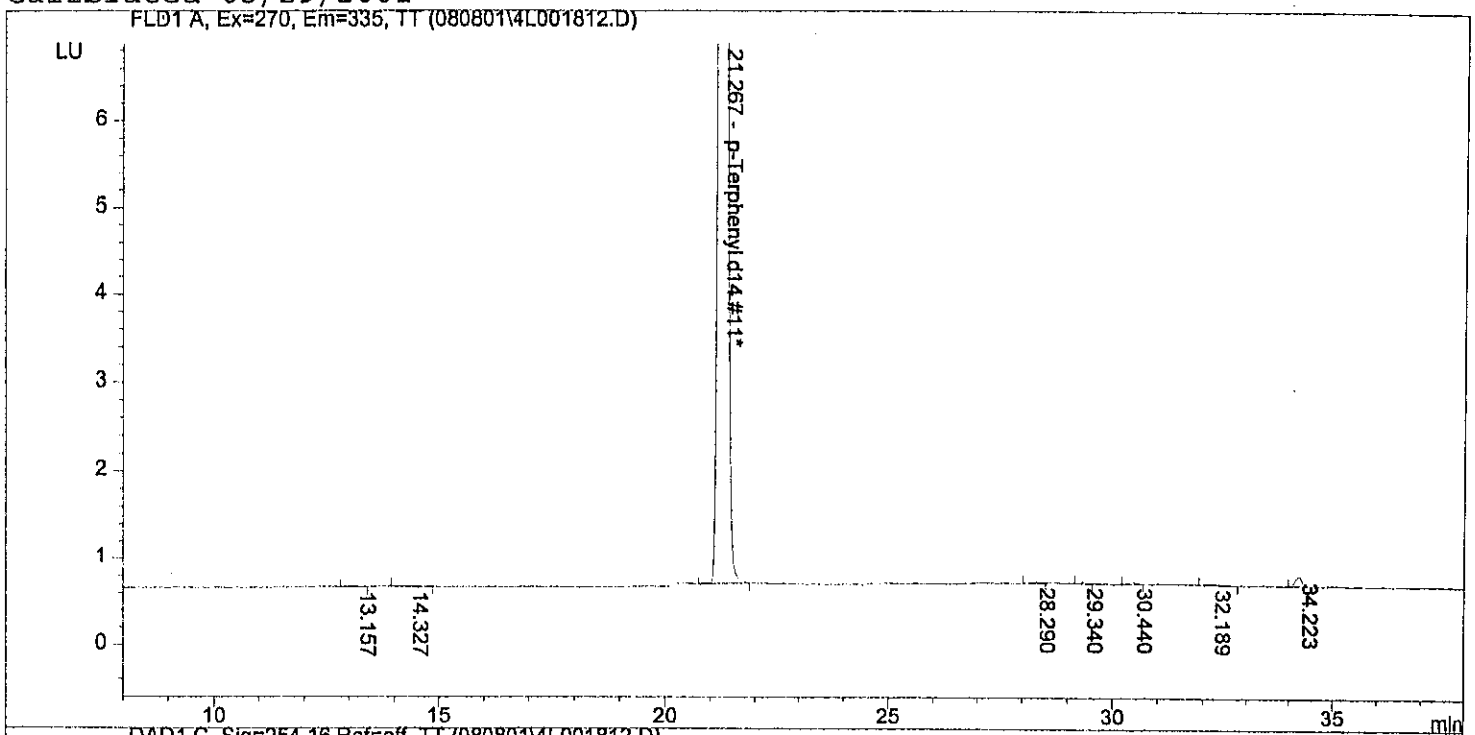
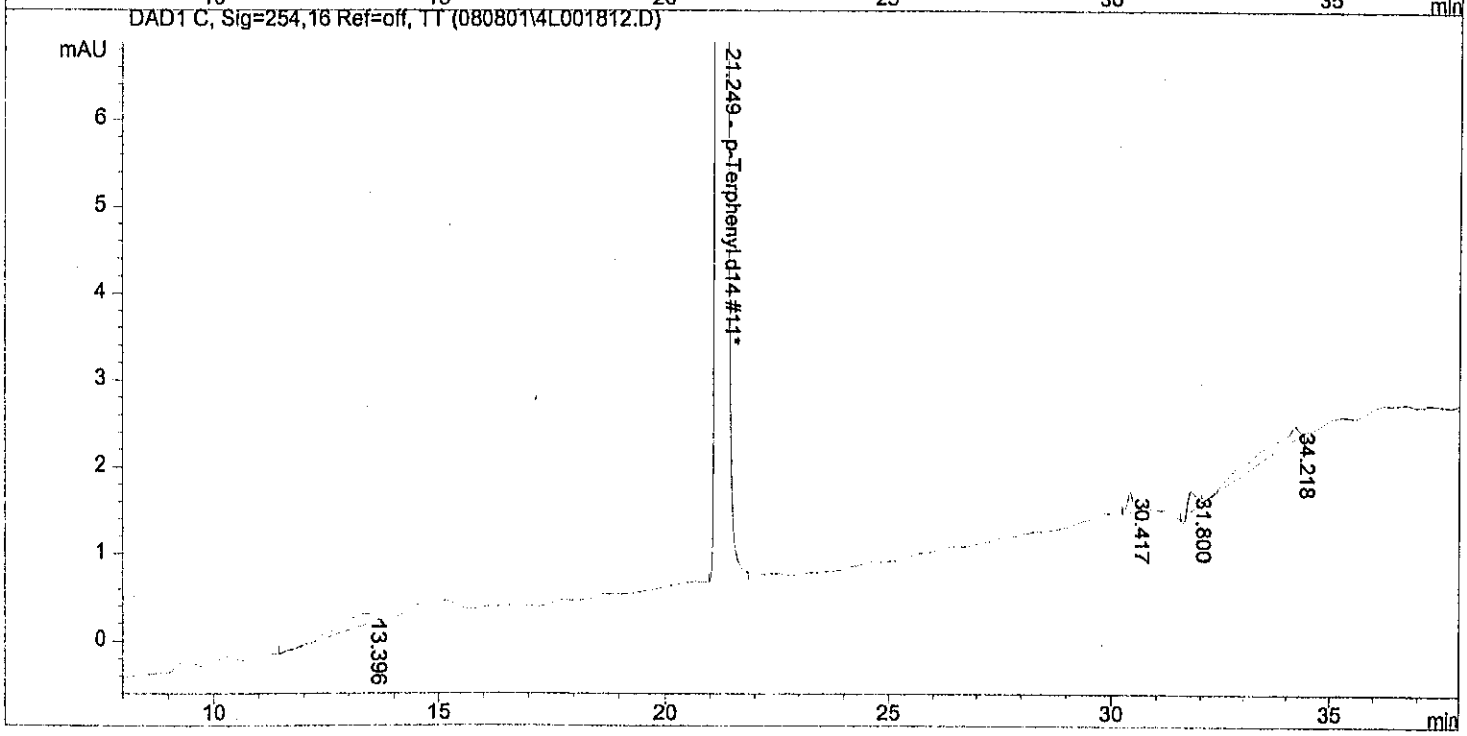
Injection Date : 8/8/2001 9:48:17 PM
Sample Name : 8310surr6/54-35
Acq. Operator : RDC

Seq. Line : 8
Vial : 5
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 12:12:11 PM by RDC
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 12:12:08 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.343		-	-	-		Naphthalene #1
11.976		-	-	-		1-Methylnaphthalene #3
12.520		-	-	-		2-Methylnaphthalene #4
13.006		-	-	-		Acenaphthene #5
13.674		-	-	-		Fluorene #6
15.213		-	-	-		Phenanthrene #7
16.611		-	-	-		Anthracene #8
17.978		-	-	-		Fluoranthene #9
18.981		-	-	-		Pyrene #10
21.267	PBA	339.18564	2.88970e-1	98.01453		p-Terphenyl d14 #11*
22.623		-	-	-		Benzo(a)anthracene #12
23.561		-	-	-		Chrysene #13
26.309		-	-	-		Benzo(b)fluoranthene #14
27.760		-	-	-		Benzo(k)fluoranthene #15
28.879		-	-	-		Benzo(a)pyrene #16
30.774		-	-	-		Dibenz(a,h)anthracene #17
31.597		-	-	-		Benzo(g,h,i)perylene #18
32.504		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 98.01453

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.326		-	-	-		Naphthalene #1
11.007		-	-	-		Acenaphthylene #2
11.957		-	-	-		1-Methylnaphthalene #3
12.534		-	-	-		2-Methylnaphthalene #4
12.989		-	-	-		Acenaphthene #5
13.657		-	-	-		Fluorene #6
15.198		-	-	-		Phenanthrene #7
16.595		-	-	-		Anthracene #8
17.962		-	-	-		Fluoranthene #9
18.965		-	-	-		Pyrene #10
21.249	PBA	1529.22424	6.36953e-2	97.40433		p-Terphenyl d14 #11*
22.608		-	-	-		Benzo(a)anthracene #12
23.546		-	-	-		Chrysene #13
26.293		-	-	-		Benzo(b)fluoranthene #14
27.744		-	-	-		Benzo(k)fluoranthene #15
28.863		-	-	-		Benzo(a)pyrene #16
30.759		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.579		-	-	-		Benzo(g,h,i)perylene #18
32.492		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 97.40433

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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*** End of Report ***

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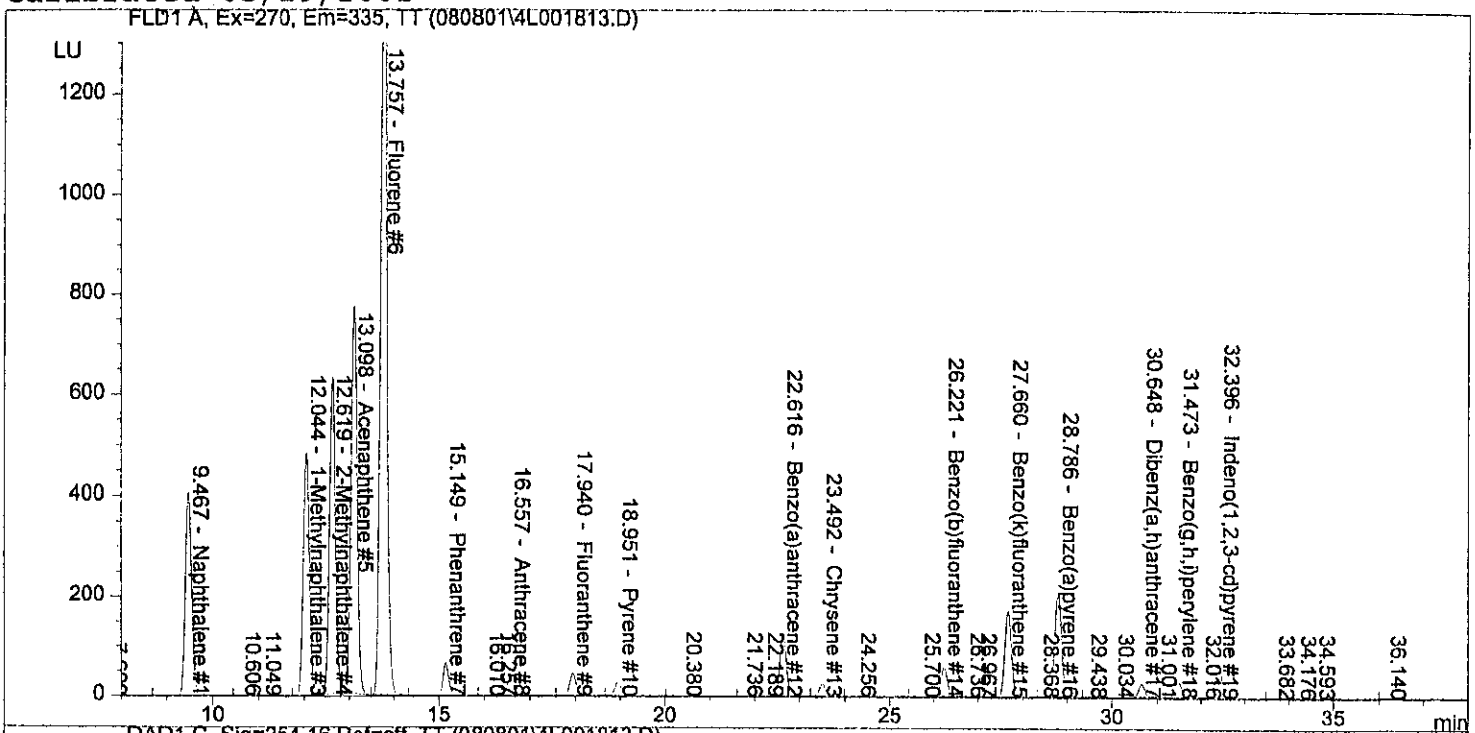
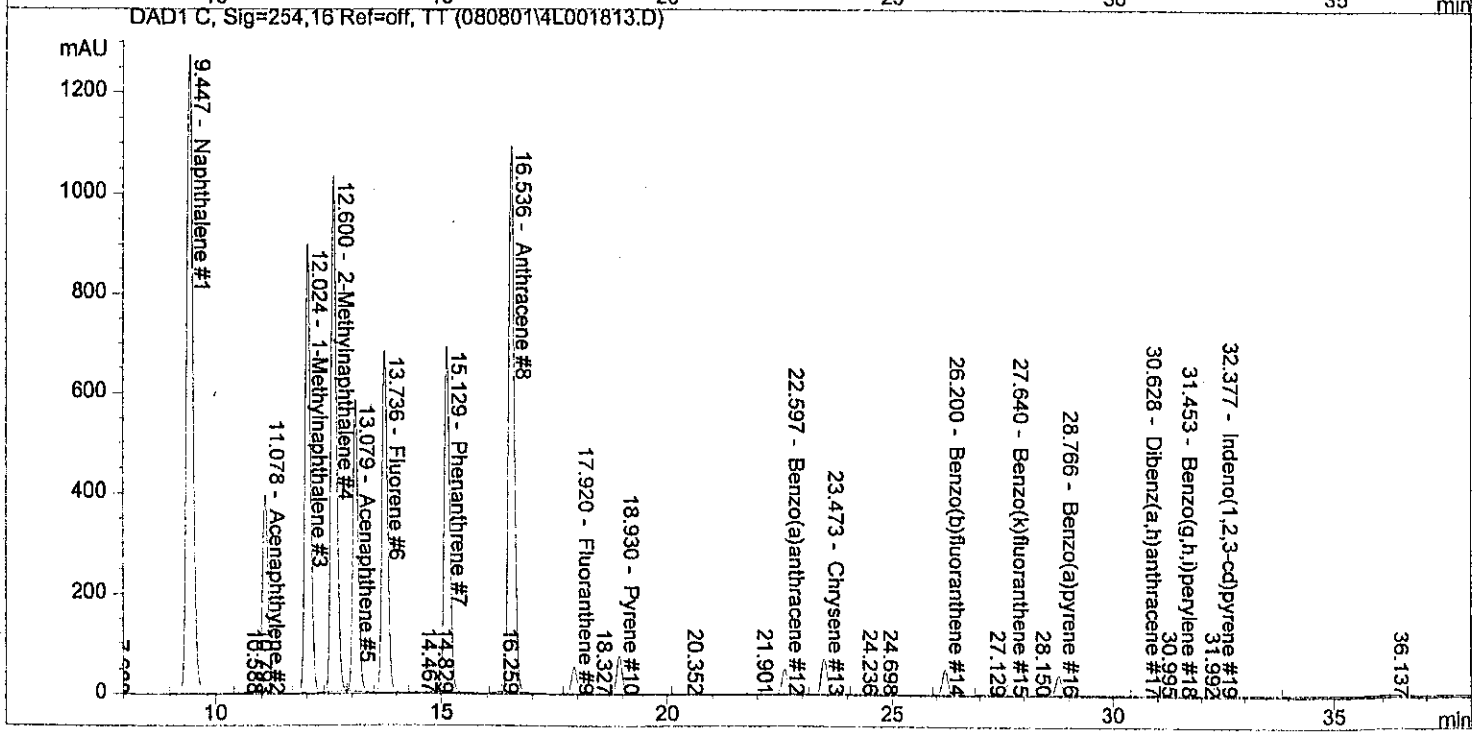
Injection Date : 8/8/2001 10:44:56 PM
Sample Name : 8310 std 6/53-25
Acq. Operator : RDC

Seq. Line : 9
Vial : 6
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 12:22:54 PM by RDC
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Thursday, August 09, 2001 12:22:51 PM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.467	BB	3973.55249	2.55317e-2	101.45138		Naphthalene #1
12.044	PB	4535.38281	2.23759e-2	101.48305		1-Methylnaphthalene #3
12.619	BB	5875.01660	1.72227e-2	101.18389		2-Methylnaphthalene #4
13.098	BB	7228.99854	1.39785e-2	101.05076		Acenaphthene #5
13.757	BB	1.50256e4	6.61784e-3	99.43674		Fluorene #6
15.149	BBA	617.71191	1.63970e-1	101.28640		Phenanthrene #7
16.557	BB	323.14050	3.11421e-1	100.63288		Anthracene #8
17.940	PB	432.79266	2.34467e-2	10.14758		Fluoranthene #9
18.951	BB	273.80585	3.77948e-2	10.34844		Pyrene #10
21.267		-	-	-		p-Terphenyl d14 #11*
22.616	BB	1274.56396	7.97394e-3	10.16330		Benzo(a)anthracene #12
23.492	BB	258.58917	3.94274e-2	10.19549		Chrysene #13
26.221	BB	617.15186	1.63647e-2	10.09953		Benzo(b)fluoranthene #14
27.660	BB	1815.06726	2.77359e-3	5.03425		Benzo(k)fluoranthene #15
28.786	BB	2209.61670	4.57456e-3	10.10801		Benzo(a)pyrene #16
30.648	BB	257.09790	3.95004e-2	10.15546		Dibenz(a,h)anthracene #17
31.473	BB	382.48065	2.68798e-2	10.28100		Benzo(g,h,i)perylene #18
32.396	BB	728.48004	1.37724e-2	10.03289		Indeno(1,2,3-cd)pyrene #1
Totals :				803.09104		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.447	BB	1.20244e4	8.25610e-3	99.27448		Naphthalene #1
11.078	BB	3384.39795	2.97245e-2	100.59951		Acenaphthylene #2
12.024	BB	7740.20703	1.29528e-2	100.25726		1-Methylnaphthalene #3
12.600	BB	8884.32324	1.12464e-2	99.91623		2-Methylnaphthalene #4
13.079	BB	4940.15088	2.03275e-2	100.42072		Acenaphthene #5
13.736	BB	5731.11230	1.75642e-2	100.66232		Fluorene #6
15.129	BBA	5806.07617	1.73002e-2	100.44635		Phenanthrene #7
16.536	BBA	9552.15625	1.04130e-2	99.46643		Anthracene #8
17.920	PB	463.67642	2.17440e-2	10.08217		Fluoranthene #9
18.930	BB	703.95166	1.43310e-2	10.08832		Pyrene #10
21.249		-	-	-		p-Terphenyl d14 #11*
22.597	BBA	451.58978	2.23017e-2	10.07124		Benzo(a)anthracene #12
23.473	BBA	664.28351	1.51547e-2	10.06704		Chrysene #13
26.200	BBA	485.19955	2.07746e-2	10.07983		Benzo(b)fluoranthene #14
27.640	BB	222.55347	2.26386e-2	5.03829		Benzo(k)fluoranthene #15
28.766	BB	385.80145	2.60127e-2	10.03572		Benzo(a)pyrene #16
30.628	PB	106.53020	9.38245e-2	9.99514		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.453	BB	180.23679	5.63755e-2	10.16093		Benzo(g,h,i)perylene #18
32.377	BBA	489.90164	2.05716e-2	10.07805		Indeno(1,2,3-cd)pyrene #1

Totals : 896.74006

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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*** End of Report ***

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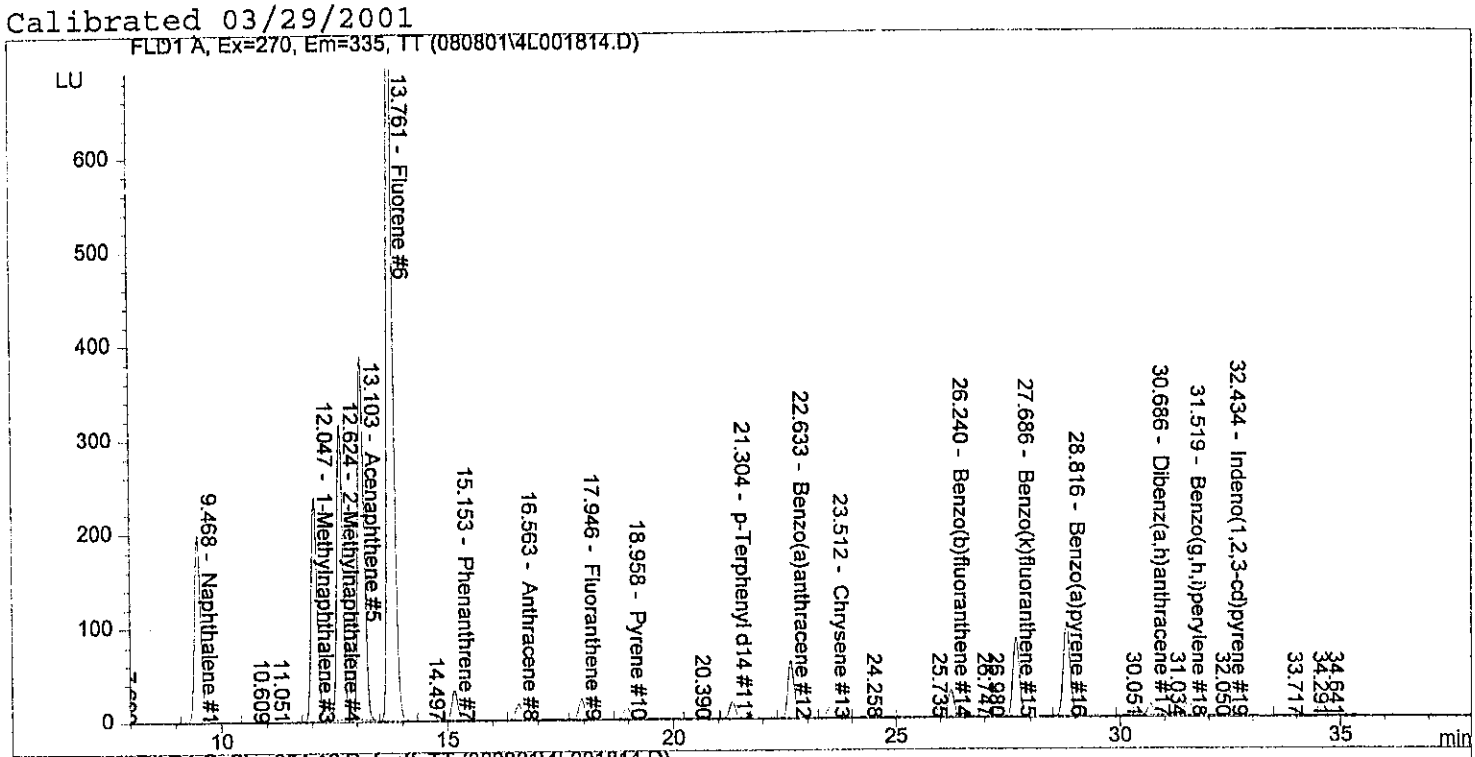
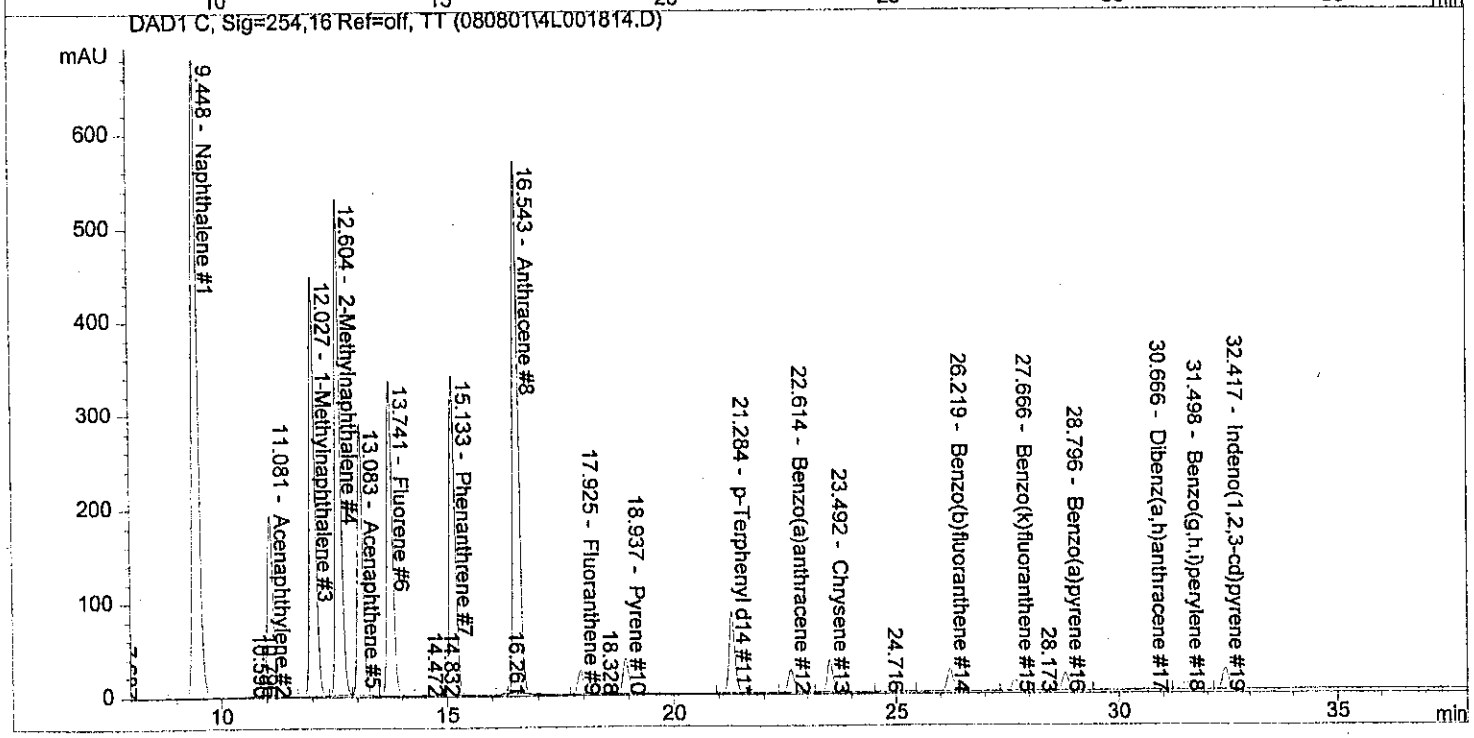
Injection Date : 8/8/2001 11:41:36 PM
Sample Name : 8310 std 5/53-25
Acq. Operator : RDC

Seq. Line : 10
Vial : 7
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 12:23:34 PM by RDC
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 12:23:32 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.468	PB	1948.04333	2.53373e-2	49.35817		Naphthalene #1
12.047	PB	2235.18970	2.21763e-2	49.56814		1-Methylnaphthalene #3
12.624	BB	2909.70630	1.70922e-2	49.73328		2-Methylnaphthalene #4
13.103	BB	3605.74121	1.38670e-2	50.00065		Acenaphthene #5
13.761	BB	7656.80322	6.53228e-3	50.01636		Fluorene #6
15.153	BBA	295.27972	1.63827e-1	48.37483		Phenanthrene #7
16.563	BB	159.95667	3.10549e-1	49.67436		Anthracene #8
17.946	BB	210.50659	2.32969e-2	4.90415		Fluoranthene #9
18.958	BBA	130.27173	3.71107e-2	4.83447		Pyrene #10
21.304	PB	163.61835	2.96033e-1	48.43651		p-Terphenyl d14 #11*
22.633	BB	616.44403	7.92426e-3	4.88486		Benzo(a)anthracene #12
23.512	BB	124.43752	3.91177e-2	4.86771		Chrysene #13
26.240	BB	299.93723	1.63317e-2	4.89849		Benzo(b)fluoranthene #14
27.686	BB	893.52496	2.76733e-3	2.47268		Benzo(k)fluoranthene #15
28.816	BB	1063.36975	4.57033e-3	4.85995		Benzo(a)pyrene #16
30.686	BB	122.84724	3.93851e-2	4.83834		Dibenz(a,h)anthracene #17
31.519	BB	181.30618	2.65675e-2	4.81686		Benzo(g,h,i)perylene #18
32.434	BB	354.48691	1.38152e-2	4.89732		Indeno(1,2,3-cd)pyrene #1

Totals : 441.43712

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.448	PBA	6202.44971	8.25915e-3	51.22699		Naphthalene #1
11.081	BB	1657.23242	2.97185e-2	49.25050		Acenaphthylene #2
12.027	BB	3838.97803	1.29547e-2	49.73284		1-Methylnaphthalene #3
12.604	BB	4469.53662	1.12471e-2	50.26953		2-Methylnaphthalene #4
13.083	BB	2433.60547	2.03296e-2	49.47421		Acenaphthene #5
13.741	BB	2816.46851	1.75408e-2	49.40304		Fluorene #6
15.133	BBA	2852.19556	1.73083e-2	49.36677		Phenanthrene #7
16.543	BBA	4858.51855	1.04295e-2	50.67187		Anthracene #8
17.925	PB	226.24062	2.17178e-2	4.91345		Fluoranthene #9
18.937	BBA	342.22821	1.43193e-2	4.90046		Pyrene #10
21.284	PBA	752.44629	6.53529e-2	49.17455		p-Terphenyl d14 #11*
22.614	PBA	220.89987	2.22893e-2	4.92370		Benzo(a)anthracene #12
23.492	BBA	324.43796	1.51547e-2	4.91677		Chrysene #13
26.219	BBA	236.98158	2.07517e-2	4.91778		Benzo(b)fluoranthene #14
27.666	BB	108.82767	2.26066e-2	2.46022		Benzo(k)fluoranthene #15
28.796	BBA	186.41614	2.61378e-2	4.87251		Benzo(a)pyrene #16
30.666	BB	52.55205	9.41932e-2	4.95004		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.498	BB	87.58637	5.62695e-2	4.92844		Benzo(g,h,i)perylene #18
32.417	BBA	239.26749	2.05571e-2	4.91865		Indeno(1,2,3-cd)pyrene #1

Totals : 495.27231

Results obtained with enhanced integrator!

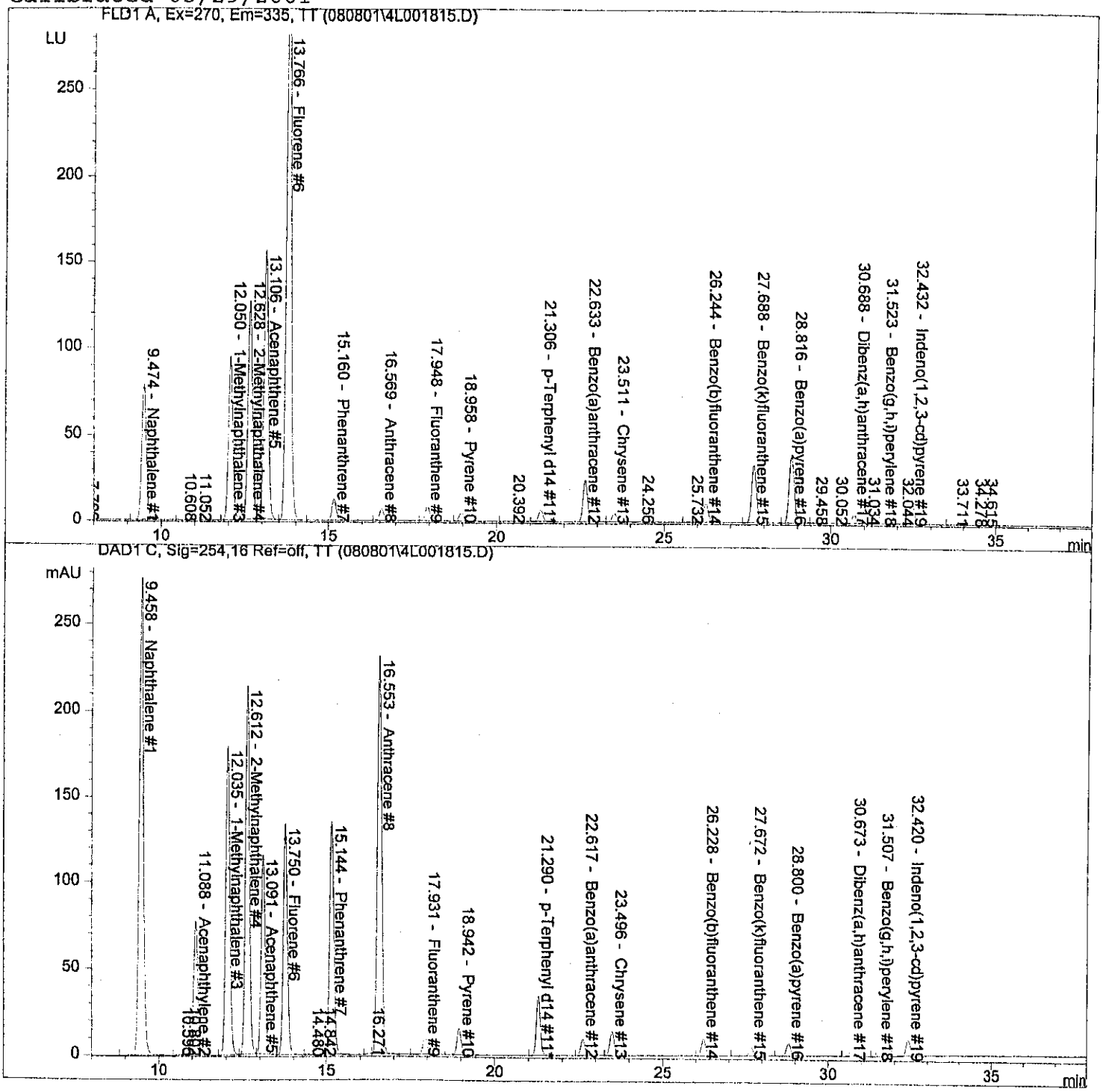
*** End of Report ***

Injection Date : 8/9/2001 12:38:12 AM
Sample Name : 8310 std 4/53-25
Acq. Operator : RDC

Seq. Line : 11
Vial : 8
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 12:24:08 PM by RDC
(modified after loading)

Calibrated 03/29/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 12:24:05 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.474	PBA	771.00281	2.53062e-2	19.51118		Naphthalene #1
12.050	PB	887.93890	2.21431e-2	19.66168		1-Methylnaphthalene #3
12.628	BB	1160.72327	1.70700e-2	19.81357		2-Methylnaphthalene #4
13.106	BB	1445.95483	1.38473e-2	20.02258		Acenaphthene #5
13.766	BB	3112.09448	6.51797e-3	20.28453		Fluorene #6
15.160	BBA	116.85247	1.63688e-1	19.12731		Phenanthrene #7
16.569	BBA	63.99872	3.10306e-1	19.85918		Anthracene #8
17.948	BBA	83.17304	2.32743e-2	1.93580		Fluoranthene #9
18.958	BBA	50.45357	3.70193e-2	1.86776		Pyrene #10
21.306	BBA	64.98736	2.97101e-1	19.30782		p-Terphenyl d14 #11*
22.633	BB	242.58244	7.91528e-3	1.92011		Benzo(a)anthracene #12
23.511	BB	48.77195	3.90649e-2	1.90527		Chrysene #13
26.244	BBA	118.32101	1.63243e-2	1.93151		Benzo(b)fluoranthene #14
27.688	BB	355.36359	2.76617e-3	9.82998e-1		Benzo(k)fluoranthene #15
28.816	BB	414.51672	4.57086e-3	1.89470		Benzo(a)pyrene #16
30.688	BB	47.95410	3.93563e-2	1.88730		Dibenz(a,h)anthracene #17
31.523	BB	69.49560	2.65273e-2	1.84353		Benzo(g,h,i)perylene #18
32.432	BBA	140.75026	1.38193e-2	1.94508		Indeno(1,2,3-cd)pyrene #1

Totals : 175.70189

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.458	PBA	2499.14551	8.25594e-3	20.63280		Naphthalene #1
11.088	BBA	660.92621	2.97039e-2	19.63209		Acenaphthylene #2
12.035	PB	1534.10083	1.29485e-2	19.86429		1-Methylnaphthalene #3
12.612	BB	1794.47327	1.12416e-2	20.17276		2-Methylnaphthalene #4
13.091	BB	971.18744	2.03201e-2	19.73465		Acenaphthene #5
13.750	BBA	1121.39856	1.75287e-2	19.65661		Fluorene #6
15.144	BBA	1137.18030	1.73013e-2	19.67475		Phenanthrene #7
16.553	BBA	1952.77490	1.04274e-2	20.36233		Anthracene #8
17.931	PB	89.62297	2.17050e-2	1.94527		Fluoranthene #9
18.942	BBA	135.53003	1.43101e-2	1.93944		Pyrene #10
21.290	BBA	299.12198	6.56026e-2	19.62319		p-Terphenyl d14 #11*
22.617	PBA	87.18385	2.22768e-2	1.94218		Benzo(a)anthracene #12
23.496	PBA	128.16238	1.51490e-2	1.94153		Chrysene #13
26.228	PBA	93.81008	2.07392e-2	1.94555		Benzo(b)fluoranthene #14
27.672	BB	43.54576	2.25926e-2	9.83811e-1		Benzo(k)fluoranthene #15
28.800	BBA	71.60413	2.61650e-2	1.87352		Benzo(a)pyrene #16
30.673	BBA	21.07817	9.41491e-2	1.98449		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.507	PB	33.12908	5.60918e-2	1.85827		Benzo(g,h,i)perylene #18
32.420	BB	91.52023	2.05641e-2	1.88203		Indeno(1,2,3-cd)pyrene #1

Totals : 197.64957

Results obtained with enhanced integrator!

*** End of Report ***

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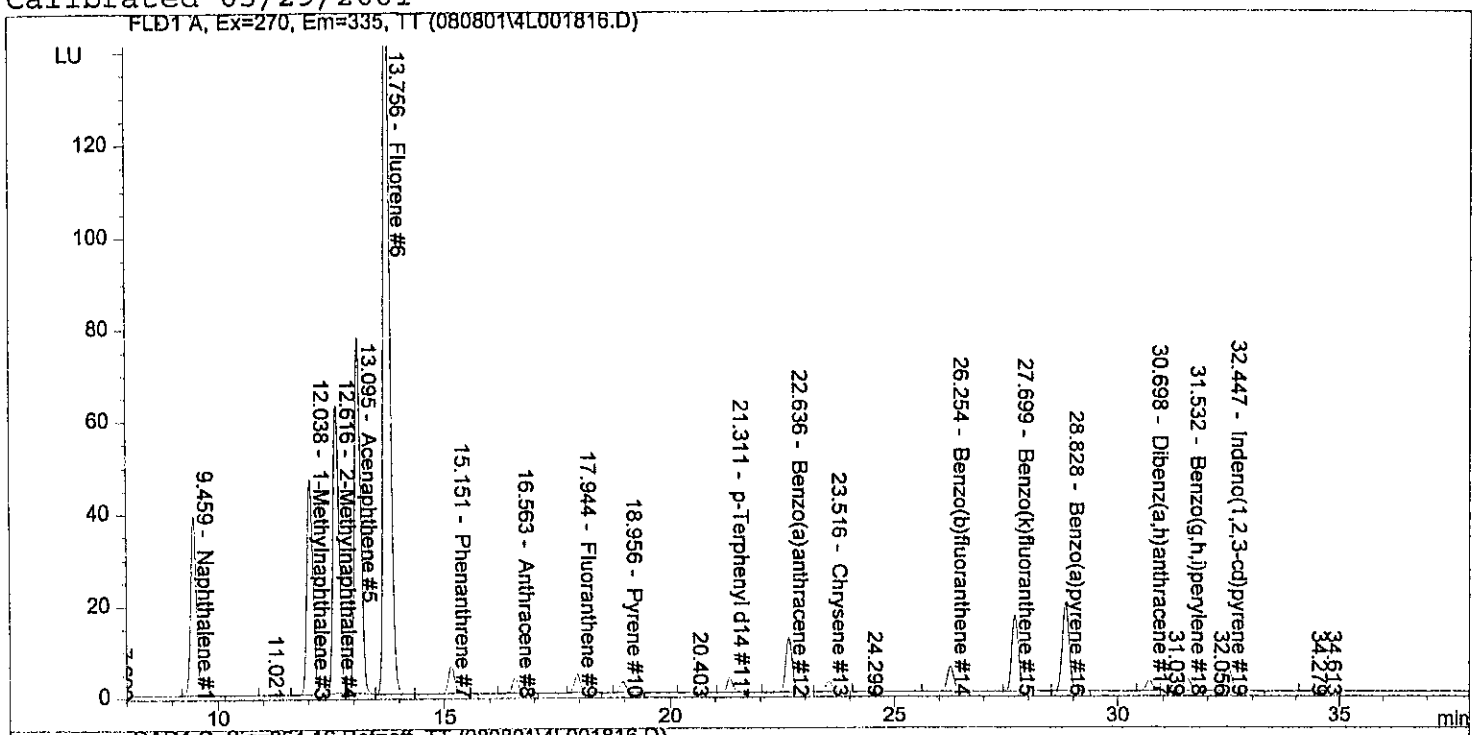
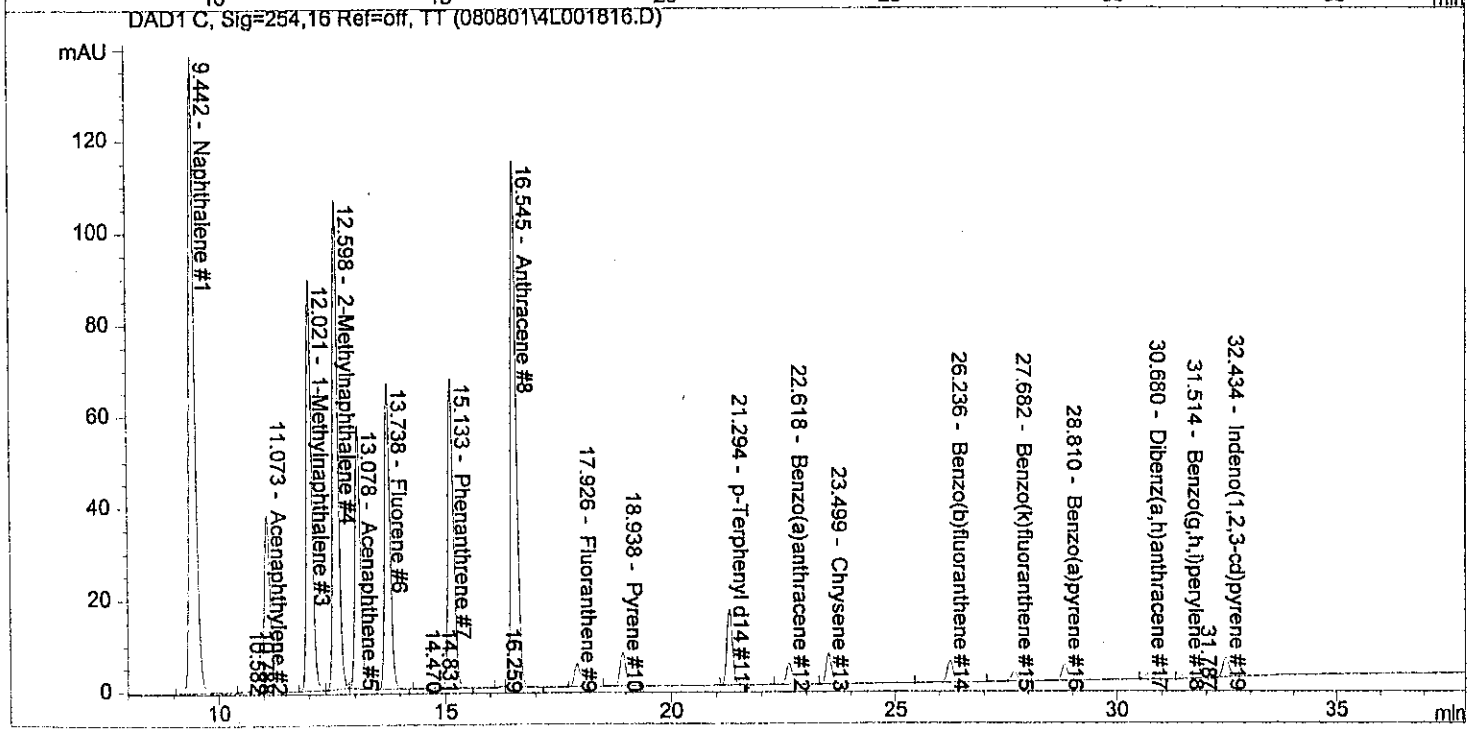
Injection Date	: 8/9/2001 1:34:48 AM	Seq. Line	: 12
Sample Name	: 8310 std 3/53-25	Vial	: 9
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 1:53:54 PM by RDC
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 1:53:51 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.459	BBA	381.56079	2.52975e-2	9.65254		Naphthalene #1
12.038	PB	438.85303	2.21343e-2	9.71369		1-Methylnaphthalene #3
12.616	BB	575.43298	1.70643e-2	9.81937		2-Methylnaphthalene #4
13.095	BB	718.90424	1.38423e-2	9.95132		Acenaphthene #5
13.756	BB	1559.63367	6.51366e-3	10.15893		Fluorene #6
15.151	BBA	58.15233	1.63652e-1	9.51677		Phenanthrene #7
16.563	BBA	32.12813	3.10210e-1	9.96646		Anthracene #8
17.944	BBA	41.21679	2.32680e-2	9.59030e-1		Fluoranthene #9
18.956	BBA	24.49013	3.70002e-2	9.06140e-1		Pyrene #10
21.311	BBA	31.73221	2.97355e-1	9.43572		p-Terphenyl d14 #11*
22.636	PB	119.82957	7.91289e-3	9.48198e-1		Benzo(a)anthracene #12
23.516	BBA	24.17820	3.90514e-2	9.44192e-1		Chrysene #13
26.254	PBA	58.33105	1.63221e-2	9.52086e-1		Benzo(b)fluoranthene #14
27.699	BB	176.43927	2.76576e-3	4.87989e-1		Benzo(k)fluoranthene #15
28.828	BB	203.54648	4.57102e-3	9.30415e-1		Benzo(a)pyrene #16
30.698	PB	23.53592	3.93487e-2	9.26108e-1		Dibenz(a,h)anthracene #17
31.532	BB	33.85759	2.65177e-2	8.97824e-1		Benzo(g,h,i)perylene #18
32.447	BBA	69.61817	1.38197e-2	9.62101e-1		Indeno(1,2,3-cd)pyrene #1
Totals :				87.12889		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.442	PBA	1248.26221	8.25422e-3	10.30343		Naphthalene #1
11.073	BBA	328.40460	2.96983e-2	9.75306		Acenaphthylene #2
12.021	PB	763.85205	1.29461e-2	9.88889		1-Methylnaphthalene #3
12.598	BB	894.31500	1.12395e-2	10.05166		2-Methylnaphthalene #4
13.078	BB	483.56268	2.03168e-2	9.82443		Acenaphthene #5
13.738	BBA	557.46277	1.75246e-2	9.76933		Fluorene #6
15.133	BBA	565.66064	1.72985e-2	9.78506		Phenanthrene #7
16.545	BBA	973.54010	1.04262e-2	10.15030		Anthracene #8
17.926	PB	44.25564	2.17013e-2	9.60407e-1		Fluoranthene #9
18.938	BBA	67.74028	1.43056e-2	9.69062e-1		Pyrene #10
21.294	BBA	145.31215	6.56589e-2	9.54104		p-Terphenyl d14 #11*
22.618	BBA	43.83417	2.22701e-2	9.76191e-1		Benzo(a)anthracene #12
23.499	BBA	63.60076	1.51457e-2	9.63280e-1		Chrysene #13
26.236	PBA	46.71288	2.07333e-2	9.68511e-1		Benzo(b)fluoranthene #14
27.682	BBA	21.84682	2.25837e-2	4.93381e-1		Benzo(k)fluoranthene #15
28.810	BBA	35.68842	2.61682e-2	9.33903e-1		Benzo(a)pyrene #16
30.680	BBA	10.35146	9.41628e-2	9.74722e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.514	PB	13.18469	5.60856e-2	7.39471e-1		Benzo(g,h,i)perylene #18
32.434	BB	45.97294	2.05614e-2	9.45269e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 97.99139

Results obtained with enhanced integrator!

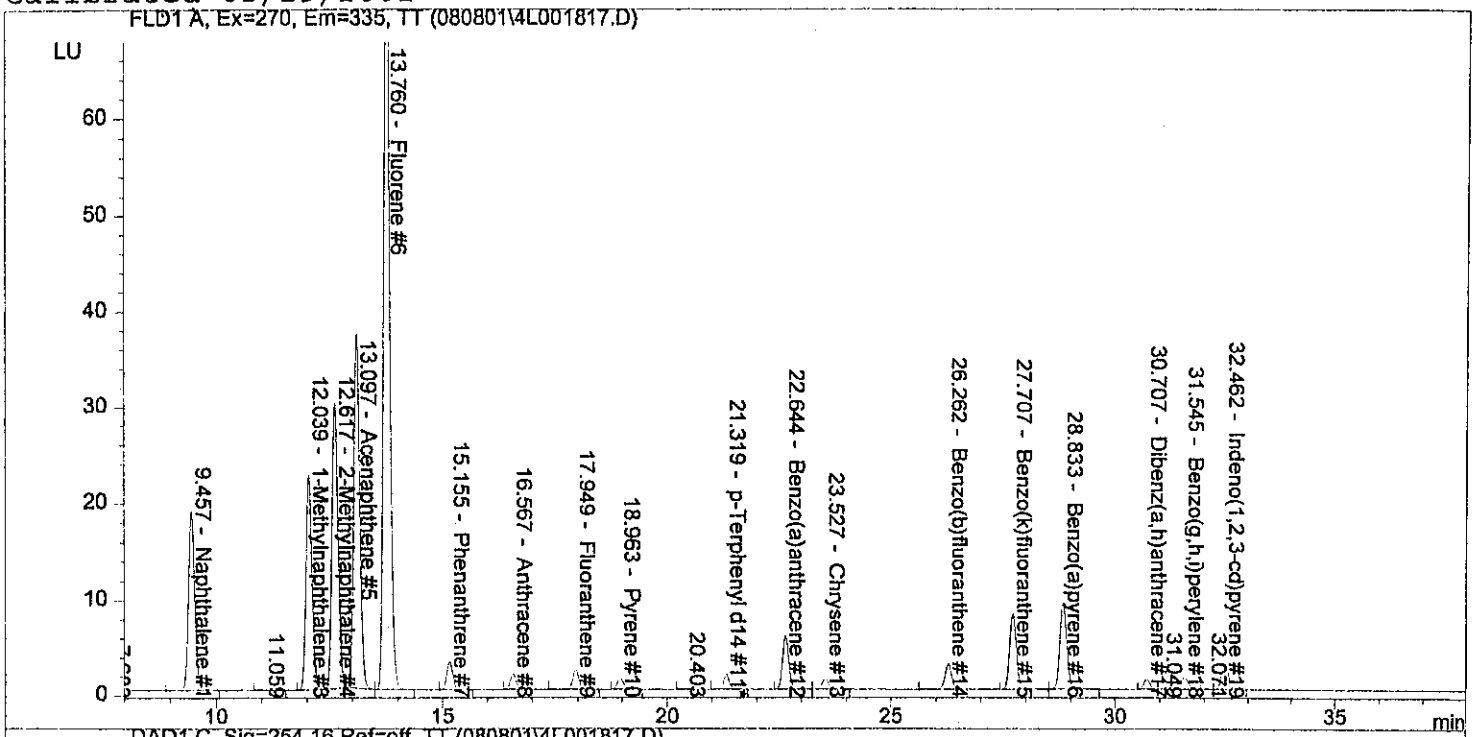
*** End of Report ***

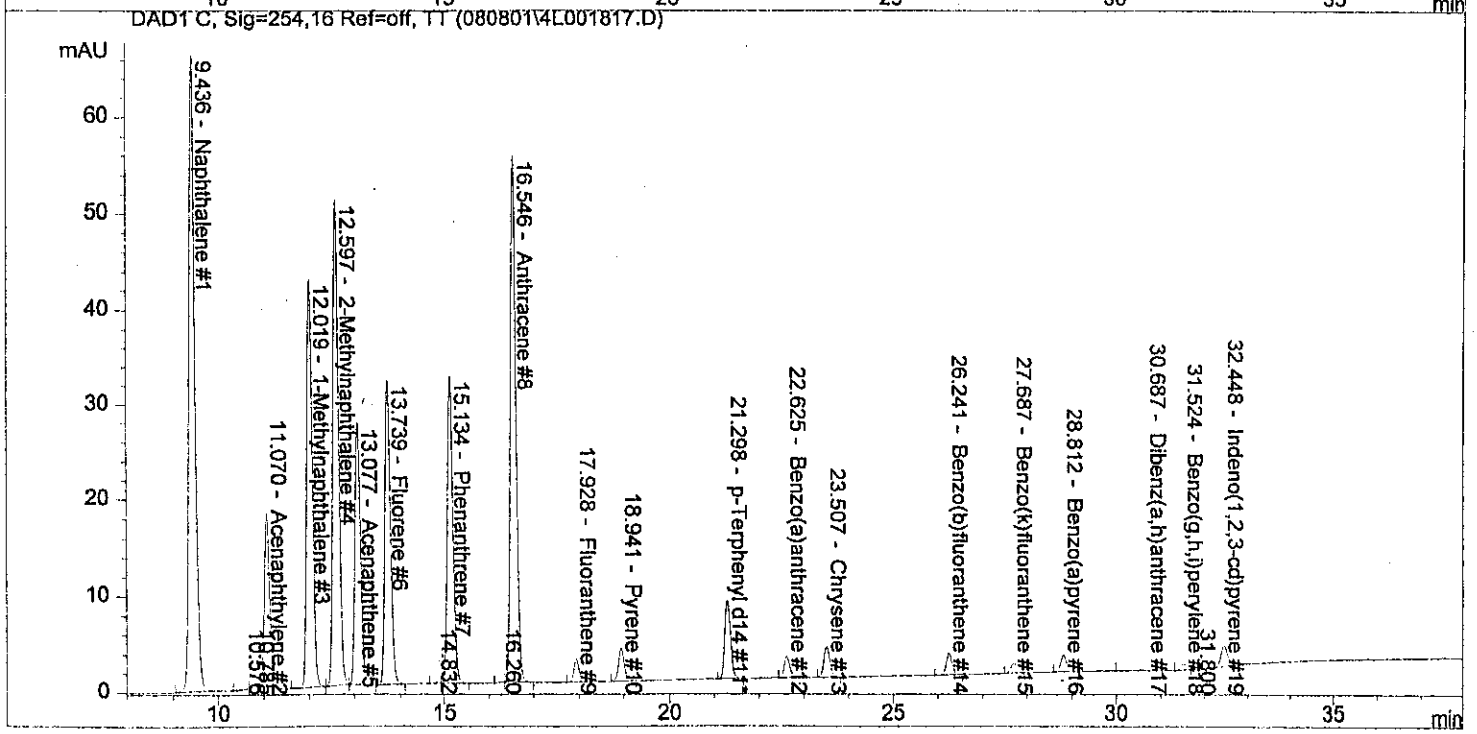
Injection Date : 8/9/2001 2:31:25 AM
Sample Name : 8310 std 2/53-25
Acq. Operator : RDC

Seq. Line : 13
Vial : 10
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 1:55:11 PM by RDC
(modified after loading)

Calibrated 03/29/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 1:55:07 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.457	PBA	181.76619	2.52963e-2	4.59801		Naphthalene #1
12.039	PB	209.24336	2.21330e-2	4.63119		1-Methylnaphthalene #3
12.617	BB	274.39529	1.70636e-2	4.68216		2-Methylnaphthalene #4
13.097	BB	342.62488	1.38416e-2	4.74248		Acenaphthene #5
13.760	BBA	746.17523	6.51370e-3	4.86036		Fluorene #6
15.155	PBA	27.27178	1.63653e-1	4.46310		Phenanthrene #7
16.567	BBA	15.29622	3.10197e-1	4.74485		Anthracene #8
17.949	BBA	19.73562	2.32679e-2	4.59206e-1		Fluoranthene #9
18.963	BBA	11.52839	3.69974e-2	4.26520e-1		Pyrene #10
21.319	BBA	15.32359	2.97421e-1	4.55755		p-Terphenyl d14 #11*
22.644	BB	56.84493	7.91259e-3	4.49791e-1		Benzo(a)anthracene #12
23.527	BBA	11.43981	3.90499e-2	4.46723e-1		Chrysene #13
26.262	PBA	27.63313	1.63222e-2	4.51033e-1		Benzo(b)fluoranthene #14
27.707	PB	83.81139	2.76572e-3	2.31799e-1		Benzo(k)fluoranthene #15
28.833	BBA	96.67756	4.57119e-3	4.41931e-1		Benzo(a)pyrene #16
30.707	PB	10.91603	3.93495e-2	4.29540e-1		Dibenz(a,h)anthracene #17
31.545	BB	15.83937	2.65166e-2	4.20006e-1		Benzo(g,h,i)perylene #18
32.462	BBA	32.35181	1.38204e-2	4.47116e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 41.48338

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.436	PBA	597.19745	8.25408e-3	4.92931		Naphthalene #1
11.070	BBA	157.20731	2.96976e-2	4.66868		Acenaphthylene #2
12.019	BB	365.03561	1.29459e-2	4.72572		1-Methylnaphthalene #3
12.597	BB	428.27109	1.12393e-2	4.81347		2-Methylnaphthalene #4
13.077	BBA	231.24211	2.03164e-2	4.69801		Acenaphthene #5
13.739	BBA	266.30728	1.75241e-2	4.66679		Fluorene #6
15.134	BBA	270.24643	1.72983e-2	4.67479		Phenanthrene #7
16.546	BBA	465.29129	1.04262e-2	4.85122		Anthracene #8
17.928	PBA	21.37060	2.17007e-2	4.63757e-1		Fluoranthene #9
18.941	BBA	31.33940	1.43053e-2	4.48319e-1		Pyrene #10
21.298	PBA	70.24126	6.56728e-2	4.61294		p-Terphenyl d14 #11*
22.625	BBA	20.54964	2.22694e-2	4.57628e-1		Benzo(a)anthracene #12
23.507	BBA	30.26713	1.51453e-2	4.58406e-1		Chrysene #13
26.241	PBA	22.12707	2.07330e-2	4.58761e-1		Benzo(b)fluoranthene #14
27.687	PBA	10.19696	2.25839e-2	2.30287e-1		Benzo(k)fluoranthene #15
28.812	BBA	16.98781	2.61681e-2	4.44538e-1		Benzo(a)pyrene #16
30.687	BBA	6.85372	9.41128e-2	6.45023e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.524	PB	5.61006	5.60813e-2	3.14619e-1		Benzo(g,h,i)perylene #18
32.448	BB	21.11818	2.05610e-2	4.34211e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 46.99648

Results obtained with enhanced integrator!

*** End of Report ***

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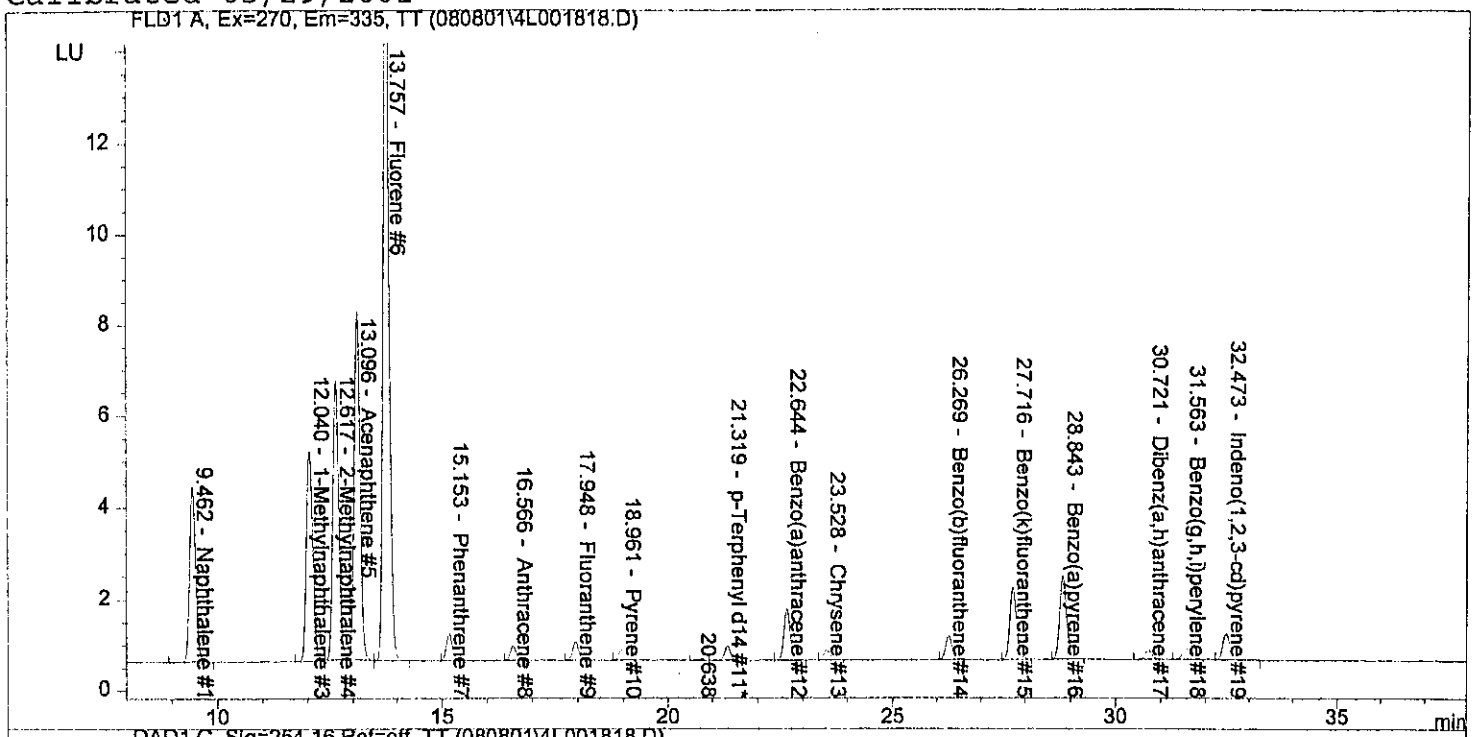
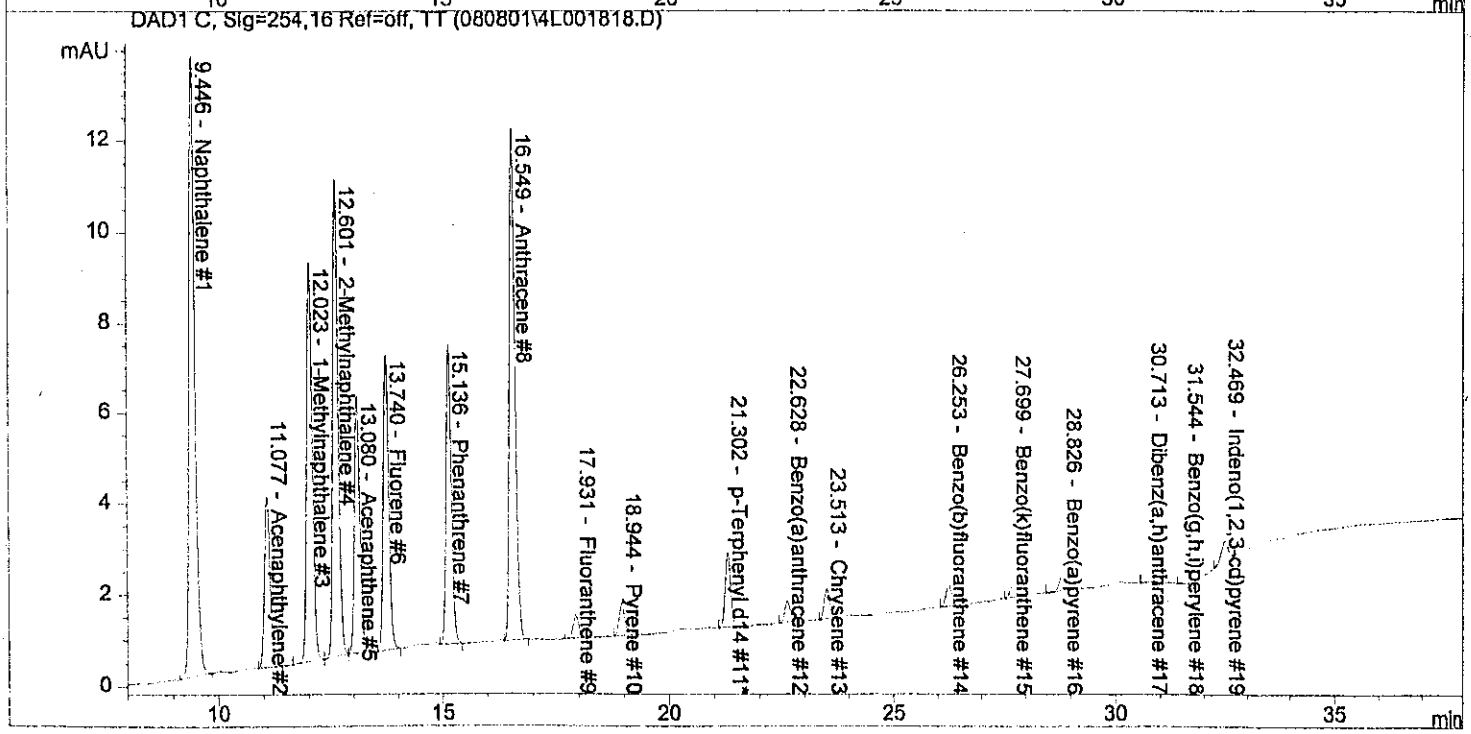
Injection Date : 8/9/2001 3:28:00 AM
Sample Name : 8310 std 1/53-25
Acq. Operator : RDC

Seq. Line : 14
Vial : 11
Inj : 1
Inj Volume : 8 µl

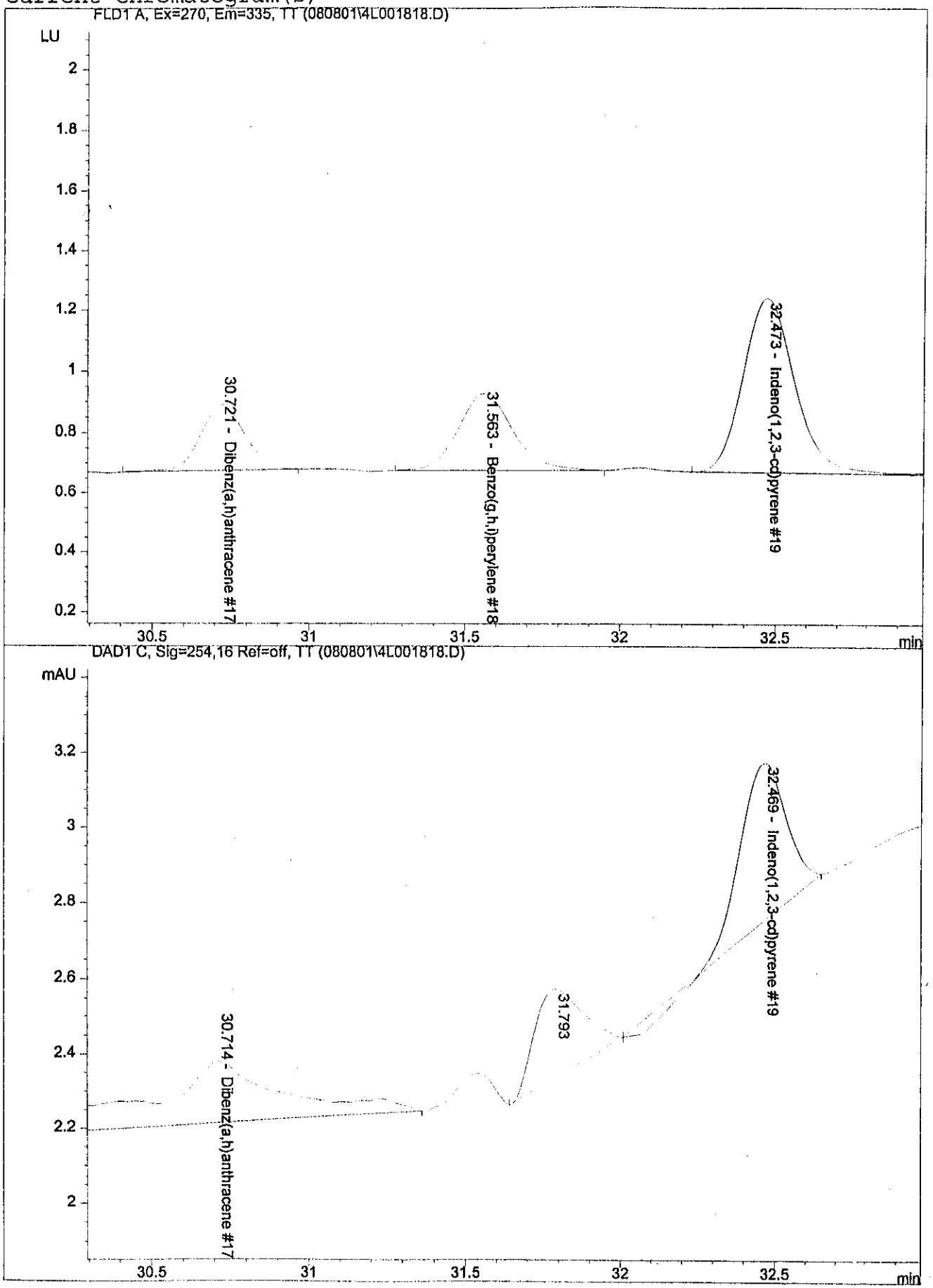
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 1:57:07 PM by RDC
(modified after loading)

Calibrated 03/29/2001





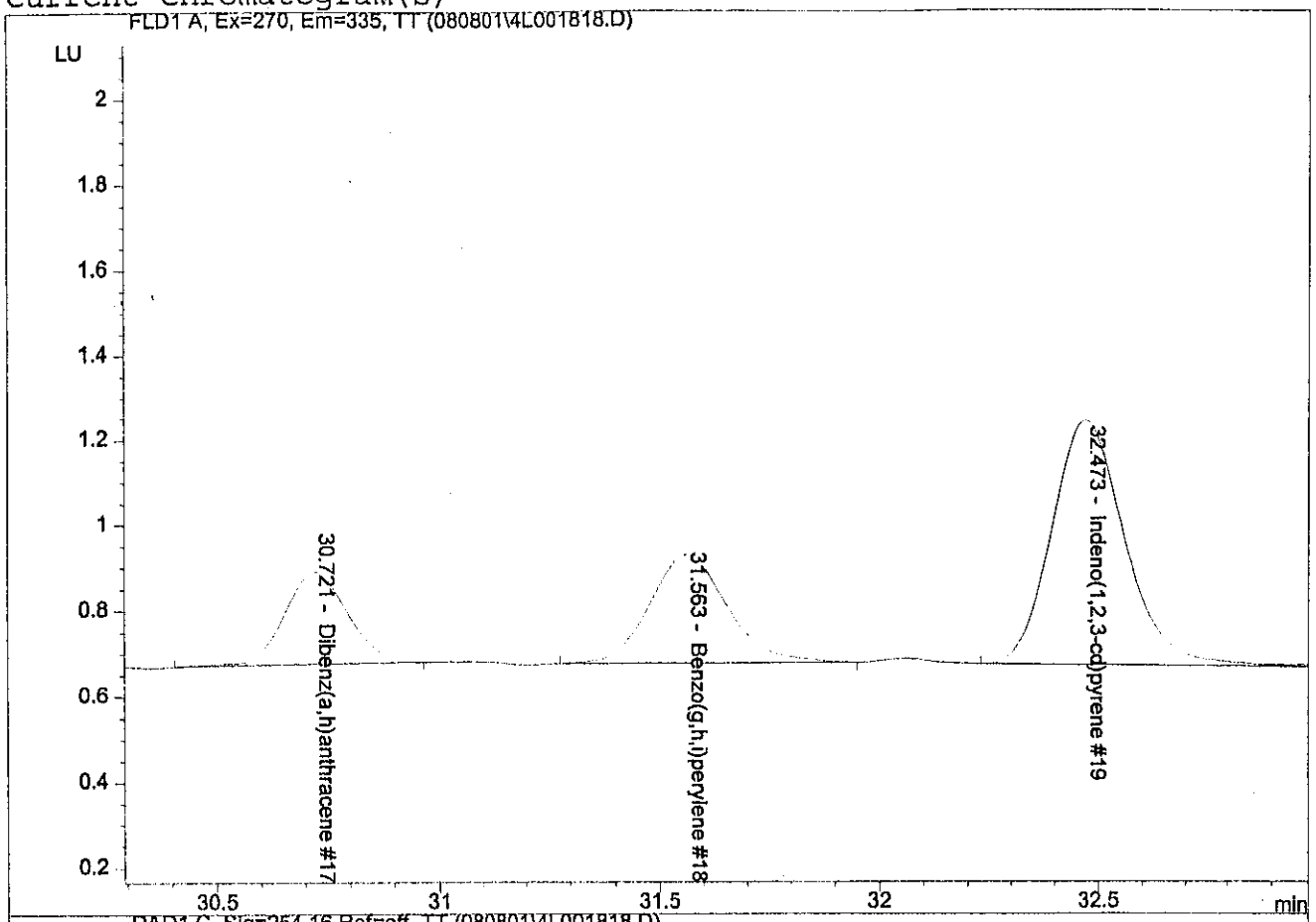
Current Chromatogram(s)

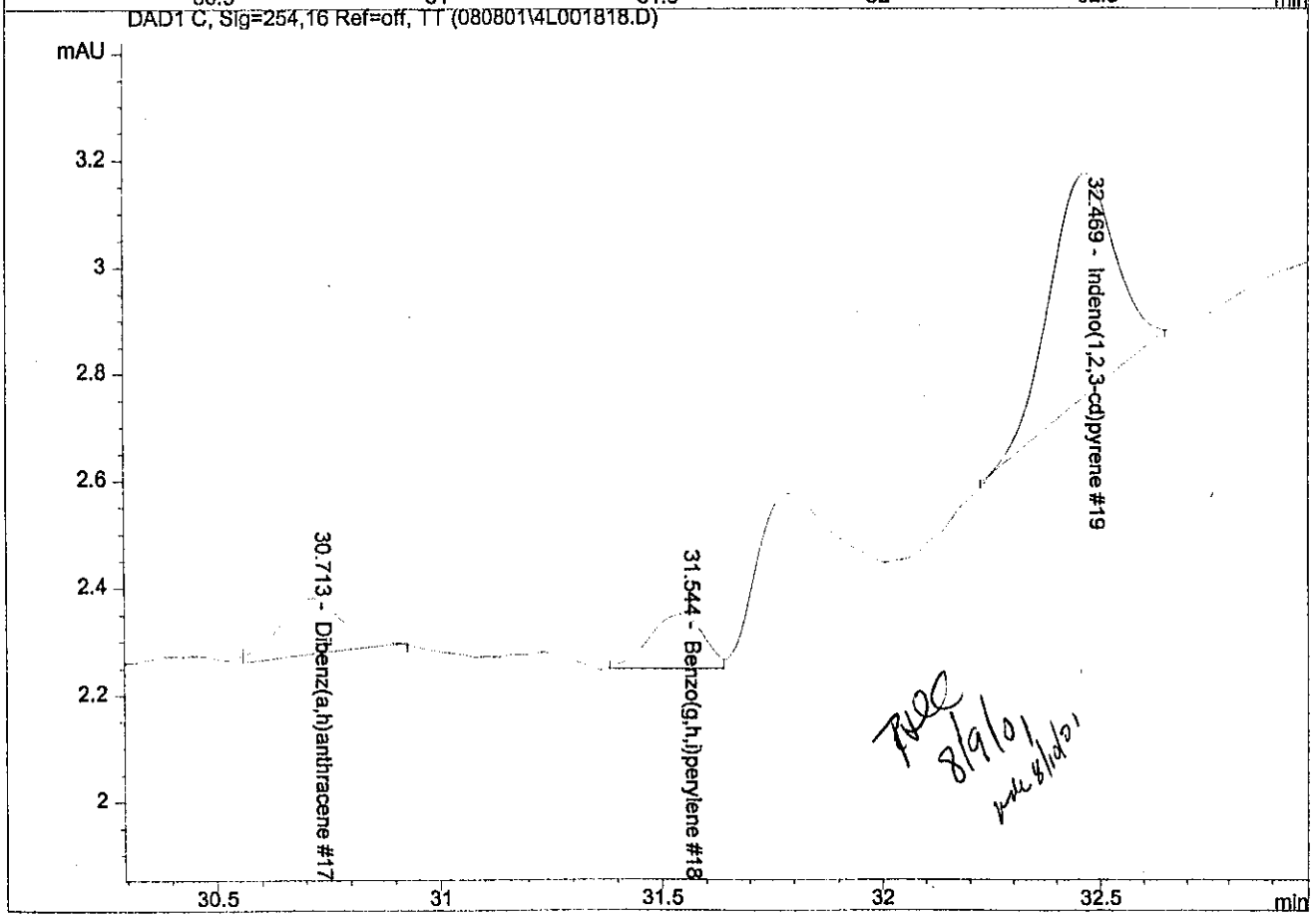


HPLC4 8/9/2001 1:56:20 PM RDC

Page 1 of 1

Current Chromatogram(s)





RDC 8/9/01
8/10/01

External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 1:57:05 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.462	PBA	37.17168	2.52962e-2	9.40302e-1		Naphthalene #1
12.040	PB	42.88826	2.21330e-2	9.49244e-1		1-Methylnaphthalene #3
12.617	BB	56.35436	1.70635e-2	9.61602e-1		2-Methylnaphthalene #4
13.096	BB	70.47864	1.38416e-2	9.75535e-1		Acenaphthene #5
13.757	BBA	154.16187	6.51364e-3	1.00416		Fluorene #6
15.153	BBA	5.49988	1.63652e-1	9.00067e-1		Phenanthrene #7
16.566	BBA	3.13834	3.10196e-1	9.73501e-1		Anthracene #8
17.948	BBA	3.92854	2.32678e-2	9.14086e-2		Fluoranthene #9
18.961	PBA	2.27570	3.69972e-2	8.41944e-2		Pyrene #10
21.319	BBA	3.07342	2.97423e-1	9.14105e-1		p-Terphenyl d14 #11*
22.644	BB	11.54687	7.91256e-3	9.13654e-2		Benzo(a)anthracene #12
23.528	BB	2.41118	3.90495e-2	9.41556e-2		Chrysene #13
26.269	BBA	5.57386	1.63222e-2	9.09776e-2		Benzo(b)fluoranthene #14
27.716	PBA	16.87873	2.76572e-3	4.66818e-2		Benzo(k)fluoranthene #15
28.843	PBA	19.26282	4.57119e-3	8.80540e-2		Benzo(a)pyrene #16
30.721	PBA	2.12374	3.93496e-2	8.35682e-2		Dibenz(a,h)anthracene #17
31.563	PB	3.08265	2.65165e-2	8.17409e-2		Benzo(g,h,i)perylene #18
32.473	BBA	6.64809	1.38204e-2	9.18793e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 8.46254

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.446	PBA	122.72835	8.25405e-3	1.01301		Naphthalene #1
11.077	BBA	32.52021	2.96975e-2	9.65769e-1		Acenaphthylene #2
12.023	BB	75.33028	1.29459e-2	9.75215e-1		1-Methylnaphthalene #3
12.601	BB	88.22273	1.12393e-2	9.91560e-1		2-Methylnaphthalene #4
13.080	BBA	47.72895	2.03163e-2	9.69678e-1		Acenaphthene #5
13.740	BBA	54.47855	1.75240e-2	9.54682e-1		Fluorene #6
15.136	BBA	55.64261	1.72982e-2	9.62519e-1		Phenanthrene #7
16.549	BBA	95.56687	1.04262e-2	9.96398e-1		Anthracene #8
17.931	PBA	4.46854	2.17006e-2	9.69699e-2		Fluoranthene #9
18.944	BBA	6.23924	1.43052e-2	8.92539e-2		Pyrene #10
21.302	PBA	14.08348	6.56733e-2	9.24908e-1		p-Terphenyl d14 #11*
22.628	BBA	4.00703	2.22694e-2	8.92344e-2		Benzo(a)anthracene #12
23.513	PBA	6.06011	1.51453e-2	9.17822e-2		Chrysene #13
26.253	BBA	4.43454	2.07330e-2	9.19412e-2		Benzo(b)fluoranthene #14
27.699	BBA	2.30033	2.25837e-2	5.19499e-2		Benzo(k)fluoranthene #15
28.826	BBA	3.45270	2.61680e-2	9.03503e-2		Benzo(a)pyrene #16
30.713	MM	1.04021	9.41116e-2	9.78958e-2		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.544	MV	8.44691e-1	5.60829e-2	4.73728e-2		Benzo(g,h,i)perylene #18
32.469	FM	4.35778	2.05608e-2	8.95994e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.59008

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

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ata File C:\HPCHEM\2\DATA\080801\4L001819.D Sample Name: 8310alt5327/5529
PLC4 8/9/2001 2:40:05 PM RDC

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njection Date : 8/9/2001 4:24:36 AM Seq. Line : 15
ample Name : 8310alt5327/5529 Vial : 12
cq. Operator : RDC Inj : 1

ignal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.470	20.0	19.085	-4.6
1-Methylnaphthalene #3	12.051	20.0	19.612	-1.9
2-Methylnaphthalene #4	12.628	20.0	19.236	-3.8
Acenaphthene #5	13.106	20.0	20.107	0.5
Fluorene #6	13.767	20.0	20.476	2.4
Phenanthrene #7	15.162	20.0	18.244	-8.8
Anthracene #8	16.577	20.0	20.286	1.4
Fluoranthene #9	17.959	2.0	1.875	-6.2
Pyrene #10	18.972	2.0	1.773	-11.4
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.654	2.0	1.764	-11.8
Chrysene #13	23.539	2.0	1.812	-9.4
Benzo(b)fluoranthene #14	26.279	2.0	1.900	-5.0
Benzo(k)fluoranthene #15	27.731	1.0	0.859	-14.1
Benzo(a)pyrene #16	28.859	2.0	1.936	-3.2
Dibenz(a,h)anthracene #1	30.737	2.0	2.044	2.2
Benzo(g,h,i)perylene #18	31.575	2.0	1.778	-11.1
Indeno(1,2,3-cd)pyrene #	32.488	2.0	1.863	-6.9

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.449	20.0	20.445	2.2
Acenaphthylene #2	11.083	20.0	19.230	-3.8
1-Methylnaphthalene #3	12.030	20.0	20.220	1.1
2-Methylnaphthalene #4	12.606	20.0	19.941	-0.3
Acenaphthene #5	13.085	20.0	20.110	0.5
Fluorene #6	13.745	20.0	19.598	-2.0
Phenanthrene #7	15.141	20.0	19.075	-4.6
Anthracene #8	16.555	20.0	20.838	4.2
Fluoranthene #9	17.937	2.0	1.904	-4.8
Pyrene #10	18.950	2.0	1.866	-6.7
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.633	2.0	1.817	-9.1
Chrysene #13	23.517	2.0	1.889	-5.5
Benzo(b)fluoranthene #14	26.257	2.0	1.916	-4.2
Benzo(k)fluoranthene #15	27.709	1.0	0.861	-13.9
Benzo(a)pyrene #16	28.837	2.0	1.945	-2.8
Dibenz(a,h)anthracene #1	30.716	2.0	2.113	5.6
Benzo(g,h,i)perylene #18	31.551	2.0	1.876	-6.2
Indeno(1,2,3-cd)pyrene #	32.471	2.0	1.847	-7.7

= Failed 15.0% Criteria

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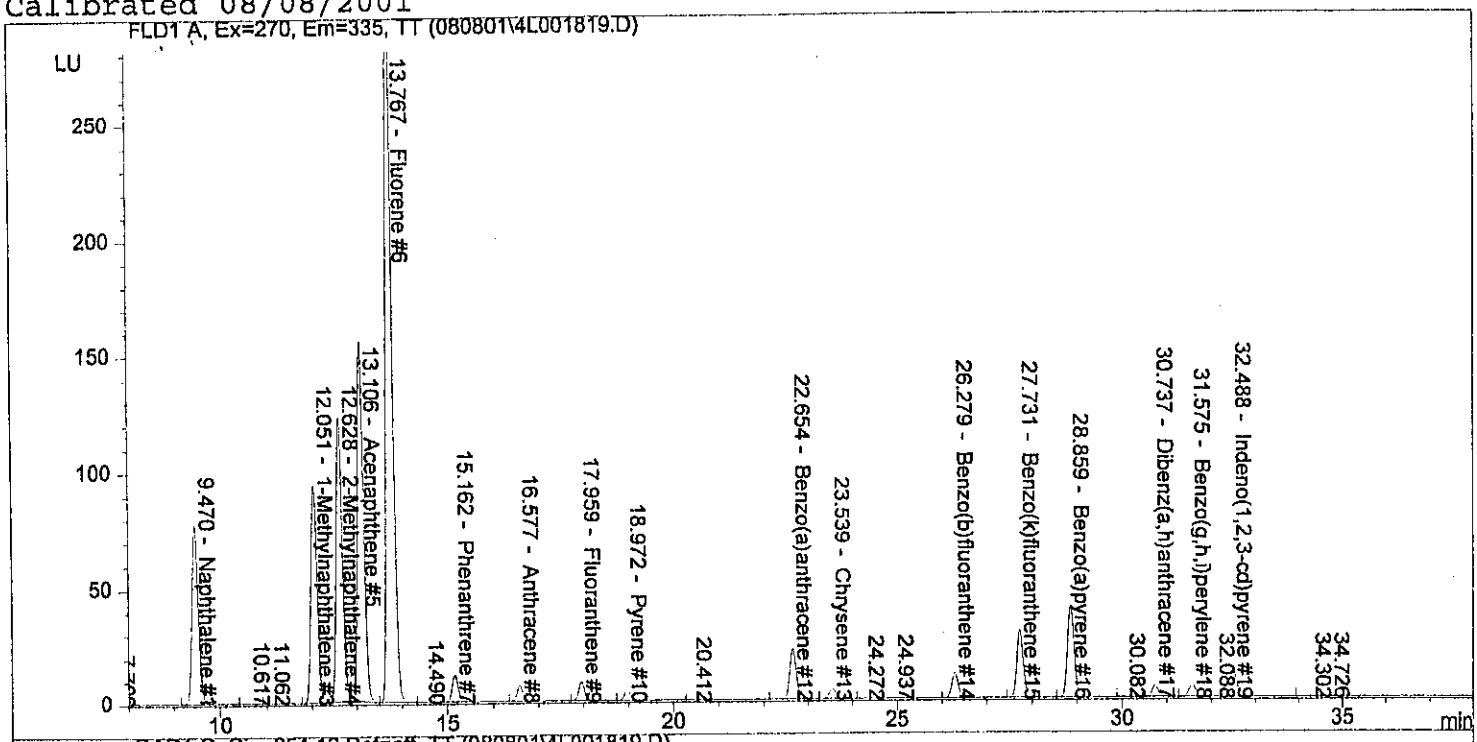
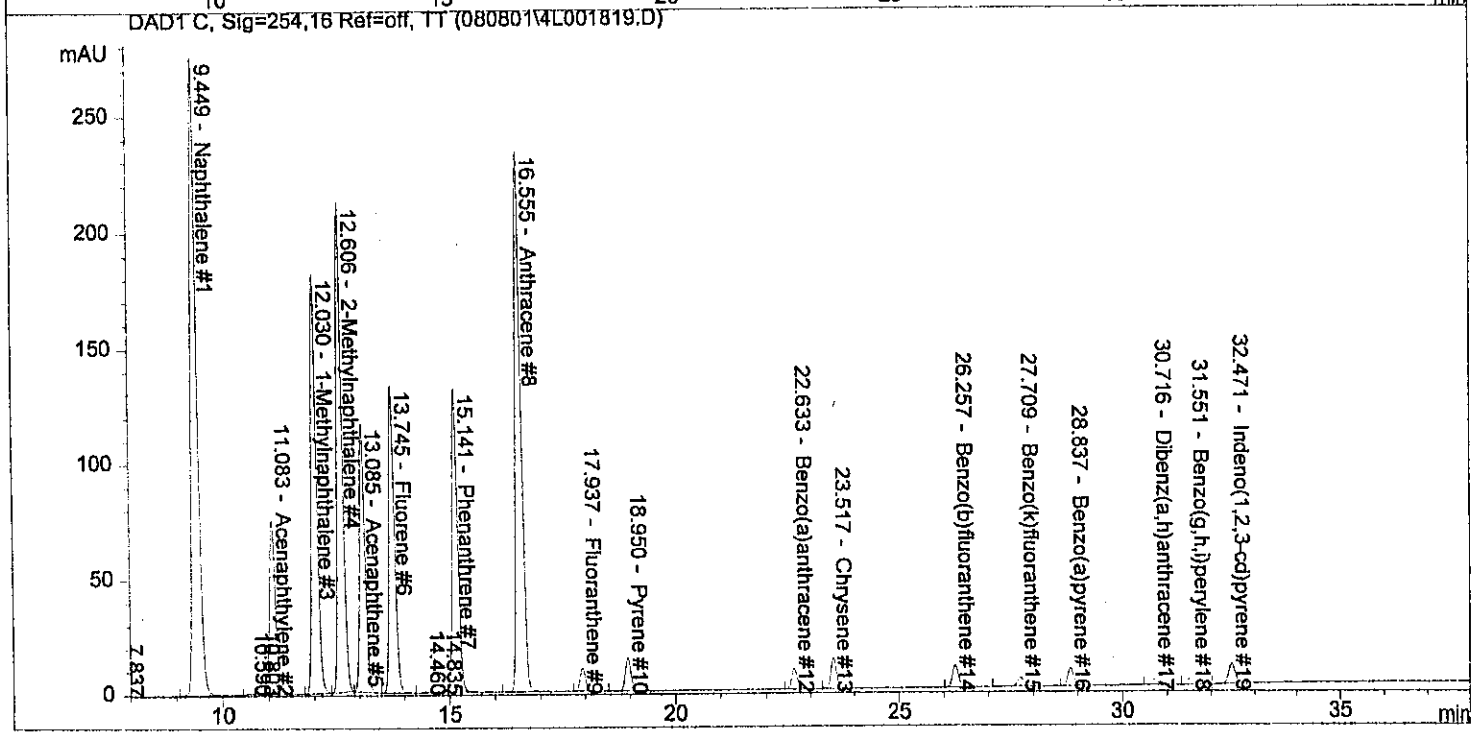
Injection Date : 8/9/2001 4:24:36 AM
Sample Name : 8310alt5327/5529
Acq. Operator : RDC

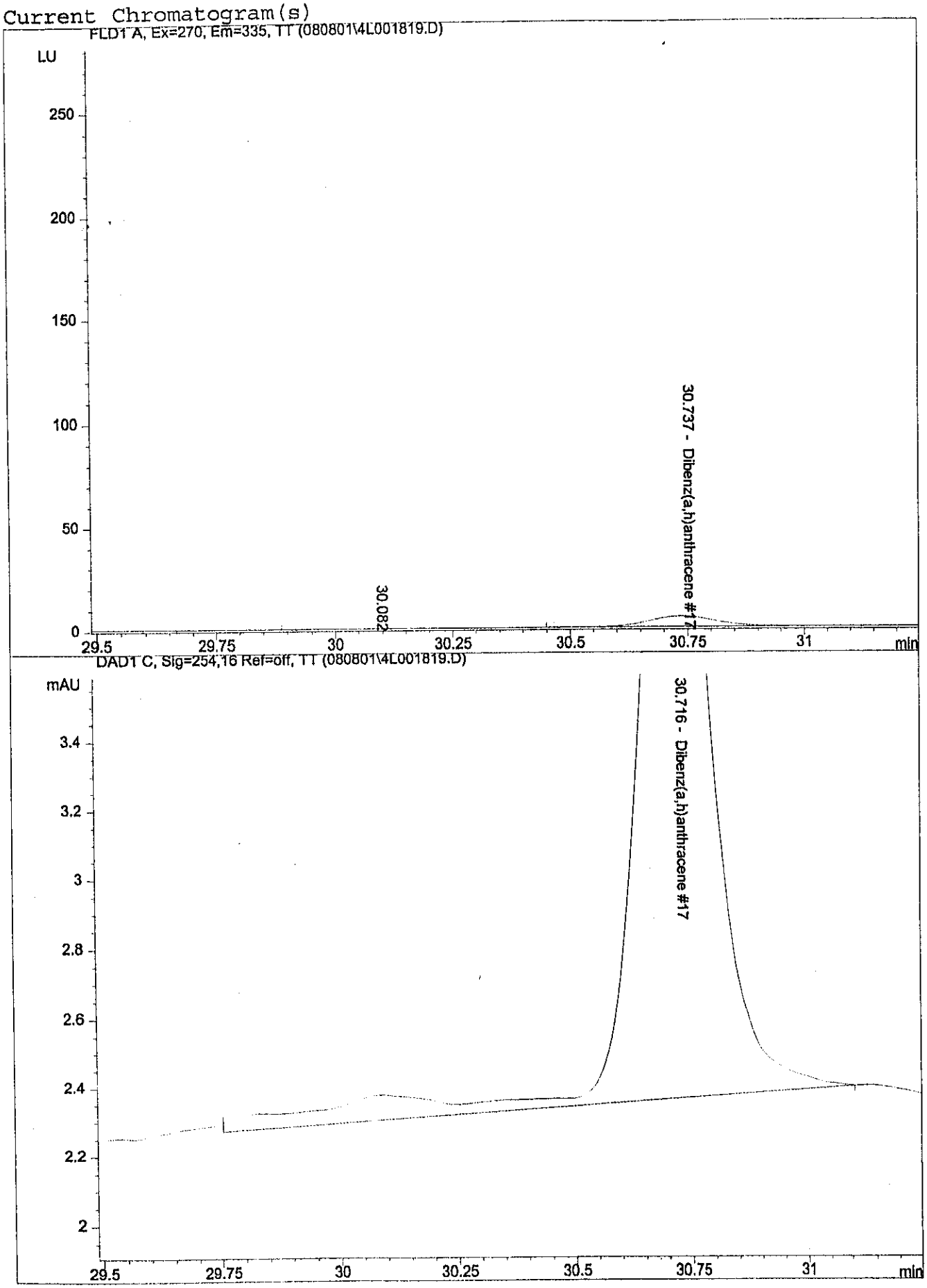
Seq. Line : 15
Vial : 12
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 2:38:26 PM by RDC
Calibrated 08/08/2001

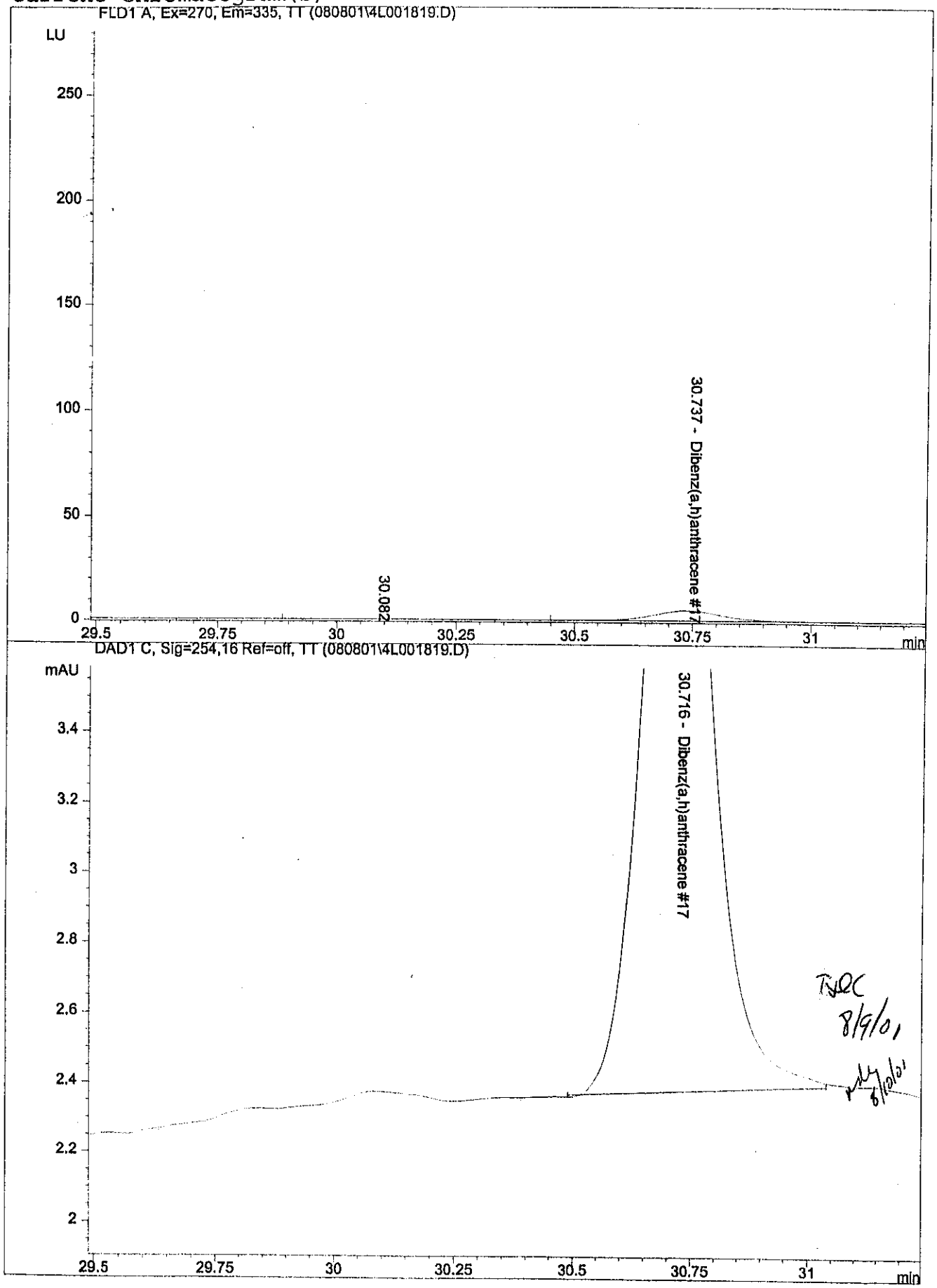




Current Chromatogram(s)



Current Chromatogram(s)



TJRC 8/9/01

8/10/01

356

External Standard Report

Sorted By : Signal
Calib. Data Modified : 8/9/2001 2:38:03 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.470	BBA	754.46277	2.52962e-2	19.08504		Naphthalene #1
12.051	PB	886.09137	2.21330e-2	19.61182		1-Methylnaphthalene #3
12.628	BB	1127.34106	1.70635e-2	19.23638		2-Methylnaphthalene #4
13.106	BB	1452.62085	1.38416e-2	20.10654		Acenaphthene #5
13.767	BB	3092.24097	6.62187e-3	20.47641		Fluorene #6
15.162	BBA	111.47997	1.63652e-1	18.24395		Phenanthrene #7
16.577	BBA	65.39610	3.10196e-1	20.28563		Anthracene #8
17.959	BBA	80.59158	2.32678e-2	1.87519		Fluoranthene #9
18.972	BBA	45.85996	3.86587e-2	1.77289		Pyrene #10
21.319		-	-	-		p-Terphenyl d14 #11*
22.654	BB	222.98581	7.91256e-3	1.76439		Benzo(a)anthracene #12
23.539	BBA	46.41417	3.90495e-2	1.81245		Chrysene #13
26.279	BBA	116.38370	1.63222e-2	1.89964		Benzo(b)fluoranthene #14
27.731	PB	310.48468	2.76572e-3	8.58712e-1		Benzo(k)fluoranthene #15
28.859	BBA	423.47870	4.57119e-3	1.93580		Benzo(a)pyrene #16
30.737	BB	51.95090	3.93496e-2	2.04424		Dibenz(a,h)anthracene #17
31.575	BB	67.06937	2.65165e-2	1.77844		Benzo(g,h,i)perylene #18
32.488	BBA	134.78470	1.38204e-2	1.86278		Indeno(1,2,3-cd)pyrene #1
Totals :				154.65030		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.449	PBA	2477.01978	8.25405e-3	20.44544		Naphthalene #1
11.083	BB	647.54114	2.96975e-2	19.23036		Acenaphthylene #2
12.030	BB	1561.87817	1.29459e-2	20.21985		1-Methylnaphthalene #3
12.606	BB	1774.18762	1.12393e-2	19.94059		2-Methylnaphthalene #4
13.085	BB	989.82544	2.03163e-2	20.10963		Acenaphthene #5
13.745	BB	1118.36353	1.75240e-2	19.59821		Fluorene #6
15.141	BBA	1102.72717	1.72982e-2	19.07524		Phenanthrene #7
16.555	BBA	1998.58276	1.04262e-2	20.83759		Anthracene #8
17.937	PB	87.72285	2.17006e-2	1.90364		Fluoranthene #9
18.950	BBA	130.42879	1.43052e-2	1.86582		Pyrene #10
21.302		-	-	-		p-Terphenyl d14 #11*
22.633	BBA	81.60189	2.22694e-2	1.81723		Benzo(a)anthracene #12
23.517	PBA	124.75014	1.51453e-2	1.88938		Chrysene #13
26.257	BBA	92.43634	2.07330e-2	1.91648		Benzo(b)fluoranthene #14
27.709	BBA	38.12810	2.25837e-2	8.61073e-1		Benzo(k)fluoranthene #15
28.837	BBA	74.32523	2.61680e-2	1.94494		Benzo(a)pyrene #16
30.716	MM	22.44932	9.41116e-2	2.11274		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.551	PB	33.44667	5.60829e-2	1.87579		Benzo(g,h,i)perylene #18
32.471	BB	89.81290	2.05608e-2	1.84662		Indeno(1,2,3-cd)pyrene #1

Totals : 177.49063

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\102501\4L002208.D Sample Name: WG107115-01 CCV
HPLC4 10/26/2001 9:00:22 AM RDC

1,1 SOS

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Injection Date : 10/25/2001 4:07:47 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.283	20.0	19.101	-4.5
1-Methylnaphthalene #3	11.892	20.0	19.186	-4.1
2-Methylnaphthalene #4	12.470	20.0	19.429	-2.9
Acenaphthene #5	12.951	20.0	19.656	-1.7
Fluorene #6	13.608	20.0	20.356	1.8
Phenanthrene #7	14.999	20.0	18.526	-7.4
Anthracene #8	16.407	20.0	19.008	-5.0
Fluoranthene #9	17.794	2.0	1.899	-5.1
Pyrene #10	18.806	2.0	1.807	-9.6
p-Terphenyl d14 #11*	21.165	20.0	19.040	-4.8
Benzo(a)anthracene #12	22.500	2.0	1.859	-7.1
Chrysene #13	23.379	2.0	1.875	-6.3
Benzo(b)fluoranthene #14	26.113	2.0	1.888	-5.6
Benzo(k)fluoranthene #15	27.551	1.0	0.968	-3.2
Benzo(a)pyrene #16	28.661	2.0	1.824	-8.8
Dibenz(a,h)anthracene #1	30.529	2.0	1.876	-6.2
Benzo(g,h,i)perylene #18	31.336	2.0	1.714	-14.3
Indeno(1,2,3-cd)pyrene #	32.282	2.0	1.911	-4.5

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.266	20.0	20.526	2.6
Acenaphthylene #2	10.913	20.0	19.489	-2.6
1-Methylnaphthalene #3	11.875	20.0	19.754	-1.2
2-Methylnaphthalene #4	12.454	20.0	20.116	0.6
Acenaphthene #5	12.934	20.0	19.654	-1.7
Fluorene #6	13.591	20.0	19.514	-2.4
Phenanthrene #7	14.982	20.0	19.488	-2.6
Anthracene #8	16.390	20.0	19.316	-3.4
Fluoranthene #9	17.777	2.0	1.929	-3.5
Pyrene #10	18.789	2.0	1.865	-6.7
p-Terphenyl d14 #11*	21.149	20.0	19.054	-4.7
Benzo(a)anthracene #12	22.483	2.0	1.904	-4.8
Chrysene #13	23.362	2.0	1.907	-4.6
Benzo(b)fluoranthene #14	26.096	2.0	1.922	-3.9
Benzo(k)fluoranthene #15	27.535	1.0	0.992	-0.8
Benzo(a)pyrene #16	28.644	2.0	1.878	-6.1
Dibenz(a,h)anthracene #1	30.513	2.0	1.925	-3.7
Benzo(g,h,i)perylene #18	31.318	2.0	1.915	-4.2
Indeno(1,2,3-cd)pyrene #	32.265	2.0	1.905	-4.7

= Failed 15.0% Criteria

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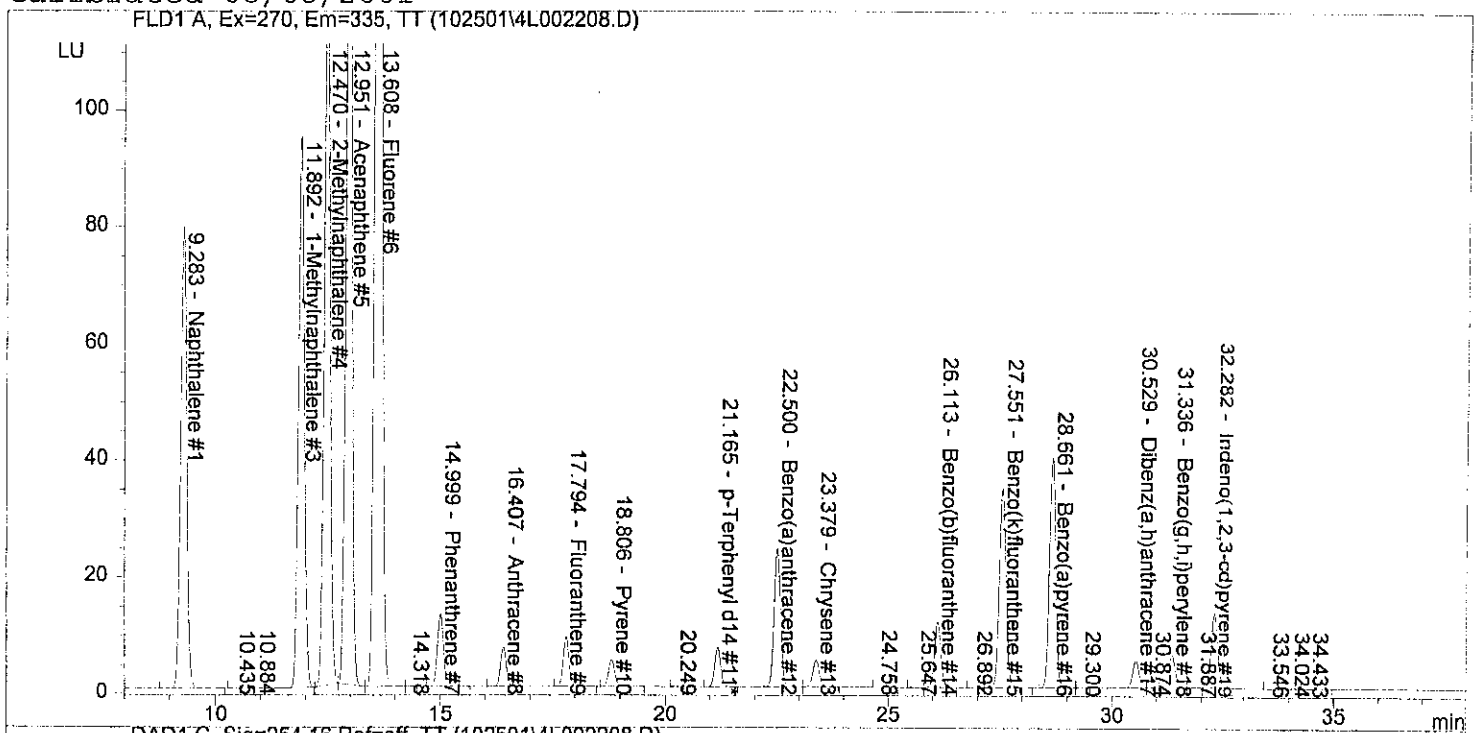
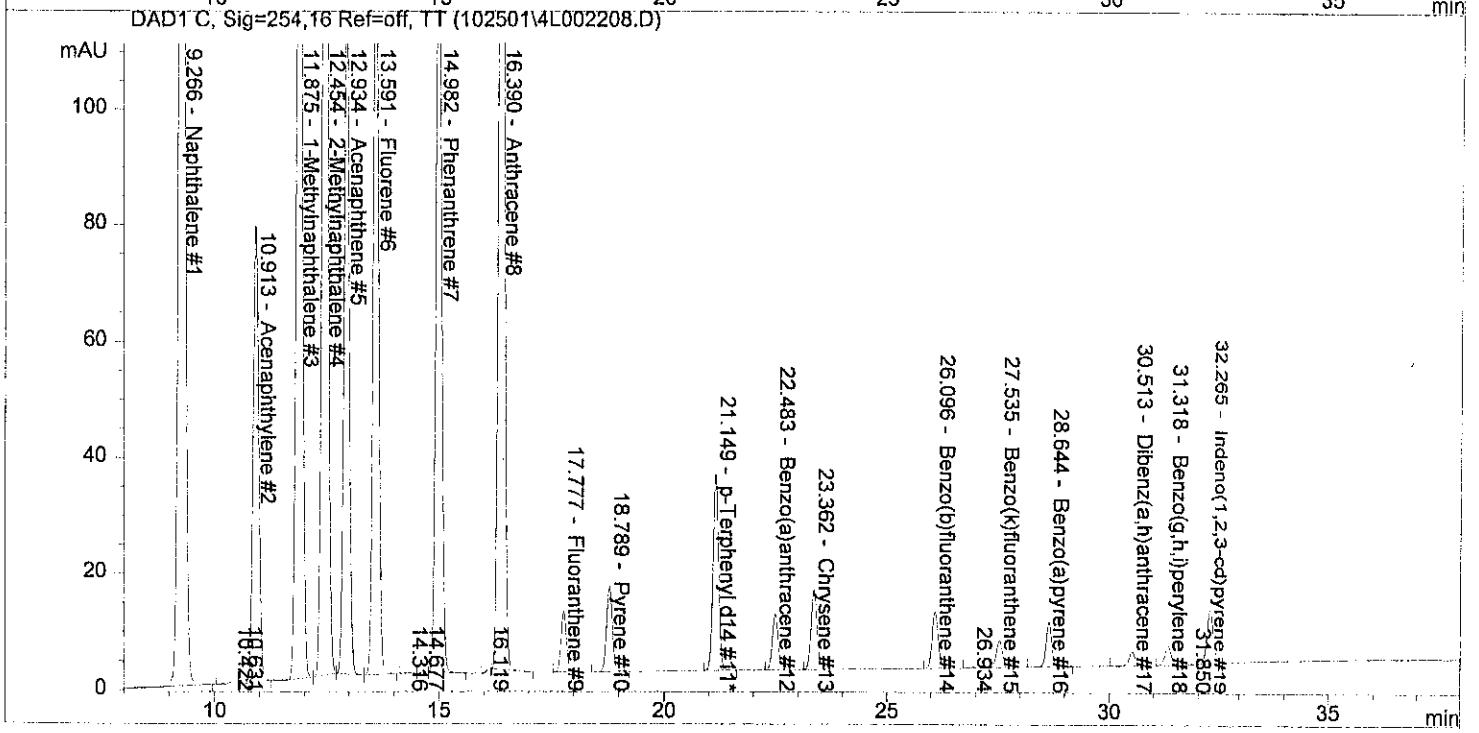
Injection Date : 10/25/2001 4:07:47 PM
Sample Name : WG107115-01 CCV
Acq. Operator : RDC

Seq. Line : 2
Vial : 2
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/26/2001 9:00:17 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 10/26/2001 8:59:27 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.283	BBA	755.08148	2.52962e-2	19.10069		Naphthalene #1
11.892	BB	866.84485	2.21330e-2	19.18584		1-Methylnaphthalene #3
12.470	BB	1138.63538	1.70635e-2	19.42910		2-Methylnaphthalene #4
12.951	BB	1420.10120	1.38416e-2	19.65642		Acenaphthene #5
13.608	BB	3074.10962	6.62187e-3	20.35634		Fluorene #6
14.999	BBA	113.20204	1.63652e-1	18.52577		Phenanthrene #7
16.407	PB	61.27571	3.10196e-1	19.00750		Anthracene #8
17.794	BBA	81.59565	2.32678e-2	1.89856		Fluoranthene #9
18.806	BBA	46.75289	3.86587e-2	1.80741		Pyrene #10
21.165	BBA	64.01667	2.97423e-1	19.04002		p-Terphenyl d14 #11*
22.500	BB	234.89032	7.91256e-3	1.85858		Benzo(a)anthracene #12
23.379	BB	48.00596	3.90495e-2	1.87461		Chrysene #13
26.113	BB	115.69083	1.63222e-2	1.88833		Benzo(b)fluoranthene #14
27.551	BBA	349.99734	2.76572e-3	9.67993e-1		Benzo(k)fluoranthene #15
28.661	BB	398.91165	4.57119e-3	1.82350		Benzo(a)pyrene #16
30.529	PB	47.67819	3.93496e-2	1.87612		Dibenz(a,h)anthracene #17
31.336	BB	64.62798	2.65165e-2	1.71371		Benzo(g,h,i)perylene #18
32.282	BB	138.26787	1.38204e-2	1.91092		Indeno(1,2,3-cd)pyrene #1

Totals : 171.92139

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.266	BBA	2486.73218	8.25405e-3	20.52561		Naphthalene #1
10.913	BBA	656.25977	2.96975e-2	19.48928		Acenaphthylene #2
11.875	PB	1525.89587	1.29459e-2	19.75403		1-Methylnaphthalene #3
12.454	BB	1789.77161	1.12393e-2	20.11574		2-Methylnaphthalene #4
12.934	BB	967.37787	2.03163e-2	19.65358		Acenaphthene #5
13.591	BBA	1113.55847	1.75240e-2	19.51400		Fluorene #6
14.982	BBA	1126.58459	1.72982e-2	19.48793		Phenanthrene #7
16.390	BBA	1852.67151	1.04262e-2	19.31629		Anthracene #8
17.777	PB	88.91096	2.17006e-2	1.92942		Fluoranthene #9
18.789	BBA	130.39821	1.43052e-2	1.86538		Pyrene #10
21.149	PBA	290.13367	6.56733e-2	19.05402		p-Terphenyl d14 #11*
22.483	BBA	85.48285	2.22694e-2	1.90365		Benzo(a)anthracene #12
23.362	BBA	125.92560	1.51453e-2	1.90718		Chrysene #13
26.096	BBA	92.71368	2.07330e-2	1.92223		Benzo(b)fluoranthene #14
27.535	BB	43.94542	2.25837e-2	9.92450e-1		Benzo(k)fluoranthene #15
28.644	BBA	71.78313	2.61680e-2	1.87842		Benzo(a)pyrene #16
30.513	PB	20.45692	9.41116e-2	1.92523		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.318	BB	34.14701	5.60829e-2	1.91506		Benzo(g,h,i)perylene #18
32.265	BB	92.66080	2.05608e-2	1.90518		Indeno(1,2,3-cd)pyrene #1

Totals : 195.05471

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\102501\4L002219.D Sample Name: WG107115-02 CCV
HPLC4 10/26/2001 9:01:01 AM RDC

1,1 SOS56-19/56-20

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Injection Date : 10/26/2001 2:31:32 AM Seq. Line : 13

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.301	20.0	18.669	-6.7
1-Methylnaphthalene #3	11.892	20.0	18.856	-5.7
2-Methylnaphthalene #4	12.475	20.0	19.152	-4.2
Acenaphthene #5	12.959	20.0	19.277	-3.6
Fluorene #6	13.621	20.0	20.202	1.0
Phenanthrene #7	15.016	20.0	18.174	-9.1
Anthracene #8	16.435	20.0	18.392	-8.0
Fluoranthene #9	17.819	2.0	1.883	-5.8
Pyrene #10	18.835	2.0	1.704	-14.8
p-Terphenyl d14 #11*	21.205	20.0	19.048	-4.8
Benzo(a)anthracene #12	22.527	2.0	1.829	-8.6
Chrysene #13	23.401	2.0	1.838	-8.1
Benzo(b)fluoranthene #14	26.123	2.0	1.870	-6.5
Benzo(k)fluoranthene #15	27.555	1.0	0.961	-3.9
Benzo(a)pyrene #16	28.660	2.0	1.719	-14.1
Dibenz(a,h)anthracene #1	30.514	2.0	1.847	-7.6
Benzo(g,h,i)perylene #18	31.319	2.0	1.638	-18.1 #
Indeno(1,2,3-cd)pyrene #	32.251	2.0	1.905	-4.8

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.287	20.0	20.470	2.3
Acenaphthylene #2	10.914	20.0	19.561	-2.2
1-Methylnaphthalene #3	11.877	20.0	19.851	-0.7
2-Methylnaphthalene #4	12.461	20.0	20.181	0.9
Acenaphthene #5	12.944	20.0	19.525	-2.4
Fluorene #6	13.606	20.0	19.425	-2.9
Phenanthrene #7	15.001	20.0	19.514	-2.4
Anthracene #8	16.420	20.0	18.722	-6.4
Fluoranthene #9	17.804	2.0	1.929	-3.6
Pyrene #10	18.819	2.0	1.869	-6.6
p-Terphenyl d14 #11*	21.190	20.0	19.127	-4.4
Benzo(a)anthracene #12	22.512	2.0	1.907	-4.6
Chrysene #13	23.387	2.0	1.918	-4.1
Benzo(b)fluoranthene #14	26.107	2.0	1.931	-3.4
Benzo(k)fluoranthene #15	27.540	1.0	0.974	-2.6
Benzo(a)pyrene #16	28.645	2.0	1.802	-9.9
Dibenz(a,h)anthracene #1	30.499	2.0	1.939	-3.1
Benzo(g,h,i)perylene #18	31.303	2.0	1.900	-5.0
Indeno(1,2,3-cd)pyrene #	32.234	2.0	1.892	-5.4

= Failed 15.0% Criteria

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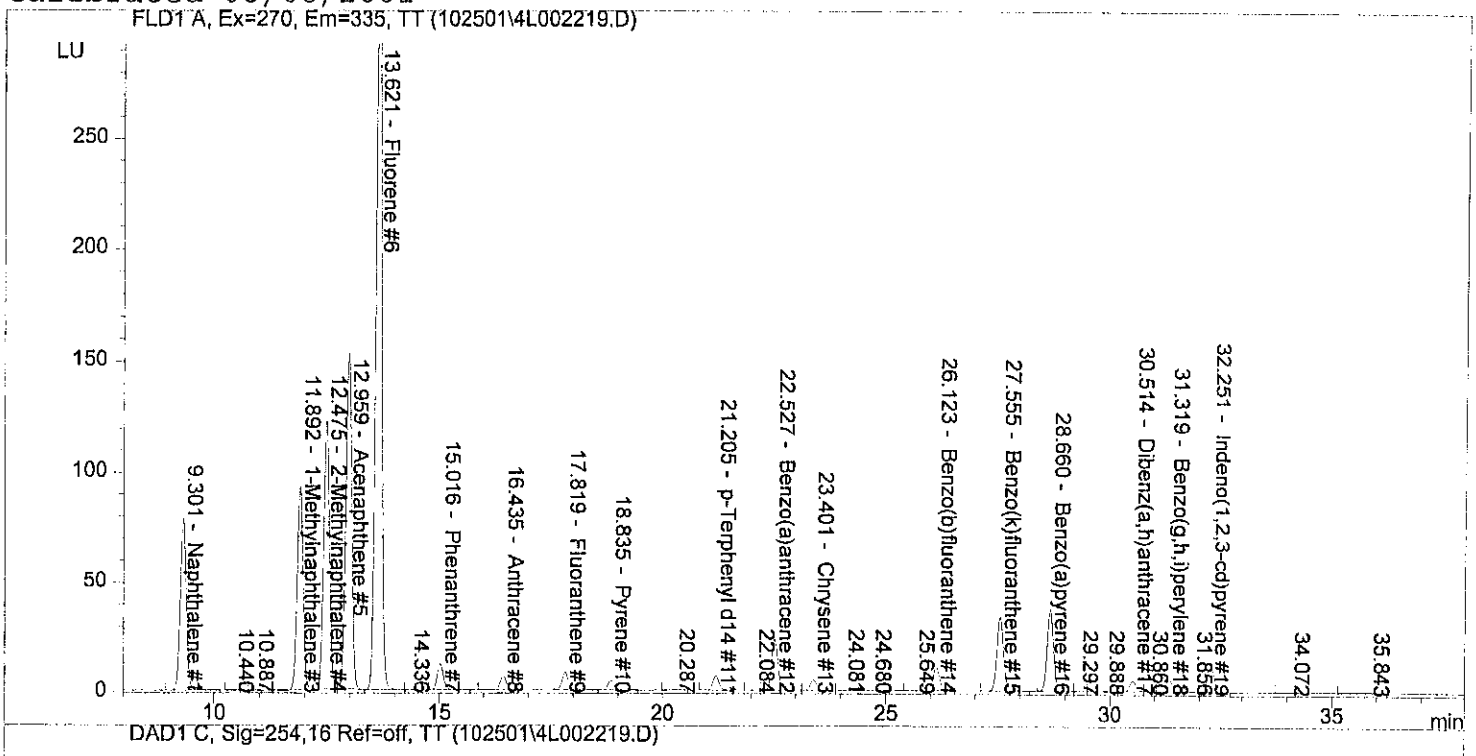
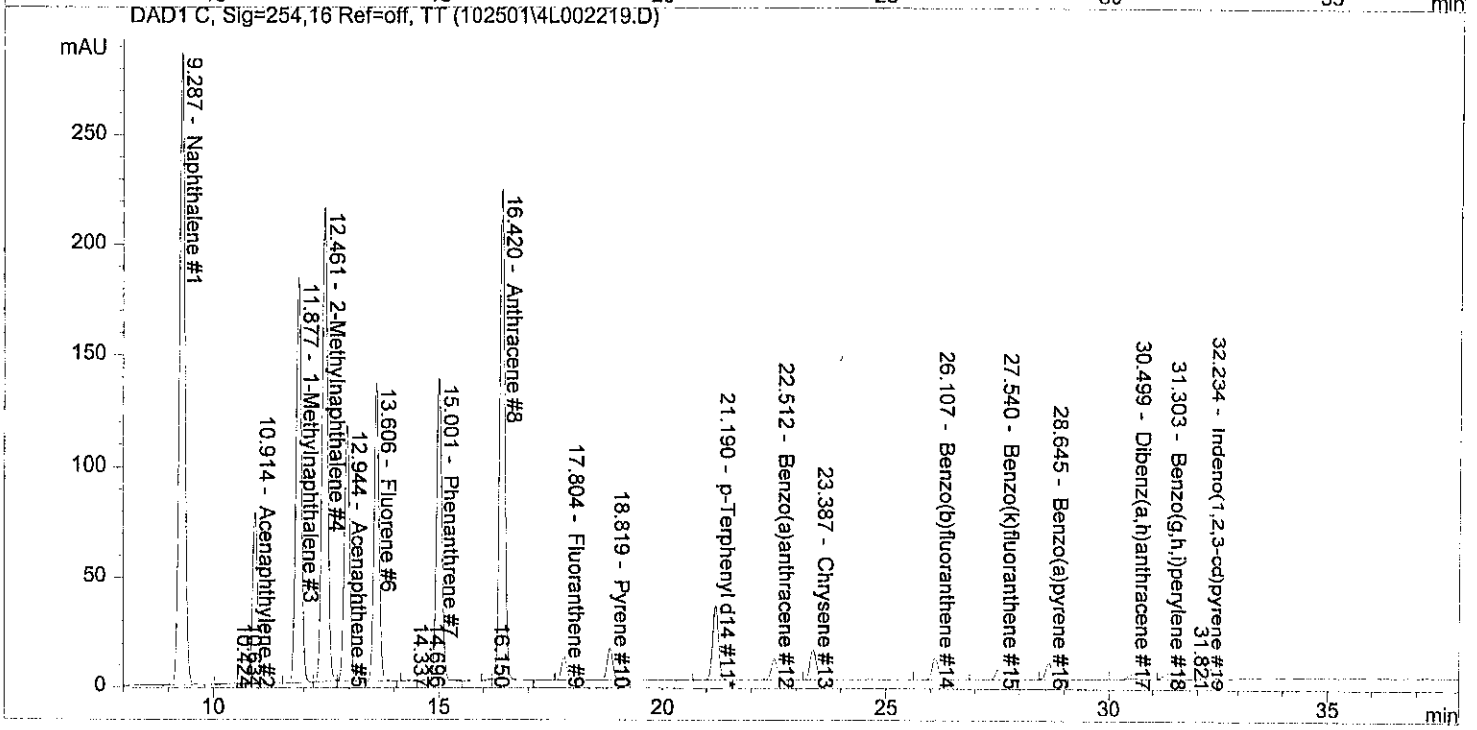
Injection Date : 10/26/2001 2:31:32 AM
Sample Name : WG107115-02 CCV
Acq. Operator : RDC

Seq. Line : 13
Vial : 13
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/26/2001 9:00:17 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

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Sorted By : Signal
Calib. Data Modified : 10/26/2001 8:59:27 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.301	BBA	738.01984	2.52962e-2	18.66909		Naphthalene #1
11.892	BB	851.93799	2.21330e-2	18.85590		1-Methylnaphthalene #3
12.475	BB	1122.41895	1.70635e-2	19.15239		2-Methylnaphthalene #4
12.959	BB	1392.70605	1.38416e-2	19.27723		Acenaphthene #5
13.621	BB	3050.78223	6.62187e-3	20.20187		Fluorene #6
15.016	BBA	111.05479	1.63652e-1	18.17437		Phenanthrene #7
16.435	BB	59.29131	3.10196e-1	18.39195		Anthracene #8
17.819	BB	80.94569	2.32678e-2	1.88343		Fluoranthene #9
18.835	BBA	44.08837	3.86587e-2	1.70440		Pyrene #10
21.205	BB	64.04364	2.97423e-1	19.04804		p-Terphenyl d14 #11*
22.527	BB	231.10818	7.91256e-3	1.82866		Benzo(a)anthracene #12
23.401	BB	47.06424	3.90495e-2	1.83784		Chrysene #13
26.123	BBA	114.59061	1.63222e-2	1.87037		Benzo(b)fluoranthene #14
27.555	BBA	347.42035	2.76572e-3	9.60866e-1		Benzo(k)fluoranthene #15
28.660	BB	375.98444	4.57119e-3	1.71870		Benzo(a)pyrene #16
30.514	BB	46.94300	3.93496e-2	1.84719		Dibenz(a,h)anthracene #17
31.319	BB	61.77686	2.65165e-2	1.63811		Benzo(g,h,i)perylene #18
32.251	BB	137.81926	1.38204e-2	1.90472		Indeno(1,2,3-cd)pyrene #1

Totals : 168.96511

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.287	BBA	2479.97168	8.25405e-3	20.46981		Naphthalene #1
10.914	BB	658.68958	2.96975e-2	19.56144		Acenaphthylene #2
11.877	BB	1533.37549	1.29459e-2	19.85086		1-Methylnaphthalene #3
12.461	BB	1795.55017	1.12393e-2	20.18069		2-Methylnaphthalene #4
12.944	BB	961.04230	2.03163e-2	19.52487		Acenaphthene #5
13.606	BBA	1108.46301	1.75240e-2	19.42471		Fluorene #6
15.001	BBA	1128.06726	1.72982e-2	19.51358		Phenanthrene #7
16.420	BBA	1795.68176	1.04262e-2	18.72211		Anthracene #8
17.804	PB	88.88702	2.17006e-2	1.92890		Fluoranthene #9
18.819	BBA	130.63364	1.43052e-2	1.86875		Pyrene #10
21.190	PBA	291.24860	6.56733e-2	19.12724		p-Terphenyl d14 #11*
22.512	PBA	85.63881	2.22694e-2	1.90713		Benzo(a)anthracene #12
23.387	BBA	126.62269	1.51453e-2	1.91774		Chrysene #13
26.107	BBA	93.14268	2.07330e-2	1.93113		Benzo(b)fluoranthene #14
27.540	BBA	43.14574	2.25837e-2	9.74390e-1		Benzo(k)fluoranthene #15
28.645	BBA	68.87348	2.61680e-2	1.80228		Benzo(a)pyrene #16
30.499	PBA	20.59966	9.41116e-2	1.93867		Dibenz(a,h)anthracene #17

Data File C:\HPCHEM\2\DATA\102501\4L002230.D Sample Name: WG107115-03 CCV
HPLC4 10/26/2001 3:01:15 PM RDC

1,1 SOS56-19/56-20

Injection Date : 10/26/2001 1:00:34 PM Seq. Line : 24

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.336	20.0	18.951	-5.2
1-Methylnaphthalene #3	11.919	20.0	19.010	-4.9
2-Methylnaphthalene #4	12.495	20.0	19.276	-3.6
Acenaphthene #5	12.975	20.0	19.492	-2.5
Fluorene #6	13.632	20.0	20.274	1.4
Phenanthrene #7	15.028	20.0	18.315	-8.4
Anthracene #8	16.449	20.0	18.769	-6.2
Fluoranthene #9	17.840	2.0	1.897	-5.1
Pyrene #10	18.857	2.0	1.753	-12.3
p-Terphenyl d14 #11*	21.230	20.0	19.237	-3.8
Benzo(a)anthracene #12	22.554	2.0	1.852	-7.4
Chrysene #13	23.431	2.0	1.864	-6.8
Benzo(b)fluoranthene #14	26.165	2.0	1.889	-5.6
Benzo(k)fluoranthene #15	27.610	1.0	0.968	-3.2
Benzo(a)pyrene #16	28.716	2.0	1.744	-12.8
Dibenz(a,h)anthracene #1	30.588	2.0	1.843	-7.8
Benzo(g,h,i)perylene #18	31.396	2.0	1.693	-15.4 #
Indeno(1,2,3-cd)pyrene #	32.343	2.0	1.919	-4.0

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.319	20.0	20.684	3.4
Acenaphthylene #2	10.948	20.0	19.681	-1.6
1-Methylnaphthalene #3	11.902	20.0	19.875	-0.6
2-Methylnaphthalene #4	12.478	20.0	20.250	1.3
Acenaphthene #5	12.958	20.0	19.737	-1.3
Fluorene #6	13.615	20.0	19.547	-2.3
Phenanthrene #7	15.011	20.0	19.598	-2.0
Anthracene #8	16.432	20.0	19.114	-4.4
Fluoranthene #9	17.822	2.0	1.936	-3.2
Pyrene #10	18.839	2.0	1.893	-5.3
p-Terphenyl d14 #11*	21.213	20.0	19.293	-3.5
Benzo(a)anthracene #12	22.538	2.0	1.928	-3.6
Chrysene #13	23.415	2.0	1.927	-3.6
Benzo(b)fluoranthene #14	26.147	2.0	1.942	-2.9
Benzo(k)fluoranthene #15	27.593	1.0	0.961	-3.9
Benzo(a)pyrene #16	28.699	2.0	1.808	-9.6
Dibenz(a,h)anthracene #1	30.572	2.0	1.953	-2.4
Benzo(g,h,i)perylene #18	31.378	2.0	1.859	-7.1
Indeno(1,2,3-cd)pyrene #	32.328	2.0	1.925	-3.8

= Failed 15.0% Criteria

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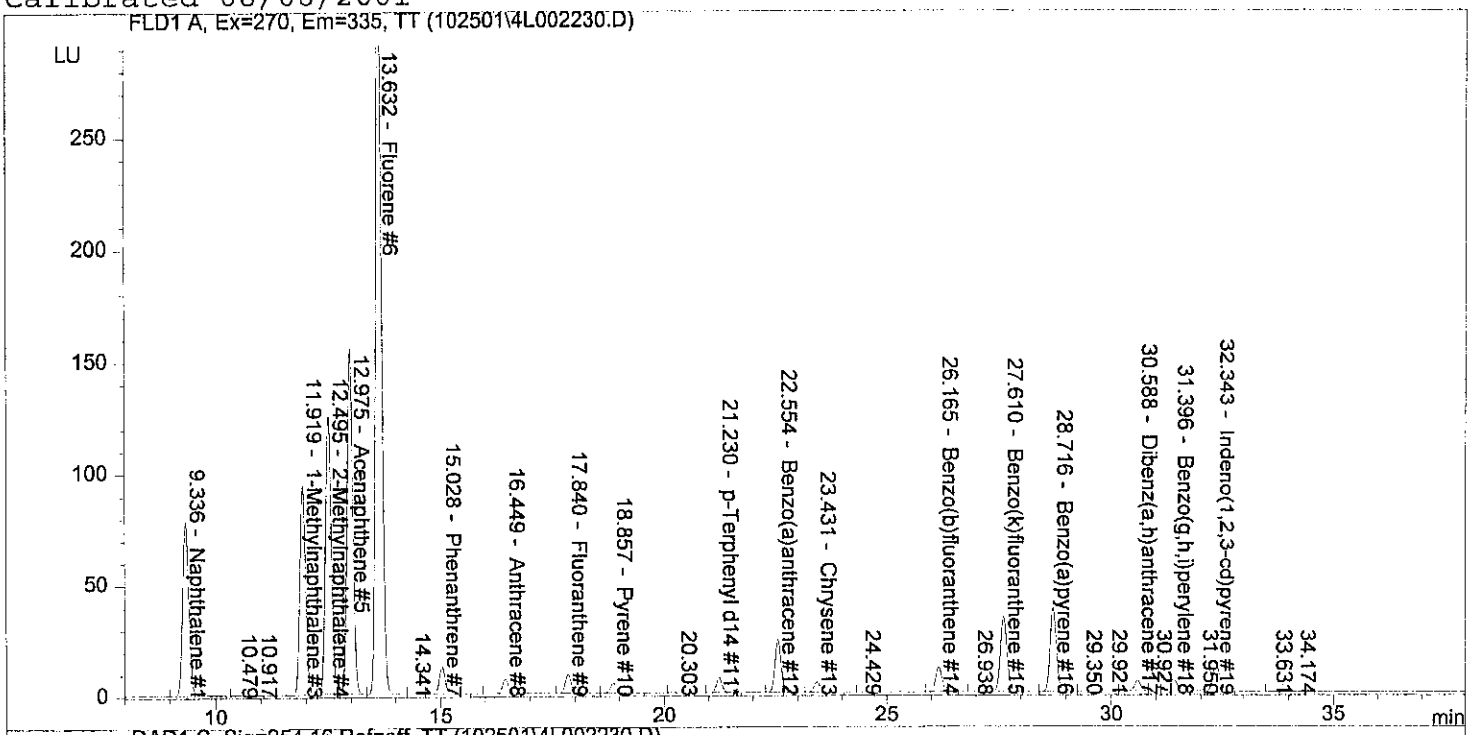
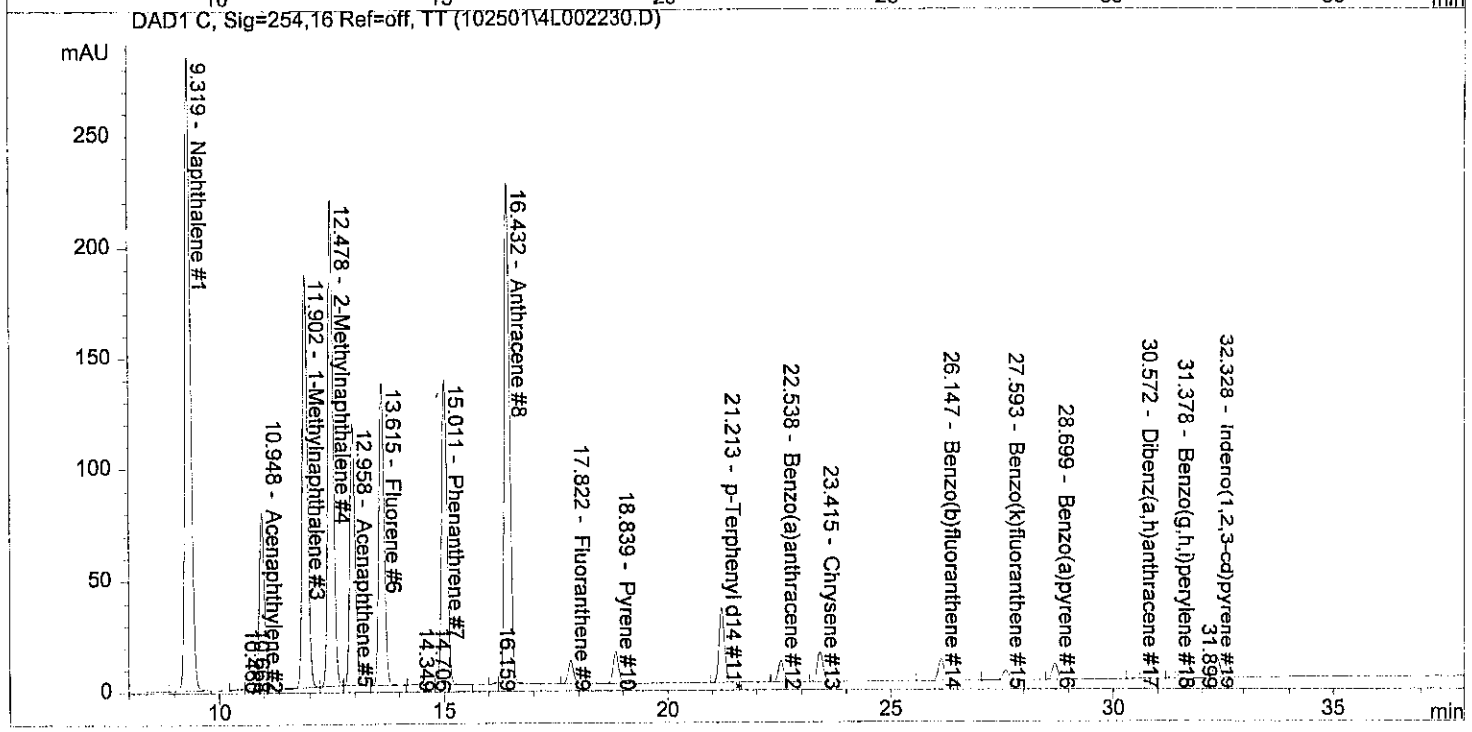
Injection Date : 10/26/2001 1:00:34 PM
Sample Name : WG107115-03 CCV
Acq. Operator : RDC

Seq. Line : 24
Vial : 24
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/26/2001 9:03:32 AM by RDC
Calibrated 08/08/2001





External Standard Report

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Sorted By : Signal
Calib. Data Modified : 10/26/2001 8:59:27 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.336	BBA	749.14917	2.52962e-2	18.95062		Naphthalene #1
11.919	BB	858.92120	2.21330e-2	19.01046		1-Methylnaphthalene #3
12.495	BB	1129.68848	1.70635e-2	19.27643		2-Methylnaphthalene #4
12.975	BB	1408.21680	1.38416e-2	19.49192		Acenaphthene #5
13.632	BB	3061.67310	6.62187e-3	20.27399		Fluorene #6
15.028	BBA	111.91654	1.63652e-1	18.31539		Phenanthrene #7
16.449	BB	60.50638	3.10196e-1	18.76886		Anthracene #8
17.840	BB	81.53743	2.32678e-2	1.89720		Fluoranthene #9
18.857	BBA	45.35474	3.86587e-2	1.75336		Pyrene #10
21.230	PBA	64.68004	2.97423e-1	19.23732		p-Terphenyl d14 #11*
22.554	PB	234.06284	7.91256e-3	1.85204		Benzo(a)anthracene #12
23.431	BB	47.73049	3.90495e-2	1.86385		Chrysene #13
26.165	BB	115.72903	1.63222e-2	1.88895		Benzo(b)fluoranthene #14
27.610	BB	350.13138	2.76572e-3	9.68364e-1		Benzo(k)fluoranthene #15
28.716	BB	381.53812	4.57119e-3	1.74408		Benzo(a)pyrene #16
30.588	BB	46.84689	3.93496e-2	1.84340		Dibenz(a,h)anthracene #17
31.396	BB	63.84293	2.65165e-2	1.69289		Benzo(g,h,i)perylene #18
32.343	BB	138.88171	1.38204e-2	1.91940		Indeno(1,2,3-cd)pyrene #1

Totals : 170.74854

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.319	BBA	2505.90967	8.25405e-3	20.68390		Naphthalene #1
10.948	BB	662.73053	2.96975e-2	19.68145		Acenaphthylene #2
11.902	BB	1535.22217	1.29459e-2	19.87477		1-Methylnaphthalene #3
12.478	BB	1801.72375	1.12393e-2	20.25007		2-Methylnaphthalene #4
12.958	BB	971.49811	2.03163e-2	19.73729		Acenaphthene #5
13.615	BBA	1115.45154	1.75240e-2	19.54718		Fluorene #6
15.011	BBA	1132.96570	1.72982e-2	19.59832		Phenanthrene #7
16.432	BBA	1833.22546	1.04262e-2	19.11355		Anthracene #8
17.822	PB	89.23241	2.17006e-2	1.93640		Fluoranthene #9
18.839	BBA	132.34729	1.43052e-2	1.89326		Pyrene #10
21.213	PBA	293.77783	6.56733e-2	19.29335		p-Terphenyl d14 #11*
22.538	BBA	86.59394	2.22694e-2	1.92840		Benzo(a)anthracene #12
23.415	BBA	127.24613	1.51453e-2	1.92718		Chrysene #13
26.147	BBA	93.64299	2.07330e-2	1.94150		Benzo(b)fluoranthene #14
27.593	BBA	42.55353	2.25837e-2	9.61016e-1		Benzo(k)fluoranthene #15
28.699	BBA	69.07951	2.61680e-2	1.80767		Benzo(a)pyrene #16
30.572	PBA	20.74791	9.41116e-2	1.95262		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.378	BB	33.14598	5.60829e-2	1.85892		Benzo(g,h,i)perylene #18
32.328	BBA	93.60542	2.05608e-2	1.92460		Indeno(1,2,3-cd)pyrene #1

Totals : 195.91143

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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Data File C:\HPCHEM\2\DATA\102501\4L002234.D Sample Name: WG107115-04 CCV
HPLC4 10/29/2001 12:18:17 PM RDC

1,1 SOS56-19/56-20

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Injection Date : 10/26/2001 4:54:19 PM Seq. Line : 28

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.376	20.0	19.339	-3.3
1-Methylnaphthalene #3	11.957	20.0	19.409	-3.0
2-Methylnaphthalene #4	12.537	20.0	19.611	-1.9
Acenaphthene #5	13.018	20.0	19.749	-1.3
Fluorene #6	13.677	20.0	20.494	2.5
Phenanthrene #7	15.072	20.0	18.533	-7.3
Anthracene #8	16.491	20.0	19.042	-4.8
Fluoranthene #9	17.875	2.0	1.923	-3.8
Pyrene #10	18.887	2.0	1.786	-10.7
p-Terphenyl d14 #11*	21.249	20.0	19.420	-2.9
Benzo(a)anthracene #12	22.573	2.0	1.861	-6.9
Chrysene #13	23.450	2.0	1.859	-7.0
Benzo(b)fluoranthene #14	26.179	2.0	1.900	-5.0
Benzo(k)fluoranthene #15	27.623	1.0	0.974	-2.6
Benzo(a)pyrene #16	28.731	2.0	1.739	-13.1
Dibenz(a,h)anthracene #1	30.604	2.0	1.846	-7.7
Benzo(g,h,i)perylene #18	31.412	2.0	1.683	-15.9 #
Indeno(1,2,3-cd)pyrene #	32.355	2.0	1.953	-2.4

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.355	20.0	21.194	6.0
Acenaphthylene #2	10.985	20.0	19.646	-1.8
1-Methylnaphthalene #3	11.936	20.0	19.981	-0.1
2-Methylnaphthalene #4	12.516	20.0	20.299	1.5
Acenaphthene #5	12.997	20.0	19.764	-1.2
Fluorene #6	13.655	20.0	19.583	-2.1
Phenanthrene #7	15.051	20.0	19.669	-1.7
Anthracene #8	16.469	20.0	19.292	-3.5
Fluoranthene #9	17.853	2.0	1.938	-3.1
Pyrene #10	18.865	2.0	1.901	-5.0
p-Terphenyl d14 #11*	21.228	20.0	19.357	-3.2
Benzo(a)anthracene #12	22.553	2.0	1.939	-3.0
Chrysene #13	23.429	2.0	1.936	-3.2
Benzo(b)fluoranthene #14	26.157	2.0	1.942	-2.9
Benzo(k)fluoranthene #15	27.603	1.0	0.986	-1.4
Benzo(a)pyrene #16	28.710	2.0	1.832	-8.4
Dibenz(a,h)anthracene #1	30.584	2.0	1.972	-1.4
Benzo(g,h,i)perylene #18	31.390	2.0	1.857	-7.1
Indeno(1,2,3-cd)pyrene #	32.338	2.0	1.934	-3.3

= Failed 15.0% Criteria

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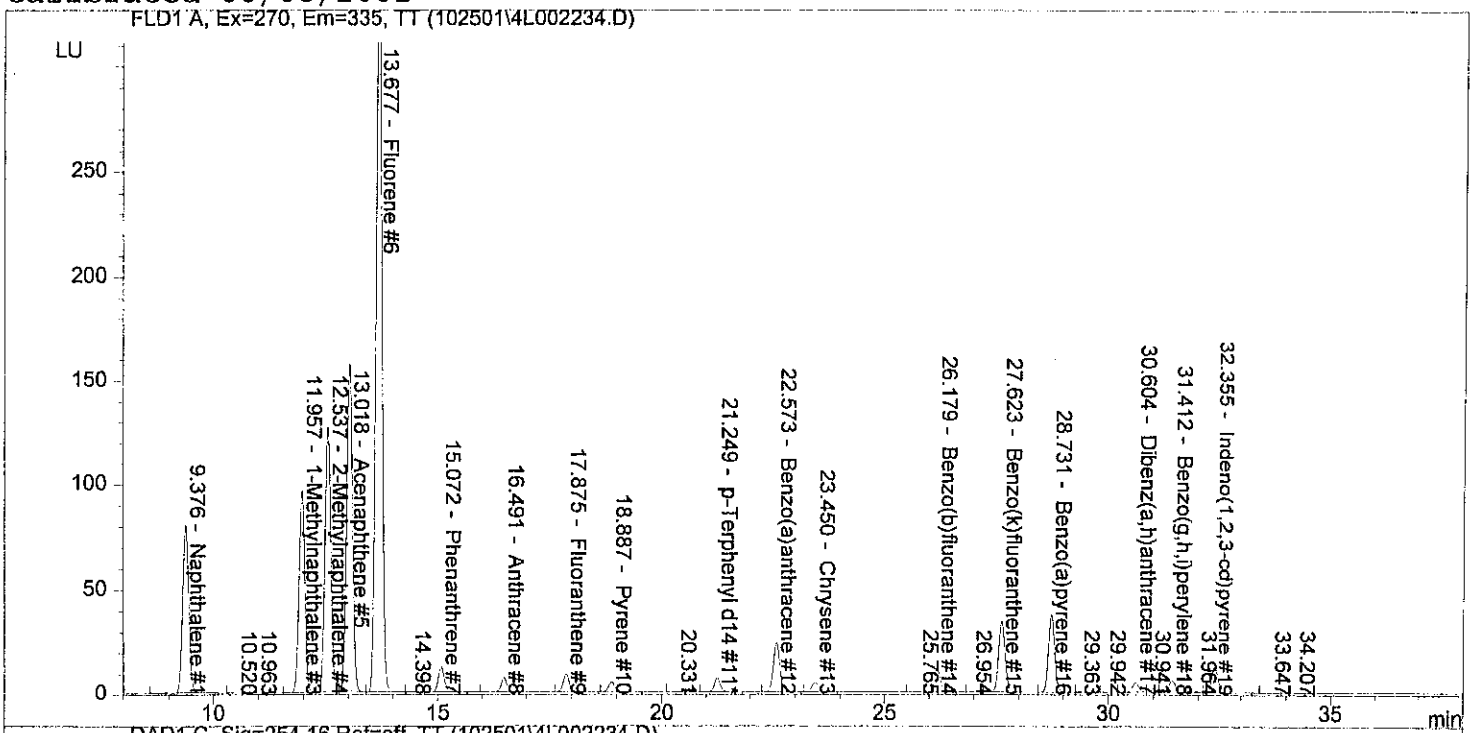
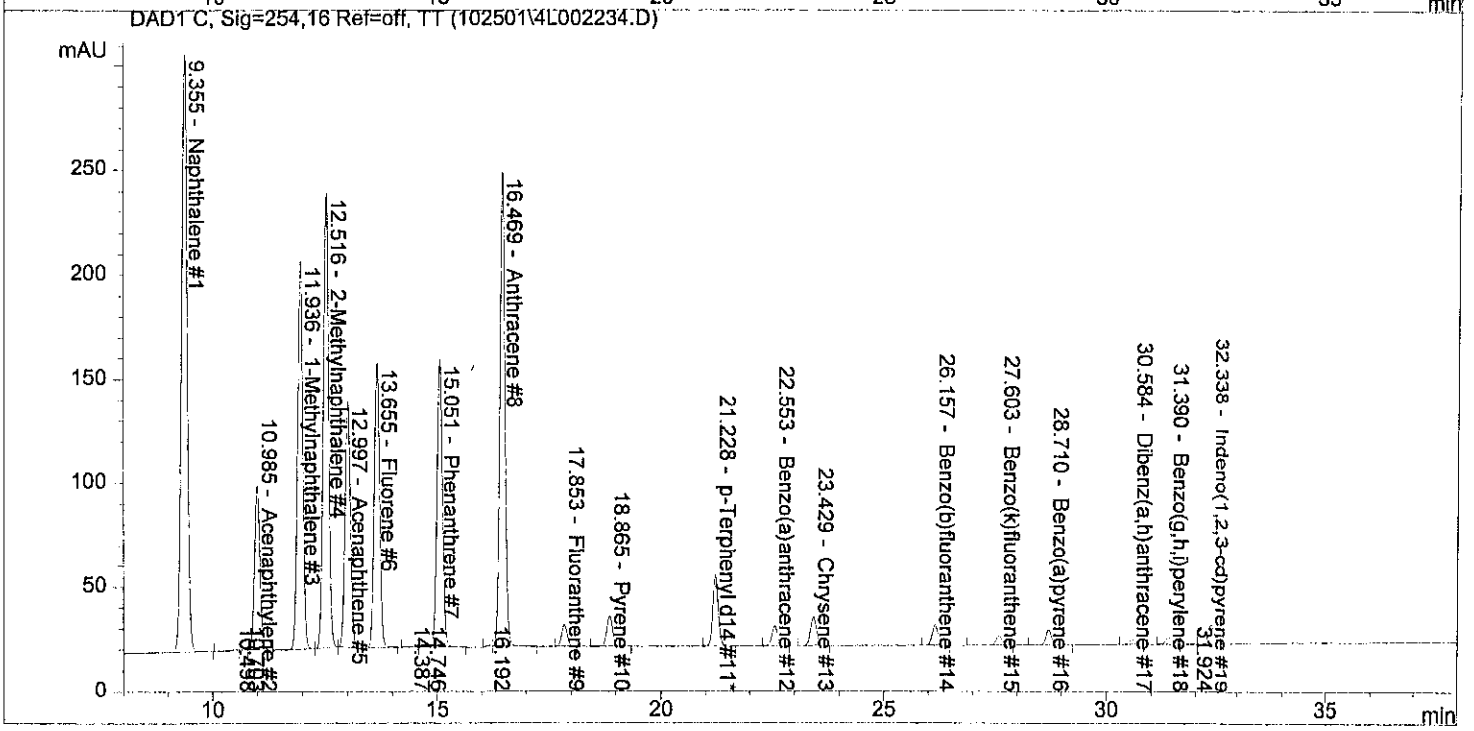
Injection Date : 10/26/2001 4:54:19 PM
Sample Name : WG107115-04 CCV
Acq. Operator : RDC

Seq. Line : 28
Vial : 28
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/26/2001 5:23:21 PM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

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Sorted By : Signal
Calib. Data Modified : Friday, October 26, 2001 5:23:21 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.376	BBA	764.51324	2.52962e-2	19.33928		Naphthalene #1
11.957	BB	876.94379	2.21330e-2	19.40936		1-Methylnaphthalene #3
12.537	BB	1149.27100	1.70635e-2	19.61058		2-Methylnaphthalene #4
13.018	BB	1426.75635	1.38416e-2	19.74854		Acenaphthene #5
13.677	BB	3094.82471	6.62187e-3	20.49352		Fluorene #6
15.072	BBA	113.24324	1.63652e-1	18.53251		Phenanthrene #7
16.491	PBA	61.38596	3.10196e-1	19.04170		Anthracene #8
17.875	BBA	82.65896	2.32678e-2	1.92330		Fluoranthene #9
18.887	BBA	46.19461	3.86587e-2	1.78582		Pyrene #10
21.249	BB	65.29571	2.97423e-1	19.42043		p-Terphenyl d14 #11*
22.573	BBA	235.22830	7.91256e-3	1.86126		Benzo(a)anthracene #12
23.450	BB	47.61437	3.90495e-2	1.85932		Chrysene #13
26.179	BB	116.38809	1.63222e-2	1.89971		Benzo(b)fluoranthene #14
27.623	BB	352.18207	2.76572e-3	9.74036e-1		Benzo(k)fluoranthene #15
28.731	BB	380.40530	4.57119e-3	1.73891		Benzo(a)pyrene #16
30.604	BB	46.91656	3.93496e-2	1.84615		Dibenz(a,h)anthracene #17
31.412	BB	63.46136	2.65165e-2	1.68277		Benzo(g,h,i)perylene #18
32.355	BBA	141.30521	1.38204e-2	1.95290		Indeno(1,2,3-cd)pyrene #1

Totals : 173.12007

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.355	BBA	2567.68652	8.25405e-3	21.19381		Naphthalene #1
10.985	BB	661.53687	2.96975e-2	19.64600		Acenaphthylene #2
11.936	BB	1543.39343	1.29459e-2	19.98055		1-Methylnaphthalene #3
12.516	BB	1806.06311	1.12393e-2	20.29884		2-Methylnaphthalene #4
12.997	BB	972.81061	2.03163e-2	19.76395		Acenaphthene #5
13.655	BBA	1117.48425	1.75240e-2	19.58280		Fluorene #6
15.051	BBA	1137.03601	1.72982e-2	19.66872		Phenanthrene #7
16.469	BBA	1850.31213	1.04262e-2	19.29170		Anthracene #8
17.853	BB	89.32365	2.17006e-2	1.93838		Fluoranthene #9
18.865	BBA	132.88275	1.43052e-2	1.90092		Pyrene #10
21.228	PBA	294.74478	6.56733e-2	19.35685		p-Terphenyl d14 #11*
22.553	PBA	87.07809	2.22694e-2	1.93918		Benzo(a)anthracene #12
23.429	BBA	127.84100	1.51453e-2	1.93619		Chrysene #13
26.157	BBA	93.66079	2.07330e-2	1.94187		Benzo(b)fluoranthene #14
27.603	BB	43.66053	2.25837e-2	9.86016e-1		Benzo(k)fluoranthene #15
28.710	BBA	70.01920	2.61680e-2	1.83226		Benzo(a)pyrene #16
30.584	PB	20.95245	9.41116e-2	1.97187		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.390	BB	33.11838	5.60829e-2	1.85738		Benzo(g,h,i)perylene #18
32.338	BB	94.06176	2.05608e-2	1.93398		Indeno(1,2,3-cd)pyrene #1

Totals : 197.02127

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\103101\4L002277.D Sample Name: WG107371-01 CCV
HPLC4 10/31/2001 12:10:05 PM RDC

1,1 SOS56-19/56-20

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Injection Date : 10/31/2001 12:04:05 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.340	20.0	19.284	-3.6
1-Methylnaphthalene #3	11.939	20.0	19.423	-2.9
2-Methylnaphthalene #4	12.520	20.0	19.677	-1.6
Acenaphthene #5	13.004	20.0	19.972	-0.1
Fluorene #6	13.668	20.0	20.615	3.1
Phenanthrene #7	15.072	20.0	18.551	-7.2
Anthracene #8	16.494	20.0	20.555	2.8
Fluoranthene #9	17.883	2.0	1.854	-7.3
Pyrene #10	18.896	2.0	1.794	-10.3
p-Terphenyl d14 #11*	21.268	20.0	19.571	-2.1
Benzo(a)anthracene #12	22.596	2.0	1.895	-5.2
Chrysene #13	23.478	2.0	1.893	-5.4
Benzo(b)fluoranthene #14	26.215	2.0	1.921	-4.0
Benzo(k)fluoranthene #15	27.666	1.0	0.986	-1.4
Benzo(a)pyrene #16	28.775	2.0	1.857	-7.1
Dibenz(a,h)anthracene #1	30.656	2.0	1.868	-6.6
Benzo(g,h,i)perylene #18	31.464	2.0	1.770	-11.5
Indeno(1,2,3-cd)pyrene #	32.403	2.0	1.973	-1.4

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.323	20.0	20.917	4.6
Acenaphthylene #2	10.965	20.0	19.776	-1.1
1-Methylnaphthalene #3	11.922	20.0	20.148	0.7
2-Methylnaphthalene #4	12.503	20.0	20.468	2.3
Acenaphthene #5	12.987	20.0	20.045	0.2
Fluorene #6	13.650	20.0	19.756	-1.2
Phenanthrene #7	15.055	20.0	19.842	-0.8
Anthracene #8	16.477	20.0	20.687	3.4
Fluoranthene #9	17.865	2.0	1.958	-2.1
Pyrene #10	18.878	2.0	1.931	-3.4
p-Terphenyl d14 #11*	21.251	20.0	19.587	-2.1
Benzo(a)anthracene #12	22.579	2.0	1.957	-2.1
Chrysene #13	23.461	2.0	1.950	-2.5
Benzo(b)fluoranthene #14	26.197	2.0	1.965	-1.8
Benzo(k)fluoranthene #15	27.650	1.0	0.990	-1.0
Benzo(a)pyrene #16	28.758	2.0	1.933	-3.3
Dibenz(a,h)anthracene #1	30.640	2.0	1.996	-0.2
Benzo(g,h,i)perylene #18	31.446	2.0	1.854	-7.3
Indeno(1,2,3-cd)pyrene #	32.391	2.0	1.961	-1.9

= Failed 15.0% Criteria

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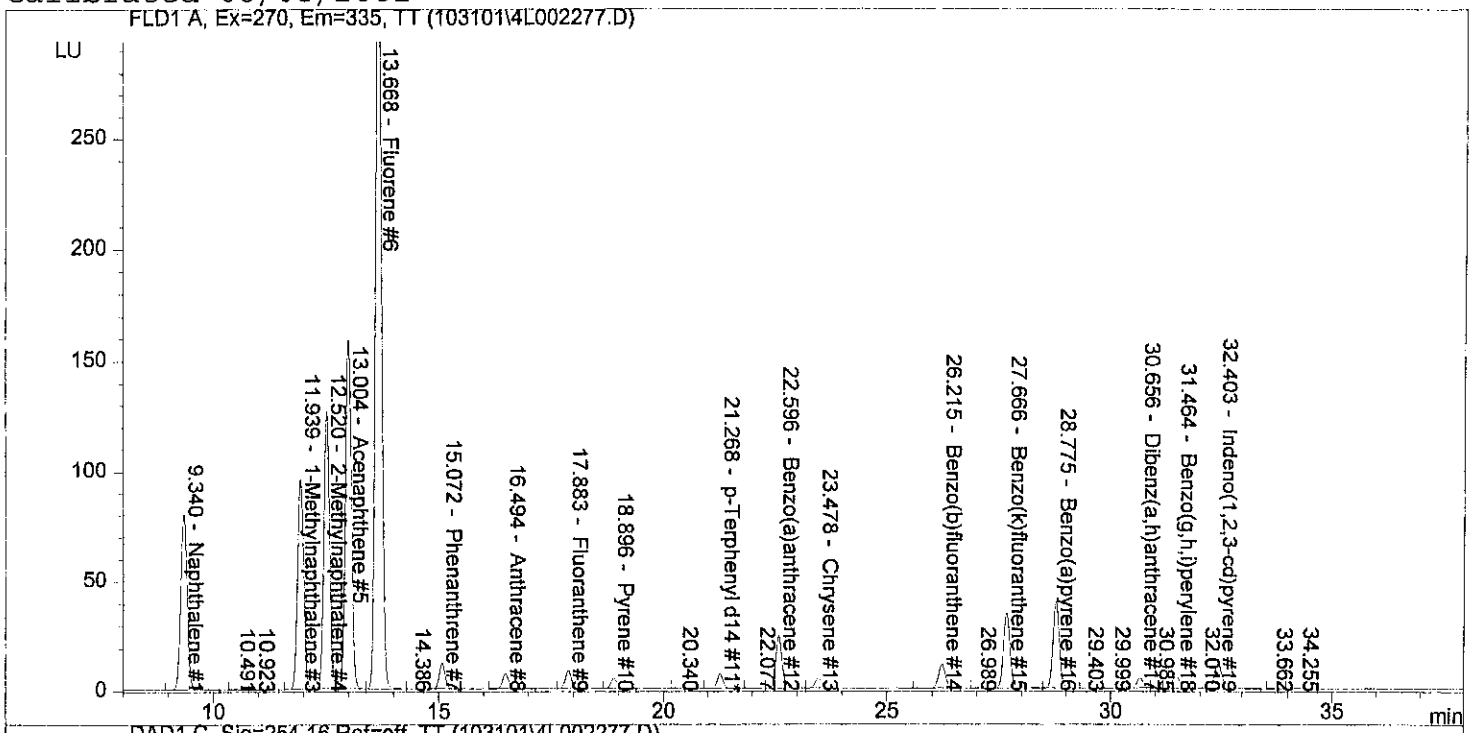
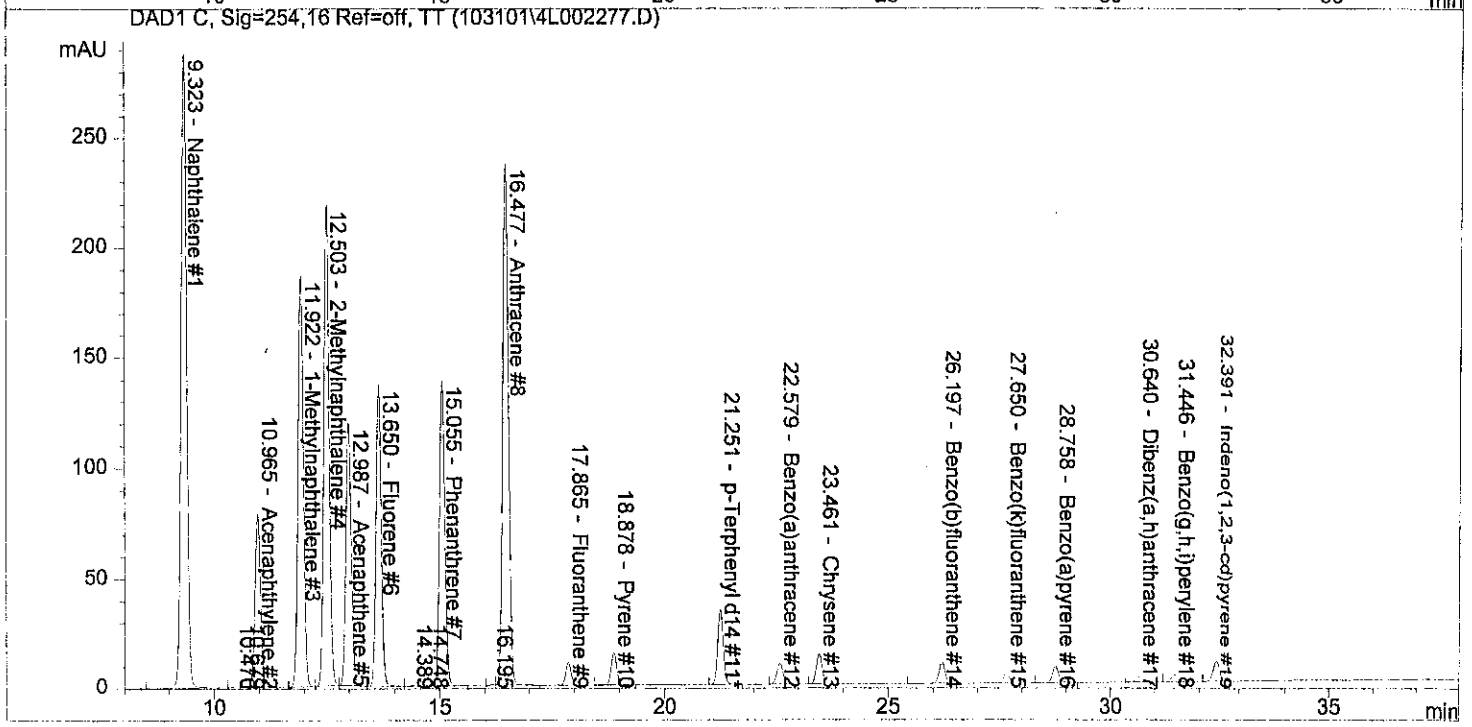
Injection Date : 10/31/2001 12:04:05 PM Seq. Line : 2
Sample Name : WG107371-01 CCV Vial : 2
Acq. Operator : RDC Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/31/2001 9:15:44 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, October 31, 2001 9:15:43 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.340	BBA	762.34430	2.52962e-2	19.28441		Naphthalene #1
11.939	PB	877.55072	2.21330e-2	19.42279		1-Methylnaphthalene #3
12.520	BB	1153.18787	1.70635e-2	19.67741		2-Methylnaphthalene #4
13.004	BB	1442.93152	1.38416e-2	19.97243		Acenaphthene #5
13.668	BB	3113.22876	6.62187e-3	20.61539		Fluorene #6
15.072	BBA	113.35654	1.63652e-1	18.55105		Phenanthrene #7
16.494	BBA	66.26575	3.10196e-1	20.55539		Anthracene #8
17.883	PB	79.67490	2.32678e-2	1.85386		Fluoranthene #9
18.896	BBA	46.41139	3.86587e-2	1.79420		Pyrene #10
21.268	BBA	65.80053	2.97423e-1	19.57058		p-Terphenyl d14 #11*
22.596	BB	239.52814	7.91256e-3	1.89528		Benzo(a)anthracene #12
23.478	BBA	48.47586	3.90495e-2	1.89296		Chrysene #13
26.215	PB	117.67247	1.63222e-2	1.92067		Benzo(b)fluoranthene #14
27.666	BB	356.38800	2.76572e-3	9.85668e-1		Benzo(k)fluoranthene #15
28.775	BB	406.25195	4.57119e-3	1.85705		Benzo(a)pyrene #16
30.656	PB	47.47009	3.93496e-2	1.86793		Dibenz(a,h)anthracene #17
31.464	BB	66.74235	2.65165e-2	1.76977		Benzo(g,h,i)perylene #18
32.403	BBA	142.72749	1.38204e-2	1.97255		Indeno(1,2,3-cd)pyrene #1

Totals : 175.45940

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.323	PBA	2534.11987	8.25405e-3	20.91675		Naphthalene #1
10.965	BBA	665.91602	2.96975e-2	19.77605		Acenaphthylene #2
11.922	PB	1556.33813	1.29459e-2	20.14813		1-Methylnaphthalene #3
12.503	BB	1821.12183	1.12393e-2	20.46809		2-Methylnaphthalene #4
12.987	BB	986.65808	2.03163e-2	20.04528		Acenaphthene #5
13.650	BB	1127.37854	1.75240e-2	19.75619		Fluorene #6
15.055	BBA	1147.03918	1.72982e-2	19.84176		Phenanthrene #7
16.477	BBA	1984.14429	1.04262e-2	20.68705		Anthracene #8
17.865	PB	90.22957	2.17006e-2	1.95804		Fluoranthene #9
18.878	BBA	134.99007	1.43052e-2	1.93107		Pyrene #10
21.251	BBA	298.24893	6.56733e-2	19.58698		p-Terphenyl d14 #11*
22.579	BBA	87.88087	2.22694e-2	1.95706		Benzo(a)anthracene #12
23.461	BBA	128.76653	1.51453e-2	1.95021		Chrysene #13
26.197	BBA	94.75674	2.07330e-2	1.96459		Benzo(b)fluoranthene #14
27.650	BB	43.83707	2.25837e-2	9.90003e-1		Benzo(k)fluoranthene #15
28.758	BB	73.88766	2.61680e-2	1.93349		Benzo(a)pyrene #16
30.640	PB	21.21014	9.41116e-2	1.99612		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.446	BB	33.05870	5.60829e-2	1.85403		Benzo(g,h,i)perylene #18
32.391	BB	95.38979	2.05608e-2	1.96129		Indeno(1,2,3-cd)pyrene #1

Totals : 199.72218

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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Data File C:\HPCHEM\2\DATA\103101\4L002288.D Sample Name: WG107371-02 CCV
HPLC4 11/1/2001 8:33:41 AM RDC

1,1 SOS56-19/56-20

==========

Injection Date : 10/31/2001 10:30:33 PM Seq. Line : 13

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.355	20.0	19.204	-4.0
1-Methylnaphthalene #3	11.949	20.0	19.377	-3.1
2-Methylnaphthalene #4	12.530	20.0	19.645	-1.8
Acenaphthene #5	13.013	20.0	20.080	0.4
Fluorene #6	13.675	20.0	20.956	4.8
Phenanthrene #7	15.072	20.0	18.692	-6.5
Anthracene #8	16.488	20.0	20.696	3.5
Fluoranthene #9	17.871	2.0	1.946	-2.7
Pyrene #10	18.881	2.0	1.738	-13.1
p-Terphenyl d14 #11*	21.229	20.0	20.023	0.1
Benzo(a)anthracene #12	22.548	2.0	1.900	-5.0
Chrysene #13	23.420	2.0	1.896	-5.2
Benzo(b)fluoranthene #14	26.148	2.0	1.940	-3.0
Benzo(k)fluoranthene #15	27.588	1.0	0.991	-0.9
Benzo(a)pyrene #16	28.696	2.0	1.829	-8.6
Dibenz(a,h)anthracene #1	30.561	2.0	1.865	-6.8
Benzo(g,h,i)perylene #18	31.371	2.0	1.785	-10.8
Indeno(1,2,3-cd)pyrene #	32.303	2.0	2.014	0.7

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.339	20.0	21.276	6.4
Acenaphthylene #2	10.979	20.0	20.197	1.0
1-Methylnaphthalene #3	11.933	20.0	20.546	2.7
2-Methylnaphthalene #4	12.514	20.0	20.864	4.3
Acenaphthene #5	12.997	20.0	20.473	2.4
Fluorene #6	13.658	20.0	20.179	0.9
Phenanthrene #7	15.055	20.0	20.258	1.3
Anthracene #8	16.471	20.0	21.121	5.6
Fluoranthene #9	17.854	2.0	2.000	0.0
Pyrene #10	18.863	2.0	1.978	-1.1
p-Terphenyl d14 #11*	21.212	20.0	19.975	-0.1
Benzo(a)anthracene #12	22.531	2.0	1.997	-0.1
Chrysene #13	23.404	2.0	1.991	-0.4
Benzo(b)fluoranthene #14	26.131	2.0	2.008	0.4
Benzo(k)fluoranthene #15	27.572	1.0	1.000	0.0
Benzo(a)pyrene #16	28.679	2.0	1.920	-4.0
Dibenz(a,h)anthracene #1	30.545	2.0	2.050	2.5
Benzo(g,h,i)perylene #18	31.353	2.0	2.173	8.7
Indeno(1,2,3-cd)pyrene #	32.288	2.0	2.011	0.5

= Failed 15.0% Criteria

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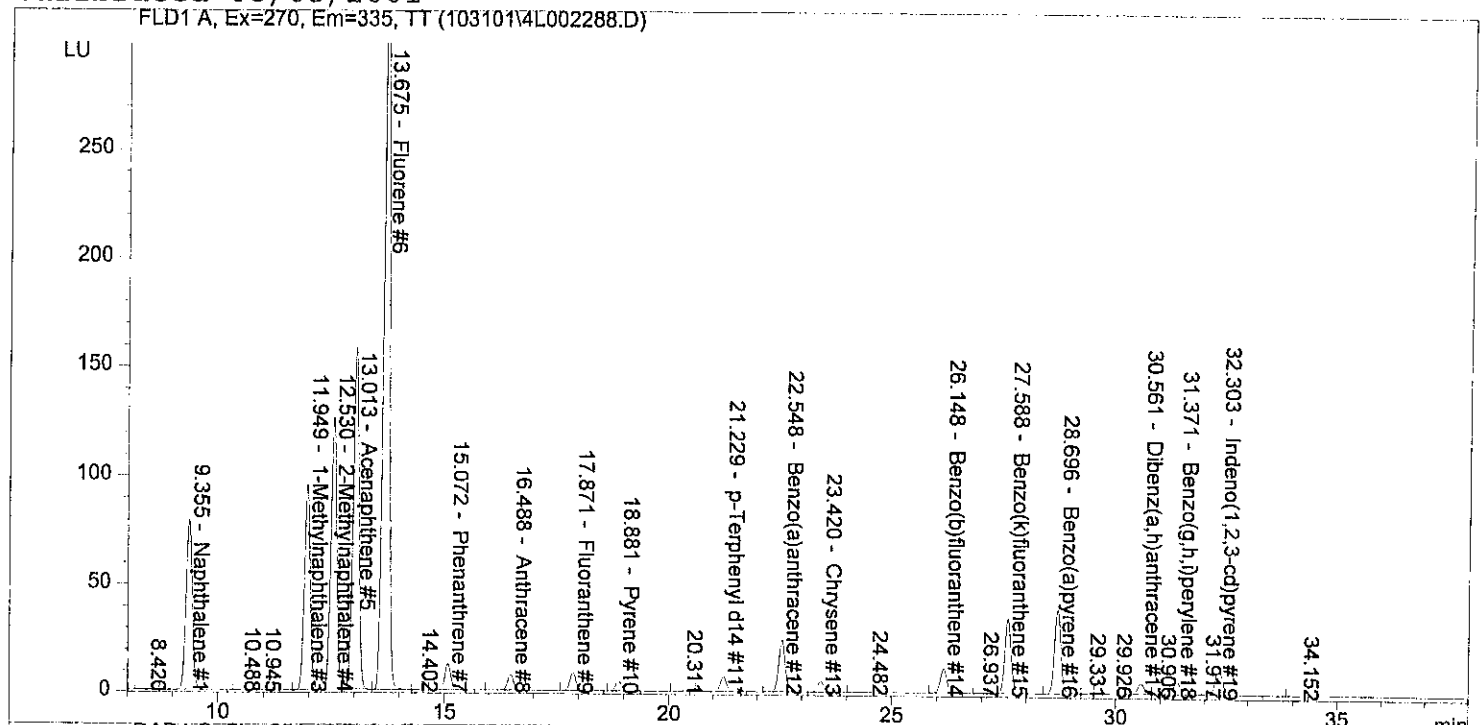
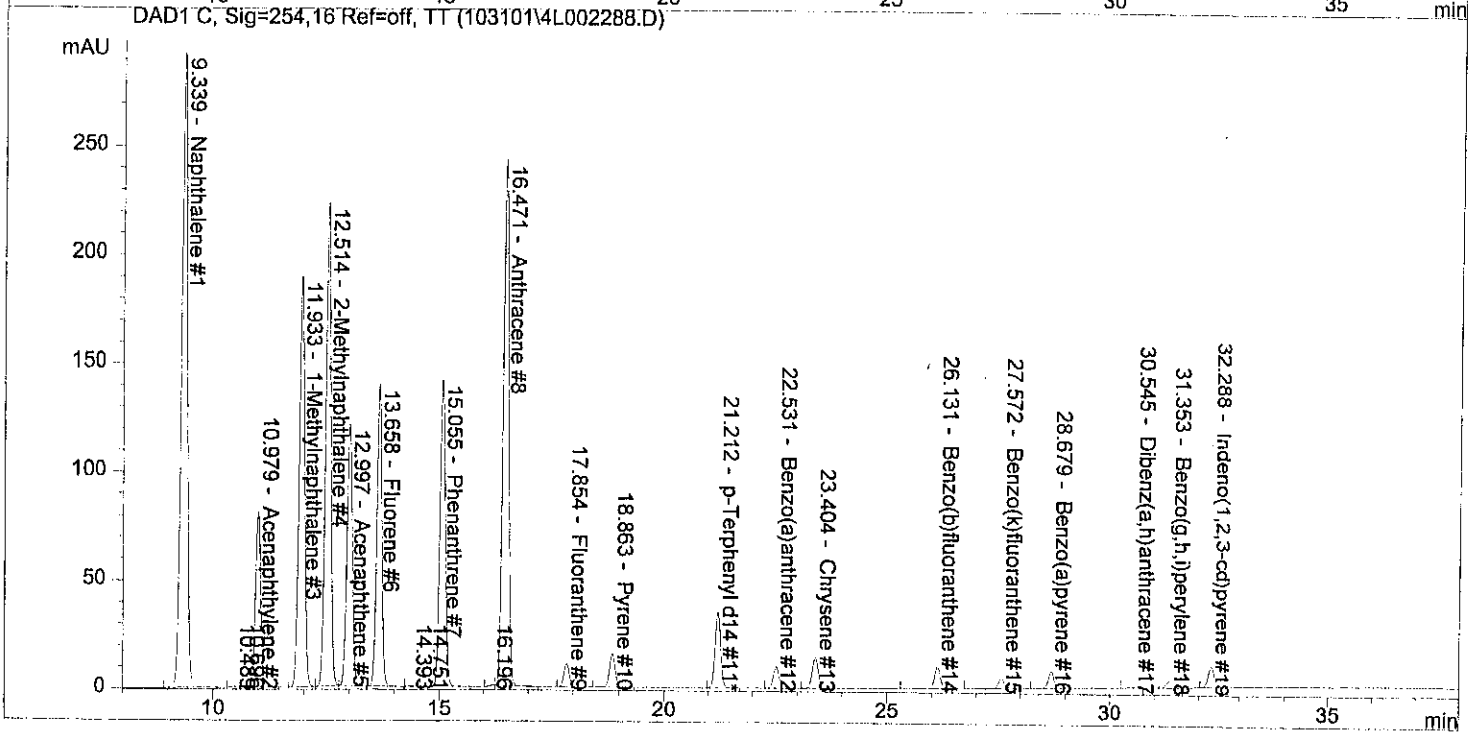
Injection Date : 10/31/2001 10:30:33 PM
Sample Name : WG107371-02 CCV
Acq. Operator : RDC

Seq. Line : 13
Vial : 13
Inj : 1
Inj Volume : 8 µl

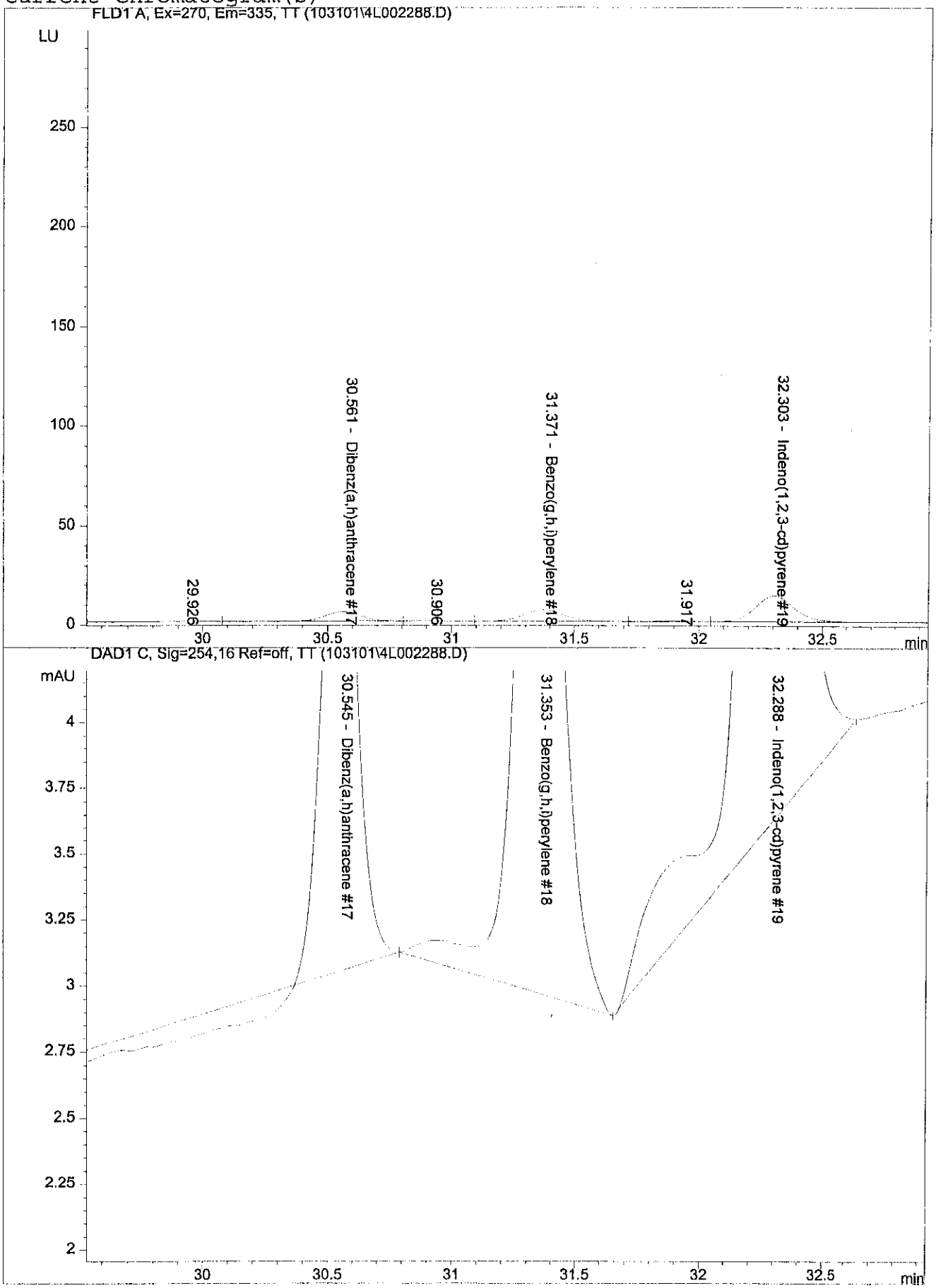
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/1/2001 8:32:50 AM by RDC
(modified after loading)

Calibrated 08/08/2001

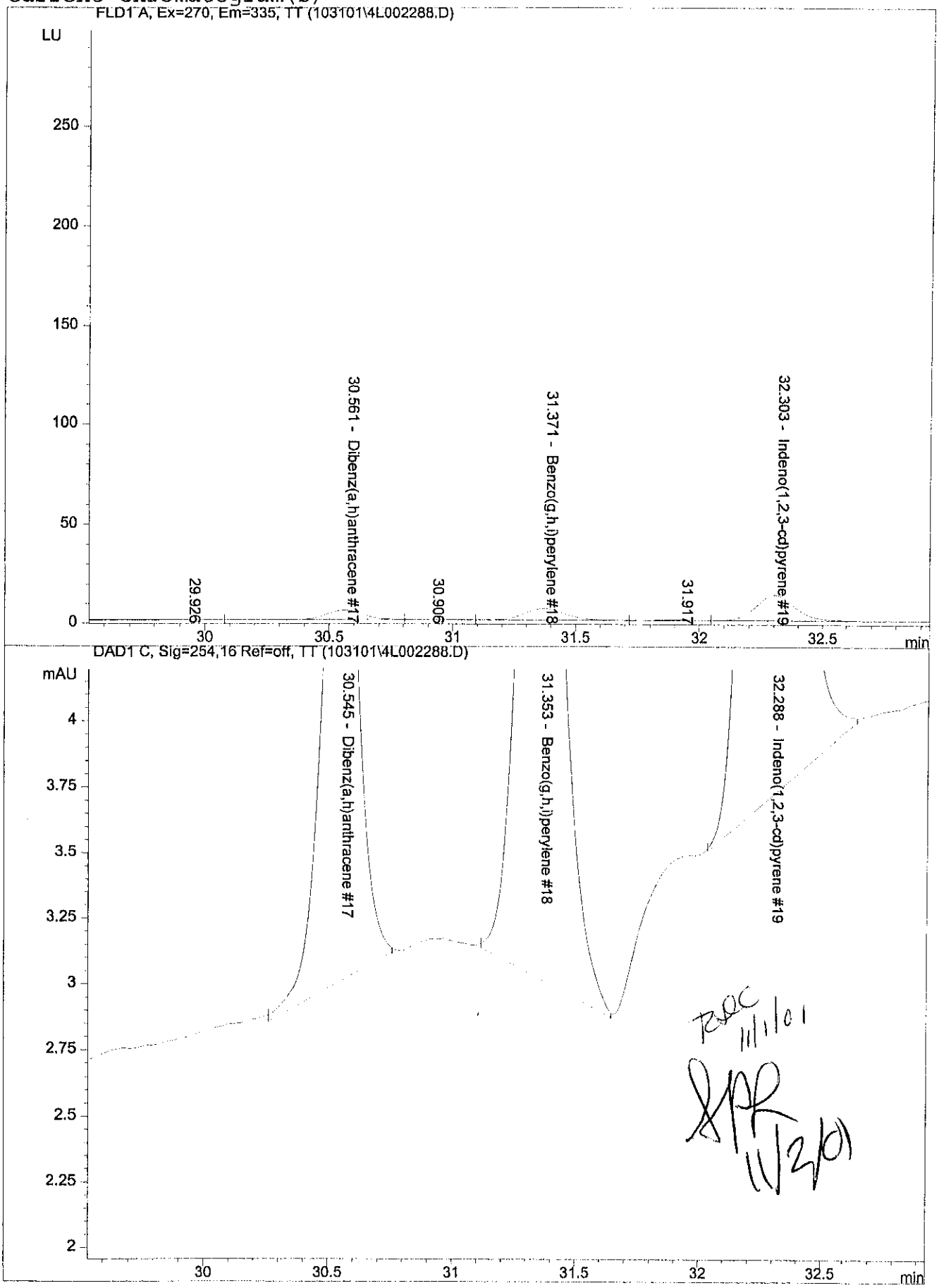




Current Chromatogram(s)



Current Chromatogram(s)



HPLC4 11/1/2001 8:33:36 AM RDC

Page 1 of 1

External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Wednesday, October 31, 2001 9:15:43 AM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.355	BBA	759.15308	2.52962e-2	19.20369		Naphthalene #1
11.949	BB	875.49335	2.21330e-2	19.37725		1-Methylnaphthalene #3
12.530	BB	1151.26624	1.70635e-2	19.64462		2-Methylnaphthalene #4
13.013	BB	1450.71179	1.38416e-2	20.08012		Acenaphthene #5
13.675	BB	3164.64307	6.62187e-3	20.95584		Fluorene #6
15.072	BBA	114.21968	1.63652e-1	18.69231		Phenanthrene #7
16.488	BBA	66.71989	3.10196e-1	20.69626		Anthracene #8
17.871	PBA	83.62286	2.32678e-2	1.94572		Fluoranthene #9
18.881	BBA	44.95365	3.86587e-2	1.73785		Pyrene #10
21.229	BBA	67.32263	2.97423e-1	20.02328		p-Terphenyl d14 #11*
22.548	BB	240.06729	7.91256e-3	1.89955		Benzo(a)anthracene #12
23.420	BB	48.54840	3.90495e-2	1.89579		Chrysene #13
26.148	BB	118.85931	1.63222e-2	1.94004		Benzo(b)fluoranthene #14
27.588	BB	358.18295	2.76572e-3	9.90632e-1		Benzo(k)fluoranthene #15
28.696	BB	400.04660	4.57119e-3	1.82869		Benzo(a)pyrene #16
30.561	BB	47.39490	3.93496e-2	1.86497		Dibenz(a,h)anthracene #17
31.371	BB	67.31507	2.65165e-2	1.78496		Benzo(g,h,i)perylene #18
32.303	BBA	145.71065	1.38204e-2	2.01378		Indeno(1,2,3-cd)pyrene #1

Totals : 176.57537

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.339	PBA	2577.66260	8.25405e-3	21.27616		Naphthalene #1
10.979	BBA	680.09460	2.96975e-2	20.19712		Acenaphthylene #2
11.933	PB	1587.06348	1.29459e-2	20.54590		1-Methylnaphthalene #3
12.514	BB	1856.33765	1.12393e-2	20.86389		2-Methylnaphthalene #4
12.997	BB	1007.73199	2.03163e-2	20.47343		Acenaphthene #5
13.658	BBA	1151.49597	1.75240e-2	20.17882		Fluorene #6
15.055	BBA	1171.08411	1.72982e-2	20.25770		Phenanthrene #7
16.471	BBA	2025.74255	1.04262e-2	21.12077		Anthracene #8
17.854	PB	92.14760	2.17006e-2	1.99966		Fluoranthene #9
18.863	BBA	138.26370	1.43052e-2	1.97790		Pyrene #10
21.212	BBA	304.15714	6.56733e-2	19.97499		p-Terphenyl d14 #11*
22.531	PBA	89.68002	2.22694e-2	1.99712		Benzo(a)anthracene #12
23.404	BBA	131.46484	1.51453e-2	1.99107		Chrysene #13
26.131	PBA	96.84129	2.07330e-2	2.00781		Benzo(b)fluoranthene #14
27.572	PB	44.29035	2.25837e-2	1.00024		Benzo(k)fluoranthene #15
28.679	BB	73.38509	2.61680e-2	1.92034		Benzo(a)pyrene #16
30.545	MM	21.78607	9.41116e-2	2.05032		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.353	MM	38.75452	5.60829e-2	2.17347		Benzo(g,h,i)perylene #18
32.288	MM	97.80688	2.05608e-2	2.01099		Indeno(1,2,3-cd)pyrene #1

Totals : 204.01768

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\103101\4L002299.D Sample Name: WG107371-03 CCV
HPLC4 11/1/2001 10:40:15 AM RDC

1,1 SOS56-19/56-20

==========

Injection Date : 11/1/2001 8:53:29 AM Seq. Line : 24

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.320	20.0	19.160	-4.2
1-Methylnaphthalene #3	11.920	20.0	19.280	-3.6
2-Methylnaphthalene #4	12.506	20.0	19.495	-2.5
Acenaphthene #5	12.992	20.0	19.930	-0.3
Fluorene #6	13.656	20.0	20.721	3.6
Phenanthrene #7	15.058	20.0	18.962	-5.2
Anthracene #8	16.477	20.0	20.485	2.4
Fluoranthene #9	17.861	2.0	1.925	-3.8
Pyrene #10	18.871	2.0	1.773	-11.3
p-Terphenyl d14 #11*	21.223	20.0	19.918	-0.4
Benzo(a)anthracene #12	22.539	2.0	1.891	-5.5
Chrysene #13	23.407	2.0	1.893	-5.4
Benzo(b)fluoranthene #14	26.126	2.0	1.926	-3.7
Benzo(k)fluoranthene #15	27.561	1.0	0.983	-1.7
Benzo(a)pyrene #16	28.668	2.0	1.864	-6.8
Dibenz(a,h)anthracene #1	30.526	2.0	1.869	-6.5
Benzo(g,h,i)perylene #18	31.335	2.0	1.822	-8.9
Indeno(1,2,3-cd)pyrene #	32.264	2.0	1.984	-0.8

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.305	20.0	21.137	5.7
Acenaphthylene #2	10.946	20.0	20.037	0.2
1-Methylnaphthalene #3	11.905	20.0	20.357	1.8
2-Methylnaphthalene #4	12.491	20.0	20.674	3.4
Acenaphthene #5	12.978	20.0	20.298	1.5
Fluorene #6	13.641	20.0	20.042	0.2
Phenanthrene #7	15.043	20.0	20.082	0.4
Anthracene #8	16.462	20.0	21.007	5.0
Fluoranthene #9	17.845	2.0	1.984	-0.8
Pyrene #10	18.855	2.0	1.957	-2.1
p-Terphenyl d14 #11*	21.209	20.0	19.818	-0.9
Benzo(a)anthracene #12	22.525	2.0	1.983	-0.8
Chrysene #13	23.393	2.0	1.975	-1.2
Benzo(b)fluoranthene #14	26.110	2.0	1.978	-1.1
Benzo(k)fluoranthene #15	27.547	1.0	0.998	-0.2
Benzo(a)pyrene #16	28.654	2.0	1.961	-2.0
Dibenz(a,h)anthracene #1	30.512	2.0	1.757	-12.1
Benzo(g,h,i)perylene #18	31.320	2.0	2.292	14.6
Indeno(1,2,3-cd)pyrene #	32.249	2.0	1.974	-1.3

= Failed 15.0% Criteria

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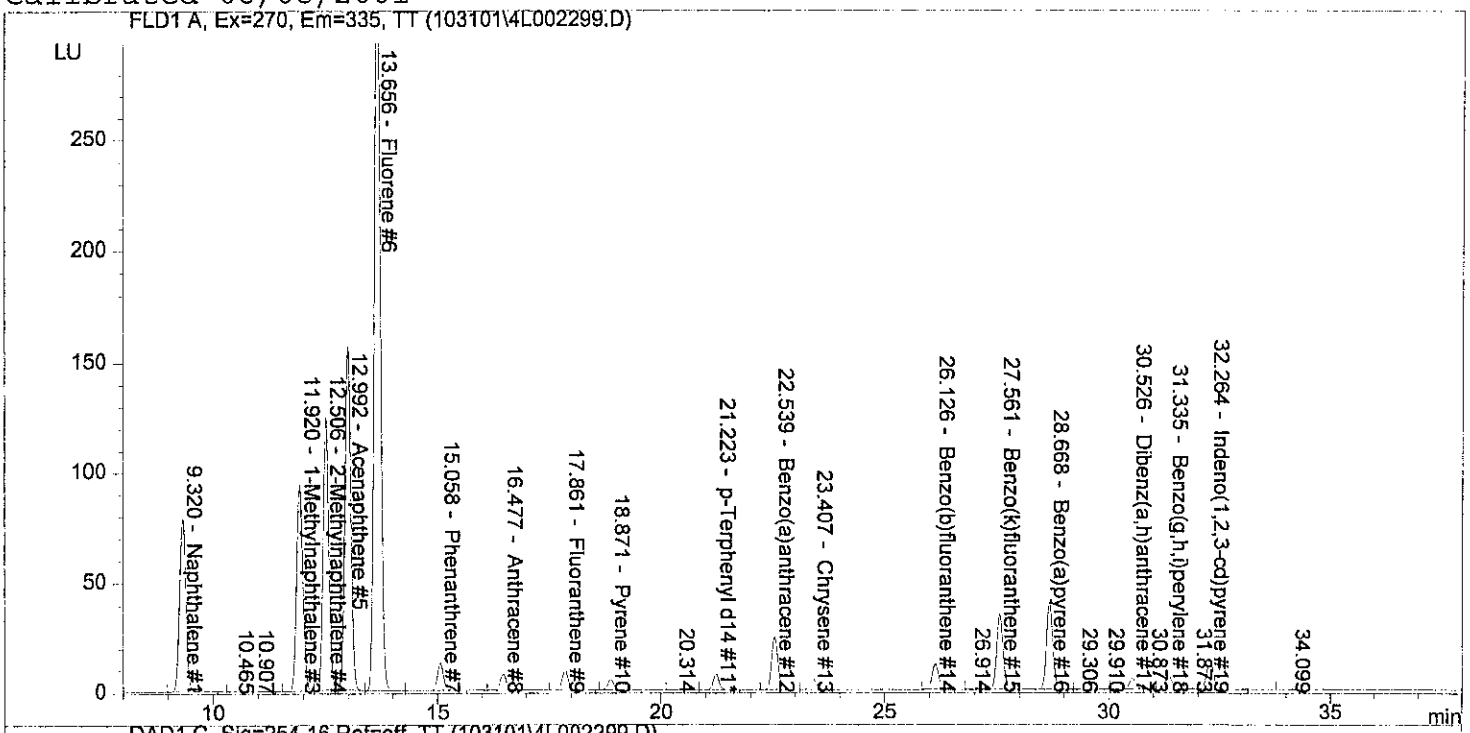
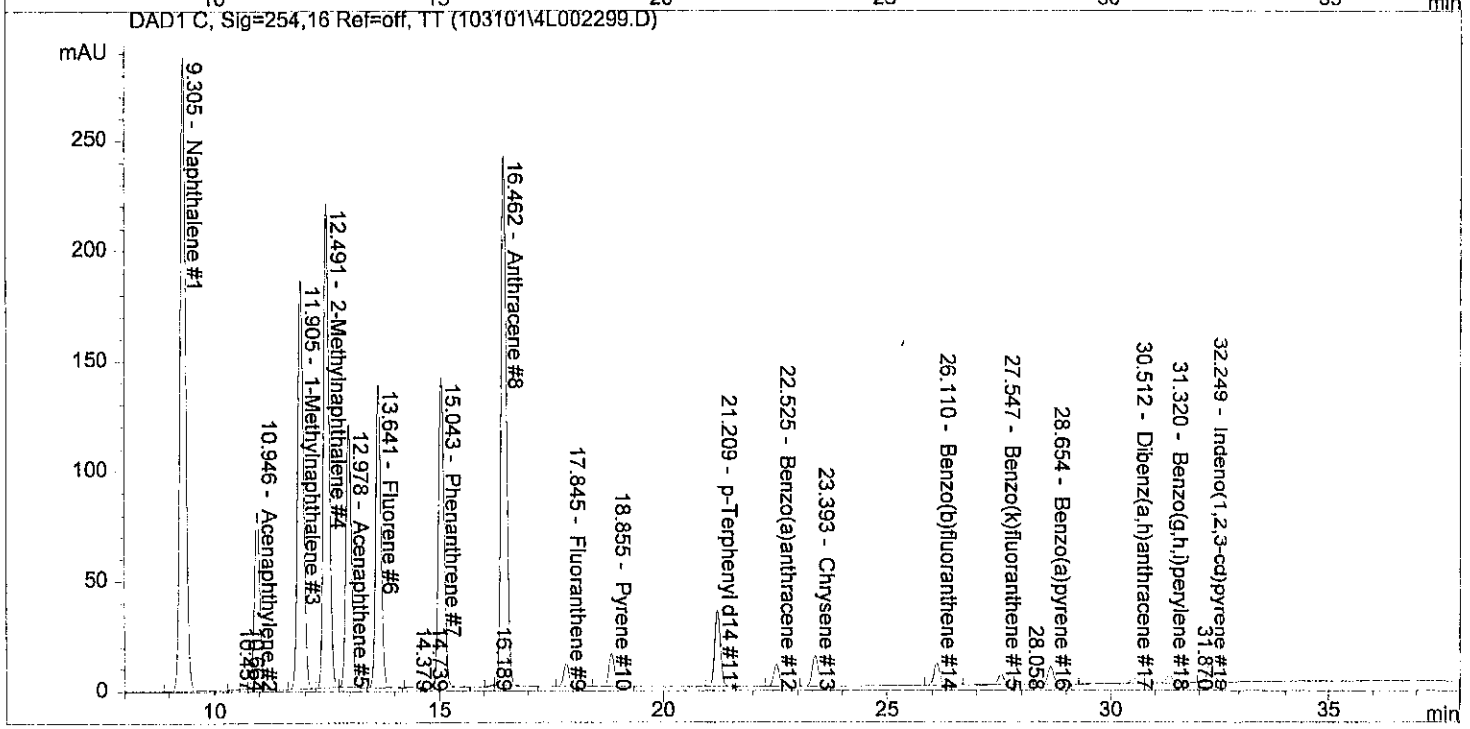
Injection Date : 11/1/2001 8:53:29 AM
Sample Name : WG107371-03 CCV
Acq. Operator : RDC

Seq. Line : 24
Vial : 24
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/1/2001 9:18:29 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Wednesday, October 31, 2001 9:15:43 AM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.320	BBA	757.41974	2.52962e-2	19.15984		Naphthalene #1
11.920	PB	871.11359	2.21330e-2	19.28032		1-Methylnaphthalene #3
12.506	BB	1142.51074	1.70635e-2	19.49523		2-Methylnaphthalene #4
12.992	BB	1439.88818	1.38416e-2	19.93030		Acenaphthene #5
13.656	BB	3129.20264	6.62187e-3	20.72116		Fluorene #6
15.058	BBA	115.86849	1.63652e-1	18.96214		Phenanthrene #7
16.477	BBA	66.03827	3.10196e-1	20.48483		Anthracene #8
17.861	PBA	82.71139	2.32678e-2	1.92452		Fluoranthene #9
18.871	BBA	45.86999	3.86587e-2	1.77327		Pyrene #10
21.223	BB	66.96707	2.97423e-1	19.91753		p-Terphenyl d14 #11*
22.539	BB	238.95503	7.91256e-3	1.89075		Benzo(a)anthracene #12
23.407	BBA	48.47603	3.90495e-2	1.89297		Chrysene #13
26.126	BB	117.97805	1.63222e-2	1.92566		Benzo(b)fluoranthene #14
27.561	BB	355.47046	2.76572e-3	9.83130e-1		Benzo(k)fluoranthene #15
28.668	BB	407.84241	4.57119e-3	1.86433		Benzo(a)pyrene #16
30.526	BB	47.50967	3.93496e-2	1.86948		Dibenz(a,h)anthracene #17
31.335	BB	68.70379	2.65165e-2	1.82178		Benzo(g,h,i)perylene #18
32.264	BBA	143.52592	1.38204e-2	1.98359		Indeno(1,2,3-cd)pyrene #1
Totals :				175.88082		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.305	PBA	2560.83960	8.25405e-3	21.13730		Naphthalene #1
10.946	BBA	674.69159	2.96975e-2	20.03666		Acenaphthylene #2
11.905	PB	1572.48694	1.29459e-2	20.35719		1-Methylnaphthalene #3
12.491	BB	1839.47986	1.12393e-2	20.67442		2-Methylnaphthalene #4
12.978	BB	999.08948	2.03163e-2	20.29785		Acenaphthene #5
13.641	BBA	1143.67114	1.75240e-2	20.04170		Fluorene #6
15.043	BBA	1160.95447	1.72982e-2	20.08247		Phenanthrene #7
16.462	BBA	2014.80652	1.04262e-2	21.00674		Anthracene #8
17.845	PB	91.42554	2.17006e-2	1.98399		Fluoranthene #9
18.855	BBA	136.83377	1.43052e-2	1.95744		Pyrene #10
21.209	PBA	301.77402	6.56733e-2	19.81848		p-Terphenyl d14 #11*
22.525	PBA	89.05630	2.22694e-2	1.98323		Benzo(a)anthracene #12
23.393	PBA	130.40990	1.51453e-2	1.97510		Chrysene #13
26.110	BBA	95.40813	2.07330e-2	1.97809		Benzo(b)fluoranthene #14
27.547	PB	44.20719	2.25837e-2	9.98361e-1		Benzo(k)fluoranthene #15
28.654	BBA	74.92316	2.61680e-2	1.96059		Benzo(a)pyrene #16
30.512	BB	18.67035	9.41116e-2	1.75710		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.320	BB	40.86919	5.60829e-2	2.29206		Benzo(g,h,i)perylene #18
32.249	BB	95.99889	2.05608e-2	1.97381		Indeno(1,2,3-cd)pyrene #1

Totals : 202.31259

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

2.2.7.4 Raw QC Data

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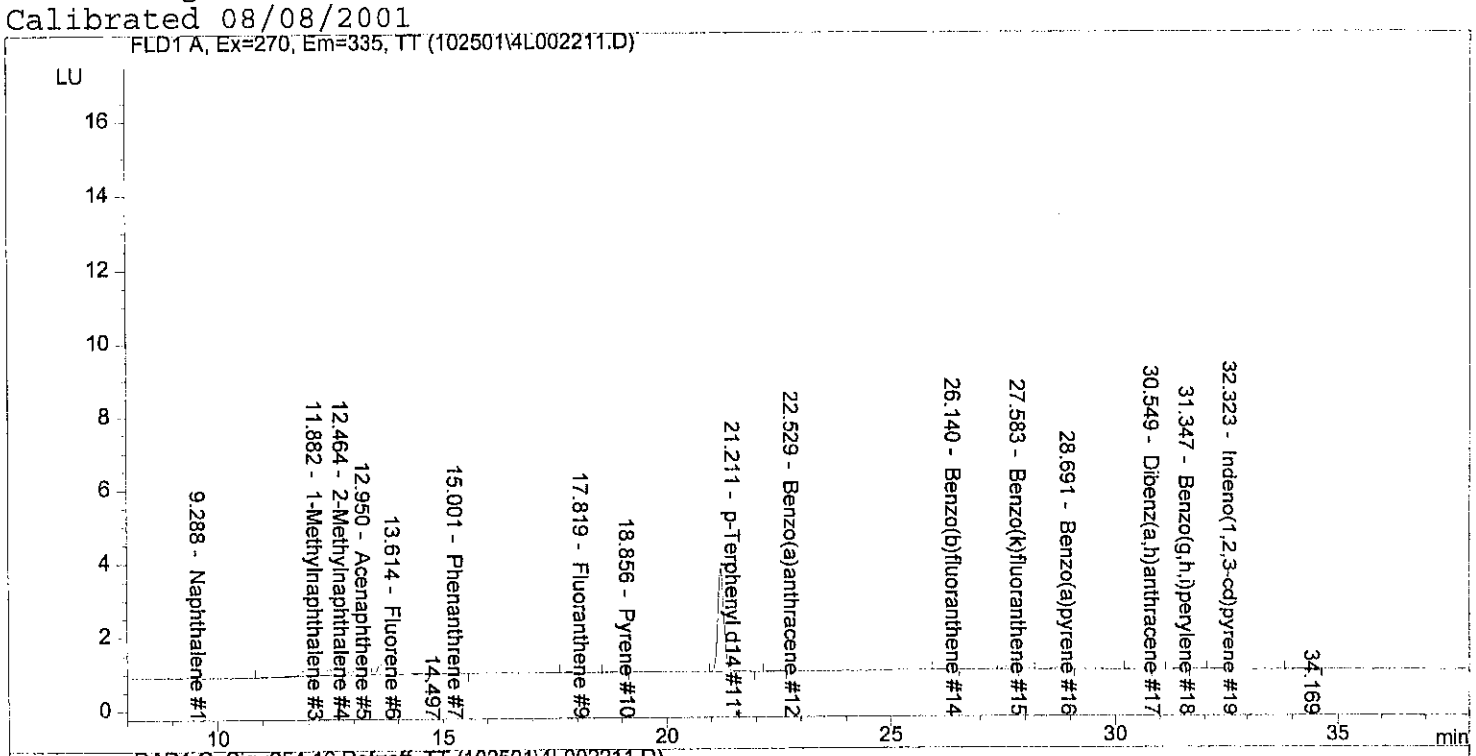
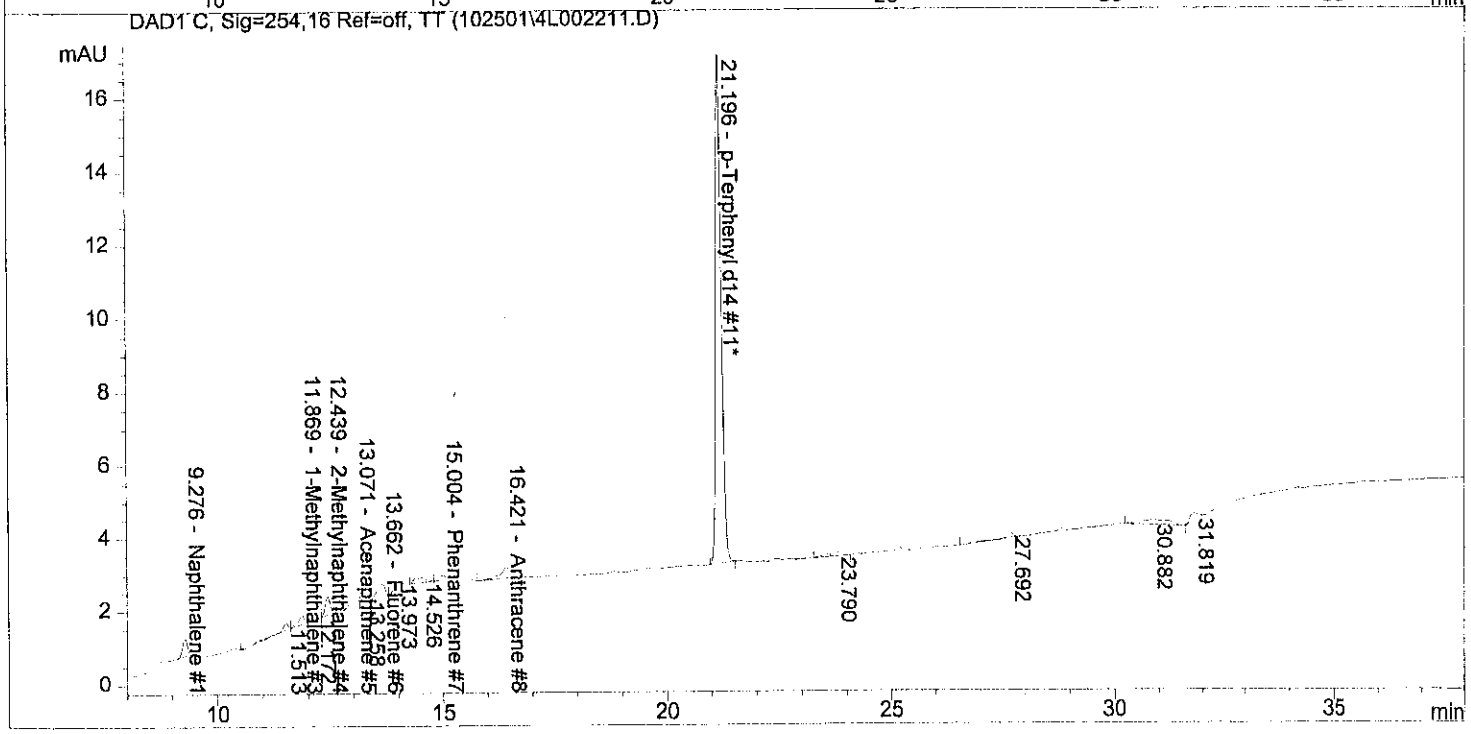
Injection Date : 10/25/2001 6:58:34 PM
Sample Name : WG107031-02 WBLK
Acq. Operator : RDC

Seq. Line : 5
Vial : 5
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/26/2001 9:03:32 AM by RDC
Calibrated 08/08/2001





External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	10/26/2001 8:59:27 AM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.288	BBA	1.39703	2.52962e-2	3.53395e-2		Naphthalene #1
11.882	BB	1.02354	2.21330e-2	2.26539e-2		1-Methylnaphthalene #3
12.464	BB	1.79054	1.70635e-2	3.05528e-2		2-Methylnaphthalene #4
12.950	BBA	1.29727	1.38416e-2	1.79563e-2		Acenaphthene #5
13.614	BB	2.89055	6.62187e-3	1.91409e-2		Fluorene #6
15.001	BBA	1.75457e-1	1.63652e-1	2.87139e-2		Phenanthrene #7
16.407		-	-	-		Anthracene #8
17.819	PBA	3.14814e-1	2.32678e-2	7.32504e-3		Fluoranthene #9
18.856	PBA	2.51733e-1	3.86587e-2	9.73165e-3		Pyrene #10
21.211	BBA	27.18658	2.97423e-1	8.08591		p-Terphenyl d14 #11*
22.529	BB	2.04625e-1	7.91256e-3	1.61910e-3		Benzo(a)anthracene #12
23.379		-	-	-		Chrysene #13
26.140	BBA	3.36125e-1	1.63222e-2	5.48629e-3		Benzo(b)fluoranthene #14
27.583	BBA	7.29711e-1	2.76572e-3	2.01817e-3		Benzo(k)fluoranthene #15
28.691	BBA	5.59748e-1	4.57119e-3	2.55871e-3		Benzo(a)pyrene #16
30.549	PBA	1.58772e-1	3.93496e-2	6.24762e-3		Dibenz(a,h)anthracene #17
31.347	PBA	1.53033e-1	2.65165e-2	4.05789e-3		Benzo(g,h,i)perylene #18
32.323	BBA	3.24243e-1	1.38204e-2	4.48117e-3		Indeno(1,2,3-cd)pyrene #1
Totals :				8.28379		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.276	BB	3.52987	8.25405e-3	2.91358e-2	2mol	Naphthalene #1
10.913		-	-	-		Acenaphthylene #2
11.869	BB	2.38081	1.29459e-2	3.08217e-2		1-Methylnaphthalene #3
12.439	BB	4.18485	1.12393e-2	4.70347e-2		2-Methylnaphthalene #4
13.071	BB	1.20161	2.03163e-2	2.44124e-2		Acenaphthene #5
13.662	BB	3.95355	1.75240e-2	6.92819e-2		Fluorene #6
15.004	BB	1.86369	1.72982e-2	3.22385e-2		Phenanthrene #7
16.421	BB	5.17312	1.04262e-2	5.39359e-2		Anthracene #8
17.777		-	-	-		Fluoranthene #9
18.789		-	-	-		Pyrene #10
21.196	PBA	119.52604	6.56733e-2	7.84966		p-Terphenyl d14 #11*
22.483		-	-	-		Benzo(a)anthracene #12
23.362		-	-	-	78.5%	Chrysene #13
26.095		-	-	-		Benzo(b)fluoranthene #14
27.535		-	-	-		Benzo(k)fluoranthene #15
28.644		-	-	-		Benzo(a)pyrene #16
30.513		-	-	-		Dibenz(a,h)anthracene #17

[min]	[mAU*s]		[ug/L]		
31.318	-	-	-		Benzo(g,h,i)perylene #18
32.265	-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.13652

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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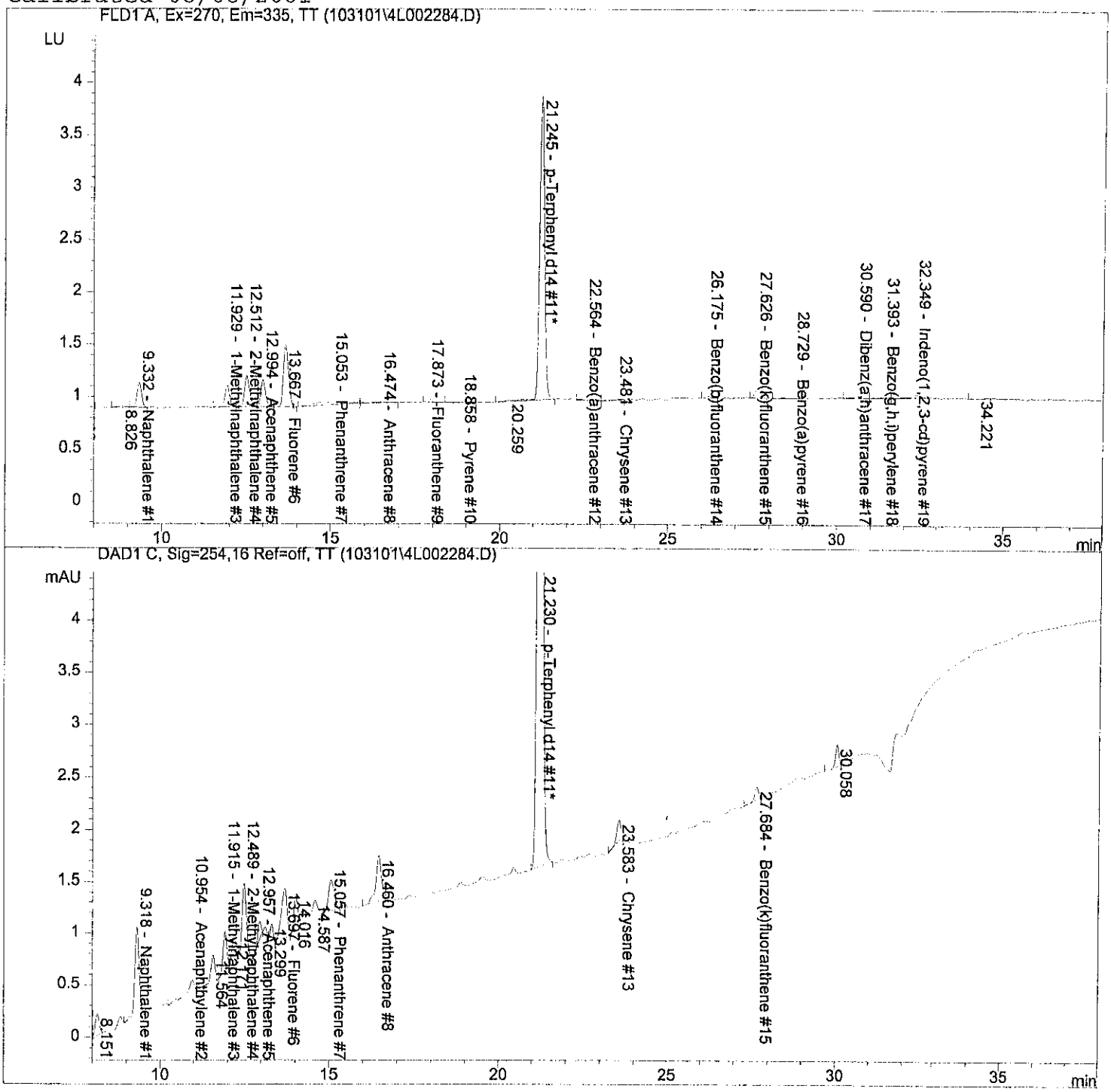
Injection Date : 10/31/2001 6:43:58 PM
Sample Name : WG107228-01 WBLK
Acq. Operator : RDC

Seq. Line : 9
Vial : 9
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/31/2001 9:15:44 AM by RDC
(modified after loading)

Calibrated 08/08/2001



External Standard Report

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Sorted By : Signal
Calib. Data Modified : Wednesday, October 31, 2001 9:15:43 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.332	BB	2.26259	2.52962e-2	5.72348e-2		Naphthalene #1
11.929	PB	1.89494	2.21330e-2	4.19407e-2		1-Methylnaphthalene #3
12.512	BB	3.02562	1.70635e-2	5.16276e-2		2-Methylnaphthalene #4
12.994	BB	2.49438	1.38416e-2	3.45261e-2		Acenaphthene #5
13.667	BBA	6.22276	6.62187e-3	4.12063e-2		Fluorene #6
15.053	BB	1.77263	1.63652e-1	2.90094e-1		Phenanthrene #7
16.474	BBA	2.48598e-1	3.10196e-1	7.71143e-2		Anthracene #8
17.873	BBA	3.17033e-1	2.32678e-2	7.37668e-3		Fluoranthene #9
18.858	BBA	2.79492e-1	3.86587e-2	1.08048e-2		Pyrene #10
21.245	BB	27.76023	2.97423e-1	8.25652		p-Terphenyl d14 #11*
22.564	BB	4.76013e-1	7.91256e-3	3.76649e-3		Benzo(a)anthracene #12
23.481	BB	1.94699e-1	3.90495e-2	7.60290e-3		Chrysene #13
26.175	BBA	1.72199e-1	1.63222e-2	2.81067e-3		Benzo(b)fluoranthene #14
27.626	BBA	7.30871e-1	2.76572e-3	2.02138e-3		Benzo(k)fluoranthene #15
28.729	BBA	4.70308e-1	4.57119e-3	2.14987e-3		Benzo(a)pyrene #16
30.590	BB	3.01951e-1	3.93496e-2	1.18816e-2		Dibenz(a,h)anthracene #17
31.393	BB	2.90903e-1	2.65165e-2	7.71373e-3		Benzo(g,h,i)perylene #18
32.349	BB	5.01162e-1	1.38204e-2	6.92626e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 8.91332

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.318	BB	7.43027	8.25405e-3	6.13298e-2	NDL	Naphthalene #1
10.954	BB	1.36742	2.96975e-2	4.06090e-2		Acenaphthylene #2
11.915	BB	2.65956	1.29459e-2	3.44302e-2		1-Methylnaphthalene #3
12.489	BB	5.88618	1.12393e-2	6.61564e-2		2-Methylnaphthalene #4
12.957	BB	1.08430	2.03163e-2	2.20289e-2		Acenaphthene #5
13.697	BB	5.69674	1.75240e-2	9.98298e-2		Fluorene #6
15.057	BB	3.52490	1.72982e-2	6.09745e-2		Phenanthrene #7
16.460	BBA	5.27597	1.04262e-2	5.50082e-2		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.899		-	-	-	21.4%	Pyrene #10
21.230	BBA	123.88038	6.56733e-2	8.13563		p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.583	PB	1.70635	1.51453e-2	2.58431e-2		Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.684	PBA	8.49184e-1	2.25837e-2	1.91777e-2	NDL	Benzo(k)fluoranthene #15
28.749		-	-	-		Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

[min]	[mAU*s]		[ug/L]		
31.433	-	-	-		Benzo(g,h,i)perylene #18
32.391	-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.62102

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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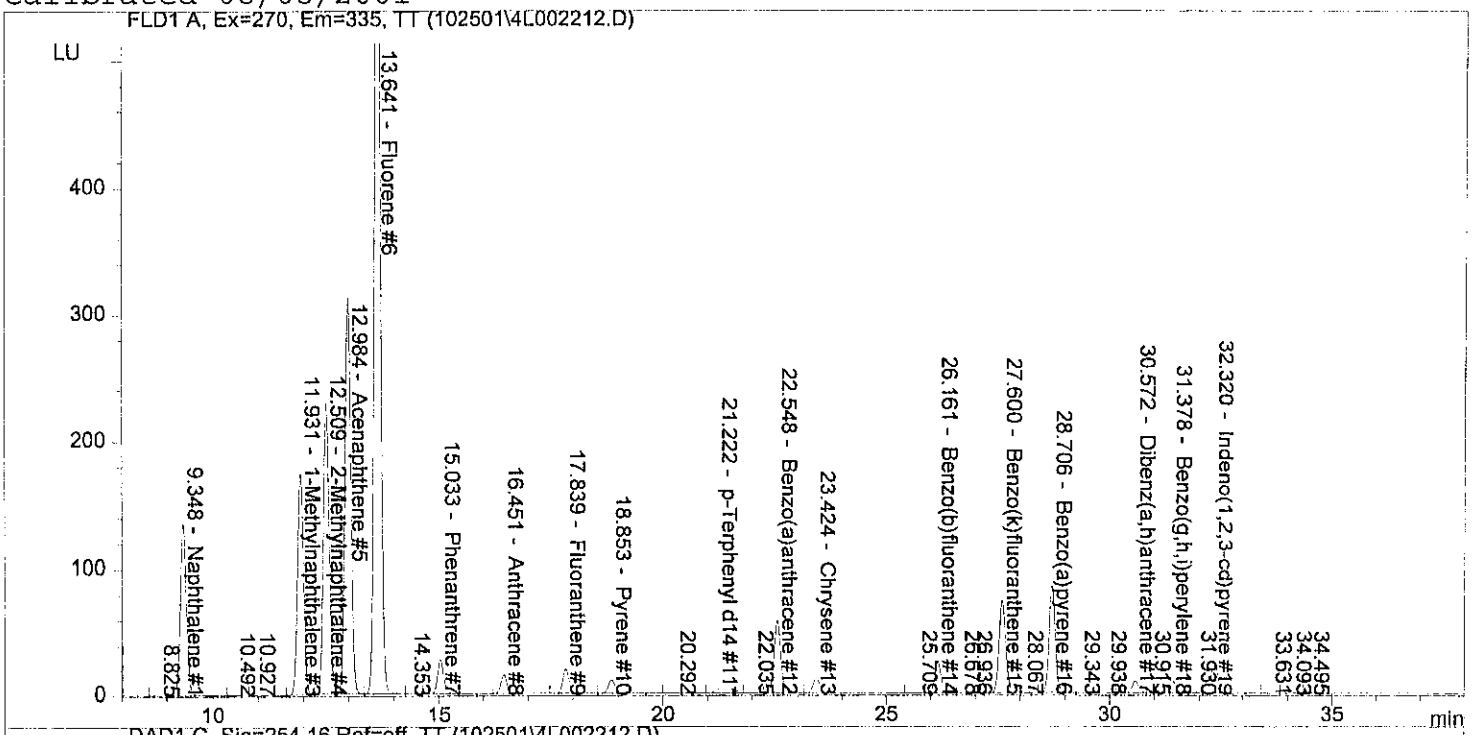
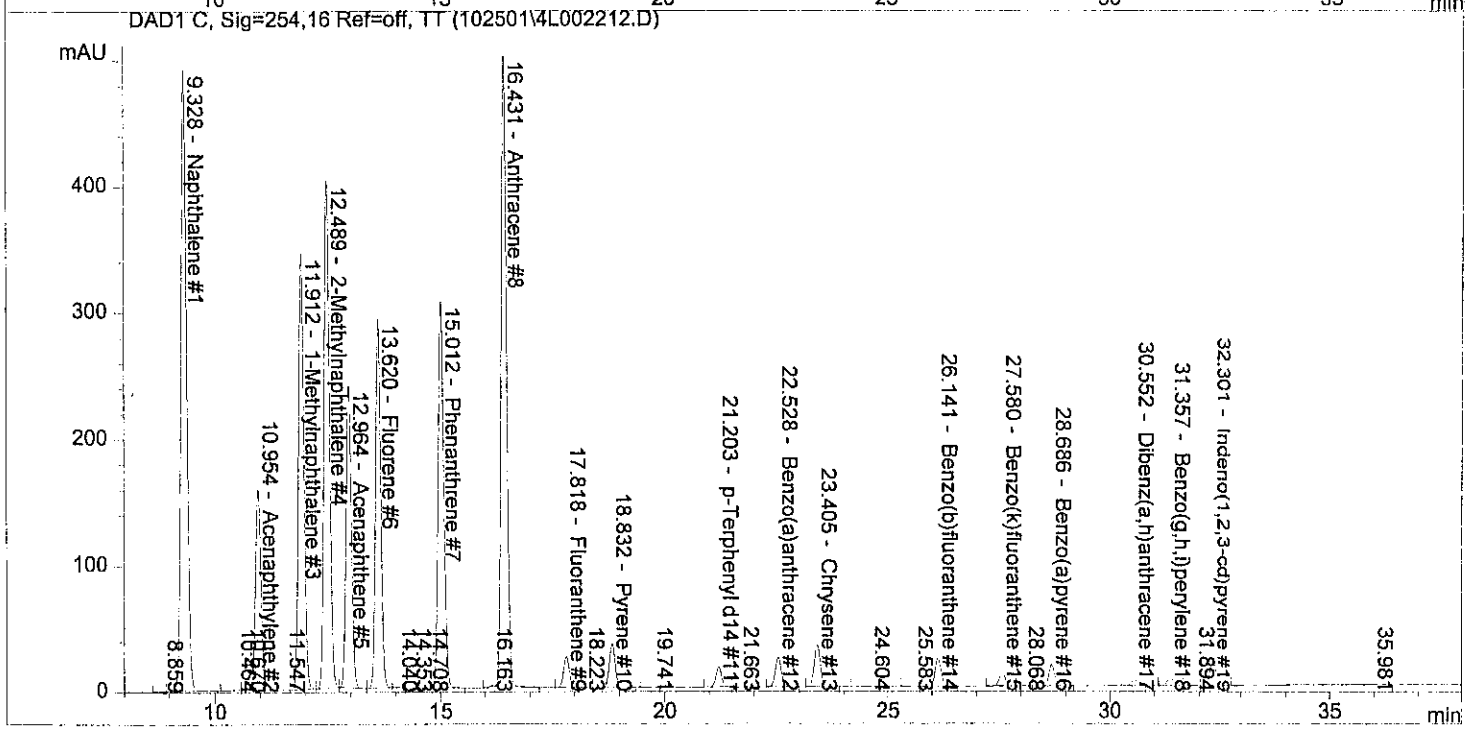
Injection Date : 10/25/2001 7:55:11 PM Seq. Line : 6
Sample Name : WG107031-03 WLCS Vial : 6
Acq. Operator : RDC Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/26/2001 9:03:32 AM by RDC
Calibrated 08/08/2001





External Standard Report

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Sorted By : Signal
Calib. Data Modified : 10/26/2001 8:59:27 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.348	BBA	1275.76648	2.52962e-2	32.27204		Naphthalene #1
11.931	BB	1594.30676	2.21330e-2	35.28672		1-Methylnaphthalene #3
12.509	BB	2069.58472	1.70635e-2	35.31435		2-Methylnaphthalene #4
12.984	BB	2833.65234	1.38416e-2	39.22218		Acenaphthene #5
13.641	BB	6458.33008	6.62187e-3	42.76620		Fluorene #6
15.033	BBA	248.76953	1.63652e-1	40.71169		Phenanthrene #7
16.451	BB	134.84871	3.10196e-1	41.82958		Anthracene #8
17.839	BB	189.73985	2.32678e-2	4.41484		Fluoranthene #9
18.853	BB	105.13512	3.86587e-2	4.06439		Pyrene #10
21.222	PBA	29.90137	2.97423e-1	8.89335		p-Terphenyl d14 #11*
22.548	BB	572.25800	7.91256e-3	4.52803		Benzo(a)anthracene #12
23.424	BB	114.96950	3.90495e-2	4.48951		Chrysene #13
26.161	BB	262.21533	1.63222e-2	4.27993		Benzo(b)fluoranthene #14
27.600	BB	750.93646	2.76572e-3	2.07688		Benzo(k)fluoranthene #15
28.706	BB	858.62286	4.57119e-3	3.92493		Benzo(a)pyrene #16
30.572	BB	90.94673	3.93496e-2	3.57871		Dibenz(a,h)anthracene #17
31.378	BB	124.01895	2.65165e-2	3.28855		Benzo(g,h,i)perylene #18
32.320	BB	277.41702	1.38204e-2	3.83402		Indeno(1,2,3-cd)pyrene #1

Totals : 314.77586

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.328	BBA	4265.45313	8.25405e-3	35.20726		Naphthalene #1
10.954	BB	1335.92639	2.96975e-2	39.67370		Acenaphthylene #2
11.912	BB	2852.56372	1.29459e-2	36.92888		1-Methylnaphthalene #3
12.489	BB	3301.14502	1.12393e-2	37.10248		2-Methylnaphthalene #4
12.964	BB	1964.01587	2.03163e-2	39.90162		Acenaphthene #5
13.620	BB	2393.84766	1.75240e-2	41.94980		Fluorene #6
15.012	BB	2506.58057	1.72982e-2	43.35944		Phenanthrene #7
16.431	BBA	4087.87598	1.04262e-2	42.62095		Anthracene #8
17.818	PB	210.17589	2.17006e-2	4.56094		Fluoranthene #9
18.832	BBA	305.99442	1.43052e-2	4.37732		Pyrene #10
21.203	PB	136.55898	6.56733e-2	8.96827		p-Terphenyl d14 #11*
22.528	PBA	213.08994	2.22694e-2	4.74539		Benzo(a)anthracene #12
23.405	BBA	308.76666	1.51453e-2	4.67636		Chrysene #13
26.141	BBA	211.87811	2.07330e-2	4.39286		Benzo(b)fluoranthene #14
27.580	BB	93.72773	2.25837e-2	2.11672		Benzo(k)fluoranthene #15
28.686	BBA	157.06960	2.61680e-2	4.11020		Benzo(a)pyrene #16
30.552	BB	40.15305	9.41116e-2	3.77887		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.357	BB	65.14742	5.60829e-2	3.65366		Benzo(g,h,i)perylene #18
32.301	BBA	188.58296	2.05608e-2	3.87741		Indeno(1,2,3-cd)pyrene #1

Totals : 366.00214

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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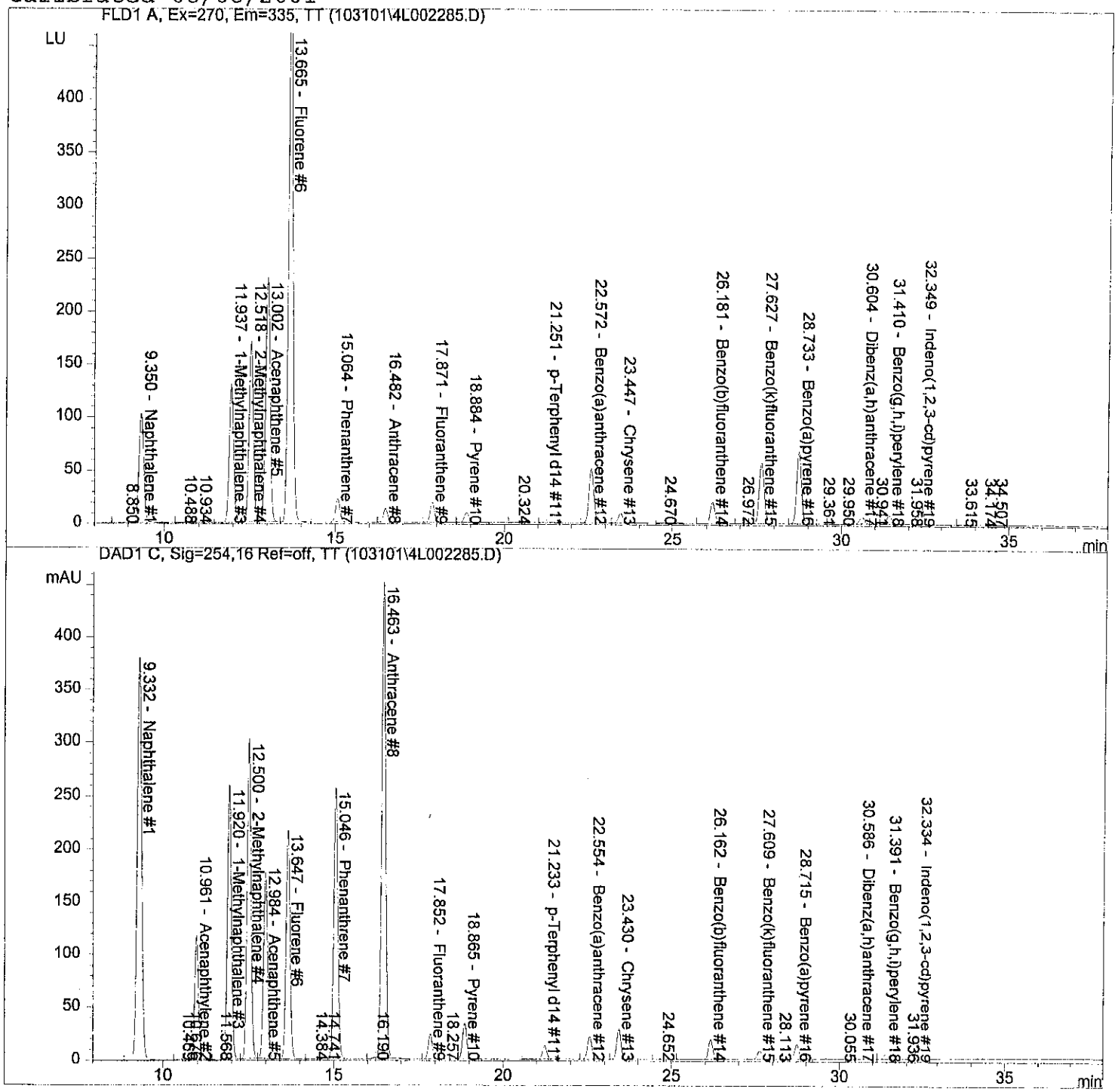
Injection Date	: 10/31/2001 7:40:37 PM	Seq. Line	: 10
Sample Name	: WG107228-02 WLCS	Vial	: 10
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/31/2001 9:15:44 AM by RDC
(modified after loading)

Calibrated 08/08/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, October 31, 2001 9:15:43 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.350	BBA	980.82794	2.52962e-2	24.81122		Naphthalene #1
11.937	BB	1197.55859	2.21330e-2	26.50551		1-Methylnaphthalene #3
12.518	BB	1565.40515	1.70635e-2	26.71128		2-Methylnaphthalene #4
13.002	BB	2112.97437	1.38416e-2	29.24687		Acenaphthene #5
13.665	BB	4898.72314	6.62187e-3	32.43869		Fluorene #6
15.064	BBA	210.73578	1.63652e-1	34.48738		Phenanthrene #7
16.482	BB	124.95212	3.10196e-1	38.75969		Anthracene #8
17.871	BB	181.74139	2.32678e-2	4.22873		Fluoranthene #9
18.884	BBA	100.70355	3.86587e-2	3.89307		Pyrene #10
21.251	BBA	24.84252	2.97423e-1	7.38873		p-Terphenyl d14 #11*
22.572	BB	512.68066	7.91256e-3	4.05662		Benzo(a)anthracene #12
23.447	BB	98.19631	3.90495e-2	3.83452		Chrysene #13
26.181	PB	215.22319	1.63222e-2	3.51291		Benzo(b)fluoranthene #14
27.627	BB	596.29834	2.76572e-3	1.64919		Benzo(k)fluoranthene #15
28.733	BB	699.35571	4.57119e-3	3.19689		Benzo(a)pyrene #16
30.604	BB	66.92252	3.93496e-2	2.63337		Dibenz(a,h)anthracene #17
31.410	BB	95.01842	2.65165e-2	2.51956		Benzo(g,h,i)perylene #18
32.349	BBA	215.52393	1.38204e-2	2.97863		Indeno(1,2,3-cd)pyrene #1
Totals :				252.85285		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.332	BBA	3339.67944	8.25405e-3	27.56588		Naphthalene #1
10.961	BB	993.49121	2.96975e-2	29.50422		Acenaphthylene #2
11.920	BB	2171.85791	1.29459e-2	28.11656		1-Methylnaphthalene #3
12.500	BB	2523.24463	1.12393e-2	28.35945		2-Methylnaphthalene #4
12.984	BB	1476.45728	2.03163e-2	29.99621		Acenaphthene #5
13.647	BB	1801.66858	1.75240e-2	31.57245		Fluorene #6
15.046	BBA	2123.95459	1.72982e-2	36.74068		Phenanthrene #7
16.463	BBA	3804.44067	1.04262e-2	39.66580		Anthracene #8
17.852	PB	203.42773	2.17006e-2	4.41450		Fluoranthene #9
18.865	BBA	305.84207	1.43052e-2	4.37515		Pyrene #10
21.233	BBA	113.19747	6.56733e-2	7.43405	74.3%	p-Terphenyl d14 #11*
22.554	PBA	193.48573	2.22694e-2	4.30882		Benzo(a)anthracene #12
23.430	BBA	268.15659	1.51453e-2	4.06131		Chrysene #13
26.162	BBA	175.05850	2.07330e-2	3.62948		Benzo(b)fluoranthene #14
27.609	BB	74.53505	2.25837e-2	1.68328		Benzo(k)fluoranthene #15
28.715	BBA	130.61044	2.61680e-2	3.41782		Benzo(a)pyrene #16
30.586	BB	32.52213	9.41116e-2	3.06071		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.391	BB	52.09813	5.60829e-2	2.92182		Benzo(g,h,i)perylene #18
32.334	BBA	145.88257	2.05608e-2	2.99946		Indeno(1,2,3-cd)pyrene #1

Totals : 293.82764

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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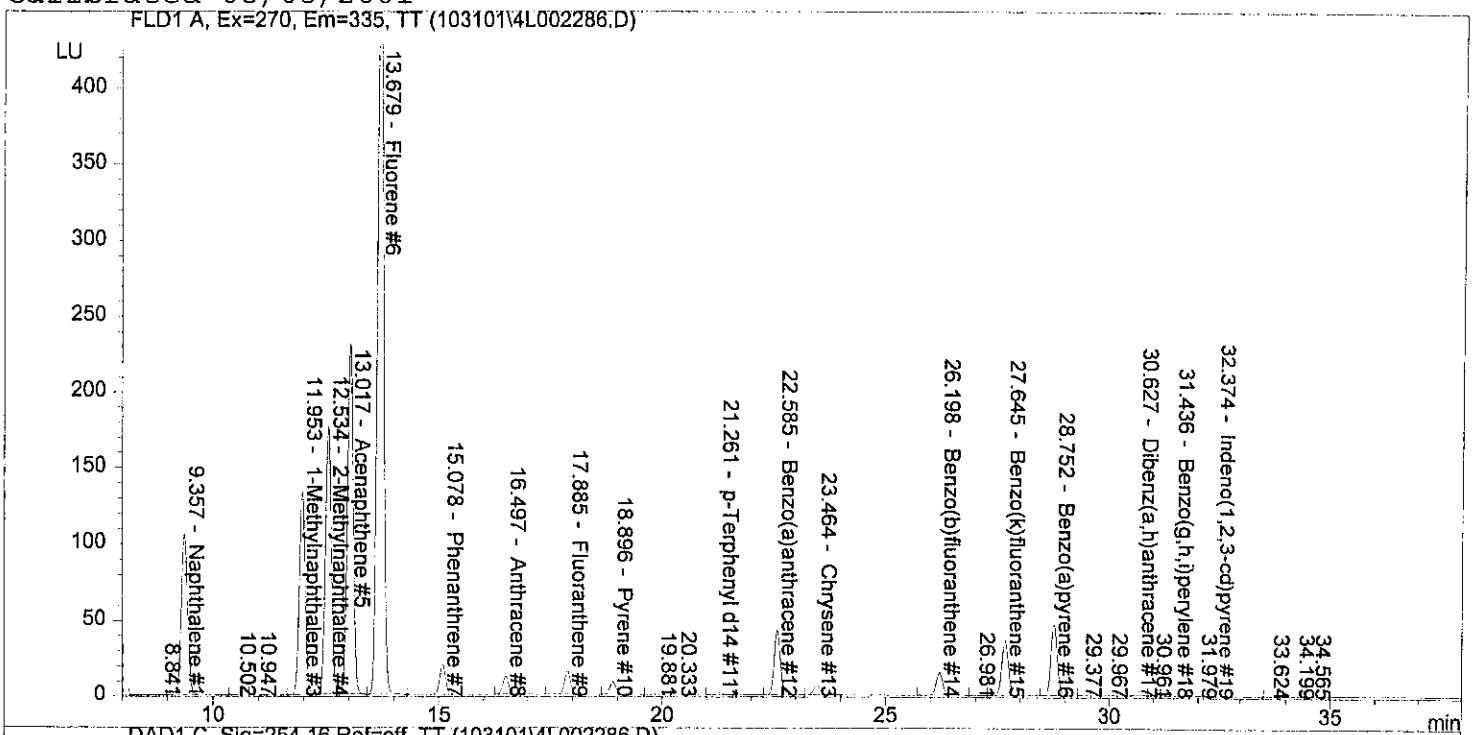
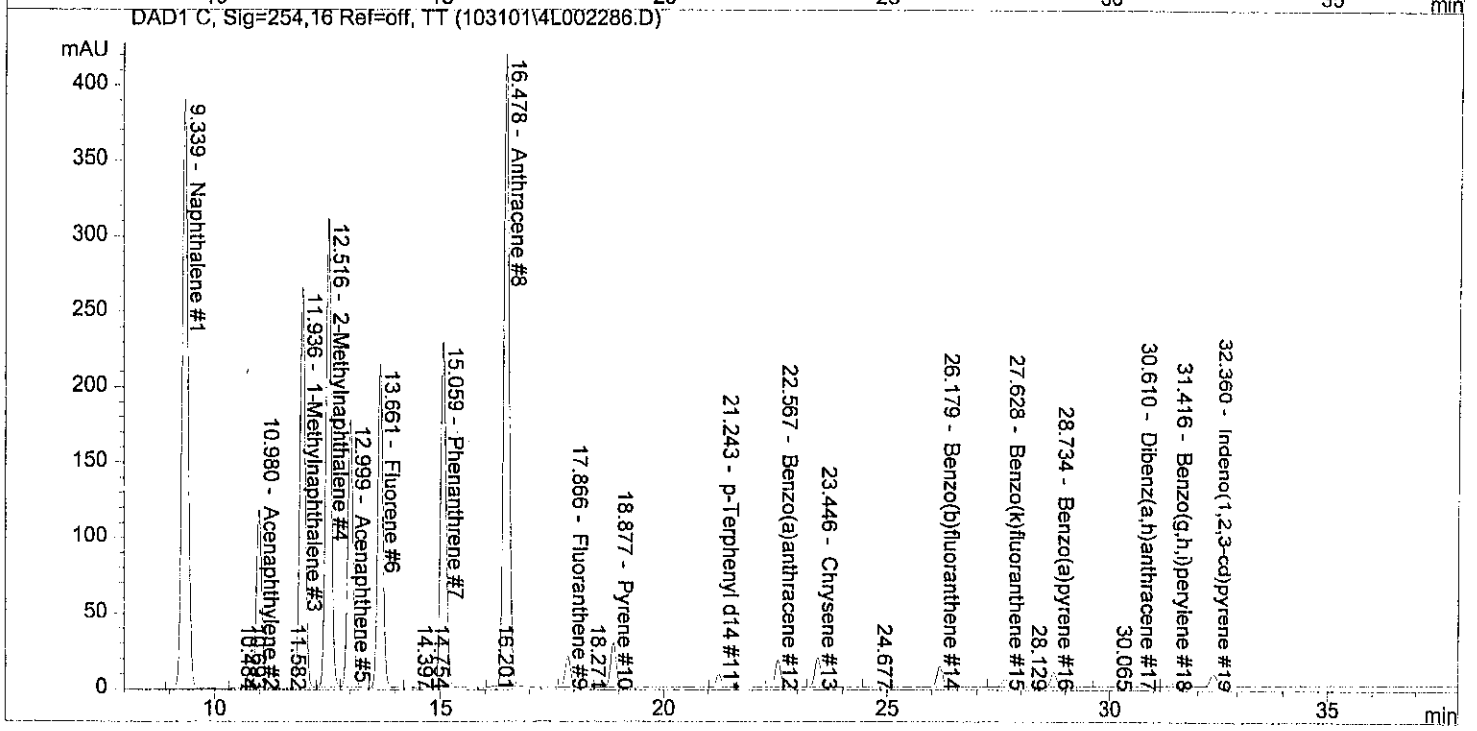
Injection Date : 10/31/2001 8:37:17 PM
Sample Name : WG107228-03 WLCS
Acq. Operator : RDC

Seq. Line : 11
Vial : 11
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/31/2001 9:15:44 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

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Sorted By : Signal
Calib. Data Modified : Wednesday, October 31, 2001 9:15:43 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.357	BBA	1007.53656	2.52962e-2	25.48684		Naphthalene #1
11.953	BB	1227.79150	2.21330e-2	27.17465		1-Methylnaphthalene #3
12.534	BB	1610.16040	1.70635e-2	27.47496		2-Methylnaphthalene #4
13.017	BB	2119.09912	1.38416e-2	29.33165		Acenaphthene #5
13.679	BB	4798.20264	6.62187e-3	31.77306		Fluorene #6
15.078	BBA	189.32132	1.63652e-1	30.98286		Phenanthrene #7
16.497	BB	115.89783	3.10196e-1	35.95108		Anthracene #8
17.885	BBA	155.97951	2.32678e-2	3.62931		Fluoranthene #9
18.896	BBA	86.93459	3.86587e-2	3.36078		Pyrene #10
21.261	PB	16.90636	2.97423e-1	5.02834		p-Terphenyl d14 #11*
22.585	BB	422.86145	7.91256e-3	3.34592		Benzo(a)anthracene #12
23.464	BB	67.09235	3.90495e-2	2.61993		Chrysene #13
26.198	PB	159.34695	1.63222e-2	2.60089		Benzo(b)fluoranthene #14
27.645	BB	375.68646	2.76572e-3	1.03904		Benzo(k)fluoranthene #15
28.752	BB	479.16983	4.57119e-3	2.19038		Benzo(a)pyrene #16
30.627	BB	33.31125	3.93496e-2	1.31078		Dibenz(a,h)anthracene #17
31.436	BB	47.47364	2.65165e-2	1.25883		Benzo(g,h,i)perylene #18
32.374	BBA	122.16908	1.38204e-2	1.68843		Indeno(1,2,3-cd)pyrene #1

Totals : 236.24772

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.339	BBA	3415.72998	8.25405e-3	28.19361		Naphthalene #1
10.980	BB	993.55316	2.96975e-2	29.50606		Acenaphthylene #2
11.936	BB	2219.55737	1.29459e-2	28.73407		1-Methylnaphthalene #3
12.516	BB	2591.00513	1.12393e-2	29.12102		2-Methylnaphthalene #4
12.999	BB	1476.77686	2.03163e-2	30.00271		Acenaphthene #5
13.661	BB	1763.69678	1.75240e-2	30.90703		Fluorene #6
15.059	BBA	1898.76575	1.72982e-2	32.84531		Phenanthrene #7
16.478	BBA	3529.43286	1.04262e-2	36.79852		Anthracene #8
17.866	PB	174.42249	2.17006e-2	3.78507		Fluoranthene #9
18.877	BBA	263.61865	1.43052e-2	3.77113		Pyrene #10
21.243	BBA	77.36278	6.56733e-2	5.08067		p-Terphenyl d14 #11*
22.567	PBA	159.52606	2.22694e-2	3.55255		Benzo(a)anthracene #12
23.446	BBA	184.14951	1.51453e-2	2.78900		Chrysene #13
26.179	BBA	129.51476	2.07330e-2	2.68523		Benzo(b)fluoranthene #14
27.628	BB	47.10556	2.25837e-2	1.06382		Benzo(k)fluoranthene #15
28.734	BBA	89.51636	2.61680e-2	2.34247		Benzo(a)pyrene #16
30.610	BB	17.24856	9.41116e-2	1.62329		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.416	BB	25.36116	5.60829e-2	1.42233		Benzo(g,h,i)perylene #18
32.360	BBA	83.80334	2.05608e-2	1.72306		Indeno(1,2,3-cd)pyrene #1

Totals : 275.94693

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

Analysis Date/Time Aug 8, 2001 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 080801
Analyst Initials RDC SOP # HPLC01 Rev. # 2 ✓ 8310 SOP # HPLC02 Rev. # 0 ____ 8330

Filename	Sample ID	Dilution Factor	Soln #	Re-analysis (if applicable)	Status
4L001205	ACCN Blank	NA			✓
06	8310 CCV		SV53-25	/ 54-35	RR
07	V169995 BLK				RR
08	↓ LCS				RR
09	8310 CCV		SV53-25	/ 54-35	CC
10	↓ re-make		↓		CC
11	ESS 38-23 e/26 spike				✓
12	8310 SUR 6/100		SV54-35		✓
13	8310 STD 6/100		SV53-25		✓
14	5/50		SV54-35	/ 53-25	✓
15	4/20				✓
16	3/10				✓
17	2/5				✓
18	1/1				✓
19	8310 ALT @ LVL 4	✓	SV53-27	/ SOSS5-29	✓

RDC 8/10/01

Reviewed By: [signature]

Status:
✓ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR# = Rerun at a specified dilution
* = See comments on opposite page
IS or SS = Interference with internal and/or surrogate standards
MT = Missed Tune, beyond method tuning requirements
RE = Re-extraction analysis required
SMI = Sample matrix interference
CC = Continuing calibration failed
CF = Confirmation required

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

ysis Date/Time Aug. 7, 2001 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 080801

ily Check
Mobile phase reservoir
System pressure 113 bar
Waste container

eturned to Control?
s ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

4L001806 – No result file contents / null

8310 CCV – failing low for p-terphenyl-d14

Reviewed By: mk 8/8/01

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	AcCN blank	8310	1	Sample		
2	2	WG107115-01 CCV	8310	1	Sample		
3	3	WG106942-02 WBLK	8310	1	Sample		
4	4	WG106942-03 WLCS	8310	1	Sample		
5	5	WG107031-02 WBLK	8310	1	Sample		
6	6	WG107031-03 WLCS	8310	1	Sample		
7	7	L0110464-01 831W	8310	1	Sample		
8	8	L0110464-02 831W	8310	1	Sample		
9	9	L0110464-03 831W	8310	1	Sample		
10	10	WG106942-01 WREF	8310	1	Sample		
11	11	WG106942-04 WMS	8310	1	Sample		
12	12	WG106942-05 WMSD	8310	1	Sample		
13	13	WG107115-02 CCV	8310	1	Sample		
14	14	L0110464-07 831W	8310	1	Sample		
15	15	L0110464-08 831W	8310	1	Sample		
16	16	L0110464-09 831W	8310	1	Sample		
17	17	L0110465-01 831W	8310	1	Sample		
18	18	L0110485-01 831W	8310	1	Sample		
19	19	L0110485-02 831W	8310	1	Sample		
20	20	L0110485-03 831W	8310	1	Sample		
21	21	WG107031-01 WREF	8310	1	Sample		
22	22	WG107031-04 WMS	8310	1	Sample		
23	23	WG107031-05 WMSD	8310	1	Sample		
24	24	WG107115-03 CCV	8310	1	Sample		
25	25	L0110485-07 831W	8310	1	Sample		
26	26	L0110485-08 831W	8310	1	Sample		
27	27	L0110485-09 831W	8310	1	Sample		
28	28	WG107115-04 CCV	8310	1	Sample		

105 bar

No	1	1	8310	4L002207	01:01		AcCN blank
No	2	2	8310	4L002208	02:01	30S56-19/56-20	WG107115-01 CC
No	3	3	8310	4L002209	03:01		WG106942-02 WB
No	4	4	8310	4L002210	04:01		WG106942-03 WL
No	5	5	8310	4L002211	05:01		WG107031-02 WB
No	6	6	8310	4L002212	06:01		WG107031-03 WL
No	7	7	8310	RE 4L002213	07:01		L0110464-01 83
No	8	8	8310	RE 4L002214	08:01		L0110464-02 83
No	9	9	8310	4L002215	09:01		L0110464-03 83
No	10	10	8310	4L002216	10:01		WG106942-01 WR
No	11	11	8310	4L002217	11:01		WG106942-04 WM
No	12	12	8310	4L002218	12:01		WG106942-05 WM
No	13	13	8310	4L002219	13:01	50S56-19/56-20	WG107115-02 CC
No	14	14	8310	RR 4L002220	14:01		L0110464-07 83
No	15	15	8310	RC, RE 4L002221	15:01		L0110464-08 83
No	16	16	8310	4L002222	16:01		L0110464-09 83
No	17	17	8310	4L002223	17:01		L0110465-01 83
No	18	18	8310	4L002224	18:01		L0110485-01 83
No	19	19	8310	4L002225	19:01		L0110485-02 83
No	20	20	8310	4L002226	20:01		L0110485-03 83
No	21	21	8310	4L002227	21:01		WG107031-01 WR
No	22	22	8310	4L002228	22:01		WG107031-04 WM
No	23	23	8310	4L002229	23:01		WG107031-05 WM
No	24	24	8310	4L002230	24:01	30S56-19/56-20	WG107115-03 CC
No	25	25	8310	RE 4L002231	25:01		L0110485-07 83
No	26	26	8310	RE 4L002232	26:01		L0110485-08 83
No	27	27	8310	4L002233	27:01		L0110485-09 83
Yes	28	28	8310	4L002234	28:01	51S56-19/56-20	WG107115-04 CC

RVC 10/29/01
rd. 10/29/01

407

Analysis Date/Time Oct. 25, 2001 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 102501
Analyst Initials RCC SOP # HPLC01 Rev. # 02 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 105 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: ____

Action Taken: ____

Comments

Sent for re-ext. due to surr recovery < LCL:

L0110464-01, -02, -08
L0110485-07, -08

CCV { 46002219, 46002230, 46002234 } %D was ~~<15%~~ >15% low for benzo(g,h,i)perylene by FLD
[There were no hits of this analyte to confirm.

Requires confirmation of acenaphthylene L0110464-07, 08

L0110485-04, 05MS, 06MSD all recovered surr. < LCL — not sent for re-ext, confirms SMI

V17481 LCS recovered high for 5 analytes - samples had no hits

Reviewed By: [illegible]

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	AcCN blank	8310	1	Sample		
2	2	WG107371-01 CCV	8310	1	Sample ✓		
3	3	WG107261-01 SBLK	8310	1	Sample		
4	4	WG107261-02 SLCS	8310	1	Sample ✓		
5	5	WG107261-03 SLCS	8310	1	Sample ✓		
6	6	WG107327-01 WBLK	8310	1	Sample ✓		
7	7	WG107327-02 WLCS	8310	1	Sample ✓		
8	8	WG107327-03 WLCS	8310	1	Sample ✓		
9	9	WG107228-01 WBLK	8310	1	Sample ✓		
10	10	WG107228-02 WLCS	8310	1	Sample ✓		
11	11	WG107228-03 WLCS	8310	1	Sample ✓		
12	12	L0110521-02 831S	8310	1	Sample ✓		
13	13	WG107371-02 CCV	8310	1	Sample ✓		
14	14	L0110521-01 831S	8310	1	Sample ✓	high surr. /SMI	
15	15	L0110464-01 REEX	8310	1	Sample ✓	acceptable surrogate rec.	
16	16	L0110464-02 REEX	8310	1	Sample ✓	low surr. rec. confirmed	
17	17	L0110464-08 REEX	8310	1	Sample ✓	acceptable surrogate rec.	
18	18	L0110485-07 REEX	8310	1	Sample ✓	acceptable surr. rec.	
19	19	L0110485-08 REEX	8310	1	Sample ✓	low surr. rec. conf.	
20	20	L0110522-01 REEX	8310	1	Sample ✓	low surr. rec. confirmed	
21	21	L0110613-01 831W	8310	1	Sample ✓		
22	22	L0110613-02 831W	8310	1	Sample ✓		
23	23	L0110613-03 831W	8310	1	Sample ✓		
24	24	WG107371-03 CCV	8310	1	Sample ✓		
25	25	L0110613-04 831W	8310	1	Sample ✓		
26	26	L0110614-01 831W	8310	1	Sample RE	SURR. REC. <LCL	
27	27	L0110522-01 RE10	8310	1	Sample ✓		
28	28	WG107387-01 WBLK	8310	1	Sample ✓		
29	29	WG107387-02 WLCS	8310	1	Sample ✓		
30	30	WG107387-03 WLCS	8310	1	Sample ✓		
31	31	L0110562-03 REEX	8310	1	Sample ✓		
32	32	L0110562-06 REEX	8310	1	Sample ✓		
33	33	L0110562-07 REEX	8310	1	Sample ✓		
34	34	WG107371-04 CCV	8310	1	Sample ✓		

RDL 11/2/01

No	1	1	8310	4L002276	01:01		AcCN blank
No	2	2	8310	4L002277	02:01	SOS 56-19/56-20	WG107371-01 CC
No	3	3	8310	4L002278	03:01		WG107261-01 SB
No	4	4	8310	4L002279	04:01		WG107261-02 SL
No	5	5	8310	4L002280	05:01		WG107261-03 SL
No	6	6	8310	4L002281	06:01		WG107327-01 WB
No	7	7	8310	4L002282	07:01		WG107327-02 WL
No	8	8	8310	4L002283	08:01		WG107327-03 WL
No	9	9	8310	4L002284	09:01		WG107228-01 WB
No	10	10	8310	4L002285	10:01		WG107228-02 WL
No	11	11	8310	4L002286	11:01		WG107228-03 WL
No	12	12	8310	4L002287	12:01		L0110521-02 83
No	13	13	8310	4L002288	13:01	SOS 56-19/56-20	WG107371-02 CC
No	14	14	8310	4L002289	14:01		L0110521-01 83
No	15	15	8310	4L002290	15:01		L0110464-01 RE
No	16	16	8310	4L002291	16:01		L0110464-02 RE
No	17	17	8310	4L002292	17:01		L0110464-08 RE
No	18	18	8310	4L002293	18:01		L0110485-07 RE
No	19	19	8310	4L002294	19:01		L0110485-08 RE
No	20	20	8310	4L002295	20:01		L0110522-01 RE
No	21	21	8310	4L002296	21:01		L0110613-01 83
No	22	22	8310	4L002297	22:01		L0110613-02 83
No	23	23	8310	4L002298	23:01		L0110613-03 83
No	24	24	8310	4L002299	24:01	SOS 56-19/56-20	WG107371-03 CC
No	25	25	8310	4L002300	25:01		L0110613-04 83
No	26	26	8310	4L002301	26:01		L0110614-01 83
No	27	27	8310	4L002302	27:01		L0110522-01 RE
No	28	28	8310	4L002303	28:01		WG107387-01 WB
No	29	29	8310	4L002304	29:01		WG107387-02 WL
No	30	30	8310	4L002305	30:01		WG107387-03 WL
No	31	31	8310	4L002306	31:01		L0110562-03 RE
No	32	32	8310	4L002307	32:01		L0110562-06 RE
No	33	33	8310	4L002308	33:01		L0110562-07 RE
No	34	34	8310	4L002309	34:01	SOS 56-19/56-20	WG107371-04 CC

RHC 11/07/01
mde 11/2/01

Analysis Date/Time Oct. 31, 2001 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 103101
Analyst Initials [illegible] SOP # HPLC01 Rev. # 02 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check

- ☑ Mobile phase reservoir
- ☑ System pressure 107 bar
- ☑ Waste container

Returned to Control?

Yes ____ No ____

Additional Maintenance

Problem: ____

Action Taken: ____

Comments

L0110464-01 Re surr Acceptable
-02 low surr
-03 surr Acceptable
L0110485-07
-08 low surr.
L0110522-01
L0110562-03
-06 acceptable surr.
-07

L0110614-01 QNS for re-ext.

Reviewed By: [illegible] 11/2/01

Parameter: 8310-H_2O SOP #: EXHPLC1 Revision #: 6
Extraction Analyst(s): JAQ, CSH TV/KD Analyst(s): JAQ
Date/Time Extracted: 10/24/01 @ 16:00 Date TV/KD: 10/24/01
Spike/Surrogate Analyst: JAQ Witness: CSH
Surrogate #: ESS 00 38-39 Earliest Hold Date: 10/30/01
Spike #: A = ESS 00 39-01 Spike #: B = —

Extraction Work Group WG 107031
Analytical Work Group WG 107068
Extract Relinquished By:
Extract Received By & Date: 10/25/01

	Sample ID	Test Code	pH / <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions / A	BN	N	Comments
1	Blank			✓		1L	100ul		1ml	T				WG 107031-02
2	LCS			✓		⊥		500ul		C				WG ⊥ -03
3	10-485-01	8310		✓		860ml				T				
4	-02			✓		960								
5	-03			✓		900								
6	-04			✓		900				C				WG 107031-01
7	-05MS			✓		960		500ul						⊥ -03
8	-06MSD			✓		940		⊥		⊥				⊥ -04
9	-07			✓		920				C				
10	-08			✓		860				C				
11	-09			✓		880				⊥				
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

10/24/01 JAQ

Methylene Chloride Lot #: 41109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetonitrile Lot #: V18801
Reagent: Fortified Lot #: ER1954
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3664A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 10/25/01

Extraction Notes For Volume # 174 Page # 115

General Comments: * MS and MSD of 10-485-04

Extraction Anomalies: nothing to report

Concentration Anomalies: nothing to report

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

Parameter: 8310-HPLC SOP #: EXHPLC1 Revision #: 6
Extraction Analyst(s): JAR DP TV/KD Analyst(s): JAR
Date/Time Extracted: 10/25/01 10:00 Date TV/KD: 10/29/01
Spike/Surrogate Analyst: JAR Witness: DP
Surrogate #: ESSX0338 39 Earliest Hold Date: 10/29
Spike #: A = ESSX0337-01 Spike #: B = —

Extraction Work Group WG 107228
Analytical Work Group WG 107449
Extract Relinquished By: JAR
Extract Received By & Date: TRC 10/29/01

	Sample ID	Test Code	pH ✓ <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions ✓ A	BN	N	Comments
1	Blank			✓		1L	100ml		1ml	T			-	WG 107228-01
2	LCS			✓				50ml		C				WG 107228-02
3	LCSDUP			✓										WG 107228-03
4	10-464-01	8310		✓		950ml								
5	1 08			✓		965ml								
6	10-465-07			✓		940ml				T				
7	1 08			✓		890ml								
8	10-464-02	8310		✓		965ml	100ml		1ml	T				
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

10/29/01 JAR

Methylene Chloride Lot #: 41109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetonitrile Lot #: V13801
Reagent: Florisil Lot #: ER 1963
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER 1971

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3664A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 10/29/01

Extraction Notes For Volume # 174 Page # 141

General Comments: Re ext w/in hold

Extraction Anomalies: nothing to report

Concentration Anomalies: nothing to report

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

2.4 General Chemistry Data

2.4.5 Anions (9056)

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L010485

METHOD

Analysis: SW-846 9056

HOLDING TIMES

Sample Analysis:
All acceptance criteria were met.

PREPARATION
Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration: A large amount of SO4 in the initial samples starting the analysis interrupted the efficacy of the curve. After recalibration, PO4-P continued to fail on the check standards. Although no PO4 was found in the original samples, after system equilibration, they were re-analyzed out of hold for comparison using a working curve and check standards.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Samples: All acceptance criteria were met.

Matrix Spikes: Sample fraction -05 and -06 were chosen externally for the MS/MSD of sample -04, yielding % recoveries which were below the advisory limits. The MS/MSD outliers were found to be acceptable in the associated LCS. All acceptance criteria were met.

SAMPLES: Samples were re-analyzed at a dilution in order to maintain the analyses within the range of calibration. All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: GSG REVIEWED: [signature] DATE: 11/6/01

Rev. 7/14/00

Figure 1
IC

Date: 10/24/01
Analyst: BSE
Method: 9056
Instrument: IC2
Work Group: WG 107000

485

	Analyst
System Performance Check	✓
Initial Calibration	✓
Average RF	
Linear Reg or Higher Order Curve	✓
Second Source Standard % Difference	✓
Check Standards	✓
Project / Client Specific Requirements	
Special Standards	
Blanks	✓
TCL's	
Surrogates	
LCS (Laboratory Control Sample)	✓
Recoveries	
Surrogates	
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	
Surrogates	
Calculations & Correct Factors	
Dilutions Run	✓
Reruns	✓
Check Sample Histories	
Ending Check Standards	✓
Excel Spreadsheets	✓
Case Narrative	✓
Corrective Action	
Results Reporting / Data Qualifiers	
WorkGroups Traceability	
Client Data Package Assembly	
Check for Completeness	✓

Primary Reviewer Initials & Date Checked BSE 10/24/01

Secondary Reviewer Initials & Date Checked [illegible] 11/1/01

- Check for compliance with Method and project-specific requirements
- Check the completeness of the reported information
- Check the information for the report narrative
- Check the reasonableness of results

Supervisory Review Initials & Date Checked [illegible] 11/1/01

Comments:

NA - Not Applicable

DL - Diluted Out

✓ - Checked & OK

No Poly-P found in SXS.

Poly-P failed on check STDs after initial SXS. First CCV, okay.
Lg amt. of Sol'y destroyed curve.

Figure 1
IC

Date: 10-25-01
Analyst: RSG
Method: 9056
Instrument: IC 2
Work Group: WG 107114

485 AR 552

	Analyst
System Performance Check	✓
Initial Calibration	✓
Average RF	
Linear Reg or Higher Order Curve	✓
Second Source Standard % Difference	✓
Check Standards	✓
Project / Client Specific Requirements	
Special Standards	
Blanks	✓
TCL's	
Surrogates	
LCS (Laboratory Control Sample)	✓
Recoveries	
Surrogates	
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	
Surrogates	
Calculations & Correct Factors	
Dilutions Run	
Reruns	
Check Sample Histories	
Ending Check Standards	✓
Excel Spreadsheets	✓
Case Narrative	✓
Corrective Action	
Results Reporting / Data Qualifiers	
WorkGroups Traceability	
Client Data Package Assembly	
Check for Completeness	✓

Primary Reviewer Initials & Date Checked
RSG 10/29/01

Secondary Reviewer Initials & Date Checked
SLP 10-31-01

- Check for compliance with Method and project-specific requirements
- Check the completeness of the reported information
- Check the information for the report narrative
- Check the reasonableness of results

Supervisory Review Initials & Date Checked 11/2/01

Comments:

NA - Not Applicable
DL - Diluted Out

R103313

✓ - Checked & OK

Anions (9056)

Login Number: 6110485

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

____ Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data)

✓ Chromatograms and external standard reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and external standard reports (chronological)

____ Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

✓ Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

____ Extraction bench sheets

Checked By: CSB Date: 11/6/01

2.4.5.1 QC Summary

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, Water

Analytical Work Group:	WG107000	**Prep Work Group:**	NA	**Blank Filename:**	IC2_013	**Sample Number:**	L0110485-04
Method:	9056	**Ext Date:**	NA	**LCS Filename:**	IC2_014	**Sample Filename:**	IC2-019
Instrument:	IC2	**Ext Bench Sheet:**	NA	**Sample Number:**	L0110485-01	**MS Filename:**	IC2_020
Analyst:	GSG	**Run Date:**	24-Oct-01	**Sample Filename:**	IC2_015	**MSD Filename:**	IC2_021
				Duplicate Filename:	IC2_016		

	CONCENTRATION, mg/L										% RECOVERY												
Analyte	RDL	Blank	LCS Spike Amount	LCS	Sample	Dup	Sample	MS Spike Amount	MS	MSD	Blank	LCS	LCS LCL	LCS UCL	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL	LCS	MS	MSD
NITRITE-N	0.4	ND	3.66	3.68	NA	NA	NA	3.66	3.93	3.92	ND	100.6	90	110	107	107	80	120	NA	0	20			
NITRATE-N	0.6	ND	4.06	4.07	0.9	0.2	0.21	4.06	4.29	4.27	ND	100.3	90	110	100.5	100.2	80	120	#####	0	20			
PHOSPHATE-P	1	ND	9.78	9.96	NA	NA	NA	9.78	5.69	5.86	ND	101.8	90	110	58	60	80	120	NA	3	20		L	L

NOTES & DEFINITIONS :

NA = NOT APPLICABLE
ND = NOT DETECTED
RDL = REPORTING DETECTION LIMIT
D = DETECTED, RESULT MUST BE GREATER THAN ZERO

H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, Water

Analytical Work Group:	WG107000	**Prep Work Group:**	NA	**Blank Filename:**	IC2_013	**Sample Number:**	L0110485-04
Method:	9056	**Ext Date:**	NA	**LCS Filename:**	IC2_014	**Sample Filename:**	IC2-019
Instrument:	IC2	**Ext Bench Sheet:**	NA	**Sample Number:**	L0110485-01	**MS Filename:**	IC2_020
Analyst:	GSG	**Run Date:**	24-Oct-01	**Sample Filename:**	IC2_015	**MSD Filename:**	IC2_021
				Duplicate Filename:	IC2_016		

	CONCENTRATION, mg/L										% RECOVERY												
Analyte	**RDL**	**Blank**	**LCS Spike Amount**	**LCS**	**Sample**	**Dup**	**Sample**	**MS Spike Amount**	**MS**	**MSD**	**Blank**	**LCS**	**LCS LCL**	**LCS UCL**	**MS**	**MSD**	**MS LCL**	**MS UCL**	**DUP RPD**	**MSD RPD**	**RPD UCL**	**LCS**	**MS**	**MSD**
NITRITE-N	0.4	ND	3.66	3.68	NA	NA	NA	3.66	3.93	3.92	ND	100.6	90	110	107	107	80	120	NA	0	20			
NITRATE-N	0.6	ND	4.06	4.07	0.9	0.2	0.21	4.06	4.29	4.27	ND	100.3	90	110	100.5	100.2	80	120	#####	0	20			
PHOSPHATE-P	1	ND	9.78	9.96	NA	NA	NA	9.78	5.69	5.86	ND	101.8	90	110	58	60	80	120	NA	3	20		L	L

NOTES & DEFINITIONS :

NA = NOT APPLICABLE
ND = NOT DETECTED
RDL = REPORTING DETECTION LIMIT
D = DETECTED, RESULT MUST BE GREATER THAN ZERO

H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, Water

Analytical Work Group:	WG107114	**Prep Work Group:**	NA	**Blank Filename:**	IC2_042	**Sample Number:**	L0110522-06
Method:	9056	**Ext Date:**	NA	**LCS Filename:**	IC2_044	**Sample Filename:**	IC2-062
Instrument:	IC2	**Ext Bench Sheet:**	NA	**Sample Number:**	L0110522-05	**MS Filename:**	IC2_063
Analyst:	GSG	**Run Date:**	25-Oct-01	**Sample Filename:**	IC2_059	**MSD Filename:**	IC2_064
				Duplicate Filename:	IC2_060		

Analyte	CONCENTRATION, mg/L										% RECOVERY												
	RDL	Blank	LCS Spike Amount	LCS	Sample	Dup	Sample	MS Spike Amount	MS	MSD	Blank	LCS	LCS LCL	LCS UCL	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL	LCS	MS	MSD
NITRITE-N	0.4	ND	3.66	3.82	NA	NA	NA	3.66	4.27	4.19	ND	104.3	90	110	117	115	80	120	NA	2	20			
NITRATE-N	0.6	ND	4.06	4.24	0.2	0.2	0.16	4.06	4.58	4.57	ND	104.5	90	110	108.8	108.5	80	120	2.48	0	20			
PHOSPHATE-P	1	ND	9.78	10.48	NA	NA	NA	9.78	10.29	10.34	ND	107.2	90	110	105	106	80	120	NA	1	20			

NOTES & DEFINITIONS :

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RDL = REPORTING DETECTION LIMIT
D = DETECTED. RESULT MUST BE GREATER THAN ZERO

H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, Water

Analytical Work Group:	WG107114	**Prep Work Group:**	NA	**Blank Filename:**	IC2_042	**Sample Number:**	L0110522-06
Method:	9056	**Ext Date:**	NA	**LCS Filename:**	IC2_044	**Sample Filename:**	IC2-062
Instrument:	IC2	**Ext Bench Sheet:**	NA	**Sample Number:**	L0110522-05	**MS Filename:**	IC2_063
Analyst:	GSG	**Run Date:**	25-Oct-01	**Sample Filename:**	IC2_059	**MSD Filename:**	IC2_064
				Duplicate Filename:	IC2_060		

	CONCENTRATION, mg/L										% RECOVERY												
Analyte	**RDL**	**Blank**	**LCS Spike Amount**	**LCS**	**Sample**	**Dup**	**Sample**	**MS Spike Amount**	**MS**	**MSD**	**Blank**	**LCS**	**LCS LCL**	**LCS UCL**	**MS**	**MSD**	**MS LCL**	**MS UCL**	**DUP RPD**	**MSD RPD**	**RPD UCL**	**LCS**	**MS**	**MSD**
NITRITE-N	0.4	ND	3.66	3.82	NA	NA	NA	3.66	4.27	4.19	ND	104.3	90	110	117	115	80	120	NA	2	20			
NITRATE-N	0.6	ND	4.06	4.24	0.2	0.2	0.16	4.06	4.58	4.57	ND	104.5	90	110	108.8	108.5	80	120	2.48	0	20			
PHOSPHATE-P	1	ND	9.78	10.48	NA	NA	NA	9.78	10.29	10.34	ND	107.2	90	110	105	106	80	120	NA	1	20			

NOTES & DEFINITIONS :

NA = NOT APPLICABLE
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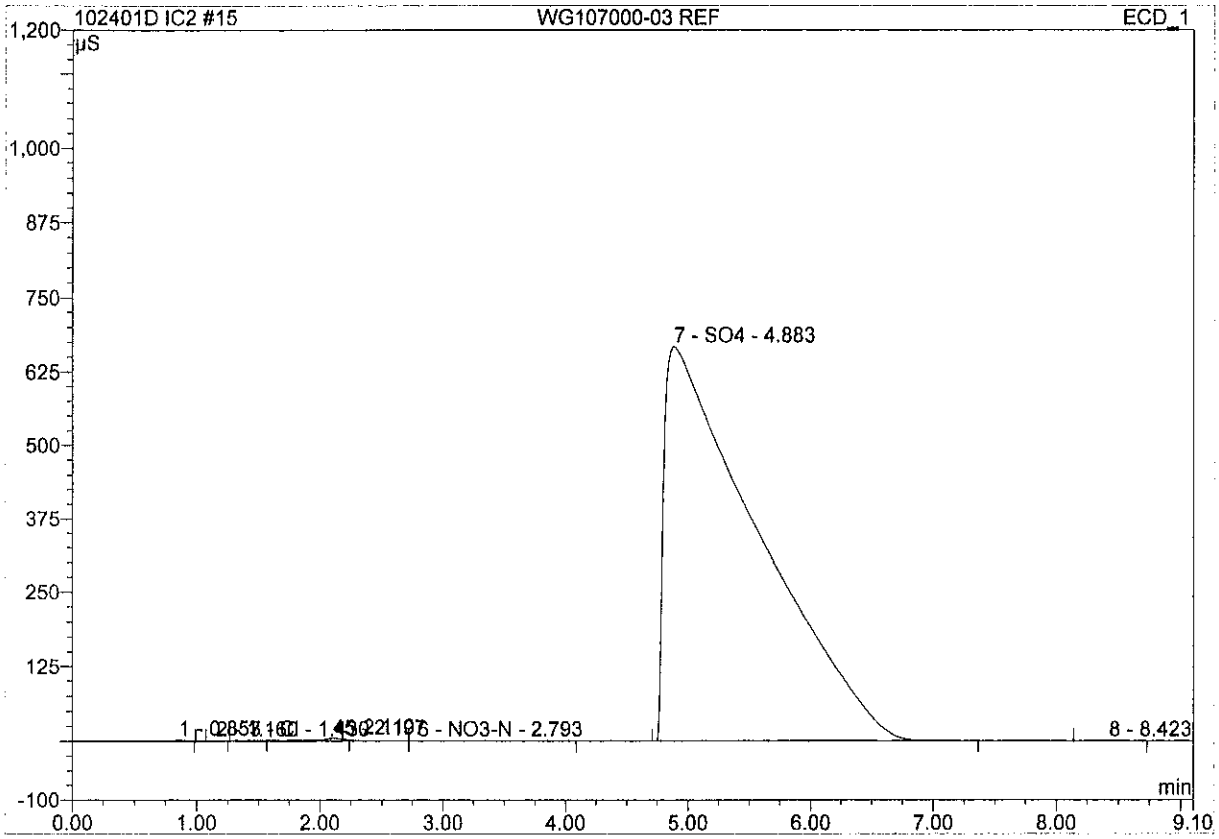
L = BELOW CONTROL LIMIT

2.4.5.2 Sample Data

15 WG107000-03 REF

1,1 GSG L0110485-01 REF

Sample Name:	**WG107000-03 REF**	*Injection Volume:*	**25.0**
Vial Number:	**16**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/24/2001 13:19**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

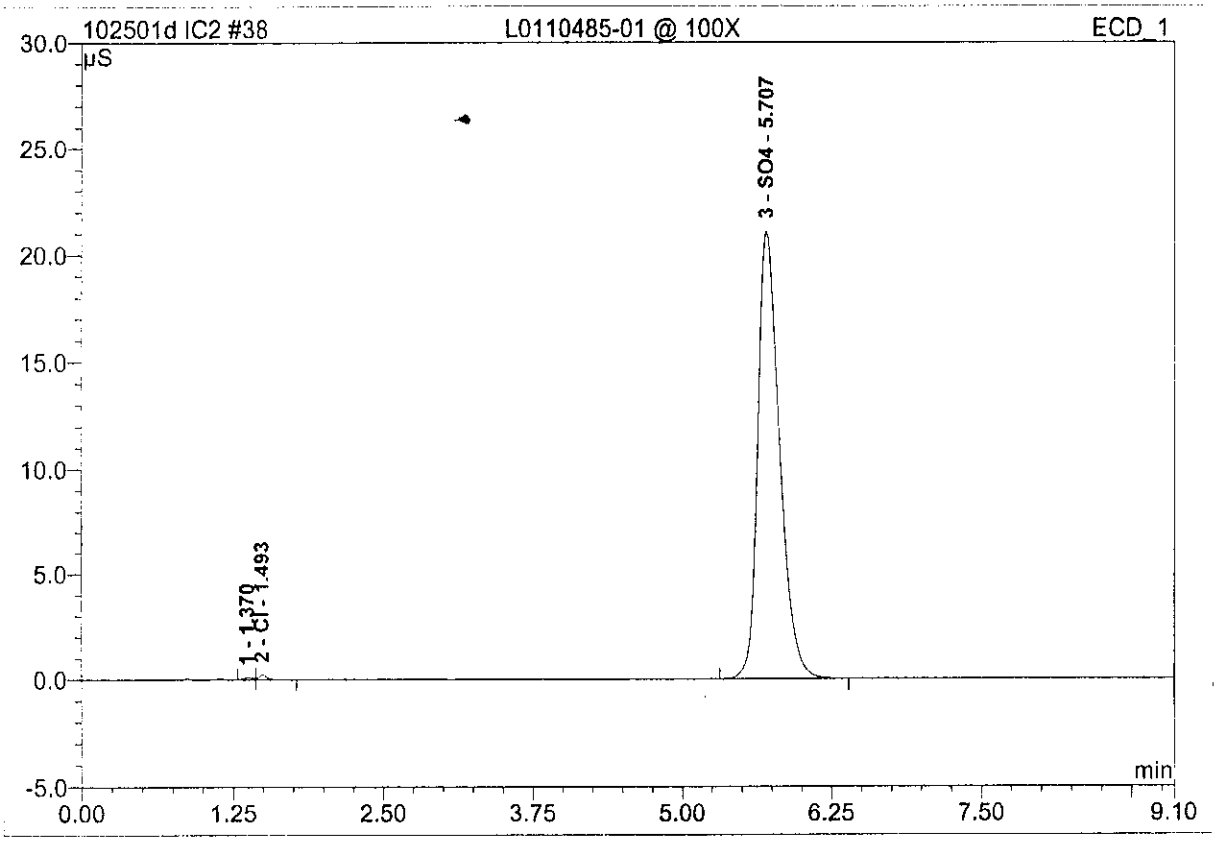


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.86	n.a.	1.808	0.218	0.04	n.a.	BMB
2	1.16	n.a.	0.278	0.023	0.00	n.a.	Ru
3	1.43	Cl	0.376	0.065	0.01	0.771	Ru
4	2.11	n.a.	4.655	2.035	0.35	n.a.	BM
5	2.20	n.a.	0.352	0.012	0.00	n.a.	Rd
6	2.79	NO3-N	0.410	0.192	0.03	0.893	MB
7	4.88	SO4	667.222	586.267	99.57	##########	BMB
8	8.42	n.a.	0.033	0.010	0.00	n.a.	BMB
Total:			675.133	588.822	100.00	##########	

38 L0110485-01 @ 100X

1,100 GSG

Sample Name:	**L0110485-01 @ 100X**	*Injection Volume:*	**25.0**
Vial Number:	**33**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 17:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

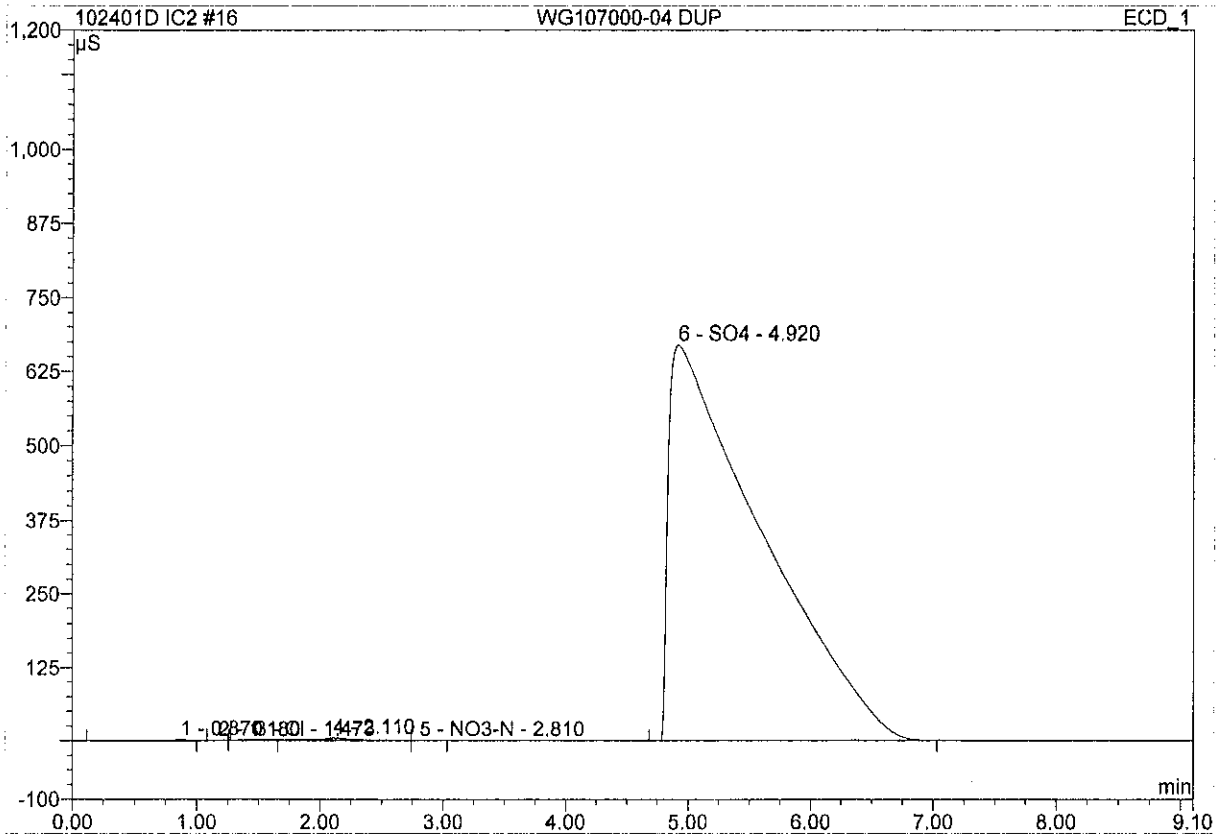


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.37	n.a.	0.110	0.010	0.22	n.a.	BM
2	1.49	Cl	0.232	0.020	0.43	0.350	MB
3	5.71	SO4	21.097	4.473	99.35	59.152	BMB
Total:			21.439	4.502	100.00	59.501	

16 WG107000-04 DUP

1,1 GSG L0110485-01 DUP

Sample Name:	**WG107000-04 DUP**	*Injection Volume:*	**25.0**
Vial Number:	**17**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/24/2001 13:30**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

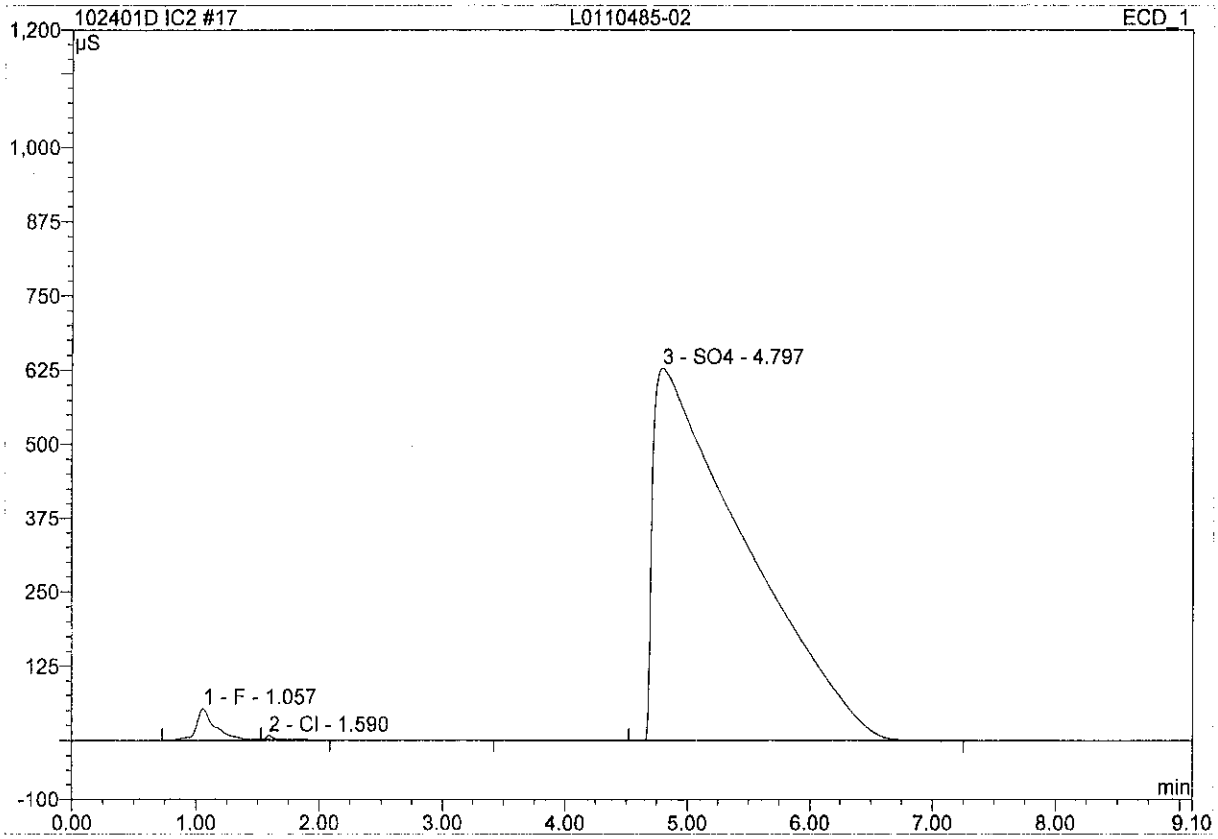


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	1.729	0.182	0.03	n.a.	BMB
2	1.18	n.a.	0.258	0.028	0.00	n.a.	BM
3	1.47	Cl	0.480	0.101	0.02	1.138	Ru
4	2.11	n.a.	4.248	1.467	0.25	n.a.	M
5	2.81	NO3-N	0.173	0.021	0.00	0.182	MB
6	4.92	SO4	669.573	586.533	99.69	#########	MB
Total:			676.462	588.332	100.00	#########	

17 L0110485-02

1,1 GSG

Sample Name:	**L0110485-02**	*Injection Volume:*	**25.0**
Vial Number:	**18**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/24/2001 13:42**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

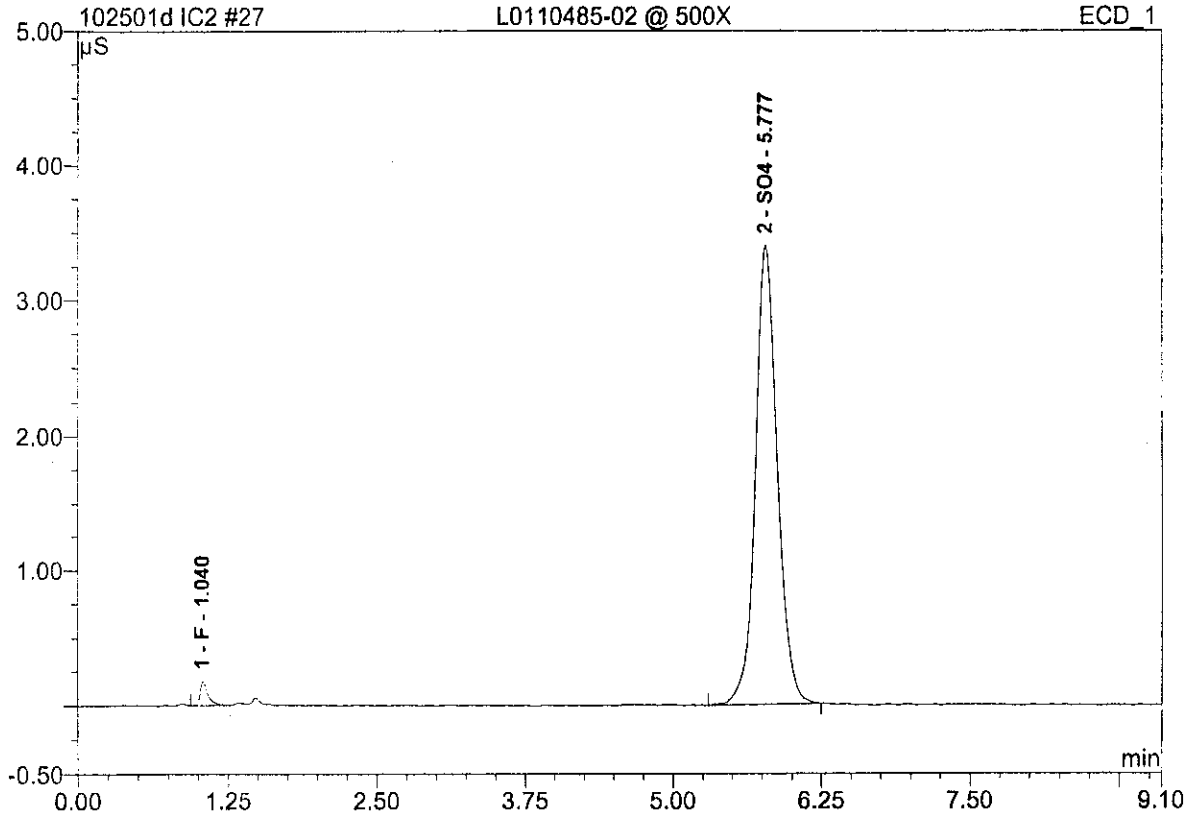


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.06	F	53.324	10.165	1.83	69.493	BMB
2	1.59	Cl	6.580	0.468	0.08	4.929	Rd
3	4.80	SO4	628.375	545.817	98.09	##########	BMB
Total:			688.280	556.451	100.00	##########	

27 L0110485-02 @ 500X

1,500 GSG

Sample Name:	**L0110485-02 @ 500X**	*Injection Volume:*	**25.0**
Vial Number:	**19**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 14:58**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

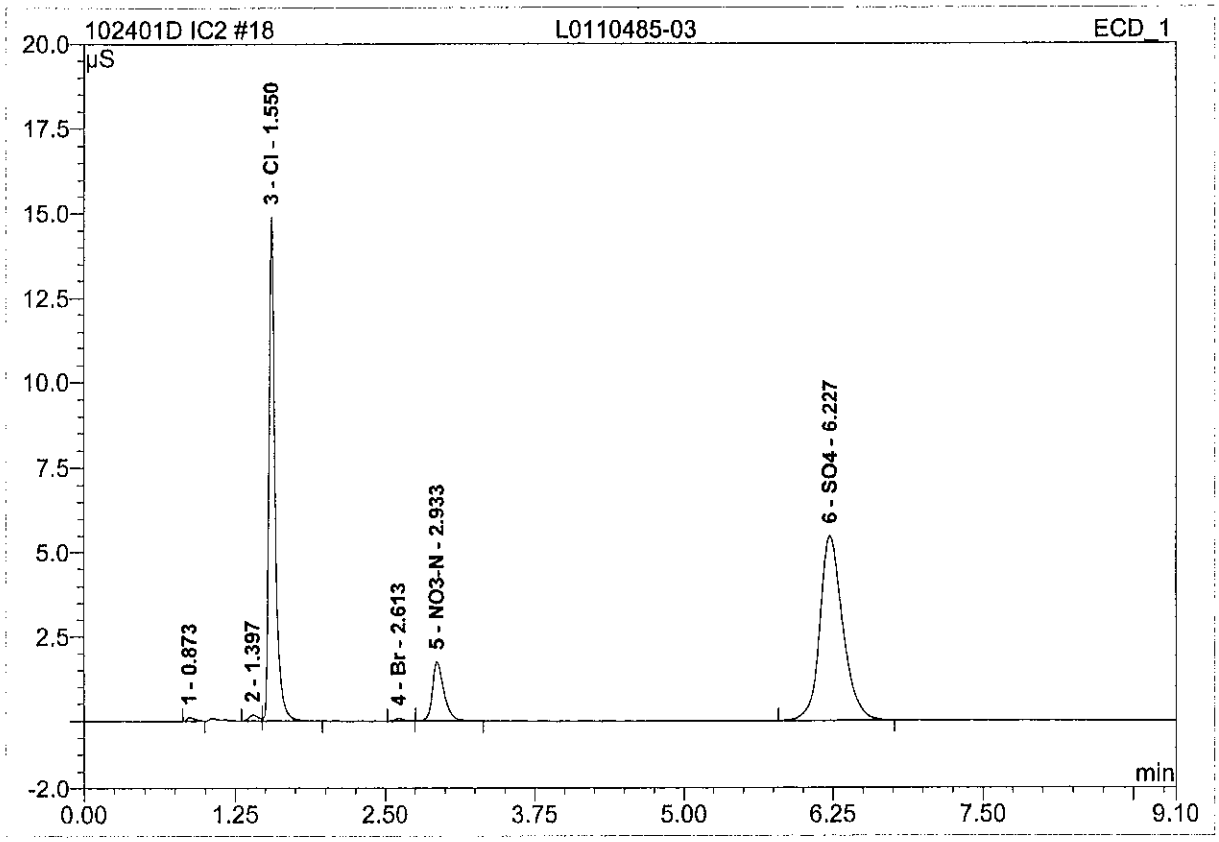


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.04	F	0.174	0.013	1.77	0.259	BMB
2	5.78	SO4	3.389	0.725	98.23	10.278	BMB
Total:			3.563	0.738	100.00	10.537	

18 L0110485-03

1,1 GSG

Sample Name:	**L0110485-03**	*Injection Volume:*	**25.0**
Vial Number:	**19**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/24/2001 13:53**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

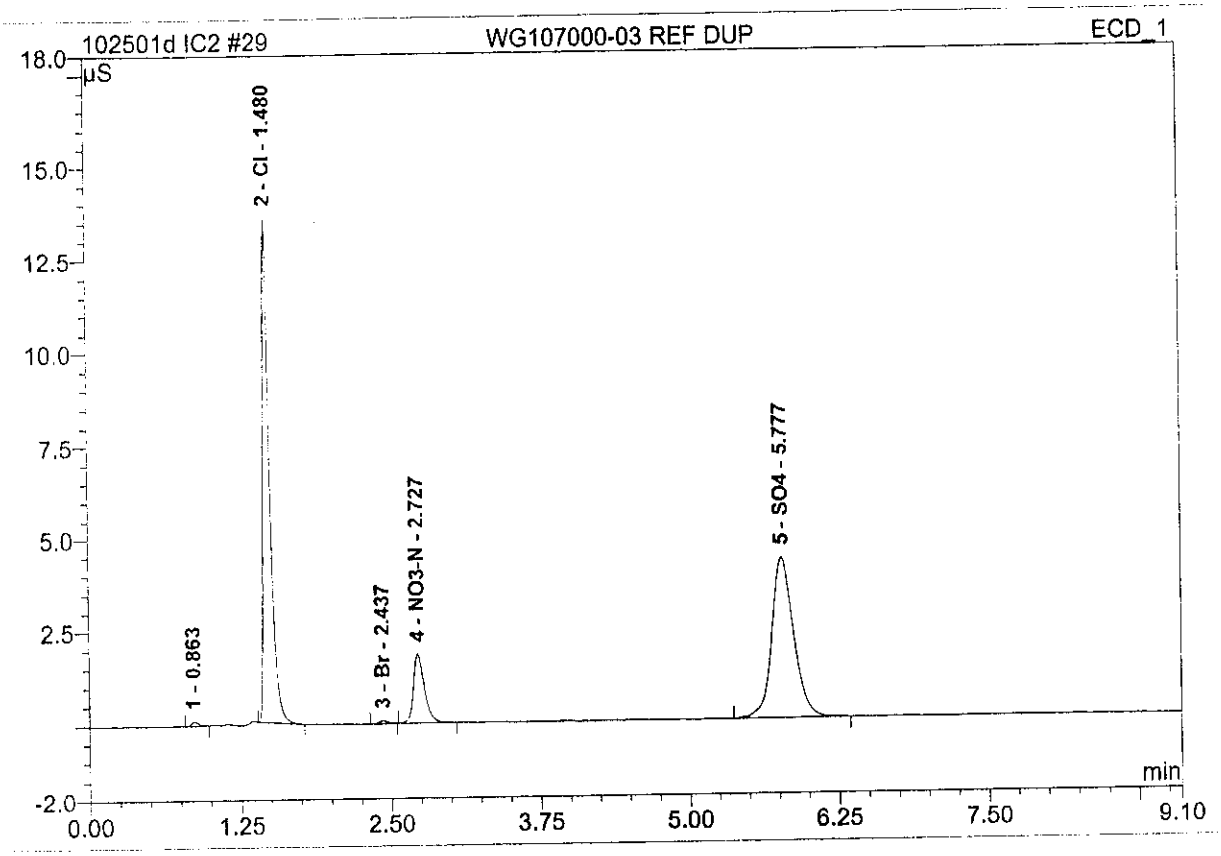


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.097	0.008	0.34	n.a.	BMB
2	1.40	n.a.	0.166	0.015	0.66	n.a.	BM
3	1.55	Cl	14.898	0.888	38.02	9.263	MB
4	2.61	Br	0.067	0.006	0.24	0.179	BMB
5	2.93	NO3-N	1.739	0.193	8.25	0.895	BMB
6	6.23	SO4	5.474	1.227	52.48	17.771	BMB
Total:			22.442	2.337	100.00	28.108	

29 WG107000-03 REF DUP

1,1 GSG L0110485-03 RR REF DUP

Sample Name:	**WG107000-03 REF DUP**	*Injection Volume:*	**25.0**
Vial Number:	**20**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 15:21**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

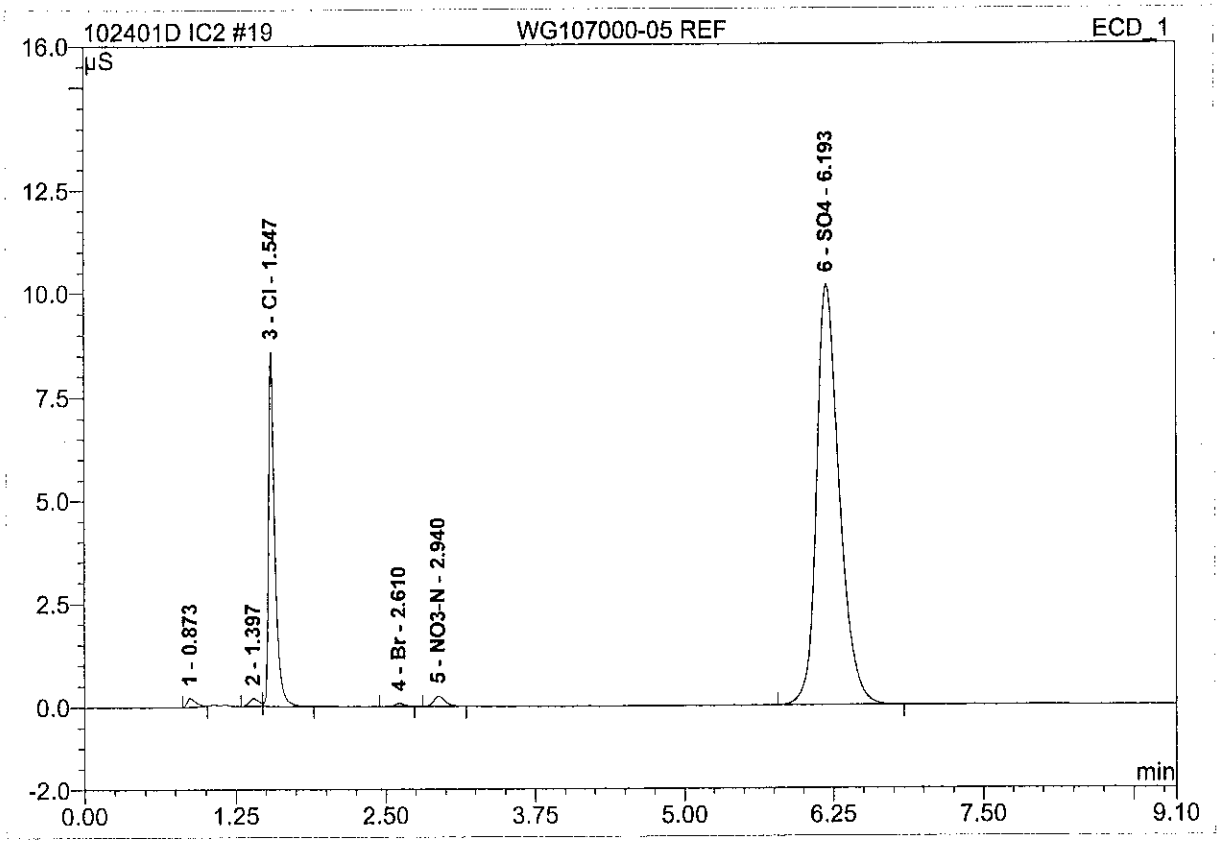


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.86	n.a.	0.110	0.007	0.37	n.a.	BMB
2	1.48	Cl	13.540	0.877	43.92	8.772	BMB
3	2.44	Br	0.070	0.006	0.31	0.212	BMB
4	2.73	NO3-N	1.841	0.194	9.70	0.902	BMB
5	5.78	SO4	4.297	0.913	45.68	12.729	BMB
Total:			19.858	1.998	100.00	22.614	

19 WG107000-05 REF

1,1 GSG L0110485-04 REF

Sample Name:	**WG107000-05 REF**	*Injection Volume:*	**25.0**
Vial Number:	**20**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/24/2001 14:05**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

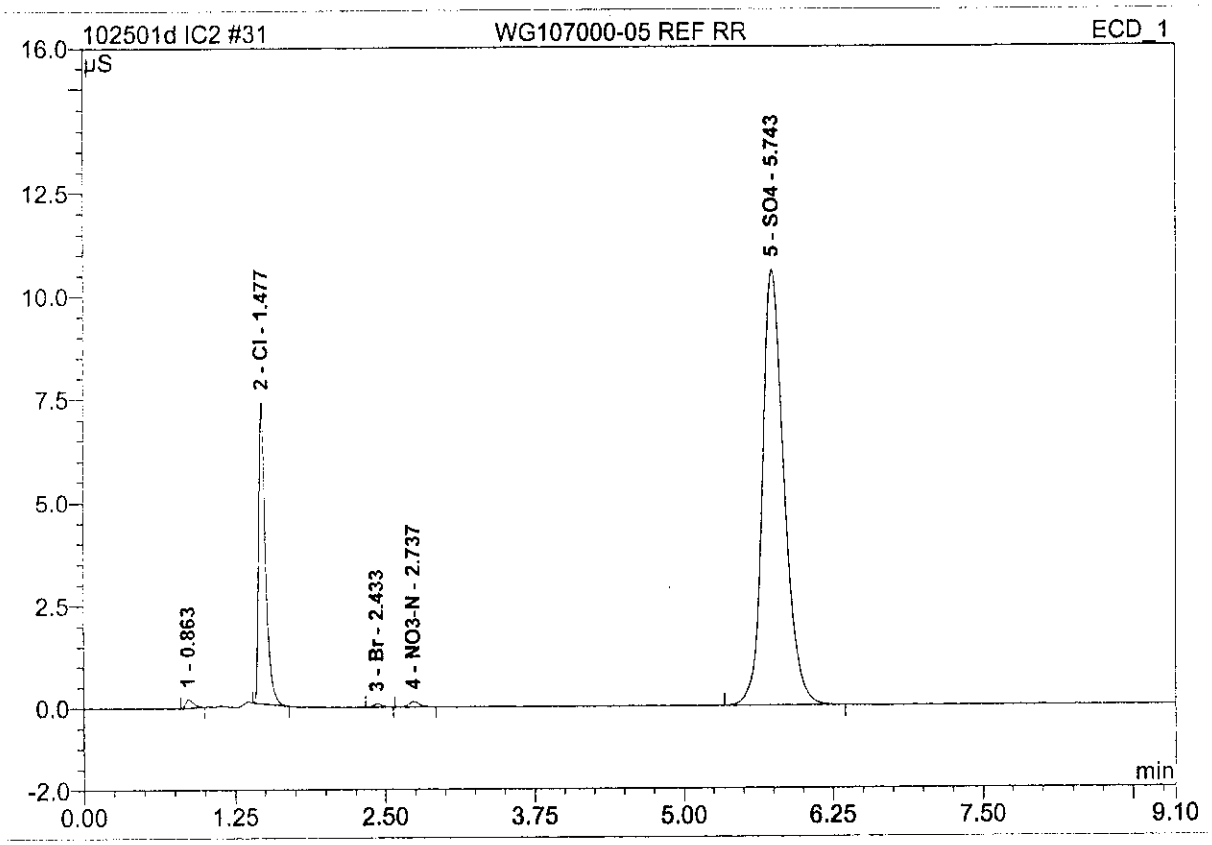


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.211	0.018	0.62	n.a.	BMB
2	1.40	n.a.	0.194	0.018	0.64	n.a.	BM
3	1.55	Cl	8.567	0.516	18.13	5.420	MB
4	2.61	Br	0.071	0.007	0.23	0.204	BMB
5	2.94	NO3-N	0.246	0.027	0.94	0.206	BMB
6	6.19	SO4	10.154	2.259	79.43	32.033	BMB
Total:			19.443	2.845	100.00	37.863	

31 WG107000-05 REF RR

1,1 GSG L0110485-04 REF MS/MSD

Sample Name:	**WG107000-05 REF RR**	*Injection Volume:*	**25.0**
Vial Number:	**21**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 15:45**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

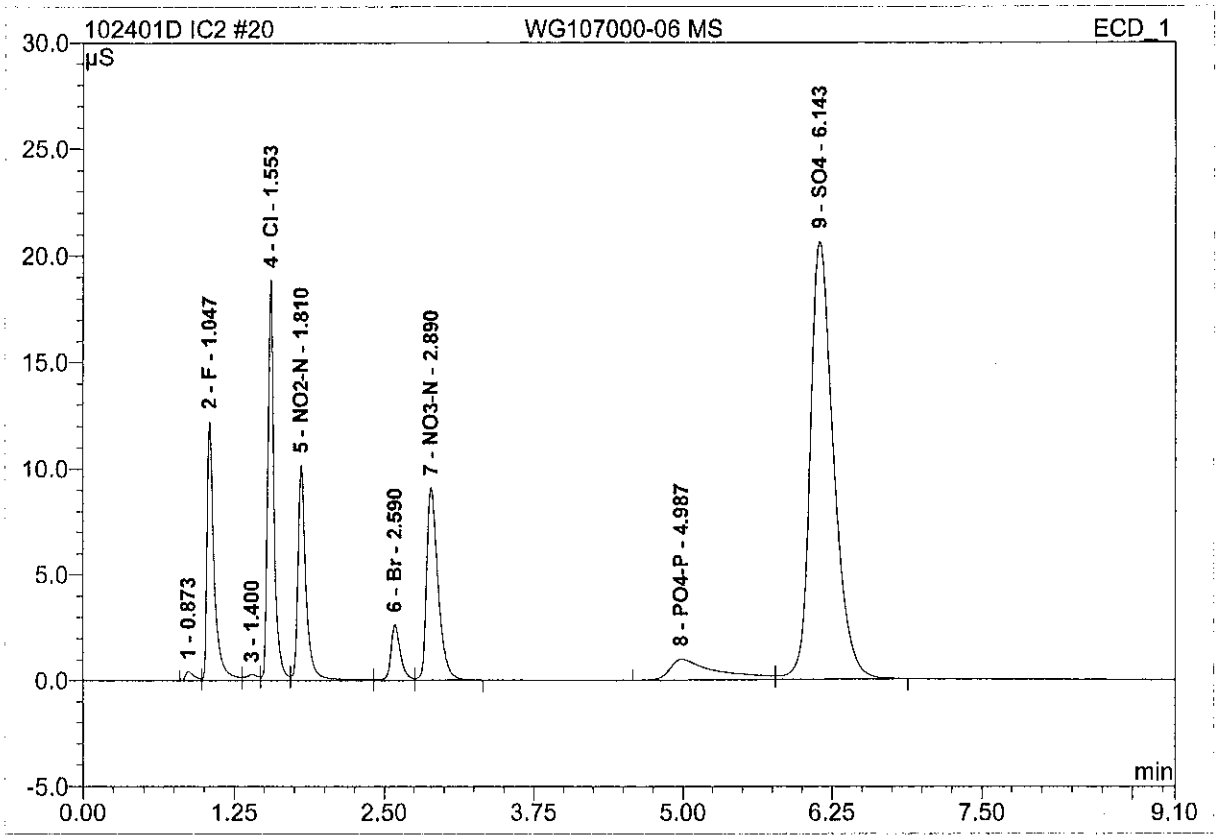


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.86	n.a.	0.207	0.016	0.58	n.a.	BMB
2	1.48	Cl	7.318	0.480	17.58	4.874	BMB
3	2.43	Br	0.076	0.007	0.24	0.221	BMB
4	2.74	NO3-N	0.136	0.014	0.52	0.194	BMB
5	5.74	SO4	10.581	2.215	81.07	29.710	BMB
Total:			18.318	2.732	100.00	34.999	

20 WG107000-06 MS

1,1 GSG L0110485-05 MS

Sample Name:	**WG107000-06 MS**	*Injection Volume:*	**25.0**
Vial Number:	**21**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/24/2001 14:16**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

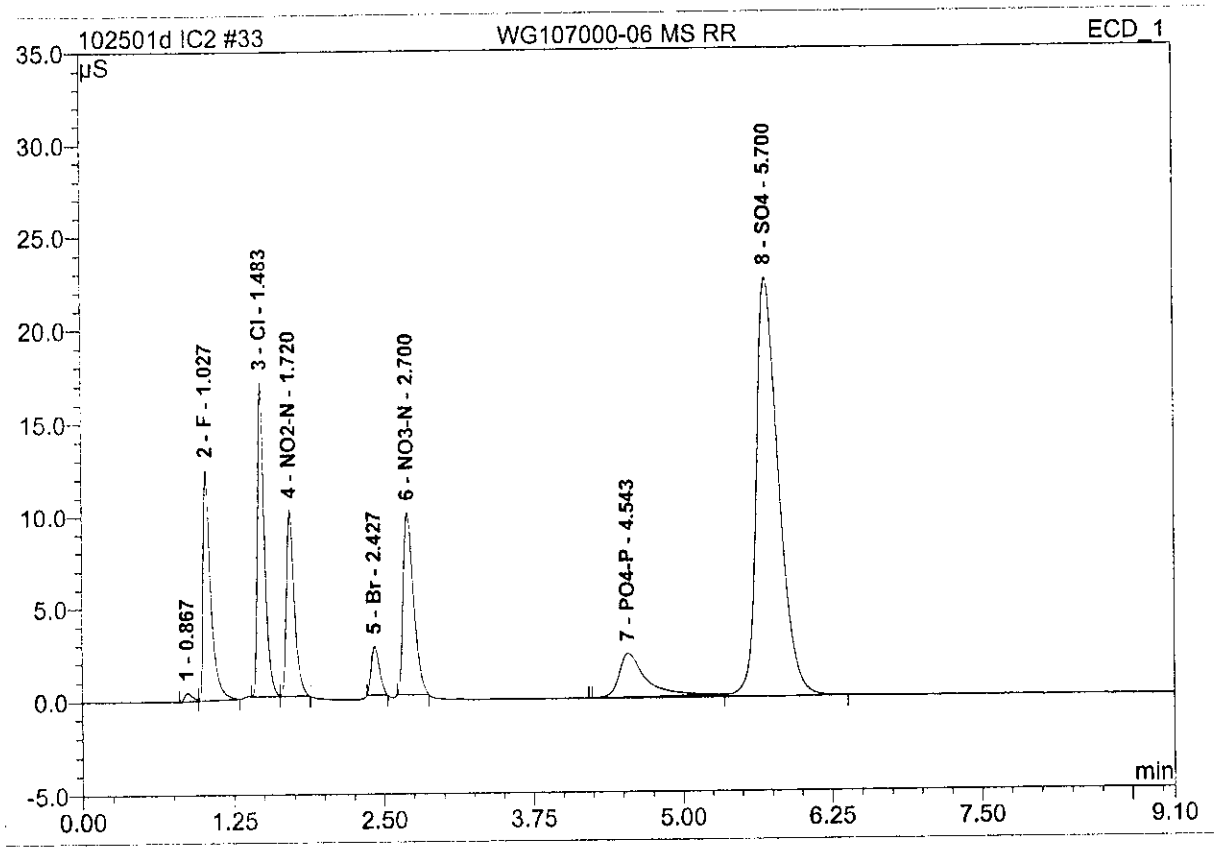


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.450	0.038	0.41	n.a.	BM
2	1.05	F	12.234	0.853	9.17	5.985	M
3	1.40	n.a.	0.293	0.034	0.37	n.a.	M
4	1.55	Cl	18.879	1.157	12.42	12.028	M
5	1.81	NO2-N	10.147	0.793	8.52	3.928	M
6	2.59	Br	2.646	0.252	2.71	6.777	M
7	2.89	NO3-N	9.081	1.010	10.85	4.288	MB
8	4.99	PO4-P	1.006	0.457	4.91	5.691	BM
9	6.14	SO4	20.629	4.713	50.64	65.919	MB
Total:			75.365	9.309	100.00	104.616	

33 WG107000-06 MS RR

1,1 GSG L0110485-05 MS RR

Sample Name:	**WG107000-06 MS RR**	*Injection Volume:*	**25.0**
Vial Number:	**22**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 16:08**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

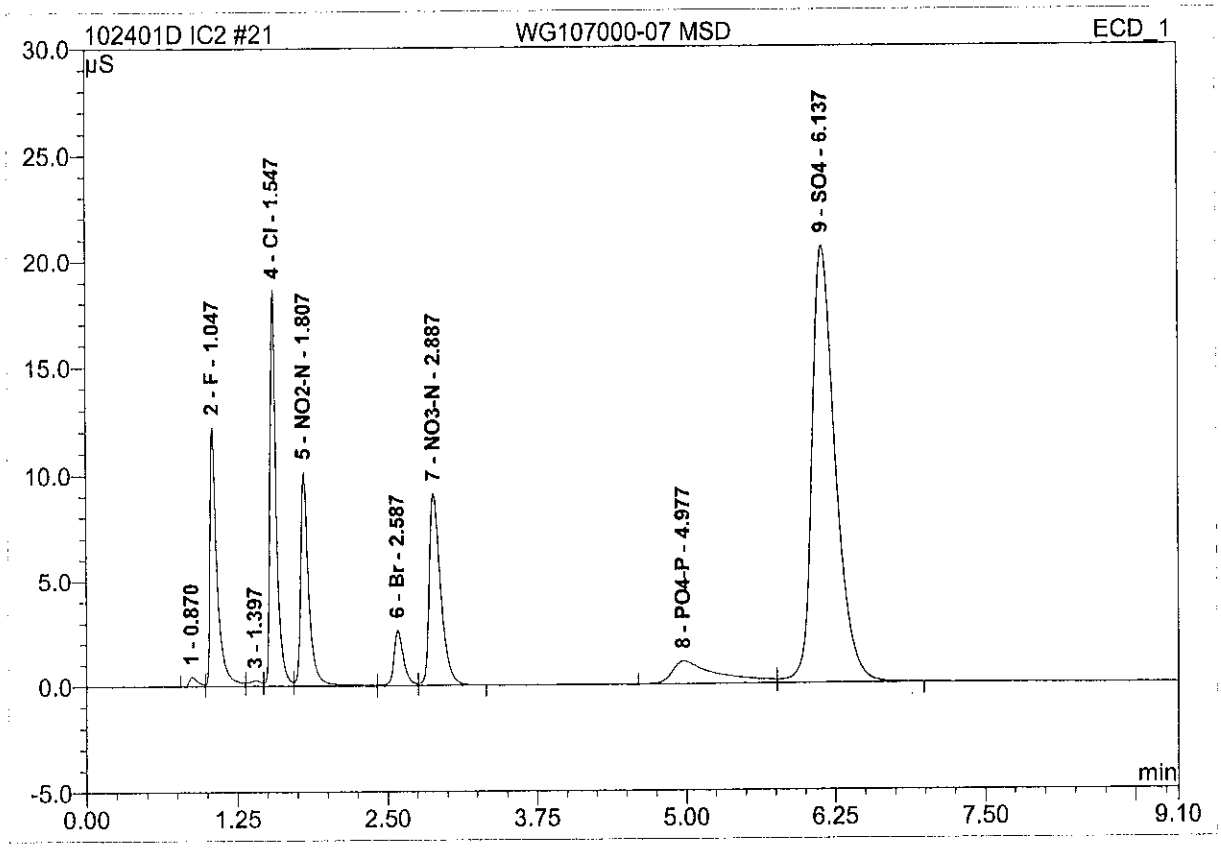


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.442	0.034	0.36	n.a.	BM
2	1.03	F	12.458	0.902	9.51	6.208	MB
3	1.48	Cl	16.903	1.122	11.83	11.176	BM
4	1.72	NO2-N	10.066	0.760	8.01	3.585	M
5	2.43	Br	2.595	0.206	2.17	5.240	BM
6	2.70	NO3-N	9.841	0.985	10.38	4.024	BMB
7	4.54	PO4-P	2.324	0.598	6.30	9.450	Ru
8	5.70	SO4	22.526	4.881	51.44	64.466	BMB
Total:			77.154	9.489	100.00	104.149	

21 WG107000-07 MSD

1,1 GSG L0110485-06 MSD

Sample Name:	**WG107000-07 MSD**	*Injection Volume:*	**25.0**
Vial Number:	**22**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/24/2001 14:28**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

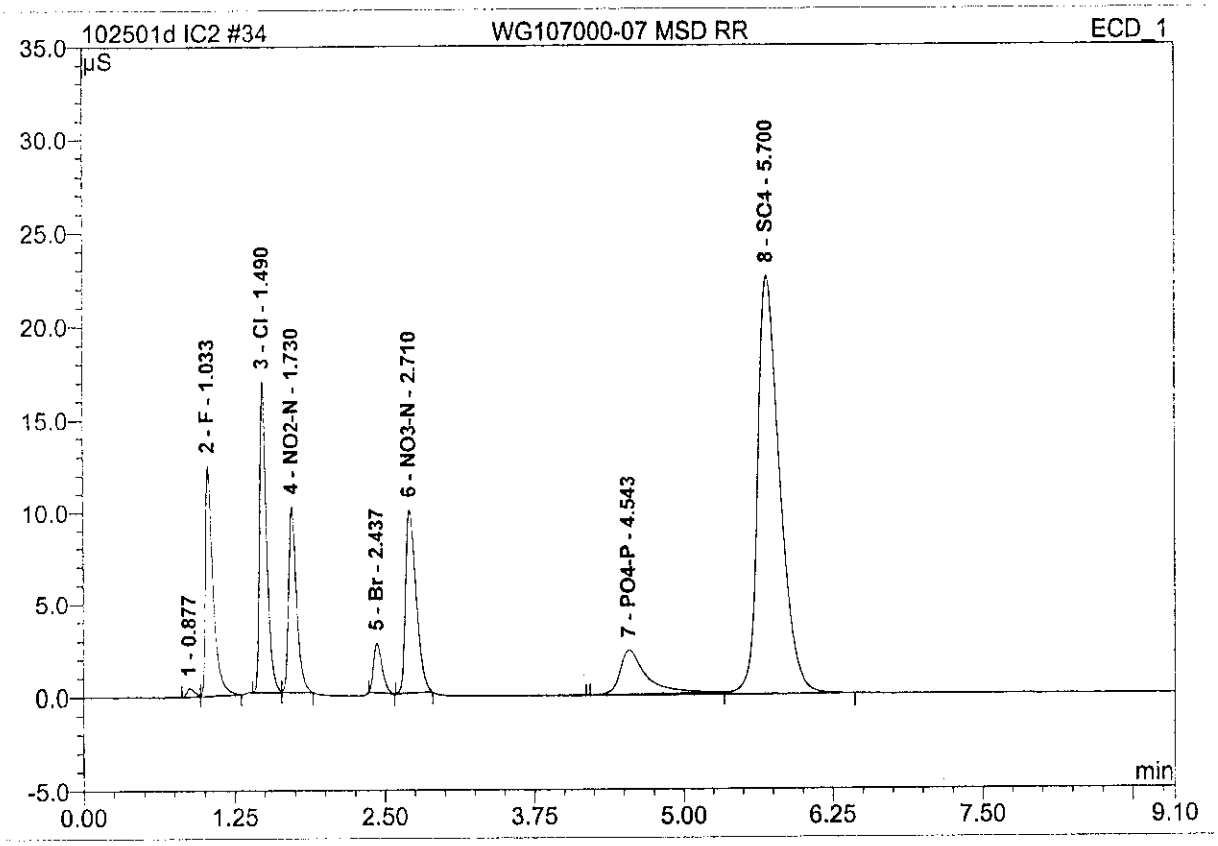


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.451	0.039	0.42	n.a.	BM
2	1.05	F	12.228	0.852	9.17	5.975	M
3	1.40	n.a.	0.272	0.031	0.34	n.a.	M
4	1.55	Cl	18.631	1.148	12.35	11.936	M
5	1.81	NO2-N	10.119	0.792	8.52	3.920	M
6	2.59	Br	2.640	0.251	2.70	6.750	M
7	2.89	NO3-N	9.077	1.006	10.83	4.274	MB
8	4.98	PO4-P	1.072	0.471	5.08	5.858	BM
9	6.14	SO4	20.566	4.699	50.58	65.717	MB
Total:			75.058	9.290	100.00	104.430	

34 WG107000-07 MSD RR

1,1 GSG L0110485-06 MSD RR

Sample Name:	**WG107000-07 MSD RR**	*Injection Volume:*	**25.0**
Vial Number:	**22**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 16:19**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

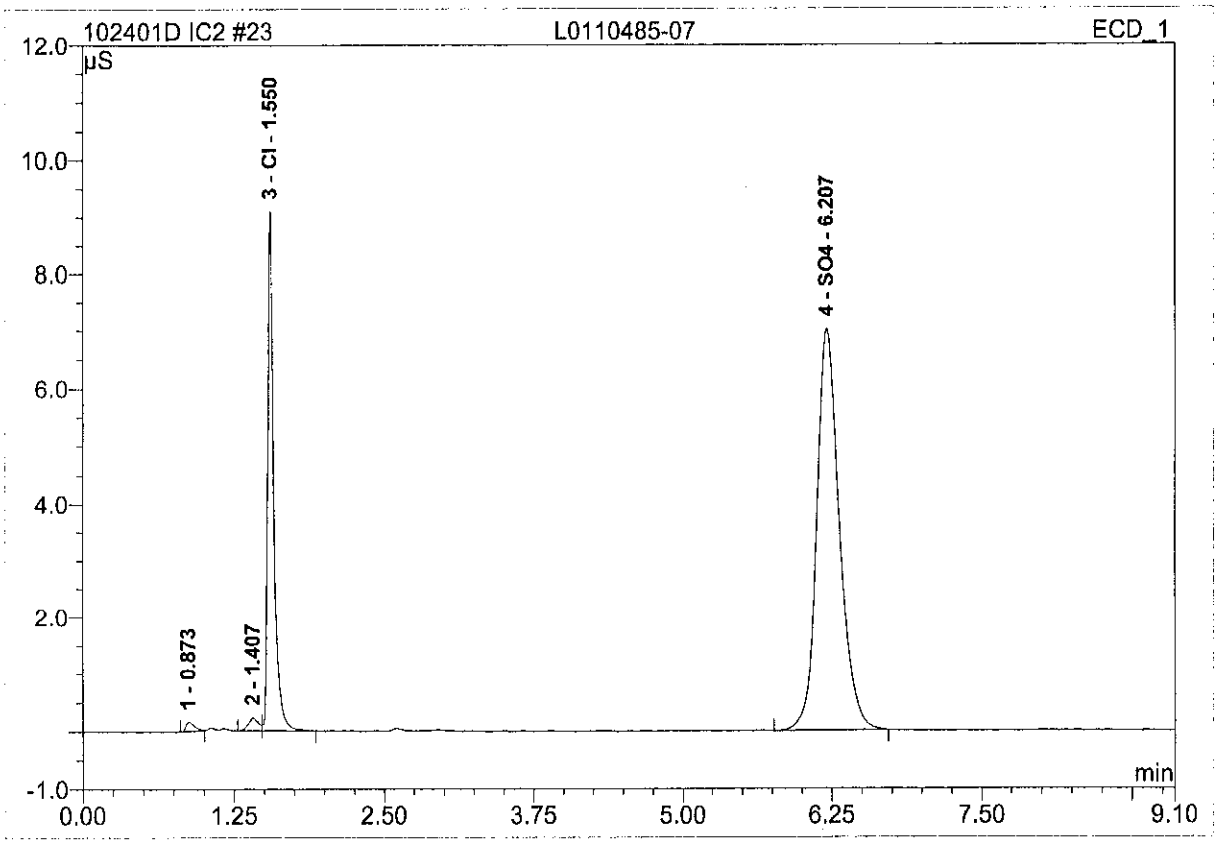


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.431	0.033	0.35	n.a.	BM
2	1.03	F	12.495	0.904	9.43	6.222	MB
3	1.49	Cl	16.839	1.127	11.75	11.221	BM
4	1.73	NO2-N	10.094	0.772	8.05	3.640	MB
5	2.44	Br	2.667	0.224	2.34	5.696	BMB
6	2.71	NO3-N	9.944	1.016	10.60	4.146	BMB
7	4.54	PO4-P	2.392	0.609	6.35	9.611	Ru
8	5.70	SO4	22.575	4.904	51.13	64.765	BMB
Total:			77.437	9.590	100.00	105.302	

23 L0110485-07

1,1 GSG

Sample Name:	**L0110485-07**	*Injection Volume:*	**25.0**
Vial Number:	**24**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/24/2001 14:51**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

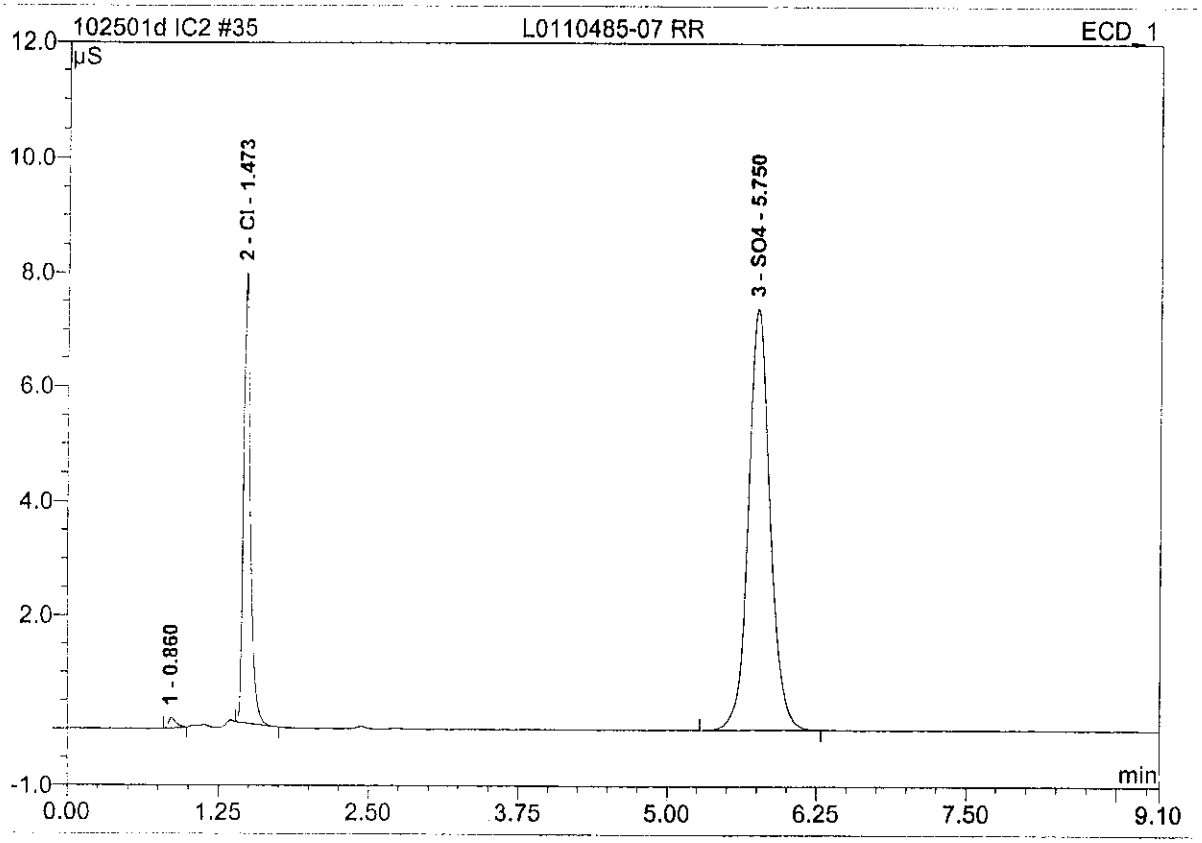


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.159	0.013	0.60	n.a.	BMB
2	1.41	n.a.	0.225	0.022	1.02	n.a.	BM
3	1.55	Cl	9.099	0.544	25.45	5.715	MB
4	6.21	SO4	7.019	1.560	72.93	22.376	BMB
Total:			16.501	2.139	100.00	28.090	

35 L0110485-07 RR

1,1 GSG

Sample Name:	**L0110485-07 RR**	*Injection Volume:*	**25.0**
Vial Number:	**24**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 16:31**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

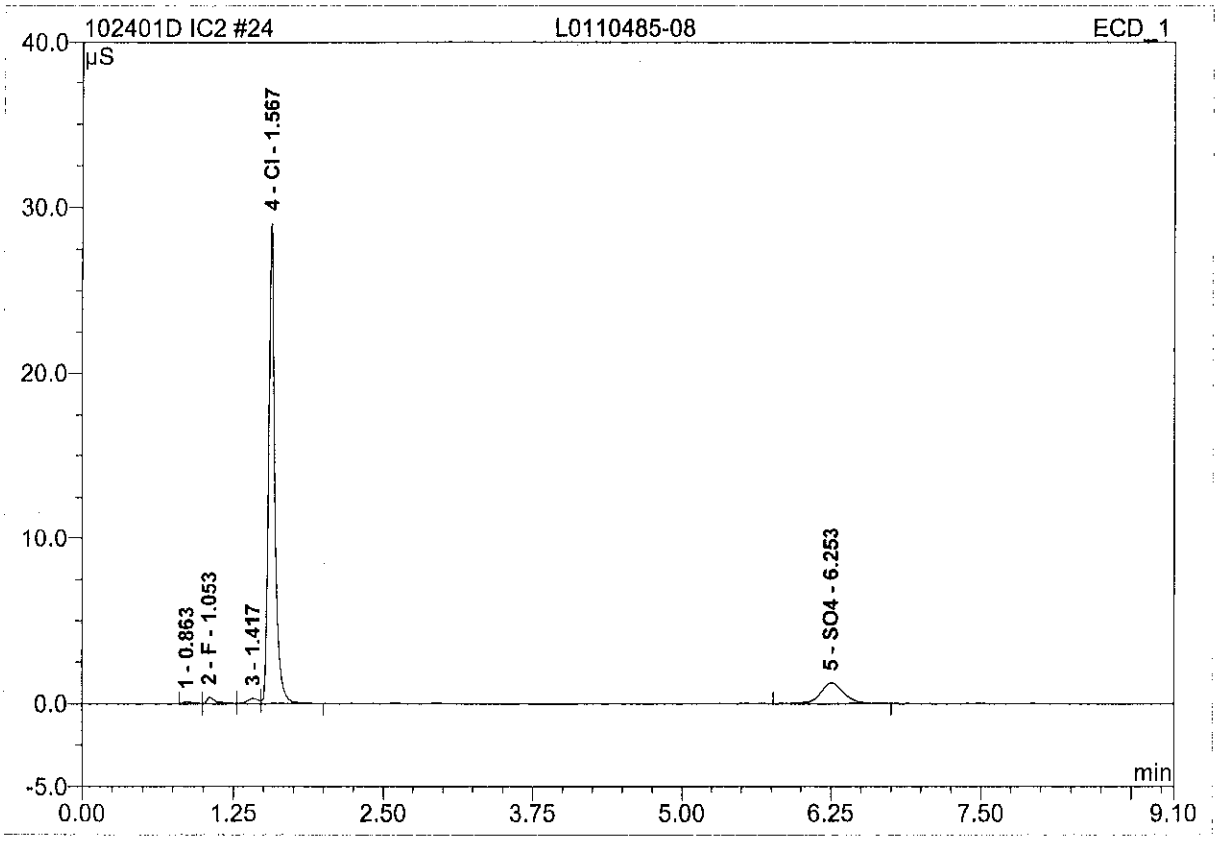


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.86	n.a.	0.179	0.013	0.63	n.a.	BMB
2	1.47	Cl	7.899	0.518	24.78	5.243	BMB
3	5.75	SO4	7.389	1.559	74.59	21.158	BMB
Total:			15.467	2.090	100.00	26.402	

24 L0110485-08

1,1 GSG

Sample Name:	**L0110485-08**	*Injection Volume:*	**25.0**
Vial Number:	**25**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/24/2001 15:02**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

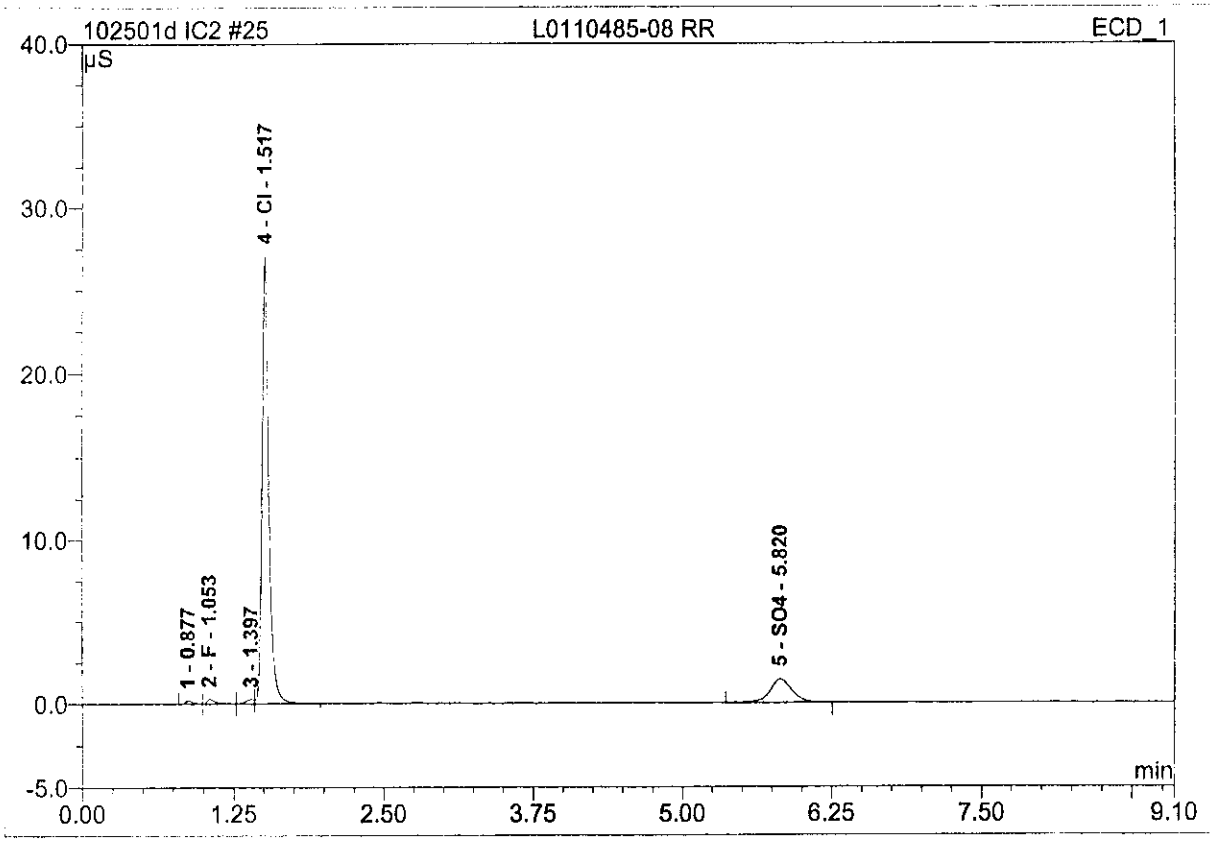


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.86	n.a.	0.120	0.010	0.49	n.a.	BM
2	1.05	F	0.352	0.032	1.52	0.383	M
3	1.42	n.a.	0.291	0.030	1.42	n.a.	M
4	1.57	Cl	29.087	1.745	83.23	18.092	MB
5	6.25	SO4	1.236	0.280	13.35	4.699	BMB
Total:			31.086	2.096	100.00	23.174	

25 L0110485-08 RR

1,1 GSG

Sample Name:	**L0110485-08 RR**	*Injection Volume:*	**25.0**
Vial Number:	**13**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 14:35**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

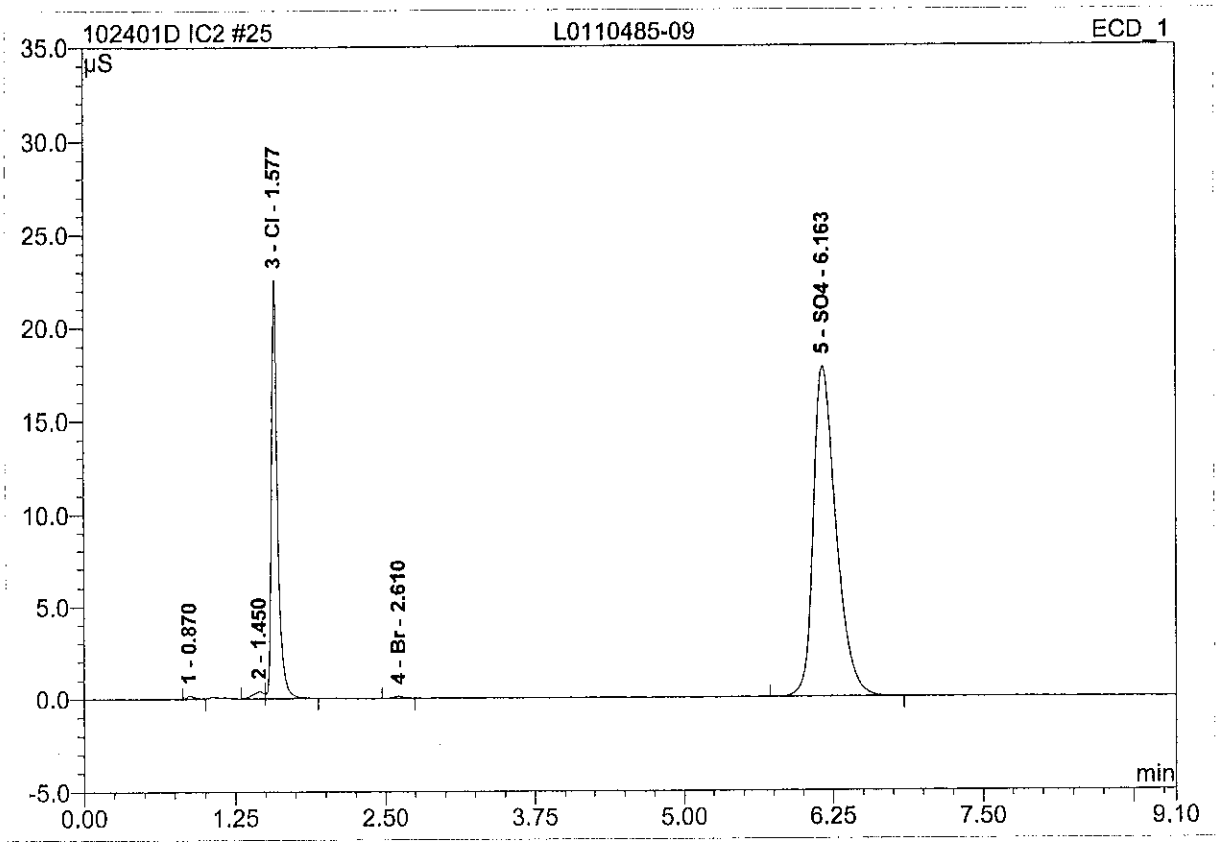


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.191	0.012	0.59	n.a.	BM
2	1.05	F	0.264	0.023	1.11	0.328	M
3	1.40	n.a.	0.255	0.019	0.91	n.a.	M
4	1.52	Cl	27.066	1.736	82.61	17.205	MB
5	5.82	SO4	1.442	0.311	14.79	4.881	BMB
Total:			29.218	2.102	100.00	22.414	

25 L0110485-09

1,1 GSG

Sample Name:	**L0110485-09**	*Injection Volume:*	**25.0**
Vial Number:	**26**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/24/2001 15:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

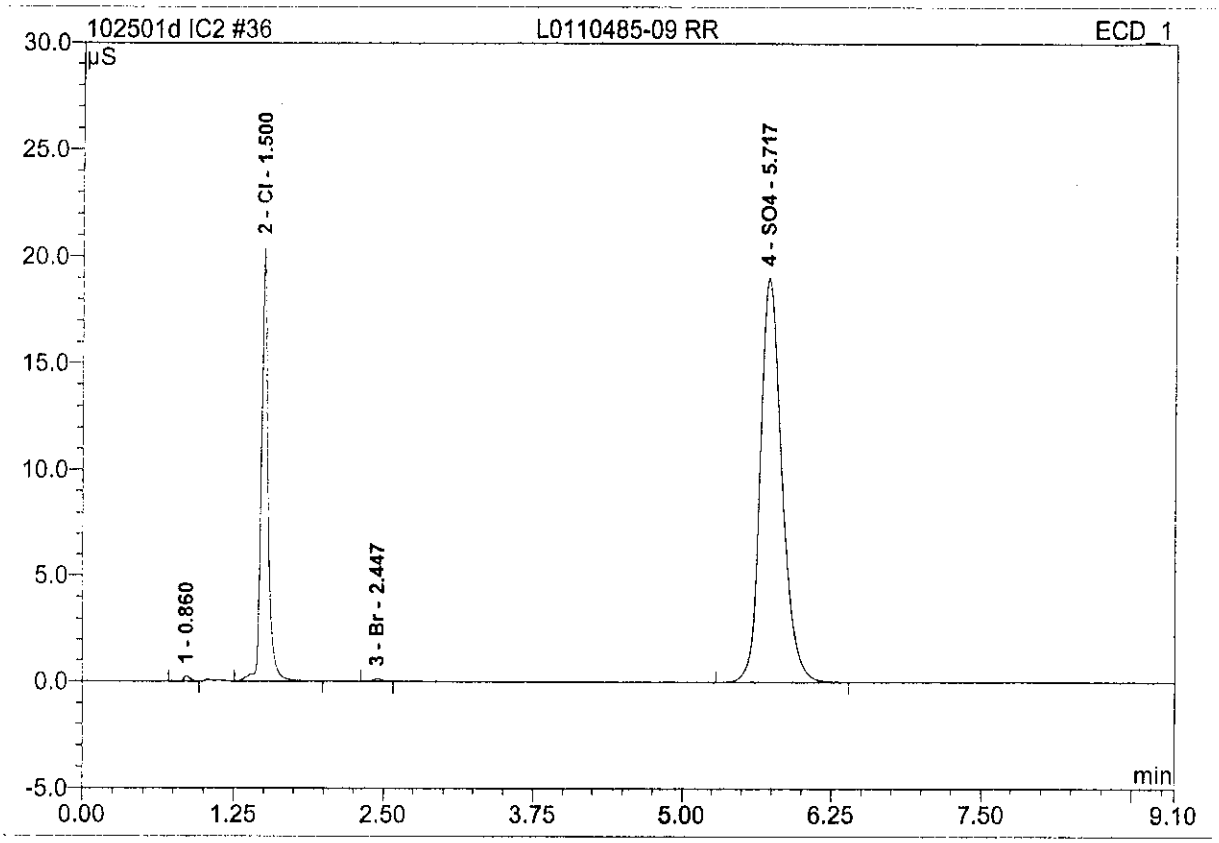


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.156	0.012	0.22	n.a.	BMB
2	1.45	n.a.	0.380	0.040	0.74	n.a.	BM
3	1.58	Cl	22.543	1.348	25.06	14.002	MB
4	2.61	Br	0.117	0.010	0.19	0.302	BMB
5	6.16	SO4	17.805	3.970	73.80	55.655	BMB
Total:			41.001	5.380	100.00	69.960	

36 L0110485-09 RR

1,1 GSG

Sample Name:	**L0110485-09 RR**	*Injection Volume:*	**25.0**
Vial Number:	**26**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 17:03**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

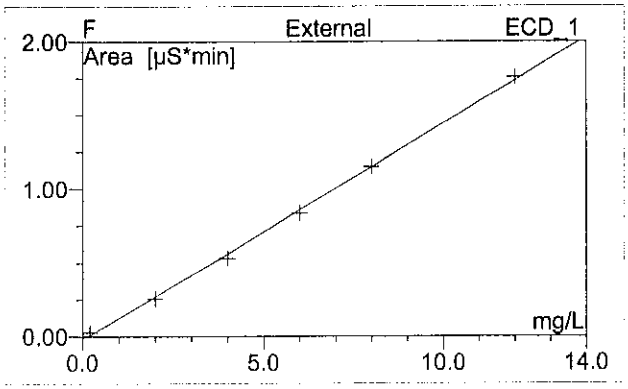


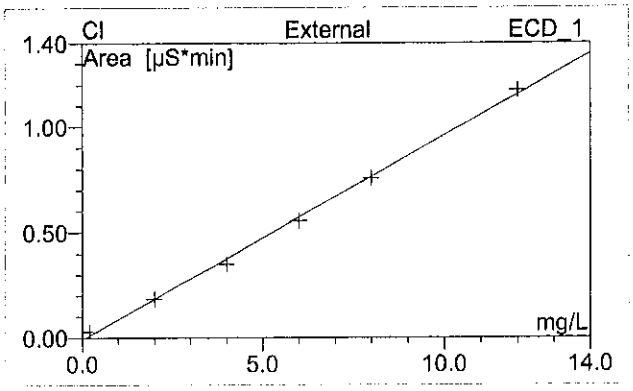
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.86	n.a.	0.243	0.015	0.28	n.a.	BMB
2	1.50	Cl	20.442	1.369	25.34	13.597	BMB
3	2.45	Br	0.119	0.011	0.20	0.329	BMB
4	5.72	SO4	19.021	4.007	74.17	53.073	BMB
Total:			39.824	5.402	100.00	66.998	

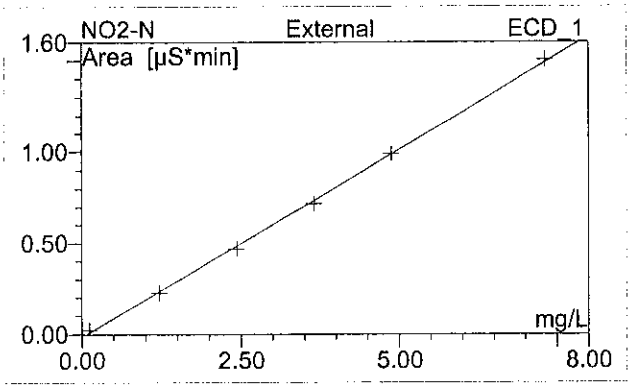
2.4.5.3 Standards Data

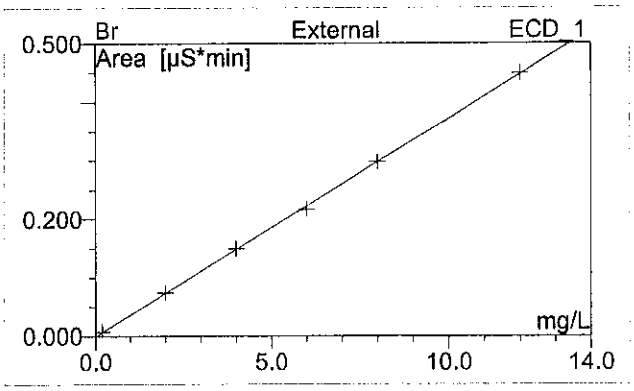
1 ANION LVL #1

Sample Name:	**ANION LVL #1**	*Injection Volume:*	**25.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/5/2001 11:34**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**





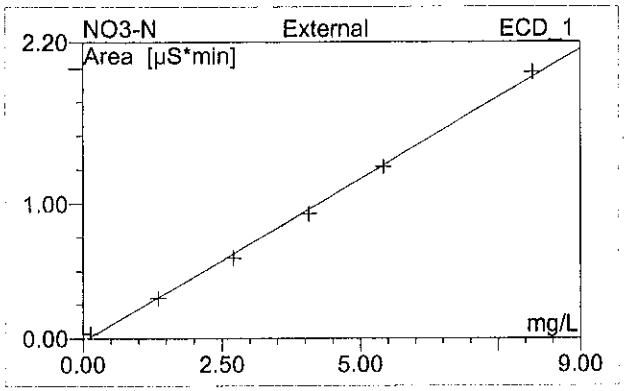


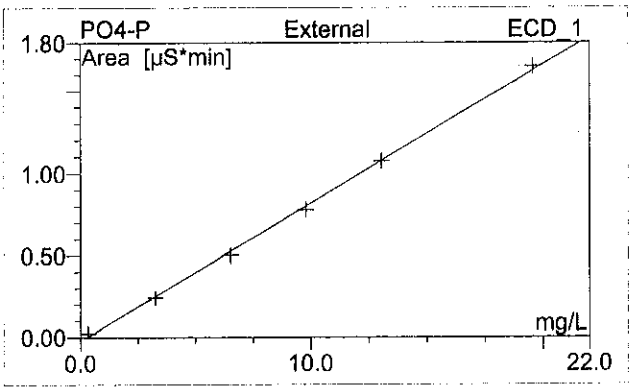


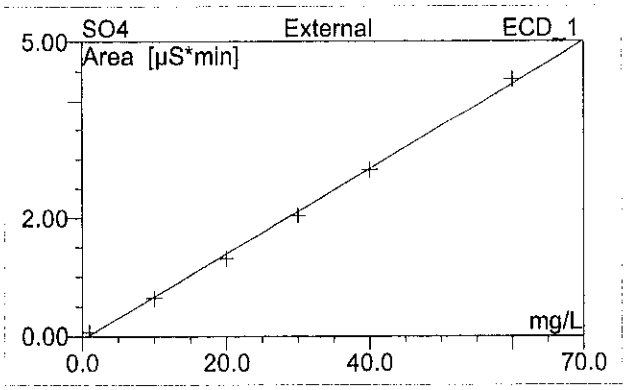
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.87	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.05	F	0LOff	6	99.9418	-0.0244	0.1466	0.0000
3	1.56	Cl	0LOff	6	99.8993	-0.0097	0.0970	0.0000
4	1.85	NO2-N	0LOff	6	99.9659	-0.0151	0.2058	0.0000
5	2.66	Br	0LOff	6	99.9846	-0.0010	0.0374	0.0000
6	2.97	NO3-N	0LOff	6	99.9235	-0.0227	0.2408	0.0000
7	4.96	PO4-P	0LOff	6	99.9415	-0.0223	0.0843	0.0000
8	6.44	SO4	0LOff	6	99.9243	-0.0605	0.0724	0.0000
Average:					99.9401	-0.0222	0.1263	0.0000

1 ANION LVL #1

Sample Name:	**ANION LVL #1**	*Injection Volume:*	**25.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/5/2001 11:34**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



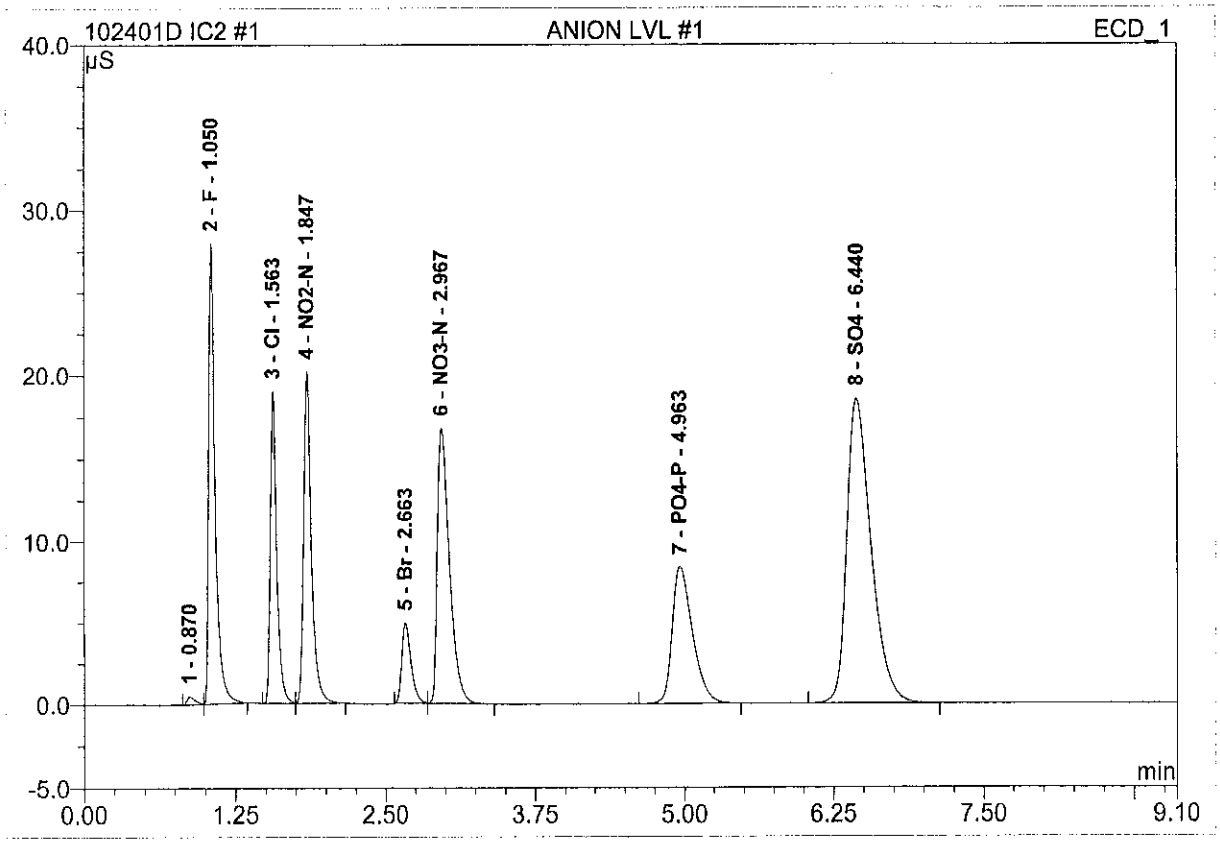




No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.87	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.05	F	0LOff	6	99.9418	-0.0244	0.1466	0.0000
3	1.56	Cl	0LOff	6	99.8993	-0.0097	0.0970	0.0000
4	1.85	NO2-N	0LOff	6	99.9659	-0.0151	0.2058	0.0000
5	2.66	Br	0LOff	6	99.9846	-0.0010	0.0374	0.0000
6	2.97	NO3-N	0LOff	6	99.9235	-0.0227	0.2408	0.0000
7	4.96	PO4-P	0LOff	6	99.9415	-0.0223	0.0843	0.0000
8	6.44	SO4	0LOff	6	99.9243	-0.0605	0.0724	0.0000
Average:					99.9401	-0.0222	0.1263	0.0000

1 ANION LVL #1

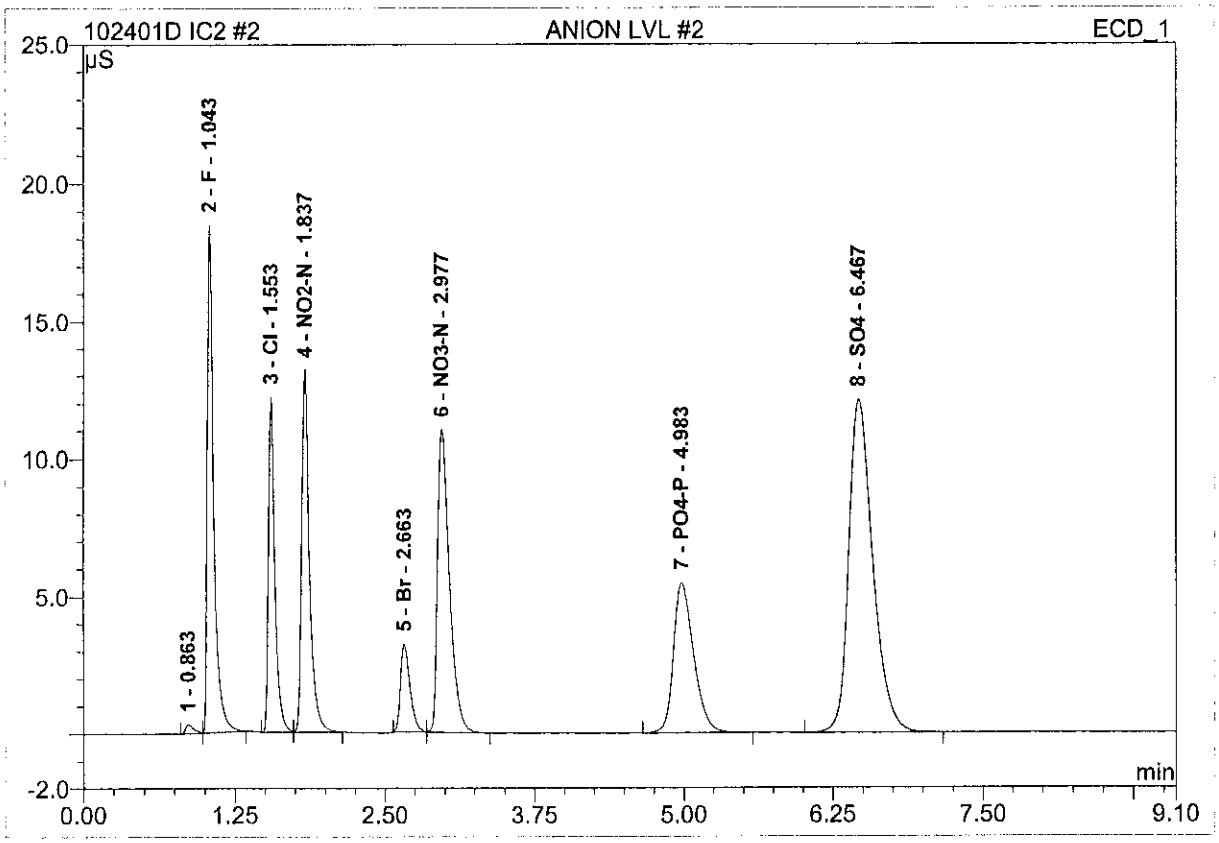
Sample Name:	**ANION LVL #1**	*Injection Volume:*	**25.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/5/2001 11:34**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.486	0.039	0.30	n.a.	BM
2	1.05	F	27.949	1.759	13.62	12.159	MB
3	1.56	Cl	18.955	1.175	9.10	12.223	BM
4	1.85	NO2-N	20.147	1.505	11.65	7.383	M
5	2.66	Br	4.922	0.450	3.48	12.063	BM
6	2.97	NO3-N	16.757	1.971	15.26	8.278	MB
7	4.96	PO4-P	8.388	1.652	12.80	19.864	BMB
8	6.44	SO4	18.522	4.362	33.78	61.060	BMB
Total:			116.125	12.911	100.00	133.032	

2 ANION LVL #2

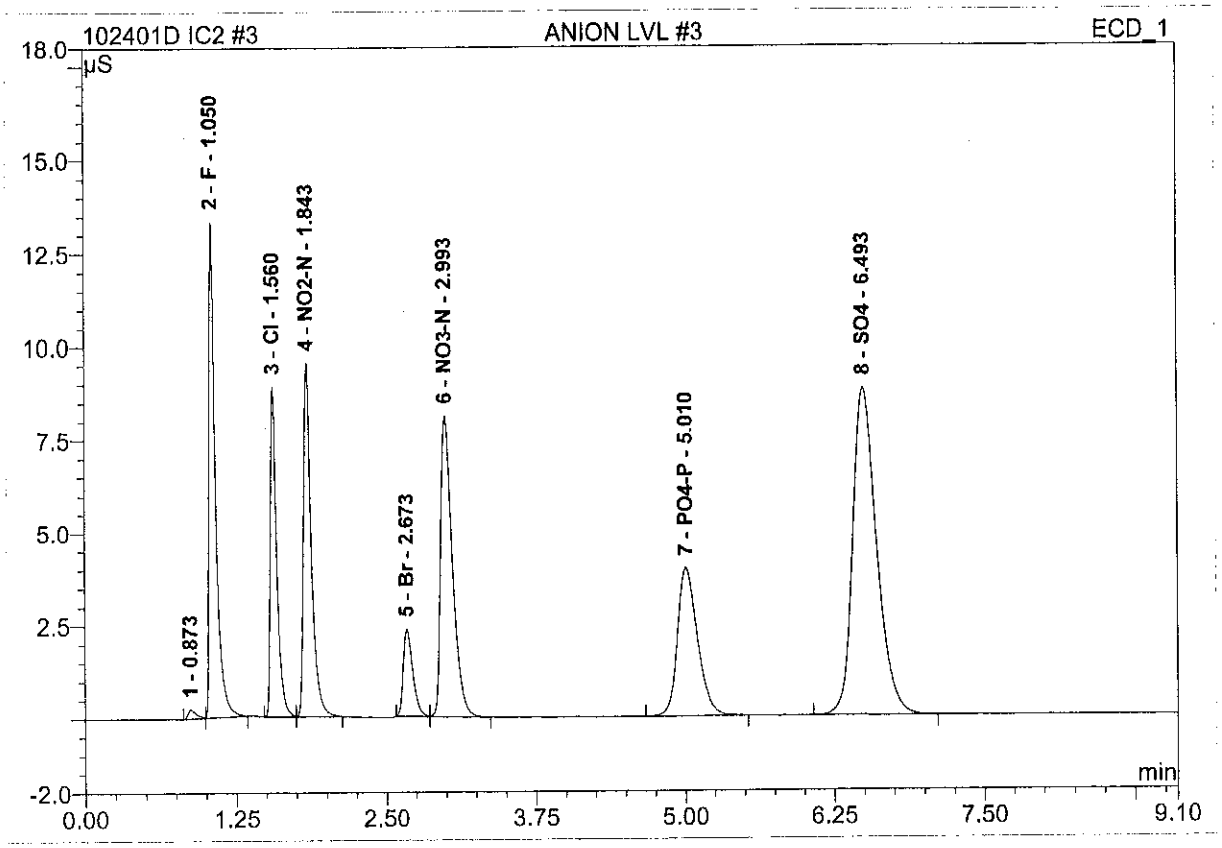
Sample Name:	**ANION LVL #2**	*Injection Volume:*	**25.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/5/2001 11:46**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.86	n.a.	0.333	0.026	0.31	n.a.	BM
2	1.04	F	18.476	1.149	13.72	8.006	MB
3	1.55	Cl	12.192	0.759	9.05	7.925	BM
4	1.84	NO2-N	13.174	0.988	11.79	4.875	MB
5	2.66	Br	3.202	0.298	3.55	7.996	BM
6	2.98	NO3-N	11.015	1.271	15.16	5.372	MB
7	4.98	PO4-P	5.483	1.073	12.80	12.992	BMB
8	6.47	SO4	12.110	2.817	33.61	39.729	BMB
Total:			75.985	8.381	100.00	86.895	

3 ANION LVL #3

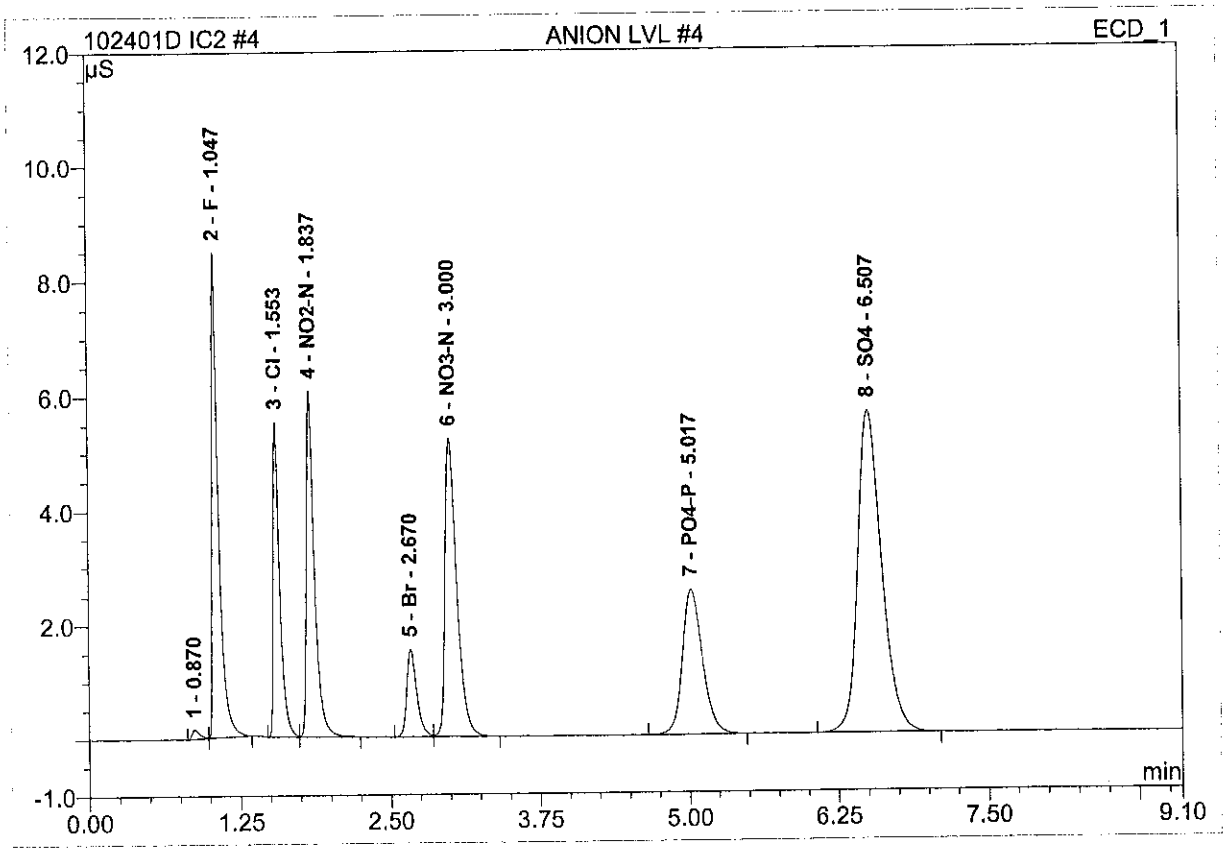
Sample Name:	**ANION LVL #3**	*Injection Volume:*	**25.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/5/2001 11:57**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.249	0.019	0.32	n.a.	BM
2	1.05	F	13.327	0.831	13.66	5.837	MB
3	1.56	Cl	8.880	0.554	9.11	5.819	BM
4	1.84	NO2-N	9.509	0.718	11.80	3.563	M
5	2.67	Br	2.332	0.218	3.57	5.849	BM
6	2.99	NO3-N	8.085	0.924	15.19	3.933	MB
7	5.01	PO4-P	3.981	0.779	12.80	9.504	BMB
8	6.49	SO4	8.802	2.041	33.54	29.019	BMB
Total:			55.164	6.085	100.00	63.523	

4 ANION LVL #4

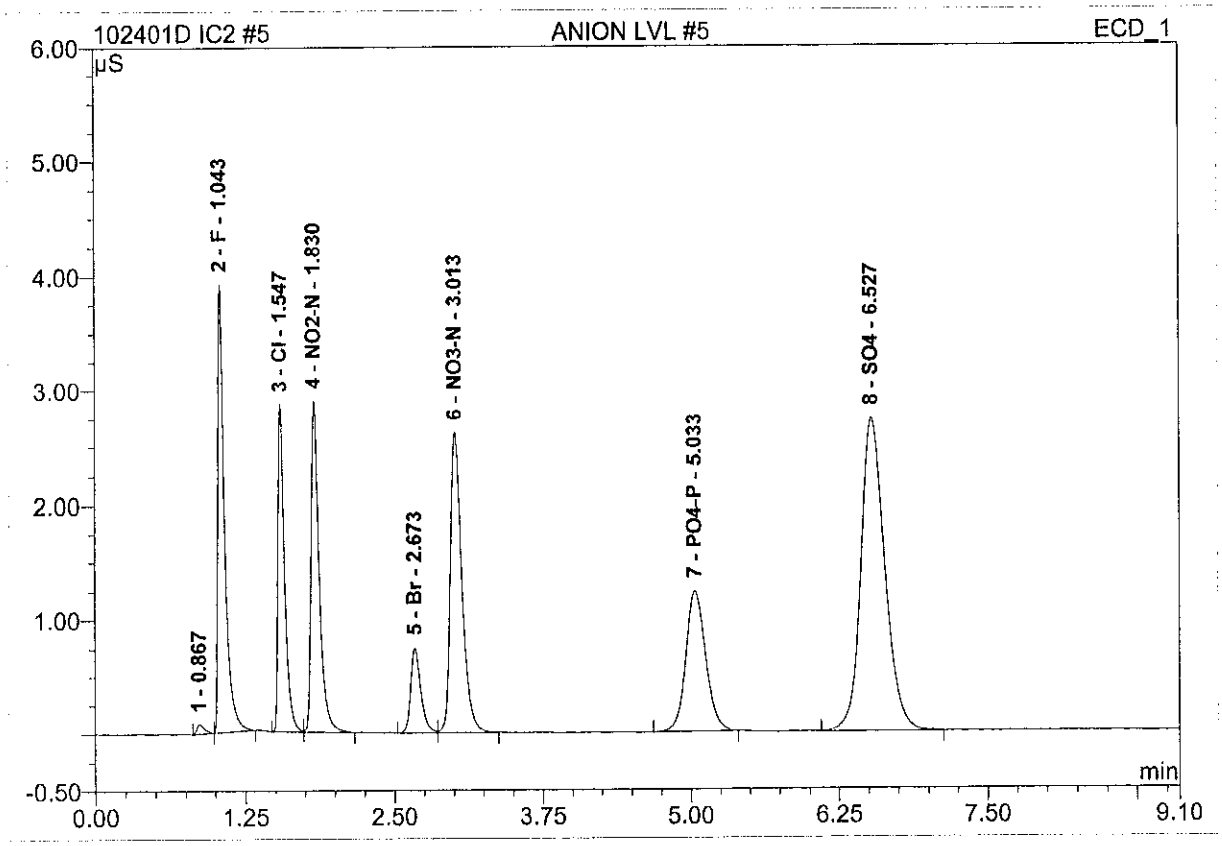
Sample Name:	**ANION LVL #4**	*Injection Volume:*	**25.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/5/2001 12:09**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.164	0.012	0.32	n.a.	BM
2	1.05	F	8.488	0.533	13.57	3.801	MB
3	1.55	Cl	5.524	0.353	8.98	3.738	BM
4	1.84	NO2-N	6.057	0.469	11.94	2.351	MB
5	2.67	Br	1.542	0.150	3.81	4.037	BM
6	3.00	NO3-N	5.226	0.597	15.21	2.575	MB
7	5.02	PO4-P	2.553	0.502	12.78	6.219	BMB
8	6.51	SO4	5.645	1.312	33.40	18.947	BMB
Total:			35.199	3.928	100.00	41.670	

5 ANION LVL #5

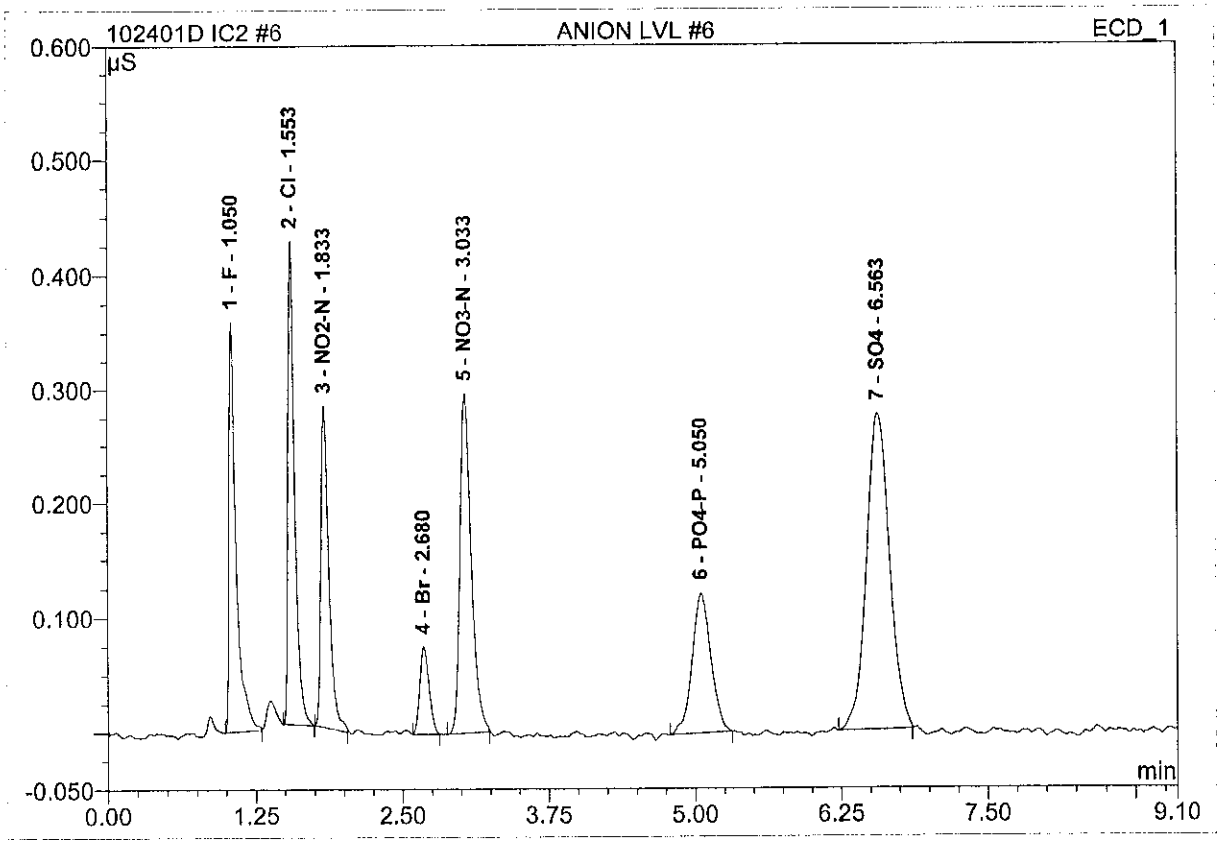
Sample Name:	**ANION LVL #5**	*Injection Volume:*	**25.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/5/2001 12:20**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.086	0.007	0.34	n.a.	BM
2	1.04	F	3.918	0.253	13.13	1.894	MB
3	1.55	Cl	2.859	0.185	9.59	2.009	BM
4	1.83	NO2-N	2.893	0.228	11.81	1.181	MB
5	2.67	Br	0.752	0.074	3.85	2.014	BM
6	3.01	NO3-N	2.622	0.299	15.50	1.337	MB
7	5.03	PO4-P	1.234	0.241	12.51	3.128	BMB
8	6.53	SO4	2.735	0.642	33.27	9.700	BMB
Total:			17.099	1.930	100.00	21.264	

6 ANION LVL #6

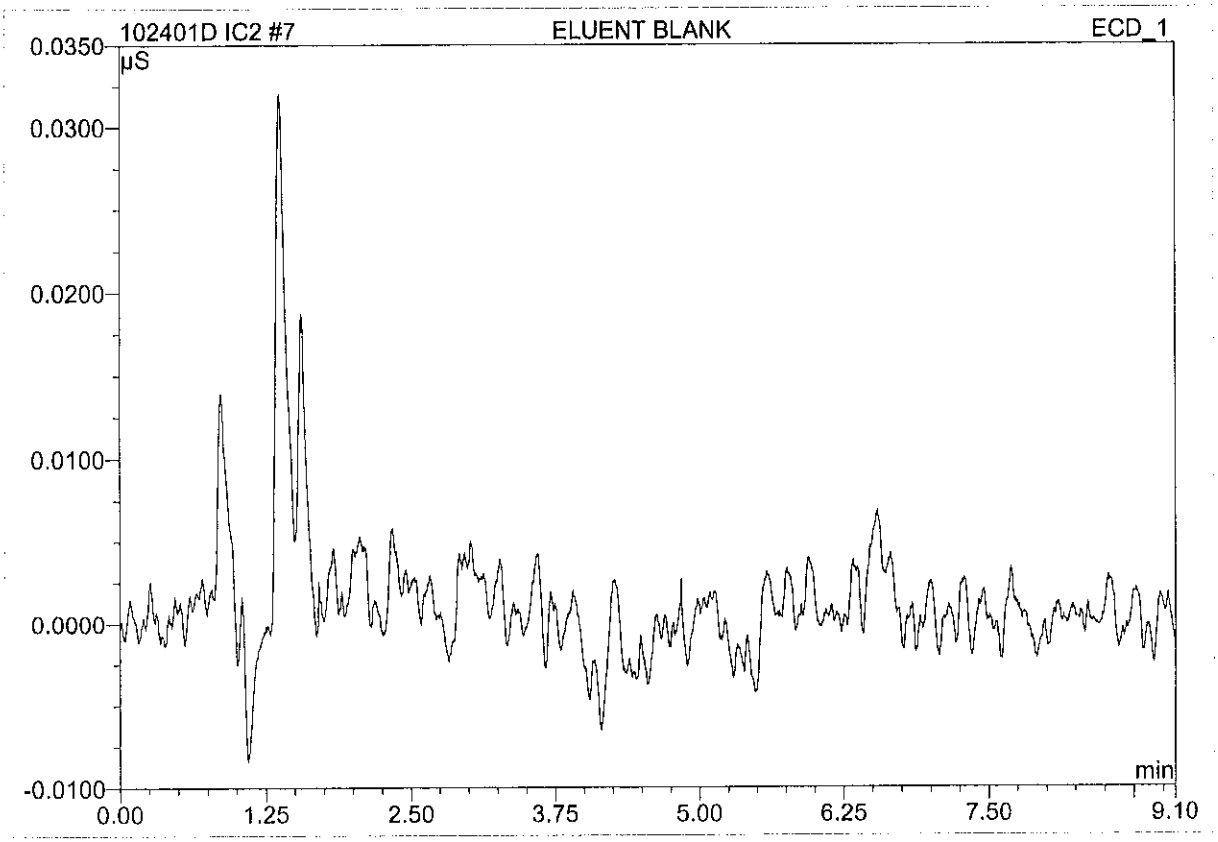
Sample Name:	**ANION LVL #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/5/2001 12:32**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.05	F	0.360	0.025	12.40	0.337	BMB
2	1.55	Cl	0.423	0.028	13.73	0.385	BMB
3	1.83	NO2-N	0.281	0.022	10.99	0.181	BMB
4	2.68	Br	0.076	0.007	3.48	0.214	BMB
5	3.03	NO3-N	0.297	0.033	16.48	0.232	BMB
6	5.05	PO4-P	0.122	0.023	11.42	0.537	BMB
7	6.56	SO4	0.276	0.063	31.49	1.709	BMB
Total:			1.834	0.201	100.00	3.594	

7 ELUENT BLANK

Sample Name:	**ELUENT BLANK**	*Injection Volume:*	**25.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/5/2001 12:43**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

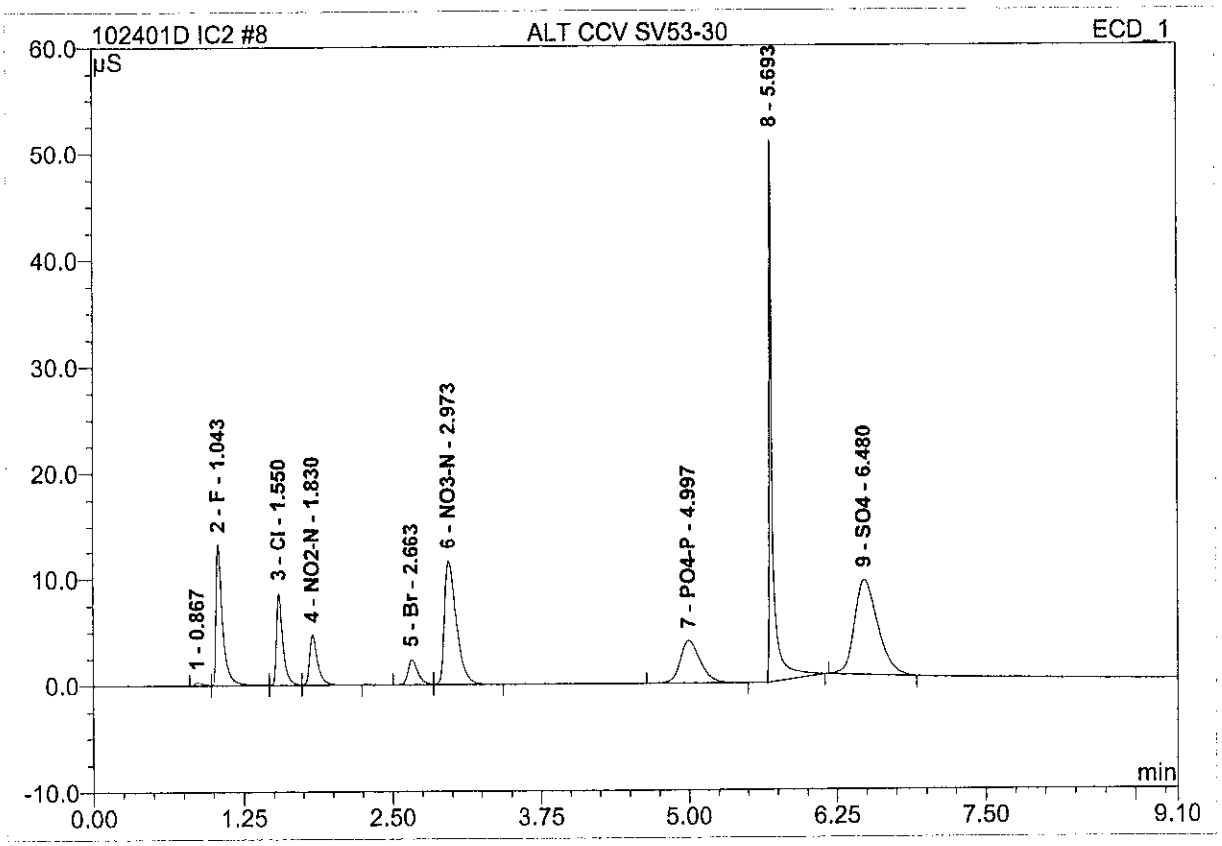
8 ALT CCV SV53-30

Sample Name:	**ALT CCV SV53-30**
Vial Number:	**8**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**10/5/2001 12:55**
Run Time (min):	**9.10**

ALT CCV SV53-30	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9898	-0.17	PASS
Cl	6	5.8058	-3.24	PASS
NO2-N	3.65	NA	#VALUE!	#VALUE!
Br	6	6.0844	1.41	PASS
NO3-N	4.07	NA	#VALUE!	#VALUE!
SO4	9.78	9.5124	-2.74	PASS
SO4	30	29.0239	-3.25	PASS

8 ALT CCV SV53-30

Sample Name:	**ALT CCV SV53-30**	*Injection Volume:*	**25.0**
Vial Number:	**8**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/5/2001 12:55**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.276	0.024	0.30	n.a.	BM
2	1.04	F	13.334	0.854	10.84	5.990	M
3	1.55	Cl	8.661	0.553	7.03	5.806	M
4	1.83	NO2-N	4.755	0.374	4.75	1.892	MB
5	2.66	Br	2.359	0.226	2.87	6.084	BM
6	2.97	NO3-N	11.615	1.357	17.24	5.732	MB
7	5.00	PO4-P	3.980	0.780	9.90	9.512	BMB
8	5.69	n.a.	51.005	1.663	21.13	n.a.	BMB
9	6.48	SO4	8.912	2.041	25.93	29.024	BMB
Total:			104.895	7.873	100.00	64.040	

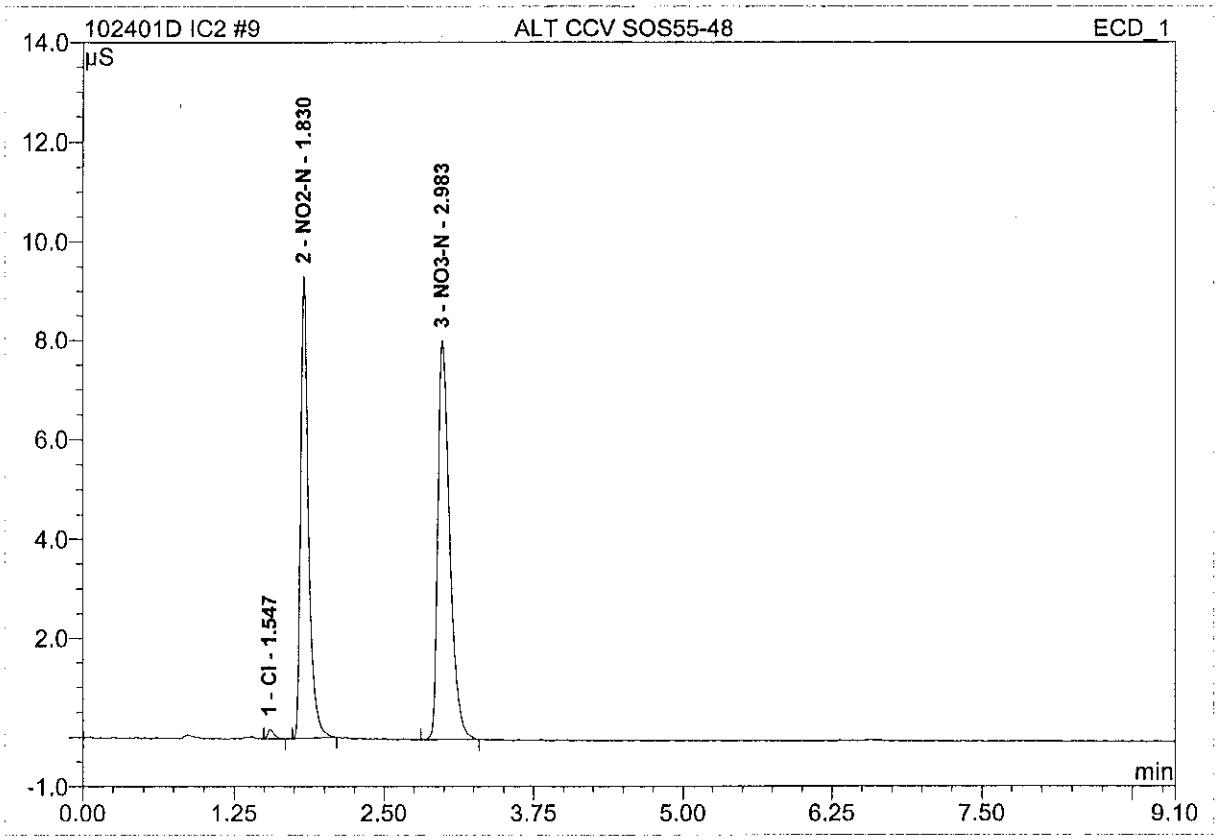
9 ALT CCV SOS55-48

Sample Name:	**ALT CCV SOS55-48**
Vial Number:	**9**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**10/5/2001 13:06**
Run Time (min):	**9.10**

ALT CCV SOS55-4	Actual mg/L	Recoved mg/L	%Difference	
n.a.	6.00	NA	#VALUE!	#VALUE!
Cl	6	NA	#VALUE!	#VALUE!
NO2-N	3.65	3.5063	-3.94	PASS
n.a.	6	NA	#VALUE!	#VALUE!
NO3-N	4.07	3.9172	-3.75	PASS
n.a.	9.78	NA	#VALUE!	#VALUE!
n.a.	30	NA	#VALUE!	#VALUE!

9 ALT CCV SOS55-48

Sample Name:	**ALT CCV SOS55-48**	*Injection Volume:*	**25.0**
Vial Number:	**9**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/5/2001 13:06**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

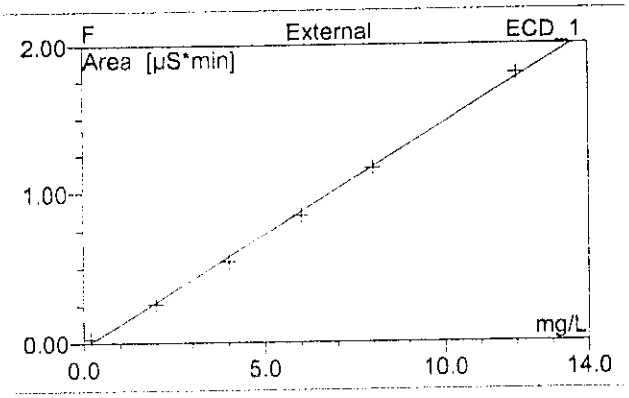


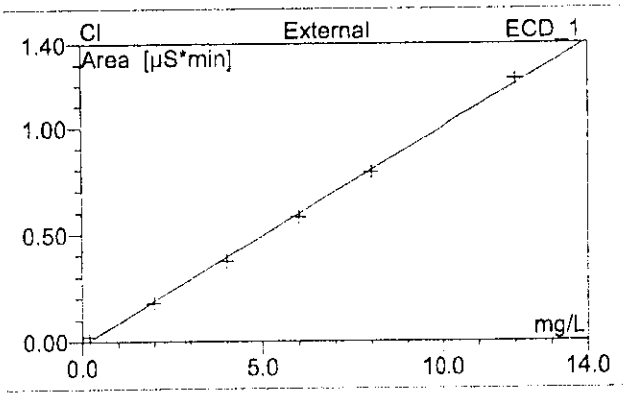
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.55	Cl	0.199	0.013	0.79	0.233	BMB
2	1.83	NO2-N	9.335	0.707	43.08	3.506	BMB
3	2.98	NO3-N	8.035	0.921	56.13	3.917	BMB
Total:			17.568	1.640	100.00	7.657	

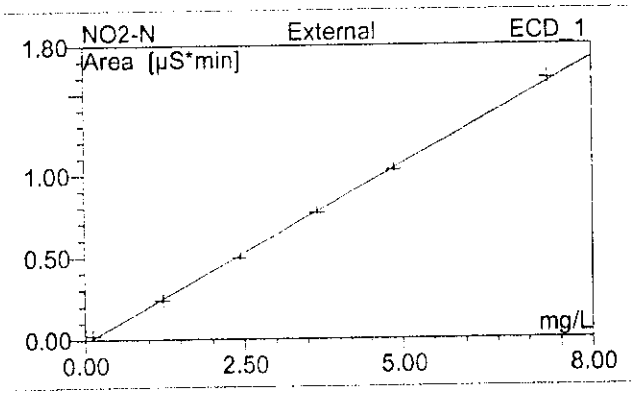
11 ANION LVL #1

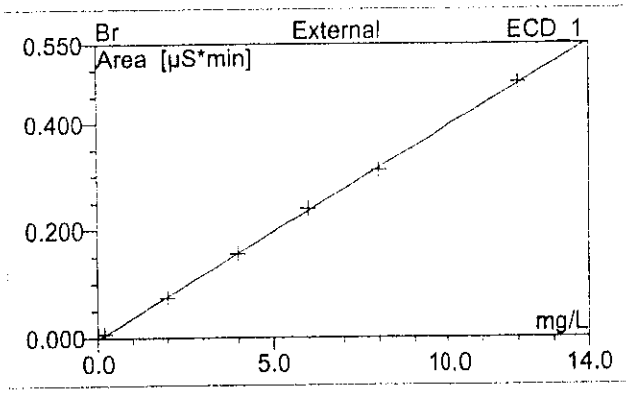
1,1 GSG ANION LVL #1 SOS0056-10

Sample Name:	**ANION LVL #1**	*Injection Volume:*	**25.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 11:54**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.11**	*Sample Amount:*	**1.0000**







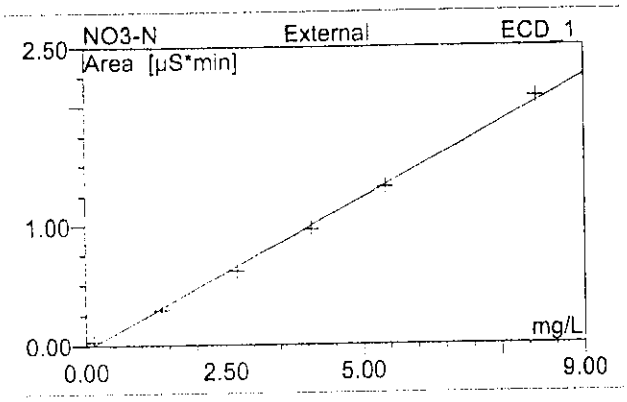


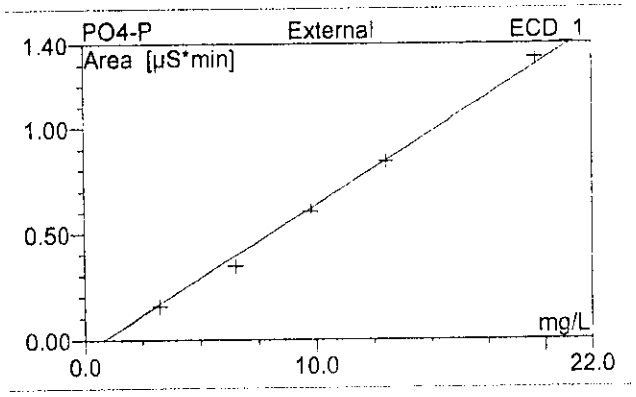
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	1.03	F	0LOff	6	99.9244	-0.0256	0.1494	0.0000
2	1.47	Cl	0LOff	6	99.9185	-0.0160	0.1019	0.0000
3	1.71	NO2-N	0LOff	6	99.9676	-0.0172	0.2169	0.0000
4	2.44	Br	0LOff	6	99.9853	-0.0021	0.0397	0.0000
5	2.74	NO3-N	0LOff	6	99.8996	-0.0348	0.2535	0.0000
6	5.78	SO4	0LOff	6	99.9090	-0.0635	0.0767	0.0000
Average:					99.9341	-0.0266	0.1397	0.0000

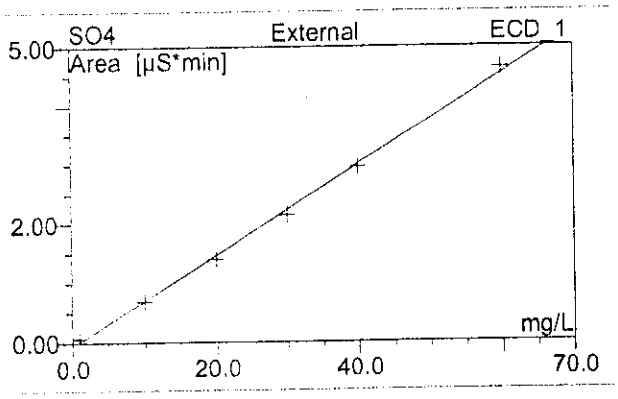
11 ANION LVL #1

1,1 GSG ANION LVL #1 SOS0056-10

Sample Name:	**ANION LVL #1**	*Injection Volume:*	**25.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 11:54**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.11**	*Sample Amount:*	**1.0000**





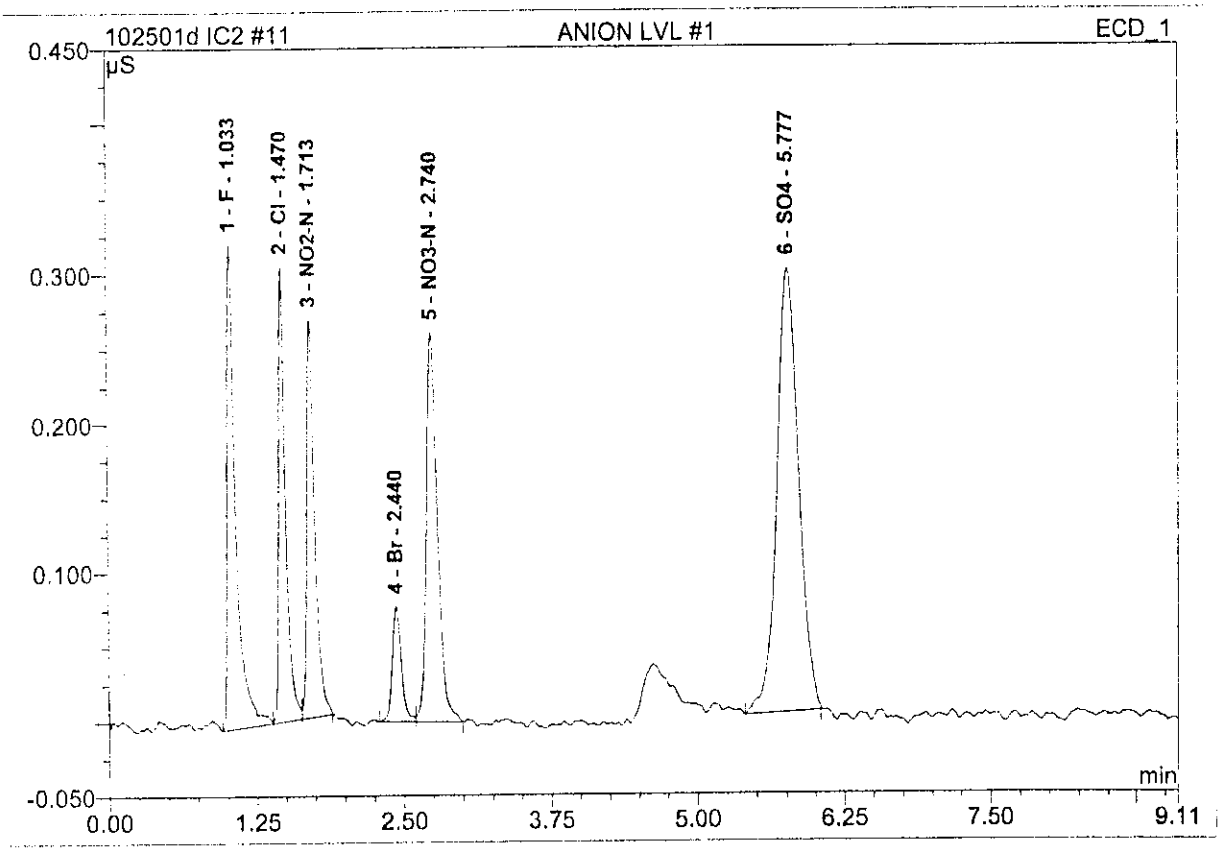


No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	1.03	F	0LOff	6	99.9244	-0.0256	0.1494	0.0000
2	1.47	Cl	0LOff	6	99.9185	-0.0160	0.1019	0.0000
3	1.71	NO2-N	0LOff	6	99.9676	-0.0172	0.2169	0.0000
4	2.44	Br	0LOff	6	99.9853	-0.0021	0.0397	0.0000
5	2.74	NO3-N	0LOff	6	99.8996	-0.0348	0.2535	0.0000
6	5.78	SO4	0LOff	6	99.9090	-0.0635	0.0767	0.0000
Average:					99.9341	-0.0266	0.1397	0.0000

11 ANION LVL #1

1,1 GSG ANION LVL #1 SOS0056-10

Sample Name:	**ANION LVL #1**	*Injection Volume:*	**25.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 11:54**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.11**	*Sample Amount:*	**1.0000**

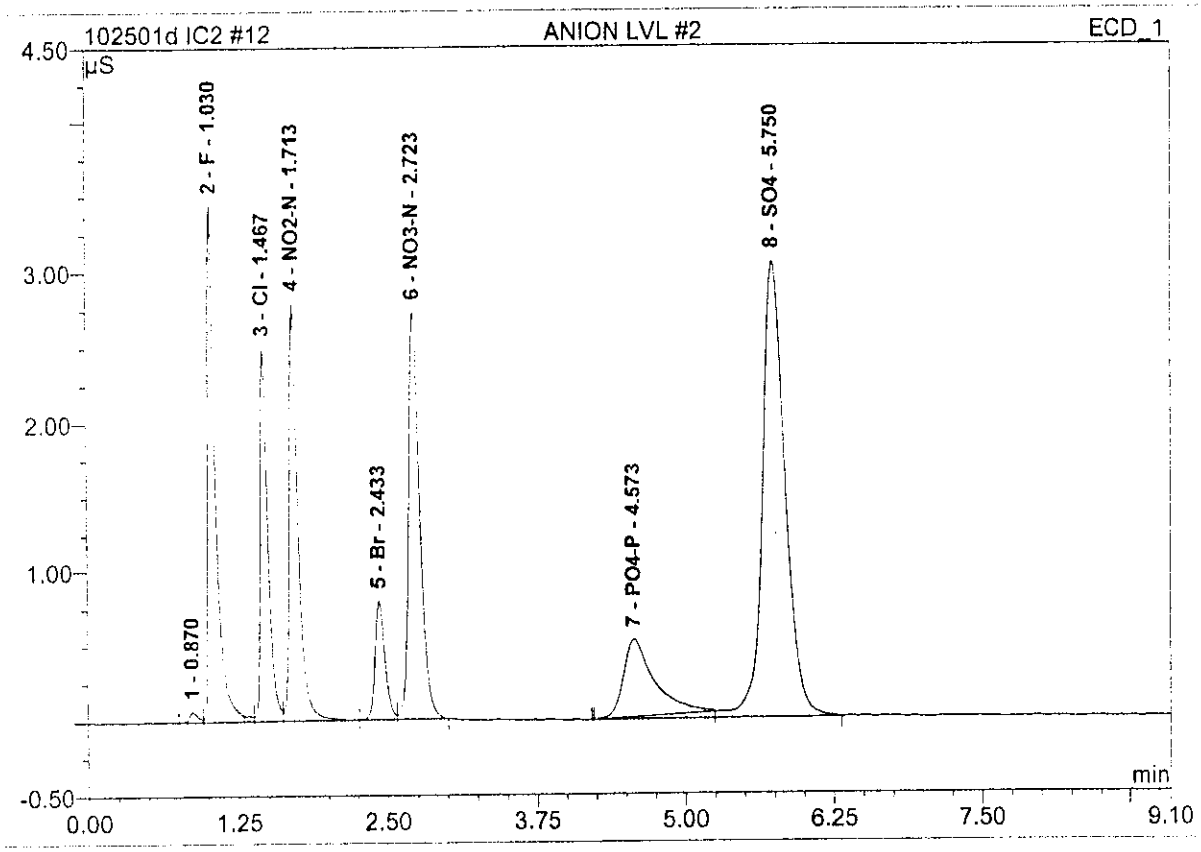


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.03	F	0.325	0.028	16.20	0.356	BM
2	1.47	Cl	0.305	0.021	12.65	0.369	M
3	1.71	NO2-N	0.267	0.022	12.81	0.180	MB
4	2.44	Br	0.077	0.007	4.13	0.230	BM
5	2.74	NO3-N	0.261	0.028	16.56	0.248	MB
6	5.78	SO4	0.297	0.064	37.65	1.662	BMB
Total:			1.532	0.170	100.00	3.045	

12 ANION LVL #2

1,1 GSG ANION LVL #2

Sample Name:	**ANION LVL #2**	*Injection Volume:*	**25.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 12:06**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

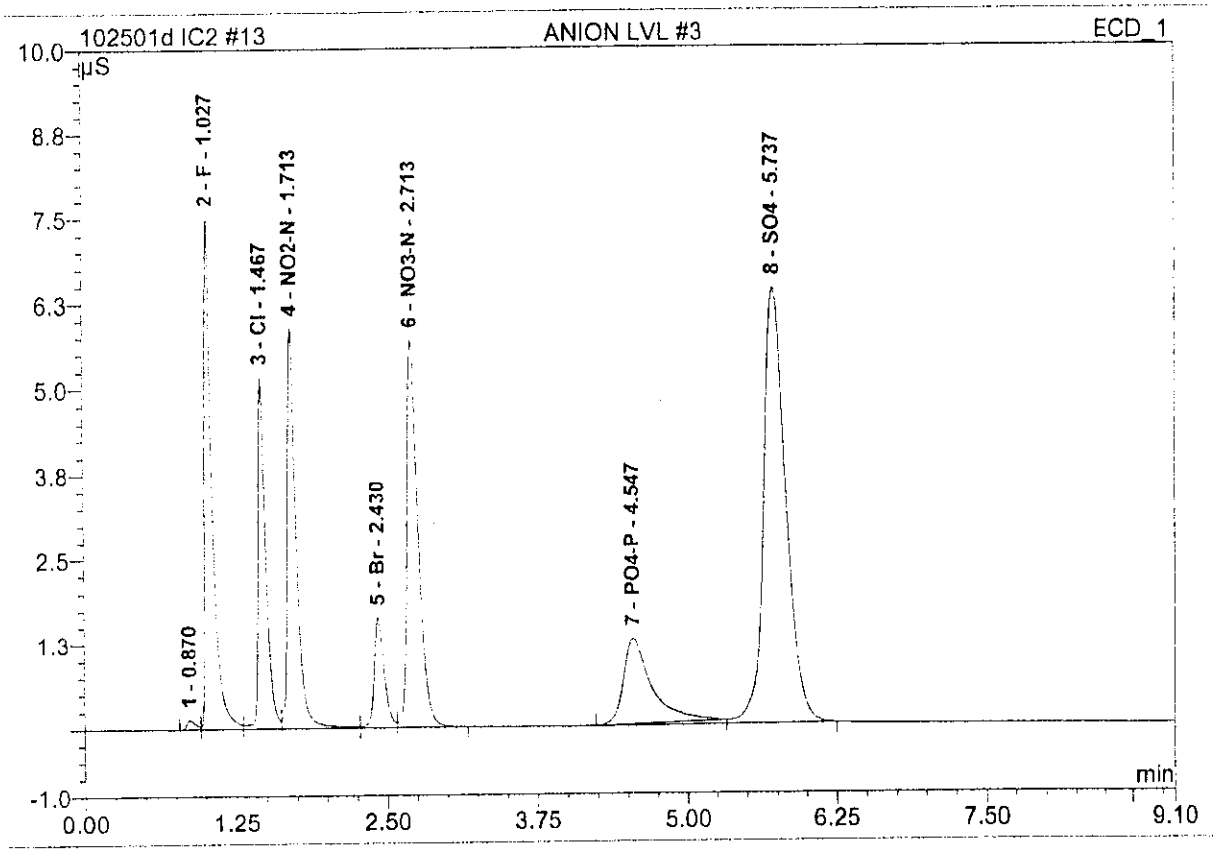


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.068	0.006	0.30	n.a.	BM
2	1.03	F	3.440	0.259	13.72	1.907	M
3	1.47	Cl	2.491	0.178	9.42	1.904	M
4	1.71	NO2-N	2.788	0.235	12.43	1.163	M
5	2.43	Br	0.786	0.074	3.92	1.917	M
6	2.72	NO3-N	2.718	0.291	15.38	1.284	MB
7	4.57	PO4-P	0.514	0.154	8.16	3.046	Ru
8	5.75	SO4	3.042	0.693	36.67	9.864	BMB
Total:			15.848	1.890	100.00	21.084	

13 ANION LVL #3

1,1 GSG ANION LVL #3

Sample Name:	**ANION LVL #3**	*Injection Volume:*	**25.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 12:17**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

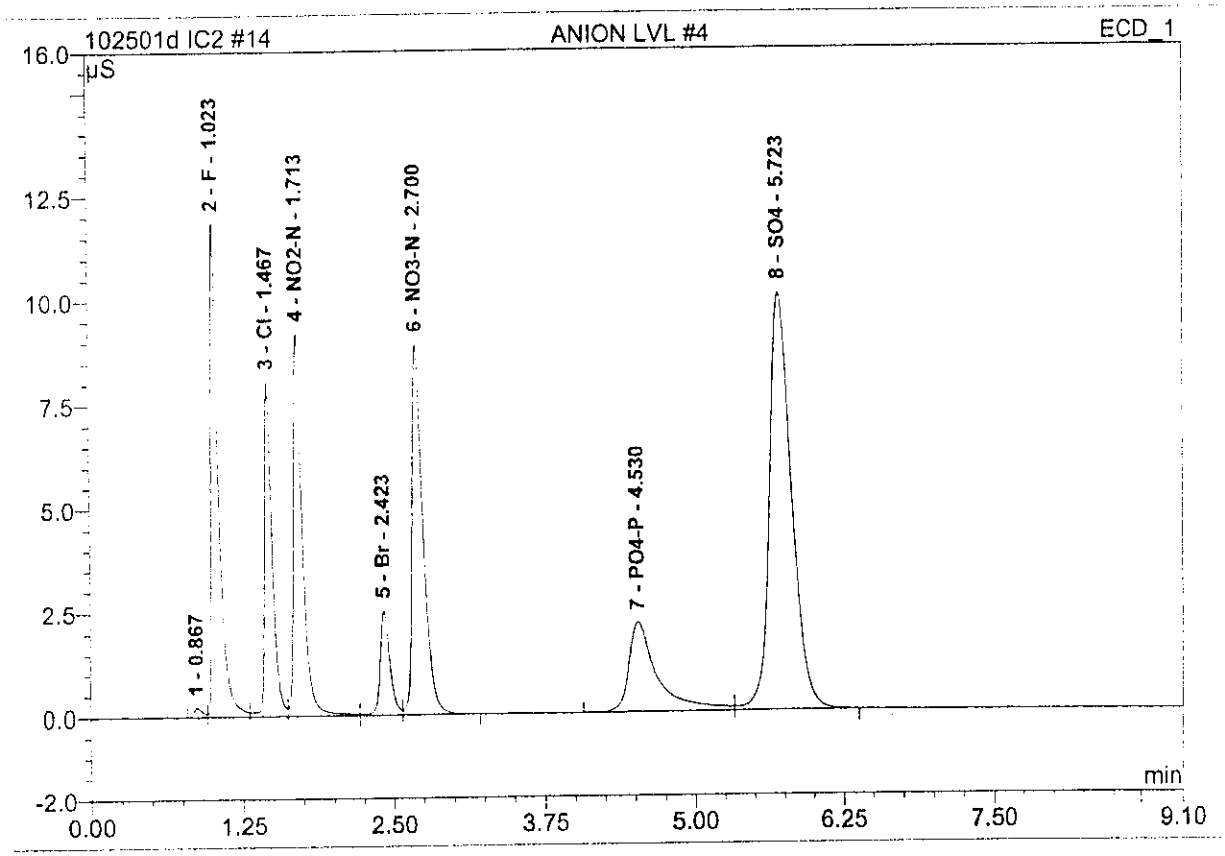


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.140	0.012	0.30	n.a.	BM
2	1.03	F	7.498	0.540	13.73	3.789	M
3	1.47	Cl	5.169	0.372	9.45	3.811	M
4	1.71	NO2-N	5.885	0.495	12.56	2.360	M
5	2.43	Br	1.624	0.156	3.95	3.970	M
6	2.71	NO3-N	5.694	0.616	15.64	2.567	MB
7	4.55	PO4-P	1.261	0.345	8.75	5.795	Ru
8	5.74	SO4	6.396	1.402	35.61	19.112	BMB
Total:			33.668	3.937	100.00	41.403	

14 ANION LVL #4

1,1 GSG ANION LVL #4

Sample Name:	**ANION LVL #4**	*Injection Volume:*	**25.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 12:29**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

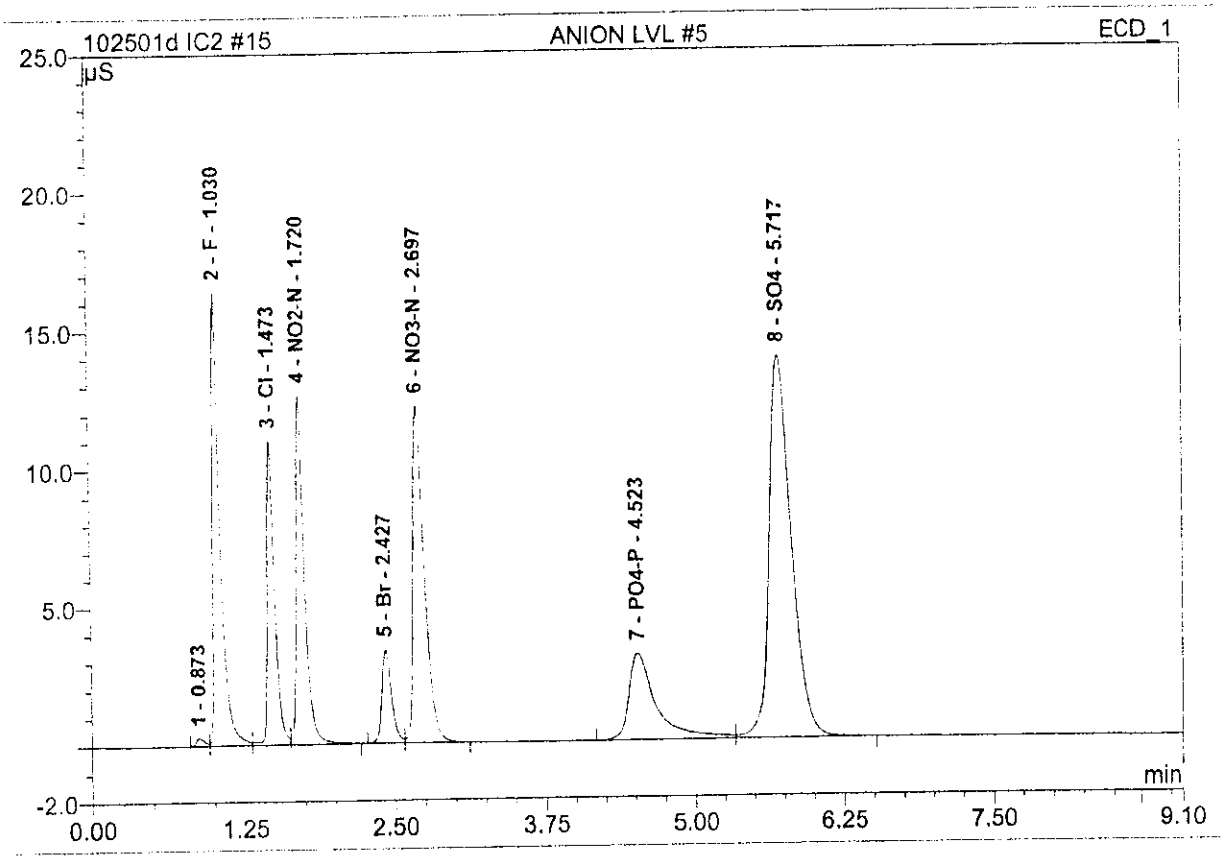


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.217	0.018	0.29	n.a.	BM
2	1.02	F	11.857	0.846	13.73	5.835	M
3	1.47	Cl	8.060	0.578	9.38	5.834	M
4	1.71	NO2-N	9.207	0.765	12.41	3.608	M
5	2.42	Br	2.510	0.240	3.88	6.081	M
6	2.70	NO3-N	8.909	0.964	15.64	3.941	MB
7	4.53	PO4-P	2.159	0.605	9.81	9.547	BM
8	5.72	SO4	10.053	2.149	34.86	28.852	MB
Total:			52.972	6.165	100.00	63.698	

15 ANION LVL #5

1,1 GSG ANION LVL #5

Sample Name:	**ANION LVL #5**	*Injection Volume:*	**25.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 12:40**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.291	0.024	0.28	n.a.	BM
2	1.03	F	16.415	1.159	13.76	7.929	M
3	1.47	Cl	11.050	0.788	9.36	7.896	M
4	1.72	NO2-N	12.668	1.028	12.20	4.818	MB
5	2.43	Br	3.385	0.312	3.70	7.898	BM
6	2.70	NO3-N	12.206	1.316	15.62	5.330	MB
7	4.52	PO4-P	3.146	0.840	9.97	12.944	BM
8	5.72	SO4	13.841	2.958	35.11	39.400	MB
Total:			73.003	8.425	100.00	86.216	

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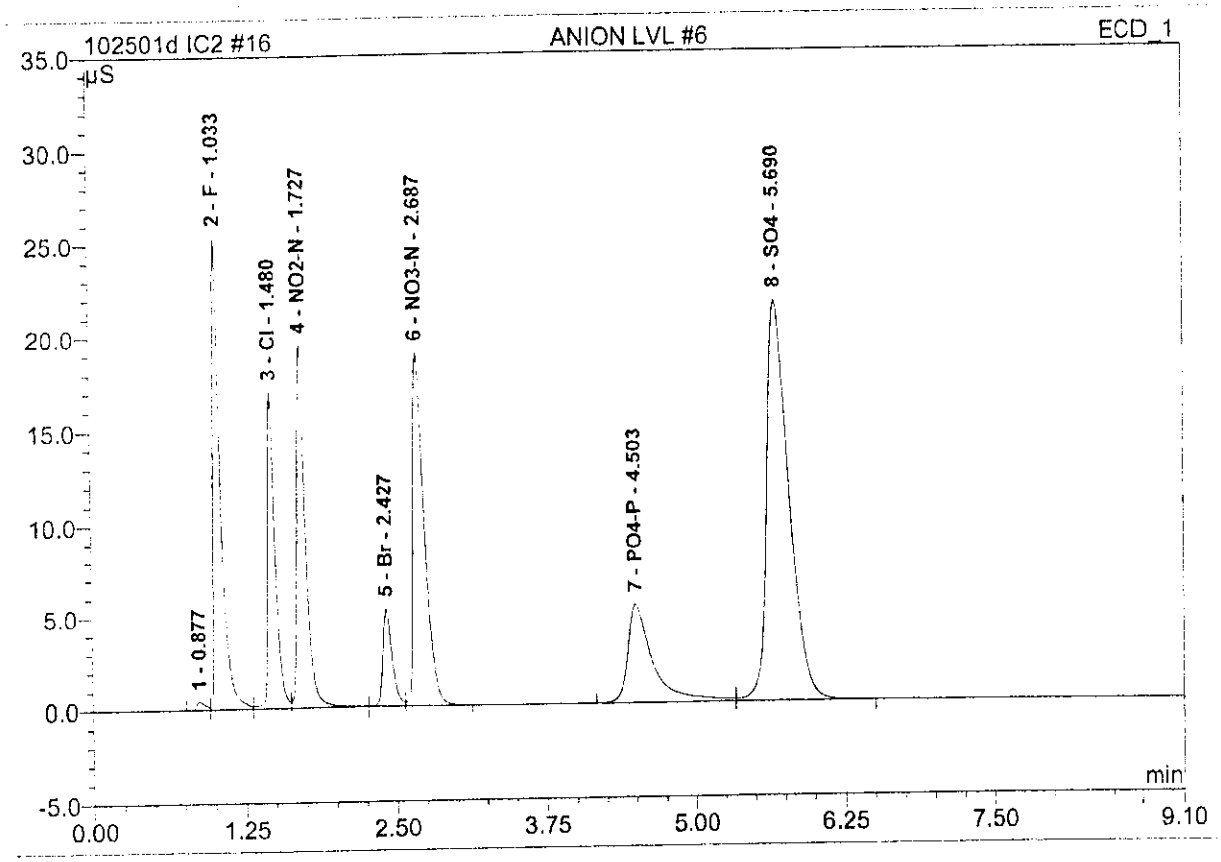
16 ANION LVL #6

1,1 GSG ANION LVL #6

Sample Name:	**ANION LVL #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 12:52**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

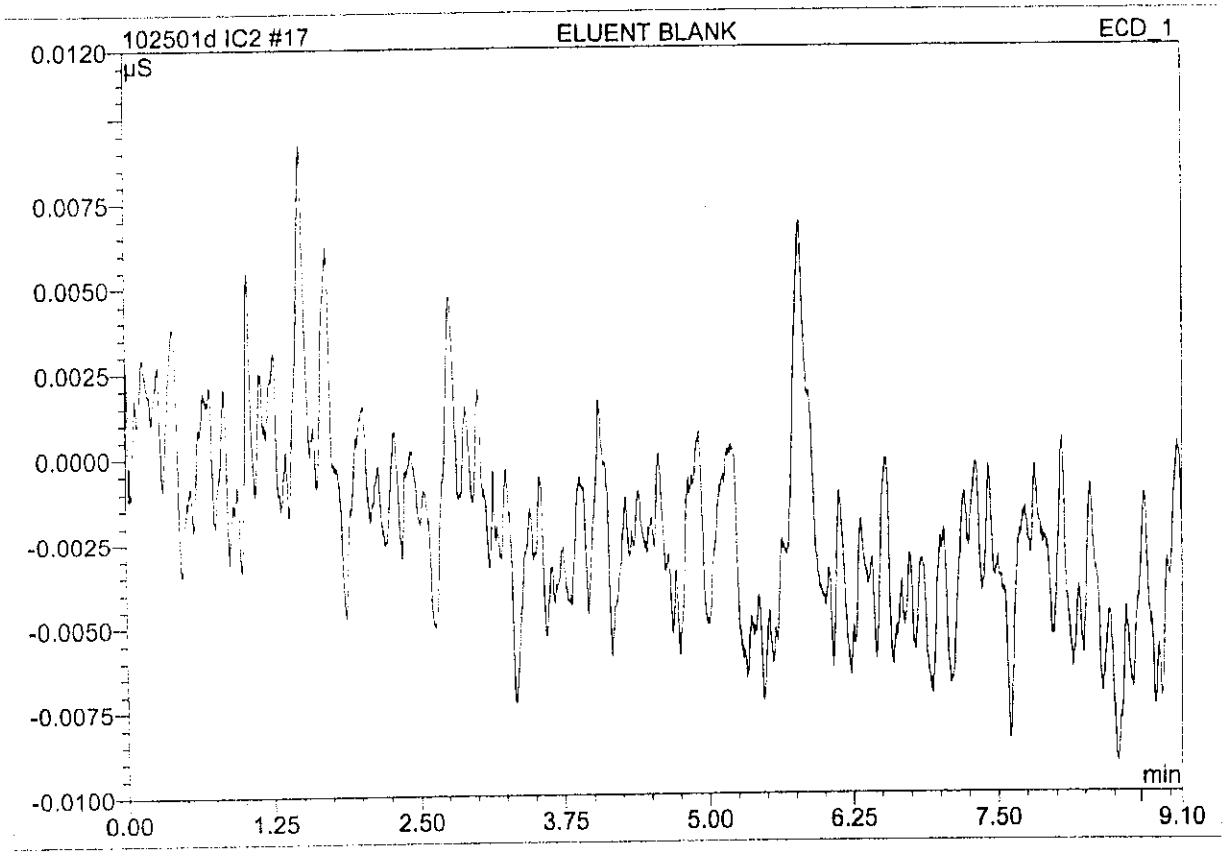


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.429	0.035	0.27	n.a.	BM
2	1.03	F	25.315	1.799	13.66	12.213	M
3	1.48	Cl	17.006	1.230	9.34	12.228	M
4	1.73	NO2-N	19.505	1.587	12.06	7.398	MB
5	2.43	Br	5.262	0.477	3.62	12.051	BM
6	2.69	NO3-N	18.967	2.073	15.74	8.314	MB
7	4.50	PO4-P	5.330	1.331	10.11	20.034	BM
8	5.69	SO4	21.509	4.636	35.21	61.282	MB
Total:			113.323	13.168	100.00	133.519	

17 ELUENT BLANK

1,1 GSG ELUENT BLANK

Sample Name:	**ELUENT BLANK**	*Injection Volume:*	**25.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 13:03**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

18 ALT CCV SV53-30

1,1 ANION ALT CCV SV0053-30

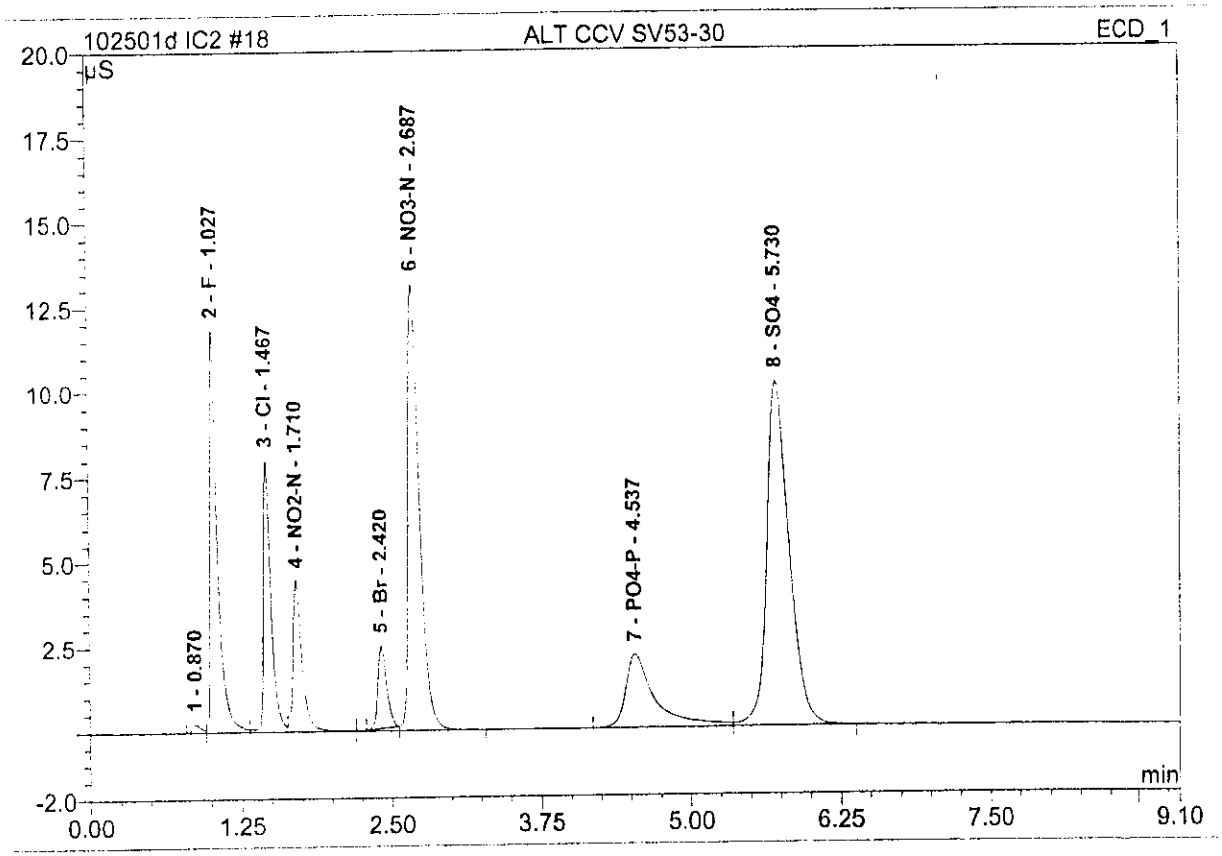
Sample Name:	**ALT CCV SV53-30**
Vial Number:	**8**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**10/25/2001 13:15**
Run Time (min):	**9.10**

ALT CCV SV53-30	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8472	-2.55	PASS
Cl	6	5.7823	-3.63	PASS
NO2-N	3.65	NA	#VALUE!	#VALUE!
Br	6	5.4050	-9.92	FAIL
NO3-N	4.07	NA	#VALUE!	#VALUE!
PO4-P	9.78	9.5570	-2.28	PASS
SO4	30	29.0640	-3.12	PASS

18 ALT CCV SV53-30

1,1 ANION ALT CCV SV0053-30

Sample Name:	**ALT CCV SV53-30**	*Injection Volume:*	**25.0**
Vial Number:	**8**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 13:15**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.244	0.021	0.33	n.a.	BM
2	1.03	F	11.850	0.848	13.54	5.847	M
3	1.47	Cl	8.020	0.573	9.15	5.782	M
4	1.71	NO2-N	4.465	0.384	6.13	1.849	M
5	2.42	Br	2.419	0.213	3.40	5.405	Ru
6	2.69	NO3-N	13.160	1.454	23.21	5.872	MB
7	4.54	PO4-P	2.148	0.605	9.66	9.557	BM
8	5.73	SO4	10.144	2.166	34.58	29.064	MB
Total:			52.451	6.263	100.00	63.376	

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19 ALT CCV SOS55-48

1,1 GSG ANION ALT NO2/NO3 SV0052-48

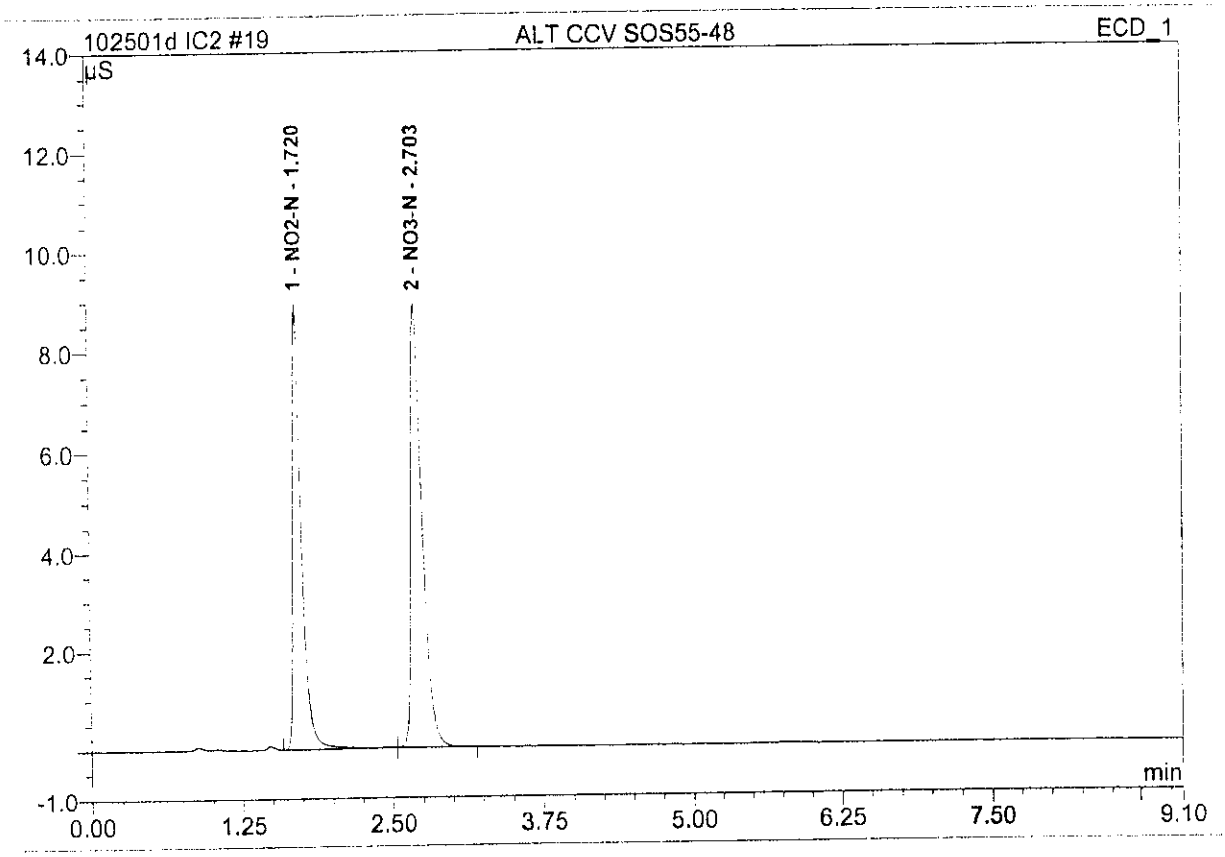
Sample Name:	**ALT CCV SOS55-48**
Vial Number:	**9**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**10/25/2001 13:26**
Run Time (min):	**9.10**

ALT CCV SOS55-4	Actual mg/L	Recoved mg/L	%Difference	
n.a.	6.00	n.a.	#VALUE!	#VALUE!
n.a.	6	n.a.	#VALUE!	#VALUE!
NO2-N	3.65	3.4559	-5.32	FAIL 2/0% 0
n.a.	6	n.a.	#VALUE!	#VALUE!
NO3-N	4.07	3.9202	-3.68	PASS
n.a.	9.78	n.a.	#VALUE!	#VALUE!
n.a.	30	n.a.	#VALUE!	#VALUE!

19 ALT CCV SOS55-48

1,1 GSG ANION ALT NO2/NO3 SV0052-48

Sample Name:	**ALT CCV SOS55-48**	*Injection Volume:*	**25.0**
Vial Number:	**9**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 13:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.72	NO2-N	8.964	0.732	43.30	3.456	BM
2	2.70	NO3-N	8.929	0.959	56.70	3.920	MB
Total:			17.893	1.691	100.00	7.376	

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IC/Integration

12 WG106999-01 CCV

1,1 GSG ANION CCV SOS0056-10 102301

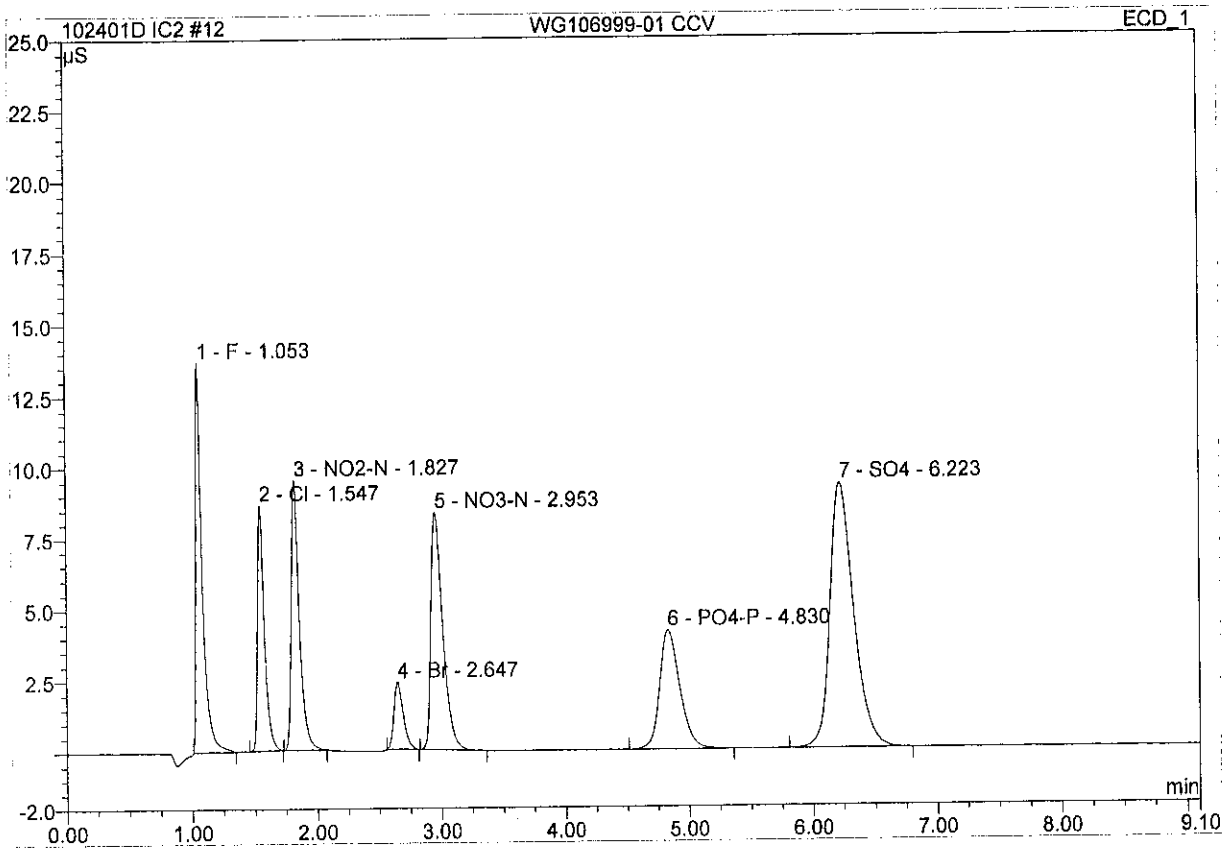
Sample Name:	**WG106999-01 CCV**
Vial Number:	**13**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**10/24/2001 12:05**
Run Time (min):	**9.10**

WG106999-01 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.7571	-4.05	PASS
Cl	6	5.7466	-4.22	PASS
NO2-N	3.65	3.5179	-3.62	PASS
Br	6	5.7325	-4.46	PASS
NO3-N	4.07	3.9260	-3.54	PASS
SO4	9.78	9.6101	-1.74	PASS
SO4	30	29.3555	-2.15	PASS

12 WG106999-01 CCV

1,1 GSG ANION CCV SOS0056-10 102301

Sample Name:	**WG106999-01 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**13**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/24/2001 12:05**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.05	F	13.689	0.820	13.52	5.757	BMB
2	1.55	Cl	8.633	0.547	9.03	5.747	BMB
3	1.83	NO2-N	9.477	0.709	11.69	3.518	BMB
4	2.65	Br	2.365	0.213	3.51	5.733	BMB
5	2.95	NO3-N	8.340	0.923	15.21	3.926	BMB
6	4.83	PO4-P	4.167	0.788	12.99	9.610	BMB
7	6.22	SO4	9.306	2.066	34.05	29.355	BMB
Total:			55.977	6.065	100.00	63.646	

22 WG106999-02 CCV

1,1 GSG ANION CCV SOS0056-10 102401

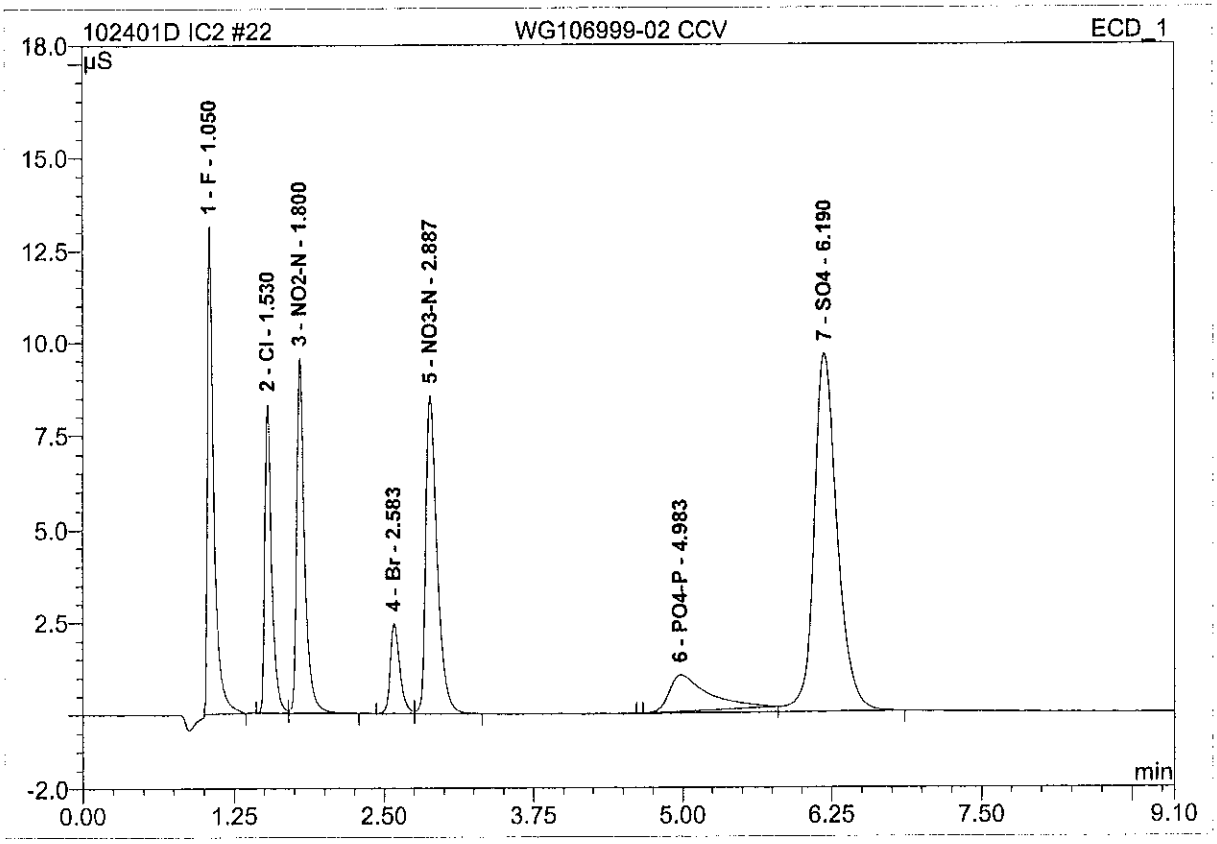
Sample Name:	**WG106999-02 CCV**
Vial Number:	**23**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**10/24/2001 14:39**
Run Time (min):	**9.10**

WG106999-02 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.7334	-4.44	PASS
Cl	6	5.8314	-2.81	PASS
NO2-N	3.65	3.6432	-0.19	PASS
Br	6	6.2217	3.70	PASS
NO3-N	4.07	4.0258	-1.09	PASS
SO4	9.78	4.7706	-51.22	FAIL
SO4	30	32.2499	7.50	~~FAIL~~ LCS <10%

22 WG106999-02 CCV

1,1 GSG ANION CCV SOS0056-10 102401

Sample Name:	**WG106999-02 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**23**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/24/2001 14:39**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.05	F	13.139	0.816	13.74	5.733	BMB
2	1.53	Cl	8.300	0.556	9.36	5.831	BM
3	1.80	NO2-N	9.534	0.735	12.37	3.643	MB
4	2.58	Br	2.456	0.231	3.90	6.222	BM
5	2.89	NO3-N	8.531	0.947	15.94	4.026	MB
6	4.98	PO4-P	1.000	0.380	6.39	4.771	Ru
7	6.19	SO4	9.628	2.275	38.30	32.250	BMB
Total:			52.587	5.940	100.00	62.476	

26 WG106999-01 CCV

1,1 GSG ANION CCV SOS0056-10 102401

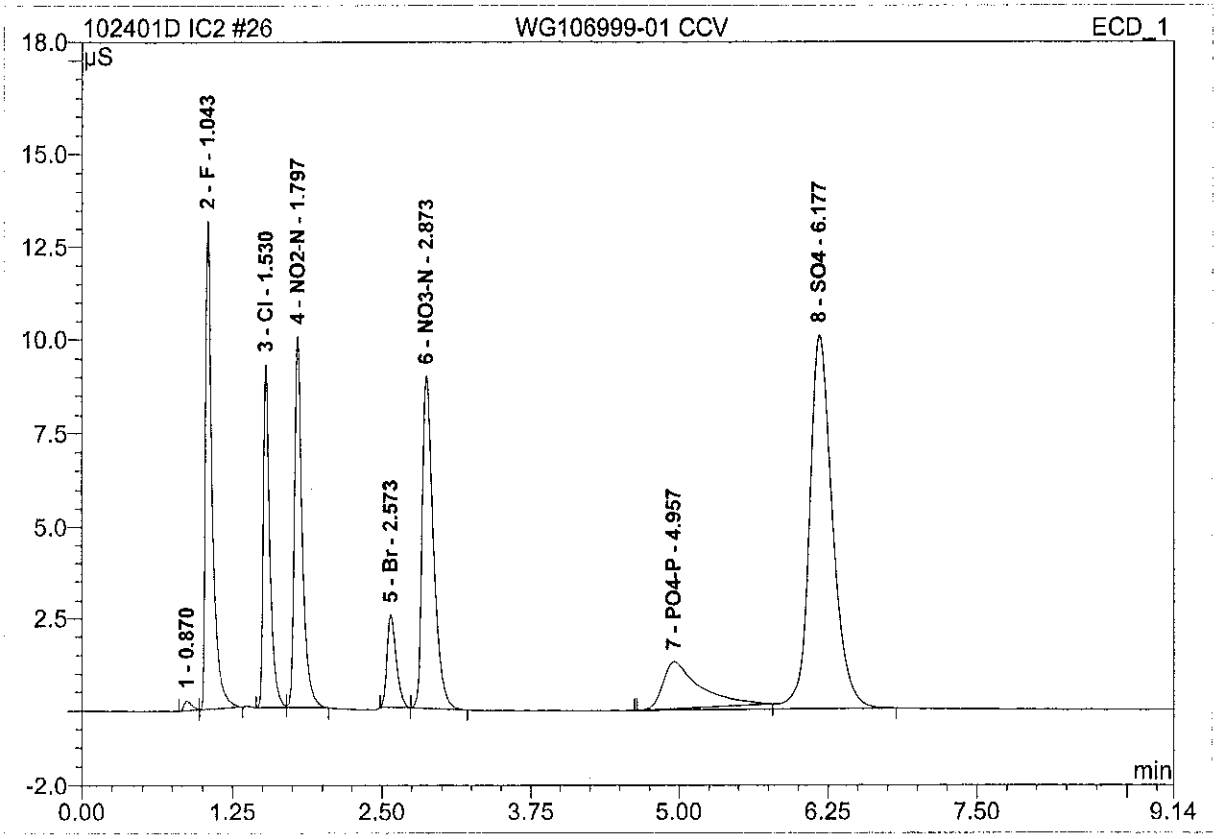
Sample Name:	**WG106999-01 CCV**
Vial Number:	**27**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**10/24/2001 16:01**
Run Time (min):	**9.14**

WG106999-01 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	6.0369	0.61	PASS
Cl	6	6.1572	2.62	PASS
NO2-N	3.65	3.7493	2.72	PASS
Br	6	6.0143	0.24	PASS
NO3-N	4.07	4.1636	2.30	PASS
PO4-P	9.78	5.5520	-43.23	FAIL
SO4	30	33.2034	10.68	FAIL UR

26 WG106999-01 CCV

1,1 GSG ANION CCV SOS0056-10 102401

Sample Name:	**WG106999-01 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**27**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/24/2001 16:01**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.14**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.251	0.019	0.31	n.a.	BM
2	1.04	F	13.161	0.861	13.85	6.037	MB
3	1.53	Cl	9.244	0.587	9.45	6.157	BM
4	1.80	NO2-N	10.004	0.757	12.17	3.749	M
5	2.57	Br	2.502	0.224	3.60	6.014	BMB
6	2.87	NO3-N	8.948	0.980	15.76	4.164	BMB
7	4.96	PO4-P	1.254	0.446	7.17	5.552	Ru
8	6.18	SO4	10.060	2.344	37.70	33.203	BMB
Total:			55.423	6.217	100.00	64.877	

22 WG106999-01 CCV RR

1,1 ANION CCV SOS0056-10 102501

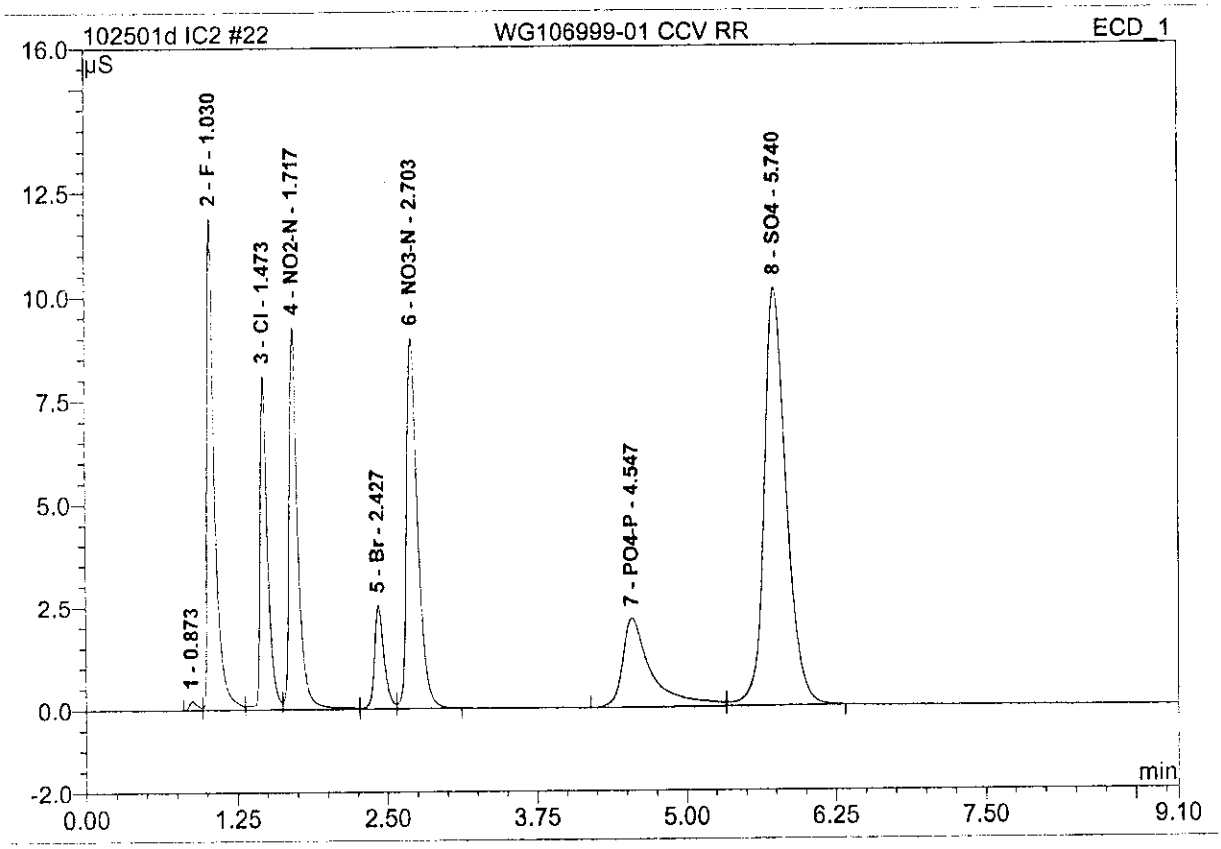
Sample Name:	**WG106999-01 CCV RR**
Vial Number:	**11**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**10/25/2001 14:01**
Run Time (min):	**9.10**

WG106999-01 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8649	-2.25	PASS
Cl	6	5.8609	-2.32	PASS
NO2-N	3.65	3.6375	-0.34	PASS
Br	6	6.0530	0.88	PASS
NO3-N	4.07	3.9468	-3.03	PASS
PO4-P	9.78	9.5025	-2.84	PASS
SO4	30	28.9117	-3.63	PASS

22 WG106999-01 CCV RR

1,1 ANION CCV SOS0056-10 102501

Sample Name:	**WG106999-01 CCV RR**	*Injection Volume:*	**25.0**
Vial Number:	**11**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 14:01**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.216	0.018	0.29	n.a.	BM
2	1.03	F	11.890	0.851	13.76	5.865	M
3	1.47	Cl	8.088	0.581	9.40	5.861	M
4	1.72	NO2-N	9.266	0.772	12.49	3.638	M
5	2.43	Br	2.517	0.238	3.86	6.053	M
6	2.70	NO3-N	8.978	0.966	15.62	3.947	MB
7	4.55	PO4-P	2.150	0.601	9.73	9.503	BM
8	5.74	SO4	10.101	2.154	34.85	28.912	MB
Total:			53.207	6.180	100.00	63.777	

32 WG106999-02 CCV

1,1 GSG ANION CCV SOS0056-10 102501

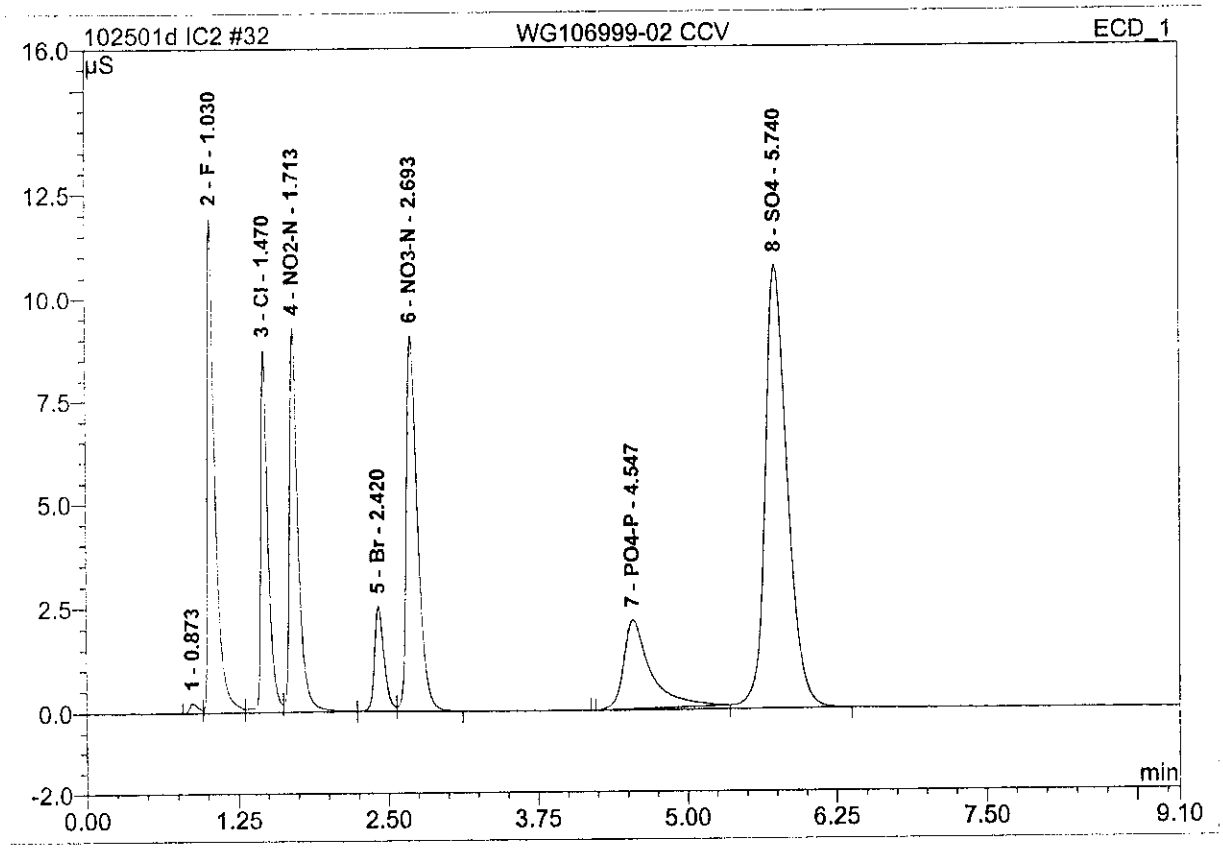
Sample Name:	**WG106999-02 CCV**
Vial Number:	**21**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**10/25/2001 15:56**
Run Time (min):	**9.10**

WG106999-02 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9244	-1.26	PASS
Cl	6	6.2911	4.85	PASS
NO2-N	3.65	3.5775	-1.99	PASS
Br	6	5.9154	-1.41	PASS
NO3-N	4.07	3.9630	-2.63	PASS
PO4-P	9.78	8.8196	-9.82	FAIL
SO4	30	31.3229	4.41	PASS

32 WG106999-02 CCV

1,1 GSG ANION CCV SOS0056-10 102501

Sample Name:	**WG106999-02 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**21**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 15:56**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.238	0.020	0.31	n.a.	BM
2	1.03	F	11.939	0.860	13.52	5.924	M
3	1.47	Cl	8.755	0.625	9.83	6.291	M
4	1.71	NO2-N	9.277	0.759	11.93	3.577	Mb
5	2.42	Br	2.505	0.233	3.66	5.915	bM
6	2.69	NO3-N	9.062	0.970	15.25	3.963	MB
7	4.55	PO4-P	2.120	0.554	8.72	8.820	Ru
8	5.74	SO4	10.692	2.339	36.78	31.323	BMB
Total:			54.589	6.359	100.00	65.814	

39 WG106999-03 CCV

1,1 GSG ANION CCV SOS0056-10 102401

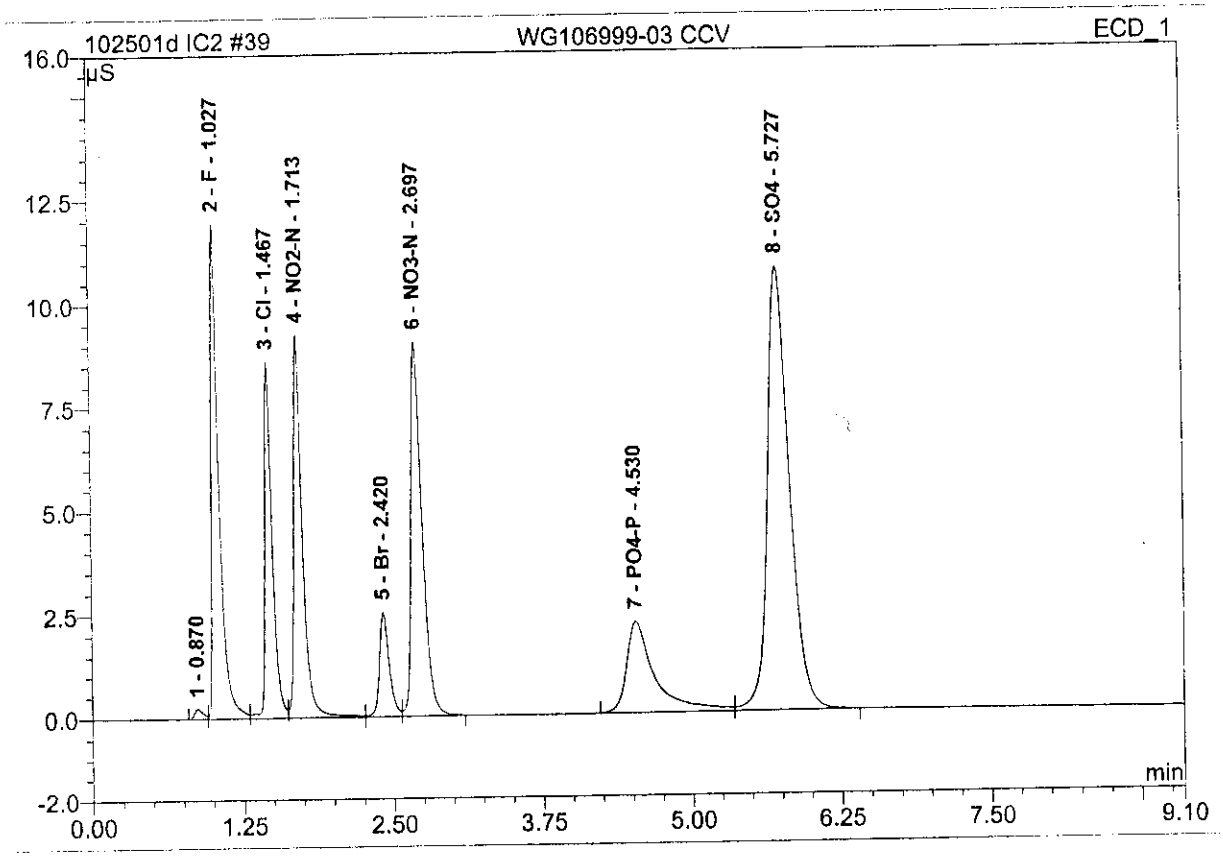
Sample Name:	**WG106999-03 CCV**
Vial Number:	**34**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**10/25/2001 17:37**
Run Time (min):	**9.10**

WG106999-03 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9531	-0.78	PASS
Cl	6	6.2468	4.11	PASS
NO2-N	3.65	3.6350	-0.41	PASS
Br	6	6.0498	0.83	PASS
NO3-N	4.07	3.9818	-2.17	PASS
PO4-P	9.78	9.6088	-1.75	PASS
SO4	30	30.6138	2.05	PASS

39 WG106999-03 CCV

1,1 GSG ANION CCV SOS0056-10 102401

Sample Name:	**WG106999-03 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**34**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 17:37**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



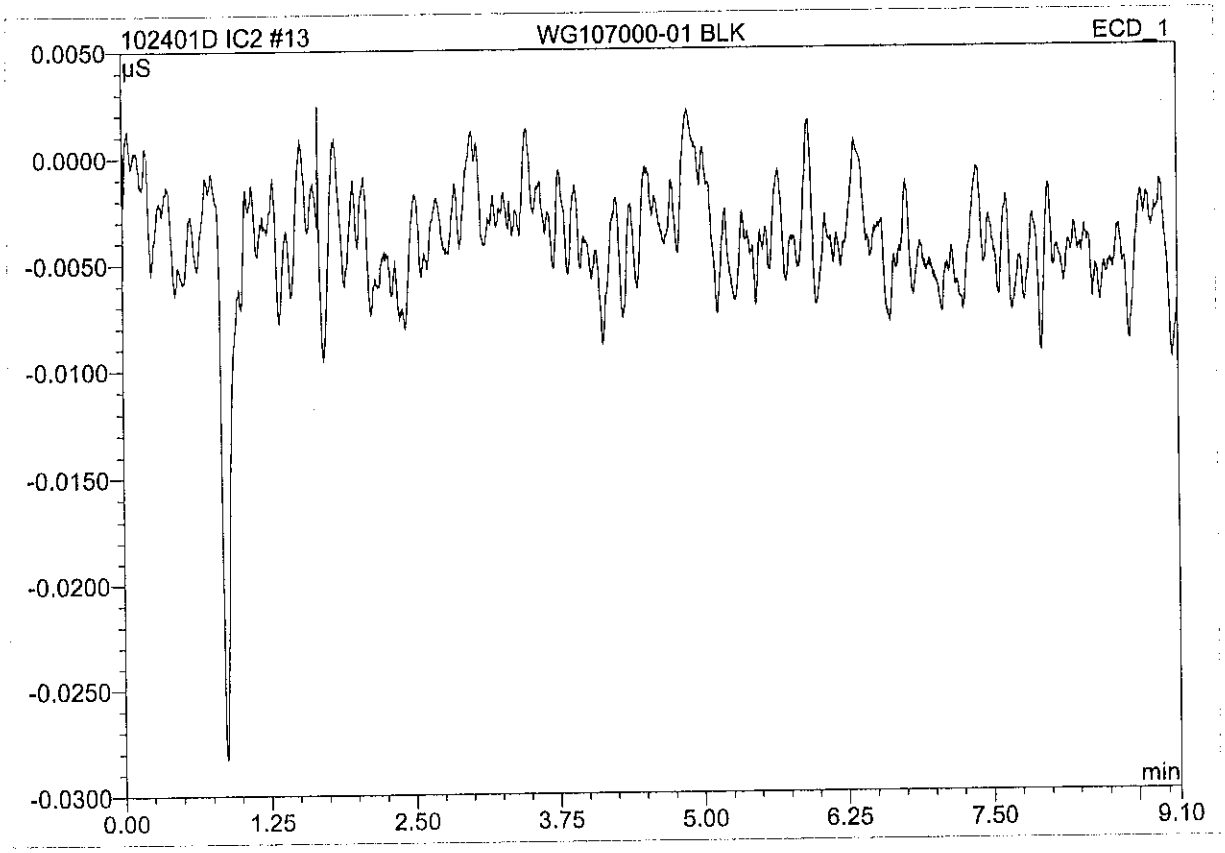
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.240	0.020	0.31	n.a.	BM
2	1.03	F	11.942	0.864	13.54	5.953	M
3	1.47	Cl	8.612	0.620	9.72	6.247	M
4	1.71	NO2-N	9.246	0.771	12.09	3.635	M
5	2.42	Br	2.515	0.238	3.73	6.050	M
6	2.70	NO3-N	9.039	0.975	15.27	3.982	MB
7	4.53	PO4-P	2.204	0.609	9.54	9.609	BM
8	5.73	SO4	10.721	2.284	35.80	30.614	MB
Total:			54.519	6.381	100.00	66.089	

2.4.5.4 Raw QC Data

13 WG107000-01 BLK

1,1 GSG ANION BLANK

Sample Name:	**WG107000-01 BLK**	*Injection Volume:*	**25.0**
Vial Number:	**14**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/24/2001 12:16**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

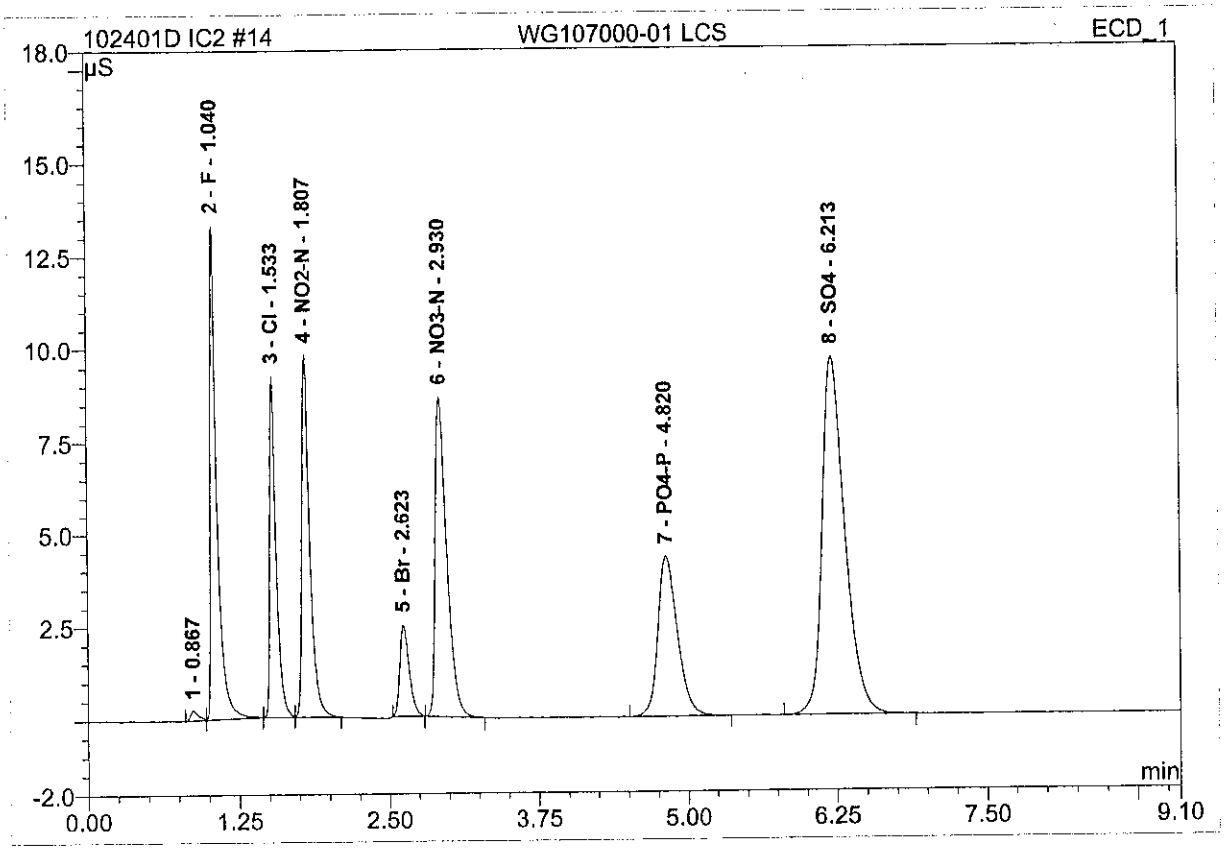


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

14 WG107000-01 LCS

1,1 GSG ANION LCS SOS0056-10

Sample Name:	**WG107000-01 LCS**	*Injection Volume:*	**25.0**
Vial Number:	**15**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/24/2001 12:28**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

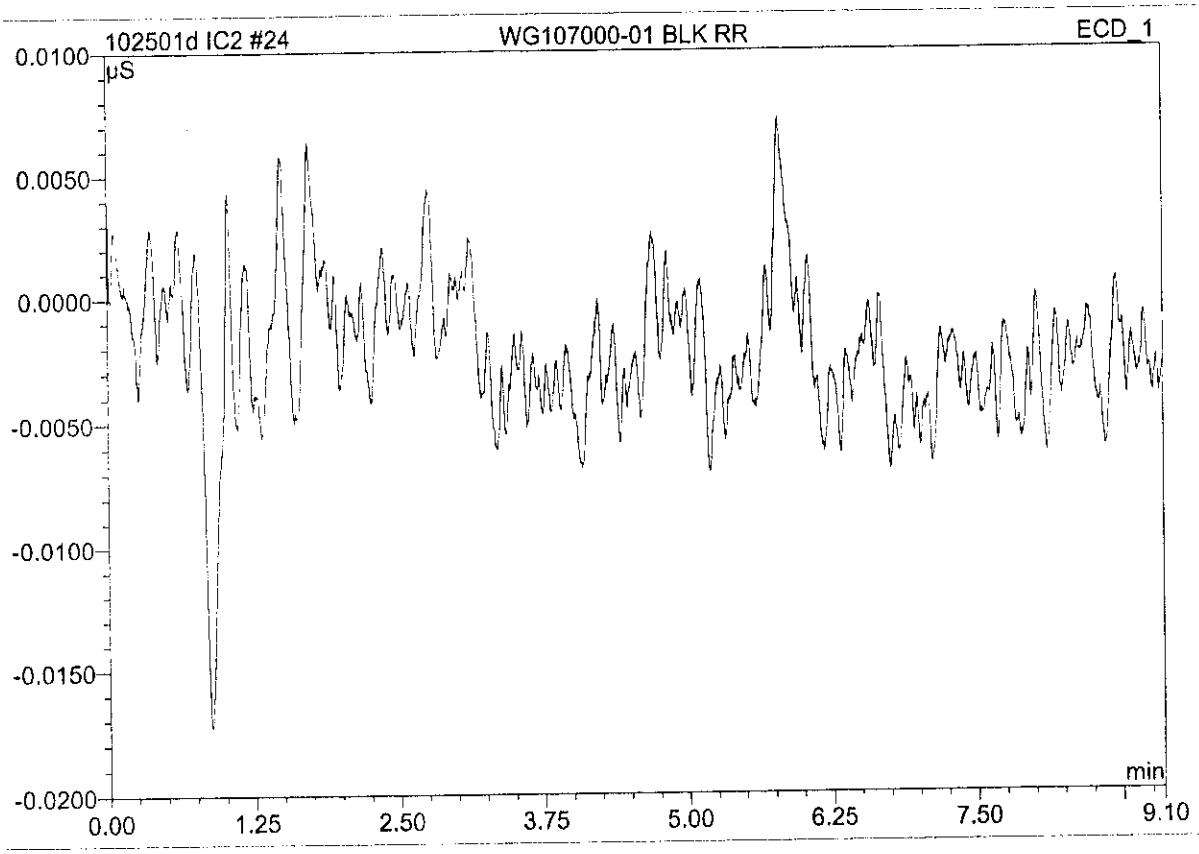


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.255	0.020	0.32	n.a.	BM
2	1.04	F	13.308	0.860	13.55	6.031	MB
3	1.53	Cl	9.199	0.582	9.17	6.102	BM
4	1.81	NO2-N	9.765	0.743	11.70	3.682	MB
5	2.62	Br	2.447	0.223	3.51	5.996	BMB
6	2.93	NO3-N	8.613	0.958	15.10	4.073	BMB
7	4.82	PO4-P	4.306	0.817	12.88	9.959	BMB
8	6.21	SO4	9.642	2.143	33.77	30.422	BMB
Total:			57.535	6.346	100.00	66.264	

24 WG107000-01 BLK RR

1,1 GSG ANION BLANK RR

Sample Name:	**WG107000-01 BLK RR**	*Injection Volume:*	**25.0**
Vial Number:	**12**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 14:24**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

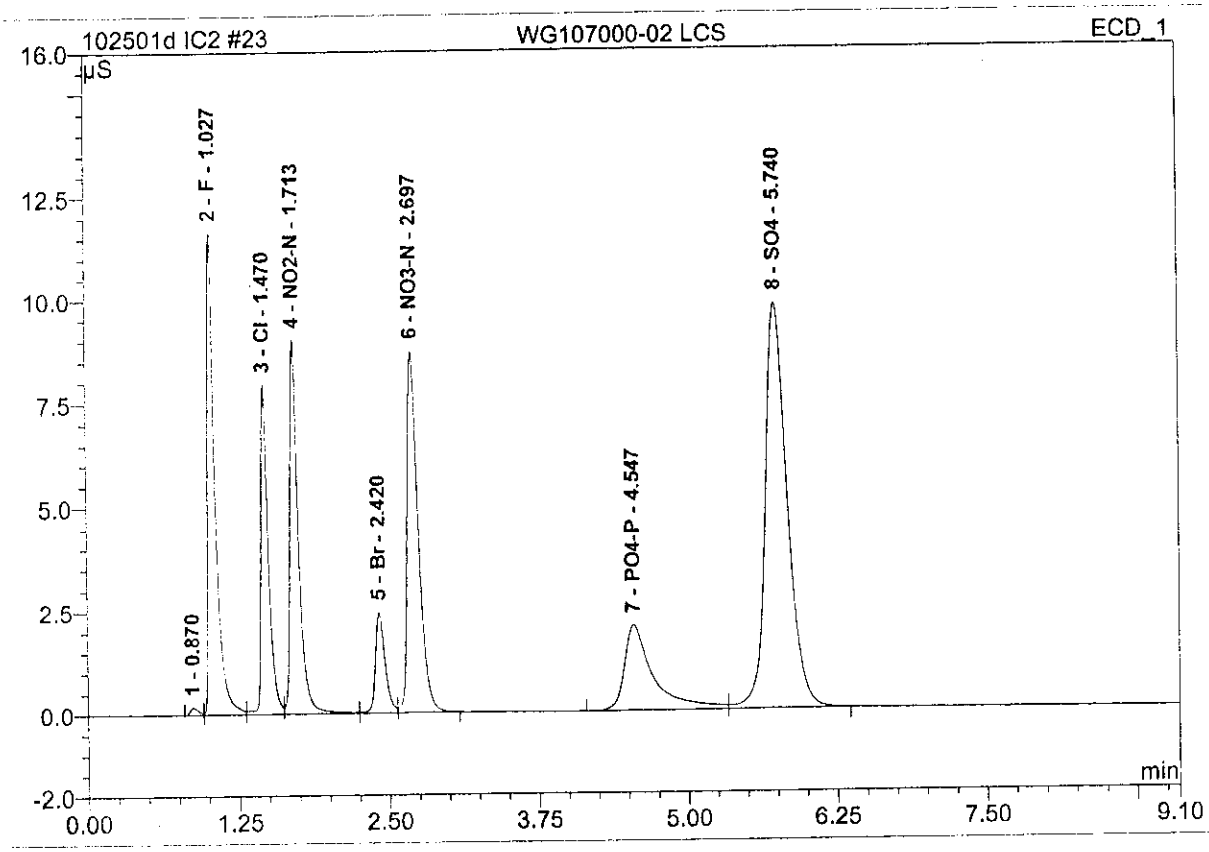


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

23 WG107000-02 LCS

1,1 GSG ANION LCS SO0056-10 102501

Sample Name:	**WG107000-02 LCS**	*Injection Volume:*	**25.0**
Vial Number:	**12**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 14:12**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.185	0.015	0.25	n.a.	BM
2	1.03	F	11.649	0.833	13.88	5.744	M
3	1.47	Cl	7.946	0.570	9.51	5.758	M
4	1.71	NO2-N	9.011	0.744	12.41	3.512	M
5	2.42	Br	2.439	0.230	3.83	5.833	M
6	2.70	NO3-N	8.705	0.933	15.55	3.818	MB
7	4.55	PO4-P	2.075	0.584	9.74	9.252	BM
8	5.74	SO4	9.795	2.091	34.84	28.086	MB
Total:			51.805	6.000	100.00	62.003	

Sequence: 102401D 102
Operator: gsg

Printed: 10/26/2001 2:57:50 PM

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 62

Created: 10/24/2001 6:04:45 PM by gsg
(Modified, not saved)

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
1	ANION LVL #1	Standard	1	25.0	9056	9056	Finished	10/5/2001 11:34:46 AM
2	ANION LVL #2	Standard	2	25.0	9056	9056	Finished	10/5/2001 11:46:16 AM
3	ANION LVL #3	Standard	3	25.0	9056	9056	Finished	10/5/2001 11:57:47 AM
4	ANION LVL #4	Standard	4	25.0	9056	9056	Finished	10/5/2001 12:09:17 PM
5	ANION LVL #5	Standard	5	25.0	9056	9056	Finished	10/5/2001 12:20:48 PM
6	ANION LVL #6	Standard	6	25.0	9056	9056	Finished	10/5/2001 12:32:18 PM
7	ELUENT BLANK	Unknown	7	25.0	9056	9056	Finished	10/5/2001 12:43:48 PM
8	ALT CCV SV53-30	Unknown	8	25.0	9056	9056	Finished	10/5/2001 12:55:18 PM
9	ALT CCV SOS55-48	Unknown	9	25.0	9056	9056	Finished	10/5/2001 1:06:48 PM
10	DI H2O BLANK	Unknown	12	25.0	9056	9056	Finished	10/24/2001 11:42:14 AM
11	ELUENT BLANK	Unknown	13	25.0	9056	9056	Finished	10/24/2001 11:53:44 AM
12	WG106999-01 CCV	Unknown	13	25.0	9056	9056	Finished	10/24/2001 12:05:14 PM
13	WG107000-01 BLK	Unknown	14	25.0	9056	9056	Finished	10/24/2001 12:16:44 PM
14	WG107000-01 LCS *	Unknown	15	25.0	9056	9056	Finished	10/24/2001 12:28:14 PM
15	WG107000-03 REF	Unknown	16	25.0	9056	9056	Finished	10/24/2001 1:19:05 PM
16	WG107000-04 DUP	Unknown	17	25.0	9056	9056	Finished	10/24/2001 1:30:35 PM
17	L0110485-02	Unknown	18	25.0	9056	9056	Finished	10/24/2001 1:42:04 PM
18	L0110485-03	Unknown	19	25.0	9056	9056	Finished	10/24/2001 1:53:34 PM
19	WG107000-05 REF	Unknown	20	25.0	9056	9056	Finished	10/24/2001 2:05:04 PM
20	WG107000-06 MS	Unknown	21	25.0	9056	9056	Finished	10/24/2001 2:16:35 PM
21	WG107000-07 MSD	Unknown	22	25.0	9056	9056	Finished	10/24/2001 2:28:04 PM
cc/k/cy 22	WG106999-02 CCV	Unknown	23	25.0	9056	9056	Finished	10/24/2001 2:39:35 PM
23	L0110485-07	Unknown	24	25.0	9056	9056	Finished	10/24/2001 2:51:04 PM
24	L0110485-08	Unknown	25	25.0	9056	9056	Finished	10/24/2001 3:02:34 PM
25	L0110485-09	Unknown	26	25.0	9056	9056	Finished	10/24/2001 3:14:05 PM
cc/k/cy 26	WG106999-03 CCV	Unknown	27	25.0	9056	9056	Finished	10/24/2001 4:01:04 PM
Not Used 27	WG107000-01 BLK RR	Unknown	30	25.0	9056	9056	Finished	10/24/2001 4:12:36 PM
28	DI H2O BLANK	Unknown	31	25.0	9056	9056	Finished	10/24/2001 4:50:09 PM
29	DI H2O BLANK	Unknown	32	25.0	9056	9056	Finished	10/24/2001 5:01:39 PM
30	DI H2O BLANK	Unknown	31	25.0	9056	9056	Finished	10/24/2001 5:13:09 PM
31	DI H2O BLANK	Unknown	32	25.0	9056	9056	Finished	10/24/2001 5:24:40 PM
32	WG106999-01 CCV	Unknown	32	25.0	9056	9056	Finished	10/24/2001 6:05:43 PM
33	WG106999-01 CCV	Unknown	33	25.0	9056	9056	Finished	10/24/2001 6:38:46 PM
34	WG106999-01 CCV	Unknown	33	25.0	9056	9056	Finished	10/24/2001 6:50:15 PM
35	WG106999-01 CCV	Unknown	33	25.0	9056	9056	Finished	10/24/2001 7:05:18 PM
36	ELUENT BLANK	Unknown	34	25.0	9056	9056	Finished	10/24/2001 7:29:58 PM
37	ELUENT BLANK	Unknown	35	25.0	9056	9056	Finished	10/24/2001 7:41:27 PM
38	WG106999-01 CCV	Unknown	35	25.0	9056	9056	Finished	10/24/2001 7:52:58 PM
39	ELUENT BLANK	Unknown	35	25.0	9056	9056	Finished	10/24/2001 8:13:18 PM
40	DI H2O BLANK	Unknown	36	25.0	9056	9056	Finished	10/24/2001 8:24:48 PM
41	WG106999-01 CCV	Unknown	37	25.0	9056	9056	Finished	10/24/2001 8:36:18 PM
42	WG106999-01 CCV	Unknown	38	25.0	9056	9056	Finished	10/24/2001 8:54:32 PM

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Sequence: 102401D IC2
Operator: gsg

Printed: 10/26/2001 2:57:50 PM

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 62

Created: 10/24/2001 6:04:45 PM by gsg
(Modified, not saved)

No.	Name	Dil. Factor	Sample ID	Comment
1	ANION LVL #1	1.0000		
2	ANION LVL #2	1.0000		
3	ANION LVL #3	1.0000		
4	ANION LVL #4	1.0000		
5	ANION LVL #5	1.0000		
6	ANION LVL #6	1.0000		
7	ELUENT BLANK	1.0000		
8	ALT CCV SV53-30	1.0000		
9	ALT CCV SOS55-48	1.0000		
10	DI H2O BLANK	1.0000		
11	ELUENT BLANK	1.0000		
12	WG106999-01 CCV	1.0000		1,1 GSG ANION CCV SOS0056-10 102301
13	WG107000-01 BLK	1.0000		1,1 GSG ANION BLANK
14	WG107000-01 LCS *	1.0000		1,1 GSG ANION LCS SOS0056-10
15	WG107000-03 REF	1.0000		1,1 GSG L0110485-01 REF
16	WG107000-04 DUP	1.0000		1,1 GSG L0110485-01 DUP
17	L0110485-02	1.0000		1,1 GSG
18	L0110485-03	1.0000		1,1 GSG
19	WG107000-05 REF	1.0000		1,1 GSG L0110485-04 REF
20	WG107000-06 MS	1.0000		1,1 GSG L0110485-05 MS
21	WG107000-07 MSD	1.0000		1,1 GSG L0110485-06 MSD
22	WG106999-02 CCV	1.0000		1,1 GSG ANION CCV SOS0056-10 102401
23	L0110485-07	1.0000		1,1 GSG
24	L0110485-08	1.0000		1,1 GSG
25	L0110485-09	1.0000		1,1 GSG
26	WG106999-03 CCV	1.0000		1,1 GSG ANION CCV SOS0056-10 102401
27	WG107000-01 BLK RR	1.0000		1,1 GSG
28	DI H2O BLANK	1.0000		1,1 GSG
29	DI H2O BLANK	1.0000		1,1 GSG
30	DI H2O BLANK	1.0000		1,1 GSG
31	DI H2O BLANK	1.0000		1,1 GSG
32	WG106999-01 CCV	1.0000		1,1 GSG ANION CCV SOS0056-10 102401
33	WG106999-01 CCV	1.0000		1,1 GSG ANION CCV SOS0056-10 102401
34	WG106999-01 CCV	1.0000		1,1 GSG ANION CCV SOS0056-10 102401
35	WG106999-01 CCV	1.0000		1,1 GSG ANION CCV SOS0056-10 102401
36	ELUENT BLANK	1.0000		1,1 GSG ELUENT BLANK
37	ELUENT BLANK	1.0000		1,1 GSG ELUENT BLANK
38	WG106999-01 CCV	1.0000		1,1 GSG ANION CCV SOS0056-10 102401
39	ELUENT BLANK	1.0000		1,1 GSG ELUENT BLANK
40	DI H2O BLANK	1.0000		1,1 GSG DI H2O BLANK
41	WG106999-01 CCV	1.0000		1,1 GSG ANION CCV SOS0056-10 102401
42	WG106999-01 CCV	1.0000		1,1 GSG ANION CCV SOS0056-10 102401

PeakNet © Dionex Corporation, Version 6.30 SP1 Build 587

Sequence: 102401D IC2
Operator: gsg

Printed: 10/26/2001 2:57:50 PM

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 62

Created: 10/24/2001 6:04:45 PM by gsg
(Modified, not saved)

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
43	WG106999-01 CCV	Unknown	39	25.0	9056	9056	Finished	10/24/2001 9:25:25 PM
44	WG107000-01 BLK RR	Unknown	37	25.0	9056	9056	Finished	10/24/2001 9:36:56 PM
45	WG107000-02 LCS RR	Unknown	15	25.0	9056	9056	Finished	10/24/2001 9:48:26 PM
46	WG107000-03 @ 500X	Unknown	16	25.0	9056	9056	Finished	10/24/2001 9:59:55 PM
47	L0110485-02 @ 500X	Unknown	18	25.0	9056	9056	Finished	10/24/2001 10:11:25 PM
48	L0110485-03 RR	Unknown	19	25.0	9056	9056	Finished	10/24/2001 10:22:54 PM
49	L0110485-03 DUP	Unknown	20	25.0	9056	9056	Finished	10/24/2001 10:34:24 PM
50	WG106999-02 CCV	Unknown	21	25.0	9056	9056	Finished	10/24/2001 10:45:54 PM
51	WG107000-05 REF RR	Unknown	21	25.0	9056	9056	Finished	10/24/2001 10:57:24 PM
52	WG107000-06 MS RR	Unknown	21	25.0	9056	9056	Finished	10/24/2001 11:08:54 PM
53	WG107000-07 MSD RR	Unknown	22	25.0	9056	9056	Finished	10/24/2001 11:20:24 PM
54	WG106999-03 CCV	Unknown	23	25.0	9056	9056	Finished	10/24/2001 11:31:53 PM
55	L0110485-07 RR	Unknown	24	25.0	9056	9056	Finished	10/24/2001 11:43:23 PM
56	L0110485-08 RR	Unknown	25	25.0	9056	9056	Finished	10/24/2001 11:54:53 PM
57	L0110485-09 RR	Unknown	26	25.0	9056	9056	Finished	10/25/2001 12:06:23 AM
58	WG106999-04 CCV	Unknown	27	25.0	9056	9056	Finished	10/25/2001 12:17:53 AM
59	L0110485-08 @ 2X	Unknown	30	25.0	9056	9056	Finished	10/25/2001 12:29:23 AM
60	L0110485-09 @ 2X	Unknown	31	25.0	9056	9056	Finished	10/25/2001 12:40:54 AM
61	WG106999-05 CCV	Unknown	32	25.0	9056	9056	Finished	10/25/2001 12:52:24 AM
62	END	Unknown	33	25.0	DX-320 OFF	9056	Finished	10/25/2001 1:03:53 AM

NOT USED

Sequence: 102401D IC2
Operator: gsg

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 62

Created: 10/24/2001 6:04:45 PM by gsg
(Modified, not saved)

No.	Name	Dil. Factor	Sample ID	Comment
43	WG106999-01 CCV	1.0000		1,1 GSG ANION CCV SOS0056-10 102401
44	WG107000-01 BLK RR	1.0000		1,1 GSG ANION BLANK
45	WG107000-02 LCS RR	1.0000		1,1 GSG ANION LCS SOS0056-10
46	WG107000-03 @ 500X	1.0000		1,500 GSG L0110485-01 REF
47	L0110485-02 @ 500X	1.0000		1,500 GSG
48	L0110485-03 RR	1.0000		1,1 GSG
49	L0110485-03 DUP	1.0000		1,1 GSG
50	WG106999-02 CCV	1.0000		1,1 GSG ANION CCV SOS0056-10 102401
51	WG107000-05 REF RR	1.0000		1,1 GSG L0110485-04 REF
52	WG107000-06 MS RR	1.0000		1,1 GSG L0110485-05 MS RR
53	WG107000-07 MSD RR	1.0000		1,1 GSG L0110485-06 MSD RR
54	WG106999-03 CCV	1.0000		1,1 GSG ANION CCV SOS0056-10 102401
55	L0110485-07 RR	1.0000		1,1 GSG
56	L0110485-08 RR	1.0000		1,1 GSG
57	L0110485-09 RR	1.0000		1,1 GSG
58	WG106999-04 CCV	1.0000		1,1 GSG ANION CCV SOS0056-10 102401
59	L0110485-08 @ 2X	1.0000		1,2 GSG
60	L0110485-09 @ 2X	1.0000		1,2 GSG
61	WG106999-05 CCV	1.0000		1,1 GSG ANION CCV SOS0056-10 102401
62	END	1.0000		1,1 GSG ANION CCV SOS0056-10 102401

10/29/01

PVLC 10/29/01

REMRON ENVIRONMENTAL SERVICES

IC Laboratory Maintenance Log

Analysis Date/Time 10-24-01 **Instrument ID** IC2 **Column ID** AG4A-SC / AS4A-SC **Data Subdirectory** 102401
Analyst Initials GSC **SOP # IC01 Rev. #** ✓ 9056 **SOP # IC02 Rev. #** 314.0

Daily Check

- ☑ Mobile phase reservoir
- ☑ System pressure 1175 PSI.
- ☑ Waste container

Returned to Control?

Yes ____ No ____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

Reviewed By: TRC 10/29/01

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 69

Created: 10/25/2001 9:21:34 PM by gsg
Last Update: 11/1/2001 3:00:54 PM by gsg

No.	Name	Comment
1	DI H2O BLANK	
2	ELUENT BLANK	
3	WG106999-01 CCV	1,1 GSG ANION CCV SOS0056-10 102301
4	WG107000-01 BLK	1,1 GSG ANION BLANK
5	WG106999-01 CCV RR	1,1 GSG ANION CCV SOS0056-10 102301
6	DI H20 BLANK	1,1 GSG ANION BLANK
7	WG106999-01 CCV RR	1,1 GSG ANION CCV SOS0056-10 102301
8	WG106999-01 CCV RR	1,1 GSG ANION CCV SOS0056-10 102301
9	DI H20 BLANK	1,1 GSG ANION BLANK
10	WG106999-01 CCV RR	1,1 GSG ANION CCV SOS0056-10
11	ANION LVL #1	1,1 GSG ANION LVL #1 SOS0056-10
12	ANION LVL #2	1,1 GSG ANION LVL #2
13	ANION LVL #3	1,1 GSG ANION LVL #3
14	ANION LVL #4	1,1 GSG ANION LVL #4
15	ANION LVL #5	1,1 GSG ANION LVL #5
16	ANION LVL #6	1,1 GSG ANION LVL #6
17	ELUENT BLANK	1,1 GSG ELUENT BLANK
18	ALT CCV SV53-30	1,1 ANION ALT CCV SV0053-30
19	ALT CCV SOS55-48	1,1 GSG ANION ALT NO2/NO3 SV0052-48
20	WG106999-01 CCV	1,1 ANION CCV SOS0056-10 102501
21	WG107000-01 BLK	1,1 GSG ANION BLANK
22	WG106999-01 CCV RR	1,1 ANION CCV SOS0056-10 102501
23	WG107000-02 LCS	1,1 GSG ANION LCS SO0056-10 102501
24	WG107000-01 BLK RR	1,1 GSG ANION BLANK RR
25	L0110485-08 RR	1,1 GSG
26	L0110485-08 @ 2X	1,2 GSG
27	L0110485-02 @ 500X	1,500 GSG
28	l0110485-01@ 500X	1,500 GSG
29	WG107000-03 REF DUP	1,1 GSG L0110485-03 RR REF DUP
30	WG107000-04 DUP	1,1 GSG L0110485-03 RR DUP
31	WG107000-05 REF RR	1,1 GSG L0110485-04 REF MS/MSD
32	WG106999-02 CCV	1,1 GSG ANION CCV SOS0056-10 102501
33	WG107000-06 MS RR	1,1 GSG L0110485-05 MS RR
34	WG107000-07 MSD RR	1,1 GSG L0110485-06 MSD RR
35	L0110485-07 RR	1,1 GSG
36	L0110485-09 RR	1,1 GSG
37	L0110485-09 @ 2X	1,2 GSG
38	L0110485-01 @ 100X	1,100 GSG
39	WG106999-03 CCV	1,1 GSG ANION CCV SOS0056-10 102401
✓40	WG107113-01 CCV	1,1 GSG ANION CCV SOS0056-10 102401
41	WG107114-01 BLK	1,1 GSG ANION BLANK
✓42	WG107114-01 BL RR	1,1 GSG ANION BLANK

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Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 69

Created: 10/25/2001 9:21:34 PM by gsg
Last Update: 11/1/2001 3:00:54 PM by gsg

No.	Name	Inj. Date/Time	Dil. Factor	Sample ID
1	DI H2O BLANK	10/25/2001 7:23:31 AM	1.0000	
2	ELUENT BLANK	10/25/2001 8:59:00 AM	1.0000	
3	WG106999-01 CCV	10/25/2001 9:10:29 AM	1.0000	CC
4	WG107000-01 BLK	10/25/2001 9:21:59 AM	1.0000	
5	WG106999-01 CCV RR	10/25/2001 9:33:29 AM	1.0000	
6	DI H20 BLANK	10/25/2001 9:54:26 AM	1.0000	
7	WG106999-01 CCV RR	10/25/2001 10:05:55 AM	1.0000	
8	WG106999-01 CCV RR	10/25/2001 10:17:25 AM	1.0000	
9	DI H20 BLANK	10/25/2001 10:33:41 AM	1.0000	
10	WG106999-01 CCV RR	10/25/2001 10:45:11 AM	1.0000	
11	ANION LVL #1	10/25/2001 11:54:58 AM	1.0000	
12	ANION LVL #2	10/25/2001 12:06:29 PM	1.0000	
13	ANION LVL #3	10/25/2001 12:17:59 PM	1.0000	
14	ANION LVL #4	10/25/2001 12:29:29 PM	1.0000	
15	ANION LVL #5	10/25/2001 12:40:59 PM	1.0000	
16	ANION LVL #6	10/25/2001 12:52:29 PM	1.0000	
17	ELUENT BLANK	10/25/2001 1:03:59 PM	1.0000	
18	ALT CCV SV53-30	10/25/2001 1:15:29 PM	1.0000	
19	ALT CCV SOS55-48	10/25/2001 1:26:59 PM	1.0000	
20	WG106999-01 CCV	10/25/2001 1:38:29 PM	1.0000	
21	WG107000-01 BLK	10/25/2001 1:49:59 PM	1.0000	
22	WG106999-01 CCV RR	10/25/2001 2:01:29 PM	1.0000	
23	WG107000-02 LCS	10/25/2001 2:12:59 PM	1.0000	
24	WG107000-01 BLK RR	10/25/2001 2:24:29 PM	1.0000	
25	L0110485-08 RR	10/25/2001 2:35:59 PM	1.0000	
26	L0110485-08 @ 2X	10/25/2001 2:47:29 PM	1.0000	
27	L0110485-02 @ 500X	10/25/2001 2:58:59 PM	1.0000	
28	l0110485-01@ 500X	10/25/2001 3:10:28 PM	1.0000	
29	WG107000-03 REF DUP	10/25/2001 3:21:59 PM	1.0000	
30	WG107000-04 DUP	10/25/2001 3:33:32 PM	1.0000	
31	WG107000-05 REF RR	10/25/2001 3:45:01 PM	1.0000	
32	WG106999-02 CCV	10/25/2001 3:56:32 PM	1.0000	
33	WG107000-06 MS RR	10/25/2001 4:08:03 PM	1.0000	
34	WG107000-07 MSD RR	10/25/2001 4:19:33 PM	1.0000	
35	L0110485-07 RR	10/25/2001 4:31:03 PM	1.0000	
36	L0110485-09 RR	10/25/2001 5:03:17 PM	1.0000	
37	L0110485-09 @ 2X	10/25/2001 5:14:47 PM	1.0000	
38	L0110485-01 @ 100X	10/25/2001 5:26:16 PM	1.0000	
39	WG106999-03 CCV	10/25/2001 5:37:46 PM	1.0000	
40	WG107113-01 CCV	10/25/2001 5:49:16 PM	1.0000	
41	WG107114-01 BLK	10/25/2001 6:00:47 PM	1.0000	
42	WG107114-01 BL RR	10/25/2001 6:29:07 PM	1.0000	

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Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 69

Created: 10/25/2001 9:21:34 PM by gsg
Last Update: 11/1/2001 3:00:54 PM by gsg

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status
1	DI H2O BLANK	Unknown	12	25.0	9056	9056	Finished
2	ELUENT BLANK	Unknown	13	25.0	9056	9056	Finished
3	WG106999-01 CCV	Unknown	13	25.0	9056	9056	Finished
4	WG107000-01 BLK	Unknown	14	25.0	9056	9056	Finished
5	WG106999-01 CCV RR	Unknown	16	25.0	9056	9056	Finished
6	DI H20 BLANK	Unknown	17	25.0	9056	9056	Finished
7	WG106999-01 CCV RR	Unknown	17	25.0	9056	9056	Finished
8	WG106999-01 CCV RR	Unknown	17	25.0	9056	9056	Finished
9	DI H20 BLANK	Unknown	17	25.0	9056	9056	Finished
10	WG106999-01 CCV RR	Unknown	18	25.0	9056	9056	Finished
11	ANION LVL #1	Standard	1	25.0	9056	9056	Finished
12	ANION LVL #2	Standard	2	25.0	9056	9056	Finished
13	ANION LVL #3	Standard	3	25.0	9056	9056	Finished
14	ANION LVL #4	Standard	4	25.0	9056	9056	Finished
15	ANION LVL #5	Standard	5	25.0	9056	9056	Finished
16	ANION LVL #6	Standard	6	25.0	9056	9056	Finished
17	ELUENT BLANK	Unknown	7	25.0	9056	9056	Finished
18	ALT CCV SV53-30	Unknown	8	25.0	9056	9056	Finished
19	ALT CCV SOS55-48	Unknown	9	25.0	9056	9056	Finished
20	WG106999-01 CCV	Unknown	10	25.0	9056	9056	Finished
21	WG107000-01 BLK	Unknown	11	25.0	9056	9056	Finished
22	WG106999-01 CCV RR	Unknown	11	25.0	9056	9056	Finished
23	WG107000-02 LCS	Unknown	12	25.0	9056	9056	Finished
24	WG107000-01 BLK RR	Unknown	12	25.0	9056	9056	Finished
25	L0110485-08 RR	Unknown	13	25.0	9056	9056	Finished
26	L0110485-08 @ 2X	Unknown	18	25.0	9056	9056	Finished
27	L0110485-02 @ 500X	Unknown	19	25.0	9056	9056	Finished
28	l0110485-01@ 500X	Unknown	19	25.0	9056	9056	Finished
29	WG107000-03 REF DUP	Unknown	20	25.0	9056	9056	Finished
30	WG107000-04 DUP	Unknown	20	25.0	9056	9056	Finished
31	WG107000-05 REF RR	Unknown	21	25.0	9056	9056	Finished
32	WG106999-02 CCV	Unknown	21	25.0	9056	9056	Finished
33	WG107000-06 MS RR	Unknown	22	25.0	9056	9056	Finished
34	WG107000-07 MSD RR	Unknown	22	25.0	9056	9056	Finished
35	L0110485-07 RR	Unknown	24	25.0	9056	9056	Finished
36	L0110485-09 RR	Unknown	26	25.0	9056	9056	Finished
37	L0110485-09 @ 2X	Unknown	31	25.0	9056	9056	Finished
38	L0110485-01 @ 100X	Unknown	33	25.0	9056	9056	Finished
39	WG106999-03 CCV	Unknown	34	25.0	9056	9056	Finished
40	WG107113-01 CCV	Unknown	34	25.0	9056	9056	Finished
41	WG107114-01 BLK	Unknown	35	25.0	9056	9056	Finished
42	WG107114-01 BL RR	Unknown	36	25.0	9056	9056	Finished

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Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320 | Created: 10/25/2001 9:21:34 PM by gsg
#Samples: 69 | Last Update: 11/1/2001 3:00:54 PM by gsg

No.	Name	Comment
43	WG107114-02 LCS	1,1 GSG ANION LCS SOS0056-10 102501
✓ 44	WG107114-02 LCS RR	1,1 GSG ANION LCS SOS0056-10 102501
45	L0110522-01 @ 50X	1,50 GSG
46	L0110522-02 @ 50X	1,50 GSG
47	L0110522-03 @ 50X	1,50 GSG
48	L0110522-04 @ 50X	1,50 GSG
49	WG107114-03 REF DUP	1,50 GSG L0110522-05 REF DUP @ 50X
50	WG107114-05 REF MS/MSD	1,50 GSG L0110522-06 REF MS/MSD @ 50X
✓ 51	WG107113-02 CCV	1,1 GSG ANION CCV SOS0056-10 102501
52	L0110522-07 @ 50X	1,50 GSG
53	L0110522-08 @ 50X	1,50 GSG
54	L0110522-09 @ 50X	1,50 GSG
✓ 55	L0110522-01	1,1 GSG
✓ 56	L0110522-02	1,1 GSG
✓ 57	L0110522-03	1,1 GSG
✓ 58	L0110522-04	1,1 GSG
✓ 59	WG107114-03 REF DUP	1,1 GSG L0110522-05 REF DUP
✓ 60	WG107114-04 DUP	1,1 GSG L0110522-05 DUP
✓ 61	WG107113-03 CCV	1,1 GSG ANION CCV SOS0056-10 102501
✓ 62	WG107114-05 REF MS	1,1 GSG L0110522-06 REF MS/MSD
✓ 63	WG107114-06 MS	1,1 GSG L0110522-06 MS SOS0056-10
✓ 64	WG107114-07 MSD	1,1 GSG L0110522-06 MSD SOS0056-10
✓ 65	L0110522-07	1,1 GSG
✓ 66	L0110522-08	1,1 GSG
✓ 67	L0110522-09	1,1 GSG
✓ 68	WG107113-04 CCV	1,1 GSG ANION CCV SOS0056-10 102501
69	END	1,1 GSG ANION CCV SOS0056-10 102501

11/01/01

RDC 11/01/01

PeakNet © Dionex Corporation, Version 6.30 SP1 Build 587

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 69

Created: 10/25/2001 9:21:34 PM by gsg
Last Update: 11/1/2001 3:00:54 PM by gsg

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status
43	WG107114-02 LCS	Unknown	36	25.0	9056	9056	Finished
44	WG107114-02 LCS RR	Unknown	37	25.0	9056	9056	Finished
45	L0110522-01 @ 50X	Unknown	38	25.0	9056	9056	Finished
46	L0110522-02 @ 50X	Unknown	38	25.0	9056	9056	Finished
47	L0110522-03 @ 50X	Unknown	39	25.0	9056	9056	Finished
48	L0110522-04 @ 50X	Unknown	40	25.0	9056	9056	Finished
49	WG107114-03 REF DUP	Unknown	41	25.0	9056	9056	Finished
50	WG107114-05 REF MS/MSD	Unknown	42	25.0	9056	9056	Finished
51	WG107113-02 CCV	Unknown	43	25.0	9056	9056	Finished
52	L0110522-07 @ 50X	Unknown	44	25.0	9056	9056	Finished
53	L0110522-08 @ 50X	Unknown	44	25.0	9056	9056	Finished
54	L0110522-09 @ 50X	Unknown	46	25.0	9056	9056	Finished
55	L0110522-01	Unknown	47	25.0	9056	9056	Finished
56	L0110522-02	Unknown	48	25.0	9056	9056	Finished
57	L0110522-03	Unknown	49	25.0	9056	9056	Finished
58	L0110522-04	Unknown	50	25.0	9056	9056	Finished
59	WG107114-03 REF DUP	Unknown	51	25.0	9056	9056	Finished
60	WG107114-04 DUP	Unknown	52	25.0	9056	9056	Finished
61	WG107113-03 CCV	Unknown	53	25.0	9056	9056	Finished
62	WG107114-05 REF MS	Unknown	53	25.0	9056	9056	Finished
63	WG107114-06 MS	Unknown	55	25.0	9056	9056	Finished
64	WG107114-07 MSD	Unknown	56	25.0	9056	9056	Finished
65	L0110522-07	Unknown	57	25.0	9056	9056	Finished
66	L0110522-08	Unknown	58	25.0	9056	9056	Finished
67	L0110522-09	Unknown	59	25.0	9056	9056	Finished
68	WG107113-04 CCV	Unknown	60	25.0	9056	9056	Finished
69	END	Unknown	61	25.0	DX-320 OFF	9056	Finished

PeakNet © Dionex Corporation, Version 6.30 SP1 Build 587

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 69

Created: 10/25/2001 9:21:34 PM by gsg
Last Update: 11/1/2001 3:00:54 PM by gsg

No.	Name	Inj. Date/Time	Dil. Factor	Sample ID
43	WG107114-02 LCS	10/25/2001 7:03:28 PM	1.0000	
44	WG107114-02 LCS RR	10/25/2001 7:37:57 PM	1.0000	
45	L0110522-01 @ 50X	10/25/2001 7:49:27 PM	1.0000	
46	L0110522-02 @ 50X	10/25/2001 8:00:57 PM	1.0000	
47	L0110522-03 @ 50X	10/25/2001 8:12:26 PM	1.0000	
48	L0110522-04 @ 50X	10/25/2001 8:23:56 PM	1.0000	
49	WG107114-03 REF DUP	10/25/2001 8:35:27 PM	1.0000	
50	WG107114-05 REF MS/MSD	10/25/2001 8:46:57 PM	1.0000	
51	WG107113-02 CCV	10/25/2001 9:44:55 PM	1.0000	
52	L0110522-07 @ 50X	10/25/2001 9:56:25 PM	1.0000	
53	L0110522-08 @ 50X	10/25/2001 10:07:56 PM	1.0000	
54	L0110522-09 @ 50X	10/25/2001 10:19:26 PM	1.0000	
55	L0110522-01	10/25/2001 10:30:57 PM	1.0000	
56	L0110522-02	10/25/2001 10:42:27 PM	1.0000	
57	L0110522-03	10/25/2001 10:53:57 PM	1.0000	
58	L0110522-04	10/25/2001 11:05:28 PM	1.0000	
59	WG107114-03 REF DUP	10/25/2001 11:16:57 PM	1.0000	
60	WG107114-04 DUP	10/25/2001 11:28:27 PM	1.0000	
61	WG107113-03 CCV	10/25/2001 11:39:58 PM	1.0000	
62	WG107114-05 REF MS	10/25/2001 11:51:28 PM	1.0000	
63	WG107114-06 MS	10/26/2001 12:02:58 AM	1.0000	
64	WG107114-07 MSD	10/26/2001 12:14:28 AM	1.0000	
65	L0110522-07	10/26/2001 12:25:58 AM	1.0000	
66	L0110522-08	10/26/2001 12:37:28 AM	1.0000	
67	L0110522-09	10/26/2001 12:48:58 AM	1.0000	
68	WG107113-04 CCV	10/26/2001 1:00:29 AM	1.0000	
69	END	10/26/2001 1:11:59 AM	1.0000	

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Name	Title	Timebase	Last Update	Operator	Size
9056.pgm		DX-320	9/18/2001 1:52:45 PM	gsg	1 KB
9056.qnt			10/26/2001 11:03:28 AM	gsg	101 KB
DX-320 OFF #2.pgm		DX-320	9/19/2001 10:00:54 AM	gsg	1 KB
DX-320 OFF.pgm		DX-320	9/19/2001 9:59:37 AM	gsg	1 KB

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Analysis Date/Time 6-25-01 Instrument ID IC2 Column ID AG4A-SC / AS4A-SC Data Subdirectory 102501
Analyst Initials GSE SOP # IC01 Rev. # 2 9056 SOP # IC02 Rev. # 314.0

Daily Check

- ☑ Mobile phase reservoir
- ☑ System pressure 1293 PSI.
- ☑ Waste container

Returned to Control?

Yes ____ No ____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

Reviewed By: RDC 11/01/01

KEMRON Report L0110522

Prepared for CCI

Work ID: NAS Cecil Field Bldg 46

Summary Report 1
Laboratory Report 2
Attachments 78

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1.0 Summary Report

1.1 Laboratory Report

Cover Page
Laboratory Narrative
Laboratory Results

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

L0110522

CHAIN OF CUSTODY:

The chain of custody number was 149152-175.

SHIPMENT CONDITIONS:

The chain of custody was received sealed in a cooler. The cooler temperatures were 1, 0, 1, 1 and 0 °C.

SAMPLE MANAGEMENT:

All samples were received intact.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

REVIEWED: Stephanie Kyse DATE: 10/25/01

3

GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0110522

METHOD

Preparation: SW- 846 5030B
Analysis: SW-846 8021B

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.
Matrix Spikes: The MS/MSD results were not associated with this sample delivery group (SDG).

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: CSH

REVIEWED: [signature] DATE: 11/5/01

Rev. 6/00

4

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No .: L0110522

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8015

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD results were not associated with the sample delivery group .

SAMPLES

Samples: Sample fraction -01 required dilution analysis to obtain the results within the linear range of an instrument .
Surrogates: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: HV REVIEWED: X DATE: 1/9/01

Rev. 7/14/00

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REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0110522

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8310

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD results were not associated with this sample delivery group.

SAMPLES

Surrogates: Sample fraction 01yielded a % recovery for the surrogate that were below acceptable limits. This sample was re-extracted within holding time with similar results. Both sets of data were reported.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: RDC REVIEWED: DATE: 11/7/01

Rev. 7/14/00

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L0110522

METHOD

Analysis: SW-846 9056

HOLDING TIMES

Sample Preparation: All holding times were met..
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: Sample fraction -06 was chosen internally for the MS/MSD of this sample delivery group. All acceptance criteria were met.

SAMPLES

All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: GSG REVIEWED: _____ DATE: 1/6/01

Rev. 7/14/00

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : **8021**
AAB # : **WG107288**
Lab Name : **Kemron Environmental Services**
Contract # : **N62467-98-D-0995**
Base/Command : **blgs 9 and 46**
Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF46-1S-Q4-01-09	L0110522-01
002-CEF46-25I-Q4-01-09	L0110522-06
002-CEF46-26I-Q4-01-09	L0110522-07
002-46EQB-Q4-01-09	L0110522-09
002-46TB2-Q4-01-09	L0110522-10

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner
Name: **David L. Bumgarner**
Date: **05-NOV-01**
Title: **Laboratory Director**

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG107288

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-25I-Q4-01-09 Lab Sample ID: L0110522-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 26-OCT-2001

Date Received: 25-OCT-01 Date Extracted: Date Analyzed: 30-OCT-01 16:27

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	112	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG107288

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-26I-Q4-01-09 Lab Sample ID: L0110522-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 26-OCT-2001

Date Received: 25-OCT-01 Date Extracted: Date Analyzed: 30-OCT-01 16:59

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	10.0	20	1300	20	
Ethylbenzene	10.0	20	97.0	20	
Methyl tert-butyl ether	10.0	20	10.0	20	ND
Toluene	10.0	20	22.0	20	
Xylenes, Total	10.0	20	390	20	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	110	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG107256

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46DUP-Q4-01-09 Lab Sample ID: L0110522-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 03-OCT-2001

Date Received: 25-OCT-01 Date Extracted: Date Analyzed: 29-OCT-01 15:56

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	113	70 – 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG107288

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46EQB-Q4-01-09 Lab Sample ID: L0110522-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 26-OCT-2001

Date Received: 25-OCT-01 Date Extracted: Date Analyzed: 30-OCT-01 18:37

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	109	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG107288

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46TB2-Q4-01-09 Lab Sample ID: L0110522-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 26-OCT-2001

Date Received: 25-OCT-01 Date Extracted: Date Analyzed: 30-OCT-01 19:10

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	108	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : 8021
AAB # : WG107256
Lab Name : Kemron Environmental Services
Contract # : N62467-98-D-0995
Base/Command : blgs 9 and 46
Prime Contractor : CCI

Field sample ID	Lab Sample ID
002-CEF46-2S-Q4-01-09	L0110522-02
002-CEF46-7I-Q4-01-09	L0110522-03
002-CEF46-24D-Q4-01-09	L0110522-04
002-CEF46-21I-Q4-01-09	L0110522-05
002-46DUP-Q4-01-09	L0110522-08

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner
Name: David L. Bumgarner
Date: 05-NOV-01
Title: Laboratory Director

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG107288

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-09 Lab Sample ID: L0110522-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 26-OCT-2001

Date Received: 25-OCT-01 Date Extracted: Date Analyzed: 30-OCT-01 15:54

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	50.0	100	2000	100	
Ethylbenzene	50.0	100	1500	100	
Methyl tert-butyl ether	50.0	100	190	100	
Toluene	50.0	100	16000	100	
Xylenes, Total	50.0	100	15000	100	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	110	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG107256

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-2S-Q4-01-09 Lab Sample ID: L0110522-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 03-OCT-2001

Date Received: 25-OCT-01 Date Extracted: Date Analyzed: 29-OCT-01 17:01

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	120	1	
Ethylbenzene	0.500	1.0	110	1	
Methyl tert-butyl ether	0.500	1.0	50.0	1	
Toluene	0.500	1.0	4.40	1	
Xylenes, Total	0.500	1.0	40.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	116	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG107256

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-7I-Q4-01-09 Lab Sample ID: L0110522-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 03-OCT-2001

Date Received: 25-OCT-01 Date Extracted: Date Analyzed: 29-OCT-01 18:38

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	50.0	100	1100	100	
Ethylbenzene	50.0	100	240	100	
Methyl tert-butyl ether	50.0	100	3700	100	
Toluene	50.0	100	1600	100	
Xylenes, Total	50.0	100	1600	100	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	106	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG107256

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-24D-Q4-01-09 Lab Sample ID: L0110522-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 03-OCT-2001

Date Received: 25-OCT-01 Date Extracted: Date Analyzed: 29-OCT-01 19:10

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	104	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG107256

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-21I-Q4-01-09 Lab Sample ID: L0110522-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 03-OCT-2001

Date Received: 25-OCT-01 Date Extracted: Date Analyzed: 29-OCT-01 19:43

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.580	1	J

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	100	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : 8015
Lab Name : Kemron Environmental Services
Base/Command : blgs 9 and 46

AAB # : WG107151
Contract # : N62467-98-D-0995
Prime Contractor : CCI

Field sample ID	Lab Sample ID
002-CEF46-1S-Q4-01-09	L0110522-01
002-CEF46-2S-Q4-01-09	L0110522-02
002-CEF46-7I-Q4-01-09	L0110522-03
002-CEF46-24D-Q4-01-09	L0110522-04
002-CEF46-21I-Q4-01-09	L0110522-05
002-CEF46-25I-Q4-01-09	L0110522-06
002-CEF46-26I-Q4-01-09	L0110522-07
002-46DUP-Q4-01-09	L0110522-08
002-46EQB-Q4-01-09	L0110522-09

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: David L. Bumgarner

Date: 05-NOV-01

Title: Laboratory Director

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG107151

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-09 Lab Sample ID: L0110522-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-OCT-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 29-OCT-01 18:42

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	2680	5400	63000	10.7	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl		49 - 174	DL

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG107151

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-2S-Q4-01-09 Lab Sample ID: L0110522-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-OCT-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 29-OCT-01 15:47

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	260	520	1000	1.04	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	107	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG107151

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-7I-Q4-01-09 Lab Sample ID: L0110522-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-OCT-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 29-OCT-01 16:02

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	260	520	3000	1.04	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	100	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG107151

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-24D-04-01-09 Lab Sample ID: L0110522-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-OCT-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 29-OCT-01 17:10

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	265	530	265	1.06	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	80.2	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG107151

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-21I-Q4-01-09 Lab Sample ID: L0110522-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-OCT-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 29-OCT-01 17:26

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	263	530	263	1.05	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	120	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG107151

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-25I-Q4-01-09 Lab Sample ID: L0110522-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-OCT-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 29-OCT-01 17:41

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	263	530	263	1.05	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	85.9	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG107151

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-26I-Q4-01-09 Lab Sample ID: L0110522-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-OCT-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 30-OCT-01 10:11

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	263	530	720	1.05	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	55.5	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG107151

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46DUP-Q4-01-09 Lab Sample ID: L0110522-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-OCT-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 29-OCT-01 18:12

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	270	540	270	1.08	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	115	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG107151

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46EQB-Q4-01-09 Lab Sample ID: L0110522-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-OCT-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 29-OCT-01 18:27

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	270	540	270	1.08	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	92.6	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : **8310**
Lab Name : **Kemron Environmental Services**
Base/Command : **blgs 9 and 46**

AAB # : **WG107439**
Contract # : **N62467-98-D-0995**
Prime Contractor : **CCI**

Field sample ID	**Lab Sample ID**
002-CEF46-1S-Q4-01-09	L0110522-01

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **05-NOV-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107439

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-09 Lab Sample ID: L0110522-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 30-OCT-01 Date Analyzed: 01-NOV-01 05:06

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.381	1.1	37.0	1	
2-Methylnaphthalene	0.354	1.1	74.0	1	
Acenaphthene	0.437	1.1	0.437	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.300	1.1	0.300	1	ND
Benzo(a)anthracene	0.0316	0.21	0.0316	1	ND
Benzo(a)pyrene	0.0558	0.21	0.0558	1	ND
Benzo(b)fluoranthene	0.0358	0.21	0.0358	1	ND
Benzo(g,h,i)perylene	0.0526	0.21	0.0526	1	ND
Benzo(k)fluoranthene	0.0758	0.21	0.0758	1	ND
Chrysene	0.0253	0.21	0.0253	1	ND
Dibenzo(a,h)anthracene	0.0811	0.21	0.0811	1	ND
Fluoranthene	0.0526	0.21	0.0526	1	ND
Fluorene	0.588	1.1	0.588	1	ND
Indeno(1,2,3-cd)pyrene	0.0842	0.21	0.0842	1	ND
Naphthalene	0.378	1.1	350	1	I
Phenanthrene	0.302	1.1	0.302	1	ND
Pyrene	0.0716	0.21	0.0716	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107439

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-09 Lab Sample ID: L0110522-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 30-OCT-01 Date Analyzed: 01-NOV-01 05:06

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	20.4	40 - 132	*

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107439

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-09 Lab Sample ID: L0110522-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 30-OCT-01 Date Analyzed: 01-NOV-01 05:06

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.381	1.1	26.0	1	
2-Methylnaphthalene	0.354	1.1	130	1	I
Acenaphthene	0.437	1.1	0.437	1	ND
Acenaphthylene	0.369	1.1	0.369	1	ND
Anthracene	0.300	1.1	0.300	1	ND
Benzo(a)anthracene	0.030	0.20	0.030	1	ND
Benzo(a)pyrene	0.053	0.20	0.053	1	ND
Benzo(b)fluoranthene	0.034	0.20	0.034	1	ND
Benzo(g,h,i)perylene	0.050	0.20	0.050	1	ND
Benzo(k)fluoranthene	0.0758	0.21	0.0758	1	ND
Chrysene	0.024	0.20	0.024	1	ND
Dibenzo(a,h)anthracene	0.077	0.20	0.077	1	ND
Fluoranthene	0.0526	0.21	0.0526	1	ND
Fluorene	0.588	1.1	0.588	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.378	1.1	160	1	I
Phenanthrene	0.302	1.1	0.302	1	ND
Pyrene	0.0716	0.21	0.0716	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107439

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-09 Lab Sample ID: L0110522-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 30-OCT-01 Date Analyzed: 01-NOV-01 05:06

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	18.1	40 - 132	*

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107439

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-09 Lab Sample ID: L0110522-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 30-OCT-01 Date Analyzed: 01-NOV-01 11:43

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	3.81	11	41.0	10	
2-Methylnaphthalene	3.54	11	73.0	10	P
Acenaphthene	4.37	11	4.37	10	ND
Acenaphthylene	3.51	10	3.51	10	ND
Anthracene	3.00	11	3.00	10	ND
Benzo(a)anthracene	0.316	2.1	0.316	10	ND
Benzo(a)pyrene	0.558	2.1	0.558	10	ND
Benzo(b)fluoranthene	0.358	2.1	0.358	10	ND
Benzo(g,h,i)perylene	0.526	2.1	0.526	10	ND
Benzo(k)fluoranthene	0.758	2.1	0.758	10	ND
Chrysene	0.253	2.1	0.253	10	ND
Dibenzo(a,h)anthracene	0.811	2.1	0.811	10	ND
Fluoranthene	0.526	2.1	0.526	10	ND
Fluorene	5.88	11	5.88	10	ND
Indeno(1,2,3-cd)pyrene	0.842	2.1	0.842	10	ND
Naphthalene	3.78	11	360	10	
Phenanthrene	3.02	11	3.02	10	ND
Pyrene	0.716	2.1	0.716	10	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107439

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-09 Lab Sample ID: L0110522-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 30-OCT-01 Date Analyzed: 01-NOV-01 11:43

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14		40 - 132	DL

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107439

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-09 Lab Sample ID: L0110522-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 30-OCT-01 Date Analyzed: 01-NOV-01 11:43

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	3.81	11	41.0	10	
2-Methylnaphthalene	3.54	11	130	10	P
Acenaphthene	4.37	11	4.37	10	ND
Acenaphthylene	3.69	11	3.69	10	ND
Anthracene	3.00	11	3.00	10	ND
Benzo(a)anthracene	0.300	2.0	0.300	10	ND
Benzo(a)pyrene	0.530	2.0	0.530	10	ND
Benzo(b)fluoranthene	0.340	2.0	0.340	10	ND
Benzo(g,h,i)perylene	0.500	2.0	0.500	10	ND
Benzo(k)fluoranthene	0.720	2.0	0.720	10	ND
Chrysene	0.253	2.1	0.253	10	ND
Dibenzo(a,h)anthracene	0.770	2.0	0.770	10	ND
Fluoranthene	0.500	2.0	0.500	10	ND
Fluorene	5.88	11	5.88	10	ND
Indeno(1,2,3-cd)pyrene	0.800	2.0	0.800	10	ND
Naphthalene	3.78	11	320	10	
Phenanthrene	3.02	11	3.02	10	ND
Pyrene	0.716	2.1	0.716	10	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107439

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-04-01-09 Lab Sample ID: L0110522-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 30-OCT-01 Date Analyzed: 01-NOV-01 11:43

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14		40 - 132	DL

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA PACKAGE

Analytical Method : 8310

AAB # : WG107146

Lab Name : Kemron Environmental Services

Contract # : N62467-98-D-0995

Base/Command : blgs 9 and 46

Prime Contractor : CCI

Field sample ID	Lab Sample ID
002-CEF46-1S-Q4-01-09	L0110522-01
002-CEF46-2S-Q4-01-09	L0110522-02
002-CEF46-7I-Q4-01-09	L0110522-03
002-CEF46-24D-Q4-01-09	L0110522-04
002-CEF46-21I-Q4-01-09	L0110522-05
002-CEF46-25I-Q4-01-09	L0110522-06
002-CEF46-26I-Q4-01-09	L0110522-07
002-46DUP-Q4-01-09	L0110522-08
002-46EQB-Q4-01-09	L0110522-09

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L Bumgarner

Name: David L. Bumgarner

Date: 05-NOV-01

Title: Laboratory Director

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107146

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-09 Lab Sample ID: L0110522-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 29-OCT-01 20:11

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.402	1.1	68.0	1	
2-Methylnaphthalene	0.373	1.1	110	1	
Acenaphthene	0.461	1.1	0.461	1	ND
Acenaphthylene	0.351	1.0	0.351	1	NA
Anthracene	0.317	1.1	0.317	1	ND
Benzo(a)anthracene	0.0333	0.22	0.0333	1	ND
Benzo(a)pyrene	0.0589	0.22	0.0589	1	ND
Benzo(b)fluoranthene	0.0378	0.22	0.0378	1	ND
Benzo(g,h,i)perylene	0.0556	0.22	0.0556	1	ND
Benzo(k)fluoranthene	0.080	0.22	0.080	1	ND
Chrysene	0.0267	0.22	0.0267	1	ND
Dibenzo(a,h)anthracene	0.0856	0.22	0.0856	1	ND
Fluoranthene	0.0556	0.22	0.0556	1	ND
Fluorene	0.621	1.1	1.50	1	
Indeno(1,2,3-cd)pyrene	0.0889	0.22	0.0889	1	ND
Naphthalene	0.399	1.1	490	1	I
Phenanthrene	0.319	1.1	0.319	1	ND
Pyrene	0.0756	0.22	0.0756	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107146

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-09 Lab Sample ID: L0110522-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 29-OCT-01 20:11

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	43.3	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107146

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-09 Lab Sample ID: L0110522-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 29-OCT-01 20:11

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.402	1.1	58.0	1	
2-Methylnaphthalene	0.373	1.1	170	1	I
Acenaphthene	0.461	1.1	0.461	1	ND
Acenaphthylene	0.390	1.1	0.390	1	ND
Anthracene	0.317	1.1	0.317	1	ND
Benzo(a)anthracene	0.030	0.20	0.030	1	ND
Benzo(a)pyrene	0.053	0.20	0.053	1	ND
Benzo(b)fluoranthene	0.0378	0.22	0.0378	1	ND
Benzo(g,h,i)perylene	0.050	0.20	0.050	1	ND
Benzo(k)fluoranthene	0.080	0.22	0.080	1	ND
Chrysene	0.0267	0.22	0.0267	1	ND
Dibenzo(a,h)anthracene	0.077	0.20	0.077	1	ND
Fluoranthene	0.0556	0.22	0.0556	1	ND
Fluorene	0.621	1.1	1.90	1	
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.399	1.1	200	1	I
Phenanthrene	0.319	1.1	0.319	1	ND
Pyrene	0.0756	0.22	0.0756	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107146

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-09 Lab Sample ID: L0110522-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 29-OCT-01 20:11

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	37.4	40 - 132	*

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107146

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-09 Lab Sample ID: L0110522-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 31-OCT-01 02:54

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	4.02	11	56.0	10	
2-Methylnaphthalene	3.73	11	110	10	P
Acenaphthene	4.61	11	4.61	10	ND
Acenaphthylene	3.51	10	3.51	10	ND
Anthracene	3.17	11	3.17	10	ND
Benzo(a)anthracene	0.333	2.2	0.333	10	ND
Benzo(a)pyrene	0.589	2.2	0.589	10	ND
Benzo(b)fluoranthene	0.378	2.2	0.378	10	ND
Benzo(g,h,i)perylene	0.556	2.2	0.556	10	ND
Benzo(k)fluoranthene	0.800	2.2	0.800	10	ND
Chrysene	0.267	2.2	0.267	10	ND
Dibenzo(a,h)anthracene	0.856	2.2	0.856	10	ND
Fluoranthene	0.556	2.2	0.556	10	ND
Fluorene	6.21	11	6.21	10	ND
Indeno(1,2,3-cd)pyrene	0.889	2.2	0.889	10	ND
Naphthalene	3.99	11	510	10	
Phenanthrene	3.19	11	3.19	10	ND
Pyrene	0.756	2.2	0.756	10	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107146

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-09 Lab Sample ID: L0110522-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 31-OCT-01 02:54

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14		40 - 132	DL

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107146

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-09 Lab Sample ID: L0110522-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 31-OCT-01 02:54

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	4.02	11	60.0	10	
2-Methylnaphthalene	3.73	11	180	10	P
Acenaphthene	4.61	11	4.61	10	ND
Acenaphthylene	3.90	11	3.90	10	ND
Anthracene	3.17	11	3.17	10	ND
Benzo(a)anthracene	0.300	2.0	0.300	10	ND
Benzo(a)pyrene	0.530	2.0	0.530	10	ND
Benzo(b)fluoranthene	0.340	2.0	0.340	10	ND
Benzo(g,h,i)perylene	0.500	2.0	0.500	10	ND
Benzo(k)fluoranthene	0.720	2.0	0.720	10	ND
Chrysene	0.267	2.2	0.267	10	ND
Dibenzo(a,h)anthracene	0.770	2.0	0.770	10	ND
Fluoranthene	0.500	2.0	0.500	10	ND
Fluorene	6.21	11	6.21	10	ND
Indeno(1,2,3-cd)pyrene	0.800	2.0	0.800	10	ND
Naphthalene	3.99	11	530	10	
Phenanthrene	3.19	11	3.19	10	ND
Pyrene	0.756	2.2	0.756	10	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107146

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-09 Lab Sample ID: L0110522-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 31-OCT-01 02:54

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14		40 - 132	DL

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107146

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-2S-Q4-01-09 Lab Sample ID: L0110522-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 29-OCT-01 21:08

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.393	1.1	0.393	1	ND
2-Methylnaphthalene	0.365	1.1	0.365	1	ND
Acenaphthene	0.451	1.1	0.451	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.310	1.1	0.310	1	ND
Benzo(a)anthracene	0.0326	0.22	0.0326	1	ND
Benzo(a)pyrene	0.0576	0.22	0.0576	1	ND
Benzo(b)fluoranthene	0.037	0.22	0.037	1	ND
Benzo(g,h,i)perylene	0.0543	0.22	0.0543	1	ND
Benzo(k)fluoranthene	0.0783	0.22	0.0783	1	ND
Chrysene	0.0261	0.22	0.0261	1	ND
Dibenzo(a,h)anthracene	0.0837	0.22	0.0837	1	ND
Fluoranthene	0.0543	0.22	0.0543	1	ND
Fluorene	0.608	1.1	0.608	1	ND
Indeno(1,2,3-cd)pyrene	0.087	0.22	0.087	1	ND
Naphthalene	0.390	1.1	3.40	1	
Phenanthrene	0.312	1.1	0.312	1	ND
Pyrene	0.0739	0.22	0.0739	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107146

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-2S-Q4-01-09 Lab Sample ID: L0110522-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 29-OCT-01 21:08

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	66.5	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107146

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-2S-Q4-01-09 Lab Sample ID: L0110522-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 29-OCT-01 21:08

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.393	1.1	0.393	1	ND
2-Methylnaphthalene	0.365	1.1	0.365	1	ND
Acenaphthene	0.451	1.1	0.451	1	ND
Acenaphthylene	0.382	1.1	0.382	1	ND
Anthracene	0.285	1.0	0.285	1	ND
Benzo(a)anthracene	0.030	0.20	0.030	1	ND
Benzo(a)pyrene	0.053	0.20	0.053	1	ND
Benzo(b)fluoranthene	0.034	0.20	0.034	1	ND
Benzo(g,h,i)perylene	0.050	0.20	0.050	1	ND
Benzo(k)fluoranthene	0.0783	0.22	0.0783	1	ND
Chrysene	0.0261	0.22	0.0261	1	ND
Dibenzo(a,h)anthracene	0.077	0.20	0.077	1	ND
Fluoranthene	0.0543	0.22	0.0543	1	ND
Fluorene	0.608	1.1	0.608	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.390	1.1	3.80	1	
Phenanthrene	0.312	1.1	0.312	1	ND
Pyrene	0.0739	0.22	0.0739	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107146

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-2S-Q4-01-09 Lab Sample ID: L0110522-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 29-OCT-01 21:08

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	66.5	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107146

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-7I-Q4-01-09 Lab Sample ID: L0110522-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 29-OCT-01 22:05

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.377	1.0	0.377	1	ND
2-Methylnaphthalene	0.350	1.0	1.20	1	P
Acenaphthene	0.432	1.0	0.432	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.297	1.0	0.297	1	ND
Benzo(a)anthracene	0.0313	0.21	0.0313	1	ND
Benzo(a)pyrene	0.0552	0.21	0.0552	1	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1	ND
Benzo(g,h,i)perylene	0.0521	0.21	0.0521	1	ND
Benzo(k)fluoranthene	0.075	0.21	0.075	1	ND
Chrysene	0.025	0.21	0.025	1	ND
Dibenzo(a,h)anthracene	0.0802	0.21	0.0802	1	ND
Fluoranthene	0.0521	0.21	0.0521	1	ND
Fluorene	0.582	1.0	0.582	1	ND
Indeno(1,2,3-cd)pyrene	0.0833	0.21	0.0833	1	ND
Naphthalene	0.374	1.0	14.0	1	
Phenanthrene	0.299	1.0	0.299	1	ND
Pyrene	0.0708	0.21	0.0708	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107146

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-7I-Q4-01-09 Lab Sample ID: L0110522-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 29-OCT-01 22:05

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	71.3	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107146

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-7I-04-01-09 Lab Sample ID: L0110522-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 29-OCT-01 22:05

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.377	1.0	0.377	1	ND
2-Methylnaphthalene	0.350	1.0	7.40	1	P
Acenaphthene	0.432	1.0	0.432	1	ND
Acenaphthylene	0.366	1.0	0.366	1	ND
Anthracene	0.297	1.0	0.297	1	ND
Benzo(a)anthracene	0.030	0.20	0.030	1	ND
Benzo(a)pyrene	0.053	0.20	0.053	1	ND
Benzo(b)fluoranthene	0.034	0.20	0.034	1	ND
Benzo(g,h,i)perylene	0.050	0.20	0.050	1	ND
Benzo(k)fluoranthene	0.075	0.21	0.075	1	ND
Chrysene	0.025	0.21	0.025	1	ND
Dibenzo(a,h)anthracene	0.077	0.20	0.077	1	ND
Fluoranthene	0.050	0.20	0.050	1	ND
Fluorene	0.582	1.0	0.582	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.374	1.0	14.0	1	
Phenanthrene	0.299	1.0	0.299	1	ND
Pyrene	0.0708	0.21	0.0708	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107146

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-7I-Q4-01-09 Lab Sample ID: L0110522-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 29-OCT-01 22:05

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	69.9	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107146

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-24D-Q4-01-09 Lab Sample ID: L0110522-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 29-OCT-01 23:01

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.377	1.0	0.377	1	ND
2-Methylnaphthalene	0.350	1.0	0.350	1	ND
Acenaphthene	0.432	1.0	0.432	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.297	1.0	0.297	1	ND
Benzo(a)anthracene	0.030	0.20	0.030	1	ND
Benzo(a)pyrene	0.053	0.20	0.053	1	ND
Benzo(b)fluoranthene	0.034	0.20	0.034	1	ND
Benzo(g,h,i)perylene	0.050	0.20	0.050	1	ND
Benzo(k)fluoranthene	0.075	0.21	0.075	1	ND
Chrysene	0.024	0.20	0.024	1	ND
Dibenzo(a,h)anthracene	0.077	0.20	0.077	1	ND
Fluoranthene	0.050	0.20	0.050	1	ND
Fluorene	0.582	1.0	0.582	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.374	1.0	0.374	1	ND
Phenanthrene	0.299	1.0	0.299	1	ND
Pyrene	0.068	0.20	0.068	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107146

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-24D-Q4-01-09 Lab Sample ID: L0110522-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 29-OCT-01 23:01

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	69.5	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107146

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-21I-Q4-01-09 Lab Sample ID: L0110522-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 29-OCT-01 23:58

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.354	1.1	0.354	1	ND
Acenaphthene	0.437	1.1	0.437	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.300	1.1	0.300	1	ND
Benzo(a)anthracene	0.030	0.20	0.030	1	ND
Benzo(a)pyrene	0.053	0.20	0.053	1	ND
Benzo(b)fluoranthene	0.034	0.20	0.034	1	ND
Benzo(g,h,i)perylene	0.050	0.20	0.050	1	ND
Benzo(k)fluoranthene	0.0758	0.21	0.0758	1	ND
Chrysene	0.0253	0.21	0.0253	1	ND
Dibenzo(a,h)anthracene	0.077	0.20	0.077	1	ND
Fluoranthene	0.050	0.20	0.050	1	ND
Fluorene	0.588	1.1	0.588	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.378	1.1	0.378	1	ND
Phenanthrene	0.302	1.1	0.302	1	ND
Pyrene	0.0716	0.21	0.0716	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107146

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-21I-Q4-01-09 Lab Sample ID: L0110522-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 29-OCT-01 23:58

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	86.1	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107146

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-25I-Q4-01-09 Lab Sample ID: L0110522-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 30-OCT-01 01:51

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.357	1.1	0.357	1	ND
Acenaphthene	0.441	1.1	0.441	1	ND
Acenaphthylene	0.373	1.1	0.373	1	ND
Anthracene	0.303	1.1	0.303	1	ND
Benzo(a)anthracene	0.030	0.20	0.030	1	ND
Benzo(a)pyrene	0.053	0.20	0.053	1	ND
Benzo(b)fluoranthene	0.034	0.20	0.034	1	ND
Benzo(g,h,i)perylene	0.050	0.20	0.050	1	ND
Benzo(k)fluoranthene	0.0766	0.21	0.0766	1	ND
Chrysene	0.0255	0.21	0.0255	1	ND
Dibenzo(a,h)anthracene	0.077	0.20	0.077	1	ND
Fluoranthene	0.050	0.20	0.050	1	ND
Fluorene	0.595	1.1	0.595	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.359	1.0	0.359	1	ND
Phenanthrene	0.305	1.1	0.305	1	ND
Pyrene	0.0723	0.21	0.0723	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107146

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-25I-Q4-01-09 Lab Sample ID: L0110522-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 30-OCT-01 01:51

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	64.0	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107146

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-26I-Q4-01-09 Lab Sample ID: L0110522-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 30-OCT-01 02:48

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.365	1.1	0.365	1	ND
Acenaphthene	0.451	1.1	0.451	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.310	1.1	0.310	1	ND
Benzo(a)anthracene	0.030	0.20	0.030	1	ND
Benzo(a)pyrene	0.053	0.20	0.053	1	ND
Benzo(b)fluoranthene	0.034	0.20	0.034	1	ND
Benzo(g,h,i)perylene	0.050	0.20	0.050	1	ND
Benzo(k)fluoranthene	0.0783	0.22	0.0783	1	ND
Chrysene	0.0261	0.22	0.0261	1	ND
Dibenzo(a,h)anthracene	0.077	0.20	0.077	1	ND
Fluoranthene	0.050	0.20	0.050	1	ND
Fluorene	0.608	1.1	0.608	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.390	1.1	0.390	1	ND
Phenanthrene	0.312	1.1	0.312	1	ND
Pyrene	0.0739	0.22	0.0739	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107146

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-26I-Q4-01-09 Lab Sample ID: L0110522-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 30-OCT-01 02:48

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	79.0	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107146

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46DUP-04-01-09 Lab Sample ID: L0110522-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 30-OCT-01 03:44

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.354	1.1	0.354	1	ND
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.300	1.1	0.300	1	ND
Benzo(a)anthracene	0.030	0.20	0.030	1	ND
Benzo(a)pyrene	0.053	0.20	0.053	1	ND
Benzo(b)fluoranthene	0.034	0.20	0.034	1	ND
Benzo(g,h,i)perylene	0.050	0.20	0.050	1	ND
Benzo(k)fluoranthene	0.0758	0.21	0.0758	1	ND
Chrysene	0.0253	0.21	0.0253	1	ND
Dibenzo(a,h)anthracene	0.077	0.20	0.077	1	ND
Fluoranthene	0.050	0.20	0.050	1	ND
Fluorene	0.588	1.1	0.588	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.378	1.1	0.378	1	ND
Phenanthrene	0.302	1.1	0.302	1	ND
Pyrene	0.0716	0.21	0.0716	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107146

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46DUP-Q4-01-09 Lab Sample ID: L0110522-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 30-OCT-01 03:44

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	52.0	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107146

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46EQB-Q4-01-09 Lab Sample ID: L0110522-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 30-OCT-01 04:41

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.365	1.1	0.365	1	ND
Acenaphthene	0.451	1.1	0.451	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.310	1.1	0.310	1	ND
Benzo(a)anthracene	0.030	0.20	0.030	1	ND
Benzo(a)pyrene	0.053	0.20	0.053	1	ND
Benzo(b)fluoranthene	0.034	0.20	0.034	1	ND
Benzo(g,h,i)perylene	0.050	0.20	0.050	1	ND
Benzo(k)fluoranthene	0.072	0.20	0.072	1	ND
Chrysene	0.024	0.20	0.024	1	ND
Dibenzo(a,h)anthracene	0.077	0.20	0.077	1	ND
Fluoranthene	0.050	0.20	0.050	1	ND
Fluorene	0.608	1.1	0.608	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.390	1.1	0.390	1	ND
Phenanthrene	0.312	1.1	0.312	1	ND
Pyrene	0.068	0.20	0.068	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG107146

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46EQB-Q4-01-09 Lab Sample ID: L0110522-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 25-OCT-01 Date Extracted: 25-OCT-01 Date Analyzed: 30-OCT-01 04:41

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	50.2	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 2 of 2

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : **9056**
AAB # : **WG107114**
Lab Name : **Kemron Environmental Services**
Contract # : **N62467-98-D-0995**
Base/Command : **blgs 9 and 46**
Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF46-1S-Q4-01-09	L0110522-01
002-CEF46-2S-Q4-01-09	L0110522-02
002-CEF46-7I-Q4-01-09	L0110522-03
002-CEF46-24D-Q4-01-09	L0110522-04
002-CEF46-21I-Q4-01-09	L0110522-05
002-CEF46-25I-Q4-01-09	L0110522-06
002-CEF46-26I-Q4-01-09	L0110522-07
002-46DUP-Q4-01-09	L0110522-08
002-46EQB-Q4-01-09	L0110522-09

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L Bumgarner
Name: **David L. Bumgarner**

Date: **05-NOV-01**
Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107114

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-09 Lab Sample ID: L0110522-01 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 25-OCT-2001

Date Received: 25-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 22:30

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.067	1	ND
Nitrite	0.061	0.40	0.410	1	
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107114

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-2S-Q4-01-09 Lab Sample ID: L0110522-02 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 25-OCT-2001

Date Received: 25-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 22:42

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.067	1	ND
Nitrite	0.061	0.40	0.061	1	ND
Phosphate	0.163	1.0	1.20	1	

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107114

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-7I-Q4-01-09 Lab Sample ID: L0110522-03 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 25-OCT-2001

Date Received: 25-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 22:53

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.067	1	ND
Nitrite	0.061	0.40	0.061	1	ND
Phosphate	0.163	1.0	3.70	1	

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107114

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-24D-Q4-01-09 Lab Sample ID: L0110522-04 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 25-OCT-2001

Date Received: 25-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 23:05

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.067	1	ND
Nitrite	0.061	0.40	0.061	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107114

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-21I-04-01-09 Lab Sample ID: L0110522-05 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 25-OCT-2001

Date Received: 25-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 23:16

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.160	1	J
Nitrite	0.061	0.40	0.061	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107114

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-25I-Q4-01-09 Lab Sample ID: L0110522-06 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 25-OCT-2001

Date Received: 25-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 23:51

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.160	1	J
Nitrite	0.061	0.40	0.061	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107114

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-26I-Q4-01-09 Lab Sample ID: L0110522-07 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 25-OCT-2001

Date Received: 25-OCT-01 Date Extracted: Date Analyzed: 26-OCT-01 00:25

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.160	1	J
Nitrite	0.061	0.40	0.061	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107114

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46DUP-Q4-01-09 Lab Sample ID: L0110522-08 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 25-OCT-2001

Date Received: 25-OCT-01 Date Extracted: Date Analyzed: 26-OCT-01 00:37

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.067	1	ND
Nitrite	0.061	0.40	0.061	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG107114

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46EQB-Q4-01-09 Lab Sample ID: L0110522-09 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 25-OCT-2001

Date Received: 25-OCT-01 Date Extracted: Date Analyzed: 26-OCT-01 00:48

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.180	1	J
Nitrite	0.061	0.40	0.061	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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1.2 Attachments

KEMRON Internal Laboratory Chain of Custody

Work Order: L0110522 **Client:** CCI **# of Samples:** 10 **Due Date:** **Page:**

Sample #	Analysis	Reason	Removed By ADT	Removed From	Moved To	Reliq. by	Ret'd By ADT	Ret'd To	Rec'd By	Reason
1-9	9056	EXT	10/29/01 @ 11:5	109 111	SV	Big	11-8-01 @ 1550	ARCHIVE	LMT	ARCHIVE
1-9A	PA-110	EXT	10/29/01 @ 1200	WALKIN	ELAB	[illegible]	LMT 10/29/01 @ 8:30	Crusher	DD	Disposal
1-9A	8310	EXT	CSB 10/29/01 @ 1356	WALKIN	ELAB	Big	LMT 10/29/01 @ 8:30	Crusher	DD	Disposal
1-10	BTEX	ANAL	CSH 10/29/01 @ 1515	V-1	ORG-4	JKW	Big 11/13/01 @ 1045	Archive-2	Big	Archive
01B	8310	REEXT	CSB 10/30/01 @ 1541	WALKIN	ELAB	[illegible]	[illegible]	Crusher	DD	disposal

Report Sent To Client 11-8-01

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No (770) 604-9182 ; Fax No (770) 604-9282

CHAIN-OF-CUSTODY RECORD

COC NUMBER
149152-175 page _1_ of _1_

PROJECT NAME:	PROJECT NUMBER:	LAB NAME AND CONTACT:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	RECIPIENT 1 (Address, Tel No. , and Fax No.):
N.A.S. Cecil Field Building 46	149152	Teressa Davis Kemron Environmental Services	Jennifer Zimmerman J.A Jones Env. Services	6219 Authority Road, Jacksonville, FL 32221 PH: (904) 7774812 FAX: (904) 7774262
PROJECT PHASE/SITE/TASK:	CTO OR DO NUMBER:	LAB PO NUMBER:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	RECIPIENT 2 (Address, Tel No. , and Fax No.):
Building 46 /Monthly GW Sampling Event	0002	2329	Christelle Newsome CH2M Hill Constuctors, Inc.	115 Perimeter Center Place, N.E. Suite 700 Atlanta, GA 30346 PH:(770)604-9182 Ext.561 FAX:604-9282
PROJECT CONTACT:	PROJECT TEL NO AND FAX NO:	LAB TEL NO AND FAX NO:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	RECIPIENT 3 (Address, Tel No. , and Fax No.):
Randy Dumaop	Phone: 904-777-4812 Fax:904-777-4262	Phone: 740-373-4071 Fax: 740-373-4835		

ITEM	SAMPLE IDENTIFIER	SAMPLE DESCRIPTION/LOCATION	MATRIX	DATE COLLECTED	TIME COLLECTED	~~DATA PKG~~ LEVEL	TAT (calendar days)	BTEX by 8021B	Naphthalene & 15 Methyl Listed PAHs by 8310	TRPH by FL-PRO	NO2 NO3 PO4 by EPA Method 300.0				SAMPLE TYPE (see codes on back)	COMMENTS/ SCREENING READINGS	LAB ID
								ANALYSES REQUIRED (Include Method Numbers)									
1	002-CEF46-1S-Q4-01-09	CEF-46-1S	W	10/24/01	9:10	III/C	14	2	2	2	1				Grab	Turbid	
2	002-CEF46-2S-Q4-01-09	CEF-46-2S	W	10/24/01	9:40	III/C	14	2	2	2	1				Grab		
3	002-CEF46-7I-Q4-01-09	CEF-46-7I	W	10/24/01	10:35	III/C	14	2	2	2	1				Grab		
4	002-CEF46-24D-Q4-01-09	CEF-46-24D	W	10/24/01	11:25	III/C	14	2	2	2	1				Grab		
5	002-CEF46-21I-Q4-01-09	CEF-46-21I	W	10/24/01	13:35	III/C	14	2	2	2	1				Grab		
6	002-CEF46-25I-Q4-01-09	CEF-46-25I	W	10/24/01	14:10	III/C	14	2	2	2	1				Grab		
7	002-CEF46-26I-Q4-01-09	CEF-46-26I	W	10/24/01	14:45	III/C	14	2	2	2	1				Grab		
8	002-46DUP-Q4-01-09	Duplicate	W	10/24/01	NA	III/C	14	2	2	2	1				Grab		
9	002-46EQB-Q4-01-09	Equipment Blank	W	10/24/01	11:40	III/C	14	2	2	2	1				Grab		
10	002-46TB2-Q4-01-09	Trip Blank	W	NA	NA	III/C	14	2							Grab	Prepared by Lab	
11	NA	Temperature Blank	W	NA	NA	III/C	14					5			Grab	Prepared by Lab	

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:
Randy Dumaop / Bill Canelos J.A. Jones Environmental Services	Federal Express Track #790196039680, 791686675490, 791686675570, 790196309967, 790967624955.

C/C Dated Sp untact 1/0/1/01 Collectemps

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	10/24/01	18:00	Federal Express	10/24/01	18:00
Printed Name and Signature:			Printed Name and Signature:		
			Brenda Gregory / Brenda Gregory	10/25/01	1000

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CCI001, Rev 02/00

KEMRON Environmental Services | **SAMPLES RECEIPT FORM** | Marietta Laboratory

CLIENT: CCI BRG LMT Other _____	DATE: 10/25/01	SHIPPED BY: (✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: KL 981	COOLER ID: KL625	COOLER ID: KL304
INDEX # : 79168667557 0	INDEX # : 79168667549 0	INDEX # : 79019603968 0
SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO
CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO
TEMP : (C) (D) 1 °C	TEMP : (C) (D) 0 °C	TEMP : (C) (D) 1 °C
TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO
WET ICE (✓) BLUE ICE ( )	WET ICE (✓) BLUE ICE ( )	WET ICE (✓) BLUE ICE ( )
ICE FROZEN (✓) MELTED ( )	ICE FROZEN (✓) MELTED ( )	ICE FROZEN (✓) MELTED ( )
RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED (✓) YES ( ) NO
SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO
SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )
LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO	LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO	LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC ( ) YES (✓) NO
pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO
SAMPLES NOT FROZEN ( ) YES (✓) NO	SAMPLES NOT FROZEN ( ) YES (✓) NO	SAMPLES NOT FROZEN ( ) YES (✓) NO
LOG-IN COMMENTS 1125 1140	LOG-IN COMMENTS 910 940	LOG-IN COMMENTS 1005 1445

TSR COMMENTS

CONTACT:	DATE:	TIME:

COMMENTS: ( ) VOICE ( ) FAX ( ) E-MAIL

Revised 10/16/01

KEMRON Environmental Services

SAMPLES RECEIPT FORM

Marietta Laboratory

CLIENT: CCI	DATE: 10/25/01	SHIPPED BY: (✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT
BRC LMT Other _____		

COOLER ID: KL817	COOLER ID: KL682	COOLER ID:
INDEX #: 79096762495 5	INDEX #: 79019603996 7	INDEX #:
SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO	SEALED ( ) YES ( ) NO
CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO	CUSTODY ( ) YES ( ) NO
TEMP: (C) (D) 1 °C	TEMP: (C) (D) 0 °C	TEMP: (C) (D) °C
TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES ( ) NO
WET ICE (✓) BLUE ICE ( )	WET ICE (✓) BLUE ICE ( )	WET ICE ( ) BLUE ICE ( )
ICE FROZEN (✓) MELTED ( )	ICE FROZEN (✓) MELTED ( )	ICE FROZEN ( ) MELTED ( )
RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED ( ) YES ( ) NO
SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT ( ) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO
SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER ( ) SOIL ( ) OTHER ( )
LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO	LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO	LABELS: INTACT ( ) YES ( ) NO LEGIBLE ( ) YES ( ) NO MATCH COC ( ) YES ( ) NO
pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE ( ) YES ( ) NO
SAMPLES NOT FROZEN ( ) YES (✓) NO	SAMPLES NOT FROZEN ( ) YES (✓) NO	SAMPLES NOT FROZEN ( ) YES ( ) NO
LOG-IN COMMENTS 1335 1410	LOG-IN COMMENTS DUP 1035	LOG-IN COMMENTS

TSR COMMENTS

CONTACT:	DATE:	TIME:
COMMENTS: ( ) VOICE ( ) FAX ( ) E-MAIL		

Revised 10/16/01

CRF#4

Sample Receipt Form #2

Client: CCI Project:
Date Received: 10/25/01

_____Cooler temperature > than 6 degrees Celcius
Reason_____

_____Samples received not on chain of custody

_____Samples on chain of custody not received

✓ Information on sample containers different from chain of custody
C/C TB2 ~ bottles "Trip Blank"

_____Sample containers received broken, leaking or not sealed (List sample ID)

_____pH out (List sample ID & which container)

_____Insufficient sample volume

_____Air bubbles present in Voa vials (List sample ID)

_____Hold time expired (List sample ID)

TSR:
Was client notified regarding information: YES NO
Name of person contacted:_____ Company:_____
TSR:_____ Date:_____
Attach: Phone Logs, e-mails, faxes, etc.

COOLER RECEIPT FORM

Contractor Cooler _____
MRD Cooler # _____
Number of Coolers 5

PROJECT: NAS Cecil Field/Bldg. 46 LIMS# L0110522

USE OTHER SIDE OF THIS FORM TO NOTE DETAILS CONERNING CHECK-IN PROBLEMS

A. **PRELIMINARY EXAMINATION PHASE:** Date cooler opened: 10/25/01 C-of-C Number: 149152-175
by (print) Brenda Gregory (sign) Brenda Gregory

1. Did cooler come with a shipping slip (air bill, etc.)? ..... YES NO
   If YES, enter carrier name & air bill number here: Fed Ex (See CRF #3)
2. Were custody seals on outside of cooler? ..... YES NO
   How many & where? 1-front, seal date: 10/24/01 seal name: QEC
3. Were custody seals unbroken and intact at the data and time of arrival? ..... YES NO
4. Did you screen samples for radioactivity using the Geiger Counter? ..... YES NO
5. Were custody papers sealed in a plastic bag & taped inside to the lid? ..... YES NO
6. Were custody papers filled out properly (ink, signed, etc.)? ..... YES NO
7. Did you sign custody papers in the appropriate place? ..... YES NO
8. Was project identifiable from custody papers? If yes, enter project name at the top of this form ..... YES NO
9. If required, was enough ice used? ..... Type of ice: Wet Temp See CdLF #3 ..... YES NO
10. Have designated person initial here to acknowledge receipt of cooler: BG (date) 10/25/01

B. **LOG-IN PHASE:** Date samples were logged-in: 10/25/01
by (print) Brenda Gregory (sign) Brenda Gregory

11. Describe type of packing in cooler: divider; wet ice
12. Were all bottles sealed in separate plastic bags? ..... YES NO
13. Did all bottles arrive unbroken & were labels in good condition? ..... YES NO
14. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? ..... YES NO
15. Did all bottle labels agree with custody papers? ..... YES NO
16. Were correct containers used for the tests indicated? ..... YES NO
17. Were correct preservatives added to samples? ..... YES NO
18. Was a sufficient amount of sample sent for tests indicated? ..... YES NO
19. Were bubbles absent in volatile samples? If NO, list by Sample # _____ YES NO
20. Was the project manager called and status discussed? If YES, give details on the back of this form ..... YES NO
21. Who was called? _____ By whom? _____ (date) _____

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2.0 Full Sample Data Package

2.1 Volatiles Data

2.1.3 BTEX GC Data (8021)

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0110522

METHOD

Preparation: SW- 846 5030B
Analysis: SW-846 8021B

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.
Matrix Spikes: The MS/MSD results were not associated with this sample delivery group (SDG).

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: CSH REVIEWED: [signature] DATE: 11/5/01

Rev. 6/00

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0110522
Blank File ID: 12G10010
Date Analyzed: 10/29/01
Time Analyzed: 14:39
Analyst: CSH

Work Group: WG107256
Blank Sample ID: WG107256-01
Instrument ID: HP12
Method: 8021

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG107256-02	12G10011	10/29/01 15:12	04
002-46DUP-Q4-01-09	L0110522-08	12G10012	10/29/01 15:56	03
002-CEF46-2S-Q4-01-09	L0110522-02	12G10014	10/29/01 17:01	01
002-CEF46-7I-Q4-01-09	L0110522-03	12G10017	10/29/01 18:38	DL02
002-CEF46-24D-Q4-01-09	L0110522-04	12G10018	10/29/01 19:10	02
002-CEF46-21I-Q4-01-09	L0110522-05	12G10019	10/29/01 19:43	02

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0110522
Instrument ID: HP12
File ID: 12G10010
Workgroup (AAB#): WG107256
Contract #:

Run Date: 10/29/2001
Run Time: 14:39
Analyst: CSH

Sample ID: WG107256-01
Method: 8021B
Matrix: Water
Units: ug/L
Cal ID: HP12-03-OCT-2001

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
MTBE	.5	1	0.500	1.00	ND
Benzene	.5	1	0.500	1.00	ND
Toluene	.5	1	0.500	1.00	ND
Ethylbenzene	.5	1	0.500	1.00	ND
Total xylenes	.5	1	0.500	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	109	70 - 130	PASS

F Analyte concentration between MDL and RDL
* Analyte detected above RDL

KEMRON FORMS - Modified 10/16/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0110522
Instrument ID: HP12
File ID: 12G10011
Workgroup (AAB#): WG107256
Contract #:

Run Date: 10/29/2001
Run Time: 15:12
Analyst: CSH

Sample ID: WG107256-02
Method: 8021B
Matrix: Water
Units: ug/L
Cal ID: HP12-03-OCT-2001

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	20.4	102	56 - 149	
Benzene	20	21.8	109	78 - 122	
Toluene	20	21.7	109	78 - 123	
Ethylbenzene	20	22.1	111	80 - 129	
Total xylenes	60	65.2	109	80 - 124	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	109	70 - 130	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 10/16/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021 AAB#: WG107256

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
002-46DUP-Q4-01-09	24-OCT-01	25-OCT-01	29-OCT-01	14	5	29-OCT-01	14	5	
002-CEF46-2S-Q4-01-09	24-OCT-01	25-OCT-01	29-OCT-01	14	5	29-OCT-01	14	5	
002-CEF46-7I-Q4-01-09	24-OCT-01	25-OCT-01	29-OCT-01	14	5	29-OCT-01	14	5	
002-CEF46-24D-Q4-01-09	24-OCT-01	25-OCT-01	29-OCT-01	14	5	29-OCT-01	14	5	
002-CEF46-21I-Q4-01-09	24-OCT-01	25-OCT-01	29-OCT-01	14	5	29-OCT-01	14	5	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0110522
Instrument Id: HP12
Workgroup (AAB#): WG107256

Method: 8021
Matrix: WATER

Sample Numbe	Dilution	Tag	1
L0110522-02	1.00		116
L0110522-03	100		106
L0110522-04	1.00		104
L0110522-05	1.00		100
L0110522-08	1.00		113
WG107256-01	1.00		109
WG107256-02	1.00		109

Surrogates	Surrogate Limits		
1 - a,a,a-Trifluorotoluene	70	-	130

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 10/18/2001
Version 1.0

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001

Calibration Files

1	=12G09676.D	10	=12G09677.D	20	=12G09678.D
50	=12G09679.D	100	=12G09680.D	200	=12G09681.D

		Compound	1	10	20	50	100	200	Avg		%RS
1)	TM	MTBE	5.501	5.055	5.309	4.819	5.339	5.014	5.173	E4	4.8
2)	TM	Benzene	2.434	2.628	2.609	2.515	2.531	2.510	2.538	E5	2.8
3)	S	TFT	7.849	8.485	8.473	8.349	8.569	8.620	8.391	E4	3.3
4)	TM	Toluene	2.310	2.417	2.431	2.333	2.353	2.313	2.359	E5	2.2
5)	TM	Chlorobenzene	2.356	2.481	2.482	2.386	2.516	2.389	2.435	E5	2.7
6)	TM	Ethylbenzene	1.965	2.092	2.074	2.006	2.078	1.984	2.033	E5	2.6
7)	TM	m-,p-Xylene	2.390	2.520	2.501	2.414	2.372	2.369	2.428	E5	2.7
8)	TM	o-Xylene	1.915	2.149	2.147	2.074	2.121	2.049	2.076	E5	4.2
9)	S	BFB	2.194	2.022	2.024	2.008	2.053	2.041	2.057	E5	3.3
10)	TM	1,3-Dichlorobenzene	1.973	2.213	2.231	2.185	2.174	2.061	2.139	E5	4.7
11)	TM	1,4-Dichlorobenzene	1.973	2.213	2.231	2.185	2.174	2.061	2.139	E5	4.7
12)	TM	1,2-Dichlorobenzene	2.245	1.764	1.828	1.703	1.784	1.605	1.821	E5	12.1
13)	S	BCB	2.770	1.949	1.981	1.983	2.189	1.995	2.145	E5	14.8

(#) = Out of Range

Login Number: L0110522
File ID: 12G09682
ALT ID: WG105716-07
Units: ug/L

Instrument ID: HP12
Run Date: 10/03/2001
Run Time: 11:20
Analyst: CBN
Cal ID: HP12 - 03-OCT-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	20.1	183000	0.5	
1,4-Dichlorobenzene		20	21.3	228000	6.5	
1,3-Dichlorobenzene		20	21.3	228000	6.5	
o-Xylene		20	20.8	216000	4.0	
m-,p-Xylene		40	42.2	256000	5.5	
Ethylbenzene		20	21.3	216000	6.5	
Chlorobenzene		20	20.4	249000	2.0	
Toluene		20	20.7	245000	3.5	
Benzene		20	20.5	260000	2.5	
MTBE		20	19.3	49800	3.5	

Login Number: L0110522
File ID: 12G10009
CCV ID: WG107220-02
Units: ug/L

Instrument ID: HP12
Run Date: 10/29/2001
Run Time: 13:54
Analyst: CSH
Cal ID: HP12 - 03-OCT-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	21.4	195000	7.0	
1,4-Dichlorobenzene		20	21.8	233000	9.0	
1,3-Dichlorobenzene		20	21.8	233000	9.0	
o-Xylene		20	21.3	221000	6.5	
m-,p-Xylene		40	43.3	262000	8.3	
Ethylbenzene		20	21.9	223000	9.5	
Chlorobenzene		20	21.2	258000	6.0	
Toluene		20	21.4	253000	7.0	
Benzene		20	21.2	269000	6.0	
MTBE		20	19.4	50200	3.0	

Login Number: L0110522
File ID: 12G10020
CCV ID: WG107220-03
Units: ug/L

Instrument ID: HP12
Run Date: 10/29/2001
Run Time: 20:15
Analyst: CSH
Cal ID: HP12 - 03-OCT-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	18.4	167000	8.0	
1,4-Dichlorobenzene		20	18.8	202000	6.0	
1,3-Dichlorobenzene		20	18.8	202000	6.0	
o-Xylene		20	18.4	191000	8.0	
m-,p-Xylene		40	37.1	225000	7.3	
Ethylbenzene		20	18.8	192000	6.0	
Chlorobenzene		20	18.3	223000	8.5	
Toluene		20	18.6	219000	7.0	
Benzene		20	18.6	236000	7.0	
MTBE		20	17.6	45500	12.0	

WG105716
1 67

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	20	12g09675.d	1.	WG105716-01 8021 STD1 1PPB 5ML DNC	1,1 S-84-(17,38)	3 Oct 2001 (
2	21	12g09676.d	1.	WG105716-01 8021 STD1 1PPB 5ML ✓	1,1 S-84-(17,38)	3 Oct 2001 (
3	22	12g09677.d	1.	WG105716-02 8021 STD2 10PPB... ✓	1,1 S-84-(17,38)	3 Oct 2001 (
4	23	12g09678.d	1.	WG105716-03 8021 STD3 20PPB... ✓	1,1 S-84-(17,38)	3 Oct 2001 (
5	24	12g09679.d	1.	WG105716-04 8021 STD4 50PPB... ✓	1,1 S-84-(17,38)	3 Oct 2001 (
6	25	12g09680.d	1.	WG105716-05 8021 STD5 100PP... ✓	1,1 S-84-(17,38)	3 Oct 2001 1
7	30	12g09681.d	1.	WG105716-06 8021 STD6 200PP... ✓	1,1 S-84-(17,38)	3 Oct 2001 1
8	31	12g09682.d	1.	WG105716-07 ALT SOURCE 20PP... ✓	1,1 S-(85-01,84-38)	3 Oct 2001 1
9	2	12g09683.d	100.	WG105767-01 EXT BLANK 10/03... ✓	7,100 S-84-38	3 Oct 2001 1
10	3	12g09684.d	100.	WG105767-01 EXT LCSK 10/03/... ✓	7,100 S-(85-01,84...	3 Oct 2001 1
11	20	12g09685.d	125.	L0109340-01 4.02G/10ML 125X ✓	7,125,RE S-84-38	3 Oct 2001 1
12	21	12g09686.d	1000.	L0109340-02 4.88G/10ML 1000X ✓	7,1000 S-84-38	3 Oct 2001 1
13	22	12g09687.d	900.	L0109360-04 5.49G/10ML 900X ✓ SSS	7,900 S-84-38	3 Oct 2001 1
14	23	12g09688.d	80.	L0109360-05 6.08G/10ML 80X CONF SMI	7,80,RE S-84-38	3 Oct 2001 1
15	24	12g09689.d	85.	L0109360-06 5.88G/10ML 85X ✓	7,85 S-84-38	3 Oct 2001 1
16	25	12g09690.d	900.	L0109360-07 5.69G/10ML 900X RE @ 9000X	7,900 S-84-38	3 Oct 2001 1
17	30	12g09691.d	75.	L0109360-08 6.53G/10ML 75X SSS CONF	7,75 S-84-38	3 Oct 2001 1
18	31	12g09692.d	90.	L0109360-09 5.68G/10ML 90X HIGH SSS	7,90 S-84-38	3 Oct 2001 1
19	32	12g09693.d	1.	WG105716-09 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,84-38)	3 Oct 2001 1
20	15	12g09694.d	75.	L0109360-08 6.53G/10ML 75X HIGH SSS	7,75,RE S-84-38	3 Oct 2001 1
21	16	12g09695.d	90.	L0109360-09 5.68G/10ML 90X CONF SMI	7,90,RE S-84-38	3 Oct 2001 1
22	17	12g09696.d	900.	L0109360-07 5.69G/10ML 900X BAD AVERAGE	7,900,RE S-84-38	3 Oct 2001 1
23	18	12g09697.d	900.	L0109360-04 5.49G/10ML 900X ✓	7,900,RE S-84-38	3 Oct 2001 1
24	19	12g09698.d	500000.	L0110002-01 1G/10ML 500000X ✓	1,500000 S-84-38	3 Oct 2001 2
25	20	12g09699.d	500000.	L0110002-01 DUP 1G/10ML 500... ✓	1,500000 S-84-38	3 Oct 2001 2
26	21	12g09700.d	50000.	L0110002-01 1G/10ML 50000X ✓	1,50000 S-84-38	3 Oct 2001 2
27	22	12g09701.d	1.	RINSE	1,1 S-84-38	3 Oct 2001 2
28	23	12g09702.d	1.	WG105716-10 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,84-38)	3 Oct 2001 2

Directory: C:\HPCHEM2\DATA\102901

WG107231
256

ANALYST: C

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12g10002.d	1.	WG107220-01 8021 STD 20PPB 5ML	1,1 S-86-(13,08)	29 Oct 2001 1
2	1	12g10003.d	1.	WG107231-01 EXT BLANK 10/29...	7,100 S-86-08	29 Oct 2001 1
3	2	12g10004.d	1.	WG107231-02 EXT LCS 10/29/0...	7,100 S-86-08	29 Oct 2001 1
4	5	12g10005.d	1.	WG107231-03 L0110525-01 5G/...	7,100 S-86-08	29 Oct 2001 1
5	6	12g10006.d	1.	WG107231-04 L0110525-01 DUP...	7,100 S-86-08	29 Oct 2001 1
6	7	12g10007.d	1.	L0110526-01 5G/10ML 100uL 100X	7,100 S-86-08	29 Oct 2001 1
7	8	12g10008.d	1.	L0110526-03 5G/10ML 100uL 100X	7,100 S-86-08	29 Oct 2001 1
8	2	12g10009.d	1.	WG107220-02 8021 STD 20PPB 5ML ✓	1,1 S-86-(13,08)	29 Oct 2001 1
9	1	12g10010.d	1.	WG107256-01 WATER BLANK 5ML ✓	1,1 S-86-(13,08)	29 Oct 2001 1
10	2	12g10011.d	1.	WG107256-02 WATER LCS 20PPB... ✓	1,1 S-86-(13,08)	29 Oct 2001 1
11	5	12g10012.d	1.	L0110522-08 "A" 5ML pH<2 ✓	1,1 S-86-08	29 Oct 2001 1
12	6	12g10013.d	20.	L0110522-01 "A" 250uL 20X pH<2 AK ● 100X	1,20 S-86-08	29 Oct 2001 1
13	7	12g10014.d	1.	L0110522-02 "A" 5ML pH<2 ✓	1,1 S-86-08	29 Oct 2001 1
14	8	12g10015.d	1.	L0110522-02 MS "A" 5ML pH<2 ✓	1,1 S-86-(13,08)	29 Oct 2001 1
15	11	12g10016.d	1.	L0110522-02 MSD "A" 5ML pH<2 ✓	1,1 S-86-(13,08)	29 Oct 2001 1
16	12	12g10017.d	100.	L0110522-03 "A" 50uL pH<2 100X ✓	1,100 S-86-08	29 Oct 2001 1
17	13	12g10018.d	1.	L0110522-04 "A" 5ML pH<2 ✓	1,1 S-86-08	29 Oct 2001 1
18	14	12g10019.d	1.	L0110522-05 "A" 5ML pH<2 ✓	1,1 S-86-08	29 Oct 2001 1
19	15	12g10020.d	1.	WG107220-03 8021 STD 20PPB 5ML ✓	1,1 S-86-(13,08)	29 Oct 2001 2
20	16	12g10021.d	1.	L0110522-06 "A" 5ML pH<2	1,1 S-86-08	29 Oct 2001 2

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0110522
Blank File ID: 5G10716
Date Analyzed: 10/30/01
Time Analyzed: 14:34
Analyst: CBN

Work Group: WG107288
Blank Sample ID: WG107288-01
Instrument ID: HP5
Method: 8021

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG107288-02	5G10717	10/30/01 15:06	01
002-CEF46-1S-Q4-01-09	L0110522-01	5G10718	10/30/01 15:54	DL01
002-CEF46-25I-Q4-01-09	L0110522-06	5G10719	10/30/01 16:27	01
002-CEF46-26I-Q4-01-09	L0110522-07	5G10720	10/30/01 16:59	DL01
002-46EQB-Q4-01-09	L0110522-09	5G10723	10/30/01 18:37	01
002-46TB2-Q4-01-09	L0110522-10	5G10724	10/30/01 19:10	01

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0110522 | Run Date: 10/30/2001 | Sample ID: WG107288-01
Instrument ID: HP5 | Run Time: 14:34 | Method: 8021B
File ID: 5G10716 | Analyst: CBN | Matrix: Water
Workgroup (AAB#): WG107288 | Units: ug/L
Contract #: | Cal ID: HP5-26-OCT-2001

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
MTBE	.5	1	0.500	1.00	ND
Benzene	.5	1	0.500	1.00	ND
Toluene	.5	1	0.500	1.00	ND
Ethylbenzene	.5	1	0.500	1.00	ND
Total xylenes	.5	1	0.500	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	106	70 - 130	PASS

F Analyte concentration between MDL and RDL
* Analyte detected above RDL

KEMRON FORMS - Modified 10/16/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0110522
Run Date: 10/30/2001
Sample ID: WG107288-02
Instrument ID: HP5
Run Time: 15:06
Method: 8021B
File ID: 5G10717
Analyst: CBN
Matrix: Water
Workgroup (AAB#): WG107288
Units: ug/L
Contract #:
Cal ID: HP5-26-OCT-2001

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	19.8	99.0	56 - 149	
Benzene	20	18.5	92.5	78 - 122	
Toluene	20	18.9	94.5	78 - 123	
Ethylbenzene	20	18.9	94.5	80 - 129	
Total xylenes	60	56.3	93.8	80 - 124	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	107	70 - 130	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 10/16/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021 AAB#: WG107288

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
002-CEF46-1S-Q4-01-09	24-OCT-01	25-OCT-01	30-OCT-01	14	6	30-OCT-01	14	6	
002-CEF46-25I-Q4-01-09	24-OCT-01	25-OCT-01	30-OCT-01	14	6	30-OCT-01	14	6	
002-CEF46-26I-Q4-01-09	24-OCT-01	25-OCT-01	30-OCT-01	14	6	30-OCT-01	14	6	
002-46EQB-Q4-01-09	24-OCT-01	25-OCT-01	30-OCT-01	14	6	30-OCT-01	14	6	
002-46TB2-Q4-01-09	24-OCT-01	25-OCT-01	30-OCT-01	14	6	30-OCT-01	14	6	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0110522
Instrument Id: HP5
Workgroup (AAB#): WG107288

Method: 8021
Matrix: WATER

Sample Numbe	Dilution	Tag	1
L0110522-01	100		110
L0110522-06	1.00		112
L0110522-07	20.0		110
L0110522-09	1.00		109
L0110522-10	1.00		108
WG107288-01	1.00		106
WG107288-02	1.00		107

Surrogates	Surrogate Limits		
1 - a,a,a-Trifluorotoluene	70	-	130

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 10/18/2001
Version 1.0

Response Factor Report HP5

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:22:41 2001

Calibration Files
1 =5G10674.D 10 =5G10675.D 20 =5G10676.D
50 =5G10677.D 100 =5G10678.D 200 =5G10679.D

		Compound	1	10	20	50	100	200	Avg		%RSD
1)	TM	MTBE	1.835	1.844	1.764	1.805	1.788	1.782	1.803	E4	1.74
2)	TM	Benzene	1.213	1.080	1.056	1.106	1.079	1.071	1.101	E5	5.21
3)	S	TFT	3.471	3.276	3.330	3.401	3.280	3.291	3.341	E4	2.35
4)	TM	Toluene	1.075	0.983	0.957	0.994	0.981	0.982	0.995	E5	4.10
5)	TM	Chlorobenzene	1.359	1.056	1.021	1.052	1.038	1.032	1.093	E5	12.01
6)	TM	Ethylbenzene	9.364	8.520	8.419	8.728	8.623	8.525	8.696	E4	3.95
7)	TM	m-,p-Xylene	1.107	1.009	0.995	1.031	1.017	0.995	1.025	E5	4.12
8)	TM	o-Xylene	9.651	8.842	8.620	8.992	8.898	8.802	8.968	E4	3.98
9)	S	BFB	9.071	8.874	8.995	9.128	8.985	8.814	8.978	E4	1.31
10)	TM	1,3-Dichlorobenzene	8.818	8.695	8.496	8.882	8.821	8.851	8.760	E4	1.65
11)	TM	1,4-Dichlorobenzene	9.190	9.703	9.196	9.410	9.262	9.210	9.329	E4	2.16
12)	TM	1,2-Dichlorobenzene	8.091	7.480	7.230	7.455	7.392	7.395	7.507	E4	3.98
13)	S	BCB	9.085	8.449	8.534	8.615	8.556	8.567	8.634	E4	2.63

(#) = Out of Range

Login Number: L0110522
File ID: 5G10680
ALT ID: WG107186-07
Units: ug/L

Instrument ID: HP5
Run Date: 10/26/2001
Run Time: 18:04
Analyst: CBN
Cal ID: HP5 - 26-OCT-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	20.4	76500	2.0	
1,4-Dichlorobenzene		20	20.2	94200	1.0	
1,3-Dichlorobenzene		20	20.4	89200	2.0	
o-Xylene		20	19.1	85800	4.5	
m-,p-Xylene		40	39.0	100000	2.5	
Ethylbenzene		20	19.9	86300	0.5	
Chlorobenzene		20	18.8	103000	6.0	
Toluene		20	19.4	96400	3.0	
Benzene		20	19.1	105000	4.5	
MTBE		20	19.7	17700	1.5	

Login Number: L0110522
File ID: 5G10715
CCV ID: WG107287-01
Units: ug/L

Instrument ID: HP5
Run Date: 10/30/2001
Run Time: 13:52
Analyst: CBN
Cal ID: HP5 - 26-OCT-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	19.7	74100	1.5	
1,4-Dichlorobenzene		20	19.6	91500	2.0	
1,3-Dichlorobenzene		20	19.5	85200	2.5	
o-Xylene		20	18.6	83300	7.0	
m-,p-Xylene		40	37.9	97300	5.3	
Ethylbenzene		20	18.9	82300	5.5	
Chlorobenzene		20	17.9	97800	10.5	
Toluene		20	18.9	94300	5.5	
Benzene		20	18.3	101000	8.5	
MTBE		20	20.2	18200	1.0	

Login Number: L0110522
File ID: 5G10725
CCV ID: WG107287-02
Units: ug/L

Instrument ID: HP5
Run Date: 10/30/2001
Run Time: 19:42
Analyst: CBN
Cal ID: HP5 - 26-OCT-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	19.8	74200	1.0	
1,4-Dichlorobenzene		20	18.7	87100	6.5	
1,3-Dichlorobenzene		20	19.3	84300	3.5	
o-Xylene		20	19.1	85800	4.5	
m-,p-Xylene		40	39.0	100000	2.5	
Ethylbenzene		20	19.8	86100	1.0	
Chlorobenzene		20	18.9	103000	5.5	
Toluene		20	19.8	98300	1.0	
Benzene		20	19.6	108000	2.0	
MTBE		20	20.0	18000	0.0	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

Analyst: YS

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g10672.d	1.	WG10 8021 STD 20PPB 5ML	1,1 S-85-(01,03)	26 Oct 101 13
2	2	5g10673.d	1.	WG107186-01 8021 STD1 1PPB 5ML DNR	1,1 S-85-38, S-86-08	26 Oct 101 12
3	3	5g10674.d	1.	WG107186-01 8021 STD1 1PPB 5ML ✓	1,1 S-85-38, S-86-08	26 Oct 101 12
4	4	5g10675.d	1.	WG107186-02 8021 STD2 10PPB 5ML ✓	1,1 S-85-38, S-86-08	26 Oct 101 12
5	5	5g10676.d	1.	WG107186-03 8021 STD3 20PPB 5ML ✓	1,1 S-85-38, S-86-08	26 Oct 101 12
6	6	5g10677.d	1.	WG107186-04 8021 STD4 50PPB 5ML ✓	1,1 S-85-38, S-86-08	26 Oct 101 12
7	7	5g10678.d	1.	WG107186-05 8021 STD5 100PPB 5ML ✓	1,1 S-85-38, S-86-08	26 Oct 101 12
8	8	5g10679.d	1.	WG107186-06 8021 STD6 200PPB 5ML ✓	1,1 S-85-38, S-86-08	26 Oct 101 12
9	9	5g10680.d	1.	WG107186-07 8021 ALT SOURCE 20PPB 5ML ✓	1,1 S-85-01, S-86-08	26 Oct 101 12

Directory: c:\hpchem\2\data\r00001

WG107288

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g10709.d	1.	WG107287-01 8021 STD 20PPB 5ML ✓	1,1S-86-(13,12)	30 Oct 101 12::0
2	2	5g10710.d	1.	WG107288-01 WATER BLANK 5ML CONT	1,1S-86-(13,12)	30 Oct 101 12::1
3	3	5g10711.d	1.	RINSE 5ML ✓	1,1 S-86-12	30 Oct 101 13::5
4	4	5g10712.d	1.	RINSE 5ML ✓	1,1 S-86-12	30 Oct 101 13::3
5	5	5g10713.d	1.	RINSE 5ML ✓	1,1 S-86-12	30 Oct 101 13::2
6	6	5g10714.d	1.	RINSE 5ML ✓	1,1 S-86-12	30 Oct 101 12::0
7	1	5g10715.d	1.	WG107287-01 8021 STD 20PPB 5ML ✓	1,1S-86-(13,12)	30 Oct 101 12::5
8	2	5g10716.d	1.	WG107288-01 WATER BLANK 5ML ✓	1,1S-86-12	30 Oct 101 12::3
9	3	5g10717.d	1.	WG107288-02 WATER LCS 20PPB 5ML ✓	1,1S-86-(13,12)	30 Oct 101 12::0
10	1	5g10718.d	100.	L0110522-01 B 500uL 100X 5ML pH<2 ✓	1,100 S-86-12	30 Oct 101 12::5
11	2	5g10719.d	1.	L0110522-06 B 5ML pH<2 ✓	1,1 S-86-12	30 Oct 101 12::2
12	3	5g10720.d	20.	L0110522-07 B 2.5 ML 20X 5ML pH<2 ✓	1,20 S-86-12	30 Oct 101 12::5
13	4	5g10721.d	20.	WG107288-03 L0110522-07 B MS 2.5 ML 20X ✓	1,20 S-86-12	30 Oct 101 12::3
14	5	5g10722.d	20.	WG107288-04 L0110522-07 B MSD 2.5 ML 20 ✓	1,20 S-86-12	30 Oct 101 12::0
15	6	5g10723.d	1.	L0110522-09 B 5ML pH<2 ✓	1,1 S-86-12	30 Oct 101 12::3
16	7	5g10724.d	1.	L0110522-10 B 5ML pH<2 ✓	1,1 S-86-12	30 Oct 101 12::1
17	8	5g10725.d	1.	WG107287-02 8021 STD 20PPB 5ML ✓	1,1 S-86-(13,12)	30 Oct 101 12::4
18	9	5g10726.d	1.	L0110577-01 A 5ML ✓	1,1 S-86-12	30 Oct 101 12::1
19	10	5g10727.d	1.	L0110577-02 A 5ML ✓	1,1 S-86-12	30 Oct 101 12::4
20	11	5g10728.d	10.	L0110577-03 5ML 10X A 5ML RR STRT	1,10 S-86-12	30 Oct 101 12::2
21	12	5g10729.d	100.	L0110577-04 500uL 100X A 5ML ✓	1,100 S-86-12	30 Oct 101 12::5
22	13	5g10730.d	1.	L0110577-05 A 5ML ✓	1,1 S-86-12	30 Oct 101 13::2
23	14	5g10731.d	50.	L0110577-06 1ML 50X A 5ML ✓	1,50 S-86-12	30 Oct 101 13::5
24	15	5g10732.d	100.	L0110577-07 500uL 100X A 5ML ✓	1,100 S-86-12	30 Oct 101 13::3
25	16	5g10733.d	50.	L0110577-08 1ML 50X A 5ML ✓ RR @ 100X	1,50 S-86-12	31 Oct 101 13::0
26	17	5g10734.d	1.	L0110577-09 A 5ML ✓	1,1 S-86-12	31 Oct 101 13::3
27	18	5g10735.d	1.	L0110577-10 A 5ML ✓	1,1 S-86-12	31 Oct 101 12::0
28	19	5g10736.d	1.	WG107287-03 8021 STD 5ML ✓	1,1 S-86-(13,12)	31 Oct 101 12::4

REANALYSIS

L0110577-03

1 -08

FILE #

BETX-GC DATA (8021)

Login Number: L0110522

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

NA Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and quantitation report for each sample analysis and re-analysis (if re-analyzed) (Numerical order)

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data) (Chronological)

✓ Chromatograms and quantitation reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and quantitation reports (chronological)

✓ Retention time window summary (if applicable)(chronological)

D. Raw QC Data

✓ Method Blank, chromatogram and quantitation report for each matrix type (chronological)

✓ Laboratory Control Sample, chromatogram and quantitation report for each matrix type (chronological)

✓ Matrix Spike/Matrix Spike Duplicate, chromatograms and quantitation reports (if not reported as samples) and of the same client batch (chronological)

✓ Instrument runlogs (chronological)

NA Extraction bench sheets (for mid-level methanol extractions) (chronological)

NA 5035 logs (if applicable) (chronological)

Checked By: C Brian Noll **Date:** 10/31/01

2.1.3.1 QC Summary

VOA - GC

Date: 10/29/01 **Analyst:** CSH **Method:** 8021 8015 602

Instrument: HP12 **Work Group:** WG 107256

	Analyst
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	NA
Second Source standard % Difference	✓
Continuing Calibration / Check Standards	✓
Project / Client Specific Requirements	✓
Special Standards	NA
Blanks	✓
TCL's	✓
Surrogates	✓
LCS (Laboratory Control Sample)	✓
Recoveries	✓
Surrogates	✓
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	✓
Dilutions Run	✓
Reruns	✓
Excel Spreadsheets	✓
Case Narrative	✓
Narrative Summary	NA
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: GKS 10/30/01

Secondary Reviewers Initials & Date Checked: CBN 10/30/01

_____ • Check for compliance with Method and project-specific requirements
_____ • Check the completeness of the reported information
_____ • Check the information for the report narrative
_____ • Check the reasonableness of results

Supervisory Review Initials & Date Checked: _____

Comments: _____

✓ = Checked & OK
NA = Not Applicable

VOA - GC

Date: 10/30/01 **Analyst:** CSH **Method:** (8021) 8015 602

Instrument: HP5 **Work Group:** WG 107288

	Analyst
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	NA
Second Source standard % Difference	✓
Continuing Calibration / Check Standards	✓
Project / Client Specific Requirements	NA
Special Standards	NA
Blanks	✓
TCL's	✓
Surrogates	✓
LCS (Laboratory Control Sample)	✓
Recoveries	✓
Surrogates	✓
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	✓
Dilutions Run	✓
Reruns	✓
Excel Spreadsheets	✓
Case Narrative	✓
Narrative Summary	✓
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: CSH 10/31/01

Secondary Reviewers Initials & Date Checked: CBN 10/31/01

_____ • Check for compliance with Method and project-specific requirements
_____ • Check the completeness of the reported information
_____ • Check the information for the report narrative
_____ • Check the reasonableness of results

Supervisory Review Initials & Date Checked: _____

Comments: _____

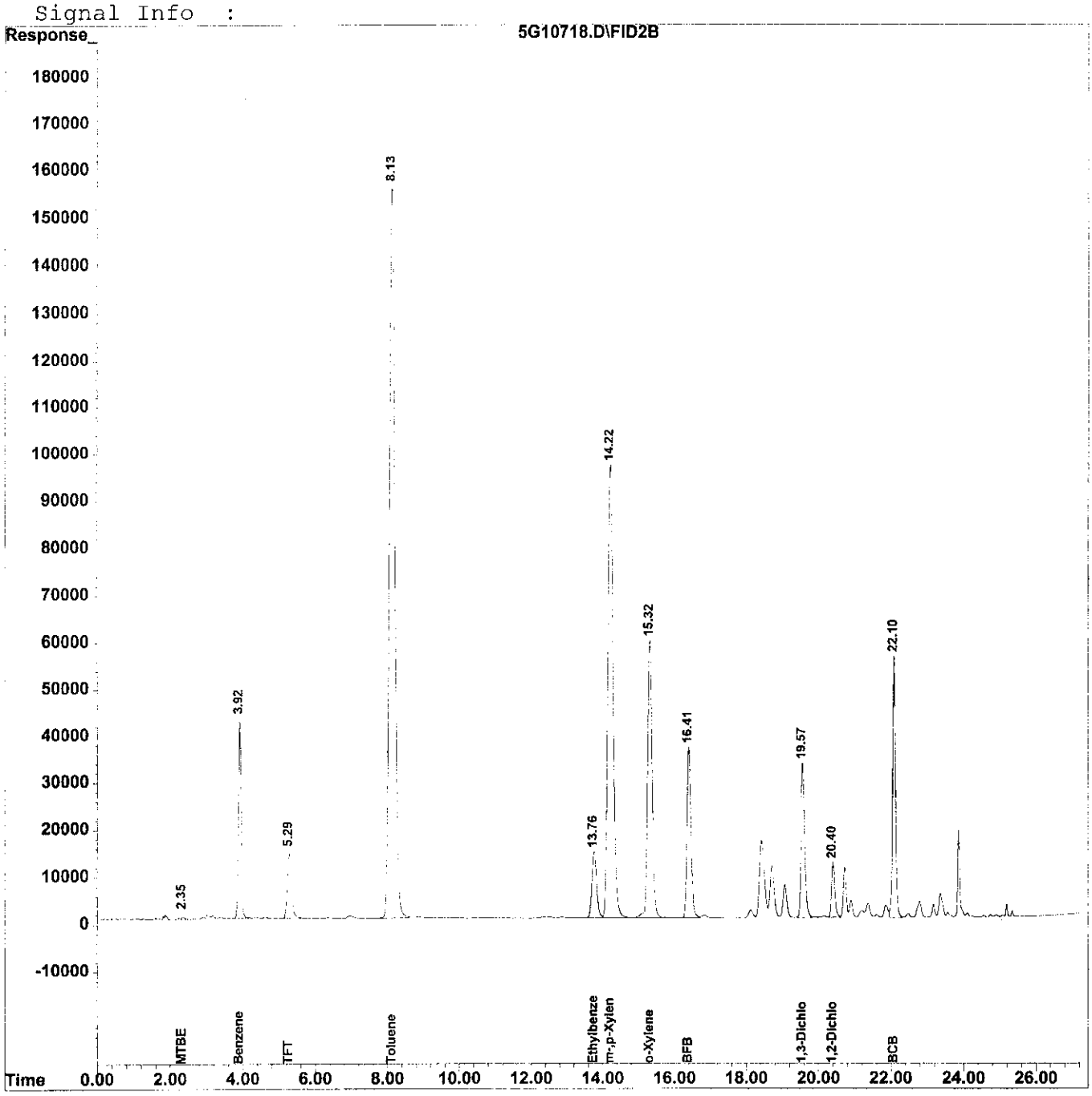
✓ = Checked & OK
NA = Not Applicable

2.1.3.2 Sample Data

Data File : C:\HPCHEM\2\DATA\103001\5G10718.D Vial: 1
Acq On : 30 Oct 2001 15:54 Operator: CBN
Sample : L0110522-01 B 500uL 100X 5ML pH<2 Inst : HP5
Misc : 1,100 S-86-12 Multiplr: 100.00
IntFile : autoint1.e
Quant Time: Oct 30 16:21 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\103001\5G10718.D Vial: 1
Acq On : 30 Oct 2001 15:54 Operator: CBN
Sample : L0110522-01 B 500uL 100X 5ML pH<2 Inst : HP5
Misc : 1,100 S-86-12 Multiplr: 100.00
IntFile : autoint1.e
Quant Time: Oct 30 16:21 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

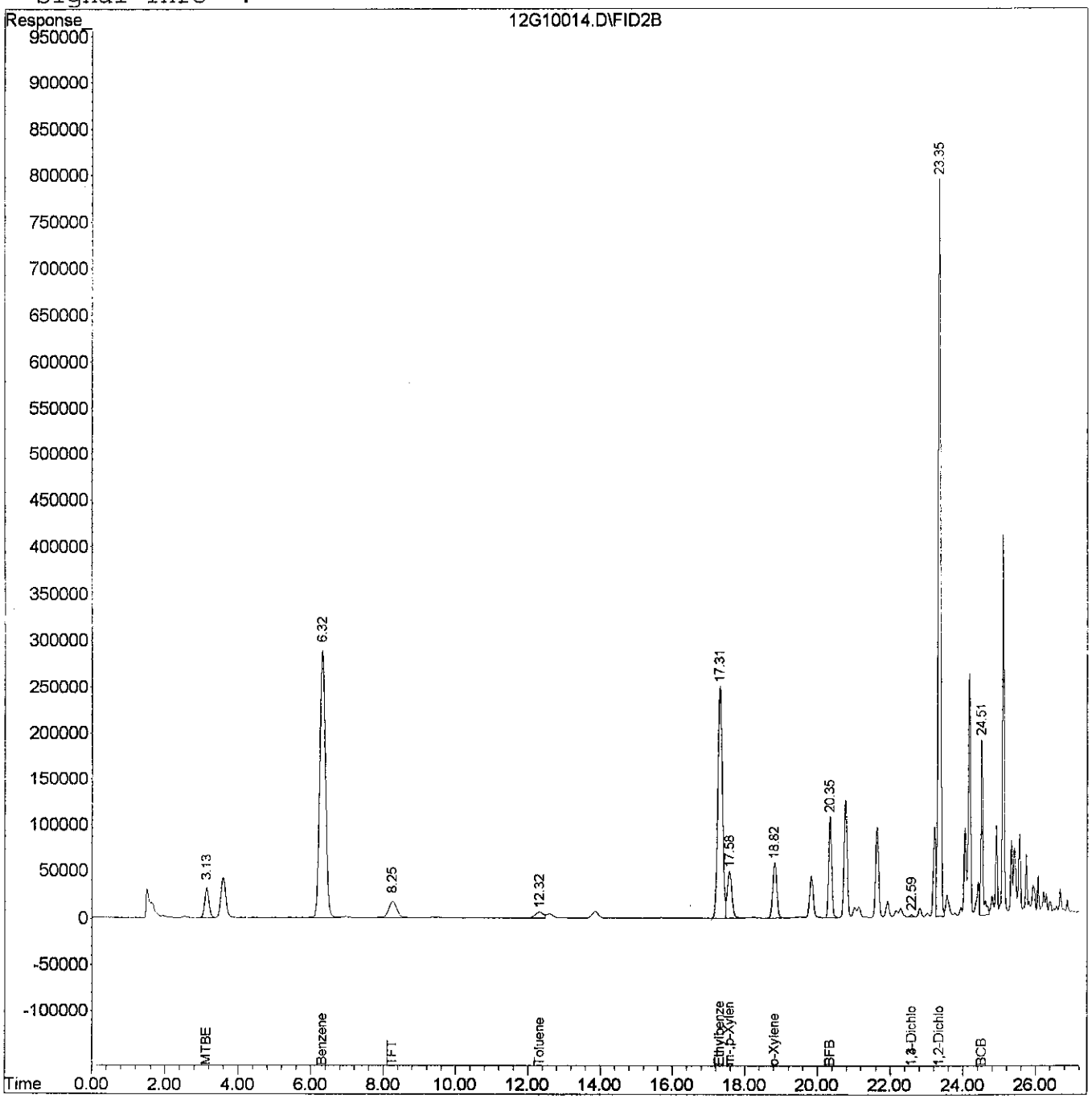
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.29	1105121	33.0728 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	110.24%
9) S BFB	16.41	2832202	31.5468 ug/L
Spiked Amount 30.000		Recovery =	105.16%
13) S BCB	22.10	3025162	35.0368 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	116.79%
Target Compounds			
1) TM MTBE	2.35	34165	189.4847 ug/L
2) TM Benzene	3.92	2185044	1984.4563 ug/L
4) TM Toluene	8.13	16195976	16271.1155 ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	13.77	1269732	1460.0516 ug/L
7) TM m-,p-Xylene	14.22	9774420	9531.7437 ug/L
8) TM o-Xylene	15.32	5304717	5915.4705 ug/L
10) TM 1,3-Dichlorobenzene	19.57	2297684	~~2622.7912 ug/L~~
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	20.41	743447	~~990.3091~~ ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\102901\12G10014.D Vial: 7
Acq On : 29 Oct 2001 17:01 Operator: CSH
Sample : L0110522-02 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 17:28 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102901\12G10014.D Vial: 7
Acq On : 29 Oct 2001 17:01 Operator: CSH
Sample : L0110522-02 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 17:28 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

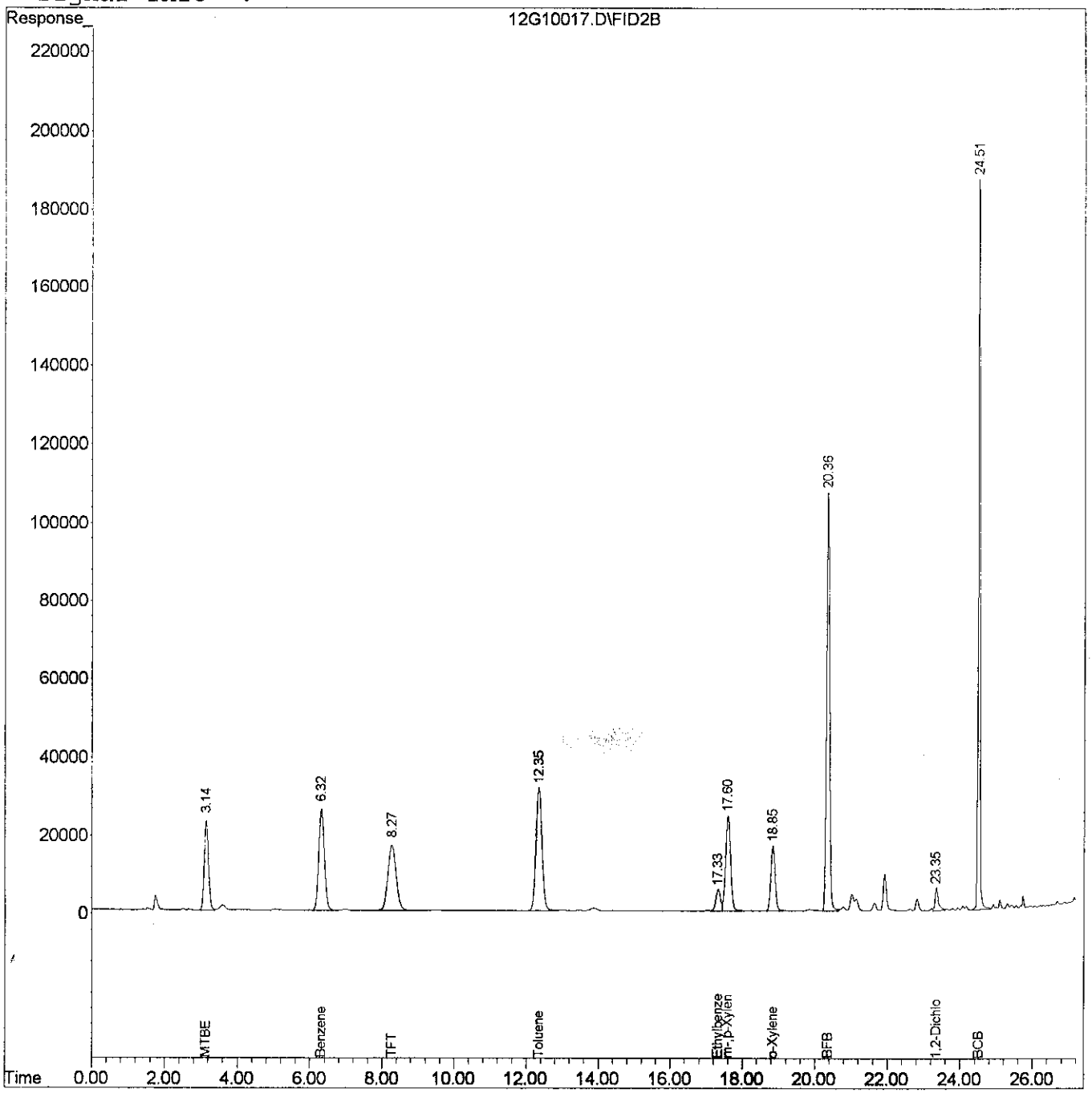
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.26	2932128	34.945 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 116.48%			
9) S BFB	20.35	6182589	30.058 UG/L
Spiked Amount 30.000 Recovery = 100.19%			
13) S BCB	24.51	7160997	33.392 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 111.31%			
Target Compounds			
1) TM MTBE	3.13	2573896	49.756 UG/L
2) TM Benzene	6.32	31278513	123.244 UG/L
4) TM Toluene	12.33	1031318	4.371 UG/L
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	17.32	21944795	107.934 UG/L
7) TM m-,p-Xylene	17.58	4351280	17.925 UG/L
8) TM o-Xylene	18.82	4586701	22.095 UG/L
10) TM 1,3-Dichlorobenzene	22.59	142156	~~0.664 UG/L~~
11) TM 1,4-Dichlorobenzene	22.59	142156	~~0.664 UG/L~~
12) TM 1,2-Dichlorobenzene	23.35	36628933	~~201.108 UG/L~~

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\102901\12G10017.D Vial: 12
Acq On : 29 Oct 2001 18:38 Operator: CSH
Sample : L0110522-03 "A" 50uL pH<2 100X Inst : HP12
Misc : 1,100 S-86-08 Multiplr: 100.00
IntFile : autoint1.e
Quant Time: Oct 29 19:05 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102901\12G10017.D Vial: 12
Acq On : 29 Oct 2001 18:38 Operator: CSH
Sample : L0110522-03 "A" 50uL pH<2 100X Inst : HP12
Misc : 1,100 S-86-08 Multiplr: 100.00
IntFile : autoint1.e
Quant Time: Oct 29 19:05 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

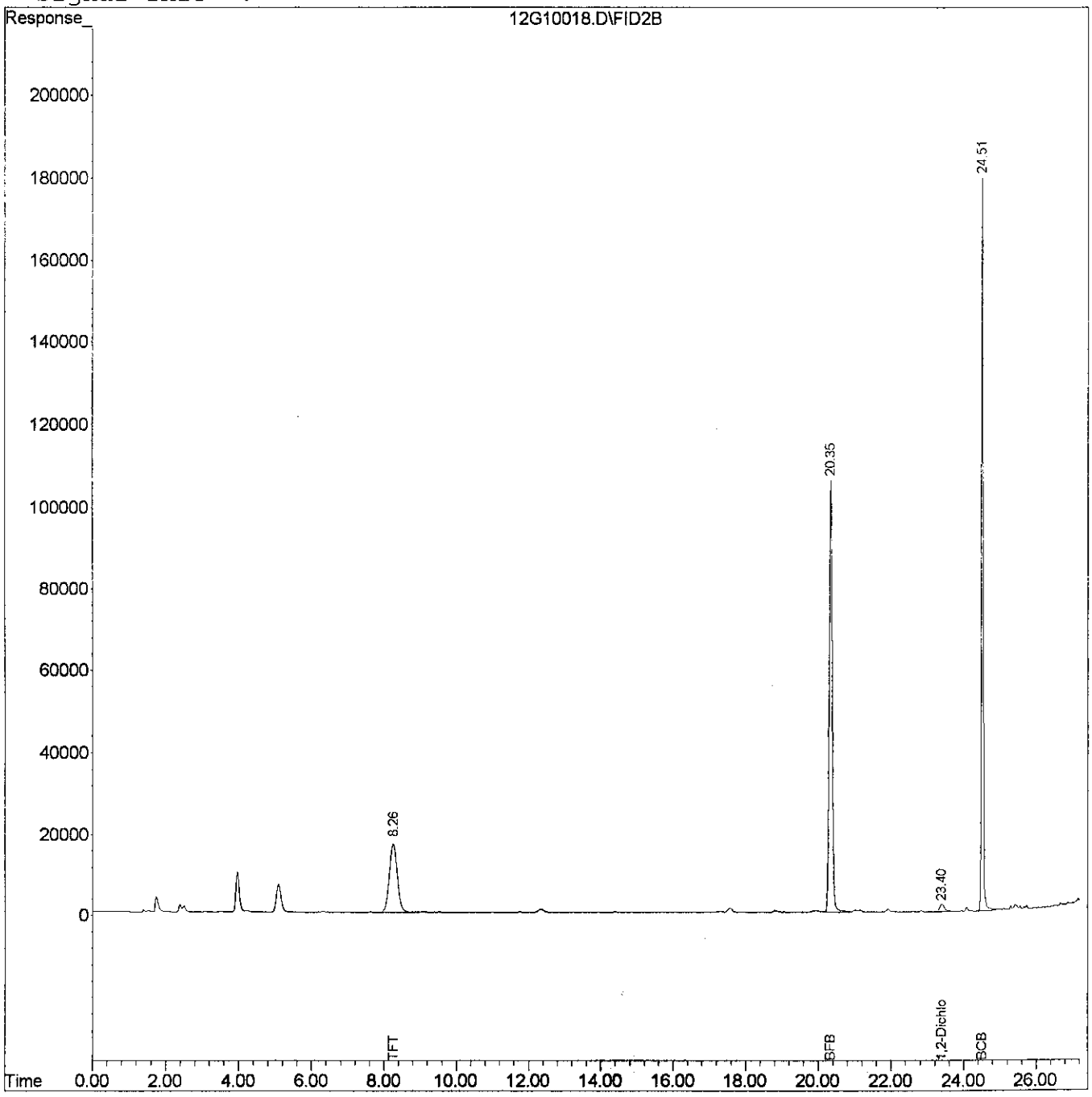
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.27	2673638	31.864 UG/L ✓
Spiked Amount 30.000 Range 70 - 130 Recovery = 106.21%			
9) S BFB	20.36	6315782	30.706 UG/L
Spiked Amount 30.000 Recovery = 102.35%			
13) S BCB	24.51	6218346	28.996 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 96.65%			
Target Compounds			
1) TM MTBE	3.14✓	1897630	3668.276 UG/L
2) TM Benzene	6.32✓	2826818	1113.829 UG/L
4) TM Toluene	12.35✓	3680631	1559.951 UG/L
5) TM Chlorobenzene	17.03	17267	~~7.090 UG/L~~
6) TM Ethylbenzene	17.33✓	493216	242.584 UG/L
7) TM m-,p-Xylene	17.60✓	2359094	971.806 UG/L
8) TM o-Xylene	18.84✓	1392659	670.881 UG/L
10) TM 1,3-Dichlorobenzene	22.63	23029	~~10.764 UG/L~~
11) TM 1,4-Dichlorobenzene	22.63	23029	~~10.764 UG/L~~
12) TM 1,2-Dichlorobenzene	23.36	370331	203.327 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\102901\12G10018.D Vial: 13
Acq On : 29 Oct 2001 19:10 Operator: CSH
Sample : L0110522-04 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 19:38 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102901\12G10018.D Vial: 13
Acq On : 29 Oct 2001 19:10 Operator: CSH
Sample : L0110522-04 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 19:38 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

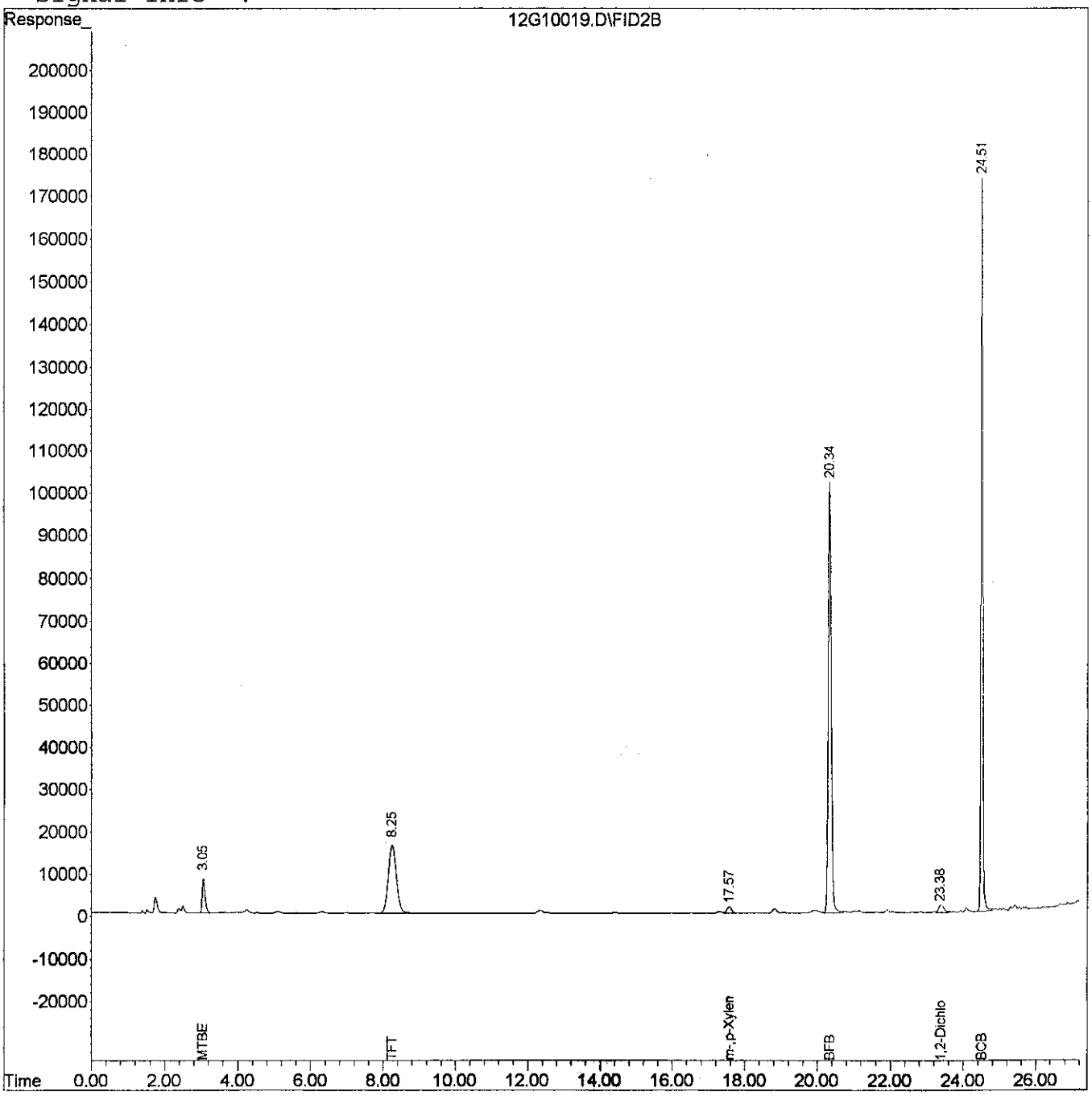
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.25	2626450	31.302 UG/L ✓
Spiked Amount 30.000 Range 70 - 130 Recovery = 104.34%			
9) S BFB	20.35	6140590	29.854 UG/L
Spiked Amount 30.000 Recovery = 99.51%			
13) S BCB	24.51	5921038	27.610 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 92.03%			
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/L
2) TM Benzene	0.00	0	N.D. UG/L
4) TM Toluene	12.34	84088	<MDL UG/L
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	17.30	25040	<MDL UG/L
7) TM m-,p-Xylene	17.57	84139	<MDL UG/L
8) TM o-Xylene	18.81	36301	<MDL UG/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. UG/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. UG/L
12) TM 1,2-Dichlorobenzene	23.40	184603	1~~.014 UG/L~~

(f)=RT Delta > 1/2 Window (m)=manual int.
12G10018.D 8021W.M Mon Oct 29 19:38:03 2001 Page 1

Data File : C:\HPCHEM\2\DATA\102901\12G10019.D Vial: 14
Acq On : 29 Oct 2001 19:43 Operator: CSH
Sample : L0110522-05 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 20:10 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102901\12G10019.D Vial: 14
Acq On : 29 Oct 2001 19:43 Operator: CSH
Sample : L0110522-05 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 20:10 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

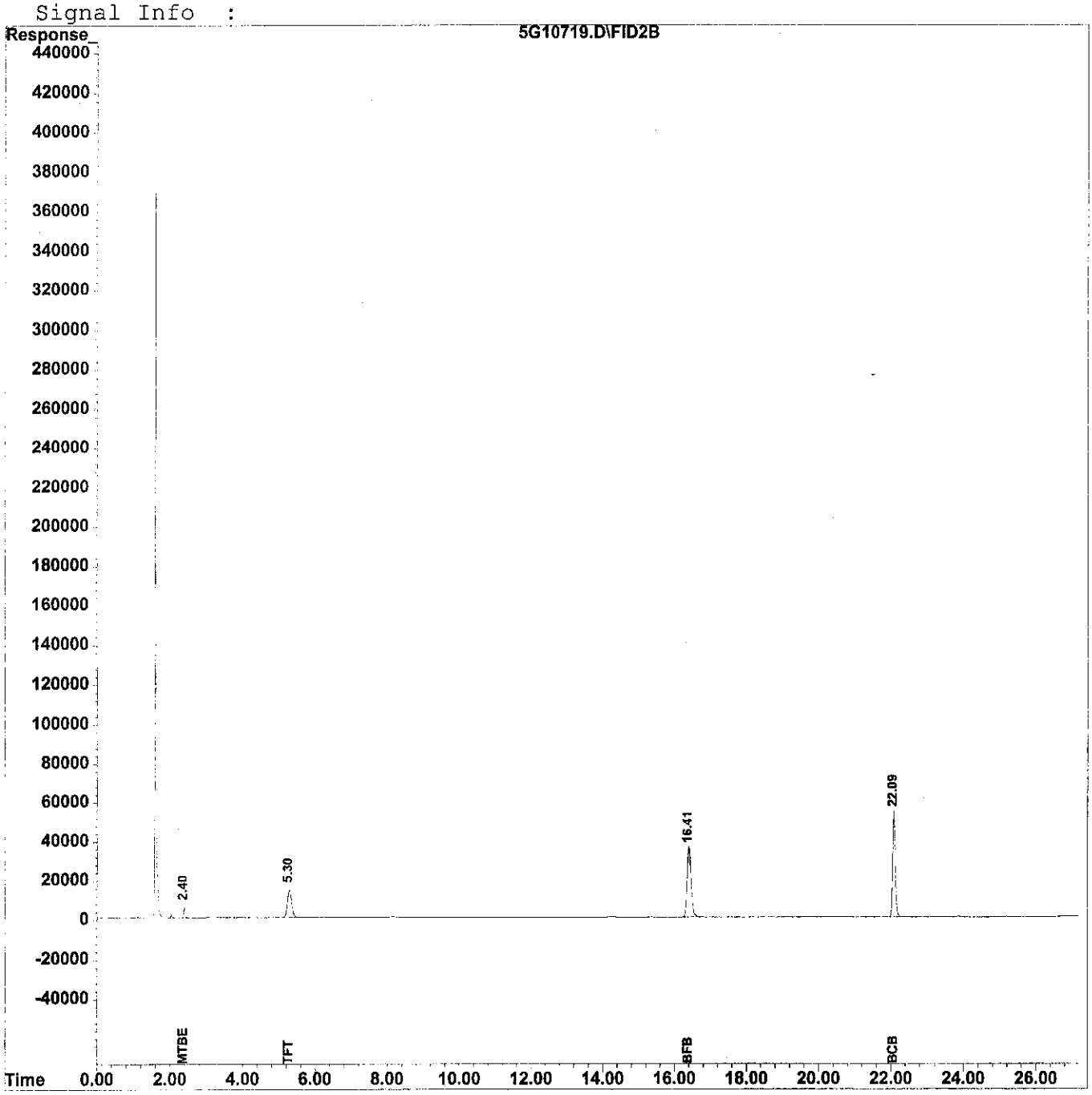
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.25 ✓	2529584	30.147 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 100.49%			
9) S BFB	20.34	5882046	28.597 UG/L
Spiked Amount 30.000 Recovery = 95.32%			
13) S BCB	24.51	5745458	26.791 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 89.30%			
Target Compounds			
1) TM MTBE	3.06	450216	~~8.703 UG/L~~
2) TM Benzene	6.31	50290	<MDL UG/L
4) TM Toluene	12.34	71766	<MDL UG/L
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	17.31	29473	<MDL UG/L
7) TM m-,p-Xylene	17.57 ✓	141849	0.584 UG/L F
8) TM o-Xylene	18.82	78369	<MDL UG/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. UG/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. UG/L
12) TM 1,2-Dichlorobenzene	23.39	182650	~~1.003 UG/L~~

(f)=RT Delta > 1/2 Window (m)=manual int.
12G10019.D 8021W.M Mon Oct 29 20:10:22 2001 Page 1
125
page 125

Data File : C:\HPCHEM\2\DATA\103001\5G10719.D Vial: 2
Acq On : 30 Oct 2001 16:27 Operator: CBN
Sample : L0110522-06 B 5ML pH<2 Inst : HP5
Misc : 1,1 S-86-12 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 30 16:54 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\103001\5G10719.D Vial: 2
Acq On : 30 Oct 2001 16:27 Operator: CBN
Sample : L0110522-06 B 5ML pH<2 Inst : HP5
Misc : 1,1 S-86-12 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 30 16:54 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

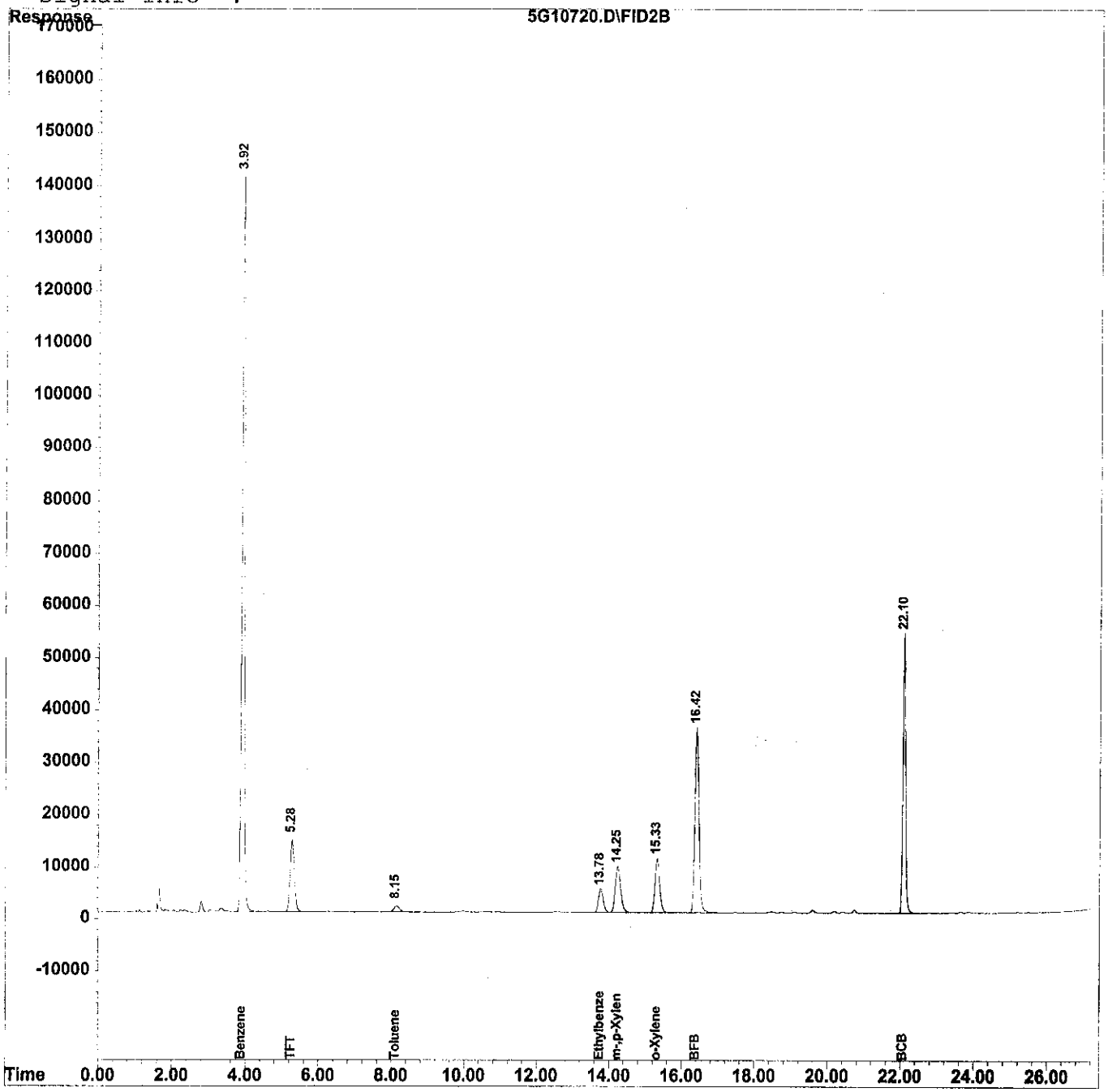
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.30	1126843	33.7229 ug/L ✓
Spiked Amount 30.000 Range 70 - 130 Recovery = 112.41%			
9) S BFB	16.42	2820990	31.4219 ug/L
Spiked Amount 30.000 Recovery = 104.74%			
13) S BCB	22.09	2764367	32.0163 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 106.72%			
Target Compounds			
1) TM MTBE	2.40	156238	~~8.6652 ug/L~~
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	8.16	39818	<MDL ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	14.25	46693	<MDL ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	19.60	19170	<MDL ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\103001\5G10720.D Vial: 3
Acq On : 30 Oct 2001 16:59 Operator: CBN
Sample : L0110522-07 B 2.5 ML 20X 5ML pH<2 Inst : HP5
Misc : 1,20 S-86-12 Multiplr: 20.00
IntFile : autoint1.e
Quant Time: Oct 30 17:27 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\103001\5G10720.D Vial: 3
Acq On : 30 Oct 2001 16:59 Operator: CBN
Sample : L0110522-07 B 2.5 ML 20X 5ML pH<2 Inst : HP5
Misc : 1,20 S-86-12 Multiplr: 20.00
IntFile : autoint1.e
Quant Time: Oct 30 17:27 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.28	1102360	32.9902 ug/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery = 109.97%	
9) S BFB	16.42	2803751	31.2299 ug/L
Spiked Amount 30.000		Recovery = 104.10%	
13) S BCB	22.10	2727830	31.5931 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery = 105.31%	
Target Compounds			
1) TM MTBE	2.24	7687	~~8.5262 ug/L~~
2) TM Benzene	3.92 ✓	7264336	1319.4937 ug/L
4) TM Toluene	8.14 ✓	111538	22.4111 ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	13.78 ✓	423155	97.3163 ug/L
7) TM m-,p-Xylene	14.25 ✓	947600	184.8146 ug/L
8) TM o-Xylene	15.33 ✓	933775	208.2568 ug/L
10) TM 1,3-Dichlorobenzene	19.60	39813	~~9.0892 ug/L~~
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	20.75	29744	~~7.9242 ug/L~~

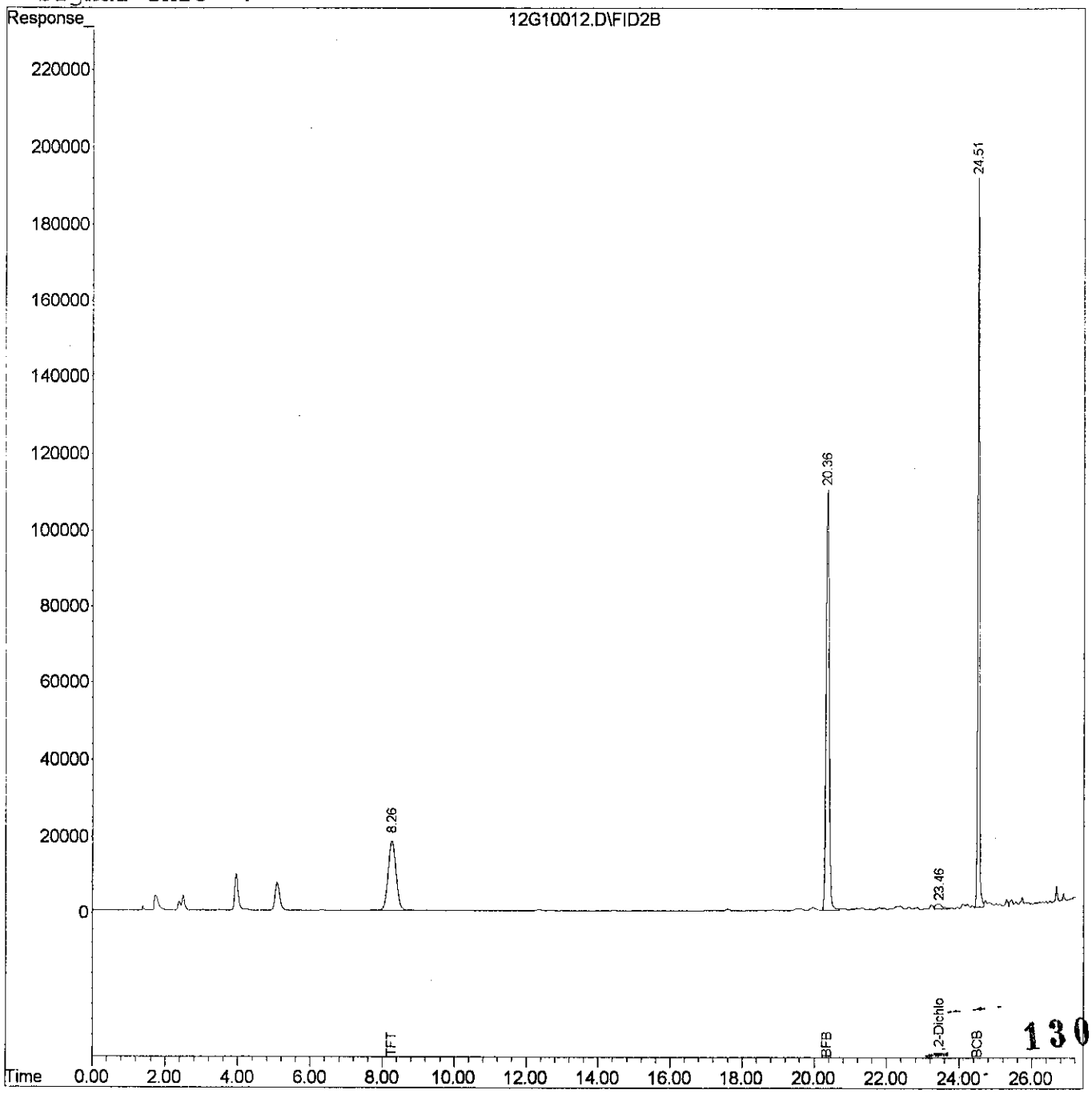
129

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\102901\12G10012.D Vial: 5
Acq On : 29 Oct 2001 15:56 Operator: CSH
Sample : L0110522-08 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 16:23 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



130

Data File : C:\HPCHEM\2\DATA\102901\12G10012.D Vial: 5
Acq On : 29 Oct 2001 15:56 Operator: CSH
Sample : L0110522-08 "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 16:23 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.26	2832863	33.762 UG/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery =	112.54%
9) S BFB	20.36	6445937	31.338 UG/L
Spiked Amount 30.000		Recovery =	104.46%
13) S BCB	24.51	6294317	29.351 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	97.84%
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/L
2) TM Benzene	0.00	0	N.D. UG/L
4) TM Toluene	12.36	22972	<MDL UG/L
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	0.00	0	N.D. UG/L
7) TM m-,p-Xylene	17.60	36650	<MDL UG/L
8) TM o-Xylene	18.85	20324	<MDL UG/L
10) TM 1,3-Dichlorobenzene	22.62	49155	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.62	49155	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.46	176011	~~0.966 UG/L~~

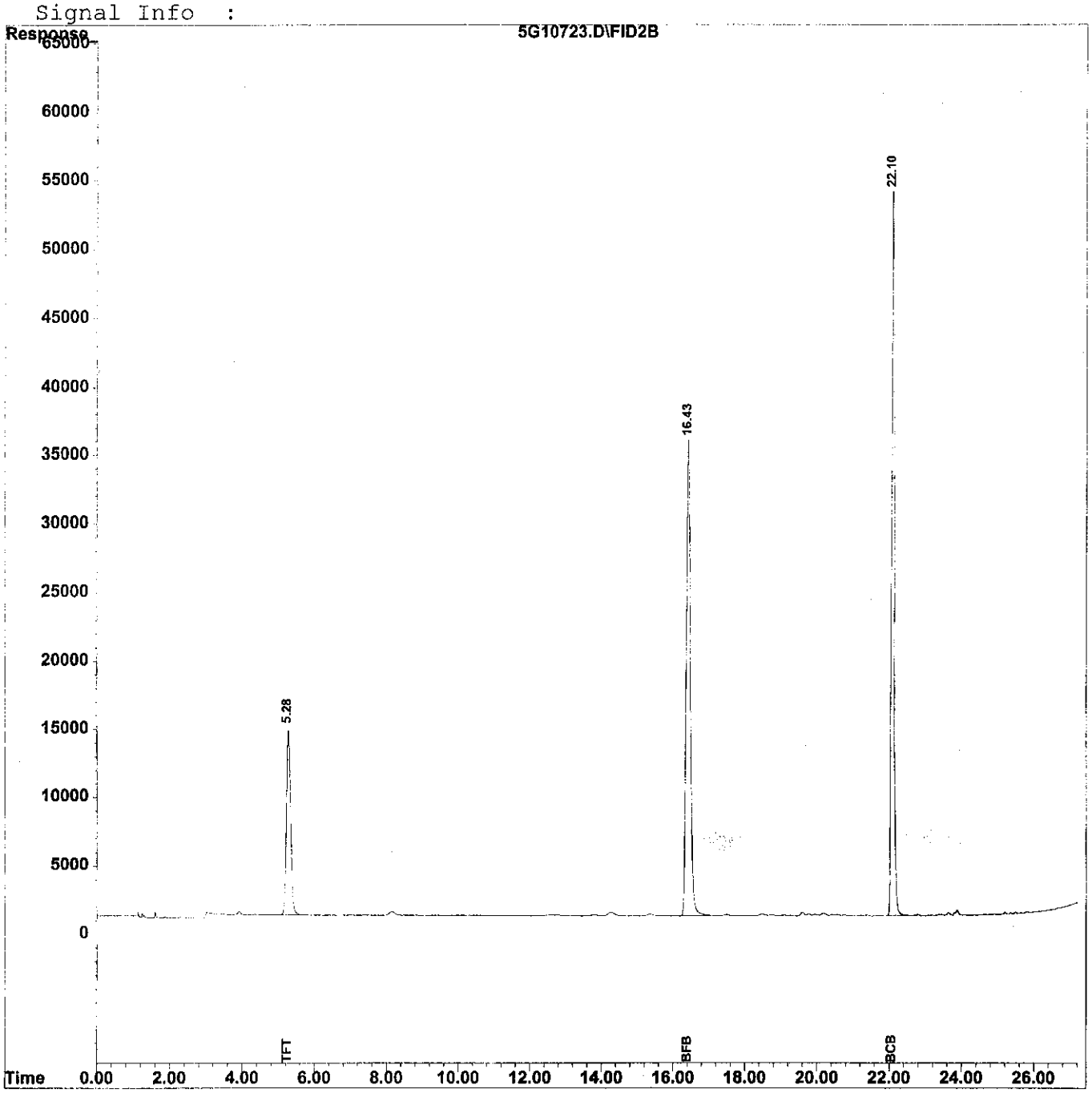
131

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\103001\5G10723.D Vial: 6
Acq On : 30 Oct 2001 18:37 Operator: CBN
Sample : L0110522-09 B 5ML pH<2 Inst : HP5
Misc : 1,1 S-86-12 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 30 19:04 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



5G10723.D 8021W.M Tue Oct 30 19:04:58 2001 Page 2

Data File : C:\HPCHEM\2\DATA\103001\5G10723.D Vial: 6
Acq On : 30 Oct 2001 18:37 Operator: CBN
Sample : L0110522-09 B 5ML pH<2 Inst : HP5
Misc : 1,1 S-86-12 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 30 19:04 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

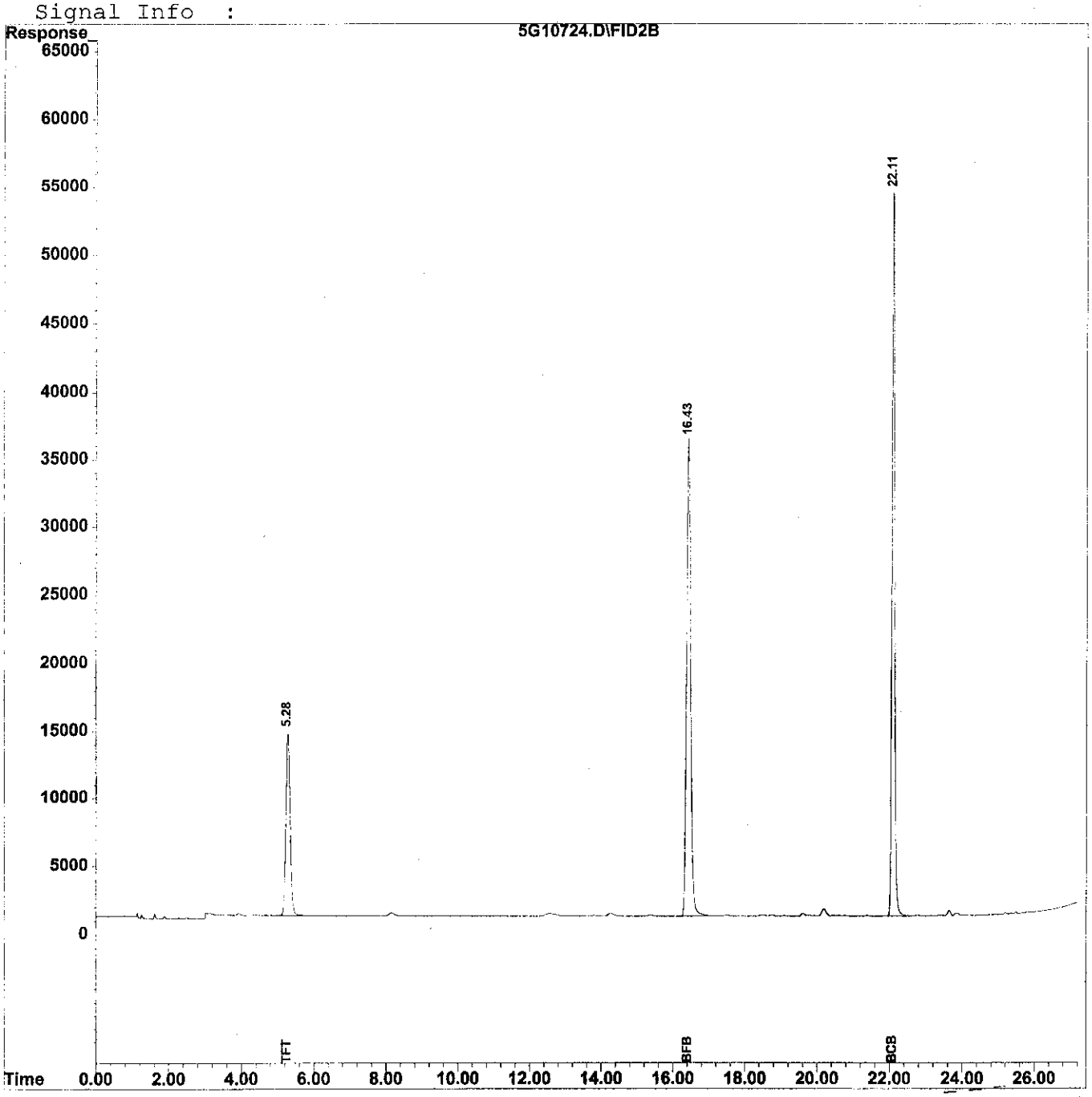
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.29	1088110	32.5638 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery = 108.55%	
9) S BFB	16.43	2785982	31.0320 ug/L
Spiked Amount 30.000		Recovery = 103.44%	
13) S BCB	22.10	2712640	31.4172 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 104.72%	
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

Data File : C:\HPCHEM\2\DATA\103001\5G10724.D Vial: 7
Acq On : 30 Oct 2001 19:10 Operator: CBN
Sample : L0110522-10 B 5ML pH<2 Inst : HP5
Misc : 1,1 S-86-12 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 30 19:37 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\103001\5G10724.D Vial: 7
Acq On : 30 Oct 2001 19:10 Operator: CBN
Sample : L0110522-10 B 5ML pH<2 Inst : HP5
Misc : 1,1 S-86-12 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 30 19:37 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.28	1080050	32.3225 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery = 107.74%	
9) S BFB	16.43	2799058	31.1776 ug/L
Spiked Amount 30.000		Recovery = 103.93%	
13) S BCB	22.11	2731086	31.6308 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 105.44%	
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

2.1.3.3 Standards Data

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001

Calibration Files

1	=12G09676.D	10	=12G09677.D	20	=12G09678.D
50	=12G09679.D	100	=12G09680.D	200	=12G09681.D

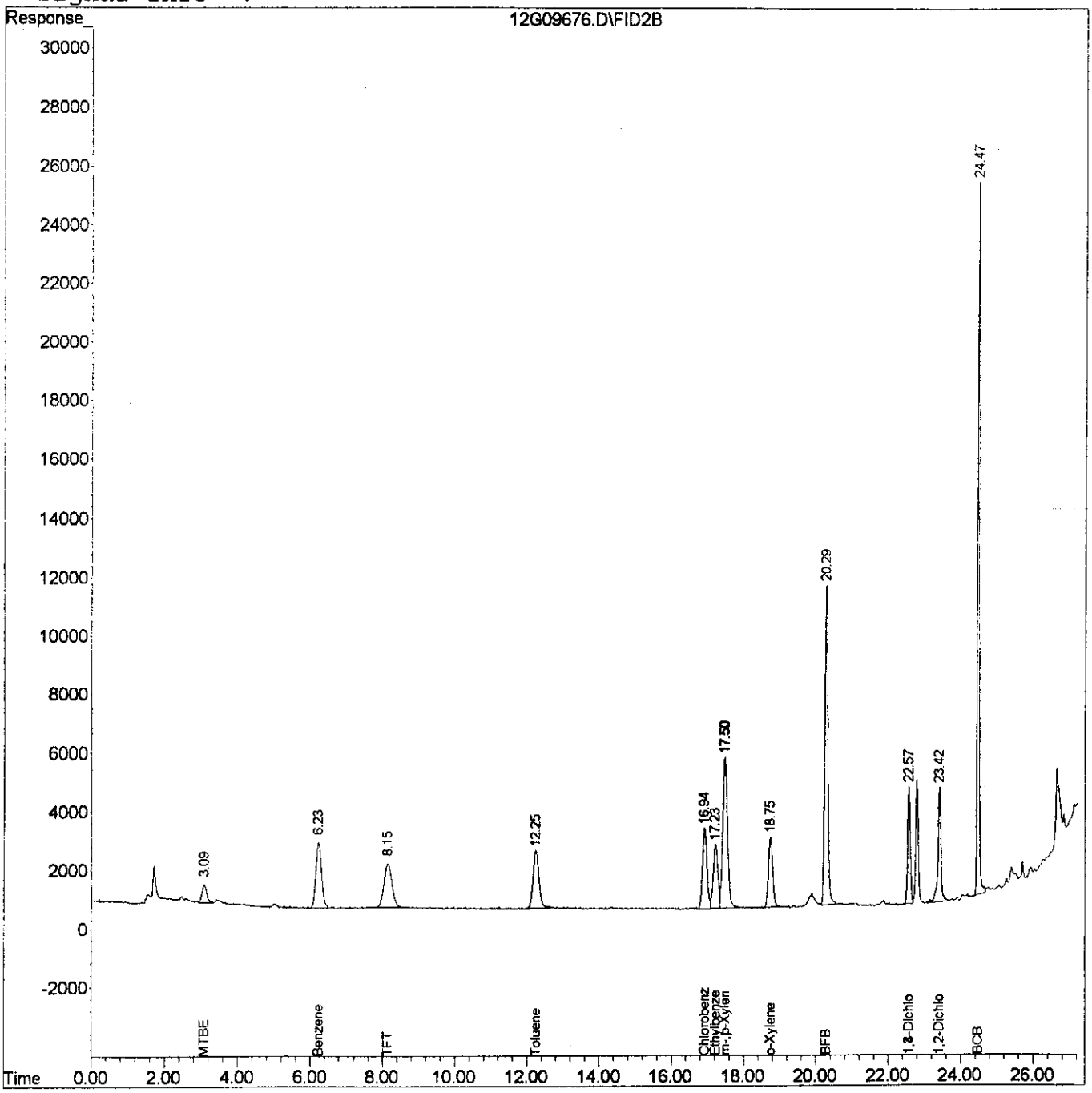
		Compound	1	10	20	50	100	200	Avg		%RS
1)	TM	MTBE	5.501	5.055	5.309	4.819	5.339	5.014	5.173	E4	4.8
2)	TM	Benzene	2.434	2.628	2.609	2.515	2.531	2.510	2.538	E5	2.8
3)	S	TFT	7.849	8.485	8.473	8.349	8.569	8.620	8.391	E4	3.3
4)	TM	Toluene	2.310	2.417	2.431	2.333	2.353	2.313	2.359	E5	2.2
5)	TM	Chlorobenzene	2.356	2.481	2.482	2.386	2.516	2.389	2.435	E5	2.7
6)	TM	Ethylbenzene	1.965	2.092	2.074	2.006	2.078	1.984	2.033	E5	2.6
7)	TM	m-,p-Xylene	2.390	2.520	2.501	2.414	2.372	2.369	2.428	E5	2.7
8)	TM	o-Xylene	1.915	2.149	2.147	2.074	2.121	2.049	2.076	E5	4.2
9)	S	BFB	2.194	2.022	2.024	2.008	2.053	2.041	2.057	E5	3.3
10)	TM	1,3-Dichlorobenzene	1.973	2.213	2.231	2.185	2.174	2.061	2.139	E5	4.7
11)	TM	1,4-Dichlorobenzene	1.973	2.213	2.231	2.185	2.174	2.061	2.139	E5	4.7
12)	TM	1,2-Dichlorobenzene	2.245	1.764	1.828	1.703	1.784	1.605	1.821	E5	12.1
13)	S	BCB	2.770	1.949	1.981	1.983	2.189	1.995	2.145	E5	14.8

(#) = Out of Range

Data File : C:\HPCHEM\2\DATA\100301\12G09676.D Vial: 21
Acq On : 3 Oct 2001 7:58 Operator: CBN
Sample : WG105716-01 8021 STD1 1PPB 5ML Inst : HP12
Misc : 1,1 S-84-(17,38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 3 8:25 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\100301\12G09676.D Vial: 21
Acq On : 3 Oct 2001 7:58 Operator: CBN
Sample : WG105716-01 8021 STD1 1PPB 5ML Inst : HP12
Misc : 1,1 S-84-(17,38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 3 8:25 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 09/10/01
Last Update : Mon Sep 10 11:51:06 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

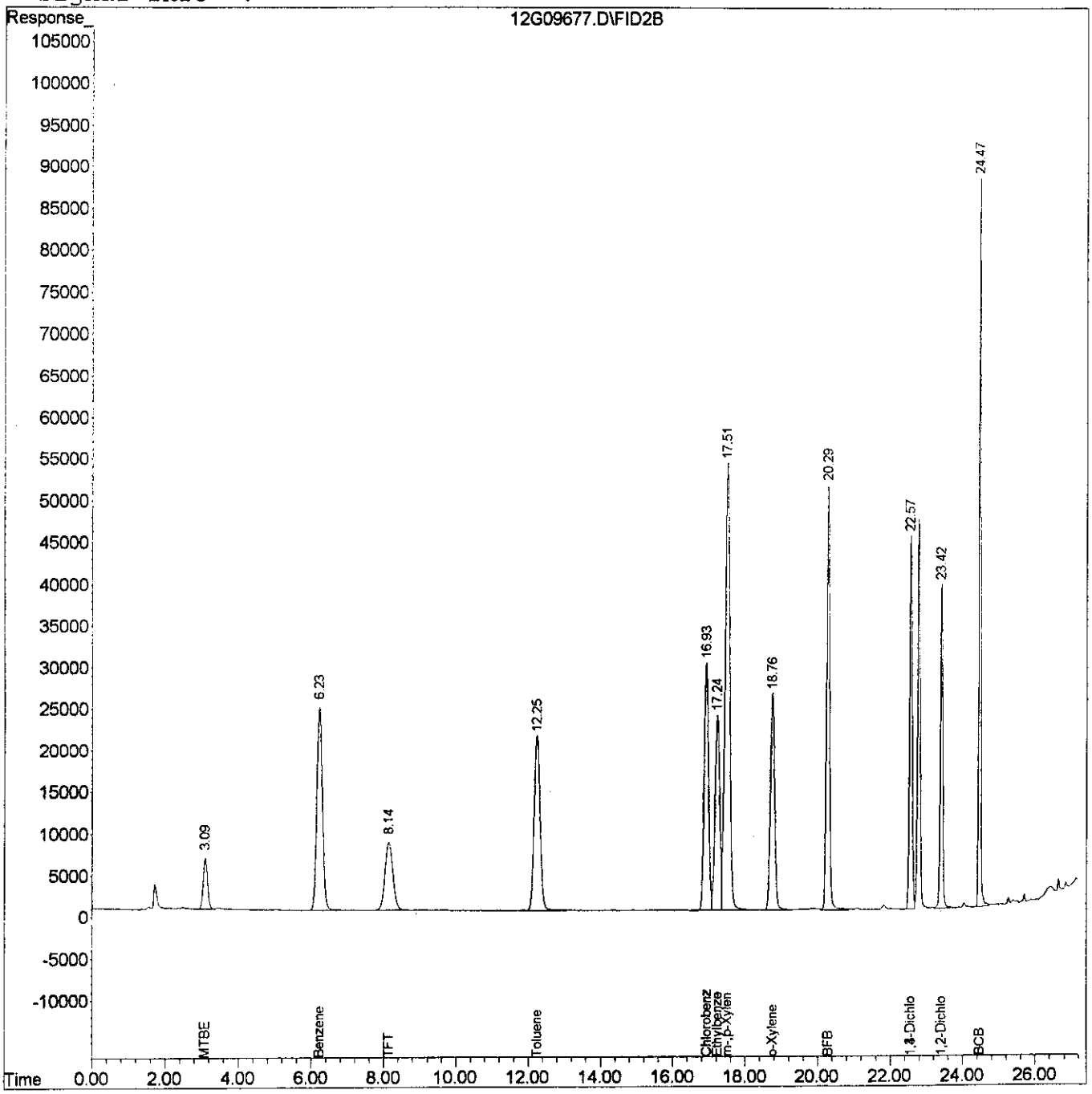
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.15	235472	3.188 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 10.63%#			
9) S BFB	20.29	658079	3.582 UG/L
Spiked Amount 30.000 Recovery = 11.94%			
13) S BCB	24.47	830956	4.341 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 14.47%#			
Target Compounds			
1) TM MTBE	3.09	55014	1.160 UG/L
2) TM Benzene	6.24	243374	1.042 UG/L
4) TM Toluene	12.26	230994	1.095 UG/L
5) TM Chlorobenzene	16.94	235618	1.062 UG/L
6) TM Ethylbenzene	17.24	196522	1.068 UG/L
7) TM m-,p-Xylene	17.50	477946	2.149 UG/L
8) TM o-Xylene	18.75	191529	1.002 UG/L
10) TM 1,3-Dichlorobenzene	22.57	197265	0.983 UG/L
11) TM 1,4-Dichlorobenzene	22.57	197265	0.975 UG/L
12) TM 1,2-Dichlorobenzene	23.42	224462	1.392 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09676.D 8021W.M Wed Oct 03 12:58:02 2001 139 Page 1

Data File : C:\HPCHEM\2\DATA\100301\12G09677.D Vial: 22
Acq On : 3 Oct 2001 8:30 Operator: CBN
Sample : WG105716-02 8021 STD2 10PPB 5ML Inst : HP12
Misc : 1,1 S-84-(17,38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 3 11:07 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:07:56 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\100301\12G09677.D Vial: 22
Acq On : 3 Oct 2001 8:30 Operator: CBN
Sample : WG105716-02 8021 STD2 10PPB 5ML Inst : HP12
Misc : 1,1 S-84-(17,38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 3 11:07 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:07:56 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

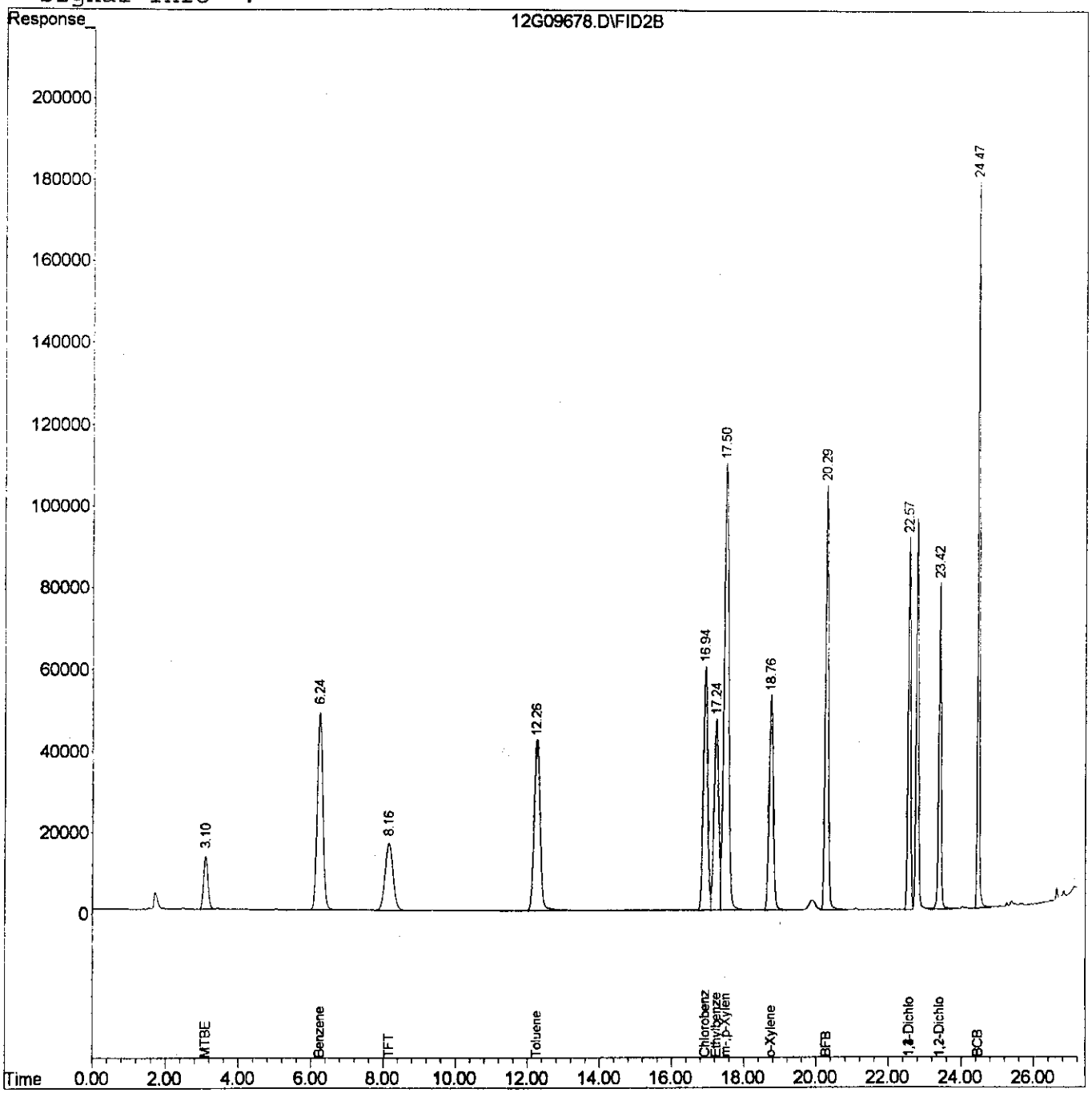
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.15	1272756	15.696 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 52.32%#			
9) S BFB	20.29	3032370	14.548 UG/L
Spiked Amount 30.000 Recovery = 48.49%			
13) S BCB	24.48	2923603	12.902 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 43.01%			
Target Compounds			
1) TM MTBE	3.09	505535	7.020 UG/L
2) TM Benzene	6.23	2628477	9.921 UG/L
4) TM Toluene	12.25	2416597	10.086 UG/L
5) TM Chlorobenzene	16.94	2481188	10.270 UG/L
6) TM Ethylbenzene	17.24	2091952	10.155 UG/L
7) TM m-,p-Xylene	17.51	5040004	19.702 UG/L
8) TM o-Xylene	18.76	2149268	10.620 UG/L
10) TM 1,3-Dichlorobenzene	22.57	2212958	10.320 UG/L
11) TM 1,4-Dichlorobenzene	22.57	2212958	10.320 UG/L
12) TM 1,2-Dichlorobenzene	23.42	1764156	8.054 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09677.D 8021W.M Wed Oct 03 12:57:42 2001 141 Page 1

Data File : C:\HPCHEM\2\DATA\100301\12G09678.D Vial: 23
Acq On : 3 Oct 2001 9:02 Operator: CBN
Sample : WG105716-03 8021 STD3 20PPB 5ML Inst : HP12
Misc : 1,1 S-84-(17,38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 3 11:07 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:07:57 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\100301\12G09678.D Vial: 23
Acq On : 3 Oct 2001 9:02 Operator: CBN
Sample : WG105716-03 8021 STD3 20PPB 5ML Inst : HP12
Misc : 1,1 S-84-(17,38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 3 11:07 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:07:57 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

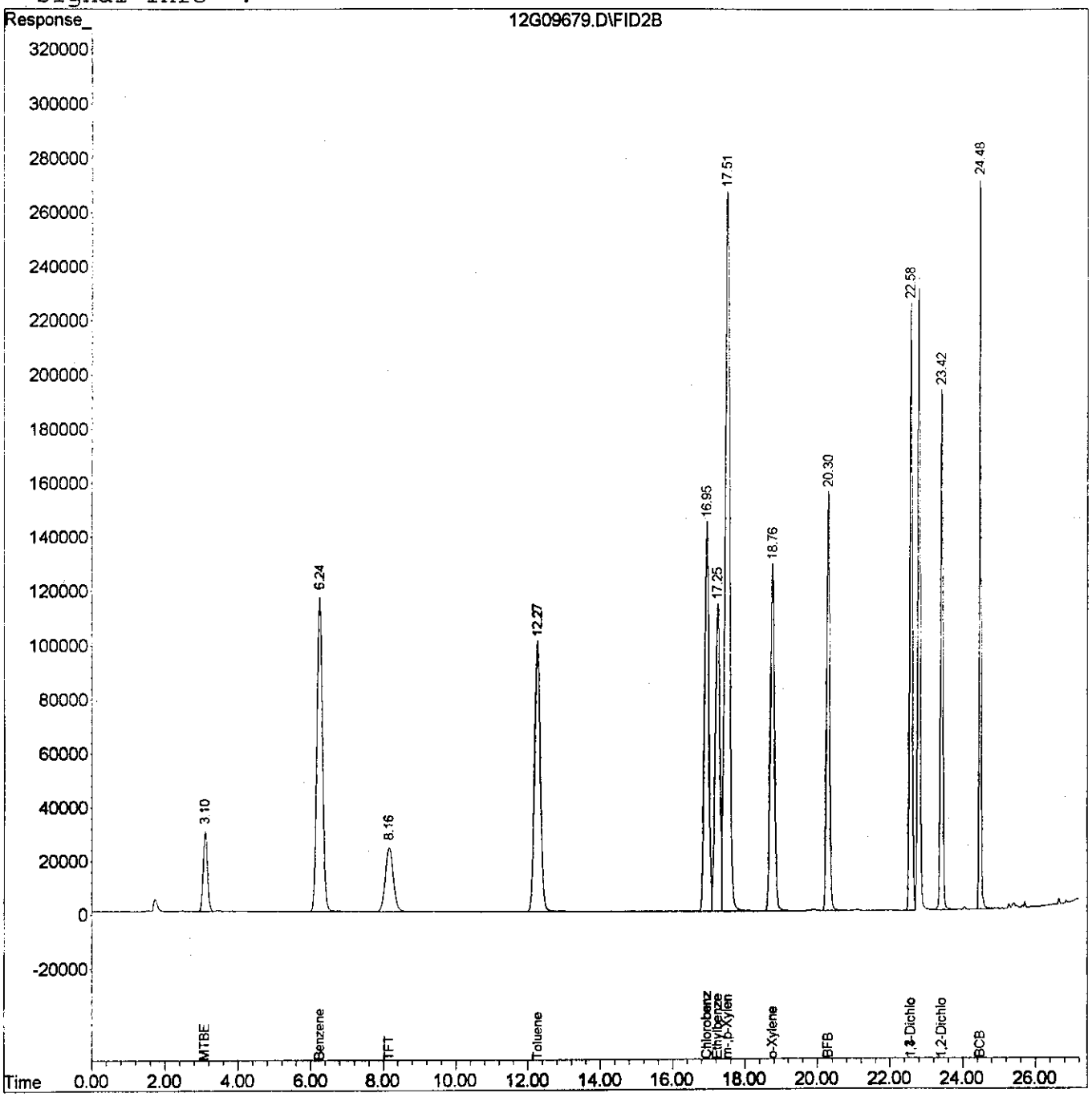
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.16	2541771	30.636 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 102.12%			
9) S BFB	20.29	6070676	29.570 UG/L
Spiked Amount 30.000 Recovery = 98.57%			
13) S BCB	24.47	5942809	28.198 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 93.99%			
Target Compounds			
1) TM MTBE	3.10	1061749	17.326 UG/L
2) TM Benzene	6.24	5217769	19.773 UG/L
4) TM Toluene	12.27	4862704	20.208 UG/L
5) TM Chlorobenzene	16.94	4964617	20.276 UG/L
6) TM Ethylbenzene	17.24	4147254	19.978 UG/L
7) TM m-,p-Xylene	17.51	10003274	39.398 UG/L
8) TM o-Xylene	18.76	4294399	20.581 UG/L
10) TM 1,3-Dichlorobenzene	22.57	4462397	20.482 UG/L
11) TM 1,4-Dichlorobenzene	22.57	4462397	20.482 UG/L
12) TM 1,2-Dichlorobenzene	23.42	3655710	18.489 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09678.D 8021W.M Wed Oct 03 12:57:43 2001 143 Page 1

Data File : C:\HPCHEM\2\DATA\100301\12G09679.D Vial: 24
Acq On : 3 Oct 2001 9:35 Operator: CBN
Sample : WG105716-04 8021 STD4 50PPB 5ML Inst : HP12
Misc : 1,1 S-84-(17,38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 3 11:07 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:07:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\100301\12G09679.D Vial: 24
Acq On : 3 Oct 2001 9:35 Operator: CBN
Sample : WG105716-04 8021 STD4 50PPB 5ML Inst : HP12
Misc : 1,1 S-84-(17,38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 3 11:07 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:07:58 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

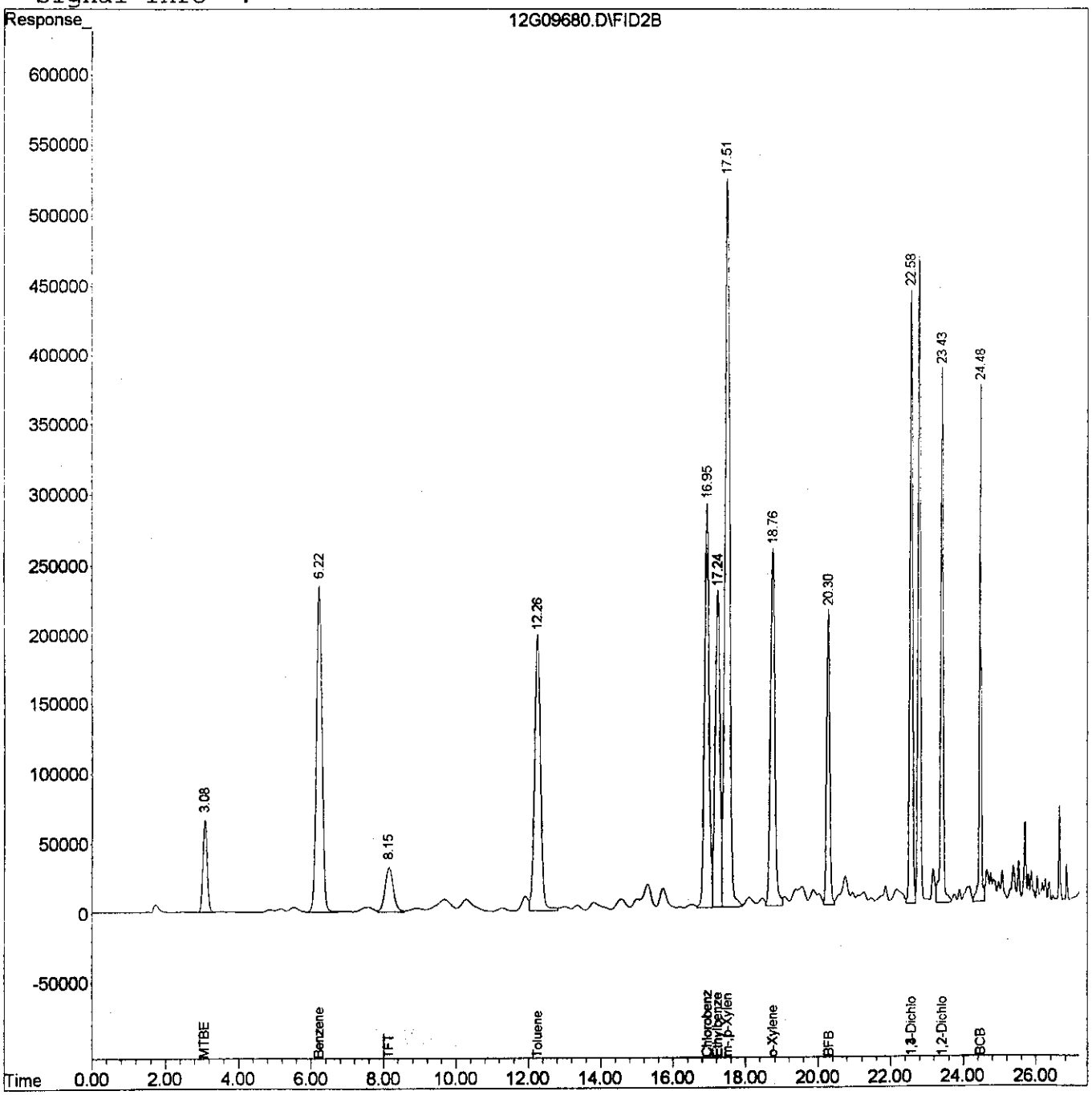
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.16	3756902	44.964 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 149.88%#			
9) S BFB	20.30	9037874	44.234 UG/L
Spiked Amount 30.000 Recovery = 147.45%			
13) S BCB	24.48	8925541	43.216 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 144.05%#			
Target Compounds			
1) TM MTBE	3.10	2409675	41.155 UG/L
2) TM Benzene	6.24	12574949	47.834 UG/L
4) TM Toluene	12.27	11666746	48.316 UG/L
5) TM Chlorobenzene	16.95	11932167	48.508 UG/L
6) TM Ethylbenzene	17.25	10031084	48.338 UG/L
7) TM m-,p-Xylene	17.51	24144379	95.572 UG/L
8) TM o-Xylene	18.76	10368723	49.217 UG/L
10) TM 1,3-Dichlorobenzene	22.58	10926589	49.753 UG/L
11) TM 1,4-Dichlorobenzene	22.58	10926589	49.753 UG/L
12) TM 1,2-Dichlorobenzene	23.43	8512725	44.166 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\100301\12G09680.D Vial: 25
Acq On : 3 Oct 2001 10:07 Operator: CBN
Sample : WG105716-05 8021 STD5 100PPB 5ML Inst : HP12
Misc : 1,1 S-84-(17,38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 3 11:07 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:07:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\100301\12G09680.D Vial: 25
Acq On : 3 Oct 2001 10:07 Operator: CBN
Sample : WG105716-05 8021 STD5 100PPB 5ML Inst : HP12
Misc : 1,1 S-84-(17,38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 3 11:07 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:07:58 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

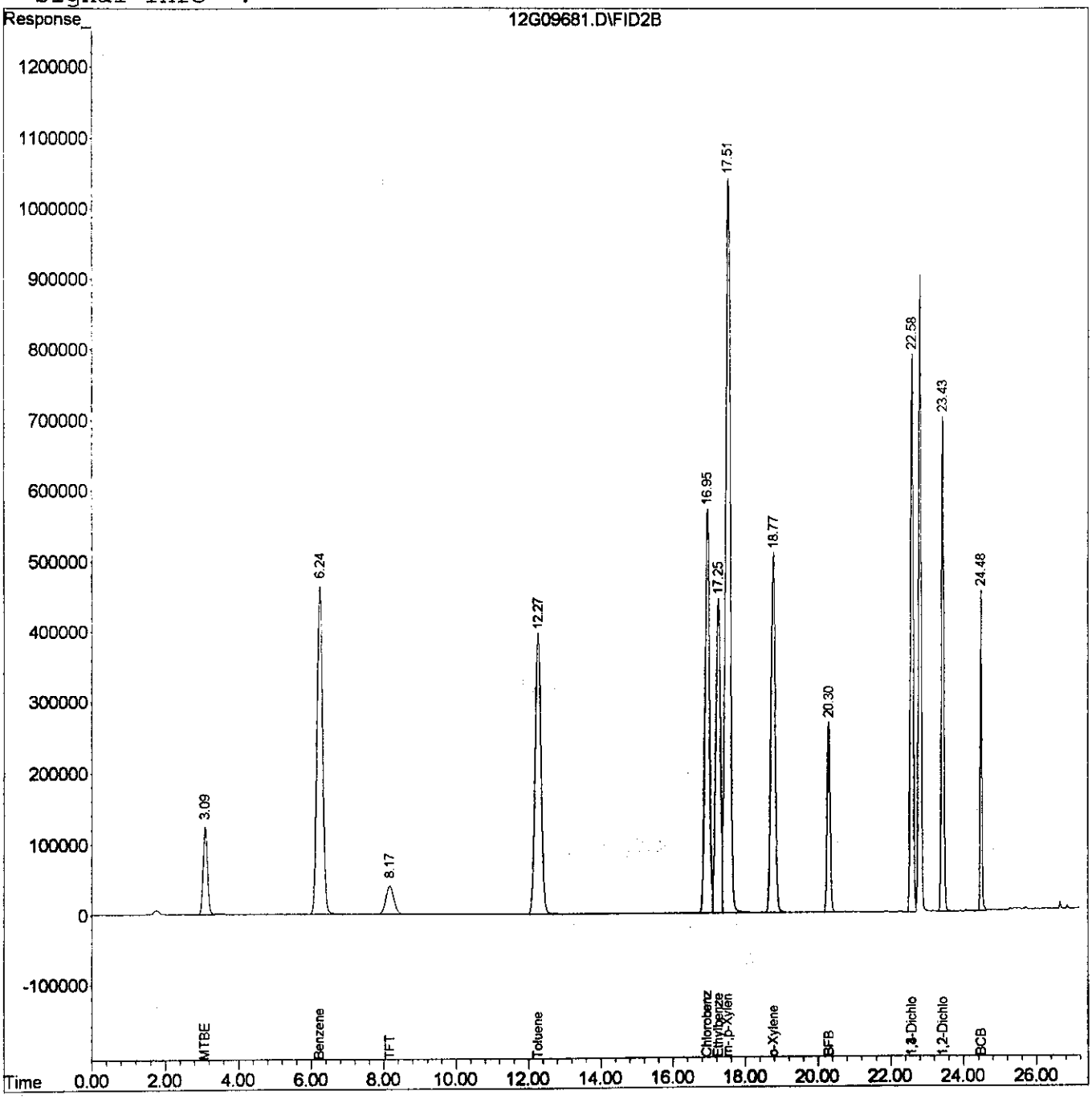
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.15	5141306	61.545 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 205.15%#			
9) S BFB	20.30	12316488	60.538 UG/L
Spiked Amount 30.000 Recovery = 201.79%			
13) S BCB	24.48	13132671	64.223 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 214.08%#			
Target Compounds			
1) TM MTBE	3.08	5339399	95.412 UG/L
2) TM Benzene	6.22	25310093	97.331 UG/L
4) TM Toluene	12.26	23525402	98.255 UG/L
5) TM Chlorobenzene	16.95	25164997	103.073 UG/L
6) TM Ethylbenzene	17.25	20781660	100.983 UG/L
7) TM m-,p-Xylene	17.51	47430270	189.847 UG/L
8) TM o-Xylene	18.77	21209781	101.071 UG/L
10) TM 1,3-Dichlorobenzene	22.58	21742032	99.122 UG/L
11) TM 1,4-Dichlorobenzene	22.58	21742032	99.122 UG/L
12) TM 1,2-Dichlorobenzene	23.43	17842123	95.350 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\100301\12G09681.D Vial: 30
Acq On : 3 Oct 2001 10:39 Operator: CBN
Sample : WG105716-06 8021 STD6 200PPB 5ML Inst : HP12
Misc : 1,1 S-84-(17,38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 3 11:08 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:00 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\100301\12G09681.D Vial: 30
Acq On : 3 Oct 2001 10:39 Operator: CBN
Sample : WG105716-06 8021 STD6 200PPB 5ML Inst : HP12
Misc : 1,1 S-84-(17,38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 3 11:08 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:00 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

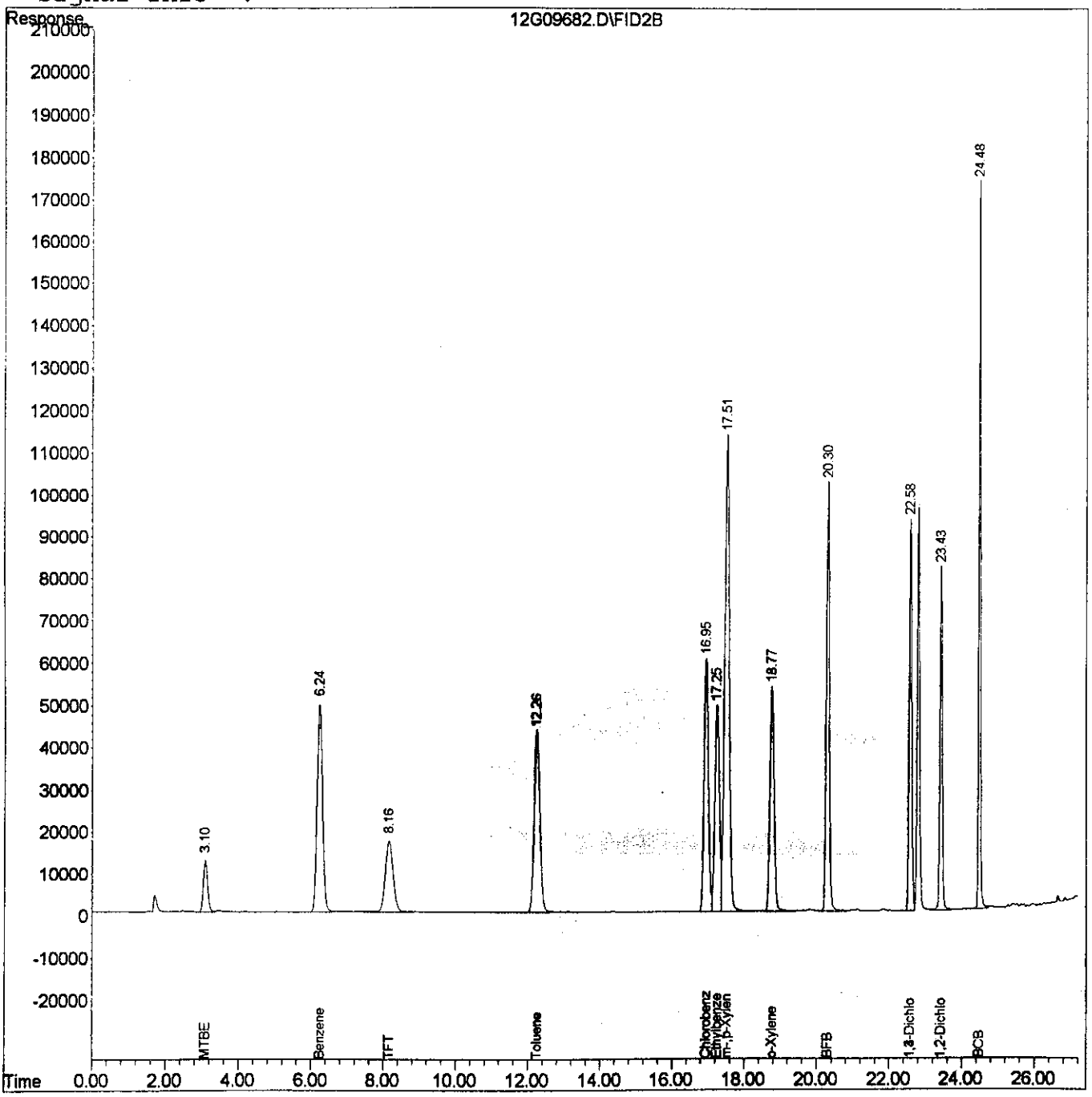
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.17	6465120	76.996 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 256.65%#			
9) S BFB	20.30	15310610	75.120 UG/L
Spiked Amount 30.000 Recovery = 250.40%			
13) S BCB	24.48	14963176	72.159 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 240.53%#			
Target Compounds			
1) TM MTBE	3.09	10028501	180.863 UG/L
2) TM Benzene	6.24	50209468	194.119 UG/L
4) TM Toluene	12.28	46258679	193.878 UG/L
5) TM Chlorobenzene	16.95	47782873	194.518 UG/L
6) TM Ethylbenzene	17.25	39677132	192.422 UG/L
7) TM m-,p-Xylene	17.52	94748799	383.137 UG/L
8) TM o-Xylene	18.77	40974059	194.836 UG/L
10) TM 1,3-Dichlorobenzene	22.58	41212194	188.217 UG/L
11) TM 1,4-Dichlorobenzene	22.58	41212194	188.217 UG/L
12) TM 1,2-Dichlorobenzene	23.43	32095080	173.129 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int

Data File : C:\HPCHEM\2\DATA\100301\12G09682.D Vial: 31
Acq On : 3 Oct 2001 11:20 Operator: CBN
Sample : WG105716-07 ALT SOURCE 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,84-38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 3 11:53 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\100301\12G09682.D Vial: 31
Acq On : 3 Oct 2001 11:20 Operator: CBN
Sample : WG105716-07 ALT SOURCE 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,84-38) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 3 11:53 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.16	2573427	30.670 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 102.23%			
9) S BFB	20.30	5974010	29.044 UG/L
Spiked Amount 30.000 Recovery = 96.81%			
13) S BCB	24.48	5786345	26.982 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 89.94%			
Target Compounds			
1) TM MTBE	3.10	996119	19.256 UG/L
2) TM Benzene	6.24	5202342	20.498 UG/L
4) TM Toluene	12.26	4894424	20.744 UG/L
5) TM Chlorobenzene	16.95	4975202	20.430 UG/L
6) TM Ethylbenzene	17.25	4329551	21.295 UG/L
7) TM m-,p-Xylene	17.52	10255610	42.247 UG/L
8) TM o-Xylene	18.77	4323718	20.829 UG/L
10) TM 1,3-Dichlorobenzene	22.58	4551152	21.272 UG/L
11) TM 1,4-Dichlorobenzene	22.58	4551152	21.272 UG/L
12) TM 1,2-Dichlorobenzene	23.43	3667759	20.138 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09682.D 8021W.M Wed Oct 03 12:56:57 2001 Page 1

Response Factor Report HP5

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:22:41 2001

Calibration Files
1 =5G10674.D 10 =5G10675.D 20 =5G10676.D
50 =5G10677.D 100 =5G10678.D 200 =5G10679.D

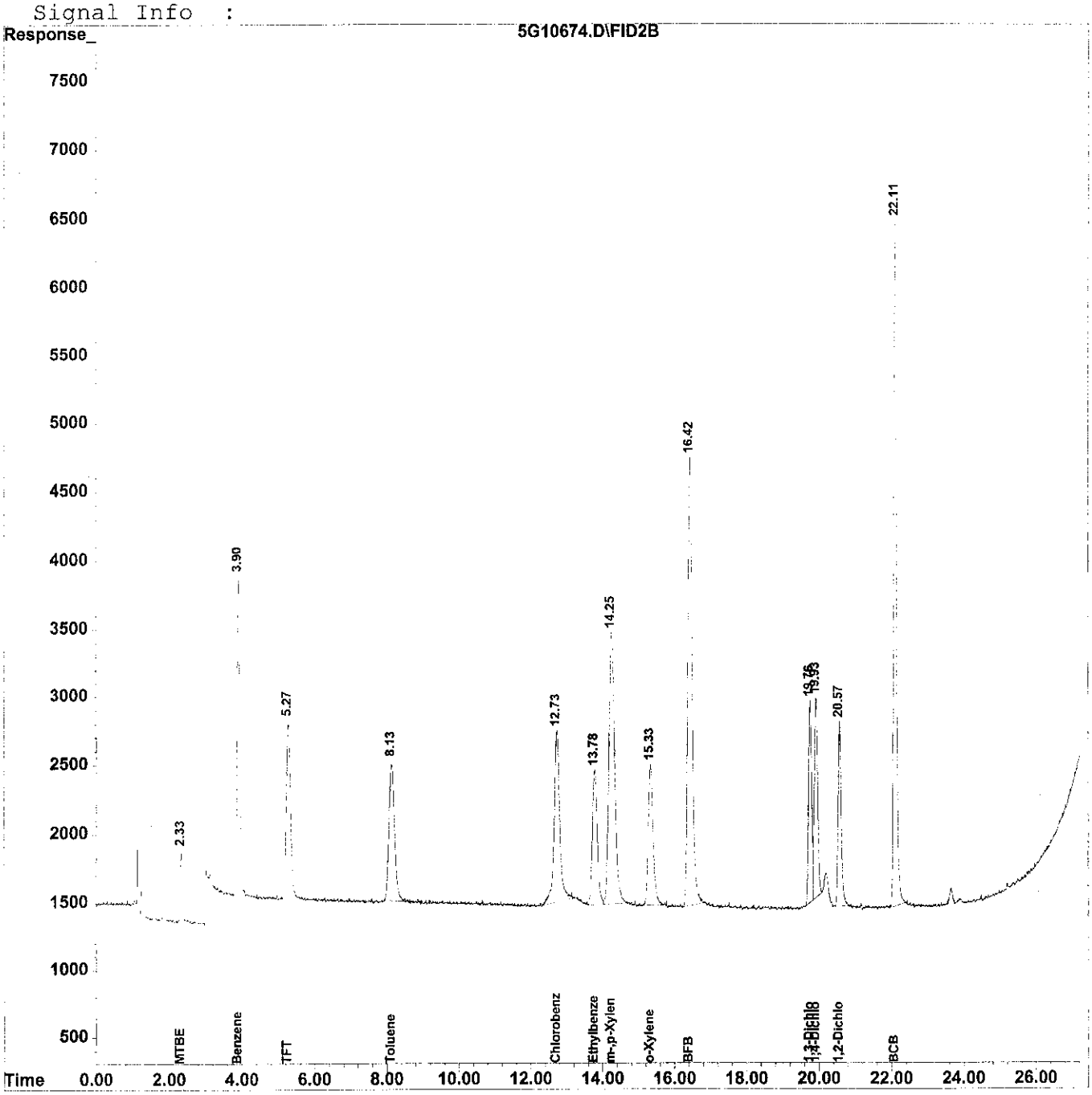
		Compound	1	10	20	50	100	200	Avg		%RSD
1)	TM	MTBE	1.835	1.844	1.764	1.805	1.788	1.782	1.803	E4	1.74
2)	TM	Benzene	1.213	1.080	1.056	1.106	1.079	1.071	1.101	E5	5.21
3)	S	TFT	3.471	3.276	3.330	3.401	3.280	3.291	3.341	E4	2.35
4)	TM	Toluene	1.075	0.983	0.957	0.994	0.981	0.982	0.995	E5	4.10
5)	TM	Chlorobenzene	1.359	1.056	1.021	1.052	1.038	1.032	1.093	E5	12.01
6)	TM	Ethylbenzene	9.364	8.520	8.419	8.728	8.623	8.525	8.696	E4	3.95
7)	TM	m-,p-Xylene	1.107	1.009	0.995	1.031	1.017	0.995	1.025	E5	4.12
8)	TM	o-Xylene	9.651	8.842	8.620	8.992	8.898	8.802	8.968	E4	3.98
9)	S	BFB	9.071	8.874	8.995	9.128	8.985	8.814	8.978	E4	1.31
10)	TM	1,3-Dichlorobenzene	8.818	8.695	8.496	8.882	8.821	8.851	8.760	E4	1.65
11)	TM	1,4-Dichlorobenzene	9.190	9.703	9.196	9.410	9.262	9.210	9.329	E4	2.16
12)	TM	1,2-Dichlorobenzene	8.091	7.480	7.230	7.455	7.392	7.395	7.507	E4	3.98
13)	S	BCB	9.085	8.449	8.534	8.615	8.556	8.567	8.634	E4	2.63

(#) = Out of Range

Data File : C:\HPCHEM\2\DATA\102601\5G10674.D Vial: 3
Acq On : 26 Oct 2001 14:49 Operator: CBN
Sample : WG107186-01 8021 STD1 1PPB 5ML Inst : HP5
Misc : 1,1 S-85-38, S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 26 15:17 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 09/06/01
Last Update : Thu Sep 06 16:03:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102601\5G10674.D Vial: 3
Acq On : 26 Oct 2001 14:49 Operator: CBN
Sample : WG107186-01 8021 STD1 1PPB 5ML Inst : HP5
Misc : 1,1 S-85-38, S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 26 15:17 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 09/06/01
Last Update : Thu Sep 06 16:03:54 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

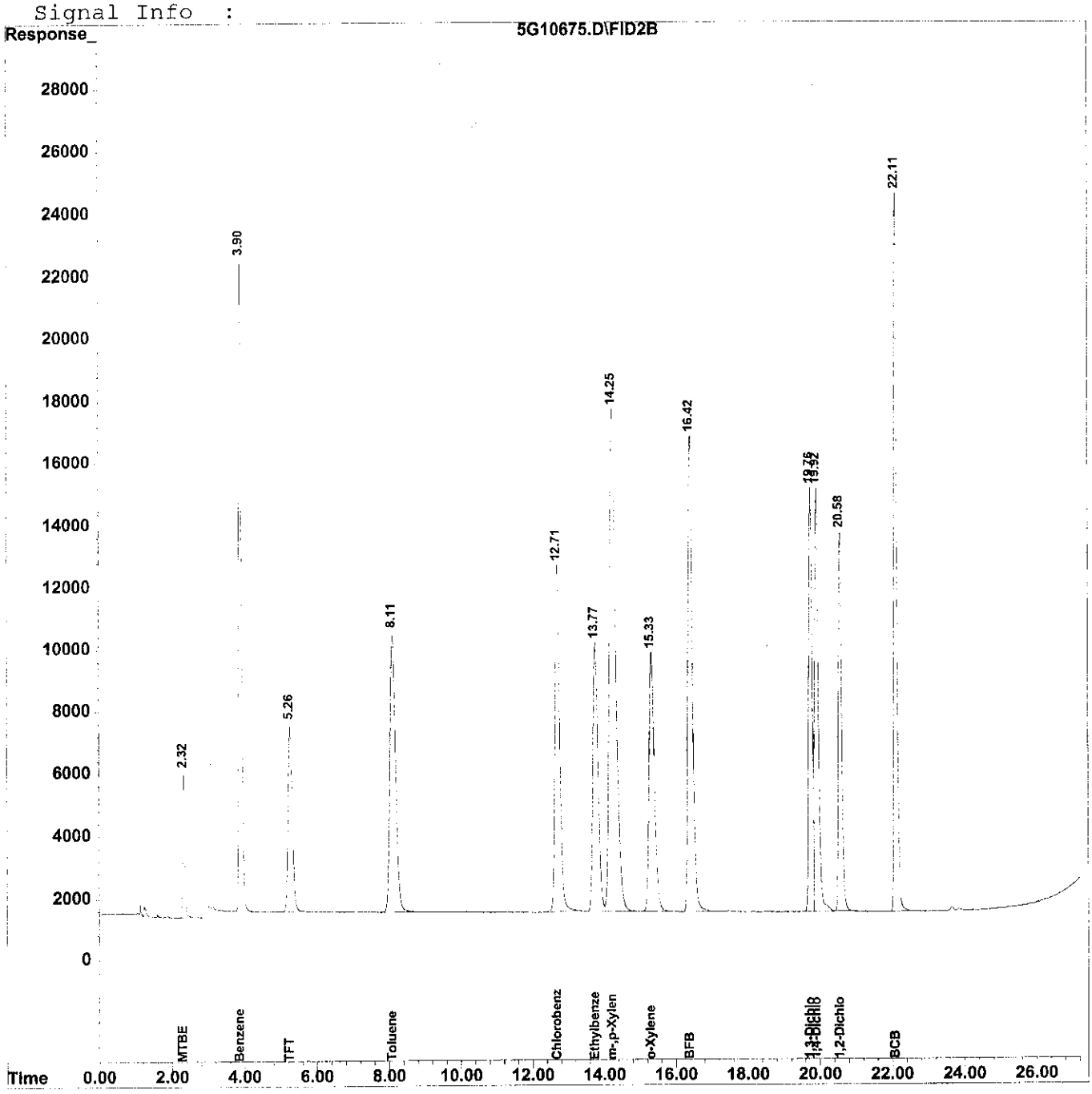
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.28	104117	3.0041 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 10.01%#			
9) S BFB	16.43	272125	2.9175 ug/L
Spiked Amount 30.000 Recovery = 9.73%			
13) S BCB	22.11	272547	3.2463 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 10.82%#			
Target Compounds			
1) TM MTBE	2.33	18351	0.8410 ug/L
2) TM Benzene	3.91	121323	1.0212 ug/L
4) TM Toluene	8.13	107489	0.9982 ug/L
5) TM Chlorobenzene	12.73	135949	1.2124 ug/L
6) TM Ethylbenzene	13.78	93641	1.0163 ug/L
7) TM m-,p-Xylene	14.26	221420	2.0296 ug/L
8) TM o-Xylene	15.34	96507	1.0150 ug/L
10) TM 1,3-Dichlorobenzene	19.76	88177	0.9459 ug/L
11) TM 1,4-Dichlorobenzene	19.93	91900	0.9421 ug/L
12) TM 1,2-Dichlorobenzene	20.57	80907	1.0452 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\102601\5G10675.D Vial: 4
Acq On : 26 Oct 2001 15:22 Operator: CBN
Sample : WG107186-01 8021 STD2 10PPB 5ML Inst : HP5
Misc : 1,1 S-85-38, S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 26 15:49 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 09/06/01
Last Update : Thu Sep 06 16:03:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102601\5G10675.D Vial: 4
Acq On : 26 Oct 2001 15:22 Operator: CBN
Sample : WG107186-01 8021 STD2 10PPB 5ML Inst : HP5
Misc : 1,1 S-85-38, S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 26 15:49 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 09/06/01
Last Update : Thu Sep 06 16:03:54 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

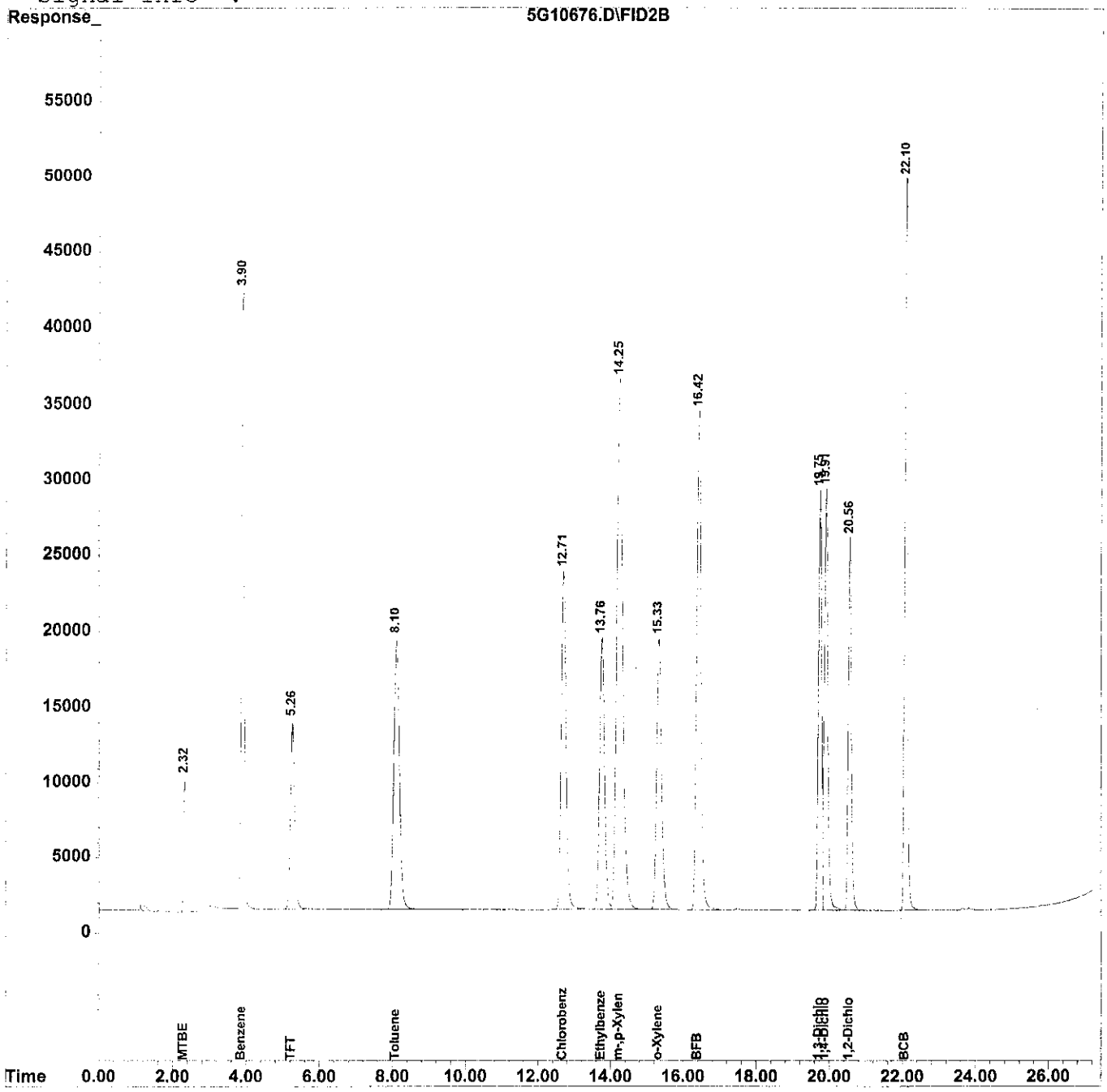
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.27	491372	14.1778 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 47.26%#			
9) S BFB	16.42	1331167	14.2716 ug/L
Spiked Amount 30.000 Recovery = 47.57%			
13) S BCB	22.11	1267373	15.0957 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 50.32%			
Target Compounds			
1) TM MTBE	2.33	184388	8.4506 ug/L
2) TM Benzene	3.90	1080324	9.0934 ug/L
4) TM Toluene	8.11	982800	9.1266 ug/L
5) TM Chlorobenzene	12.71	1055518	9.4132 ug/L
6) TM Ethylbenzene	13.77	851980	9.2468 ug/L
7) TM m-,p-Xylene	14.25	2017625	18.4943 ug/L
8) TM o-Xylene	15.33	884196	9.2997 ug/L
10) TM 1,3-Dichlorobenzene	19.76	869479	9.3273 ug/L
11) TM 1,4-Dichlorobenzene	19.93	970334	9.9473 ug/L
12) TM 1,2-Dichlorobenzene	20.58	747985	9.6627 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\102601\5G10676.D Vial: 5
Acq On : 26 Oct 2001 15:54 Operator: CBN
Sample : WG107186-03 8021 STD3 20PPB 5ML Inst : HP5
Misc : 1,1 S-85-38, S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 26 16:22 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 09/06/01
Last Update : Thu Sep 06 16:03:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102601\5G10676.D Vial: 5
Acq On : 26 Oct 2001 15:54 Operator: CBN
Sample : WG107186-03 8021 STD3 20PPB 5ML Inst : HP5
Misc : 1,1 S-85-38, S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 26 16:22 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 09/06/01
Last Update : Thu Sep 06 16:03:54 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

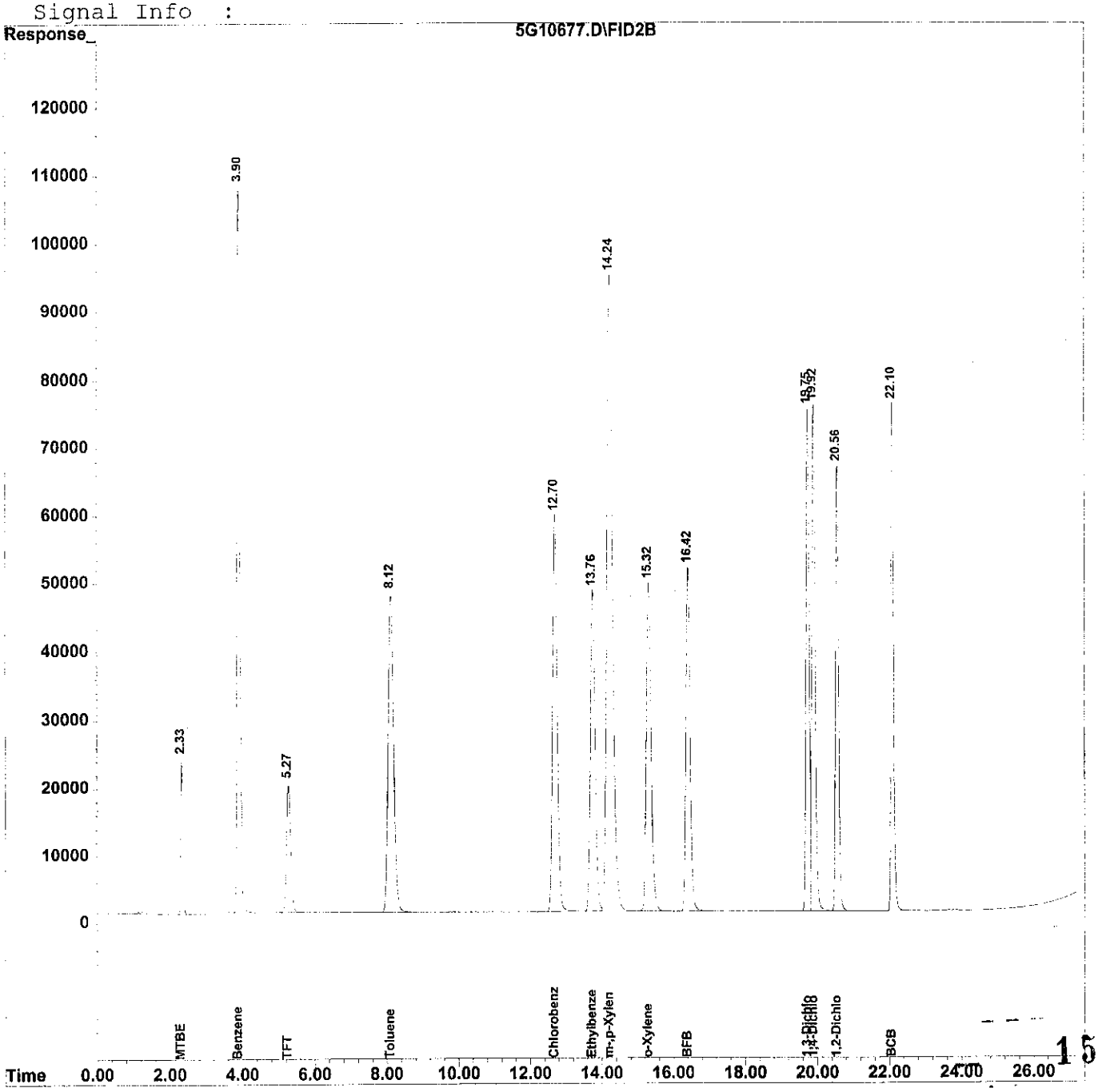
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.26	998933	28.8227 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 96.08%			
9) S BFB	16.42	2698439	28.9303 ug/L
Spiked Amount 30.000 Recovery = 96.43%			
13) S BCB	22.10	2560205	30.4947 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 101.65%			
Target Compounds			
1) TM MTBE	2.32	352722	16.1654 ug/L
2) TM Benzene	3.90	2111954	17.7770 ug/L
4) TM Toluene	8.11	1914605	17.7796 ug/L
5) TM Chlorobenzene	12.71	2041053	18.2022 ug/L
6) TM Ethylbenzene	13.76	1683739	18.2741 ug/L
7) TM m-,p-Xylene	14.24	3979693	36.4794 ug/L
8) TM o-Xylene	15.33	1724076	18.1333 ug/L
10) TM 1,3-Dichlorobenzene	19.75	1699145	18.2276 ug/L
11) TM 1,4-Dichlorobenzene	19.92	1839280	18.8552 ug/L
12) TM 1,2-Dichlorobenzene	20.57	1445962	18.6794 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\102601\5G10677.D Vial: 6
Acq On : 26 Oct 2001 16:27 Operator: CBN
Sample : WG107186-04 8021 STD4 50PPB 5ML Inst : HP5
Misc : 1,1 S-85-38, S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 26 16:54 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 09/06/01
Last Update : Thu Sep 06 16:03:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



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5G10677.D 8021W.M Fri Oct 26 16:54:29 2001 Page 2

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Data File : C:\HPCHEM\2\DATA\102601\5G10677.D Vial: 6
Acq On : 26 Oct 2001 16:27 Operator: CBN
Sample : WG107186-04 8021 STD4 50PPB 5ML Inst : HP5
Misc : 1,1 S-85-38, S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 26 16:54 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 09/06/01
Last Update : Thu Sep 06 16:03:54 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

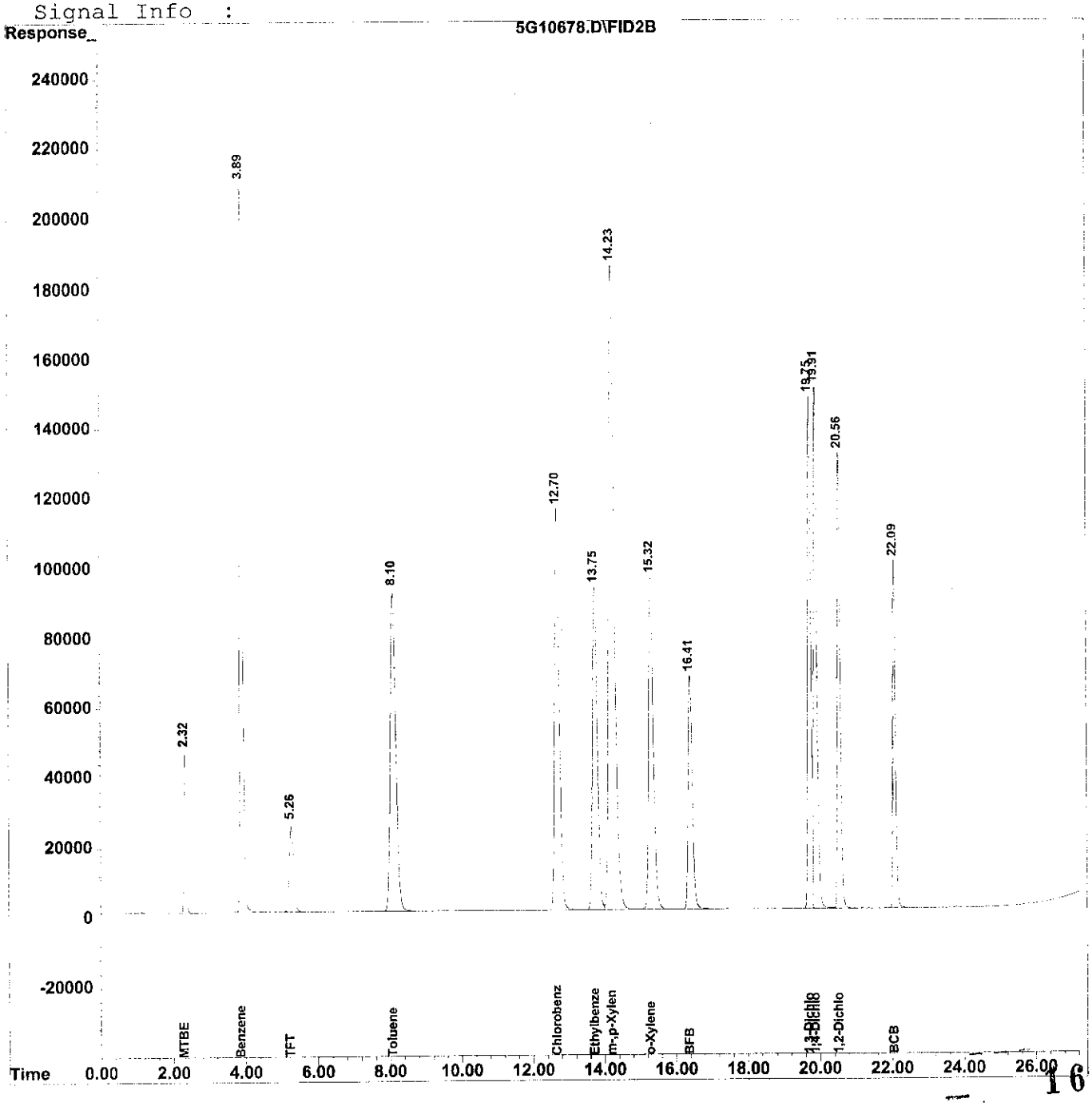
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.28	1530438	44.1585 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 147.20%#			
9) S BFB	16.42	4107398	44.0360 ug/L
Spiked Amount 30.000 Recovery = 146.79%			
13) S BCB	22.10	3876580	46.1741 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 153.91%#			
Target Compounds			
1) TM MTBE	2.33	902645	41.3686 ug/L
2) TM Benzene	3.91	5531542	46.5608 ug/L
4) TM Toluene	8.12	4972258	46.1739 ug/L
5) TM Chlorobenzene	12.71	5257892	46.8902 ug/L
6) TM Ethylbenzene	13.76	4363827	47.3618 ug/L
7) TM m-,p-Xylene	14.24	10308054	94.4875 ug/L
8) TM o-Xylene	15.32	4496087	47.2884 ug/L
10) TM 1,3-Dichlorobenzene	19.75	4441135	47.6422 ug/L
11) TM 1,4-Dichlorobenzene	19.92	4704850	48.2314 ug/L
12) TM 1,2-Dichlorobenzene	20.57	3727675	48.1553 ug/L

Data File : C:\HPCHEM\2\DATA\102601\5G10678.D Vial: 7
Acq On : 26 Oct 2001 16:59 Operator: CBN
Sample : WG107186-05 8021 STD5 100PPB 5ML Inst : HP5
Misc : 1,1 S-85-38, S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 26 17:27 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 09/06/01
Last Update : Thu Sep 06 16:03:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



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Data File : C:\HPCHEM\2\DATA\102601\5G10678.D Vial: 7
Acq On : 26 Oct 2001 16:59 Operator: CBN
Sample : WG107186-05 8021 STD5 100PPB 5ML Inst : HP5
Misc : 1,1 S-85-38, S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 26 17:27 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 09/06/01
Last Update : Thu Sep 06 16:03:54 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

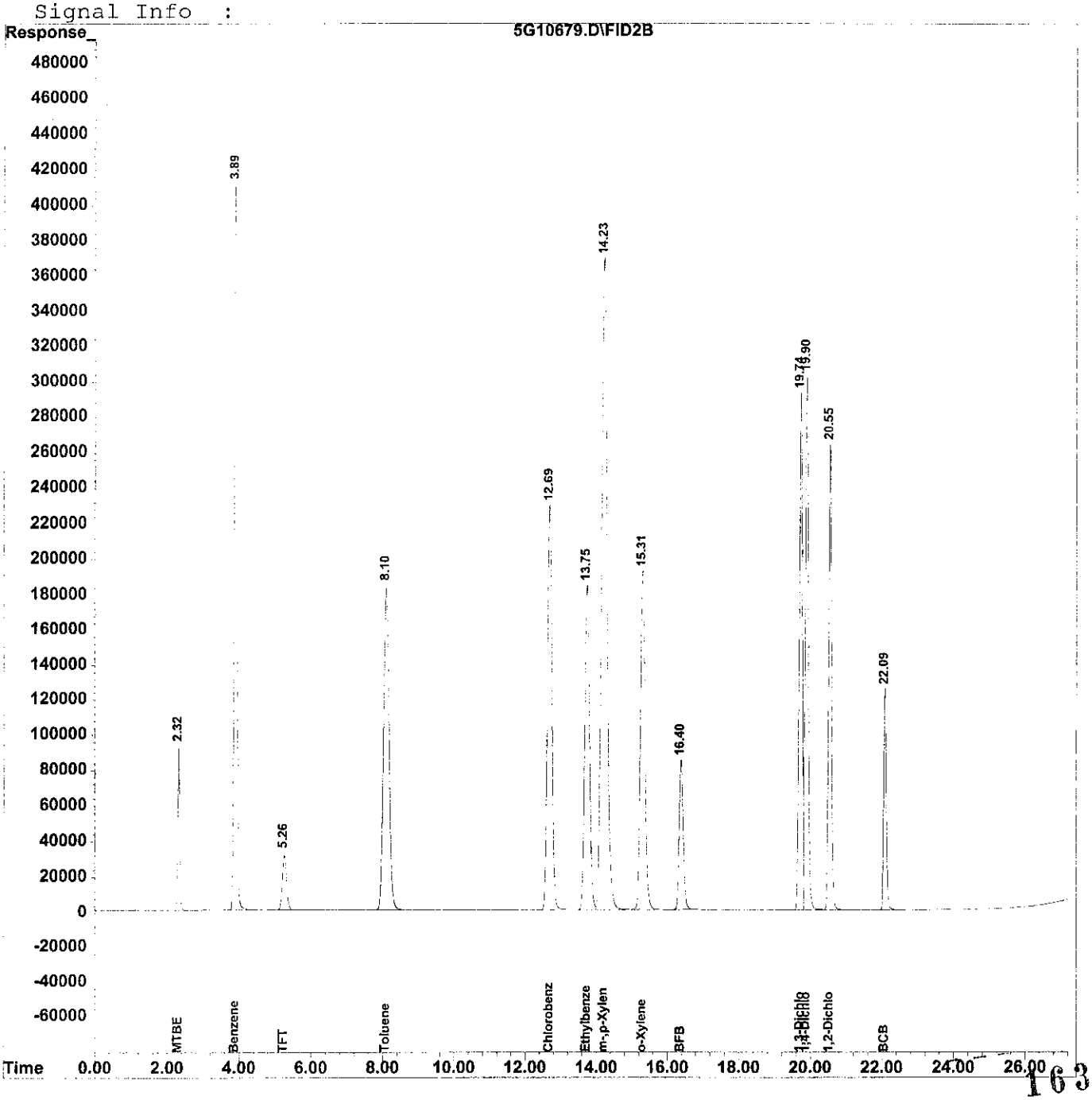
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.26	1968234	56.7904 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 189.30%#			
9) S BFB	16.41	5391166	57.7994 ug/L
Spiked Amount 30.000 Recovery = 192.66%			
13) S BCB	22.09	5133334	61.1434 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 203.81%#			
Target Compounds			
1) TM MTBE	2.32	1788170	81.9526 ug/L
2) TM Benzene	3.90	10791864	90.8386 ug/L
4) TM Toluene	8.10	9808698	91.0865 ug/L
5) TM Chlorobenzene	12.70	10384346	92.6083 ug/L
6) TM Ethylbenzene	13.75	8623251	93.5905 ug/L
7) TM m-,p-Xylene	14.23	20331643	186.3676 ug/L
8) TM o-Xylene	15.32	8898210	93.5886 ug/L
10) TM 1,3-Dichlorobenzene	19.75	8821151	94.6288 ug/L
11) TM 1,4-Dichlorobenzene	19.91	9261646	94.9450 ug/L
12) TM 1,2-Dichlorobenzene	20.56	7392153	95.4941 ug/L

Data File : C:\HPCHEM\2\DATA\102601\5G10679.D Vial: 8
Acq On : 26 Oct 2001 17:32 Operator: CBN
Sample : WG107186-06 8021 STD6 200PPB 5ML Inst : HP5
Misc : 1,1 S-85-38, S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 26 17:59 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 09/06/01
Last Update : Thu Sep 06 16:03:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102601\5G10679.D Vial: 8
Acq On : 26 Oct 2001 17:32 Operator: CBN
Sample : WG107186-06 8021 STD6 200PPB 5ML Inst : HP5
Misc : 1,1 S-85-38, S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 26 17:59 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 09/06/01
Last Update : Thu Sep 06 16:03:54 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.26	2468510	71.2252 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 237.42%#			
9) S BFB	16.40	6610310	70.8700 ug/L
Spiked Amount 30.000 Recovery = 236.23%			
13) S BCB	22.09	6425427	76.5336 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 255.11%#			
Target Compounds			
1) TM MTBE	2.32	3564597	163.3670 ug/L
2) TM Benzene	3.89	21429082	180.3756 ug/L
4) TM Toluene	8.10	19639648	182.3797 ug/L
5) TM Chlorobenzene	12.69	20634002	184.0154 ug/L
6) TM Ethylbenzene	13.75	17050930	185.0584 ug/L
7) TM m-,p-Xylene	14.23	39781343	364.6509 ug/L
8) TM o-Xylene	15.31	17603562	185.1487 ug/L
10) TM 1,3-Dichlorobenzene	19.74	17702099	189.8991 ug/L
11) TM 1,4-Dichlorobenzene	19.91	18419814	188.8293 ug/L
12) TM 1,2-Dichlorobenzene	20.56	14790922	191.0737 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.
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Data File : C:\HPCHEM\2\DATA\102601\5G10680.D Vial: 9
Acq On : 26 Oct 2001 18:04 Operator: CBN
Sample : WG107186-07 8021 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-85-01, S-86-08 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:22:41 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	18.031	17.733 E3	1.7	101	0.00
2	TM	Benzene	110.108	105.141 E3	4.5	100	0.00
3	S	TFT	33.415	32.456 E3	2.9	97	0.00
4	TM	Toluene	99.538	96.354 E3	3.2	101	0.00
5	TM	Chlorobenzene	109.287	102.783 E3	6.0	101	0.00
6	TM	Ethylbenzene	86.965	86.313 E3	0.7	103	0.00
7	TM	m-,p-Xylene	102.546	100.050 E3	2.4	101	0.00
8	TM	o-Xylene	89.675	85.764 E3	4.4	99	-0.01
9	S	BFB	89.778	89.026 E3	0.8	99	-0.01
10	TM	1,3-Dichlorobenzene	87.605	89.161 E3	-1.8	105	0.00
11	TM	1,4-Dichlorobenzene	93.285	94.214 E3	-1.0	102	0.00
12	TM	1,2-Dichlorobenzene	75.072	76.532 E3	-1.9	106	0.00
13	S	BCB	86.342	84.692 E3	1.9	99	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G10680.D 8021W.M Mon Oct 29 08:24:11 2001 Page 1

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Data File : C:\HPCHEM\2\DATA\102601\5G10680.D Vial: 9
Acq On : 26 Oct 2001 18:04 Operator: CBN
Sample : WG107186-07 8021 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-85-01, S-86-08 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:22:41 2001
Response via : Multiple Level Calibration

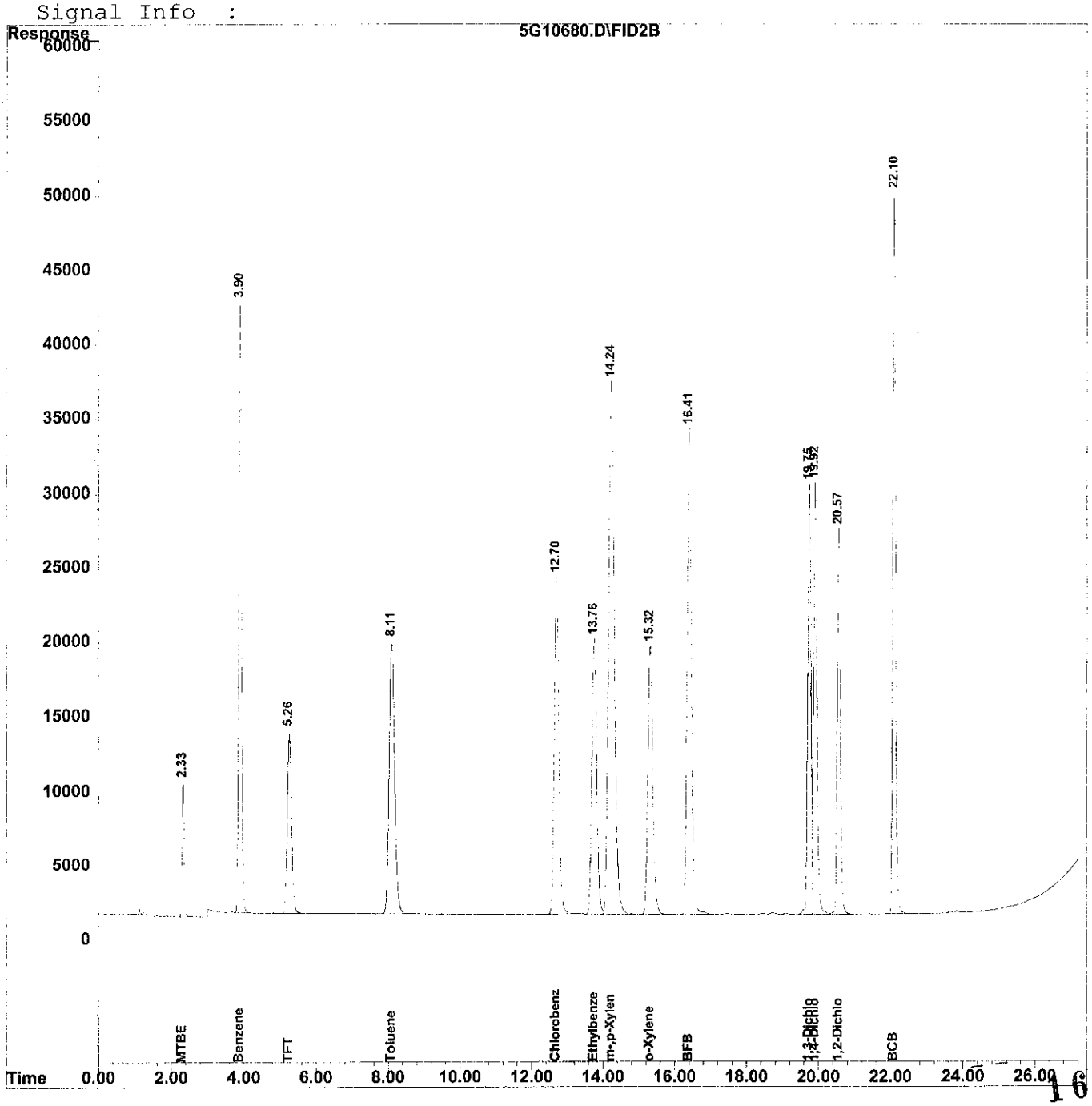
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	19.670	1.6	101	0.00
2	TM	Benzene	20.000	19.098	4.5	100	0.00
3	S	TFT	30.000	29.139	2.9	97	0.00
4	TM	Toluene	20.000	19.360	3.2	101	0.00
5	TM	Chlorobenzene	20.000	18.810	6.0	101	0.00
6	TM	Ethylbenzene	20.000	19.850	0.7	103	0.00
7	TM	m-,p-Xylene	40.000	39.026	2.4	101	0.00
8	TM	o-Xylene	20.000	19.128	4.4	99	-0.01
9	S	BFB	30.000	29.749	0.8	99	-0.01
10	TM	1,3-Dichlorobenzene	20.000	20.355	-1.8	105	0.00
11	TM	1,4-Dichlorobenzene	20.000	20.199	-1.0	102	0.00
12	TM	1,2-Dichlorobenzene	20.000	20.389	-1.9	106	0.00
13	S	BCB	30.000	29.427	1.9	99	0.00

Data File : C:\HPCHEM\2\DATA\102601\5G10680.D Vial: 9
Acq On : 26 Oct 2001 18:04 Operator: CBN
Sample : WG107186-07 8021 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-85-01, S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 8:23 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



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Data File : C:\HPCHEM\2\DATA\102601\5G10680.D Vial: 9
Acq On : 26 Oct 2001 18:04 Operator: CBN
Sample : WG107186-07 8021 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-85-01, S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 8:23 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.26	973689	29.1395 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 97.13%			
9) S BFB	16.41	2670784	29.7488 ug/L
Spiked Amount 30.000 Recovery = 99.16%			
13) S BCB	22.10	2540761	29.4266 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 98.09%			
Target Compounds			
1) TM MTBE	2.33	354661	19.6699 ug/L
2) TM Benzene	3.90	2102821	19.0978 ug/L
4) TM Toluene	8.11	1927088	19.3603 ug/L
5) TM Chlorobenzene	12.70	2055661	18.8097 ug/L
6) TM Ethylbenzene	13.76	1726266	19.8502 ug/L
7) TM m-,p-Xylene	14.24	4002003	39.0264 ug/L
8) TM o-Xylene	15.32	1715281	19.1277 ug/L
10) TM 1,3-Dichlorobenzene	19.75	1783216	20.3553 ug/L
11) TM 1,4-Dichlorobenzene	19.92	1884273	20.1991 ug/L
12) TM 1,2-Dichlorobenzene	20.57	1530630	20.3888 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.
5G10680.D 8021W.M Mon Oct 29 08:23:46 2001 Page 1

Data File : C:\HPCHEM\2\DATA\102901\12G10009.D Vial: 2
Acq On : 29 Oct 2001 13:54 Operator: CSH
Sample : WG107220-02 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-86-(13,08) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	51.731	50.151	E3	3.1	94	0.03
2	TM	Benzene	253.793	269.456	E3	-6.2	103	0.06
3	S	TFT	83.907	89.691	E3	-6.9	106	0.08
4	TM	Toluene	235.945	253.042	E3	-7.2	104	0.07
5	TM	Chlorobenzene	243.529	257.795	E3	-5.9	104	0.07
6	TM	Ethylbenzene	203.317	222.791	E3	-9.6	107	0.07
7	TM	m-,p-Xylene	242.754	262.495	E3	-8.1	105	0.07
8	TM	o-Xylene	207.586	221.035	E3	-6.5	103	0.06
9	S	BFB	205.689	215.201	E3	-4.6	106	0.05
10	TM	1,3-Dichlorobenzene	213.949	233.452	E3	-9.1	105	0.05
11	TM	1,4-Dichlorobenzene	213.949	233.452	E3	-9.1	105	0.05
12	TM	1,2-Dichlorobenzene	182.136	194.991	E3	-7.1	107	0.05
13	S	BCB	214.453	211.593	E3	1.3	107	0.04

Data File : C:\HPCHEM\2\DATA\102901\12G10009.D Vial: 2
Acq On : 29 Oct 2001 13:54 Operator: CSH
Sample : WG107220-02 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-86-(13,08) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration

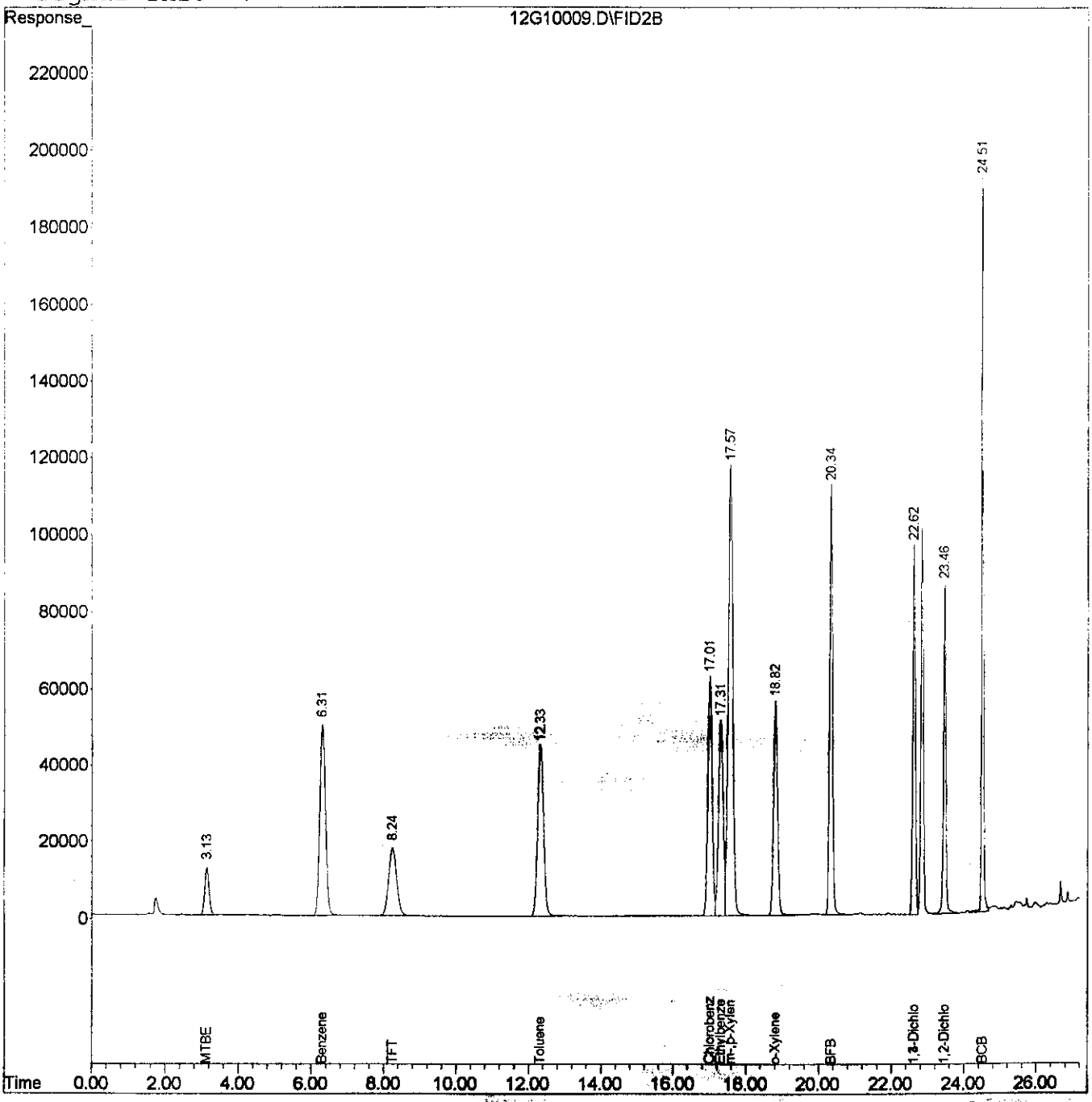
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	19.389	3.1	94	0.03
2	TM	Benzene	20.000	21.234	-6.2	103	0.06
3	S	TFT	30.000	32.068	-6.9	106	0.08
4	TM	Toluene	20.000	21.449	-7.2	104	0.07
5	TM	Chlorobenzene	20.000	21.172	-5.9	104	0.07
6	TM	Ethylbenzene	20.000	21.916	-9.6	107	0.07
7	TM	m-,p-Xylene	40.000	43.253	-8.1	105	0.07
8	TM	o-Xylene	20.000	21.296	-6.5	103	0.06
9	S	BFB	30.000	31.387	-4.6	106	0.05
10	TM	1,3-Dichlorobenzene	20.000	21.823	-9.1	105	0.05
11	TM	1,4-Dichlorobenzene	20.000	21.823	-9.1	105	0.05
12	TM	1,2-Dichlorobenzene	20.000	21.412	-7.1	107	0.05
13	S	BCB	30.000	29.600	1.3	107	0.04

Data File : C:\HPCHEM\2\DATA\102901\12G10009.D Vial: 2
Acq On : 29 Oct 2001 13:54 Operator: CSH
Sample : WG107220-02 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-86-(13,08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 14:22 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102901\12G10009.D Vial: 2
Acq On : 29 Oct 2001 13:54 Operator: CSH
Sample : WG107220-02 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-86-(13,08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 14:22 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.24	2690725	32.068 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 106.89%			
9) S BFB	20.35	6456044	31.387 UG/L
Spiked Amount 30.000 Recovery = 104.62%			
13) S BCB	24.51	6347787	29.600 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 98.67%			
Target Compounds			
1) TM MTBE	3.13	1003021	19.389 UG/L
2) TM Benzene	6.31	5389128	21.234 UG/L
4) TM Toluene	12.33	5060835	21.449 UG/L
5) TM Chlorobenzene	17.01	5155907	21.172 UG/L
6) TM Ethylbenzene	17.31	4455830	21.916 UG/L
7) TM m-,p-Xylene	17.57	10499811	43.253 UG/L
8) TM o-Xylene	18.82	4420696	21.296 UG/L
10) TM 1,3-Dichlorobenzene	22.62	4669035	21.823 UG/L
11) TM 1,4-Dichlorobenzene	22.62	4669035	21.823 UG/L
12) TM 1,2-Dichlorobenzene	23.46	3899816	21.412 UG/L

Data File : C:\HPCHEM\2\DATA\102901\12G10020.D Vial: 15
Acq On : 29 Oct 2001 20:15 Operator: CSH
Sample : WG107220-03 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-86-(13,08) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	51.731	45.516	E3	12.0	86	0.04
2	TM	Benzene	253.793	236.346	E3	6.9	91	0.07
3	S	TFT	83.907	82.566	E3	1.6	97	0.10
4	TM	Toluene	235.945	219.010	E3	7.2	90	0.08
5	TM	Chlorobenzene	243.529	223.253	E3	8.3	90	0.07
6	TM	Ethylbenzene	203.317	191.530	E3	5.8	92	0.07
7	TM	m-,p-Xylene	242.754	225.250	E3	7.2	90	0.07
8	TM	o-Xylene	207.586	190.655	E3	8.2	89	0.06
9	S	BFB	205.689	202.947	E3	1.3	100	0.05
10	TM	1,3-Dichlorobenzene	213.949	201.518	E3	5.8	90	0.05
11	TM	1,4-Dichlorobenzene	213.949	201.518	E3	5.8	90	0.05
12	TM	1,2-Dichlorobenzene	182.136	167.363	E3	8.1	92	0.04
13	S	BCB	214.453	200.768	E3	6.4	101	0.04

Data File : C:\HPCHEM\2\DATA\102901\12G10020.D Vial: 15
Acq On : 29 Oct 2001 20:15 Operator: CSH
Sample : WG107220-03 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-86-(13,08) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration

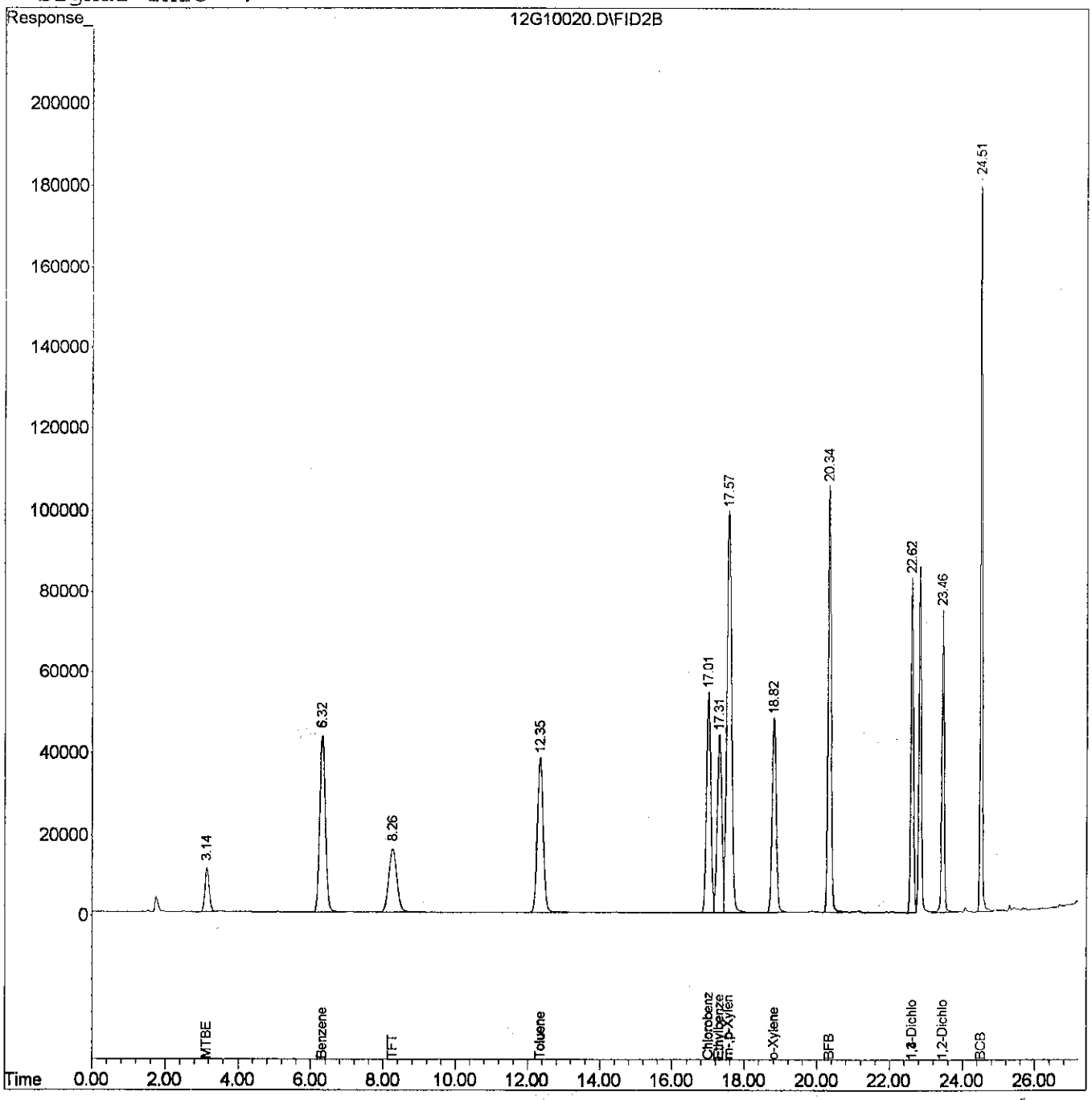
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	17.597	12.0	86	0.04
2	TM	Benzene	20.000	18.625	6.9	91	0.07
3	S	TFT	30.000	29.520	1.6	97	0.10
4	TM	Toluene	20.000	18.565	7.2	90	0.08
5	TM	Chlorobenzene	20.000	18.335	8.3	90	0.07
6	TM	Ethylbenzene	20.000	18.841	5.8	92	0.07
7	TM	m-,p-Xylene	40.000	37.116	7.2	90	0.07
8	TM	o-Xylene	20.000	18.369	8.2	89	0.06
9	S	BFB	30.000	29.600	1.3	100	0.05
10	TM	1,3-Dichlorobenzene	20.000	18.838	5.8	90	0.05
11	TM	1,4-Dichlorobenzene	20.000	18.838	5.8	90	0.05
12	TM	1,2-Dichlorobenzene	20.000	18.378	8.1	92	0.04
13	S	BCB	30.000	28.086	6.4	101	0.04

Data File : C:\HPCHEM\2\DATA\102901\12G10020.D Vial: 15
Acq On : 29 Oct 2001 20:15 Operator: CSH
Sample : WG107220-03 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-86-(13,08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 20:42 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102901\12G10020.D Vial: 15
Acq On : 29 Oct 2001 20:15 Operator: CSH
Sample : WG107220-03 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-86-(13,08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 20:42 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.26	2476977	29.520 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 98.40%			
9) S BFB	20.34	6088403	29.600 UG/L
Spiked Amount 30.000 Recovery = 98.67%			
13) S BCB	24.51	6023042	28.086 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 93.62%			
Target Compounds			
1) TM MTBE	3.14	910329	17.597 UG/L
2) TM Benzene	6.32	4726914	18.625 UG/L
4) TM Toluene	12.34	4380207	18.565 UG/L
5) TM Chlorobenzene	17.01	4465056	18.335 UG/L
6) TM Ethylbenzene	17.31	3830604	18.841 UG/L
7) TM m-,p-Xylene	17.57	9009996	37.116 UG/L
8) TM o-Xylene	18.82	3813096	18.369 UG/L
10) TM 1,3-Dichlorobenzene	22.62	4030363	18.838 UG/L
11) TM 1,4-Dichlorobenzene	22.62	4030363	18.838 UG/L
12) TM 1,2-Dichlorobenzene	23.46	3347255	18.378 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int
12G10020.D 8021W.M Mon Oct 29 20:42:43 2001 Page 1

Data File : C:\HPCHEM\2\DATA\103001\5G10715.D Vial: 1
Acq On : 30 Oct 2001 13:52 Operator: CBN
Sample : WG107287-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1S-86-(13,12) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	18.031	18.236	E3	-1.1	103	0.00
2	TM	Benzene	110.108	100.710	E3	8.5	95	0.01
3	S	TFT	33.415	35.151	E3	-5.2	106	0.02
4	TM	Toluene	99.538	94.257	E3	5.3	98	0.03
5	TM	Chlorobenzene	109.287	97.757	E3	10.6	96	0.02
6	TM	Ethylbenzene	86.965	82.307	E3	5.4	98	0.01
7	TM	m-,p-Xylene	102.546	97.263	E3	5.2	98	0.00
8	TM	o-Xylene	89.675	83.334	E3	7.1	97	0.00
9	S	BFB	89.778	92.390	E3	-2.9	103	0.00
10	TM	1,3-Dichlorobenzene	87.605	85.207	E3	2.7	100	0.00
11	TM	1,4-Dichlorobenzene	93.285	91.490	E3	1.9	99	0.00
12	TM	1,2-Dichlorobenzene	75.072	74.129	E3	1.3	103	0.00
13	S	BCB	86.342	90.764	E3	-5.1	106	0.00

Data File : C:\HPCHEM\2\DATA\103001\5G10715.D Vial: 1
Acq On : 30 Oct 2001 13:52 Operator: CBN
Sample : WG107287-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1S-86-(13,12) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	20.227	-1.1	103	0.00
2	TM	Benzene	20.000	18.293	8.5	95	0.01
3	S	TFT	30.000	31.559	-5.2	106	0.02
4	TM	Toluene	20.000	18.939	5.3	98	0.03
5	TM	Chlorobenzene	20.000	17.890	10.6	96	0.02
6	TM	Ethylbenzene	20.000	18.929	5.4	98	0.01
7	TM	m-,p-Xylene	40.000	37.939	5.2	98	0.00
8	TM	o-Xylene	20.000	18.586	7.1	97	0.00
9	S	BFB	30.000	30.873	-2.9	103	0.00
10	TM	1,3-Dichlorobenzene	20.000	19.453	2.7	100	0.00
11	TM	1,4-Dichlorobenzene	20.000	19.615	1.9	99	0.00
12	TM	1,2-Dichlorobenzene	20.000	19.749	1.3	103	0.00
13	S	BCB	30.000	31.536	-5.1	106	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G10715.D 8021W.M Wed Oct 31 07:10:04 2001 Page 1

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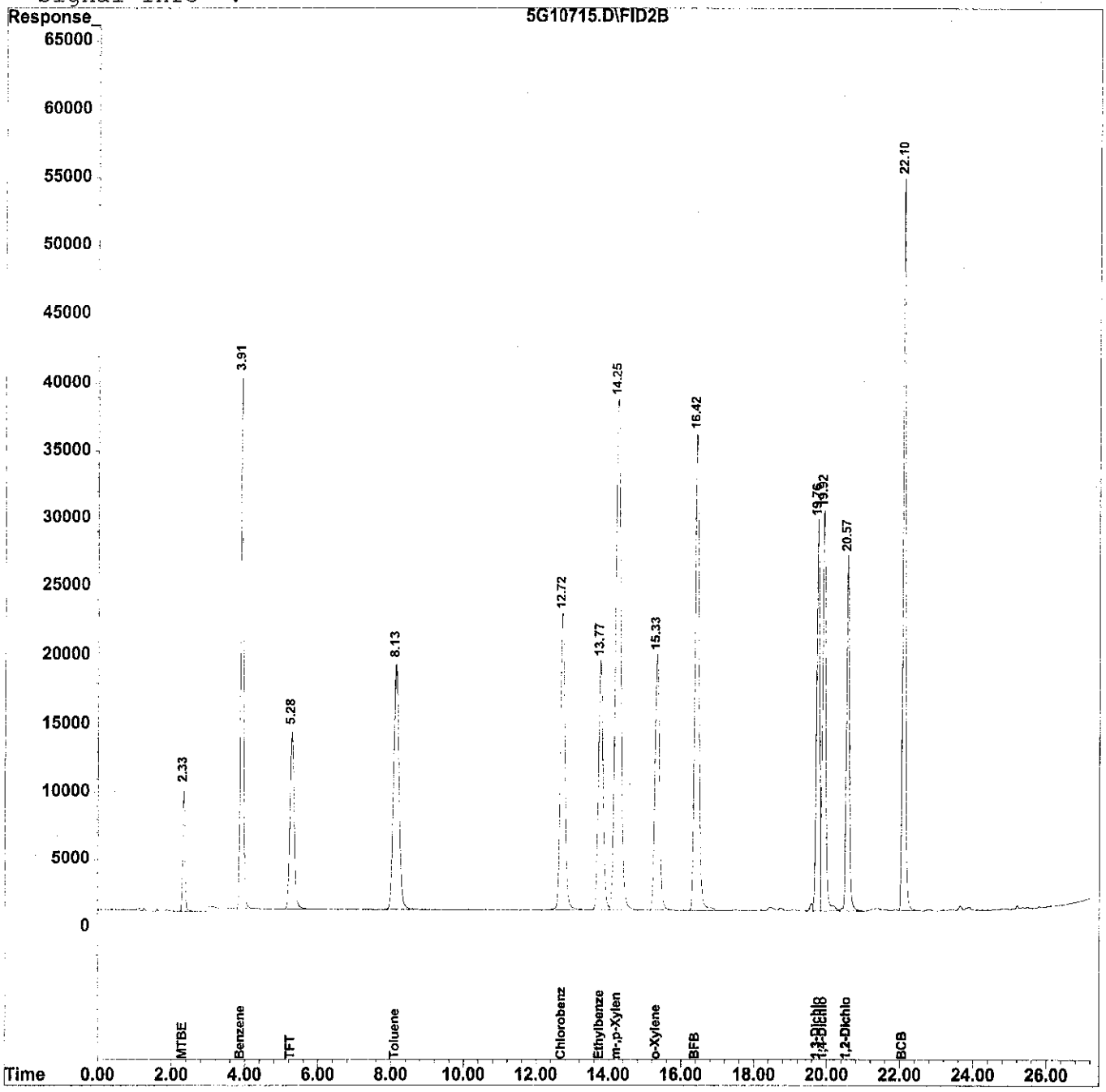
Data File : C:\HPCHEM\2\DATA\103001\5G10715.D Vial: 1
Acq On : 30 Oct 2001 13:52 Operator: CBN
Sample : WG107287-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1S-86-(13,12) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 30 14:19 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\103001\5G10715.D Vial: 1
Acq On : 30 Oct 2001 13:52 Operator: CBN
Sample : WG107287-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1S-86-(13,12) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 30 14:19 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.28	1054528	31.5587 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 105.20%			
9) S BFB	16.42	2771711	30.8730 ug/L
Spiked Amount 30.000 Recovery = 102.91%			
13) S BCB	22.10	2722923	31.5363 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 105.12%			
Target Compounds			
1) TM MTBE	2.33	364713	20.2274 ug/L
2) TM Benzene	3.91	2014198	18.2929 ug/L
4) TM Toluene	8.13	1885139	18.9388 ug/L
5) TM Chlorobenzene	12.73	1955149	17.8900 ug/L
6) TM Ethylbenzene	13.77	1646142	18.9288 ug/L
7) TM m-,p-Xylene	14.25	3890514	37.9392 ug/L
8) TM o-Xylene	15.33	1666685	18.5858 ug/L
10) TM 1,3-Dichlorobenzene	19.76	1704139	19.4526 ug/L
11) TM 1,4-Dichlorobenzene	19.92	1829796	19.6151 ug/L
12) TM 1,2-Dichlorobenzene	20.57	1482589	19.7488 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\103001\5G10725.D Vial: 8
Acq On : 30 Oct 2001 19:42 Operator: CBN
Sample : WG107287-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-86-(13,12) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	18.031	18.040	E3	-0.0	102	0.02
2	TM	Benzene	110.108	107.792	E3	2.1	102	0.02
3	S	TFT	33.415	36.277	E3	-8.6	109	0.03
4	TM	Toluene	99.538	98.294	E3	1.2	103	0.03
5	TM	Chlorobenzene	109.287	103.172	E3	5.6	101	0.02
6	TM	Ethylbenzene	86.965	86.073	E3	1.0	102	0.02
7	TM	m-,p-Xylene	102.546	100.059	E3	2.4	101	0.00
8	TM	o-Xylene	89.675	85.754	E3	4.4	99	0.00
9	S	BFB	89.778	93.976	E3	-4.7	104	0.00
10	TM	1,3-Dichlorobenzene	87.605	84.349	E3	3.7	99	0.00
11	TM	1,4-Dichlorobenzene	93.285	87.113	E3	6.6	95	0.00
12	TM	1,2-Dichlorobenzene	75.072	74.168	E3	1.2	103	0.00
13	S	BCB	86.342	91.469	E3	-5.9	107	0.00

Data File : C:\HPCHEM\2\DATA\103001\5G10725.D Vial: 8
Acq On : 30 Oct 2001 19:42 Operator: CBN
Sample : WG107287-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-86-(13,12) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

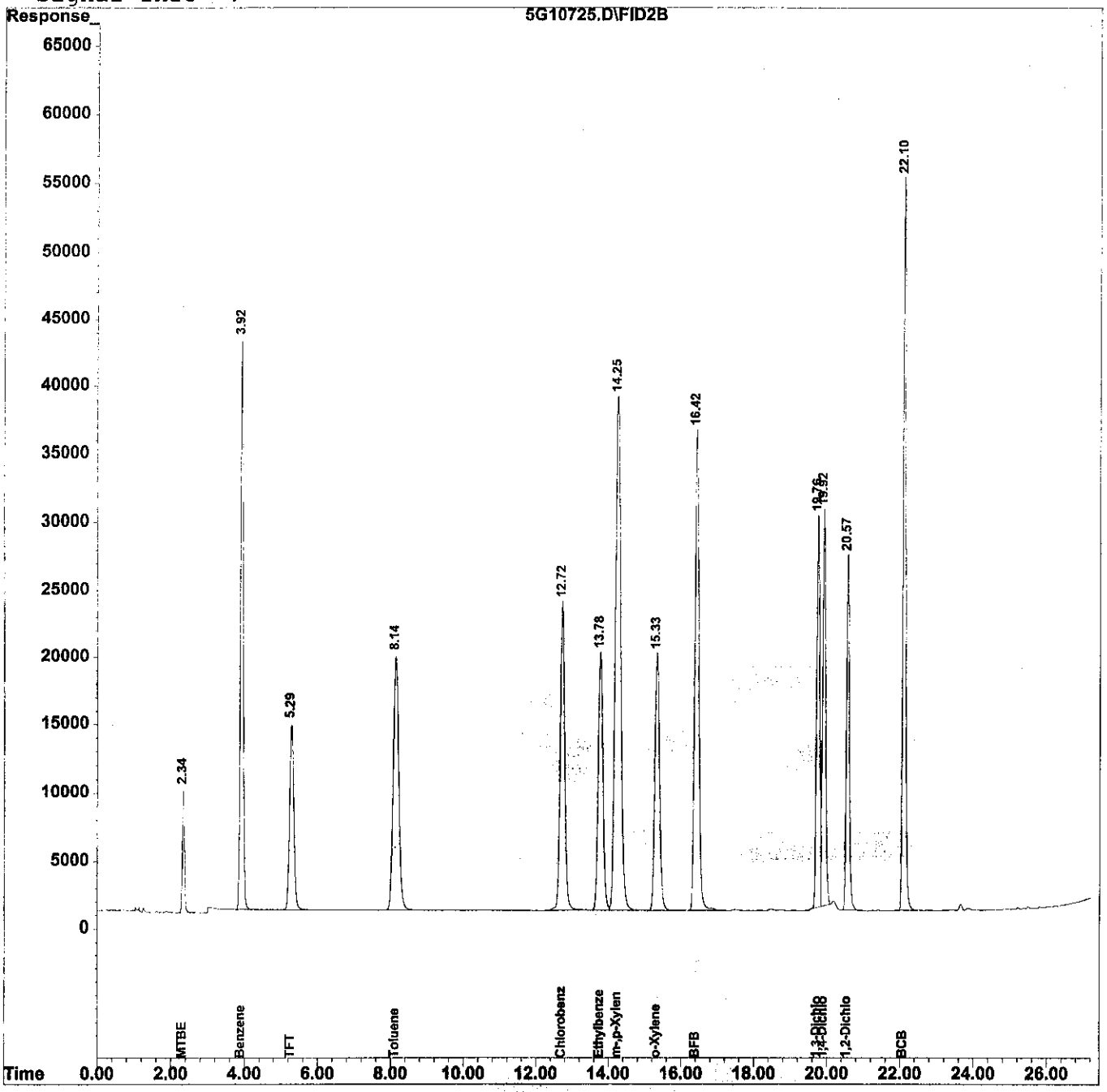
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	20.010	-0.1	102	0.02
2	TM	Benzene	20.000	19.579	2.1	102	0.02
3	S	TFT	30.000	32.570	-8.6	109	0.03
4	TM	Toluene	20.000	19.750	1.3	103	0.03
5	TM	Chlorobenzene	20.000	18.881	5.6	101	0.02
6	TM	Ethylbenzene	20.000	19.795	1.0	102	0.02
7	TM	m-,p-Xylene	40.000	39.030	2.4	101	0.00
8	TM	o-Xylene	20.000	19.125	4.4	99	0.00
9	S	BFB	30.000	31.403	-4.7	104	0.00
10	TM	1,3-Dichlorobenzene	20.000	19.257	3.7	99	0.00
11	TM	1,4-Dichlorobenzene	20.000	18.677	6.6	95	0.00
12	TM	1,2-Dichlorobenzene	20.000	19.759	1.2	103	0.00
13	S	BCB	30.000	31.781	-5.9	107	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G10725.D 8021W.M Wed Oct 31 07:10:14 2001 Page 1

Data File : C:\HPCHEM\2\DATA\103001\5G10725.D Vial: 8
Acq On : 30 Oct 2001 19:42 Operator: CBN
Sample : WG107287-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-86-(13,12) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 30 20:10 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\103001\5G10725.D Vial: 8
Acq On : 30 Oct 2001 19:42 Operator: CBN
Sample : WG107287-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-86-(13,12) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 30 20:10 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.29	1088306	32.5696 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 108.57%			
9) S BFB	16.42	2819288	31.4030 ug/L
Spiked Amount 30.000 Recovery = 104.68%			
13) S BCB	22.11	2744081	31.7814 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 105.94%			
Target Compounds			
1) TM MTBE	2.34	360790	20.0099 ug/L
2) TM Benzene	3.92	2155831	19.5793 ug/L
4) TM Toluene	8.14	1965886	19.7501 ug/L
5) TM Chlorobenzene	12.73	2063438	18.8808 ug/L
6) TM Ethylbenzene	13.78	1721452	19.7948 ug/L
7) TM m-,p-Xylene	14.25	4002378	39.0301 ug/L
8) TM o-Xylene	15.34	1715084	19.1255 ug/L
10) TM 1,3-Dichlorobenzene	19.76	1686984	19.2568 ug/L
11) TM 1,4-Dichlorobenzene	19.92	1742263	18.6768 ug/L
12) TM 1,2-Dichlorobenzene	20.57	1483357	19.7591 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 29-Oct-01
Filename: 12G10009
Sub Directory: 102901
Instrument: HP12
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	3.132	3.127	3.137
benzene	6.308	6.287	6.329
1,1,1-trifluorotoluene (SS)	8.245	8.215	8.275
toluene	12.334	12.305	12.363
chlorobenzene	17.011	16.994	17.028
ethylbenzene	17.312	17.293	17.331
m+p-xylene	17.574	17.542	17.606
o-xylene	18.820	18.799	18.841
bromofluorobenzene (SS)	20.345	20.331	20.359
1,3-dichlorobenzene	22.621	22.601	22.641
1,4-dichlorobenzene	22.839	22.819	22.859
1,2-dichlorobenzene	23.465	23.447	23.483

INSTRUMENT: HP12 **MATRIX:** WATER
CONT STD #1: 12G06556 **DATE #1:** 2/14/2001
CONT STD #2: 12G06582 **DATE #2:** 2/15/2001
CONT STD #3: 12G06616 **DATE #3:** 2/16/2001

Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	3.063	3.062	3.060	3.062	0.002	0.005
benzene	6.168	6.157	6.155	6.160	0.007	0.021
1,1,1-trifluorotoluene (SS)	8.082	8.078	8.063	8.074	0.010	0.030
toluene	12.178	12.179	12.162	12.173	0.010	0.029
chlorobenzene	16.882	16.874	16.871	16.876	0.006	0.017
ethylbenzene	17.186	17.188	17.176	17.183	0.006	0.019
m+p-xylene	17.450	17.461	17.440	17.450	0.011	0.032
o-xylene	18.711	18.716	18.702	18.710	0.007	0.021
bromofluorbenzene (SS)	20.253	20.251	20.244	20.249	0.005	0.014
1,3-dichlorobenzene	22.544	22.539	22.531	22.538	0.007	0.020
1,4-dichlorobenzene	22.763	22.759	22.750	22.757	0.007	0.020
1,2-dichlorobenzene	23.396	23.390	23.384	23.390	0.006	0.018

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 30-Oct-01
Filename: 5G10715
Sub Directory: 103001
Instrument: HP5
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	2.333	**2.286**	**2.380**
benzene	3.909	**3.840**	**3.978**
1,1,1-trifluorotoluene (SS)	5.282	**5.194**	**5.370**
toluene	8.135	**8.034**	**8.236**
chlorobenzene	12.725	**12.662**	**12.788**
ethylbenzene	13.775	**13.723**	**13.827**
m+p-xylene	14.250	**14.207**	**14.293**
o-xylene	15.331	**15.289**	**15.373**
bromofluorobenzene (SS)	16.419	**16.374**	**16.464**
1,3-dichlorobenzene	19.756	**19.723**	**19.789**
1,4-dichlorobenzene	19.920	**19.887**	**19.953**
1,2-dichlorobenzene	20.569	**20.538**	**20.600**
bromochlorobenzene (SS)	22.102	**22.077**	**22.127**

INSTRUMENT:	HP5	**MATRIX:**	WATER
CONT STD #1:	5G10333	**DATE #1:**	3-Oct-01
CONT STD #2:	5G10339	**DATE #2:**	4-Oct-01
CONT STD #3:	5G10367	**DATE #3:**	5-Oct-01

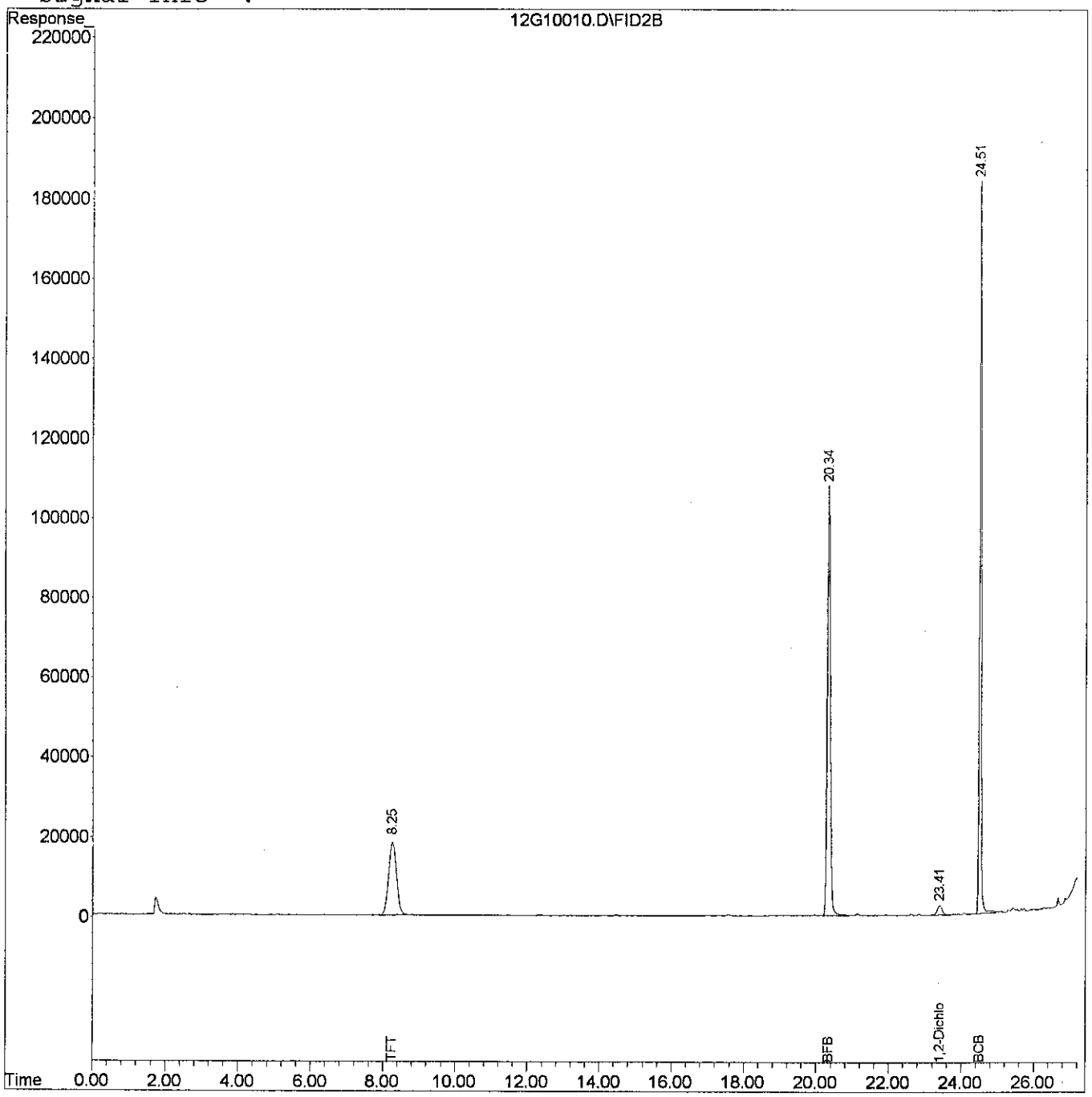
Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	2.348	2.321	2.321	2.330	0.016	**0.047**
benzene	3.933	3.894	3.892	3.906	0.023	**0.069**
1,1,1-trifluorotoluene (SS)	5.300	5.245	5.255	5.267	0.029	**0.088**
toluene	8.129	8.062	8.093	8.095	0.034	**0.101**
chlorobenzene	12.696	12.656	12.687	12.680	0.021	**0.063**
ethylbenzene	13.744	13.712	13.740	13.732	0.017	**0.052**
m+p-xylene	14.211	14.191	14.219	14.207	0.014	**0.043**
o-xylene	15.289	15.274	15.302	15.288	0.014	**0.042**
bromofluorobenzene (SS)	16.379	16.359	16.388	16.375	0.015	**0.045**
1,3-dichlorobenzene	19.718	19.713	19.734	19.722	0.011	**0.033**
1,4-dichlorobenzene	19.882	19.878	19.899	19.886	0.011	**0.033**
1,2-dichlorobenzene	20.533	20.530	20.549	20.537	0.010	**0.031**
bromochlorobenzene (SS)	22.070	22.069	22.084	22.074	0.008	**0.025**

2.1.3.4 Raw Data

Data File : C:\HPCHEM\2\DATA\102901\12G10010.D Vial: 1
Acq On : 29 Oct 2001 14:39 Operator: CSH
Sample : WG107256-01 WATER BLANK 5ML Inst : HP12
Misc : 1,1 S-86-(13,08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 15:07 2001 Quant Results Filé: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102901\12G10010.D Vial: 1
Acq On : 29 Oct 2001 14:39 Operator: CSH
Sample : WG107256-01 WATER BLANK 5ML Inst : HP12
Misc : 1,1 S-86-(13,08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 15:07 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

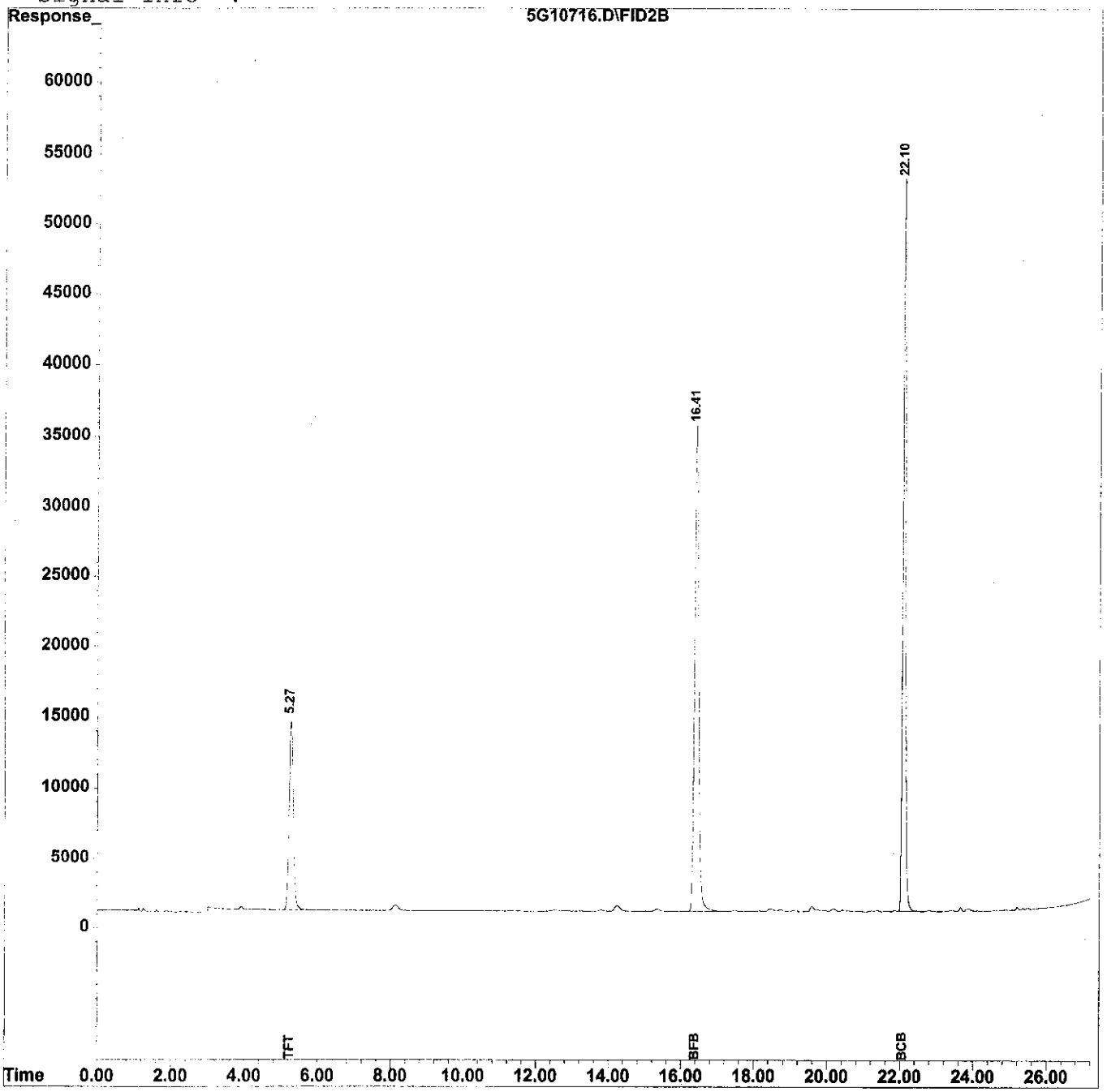
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.26	2750402	32.779 UG/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 109.26%			
9) S BFB	20.35	6281016	30.537 UG/L
Spiked Amount 30.000 Recovery = 101.79%			
13) S BCB	24.51	6134401	28.605 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 95.35%			
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/L
2) TM Benzene	0.00	0	N.D. UG/L
4) TM Toluene	0.00	0	N.D. UG/L
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	0.00	0	N.D. UG/L
7) TM m-,p-Xylene	17.58	25126	<MDL UG/L
8) TM o-Xylene	0.00	0	N.D. UG/L
10) TM 1,3-Dichlorobenzene	22.62	16613	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.62	16613	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.41	247387	~~1.358 UG/L~~

(f)=RT Delta > 1/2 Window (m)=manual int
12G10010.D 8021W.M Mon Oct 29 15:07:18 2001 Page 1

Data File : C:\HPCHEM\2\DATA\103001\5G10716.D Vial: 2
Acq On : 30 Oct 2001 14:34 Operator: CBN
Sample : WG107288-01 WATER BLANK 5ML Inst : HP5
Misc : 1,1S-86-12 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 30 15:01 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\103001\5G10716.D Vial: 2
Acq On : 30 Oct 2001 14:34 Operator: CBN
Sample : WG107288-01 WATER BLANK 5ML Inst : HP5
Misc : 1,1S-86-12 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 30 15:01 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

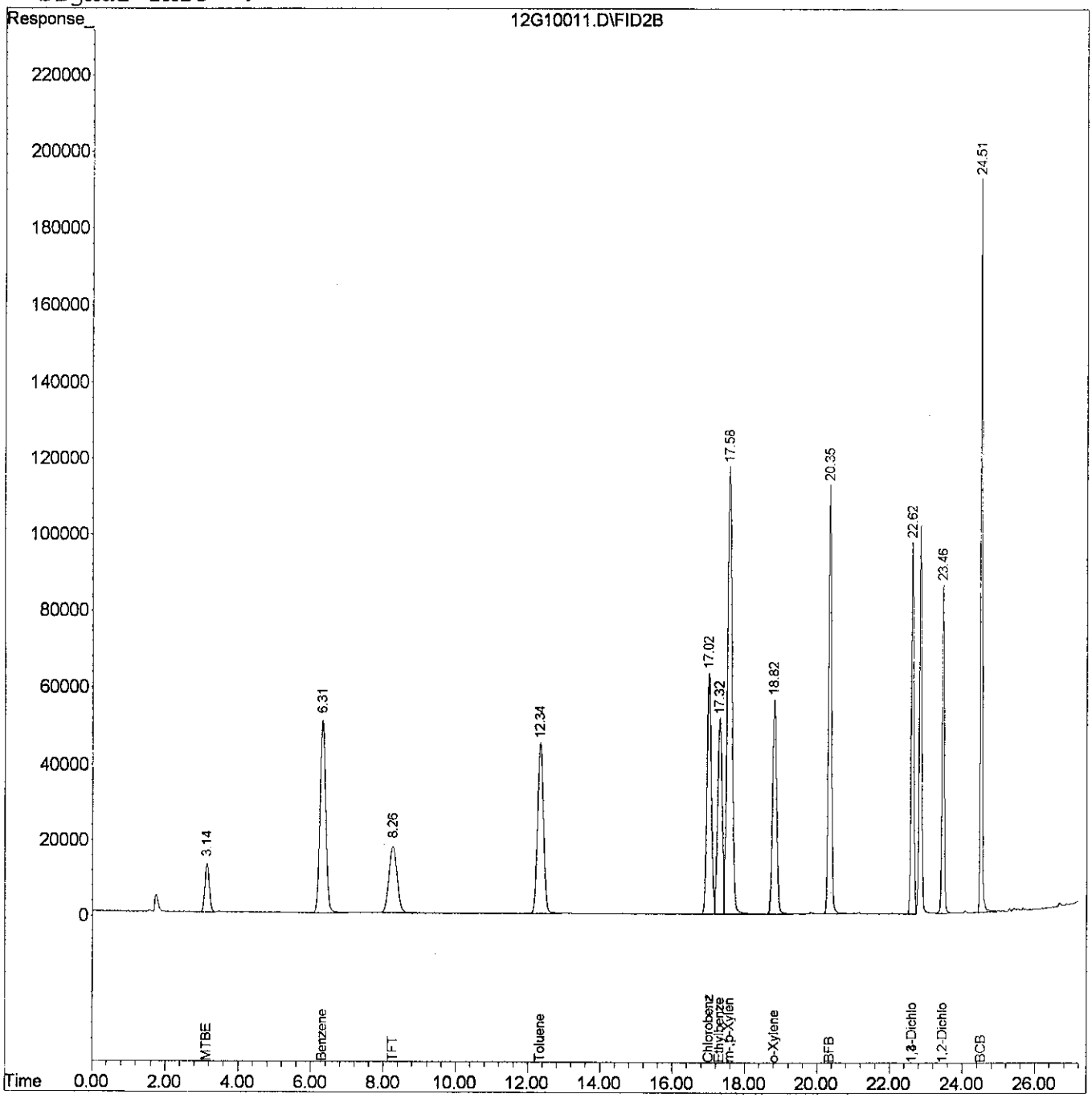
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.27	1061592	31.7701 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	105.90%
9) S BFB	16.41	2732034	30.4311 ug/L
Spiked Amount 30.000		Recovery =	101.44%
13) S BCB	22.10	2638015	30.5529 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	101.84%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	8.13	43606	<MDL ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	14.25	43707	<MDL ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	19.60	19127	<MDL ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\102901\12G10011.D Vial: 2
Acq On : 29 Oct 2001 15:12 Operator: CSH
Sample : WG107256-02 WATER LCS 20PPB 5ML Inst : HP12
Misc : 1,1 S-86-(13,08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 15:39 2001 Quant Results Filé: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102901\12G10011.D Vial: 2
Acq On : 29 Oct 2001 15:12 Operator: CSH
Sample : WG107256-02 WATER LCS 20PPB 5ML Inst : HP12
Misc : 1,1 S-86-(13,08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 15:39 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

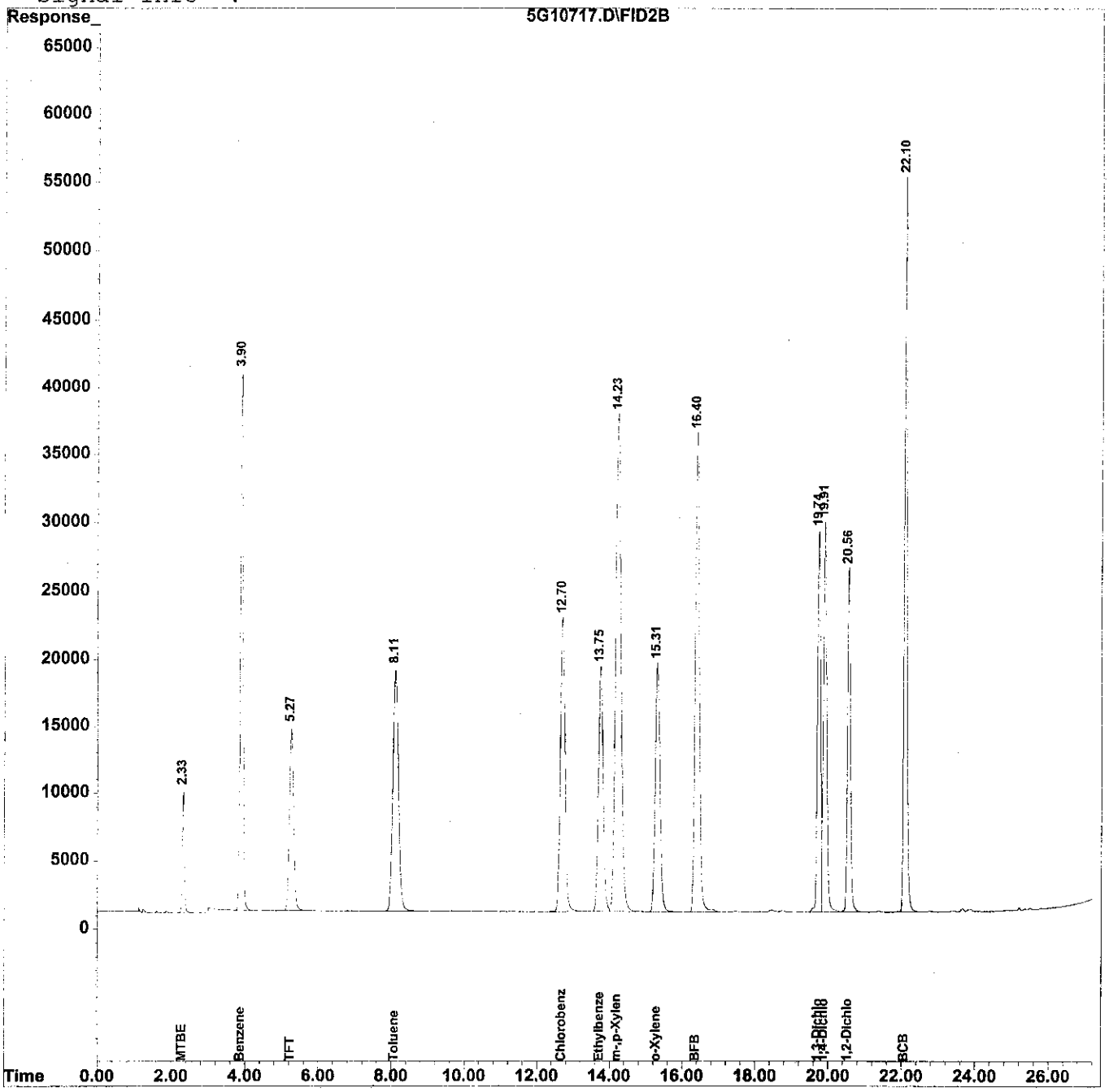
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.26	2752395	32.803 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	109.34%
9) S BFB	20.35	6453512	31.375 UG/L
Spiked Amount 30.000		Recovery =	104.58%
13) S BCB	24.51	6347404	29.598 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	98.66%
Target Compounds			
1) TM MTBE	3.14	1056596	20.425 UG/L
2) TM Benzene	6.32	5540737	21.832 UG/L
4) TM Toluene	12.34	5118634	21.694 UG/L
5) TM Chlorobenzene	17.02	5202427	~~21.363 UG/L~~
6) TM Ethylbenzene	17.32	4489343	22.080 UG/L
7) TM m-,p-Xylene	17.58	10604980	43.686 UG/L
8) TM o-Xylene	18.82	4462252	21.496 UG/L
10) TM 1,3-Dichlorobenzene	22.62	4741798	~~22.163 UG/L~~
11) TM 1,4-Dichlorobenzene	22.62	4741798	~~22.163 UG/L~~
12) TM 1,2-Dichlorobenzene	23.46	3758645	~~20.637 UG/L~~

Data File : C:\HPCHEM\2\DATA\103001\5G10717.D Vial: 3
Acq On : 30 Oct 2001 15:06 Operator: CBN
Sample : WG107288-02 WATER LCS 20PPB 5ML Inst : HP5
Misc : 1,1S-86-(13,12) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 30 15:33 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\103001\5G10717.D Vial: 3
Acq On : 30 Oct 2001 15:06 Operator: CBN
Sample : WG107288-02 WATER LCS 20PPB 5ML Inst : HP5
Misc : 1,1S-86-(13,12) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 30 15:33 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.27	1071631	32.0706 ug/L ✓
Spiked Amount 30.000 Range 70 - 130 Recovery = 106.90%			
9) S BFB	16.40	2814961	31.3548 ug/L
Spiked Amount 30.000 Recovery = 104.52%			
13) S BCB	22.10	2780041	32.1978 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 107.33%			
Target Compounds			
1) TM MTBE	2.33	356954	19.7971 ug/L
2) TM Benzene	3.90	2037352	18.5032 ug/L
4) TM Toluene	8.11	1884765	18.9351 ug/L
5) TM Chlorobenzene	12.70	1961442	17.9475 ug/L
6) TM Ethylbenzene	13.76	1647025	18.9390 ug/L
7) TM m-,p-Xylene	14.23	3872247	37.7611 ug/L
8) TM o-Xylene	15.31	1661462	18.5275 ug/L
10) TM 1,3-Dichlorobenzene	19.75	1699767	19.4027 ug/L
11) TM 1,4-Dichlorobenzene	19.91	1790595	19.1949 ug/L
12) TM 1,2-Dichlorobenzene	20.56	1450542	19.3220 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.
5G10717.D 8021W.M Tue Oct 30 15:33:52 2001 Page 1

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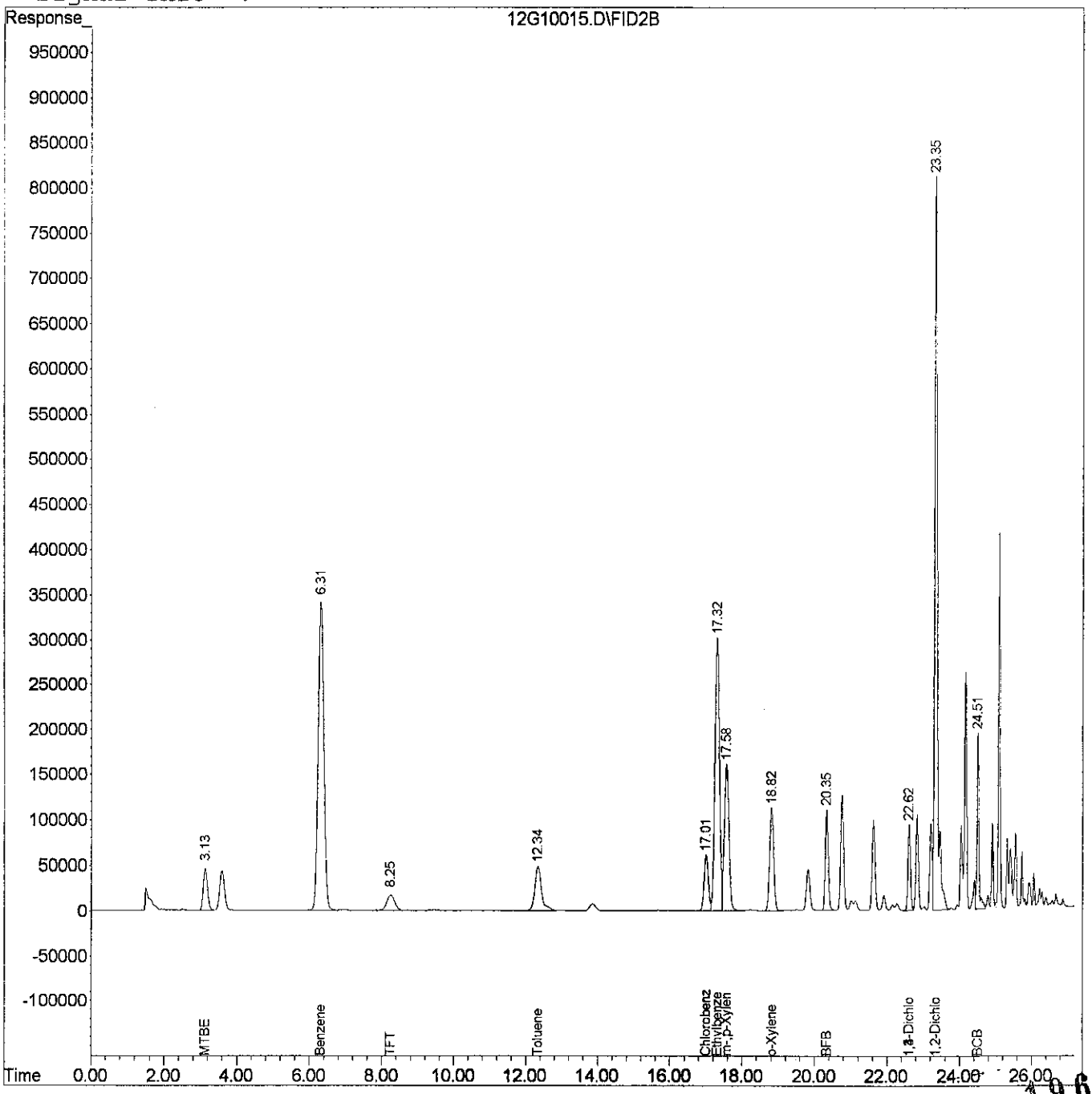
Data File : C:\HPCHEM\2\DATA\102901\12G10015.D Vial: 8
Acq On : 29 Oct 2001 17:33 Operator: CSH
Sample : L0110522-02 MS "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-(13,08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 18:00 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



196

Data File : C:\HPCHEM\2\DATA\102901\12G10015.D Vial: 8
Acq On : 29 Oct 2001 17:33 Operator: CSH
Sample : L0110522-02 MS "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-(13,08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 18:00 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

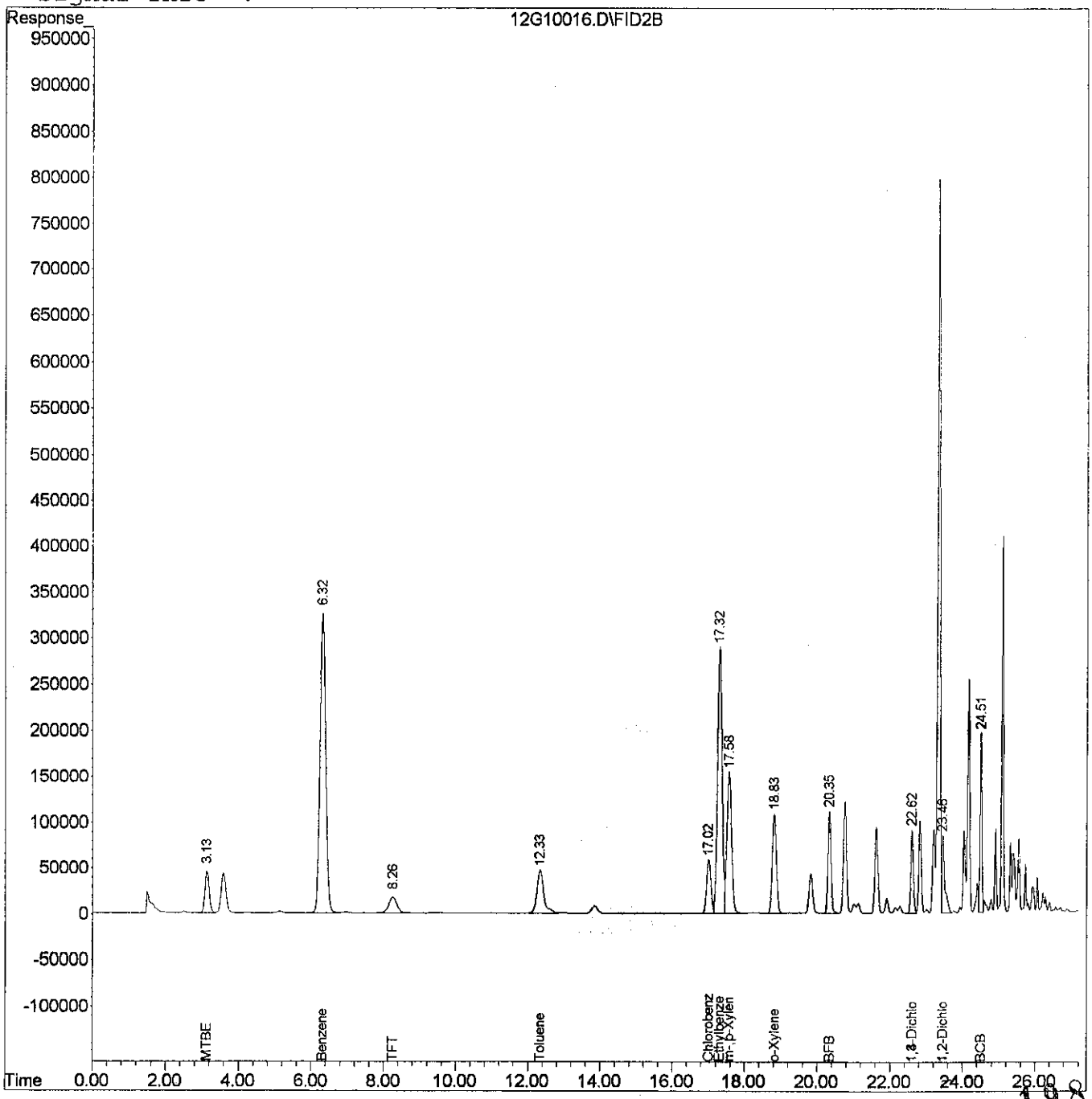
Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.25	2888551	34.426 UG/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery = 114.75%	
9) S BFB	20.35	6368863	30.964 UG/L
Spiked Amount 30.000		Recovery = 103.21%	
13) S BCB	24.51	7028561	32.774 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery = 109.25%	
Target Compounds			
1) TM MTBE	3.13	3773761	72.950 UG/L
2) TM Benzene	6.32	37211981	146.623 UG/L
4) TM Toluene	12.34	6499395	27.546 UG/L
5) TM Chlorobenzene	17.01	4966088	20.392 UG/L
6) TM Ethylbenzene	17.32	26516706	130.420 UG/L
7) TM m-,p-Xylene	17.58	14368765	59.191 UG/L
8) TM o-Xylene	18.83	8847119	42.619 UG/L
10) TM 1,3-Dichlorobenzene	22.62	4577084	21.393 UG/L
11) TM 1,4-Dichlorobenzene	22.62	4577084	21.393 UG/L
12) TM 1,2-Dichlorobenzene	23.35	42397302	232.779 UG/L

Data File : C:\HPCHEM\2\DATA\102901\12G10016.D Vial: 11
Acq On : 29 Oct 2001 18:06 Operator: CSH
Sample : L0110522-02 MSD "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-(13,08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 18:33 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102901\12G10016.D Vial: 11
Acq On : 29 Oct 2001 18:06 Operator: CSH
Sample : L0110522-02 MSD "A" 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-(13,08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 18:33 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B Water 10/03/01
Last Update : Wed Oct 03 11:08:36 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

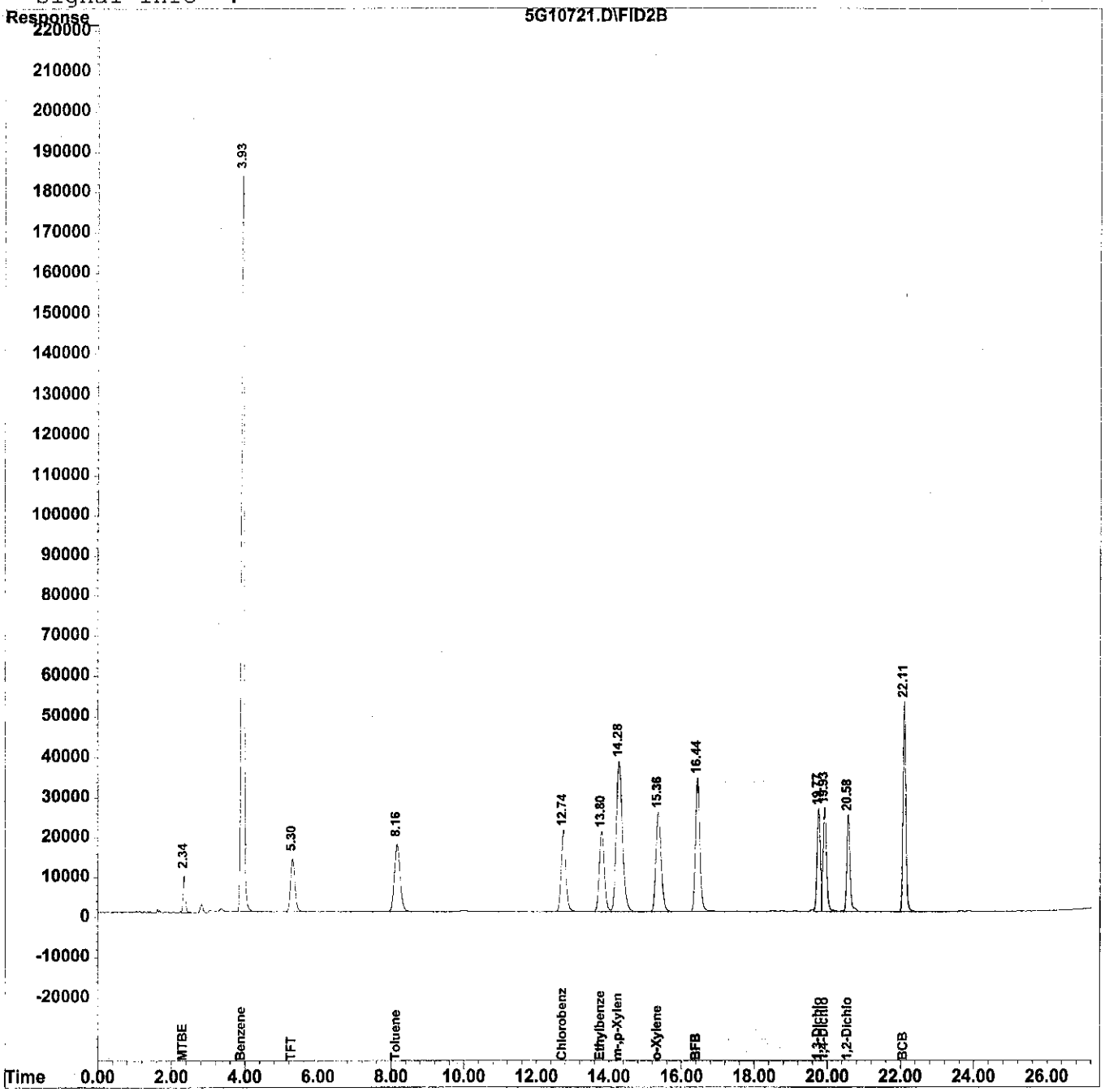
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.26	2944186	35.089 UG/L ✓
Spiked Amount 30.000 Range 70 - 130 Recovery = 116.96%			
9) S BFB	20.35	6445218	31.335 UG/L
Spiked Amount 30.000 Recovery = 104.45%			
13) S BCB	24.51	6466484	30.153 UG/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 100.51%			
Target Compounds			
1) TM MTBE	3.14	3756871	72.623 UG/L
2) TM Benzene	6.32	35681142	140.592 UG/L
4) TM Toluene	12.34	6223140	26.375 UG/L
5) TM Chlorobenzene	17.02	4819090	19.789 UG/L
6) TM Ethylbenzene	17.32	25526374	125.549 UG/L
7) TM m-,p-Xylene	17.58	13882301	57.187 UG/L
8) TM o-Xylene	18.83	8571428	41.291 UG/L
10) TM 1,3-Dichlorobenzene	22.62	4425708	20.686 UG/L
11) TM 1,4-Dichlorobenzene	22.62	4425708	20.686 UG/L
12) TM 1,2-Dichlorobenzene	23.46	4500929	24.712 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int 199
12G10016.D 8021W.M Mon Oct 29 18:33:23 2001 Page 1

Data File : C:\HPCHEM\2\DATA\103001\5G10721.D Vial: 4
Acq On : 30 Oct 2001 17:32 Operator: CBN
Sample : WG107288-03 L0110522-07 B MS 2.5 ML 20X Inst : HP5
Misc : 1,20 S-86-12 Multiplr: 20.00
IntFile : autoint1.e
Quant Time: Oct 30 17:59 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



5G10721.D 8021W.M Tue Oct 30 17:59:39 2001 Page 2

200

Data File : C:\HPCHEM\2\DATA\103001\5G10721.D Vial: 4
Acq On : 30 Oct 2001 17:32 Operator: CBN
Sample : WG107288-03 L0110522-07 B MS 2.5 ML 20X Inst : HP5
Misc : 1,20 S-86-12 Multiplr: 20.00
IntFile : autoint1.e
Quant Time: Oct 30 17:59 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

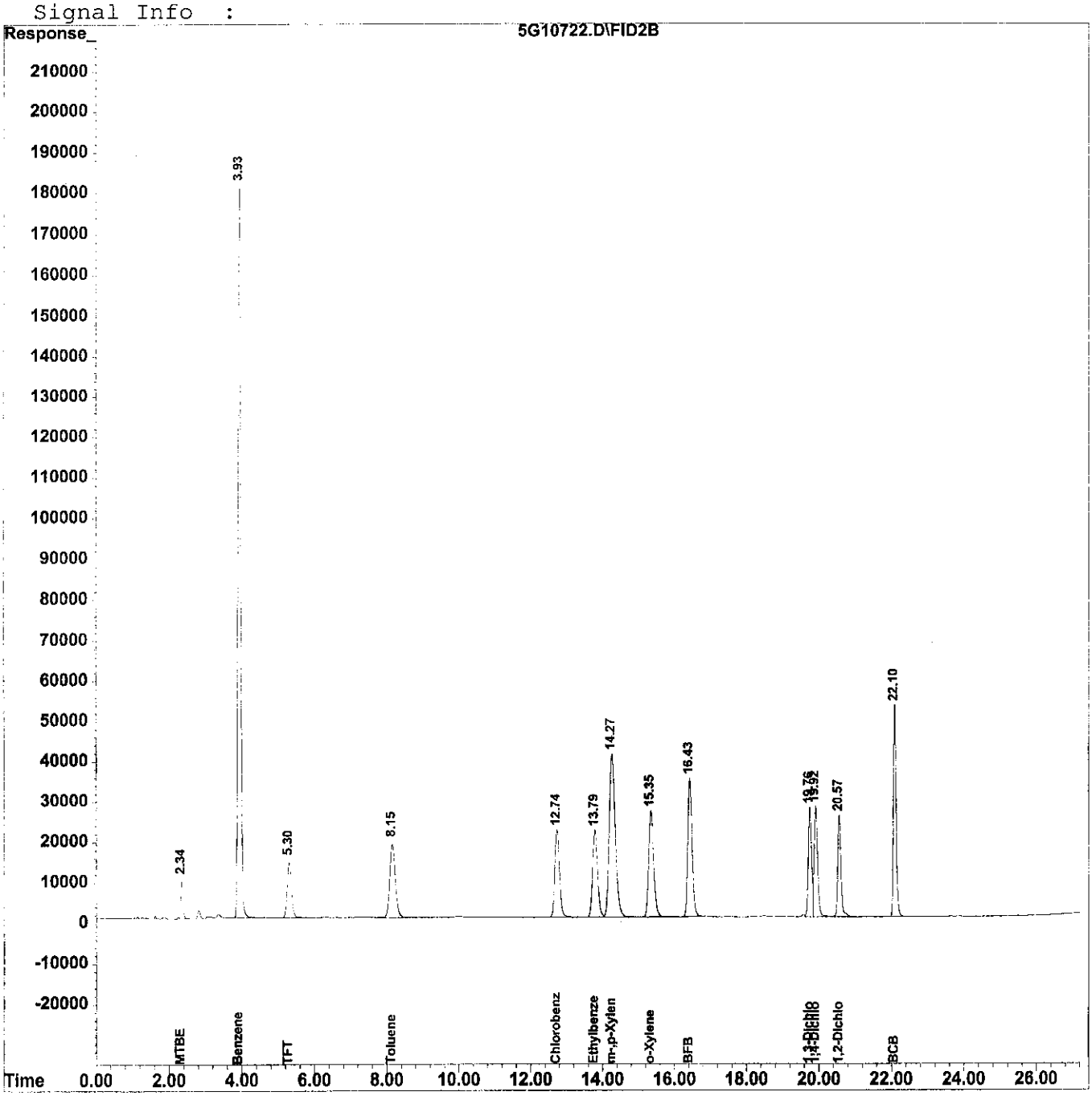
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.30	1102240	32.9866 ug/L ✓
Spiked Amount 30.000 Range 70 - 130 Recovery = 109.96%			
9) S BFB	16.44	2844094	31.6793 ug/L
Spiked Amount 30.000 Recovery = 105.60%			
13) S BCB	22.11	2757628	31.9383 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 106.46%			
Target Compounds			
1) TM MTBE	2.34	381945	423.6622 ug/L
2) TM Benzene	3.93	9476870	1721.3784 ug/L
4) TM Toluene	8.16	1851550	372.0280 ug/L
5) TM Chlorobenzene	12.75	1894469	346.6946 ug/L
6) TM Ethylbenzene	13.80	1939887	446.1313 ug/L
7) TM m-,p-Xylene	14.28	4501928	878.0312 ug/L
8) TM o-Xylene	15.36	2531057	564.4935 ug/L
10) TM 1,3-Dichlorobenzene	19.77	1603917	366.1720 ug/L
11) TM 1,4-Dichlorobenzene	19.94	1734287	371.8253 ug/L
12) TM 1,2-Dichlorobenzene	20.58	1478939	394.0045 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.
5G10721.D 8021W.M Tue Oct 30 17:59:38 2001 Page 1

Data File : C:\HPCHEM\2\DATA\103001\5G10722.D Vial: 5
Acq On : 30 Oct 2001 18:05 Operator: CBN
Sample : WG107288-04 L0110522-07 B MSD 2.5 ML 20X Inst : HP5
Misc : 1,20 S-86-12 Multiplr: 20.00
IntFile : autoint1.e
Quant Time: Oct 30 18:32 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\103001\5G10722.D Vial: 5
Acq On : 30 Oct 2001 18:05 Operator: CBN
Sample : WG107288-04 L0110522-07 B MSD 2.5 ML 20X Inst : HP5
Misc : 1,20 S-86-12 Multiplr: 20.00
IntFile : autoint1.e
Quant Time: Oct 30 18:32 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.30	1105152	33.0737 ug/L ✓
Spiked Amount 30.000 Range 70 - 130 Recovery = 110.25%			
9) S BFB	16.43	2800957	31.1988 ug/L
Spiked Amount 30.000 Recovery = 104.00%			
13) S BCB	22.10	2764847	32.0219 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 106.74%			
Target Compounds			
1) TM MTBE	2.35	378058	419.3512 ug/L
2) TM Benzene	3.93	9311293	1691.3030 ug/L
4) TM Toluene	8.16	1942985	390.3998 ug/L
5) TM Chlorobenzene	12.74	1963542	359.3352 ug/L
6) TM Ethylbenzene	13.79	2024952	465.6944 ug/L
7) TM m-,p-Xylene	14.27	4680792	912.9157 ug/L
8) TM o-Xylene	15.35	2578339	575.0387 ug/L
10) TM 1,3-Dichlorobenzene	19.76	1668573	380.9331 ug/L
11) TM 1,4-Dichlorobenzene	19.93	1794733	384.7848 ug/L
12) TM 1,2-Dichlorobenzene	20.57	1526548	406.6879 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int. 203
5G10722.D 8021W.M Tue Oct 30 18:32:26 2001 Page 1

WG105716
1 67

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	20	12g09675.d	1.	WG105716-01 8021 STD1 1PPB 5ML DNR	1,1 S-84-(17,38)	3 Oct 2001 07:2
2	21	12g09676.d	1.	WG105716-01 8021 STD1 1PPB 5ML ✓	1,1 S-84-(17,38)	3 Oct 2001 07:5
3	22	12g09677.d	1.	WG105716-02 8021 STD2 10PPB... ✓	1,1 S-84-(17,38)	3 Oct 2001 08:3
4	23	12g09678.d	1.	WG105716-03 8021 STD3 20PPB... ✓	1,1 S-84-(17,38)	3 Oct 2001 09:0
5	24	12g09679.d	1.	WG105716-04 8021 STD4 50PPB... ✓	1,1 S-84-(17,38)	3 Oct 2001 09:3
6	25	12g09680.d	1.	WG105716-05 8021 STD5 100PP... ✓	1,1 S-84-(17,38)	3 Oct 2001 10:0
7	30	12g09681.d	1.	WG105716-06 8021 STD6 200PP... ✓	1,1 S-84-(17,38)	3 Oct 2001 10:3
8	31	12g09682.d	1.	WG105716-07 ALT SOURCE 20PP... ✓	1,1 S-(85-01,84-38)	3 Oct 2001 11:2
9	2	12g09683.d	100.	WG105767-01 EXT BLANK 10/03... ✓	7,100 S-84-38	3 Oct 2001 12:0
10	3	12g09684.d	100.	WG105767-01 EXT LCSK 10/03/... ✓	7,100 S-(85-01,84...	3 Oct 2001 12:3
11	20	12g09685.d	125.	L0109340-01 4.02G/10ML 125X ✓	7,125,RE S-84-38	3 Oct 2001 13:1
12	21	12g09686.d	1000.	L0109340-02 4.88G/10ML 1000X ✓	7,1000 S-84-38	3 Oct 2001 13:4
13	22	12g09687.d	900.	L0109360-04 5.49G/10ML 900X ✓ SSS only	7,900 S-84-38	3 Oct 2001 14:1
14	23	12g09688.d	80.	L0109360-05 6.08G/10ML 80X CONF SMI	7,80,RE S-84-38	3 Oct 2001 14:4
15	24	12g09689.d	85.	L0109360-06 5.88G/10ML 85X ✓	7,85 S-84-38	3 Oct 2001 15:2
16	25	12g09690.d	900.	L0109360-07 5.69G/10ML 900X RE @ 9000X	7,900 S-84-38	3 Oct 2001 15:5
17	30	12g09691.d	75.	L0109360-08 6.53G/10ML 75X SSS CONF ONLY	7,75 S-84-38	3 Oct 2001 16:2
18	31	12g09692.d	90.	L0109360-09 5.68G/10ML 90X HIGH SSS	7,90 S-84-38	3 Oct 2001 16:5
19	32	12g09693.d	1.	WG105716-09 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,84-38)	3 Oct 2001 17:2
20	15	12g09694.d	75.	L0109360-08 6.53G/10ML 75X HIGH SSS	7,75,RE S-84-38	3 Oct 2001 18:0
21	16	12g09695.d	90.	L0109360-09 5.68G/10ML 90X CONF SMI	7,90,RE S-84-38	3 Oct 2001 18:3
22	17	12g09696.d	900.	L0109360-07 5.69G/10ML 900X BAD PULLING	7,900,RE S-84-38	3 Oct 2001 19:0
23	18	12g09697.d	900.	L0109360-04 5.49G/10ML 900X ✓	7,900,RE S-84-38	3 Oct 2001 19:3
24	19	12g09698.d	500000.	L0110002-01 1G/10ML 500000X ✓	1,500000 S-84-38	3 Oct 2001 20:1
25	20	12g09699.d	500000.	L0110002-01 DUP 1G/10ML 500... ✓	1,500000 S-84-38	3 Oct 2001 20:4
26	21	12g09700.d	50000.	L0110002-01 1G/10ML 50000X ✓	1,50000 S-84-38	3 Oct 2001 21:1
27	22	12g09701.d	1.	RINSE	1,1 S-84-38	3 Oct 2001 21:4
28	23	12g09702.d	1.	WG105716-10 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,84-38)	3 Oct 2001 22:2

Directory: c:\hpchem\2\data\102001

Analyst: JKS

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g10672.d	1.	WG10 8021 STD 20PPB 5ML	1,1 S-85-(01,03)	26 Oct 101 13::0
2	2	5g10673.d	1.	WG107186-01 8021 STD1 1PPB 5ML DNR	1,1 S-85-38, S-86-08	26 Oct 101 12::1
3	3	5g10674.d	1.	WG107186-01 8021 STD1 1PPB 5ML	1,1 S-85-38, S-86-08	26 Oct 101 12::4
4	4	5g10675.d	1.	WG107186-02 8021 STD2 10PPB 5ML	1,1 S-85-38, S-86-08	26 Oct 101 12::2
5	5	5g10676.d	1.	WG107186-03 8021 STD3 20PPB 5ML	1,1 S-85-38, S-86-08	26 Oct 101 12::5
6	6	5g10677.d	1.	WG107186-04 8021 STD4 50PPB 5ML	1,1 S-85-38, S-86-08	26 Oct 101 12::2
7	7	5g10678.d	1.	WG107186-05 8021 STD5 100PPB 5ML	1,1 S-85-38, S-86-08	26 Oct 101 12::5
8	8	5g10679.d	1.	WG107186-06 8021 STD6 200PPB 5ML	1,1 S-85-38, S-86-08	26 Oct 101 12::3
9	9	5g10680.d	1.	WG107186-07 8021 ALT SOURCE 20PPB 5ML	1,1 S-85-01, S-86-08	26 Oct 101 12::0

Directory: C:\HPCHEM\2\DATA\102901

WG107231
1 256

ANALYST: CSL

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12g10002.d	1.	WG107220-01 8021 STD 20PPB 5ML	1,1 S-86-(13,08)	29 Oct 2001 10:2
2	1	12g10003.d	1.	WG107231-01 EXT BLANK 10/29...	7,100 S-86-08	29 Oct 2001 10:0
3	2	12g10004.d	1.	WG107231-02 EXT LCS 10/29/0...	7,100 S-86-08	29 Oct 2001 11:0
4	5	12g10005.d	1.	WG107231-03 L0110525-01 5G/...	7,100 S-86-08	29 Oct 2001 11:4
5	6	12g10006.d	1.	WG107231-04 L0110525-01 DUP...	7,100 S-86-08	29 Oct 2001 12:1
6	7	12g10007.d	1.	L0110526-01 5G/10ML 100uL 100X	7,100 S-86-08	29 Oct 2001 12:5
7	8	12g10008.d	1.	L0110526-03 5G/10ML 100uL 100X	7,100 S-86-08	29 Oct 2001 13:2
8	2	12g10009.d	1.	WG107220-02 8021 STD 20PPB 5ML ✓	1,1 S-86-(13,08)	29 Oct 2001 13:5
9	1	12g10010.d	1.	WG107256-01 WATER BLANK 5ML ✓	1,1 S-86-(13,08)	29 Oct 2001 14:3
10	2	12g10011.d	1.	WG107256-02 WATER LCS 20PPB... ✓	1,1 S-86-(13,08)	29 Oct 2001 15:1
11	5	12g10012.d	1.	L0110522-08 "A" 5ML pH<2 ✓	1,1 S-86-08	29 Oct 2001 15:5
12	6	12g10013.d	20.	L0110522-01 "A" 250uL 20X pH<2 ✓ @100x	1,20 S-86-08	29 Oct 2001 16:2
13	7	12g10014.d	1.	L0110522-02 "A" 5ML pH<2 ✓	1,1 S-86-08	29 Oct 2001 17:0
14	8	12g10015.d	1.	L0110522-02 MS "A" 5ML pH<2 ✓	1,1 S-86-(13,08)	29 Oct 2001 17:3
15	11	12g10016.d	1.	L0110522-02 MSD "A" 5ML pH<2 ✓	1,1 S-86-(13,08)	29 Oct 2001 18:0
16	12	12g10017.d	100.	L0110522-03 "A" 50uL pH<2 100X ✓	1,100 S-86-08	29 Oct 2001 18:3
17	13	12g10018.d	1.	L0110522-04 "A" 5ML pH<2 ✓	1,1 S-86-08	29 Oct 2001 19:1
18	14	12g10019.d	1.	L0110522-05 "A" 5ML pH<2 ✓	1,1 S-86-08	29 Oct 2001 19:4
19	15	12g10020.d	1.	WG107220-03 8021 STD 20PPB 5ML ✓	1,1 S-86-(13,08)	29 Oct 2001 20:1
20	16	12g10021.d	1.	L0110522-06 "A" 5ML pH<2	1,1 S-86-08	29 Oct 2001 20:4

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Directory: c:\hpchem\2\data\103001

WG107288

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g10709.d	1.	WG107287-01 8021 STD 20PPB 5ML ✓	1,1S-86-(13,12)	30 Oct 101 12::0
2	2	5g10710.d	1.	WG107288-01 WATER BLANK 5ML CONT	1,1S-86-(13,12)	30 Oct 101 12::1
3	3	5g10711.d	1.	RINSE 5ML ✓	1,1 S-86-12	30 Oct 101 13::5
4	4	5g10712.d	1.	RINSE 5ML ✓	1,1 S-86-12	30 Oct 101 13::3
5	5	5g10713.d	1.	RINSE 5ML ✓	1,1 S-86-12	30 Oct 101 13::2
6	6	5g10714.d	1.	RINSE 5ML ✓	1,1 S-86-12	30 Oct 101 12::0
7	1	5g10715.d	1.	WG107287-01 8021 STD 20PPB 5ML ✓	1,1S-86-(13,12)	30 Oct 101 12::5
8	2	5g10716.d	1.	WG107288-01 WATER BLANK 5ML ✓	1,1S-86-12	30 Oct 101 12::3
9	3	5g10717.d	1.	WG107288-02 WATER LCS 20PPB 5ML ✓	1,1S-86-(13,12)	30 Oct 101 12::0
10	1	5g10718.d	100.	L0110522-01 B 500uL 100X 5ML pH<2 ✓	1,100 S-86-12	30 Oct 101 12::5
11	2	5g10719.d	1.	L0110522-06 B 5ML pH<2 ✓	1,1 S-86-12	30 Oct 101 12::2
12	3	5g10720.d	20.	L0110522-07 B 2.5 ML 20X 5ML pH<2 ✓	1,20 S-86-12	30 Oct 101 12::5
13	4	5g10721.d	20.	WG107288-03 L0110522-07 B MS 2.5 ML 20X ✓	1,20 S-86-12	30 Oct 101 12::3
14	5	5g10722.d	20.	WG107288-04 L0110522-07 B MSD 2.5 ML 20 ✓	1,20 S-86-12	30 Oct 101 12::0
15	6	5g10723.d	1.	L0110522-09 B 5ML pH<2 ✓	1,1 S-86-12	30 Oct 101 12::3
16	7	5g10724.d	1.	L0110522-10 B 5ML pH<2 ✓	1,1 S-86-12	30 Oct 101 12::1
17	8	5g10725.d	1.	WG107287-02 8021 STD 20PPB 5ML ✓	1,1 S-86-(13,12)	30 Oct 101 12::4
18	9	5g10726.d	1.	L0110577-01 A 5ML ✓	1,1 S-86-12	30 Oct 101 12::1
19	10	5g10727.d	1.	L0110577-02 A 5ML ✓	1,1 S-86-12	30 Oct 101 12::4
20	11	5g10728.d	10.	L0110577-03 5ML 10X A 5ML RR STRT	1,10 S-86-12	30 Oct 101 12::2
21	12	5g10729.d	100.	L0110577-04 500uL 100X A 5ML ✓	1,100 S-86-12	30 Oct 101 12::5
22	13	5g10730.d	1.	L0110577-05 A 5ML ✓	1,1 S-86-12	30 Oct 101 13::2
23	14	5g10731.d	50.	L0110577-06 1ML 50X A 5ML ✓	1,50 S-86-12	30 Oct 101 13::5
24	15	5g10732.d	100.	L0110577-07 500uL 100X A 5ML ✓	1,100 S-86-12	30 Oct 101 13::3
25	16	5g10733.d	50.	L0110577-08 1ML 50X A 5ML ✓ RR @ 100X	1,50 S-86-12	31 Oct 101 13::0
26	17	5g10734.d	1.	L0110577-09 A 5ML ✓	1,1 S-86-12	31 Oct 101 13::3
27	18	5g10735.d	1.	L0110577-10 A 5ML ✓	1,1 S-86-12	31 Oct 101 12::0
28	19	5g10736.d	1.	WG107287-03 8021 STD 5ML ✓	1,1 S-86-(13,12)	31 Oct 101 12::4

REANALYSIS

L0110577-03
⊥ -08

FILE #

207

2.2 Semivolatiles Data

2.2.5 DRO GC DATA (8015)

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No .: L0110522

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8015

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD results were not associated with the sample delivery group .

SAMPLES

Samples: Sample fraction -01 required dilution analysis to obtain the results within the linear range of an instrument .
Surrogates: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: HV REVIEWED: DATE: 1/9/01

Rev. 7/14/00

Date: [illegible]
Analyst: HV
Method: 8015 - PRO-water 10522 (1-9) level 4
Instrument: HP9
Work Group: WG 107151

	Analyst
System Performance Check	✓
Endrin & DDT Breakdown	NA
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	
Second Source Standard % Difference	
Check Standards	✓
Project / Client Specific Requirements	
Special Standards	
Blanks	✓
TCL's	
Surrogates	
LCS (Laboratory Control Sample)	✓
Recoveries	
Surrogates	
MS / MSD / Duplicates	NA
Samples	✓
TCL Hits	
Surrogates	
Calculations & Correct Factors	
Dilutions Run	✓
Reruns	✓
Check Sample Histories	
Ending Check Standards	✓
Excel Spreadsheets	✓
Case Narrative	
Corrective Action	
Results Reporting / Data Qualifiers	
WorkGroups Traceability	
Client Data Package Assembly	
Check for Completeness	

Primary Reviewer Initials & Date Checked HV 10/30/01

Secondary Reviewer Initials & Date Checked [illegible] 10/31/01

- Check for compliance with Method and project-specific requirements
- Check the completeness of the reported information
- Check the information for the report narrative
- Check the reasonableness of results

Supervisory Review Initials & Date Checked [illegible] 10/31/01

Comments: sample 522-01 required to run at 10X dilution due to out of range results and the surr. for this sample was flagged DL

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

DRO-GC DATA (8015)

Login Number: L0110522

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

✓ Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data)

✓ Chromatograms and external standard reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and external standard reports (chronological)

NA Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

NA Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

✓ Extraction bench sheets

Checked By: HV Date: 11/5/01

2.2.5.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP :	WG107151	EXT DATE :	10-25-01	RUN DATE :	10-29-01	INSTRUMENT :	HP2
METHOD :	8015-PRO	EXT BENCH SHEET :	V174-P121	SMPL ID :	NA	Analyst:	HV
MATRIX :	WATER	BLK FILENAME :	2G16184	SMPL FLNM :	NA		
CONCENTRATION UNITS :	ug / l	LCS FILENAME :	2G16185	MS FLNM :	NA		
PREP WORK GRP :	WG107094	LCS DUP FILENAME :	2G16186	MSD FLNM :	NA		

ANALYTE	CONCENTRATION , ug / L									PERCENT RECOVERY , %										PERCENT		
	RDL	BLANK	LCS SPIKE ADDED	LCS	LCS DUP	SAMPLE	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS DUP	LCS LCL	LCS ULC	SAMPLE	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL
PRO (C8 - C40)	500	ND	3400	2207	2403	NA	3400	NA	NA	NA	64.9	70.7	55	118	NA	NA	NA	41	101	9	NA	20
SURROGATE																						
o-TERPHENYL		13.2	20	19.6	21.8	NA	20	NA	NA	65.9	98.1	109	49	174	NA	NA	NA	49	174	11	NA	20

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

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2.2.5.2 Sample Data

Data File : C:\HPCHEM\1\DATA\102901\2G16187.D Vial: 4
Acq On : 29 Oct 2001 15:31 Operator: HV
Sample : L0110522-01 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.07
IntFile : PETRO.E
Quant Time: Oct 30 8:45 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 08:44:15 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.84	431023	20.865 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	104.33%
3) s n-Nonatriacontane	7.46	320	0.034 ppm
Spiked Amount 20.000		Recovery =	0.17%
Target Compounds			
1) H Petroleum Range	3.59	703296780	43595.694 ppb

NED

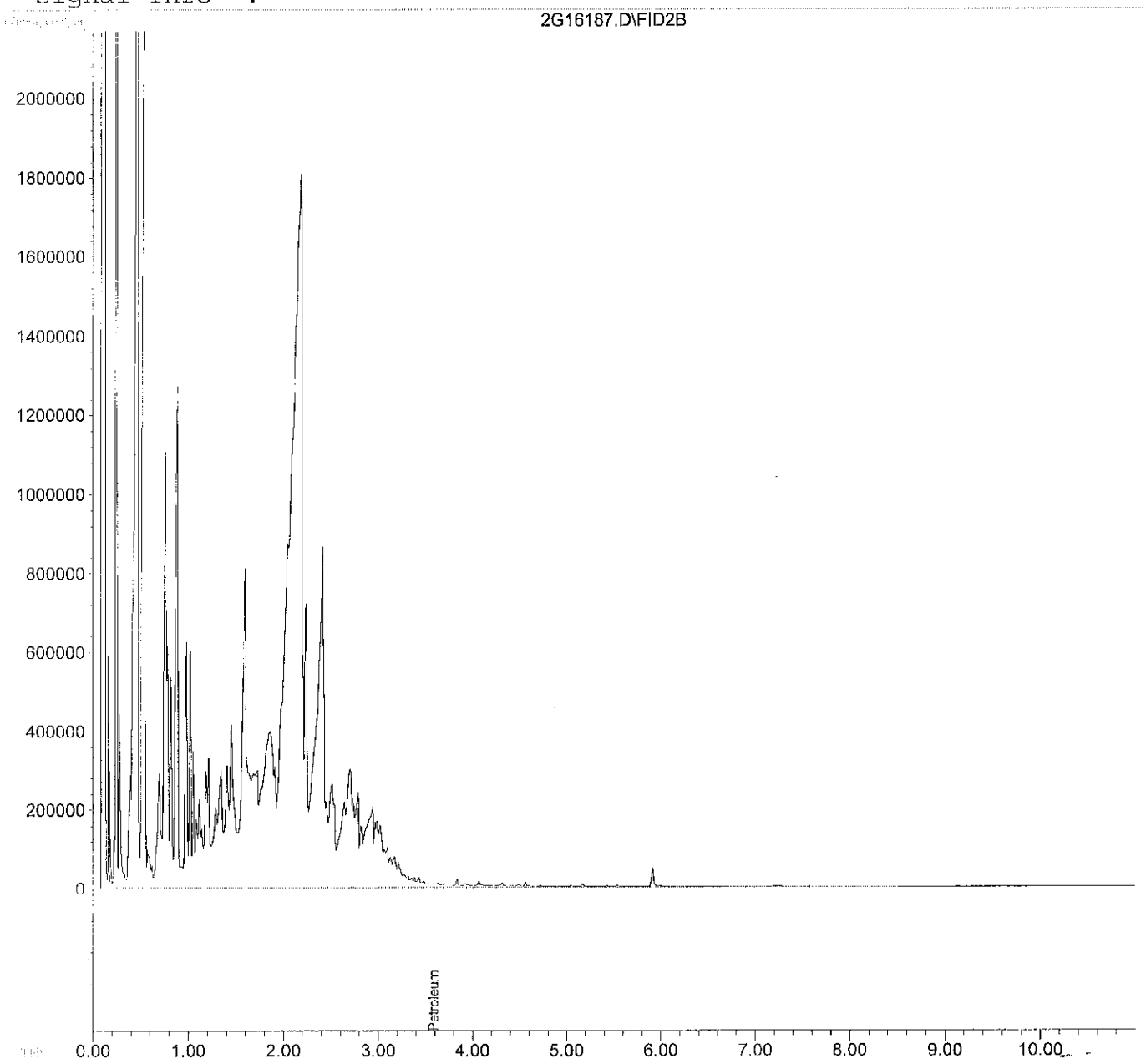
216

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16187.D FLASHPRO.M Tue Oct 30 09:31:22 2001 Page 1

Data File : C:\HPCHEM\1\DATA\102901\2G16187.D Vial: 4
Acq On : 29 Oct 2001 15:31 Operator: HV
Sample : L0110522-01 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.07
IntFile : PETRO.E
Quant Time: Oct 30 8:45 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 08:44:15 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



217

```
Data File : C:\HPCHEM\1\DATA\102901\2G16199.D            Vial: 16
Acq On    : 29 Oct 2001  18:42                       Operator: HV
Sample    : L0110522-01 10X PRO water                Inst    : hp2
Misc      : 1,1  water                               Multiplr: 10.70
IntFile   : PETRO.E
Quant Time: Oct 30  8:54 2001  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 10/26/01
Last Update  : Tue Oct 30 08:50:41 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                        R.T.       Response    Conc Units
-----------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                  3.86          70085    3.393 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    =   16.97%#
 3) s   n-Nonatriacontane            7.58             60    0.006 ppm
Spiked Amount   20.000                   Recovery      =    0.03%

  Target Compounds
 1) H   Petroleum Range              3.68       92502845 57340.312 ppb
```

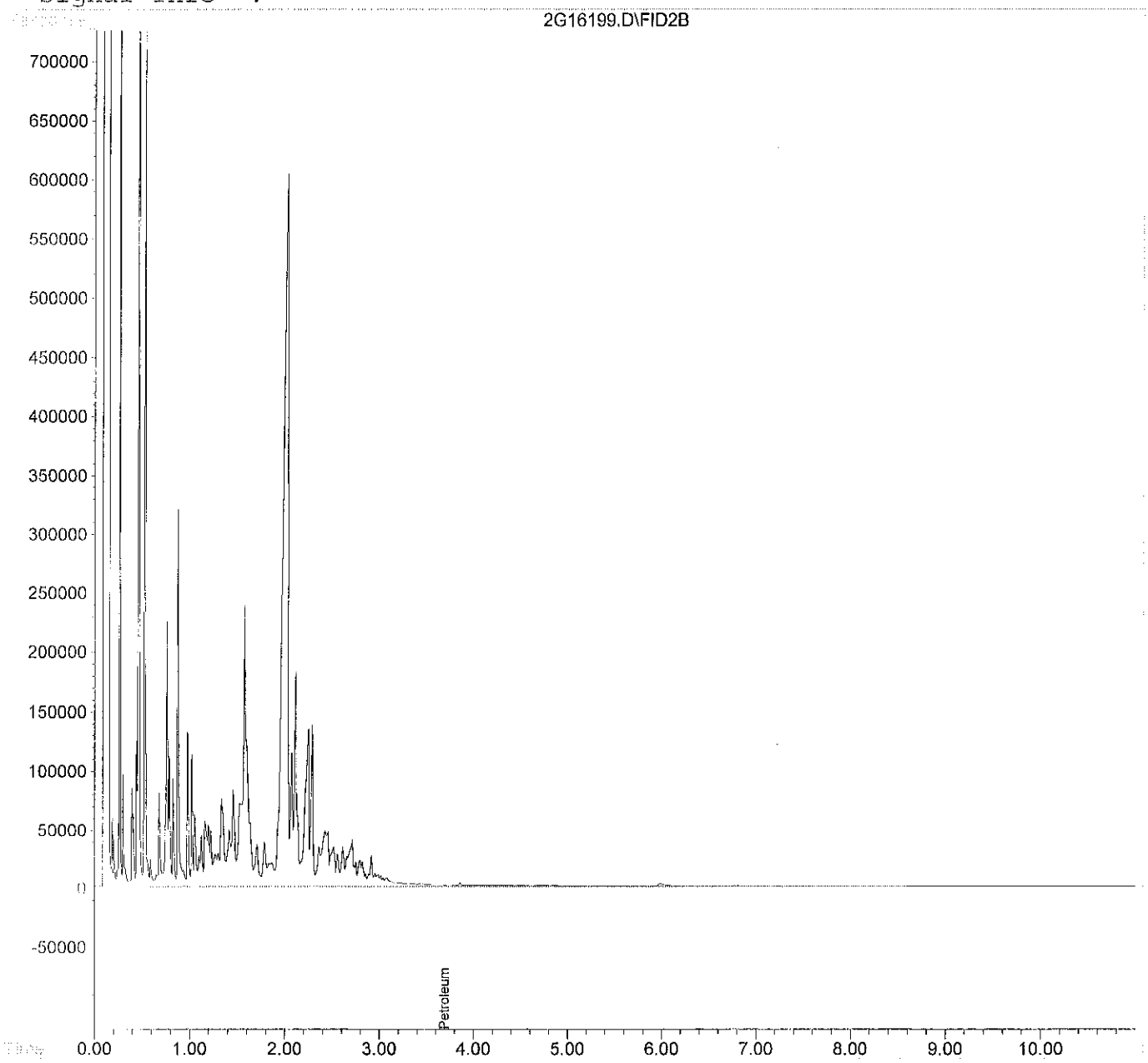
218

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\102901\2G16199.D Vial: 16
Acq On : 29 Oct 2001 18:42 Operator: HV
Sample : L0110522-01 10X PRO water Inst : hp2
Misc : 1,1 water Multiplr: 10.70
IntFile : PETRO.E
Quant Time: Oct 30 8:54 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 08:50:41 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

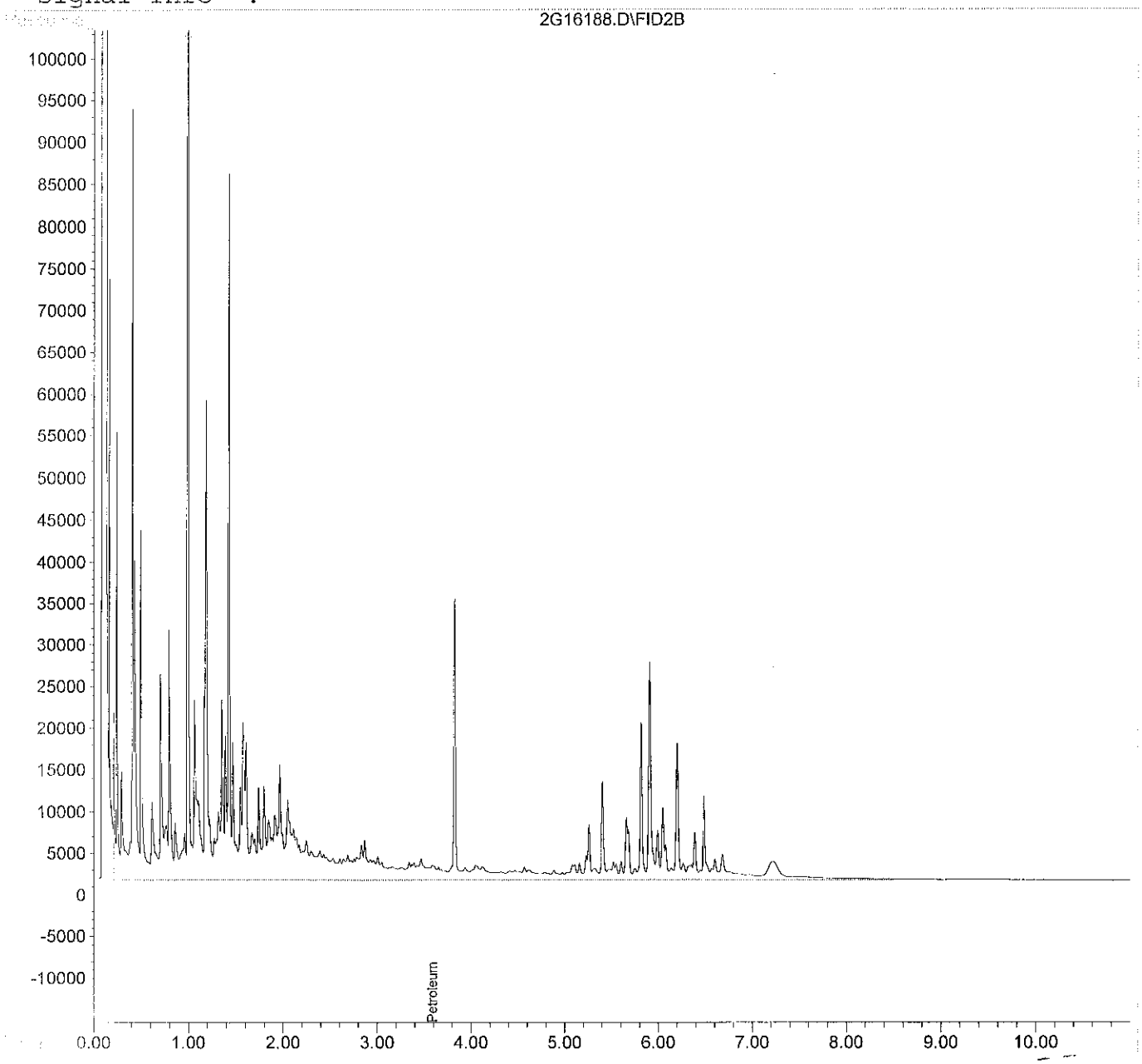


```
Data File : C:\HPCHEM\1\DATA\102901\2G16188.D            Vial: 5
Acq On    : 29 Oct 2001  15:47                       Operator: HV
Sample    : L0110522-02 PRO water                    Inst    : hp2
Misc      : 1,1  water                               Multiplr: 1.04
IntFile   : PETRO.E
Quant Time: Oct 30  8:46 2001  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 10/26/01
Last Update  : Tue Oct 30 08:45:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                        R.T.       Response    Conc Units
---------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                  3.82         442719   21.431 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    =  107.16%
 3) s   n-Nonatriacontane            7.48           6315    0.665 ppm
Spiked Amount   20.000                    Recovery      =    3.33%

  Target Compounds
 1) H   Petroleum Range              3.59       16625298 1001.668 ppb
```

Data File : C:\HPCHEM\1\DATA\102901\2G16188.D Vial: 5
Acq On : 29 Oct 2001 15:47 Operator: HV
Sample : L0110522-02 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Oct 30 8:46 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 08:45:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\102901\2G16189.D Vial: 6
Acq On : 29 Oct 2001 16:02 Operator: HV
Sample : L0110522-03 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Oct 30 8:46 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 08:45:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

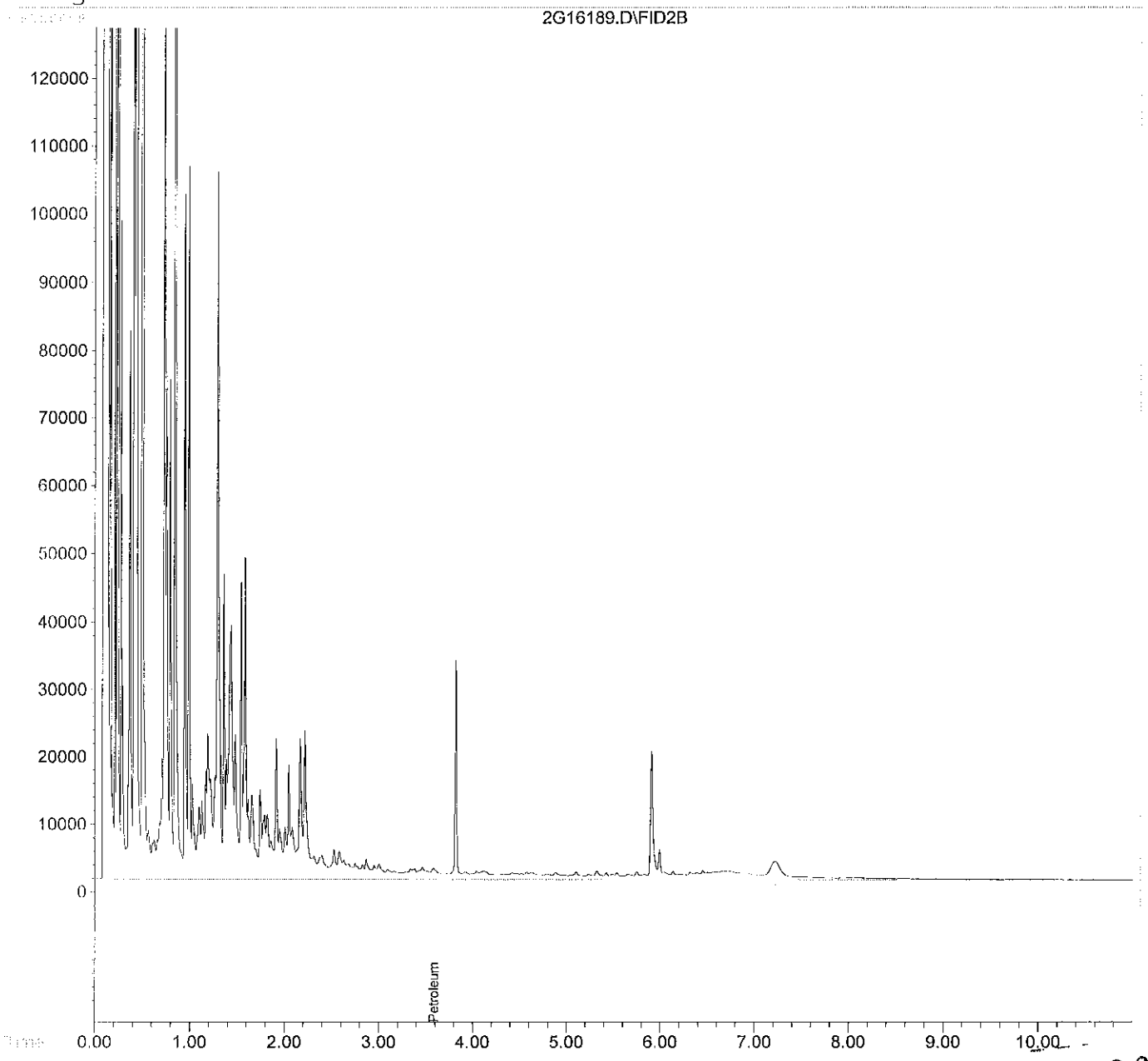
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.82	413509	20.017 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 100.09%			
3) s n-Nonatriacontane	7.48	1974	0.208 ppm
Spiked Amount 20.000 Recovery = 1.04%			
Target Compounds			
1) H Petroleum Range	3.59	48900703	2946.250 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16189.D FLASHPRO.M Tue Oct 30 09:31:42 2001 Page 1

Data File : C:\HPCHEM\1\DATA\102901\2G16189.D Vial: 6
Acq On : 29 Oct 2001 16:02 Operator: HV
Sample : L0110522-03 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Oct 30 8:46 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 08:45:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



223

Data File : C:\HPCHEM\1\DATA\102901\2G16193.D Vial: 10
Acq On : 29 Oct 2001 17:10 Operator: HV
Sample : L0110522-04 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.06
IntFile : PETRO.E
Quant Time: Oct 30 8:09 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

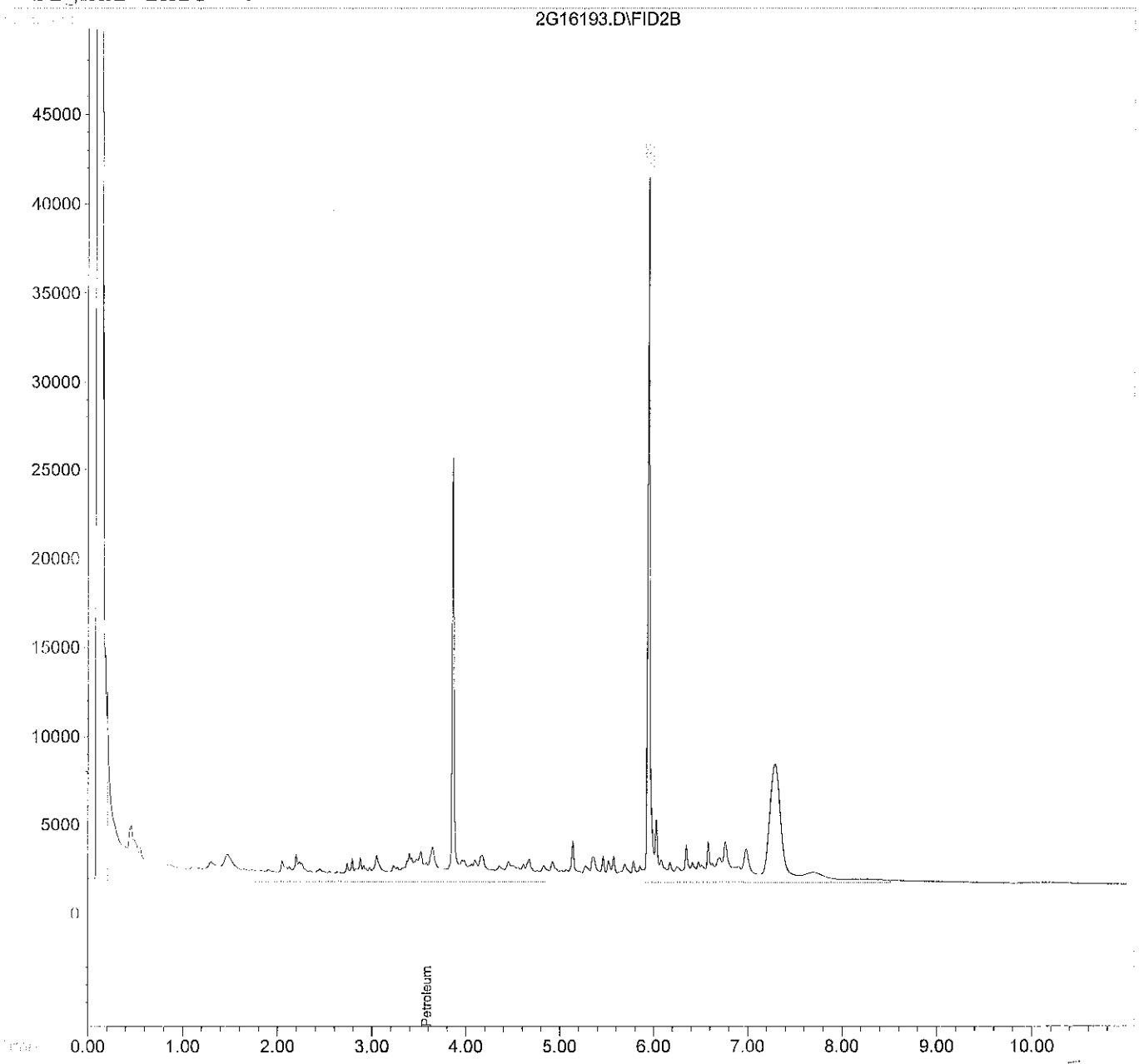
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s o-Terphenyl	3.86	331212	16.033 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 80.17%			
3) s n-Nonatriacontane	7.53	5073	0.534 ppm
Spiked Amount 20.000 Recovery = 2.67%			
Target Compounds			
1) H Petroleum Range	3.59	3008533	184.749 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16193.D FLASHPRO.M Tue Oct 30 08:09:23 2001 Page 1

Data File : C:\HPCHEM\1\DATA\102901\2G16193.D Vial: 10
Acq On : 29 Oct 2001 17:10 Operator: HV
Sample : L0110522-04 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.06
IntFile : PETRO.E
Quant Time: Oct 30 8:09 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\102901\2G16194.D Vial: 11
Acq On : 29 Oct 2001 17:26 Operator: HV
Sample : L0110522-05 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Oct 30 8:52 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 08:50:41 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

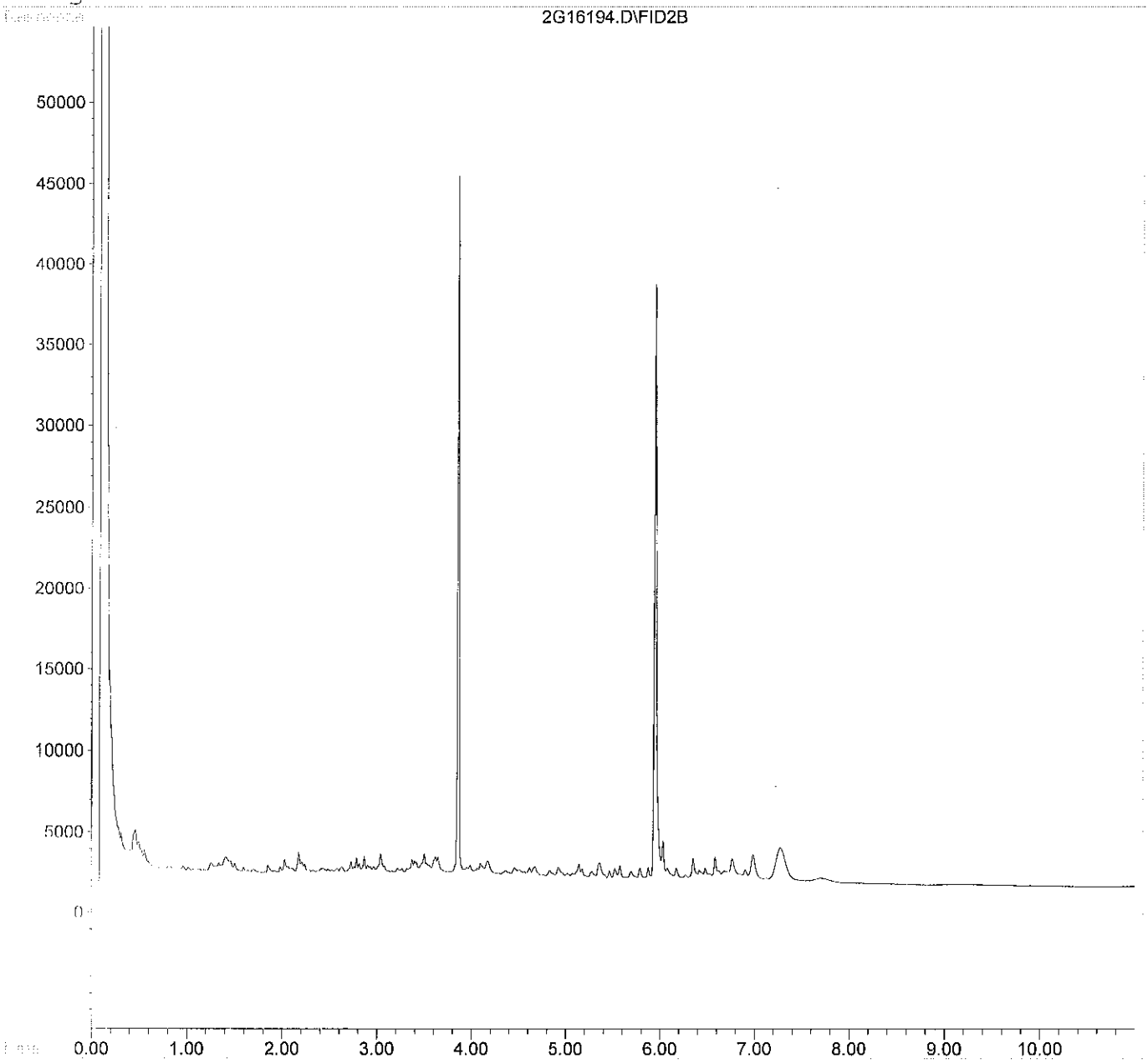
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s o-Terphenyl	3.86	495143	23.969 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 119.85%			
3) s n-Nonatriacontane	7.54	3321	0.350 ppm
Spiked Amount 20.000 Recovery = 1.75%			
Target Compounds			
1) H Petroleum Range	3.68	2456653	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16194.D FLASHPRO.M Tue Oct 30 08:52:30 2001 Page 1

Data File : C:\HPCHEM\1\DATA\102901\2G16194.D Vial: 11
Acq On : 29 Oct 2001 17:26 Operator: HV
Sample : L0110522-05 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Oct 30 8:52 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 08:50:41 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\102901\2G16195.D Vial: 12
Acq On : 29 Oct 2001 17:41 Operator: HV
Sample : L0110522-06 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Oct 30 8:52 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 08:50:41 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

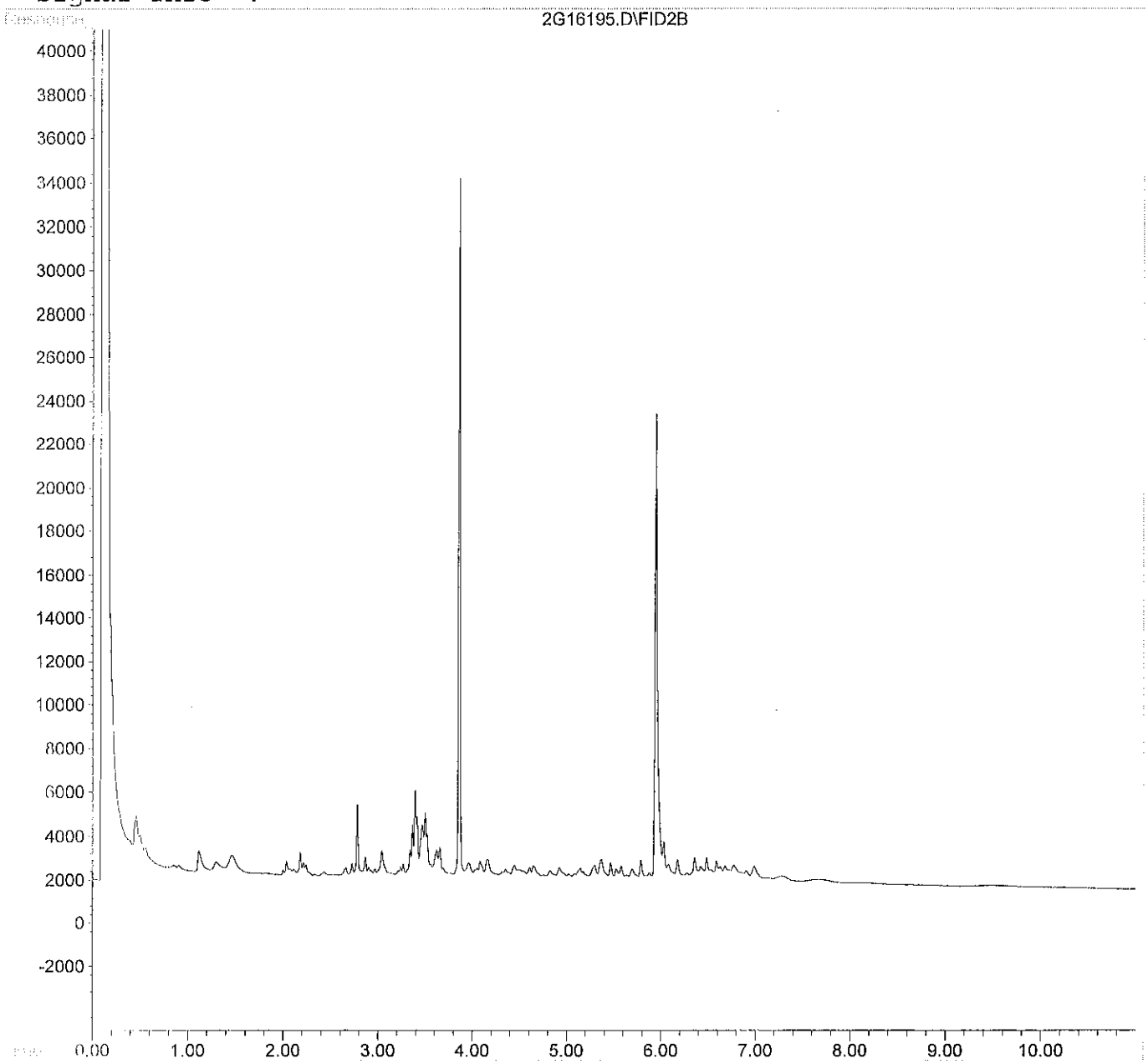
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.86	354903	17.180 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 85.90%			
3) s n-Nonatriacontane	7.58	2393	0.252 ppm
Spiked Amount 20.000 Recovery = 1.26%			
Target Compounds			
1) H Petroleum Range	3.68	1628210	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16195.D FLASHPRO.M Tue Oct 30 08:52:41 2001 Page 1

Data File : C:\HPCHEM\1\DATA\102901\2G16195.D Vial: 12
Acq On : 29 Oct 2001 17:41 Operator: HV
Sample : L0110522-06 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Oct 30 8:52 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 08:50:41 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\102901\2G16196.D Vial: 13
Acq On : 29 Oct 2001 17:57 Operator: HV
Sample : L0110522-07 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Oct 30 8:52 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 08:50:41 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

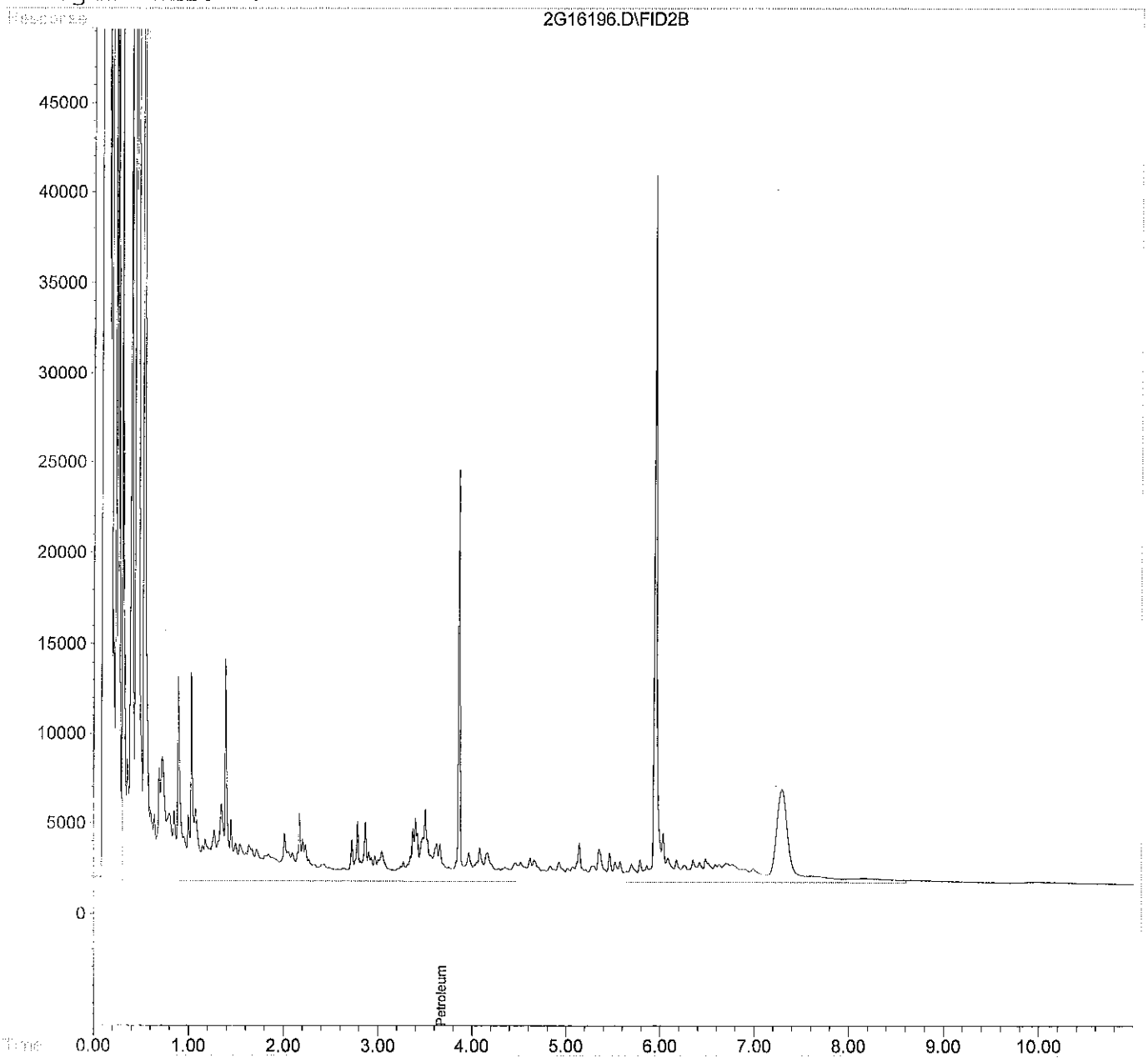
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.86	290905	14.082 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	70.41%
3) s n-Nonatriacontane	7.58	2012	0.212 ppm
Spiked Amount 20.000		Recovery =	1.06%
Target Compounds			
1) H Petroleum Range	3.68	12876588	783.270 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16196.D FLASHPRO.M Tue Oct 30 09:41:10 2001 Page 1

Data File : C:\HPCHEM\1\DATA\102901\2G16196.D Vial: 13
Acq On : 29 Oct 2001 17:57 Operator: HV
Sample : L0110522-07 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Oct 30 8:52 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 08:50:41 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



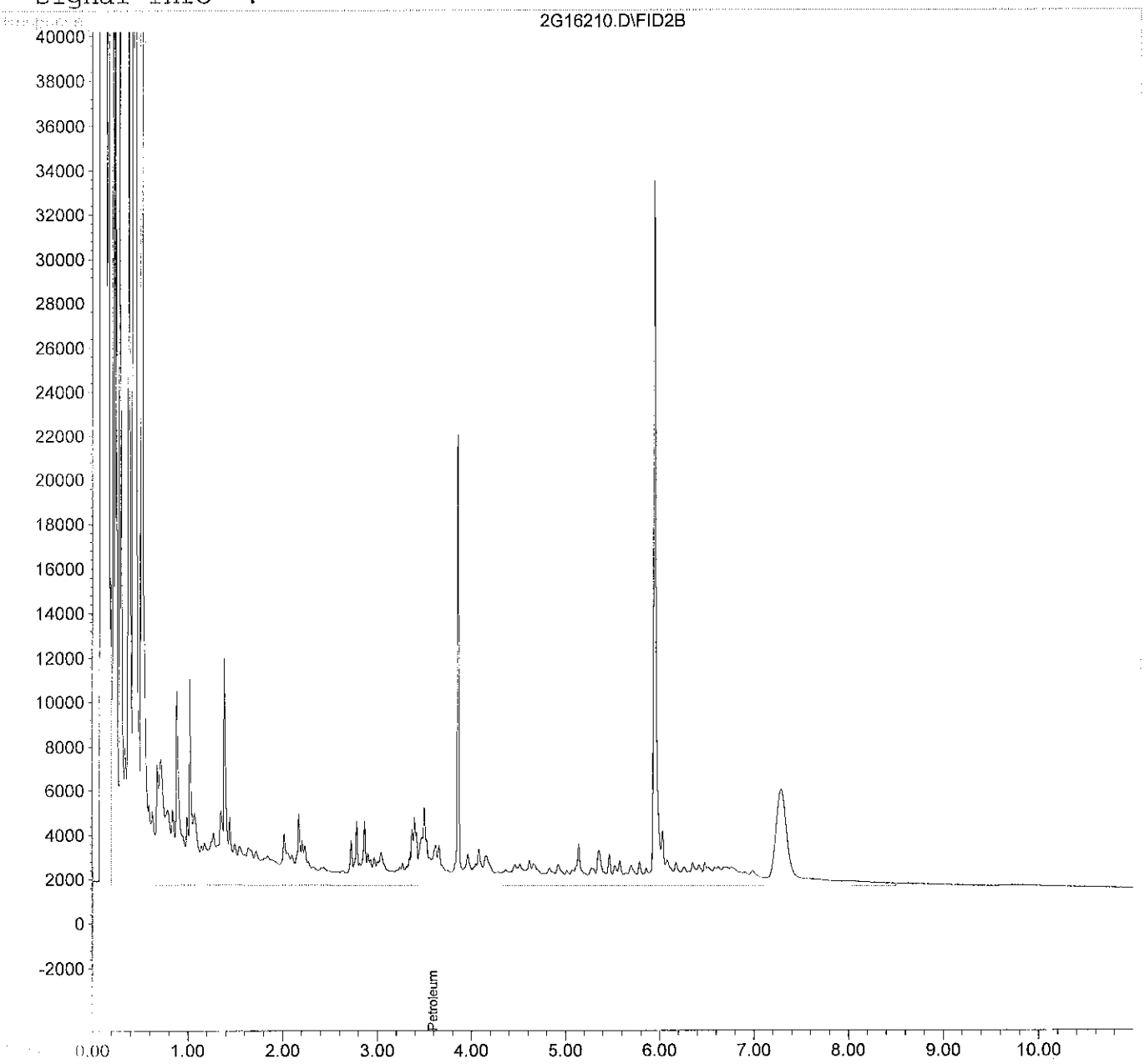
```
Data File : C:\HPCHEM\1\DATA\103001\2G16210.D            Vial: 4
Acq On    : 30 Oct 2001  10:11                       Operator: HV
Sample    : L0110522-07 PRO water                    Inst    : hp2
Misc      : 1,1  water                               Multiplr: 1.05
IntFile   : PETRO.E
Quant Time: Oct 30 11:12 2001  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 10/26/01
Last Update  : Tue Oct 30 11:11:44 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                        R.T.       Response    Conc Units
---------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                  3.86         229420   11.106 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    =   55.53%
 3) s   n-Nonatriacontane            7.59           1416    0.149 ppm
Spiked Amount   20.000                    Recovery      =    0.75%

  Target Compounds
 1) H   Petroleum Range              3.58       11775008  716.262 ppb
```

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\103001\2G16210.D Vial: 4
Acq On : 30 Oct 2001 10:11 Operator: HV
Sample : L0110522-07 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Oct 30 11:12 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 11:11:44 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2G16210.D FLASHPRO.M Tue Oct 30 12:13:10 2001 Page 2

Data File : C:\HPCHEM\1\DATA\102901\2G16197.D Vial: 14
Acq On : 29 Oct 2001 18:12 Operator: HV
Sample : L0110522-08 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.08
IntFile : PETRO.E
Quant Time: Oct 30 8:53 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 08:50:41 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

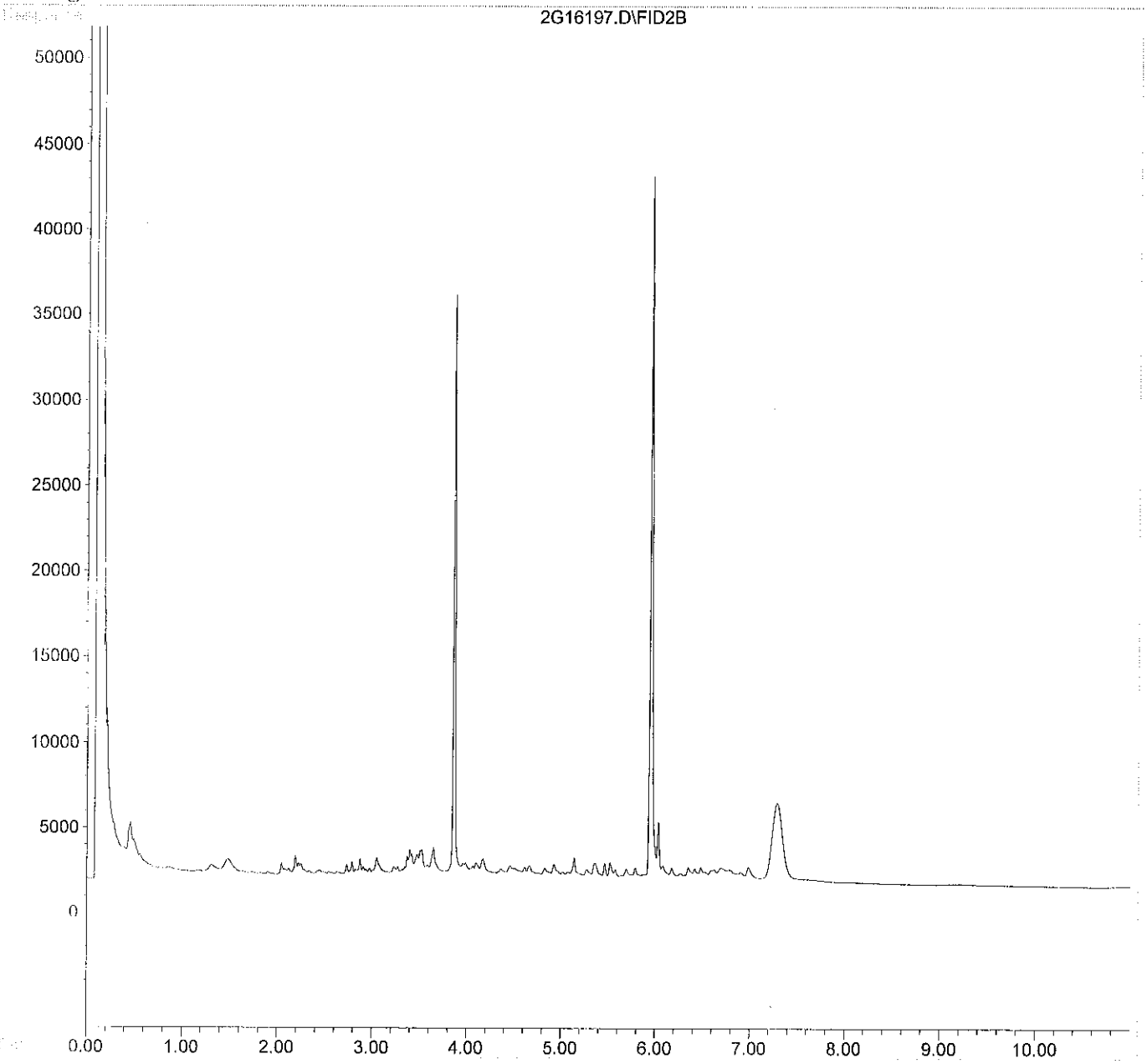
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.86	474536	22.971 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 114.86%			
3) s n-Nonatriacontane	7.55	30328	3.195 ppm
Spiked Amount 20.000 Recovery = 15.98%			
Target Compounds			
1) H Petroleum Range	3.68	2545138	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16197.D FLASHPRO.M Tue Oct 30 09:41:22 2001 Page 234

Data File : C:\HPCHEM\1\DATA\102901\2G16197.D Vial: 14
Acq On : 29 Oct 2001 18:12 Operator: HV
Sample : L0110522-08 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.08
IntFile : PETRO.E
Quant Time: Oct 30 8:53 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 08:50:41 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\102901\2G16198.D Vial: 15
Acq On : 29 Oct 2001 18:27 Operator: HV
Sample : L0110522-09 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.08
IntFile : PETRO.E
Quant Time: Oct 30 8:54 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 08:50:41 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

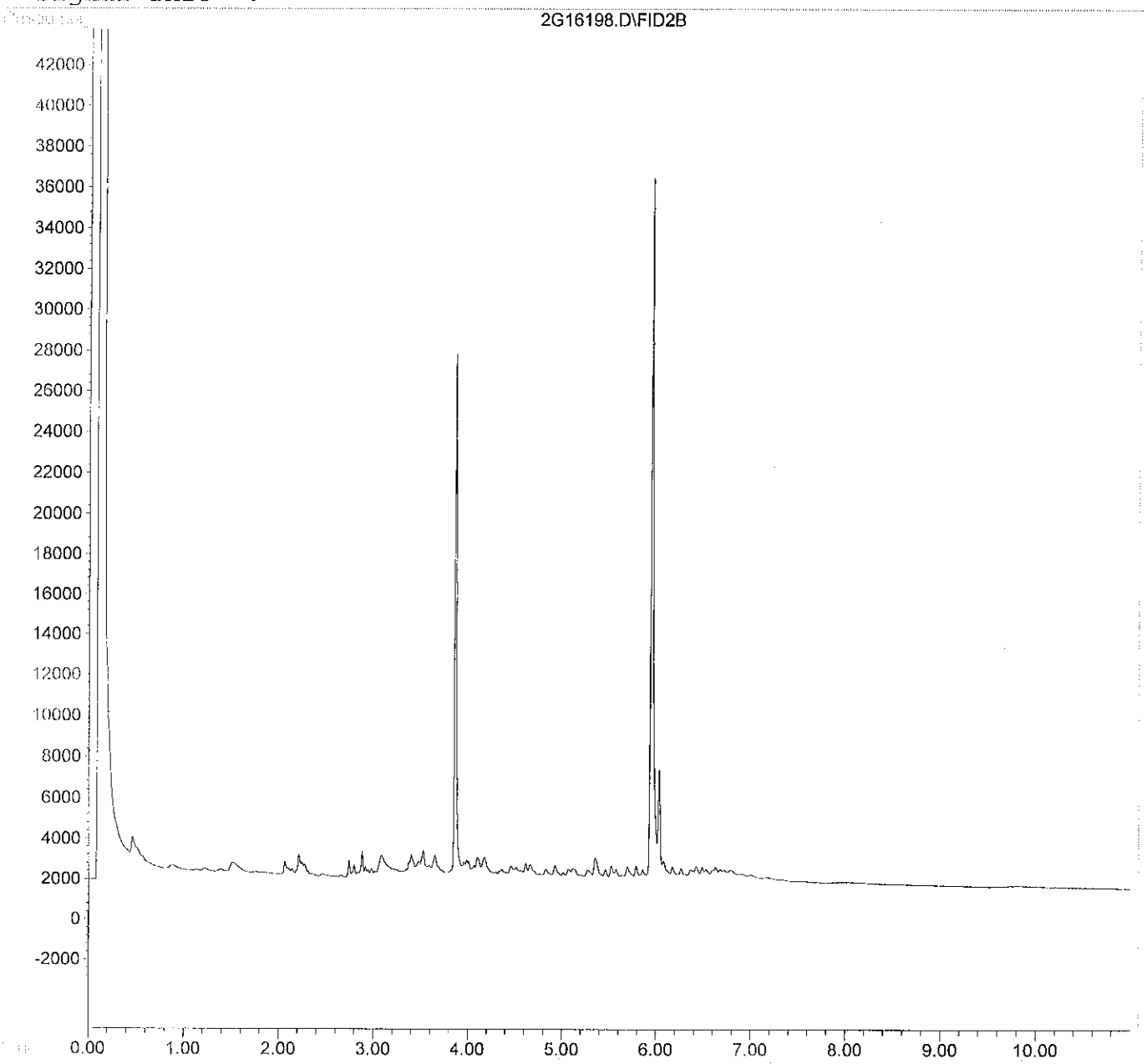
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.86	382550	18.518 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 92.59%			
3) s n-Nonatriacontane	7.55	14610	1.539 ppm
Spiked Amount 20.000 Recovery = 7.69%			
Target Compounds			
1) H Petroleum Range	3.68	2255040	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int
2G16198.D FLASHPRO.M Tue Oct 30 08:54:44 2001 Page 1

Data File : C:\HPCHEM\1\DATA\102901\2G16198.D Vial: 15
Acq On : 29 Oct 2001 18:27 Operator: HV
Sample : L0110522-09 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.08
IntFile : PETRO.E
Quant Time: Oct 30 8:54 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 08:50:41 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2.2.5.3 Standards Data

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Fri Sep 28 14:40:54 2001

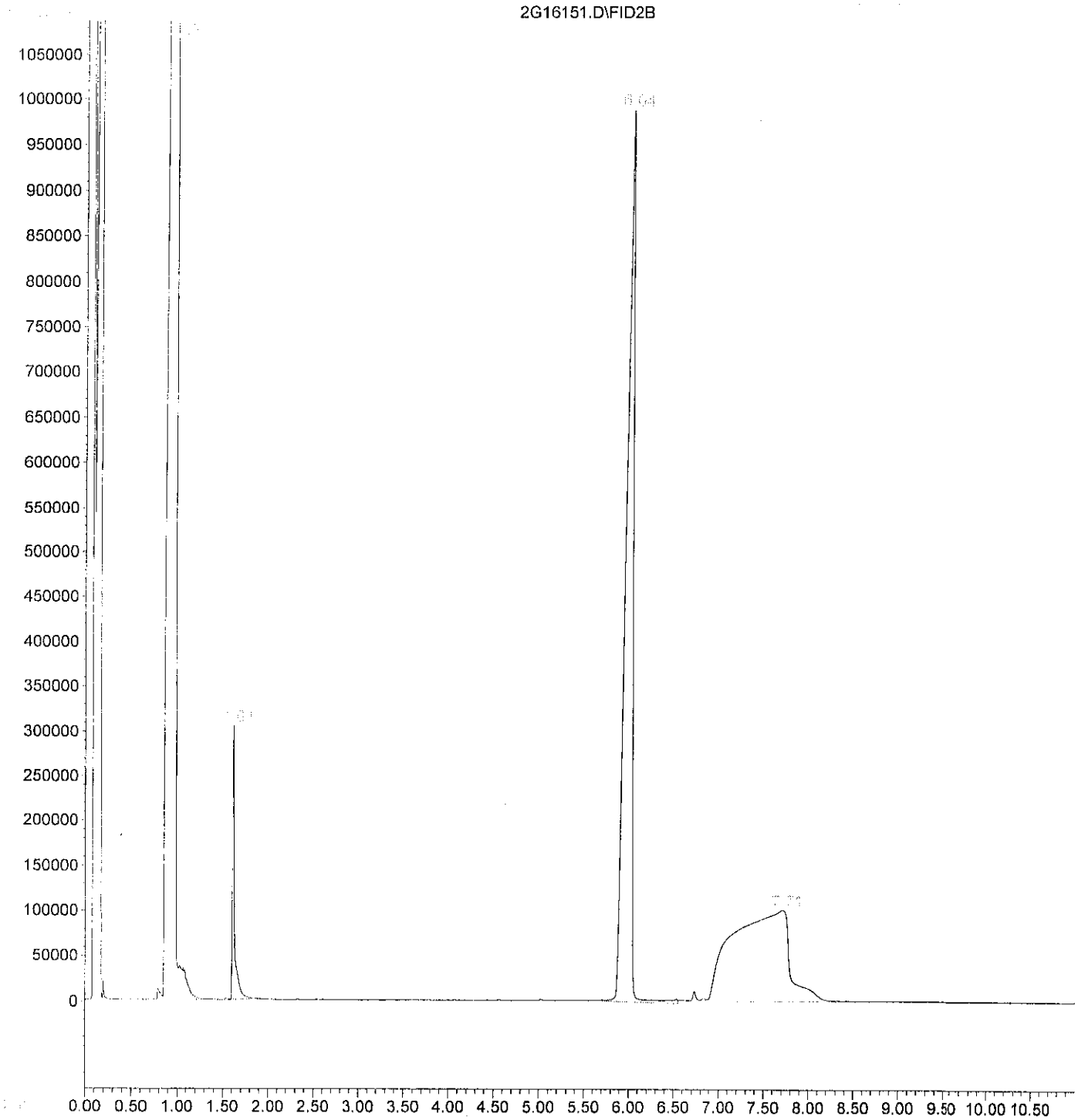
Calibration Files

5	=2G16158.D	50	=2G16157.D	100	=2G16156.D
200	=2G16155.D	400	=2G16154.D	600	=2G16153.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	1.653	1.947	1.874	1.761	1.571	1.550	1.726	E4	9.42
2)	s	O-Terphenyl	2.298	2.364	2.214	2.053	1.744	1.720	2.066	E4	13.49
3)	s	n-Nonatriacontane	1.020	1.003	0.959	1.044	0.799	0.871	0.949	E4	10.07

(#) = Out of Range

File : C:\HPCHEM\1\DATA\102601\2G16151.D
Operator : HV
Acquired : 26 Oct 2001 9:10 using AcqMethod FLASHPRO.M
Instrument : hp2
Sample Name: WIN DEF STD
Misc Info : 1,1 NS 13-45
Vial Number: 2



240

Acq On : 26 Oct 2001 10:11 Operator: HV
Sample : WG107152-01 PRO STD 600ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 11:39 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri Oct 26 09:10:34 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) s O-Terphenyl	3.82	10320196	504.971	ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 2524.86%#				
3) s n-Nonatriacontane	7.44f	5223993	660.011	ppm m
Spiked Amount 20.000 Recovery = 3300.06%				
Target Compounds				
1) H Petroleum Range	3.59	158124863	9681.982	ppb

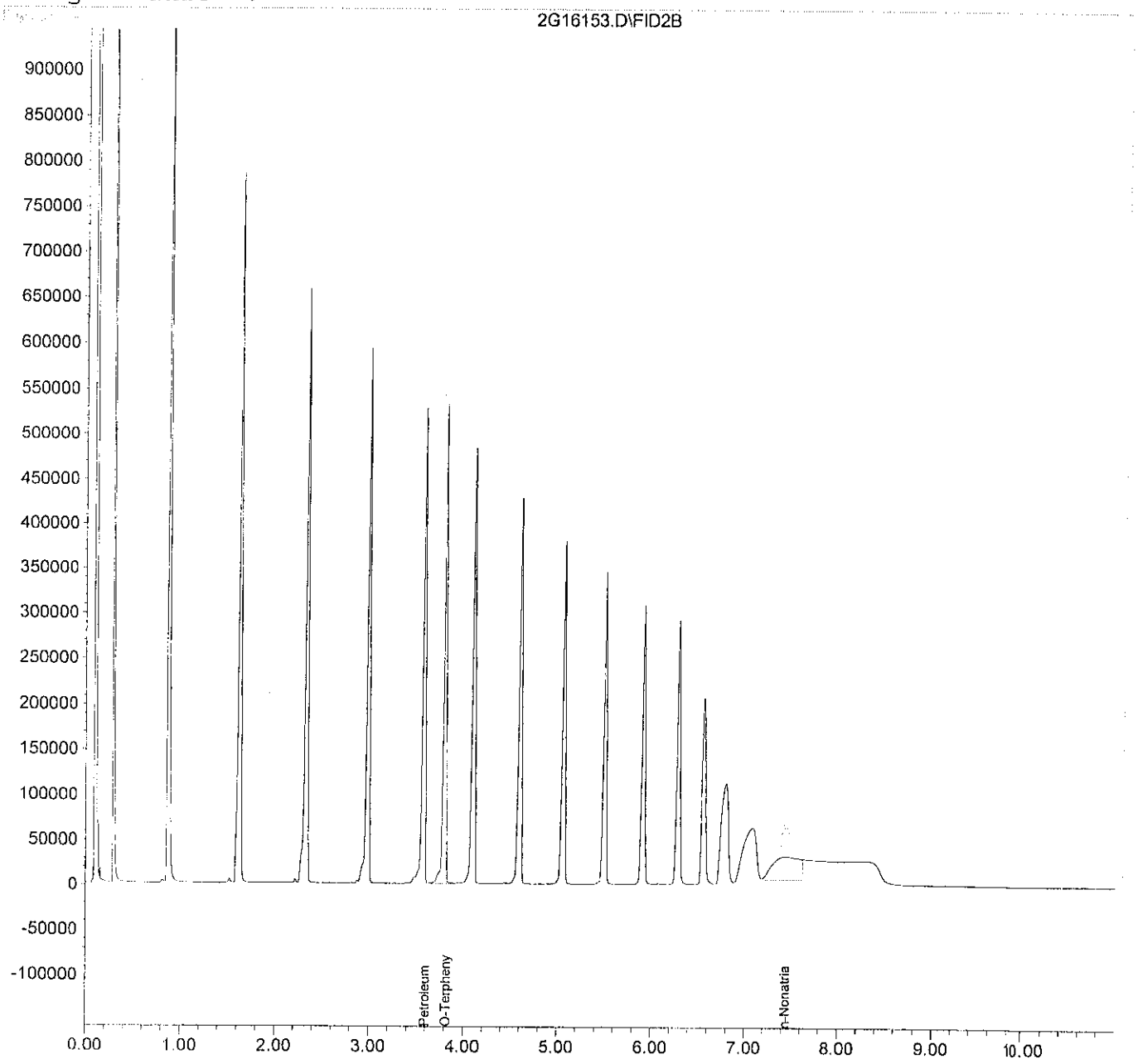
(f)=RT Delta > 1/2 Window (m)=manual int.
2G16153.D FLASHPRO.M Fri Oct 26 11:48:21 2001 Page 1

Acq On : 26 Oct 2001 10:11
Sample : WG107152-01 PRO STD 600ppm
Misc : 1,1 SOS 56-21
IntFile : PETRO.E
Quant Time: Oct 26 11:39 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

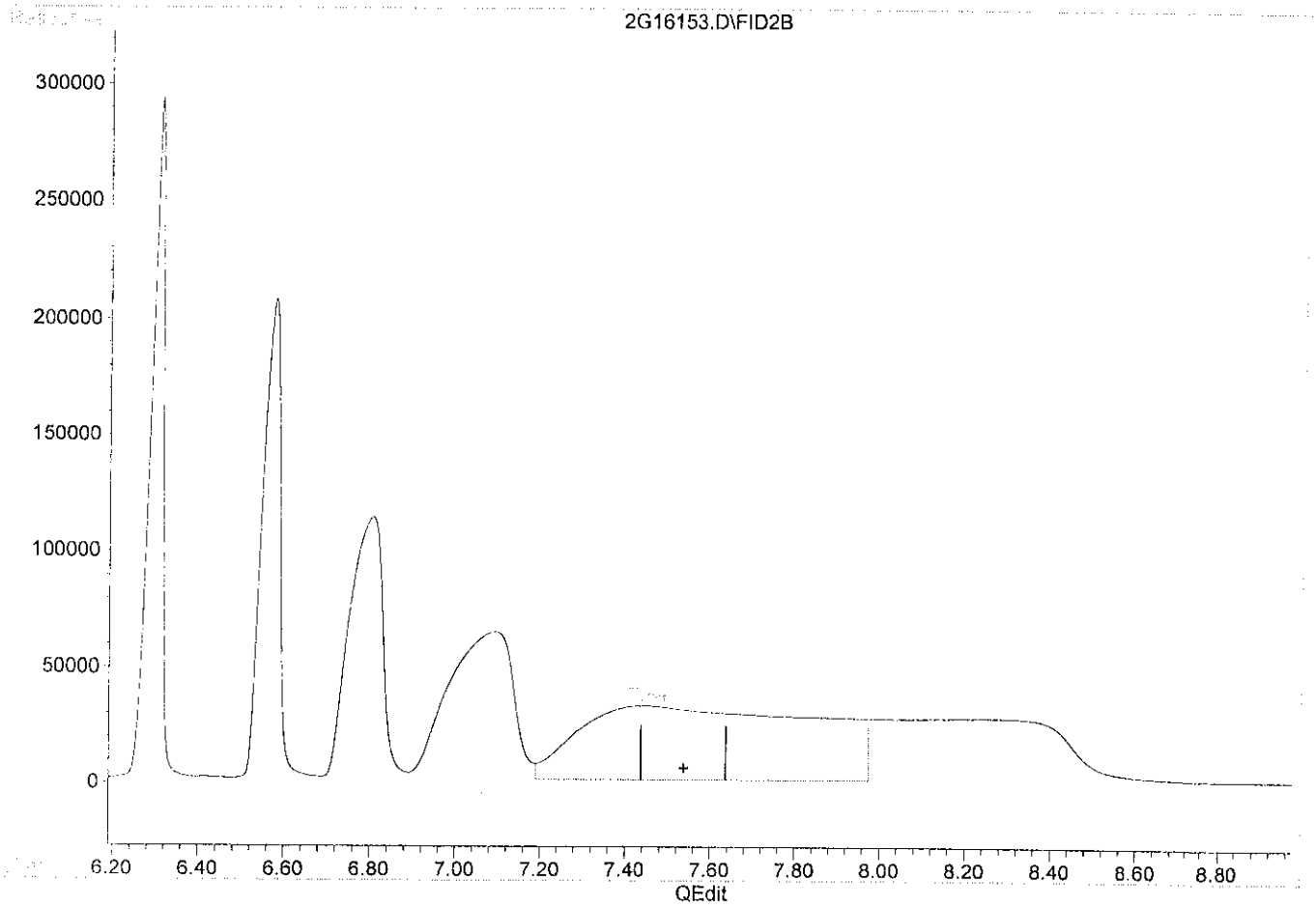
Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri Oct 26 09:10:34 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 26 Oct 2001 10:11 Operator: HV
Sample : WG107152-01 PRO STD 600ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 10:56 2001 Quant Results File: FLASHPRO.RES

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration



(3) n-Nonatriacontane (s)

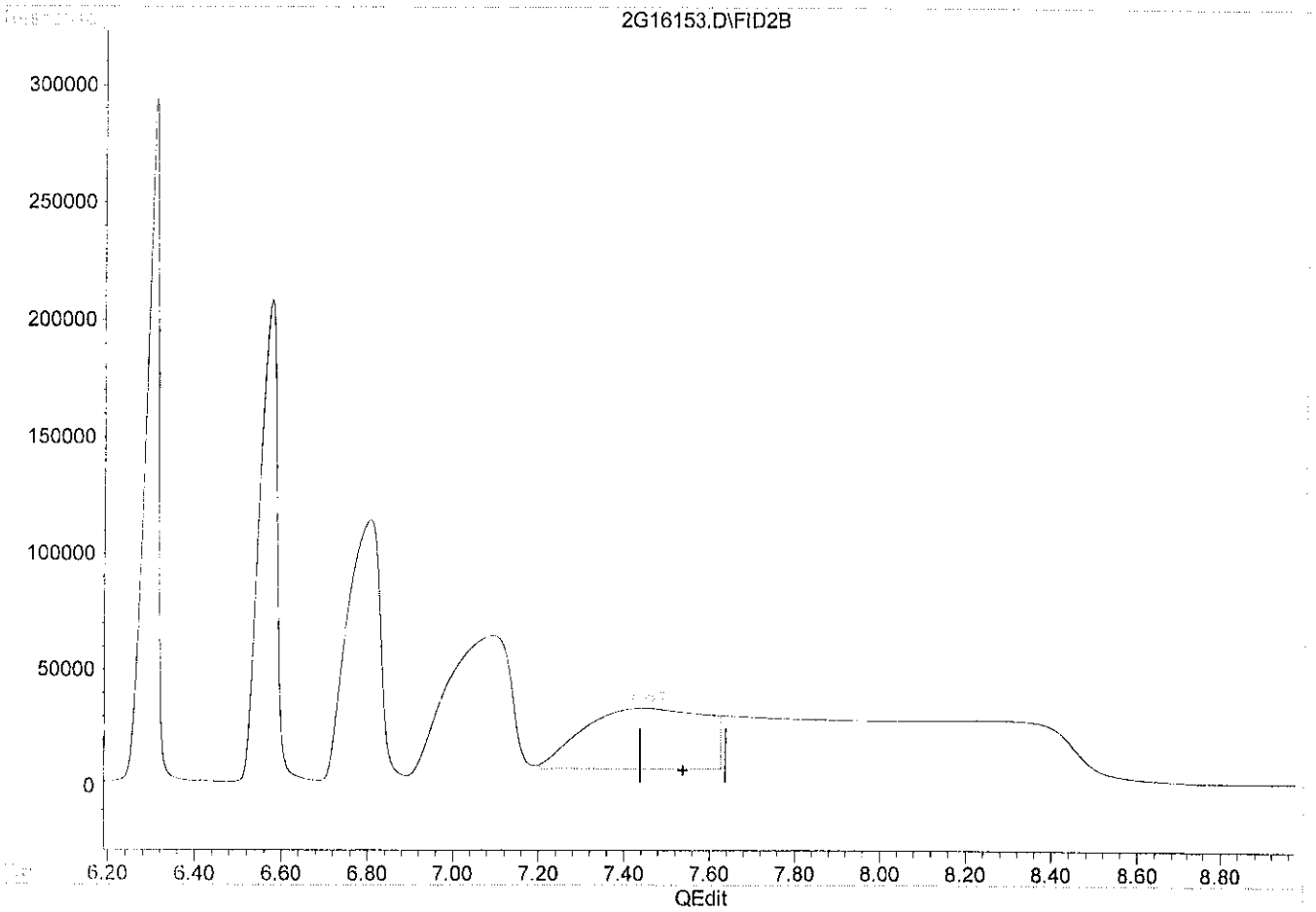
7.44min 1575.896ppm

response 12473230

(+) = Expected Retention Time
2G16153.D FLASHPRO.M Fri Oct 26 11:39:23 2001

Acq On : 26 Oct 2001 10:11 Operator: HV
Sample : WG107152-01 PRO STD 600ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 10:56 2001 Quant Results File: FLASHPRO.RES

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration



(3) n-Nonatriacontane (s)

7.44min 660.011ppm m

response 5223993

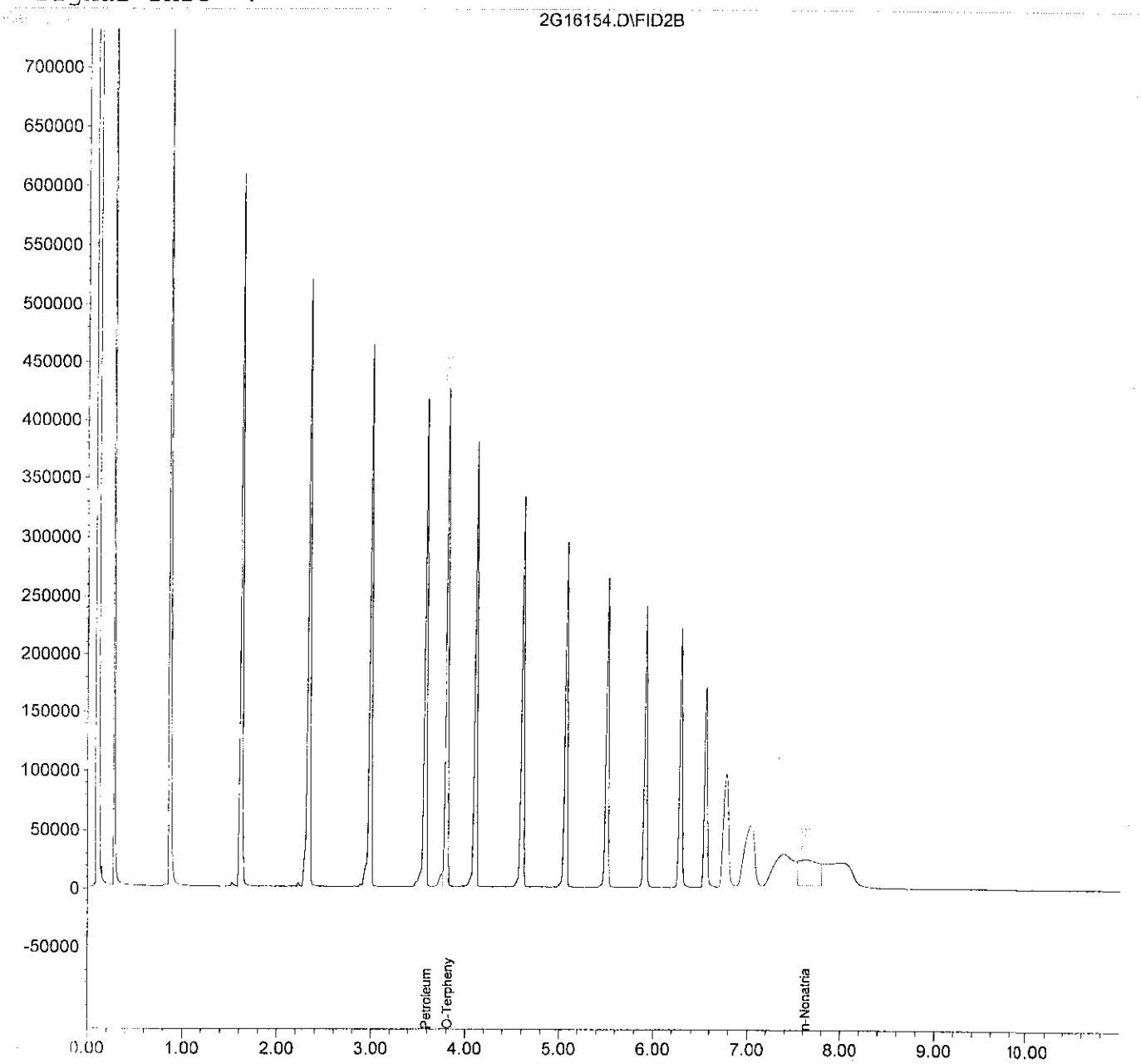
(+) = Expected Retention Time
2G16153.D FLASHPRO.M Fri Oct 26 11:39:52 2001

```
Acq On     : 26 Oct 2001  10:27                          Operator: HV
Sample     : WG107152-02 PRO STD 400ppm                  Inst    : hp2
Misc       : 1,1  SOS 56-21                              Multiplr: 1.00
IntFile    : PETRO.E
Quant Time: Oct 26 11:40 2001  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 10/25/01
Last Update  : Fri Oct 26 10:57:36 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
---------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                    3.81        6976551  341.365 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    = 1706.83%#
 3) s   n-Nonatriacontane              7.62f       3195608  403.740 ppm  m
Spiked Amount   20.000                    Recovery       = 2018.70%

  Target Compounds
 1) H   Petroleum Range                3.59      106859249 6542.990 ppb
```

Acq On : 26 Oct 2001 10:27 Operator: HV
Sample : WG107152-02 PRO STD 400ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 11:40 2001 Quant Results File: FLASHPRO.RES

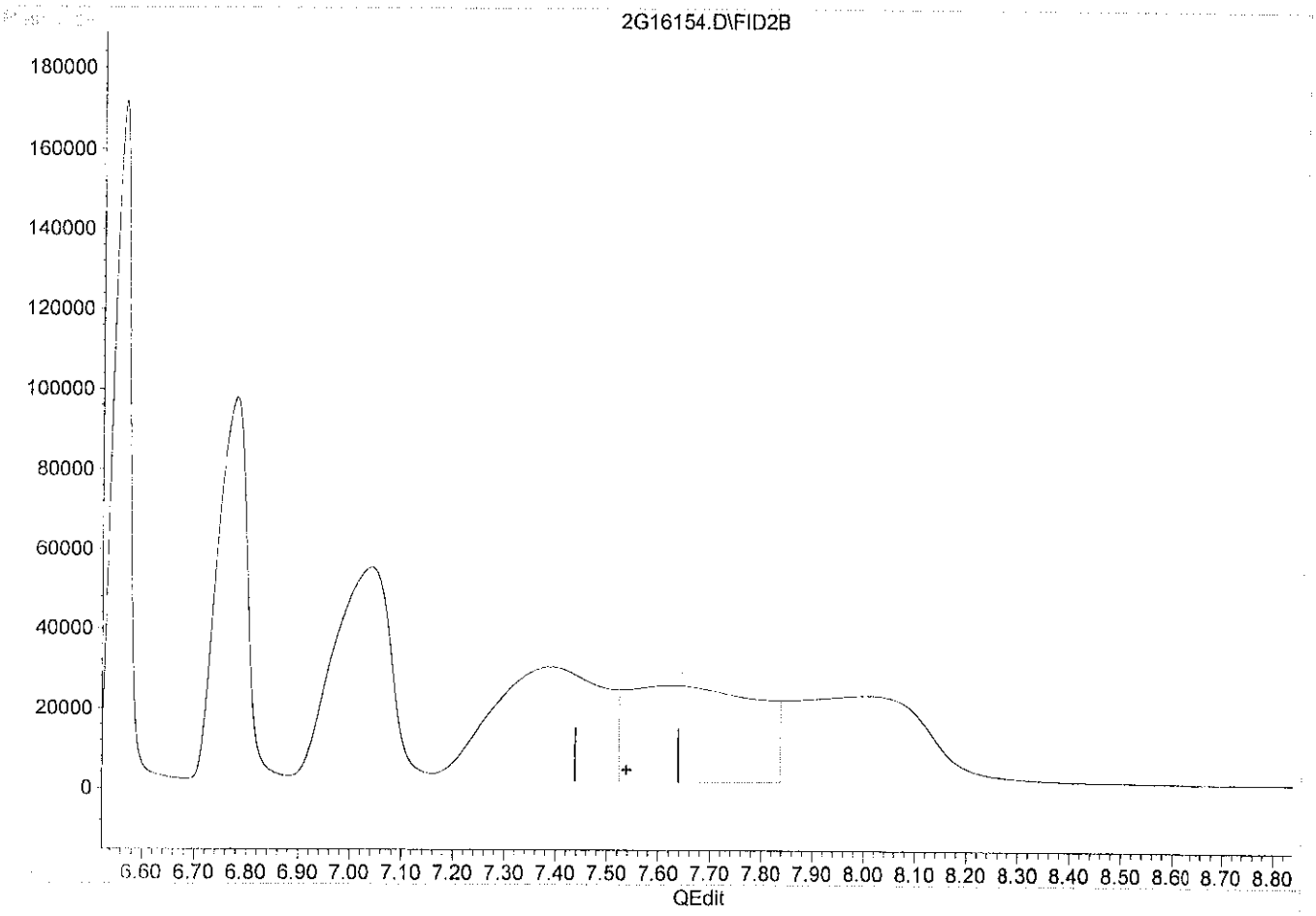
Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri Oct 26 10:57:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 26 Oct 2001 10:27 Operator: HV
Sample : WG107152-02 PRO STD 400ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 11:40 2001 Quant Results File: FLASHPRO.RES

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration



(3) n-Nonatriacontane (s)

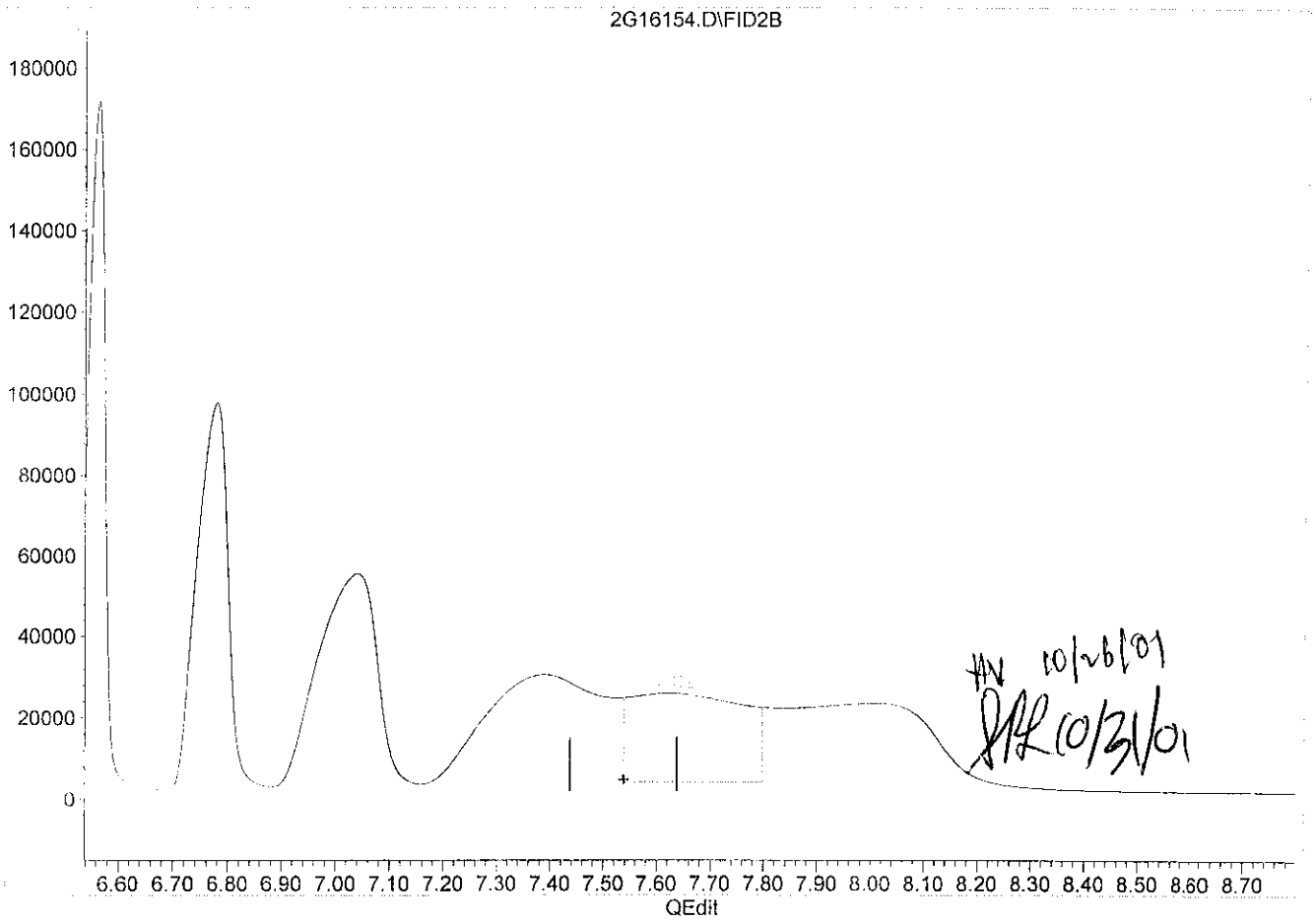
7.63min 539.924ppm

response 4273503

(+) = Expected Retention Time
2G16154.D FLASHPRO.M Fri Oct 26 11:40:29 2001

Acq On : 26 Oct 2001 10:27 Operator: HV
Sample : WG107152-02 PRO STD 400ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 11:40 2001 Quant Results File: FLASHPRO.RES

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration



(3) n-Nonatriacontane (s)

7.62min 403.740ppm m

response 3195608

(+) = Expected Retention Time
2G16154.D FLASHPRO.M Tue Oct 30 12:29:59 2001

Acq On : 26 Oct 2001 10:42 Operator: HV
Sample : WG107152-03 PRO STD 200ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 10:57 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri Oct 26 10:57:36 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

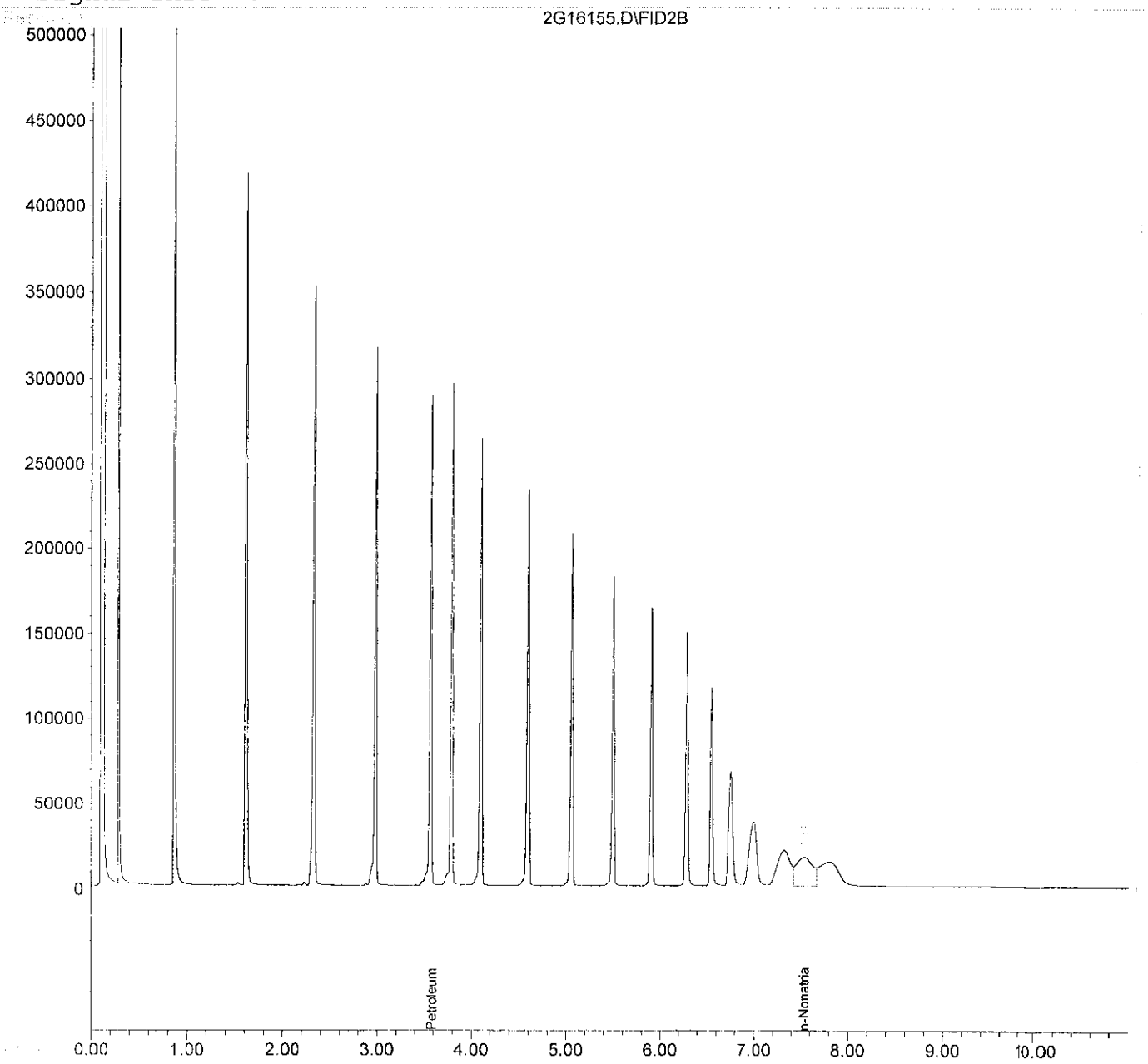
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.80	4106952	200.954 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 1004.77%#			
3) s n-Nonatriacontane	7.54	2087199	263.701 ppm
Spiked Amount 20.000 Recovery = 1318.51%			
Target Compounds			
1) H Petroleum Range	3.59	59874757	3666.130 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 26 Oct 2001 10:42 Operator: HV
Sample : WG107152-03 PRO STD 200ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 10:57 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri Oct 26 10:57:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

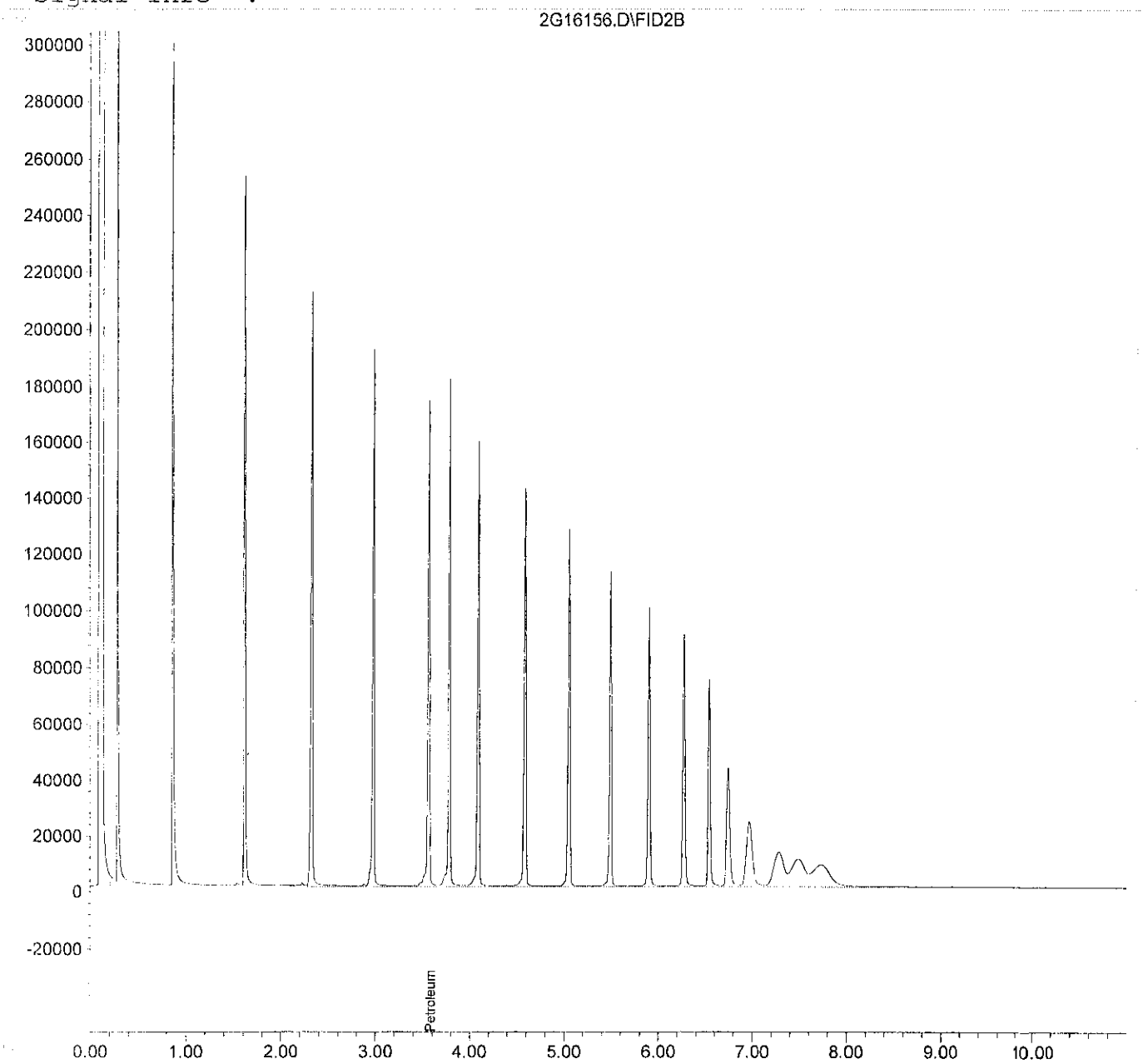


```
Acq On     : 26 Oct 2001  10:58                          Operator: HV
Sample     : WG107152-04 PRO STD 100ppm                  Inst    : hp2
Misc       : 1,1  SOS 56-21                              Multiplr: 1.00
IntFile    : PETRO.E
Quant Time: Oct 26 11:38 2001  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 10/25/01
Last Update  : Fri Oct 26 10:57:36 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
---------------------------------------------------------------------------

   System Monitoring Compounds
 2) s   O-Terphenyl                    3.79        2214255  108.344 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    =  541.72%#
 3) s   n-Nonatriacontane              7.49         959014  121.164 ppm
Spiked Amount   20.000                    Recovery       =  605.82%

   Target Compounds
 1) H   Petroleum Range                3.59       31862334 1950.930 ppb
```

Acq On : 26 Oct 2001 10:58 Operator: HV
Sample : WG107152-04 PRO STD 100ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 11:38 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri Oct 26 10:57:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 26 Oct 2001 11:13 Operator: HV
Sample : WG107152-05 PRO STD 50ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 11:38 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri Oct 26 10:57:36 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

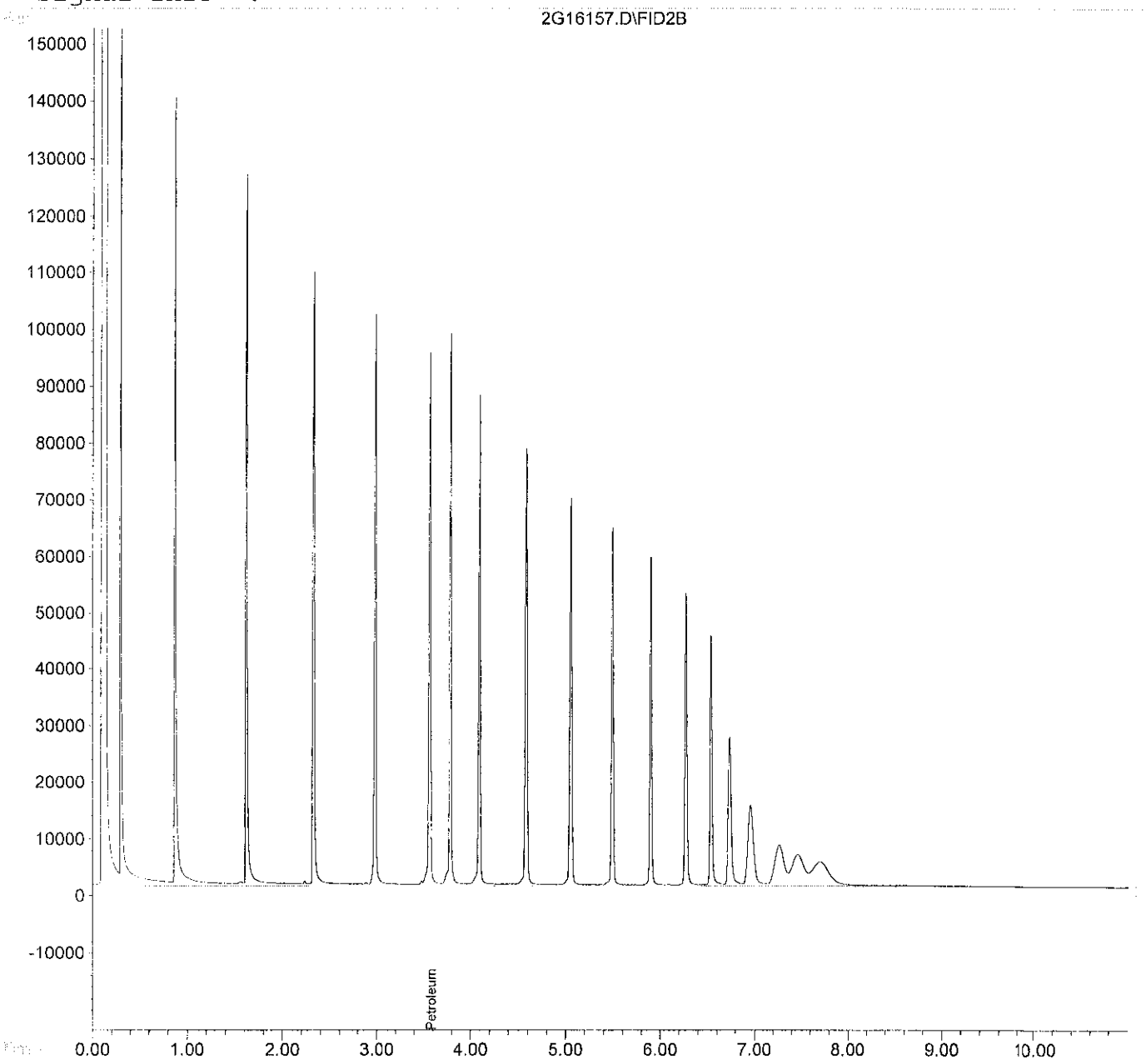
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.78	1182236	57.847 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 289.24%#			
3) s n-Nonatriacontane	7.46f	501652	63.380 ppm
Spiked Amount 20.000 Recovery = 316.90%			
Target Compounds			
1) H Petroleum Range	3.59	16548104	1013.240 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16157.D FLASHPRO.M Fri Oct 26 11:49:49 2001 Page 1

Acq On : 26 Oct 2001 11:13 Operator: HV
Sample : WG107152-05 PRO STD 50ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 11:38 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri Oct 26 10:57:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 26 Oct 2001 11:29 Operator: HV
Sample : WG107152-06 PRO STD 5ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 11:40 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri Oct 26 10:57:36 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

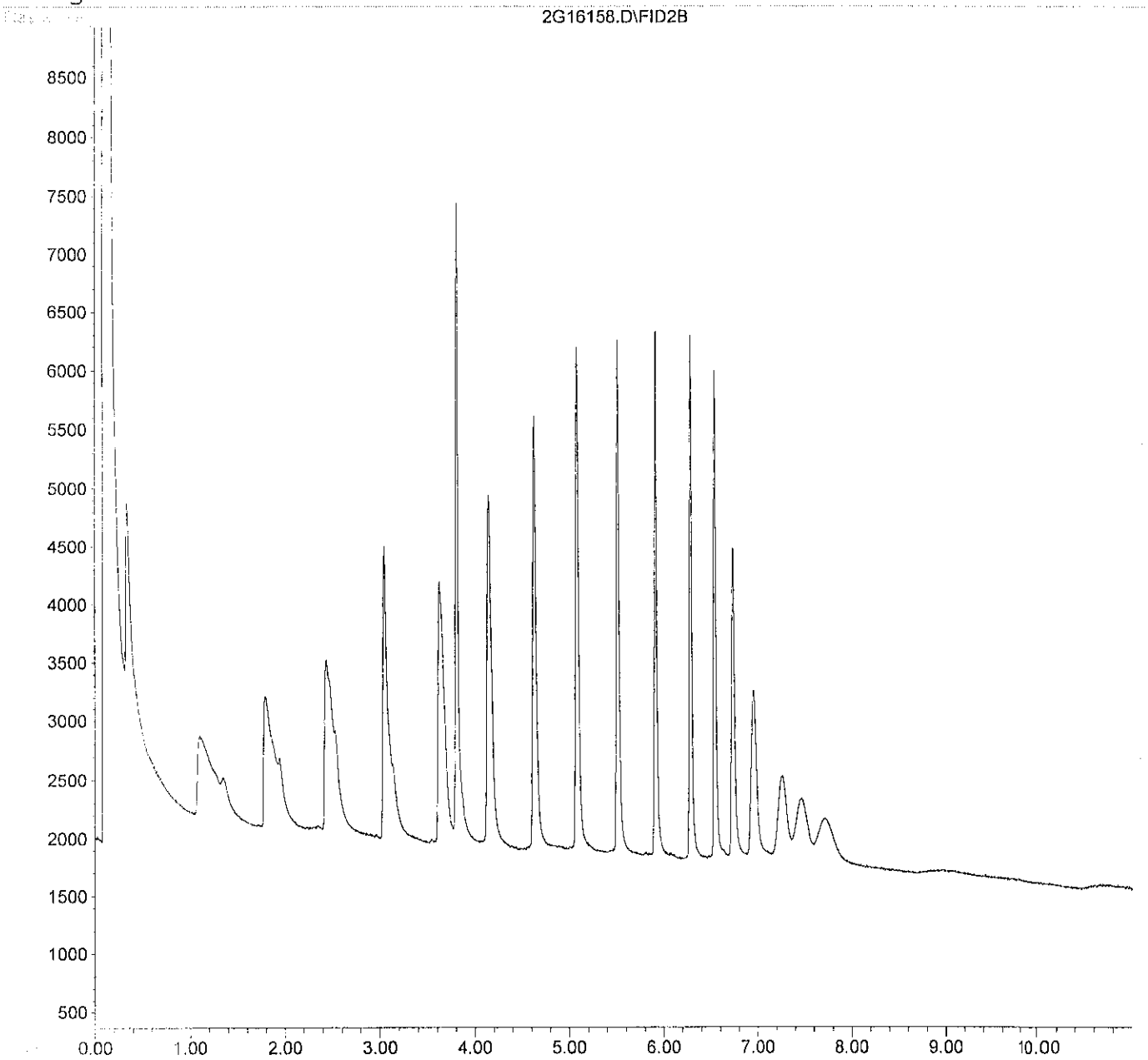
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.81	114914	5.623 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 28.12%#			
3) s n-Nonatriacontane	7.47f	51001	6.444 ppm
Spiked Amount 20.000 Recovery = 32.22%			
Target Compounds			
1) H Petroleum Range	3.59	1405127	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\102601\2G16158.D Vial: 9
Acq On : 26 Oct 2001 11:29 Operator: HV
Sample : WG107152-06 PRO STD 5ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 11:40 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri Oct 26 10:57:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 26 Oct 2001 12:02 Operator: HV
Sample : WG107152-07 ALT PRO @200ppm Inst : hp2
Misc : 1,1 SOS 56-26 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3419.061	-0.6	99	0.00
2	s	O-Terphenyl	200.000	1.673	99.2#	1	0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16159.D FLASHPRO.M Fri Oct 26 12:34:03 2001 Page 1

Acq On : 26 Oct 2001 12:02 Operator: HV
Sample : WG107152-07 ALT PRO @200ppm Inst : hp2
Misc : 1,1 SOS 56-26 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
3 s	n-Nonatriacontane	200.000	0.000	100.0#	0	-7.54#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Acq On : 26 Oct 2001 12:02 Operator: HV
Sample : WG107152-07 ALT PRO @200ppm Inst : hp2
Misc : 1,1 SOS 56-26 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 12:14 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Fri Oct 26 10:57:36 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

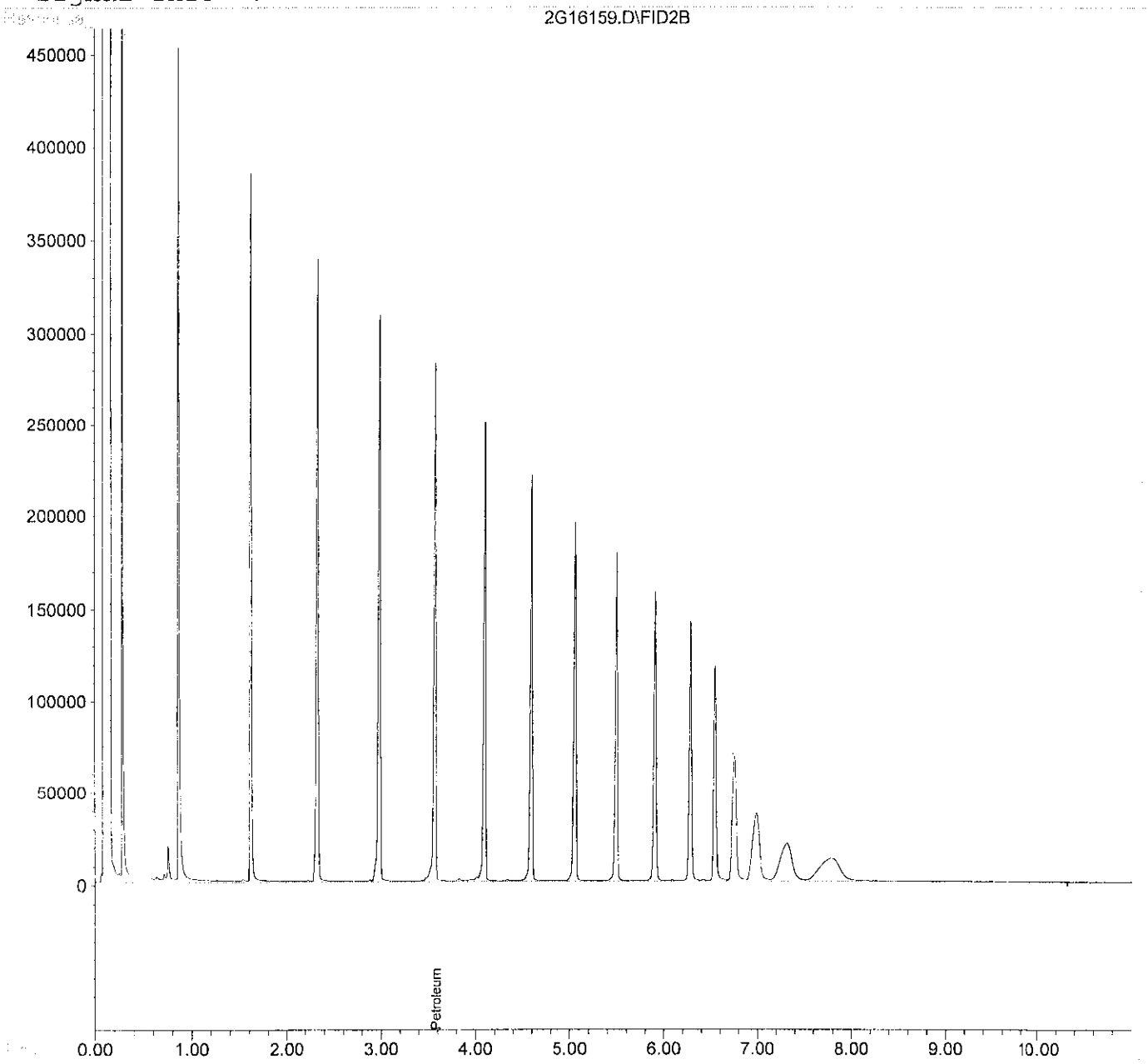
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	34552	1.673 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 8.37%#			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.59	59018165	3419.061 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16159.D FLASHPRO.M Fri Oct 26 12:34:07 2001 Page 1

Acq On : 26 Oct 2001 12:02 Operator: HV
Sample : WG107152-07 ALT PRO @200ppm Inst : hp2
Misc : 1,1 SOS 56-26 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 12:14 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Fri Oct 26 10:57:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\102901\2G16183.D Vial: 15
Acq On : 29 Oct 2001 14:27 Operator: HV
Sample : WG107234-03 PRO CONT Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3290.249	3.2	95	-0.09
2	s	O-Terphenyl	200.000	190.136	4.9	96	-0.04
3	s	n-Nonatriacontane	200.000	193.024	3.5	88	-0.08

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16183.D FLASHPRO.M Tue Oct 30 09:30:17 2001 Page 1

Data File : C:\HPCHEM\1\DATA\102901\2G16183.D Vial: 15
Acq On : 29 Oct 2001 14:27 Operator: HV
Sample : WG107234-03 PRO CONT Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\102901\2G16183.D Vial: 15
Acq On : 29 Oct 2001 14:27 Operator: HV
Sample : WG107234-03 PRO CONT Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 29 14:40 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

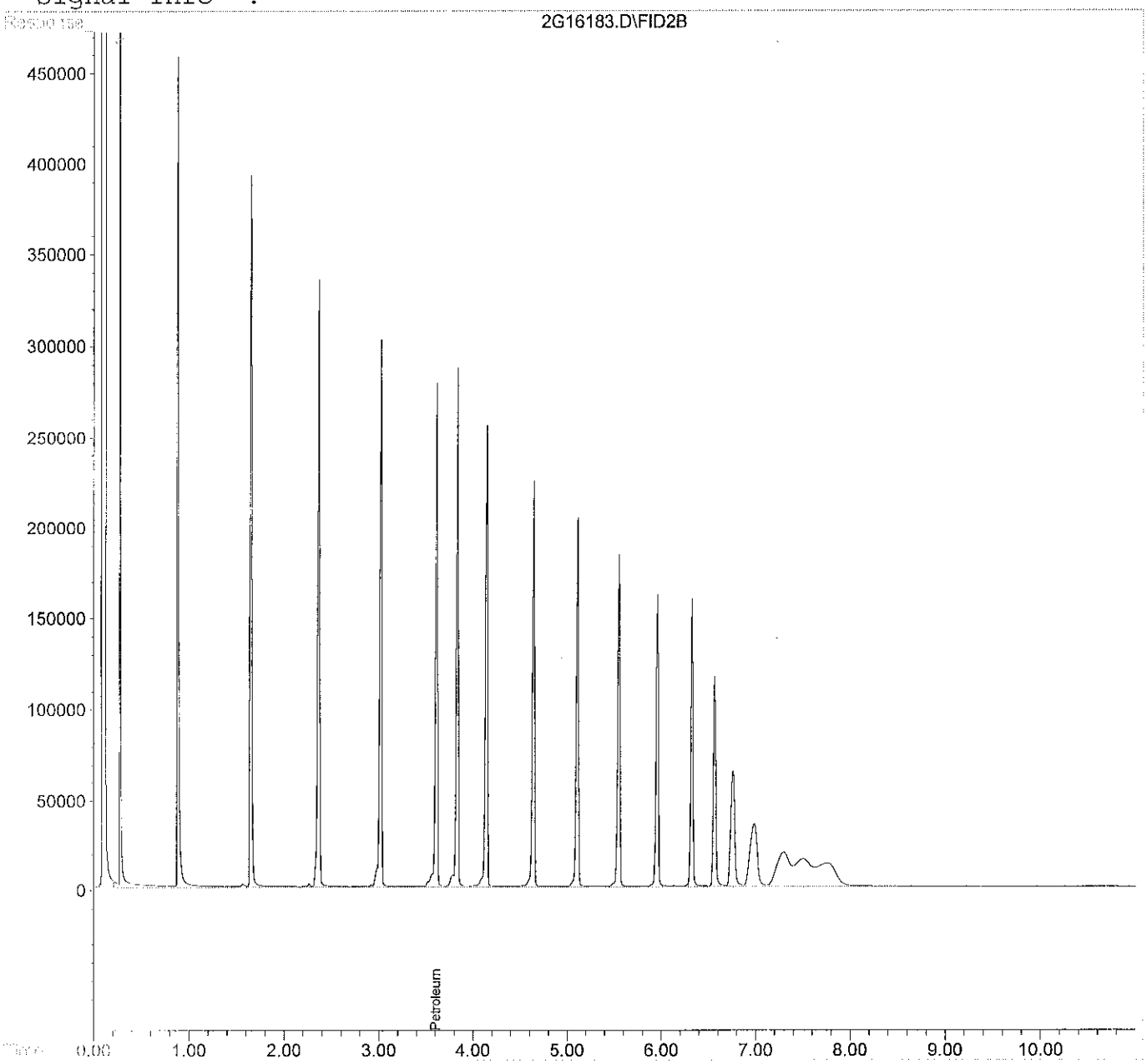
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.84	3927784	190.136 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 950.68%#			
3) s n-Nonatriacontane	7.50	1832280	193.024 ppm
Spiked Amount 20.000 Recovery = 965.12%			
Target Compounds			
1) H Petroleum Range	3.59	56794671	3290.249 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\102901\2G16183.D Vial: 15
Acq On : 29 Oct 2001 14:27 Operator: HV
Sample : WG107234-03 PRO CONT Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 29 14:40 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\102901\2G16190.D Vial: 7
Acq On : 29 Oct 2001 16:17 Operator: HV
Sample : WG107234-04 PRO CONT Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 08:50:41 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	2955.724	13.1	85	-0.09
2	s	O-Terphenyl	200.000	171.006	14.5	86	-0.04
3	s	n-Nonatriacontane	200.000	180.512	9.7	82	-0.08

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16190.D FLASHPRO.M Tue Oct 30 09:32:01 2001 Page 1

Data File : C:\HPCHEM\1\DATA\102901\2G16190.D Vial: 7
Acq On : 29 Oct 2001 16:17 Operator: HV
Sample : WG107234-04 PRO CONT Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 08:50:41 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\102901\2G16190.D Vial: 7
Acq On : 29 Oct 2001 16:17 Operator: HV
Sample : WG107234-04 PRO CONT Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 29 16:30 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

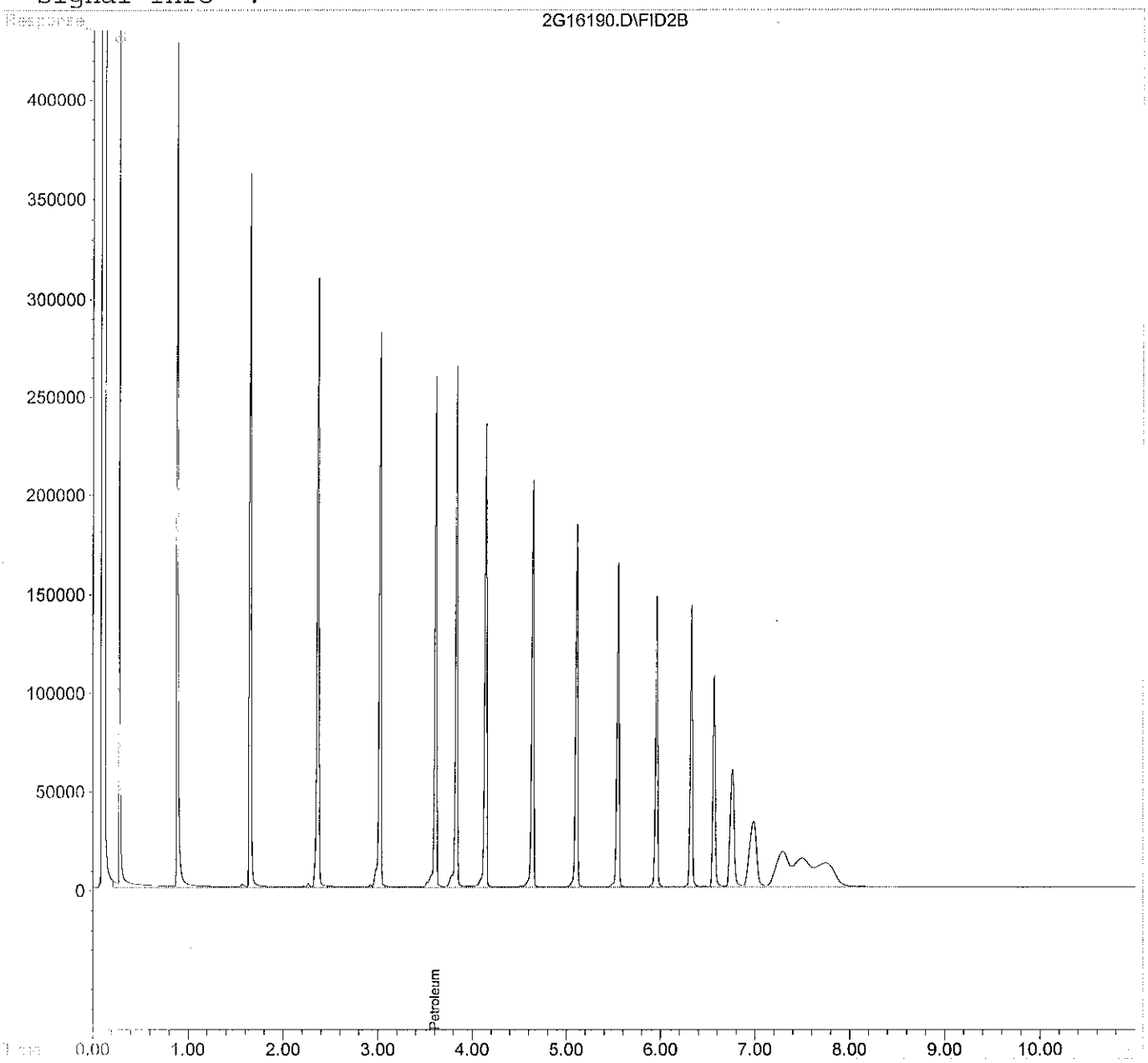
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.84	3532606	171.006 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 855.03%#			
3) s n-Nonatriacontane	7.50	1713507	180.512 ppm
Spiked Amount 20.000 Recovery = 902.56%			
Target Compounds			
1) H Petroleum Range	3.59	51020256	2955.724 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\102901\2G16190.D Vial: 7
Acq On : 29 Oct 2001 16:17 Operator: HV
Sample : WG107234-04 PRO CONT Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 29 16:30 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\102901\2G16192.D Vial: 9
Acq On : 29 Oct 2001 16:53 Operator: HV
Sample : WG107234-05 PRO CONT Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 08:50:41 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3661.389	-7.7	106	-0.09
2	s	O-Terphenyl	200.000	218.280	-9.1	110	0.00
3	s	n-Nonatriacontane	200.000	179.047	10.5	81	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16192.D FLASHPRO.M Tue Oct 30 09:32:17 2001 Page 1

Data File : C:\HPCHEM\1\DATA\102901\2G16192.D Vial: 9
Acq On : 29 Oct 2001 16:53 Operator: HV
Sample : WG107234-05 PRO CONT Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 08:50:41 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\102901\2G16192.D Vial: 9
Acq On : 29 Oct 2001 16:53 Operator: HV
Sample : WG107234-05 PRO CONT Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 30 8:09 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

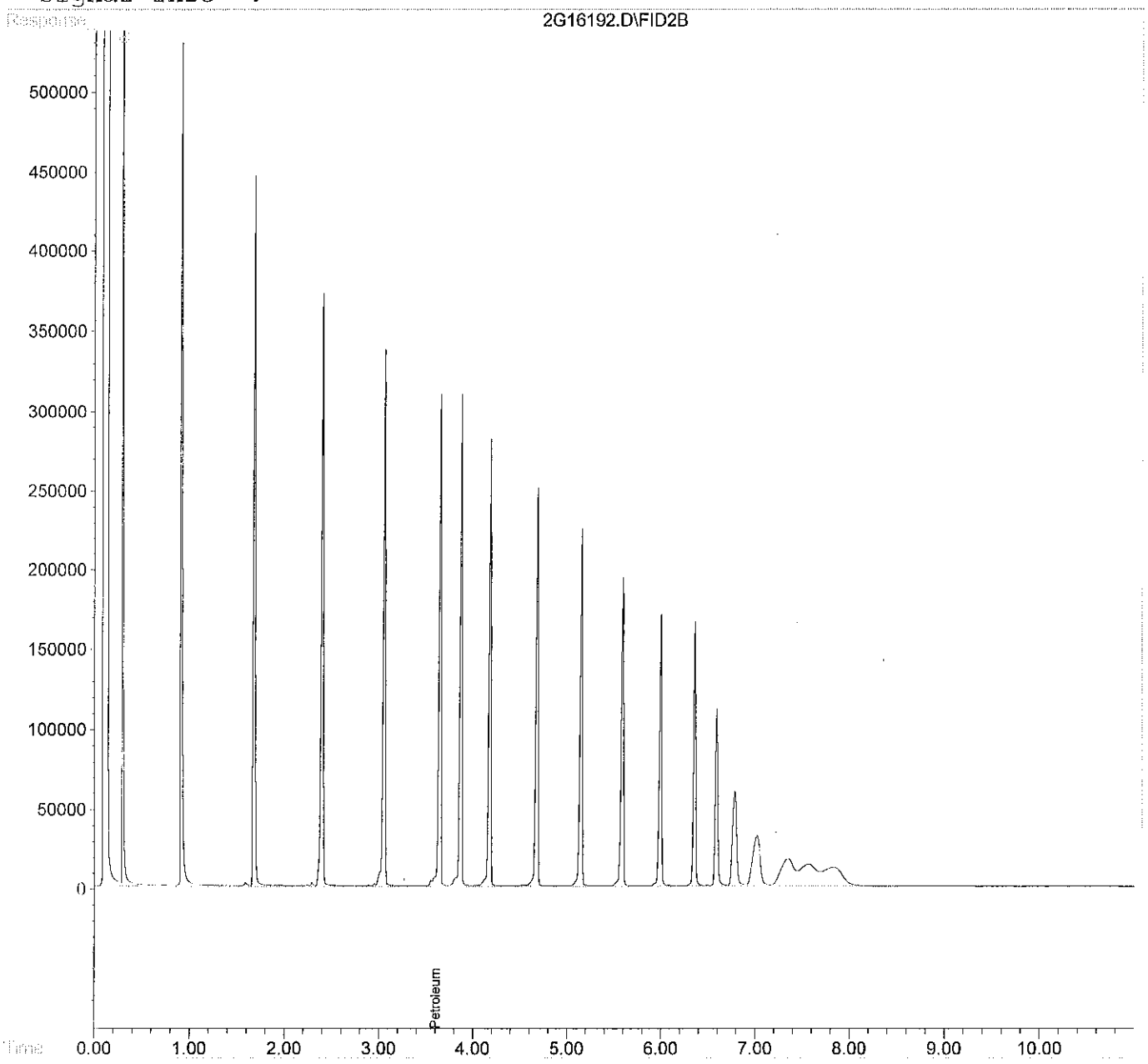
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.88	4509169	218.280 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 1091.40%#			
3) s n-Nonatriacontane	7.57f	1699606	179.047 ppm
Spiked Amount 20.000 Recovery = 895.23%			
Target Compounds			
1) H Petroleum Range	3.59	63201101	3661.389 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16192.D FLASHPRO.M Tue Oct 30 09:32:21 2001 Page 1

Data File : C:\HPCHEM\1\DATA\102901\2G16192.D Vial: 9
Acq On : 29 Oct 2001 16:53 Operator: HV
Sample : WG107234-05 PRO CONT Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 30 8:09 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\102901\2G16200.D Vial: 17
Acq On : 29 Oct 2001 18:58 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 08:50:41 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3538.796	-4.1	102	0.00
2	s	O-Terphenyl	200.000	241.694	-20.8#	122	0.00
3	s	n-Nonatriacontane	200.000	193.560	3.2	88	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\102901\2G16200.D Vial: 17
Acq On : 29 Oct 2001 18:58 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 08:50:41 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\102901\2G16200.D Vial: 17
Acq On : 29 Oct 2001 18:58 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 30 8:51 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 08:50:41 2001
Response via : Initial Calibration
Data Acq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

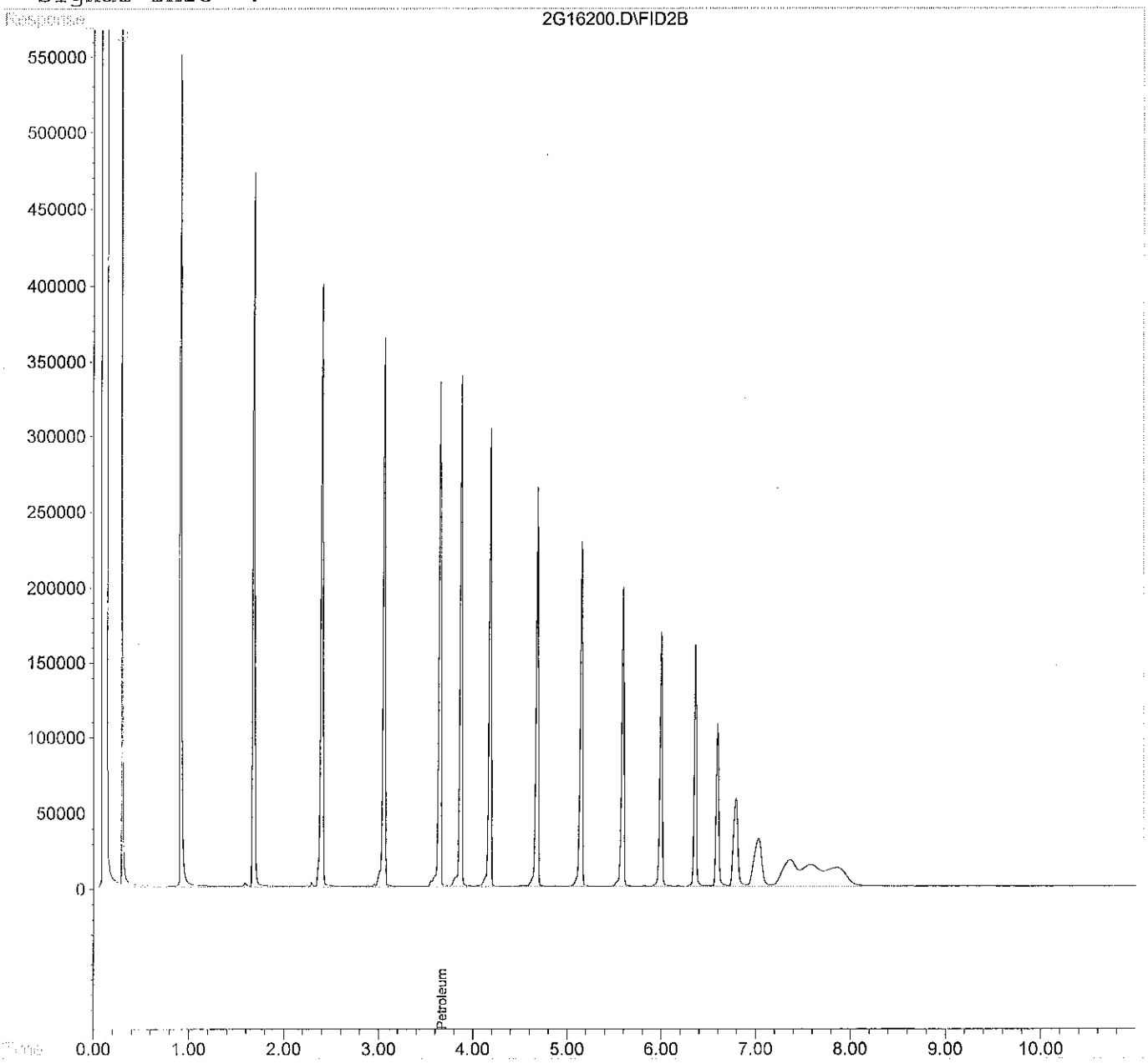
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s o-Terphenyl	3.88	4992859	241.694 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 1208.47%#			
3) s n-Nonatriacontane	7.58	1837366	193.560 ppm
Spiked Amount 20.000 Recovery = 967.80%			
Target Compounds			
1) H Petroleum Range	3.68	61084966	3538.796 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\102901\2G16200.D Vial: 17
Acq On : 29 Oct 2001 18:58 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 30 8:51 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 08:50:41 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\103001\2G16209.D Vial: 3
Acq On : 30 Oct 2001 9:53 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 10:06:18 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3170.793	6.7	91	0.00
2	s	O-Terphenyl	200.000	198.575	0.7	100	0.00
3	s	n-Nonatriacontane	200.000	142.833	28.6#	65	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16209.D FLASHPRO.M Tue Oct 30 11:10:34 2001 Page 1

Data File : C:\HPCHEM\1\DATA\103001\2G16209.D Vial: 3
Acq On : 30 Oct 2001 9:53 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 10:06:18 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

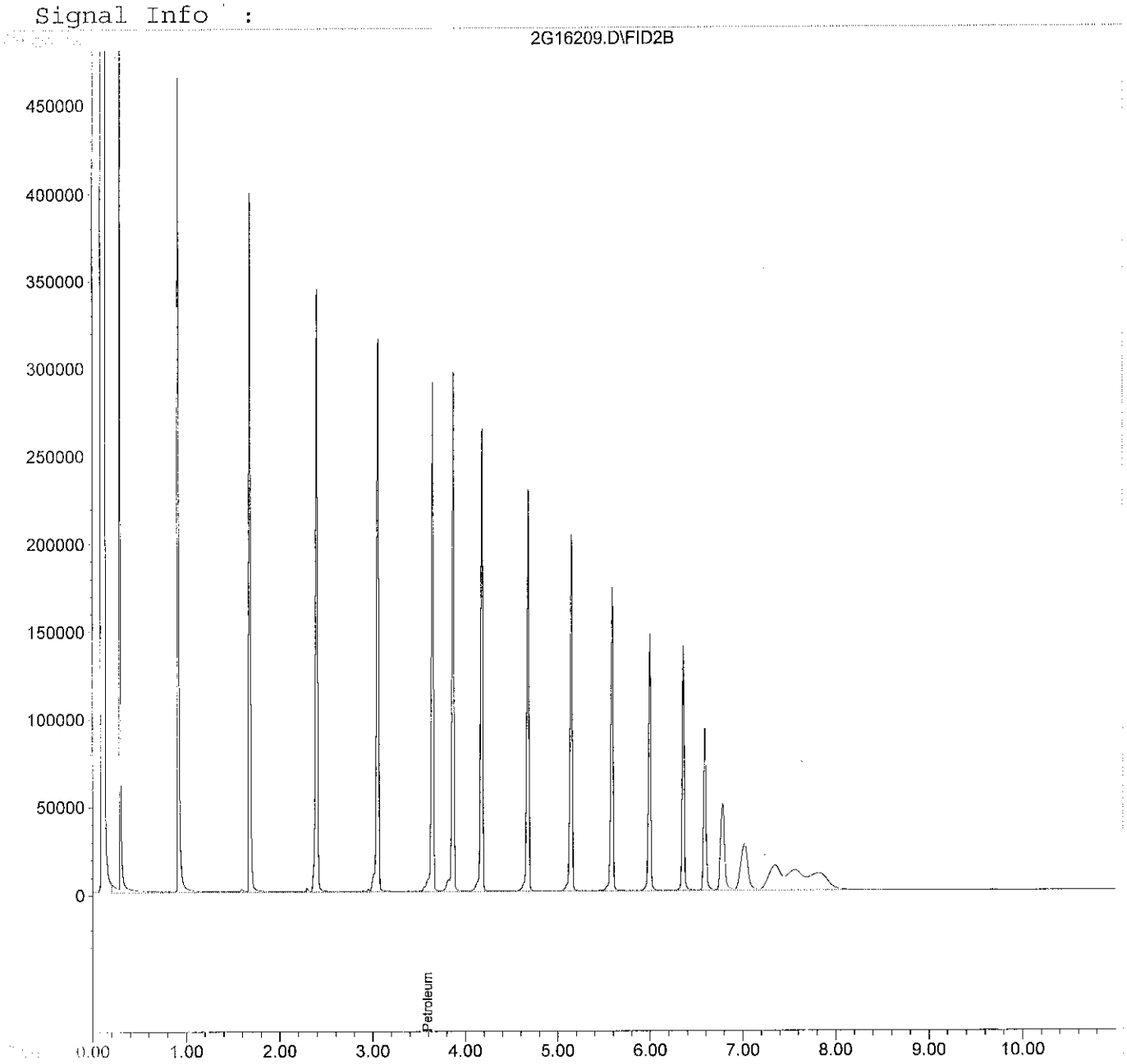
(#) = Out of Range SPCC's out = 0 CCC's out = 0

```
Data File : C:\HPCHEM\1\DATA\103001\2G16209.D            Vial: 3
Acq On    : 30 Oct 2001   9:53                       Operator: HV
Sample    : PRO CONT CHK                             Inst    : hp2
Misc      : 1,1  SOS 56-21                           Multiplr: 1.00
IntFile   : PETRO.E
Quant Time: Oct 30 10:06 2001  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 10/26/01
Last Update  : Tue Oct 30 10:06:18 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
---------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                    3.88        4102120  198.575 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    =  992.87%#
 3) s   n-Nonatriacontane              7.56        1355840  142.833 ppm
Spiked Amount   20.000                    Recovery       =  714.17%

  Target Compounds
 1) H   Petroleum Range                3.58       54732671 3170.793 ppb
```

Data File : C:\HPCHEM\1\DATA\103001\2G16209.D Vial: 3
Acq On : 30 Oct 2001 9:53 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 30 10:06 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 10:06:18 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\103001\2G16216.D Vial: 10
Acq On : 30 Oct 2001 11:44 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 11:14:53 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3698.869	-8.8	107	0.00
2	s	O-Terphenyl	200.000	226.248	-13.1	114	0.02
3	s	n-Nonatriacontane	200.000	181.781	9.1	83	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16216.D FLASHPRO.M Tue Oct 30 11:56:54 2001 Page 1

Data File : C:\HPCHEM\1\DATA\103001\2G16216.D Vial: 10
Acq On : 30 Oct 2001 11:44 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 11:14:53 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

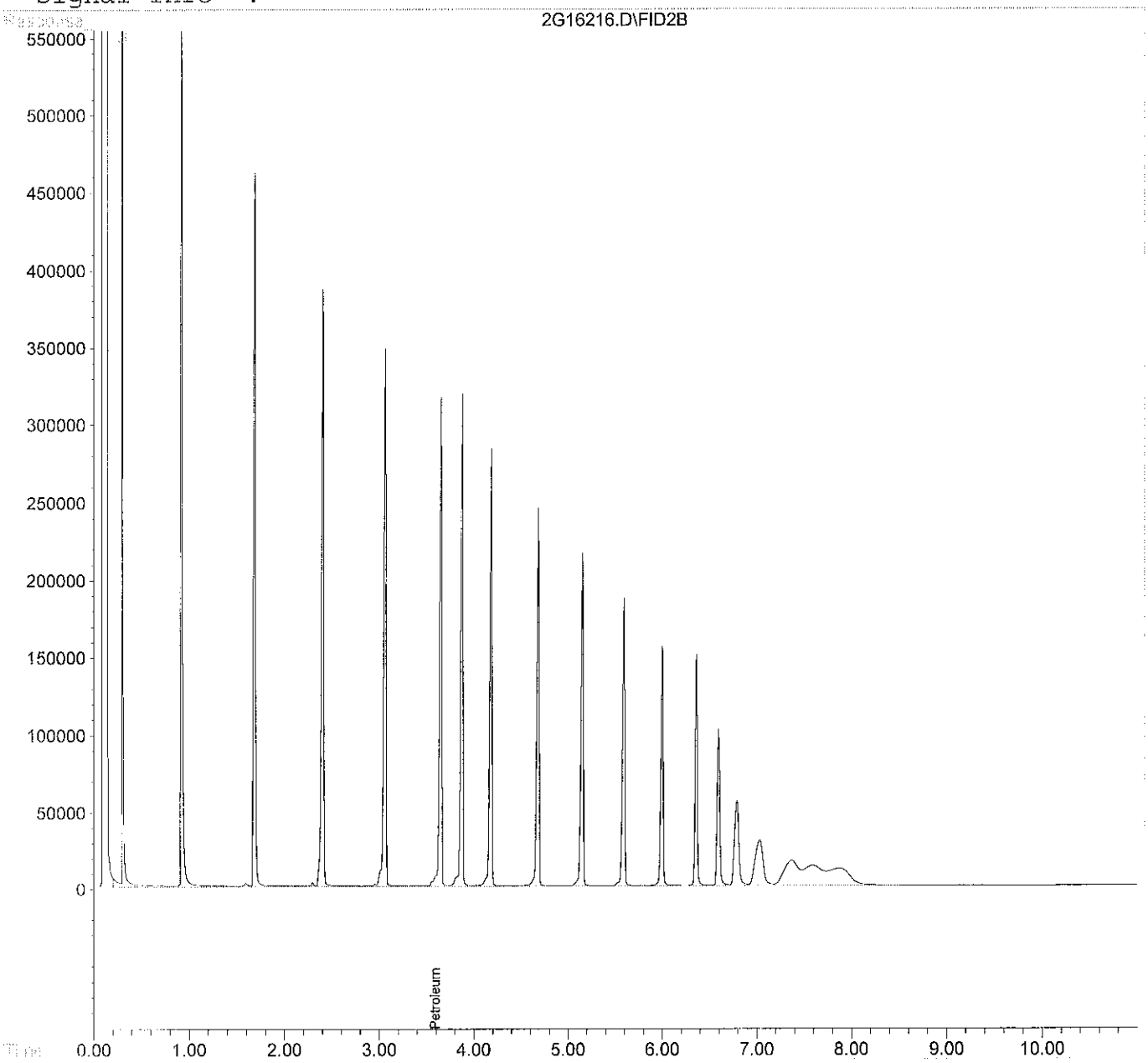
(#) = Out of Range SPCC's out = 0 CCC's out = 0

```
Data File : C:\HPCHEM\1\DATA\103001\2G16216.D            Vial: 10
Acq On    : 30 Oct 2001  11:44                       Operator: HV
Sample    : PRO CONT CHK                             Inst    : hp2
Misc      : 1,1  SOS 56-21                           Multiplr: 1.00
IntFile   : PETRO.E
Quant Time: Oct 30 11:56 2001  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 10/26/01
Last Update  : Tue Oct 30 11:14:53 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                        R.T.       Response    Conc Units
---------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                  3.88        4673775  226.248 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    = 1131.24%#
 3) s   n-Nonatriacontane            7.59        1725553  181.781 ppm
Spiked Amount   20.000                    Recovery      =  908.91%

  Target Compounds
 1) H   Petroleum Range              3.58       63848065 3698.869 ppb
```

Data File : C:\HPCHEM\1\DATA\103001\2G16216.D Vial: 10
Acq On : 30 Oct 2001 11:44 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 30 11:56 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 11:14:53 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2.2.5.4 Raw QC Data

Data File : C:\HPCHEM\1\DATA\102901\2G16184.D Vial: 1
Acq On : 29 Oct 2001 14:45 Operator: HV
Sample : WG107094-01 PRO water BLK Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 29 15:29 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

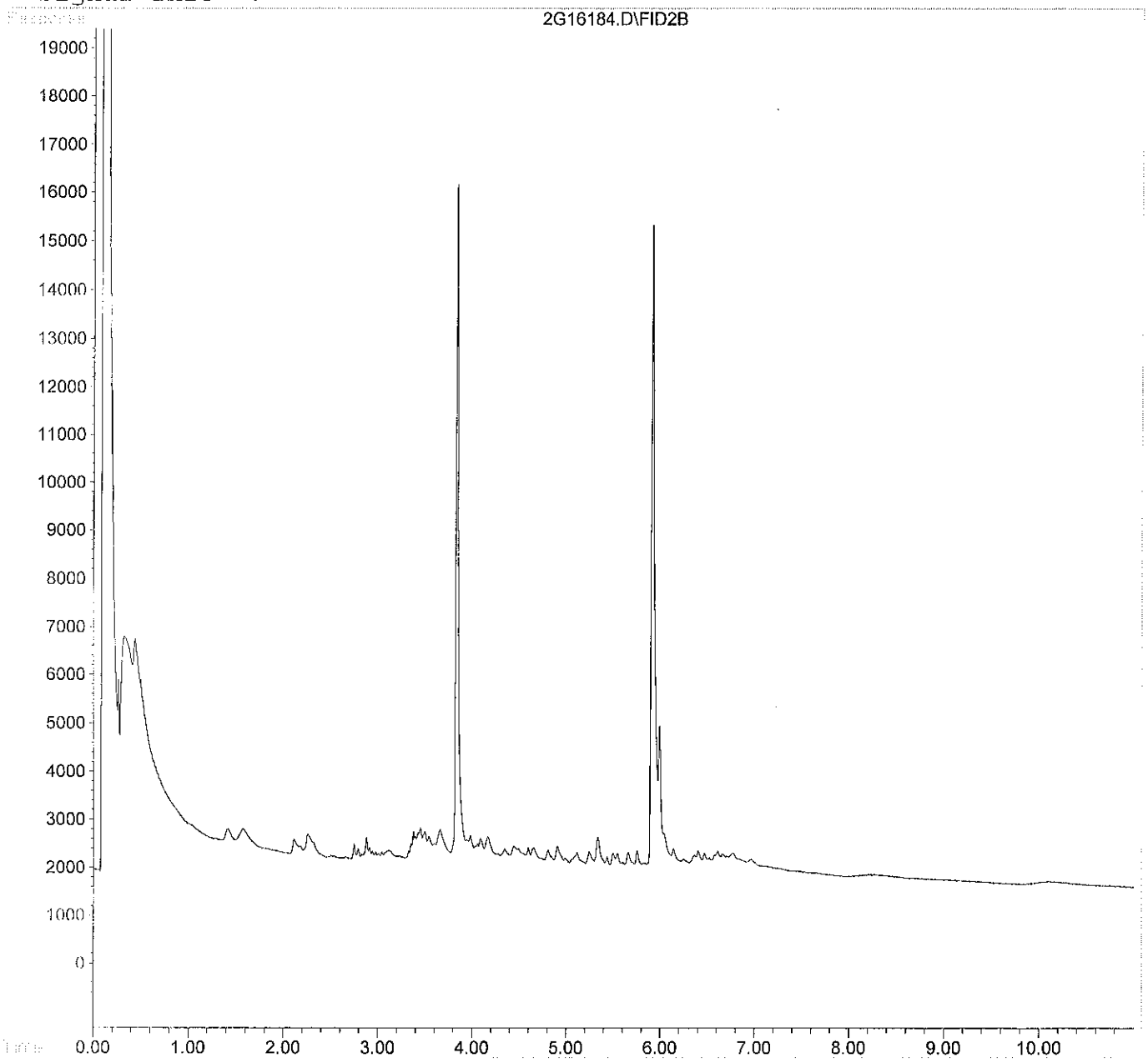
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	272219	13.178 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 65.89%			
3) s n-Nonatriacontane	7.50	31	0.003 ppm
Spiked Amount 20.000 Recovery = 0.02%			
Target Compounds			
1) H Petroleum Range	3.59	1599457	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\102901\2G16184.D Vial: 1
Acq On : 29 Oct 2001 14:45 Operator: HV
Sample : WG107094-01 PRO water BLK Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 29 15:29 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\102901\2G16185.D Vial: 2
Acq On : 29 Oct 2001 15:00 Operator: HV
Sample : WG107094-02 PRO water LCS Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 29 15:30 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

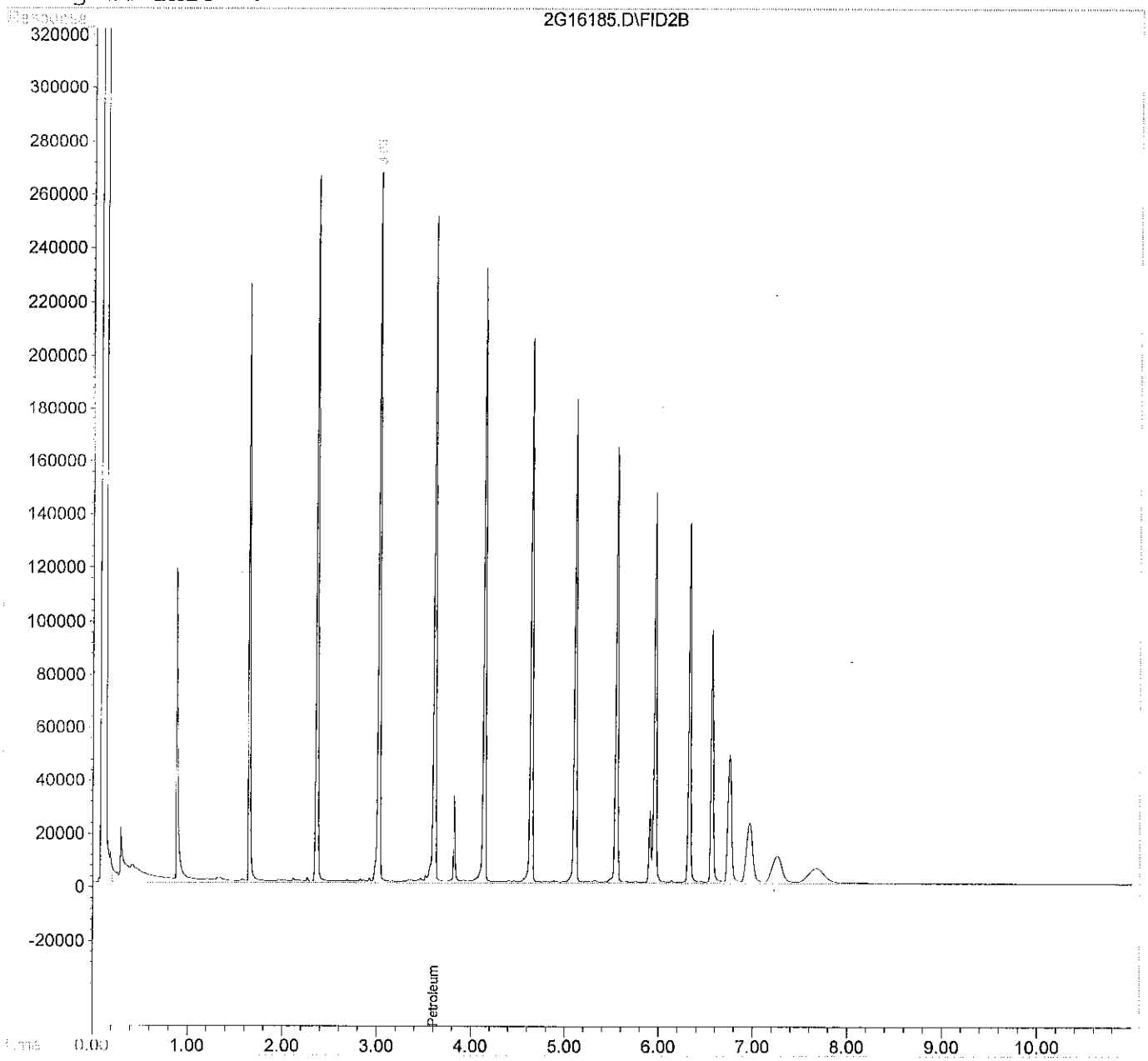
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.82	405214	19.616 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 98.08%			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.59	38097189	2207.060 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\102901\2G16185.D Vial: 2
Acq On : 29 Oct 2001 15:00 Operator: HV
Sample : WG107094-02 PRO water LCS Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 29 15:30 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\102901\2G16186.D Vial: 3
Acq On : 29 Oct 2001 15:16 Operator: HV
Sample : WG107094-03 PRO water LCS DUP Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 29 15:30 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

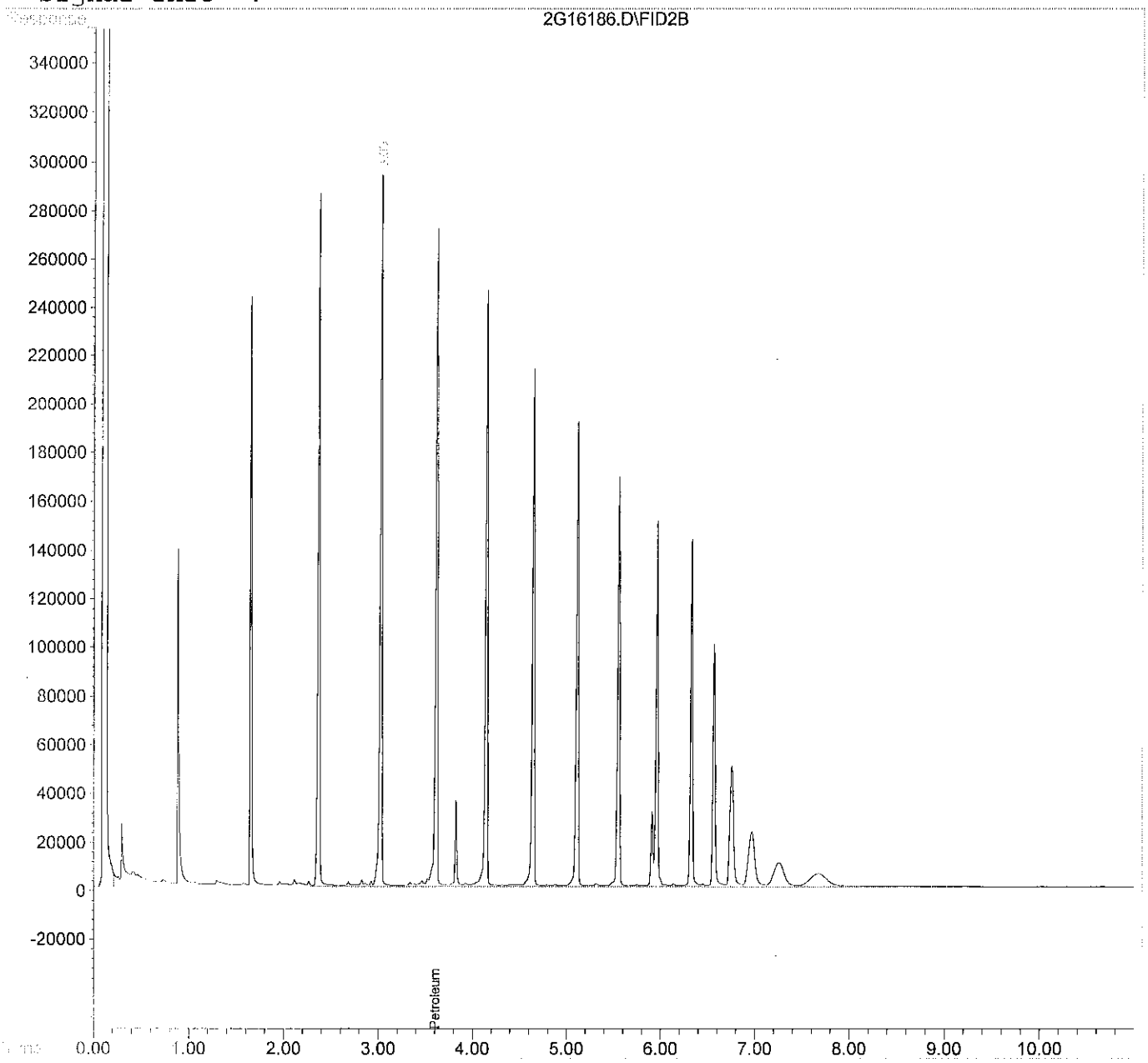
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s o-Terphenyl	3.82	451019	21.833 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 109.17%			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.59	41486091	2403.387 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\102901\2G16186.D Vial: 3
Acq On : 29 Oct 2001 15:16 Operator: HV
Sample : WG107094-03 PRO water LCS DUP Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 29 15:30 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Mon Oct 29 11:18:10 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Line	Vial	FileName	Multiplier		SampleName	Misc Info	Injected
1	1	2g16150.d	1.		mecl2	1,1 SOS 56-21	26 Oct 101 12::5
2	2	2g16151.d	1.	✓	WIN DEF STD	1,1 NS 13-45	26 Oct 101 12::1
3	3	2g16152.d	1.	ee	PRO CONT CHK	1,1 SOS 56-21	26 Oct 101 12::4
4	4	2g16153.d	1.	✓	WG107152-01 PRO STD 600ppm	1,1 SOS 56-21	26 Oct 101 13::1
5	5	2g16154.d	1.		WG107152-02 PRO STD 400ppm	1,1 SOS 56-21	26 Oct 101 13::2
6	6	2g16155.d	1.		WG107152-03 PRO STD 200ppm	1,1 SOS 56-21	26 Oct 101 13::4
7	7	2g16156.d	1.		WG107152-04 PRO STD 100ppm	1,1 SOS 56-21	26 Oct 101 13::5
8	8	2g16157.d	1.		WG107152-05 PRO STD 50ppm	1,1 SOS 56-21	26 Oct 101 13::1
9	9	2g16158.d	1.		WG107152-06 PRO STD 5ppm	1,1 SOS 56-21	26 Oct 101 13::2
10	10	2g16159.d	1.		WG107152-07 ALT PRO @200ppm	1,1 SOS 56-26	26 Oct 101 13::0
11	1	2g16160.d	1.		dro cont chk	1,1 SOS 56-26	26 Oct 101 13::2
12	2	2g16161.d	1.		EXT LAB DRO SPK	1,1 SS0039-16	26 Oct 101 13::3
13	1	2g16162.d	1.	RR	WG107022-02 PRO water BLK	1,1 water	26 Oct 101 13::4
14	2	2g16163.d	1.		WG107022-03 PRO water LCS	1,1 water	26 Oct 101 12::0
15	3	2g16164.d	1.04		L0110485-01 PRO water	1,1 water	26 Oct 101 12::1
16	4	2g16165.d	1.05		L0110485-02 PRO water	1,1 water	26 Oct 101 12::3
17	5	2g16166.d	1.07		L0110485-03 PRO water	1,1 water	26 Oct 101 12::5
18	6	2g16167.d	1.		MECL2	1,1 water	26 Oct 101 12::0

HN 10/29/01

TRC 10/29/01

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 10-26-01 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 102601
Analyst Initials HV

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # ___ PRO ✓
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____
SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS01 Rev. # ___ 8100 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
- [x] Gases >500 psi

Preventative Maintenance
- [ ] Change o-ring
- [x] Change liner
- [x] Change septum
- [ ] Clip column (___cm)
- [ ] Injection port seal (goldseal)
- [ ] Change gases _____

Returned To Control?
Yes ___ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

2910162 - RR - There was no ending check
(sequence was stopped by the comp. error -)

Reviewed By: RAC 10/31/01

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g16168.d	1.	mecl2	1,1 water	29 Oct 101 12::4
2	1	2g16169.d	1.	WIN DEF STD	1,1 NS 13-45	29 Oct 101 12::5
3	2	2g16170.d	1.	PRO CONT CHK	1,1 SOS 56-21	29 Oct 101 13::1
4	3	2g16171.	1.	WG107022-02 PRO water BLK	1,1 water	29 Oct 101 13::2
5	4	2g16172.	1.	WG107022-03 PRO water LCS	1,1 water	29 Oct 101 13::3
6	5	2g16173.d	1.04	L0110485-01 PRO water	1,1 water	29 Oct 101 13::5
7	6	2g16174.d	1.05	L0110485-02 PRO water	1,1 water	29 Oct 101 13::0
8	7	2g16175.d	1.07	L0110485-03 PRO water	1,1 water	29 Oct 101 13::2
9	8	2g16176.d	1.06	L0110485-04 PRO water	1,1 water	29 Oct 101 13::3
10	9	2g16177.d	1.	WG107234-02 PRO CONT.	1,1 SOS 56-21	29 Oct 101 12::5
11	10	2g16178.d	1.04	L0110485-05 MS NPRO water	1,1 water	29 Oct 101 12::1
12	11	2g16179.d	1.05	L0110485-06 MSD PRO water	1,1 water	29 Oct 101 12::2
13	12	2g16180.d	1.	L0110485-07 PRO water	1,1 water	29 Oct 101 12::4
14	13	2g16181.	1.07	L0110485-08 PRO water	1,1 water	29 Oct 101 12::5
15	14	2g16182.d	1.05	L0110485-09 PRO water	1,1 water	29 Oct 101 12::1
16	15	2g16183.d	1.	WG107234-03 PRO CONT	1,1 water	29 Oct 101 12::2
17	1	2g16184.d	1.	WG107094-01 PRO water BLK	1,1 water	29 Oct 101 12::4
18	2	2g16185.d	1.	WG107094-02 PRO water LCS	1,1 water	29 Oct 101 12::0
19	3	2g16186.d	1.	WG107094-03 PRO water LCS DUP	1,1 water	29 Oct 101 12::1
20	4	2g16187.d	1.07	RR L0110522-01 PRO water D 10X	1,1 water	29 Oct 101 12::3
21	5	2g16188.d	1.04	L0110522-02 PRO water	1,1 water	29 Oct 101 12::4
22	6	2g16189.d	1.04	L0110522-03 PRO water	1,1 water	29 Oct 101 12::0
23	7	2g16190.d	1.	WG107234-04 PRO CONT SOS 56-21	1,1 water	29 Oct 101 12::1
24	8	2g16191.d	1.04	mecl2	1,1 water	29 Oct 101 12::3
25	9	2g16192.d	1.	WG107234-05 PRO CONT SOS 56-21	1,1 water	29 Oct 101 12::5
26	10	2g16193.d	1.06	L0110522-04 PRO water	1,1 water	29 Oct 101 12::1
27	11	2g16194.	1.05	L0110522-05 PRO water	1,1 water	29 Oct 101 12::2
28	12	2g16195.d	1.05	L0110522-06 PRO water	1,1 water	29 Oct 101 12::4
29	13	2g16196.d	1.05	RR L0110522-07 PRO water	1,1 water	29 Oct 101 12::5
30	14	2g16197.d	1.08	L0110522-08 PRO water	1,1 water	29 Oct 101 12::1
31	15	2g16198.d	1.08	L0110522-09 PRO water	1,1 water	29 Oct 101 12::2
32	16	2g16199.d	10.7	L0110522-01 10X PRO water	1,1 water	29 Oct 101 12::4
33	17	2g16200.d	1.	CC PRO CONT CHK	1,1 SOS 56-21	29 Oct 101 12::5
34	18	2g16201.d	1.	RR WG107230-01 PRO water BLK	1,1 water	29 Oct 101 12::1
35	19	2g16202.d	1.	WG107230-01 PRO water LCS	1,1 water	29 Oct 101 12::2
36	20	2g16203.d	1.	WG107230-01 PRO water LCS DUP	1,1 water	29 Oct 101 12::4
37	21	2g16204.d	1.05	L0110464-01 PRO water	1,1 water	29 Oct 101 12::5
38	22	2g16205.d	1.05	mecl2	1,1 water	29 Oct 101 12::1
39	17	2g16206.d	1.	PRO CONT CHK	1,1 water	29 Oct 101 12::2

HV 10/30/01
RVEC 10/30/01

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 10-29-01 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 102901
Analyst Initials HV

SOP # GCS09 Rev. # ___ 8081A ___
SOP # GCS04 Rev. # ___ 8151A ___
SOP # GCS03 Rev. # ___ PRO ✓
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ___

SOP # GCS10 Rev. # ___ 8082 ___
SOP # GCS01 Rev. # ___ 8100 ___
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ___
SOP # GCS07 Rev. # ___ 8011 ___

Analysis Date/Time ___ Instrument ID ___ Column ID ___ Data Subdirectory ___

Daily Check
- ☑ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ☑ Change liner
- ☑ Change septum
- ☐ Clip column (___cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases ___

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: ___

Action Taken: ___

Comments

2g16187 - RR at 10x dilution
2g16191 - changed liner & septa
2g16196 - RR1, ccv (ending) failed high in surrogate and it was detected -
2g16200 - failed high in surrogate
2g16201 — 2g16204 - RR since beginning ccv failed in surrogate -

Reviewed By: RDC 10/30/01

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.ine	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	1	2g16207.d	1.	mecl2	1,1 water	30 Oct 101 12::0
:	2	2g16208.d	1.	WIN DEF STD	1,1 NS 13-45	30 Oct 101 12::3
;	3	2g16209.d	1.	PRO CONT CHK	1,1 SOS 56-21	30 Oct 101 12::5
.	4	2g16210.d	1.05	L0110522-07 PRO water	1,1 water	30 Oct 101 13::1
;	5	2g16211.d	1.	WG107230-01 PRO water BLK	1,1 water	30 Oct 101 13::2
;	6	2g16212.d	1.	WG107230-02 PRO water LCS	1,1 water	30 Oct 101 13::4
'	7	2g16213.d	1.	WG107230-03 PRO water LCS DUP	1,1 water	30 Oct 101 13::5
;	8	2g16214.d	1.05	L0110464-01 PRO water	1,1 water	30 Oct 101 13::1
)	9	2g16215.d	1.05	mecl2	1,1 SOS 56-21	30 Oct 101 13::2
10	10	2g16216.d	1.	PRO CONT CHK	1,1 SOS 56-21	30 Oct 101 13::4
11	1	2g16217.d	1.05	mecl2	1,1 NS 14-25	30 Oct 101 12::2
12	2	2g16218.d	1.05	WIN DEF STD	1,1 NS 13-45	30 Oct 101 13::1
13	3	2g16219.d	1.	DRO CONT CHK	1,1 NS 13-45	30 Oct 101 13::1
14	4	2g16220.d	1.	DRO STD 10000ppm	1,1 NS 14-25	30 Oct 101 13::3
15	5	2g16221.d	1.	DRO STD 5000ppm	1,1 NS 14-25	30 Oct 101 13::4
16	6	2g16222.d	1.	DRO STD 2500ppm	1,1 NS 14-25	30 Oct 101 13::4
17	7	2g16223.d	1.	DRO STD 1000ppm	1,1 NS 14-25	30 Oct 101 13::5
18	8	2g16224.d	1.	DRO STD 500ppm	1,1 NS 14-25	30 Oct 101 12::0
19	9	2g16225.d	1.	DRO STD 100ppm	1,1 NS 14-25	30 Oct 101 12::1
20	10	2g16226.d	1.	ALT DRO @1000ppm	1,1 sos 55-36	30 Oct 101 12::3
21	11	2g16227.d	1.	WG107150-01 DRO water BLK	1,1 v174-p129	30 Oct 101 12::4
22	12	2g16228.d	1.	WG107150-02 DRO water LCS	1,1 v174-p129	30 Oct 101 12::5
23	13	2g16229.d	1.	WG107150-03 DRO water LCS DUP	1,1 v174-p129	30 Oct 101 12::0
24	14	2g16230.d	1.	L0110538-01 DRO water	1,1 v174-p129	30 Oct 101 12::1
25	15	2g16231.d	1.	mecl2	1,1 v174-p129	30 Oct 101 12::2
26	16	2g16232.d	1.	DRO CONT CHK	1,1 NS 14-25	30 Oct 101 12::3
27	17	2g16233.d	1.	WG107318-01 DRO water BLK	1,1 V174-P159	30 Oct 101 12::4
28	18	2g16234.d	1.	WG107318-02 DRO water LCS	1,1 V174-P159	30 Oct 101 12::5
29	19	2g16235.d	1.	WG107318-03 DRO water LCS DUP	1,1 V174-P159	30 Oct 101 12::0
30	20	2g16236.d	1.1	L0110616-01 DRO water	1,1 V174-P159	30 Oct 101 12::1
31	21	2g16237.d	1.	DRO CONT CHK	1,1 NS 14-25	30 Oct 101 12::3
32	22	2g16238.d	1.	mecl2	1,1	30 Oct 101 12::4

HV 10/31/01 RDC 10/31/01

Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 10-30-01 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 103001
Analyst Initials HV

SOP # GCS09 Rev. # ___ 8081A ___
SOP # GCS04 Rev. # ___ 8151A ___
SOP # GCS03 Rev. # ___ PRO ✓
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ___

SOP # GCS10 Rev. # ___ 8082 ___
SOP # GCS01 Rev. # ___ 8100 ___
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ✓
SOP # GCS07 Rev. # ___ 8011 ___

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
- ☐ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ☐ Change liner
- ☐ Change septum
- ☐ Clip column (___cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases _____

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Reviewed By: RJC 10/31/01

Parameter: PRO H2O SOP #: EXPRO Revision #: 2
Extraction Analyst(s): JAQ / REK TV/KD Analyst(s): DP
Date/Time Extracted: 10/25/01 @ 1500 Date TV/KD: 10/25/01
Spike/Surrogate Analyst: JAQ Witness: LMT
Surrogate #: ESS0038-48 Earliest Hold Date: 10/31/01
Spike #: A = ESS0039-02 Spike #: B = —

Extraction Work Group WG 107094
Analytical Work Group WG 107151
Extract Relinquished By: DP
Extract Received By & Date: [illegible] 10/25/01

	Sample ID	Test Code	pH √ <2	pH √ N	pH √ >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	Emulsions √ BN	Emulsions √ N	Comments
1	Blank		✓			1L	1 ml		1 mL	T				WG 107094-01
2	LCS		✓			↓	↓	1 ml	↓	T				WG ↓ -02
3	LCS DUP		✓			↓	↓	↓	↓	T				WG ↓ -03
4	10-522-01	FLA-PRO	✓			930 mL	↓		↓	C				
5	-02	↓	✓			965 mL	↓		↓	T				
6	-03	↓	✓			↓	↓		↓	C				
7	-04	↓	✓			940 mL	↓		↓	T				
8	-05	↓	✓			950 mL	↓		↓	T				
9	-06	↓	✓			↓	↓		↓	T				
10	-07	↓	✓			↓	↓		↓	T				
11	-08	↓	✓			920 mL	↓		↓	C				
12	-09	↓	✓			940 mL	↓		↓	T				
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 10/25/01

Methylene Chloride Lot #: 41109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: 1:1 HCl Lot #: EK1915
Florisil Lot #: —
Silica Gel Lot #: V32555
R Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: EK1889

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C	✓	Other	
Acid 3664A		N/A	
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 10/25/01

Extraction Notes For Volume # 1+4 Page # 121

General Comments: None

Extraction Anomalies: Nothing to report.

Concentration Anomalies: Nothing to report.

Clean-Up Anomalies: Nothing to report.

Supervisor Review: _____ Date: _____

Example FLA-PRO Calculations

1.0 Calulating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = As/ Cs

Where:		Example:
	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ng/ml).	100
	RF	**100**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:

C = [(Ax)(Vf)(D)] / [(RF)(Vi)]

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	**100**
	Vi = Initial volume of sample (mL). (prep log)	1000
	C (ug/L) =	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report: C = [(Ax)(Vf)(D)] / [(RF)(Vi)]

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL).	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	100
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**3.333333**

2.2.7 PAH HPLC DATA (8310)

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0110522

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8310

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD results were not associated with this sample delivery group.

SAMPLES

Surrogates: Sample fraction 01yielded a % recovery for the surrogate that were below acceptable limits. This sample was re-extracted within holding time with similar results. Both sets of data were reported.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: RDC REVIEWED: DATE: 1/7/01

Rev. 7/14/00

302

Semi-Volatile 8310 Checklist

Run Date: 8-Aug-01

Analyst: RDC

Instrument: HPLC4

Workorders: Due Date: Priority:

		Analyst
Initial Calibration:	Average RF	
	Linear or quadratic regression	√
	Alt Source Check	√
Continuing Calibration:	Continuing Calibration	
	Client Specific Requirements	
	Special Standards	
Blanks:	Quant Report/Chromatogram	
	Surrogates	
Laboratory Control Sample:	Quant Report/Chromatogram	
	Surrogates	
	Spike Compounds	
	MS/MSD	
	Excel Spreadsheet	
Samples:	TCL Hits	
	Surrogates	
	Correct Factors	
	Dilutions	
	Check Sample Histories	
	Corrective Action	
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:
Re-calibration curve only.....

Primary Reviewer: RDC 8/10/01

Secondary Reviewer: 8/10/01

Supervisor Review: 8/10/01

√ = Checked & OK
NA = Not Applicable

303

Run Date: 29-Oct-01

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG107146 10-522	11/1/2001	PFF
WG107146 10-527	11/1/2001	PFP
WG107197 10-561	11/2/2001	FP
WG107197 10-562	11/2/2001	FP

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadratic regression	NA
	Alt Source Check	NA
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
	Surrogates	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	√
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Surrogates	√
	Correct Factors	√
	Dilutions	√
	Check Sample Histories	NA
	Corrective Action	√
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:

L0110522-01 L0110562-03, 06, & 07 sent for re-ext. due to surr. recovery <LCL.

L0110522-01 & L0110527-05 req. conf. of acenaphthylene.

L0110522-01 re-analyzed at a 10X dil'n.

CCVs were low for benzo(g,h,i)perylene by FLD. There were no hits of this analyte to confirm.

Primary Reviewer: RDC 10/31/01

Secondary Reviewer: ECZ 11/1/01

Supervisor Review: 11/1/01

√ = Checked & OK

NA = Not Applicable

304

Run Date: 31-Oct-01

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG107348 10-521	11/1/2001	FF
WG107439 10-522 RE	11/1/2001	PFF
WG107439 10-613	11/6/2001	FF
WG107439 10-614	11/6/2001	FF
WG107469 10-562 RE	11/2/2001	FP
WG107449 10-464 RE	10/30/2001	PFF
WG107449 10-485 RE	10/31/2001	PFF

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadratic regression	NA
	Alt Source Check	NA
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
	Surrogates	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	√
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Surrogates	√
	Correct Factors	√
	Dilutions	√
	Check Sample Histories	NA
	Corrective Action	√
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:

L0110521-01 surrogate recovered > UCL Sample extract was colored and opaque. Chromatogram exhibited matrix "hump". SMI is presumed.

L0110464-01 & 08 re-ext. surr. recovery was acceptable. Re-ext. data only will be reported. L0110464-02 re-ext. confirms low surr. recovery and both results will be reported.

L0110485-07 re-ext. surr. rec. was acceptable and only the re-ext. data will be reported. L0110485-08 re-ext. confirms low surr. rec. and both results will be reported.

L0110522-01 re-ext. confirmed the low surr. recovery of the initial ext. Both results will be reported.
(ALL RE-EXT. WERE WITHIN HOLDING TIME)

L0110613-04 yielded a % rec. for the surr. which was < LCL. Re-ext. was requested but there was a QNS for this sample.

L0110562-03 re-ext. in hold confirms low surr. recovery. Both results will be reported. L0110562-06 & 07 re-ext. in hold recovered acceptable surr. Only the re-ext. will be reported. (L0110562-03 was R flagged for all analytes because of surr. recovery.)

Primary Reviewer: RDC 11/2/01

Secondary Reviewer: 11/2/01

Supervisor Review: 11/2/01

√ = Checked & OK

NA = Not Applicable

305

PAH HPLC DATA (8310)

Login Number: L0110522

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

✓ Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data)

✓ Chromatograms and external standard reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and external standard reports (chronological)

____ Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

____ Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

✓ Extraction bench sheets

Checked By: CLK Date: ~~11/6/01~~ 11/7/01 CLK 11/7/01

2.2.7.1 QC Summary

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, WATERS

ANAL WORK GRP : WG107146	**PREP WORK GRP :** WG107100	**RUN DATE :** 10/29/01	**SAMP ID :** L0110527 -01
METHOD : 8310	**EXT DATE :** 25-Oct-01	**BLK FLNM :** 4L002237	**SMPL FLNM :** 4L002252
INSTRUMENT : HPLC4	**EXT BENCH SHEET :** V174P123	**LCS FLNM :** 4L002238	**MS FLNM :** 4L002253
ANALYST : RDC		**LCS2 FLNM :** NA	**MSD FLNM :** 4L002254

ANALYTE	CONCENTRATION, µg/L									% RECOVERY															
	RDL	BLK	LCS SPIKE ADDED	LCS	LCS2	SAMPLE	MS SPIKE ADDED	MS	MSD	BLK	LCS	LCS2	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	MSD RPD	RPC UCL	BLK	LCS	LCS2	MS	MSD
NAPHTHALENE	1	ND	50	26.9	NA	ND	50.0	26.7	26.3	ND	53.8		25	68	NA	53.4	52.6	25	68	2	50					
ACENAPTHYLENE	1	ND	50	29.7	NA	ND	50.0	30.3	28.7	ND	59.4		25	77	NA	60.6	57.4	25	77	5	50					
1-METHYLNAPHTHALENE	1	ND	50	26.8	NA	0.822	50.0	28.1	27.5	ND	53.6		26	71	NA	54.6	53.4	26	71	2	50					
2-METHYLNAPHTHALENE	1	ND	50	28.5	NA	0.616	50.0	28.2	27.5	ND	57.0		26	72	NA	55.2	53.8	26	72	3	50					
ACENAPHTHENE	1	ND	50	29.6	NA	2.85	50.0	32.0	31.0	ND	59.2		25	78	NA	58.2	56.3	26	78	3	50					
FLUORENE	1	ND	50	31.8	NA	0.77	50.0	33.0	30.7	ND	63.6		29	84	NA	64.5	59.9	29	84	7	50					
PHENANTHRENE	1	ND	50	36.2	NA	0.594	50.0	37.9	37.4	ND	72.4		39	95	NA	74.6	73.6	39	95	1	50					
ANTHRACENE	1	ND	50	38.5	NA	ND	50.0	39.1	37.9	ND	77.0		47	101	NA	78.2	76.8	47	101	3	50					
FLUORANTHENE	0.2	ND	5	4.28	NA	1.14	5.00	5.47	5.66	ND	85.6		55	104	NA	86.6	90.4	55	104	3	50					
PYRENE	0.2	ND	5	4.10	NA	0.745	5.00	5.17	5.31	ND	82.0		56	104	NA	88.5	91.3	56	104	3	50					
BENZO[a]ANTHRACENE	0.2	ND	5	4.20	NA	ND	5.00	4.41	4.56	ND	84.0		50	116	NA	88.2	91.2	50	116	3	50					
CHRYSENE	0.2	ND	5	3.90	NA	ND	5.00	4.24	4.52	ND	77.9		39	120	NA	84.7	90.4	39	120	6	50					
BENZO[b]FLUORANTHENE	0.2	ND	5	3.62	NA	ND	5.00	3.69	3.87	ND	72.4		41	110	NA	73.8	77.4	41	110	5	50					
BENZO[k]FLUORANTHENE	0.2	ND	2.6	1.52	NA	ND	2.50	1.51	1.54	ND	60.8		25	107	NA	60.4	61.6	25	107	2	50					
BENZO[a]PYRENE	0.2	ND	5	3.10	NA	ND	5.00	3.06	3.23	ND	62.0		29	113	NA	61.2	64.6	29	113	5	50					
DIBENZO[a,h]ANTHRACENE	0.2	ND	5	1.95	NA	ND	5.00	1.82	1.75	ND	39.0		10	92	NA	36.4	35.0	10	92	4	50					
BENZO[g,h,i]PERYLENE	0.2	ND	5	2.00	NA	ND	5.00	1.96	1.89	ND	40.0		11	84	NA	39.2	37.8	11	84	4	50					
INDENO[1,2,3-cd]PYRENE	0.2	ND	5	2.40	NA	ND	5.00	2.24	2.30	ND	48.0		16	98	NA	44.8	45.9	16	98	2	50					
SURROGATE																										
p-TERPHENYL-d14		6.25	10	6.88	NA	6.22	10.0	7.23	6.87	62.5	68.8	NA	40	132	62.2	72.3	68.7	40	132							

NOTES & DEFINITIONS :

NA = NOT APPLICABLE
ND = NOT DETECTED
RDL = REPORTING DETECTION LIMIT
D = DETECTED, RESULT MUST BE GREATER THAN ZERO

H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, WATERS

ANAL WORK GRP :	WG107439	**PREP WORK GRP :**	WG107327	**RUN DATE :**	10/31/01	**SAMP ID :**	NA
METHOD :	8310	**EXT DATE :**	30-Oct-01	**BLK FLNM :**	4L002281	**SMPL FLNM :**	NA
INSTRUMENT :	HPLC4	**EXT BENCH SHEET :**	V174P161	**LCS FLNM :**	4L002282	**MS FLNM :**	NA
ANALYST :	RDC			**LCS2 FLNM :**	4L002283	**MSD FLNM :**	NA

ANALYTE	CONCENTRATION, µg/L									% RECOVERY																
	RDL	BLK	LCS SPIKE ADDED	LCS	LCS2	SAMPLE	MS SPIKE ADDED	MS	MSD	BLK	LCS	LCS2	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	LCS RPD	RPC UCL	BLK	LCS	LCS2	MS	MSD
NAPHTHALENE	1	ND	50	31.3	40.2	NA	50.0	NA	NA	ND	62.6	80.4	25	68	NA	NA	NA	25	68	24.9	50			H		
ACENAPTHYLENE	1	ND	50	34.2	42.1	NA	50.0	NA	NA	ND	68.4	84.2	25	77	NA	NA	NA	25	77	20.7	50			H		
1-METHYLNAPHTHALENE	1	ND	50	32.1	40.5	NA	50.0	NA	NA	ND	64.2	81.0	26	71	NA	NA	NA	26	71	23.1	50			H		
2-METHYLNAPHTHALENE	1	ND	50	32.4	40.9	NA	50.0	NA	NA	ND	64.8	81.8	26	72	NA	NA	NA	26	72	23.2	50			H		
ACENAPHTHENE	1	ND	50	34.5	42.4	NA	50.0	NA	NA	ND	69.0	84.8	25	78	NA	NA	NA	25	78	20.5	50			H		
FLUORENE	1	ND	50	36.0	43.6	NA	50.0	NA	NA	ND	71.9	87.2	29	84	NA	NA	NA	29	84	19.2	50			H		
PHENANTHRENE	1	ND	50	38.9	45.4	NA	50.0	NA	NA	ND	77.8	90.8	39	95	NA	NA	NA	39	95	15.4	50					
ANTHRACENE	1	ND	50	43.0	48.7	NA	50.0	NA	NA	ND	86.0	97.4	47	101	NA	NA	NA	47	101	12.4	50					
FLUORANTHENE	0.2	ND	5	4.48	4.85	NA	5.00	NA	NA	ND	89.6	97.0	55	104	NA	NA	NA	55	104	7.93	50					
PYRENE	0.2	ND	5	4.44	4.80	NA	5.00	NA	NA	ND	88.8	96.0	56	104	NA	NA	NA	56	104	7.79	50					
BENZO[a]ANTHRACENE	0.2	ND	5	4.55	4.67	NA	5.00	NA	NA	ND	91.0	93.4	50	115	NA	NA	NA	50	115	2.60	50					
CHRYSENE	0.2	ND	5	4.41	4.21	NA	5.00	NA	NA	ND	88.2	84.2	39	120	NA	NA	NA	39	120	4.64	50					
BENZO[b]FLUORANTHENE	0.2	ND	5	3.97	3.82	NA	5.00	NA	NA	ND	79.4	76.4	41	110	NA	NA	NA	41	110	3.85	50					
BENZO[k]FLUORANTHENE	0.2	ND	2.5	1.84	1.69	NA	2.50	NA	NA	ND	73.6	67.6	25	107	NA	NA	NA	25	107	8.50	50					
BENZO[a]PYRENE	0.2	ND	5	3.78	3.50	NA	5.00	NA	NA	ND	75.6	70.0	29	113	NA	NA	NA	29	113	7.69	50					
DIBENZO[a,h]ANTHRACENE	0.2	ND	5	3.09	2.49	NA	5.00	NA	NA	ND	61.8	49.8	10	92	NA	NA	NA	10	92	21.5	50					
BENZO[g,h,i]PERYLENE	0.2	ND	5	3.21	2.58	NA	5.00	NA	NA	ND	64.2	51.6	11	84	NA	NA	NA	11	84	21.8	50					
INDENO[1,2,3-cd]PYRENE	0.2	ND	5	3.27	2.78	NA	5.00	NA	NA	ND	65.4	55.6	16	98	NA	NA	NA	16	98	16.2	50					
SURROGATE																										
p-TERPHENYL-d14		8.01	10	8.05	7.18	NA	10.0	NA	NA	80.1	80.5	71.8	40	132	NA	NA	NA	40	132							

NOTES & DEFINITIONS :

NA = NOT APPLICABLE
ND = NOT DETECTED
RDL = REPORTING DETECTION LIMIT
D = DETECTED, RESULT MUST BE GREATER THAN ZERO

H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

2.2.7.2 Sample Data

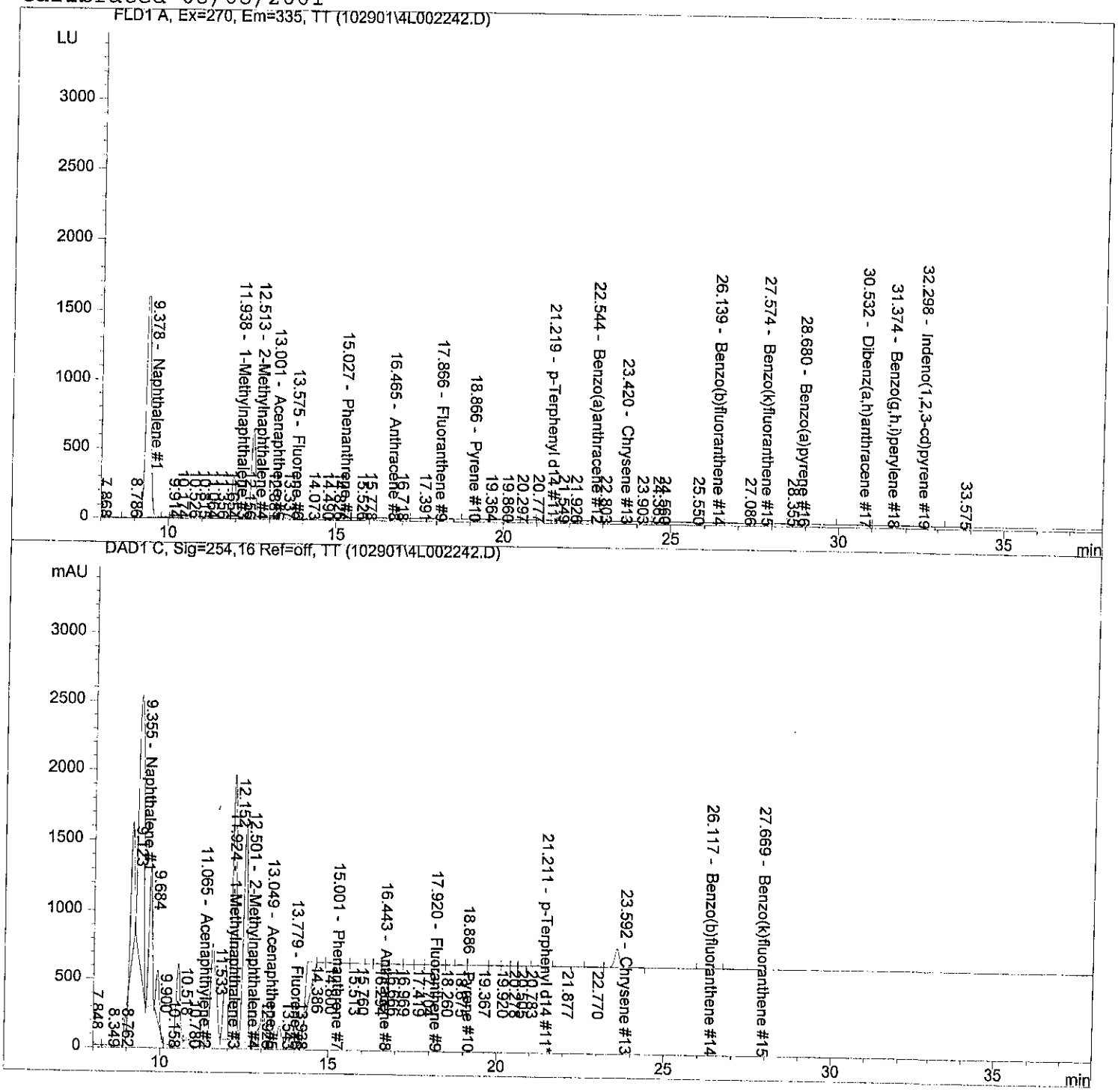
==========

Injection Date : 10/29/2001 8:11:40 PM
Sample Name : L0110522-01 831W
Acq. Operator : RDC

Seq. Line : 8
Vial : 8
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/29/2001 2:11:32 PM by RDC
(modified after loading)

Calibrated 08/08/2001



HPLC4 10/30/2001 9:10:22 AM RDC

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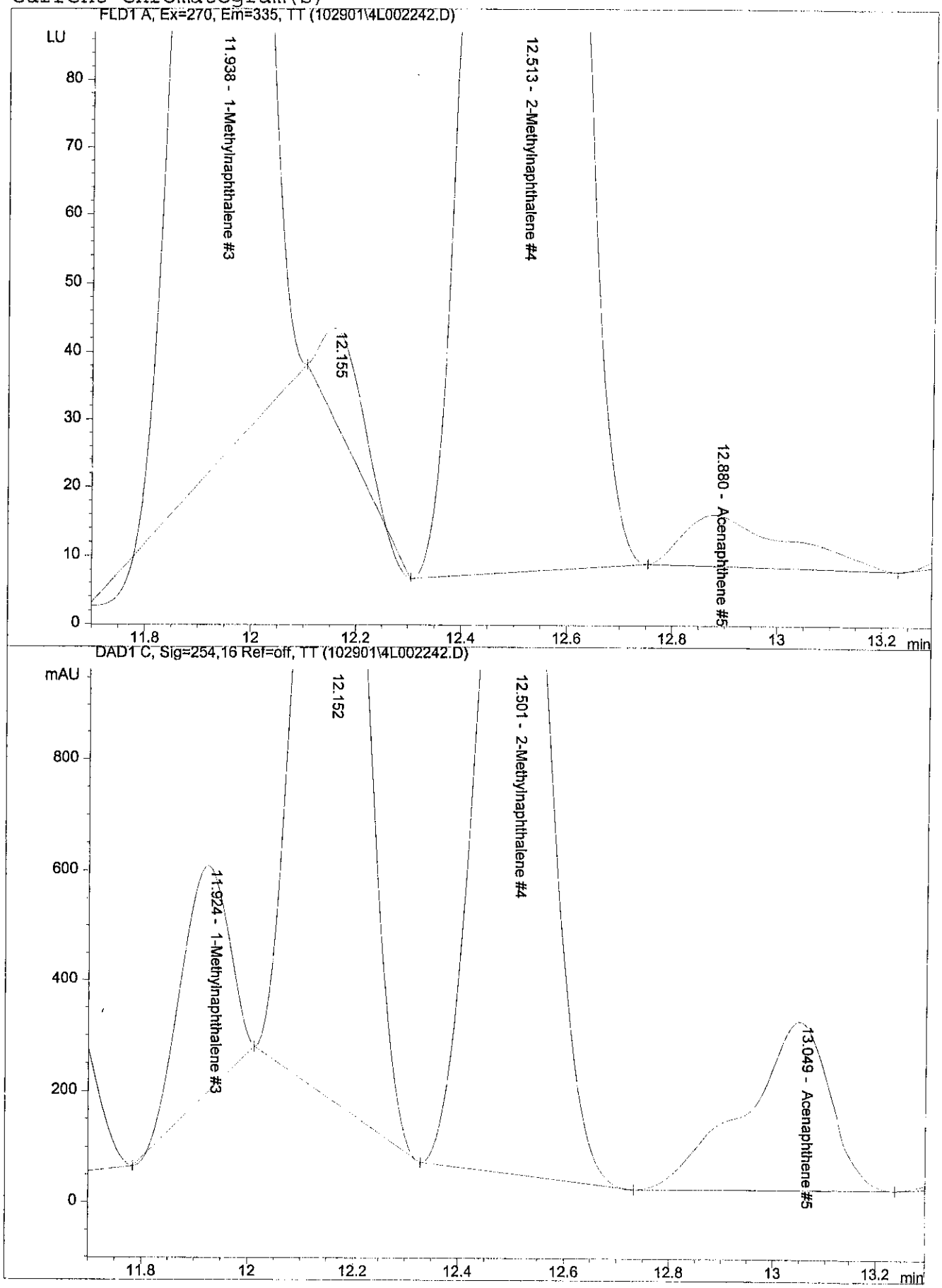
Page 1 of 3

Current Chromatogram(s)



HPLC4 10/30/2001 9:08:53 AM RDC

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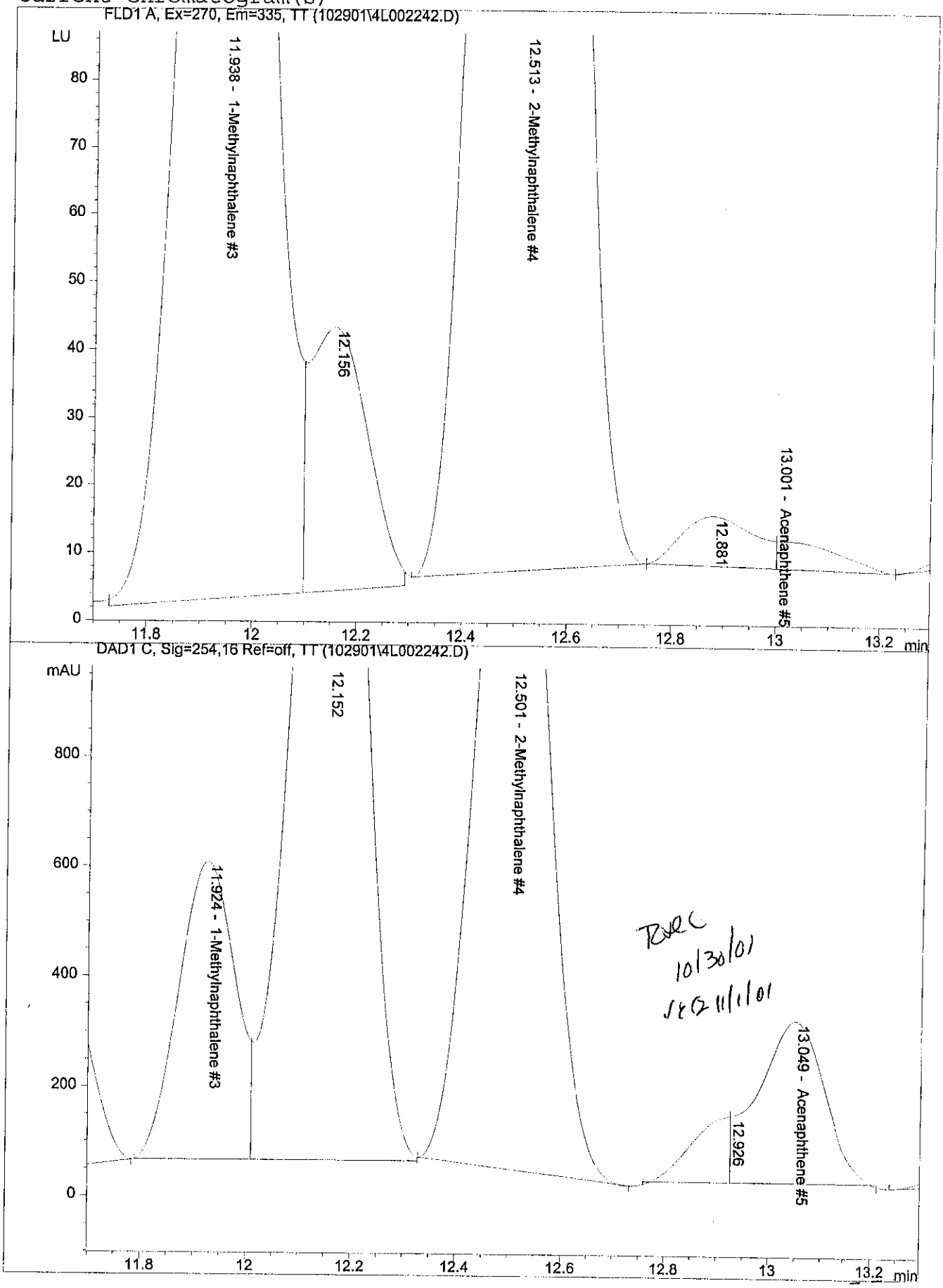
Page 1 of 1

Current Chromatogram(s)



HPLC4 10/30/2001 9:10:19 AM RDC

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Page 1 of 1

External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 10/29/2001 2:11:30 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.378	BB	1.73274e4	2.52962e-2	438.31608		Naphthalene #1 I
11.938	MV	2775.80688	2.21330e-2	61.43681		1-Methylnaphthalene #3
12.513	BB	5788.38330	1.70635e-2	98.77004		2-Methylnaphthalene #4
13.001	FM	31.86018	1.38416e-2	4.40995e-1		Acenaphthene #5
13.575	BB	207.30978	6.62187e-3	1.37278		Fluorene #6
15.027	BB	1.25209	1.63652e-1	2.04907e-1		Phenanthrene #7
16.465	BB	6.93766e-1	3.10196e-1	2.15204e-1		Anthracene #8
17.866	BB	1.31143	2.32678e-2	3.05141e-2		Fluoranthene #9
18.866	BB	3.02636e-1	3.86587e-2	1.16995e-2		Pyrene #10
21.219	BB	14.56548	2.97423e-1	4.33211		p-Terphenyl d14 #11*
22.544	BB	1.94555	7.91256e-3	1.53943e-2		Benzo(a)anthracene #12
23.420	BB	1.02196	3.90495e-2	3.99069e-2		Chrysene #13
26.139	BB	1.26543	1.63222e-2	2.06545e-2		Benzo(b)fluoranthene #14
27.574	BB	3.13708	2.76572e-3	8.67628e-3		Benzo(k)fluoranthene #15
28.680	BB	3.16092	4.57119e-3	1.44492e-2		Benzo(a)pyrene #16
30.532	PB	6.11913e-1	3.93496e-2	2.40785e-2		Dibenz(a,h)anthracene #17
31.374	BB	7.29864e-1	2.65165e-2	1.93534e-2		Benzo(g,h,i)perylene #18
32.298	BB	1.73983	1.38204e-2	2.40451e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 605.29769

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.355	BB	2.15010e4	8.25405e-3	177.47069		Naphthalene #1 I
11.065	BB	886.66705	2.96975e-2	26.33181		Acenaphthylene #2 poor conf.
11.924	MV	4053.04590	1.29459e-2	52.47015		1-Methylnaphthalene #3
12.501	BB	1.39504e4	1.12393e-2	156.79283		2-Methylnaphthalene #4 I
13.049	FM	2625.84009	2.03163e-2	53.34747	NC	Acenaphthene #5
13.779	BB	97.27188	1.75240e-2	1.70459		Fluorene #6
15.001	BB	25.31515	1.72982e-2	4.37908e-1		Phenanthrene #7 NC
16.443	BB	17.48737	1.04262e-2	1.82327e-1	<MDL	Anthracene #8
17.920	BB	2.27837	2.17006e-2	4.94419e-2	NC	Fluoranthene #9 <MDL
18.886	BB	23.63251	1.43052e-2	3.38069e-1	NC	Pyrene #10
21.211	BB	56.96120	6.56733e-2	3.74083		p-Terphenyl d14 #11*
22.568		-	-	-	37.4%	Benzo(a)anthracene #12
23.592	BB	1408.22412	1.51453e-2	21.32797	NC	Chrysene #13
26.117	BB	1.07351	2.07330e-2	2.22570e-2	<MDL	Benzo(b)fluoranthene #14
27.669	PB	2.27328	2.25837e-2	5.13391e-2	NC	Benzo(k)fluoranthene #15
28.749		-	-	-		Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.433		-	-	-		Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 494.26769

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

Acq On : 31 Oct 2001 1:04
Sample : L0110522-01 8310W CONF. 5X
Misc : 1,5
MS Integration Params: RTEINT.P
Quant Time: Oct 31 07:54:50 2001

Operator: mdc
Inst : HPMS7
Multiplr: 5.00

Quant Results File: PAHLOW.RES

Quant Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 10/30/01
Last Update : Tue Oct 30 17:01:28 2001
Response via : Initial Calibration
DataAcq Meth : PAHL

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	6.62	136	635515	1.00 ug/ml	0.00
6) Acenaphthene-d10	8.41	164	438174	1.00 ug/ml	0.00
11) Phenanthrene-d10	9.94	188	495948	1.00 ug/ml	0.00
15) Chrysene-d12	12.78	240	519041	1.00 ug/ml	0.00
20) Perylene-d12	15.34	264	267496	1.00 ug/ml	0.00
System Monitoring Compounds					
2) Nitrobenzene-d5	5.95	82	133753	2.8761 ug/ml	0.04
Spiked Amount 2.500	Range 35 - 114		Recovery	= 115.20%#	
7) 2-Fluorobiphenyl	7.67	172	6255	0.0538 ug/ml	0.00
Spiked Amount 2.500	Range 43 - 116		Recovery	= 2.00%#	
17) p-Terphenyl-d14	11.51	244	271355	3.5319 ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery	= 141.20%#	
Target Compounds					Qvalue
3) Naphthalene	6.64	128	15840826	23.4892 ug/ml#	29
4) 2-Methylnaphthalene	7.34	142	4574583	10.8258 ug/ml	100
5) 1-Methylnaphthalene	7.45	142	4051598	9.4693 ug/ml#	1

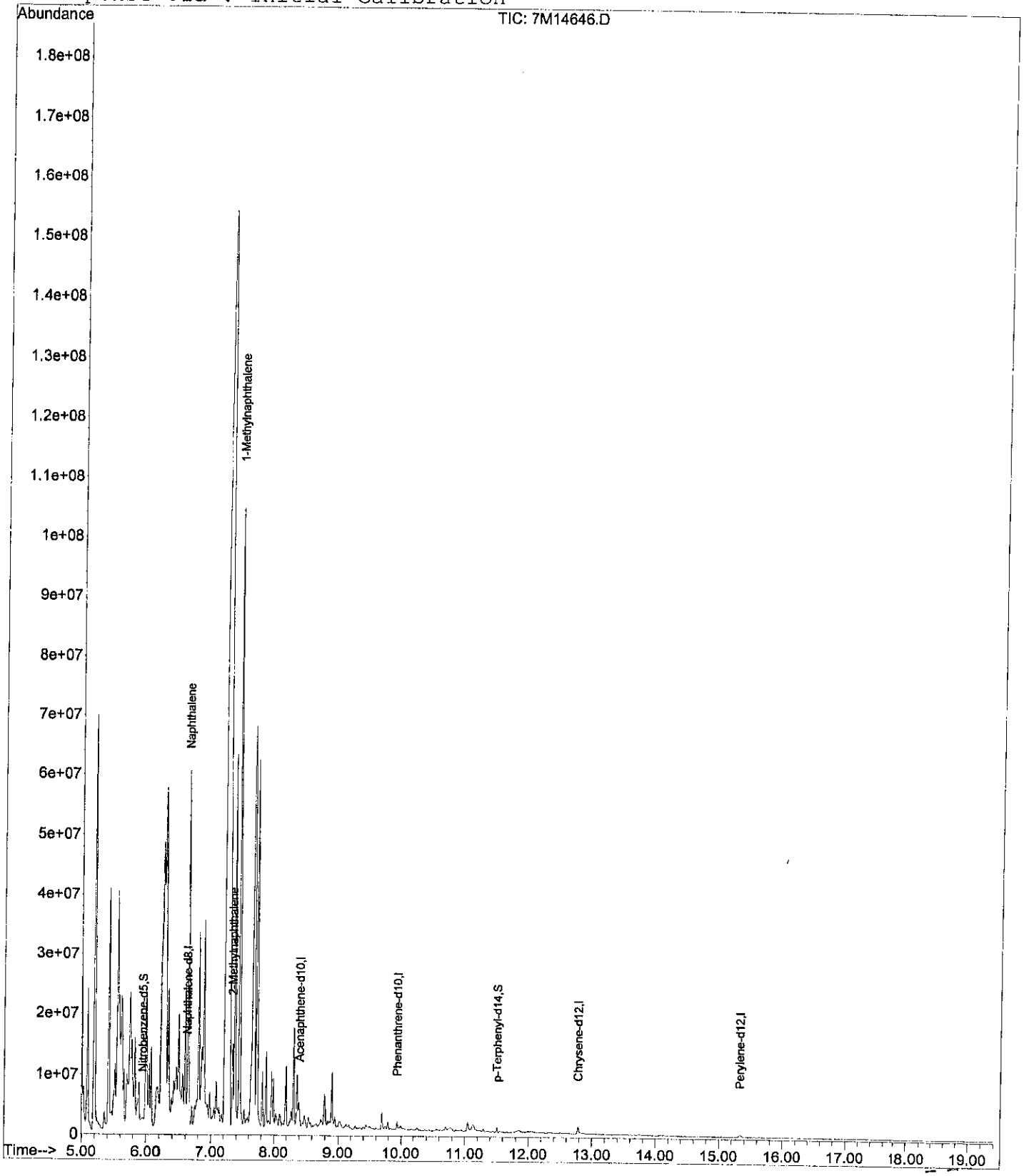
(#) = qualifier out of range (m) = manual integration

Acq On : 31 Oct 2001 1:04
Sample : L0110522-01 8310W CONF. 5X
Misc : 1,5
MS Integration Params: RTEINT.P
Quant Time: Oct 31 7:54 2001

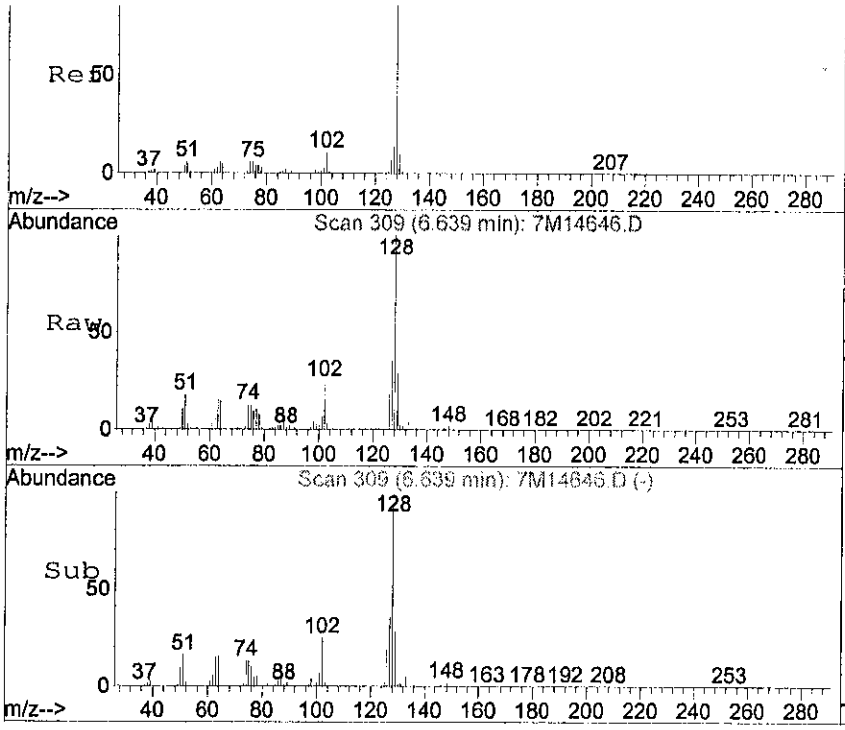
Operator: mdc
Inst : HPMS7
Multiplr: 5.00

Quant Results File: PAHLOW.RES

Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 10/30/01
Last Update : Tue Oct 30 17:01:28 2001
Response via : Initial Calibration



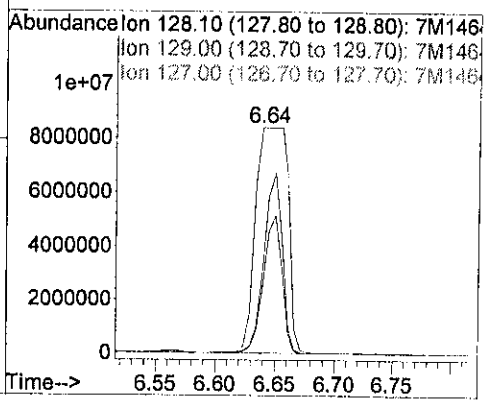
7M14646.D PAHLOW.M Wed Oct 31 07:55:01 2001 HPMS7 Page 317

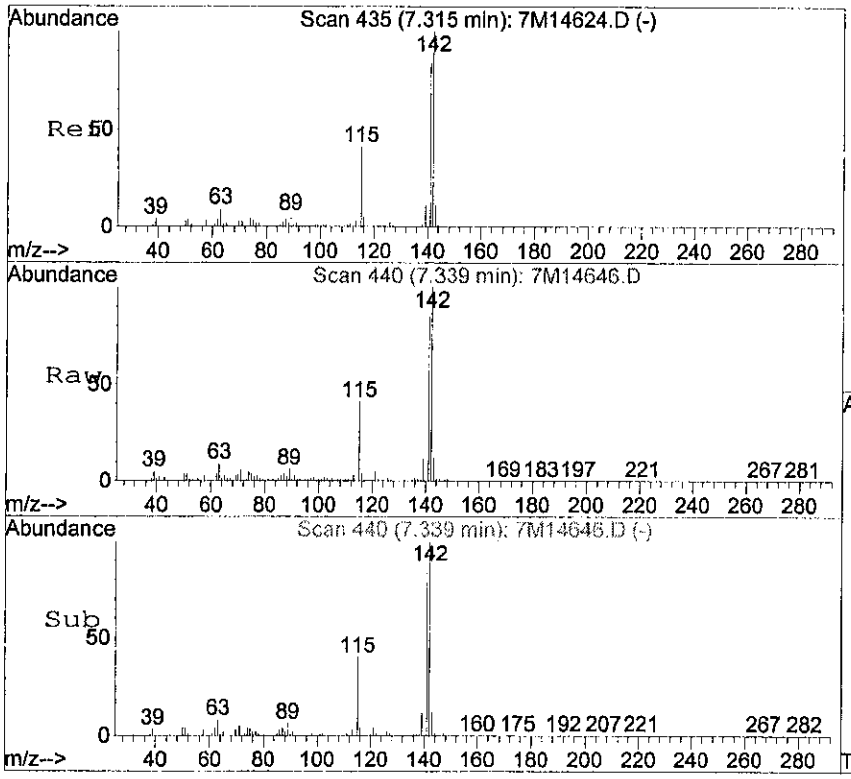


Concen: 23.49 ug/ml
RT: 6.64 min Scan# 309
Delta R.T. 0.00 min
Lab File: 7M14646.D
Acq: 31 Oct 2001 1:04

Tgt Ion:128 Resp:15840826

Ion	Ratio	Lower	Upper
128	100		
129	35.2	8.7	13.1#
127	44.8	11.1	16.7#

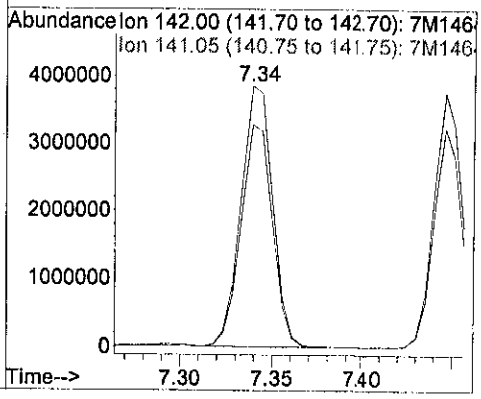


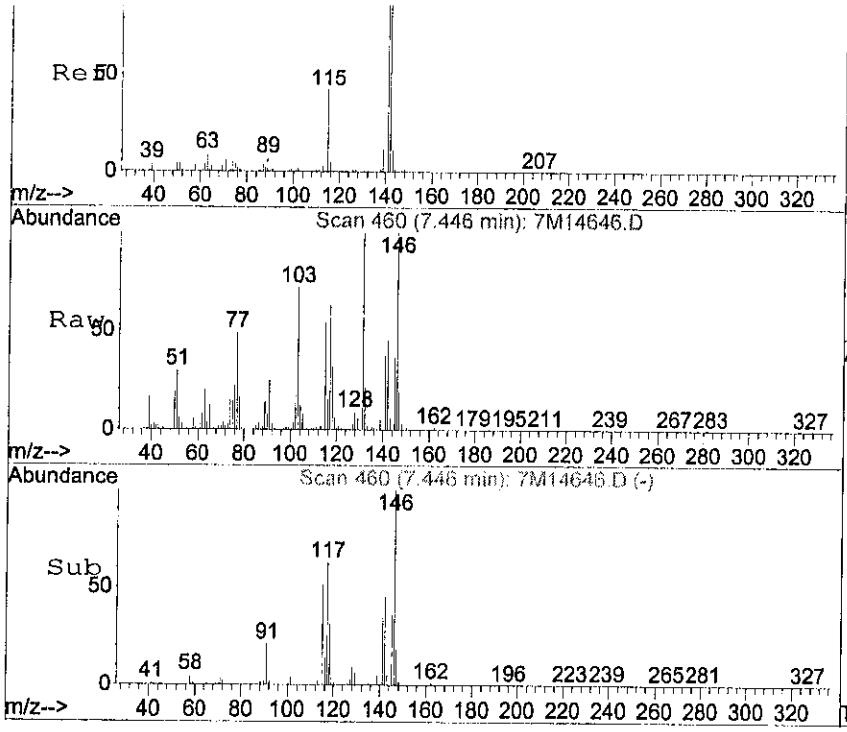


#4
2-Methylnaphthalene
Concen: 10.83 ug/ml
RT: 7.34 min Scan# 440
Delta R.T. 0.02 min
Lab File: 7M14646.D
Acq: 31 Oct 2001 1:04

Tgt Ion:142 Resp: 4574583

Ion	Ratio	Lower	Upper
142	100		
141	84.8	67.7	101.5

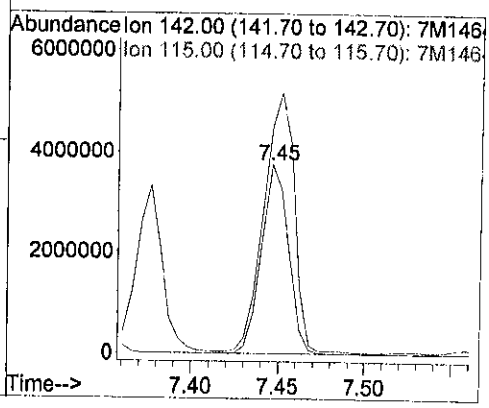




Concen: 9.47 ug/ml
RT: 7.45 min Scan# 460
Delta R.T. 0.02 min
Lab File: 7M14646.D
Acq: 31 Oct 2001 1:04

Tgt Ion:142 Resp: 4051598

Ion	Ratio	Lower	Upper
142	100		
115	154.6	32.1	48.1#



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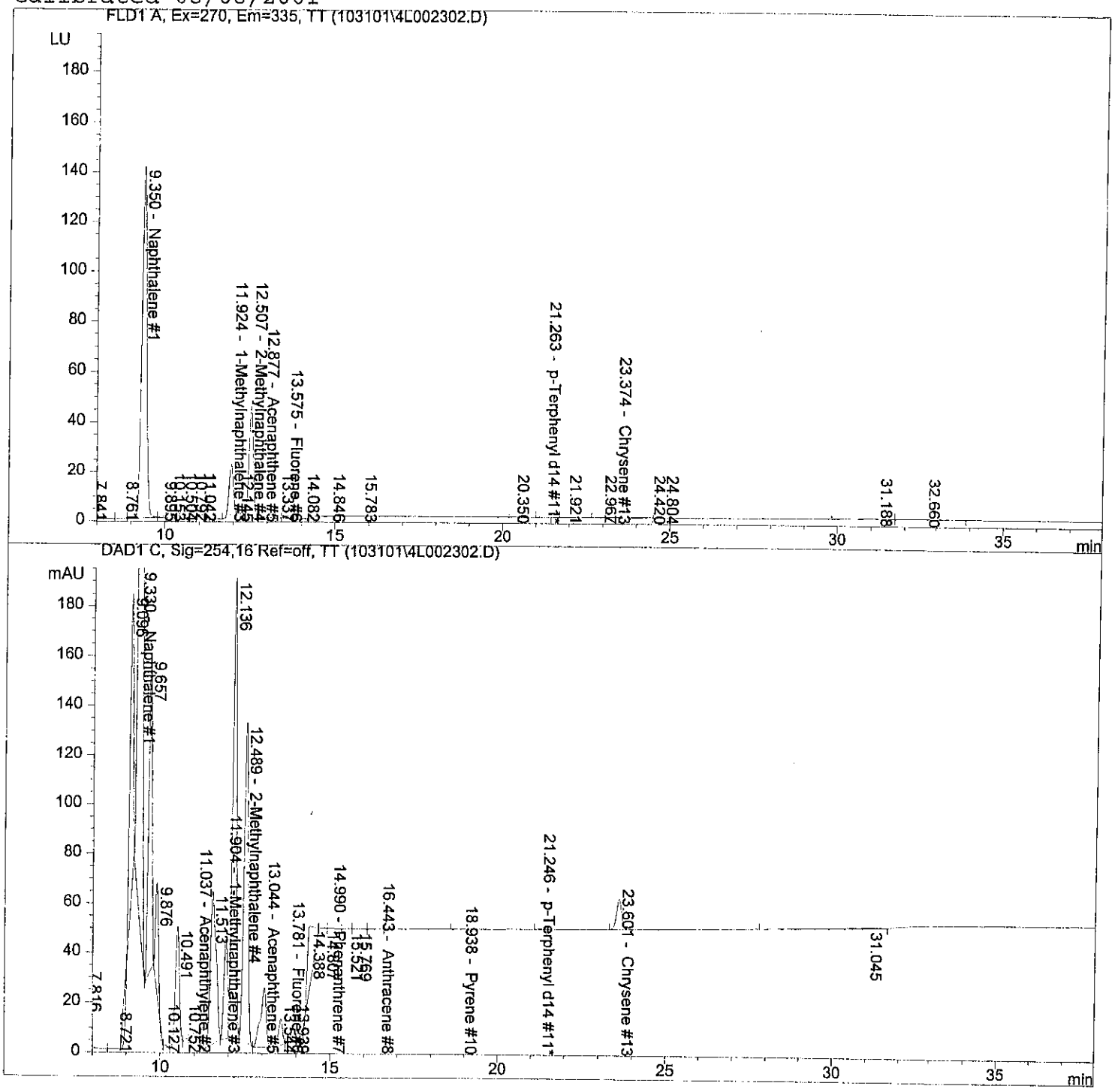
Injection Date : 11/1/2001 11:43:19 AM
Sample Name : L0110522-01 RE10
Acq. Operator : RDC

Seq. Line : 27
Vial : 27
Inj : 1
Inj Volume : 8 µl

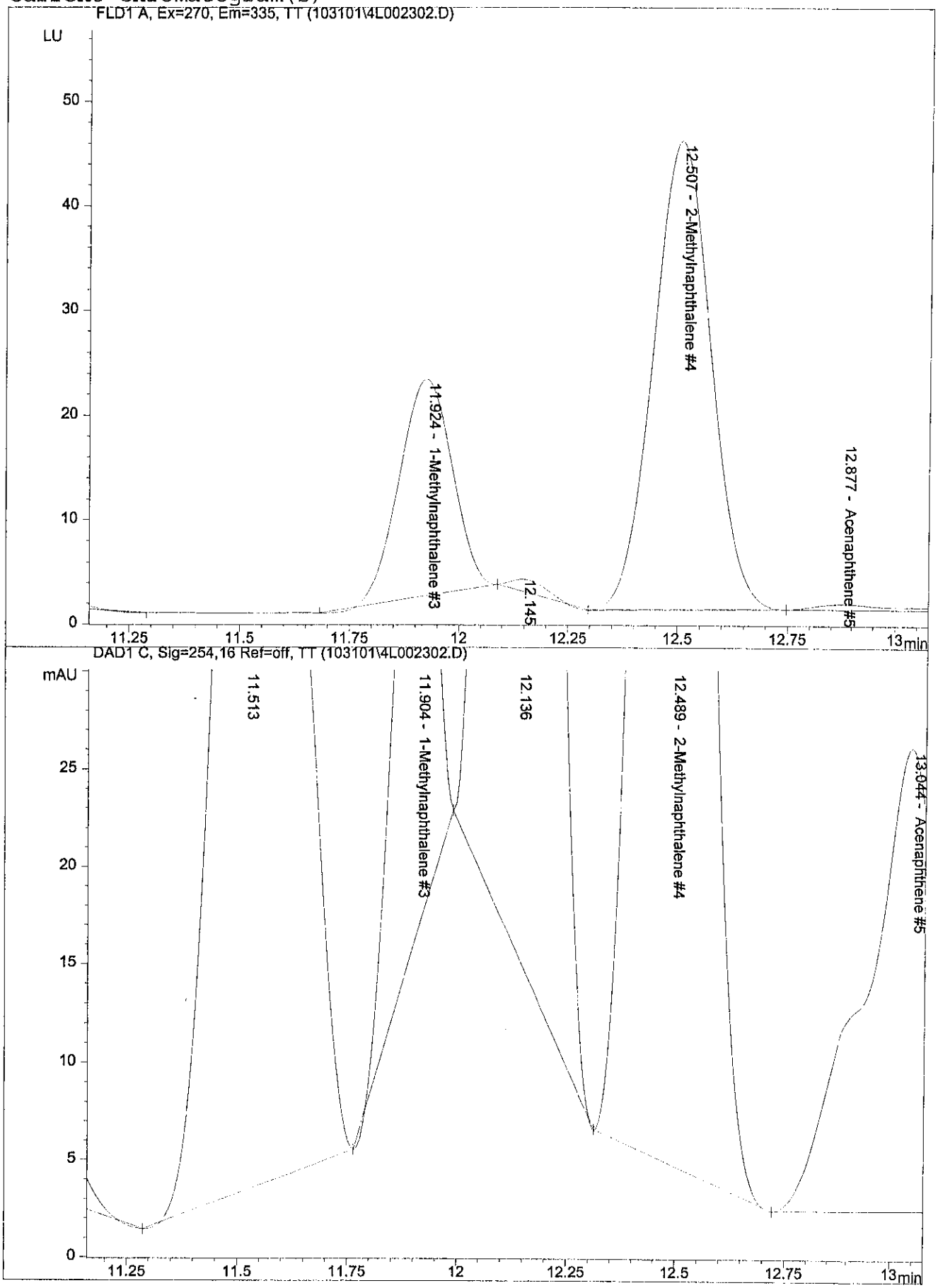
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/1/2001 11:35:38 AM by RDC
(modified after loading)

Calibrated 08/08/2001



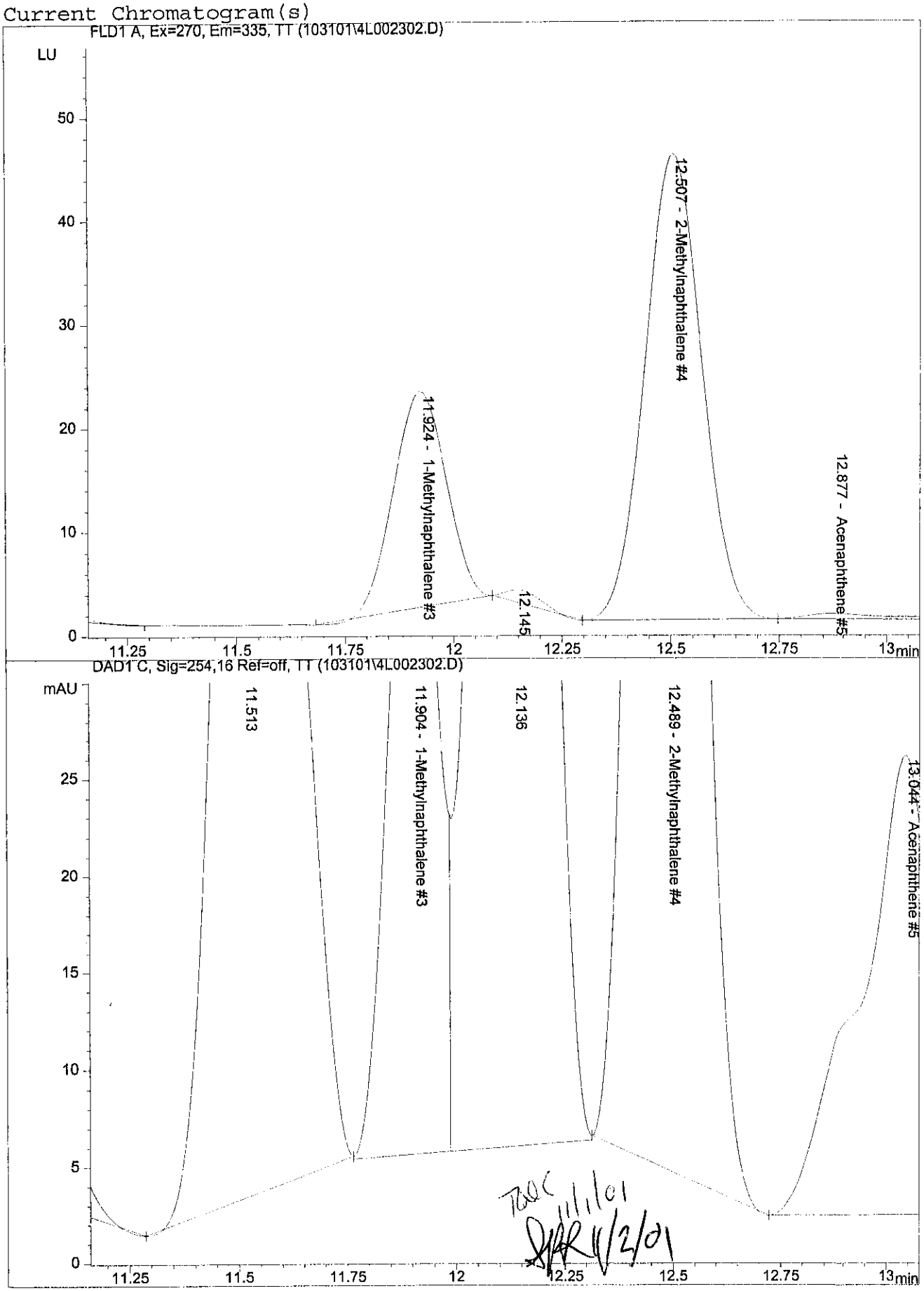
HPLC4 11/1/2001 12:10:47 PM RDC

Current Chromatogram(s)



HPLC4 11/1/2001 12:10:38 PM RDC

Current Chromatogram(s)



TWC 11/1/01

SKR 11/2/01

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Sorted By : Signal
Calib. Data Modified : Wednesday, October 31, 2001 9:15:43 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.350	BB	1357.06604	2.52962e-2	34.32861		Naphthalene #1
11.924	BB	174.51489	2.21330e-2	3.86253		1-Methylnaphthalene #3
12.507	BB	407.63336	1.70635e-2	6.95565		2-Methylnaphthalene #4
12.877	BB	7.76419	1.38416e-2	1.07469e-1		Acenaphthene #5
13.575	BB	12.62220	6.62187e-3	8.35825e-2		Fluorene #6
15.072		-	-	-		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.880		-	-	-		Fluoranthene #9
18.890		-	-	-		Pyrene #10
21.263	BB	7.55015e-1	2.97423e-1	2.24559e-1		p-Terphenyl d14 #11*
22.587		-	-	-		Benzo(a)anthracene #12
23.374	BB	2.55850e-1	3.90495e-2	9.99081e-3		Chrysene #13
26.210		-	-	-		Benzo(b)fluoranthene #14
27.662		-	-	-		Benzo(k)fluoranthene #15
28.769		-	-	-		Benzo(a)pyrene #16
30.650		-	-	-		Dibenz(a,h)anthracene #17
31.455		-	-	-		Benzo(g,h,i)perylene #18
32.406		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 45.57239

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.330	BB	3655.10693	8.25405e-3	30.16943		Naphthalene #1
11.037	BB	64.81805	2.96975e-2	~~1.92493~~	NC	Acenaphthylene #2
11.904	MV	301.23615	1.29459e-2	3.89976		1-Methylnaphthalene #3
12.489	BB	1119.43872	1.12393e-2	12.58168		2-Methylnaphthalene #4
13.044	BB	273.07559	2.03163e-2	5.54790		Acenaphthene #5
13.781	BB	7.58986	1.75240e-2	1.33005e-1		Fluorene #6
14.990	BB	1.77726	1.72982e-2	3.07434e-2		Phenanthrene #7
16.443	BB	2.60825	1.04262e-2	2.71941e-2		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.938	PB	2.33158	1.43052e-2	3.33539e-2		Pyrene #10
21.246	BBA	2.54905	6.56733e-2	1.67405e-1		p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.601	BBA	124.44728	1.51453e-2	1.88479		Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.642		-	-	-		Benzo(k)fluoranthene #15
28.749		-	-	-		Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

31.433		-	-	-		Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 56.40020

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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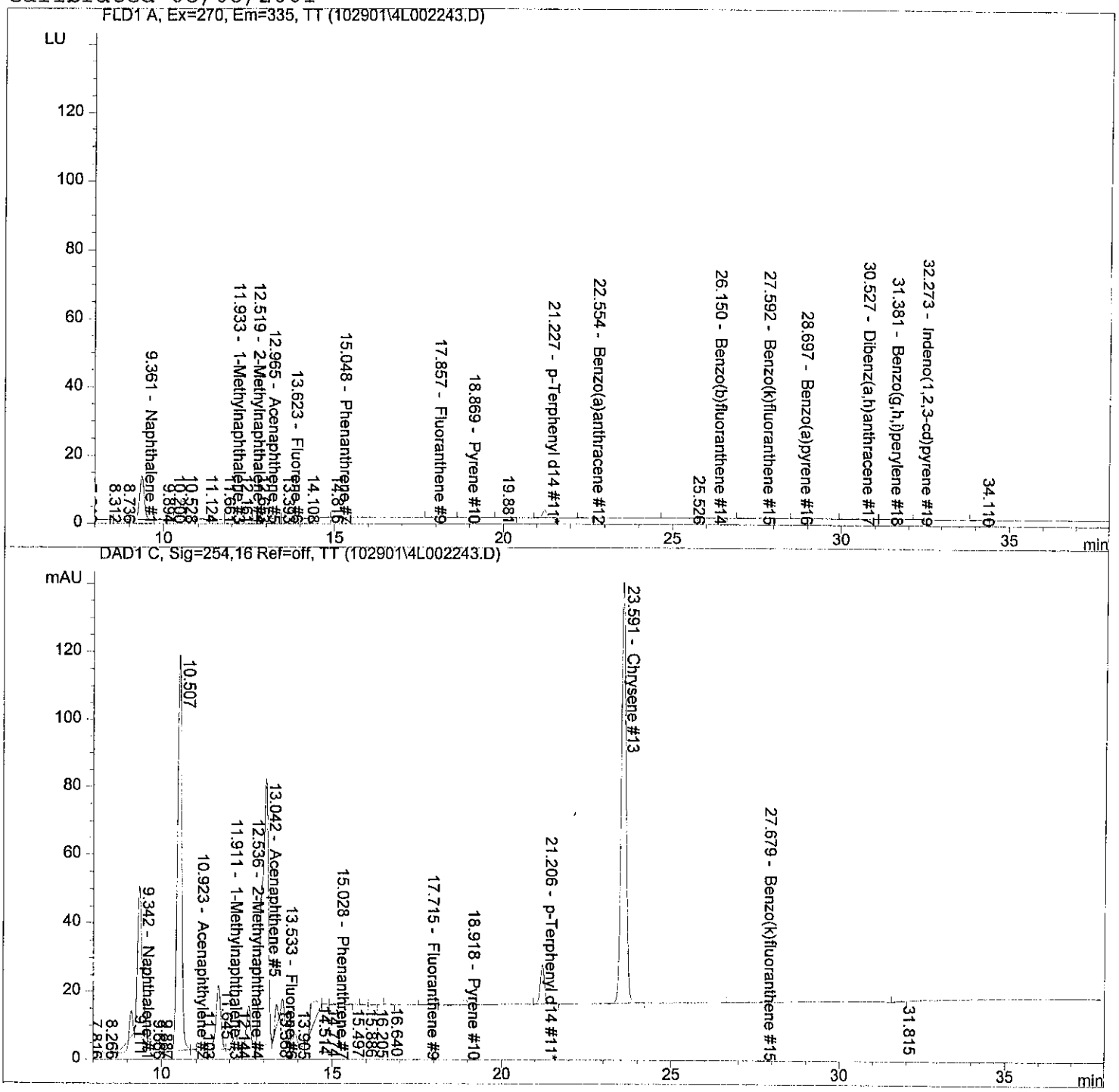
Injection Date	: 10/29/2001 9:08:20 PM	Seq. Line :	9
Sample Name	: L0110522-02 831W	Vial :	9
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/29/2001 2:11:32 PM by RDC
(modified after loading)

Calibrated 08/08/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : 10/29/2001 2:11:30 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.361	BB	123.33298	2.52962e-2	3.11986		Naphthalene #1
11.933	BB	2.00209	2.21330e-2	4.43121e-2		1-Methylnaphthalene #3
12.519	BB	4.06887e-1	1.70635e-2	6.94292e-3		2-Methylnaphthalene #4
12.965	BB	28.88736	1.38416e-2	3.99846e-1		Acenaphthene #5
13.623	BB	20.40781	6.62187e-3	1.35138e-1		Fluorene #6
15.048	BB	3.14482e-1	1.63652e-1	5.14656e-2		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.857	PBA	6.12234e-1	2.32678e-2	1.42454e-2		Fluoranthene #9
18.869	BBA	3.42010e-1	3.86587e-2	1.32217e-2		Pyrene #10
21.227	BB	22.37169	2.97423e-1	6.65385		p-Terphenyl d14 #11*
22.554	BB	6.20395e-1	7.91256e-3	4.90891e-3		Benzo(a)anthracene #12
23.473		-	-	-		Chrysene #13
26.150	BBA	3.23387e-1	1.63222e-2	5.27839e-3		Benzo(b)fluoranthene #14
27.592	BBA	1.13666	2.76572e-3	3.14368e-3		Benzo(k)fluoranthene #15
28.697	PBA	7.94320e-1	4.57119e-3	3.63099e-3		Benzo(a)pyrene #16
30.527	BB	3.43758e-1	3.93496e-2	1.35267e-2		Dibenz(a,h)anthracene #17
31.381	BB	2.46798e-1	2.65165e-2	6.54422e-3		Benzo(g,h,i)perylene #18
32.273	BBA	2.06978e-1	1.38204e-2	2.86052e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 10.47877

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.342	BB	423.98611	8.25405e-3	3.49960		Naphthalene #1
10.923	BB	9.88389e-1	2.96975e-2	2.93527e-2	<MDL	Acenaphthylene #2
11.911	BB	5.21314e-1	1.29459e-2	6.74886e-3		1-Methylnaphthalene #3
12.536	BB	109.37965	1.12393e-2	1.22935	NC	2-Methylnaphthalene #4
13.042	BB	989.27429	2.03163e-2	20.09844	NC	Acenaphthene #5
13.533	BB	39.21986	1.75240e-2	6.87289e-1	NC	Fluorene #6
15.028	BB	2.23234	1.72982e-2	3.86155e-2	<MDL	Phenanthrene #7
16.471		-	-	-		Anthracene #8
17.715	BB	1.82608	2.17006e-2	3.96270e-2	<MDL	Fluoranthene #9
18.918	BB	17.01275	1.43052e-2	2.43372e-1	NC	Pyrene #10
21.206	PB	101.23447	6.56733e-2	6.64840		p-Terphenyl d14 #11*
22.568		-	-	-	66.5%	Benzo(a)anthracene #12
23.591	PBA	1263.92883	1.51453e-2	19.14258	NC	Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.679	PBA	2.12029	2.25837e-2	4.78840e-2	NC	Benzo(k)fluoranthene #15
28.749		-	-	-		Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

Retime [min]	Type	Area [mAU*s]	Time/Area	Amount [ug/L]	Grp	Name
31.433		-	-	-		Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 51.71125

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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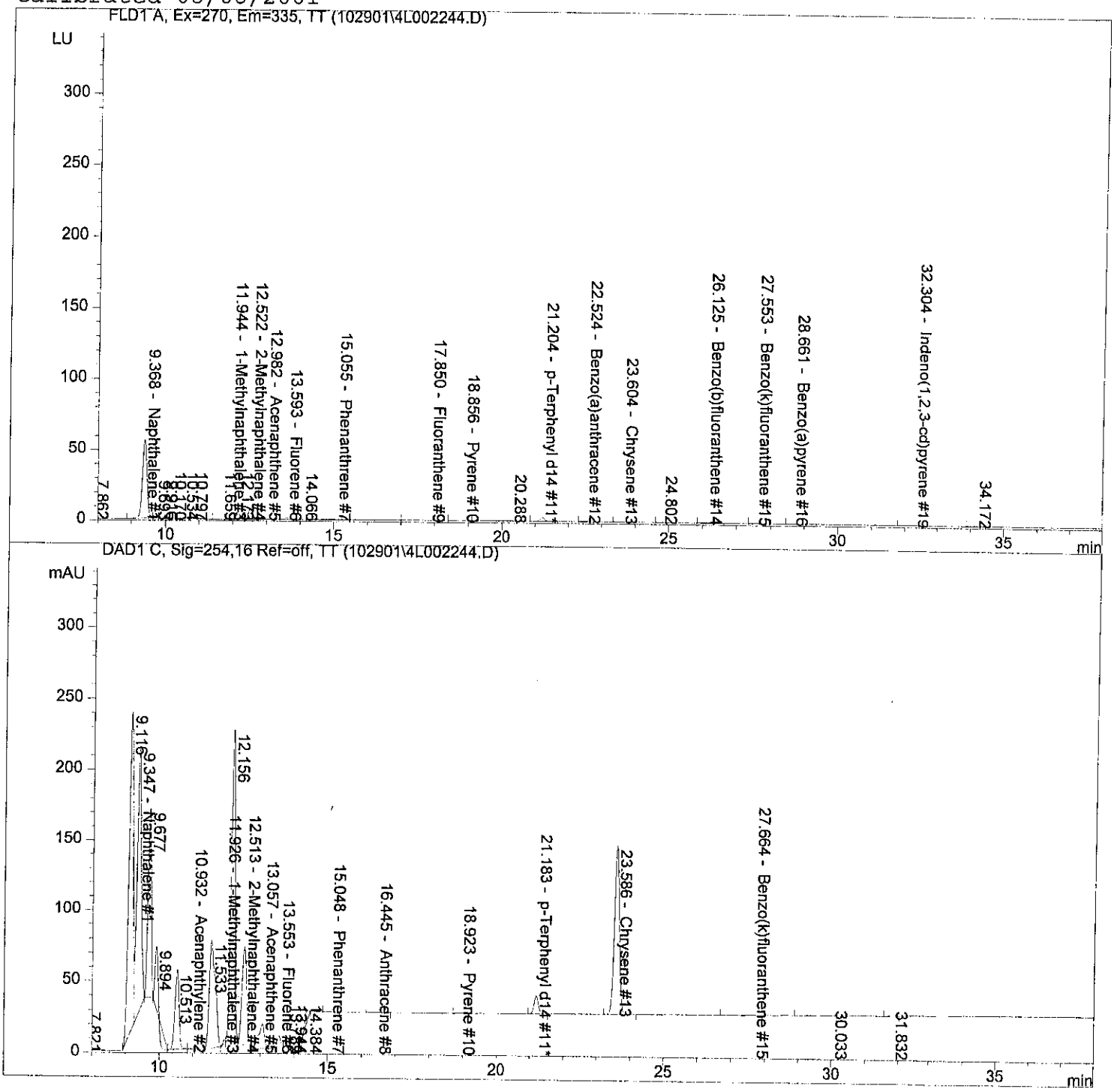
Injection Date : 10/29/2001 10:05:02 PM
Sample Name : L0110522-03 831W
Acq. Operator : RDC

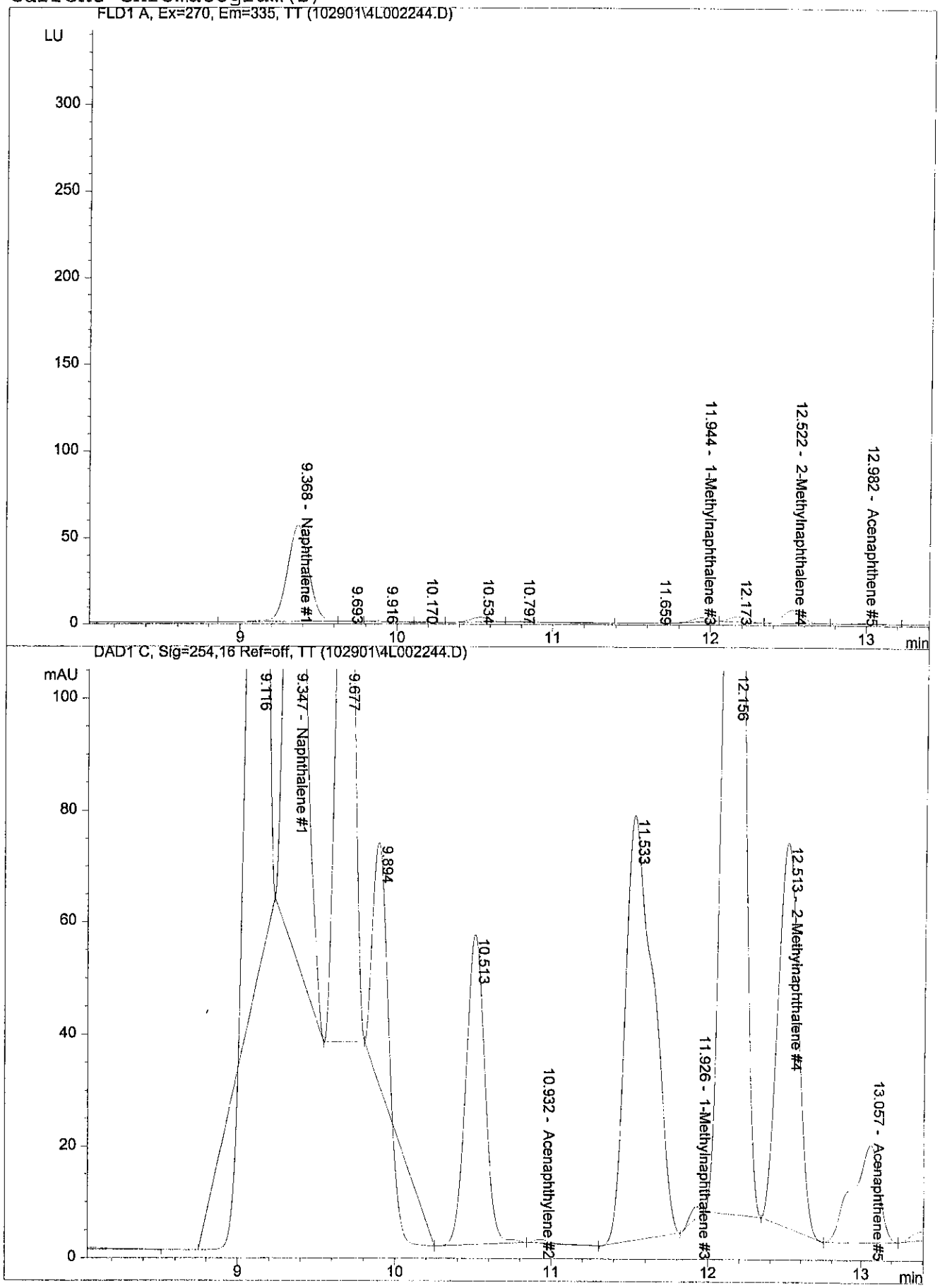
Seq. Line : 10
Vial : 10
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/30/2001 9:34:44 AM by RDC
(modified after loading)

Calibrated 08/08/2001



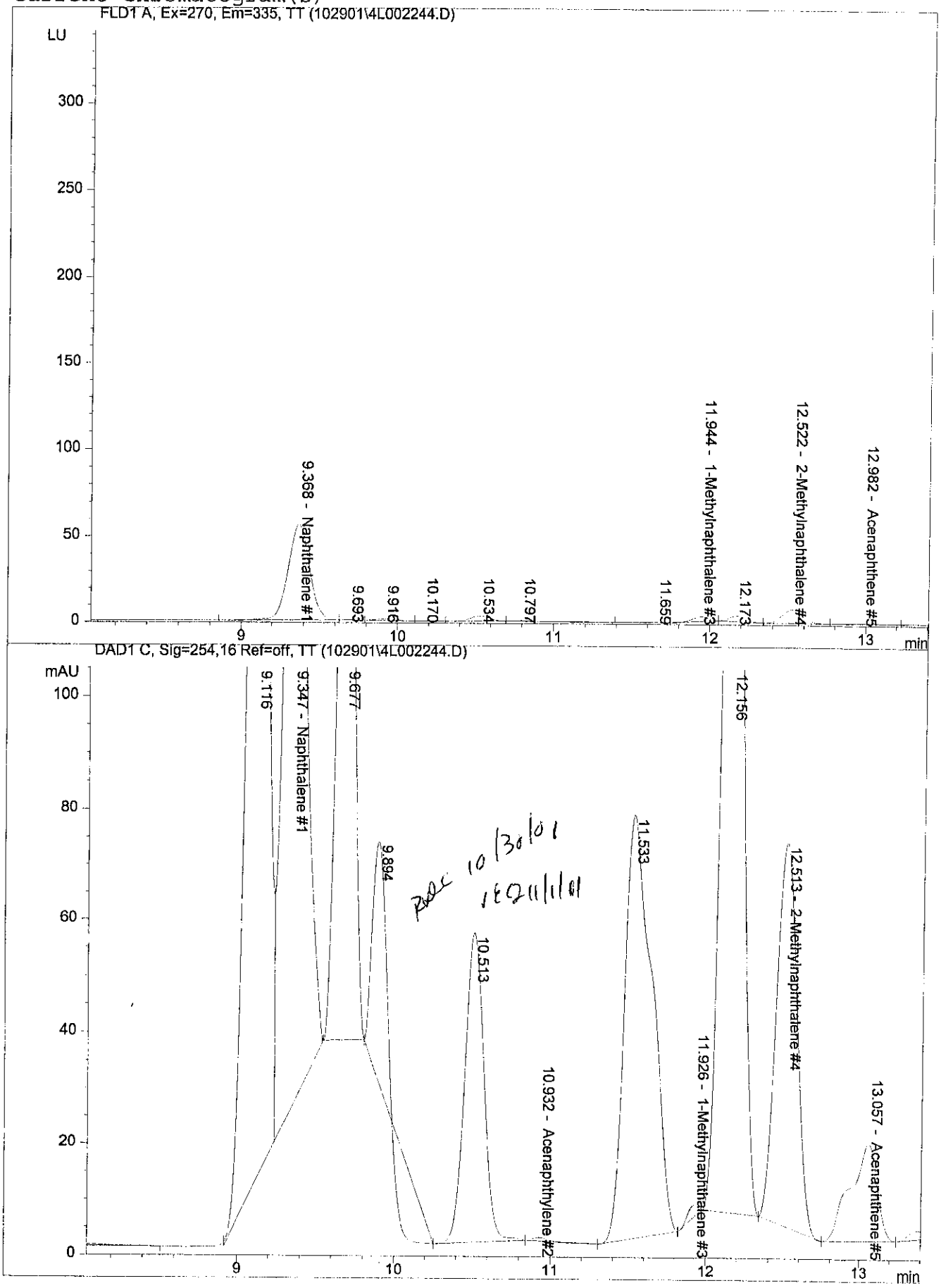
Current Chromatogram(s)



HPLC4 10/30/2001 11:52:47 AM RDC

Page 1 of 1

Current Chromatogram(s)



RDC 10/30/01
1:02 11/1/01

HPLC4 10/30/2001 11:53:11 AM RDC

External Standard Report

Sorted By : Signal
Calib. Data Modified : Tuesday, October 30, 2001 9:34:44 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.368	BB	530.60345	2.52962e-2	13.42225		Naphthalene #1
11.944	BB	18.60056	2.21330e-2	4.11685e-1		1-Methylnaphthalene #3
12.522	BB	68.82681	1.70635e-2	1.17443	(P)	2-Methylnaphthalene #4
12.982	BB	5.85701	1.38416e-2	8.10701e-2		Acenaphthene #5
13.593	BB	14.96961	6.62187e-3	9.91267e-2		Fluorene #6
15.055	BB	32.20211	1.63652e-1	5.26995		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.850	BB	5.73042e-1	2.32678e-2	1.33335e-2		Fluoranthene #9
18.856	BB	2.94365e-1	3.86587e-2	1.13798e-2		Pyrene #10
21.204	BBA	23.98694	2.97423e-1	7.13426		p-Terphenyl d14 #11*
22.524	PB	4.68314e-1	7.91256e-3	3.70556e-3		Benzo(a)anthracene #12
23.604	BB	4.36364e-1	3.90495e-2	1.70398e-2		Chrysene #13
26.125	BBA	4.04801e-1	1.63222e-2	6.60724e-3		Benzo(b)fluoranthene #14
27.553	BBA	7.03324e-1	2.76572e-3	1.94519e-3		Benzo(k)fluoranthene #15
28.661	PBA	4.65406e-1	4.57119e-3	2.12746e-3		Benzo(a)pyrene #16
30.650		-	-	-		Dibenz(a,h)anthracene #17
31.455		-	-	-		Benzo(g,h,i)perylene #18
32.304	PB	3.08614e-1	1.38204e-2	4.26517e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 27.65317

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.347	VM	1634.96582	8.25405e-3	13.49509		Naphthalene #1
10.932	BB	4.01148	2.96975e-2	1.19131e-1	<MDL	Acenaphthylene #2
11.926	BB	9.47058	1.29459e-2	1.22605e-1		1-Methylnaphthalene #3
12.513	BB	635.13098	1.12393e-2	7.13841	(P)	2-Methylnaphthalene #4
13.057	BB	212.19313	2.03163e-2	4.31099	NC	Acenaphthene #5
13.553	BB	74.79909	1.75240e-2	1.31078	NC	Fluorene #6
15.048	BB	3.74884	1.72982e-2	6.48483e-2	<MDL	Phenanthrene #7
16.445	BBA	5.46212	1.04262e-2	5.69490e-2		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.923	BBA	5.17928	1.43052e-2	7.40909e-2	NC	Pyrene #10
21.183	PBA	106.46515	6.56733e-2	6.99191		p-Terphenyl d14 #11*
22.568		-	-	-	69.9%	Benzo(a)anthracene #12
23.586	PBA	1214.60645	1.51453e-2	18.39557	NC	Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.664	PB	2.01076	2.25837e-2	4.54104e-2	NC	Benzo(k)fluoranthene #15
28.749		-	-	-		Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.433		-	-	-		Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 52.12579

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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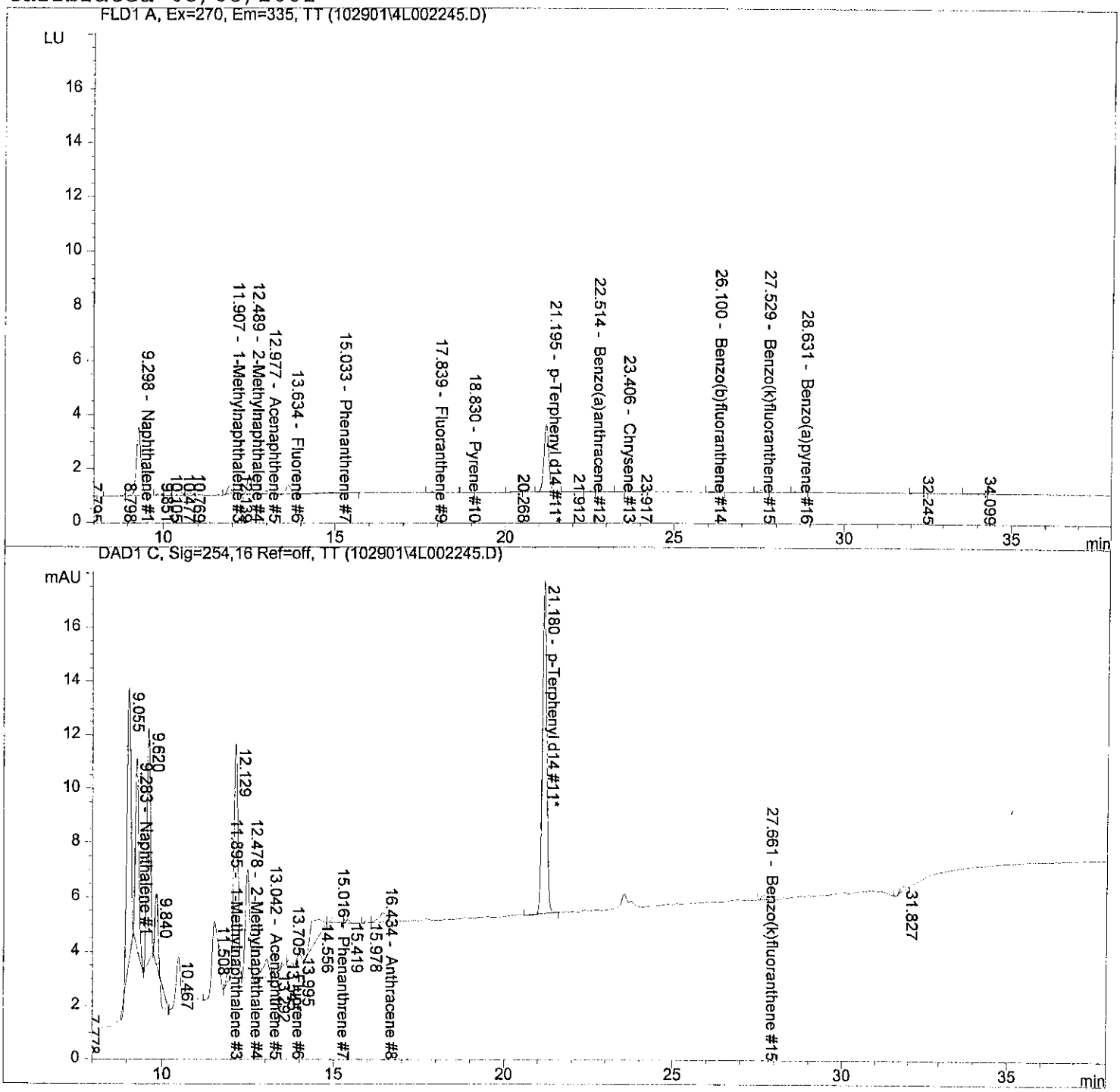
Injection Date	: 10/29/2001 11:01:42 PM	Seq. Line	: 11
Sample Name	: L0110522-04 831W	Vial	: 11
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/29/2001 2:11:32 PM by RDC
(modified after loading)
Calibrated 08/08/2001



External Standard Report

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Sorted By : Signal
Calib. Data Modified : 10/29/2001 2:11:30 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.298	BB	24.62200	2.52962e-2	6.22843e-1		Naphthalene #1
11.907	BB	2.39448	2.21330e-2	5.29970e-2		1-Methylnaphthalene #3
12.489	BB	6.42513	1.70635e-2	1.09635e-1		2-Methylnaphthalene #4
12.977	BB	1.31927	1.38416e-2	1.82608e-2		Acenaphthene #5
13.634	BB	3.66635	6.62187e-3	2.42781e-2		Fluorene #6
15.033	BB	2.26262	1.63652e-1	3.70284e-1		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.839	PBA	3.66965e-1	2.32678e-2	8.53849e-3		Fluoranthene #9
18.830	BBA	1.78085e-1	3.86587e-2	6.88453e-3		Pyrene #10
21.195	BBA	23.82591	2.97423e-1	7.08637		p-Terphenyl d14 #11*
22.514	BB	3.26847e-1	7.91256e-3	2.58619e-3		Benzo(a)anthracene #12
23.406	BB	1.64559e-1	3.90495e-2	6.42597e-3		Chrysene #13
26.100	BBA	2.93624e-1	1.63222e-2	4.79258e-3		Benzo(b)fluoranthene #14
27.529	PBA	8.59422e-1	2.76572e-3	2.37692e-3		Benzo(k)fluoranthene #15
28.631	BBA	4.95724e-1	4.57119e-3	2.26605e-3		Benzo(a)pyrene #16
30.650		-	-	-		Dibenz(a,h)anthracene #17
31.455		-	-	-		Benzo(g,h,i)perylene #18
32.406		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.31854

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.283	BB	51.91257	8.25405e-3	4.28489e-1	LMOL	Naphthalene #1
10.981		-	-	-		Acenaphthylene #2
11.895	BB	1.82221	1.29459e-2	2.35901e-2		1-Methylnaphthalene #3
12.478	BB	36.31400	1.12393e-2	4.08143e-1	NC	2-Methylnaphthalene #4
13.042	BB	8.26548	2.03163e-2	1.67924e-1	LMOL	Acenaphthene #5
13.705	BB	6.60155e-1	1.75240e-2	1.15686e-2		Fluorene #6
15.016	BB	3.30402	1.72982e-2	5.71537e-2		Phenanthrene #7
16.434	BBA	5.28630	1.04262e-2	5.51159e-2		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.899		-	-	-		Pyrene #10
21.180	BBA	105.81295	6.56733e-2	6.94908		p-Terphenyl d14 #11*
22.568		-	-	-	69.5%	Benzo(a)anthracene #12
23.453		-	-	-		Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.661	BBA	1.42297	2.25837e-2	3.21358e-2	LMOL	Benzo(k)fluoranthene #15
28.749		-	-	-		Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.433		-	-	-		Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.13320

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

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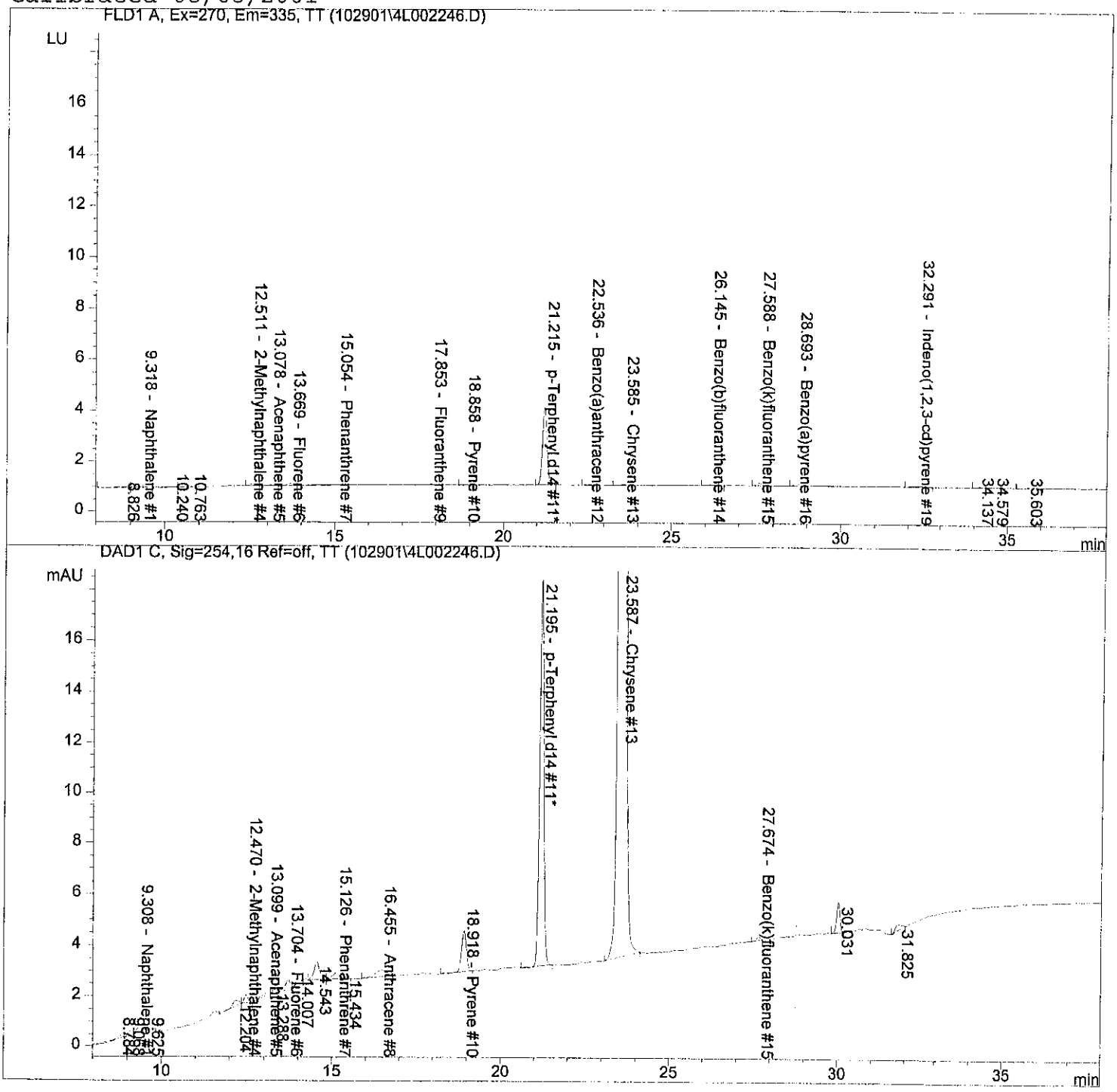
Injection Date : 10/29/2001 11:58:21 PM
Sample Name : L0110522-05 831W
Acq. Operator : RDC

Seq. Line : 12
Vial : 12
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/29/2001 2:11:32 PM by RDC
(modified after loading)

Calibrated 08/08/2001



HPLC4 10/30/2001 9:17:25 AM RDC

Page 1 of 3

External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	10/29/2001 2:11:30 PM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.318	BB	9.62325e-1	2.52962e-2	2.43432e-2		Naphthalene #1
11.949		-	-	-		1-Methylnaphthalene #3
12.511	BB	6.20899e-1	1.70635e-2	1.05947e-2		2-Methylnaphthalene #4
13.078	BB	4.14978e-1	1.38416e-2	5.74395e-3		Acenaphthene #5
13.669	BB	1.22942	6.62187e-3	8.14106e-3		Fluorene #6
15.054	BB	1.28503	1.63652e-1	2.10298e-1		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.853	BBA	6.65144e-1	2.32678e-2	1.54765e-2		Fluoranthene #9
18.858	BBA	1.83392e-1	3.86587e-2	7.08968e-3		Pyrene #10
21.215	BBA	28.89506	2.97423e-1	8.59405		p-Terphenyl d14 #11*
22.536	BB	3.99521e-1	7.91256e-3	3.16124e-3		Benzo(a)anthracene #12
23.585	PB	3.73589e-1	3.90495e-2	1.45885e-2		Chrysene #13
26.145	PBA	3.36595e-1	1.63222e-2	5.49397e-3		Benzo(b)fluoranthene #14
27.588	PBA	1.04020	2.76572e-3	2.87690e-3		Benzo(k)fluoranthene #15
28.693	BBA	7.24048e-1	4.57119e-3	3.30976e-3		Benzo(a)pyrene #16
30.650		-	-	-		Dibenz(a,h)anthracene #17
31.455		-	-	-		Benzo(g,h,i)perylene #18
32.291	BBA	4.91337e-1	1.38204e-2	6.79048e-3		Indeno(1,2,3-cd)pyrene #1
Totals :				8.91196		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.308	BB	1.18439	8.25405e-3	9.77600e-3	cmol	Naphthalene #1
10.981		-	-	-		Acenaphthylene #2
11.930		-	-	-		1-Methylnaphthalene #3
12.470	BB	2.79456	1.12393e-2	3.14088e-2		2-Methylnaphthalene #4
13.099	BB	1.60026	2.03163e-2	3.25115e-2		Acenaphthene #5
13.704	BB	3.90287	1.75240e-2	6.83940e-2		Fluorene #6
15.126	BB	3.28035	1.72982e-2	5.67443e-2		Phenanthrene #7
16.455	BBA	6.98742	1.04262e-2	7.28522e-2		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.918	PB	15.81593	1.43052e-2	2.26251e-1	NC	Pyrene #10
21.195	BBA	131.16815	6.56733e-2	8.61424		p-Terphenyl d14 #11*
22.568		-	-	-	36.1%	Benzo(a)anthracene #12
23.587	PBA	1287.67078	1.51453e-2	NC 19.50216		Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.674	PB	1.02726	2.25837e-2	2.31993e-2	cmol	Benzo(k)fluoranthene #15
28.749		-	-	-		Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.433		-	-	-		Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 28.63753

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

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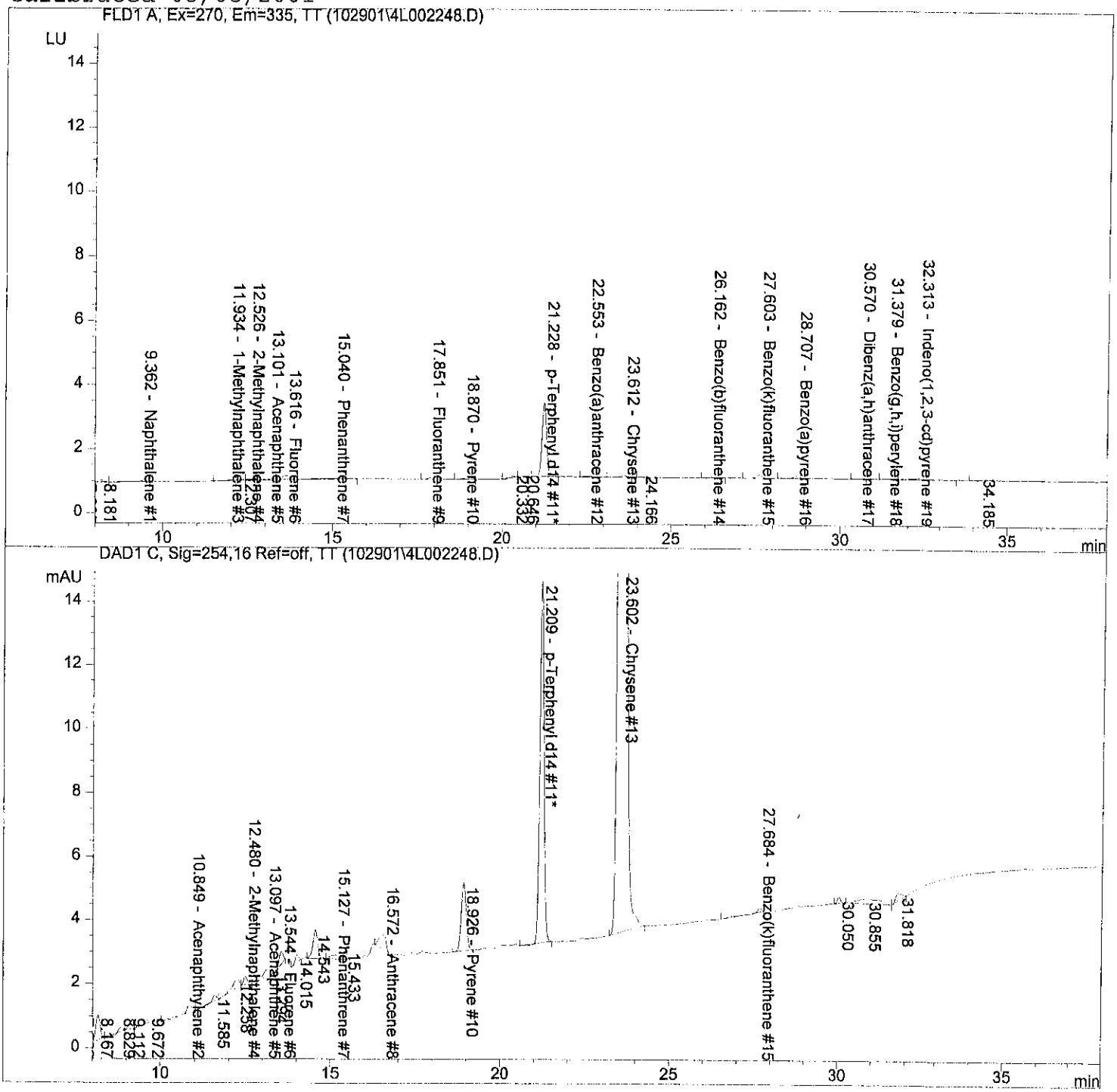
Injection Date : 10/30/2001 1:51:33 AM
Sample Name : L0110522-06 831W
Acq. Operator : RDC

Seq. Line : 14
Vial : 14
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/29/2001 2:11:32 PM by RDC
(modified after loading)

Calibrated 08/08/2001



External Standard Report

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Sorted By : Signal
Calib. Data Modified : 10/29/2001 2:11:30 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.362	BB	6.78402e-1	2.52962e-2	1.71610e-2		Naphthalene #1
11.934	BB	3.09151e-1	2.21330e-2	6.84242e-3		1-Methylnaphthalene #3
12.526	BB	2.71514e-1	1.70635e-2	4.63298e-3		2-Methylnaphthalene #4
13.101	BB	4.34623e-1	1.38416e-2	6.01586e-3		Acenaphthene #5
13.616	BB	1.99846	6.62187e-3	1.32335e-2		Fluorene #6
15.040	BBA	1.57493	1.63652e-1	2.57741e-1		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.851	PBA	3.32494e-1	2.32678e-2	7.73642e-3		Fluoranthene #9
18.870	PBA	2.15510e-1	3.86587e-2	8.33134e-3		Pyrene #10
21.228	BBA	21.85782	2.97423e-1	6.50101		p-Terphenyl d14 #11*
22.553	PBA	3.83694e-1	7.91256e-3	3.03600e-3		Benzo(a)anthracene #12
23.612	BB	8.44310e-1	3.90495e-2	3.29699e-2		Chrysene #13
26.162	BBA	4.14643e-1	1.63222e-2	6.76788e-3		Benzo(b)fluoranthene #14
27.603	BBA	1.15563	2.76572e-3	3.19616e-3		Benzo(k)fluoranthene #15
28.707	BBA	7.26538e-1	4.57119e-3	3.32114e-3		Benzo(a)pyrene #16
30.570	BB	1.63274e-1	3.93496e-2	6.42478e-3		Dibenz(a,h)anthracene #17
31.379	BB	1.63850e-1	2.65165e-2	4.34473e-3		Benzo(g,h,i)perylene #18
32.313	BB	9.26198e-1	1.38204e-2	1.28004e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 6.89557

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.347		-	-	-		Naphthalene #1
10.849	BB	1.23794	2.96975e-2	3.67637e-2 LMDL		Acenaphthylene #2
11.930		-	-	-		1-Methylnaphthalene #3
12.480	BB	2.08148	1.12393e-2	2.33943e-2		2-Methylnaphthalene #4
13.097	BB	1.96700	2.03163e-2	3.99623e-2		Acenaphthene #5
13.544	BB	3.24629	1.75240e-2	5.68879e-2		Fluorene #6
15.127	BB	1.64130	1.72982e-2	2.83916e-2		Phenanthrene #7
16.572	BB	6.10892	1.04262e-2	6.36927e-2		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.926	PBA	21.36495	1.43052e-2	3.05631e-1 NC		Pyrene #10
21.209	BBA	97.43601	6.56733e-2	6.39894		p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.602	PBA	1726.42285	1.51453e-2	NC 26.14719 64.0%		Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.684	PB	1.34235	2.25837e-2	3.03153e-2 LMDL		Benzo(k)fluoranthene #15
28.749		-	-	-		Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.433		-	-	-		Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 33.13116

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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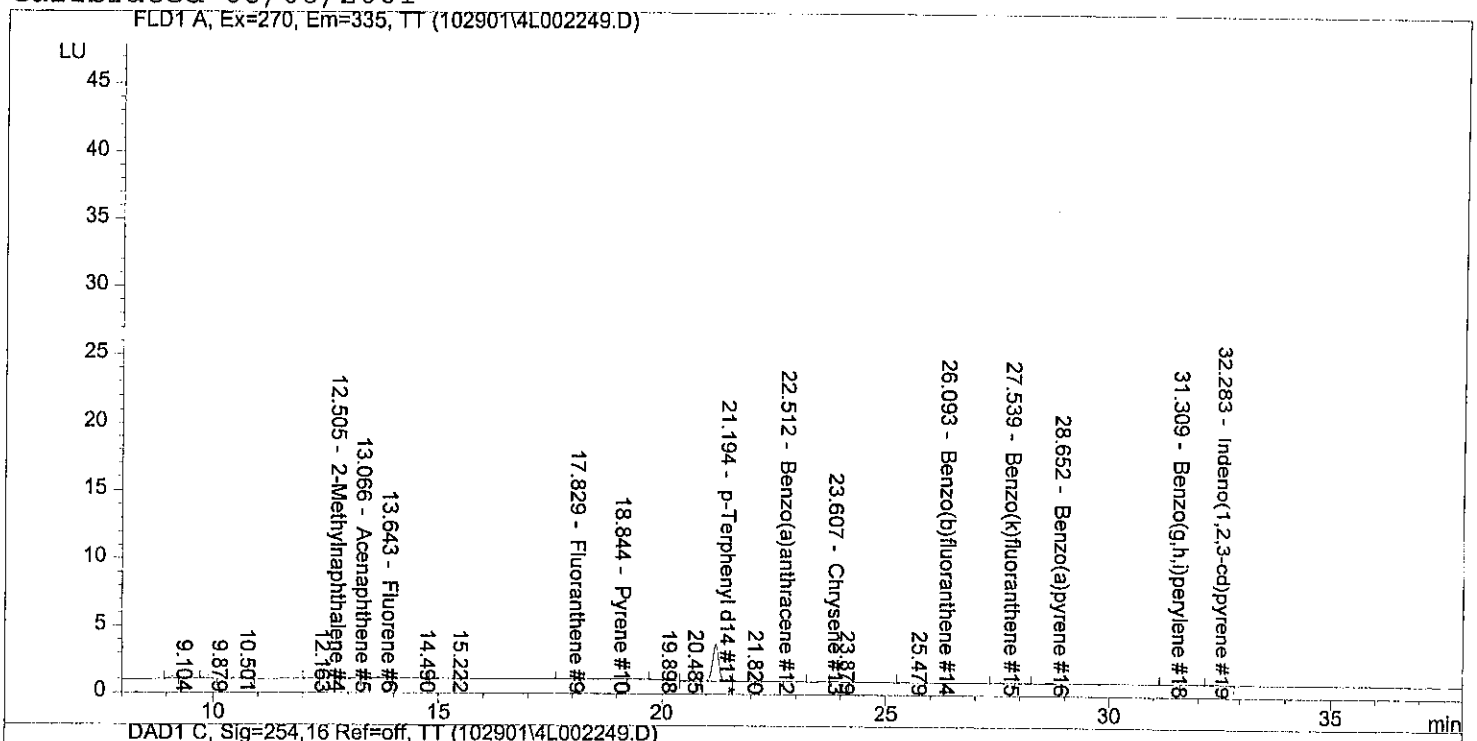
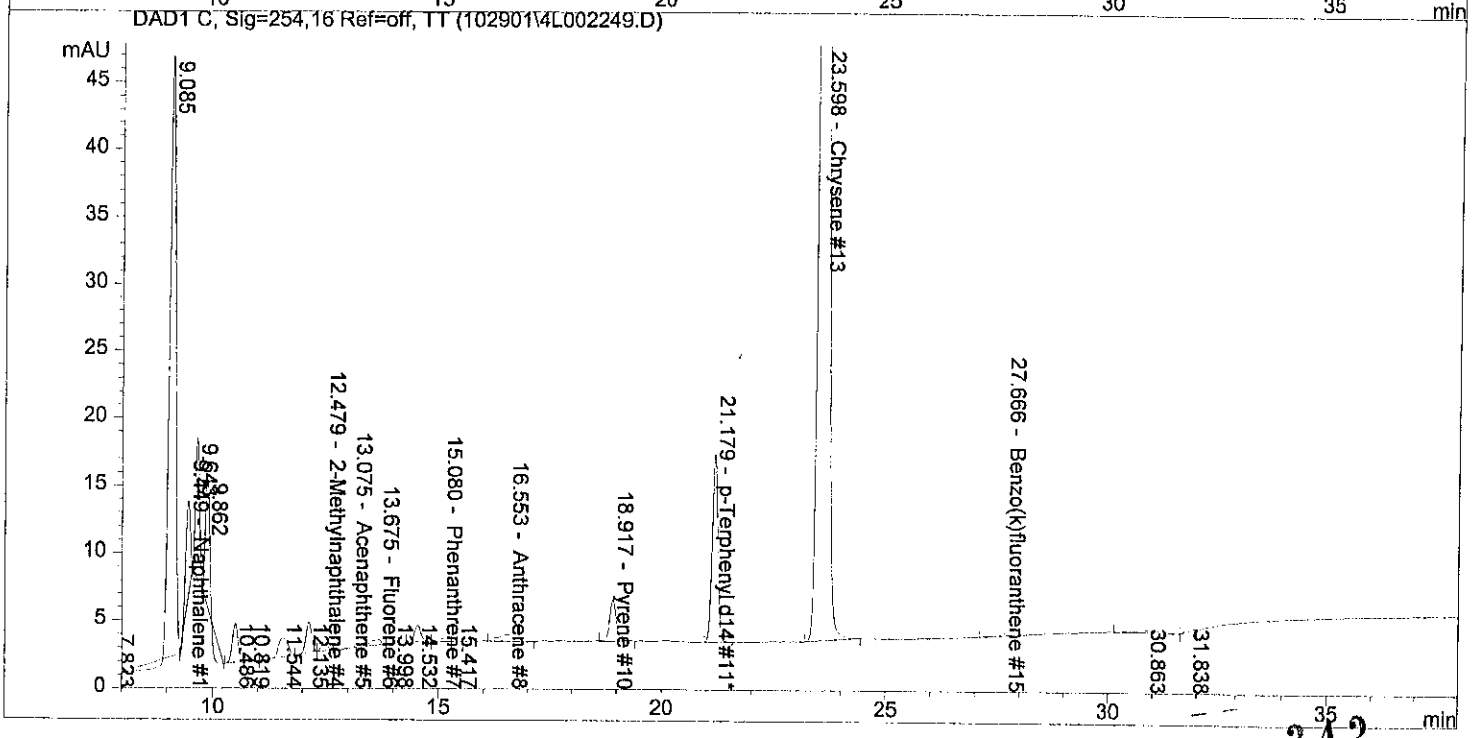
Injection Date	: 10/30/2001 2:48:12 AM	Seq. Line	: 15
Sample Name	: L0110522-07 831W	Vial	: 15
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/29/2001 2:11:32 PM by RDC
(modified after loading)

Calibrated 08/08/2001





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HPLC4 10/30/2001 9:27:18 AM RDC

External Standard Report

Sorted By : Signal
Calib. Data Modified : 10/29/2001 2:11:30 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.367		-	-	-		Naphthalene #1
11.949		-	-	-		1-Methylnaphthalene #3
12.505	BB	2.96116e-1	1.70635e-2	5.05277e-3		2-Methylnaphthalene #4
13.066	BB	3.15035e-1	1.38416e-2	4.36058e-3		Acenaphthene #5
13.643	BB	1.42132	6.62187e-3	9.41181e-3		Fluorene #6
15.072		-	-	-		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.829	PBA	3.72979e-1	2.32678e-2	8.67841e-3		Fluoranthene #9
18.844	BBA	3.88240e-1	3.86587e-2	1.50089e-2		Pyrene #10
21.194	BBA	26.95677	2.97423e-1	8.01756		p-Terphenyl d14 #11*
22.512	BB	5.58979e-1	7.91256e-3	4.42295e-3		Benzo(a)anthracene #12
23.607	BB	5.12920e-1	3.90495e-2	2.00293e-2		Chrysene #13
26.093	BBA	2.64915e-1	1.63222e-2	4.32400e-3		Benzo(b)fluoranthene #14
27.539	BBA	1.01196	2.76572e-3	2.79879e-3		Benzo(k)fluoranthene #15
28.652	BBA	8.58903e-1	4.57119e-3	3.92621e-3		Benzo(a)pyrene #16
30.650		-	-	-		Dibenz(a,h)anthracene #17
31.309	BB	2.64863e-1	2.65165e-2	7.02324e-3		Benzo(g,h,i)perylene #18
32.283	BBA	3.38774e-1	1.38204e-2	4.68200e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 8.10728

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.449	BB	45.84388	8.25405e-3	3.78398e-1	NC	Naphthalene #1
10.981		-	-	-		Acenaphthylene #2
11.930		-	-	-		1-Methylnaphthalene #3
12.479	BB	6.54594	1.12393e-2	7.35716e-2	<MDL	2-Methylnaphthalene #4
13.075	BB	1.25032	2.03163e-2	2.54019e-2		Acenaphthene #5
13.675	BB	6.34143	1.75240e-2	1.11127e-1		Fluorene #6
15.080	BB	2.70827	1.72982e-2	4.68483e-2		Phenanthrene #7
16.553	BB	11.28843	1.04262e-2	1.17695e-1		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.917	BB	32.04662	1.43052e-2	4.58435e-1	NC	Pyrene #10
21.179	PBA	120.34569	6.56733e-2	7.90349	79.0%	p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.598	PBA	2521.04175	1.51453e-2	NC 38.18192		Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.666	PBA	1.55935	2.25837e-2	3.52160e-2	<MDL	Benzo(k)fluoranthene #15
28.749		-	-	-		Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

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Retime [min]	Type	Area [mAU*s]	Time/Area	Amount [ug/L]	Grp	Name
31.433		-	-	-		Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 47.33211

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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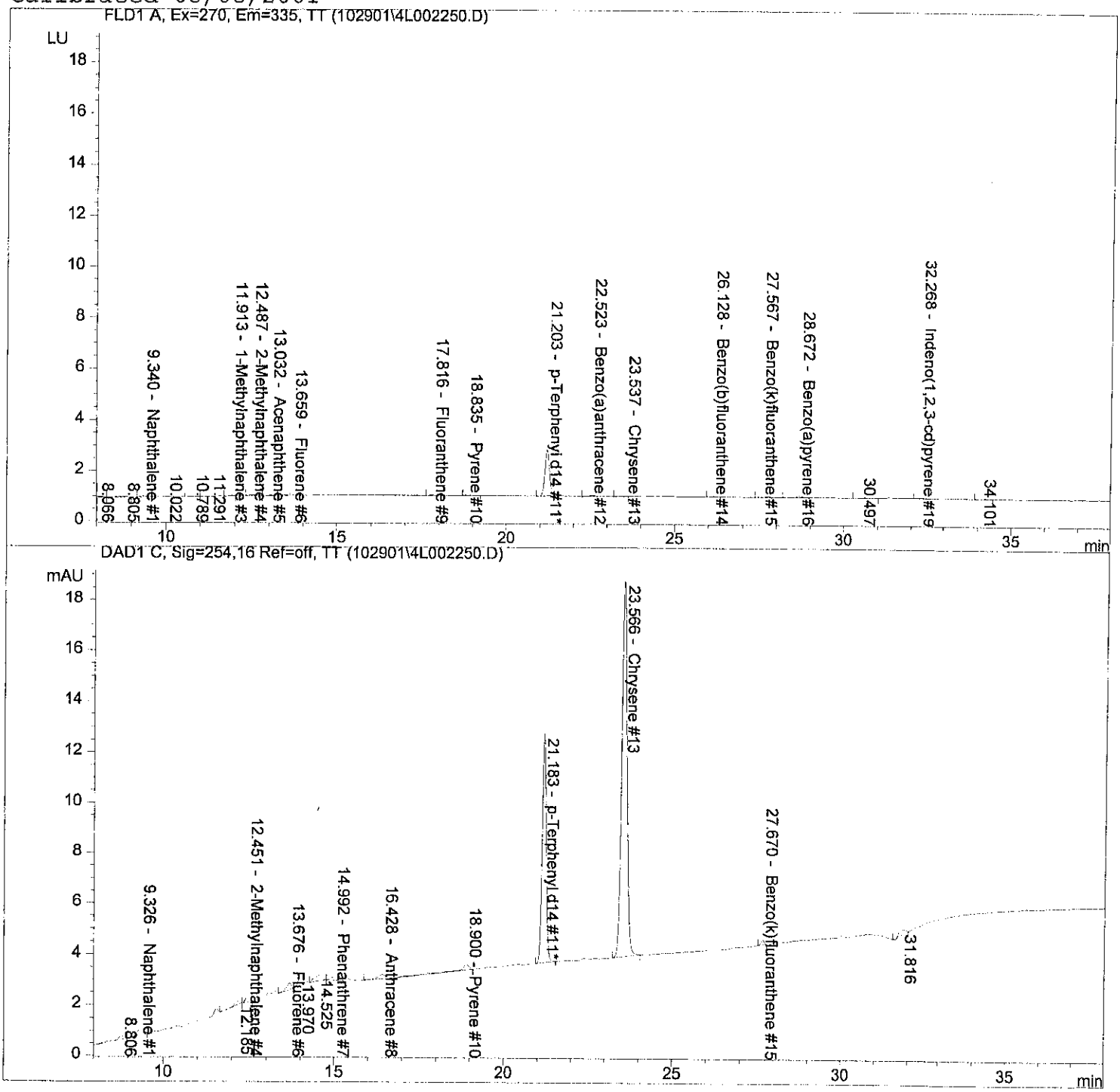
Injection Date : 10/30/2001 3:44:48 AM
Sample Name : L0110522-08 831W
Acq. Operator : RDC

Seq. Line : 16
Vial : 16
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/29/2001 2:11:32 PM by RDC
(modified after loading)

Calibrated 08/08/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : 10/29/2001 2:11:30 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.340	BB	6.27598e-1	2.52962e-2	1.58758e-2		Naphthalene #1
11.913	BB	2.06660e-1	2.21330e-2	4.57400e-3		1-Methylnaphthalene #3
12.487	BB	3.62112e-1	1.70635e-2	6.17890e-3		2-Methylnaphthalene #4
13.032	BB	2.83260e-1	1.38416e-2	3.92076e-3		Acenaphthene #5
13.659	BB	1.08868	6.62187e-3	7.20913e-3		Fluorene #6
15.072		-	-	-		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.816	BB	3.13847e-1	2.32678e-2	7.30255e-3		Fluoranthene #9
18.835	BBA	1.86475e-1	3.86587e-2	7.20888e-3		Pyrene #10
21.203	BB	17.40369	2.97423e-1	5.17625		p-Terphenyl d14 #11*
22.523	BB	4.67429e-1	7.91256e-3	3.69856e-3		Benzo(a)anthracene #12
23.537	BB	1.79709e-1	3.90495e-2	7.01757e-3		Chrysene #13
26.128	BBA	1.96000e-1	1.63222e-2	3.19915e-3		Benzo(b)fluoranthene #14
27.567	PBA	8.34801e-1	2.76572e-3	2.30882e-3		Benzo(k)fluoranthene #15
28.672	BBA	6.14427e-1	4.57119e-3	2.80866e-3		Benzo(a)pyrene #16
30.650		-	-	-		Dibenz(a,h)anthracene #17
31.455		-	-	-		Benzo(g,h,i)perylene #18
32.268	BB	2.63605e-1	1.38204e-2	3.64312e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 5.25120

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.326	BB	2.18497	8.25405e-3	1.80348e-2	LMDL	Naphthalene #1
10.981		-	-	-		Acenaphthylene #2
11.930		-	-	-		1-Methylnaphthalene #3
12.451	BB	1.61044	1.12393e-2	1.81002e-2		2-Methylnaphthalene #4
12.990		-	-	-		Acenaphthene #5
13.676	BB	2.61391	1.75240e-2	4.58061e-2		Fluorene #6
14.992	BB	2.10675	1.72982e-2	3.64431e-2		Phenanthrene #7
16.428	BB	3.25793	1.04262e-2	3.39678e-2		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.900	BB	5.43852	1.43052e-2	7.77994e-2	NC	Pyrene #10
21.183	PBA	79.10805	6.56733e-2	5.19528	52.0%	p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.566	PBA	154.32481	1.51453e-2	2.33730	NC	Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.670	PBA	1.31722	2.25837e-2	2.97478e-2	LMDL	Benzo(k)fluoranthene #15
28.749		-	-	-		Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.433		-	-	-		Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 7.79248

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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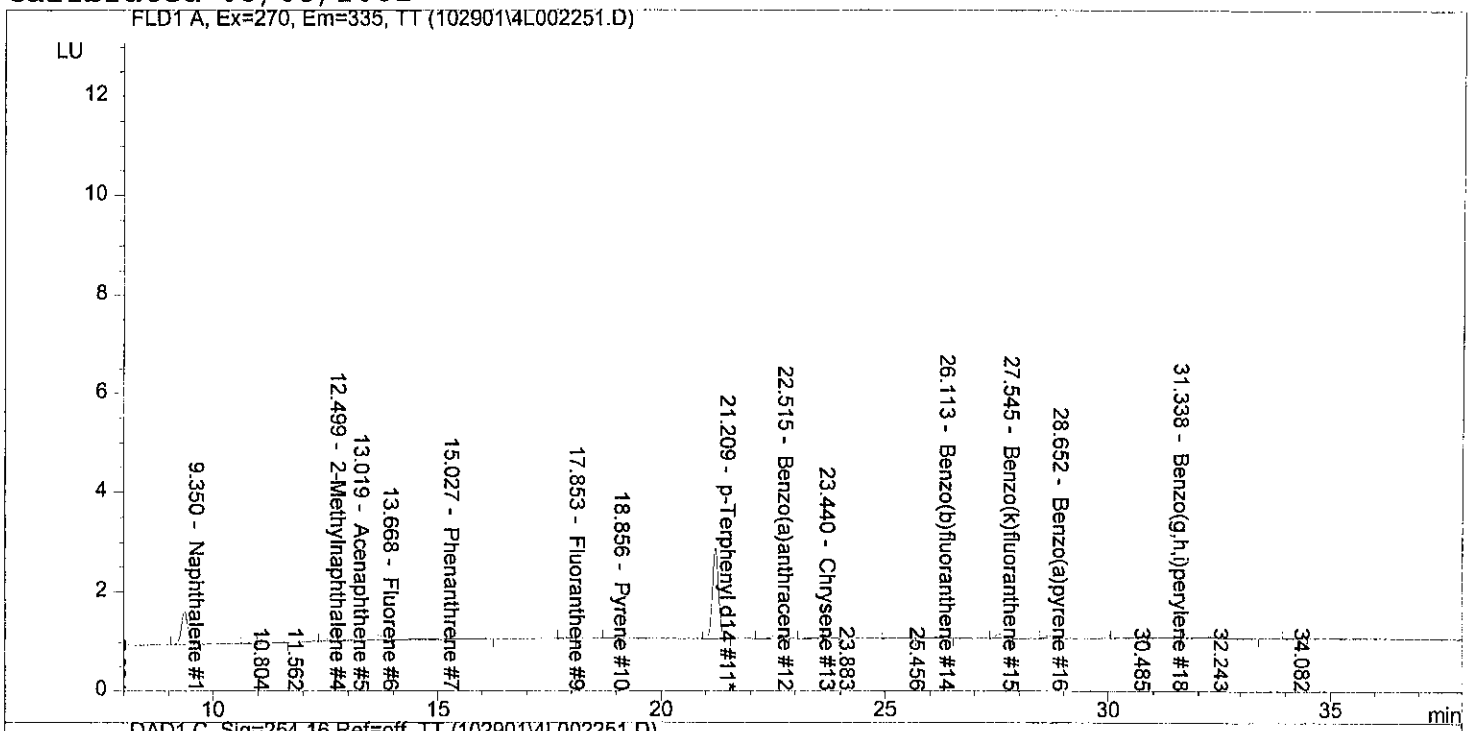
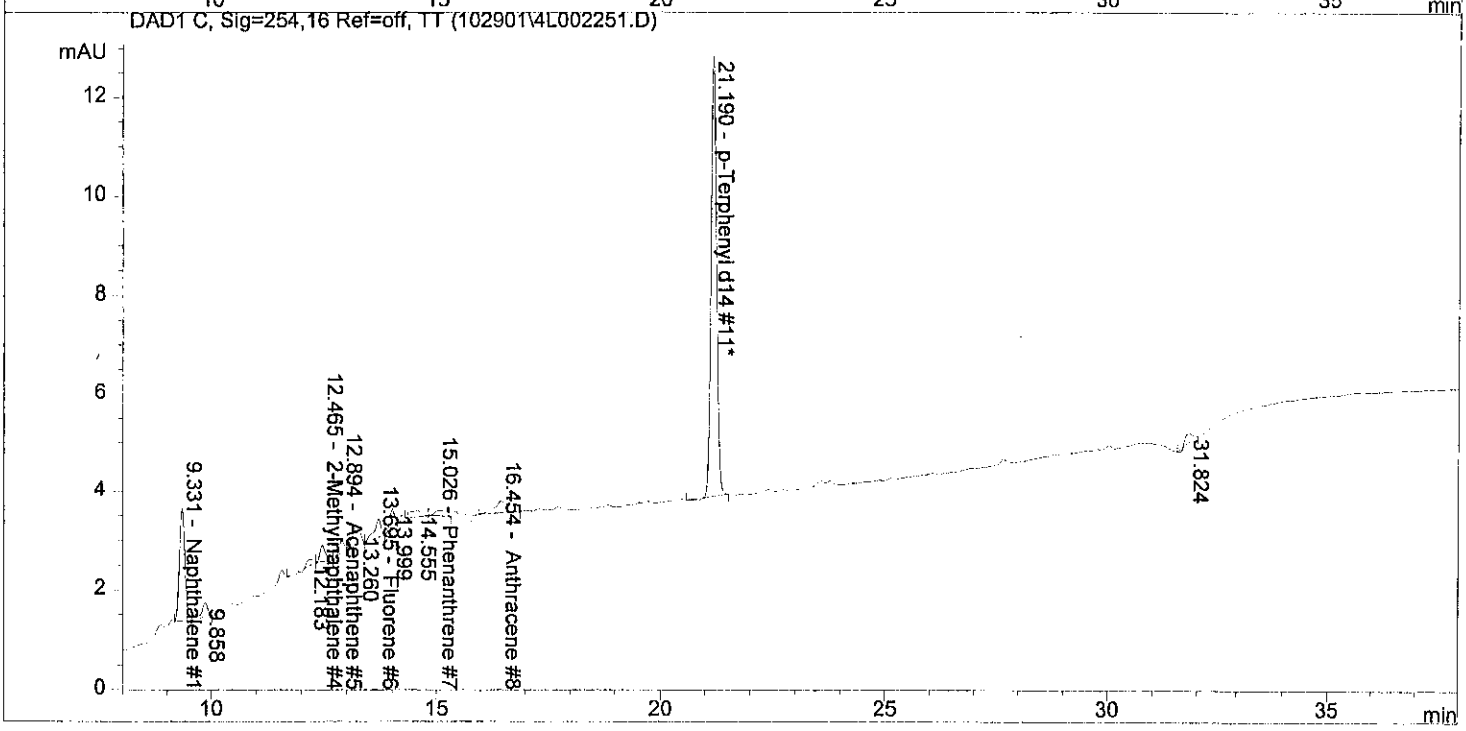
Injection Date : 10/30/2001 4:41:28 AM
Sample Name : L0110522-09 831W
Acq. Operator : RDC

Seq. Line : 17
Vial : 17
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/29/2001 2:11:32 PM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 10/29/2001 2:11:30 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.350	BBA	6.43491	2.52962e-2	1.62779e-1		Naphthalene #1
11.949		-	-	-		1-Methylnaphthalene #3
12.499	BB	5.70078e-1	1.70635e-2	9.72752e-3		2-Methylnaphthalene #4
13.019	BB	3.90672e-1	1.38416e-2	5.40752e-3		Acenaphthene #5
13.668	BB	1.24390	6.62187e-3	8.23693e-3		Fluorene #6
15.027	BBA	1.69234	1.63652e-1	2.76955e-1		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.853	BBA	3.65005e-1	2.32678e-2	8.49289e-3		Fluoranthene #9
18.856	BBA	1.80627e-1	3.86587e-2	6.98282e-3		Pyrene #10
21.209	BB	17.24233	2.97423e-1	5.12826		p-Terphenyl d14 #11*
22.515	BB	7.09553e-1	7.91256e-3	5.61439e-3		Benzo(a)anthracene #12
23.440	BB	3.91787e-1	3.90495e-2	1.52991e-2		Chrysene #13
26.113	BB	4.22225e-1	1.63222e-2	6.89162e-3		Benzo(b)fluoranthene #14
27.545	PBA	9.78854e-1	2.76572e-3	2.70723e-3		Benzo(k)fluoranthene #15
28.652	PBA	6.04774e-1	4.57119e-3	2.76454e-3		Benzo(a)pyrene #16
30.650		-	-	-		Dibenz(a,h)anthracene #17
31.338	BB	3.44596e-1	2.65165e-2	9.13748e-3		Benzo(g,h,i)perylene #18
32.406		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 5.64926

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.331	BB	19.33967	8.25405e-3	1.59631e-1		Naphthalene #1
10.981		-	-	-		Acenaphthylene #2
11.930		-	-	-		1-Methylnaphthalene #3
12.465	BB	2.78865	1.12393e-2	3.13424e-2		2-Methylnaphthalene #4
12.894	BB	1.67592	2.03163e-2	3.40485e-2		Acenaphthene #5
13.695	BB	3.81727	1.75240e-2	6.68938e-2		Fluorene #6
15.026	BB	1.77101	1.72982e-2	3.06353e-2		Phenanthrene #7
16.454	BBA	5.20372	1.04262e-2	5.42550e-2		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.899		-	-	-		Pyrene #10
21.190	BBA	76.46684	6.56733e-2	5.02183		p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.453		-	-	-		Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.642		-	-	-		Benzo(k)fluoranthene #15
28.749		-	-	-		Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

50.2%

Retime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.433		-	-	-		Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 5.39863

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

2.2.7.3 Standards Data

==========
Calibration Table
==========

HPLC4 8310 CALIBRATION

Calib. Data Modified : 8/9/2001 2:38:03 PM

Calculate : External Standard
Based on : Peak Area

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.300 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.300 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Forced
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FLD1 A, Ex=270, Em=335, TT
Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
9.446	2	1	1.00000	122.72835	8.14808e-3			Naphthalene #1
		2	5.00000	597.19745	8.37244e-3			
		3	10.00000	1248.26221	8.01114e-3			
		4	20.00000	2499.14551	8.00274e-3			
		5	50.00000	6202.44971	8.06133e-3			
		6	100.00000	1.20244e4	8.31644e-3			
9.462	1	1	1.00000	37.17168	2.69022e-2			Naphthalene #1
		2	5.00000	181.76619	2.75079e-2			
		3	10.00000	381.56079	2.62081e-2			
		4	20.00000	771.00281	2.59402e-2			
		5	50.00000	1948.04333	2.56668e-2			
		6	100.00000	3973.55249	2.51664e-2			
11.077	2	1	1.00000	32.52021	3.07501e-2			Acenaphthylene #2
		2	5.00000	157.20731	3.18051e-2			
		3	10.00000	328.40460	3.04502e-2			
		4	20.00000	660.92621	3.02606e-2			
		5	50.00000	1657.23242	3.01708e-2			
		6	100.00000	3384.39795	2.95474e-2			
12.023	2	1	1.00000	75.33028	1.32749e-2			1-Methylnaphthalene #3

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RetTime [min]	Lvl Sig		Amount [ug/L]	Area	Amt/Area	Res	Sig	Name
		2	5.00000	365.03561	1.36973e-2			
		3	10.00000	763.85205	1.30915e-2			
		4	20.00000	1534.10083	1.30370e-2			
		5	50.00000	3838.97803	1.30243e-2			
		6	100.00000	7740.20703	1.29196e-2			
12.040	1	1	1.00000	42.88826	2.33164e-2			1-Methylnaphthalene #3
		2	5.00000	209.24336	2.38956e-2			
		3	10.00000	438.85303	2.27867e-2			
		4	20.00000	887.93890	2.25241e-2			
		5	50.00000	2235.18970	2.23695e-2			
		6	100.00000	4535.38281	2.20489e-2			
12.601	2	1	1.00000	88.22273	1.13349e-2			2-Methylnaphthalene #4
		2	5.00000	428.27109	1.16748e-2			
		3	10.00000	894.31500	1.11817e-2			
		4	20.00000	1794.47327	1.11453e-2			
		5	50.00000	4469.53662	1.11868e-2			
		6	100.00000	8884.32324	1.12558e-2			
12.617	1	1	1.00000	56.35436	1.77449e-2			2-Methylnaphthalene #4
		2	5.00000	274.39529	1.82219e-2			
		3	10.00000	575.43298	1.73782e-2			
		4	20.00000	1160.72327	1.72306e-2			
		5	50.00000	2909.70630	1.71839e-2			
		6	100.00000	5875.01660	1.70212e-2			
13.080	2	1	1.00000	47.72895	2.09516e-2			Acenaphthene #5
		2	5.00000	231.24211	2.16224e-2			
		3	10.00000	483.56268	2.06798e-2			
		4	20.00000	971.18744	2.05933e-2			
		5	50.00000	2433.60547	2.05456e-2			
		6	100.00000	4940.15088	2.02423e-2			
13.096	1	1	1.00000	70.47864	1.41887e-2			Acenaphthene #5
		2	5.00000	342.62488	1.45932e-2			
		3	10.00000	718.90424	1.39101e-2			
		4	20.00000	1445.95483	1.38317e-2			
		5	50.00000	3605.74121	1.38668e-2			
		6	100.00000	7228.99854	1.38332e-2			
13.740	2	1	1.00000	54.47855	1.83558e-2			Fluorene #6
		2	5.00000	266.30728	1.87753e-2			
		3	10.00000	557.46277	1.79384e-2			
		4	20.00000	1121.39856	1.78349e-2			
		5	50.00000	2816.46851	1.77527e-2			
		6	100.00000	5731.11230	1.74486e-2			
13.757	1	1	1.00000	154.16187	6.48669e-3			Fluorene #6
		2	5.00000	746.17523	6.70084e-3			
		3	10.00000	1559.63367	6.41176e-3			
		4	20.00000	3112.09448	6.42654e-3			
		5	50.00000	7656.80322	6.53014e-3			
		6	100.00000	1.50256e4	6.65533e-3			
15.136	2	1	1.00000	55.64261	1.79718e-2			Phenanthrene #7
		2	5.00000	270.24643	1.85016e-2			
		3	10.00000	565.66064	1.76784e-2			
		4	20.00000	1137.18030	1.75874e-2			
		5	50.00000	2852.19556	1.75304e-2			
		6	100.00000	5806.07617	1.72233e-2			
15.153	1	1	1.00000	5.49988	1.81822e-1			Phenanthrene #7
		2	5.00000	27.27178	1.83340e-1			
		3	10.00000	58.15233	1.71962e-1			

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		4	20.00000	116.85247	1.71156e-1			
		5	50.00000	295.27972	1.69331e-1			
		6	100.00000	617.71191	1.61888e-1			
16.549	2	1	1.00000	95.56687	1.04639e-2			Anthracene #8
		2	5.00000	465.29129	1.07460e-2			
		3	10.00000	973.54010	1.02718e-2			
		4	20.00000	1952.77490	1.02418e-2			
		5	50.00000	4858.51855	1.02912e-2			
		6	100.00000	9552.15625	1.04688e-2			
16.566	1	1	1.00000	3.13834	3.18640e-1			Anthracene #8
		2	5.00000	15.29622	3.26878e-1			
		3	10.00000	32.12813	3.11254e-1			
		4	20.00000	63.99872	3.12506e-1			
		5	50.00000	159.95667	3.12585e-1			
		6	100.00000	323.14050	3.09463e-1			
17.931	2	1	1.00000e-1	4.46854	2.23787e-2			Fluoranthene #9
		2	5.00000e-1	21.37060	2.33966e-2			
		3	1.00000	44.25564	2.25960e-2			
		4	2.00000	89.62297	2.23157e-2			
		5	5.00000	226.24062	2.21004e-2			
		6	10.00000	463.67642	2.15668e-2			
17.948	1	1	1.00000e-1	3.92854	2.54548e-2			Fluoranthene #9
		2	5.00000e-1	19.73562	2.53349e-2			
		3	1.00000	41.21679	2.42620e-2			
		4	2.00000	83.17304	2.40463e-2			
		5	5.00000	210.50659	2.37522e-2			
		6	10.00000	432.79266	2.31058e-2			
18.944	2	1	1.00000e-1	6.23924	1.60276e-2			Pyrene #10
		2	5.00000e-1	31.33940	1.59544e-2			
		3	1.00000	67.74028	1.47623e-2			
		4	2.00000	135.53003	1.47569e-2			
		5	5.00000	342.22821	1.46101e-2			
		6	10.00000	703.95166	1.42055e-2			
18.961	1	1	1.00000e-1	2.27570	4.39426e-2			Pyrene #10
		2	5.00000e-1	11.52839	4.33712e-2			
		3	1.00000	24.49013	4.08328e-2			
		4	2.00000	50.45357	3.96404e-2			
		5	5.00000	130.27173	3.83813e-2			
21.302	2	1	1.00000	14.08348	7.10052e-2			p-Terphenyl d14 #11*
		2	5.00000	70.24126	7.11832e-2			
		3	10.00000	145.31215	6.88174e-2			
		4	20.00000	299.12198	6.68624e-2			
		5	50.00000	752.44629	6.64499e-2			
		6	100.00000	1529.22424	6.53926e-2			
21.319	1	1	1.00000	3.07342	3.25370e-1			p-Terphenyl d14 #11*
		2	5.00000	15.32359	3.26294e-1			
		3	10.00000	31.73221	3.15137e-1			
		4	20.00000	64.98736	3.07752e-1			
		5	50.00000	163.61835	3.05589e-1			
		6	100.00000	339.18564	2.94824e-1			
22.628	2	1	1.00000e-1	4.00703	2.49561e-2			Benzo(a)anthracene #12
		2	5.00000e-1	20.54964	2.43313e-2			
		3	1.00000	43.83417	2.28133e-2			
		4	2.00000	87.18385	2.29400e-2			
		5	5.00000	220.89987	2.26347e-2			
		6	10.00000	451.58978	2.21440e-2			

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RetTime [min]	Lvl Sig		Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
22.644	1	1	1.00000e-1	11.54687	8.66035e-3			Benzo(a)anthracene #12
		2	5.00000e-1	56.84493	8.79586e-3			
		3	1.00000	119.82957	8.34519e-3			
		4	2.00000	242.58244	8.24462e-3			
		5	5.00000	616.44403	8.11104e-3			
		6	10.00000	1274.56396	7.84582e-3			
23.513	2	1	1.00000e-1	6.06011	1.65013e-2			Chrysene #13
		2	5.00000e-1	30.26713	1.65196e-2			
		3	1.00000	63.60076	1.57231e-2			
		4	2.00000	128.16238	1.56052e-2			
		5	5.00000	324.43796	1.54113e-2			
		6	10.00000	664.28351	1.50538e-2			
23.528	1	1	1.00000e-1	2.41118	4.14734e-2			Chrysene #13
		2	5.00000e-1	11.43981	4.37070e-2			
		3	1.00000	24.17820	4.13596e-2			
		4	2.00000	48.77195	4.10072e-2			
		5	5.00000	124.43752	4.01808e-2			
		6	10.00000	258.58917	3.86714e-2			
26.253	2	1	1.00000e-1	4.43454	2.25503e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	22.12707	2.25968e-2			
		3	1.00000	46.71288	2.14074e-2			
		4	2.00000	93.81008	2.13197e-2			
		5	5.00000	236.98158	2.10987e-2			
		6	10.00000	485.19955	2.06101e-2			
26.269	1	1	1.00000e-1	5.57386	1.79409e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	27.63313	1.80942e-2			
		3	1.00000	58.33105	1.71435e-2			
		4	2.00000	118.32101	1.69032e-2			
		5	5.00000	299.93723	1.66702e-2			
		6	10.00000	617.15186	1.62035e-2			
27.699	2	1	5.00000e-2	2.30033	2.17360e-2			Benzo(k)fluoranthene #
		2	2.50000e-1	10.19696	2.45171e-2			
		3	5.00000e-1	21.84682	2.28866e-2			
		4	1.00000	43.54576	2.29643e-2			
		5	2.50000	108.82767	2.29721e-2			
		6	5.00000	222.55347	2.24665e-2			
27.716	1	1	5.00000e-2	16.87873	2.96231e-3			Benzo(k)fluoranthene #
		2	2.50000e-1	83.81139	2.98289e-3			
		3	5.00000e-1	176.43927	2.83384e-3			
		4	1.00000	355.36359	2.81402e-3			
		5	2.50000	893.52496	2.79791e-3			
		6	5.00000	1815.06726	2.75472e-3			
28.826	2	1	1.00000e-1	3.45270	2.89628e-2			Benzo(a)pyrene #16
		2	5.00000e-1	16.98781	2.94329e-2			
		3	1.00000	35.68842	2.80203e-2			
		4	2.00000	71.60413	2.79313e-2			
		5	5.00000	186.41614	2.68217e-2			
		6	10.00000	385.80145	2.59201e-2			
28.843	1	1	1.00000e-1	19.26282	5.19135e-3			Benzo(a)pyrene #16
		2	5.00000e-1	96.67756	5.17183e-3			
		3	1.00000	203.54648	4.91288e-3			
		4	2.00000	414.51672	4.82490e-3			
		5	5.00000	1063.36975	4.70203e-3			
		6	10.00000	2209.61670	4.52567e-3			
30.713	2	1	1.00000e-1	1.04021	9.61345e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	6.85372	7.29531e-2			

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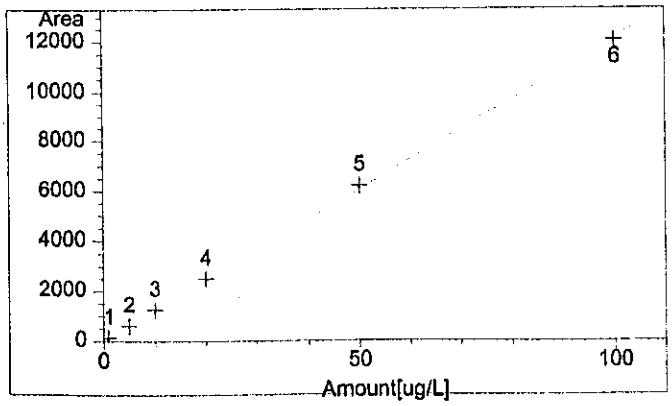
RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		3	1.00000	10.35146	9.66047e-2			
		4	2.00000	21.07817	9.48849e-2			
		5	5.00000	52.55205	9.51438e-2			
		6	10.00000	106.53020	9.38701e-2			
30.721	1	1	1.00000e-1	2.12374	4.70867e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	10.91603	4.58042e-2			
		3	1.00000	23.53592	4.24882e-2			
		4	2.00000	47.95410	4.17066e-2			
		5	5.00000	122.84724	4.07010e-2			
		6	10.00000	257.09790	3.88957e-2			
31.544	2	1	1.00000e-1	8.44691e-1	1.18386e-1			Benzo(g,h,i)perylene #
		2	5.00000e-1	5.61006	8.91256e-2			
		3	1.00000	13.18469	7.58455e-2			
		4	2.00000	33.12908	6.03699e-2			
		5	5.00000	87.58637	5.70865e-2			
		6	10.00000	180.23679	5.54826e-2			
31.563	1	1	1.00000e-1	3.08265	3.24397e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	15.83937	3.15669e-2			
		3	1.00000	33.85759	2.95355e-2			
		4	2.00000	69.49560	2.87788e-2			
		5	5.00000	181.30618	2.75777e-2			
		6	10.00000	382.48065	2.61451e-2			
32.469	2	1	1.00000e-1	4.35778	2.29475e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	21.11818	2.36763e-2			
		3	1.00000	45.97294	2.17519e-2			
		4	2.00000	91.52023	2.18531e-2			
		5	5.00000	239.26749	2.08971e-2			
		6	10.00000	489.90164	2.04123e-2			
32.473	1	1	1.00000e-1	6.64809	1.50419e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	32.35181	1.54551e-2			
		3	1.00000	69.61817	1.43641e-2			
		4	2.00000	140.75026	1.42096e-2			
		5	5.00000	354.48691	1.41049e-2			
		6	10.00000	728.48004	1.37272e-2			

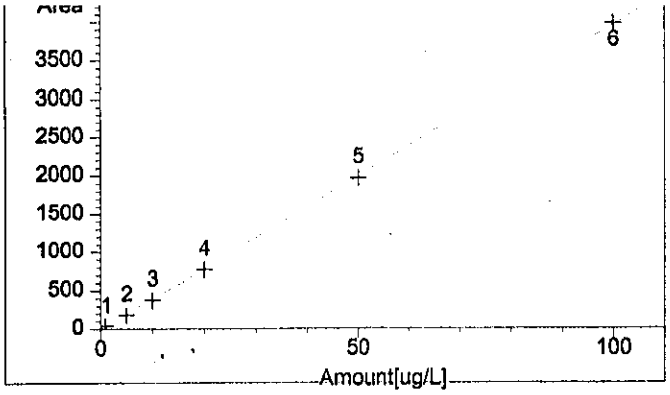
Peak Sum Table

No Entries in table

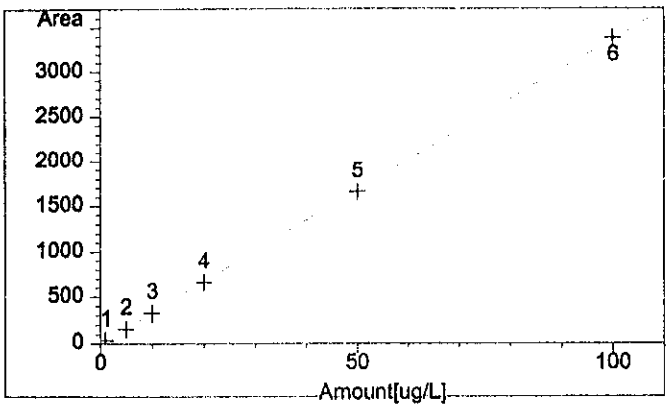
Calibration Curves



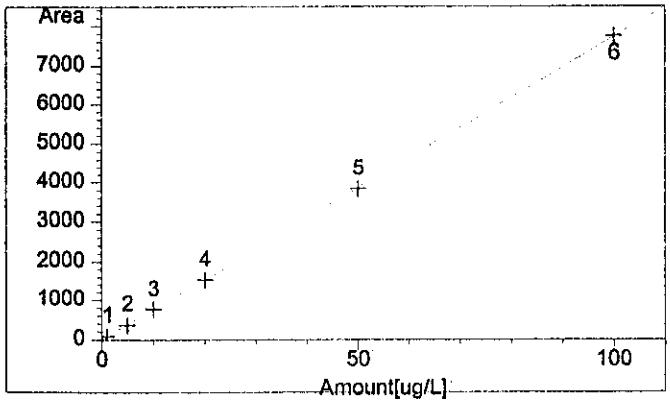
Naphthalene #1 at exp. RT: 9.446
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 85.37927
Formula: y = mx
m: 121.15265
x: Amount[ug/L]
y: Area



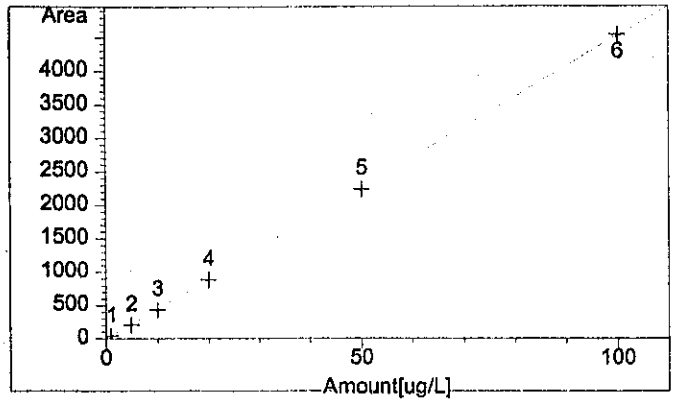
Naphthalene #1 at exp. RT: 9.462
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 20.31169
Formula: y = mx
m: 39.53164
x: Amount [ug/L]
y: Area



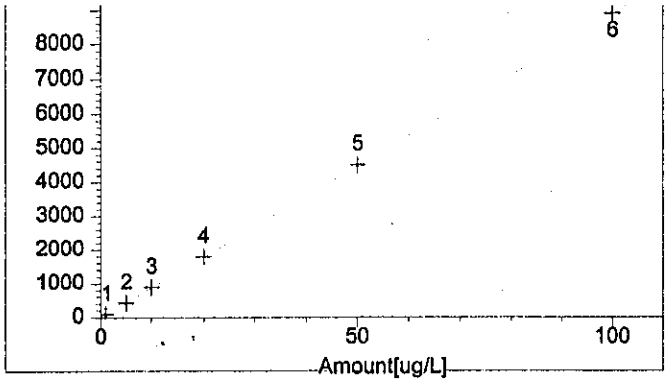
Acenaphthylene #2 at exp. RT: 11.077
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 16.38572
Formula: y = mx
m: 33.67285
x: Amount [ug/L]
y: Area



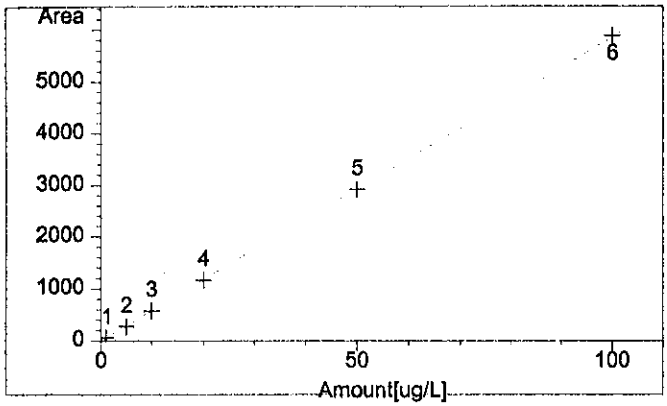
1-Methylnaphthalene #3 at exp. RT: 12.023
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 16.92039
Formula: y = mx
m: 77.24479
x: Amount [ug/L]
y: Area



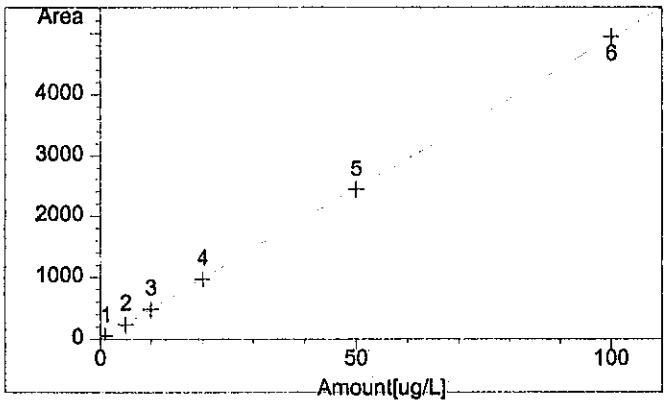
1-Methylnaphthalene #3 at exp. RT: 12.040
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 17.68985
Formula: y = mx
m: 45.18150
x: Amount [ug/L]
y: Area



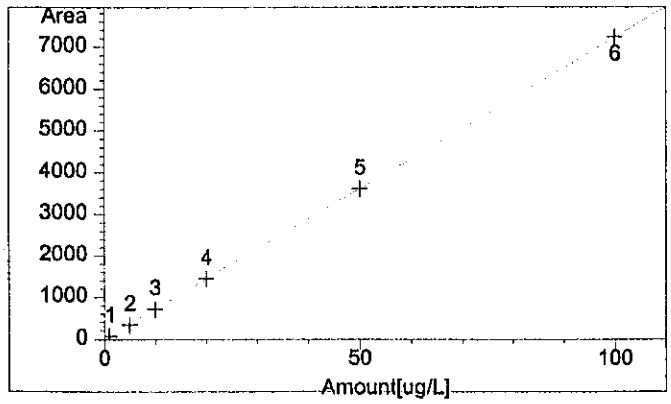
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 15.01321
Formula: y = mx
m: 88.97369
x: Amount [ug/L]
y: Area



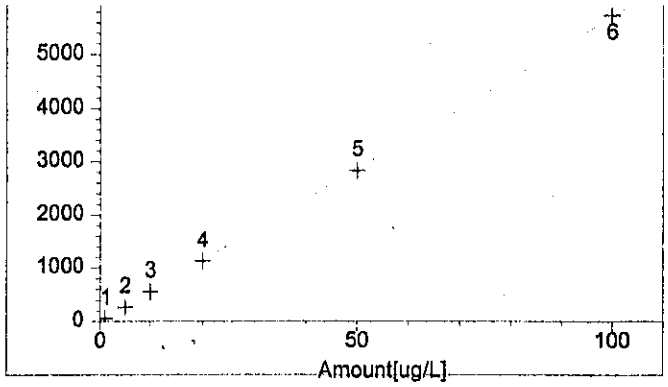
2-Methylnaphthalene #4 at exp. RT: 12.617
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 15.66561
Formula: y = mx
m: 58.60464
x: Amount [ug/L]
y: Area



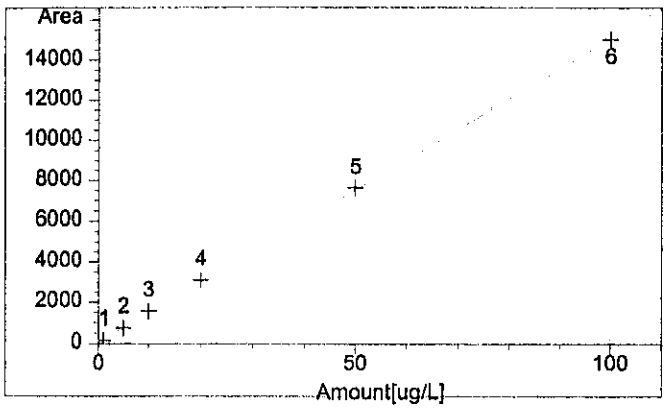
Acenaphthene #5 at exp. RT: 13.080
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 17.61841
Formula: y = mx
m: 49.22146
x: Amount [ug/L]
y: Area



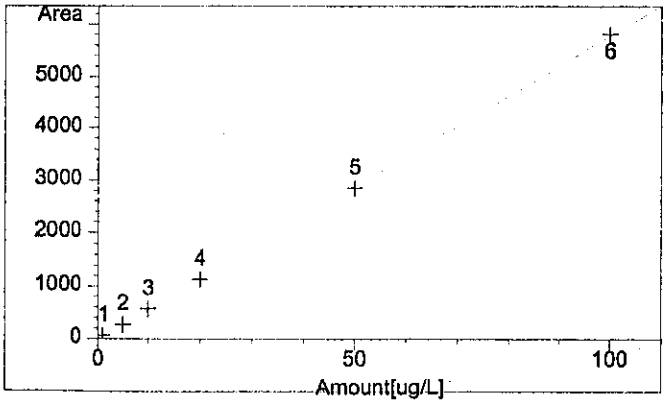
Acenaphthene #5 at exp. RT: 13.096
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 9.22337
Formula: y = mx
m: 72.24617
x: Amount [ug/L]
y: Area



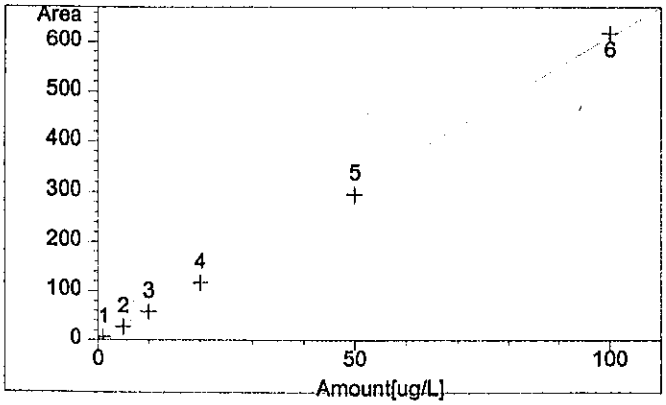
Fluorene #6 at exp. RT: 13.740
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 24.07063
Formula: y = mx
m: 57.06458
x: Amount [ug/L]
y: Area



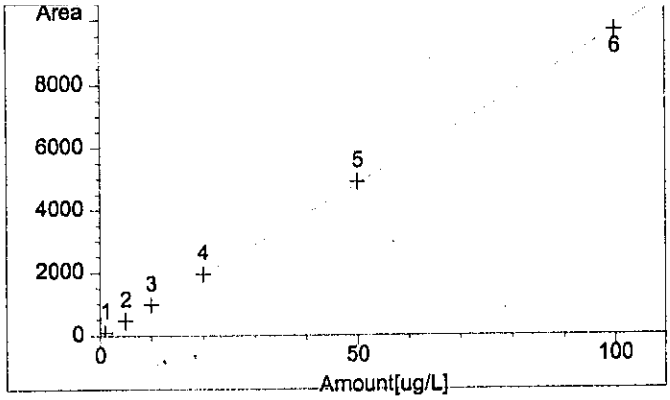
Fluorene #6 at exp. RT: 13.757
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 74.80461
Formula: y = mx
m: 151.01482
x: Amount [ug/L]
y: Area



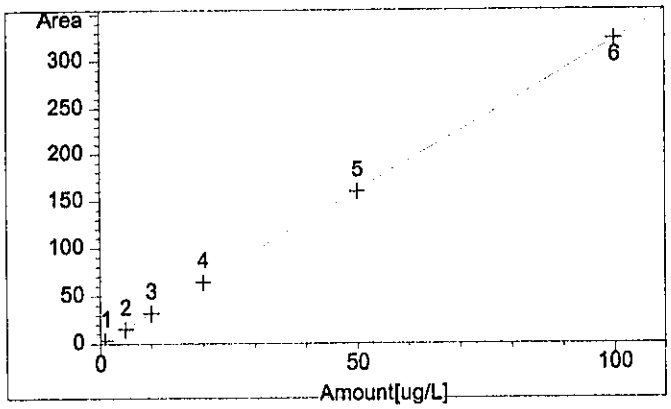
Phenanthrene #7 at exp. RT: 15.136
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 24.37539
Formula: y = mx
m: 57.80934
x: Amount [ug/L]
y: Area



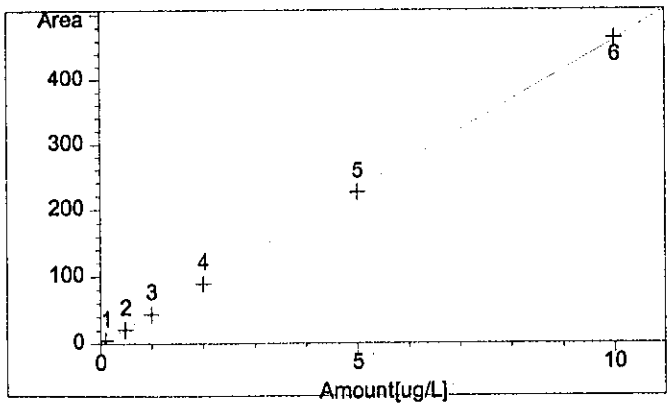
Phenanthrene #7 at exp. RT: 15.153
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99980
Residual Std. Dev.: 6.29133
Formula: y = mx
m: 6.11052
x: Amount [ug/L]
y: Area



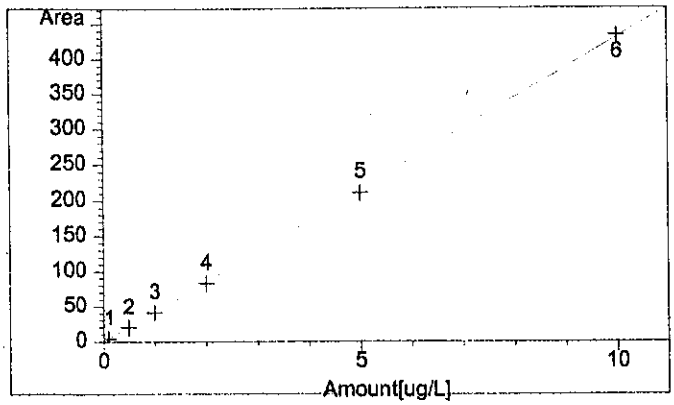
Anthracene #8 at exp. RT: 16.549
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 37.64962
Formula: y = mx
m: 95.91237
x: Amount [ug/L]
y: Area



Anthracene #8 at exp. RT: 16.566
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 0.77764
Formula: y = mx
m: 3.22376
x: Amount [ug/L]
y: Area

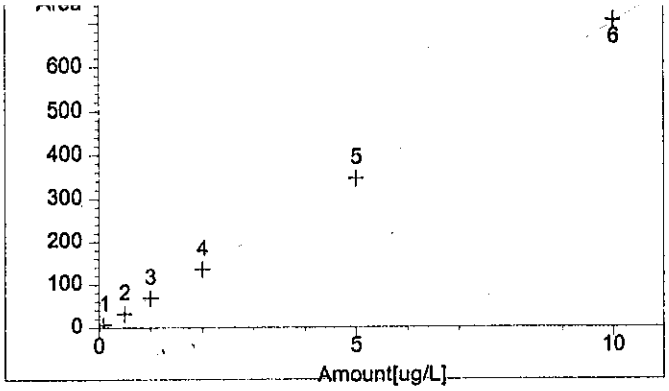


Fluoranthene #9 at exp. RT: 17.931
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 2.76207
Formula: y = mx
m: 46.08169
x: Amount [ug/L]
y: Area

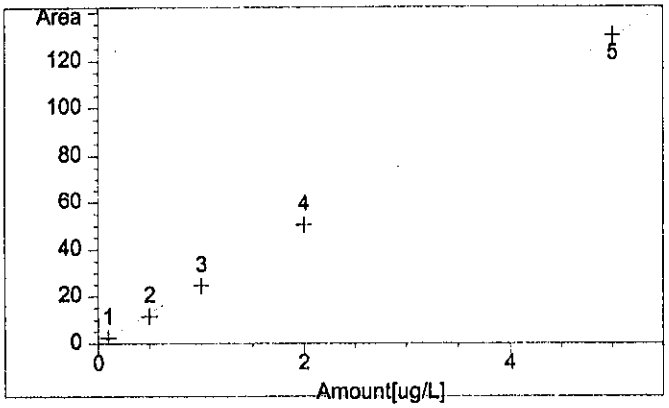


Fluoranthene #9 at exp. RT: 17.948
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 2.91025
Formula: y = mx
m: 42.97776
x: Amount [ug/L]
y: Area

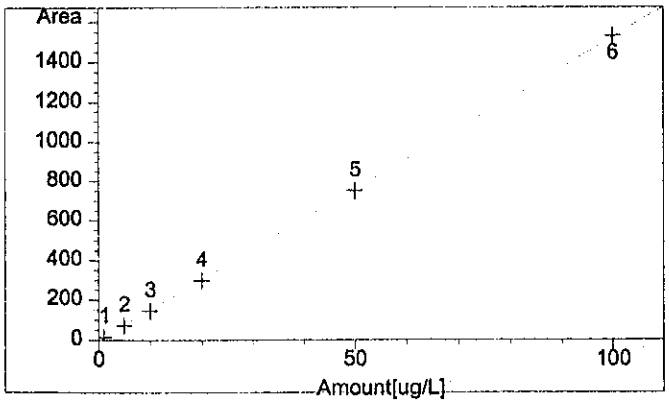
360



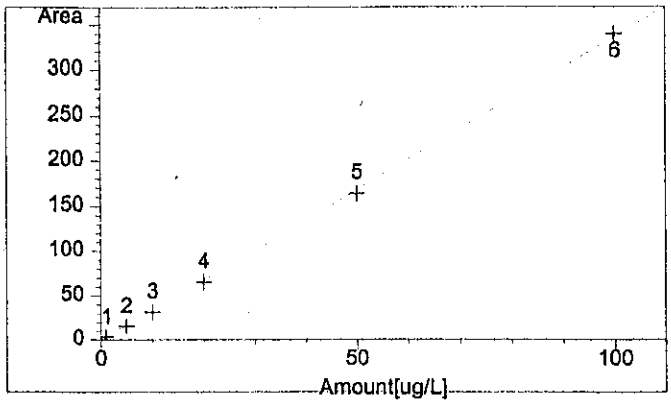
Pyrene #10 at exp. RT: 18.944
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99991
Residual Std. Dev.: 4.77268
Formula: y = mx
m: 69.90443
x: Amount [ug/L]
y: Area



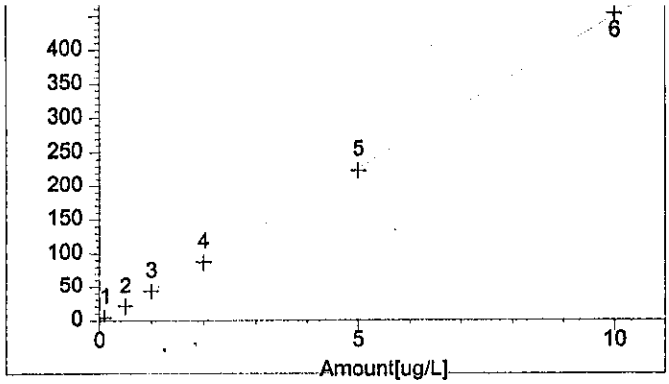
Pyrene #10 at exp. RT: 18.961
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99984
Residual Std. Dev.: 1.27317
Formula: y = mx
m: 25.86740
x: Amount [ug/L]
y: Area



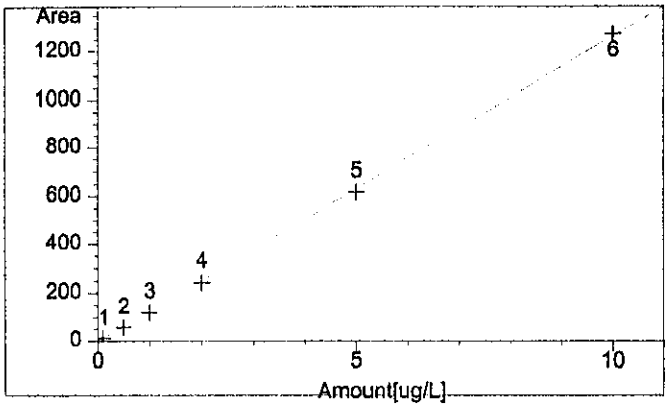
p-Terphenyl d14 #11* at exp. RT: 21.302
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 6.86516
Formula: y = mx
m: 15.22690
x: Amount [ug/L]
y: Area



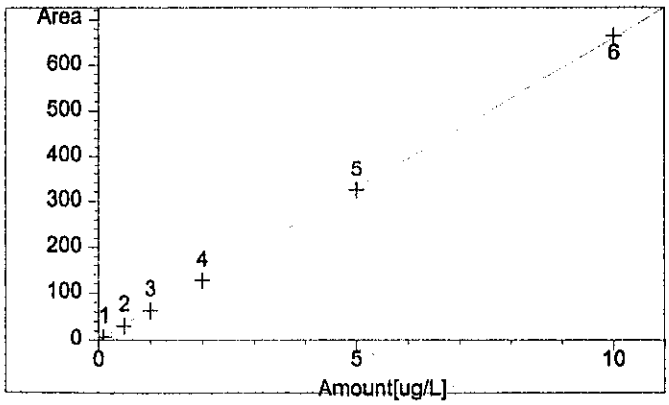
p-Terphenyl d14 #11* at exp. RT: 21.319
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99986
Residual Std. Dev.: 2.82593
Formula: y = mx
m: 3.36222
x: Amount [ug/L]
y: Area



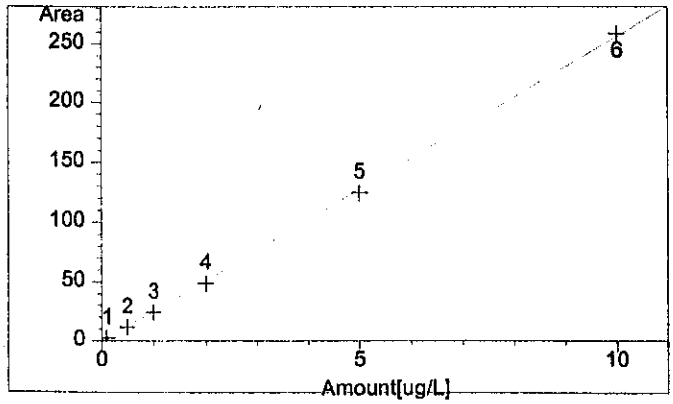
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.50958
Formula: y = mx
m: 44.90461
x: Amount [ug/L]
y: Area



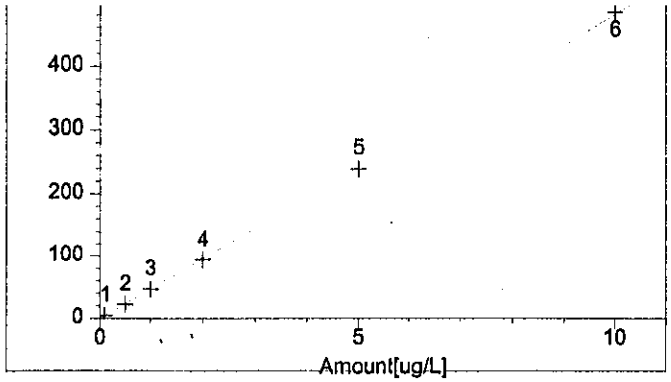
Benzo(a)anthracene #12 at exp. RT: 22.644
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99987
Residual Std. Dev.: 10.41817
Formula: y = mx
m: 126.38133
x: Amount [ug/L]
y: Area



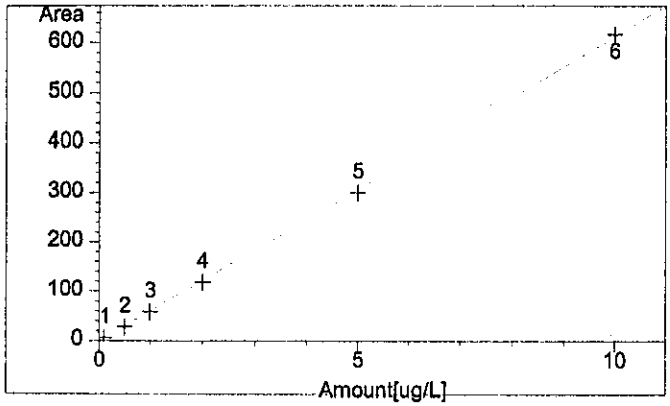
Chrysene #13 at exp. RT: 23.513
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 3.93530
Formula: y = mx
m: 66.02710
x: Amount [ug/L]
y: Area



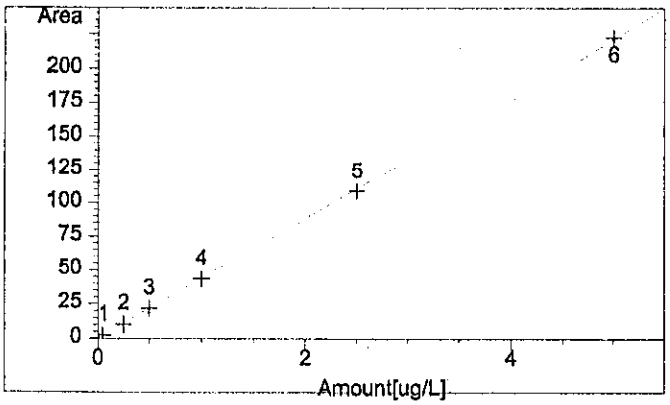
Chrysene #13 at exp. RT: 23.528
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99983
Residual Std. Dev.: 2.41557
Formula: y = mx
m: 25.60849
x: Amount [ug/L]
y: Area



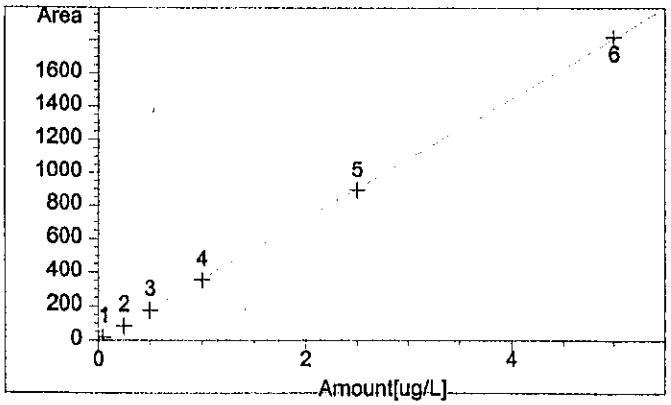
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.80032
Formula: y = mx
m: 48.23233
x: Amount [ug/L]
y: Area



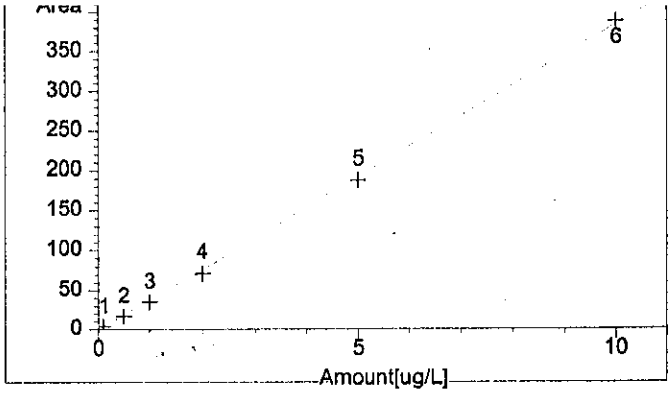
Benzo(b)fluoranthene #14 at exp. RT: 26.2
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 4.39762
Formula: y = mx
m: 61.26633
x: Amount [ug/L]
y: Area



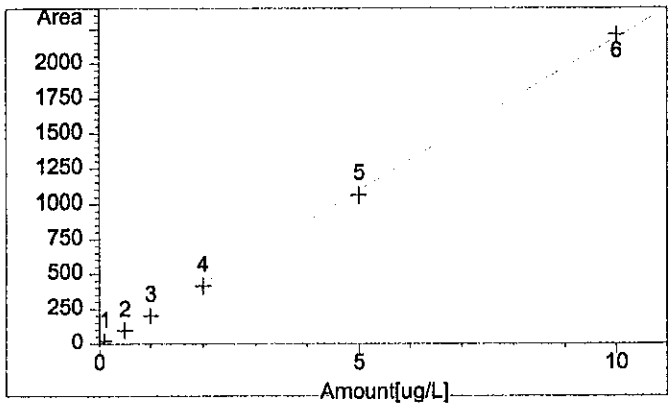
Benzo(k)fluoranthene #15 at exp. RT: 27.6
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 1.11632
Formula: y = mx
m: 44.27975
x: Amount [ug/L]
y: Area



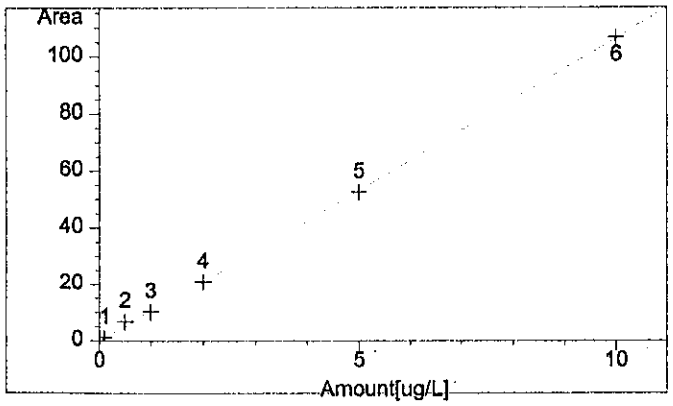
Benzo(k)fluoranthene #15 at exp. RT: 27.7
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 7.24438
Formula: y = mx
m: 361.57005
x: Amount [ug/L]
y: Area



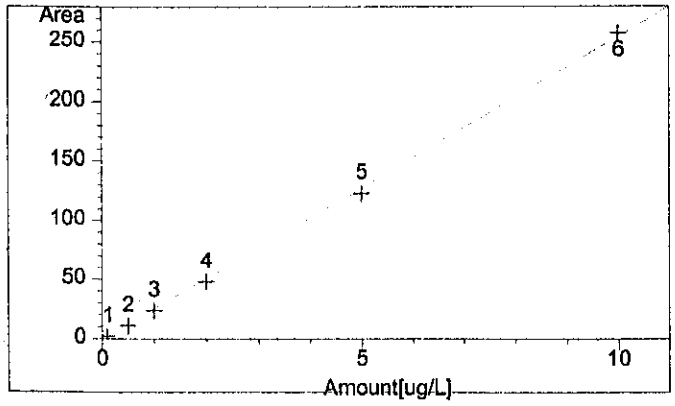
Benzo(a)pyrene #16 at exp. RT: 28.828
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 3.72397
Formula: y = mx
m: 38.21458
x: Amount [ug/L]
y: Area



Benzo(a)pyrene #16 at exp. RT: 28.843
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99981
Residual Std. Dev.: 21.63108
Formula: y = mx
m: 218.76141
x: Amount [ug/L]
y: Area



Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 0.75986
Formula: y = mx
m: 10.62568
x: Amount [ug/L]
y: Area



Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99975
Residual Std. Dev.: 2.88961
Formula: y = mx
m: 25.41325
x: Amount [ug/L]
y: Area

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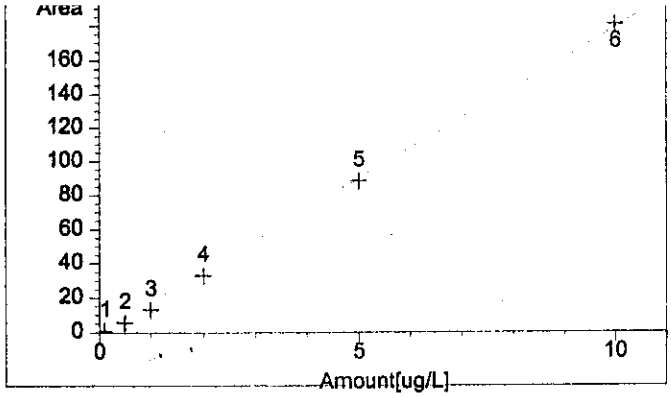
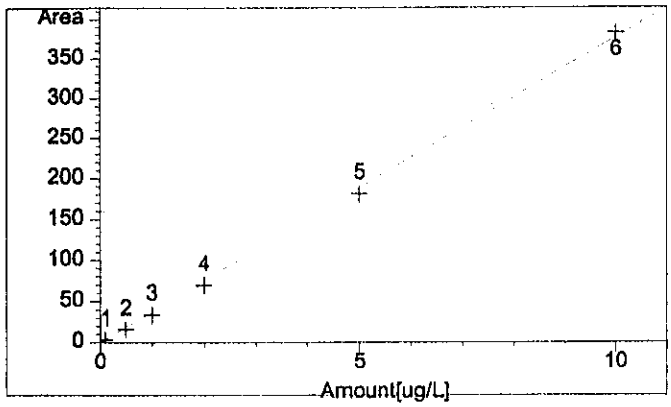
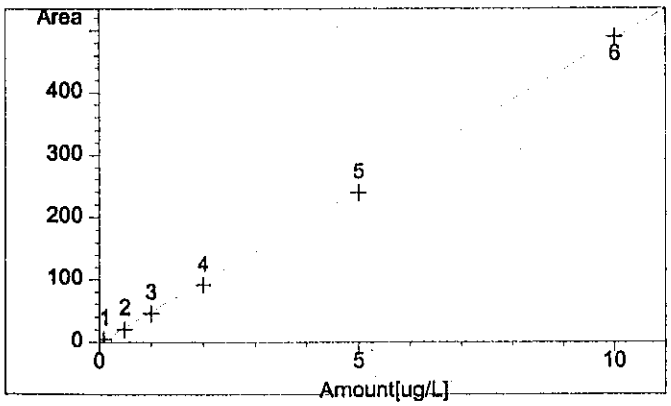


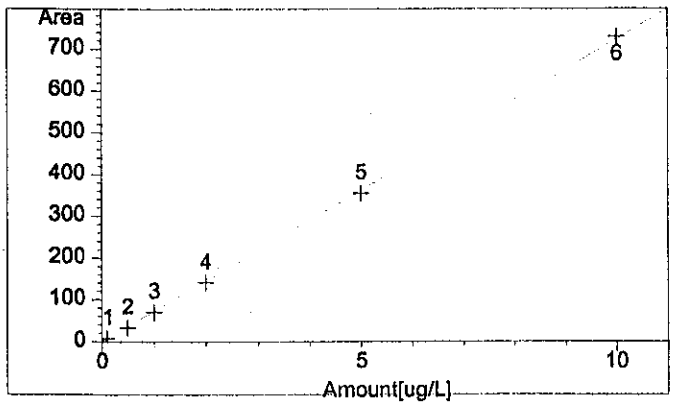
Benzo(g,h,i)perylene #18 at exp. RT: 31.5
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99945
Residual Std. Dev.: 3.03261
Formula: y = mx
m: 17.83074
x: Amount [ug/L]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.5
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99962
Residual Std. Dev.: 5.30907
Formula: y = mx
m: 37.71238
x: Amount [ug/L]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99987
Residual Std. Dev.: 3.96284
Formula: y = mx
m: 48.63628
x: Amount [ug/L]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 4.80774
Formula: y = mx
m: 72.35678
x: Amount [ug/L]
y: Area

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Check Standard Report

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Data File C:\HPCHEM\2\DATA\102901\4L002236.D Sample Name: WG107246-01 CCV
HPLC4 10/29/2001 2:11:38 PM RDC

1,1 SOS56-19/56-20

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Injection Date : 10/29/2001 1:52:23 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.367	20.0	19.443	-2.8
1-Methylnaphthalene #3	11.949	20.0	19.554	-2.2
2-Methylnaphthalene #4	12.529	20.0	19.804	-1.0
Acenaphthene #5	13.009	20.0	19.677	-1.6
Fluorene #6	13.673	20.0	20.666	3.3
Phenanthrene #7	15.072	20.0	19.034	-4.8
Anthracene #8	16.491	20.0	18.592	-7.0
Fluoranthene #9	17.880	2.0	1.854	-7.3
Pyrene #10	18.890	2.0	1.736	-13.2
p-Terphenyl d14 #11*	21.259	20.0	19.417	-2.9
Benzo(a)anthracene #12	22.587	2.0	1.847	-7.6
Chrysene #13	23.473	2.0	1.911	-4.5
Benzo(b)fluoranthene #14	26.210	2.0	1.921	-4.0
Benzo(k)fluoranthene #15	27.662	1.0	0.983	-1.7
Benzo(a)pyrene #16	28.769	2.0	1.783	-10.9
Dibenz(a,h)anthracene #1	30.650	2.0	1.848	-7.6
Benzo(g,h,i)perylene #18	31.455	2.0	1.682	-15.9 #
Indeno(1,2,3-cd)pyrene #	32.406	2.0	1.900	-5.0

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.347	20.0	20.691	3.5
Acenaphthylene #2	10.981	20.0	19.621	-1.9
1-Methylnaphthalene #3	11.930	20.0	20.012	0.1
2-Methylnaphthalene #4	12.510	20.0	20.314	1.6
Acenaphthene #5	12.990	20.0	19.548	-2.3
Fluorene #6	13.653	20.0	19.605	-2.0
Phenanthrene #7	15.052	20.0	19.699	-1.5
Anthracene #8	16.471	20.0	18.845	-5.8
Fluoranthene #9	17.859	2.0	1.942	-2.9
Pyrene #10	18.869	2.0	1.830	-8.5
p-Terphenyl d14 #11*	21.239	20.0	19.364	-3.2
Benzo(a)anthracene #12	22.568	2.0	1.881	-6.0
Chrysene #13	23.453	2.0	1.931	-3.5
Benzo(b)fluoranthene #14	26.190	2.0	1.943	-2.8
Benzo(k)fluoranthene #15	27.642	1.0	0.981	-1.9
Benzo(a)pyrene #16	28.749	2.0	1.835	-8.2
Dibenz(a,h)anthracene #1	30.630	2.0	1.948	-2.6
Benzo(g,h,i)perylene #18	31.433	2.0	1.742	-12.9
Indeno(1,2,3-cd)pyrene #	32.391	2.0	1.903	-4.9

= Failed 15.0% Criteria

366

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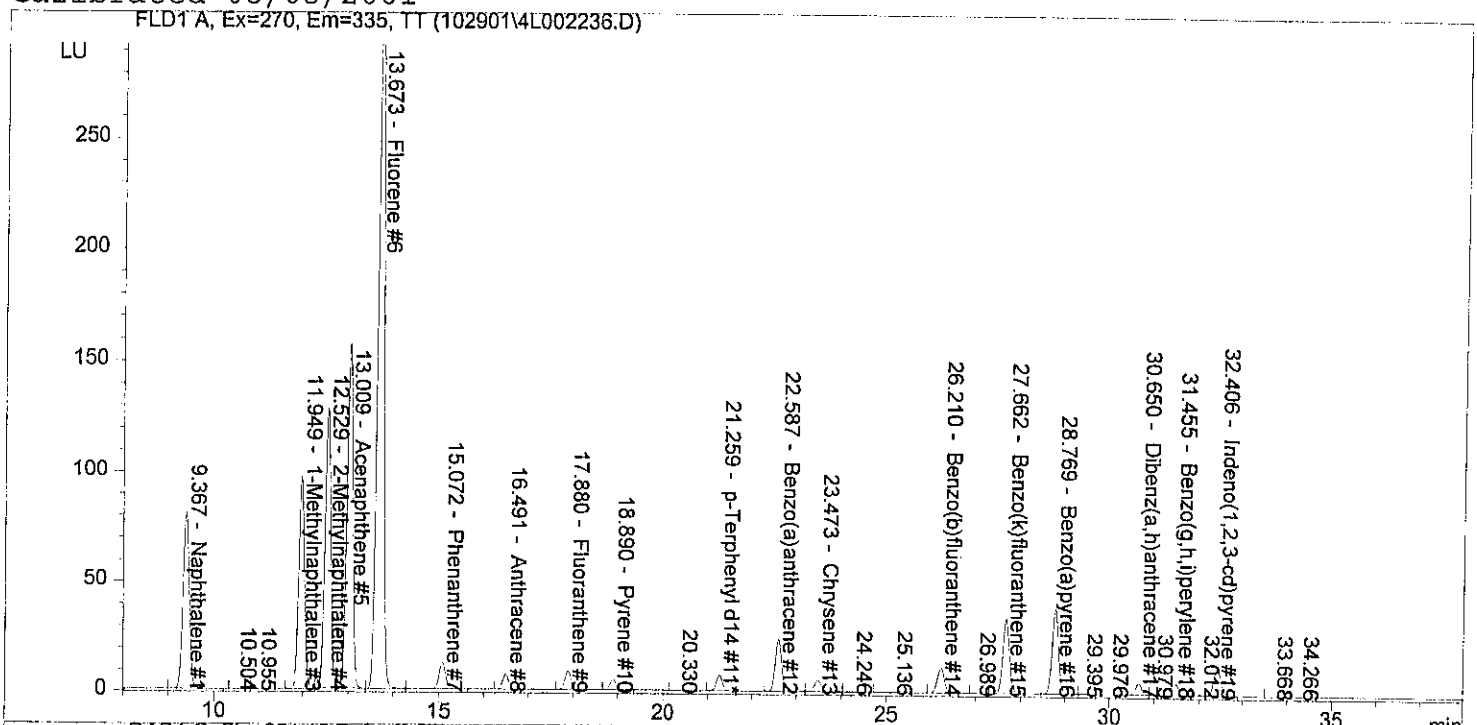
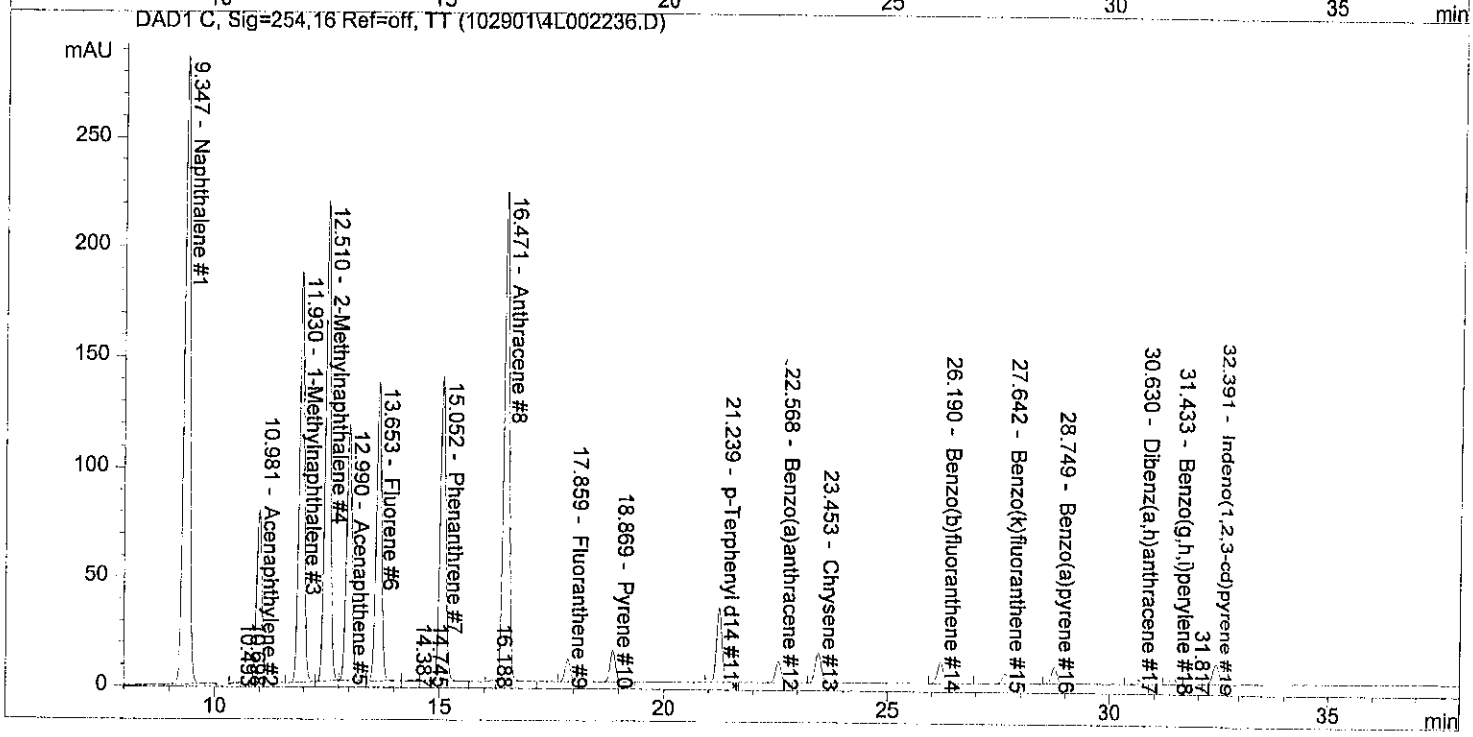
Injection Date : 10/29/2001 1:52:23 PM
Sample Name : WG107246-01 CCV
Acq. Operator : RDC

Seq. Line : 2
Vial : 2
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/29/2001 2:11:32 PM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 10/29/2001 2:11:30 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.367	PBA	768.62067	2.52962e-2	19.44318		Naphthalene #1
11.949	BB	883.48279	2.21330e-2	19.55408		1-Methylnaphthalene #3
12.529	BB	1160.60791	1.70635e-2	19.80403		2-Methylnaphthalene #4
13.009	BB	1421.55530	1.38416e-2	19.67655		Acenaphthene #5
13.673	BB	3120.94580	6.62187e-3	20.66649		Fluorene #6
15.072	BBA	116.30963	1.63652e-1	19.03433		Phenanthrene #7
16.491	BBA	59.93680	3.10196e-1	18.59218		Anthracene #8
17.880	PB	79.69004	2.32678e-2	1.85422		Fluoranthene #9
18.890	BBA	44.89958	3.86587e-2	1.73576		Pyrene #10
21.259	PBA	65.28519	2.97423e-1	19.41730		p-Terphenyl d14 #11*
22.587	BB	233.47626	7.91256e-3	1.84740		Benzo(a)anthracene #12
23.473	BB	48.93260	3.90495e-2	1.91080		Chrysene #13
26.210	BB	117.69069	1.63222e-2	1.92097		Benzo(b)fluoranthene #14
27.662	BB	355.53500	2.76572e-3	9.83309e-1		Benzo(k)fluoranthene #15
28.769	BB	390.02658	4.57119e-3	1.78289		Benzo(a)pyrene #16
30.650	BB	46.95927	3.93496e-2	1.84783		Dibenz(a,h)anthracene #17
31.455	BB	63.44260	2.65165e-2	1.68228		Benzo(g,h,i)perylene #18
32.406	BBA	137.50998	1.38204e-2	1.90044		Indeno(1,2,3-cd)pyrene #1

Totals : 173.65401

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.347	BBA	2506.75586	8.25405e-3	20.69089		Naphthalene #1
10.981	BB	660.71075	2.96975e-2	19.62147		Acenaphthylene #2
11.930	BB	1545.84680	1.29459e-2	20.01231		1-Methylnaphthalene #3
12.510	BB	1807.40576	1.12393e-2	20.31393		2-Methylnaphthalene #4
12.990	BB	962.19019	2.03163e-2	19.54819		Acenaphthene #5
13.653	BB	1118.73352	1.75240e-2	19.60469		Fluorene #6
15.052	BBA	1138.79529	1.72982e-2	19.69916		Phenanthrene #7
16.471	BBA	1807.46423	1.04262e-2	18.84496		Anthracene #8
17.859	PB	89.49636	2.17006e-2	1.94212		Fluoranthene #9
18.869	BBA	127.92740	1.43052e-2	1.83003		Pyrene #10
21.239	BBA	294.85410	6.56733e-2	19.36403		p-Terphenyl d14 #11*
22.568	PBA	84.45517	2.22694e-2	1.88077		Benzo(a)anthracene #12
23.453	PBA	127.47173	1.51453e-2	1.93060		Chrysene #13
26.190	BBA	93.73338	2.07330e-2	1.94337		Benzo(b)fluoranthene #14
27.642	BBA	43.45777	2.25837e-2	9.81437e-1		Benzo(k)fluoranthene #15
28.749	BBA	70.13058	2.61680e-2	1.83518		Benzo(a)pyrene #16
30.630	PBA	20.69830	9.41116e-2	1.94795		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.433	PB	31.06395	5.60829e-2	1.74216		Benzo(g,h,i)perylene #18
32.391	BB	92.55365	2.05608e-2	1.90298		Indeno(1,2,3-cd)pyrene #1

Totals : 195.63621

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

369

Check Standard Report

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Data File C:\HPCHEM\2\DATA\102901\4L002247.D Sample Name: WG107246-02 CCV
HPLC4 10/30/2001 9:18:06 AM RDC

1,1 SOS56-19/56-20

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Injection Date : 10/30/2001 12:54:55 AM Seq. Line : 13

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.337	20.0	18.693	-6.5
1-Methylnaphthalene #3	11.935	20.0	18.873	-5.6
2-Methylnaphthalene #4	12.517	20.0	19.118	-4.4
Acenaphthene #5	13.001	20.0	19.451	-2.7
Fluorene #6	13.664	20.0	20.369	1.8
Phenanthrene #7	15.062	20.0	18.298	-8.5
Anthracene #8	16.475	20.0	19.261	-3.7
Fluoranthene #9	17.860	2.0	1.900	-5.0
Pyrene #10	18.868	2.0	1.717	-14.2
p-Terphenyl d14 #11*	21.217	20.0	19.444	-2.8
Benzo(a)anthracene #12	22.535	2.0	1.848	-7.6
Chrysene #13	23.401	2.0	1.862	-6.9
Benzo(b)fluoranthene #14	26.119	2.0	1.891	-5.4
Benzo(k)fluoranthene #15	27.554	1.0	0.971	-2.9
Benzo(a)pyrene #16	28.666	2.0	1.727	-13.6
Dibenz(a,h)anthracene #1	30.532	2.0	1.846	-7.7
Benzo(g,h,i)perylene #18	31.340	2.0	1.675	-16.2 #
Indeno(1,2,3-cd)pyrene #	32.285	2.0	1.929	-3.6

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.318	20.0	20.637	3.2
Acenaphthylene #2	10.959	20.0	19.627	-1.9
1-Methylnaphthalene #3	11.916	20.0	19.889	-0.6
2-Methylnaphthalene #4	12.498	20.0	20.255	1.3
Acenaphthene #5	12.982	20.0	19.777	-1.1
Fluorene #6	13.644	20.0	19.581	-2.1
Phenanthrene #7	15.042	20.0	19.647	-1.8
Anthracene #8	16.456	20.0	19.418	-2.9
Fluoranthene #9	17.840	2.0	1.937	-3.1
Pyrene #10	18.848	2.0	1.903	-4.9
p-Terphenyl d14 #11*	21.198	20.0	19.391	-3.0
Benzo(a)anthracene #12	22.516	2.0	1.933	-3.3
Chrysene #13	23.382	2.0	1.932	-3.4
Benzo(b)fluoranthene #14	26.099	2.0	1.939	-3.1
Benzo(k)fluoranthene #15	27.535	1.0	0.986	-1.4
Benzo(a)pyrene #16	28.646	2.0	1.799	-10.0
Dibenz(a,h)anthracene #1	30.513	2.0	1.949	-2.5
Benzo(g,h,i)perylene #18	31.320	2.0	1.935	-3.3
Indeno(1,2,3-cd)pyrene #	32.266	2.0	1.927	-3.6

= Failed 15.0% Criteria

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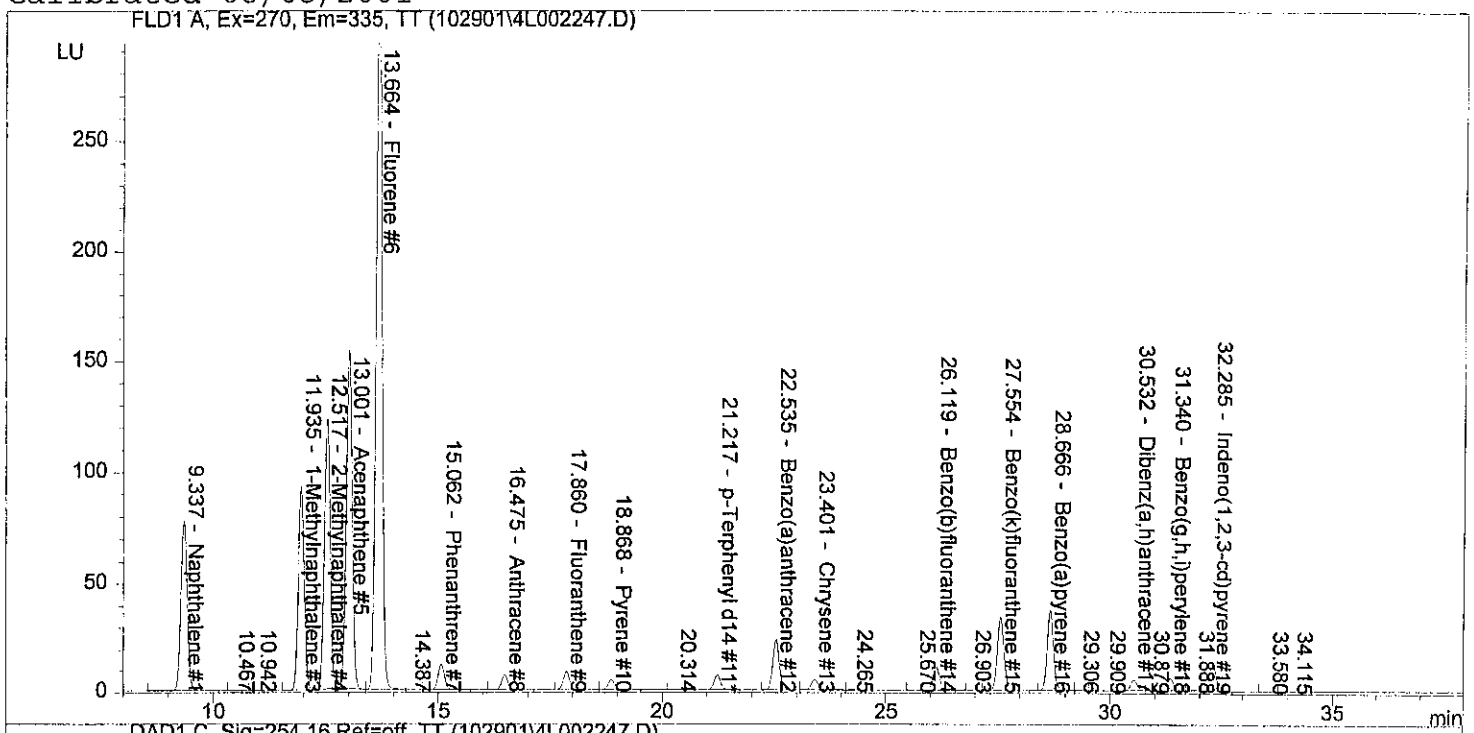
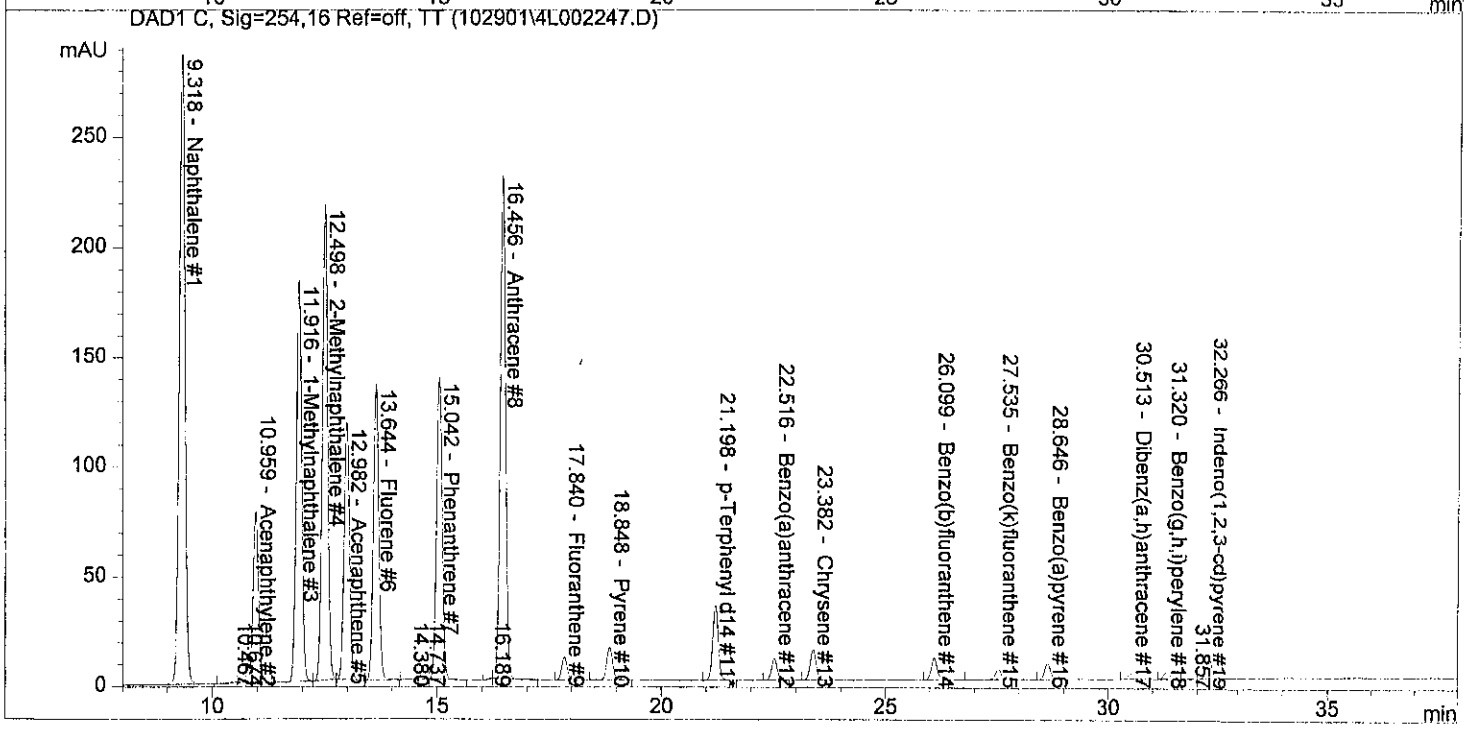
Injection Date	: 10/30/2001 12:54:55 AM	Seq. Line	: 13
Sample Name	: WG107246-02 CCV	Vial	: 13
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/29/2001 2:11:32 PM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	10/29/2001 2:11:30 PM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.337	BBA	738.97217	2.52962e-2	18.69318		Naphthalene #1
11.935	BB	852.71588	2.21330e-2	18.87312		1-Methylnaphthalene #3
12.517	BB	1120.38843	1.70635e-2	19.11774		2-Methylnaphthalene #4
13.001	BB	1405.28687	1.38416e-2	19.45137		Acenaphthene #5
13.664	BB	3075.96240	6.62187e-3	20.36861		Fluorene #6
15.062	BBA	111.81217	1.63652e-1	18.29831		Phenanthrene #7
16.475	BBA	62.09254	3.10196e-1	19.26088		Anthracene #8
17.860	BB	81.64158	2.32678e-2	1.89962		Fluoranthene #9
18.868	BBA	44.41193	3.86587e-2	1.71691		Pyrene #10
21.217	BB	65.37561	2.97423e-1	19.44420		p-Terphenyl d14 #11*
22.535	BB	233.51067	7.91256e-3	1.84767		Benzo(a)anthracene #12
23.401	BBA	47.67942	3.90495e-2	1.86186		Chrysene #13
26.119	BB	115.87209	1.63222e-2	1.89129		Benzo(b)fluoranthene #14
27.554	BBA	351.01184	2.76572e-3	9.70799e-1		Benzo(k)fluoranthene #15
28.666	BB	377.81155	4.57119e-3	1.72705		Benzo(a)pyrene #16
30.532	BB	46.90431	3.93496e-2	1.84566		Dibenz(a,h)anthracene #17
31.340	BB	63.16914	2.65165e-2	1.67502		Benzo(g,h,i)perylene #18
32.285	BB	139.57405	1.38204e-2	1.92897		Indeno(1,2,3-cd)pyrene #1

Totals : 170.87226

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.318	BBA	2500.18628	8.25405e-3	20.63666		Naphthalene #1
10.959	BB	660.90936	2.96975e-2	19.62737		Acenaphthylene #2
11.916	BB	1536.28589	1.29459e-2	19.88854		1-Methylnaphthalene #3
12.498	BB	1802.19946	1.12393e-2	20.25542		2-Methylnaphthalene #4
12.982	BB	973.46161	2.03163e-2	19.77718		Acenaphthene #5
13.644	BBA	1117.35840	1.75240e-2	19.58059		Fluorene #6
15.042	BBA	1135.77954	1.72982e-2	19.64699		Phenanthrene #7
16.456	BBA	1862.47314	1.04262e-2	19.41849		Anthracene #8
17.840	PB	89.26430	2.17006e-2	1.93709		Fluoranthene #9
18.848	BBA	133.00316	1.43052e-2	1.90264		Pyrene #10
21.198	PBA	295.26730	6.56733e-2	19.39116		p-Terphenyl d14 #11*
22.516	PBA	86.81081	2.22694e-2	1.93323		Benzo(a)anthracene #12
23.382	BBA	127.54299	1.51453e-2	1.93168		Chrysene #13
26.099	BBA	93.50726	2.07330e-2	1.93868		Benzo(b)fluoranthene #14
27.535	PBA	43.65088	2.25837e-2	9.85798e-1		Benzo(k)fluoranthene #15
28.646	BBA	68.75089	2.61680e-2	1.79907		Benzo(a)pyrene #16
30.513	PBA	20.71424	9.41116e-2	1.94945		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.320	BB	34.49525	5.60829e-2	1.93459		Benzo(g,h,i)perylene #18
32.266	BBA	93.73868	2.05608e-2	1.92734		Indeno(1,2,3-cd)pyrene #1

Totals : 196.46198

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\102901\4L002258.D Sample Name: WG107246-03 CCV
HPLC4 10/30/2001 11:23:45 AM RDC

1,1 SOS56-19/56-20

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Injection Date : 10/30/2001 11:17:53 AM Seq. Line : 24

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.358	20.0	18.980	-5.1
1-Methylnaphthalene #3	11.926	20.0	19.070	-4.6
2-Methylnaphthalene #4	12.506	20.0	19.345	-3.3
Acenaphthene #5	12.991	20.0	19.699	-1.5
Fluorene #6	13.655	20.0	20.423	2.1
Phenanthrene #7	15.058	20.0	18.702	-6.5
Anthracene #8	16.476	20.0	19.433	-2.8
Fluoranthene #9	17.864	2.0	1.901	-4.9
Pyrene #10	18.876	2.0	1.773	-11.3
p-Terphenyl d14 #11*	21.233	20.0	19.409	-3.0
Benzo(a)anthracene #12	22.553	2.0	1.870	-6.5
Chrysene #13	23.425	2.0	1.870	-6.5
Benzo(b)fluoranthene #14	26.153	2.0	1.896	-5.2
Benzo(k)fluoranthene #15	27.592	1.0	0.976	-2.4
Benzo(a)pyrene #16	28.698	2.0	1.740	-13.0
Dibenz(a,h)anthracene #1	30.557	2.0	1.863	-6.9
Benzo(g,h,i)perylene #18	31.365	2.0	1.748	-12.6
Indeno(1,2,3-cd)pyrene #	32.307	2.0	1.930	-3.5

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.342	20.0	20.741	3.7
Acenaphthylene #2	10.963	20.0	19.678	-1.6
1-Methylnaphthalene #3	11.911	20.0	19.982	-0.1
2-Methylnaphthalene #4	12.491	20.0	20.324	1.6
Acenaphthene #5	12.976	20.0	19.889	-0.6
Fluorene #6	13.639	20.0	19.646	-1.8
Phenanthrene #7	15.042	20.0	19.724	-1.4
Anthracene #8	16.460	20.0	19.857	-0.7
Fluoranthene #9	17.848	2.0	1.947	-2.6
Pyrene #10	18.859	2.0	1.920	-4.0
p-Terphenyl d14 #11*	21.218	20.0	19.448	-2.8
Benzo(a)anthracene #12	22.538	2.0	1.943	-2.9
Chrysene #13	23.410	2.0	1.942	-2.9
Benzo(b)fluoranthene #14	26.137	2.0	1.942	-2.9
Benzo(k)fluoranthene #15	27.577	1.0	0.982	-1.8
Benzo(a)pyrene #16	28.683	2.0	1.805	-9.7
Dibenz(a,h)anthracene #1	30.543	2.0	1.976	-1.2
Benzo(g,h,i)perylene #18	31.349	2.0	1.958	-2.1
Indeno(1,2,3-cd)pyrene #	32.292	2.0	1.934	-3.3

= Failed 15.0% Criteria

374

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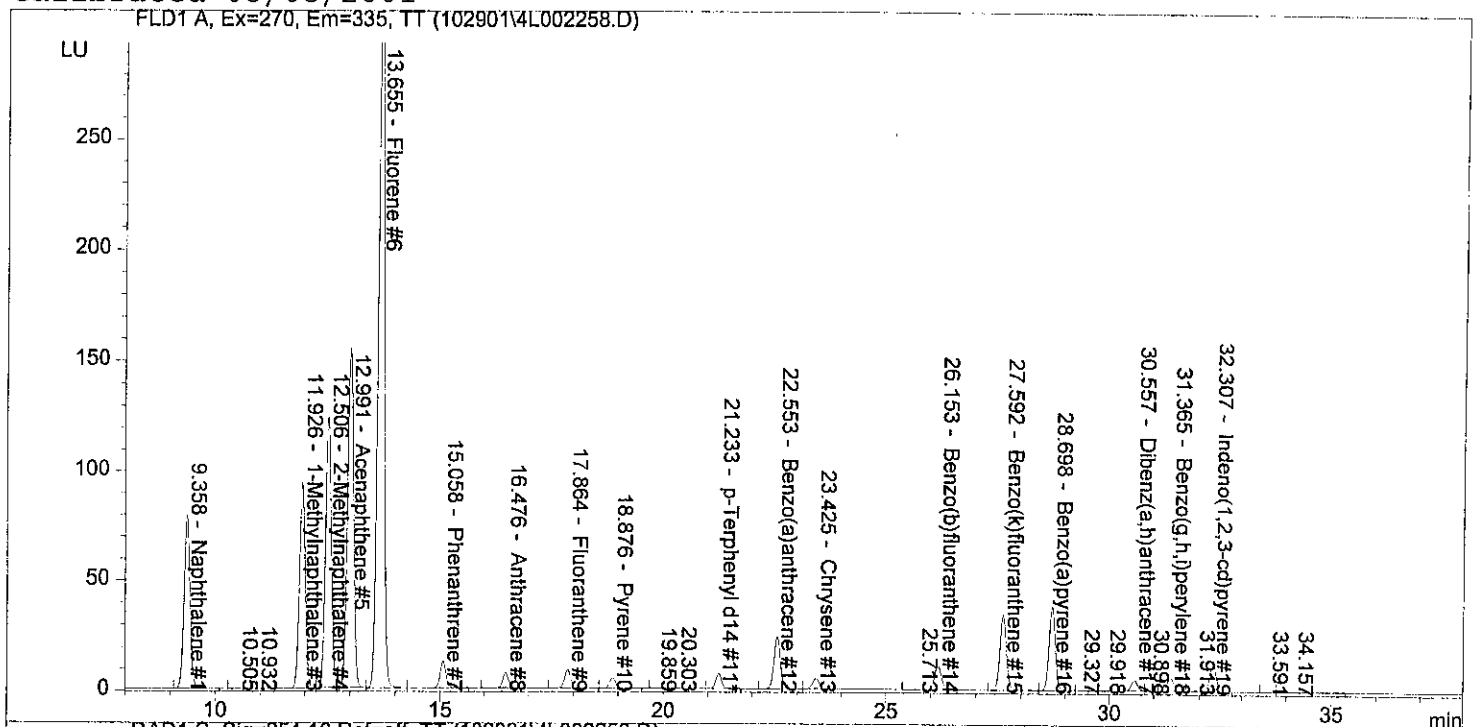
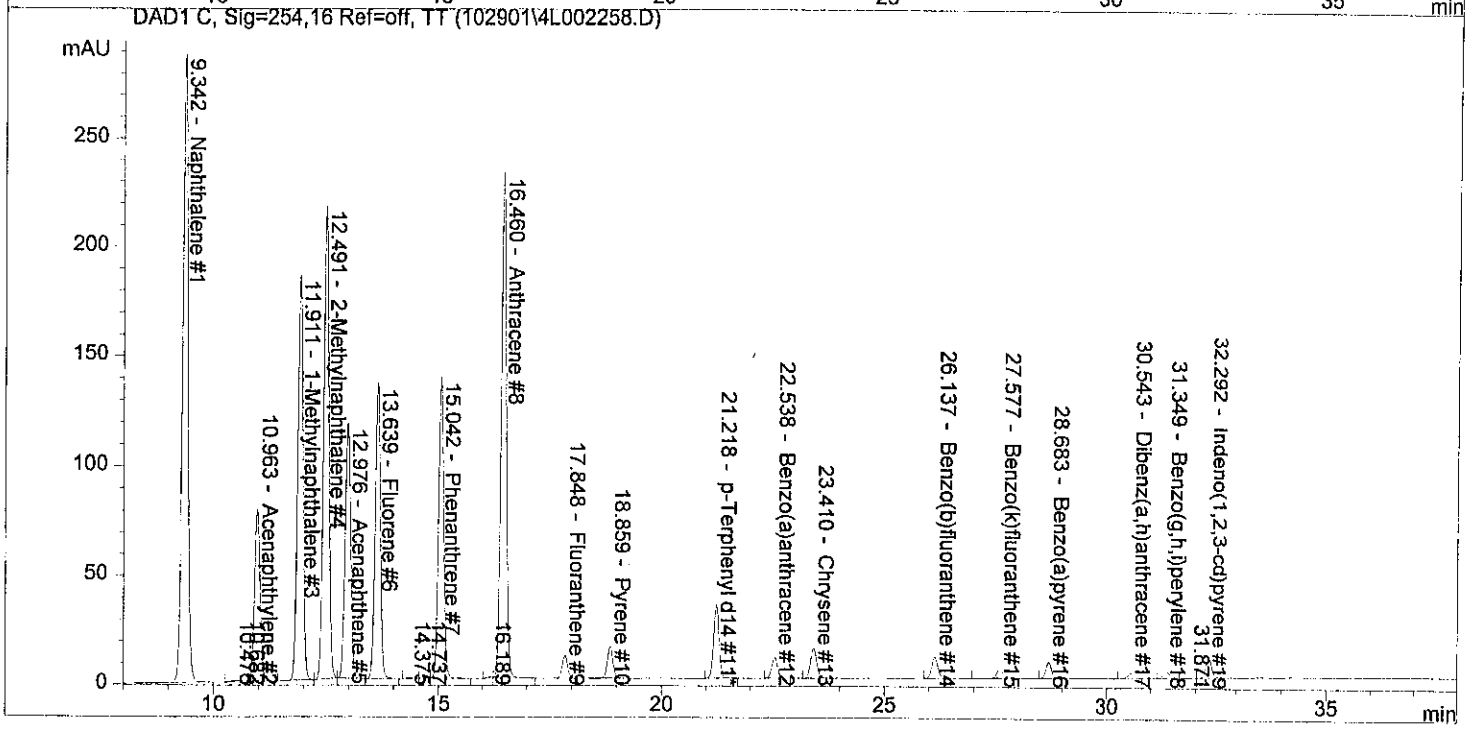
Injection Date	: 10/30/2001 11:17:53 AM	Seq. Line	: 24
Sample Name	: WG107246-03 CCV	Vial	: 24
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/30/2001 9:34:44 AM by RDC
(modified after loading)

Calibrated 08/08/2001





375

External Standard Report

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Sorted By : Signal
Calib. Data Modified : Tuesday, October 30, 2001 9:34:44 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.358	PBA	750.29761	2.52962e-2	18.97968		Naphthalene #1
11.926	BB	861.61963	2.21330e-2	19.07019		1-Methylnaphthalene #3
12.506	BB	1133.70020	1.70635e-2	19.34489		2-Methylnaphthalene #4
12.991	BB	1423.15796	1.38416e-2	19.69873		Acenaphthene #5
13.655	BB	3084.14136	6.62187e-3	20.42277		Fluorene #6
15.058	BBA	114.28059	1.63652e-1	18.70227		Phenanthrene #7
16.476	PB	62.64677	3.10196e-1	19.43280		Anthracene #8
17.864	BB	81.70947	2.32678e-2	1.90120		Fluoranthene #9
18.876	BBA	45.87395	3.86587e-2	1.77343		Pyrene #10
21.233	BBA	65.25655	2.97423e-1	19.40879		p-Terphenyl d14 #11*
22.553	BB	236.35101	7.91256e-3	1.87014		Benzo(a)anthracene #12
23.425	BBA	47.89239	3.90495e-2	1.87018		Chrysene #13
26.153	BB	116.17664	1.63222e-2	1.89626		Benzo(b)fluoranthene #14
27.592	BB	352.73621	2.76572e-3	9.75568e-1		Benzo(k)fluoranthene #15
28.698	BB	380.74911	4.57119e-3	1.74048		Benzo(a)pyrene #16
30.557	BB	47.33428	3.93496e-2	1.86258		Dibenz(a,h)anthracene #17
31.365	BB	65.92342	2.65165e-2	1.74806		Benzo(g,h,i)perylene #18
32.307	BB	139.62947	1.38204e-2	1.92974		Indeno(1,2,3-cd)pyrene #1

Totals : 172.62774

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.342	BBA	2512.85767	8.25405e-3	20.74125		Naphthalene #1
10.963	BBA	662.59869	2.96975e-2	19.67754		Acenaphthylene #2
11.911	PB	1543.52954	1.29459e-2	19.98231		1-Methylnaphthalene #3
12.491	BB	1808.28076	1.12393e-2	20.32377		2-Methylnaphthalene #4
12.976	BB	978.95563	2.03163e-2	19.88880		Acenaphthene #5
13.639	BBA	1121.08838	1.75240e-2	19.64596		Fluorene #6
15.042	BBA	1140.22461	1.72982e-2	19.72388		Phenanthrene #7
16.460	BBA	1904.52576	1.04262e-2	19.85694		Anthracene #8
17.848	PB	89.72878	2.17006e-2	1.94717		Fluoranthene #9
18.859	BBA	134.21242	1.43052e-2	1.91994		Pyrene #10
21.218	PBA	296.13266	6.56733e-2	19.44799		p-Terphenyl d14 #11*
22.538	BBA	87.23664	2.22694e-2	1.94271		Benzo(a)anthracene #12
23.410	BBA	128.24146	1.51453e-2	1.94225		Chrysene #13
26.137	BBA	93.68473	2.07330e-2	1.94236		Benzo(b)fluoranthene #14
27.577	BBA	43.46652	2.25837e-2	9.81634e-1		Benzo(k)fluoranthene #15
28.683	BBA	68.99207	2.61680e-2	1.80539		Benzo(a)pyrene #16
30.543	PBA	20.99566	9.41116e-2	1.97594		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.349	BB	34.90894	5.60829e-2	1.95780		Benzo(g,h,i)perylene #18
32.292	BBA	94.08134	2.05608e-2	1.93439		Indeno(1,2,3-cd)pyrene #1

Totals : 197.63801

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\103101\4L002277.D Sample Name: WG107371-01 CCV
HPLC4 10/31/2001 12:10:05 PM RDC

1,1 SOS56-19/56-20

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Injection Date : 10/31/2001 12:04:05 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.340	20.0	19.284	-3.6
1-Methylnaphthalene #3	11.939	20.0	19.423	-2.9
2-Methylnaphthalene #4	12.520	20.0	19.677	-1.6
Acenaphthene #5	13.004	20.0	19.972	-0.1
Fluorene #6	13.668	20.0	20.615	3.1
Phenanthrene #7	15.072	20.0	18.551	-7.2
Anthracene #8	16.494	20.0	20.555	2.8
Fluoranthene #9	17.883	2.0	1.854	-7.3
Pyrene #10	18.896	2.0	1.794	-10.3
p-Terphenyl d14 #11*	21.268	20.0	19.571	-2.1
Benzo(a)anthracene #12	22.596	2.0	1.895	-5.2
Chrysene #13	23.478	2.0	1.893	-5.4
Benzo(b)fluoranthene #14	26.215	2.0	1.921	-4.0
Benzo(k)fluoranthene #15	27.666	1.0	0.986	-1.4
Benzo(a)pyrene #16	28.775	2.0	1.857	-7.1
Dibenz(a,h)anthracene #1	30.656	2.0	1.868	-6.6
Benzo(g,h,i)perylene #18	31.464	2.0	1.770	-11.5
Indeno(1,2,3-cd)pyrene #	32.403	2.0	1.973	-1.4

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.323	20.0	20.917	4.6
Acenaphthylene #2	10.965	20.0	19.776	-1.1
1-Methylnaphthalene #3	11.922	20.0	20.148	0.7
2-Methylnaphthalene #4	12.503	20.0	20.468	2.3
Acenaphthene #5	12.987	20.0	20.045	0.2
Fluorene #6	13.650	20.0	19.756	-1.2
Phenanthrene #7	15.055	20.0	19.842	-0.8
Anthracene #8	16.477	20.0	20.687	3.4
Fluoranthene #9	17.865	2.0	1.958	-2.1
Pyrene #10	18.878	2.0	1.931	-3.4
p-Terphenyl d14 #11*	21.251	20.0	19.587	-2.1
Benzo(a)anthracene #12	22.579	2.0	1.957	-2.1
Chrysene #13	23.461	2.0	1.950	-2.5
Benzo(b)fluoranthene #14	26.197	2.0	1.965	-1.8
Benzo(k)fluoranthene #15	27.650	1.0	0.990	-1.0
Benzo(a)pyrene #16	28.758	2.0	1.933	-3.3
Dibenz(a,h)anthracene #1	30.640	2.0	1.996	-0.2
Benzo(g,h,i)perylene #18	31.446	2.0	1.854	-7.3
Indeno(1,2,3-cd)pyrene #	32.391	2.0	1.961	-1.9

= Failed 15.0% Criteria

378

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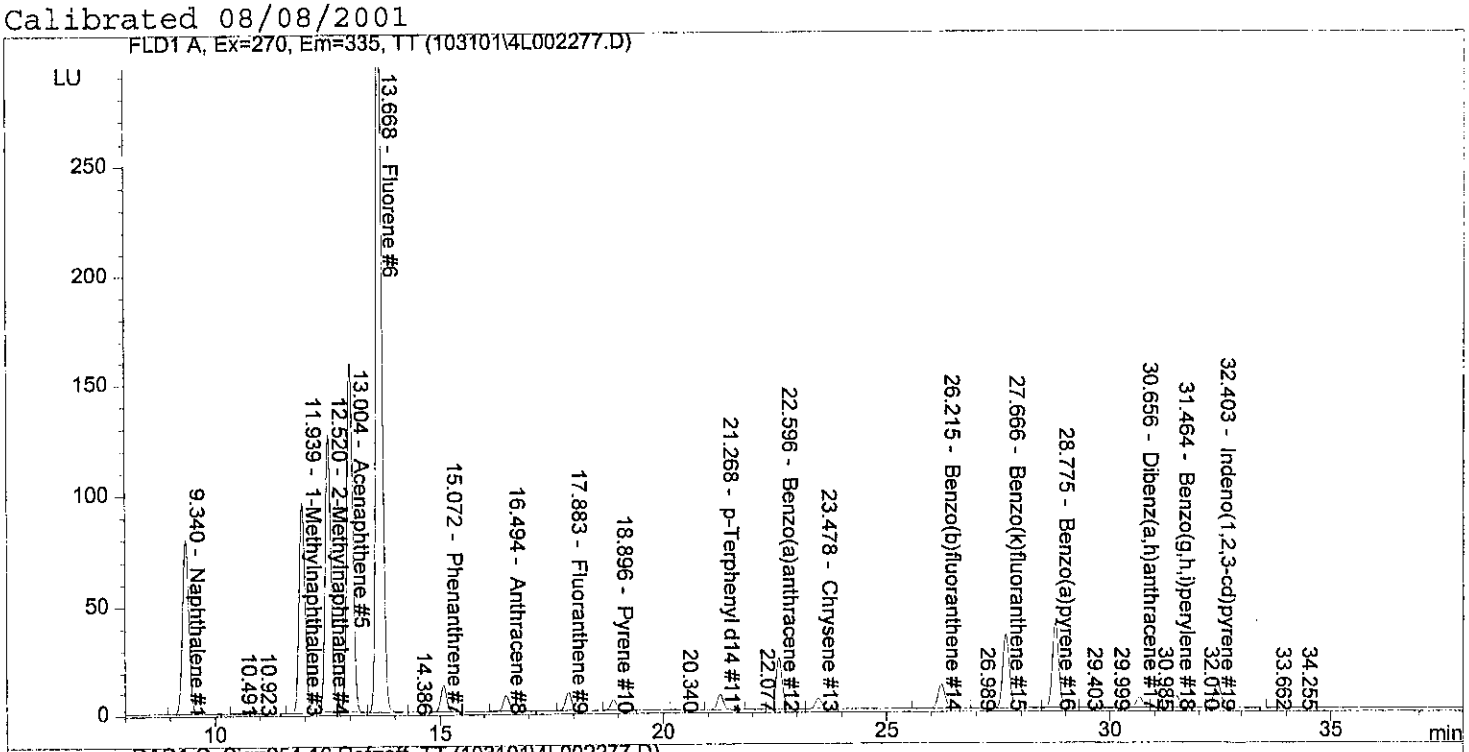
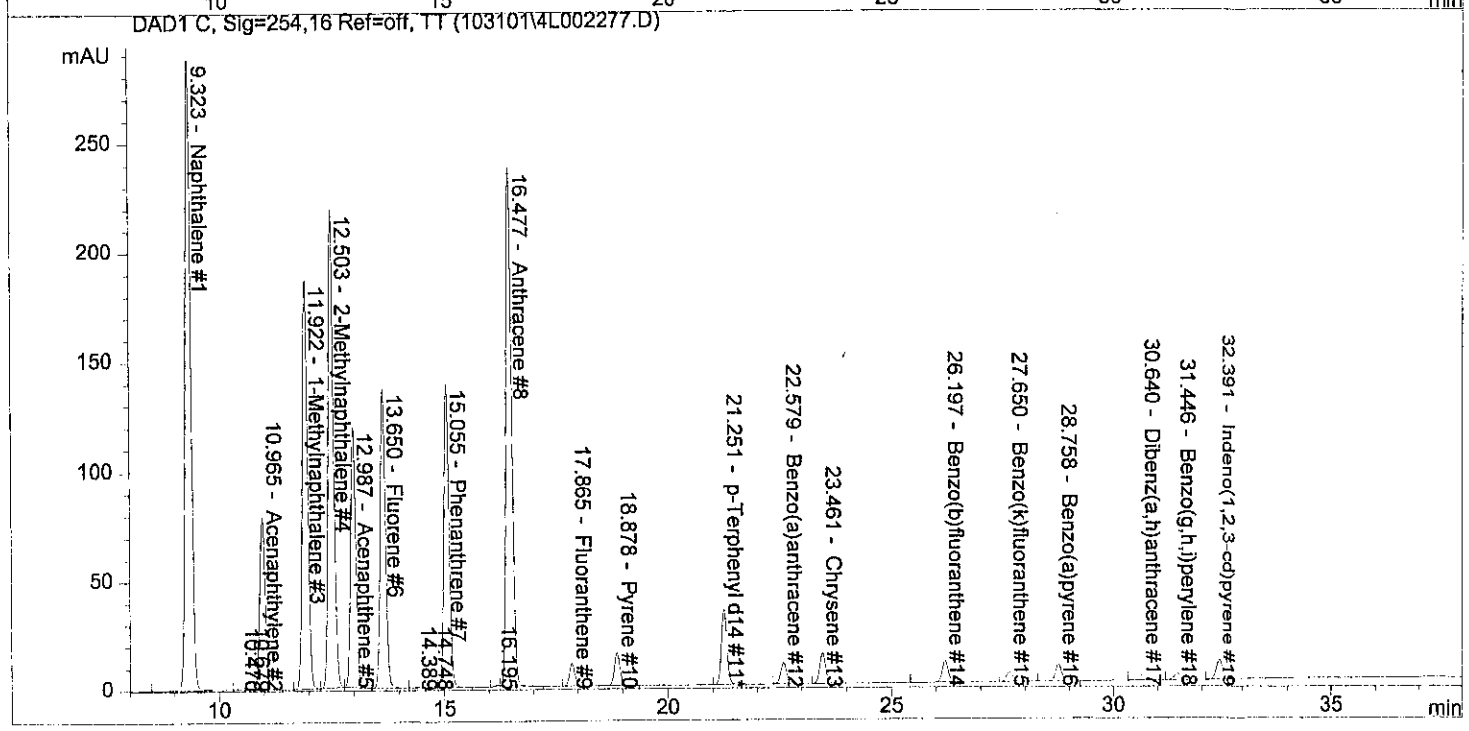
Injection Date : 10/31/2001 12:04:05 PM
Sample Name : WG107371-01 CCV
Acq. Operator : RDC

Seq. Line : 2
Vial : 2
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/31/2001 9:15:44 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, October 31, 2001 9:15:43 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.340	BBA	762.34430	2.52962e-2	19.28441		Naphthalene #1
11.939	PB	877.55072	2.21330e-2	19.42279		1-Methylnaphthalene #3
12.520	BB	1153.18787	1.70635e-2	19.67741		2-Methylnaphthalene #4
13.004	BB	1442.93152	1.38416e-2	19.97243		Acenaphthene #5
13.668	BB	3113.22876	6.62187e-3	20.61539		Fluorene #6
15.072	BBA	113.35654	1.63652e-1	18.55105		Phenanthrene #7
16.494	BBA	66.26575	3.10196e-1	20.55539		Anthracene #8
17.883	PB	79.67490	2.32678e-2	1.85386		Fluoranthene #9
18.896	BBA	46.41139	3.86587e-2	1.79420		Pyrene #10
21.268	BBA	65.80053	2.97423e-1	19.57058		p-Terphenyl d14 #11*
22.596	BB	239.52814	7.91256e-3	1.89528		Benzo(a)anthracene #12
23.478	BBA	48.47586	3.90495e-2	1.89296		Chrysene #13
26.215	PB	117.67247	1.63222e-2	1.92067		Benzo(b)fluoranthene #14
27.666	BB	356.38800	2.76572e-3	9.85668e-1		Benzo(k)fluoranthene #15
28.775	BB	406.25195	4.57119e-3	1.85705		Benzo(a)pyrene #16
30.656	PB	47.47009	3.93496e-2	1.86793		Dibenz(a,h)anthracene #17
31.464	BB	66.74235	2.65165e-2	1.76977		Benzo(g,h,i)perylene #18
32.403	BBA	142.72749	1.38204e-2	1.97255		Indeno(1,2,3-cd)pyrene #1

Totals : 175.45940

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.323	PBA	2534.11987	8.25405e-3	20.91675		Naphthalene #1
10.965	BBA	665.91602	2.96975e-2	19.77605		Acenaphthylene #2
11.922	PB	1556.33813	1.29459e-2	20.14813		1-Methylnaphthalene #3
12.503	BB	1821.12183	1.12393e-2	20.46809		2-Methylnaphthalene #4
12.987	BB	986.65808	2.03163e-2	20.04528		Acenaphthene #5
13.650	BB	1127.37854	1.75240e-2	19.75619		Fluorene #6
15.055	BBA	1147.03918	1.72982e-2	19.84176		Phenanthrene #7
16.477	BBA	1984.14429	1.04262e-2	20.68705		Anthracene #8
17.865	PB	90.22957	2.17006e-2	1.95804		Fluoranthene #9
18.878	BBA	134.99007	1.43052e-2	1.93107		Pyrene #10
21.251	BBA	298.24893	6.56733e-2	19.58698		p-Terphenyl d14 #11*
22.579	BBA	87.88087	2.22694e-2	1.95706		Benzo(a)anthracene #12
23.461	BBA	128.76653	1.51453e-2	1.95021		Chrysene #13
26.197	BBA	94.75674	2.07330e-2	1.96459		Benzo(b)fluoranthene #14
27.650	BB	43.83707	2.25837e-2	9.90003e-1		Benzo(k)fluoranthene #15
28.758	BB	73.88766	2.61680e-2	1.93349		Benzo(a)pyrene #16
30.640	PB	21.21014	9.41116e-2	1.99612		Dibenz(a,h)anthracene #17

380

[min]		[mAU*s]		[ug/L]		
31.446	BB	33.05870	5.60829e-2	1.85403		Benzo(g,h,i)perylene #18
32.391	BB	95.38979	2.05608e-2	1.96129		Indeno(1,2,3-cd)pyrene #1

Totals : 199.72218

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\103101\4L002288.D Sample Name: WG107371-02 CCV
HPLC4 11/1/2001 8:33:41 AM RDC

1,1 SOS56-19/56-20

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Injection Date : 10/31/2001 10:30:33 PM Seq. Line : 13

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.355	20.0	19.204	-4.0
1-Methylnaphthalene #3	11.949	20.0	19.377	-3.1
2-Methylnaphthalene #4	12.530	20.0	19.645	-1.8
Acenaphthene #5	13.013	20.0	20.080	0.4
Fluorene #6	13.675	20.0	20.956	4.8
Phenanthrene #7	15.072	20.0	18.692	-6.5
Anthracene #8	16.488	20.0	20.696	3.5
Fluoranthene #9	17.871	2.0	1.946	-2.7
Pyrene #10	18.881	2.0	1.738	-13.1
p-Terphenyl d14 #11*	21.229	20.0	20.023	0.1
Benzo(a)anthracene #12	22.548	2.0	1.900	-5.0
Chrysene #13	23.420	2.0	1.896	-5.2
Benzo(b)fluoranthene #14	26.148	2.0	1.940	-3.0
Benzo(k)fluoranthene #15	27.588	1.0	0.991	-0.9
Benzo(a)pyrene #16	28.696	2.0	1.829	-8.6
Dibenz(a,h)anthracene #1	30.561	2.0	1.865	-6.8
Benzo(g,h,i)perylene #18	31.371	2.0	1.785	-10.8
Indeno(1,2,3-cd)pyrene #	32.303	2.0	2.014	0.7

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.339	20.0	21.276	6.4
Acenaphthylene #2	10.979	20.0	20.197	1.0
1-Methylnaphthalene #3	11.933	20.0	20.546	2.7
2-Methylnaphthalene #4	12.514	20.0	20.864	4.3
Acenaphthene #5	12.997	20.0	20.473	2.4
Fluorene #6	13.658	20.0	20.179	0.9
Phenanthrene #7	15.055	20.0	20.258	1.3
Anthracene #8	16.471	20.0	21.121	5.6
Fluoranthene #9	17.854	2.0	2.000	0.0
Pyrene #10	18.863	2.0	1.978	-1.1
p-Terphenyl d14 #11*	21.212	20.0	19.975	-0.1
Benzo(a)anthracene #12	22.531	2.0	1.997	-0.1
Chrysene #13	23.404	2.0	1.991	-0.4
Benzo(b)fluoranthene #14	26.131	2.0	2.008	0.4
Benzo(k)fluoranthene #15	27.572	1.0	1.000	0.0
Benzo(a)pyrene #16	28.679	2.0	1.920	-4.0
Dibenz(a,h)anthracene #1	30.545	2.0	2.050	2.5
Benzo(g,h,i)perylene #18	31.353	2.0	2.173	8.7
Indeno(1,2,3-cd)pyrene #	32.288	2.0	2.011	0.5

= Failed 15.0% Criteria

382

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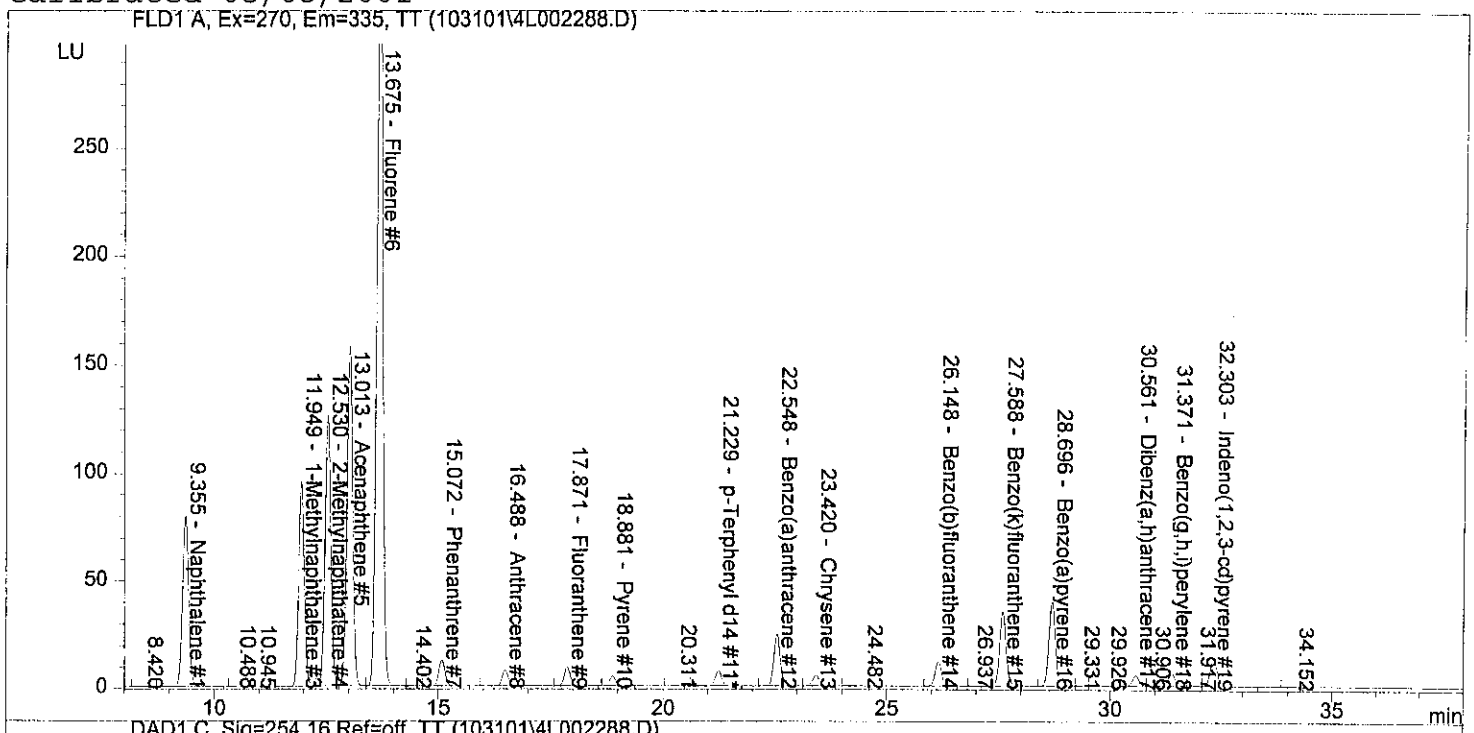
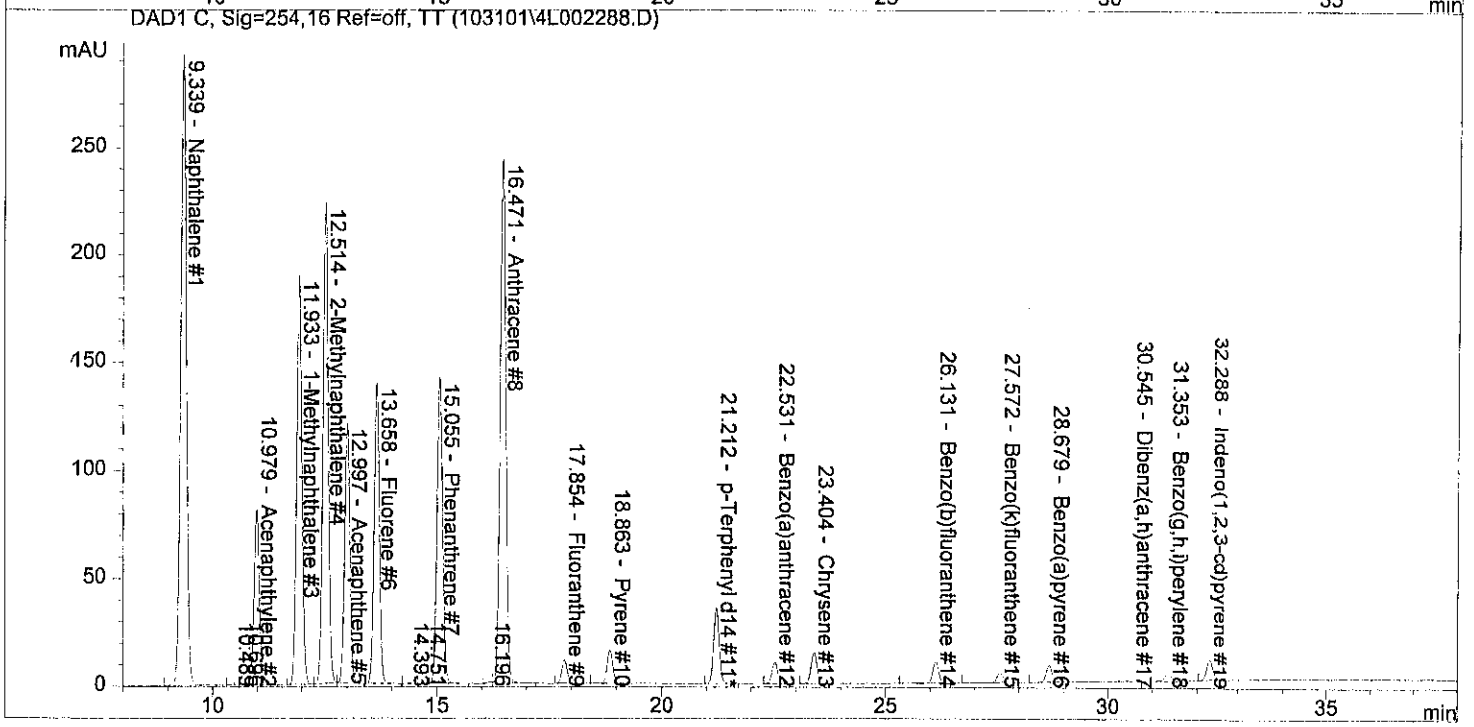
Injection Date : 10/31/2001 10:30:33 PM Seq. Line : 13
Sample Name : WG107371-02 CCV Vial : 13
Acq. Operator : RDC Inj : 1
Inj Volume : 8 µl

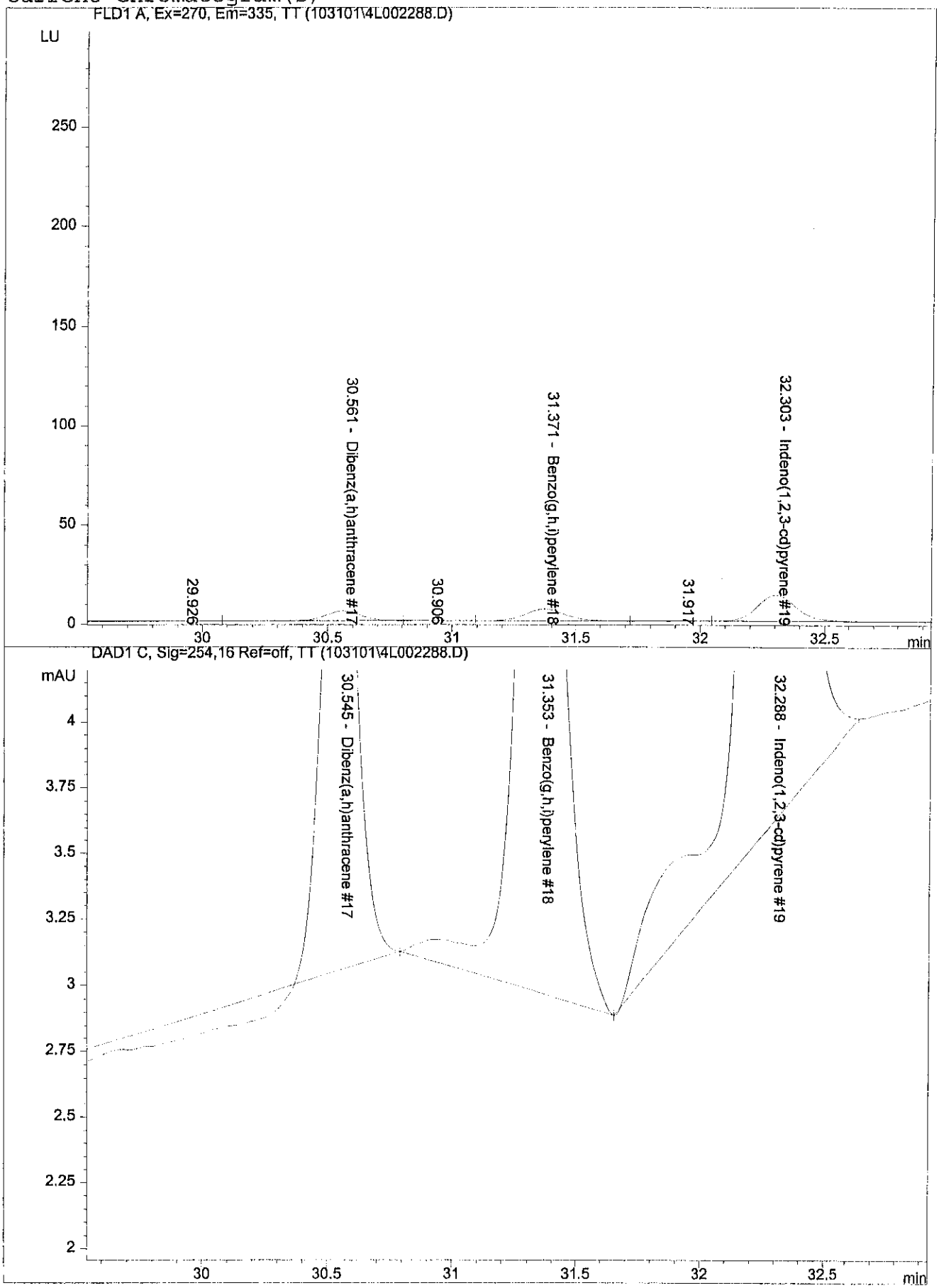
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/1/2001 8:32:50 AM by RDC
(modified after loading)

Calibrated 08/08/2001

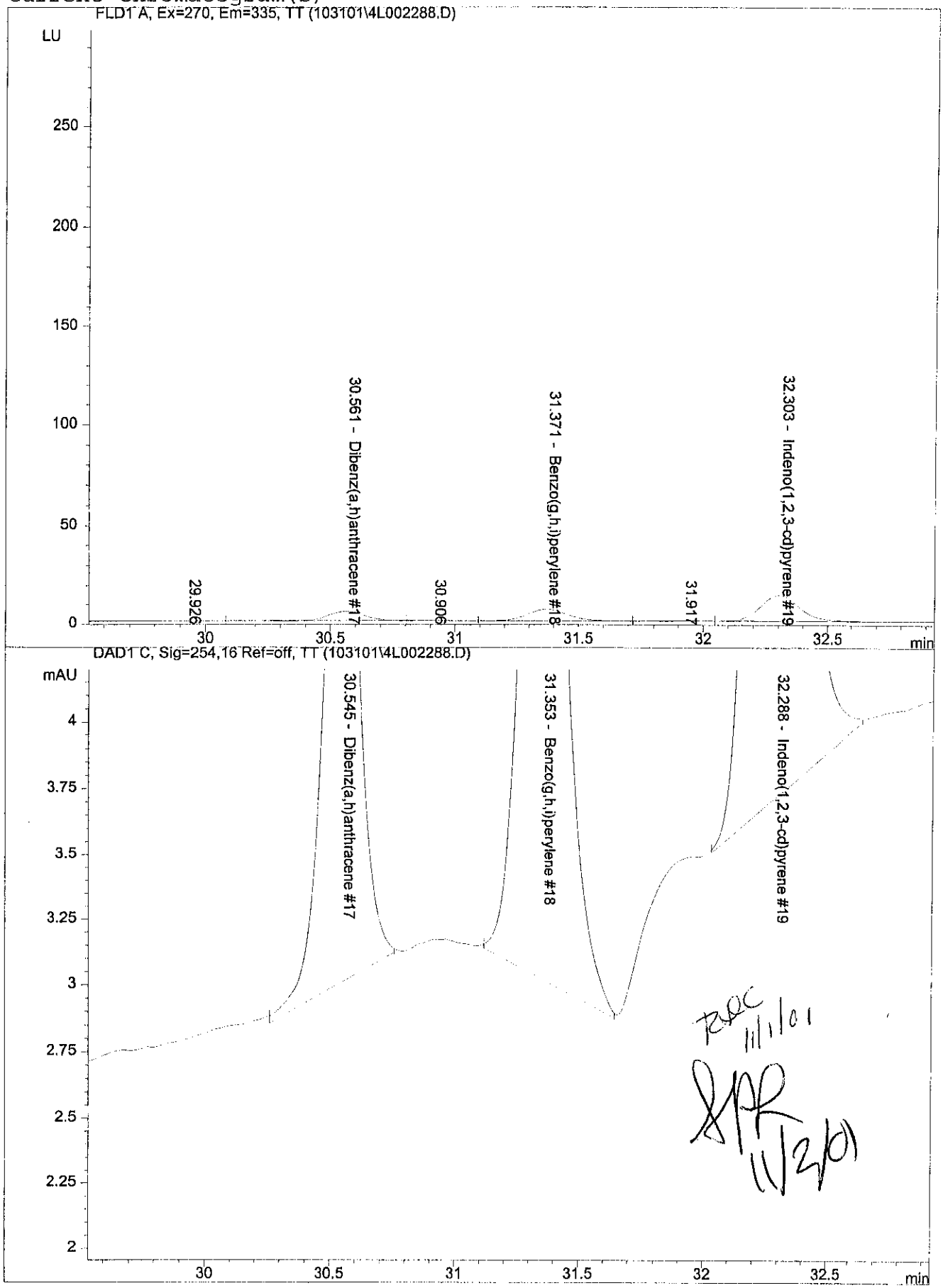




Current Chromatogram(s)



Current Chromatogram(s)



RDC 11/1/01

SPR 11/2/01

External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Wednesday, October 31, 2001 9:15:43 AM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.355	BBA	759.15308	2.52962e-2	19.20369		Naphthalene #1
11.949	BB	875.49335	2.21330e-2	19.37725		1-Methylnaphthalene #3
12.530	BB	1151.26624	1.70635e-2	19.64462		2-Methylnaphthalene #4
13.013	BB	1450.71179	1.38416e-2	20.08012		Acenaphthene #5
13.675	BB	3164.64307	6.62187e-3	20.95584		Fluorene #6
15.072	BBA	114.21968	1.63652e-1	18.69231		Phenanthrene #7
16.488	BBA	66.71989	3.10196e-1	20.69626		Anthracene #8
17.871	PBA	83.62286	2.32678e-2	1.94572		Fluoranthene #9
18.881	BBA	44.95365	3.86587e-2	1.73785		Pyrene #10
21.229	BBA	67.32263	2.97423e-1	20.02328		p-Terphenyl d14 #11*
22.548	BB	240.06729	7.91256e-3	1.89955		Benzo(a)anthracene #12
23.420	BB	48.54840	3.90495e-2	1.89579		Chrysene #13
26.148	BB	118.85931	1.63222e-2	1.94004		Benzo(b)fluoranthene #14
27.588	BB	358.18295	2.76572e-3	9.90632e-1		Benzo(k)fluoranthene #15
28.696	BB	400.04660	4.57119e-3	1.82869		Benzo(a)pyrene #16
30.561	BB	47.39490	3.93496e-2	1.86497		Dibenz(a,h)anthracene #17
31.371	BB	67.31507	2.65165e-2	1.78496		Benzo(g,h,i)perylene #18
32.303	BBA	145.71065	1.38204e-2	2.01378		Indeno(1,2,3-cd)pyrene #1
Totals :				176.57537		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.339	PBA	2577.66260	8.25405e-3	21.27616		Naphthalene #1
10.979	BBA	680.09460	2.96975e-2	20.19712		Acenaphthylene #2
11.933	PB	1587.06348	1.29459e-2	20.54590		1-Methylnaphthalene #3
12.514	BB	1856.33765	1.12393e-2	20.86389		2-Methylnaphthalene #4
12.997	BB	1007.73199	2.03163e-2	20.47343		Acenaphthene #5
13.658	BBA	1151.49597	1.75240e-2	20.17882		Fluorene #6
15.055	BBA	1171.08411	1.72982e-2	20.25770		Phenanthrene #7
16.471	BBA	2025.74255	1.04262e-2	21.12077		Anthracene #8
17.854	PB	92.14760	2.17006e-2	1.99966		Fluoranthene #9
18.863	BBA	138.26370	1.43052e-2	1.97790		Pyrene #10
21.212	BBA	304.15714	6.56733e-2	19.97499		p-Terphenyl d14 #11*
22.531	PBA	89.68002	2.22694e-2	1.99712		Benzo(a)anthracene #12
23.404	BBA	131.46484	1.51453e-2	1.99107		Chrysene #13
26.131	PBA	96.84129	2.07330e-2	2.00781		Benzo(b)fluoranthene #14
27.572	PB	44.29035	2.25837e-2	1.00024		Benzo(k)fluoranthene #15
28.679	BB	73.38509	2.61680e-2	1.92034		Benzo(a)pyrene #16
30.545	MM	21.78607	9.41116e-2	2.05032		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.353	MM	38.75452	5.60829e-2	2.17347		Benzo(g,h,i)perylene #18
32.288	MM	97.80688	2.05608e-2	2.01099		Indeno(1,2,3-cd)pyrene #1

Totals : 204.01768

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\103101\4L002299.D Sample Name: WG107371-03 CCV
HPLC4 11/1/2001 10:40:15 AM RDC

1,1 SOS56-19/56-20

==========

Injection Date : 11/1/2001 8:53:29 AM Seq. Line : 24

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.320	20.0	19.160	-4.2
1-Methylnaphthalene #3	11.920	20.0	19.280	-3.6
2-Methylnaphthalene #4	12.506	20.0	19.495	-2.5
Acenaphthene #5	12.992	20.0	19.930	-0.3
Fluorene #6	13.656	20.0	20.721	3.6
Phenanthrene #7	15.058	20.0	18.962	-5.2
Anthracene #8	16.477	20.0	20.485	2.4
Fluoranthene #9	17.861	2.0	1.925	-3.8
Pyrene #10	18.871	2.0	1.773	-11.3
p-Terphenyl d14 #11*	21.223	20.0	19.918	-0.4
Benzo(a)anthracene #12	22.539	2.0	1.891	-5.5
Chrysene #13	23.407	2.0	1.893	-5.4
Benzo(b)fluoranthene #14	26.126	2.0	1.926	-3.7
Benzo(k)fluoranthene #15	27.561	1.0	0.983	-1.7
Benzo(a)pyrene #16	28.668	2.0	1.864	-6.8
Dibenz(a,h)anthracene #1	30.526	2.0	1.869	-6.5
Benzo(g,h,i)perylene #18	31.335	2.0	1.822	-8.9
Indeno(1,2,3-cd)pyrene #	32.264	2.0	1.984	-0.8

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.305	20.0	21.137	5.7
Acenaphthylene #2	10.946	20.0	20.037	0.2
1-Methylnaphthalene #3	11.905	20.0	20.357	1.8
2-Methylnaphthalene #4	12.491	20.0	20.674	3.4
Acenaphthene #5	12.978	20.0	20.298	1.5
Fluorene #6	13.641	20.0	20.042	0.2
Phenanthrene #7	15.043	20.0	20.082	0.4
Anthracene #8	16.462	20.0	21.007	5.0
Fluoranthene #9	17.845	2.0	1.984	-0.8
Pyrene #10	18.855	2.0	1.957	-2.1
p-Terphenyl d14 #11*	21.209	20.0	19.818	-0.9
Benzo(a)anthracene #12	22.525	2.0	1.983	-0.8
Chrysene #13	23.393	2.0	1.975	-1.2
Benzo(b)fluoranthene #14	26.110	2.0	1.978	-1.1
Benzo(k)fluoranthene #15	27.547	1.0	0.998	-0.2
Benzo(a)pyrene #16	28.654	2.0	1.961	-2.0
Dibenz(a,h)anthracene #1	30.512	2.0	1.757	-12.1
Benzo(g,h,i)perylene #18	31.320	2.0	2.292	14.6
Indeno(1,2,3-cd)pyrene #	32.249	2.0	1.974	-1.3

= Failed 15.0% Criteria

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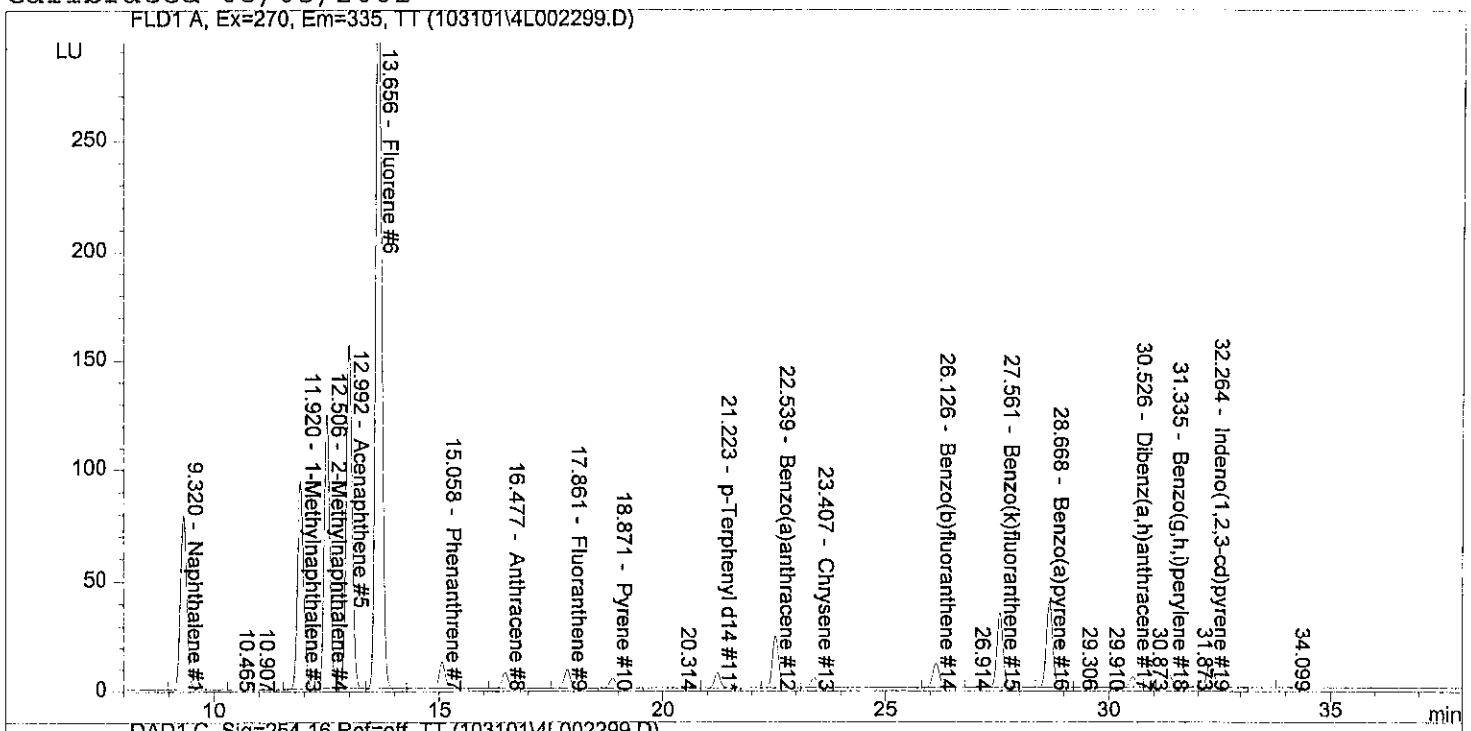
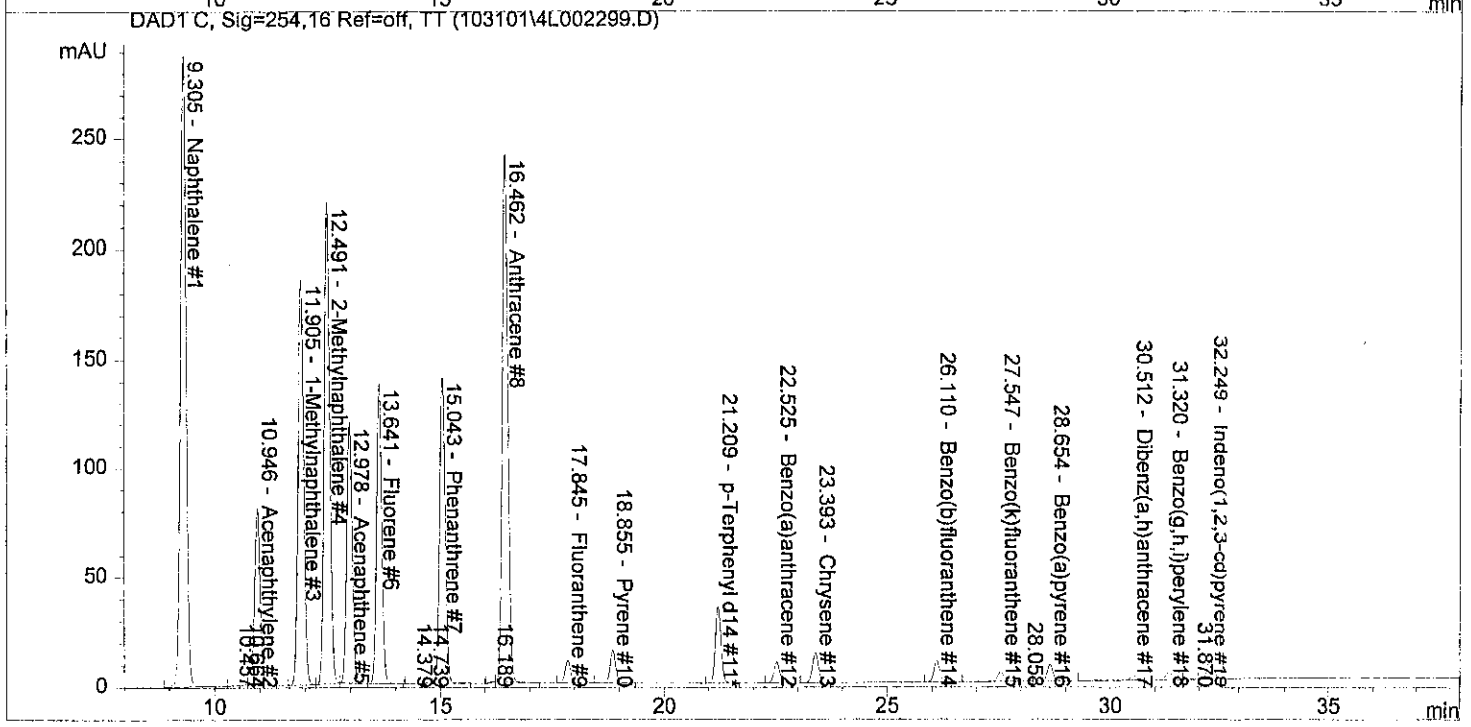
Injection Date : 11/1/2001 8:53:29 AM Seq. Line : 24
Sample Name : WG107371-03 CCV Vial : 24
Acq. Operator : RDC Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/1/2001 9:18:29 AM by RDC
(modified after loading)

Calibrated 08/08/2001





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Sorted By : Signal
Calib. Data Modified : Wednesday, October 31, 2001 9:15:43 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.320	BBA	757.41974	2.52962e-2	19.15984		Naphthalene #1
11.920	PB	871.11359	2.21330e-2	19.28032		1-Methylnaphthalene #3
12.506	BB	1142.51074	1.70635e-2	19.49523		2-Methylnaphthalene #4
12.992	BB	1439.88818	1.38416e-2	19.93030		Acenaphthene #5
13.656	BB	3129.20264	6.62187e-3	20.72116		Fluorene #6
15.058	BBA	115.86849	1.63652e-1	18.96214		Phenanthrene #7
16.477	BBA	66.03827	3.10196e-1	20.48483		Anthracene #8
17.861	PBA	82.71139	2.32678e-2	1.92452		Fluoranthene #9
18.871	BBA	45.86999	3.86587e-2	1.77327		Pyrene #10
21.223	BB	66.96707	2.97423e-1	19.91753		p-Terphenyl d14 #11*
22.539	BB	238.95503	7.91256e-3	1.89075		Benzo(a)anthracene #12
23.407	BBA	48.47603	3.90495e-2	1.89297		Chrysene #13
26.126	BB	117.97805	1.63222e-2	1.92566		Benzo(b)fluoranthene #14
27.561	BB	355.47046	2.76572e-3	9.83130e-1		Benzo(k)fluoranthene #15
28.668	BB	407.84241	4.57119e-3	1.86433		Benzo(a)pyrene #16
30.526	BB	47.50967	3.93496e-2	1.86948		Dibenz(a,h)anthracene #17
31.335	BB	68.70379	2.65165e-2	1.82178		Benzo(g,h,i)perylene #18
32.264	BBA	143.52592	1.38204e-2	1.98359		Indeno(1,2,3-cd)pyrene #1
Totals :				175.88082		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.305	PBA	2560.83960	8.25405e-3	21.13730		Naphthalene #1
10.946	BBA	674.69159	2.96975e-2	20.03666		Acenaphthylene #2
11.905	PB	1572.48694	1.29459e-2	20.35719		1-Methylnaphthalene #3
12.491	BB	1839.47986	1.12393e-2	20.67442		2-Methylnaphthalene #4
12.978	BB	999.08948	2.03163e-2	20.29785		Acenaphthene #5
13.641	BBA	1143.67114	1.75240e-2	20.04170		Fluorene #6
15.043	BBA	1160.95447	1.72982e-2	20.08247		Phenanthrene #7
16.462	BBA	2014.80652	1.04262e-2	21.00674		Anthracene #8
17.845	PB	91.42554	2.17006e-2	1.98399		Fluoranthene #9
18.855	BBA	136.83377	1.43052e-2	1.95744		Pyrene #10
21.209	PBA	301.77402	6.56733e-2	19.81848		p-Terphenyl d14 #11*
22.525	PBA	89.05630	2.22694e-2	1.98323		Benzo(a)anthracene #12
23.393	PBA	130.40990	1.51453e-2	1.97510		Chrysene #13
26.110	BBA	95.40813	2.07330e-2	1.97809		Benzo(b)fluoranthene #14
27.547	PB	44.20719	2.25837e-2	9.98361e-1		Benzo(k)fluoranthene #15
28.654	BBA	74.92316	2.61680e-2	1.96059		Benzo(a)pyrene #16
30.512	BB	18.67035	9.41116e-2	1.75710		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.320	BB	40.86919	5.60829e-2	2.29206		Benzo(g,h,i)perylene #18
32.249	BB	95.99889	2.05608e-2	1.97381		Indeno(1,2,3-cd)pyrene #1

Totals : 202.31259

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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Data File C:\HPCHEM\2\DATA\103101\4L002309.D Sample Name: WG107371-04 CCV
HPLC4 11/2/2001 12:19:11 PM RDC

1,1 SOS56-19/56-20

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Injection Date : 11/1/2001 5:37:18 PM Seq. Line : 34

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.360	20.0	19.071	-4.6
1-Methylnaphthalene #3	11.947	20.0	19.277	-3.6
2-Methylnaphthalene #4	12.528	20.0	19.533	-2.3
Acenaphthene #5	13.012	20.0	19.910	-0.5
Fluorene #6	13.675	20.0	20.695	3.5
Phenanthrene #7	15.077	20.0	18.879	-5.6
Anthracene #8	16.495	20.0	20.785	3.9
Fluoranthene #9	17.883	2.0	1.928	-3.6
Pyrene #10	18.896	2.0	1.737	-13.1
p-Terphenyl d14 #11*	21.268	20.0	19.680	-1.6
Benzo(a)anthracene #12	22.596	2.0	1.870	-6.5
Chrysene #13	23.476	2.0	1.867	-6.6
Benzo(b)fluoranthene #14	26.209	2.0	1.914	-4.3
Benzo(k)fluoranthene #15	27.657	1.0	0.986	-1.4
Benzo(a)pyrene #16	28.764	2.0	1.837	-8.2
Dibenz(a,h)anthracene #1	30.634	2.0	1.850	-7.5
Benzo(g,h,i)perylene #18	31.437	2.0	1.745	-12.8
Indeno(1,2,3-cd)pyrene #	32.366	2.0	1.981	-1.0

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.341	20.0	21.065	5.3
Acenaphthylene #2	10.972	20.0	19.953	-0.2
1-Methylnaphthalene #3	11.928	20.0	20.326	1.6
2-Methylnaphthalene #4	12.509	20.0	20.653	3.3
Acenaphthene #5	12.993	20.0	20.242	1.2
Fluorene #6	13.656	20.0	19.924	-0.4
Phenanthrene #7	15.057	20.0	20.009	0.0
Anthracene #8	16.476	20.0	20.940	4.7
Fluoranthene #9	17.863	2.0	1.978	-1.1
Pyrene #10	18.876	2.0	1.956	-2.2
p-Terphenyl d14 #11*	21.250	20.0	19.706	-1.5
Benzo(a)anthracene #12	22.577	2.0	1.979	-1.1
Chrysene #13	23.457	2.0	1.972	-1.4
Benzo(b)fluoranthene #14	26.189	2.0	1.971	-1.4
Benzo(k)fluoranthene #15	27.639	1.0	0.998	-0.2
Benzo(a)pyrene #16	28.745	2.0	1.957	-2.2
Dibenz(a,h)anthracene #1	30.615	2.0	2.011	0.6
Benzo(g,h,i)perylene #18	31.417	2.0	1.954	-2.3
Indeno(1,2,3-cd)pyrene #	32.351	2.0	1.962	-1.9

= Failed 15.0% Criteria

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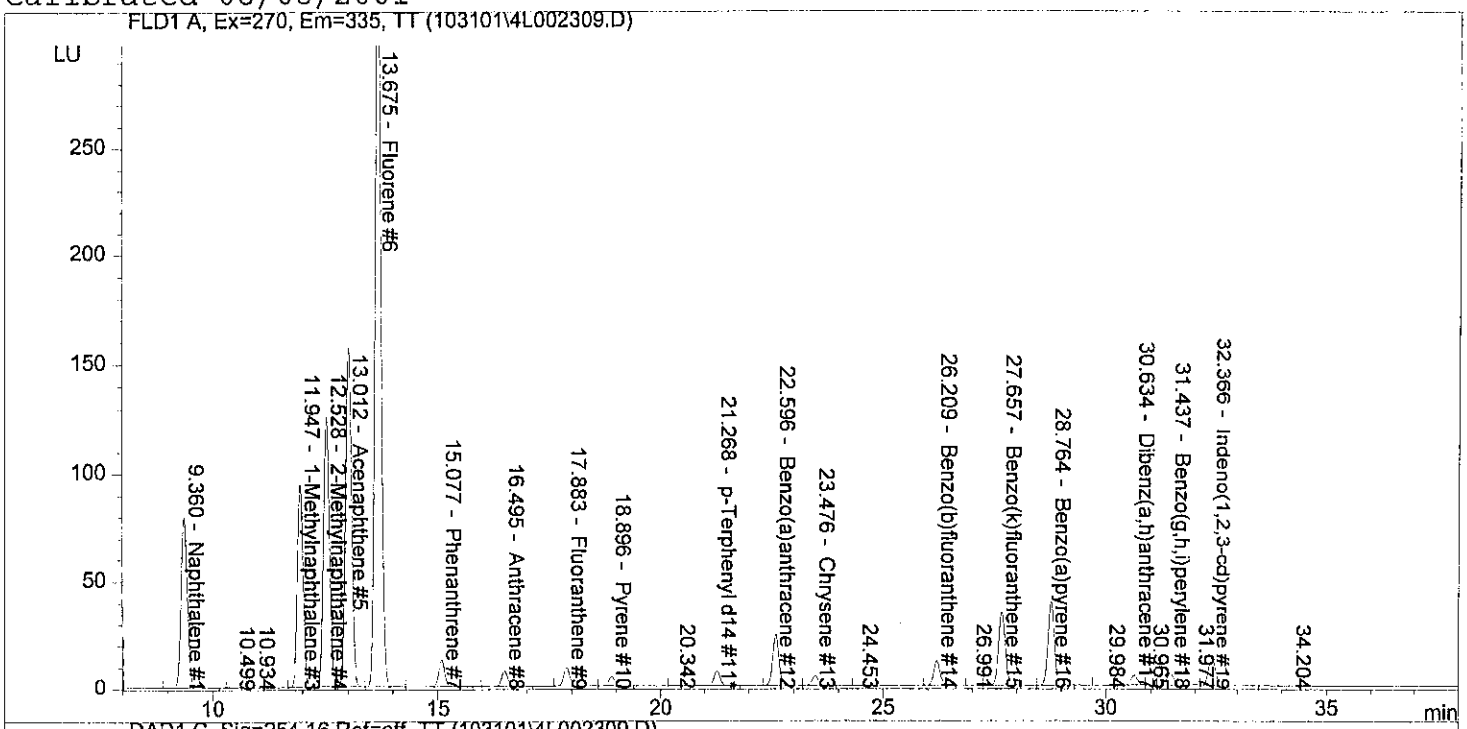
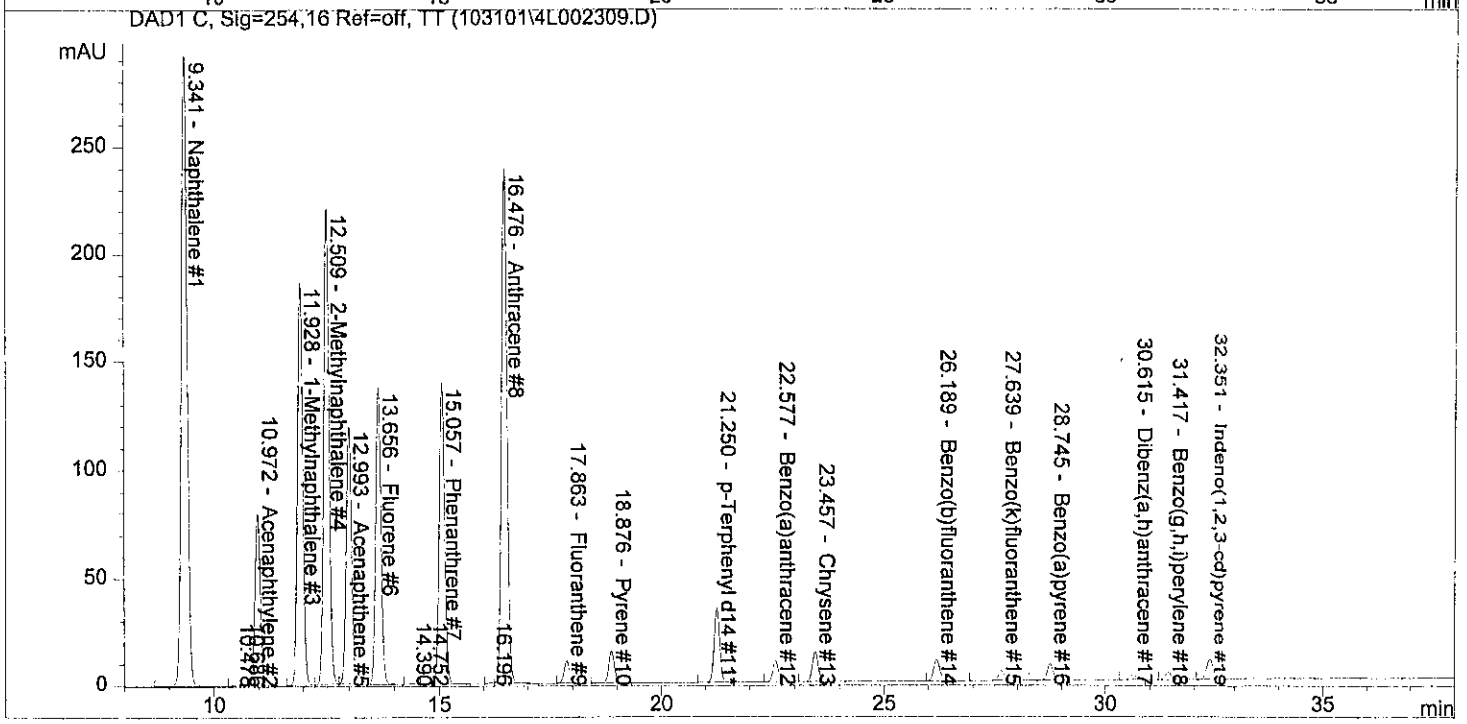
Injection Date : 11/1/2001 5:37:18 PM Seq. Line : 34
Sample Name : WG107371-04 CCV Vial : 34
Acq. Operator : RDC Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/1/2001 4:48:14 PM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

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Sorted By : Signal
Calib. Data Modified : Wednesday, October 31, 2001 9:15:43 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.360	BBA	753.90338	2.52962e-2	19.07089		Naphthalene #1
11.947	PB	870.96185	2.21330e-2	19.27696		1-Methylnaphthalene #3
12.528	BB	1144.73389	1.70635e-2	19.53316		2-Methylnaphthalene #4
13.012	BB	1438.41382	1.38416e-2	19.90990		Acenaphthene #5
13.675	BB	3125.24146	6.62187e-3	20.69493		Fluorene #6
15.077	BBA	115.35973	1.63652e-1	18.87888		Phenanthrene #7
16.495	BBA	67.00620	3.10196e-1	20.78508		Anthracene #8
17.883	PB	82.87756	2.32678e-2	1.92838		Fluoranthene #9
18.896	BBA	44.93542	3.86587e-2	1.73714		Pyrene #10
21.268	BB	66.16714	2.97423e-1	19.67961		p-Terphenyl d14 #11*
22.596	BB	236.28108	7.91256e-3	1.86959		Benzo(a)anthracene #12
23.476	BB	47.81596	3.90495e-2	1.86719		Chrysene #13
26.209	BB	117.23711	1.63222e-2	1.91357		Benzo(b)fluoranthene #14
27.657	BB	356.59061	2.76572e-3	9.86228e-1		Benzo(k)fluoranthene #15
28.764	BB	401.85620	4.57119e-3	1.83696		Benzo(a)pyrene #16
30.634	BB	47.00948	3.93496e-2	1.84980		Dibenz(a,h)anthracene #17
31.437	BB	65.79500	2.65165e-2	1.74465		Benzo(g,h,i)perylene #18
32.366	BBA	143.33749	1.38204e-2	1.98098		Indeno(1,2,3-cd)pyrene #1

Totals : 175.54390

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.341	PBA	2552.10352	8.25405e-3	21.06519		Naphthalene #1
10.972	BBA	671.87354	2.96975e-2	19.95298		Acenaphthylene #2
11.928	PB	1570.09351	1.29459e-2	20.32621		1-Methylnaphthalene #3
12.509	BB	1837.60046	1.12393e-2	20.65330		2-Methylnaphthalene #4
12.993	BB	996.36078	2.03163e-2	20.24241		Acenaphthene #5
13.656	BBA	1136.94202	1.75240e-2	19.92378		Fluorene #6
15.057	BBA	1156.73254	1.72982e-2	20.00944		Phenanthrene #7
16.476	BBA	2008.43262	1.04262e-2	20.94029		Anthracene #8
17.863	PB	91.14151	2.17006e-2	1.97782		Fluoranthene #9
18.876	BBA	136.70216	1.43052e-2	1.95556		Pyrene #10
21.250	PBA	300.05551	6.56733e-2	19.70562		p-Terphenyl d14 #11*
22.577	PBA	88.85498	2.22694e-2	1.97875		Benzo(a)anthracene #12
23.457	BBA	130.20152	1.51453e-2	1.97194		Chrysene #13
26.189	BBA	95.08028	2.07330e-2	1.97130		Benzo(b)fluoranthene #14
27.639	PBA	44.17110	2.25837e-2	9.97546e-1		Benzo(k)fluoranthene #15
28.745	BBA	74.77685	2.61680e-2	1.95676		Benzo(a)pyrene #16
30.615	PBA	21.36881	9.41116e-2	2.01105		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.417	BB	34.84764	5.60829e-2	1.95436		Benzo(g,h,i)perylene #18
32.351	BBA	95.41214	2.05608e-2	1.96175		Indeno(1,2,3-cd)pyrene #1

Totals : 201.55604

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

2.2.7.4 Raw QC Data

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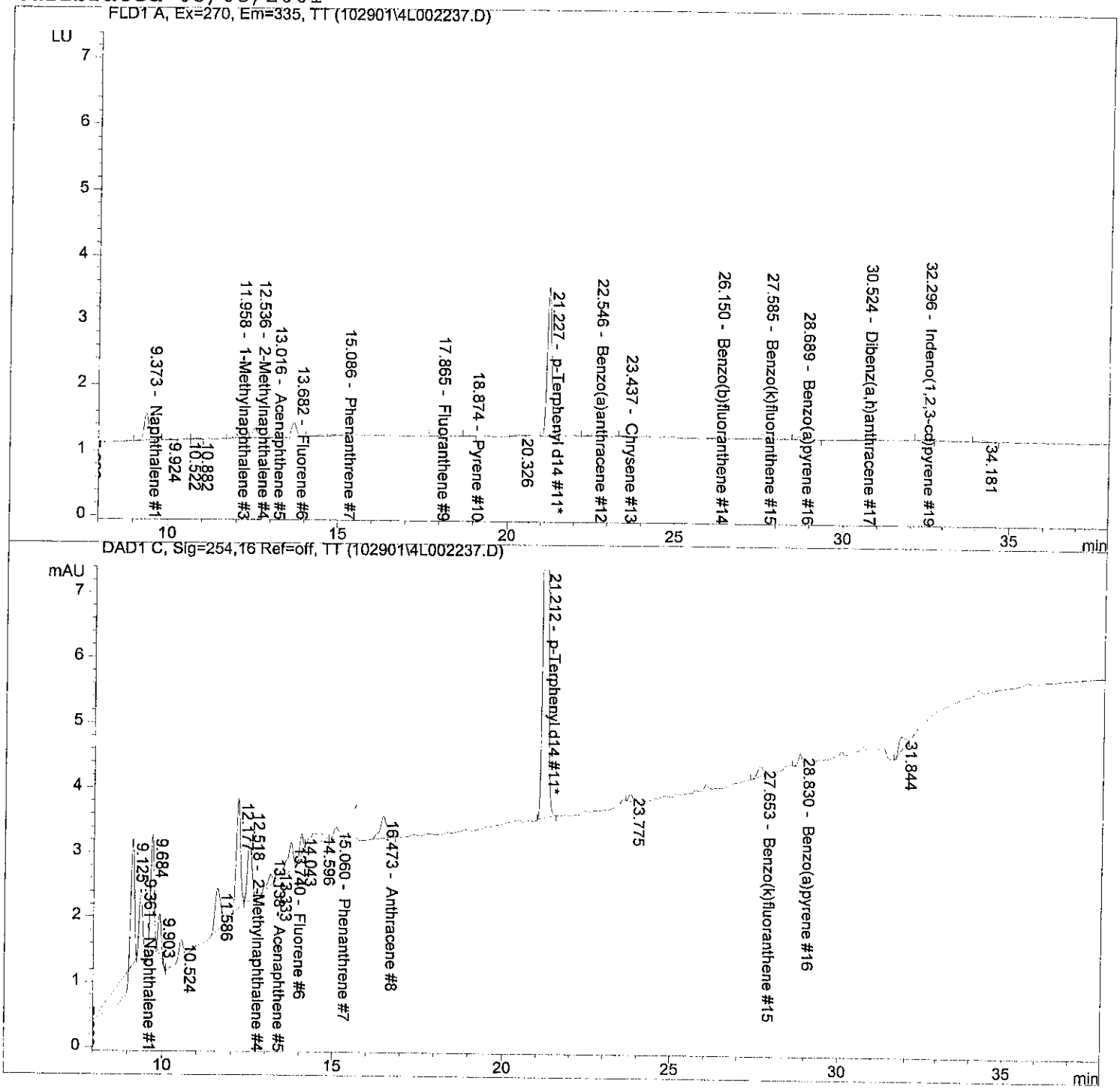
Injection Date : 10/29/2001 3:23:32 PM
Sample Name : WG107100-02 WBLK
Acq. Operator : RDC

Seq. Line : 3
Vial : 3
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/29/2001 2:11:32 PM by RDC
(modified after loading)
Calibrated 08/08/2001



External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	10/29/2001 2:11:30 PM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.373	BB	3.85600	2.52962e-2	9.75421e-2		Naphthalene #1
11.958	BB	6.22335e-1	2.21330e-2	1.37741e-2		1-Methylnaphthalene #3
12.536	BB	1.46685	1.70635e-2	2.50297e-2		2-Methylnaphthalene #4
13.016	BB	8.61246e-1	1.38416e-2	1.19210e-2		Acenaphthene #5
13.682	BB	2.40195	6.62187e-3	1.59054e-2		Fluorene #6
15.086	BB	1.13384	1.63652e-1	1.85556e-1		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.865	PBA	3.55677e-1	2.32678e-2	8.27584e-3		Fluoranthene #9
18.874	BBA	1.67705e-1	3.86587e-2	6.48324e-3		Pyrene #10
21.227	BB	21.35976	2.97423e-1	6.35288		p-Terphenyl d14 #11*
22.546	BB	3.81145e-1	7.91256e-3	3.01583e-3		Benzo(a)anthracene #12
23.437	BB	1.61801e-1	3.90495e-2	6.31826e-3		Chrysene #13
26.150	BBA	1.77991e-1	1.63222e-2	2.90520e-3		Benzo(b)fluoranthene #14
27.585	BBA	8.67303e-1	2.76572e-3	2.39871e-3		Benzo(k)fluoranthene #15
28.689	BBA	5.31951e-1	4.57119e-3	2.43165e-3		Benzo(a)pyrene #16
30.524	PB	5.63422e-1	3.93496e-2	2.21704e-2		Dibenz(a,h)anthracene #17
31.455		-	-	-		Benzo(g,h,i)perylene #18
32.296	BB	3.68096e-1	1.38204e-2	5.08724e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 6.76169

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.361	BB	8.03307	8.25405e-3	6.63054e-2		Naphthalene #1
10.981		-	-	-		Acenaphthylene #2
11.930		-	-	-		1-Methylnaphthalene #3
12.518	BB	8.22491	1.12393e-2	9.24421e-2		2-Methylnaphthalene #4
13.138	BB	1.59601	2.03163e-2	3.24251e-2		Acenaphthene #5
13.740	BB	5.18255	1.75240e-2	9.08191e-2		Fluorene #6
15.060	BB	2.98267	1.72982e-2	5.15950e-2		Phenanthrene #7
16.473	BBA	5.21821	1.04262e-2	5.44061e-2		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.899		-	-	-		Pyrene #10
21.212	PBA	95.14713	6.56733e-2	6.24862		p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.453		-	-	-		Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.653	PB	1.66900	2.25837e-2	3.76922e-2		Benzo(k)fluoranthene #15
28.830	BBA	1.11602	2.61680e-2	2.92041e-2		Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

HPLC4 10/29/2001 3:51:39 PM RDC

[min]	[mAU*s]		[ug/L]		Name
31.433	-	-	-		Benzo(g,h,i)perylene #18
32.391	-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :			6.70351		

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, October 31, 2001 9:15:43 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.347	BBA	1.03719	2.52962e-2	2.62368e-2		Naphthalene #1
11.940	BB	7.79081e-1	2.21330e-2	1.72434e-2		1-Methylnaphthalene #3
12.523	BB	1.19532	1.70635e-2	2.03964e-2		2-Methylnaphthalene #4
13.004	BB	9.99856e-1	1.38416e-2	1.38396e-2		Acenaphthene #5
13.673	BBA	2.06289	6.62187e-3	1.36602e-2		Fluorene #6
15.074	BB	7.67602e-1	1.63652e-1	1.25620e-1		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.881	PBA	1.68866e-1	2.32678e-2	3.92914e-3		Fluoranthene #9
18.890		-	-	-		Pyrene #10
21.261	PB	26.93506	2.97423e-1	8.01110		p-Terphenyl d14 #11*
22.591	PB	2.15400e-1	7.91256e-3	1.70437e-3		Benzo(a)anthracene #12
23.487	BB	2.88302e-1	3.90495e-2	1.12581e-2		Chrysene #13
26.210		-	-	-		Benzo(b)fluoranthene #14
27.654	BBA	4.07322e-1	2.76572e-3	1.12654e-3		Benzo(k)fluoranthene #15
28.769		-	-	-		Benzo(a)pyrene #16
30.650		-	-	-		Dibenz(a,h)anthracene #17
31.455		-	-	-		Benzo(g,h,i)perylene #18
32.393	PB	1.57166e-1	1.38204e-2	2.17210e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 8.24829

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.333	BB	2.94220	8.25405e-3	2.42851e-2		Naphthalene #1
10.981		-	-	-		Acenaphthylene #2
11.930		-	-	-		1-Methylnaphthalene #3
12.493	BB	3.24396	1.12393e-2	3.64597e-2		2-Methylnaphthalene #4
12.949	BB	7.74101e-1	2.03163e-2	1.57269e-2		Acenaphthene #5
13.718	BB	3.60219	1.75240e-2	6.31248e-2		Fluorene #6
15.052		-	-	-		Phenanthrene #7
16.474	BB	4.33170	1.04262e-2	4.51631e-2		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.899		-	-	-		Pyrene #10
21.246	PBA	121.94958	6.56733e-2	8.00883		p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.584	BBA	7.04199	1.51453e-2	1.06653e-1		Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.642		-	-	-		Benzo(k)fluoranthene #15
28.749		-	-	-		Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.433		-	-	-		Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.30024

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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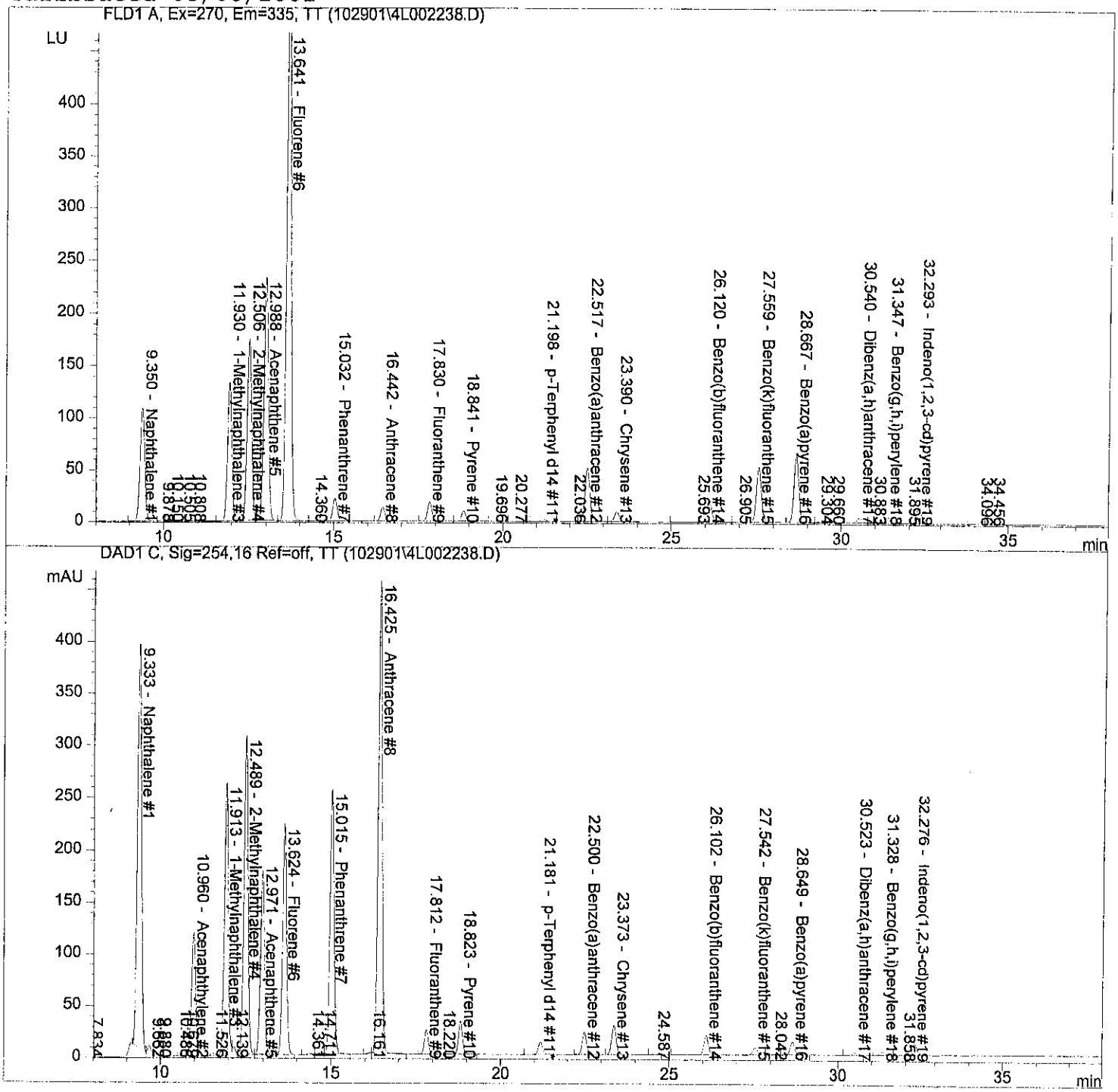
Injection Date	: 10/29/2001 4:20:13 PM	Seq. Line	: 4
Sample Name	: WG107100-03 WLCS	Vial	: 4
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/29/2001 2:11:32 PM by RDC
(modified after loading)

Calibrated 08/08/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : 10/29/2001 2:11:30 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.350	BB	1027.45447	2.52962e-2	25.99069		Naphthalene #1
11.930	BB	1214.53601	2.21330e-2	26.88127		1-Methylnaphthalene #3
12.506	BB	1583.94373	1.70635e-2	27.02761		2-Methylnaphthalene #4
12.988	BB	2105.87817	1.38416e-2	29.14865		Acenaphthene #5
13.641	BB	5009.08252	6.62187e-3	33.16948		Fluorene #6
15.032	BBA	207.89481	1.63652e-1	34.02245		Phenanthrene #7
16.442	BB	122.06193	3.10196e-1	37.86316		Anthracene #8
17.830	BB	178.08717	2.32678e-2	4.14371		Fluoranthene #9
18.841	BBA	97.21246	3.86587e-2	3.75811		Pyrene #10
21.198	BBA	22.87212	2.97423e-1	6.80269		p-Terphenyl d14 #11*
22.517	BB	510.12473	7.91256e-3	4.03639		Benzo(a)anthracene #12
23.390	BBA	96.54684	3.90495e-2	3.77011		Chrysene #13
26.120	BB	216.35841	1.63222e-2	3.53144		Benzo(b)fluoranthene #14
27.559	BB	543.39063	2.76572e-3	1.50286		Benzo(k)fluoranthene #15
28.667	BB	643.51135	4.57119e-3	2.94161		Benzo(a)pyrene #16
30.540	BB	47.51862	3.93496e-2	1.86984		Dibenz(a,h)anthracene #17
31.347	BB	64.53072	2.65165e-2	1.71113		Benzo(g,h,i)perylene #18
32.293	BB	170.83138	1.38204e-2	2.36096		Indeno(1,2,3-cd)pyrene #1

Totals : 250.53216

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.333	BB	3253.19385	8.25405e-3	26.85202		Naphthalene #1
10.960	BB	998.42328	2.96975e-2	29.65069		Acenaphthylene #2
11.913	BB	2070.78857	1.29459e-2	26.80813		1-Methylnaphthalene #3
12.489	BB	2535.30811	1.12393e-2	28.49503		2-Methylnaphthalene #4
12.971	BB	1455.76001	2.03163e-2	29.57572		Acenaphthene #5
13.624	BB	1813.15613	1.75240e-2	31.77376		Fluorene #6
15.015	BBA	2092.59399	1.72982e-2	36.19820		Phenanthrene #7
16.425	BBA	3691.18970	1.04262e-2	38.48502		Anthracene #8
17.812	PB	197.30135	2.17006e-2	4.28156		Fluoranthene #9
18.823	BBA	286.57291	1.43052e-2	4.09950		Pyrene #10
21.181	BBA	104.74329	6.56733e-2	6.87883		p-Terphenyl d14 #11*
22.500	BBA	188.50867	2.22694e-2	4.19798		Benzo(a)anthracene #12
23.373	PBA	257.24863	1.51453e-2	3.89611		Chrysene #13
26.102	BBA	174.45953	2.07330e-2	3.61707		Benzo(b)fluoranthene #14
27.542	BB	67.51673	2.25837e-2	1.52478		Benzo(k)fluoranthene #15
28.649	BBA	118.43796	2.61680e-2	3.09929		Benzo(a)pyrene #16
30.523	BB	20.71536	9.41116e-2	1.94956		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.328	BB	35.72530	5.60829e-2	2.00358		Benzo(g,h,i)perylene #18
32.276	BBA	116.74323	2.05608e-2	2.40033		Indeno(1,2,3-cd)pyrene #1

Totals : 285.78714

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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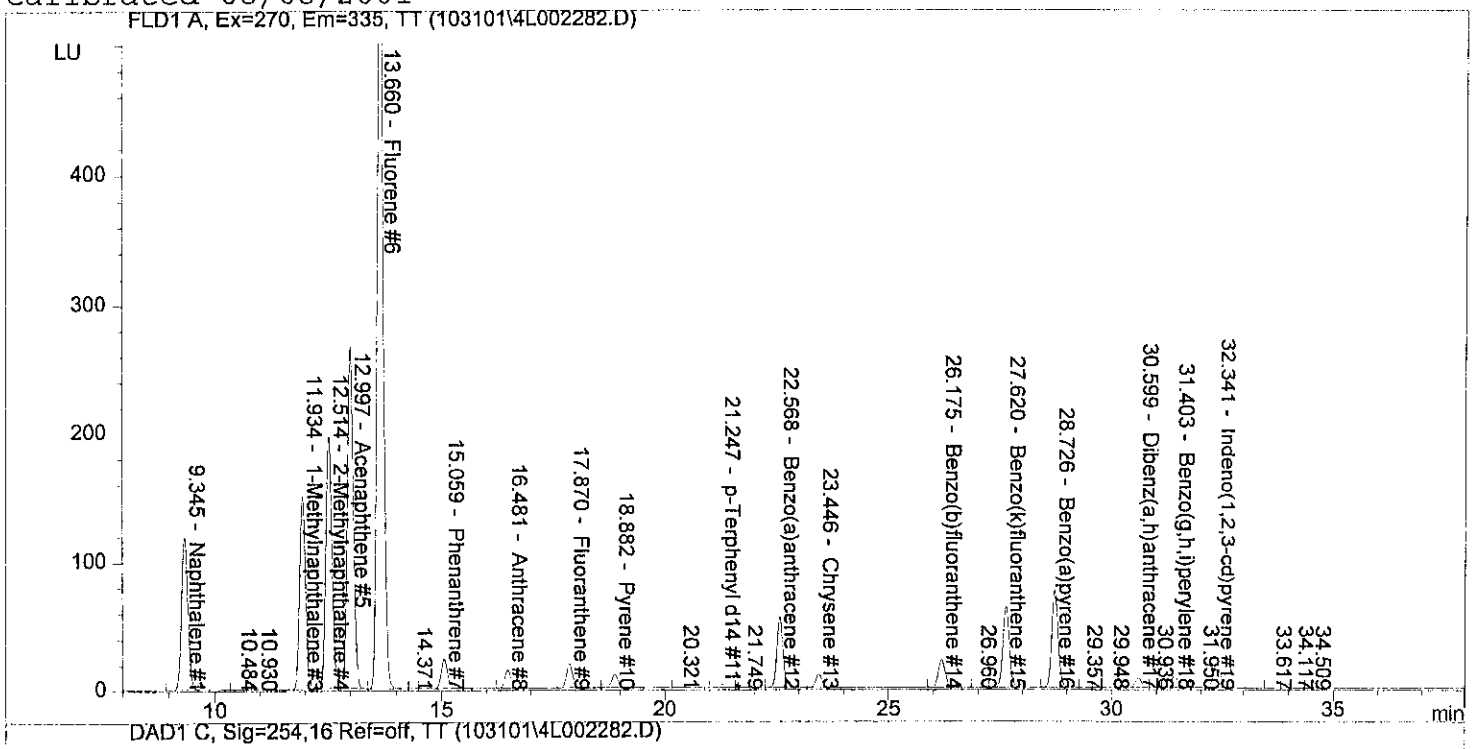
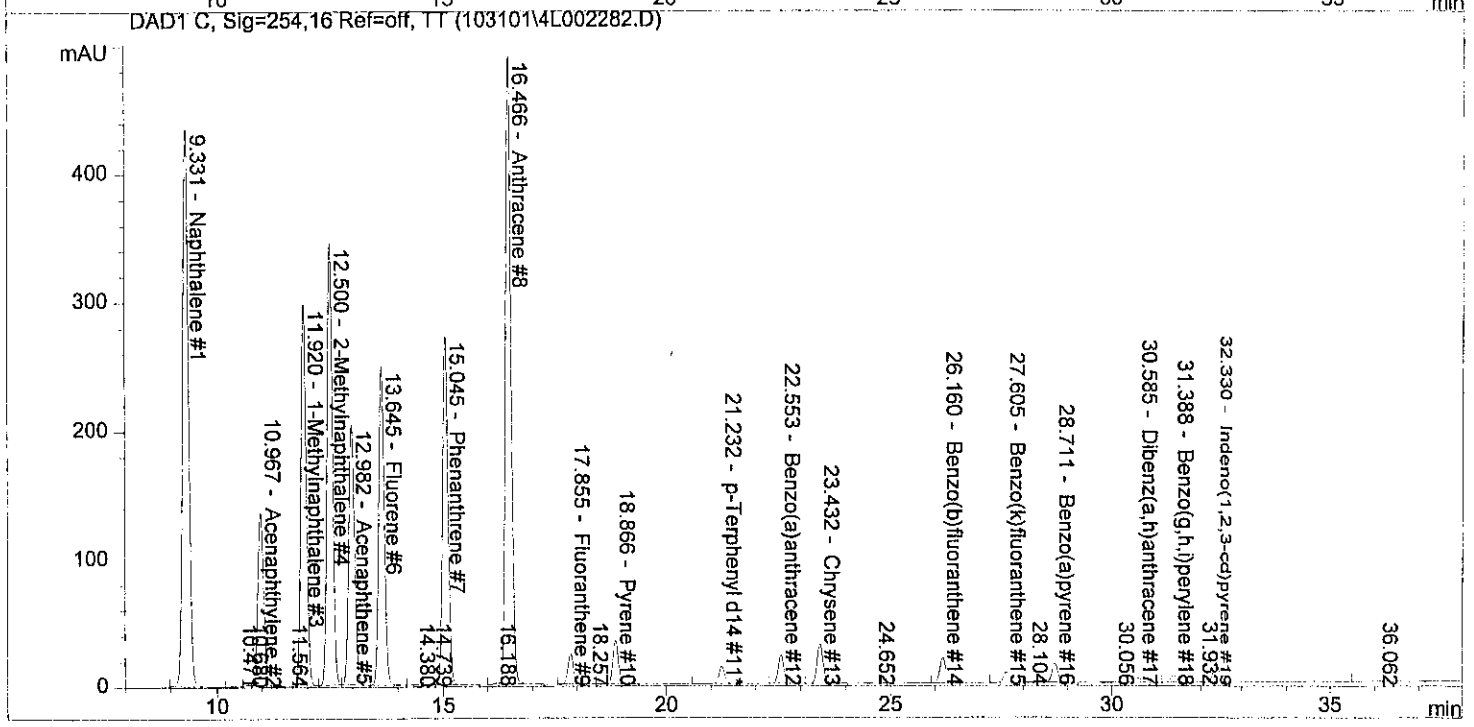
Injection Date : 10/31/2001 4:50:42 PM
Sample Name : WG107327-02 WLCS
Acq. Operator : RDC

Seq. Line : 7
Vial : 7
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/31/2001 9:15:44 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, October 31, 2001 9:15:43 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.345	BBA	1131.36414	2.52962e-2	28.61921		Naphthalene #1
11.934	PB	1378.29236	2.21330e-2	30.50568		1-Methylnaphthalene #3
12.514	BB	1800.99280	1.70635e-2	30.73123		2-Methylnaphthalene #4
12.997	BB	2444.41113	1.38416e-2	33.83447		Acenaphthene #5
13.660	BB	5595.68750	6.62187e-3	37.05390		Fluorene #6
15.059	BBA	221.28235	1.63652e-1	36.21335		Phenanthrene #7
16.481	BB	135.90120	3.10196e-1	42.15605		Anthracene #8
17.870	BB	186.40364	2.32678e-2	4.33721		Fluoranthene #9
18.882	BBA	103.09026	3.86587e-2	3.98533		Pyrene #10
21.247	BB	27.10599	2.97423e-1	8.06194		p-Terphenyl d14 #11*
22.568	BB	544.83209	7.91256e-3	4.31102		Benzo(a)anthracene #12
23.446	BBA	106.19505	3.90495e-2	4.14687		Chrysene #13
26.175	BB	236.73311	1.63222e-2	3.86400		Benzo(b)fluoranthene #14
27.620	BB	654.77673	2.76572e-3	1.81093		Benzo(k)fluoranthene #15
28.726	BB	775.24390	4.57119e-3	3.54379		Benzo(a)pyrene #16
30.599	BB	73.75349	3.93496e-2	2.90217		Dibenz(a,h)anthracene #17
31.403	BB	104.60411	2.65165e-2	2.77373		Benzo(g,h,i)perylene #18
32.341	BBA	236.10994	1.38204e-2	3.26313		Indeno(1,2,3-cd)pyrene #1

Totals : 282.11402

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.331	BBA	3795.19897	8.25405e-3	31.32576		Naphthalene #1
10.967	BB	1151.64502	2.96975e-2	34.20100		Acenaphthylene #2
11.920	BB	2479.68335	1.29459e-2	32.10163		1-Methylnaphthalene #3
12.500	BB	2883.55225	1.12393e-2	32.40904		2-Methylnaphthalene #4
12.982	BB	1698.96375	2.03163e-2	34.51673		Acenaphthene #5
13.645	BB	2051.67505	1.75240e-2	35.95356		Fluorene #6
15.045	BBA	2251.63452	1.72982e-2	38.94932		Phenanthrene #7
16.466	BBA	4125.60010	1.04262e-2	43.01427		Anthracene #8
17.855	BB	206.26999	2.17006e-2	4.47618		Fluoranthene #9
18.866	BBA	310.48578	1.43052e-2	4.44157		Pyrene #10
21.232	BB	122.54504	6.56733e-2	8.04793		p-Terphenyl d14 #11*
22.553	PBA	204.39195	2.22694e-2	4.55169		Benzo(a)anthracene #12
23.432	BBA	291.30722	1.51453e-2	4.41193		Chrysene #13
26.160	BBA	191.38551	2.07330e-2	3.96799		Benzo(b)fluoranthene #14
27.605	BB	81.47836	2.25837e-2	1.84008		Benzo(k)fluoranthene #15
28.711	BBA	144.52379	2.61680e-2	3.78190		Benzo(a)pyrene #16
30.585	BB	32.85796	9.41116e-2	3.09232		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.388	BB	57.17810	5.60829e-2	3.20672		Benzo(g,h,i)perylene #18
32.330	BBA	158.86984	2.05608e-2	3.26649		Indeno(1,2,3-cd)pyrene #1

Totals : 327.55611

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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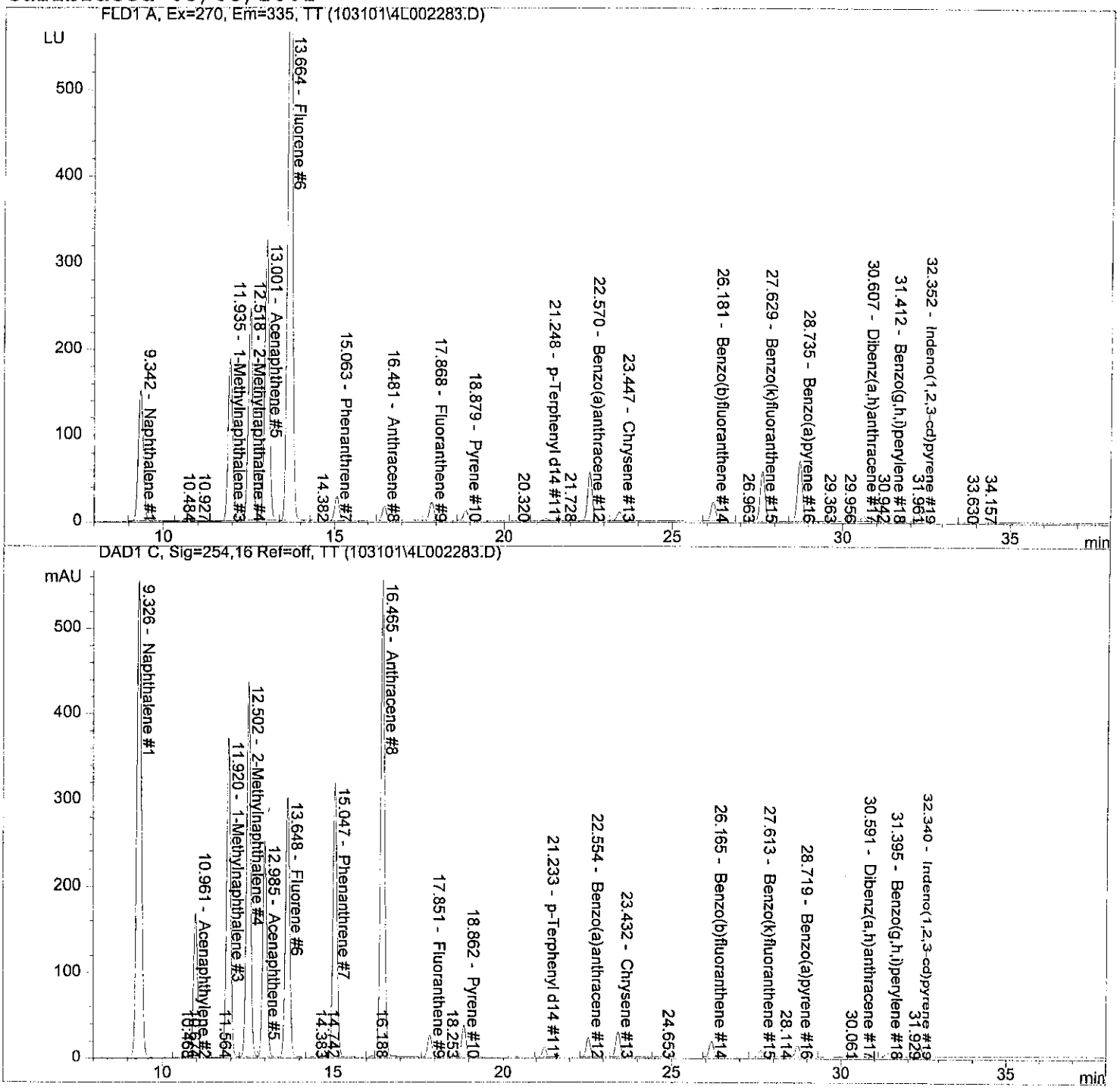
Injection Date	: 10/31/2001 5:47:18 PM	Seq. Line :	8
Sample Name	: WG107327-03 WLCS	Vial :	8
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 10/31/2001 9:15:44 AM by RDC
(modified after loading)

Calibrated 08/08/2001



External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Wednesday, October 31, 2001 9:15:43 AM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.342	BB	1444.83911	2.52962e-2	36.54893		Naphthalene #1
11.935	BB	1731.40356	2.21330e-2	38.32108		1-Methylnaphthalene #3
12.518	BB	2267.82324	1.70635e-2	38.69699		2-Methylnaphthalene #4
13.001	BB	2992.93701	1.38416e-2	41.42693		Acenaphthene #5
13.664	BB	6744.70947	6.62187e-3	44.66257		Fluorene #6
15.063	BBA	257.75076	1.63652e-1	42.18149		Phenanthrene #7
16.481	BB	154.20430	3.10196e-1	47.83361		Anthracene #8
17.868	BBA	200.65791	2.32678e-2	4.66888		Fluoranthene #9
18.879	BBA	110.49756	3.86587e-2	4.27169		Pyrene #10
21.248	BB	24.08889	2.97423e-1	7.16459		p-Terphenyl d14 #11*
22.570	BB	558.68732	7.91256e-3	4.42065		Benzo(a)anthracene #12
23.447	BBA	101.85331	3.90495e-2	3.97733		Chrysene #13
26.181	BB	226.99219	1.63222e-2	3.70501		Benzo(b)fluoranthene #14
27.629	BB	597.64825	2.76572e-3	1.65293		Benzo(k)fluoranthene #15
28.735	BB	718.21802	4.57119e-3	3.28311		Benzo(a)pyrene #16
30.607	BB	58.61531	3.93496e-2	2.30649		Dibenz(a,h)anthracene #17
31.412	BB	83.87702	2.65165e-2	2.22412		Benzo(g,h,i)perylene #18
32.352	BB	200.12537	1.38204e-2	2.76581		Indeno(1,2,3-cd)pyrene #1
Totals :				330.11219		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.326	BBA	4867.84814	8.25405e-3	40.17946		Naphthalene #1
10.961	BB	1417.63574	2.96975e-2	42.10026		Acenaphthylene #2
11.920	BB	3128.61157	1.29459e-2	40.50256		1-Methylnaphthalene #3
12.502	BB	3640.79272	1.12393e-2	40.91988		2-Methylnaphthalene #4
12.985	BB	2088.31274	2.03163e-2	42.42688		Acenaphthene #5
13.648	BB	2489.01440	1.75240e-2	43.61750		Fluorene #6
15.047	BBA	2625.25830	1.72982e-2	45.41235		Phenanthrene #7
16.465	BBA	4673.39258	1.04262e-2	48.72565		Anthracene #8
17.851	BB	223.45868	2.17006e-2	4.84919		Fluoranthene #9
18.862	BBA	335.46225	1.43052e-2	4.79887		Pyrene #10
21.233	PBA	109.36642	6.56733e-2	7.18245		p-Terphenyl d14 #11*
22.554	BBA	209.86162	2.22694e-2	4.67350		Benzo(a)anthracene #12
23.432	BBA	278.11511	1.51453e-2	4.21214		Chrysene #13
26.165	BBA	184.05620	2.07330e-2	3.81603		Benzo(b)fluoranthene #14
27.613	BB	74.75744	2.25837e-2	1.68830		Benzo(k)fluoranthene #15
28.719	BBA	133.90288	2.61680e-2	3.50397		Benzo(a)pyrene #16
30.591	BB	26.50571	9.41116e-2	2.49450		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.395	BB	45.94326	5.60829e-2	2.57663		Benzo(g,h,i)perylene #18
32.340	BBA	135.26622	2.05608e-2	2.78118		Indeno(1,2,3-cd)pyrene #1

Totals : 386.46129

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

Analysis Date/Time Aug 8, 2001 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 080801
Analyst Initials RDC SOP # HPLC01 Rev. # 2 ✓ 8310 SOP # HPLC02 Rev. # 0 ____ 8330

Filename	Sample ID	Dilution Factor	Soln #	Re-analysis (if applicable)	Status
4L001205	ACCN Blank	NA			✓
06	8310 CCV		SV53-25	/5435	RR
07	V169pg5 BLK				RR
08	LCS				RR
09	8310 CCV		SV53-25	/54-35	CC
10	re-make				CC
11	ESC 33-23 elab spike				✓
12	8310 SUPR 6/100		SV54-35		✓
13	8310 STD 6/100		SV53-25		✓
14	5/50		SV54-35	/53-25	✓
15	4/20				✓
16	3/10				✓
17	2/5				✓
18	1/1				✓
19	8310 ALT @ LVL 4		SV53-27	/SOS55-29	✓
			RDC 8/10/01		

Reviewed By: [illegible]

Status:
✓ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR# = Rerun at a specified dilution
* = See comments on opposite page
IS or SS = Interference with internal and/or surrogate standards
MT = Missed Tune, beyond method tuning requirements
RE = Re-extraction analysis required
SMI = Sample matrix interference
CC = Continuing calibration failed
CF = Confirmation required

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

ysis Date/Time Aug. 3, 2001 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 030801

ily Check
Mobile phase reservoir
System pressure 113 bar
Waste container

eturned to Control?
s ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

4L001206 – No result file contents / null

8310 CCV – failing low for p-terphenyl-d14

Reviewed By: vde 8/1/01

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	AcCN blank	8310	1	Sample		
2	2	WG107246-01 CCV	8310	1	Sample	SOS 56-19/56-20	
3	3	WG107100-02 WBLK	8310	1	Sample		
4	4	WG107100-03 WLCS	8310	1	Sample		
5	5	WG107179-01 WBLK	8310	1	Sample		
6	6	WG107179-02 WLCS	8310	1	Sample		
7	7	WG107179-03 WLCS	8310	1	Sample		
8	8	L0110522-01 831W	8310 RE, RR	1	Sample	Need 10X, conf.	
9	9	L0110522-02 831W	8310	1	Sample		
10	10	L0110522-03 831W	8310	1	Sample		
11	11	L0110522-04 831W	8310	1	Sample		
12	12	L0110522-05 831W	8310	1	Sample		
13	13	WG107246-02 CCV	8310	1	Sample	SOS 56-19/56-20	
14	14	L0110522-06 831W	8310	1	Sample		
15	15	L0110522-07 831W	8310	1	Sample		
16	16	L0110522-08 831W	8310	1	Sample		
17	17	L0110522-09 831W	8310	1	Sample		
18	18	WG107100-01 WREF	8310	1	Sample		
19	19	WG107100-04 WMS	8310	1	Sample		
20	20	WG107100-05 WMSD	8310	1	Sample		
21	21	L0110527-04 831W	8310	1	Sample		
22	22	L0110527-05 831W	8310 RR	1	Sample	conf.	
23	23	L0110527-06 831W	8310	1	Sample		
24	24	WG107246-03 CCV	8310	1	Sample	SOS 56-19/56-20	
25	25	L0110527-07 831W	8310	1	Sample		
26	26	L0110527-08 831W	8310	1	Sample		
27	27	L0110527-09 831W	8310	1	Sample		
28	28	L0110527-10 831W	8310	1	Sample		
29	29	L0110561-01 831W	8310	1	Sample		
30	30	L0110561-02 831W	8310	1	Sample		
31	31	L0110561-03 831W	8310	1	Sample		
32	32	L0110562-01 831W	8310	1	Sample		
33	33	L0110562-02 831W	8310	1	Sample		
34	34	L0110562-03 831W	8310 RE	1	Sample		
35	35	WG107246-04 CCV	8310	1	Sample	SOS 56-19/56-20	
36	36	L0110562-04 831W	8310	1	Sample		
37	37	L0110562-05 831W	8310	1	Sample		
38	38	L0110562-06 831W	8310 RE	1	Sample		
39	39	L0110562-07 831W	8310 RE	1	Sample		
40	40	L0110522-01 10X	8310	1	Sample		
41	41	WG107246-05 CCV	8310	1	Sample	SOS 56-19/56-20	

No	1	1	8310	4L002235	01:01	AcCN blank
No	2	2	8310	4L002236	02:01	WG107246-01 CC
No	3	3	8310	4L002237	03:01	WG107100-02 WB
No	4	4	8310	4L002238	04:01	WG107100-03 WL
No	5	5	8310	4L002239	05:01	WG107179-01 WB
No	6	6	8310	4L002240	06:01	WG107179-02 WL
No	7	7	8310	4L002241	07:01	WG107179-03 WL
No	8	8	8310	4L002242	08:01	L0110522-01 83
No	9	9	8310	4L002243	09:01	L0110522-02 83
No	10	10	8310	4L002244	10:01	L0110522-03 83
No	11	11	8310	4L002245	11:01	L0110522-04 83
No	12	12	8310	4L002246	12:01	L0110522-05 83
No	13	13	8310	4L002247	13:01	WG107246-02 CC
No	14	14	8310	4L002248	14:01	L0110522-06 83
No	15	15	8310	4L002249	15:01	L0110522-07 83
No	16	16	8310	4L002250	16:01	L0110522-08 83
No	17	17	8310	4L002251	17:01	L0110522-09 83
No	18	18	8310	4L002252	18:01	WG107100-01 WR
No	19	19	8310	4L002253	19:01	WG107100-04 WM
No	20	20	8310	4L002254	20:01	WG107100-05 WM
No	21	21	8310	4L002255	21:01	L0110527-04 83
No	22	22	8310	4L002256	22:01	L0110527-05 83
No	23	23	8310	4L002257	23:01	L0110527-06 83
No	24	24	8310	4L002258	24:01	WG107246-03 CC
No	25	25	8310	4L002259	25:01	L0110527-07 83
Yes	26	26	8310	4L002260	26:01	L0110527-08 83
Yes	27	27	8310	4L002261	27:01	L0110527-09 83
Yes	28	28	8310	4L002262	28:01	L0110527-10 83
Yes	29	29	8310	4L002263	29:01	L0110561-01 83
Yes	30	30	8310	4L002264	30:01	L0110561-02 83
Yes	31	31	8310	4L002265	31:01	L0110561-03 83
Yes	32	32	8310	4L002266	32:01	L0110562-01 83
Yes	33	33	8310	4L002267	33:01	L0110562-02 83
Yes	34	34	8310	4L002268	34:01	L0110562-03 83
Yes	35	35	8310	4L002269	35:01	WG107246-04 CC
Yes	36	36	8310	4L002270	36:01	L0110562-04 83
Yes	37	37	8310	4L002271	37:01	L0110562-05 83
Yes	38	38	8310	4L002272	38:01	L0110562-06 83
Yes	39	39	8310	4L002273	39:01	L0110562-07 83
Yes	40	40	8310	4L002274	40:01	L0110522-01 10
Yes	41	41	8310	4L002275	41:01	WG107246-05 CC

TQRC 10/31/01

nde 10/31/01

Laboratory Maintenance Log

Analysis Date/Time OCT. 29, 2001 Instrument ID HPLC 4 Column ID LC-PAH Data Subdirectory 102901
Analyst Initials EVC SOP # HPLC01 Rev. # 02 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 105 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: ____

Action Taken: ____

Comments

4L0022-36 CCV – failed low for benzo(g,h,i) perylene
4L0022-47 ↓ by FLD – There were no hits of the analyte to confirm.

L0110522-01 – sent for re-ext / sum. CLCL
L0110562-03
↓ -06
-07 ↓

L0110522-01 – RL @ 10x, CL for acenaphthylene, conformation
L0110527-05 – CL for acenaphthylene conf.

Reviewed By: [illegible]

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	AcCN blank	8310	1	Sample		
2	2	WG107371-01 CCV	8310	1	Sample ✓		
3	3	WG107261-01 SBLK	8310	1	Sample		
4	4	WG107261-02 SLCS	8310	1	Sample ✓		
5	5	WG107261-03 SLCS	8310	1	Sample ✓		
6	6	WG107327-01 WBLK	8310	1	Sample ✓		
7	7	WG107327-02 WLCS	8310	1	Sample ✓		
8	8	WG107327-03 WLCS	8310	1	Sample ✓		
9	9	WG107228-01 WBLK	8310	1	Sample ✓		
10	10	WG107228-02 WLCS	8310	1	Sample ✓		
11	11	WG107228-03 WLCS	8310	1	Sample ✓		
12	12	L0110521-02 831S	8310	1	Sample ✓		
13	13	WG107371-02 CCV	8310	1	Sample ✓		
14	14	L0110521-01 831S	8310	1	Sample ✓	high surr. /SMI	
15	15	L0110464-01 REEX	8310	1	Sample ✓	acceptable surrogate rec.	
16	16	L0110464-02 REEX	8310	1	Sample ✓	low surr. rec. confirmed	
17	17	L0110464-08 REEX	8310	1	Sample ✓	acceptable surrogate rec.	
18	18	L0110485-07 REEX	8310	1	Sample ✓	acceptable surr. rec.	
19	19	L0110485-08 REEX	8310	1	Sample ✓	low surr. rec. conf.	
20	20	L0110522-01 REEX	8310	1	Sample ✓	low surr. rec. confirmed	
21	21	L0110613-01 831W	8310	1	Sample ✓		
22	22	L0110613-02 831W	8310	1	Sample ✓		
23	23	L0110613-03 831W	8310	1	Sample ✓		
24	24	WG107371-03 CCV	8310	1	Sample ✓		
25	25	L0110613-04 831W	8310	1	Sample ✓		
26	26	L0110614-01 831W	8310	1	Sample RE	surr. rec. <LCL	
27	27	L0110522-01 RE10	8310	1	Sample ✓		
28	28	WG107387-01 WBLK	8310	1	Sample ✓		
29	29	WG107387-02 WLCS	8310	1	Sample ✓		
30	30	WG107387-03 WLCS	8310	1	Sample ✓		
31	31	L0110562-03 REEX	8310	1	Sample ✓		
32	32	L0110562-06 REEX	8310	1	Sample ✓		
33	33	L0110562-07 REEX	8310	1	Sample ✓		
34	34	WG107371-04 CCV	8310	1	Sample ✓		

No	1	1	8310	4L002276	01:01		AcCN blank
No	2	2	8310	4L002277	02:01	SOS 56-19/56-20	WG107371-01 CC
No	3	3	8310	4L002278	03:01		WG107261-01 SB
No	4	4	8310	4L002279	04:01		WG107261-02 SL
No	5	5	8310	4L002280	05:01		WG107261-03 SL
No	6	6	8310	4L002281	06:01		WG107327-01 WB
No	7	7	8310	4L002282	07:01		WG107327-02 WL
No	8	8	8310	4L002283	08:01		WG107327-03 WL
No	9	9	8310	4L002284	09:01		WG107228-01 WB
No	10	10	8310	4L002285	10:01		WG107228-02 WL
No	11	11	8310	4L002286	11:01		WG107228-03 WL
No	12	12	8310	4L002287	12:01		L0110521-02 83
No	13	13	8310	4L002288	13:01	SOS 56-19/56-20	WG107371-02 CC
No	14	14	8310	4L002289	14:01		L0110521-01 83
No	15	15	8310	4L002290	15:01		L0110464-01 RE
No	16	16	8310	4L002291	16:01		L0110464-02 RE
No	17	17	8310	4L002292	17:01		L0110464-08 RE
No	18	18	8310	4L002293	18:01		L0110485-07 RE
No	19	19	8310	4L002294	19:01		L0110485-08 RE
No	20	20	8310	4L002295	20:01		L0110522-01 RE
No	21	21	8310	4L002296	21:01		L0110613-01 83
No	22	22	8310	4L002297	22:01		L0110613-02 83
No	23	23	8310	4L002298	23:01		L0110613-03 83
No	24	24	8310	4L002299	24:01	SOS 56-19/56-20	WG107371-03 CC
No	25	25	8310	4L002300	25:01		L0110613-04 83
No	26	26	8310	4L002301	26:01		L0110614-01 83
No	27	27	8310	4L002302	27:01		L0110522-01 RE
No	28	28	8310	4L002303	28:01		WG107387-01 WB
No	29	29	8310	4L002304	29:01		WG107387-02 WL
No	30	30	8310	4L002305	30:01		WG107387-03 WL
No	31	31	8310	4L002306	31:01		L0110562-03 RE
No	32	32	8310	4L002307	32:01		L0110562-06 RE
No	33	33	8310	4L002308	33:01		L0110562-07 RE
No	34	34	8310	4L002309	34:01	SOS 56-19/56-20	WG107371-04 CC

RHC 11/03/01
mdl 11/2/01

Analysis Date/Time Oct. 31, 2001 Instrument ID #2 LC4 Column ID LC-24A Data Subdirectory 103101
Analyst Initials [illegible] SOP # HPLC01 Rev. # 01 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 107 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: ____

Action Taken: ____

Comments

L0110464-01 Re surr Acceptable
-02 low surr
-03 surr. Acceptable
L0110485-07
-08 low surr.
L0110522-01
L0110562-03
-06 acceptable surr.
-07

L0110614-01 QNS for re-ext.

Reviewed By: [illegible] 11/2/01

Volume 174
Page 123

Parameter: 8310 H_2O SOP #: ~~[illegible]~~ EXHPCL1 Revision #: 6
Extraction Analyst(s): LMT TV/KD Analyst(s): JAQ
Date/Time Extracted: 10/25/01 @ 3:30 Date TV/KD: 10/25/01
Spike/Surrogate Analyst: LMT Witness: DP
Surrogate #: ESS0038-39 Earliest Hold Date: 10/30/01
Spike #: A = ESS0039-01 Spike #: B = —

Extraction Work Group WG 107100
Analytical Work Group WG 107146

Extract Relinquished By: DP
Extract Received By & Date: EC2 10/26/01

	Sample ID	Test Code	pH / <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions / A	BN	N	Comments
1	Blank			✓		1L	100ul		1ml	T				WG 107100-02
2	LCS			✓				500ul						WG -03
3	10-522-01	8310		✓		900ml				C				
4	-02			✓		920				T				
5	-03			✓		960				C				
6	-04			✓		960				T				
7	-05			✓		950				C				
8	-06			✓		940								
9	-07			✓		920				C				
10	-08			✓		950				T				
11	-09			✓		920								
12	10-527-01			✓		960								WG 107100-01
13	-02MS			✓		960		500ul		C				-04*
14	-03MSD			✓		970								-05*
15	-04			✓		970				T				
16	-05			✓		960				C				
17	-06			✓		980				T				
18	-07			✓		980								
19	-08			✓		960				T				
20	-09			✓		960								
21	-10			✓		980								
22														
23														
24														

10/25/01 JAQ

Methylene Chloride Lot #: 41109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetonitrile Lot #: V18801
Reagent: Fortified Lot #: ER1954
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER1989

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3664A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 10/26/01

Extraction Notes For Volume # 174 Page # 123

General Comments: MS and MSD of 10-527-01

Extraction Anomalies: Nothing to Report

Concentration Anomalies: nothing to report

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

Parameter: 8310 H2O SOP #: EXHPLC1 Revision #: 6
Extraction Analyst(s): JAQ TV/KD Analyst(s): JAQ DP
Date/Time Extracted: 10/30/01 14:45 Date TV/KD: 10/30/01
Spike/Surrogate Analyst: JAQ Witness: DP
Surrogate #: ES50038-M Earliest Hold Date: 10/31
Spike #: A = ES50039-01 Spike #: B = —

Extraction Work Group WG 107327
Analytical Work Group WG 107439
Extract Relinquished By: JAQ
Extract Received By & Date: RWC 10/30/01

	Sample ID	Test Code	pH ✓ <2	pH ✓ N	pH ✓ >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions ✓ A	Emulsions ✓ BN	Emulsions ✓ N	Comments
1	Blank			✓		1L	100ml		1ml	T				WG 107327-01
2	LCS			✓				500ml		C				WG 107327-02
3	LCS Dup			✓										WG 107327-03
4	10-613-01	8310		✓		1L				O				
5	02			✓		950ml				C				
6	03			✓										
7	04			✓						O				
8	10-614-01			✓		1L				C				
9	10-502-01			✓		950ml							*	
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

10/30/01 JAQ

Methylene Chloride Lot #: 4/1 09
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetonitrile Lot #: V18801
Reagent: Formic Lot #: ER 1969
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER 1973

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3664A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 10/30/01

Extraction Notes For Volume # 174 Page # 161

General Comments: * Re ex w/in hold

Extraction Anomalies: nothing to report

Concentration Anomalies: nothing to report

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

2.4 General Chemistry Data

2.4.5 Anions (9056)

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L0110522

METHOD

Analysis: SW-846 9056

HOLDING TIMES

Sample Preparation: All holding times were met..
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: Sample fraction -06 was chosen internally for the MS/MSD of this sample delivery group. All acceptance criteria were met.

SAMPLES

All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: GSG REVIEWED: _____ DATE: 1/6/01

Rev. 7/14/00

Figure 1
IC

Date: 10-25-01
Analyst: GSG
Method: 9056
Instrument: IC 2
Work Group: WG 107114

485 AR 552

	Analyst
System Performance Check	✓
Initial Calibration	✓
Average RF	
Linear Reg or Higher Order Curve	✓
Second Source Standard % Difference	✓
Check Standards	✓
Project / Client Specific Requirements	
Special Standards	
Blanks	✓
TCL's	
Surrogates	
LCS (Laboratory Control Sample)	✓
Recoveries	
Surrogates	
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	
Surrogates	
Calculations & Correct Factors	
Dilutions Run	
Reruns	
Check Sample Histories	
Ending Check Standards	✓
Excel Spreadsheets	✓
Case Narrative	✓
Corrective Action	
Results Reporting / Data Qualifiers	
WorkGroups Traceability	
Client Data Package Assembly	
Check for Completeness	✓

Primary Reviewer Initials & Date Checked
GSG 10/29/01

Secondary Reviewer Initials & Date Checked
SD 10-29-01

✓ • Check for compliance with Method and project-specific requirements
✓ • Check the completeness of the reported information
✓ • Check the information for the report narrative
✓ • Check the reasonableness of results

Supervisory Review Initials & Date Checked 11/2/01
Comments:

NA - Not Applicable
DL - Diluted Out

✓ - Checked & OK

R103313

426

Anions (9056)

Login Number: 10110522

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

____ Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data)

✓ Chromatograms and external standard reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and external standard reports (chronological)

____ Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

✓ Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

____ Extraction bench sheets

Checked By: GSC Date: 11/05/01

427

2.4.5.1 QC Summary

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, Water

Analytical Work Group:	WG107114	**Prep Work Group:**	NA	**Blank Filename:**	IC2_042	**Sample Number:**	L0110522-06
Method:	9056	**Ext Date:**	NA	**LCS Filename:**	IC2_044	**Sample Filename:**	IC2-062
Instrument:	IC2	**Ext Bench Sheet:**	NA	**Sample Number:**	L0110522-05	**MS Filename:**	IC2_063
Analyst:	GSG	**Run Date:**	25-Oct-01	**Sample Filename:**	IC2_059	**MSD Filename:**	IC2_064
				Duplicate Filename:	IC2_060		

	CONCENTRATION, mg/L										% RECOVERY													
Analyte	RDL	Blank	LCS Spike Amount	LCS	Sample	Dup	Sample	MS Spike Amount	MS	MSD	Blank	LCS	LCS LCL	LCS UCL	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL	LCS	MS	MSD
NITRITE-N	0.4	ND	3.66	3.82	NA	NA	NA	3.66	4.27	4.19	ND	104.3	90	110	117	115	80	120	NA	2	20			
NITRATE-N	0.6	ND	4.06	4.24	0.2	0.2	0.16	4.06	4.58	4.57	ND	104.5	90	110	108.8	108.5	80	120	2.48	0	20			
PHOSPHATE-P	1	ND	9.78	10.48	NA	NA	NA	9.78	10.29	10.34	ND	107.2	90	110	105	106	80	120	NA	1	20			

NOTES & DEFINITIONS :

NA = NOT APPLICABLE
ND = NOT DETECTED
RDL = REPORTING DETECTION LIMIT
D = DETECTED. RESULT MUST BE GREATER THAN ZERO

H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, Water

Analytical Work Group:	WG107114	**Prep Work Group:**	NA	**Blank Filename:**	IC2_042	**Sample Number:**	L0110522-06
Method:	9056	**Ext Date:**	NA	**LCS Filename:**	IC2_044	**Sample Filename:**	IC2-062
Instrument:	IC2	**Ext Bench Sheet:**	NA	**Sample Number:**	L0110522-05	**MS Filename:**	IC2_063
Analyst:	GSG	**Run Date:**	25-Oct-01	**Sample Filename:**	IC2_059	**MSD Filename:**	IC2_064
				Duplicate Filename:	IC2_060		

	CONCENTRATION, mg/L										% RECOVERY													
Analyte	RDL	Blank	LCS Spike Amount	LCS	Sample	Dup	Sample	MS Spike Amount	MS	MSD	Blank	LCS	LCS LCL	LCS UCL	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL	LCS	MS	MSD
NITRITE-N	0.4	ND	3.66	3.82	NA	NA	NA	3.66	4.27	4.19	ND	104.3	90	110	117	115	80	120	NA	2	20			
NITRATE-N	0.6	ND	4.06	4.24	0.2	0.2	0.16	4.06	4.58	4.57	ND	104.5	90	110	108.8	108.5	80	120	2.48	0	20			
PHOSPHATE-P	1	ND	9.78	10.48	NA	NA	NA	9.78	10.29	10.34	ND	107.2	90	110	105	106	80	120	NA	1	20			

NOTES & DEFINITIONS :

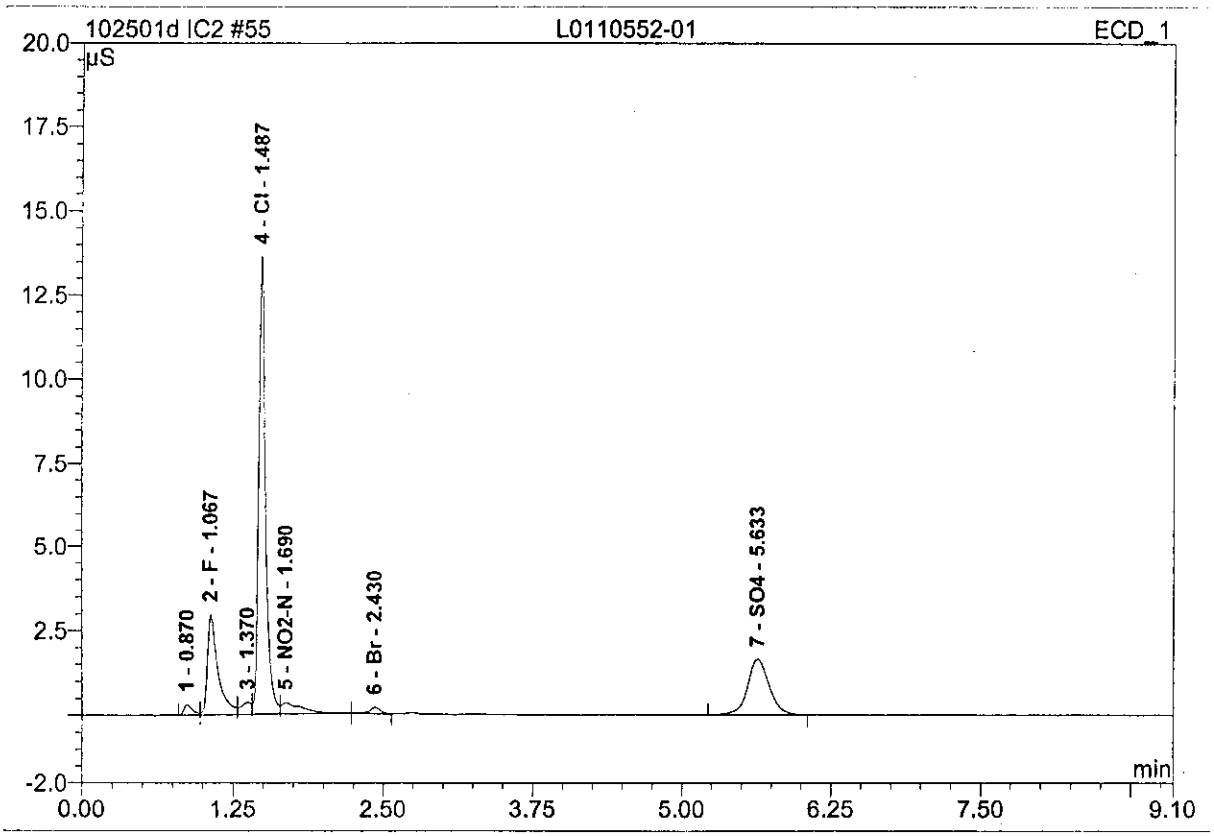
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL = REPORTING DETECTION LIMIT
D = DETECTED. RESULT MUST BE GREATER THAN ZERO
H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

2.4.5.2 Sample Data

55 L0110552-01

1,1 GSG

Sample Name:	**L0110552-01**	*Injection Volume:*	**25.0**
Vial Number:	**47**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 22:30**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

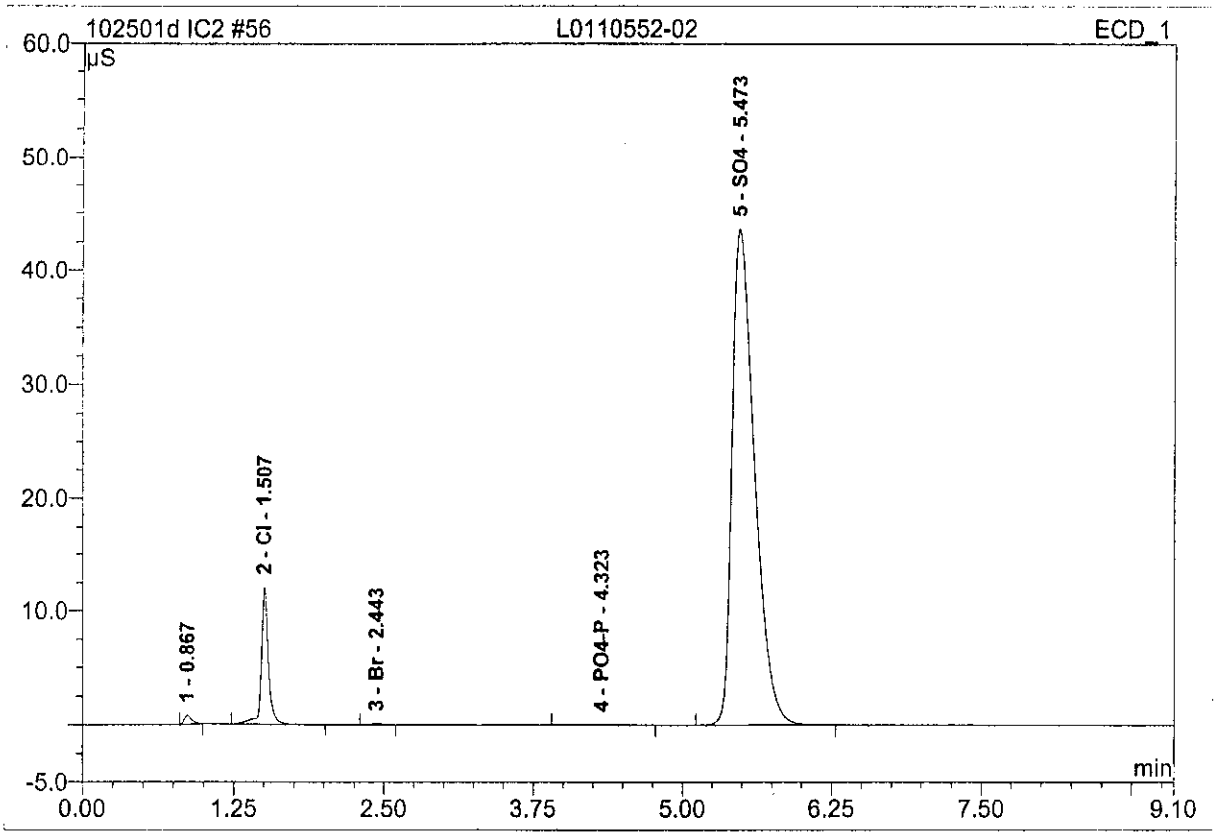


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.323	0.026	1.54	n.a.	BM
2	1.07	F	2.961	0.304	17.90	2.206	M
3	1.37	n.a.	0.366	0.036	2.11	n.a.	M
4	1.49	Cl	13.626	0.894	52.65	8.934	M
5	1.69	NO2-N	0.340	0.071	4.20	0.408	MB
6	2.43	Br	0.190	0.019	1.11	0.527	bMB
7	5.63	SO4	1.635	0.348	20.50	5.366	BMB
Total:			19.440	1.698	100.00	17.440	

56 L0110552-02

1,1 GSG

Sample Name:	**L0110552-02**	*Injection Volume:*	**25.0**
Vial Number:	**48**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 22:42**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

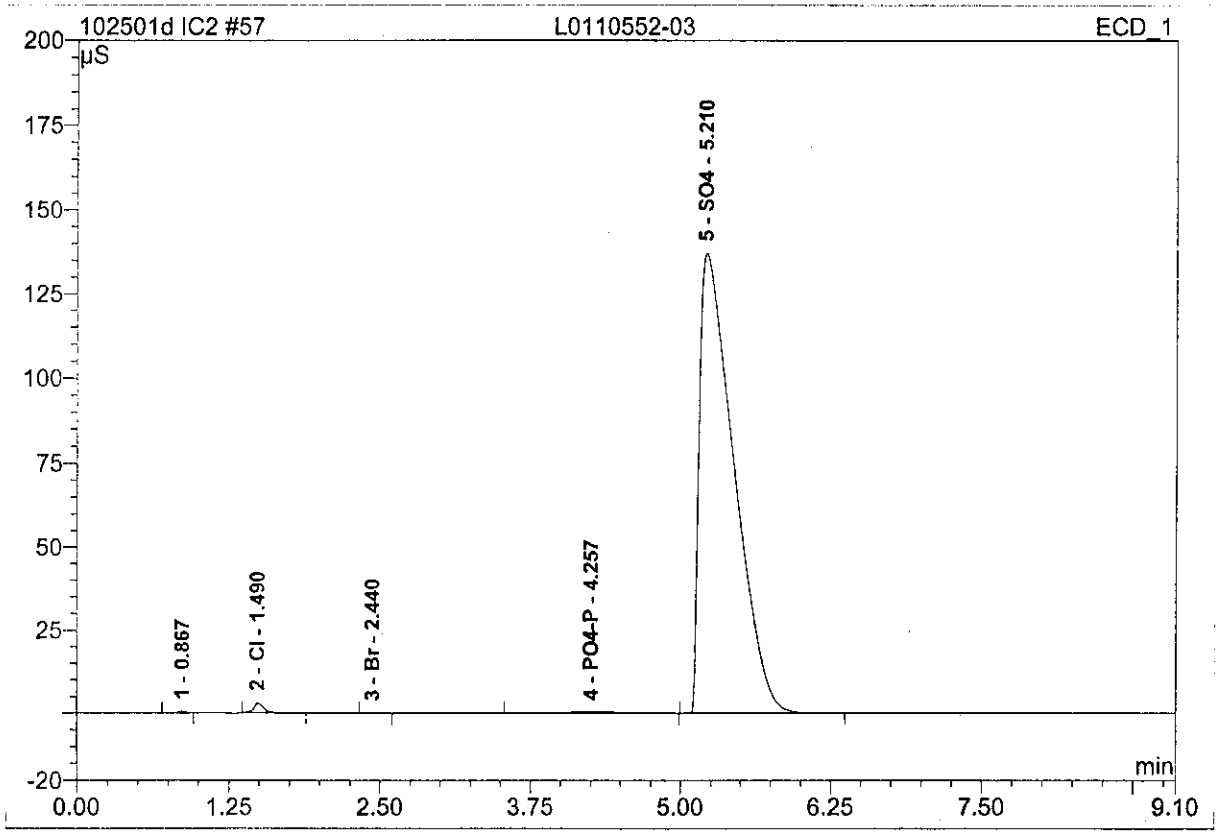


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.791	0.058	0.56	n.a.	BMB
2	1.51	Cl	12.071	0.821	7.83	8.222	BMB
3	2.44	Br	0.120	0.011	0.11	0.339	BMB
4	4.32	PO4-P	0.064	0.027	0.25	1.204	BMB
5	5.47	SO4	43.608	9.580	91.26	125.735	BMB
Total:			56.655	10.497	100.00	135.500	

57 L0110552-03

1,1 GSG

Sample Name:	**L0110552-03**	*Injection Volume:*	**25.0**
Vial Number:	**49**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 22:53**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

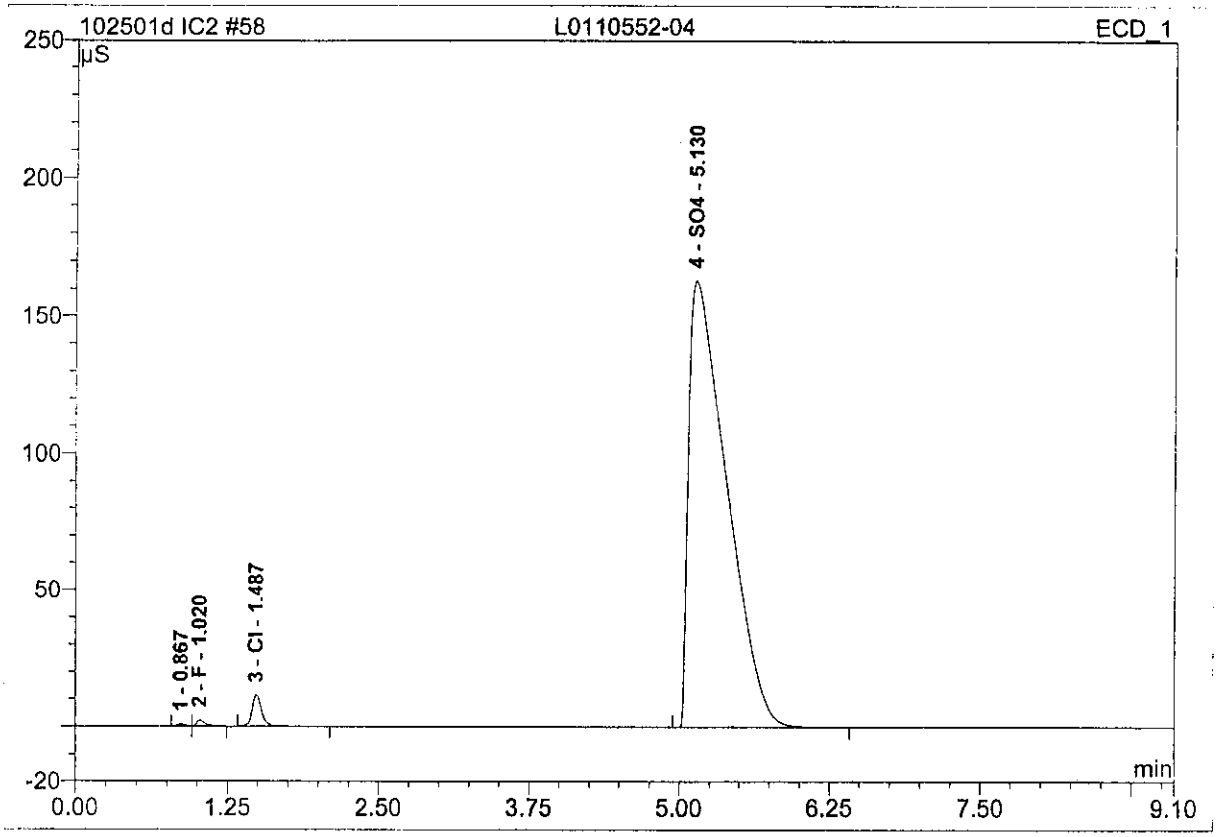


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.481	0.032	0.07	n.a.	BMB
2	1.49	Cl	2.918	0.284	0.62	2.948	BMB
3	2.44	Br	0.072	0.007	0.01	0.222	BMB
4	4.26	PO4-P	0.366	0.202	0.44	3.728	BMB
5	5.21	SO4	137.048	45.648	98.86	596.023	BMB
Total:			140.885	46.172	100.00	602.921	

58 L0110552-04

1,1 GSG

Sample Name:	**L0110552-04**	*Injection Volume:*	**25.0**
Vial Number:	**50**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 23:05**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

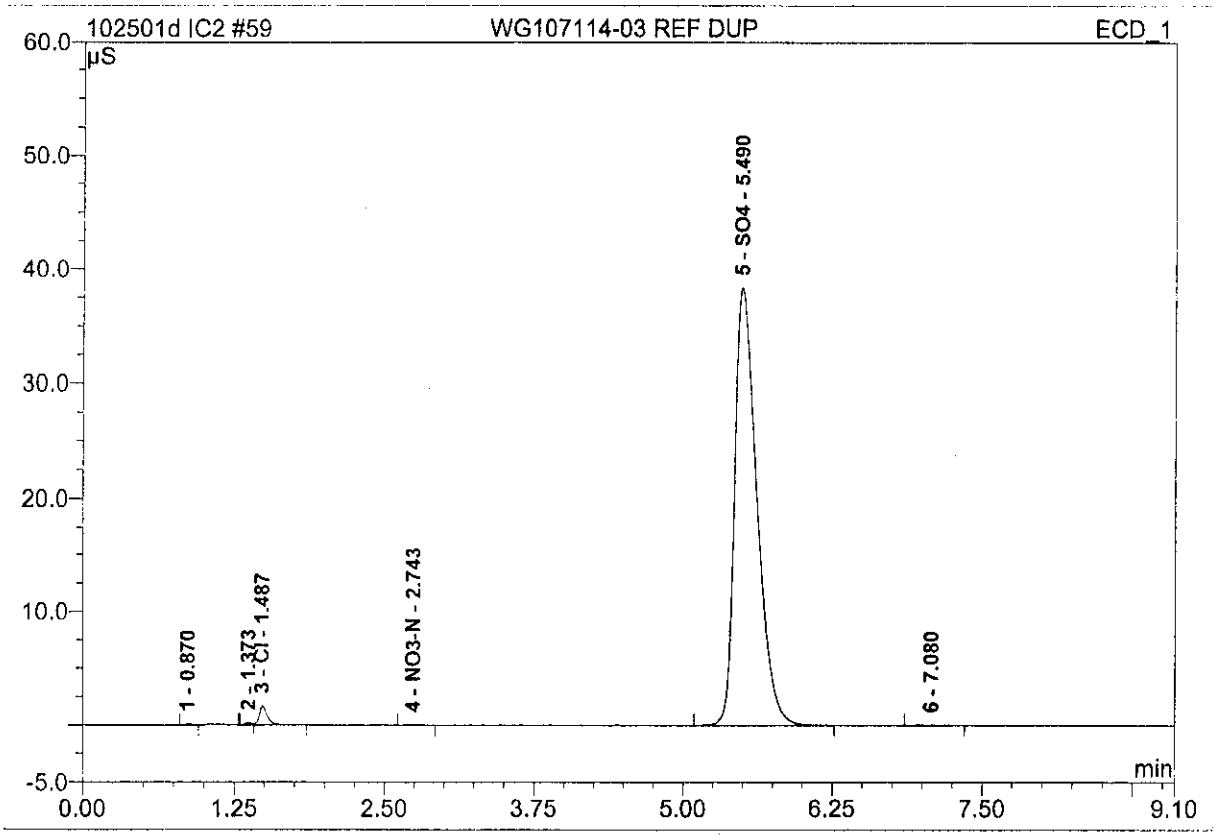


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.841	0.066	0.11	n.a.	BM
2	1.02	F	2.173	0.192	0.31	1.459	MB
3	1.49	Cl	11.409	1.051	1.72	10.477	BMB
4	5.13	SO4	163.228	59.783	97.86	780.329	BMB
Total:			177.650	61.093	100.00	792.265	

59 WG107114-03 REF DUP

1,1 GSG L0110522-05 REF DUP

Sample Name:	**WG107114-03 REF DUP**	*Injection Volume:*	**25.0**
Vial Number:	**51**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 23:16**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

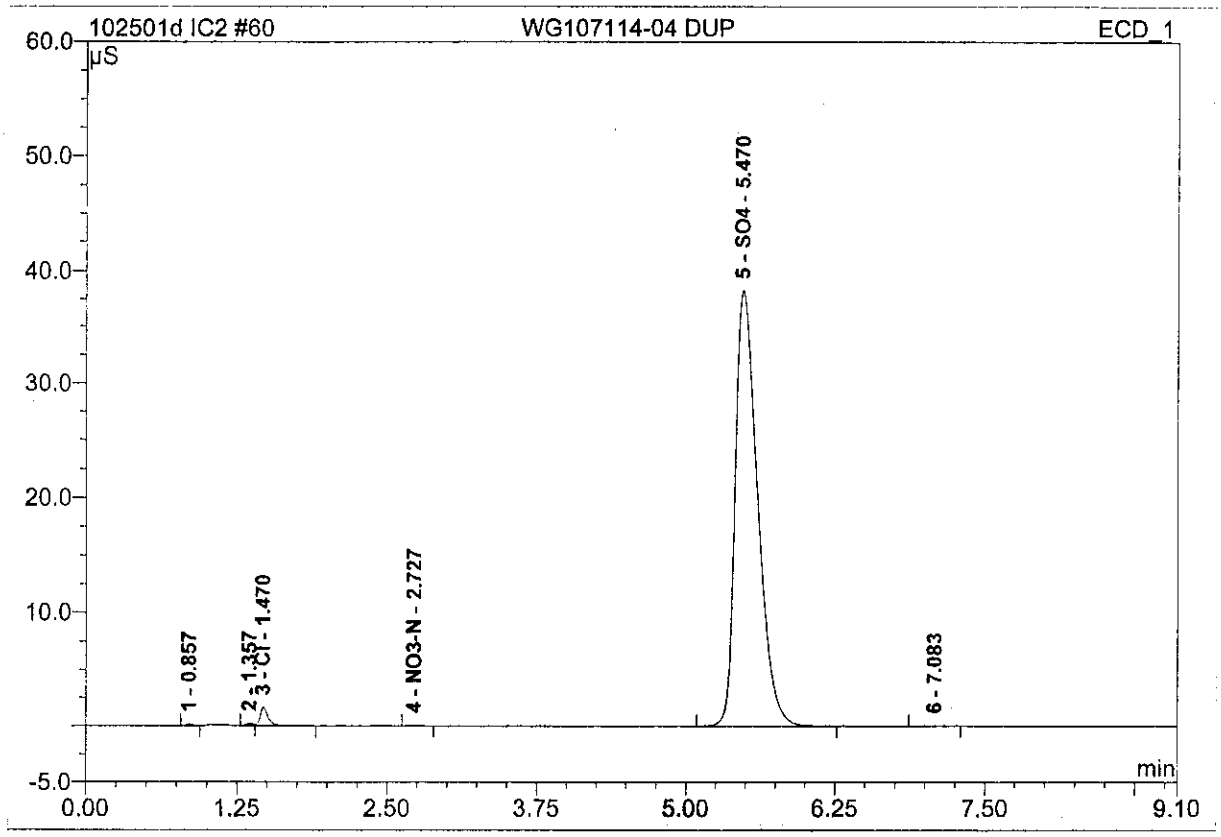


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.133	0.008	0.09	n.a.	BMB
2	1.37	n.a.	0.095	0.006	0.07	n.a.	Ru
3	1.49	Cl	1.681	0.137	1.62	1.505	BMB
4	2.74	NO3-N	0.063	0.006	0.08	0.163	BMB
5	5.49	SO4	38.349	8.322	98.06	109.342	BMB
6	7.08	n.a.	0.033	0.008	0.09	n.a.	BMB
Total:			40.354	8.487	100.00	111.010	

60 WG107114-04 DUP

1,1 GSG L0110522-05 DUP

Sample Name:	**WG107114-04 DUP**	*Injection Volume:*	**25.0**
Vial Number:	**52**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 23:28**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

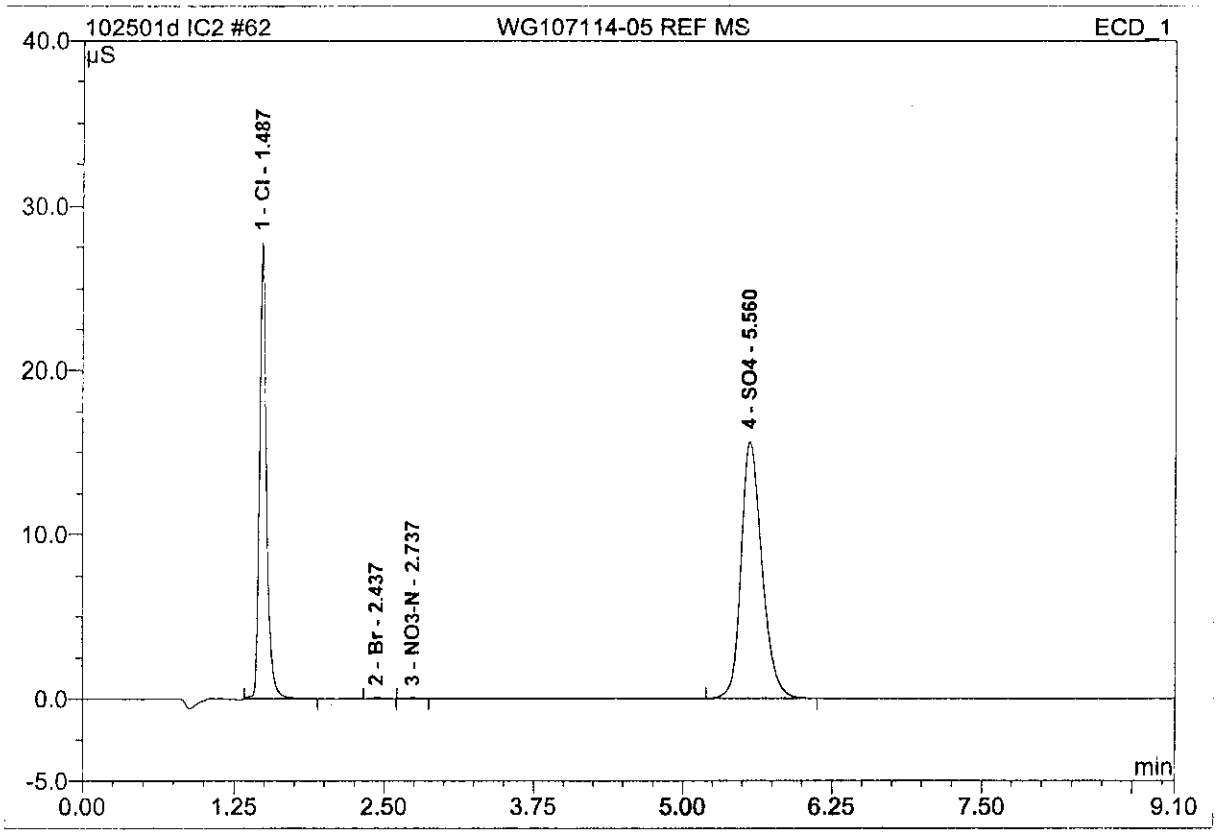


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.86	n.a.	0.124	0.007	0.08	n.a.	BMB
2	1.36	n.a.	0.087	0.005	0.06	n.a.	Ru
3	1.47	Cl	1.614	0.133	1.57	1.460	BMB
4	2.73	NO3-N	0.057	0.005	0.06	0.159	BMB
5	5.47	SO4	38.280	8.315	98.14	109.241	BMB
6	7.08	n.a.	0.030	0.007	0.08	n.a.	BMB
Total:			40.192	8.472	100.00	110.861	

62 WG107114-05 REF MS

1,1 GSG L0110522-06 REF MS/MSD

Sample Name:	**WG107114-05 REF MS**	*Injection Volume:*	**25.0**
Vial Number:	**53**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 23:51**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

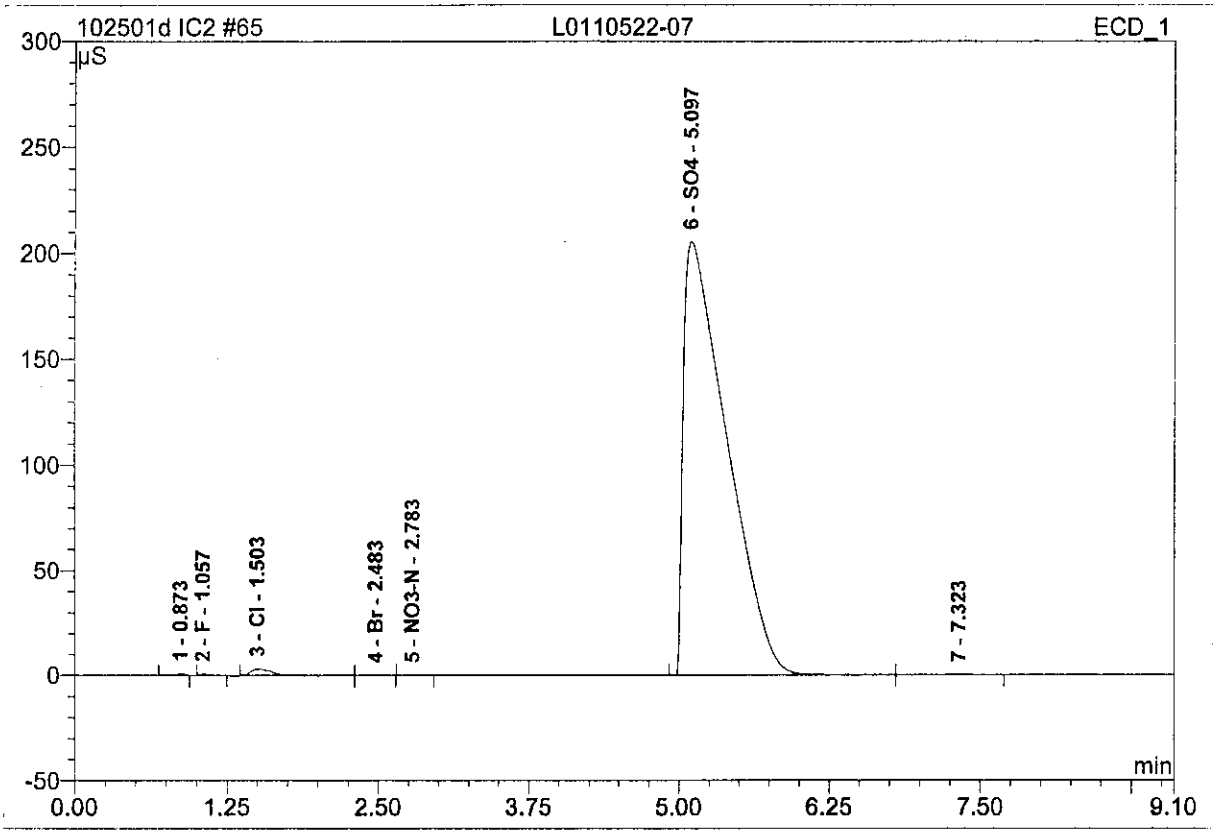


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.49	Cl	27.763	1.849	36.65	18.314	BMB
2	2.44	Br	0.074	0.007	0.14	0.229	BMB
3	2.74	NO3-N	0.065	0.006	0.13	0.163	BMB
4	5.56	SO4	15.628	3.184	63.09	42.341	BMB
Total:			43.530	5.047	100.00	61.047	

65 L0110522-07

1,1 GSG

Sample Name:	**L0110522-07**	*Injection Volume:*	**25.0**
Vial Number:	**57**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/26/2001 0:25**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

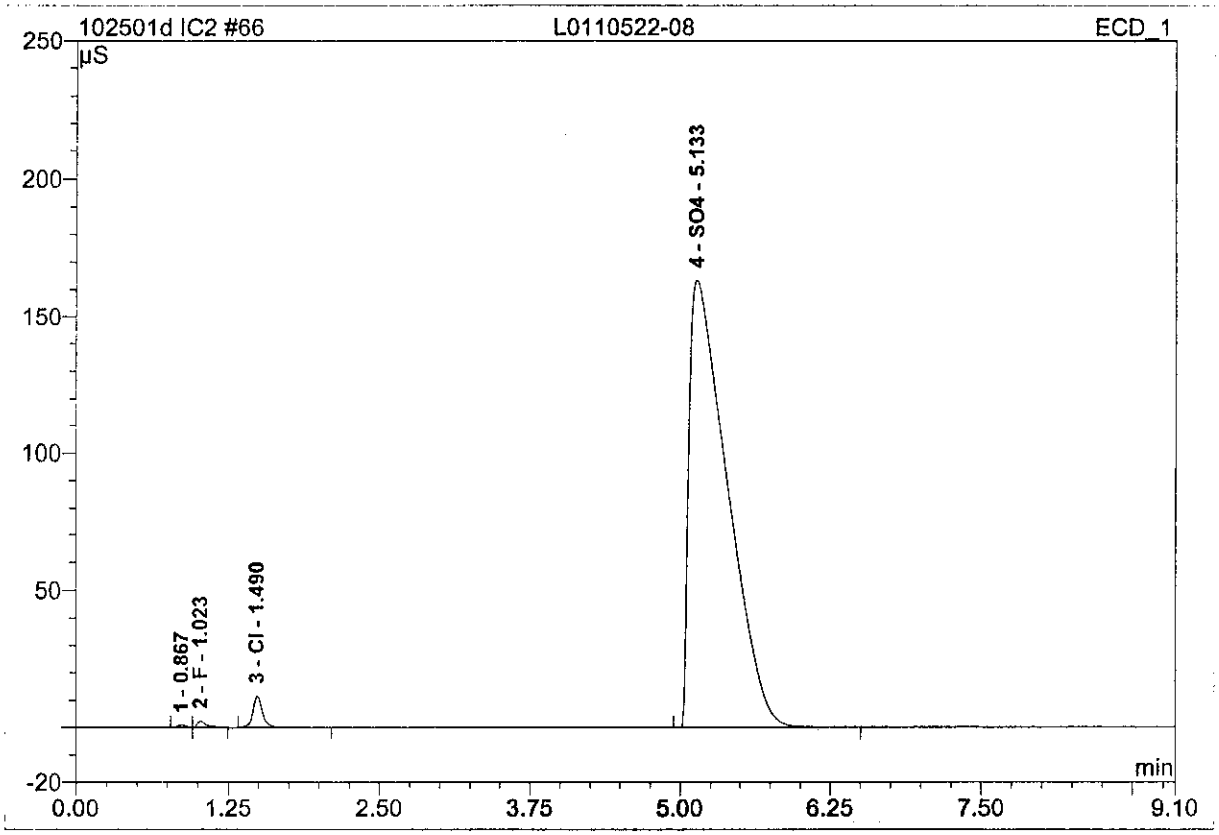


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.897	0.064	0.07	n.a.	BMB
2	1.06	F	0.642	0.057	0.07	0.550	BM
3	1.50	Cl	2.979	0.596	0.69	6.008	BMB
4	2.48	Br	0.101	0.011	0.01	0.327	bMB
5	2.78	NO3-N	0.052	0.006	0.01	0.159	BMB
6	5.10	SO4	205.438	85.608	99.09	1117.051	BM
7	7.32	n.a.	0.188	0.050	0.06	n.a.	MB
Total:			210.296	86.391	100.00	1124.096	

66 L0110522-08

1,1 GSG

Sample Name:	**L0110522-08**	*Injection Volume:*	**25.0**
Vial Number:	**58**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/26/2001 0:37**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

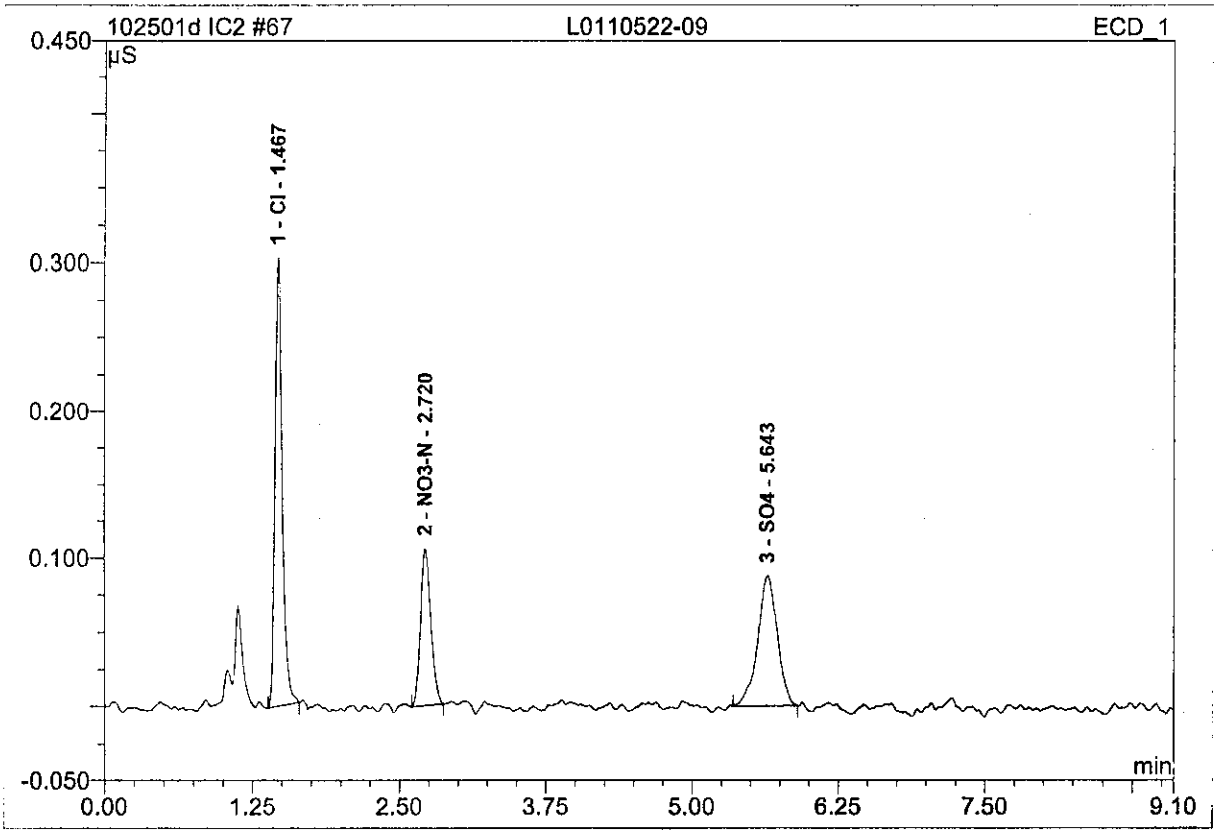


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.865	0.067	0.11	n.a.	BM
2	1.02	F	2.265	0.199	0.32	1.501	M
3	1.49	Cl	11.606	1.072	1.75	10.685	BMB
4	5.13	SO4	163.440	59.853	97.81	781.235	BMB
Total:			178.177	61.190	100.00	793.420	

67 L0110522-09

1,1 GSG

Sample Name:	**L0110522-09**	*Injection Volume:*	**25.0**
Vial Number:	**59**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/26/2001 0:48**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



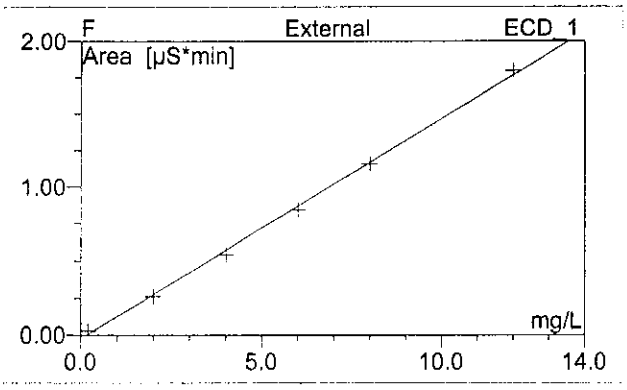
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.47	Cl	0.303	0.021	43.36	0.367	BMB
2	2.72	NO3-N	0.106	0.011	22.08	0.180	BMB
3	5.64	SO4	0.088	0.017	34.56	1.050	BMB
Total:			0.496	0.049	100.00	1.597	

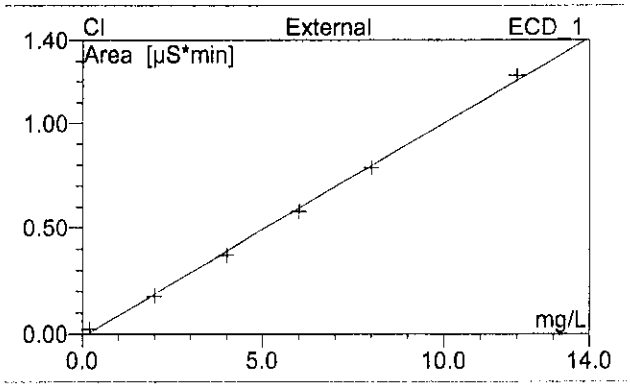
2.4.5.3 Standards Data

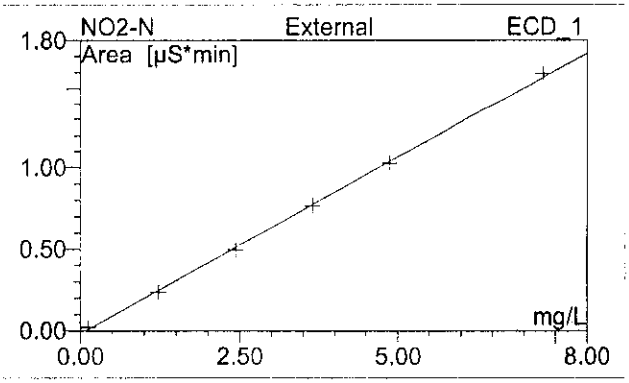
11 ANION LVL #1

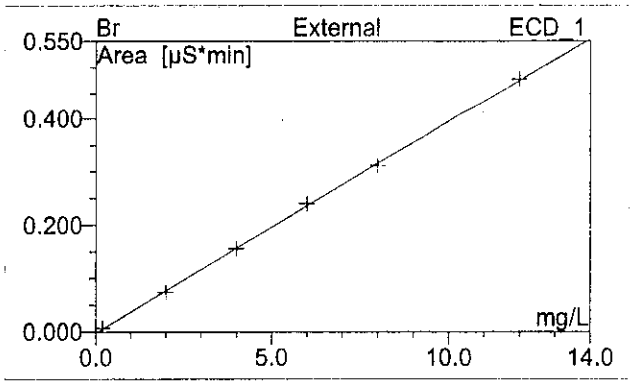
1,1 GSG ANION LVL #1 SOS0056-10

Sample Name:	**ANION LVL #1**	*Injection Volume:*	**25.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 11:54**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.11**	*Sample Amount:*	**1.0000**







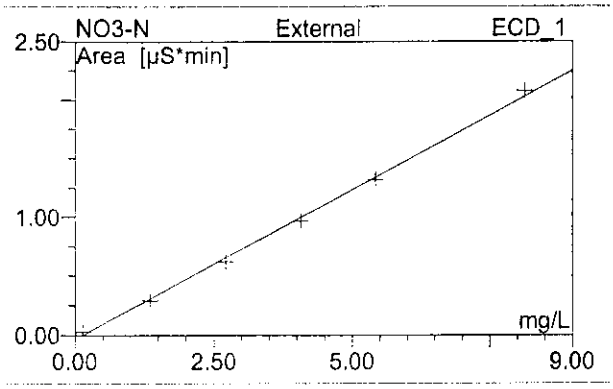


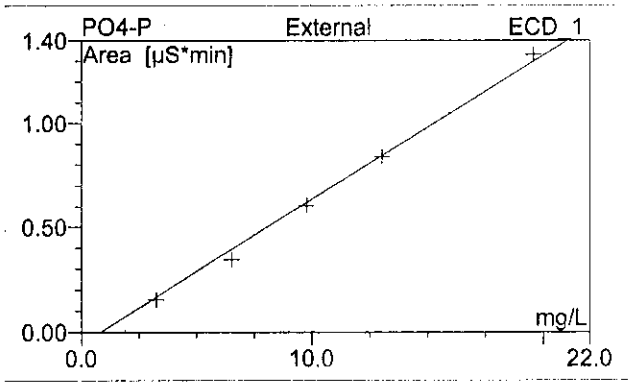
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	1.03	F	0LOff	6	99.9244	-0.0256	0.1494	0.0000
2	1.47	Cl	0LOff	6	99.9185	-0.0160	0.1019	0.0000
3	1.71	NO2-N	0LOff	6	99.9676	-0.0172	0.2169	0.0000
4	2.44	Br	0LOff	6	99.9853	-0.0021	0.0397	0.0000
5	2.74	NO3-N	0LOff	6	99.8996	-0.0348	0.2535	0.0000
6	5.78	SO4	0LOff	6	99.9090	-0.0635	0.0767	0.0000
Average:					99.9341	-0.0266	0.1397	0.0000

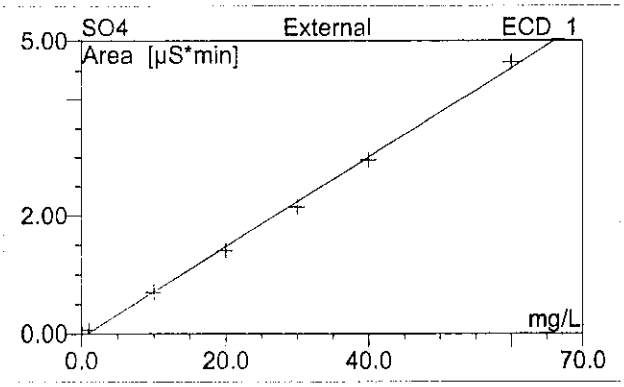
11 ANION LVL #1

1,1 GSG ANION LVL #1 SOS0056-10

Sample Name:	**ANION LVL #1**	*Injection Volume:*	**25.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 11:54**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.11**	*Sample Amount:*	**1.0000**





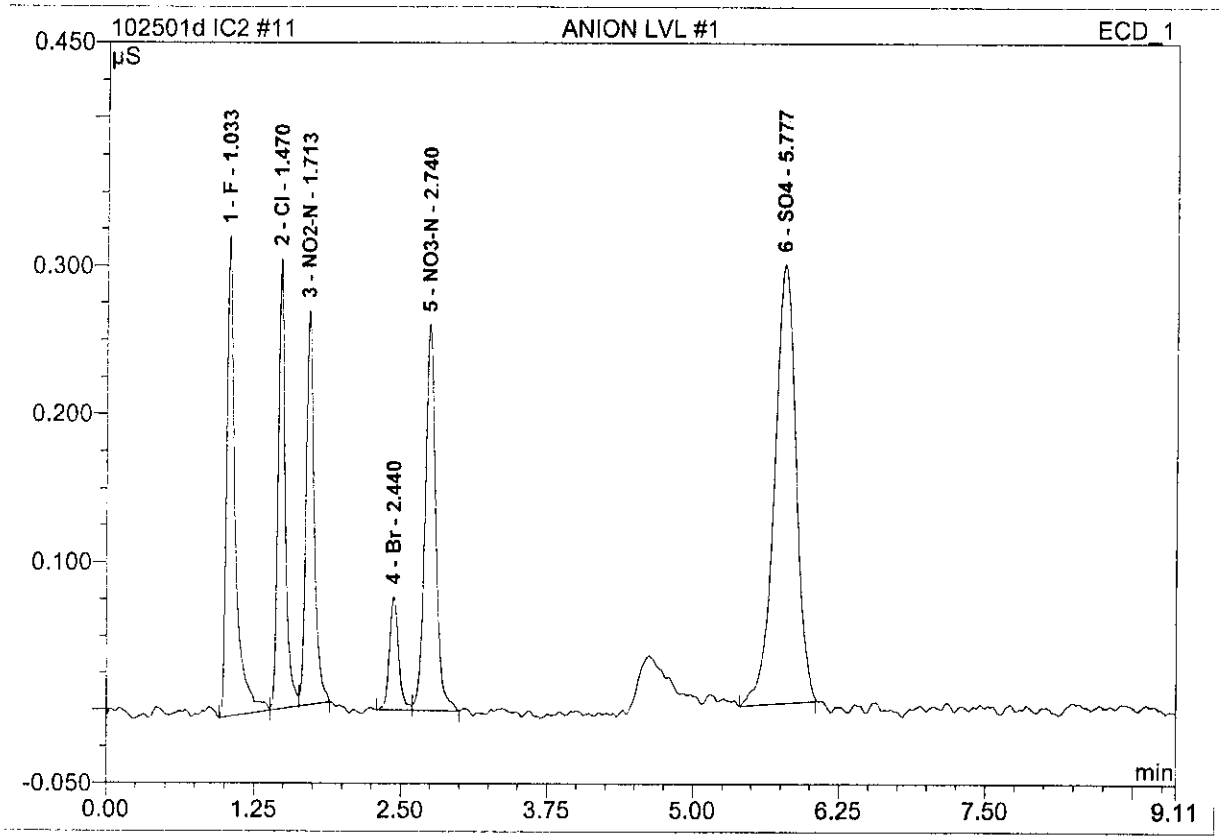


No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	1.03	F	0LOff	6	99.9244	-0.0256	0.1494	0.0000
2	1.47	Cl	0LOff	6	99.9185	-0.0160	0.1019	0.0000
3	1.71	NO2-N	0LOff	6	99.9676	-0.0172	0.2169	0.0000
4	2.44	Br	0LOff	6	99.9853	-0.0021	0.0397	0.0000
5	2.74	NO3-N	0LOff	6	99.8996	-0.0348	0.2535	0.0000
6	5.78	SO4	0LOff	6	99.9090	-0.0635	0.0767	0.0000
Average:					99.9341	-0.0266	0.1397	0.0000

11 ANION LVL #1

1,1 GSG ANION LVL #1 SOS0056-10

Sample Name:	**ANION LVL #1**	*Injection Volume:*	**25.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 11:54**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.11**	*Sample Amount:*	**1.0000**



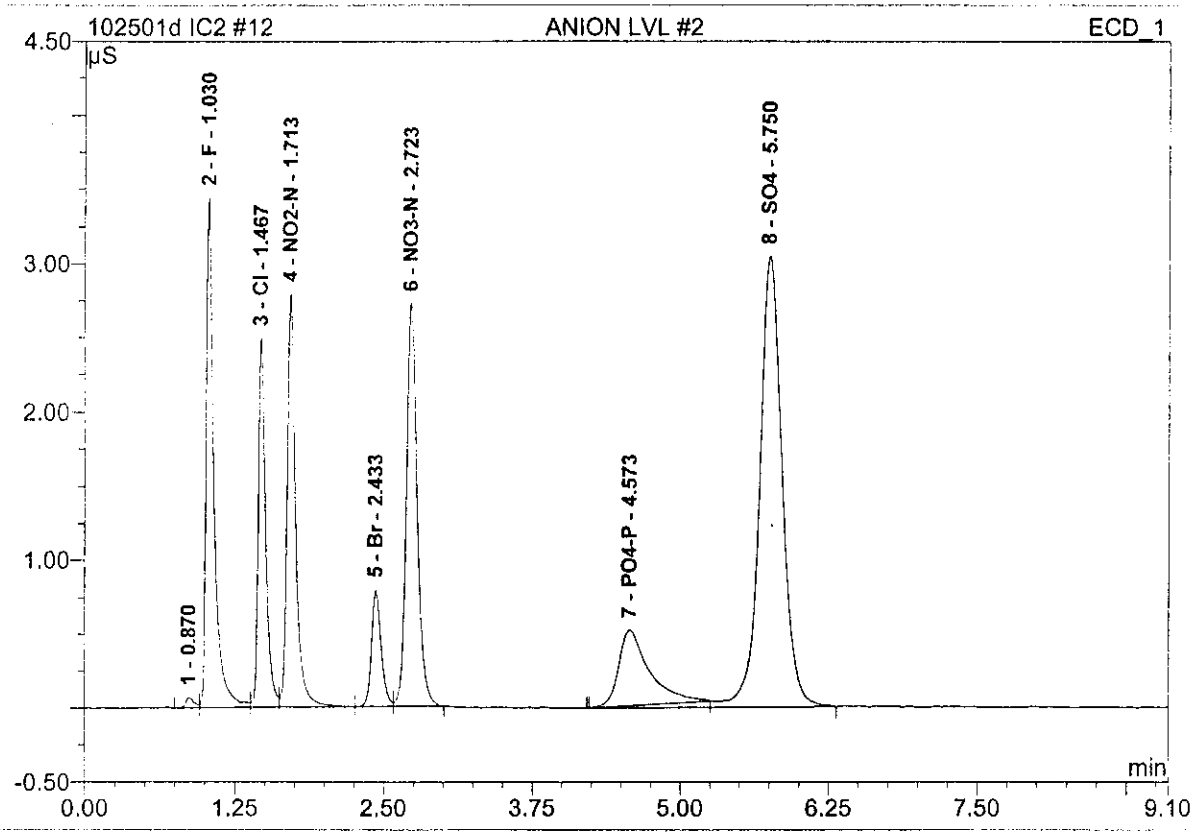
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.03	F	0.325	0.028	16.20	0.356	BM
2	1.47	Cl	0.305	0.021	12.65	0.369	M
3	1.71	NO2-N	0.267	0.022	12.81	0.180	MB
4	2.44	Br	0.077	0.007	4.13	0.230	BM
5	2.74	NO3-N	0.261	0.028	16.56	0.248	MB
6	5.78	SO4	0.297	0.064	37.65	1.662	BMB
Total:			1.532	0.170	100.00	3.045	

445

12 ANION LVL #2

1,1 GSG ANION LVL #2

Sample Name:	**ANION LVL #2**	*Injection Volume:*	**25.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 12:06**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

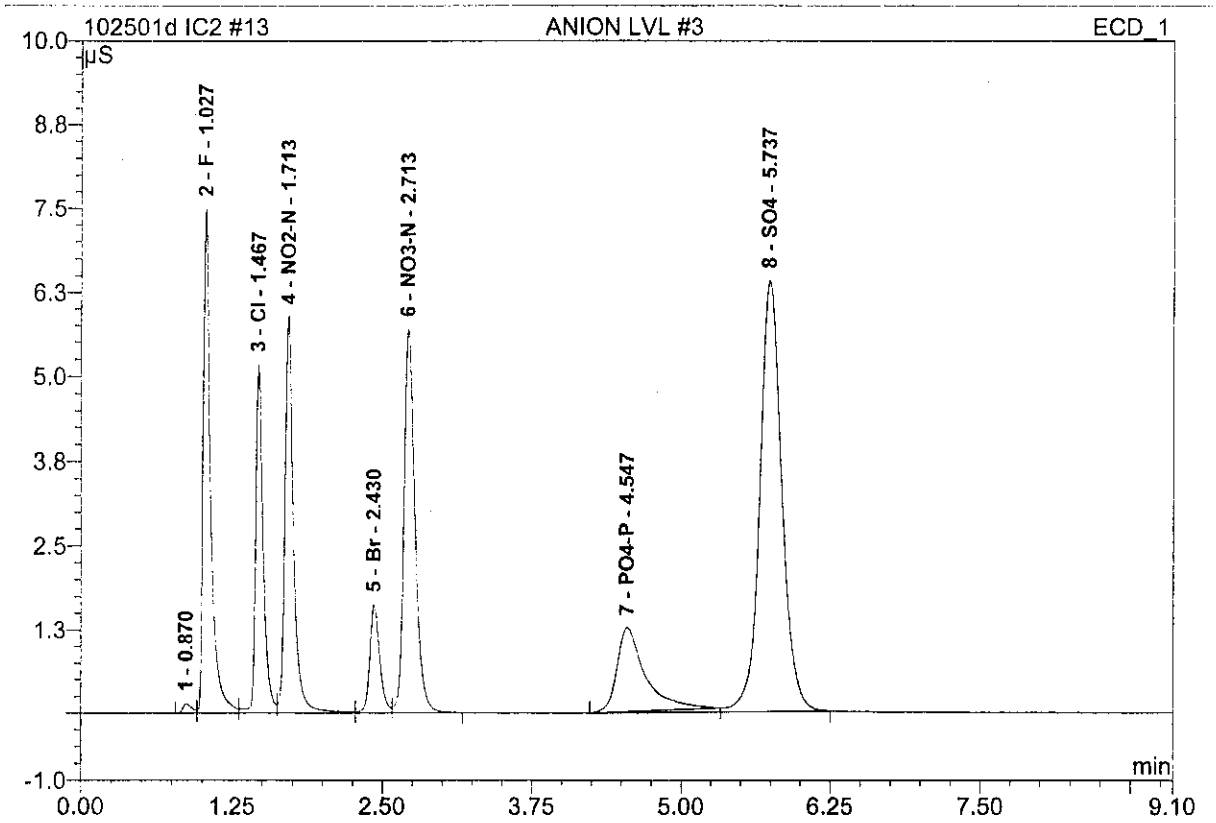


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.068	0.006	0.30	n.a.	BM
2	1.03	F	3.440	0.259	13.72	1.907	M
3	1.47	Cl	2.491	0.178	9.42	1.904	M
4	1.71	NO2-N	2.788	0.235	12.43	1.163	M
5	2.43	Br	0.786	0.074	3.92	1.917	M
6	2.72	NO3-N	2.718	0.291	15.38	1.284	MB
7	4.57	PO4-P	0.514	0.154	8.16	3.046	Ru
8	5.75	SO4	3.042	0.693	36.67	9.864	BMB
Total:			15.848	1.890	100.00	21.084	

13 ANION LVL #3

1,1 GSG ANION LVL #3

Sample Name:	**ANION LVL #3**	*Injection Volume:*	**25.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 12:17**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

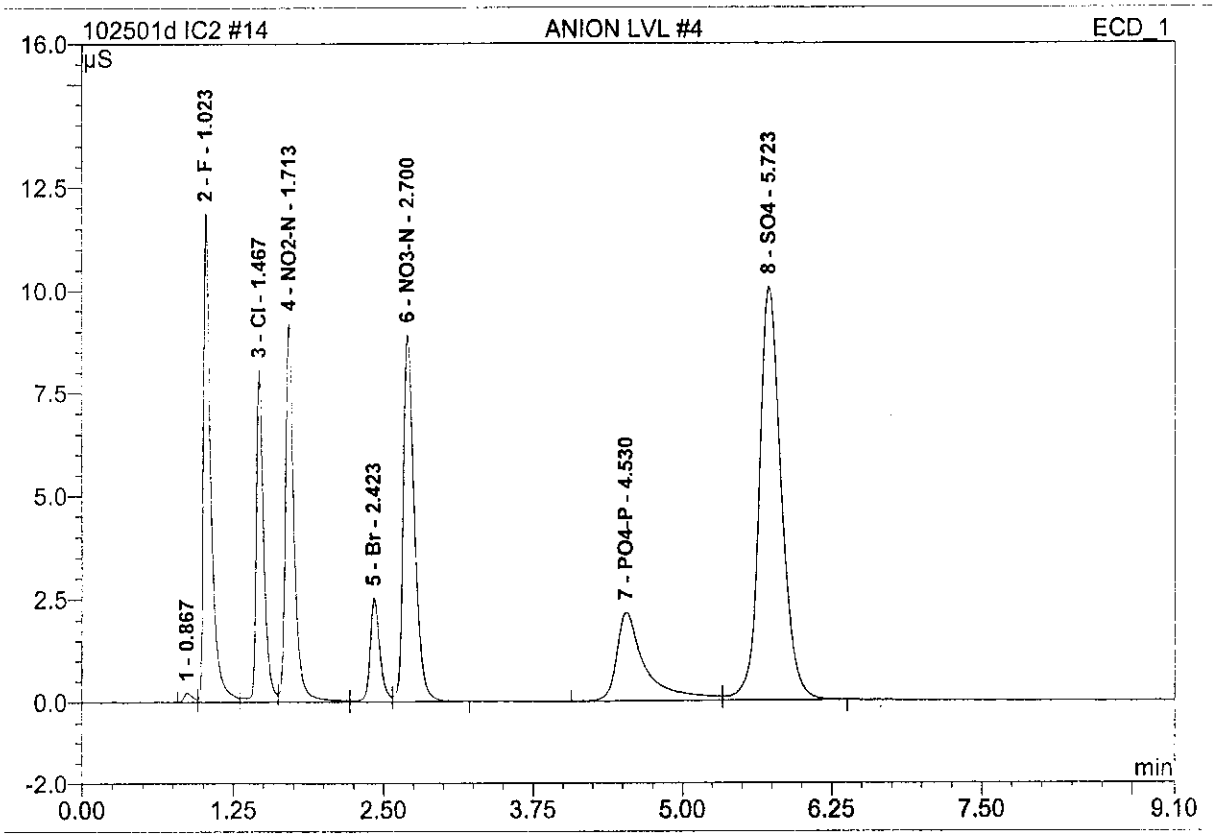


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.140	0.012	0.30	n.a.	BM
2	1.03	F	7.498	0.540	13.73	3.789	M
3	1.47	Cl	5.169	0.372	9.45	3.811	M
4	1.71	NO2-N	5.885	0.495	12.56	2.360	M
5	2.43	Br	1.624	0.156	3.95	3.970	M
6	2.71	NO3-N	5.694	0.616	15.64	2.567	MB
7	4.55	PO4-P	1.261	0.345	8.75	5.795	Ru
8	5.74	SO4	6.396	1.402	35.61	19.112	BMB
Total:			33.668	3.937	100.00	41.403	

14 ANION LVL #4

1,1 GSG ANION LVL #4

Sample Name:	**ANION LVL #4**	*Injection Volume:*	**25.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 12:29**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

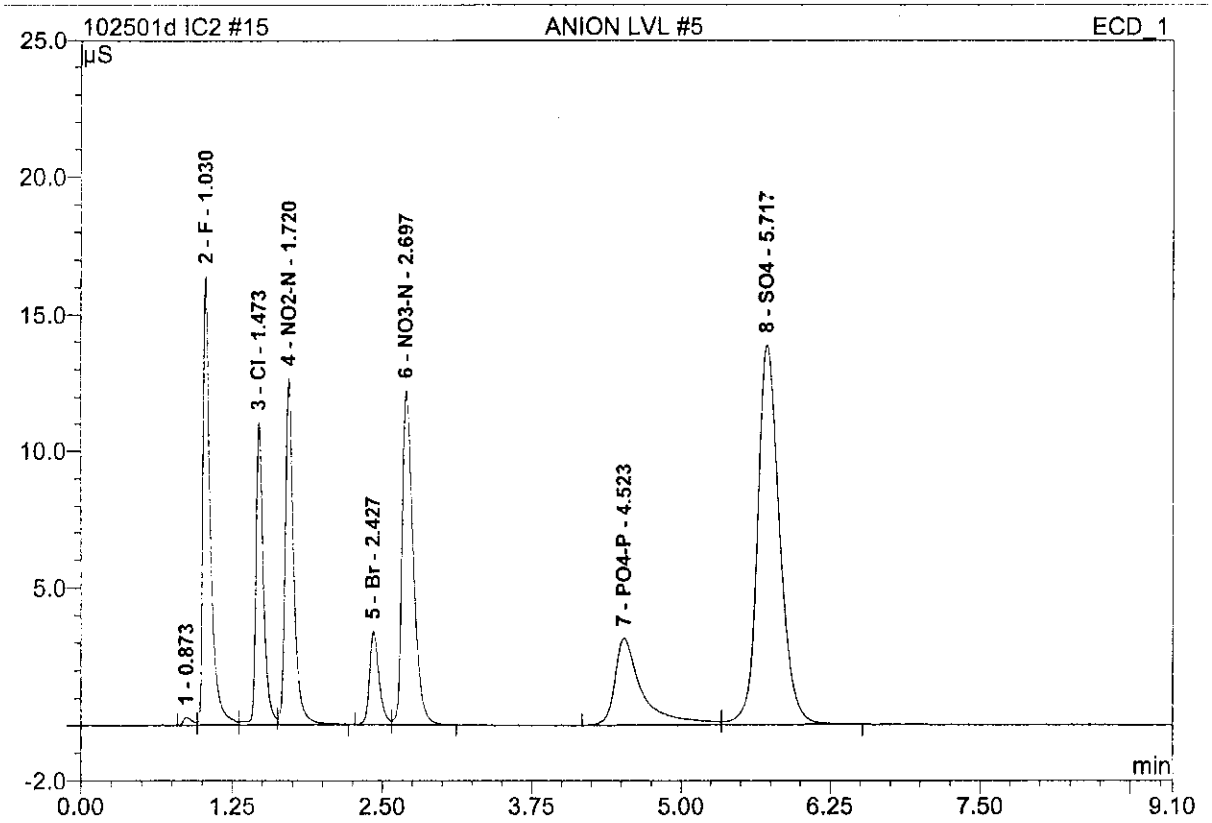


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.217	0.018	0.29	n.a.	BM
2	1.02	F	11.857	0.846	13.73	5.835	M
3	1.47	Cl	8.060	0.578	9.38	5.834	M
4	1.71	NO2-N	9.207	0.765	12.41	3.608	M
5	2.42	Br	2.510	0.240	3.88	6.081	M
6	2.70	NO3-N	8.909	0.964	15.64	3.941	MB
7	4.53	PO4-P	2.159	0.605	9.81	9.547	BM
8	5.72	SO4	10.053	2.149	34.86	28.852	MB
Total:			52.972	6.165	100.00	63.698	

15 ANION LVL #5

1,1 GSG ANION LVL #5

Sample Name:	**ANION LVL #5**	*Injection Volume:*	**25.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 12:40**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

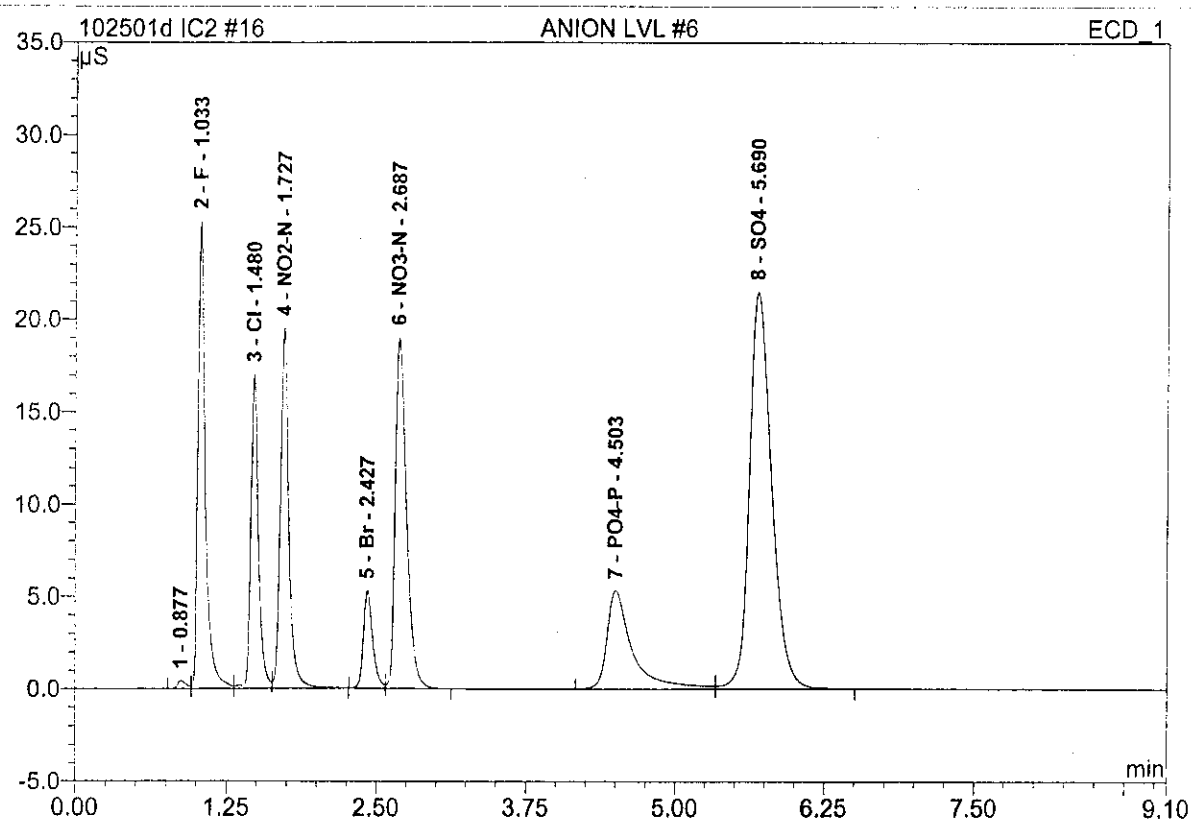


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.291	0.024	0.28	n.a.	BM
2	1.03	F	16.415	1.159	13.76	7.929	M
3	1.47	Cl	11.050	0.788	9.36	7.896	M
4	1.72	NO2-N	12.668	1.028	12.20	4.818	MB
5	2.43	Br	3.385	0.312	3.70	7.898	BM
6	2.70	NO3-N	12.206	1.316	15.62	5.330	MB
7	4.52	PO4-P	3.146	0.840	9.97	12.944	BM
8	5.72	SO4	13.841	2.958	35.11	39.400	MB
Total:			73.003	8.425	100.00	86.216	

16 ANION LVL #6

1,1 GSG ANION LVL #6

Sample Name:	**ANION LVL #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 12:52**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

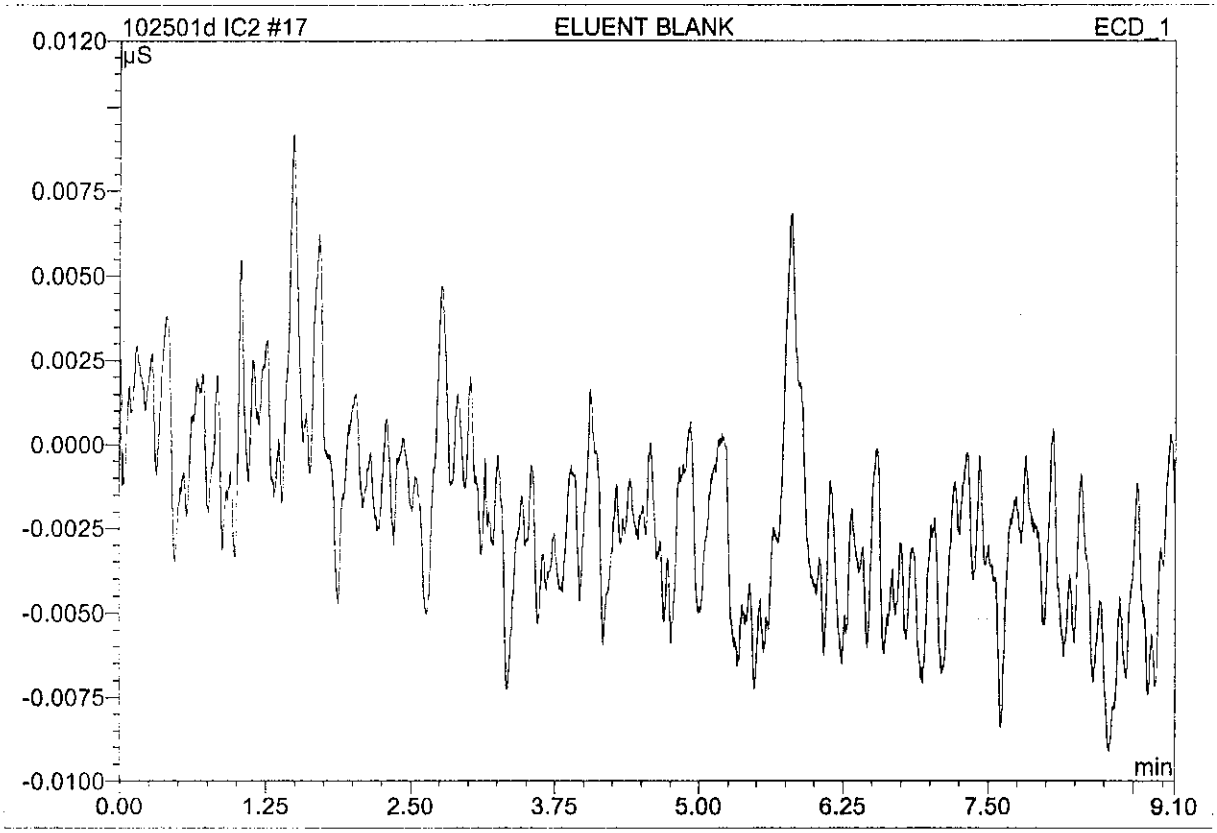


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.429	0.035	0.27	n.a.	BM
2	1.03	F	25.315	1.799	13.66	12.213	M
3	1.48	Cl	17.006	1.230	9.34	12.228	M
4	1.73	NO2-N	19.505	1.587	12.06	7.398	MB
5	2.43	Br	5.262	0.477	3.62	12.051	BM
6	2.69	NO3-N	18.967	2.073	15.74	8.314	MB
7	4.50	PO4-P	5.330	1.331	10.11	20.034	BM
8	5.69	SO4	21.509	4.636	35.21	61.282	MB
Total:			113.323	13.168	100.00	133.519	

17 ELUENT BLANK

1,1 GSG ELUENT BLANK

Sample Name:	**ELUENT BLANK**	*Injection Volume:*	**25.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 13:03**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

18 ALT CCV SV53-30

1,1 ANION ALT CCV SV0053-30

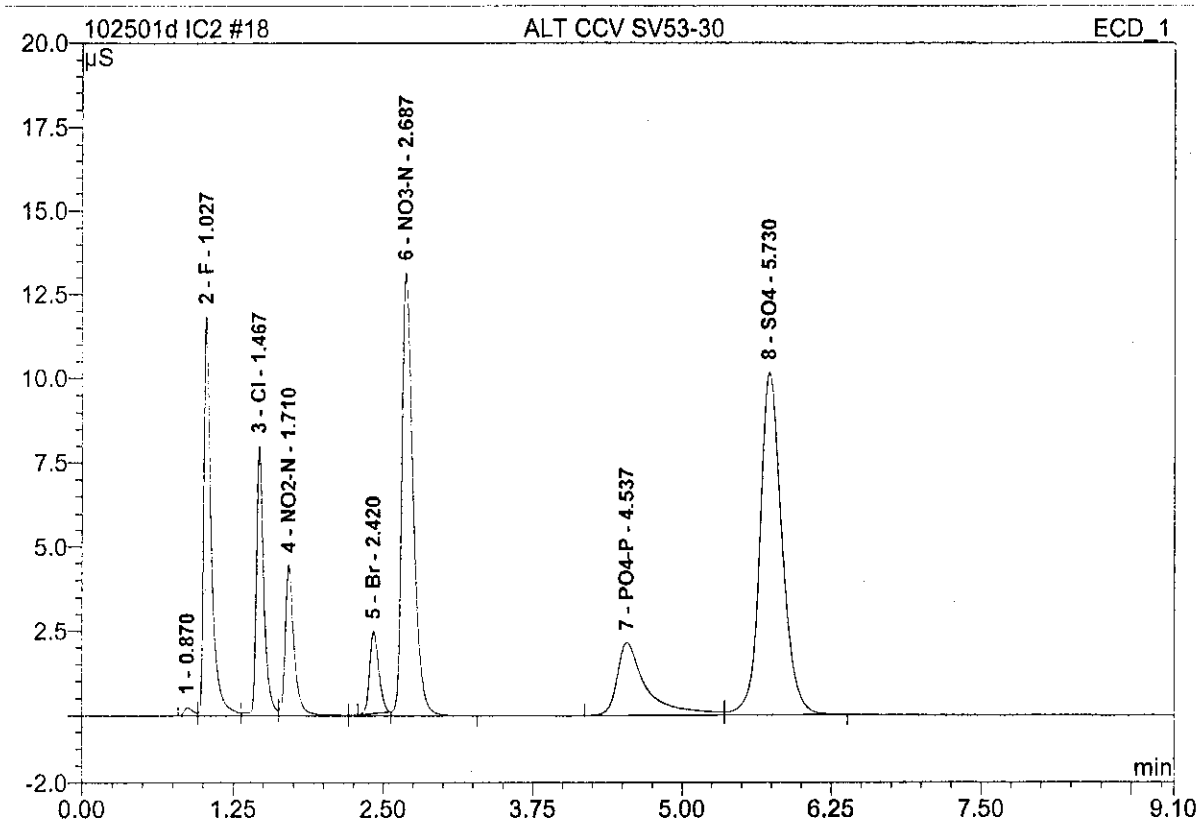
Sample Name:	**ALT CCV SV53-30**
Vial Number:	**8**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**10/25/2001 13:15**
Run Time (min):	**9.10**

ALT CCV SV53-30	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8472	-2.55	PASS
Cl	6	5.7823	-3.63	PASS
NO2-N	3.65	NA	#VALUE!	#VALUE!
Br	6	5.4050	-9.92	FAIL
NO3-N	4.07	NA	#VALUE!	#VALUE!
PO4-P	9.78	9.5570	-2.28	PASS
SO4	30	29.0640	-3.12	PASS

18 ALT CCV SV53-30

1,1 ANION ALT CCV SV0053-30

Sample Name:	**ALT CCV SV53-30**	*Injection Volume:*	**25.0**
Vial Number:	**8**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 13:15**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.244	0.021	0.33	n.a.	BM
2	1.03	F	11.850	0.848	13.54	5.847	M
3	1.47	Cl	8.020	0.573	9.15	5.782	M
4	1.71	NO2-N	4.465	0.384	6.13	1.849	M
5	2.42	Br	2.419	0.213	3.40	5.405	Ru
6	2.69	NO3-N	13.160	1.454	23.21	5.872	MB
7	4.54	PO4-P	2.148	0.605	9.66	9.557	BM
8	5.73	SO4	10.144	2.166	34.58	29.064	MB
Total:			52.451	6.263	100.00	63.376	

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19 ALT CCV SOS55-48

1,1 GSG ANION ALT NO2/NO3 SV0052-48

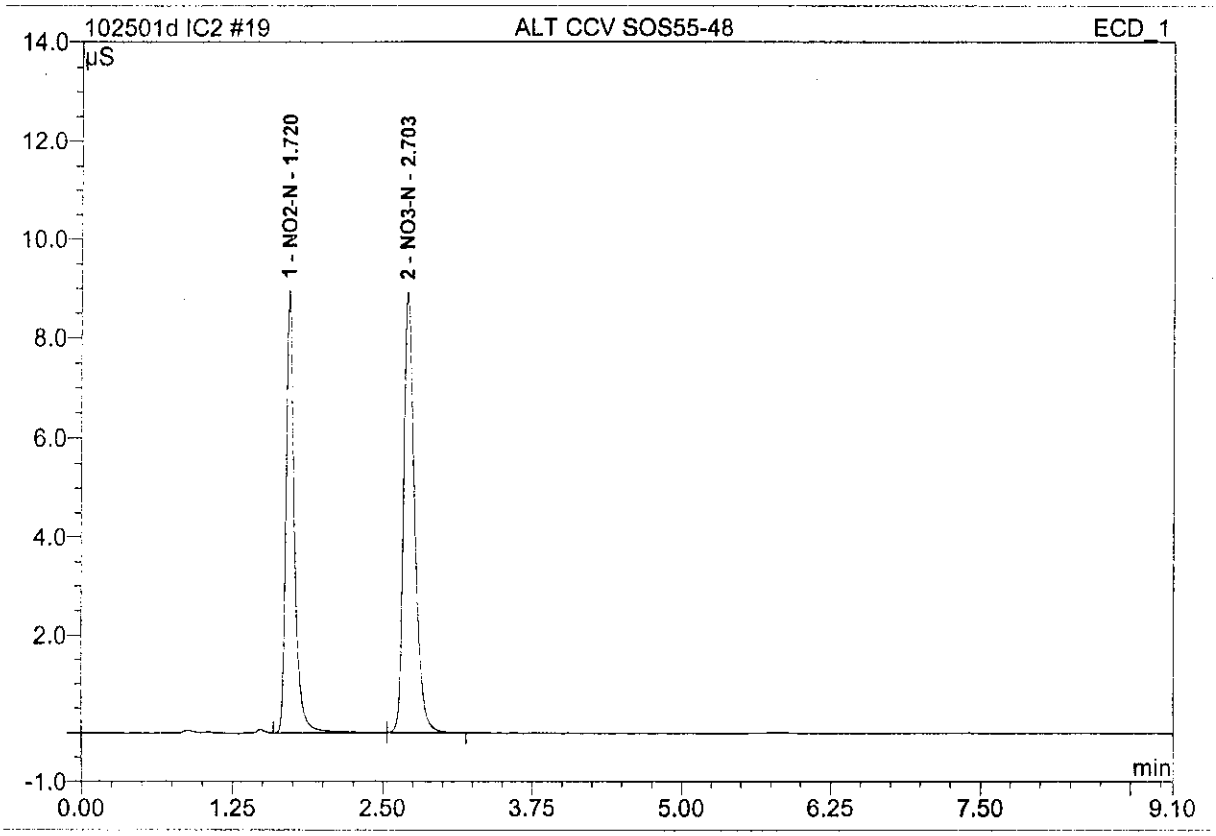
Sample Name:	**ALT CCV SOS55-48**
Vial Number:	**9**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**10/25/2001 13:26**
Run Time (min):	**9.10**

ALT CCV SOS55-4	Actual mg/L	Recoved mg/L	%Difference	
n.a.	6.00	n.a.	#VALUE!	#VALUE!
n.a.	6	n.a.	#VALUE!	#VALUE!
NO2-N	3.65	3.4559	-5.32	FAIL <10% ok
n.a.	6	n.a.	#VALUE!	#VALUE!
NO3-N	4.07	3.9202	-3.68	PASS
n.a.	9.78	n.a.	#VALUE!	#VALUE!
n.a.	30	n.a.	#VALUE!	#VALUE!

19 ALT CCV SOS55-48

1,1 GSG ANION ALT NO2/NO3 SV0052-48

Sample Name:	**ALT CCV SOS55-48**	*Injection Volume:*	**25.0**
Vial Number:	**9**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 13:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.72	NO2-N	8.964	0.732	43.30	3.456	BM
2	2.70	NO3-N	8.929	0.959	56.70	3.920	MB
Total:			17.893	1.691	100.00	7.376	

22 WG106999-01 CCV RR

1,1 ANION CCV SOS0056-10 102501

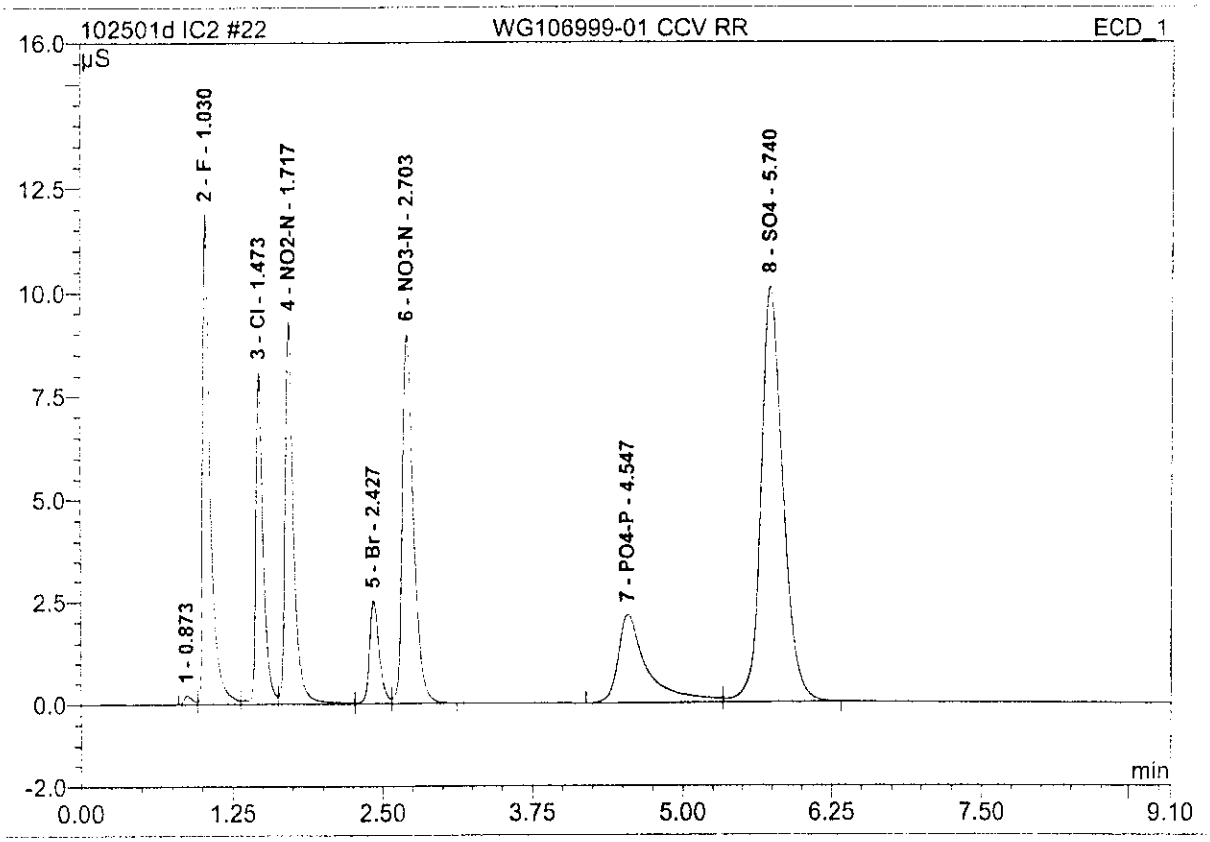
Sample Name:	**WG106999-01 CCV RR**
Vial Number:	**11**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**10/25/2001 14:01**
Run Time (min):	**9.10**

WG106999-01 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8649	-2.25	PASS
Cl	6	5.8609	-2.32	PASS
NO2-N	3.65	3.6375	-0.34	PASS
Br	6	6.0530	0.88	PASS
NO3-N	4.07	3.9468	-3.03	PASS
PO4-P	9.78	9.5025	-2.84	PASS
SO4	30	28.9117	-3.63	PASS

22 WG106999-01 CCV RR

1,1 ANION CCV SOS0056-10 102501

Sample Name:	**WG106999-01 CCV RR**	*Injection Volume:*	**25.0**
Vial Number:	**11**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 14:01**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.216	0.018	0.29	n.a.	BM
2	1.03	F	11.890	0.851	13.76	5.865	M
3	1.47	Cl	8.088	0.581	9.40	5.861	M
4	1.72	NO2-N	9.266	0.772	12.49	3.638	M
5	2.43	Br	2.517	0.238	3.86	6.053	M
6	2.70	NO3-N	8.978	0.966	15.62	3.947	MB
7	4.55	PO4-P	2.150	0.601	9.73	9.503	BM
8	5.74	SO4	10.101	2.154	34.85	28.912	MB
Total:			53.207	6.180	100.00	63.777	

40 WG107113-01 CCV

1,1 GSG ANION CCV SOS0056-10 102401

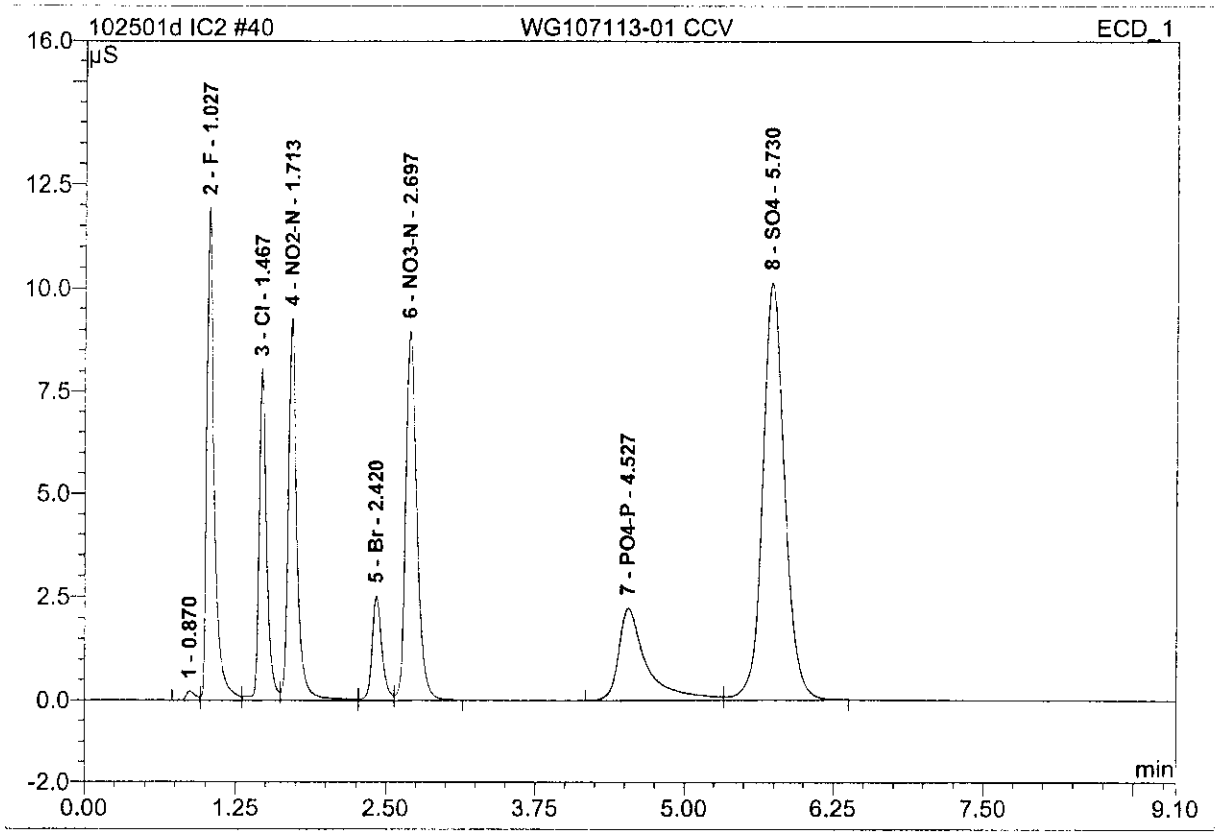
Sample Name:	**WG107113-01 CCV**
Vial Number:	**34**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**10/25/2001 17:49**
Run Time (min):	**9.10**

WG107113-01 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8985	-1.69	PASS
Cl	6	5.8696	-2.17	PASS
NO2-N	3.65	3.6488	-0.03	PASS
Br	6	6.0653	1.09	PASS
NO3-N	4.07	3.9569	-2.78	PASS
PO4-P	9.78	9.6933	-0.89	PASS
SO4	30	29.0189	-3.27	PASS

40 WG107113-01 CCV

1,1 GSG ANION CCV SOS0056-10 102401

Sample Name:	**WG107113-01 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**34**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 17:49**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.223	0.019	0.31	n.a.	BM
2	1.03	F	11.937	0.856	13.77	5.898	M
3	1.47	Cl	8.048	0.582	9.36	5.870	M
4	1.71	NO2-N	9.265	0.774	12.46	3.649	M
5	2.42	Br	2.514	0.239	3.84	6.065	M
6	2.70	NO3-N	8.957	0.968	15.58	3.957	MB
7	4.53	PO4-P	2.224	0.615	9.89	9.693	BM
8	5.73	SO4	10.128	2.162	34.79	29.019	MB
Total:			53.296	6.214	100.00	64.151	

51 WG107113-02 CCV

1,1 GSG ANION CCV SOS0056-10 102501

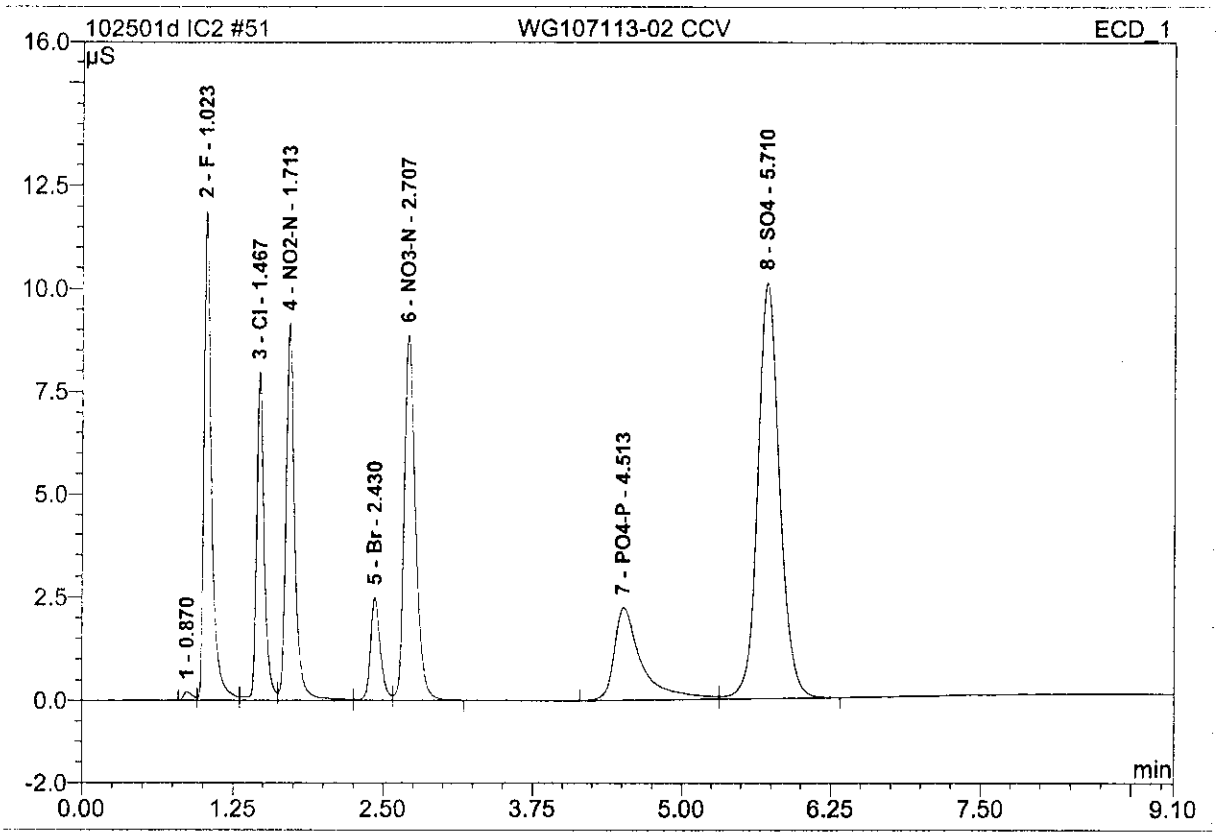
Sample Name:	**WG107113-02 CCV**
Vial Number:	**43**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**10/25/2001 21:44**
Run Time (min):	**9.10**

WG107113-02 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9081	-1.53	PASS
Cl	6	5.8446	-2.59	PASS
NO2-N	3.65	3.6197	-0.83	PASS
Br	6	6.0462	0.77	PASS
NO3-N	4.07	3.9450	-3.07	PASS
PO4-P	9.78	9.5139	-2.72	PASS
SO4	30	28.6681	-4.44	PASS

51 WG107113-02 CCV

1,1 GSG ANION CCV SOS0056-10 102501

Sample Name:	**WG107113-02 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**43**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 21:44**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.216	0.018	0.29	n.a.	BM
2	1.02	F	11.893	0.857	13.91	5.908	M
3	1.47	Cl	7.963	0.579	9.40	5.845	M
4	1.71	NO2-N	9.166	0.768	12.46	3.620	M
5	2.43	Br	2.488	0.238	3.86	6.046	M
6	2.71	NO3-N	8.864	0.965	15.66	3.945	MB
7	4.51	PO4-P	2.247	0.602	9.77	9.514	BM
8	5.71	SO4	10.091	2.135	34.65	28.668	MB
Total:			52.928	6.163	100.00	63.546	

61 WG107113-03 CCV

1,1 GSG ANION CCV SOS0056-10 102501

Sample Name:	**WG107113-03 CCV**
Vial Number:	**53**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**10/25/2001 23:39**
Run Time (min):	**9.10**

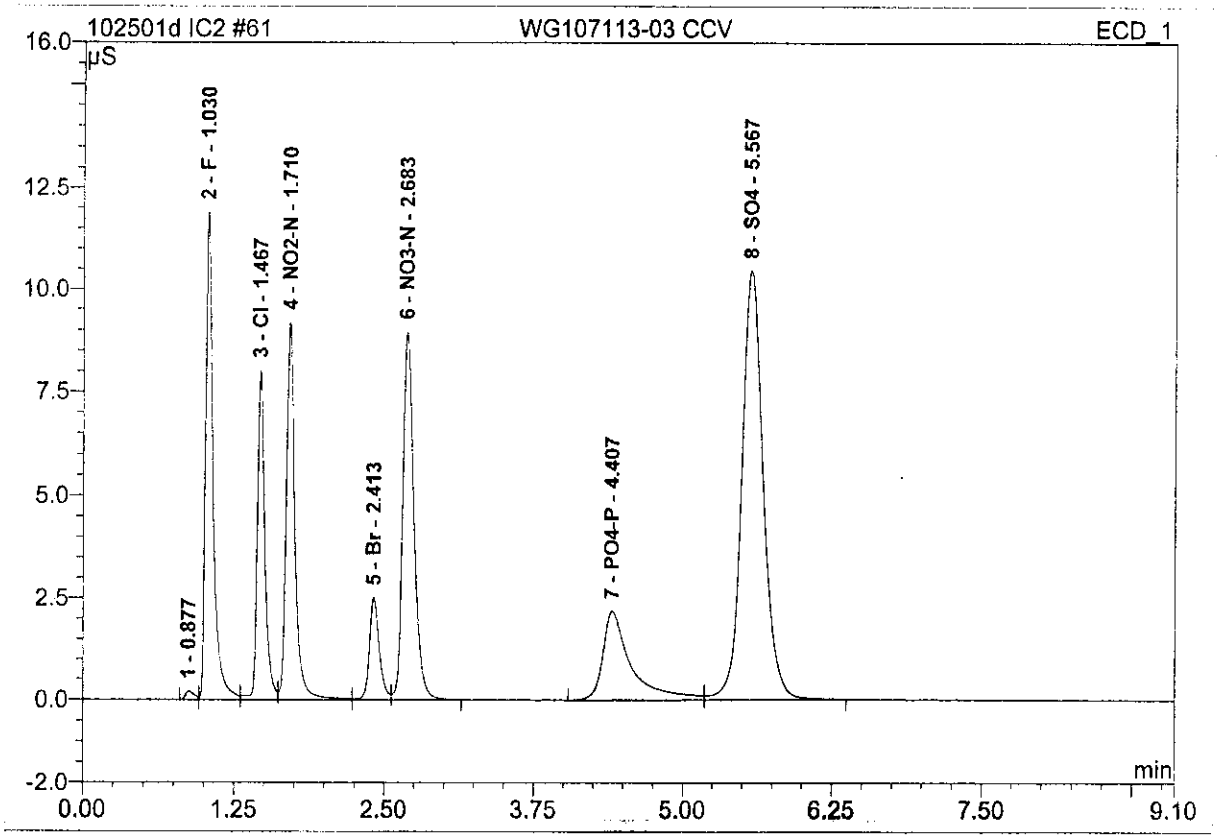
WG107113-03 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9054	-1.58	PASS
Cl	6	5.8748	-2.09	PASS
NO2-N	3.65	3.6339	-0.44	PASS
Br	6	6.0783	1.31	PASS
NO3-N	4.07	3.9704	-2.45	PASS
PO4-P	9.78	9.5758	-2.09	PASS
SO4	30	29.3459	-2.18	PASS

462

61 WG107113-03 CCV

1,1 GSG ANION CCV SOS0056-10 102501

Sample Name:	**WG107113-03 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**53**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 23:39**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



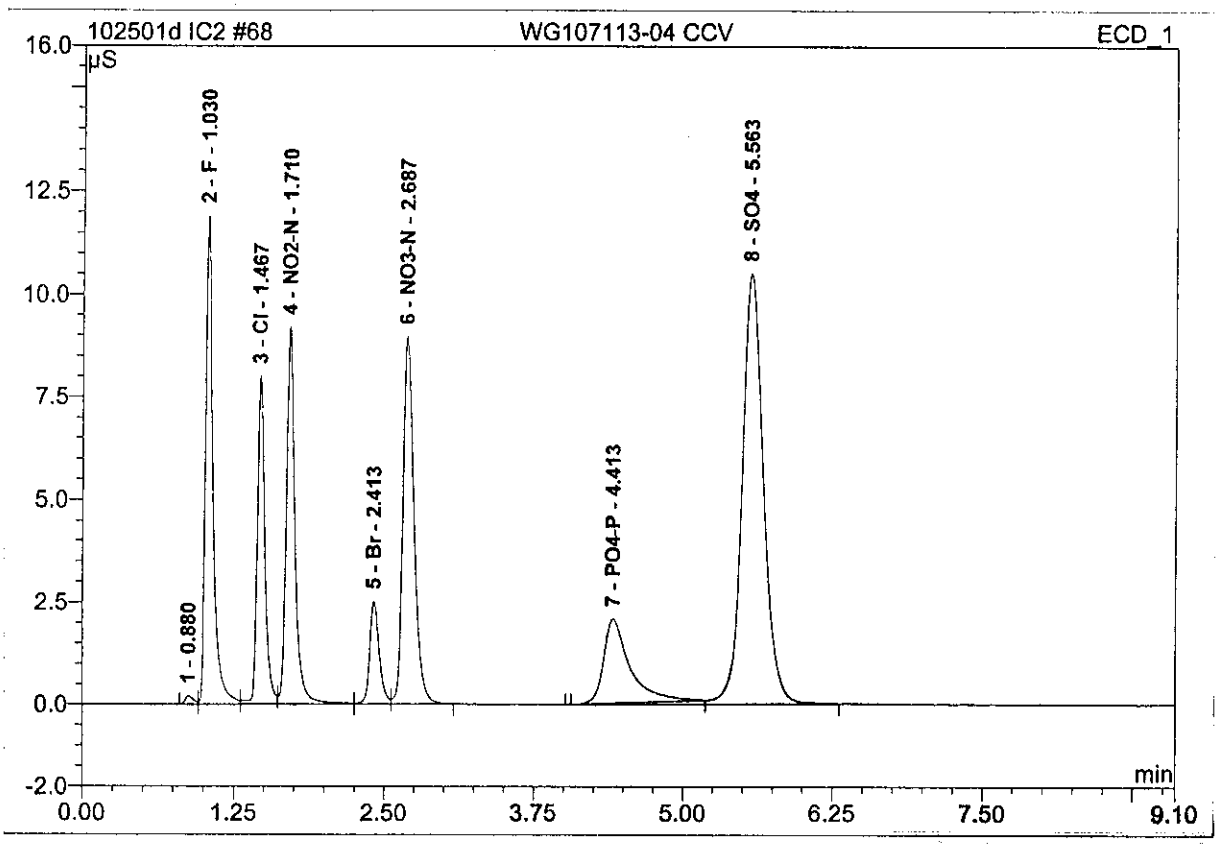
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.200	0.016	0.26	n.a.	BM
2	1.03	F	11.896	0.857	13.75	5.905	M
3	1.47	Cl	8.008	0.582	9.35	5.875	M
4	1.71	NO2-N	9.176	0.771	12.37	3.634	M
5	2.41	Br	2.507	0.239	3.84	6.078	M
6	2.68	NO3-N	8.948	0.972	15.59	3.970	MB
7	4.41	PO4-P	2.185	0.607	9.73	9.576	BM
8	5.57	SO4	10.457	2.187	35.10	29.346	MB
Total:			53.377	6.231	100.00	64.385	

463

68 WG107113-04 CCV

1,1 GSG ANION CCV SOS0056-10 102501

Sample Name:	**WG107113-04 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**60**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/26/2001 1:00**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

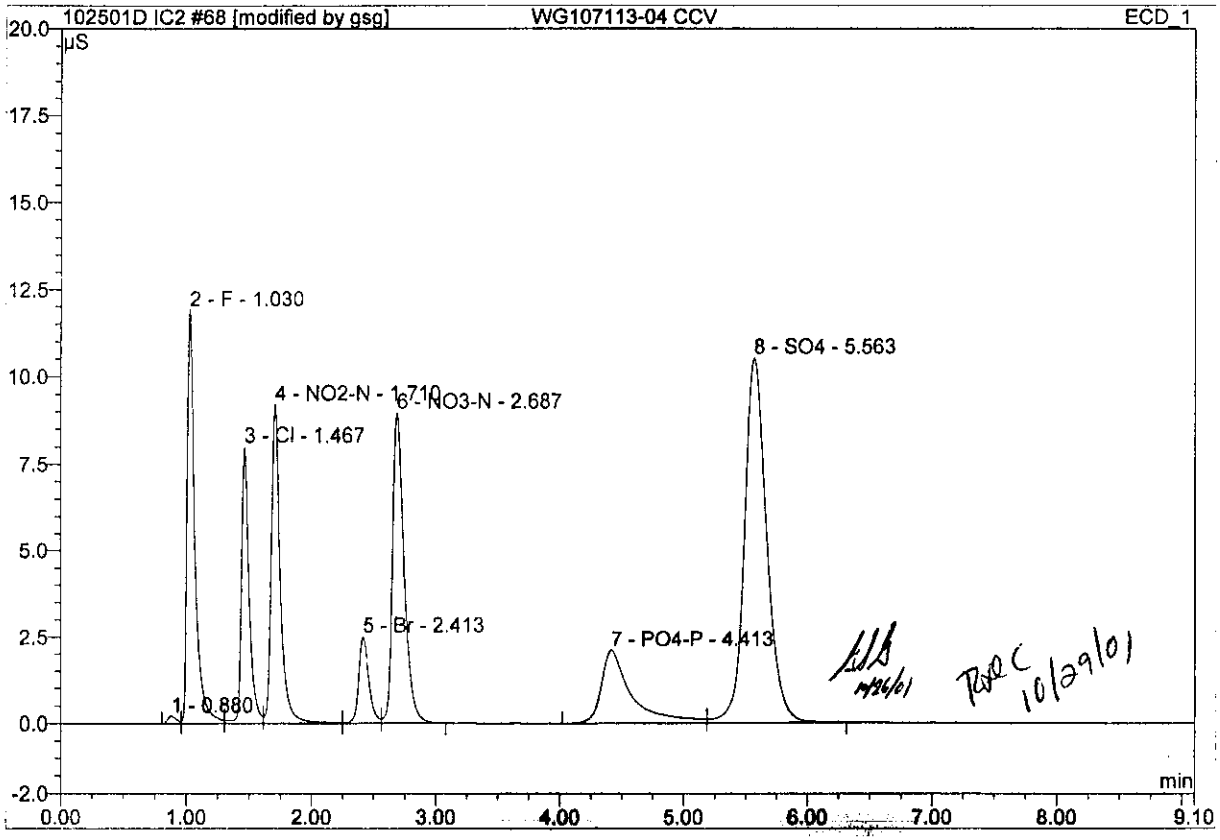


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.200	0.016	0.26	n.a.	BM
2	1.03	F	11.893	0.855	13.78	5.892	M
3	1.47	Cl	7.995	0.580	9.35	5.851	M
4	1.71	NO2-N	9.194	0.767	12.36	3.616	M
5	2.41	Br	2.512	0.236	3.81	6.004	M
6	2.69	NO3-N	8.954	0.964	15.54	3.941	MB
7	4.41	PO4-P	2.071	0.538	8.67	8.585	Ru
8	5.56	SO4	10.502	2.248	36.23	30.141	BMB
Total:			53.322	6.205	100.00	64.031	

68 WG107113-04 CCV

1,1 GSG ANION CCV SOS0056-10 102501

Sample Name:	**WG107113-04 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**60**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/26/2001 1:00**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.200	0.016	0.26	n.a.	BM
2	1.03	F	11.893	0.855	13.78	5.892	M
3	1.47	Cl	7.995	0.580	9.35	5.851	M
4	1.71	NO2-N	9.194	0.767	12.36	3.616	M
5	2.41	Br	2.512	0.236	3.81	6.004	M
6	2.69	NO3-N	8.954	0.964	15.54	3.941	MB
7	4.41	PO4-P	2.106	0.598	9.63	9.446	BM *
8	5.56	SO4	10.502	2.188	35.27	29.363	MB*
Total:			53.356	6.205	100.00	64.114	

68 WG107113-04 CCV

1,1 GSG ANION CCV SOS0056-10 102501

Sample Name:	**WG107113-04 CCV**
Vial Number:	**60**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**10/26/2001 1:00**
Run Time (min):	**9.10**

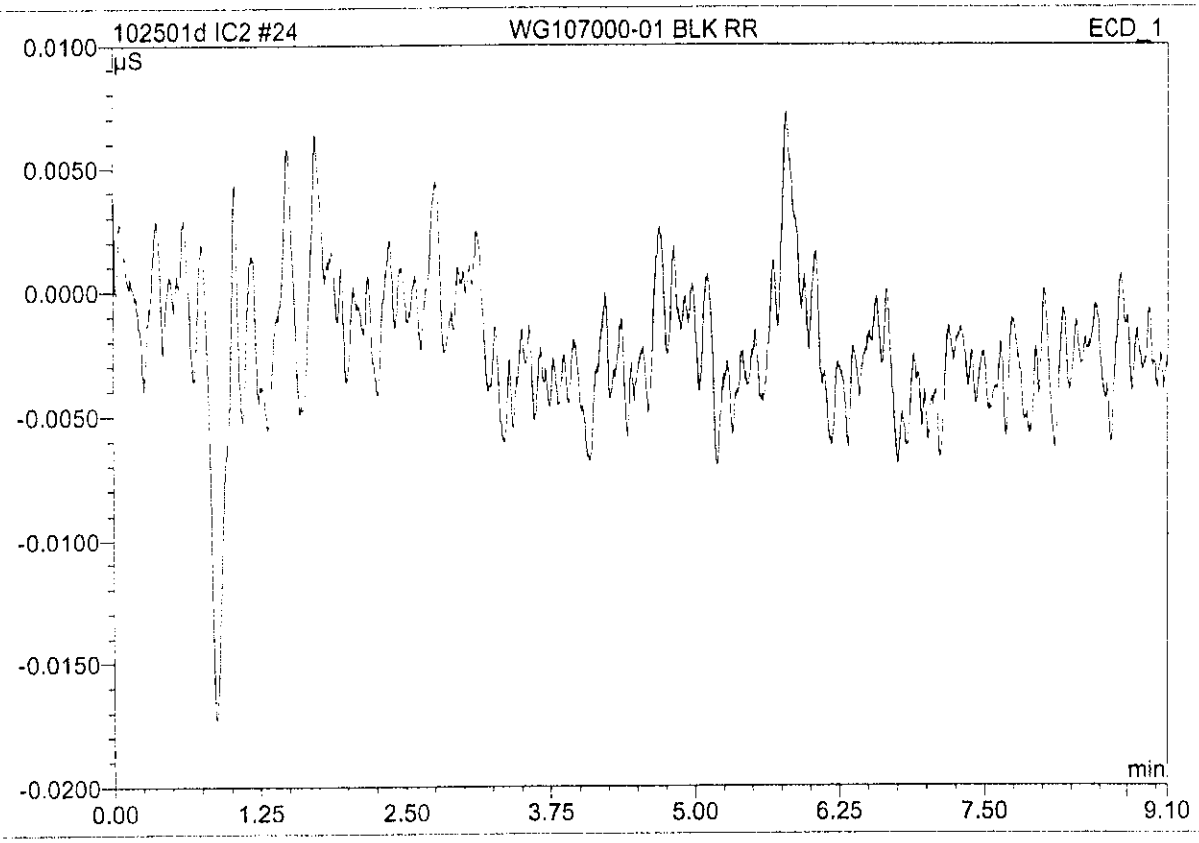
WG107113-04 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8925	-1.79	PASS
Cl	6	5.8505	-2.49	PASS
NO2-N	3.65	3.6160	-0.93	PASS
Br	6	6.0043	0.07	PASS
NO3-N	4.07	3.9413	-3.16	PASS
PO4-P	9.78	9.4463	-3.41	PASS
SO4	30	29.3632	-2.12	PASS

2.4.5.4 Raw QC Data

24 WG107000-01 BLK RR

1,1 GSG ANION BLANK RR

Sample Name:	**WG107000-01 BLK RR**	*Injection Volume:*	**25.0**
Vial Number:	**12**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 14:24**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

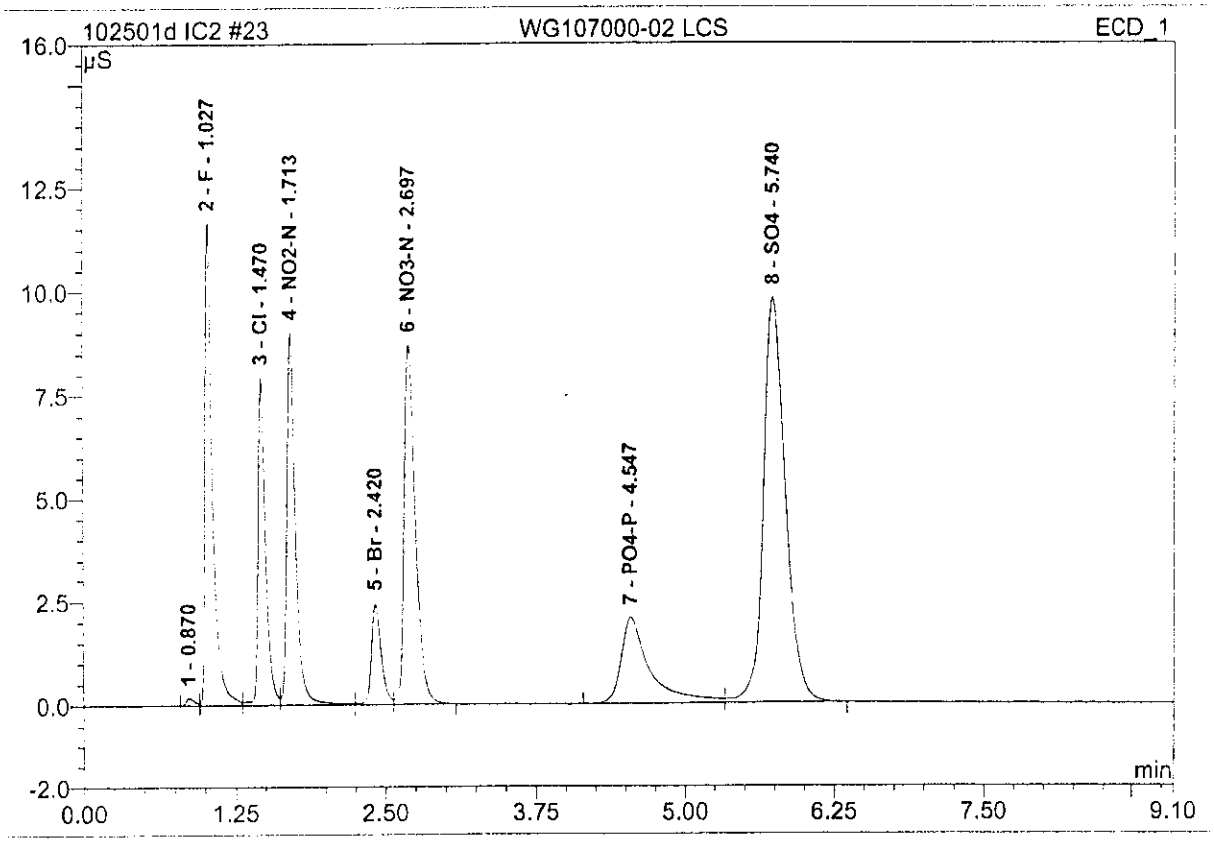


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

23 WG107000-02 LCS

1,1 GSG ANION LCS SO0056-10 102501

Sample Name:	**WG107000-02 LCS**	*Injection Volume:*	**25.0**
Vial Number:	**12**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 14:12**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.185	0.015	0.25	n.a.	BM
2	1.03	F	11.649	0.833	13.88	5.744	M
3	1.47	Cl	7.946	0.570	9.51	5.758	M
4	1.71	NO2-N	9.011	0.744	12.41	3.512	M
5	2.42	Br	2.439	0.230	3.83	5.833	M
6	2.70	NO3-N	8.705	0.933	15.55	3.818	MB
7	4.55	PO4-P	2.075	0.584	9.74	9.252	BM
8	5.74	SO4	9.795	2.091	34.84	28.086	MB
Total:			51.805	6.000	100.00	62.003	

IC/Integration

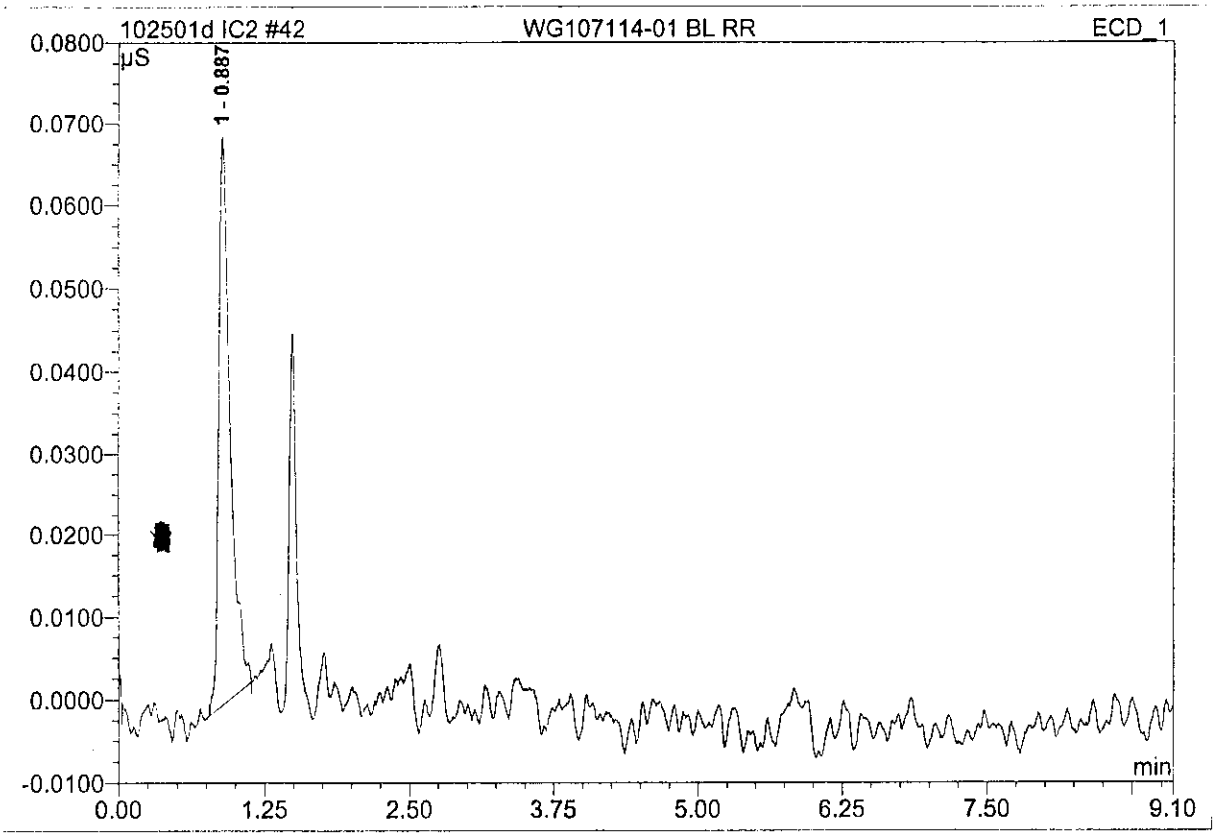
Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

469

42 WG107114-01 BL RR

1,1 GSG ANION BLANK

Sample Name:	**WG107114-01 BL RR**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 18:29**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

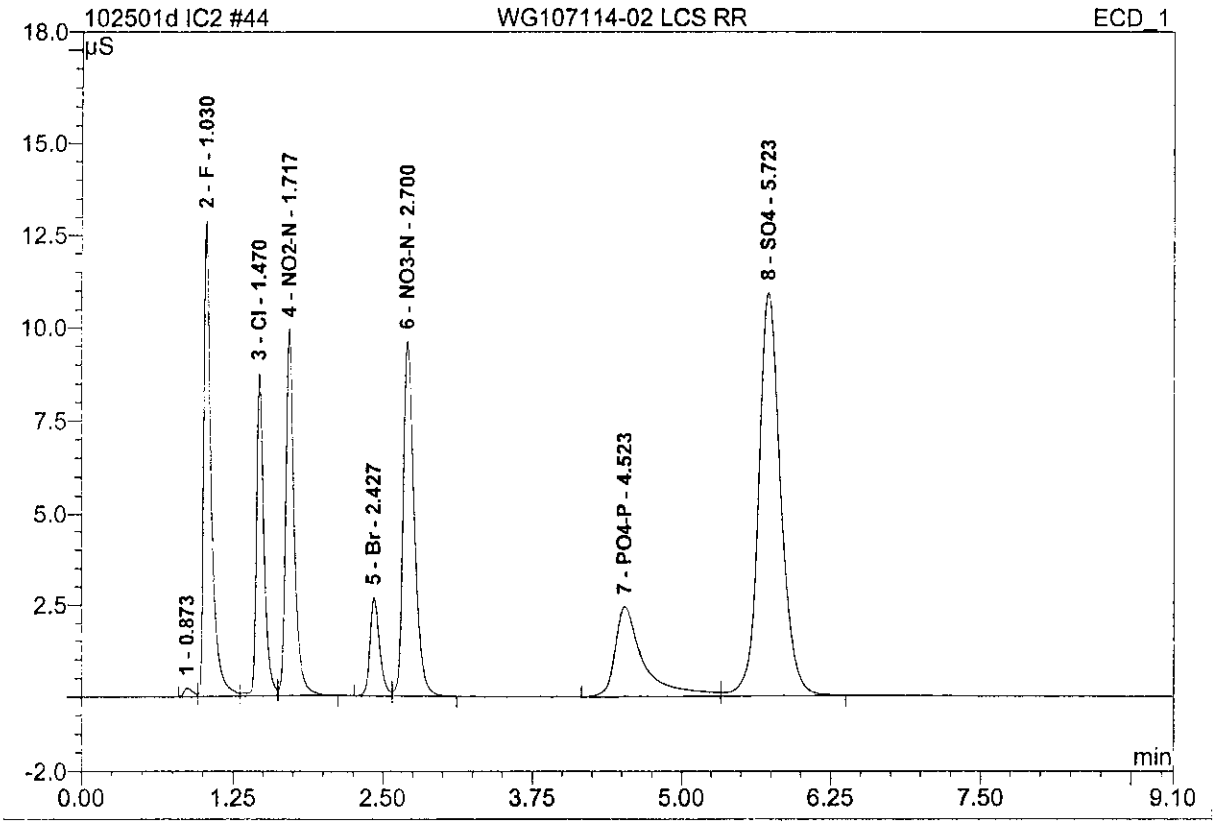


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.069	0.008	100.00	n.a.	BMB
Total:			0.069	0.008	100.00	0.000	

44 WG107114-02 LCS RR

1,1 GSG ANION LCS SOS0056-10 102501

Sample Name:	**WG107114-02 LCS RR**	*Injection Volume:*	**25.0**
Vial Number:	**37**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/25/2001 19:37**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

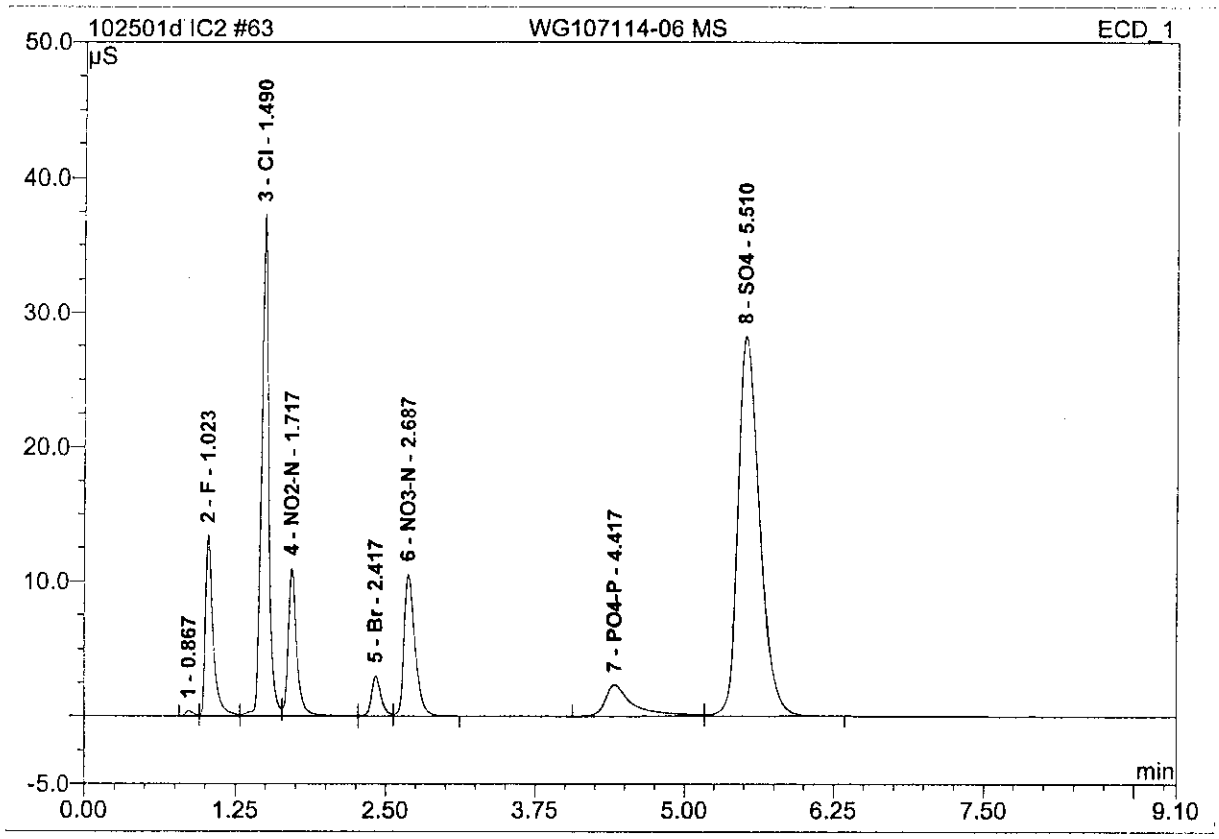


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.231	0.019	0.28	n.a.	BM
2	1.03	F	12.899	0.925	13.86	6.366	M
3	1.47	Cl	8.754	0.629	9.43	6.337	M
4	1.72	NO2-N	9.936	0.811	12.15	3.818	MB
5	2.43	Br	2.677	0.249	3.73	6.327	BM
6	2.70	NO3-N	9.605	1.040	15.58	4.241	MB
7	4.52	PO4-P	2.448	0.669	10.02	10.481	BM
8	5.72	SO4	10.921	2.333	34.94	31.246	MB
Total:			57.470	6.676	100.00	68.816	

63 WG107114-06 MS

1,1 GSG L0110522-06 MS SOS0056-10

Sample Name:	**WG107114-06 MS**	*Injection Volume:*	**25.0**
Vial Number:	**55**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/26/2001 0:02**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

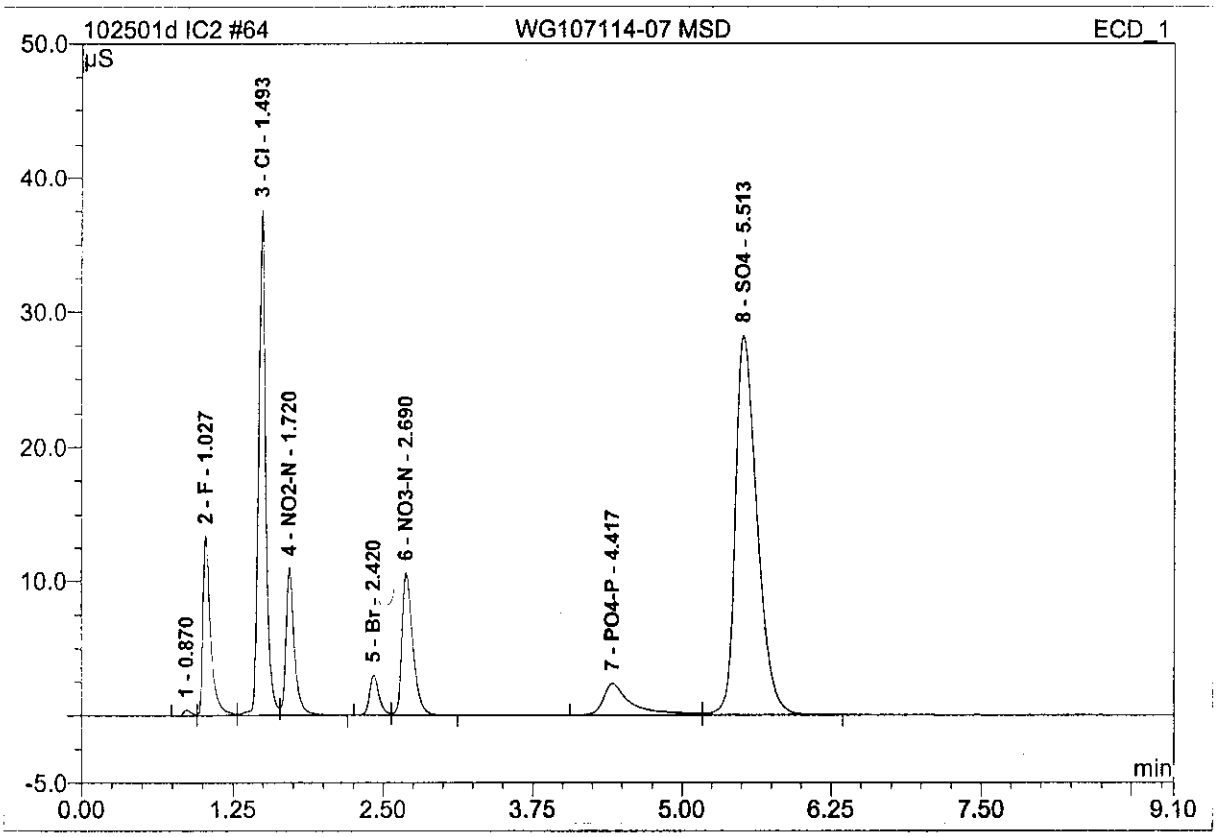


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.416	0.031	0.25	n.a.	BM
2	1.02	F	13.421	0.998	7.96	6.849	M
3	1.49	Cl	37.346	2.580	20.58	25.491	M
4	1.72	NO2-N	10.980	0.908	7.24	4.267	M
5	2.42	Br	3.020	0.281	2.24	7.137	M
6	2.69	NO3-N	10.566	1.127	8.99	4.582	MB
7	4.42	PO4-P	2.357	0.656	5.23	10.285	BM
8	5.51	SO4	28.213	5.956	47.51	78.484	MB
Total:			106.319	12.537	100.00	137.096	

64 WG107114-07 MSD

1,1 GSG L0110522-06 MSD SOS0056-10

Sample Name:	**WG107114-07 MSD**	*Injection Volume:*	**25.0**
Vial Number:	**56**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/26/2001 0:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.420	0.031	0.25	n.a.	BM
2	1.03	F	13.415	0.995	7.95	6.831	M
3	1.49	Cl	37.572	2.590	20.69	25.586	M
4	1.72	NO2-N	10.963	0.892	7.12	4.191	MB
5	2.42	Br	2.986	0.274	2.19	6.951	BM
6	2.69	NO3-N	10.581	1.124	8.97	4.569	MB
7	4.42	PO4-P	2.376	0.659	5.27	10.339	BM
8	5.51	SO4	28.211	5.955	47.57	78.480	MB
Total:			106.523	12.521	100.00	136.948	

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320 Created: 10/25/2001 9:21:34 PM by gsg
#Samples: 69 Last Update: 11/1/2001 3:00:54 PM by gsg

No.	Name	Comment
1	DI H2O BLANK	
2	ELUENT BLANK	
3	WG106999-01 CCV	1,1 GSG ANION CCV SOS0056-10 102301
4	WG107000-01 BLK	1,1 GSG ANION BLANK
5	WG106999-01 CCV RR	1,1 GSG ANION CCV SOS0056-10 102301
6	DI H20 BLANK	1,1 GSG ANION BLANK
7	WG106999-01 CCV RR	1,1 GSG ANION CCV SOS0056-10 102301
8	WG106999-01 CCV RR	1,1 GSG ANION CCV SOS0056-10 102301
9	DI H20 BLANK	1,1 GSG ANION BLANK
10	WG106999-01 CCV RR	1,1 GSG ANION CCV SOS0056-10
11	ANION LVL #1	1,1 GSG ANION LVL #1 SOS0056-10
12	ANION LVL #2	1,1 GSG ANION LVL #2
13	ANION LVL #3	1,1 GSG ANION LVL #3
14	ANION LVL #4	1,1 GSG ANION LVL #4
15	ANION LVL #5	1,1 GSG ANION LVL #5
16	ANION LVL #6	1,1 GSG ANION LVL #6
17	ELUENT BLANK	1,1 GSG ELUENT BLANK
18	ALT CCV SV53-30	1,1 ANION ALT CCV SV0053-30
19	ALT CCV SOS55-48	1,1 GSG ANION ALT NO2/NO3 SV0052-48
20	WG106999-01 CCV	1,1 ANION CCV SOS0056-10 102501
21	WG107000-01 BLK	1,1 GSG ANION BLANK
22	WG106999-01 CCV RR	1,1 ANION CCV SOS0056-10 102501
23	WG107000-02 LCS	1,1 GSG ANION LCS SO0056-10 102501
24	WG107000-01 BLK RR	1,1 GSG ANION BLANK RR
25	L0110485-08 RR	1,1 GSG
26	L0110485-08 @ 2X	1,2 GSG
27	L0110485-02 @ 500X	1,500 GSG
28	l0110485-01@ 500X	1,500 GSG
29	WG107000-03 REF DUP	1,1 GSG L0110485-03 RR REF DUP
30	WG107000-04 DUP	1,1 GSG L0110485-03 RR DUP
31	WG107000-05 REF RR	1,1 GSG L0110485-04 REF MS/MSD
32	WG106999-02 CCV	1,1 GSG ANION CCV SOS0056-10 102501
33	WG107000-06 MS RR	1,1 GSG L0110485-05 MS RR
34	WG107000-07 MSD RR	1,1 GSG L0110485-06 MSD RR
35	L0110485-07 RR	1,1 GSG
36	L0110485-09 RR	1,1 GSG
37	L0110485-09 @ 2X	1,2 GSG
38	L0110485-01 @ 100X	1,100 GSG
39	WG106999-03 CCV	1,1 GSG ANION CCV SOS0056-10 102401
✓40	WG107113-01 CCV	1,1 GSG ANION CCV SOS0056-10 102401
41	WG107114-01 BLK	1,1 GSG ANION BLANK
✓42	WG107114-01 BL RR	1,1 GSG ANION BLANK

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 69
Created: 10/25/2001 9:21:34 PM by gsg
Last Update: 11/1/2001 3:00:54 PM by gsg

No.	Name	Inj. Date/Time	Dil. Factor	Sample ID
1	DI H2O BLANK	10/25/2001 7:23:31 AM	1.0000	
2	ELUENT BLANK	10/25/2001 8:59:00 AM	1.0000	
3	WG106999-01 CCV	10/25/2001 9:10:29 AM	1.0000	CC
4	WG107000-01 BLK	10/25/2001 9:21:59 AM	1.0000	
5	WG106999-01 CCV RR	10/25/2001 9:33:29 AM	1.0000	
6	DI H20 BLANK	10/25/2001 9:54:26 AM	1.0000	
7	WG106999-01 CCV RR	10/25/2001 10:05:55 AM	1.0000	
8	WG106999-01 CCV RR	10/25/2001 10:17:25 AM	1.0000	
9	DI H20 BLANK	10/25/2001 10:33:41 AM	1.0000	
10	WG106999-01 CCV RR	10/25/2001 10:45:11 AM	1.0000	
11	ANION LVL #1	10/25/2001 11:54:58 AM	1.0000	
12	ANION LVL #2	10/25/2001 12:06:29 PM	1.0000	
13	ANION LVL #3	10/25/2001 12:17:59 PM	1.0000	
14	ANION LVL #4	10/25/2001 12:29:29 PM	1.0000	
15	ANION LVL #5	10/25/2001 12:40:59 PM	1.0000	
16	ANION LVL #6	10/25/2001 12:52:29 PM	1.0000	
17	ELUENT BLANK	10/25/2001 1:03:59 PM	1.0000	
18	ALT CCV SV53-30	10/25/2001 1:15:29 PM	1.0000	
19	ALT CCV SOS55-48	10/25/2001 1:26:59 PM	1.0000	
20	WG106999-01 CCV	10/25/2001 1:38:29 PM	1.0000	
21	WG107000-01 BLK	10/25/2001 1:49:59 PM	1.0000	
22	WG106999-01 CCV RR	10/25/2001 2:01:29 PM	1.0000	
23	WG107000-02 LCS	10/25/2001 2:12:59 PM	1.0000	
24	WG107000-01 BLK RR	10/25/2001 2:24:29 PM	1.0000	
25	L0110485-08 RR	10/25/2001 2:35:59 PM	1.0000	
26	L0110485-08 @ 2X	10/25/2001 2:47:29 PM	1.0000	
27	L0110485-02 @ 500X	10/25/2001 2:58:59 PM	1.0000	
28	I0110485-01@ 500X	10/25/2001 3:10:28 PM	1.0000	
29	WG107000-03 REF DUP	10/25/2001 3:21:59 PM	1.0000	
30	WG107000-04 DUP	10/25/2001 3:33:32 PM	1.0000	
31	WG107000-05 REF RR	10/25/2001 3:45:01 PM	1.0000	
32	WG106999-02 CCV	10/25/2001 3:56:32 PM	1.0000	
33	WG107000-06 MS RR	10/25/2001 4:08:03 PM	1.0000	
34	WG107000-07 MSD RR	10/25/2001 4:19:33 PM	1.0000	
35	L0110485-07 RR	10/25/2001 4:31:03 PM	1.0000	
36	L0110485-09 RR	10/25/2001 5:03:17 PM	1.0000	
37	L0110485-09 @ 2X	10/25/2001 5:14:47 PM	1.0000	
38	L0110485-01 @ 100X	10/25/2001 5:26:16 PM	1.0000	
39	WG106999-03 CCV	10/25/2001 5:37:46 PM	1.0000	
40	WG107113-01 CCV	10/25/2001 5:49:16 PM	1.0000	
41	WG107114-01 BLK	10/25/2001 6:00:47 PM	1.0000	
42	WG107114-01 BL RR	10/25/2001 6:29:07 PM	1.0000	

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Operator: gsg Printed: 11/1/2001 3:13:08 PM

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320 Created: 10/25/2001 9:21:34 PM by gsg
#Samples: 69 Last Update: 11/1/2001 3:00:54 PM by gsg

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status
1	DI H2O BLANK	Unknown	12	25.0	9056	9056	Finished
2	ELUENT BLANK	Unknown	13	25.0	9056	9056	Finished
3	WG106999-01 CCV	Unknown	13	25.0	9056	9056	Finished
4	WG107000-01 BLK	Unknown	14	25.0	9056	9056	Finished
5	WG106999-01 CCV RR	Unknown	16	25.0	9056	9056	Finished
6	DI H20 BLANK	Unknown	17	25.0	9056	9056	Finished
7	WG106999-01 CCV RR	Unknown	17	25.0	9056	9056	Finished
8	WG106999-01 CCV RR	Unknown	17	25.0	9056	9056	Finished
9	DI H20 BLANK	Unknown	17	25.0	9056	9056	Finished
10	WG106999-01 CCV RR	Unknown	18	25.0	9056	9056	Finished
11	ANION LVL #1	Standard	1	25.0	9056	9056	Finished
12	ANION LVL #2	Standard	2	25.0	9056	9056	Finished
13	ANION LVL #3	Standard	3	25.0	9056	9056	Finished
14	ANION LVL #4	Standard	4	25.0	9056	9056	Finished
15	ANION LVL #5	Standard	5	25.0	9056	9056	Finished
16	ANION LVL #6	Standard	6	25.0	9056	9056	Finished
17	ELUENT BLANK	Unknown	7	25.0	9056	9056	Finished
18	ALT CCV SV53-30	Unknown	8	25.0	9056	9056	Finished
19	ALT CCV SOS55-48	Unknown	9	25.0	9056	9056	Finished
20	WG106999-01 CCV	Unknown	10	25.0	9056	9056	Finished
21	WG107000-01 BLK	Unknown	11	25.0	9056	9056	Finished
22	WG106999-01 CCV RR	Unknown	11	25.0	9056	9056	Finished
23	WG107000-02 LCS	Unknown	12	25.0	9056	9056	Finished
24	WG107000-01 BLK RR	Unknown	12	25.0	9056	9056	Finished
25	L0110485-08 RR	Unknown	13	25.0	9056	9056	Finished
26	L0110485-08 @ 2X	Unknown	18	25.0	9056	9056	Finished
27	L0110485-02 @ 500X	Unknown	19	25.0	9056	9056	Finished
28	l0110485-01@ 500X	Unknown	19	25.0	9056	9056	Finished
29	WG107000-03 REF DUP	Unknown	20	25.0	9056	9056	Finished
30	WG107000-04 DUP	Unknown	20	25.0	9056	9056	Finished
31	WG107000-05 REF RR	Unknown	21	25.0	9056	9056	Finished
32	WG106999-02 CCV	Unknown	21	25.0	9056	9056	Finished
33	WG107000-06 MS RR	Unknown	22	25.0	9056	9056	Finished
34	WG107000-07 MSD RR	Unknown	22	25.0	9056	9056	Finished
35	L0110485-07 RR	Unknown	24	25.0	9056	9056	Finished
36	L0110485-09 RR	Unknown	26	25.0	9056	9056	Finished
37	L0110485-09 @ 2X	Unknown	31	25.0	9056	9056	Finished
38	L0110485-01 @ 100X	Unknown	33	25.0	9056	9056	Finished
39	WG106999-03 CCV	Unknown	34	25.0	9056	9056	Finished
40	WG107113-01 CCV	Unknown	34	25.0	9056	9056	Finished
41	WG107114-01 BLK	Unknown	35	25.0	9056	9056	Finished
42	WG107114-01 BL RR	Unknown	36	25.0	9056	9056	Finished

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Operator: gsg Printed: 11/1/2001 3:13:08 PM

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320 Created: 10/25/2001 9:21:34 PM by gsg
#Samples: 69 Last Update: 11/1/2001 3:00:54 PM by gsg

No.	Name	Comment
43	WG107114-02 LCS	1,1 GSG ANION LCS SOS0056-10 102501
✓44	WG107114-02 LCS RR	1,1 GSG ANION LCS SOS0056-10 102501
45	L0110522-01 @ 50X	1,50 GSG
46	L0110522-02 @ 50X	1,50 GSG
47	L0110522-03 @ 50X	1,50 GSG
48	L0110522-04 @ 50X	1,50 GSG
49	WG107114-03 REF DUP	1,50 GSG L0110522-05 REF DUP @ 50X
50	WG107114-05 REF MS/MSD	1,50 GSG L0110522-06 REF MS/MSD @ 50X
✓51	WG107113-02 CCV	1,1 GSG ANION CCV SOS0056-10 102501
52	L0110522-07 @ 50X	1,50 GSG
53	L0110522-08 @ 50X	1,50 GSG
54	L0110522-09 @ 50X	1,50 GSG
✓55	L0110522-01	1,1 GSG
✓56	L0110522-02	1,1 GSG
✓57	L0110522-03	1,1 GSG
✓58	L0110522-04	1,1 GSG
✓59	WG107114-03 REF DUP	1,1 GSG L0110522-05 REF DUP
✓60	WG107114-04 DUP	1,1 GSG L0110522-05 DUP
✓61	WG107113-03 CCV	1,1 GSG ANION CCV SOS0056-10 102501
✓62	WG107114-05 REF MS	1,1 GSG L0110522-06 REF MS/MSD
✓63	WG107114-06 MS	1,1 GSG L0110522-06 MS SOS0056-10
✓64	WG107114-07 MSD	1,1 GSG L0110522-06 MSD SOS0056-10
✓65	L0110522-07	1,1 GSG
✓66	L0110522-08	1,1 GSG
✓67	L0110522-09	1,1 GSG
✓68	WG107113-04 CCV	1,1 GSG ANION CCV SOS0056-10 102501
69	END	1,1 GSG ANION CCV SOS0056-10 102501

11/01/01

RRC 11/01/01

PeakNet © Dionex Corporation, Version 6.30 SP1 Build 587

Operator: gsg Printed: 11/1/2001 3:13:08 PM

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320 Created: 10/25/2001 9:21:34 PM by gsg
#Samples: 69 Last Update: 11/1/2001 3:00:54 PM by gsg

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status
43	WG107114-02 LCS	Unknown	36	25.0	9056	9056	Finished
44	WG107114-02 LCS RR	Unknown	37	25.0	9056	9056	Finished
45	L0110522-01 @ 50X	Unknown	38	25.0	9056	9056	Finished
46	L0110522-02 @ 50X	Unknown	38	25.0	9056	9056	Finished
47	L0110522-03 @ 50X	Unknown	39	25.0	9056	9056	Finished
48	L0110522-04 @ 50X	Unknown	40	25.0	9056	9056	Finished
49	WG107114-03 REF DUP	Unknown	41	25.0	9056	9056	Finished
50	WG107114-05 REF MS/MSD	Unknown	42	25.0	9056	9056	Finished
51	WG107113-02 CCV	Unknown	43	25.0	9056	9056	Finished
52	L0110522-07 @ 50X	Unknown	44	25.0	9056	9056	Finished
53	L0110522-08 @ 50X	Unknown	44	25.0	9056	9056	Finished
54	L0110522-09 @ 50X	Unknown	46	25.0	9056	9056	Finished
55	L0110522-01	Unknown	47	25.0	9056	9056	Finished
56	L0110522-02	Unknown	48	25.0	9056	9056	Finished
57	L0110522-03	Unknown	49	25.0	9056	9056	Finished
58	L0110522-04	Unknown	50	25.0	9056	9056	Finished
59	WG107114-03 REF DUP	Unknown	51	25.0	9056	9056	Finished
60	WG107114-04 DUP	Unknown	52	25.0	9056	9056	Finished
61	WG107113-03 CCV	Unknown	53	25.0	9056	9056	Finished
62	WG107114-05 REF MS	Unknown	53	25.0	9056	9056	Finished
63	WG107114-06 MS	Unknown	55	25.0	9056	9056	Finished
64	WG107114-07 MSD	Unknown	56	25.0	9056	9056	Finished
65	L0110522-07	Unknown	57	25.0	9056	9056	Finished
66	L0110522-08	Unknown	58	25.0	9056	9056	Finished
67	L0110522-09	Unknown	59	25.0	9056	9056	Finished
68	WG107113-04 CCV	Unknown	60	25.0	9056	9056	Finished
69	END	Unknown	61	25.0	DX-320 OFF	9056	Finished

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Operator: gsg Printed: 11/1/2001 3:13:08 PM

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320 Created: 10/25/2001 9:21:34 PM by gsg
#Samples: 69 Last Update: 11/1/2001 3:00:54 PM by gsg

No.	Name	Inj. Date/Time	Dil. Factor	Sample ID
43	WG107114-02 LCS	10/25/2001 7:03:28 PM	1.0000	
44	WG107114-02 LCS RR	10/25/2001 7:37:57 PM	1.0000	
45	L0110522-01 @ 50X	10/25/2001 7:49:27 PM	1.0000	
46	L0110522-02 @ 50X	10/25/2001 8:00:57 PM	1.0000	
47	L0110522-03 @ 50X	10/25/2001 8:12:26 PM	1.0000	
48	L0110522-04 @ 50X	10/25/2001 8:23:56 PM	1.0000	
49	WG107114-03 REF DUP	10/25/2001 8:35:27 PM	1.0000	
50	WG107114-05 REF MS/MSD	10/25/2001 8:46:57 PM	1.0000	
51	WG107113-02 CCV	10/25/2001 9:44:55 PM	1.0000	
52	L0110522-07 @ 50X	10/25/2001 9:56:25 PM	1.0000	
53	L0110522-08 @ 50X	10/25/2001 10:07:56 PM	1.0000	
54	L0110522-09 @ 50X	10/25/2001 10:19:26 PM	1.0000	
55	L0110522-01	10/25/2001 10:30:57 PM	1.0000	
56	L0110522-02	10/25/2001 10:42:27 PM	1.0000	
57	L0110522-03	10/25/2001 10:53:57 PM	1.0000	
58	L0110522-04	10/25/2001 11:05:28 PM	1.0000	
59	WG107114-03 REF DUP	10/25/2001 11:16:57 PM	1.0000	
60	WG107114-04 DUP	10/25/2001 11:28:27 PM	1.0000	
61	WG107113-03 CCV	10/25/2001 11:39:58 PM	1.0000	
62	WG107114-05 REF MS	10/25/2001 11:51:28 PM	1.0000	
63	WG107114-06 MS	10/26/2001 12:02:58 AM	1.0000	
64	WG107114-07 MSD	10/26/2001 12:14:28 AM	1.0000	
65	L0110522-07	10/26/2001 12:25:58 AM	1.0000	
66	L0110522-08	10/26/2001 12:37:28 AM	1.0000	
67	L0110522-09	10/26/2001 12:48:58 AM	1.0000	
68	WG107113-04 CCV	10/26/2001 1:00:29 AM	1.0000	
69	END	10/26/2001 1:11:59 AM	1.0000	

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Name /	Title	Timebase	Last Update	Operator	Size
9056.pgm		DX-320	9/18/2001 1:52:45 PM	gsg	1 KB
9056.qnt			10/26/2001 11:03:28 AM	gsg	101 KB
DX-320 OFF #2.pgm		DX-320	9/19/2001 10:00:54 AM	gsg	1 KB
DX-320 OFF.pgm		DX-320	9/19/2001 9:59:37 AM	gsg	1 KB

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REMKON ENVIRONMENTAL SERVICES

IC Laboratory Maintenance Log

Analysis Date/Time 11-25-01 Instrument ID IC2 Column ID AG4A-SC / AS4A-SC Data Subdirectory 102501
Analyst Initials GSR SOP # IC01 Rev. # / 9056 SOP # IC02 Rev. # 314.0

Daily Check

- ☑ Mobile phase reservoir
- ☑ System pressure 1293 PSI.
- ☑ Waste container

Returned to Control?

Yes ____ No ____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

Reviewed By: RDC 11/01/01

KEMRON REPORT L0111316

Prepared for CCI

Work ID : NAS CECIL FIELD / BLDG. 46

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1.0 Summary Report

1.1 Laboratory Report

Cover Page
Laboratory Narrative
Laboratory Results

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

L0111316

CHAIN OF CUSTODY:

The chain of custody numbers were 149152-177 and 149152-178.

SHIPMENT CONDITIONS:

The chain of custody form was received sealed in a cooler. The cooler temperatures were1, 1 ,1 ,2, 2, 2, and 0 ° C.

SAMPLE MANAGEMENT:

One of the 8310 containers for fraction 002-CEF46-IS-Q4-01-10 was received broken. There was sufficient volume remaining for analysis. All other samples received were intact.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

REVIEWED: Stephanie L Sipe DATE: 11/16/01

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0111316

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8310

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds linear equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: The LCS associated with the re-extraction batch yielded percent recoveries for seven analytes which were above advisory limits. Sample fraction 12 from that batch did not have reportable results for any of those seven analytes. All acceptance criteria were met for the initial extraction batch.
Matrix Spikes: The MS/MSD met all acceptance criteria.

SAMPLES

Surrogates: Sample fraction 12 yielded a percent recovery for the surrogate which was below advisory limits. This fraction was re-extracted within holding time and met all acceptance criteria for the surrogate. All acceptance criteria were met for the other samples in this sample delivery group.
Samples: Two samples were re-analyzed at a dilution in order to maintain the analysis within the range of calibration. All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: RDC REVIEWED: DATE: 12/4/01

Rev. 7/14/00

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0111316

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8015

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: Sample fraction -10 required to analyze at dilution due to out of range results .
Surrogates: Sample fractions -05 and-07 were re-extracted in hold with an acceptable surrogate recoveries and only the re-extracted results were reported .

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: HV REVIEWED: Stan Pearson DATE: 11/29/01

Rev. 7/14/00

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0111316

METHOD

Preparation: SW- 846 5030B
Analysis: SW-846 8021B

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.
Matrix Spikes: All acceptance criteria were met in the MS/MSD analyses of fraction 02.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: JLS REVIEWED: [signature] DATE: 11/27/01

Rev. 6/00

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L0111316

METHOD

Analysis: SW-846 9056

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: Samples fractions -12 and -14 were re-analyzed at a 10x dilution out of hold due to required instrument cleaning and re-establishment of a new standard curve. The sample matrix from these two fractions resulted in failures of continuing calibration checks for PO4-P.

PREPARATION: All acceptance criteria were met.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : PO4-P in check standards failed twice after non-diluted analyses of sample fractions -12 and -14 of this sample delivery group.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: Sample fractions -03 and -04 were chosen externally for the MS/MSD of sample fraction -02 for this sample delivery group. All acceptance criteria were met.

SAMPLES
Samples were re-analyzed at a dilution in order to maintain the analyses within the range of calibration. All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: GSG REVIEWED: Steve Lowry DATE: 12/6/01

Rev. 7/14/00

KEMRON ENVIRONMENTAL SERVICES
ANALYSES DATA PACKAGE

Analytical Method : 8021
AAB # : WG108651
Lab Name : Kemron Environmental Services
Contract # : N62467-98-D-0995
Base/Command : blgs 9 and 46
Prime Contractor : CCI

Field sample ID	Lab Sample ID
002-CEF46-9I-Q4-01-10	L0111316-01
002-CEF46-12I-Q4-01-10	L0111316-02
002-CEF46-12I-Q4-01-10	L0111316-03
002-CEF46-12I-Q4-01-10	L0111316-04
002-CEF46-13I-Q4-01-10	L0111316-05
002-46DUP-Q4-01-10	L0111316-09
002-CEF46-7I-Q4-01-10	L0111316-13

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner
Name: David L. Bumgarner

Date: 05-DEC-01
Title: Laboratory Director

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG108651

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46DUP-Q4-01-10 Lab Sample ID: L0111316-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 16-NOV-01 Date Extracted: Date Analyzed: 21-NOV-01 13:19

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	110	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG108651

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-7I-Q4-01-10 Lab Sample ID: L0111316-13 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 16-NOV-01 Date Extracted: Date Analyzed: 21-NOV-01 12:46

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	50.0	100	3900	100	
Ethylbenzene	50.0	100	860	100	
Methyl tert-butyl ether	50.0	100	3100	100	
Toluene	50.0	100	2800	100	
Xylenes, Total	50.0	100	5000	100	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	109	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG108651

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-9I-Q4-01-10 Lab Sample ID: L0111316-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 16-NOV-01 Date Extracted: Date Analyzed: 21-NOV-01 10:04

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	110	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG108651

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-10 Lab Sample ID: L0111316-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 16-NOV-01 Date Extracted: Date Analyzed: 21-NOV-01 10:36

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	17.0	1	
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	109	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WQ108651

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-10 Lab Sample ID: L0111316-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 16-NOV-01 Date Extracted: Date Analyzed: 21-NOV-01 11:08

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	20.0	1	
Ethylbenzene	0.500	1.0	20.0	1	
Methyl tert-butyl ether	0.500	1.0	37.0	1	
Toluene	0.500	1.0	20.0	1	
Xylenes, Total	0.500	1.0	59.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	110	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG108651

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-10 Lab Sample ID: L0111316-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 16-NOV-01 Date Extracted: Date Analyzed: 21-NOV-01 11:41

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	20.0	1	
Ethylbenzene	0.500	1.0	20.0	1	
Methyl tert-butyl ether	0.500	1.0	37.0	1	
Toluene	0.500	1.0	20.0	1	
Xylenes, Total	0.500	1.0	59.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	110	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG108651

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-13I-Q4-01-10 Lab Sample ID: L0111316-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 16-NOV-01 Date Extracted: Date Analyzed: 21-NOV-01 12:14

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	170	1	
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	109	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8021**

Lab Name : **Kemron Environmental Services**

Base/Command : **blgs 9 and 46**

AAB # : **WG108545**

Contract # : **N62467-98-D-0995**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF46-14D-Q4-01-10	L0111316-06
002-CEF46-15I-Q4-01-10	L0111316-07
002-46TB1-Q4-01-10	L0111316-08
002-CEF46-1S-Q4-01-10	L0111316-10
002-CEF46-2S-Q4-01-10	L0111316-11
002-CEF46-5I-Q4-01-10	L0111316-12
002-CEF46-6D-Q4-01-10	L0111316-14
002-46TB2-Q4-01-10	L0111316-15

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **05-DEC-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG108545

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-14D-Q4-01-10 Lab Sample ID: L0111316-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 16-NOV-01 Date Extracted: Date Analyzed: 20-NOV-01 16:50

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	110	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG108545

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-15I-Q4-01-10 Lab Sample ID: L0111316-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 16-NOV-01 Date Extracted: Date Analyzed: 20-NOV-01 17:22

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	109	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG108545

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46TB1-Q4-01-10 Lab Sample ID: L0111316-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 16-NOV-01 Date Extracted: Date Analyzed: 20-NOV-01 17:55

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	109	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG108545

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-18-Q4-01-10 Lab Sample ID: L0111316-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 16-NOV-01 Date Extracted: Date Analyzed: 20-NOV-01 18:27

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	20.0	1	
Ethylbenzene	0.500	1.0	16.0	1	
Methyl tert-butyl ether	0.500	1.0	1.60	1	
Toluene	0.500	1.0	170	1	
Xylenes, Total	0.500	1.0	170	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	112	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG108545

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-2S-Q4-01-10 Lab Sample ID: L0111316-11 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 16-NOV-01 Date Extracted: Date Analyzed: 20-NOV-01 19:00

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	8.20	1	
Ethylbenzene	0.500	1.0	4.10	1	
Methyl tert-butyl ether	0.500	1.0	60.0	1	
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	5.10	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	114	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG108545

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-5I-Q4-01-10 Lab Sample ID: L0111316-12 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 16-NOV-01 Date Extracted: Date Analyzed: 20-NOV-01 19:32

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	3.40	1	
Ethylbenzene	0.500	1.0	7.80	1	
Methyl tert-butyl ether	0.500	1.0	1.60	1	
Toluene	0.500	1.0	19.0	1	
Xylenes, Total	0.500	1.0	66.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	111	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG108545

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-6D-Q4-01-10 Lab Sample ID: L0111316-14 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 16-NOV-01 Date Extracted: Date Analyzed: 20-NOV-01 20:04

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	1.70	1	
Ethylbenzene	0.500	1.0	3.20	1	
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	6.90	1	
Xylenes, Total	0.500	1.0	24.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	111	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG108545

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46TB2-Q4-01-10 Lab Sample ID: L0111316-15 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 16-NOV-01 Date Extracted: Date Analyzed: 20-NOV-01 20:37

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	110	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8015**

AAB # : **WG108512**

Lab Name : **Kemron Environmental Services**

Contract # : **N62467-98-D-0995**

Base/Command : **blgs 9 and 46**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF46-9I-Q4-01-10	L0111316-01
002-CEF46-12I-Q4-01-10	L0111316-02
002-CEF46-12I-Q4-01-10	L0111316-03
002-CEF46-12I-Q4-01-10	L0111316-04
002-CEF46-14D-Q4-01-10	L0111316-06
002-46DUP-Q4-01-10	L0111316-09
002-CEF46-1S-Q4-01-10	L0111316-10
002-CEF46-2S-Q4-01-10	L0111316-11
002-CEF46-5I-Q4-01-10	L0111316-12
002-CEF46-7I-Q4-01-10	L0111316-13

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **05-DEC-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8015**

AAB # : **WG108512**

Lab Name : **Kemron Environmental Services**

Contract # : **N62467-98-D-0995**

Base/Command : **blgs 9 and 46**

Prime Contractor : **CCI**

Field sample ID

002-CEF46-6D-Q4-01-10 L0111316-14

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **05-DEC-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG108512

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-9I-Q4-01-10 Lab Sample ID: L0111316-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 19-NOV-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 19-NOV-01 17:30

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	258	520	258	1.03	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	98.2	49 – 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG108512

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-10 Lab Sample ID: L0111316-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 19-NOV-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 19-NOV-01 17:45

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	250	500	250	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	69.2	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG108512

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-10 Lab Sample ID: L0111316-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 19-NOV-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 19-NOV-01 18:01

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	270	540	2800	1.08	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	95.5	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG108512

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-10 Lab Sample ID: L0111316-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 19-NOV-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 19-NOV-01 18:16

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	260	520	2900	1.04	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	93.9	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG108512

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-14D-Q4-01-10 Lab Sample ID: L0111316-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 19-NOV-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 19-NOV-01 18:47

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	250	500	250	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	84.3	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG108512

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46DUP-Q4-01-10 Lab Sample ID: L0111316-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 19-NOV-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 19-NOV-01 19:17

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	258	520	258	1.03	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	59.4	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG108512

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-10 Lab Sample ID: L0111316-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 19-NOV-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 27-NOV-01 13:39

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	2650	5300	48000	10.6	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl		49 - 174	DL

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG108512

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-2S-Q4-01-10 Lab Sample ID: L0111316-11 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 19-NOV-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 19-NOV-01 20:19

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	263	530	550	1.05	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	86.5	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG108512

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-5I-Q4-01-10 Lab Sample ID: L0111316-12 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 19-NOV-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 19-NOV-01 20:34

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	255	510	255	1.02	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	63.5	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG108512

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-7I-Q4-01-10 Lab Sample ID: L0111316-13 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 19-NOV-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 19-NOV-01 20:50

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	260	520	5600	1.04	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	79.4	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG108512

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-6D-Q4-01-10 Lab Sample ID: L0111316-14 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 19-NOV-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 19-NOV-01 21:05

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	258	520	258	1.03	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	80.8	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8015**

AAB # : **WG108854**

Lab Name : **Kemron Environmental Services**

Contract # : **N62467-98-D-0995**

Base/Command : **blgs 9 and 46**

Prime Contractor : **CCI**

Field sample ID	**Lab Sample ID**
002-CEF46-13I-Q4-01-10	L0111316-05
002-CEF46-15I-Q4-01-10	L0111316-07

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **05-DEC-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG108854

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-13I-Q4-01-10 Lab Sample ID: L0111316-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 19-NOV-2001

Date Received: 16-NOV-01 Date Extracted: 21-NOV-01 Date Analyzed: 27-NOV-01 13:09

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	265	530	265	1.06	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	112	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG108854

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-15I-Q4-01-10 Lab Sample ID: L0111316-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 19-NOV-2001

Date Received: 16-NOV-01 Date Extracted: 21-NOV-01 Date Analyzed: 27-NOV-01 13:24

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	265	530	265	1.06	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	109	49 – 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES
ANALYSES DATA PACKAGE

Analytical Method : **8310**
AAB # : **WG108520**
Lab Name : **Kemron Environmental Services**
Contract # : **N62467-98-D-0995**
Base/Command : **blgs 9 and 46**
Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF46-9I-Q4-01-10	L0111316-01
002-CEF46-12I-Q4-01-10	L0111316-02
002-CEF46-12I-Q4-01-10	L0111316-03
002-CEF46-12I-Q4-01-10	L0111316-04
002-CEF46-13I-Q4-01-10	L0111316-05
002-CEF46-14D-Q4-01-10	L0111316-06
002-CEF46-15I-Q4-01-10	L0111316-07
002-46DUP-Q4-01-10	L0111316-09
002-CEF46-1S-Q4-01-10	L0111316-10
002-CEF46-2S-Q4-01-10	L0111316-11

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner
Name: **David L. Bumgarner**
Date: **05-DEC-01**
Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8310**

AAB # : **WG108520**

Lab Name : **Kemron Environmental Services**

Contract # : **N62467-98-D-0995**

Base/Command : **blgs 9 and 46**

Prime Contractor : **CCI**

Field sample ID	
002-CEF46-5I-Q4-01-10	L0111316-12
002-CEF46-7I-Q4-01-10	L0111316-13
002-CEF46-6D-Q4-01-10	L0111316-14

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **05-DEC-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-9I-04-01-10 Lab Sample ID: L0111316-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 20-NOV-01 18:25

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.336	1.0	0.336	1	ND
Acenaphthene	0.419	1.0	0.419	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.288	1.0	0.288	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.565	1.0	0.565	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.363	1.0	0.363	1	ND
Phenanthrene	0.290	1.0	0.290	1	ND
Pyrene	0.0687	0.20	0.0687	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-9I-Q4-01-10 Lab Sample ID: L0111316-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 20-NOV-01 18:25

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	68.4	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-04-01-10 Lab Sample ID: L0111316-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 20-NOV-01 19:22

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.369	1.0	0.369	1	ND
2-Methylnaphthalene	0.343	1.0	0.343	1	ND
Acenaphthene	0.423	1.0	0.423	1	ND
Acenaphthylene	0.358	1.0	0.358	1	ND
Anthracene	0.291	1.0	0.291	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.570	1.0	0.570	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.366	1.0	0.366	1	ND
Phenanthrene	0.293	1.0	0.293	1	ND
Pyrene	0.0694	0.20	0.0694	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-10 Lab Sample ID: L0111316-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 20-NOV-01 19:22

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	59.0	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-10 Lab Sample ID: L0111316-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 20-NOV-01 20:19

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.373	1.0	28.0	1	
2-Methylnaphthalene	0.346	1.0	28.0	1	
Acenaphthene	0.428	1.0	32.0	1	
Acenaphthylene	0.351	1.0	0.351	1	NA
Anthracene	0.294	1.0	40.0	1	
Benzo(a)anthracene	0.0309	0.21	3.70	1	
Benzo(a)pyrene	0.0546	0.21	3.10	1	
Benzo(b)fluoranthene	0.0351	0.21	3.30	1	
Benzo(g,h,i)perylene	0.0515	0.21	2.40	1	
Benzo(k)fluoranthene	0.0742	0.21	1.40	1	
Chrysene	0.0247	0.21	3.40	1	
Dibenzo(a,h)anthracene	0.0794	0.21	1.70	1	
Fluoranthene	0.0515	0.21	4.40	1	
Fluorene	0.576	1.0	37.0	1	
Indeno(1,2,3-cd)pyrene	0.0825	0.21	2.40	1	
Naphthalene	0.370	1.0	26.0	1	
Phenanthrene	0.296	1.0	39.0	1	
Pyrene	0.0701	0.21	4.00	1	

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-10 Lab Sample ID: L0111316-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 20-NOV-01 20:19

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	58.9	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-10 Lab Sample ID: L0111316-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 20-NOV-01 20:19

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.373	1.0	30.0	1	
2-Methylnaphthalene	0.346	1.0	30.0	1	
Acenaphthene	0.428	1.0	33.0	1	
Acenaphthylene	0.362	1.0	32.0	1	
Anthracene	0.294	1.0	42.0	1	
Benzo(a)anthracene	0.0309	0.21	3.90	1	
Benzo(a)pyrene	0.0546	0.21	3.30	1	
Benzo(b)fluoranthene	0.0351	0.21	3.40	1	
Benzo(g,h,i)perylene	0.0515	0.21	2.90	1	
Benzo(k)fluoranthene	0.0742	0.21	1.40	1	
Chrysene	0.0247	0.21	2.60	1	
Dibenzo(a,h)anthracene	0.0794	0.21	1.70	1	
Fluoranthene	0.0515	0.21	4.60	1	
Fluorene	0.576	1.0	36.0	1	
Indeno(1,2,3-cd)pyrene	0.0825	0.21	2.50	1	
Naphthalene	0.370	1.0	29.0	1	
Phenanthrene	0.296	1.0	42.0	1	
Pyrene	0.0701	0.21	4.50	1	

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-10 Lab Sample ID: L0111316-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 20-NOV-01 20:19

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	58.6	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-10 Lab Sample ID: L0111316-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 20-NOV-01 21:15

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.377	1.0	24.0	1	
2-Methylnaphthalene	0.350	1.0	24.0	1	
Acenaphthene	0.432	1.0	28.0	1	
Acenaphthylene	0.351	1.0	0.351	1	NA
Anthracene	0.297	1.0	38.0	1	
Benzo(a)anthracene	0.0313	0.21	3.70	1	
Benzo(a)pyrene	0.0552	0.21	3.40	1	
Benzo(b)fluoranthene	0.0354	0.21	3.40	1	
Benzo(g,h,i)perylene	0.0521	0.21	2.70	1	
Benzo(k)fluoranthene	0.0750	0.21	1.60	1	
Chrysene	0.0250	0.21	3.60	1	
Dibenzo(a,h)anthracene	0.0802	0.21	2.30	1	
Fluoranthene	0.0521	0.21	4.30	1	
Fluorene	0.582	1.0	33.0	1	
Indeno(1,2,3-cd)pyrene	0.0833	0.21	2.90	1	
Naphthalene	0.374	1.0	23.0	1	
Phenanthrene	0.299	1.0	37.0	1	
Pyrene	0.0708	0.21	4.00	1	

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-10 Lab Sample ID: L0111316-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 20-NOV-01 21:15

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	70.6	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-04-01-10 Lab Sample ID: L0111316-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 20-NOV-01 21:15

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.377	1.0	26.0	1	
2-Methylnaphthalene	0.350	1.0	26.0	1	
Acenaphthene	0.432	1.0	29.0	1	
Acenaphthylene	0.366	1.0	28.0	1	
Anthracene	0.297	1.0	40.0	1	
Benzo(a)anthracene	0.0313	0.21	4.00	1	
Benzo(a)pyrene	0.0552	0.21	3.60	1	
Benzo(b)fluoranthene	0.0354	0.21	3.60	1	
Benzo(g,h,i)perylene	0.0521	0.21	3.20	1	
Benzo(k)fluoranthene	0.0750	0.21	1.60	1	
Chrysene	0.0250	0.21	2.90	1	
Dibenzo(a,h)anthracene	0.0802	0.21	2.40	1	
Fluoranthene	0.0521	0.21	4.50	1	
Fluorene	0.582	1.0	32.0	1	
Indeno(1,2,3-cd)pyrene	0.0833	0.21	3.00	1	
Naphthalene	0.374	1.0	26.0	1	
Phenanthrene	0.299	1.0	40.0	1	
Pyrene	0.0708	0.21	4.50	1	

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-10 Lab Sample ID: L0111316-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 20-NOV-01 21:15

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	69.4	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-13I-04-01-10 Lab Sample ID: L0111316-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 20-NOV-01 22:12

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.346	1.0	0.346	1	ND
Acenaphthene	0.428	1.0	0.428	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.285	1.0	0.285	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.576	1.0	0.576	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.370	1.0	0.370	1	ND
Phenanthrene	0.287	1.0	0.287	1	ND
Pyrene	0.0701	0.21	0.0701	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-13I-Q4-01-10 Lab Sample ID: L0111316-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 20-NOV-01 22:12

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	69.1	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-14D-Q4-01-10 Lab Sample ID: L0111316-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 20-NOV-01 23:09

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.350	1.0	0.350	1	ND
Acenaphthene	0.432	1.0	0.432	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.297	1.0	0.297	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0750	0.21	0.0750	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.582	1.0	0.582	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.374	1.0	0.374	1	ND
Phenanthrene	0.299	1.0	0.299	1	ND
Pyrene	0.0708	0.21	0.0708	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-14D-04-01-10 Lab Sample ID: L0111316-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 20-NOV-01 23:09

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	80.0	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-15I-04-01-10 Lab Sample ID: L0111316-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 21-NOV-01 00:05

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.346	1.0	0.346	1	ND
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.294	1.0	0.294	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0546	0.21	0.0546	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.576	1.0	0.576	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.370	1.0	0.370	1	ND
Phenanthrene	0.296	1.0	0.296	1	ND
Pyrene	0.0680	0.20	0.0680	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-15I-Q4-01-10 Lab Sample ID: L0111316-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 21-NOV-01 00:05

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	83.7	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46DUP-Q4-01-10 Lab Sample ID: L0111316-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 21-NOV-01 01:02

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.369	1.0	0.369	1	ND
2-Methylnaphthalene	0.343	1.0	0.343	1	ND
Acenaphthene	0.423	1.0	0.423	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.291	1.0	0.291	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.570	1.0	0.570	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.366	1.0	0.366	1	ND
Phenanthrene	0.287	1.0	0.287	1	ND
Pyrene	0.0694	0.20	0.0694	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46DUP-Q4-01-10 Lab Sample ID: L0111316-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 21-NOV-01 01:02

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	54.2	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-10 Lab Sample ID: L0111316-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 21-NOV-01 19:29

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.377	1.0	60.0	1	P
2-Methylnaphthalene	0.350	1.0	100	1	
Acenaphthene	0.432	1.0	0.432	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.297	1.0	0.297	1	ND
Benzo(a)anthracene	0.0313	0.21	0.0313	1	ND
Benzo(a)pyrene	0.0552	0.21	0.0552	1	ND
Benzo(b)fluoranthene	0.0354	0.21	0.0354	1	ND
Benzo(g,h,i)perylene	0.0521	0.21	0.0521	1	ND
Benzo(k)fluoranthene	0.0750	0.21	0.0750	1	ND
Chrysene	0.0250	0.21	0.0250	1	ND
Dibenzo(a,h)anthracene	0.0802	0.21	0.0802	1	ND
Fluoranthene	0.0521	0.21	0.0521	1	ND
Fluorene	0.582	1.0	0.582	1	ND
Indeno(1,2,3-cd)pyrene	0.0833	0.21	0.0833	1	ND
Naphthalene	0.374	1.0	530	1	I
Phenanthrene	0.299	1.0	0.299	1	ND
Pyrene	0.0708	0.21	0.0708	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-10 Lab Sample ID: L0111316-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 21-NOV-01 19:29

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	53.3	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-10 Lab Sample ID: L0111316-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 21-NOV-01 19:29

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.377	1.0	240	1	I
2-Methylnaphthalene	0.350	1.0	140	1	I
Acenaphthene	0.432	1.0	0.432	1	ND
Acenaphthylene	0.366	1.0	0.366	1	ND
Anthracene	0.297	1.0	0.297	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0250	0.21	0.0250	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.559	1.0	0.559	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.374	1.0	330	1	I
Phenanthrene	0.299	1.0	0.299	1	ND
Pyrene	0.0708	0.21	0.0708	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-10 Lab Sample ID: L0111316-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 21-NOV-01 19:29

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	53.7	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-10 Lab Sample ID: L0111316-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 22-NOV-01 05:52

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	3.77	10	58.0	10	P
2-Methylnaphthalene	3.50	10	95.0	10	P
Acenaphthene	4.32	10	4.32	10	ND
Acenaphthylene	3.51	10	3.51	10	ND
Anthracene	2.97	10	2.97	10	ND
Benzo(a)anthracene	0.313	2.1	0.313	10	ND
Benzo(a)pyrene	0.552	2.1	0.552	10	ND
Benzo(b)fluoranthene	0.354	2.1	0.354	10	ND
Benzo(g,h,i)perylene	0.521	2.1	0.521	10	ND
Benzo(k)fluoranthene	0.750	2.1	0.750	10	ND
Chrysene	0.250	2.1	0.250	10	ND
Dibenzo(a,h)anthracene	0.802	2.1	0.802	10	ND
Fluoranthene	0.521	2.1	0.521	10	ND
Fluorene	5.82	10	5.82	10	ND
Indeno(1,2,3-cd)pyrene	0.833	2.1	0.833	10	ND
Naphthalene	3.74	10	490	10	
Phenanthrene	2.99	10	2.99	10	ND
Pyrene	0.708	2.1	0.708	10	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-10 Lab Sample ID: L0111316-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 22-NOV-01 05:52

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14		40 - 132	DL

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-18-Q4-01-10 Lab Sample ID: L0111316-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 22-NOV-01 05:52

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	3.77	10	31.0	10	P
2-Methylnaphthalene	3.50	10	150	10	P
Acenaphthene	4.32	10	4.32	10	ND
Acenaphthylene	3.66	10	3.66	10	ND
Anthracene	2.97	10	2.97	10	ND
Benzo(a)anthracene	0.300	2.0	0.300	10	ND
Benzo(a)pyrene	0.530	2.0	0.530	10	ND
Benzo(b)fluoranthene	0.340	2.0	0.340	10	ND
Benzo(g,h,i)perylene	0.500	2.0	0.500	10	ND
Benzo(k)fluoranthene	0.720	2.0	0.720	10	ND
Chrysene	0.250	2.1	0.250	10	ND
Dibenzo(a,h)anthracene	0.770	2.0	0.770	10	ND
Fluoranthene	0.500	2.0	0.500	10	ND
Fluorene	5.82	10	5.82	10	ND
Indeno(1,2,3-cd)pyrene	0.800	2.0	0.800	10	ND
Naphthalene	3.74	10	490	10	
Phenanthrene	2.99	10	2.99	10	ND
Pyrene	0.708	2.1	0.708	10	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-10 Lab Sample ID: L0111316-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 22-NOV-01 05:52

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14		40 - 132	DL

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-2S-Q4-01-10 Lab Sample ID: L0111316-11 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 21-NOV-01 20:25

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.373	1.0	0.373	1	ND
2-Methylnaphthalene	0.346	1.0	0.346	1	ND
Acenaphthene	0.428	1.0	0.428	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.294	1.0	0.294	1	ND
Benzo(a)anthracene	0.0309	0.21	0.0309	1	ND
Benzo(a)pyrene	0.0546	0.21	0.0546	1	ND
Benzo(b)fluoranthene	0.0351	0.21	0.0351	1	ND
Benzo(g,h,i)perylene	0.0515	0.21	0.0515	1	ND
Benzo(k)fluoranthene	0.0742	0.21	0.0742	1	ND
Chrysene	0.0247	0.21	0.0247	1	ND
Dibenzo(a,h)anthracene	0.0794	0.21	0.0794	1	ND
Fluoranthene	0.0515	0.21	0.0515	1	ND
Fluorene	0.576	1.0	0.576	1	ND
Indeno(1,2,3-cd)pyrene	0.0825	0.21	0.0825	1	ND
Naphthalene	0.370	1.0	1.10	1	
Phenanthrene	0.296	1.0	0.296	1	ND
Pyrene	0.0701	0.21	0.0701	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-2S-Q4-01-10 Lab Sample ID: L0111316-11 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 21-NOV-01 20:25

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	64.9	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-2S-Q4-01-10 Lab Sample ID: L0111316-11 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 21-NOV-01 20:25

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.346	1.0	0.346	1	ND
Acenaphthene	0.428	1.0	0.428	1	ND
Acenaphthylene	0.362	1.0	0.362	1	ND
Anthracene	0.294	1.0	0.294	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0247	0.21	0.0247	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.559	1.0	0.559	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.370	1.0	1.00	1	J
Phenanthrene	0.296	1.0	0.296	1	ND
Pyrene	0.0701	0.21	0.0701	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-2S-Q4-01-10 Lab Sample ID: L0111316-11 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 21-NOV-01 20:25

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	62.5	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-5I-Q4-01-10 Lab Sample ID: L0111316-12 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 21-NOV-01 21:22

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.346	1.0	0.346	1	ND
Acenaphthene	0.428	1.0	0.428	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.294	1.0	0.294	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.576	1.0	0.576	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.359	1.0	0.359	1	ND
Phenanthrene	0.287	1.0	0.287	1	ND
Pyrene	0.0680	0.20	0.0680	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-5I-Q4-01-10 Lab Sample ID: L0111316-12 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 21-NOV-01 21:22

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	38.0	40 - 132	*

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-7I-Q4-01-10 Lab Sample ID: L0111316-13 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 21-NOV-01 22:19

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.366	1.0	0.366	1	ND
2-Methylnaphthalene	0.339	1.0	11.0	1	P
Acenaphthene	0.419	1.0	0.419	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.288	1.0	0.288	1	ND
Benzo(a)anthracene	0.0303	0.20	0.0303	1	ND
Benzo(a)pyrene	0.0535	0.20	0.0535	1	ND
Benzo(b)fluoranthene	0.0343	0.20	0.0343	1	ND
Benzo(g,h,i)perylene	0.0505	0.20	0.0505	1	ND
Benzo(k)fluoranthene	0.0727	0.20	0.0727	1	ND
Chrysene	0.0242	0.20	0.0242	1	ND
Dibenzo(a,h)anthracene	0.0778	0.20	0.0778	1	ND
Fluoranthene	0.0505	0.20	0.0505	1	ND
Fluorene	0.565	1.0	0.565	1	ND
Indeno(1,2,3-cd)pyrene	0.0808	0.20	0.0808	1	ND
Naphthalene	0.363	1.0	170	1	I
Phenanthrene	0.290	1.0	0.290	1	ND
Pyrene	0.0687	0.20	0.0687	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-7I-Q4-01-10 Lab Sample ID: L0111316-13 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 21-NOV-01 22:19

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	48.4	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-7I-Q4-01-10 Lab Sample ID: L0111316-13 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 21-NOV-01 22:19

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.339	1.0	24.0	1	P
Acenaphthene	0.419	1.0	0.419	1	ND
Acenaphthylene	0.355	1.0	0.355	1	ND
Anthracene	0.288	1.0	0.288	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0242	0.20	0.0242	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.559	1.0	0.559	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.363	1.0	170	1	I
Phenanthrene	0.290	1.0	0.290	1	ND
Pyrene	0.0687	0.20	0.0687	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-7I-Q4-01-10 Lab Sample ID: L0111316-13 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 21-NOV-01 22:19

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	47.6	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-7I-Q4-01-10 Lab Sample ID: L0111316-13 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 22-NOV-01 06:48

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	1.83	5.1	1.83	5	ND
2-Methylnaphthalene	1.70	5.1	11.0	5	P
Acenaphthene	2.10	5.1	2.10	5	ND
Acenaphthylene	1.76	5.0	1.76	5	ND
Anthracene	1.44	5.1	1.44	5	ND
Benzo(a)anthracene	0.152	1.0	0.152	5	ND
Benzo(a)pyrene	0.268	1.0	0.268	5	ND
Benzo(b)fluoranthene	0.172	1.0	0.172	5	ND
Benzo(g,h,i)perylene	0.253	1.0	0.253	5	ND
Benzo(k)fluoranthene	0.364	1.0	0.364	5	ND
Chrysene	0.121	1.0	0.121	5	ND
Dibenzo(a,h)anthracene	0.389	1.0	0.389	5	ND
Fluoranthene	0.253	1.0	0.253	5	ND
Fluorene	2.82	5.1	2.82	5	ND
Indeno(1,2,3-cd)pyrene	0.404	1.0	0.404	5	ND
Naphthalene	1.81	5.1	160	5	
Phenanthrene	1.45	5.1	1.45	5	ND
Pyrene	0.343	1.0	0.343	5	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-7I-Q4-01-10 Lab Sample ID: L0111316-13 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 22-NOV-01 06:48

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	52.9	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-7I-Q4-01-10 Lab Sample ID: L0111316-13 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 22-NOV-01 06:48

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	1.83	5.1	1.83	5	ND
2-Methylnaphthalene	1.70	5.1	27.0	5	P
Acenaphthene	2.10	5.1	2.10	5	ND
Acenaphthylene	1.77	5.1	1.77	5	ND
Anthracene	1.43	5.0	1.43	5	ND
Benzo(a)anthracene	0.150	1.0	0.150	5	ND
Benzo(a)pyrene	0.265	1.0	0.265	5	ND
Benzo(b)fluoranthene	0.170	1.0	0.170	5	ND
Benzo(g,h,i)perylene	0.250	1.0	0.250	5	ND
Benzo(k)fluoranthene	0.360	1.0	0.360	5	ND
Chrysene	0.121	1.0	0.121	5	ND
Dibenzo(a,h)anthracene	0.385	1.0	0.385	5	ND
Fluoranthene	0.250	1.0	0.250	5	ND
Fluorene	2.82	5.1	2.82	5	ND
Indeno(1,2,3-cd)pyrene	0.400	1.0	0.400	5	ND
Naphthalene	1.81	5.1	160	5	
Phenanthrene	1.45	5.1	1.45	5	ND
Pyrene	0.343	1.0	0.343	5	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-7I-04-01-10 Lab Sample ID: L0111316-13 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 22-NOV-01 06:48

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	44.7	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-6D-Q4-01-10 Lab Sample ID: L0111316-14 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 21-NOV-01 23:15

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.350	1.0	0.350	1	ND
Acenaphthene	0.432	1.0	0.432	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.297	1.0	0.297	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0552	0.21	0.0552	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0521	0.21	0.0521	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0250	0.21	0.0250	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.582	1.0	0.582	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.374	1.0	0.374	1	ND
Phenanthrene	0.299	1.0	0.299	1	ND
Pyrene	0.0680	0.20	0.0680	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-6D-Q4-01-10 Lab Sample ID: L0111316-14 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 21-NOV-01 23:15

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	73.5	40 – 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : 8310

Lab Name : Kemron Environmental Services

Base/Command : blgs 9 and 46

AAB # : WG108845

Contract # : N62467-98-D-0995

Prime Contractor : CCI

Field sample ID	Lab Sample ID
002-CEF46-5I-Q4-01-10	L0111316-12

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: David L. Bumgarner

Date: 05-DEC-01

Title: Laboratory Director

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108845

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-5I-Q4-01-10 Lab Sample ID: L0111316-12 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 21-NOV-01 Date Analyzed: 26-NOV-01 16:09

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.336	1.0	0.336	1	ND
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.285	1.0	0.285	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.559	1.0	0.559	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.359	1.0	0.359	1	ND
Phenanthrene	0.287	1.0	0.287	1	ND
Pyrene	0.0680	0.20	0.0680	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108845

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-5I-04-01-10 Lab Sample ID: L0111316-12 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 16-NOV-01 Date Extracted: 21-NOV-01 Date Analyzed: 26-NOV-01 16:09

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	42.0	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **9056**

AAB # : **WG108389**

Lab Name : **Kemron Environmental Services**

Contract # : **N62467-98-D-0995**

Base/Command : **blgs 9 and 46**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF46-9I-Q4-01-10	L0111316-01
002-CEF46-12I-Q4-01-10	L0111316-02
002-CEF46-12I-Q4-01-10	L0111316-03
002-CEF46-12I-Q4-01-10	L0111316-04
002-CEF46-13I-Q4-01-10	L0111316-05
002-CEF46-14D-Q4-01-10	L0111316-06
002-CEF46-15I-Q4-01-10	L0111316-07
002-46DUP-Q4-01-10	L0111316-09
002-CEF46-1S-Q4-01-10	L0111316-10
002-CEF46-2S-Q4-01-10	L0111316-11

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **05-DEC-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **9056**

Lab Name : **Kemron Environmental Services**

Base/Command : **blgs 9 and 46**

AAB # : **WG108389**

Contract # : **N62467-98-D-0995**

Prime Contractor : **CCI**

Field sample ID

002-CEF46-7I-Q4-01-10 L0111316-13

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **05-DEC-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WQ108389

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-9I-Q4-01-10 Lab Sample ID: L0111316-01 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 15-NOV-2001

Date Received: 16-NOV-01 Date Extracted: Date Analyzed: 16-NOV-01 14:23

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG108389

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-10 Lab Sample ID: L0111316-02 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 15-NOV-2001

Date Received: 16-NOV-01 Date Extracted: Date Analyzed: 16-NOV-01 14:46

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG108389

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-10 Lab Sample ID: L0111316-03 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 15-NOV-2001

Date Received: 16-NOV-01 Date Extracted: Date Analyzed: 16-NOV-01 14:57

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	4.20	1	
Nitrite	0.0610	0.40	3.80	1	
Phosphate	0.163	1.0	10.0	1	

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG108389

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-10 Lab Sample ID: L0111316-04 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 15-NOV-2001

Date Received: 16-NOV-01 Date Extracted: Date Analyzed: 16-NOV-01 15:09

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	4.20	1	
Nitrite	0.0610	0.40	3.80	1	
Phosphate	0.163	1.0	9.90	1	

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG108389

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-13I-Q4-01-10 Lab Sample ID: L0111316-05 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 15-NOV-2001

Date Received: 16-NOV-01 Date Extracted: Date Analyzed: 16-NOV-01 22:49

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG108389

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-14D-04-01-10 Lab Sample ID: L0111316-06 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 15-NOV-2001

Date Received: 16-NOV-01 Date Extracted: Date Analyzed: 16-NOV-01 23:01

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG108389

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-15I-Q4-01-10 Lab Sample ID: L0111316-07 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 15-NOV-2001

Date Received: 16-NOV-01 Date Extracted: Date Analyzed: 16-NOV-01 23:12

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG108389

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46DUP-Q4-01-10 Lab Sample ID: L0111316-09 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 15-NOV-2001

Date Received: 16-NOV-01 Date Extracted: Date Analyzed: 16-NOV-01 23:24

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WQ108389

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-10 Lab Sample ID: L0111316-10 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 15-NOV-2001

Date Received: 16-NOV-01 Date Extracted: Date Analyzed: 16-NOV-01 23:35

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG108389

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-2S-Q4-01-10 Lab Sample ID: L0111316-11 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 15-NOV-2001

Date Received: 16-NOV-01 Date Extracted: Date Analyzed: 16-NOV-01 23:47

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **9056**

AAB # : **WG108428**

Lab Name : **Kemron Environmental Services**

Contract # : **N62467-98-D-0995**

Base/Command : **blgs 9 and 46**

Prime Contractor : **CCI**

Field sample ID	**Lab Sample ID**
002-CEF46-5I-Q4-01-10	L0111316-12
002-CEF46-6D-Q4-01-10	L0111316-14

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **05-DEC-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG108428

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-5I-Q4-01-10 Lab Sample ID: L0111316-12 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 17-NOV-2001

Date Received: 16-NOV-01 Date Extracted: Date Analyzed: 18-NOV-01 02:40

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.670	6.0	0.670	10	ND
Nitrite	0.610	4.0	0.610	10	ND
Phosphate	1.63	10	1.63	10	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG108389

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-7I-Q4-01-10 Lab Sample ID: L0111316-13 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 15-NOV-2001

Date Received: 16-NOV-01 Date Extracted: Date Analyzed: 17-NOV-01 00:10

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG108428

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-6D-Q4-01-10 Lab Sample ID: L0111316-14 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 17-NOV-2001

Date Received: 16-NOV-01 Date Extracted: Date Analyzed: 18-NOV-01 02:52

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.670	6.0	0.670	10	ND
Nitrite	0.610	4.0	0.610	10	ND
Phosphate	1.63	10	1.63	10	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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1.2 Attachments

KEMRON ANALYST LIST

Ohio Valley Laboratory

11/13/2001

ADH - ANGELA D. HURST
AJF - AMANDA J. FICKIESEN
ALT - ANN L. THAYER
AMT - ANDREA M. TUCKER
ARS - ANGELINA R. SCOTT
BRG - BRENDA R. GREGORY
CAF - CHERYL A. FLOWERS
CAK - CHERYL A. KOELSCH
CBN - CHARLES B. NOLL
CEB - CHAD E. BARNES
CLC - CHRYS L. CRAWFORD
CLK - CARL L. KING
CLW - CHARISSA L. WINTERS
CMS - CRYSTAL M. STEVENS
CRC - CARLA R. COCHRAN
CSH - CHRIS S. HILL
DAM - DAN A. MUSGRAVE
DAS - DALLAS A. SULLIVAN
DAT - DEBBIE A. TORNES
DEL - DON E. LIGHTFRITZ
DEV - DAVID E. VANDENBERG
DGB - DOUGLAS G. BUTCHER
DIH - DEANNA I. HESSON
DLA - DENISE L. ADAMS
DLB - DAVID L. BUMGARNER
DLN - DEANNA L. NORTON
DLP - DOROTHY L. PAYNE
DLR - DIANNA L. RAUCH
DP - DEANNA L. PIERSON
DSM - DAVID S. MOSSOR
DST - DENNIS S. TEPE
ECL - ERIC C. LAWSON
GSG - GALEN S. GEORGE
HV - HEMA VILASAGAR
JAQ - JEROMY A. QUESENBERRY
JKW - JANE K. WARDEN
JLS - JANICE L. SCHIMMEL
JMM - JARROD M. MARTIN
JMT - JOY M. THOMAS
JWR - JOHN W. RICHARDS
JWS - JACK W. SHEAVES
JYH - JI Y. HU
KHR - KIM H. RHODES
KRA - KATHY R. ALBERTSON
KSL - KELLY S. LAUER
LKN - LINDA K. NEDEFF
LMT - LUCINDA M. TILTON
LRR - LUCYNDA R. ROBERTS
LSA - LUCINDA S. ARNOLD
LSB - LESLIE S. BUCINA
MDA - MICHAEL D. ALBERTSON
MDC - MICHAEL D. COCHRAN
MEF - MIKE E. FLANAGAN
MES - MARY E. SCHILLING
MLS - MICHAEL L. SCHIMMEL
MMB - MAREN M. BEERY
MRR - MICHELLE R. RAUCH
MSW - MATT S. WILSON
NJB - NATALIE J. BOOTH
RDC - REBECCA D. CUTLIP
REF - RON E. FERTILE
REK - ROBERT E. KYER
RJW - RHONDA J. WITTEKIND
RLW - RON L. WATSON
RSH - RENEE S. HENNES
RSS - REGINA S. SIMMONS
RVC - RUTH V. CALLIHAN
RWC - ROD W. CAMPBELL
SJK - SINDY J. KINNEY
SKH - SHARON K. HANDSCHUMACHER
SLP - SHERI L. PFALZGRAF
SLT - STEPHANIE L. TEPE
SMW - SHAUNA M. WELCH
SPL - STEVE P. LEARN
TJH - TIM J. HOEFLICH
TLD - TERESA L. DAVIS
TMM - TAMMY M. MORRIS
VC - VICKI COLLIER
VKL - VICKY K. LAUER

KEMRON Environmental Services, Inc
List of Valid Qualifiers
December 15, 2000

Standard Qualifiers

These are KEMRON's Standard Report Qualifiers

A	See the report narrative
B	Present in the method blank
C	Confirmed by GC/MS
CG	Confluent growth
D	The analyte was quantified at a secondary dilution factor
DL	Surrogate or spike was diluted out
E	Estimated concentration due to sample matrix interference
FL	Free liquid
I	Semiquantitative result, out of instrument calibration range
J	Present below nominal reporting limit
L	Sample reporting limits elevated due to matrix interference
M	Duplicate injection precision not met
N	Tentatively Identified Compound (TIC)
NA	Not applicable
ND	Not detected at or above the reporting limit (RL)
NF	Not found
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentration >40% difference between The two GC columns
QNS	Quantity not sufficient to perform analysis
R	Analyte exceeds regulatory limit
RA	Re analysis confirms reported results
RE	Re analysis confirms sample matrix Interference
S	Analyzed by method of standard addition
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TNTC	Too numerous to count
U	Analyzed for but not detected
W	Post-digestion spike for furnace AA out Of control limits
Z	Can not be resolved from isomer.***
+	Correlation coefficient for the MSA is less Than 0.995
<	Less than
>	Greater than
*	Surrogate or spike compound out of range

***** Special Notes for Organic Analytes**

1. Acrolein and acrylonitrile by method 624 are semiquantative screens only
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene
3. N-nitrosodiphenylamine cannot be separated from diphenylamine
4. 3-Methyphenol and 4-Methyphenol are unresolvable compounds
5. m-Xylene and p-Xylene are unresolvable compounds
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent

AFCEE Qualifiers

These are KEMRON's AFCEE Report Qualifiers

J	The analyte was positively identified, the quantitation is an estimation
U	The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL
F	The analyte was positively identified but the associated numerical value is below the RL
R	The data is unusable due to deficiencies in the ability to analyze the sample and meet QC criteria
B	The analyte was found in an associated blank, as well as in the sample
M	The matrix effect was present
S	To be applied to all field screening data
T	Tentatively identified compound (using GC/MS)

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No (770) 604-9182 ; Fax No (770) 604-9282

CHAIN-OF-CUSTODY RECORD

COC NUMBER
149152-177 page _1_ of _1_

PROJECT NAME:	PROJECT NUMBER:	LAB NAME AND CONTACT:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	RECIPIENT 1 (Address, Tel No. , and Fax No.):
N.A.S. Cecil Field Building 46	149152	Debbie Tornes Kemron Environmental Services	Jennifer Zimmerman J.A Jones Env. Services	6219 Authority Road, Jacksonville, FL 32221 PH: (904) 7774812 FAX: (904) 7774262
PROJECT PHASE/SITE/TASK:	CTO OR DO NUMBER:	LAB PO NUMBER:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	RECIPIENT 2 (Address, Tel No. , and Fax No.):
Building 46 / Monthly GW Sampling Event	0002	2329	Christelle Newsome CH2M Hill Constuctors, Inc.	115 Perimeter Center Place, N.E. Suite 700 Atlanta, GA 30346 PH:(770)604-9182 Ext.561 FAX:604-9282
PROJECT CONTACT:	PROJECT TEL NO AND FAX NO:	LAB TEL NO AND FAX NO:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	RECIPIENT 3 (Address, Tel No. , and Fax No.):
Bill Canelos	Phone: 904-777-4812 Fax:904-777-4262	Phone: 740-373-4071 Fax: 740-373-4835		

ANALYSES REQUIRED (Include Method Numbers)

ITEM	SAMPLE IDENTIFIER	SAMPLE DESCRIPTION/LOCATION	MATRIX	DATE COLLECTED	TIME COLLECTED	~~DATA PKG~~ DATA LEVEL	TAT (calendar days)	BTEX by 8021B	Naphthalene & 15 Methd Listed PAHs by 8310	TRPH by FL-PRO	NO2 NO3 PO4 by EPA Method 300.0				SAMPLE TYPE (see codes on back)	COMMENTS/ SCREENING READINGS	LAB ID
1	002-CEF46-9I-Q4-01-10	CEF-46-9I	W	11/15/01	11:15	III/C	14	2	2	2	1				Grab		
2	002-CEF46-12I-Q4-01-10	CEF-46-12I	W	11/15/01	9:40	III/C	14	6	6	6	3				Grab	MS/MSD	
3	002-CEF46-13I-Q4-01-10	CEF-46-13I	W	11/15/01	10:10	III/C	14	2	2	2	1				Grab		
4	002-CEF46-14D-Q4-01-10	CEF-46-14D	W	11/15/01	10:40	III/C	14	2	2	2	1				Grab		
5	002-CEF46-15I-Q4-01-0	CEF-46-15I	W	11/15/01	9:25	III/C	14	2	2	2	1				Grab		
6	002-46TB1-Q4-01-10	Trip Blank	W	NA	NA	III/C	14	2							Grab	Prepared by Lab	
7	NA	Temperature Blank	W	NA	NA	III/C	14					4				Prepared by Lab	
8	002-46DUP-Q4-01-10	Duplicate	W	11/15/01	NA	III/C	14	2	2	2	1						
9																	
10																	

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:
Randy Dumaop / Scott Deisler / Anthony Cain J.A. Jones Environmental Services	Federal Express Track #791160587800, 792685947914, 792466198235, 792466198187.(4 Coolers)

Cooler dated
Sealed intact
Temp 1/1/bb/2/

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	11/15/01	12:00	Federal Express	11/15/01	12:00
Printed Name and Signature:			Printed Name and Signature:		
			Brenda Gregory / Brenda Gregory	11/16/01	1000

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

Form CCI001, Rev 02/00

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CHAIN-OF-CUSTODY RECORD

COC NUMBER
149152-178 page _1_ of _1_

PROJECT NAME:	PROJECT NUMBER:	LAB NAME AND CONTACT:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	RECIPIENT 1 (Address, Tel No. , and Fax No.):
N.A.S. Cecil Field Building 46	149152	Teressa Davis Kemron Environmental Services	Jennifer Zimmerman J.A Jones Env. Services	6219 Authority Road, Jacksonville, FL 32221 PH: (904) 7774812 FAX: (904) 7774262
PROJECT PHASE/SITE/TASK:	CTO OR DO NUMBER:	LAB PO NUMBER:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	RECIPIENT 2 (Address, Tel No. , and Fax No.):
Building 46 /Monthly GW Sampling Event	0002	2329	Christelle Newsome CH2M Hill Constuctors, Inc.	115 Perimeter Center Place, N.E. Suite 700 Atlanta, GA 30346 PH:(770)604-9182 Ext.561 FAX:604-9282
PROJECT CONTACT:	PROJECT TEL NO AND FAX NO:	LAB TEL NO AND FAX NO:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	RECIPIENT 3 (Address, Tel No. , and Fax No.):
Bill Canelos	Phone: 904-777-4812 Fax:904-777-4262	Phone: 740-373-4071 Fax: 740-373-4835		

ANALYSES REQUIRED (Include Method Numbers)

ITEM	SAMPLE IDENTIFIER	SAMPLE DESCRIPTION/LOCATION	MATRIX	DATE COLLECTED	TIME COLLECTED	~~DATA~~ ~~PKG~~ LEVEL	TAT (calendar days)	BTEX by 8021B	Naphthalene & 15 Method Listed PAHs by 8310	TRPH by FL-PRO	NO2 NO3 PO4 by EPA Method 300.0				SAMPLE TYPE (see codes on back)	COMMENTS/ SCREENING READINGS	LAB ID
1	002-CEF46-1S-Q4-01-10	CEF-46-1S	W	11/15/01	14:10	III/C	14	2	2	2	1				Grab	(1) 8310 recd broken bg 11/16/01	
2	002-CEF46-2S-Q4-01-10	CEF-46-2S	W	11/15/01	14:40	III/C	14	2	2	2	1				Grab		
3	002-CEF46-5I-Q4-01-10	CEF-46-5I	W	11/15/01	13:45	III/C	14	2	2	2	1				Grab		
4	002-CEF46-7I-Q4-01-10	CEF-46-7I	W	11/15/01	15:10	III/C	14	2	2	2	1				Grab		
5	002-CEF46-6D-Q4-01-10	CEF-46-6D	W	11/15/01	13:30	III/C	14	2	2	2	1				Grab		
6	002-46TB2-Q4-01-10	Trip Blank	W	NA	NA	III/C	14	2	2	2	1				Grab	Prepared by Lab	
7	NA	Temperature Blank	W	NA	NA	III/C	14					3			Grab	Prepared by Lab	
8																	
9																	
10																	
11																	

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:
Randy Dumaop / Anthony Cain J.A. Jones Environmental Services	Federal Express Track #792466313047, 791706555034, 792466312956.(3 Coolers)

C/C Dated Cooler Temps 1/1/1/2/2/2/0 bg

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop R. Dumaop	11/15/01	18:00	Federal Express	11/15/01	18:00
Printed Name and Signature:			Printed Name and Signature:		
			Brenda Gregory / Brenda Gregory	11/16/01	1000

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CHAIN-OF-CUSTODY RECORD

COC NUMBER
149152-177 page _1_ of _1_

PROJECT NAME:	PROJECT NUMBER:	LAB NAME AND CONTACT:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	RECIPIENT 1 (Address, Tel No. , and Fax No.):
N.A.S. Cecil Field Building 46	149152	Debbie Tornes Kemron Environmental Services	Jennifer Zimmerman J.A Jones Env. Services	6219 Authority Road, Jacksonville, FL 32221 PH: (904) 7774812 FAX: (904) 7774262
PROJECT PHASE/SITE/TASK:	CTO OR DO NUMBER:	LAB PO NUMBER:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	RECIPIENT 2 (Address, Tel No. , and Fax No.):
Building 46 / Monthly GW Sampling Event	0002	2329	Christelle Newsome CH2M Hill Constuctors, Inc.	115 Perimeter Center Place, N.E. Suite 700 Atlanta, GA 30346 PH:(770)604-9182 Ext.561 FAX:604-9282
PROJECT CONTACT:	PROJECT TEL NO AND FAX NO:	LAB TEL NO AND FAX NO:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	RECIPIENT 3 (Address, Tel No. , and Fax No.):
Bill Canelos	Phone: 904-777-4812 Fax:904-777-4262	Phone: 740-373-4071 Fax: 740-373-4835		

ANALYSES REQUIRED (Include Method Numbers)

ITEM	SAMPLE IDENTIFIER	SAMPLE DESCRIPTION/LOCATION	MATRIX	DATE COLLECTED	TIME COLLECTED	~~DATA PKG~~ DATA LEVEL	TAT (calendar days)	BTEX by 8021B	Naphthalene & 15 Methd Listed PAHs by 8310	TRPH by FL-PRO	NO2 NO3 PO4 by EPA Method 300.0				SAMPLE TYPE (see codes on back)	COMMENTS/ SCREENING READINGS	LAB ID
1	002-CEF46-9I-Q4-01-10	CEF-46-9I	W	11/15/01	11:15	III/C	14	2	2	2	1				Grab		
2	002-CEF46-12I-Q4-01-10	CEF-46-12I	W	11/15/01	9:40	III/C	14	6	6	6	3				Grab	MS/MSD	
3	002-CEF46-13I-Q4-01-10	CEF-46-13I	W	11/15/01	10:10	III/C	14	2	2	2	1				Grab		
4	002-CEF46-14D-Q4-01-10	CEF-46-14D	W	11/15/01	10:40	III/C	14	2	2	2	1				Grab		
5	002-CEF46-15I-Q4-01-0	CEF-46-15I	W	11/15/01	9:25	III/C	14	2	2	2	1				Grab		
6	002-46TB1-Q4-01-10	Trip Blank	W	NA	NA	III/C	14	2							Grab	Prepared by Lab	
7	NA	Temperature Blank	W	NA	NA	III/C	14					4				Prepared by Lab	
8																	
9																	
10																	

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:
Randy Dumaop / Scott Deisler / Anthony Cain J.A. Jones Environmental Services	Federal Express Track #791160587800, 792685947914, 792466198235, 792466198187.(4 Coolers)

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	11/15/01	12:00	Federal Express	11/15/01	12:00
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CCI001, Rev 02/00

KEMRON Internal Laboratory Chain of Custody

Work Order: L011316 **Client:** CCI **# of Samples:** 15 **Due Date:** _____ **Page:** _____

Sample #	Analysis	Reason	Removed By ADT	Removed From	Moved To	Reliq. by	Ret'd By ADT	Ret'd To	Rec'd By	Reason
1-7, 9-14	9056	EXT	[illegible] @ 10:30	109.10	SV	Blg	[illegible] @ 1:10	Archive-1	JKW	Archive
1-15	Betx	Analysis	gs 11/16/01 @1500	Login	UOA/Org 4	LMT	Blg 12/3/01 @1300	Archive-2	Blg	Archive
1-7, 9-14 A	FLA-PRO	Ext	[illegible] 11/19/01 @1045	walkin	SLAB	Blg	LMT @08:35 11/20/01	Crusher	BI	Disposal
1-7, 9-14	8310	Ext	[illegible] 11/19/01 @1130	walkin	SLAB	JKW	LMT @08:25 11/20/01	Crusher	BI	Disposal
5, 7 B	FLA-PRO	Re-ext	[illegible] 11/24/01 @0830	walkin	SLAB	Blg	[illegible] 11/24/01 @ 0900	crusher	LMT	Disposal
12B	8310	Re-ext	[illegible] 11/26/01 @1630	walkin	SLAB	Blg	—	—	LMT	—

① SXS released to the lab prior to logging due to short hold times Blg 11/16/01

KEMRON Environmental Services | **SAMPLES RECEIPT FORM** | Marietta Laboratory

CLIENT:	DATE:	SHIPPED BY:
CCI BRG LMT Other JKN	11/16/01 1000	(✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: ~~JKN 11/16/01~~ KL-160	COOLER ID: KDNP 114	COOLER ID: KL-1072
INDEX # : 79246619 8235	INDEX # : 79246631 3047	INDEX # : 79268594 7914
SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO
CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO
TEMP : (C) (D) 1 °C	TEMP : (C) (D) 1 °C	TEMP : (C) (D) 1 °C
TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO
WET ICE (✓) BLUE ICE ( )	WET ICE (✓) BLUE ICE ( )	WET ICE (✓) BLUE ICE ( )
ICE FROZEN (✓) MELTED ( )	ICE FROZEN (✓) MELTED ( )	ICE FROZEN (✓) MELTED ( )
RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED (✓) YES ( ) NO
SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE b(9) YES ( ) NO 11/16/01	SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO
SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )
LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO	LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO	LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO
pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO
SAMPLES FROZEN? ( ) YES (✓) NO	SAMPLES FROZEN? ( ) YES (✓) NO	SAMPLES FROZEN? ( ) YES (✓) NO
LOG-IN COMMENTS	LOG-IN COMMENTS (1) 8310 @ 1410	LOG-IN COMMENTS VOJ
1115	Broken sample 1410	925
DUP	1440	940

TSR COMMENTS

CONTACT:	DATE:	TIME:

COMMENTS: ( ) VOICE ( ) FAX ( ) E-MAIL

Revised 10/16/01

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KEMRON Environmental Services | **SAMPLES RECEIPT FORM** | Marietta Laboratory

CLIENT:	DATE:	SHIPPED BY:
CCI BRG LMT Other XW	11/16/01 1000	(✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: KL-1076	COOLER ID: KL-1088	COOLER ID: KL-470
INDEX # : 7917 06555034	INDEX # : 7924 6631 2956	INDEX # : 7924 6619 8187
SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO
CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO
TEMP : (C) (D) 2 °C	TEMP : (C) (D) 2 °C	TEMP : (C) (D) 2 °C
TEMP IN RANGE (4°C ± 2°) (✓) YES ( ) NO	TEMP IN RANGE (4°C ± 2°) (✓) YES ( ) NO	TEMP IN RANGE (4°C ± 2°) (✓) YES ( ) NO
WET ICE (✓) BLUE ICE ( )	WET ICE (✓) BLUE ICE ( )	WET ICE (✓) BLUE ICE ( )
ICE FROZEN (✓) MELTED ( )	ICE FROZEN (✓) MELTED ( )	ICE FROZEN (✓) MELTED ( )
RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED (✓) YES ( ) NO
SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO
SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )
LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO	LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO	LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO
pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO
SAMPLES FROZEN? ( ) YES ( ) NO	SAMPLES FROZEN? ( ) YES ( ) NO	SAMPLES FROZEN? ( ) YES ( ) NO
LOG-IN COMMENTS 1510 VOS	LOG-IN COMMENTS 1330 1345	LOG-IN COMMENTS 9400 MS MSD

TSR COMMENTS

CONTACT:	DATE:	TIME:

COMMENTS: ( ) VOICE ( ) FAX ( ) E-MAIL

Revised 10/16/01

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KEMRON Environmental Services | **SAMPLES RECEIPT FORM** | Marietta Laboratory

CLIENT: CCI BRG LMT Other JKW	DATE: 11/16/01 1000	SHIPPED BY: (✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: KL-744	COOLER ID:	COOLER ID:
INDEX # : 791160587800	INDEX # :	INDEX # :
SEALED (✓) YES ( ) NO	SEALED ( ) YES ( ) NO	SEALED ( ) YES ( ) NO
CUSTODY (✓) YES ( ) NO	CUSTODY ( ) YES ( ) NO	CUSTODY ( ) YES ( ) NO
TEMP : (C) (D) 0 °C	TEMP : (C) (D) °C	TEMP : (C) (D) °C
TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES ( ) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES ( ) NO
WET ICE (✓) BLUE ICE ( )	WET ICE ( ) BLUE ICE ( )	WET ICE ( ) BLUE ICE ( )
ICE FROZEN (✓) MELTED ( )	ICE FROZEN ( ) MELTED ( )	ICE FROZEN ( ) MELTED ( )
RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED ( ) YES ( ) NO	RADIATION CHECKED ( ) YES ( ) NO
SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT ( ) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT ( ) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO
SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER ( ) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER ( ) SOIL ( ) OTHER ( )
LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO	LABELS: INTACT ( ) YES ( ) NO LEGIBLE ( ) YES ( ) NO MATCH COC ( ) YES ( ) NO	LABELS: INTACT ( ) YES ( ) NO LEGIBLE ( ) YES ( ) NO MATCH COC ( ) YES ( ) NO
pH IN RANGE (2 - >9 - >12) (✓) YES ( ) NO AS APPROPRIATE	pH IN RANGE (2 - >9 - >12) ( ) YES ( ) NO AS APPROPRIATE	pH IN RANGE (2 - >9 - >12) ( ) YES ( ) NO AS APPROPRIATE
SAMPLES FROZEN? ( ) YES (✓) NO	SAMPLES FROZEN? ( ) YES ( ) NO	SAMPLES FROZEN? ( ) YES ( ) NO
LOG-IN COMMENTS 1010	LOG-IN COMMENTS	LOG-IN COMMENTS
1040		

TSR COMMENTS

CONTACT:	DATE:	TIME:

COMMENTS: ( ) VOICE ( ) FAX ( ) E-MAIL

Revised 10/16/01

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CRF#4

Sample Receipt Form #2

Client: CCI Project:
Date Received: 11/16/01

_____Cooler temperature > than 6 degrees Celcius
Reason_____

_____Samples received not on chain of custody

_____Samples on chain of custody not received

✓ Information on sample containers different from chain of custody
(1) No Identities on the Dup Blank vials
(2) Id's on Containers not filled out all the way.

✓ Sample containers received broken, leaking or not sealed (List sample ID)
002-CEF46-1S-Q4-01-10 ~ (1) 8310 vial broken

_____pH out (List sample ID & which container)

_____Insufficient sample volume

_____Air bubbles present in Voa vials (List sample ID)

_____Hold time expired (List sample ID)

TSR:
Was client notified regarding information: YES NO
Name of person contacted:_____ Company:_____
TSR:_____ Date:_____
Attach: Phone Logs, e-mails, faxes, etc.

COOLER RECEIPT FORM

Contractor Cooler _____
MRD Cooler # _____
Number of Coolers 7

PROJECT: NAS Cecil Field/Bldg. 46 LIMS# L0111316

USE OTHER SIDE OF THIS FORM TO NOTE DETAILS CONERNING CHECK-IN PROBLEMS

A. **PRELIMINARY EXAMINATION PHASE:** Date cooler opened: 11/16/01 C-of-C Number: 149152
by (print) Brenda Gregory (sign) Brenda Gregory

1. Did cooler come with a shipping slip (air bill, etc.)? ..... (YES) NO
   If YES, enter carrier name & air bill number here: Fed Ex (See CRF #3)
2. Were custody seals on outside of cooler? ..... (YES) NO
   How many & where? 1-front, seal date: 11/15/01 seal name: Kemron
3. Were custody seals unbroken and intact at the data and time of arrival? ..... (YES) NO
4. Did you screen samples for radioactivity using the Geiger Counter? ..... (YES) NO
5. Were custody papers sealed in a plastic bag & taped inside to the lid? ..... YES (NO)
6. Were custody papers filled out properly (ink, signed, etc.)? ..... (YES) NO
7. Did you sign custody papers in the appropriate place? ..... (YES) NO
8. Was project identifiable from custody papers? If yes, enter project name at the top of this form ..... (YES) NO
9. If required, was enough ice used? ..... Type of ice: Wet Temp See CRF #3 ..... (YES) NO
10. Have designated person initial here to acknowledge receipt of cooler: Bg (date) 11/16/01

B. **LOG-IN PHASE:** Date samples were logged-in: 11/16/01
by (print) Brenda Gregory (sign) Brenda Gregory

11. Describe type of packing in cooler: divider; baggies
12. Were all bottles sealed in separate plastic bags? ..... YES (NO)
13. Did all bottles arrive unbroken & were labels in good condition? ..... YES (NO)
14. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? ..... (YES) NO
15. Did all bottle labels agree with custody papers? ..... ✓ (YES) NO
16. Were correct containers used for the tests indicated? ..... (YES) NO
17. Were correct preservatives added to samples? ..... (YES) NO
18. Was a sufficient amount of sample sent for tests indicated? ..... (YES) NO
19. Were bubbles absent in volatile samples? If NO, list by Sample # _____ (YES) NO
20. Was the project manager called and status discussed? If YES, give details on the back of this form ..... YES NO
21. Who was called? _____ By whom? _____ (date) _____

2.0 Full Sample Data Package

2.1 Volatiles Data

2.1.3 BTEX GC Data (8021)

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0111316

METHOD

Preparation: SW- 846 5030B
Analysis: SW-846 8021B

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.
Matrix Spikes: All acceptance criteria were met in the MS/MSD analyses of fraction 02.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: JLS

REVIEWED: [signature] DATE: 11/27/01

Rev. 6/00

BETX-GC DATA (8021)

Login Number: L0111316

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

✓ Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and quantitation report for each sample analysis and re-analysis (if re-analyzed) (Numerical order)

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data) (Chronological)

✓ Chromatograms and quantitation reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and quantitation reports (chronological)

✓ Retention time window summary (if applicable)(chronological)

D. Raw QC Data

✓ Method Blank, chromatogram and quantitation report for each matrix type (chronological)

✓ Laboratory Control Sample, chromatogram and quantitation report for each matrix type (chronological)

na Matrix Spike/Matrix Spike Duplicate, chromatograms and quantitation reports (if not reported as samples) and of the same client batch (chronological)

✓ Instrument runlogs (chronological)

na Extraction bench sheets (for mid-level methanol extractions) (chronological)

na 5035 logs (if applicable) (chronological)

Checked By: Cwinters **Date:** 11/27/01

2.1.3.1 QC Summary

METHOD BLANK SUMMARY

Login Number: L0111316
Blank File ID: 5G10943
Date Analyzed: 11/20/01
Time Analyzed: 09:18
Analyst: JLS

Work Group: WG108545
Blank Sample ID: WG108545-01
Instrument ID: HP5
Method: 8021

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG108545-02	5G10944	11/20/01 09:50	
002-CEF46-14D-Q4-01-10	L0111316-06	5G10956	11/20/01 16:50	
002-CEF46-15I-Q4-01-10	L0111316-07	5G10957	11/20/01 17:22	
002-46TB1-Q4-01-10	L0111316-08	5G10958	11/20/01 17:55	
002-CEF46-1S-Q4-01-10	L0111316-10	5G10959	11/20/01 18:27	
002-CEF46-2S-Q4-01-10	L0111316-11	5G10960	11/20/01 19:00	
002-CEF46-5I-Q4-01-10	L0111316-12	5G10961	11/20/01 19:32	
002-CEF46-6D-Q4-01-10	L0111316-14	5G10962	11/20/01 20:04	
002-46TB2-Q4-01-10	L0111316-15	5G10963	11/20/01 20:37	

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0111316
Run Date: 11/20/2001
Sample ID: WG108545-01
Instrument ID: HP5
Run Time: 09:18
Method: 8021B
File ID: 5G10943
Analyst: JLS
Matrix: Water
Workgroup (AAB#): WG108545
Units: ug/L
Contract #:
Cal ID: HP5-19-NOV-2001

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
MTBE	.5	1	0.500	1.00	ND
Benzene	.5	1	0.500	1.00	ND
Toluene	.5	1	0.500	1.00	ND
Ethylbenzene	.5	1	0.500	1.00	ND
Total xylenes	.5	1	0.500	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	110	70 - 130	PASS

F Analyte concentration between MDL and RDL
* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 10/16/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0111316
Run Date: 11/20/2001
Sample ID: WG108545-02
Instrument ID: HP5
Run Time: 09:50
Method: 8021B
File ID: 5G10944
Analyst: JLS
Matrix: Water
Workgroup (AAB#): WG108545
Units: ug/L
Contract #:
Cal ID: HP5-19-NOV-2001

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	20.1	101	56 - 149	
Benzene	20	19.9	99.5	78 - 122	
Toluene	20	19.9	99.5	78 - 123	
Ethylbenzene	20	20.3	102	80 - 129	
Total xylenes	60	59.5	99.2	80 - 124	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	110	70 - 130	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 10/16/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021 AAB#: WG108545

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
002-CEF46-14D-Q4-01-10	15-NOV-01	16-NOV-01	20-NOV-01	14	5	20-NOV-01	14	5	
002-CEF46-15I-Q4-01-10	15-NOV-01	16-NOV-01	20-NOV-01	14	5	20-NOV-01	14	5	
002-46TB1-Q4-01-10	15-NOV-01	16-NOV-01	20-NOV-01	14	5	20-NOV-01	14	5	
002-CEF46-1S-Q4-01-10	15-NOV-01	16-NOV-01	20-NOV-01	14	5	20-NOV-01	14	5	
002-CEF46-2S-Q4-01-10	15-NOV-01	16-NOV-01	20-NOV-01	14	5	20-NOV-01	14	5	
002-CEF46-5I-Q4-01-10	15-NOV-01	16-NOV-01	20-NOV-01	14	5	20-NOV-01	14	5	
002-CEF46-6D-Q4-01-10	15-NOV-01	16-NOV-01	20-NOV-01	14	5	20-NOV-01	14	5	
002-46TB2-Q4-01-10	15-NOV-01	16-NOV-01	20-NOV-01	14	5	20-NOV-01	14	5	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

Calibration Table Report
Method: 8021W.M
Title: METHOD 8021B - Water - 11/19/01
Last Calibration: Mon Nov 19 14:58:57 2001

Calibration Files

Compound	1 5G10907.	10 5G10908.	20 5G10909.	50 5G10910.	100 5G10911.	200 5G10912.	300 5G10913.D	Avg	%RSD	
MTBE	17928.1	15757.4	15977.3	15705.6	16375.8	15833.7	15660.9	16177.0	5.002	
Benzene	99790.0	89314.0	90391.8	89213.1	89659.6	87758.8	87854.6	90568.9	4.609	
TFT	27514.0	26529.5	27740.5	27712.0	27569.2	27069.0	24555.3	26955.7	4.239	
Toluene	91223.3	82284.1	83471.4	81889.8	82269.7	80912.5	82171.9	83460.4	4.199	
Chlorobenzene	142785.6	90493.5	89103.4	87023.5	86260.6	85319.6	85791.8	95254.0	22.090	LR. 1.000
Ethylbenzene	76777.0	70859.6	71518.0	71121.0	70777.1	70298.7	70633.0	71712.1	3.160	
m-,p-Xylene	92261.5	83694.2	84557.0	83881.4	83175.9	81902.1	81749.0	84460.2	4.251	
o-Xylene	79222.9	72756.6	73618.4	72754.2	72631.0	72113.4	72214.0	73615.8	3.424	
BFB	76570.3	73113.5	74836.8	74862.6	74613.7	74295.4	65795.0	73441.1	4.796	
1,3-Dichlorobenzene	84334.7	69306.0	71664.7	70887.2	71839.3	71422.0	72754.5	73172.6	6.880	
1,4-Dichlorobenzene	89077.4	73163.6	76417.9	75588.1	76220.0	74531.6	75754.7	77250.5	6.905	
1,2-Dichlorobenzene	73100.2	61053.8	60836.5	59381.5	60314.3	59445.4	60404.8	62076.6	7.897	
BCB	74758.0	68514.5	69410.2	69067.1	69707.8	69797.3	62669.1	69132.0	5.102	

Mon Nov 19 15:13:16 2001

Login Number: L0111316
File ID: 5G10915
ALT ID: WG108448-08
Units: ug/L

Instrument ID: HP5
Run Date: 11/19/2001
Run Time: 15:43
Analyst: JLS
Cal ID: HP5 - 19-NOV-01

Analyte		Expected	Found		RF	%D	Q
1,2-Dichlorobenzene		20	19.9	6	1800	0.5	
1,4-Dichlorobenzene		20	19.8	7	6600	1.0	
1,3-Dichlorobenzene		20	19.7	7	2200	1.5	
o-Xylene		20	19.6	7	2100	2.0	
m-,p-Xylene		40	39.8	8	4100	0.5	
Ethylbenzene		20	20.3	7	2600	1.5	
Chlorobenzene		20	19.8	8	7700	1.0	
Toluene		20	19.8	8	2600	1.0	
Benzene		20	19.7	8	9100	1.5	
MTBE		20	19.6	1	5900	2.0	

KEMRON FORMS - Modified 10/17/2001
Version 1.0

Login Number: L0111316
File ID: 5G10942
CCV ID: WG108544-01
Units: ug/L

Instrument ID: HP5
Run Date: 11/20/2001
Run Time: 08:34
Analyst: JLS
Cal ID: HP5 - 19-NOV-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	19.8	61600	1.0	
1,4-Dichlorobenzene		20	19.5	75500	2.5	
1,3-Dichlorobenzene		20	19.6	71700	2.0	
o-Xylene		20	18.9	69600	5.5	
m-,p-Xylene		40	38.6	81400	3.5	
Ethylbenzene		20	19.6	70500	2.0	
Chlorobenzene		20	20.3	89500	1.5	
Toluene		20	19.9	83200	0.5	
Benzene		20	19.8	89700	1.0	
MTBE		20	19.7	16000	1.5	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

Login Number: L0111316
File ID: 5G10953
CCV ID: WG108544-02
Units: ug/L

Instrument ID: HP5
Run Date: 11/20/2001
Run Time: 14:58
Analyst: JLS
Cal ID: HP5 - 19-NOV-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	19.5	60600	2.5	
1,4-Dichlorobenzene		20	19.4	74800	3.0	
1,3-Dichlorobenzene		20	19.1	69800	4.5	
o-Xylene		20	19.2	70700	4.0	
m-,p-Xylene		40	39.1	82700	2.3	
Ethylbenzene		20	19.9	71500	0.5	
Chlorobenzene		20	19.4	85900	3.0	
Toluene		20	19.6	81700	2.0	
Benzene		20	19.5	88400	2.5	
MTBE		20	19.5	15800	2.5	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

Login Number: L0111316
File ID: 5G10964
CCV ID: WG108544-03
Units: ug/L

Instrument ID: HP5
Run Date: 11/20/2001
Run Time: 21:09
Analyst: JLS
Cal ID: HP5 - 19-NOV-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	19.4	60200	3.0	
1,4-Dichlorobenzene		20	19.3	74500	3.5	
1,3-Dichlorobenzene		20	18.9	69000	5.5	
o-Xylene		20	19.2	70600	4.0	
m-,p-Xylene		40	39.0	82400	2.5	
Ethylbenzene		20	19.9	71300	0.5	
Chlorobenzene		20	19.1	84600	4.5	
Toluene		20	19.6	81700	2.0	
Benzene		20	19.5	88200	2.5	
MTBE		20	19.5	15800	2.5	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
SURROGATE STANDARDS

Login Number: L0111316
Instrument Id: HP5
Workgroup (AAB#): WG108545

Method: 8021
Matrix: WATER

Sample Numbe	Dilution	Tag	1
L0111316-06	1.00		110
L0111316-07	1.00		109
L0111316-08	1.00		109
L0111316-10	1.00		112
L0111316-11	1.00		114
L0111316-12	1.00		111
L0111316-14	1.00		111
L0111316-15	1.00		110
WG108545-01	1.00		110
WG108545-02	1.00		110

Surrogates	Surrogate Limits		
1 - a,a,a-Trifluorotoluene	70	-	130

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 10/18/2001
Version 1.0

Injection Log

Directory: c:\hpchem\2\data\111901

Analyst: JES

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g10904.d	1.	WG108448-01 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	19 Nov 101 12::4
2	1	5g10905.d	1.	WG108448-01 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	19 Nov 101 12::3
3	1	5g10906.d	1.	WG108448-01 8021 STD1 1PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13::4
4	2	5g10907.d	1.	WG108448-01 8021 STD1 1PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13::1
5	3	5g10908.d	1.	WG108448-02 8021 STD2 10PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13::4
6	4	5g10909.d	1.	WG108448-03 8021 STD3 20PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13::1
7	5	5g10910.d	1.	WG108448-04 8021 STD4 50PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13::5
8	6	5g10911.d	1.	WG108448-05 8021 STD5 100PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 12::2
9	7	5g10912.d	1.	WG108448-06 8021 STD6 200PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 12::5
10	8	5g10913.d	1.	WG108448-07 8021 STD7 300PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 12::2
11	9	5g10914.d	1.	RINSE 5ML	1,1 S-86-08	19 Nov 101 12::5
12	10	5g10915.d	1.	WG108448-08 ALT SOURCE 20PPB 5ML	1,1 S-86-13,86-08	19 Nov 101 12::4
13	1	5g10916.d	1.	WG108507-01 WATER BLANK 5ML	1,1 S-86-12	19 Nov 101 12::1
14	2	5g10917.d	1.	WG108507-02 WATER LCS 20PPB 5ML	1,1 S-86-12	19 Nov 101 12::4
15	1	5g10918.d	1.	L0111312-03 A 5ML pH<2	1,1 S-86-12	19 Nov 101 12::2
16	2	5g10919.d	1.	L0111317-03 A 5ML pH<2	1,1 S-86-12	19 Nov 101 12::5
17	3	5g10920.d	1.	L0111280-01 B 5ML pH<2	1,1 S-86-12	19 Nov 101 12::2
18	4	5g10921.d	1.	L0111280-02 B 5ML pH<2	1,1 S-86-12	19 Nov 101 12::5
19	5	5g10922.d	1.	L0111280-03 B 5ML pH<2	1,1 S-86-12	19 Nov 101 12::3
20	6	5g10923.d	20.	WG108507-03 L0111283-01 B 20X 5ML pH<2 RRIccx	1,20 S-86-12	19 Nov 101 12::0
21	7	5g10924.d	20.	WG108507-04 L0111283-01 B MS 20X 5ML pH	1,20 S-86-(13,12)	19 Nov 101 12::3
22	8	5g10925.d	20.	WG108507-05 L0111283-01 B MSD 20X 5ML p	1,20 S-86-(13,12)	19 Nov 101 12::0
23	9	5g10926.d	1.	WG108448-09 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	19 Nov 101 12::4
24	10	5g10927.d	10.	L0111283-02 B 10X 5ML pH<2	1,10 S-86-12	19 Nov 101 13::1
25	11	5g10928.d	1.	L0111283-03 B 5ML pH<2	1,1 S-86-12	19 Nov 101 13::4
26	12	5g10929.d	5.	L0111283-04 B 5X 5ML pH<2	1,5 S-86-12	19 Nov 101 13::1
27	13	5g10930.d	1.	L0111283-04 B 5ML pH<2	1,1 S-86-12	19 Nov 101 13::5
28	14	5g10931.d	10.	L0111283-05 B 10X 5ML pH<2	1,10 S-86-12	20 Nov 101 13::2
29	15	5g10932.d	1.	L0111283-06 B 5ML pH<2	1,1 S-86-12	20 Nov 101 13::5
30	16	5g10933.d	10.	L0111283-07 B 10X 5ML pH<2	1,10 S-86-12	20 Nov 101 12::2
31	17	5g10934.d	1.	L0111283-08 B 5ML pH<2	1,1 S-86-12	20 Nov 101 12::0
32	18	5g10935.d	1.	L0111283-09 B 5ML pH<2	1,1 S-86-12	20 Nov 101 12::3
33	19	5g10936.d	1.	L0111301-01 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::0
34	20	5g10937.d	1.	WG108448-10 8021 STD 20PPB 5ML	1,1 S-86-12	20 Nov 101 12::3
35	21	5g10938.d	1.	L0111301-02 A 5ML pH=10	1,1 S-86-12	20 Nov 101 12::0
36	22	5g10939.d	1.	L0111301-03 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::4
37	23	5g10940.d	1.	L0111301-04 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::1
38	24	5g10941.d	1.	WG108448-11 8021 STD 20PPB 5ML	1,1 S-86-12	20 Nov 101 12::4

Injection Log

ANALYST: JLS

Directory: c:\hpchem\2\data\112001

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g10942.d	1.	WG108544-01 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	20 Nov 101 12::3
2	2	5g10943.d	1.	WG108545-01 WATER BLANK 5ML	1,1 S-86-12	20 Nov 101 12::1
3	3	5g10944.d	1.	WG108545-02 WATER LCS 20PPB 5ML	1,1 S-86-(13,12)	20 Nov 101 12::5
4	1	5g10945.d	~~1000.~~ 100	L0111283-01 B ~~1000X~~ 5ML 100X	1,~~1000 B~~-86-12 100	20 Nov 101 13::3
5	2	5g10946.d	1000.	WG108545-03 L0111287-13 B 1000X 5ML	1,1000 S-86-12	20 Nov 101 13::0
6	3	5g10947.d	1000.	WG108545-04 L0111287-13 B MS 1000X 5ML	1,1000 S-86-(13,12)	20 Nov 101 13::3
7	4	5g10948.d	1000.	WG108545-05 L0111287-13 B MSD 1000X 5ML	1,1000 S-86-(13,12)	20 Nov 101 13::0
8	5	5g10949.d	1000.	L0111287-15 B 1000X 5ML pH<2	1,1000 S-86-12	20 Nov 101 13::[illegible]
9	6	5g10950.d	100.	L0111287-16 B 100X 5ML pH<2 RR@100X	1,100 S-86-12	20 Nov 101 12::1
10	7	5g10951.d	10.	L0111287-17 B 10X 5ML pH<2	1,10 S-86-12	20 Nov 101 12::4
11	8	5g10952.d	1.	L0111287-20 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::1
12	9	5g10953.d	1.	WG108544-02 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	20 Nov 101 12::5
13	10	5g10954.d	1.	L0111287-18 B 5ML pH<2	1,1 S-86-12	20 Nov 101 12::4
14	11	5g10955.d	1.	L0111287-19 B 5ML pH<2	1,1 S-86-12	20 Nov 101 12::1
15	12	5g10956.d	1.	L0111316-06 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::5
16	13	5g10957.d	1.	L0111316-07 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::2
17	14	5g10958.d	1.	L0111316-08 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::5
18	15	5g10959.d	1.	L0111316-10 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::2
19	16	5g10960.d	1.	L0111316-11 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::0
20	17	5g10961.d	1.	L0111316-12 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::3
21	18	5g10962.d	1.	L0111316-14 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::0
22	19	5g10963.d	1.	L0111316-15 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::3
23	20	5g10964.d	1.	WG108544-03 8021 STD 5ML	1,1 S-86-(13,12)	20 Nov 101 12::0
24	21	5g10965.d	1000.	L0111287-16 B 1000X 5ML	1,1000 S-86-(13,12)	20 Nov 101 12::4
25	22	5g10966.d	1.	L0111361-02 A 5ML	1,1 S-86-12	20 Nov 101 13::1
26	23	5g10967.d	1.	L0111365-03 A 5ML	1,1 S-86-12	20 Nov 101 13::4
27	24	5g10968.d	1.	WG108544-04 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	20 Nov 101 13::1

METHOD BLANK SUMMARY

Login Number: L0111316
Blank File ID: 5G10970
Date Analyzed: 11/21/01
Time Analyzed: 08:47
Analyst: JLS

Work Group: WG108651
Blank Sample ID: WG108651-01
Instrument ID: HP5
Method: 8021

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG108651-02	5G10971	11/21/01 09:19	
002-CEF46-9I-Q4-01-10	L0111316-01	5G10972	11/21/01 10:04	
002-CEF46-12I-Q4-01-10	L0111316-02	5G10973	11/21/01 10:36	
002-CEF46-12I-Q4-01-10	L0111316-03	5G10974	11/21/01 11:08	
002-CEF46-12I-Q4-01-10	L0111316-04	5G10975	11/21/01 11:41	
002-CEF46-13I-Q4-01-10	L0111316-05	5G10976	11/21/01 12:14	
002-CEF46-7I-Q4-01-10	L0111316-13	5G10977	11/21/01 12:46	
002-46DUP-Q4-01-10	L0111316-09	5G10978	11/21/01 13:19	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0111316
Instrument ID: HP5
File ID: 5G10970
Workgroup (AAB#): WG108651
Contract #:

Run Date: 11/21/2001
Run Time: 08:47
Analyst: JLS

Sample ID: WG108651-01
Method: 8021B
Matrix: Water
Units: ug/L
Cal ID: HP5-19-NOV-2001

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
MTBE	.5	1	0.500	1.00	ND
Benzene	.5	1	0.500	1.00	ND
Toluene	.5	1	0.500	1.00	ND
Ethylbenzene	.5	1	0.500	1.00	ND
Total xylenes	.5	1	0.500	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	109	70 - 130	PASS

F Analyte concentration between MDL and RDL
* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 10/16/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0111316
Instrument ID: HP5
File ID: 5G10971
Workgroup (AAB#): WG108651
Contract #:

Run Date: 11/21/2001
Run Time: 09:19
Analyst: JLS

Sample ID: WG108651-02
Method: 8021B
Matrix: Water
Units: ug/L
Cal ID: HP5-19-NOV-2001

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	19.9	99.5	56 - 149	
Benzene	20	19.6	98.0	78 - 122	
Toluene	20	19.7	98.5	78 - 123	
Ethylbenzene	20	20.2	101	80 - 129	
Total xylenes	60	59.5	99.2	80 - 124	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	109	70 - 130	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 10/16/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
MS/MSD REPORT

Loginnum: L0111316 Cal ID: HP5-19-NOV-2001 Worknum: WG108651
Instrument ID: HP5 Contract #: Method: 8021B
Parent ID: L0111316-02 File ID: 5G10973 Matrix: Water
Sample ID: L0111316-03 MS File ID: 5G10974 Units: ug/L
Sample ID: L0111316-04 MSD File ID: 5G10975

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Benzene	0	20.0	19.7	98.5	20.0	19.7	98.5	0	78 - 122	20	
Ethylbenzene	0	20.0	20.2	101	20.0	20.1	101	0.495	80 - 129	20	
Methyl tert-butyl ether	17.4	20.0	36.9	97.5	20.0	36.5	95.5	1.09	56 - 149	20	
Toluene	0	20.0	19.7	98.5	20.0	19.7	98.5	0	78 - 123	20	
Xylenes, Total	0	60.0	58.9	98.2	60.0	58.8	98.0	0.170	80 - 124	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON FORMS - Modified 10/16/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021

AAB#: WG108651

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
002-CEF46-9I-Q4-01-10	15-NOV-01	16-NOV-01	21-NOV-01	14	6	21-NOV-01	14	6	
002-CEF46-12I-Q4-01-10	15-NOV-01	16-NOV-01	21-NOV-01	14	6	21-NOV-01	14	6	
002-CEF46-12I-Q4-01-10	15-NOV-01	16-NOV-01	21-NOV-01	14	6	21-NOV-01	14	6	
002-CEF46-12I-Q4-01-10	15-NOV-01	16-NOV-01	21-NOV-01	14	6	21-NOV-01	14	6	
002-CEF46-13I-Q4-01-10	15-NOV-01	16-NOV-01	21-NOV-01	14	6	21-NOV-01	14	6	
002-CEF46-7I-Q4-01-10	15-NOV-01	16-NOV-01	21-NOV-01	14	6	21-NOV-01	14	6	
002-46DUP-Q4-01-10	15-NOV-01	16-NOV-01	21-NOV-01	14	6	21-NOV-01	14	6	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

Calibration Table Report
Method: 8021W.M
Title: METHOD 8021B - Water - 11/19/01
Last Calibration: Mon Nov 19 14:58:57 2001

Calibration Files

	1	10	20	50	100	200	300		
	5G10907.	5G10908.	5G10909.	5G10910.	5G10911.	5G10912.	5G10913.D		
Compound								Avg	%RSD
MTBE	17928.1	15757.4	15977.3	15705.6	16375.8	15833.7	15660.9	16177.0	5.002
Benzene	99790.0	89314.0	90391.8	89213.1	89659.6	87758.8	87854.6	90568.9	4.609
TFT	27514.0	26529.5	27740.5	27712.0	27569.2	27069.0	24555.3	26955.7	4.239
Toluene	91223.3	82284.1	83471.4	81889.8	82269.7	80912.5	82171.9	83460.4	4.199
Chlorobenzene	142785.6	90493.5	89103.4	87023.5	86260.6	85319.6	85791.8	95254.0	22.090 LR, 1.000
Ethylbenzene	76777.0	70859.6	71518.0	71121.0	70777.1	70298.7	70633.0	71712.1	3.160
m-,p-Xylene	92261.5	83694.2	84557.0	83881.4	83175.9	81902.1	81749.0	84460.2	4.251
o-Xylene	79222.9	72756.6	73618.4	72754.2	72631.0	72113.4	72214.0	73615.8	3.424
BFB	76570.3	73113.5	74836.8	74862.6	74613.7	74295.4	65795.0	73441.1	4.796
1,3-Dichlorobenzene	84334.7	69306.0	71664.7	70887.2	71839.3	71422.0	72754.5	73172.6	6.880
1,4-Dichlorobenzene	89077.4	73163.6	76417.9	75588.1	76220.0	74531.6	75754.7	77250.5	6.905
1,2-Dichlorobenzene	73100.2	61053.8	60836.5	59381.5	60314.3	59445.4	60404.8	62076.6	7.897
BCB	74758.0	68514.5	69410.2	69067.1	69707.8	69797.3	62669.1	69132.0	5.102

Mon Nov 19 15:13:16 2001

Login Number: L0111316
File ID: 5G10915
ALT ID: WG108448-08
Units: ug/L

Instrument ID: HP5
Run Date: 11/19/2001
Run Time: 15:43
Analyst: JLS
Cal ID: HP5 - 19-NOV-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	19.9	61800	0.5	
1,4-Dichlorobenzene		20	19.8	76600	1.0	
1,3-Dichlorobenzene		20	19.7	72200	1.5	
o-Xylene		20	19.6	72100	2.0	
m-,p-Xylene		40	39.8	84100	0.5	
Ethylbenzene		20	20.3	72600	1.5	
Chlorobenzene		20	19.8	87700	1.0	
Toluene		20	19.8	82600	1.0	
Benzene		20	19.7	89100	1.5	
MTBE		20	19.6	15900	2.0	

KEMRON FORMS - Modified 10/17/2001
Version 1.0

Login Number: L0111316
File ID: 5G10969
CCV ID: WG108650-01
Units: ug/L

Instrument ID: HP5
Run Date: 11/21/2001
Run Time: 08:05
Analyst: JLS
Cal ID: HP5 - 19-NOV-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	19.9	61700	0.5	
1,4-Dichlorobenzene		20	19.6	75600	2.0	
1,3-Dichlorobenzene		20	19.7	72200	1.5	
o-Xylene		20	19.8	72900	1.0	
m-,p-Xylene		40	40.7	85800	1.8	
Ethylbenzene		20	20.7	74300	3.5	
Chlorobenzene		20	21.7	95500	8.5	
Toluene		20	20.4	85300	2.0	
Benzene		20	20.2	91600	1.0	
MTBE		20	20.3	16400	1.5	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

Login Number: L0111316
File ID: 5G10980
CCV ID: WG108650-02
Units: ug/L

Instrument ID: HP5
Run Date: 11/21/2001
Run Time: 14:25
Analyst: JLS
Cal ID: HP5 - 19-NOV-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	20.0	62200	0.0	
1,4-Dichlorobenzene		20	19.9	76900	0.5	
1,3-Dichlorobenzene		20	19.2	70300	4.0	
o-Xylene		20	19.3	71100	3.5	
m-,p-Xylene		40	39.2	82800	2.0	
Ethylbenzene		20	20.0	71700	0.0	
Chlorobenzene		20	19.3	85600	3.5	
Toluene		20	19.6	82000	2.0	
Benzene		20	19.6	88800	2.0	
MTBE		20	19.7	15900	1.5	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES

SURROGATE STANDARDS

Login Number: L0111316

Instrument Id: HP5

Workgroup (AAB#): WG108651

Method: 8021

Matrix: WATER

Sample Numbe	Dilution	Tag	1
L0111316-01	1.00		110
L0111316-02	1.00		109
L0111316-03	1.00		110
L0111316-04	1.00		110
L0111316-05	1.00		109
L0111316-09	1.00		110
L0111316-13	100		109
WG108651-01	1.00		109
WG108651-02	1.00		109

Surrogates	Surrogate Limits		
1 - a,a,a-Trifluorotoluene	70	-	130

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 10/18/2001
Version 1.0

Injection Log

Directory: c:\hpchem\2\data\111901

Analyst: JES

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g10904.d	1.	WG108448-01 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	19 Nov 101 12::4
2	1	5g10905.d	1.	WG108448-01 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	19 Nov 101 12::3
3	1	5g10906.d	1.	WG108448-01 8021 STD1 1PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13::4
4	2	5g10907.d	1.	WG108448-01 8021 STD1 1PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13::1
5	3	5g10908.d	1.	WG108448-02 8021 STD2 10PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13::4
6	4	5g10909.d	1.	WG108448-03 8021 STD3 20PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13::1
7	5	5g10910.d	1.	WG108448-04 8021 STD4 50PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13::5
8	6	5g10911.d	1.	WG108448-05 8021 STD5 100PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 12::2
9	7	5g10912.d	1.	WG108448-06 8021 STD6 200PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 12::5
10	8	5g10913.d	1.	WG108448-07 8021 STD7 300PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 12::2
11	9	5g10914.d	1.	RINSE 5ML	1,1 S-86-08	19 Nov 101 12::5
12	10	5g10915.d	1.	WG108448-08 ALT SOURCE 20PPB 5ML	1,1 S-86-13,86-08	19 Nov 101 12::4
13	1	5g10916.d	1.	WG108507-01 WATER BLANK 5ML	1,1 S-86-12	19 Nov 101 12::1
14	2	5g10917.d	1.	WG108507-02 WATER LCS 20PPB 5ML	1,1 S-86-12	19 Nov 101 12::4
15	1	5g10918.d	1.	L0111312-03 A 5ML pH<2	1,1 S-86-12	19 Nov 101 12::2
16	2	5g10919.d	1.	L0111317-03 A 5ML pH<2	1,1 S-86-12	19 Nov 101 12::5
17	3	5g10920.d	1.	L0111280-01 B 5ML pH<2	1,1 S-86-12	19 Nov 101 12::2
18	4	5g10921.d	1.	L0111280-02 B 5ML pH<2	1,1 S-86-12	19 Nov 101 12::5
19	5	5g10922.d	1.	L0111280-03 B 5ML pH<2	1,1 S-86-12	19 Nov 101 12::3
20	6	5g10923.d	20.	WG108507-03 L0111283-01 B 20X 5ML pH<2 RR100X	1,20 S-86-12	19 Nov 101 12::0
21	7	5g10924.d	20.	WG108507-04 L0111283-01 B MS 20X 5ML pH	1,20 S-86-(13,12)	19 Nov 101 12::3
22	8	5g10925.d	20.	WG108507-05 L0111283-01 B MSD 20X 5ML p	1,20 S-86-(13,12)	19 Nov 101 12::0
23	9	5g10926.d	1.	WG108448-09 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	19 Nov 101 12::4
24	10	5g10927.d	10.	L0111283-02 B 10X 5ML pH<2	1,10 S-86-12	19 Nov 101 13::1
25	11	5g10928.d	1.	L0111283-03 B 5ML pH<2	1,1 S-86-12	19 Nov 101 13::4
26	12	5g10929.d	5.	L0111283-04 B 5X 5ML pH<2	1,5 S-86-12	19 Nov 101 13::1
27	13	5g10930.d	1.	L0111283-04 B 5ML pH<2	1,1 S-86-12	19 Nov 101 13::5
28	14	5g10931.d	10.	L0111283-05 B 10X 5ML pH<2	1,10 S-86-12	20 Nov 101 13::2
29	15	5g10932.d	1.	L0111283-06 B 5ML pH<2	1,1 S-86-12	20 Nov 101 13::5
30	16	5g10933.d	10.	L0111283-07 B 10X 5ML pH<2	1,10 S-86-12	20 Nov 101 12::2
31	17	5g10934.d	1.	L0111283-08 B 5ML pH<2	1,1 S-86-12	20 Nov 101 12::0
32	18	5g10935.d	1.	L0111283-09 B 5ML pH<2	1,1 S-86-12	20 Nov 101 12::3
33	19	5g10936.d	1.	L0111301-01 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::0
34	20	5g10937.d	1.	WG108448-10 8021 STD 20PPB 5ML	1,1 S-86-12	20 Nov 101 12::3
35	21	5g10938.d	1.	L0111301-02 A 5ML pH=10	1,1 S-86-12	20 Nov 101 12::0
36	22	5g10939.d	1.	L0111301-03 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::4
37	23	5g10940.d	1.	L0111301-04 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::1
38	24	5g10941.d	1.	WG108448-11 8021 STD 20PPB 5ML	1,1 S-86-12	20 Nov 101 12::4

Directory: c:\hpchem\2\data\112101

Injection Log

ANALYST: JLS

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g10969.d	1.	WG108650-01 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	21 Nov 101 12::0
2	2	5g10970.d	1.	WG108651-01 SOIL BLANK 5ML	1,1 S-86-12	21 Nov 101 12::4
3	3	5g10971.d	1.	WG108651-01 SOIL LCS 20PPB 5ML	1,1 S-86-(13,12)	21 Nov 101 12::1
4	4	5g10972.d	1.	L0111316-01 A 5ML pH<2	1,1 S-86-12	21 Nov 101 13::0
5	5	5g10973.d	1.	WG108651-03 L0111316-02 A 5ML pH<2	1,1 S-86-12	21 Nov 101 13::3
6	6	5g10974.d	1.	WG108651-04 L0111316-03 A MS 5ML pH<2	1,1 S-86-(13,12)	21 Nov 101 13::0
7	7	5g10975.d	1.	WG108651-05 L0111316-04 A MSD 5ML pH<2	1,1 S-86-(13,12)	21 Nov 101 13::4
8	8	5g10976.d	1.	L0111316-05 A 5ML pH<2	1,1 S-86-12	21 Nov 101 13::1
9	9	5g10977.d	100.	L0111316-13 A 100X 5ML pH<2	1,100 S-86-12	21 Nov 101 13::4
10	10	5g10978.d	1.	L0111316-09 A 5ML pH<2	1,1 S-86-12	21 Nov 101 12::1
11	11	5g10979.d	1.	L0111325-05 B 5ML pH<2	1,1 S-86-12	21 Nov 101 12::5
12	9	5g10980.d	1.	WG108650-02 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	21 Nov 101 12::2
13	10	5g10981.d	1.	L0111325-06 B 5ML	1,1 S-86-12	21 Nov 101 12::0
14	11	5g10982.d	1.	L0111325-07 B 5ML	1,1 S-86-12	21 Nov 101 12::4
15	12	5g10983.d	1.	L0111325-08 B 5ML	1,1 S-86-12	21 Nov 101 12::0
16	13	5g10984.d	1.	L0111325-09 B 5ML	1,1 S-86-12	21 Nov 101 12::5
17	14	5g10985.d	1.	L0111325-10 B 5ML	1,1 S-86-12	21 Nov 101 12::1
18	15	5g10986.d	10.	L0111325-03 B 10X 5ML	1,10 S-86-12	21 Nov 101 12::4
19	16	5g10987.d	1.	WG108650-03 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	21 Nov 101 12::1
20	17	5g10988.d	1	RR L0111332-01 A 5ML	1,1 S-86-12	21 Nov 101 12::5
21	18	5g10989.d	1.	L0111332-02 A 5ML	1,1 S-86-12	21 Nov 101 12::2
22	19	5g10990.d	1.	L0111332-03 A 5ML RR @ 100X HIGH SSS	1,1 S-86-12	21 Nov 101 12::5
23	20	5g10991.d	1.	L0111332-04 A 5ML RR @ 100X HIGH SSS	1,1 S-86-12	21 Nov 101 13::2
24	21	5g10992.d	1.	L0111332-05 A 5ML RR @ 100X HIGH SSS	1,1 S-86-12	21 Nov 101 13::0
25	22	5g10993.d	1.	L0111332-06 A 5ML RR c 10	1,1 S-86-12	21 Nov 101 13::3
26	23	5g10994.d	1.	RINSE 5ML	1,1 S-86-12	22 Nov 101 13::0
27	24	5g10995.d	1.	ϕ? WG108650-04 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	22 Nov 101 13::3

VOA - GC

Date: 11/20/01 **Analyst:** JLS **Method:** (8021) 8015 602

Instrument: HP5 **Work Group:** WG 108545

	Analyst
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	NA
Second Source standard % Difference	✓
Continuing Calibration / Check Standards	✓
Project / Client Specific Requirements	✓
Special Standards	NA
Blanks	✓
TCL's	✓
Surrogates	✓
LCS (Laboratory Control Sample)	✓
Recoveries	✓
Surrogates	✓
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	✓
Dilutions Run	✓
Reruns	✓
Excel Spreadsheets	✓
Case Narrative	✓
Narrative Summary	✓
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: CSH 11/21/01

Secondary Reviewers Initials & Date Checked: GS 11/21/01

✓ • Check for compliance with Method and project-specific requirements
✓ • Check the completeness of the reported information
✓ • Check the information for the report narrative
✓ • Check the reasonableness of results

Supervisory Review Initials & Date Checked: [illegible] 11/21/01

Comments:

✓ = Checked & OK
NA = Not Applicable

VOA - GC

Date: 11/21/01 **Analyst:** JLS **Method:** 8021 8015 602

Instrument: HP5 **Work Group:** WG 108651

	Analyst
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	NA
Second Source standard % Difference	✓
Continuing Calibration / Check Standards	✓
Project / Client Specific Requirements	✓
Special Standards	NA
Blanks	✓
TCL's	✓
Surrogates	✓
LCS (Laboratory Control Sample)	✓
Recoveries	✓
Surrogates	✓
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	✓
Dilutions Run	✓
Reruns	✓
Excel Spreadsheets	✓
Case Narrative	✓
Narrative Summary	✓
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: CSH 11/26/01

Secondary Reviewers Initials & Date Checked: JLS 11/26/01

✓ • Check for compliance with Method and project-specific requirements
✓ • Check the completeness of the reported information
✓ • Check the information for the report narrative
✓ • Check the reasonableness of results

Supervisory Review Initials & Date Checked: 11/26/01

Comments:

✓ = Checked & OK
NA = Not Applicable

2.1.3.2 Sample Data

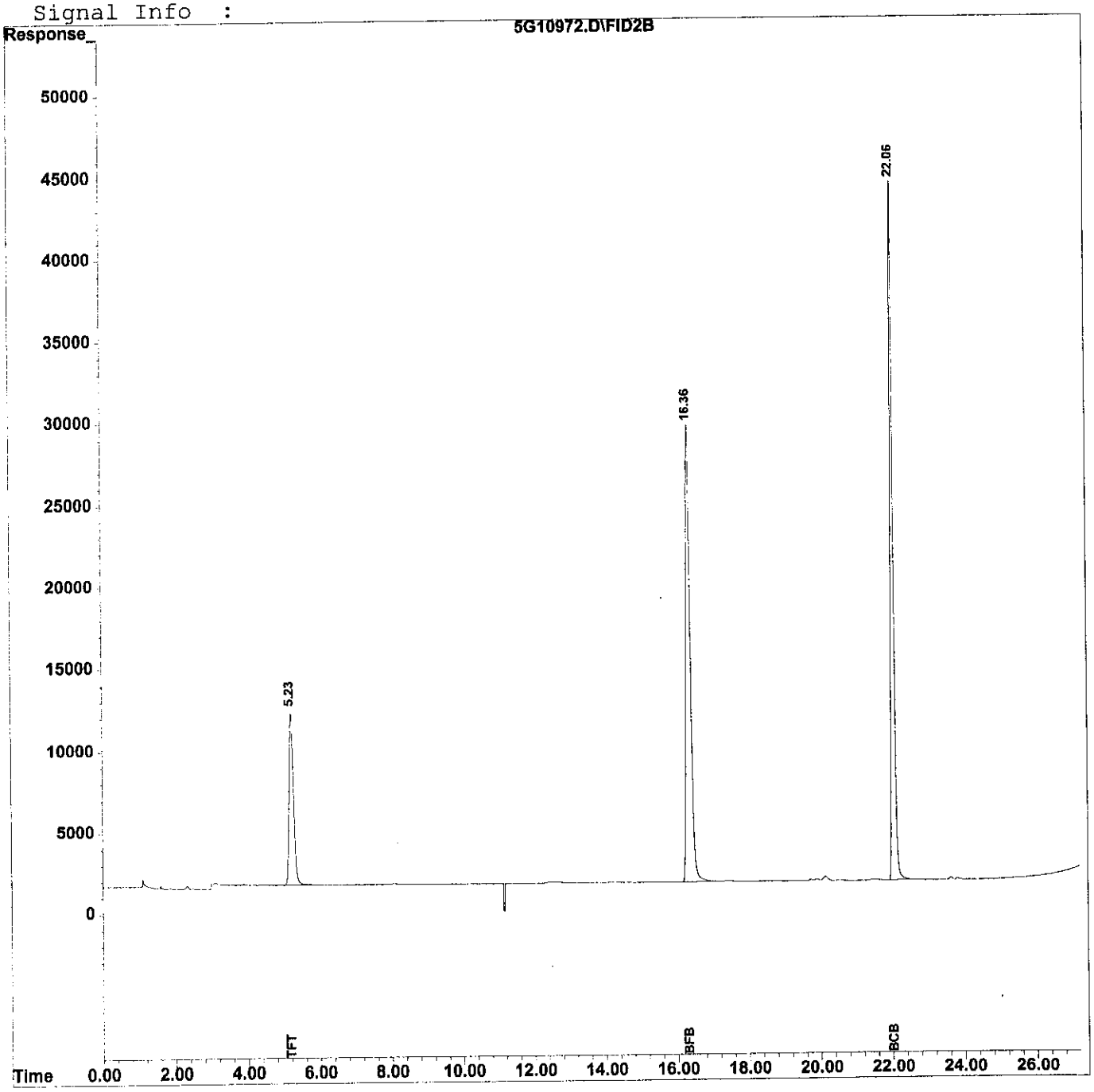
Quantitation Report

Data File : C:\HPCHEM\2\DATA\112101\5G10972.D
Acq On : 21 Nov 2001 10:04
Sample : L0111316-01 A 5ML pH<2
Misc : 1,1 S-86-12
IntFile : autoint1.e
Quant Time: Nov 21 10:31 2001 Quant Results File: 8021W.RES

Vial: 4
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\112101\5G10972.D
Acq On : 21 Nov 2001 10:04
Sample : L0111316-01 A 5ML pH<2
Misc : 1,1 S-86-12
IntFile : autoint1.e
Quant Time: Nov 21 10:31 2001 Quant Results File: 8021W.RES

Vial: 4
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.23	891419	33.0698 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery = 110.23%	
9) S BFB	16.36	2416125	32.8988 ug/L
Spiked Amount 30.000		Recovery = 109.66%	
13) S BCB	22.06	2315223	33.4899 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 111.63%	
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

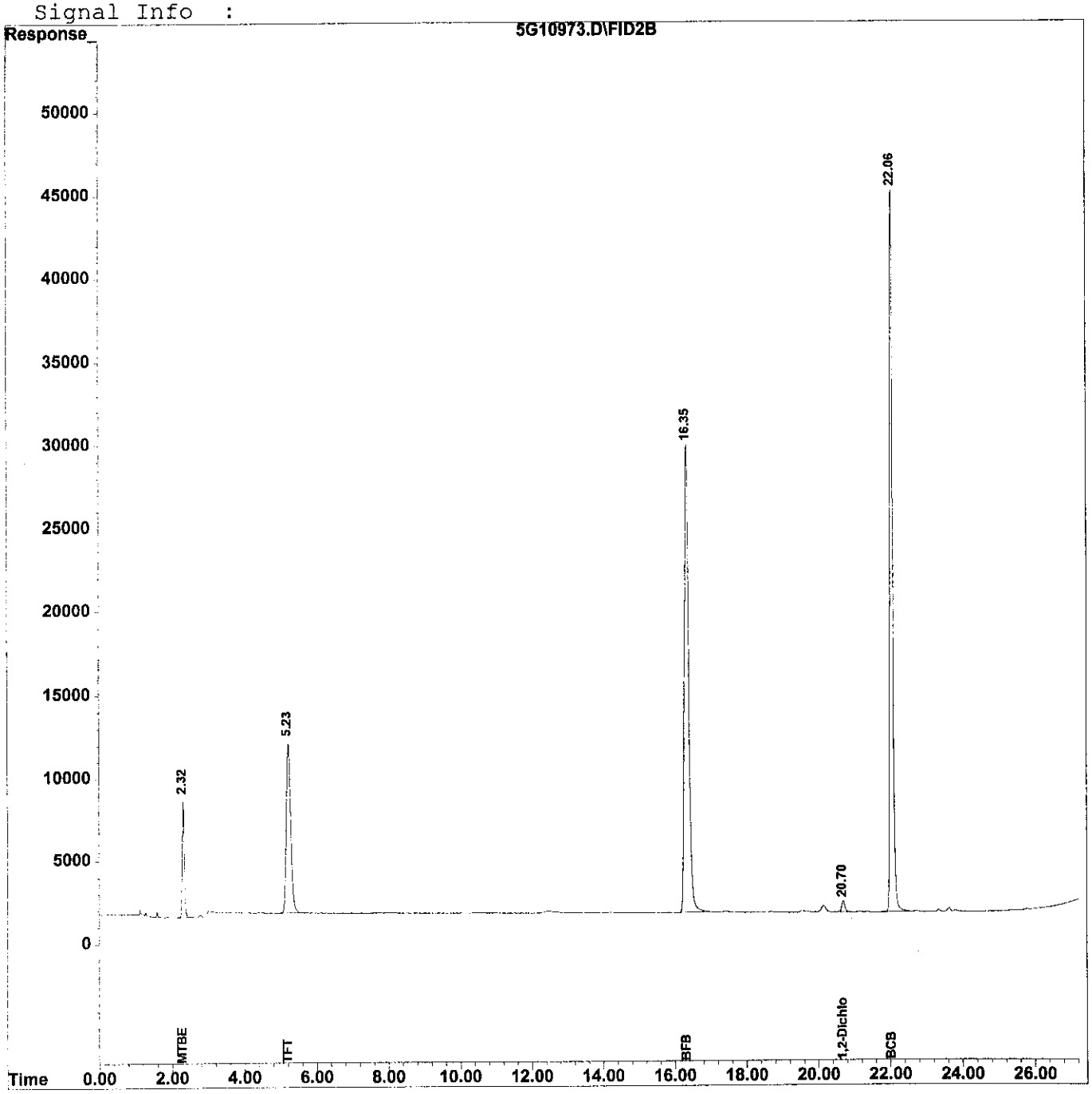
Quantitation Report

Data File : C:\HPCHEM\2\DATA\112101\5G10973.D
Acq On : 21 Nov 2001 10:36
Sample : WG108651-03 L0111316-02 A 5ML pH<2
Misc : 1,1 S-86-12
IntFile : autoint1.e
Quant Time: Nov 21 11:04 2001 Quant Results File: 8021W.RES

Vial: 5
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\112101\5G10973.D Vial: 5
Acq On : 21 Nov 2001 10:36 Operator: JLS
Sample : WG108651-03 L0111316-02 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-86-12 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 21 11:04 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.23	880542	32.6663 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	108.89%
9) S BFB	16.35	2398005	32.6521 ug/L
Spiked Amount 30.000		Recovery =	108.84%
13) S BCB	22.06	2336018	33.7907 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	112.64%
Target Compounds			
1) TM MTBE	2.32	281802	17.4199 ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	20.70	41476	0.6681 ug/L

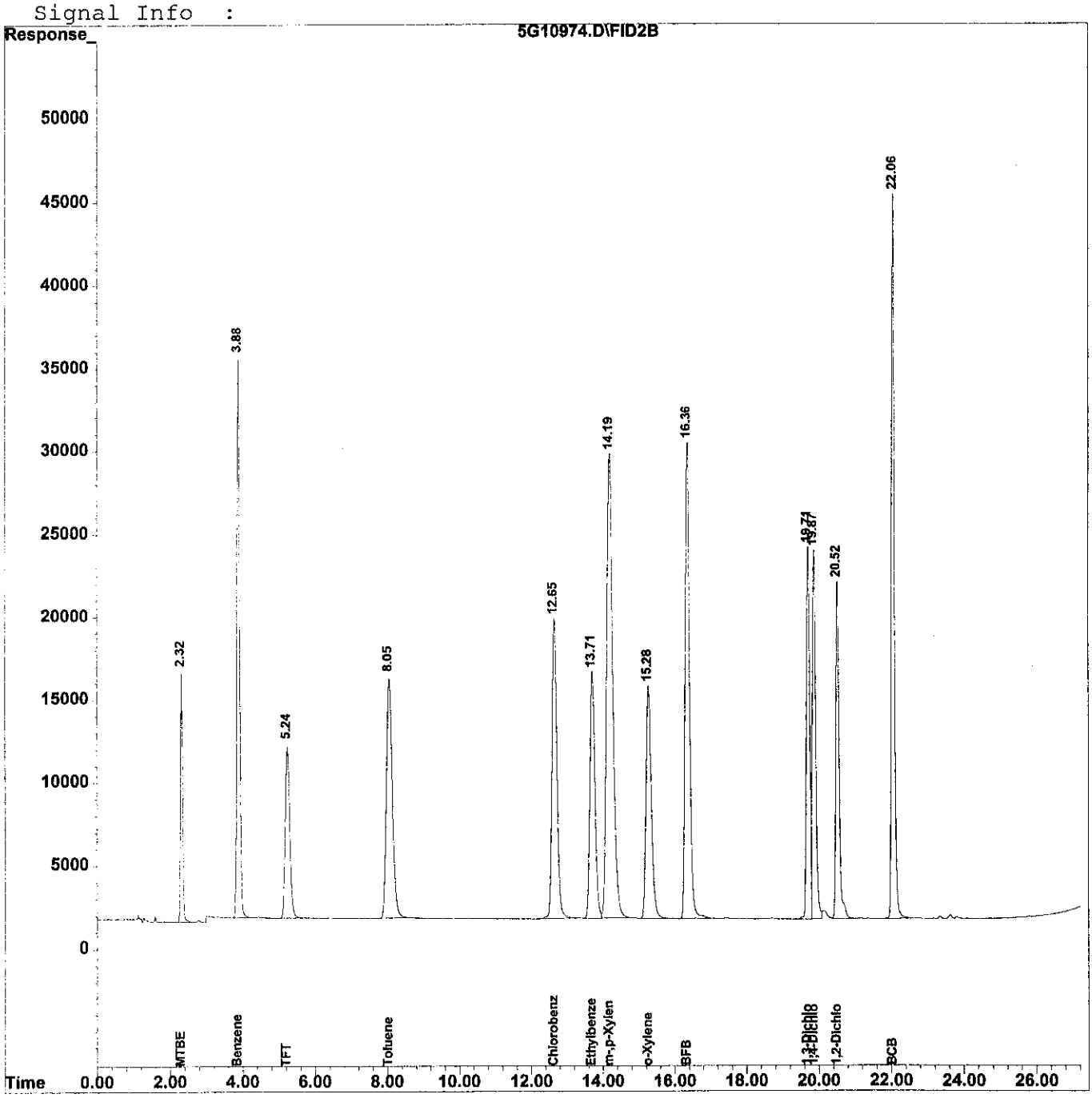
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\112101\5G10974.D Vial: 6
Acq On : 21 Nov 2001 11:08 Operator: JLS
Sample : WG108651-04 L0111316-03 A MS 5ML pH<2 Inst : HP5
Misc : 1,1 S-86-(13,12) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 21 11:36 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\112101\5G10974.D Vial: 6
Acq On : 21 Nov 2001 11:08 Operator: JLS
Sample : WG108651-04 L0111316-03 A MS 5ML pH<2 Inst : HP5
Misc : 1,1 S-86-(13,12) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 21 11:36 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

@11/26

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.24	886800	32.8985 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	109.66%
9) S BFB	16.36	2435778	33.1664 ug/L
Spiked Amount 30.000		Recovery =	110.55%
13) S BCB	22.06	2365876	34.2226 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	114.08%
Target Compounds			
1) TM MTBE	2.32	597096	36.9102 ug/L
2) TM Benzene	3.88	1781870	19.6742 ug/L
4) TM Toluene	8.06	1646613	19.7293 ug/L
5) TM Chlorobenzene	12.65	1732189	19.5628 ug/L
6) TM Ethylbenzene	13.71	1446005	20.1640 ug/L
7) TM m-,p-Xylene	14.19	3335577	39.4929 ug/L
8) TM o-Xylene	15.27	1427250	19.3878 ug/L
10) TM 1,3-Dichlorobenzene	19.71	1409346	19.2606 ug/L
11) TM 1,4-Dichlorobenzene	19.87	1493879	19.3381 ug/L
12) TM 1,2-Dichlorobenzene	20.52	1269931	20.4575 ug/L

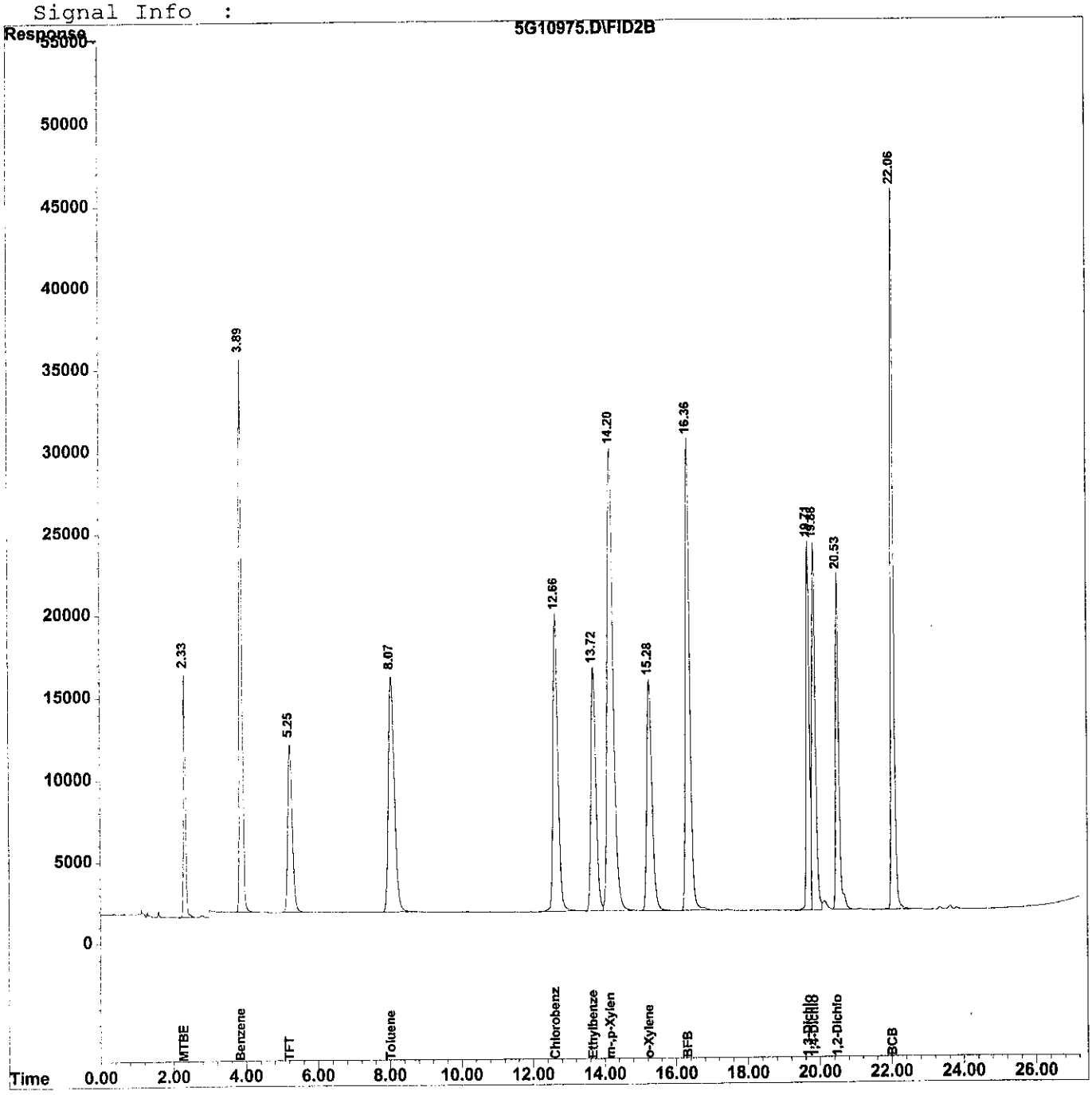
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\112101\5G10975.D Vial: 7
Acq On : 21 Nov 2001 11:41 Operator: JLS
Sample : WG108651-05 L0111316-04 A MSD 5ML pH<2 Inst : HP5
Misc : 1,1 S-86-(13,12) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 21 12:08 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\112101\5G10975.D Vial: 7
Acq On : 21 Nov 2001 11:41 Operator: JLS
Sample : WG108651-05 L0111316-04 A MSD 5ML pH<2 Inst : HP5
Misc : 1,1 S-86-(13,12) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 21 12:08 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.25	887046	32.9076 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	109.69%
9) S BFB	16.37	2435799	33.1667 ug/L
Spiked Amount 30.000		Recovery =	110.56%
13) S BCB	22.06	2376825	34.3810 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	114.60%
Target Compounds			
1) TM MTBE	2.33	590792	36.5205 ug/L
2) TM Benzene	3.89	1779870	19.6521 ug/L
4) TM Toluene	8.07	1644473	19.7036 ug/L
5) TM Chlorobenzene	12.66	1740847	19.6641 ug/L
6) TM Ethylbenzene	13.72	1443946	20.1353 ug/L
7) TM m-,p-Xylene	14.20	3331226	39.4414 ug/L
8) TM o-Xylene	15.28	1428261	19.4016 ug/L
10) TM 1,3-Dichlorobenzene	19.72	1410648	19.2784 ug/L
11) TM 1,4-Dichlorobenzene	19.88	1489222	19.2778 ug/L
12) TM 1,2-Dichlorobenzene	20.53	1271462	20.4821 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

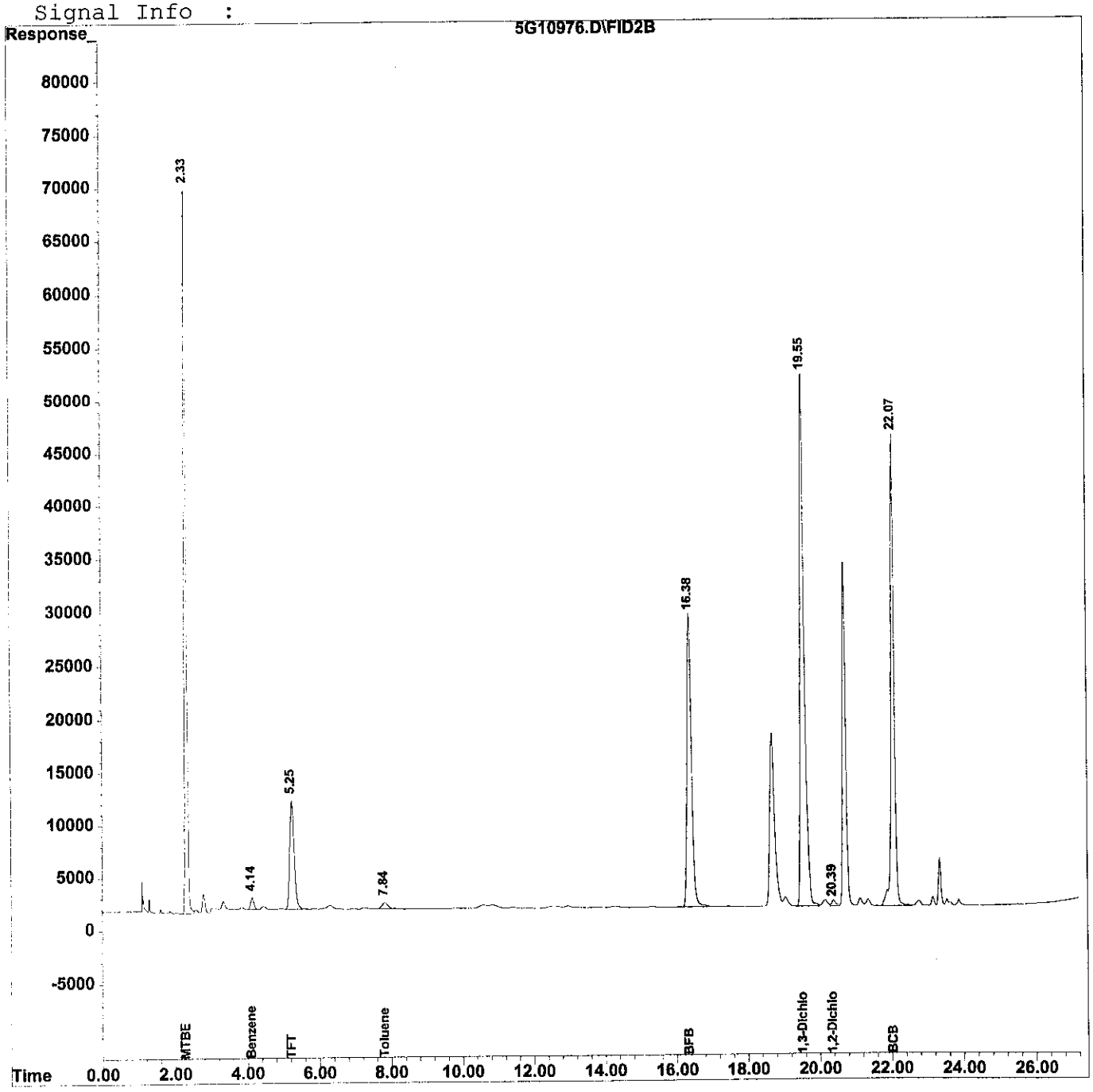
Quantitation Report

Data File : C:\HPCHEM\2\DATA\112101\5G10976.D
Acq On : 21 Nov 2001 12:14
Sample : L0111316-05 A 5ML pH<2
Misc : 1,1 S-86-12
IntFile : autoint1.e
Quant Time: Nov 21 12:41 2001 Quant Results File: 8021W.RES

Vial: 8
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\112101\5G10976.D
Acq On : 21 Nov 2001 12:14
Sample : L0111316-05 A 5ML pH<2
Misc : 1,1 S-86-12
IntFile : autoint1.e
Quant Time: Nov 21 12:41 2001 Quant Results File: 8021W.RES

Vial: 8
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.25	883048	32.7593 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	109.20%
9) S BFB	16.39	2436998	33.1830 ug/L
Spiked Amount 30.000		Recovery =	110.61%
13) S BCB	22.07	2837888	41.0503 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	136.83%
Target Compounds			
1) TM MTBE	2.33	2679777	165.6537 ug/L
2) TM Benzene	4.14	72258	0.7978 ug/L
4) TM Toluene	7.84	62365	0.7472 ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	19.55	4107945	56.1405 ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	20.39	45989	0.7408 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

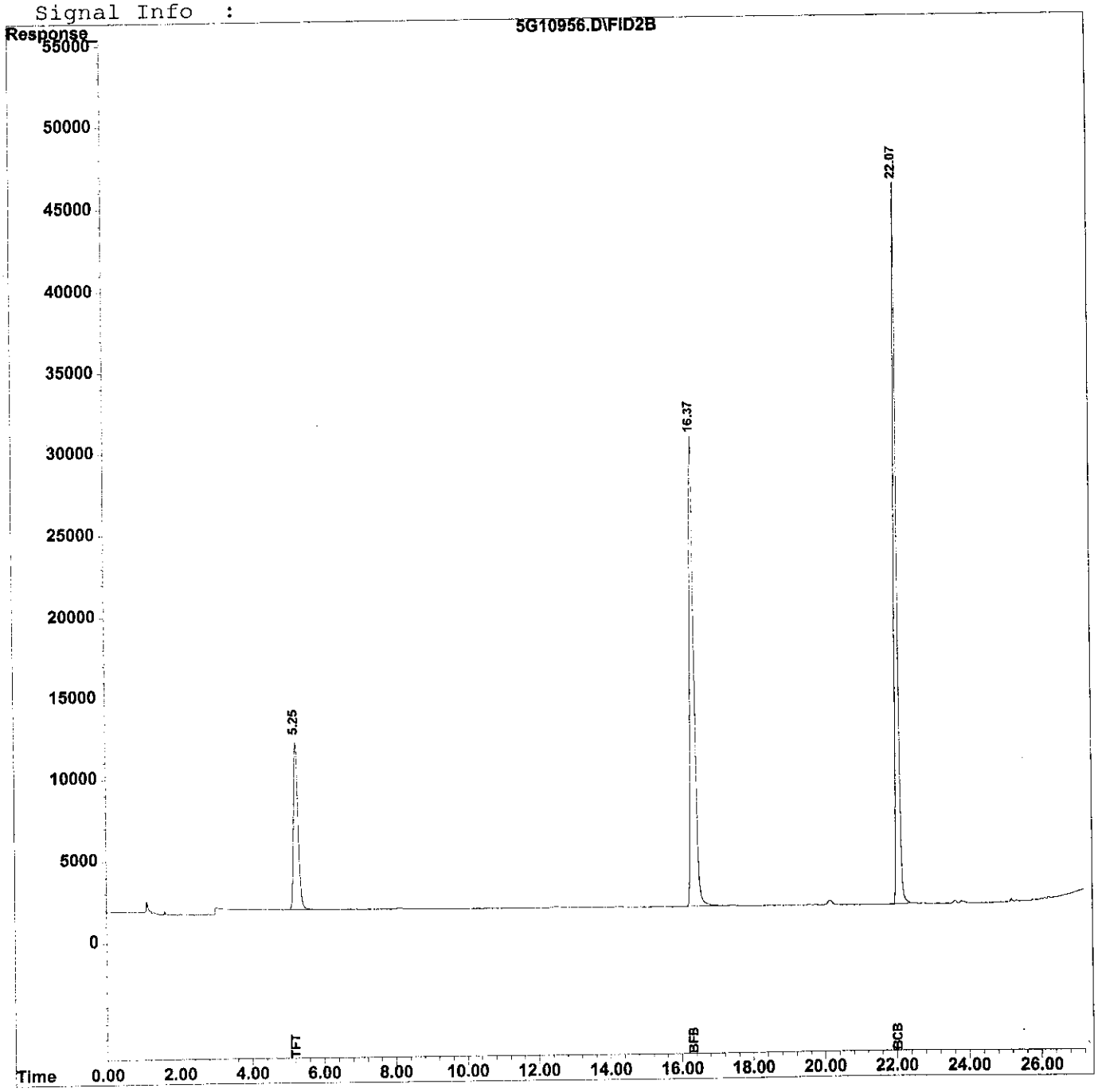
Quantitation Report

Data File : C:\HPCHEM\2\DATA\112001\5G10956.D
Acq On : 20 Nov 2001 16:50
Sample : L0111316-06 A 5ML pH<2
Misc : 1,1 S-86-12
IntFile : autoint1.e
Quant Time: Nov 20 17:17 2001 Quant Results File: 8021W.RES

Vial: 12
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\112001\5G10956.D
Acq On : 20 Nov 2001 16:50
Sample : L0111316-06 A 5ML pH<2
Misc : 1,1 S-86-12
IntFile : autoint1.e
Quant Time: Nov 20 17:17 2001 Quant Results File: 8021W.RES

Vial: 12
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.26	887198	32.9133 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	109.71%
9) S BFB	16.37	2424523	33.0132 ug/L
Spiked Amount 30.000		Recovery =	110.04%
13) S BCB	22.07	2356676	34.0895 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	113.63%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

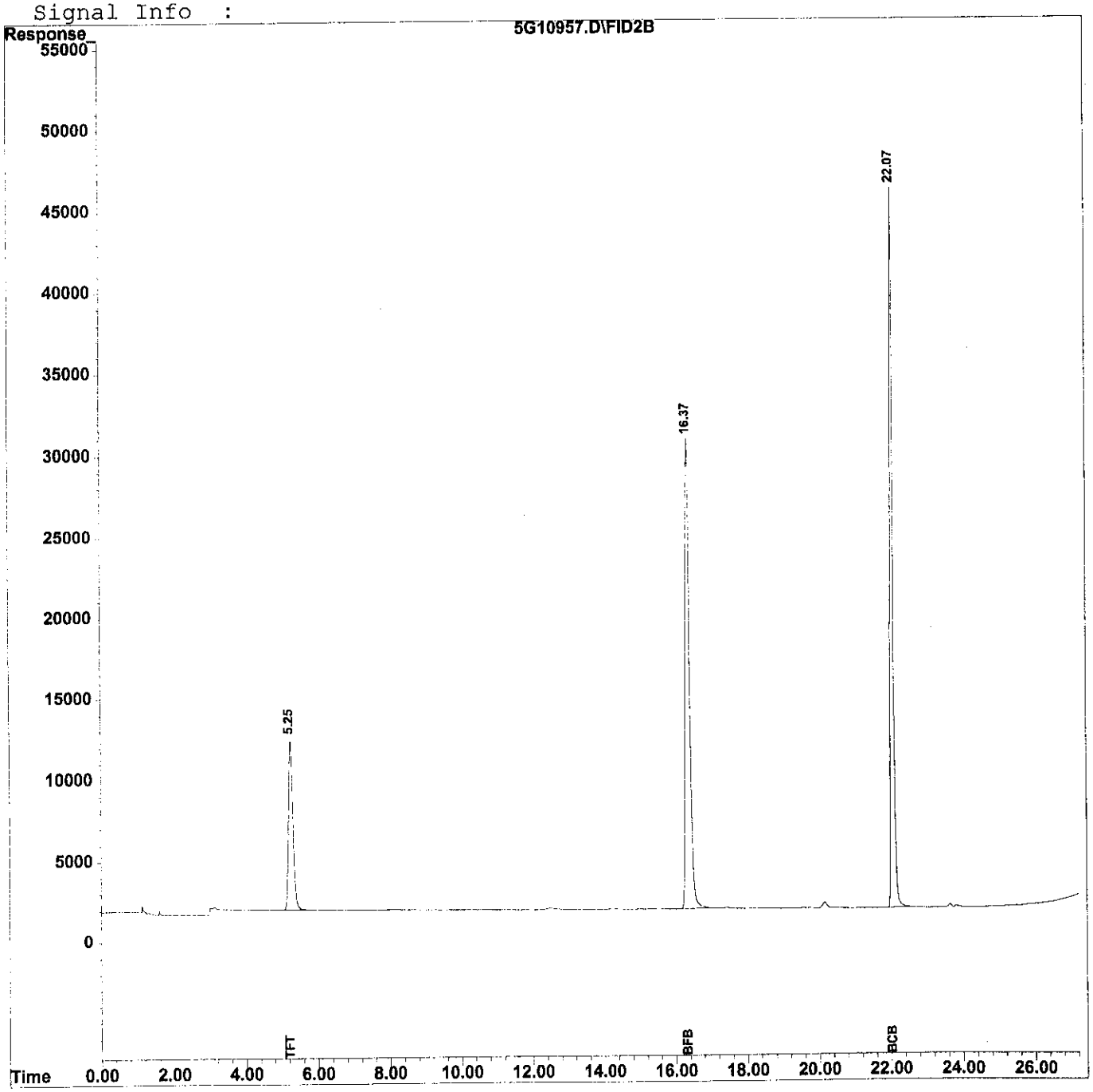
Quantitation Report

Data File : C:\HPCHEM\2\DATA\112001\5G10957.D
Acq On : 20 Nov 2001 17:22
Sample : L0111316-07 A 5ML pH<2
Misc : 1,1 S-86-12
IntFile : autoint1.e
Quant Time: Nov 20 17:50 2001 Quant Results File: 8021W.RES

Vial: 13
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\112001\5G10957.D
Acq On : 20 Nov 2001 17:22
Sample : L0111316-07 A 5ML pH<2
Misc : 1,1 S-86-12
IntFile : autoint1.e
Quant Time: Nov 20 17:50 2001 Quant Results File: 8021W.RES

Vial: 13
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

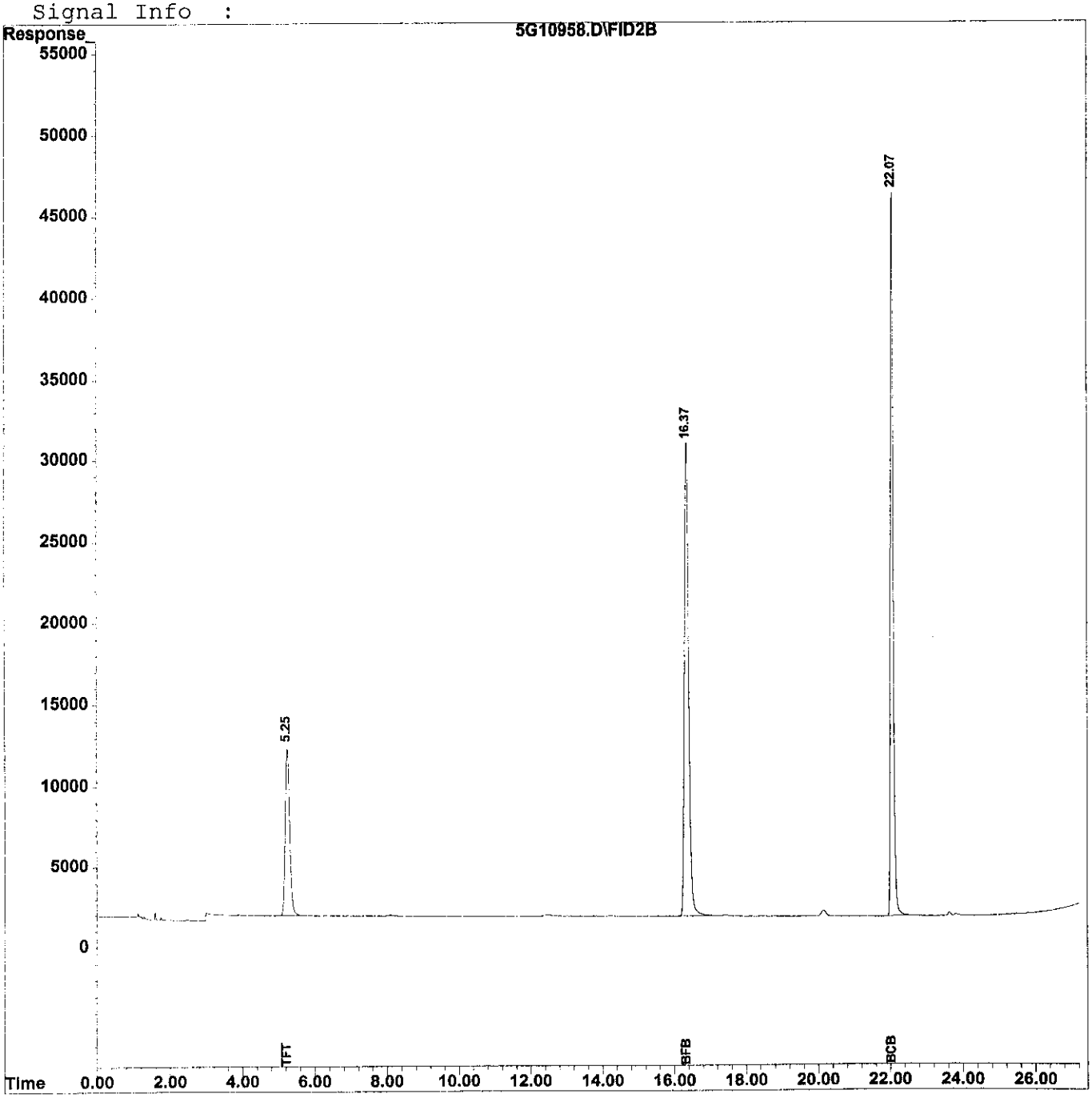
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.25	883007	32.7578 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	109.19%
9) S BFB	16.37	2419204	32.9408 ug/L
Spiked Amount 30.000		Recovery =	109.80%
13) S BCB	22.07	2353276	34.0403 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	113.47%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\112001\5G10958.D Vial: 14
Acq On : 20 Nov 2001 17:55 Operator: JLS
Sample : L0111316-08 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-86-12 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 20 18:22 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\112001\5G10958.D Vial: 14
Acq On : 20 Nov 2001 17:55 Operator: JLS
Sample : L0111316-08 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-86-12 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 20 18:22 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.25	884195	32.8018 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	109.34%
9) S BFB	16.37	2426713	33.0430 ug/L
Spiked Amount 30.000		Recovery =	110.14%
13) S BCB	22.07	2356549	34.0877 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	113.63%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

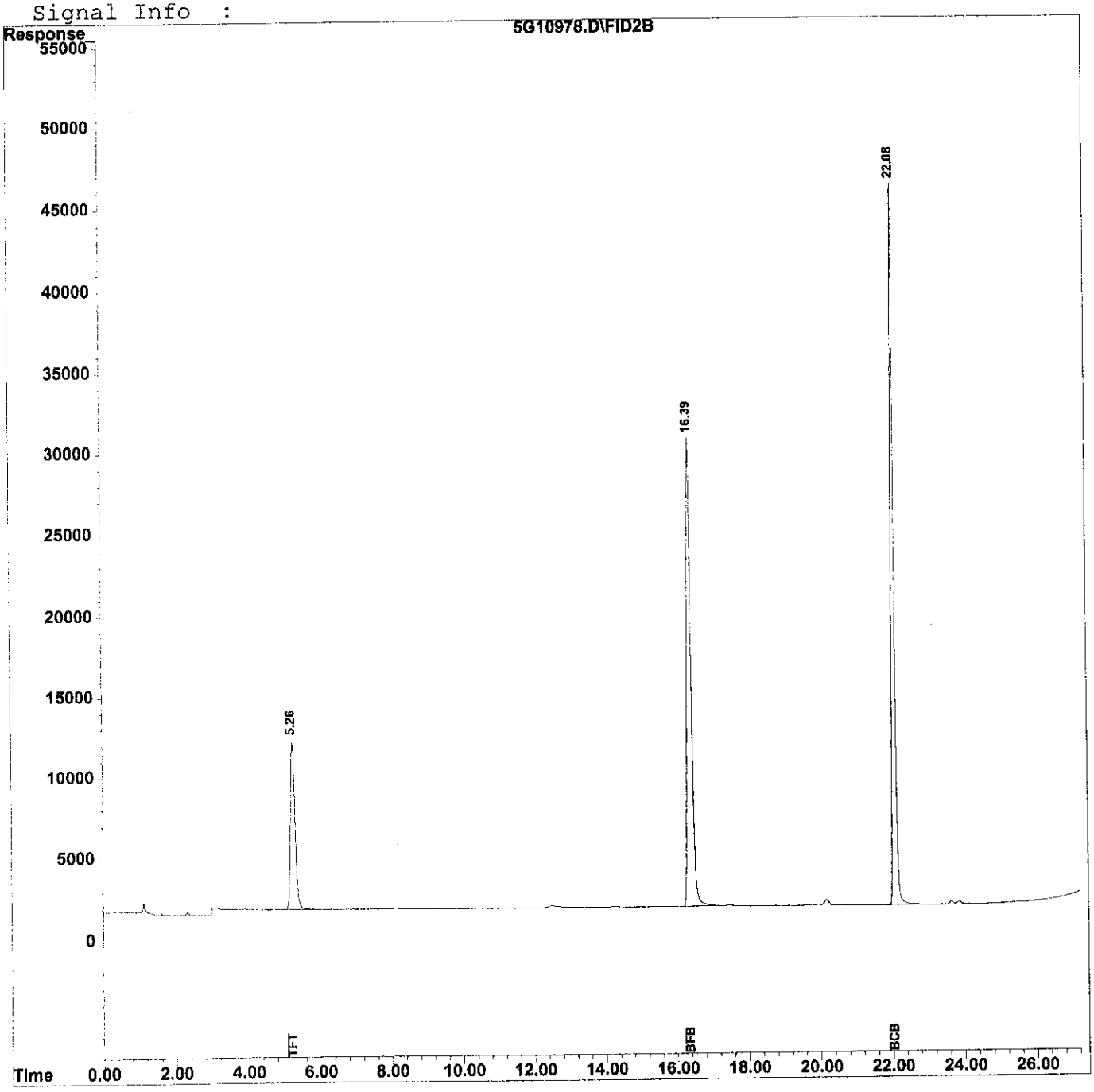
Quantitation Report

Data File : C:\HPCHEM\2\DATA\112101\5G10978.D
Acq On : 21 Nov 2001 13:19
Sample : L0111316-09 A 5ML pH<2
Misc : 1,1 S-86-12
IntFile : autoint1.e
Quant Time: Nov 21 13:46 2001 Quant Results File: 8021W.RES

Vial: 10
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\112101\5G10978.D
Acq On : 21 Nov 2001 13:19
Sample : L0111316-09 A 5ML pH<2
Misc : 1,1 S-86-12
IntFile : autoint1.e
Quant Time: Nov 21 13:46 2001 Quant Results File: 8021W.RES

Vial: 10
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

@11/26

Volume Inj. :
Signal Phase :
Signal Info :

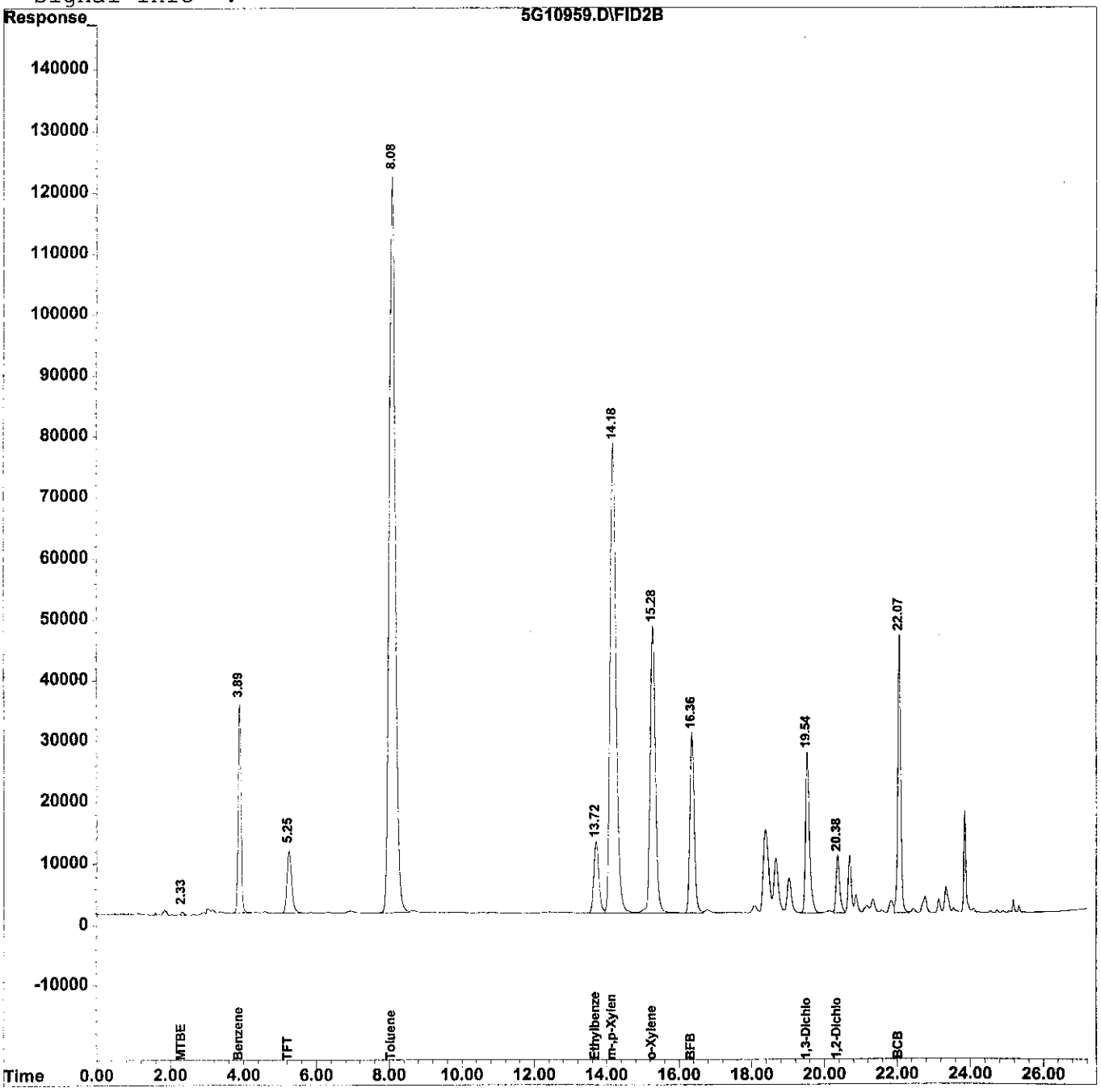
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.26	886314	32.8804 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	109.60%
9) S BFB	16.38	2441666	33.2466 ug/L
Spiked Amount 30.000		Recovery =	110.82%
13) S BCB	22.08	2364412	34.2014 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	114.00%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\112001\5G10959.D Vial: 15
Acq On : 20 Nov 2001 18:27 Operator: JLS
Sample : L0111316-10 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-86-12 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 20 18:55 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\112001\5G10959.D
Acq On : 20 Nov 2001 18:27
Sample : L0111316-10 A 5ML pH<2
Misc : 1,1 S-86-12
IntFile : autoint1.e
Quant Time: Nov 20 18:55 2001 Quant Results File: 8021W.RES

Vial: 15
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.25	902920	33.4965 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	111.66%
9) S BFB	16.37	2434899	33.1545 ug/L
Spiked Amount 30.000		Recovery =	110.52%
13) S BCB	22.07	2580145	37.3220 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	124.41%
Target Compounds			
1) TM MTBE	2.33	25838	1.5972 ug/L
2) TM Benzene	3.90	1847613	20.4001 ug/L
4) TM Toluene	8.08	13947162	167.1111 ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	13.72	1120451	15.6243 ug/L
7) TM m-,p-Xylene	14.18	8672369	102.6800 ug/L
8) TM o-Xylene	15.28	4669107	63.4253 ug/L
10) TM 1,3-Dichlorobenzene	19.54	2027354	~~27.7065 ug/L~~
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	20.38	649304	~~10.4597 ug/L~~

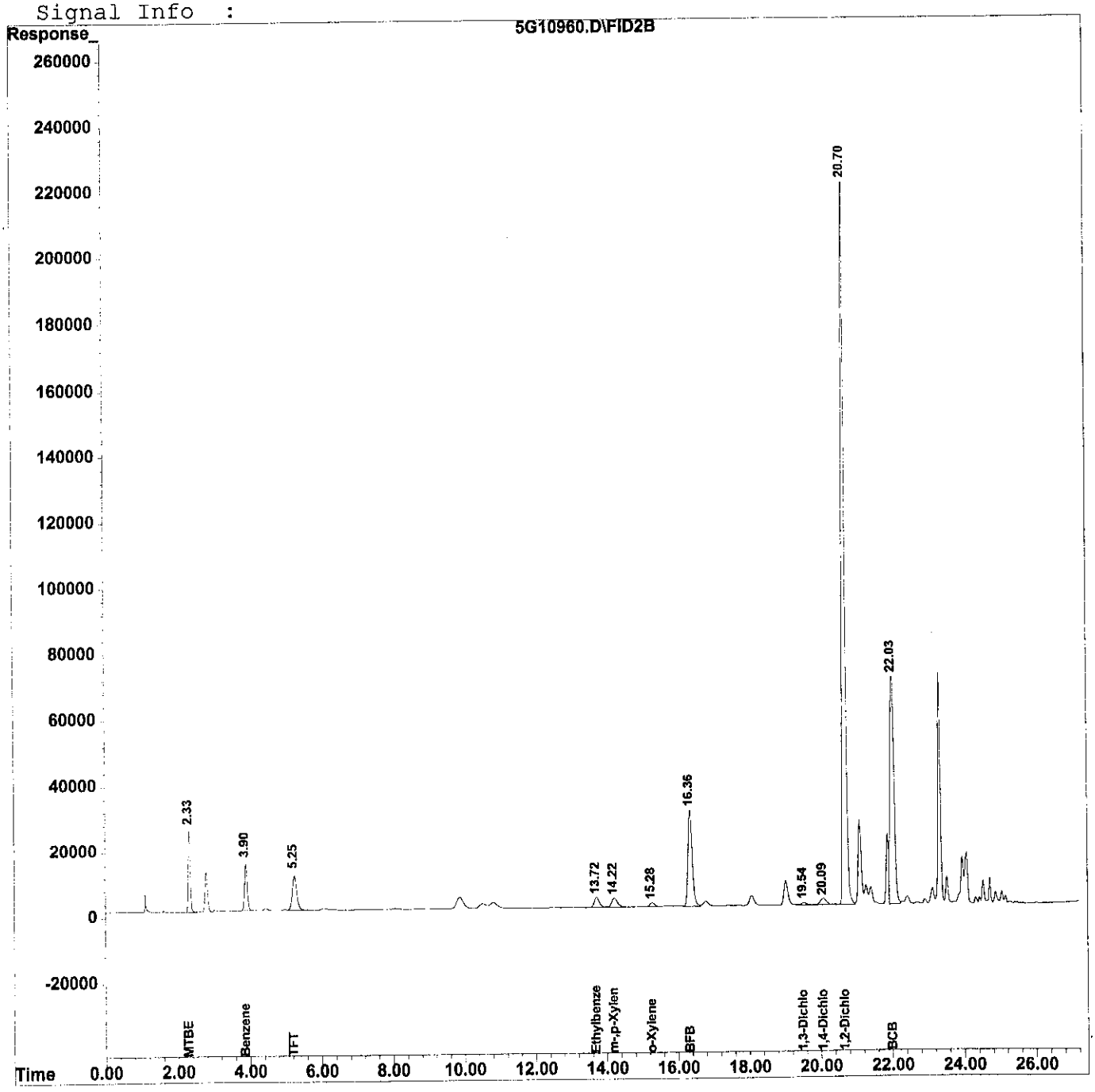
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\112001\5G10960.D
Acq On : 20 Nov 2001 19:00
Sample : L0111316-11 A 5ML pH<2
Misc : 1,1 S-86-12
IntFile : autoint1.e
Quant Time: Nov 20 19:27 2001 Quant Results File: 8021W.RES

Vial: 16
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\112001\5G10960.D
Acq On : 20 Nov 2001 19:00
Sample : L0111316-11 A 5ML pH<2
Misc : 1,1 S-86-12
IntFile : autoint1.e
Quant Time: Nov 20 19:27 2001 Quant Results File: 8021W.RES

Vial: 16
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

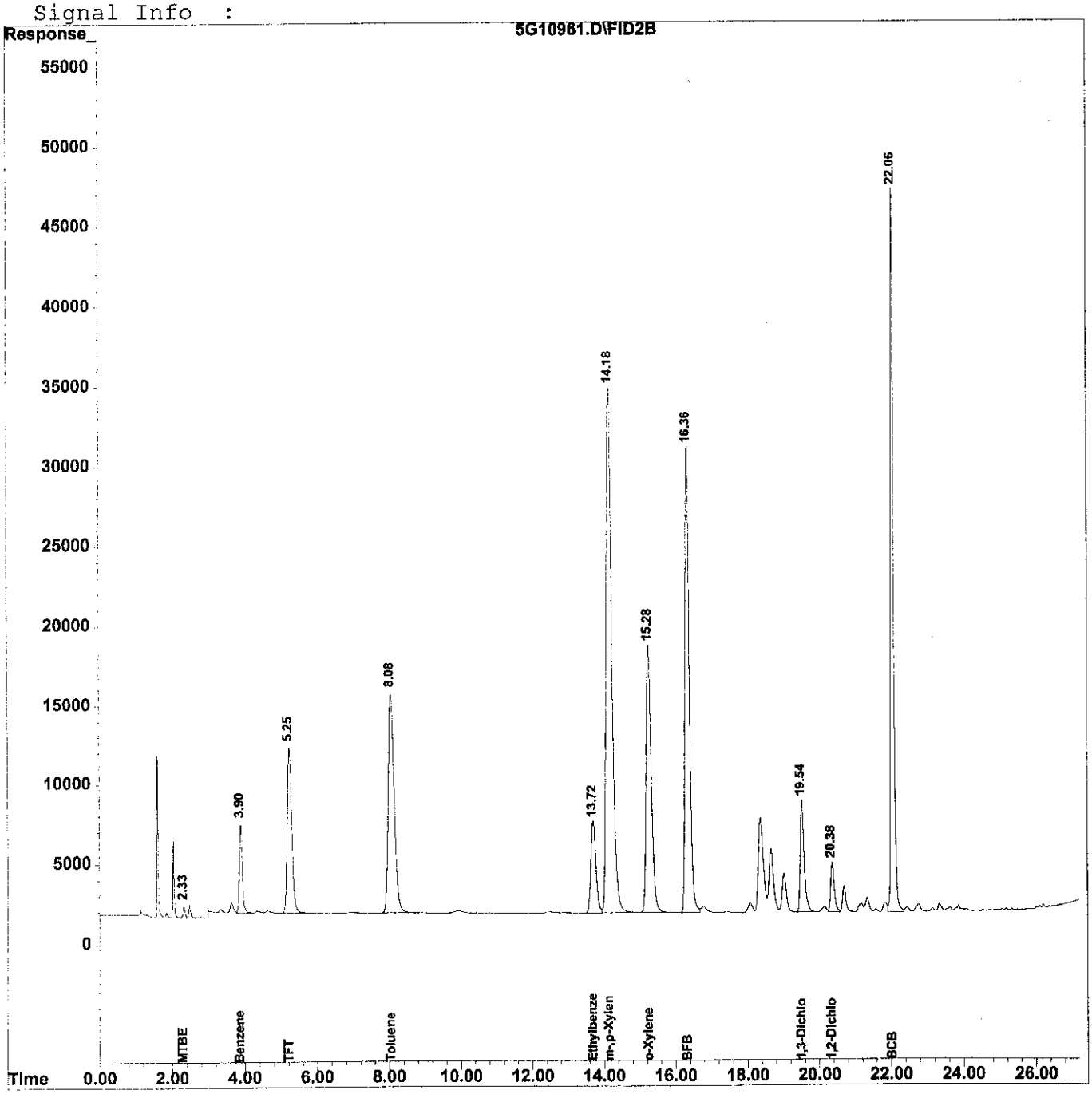
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.25	925296	34.3266 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	114.42%
9) S BFB	16.36	2434710	33.1519 ug/L
Spiked Amount 30.000		Recovery =	110.51%
13) S BCB	22.03	5663307	81.9202 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	273.07%#
Target Compounds			
1) TM MTBE	2.33	974209	60.2219 ug/L
2) TM Benzene	3.90	739794	8.1683 ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	12.53	29580	N.D. ug/L
6) TM Ethylbenzene	13.72	295436	4.1198 ug/L
7) TM m-,p-Xylene	14.23	311571	3.6890 ug/L
8) TM o-Xylene	15.29	105316	1.4306 ug/L
10) TM 1,3-Dichlorobenzene	19.54	78315	1.0703 ug/L
11) TM 1,4-Dichlorobenzene	20.09	252846	3.2731 ug/L
12) TM 1,2-Dichlorobenzene	20.70	12815661	206.4490 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\112001\5G10961.D Vial: 17
Acq On : 20 Nov 2001 19:32 Operator: JLS
Sample : L0111316-12 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-86-12 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 20 19:59 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\112001\5G10961.D Vial: 17
Acq On : 20 Nov 2001 19:32 Operator: JLS
Sample : L0111316-12 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-86-12 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 20 19:59 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.25	896340	33.2524 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	110.84%
9) S BFB	16.36	2431817	33.1125 ug/L
Spiked Amount 30.000		Recovery =	110.38%
13) S BCB	22.06	2440909	35.3079 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	117.69%
Target Compounds			
1) TM MTBE	2.33	26578	1.6429 ug/L
2) TM Benzene	3.90	307171	3.3916 ug/L
4) TM Toluene	8.08	1579931	18.9303 ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	13.72	556177	7.7557 ug/L
7) TM m-,p-Xylene	14.18	3681774	43.5918 ug/L
8) TM o-Xylene	15.28	1652424	22.4466 ug/L
10) TM 1,3-Dichlorobenzene	19.54	538994	7.3661 ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	20.38	216098	3.4811 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

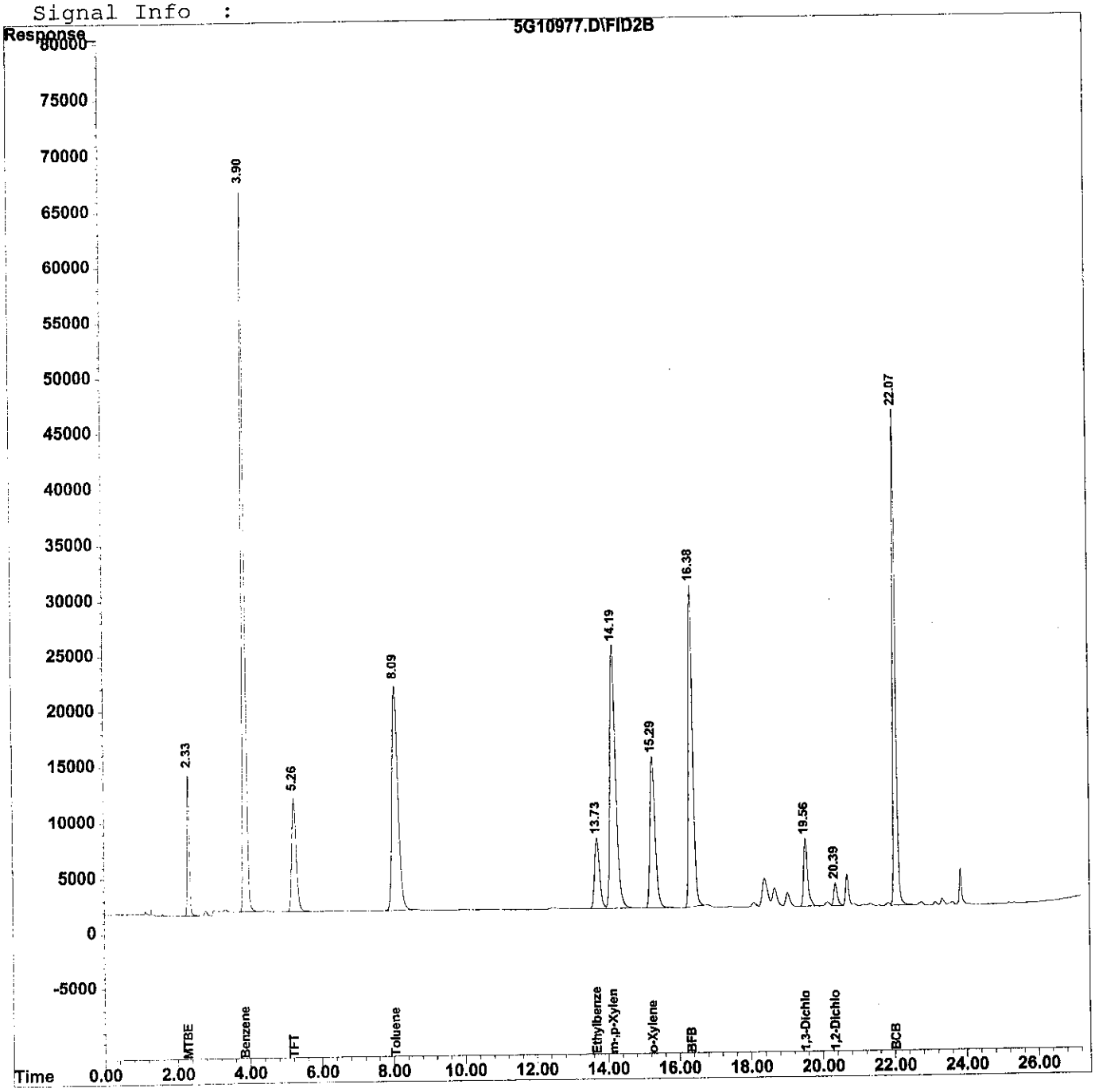
Quantitation Report

Data File : C:\HPCHEM\2\DATA\112101\5G10977.D
Acq On : 21 Nov 2001 12:46
Sample : L0111316-13 A 100X 5ML pH<2
Misc : 1,100 S-86-12
IntFile : autoint1.e
Quant Time: Nov 21 13:14 2001 Quant Results File: 8021W.RES

Vial: 9
Operator: JLS
Inst : HP5
Multiplr: 100.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\112101\5G10977.D
Acq On : 21 Nov 2001 12:46
Sample : L0111316-13 A 100X 5ML pH<2
Misc : 1,100 S-86-12
IntFile : autoint1.e
Quant Time: Nov 21 13:14 2001 Quant Results File: 8021W.RES

Vial: 9
Operator: JLS
Inst : HP5
Multiplr: 100.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

@11/26

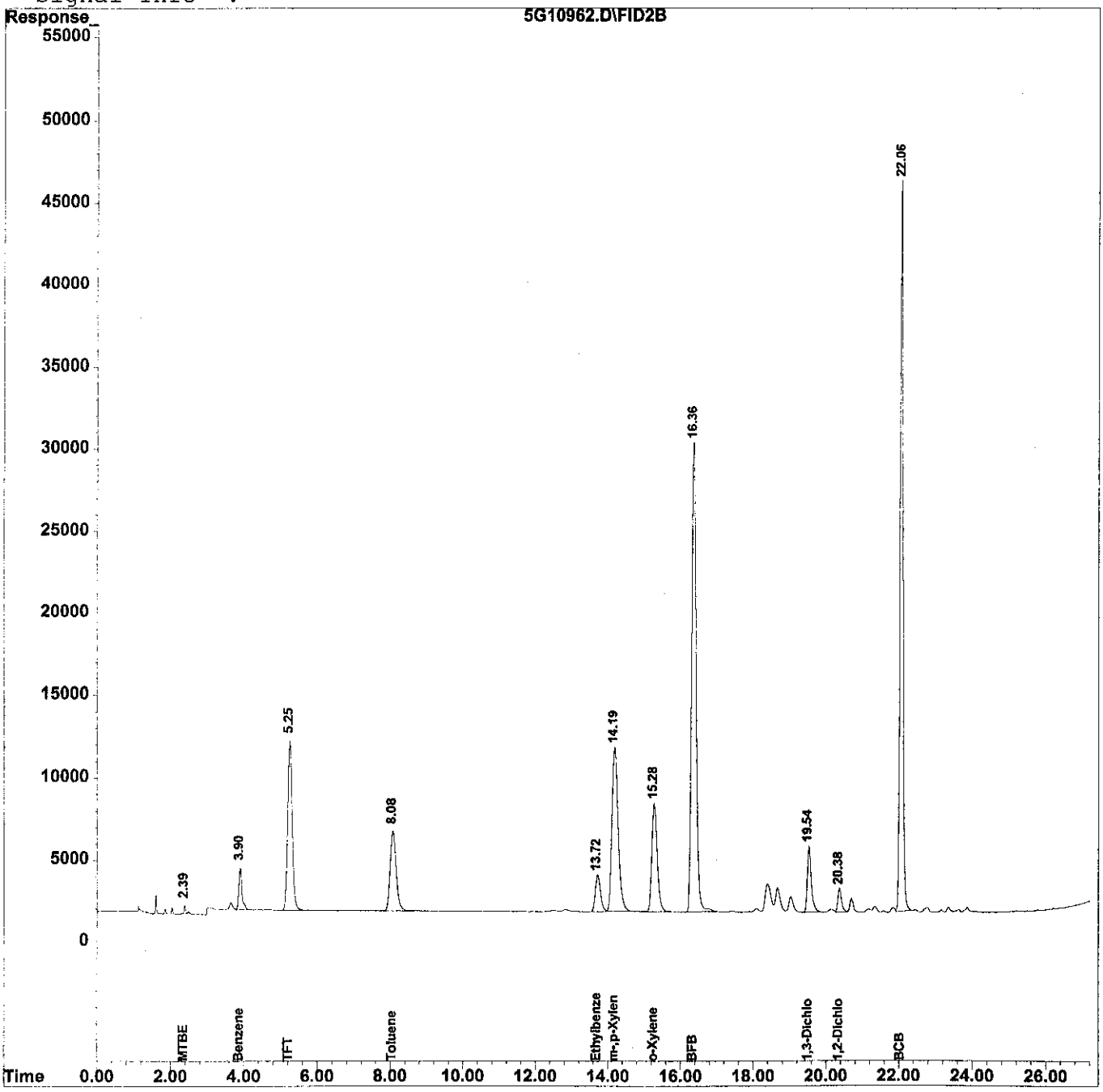
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.26	883924	32.7918 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	109.31%
9) S BFB	16.38	2396179	32.6272 ug/L
Spiked Amount 30.000		Recovery =	108.76%
13) S BCB	22.07	2395046	34.6445 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	115.48%
Target Compounds			
1) TM MTBE	2.33	509014	3146.5340 ug/L
2) TM Benzene	3.90	3499644	3864.0705 ug/L
4) TM Toluene	8.09	2318496	2777.9590 ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	13.73	619135	863.3625 ug/L
7) TM m-,p-Xylene	14.19	2694965	3190.8129 ug/L
8) TM o-Xylene	15.29	1346009	1828.4244 ug/L
10) TM 1,3-Dichlorobenzene	19.56	476689	~~651.4581 ug/L~~
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	20.39	143927	~~231.8541 ug~~/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\112001\5G10962.D Vial: 18
Acq On : 20 Nov 2001 20:04 Operator: JLS
Sample : L0111316-14 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-86-12 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 20 20:32 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\112001\5G10962.D Vial: 18
Acq On : 20 Nov 2001 20:04 Operator: JLS
Sample : L0111316-14 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-86-12 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 20 20:32 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

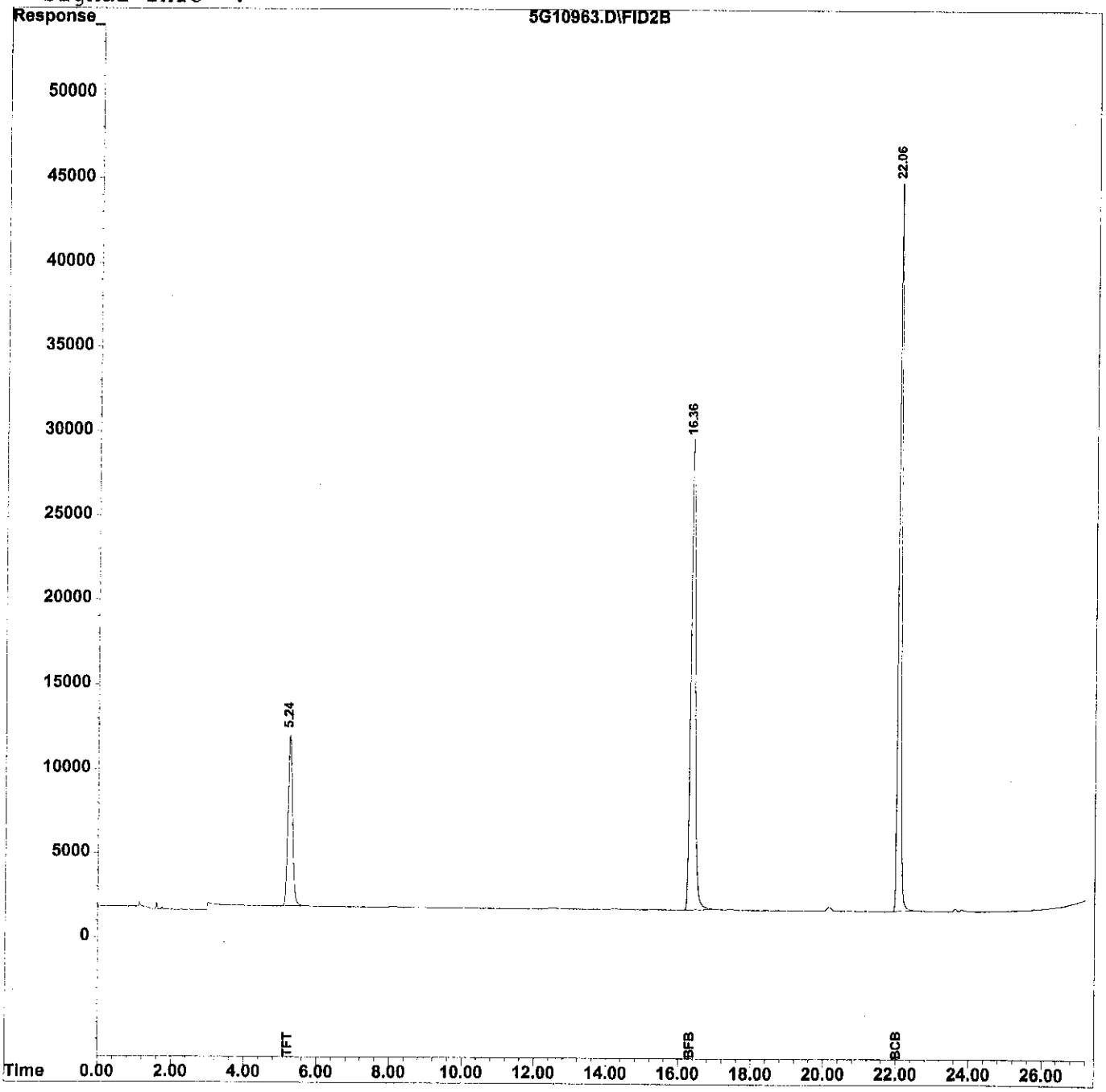
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.25	899778	33.3799 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	111.27%
9) S BFB	16.36	2453167	33.4032 ug/L
Spiked Amount 30.000		Recovery =	111.34%
13) S BCB	22.06	2378260	34.4017 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	114.67%
Target Compounds			
1) TM MTBE	2.39	14830	~~0.9167 ug/L~~
2) TM Benzene	3.90	155229	~~1.7139 ug/L~~
4) TM Toluene	8.08	572947	~~6.8649 ug/L~~
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	13.73	226289	~~3.1555 ug/L~~
7) TM m-,p-Xylene	14.19	1214895	~~14.3842 ug/L~~
8) TM o-Xylene	15.28	689850	~~9.3709 ug/L~~
10) TM 1,3-Dichlorobenzene	19.54	324904	~~4.4402 ug/L~~
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	20.38	106514	~~1.7159 ug/L~~

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\112001\5G10963.D Vial: 19
Acq On : 20 Nov 2001 20:37 Operator: JLS
Sample : L0111316-15 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-86-12 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 20 21:04 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\112001\5G10963.D Vial: 19
Acq On : 20 Nov 2001 20:37 Operator: JLS
Sample : L0111316-15 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-86-12 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 20 21:04 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.24	888275	32.9532 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	109.84%
9) S BFB	16.36	2426509	33.0402 ug/L
Spiked Amount 30.000		Recovery =	110.13%
13) S BCB	22.06	2340023	33.8486 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	112.83%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

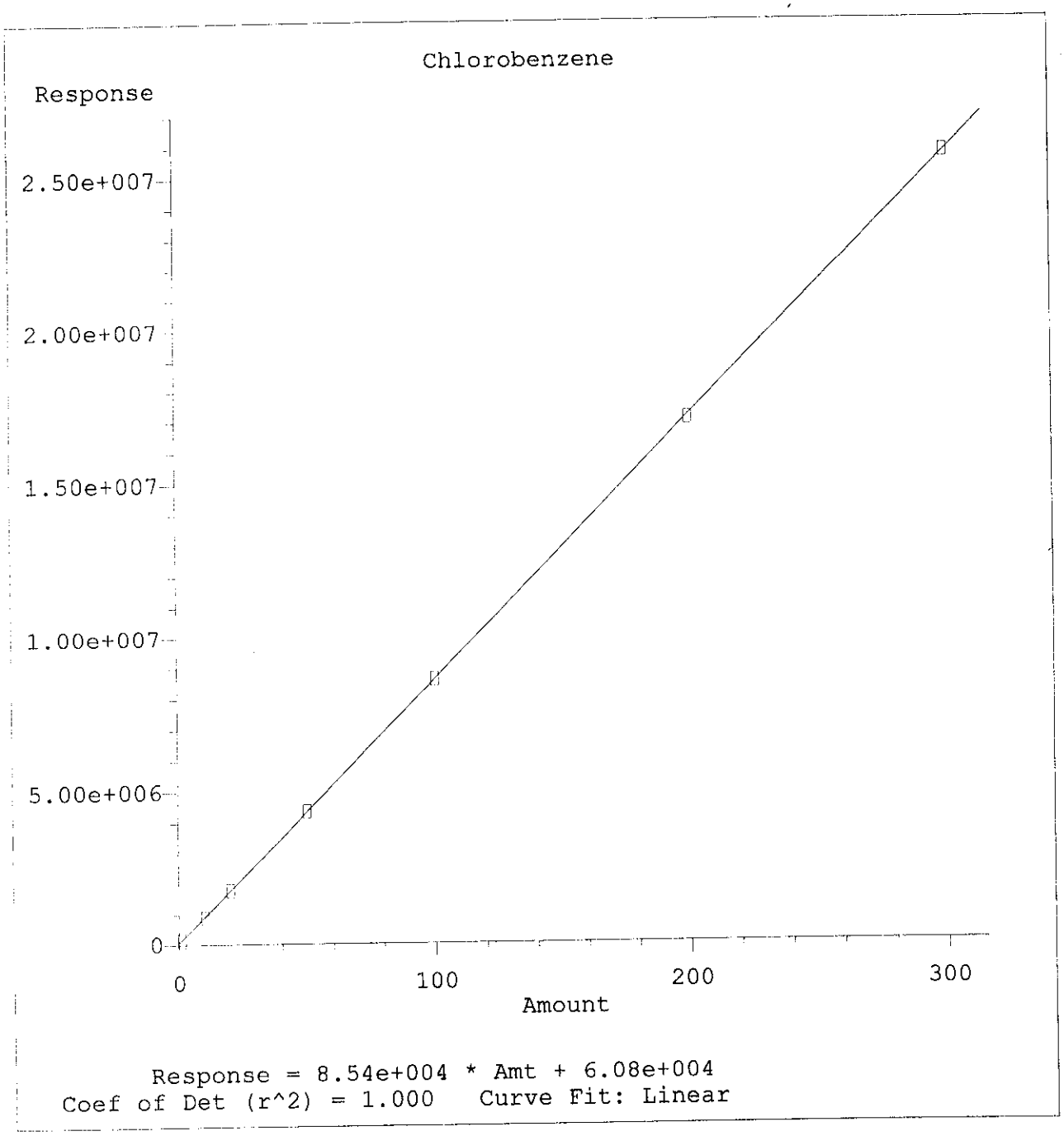
2.1.3.3 Standards Data

Calibration Table Report
Method: 8021W.M
Title: METHOD 8021B - Water - 11/19/01
Last Calibration: Mon Nov 19 14:58:57 2001

Calibration Files

Compound	1 5G10907.	10 5G10908.	20 5G10909.	50 5G10910.	100 5G10911.	200 5G10912.	300 5G10913.D	Avg	%RSD	
MTBE	17928.1	15757.4	15977.3	15705.6	16375.8	15833.7	15660.9	16177.0	5.002	
Benzene	99790.0	89314.0	90391.8	89213.1	89659.6	87758.8	87854.6	90568.9	4.609	
TFT	27514.0	26529.5	27740.5	27712.0	27569.2	27069.0	24555.3	26955.7	4.239	
Toluene	91223.3	82284.1	83471.4	81889.8	82269.7	80912.5	82171.9	83460.4	4.199	
Chlorobenzene	142785.6	90493.5	89103.4	87023.5	86260.6	85319.6	85791.8	95254.0	22.090	LR, 1.000
Ethylbenzene	76777.0	70859.6	71518.0	71121.0	70777.1	70298.7	70633.0	71712.1	3.160	
m-,p-Xylene	92261.5	83694.2	84557.0	83881.4	83175.9	81902.1	81749.0	84460.2	4.251	
o-Xylene	79222.9	72756.6	73618.4	72754.2	72631.0	72113.4	72214.0	73615.8	3.424	
BFB	76570.3	73113.5	74836.8	74862.6	74613.7	74295.4	65795.0	73441.1	4.796	
1,3-Dichlorobenzene	84334.7	69306.0	71664.7	70887.2	71839.3	71422.0	72754.5	73172.6	6.880	
1,4-Dichlorobenzene	89077.4	73163.6	76417.9	75588.1	76220.0	74531.6	75754.7	77250.5	6.905	
1,2-Dichlorobenzene	73100.2	61053.8	60836.5	59381.5	60314.3	59445.4	60404.8	62076.6	7.897	
BCB	74758.0	68514.5	69410.2	69067.1	69707.8	69797.3	62669.1	69132.0	5.102	

Mon Nov 19 15:13:16 2001



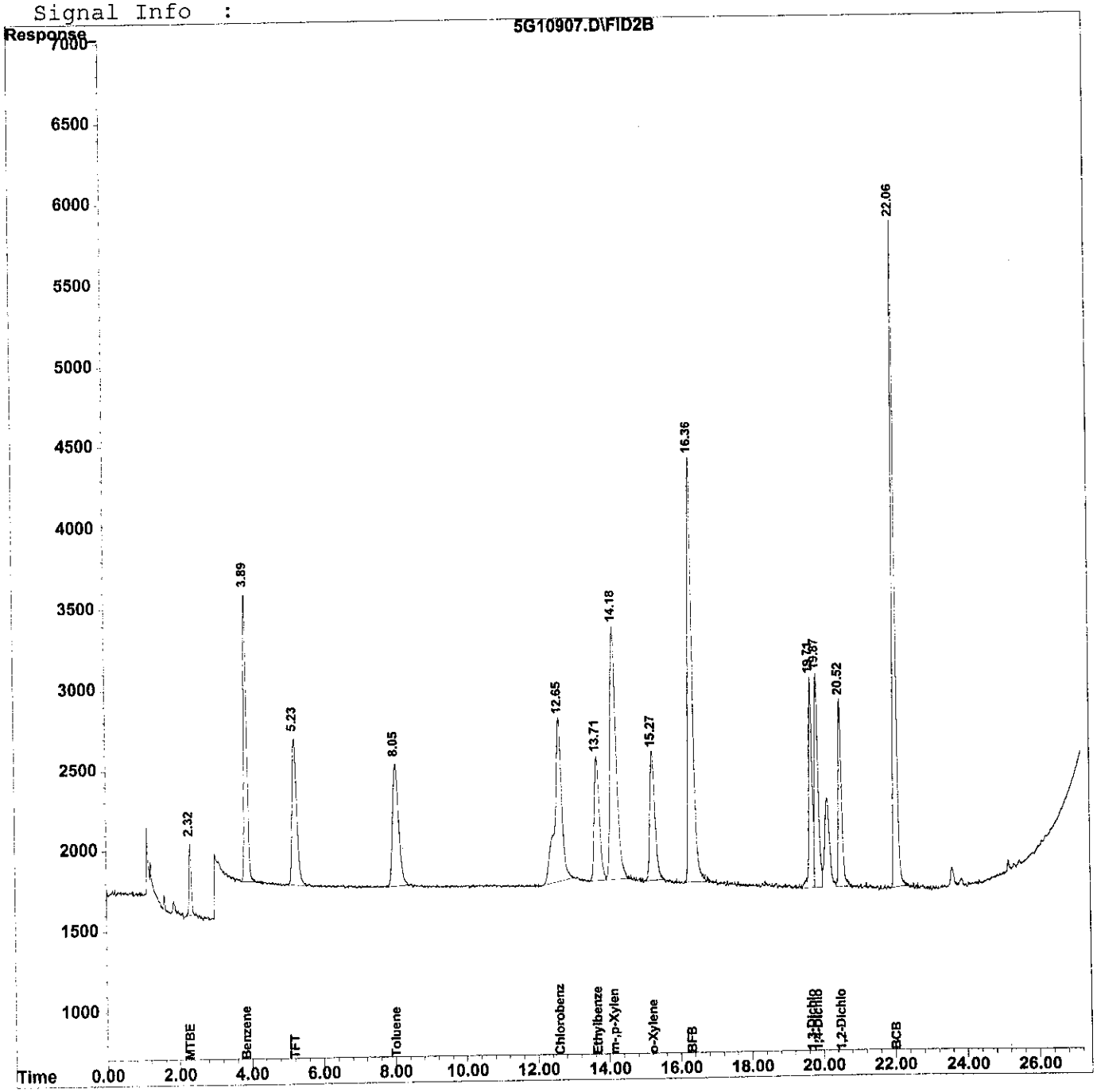
Method Name: C:\HPCHEM\2\METHODS\8021W.M
Calibration Table Last Updated: Mon Nov 19 15:00:05 2001

Data File : C:\HPCHEM\2\DATA\111901\5G10907.D
Acq On : 19 Nov 2001 11:13
Sample : WG108448-01 8021 STD1 1PPB 5ML
Misc : 1,1 S-87-21,86-08
IntFile : autoint1.e
Quant Time: Nov 19 11:41 2001 Quant Results File: 8021W.RES

Vial: 2
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\111901\5G10907.D
Acq On : 19 Nov 2001 11:13
Sample : WG108448-01 8021 STD1 1PPB 5ML
Misc : 1,1 S-87-21,86-08
IntFile : autoint1.e
Quant Time: Nov 19 11:41 2001 Quant Results File: 8021W.RES

Vial: 2
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.24	82542	2.4702 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	8.23%#
9) S BFB	16.36	229711	2.5587 ug/L
Spiked Amount 30.000		Recovery =	8.53%
13) S BCB	22.06	224274	2.5975 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	8.66%#
Target Compounds			
1) TM MTBE	2.32	17928	0.9943 ug/L
2) TM Benzene	3.89	99790	0.9063 ug/L
4) TM Toluene	8.06	91223	0.9165 ug/L
5) TM Chlorobenzene	12.65	142786	1.3065 ug/L
6) TM Ethylbenzene	13.71	76777	0.8829 ug/L
7) TM m-,p-Xylene	14.19	184523	1.7994 ug/L
8) TM o-Xylene	15.27	79223	0.8834 ug/L
10) TM 1,3-Dichlorobenzene	19.71	84335	0.9627 ug/L
11) TM 1,4-Dichlorobenzene	19.87	89077	0.9549 ug/L
12) TM 1,2-Dichlorobenzene	20.52	73100	0.9737 ug/L

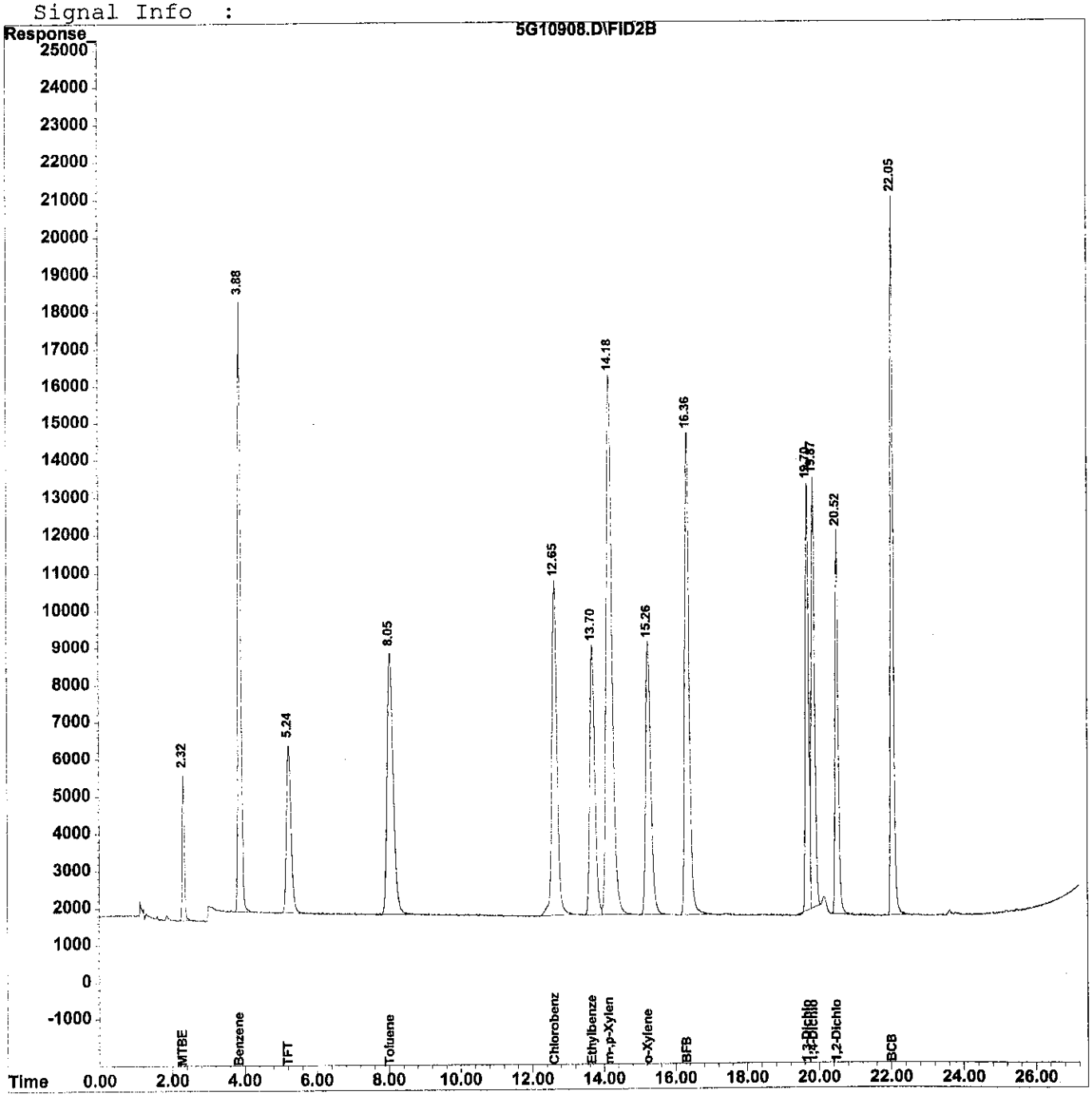
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\111901\5G10908.D Vial: 3
Acq On : 19 Nov 2001 11:46 Operator: JLS
Sample : WG108448-02 8021 STD2 10PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 12:13 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\111901\5G10908.D Vial: 3
Acq On : 19 Nov 2001 11:46 Operator: JLS
Sample : WG108448-02 8021 STD2 10PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autointl.e
Quant Time: Nov 19 12:13 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

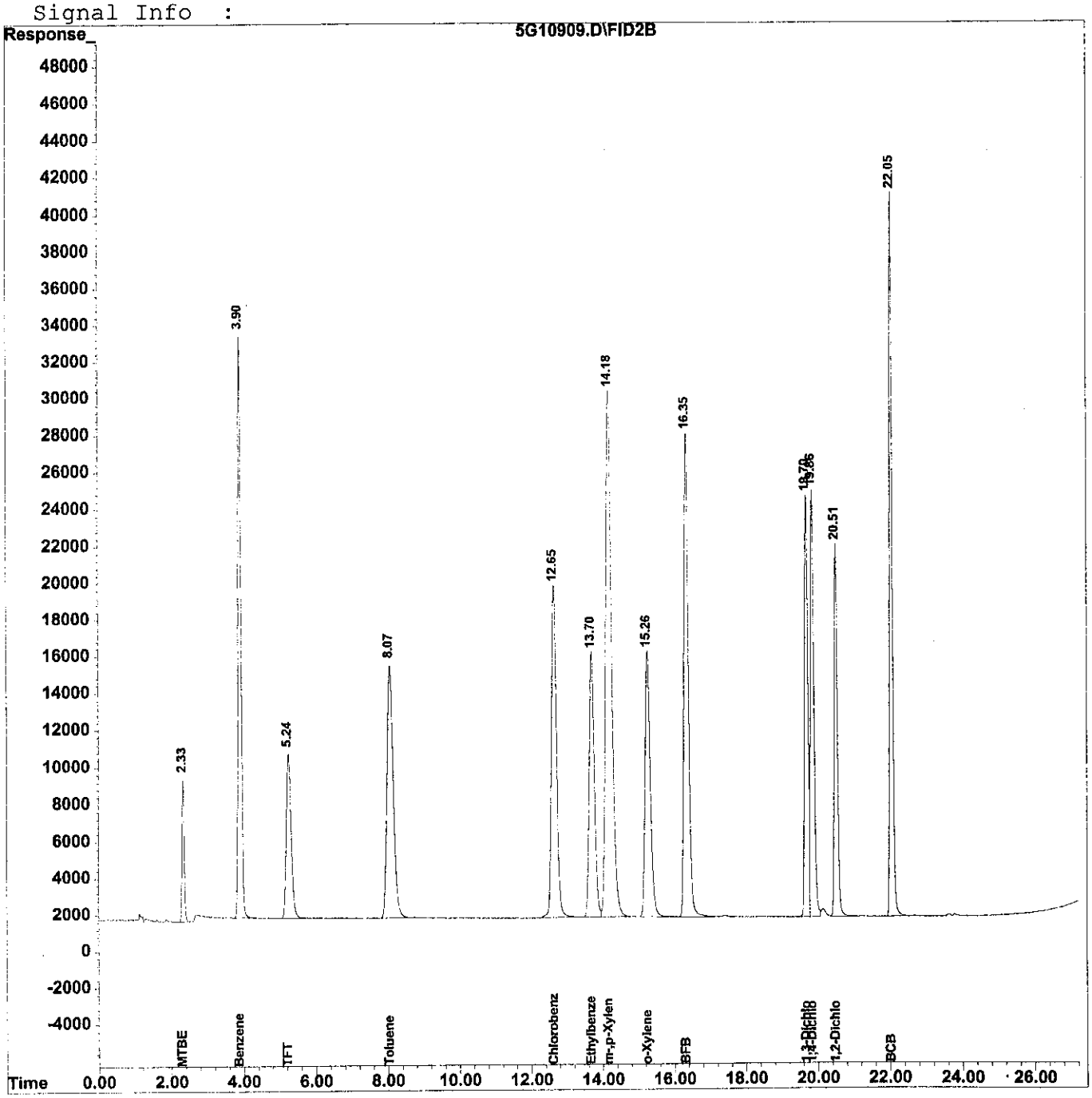
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.24	397943	11.9092 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	39.70%#
9) S BFB	16.35	1096703	12.2158 ug/L
Spiked Amount 30.000		Recovery =	40.72%
13) S BCB	22.06	1027717	11.9028 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	39.68%
Target Compounds			
1) TM MTBE	2.32	157574	8.7393 ug/L
2) TM Benzene	3.88	893140	8.1115 ug/L
4) TM Toluene	8.06	822841	8.2666 ug/L
5) TM Chlorobenzene	12.65	904935	8.2803 ug/L
6) TM Ethylbenzene	13.71	708596	8.1481 ug/L
7) TM m-,p-Xylene	14.18	1673884	16.3233 ug/L
8) TM o-Xylene	15.26	727566	8.1133 ug/L
10) TM 1,3-Dichlorobenzene	19.70	693060	7.9112 ug/L
11) TM 1,4-Dichlorobenzene	19.87	731636	7.8430 ug/L
12) TM 1,2-Dichlorobenzene	20.52	610538	8.1327 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\111901\5G10909.D Vial: 4
Acq On : 19 Nov 2001 12:18 Operator: JLS
Sample : WG108448-03 8021 STD3 20PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 12:45 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\111901\5G10909.D Vial: 4
Acq On : 19 Nov 2001 12:18 Operator: JLS
Sample : WG108448-03 8021 STD3 20PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 12:45 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

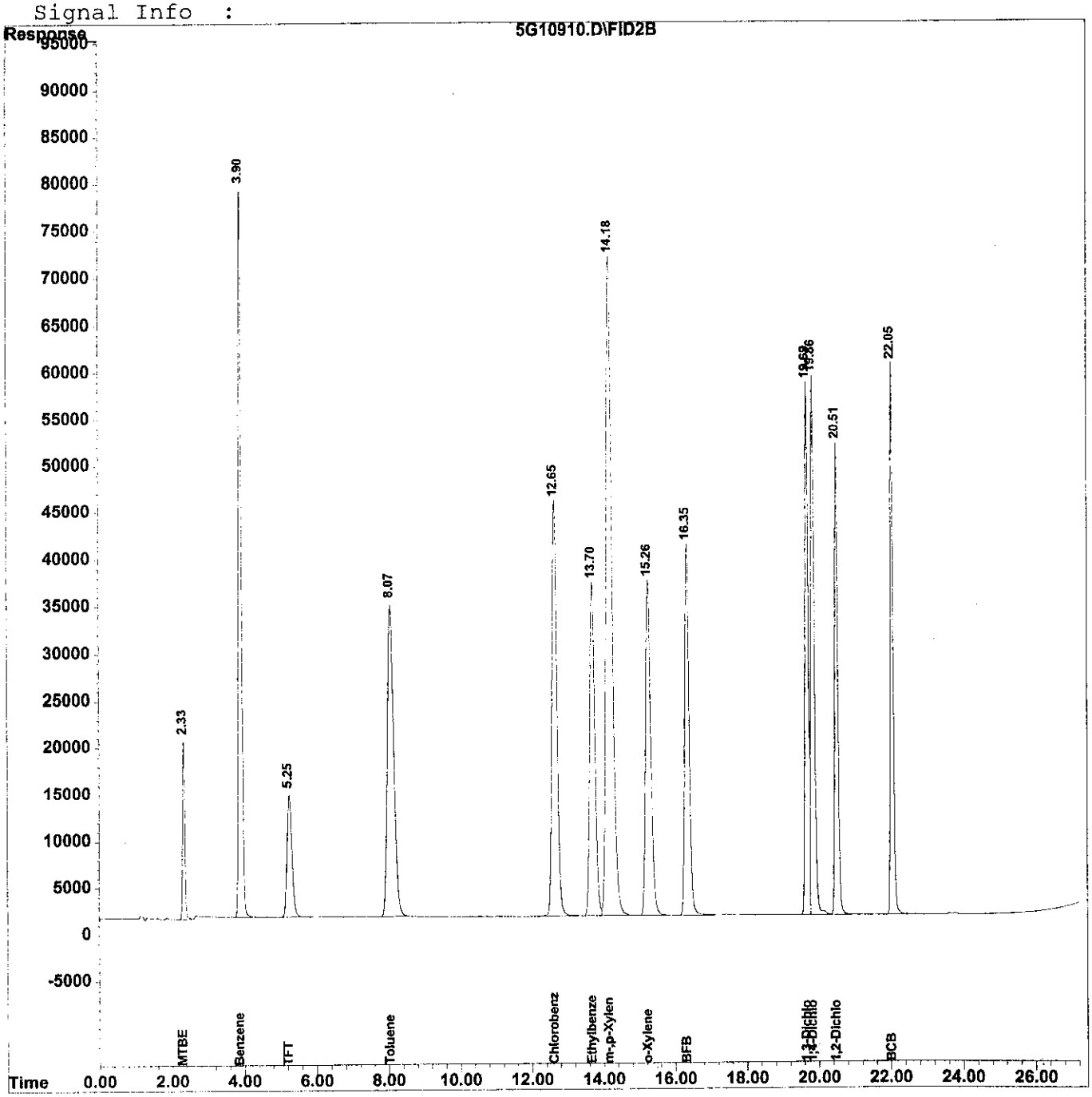
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.25	832216	24.9056 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	83.02%
9) S BFB	16.35	2245103	25.0073 ug/L
Spiked Amount 30.000		Recovery =	83.36%
13) S BCB	22.05	2082306	24.1168 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	80.39%
Target Compounds			
1) TM MTBE	2.33	319546	17.7224 ug/L
2) TM Benzene	3.90	1807837	16.4188 ug/L
4) TM Toluene	8.07	1669428	16.7717 ug/L
5) TM Chlorobenzene	12.65	1782068	16.3062 ug/L
6) TM Ethylbenzene	13.71	1430360	16.4476 ug/L
7) TM m-,p-Xylene	14.18	3382280	32.9831 ug/L
8) TM o-Xylene	15.27	1472367	16.4189 ug/L
10) TM 1,3-Dichlorobenzene	19.70	1433294	16.3610 ug/L
11) TM 1,4-Dichlorobenzene	19.86	1528358	16.3837 ug/L
12) TM 1,2-Dichlorobenzene	20.52	1216730	16.2075 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\111901\5G10910.D Vial: 5
Acq On : 19 Nov 2001 12:50 Operator: JLS
Sample : WG108448-04 8021 STD4 50PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 13:18 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\111901\5G10910.D Vial: 5
Acq On : 19 Nov 2001 12:50 Operator: JLS
Sample : WG108448-04 8021 STD4 50PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 13:18 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.25	1247040	37.3200 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 124.40%			
9) S BFB	16.35	3368819	37.5240 ug/L
Spiked Amount 30.000 Recovery = 125.08%			
13) S BCB	22.05	3108021	35.9964 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 119.99%			
Target Compounds			
1) TM MTBE	2.33	785282	43.5527 ug/L
2) TM Benzene	3.90	4460656	40.5117 ug/L
4) TM Toluene	8.07	4094492	41.1349 ug/L
5) TM Chlorobenzene	12.65	4351173	39.8140 ug/L
6) TM Ethylbenzene	13.71	3556049	40.8906 ug/L
7) TM m-,p-Xylene	14.18	8388144	81.7989 ug/L
8) TM o-Xylene	15.26	3637711	40.5654 ug/L
10) TM 1,3-Dichlorobenzene	19.70	3544360	40.4586 ug/L
11) TM 1,4-Dichlorobenzene	19.86	3779403	40.5146 ug/L
12) TM 1,2-Dichlorobenzene	20.51	2969073	39.5496 ug/L

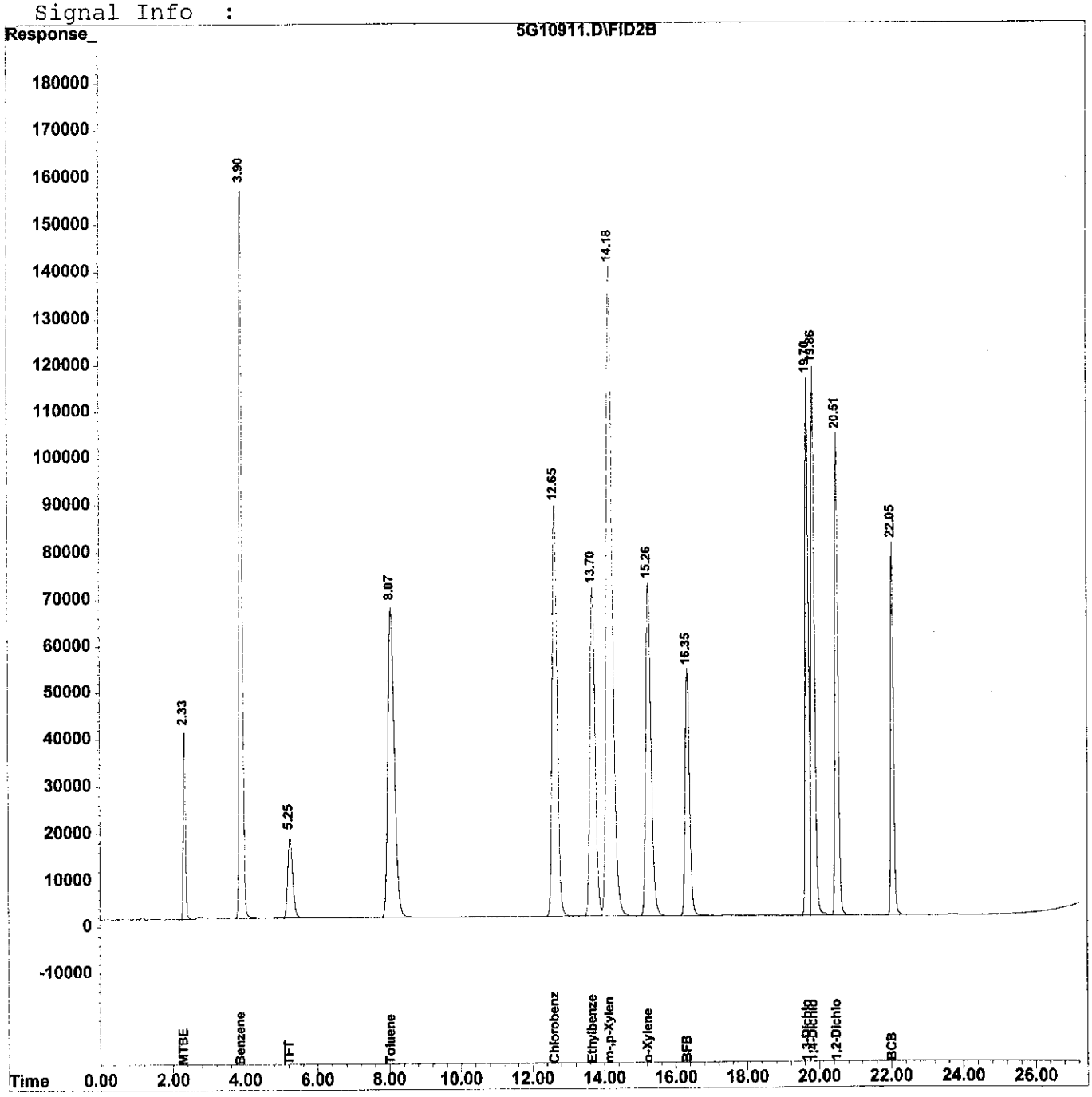
(f)=RT Delta > 1/2 Window (m)=manual int. - -

Quantitation Report

Data File : C:\HPCHEM\2\DATA\111901\5G10911.D Vial: 6
Acq On : 19 Nov 2001 13:23 Operator: JLS
Sample : WG108448-05 8021 STD5 100PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 13:50 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\111901\5G10911.D Vial: 6
Acq On : 19 Nov 2001 13:23 Operator: JLS
Sample : WG108448-05 8021 STD5 100PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 13:50 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

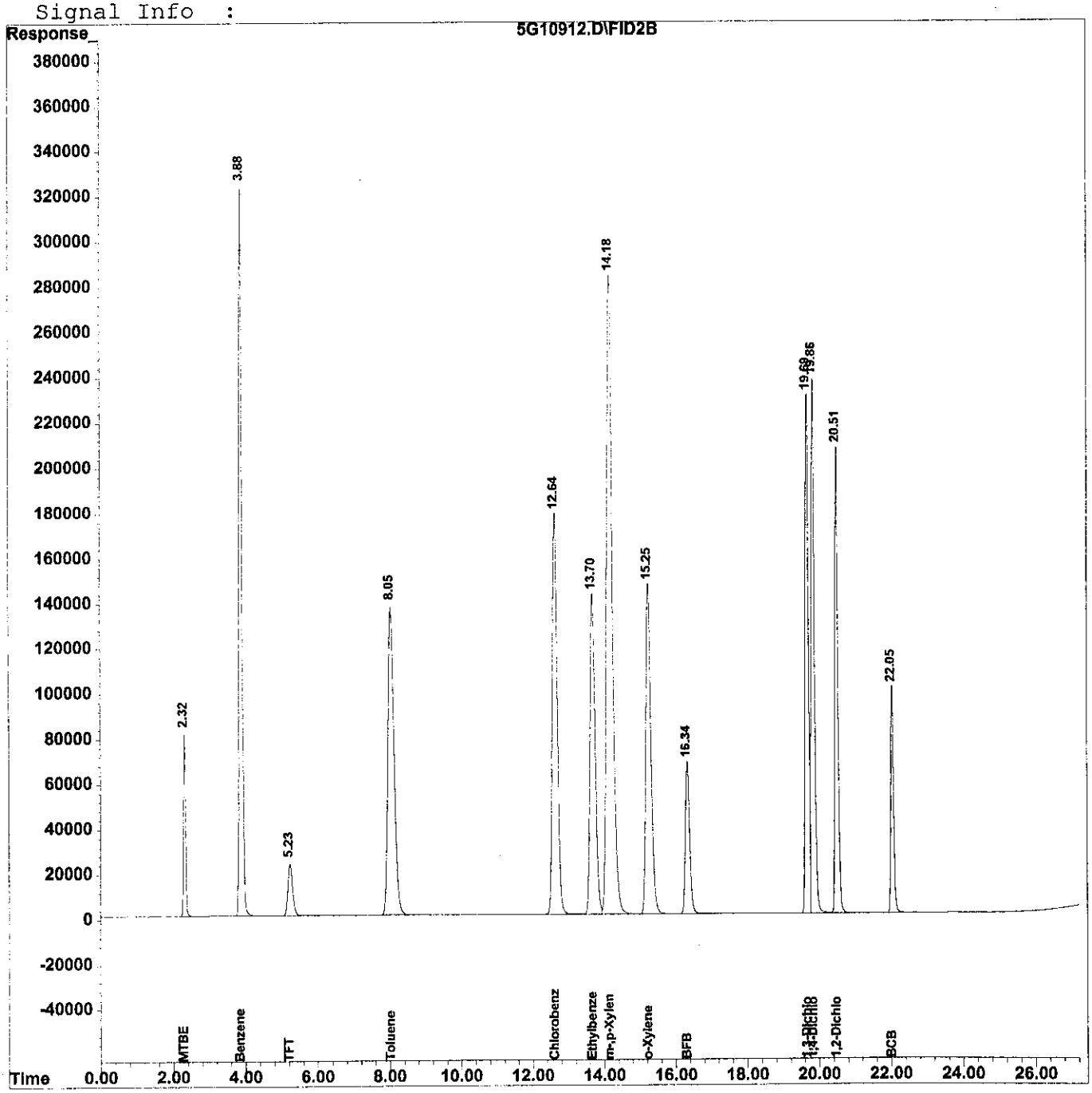
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.25	1654151	49.5036 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 165.01%#			
9) S BFB	16.35	4476824	49.8656 ug/L
Spiked Amount 30.000 Recovery = 166.22%			
13) S BCB	22.05	4182469	48.4405 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 161.47%#			
Target Compounds			
1) TM MTBE	2.33	1637578	90.8221 ug/L
2) TM Benzene	3.90	8965963	81.4289 ug/L
4) TM Toluene	8.07	8226969	82.6514 ug/L
5) TM Chlorobenzene	12.65	8626062	78.9300 ug/L
6) TM Ethylbenzene	13.71	7077705	81.3858 ug/L
7) TM m-,p-Xylene	14.18	16635172	162.2216 ug/L
8) TM o-Xylene	15.26	7263099	80.9933 ug/L
10) TM 1,3-Dichlorobenzene	19.70	7183927	82.0041 ug/L
11) TM 1,4-Dichlorobenzene	19.86	7621999	81.7065 ug/L
12) TM 1,2-Dichlorobenzene	20.52	6031432	80.3417 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\111901\5G10912.D Vial: 7
Acq On : 19 Nov 2001 13:55 Operator: JLS
Sample : WG108448-06 8021 STD6 200PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 14:22 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\111901\5G10912.D Vial: 7
Acq On : 19 Nov 2001 13:55 Operator: JLS
Sample : WG108448-06 8021 STD6 200PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 14:22 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

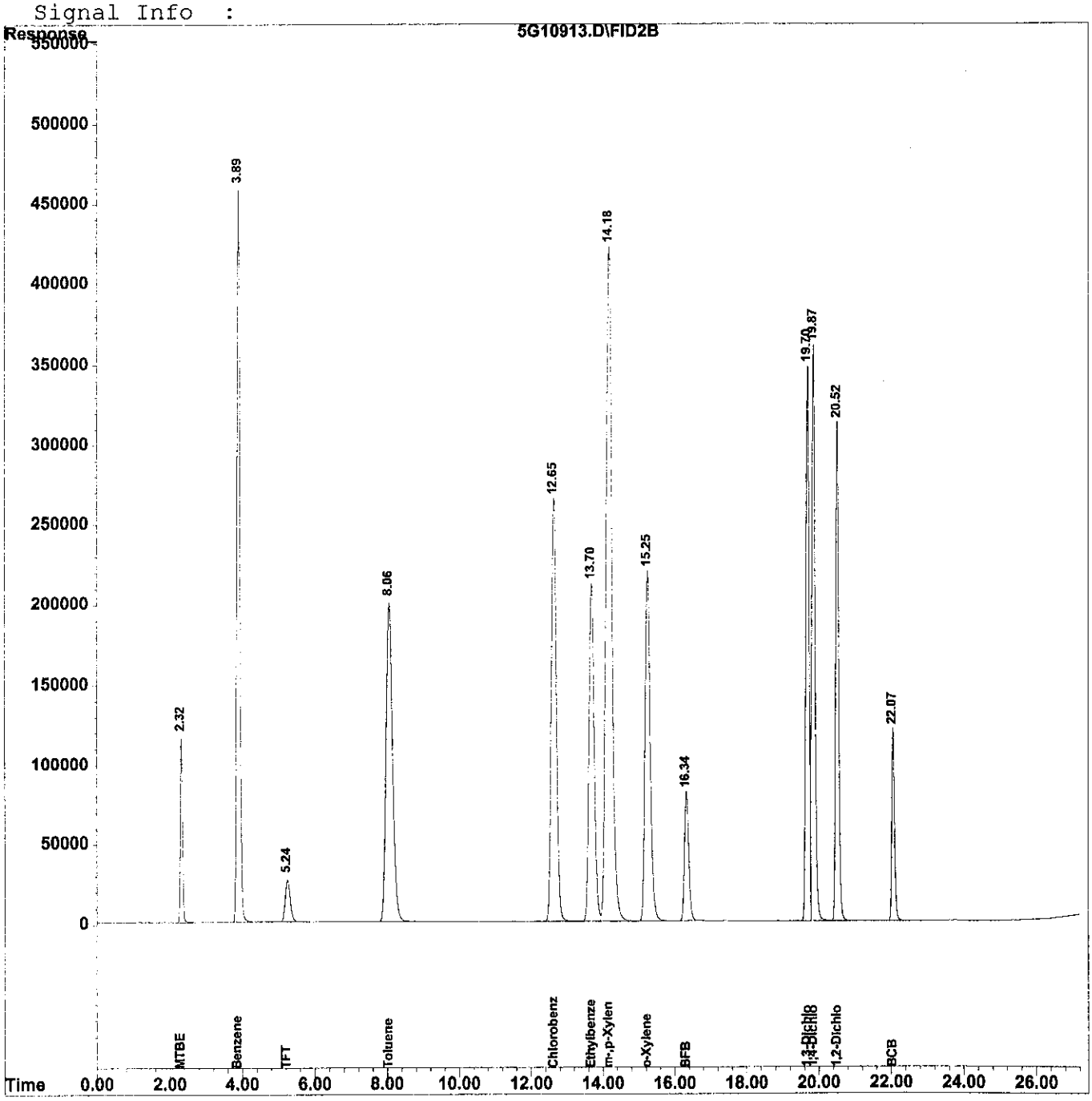
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.24	2030172	60.7567 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 202.52%#			
9) S BFB	16.34	5572156	62.0661 ug/L
Spiked Amount 30.000 Recovery = 206.89%			
13) S BCB	22.05	5234796	60.6283 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 202.09%#			
Target Compounds			
1) TM MTBE	2.32	3166735	175.6310 ug/L
2) TM Benzene	3.88	17551755	159.4050 ug/L
4) TM Toluene	8.05	16182507	162.5758 ug/L
5) TM Chlorobenzene	12.64	17063927	156.1380 ug/L
6) TM Ethylbenzene	13.70	14059739	161.6715 ug/L
7) TM m-,p-Xylene	14.18	32760829	319.4745 ug/L
8) TM o-Xylene	15.26	14422682	160.8322 ug/L
10) TM 1,3-Dichlorobenzene	19.69	14284390	163.0554 ug/L
11) TM 1,4-Dichlorobenzene	19.86	14906319	159.7932 ug/L
12) TM 1,2-Dichlorobenzene	20.51	11889074	158.3685 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\111901\5G10913.D Vial: 8
Acq On : 19 Nov 2001 14:27 Operator: JLS
Sample : WG108448-07 8021 STD7 300PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 14:54 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:23:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\111901\5G10913.D Vial: 8
Acq On : 19 Nov 2001 14:27 Operator: JLS
Sample : WG108448-07 8021 STD7 300PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 14:54 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:23:13 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.25	2455534	89.7631 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery = 299.21%#	
9) S BFB	16.34	6579502	88.0609 ug/L
Spiked Amount 30.000		Recovery = 293.54%	
13) S BCB	22.07	6266914	89.2606 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery = 297.54%#	
Target Compounds			
1) TM MTBE	2.32	4698275	288.8936 ug/L
2) TM Benzene	3.89	26356370	289.5629 ug/L
4) TM Toluene	8.06	24651577	294.6105 ug/L
5) TM Chlorobenzene	12.65	25737550	265.7986 ug/L
6) TM Ethylbenzene	13.70	21189913	294.7469 ug/L
7) TM m-,p-Xylene	14.18	49049393	577.6494 ug/L
8) TM o-Xylene	15.26	21664212	293.3566 ug/L
10) TM 1,3-Dichlorobenzene	19.70	21826356	298.0020 ug/L
11) TM 1,4-Dichlorobenzene	19.87	22726422	293.2451 ug/L
12) TM 1,2-Dichlorobenzene	20.52	18121438	290.6159 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\111901\5G10915.D
Acq On : 19 Nov 2001 15:43
Sample : WG108448-08 ALT SOURCE 20PPB 5ML
Misc : 1,1 S-86-13,86-08
IntFile : autoint1.e

Vial: 10
Operator: JLS
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	16.177	15.889 E3	1.8	99	-0.02
2	TM	Benzene	90.569	89.138 E3	1.6	99	-0.03
3	S	TFT	26.956	29.628 E3	-9.9	107	-0.03
4	TM	Toluene	83.460	82.597 E3	1.0	99	-0.04
5	TM	Chlorobenzene	95.254	87.667 E3	8.0	98	-0.03
6	TM	Ethylbenzene	71.712	72.642 E3	-1.3	102	-0.03
7	TM	m-,p-Xylene	84.460	84.130 E3	0.4	99	-0.02
8	TM	o-Xylene	73.616	72.079 E3	2.1	98	-0.02
9	S	BFB	73.441	80.713 E3	-9.9	108	-0.02
10	TM	1,3-Dichlorobenzene	73.173	72.182 E3	1.4	101	0.00
11	TM	1,4-Dichlorobenzene	77.250	76.625 E3	0.8	100	0.00
12	TM	1,2-Dichlorobenzene	62.077	61.812 E3	0.4	102	0.00
13	S	BCB	69.132	77.107 E3	-11.5	111	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\111901\5G10915.D
Acq On : 19 Nov 2001 15:43
Sample : WG108448-08 ALT SOURCE 20PPB 5ML
Misc : 1,1 S-86-13,86-08
IntFile : autoint1.e

Vial: 10
Operator: JLS
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

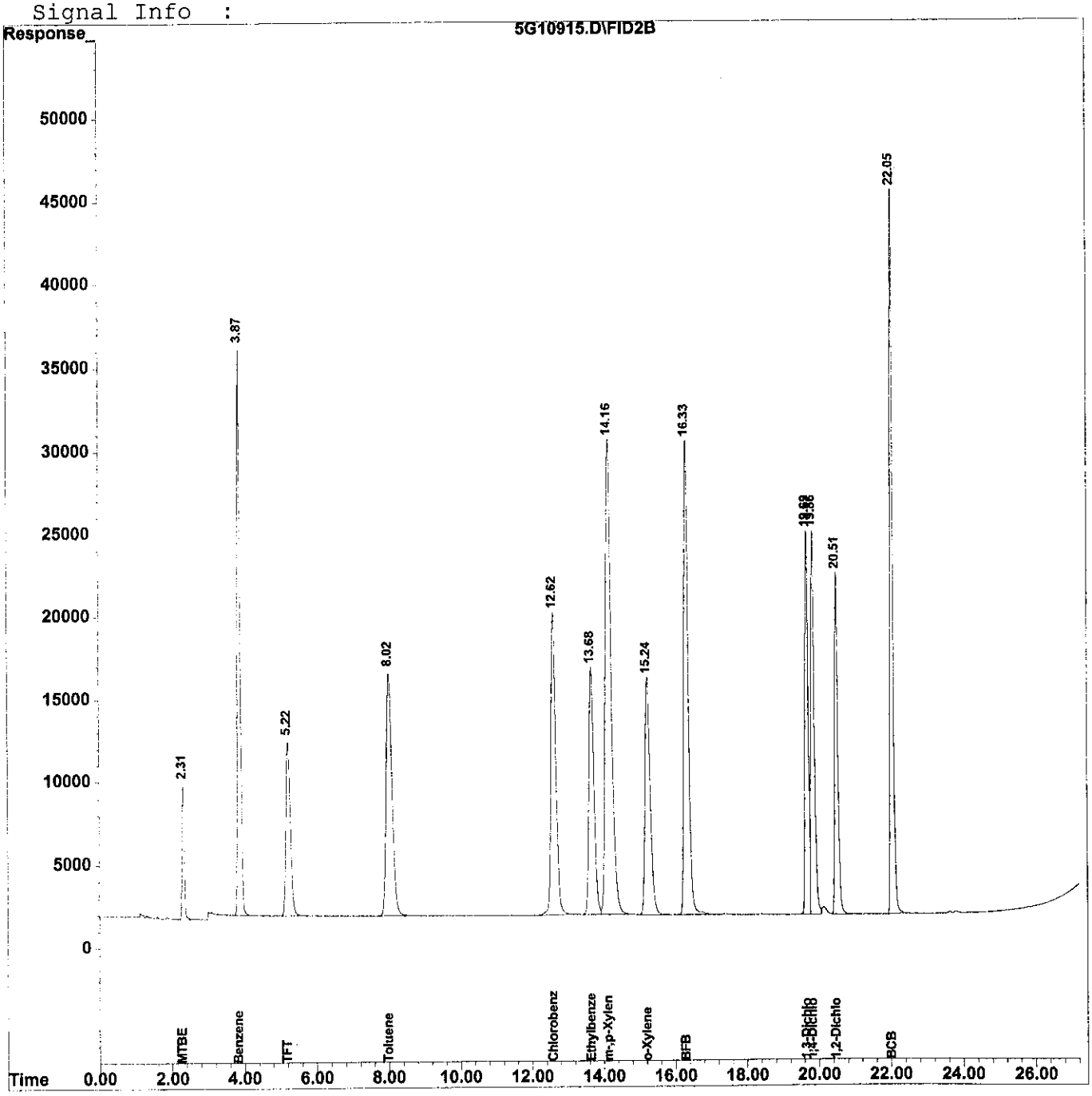
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	19.644	1.8	99	-0.02
2	TM	Benzene	20.000	19.684	1.6	99	-0.03
3	S	TFT	30.000	32.974	-9.9	107	-0.03
4	TM	Toluene	20.000	19.793	1.0	99	-0.04
5	TM	Chlorobenzene	20.000	19.810	1.0	98	-0.03
6	TM	Ethylbenzene	20.000	20.259	-1.3	102	-0.03
7	TM	m-,p-Xylene	40.000	39.843	0.4	99	-0.02
8	TM	o-Xylene	20.000	19.583	2.1	98	-0.02
9	S	BFB	30.000	32.971	-9.9	108	-0.02
10	TM	1,3-Dichlorobenzene	20.000	19.729	1.4	101	0.00
11	TM	1,4-Dichlorobenzene	20.000	19.838	0.8	100	0.00
12	TM	1,2-Dichlorobenzene	20.000	19.915	0.4	102	0.00
13	S	BCB	30.000	33.461	-11.5	111	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\2\DATA\111901\5G10915.D Vial: 10
Acq On : 19 Nov 2001 15:43 Operator: JLS
Sample : WG108448-08 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-86-13,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 16:10 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\111901\5G10915.D Vial: 10
Acq On : 19 Nov 2001 15:43 Operator: JLS
Sample : WG108448-08 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-86-13,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 16:10 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.22	888839	32.9741 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 109.91%			
9) S BFB	16.33	2421389	32.9705 ug/L
Spiked Amount 30.000 Recovery = 109.90%			
13) S BCB	22.05	2313207	33.4607 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 111.54%			
Target Compounds			
1) TM MTBE	2.31	317779	19.6439 ug/L
2) TM Benzene	3.87	1782757	19.6840 ug/L
4) TM Toluene	8.03	1651945	19.7932 ug/L
5) TM Chlorobenzene	12.62	1753330	19.8102 ug/L
6) TM Ethylbenzene	13.68	1452834	20.2593 ug/L
7) TM m-,p-Xylene	14.16	3365188	39.8435 ug/L
8) TM o-Xylene	15.25	1441583	19.5825 ug/L
10) TM 1,3-Dichlorobenzene	19.69	1443632	19.7291 ug/L
11) TM 1,4-Dichlorobenzene	19.86	1532501	19.8381 ug/L
12) TM 1,2-Dichlorobenzene	20.51	1236239	19.9147 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\112001\5G10942.D
Acq On : 20 Nov 2001 8:34
Sample : WG108544-01 8021 STD 20PPB 5ML
Misc : 1,1 S-86-(13,12)
IntFile : autoint1.e

Vial: 1
Operator: JLS
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	16.177	15.964 E3	1.3	100	-0.05
2	TM	Benzene	90.569	89.746 E3	0.9	99	-0.07
3	S	TFT	26.956	29.578 E3	-9.7	107	-0.07
4	TM	Toluene	83.460	83.209 E3	0.3	100	-0.07
5	TM	Chlorobenzene	95.254	89.547 E3	6.0	100	-0.08
6	TM	Ethylbenzene	71.712	70.450 E3	1.8	99	-0.08
7	TM	m-,p-Xylene	84.460	81.430 E3	3.6	96	-0.08
8	TM	o-Xylene	73.616	69.622 E3	5.4	95	-0.08
9	S	BFB	73.441	78.146 E3	-6.4	104	-0.09
10	TM	1,3-Dichlorobenzene	73.173	71.720 E3	2.0	100	-0.06
11	TM	1,4-Dichlorobenzene	77.250	75.504 E3	2.3	99	-0.05
12	TM	1,2-Dichlorobenzene	62.077	61.589 E3	0.8	101	-0.04
13	S	BCB	69.132	77.840 E3	-12.6	112	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G10942.D 8021W.M Tue Nov 20 09:14:47 2001 Page 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\112001\5G10942.D Vial: 1
Acq On : 20 Nov 2001 8:34 Operator: JLS
Sample : WG108544-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-86-(13,12) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	19.737	1.3	100	-0.05
2	TM	Benzene	20.000	19.818	0.9	99	-0.07
3	S	TFT	30.000	32.918	-9.7	107	-0.07
4	TM	Toluene	20.000	19.940	0.3	100	-0.07
5	TM	Chlorobenzene	20.000	20.250	-1.3	100	-0.08
6	TM	Ethylbenzene	20.000	19.648	1.8	99	-0.08
7	TM	m-,p-Xylene	40.000	38.565	3.6	96	-0.08
8	TM	o-Xylene	20.000	18.915	5.4	95	-0.08
9	S	BFB	30.000	31.922	-6.4	104	-0.09
10	TM	1,3-Dichlorobenzene	20.000	19.603	2.0	100	-0.06
11	TM	1,4-Dichlorobenzene	20.000	19.548	2.3	99	-0.05
12	TM	1,2-Dichlorobenzene	20.000	19.843	0.8	101	-0.04
13	S	BCB	30.000	33.779	-12.6	112	-0.02

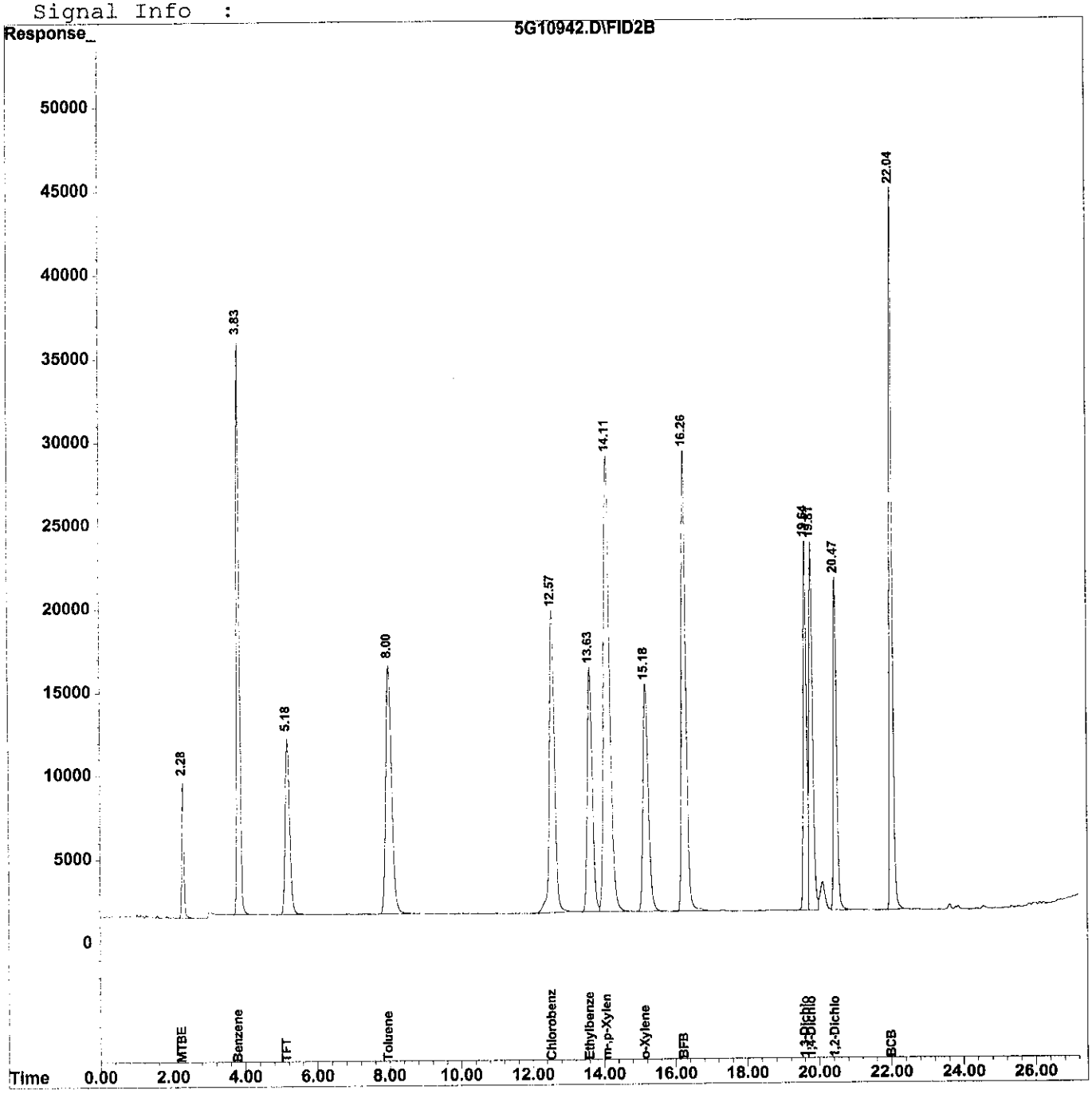
(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G10942.D 8021W.M Tue Nov 20 09:14:44 2001 Page 1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\112001\5G10942.D Vial: 1
Acq On : 20 Nov 2001 8:34 Operator: JLS
Sample : WG108544-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-86-(13,12) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 20 9:02 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\112001\5G10942.D Vial: 1
Acq On : 20 Nov 2001 8:34 Operator: JLS
Sample : WG108544-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-86-(13,12) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 20 9:02 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.18	887338	32.9185 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery = 109.73%	
9) S BFB	16.27	2344387	31.9220 ug/L
Spiked Amount 30.000		Recovery = 106.41%	
13) S BCB	22.04	2335197	33.7788 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery = 112.60%	
Target Compounds			
1) TM MTBE	2.28	319283	19.7369 ug/L
2) TM Benzene	3.83	1794922	19.8183 ug/L
4) TM Toluene	8.00	1664176	19.9397 ug/L
5) TM Chlorobenzene	12.57	1790931	20.2503 ug/L
6) TM Ethylbenzene	13.63	1409009	19.6481 ug/L
7) TM m-,p-Xylene	14.11	3257189	38.5648 ug/L
8) TM o-Xylene	15.18	1392440	18.9150 ug/L
10) TM 1,3-Dichlorobenzene	19.64	1434400	19.6030 ug/L
11) TM 1,4-Dichlorobenzene	19.81	1510087	19.5479 ug/L
12) TM 1,2-Dichlorobenzene	20.48	1231789	19.8430 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\112001\5G10953.D
Acq On : 20 Nov 2001 14:58
Sample : WG108544-02 8021 STD 20PPB 5ML
Misc : 1,1 S-86-(13,12)
IntFile : autoint1.e

Vial: 9
Operator: JLS
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	16.177	15.793 E3	2.4	99	0.00
2	TM	Benzene	90.569	88.367 E3	2.4	98	0.01
3	S	TFT	26.956	29.728 E3	-10.3	107	0.03
4	TM	Toluene	83.460	81.722 E3	2.1	98	0.04
5	TM	Chlorobenzene	95.254	85.931 E3	9.8	96	0.04
6	TM	Ethylbenzene	71.712	71.460 E3	0.4	100	0.04
7	TM	m-,p-Xylene	84.460	82.661 E3	2.1	98	0.04
8	TM	o-Xylene	73.616	70.696 E3	4.0	96	0.04
9	S	BFB	73.441	81.761 E3	-11.3	109	0.04
10	TM	1,3-Dichlorobenzene	73.173	69.784 E3	4.6	97	0.04
11	TM	1,4-Dichlorobenzene	77.250	74.816 E3	3.2	98	0.04
12	TM	1,2-Dichlorobenzene	62.077	60.597 E3	2.4	100	0.04
13	S	BCB	69.132	79.079 E3	-14.4	114	0.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\112001\5G10953.D
Acq On : 20 Nov 2001 14:58
Sample : WG108544-02 8021 STD 20PPB 5ML
Misc : 1,1 S-86-(13,12)
IntFile : autoint1.e

Vial: 9
Operator: JLS
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	19.525	2.4	99	0.00
2	TM	Benzene	20.000	19.514	2.4	98	0.01
3	S	TFT	30.000	33.086	-10.3	107	0.03
4	TM	Toluene	20.000	19.583	2.1	98	0.04
5	TM	Chlorobenzene	20.000	19.404	3.0	96	0.04
6	TM	Ethylbenzene	20.000	19.930	0.4	100	0.04
7	TM	m-,p-Xylene	40.000	39.148	2.1	98	0.04
8	TM	o-Xylene	20.000	19.207	4.0	96	0.04
9	S	BFB	30.000	33.398	-11.3	109	0.04
10	TM	1,3-Dichlorobenzene	20.000	19.074	4.6	97	0.04
11	TM	1,4-Dichlorobenzene	20.000	19.370	3.1	98	0.04
12	TM	1,2-Dichlorobenzene	20.000	19.523	2.4	100	0.04
13	S	BCB	30.000	34.316	-14.4	114	0.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0

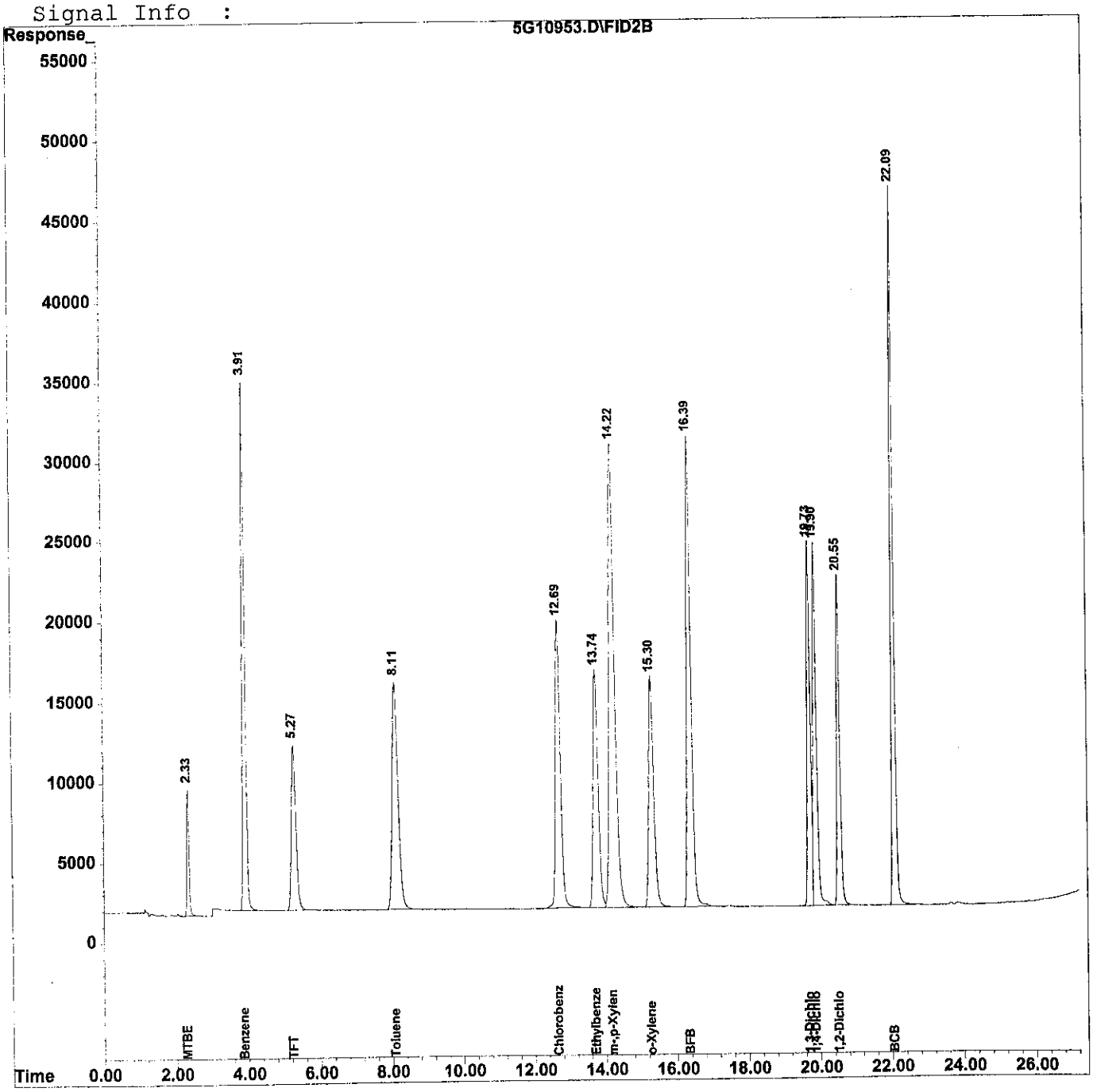
Quantitation Report

Data File : C:\HPCHEM\2\DATA\112001\5G10953.D
Acq On : 20 Nov 2001 14:58
Sample : WG108544-02 8021 STD 20PPB 5ML
Misc : 1,1 S-86-(13,12)
IntFile : autoint1.e
Quant Time: Nov 20 15:25 2001 Quant Results File: 8021W.RES

Vial: 9
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\112001\5G10953.D
Acq On : 20 Nov 2001 14:58
Sample : WG108544-02 8021 STD 20PPB 5ML
Misc : 1,1 S-86-(13,12)
IntFile : autoint1.e
Quant Time: Nov 20 15:25 2001 Quant Results File: 8021W.RES

Vial: 9
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.27	891841	33.0855 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery = 110.29%	
9) S BFB	16.39	2452820	33.3985 ug/L
Spiked Amount 30.000		Recovery = 111.33%	
13) S BCB	22.09	2372362	34.3164 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery = 114.39%	
Target Compounds			
1) TM MTBE	2.33	315859	19.5252 ug/L
2) TM Benzene	3.91	1767343	19.5138 ug/L
4) TM Toluene	8.11	1634441	19.5834 ug/L
5) TM Chlorobenzene	12.69	1718623	19.4040 ug/L
6) TM Ethylbenzene	13.75	1429208	19.9298 ug/L
7) TM m-,p-Xylene	14.22	3306449	39.1480 ug/L
8) TM o-Xylene	15.30	1413911	19.2066 ug/L
10) TM 1,3-Dichlorobenzene	19.74	1395675	19.0737 ug/L
11) TM 1,4-Dichlorobenzene	19.90	1496329	19.3698 ug/L
12) TM 1,2-Dichlorobenzene	20.55	1211944	19.5233 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\112001\5G10964.D
Acq On : 20 Nov 2001 21:09
Sample : WG108544-03 8021 STD 5ML
Misc : 1,1 S-86-(13,12)
IntFile : autoint1.e

Vial: 20
Operator: JLS
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	16.177	15.750 E3	2.6	99	0.00
2	TM	Benzene	90.569	88.226 E3	2.6	98	-0.01
3	S	TFT	26.956	29.470 E3	-9.3	106	0.00
4	TM	Toluene	83.460	81.688 E3	2.1	98	0.00
5	TM	Chlorobenzene	95.254	84.576 E3	11.2	95	0.00
6	TM	Ethylbenzene	71.712	71.341 E3	0.5	100	0.00
7	TM	m-,p-Xylene	84.460	82.414 E3	2.4	97	0.00
8	TM	o-Xylene	73.616	70.613 E3	4.1	96	0.00
9	S	BFB	73.441	81.052 E3	-10.4	108	0.00
10	TM	1,3-Dichlorobenzene	73.173	69.023 E3	5.7	96	0.00
11	TM	1,4-Dichlorobenzene	77.250	74.513 E3	3.5	98	0.00
12	TM	1,2-Dichlorobenzene	62.077	60.195 E3	3.0	99	0.00
13	S	BCB	69.132	77.909 E3	-12.7	112	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G10964.D 8021W.M Wed Nov 21 10:26:44 2001

Data File : C:\HPCHEM\2\DATA\112001\5G10964.D
Acq On : 20 Nov 2001 21:09
Sample : WG108544-03 8021 STD 5ML
Misc : 1,1 S-86-(13,12)
IntFile : autoint1.e

Vial: 20
Operator: JLS
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

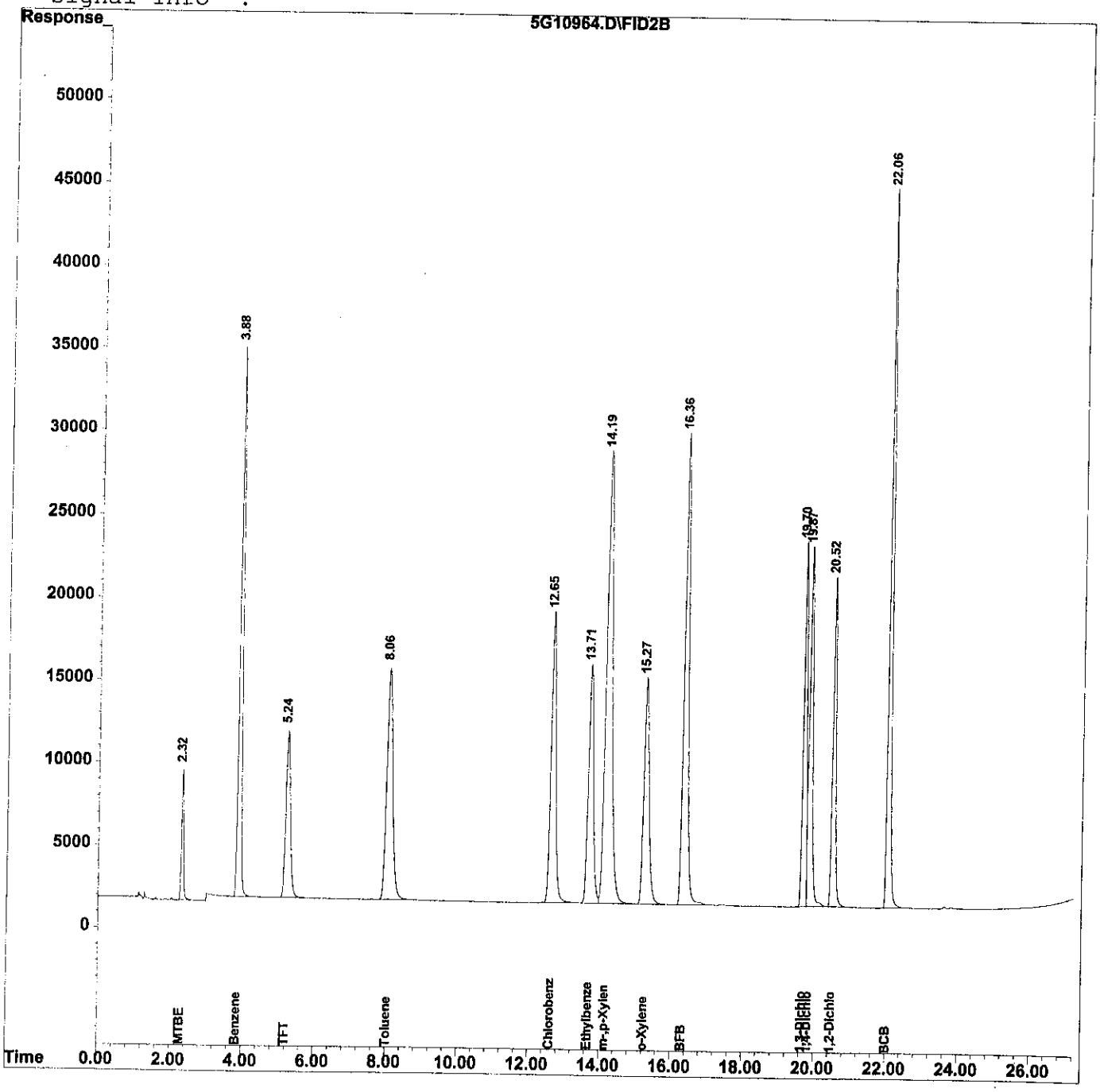
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	19.473	2.6	99	0.00
2	TM	Benzene	20.000	19.483	2.6	98	-0.01
3	S	TFT	30.000	32.799	-9.3	106	0.00
4	TM	Toluene	20.000	19.575	2.1	98	0.00
5	TM	Chlorobenzene	20.000	19.087	4.6	95	0.00
6	TM	Ethylbenzene	20.000	19.896	0.5	100	0.00
7	TM	m-,p-Xylene	40.000	39.031	2.4	97	0.00
8	TM	o-Xylene	20.000	19.184	4.1	96	0.00
9	S	BFB	30.000	33.109	-10.4	108	0.00
10	TM	1,3-Dichlorobenzene	20.000	18.866	5.7	96	0.00
11	TM	1,4-Dichlorobenzene	20.000	19.291	3.5	98	0.00
12	TM	1,2-Dichlorobenzene	20.000	19.394	3.0	99	0.00
13	S	BCB	30.000	33.809	-12.7	112	0.00

Data File : C:\HPCHEM\2\DATA\112001\5G10964.D
Acq On : 20 Nov 2001 21:09
Sample : WG108544-03 8021 STD 5ML
Misc : 1,1 S-86-(13,12)
IntFile : autoint1.e
Quant Time: Nov 20 21:36 2001 Quant Results File: 8021W.RES

Vial: 20
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\112001\5G10964.D Vial: 20
Acq On : 20 Nov 2001 21:09 Operator: JLS
Sample : WG108544-03 8021 STD 5ML Inst : HP5
Misc : 1,1 S-86-(13,12) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 20 21:36 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.24	884107	32.7986 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	109.33%
9) S BFB	16.36	2431549	33.1088 ug/L
Spiked Amount 30.000		Recovery =	110.36%
13) S BCB	22.06	2337282	33.8090 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	112.70%
Target Compounds			
1) TM MTBE	2.32	315007	19.4725 ug/L
2) TM Benzene	3.89	1764524	19.4827 ug/L
4) TM Toluene	8.06	1633767	19.5754 ug/L
5) TM Chlorobenzene	12.66	1691518	19.0867 ug/L
6) TM Ethylbenzene	13.71	1426812	19.8964 ug/L
7) TM m-,p-Xylene	14.19	3296574	39.0311 ug/L
8) TM o-Xylene	15.27	1412264	19.1843 ug/L
10) TM 1,3-Dichlorobenzene	19.71	1380463	18.8658 ug/L
11) TM 1,4-Dichlorobenzene	19.87	1490257	19.2912 ug/L
12) TM 1,2-Dichlorobenzene	20.52	1203904	19.3938 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\112101\5G10969.D Vial: 1
Acq On : 21 Nov 2001 8:05 Operator: JLS
Sample : WG108650-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-86-(13,12) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	16.177	16.393 E3	-1.3	103	-0.02
2	TM	Benzene	90.569	91.646 E3	-1.2	101	-0.03
3	S	TFT	26.956	29.845 E3	-10.7	108	-0.04
4	TM	Toluene	83.460	85.258 E3	-2.2	102	-0.05
5	TM	Chlorobenzene	95.254	95.528 E3	-0.3	107	-0.03
6	TM	Ethylbenzene	71.712	74.251 E3	-3.5	104	-0.03
7	TM	m-,p-Xylene	84.460	85.849 E3	-1.6	102	-0.03
8	TM	o-Xylene	73.616	72.950 E3	0.9	99	-0.02
9	S	BFB	73.441	81.303 E3	-10.7	109	-0.02
10	TM	1,3-Dichlorobenzene	73.173	72.248 E3	1.3	101	-0.01
11	TM	1,4-Dichlorobenzene	77.250	75.568 E3	2.2	99	-0.01
12	TM	1,2-Dichlorobenzene	62.077	61.719 E3	0.6	101	0.00
13	S	BCB	69.132	76.940 E3	-11.3	111	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\112101\5G10969.D Vial: 1
Acq On : 21 Nov 2001 8:05 Operator: JLS
Sample : WG108650-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-86-(13,12) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	20.267	-1.3	103	-0.02
2	TM	Benzene	20.000	20.238	-1.2	101	-0.03
3	S	TFT	30.000	33.215	-10.7	108	-0.04
4	TM	Toluene	20.000	20.431	-2.2	102	-0.05
5	TM	Chlorobenzene	20.000	21.650	-8.2	107	-0.03
6	TM	Ethylbenzene	20.000	20.708	-3.5	104	-0.03
7	TM	m-,p-Xylene	40.000	40.658	-1.6	102	-0.03
8	TM	o-Xylene	20.000	19.819	0.9	99	-0.02
9	S	BFB	30.000	33.211	-10.7	109	-0.02
10	TM	1,3-Dichlorobenzene	20.000	19.747	1.3	101	-0.01
11	TM	1,4-Dichlorobenzene	20.000	19.564	2.2	99	-0.01
12	TM	1,2-Dichlorobenzene	20.000	19.885	0.6	101	0.00
13	S	BCB	30.000	33.388	-11.3	111	0.00

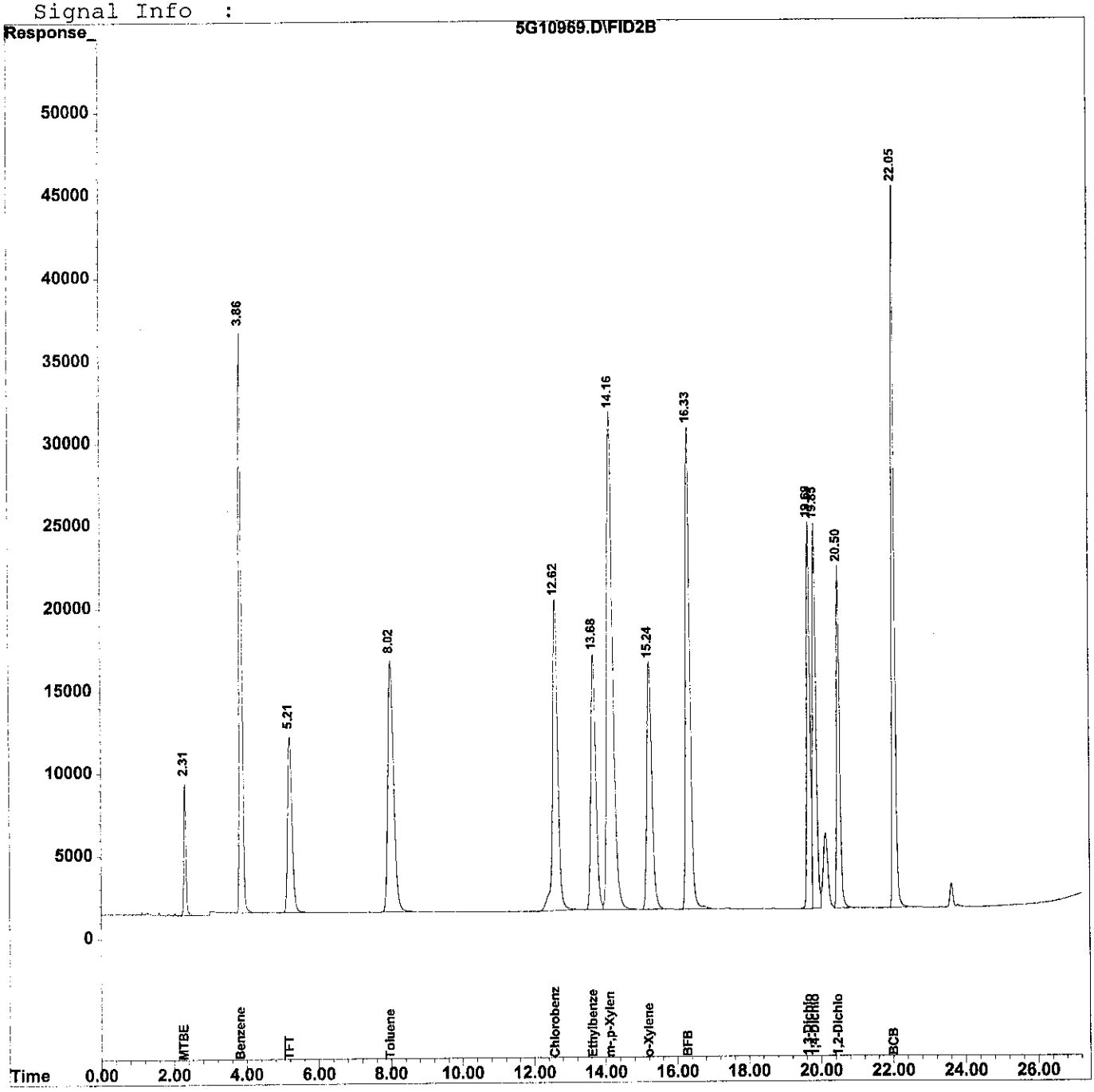
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report

Data File : C:\HPCHEM\2\DATA\112101\5G10969.D Vial: 1
Acq On : 21 Nov 2001 8:05 Operator: JLS
Sample : WG108650-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-86-(13,12) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 21 8:33 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\112101\5G10969.D Vial: 1
Acq On : 21 Nov 2001 8:05 Operator: JLS
Sample : WG108650-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-86-(13,12) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 21 8:33 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.21	895340	33.2153 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 110.72%			
9) S BFB	16.33	2439078	33.2114 ug/L
Spiked Amount 30.000 Recovery = 110.70%			
13) S BCB	22.05	2308213	33.3885 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 111.30%			
Target Compounds			
1) TM MTBE	2.31	327865	20.2674 ug/L
2) TM Benzene	3.87	1832921	20.2379 ug/L
4) TM Toluene	8.02	1705153	20.4307 ug/L
5) TM Chlorobenzene	12.62	1910559	21.6505 ug/L
6) TM Ethylbenzene	13.68	1485015	20.7080 ug/L
7) TM m-,p-Xylene	14.16	3433953	40.6577 ug/L
8) TM o-Xylene	15.24	1458993	19.8190 ug/L
10) TM 1,3-Dichlorobenzene	19.69	1444952	19.7472 ug/L
11) TM 1,4-Dichlorobenzene	19.85	1511351	19.5643 ug/L
12) TM 1,2-Dichlorobenzene	20.51	1234382	19.8848 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\112101\5G10980.D
Acq On : 21 Nov 2001 14:25
Sample : WG108650-02 8021 STD 20PPB 5ML
Misc : 1,1 S-86-(13,12)
IntFile : autoint1.e

Vial: 9
Operator: JLS
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	16.177	15.907 E3	1.7	100	0.00
2	TM	Benzene	90.569	88.835 E3	1.9	98	0.00
3	S	TFT	26.956	29.574 E3	-9.7	107	0.03
4	TM	Toluene	83.460	81.997 E3	1.8	98	0.04
5	TM	Chlorobenzene	95.254	85.604 E3	10.1	96	0.05
6	TM	Ethylbenzene	71.712	71.661 E3	0.1	100	0.05
7	TM	m-,p-Xylene	84.460	82.815 E3	1.9	98	0.06
8	TM	o-Xylene	73.616	71.089 E3	3.4	97	0.06
9	S	BFB	73.441	81.669 E3	-11.2	109	0.05
10	TM	1,3-Dichlorobenzene	73.173	70.283 E3	3.9	98	0.05
11	TM	1,4-Dichlorobenzene	77.250	76.945 E3	0.4	101	0.05
12	TM	1,2-Dichlorobenzene	62.077	62.227 E3	-0.2	102	0.05
13	S	BCB	69.132	79.160 E3	-14.5	114	0.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G10980.D 8021W.M Wed Nov 21 14:53:23 2001 Page 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\112101\5G10980.D
Acq On : 21 Nov 2001 14:25
Sample : WG108650-02 8021 STD 20PPB 5ML
Misc : 1,1 S-86-(13,12)
IntFile : autoint1.e

Vial: 9
Operator: JLS
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	19.666	1.7	100	0.00
2	TM	Benzene	20.000	19.617	1.9	98	0.00
3	S	TFT	30.000	32.914	-9.7	107	0.03
4	TM	Toluene	20.000	19.649	1.8	98	0.04
5	TM	Chlorobenzene	20.000	19.327	3.4	96	0.05
6	TM	Ethylbenzene	20.000	19.986	0.1	100	0.05
7	TM	m-,p-Xylene	40.000	39.221	1.9	98	0.06
8	TM	o-Xylene	20.000	19.314	3.4	97	0.06
9	S	BFB	30.000	33.361	-11.2	109	0.05
10	TM	1,3-Dichlorobenzene	20.000	19.210	3.9	98	0.05
11	TM	1,4-Dichlorobenzene	20.000	19.921	0.4	101	0.05
12	TM	1,2-Dichlorobenzene	20.000	20.048	-0.2	102	0.05
13	S	BCB	30.000	34.352	-14.5	114	0.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0

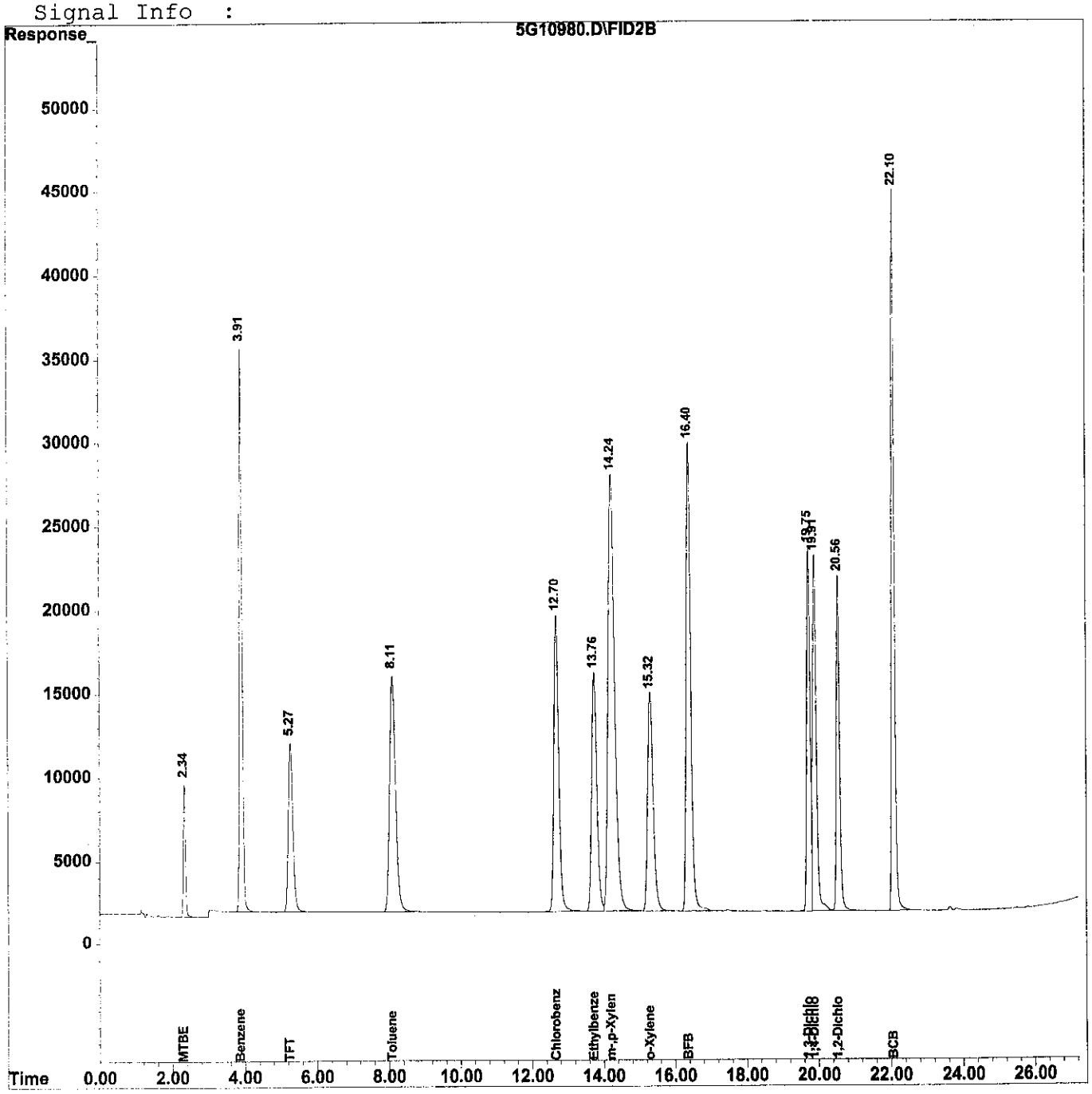
Quantitation Report

Data File : C:\HPCHEM\2\DATA\112101\5G10980.D
Acq On : 21 Nov 2001 14:25
Sample : WG108650-02 8021 STD 20PPB 5ML
Misc : 1,1 S-86-(13,12)
IntFile : autoint1.e
Quant Time: Nov 21 14:52 2001 Quant Results File: 8021W.RES

Vial: 9
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\112101\5G10980.D Vial: 9
Acq On : 21 Nov 2001 14:25 Operator: JLS
Sample : WG108650-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-86-(13,12) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 21 14:52 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.28	887220	32.9141 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery = 109.71%	
9) S BFB	16.40	2450076	33.3611 ug/L
Spiked Amount 30.000		Recovery = 111.20%	
13) S BCB	22.10	2374807	34.3518 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 114.51%	
Target Compounds			
1) TM MTBE	2.34	318141	19.6662 ug/L
2) TM Benzene	3.91	1776701	19.6171 ug/L
4) TM Toluene	8.11	1639933	19.6492 ug/L
5) TM Chlorobenzene	12.70	1712080	19.3274 ug/L
6) TM Ethylbenzene	13.76	1433216	19.9857 ug/L
7) TM m-,p-Xylene	14.24	3312603	39.2209 ug/L
8) TM o-Xylene	15.32	1421780	19.3135 ug/L
10) TM 1,3-Dichlorobenzene	19.75	1405666	19.2103 ug/L
11) TM 1,4-Dichlorobenzene	19.91	1538905	19.9210 ug/L
12) TM 1,2-Dichlorobenzene	20.56	1244535	20.0484 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 20-Nov-01
Filename: 5G10942
Sub Directory: 112001
Instrument: HP5
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	2.284	**2.237**	**2.331**
benzene	3.830	**3.761**	**3.899**
1,1,1-trifluorotoluene (SS)	5.182	**5.094**	**5.270**
toluene	8.001	**7.900**	**8.102**
chlorobenzene	12.571	**12.508**	**12.634**
ethylbenzene	13.627	**13.575**	**13.679**
m+p-xylene	14.107	**14.064**	**14.150**
o-xylene	15.183	**15.141**	**15.225**
bromofluorobenzene (SS)	16.265	**16.220**	**16.310**
1,3-dichlorobenzene	19.643	**19.610**	**19.676**
1,4-dichlorobenzene	19.811	**19.778**	**19.844**
1,2-dichlorobenzene	20.475	**20.444**	**20.506**
bromochlorobenzene (SS)	22.037	**22.012**	**22.062**

INSTRUMENT: HP5 **MATRIX:** WATER
CONT STD #1: 5G10333 **DATE #1:** 3-Oct-01
CONT STD #2: 5G10339 **DATE #2:** 4-Oct-01
CONT STD #3: 5G10367 **DATE #3:** 5-Oct-01

Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	2.348	2.321	2.321	2.330	0.016	**0.047**
benzene	3.933	3.894	3.892	3.906	0.023	**0.069**
1,1,1-trifluorotoluene (SS)	5.300	5.245	5.255	5.267	0.029	**0.088**
toluene	8.129	8.062	8.093	8.095	0.034	**0.101**
chlorobenzene	12.696	12.656	12.687	12.680	0.021	**0.063**
ethylbenzene	13.744	13.712	13.740	13.732	0.017	**0.052**
m+p-xylene	14.211	14.191	14.219	14.207	0.014	**0.043**
o-xylene	15.289	15.274	15.302	15.288	0.014	**0.042**
bromofluorobenzene (SS)	16.379	16.359	16.388	16.375	0.015	**0.045**
1,3-dichlorobenzene	19.718	19.713	19.734	19.722	0.011	**0.033**
1,4-dichlorobenzene	19.882	19.878	19.899	19.886	0.011	**0.033**
1,2-dichlorobenzene	20.533	20.530	20.549	20.537	0.010	**0.031**
bromochlorobenzene (SS)	22.070	22.069	22.084	22.074	0.008	**0.025**

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 21-Nov-01
Filename: 5G10969
Sub Directory: 112101
Instrument: HP5
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	2.310	**2.263**	**2.357**
benzene	3.866	**3.797**	**3.935**
1,1,1-trifluorotoluene (SS)	5.213	**5.125**	**5.301**
toluene	8.021	**7.920**	**8.122**
chlorobenzene	12.622	**12.559**	**12.685**
ethylbenzene	13.680	**13.628**	**13.732**
m+p-xylene	14.158	**14.115**	**14.201**
o-xylene	15.242	**15.200**	**15.284**
bromofluorobenzene (SS)	16.332	**16.287**	**16.377**
1,3-dichlorobenzene	19.689	**19.656**	**19.722**
1,4-dichlorobenzene	19.853	**19.820**	**19.886**
1,2-dichlorobenzene	20.507	**20.476**	**20.538**
bromochlorobenzene (SS)	22.047	**22.022**	**22.072**

INSTRUMENT: HP5 **MATRIX:** WATER
CONT STD #1: 5G10333 **DATE #1:** 3-Oct-01
CONT STD #2: 5G10339 **DATE #2:** 4-Oct-01
CONT STD #3: 5G10367 **DATE #3:** 5-Oct-01

Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	2.348	2.321	2.321	2.330	0.016	**0.047**
benzene	3.933	3.894	3.892	3.906	0.023	**0.069**
1,1,1-trifluorotoluene (SS)	5.300	5.245	5.255	5.267	0.029	**0.088**
toluene	8.129	8.062	8.093	8.095	0.034	**0.101**
chlorobenzene	12.696	12.656	12.687	12.680	0.021	**0.063**
ethylbenzene	13.744	13.712	13.740	13.732	0.017	**0.052**
m+p-xylene	14.211	14.191	14.219	14.207	0.014	**0.043**
o-xylene	15.289	15.274	15.302	15.288	0.014	**0.042**
bromofluorobenzene (SS)	16.379	16.359	16.388	16.375	0.015	**0.045**
1,3-dichlorobenzene	19.718	19.713	19.734	19.722	0.011	**0.033**
1,4-dichlorobenzene	19.882	19.878	19.899	19.886	0.011	**0.033**
1,2-dichlorobenzene	20.533	20.530	20.549	20.537	0.010	**0.031**
bromochlorobenzene (SS)	22.070	22.069	22.084	22.074	0.008	**0.025**

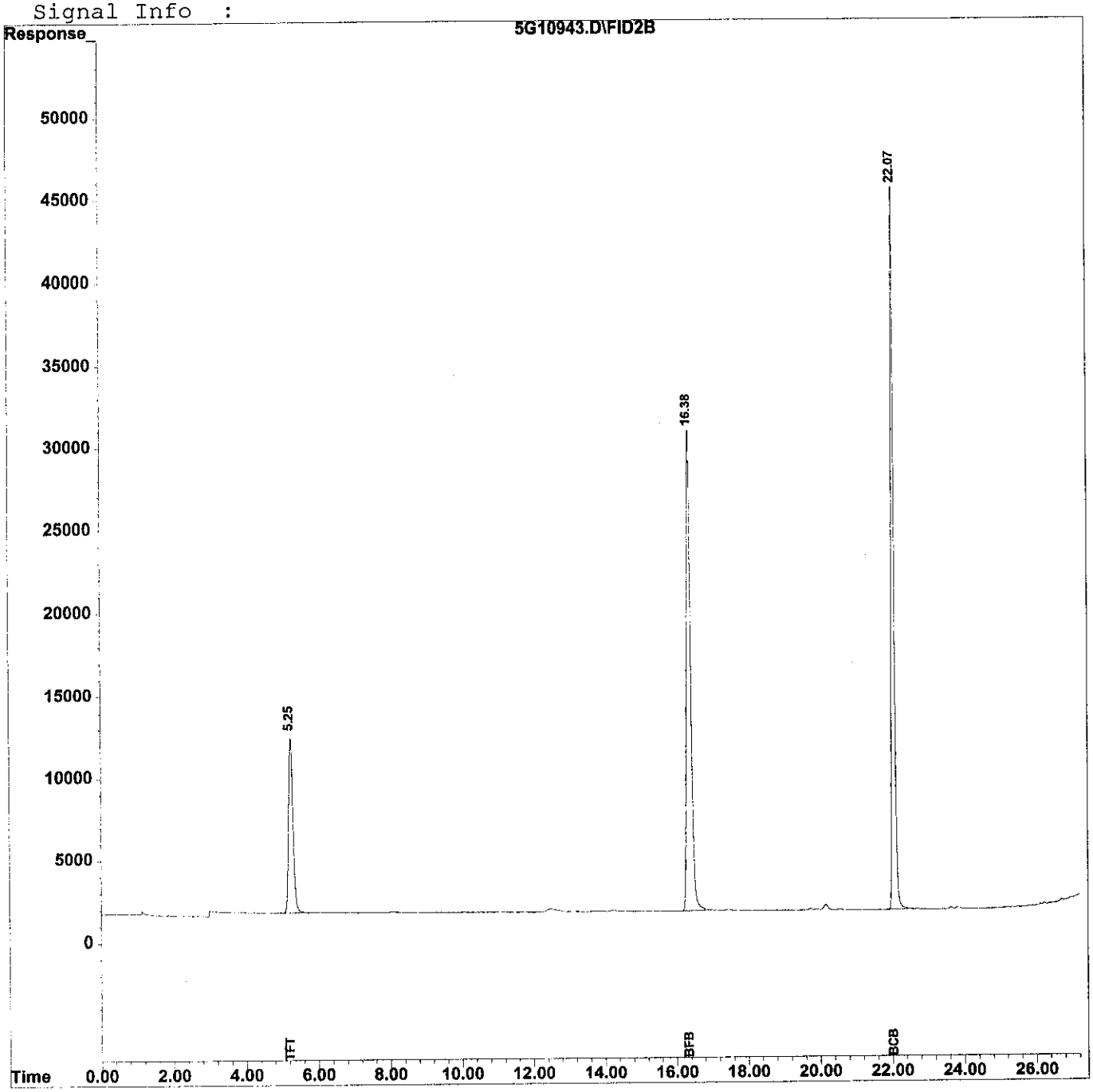
2.1.3.4 Raw Data

Quantitation Report

Data File : C:\HPCHEM\2\DATA\112001\5G10943.D Vial: 2
Acq On : 20 Nov 2001 9:18 Operator: JLS
Sample : WG108545-01 WATER BLANK 5ML Inst : HP5
Misc : 1,1 S-86-12 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 20 9:45 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\112001\5G10943.D
Acq On : 20 Nov 2001 9:18
Sample : WG108545-01 WATER BLANK 5ML
Misc : 1,1 S-86-12
IntFile : autoint1.e
Quant Time: Nov 20 9:45 2001 Quant Results File: 8021W.RES

Vial: 2
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.25	891706	33.0805 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	110.27%
9) S BFB	16.38	2416498	32.9039 ug/L
Spiked Amount 30.000		Recovery =	109.68%
13) S BCB	22.07	2303213	33.3162 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	111.05%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

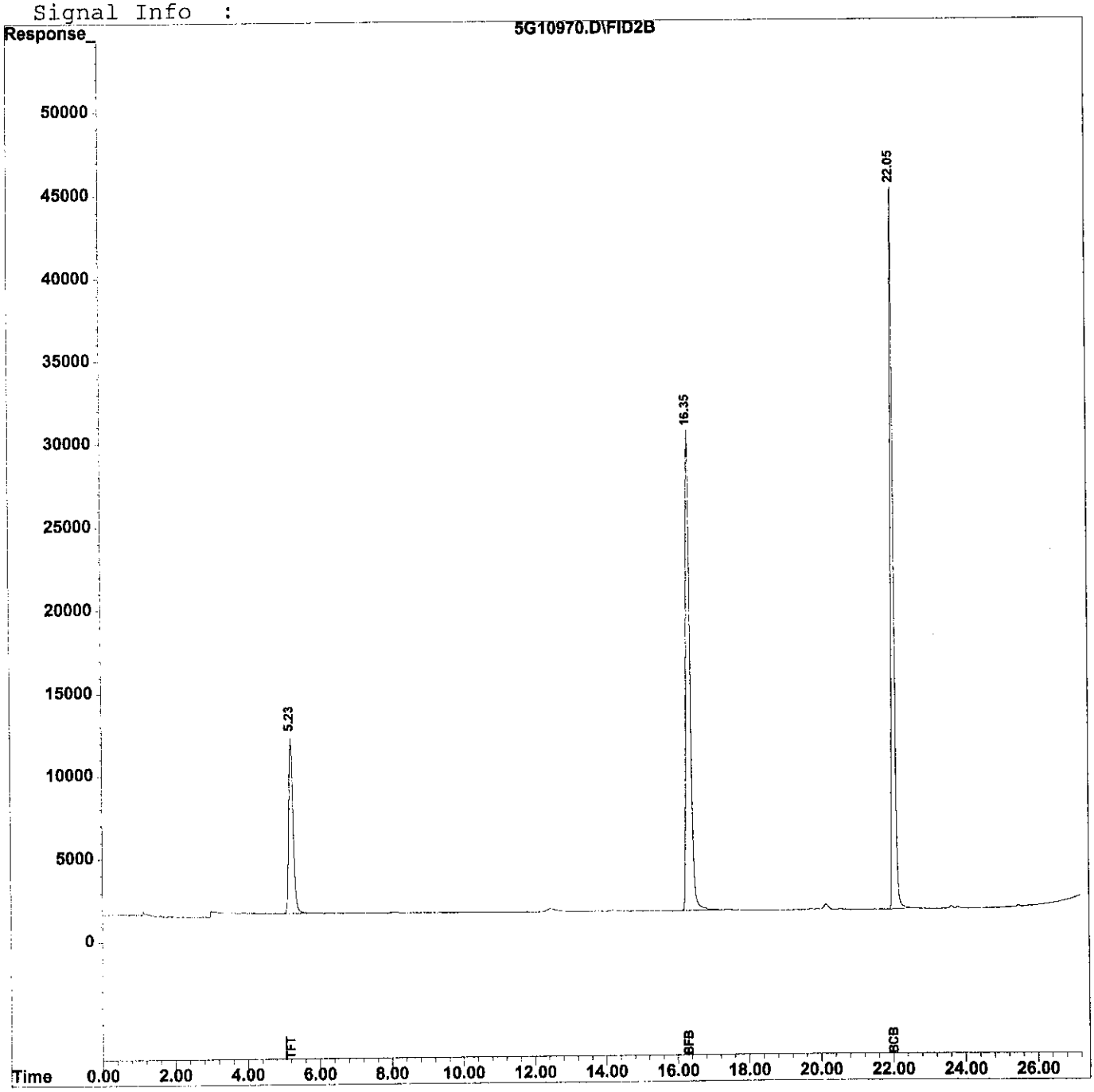
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\112101\5G10970.D Vial: 2
Acq On : 21 Nov 2001 8:47 Operator: JLS
Sample : WG108651-01 ~~SOIL~~ BLANK 5ML Inst : HP5
Misc : 1,1 S-86-12 water Multiplr: 1.00
IntFile : autoint1.e 112101
Quant Time: Nov 21 9:15 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\112101\5G10970.D Vial: 2
Acq On : 21 Nov 2001 8:47 Operator: JLS
Sample : WG108651-01 ~~SOIL~~ BLANK 5ML Inst : HP5
Misc : 1,1 S-86-12 water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 21 9:15 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.23	878452	32.5888 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	108.63%
9) S BFB	16.35	2408705	32.7978 ug/L
Spiked Amount 30.000		Recovery =	109.33%
13) S BCB	22.05	2301287	33.2883 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	110.96%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

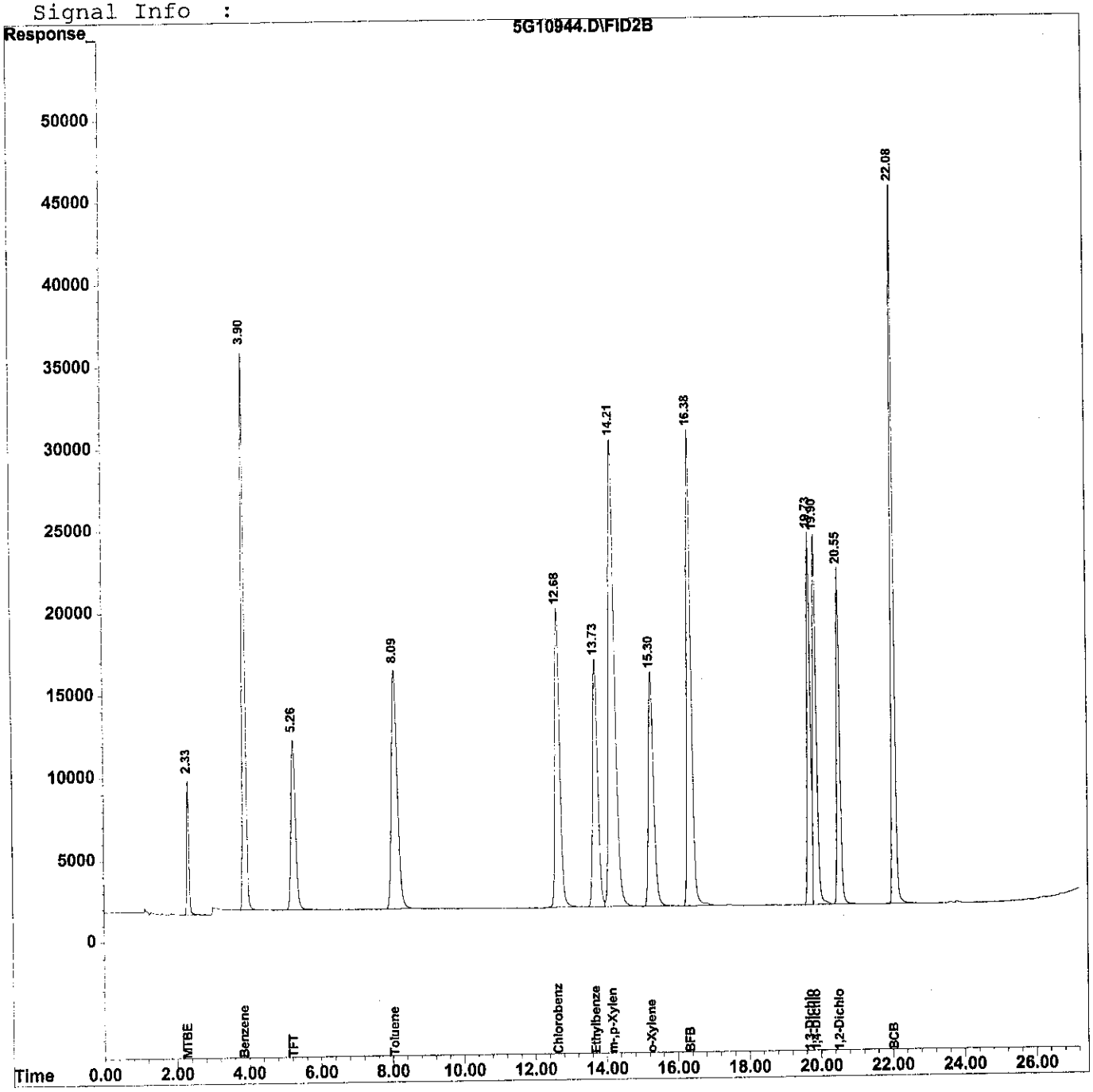
Quantitation Report

Data File : C:\HPCHEM\2\DATA\112001\5G10944.D
Acq On : 20 Nov 2001 9:50
Sample : WG108545-02 WATER LCS 20PPB 5ML
Misc : 1,1 S-86-(13,12)
IntFile : autoint1.e
Quant Time: Nov 20 10:17 2001 Quant Results File: 8021W.RES

Vial: 3
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\112001\5G10944.D
Acq On : 20 Nov 2001 9:50
Sample : WG108545-02 WATER LCS 20PPB 5ML
Misc : 1,1 S-86-(13,12)
IntFile : autoint1.e
Quant Time: Nov 20 10:17 2001 Quant Results File: 8021W.RES

Vial: 3
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.26	893047	33.1302 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery	= 110.43%
9) S BFB	16.39	2455925	33.4408 ug/L
Spiked Amount 30.000		Recovery	= 111.47%
13) S BCB	22.08	2338063	33.8203 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery	= 112.73%
Target Compounds			
1) TM MTBE	2.33	324598	20.0654 ug/L
2) TM Benzene	3.90	1798449	19.8573 ug/L
4) TM Toluene	8.09	1657553	19.8603 ug/L
5) TM Chlorobenzene	12.68	1724295	19.4704 ug/L
6) TM Ethylbenzene	13.74	1458657	20.3405 ug/L
7) TM m-,p-Xylene	14.22	3367931	39.8760 ug/L
8) TM o-Xylene	15.30	1448115	19.6713 ug/L
10) TM 1,3-Dichlorobenzene	19.73	1417868	19.3770 ug/L
11) TM 1,4-Dichlorobenzene	19.90	1520959	19.6887 ug/L
12) TM 1,2-Dichlorobenzene	20.55	1223870	19.7155 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

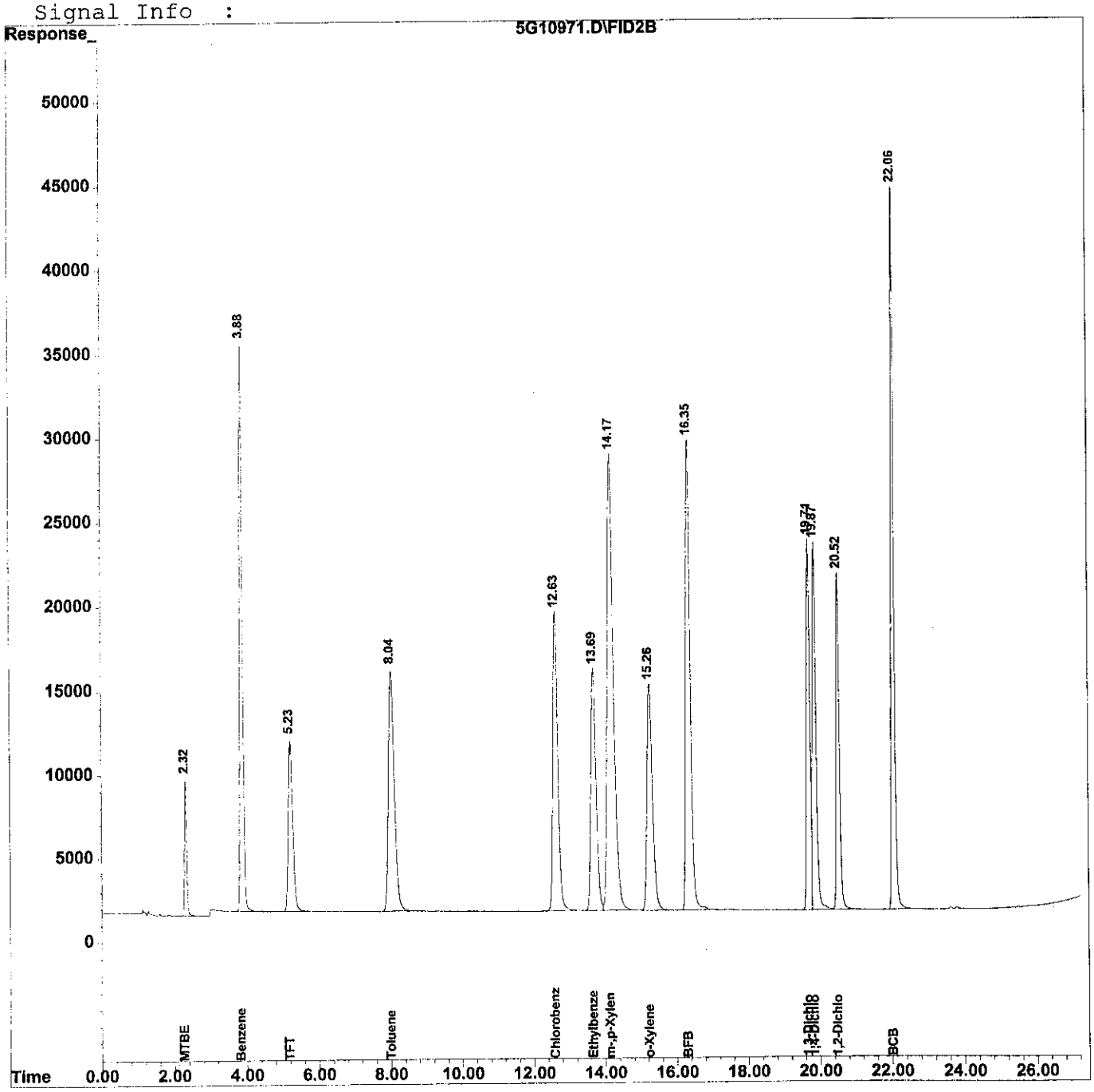
Quantitation Report

Data File : C:\HPCHEM\2\DATA\112101\5G10971.D
Acq On : 21 Nov 2001 09:19
Sample : WG108651-01 ~~SOIL~~ LCS 20PPB 5ML
Misc : 1,1 S-86-(13,12)
IntFile : autoint1.e
Quant Time: Nov 21 9:47 2001 Quant Results File: 8021W.RES

Vial: 3
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\112101\5G10971.D
Acq On : 21 Nov 2001 9:19
Sample : WG108651-01 ~~SOIL~~ LCS 20PPB 5ML
Misc : 1,1 S-86-(13,12) H_2O
IntFile : autoint1.e
Quant Time: Nov 21 9:47 2001 11/26/01 Quant Results File: 8021W.RES

Vial: 3
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.23	879568	32.6302 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	108.77%
9) S BFB	16.35	2439692	33.2197 ug/L
Spiked Amount 30.000		Recovery =	110.73%
13) S BCB	22.06	2322038	33.5885 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	111.96%
Target Compounds			
1) TM MTBE	2.32	321433	19.8697 ug/L
2) TM Benzene	3.88	1779181	19.6445 ug/L
4) TM Toluene	8.04	1644310	19.7017 ug/L
5) TM Chlorobenzene	12.63	1716082	19.3742 ug/L
6) TM Ethylbenzene	13.69	1450221	20.2228 ug/L
7) TM m-,p-Xylene	14.18	3364807	39.8390 ug/L
8) TM o-Xylene	15.26	1446281	19.6463 ug/L
10) TM 1,3-Dichlorobenzene	19.71	1404127	19.1892 ug/L
11) TM 1,4-Dichlorobenzene	19.87	1521601	19.6970 ug/L
12) TM 1,2-Dichlorobenzene	20.52	1219668	19.6478 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Injection Log

Directory: c:\hpchem\2\data\111901

Analyst: JS

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g10904.d	1.	WG108448-01 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	19 Nov 101 12::4
2	1	5g10905.d	1.	WG108448-01 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	19 Nov 101 12::3
3	1	5g10906.d	1.	WG108448-01 8021 STD1 1PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13::4
4	2	5g10907.d	1.	WG108448-01 8021 STD1 1PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13::1
5	3	5g10908.d	1.	WG108448-02 8021 STD2 10PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13::4
6	4	5g10909.d	1.	WG108448-03 8021 STD3 20PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13::1
7	5	5g10910.d	1.	WG108448-04 8021 STD4 50PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13::5
8	6	5g10911.d	1.	WG108448-05 8021 STD5 100PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 12::2
9	7	5g10912.d	1.	WG108448-06 8021 STD6 200PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 12::5
10	8	5g10913.d	1.	WG108448-07 8021 STD7 300PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 12::2
11	9	5g10914.d	1.	RINSE 5ML	1,1 S-86-08	19 Nov 101 12::5
12	10	5g10915.d	1.	WG108448-08 ALT SOURCE 20PPB 5ML	1,1 S-86-13,86-08	19 Nov 101 12::4
13	1	5g10916.d	1.	WG108507-01 WATER BLANK 5ML	1,1 S-86-12	19 Nov 101 12::1
14	2	5g10917.d	1.	WG108507-02 WATER LCS 20PPB 5ML	1,1 S-86-12	19 Nov 101 12::4
15	1	5g10918.d	1.	L0111312-03 A 5ML pH<2	1,1 S-86-12	19 Nov 101 12::2
16	2	5g10919.d	1.	L0111317-03 A 5ML pH<2	1,1 S-86-12	19 Nov 101 12::5
17	3	5g10920.d	1.	L0111280-01 B 5ML pH<2	1,1 S-86-12	19 Nov 101 12::2
18	4	5g10921.d	1.	L0111280-02 B 5ML pH<2	1,1 S-86-12	19 Nov 101 12::5
19	5	5g10922.d	1.	L0111280-03 B 5ML pH<2	1,1 S-86-12	19 Nov 101 12::3
20	6	5g10923.d	20.	WG108507-03 L0111283-01 B 20X 5ML pH<2 RR100X	1,20 S-86-12	19 Nov 101 12::0
21	7	5g10924.d	20.	WG108507-04 L0111283-01 B MS 20X 5ML pH	1,20 S-86-(13,12)	19 Nov 101 12::3
22	8	5g10925.d	20.	WG108507-05 L0111283-01 B MSD 20X 5ML p	1,20 S-86-(13,12)	19 Nov 101 12::0
23	9	5g10926.d	1.	WG108448-09 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	19 Nov 101 12::4
24	10	5g10927.d	10.	L0111283-02 B 10X 5ML pH<2	1,10 S-86-12	19 Nov 101 13::1
25	11	5g10928.d	1.	L0111283-03 B 5ML pH<2	1,1 S-86-12	19 Nov 101 13::4
26	12	5g10929.d	5.	L0111283-04 B 5X 5ML pH<2	1,5 S-86-12	19 Nov 101 13::1
27	13	5g10930.d	1.	L0111283-04 B 5ML pH<2	1,1 S-86-12	19 Nov 101 13::5
28	14	5g10931.d	10.	L0111283-05 B 10X 5ML pH<2	1,10 S-86-12	20 Nov 101 13::2
29	15	5g10932.d	1.	L0111283-06 B 5ML pH<2	1,1 S-86-12	20 Nov 101 13::5
30	16	5g10933.d	10.	L0111283-07 B 10X 5ML pH<2	1,10 S-86-12	20 Nov 101 12::2
31	17	5g10934.d	1.	L0111283-08 B 5ML pH<2	1,1 S-86-12	20 Nov 101 12::0
32	18	5g10935.d	1.	L0111283-09 B 5ML pH<2	1,1 S-86-12	20 Nov 101 12::3
33	19	5g10936.d	1.	L0111301-01 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::0
34	20	5g10937.d	1.	WG108448-10 8021 STD 20PPB 5ML	1,1 S-86-12	20 Nov 101 12::3
35	21	5g10938.d	1.	L0111301-02 A 5ML pH=10	1,1 S-86-12	20 Nov 101 12::0
36	22	5g10939.d	1.	L0111301-03 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::4
37	23	5g10940.d	1.	L0111301-04 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::1
38	24	5g10941.d	1.	WG108448-11 8021 STD 20PPB 5ML	1,1 S-86-12	20 Nov 101 12::4

Injection Log

ANALYST: JLS

Directory: c:\hpchem\2\data\112001

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g10942.d	1.	WG108544-01 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	20 Nov 101 12::3
2	2	5g10943.d	1.	WG108545-01 WATER BLANK 5ML	1,1 S-86-12	20 Nov 101 12::1
3	3	5g10944.d	1.	WG108545-02 WATER LCS 20PPB 5ML	1,1 S-86-(13,12)	20 Nov 101 12::5
4	1	5g10945.d	~~1000.~~ 100	L0111283-01 B ~~1000X~~ 5ML 100X	1,~~1000 S~~-86-12 100	20 Nov 101 13::3
5	2	5g10946.d	1000.	WG108545-03 L0111287-13 B 1000X 5ML	1,1000 S-86-12	20 Nov 101 13::0
6	3	5g10947.d	1000.	WG108545-04 L0111287-13 B MS 1000X 5ML	1,1000 S-86-(13,12)	20 Nov 101 13::3
7	4	5g10948.d	1000.	WG108545-05 L0111287-13 B MSD 1000X 5ML	1,1000 S-86-(13,12)	20 Nov 101 13::0
8	5	5g10949.d	1000.	L0111287-15 B 1000X 5ML pH<2	1,1000 S-86-12	20 Nov 101 13::[illegible]
9	6	5g10950.d	100.	L0111287-16 B 100X 5ML pH<2 AR@100X	1,100 S-86-12	20 Nov 101 12::1
10	7	5g10951.d	10.	L0111287-17 B 10X 5ML pH<2	1,10 S-86-12	20 Nov 101 12::4
11	8	5g10952.d	1.	L0111287-20 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::1
12	9	5g10953.d	1.	WG108544-02 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	20 Nov 101 12::5
13	10	5g10954.d	1.	L0111287-18 B 5ML pH<2	1,1 S-86-12	20 Nov 101 12::4
14	11	5g10955.d	1.	L0111287-19 B 5ML pH<2	1,1 S-86-12	20 Nov 101 12::1
15	12	5g10956.d	1.	L0111316-06 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::5
16	13	5g10957.d	1.	L0111316-07 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::2
17	14	5g10958.d	1.	L0111316-08 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::5
18	15	5g10959.d	1.	L0111316-10 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::2
19	16	5g10960.d	1.	L0111316-11 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::0
20	17	5g10961.d	1.	L0111316-12 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::3
21	18	5g10962.d	1.	L0111316-14 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::0
22	19	5g10963.d	1.	L0111316-15 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::3
23	20	5g10964.d	1.	WG108544-03 8021 STD 5ML	1,1 S-86-(13,12)	20 Nov 101 12::0
24	21	5g10965.d	1000.	L0111287-16 B 1000X 5ML	1,1000 S-86-(13,12)	20 Nov 101 12::4
25	22	5g10966.d	1.	L0111361-02 A 5ML	1,1 S-86-12	20 Nov 101 13::1
26	23	5g10967.d	1.	L0111365-03 A 5ML	1,1 S-86-12	20 Nov 101 13::4
27	24	5g10968.d	1.	WG108544-04 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	20 Nov 101 13::1

Injection Log

ANALYST: JLS

Directory: c:\hpchem\2\data\112101

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g10969.d	1.	WG108650-01 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	21 Nov 101 12::0
2	2	5g10970.d	1.	WG108651-01 SOIL BLANK 5ML	1,1 S-86-12	21 Nov 101 12::4
3	3	5g10971.d	1.	WG108651-01 SOIL LCS 20PPB 5ML	1,1 S-86-(13,12)	21 Nov 101 12::1
4	4	5g10972.d	1.	L0111316-01 A 5ML pH<2	1,1 S-86-12	21 Nov 101 13::0
5	5	5g10973.d	1.	WG108651-03 L0111316-02 A 5ML pH<2	1,1 S-86-12	21 Nov 101 13::3
6	6	5g10974.d	1.	WG108651-04 L0111316-03 A MS 5ML pH<2	1,1 S-86-(13,12)	21 Nov 101 13::0
7	7	5g10975.d	1.	WG108651-05 L0111316-04 A MSD 5ML pH<2	1,1 S-86-(13,12)	21 Nov 101 13::4
8	8	5g10976.d	1.	L0111316-05 A 5ML pH<2	1,1 S-86-12	21 Nov 101 13::1
9	9	5g10977.d	100.	L0111316-13 A 100X 5ML pH<2	1,100 S-86-12	21 Nov 101 13::4
10	10	5g10978.d	1.	L0111316-09 A 5ML pH<2	1,1 S-86-12	21 Nov 101 12::1
11	11	5g10979.d	1.	L0111325-05 B 5ML pH<2	1,1 S-86-12	21 Nov 101 12::5
12	9	5g10980.d	1.	WG108650-02 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	21 Nov 101 12::2
13	10	5g10981.d	1.	L0111325-06 B 5ML	1,1 S-86-12	21 Nov 101 12::0
14	11	5g10982.d	1.	L0111325-07 B 5ML	1,1 S-86-12	21 Nov 101 12::4
15	12	5g10983.d	1.	L0111325-08 B 5ML	1,1 S-86-12	21 Nov 101 12::0
16	13	5g10984.d	1.	L0111325-09 B 5ML	1,1 S-86-12	21 Nov 101 12::5
17	14	5g10985.d	1.	L0111325-10 B 5ML	1,1 S-86-12	21 Nov 101 12::1
18	15	5g10986.d	10.	L0111325-03 B 10X 5ML	1,10 S-86-12	21 Nov 101 12::4
19	16	5g10987.d	1.	WG108650-03 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	21 Nov 101 12::1
20	17	5g10988.d	1.	RR L0111332-01 A 5ML	1,1 S-86-12	21 Nov 101 12::5
21	18	5g10989.d	1.	L0111332-02 A 5ML	1,1 S-86-12	21 Nov 101 12::2
22	19	5g10990.d	1.	L0111332-03 A 5ML RR @ 100X HIGH SSS	1,1 S-86-12	21 Nov 101 12::5
23	20	5g10991.d	1.	L0111332-04 A 5ML RR @ 100X HIGH SSS	1,1 S-86-12	21 Nov 101 13::2
24	21	5g10992.d	1.	L0111332-05 A 5ML RR @ 100X HIGH SSS	1,1 S-86-12	21 Nov 101 13::0
25	22	5g10993.d	1.	L0111332-06 A 5ML RR c/o	1,1 S-86-12	21 Nov 101 13::3
26	23	5g10994.d	1.	RINSE 5ML	1,1 S-86-12	22 Nov 101 13::0
27	24	5g10995.d	1.	? WG108650-04 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	22 Nov 101 13::3

2.2 Semivolatiles Data

2.2.5 DRO GC DATA (8015)

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0111316

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8015

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: Sample fraction -10 required to analyze at dilution due to out of range results .
Surrogates: Sample fractions -05 and-07 were re-extracted in hold with an acceptable surrogate recoveries and only the re-extracted results were reported .

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: HV REVIEWED: Steve Rom DATE: 11/29/01

Rev. 7/14/00

Date: 11-[illegible]
Analyst: HV
Method: 8011 - 1,1,1 - PRD - W - 11314 (1,3 & 5) 11317 (2) 11316 (1-14) } water level 4
Instrument: HP2
Work Group: WG 108512

	Analyst
System Performance Check	✓
Endrin & DDT Breakdown	NA
Initial Calibration	
Average RF	
Linear Reg or Higher Order Curve	
Second Source Standard % Difference	✓
Check Standards	
Project / Client Specific Requirements	
Special Standards	✓
Blanks	
TCL's	
Surrogates	
LCS (Laboratory Control Sample)	✓
Recoveries	
Surrogates	
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	
Surrogates	
Calculations & Correct Factors	
Dilutions Run	✓
Reruns	
Check Sample Histories	
Ending Check Standards	✓
Excel Spreadsheets	✓
Case Narrative	
Corrective Action	
Results Reporting / Data Qualifiers	
WorkGroups Traceability	
Client Data Package Assembly	
Check for Completeness	

Primary Reviewer Initials & Date Checked HV 11/21/01

Secondary Reviewer Initials & Date Checked [illegible] 11/26/01

- Check for compliance with Method and project-specific requirements
- Check the completeness of the reported information
- Check the information for the report narrative
- Check the reasonableness of results

Supervisory Review Initials & Date Checked [illegible] 11/26/01

Comments: sample 316-10 was not reported, it required dilution analysis — and samples 316-05 & -07 sent for RE due to low surr rec.

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

Analyst: [illegible]
Method: 8010 - 7.1A PRB
Instrument: HP9
Work Group: WG 108854

H 316-10 (dilu. run) RE - level 4 "

	Analyst
System Performance Check	✓
Endrin & DDT Breakdown	NA
Initial Calibration	✓
Average RF	
Linear Reg or Higher Order Curve	
Second Source Standard % Difference	
Check Standards	✓
Project / Client Specific Requirements	
Special Standards	
Blanks	✓
TCL's	
Surrogates	
LCS (Laboratory Control Sample)	✓
Recoveries	
Surrogates	
MS / MSD / Duplicates	NA
Samples	✓
TCL Hits	
Surrogates	
Calculations & Correct Factors	
Dilutions Run	✓
Reruns	
Check Sample Histories	
Ending Check Standards	✓
Excel Spreadsheets	✓
Case Narrative	
Corrective Action	
Results Reporting / Data Qualifiers	
WorkGroups Traceability	
Client Data Package Assembly	
Check for Completeness	

Primary Reviewer Initials & Date Checked HV 11/27/01

Secondary Reviewer Initials & Date Checked [illegible] 11/28/01

- Check for compliance with Method and project-specific requirements
- Check the completeness of the reported information
- Check the information for the report narrative
- Check the reasonableness of results

Supervisory Review Initials & Date Checked [illegible] 11/28/01

Comments: This data pkg. contains RE group and a dilution analysis of H 316-10 — Results for 316-05 & -07 reported from RE.

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

DRO-GC DATA (8015)

Login Number: L0111316

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

✓ Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data)

✓ Chromatograms and external standard reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and external standard reports (chronological)

NA Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

✓ Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

✓ Extraction bench sheets

Checked By: HV Date: 4/29/01

2.2.5.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP : WG108512
METHOD : 8015-PRO
MATRIX : WATER
CONCENTRATION UNITS : ug / l
PREP WORK GRP : WG108468

EXT DATE : 11-19-01
EXT BENCH SHEET : V175-P181
BLK FILENAME : 2G16602
LCS FILENAME : 2G16603
LCS DUP FILENAME : NA

RUN DATE : 11-19-01
SMPL ID : L0111316-02
SMPL FLNM : 2G16610
MS FLNM : 2G16611
MSD FLNM : 2G16612

INSTRUMENT : HP2
Analyst: HV

ANALYTE	CONCENTRATION , ug / L									PERCENT RECOVERY , %										PERCENT		
	RDL	BLANK	LCS SPIKE ADDED	LCS	LCS DUP	SAMPLE	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS DUP	LCS LCL	LCS ULC	SAMPLE	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL
PRO (C8 - C40)	500	ND	3400	2413	NA	ND	3672	2779	2915	NA	71.0	NA	55	118	ND	75.7	79.4	41	101	NA	5	20
SURROGATE																						
o-TERPHENYL		21.0	20	18.1	NA	13.6	20	19.1	18.8	105	90.5	NA	49	174	69.2	95.5	93.9	49	174	NA	2	20

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP : WG108854
METHOD : 8015-PRO
MATRIX : WATER
CONCENTRATION UNITS : ug / l
PREP WORK GRP : WG108655

EXT DATE : 11-21-01
EXT BENCH SHEET : V176-P13
BLK FILENAME : 2G16749
LCS FILENAME : 2G16750
LCS DUP FILENAME : 2G16751

RUN DATE : 11-27-01
SMPL ID : NA
SMPL FLNM : NA
MS FLNM : NA
MSD FLNM : NA

INSTRUMENT : HP2
Analyst: HV

ANALYTE	CONCENTRATION , ug / L									PERCENT RECOVERY , %										PERCENT		
	RDL	BLANK	LCS SPIKE ADDED	LCS	LCS DUP	SAMPLE	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS DUP	LCS LCL	LCS ULC	SAMPLE	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL
PRO (C8 - C40)	500	ND	3400	2610	2809	NA	7140	NA	NA	NA	76.8	82.6	56	118	NA	NA	NA	41	101	7	NA	20
SURROGATE:																						
o-TERPHENYL		19.6	20	22.6	23.5	NA	20	NA	NA	98.2	113	117	49	174	NA	NA	NA	49	174	4	NA	20

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

2.2.5.2 Sample Data

Acq On : 19 Nov 2001 17:30 Operator: HV
Sample : L0111316-01 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.03
IntFile : PETRO.E
Quant Time: Nov 20 8:11 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

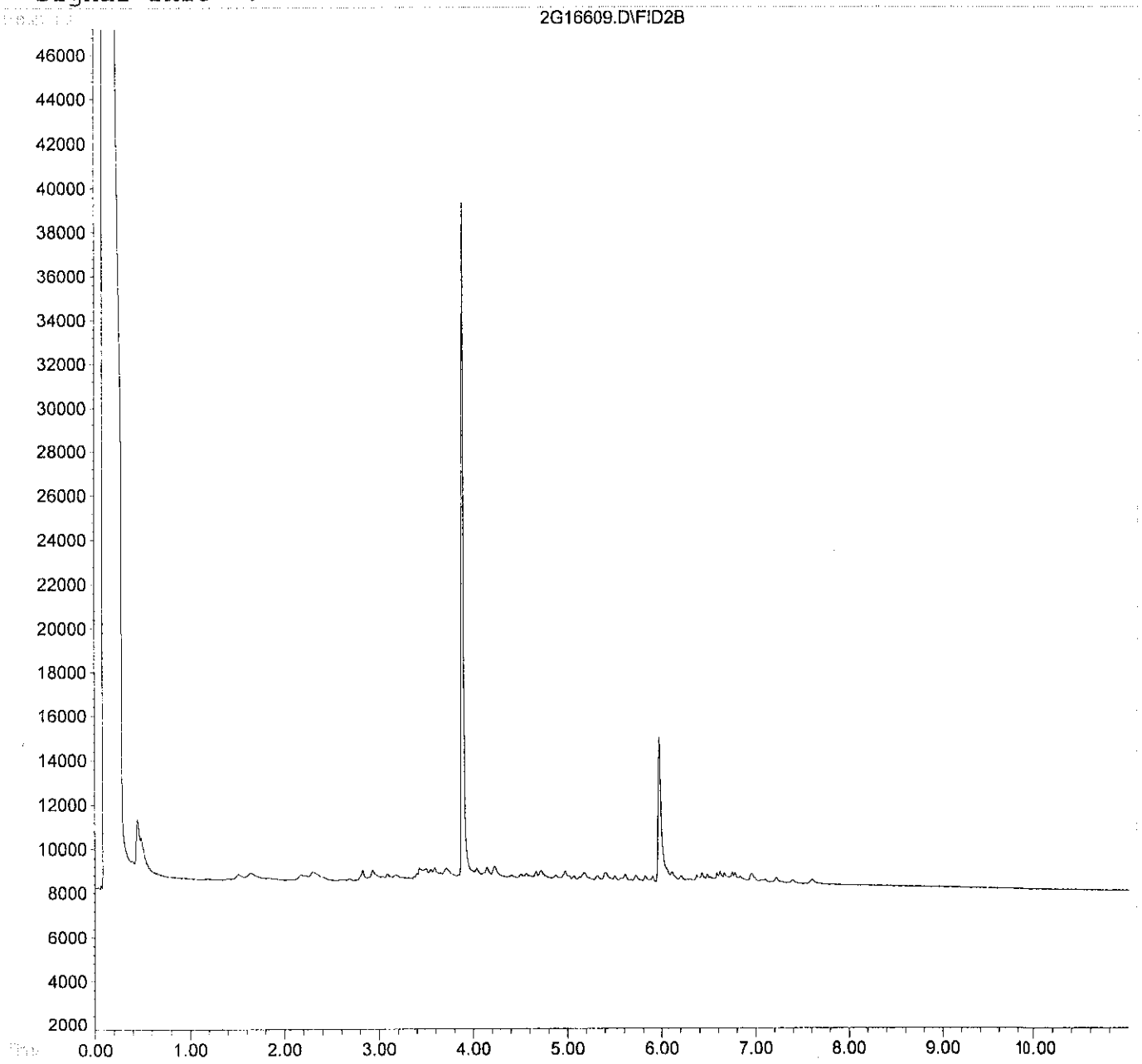
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.89	469639	19.644 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		98.22%
3) s n-Nonatriacontane	7.40f	9084	0.620 ppm
Spiked Amount 20.000	Recovery =		3.10%
Target Compounds			
1) H Petroleum Range	3.67	1074116	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\111901\2G16609.D Vial: 50
Acq On : 19 Nov 2001 17:30 Operator: HV
Sample : L0111316-01 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.03
IntFile : PETRO.E
Quant Time: Nov 20 8:11 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\111901\2G16610.D Vial: 51
Acq On : 19 Nov 2001 17:45 Operator: HV
Sample : WG108468-01 Ref. PRO water Inst : hp2
Misc : 1,1 L0111316-02 Ref. Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 20 8:11 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

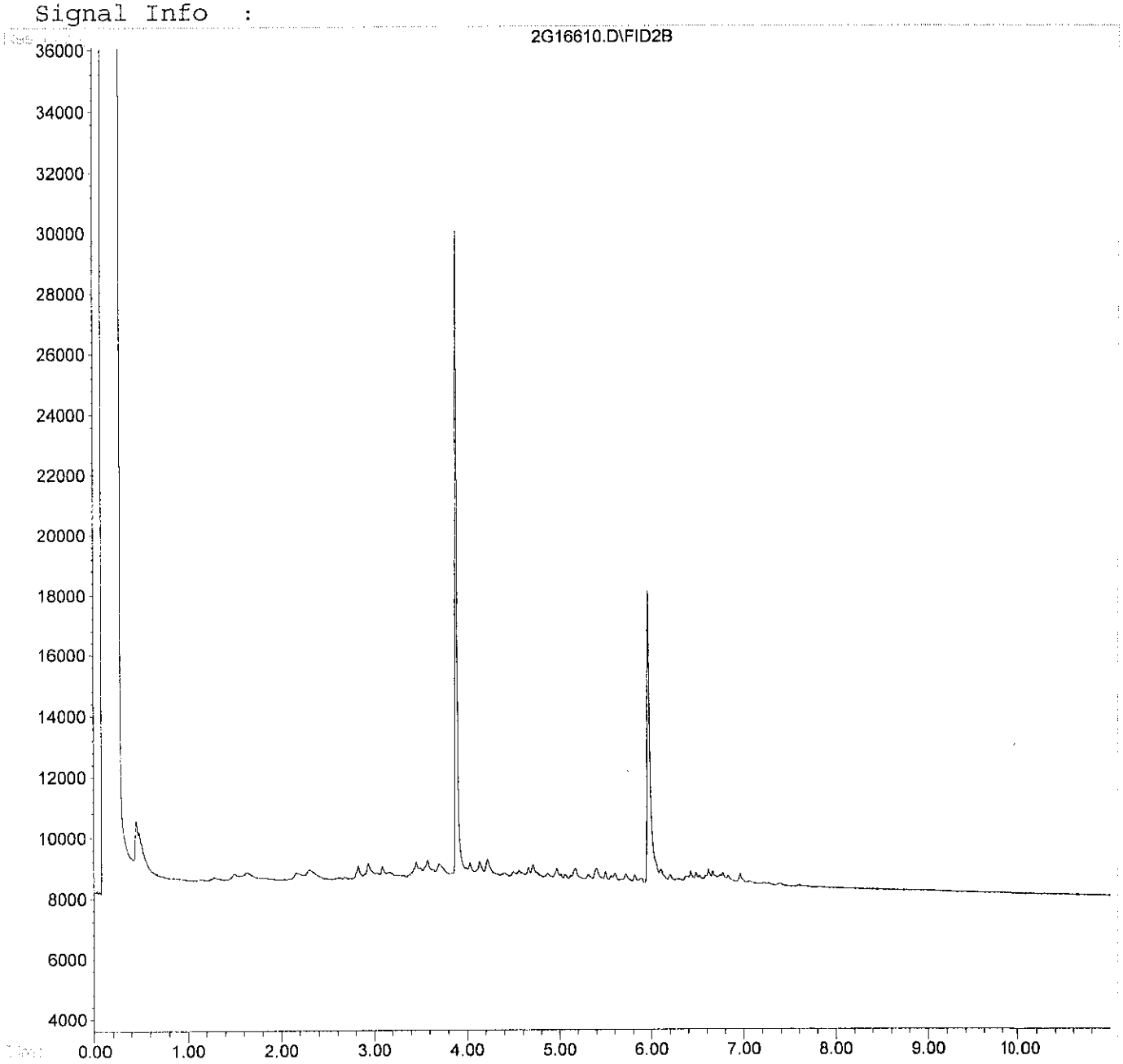
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.89	330738	13.834 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	69.17%
3) s n-Nonatriacontane	7.40f	4605	0.314 ppm
Spiked Amount 20.000		Recovery =	1.57%
Target Compounds			
1) H Petroleum Range	3.67	1116274	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16610.D FLASHPRO.M Tue Nov 20 08:13:43 2001 Page 1

Data File : C:\HPCHEM\1\DATA\111901\2G16610.D Vial: 51
Acq On : 19 Nov 2001 17:45 Operator: HV
Sample : WG108468-01 Ref. PRO water Inst : hp2
Misc : 1,1 L0111316-02 Ref. Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 20 8:11 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\111901\2G16611.D Vial: 32
Acq On : 19 Nov 2001 18:01 Operator: HV
Sample : WG108468-04 MS PRO water Inst : hp2
Misc : 1,1 L0111316-03 MS Multiplr: 1.08
IntFile : PETRO.E
Quant Time: Nov 20 8:12 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

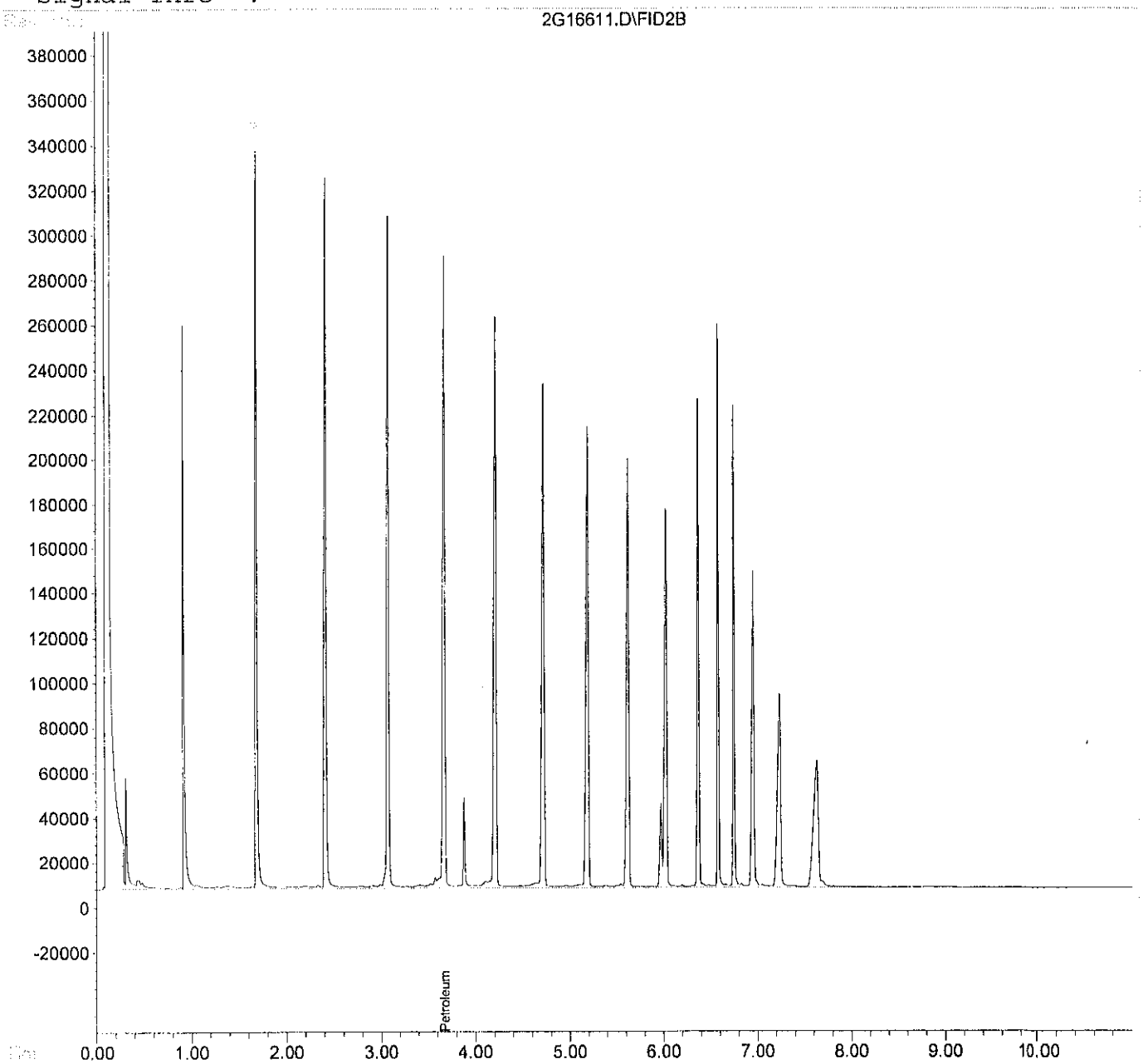
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.88	456853	19.109 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 95.55%			
3) s n-Nonatriacontane	7.37f	27353	1.868 ppm
Spiked Amount 20.000 Recovery = 9.34%			
Target Compounds			
1) H Petroleum Range	3.67	52827026	2779.157 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 19 Nov 2001 18:01 Operator: HV
Sample : WG108468-04 MS PRO water Inst : hp2
Misc : 1,1 L0111316-03 MS Multiplr: 1.08
IntFile : PETRO.E
Quant Time: Nov 20 8:12 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : [illegible]

Acq On : 19 Nov 2001 18:16 Operator: HV
Sample : WG108468-05 MSD PRO water Inst : hp2
Misc : 1,1 L0111316-04 MSD Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Nov 20 8:15 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.88	448864	18.775 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		93.88%
3) s n-Nonatriacontane	7.37f	25514	1.742 ppm
Spiked Amount 20.000	Recovery =		8.71%
Target Compounds			
1) H Petroleum Range	3.67	57534045	2914.683 ppb

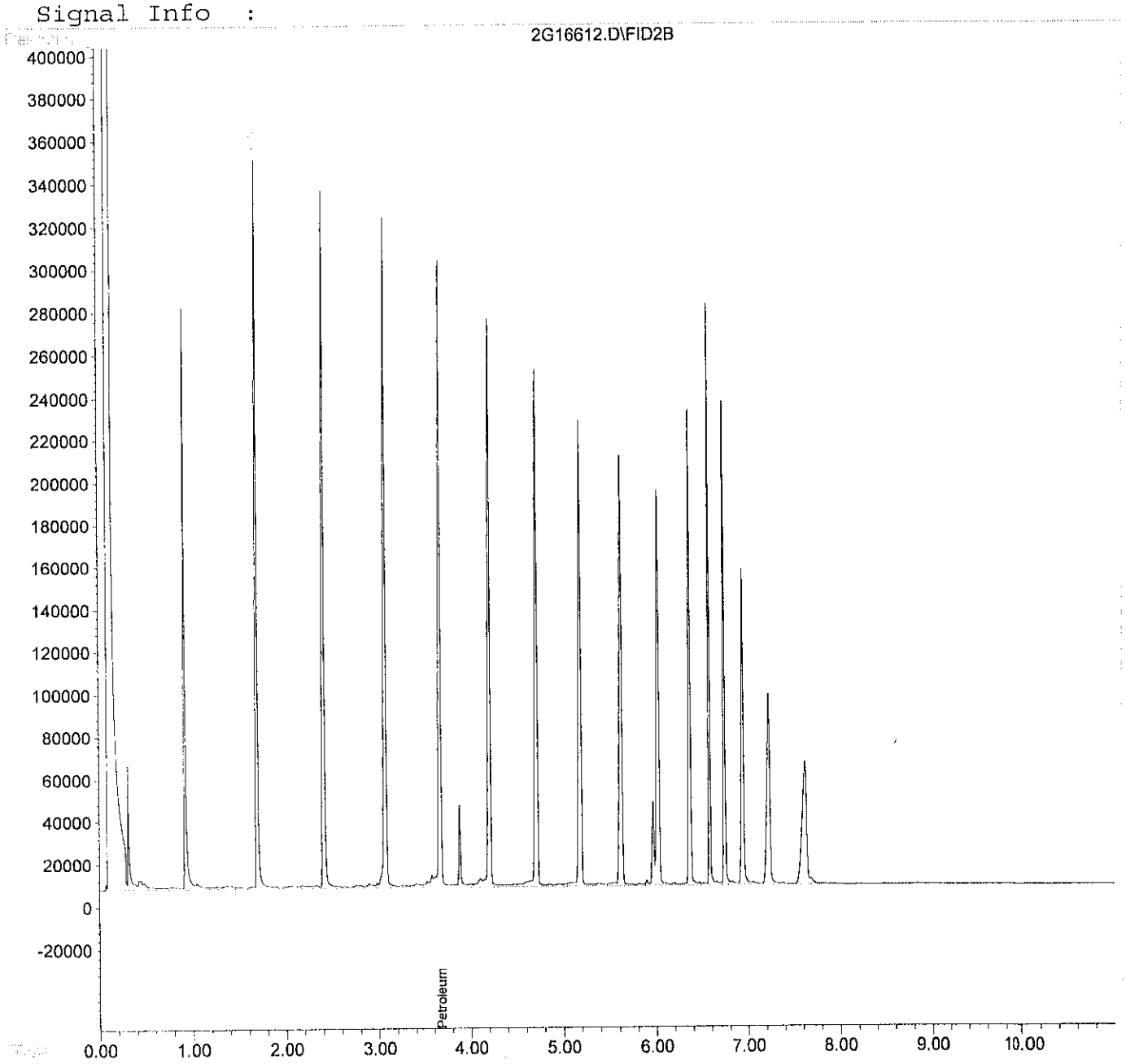
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 19 Nov 2001 18:16 Operator: HV
Sample : WG108468-05 MSD PRO water Inst : hp2
Misc : 1,1 L0111316-04 MSD Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Nov 20 8:15 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Sample : L0111316-05 RE W/IN PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.06
IntFile : PETRO.E
Quant Time: Nov 27 13:53 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 27 09:36:57 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.89	535875	22.415 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	112.08%
3) s n-Nonatriacontane	7.57f	100	0.007 ppm
Spiked Amount 20.000		Recovery =	0.04%
Target Compounds			
1) H Petroleum Range	3.68	3286396	169.691 ppb

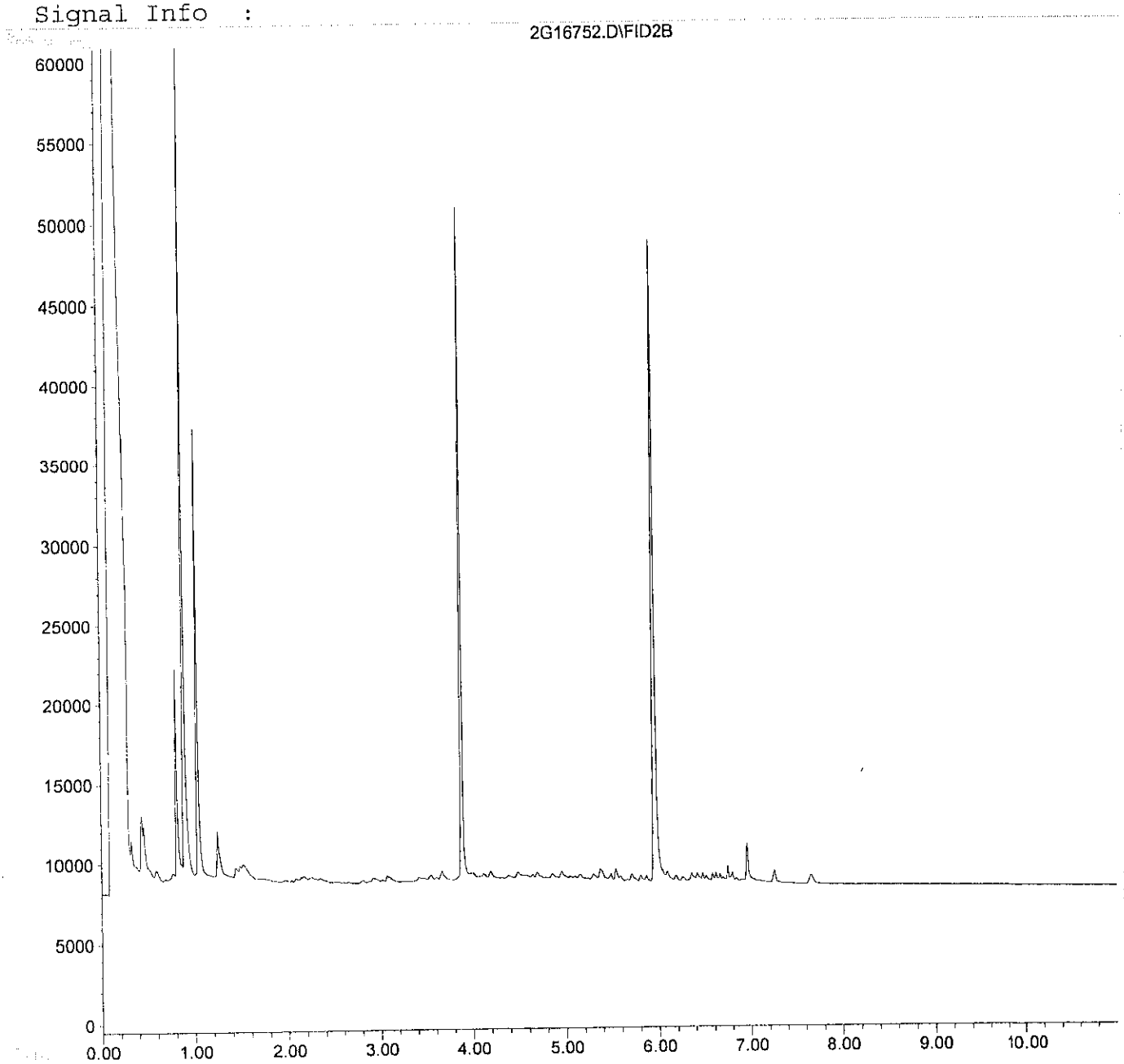
(f)=RT Delta > 1/2 Window (m)=manual int.
2G16752.D FLASHPRO.M Tue Nov 27 13:55:30 2001 Page 1

Acq On : 27 Nov 2001 13:09
Sample : L0111316-05 RE W/IN PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Nov 27 13:53 2001 Quant Results File: FLASHPRO.RES

Inst : hp2
Multiplr: 1.06

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 27 09:36:57 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\111901\2G16613.D
Acq On : 19 Nov 2001 18:32
Sample : L0111316-05 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Nov 20 8:16 2001 Quant Results File: FLASHPRO.RES

Vial: 34
Operator: HV
Inst : hp2
Multiplr: 1.04

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.89	153152	6.406 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	32.03%#
3) s n-Nonatriacontane	7.39f	7525	0.514 ppm
Spiked Amount 20.000		Recovery =	2.57%
Target Compounds			
1) H Petroleum Range	3.67	1650242	<MDL ppb

RE

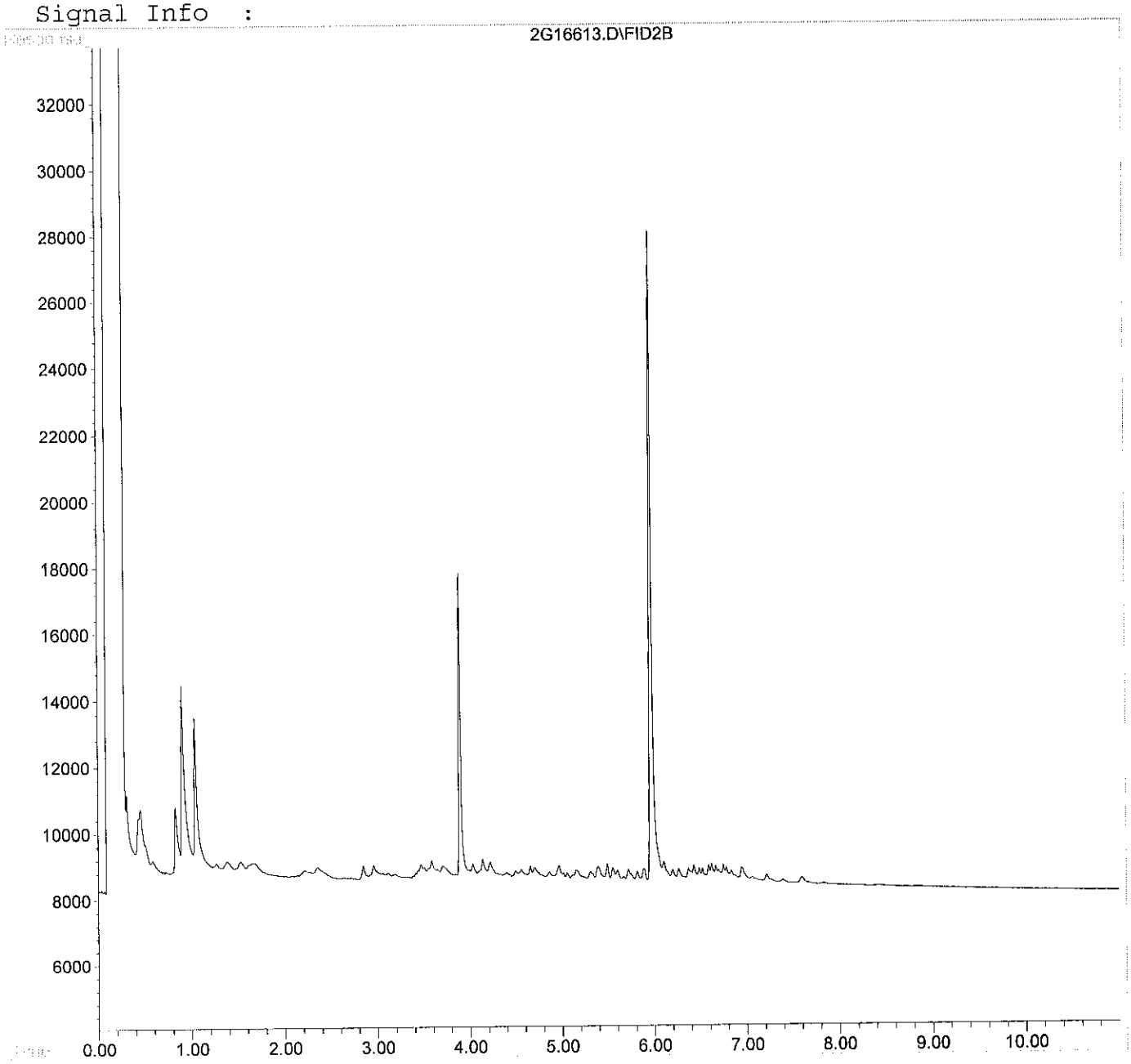
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\111901\2G16613.D
Acq On : 19 Nov 2001 18:32
Sample : L0111316-05 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Nov 20 8:16 2001 Quant Results File: FLASHPRO.RES

Vial: 34
Operator: HV
Inst : hp2
Multiplr: 1.04

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\111901\2G16614.D
Acq On : 19 Nov 2001 18:47
Sample : L0111316-06 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Nov 20 8:16 2001 Quant Results File: FLASHPRO.RES

Vial: 35
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.88	403127	16.862 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	84.31%
3) s n-Nonatriacontane	7.39f	13249	0.905 ppm
Spiked Amount 20.000		Recovery =	4.52%
Target Compounds			
1) H Petroleum Range	3.67	2221676	<MDL ppb

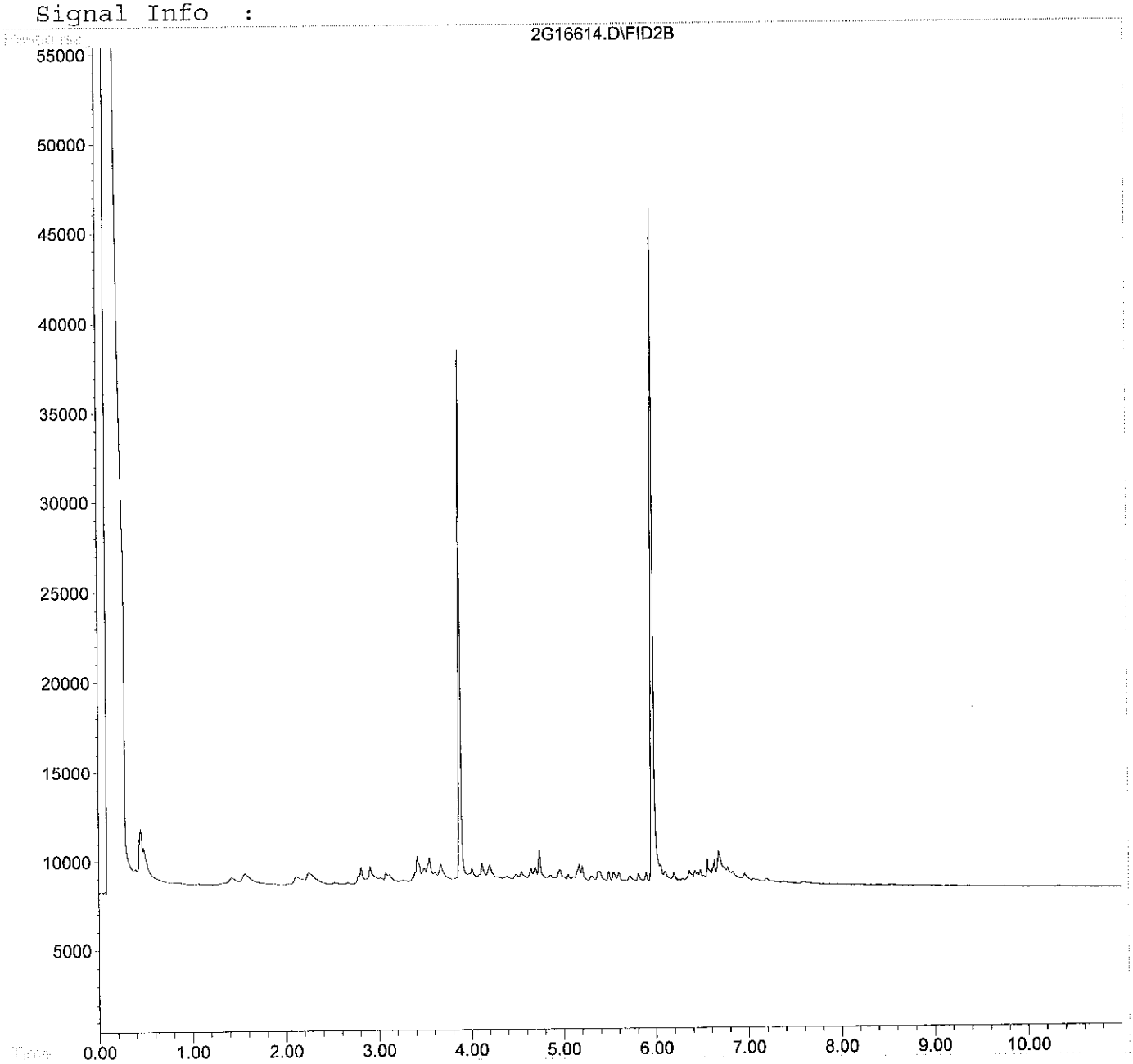
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\111901\2G16614.D
Acq On : 19 Nov 2001 18:47
Sample : L0111316-06 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Nov 20 8:16 2001 Quant Results File: FLASHPRO.RES

Vial: 35
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 27 Nov 2001 13:24 Operator: RT
Sample : L0111316-07 RE W/IN PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.06
IntFile : PETRO.E
Quant Time: Nov 27 13:53 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 27 09:36:57 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

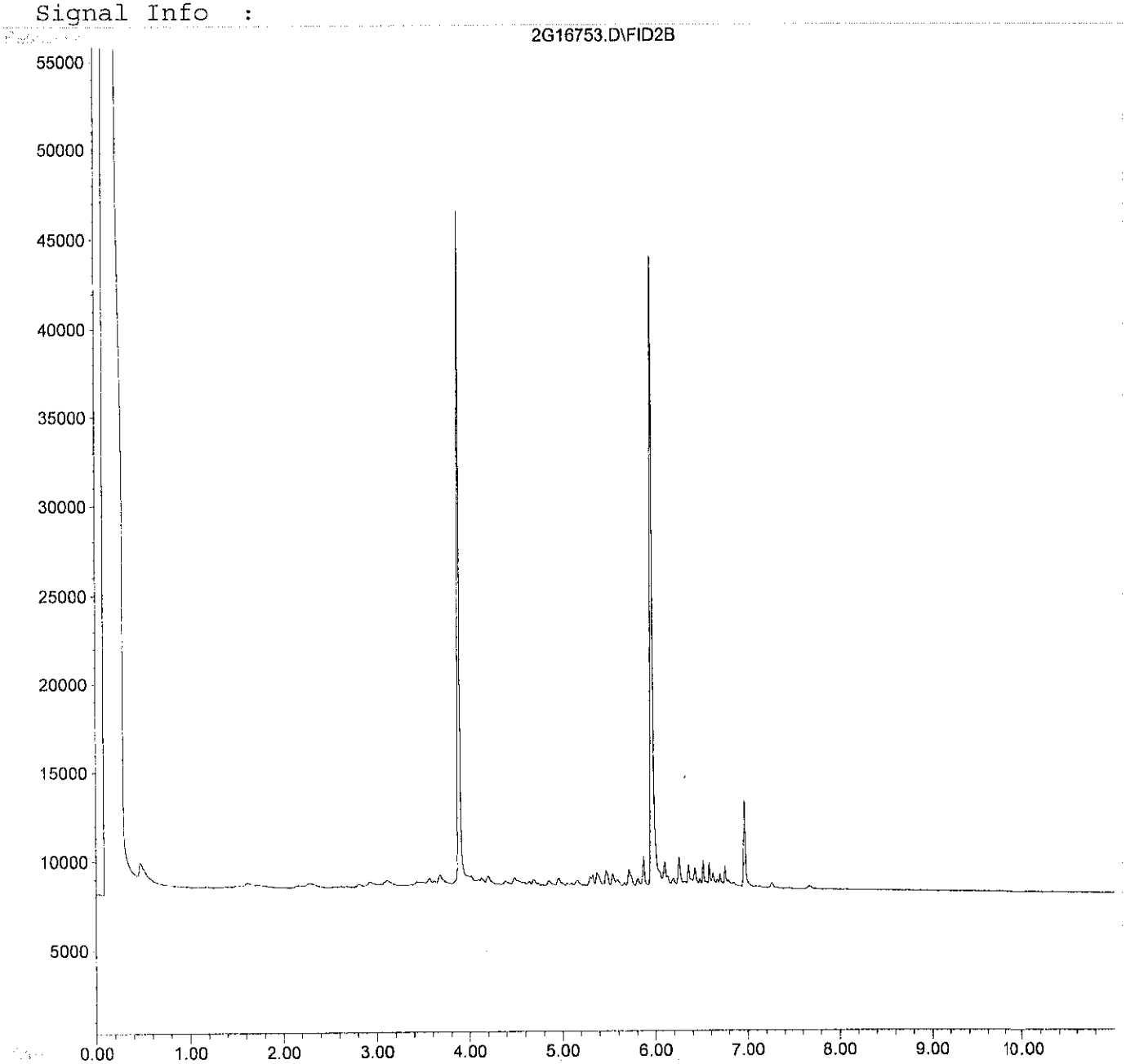
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.89	523389	21.892 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	109.46%
3) s n-Nonatriacontane	7.54	96	0.007 ppm
Spiked Amount 20.000		Recovery =	0.04%
Target Compounds			
1) H Petroleum Range	3.68	1639934	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16753.D FLASHPRO.M Tue Nov 27 13:55:37 2001 Page 1

Acq On : 27 Nov 2001 13:24 Operator: RV
Sample : L0111316-07 RE W/IN PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.06
IntFile : PETRO.E
Quant Time: Nov 27 13:53 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 27 09:36:57 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 19 Nov 2001 19:02 Operator: HV
Sample : L0111316-07 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.02
IntFile : PETRO.E
Quant Time: Nov 20 8:17 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

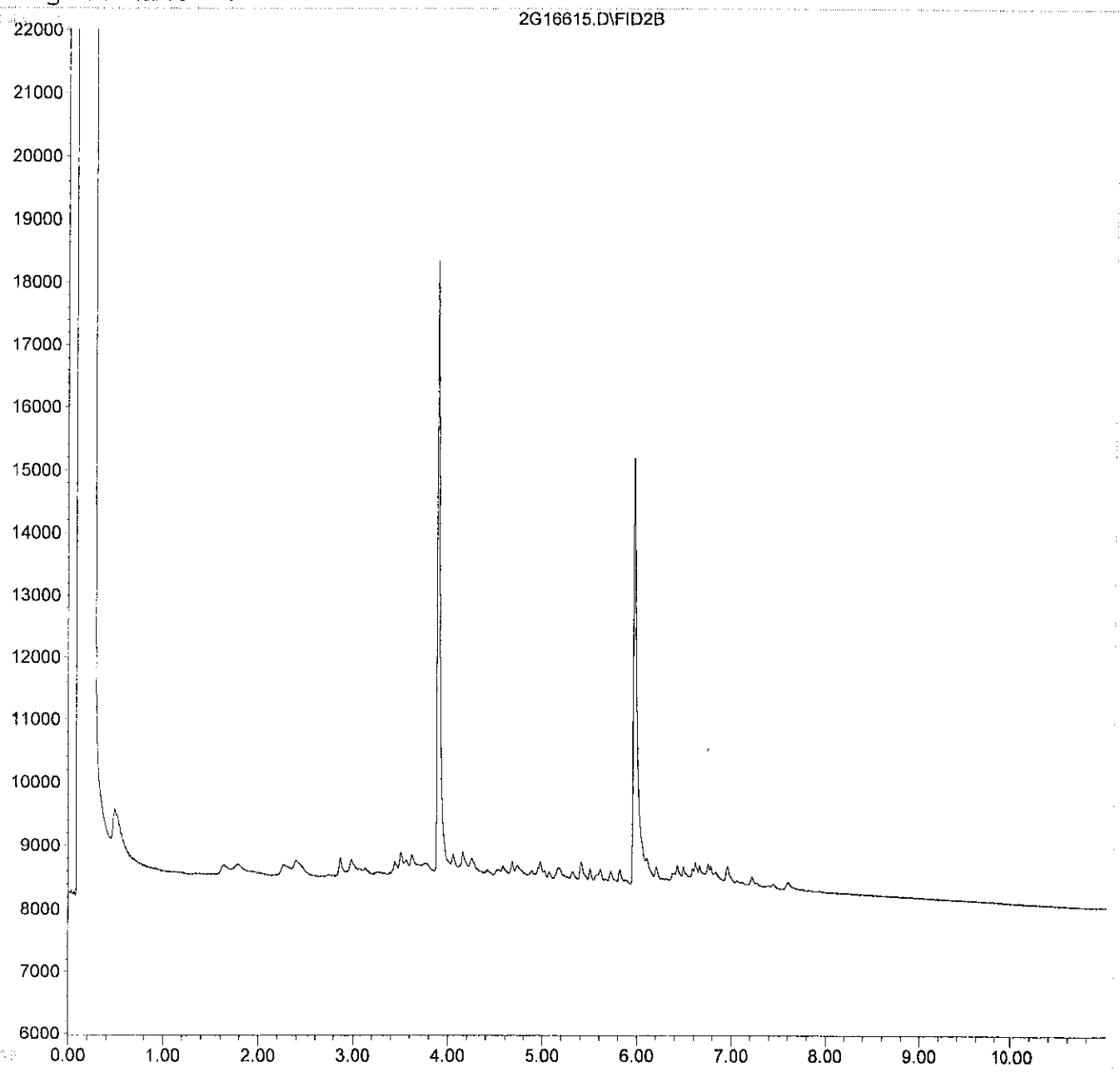
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.90	197688	8.269 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		41.35%#
3) s n-Nonatriacontane	7.46	2028	0.138 ppm RE
Spiked Amount 20.000	Recovery =		0.69%
Target Compounds			
1) H Petroleum Range	3.67	678925	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16615.D FLASHPRO.M Tue Nov 20 08:17:12 2001 Page 1

Acq On : 19 Nov 2001 19:02 Operator: HV
Sample : L0111316-07 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.02
IntFile : PETRO.E
Quant Time: Nov 20 8:17 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\111901\2G16616.D Vial: 37
Acq On : 19 Nov 2001 19:17 Operator: HV
Sample : L0111316-09 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.03
IntFile : PETRO.E
Quant Time: Nov 20 8:18 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

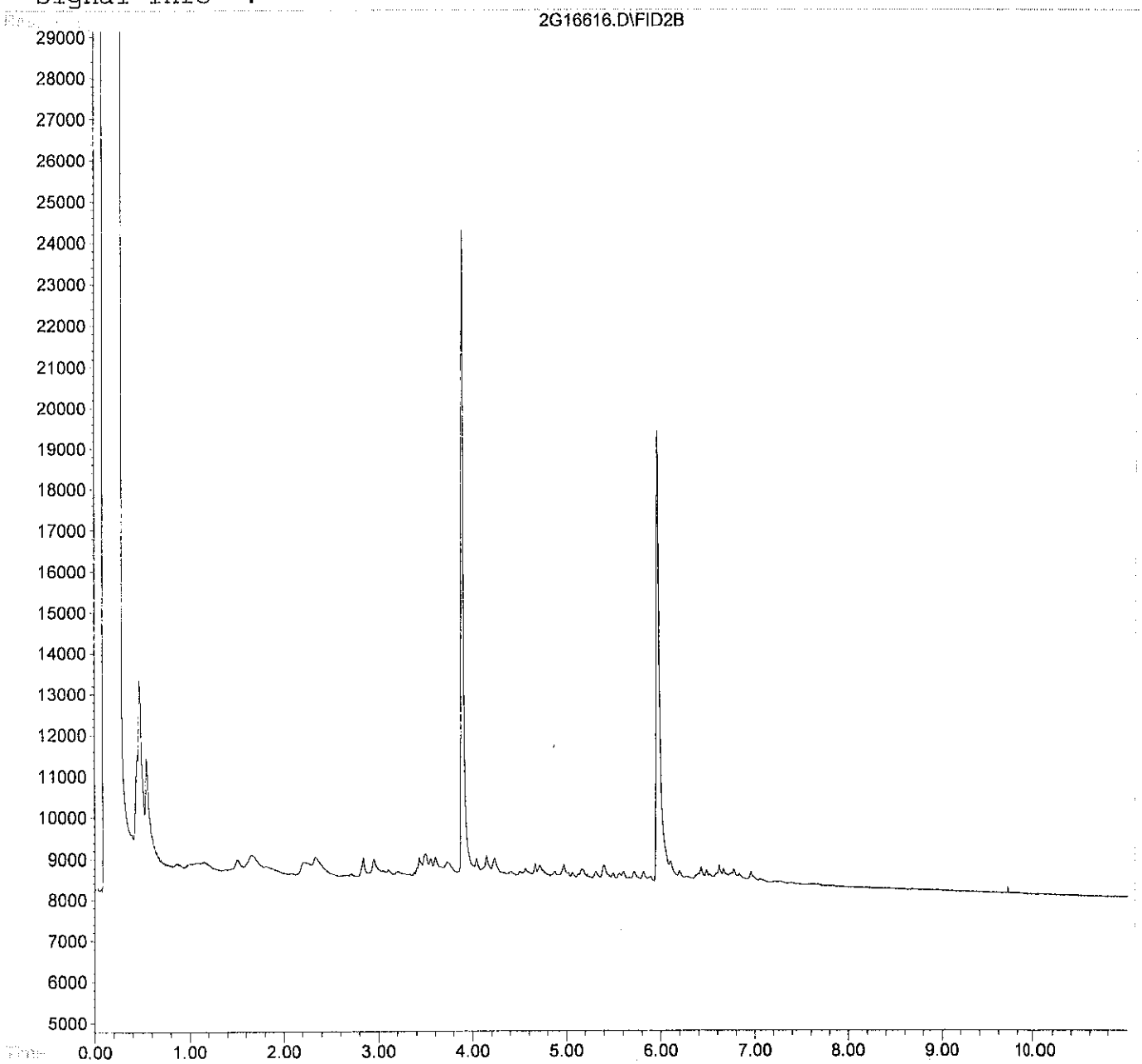
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.89	283879	11.874 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	59.37%
3) s n-Nonatriacontane	7.45	134	0.009 ppm
Spiked Amount 20.000		Recovery =	0.05%
Target Compounds			
1) H Petroleum Range	3.67	1033180	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 19 Nov 2001 19:17 Operator: HV
Sample : L0111316-09 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.03
IntFile : PETRO.E
Quant Time: Nov 20 8:18 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 19 Nov 2001 20:03 Operator: HV
Sample : L0111316-10 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.06
IntFile : PETRO.E
Quant Time: Nov 20 9:13 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.89	387016	16.188 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	80.94%
3) s n-Nonatriacontane	7.47	452	0.031 ppm
Spiked Amount 20.000		Recovery =	0.16%
Target Compounds			
1) H Petroleum Range	3.67	949219133	49012.346 ppb

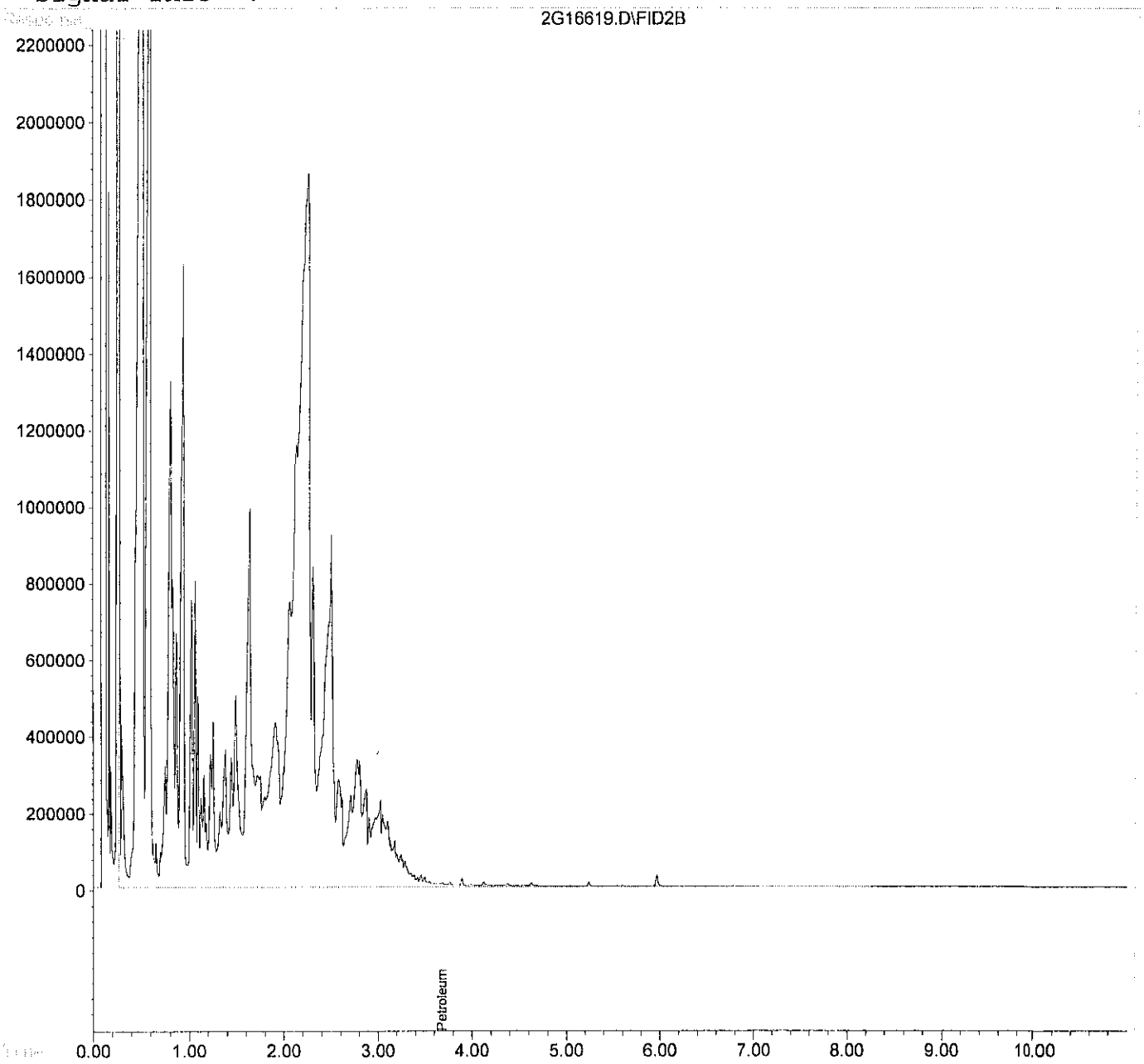
D-10X

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16619.D FLASHPRO.M Tue Nov 20 09:13:17 2001 Page 1

Acq On : 19 Nov 2001 20:03 Operator: HV
Sample : L0111316-10 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.06
IntFile : PETRO.E
Quant Time: Nov 20 9:13 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 27 Nov 2001 13:55
Sample : L0111316-10 10x PRO water
Misc : 1,1 water
IntFile : PETRO.E
Inst : hp2
Multiplr: 10.60
Quant Time: Nov 27 13:55 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 27 09:36:57 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

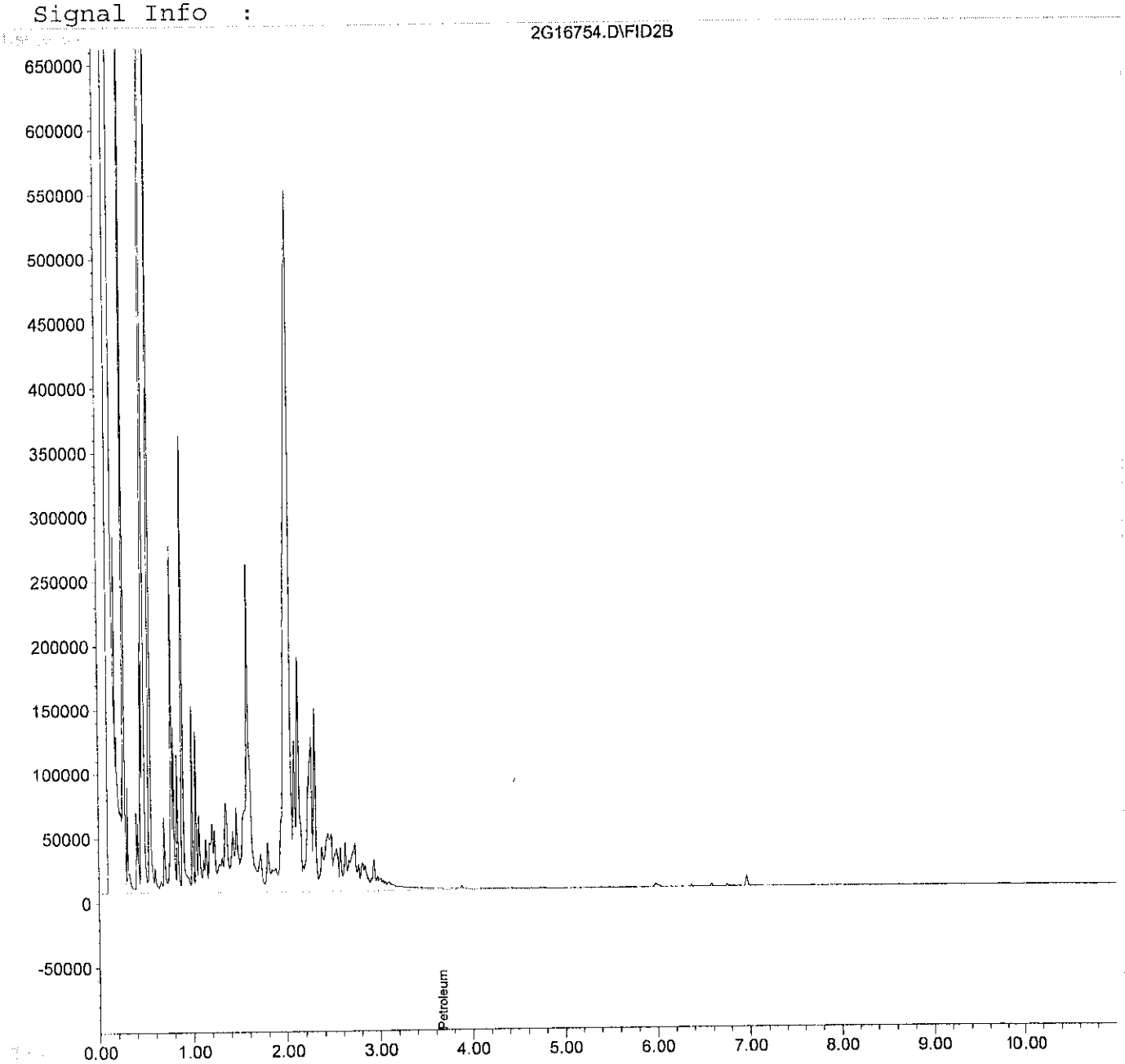
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.89	32141	1.344 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	6.72%#
3) s n-Nonatriacontane	7.54	121	0.008 ppm
Spiked Amount 20.000		Recovery =	0.04%
Target Compounds			
1) H Petroleum Range	3.68	93583067	48321.041 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16754.D FLASHPRO.M Tue Nov 27 13:55:51 2001 Page 1

Acq On : 27 Nov 2001 13:55
Sample : L0111316-10 10x PRO water
Misc : 1,1 water
IntFile : PETRO.E
Inst : hp2
Multiplr: 10.60
Quant Time: Nov 27 13:55 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 27 09:36:57 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 19 Nov 2001 20:19 Operator: HV
Sample : L0111316-11 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Nov 20 9:13 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.88	413778	17.308 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	86.54%
3) s n-Nonatriacontane	7.48	157	0.011 ppm
Spiked Amount 20.000		Recovery =	0.05%
Target Compounds			
1) H Petroleum Range	3.67	10762560	550.476 ppb

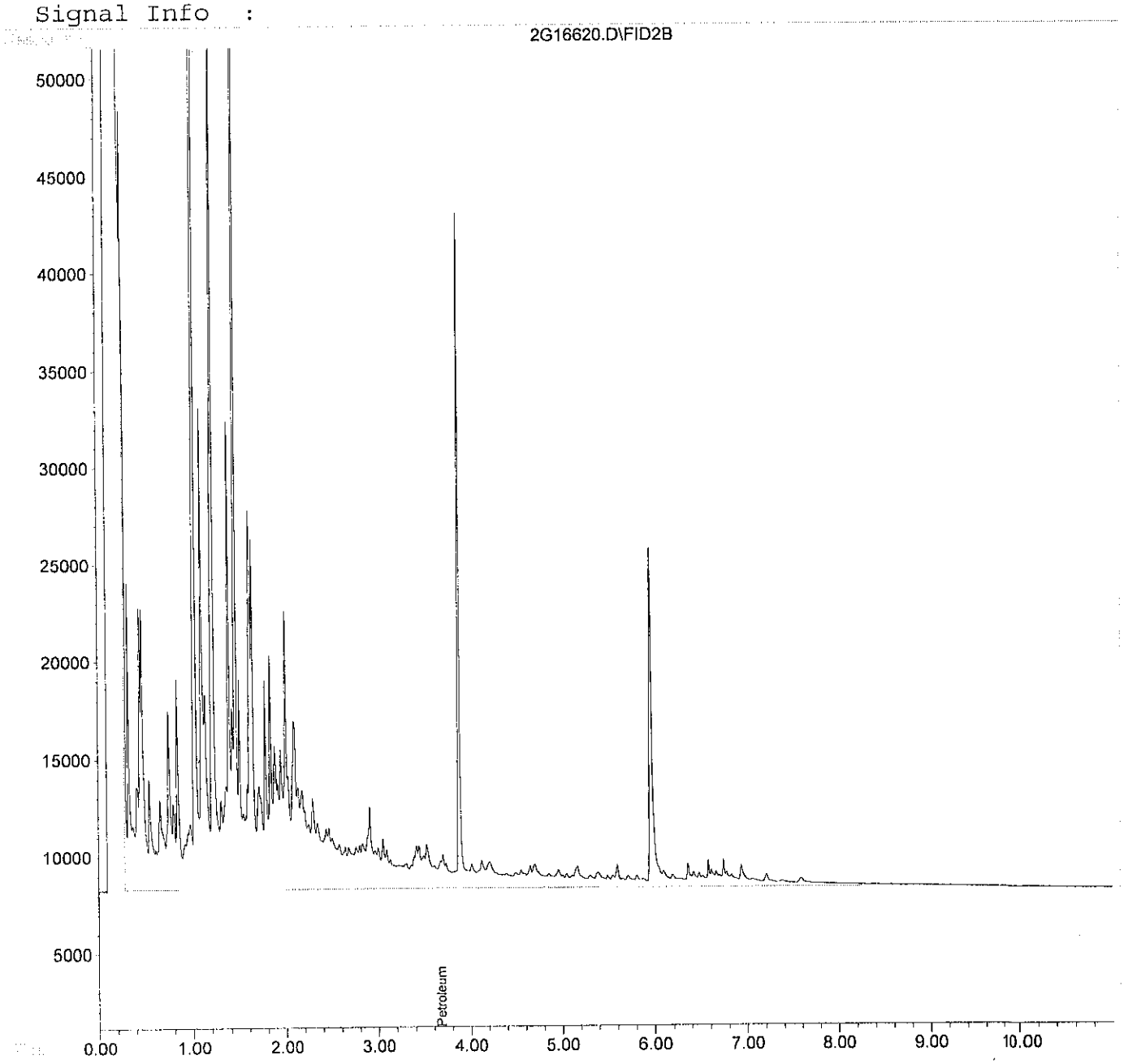
(f)=RT Delta > 1/2 Window (m)=manual int.
2G16620.D FLASHPRO.M Tue Nov 20 09:13:46 2001 Page 1

Acq On : 19 Nov 2001 20:19
Sample : L0111316-11 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Nov 20 9:13 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.05

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\111901\2G16621.D Vial: 10
Acq On : 19 Nov 2001 20:34 Operator: HV
Sample : L0111316-12 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.02
IntFile : PETRO.E
Quant Time: Nov 20 9:14 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

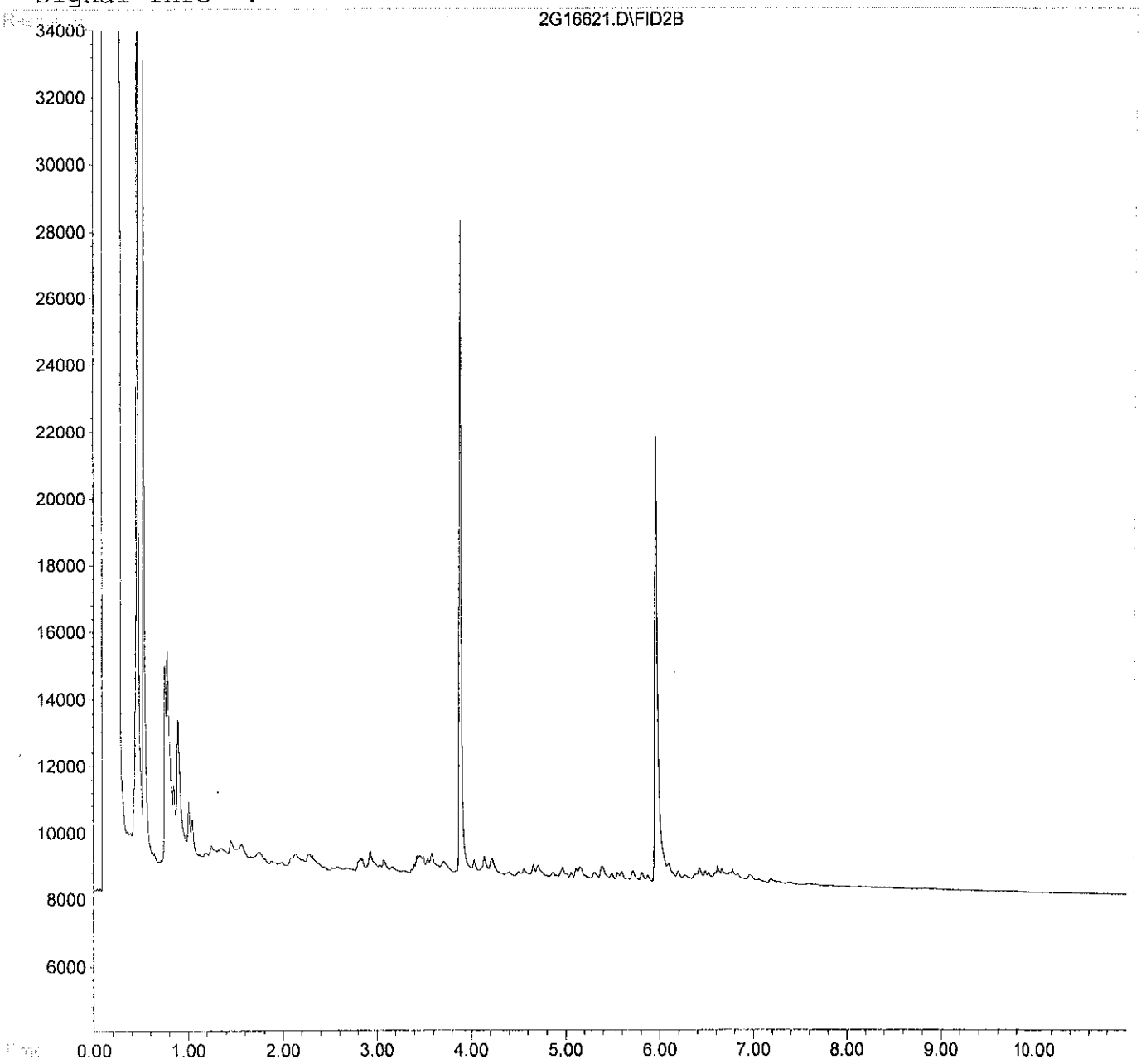
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.88	303751	12.705 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		63.53%
3) s n-Nonatriacontane	7.45	407	0.028 ppm
Spiked Amount 20.000	Recovery =		0.14%
Target Compounds			
1) H Petroleum Range	3.67	2198302	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16621.D FLASHPRO.M Tue Nov 20 09:14:03 2001 Page 1

Acq On : 19 Nov 2001 20:34 Operator: HV
Sample : L0111316-12 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.02
IntFile : PETRO.E
Quant Time: Nov 20 9:14 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



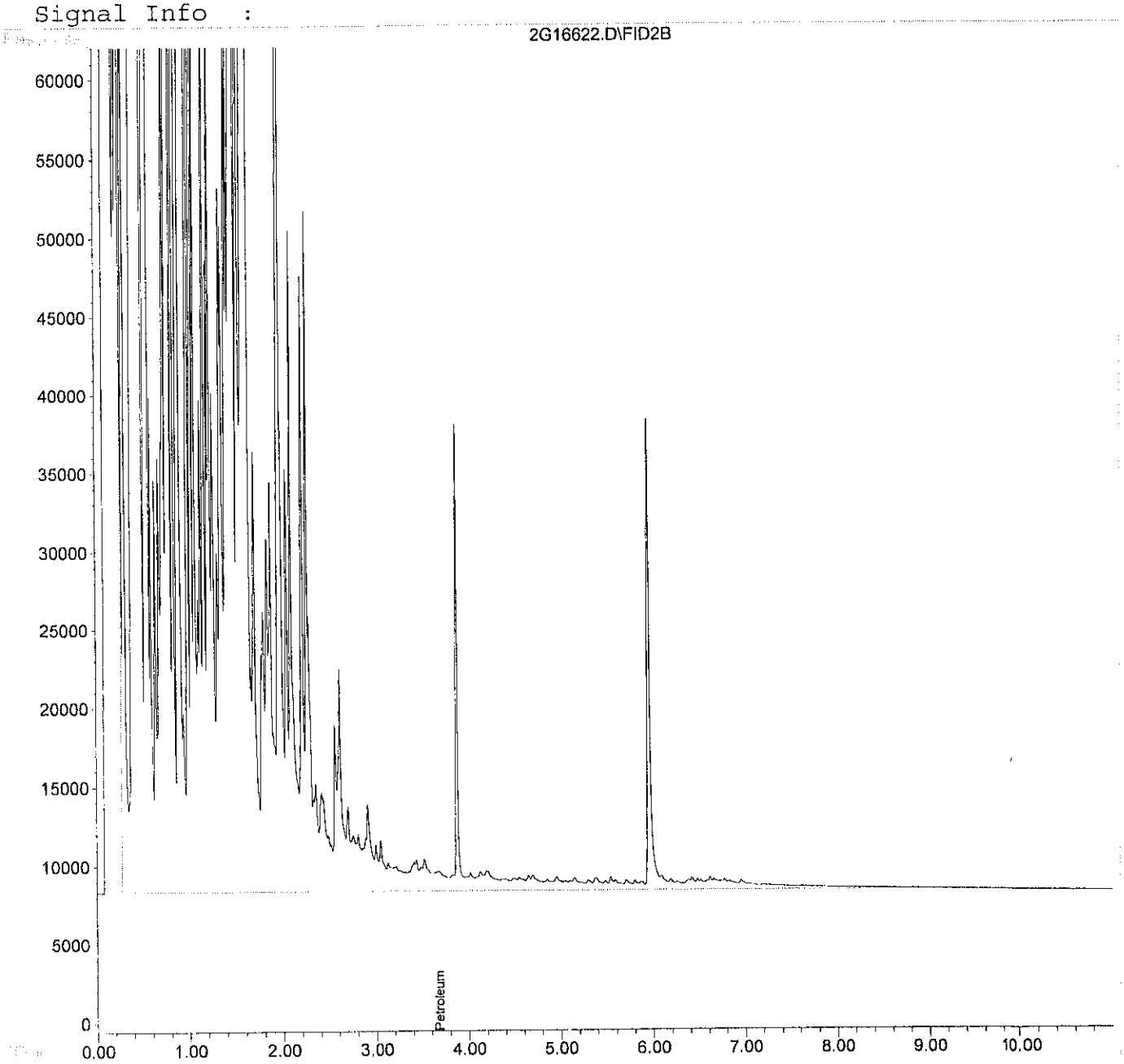
```
Acq On     : 19 Nov 2001  20:50                          Operator: HV
Sample     : L0111316-13 PRO water                       Inst     : hp2
Misc       : 1,1 water                                   Multiplr: 1.04
IntFile    : PETRO.E
Quant Time: Nov 20  9:14 2001  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 11/19/01
Last Update  : Mon Nov 19 12:58:50 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
---------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                    3.88         379707   15.882 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    =   79.41%
 3) s   n-Nonatriacontane              7.39f          1376    0.094 ppm
Spiked Amount   20.000                    Recovery       =    0.47%

  Target Compounds
 1) H   Petroleum Range                3.67      110951075 5620.798 ppb
```

Acq On : 19 Nov 2001 20:50
Sample : L0111316-13 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Nov 20 9:14 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.04

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 19 Nov 2001 21:05 Operator: HV
Sample : L0111316-14 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.03
IntFile : PETRO.E
Quant Time: Nov 20 9:14 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.88	386305	16.158 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	80.79%
3) s n-Nonatriacontane	7.45	242	0.016 ppm
Spiked Amount 20.000		Recovery =	0.08%
Target Compounds			
1) H Petroleum Range	3.67	2758999	<MDL ppb

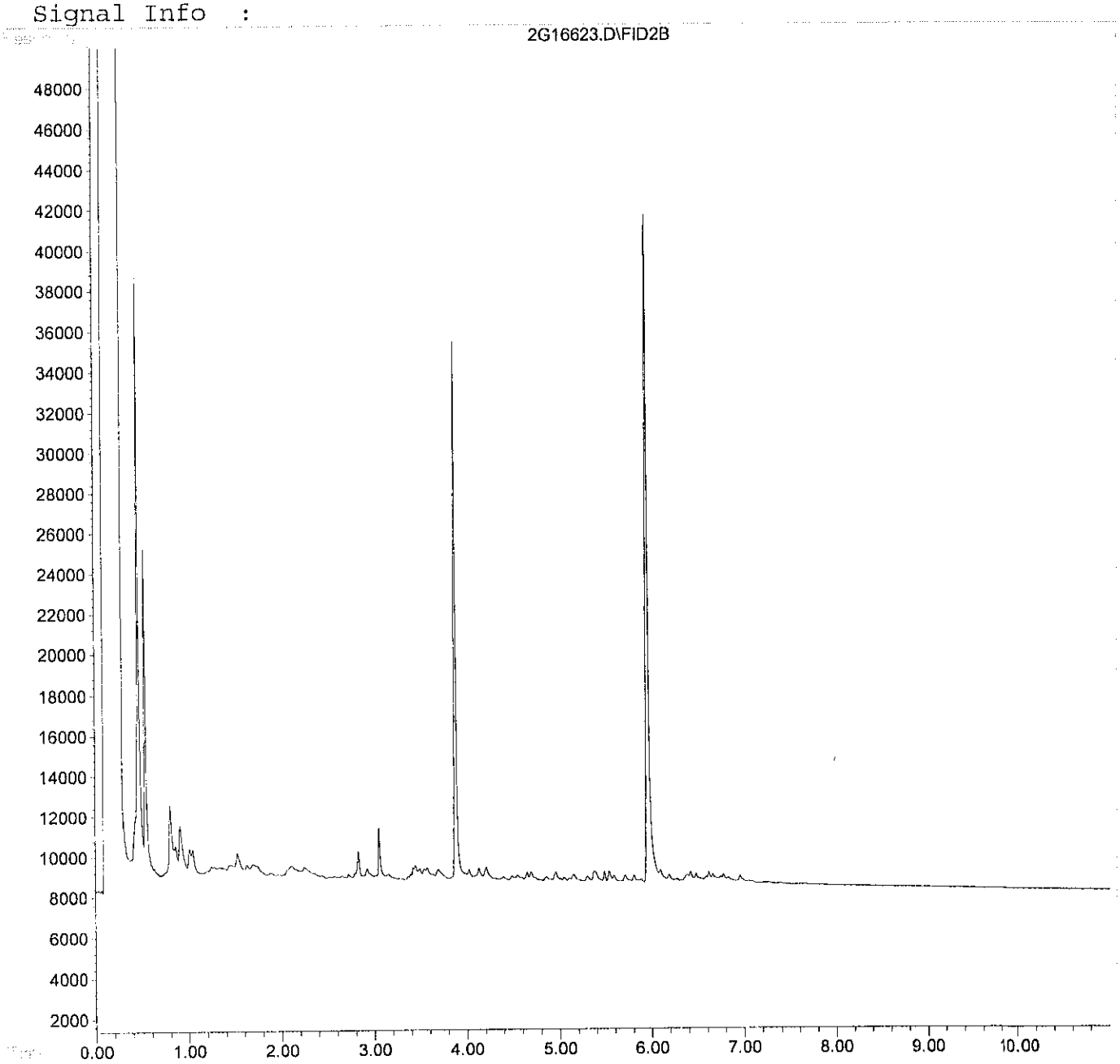
(f)=RT Delta > 1/2 Window (m)=manual int.
2G16623.D FLASHPRO.M Tue Nov 20 09:15:00 2001 Page 1

Acq On : 19 Nov 2001 21:05
Sample : L0111316-14 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Nov 20 9:14 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.03

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2.2.5.3 Standards Data

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 11:54:14 2001

Calibration Files

5	=2G16588.D	50	=2G16587.D	100	=2G16586.D
200	=2G16585.D	400	=2G16584.D	600	=2G16583.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	2.099	2.110	1.977	1.925	2.014	2.191	2.053	E4	4.78
2)	s	O-Terphenyl	2.646	2.463	2.339	2.236	2.231	2.429	2.391	E4	6.59
3)	s	n-Nonatriacontane	1.659	1.506	1.399	1.454	1.601	1.167	1.464	E4	11.86

(#) = Out of Range

```
Acq On     : 19 Nov 2001  10:20                          Operator: HV
Sample     : WG108466-06 PRO @600ppm                     Inst    : hp2
Misc       : 1,1 SOS 56-21                               Multiplr: 1.00
IntFile    : PETRO.E
Quant Time: Nov 19 11:58 2001  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 11/16/01
Last Update  : Mon Nov 19 11:54:14 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                    3.95       14576336  609.703 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    = 3048.52%#
 3) s   n-Nonatriacontane              7.50f       7004397  478.333 ppm
Spiked Amount   20.000                    Recovery       = 2391.67%

  Target Compounds
 1) H   Petroleum Range                3.67      222974159 10861.447 ppb
```

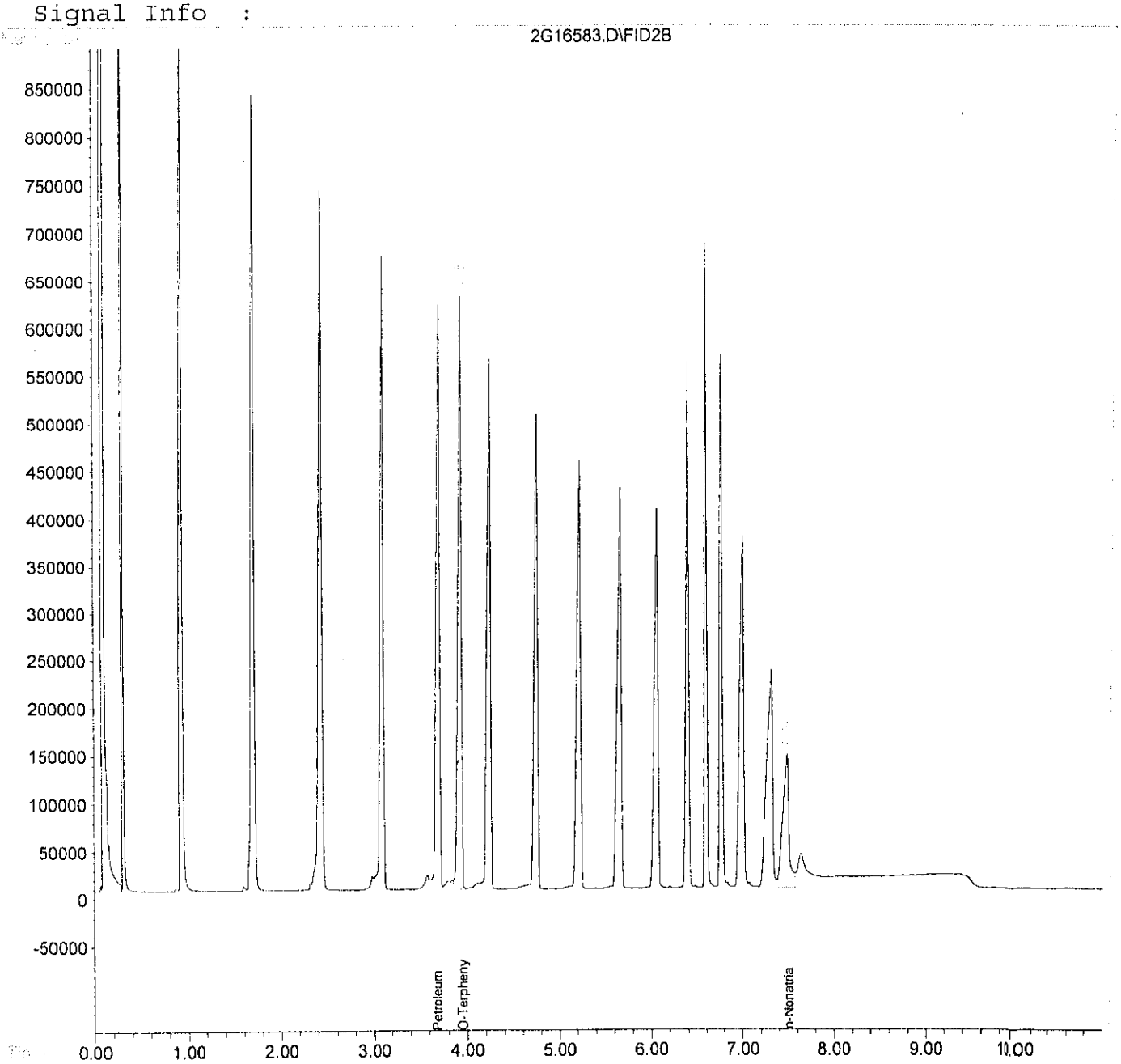
(f)=RT Delta > 1/2 Window (m)=manual int.

2G16583.D FLASHPRO.M Mon Nov 19 12:11:04 2001 Page 1

Acq On : 19 Nov 2001 10:20 Operator: HV
Sample : WG108466-06 PRO @600ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 11:58 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/16/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 19 Nov 2001 10:35 Operator: HV
Sample : WG108466-05 PRO @400ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 11:51 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/16/01
Last Update : Mon Nov 19 11:51:23 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

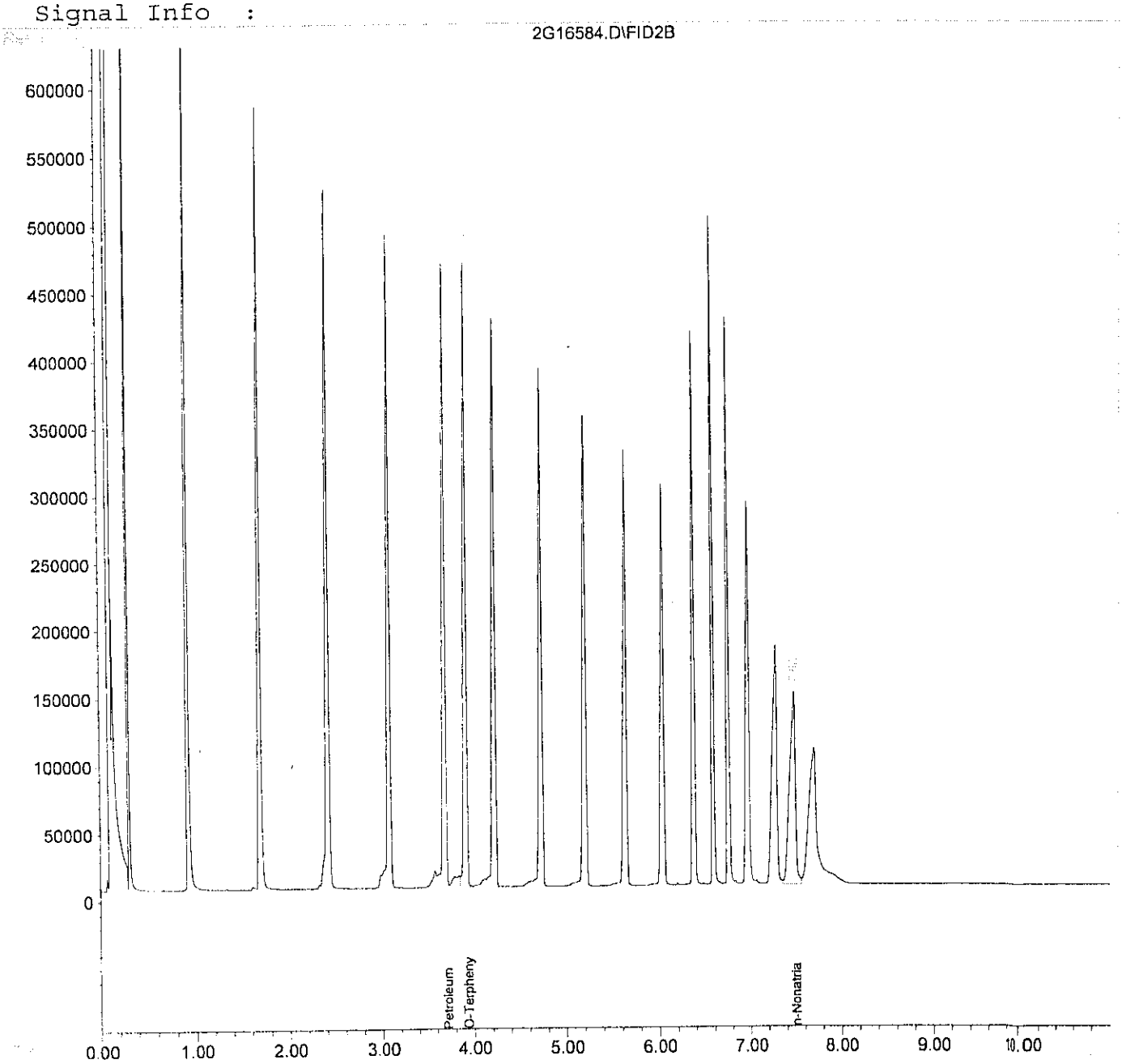
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.93	8923577	309.989 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1549.95%#
3) s n-Nonatriacontane	7.50	6403055	340.908 ppm
Spiked Amount 20.000		Recovery	= 1704.54%
Target Compounds			
1) H Petroleum Range	3.72	136951680	5342.353 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16584.D FLASHPRO.M Mon Nov 19 12:10:56 2001 Page 1

Acq On : 19 Nov 2001 10:35 Operator: HV
Sample : WG108466-05 PRO @400ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 11:51 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/16/01
Last Update : Mon Nov 19 11:51:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 19 Nov 2001 10:50 Operator: HV
Sample : WG108466-04 PRO @200ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 11:54 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/16/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

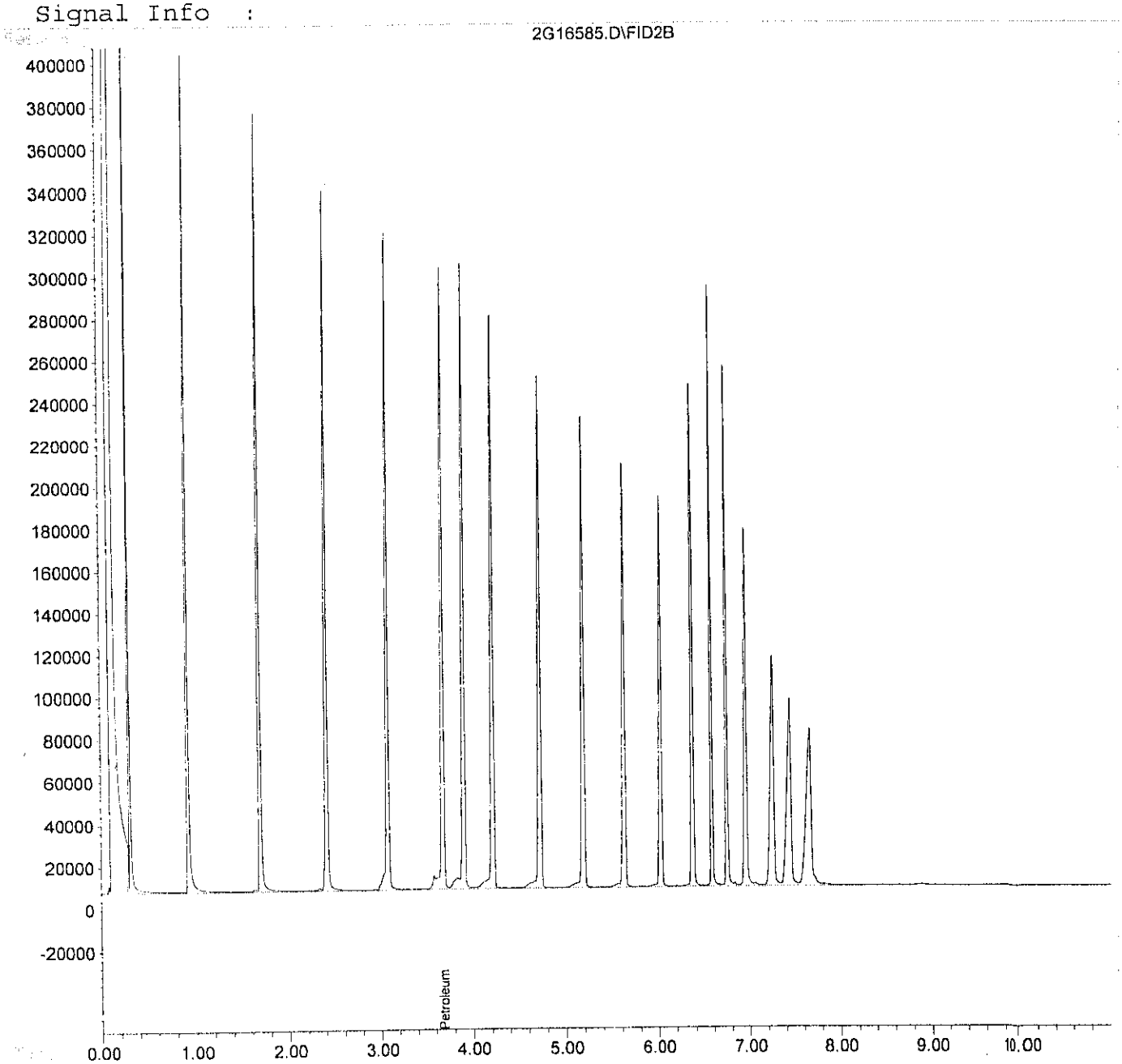
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.92	4472326	155.361 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery	=	776.80%#
3) s n-Nonatriacontane	7.45	2908197	154.836 ppm
Spiked Amount 20.000	Recovery	=	774.18%
Target Compounds			
1) H Petroleum Range	3.67	65458766	2553.483 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16585.D FLASHPRO.M Mon Nov 19 12:10:40 2001 Page 1

Acq On : 19 Nov 2001 10:50 Operator: HV
Sample : WG108466-04 PRO @200ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 11:54 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/16/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 19 Nov 2001 11:05
Sample : wg108466-03 PRO @100ppm
Misc : 1,1 SOS 56-21
IntFile : PETRO.E
Quant Time: Nov 19 11:57 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/16/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.90	2338660	81.241 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 406.21%#
3) s n-Nonatriacontane	7.43	1398646	74.466 ppm
Spiked Amount 20.000		Recovery	= 372.33%
Target Compounds			
1) H Petroleum Range	3.67	33614108	1311.254 ppb

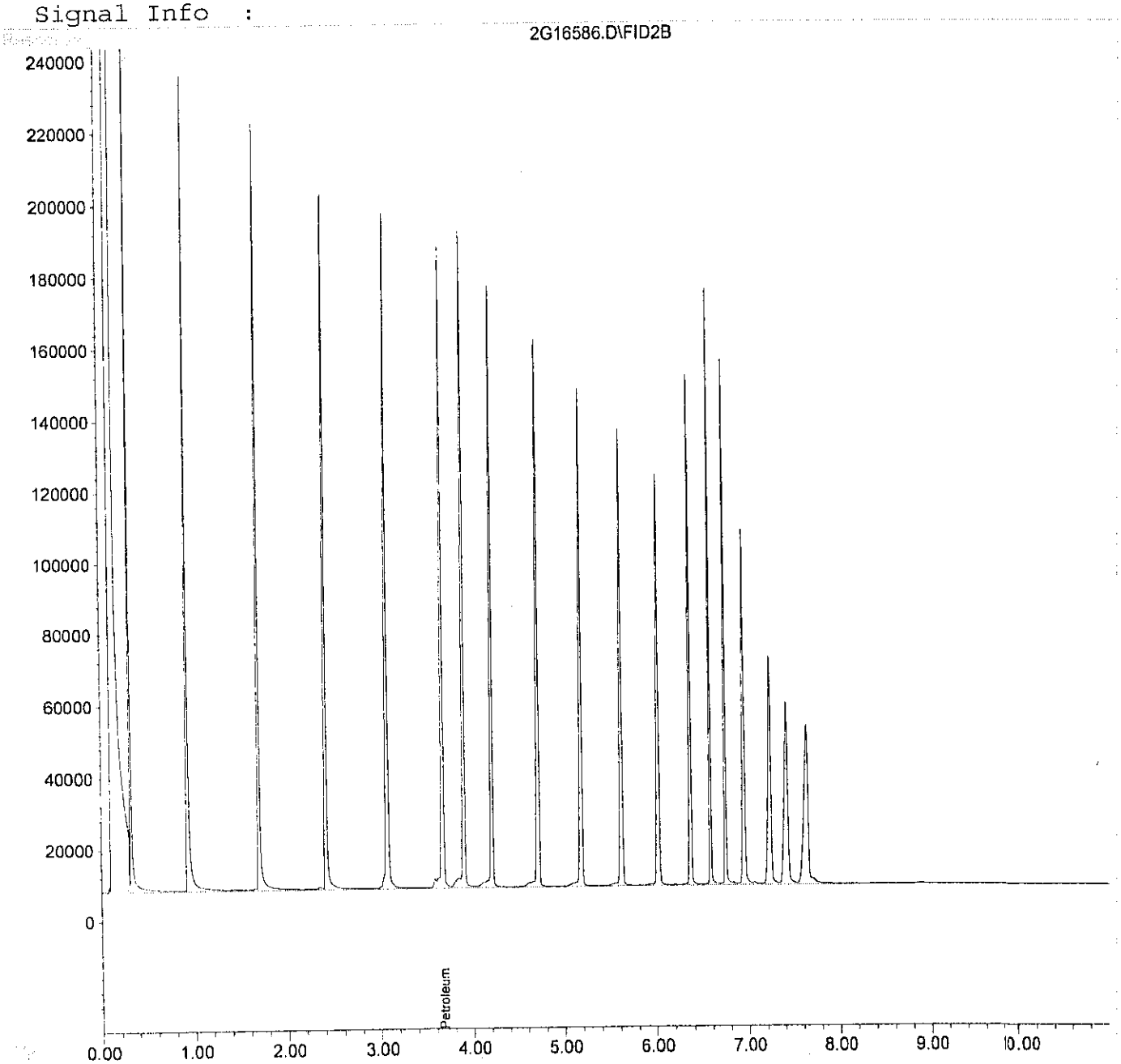
(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 19 Nov 2001 11:05
Sample : wg108466-03 PRO @100ppm
Misc : 1,1 SOS 56-21
IntFile : PETRO.E
Quant Time: Nov 19 11:57 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/16/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 19 Nov 2001 11:20 Operator: hv
Sample : WG108466-02 PRO @50ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 11:54 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/16/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

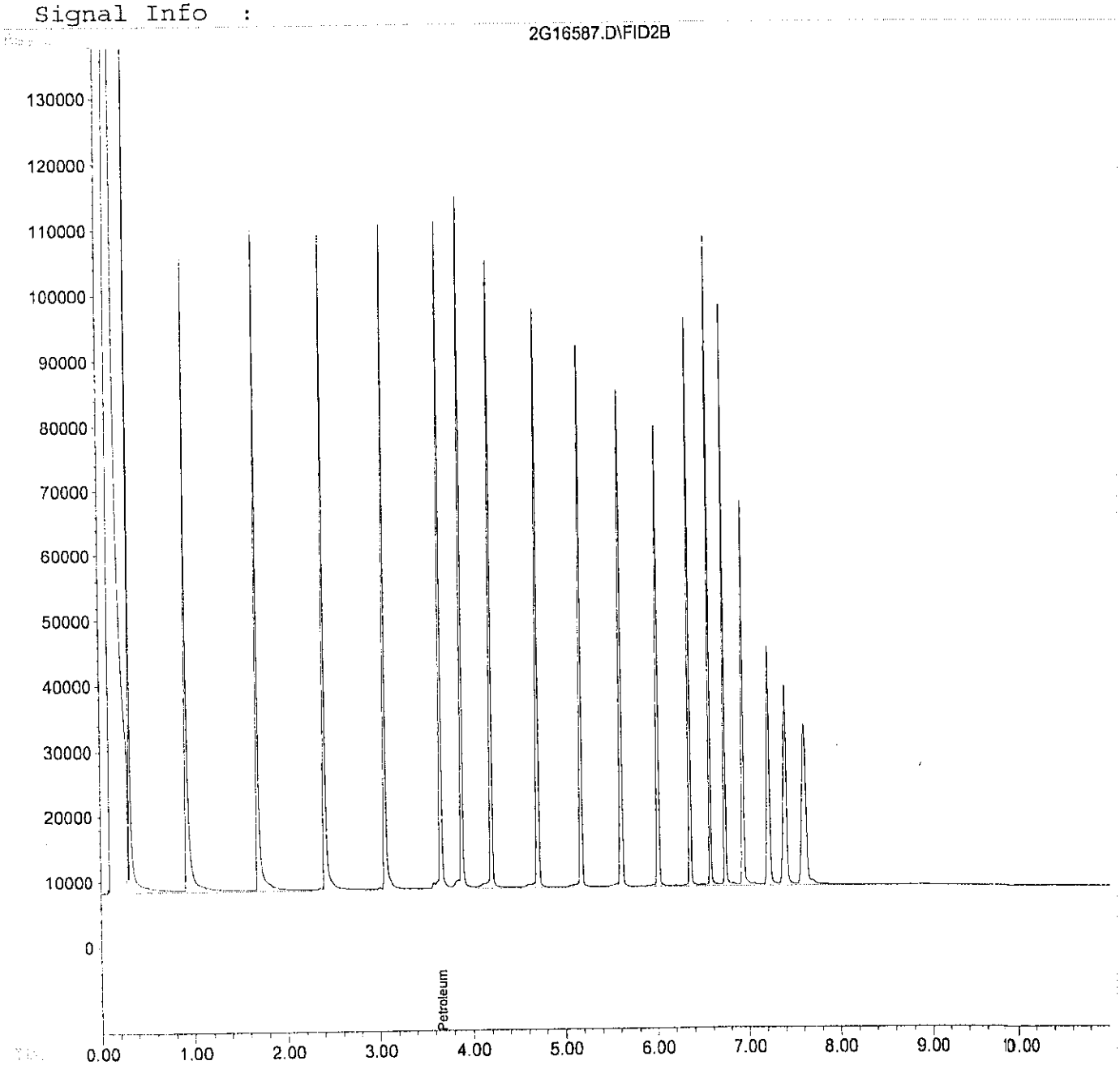
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.89	1231516	42.781 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 213.91%#
3) s n-Nonatriacontane	7.41	752921	40.087 ppm
Spiked Amount 20.000		Recovery	= 200.44%
Target Compounds			
1) H Petroleum Range	3.67	17938600	699.767 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16587.D FLASHPRO.M Mon Nov 19 12:10:20 2001 Page 1

Acq On : 19 Nov 2001 11:20 Operator: hv
Sample : WG108466-02 PRO @50ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 11:54 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/16/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 19 Nov 2001 11:35 Operator: hv
Sample : WG108466-01 PRO @5ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 12:09 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/16/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

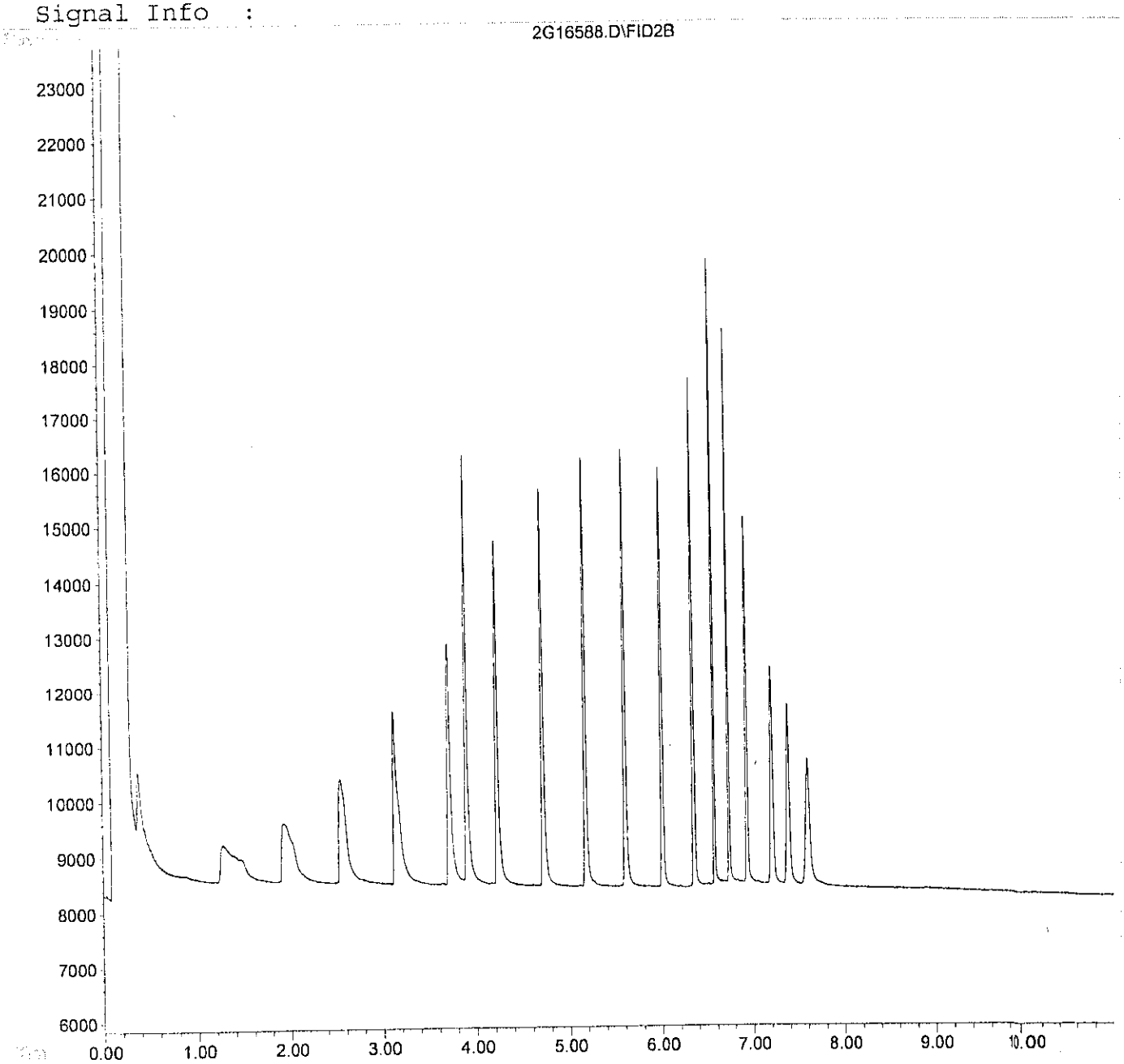
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.91	132312	5.534 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	27.67%#
3) s n-Nonatriacontane	7.39f	82963	5.666 ppm
Spiked Amount 20.000		Recovery =	28.33%
Target Compounds			
1) H Petroleum Range	3.67	1784345	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16588.D FLASHPRO.M Mon Nov 19 12:10:09 2001 Page 1

Acq On : 19 Nov 2001 11:35 Operator: hv
Sample : WG108466-01 PRO @5ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 12:09 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/16/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 19 Nov 2001 12:20
Sample : WG108466-07 ALT @200ppm
Misc : 1,1 SOS 56-26
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	2985.719	12.2	94	0.00
2	s	O-Terphenyl	200.000	1.103	99.4#	1	0.02
3	s	n-Nonatriacontane	200.000	0.081	100.0#	0	0.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16589.D FLASHPRO.M Mon Nov 19 14:31:04 2001 Page 1

Acq On : 19 Nov 2001 12:20 Operator: hv
Sample : WG108466-07 ALT @200ppm Inst : hp2
Misc : 1,1 SOS 56-26 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Acq On : 19 Nov 2001 12:20 Operator: hv
Sample : WG108466-07 ALT @200ppm Inst : hp2
Misc : 1,1 SOS 56-26 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 12:32 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

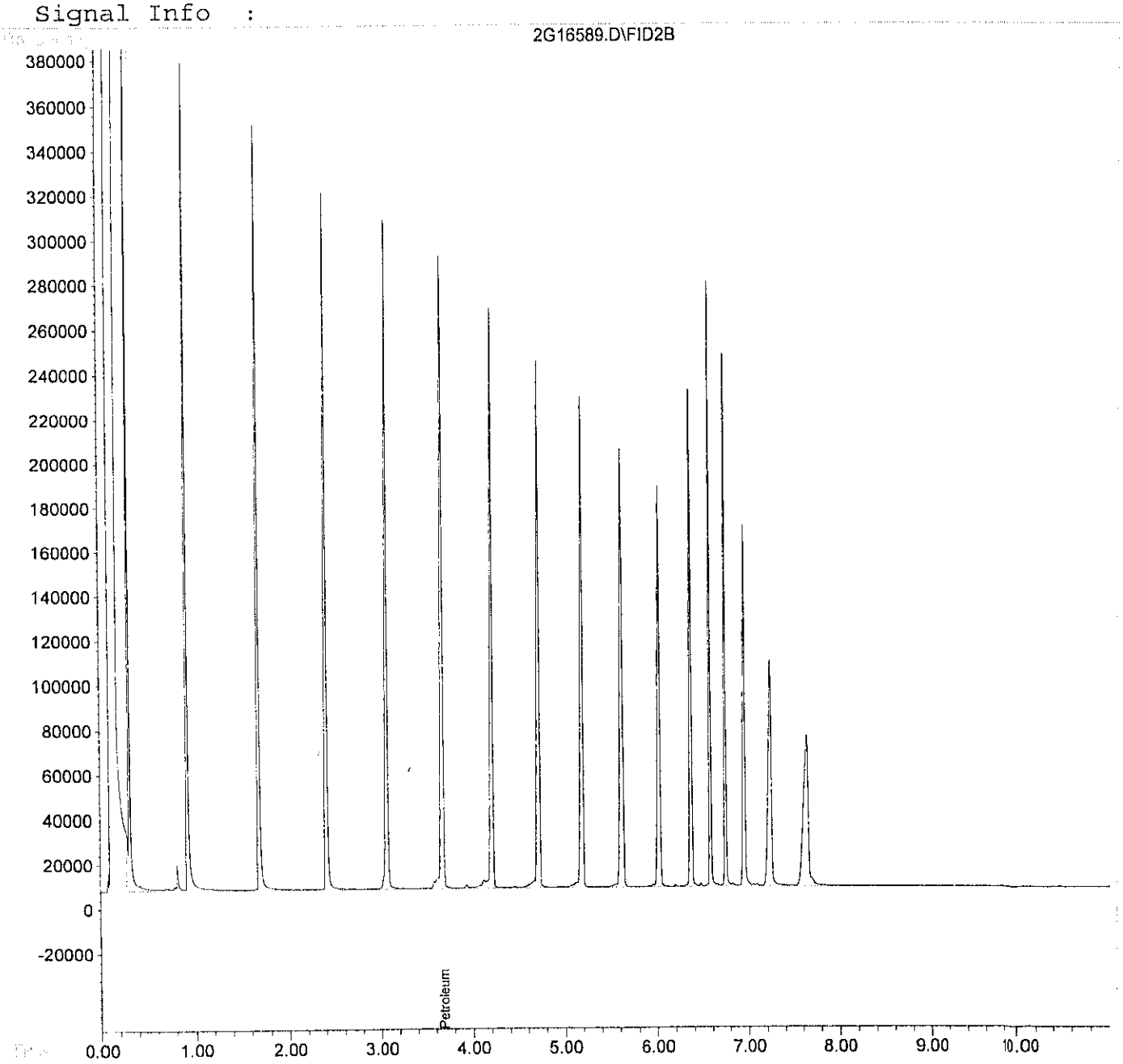
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.93	26376	1.103 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	5.52%#
3) s n-Nonatriacontane	7.50	1180	0.081 ppm
Spiked Amount 20.000		Recovery =	0.41%
Target Compounds			
1) H Petroleum Range	3.67	61293686	2985.719 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16589.D FLASHPRO.M Mon Nov 19 14:31:09 2001 Page 1

Acq On : 19 Nov 2001 12:20 Operator: hv
Sample : WG108466-07 ALT @200ppm Inst : hp2
Misc : 1,1 SOS 56-26 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 12:32 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\[illegible]

Acq On : 19 Nov 2001 14:37
Sample : WG108466-08 PRO CCV
Misc : 1,1 SOS 56-21
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3311.559	2.6	104	0.00
2	s	O-Terphenyl	200.000	188.417	5.8	101	0.00
3	s	n-Nonatriacontane	200.000	216.455	-8.2	109	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16598.D FLASHPRO.M Tue Nov 20 08:03:46 2001 Page 1

Acq On : 19 Nov 2001 14:37
Sample : WG108466-08 PRO CCV
Misc : 1,1 SOS 56-21
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

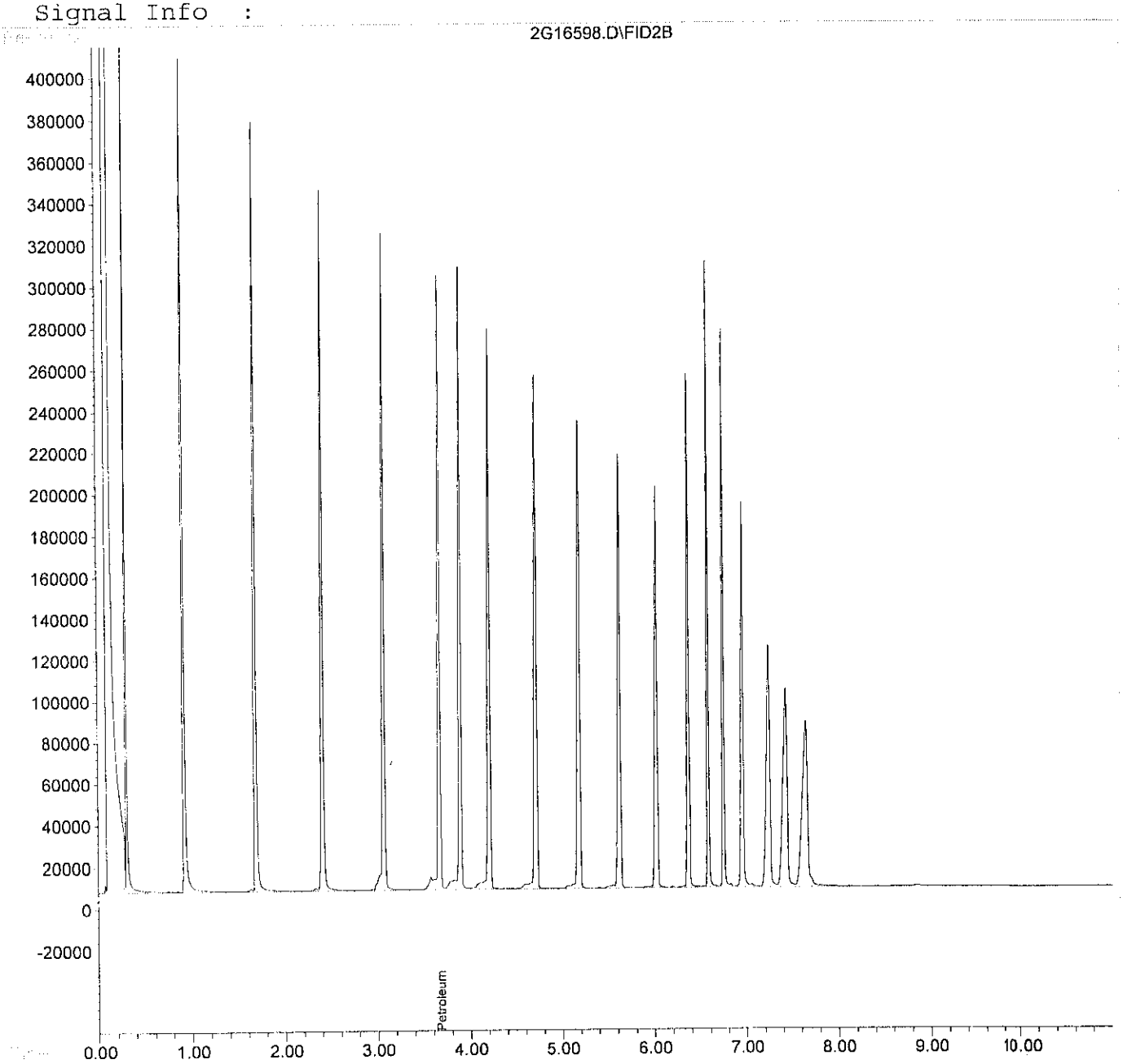
```
Acq On     : 19 Nov 2001  14:37                          Operator: HV
Sample     : WG108466-08 PRO CCV                         Inst    : hp2
Misc       : 1,1 SOS 56-21                               Multiplr: 1.00
IntFile    : PETRO.E
Quant Time: Nov 19 15:03 2001  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 11/19/01
Last Update  : Mon Nov 19 12:58:50 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                    3.91        4504541  188.417 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    =  942.08%#
 3) s   n-Nonatriacontane              7.44        3169627  216.455 ppm
Spiked Amount   20.000                    Recovery      = 1082.28%

  Target Compounds
 1) H   Petroleum Range                3.67       67982846 3311.559 ppb
```

Acq On : 19 Nov 2001 14:37
Sample : WG108466-08 PRO CCV
Misc : 1,1 SOS 56-21
IntFile : PETRO.E
Quant Time: Nov 19 15:03 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : [illegible]

Acq On : 19 Nov 2001 17:15
Sample : WG108466-09 PRO CCV
Misc : 1,1 SOS56-26
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3112.265	8.5	98	0.00
2	s	O-Terphenyl	200.000	180.510	9.7	96	0.03
3	s	n-Nonatriacontane	200.000	197.553	1.2	99	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Acq On : 19 Nov 2001 17:15 Operator: HV
Sample : WG108466-09 PRO CCV Inst : hp2
Misc : 1,1 SOS56-26 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Acq On : 19 Nov 2001 17:15 Operator: HV
Sample : WG108466-09 PRO CCV Inst : hp2
Misc : 1,1 SOS56-26 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 20 8:03 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.91	4315497	180.510 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 902.55%#
3) s n-Nonatriacontane	7.44	2892844	197.553 ppm
Spiked Amount 20.000		Recovery	= 987.76%
Target Compounds			
1) H Petroleum Range	3.67	63891549	3112.265 ppb

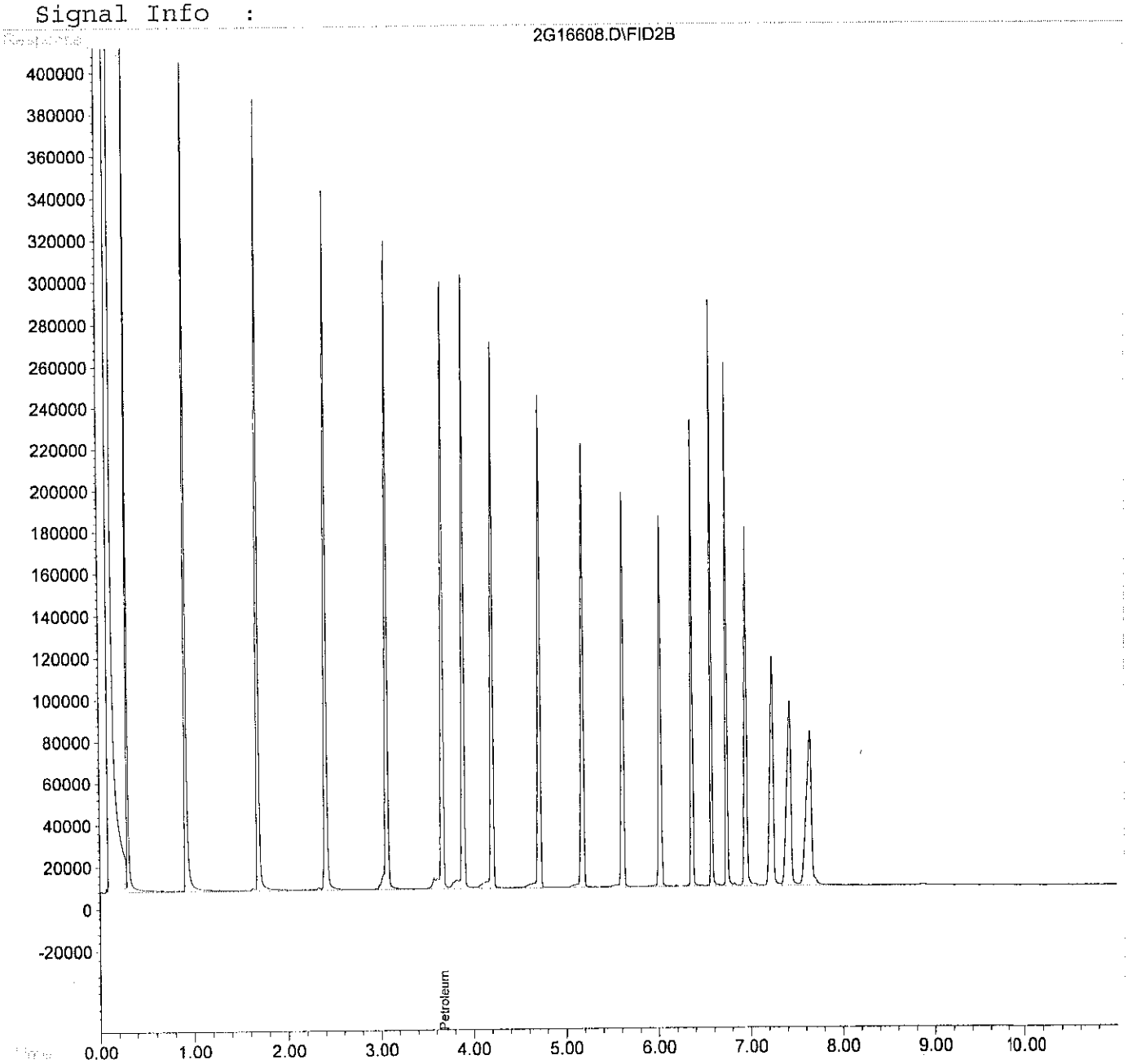
(f)=RT Delta > 1/2 Window (m)=manual int.
2G16608.D FLASHPRO.M Tue Nov 20 08:19:08 2001 Page 1

Acq On : 19 Nov 2001 17:15
Sample : WG108466-09 PRO CCV
Misc : 1,1 SOS56-26
IntFile : PETRO.E
Quant Time: Nov 20 8:03 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 19 Nov 2001 19:47
Sample : WG108466-10 PRO CCV
Misc : 1,1 SOS56-26
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3521.567	-3.6	110	0.00
2	s	O-Terphenyl	200.000	202.954	-1.5	108	0.03
3	s	n-Nonatriacontane	200.000	229.785	-14.9	116	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16618.D FLASHPRO.M Tue Nov 20 08:19:46 2001 Page 1

Acq On : 19 Nov 2001 19:47
Sample : WG108466-10 PRO CCV
Misc : 1,1 SOS56-26
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Acq On : 19 Nov 2001 19:47 Operator: HV
Sample : WG108466-10 PRO CCV Inst : hp2
Misc : 1,1 SOS56-26 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 20 8:19 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.91	4852073	202.954 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1014.77%#
3) s n-Nonatriacontane	7.44	3364829	229.785 ppm
Spiked Amount 20.000		Recovery	= 1148.93%
Target Compounds			
1) H Petroleum Range	3.67	72294088	3521.567 ppb

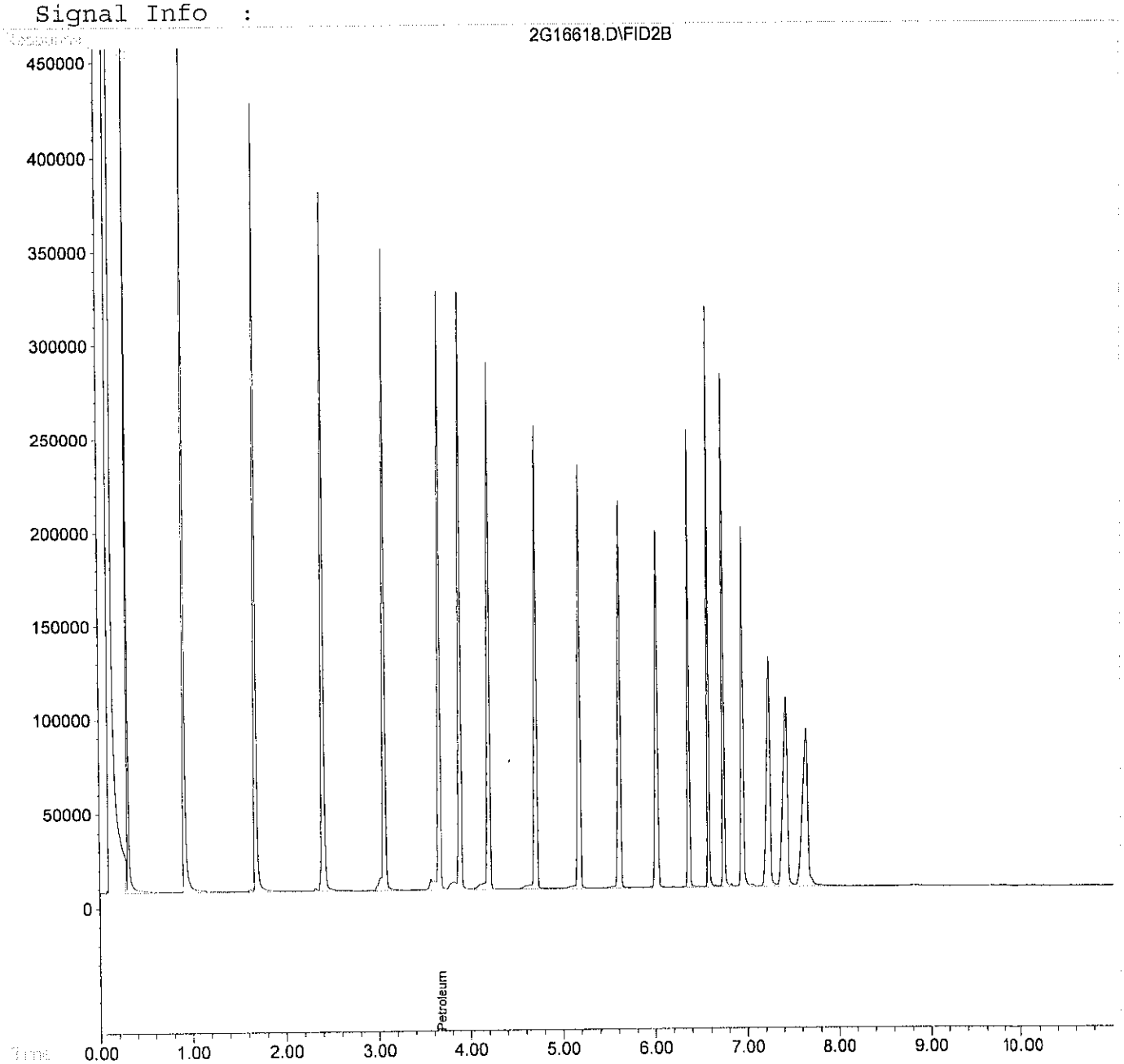
(f)=RT Delta > 1/2 Window (m)=manual int.
2G16618.D FLASHPRO.M Tue Nov 20 08:19:51 2001 Page 1

Acq On : 19 Nov 2001 19:47
Sample : WG108466-10 PRO CCV
Misc : 1,1 SOS56-26
IntFile : PETRO.E
Quant Time: Nov 20 8:19 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 19 Nov 2001 21:51
Sample : WG108466-11 PRO CCV
Misc : 1,1 SOS 56-26
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3408.974	-0.3	107	0.00
2	s	O-Terphenyl	200.000	210.678	-5.3	113	0.00
3	s	n-Nonatriacontane	200.000	206.286	-3.1	104	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16626.D FLASHPRO.M Tue Nov 20 09:17:34 2001 Page 1

Acq On : 19 Nov 2001 21:51
Sample : WG108466-11 PRO CCV
Misc : 1,1 SOS 56-26
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Acq On : 19 Nov 2001 21:51 Operator: HV
Sample : WG108466-11 PRO CCV Inst : hp2
Misc : 1,1 SOS 56-26 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 20 8:20 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.91	5036734	210.678 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1053.39%#
3) s n-Nonatriacontane	7.44	3020720	206.286 ppm
Spiked Amount 20.000		Recovery	= 1031.43%
Target Compounds			
1) H Petroleum Range	3.67	69982682	3408.974 ppb

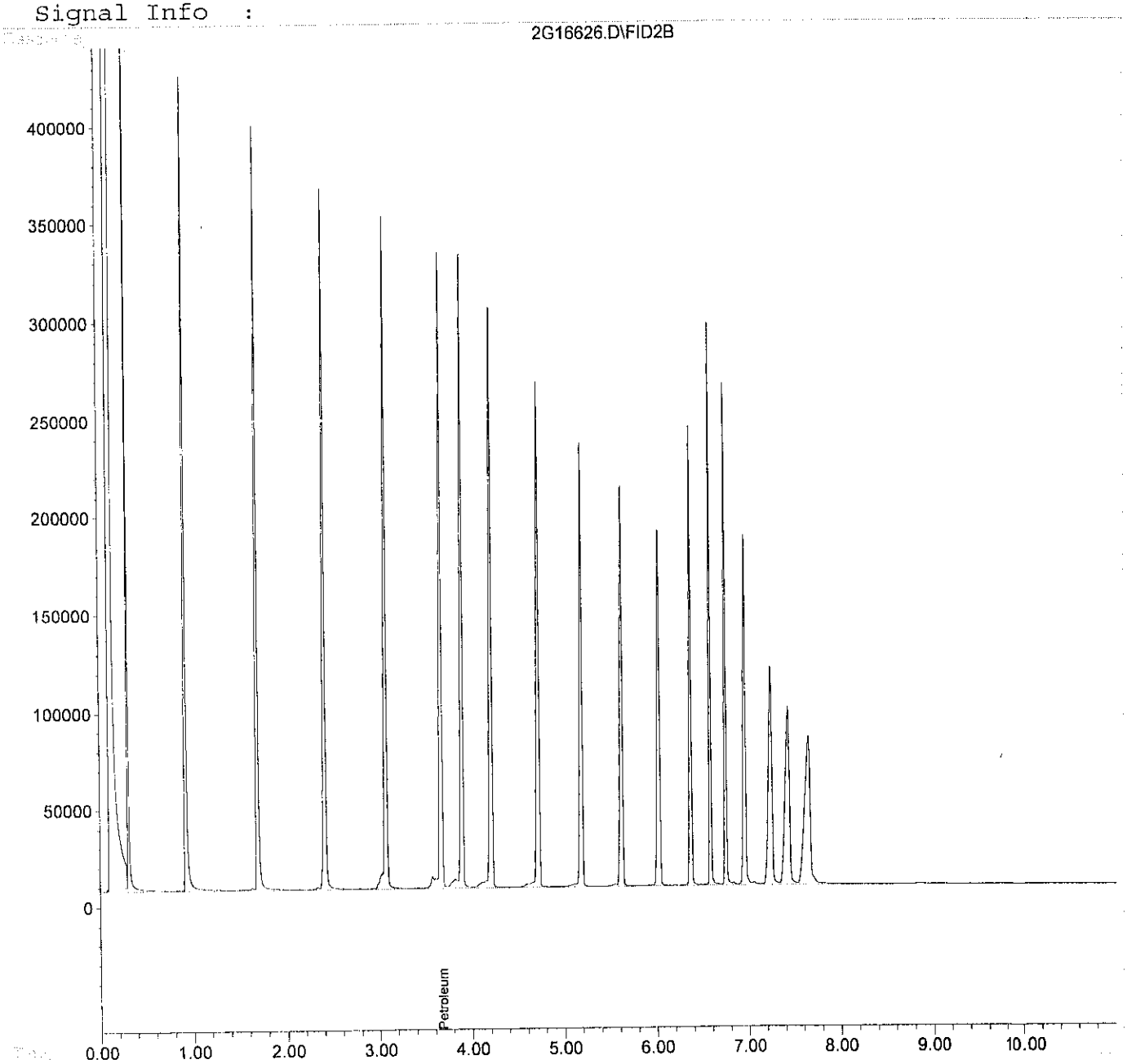
(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 19 Nov 2001 21:51
Sample : WG108466-11 PRO CCV
Misc : 1,1 SOS 56-26
IntFile : PETRO.E
Quant Time: Nov 20 8:20 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Sample : wg108830-03 PRO CCV
Misc : 1,1 SOS 56-21
IntFile : PETRO.E

Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 27 09:36:57 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3361.486	1.1	105	0.00
2	s	O-Terphenyl	200.000	201.996	-1.0	108	0.00
3	s	n-Nonatriacontane	200.000	180.240	9.9	91	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16748.D FLASHPRO.M Tue Nov 27 12:40:05 2001 Page 1

Sample : wg108830-03 PRO CCV Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 27 09:36:57 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Sample : wg108830-03 PRO CCV
Inst : hp2
Misc : 1,1 SOS 56-21
Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 27 12:20 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 27 09:36:57 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

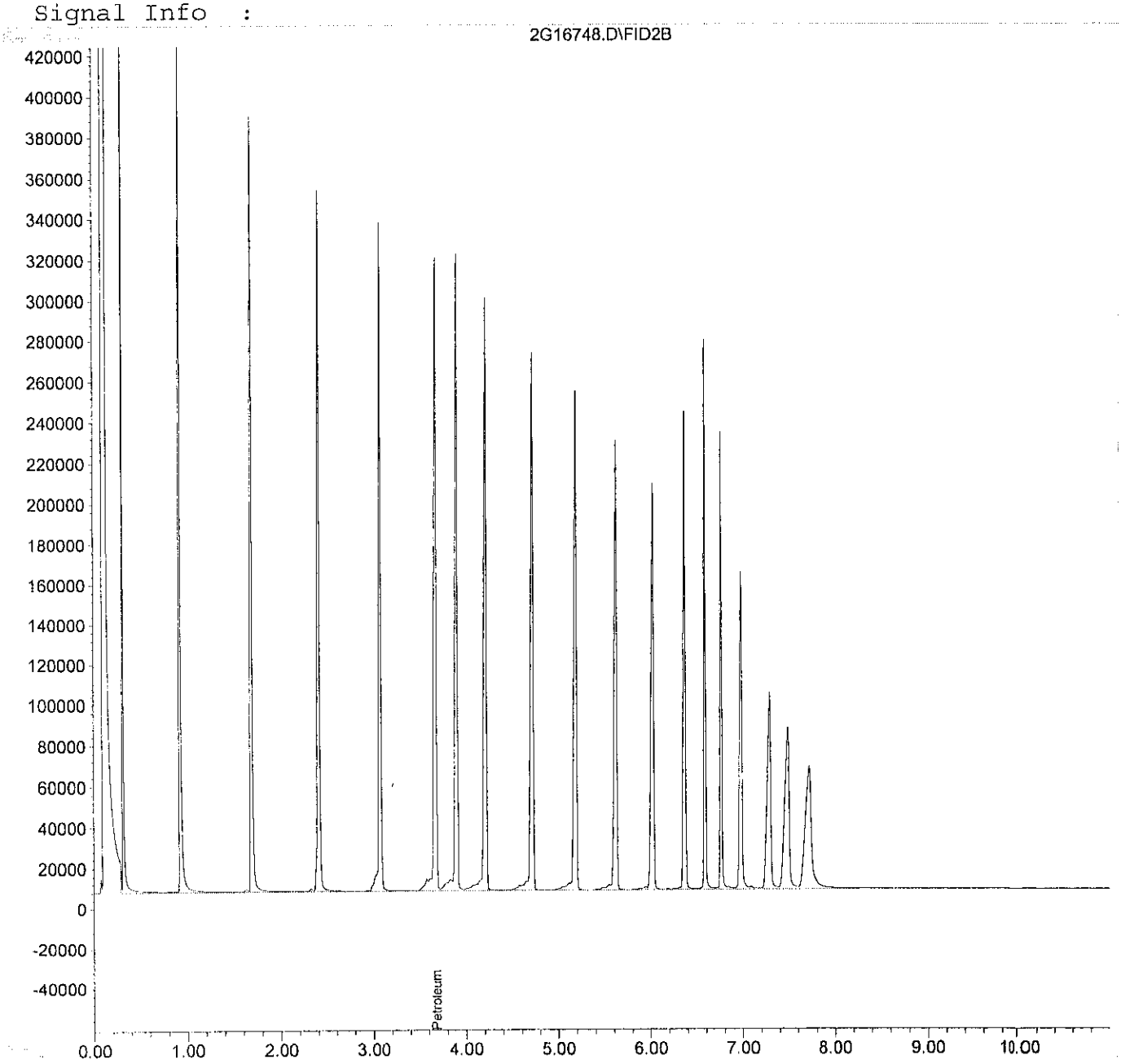
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.91	4829163	201.996 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1009.98%#
3) s n-Nonatriacontane	7.50	2639317	180.240 ppm
Spiked Amount 20.000		Recovery	= 901.20%
Target Compounds			
1) H Petroleum Range	3.68	69007792	3361.486 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16748.D FLASHPRO.M Tue Nov 27 12:40:09 2001 Page 1

Sample : wg108830-03 PRO CCV Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 27 12:20 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 27 09:36:57 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 27 Nov 2001 10:15
Sample : WG108830-04 PRO CCV
Misc : 1,1 SOS 56-21
IntFile : PETRO.E

Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3850.774	-13.3	121	0.00
2	s	O-Terphenyl	200.000	225.024	-12.5	120	-0.03
3	s	n-Nonatriacontane	200.000	239.970	-20.0#	121	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Sample : WG108830-04 PRO CCV
Misc : 1,1 SOS 56-21
IntFile : PETRO.E

Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Sample : WG108830-04 PRO CCV
Misc : 1,1 SOS 56-21
IntFile : PETRO.E
Quant Time: Nov 27 16:25 2001 Quant Results File: FLASHPRO.RES

Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 15:45:56 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.89	5379706	225.024 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1125.12%#
3) s n-Nonatriacontane	7.46	3513966	239.970 ppm
Spiked Amount 20.000		Recovery	= 1199.85%
Target Compounds			
1) H Petroleum Range	3.68	79052375	3850.774 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16757.D FLASHPRO.M Tue Nov 27 16:25:45 2001 Page 1

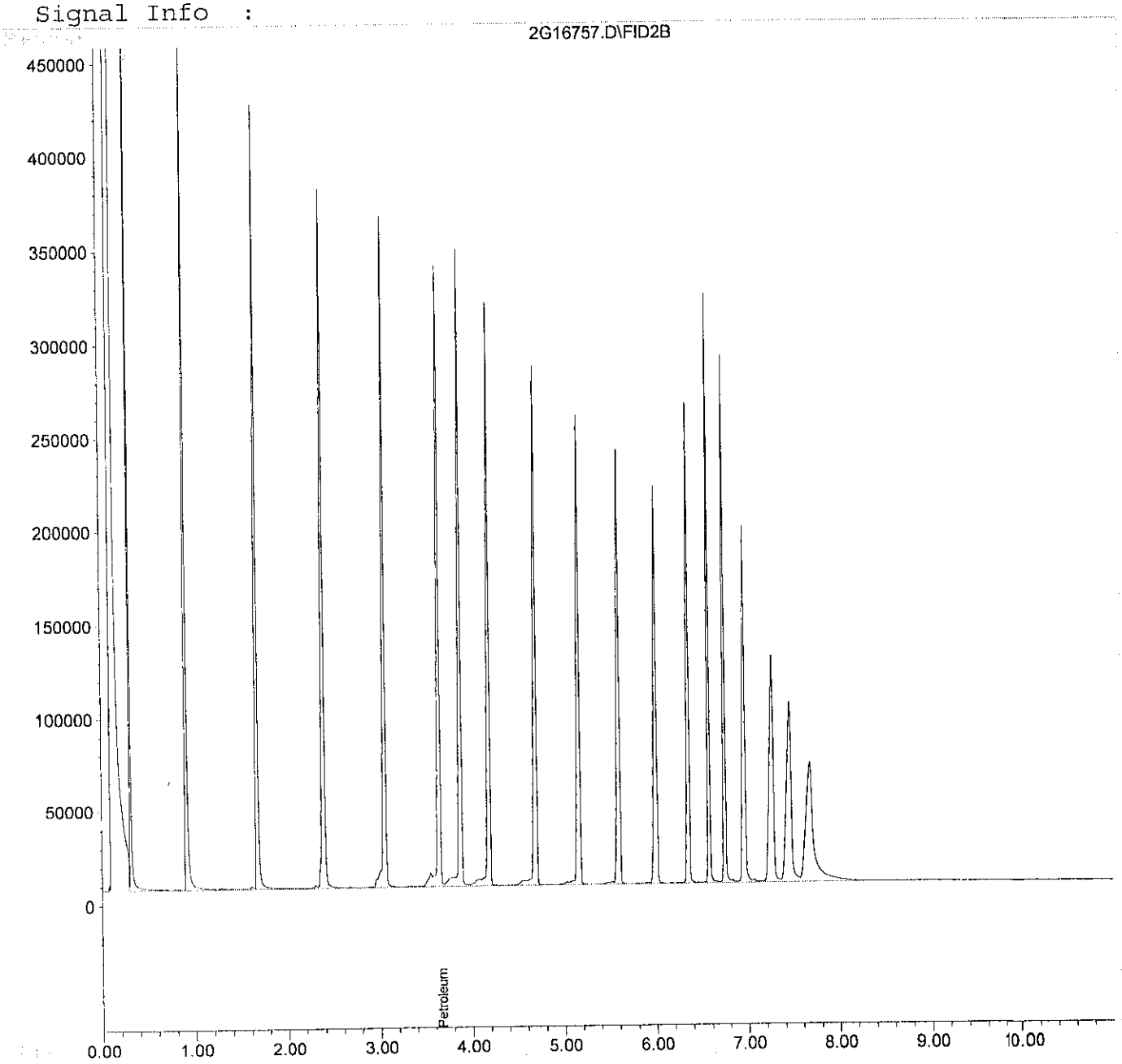
Acq On : 27 Nov 2001

Sample : WG108830-04 PRO CCV
Misc : 1,1 SOS 56-21
IntFile : PETRO.E
Quant Time: Nov 27 16:25 2001 Quant Results File: FLASHPRO.RES

Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 15:45:56 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2.2.5.4 Raw QC Data

Data File : [illegible]

Acq On : 19 Nov 2001 15:43
Sample : WG108468-02 PRO water BLK
Misc : 1,1 water V175-P181
IntFile : PETRO.E
Quant Time: Nov 20 8:04 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.89	502053	21.000 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	105.00%
3) s n-Nonatriacontane	7.49	345	0.024 ppm
Spiked Amount 20.000		Recovery =	0.12%
Target Compounds			
1) H Petroleum Range	3.67	965309	<MDL ppb

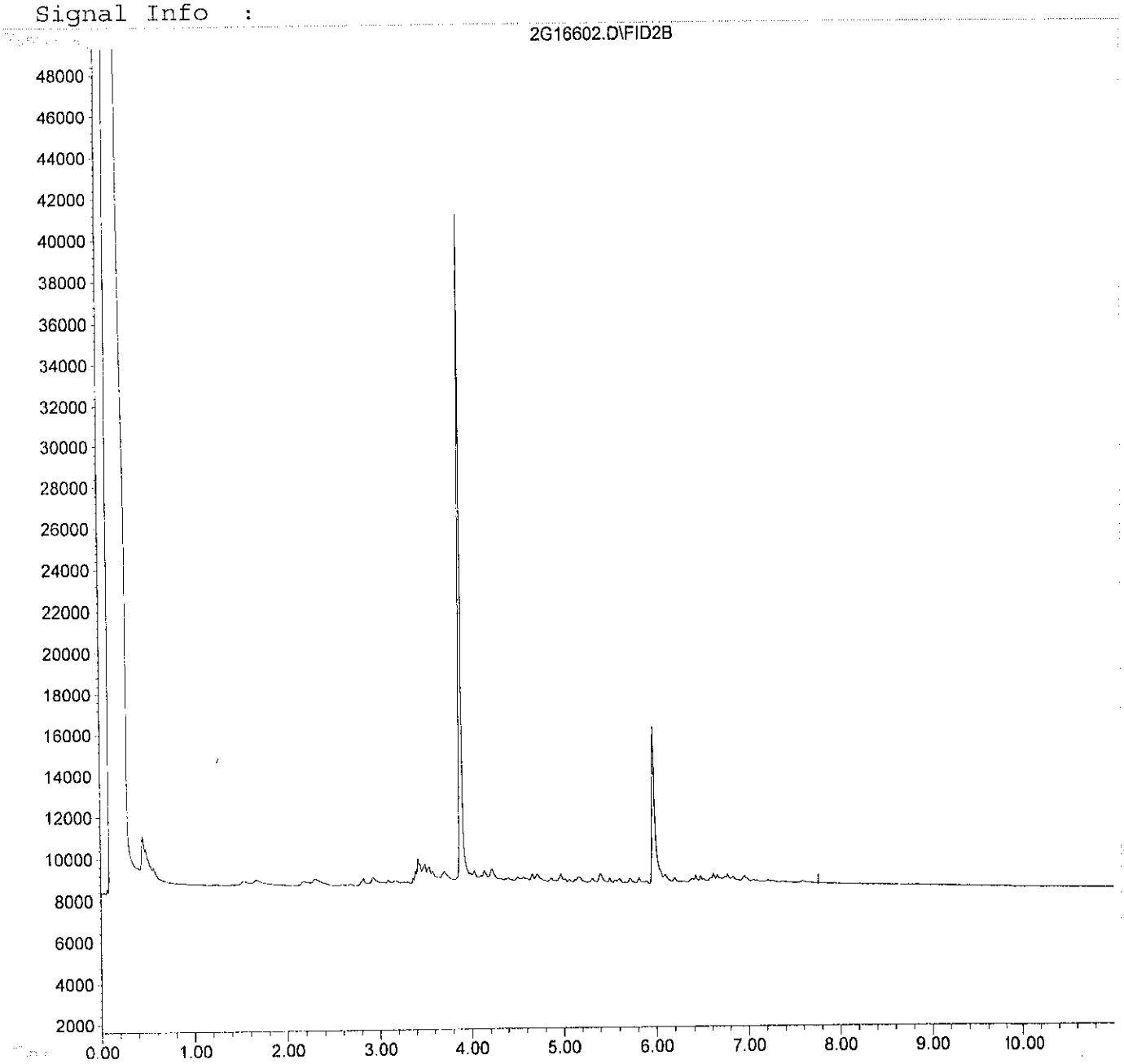
(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 19 Nov 2001 15:43
Sample : WG108468-02 PRO water BLK
Misc : 1,1 water V175-P181
IntFile : PETRO.E
Quant Time: Nov 20 8:04 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 19 Nov 2001 15:59 Operator: HV
Sample : WG108468-03 PRO water LCS Inst : hp2
Misc : 1,1 water V175-P181 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 20 8:04 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.88	432845	18.105 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		90.53%
3) s n-Nonatriacontane	7.37f	20382	1.392 ppm
Spiked Amount 20.000	Recovery =		6.96%
Target Compounds			
1) H Petroleum Range	3.67	49530704	2412.724 ppb

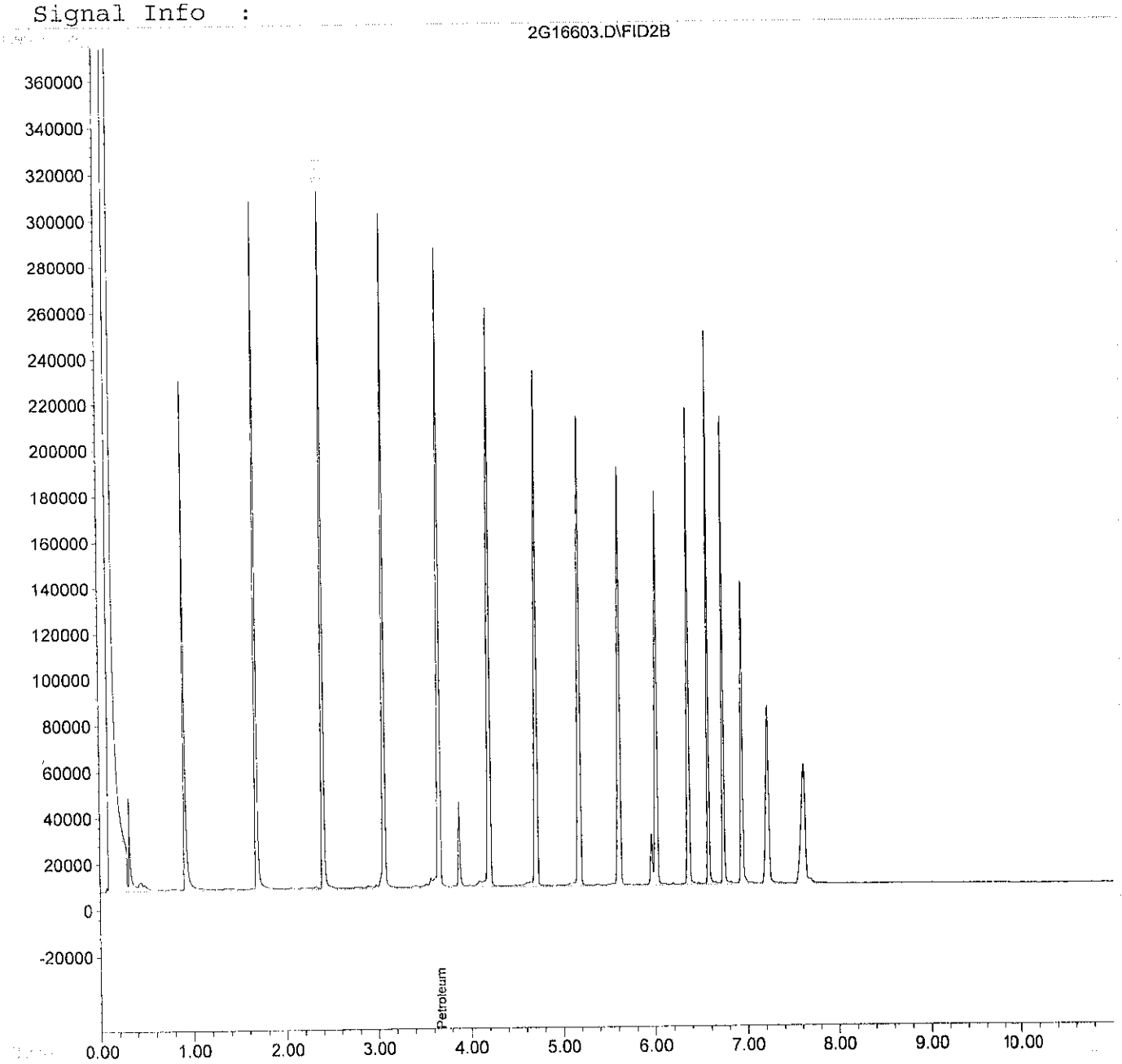
(f)=RT Delta > 1/2 Window (m)=manual int.
2G16603.D FLASHPRO.M Tue Nov 20 08:04:35 2001 Page 1

Acq On : 19 Nov 2001 15:59
Sample : WG108468-03 PRO water LCS
Misc : 1,1 water V175-P181
IntFile : PETRO.E
Quant Time: Nov 20 8:04 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 27 Nov 2001 12:24 Operator: HV
Sample : WG108655-01 PRO water BLK Inst : hp2
Misc : 1,1 V176-P13 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 27 12:40 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 27 09:36:57 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

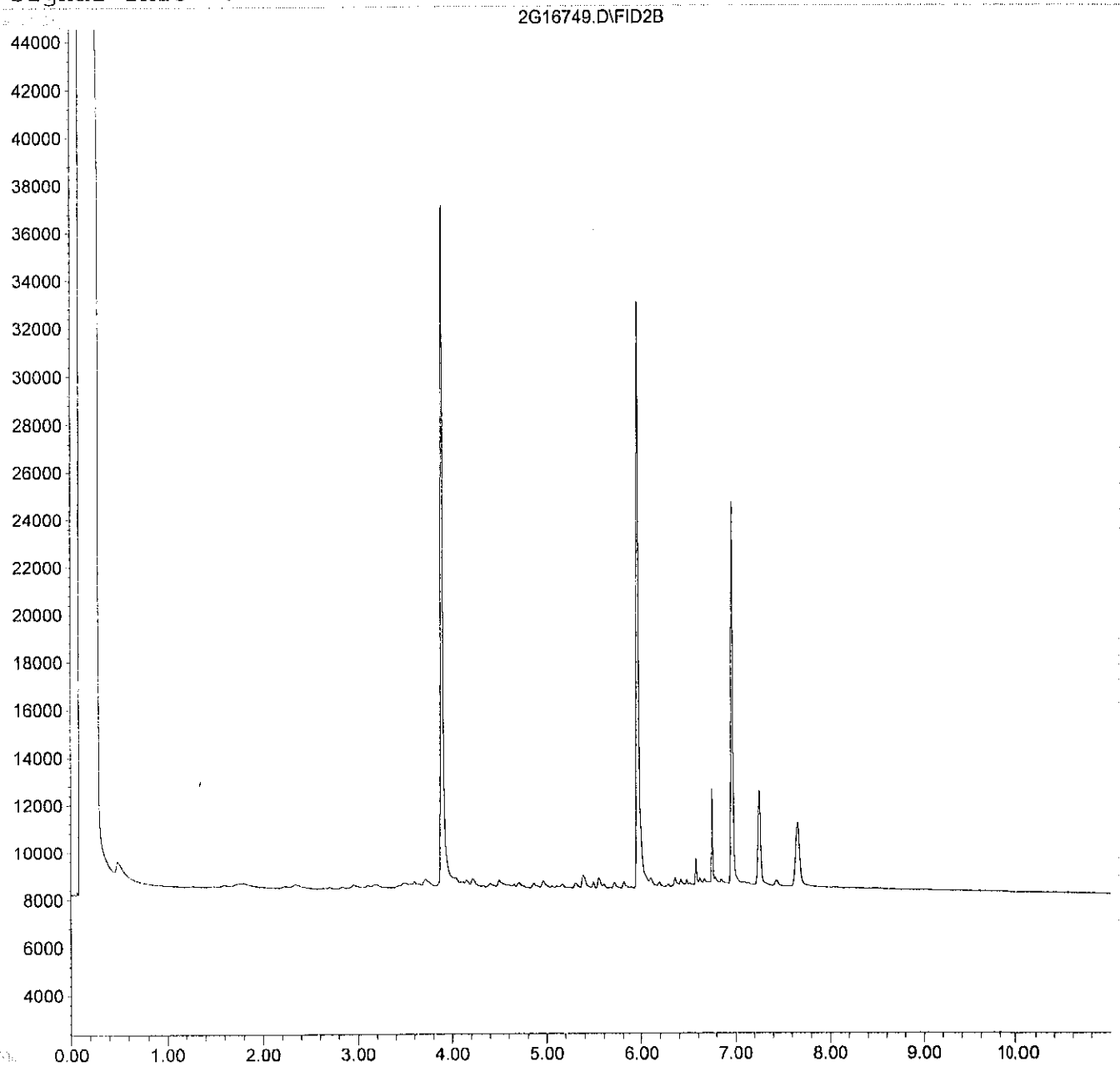
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.89	469433	19.636 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		98.18%
3) s n-Nonatriacontane	7.53	165	0.011 ppm
Spiked Amount 20.000	Recovery =		0.05%
Target Compounds			
1) H Petroleum Range	3.68	1332135	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16749.D FLASHPRO.M Tue Nov 27 13:55:04 2001 Page 1

Sample : WG108655-01 PRO water BLK Inst : hp2
Misc : 1,1 V176-P13 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 27 12:40 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 27 09:36:57 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 27 Nov 2001 12:55

Sample : WG108655-02 PRO water LCS Inst : hp2
Misc : 1,1 V176-P13 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 27 13:52 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 27 09:36:57 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.89	539536	22.568 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	112.84%
3) s n-Nonatriacontane	7.43f	11509	0.786 ppm
Spiked Amount 20.000		Recovery =	3.93%
Target Compounds			
1) H Petroleum Range	3.68	53587275	2610.326 ppb

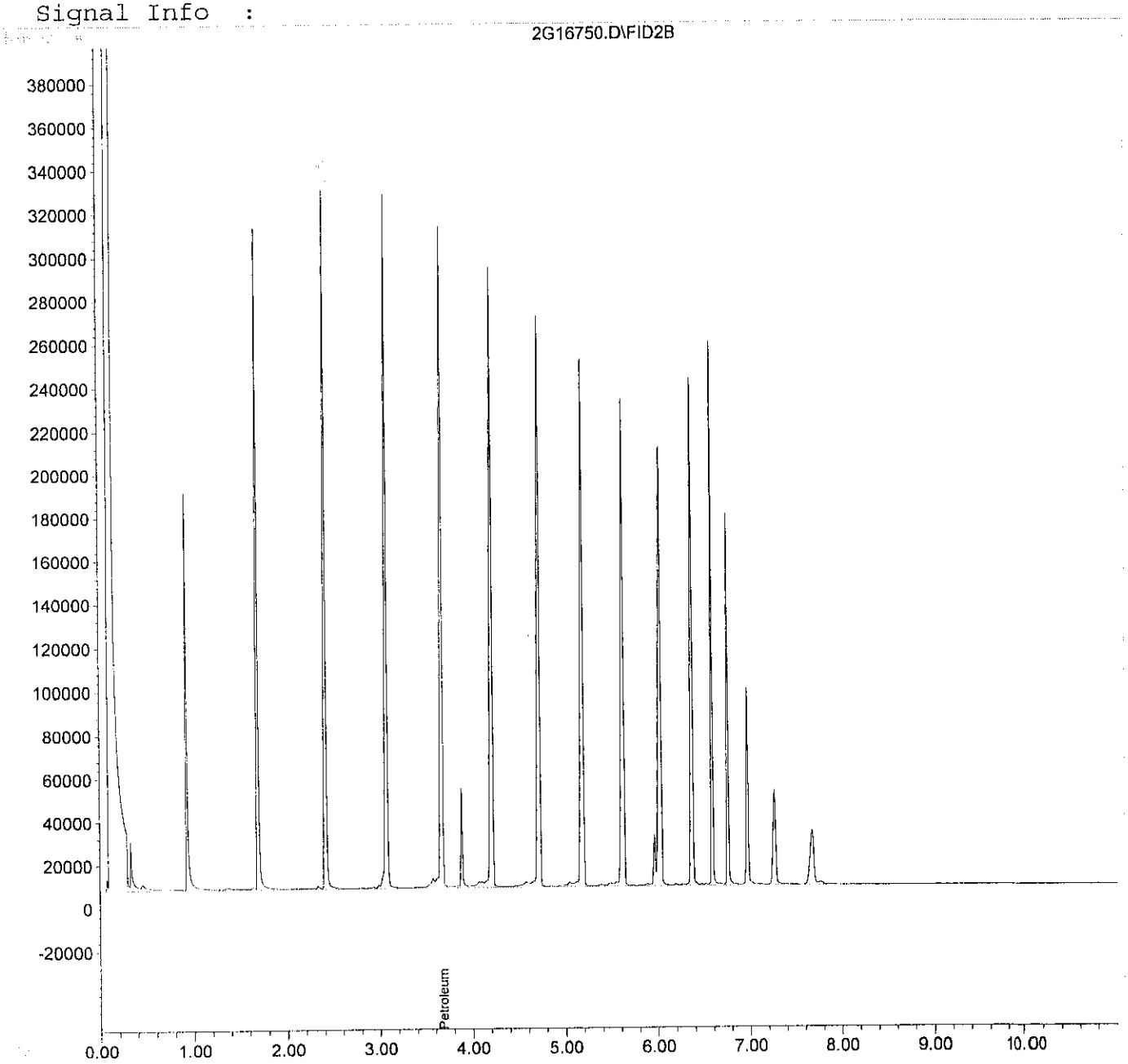
(f)=RT Delta > 1/2 Window (m)=manual int.
2G16750.D FLASHPRO.M Tue Nov 27 13:55:15 2001 Page 1

Acq On : 27 Nov 2001 [illegible]
Sample : WG108655-02 PRO water LCS
Misc : 1,1 V176-P13
IntFile : PETRO.E
Quant Time: Nov 27 13:52 2001 Quant Results File: FLASHPRO.RES

Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 27 09:36:57 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Sample : WG108655-03 PRO water LCS2 Inst : hp2
Misc : 1,1 V176-P13 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 27 13:53 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 27 09:36:57 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.89	560871	23.460 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	117.30%
3) s n-Nonatriacontane	7.56	366	0.025 ppm
Spiked Amount 20.000		Recovery =	0.13%
Target Compounds			
1) H Petroleum Range	3.68	57673486	2809.373 ppb

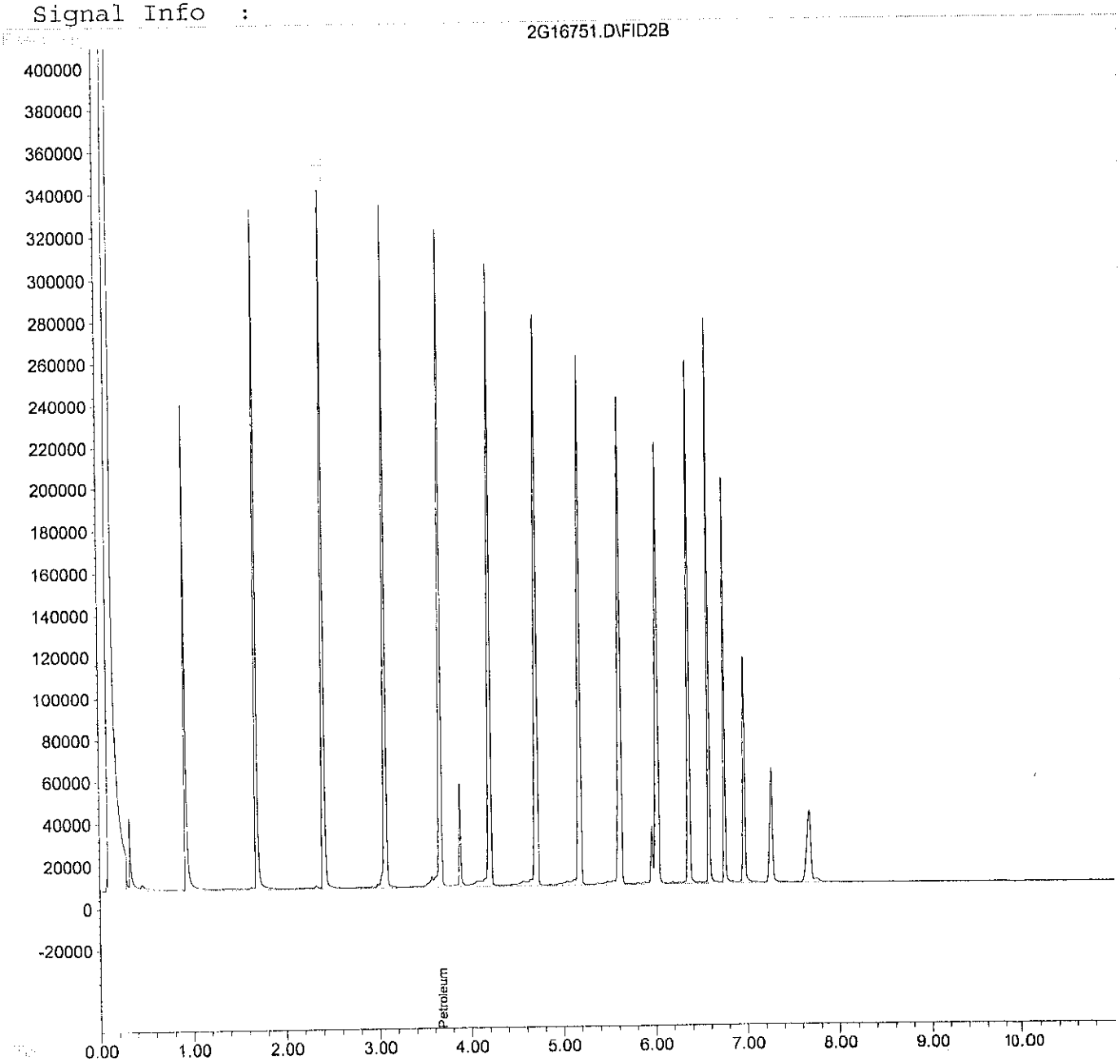
(f)=RT Delta > 1/2 Window (m)=manual int.
2G16751.D FLASHPRO.M Tue Nov 27 13:55:22 2001 Page 1

Acq On : 27 Nov 2001 [illegible]
Sample : WG108655-03 PRO water LCS2
Misc : 1,1 V176-P13
IntFile : PETRO.E
Quant Time: Nov 27 13:53 2001 Quant Results File: FLASHPRO.RES

Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 27 09:36:57 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g16580.d	1.	mecl2	1,1 SOS 56-21	19 Nov 101 12::1
2	2	2g16581.d	1.	win def std	1,1 ns 13-45	19 Nov 101 12::4
3	3	2g16582.d	1.	PRO CONT CHK	1,1 SOS 56-21	19 Nov 101 13::0
4	4	2g16583.d	1.	WG108466-06 PRO @600ppm	1,1 SOS 56-21	19 Nov 101 13::2
5	5	2g16584.d	1.	WG108466-05 PRO @400ppm	1,1 SOS 56-21	19 Nov 101 13::3
6	6	2g16585.d	1.	WG108466-04 PRO @200ppm	1,1 SOS 56-21	19 Nov 101 13::5
7	7	2g16586.d	1.	wg108466-03 PRO @100ppm	1,1 SOS 56-21	19 Nov 101 13::0
8	8	2g16587.d	1.	WG108466-02 PRO @50ppm	1,1 SOS 56-21	19 Nov 101 13::2
9	9	2g16588.d	1.	WG108466-01 PRO @5ppm	1,1 SOS 56-21	19 Nov 101 13::3
10	10	2g16589.d	1.	WG108466-07 ALT @200ppm	1,1 SOS 56-26	19 Nov 101 13::2
11	11	2g16590.d	40.	WG108325-02 PRO soil BLK	7,1 v175-p149	19 Nov 101 13::3
12	12	2g16591.d	40.	WG108325-03 PRO soil LCS	7,1 soil v175-p149	19 Nov 101 13::5
13	13	2g16592.d	400.	WG108325-01 Ref. 10x	7,1 soil v175-p149	19 Nov 101 12::0
14	14	2g16593.d	400.	WG108325-03 MS 10x	7,1 soil v175-p149	19 Nov 101 12::2
15	15	2g16594.d	400.	WG108325-04 MSD 10x	7,1 soil v175-p149	19 Nov 101 12::3
16	16	2g16595.d	400.	L0111282-03 10x PRO soil	7,1 soil v175-p149	19 Nov 101 12::5
17	17	2g16596.d	400.	L0111282-04 10x PRO soil	7,1 soil v175-p149	19 Nov 101 12::0
18	18	2g16597.d	1.	mecl2	1,1	19 Nov 101 12::2
19	19	2g16598.d	1.	WG108466-08 PRO CCV	1,1 SOS 56-21	19 Nov 101 12::3
20	20	2g16599.d	1.	WG108434-01 Ref. PRO soil	7,1 soil	19 Nov 101 12::5
21	21	2g16600.d	40.	WG108434-02 PRO soil BLK	7,1 soil V175-P177	19 Nov 101 12::1
22	22	2g16601.d	40.	WG108434-03 PRO soil LCS	7,1 soil V175-P177	19 Nov 101 12::2
23	23	2g16602.d	1.	WG108468-02 PRO water BLK	1,1 water V175-P181	19 Nov 101 12::4
24	24	2g16603.d	1.	WG108468-03 PRO water LCS	1,1 water V175-P181	19 Nov 101 12::5
25	25	2g16604.d	1.04	L0111314-01 PRO water	1,1 water V175-P181	19 Nov 101 12::1
26	26	2g16605.d	1.01	L0111314-03 PRO water	1,1 water V175-P181	19 Nov 101 12::2
27	27	2g16606.d	1.	L0111314-05 PRO water	1,1 water V175-P181	19 Nov 101 12::4
28	28	2g16607.d	1.	mecl2	1,1	19 Nov 101 12::0
29	29	2g16608.d	1.	WG108466-09 PRO CCV	1,1 SOS56-26	19 Nov 101 12::1
30	30	2g16609.d	1.03	L0111316-01 PRO water	1,1 water	19 Nov 101 12::3
31	31	2g16610.d	1.	WG108468-01 Ref. PRO water	1,1 L0111316-02 Ref.	19 Nov 101 12::4
32	32	2g16611.d	1.08	WG108468-04 MS PRO water	1,1 L0111316-03 MS	19 Nov 101 12::0
33	33	2g16612.d	1.04	WG108468-05 MSD PRO water	1,1 L0111316-04 MSD	19 Nov 101 12::1
34	34	2g16613.d	1.04	RE L0111316-05 PRO water RE	1,1 water	19 Nov 101 12::3
35	35	2g16614.d	1.	L0111316-06 PRO water	1,1 water	19 Nov 101 12::4
36	36	2g16615.d	1.02	RE L0111316-07 PRO water RE	1,1 water	19 Nov 101 12::0
37	37	2g16616.d	1.03	L0111316-09 PRO water	1,1 water	19 Nov 101 12::1
38	28	2g16617.d	1.	MECL2	1,1 water	19 Nov 101 12::3
39	29	2g16618.d	1.	WG108466-10 PRO CCV	1,1 SOS56-26	19 Nov 101 12::4
40	38	2g16619.d	1.06	L0111316-10 PRO water	1,1 water	19 Nov 101 12::0
41	39	2g16620.d	1.05	L0111316-11 PRO water	1,1 water	19 Nov 101 12::1
42	40	2g16621.d	1.02	L0111316-12 PRO water	1,1 water	19 Nov 101 12::3
43	41	2g16622.d	1.04	L0111316-13 PRO water	1,1 water	19 Nov 101 12::5
44	42	2g16623.d	1.03	L0111316-14 PRO water	1,1 water	19 Nov 101 12::0
45	43	2g16624.d	1.02	L0111317-02 PRO water	1,1 water	19 Nov 101 12::2
46	28	2g16625.d	1.02	mecl2	1,1 water	19 Nov 101 12::3
47	29	2g16626.d	1.	WG108466-11 PRO CCV	1,1 SOS 56-26	19 Nov 101 12::5
48	44	2g16627.d	1.03	L0111344-01 PRO water	1,1 water	19 Nov 101 13::0
49	45	2g16628.d	1.03	L0111344-02 PRO water	1,1 water	19 Nov 101 13::2
50	46	2g16629.d	1.02	L0111344-03 PRO water	1,1 water	19 Nov 101 13::3
51	47	2g16630.d	1.06	RR L0111344-04 PRO water	1,1 water	19 Nov 101 13::5
52	48	2g16631.d	1.08	L0111344-05 PRO water	1,1 water	19 Nov 101 13::0
53	49	2g16632.d	1.05	RR L0111253-07 RR PRO water	1,1 water	19 Nov 101 13::2
54	50	2g16633.d	1.06	L0111253-08 RR PRO water	1,1 water	19 Nov 101 13::3
55	28	2g16634.d	1.08	mecl2	1,1 water	19 Nov 101 13::5

11/20/01

Line	Vial	FileName	Multiplier		SampleName	Misc Info	Injected
56	29	2g16635.d	1.	CC	WG108466-12 PRO CCV	1,1 SOS 56-26	20 Nov 101 13::1
57	51	2g16636.d	400.	RR	L0111312-01 10X	7,1 soil	20 Nov 101 13::2
58	52	2g16637.d	400.		L0111312-01 MS 10X	7,1 soil	20 Nov 101 13::4
59	53	2g16638.d	400.		L0111312-01 MSD 10X	7,1 soil	20 Nov 101 13::5
60	54	2g16639.d	400.		L0111312-02 10X	7,1 soil	20 Nov 101 12::1
61	55	2g16640.d	400.		L0111317-01 10X	7,1 soil	20 Nov 101 12::2
62	28	2g16641.d	400.		MECL2	7,1 soil	20 Nov 101 12::4
63	29	2g16642.d	1.	CC	WG108466-13 PRO CCV	1,1 SOS 56-26	20 Nov 101 12::5

HV 11/20/01

11/20/01

KEMRON ENVIRONMENTAL SERVICES

Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time NOV. 19 01 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 111901

Analyst Initials HV

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # ___ PRO ✓
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____

SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS01 Rev. # ___ 8100 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check

- ☐ Gases >500 psi

Preventative Maintenance

- ☐ Change o-ring
- ☑ Change liner
- ☑ Change septum
- ☐ Clip column (___cm)
- ☐ Injection port seal (goldseal)
- ☑ Change gases ✓ Air & H2

Returned To Control?

Yes ___ No ____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

2g lab 13 & 14 - need RE due to low surr. rec.
Samples with RR - need to re-run due to high ending ccv. and also samples had hits.

Reviewed By: [illegible] 11/20/01

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g16732.d	1.	mecl2	1,1	27 Nov 101 12::0
2	1	2g16733.d	1.	mecl2	1,1	27 Nov 101 12::1
3	2	2g16734.d	1.	WIN DEF STD	1,1 NS 13-45	27 Nov 101 12::3
4	3	2g16735.d	1.	WG108830-01 PRO CCV	1,1 SOS 56-21	27 Nov 101 12::4
5	4	2g16736.d	40.	WG108738-02 PRO soil BLK	7,1 soil V176-P41	27 Nov 101 12::0
6	5	2g16737.d	40.	WG108738-03 PRO soil LCS	7,1 soil V176-P41	27 Nov 101 12::1
7	6	2g16738.d	200.	L0111364-01 5x FLA PRO soil	7,1 soil V176-P41	27 Nov 101 12::3
8	7	2g16739.d	400.	L0111364-02 10x FLA PRO soil	7,1 V176-P41	27 Nov 101 12::4
9	8	2g16740.d	1000.	L0111364-01 25x FLA PRO soil	7,1 soil	27 Nov 101 13::0
10	9	2g16741.d	400.	L0111406-01 10x FLA PRO soil	7,1 soil	27 Nov 101 13::1
11	10	2g16742.d	400.	L0111364-02 MSD 10x FLA PRO soil	7,1 soil	27 Nov 101 13::3
12	11	2g16743.d	800.	L0111406-01 20x FLA PRO soil	7,1 V176-P41	27 Nov 101 13::4
13	9	2g16744.d	400.	L0111406-01 10x PRO soil	7,1 soil	27 Nov 101 13::0
14	12	2g16745.d	400.	L0111364-02 MS 10x FLA PRO soil	7,1 soil	27 Nov 101 13::2
15	13	2g16746.d	1.	WG108830-02 PRO CCV	1,1 SOS56-21	27 Nov 101 13::3
16	14	2g16747.d	40.	L0111406-01 PRO soil	7,1 soil	27 Nov 101 13::5
17	15	2g16748.d	1.	wg108830-03 PRO CCV	1,1 SOS 56-21	27 Nov 101 13::0
18	16	2g16749.d	1.	WG108655-01 PRO water BLK	1,1 V176-P13	27 Nov 101 13::2
19	17	2g16750.d	1.	WG108655-02 PRO water LCS	1,1 V176-P13	27 Nov 101 13::3
20	18	2g16751.d	1.	WG108655-03 PRO water LCS2	1,1 V176-P13	27 Nov 101 13::5
21	19	2g16752.d	1.06	L0111316-05 RE W/IN PRO water	1,1 water	27 Nov 101 12::0
22	20	2g16753.d	1.06	L0111316-07 RE W/IN PRO water	1,1 water	27 Nov 101 12::2
23	21	2g16754.d	10.6	L0111316-10 10x PRO water	1,1 water	27 Nov 101 12::3
24	22	2g16755.d	1.	mecl2	1,1 SOS 56-21	27 Nov 101 12::5
25	23	2g16756.d	1.	mecl2	1,1 SOS 56-21	27 Nov 101 12::4
26	24	2g16757.d	1.	WG108830-04 PRO CCV	1,1 SOS 56-21	27 Nov 101 12::1
27	1	2g16758.d	1.	MECL2	1,1 SOS 56-21	27 Nov 101 12::3
28	2	2g16759.d	1.	WIN DEF STD	1,1 NS 13-45	27 Nov 101 12::4
29	3	2g16760.d	1.	WG108905-01 DRO CCV	1,1 NS 14-29	27 Nov 101 12::5
30	4	2g16761.d	1.	mecl2	1,1 NS 14-29	27 Nov 101 12::0
31	5	2g16762.d	40.	PR wg108763-02 DRO soil BLK	7,1 v176-p47	27 Nov 101 12::1
32	6	2g16763.d	40.	wg108763-02 DRO soil LCS	7,1 v176-p47	27 Nov 101 12::3
33	7	2g16764.d	40.	L0111426-01 DRO soil	7,1 v176-p47	27 Nov 101 12::4
34	8	2g16765.d	40.	L0111426-02 DRO soil	7,1 v176-p47	27 Nov 101 12::5
35	9	2g16766.d	40.	L0111426-03 DRO soil	7,1 v176-p47	27 Nov 101 12::0
36	10	2g16767.d	40.	L0111392-03 DRO soil	7,1 v176-p47	27 Nov 101 12::1
37	11	2g16768.d	40.	L0111392-04 DRO soil	7,1 v176-p47	27 Nov 101 12::2
38	12	2g16769.d	40.	L0111392-06 DRO soil	7,1 v176-p47	27 Nov 101 12::3
39	13	2g16770.d	40.	mecl2	7,1 v176-p47	27 Nov 101 12::4
40	13	2g16771.d	40.	mecl2	7,1 v176-p47	27 Nov 101 12::5
41	14	2g16772.d	1.	WG108905-02 DRO CCV cc	1,1 NS14-29	27 Nov 101 12::1
42	15	2g16773.d	4000.	L0111335-01 100X	7,1 soil	27 Nov 101 12::2
43	16	2g16774.d	400.	L011392-01 10X dro soil	7,1 soil	27 Nov 101 12::3
44	17	2g16775.d	400.	L011392-01 MS 10X dro soil	7,1 soil	27 Nov 101 12::4
45	18	2g16776.d	400.	L011392-01 MSD 10X dro soil	7,1 soil	27 Nov 101 12::5
46	19	2g16777.d	400.	L011392-02 10X dro soil	7,1 soil	27 Nov 101 12::0
47	20	2g16778.d	400.	L011392-08 10X dro soil	7,1 soil	27 Nov 101 12::1
48	13	2g16779.d	4000.	MECL2	7,1 soil	27 Nov 101 12::2
49	13	2g16780.d	4000.	MECL2	7,1 soil	27 Nov 101 12::3
50	14	2g16781.d	1.	WG108905-03 DRO CCV cc	1,1 NS14-29	27 Nov 101 12::4
51	21	2g16782.d	2000.	L0111392-07 50X	7,1	27 Nov 101 12::0
52	22	2g16783.d	400.	L0111392-05 10X	7,1 soil	27 Nov 101 12::1
53	13	2g16784.d	1.	MECL2	1,1	27 Nov 101 12::2
54	13	2g16785.d	1.	MECL2	1,1	27 Nov 101 12::3
55	14	2g16786.d	1.	WG108905-04 DRO CCV cc	1,1 NS14-29	27 Nov 101 12::4

HY 11/28/01 see work

28 Nov 01 09:15

Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time NOV. 27 01 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 112701
Analyst Initials HV

SOP # GCS09 Rev. # ___ 8081A ___
SOP # GCS04 Rev. # ___ 8151A ✓
SOP # GCS03 Rev. # ___ PRO ✓
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ___

SOP # GCS10 Rev. # ___ 8082 ___
SOP # GCS01 Rev. # ___ 8100 ___
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ✓
SOP # GCS07 Rev. # ___ 8011 ___

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
- ☐ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ☑ Change liner
- ☑ Change septum
- ☐ Clip column (___cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases _____

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

2g16762 — 2g16769 - RR - exceeded the sequence limit
2g16772, 2g16781 & 2g16786 - CC failed low in n-octacosane and the samples analyzed at dilutions

Reviewed By: PAC 11/28/01

Parameter: FLA-PRO-D SOP #: EXPRO Revision #: 2
Extraction Analyst(s): CSH/LMT/DP TV/KD Analyst(s): CSH
Date/Time Extracted: 11/19/01 @ 1100 Date TV/KD: 11/19/01
Spike/Surrogate Analyst: CSH Witness: LMT
Surrogate #: ESS0038-48 Earliest Hold Date: 11/22
Spike #: A = ESS0039-21 Spike #: B = —

Extraction Work Group WG 108468
Analytical Work Group WG 108512
Extract Relinquished By: CSH
Extract Received By & Date: [illegible] 11/19/01

	Sample ID	Test Code	pH √ <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	BN	N	Comments
1	Blank		✓			1L	1ml		1ml	T				WG108468-02
2	LCS		✓			↓		1ml		↓				WG108468-03
3	11-314-01	FLA-PRO	✓			960ml				↓				
4	-03		✓			990ml				C				
5	-05		✓			1L				I				
6	11-316-01		✓			970ml				T				
7	-02		✓			1L								WG108468-01*
8	-03MS		✓			920ml		1ml						WG108468-04*
9	-04MSD		✓			940ml		↓						WG108468-05*
10	-05		✓			↓								
11	-06		✓			1L								
12	-07		✓			980ml								
13	-09		✓			970ml				↓				
14	-10		✓			940ml				C				
15	-11		✓			950ml				T				
16	-12		✓			980ml								
17	-13		✓			960ml								
18	-14		✓			970ml								
19	11-317-02		✓			980ml								
20	11-344-01		✓			970ml								
21	-02		✓			970ml								
22	-03		✓			980ml								
23	-04		✓			940ml								
24	-05		✓			920ml				↓				

CSH 11/19/01

Methylene Chloride Lot #: 41109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: 1:1 HCl Lot #: ER1915
Florisil Lot #: —
Silica Gel Lot #: V32555
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER1979

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C	✓	Other	
Acid 3664A		N/A	
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 11/19/01

Extraction Notes For Volume # 175 Page # 181

General Comments: ~~*~~ MS and MSD of 11-316-02

Extraction Anomalies: NONE.

Concentration Anomalies: NONE

Clean-Up Anomalies: NONE

Supervisor Review: _____ Date: _____

Parameter: [illegible] SOP #: [illegible] Revision #: [illegible]

Extraction Analyst(s): LMT TV/KD Analyst(s): LMT
Date/Time Extracted: 11/21/01 @ 09:15 Date TV/KD: 11/21/01
Spike/Surrogate Analyst: LMT Witness: JEA
Surrogate #: ES500 Earliest Hold Date: 11/22
Spike #: A = ES500 Spike #: B = —

Extraction Work Group WG 1086000
Analytical Work Group WG 105854

Extract Relinquished By:
Extract Received By & Date: [illegible] 11/21/01

	Sample ID	Test Code	pH √ <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	BN	N	Comments
1	Blank		✓			1L	1ml		1ml	T				WG 1086550
2	LCS		✓			⊥	⊥	1ml	⊥	T				WG 1086550-02
3	LCS Dup		✓			⊥	⊥	⊥	⊥	T				WG 1086550-03
4	1L2116-05	FLA-PRO	✓			940ml	⊥		⊥	T				✱
5	⊥ -07	⊥	✓			⊥	⊥		⊥	T				✱
6														
7														
8														
9														
10														
11														
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16														
17														
18														
19														
20														
21														
22														
23														
24														

LMT 11/21/01

Methylene Chloride Lot #: 41109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: 1:1 HCl Lot #: FR1915
Florisil Lot #: —
Silica Gel Lot #: V37555
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: FR1979

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C	✓	Other	
Acid 3664A		N/A	
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 11/21/01

Extraction Notes For Volume # 1 + 2 Page # 10

General Comments: Re-extracts w/in Hold.

Extraction Anomalies: Nothing to Report

Concentration Anomalies: Nothing to Report

Clean-Up Anomalies: Nothing to Report

Supervisor Review: _____ Date: _____

Analytical Corrective Action Report

Date: 11-20-01 Department: SV Employee: HV

Prep WG# 108468 Preparation Date: 11-19-01 Parameter: 8LA-PRO · water

I. Description of Non-Conformance:

Samples L0111316-05 and -07 required RE due to low surrogate recovery.

Re-extracts needed DFR 11/20

II. Action Taken:

Reset w/in hold 11/21/01

new wb# 108655

11/21/01

III. Return to Control?:	Not Applicable ____	Yes ____	No ____

IV. Further Action Required?: (required if no checked in III.)

Approvals:

Department Supervisor: _____ Date: _____

QA/QC Supervisor: _____ Date: _____

Director/Manager: _____ Date: _____

Form NC02

937

Example FLA-PRO Calculations

1.0 Calulating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = As/ Cs

Where:		Example:
	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ng/ml).	100
	RF	**100**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:

C = [(Ax)(Vf)(D)] / [(RF)(Vi)]

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	**100**
	Vi = Initial volume of sample (mL). (prep log)	1000
	C (ug/L) =	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report: C = [(Ax)(Vf)(D)] / [(RF)(Vi)]

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL).	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	100
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**3.333333**

2.2.7 PAH HPLC DATA (8310)

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0111316

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8310

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds linear equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: The LCS associated with the re-extraction batch yielded percent recoveries for seven analytes which were above advisory limits. Sample fraction 12 from that batch did not have reportable results for any of those seven analytes. All acceptance criteria were met for the initial extraction batch.
Matrix Spikes: The MS/MSD met all acceptance criteria.

SAMPLES

Surrogates: Sample fraction 12 yielded a percent recovery for the surrogate which was below advisory limits. This fraction was re-extracted within holding time and met all acceptance criteria for the surrogate. All acceptance criteria were met for the other samples in this sample delivery group.
Samples: Two samples were re-analyzed at a dilution in order to maintain the analysis within the range of calibration. All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: RDC

REVIEWED: _____ DATE: 12/4/9

Rev. 7/14/00

Semi-Volatile QC Checklist

Run Date: 11/20/01, 11/21/01, & 11/26/01

Analyst: RDC

Instrument: HPLC4

(re-ext. of 11-316-12)

Workorders:	Due Date:	Priority:
WG108520 11-316	11/26/2001	PFF
WG108520 11-344	11/26/2001	PFF
WG108845 11-316	11/26/2001	PFF

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadriatic regression	NA
	Alt Source Check	NA
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
	Surrogates	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	√
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Surrogates	√
	Correct Factors	√
	Dilutions	√
	Check Sample Histories	NA
	Corrective Action	√
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:

L0111316-12 sent for re-extract due to surr. recovery < LCL. Sample was re-extracted within holding time and surrogate met all criteria. However, re-ext. batch LCS was high for 7 analytes, none of which were detected in the sample. Both results have been reported.

L0111316-10 and 13 were re-analyzed at a dil'n. L0111316-10 requires confirmation analysis for acenaphthylene. NC

Primary Reviewer: RDC 11/27/01

Secondary Reviewer: 11/27/01

Supervisor Review: 11/27/01

√ = Checked & OK

NA = Not Applicable

Semi-Volatile 8310 Checklist

Workorders: Due Date: Priority:

Run Date: 8-Aug-01

Analyst: RDC

Instrument: HPLC4

		Analyst
Initial Calibration:	Average RF	
	Linear or quadratic regression	√
	Alt Source Check	√
Continuing Calibration:	Continuing Calibration	
	Client Specific Requirements	
	Special Standards	
Blanks:	Quant Report/Chromatogram	
	Surrogates	
Laboratory Control Sample:	Quant Report/Chromatogram	
	Surrogates	
	Spike Compounds	
	MS/MSD	
	Excel Spreadsheet	
Samples:	TCL Hits	
	Surrogates	
	Correct Factors	
	Dilutions	
	Check Sample Histories	
	Corrective Action	
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:
Re-calibration curve only.....

Primary Reviewer: RDC 8/10/01

Secondary Reviewer: 8/10/01

Supervisor Review: 8/10/01

√ = Checked & OK
NA = Not Applicable

PAH HPLC DATA (8310)

Login Number: L0111316

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

_____ Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data)

✓ Chromatograms and external standard reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and external standard reports (chronological)

_____ Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

✓ Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

✓ Extraction bench sheets

Checked By: RPC Date: 12/4/01

2.2.7.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0111316
Blank File ID: 4L002351.R
Date Analyzed: 11/20/01
Time Analyzed: 16:32
Analyst: RDC

Work Group: WG108520
Blank Sample ID: WG108469-02
Instrument ID: HPLC4
Method: 8310

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG108469-03	4L002352.R	11/20/01 17:29	C202
002-CEF46-9I-Q4-01-10	L0111316-01	4L002353.R	11/20/01 18:25	C202
002-CEF46-12I-Q4-01-10	L0111316-02	4L002354.R	11/20/01 19:22	C202
002-CEF46-12I-Q4-01-10	L0111316-03	4L002355.R	11/20/01 20:19	C202
002-CEF46-12I-Q4-01-10	L0111316-04	4L002356.R	11/20/01 21:15	C202
002-CEF46-13I-Q4-01-10	L0111316-05	4L002357.R	11/20/01 22:12	C202
002-CEF46-14D-Q4-01-10	L0111316-06	4L002358.R	11/20/01 23:09	C202
002-CEF46-15I-Q4-01-10	L0111316-07	4L002359.R	11/21/01 00:05	C202
002-46DUP-Q4-01-10	L0111316-09	4L002360.R	11/21/01 01:02	C202
002-CEF46-1S-Q4-01-10	L0111316-10	4L002370.R	11/21/01 19:29	C202
002-CEF46-2S-Q4-01-10	L0111316-11	4L002371.R	11/21/01 20:25	C202
002-CEF46-5I-Q4-01-10	L0111316-12	4L002372.R	11/21/01 21:22	C202
002-CEF46-7I-Q4-01-10	L0111316-13	4L002373.R	11/21/01 22:19	C202
002-CEF46-6D-Q4-01-10	L0111316-14	4L002374.R	11/21/01 23:15	C202
002-CEF46-1S-Q4-01-10	L0111316-10	4L002381.R	11/22/01 05:52	C2DL02
002-CEF46-7I-Q4-01-10	L0111316-13	4L002382.R	11/22/01 06:48	C2DL02

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0111316
Instrument ID: HPLC4
File ID: 4L002351.R
Workgroup (AAB#): WG108520
Contract #:

Run Date: 11/20/2001
Run Time: 16:32
Analyst: RDC

Sample ID: WG108469-02
Method: 8310
Matrix: Water
Units: ug/L
Cal ID: HPLC4-

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Acenaphthene	.415	1	0.415	1.00	ND
Acenaphthylene	.351	1	0.351	1.00	ND
Anthracene	.285	1	0.285	1.00	ND
Benzo(a)anthracene	.03	.2	0.0300	1.00	ND
Benzo[a]pyrene	.053	.2	0.0530	1.00	ND
Benzo(b)Fluoranthene	.034	.2	0.0340	1.00	ND
Benzo[ghi]perylene	.05	.2	0.0500	1.00	ND
Benzo[k]fluoranthene	.072	.2	0.0720	1.00	ND
Chrysene	.024	.2	0.0240	1.00	ND
Dibenz(a,h)Anthracene	.077	.2	0.0770	1.00	ND
Fluoranthene	.05	.2	0.0500	1.00	ND
Fluorene	.559	1	0.559	1.00	ND
Indeno(1,2,3-cd)pyrene	.08	.2	0.0800	1.00	ND
Naphthalene	.359	1	0.359	1.00	ND
2-Methylnaphthalene	.336	1	0.336	1.00	ND
1-Methylnaphthalene	.362	1	0.362	1.00	ND
Phenanthrene	.287	1	0.287	1.00	ND
Pyrene	.068	.2	0.0680	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	98.4	40 - 132	PASS

F Analyte concentration between MDL and RDL
* Analyte detected above RDL
ND Not detected at or above the reporting limit

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0111316
Instrument ID: HPLC4
File ID: 4L002352.R
Workgroup (AAB#): WG108520
Contract #:

Run Date: 11/20/2001
Run Time: 17:29
Analyst: RDC

Sample ID: WG108469-03
Method: 8310
Matrix: Water
Units: ug/L
Cal ID: HPLC4-

Analytes	Expected	Found	% Rec	LCS Limits	Q
Acenaphthene	50	22.4	44.8	25 - 78	
Acenaphthylene	50	21.8	43.6	25 - 77	
Anthracene	50	36.6	73.2	47 - 101	
Benzo(a)anthracene	5	4.09	81.8	50 - 115	
Benzo[a]pyrene	5	3.62	72.4	29 - 113	
Benzo(b)Fluoranthene	5	3.67	73.4	41 - 110	
Benzo[ghi]perylene	5	2.36	47.2	11 - 84	
Benzo[k]fluoranthene	2.5	1.58	63.2	25 - 107	
Chrysene	5	3.70	74.0	39 - 120	
Dibenz(a,h)Anthracene	5	2.11	42.2	10 - 92	
Fluoranthene	5	3.98	79.6	55 - 104	
Fluorene	50	25.5	51.0	29 - 84	
Indeno(1,2,3-cd)pyrene	5	2.64	52.8	16 - 98	
Naphthalene	50	20.7	41.4	25 - 68	
2-Methylnaphthalene	50	21.2	42.4	26 - 72	
1-Methylnaphthalene	50	20.7	41.4	26 - 71	
Phenanthrene	50	31.9	63.8	39 - 95	
Pyrene	5	3.95	79.0	56 - 104	

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	68.8	40 - 132	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON ENVIRONMENTAL SERVICES
MS/MSD REPORT

Loginnum: L0111316 Cal ID: HPLC4- Worknum: WG108520
Instrument ID: HPLC4 Contract #: Method: 8310
Parent ID: L0111316-02 File ID: 4L002354.R Matrix: Water
Sample ID: L0111316-03 MS File ID: 4L002355.R Units: ug/L
Sample ID: L0111316-04 MSD File ID: 4L002356.R

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Naphthalene	0	51.5	29.1	56.5	51.5	25.7	49.3	12.4	25 - 68	40	
1-Methylnaphthalene	0	51.5	30	58.3	51.5	26.1	50.1	13.9	26 - 71	40	
2-Methylnaphthalene	0	51.5	30.2	58.6	51.5	26.3	50.5	13.8	26 - 72	40	
Acenaphthylene	0	51.5	32.5	63.1	51.5	28.5	54.7	13.1	25 - 77	40	
Acenaphthene	0	51.5	33.2	64.5	51.5	29.2	56.0	12.8	25 - 78	40	
Fluorene	0	51.5	35.8	69.5	51.5	32.3	62.0	10.3	29 - 84	40	
Phenanthrene	0	51.5	41.7	81.0	51.5	40.2	77.2	3.66	39 - 95	40	
Anthracene	0	51.5	41.7	81.0	51.5	39.8	76.4	4.66	47 - 101	40	
Fluoranthene	0	5.15	4.56	88.5	5.15	4.55	87.3	0.219	55 - 104	40	
Pyrene	0	5.15	4.52	87.8	5.15	4.51	86.6	0.221	56 - 104	40	
Benzo(a)anthracene	0	5.15	3.88	75.3	5.15	3.97	76.2	2.29	50 - 115	40	
Chrysene	0	5.15	2.59	50.3	5.15	2.88	55.3	10.6	39 - 120	40	
Benzo(b)fluoranthene	0	5.15	3.38	65.6	5.15	3.59	68.9	6.02	41 - 110	40	
Benzo(k)fluoranthene	0	2.58	1.45	56.2	2.58	1.62	62.3	11.0	25 - 107	40	
Benzo(a)pyrene	0	5.15	3.32	64.5	5.15	3.59	68.9	7.80	29 - 113	40	
Indeno(1,2,3-cd)pyrene	0	5.15	2.5	48.5	5.15	2.98	57.2	17.5	16 - 98	40	
Dibenzo(a,h)anthracene	0	5.15	1.75	34.0	5.15	2.36	45.3	29.6	10 - 92	40	
Benzo(g,h,i)perylene	0	5.15	2.92	56.7	5.15	3.15	60.5	7.57	11 - 84	40	

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0111316
Blank File ID: 4L002386.R
Date Analyzed: 11/26/01
Time Analyzed: 14:16
Analyst: RDC

Work Group: WG108845
Blank Sample ID: WG108715-01
Instrument ID: HPLC4
Method: 8310

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG108715-02	4L002387.R	11/26/01 15:12	C202
002-CEF46-5I-Q4-01-10	L0111316-12	4L002388.R	11/26/01 16:09	C204

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0111316
Instrument ID: HPLC4
File ID: 4L002386.R
Workgroup (AAB#): WG108845
Contract #:

Run Date: 11/26/2001
Run Time: 14:16
Analyst: RDC

Sample ID: WG108715-01
Method: 8310
Matrix: Water
Units: ug/L
Cal ID: HPLC4-

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Acenaphthene	.415	1	0.415	1.00	ND
Acenaphthylene	.351	1	0.351	1.00	ND
Anthracene	.285	1	0.285	1.00	ND
Benzo(a)anthracene	.03	.2	0.0300	1.00	ND
Benzo[a]pyrene	.053	.2	0.0530	1.00	ND
Benzo(b)Fluoranthene	.034	.2	0.0340	1.00	ND
Benzo[ghi]perylene	.05	.2	0.0500	1.00	ND
Benzo[k]fluoranthene	.072	.2	0.0720	1.00	ND
Chrysene	.024	.2	0.0240	1.00	ND
Dibenz(a,h)Anthracene	.077	.2	0.0770	1.00	ND
Fluoranthene	.05	.2	0.0500	1.00	ND
Fluorene	.559	1	0.559	1.00	ND
Indeno(1,2,3-cd)pyrene	.08	.2	0.0800	1.00	ND
Naphthalene	.359	1	0.359	1.00	ND
2-Methylnaphthalene	.336	1	0.336	1.00	ND
1-Methylnaphthalene	.362	1	0.362	1.00	ND
Phenanthrene	.287	1	0.287	1.00	ND
Pyrene	.068	.2	0.0680	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	56.3	40 - 132	PASS

F Analyte concentration between MDL and RDL
* Analyte detected above RDL
ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 10/16/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0111316
Instrument ID: HPLC4
File ID: 4L002387.R
Workgroup (AAB#): WG108845
Contract #:

Run Date: 11/26/2001
Run Time: 15:12
Analyst: RDC

Sample ID: WG108715-02
Method: 8310
Matrix: Water
Units: ug/L
Cal ID: HPLC4-

Analytes	Expected	Found	% Rec	LCS Limits	Q
Acenaphthene	50	44.4	88.8	25 - 78	*
Acenaphthylene	50	45.0	90.0	25 - 77	*
Anthracene	50	48.3	96.6	47 - 101	
Benzo(a)anthracene	5	4.78	95.6	50 - 115	
Benzo[a]pyrene	5	3.89	77.8	29 - 113	
Benzo(b)Fluoranthene	5	4.42	88.4	41 - 110	
Benzo[ghi]perylene	5	3.77	75.4	11 - 84	
Benzo[k]fluoranthene	2.5	2.09	83.6	25 - 107	
Chrysene	5	4.58	91.6	39 - 120	
Dibenz(a,h)Anthracene	5	3.62	72.4	10 - 92	
Fluoranthene	5	4.88	97.6	55 - 104	
Fluorene	50	45.8	91.6	29 - 84	*
Indeno(1,2,3-cd)pyrene	5	3.93	78.6	16 - 98	
Naphthalene	50	42.0	84.0	25 - 68	*
2-Methylnaphthalene	50	43.4	86.8	26 - 72	*
1-Methylnaphthalene	50	43.1	86.2	26 - 71	*
Phenanthrene	50	47.7	95.4	39 - 95	*
Pyrene	5	4.73	94.6	56 - 104	

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	96.1	40 - 132	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 10/16/2001
Version 1.0

2.2.7.2 Sample Data

1,1

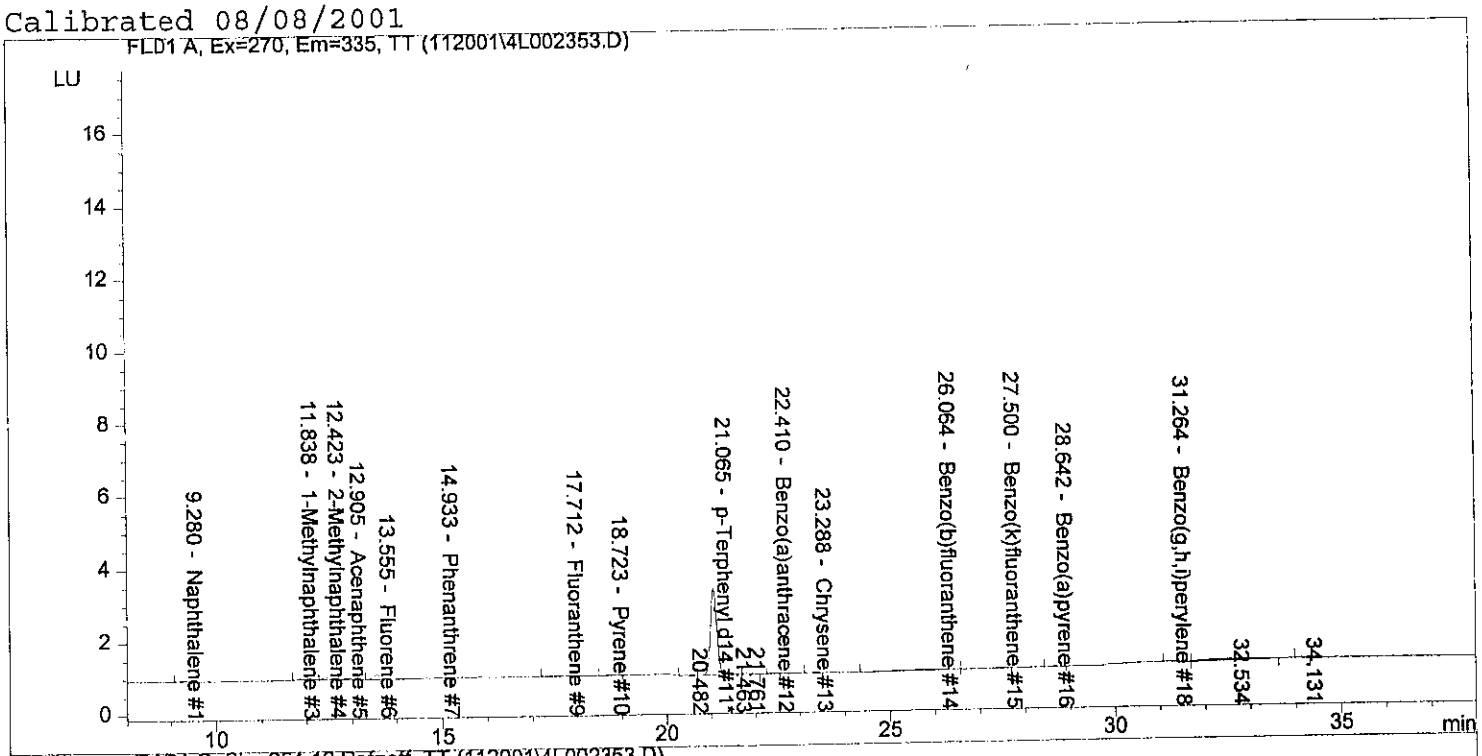
==========

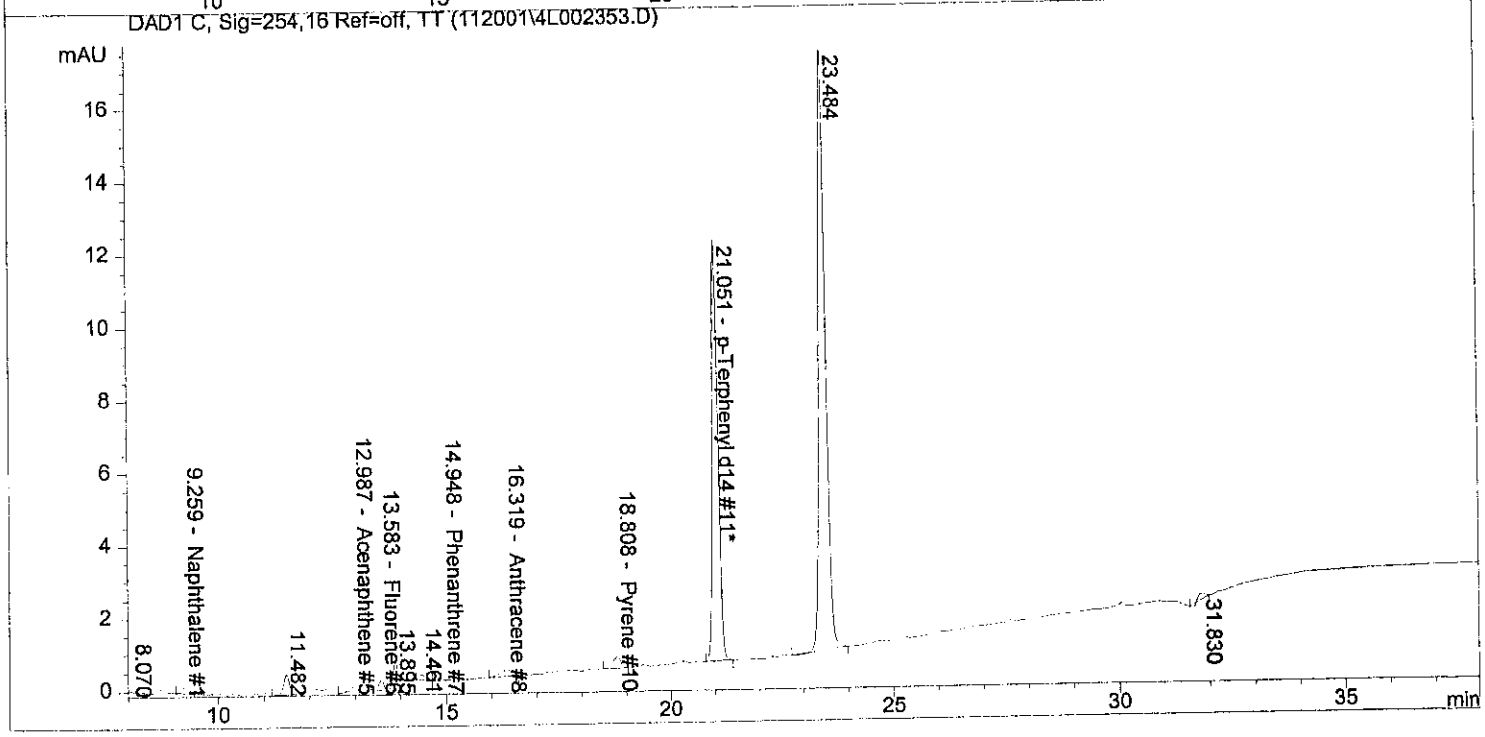
Injection Date : 11/20/2001 6:25:59 PM
Sample Name : L0111316-01 831W
Acq. Operator : RDC

Seq. Line : 5
Vial : 5
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/21/2001 11:30:15 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Tuesday, November 20, 2001 6:05:17 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.280	PB	3.69555e-1	2.52962e-2	9.34833e-3		Naphthalene #1
11.838	BB	2.53713e-1	2.21330e-2	5.61542e-3		1-Methylnaphthalene #3
12.423	BB	6.96124e-1	1.70635e-2	1.18783e-2		2-Methylnaphthalene #4
12.905	BBA	4.31614e-1	1.38416e-2	5.97421e-3		Acenaphthene #5
13.555	BBA	1.55284	6.62187e-3	1.02827e-2		Fluorene #6
14.933	BBA	6.45014e-1	1.63652e-1	1.05558e-1		Phenanthrene #7
16.338		-	-	-		Anthracene #8
17.712	BBA	5.30322e-1	2.32678e-2	1.23394e-2		Fluoranthene #9
18.723	PBA	2.35413e-1	3.86587e-2	9.10078e-3		Pyrene #10
21.065	BB	22.86540	2.97423e-1	6.80069		p-Terphenyl d14 #11*
22.410	BB	2.63416e-1	7.91256e-3	2.08430e-3		Benzo(a)anthracene #12
23.288	BB	2.29268e-1	3.90495e-2	8.95281e-3		Chrysene #13
26.064	BB	1.60367	1.63222e-2	2.61753e-2		Benzo(b)fluoranthene #14
27.500	BB	4.31202e-1	2.76572e-3	1.19258e-3		Benzo(k)fluoranthene #15
28.642	BBA	2.00875e-1	4.57119e-3	9.18238e-4		Benzo(a)pyrene #16
30.588		-	-	-		Dibenz(a,h)anthracene #17
31.264	BB	2.02456e-1	2.65165e-2	5.36842e-3		Benzo(g,h,i)perylene #18
32.374		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 7.01548

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.259	BBA	1.51337	8.25405e-3	1.24914e-2		Naphthalene #1
10.845		-	-	-		Acenaphthylene #2
11.806		-	-	-		1-Methylnaphthalene #3
12.387		-	-	-		2-Methylnaphthalene #4
12.987	BB	1.18997	2.03163e-2	2.41759e-2		Acenaphthene #5
13.583	BB	2.43838	1.75240e-2	4.27302e-2		Fluorene #6
14.948	BB	2.32461	1.72982e-2	4.02117e-2		Phenanthrene #7
16.319	PB	3.05173	1.04262e-2	3.18179e-2		Anthracene #8
17.701		-	-	-		Fluoranthene #9
18.808	BB	3.63749	1.43052e-2	5.20352e-2		Pyrene #10
21.051	BBA	104.16184	6.56733e-2	6.84065		p-Terphenyl d14 #11*
22.400		-	-	-		Benzo(a)anthracene #12
23.281		-	-	-		Chrysene #13
26.040		-	-	-		Benzo(b)fluoranthene #14
27.506		-	-	-		Benzo(k)fluoranthene #15
28.648		-	-	-		Benzo(a)pyrene #16
30.572		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.372		-	-	-		Benzo(g,h,i)perylene #18
32.318		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 7.04411

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1 L0111316-02 REF

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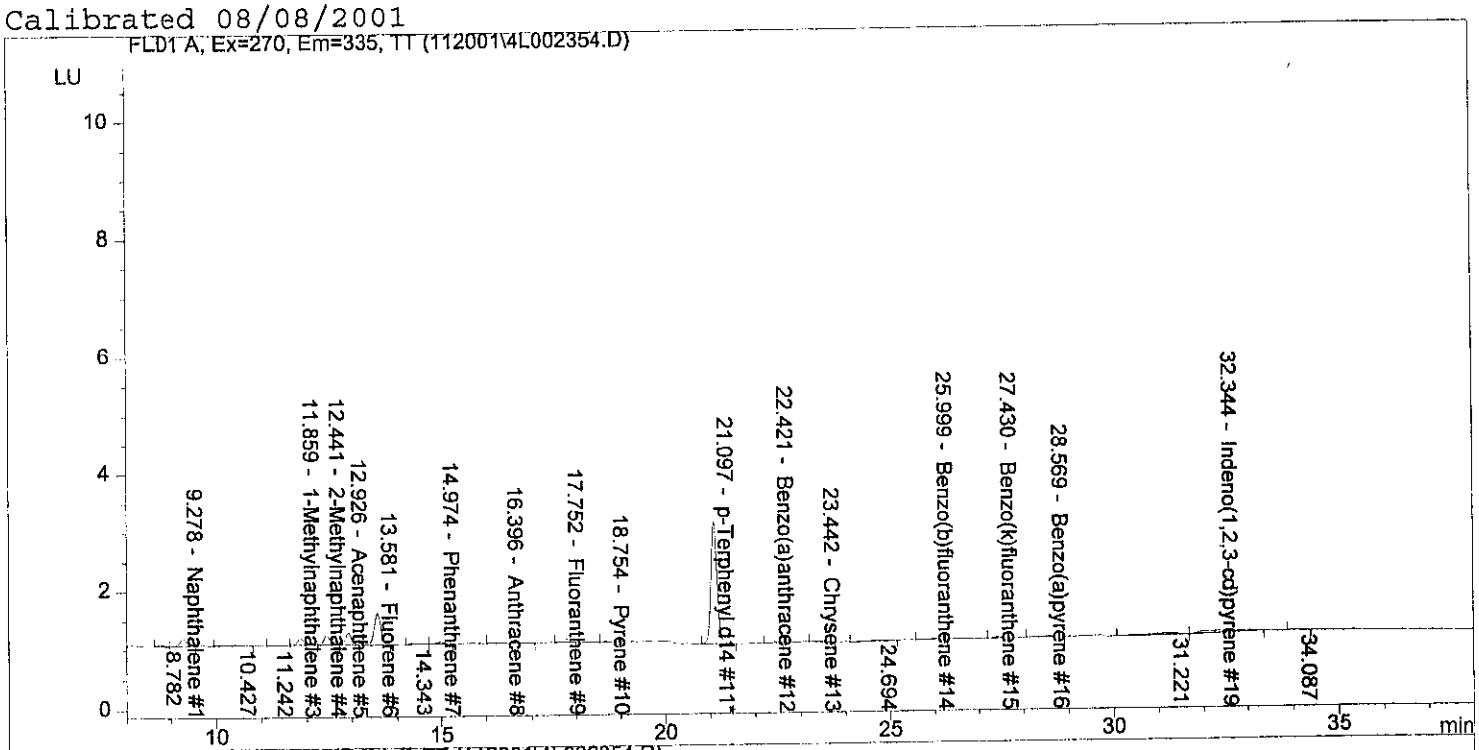
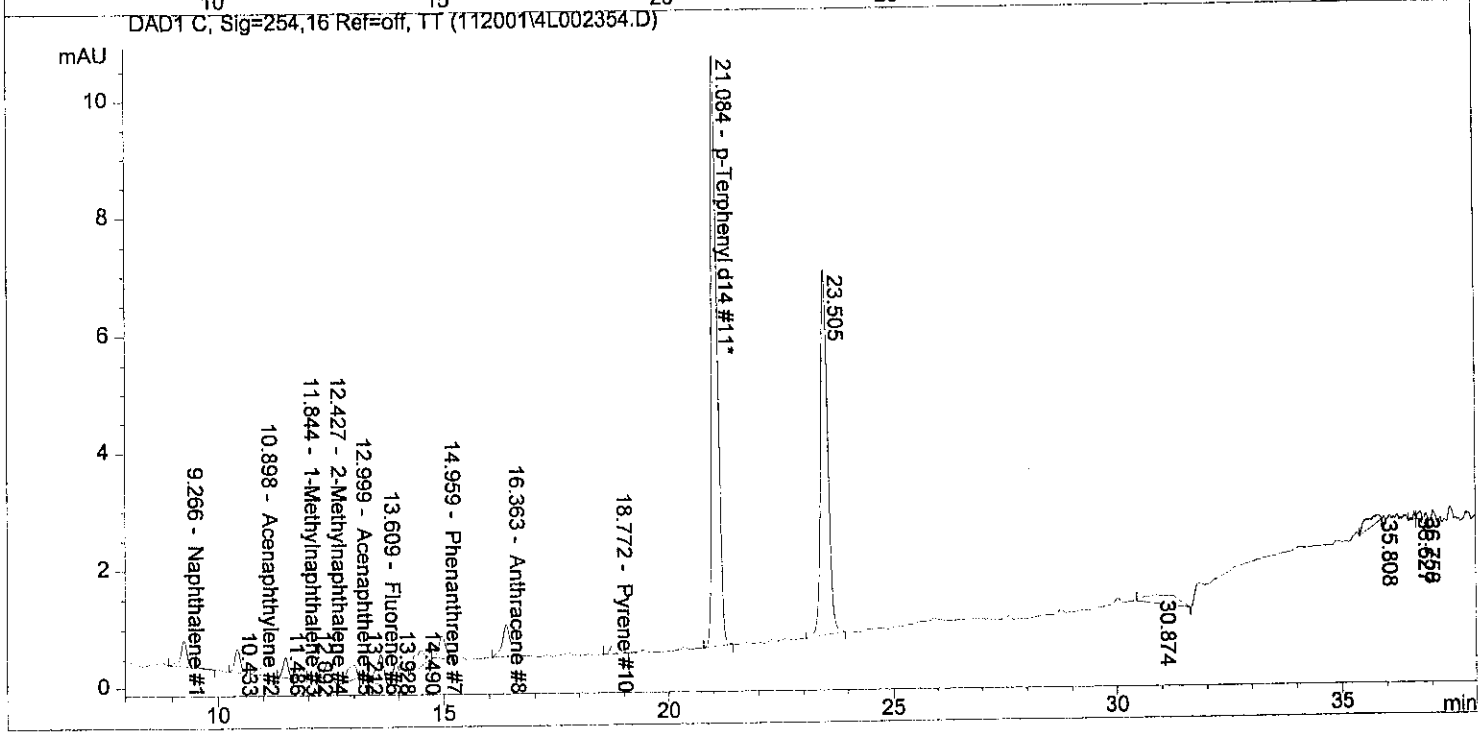
Injection Date : 11/20/2001 7:22:35 PM
Sample Name : WG108469-01 WREF
Acq. Operator : RDC

Seq. Line : 6
Vial : 6
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/21/2001 11:30:15 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Tuesday, November 20, 2001 6:05:17 PM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.278	BBA	1.45240	2.52962e-2	3.67402e-2		Naphthalene #1
11.859	BB	1.24897	2.21330e-2	2.76433e-2		1-Methylnaphthalene #3
12.441	BB	1.75250	1.70635e-2	2.99038e-2		2-Methylnaphthalene #4
12.926	BB	2.04522	1.38416e-2	2.83090e-2		Acenaphthene #5
13.581	BBA	5.55695	6.62187e-3	3.67974e-2		Fluorene #6
14.974	BB	3.34141e-1	1.63652e-1	5.46829e-2		Phenanthrene #7
16.396	BBA	2.67688e-1	3.10196e-1	8.30358e-2		Anthracene #8
17.752	BBA	6.19377e-1	2.32678e-2	1.44116e-2		Fluoranthene #9
18.754	PBA	4.21181e-1	3.86587e-2	1.62823e-2		Pyrene #10
21.097	BBA	20.39685	2.97423e-1	6.06649		p-Terphenyl d14 #11*
22.421	BB	2.84437e-1	7.91256e-3	2.25063e-3		Benzo(a)anthracene #12
23.442	BB	2.21390e-1	3.90495e-2	8.64517e-3		Chrysene #13
25.999	BBA	2.80764e-1	1.63222e-2	4.58269e-3		Benzo(b)fluoranthene #14
27.430	PBA	3.32724e-1	2.76572e-3	9.20220e-4		Benzo(k)fluoranthene #15
28.569	BBA	2.71431e-1	4.57119e-3	1.24076e-3		Benzo(a)pyrene #16
30.588		-	-	-		Dibenz(a,h)anthracene #17
31.390		-	-	-		Benzo(g,h,i)perylene #18
32.344	BBA	2.33914	1.38204e-2	3.23278e-2		Indeno(1,2,3-cd)pyrene #1
Totals :				6.44426		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.266	BBA	4.49076	8.25405e-3	3.70670e-2	LMDL	Naphthalene #1
10.898	BB	1.90773	2.96975e-2	5.66548e-2		Acenaphthylene #2
11.844	BB	1.65631	1.29459e-2	2.14424e-2		1-Methylnaphthalene #3
12.427	BB	3.10140	1.12393e-2	3.48575e-2		2-Methylnaphthalene #4
12.999	BB	3.78614	2.03163e-2	7.69205e-2		Acenaphthene #5
13.609	BB	5.97794	1.75240e-2	1.04758e-1		Fluorene #6
14.959	BB	3.96605	1.72982e-2	6.86058e-2		Phenanthrene #7
16.363	BBA	7.17192	1.04262e-2	7.47758e-2		Anthracene #8
17.701		-	-	-		Fluoranthene #9
18.772	BBA	2.32712	1.43052e-2	3.32900e-2		Pyrene #10
21.084	PBA	89.90574	6.56733e-2	5.90440		p-Terphenyl d14 #11*
22.400		-	-	-	59.0%	Benzo(a)anthracene #12
23.281		-	-	-		Chrysene #13
26.040		-	-	-		Benzo(b)fluoranthene #14
27.506		-	-	-		Benzo(k)fluoranthene #15
28.648		-	-	-		Benzo(a)pyrene #16
30.572		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.372		-	-	-		Benzo(g,h,i)perylene #18
32.318		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 6.41277

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1 L0111316-03 MS

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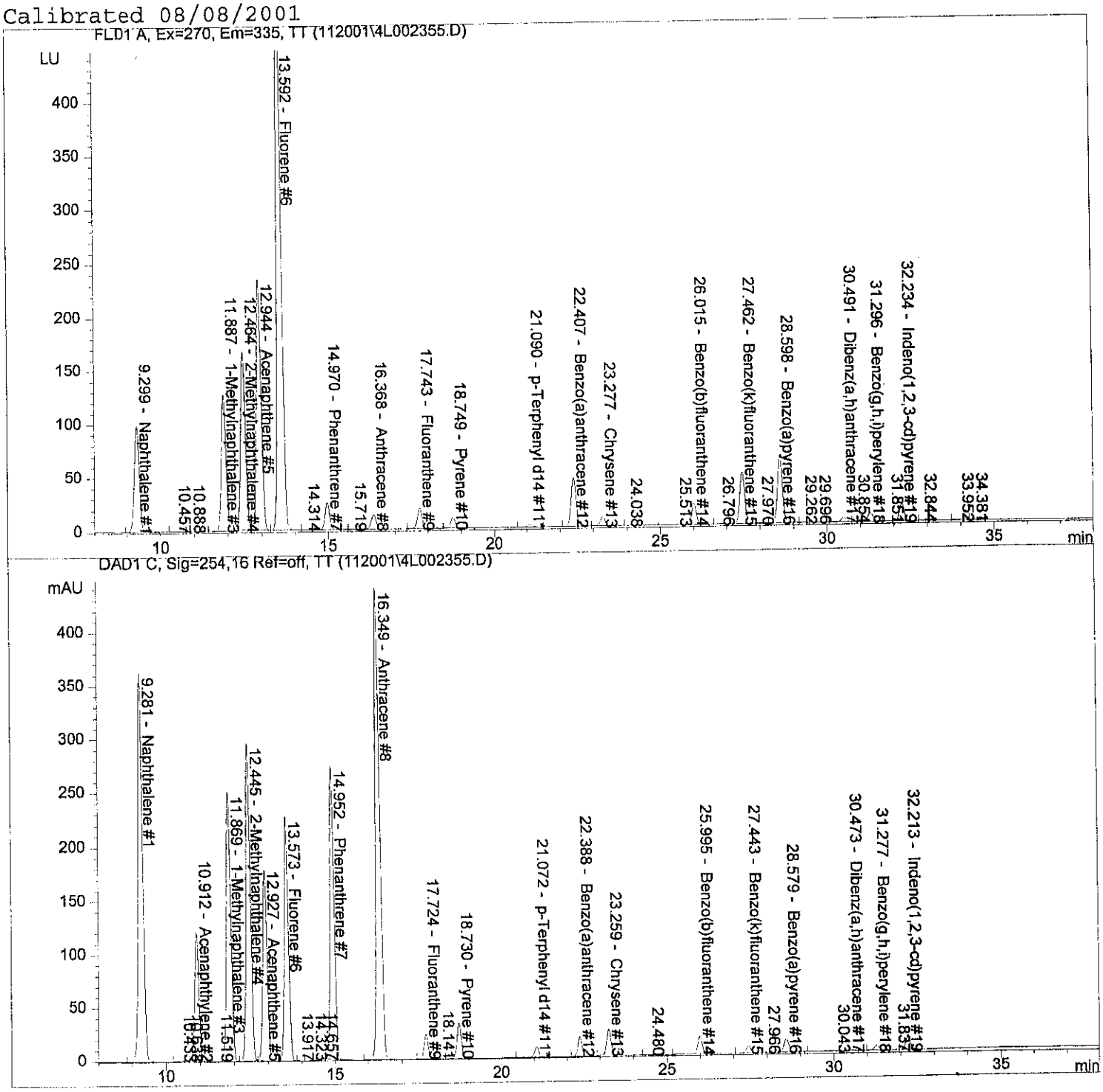
Injection Date : 11/20/2001 8:19:13 PM
Sample Name : WG108469-04 WMS
Acq. Operator : RDC

Seq. Line : 7
Vial : 7
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/21/2001 11:30:15 AM by RDC
(modified after loading)

Calibrated 08/08/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : Tuesday, November 20, 2001 6:05:17 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.299	BBA	992.64136	2.52962e-2	25.11005		Naphthalene #1
11.887	BB	1232.78784	2.21330e-2	27.28524		1-Methylnaphthalene #3
12.464	BB	1595.34290	1.70635e-2	27.22212		2-Methylnaphthalene #4
12.944	BB	2255.55444	1.38416e-2	31.22040		Acenaphthene #5
13.592	BB	5403.40381	6.62187e-3	35.78062		Fluorene #6
14.970	BB	230.09314	1.63652e-1	37.65526		Phenanthrene #7
16.368	BB	126.44375	3.10196e-1	39.22239		Anthracene #8
17.743	BBA	181.49680	2.32678e-2	4.22304		Fluoranthene #9
18.749	BBA	101.25146	3.86587e-2	3.91425		Pyrene #10
21.090	PBA	19.81145	2.97423e-1	5.89238	58.9%	p-Terphenyl d14 #11*
22.407	BB	448.65125	7.91256e-3	3.54998		Benzo(a)anthracene #12
23.277	BB	85.08488	3.90495e-2	3.32253		Chrysene #13
26.015	BBA	195.23997	1.63222e-2	3.18674		Benzo(b)fluoranthene #14
27.462	PB	498.60294	2.76572e-3	1.37899		Benzo(k)fluoranthene #15
28.598	BB	667.25470	4.57119e-3	3.05015		Benzo(a)pyrene #16
30.491	BB	41.22201	3.93496e-2	1.62207		Dibenz(a,h)anthracene #17
31.296	BB	89.62238	2.65165e-2	2.37647		Benzo(g,h,i)perylene #18
32.234	BB	170.05286	1.38204e-2	2.35020		Indeno(1,2,3-cd)pyrene #1

Totals : 258.36287

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.281	BB	3414.33472	8.25405e-3	28.18209		Naphthalene #1
10.912	BB	1061.51978	2.96975e-2	31.52450		Acenaphthylene #2
11.869	BB	2245.22925	1.29459e-2	29.06642		1-Methylnaphthalene #3
12.445	BB	2607.55444	1.12393e-2	29.30703		2-Methylnaphthalene #4
12.927	BB	1583.71301	2.03163e-2	32.17526		Acenaphthene #5
13.573	BB	1983.24792	1.75240e-2	34.75444		Fluorene #6
14.952	BBA	2339.17188	1.72982e-2	40.46356		Phenanthrene #7
16.349	PBA	3882.84570	1.04262e-2	40.48326		Anthracene #8
17.724	PB	204.01529	2.17006e-2	4.42725		Fluoranthene #9
18.730	BBA	306.53888	1.43052e-2	4.38511		Pyrene #10
21.072	BBA	89.24963	6.56733e-2	5.86131	58.6%	p-Terphenyl d14 #11*
22.388	BBA	169.19714	2.22694e-2	3.76792		Benzo(a)anthracene #12
23.259	PB	165.78253	1.51453e-2	2.51083		Chrysene #13
25.995	BBA	158.06409	2.07330e-2	3.27714		Benzo(b)fluoranthene #14
27.443	BB	62.25261	2.25837e-2	1.40589		Benzo(k)fluoranthene #15
28.579	BBA	123.20100	2.61680e-2	3.22393		Benzo(a)pyrene #16
30.473	BB	18.01263	9.41116e-2	1.69520		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.277	BB	50.56209	5.60829e-2	2.83567		Benzo(g,h,i)perylene #18
32.213	BB	117.83762	2.05608e-2	2.42283		Indeno(1,2,3-cd)pyrene #1

Totals : 301.76965

Results obtained with enhanced integrator!

*** End of Report ***

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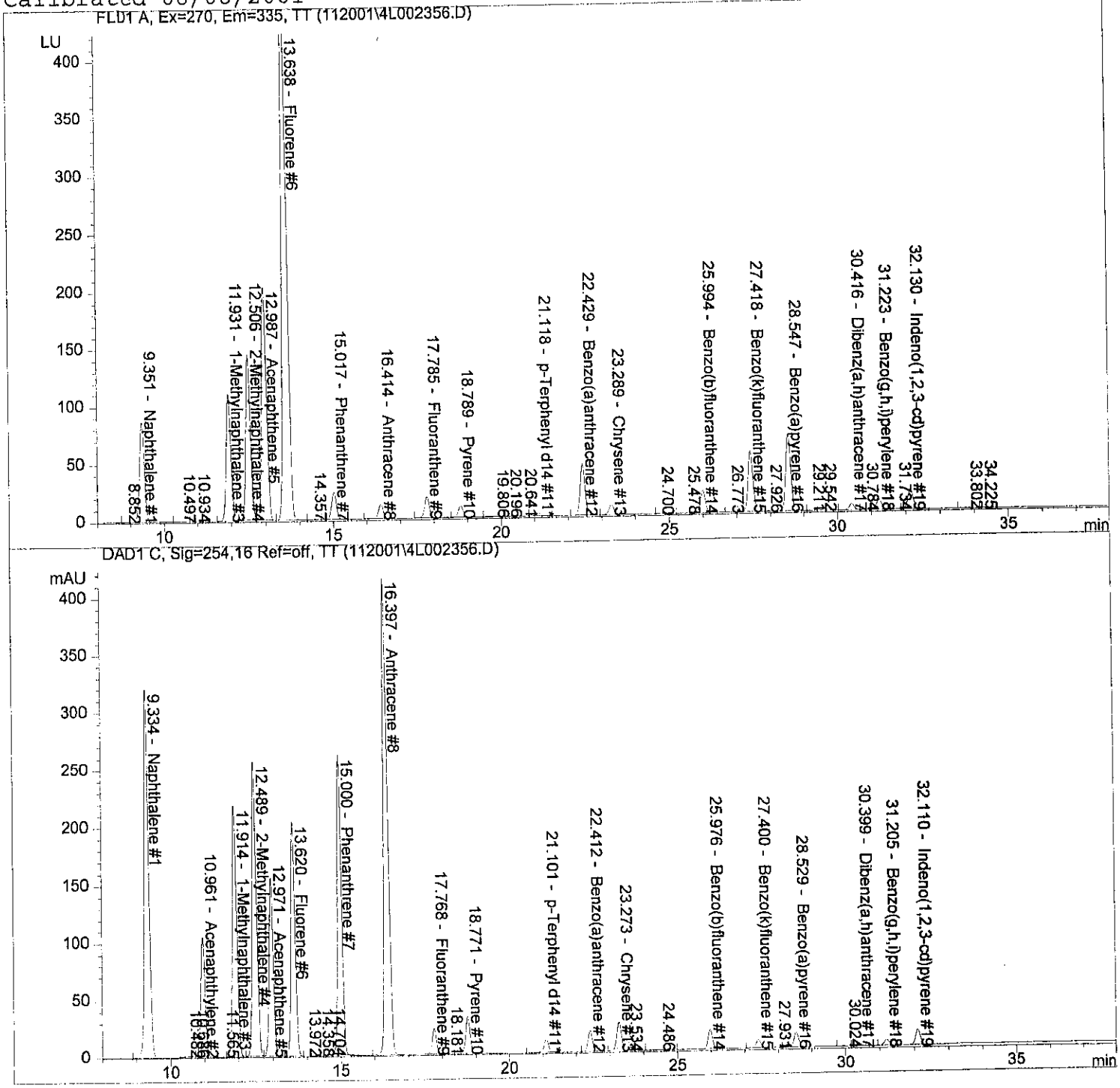
Injection Date : 11/20/2001 9:15:48 PM
Sample Name : WG108469-05 WMSD
Acq. Operator : RDC

Seq. Line : 8
Vial : 8
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/21/2001 12:23:37 PM by RDC
(modified after loading)

Calibrated 08/08/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, November 21, 2001 12:23:37 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.351	BBA	867.93384	2.52962e-2	21.95542		Naphthalene #1
11.931	BB	1060.01550	2.21330e-2	23.46127		1-Methylnaphthalene #3
12.506	BB	1371.38623	1.70635e-2	23.40064		2-Methylnaphthalene #4
12.987	BB	1959.45203	1.38416e-2	27.12188		Acenaphthene #5
13.638	BB	4803.94873	6.62187e-3	31.81111		Fluorene #6
15.017	BBA	218.45543	1.63652e-1	35.75072		Phenanthrene #7
16.414	BB	118.78474	3.10196e-1	36.84659		Anthracene #8
17.785	BBA	179.21442	2.32678e-2	4.16993		Fluoranthene #9
18.789	BB	99.20512	3.86587e-2	3.83514		Pyrene #10
21.118	BBA	23.74779	2.97423e-1	7.06313 106%		p-Terphenyl d14 #11*
22.429	BB	450.44672	7.91256e-3	3.56419		Benzo(a)anthracene #12
23.289	BB	88.44083	3.90495e-2	3.45357		Chrysene #13
25.994	BB	202.67084	1.63222e-2	3.30803		Benzo(b)fluoranthene #14
27.418	BB	554.34387	2.76572e-3	1.53316		Benzo(k)fluoranthene #15
28.547	BB	708.52380	4.57119e-3	3.23880		Benzo(a)pyrene #16
30.416	BB	55.61493	3.93496e-2	2.18842		Dibenz(a,h)anthracene #17
31.223	BB	97.35340	2.65165e-2	2.58147		Benzo(g,h,i)perylene #18
32.130	BB	198.01839	1.38204e-2	2.73669		Indeno(1,2,3-cd)pyrene #1
Totals :				238.02018		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.334	BBA	2988.90601	8.25405e-3	24.67058		Naphthalene #1
10.961	BB	920.81421	2.96975e-2	27.34589		Acenaphthylene #2
11.914	BB	1935.86096	1.29459e-2	25.06138		1-Methylnaphthalene #3
12.489	BB	2248.41821	1.12393e-2	25.27060		2-Methylnaphthalene #4
12.971	BB	1379.02087	2.03163e-2	28.01666		Acenaphthene #5
13.620	BB	1767.02795	1.75240e-2	30.96541		Fluorene #6
15.000	BBA	2231.06348	1.72982e-2	38.59348		Phenanthrene #7
16.397	PBA	3666.89111	1.04262e-2	38.23168		Anthracene #8
17.768	PB	201.14537	2.17006e-2	4.36497		Fluoranthene #9
18.771	BBA	302.75580	1.43052e-2	4.33100		Pyrene #10
21.101	BBA	105.72732	6.56733e-2	6.94346 69.4%		p-Terphenyl d14 #11*
22.412	BBA	170.93541	2.22694e-2	3.80663		Benzo(a)anthracene #12
23.273	PB	182.24939	1.51453e-2	2.76022		Chrysene #13
25.976	BBA	166.01118	2.07330e-2	3.44191		Benzo(b)fluoranthene #14
27.400	BB	68.95609	2.25837e-2	1.55728		Benzo(k)fluoranthene #15
28.529	BBA	131.65053	2.61680e-2	3.44503		Benzo(a)pyrene #16
30.399	BB	24.10242	9.41116e-2	2.26832		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.205	BB	53.93540	5.60829e-2	3.02486		Benzo(g,h,i)perylene #18
32.110	BB	139.35568	2.05608e-2	2.86526		Indeno(1,2,3-cd)pyrene #1

Totals : 276.96461

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

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*** End of Report ***

1,1

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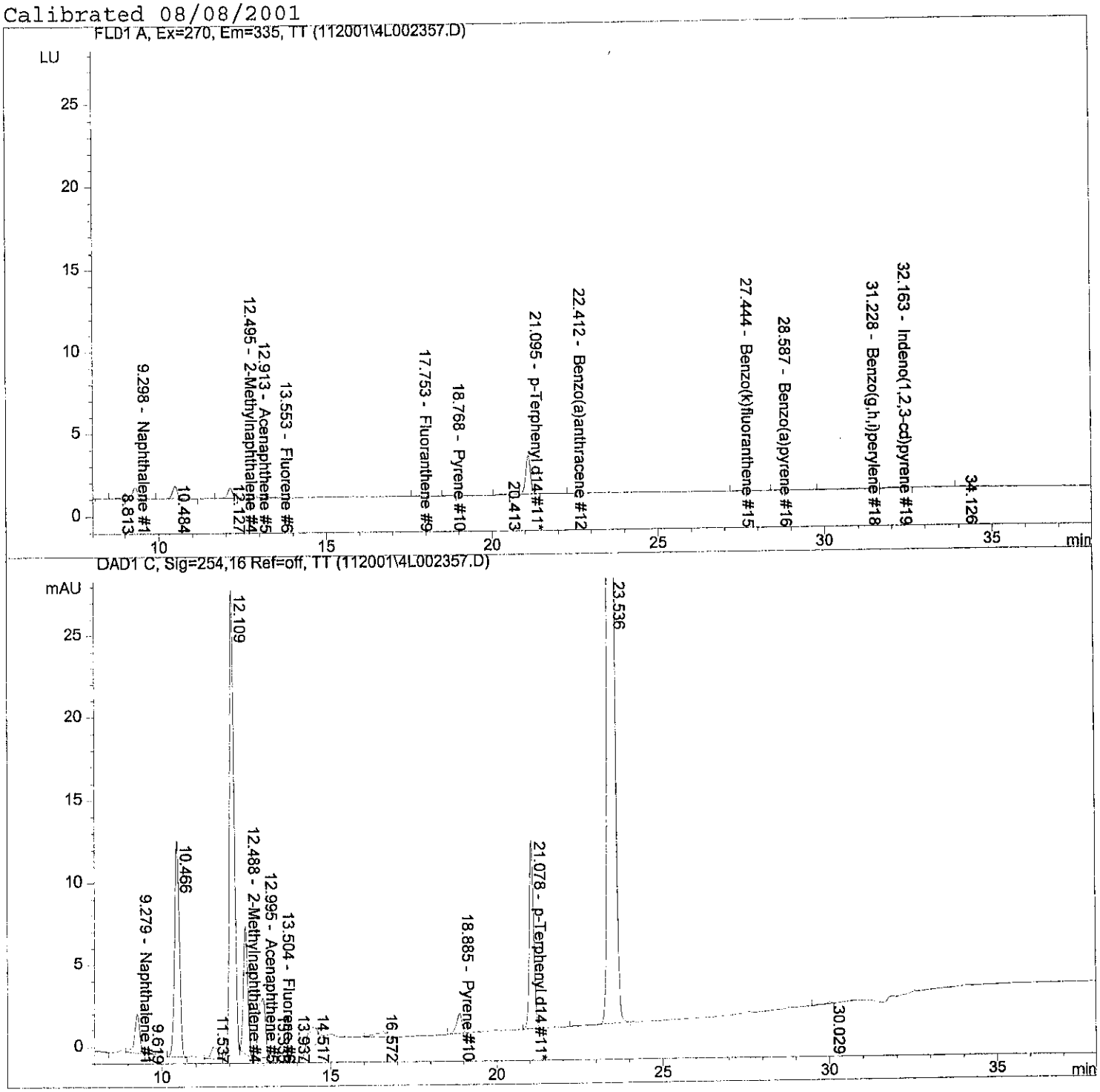
Injection Date : 11/20/2001 10:12:26 PM
Sample Name : L0111316-05 831W
Acq. Operator : RDC

Seq. Line : 9
Vial : 9
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/21/2001 12:23:37 PM by RDC
(modified after loading)

Calibrated 08/08/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, November 21, 2001 12:23:37 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.298	BB	7.33560	2.52962e-2	1.85563e-1		Naphthalene #1
11.821		-	-	-		1-Methylnaphthalene #3
12.495	BB	4.29856e-1	1.70635e-2	7.33485e-3		2-Methylnaphthalene #4
12.913	BB	1.43965	1.38416e-2	1.99270e-2		Acenaphthene #5
13.553	BB	1.59387	6.62187e-3	1.05544e-2		Fluorene #6
14.927		-	-	-		Phenanthrene #7
16.338		-	-	-		Anthracene #8
17.753	BBA	3.95363e-1	2.32678e-2	9.19926e-3		Fluoranthene #9
18.768	BBA	3.86514e-1	3.86587e-2	1.49421e-2		Pyrene #10
21.095	BBA	23.58240	2.97423e-1	7.01394		p-Terphenyl d14 #11*
22.412	BB	1.70608e-1	7.91256e-3	1.34994e-3		Benzo(a)anthracene #12
23.297		-	-	-		Chrysene #13
26.057		-	-	-		Benzo(b)fluoranthene #14
27.444	BBA	2.75091e-1	2.76572e-3	7.60823e-4		Benzo(k)fluoranthene #15
28.587	BB	2.26190e-1	4.57119e-3	1.03396e-3		Benzo(a)pyrene #16
30.588		-	-	-		Dibenz(a,h)anthracene #17
31.228	PB	1.10116	2.65165e-2	2.91990e-2		Benzo(g,h,i)perylene #18
32.163	BB	1.00610	1.38204e-2	1.39047e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 7.30771

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.279	BB	24.87847	8.25405e-3	2.05348e-1	mol	Naphthalene #1
10.845		-	-	-		Acenaphthylene #2
11.806		-	-	-		1-Methylnaphthalene #3
12.488	BB	70.83626	1.12393e-2	7.96148e-1	NC	2-Methylnaphthalene #4
12.995	BB	56.18571	2.03163e-2	1.14149	NC	Acenaphthene #5
13.504	BB	1.69786	1.75240e-2	2.97532e-2	mol	Fluorene #6
14.911		-	-	-		Phenanthrene #7
16.322		-	-	-		Anthracene #8
17.701		-	-	-		Fluoranthene #9
18.885	PBA	14.69878	1.43052e-2	2.10270e-1	NC	Pyrene #10
21.078	PBA	105.22385	6.56733e-2	6.91039		p-Terphenyl d14 #11*
22.400		-	-	-		Benzo(a)anthracene #12
23.281		-	-	-	69.1%	Chrysene #13
26.040		-	-	-		Benzo(b)fluoranthene #14
27.506		-	-	-		Benzo(k)fluoranthene #15
28.648		-	-	-		Benzo(a)pyrene #16
30.572		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.372		-	-	-		Benzo(g,h,i)perylene #18
32.318		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 9.29340

Results obtained with enhanced integrator!
3 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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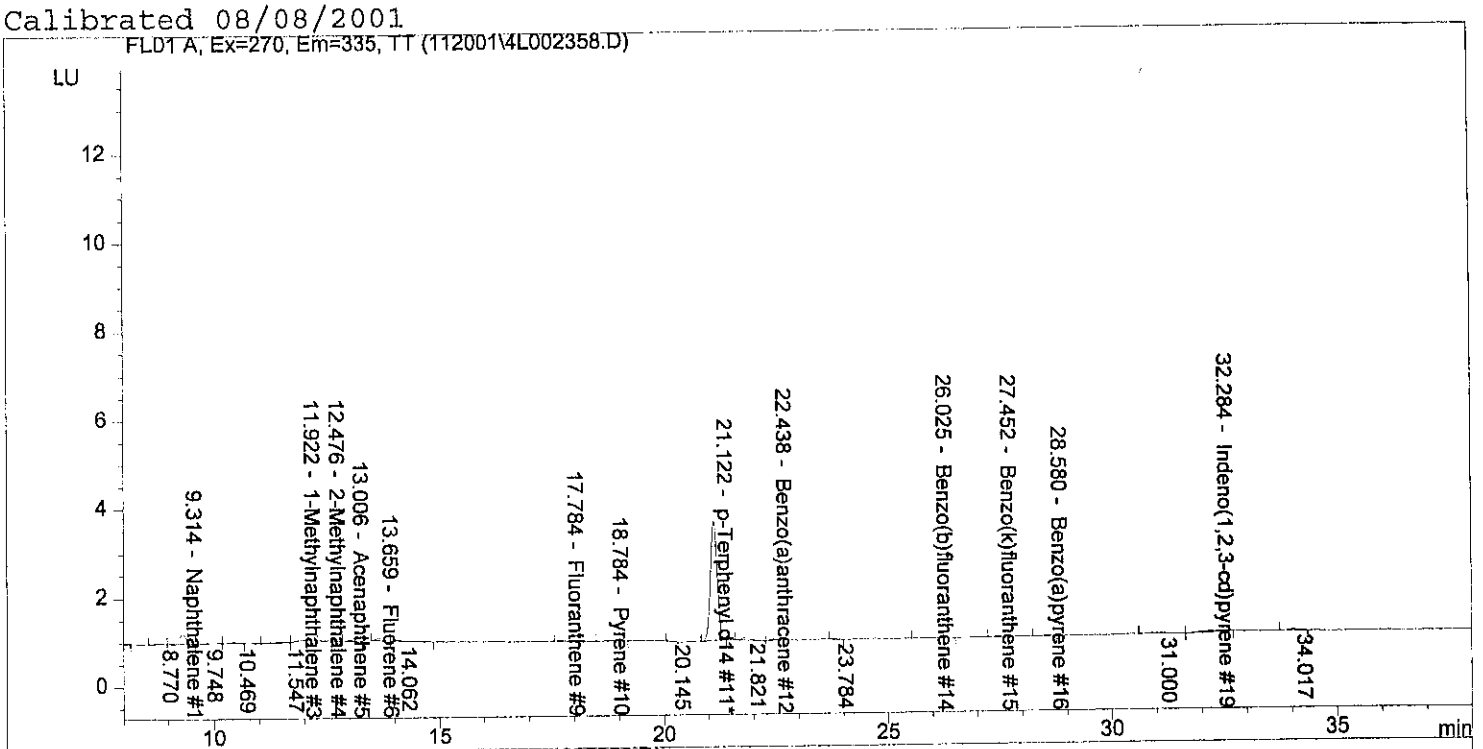
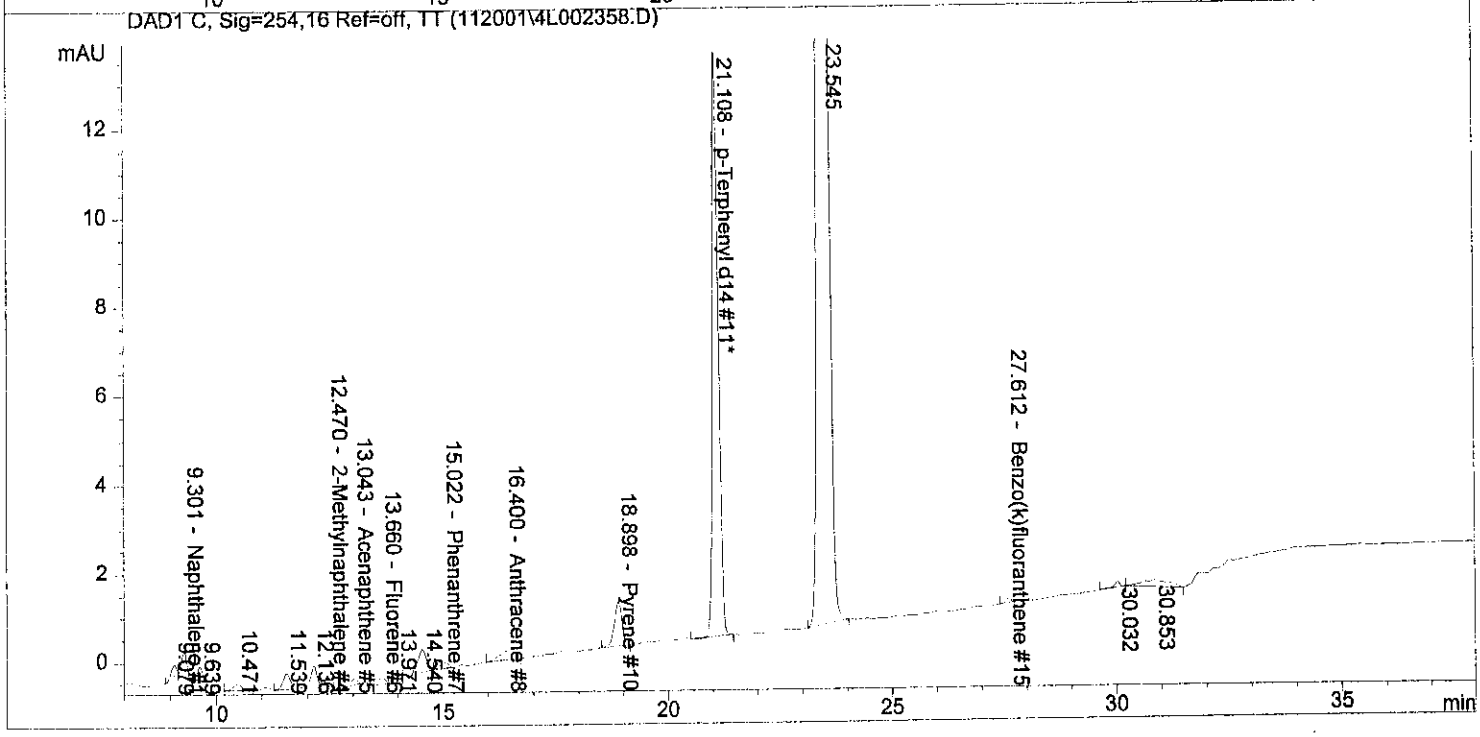
Injection Date : 11/20/2001 11:09:09 PM
Sample Name : L0111316-06 831W
Acq. Operator : RDC

Seq. Line : 10
Vial : 10
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/21/2001 12:23:37 PM by RDC
(modified after loading)

Calibrated 08/08/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Wednesday, November 21, 2001 12:23:37 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.314	BB	2.75488	2.52962e-2	6.96879e-2		Naphthalene #1
11.922	BB	3.13570e-1	2.21330e-2	6.94024e-3		1-Methylnaphthalene #3
12.476	BB	1.01480	1.70635e-2	1.73161e-2		2-Methylnaphthalene #4
13.006	BB	2.90027e-1	1.38416e-2	4.01443e-3		Acenaphthene #5
13.659	BB	5.69373e-1	6.62187e-3	3.77031e-3		Fluorene #6
14.927		-	-	-		Phenanthrene #7
16.338		-	-	-		Anthracene #8
17.784	BBA	4.04667e-1	2.32678e-2	9.41574e-3		Fluoranthene #9
18.784	PBA	2.84395e-1	3.86587e-2	1.09943e-2		Pyrene #10
21.122	BB	27.38585	2.97423e-1	8.14518		p-Terphenyl d14 #11*
22.438	BB	2.82399e-1	7.91256e-3	2.23450e-3		Benzo(a)anthracene #12
23.297		-	-	-		Chrysene #13
26.025	BBA	1.74880e-1	1.63222e-2	2.85442e-3		Benzo(b)fluoranthene #14
27.452	PBA	2.55120e-1	2.76572e-3	7.05590e-4		Benzo(k)fluoranthene #15
28.580	BBA	2.24979e-1	4.57119e-3	1.02842e-3		Benzo(a)pyrene #16
30.588		-	-	-		Dibenz(a,h)anthracene #17
31.390		-	-	-		Benzo(g,h,i)perylene #18
32.284	BB	1.18456	1.38204e-2	1.63711e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 8.29051

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.301	BB	4.44170	8.25405e-3	3.66620e-2	MDL	Naphthalene #1
10.845		-	-	-		Acenaphthylene #2
11.806		-	-	-		1-Methylnaphthalene #3
12.470	BB	2.47020	1.12393e-2	2.77633e-2		2-Methylnaphthalene #4
13.043	BB	1.71046	2.03163e-2	3.47503e-2		Acenaphthene #5
13.660	BB	2.31207	1.75240e-2	4.05167e-2		Fluorene #6
15.022	BB	1.61896	1.72982e-2	2.80052e-2		Phenanthrene #7
16.400	BBA	4.51212	1.04262e-2	4.70442e-2		Anthracene #8
17.701		-	-	-		Fluoranthene #9
18.898	BB	12.01522	1.43052e-2	1.71881e-1	NC	Pyrene #10
21.108	BBA	121.88150	6.56733e-2	8.00435		p-Terphenyl d14 #11*
22.400		-	-	-	80.0%	Benzo(a)anthracene #12
23.281		-	-	-		Chrysene #13
26.040		-	-	-		Benzo(b)fluoranthene #14
27.612	PBA	8.63478e-1	2.25837e-2	1.95005e-2	MDL	Benzo(k)fluoranthene #15
28.648		-	-	-		Benzo(a)pyrene #16
30.572		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.372		-	-	-		Benzo(g,h,i)perylene #18
32.318		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.41048

Results obtained with enhanced integrator!
3 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1

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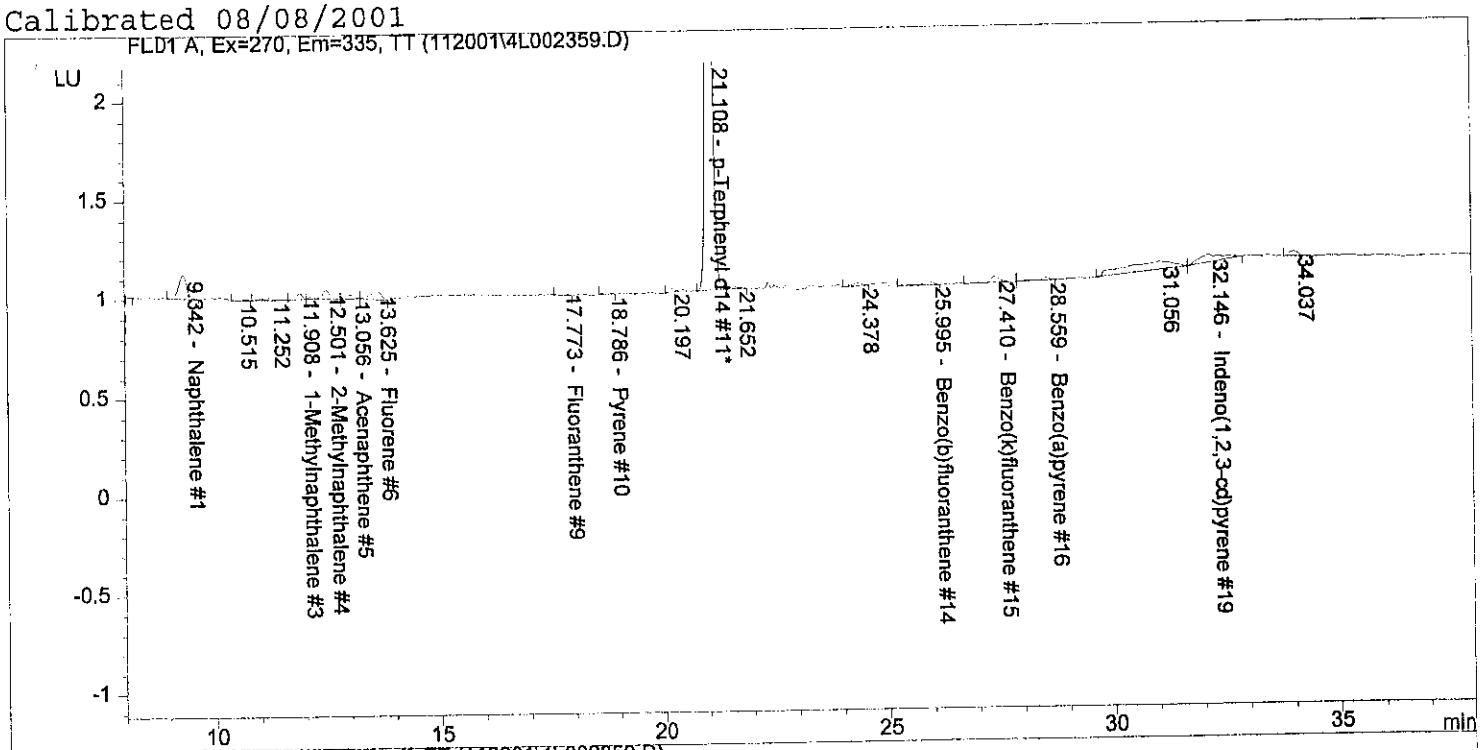
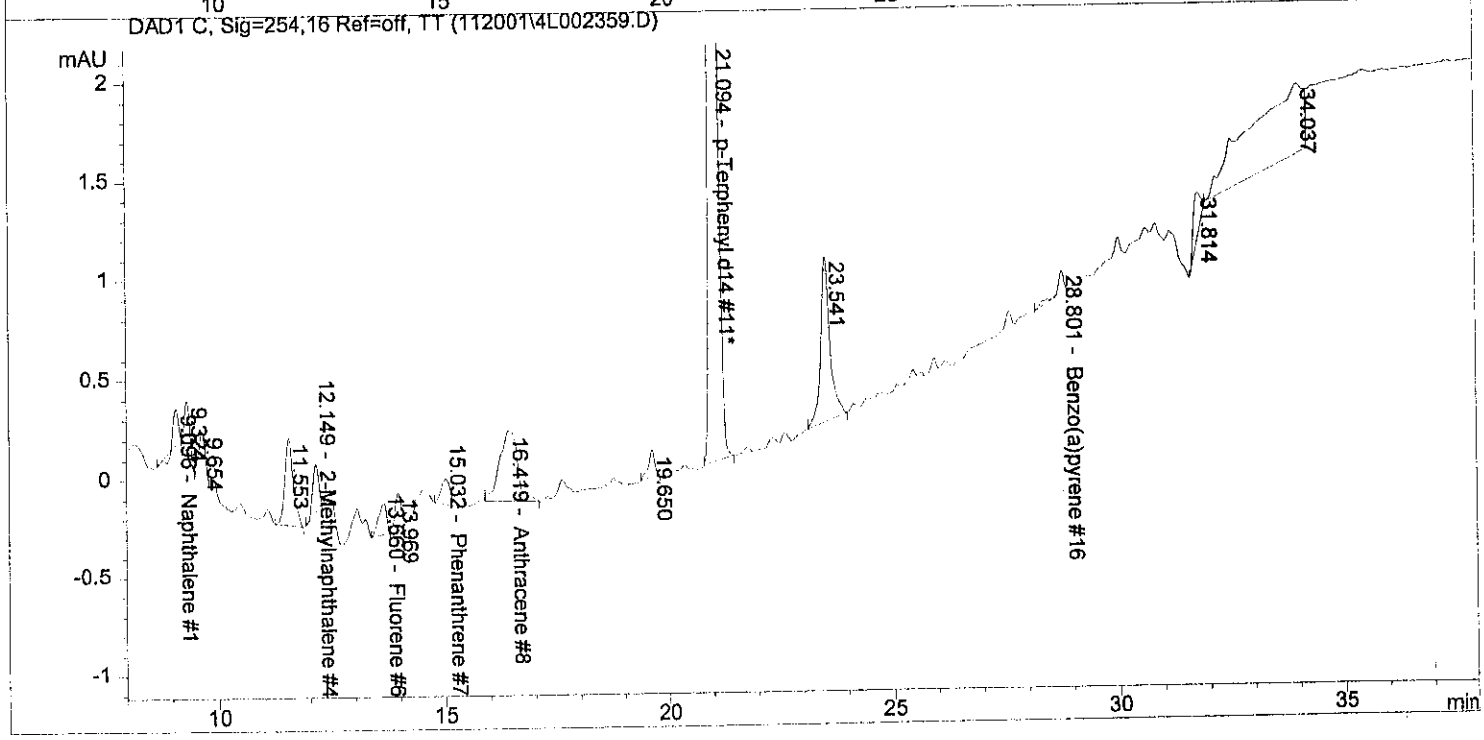
Injection Date : 11/21/2001 12:05:47 AM
Sample Name : L0111316-07 831W
Acq. Operator : RDC

Seq. Line : 11
Vial : 11
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/21/2001 12:23:37 PM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Wednesday, November 21, 2001 12:23:37 PM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.342	BB	1.53177	2.52962e-2	3.87480e-2		Naphthalene #1
11.908	BB	3.54391e-1	2.21330e-2	7.84372e-3		1-Methylnaphthalene #3
12.501	BB	7.56874e-1	1.70635e-2	1.29149e-2		2-Methylnaphthalene #4
13.056	BB	2.95316e-1	1.38416e-2	4.08764e-3		Acenaphthene #5
13.625	BB	7.95096e-1	6.62187e-3	5.26502e-3		Fluorene #6
14.927		-	-	-		Phenanthrene #7
16.338		-	-	-		Anthracene #8
17.773	BB	3.37486e-1	2.32678e-2	7.85257e-3		Fluoranthene #9
18.786	BBA	1.64082e-1	3.86587e-2	6.34318e-3		Pyrene #10
21.108	BB	28.26710	2.97423e-1	8.40728		p-Terphenyl d14 #11*
22.416		-	-	-		Benzo(a)anthracene #12
23.297		-	-	-		Chrysene #13
25.995	BB	3.66755e-1	1.63222e-2	5.98625e-3		Benzo(b)fluoranthene #14
27.410	PB	4.27447e-1	2.76572e-3	1.18220e-3		Benzo(k)fluoranthene #15
28.559	BB	2.07436e-1	4.57119e-3	9.48229e-4		Benzo(a)pyrene #16
30.588		-	-	-		Dibenz(a,h)anthracene #17
31.390		-	-	-		Benzo(g,h,i)perylene #18
32.146	BB	1.45081	1.38204e-2	2.00508e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 8.51850

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.096	PB	1.09970	8.25405e-3	9.07700e-3		Naphthalene #1
10.845		-	-	-		Acenaphthylene #2
11.806		-	-	-		1-Methylnaphthalene #3
12.149	PB	2.14624	1.12393e-2	2.41222e-2		2-Methylnaphthalene #4
12.870		-	-	-		Acenaphthene #5
13.660	BB	2.09096	1.75240e-2	3.66421e-2		Fluorene #6
15.032	BBA	1.81461	1.72982e-2	3.13896e-2		Phenanthrene #7
16.419	BBA	9.90246	1.04262e-2	1.03245e-1		Anthracene #8
17.701		-	-	-		Fluoranthene #9
18.711		-	-	-		Pyrene #10
21.094	BBA	127.44366	6.56733e-2	8.36964		p-Terphenyl d14 #11*
22.400		-	-	-		Benzo(a)anthracene #12
23.281		-	-	-		Chrysene #13
26.040		-	-	-		Benzo(b)fluoranthene #14
27.506		-	-	-		Benzo(k)fluoranthene #15
28.801	PB	9.97458e-1	2.61680e-2	2.61015e-2		Benzo(a)pyrene #16
30.572		-	-	-		Dibenz(a,h)anthracene #17

83.7%

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.372		-	-	-		Benzo(g,h,i)perylene #18
32.318		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.60022

Results obtained with enhanced integrator!
3 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1

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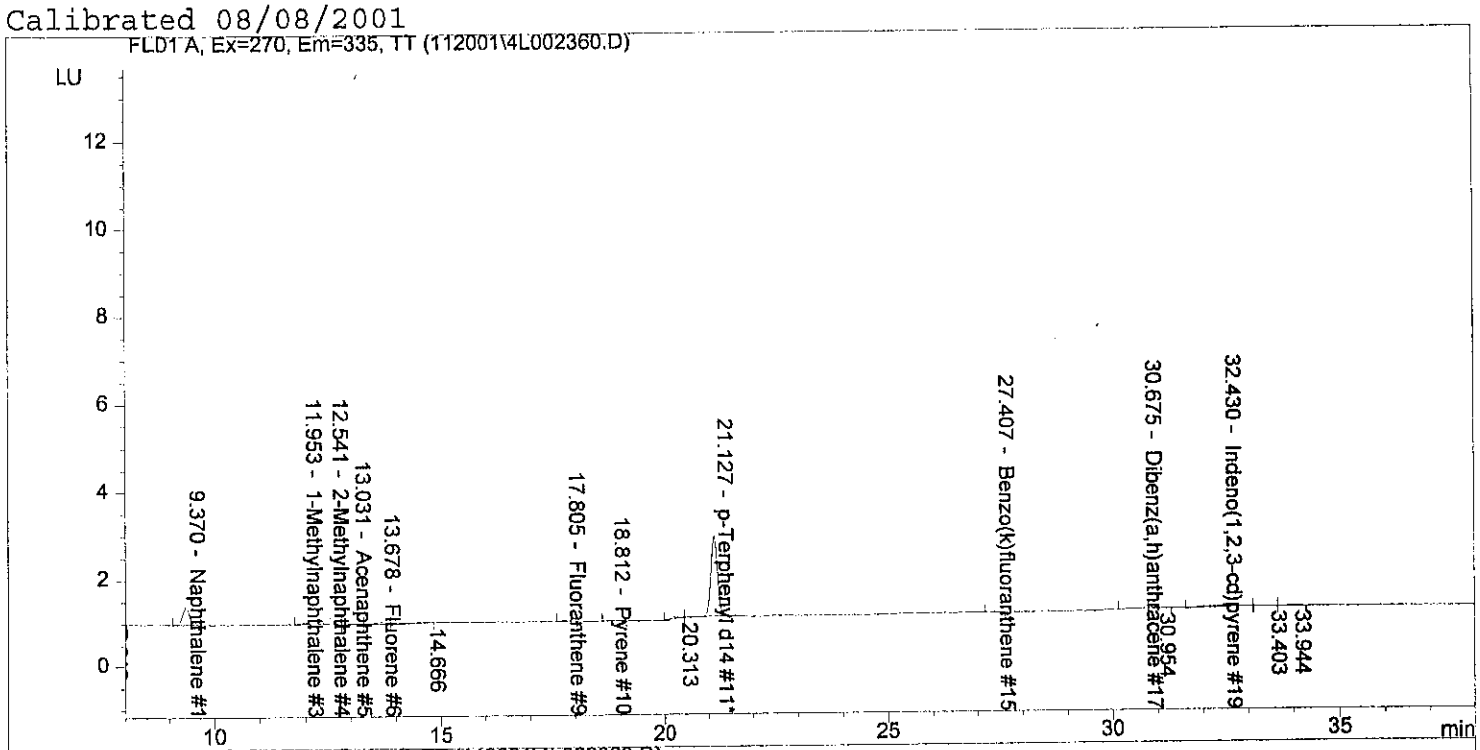
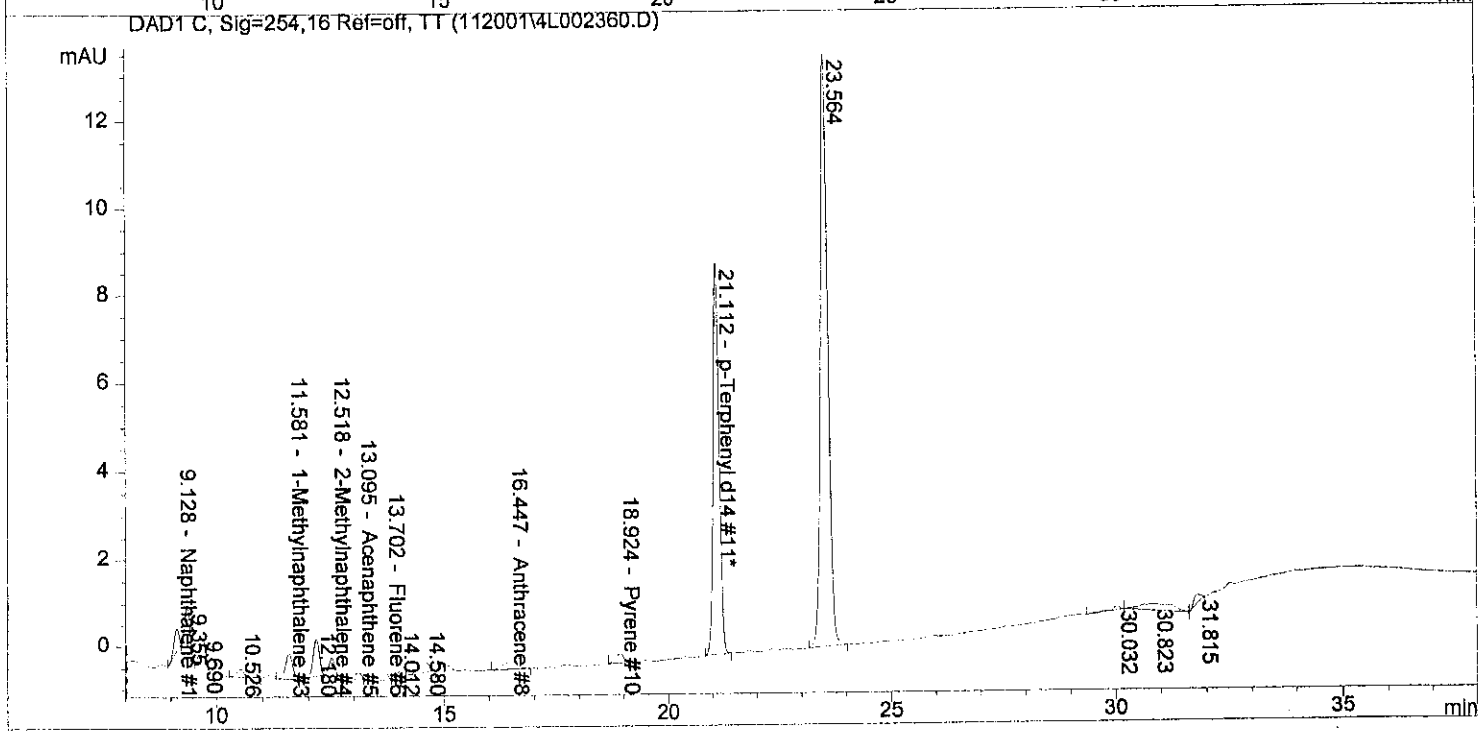
Injection Date : 11/21/2001 1:02:26 AM
Sample Name : L0111316-09 831W
Acq. Operator : RDC

Seq. Line : 12
Vial : 12
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/21/2001 12:23:37 PM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, November 21, 2001 12:23:37 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.370	BBA	4.50689	2.52962e-2	1.14007e-1		Naphthalene #1
11.953	BB	4.14674e-1	2.21330e-2	9.17797e-3		1-Methylnaphthalene #3
12.541	BB	1.42284	1.70635e-2	2.42787e-2		2-Methylnaphthalene #4
13.031	BB	2.56490e-1	1.38416e-2	3.55023e-3		Acenaphthene #5
13.678	BB	7.58547e-1	6.62187e-3	5.02300e-3		Fluorene #6
14.927		-	-	-		Phenanthrene #7
16.338		-	-	-		Anthracene #8
17.805	BB	3.66002e-1	2.32678e-2	8.51609e-3		Fluoranthene #9
18.812	BBA	2.12856e-1	3.86587e-2	8.22875e-3		Pyrene #10
21.127	BB	18.49866	2.97423e-1	5.50192		p-Terphenyl d14 #11*
22.416		-	-	-		Benzo(a)anthracene #12
23.297		-	-	-		Chrysene #13
26.057		-	-	-		Benzo(b)fluoranthene #14
27.407	BBA	1.88775e-1	2.76572e-3	5.22098e-4		Benzo(k)fluoranthene #15
28.665		-	-	-		Benzo(a)pyrene #16
30.675	BB	1.93317e-1	3.93496e-2	7.60693e-3		Dibenz(a,h)anthracene #17
31.390		-	-	-		Benzo(g,h,i)perylene #18
32.430	PB	1.45766	1.38204e-2	2.01455e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 5.70298

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.128	BB	4.14765	8.25405e-3	3.42349e-2		Naphthalene #1
10.845		-	-	-		Acenaphthylene #2
11.581	BB	6.59140	1.29459e-2	8.53313e-2		1-Methylnaphthalene #3
12.518	BB	4.25383	1.12393e-2	4.78100e-2		2-Methylnaphthalene #4
13.095	BB	1.74591	2.03163e-2	3.54704e-2		Acenaphthene #5
13.702	BB	2.64315	1.75240e-2	4.63186e-2		Fluorene #6
14.911		-	-	-		Phenanthrene #7
16.447	BBA	4.11829	1.04262e-2	4.29381e-2		Anthracene #8
17.701		-	-	-		Fluoranthene #9
18.924	BBA	2.86687	1.43052e-2	4.10113e-2		Pyrene #10
21.112	PBA	82.53832	6.56733e-2	5.42056		p-Terphenyl d14 #11*
22.400		-	-	-		Benzo(a)anthracene #12
23.281		-	-	-		Chrysene #13
26.040		-	-	-		Benzo(b)fluoranthene #14
27.506		-	-	-		Benzo(k)fluoranthene #15
28.648		-	-	-		Benzo(a)pyrene #16
30.572		-	-	-		Dibenz(a,h)anthracene #17

mol

54.2%

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.372		-	-	-		Benzo(g,h,i)perylene #18
32.318		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				5.75367		

Results obtained with enhanced integrator!
3 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1

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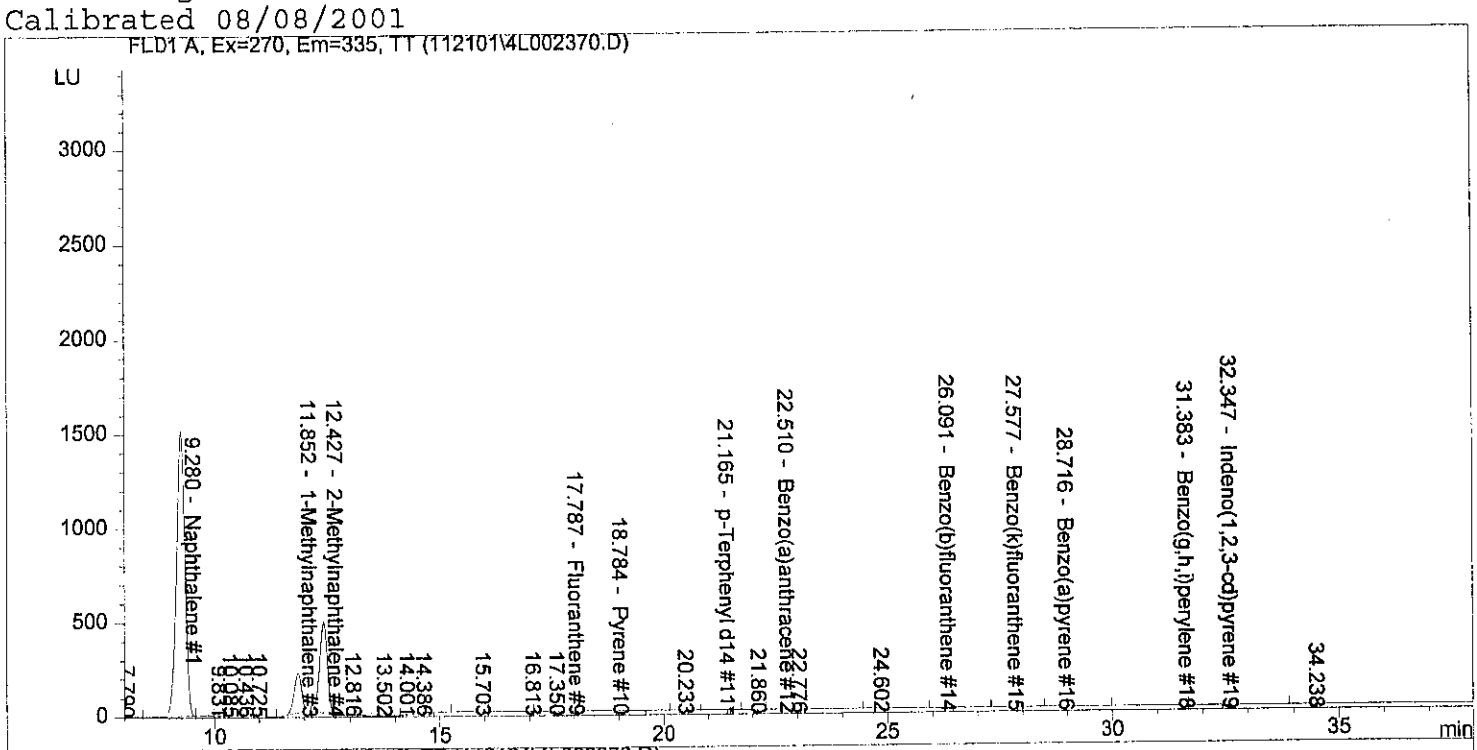
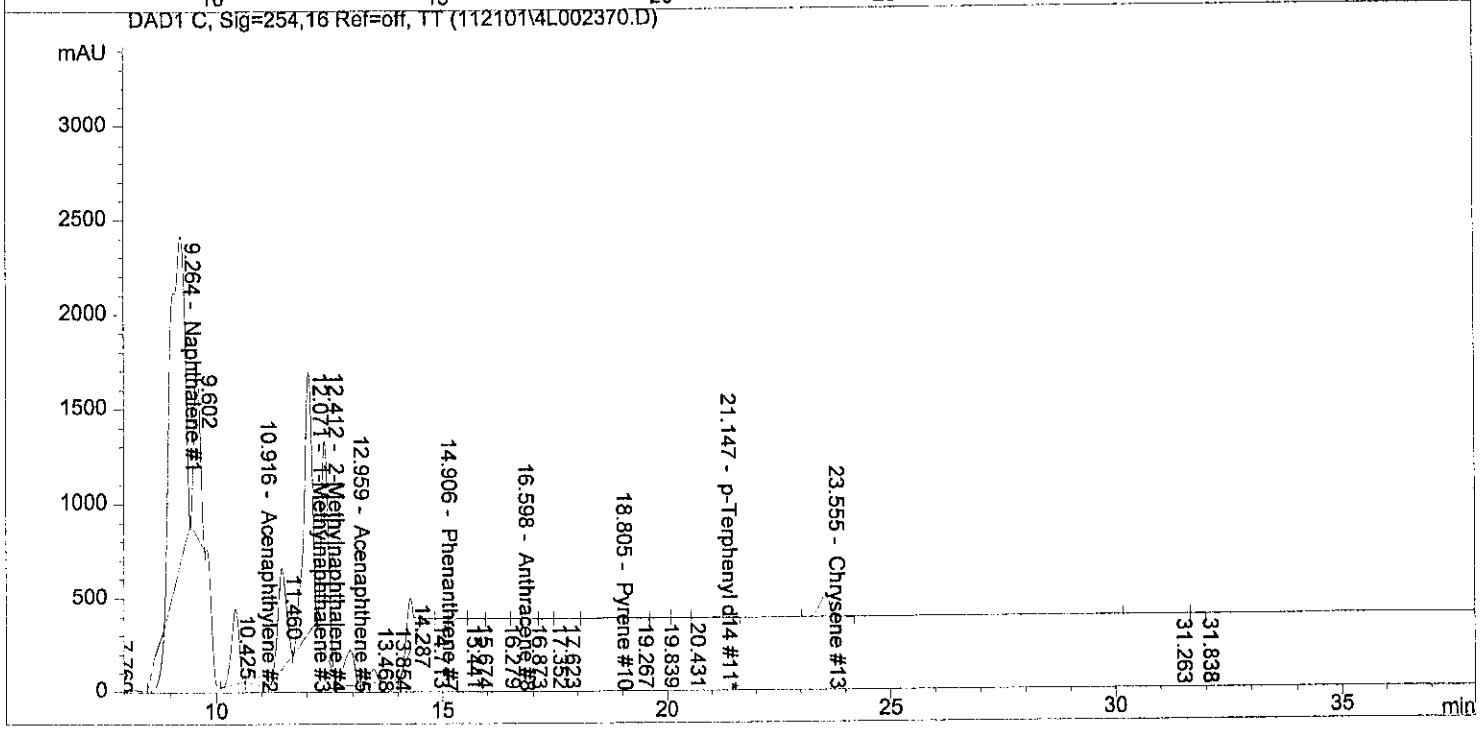
Injection Date : 11/21/2001 7:29:21 PM
Sample Name : L0111316-10 831W
Acq. Operator : RDC

Seq. Line : 3
Vial : 3
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/21/2001 5:14:46 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/1/2001 3:33:11 PM by RDC
Calibrated 08/08/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Wednesday, October 31, 2001 9:15:43 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.280	BB	2.01228e4	2.52962e-2	509.03145	I	Naphthalene #1
11.852	BB	2581.79175	2.21330e-2	57.14268	C	1-Methylnaphthalene #3
12.427	BB	5764.02734	1.70635e-2	98.35445	C	2-Methylnaphthalene #4
13.009		-	-	-		Acenaphthene #5
13.673		-	-	-		Fluorene #6
15.072		-	-	-		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.787	BB	5.37344e-1	2.32678e-2	1.25028e-2		Fluoranthene #9
18.784	BB	7.34792e-1	3.86587e-2	2.84061e-2		Pyrene #10
21.165	BB	17.90636	2.97423e-1	5.32576	53%	p-Terphenyl d14 #11*
22.510	BB	2.43029e-1	7.91256e-3	1.92299e-3		Benzo(a)anthracene #12
23.473		-	-	-		Chrysene #13
26.091	BBA	1.78823e-1	1.63222e-2	2.91878e-3		Benzo(b)fluoranthene #14
27.577	PBA	3.58705e-1	2.76572e-3	9.92077e-4		Benzo(k)fluoranthene #15
28.716	BBA	2.56290e-1	4.57119e-3	1.17155e-3		Benzo(a)pyrene #16
30.650		-	-	-		Dibenz(a,h)anthracene #17
31.383	PB	8.82496e-1	2.65165e-2	2.34007e-2		Benzo(g,h,i)perylene #18
32.347	BB	2.14853e-1	1.38204e-2	2.96936e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 669.92862

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.264	BB	3.79364e4	8.25405e-3	313.12882	I	Naphthalene #1
10.916	BB	703.09393	2.96975e-2	20.88014		Acenaphthylene #2 NC needs comb.
12.071	BB	1.81427e4	1.29459e-2	234.87324	I	1-Methylnaphthalene #3
12.412	BB	1.16268e4	1.12393e-2	130.67722	I	2-Methylnaphthalene #4
12.959	BB	2954.83008	2.03163e-2	60.03134	NC	Acenaphthene #5
13.663		-	-	-		Fluorene #6
14.906	BB	5.02207	1.72982e-2	8.68730e-2	cmol	Phenanthrene #7
16.598	BB	3.64352	1.04262e-2	3.79880e-2	↓	Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.805	BB	34.29895	1.43052e-2	4.90655e-1	NC	Pyrene #10
21.147	BB	81.81399	6.56733e-2	5.37299	53.9%	p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.555	PBA	1747.80115	1.51453e-2	26.47097	NC	Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.642		-	-	-		Benzo(k)fluoranthene #15
28.749		-	-	-		Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.433		-	-	-		Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 792.05024

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

Data File : C:\MSDCHEM\1\DATA\112801\7M14703.D Vial: 9
Acq On : 28 Nov 2001 14:08 Operator: mdc
Sample : L0111316-10 2X 8310 confirmation Inst : HPMS7
Misc : Multiplr: 2.00
MS Integration Params: RTEINT.P
Quant Time: Nov 28 14:28:38 2001 Quant Results File: PAHLOW.RES

Quant Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 11/05/01
Last Update : Wed Nov 28 10:39:43 2001
Response via : Initial Calibration
DataAcq Meth : PAHL

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	6.63	136	273545	1.00 ug/ml	0.02
6) Acenaphthene-d10	8.42	164	254771	1.00 ug/ml	0.02
11) Phenanthrene-d10	9.94	188	216137	1.00 ug/ml	0.00
15) Chrysene-d12	12.79	240	241595	1.00 ug/ml	0.00
20) Perylene-d12	15.34	264	160410	1.00 ug/ml	0.02
System Monitoring Compounds					
2) Nitrobenzene-d5	5.87	82	150939	3.6868 ug/ml	-0.04
Spiked Amount 2.500	Range 35 - 114		Recovery	= 147.60%#	
7) 2-Fluorobiphenyl	7.67	172	3150	0.0230 ug/ml	0.00
Spiked Amount 2.500	Range 43 - 116		Recovery	= 0.80%#	
17) p-Terphenyl-d14	11.51	244	450349	5.2421 ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery	= 209.60%#	

Target Compounds					Qvalue
3) Naphthalene	6.63	128	26646380	224.0184 ug/ml#	37
4) 2-Methylnaphthalene	7.35	142	8826558	127.0091 ug/ml	89
5) 1-Methylnaphthalene	7.46	142	4208748	56.8572 ug/ml#	1
9) Acenaphthene	8.45	154	23116	0.1926 ug/ml	85
10) Fluorene	8.97	166	18715	0.1303 ug/ml#	82
12) Phenanthrene	9.96	178	26154	0.2815 ug/ml#	75
13) Anthracene	10.00	178	10363	0.1140 ug/ml#	1

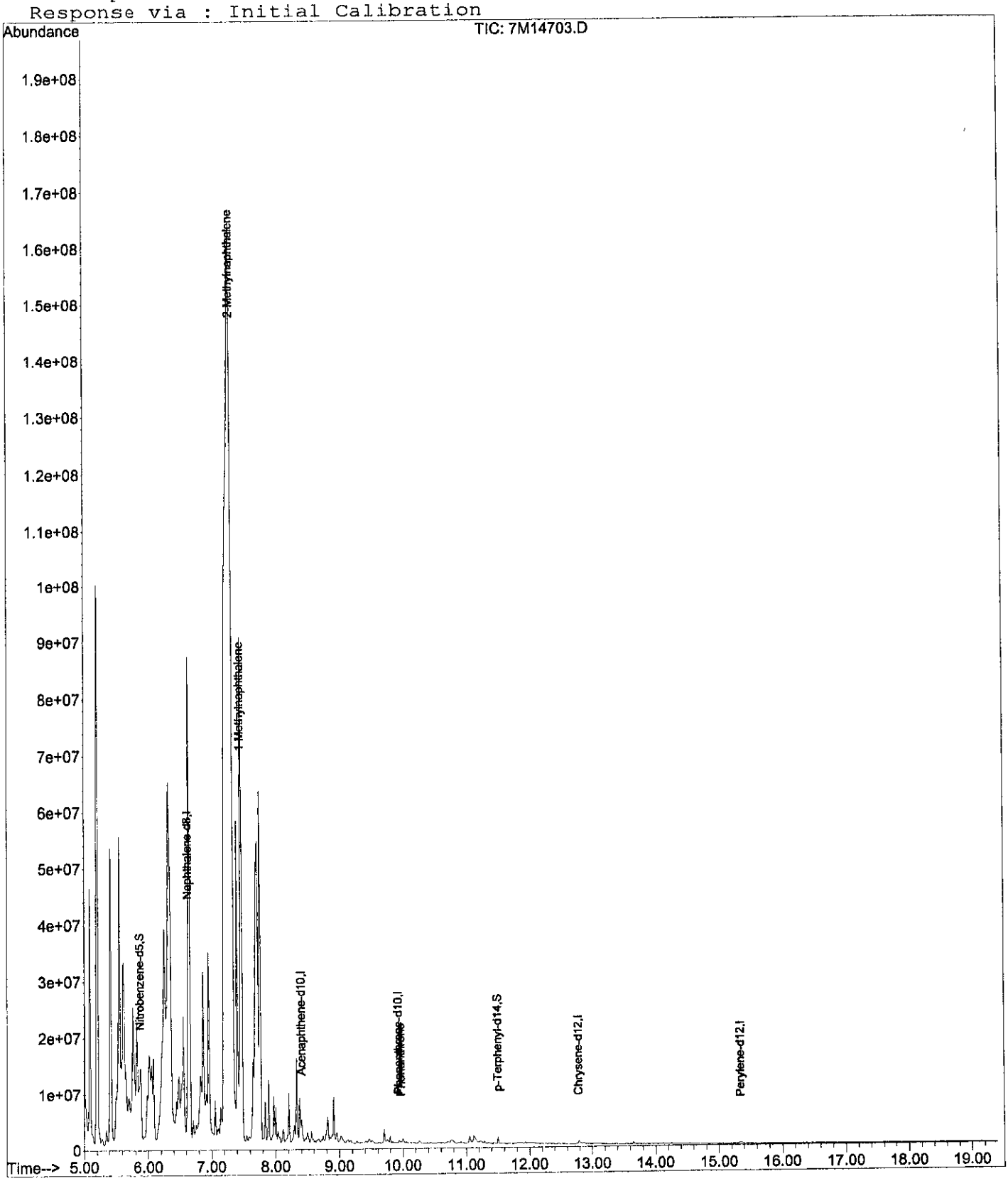
(#) = qualifier out of range (m) = manual integration

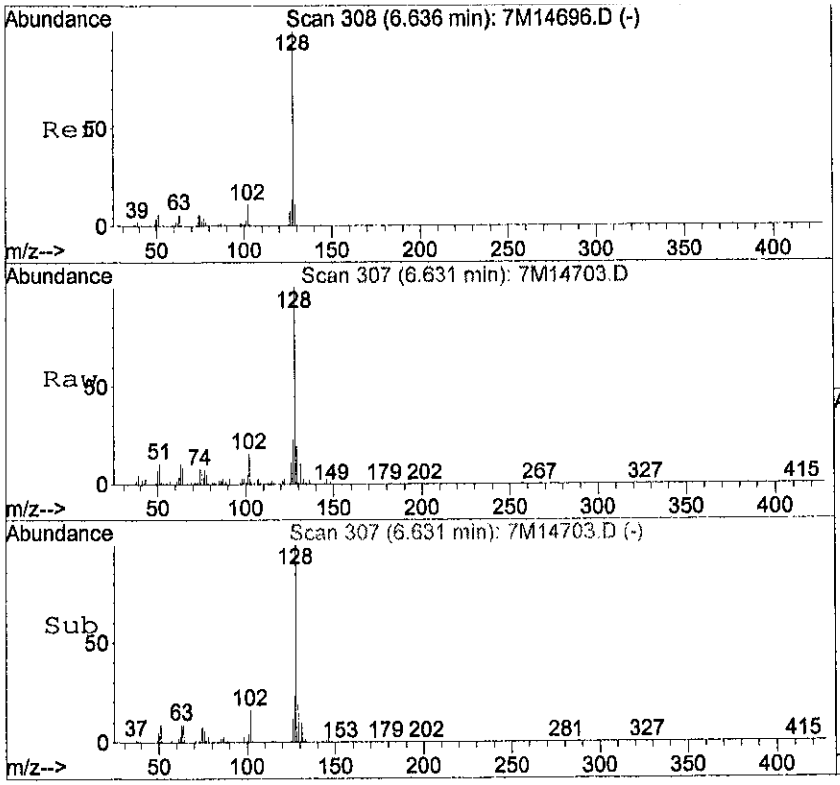
Data File : C:\MSDCHEM\1\DATA\112801\7M14703.D
Acq On : 28 Nov 2001 14:08
Sample : L0111316-10 2X 8310 confirmation
Misc :
MS Integration Params: RTEINT.P
Quant Time: Nov 28 14:28 2001

Vial: 9
Operator: mdc
Inst : HPMS7
Multiplr: 2.00

Quant Results File: PAHLOW.RES

Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 11/05/01
Last Update : Wed Nov 28 10:39:43 2001
Response via : Initial Calibration

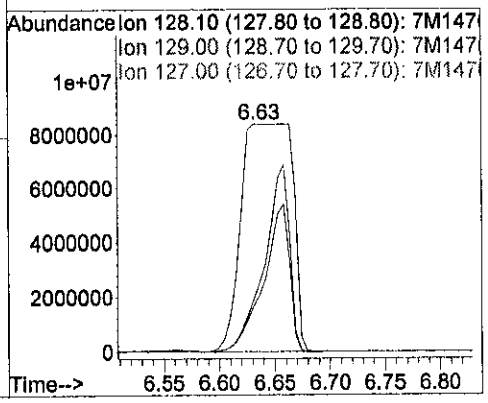


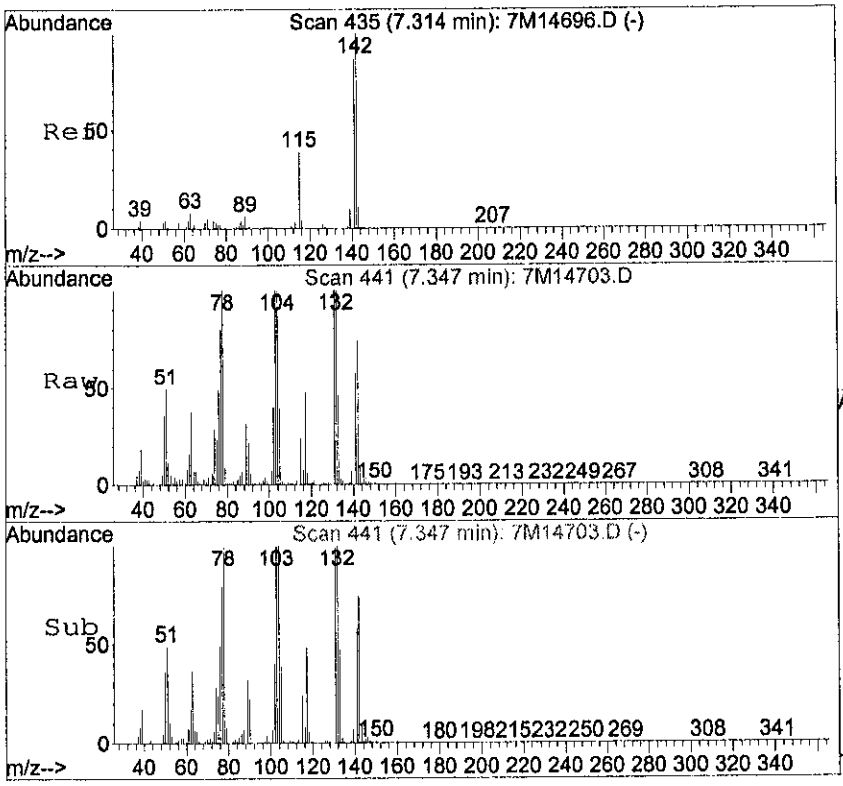


#3
Naphthalene
Concen: 224.02 ug/ml
RT: 6.63 min Scan# 307
Delta R.T. -0.01 min
Lab File: 7M14703.D
Acq: 28 Nov 2001 14:08

Tgt Ion:128 Resp:26646380

Ion	Ratio	Lower	Upper
128	100		
129	32.5	8.6	13.0#
127	40.1	10.4	15.6#

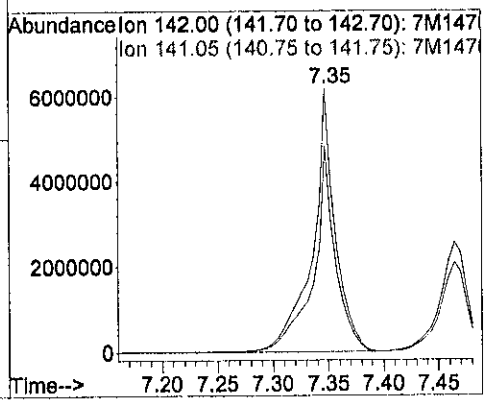


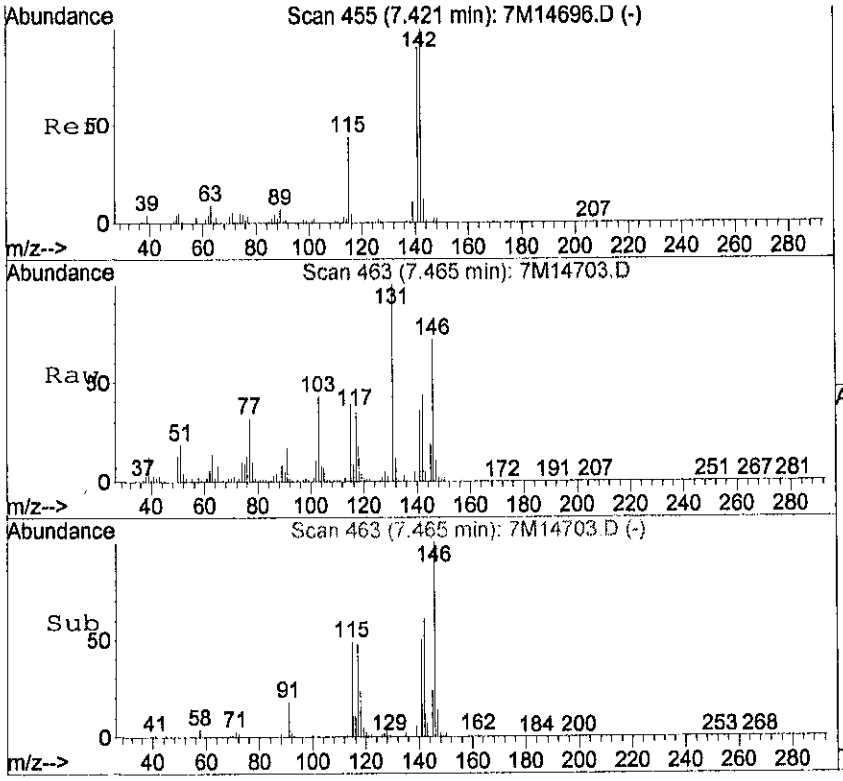


#4
2-Methylnaphthalene
Concen: 127.01 ug/ml
RT: 7.35 min Scan# 441
Delta R.T. 0.03 min
Lab File: 7M14703.D
Acq: 28 Nov 2001 14:08

Tgt Ion:142 Resp: 8826558

Ion	Ratio	Lower	Upper
142	100		
141	75.6	68.2	102.2

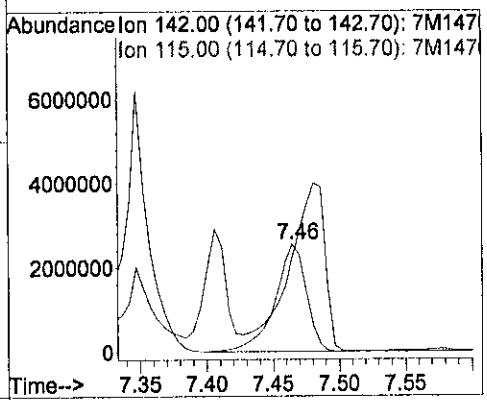


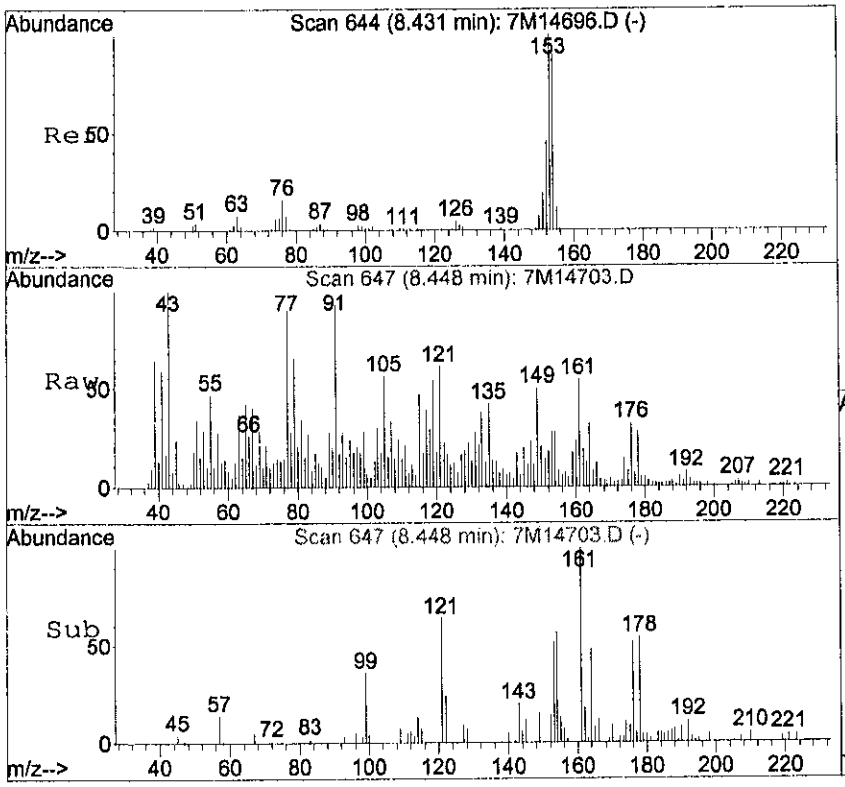


#5
1-Methylnaphthalene
Concen: 56.86 ug/ml
RT: 7.46 min Scan# 463
Delta R.T. 0.04 min
Lab File: 7M14703.D
Acq: 28 Nov 2001 14:08

Tgt Ion:142 Resp: 4208748

Ion	Ratio	Lower	Upper
142	100		
115	176.8	34.6	52.0#

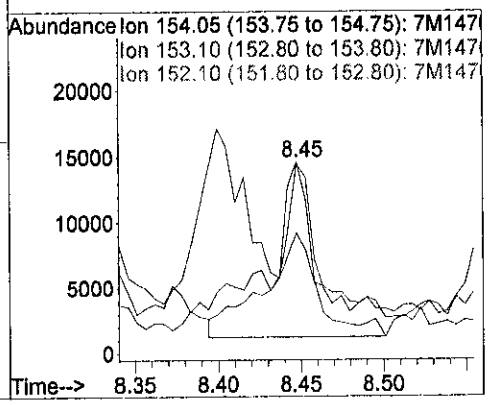


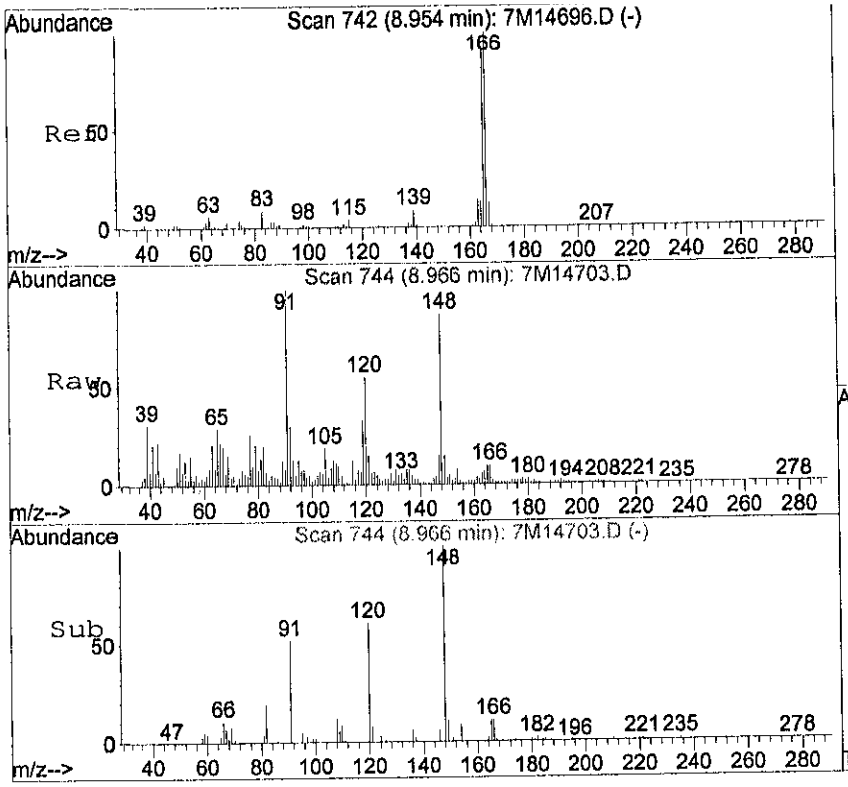


#9
Acenaphthene
Concen: 0.19 ug/ml
RT: 8.45 min Scan# 647
Delta R.T. 0.02 min
Lab File: 7M14703.D
Acq: 28 Nov 2001 14:08

Tgt Ion:154 Resp: 23116

Ion	Ratio	Lower	Upper
154	100		
153	86.5	83.1	124.7
152	41.3	39.0	58.4

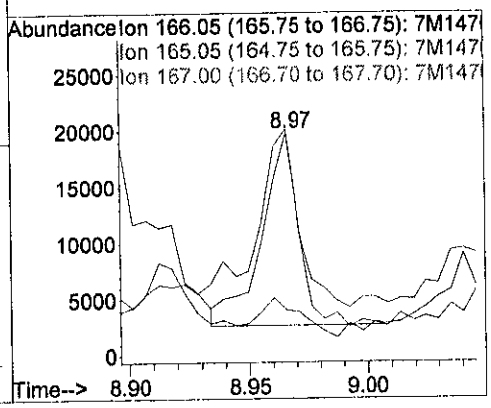


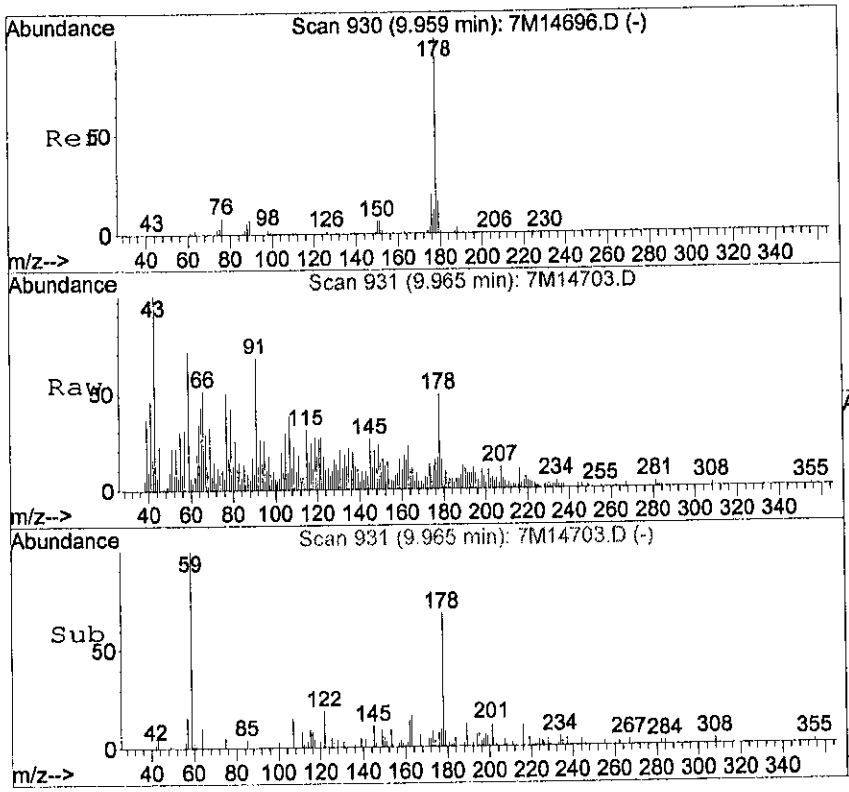


#10
Fluorene
Concen: 0.13 ug/ml
RT: 8.97 min Scan# 744
Delta R.T. 0.01 min
Lab File: 7M14703.D
Acq: 28 Nov 2001 14:08

Tgt Ion:166 Resp: 18715

Ion	Ratio	Lower	Upper
166	100		
165	106.7	72.6	109.0
167	23.7	11.0	16.4#

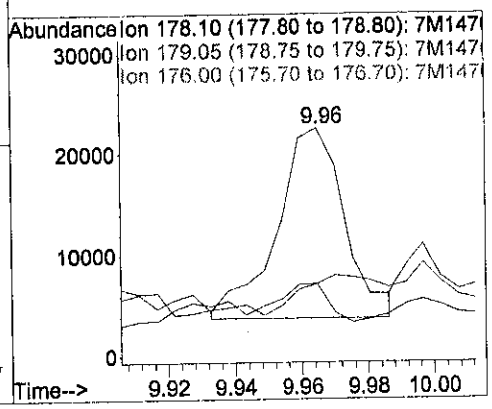


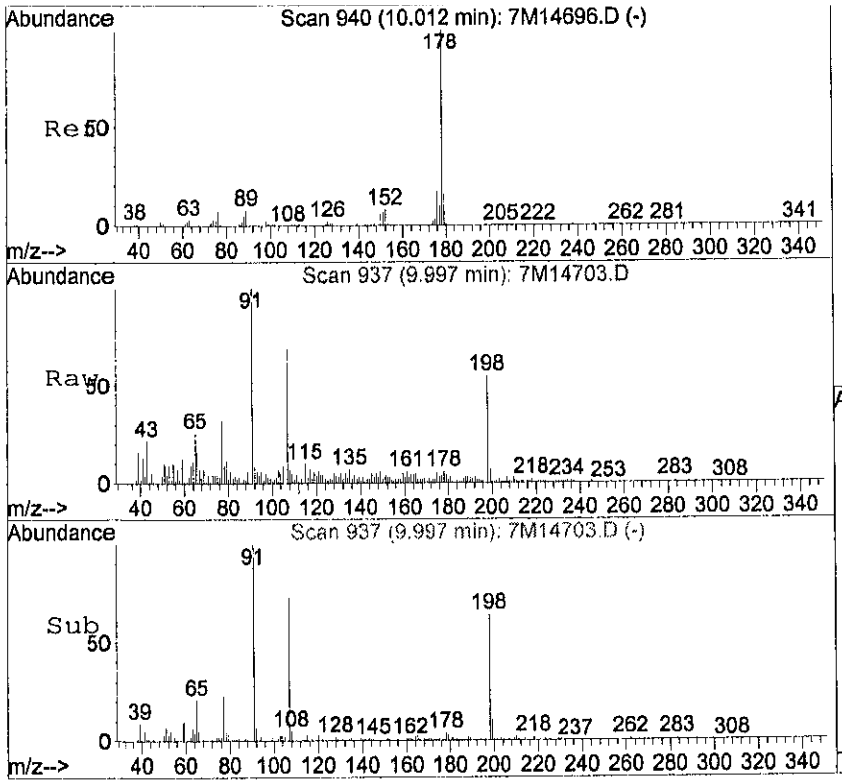


#12
Phenanthrene
Concen: 0.28 ug/ml
RT: 9.96 min Scan# 931
Delta R.T. 0.00 min
Lab File: 7M14703.D
Acq: 28 Nov 2001 14:08

Tgt Ion:178 Resp: 26154

Ion	Ratio	Lower	Upper
178	100		
179	0.0	12.7	19.1#
176	12.1	15.0	22.6#

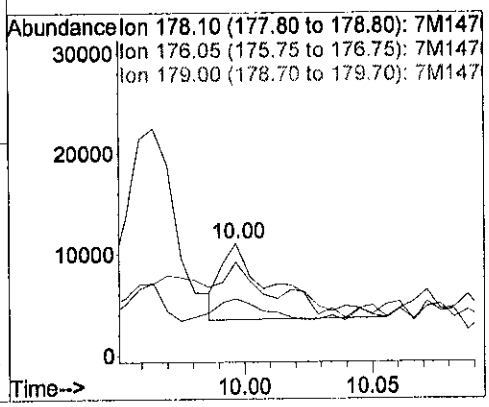




#13
Anthracene
Concen: 0.11 ug/ml
RT: 10.00 min Scan# 937
Delta R.T. -0.02 min
Lab File: 7M14703.D
Acq: 28 Nov 2001 14:08

Tgt Ion:178 Resp: 10363

Ion	Ratio	Lower	Upper
178	100		
176	31.9	14.8	22.2#
179	204.2	12.8	19.2#



1,10 10X dil'n for naph. and 2-MNa

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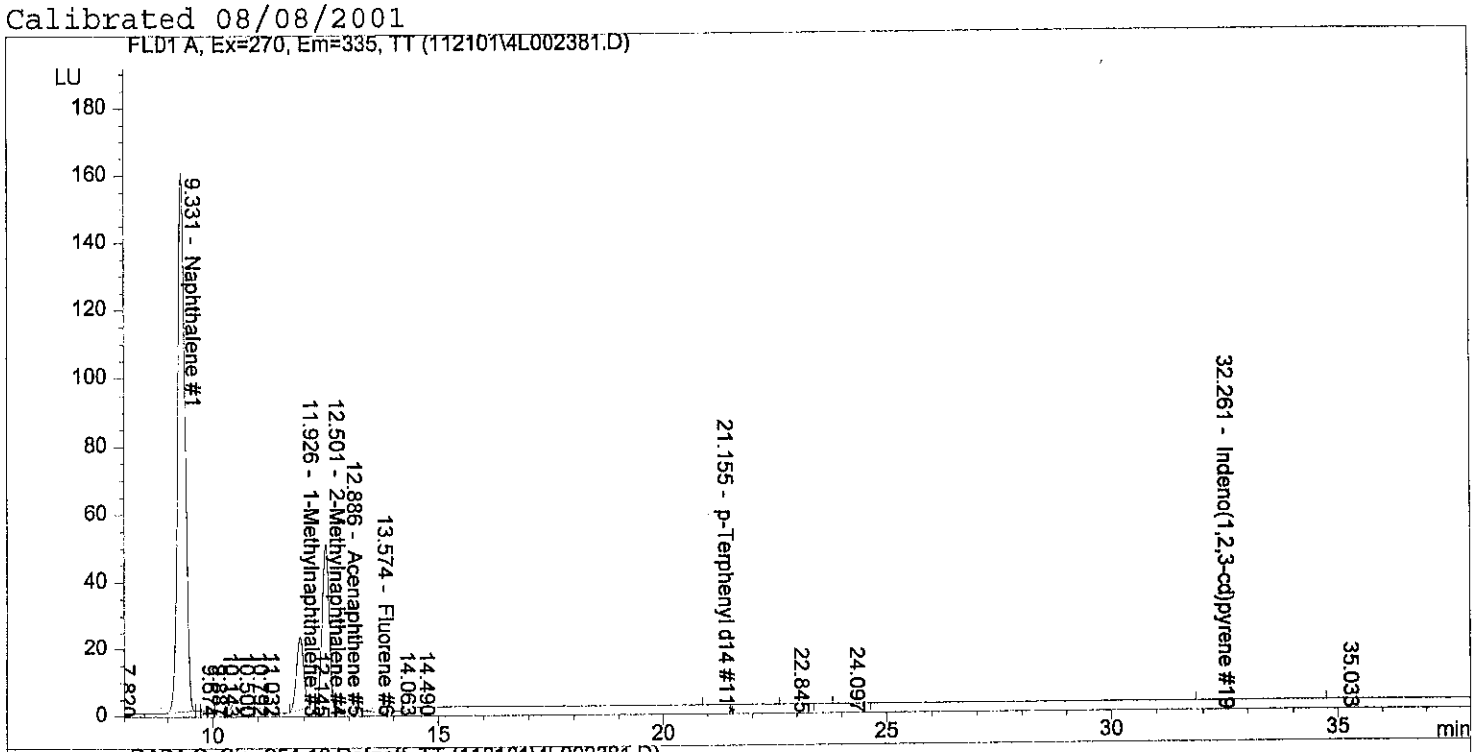
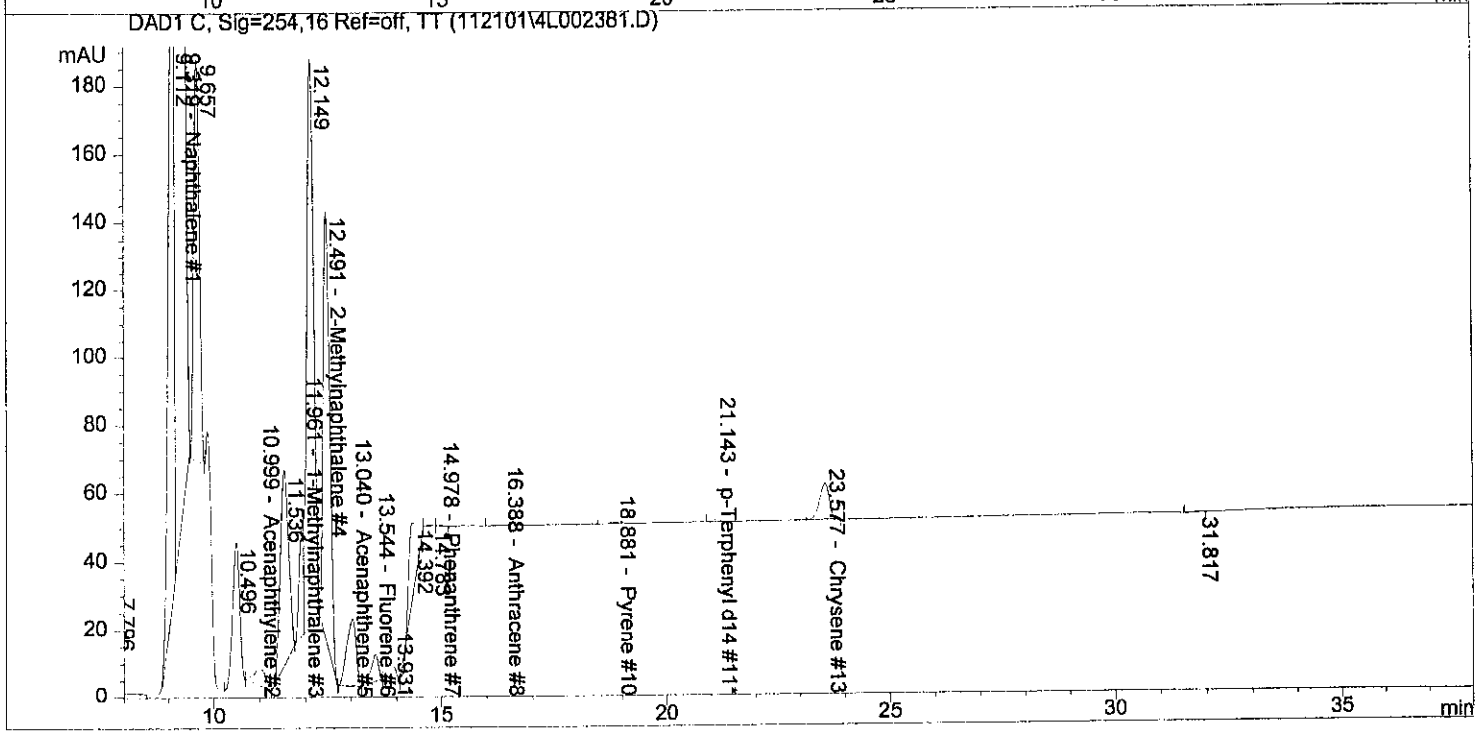
Injection Date	: 11/22/2001 5:52:11 AM	Seq. Line	: 14
Sample Name	: L0111316-10 10X	Vial	: 14
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

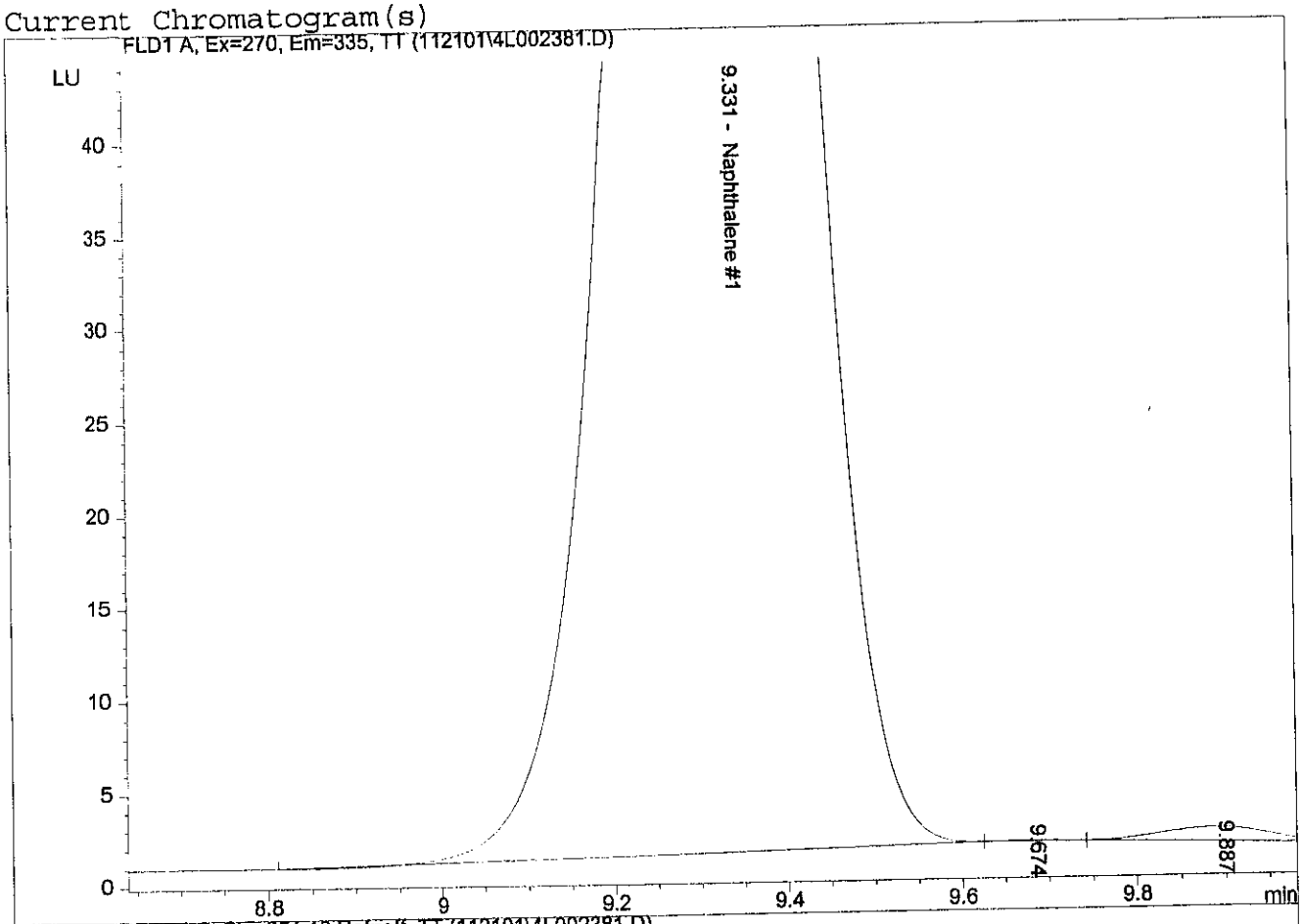
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/21/2001 5:14:46 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/26/2001 9:28:48 AM by RDC
(modified after loading)

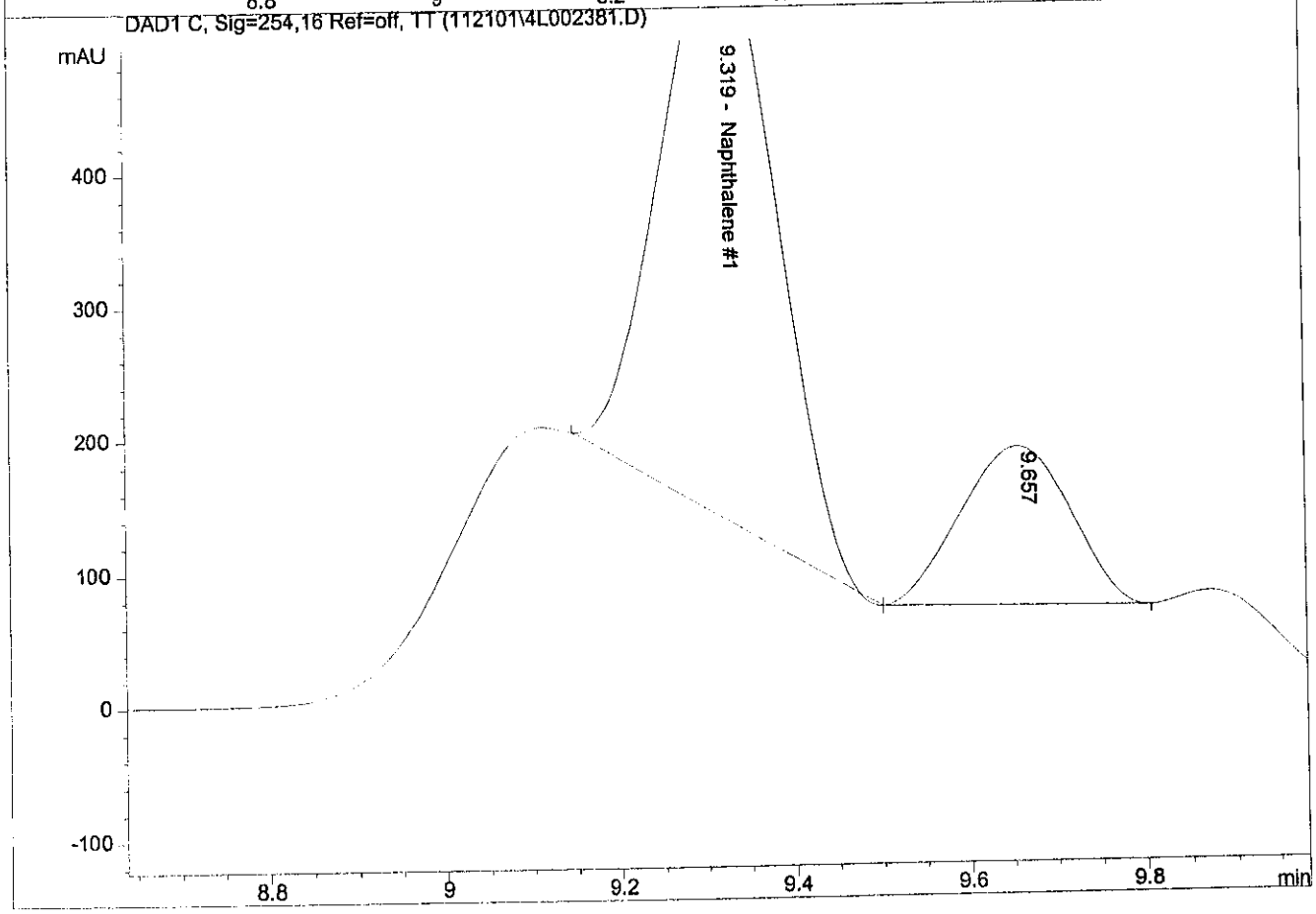
Calibrated 08/08/2001



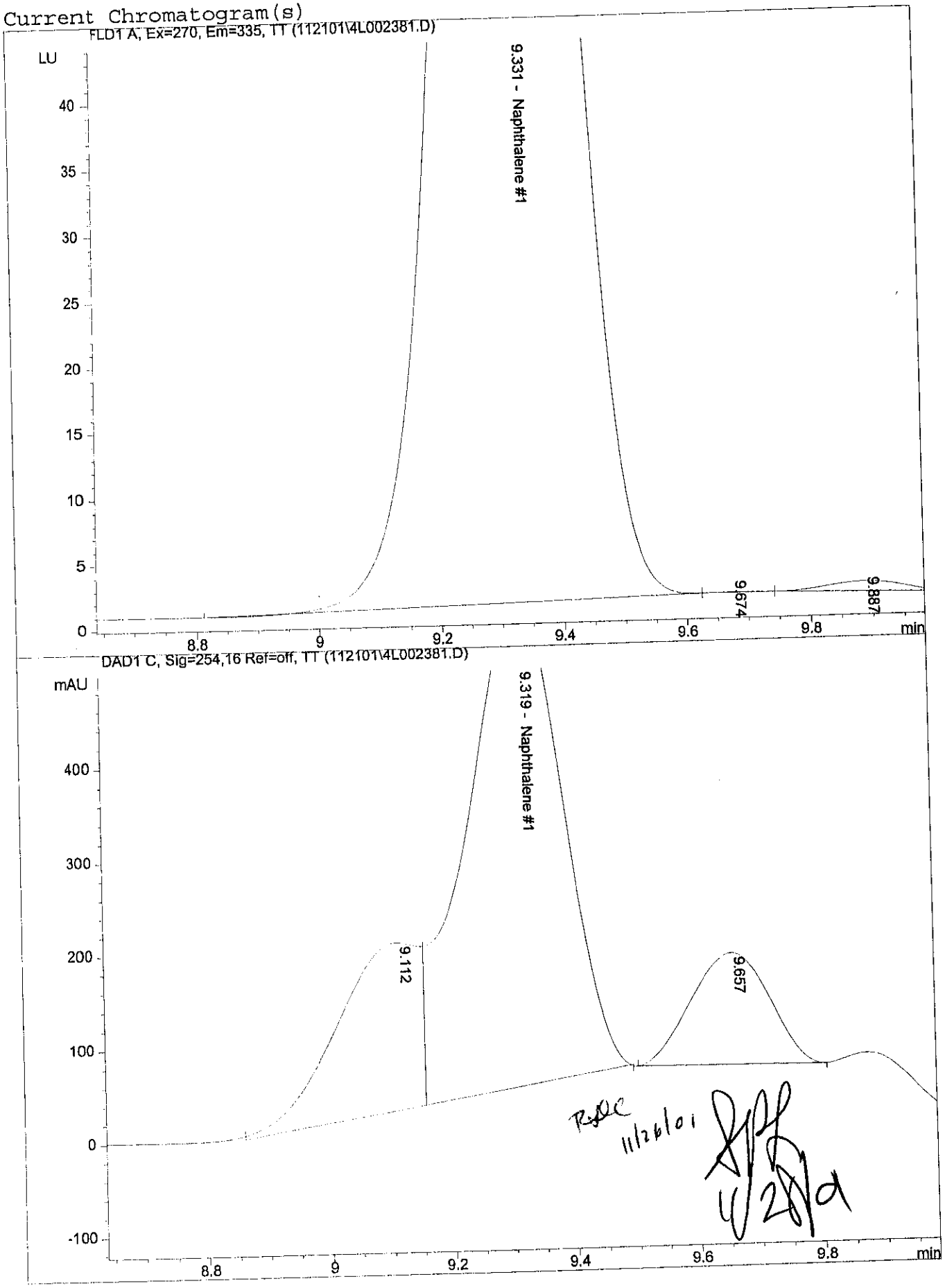


Current Chromatogram(s)



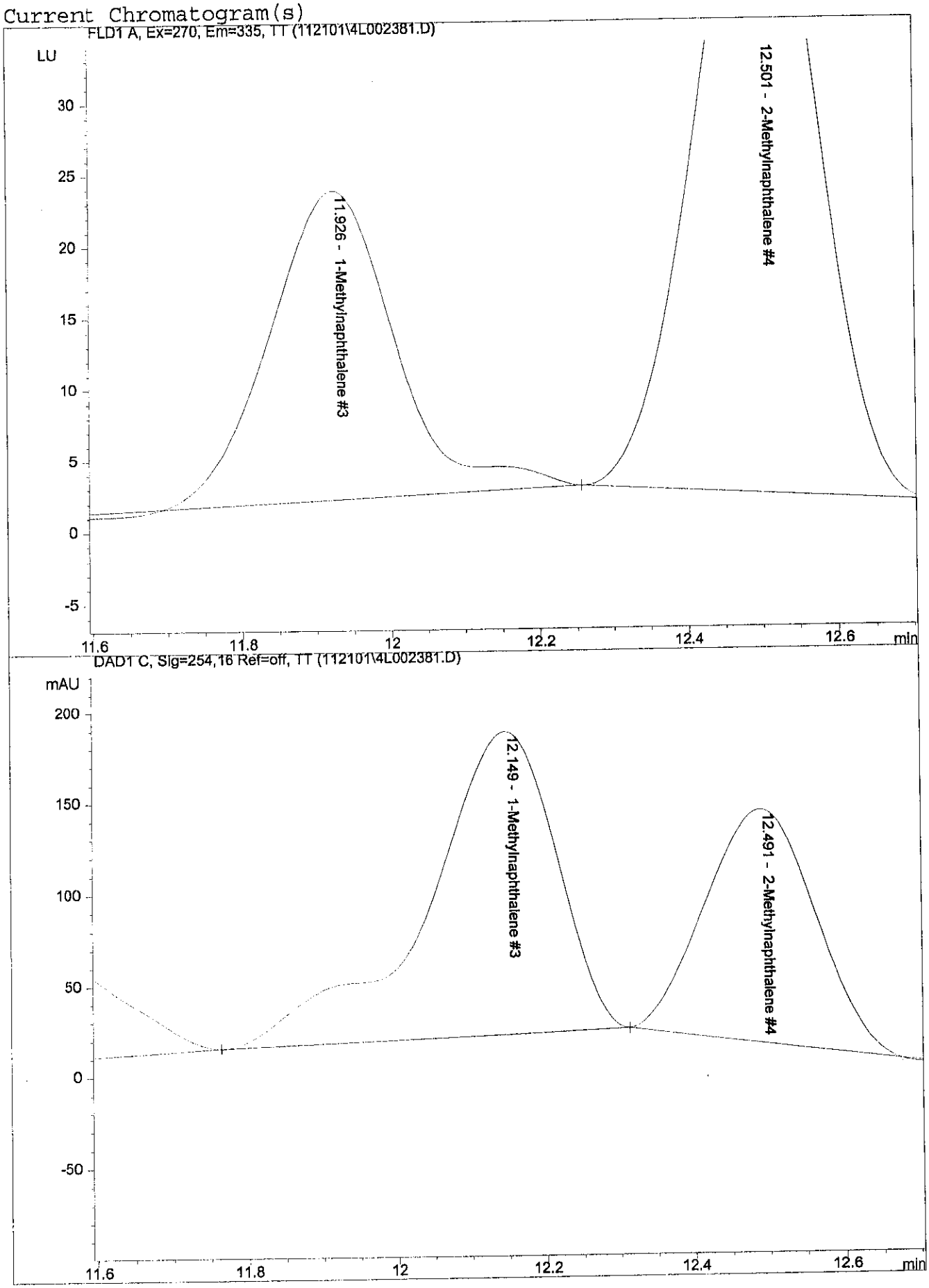


Current Chromatogram(s)

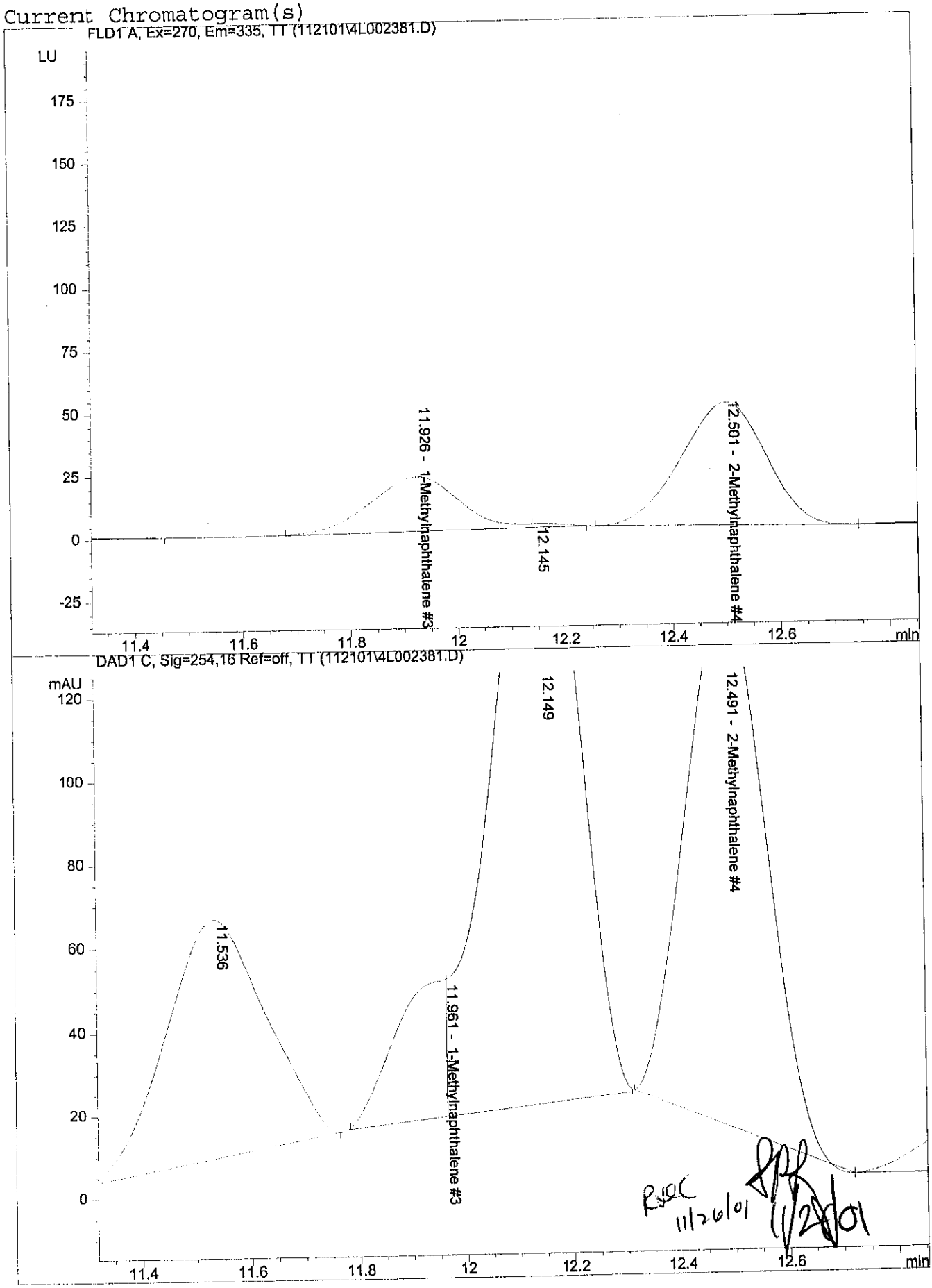


RDC 11/26/01

Current Chromatogram(s)



Current Chromatogram(s)



RDC 11/26/01

11/26/01

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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Monday, November 26, 2001 9:28:47 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.331	BB	1858.38953	2.52962e-2	C 47.01019	X10	Naphthalene #1
11.926	MV	251.97585	2.21330e-2	✓5.57697	P	1-Methylnaphthalene #3
12.501	BB	533.82294	1.70635e-2	✓9.10888	P	2-Methylnaphthalene #4
12.886	BB	6.79629	1.38416e-2	9.40713e-2		Acenaphthene #5
13.574	BB	18.43774	6.62187e-3	1.22092e-1		Fluorene #6
15.072		-	-	-		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.880		-	-	-		Fluoranthene #9
18.890		-	-	-		Pyrene #10
21.155	BBA	1.69858	2.97423e-1	5.05197e-1	DL	p-Terphenyl d14 #11*
22.587		-	-	-		Benzo(a)anthracene #12
23.473		-	-	-		Chrysene #13
26.210		-	-	-		Benzo(b)fluoranthene #14
27.662		-	-	-		Benzo(k)fluoranthene #15
28.769		-	-	-		Benzo(a)pyrene #16
30.650		-	-	-		Dibenz(a,h)anthracene #17
31.455		-	-	-		Benzo(g,h,i)perylene #18
32.261	BBA	2.36929e-1	1.38204e-2	3.27446e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 62.42068

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.319	VM	5672.72217	8.25405e-3	✓46.82293	X10	Naphthalene #1
10.999	BB	85.71352	2.96975e-2	2.54548		Acenaphthylene #2 Needs conf.
11.961	MF	228.15701	1.29459e-2	✓2.95369	P	1-Methylnaphthalene #3
12.491	BB	1297.58691	1.12393e-2	✓14.58394	P	2-Methylnaphthalene #4
13.040	BB	295.17685	2.03163e-2	5.99691	NC	Acenaphthene #5
13.544	BB	92.22540	1.75240e-2	1.61616	NC	Fluorene #6
14.978	BB	7.97542e-1	1.72982e-2	1.37961e-2	↓	Phenanthrene #7
16.388	BB	2.39815	1.04262e-2	2.50035e-2	↓	Anthracene #8
17.859		-	-	-	↓	Fluoranthene #9
18.881	BBA	3.83400	1.43052e-2	5.48464e-2	↓	Pyrene #10
21.143	BBA	7.44503	6.56733e-2	4.88940e-1	DL	p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.577	BBA	160.99313	1.51453e-2	2.43829	NC	Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.642		-	-	-		Benzo(k)fluoranthene #15
28.749		-	-	-		Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.433		-	-	-		Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 77.53998

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1

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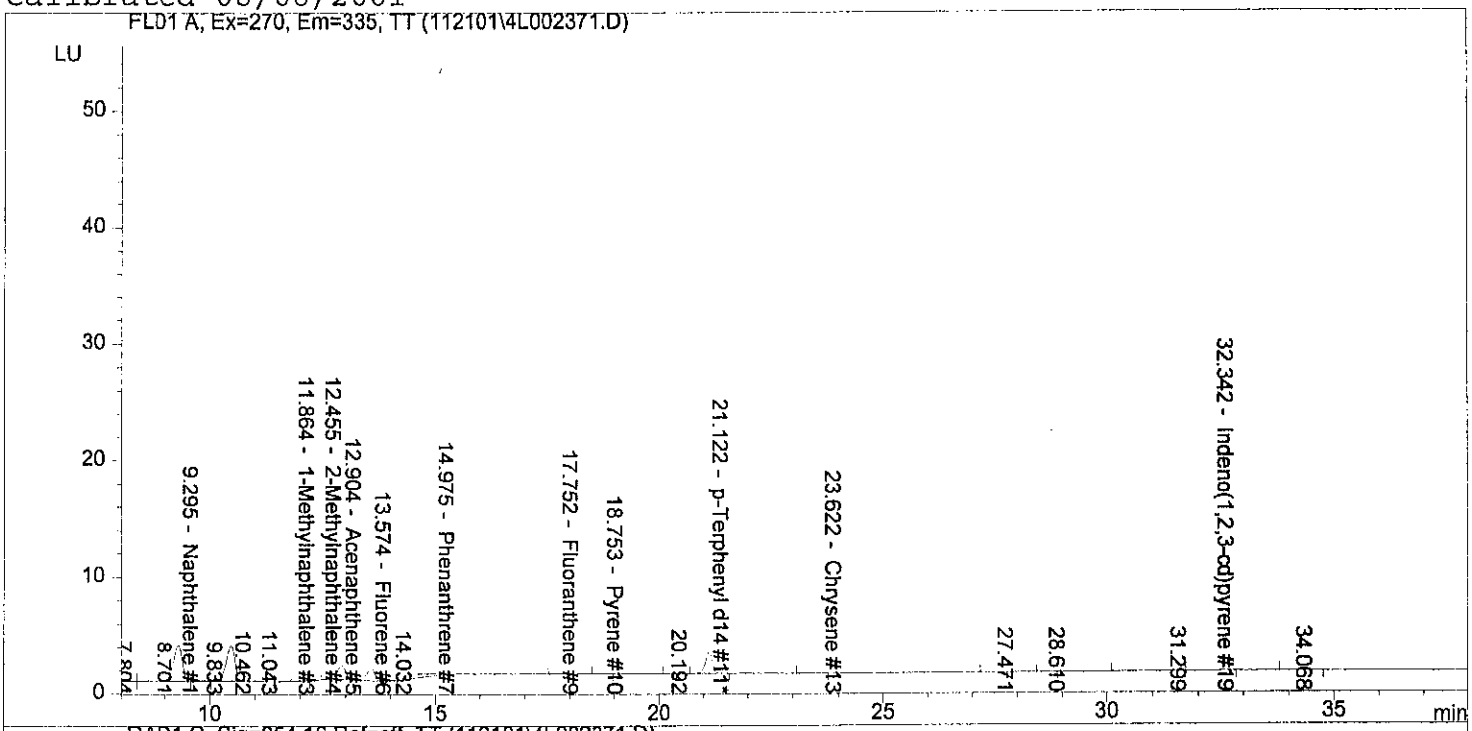
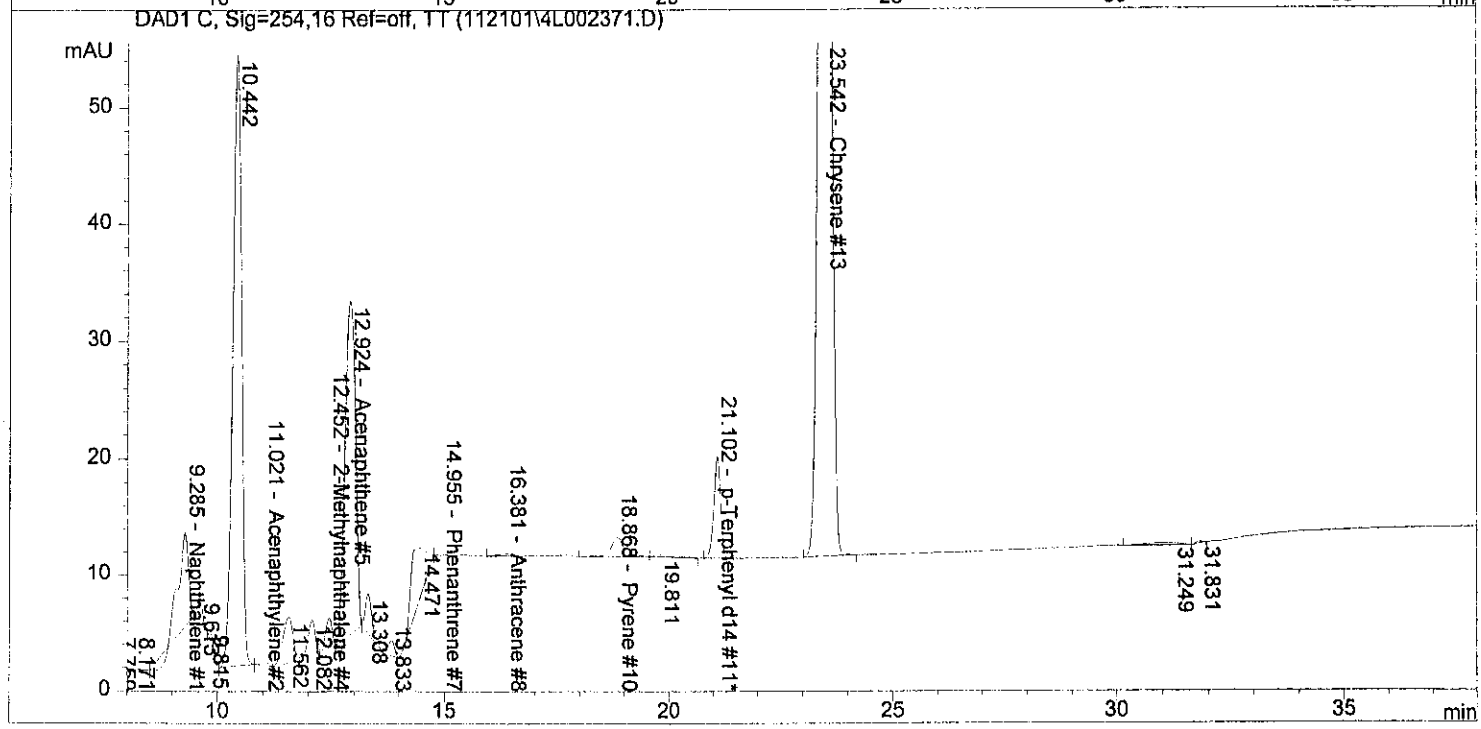
Injection Date : 11/21/2001 8:25:55 PM
Sample Name : L0111316-11 831W
Acq. Operator : RDC

Seq. Line : 4
Vial : 4
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/21/2001 5:14:46 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/1/2001 3:33:11 PM by RDC
Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, October 31, 2001 9:15:43 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.295	BB	41.86686	2.52962e-2	1.05907		Naphthalene #1
11.864	BB	3.10721	2.21330e-2	6.87717e-2		1-Methylnaphthalene #3
12.455	BB	3.99176	1.70635e-2	6.81133e-2		2-Methylnaphthalene #4
12.904	BB	15.74984	1.38416e-2	2.18002e-1		Acenaphthene #5
13.574	BB	16.67280	6.62187e-3	1.10405e-1		Fluorene #6
14.975	BB	15.54901	1.63652e-1	2.54463		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.752	BBA	6.86480e-1	2.32678e-2	1.59729e-2		Fluoranthene #9
18.753	BBA	3.40210e-1	3.86587e-2	1.31521e-2		Pyrene #10
21.122	BBA	21.81072	2.97423e-1	6.48700	64.9%	p-Terphenyl d14 #11*
22.587		-	-	-		Benzo(a)anthracene #12
23.622	BB	6.31382e-1	3.90495e-2	2.46552e-2		Chrysene #13
26.210		-	-	-		Benzo(b)fluoranthene #14
27.662		-	-	-		Benzo(k)fluoranthene #15
28.769		-	-	-		Benzo(a)pyrene #16
30.650		-	-	-		Dibenz(a,h)anthracene #17
31.455		-	-	-		Benzo(g,h,i)perylene #18
32.342	BB	8.26807e-1	1.38204e-2	1.14268e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 10.62121

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.285	BB	118.07671	8.25405e-3	9.74611e-1		Naphthalene #1
11.021	BB	4.32337	2.96975e-2	1.28393e-1	cma	Acenaphthylene #2
11.930		-	-	-		1-Methylnaphthalene #3
12.452	BB	29.50388	1.12393e-2	3.31602e-1	NC	2-Methylnaphthalene #4
12.924	BB	476.94818	2.03163e-2	9.68984	NC	Acenaphthene #5
13.663		-	-	-		Fluorene #6
14.955	BB	1.97797	1.72982e-2	3.42153e-2	cmdl	Phenanthrene #7
16.381	BB	4.35448	1.04262e-2	4.54006e-2	cmdl	Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.868	BB	30.01210	1.43052e-2	4.29330e-1	NC	Pyrene #10
21.102	BBA	95.20947	6.56733e-2	6.25272	62.5%	p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.542	PBA	2255.23413	1.51453e-2	34.15619	NC	Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.642		-	-	-		Benzo(k)fluoranthene #15
28.749		-	-	-		Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.433		-	-	-		Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 52.04230

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

1,1

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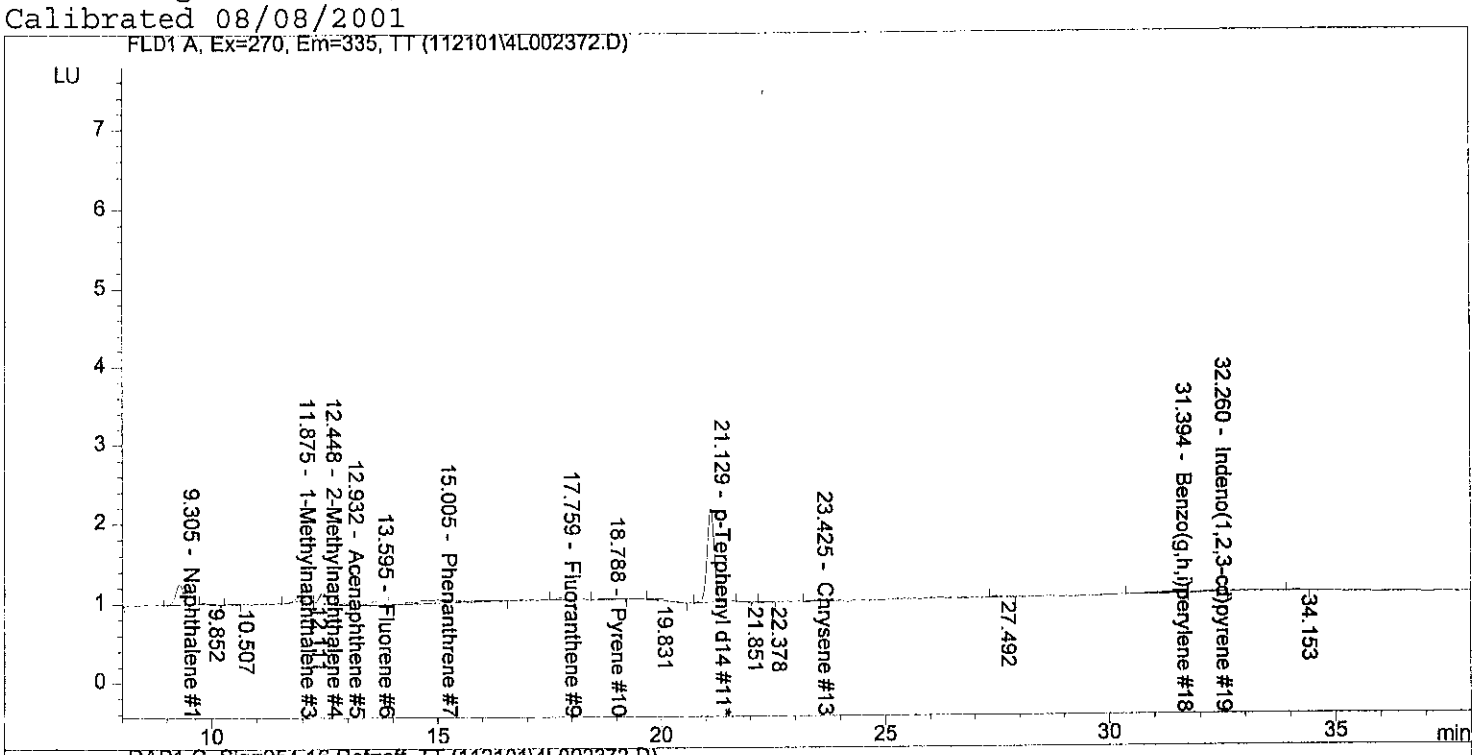
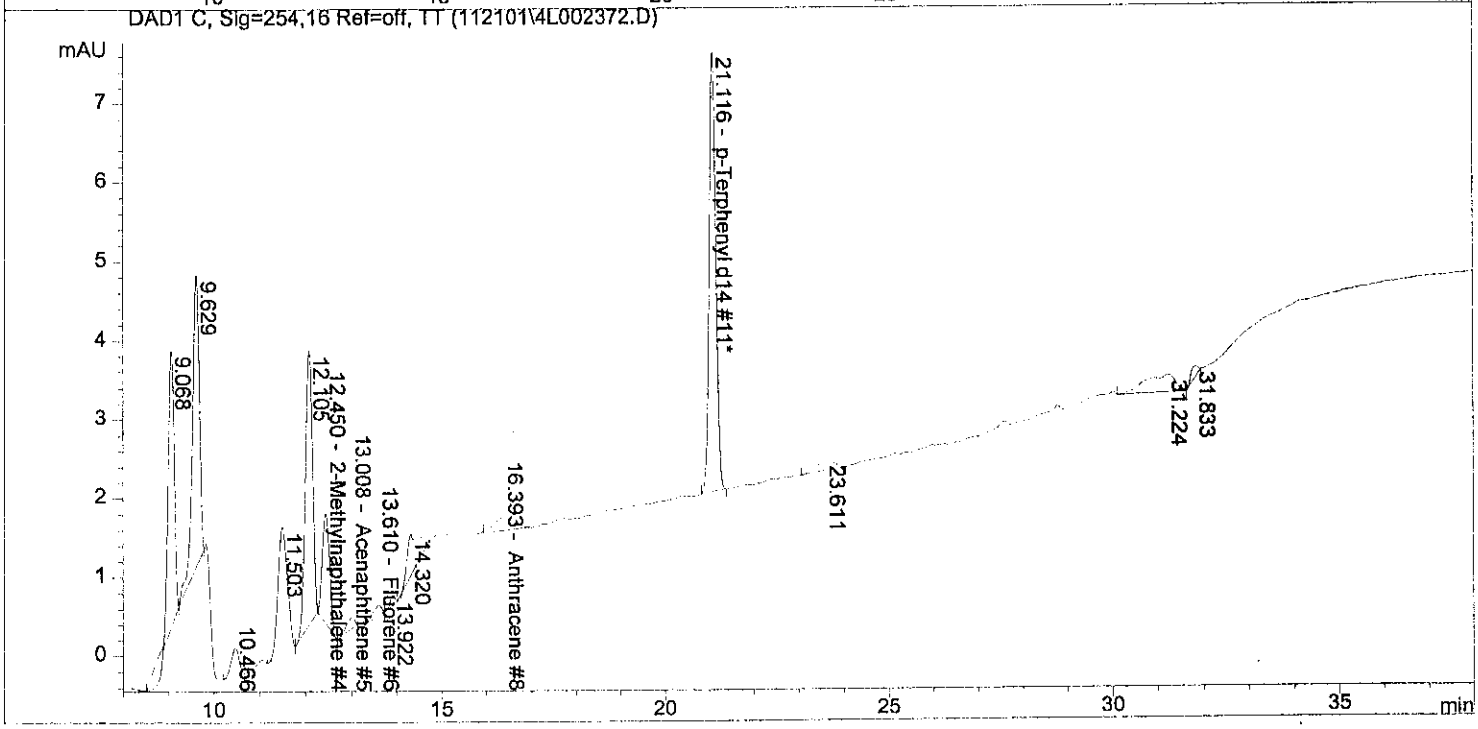
Injection Date : 11/21/2001 9:22:30 PM
Sample Name : L0111316-12 831W
Acq. Operator : RDC

Seq. Line : 5
Vial : 5
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/21/2001 5:14:46 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/1/2001 3:33:11 PM by RDC
Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, October 31, 2001 9:15:43 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.305	BB	3.06863	2.52962e-2	7.76247e-2		Naphthalene #1
11.875	BB	3.21220e-1	2.21330e-2	7.10955e-3		1-Methylnaphthalene #3
12.448	BB	1.41613	1.70635e-2	2.41642e-2		2-Methylnaphthalene #4
12.932	BB	2.81232e-1	1.38416e-2	3.89269e-3		Acenaphthene #5
13.595	BB	9.14720e-1	6.62187e-3	6.05715e-3		Fluorene #6
15.005	BBA	3.30182	1.63652e-1	5.40351e-1		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.759	BB	3.87368e-1	2.32678e-2	9.01321e-3		Fluoranthene #9
18.788	BBA	2.49332e-1	3.86587e-2	9.63884e-3		Pyrene #10
21.129	BB	13.39165	2.97423e-1	3.98298		p-Terphenyl d14 #11*
22.587		-	-	-		Benzo(a)anthracene #12
23.425	BB	1.48289e-1	3.90495e-2	5.79061e-3		Chrysene #13
26.210		-	-	-		Benzo(b)fluoranthene #14
27.662		-	-	-		Benzo(k)fluoranthene #15
28.769		-	-	-		Benzo(a)pyrene #16
30.650		-	-	-		Dibenz(a,h)anthracene #17
31.394	BB	7.66970e-1	2.65165e-2	2.03374e-2		Benzo(g,h,i)perylene #18
32.260	BB	4.67908e-1	1.38204e-2	6.46667e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 4.69343

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.347		-	-	-		Naphthalene #1
10.981		-	-	-		Acenaphthylene #2
11.930		-	-	-		1-Methylnaphthalene #3
12.450	BB	14.92506	1.12393e-2	1.67747e-1		2-Methylnaphthalene #4
13.008	BB	1.85993	2.03163e-2	3.77871e-2		Acenaphthene #5
13.610	BB	1.92947	1.75240e-2	3.38121e-2		Fluorene #6
15.052		-	-	-		Phenanthrene #7
16.393	BBA	4.97761	1.04262e-2	5.18974e-2		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.899		-	-	-		Pyrene #10
21.116	BBA	57.86805	6.56733e-2	3.80038		p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.453		-	-	-		Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.642		-	-	-		Benzo(k)fluoranthene #15
28.749		-	-	-		Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

CMDL

38.0%*

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.433		-	-	-		Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 4.09163

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1

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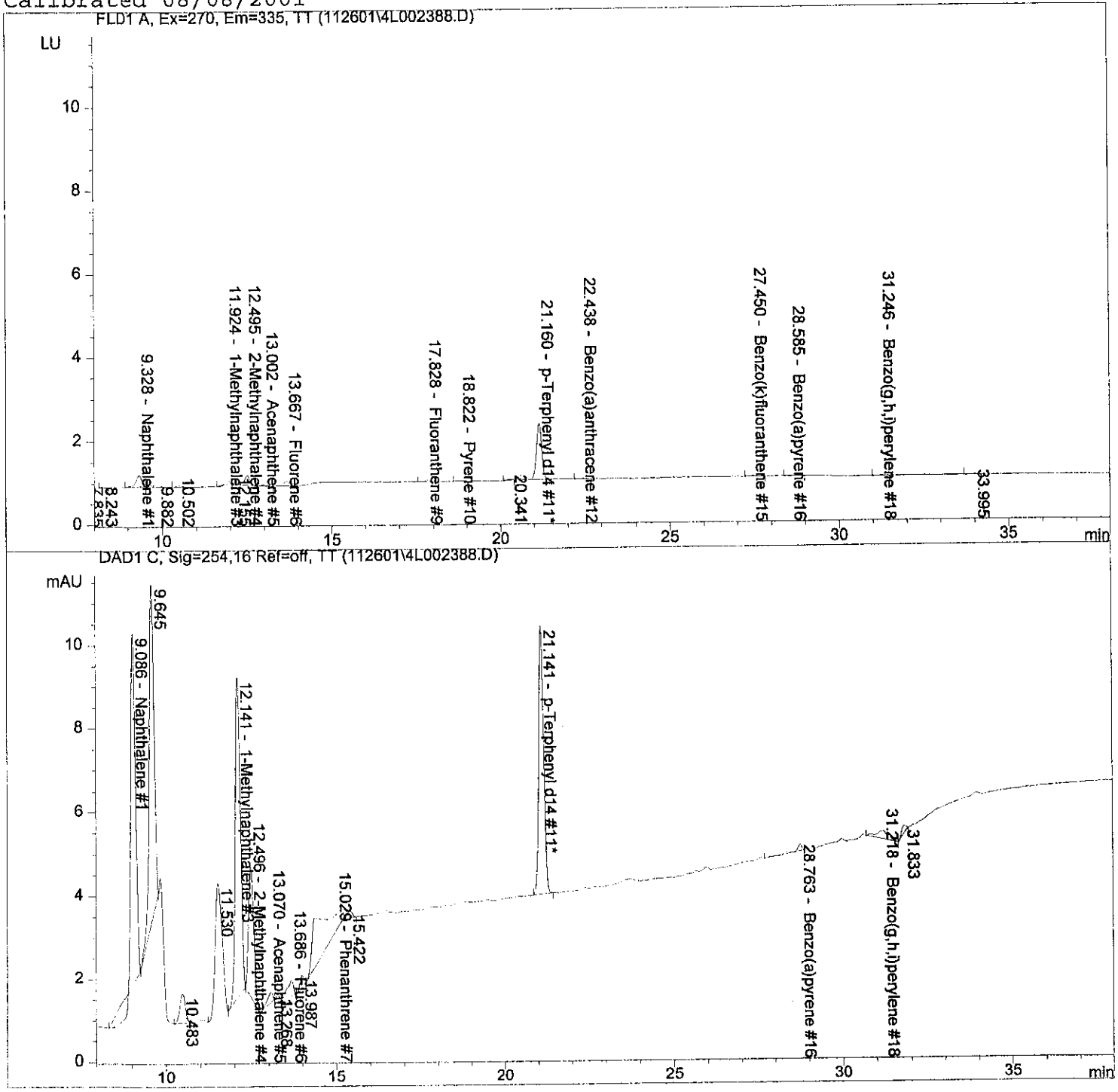
Injection Date : 11/26/2001 4:09:15 PM
Sample Name : L0111316-12 831W re-extract
Acq. Operator : RDC

Seq. Line : 5
Vial : 5
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/27/2001 8:33:25 AM by RDC
(modified after loading)

Calibrated 08/08/2001



External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Tuesday, November 27, 2001 8:33:25 AM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.328	BB	3.38948	2.52962e-2	8.57410e-2		Naphthalene #1
11.924	BB	6.52103e-1	2.21330e-2	1.44330e-2		1-Methylnaphthalene #3
12.495	BB	2.56034	1.70635e-2	4.36883e-2		2-Methylnaphthalene #4
13.002	BB	4.55233e-1	1.38416e-2	6.30114e-3		Acenaphthene #5
13.667	BB	1.69829	6.62187e-3	1.12458e-2		Fluorene #6
15.072		-	-	-		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.828	PBA	4.64285e-1	2.32678e-2	1.08029e-2		Fluoranthene #9
18.822	BBA	1.69902e-1	3.86587e-2	6.56820e-3		Pyrene #10
21.160	BBA	14.60923	2.97423e-1	4.34512		p-Terphenyl d14 #11*
22.438	BB	2.21490e-1	7.91256e-3	1.75255e-3		Benzo(a)anthracene #12
23.473		-	-	-		Chrysene #13
26.210		-	-	-		Benzo(b)fluoranthene #14
27.450	BB	3.27930e-1	2.76572e-3	9.06962e-4		Benzo(k)fluoranthene #15
28.585	BBA	3.08443e-1	4.57119e-3	1.40995e-3		Benzo(a)pyrene #16
30.650		-	-	-		Dibenz(a,h)anthracene #17
31.246	BB	1.93530e-1	2.65165e-2	5.13174e-3		Benzo(g,h,i)perylene #18
32.406		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				4.53310		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.086	BB	73.50761	8.25405e-3	6.06736e-1	L RL	Naphthalene #1
10.981		-	-	-		Acenaphthylene #2
12.141	BB	81.73532	1.29459e-2	1.05813	NC	1-Methylnaphthalene #3
12.496	BB	33.33047	1.12393e-2	3.74610e-1	NC	2-Methylnaphthalene #4
13.070	BB	2.78173	2.03163e-2	5.65145e-2	cmpl	Acenaphthene #5
13.686	BB	5.26056	1.75240e-2	9.21860e-2	↓	Fluorene #6
15.029	BB	38.23806	1.72982e-2	6.61451e-1	NC	Phenanthrene #7
16.471		-	-	-		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.899		-	-	-		Pyrene #10
21.141	BBA	63.97310	6.56733e-2	4.20132	420%	p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.453		-	-	-		Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.642		-	-	-		Benzo(k)fluoranthene #15
28.763	BB	1.93328	2.61680e-2	5.05902e-2	NC	Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.218	BB	4.44569	5.60829e-2	2.49327e-1	NU	Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 7.35087

Results obtained with enhanced integrator!
3 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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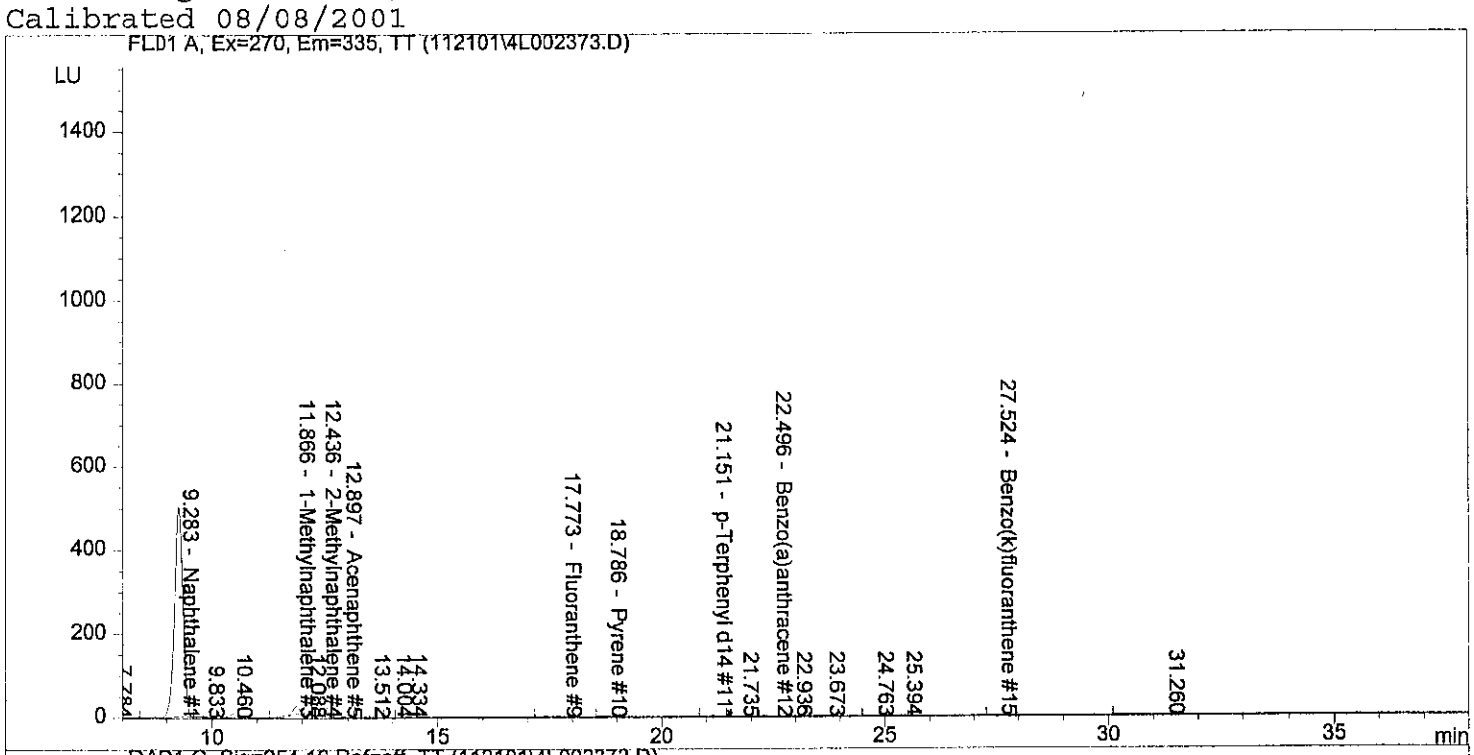
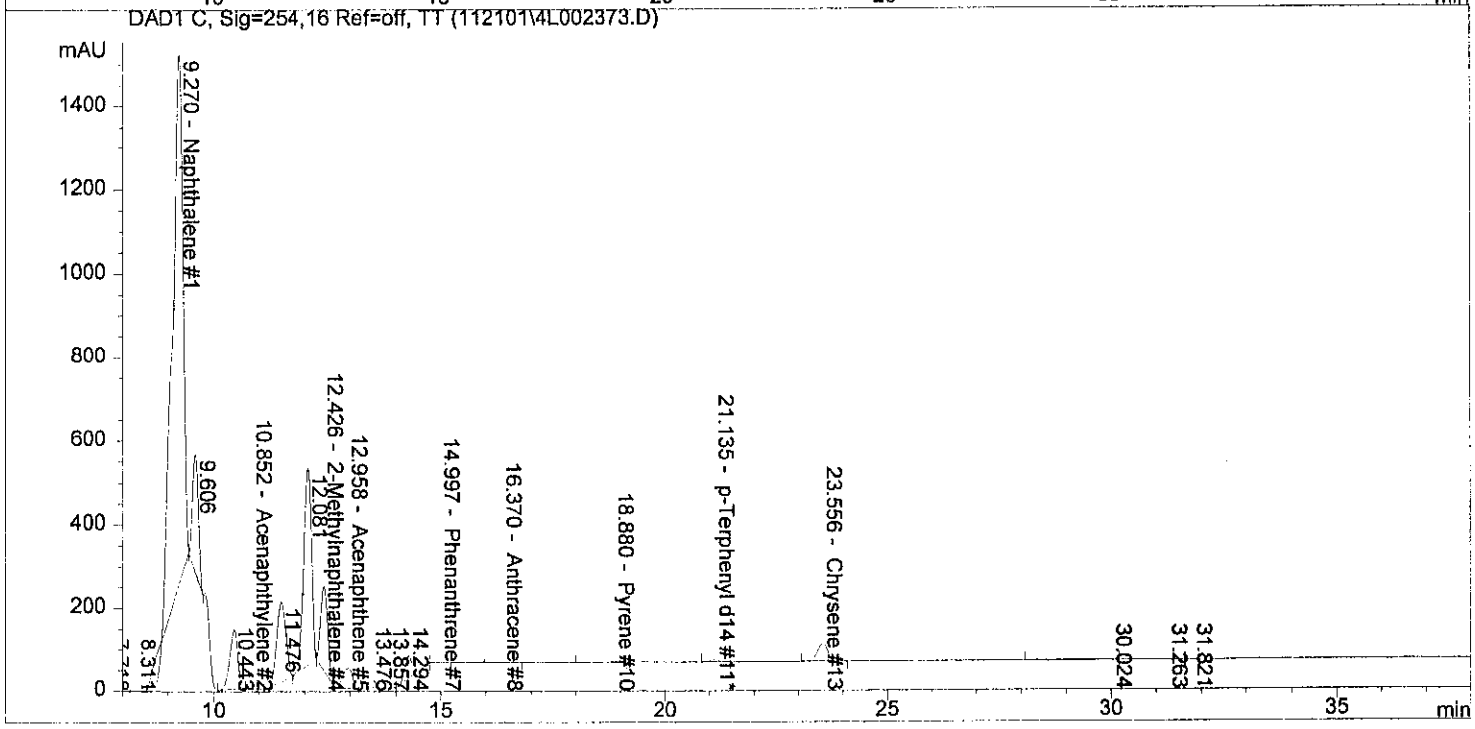
Injection Date : 11/21/2001 10:19:06 PM
Sample Name : L0111316-13 831W
Acq. Operator : RDC

Seq. Line : 6
Vial : 6
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/21/2001 5:14:46 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/1/2001 3:33:11 PM by RDC
Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, October 31, 2001 9:15:43 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.283	BB	6502.25391	2.52962e-2	164.48229	I	Naphthalene #1
11.866	BB	143.66570	2.21330e-2	3.17975		1-Methylnaphthalene #3
12.436	BB	643.29980	1.70635e-2	10.97694	P	2-Methylnaphthalene #4
12.897	BB	14.01189	1.38416e-2	1.93946e-1		Acenaphthene #5
13.673		-	-	-		Fluorene #6
15.072		-	-	-		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.773	BBA	5.60400e-1	2.32678e-2	1.30393e-2		Fluoranthene #9
18.786	BBA	4.42054e-1	3.86587e-2	1.70892e-2		Pyrene #10
21.151	BB	16.28354	2.97423e-1	4.84310	43.4%	p-Terphenyl d14 #11*
22.496	BB	3.27738e-1	7.91256e-3	2.59324e-3		Benzo(a)anthracene #12
23.473		-	-	-		Chrysene #13
26.210		-	-	-		Benzo(b)fluoranthene #14
27.524	PBA	2.17653e-1	2.76572e-3	6.01968e-4		Benzo(k)fluoranthene #15
28.769		-	-	-		Benzo(a)pyrene #16
30.650		-	-	-		Dibenz(a,h)anthracene #17
31.455		-	-	-		Benzo(g,h,i)perylene #18
32.406		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 183.70935

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.270	BB	2.01574e4	8.25405e-3	166.38033	I	Naphthalene #1
10.852	BB	33.04266	2.96975e-2	9.81285e-1	<RL	Acenaphthylene #2
11.930		-	-	-		1-Methylnaphthalene #3
12.426	BB	2146.17749	1.12393e-2	24.12148	P	2-Methylnaphthalene #4
12.958	BB	755.22644	2.03163e-2	15.34344	NC	Acenaphthene #5
13.663		-	-	-		Fluorene #6
14.997	BB	6.83286	1.72982e-2	1.18197e-1	<MDL	Phenanthrene #7
16.370	BB	8.12549	1.04262e-2	8.47179e-2	↓	Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.880	BB	11.05276	1.43052e-2	1.58112e-1	NC	Pyrene #10
21.135	BBA	72.49227	6.56733e-2	4.76080		p-Terphenyl d14 #11*
22.568		-	-	-	47.6%	Benzo(a)anthracene #12
23.556	PBA	677.60632	1.51453e-2	10.26255	NC	Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.642		-	-	-		Benzo(k)fluoranthene #15
28.749		-	-	-		Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.433		-	-	-		Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 222.21092

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,5 5X dil'n. for naphthalene

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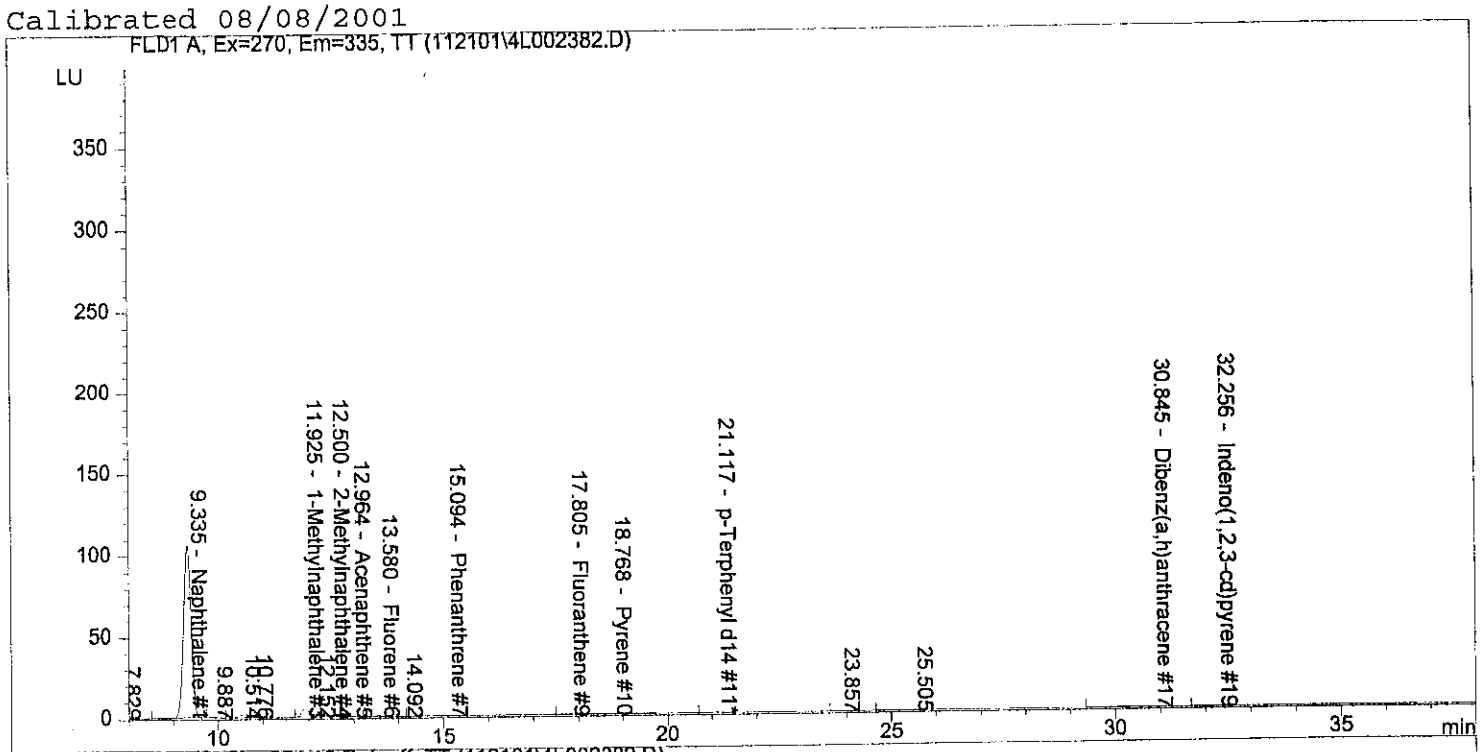
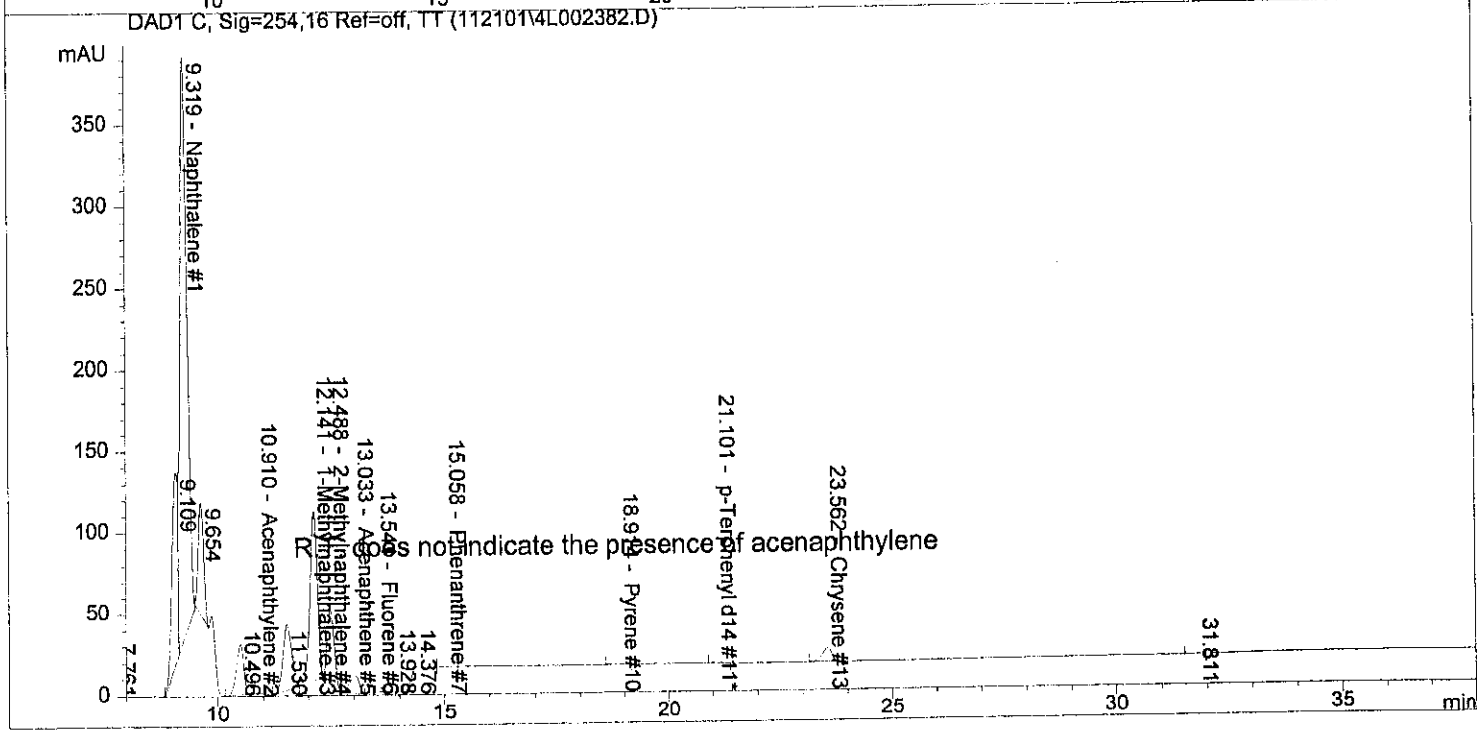
Injection Date	: 11/22/2001 6:48:47 AM	Seq. Line	: 15
Sample Name	: L0111316-13 5X	Vial	: 15
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/21/2001 5:14:46 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/26/2001 9:28:48 AM by RDC
(modified after loading)

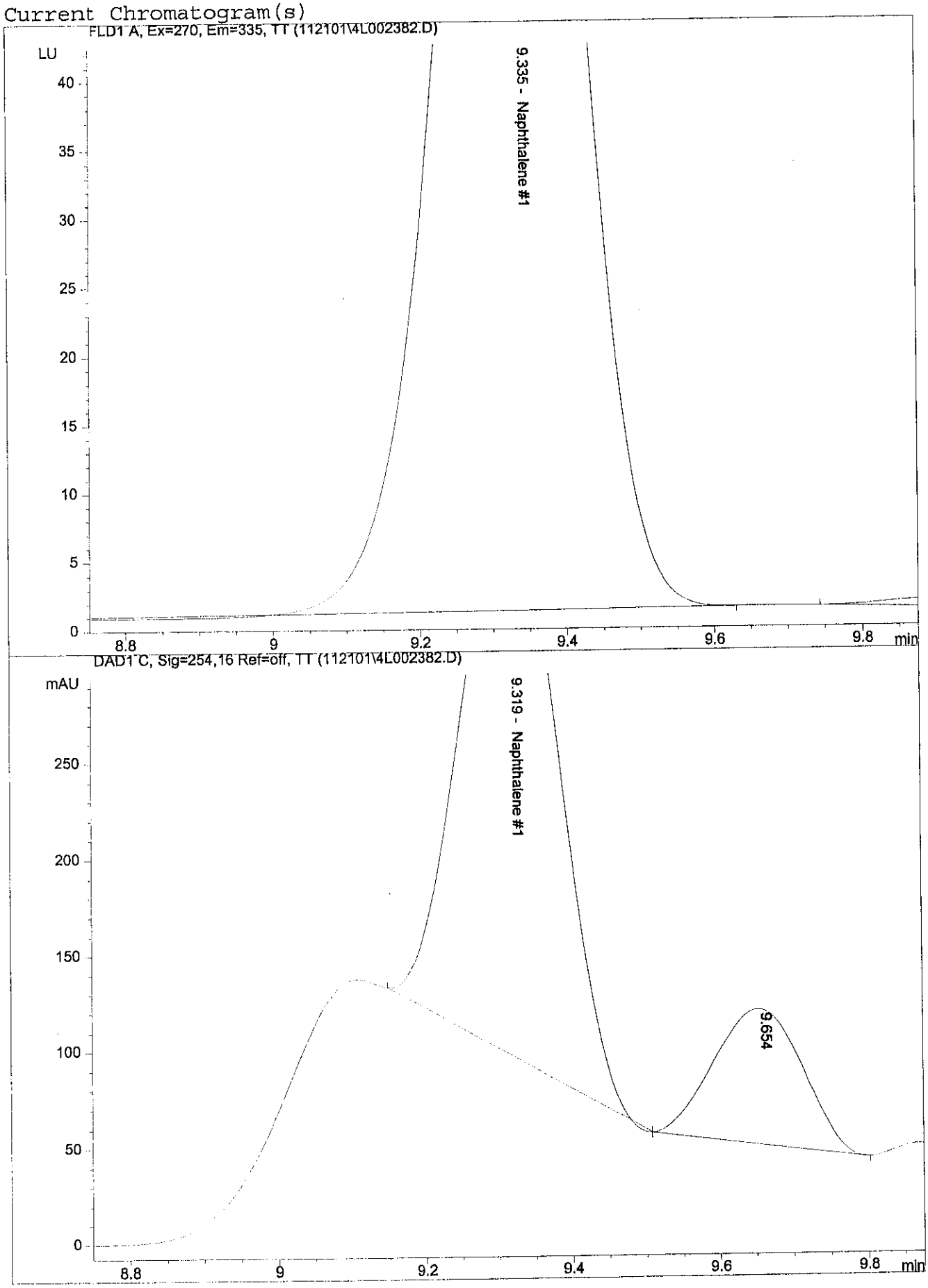
Calibrated 08/08/2001



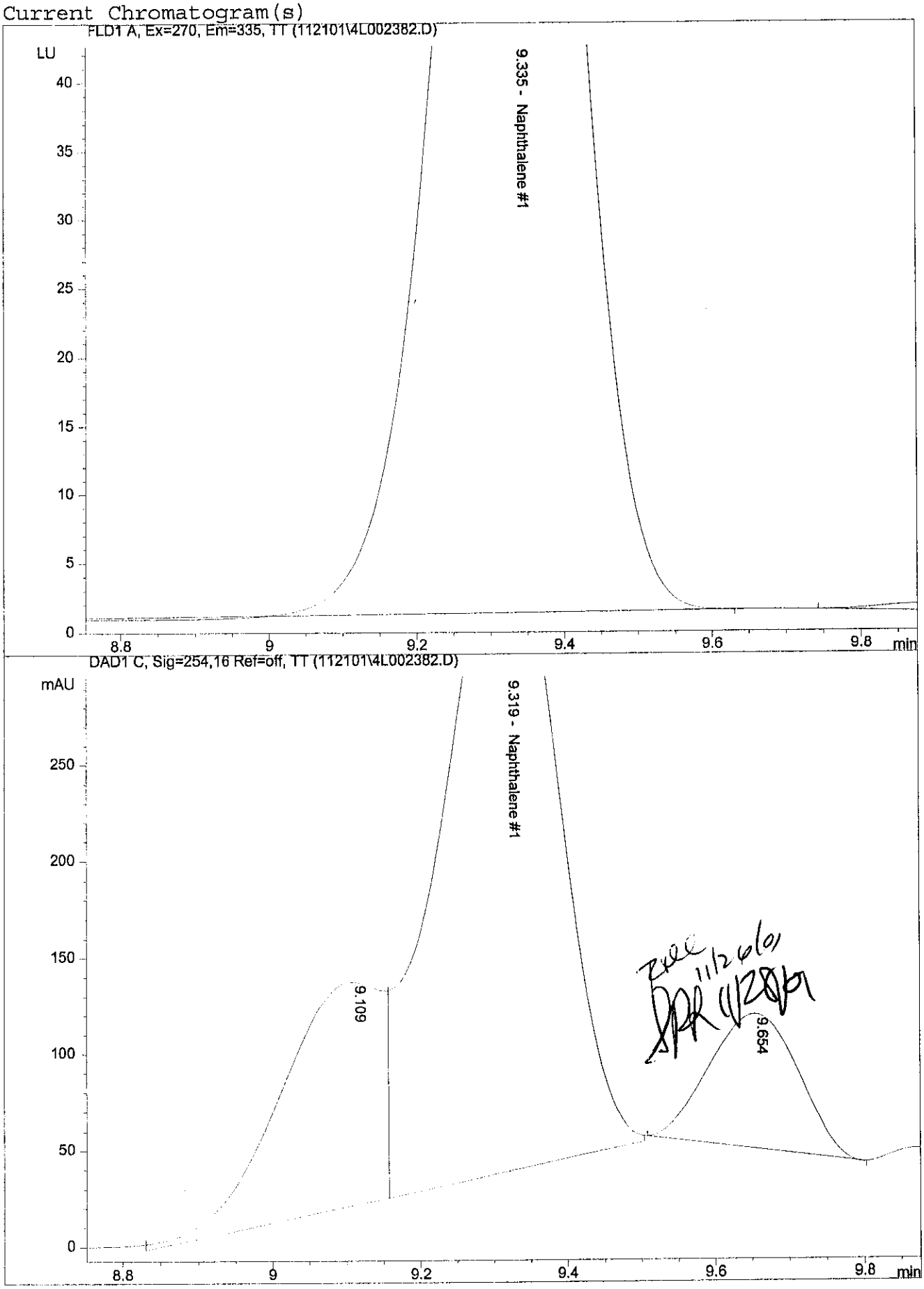


R does not indicate the presence of acenaphthylene

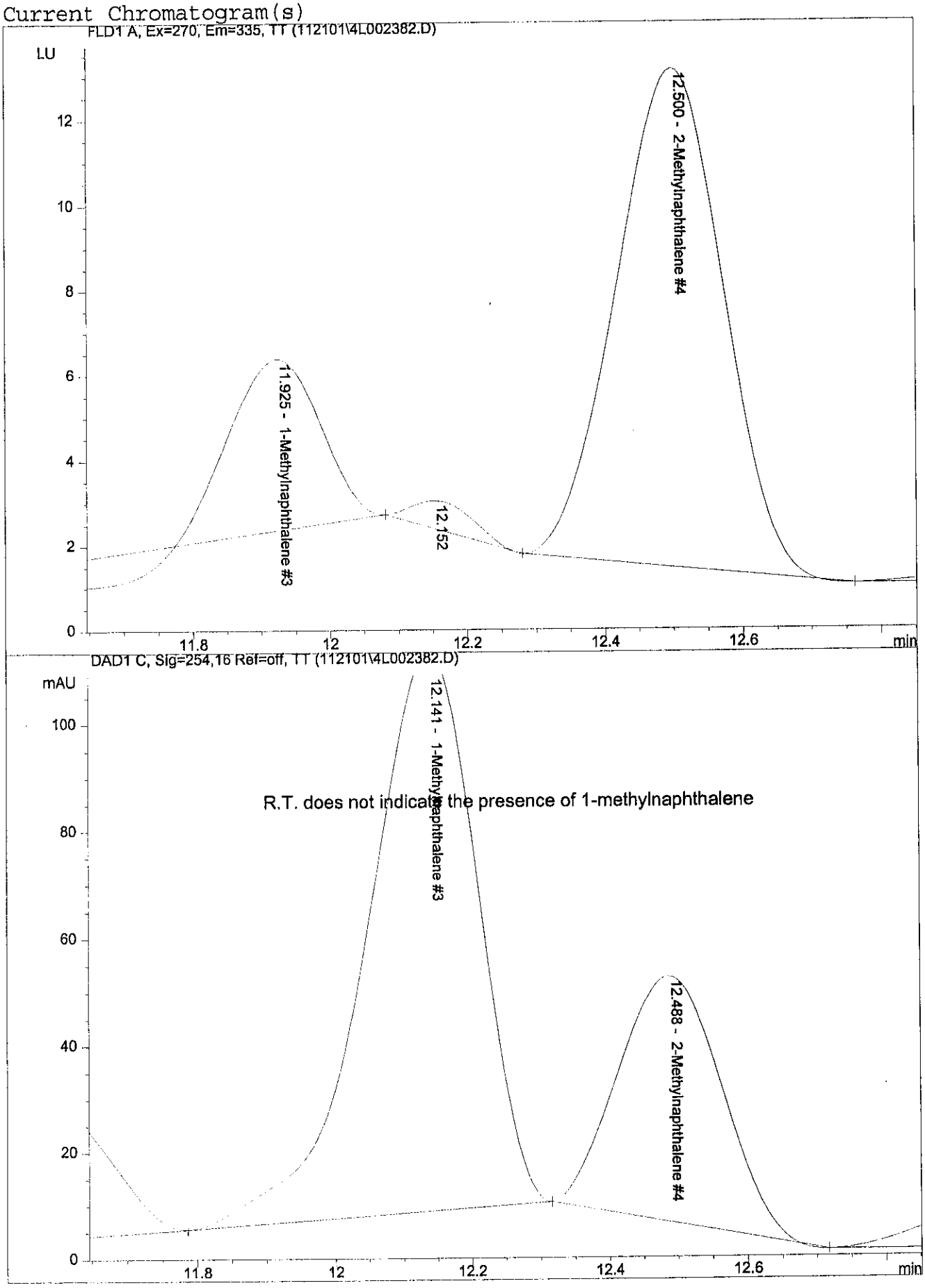
Current Chromatogram(s)



Current Chromatogram(s)



Current Chromatogram(s)



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Monday, November 26, 2001 9:28:47 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.335	PB	1215.97327	2.52962e-2	30.75950	X5	Naphthalene #1
11.925	MM	42.89007	2.21330e-2	9.49284e-1		1-Methylnaphthalene #3
12.500	BB	125.22398	1.70635e-2	2.13676	P	2-Methylnaphthalene #4
12.964	BB	3.00637	1.38416e-2	4.16128e-2		Acenaphthene #5
13.580	BB	10.62694	6.62187e-3	7.03702e-2		Fluorene #6
15.094	BB	6.74356	1.63652e-1	1.10360		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.805	BB	2.01585e-1	2.32678e-2	4.69046e-3		Fluoranthene #9
18.768	BBA	6.72617e-1	3.86587e-2	2.60025e-2		Pyrene #10
21.117	BB	3.55399	2.97423e-1	1.05704		p-Terphenyl d14 #11*
22.587		-	-	-	52.9%	Benzo(a)anthracene #12
23.473		-	-	-		Chrysene #13
26.210		-	-	-		Benzo(b)fluoranthene #14
27.662		-	-	-		Benzo(k)fluoranthene #15
28.769		-	-	-		Benzo(a)pyrene #16
30.845	PB	7.57809e-1	3.93496e-2	2.98195e-2		Dibenz(a,h)anthracene #17
31.455		-	-	-		Benzo(g,h,i)perylene #18
32.256	PB	1.80536e-1	1.38204e-2	2.49508e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 36.18117

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.319	FM	3779.24292	8.25405e-3	31.19406	X5	Naphthalene #1
10.910	BB	7.73438	2.96975e-2	2.29692e-1	NA	Acenaphthylene #2
12.141	BB	1166.20691	1.29459e-2	15.09755	R.T.	1-Methylnaphthalene #3
12.488	BB	476.41397	1.12393e-2	5.35455	P	2-Methylnaphthalene #4
13.033	BB	152.36998	2.03163e-2	3.09560	NC	Acenaphthene #5
13.541	BB	49.49878	1.75240e-2	8.67417e-1	↓	Fluorene #6
15.058	BBA	1.33881	1.72982e-2	2.31590e-2	NA	Phenanthrene #7
16.471		-	-	-		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.914	BBA	2.37895	1.43052e-2	3.40314e-2	NC	Pyrene #10
21.101	BBA	13.61046	6.56733e-2	8.93843e-1	DC	p-Terphenyl d14 #11*
22.568		-	-	-	44.7%	Benzo(a)anthracene #12
23.562	BBA	127.85730	1.51453e-2	1.93644	NC	Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.642		-	-	-		Benzo(k)fluoranthene #15
28.749		-	-	-		Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.433		-	-	-		Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 58.72633

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1

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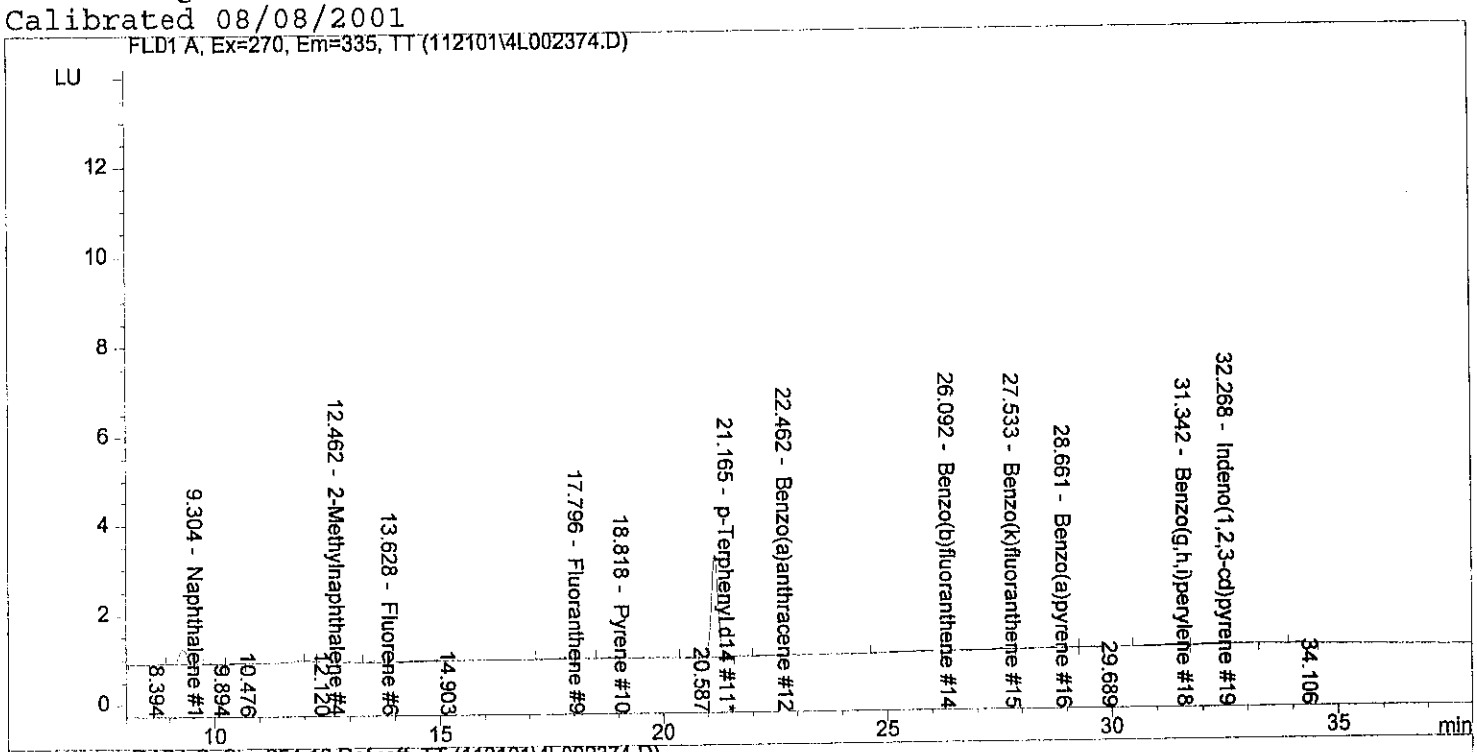
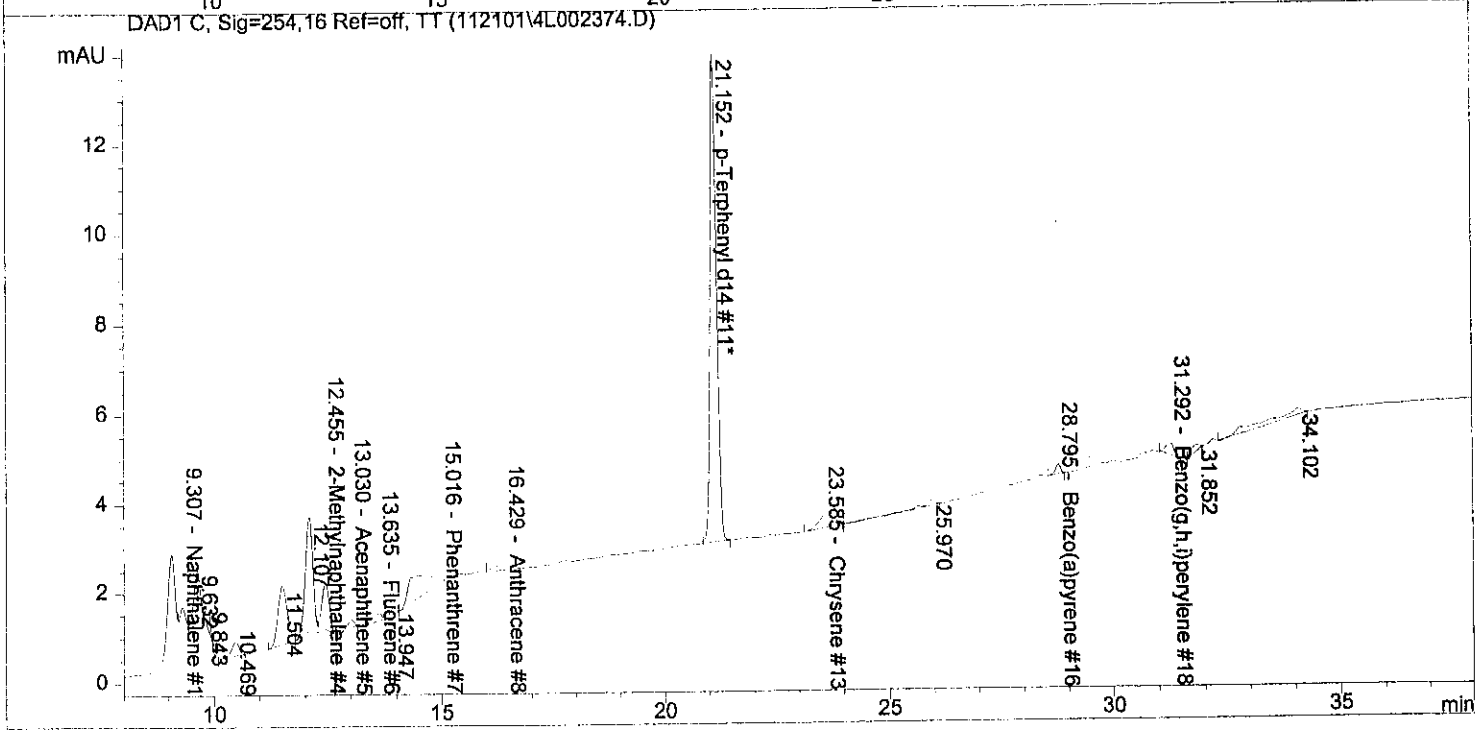
Injection Date : 11/21/2001 11:15:44 PM
Sample Name : L0111316-14 831W
Acq. Operator : RDC

Seq. Line : 7
Vial : 7
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/21/2001 5:14:46 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/1/2001 3:33:11 PM by RDC
Calibrated 08/08/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Wednesday, October 31, 2001 9:15:43 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.304	BB	3.84963	2.52962e-2	9.73810e-2		Naphthalene #1
11.949		-	-	-		1-Methylnaphthalene #3
12.462	BBA	1.20394	1.70635e-2	2.05434e-2		2-Methylnaphthalene #4
13.009		-	-	-		Acenaphthene #5
13.628	BB	7.77121e-1	6.62187e-3	5.14599e-3		Fluorene #6
15.072		-	-	-		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.796	PBA	4.62070e-1	2.32678e-2	1.07514e-2		Fluoranthene #9
18.818	PBA	2.43716e-1	3.86587e-2	9.42173e-3		Pyrene #10
21.165	BB	25.11396	2.97423e-1	7.46946		p-Terphenyl d14 #11*
22.462	BB	2.91308e-1	7.91256e-3	2.30499e-3		Benzo(a)anthracene #12
23.473		-	-	-		Chrysene #13
26.092	BB	6.77636e-1	1.63222e-2	1.10605e-2		Benzo(b)fluoranthene #14
27.533	BB	3.70921e-1	2.76572e-3	1.02586e-3		Benzo(k)fluoranthene #15
28.661	BB	4.87659e-1	4.57119e-3	2.22918e-3		Benzo(a)pyrene #16
30.650		-	-	-		Dibenz(a,h)anthracene #17
31.342	BB	1.27496	2.65165e-2	3.38076e-2		Benzo(g,h,i)perylene #18
32.268	BB	1.54129	1.38204e-2	2.13013e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 7.68444

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.307	BB	2.21207	8.25405e-3	1.82586e-2	cmol	Naphthalene #1
10.981		-	-	-		Acenaphthylene #2
11.930		-	-	-		1-Methylnaphthalene #3
12.455	BB	11.01378	1.12393e-2	1.23787e-1	cmol	2-Methylnaphthalene #4
13.030	BB	1.84282	2.03163e-2	3.74393e-2		Acenaphthene #5
13.635	BB	2.37362	1.75240e-2	4.15953e-2		Fluorene #6
15.016	BB	20.48575	1.72982e-2	3.54367e-1	NC	Phenanthrene #7
16.429	BB	4.19734	1.04262e-2	4.37623e-2	cmol	Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.899		-	-	-		Pyrene #10
21.152	BBA	111.87748	6.56733e-2	7.34736	73.5%	p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.585	PB	5.67500	1.51453e-2	8.59495e-2	NC	Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.642		-	-	-		Benzo(k)fluoranthene #15
28.795	BB	1.82775	2.61680e-2	4.78286e-2	NC	Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.292	BB	3.28730	5.60829e-2	1.84362e-1		Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.28471

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

2.2.7.3 Standards Data

Calibration Table

HPLC4 8310 CALIBRATION

Calib. Data Modified : 8/9/2001 2:38:03 PM

Calculate : External Standard
Based on : Peak Area

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.300 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.300 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Forced
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FLD1 A, Ex=270, Em=335, TT
Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
9.446	2	1	1.00000	122.72835	8.14808e-3			Naphthalene #1
		2	5.00000	597.19745	8.37244e-3			
		3	10.00000	1248.26221	8.01114e-3			
		4	20.00000	2499.14551	8.00274e-3			
		5	50.00000	6202.44971	8.06133e-3			
		6	100.00000	1.20244e4	8.31644e-3			
9.462	1	1	1.00000	37.17168	2.69022e-2			Naphthalene #1
		2	5.00000	181.76619	2.75079e-2			
		3	10.00000	381.56079	2.62081e-2			
		4	20.00000	771.00281	2.59402e-2			
		5	50.00000	1948.04333	2.56668e-2			
		6	100.00000	3973.55249	2.51664e-2			
11.077	2	1	1.00000	32.52021	3.07501e-2			Acenaphthylene #2
		2	5.00000	157.20731	3.18051e-2			
		3	10.00000	328.40460	3.04502e-2			
		4	20.00000	660.92621	3.02606e-2			
		5	50.00000	1657.23242	3.01708e-2			
		6	100.00000	3384.39795	2.95474e-2			
12.023	2	1	1.00000	75.33028	1.32749e-2			1-Methylnaphthalene #3

Method C:\HPCHEM\2\METHODS\8310DATA.M

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		2	5.00000	365.03561	1.36973e-2			
		3	10.00000	763.85205	1.30915e-2			
		4	20.00000	1534.10083	1.30370e-2			
		5	50.00000	3838.97803	1.30243e-2			
		6	100.00000	7740.20703	1.29196e-2			
12.040	1	1	1.00000	42.88826	2.33164e-2			1-Methylnaphthalene #3
		2	5.00000	209.24336	2.38956e-2			
		3	10.00000	438.85303	2.27867e-2			
		4	20.00000	887.93890	2.25241e-2			
		5	50.00000	2235.18970	2.23695e-2			
		6	100.00000	4535.38281	2.20489e-2			
12.601	2	1	1.00000	88.22273	1.13349e-2			2-Methylnaphthalene #4
		2	5.00000	428.27109	1.16748e-2			
		3	10.00000	894.31500	1.11817e-2			
		4	20.00000	1794.47327	1.11453e-2			
		5	50.00000	4469.53662	1.11868e-2			
		6	100.00000	8884.32324	1.12558e-2			
12.617	1	1	1.00000	56.35436	1.77449e-2			2-Methylnaphthalene #4
		2	5.00000	274.39529	1.82219e-2			
		3	10.00000	575.43298	1.73782e-2			
		4	20.00000	1160.72327	1.72306e-2			
		5	50.00000	2909.70630	1.71839e-2			
		6	100.00000	5875.01660	1.70212e-2			
13.080	2	1	1.00000	47.72895	2.09516e-2			Acenaphthene #5
		2	5.00000	231.24211	2.16224e-2			
		3	10.00000	483.56268	2.06798e-2			
		4	20.00000	971.18744	2.05933e-2			
		5	50.00000	2433.60547	2.05456e-2			
		6	100.00000	4940.15088	2.02423e-2			
13.096	1	1	1.00000	70.47864	1.41887e-2			Acenaphthene #5
		2	5.00000	342.62488	1.45932e-2			
		3	10.00000	718.90424	1.39101e-2			
		4	20.00000	1445.95483	1.38317e-2			
		5	50.00000	3605.74121	1.38668e-2			
		6	100.00000	7228.99854	1.38332e-2			
13.740	2	1	1.00000	54.47855	1.83558e-2			Fluorene #6
		2	5.00000	266.30728	1.87753e-2			
		3	10.00000	557.46277	1.79384e-2			
		4	20.00000	1121.39856	1.78349e-2			
		5	50.00000	2816.46851	1.77527e-2			
		6	100.00000	5731.11230	1.74486e-2			
13.757	1	1	1.00000	154.16187	6.48669e-3			Fluorene #6
		2	5.00000	746.17523	6.70084e-3			
		3	10.00000	1559.63367	6.41176e-3			
		4	20.00000	3112.09448	6.42654e-3			
		5	50.00000	7656.80322	6.53014e-3			
		6	100.00000	1.50256e4	6.65533e-3			
15.136	2	1	1.00000	55.64261	1.79718e-2			Phenanthrene #7
		2	5.00000	270.24643	1.85016e-2			
		3	10.00000	565.66064	1.76784e-2			
		4	20.00000	1137.18030	1.75874e-2			
		5	50.00000	2852.19556	1.75304e-2			
		6	100.00000	5806.07617	1.72233e-2			
15.153	1	1	1.00000	5.49988	1.81822e-1			Phenanthrene #7
		2	5.00000	27.27178	1.83340e-1			
		3	10.00000	58.15233	1.71962e-1			

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		4	20.00000	116.85247	1.71156e-1			
		5	50.00000	295.27972	1.69331e-1			
		6	100.00000	617.71191	1.61888e-1			
16.549	2	1	1.00000	95.56687	1.04639e-2			Anthracene #8
		2	5.00000	465.29129	1.07460e-2			
		3	10.00000	973.54010	1.02718e-2			
		4	20.00000	1952.77490	1.02418e-2			
		5	50.00000	4858.51855	1.02912e-2			
		6	100.00000	9552.15625	1.04688e-2			
16.566	1	1	1.00000	3.13834	3.18640e-1			Anthracene #8
		2	5.00000	15.29622	3.26878e-1			
		3	10.00000	32.12813	3.11254e-1			
		4	20.00000	63.99872	3.12506e-1			
		5	50.00000	159.95667	3.12585e-1			
		6	100.00000	323.14050	3.09463e-1			
17.931	2	1	1.00000e-1	4.46854	2.23787e-2			Fluoranthene #9
		2	5.00000e-1	21.37060	2.33966e-2			
		3	1.00000	44.25564	2.25960e-2			
		4	2.00000	89.62297	2.23157e-2			
		5	5.00000	226.24062	2.21004e-2			
		6	10.00000	463.67642	2.15668e-2			
17.948	1	1	1.00000e-1	3.92854	2.54548e-2			Fluoranthene #9
		2	5.00000e-1	19.73562	2.53349e-2			
		3	1.00000	41.21679	2.42620e-2			
		4	2.00000	83.17304	2.40463e-2			
		5	5.00000	210.50659	2.37522e-2			
		6	10.00000	432.79266	2.31058e-2			
18.944	2	1	1.00000e-1	6.23924	1.60276e-2			Pyrene #10
		2	5.00000e-1	31.33940	1.59544e-2			
		3	1.00000	67.74028	1.47623e-2			
		4	2.00000	135.53003	1.47569e-2			
		5	5.00000	342.22821	1.46101e-2			
		6	10.00000	703.95166	1.42055e-2			
18.961	1	1	1.00000e-1	2.27570	4.39426e-2			Pyrene #10
		2	5.00000e-1	11.52839	4.33712e-2			
		3	1.00000	24.49013	4.08328e-2			
		4	2.00000	50.45357	3.96404e-2			
		5	5.00000	130.27173	3.83813e-2			
21.302	2	1	1.00000	14.08348	7.10052e-2			p-Terphenyl d14 #11*
		2	5.00000	70.24126	7.11832e-2			
		3	10.00000	145.31215	6.88174e-2			
		4	20.00000	299.12198	6.68624e-2			
		5	50.00000	752.44629	6.64499e-2			
		6	100.00000	1529.22424	6.53926e-2			
21.319	1	1	1.00000	3.07342	3.25370e-1			p-Terphenyl d14 #11*
		2	5.00000	15.32359	3.26294e-1			
		3	10.00000	31.73221	3.15137e-1			
		4	20.00000	64.98736	3.07752e-1			
		5	50.00000	163.61835	3.05589e-1			
		6	100.00000	339.18564	2.94824e-1			
22.628	2	1	1.00000e-1	4.00703	2.49561e-2			Benzo(a)anthracene #12
		2	5.00000e-1	20.54964	2.43313e-2			
		3	1.00000	43.83417	2.28133e-2			
		4	2.00000	87.18385	2.29400e-2			
		5	5.00000	220.89987	2.26347e-2			
		6	10.00000	451.58978	2.21440e-2			

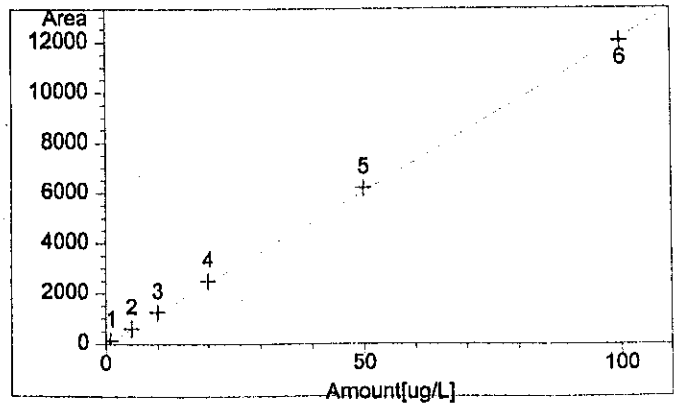
RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
22.644	1	1	1.00000e-1	11.54687	8.66035e-3			Benzo(a)anthracene #12
		2	5.00000e-1	56.84493	8.79586e-3			
		3	1.00000	119.82957	8.34519e-3			
		4	2.00000	242.58244	8.24462e-3			
		5	5.00000	616.44403	8.11104e-3			
		6	10.00000	1274.56396	7.84582e-3			
23.513	2	1	1.00000e-1	6.06011	1.65013e-2			Chrysene #13
		2	5.00000e-1	30.26713	1.65196e-2			
		3	1.00000	63.60076	1.57231e-2			
		4	2.00000	128.16238	1.56052e-2			
		5	5.00000	324.43796	1.54113e-2			
		6	10.00000	664.28351	1.50538e-2			
23.528	1	1	1.00000e-1	2.41118	4.14734e-2			Chrysene #13
		2	5.00000e-1	11.43981	4.37070e-2			
		3	1.00000	24.17820	4.13596e-2			
		4	2.00000	48.77195	4.10072e-2			
		5	5.00000	124.43752	4.01808e-2			
		6	10.00000	258.58917	3.86714e-2			
26.253	2	1	1.00000e-1	4.43454	2.25503e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	22.12707	2.25968e-2			
		3	1.00000	46.71288	2.14074e-2			
		4	2.00000	93.81008	2.13197e-2			
		5	5.00000	236.98158	2.10987e-2			
		6	10.00000	485.19955	2.06101e-2			
26.269	1	1	1.00000e-1	5.57386	1.79409e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	27.63313	1.80942e-2			
		3	1.00000	58.33105	1.71435e-2			
		4	2.00000	118.32101	1.69032e-2			
		5	5.00000	299.93723	1.66702e-2			
		6	10.00000	617.15186	1.62035e-2			
27.699	2	1	5.00000e-2	2.30033	2.17360e-2			Benzo(k)fluoranthene #
		2	2.50000e-1	10.19696	2.45171e-2			
		3	5.00000e-1	21.84682	2.28866e-2			
		4	1.00000	43.54576	2.29643e-2			
		5	2.50000	108.82767	2.29721e-2			
		6	5.00000	222.55347	2.24665e-2			
27.716	1	1	5.00000e-2	16.87873	2.96231e-3			Benzo(k)fluoranthene #
		2	2.50000e-1	83.81139	2.98289e-3			
		3	5.00000e-1	176.43927	2.83384e-3			
		4	1.00000	355.36359	2.81402e-3			
		5	2.50000	893.52496	2.79791e-3			
		6	5.00000	1815.06726	2.75472e-3			
28.826	2	1	1.00000e-1	3.45270	2.89628e-2			Benzo(a)pyrene #16
		2	5.00000e-1	16.98781	2.94329e-2			
		3	1.00000	35.68842	2.80203e-2			
		4	2.00000	71.60413	2.79313e-2			
		5	5.00000	186.41614	2.68217e-2			
		6	10.00000	385.80145	2.59201e-2			
28.843	1	1	1.00000e-1	19.26282	5.19135e-3			Benzo(a)pyrene #16
		2	5.00000e-1	96.67756	5.17183e-3			
		3	1.00000	203.54648	4.91288e-3			
		4	2.00000	414.51672	4.82490e-3			
		5	5.00000	1063.36975	4.70203e-3			
		6	10.00000	2209.61670	4.52567e-3			
30.713	2	1	1.00000e-1	1.04021	9.61345e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	6.85372	7.29531e-2			

RetTime [min]	Lvl Sig		Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		3	1.00000	10.35146	9.66047e-2			
		4	2.00000	21.07817	9.48849e-2			
		5	5.00000	52.55205	9.51438e-2			
		6	10.00000	106.53020	9.38701e-2			
30.721	1	1	1.00000e-1	2.12374	4.70867e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	10.91603	4.58042e-2			
		3	1.00000	23.53592	4.24882e-2			
		4	2.00000	47.95410	4.17066e-2			
		5	5.00000	122.84724	4.07010e-2			
		6	10.00000	257.09790	3.88957e-2			
31.544	2	1	1.00000e-1	8.44691e-1	1.18386e-1			Benzo(g,h,i)perylene #
		2	5.00000e-1	5.61006	8.91256e-2			
		3	1.00000	13.18469	7.58455e-2			
		4	2.00000	33.12908	6.03699e-2			
		5	5.00000	87.58637	5.70865e-2			
		6	10.00000	180.23679	5.54826e-2			
31.563	1	1	1.00000e-1	3.08265	3.24397e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	15.83937	3.15669e-2			
		3	1.00000	33.85759	2.95355e-2			
		4	2.00000	69.49560	2.87788e-2			
		5	5.00000	181.30618	2.75777e-2			
		6	10.00000	382.48065	2.61451e-2			
32.469	2	1	1.00000e-1	4.35778	2.29475e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	21.11818	2.36763e-2			
		3	1.00000	45.97294	2.17519e-2			
		4	2.00000	91.52023	2.18531e-2			
		5	5.00000	239.26749	2.08971e-2			
		6	10.00000	489.90164	2.04123e-2			
32.473	1	1	1.00000e-1	6.64809	1.50419e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	32.35181	1.54551e-2			
		3	1.00000	69.61817	1.43641e-2			
		4	2.00000	140.75026	1.42096e-2			
		5	5.00000	354.48691	1.41049e-2			
		6	10.00000	728.48004	1.37272e-2			

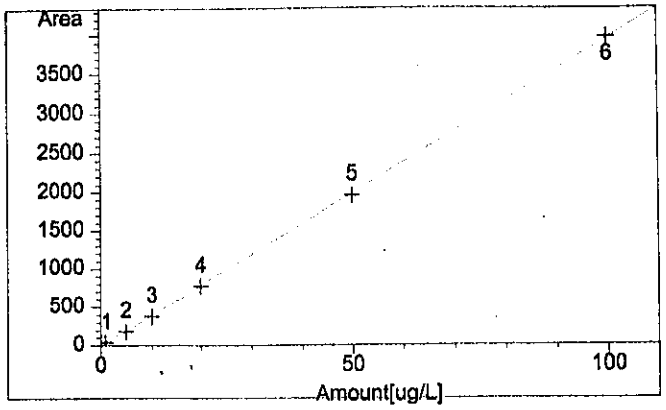
Peak Sum Table

No Entries in table

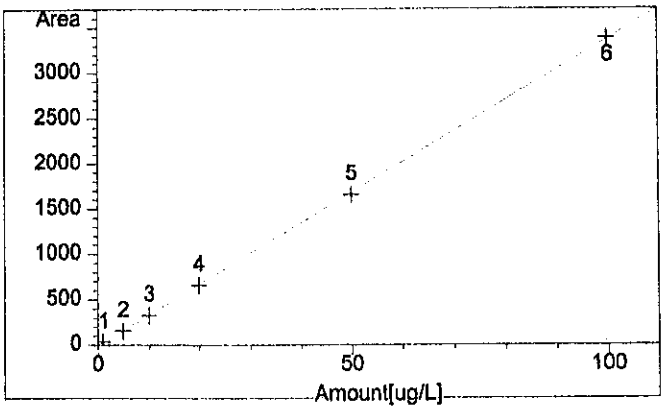
Calibration Curves



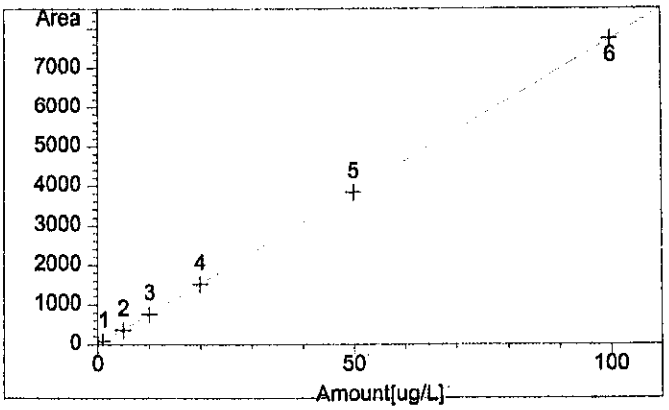
Naphthalene #1 at exp. RT: 9.446
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 85.37927
Formula: y = mx
m: 121.15265
x: Amount[ug/L]
y: Area



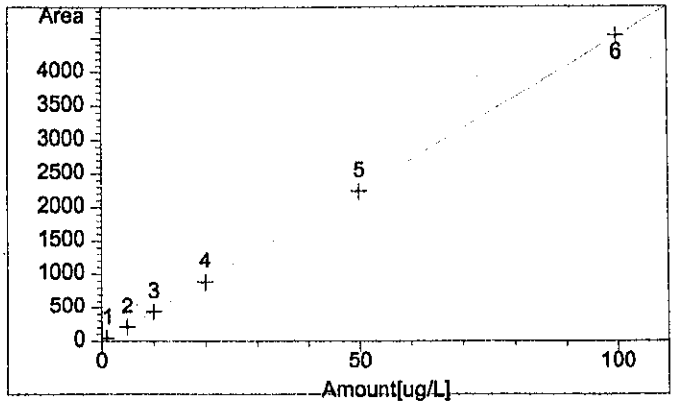
Naphthalene #1 at exp. RT: 9.462
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 20.31169
Formula: y = mx
m: 39.53164
x: Amount [ug/L]
y: Area



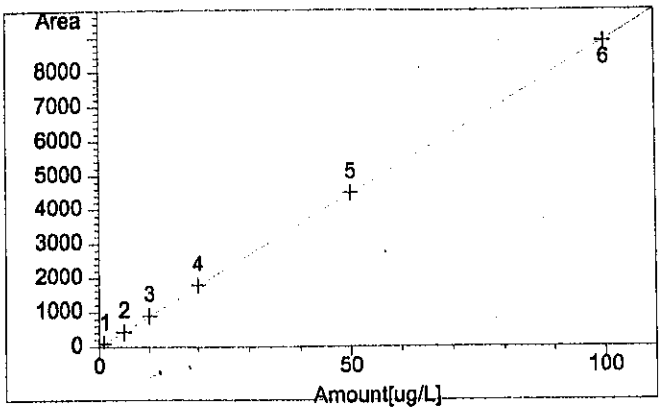
Acenaphthylene #2 at exp. RT: 11.077
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 16.38572
Formula: y = mx
m: 33.67285
x: Amount [ug/L]
y: Area



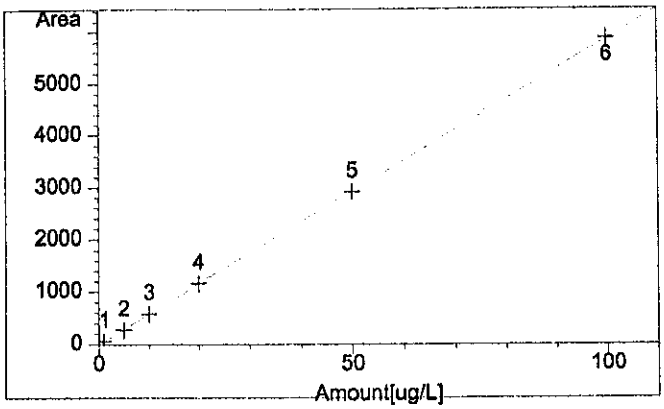
1-Methylnaphthalene #3 at exp. RT: 12.023
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 16.92039
Formula: y = mx
m: 77.24479
x: Amount [ug/L]
y: Area



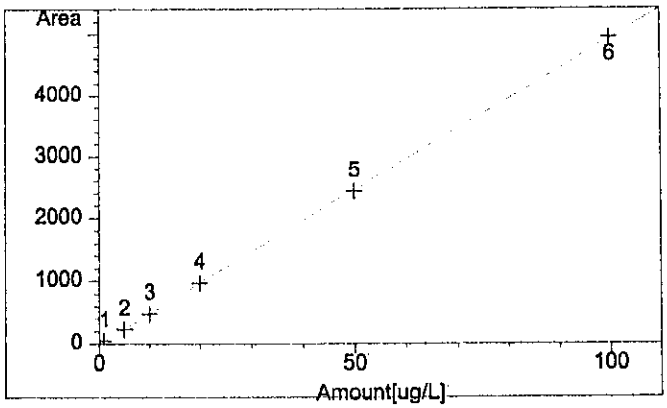
1-Methylnaphthalene #3 at exp. RT: 12.040
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 17.68985
Formula: y = mx
m: 45.18150
x: Amount [ug/L]
y: Area



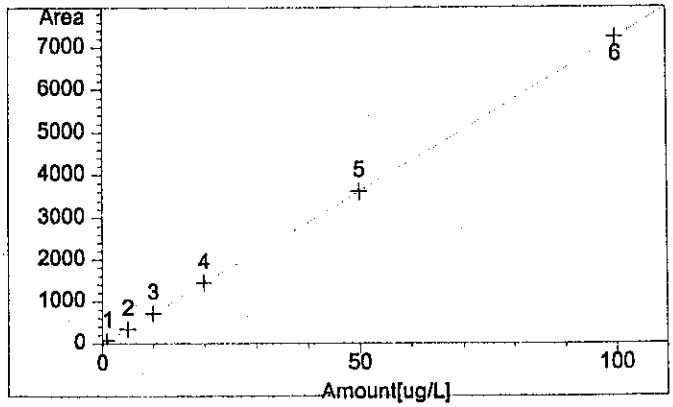
2-Methylnaphthalene #4 at exp. RT: 12.601
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 15.01321
Formula: y = mx
m: 88.97369
x: Amount [ug/L]
y: Area



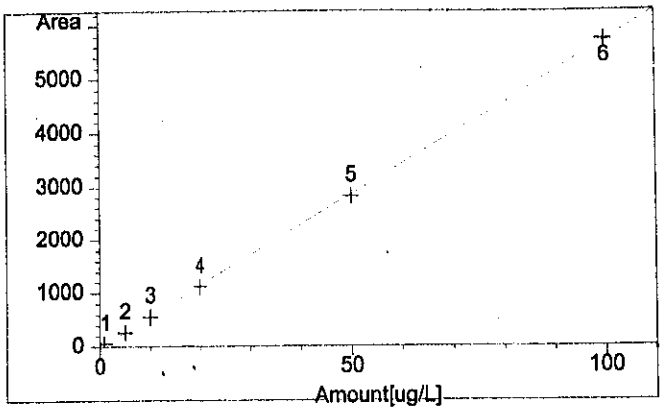
2-Methylnaphthalene #4 at exp. RT: 12.617
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 15.66561
Formula: y = mx
m: 58.60464
x: Amount [ug/L]
y: Area



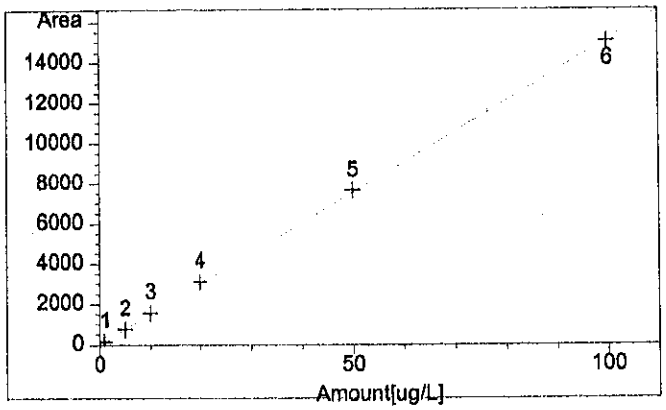
Acenaphthene #5 at exp. RT: 13.080
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 17.61841
Formula: y = mx
m: 49.22146
x: Amount [ug/L]
y: Area



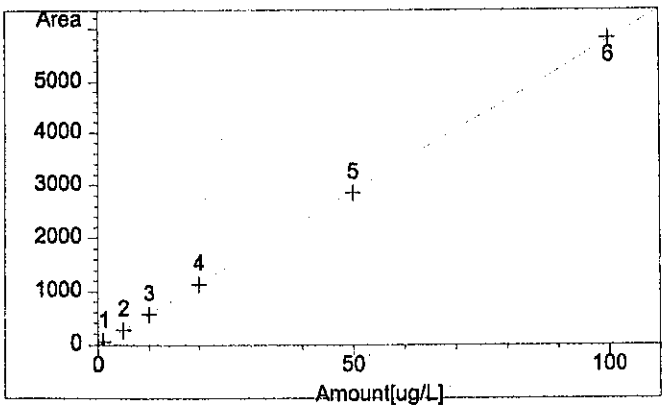
Acenaphthene #5 at exp. RT: 13.096
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 9.22337
Formula: y = mx
m: 72.24617
x: Amount [ug/L]
y: Area



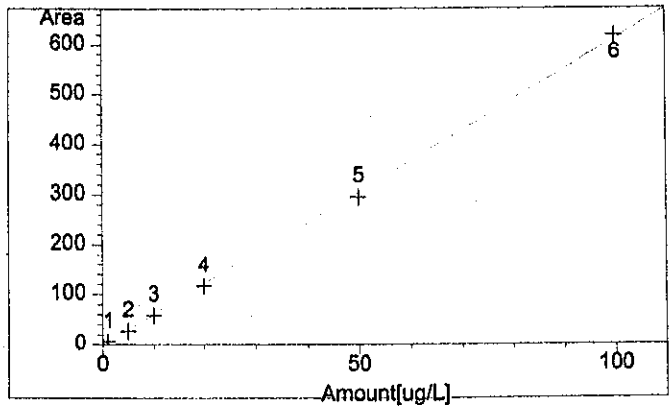
Fluorene #6 at exp. RT: 13.740
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 24.07063
Formula: y = mx
m: 57.06458
x: Amount [ug/L]
y: Area



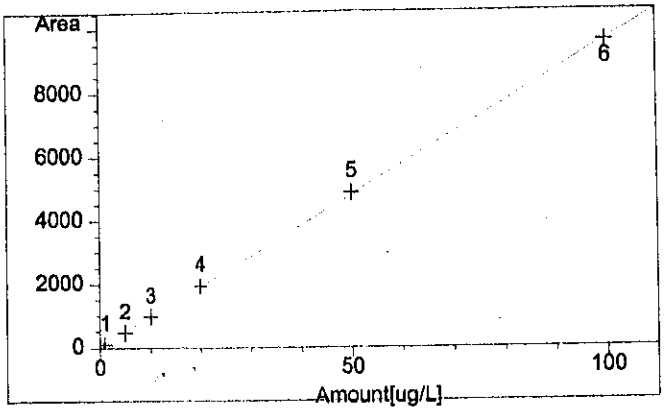
Fluorene #6 at exp. RT: 13.757
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 74.80461
Formula: y = mx
m: 151.01482
x: Amount [ug/L]
y: Area



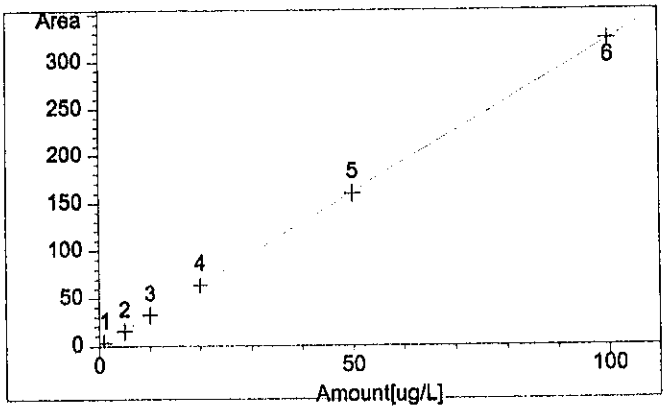
Phenanthrene #7 at exp. RT: 15.136
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 24.37539
Formula: y = mx
m: 57.80934
x: Amount [ug/L]
y: Area



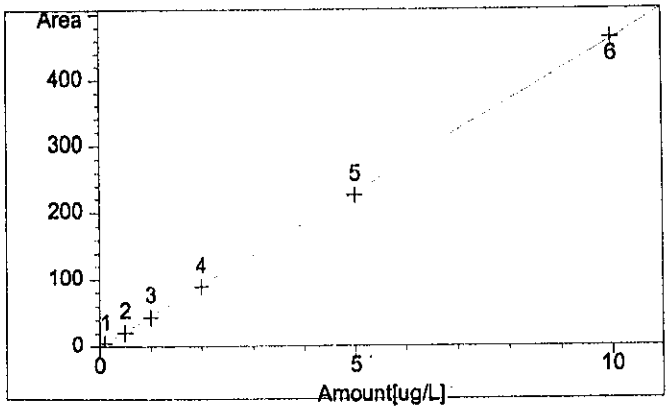
Phenanthrene #7 at exp. RT: 15.153
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99980
Residual Std. Dev.: 6.29133
Formula: y = mx
m: 6.11052
x: Amount [ug/L]
y: Area



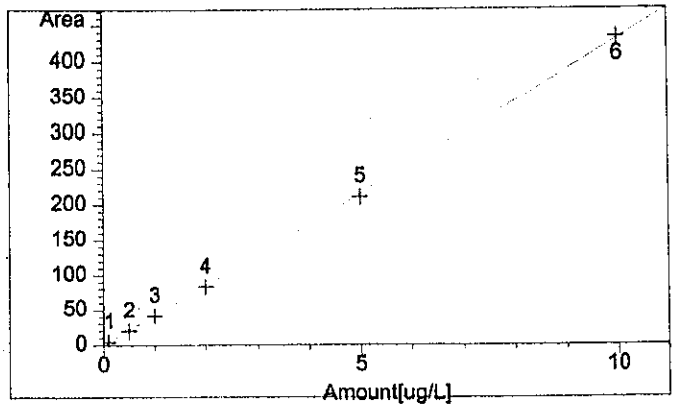
Anthracene #8 at exp. RT: 16.549
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 37.64962
Formula: y = mx
m: 95.91237
x: Amount [ug/L]
y: Area



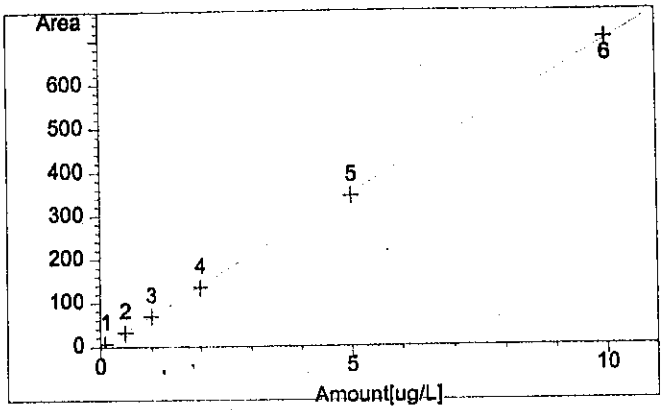
Anthracene #8 at exp. RT: 16.566
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 0.77764
Formula: y = mx
m: 3.22376
x: Amount [ug/L]
y: Area



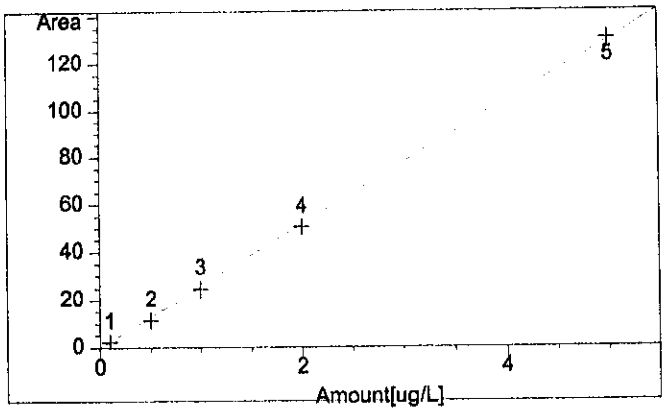
Fluoranthene #9 at exp. RT: 17.931
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 2.76207
Formula: y = mx
m: 46.08169
x: Amount [ug/L]
y: Area



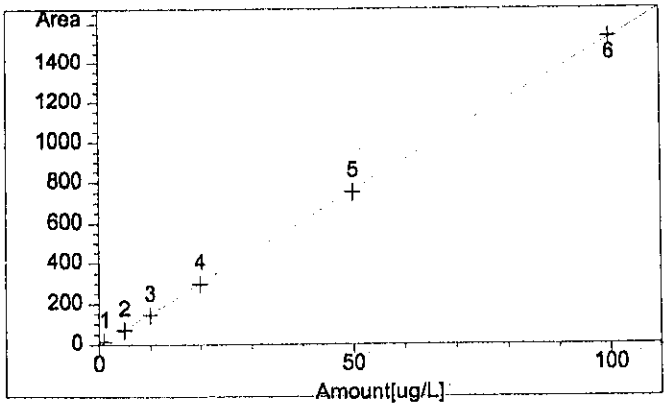
Fluoranthene #9 at exp. RT: 17.948
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 2.91025
Formula: y = mx
m: 42.97776
x: Amount [ug/L]
y: Area



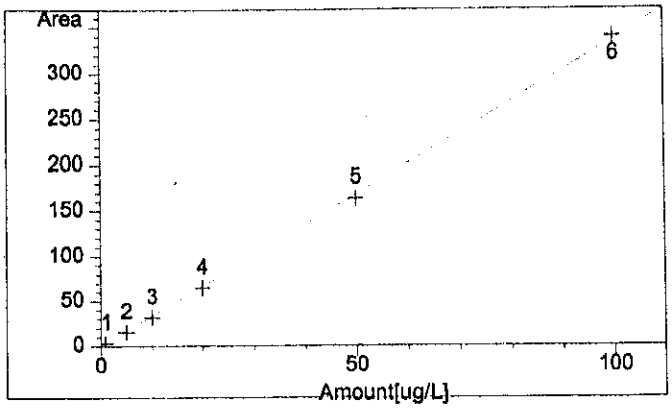
Pyrene #10 at exp. RT: 18.944
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99991
Residual Std. Dev.: 4.77268
Formula: y = mx
m: 69.90443
x: Amount [ug/L]
y: Area



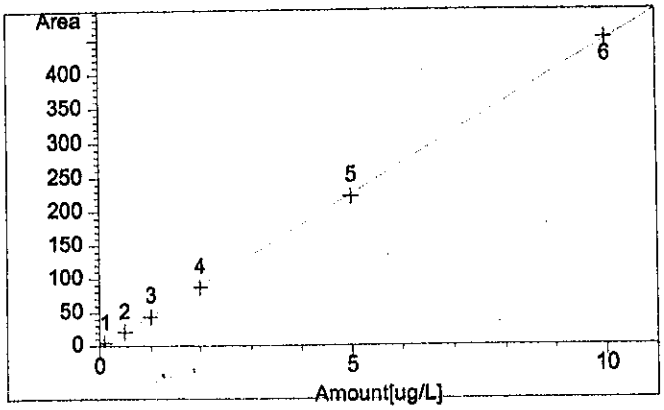
Pyrene #10 at exp. RT: 18.961
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99984
Residual Std. Dev.: 1.27317
Formula: y = mx
m: 25.86740
x: Amount [ug/L]
y: Area



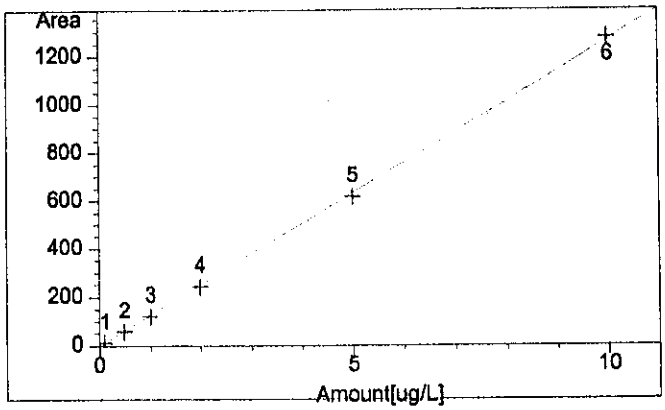
p-Terphenyl d14 #11* at exp. RT: 21.302
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 6.86516
Formula: y = mx
m: 15.22690
x: Amount [ug/L]
y: Area



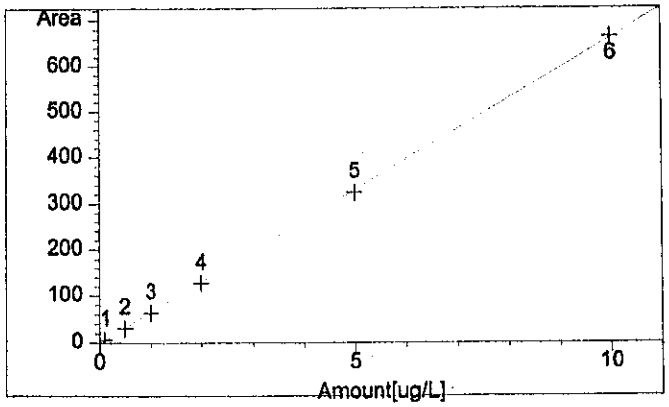
p-Terphenyl d14 #11* at exp. RT: 21.319
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99986
Residual Std. Dev.: 2.82593
Formula: y = mx
m: 3.36222
x: Amount [ug/L]
y: Area



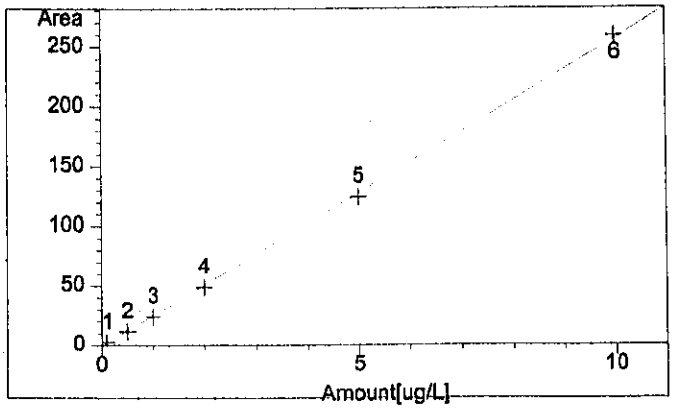
Benzo(a)anthracene #12 at exp. RT: 22.628
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.50958
Formula: y = mx
m: 44.90461
x: Amount[ug/L]
y: Area



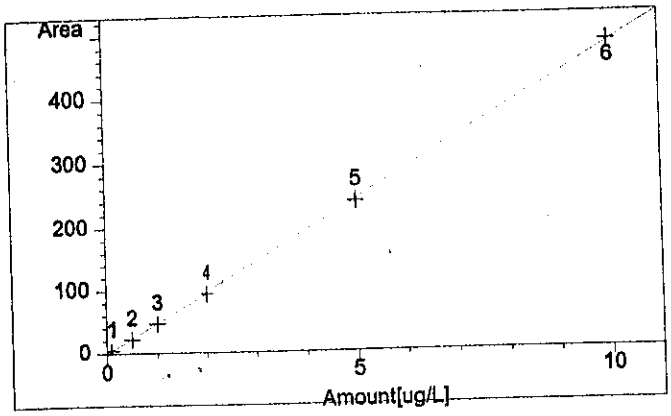
Benzo(a)anthracene #12 at exp. RT: 22.644
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99987
Residual Std. Dev.: 10.41817
Formula: y = mx
m: 126.38133
x: Amount[ug/L]
y: Area



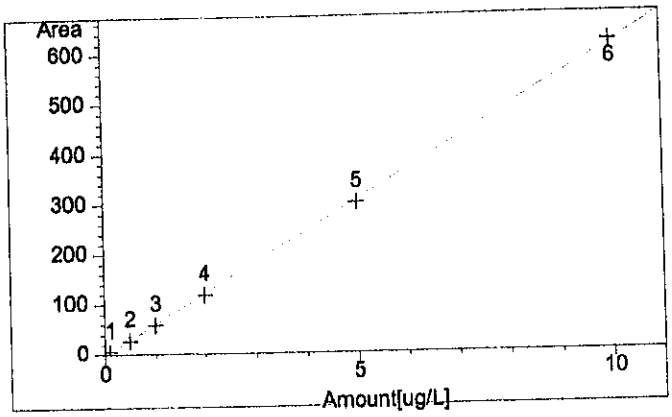
Chrysene #13 at exp. RT: 23.513
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 3.93530
Formula: y = mx
m: 66.02710
x: Amount[ug/L]
y: Area



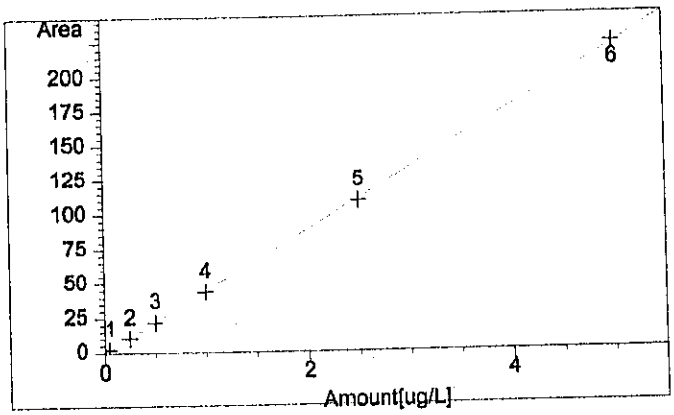
Chrysene #13 at exp. RT: 23.528
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99983
Residual Std. Dev.: 2.41557
Formula: y = mx
m: 25.60849
x: Amount[ug/L]
y: Area



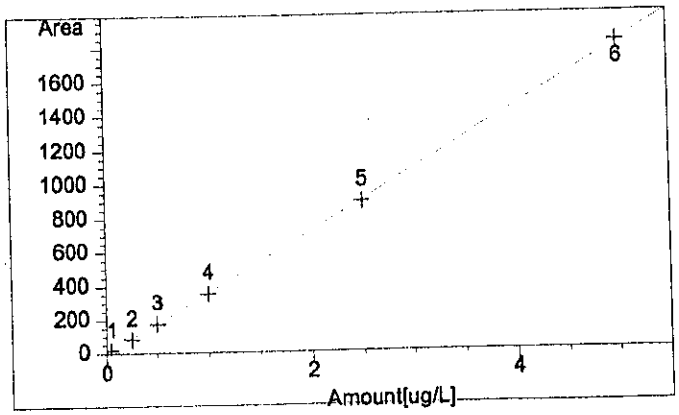
Benzo(b)fluoranthene #14 at exp. RT: 26.2
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.80032
Formula: y = mx
m: 48.23233
x: Amount [ug/L]
y: Area



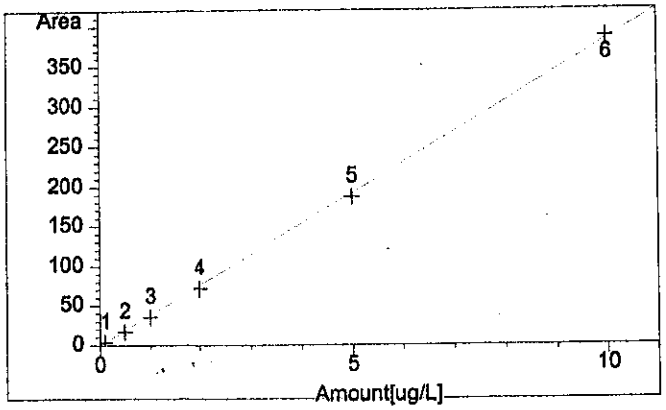
Benzo(b)fluoranthene #14 at exp. RT: 26.2
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 4.39762
Formula: y = mx
m: 61.26633
x: Amount [ug/L]
y: Area



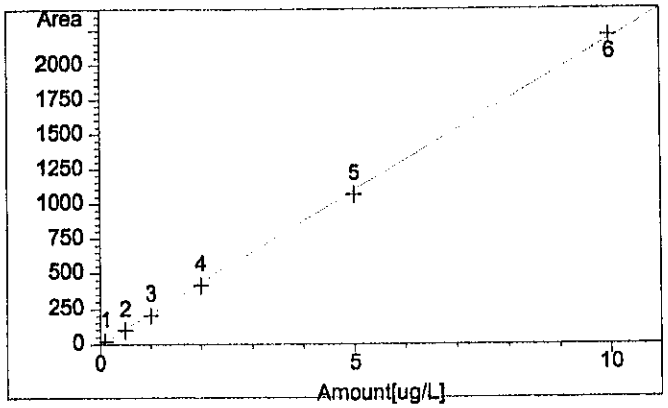
Benzo(k)fluoranthene #15 at exp. RT: 27.6
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 1.11632
Formula: y = mx
m: 44.27975
x: Amount [ug/L]
y: Area



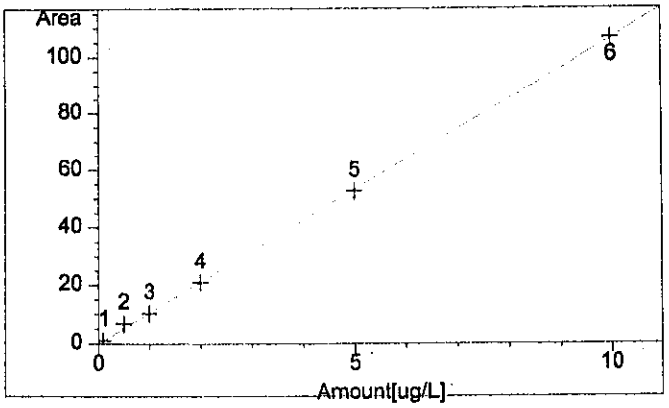
Benzo(k)fluoranthene #15 at exp. RT: 27.7
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 7.24438
Formula: y = mx
m: 361.57005
x: Amount [ug/L]
y: Area



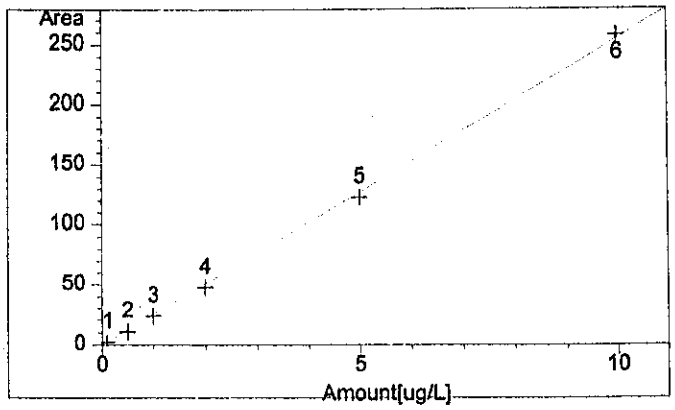
Benzo(a)pyrene #16 at exp. RT: 28.826
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 3.72397
Formula: y = mx
m: 38.21458
x: Amount[ug/L]
y: Area



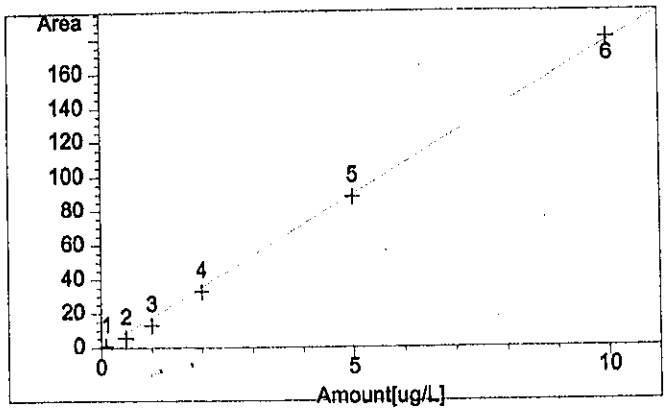
Benzo(a)pyrene #16 at exp. RT: 28.843
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99981
Residual Std. Dev.: 21.63108
Formula: y = mx
m: 218.76141
x: Amount[ug/L]
y: Area



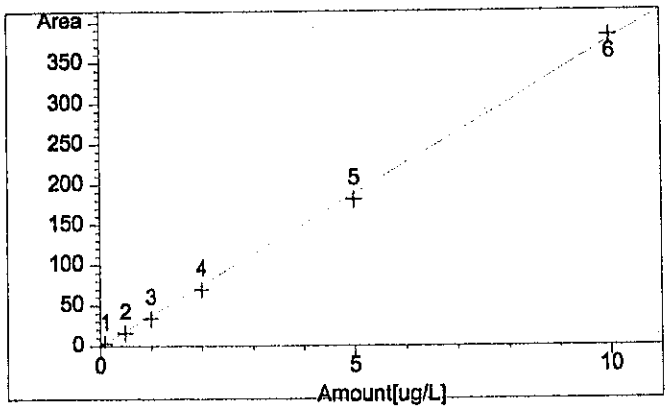
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 0.75986
Formula: y = mx
m: 10.62568
x: Amount[ug/L]
y: Area



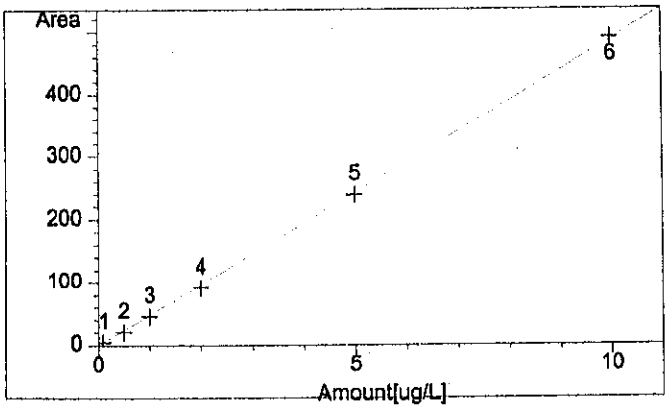
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99975
Residual Std. Dev.: 2.88961
Formula: y = mx
m: 25.41325
x: Amount[ug/L]
y: Area



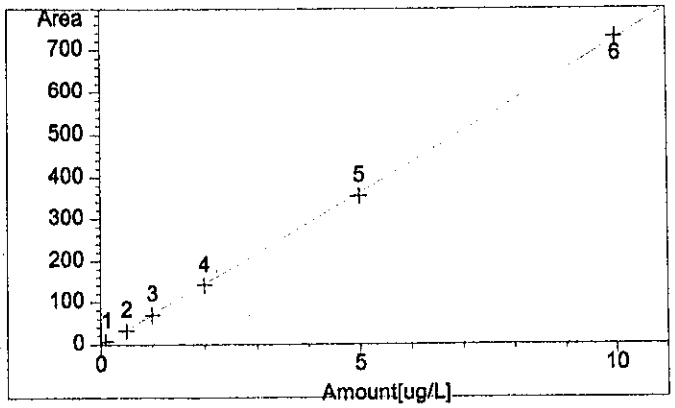
Benzo(g,h,i)perylene #18 at exp. RT: 31.5
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99945
Residual Std. Dev.: 3.03261
Formula: y = mx
m: 17.83074
x: Amount [ug/L]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.5
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99962
Residual Std. Dev.: 5.30907
Formula: y = mx
m: 37.71238
x: Amount [ug/L]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99987
Residual Std. Dev.: 3.96284
Formula: y = mx
m: 48.63628
x: Amount [ug/L]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 4.80774
Formula: y = mx
m: 72.35678
x: Amount [ug/L]
y: Area

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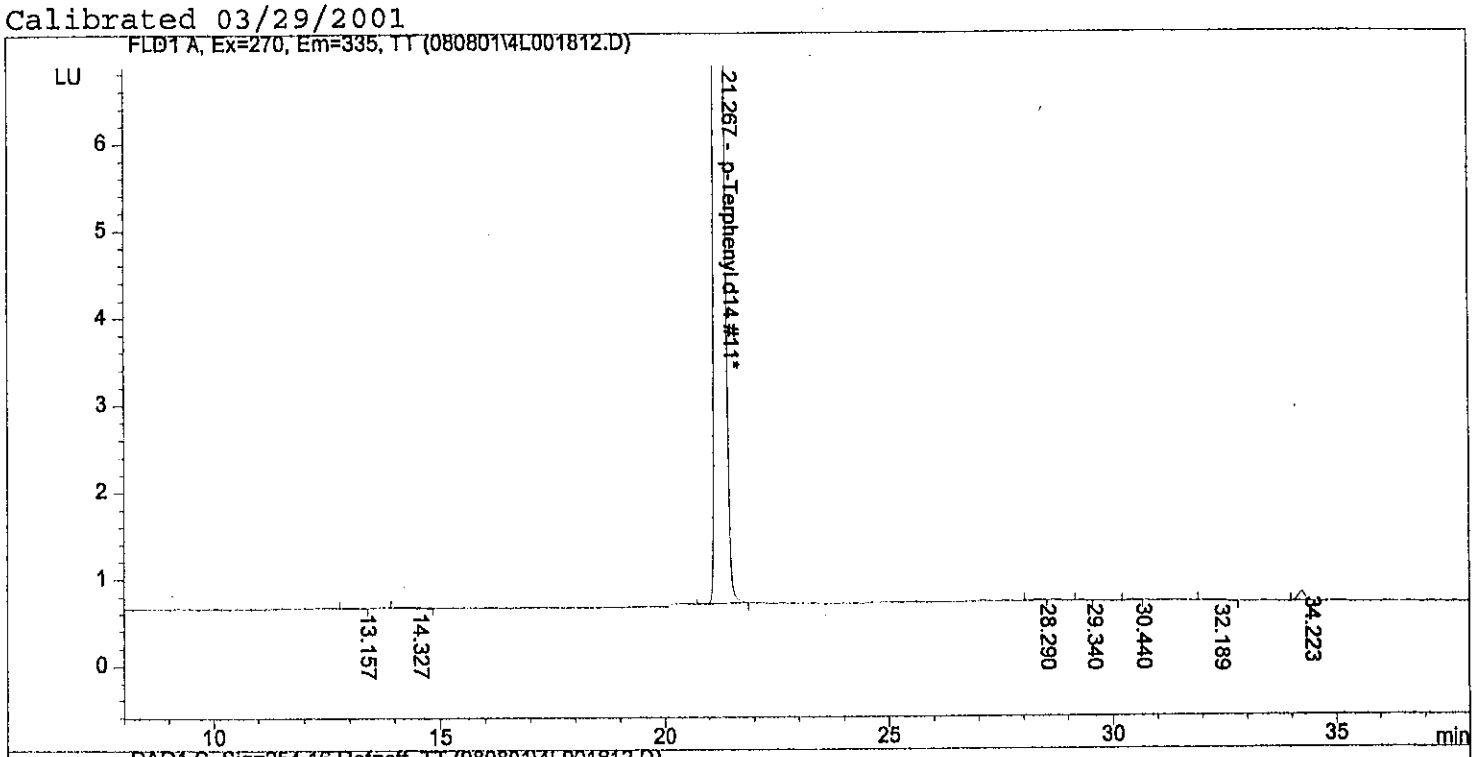
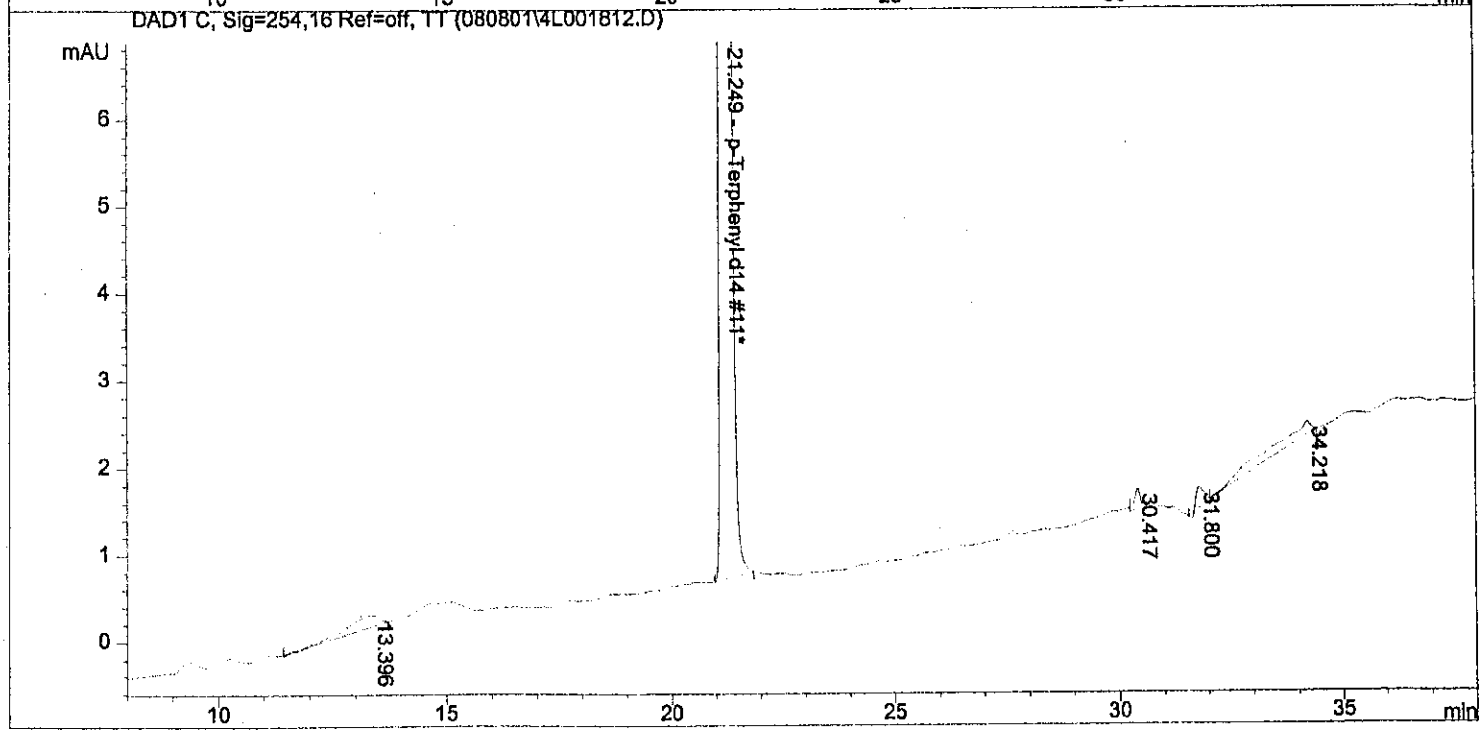
Injection Date : 8/8/2001 9:48:17 PM
Sample Name : 8310surr6/54-35
Acq. Operator : RDC

Seq. Line : 8
Vial : 5
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 12:12:11 PM by RDC
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 12:12:08 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.343		-	-	-		Naphthalene #1
11.976		-	-	-		1-Methylnaphthalene #3
12.520		-	-	-		2-Methylnaphthalene #4
13.006		-	-	-		Acenaphthene #5
13.674		-	-	-		Fluorene #6
15.213		-	-	-		Phenanthrene #7
16.611		-	-	-		Anthracene #8
17.978		-	-	-		Fluoranthene #9
18.981		-	-	-		Pyrene #10
21.267	PBA	339.18564	2.88970e-1	98.01453		p-Terphenyl d14 #11*
22.623		-	-	-		Benzo(a)anthracene #12
23.561		-	-	-		Chrysene #13
26.309		-	-	-		Benzo(b)fluoranthene #14
27.760		-	-	-		Benzo(k)fluoranthene #15
28.879		-	-	-		Benzo(a)pyrene #16
30.774		-	-	-		Dibenz(a,h)anthracene #17
31.597		-	-	-		Benzo(g,h,i)perylene #18
32.504		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				98.01453		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.326		-	-	-		Naphthalene #1
11.007		-	-	-		Acenaphthylene #2
11.957		-	-	-		1-Methylnaphthalene #3
12.534		-	-	-		2-Methylnaphthalene #4
12.989		-	-	-		Acenaphthene #5
13.657		-	-	-		Fluorene #6
15.198		-	-	-		Phenanthrene #7
16.595		-	-	-		Anthracene #8
17.962		-	-	-		Fluoranthene #9
18.965		-	-	-		Pyrene #10
21.249	PBA	1529.22424	6.36953e-2	97.40433		p-Terphenyl d14 #11*
22.608		-	-	-		Benzo(a)anthracene #12
23.546		-	-	-		Chrysene #13
26.293		-	-	-		Benzo(b)fluoranthene #14
27.744		-	-	-		Benzo(k)fluoranthene #15
28.863		-	-	-		Benzo(a)pyrene #16
30.759		-	-	-		Dibenz(a,h)anthracene #17

Data File C:\HPCHEM\2\DATA\080801\4L001812.D

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.579		-	-	-		Benzo(g,h,i)perylene #18
32.492		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				97.40433		

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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*** End of Report ***

Data File C:\HPCHEM\2\DATA\080801\4L001813.D Sample Name: 8310 std 6/53-25

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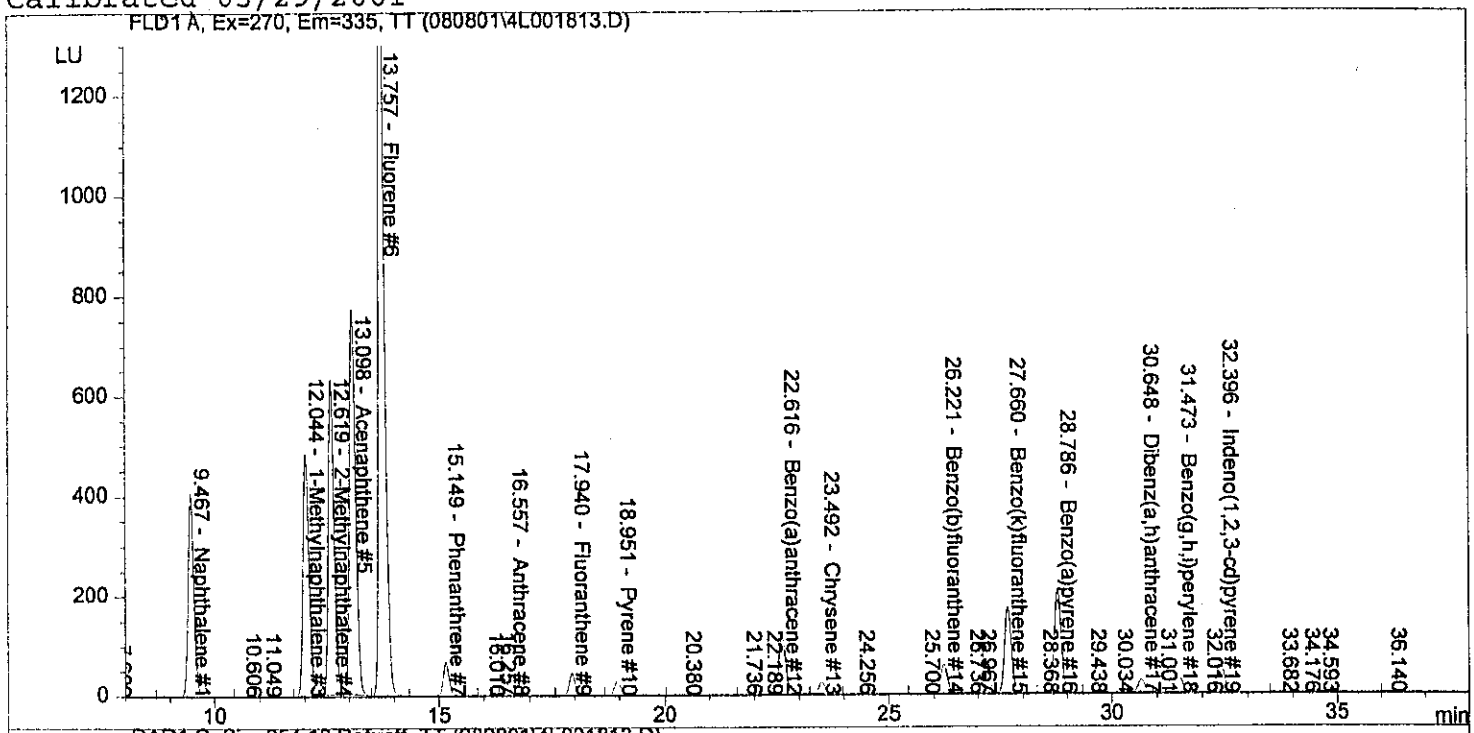
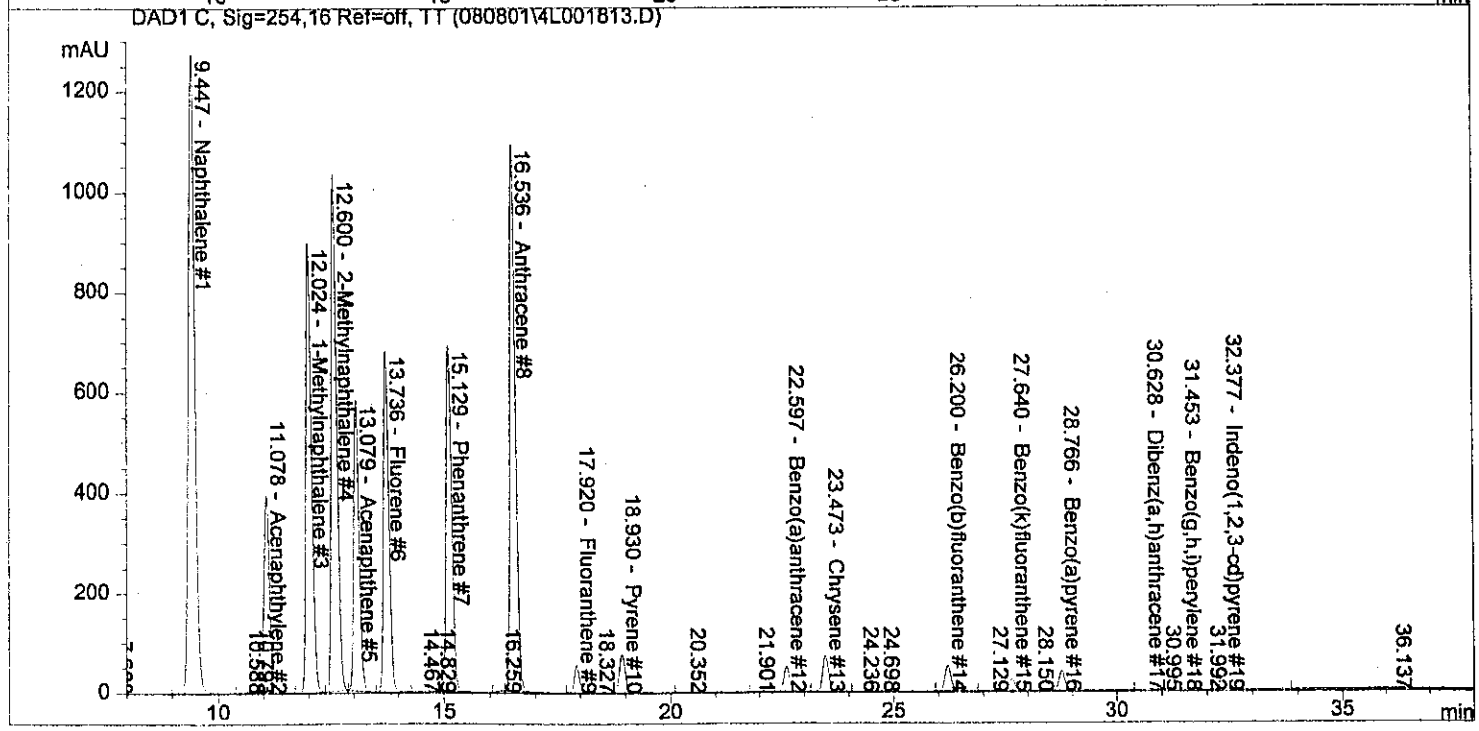
Injection Date : 8/8/2001 10:44:56 PM
Sample Name : 8310 std 6/53-25
Acq. Operator : RDC

Seq. Line : 9
Vial : 6
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 12:22:54 PM by RDC
(modified after loading)

Calibrated 03/29/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 12:22:51 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.467	BB	3973.55249	2.55317e-2	101.45138		Naphthalene #1
12.044	PB	4535.38281	2.23759e-2	101.48305		1-Methylnaphthalene #3
12.619	BB	5875.01660	1.72227e-2	101.18389		2-Methylnaphthalene #4
13.098	BB	7228.99854	1.39785e-2	101.05076		Acenaphthene #5
13.757	BB	1.50256e4	6.61784e-3	99.43674		Fluorene #6
15.149	BBA	617.71191	1.63970e-1	101.28640		Phenanthrene #7
16.557	BB	323.14050	3.11421e-1	100.63288		Anthracene #8
17.940	PB	432.79266	2.34467e-2	10.14758		Fluoranthene #9
18.951	BB	273.80585	3.77948e-2	10.34844		Pyrene #10
21.267		-	-	-		p-Terphenyl d14 #11*
22.616	BB	1274.56396	7.97394e-3	10.16330		Benzo(a)anthracene #12
23.492	BB	258.58917	3.94274e-2	10.19549		Chrysene #13
26.221	BB	617.15186	1.63647e-2	10.09953		Benzo(b)fluoranthene #14
27.660	BB	1815.06726	2.77359e-3	5.03425		Benzo(k)fluoranthene #15
28.786	BB	2209.61670	4.57456e-3	10.10801		Benzo(a)pyrene #16
30.648	BB	257.09790	3.95004e-2	10.15546		Dibenz(a,h)anthracene #17
31.473	BB	382.48065	2.68798e-2	10.28100		Benzo(g,h,i)perylene #18
32.396	BB	728.48004	1.37724e-2	10.03289		Indeno(1,2,3-cd)pyrene #1

Totals : 803.09104

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.447	BB	1.20244e4	8.25610e-3	99.27448		Naphthalene #1
11.078	BB	3384.39795	2.97245e-2	100.59951		Acenaphthylene #2
12.024	BB	7740.20703	1.29528e-2	100.25726		1-Methylnaphthalene #3
12.600	BB	8884.32324	1.12464e-2	99.91623		2-Methylnaphthalene #4
13.079	BB	4940.15088	2.03275e-2	100.42072		Acenaphthene #5
13.736	BB	5731.11230	1.75642e-2	100.66232		Fluorene #6
15.129	BBA	5806.07617	1.73002e-2	100.44635		Phenanthrene #7
16.536	BBA	9552.15625	1.04130e-2	99.46643		Anthracene #8
17.920	PB	463.67642	2.17440e-2	10.08217		Fluoranthene #9
18.930	BB	703.95166	1.43310e-2	10.08832		Pyrene #10
21.249		-	-	-		p-Terphenyl d14 #11*
22.597	BBA	451.58978	2.23017e-2	10.07124		Benzo(a)anthracene #12
23.473	BBA	664.28351	1.51547e-2	10.06704		Chrysene #13
26.200	BBA	485.19955	2.07746e-2	10.07983		Benzo(b)fluoranthene #14
27.640	BB	222.55347	2.26386e-2	5.03829		Benzo(k)fluoranthene #15
28.766	BB	385.80145	2.60127e-2	10.03572		Benzo(a)pyrene #16
30.628	PB	106.53020	9.38245e-2	9.99514		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.453	BB	180.23679	5.63755e-2	10.16093		Benzo(g,h,i)perylene #18
32.377	BBA	489.90164	2.05716e-2	10.07805		Indeno(1,2,3-cd)pyrene #1

Totals : 896.74006

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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*** End of Report ***

Data File C:\HPCHEM\2\DATA\080801\4L001814.D Sample Name: 8310 std 5/53-25

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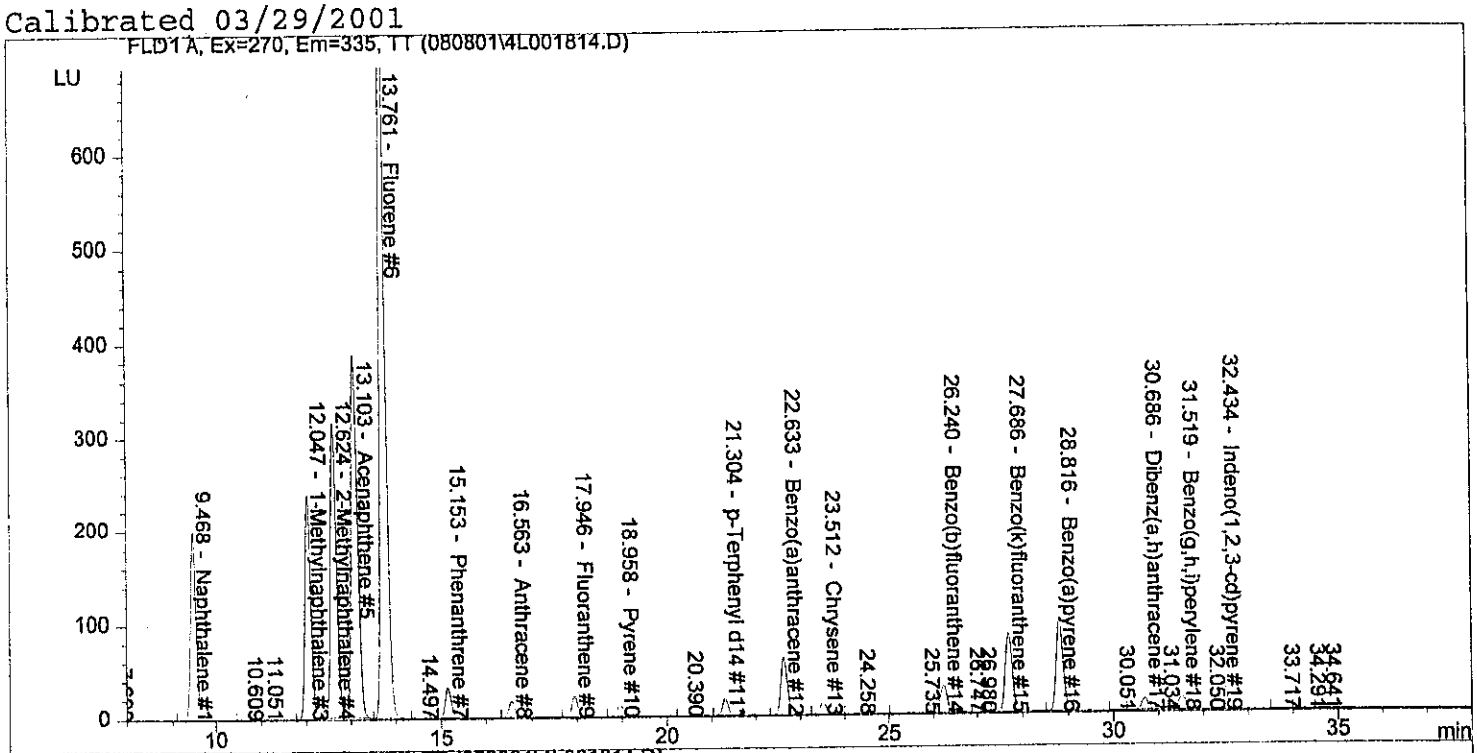
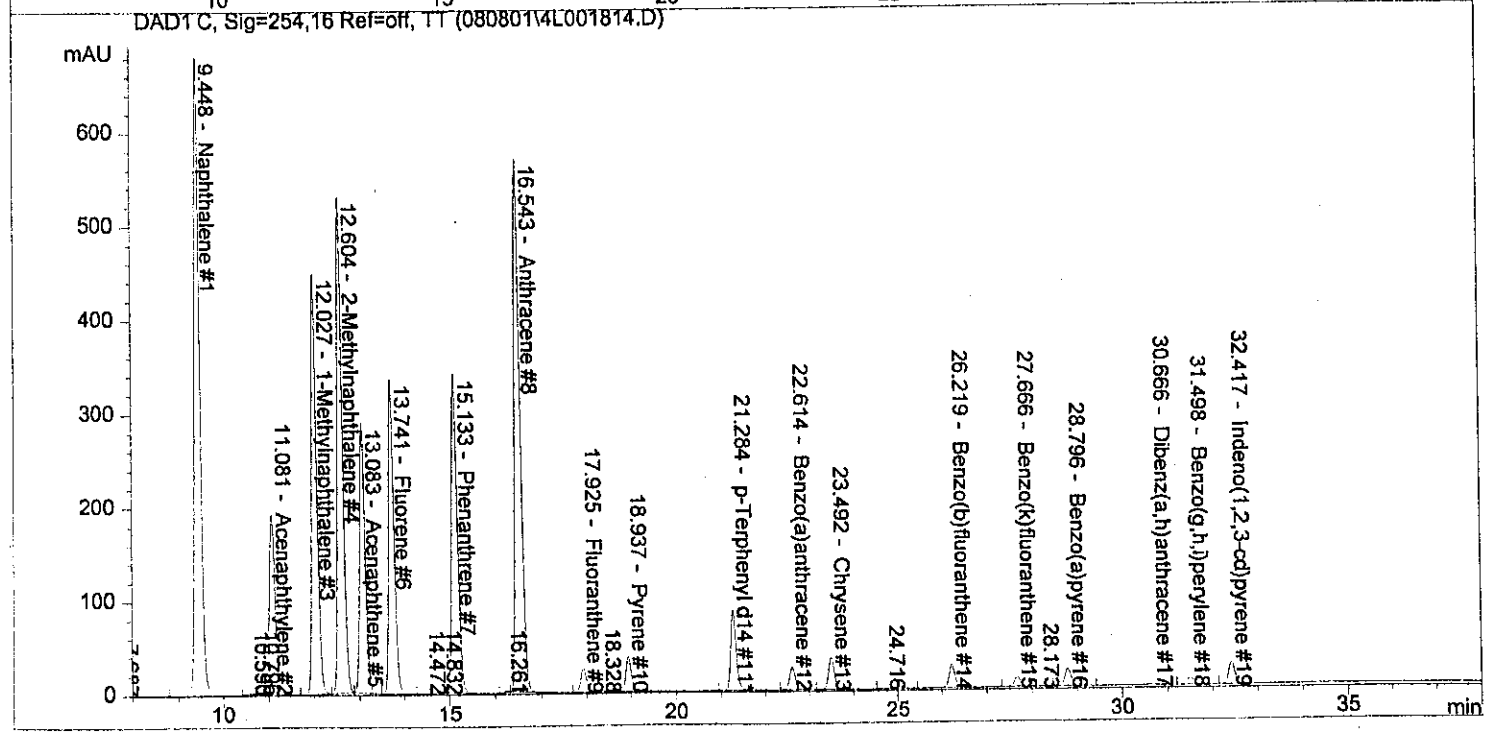
Injection Date : 8/8/2001 11:41:36 PM
Sample Name : 8310 std 5/53-25
Acq. Operator : RDC

Seq. Line : 10
Vial : 7
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 12:23:34 PM by RDC
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 12:23:32 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.468	PB	1948.04333	2.53373e-2	49.35817		Naphthalene #1
12.047	PB	2235.18970	2.21763e-2	49.56814		1-Methylnaphthalene #3
12.624	BB	2909.70630	1.70922e-2	49.73328		2-Methylnaphthalene #4
13.103	BB	3605.74121	1.38670e-2	50.00065		Acenaphthene #5
13.761	BB	7656.80322	6.53228e-3	50.01636		Fluorene #6
15.153	BBA	295.27972	1.63827e-1	48.37483		Phenanthrene #7
16.563	BB	159.95667	3.10549e-1	49.67436		Anthracene #8
17.946	BB	210.50659	2.32969e-2	4.90415		Fluoranthene #9
18.958	BBA	130.27173	3.71107e-2	4.83447		Pyrene #10
21.304	PB	163.61835	2.96033e-1	48.43651		p-Terphenyl d14 #11*
22.633	BB	616.44403	7.92426e-3	4.88486		Benzo(a)anthracene #12
23.512	BB	124.43752	3.91177e-2	4.86771		Chrysene #13
26.240	BB	299.93723	1.63317e-2	4.89849		Benzo(b)fluoranthene #14
27.686	BB	893.52496	2.76733e-3	2.47268		Benzo(k)fluoranthene #15
28.816	BB	1063.36975	4.57033e-3	4.85995		Benzo(a)pyrene #16
30.686	BB	122.84724	3.93851e-2	4.83834		Dibenz(a,h)anthracene #17
31.519	BB	181.30618	2.65675e-2	4.81686		Benzo(g,h,i)perylene #18
32.434	BB	354.48691	1.38152e-2	4.89732		Indeno(1,2,3-cd)pyrene #1
Totals :				441.43712		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.448	PBA	6202.44971	8.25915e-3	51.22699		Naphthalene #1
11.081	BB	1657.23242	2.97185e-2	49.25050		Acenaphthylene #2
12.027	BB	3838.97803	1.29547e-2	49.73284		1-Methylnaphthalene #3
12.604	BB	4469.53662	1.12471e-2	50.26953		2-Methylnaphthalene #4
13.083	BB	2433.60547	2.03296e-2	49.47421		Acenaphthene #5
13.741	BB	2816.46851	1.75408e-2	49.40304		Fluorene #6
15.133	BBA	2852.19556	1.73083e-2	49.36677		Phenanthrene #7
16.543	BBA	4858.51855	1.04295e-2	50.67187		Anthracene #8
17.925	PB	226.24062	2.17178e-2	4.91345		Fluoranthene #9
18.937	BBA	342.22821	1.43193e-2	4.90046		Pyrene #10
21.284	PBA	752.44629	6.53529e-2	49.17455		p-Terphenyl d14 #11*
22.614	PBA	220.89987	2.22893e-2	4.92370		Benzo(a)anthracene #12
23.492	BBA	324.43796	1.51547e-2	4.91677		Chrysene #13
26.219	BBA	236.98158	2.07517e-2	4.91778		Benzo(b)fluoranthene #14
27.666	BB	108.82767	2.26066e-2	2.46022		Benzo(k)fluoranthene #15
28.796	BBA	186.41614	2.61378e-2	4.87251		Benzo(a)pyrene #16
30.666	BB	52.55205	9.41932e-2	4.95004		Dibenz(a,h)anthracene #17

Data File C:\HPCHEM\2\DATA\080801\4L001814.D

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.498	BB	87.58637	5.62695e-2	4.92844		Benzo(g,h,i)perylene #18
32.417	BBA	239.26749	2.05571e-2	4.91865		Indeno(1,2,3-cd)pyrene #1
Totals :				495.27231		

Results obtained with enhanced integrator!

*** End of Report ***

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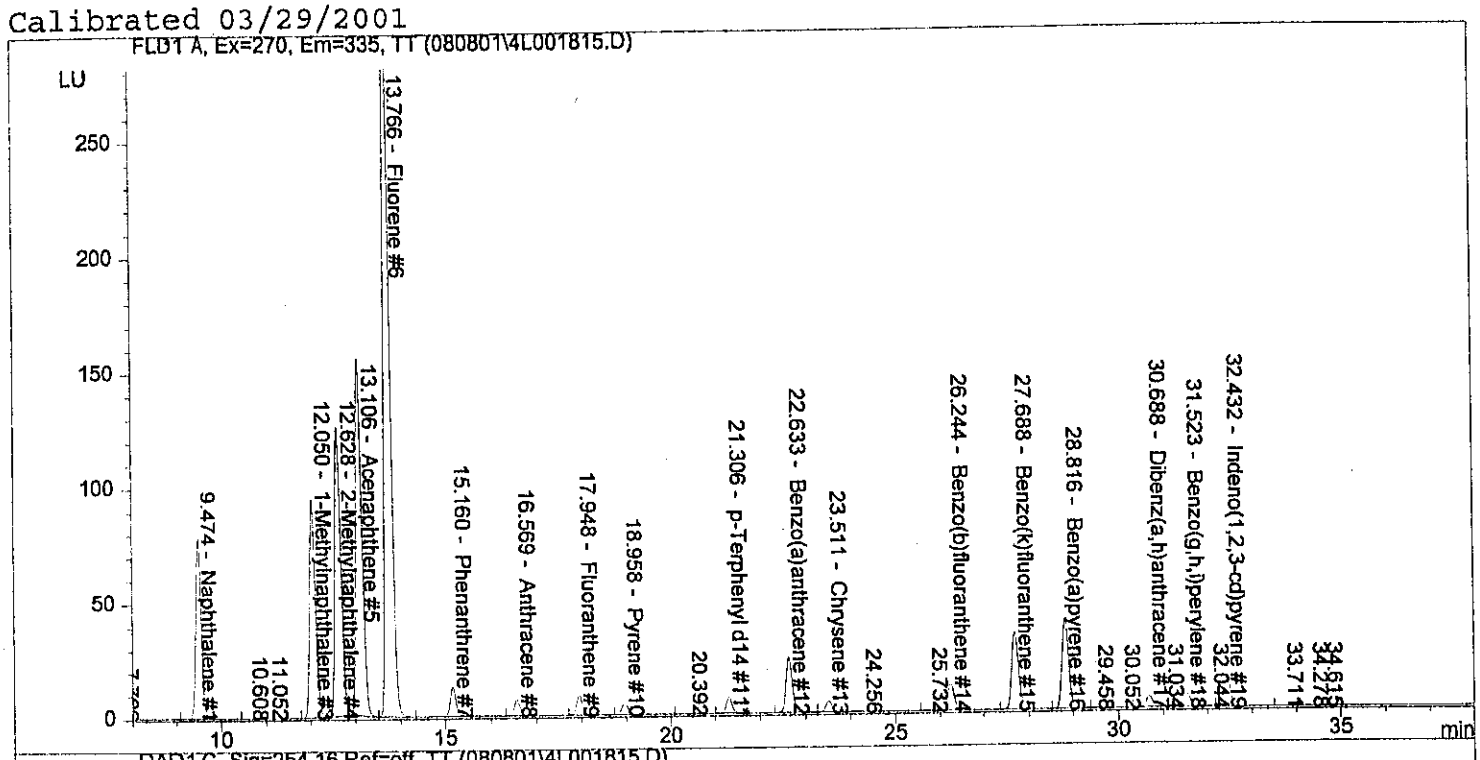
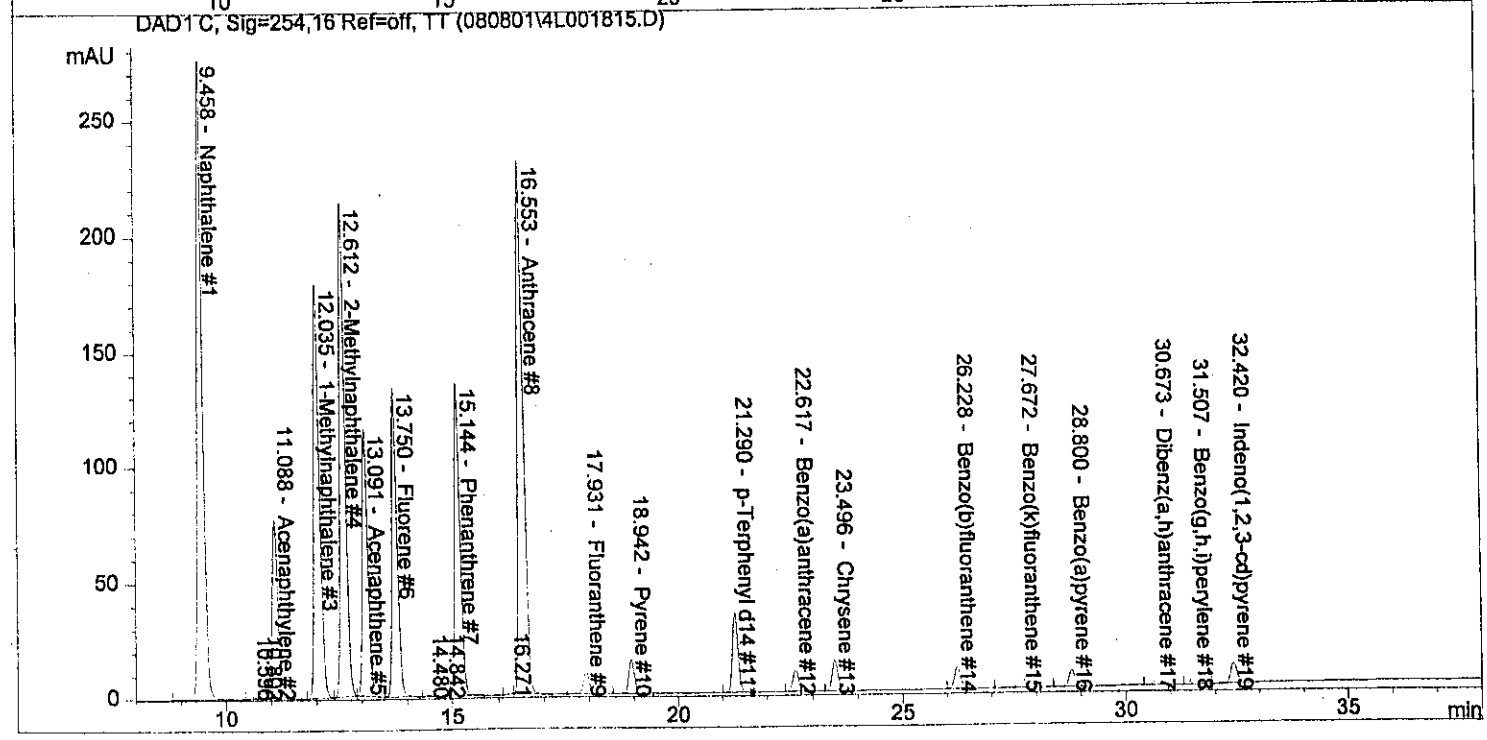
Injection Date : 8/9/2001 12:38:12 AM
Sample Name : 8310 std 4/53-25
Acq. Operator : RDC

Seq. Line : 11
Vial : 8
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 12:24:08 PM by RDC
(modified after loading)

Calibrated 03/29/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 12:24:05 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.474	PBA	771.00281	2.53062e-2	19.51118		Naphthalene #1
12.050	PB	887.93890	2.21431e-2	19.66168		1-Methylnaphthalene #3
12.628	BB	1160.72327	1.70700e-2	19.81357		2-Methylnaphthalene #4
13.106	BB	1445.95483	1.38473e-2	20.02258		Acenaphthene #5
13.766	BB	3112.09448	6.51797e-3	20.28453		Fluorene #6
15.160	BBA	116.85247	1.63688e-1	19.12731		Phenanthrene #7
16.569	BBA	63.99872	3.10306e-1	19.85918		Anthracene #8
17.948	BBA	83.17304	2.32743e-2	1.93580		Fluoranthene #9
18.958	BBA	50.45357	3.70193e-2	1.86776		Pyrene #10
21.306	BBA	64.98736	2.97101e-1	19.30782		p-Terphenyl d14 #11*
22.633	BB	242.58244	7.91528e-3	1.92011		Benzo(a)anthracene #12
23.511	BB	48.77195	3.90649e-2	1.90527		Chrysene #13
26.244	BBA	118.32101	1.63243e-2	1.93151		Benzo(b)fluoranthene #14
27.688	BB	355.36359	2.76617e-3	9.82998e-1		Benzo(k)fluoranthene #15
28.816	BB	414.51672	4.57086e-3	1.89470		Benzo(a)pyrene #16
30.688	BB	47.95410	3.93563e-2	1.88730		Dibenz(a,h)anthracene #17
31.523	BB	69.49560	2.65273e-2	1.84353		Benzo(g,h,i)perylene #18
32.432	BBA	140.75026	1.38193e-2	1.94508		Indeno(1,2,3-cd)pyrene #1

Totals : 175.70189

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.458	PBA	2499.14551	8.25594e-3	20.63280		Naphthalene #1
11.088	BBA	660.92621	2.97039e-2	19.63209		Acenaphthylene #2
12.035	PB	1534.10083	1.29485e-2	19.86429		1-Methylnaphthalene #3
12.612	BB	1794.47327	1.12416e-2	20.17276		2-Methylnaphthalene #4
13.091	BB	971.18744	2.03201e-2	19.73465		Acenaphthene #5
13.750	BBA	1121.39856	1.75287e-2	19.65661		Fluorene #6
15.144	BBA	1137.18030	1.73013e-2	19.67475		Phenanthrene #7
16.553	BBA	1952.77490	1.04274e-2	20.36233		Anthracene #8
17.931	PB	89.62297	2.17050e-2	1.94527		Fluoranthene #9
18.942	BBA	135.53003	1.43101e-2	1.93944		Pyrene #10
21.290	BBA	299.12198	6.56026e-2	19.62319		p-Terphenyl d14 #11*
22.617	PBA	87.18385	2.22768e-2	1.94218		Benzo(a)anthracene #12
23.496	PBA	128.16238	1.51490e-2	1.94153		Chrysene #13
26.228	PBA	93.81008	2.07392e-2	1.94555		Benzo(b)fluoranthene #14
27.672	BB	43.54576	2.25926e-2	9.83811e-1		Benzo(k)fluoranthene #15
28.800	BBA	71.60413	2.61650e-2	1.87352		Benzo(a)pyrene #16
30.673	BBA	21.07817	9.41491e-2	1.98449		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.507	PB	33.12908	5.60918e-2	1.85827		Benzo(g,h,i)perylene #18
32.420	BB	91.52023	2.05641e-2	1.88203		Indeno(1,2,3-cd)pyrene #1
Totals :				197.64957		

Results obtained with enhanced integrator!

*** End of Report ***

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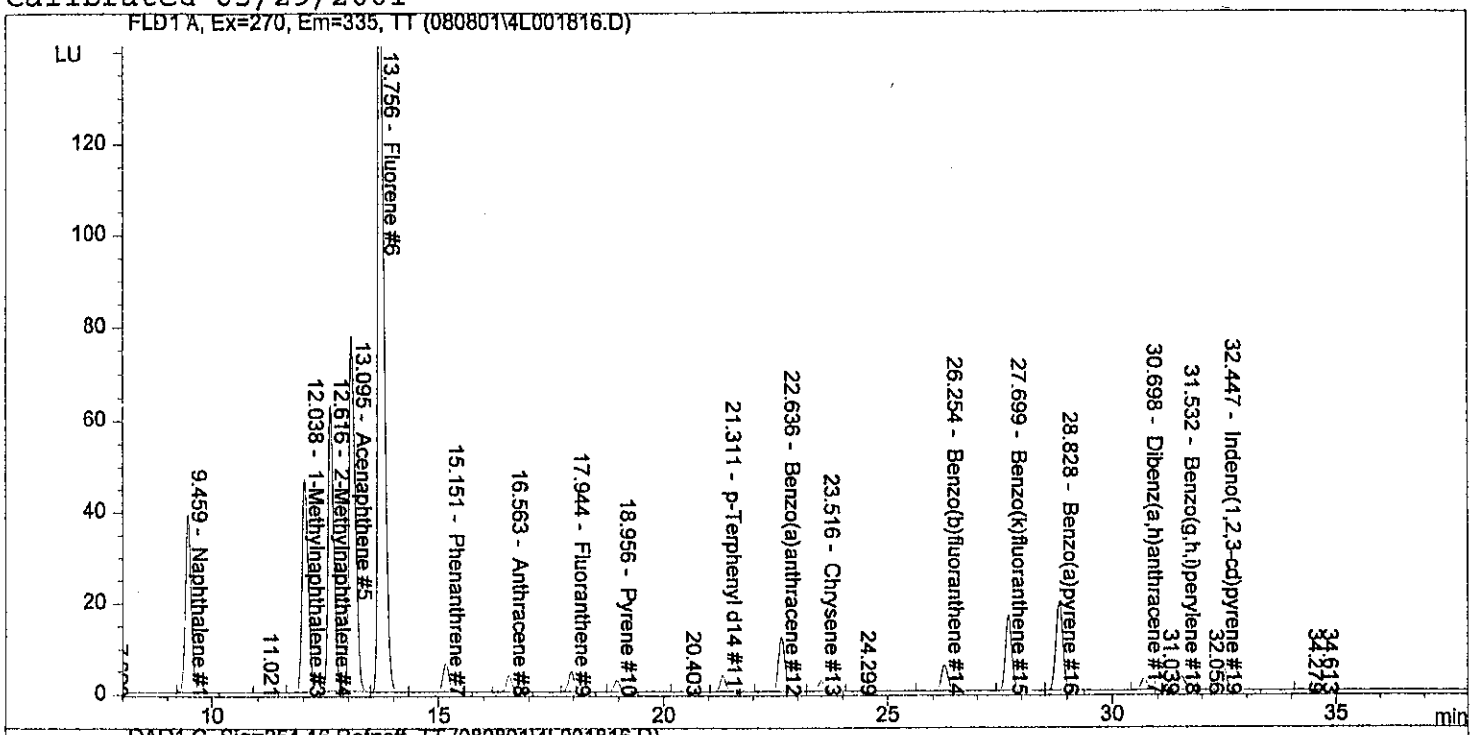
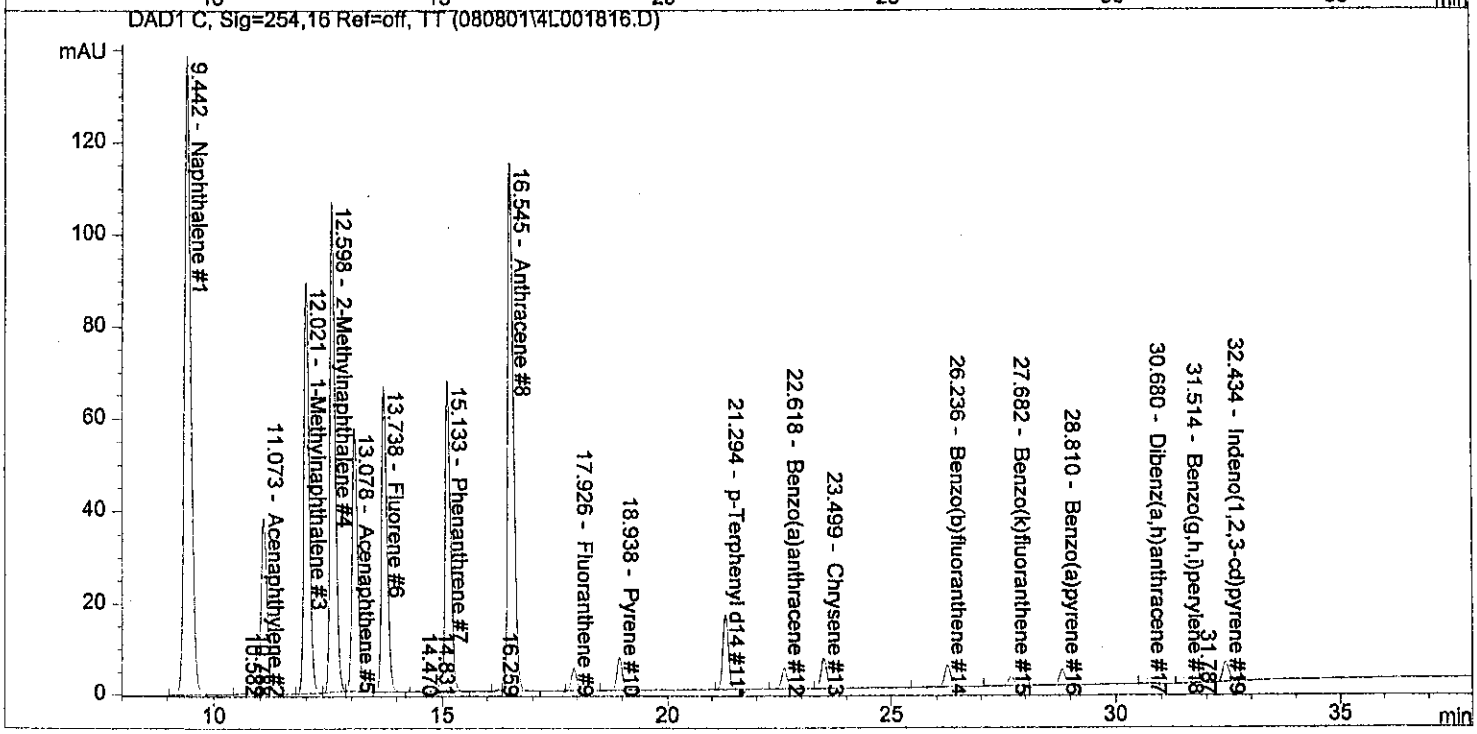
Injection Date : 8/9/2001 1:34:48 AM
Sample Name : 8310 std 3/53-25
Acq. Operator : RDC

Seq. Line : 12
Vial : 9
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 1:53:54 PM by RDC
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 1:53:51 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.459	BBA	381.56079	2.52975e-2	9.65254		Naphthalene #1
12.038	PB	438.85303	2.21343e-2	9.71369		1-Methylnaphthalene #3
12.616	BB	575.43298	1.70643e-2	9.81937		2-Methylnaphthalene #4
13.095	BB	718.90424	1.38423e-2	9.95132		Acenaphthene #5
13.756	BB	1559.63367	6.51366e-3	10.15893		Fluorene #6
15.151	BBA	58.15233	1.63652e-1	9.51677		Phenanthrene #7
16.563	BBA	32.12813	3.10210e-1	9.96646		Anthracene #8
17.944	BBA	41.21679	2.32680e-2	9.59030e-1		Fluoranthene #9
18.956	BBA	24.49013	3.70002e-2	9.06140e-1		Pyrene #10
21.311	BBA	31.73221	2.97355e-1	9.43572		p-Terphenyl d14 #11*
22.636	PB	119.82957	7.91289e-3	9.48198e-1		Benzo(a)anthracene #12
23.516	BBA	24.17820	3.90514e-2	9.44192e-1		Chrysene #13
26.254	PBA	58.33105	1.63221e-2	9.52086e-1		Benzo(b)fluoranthene #14
27.699	BB	176.43927	2.76576e-3	4.87989e-1		Benzo(k)fluoranthene #15
28.828	BB	203.54648	4.57102e-3	9.30415e-1		Benzo(a)pyrene #16
30.698	PB	23.53592	3.93487e-2	9.26108e-1		Dibenz(a,h)anthracene #17
31.532	BB	33.85759	2.65177e-2	8.97824e-1		Benzo(g,h,i)perylene #18
32.447	BBA	69.61817	1.38197e-2	9.62101e-1		Indeno(1,2,3-cd)pyrene #1
Totals :				87.12889		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.442	PBA	1248.26221	8.25422e-3	10.30343		Naphthalene #1
11.073	BBA	328.40460	2.96983e-2	9.75306		Acenaphthylene #2
12.021	PB	763.85205	1.29461e-2	9.88889		1-Methylnaphthalene #3
12.598	BB	894.31500	1.12395e-2	10.05166		2-Methylnaphthalene #4
13.078	BB	483.56268	2.03168e-2	9.82443		Acenaphthene #5
13.738	BBA	557.46277	1.75246e-2	9.76933		Fluorene #6
15.133	BBA	565.66064	1.72985e-2	9.78506		Phenanthrene #7
16.545	BBA	973.54010	1.04262e-2	10.15030		Anthracene #8
17.926	PB	44.25564	2.17013e-2	9.60407e-1		Fluoranthene #9
18.938	BBA	67.74028	1.43056e-2	9.69062e-1		Pyrene #10
21.294	BBA	145.31215	6.56589e-2	9.54104		p-Terphenyl d14 #11*
22.618	BBA	43.83417	2.22701e-2	9.76191e-1		Benzo(a)anthracene #12
23.499	BBA	63.60076	1.51457e-2	9.63280e-1		Chrysene #13
26.236	PBA	46.71288	2.07333e-2	9.68511e-1		Benzo(b)fluoranthene #14
27.682	BBA	21.84682	2.25837e-2	4.93381e-1		Benzo(k)fluoranthene #15
28.810	BBA	35.68842	2.61682e-2	9.33903e-1		Benzo(a)pyrene #16
30.680	BBA	10.35146	9.41628e-2	9.74722e-1		Dibenz(a,h)anthracene #17

Data File C:\HPCHEM\2\[illegible]

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.514	PB	13.18469	5.60856e-2	7.39471e-1		Benzo(g,h,i)perylene #18
32.434	BB	45.97294	2.05614e-2	9.45269e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 97.99139

Results obtained with enhanced integrator!

*** End of Report ***

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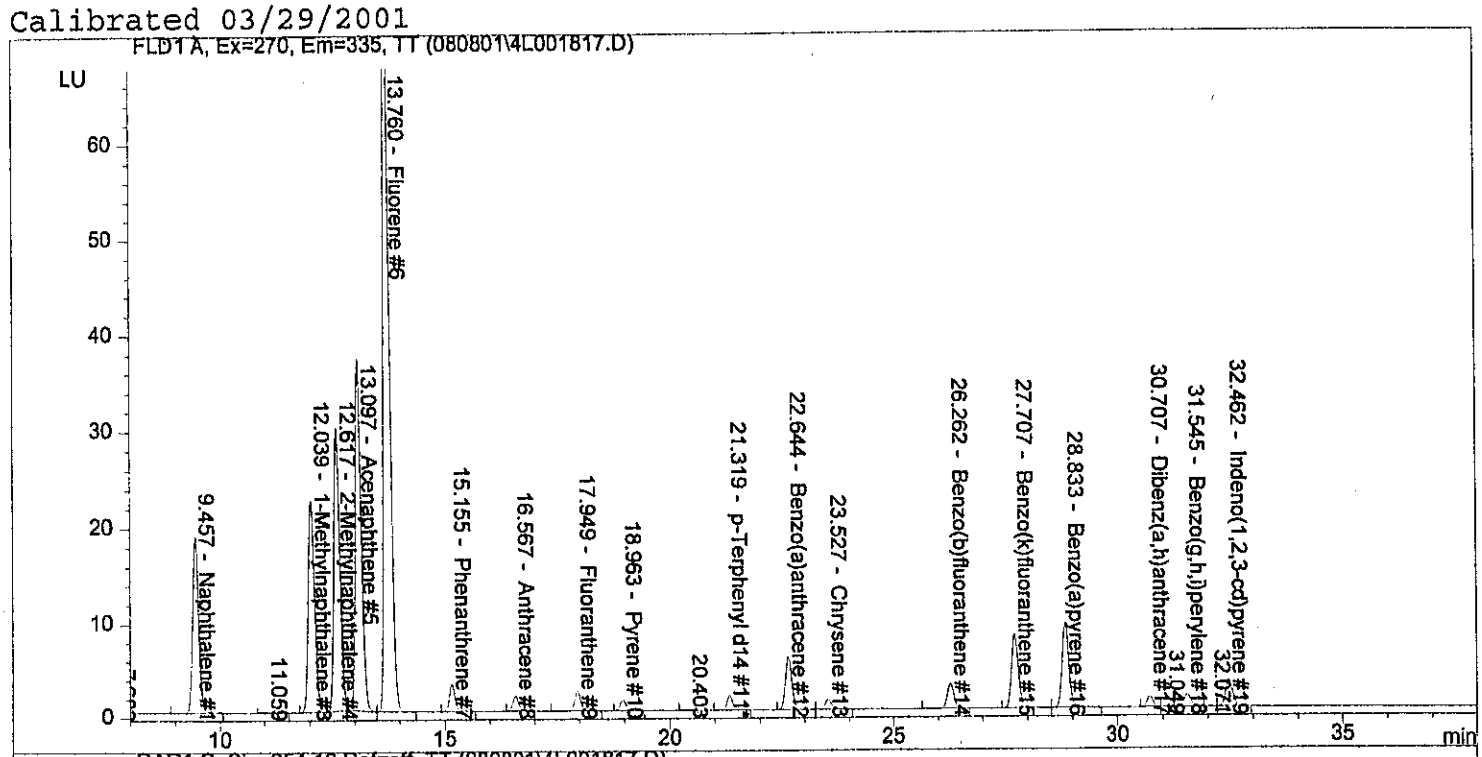
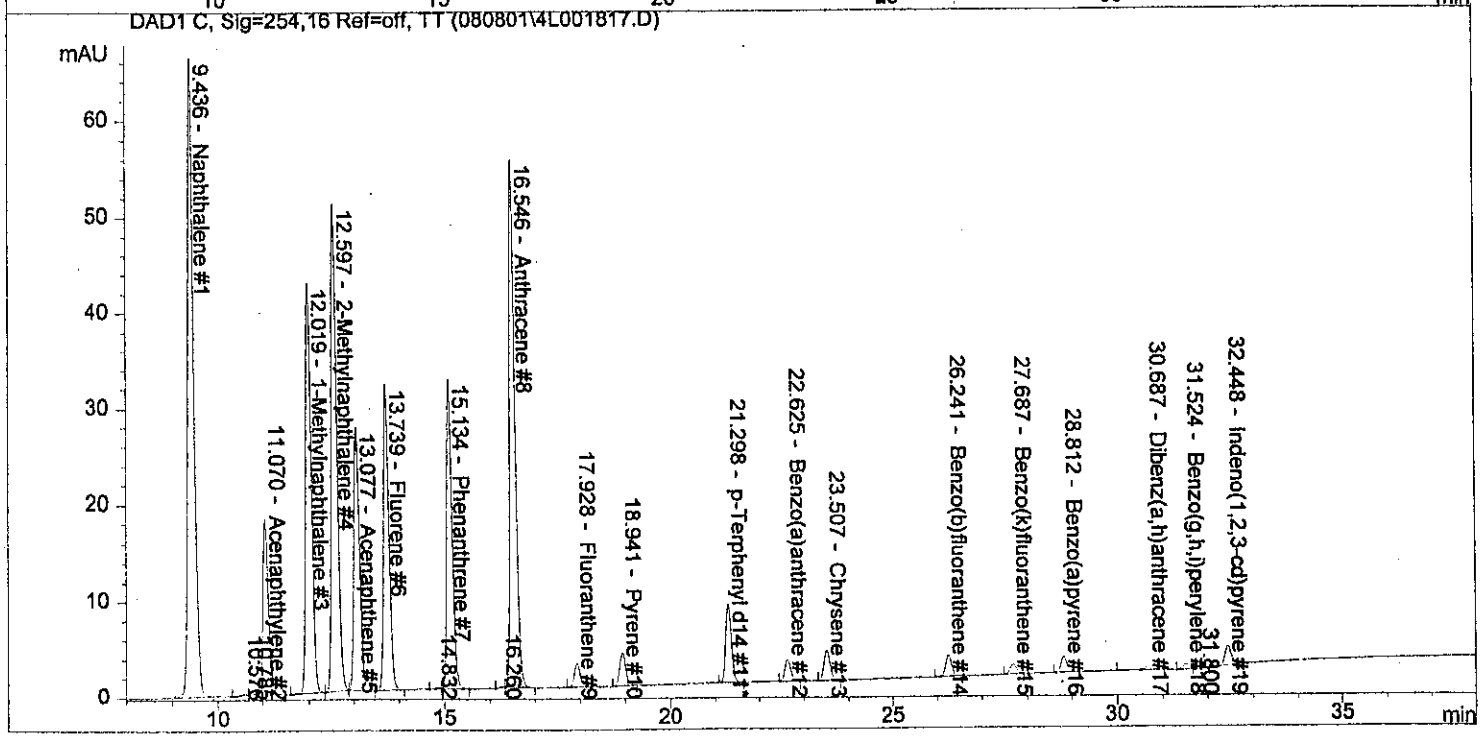
Injection Date : 8/9/2001 2:31:25 AM
Sample Name : 8310 std 2/53-25
Acq. Operator : RDC

Seq. Line : 13
Vial : 10
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 1:55:11 PM by RDC
(modified after loading)

Calibrated 03/29/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 1:55:07 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.457	PBA	181.76619	2.52963e-2	4.59801		Naphthalene #1
12.039	PB	209.24336	2.21330e-2	4.63119		1-Methylnaphthalene #3
12.617	BB	274.39529	1.70636e-2	4.68216		2-Methylnaphthalene #4
13.097	BB	342.62488	1.38416e-2	4.74248		Acenaphthene #5
13.760	BBA	746.17523	6.51370e-3	4.86036		Fluorene #6
15.155	PBA	27.27178	1.63653e-1	4.46310		Phenanthrene #7
16.567	BBA	15.29622	3.10197e-1	4.74485		Anthracene #8
17.949	BBA	19.73562	2.32679e-2	4.59206e-1		Fluoranthene #9
18.963	BBA	11.52839	3.69974e-2	4.26520e-1		Pyrene #10
21.319	BBA	15.32359	2.97421e-1	4.55755		p-Terphenyl d14 #11*
22.644	BB	56.84493	7.91259e-3	4.49791e-1		Benzo(a)anthracene #12
23.527	BBA	11.43981	3.90499e-2	4.46723e-1		Chrysene #13
26.262	PBA	27.63313	1.63222e-2	4.51033e-1		Benzo(b)fluoranthene #14
27.707	PB	83.81139	2.76572e-3	2.31799e-1		Benzo(k)fluoranthene #15
28.833	BBA	96.67756	4.57119e-3	4.41931e-1		Benzo(a)pyrene #16
30.707	PB	10.91603	3.93495e-2	4.29540e-1		Dibenz(a,h)anthracene #17
31.545	BB	15.83937	2.65166e-2	4.20006e-1		Benzo(g,h,i)perylene #18
32.462	BBA	32.35181	1.38204e-2	4.47116e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 41.48338

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.436	PBA	597.19745	8.25408e-3	4.92931		Naphthalene #1
11.070	BBA	157.20731	2.96976e-2	4.66868		Acenaphthylene #2
12.019	BB	365.03561	1.29459e-2	4.72572		1-Methylnaphthalene #3
12.597	BB	428.27109	1.12393e-2	4.81347		2-Methylnaphthalene #4
13.077	BBA	231.24211	2.03164e-2	4.69801		Acenaphthene #5
13.739	BBA	266.30728	1.75241e-2	4.66679		Fluorene #6
15.134	BBA	270.24643	1.72983e-2	4.67479		Phenanthrene #7
16.546	BBA	465.29129	1.04262e-2	4.85122		Anthracene #8
17.928	PBA	21.37060	2.17007e-2	4.63757e-1		Fluoranthene #9
18.941	BBA	31.33940	1.43053e-2	4.48319e-1		Pyrene #10
21.298	PBA	70.24126	6.56728e-2	4.61294		p-Terphenyl d14 #11*
22.625	BBA	20.54964	2.22694e-2	4.57628e-1		Benzo(a)anthracene #12
23.507	BBA	30.26713	1.51453e-2	4.58406e-1		Chrysene #13
26.241	PBA	22.12707	2.07330e-2	4.58761e-1		Benzo(b)fluoranthene #14
27.687	PBA	10.19696	2.25839e-2	2.30287e-1		Benzo(k)fluoranthene #15
28.812	BBA	16.98781	2.61681e-2	4.44538e-1		Benzo(a)pyrene #16
30.687	BBA	6.85372	9.41128e-2	6.45023e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.524	PB	5.61006	5.60813e-2	3.14619e-1		Benzo(g,h,i)perylene #18
32.448	BB	21.11818	2.05610e-2	4.34211e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 46.99648

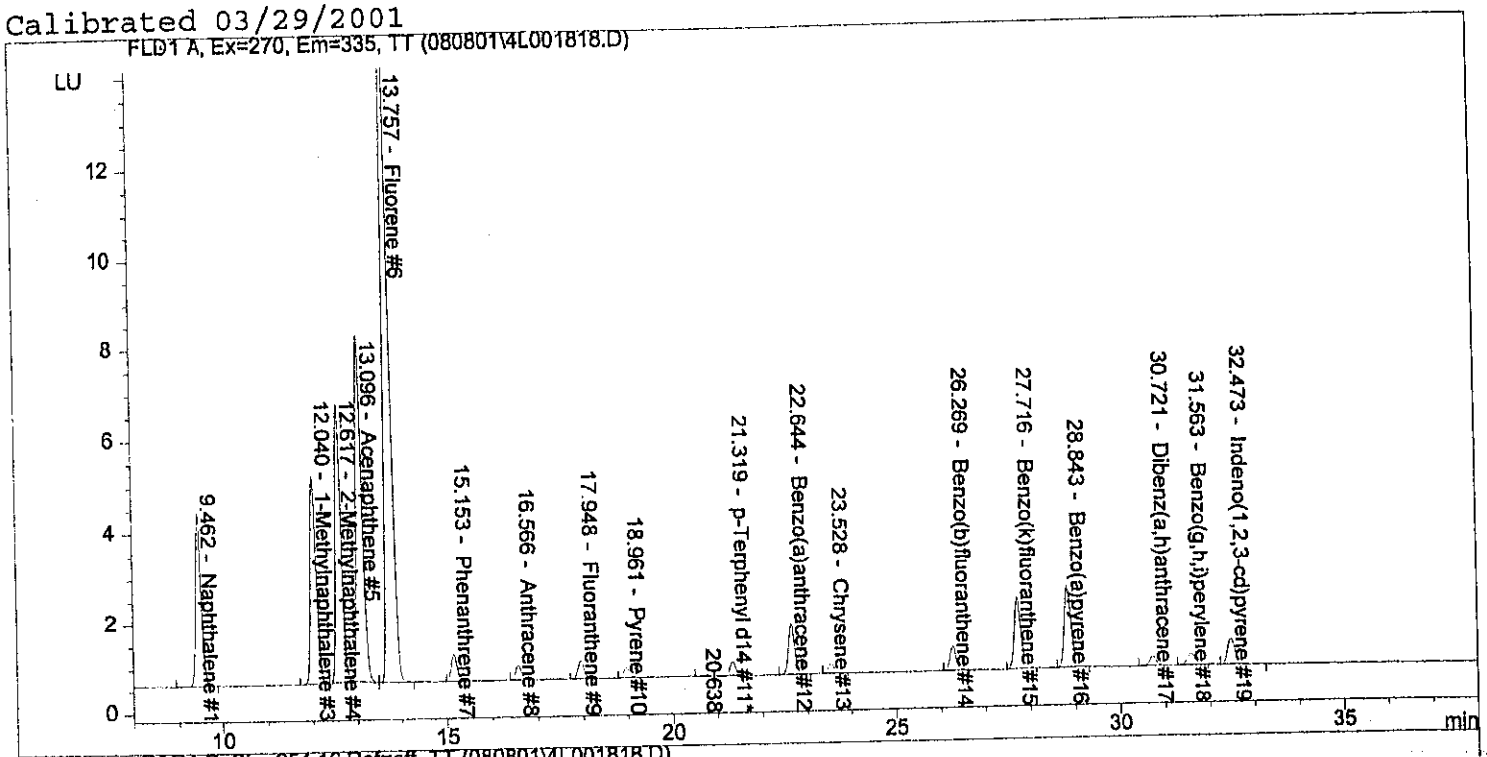
Results obtained with enhanced integrator!

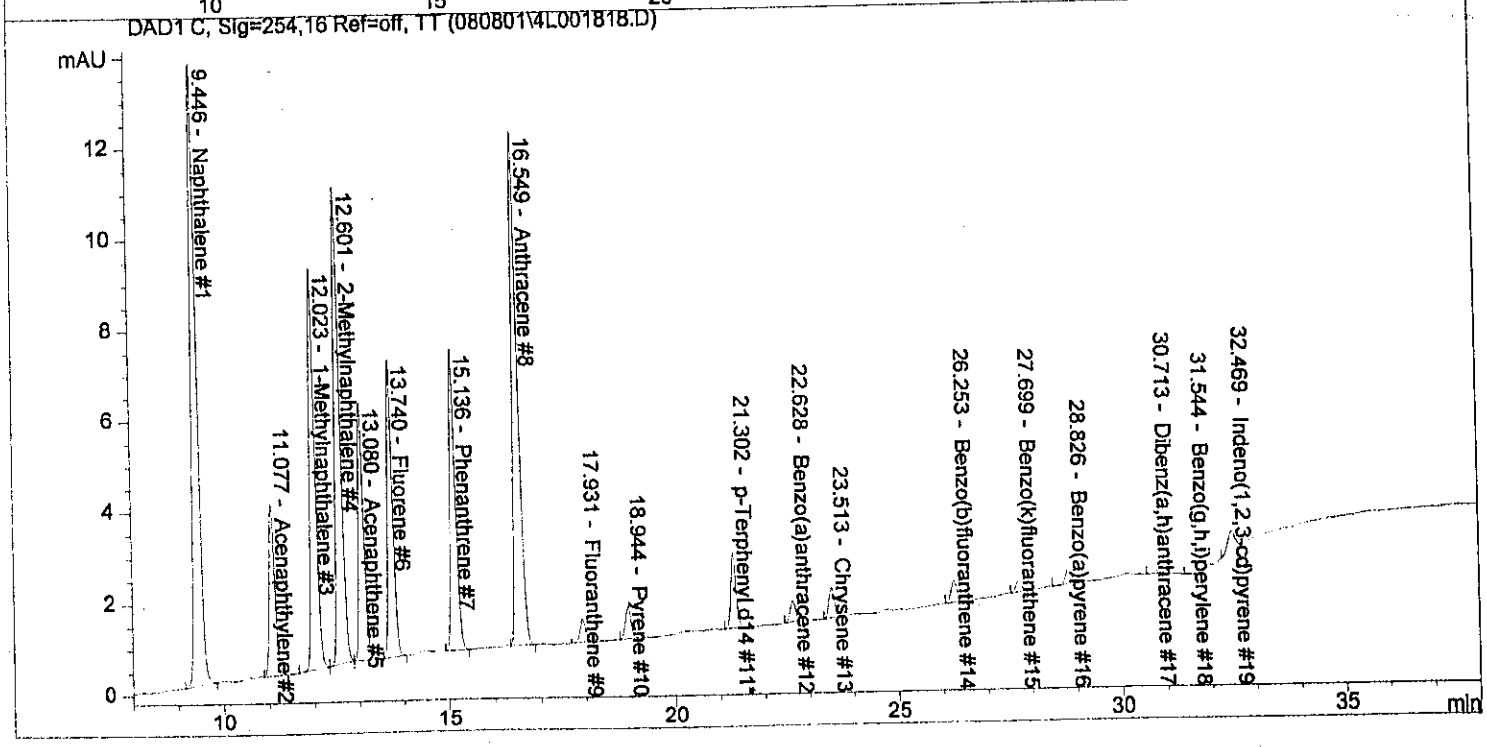
*** End of Report ***

Injection Date	: 8/9/2001 3:28:00 AM	Seq. Line	: 14
Sample Name	: 8310 std 1/53-25	Vial	: 11
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 1:57:07 PM by RDC
(modified after loading)

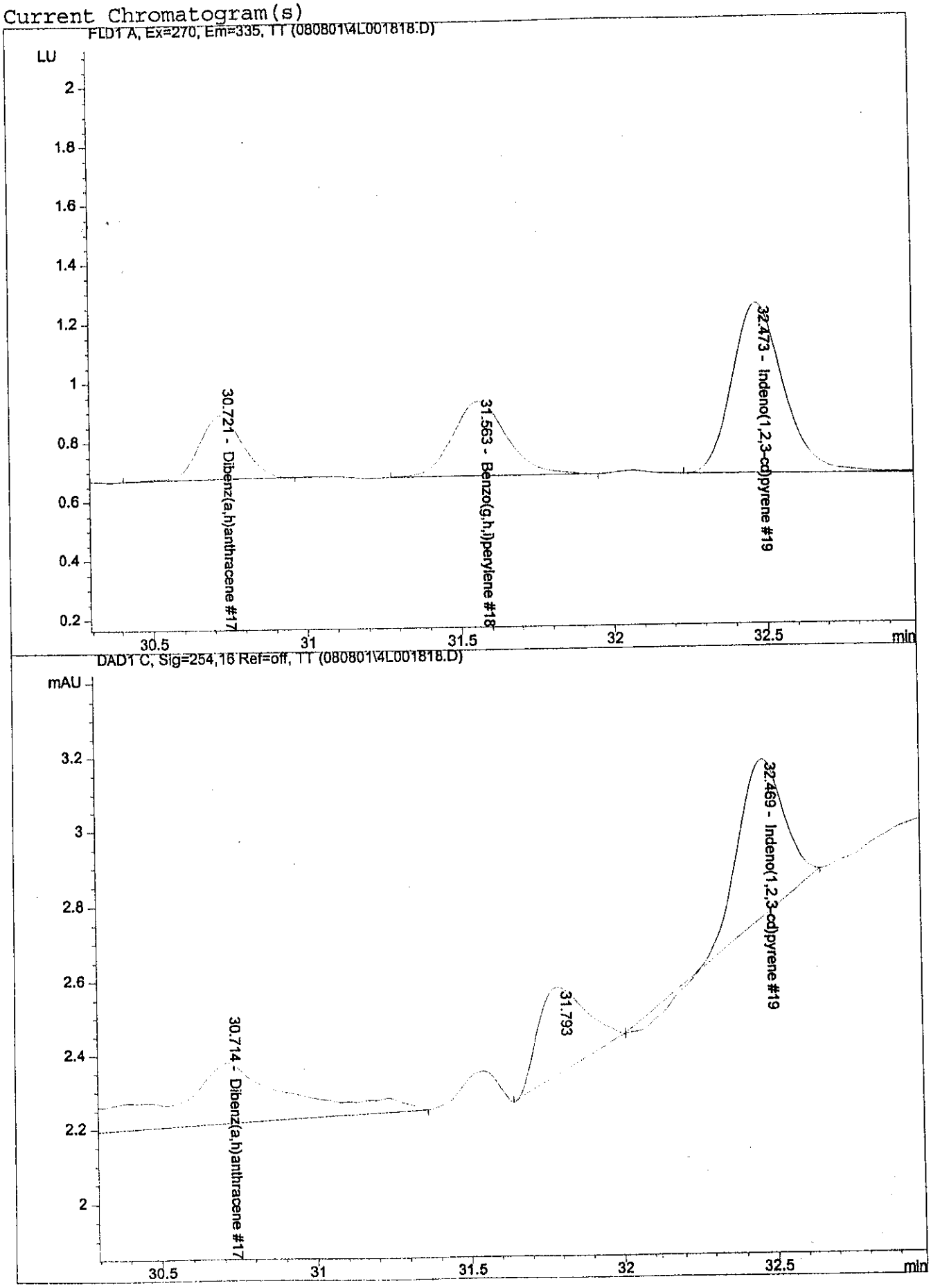
Calibrated 03/29/2001





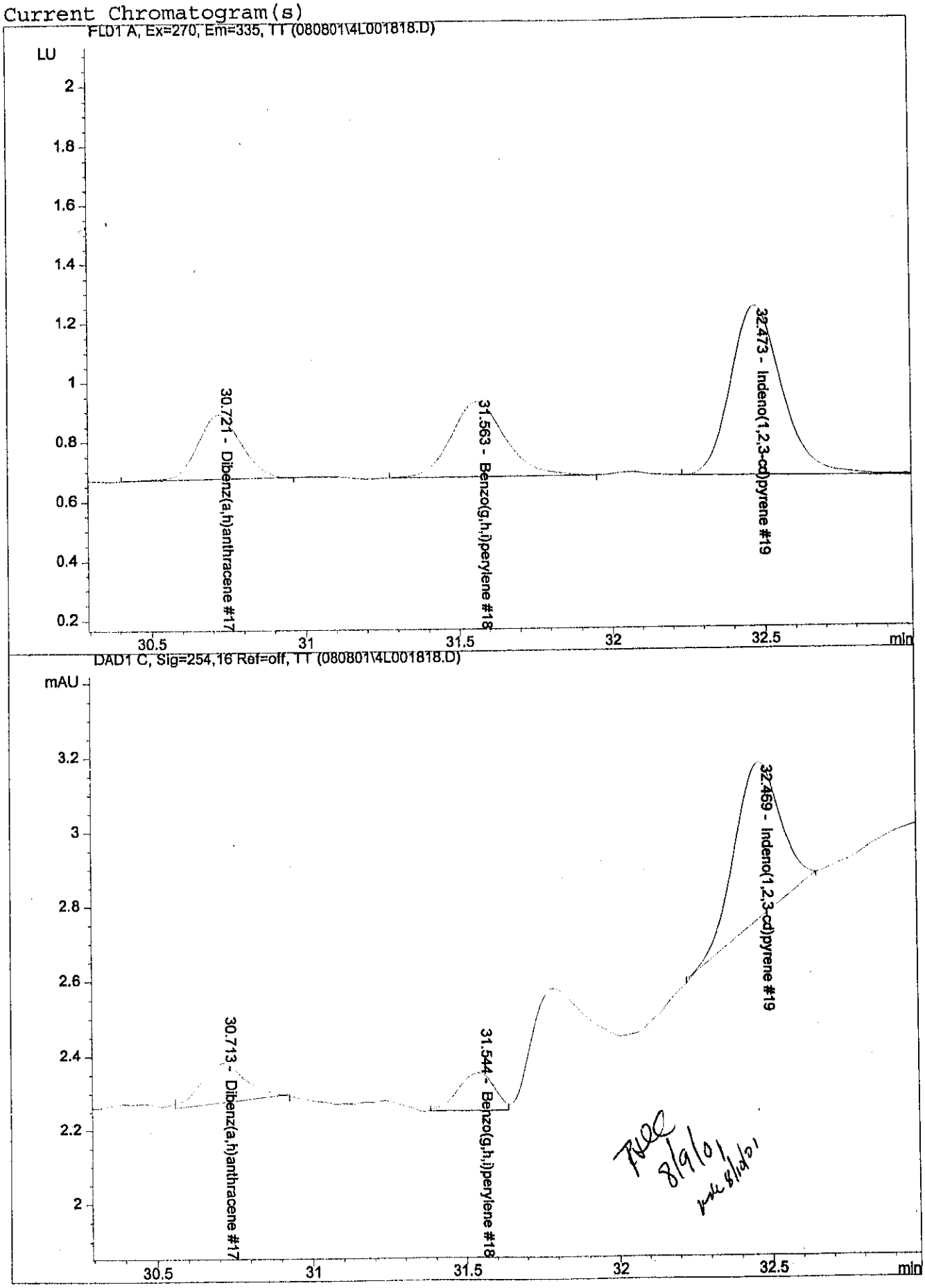
Print of window 38: Current Chromatogram(s)

Current Chromatogram(s)



Print of window 38: Current Chromatogram(s)

Current Chromatogram(s)



RDC 8/9/01
mk 8/10/01

External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 1:57:05 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.462	PBA	37.17168	2.52962e-2	9.40302e-1		Naphthalene #1
12.040	PB	42.88826	2.21330e-2	9.49244e-1		1-Methylnaphthalene #3
12.617	BB	56.35436	1.70635e-2	9.61602e-1		2-Methylnaphthalene #4
13.096	BB	70.47864	1.38416e-2	9.75535e-1		Acenaphthene #5
13.757	BBA	154.16187	6.51364e-3	1.00416		Fluorene #6
15.153	BBA	5.49988	1.63652e-1	9.00067e-1		Phenanthrene #7
16.566	BBA	3.13834	3.10196e-1	9.73501e-1		Anthracene #8
17.948	BBA	3.92854	2.32678e-2	9.14086e-2		Fluoranthene #9
18.961	PBA	2.27570	3.69972e-2	8.41944e-2		Pyrene #10
21.319	BBA	3.07342	2.97423e-1	9.14105e-1		p-Terphenyl d14 #11*
22.644	BB	11.54687	7.91256e-3	9.13654e-2		Benzo(a)anthracene #12
23.528	BB	2.41118	3.90495e-2	9.41556e-2		Chrysene #13
26.269	BBA	5.57386	1.63222e-2	9.09776e-2		Benzo(b)fluoranthene #14
27.716	PBA	16.87873	2.76572e-3	4.66818e-2		Benzo(k)fluoranthene #15
28.843	PBA	19.26282	4.57119e-3	8.80540e-2		Benzo(a)pyrene #16
30.721	PBA	2.12374	3.93496e-2	8.35682e-2		Dibenz(a,h)anthracene #17
31.563	PB	3.08265	2.65165e-2	8.17409e-2		Benzo(g,h,i)perylene #18
32.473	BBA	6.64809	1.38204e-2	9.18793e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 8.46254

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.446	PBA	122.72835	8.25405e-3	1.01301		Naphthalene #1
11.077	BBA	32.52021	2.96975e-2	9.65769e-1		Acenaphthylene #2
12.023	BB	75.33028	1.29459e-2	9.75215e-1		1-Methylnaphthalene #3
12.601	BB	88.22273	1.12393e-2	9.91560e-1		2-Methylnaphthalene #4
13.080	BBA	47.72895	2.03163e-2	9.69678e-1		Acenaphthene #5
13.740	BBA	54.47855	1.75240e-2	9.54682e-1		Fluorene #6
15.136	BBA	55.64261	1.72982e-2	9.62519e-1		Phenanthrene #7
16.549	BBA	95.56687	1.04262e-2	9.96398e-1		Anthracene #8
17.931	PBA	4.46854	2.17006e-2	9.69699e-2		Fluoranthene #9
18.944	BBA	6.23924	1.43052e-2	8.92539e-2		Pyrene #10
21.302	PBA	14.08348	6.56733e-2	9.24908e-1		p-Terphenyl d14 #11*
22.628	BBA	4.00703	2.22694e-2	8.92344e-2		Benzo(a)anthracene #12
23.513	PBA	6.06011	1.51453e-2	9.17822e-2		Chrysene #13
26.253	BBA	4.43454	2.07330e-2	9.19412e-2		Benzo(b)fluoranthene #14
27.699	BBA	2.30033	2.25837e-2	5.19499e-2		Benzo(k)fluoranthene #15
28.826	BBA	3.45270	2.61680e-2	9.03503e-2		Benzo(a)pyrene #16
30.713	MM	1.04021	9.41116e-2	9.78958e-2		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.544	MV	8.44691e-1	5.60829e-2	4.73728e-2		Benzo(g,h,i)perylene #18
32.469	FM	4.35778	2.05608e-2	8.95994e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.59008

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

Data File C:\HPCHEM\2\DATA\080801\4L001819.D Sample Name: 8310alt5327/5529
HPLC4 8/9/2001 2:40:05 PM RDC

Injection Date : 8/9/2001 4:24:36 AM
Sample Name : 8310alt5327/5529
Acq. Operator : RDC

Seq. Line : 15
Vial : 12
Inj : 1

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.470	20.0	19.085	-4.6
1-Methylnaphthalene #3	12.051	20.0	19.612	-1.9
2-Methylnaphthalene #4	12.628	20.0	19.236	-3.8
Acenaphthene #5	13.106	20.0	20.107	0.5
Fluorene #6	13.767	20.0	20.476	2.4
Phenanthrene #7	15.162	20.0	18.244	-8.8
Anthracene #8	16.577	20.0	20.286	1.4
Fluoranthene #9	17.959	2.0	1.875	-6.2
Pyrene #10	18.972	2.0	1.773	-11.4
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.654	2.0	1.764	-11.8
Chrysene #13	23.539	2.0	1.812	-9.4
Benzo(b)fluoranthene #14	26.279	2.0	1.900	-5.0
Benzo(k)fluoranthene #15	27.731	1.0	0.859	-14.1
Benzo(a)pyrene #16	28.859	2.0	1.936	-3.2
Dibenz(a,h)anthracene #1	30.737	2.0	2.044	2.2
Benzo(g,h,i)perylene #18	31.575	2.0	1.778	-11.1
Indeno(1,2,3-cd)pyrene #	32.488	2.0	1.863	-6.9

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.449	20.0	20.445	2.2
Acenaphthylene #2	11.083	20.0	19.230	-3.8
1-Methylnaphthalene #3	12.030	20.0	20.220	1.1
2-Methylnaphthalene #4	12.606	20.0	19.941	-0.3
Acenaphthene #5	13.085	20.0	20.110	0.5
Fluorene #6	13.745	20.0	19.598	-2.0
Phenanthrene #7	15.141	20.0	19.075	-4.6
Anthracene #8	16.555	20.0	20.838	4.2
Fluoranthene #9	17.937	2.0	1.904	-4.8
Pyrene #10	18.950	2.0	1.866	-6.7
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.633	2.0	1.817	-9.1
Chrysene #13	23.517	2.0	1.889	-5.5
Benzo(b)fluoranthene #14	26.257	2.0	1.916	-4.2
Benzo(k)fluoranthene #15	27.709	1.0	0.861	-13.9
Benzo(a)pyrene #16	28.837	2.0	1.945	-2.8
Dibenz(a,h)anthracene #1	30.716	2.0	2.113	5.6
Benzo(g,h,i)perylene #18	31.551	2.0	1.876	-6.2
Indeno(1,2,3-cd)pyrene #	32.471	2.0	1.847	-7.7

= Failed 15.0% Criteria

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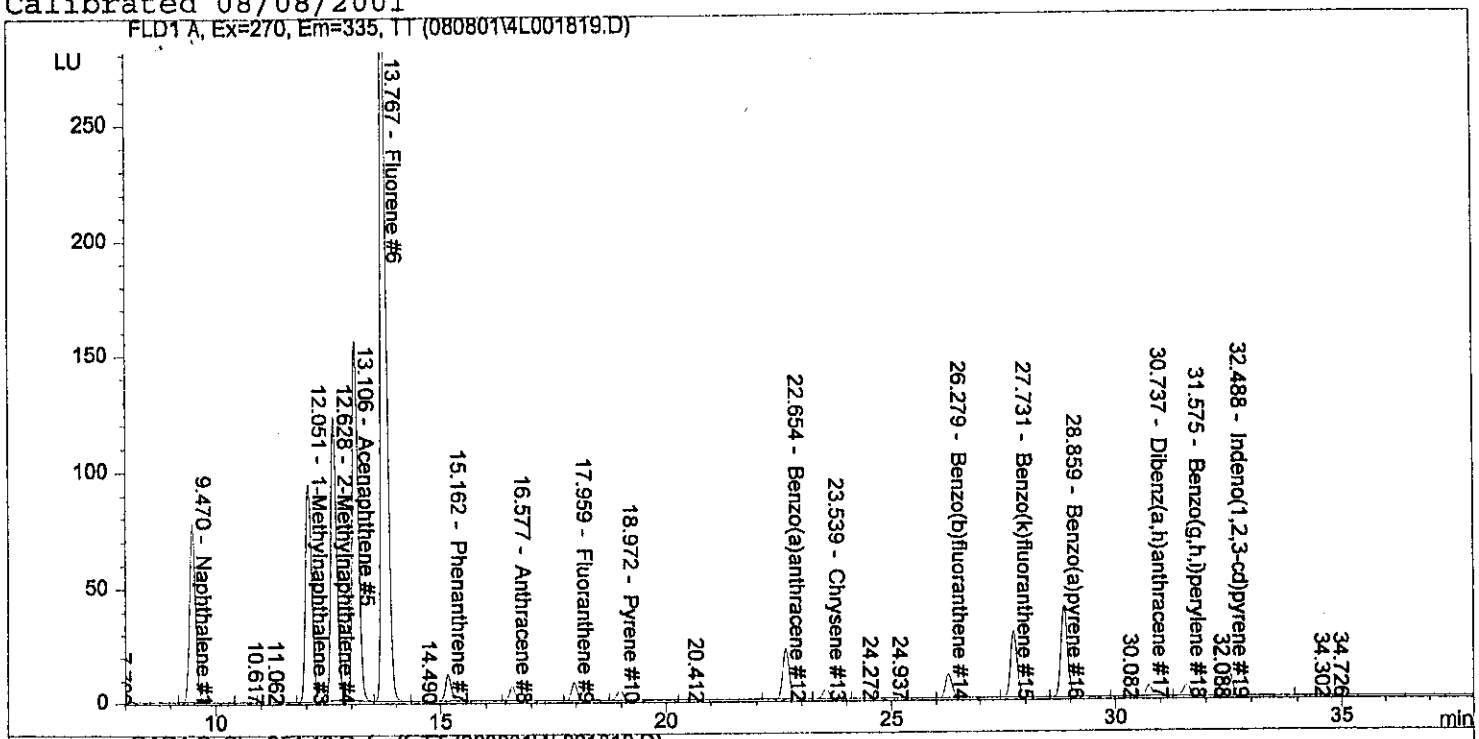
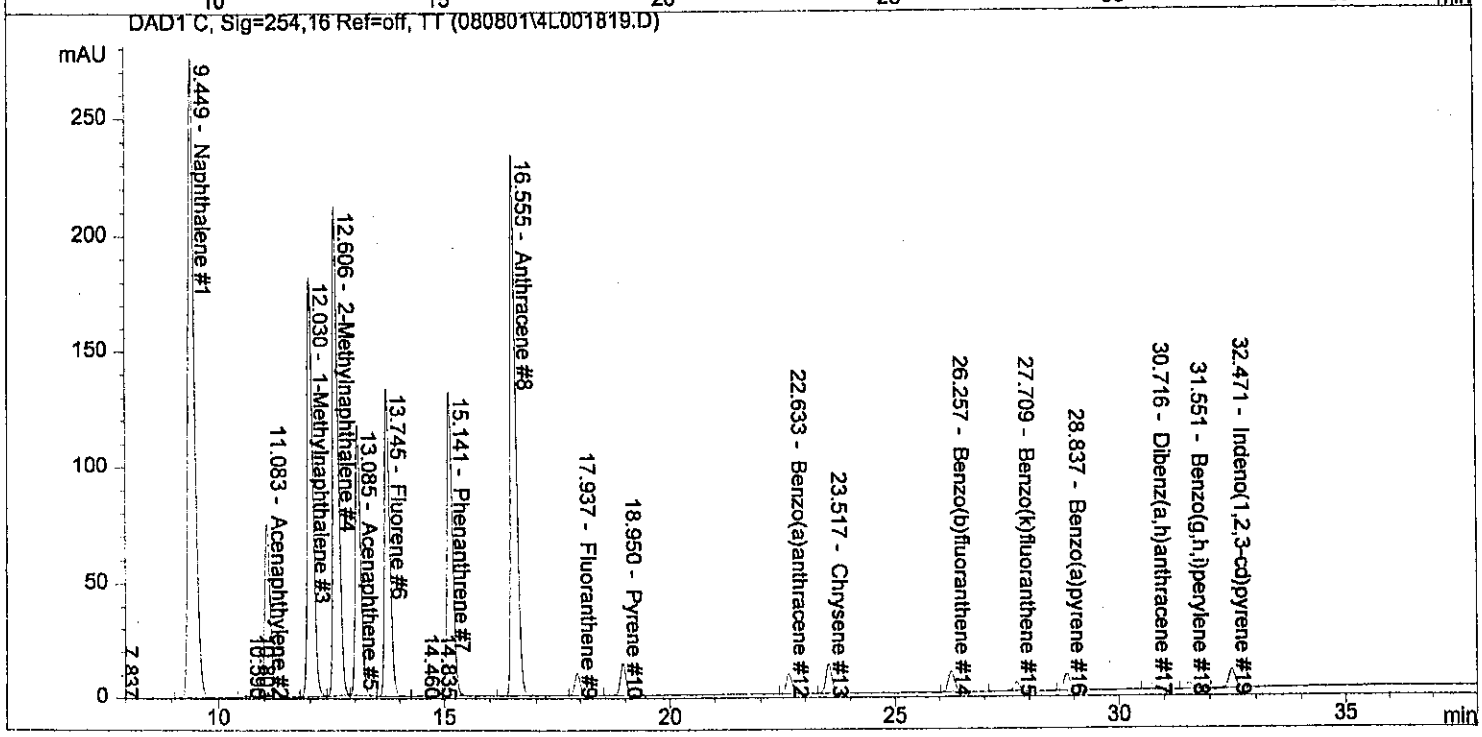
Injection Date : 8/9/2001 4:24:36 AM
Sample Name : 8310alt5327/5529
Acq. Operator : RDC

Seq. Line : 15
Vial : 12
Inj : 1
Inj Volume : 8 µl

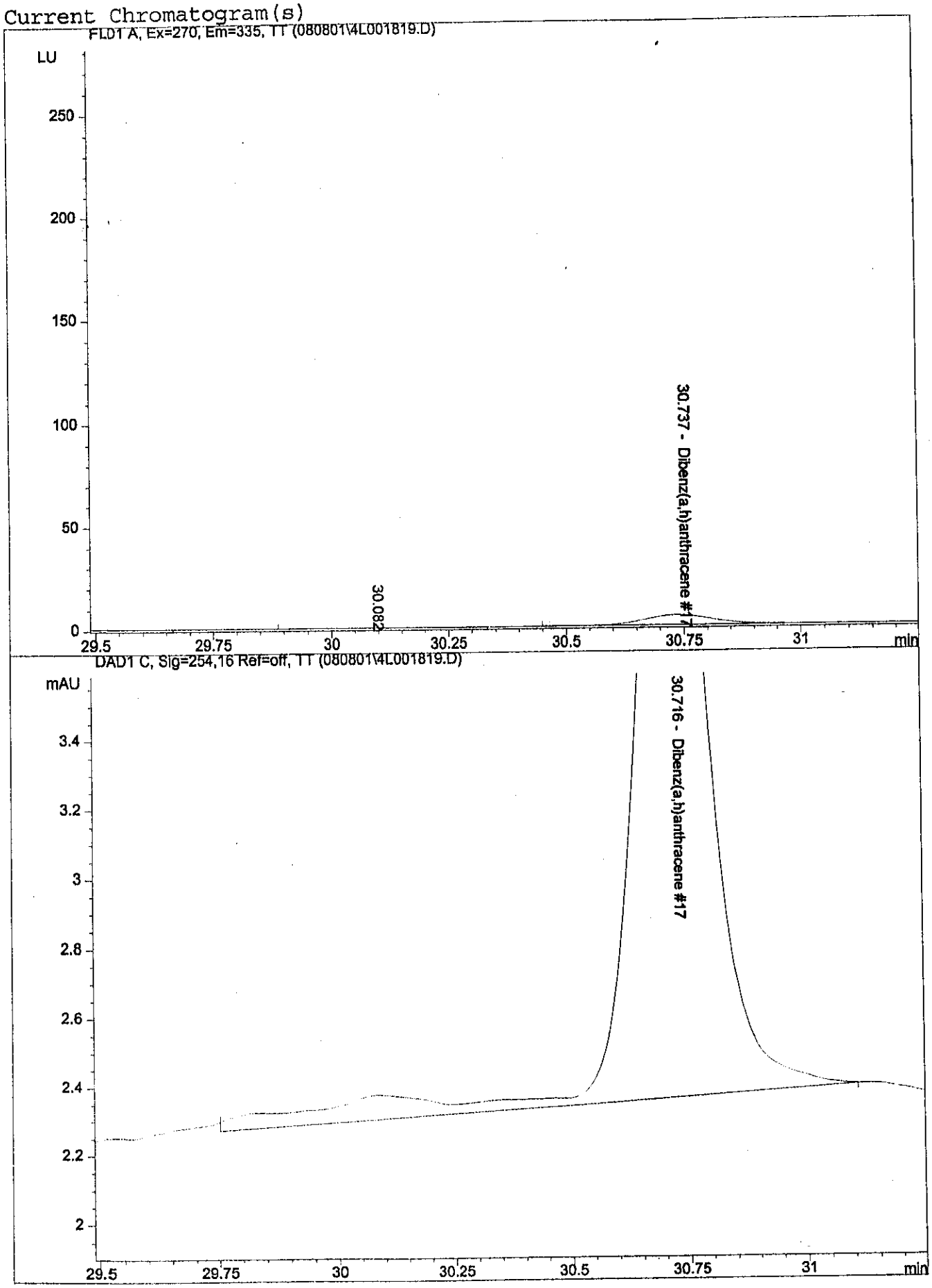
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 2:38:26 PM by RDC
Calibrated 08/08/2001



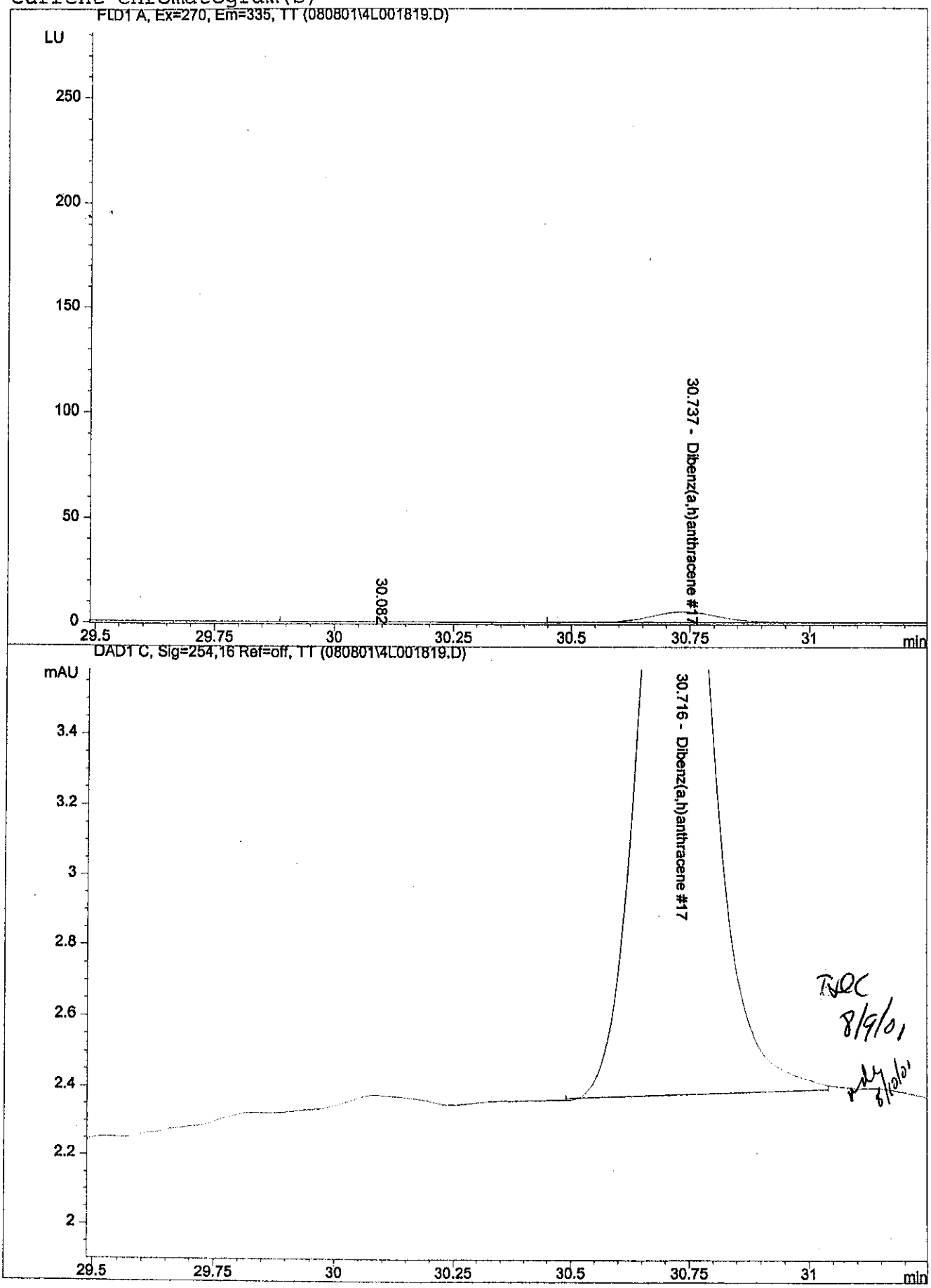


Print of window 38: Current Chromatogram(s)

Current Chromatogram(s)



Current Chromatogram(s)



RDC 8/9/01

8/10/01

Data File C:\HPCHEM\2\DATA\080801\4L001819.D Sample Name: 8310alt5327/5529

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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 8/9/2001 2:38:03 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.470	BBA	754.46277	2.52962e-2	19.08504		Naphthalene #1
12.051	PB	886.09137	2.21330e-2	19.61182		1-Methylnaphthalene #3
12.628	BB	1127.34106	1.70635e-2	19.23638		2-Methylnaphthalene #4
13.106	BB	1452.62085	1.38416e-2	20.10654		Acenaphthene #5
13.767	BB	3092.24097	6.62187e-3	20.47641		Fluorene #6
15.162	BBA	111.47997	1.63652e-1	18.24395		Phenanthrene #7
16.577	BBA	65.39610	3.10196e-1	20.28563		Anthracene #8
17.959	BBA	80.59158	2.32678e-2	1.87519		Fluoranthene #9
18.972	BBA	45.85996	3.86587e-2	1.77289		Pyrene #10
21.319		-	-	-		p-Terphenyl d14 #11*
22.654	BB	222.98581	7.91256e-3	1.76439		Benzo(a)anthracene #12
23.539	BBA	46.41417	3.90495e-2	1.81245		Chrysene #13
26.279	BBA	116.38370	1.63222e-2	1.89964		Benzo(b)fluoranthene #14
27.731	PB	310.48468	2.76572e-3	8.58712e-1		Benzo(k)fluoranthene #15
28.859	BBA	423.47870	4.57119e-3	1.93580		Benzo(a)pyrene #16
30.737	BB	51.95090	3.93496e-2	2.04424		Dibenz(a,h)anthracene #17
31.575	BB	67.06937	2.65165e-2	1.77844		Benzo(g,h,i)perylene #18
32.488	BBA	134.78470	1.38204e-2	1.86278		Indeno(1,2,3-cd)pyrene #1

Totals : 154.65030

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.449	PBA	2477.01978	8.25405e-3	20.44544		Naphthalene #1
11.083	BB	647.54114	2.96975e-2	19.23036		Acenaphthylene #2
12.030	BB	1561.87817	1.29459e-2	20.21985		1-Methylnaphthalene #3
12.606	BB	1774.18762	1.12393e-2	19.94059		2-Methylnaphthalene #4
13.085	BB	989.82544	2.03163e-2	20.10963		Acenaphthene #5
13.745	BB	1118.36353	1.75240e-2	19.59821		Fluorene #6
15.141	BBA	1102.72717	1.72982e-2	19.07524		Phenanthrene #7
16.555	BBA	1998.58276	1.04262e-2	20.83759		Anthracene #8
17.937	PB	87.72285	2.17006e-2	1.90364		Fluoranthene #9
18.950	BBA	130.42879	1.43052e-2	1.86582		Pyrene #10
21.302		-	-	-		p-Terphenyl d14 #11*
22.633	BBA	81.60189	2.22694e-2	1.81723		Benzo(a)anthracene #12
23.517	PBA	124.75014	1.51453e-2	1.88938		Chrysene #13
26.257	BBA	92.43634	2.07330e-2	1.91648		Benzo(b)fluoranthene #14
27.709	BBA	38.12810	2.25837e-2	8.61073e-1		Benzo(k)fluoranthene #15
28.837	BBA	74.32523	2.61680e-2	1.94494		Benzo(a)pyrene #16
30.716	MM	22.44932	9.41116e-2	2.11274		Dibenz(a,h)anthracene #17

Data File C:\HPCHEM\2\DATA\080801\4L001819.D Sample Name: 8310alt5327/5529

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.551	PB	33.44667	5.60829e-2	1.87579		Benzo(g,h,i)perylene #18
32.471	BB	89.81290	2.05608e-2	1.84662		Indeno(1,2,3-cd)pyrene #1

Totals : 177.49063

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\112001\4L002350.D Sample Name: WG108586-01 CCV
HPLC4 11/20/2001 6:03:06 PM RDC

1,1 SOS56-19/56-20

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Injection Date : 11/20/2001 3:09:03 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.214	20.0	18.855	-5.7
1-Methylnaphthalene #3	11.821	20.0	19.011	-4.9
2-Methylnaphthalene #4	12.403	20.0	19.193	-4.0
Acenaphthene #5	12.885	20.0	19.508	-2.5
Fluorene #6	13.539	20.0	20.202	1.0
Phenanthrene #7	14.927	20.0	18.178	-9.1
Anthracene #8	16.338	20.0	20.249	1.2
Fluoranthene #9	17.718	2.0	1.879	-6.0
Pyrene #10	18.728	2.0	1.763	-11.8
p-Terphenyl d14 #11*	21.085	20.0	19.506	-2.5
Benzo(a)anthracene #12	22.416	2.0	1.862	-6.9
Chrysene #13	23.297	2.0	1.857	-7.1
Benzo(b)fluoranthene #14	26.057	2.0	1.881	-5.9
Benzo(k)fluoranthene #15	27.522	1.0	0.959	-4.1
Benzo(a)pyrene #16	28.665	2.0	1.990	-0.5
Dibenz(a,h)anthracene #1	30.588	2.0	1.840	-8.0
Benzo(g,h,i)perylene #18	31.390	2.0	1.794	-10.3
Indeno(1,2,3-cd)pyrene #	32.334	2.0	1.929	-3.6

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.199	20.0	20.299	1.5
Acenaphthylene #2	10.845	20.0	19.103	-4.5
1-Methylnaphthalene #3	11.806	20.0	19.648	-1.8
2-Methylnaphthalene #4	12.387	20.0	19.980	-0.1
Acenaphthene #5	12.870	20.0	19.554	-2.2
Fluorene #6	13.523	20.0	19.247	-3.8
Phenanthrene #7	14.911	20.0	19.307	-3.5
Anthracene #8	16.322	20.0	20.664	3.3
Fluoranthene #9	17.701	2.0	1.914	-4.3
Pyrene #10	18.711	2.0	1.887	-5.7
p-Terphenyl d14 #11*	21.070	20.0	19.426	-2.9
Benzo(a)anthracene #12	22.400	2.0	1.916	-4.2
Chrysene #13	23.281	2.0	1.914	-4.3
Benzo(b)fluoranthene #14	26.040	2.0	1.914	-4.3
Benzo(k)fluoranthene #15	27.506	1.0	0.961	-3.9
Benzo(a)pyrene #16	28.648	2.0	2.050	2.5
Dibenz(a,h)anthracene #1	30.572	2.0	1.924	-3.8
Benzo(g,h,i)perylene #18	31.372	2.0	2.039	2.0
Indeno(1,2,3-cd)pyrene #	32.318	2.0	1.915	-4.2

= Failed 15.0% Criteria

1,1 SOS56-19/56-20

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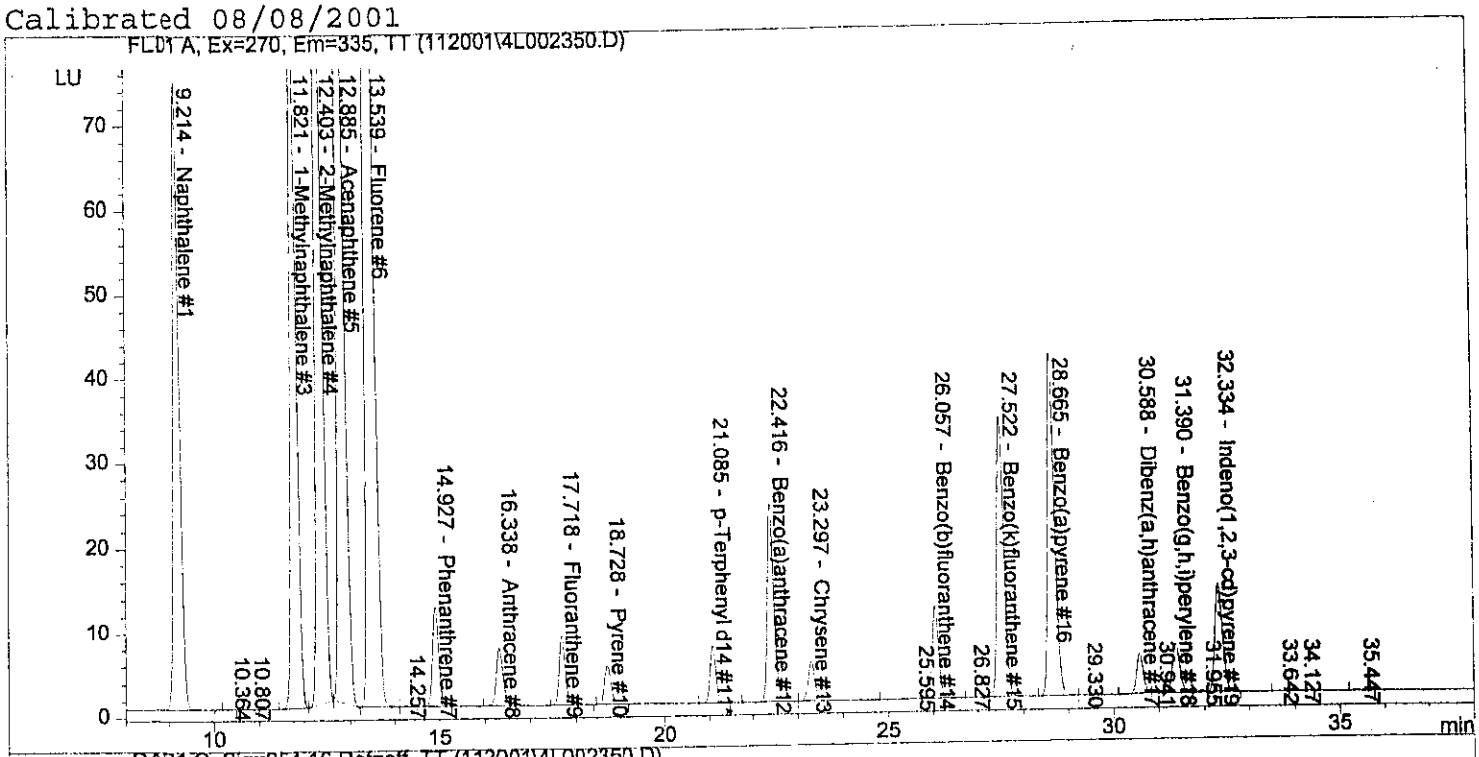
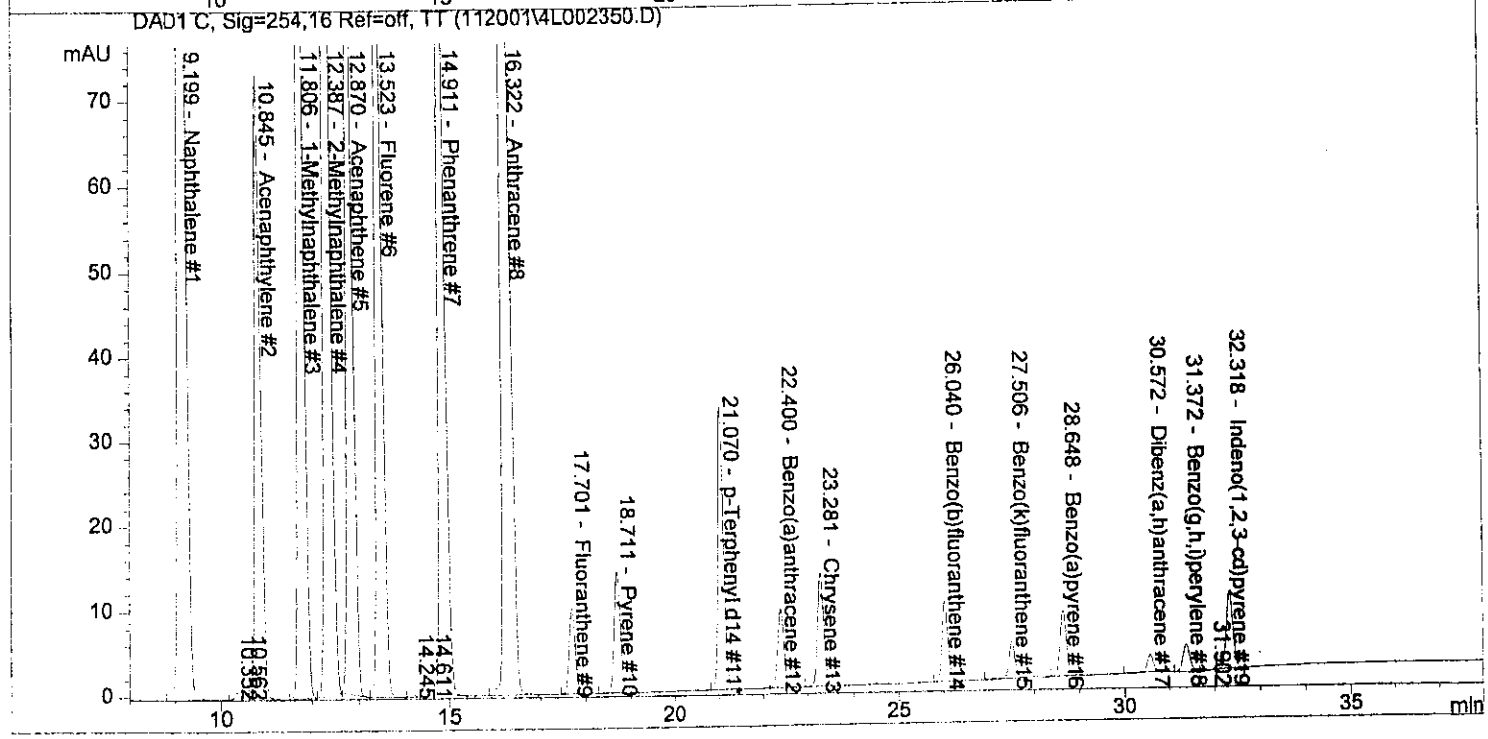
Injection Date : 11/20/2001 3:09:03 PM
Sample Name : WG108586-01 CCV
Acq. Operator : RDC

Seq. Line : 2
Vial : 2
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/20/2001 6:02:58 PM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 11/20/2001 6:02:58 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.214	BBA	745.38470	2.52962e-2	18.85540		Naphthalene #1
11.821	PB	858.93915	2.21330e-2	19.01086		1-Methylnaphthalene #3
12.403	BB	1124.80469	1.70635e-2	19.19310		2-Methylnaphthalene #4
12.885	BB	1409.40698	1.38416e-2	19.50840		Acenaphthene #5
13.539	BB	3050.77563	6.62187e-3	20.20183		Fluorene #6
14.927	BBA	111.07926	1.63652e-1	18.17837		Phenanthrene #7
16.338	PB	65.27890	3.10196e-1	20.24928		Anthracene #8
17.718	BBA	80.76973	2.32678e-2	1.87934		Fluoranthene #9
18.728	BBA	45.61041	3.86587e-2	1.76324		Pyrene #10
21.085	BB	65.58199	2.97423e-1	19.50558		p-Terphenyl d14 #11*
22.416	BB	235.29422	7.91256e-3	1.86178		Benzo(a)anthracene #12
23.297	BB	47.55685	3.90495e-2	1.85707		Chrysene #13
26.057	BB	115.25386	1.63222e-2	1.88119		Benzo(b)fluoranthene #14
27.522	BB	346.92325	2.76572e-3	9.59491e-1		Benzo(k)fluoranthene #15
28.665	BB	435.23410	4.57119e-3	1.98954		Benzo(a)pyrene #16
30.588	BB	46.75999	3.93496e-2	1.83998		Dibenz(a,h)anthracene #17
31.390	BB	67.65892	2.65165e-2	1.79408		Benzo(g,h,i)perylene #18
32.334	BB	139.57231	1.38204e-2	1.92895		Indeno(1,2,3-cd)pyrene #1
Totals :				172.45747		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.199	PBA	2459.23438	8.25405e-3	20.29864		Naphthalene #1
10.845	BBA	643.26294	2.96975e-2	19.10331		Acenaphthylene #2
11.806	PB	1517.67749	1.29459e-2	19.64764		1-Methylnaphthalene #3
12.387	BB	1777.70325	1.12393e-2	19.98010		2-Methylnaphthalene #4
12.870	BB	962.45306	2.03163e-2	19.55353		Acenaphthene #5
13.523	BBA	1098.32678	1.75240e-2	19.24708		Fluorene #6
14.911	BBA	1116.13574	1.72982e-2	19.30719		Phenanthrene #7
16.322	PBA	1981.94788	1.04262e-2	20.66415		Anthracene #8
17.701	PB	88.17795	2.17006e-2	1.91351		Fluoranthene #9
18.711	BBA	131.90790	1.43052e-2	1.88697		Pyrene #10
21.070	BBA	295.80029	6.56733e-2	19.42617		p-Terphenyl d14 #11*
22.400	BBA	86.02634	2.22694e-2	1.91576		Benzo(a)anthracene #12
23.281	BBA	126.38978	1.51453e-2	1.91421		Chrysene #13
26.040	PBA	92.32178	2.07330e-2	1.91411		Benzo(b)fluoranthene #14
27.506	BBA	42.54090	2.25837e-2	9.60730e-1		Benzo(k)fluoranthene #15
28.648	BBA	78.32493	2.61680e-2	2.04961		Benzo(a)pyrene #16
30.572	PB	20.44073	9.41116e-2	1.92371		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.372	BB	36.36242	5.60829e-2	2.03931		Benzo(g,h,i)perylene #18
32.318	BB	93.16173	2.05608e-2	1.91548		Indeno(1,2,3-cd)pyrene #1

Totals : 195.66121

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

Data File C:\HPCHEM\2\DATA\112001\4L002361.D Sample Name: WG108586-02 CCV
HPLC4 11/21/2001 12:26:25 PM RDC

1,1 SOS56-19/56-20

Injection Date : 11/21/2001 1:59:02 AM Seq. Line : 13

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.378	20.0	18.057	-9.7
1-Methylnaphthalene #3	11.958	20.0	18.213	-8.9
2-Methylnaphthalene #4	12.532	20.0	18.323	-8.4
Acenaphthene #5	13.014	20.0	18.873	-5.6
Fluorene #6	13.662	20.0	19.857	-0.7
Phenanthrene #7	15.040	20.0	17.764	-11.2
Anthracene #8	16.433	20.0	19.735	-1.3
Fluoranthene #9	17.802	2.0	1.828	-8.6
Pyrene #10	18.803	2.0	1.707	-14.6
p-Terphenyl d14 #11*	21.116	20.0	19.491	-2.5
Benzo(a)anthracene #12	22.422	2.0	1.820	-9.0
Chrysene #13	23.276	2.0	1.842	-7.9
Benzo(b)fluoranthene #14	25.972	2.0	1.840	-8.0
Benzo(k)fluoranthene #15	27.388	1.0	0.945	-5.5
Benzo(a)pyrene #16	28.515	2.0	1.908	-4.6
Dibenz(a,h)anthracene #1	30.374	2.0	1.864	-6.8
Benzo(g,h,i)perylene #18	31.187	2.0	1.795	-10.2
Indeno(1,2,3-cd)pyrene #	32.102	2.0	1.882	-5.9

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.359	20.0	20.245	1.2
Acenaphthylene #2	10.986	20.0	18.963	-5.2
1-Methylnaphthalene #3	11.940	20.0	19.534	-2.3
2-Methylnaphthalene #4	12.514	20.0	19.817	-0.9
Acenaphthene #5	12.996	20.0	19.373	-3.1
Fluorene #6	13.643	20.0	19.201	-4.0
Phenanthrene #7	15.022	20.0	19.122	-4.4
Anthracene #8	16.415	20.0	20.481	2.4
Fluoranthene #9	17.782	2.0	1.904	-4.8
Pyrene #10	18.784	2.0	1.867	-6.6
p-Terphenyl d14 #11*	21.098	20.0	19.319	-3.4
Benzo(a)anthracene #12	22.403	2.0	1.907	-4.6
Chrysene #13	23.258	2.0	1.907	-4.6
Benzo(b)fluoranthene #14	25.953	2.0	1.908	-4.6
Benzo(k)fluoranthene #15	27.369	1.0	0.955	-4.5
Benzo(a)pyrene #16	28.496	2.0	1.894	-5.3
Dibenz(a,h)anthracene #1	30.354	2.0	2.032	1.6
Benzo(g,h,i)perylene #18	31.167	2.0	2.104	5.2
Indeno(1,2,3-cd)pyrene #	32.081	2.0	2.001	0.1

= Failed 15.0% Criteria

1,1 SOS56-19/56-20

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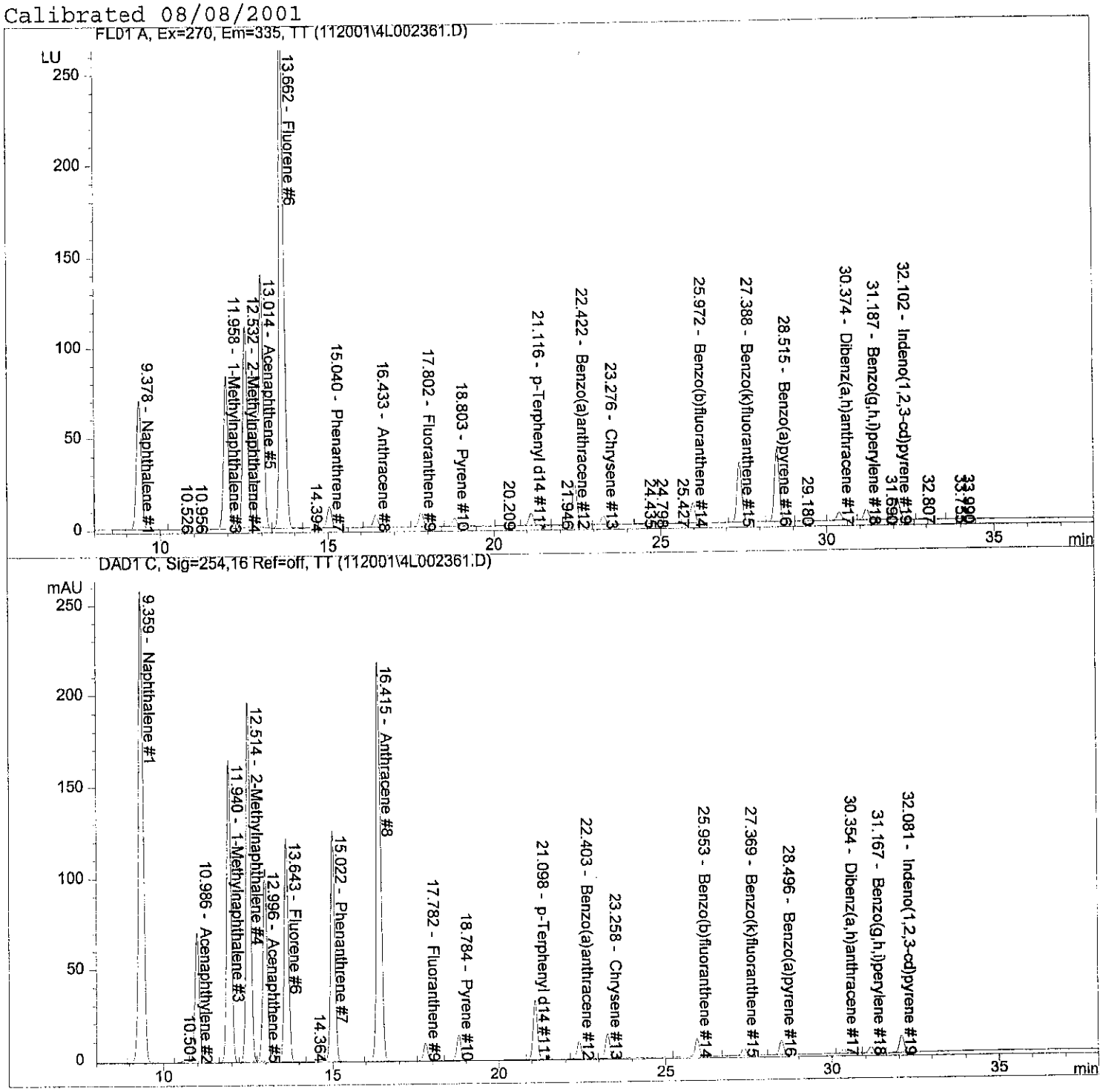
Injection Date : 11/21/2001 1:59:02 AM
Sample Name : WG108586-02 CCV
Acq. Operator : RDC

Seq. Line : 13
Vial : 13
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/21/2001 12:25:47 PM by RDC
(modified after loading)

Calibrated 08/08/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, November 21, 2001 12:25:47 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.378	BBA	713.84192	2.52962e-2	18.05749		Naphthalene #1
11.958	BB	822.90344	2.21330e-2	18.21328		1-Methylnaphthalene #3
12.532	BB	1073.83911	1.70635e-2	18.32345		2-Methylnaphthalene #4
13.014	BB	1363.50964	1.38416e-2	18.87311		Acenaphthene #5
13.662	BB	2998.73169	6.62187e-3	19.85720		Fluorene #6
15.040	BBA	108.54491	1.63652e-1	17.76362		Phenanthrene #7
16.433	PB	63.62175	3.10196e-1	19.73523		Anthracene #8
17.802	BBA	78.58060	2.32678e-2	1.82840		Fluoranthene #9
18.803	BBA	44.16053	3.86587e-2	1.70719		Pyrene #10
21.116	BB	65.53138	2.97423e-1	19.49053		p-Terphenyl d14 #11*
22.422	BB	230.06712	7.91256e-3	1.82042		Benzo(a)anthracene #12
23.276	BB	47.18345	3.90495e-2	1.84249		Chrysene #13
25.972	BB	112.75446	1.63222e-2	1.84040		Benzo(b)fluoranthene #14
27.388	PB	341.62549	2.76572e-3	9.44839e-1		Benzo(k)fluoranthene #15
28.515	BB	417.30978	4.57119e-3	1.90760		Benzo(a)pyrene #16
30.374	PB	47.38241	3.93496e-2	1.86448		Dibenz(a,h)anthracene #17
31.187	BB	67.69653	2.65165e-2	1.79507		Benzo(g,h,i)perylene #18
32.102	BBA	136.17615	1.38204e-2	1.88201		Indeno(1,2,3-cd)pyrene #1
Totals :				167.74680		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.359	PBA	2452.72778	8.25405e-3	20.24494		Naphthalene #1
10.986	BBA	638.53857	2.96975e-2	18.96301		Acenaphthylene #2
11.940	PB	1508.92102	1.29459e-2	19.53428		1-Methylnaphthalene #3
12.514	BB	1763.21851	1.12393e-2	19.81730		2-Methylnaphthalene #4
12.996	BB	953.58539	2.03163e-2	19.37337		Acenaphthene #5
13.643	BBA	1095.67566	1.75240e-2	19.20062		Fluorene #6
15.022	BBA	1105.42297	1.72982e-2	19.12187		Phenanthrene #7
16.415	PBA	1964.37439	1.04262e-2	20.48093		Anthracene #8
17.782	BB	87.76057	2.17006e-2	1.90446		Fluoranthene #9
18.784	BBA	130.53215	1.43052e-2	1.86729		Pyrene #10
21.098	BBA	294.16901	6.56733e-2	19.31904		p-Terphenyl d14 #11*
22.403	BBA	85.63338	2.22694e-2	1.90701		Benzo(a)anthracene #12
23.258	BBA	125.91673	1.51453e-2	1.90705		Chrysene #13
25.953	BBA	92.03997	2.07330e-2	1.90826		Benzo(b)fluoranthene #14
27.369	PB	42.28928	2.25837e-2	9.55048e-1		Benzo(k)fluoranthene #15
28.496	BB	72.36155	2.61680e-2	1.89356		Benzo(a)pyrene #16
30.354	BB	21.58934	9.41116e-2	2.03181		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.167	BB	37.52325	5.60829e-2	2.10441		Benzo(g,h,i)perylene #18
32.081	BB	97.32325	2.05608e-2	2.00104		Indeno(1,2,3-cd)pyrene #1

Totals : 194.53529

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

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*** End of Report ***

Check Standard Report

Data File C:\HPCHEM\2\DATA\112101\4L002369.D Sample Name: WG108689-01 CCV
HPLC4 11/26/2001 9:16:19 AM RDC

1,1 SOS56-19/56-20

Injection Date : 11/21/2001 6:32:46 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.333	20.0	20.259	1.3
1-Methylnaphthalene #3	11.902	20.0	20.183	0.9
2-Methylnaphthalene #4	12.475	20.0	19.934	-0.3
Acenaphthene #5	12.953	20.0	20.174	0.9
Fluorene #6	13.607	20.0	20.862	4.3
Phenanthrene #7	15.012	20.0	19.504	-2.5
Anthracene #8	16.443	20.0	20.576	2.9
Fluoranthene #9	17.833	2.0	1.921	-3.9
Pyrene #10	18.852	2.0	2.034	1.7
p-Terphenyl d14 #11*	21.213	20.0	19.932	-0.3
Benzo(a)anthracene #12	22.539	2.0	1.985	-0.8
Chrysene #13	23.422	2.0	1.997	-0.1
Benzo(b)fluoranthene #14	26.169	2.0	1.991	-0.5
Benzo(k)fluoranthene #15	27.625	1.0	0.997	-0.3
Benzo(a)pyrene #16	28.752	2.0	1.990	-0.5
Dibenz(a,h)anthracene #1	30.667	2.0	1.999	-0.1
Benzo(g,h,i)perylene #18	31.451	2.0	2.042	2.1
Indeno(1,2,3-cd)pyrene #	32.386	2.0	1.988	-0.6

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.319	20.0	21.006	5.0
Acenaphthylene #2	10.941	20.0	20.057	0.3
1-Methylnaphthalene #3	11.889	20.0	20.193	1.0
2-Methylnaphthalene #4	12.461	20.0	20.361	1.8
Acenaphthene #5	12.940	20.0	19.729	-1.4
Fluorene #6	13.593	20.0	19.723	-1.4
Phenanthrene #7	14.998	20.0	20.130	0.7
Anthracene #8	16.429	20.0	20.892	4.5
Fluoranthene #9	17.818	2.0	1.963	-1.9
Pyrene #10	18.837	2.0	1.936	-3.2
p-Terphenyl d14 #11*	21.199	20.0	19.902	-0.5
Benzo(a)anthracene #12	22.525	2.0	1.956	-2.2
Chrysene #13	23.408	2.0	1.958	-2.1
Benzo(b)fluoranthene #14	26.154	2.0	1.955	-2.2
Benzo(k)fluoranthene #15	27.610	1.0	1.010	1.0
Benzo(a)pyrene #16	28.737	2.0	1.913	-4.4
Dibenz(a,h)anthracene #1	30.653	2.0	1.877	-6.2
Benzo(g,h,i)perylene #18	31.435	2.0	1.984	-0.8
Indeno(1,2,3-cd)pyrene #	32.374	2.0	1.942	-2.9

= Failed 15.0% Criteria

1,1 SOS56-19/56-20

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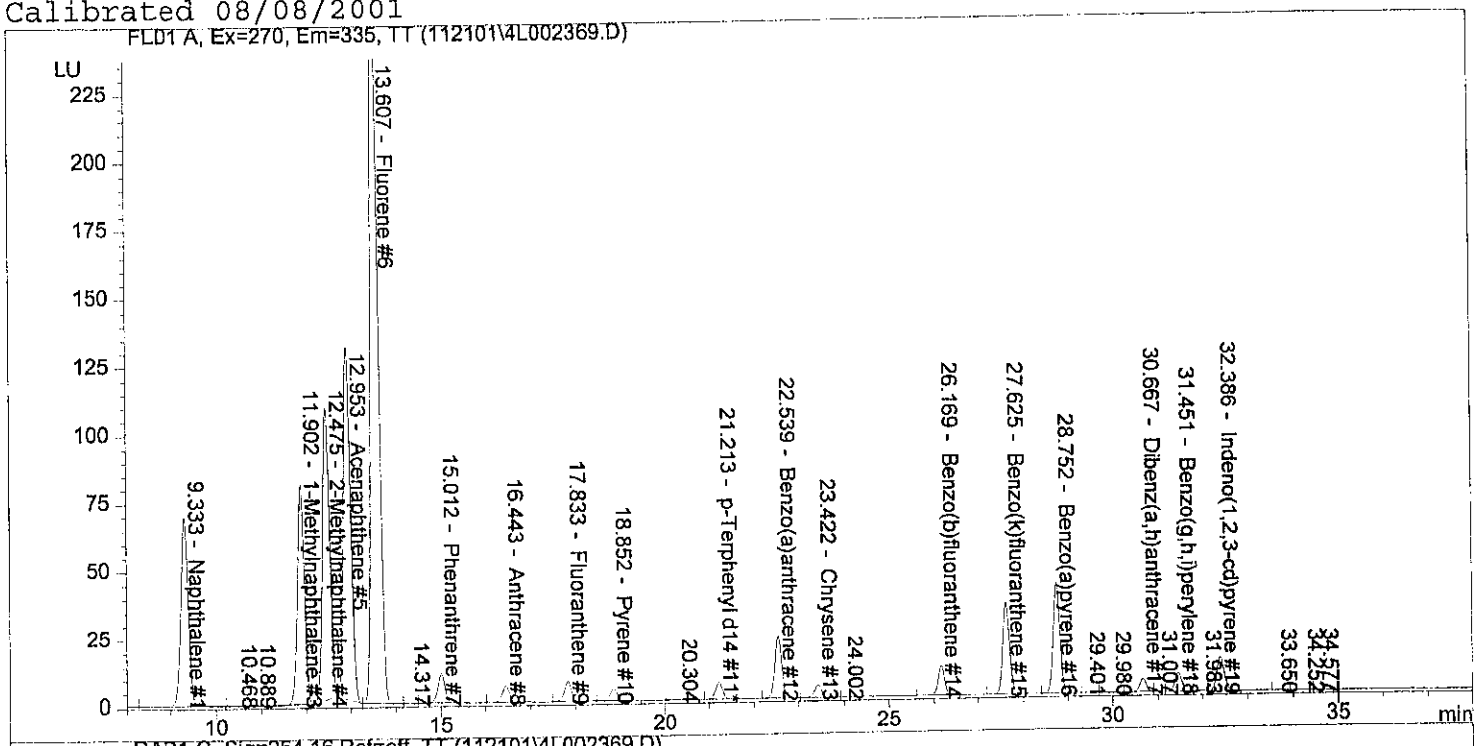
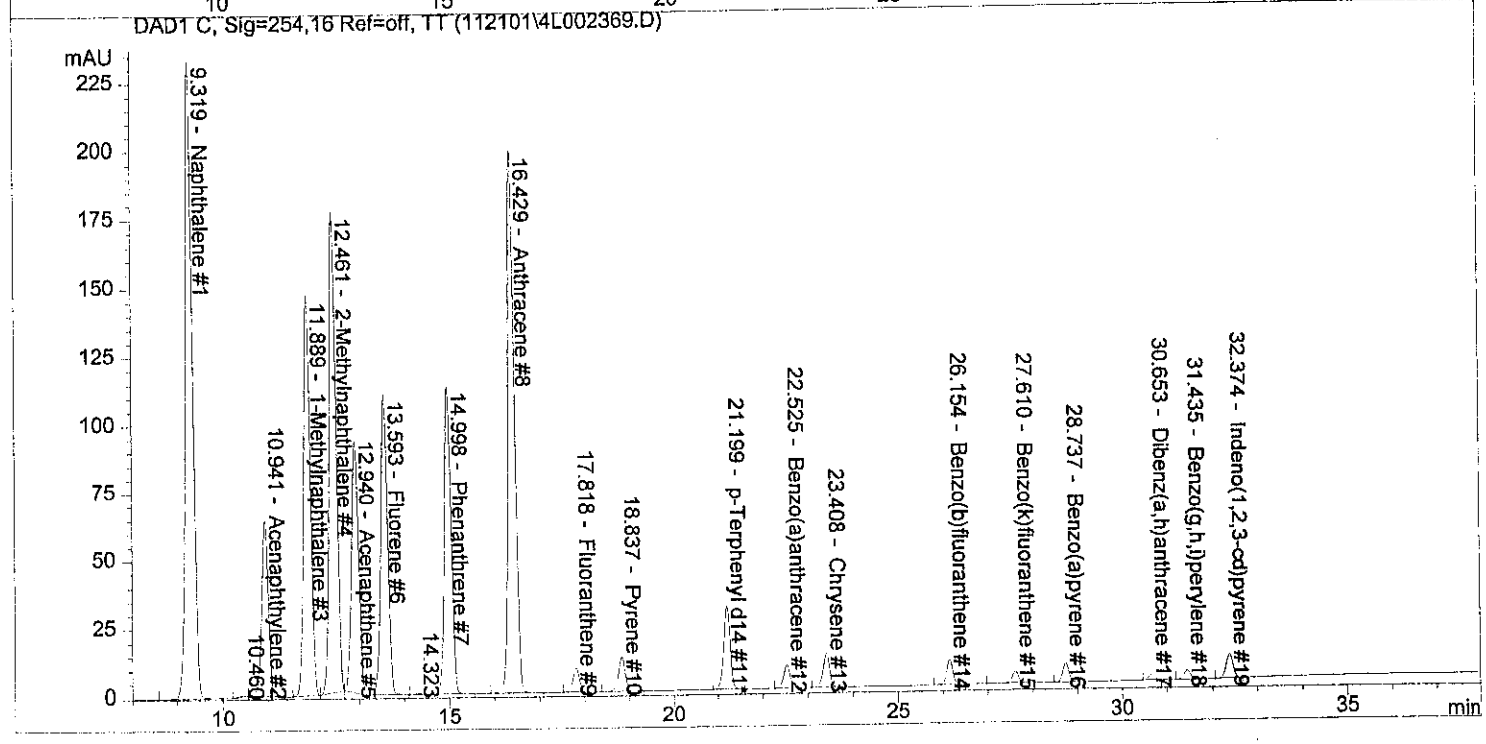
Injection Date : 11/21/2001 6:32:46 PM
Sample Name : WG108689-01 CCV
Acq. Operator : RDC

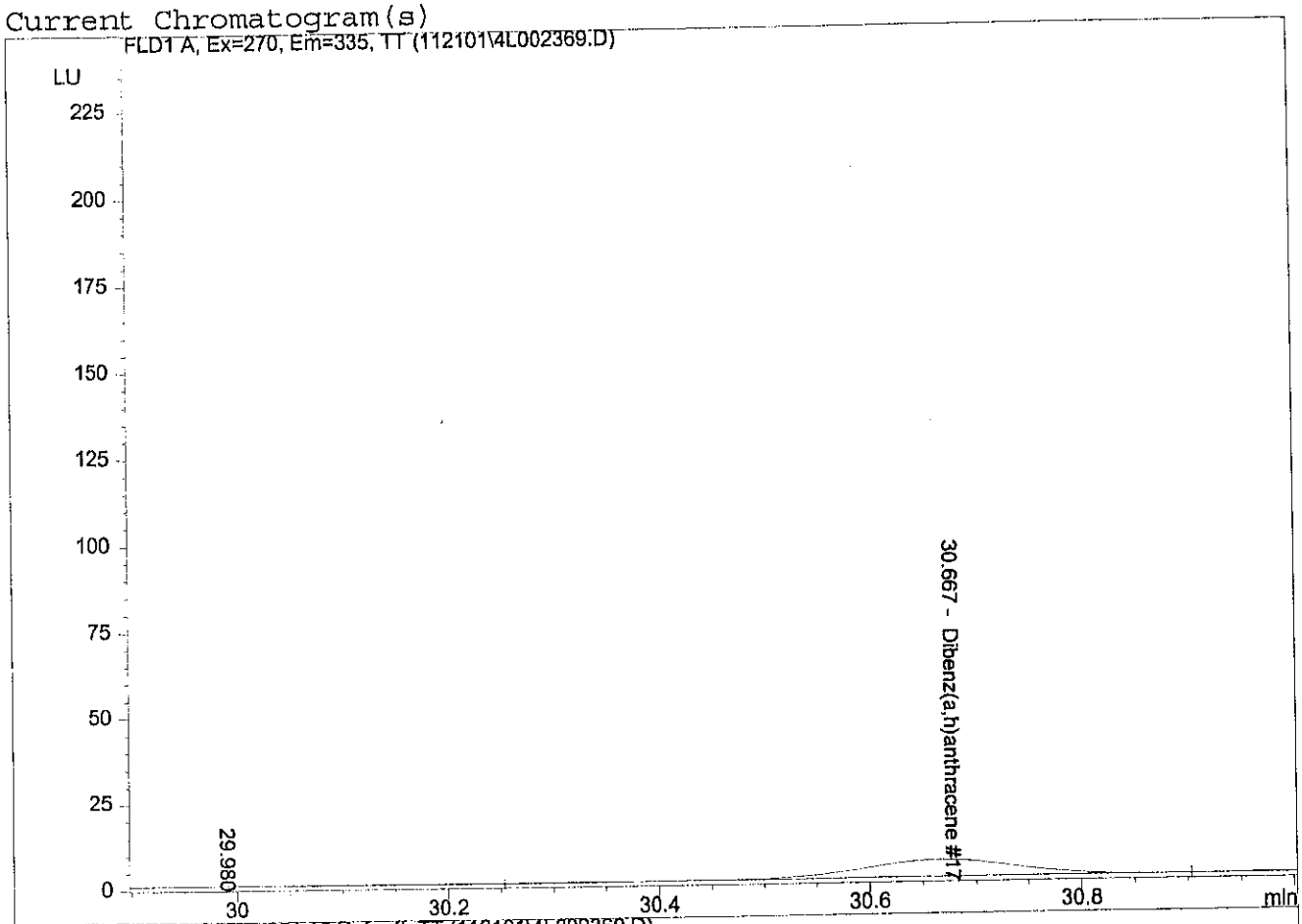
Seq. Line : 2
Vial : 2
Inj : 1
Inj Volume : 8 µl

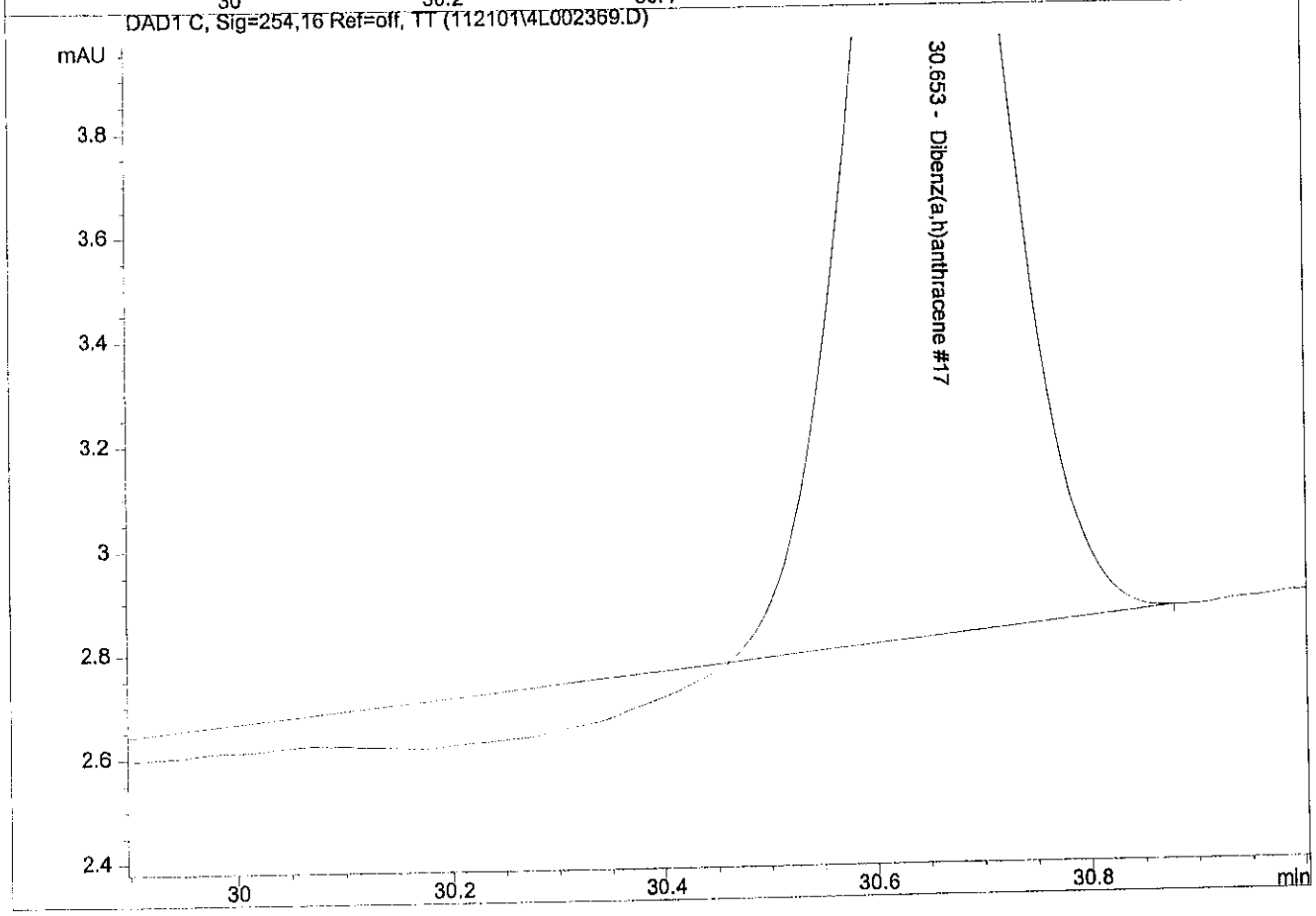
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/21/2001 5:14:46 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/1/2001 3:33:11 PM by RDC
Calibrated 08/08/2001



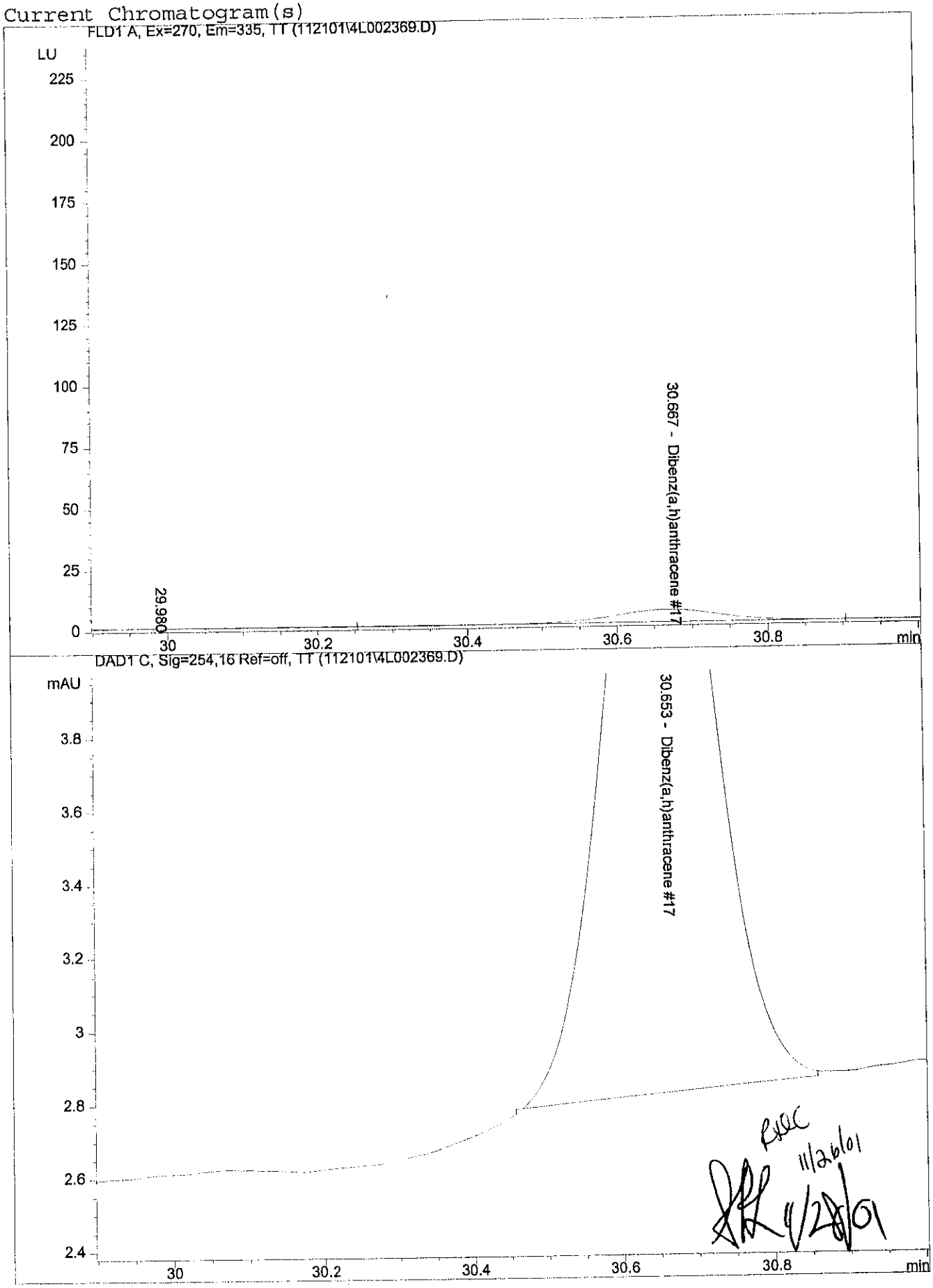


Current Chromatogram(s)





Current Chromatogram(s)



RJC 11/26/01

4/28/01

External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Wednesday, October 31, 2001 9:15:43 AM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.333	BBA	800.85718	2.52962e-2	20.25864		Naphthalene #1
11.902	BB	911.91974	2.21330e-2	20.18348		1-Methylnaphthalene #3
12.475	BB	1168.21069	1.70635e-2	19.93376		2-Methylnaphthalene #4
12.953	BB	1457.50085	1.38416e-2	20.17409		Acenaphthene #5
13.607	BB	3150.53101	6.62187e-3	20.86240		Fluorene #6
15.012	BBA	119.17832	1.63652e-1	19.50380		Phenanthrene #7
16.443	PBA	66.33259	3.10196e-1	20.57613		Anthracene #8
17.833	PB	82.57946	2.32678e-2	1.92145		Fluoranthene #9
18.852	BBA	52.62373	3.86587e-2	2.03436		Pyrene #10
21.213	BB	67.01636	2.97423e-1	19.93219		p-Terphenyl d14 #11*
22.539	BB	250.82458	7.91256e-3	1.98466		Benzo(a)anthracene #12
23.422	BB	51.14318	3.90495e-2	1.99712		Chrysene #13
26.169	BB	121.97822	1.63222e-2	1.99095		Benzo(b)fluoranthene #14
27.625	BB	360.66141	2.76572e-3	9.97487e-1		Benzo(k)fluoranthene #15
28.752	BB	435.32761	4.57119e-3	1.98997		Benzo(a)pyrene #16
30.667	BB	50.79196	3.93496e-2	1.99864		Dibenz(a,h)anthracene #17
31.451	BB	77.00357	2.65165e-2	2.04186		Benzo(g,h,i)perylene #18
32.386	BB	143.86230	1.38204e-2	1.98824		Indeno(1,2,3-cd)pyrene #1
Totals :				180.36921		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.319	PBA	2544.89429	8.25405e-3	21.00568		Naphthalene #1
10.941	BBA	675.36737	2.96975e-2	20.05673		Acenaphthylene #2
11.889	PB	1559.80994	1.29459e-2	20.19308		1-Methylnaphthalene #3
12.461	BB	1811.60425	1.12393e-2	20.36112		2-Methylnaphthalene #4
12.940	BB	971.07019	2.03163e-2	19.72860		Acenaphthene #5
13.593	BBA	1125.46338	1.75240e-2	19.72262		Fluorene #6
14.998	BBA	1163.71460	1.72982e-2	20.13022		Phenanthrene #7
16.429	PBA	2003.78589	1.04262e-2	20.89184		Anthracene #8
17.818	BB	90.45788	2.17006e-2	1.96299		Fluoranthene #9
18.837	BBA	135.32181	1.43052e-2	1.93581		Pyrene #10
21.199	BBA	303.04599	6.56733e-2	19.90202		p-Terphenyl d14 #11*
22.525	BBA	87.82442	2.22694e-2	1.95580		Benzo(a)anthracene #12
23.408	BBA	129.30290	1.51453e-2	1.95833		Chrysene #13
26.154	BBA	94.29734	2.07330e-2	1.95506		Benzo(b)fluoranthene #14
27.610	BBA	44.72556	2.25837e-2	1.01007		Benzo(k)fluoranthene #15
28.737	BBA	73.09599	2.61680e-2	1.91278		Benzo(a)pyrene #16
30.653	MM	19.94123	9.41116e-2	1.87670		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.435	BB	35.38375	5.60829e-2	1.98442		Benzo(g,h,i)perylene #18
32.374	BBA	94.42970	2.05608e-2	1.94155		Indeno(1,2,3-cd)pyrene #1

Totals : 200.48543

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

Check Standard Report

Data File C:\HPCHEM\2\DATA\112101\4L002380.D Sample Name: WG108689-02 CCV
HPLC4 11/26/2001 9:23:19 AM RDC

1,1 SOS56-19/56-20

Injection Date : 11/22/2001 4:55:31 AM Seq. Line : 13

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.359	20.0	18.399	-8.0
1-Methylnaphthalene #3	11.940	20.0	18.600	-7.0
2-Methylnaphthalene #4	12.514	20.0	18.461	-7.7
Acenaphthene #5	12.996	20.0	19.091	-4.5
Fluorene #6	13.641	20.0	20.341	1.7
Phenanthrene #7	15.026	20.0	18.257	-8.7
Anthracene #8	16.423	20.0	19.864	-0.7
Fluoranthene #9	17.795	2.0	1.878	-6.1
Pyrene #10	18.801	2.0	1.746	-12.7
p-Terphenyl d14 #11*	21.131	20.0	19.859	-0.7
Benzo(a)anthracene #12	22.453	2.0	1.857	-7.2
Chrysene #13	23.320	2.0	1.864	-6.8
Benzo(b)fluoranthene #14	26.038	2.0	1.883	-5.8
Benzo(k)fluoranthene #15	27.461	1.0	0.969	-3.1
Benzo(a)pyrene #16	28.587	2.0	1.752	-12.4
Dibenz(a,h)anthracene #1	30.449	2.0	1.873	-6.4
Benzo(g,h,i)perylene #18	31.265	2.0	1.758	-12.1
Indeno(1,2,3-cd)pyrene #	32.217	2.0	1.910	-4.5

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.341	20.0	20.609	3.0
Acenaphthylene #2	10.968	20.0	19.761	-1.2
1-Methylnaphthalene #3	11.922	20.0	19.894	-0.5
2-Methylnaphthalene #4	12.496	20.0	20.085	0.4
Acenaphthene #5	12.978	20.0	19.568	-2.2
Fluorene #6	13.623	20.0	19.622	-1.9
Phenanthrene #7	15.008	20.0	19.925	-0.4
Anthracene #8	16.404	20.0	20.637	3.2
Fluoranthene #9	17.776	2.0	1.947	-2.6
Pyrene #10	18.782	2.0	1.911	-4.5
p-Terphenyl d14 #11*	21.113	20.0	19.723	-1.4
Benzo(a)anthracene #12	22.434	2.0	1.948	-2.6
Chrysene #13	23.302	2.0	1.943	-2.8
Benzo(b)fluoranthene #14	26.019	2.0	1.941	-2.9
Benzo(k)fluoranthene #15	27.442	1.0	0.989	-1.1
Benzo(a)pyrene #16	28.567	2.0	1.735	-13.3
Dibenz(a,h)anthracene #1	30.430	2.0	1.961	-2.0
Benzo(g,h,i)perylene #18	31.246	2.0	2.063	3.2
Indeno(1,2,3-cd)pyrene #	32.195	2.0	1.908	-4.6

= Failed 15.0% Criteria

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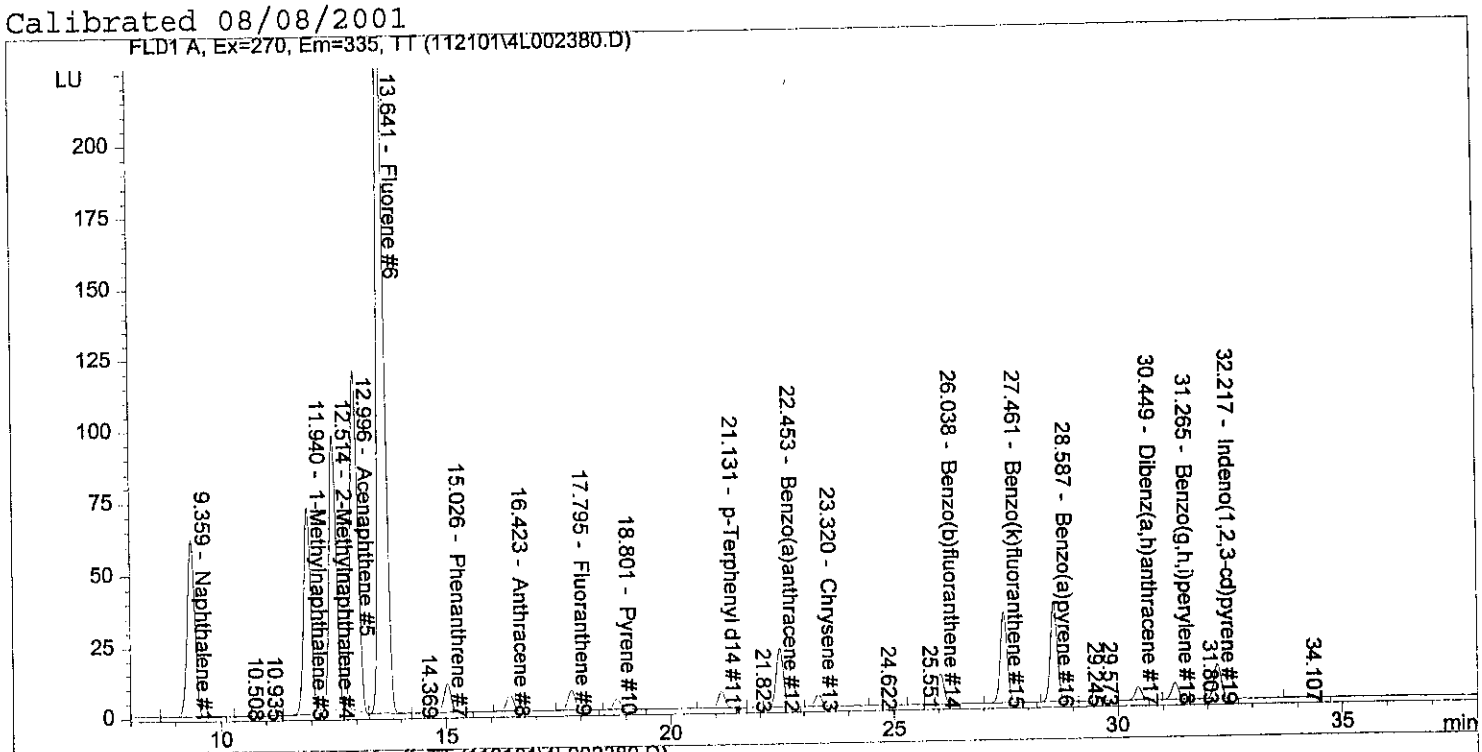
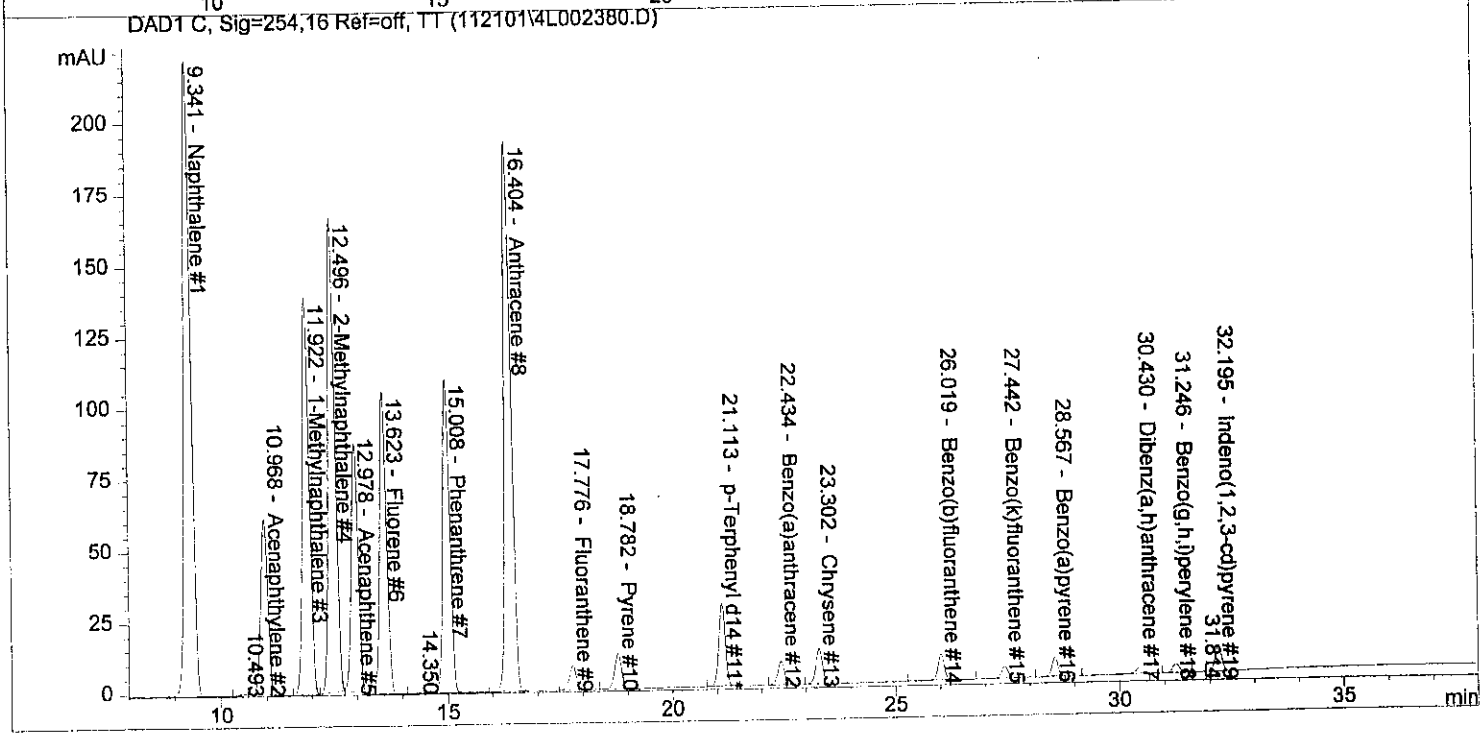
Injection Date : 11/22/2001 4:55:31 AM
Sample Name : WG108689-02 CCV
Acq. Operator : RDC

Seq. Line : 13
Vial : 13
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/21/2001 5:14:46 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/26/2001 9:22:46 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, November 26, 2001 9:22:46 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.359	BBA	727.35492	2.52962e-2	18.39931		Naphthalene #1
11.940	BB	840.39130	2.21330e-2	18.60034		1-Methylnaphthalene #3
12.514	BB	1081.88989	1.70635e-2	18.46082		2-Methylnaphthalene #4
12.996	BB	1379.22058	1.38416e-2	19.09057		Acenaphthene #5
13.641	BB	3071.79614	6.62187e-3	20.34102		Fluorene #6
15.026	BBA	111.56015	1.63652e-1	18.25707		Phenanthrene #7
16.423	PBA	64.03661	3.10196e-1	19.86392		Anthracene #8
17.795	PBA	80.72729	2.32678e-2	1.87835		Fluoranthene #9
18.801	BBA	45.17604	3.86587e-2	1.74645		Pyrene #10
21.131	BB	66.77051	2.97423e-1	19.85907		p-Terphenyl d14 #11*
22.453	BBA	234.62769	7.91256e-3	1.85651		Benzo(a)anthracene #12
23.320	BB	47.72924	3.90495e-2	1.86380		Chrysene #13
26.038	BB	115.38990	1.63222e-2	1.88341		Benzo(b)fluoranthene #14
27.461	BBA	350.30920	2.76572e-3	9.68856e-1		Benzo(k)fluoranthene #15
28.587	PB	383.18643	4.57119e-3	1.75162		Benzo(a)pyrene #16
30.449	BB	47.58835	3.93496e-2	1.87258		Dibenz(a,h)anthracene #17
31.265	BB	66.28826	2.65165e-2	1.75773		Benzo(g,h,i)perylene #18
32.217	BB	138.22176	1.38204e-2	1.91028		Indeno(1,2,3-cd)pyrene #1
Totals :				170.36172		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.341	PBA	2496.79614	8.25405e-3	20.60868		Naphthalene #1
10.968	BBA	665.40137	2.96975e-2	19.76077		Acenaphthylene #2
11.922	PB	1536.68054	1.29459e-2	19.89365		1-Methylnaphthalene #3
12.496	BB	1787.01331	1.12393e-2	20.08474		2-Methylnaphthalene #4
12.978	BB	963.16083	2.03163e-2	19.56791		Acenaphthene #5
13.623	BB	1119.72095	1.75240e-2	19.62199		Fluorene #6
15.008	BBA	1151.87512	1.72982e-2	19.92542		Phenanthrene #7
16.404	PBA	1979.37866	1.04262e-2	20.63737		Anthracene #8
17.776	PB	89.74076	2.17006e-2	1.94743		Fluoranthene #9
18.782	BBA	133.56090	1.43052e-2	1.91062		Pyrene #10
21.113	PBA	300.31509	6.56733e-2	19.72267		p-Terphenyl d14 #11*
22.434	BBA	87.47271	2.22694e-2	1.94797		Benzo(a)anthracene #12
23.302	BBA	128.30185	1.51453e-2	1.94317		Chrysene #13
26.019	PBA	93.62488	2.07330e-2	1.94112		Benzo(b)fluoranthene #14
27.442	BBA	43.80904	2.25837e-2	9.89370e-1		Benzo(k)fluoranthene #15
28.567	BB	66.28896	2.61680e-2	1.73465		Benzo(a)pyrene #16
30.430	BB	20.83160	9.41116e-2	1.96050		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.246	BB	36.78757	5.60829e-2	2.06315		Benzo(g,h,i)perylene #18
32.195	BB	92.80994	2.05608e-2	1.90824		Indeno(1,2,3-cd)pyrene #1
Totals :				198.16941		

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\112101\4L002383.D Sample Name: WG108689-03 CCV
HPLC4 11/26/2001 9:37:48 AM RDC

1,1 SOS56-19/56-20

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Injection Date : 11/22/2001 7:45:28 AM Seq. Line : 16

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.342	20.0	18.362	-8.2
1-Methylnaphthalene #3	11.926	20.0	18.538	-7.3
2-Methylnaphthalene #4	12.501	20.0	18.369	-8.2
Acenaphthene #5	12.985	20.0	18.937	-5.3
Fluorene #6	13.632	20.0	20.199	1.0
Phenanthrene #7	15.018	20.0	18.030	-9.9
Anthracene #8	16.417	20.0	19.702	-1.5
Fluoranthene #9	17.792	2.0	1.863	-6.8
Pyrene #10	18.800	2.0	1.719	-14.0
p-Terphenyl d14 #11*	21.136	20.0	19.525	-2.4
Benzo(a)anthracene #12	22.460	2.0	1.842	-7.9
Chrysene #13	23.331	2.0	1.850	-7.5
Benzo(b)fluoranthene #14	26.052	2.0	1.867	-6.6
Benzo(k)fluoranthene #15	27.475	1.0	0.962	-3.8
Benzo(a)pyrene #16	28.600	2.0	1.708	-14.6
Dibenz(a,h)anthracene #1	30.456	2.0	1.856	-7.2
Benzo(g,h,i)perylene #18	31.277	2.0	1.729	-13.5
Indeno(1,2,3-cd)pyrene #	32.233	2.0	1.891	-5.4

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.323	20.0	20.538	2.7
Acenaphthylene #2	10.951	20.0	19.668	-1.7
1-Methylnaphthalene #3	11.907	20.0	19.817	-0.9
2-Methylnaphthalene #4	12.482	20.0	20.016	0.1
Acenaphthene #5	12.966	20.0	19.462	-2.7
Fluorene #6	13.611	20.0	19.527	-2.4
Phenanthrene #7	14.997	20.0	19.801	-1.0
Anthracene #8	16.397	20.0	20.480	2.4
Fluoranthene #9	17.771	2.0	1.937	-3.2
Pyrene #10	18.779	2.0	1.899	-5.1
p-Terphenyl d14 #11*	21.116	20.0	19.637	-1.8
Benzo(a)anthracene #12	22.439	2.0	1.937	-3.1
Chrysene #13	23.311	2.0	1.934	-3.3
Benzo(b)fluoranthene #14	26.031	2.0	1.922	-3.9
Benzo(k)fluoranthene #15	27.455	1.0	0.979	-2.1
Benzo(a)pyrene #16	28.579	2.0	1.792	-10.4
Dibenz(a,h)anthracene #1	30.435	2.0	1.990	-0.5
Benzo(g,h,i)perylene #18	31.255	2.0	2.042	2.1
Indeno(1,2,3-cd)pyrene #	32.209	2.0	1.903	-4.8

= Failed 15.0% Criteria

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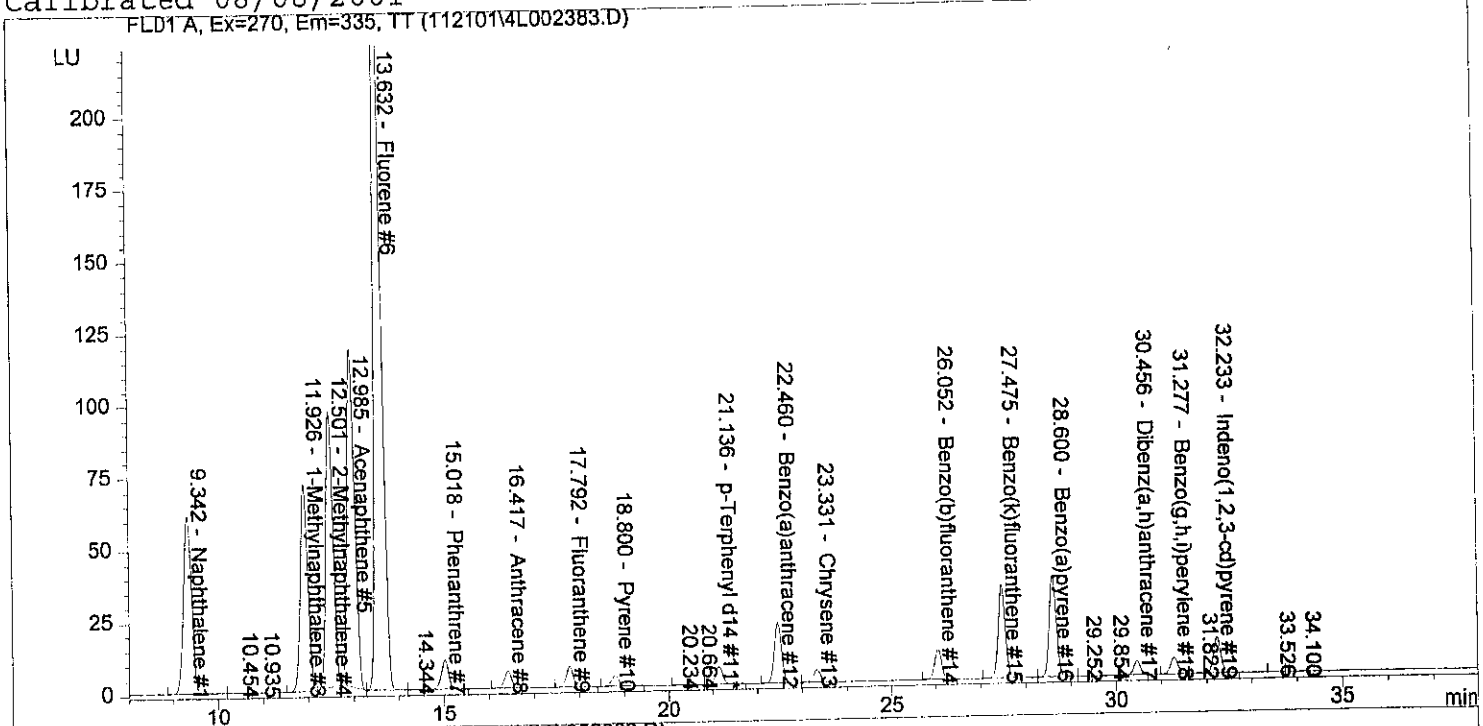
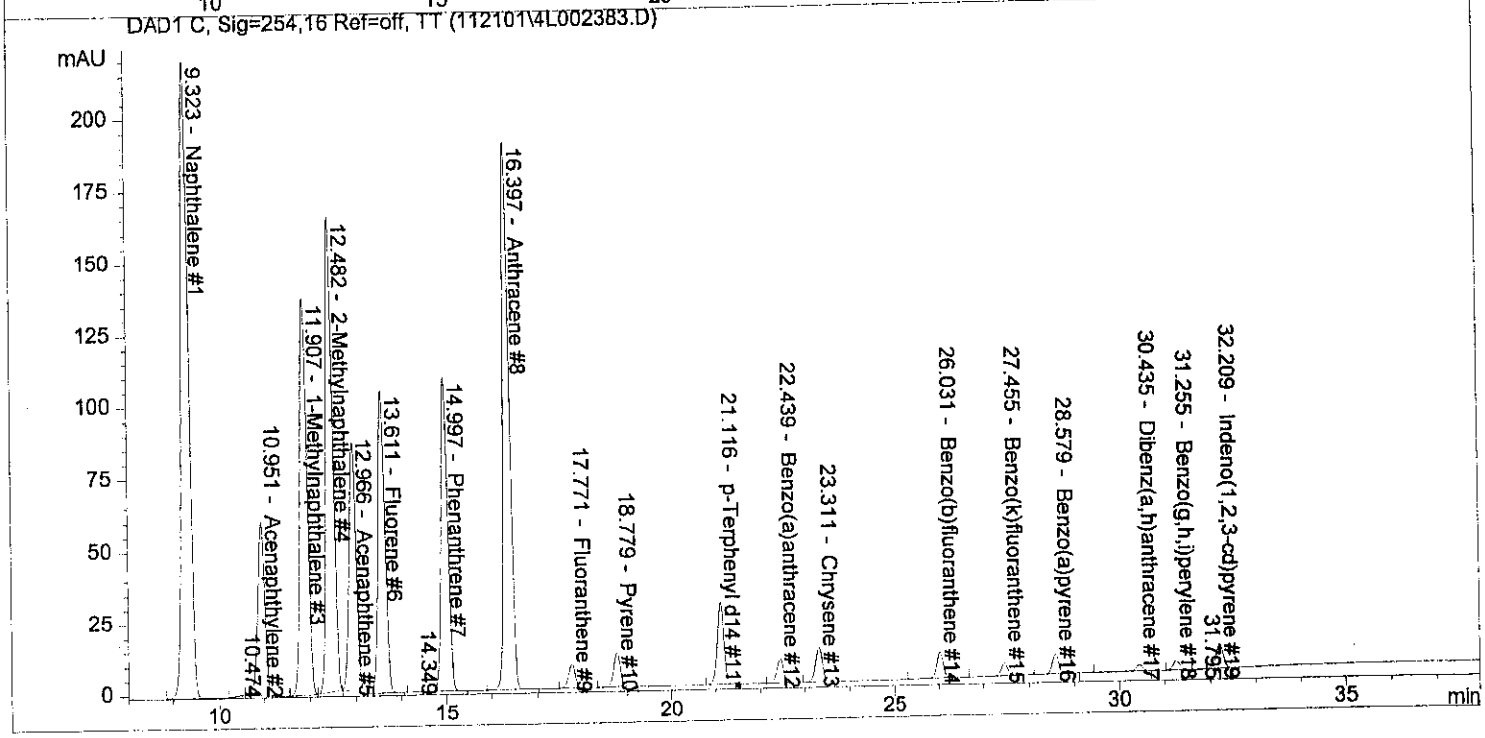
Injection Date : 11/22/2001 7:45:28 AM
Sample Name : WG108689-03 CCV
Acq. Operator : RDC

Seq. Line : 16
Vial : 13
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/21/2001 5:14:46 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/26/2001 9:28:48 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, November 26, 2001 9:28:47 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.342	BB	725.86407	2.52962e-2	18.36160		Naphthalene #1
11.926	BB	837.58521	2.21330e-2	18.53823		1-Methylnaphthalene #3
12.501	BB	1076.52429	1.70635e-2	18.36927		2-Methylnaphthalene #4
12.985	BB	1368.14575	1.38416e-2	18.93728		Acenaphthene #5
13.632	BB	3050.27979	6.62187e-3	20.19855		Fluorene #6
15.018	BBA	110.17255	1.63652e-1	18.02998		Phenanthrene #7
16.417	BBA	63.51363	3.10196e-1	19.70170		Anthracene #8
17.792	BBA	80.07972	2.32678e-2	1.86328		Fluoranthene #9
18.800	BBA	44.47536	3.86587e-2	1.71936		Pyrene #10
21.136	BB	65.64638	2.97423e-1	19.52473		p-Terphenyl d14 #11*
22.460	BB	232.74318	7.91256e-3	1.84159		Benzo(a)anthracene #12
23.331	BB	47.37600	3.90495e-2	1.85001		Chrysene #13
26.052	BB	114.40967	1.63222e-2	1.86742		Benzo(b)fluoranthene #14
27.475	BB	347.99615	2.76572e-3	9.62458e-1		Benzo(k)fluoranthene #15
28.600	BB	373.60382	4.57119e-3	1.70781		Benzo(a)pyrene #16
30.456	BB	47.17293	3.93496e-2	1.85623		Dibenz(a,h)anthracene #17
31.277	BB	65.21278	2.65165e-2	1.72921		Benzo(g,h,i)perylene #18
32.233	BB	136.83208	1.38204e-2	1.89107		Indeno(1,2,3-cd)pyrene #1

Totals : 168.94979

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.323	PBA	2488.21680	8.25405e-3	20.53787		Naphthalene #1
10.951	BBA	662.26587	2.96975e-2	19.66765		Acenaphthylene #2
11.907	PB	1530.73865	1.29459e-2	19.81672		1-Methylnaphthalene #3
12.482	BB	1780.87952	1.12393e-2	20.01580		2-Methylnaphthalene #4
12.966	BB	957.93158	2.03163e-2	19.46167		Acenaphthene #5
13.611	BBA	1114.28015	1.75240e-2	19.52665		Fluorene #6
14.997	BBA	1144.69373	1.72982e-2	19.80119		Phenanthrene #7
16.397	PBA	1964.26721	1.04262e-2	20.47981		Anthracene #8
17.771	PB	89.25994	2.17006e-2	1.93699		Fluoranthene #9
18.779	BBA	132.73897	1.43052e-2	1.89886		Pyrene #10
21.116	BBA	299.01587	6.56733e-2	19.63734		p-Terphenyl d14 #11*
22.439	PBA	86.98570	2.22694e-2	1.93712		Benzo(a)anthracene #12
23.311	BBA	127.72491	1.51453e-2	1.93443		Chrysene #13
26.031	PBA	92.69143	2.07330e-2	1.92177		Benzo(b)fluoranthene #14
27.455	PB	43.35667	2.25837e-2	9.79154e-1		Benzo(k)fluoranthene #15
28.579	BBA	68.46283	2.61680e-2	1.79154		Benzo(a)pyrene #16
30.435	BBA	21.14586	9.41116e-2	1.99007		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.255	BB	36.41705	5.60829e-2	2.04237		Benzo(g,h,i)perylene #18
32.209	BBA	92.56941	2.05608e-2	1.90330		Indeno(1,2,3-cd)pyrene #1
Totals :				197.28032		

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\112601\4L002385.D Sample Name: WG108752-01 CCV
HPLC4 11/26/2001 2:10:30 PM RDC

1,1 SOS56-19/56-20

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Injection Date : 11/26/2001 12:40:15 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.294	20.0	18.631	-6.8
1-Methylnaphthalene #3	11.855	20.0	18.704	-6.5
2-Methylnaphthalene #4	12.433	20.0	18.660	-6.7
Acenaphthene #5	12.922	20.0	19.013	-4.9
Fluorene #6	13.583	20.0	20.127	0.6
Phenanthrene #7	14.997	20.0	18.018	-9.9
Anthracene #8	16.419	20.0	19.101	-4.5
Fluoranthene #9	17.801	2.0	1.866	-6.7
Pyrene #10	18.815	2.0	1.693	-15.3 #
p-Terphenyl d14 #11*	21.176	20.0	19.504	-2.5
Benzo(a)anthracene #12	22.505	2.0	1.820	-9.0
Chrysene #13	23.381	2.0	1.858	-7.1
Benzo(b)fluoranthene #14	26.123	2.0	1.858	-7.1
Benzo(k)fluoranthene #15	27.570	1.0	0.956	-4.4
Benzo(a)pyrene #16	28.692	2.0	1.775	-11.2
Dibenz(a,h)anthracene #1	30.585	2.0	1.826	-8.7
Benzo(g,h,i)perylene #18	31.376	2.0	1.629	-18.6 #
Indeno(1,2,3-cd)pyrene #	32.280	2.0	1.890	-5.5

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.278	20.0	20.610	3.0
Acenaphthylene #2	10.891	20.0	19.528	-2.4
1-Methylnaphthalene #3	11.840	20.0	19.749	-1.3
2-Methylnaphthalene #4	12.417	20.0	19.939	-0.3
Acenaphthene #5	12.906	20.0	19.321	-3.4
Fluorene #6	13.567	20.0	19.285	-3.6
Phenanthrene #7	14.980	20.0	19.678	-1.6
Anthracene #8	16.402	20.0	19.707	-1.5
Fluoranthene #9	17.784	2.0	1.921	-4.0
Pyrene #10	18.798	2.0	1.865	-6.8
p-Terphenyl d14 #11*	21.160	20.0	19.520	-2.4
Benzo(a)anthracene #12	22.489	2.0	1.895	-5.2
Chrysene #13	23.365	2.0	1.904	-4.8
Benzo(b)fluoranthene #14	26.106	2.0	1.904	-4.8
Benzo(k)fluoranthene #15	27.553	1.0	0.955	-4.5
Benzo(a)pyrene #16	28.675	2.0	1.867	-6.7
Dibenz(a,h)anthracene #1	30.568	2.0	1.882	-5.9
Benzo(g,h,i)perylene #18	31.358	2.0	1.997	-0.2
Indeno(1,2,3-cd)pyrene #	32.265	2.0	1.885	-5.8

= Failed 15.0% Criteria

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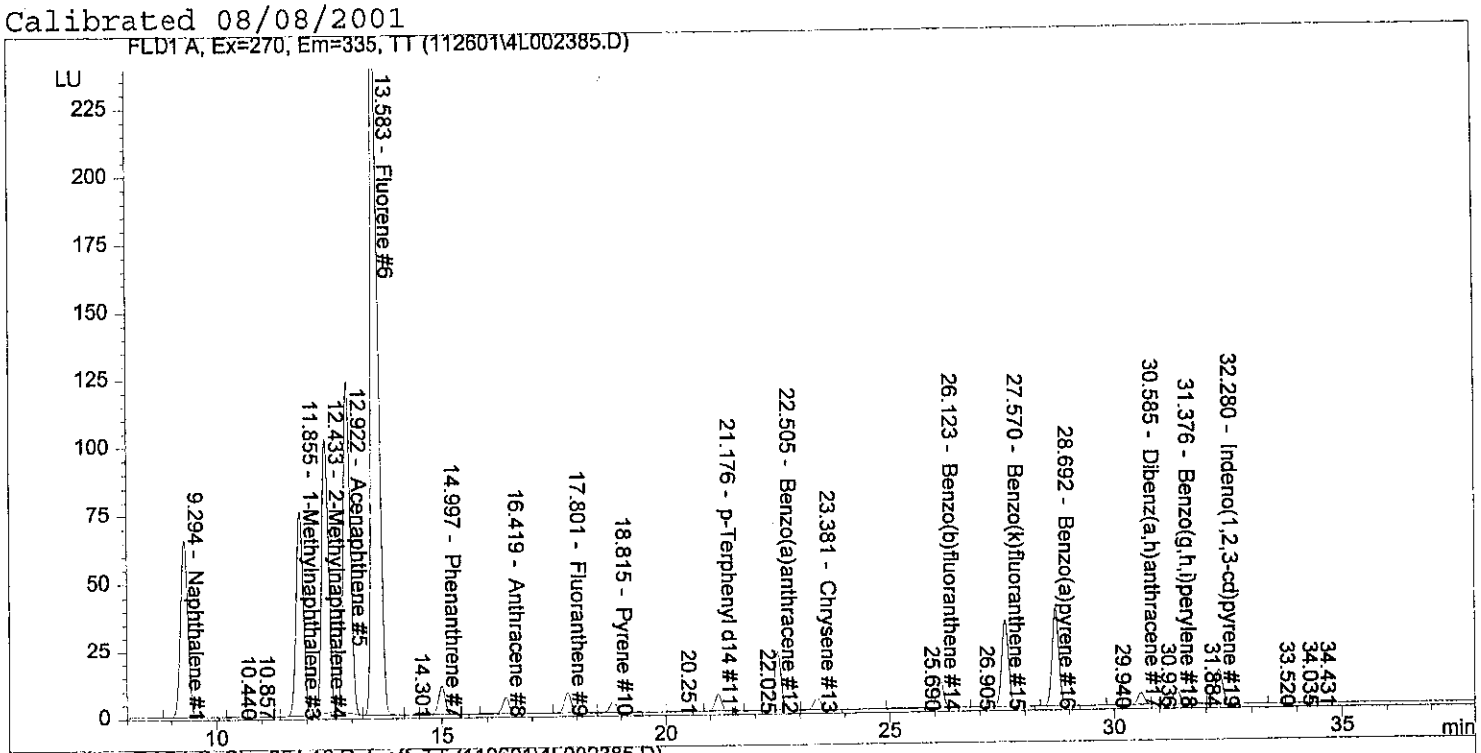
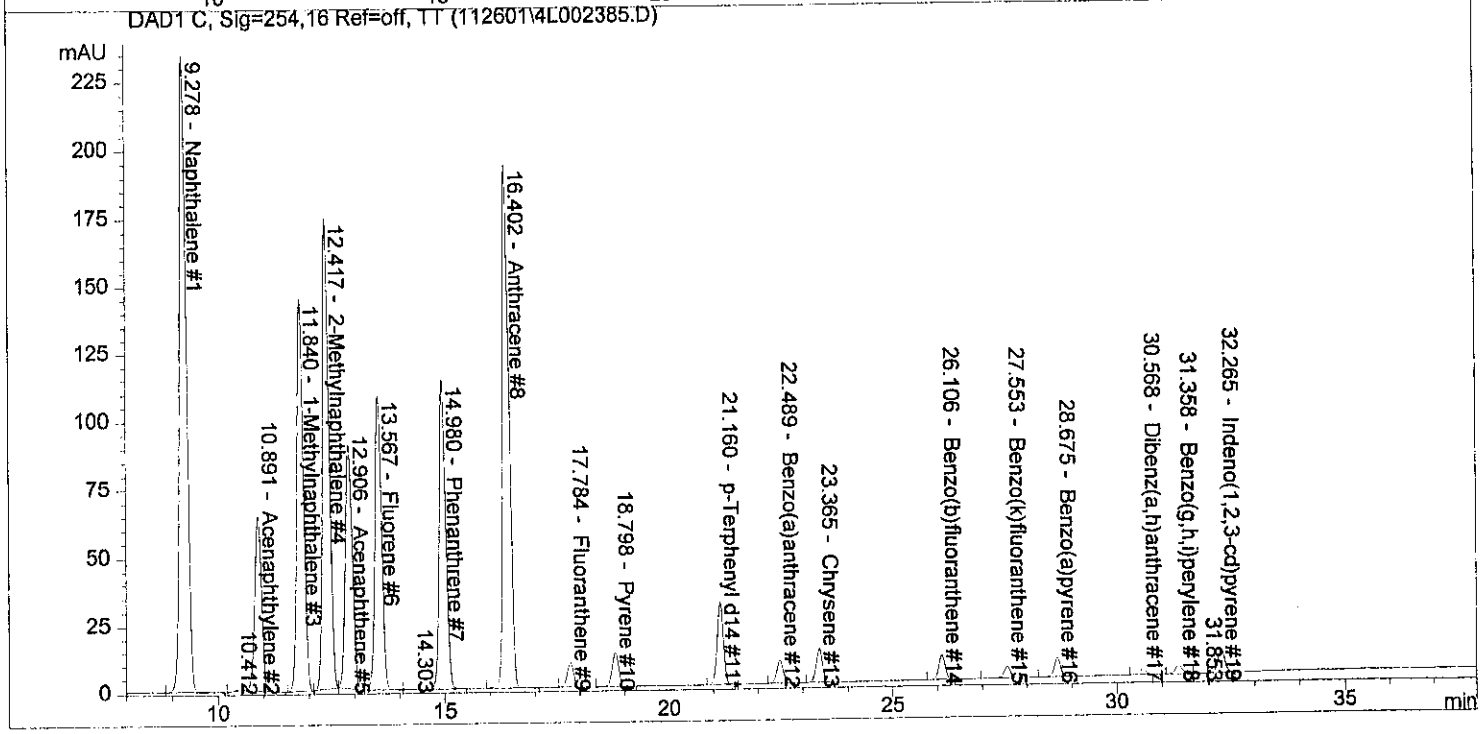
Injection Date : 11/26/2001 12:40:15 PM
Sample Name : WG108752-01 CCV
Acq. Operator : RDC

Seq. Line : 2
Vial : 2
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/26/2001 2:09:32 PM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, November 26, 2001 2:09:32 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.294	BBA	736.51746	2.52962e-2	18.63109		Naphthalene #1
11.855	BB	845.07751	2.21330e-2	18.70406		1-Methylnaphthalene #3
12.433	BB	1093.53748	1.70635e-2	18.65957		2-Methylnaphthalene #4
12.922	BB	1373.60901	1.38416e-2	19.01290		Acenaphthene #5
13.583	BB	3039.52490	6.62187e-3	20.12733		Fluorene #6
14.997	BBA	110.09917	1.63652e-1	18.01798		Phenanthrene #7
16.419	BBA	61.57846	3.10196e-1	19.10141		Anthracene #8
17.801	BB	80.18956	2.32678e-2	1.86584		Fluoranthene #9
18.815	BBA	43.79678	3.86587e-2	1.69313		Pyrene #10
21.176	BB	65.57677	2.97423e-1	19.50403		p-Terphenyl d14 #11*
22.505	BB	230.06021	7.91256e-3	1.82037		Benzo(a)anthracene #12
23.381	BBA	47.57632	3.90495e-2	1.85783		Chrysene #13
26.123	BB	113.85510	1.63222e-2	1.85836		Benzo(b)fluoranthene #14
27.570	BB	345.51303	2.76572e-3	9.55591e-1		Benzo(k)fluoranthene #15
28.692	BB	388.36893	4.57119e-3	1.77531		Benzo(a)pyrene #16
30.585	BB	46.39912	3.93496e-2	1.82578		Dibenz(a,h)anthracene #17
31.376	BB	61.42412	2.65165e-2	1.62875		Benzo(g,h,i)perylene #18
32.280	BB	136.76460	1.38204e-2	1.89014		Indeno(1,2,3-cd)pyrene #1
Totals :				168.92947		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.278	BBA	2496.90015	8.25405e-3	20.60954		Naphthalene #1
10.891	BBA	657.55194	2.96975e-2	19.52766		Acenaphthylene #2
11.840	BB	1525.51587	1.29459e-2	19.74911		1-Methylnaphthalene #3
12.417	BB	1774.04541	1.12393e-2	19.93899		2-Methylnaphthalene #4
12.906	BB	951.02728	2.03163e-2	19.32140		Acenaphthene #5
13.567	BBA	1100.48596	1.75240e-2	19.28492		Fluorene #6
14.980	BBA	1137.54736	1.72982e-2	19.67757		Phenanthrene #7
16.402	PBA	1890.14929	1.04262e-2	19.70704		Anthracene #8
17.784	BB	88.51114	2.17006e-2	1.92074		Fluoranthene #9
18.798	BBA	130.34935	1.43052e-2	1.86468		Pyrene #10
21.160	PBA	297.22174	6.56733e-2	19.51952		p-Terphenyl d14 #11*
22.489	PBA	85.11009	2.22694e-2	1.89535		Benzo(a)anthracene #12
23.365	PBA	125.73357	1.51453e-2	1.90427		Chrysene #13
26.106	BBA	91.84132	2.07330e-2	1.90414		Benzo(b)fluoranthene #14
27.553	BBA	42.30717	2.25837e-2	9.55452e-1		Benzo(k)fluoranthene #15
28.675	BBA	71.33163	2.61680e-2	1.86661		Benzo(a)pyrene #16
30.568	PBA	20.00165	9.41116e-2	1.88239		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.358	BB	35.60728	5.60829e-2	1.99696		Benzo(g,h,i)perylene #18
32.265	BB	91.67924	2.05608e-2	1.88500		Indeno(1,2,3-cd)pyrene #1

Totals : 195.41134

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\112601\4L002389.D Sample Name: WG108752-02 CCV
HPLC4 11/27/2001 8:34:54 AM RDC

1,1 SOS56-19/56-20

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Injection Date : 11/26/2001 5:05:54 PM Seq. Line : 6

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.315	20.0	18.117	-9.4
1-Methylnaphthalene #3	11.925	20.0	18.265	-8.7
2-Methylnaphthalene #4	12.506	20.0	18.190	-9.1
Acenaphthene #5	12.991	20.0	18.681	-6.6
Fluorene #6	13.644	20.0	19.941	-0.3
Phenanthrene #7	15.039	20.0	18.057	-9.7
Anthracene #8	16.448	20.0	18.901	-5.5
Fluoranthene #9	17.829	2.0	1.842	-7.9
Pyrene #10	18.841	2.0	1.652	-17.4 #
p-Terphenyl d14 #11*	21.182	20.0	19.479	-2.6
Benzo(a)anthracene #12	22.499	2.0	1.798	-10.1
Chrysene #13	23.369	2.0	1.812	-9.4
Benzo(b)fluoranthene #14	26.088	2.0	1.839	-8.0
Benzo(k)fluoranthene #15	27.500	1.0	0.949	-5.1
Benzo(a)pyrene #16	28.615	2.0	1.716	-14.2
Dibenz(a,h)anthracene #1	30.465	2.0	1.823	-8.9
Benzo(g,h,i)perylene #18	31.277	2.0	1.620	-19.0 #
Indeno(1,2,3-cd)pyrene #	32.198	2.0	1.871	-6.5

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.297	20.0	20.375	1.9
Acenaphthylene #2	10.944	20.0	19.463	-2.7
1-Methylnaphthalene #3	11.907	20.0	19.653	-1.7
2-Methylnaphthalene #4	12.488	20.0	19.870	-0.7
Acenaphthene #5	12.973	20.0	19.283	-3.6
Fluorene #6	13.626	20.0	19.299	-3.5
Phenanthrene #7	15.020	20.0	19.595	-2.0
Anthracene #8	16.429	20.0	19.600	-2.0
Fluoranthene #9	17.810	2.0	1.911	-4.4
Pyrene #10	18.822	2.0	1.866	-6.7
p-Terphenyl d14 #11*	21.163	20.0	19.507	-2.5
Benzo(a)anthracene #12	22.481	2.0	1.907	-4.7
Chrysene #13	23.351	2.0	1.909	-4.5
Benzo(b)fluoranthene #14	26.069	2.0	1.913	-4.3
Benzo(k)fluoranthene #15	27.481	1.0	0.978	-2.2
Benzo(a)pyrene #16	28.596	2.0	1.825	-8.7
Dibenz(a,h)anthracene #1	30.447	2.0	1.887	-5.7
Benzo(g,h,i)perylene #18	31.258	2.0	2.092	4.6
Indeno(1,2,3-cd)pyrene #	32.177	2.0	1.873	-6.4

= Failed 15.0% Criteria

1,1 SOS56-19/56-20

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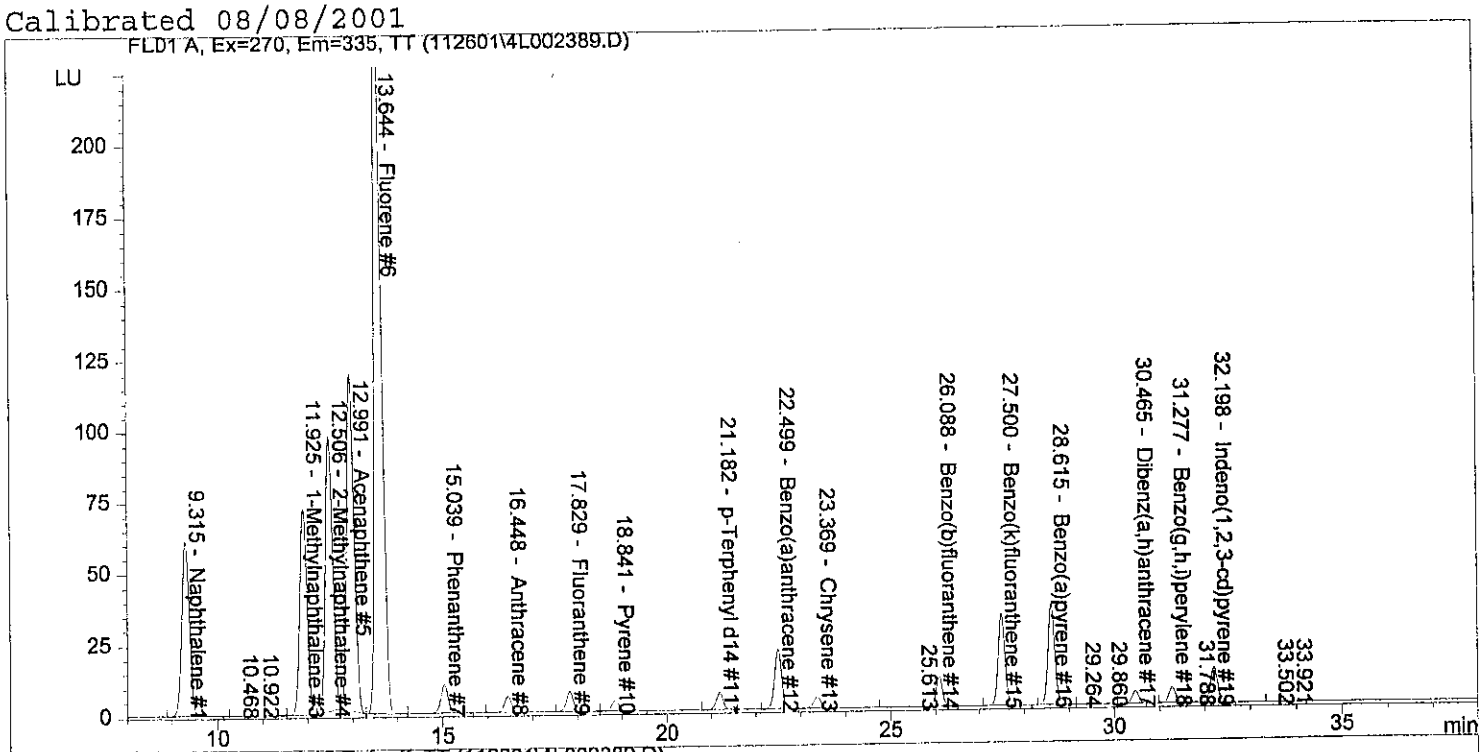
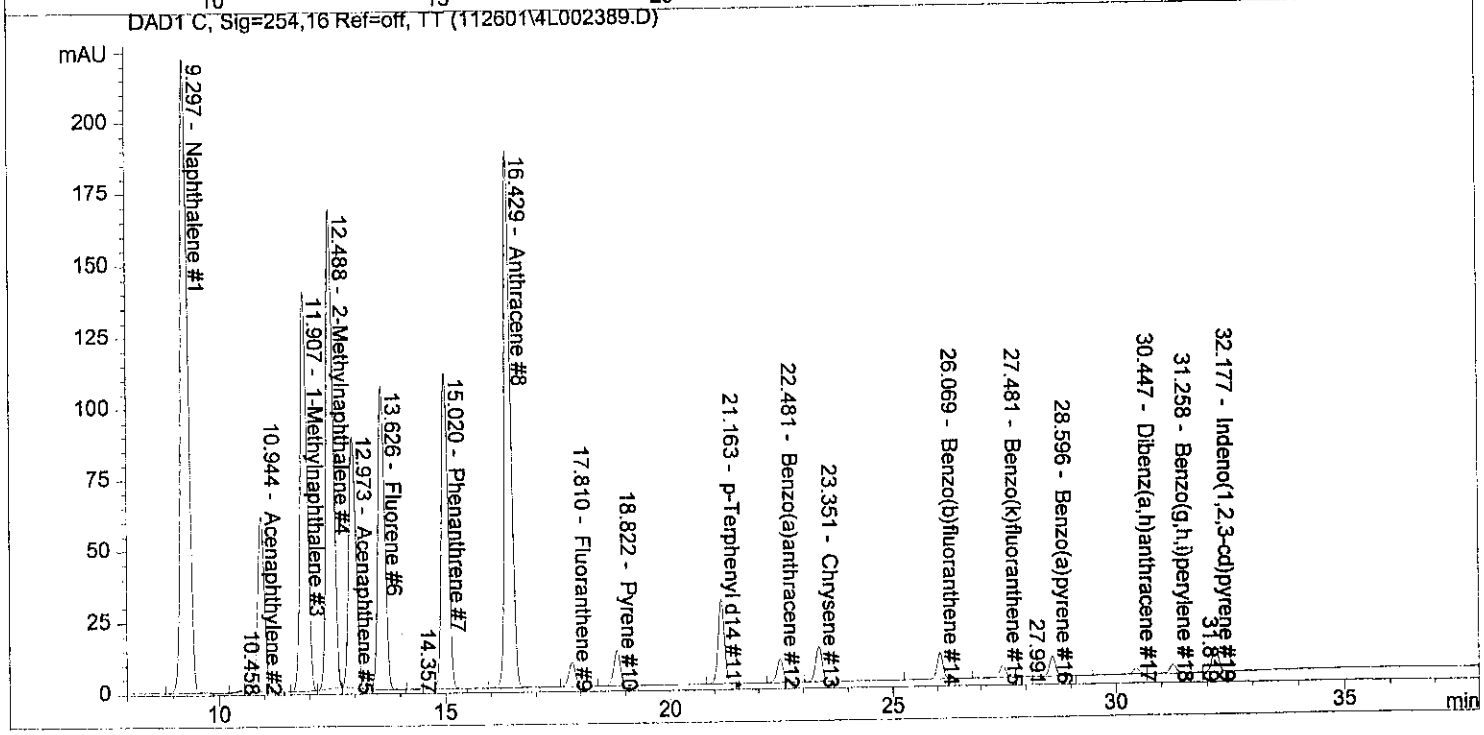
Injection Date : 11/26/2001 5:05:54 PM
Sample Name : WG108752-02 CCV
Acq. Operator : RDC

Seq. Line : 6
Vial : 6
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/27/2001 8:33:25 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Tuesday, November 27, 2001 8:33:25 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.315	PBA	716.18756	2.52962e-2	18.11682		Naphthalene #1
11.925	BB	825.22266	2.21330e-2	18.26462		1-Methylnaphthalene #3
12.506	BB	1066.00500	1.70635e-2	18.18977		2-Methylnaphthalene #4
12.991	BB	1349.60352	1.38416e-2	18.68062		Acenaphthene #5
13.644	BB	3011.32739	6.62187e-3	19.94061		Fluorene #6
15.039	BBA	110.33988	1.63652e-1	18.05737		Phenanthrene #7
16.448	BBA	60.93236	3.10196e-1	18.90099		Anthracene #8
17.829	BB	79.17802	2.32678e-2	1.84230		Fluoranthene #9
18.841	BBA	42.74339	3.86587e-2	1.65240		Pyrene #10
21.182	BB	65.49121	2.97423e-1	19.47858		p-Terphenyl d14 #11*
22.499	BB	227.28294	7.91256e-3	1.79839		Benzo(a)anthracene #12
23.369	BB	46.39386	3.90495e-2	1.81166		Chrysene #13
26.088	BB	112.67461	1.63222e-2	1.83910		Benzo(b)fluoranthene #14
27.500	BBA	343.18295	2.76572e-3	9.49147e-1		Benzo(k)fluoranthene #15
28.615	PB	375.41705	4.57119e-3	1.71610		Benzo(a)pyrene #16
30.465	BB	46.31883	3.93496e-2	1.82263		Dibenz(a,h)anthracene #17
31.277	BB	61.10795	2.65165e-2	1.62037		Benzo(g,h,i)perylene #18
32.198	BB	135.34483	1.38204e-2	1.87052		Indeno(1,2,3-cd)pyrene #1
Totals :				166.55199		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.297	PBA	2468.46680	8.25405e-3	20.37485		Naphthalene #1
10.944	BBA	655.36108	2.96975e-2	19.46260		Acenaphthylene #2
11.907	PB	1518.10034	1.29459e-2	19.65311		1-Methylnaphthalene #3
12.488	BB	1767.88062	1.12393e-2	19.86970		2-Methylnaphthalene #4
12.973	BB	949.13159	2.03163e-2	19.28288		Acenaphthene #5
13.626	BBA	1101.30273	1.75240e-2	19.29923		Fluorene #6
15.020	BBA	1132.78687	1.72982e-2	19.59522		Phenanthrene #7
16.429	PBA	1879.88000	1.04262e-2	19.59998		Anthracene #8
17.810	BB	88.06567	2.17006e-2	1.91108		Fluoranthene #9
18.822	BBA	130.45007	1.43052e-2	1.86612		Pyrene #10
21.163	PBA	297.03387	6.56733e-2	19.50718		p-Terphenyl d14 #11*
22.481	PBA	85.61462	2.22694e-2	1.90659		Benzo(a)anthracene #12
23.351	BBA	126.07626	1.51453e-2	1.90946		Chrysene #13
26.069	PBA	92.27753	2.07330e-2	1.91319		Benzo(b)fluoranthene #14
27.481	PB	43.29705	2.25837e-2	9.77807e-1		Benzo(k)fluoranthene #15
28.596	BBA	69.75909	2.61680e-2	1.82546		Benzo(a)pyrene #16
30.447	PB	20.04767	9.41116e-2	1.88672		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.258	BB	37.30883	5.60829e-2	2.09239		Benzo(g,h,i)perylene #18
32.177	BB	91.08541	2.05608e-2	1.87279		Indeno(1,2,3-cd)pyrene #1
Totals :				194.80634		

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

2.2.7.4 Raw QC Data

1,1 V175P183 BLANK 111901

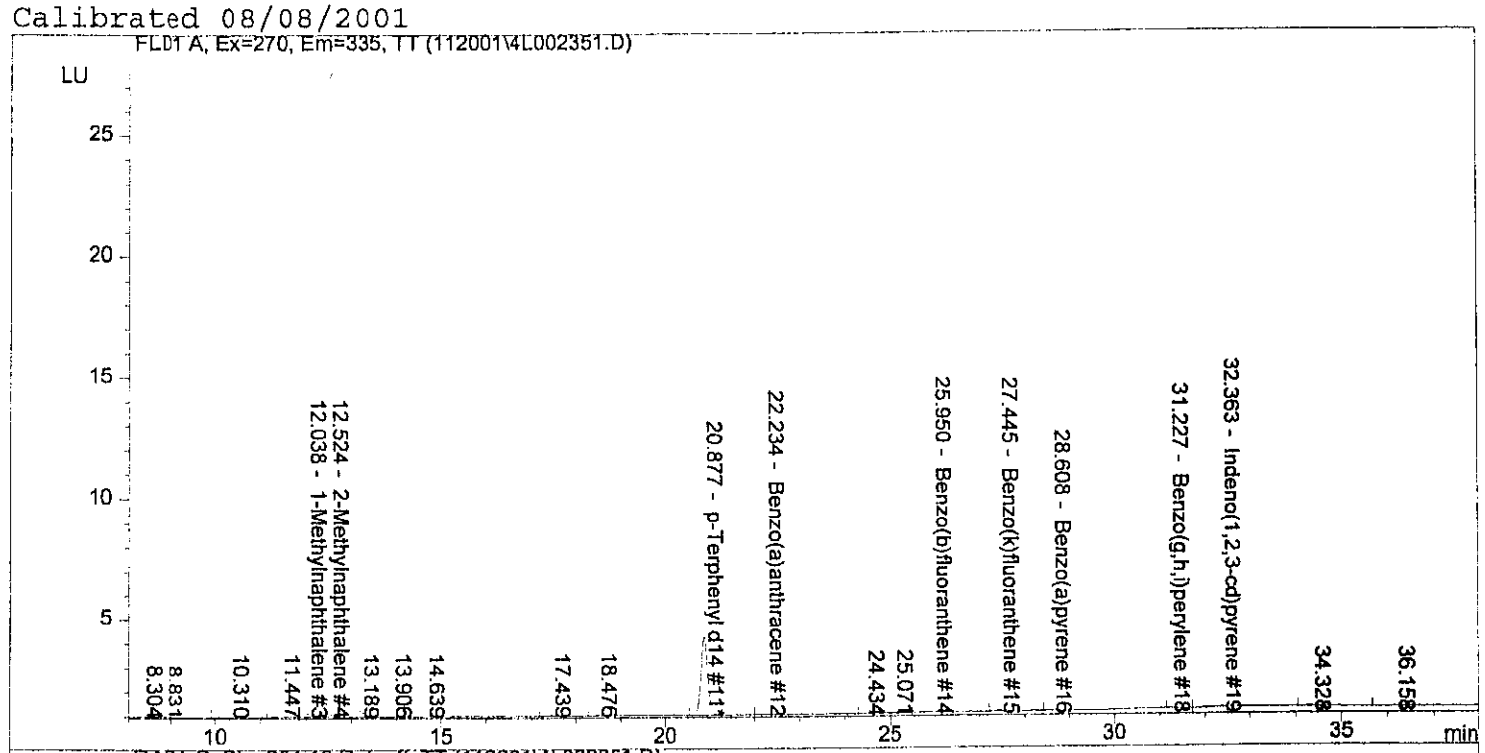
==========

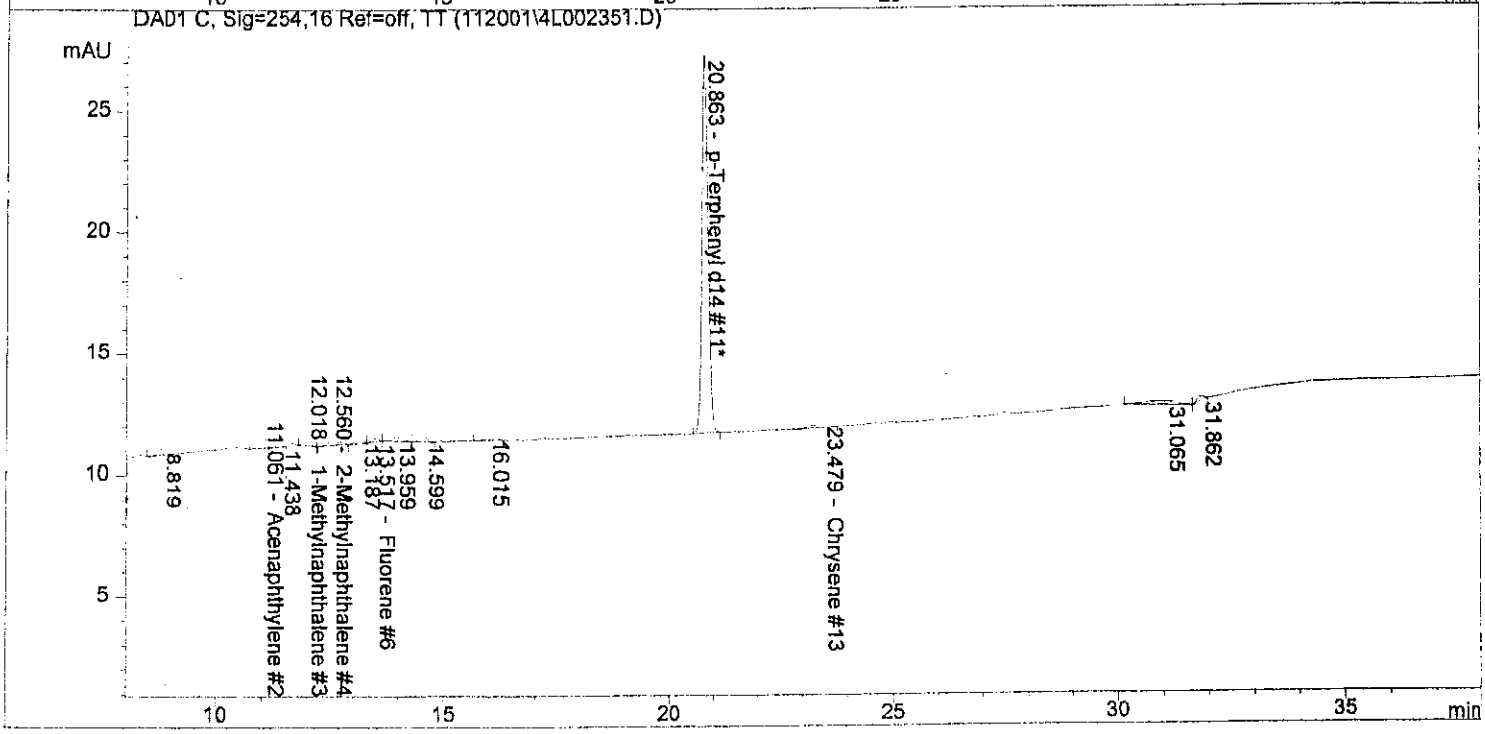
Injection Date : 11/20/2001 4:32:47 PM
Sample Name : WG108469-02 WBLK
Acq. Operator : RDC

Seq. Line : 3
Vial : 3
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/20/2001 6:04:33 PM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Tuesday, November 20, 2001 6:04:33 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.214		-	-	-		Naphthalene #1
12.038	BB	1.56414	2.21330e-2	3.46190e-2		1-Methylnaphthalene #3
12.524	BB	1.27532	1.70635e-2	2.17615e-2		2-Methylnaphthalene #4
12.885		-	-	-		Acenaphthene #5
13.539		-	-	-		Fluorene #6
14.927		-	-	-		Phenanthrene #7
16.338		-	-	-		Anthracene #8
17.748		-	-	-		Fluoranthene #9
18.728		-	-	-		Pyrene #10
20.877	BB	33.88282	2.97423e-1	10.07752	10%	p-Terphenyl d14 #11*
22.234	BB	2.47897e-1	7.91256e-3	1.96150e-3		Benzo(a)anthracene #12
23.297		-	-	-		Chrysene #13
25.950	BBA	2.82819e-1	1.63222e-2	4.61622e-3		Benzo(b)fluoranthene #14
27.445	PB	4.25478e-1	2.76572e-3	1.17675e-3		Benzo(k)fluoranthene #15
28.608	BBA	2.36044e-1	4.57119e-3	1.07900e-3		Benzo(a)pyrene #16
30.588		-	-	-		Dibenz(a,h)anthracene #17
31.227	BB	2.13299e-1	2.65165e-2	5.65594e-3		Benzo(g,h,i)perylene #18
32.363	BB	6.91885e-1	1.38204e-2	9.56213e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 10.15796

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.199		-	-	-		Naphthalene #1
11.061	BB	5.17754	2.96975e-2	1.53760e-1	1mDL	Acenaphthylene #2
12.018	BB	2.14264	1.29459e-2	2.77383e-2		1-Methylnaphthalene #3
12.560	BB	3.66656	1.12393e-2	4.12095e-2		2-Methylnaphthalene #4
12.870		-	-	-		Acenaphthene #5
13.517	BB	1.32516	1.75240e-2	2.32221e-2		Fluorene #6
14.911		-	-	-		Phenanthrene #7
16.322		-	-	-		Anthracene #8
17.701		-	-	-		Fluoranthene #9
18.711		-	-	-		Pyrene #10
20.863	BBA	149.77599	6.56733e-2	9.83628	98.4%	p-Terphenyl d14 #11*
22.400		-	-	-		Benzo(a)anthracene #12
23.479	PB	4.97884	1.51453e-2	7.54061e-2	1mDL	Chrysene #13
26.040		-	-	-		Benzo(b)fluoranthene #14
27.506		-	-	-		Benzo(k)fluoranthene #15
28.648		-	-	-		Benzo(a)pyrene #16
30.572		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.372		-	-	-		Benzo(g,h,i)perylene #18
32.318		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 10.15761

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1 V176P29 112101 BLANK

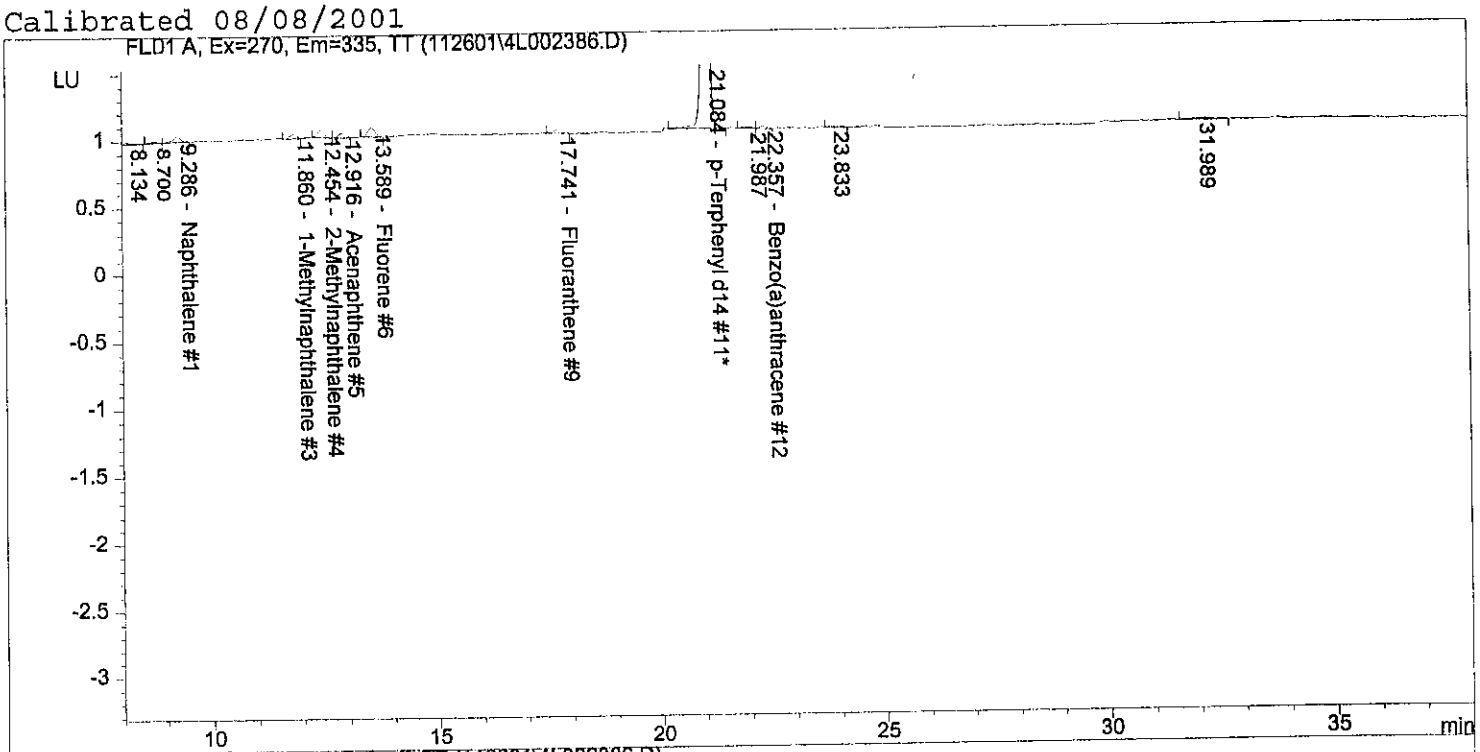
==========

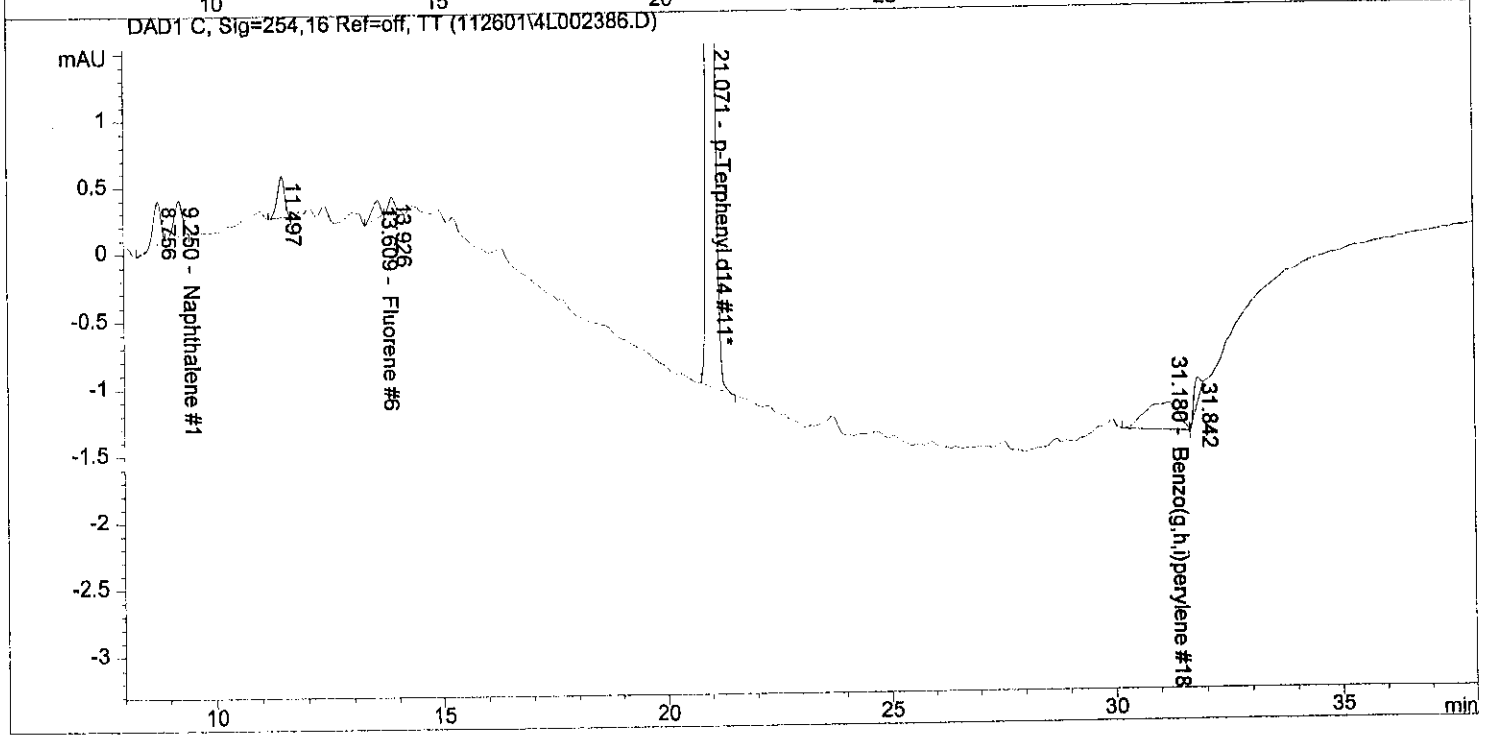
Injection Date : 11/26/2001 2:16:00 PM
Sample Name : WG108715-01 BLK
Acq. Operator : RDC

Seq. Line : 3
Vial : 3
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/26/2001 3:47:49 PM by RDC
(modified after loading)

Calibrated 08/08/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Monday, November 26, 2001 3:47:49 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.286	BBA	5.70463e-1	2.52962e-2	1.44305e-2		Naphthalene #1
11.860	PBA	3.31682e-1	2.21330e-2	7.34109e-3		1-Methylnaphthalene #3
12.454	BB	5.58499e-1	1.70635e-2	9.52994e-3		2-Methylnaphthalene #4
12.916	BBA	3.69698e-1	1.38416e-2	5.11720e-3		Acenaphthene #5
13.589	BBA	8.67095e-1	6.62187e-3	5.74178e-3		Fluorene #6
15.072		-	-	-		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.741	BBA	3.06308e-1	2.32678e-2	7.12713e-3		Fluoranthene #9
18.890		-	-	-		Pyrene #10
21.084	BBA	19.93591	2.97423e-1	5.92940		p-Terphenyl d14 #11*
22.357	BB	2.55087e-1	7.91256e-3	2.01839e-3		Benzo(a)anthracene #12
23.473		-	-	-		Chrysene #13
26.210		-	-	-		Benzo(b)fluoranthene #14
27.662		-	-	-		Benzo(k)fluoranthene #15
28.769		-	-	-		Benzo(a)pyrene #16
30.650		-	-	-		Dibenz(a,h)anthracene #17
31.455		-	-	-		Benzo(g,h,i)perylene #18
32.406		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 5.98070

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.250	BBA	3.42888	8.25405e-3	2.83022e-2	MDL	Naphthalene #1
10.981		-	-	-		Acenaphthylene #2
11.930		-	-	-		1-Methylnaphthalene #3
12.510		-	-	-		2-Methylnaphthalene #4
12.990		-	-	-		Acenaphthene #5
13.609	BB	1.82285	1.75240e-2	3.19437e-2	MDL	Fluorene #6
15.052		-	-	-		Phenanthrene #7
16.471		-	-	-		Anthracene #8
17.859		-	-	-	56.3%	Fluoranthene #9
18.899		-	-	-		Pyrene #10
21.071	BBA	85.68332	6.56733e-2	5.62710		p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.453		-	-	-		Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.642		-	-	-		Benzo(k)fluoranthene #15
28.749		-	-	-		Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.180	BB	10.52057	5.60829e-2	5.90024e-1	NC	Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 6.27737

Results obtained with enhanced integrator!
3 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

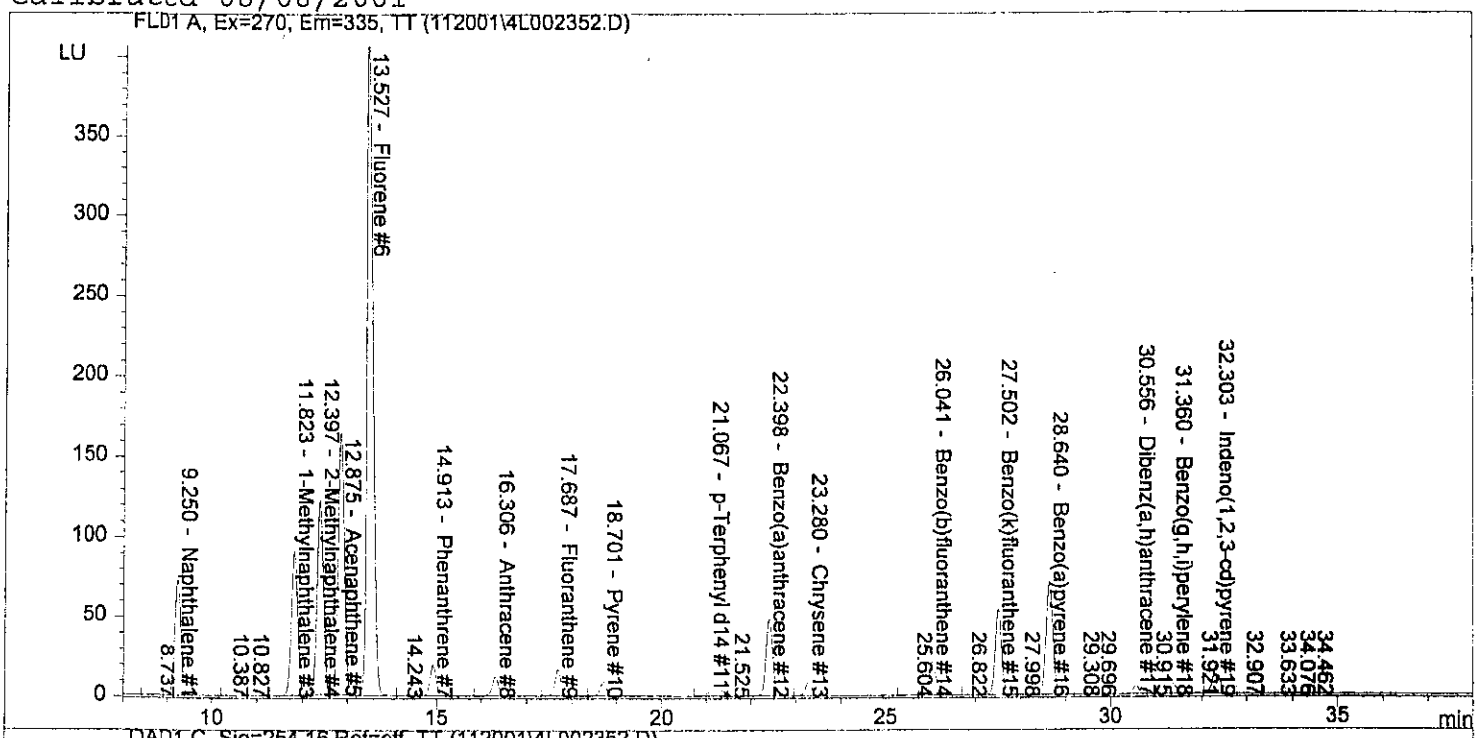
1,1 V175P183 LCS 111901

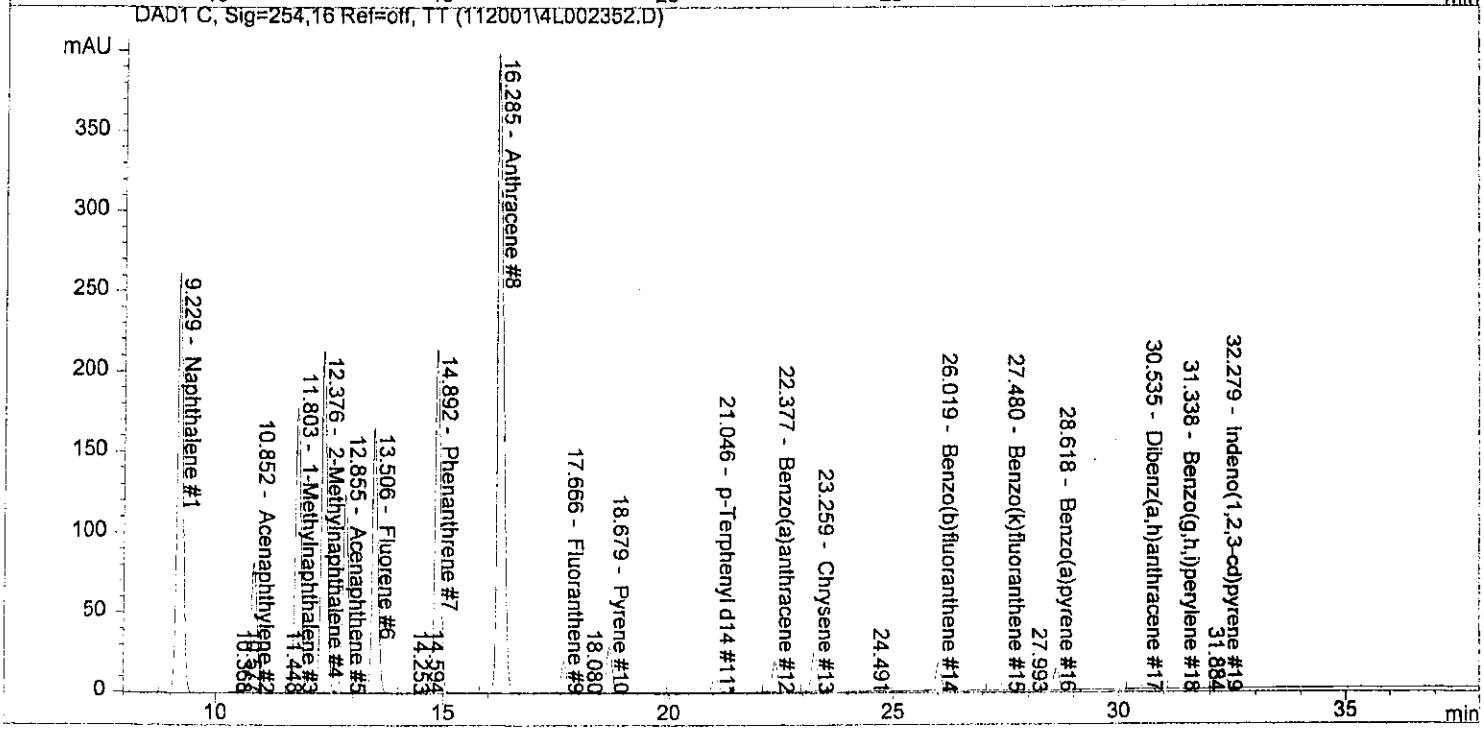
==========

Injection Date	: 11/20/2001 5:29:26 PM	Seq. Line :	4
Sample Name	: WG108469-03 WLCS	Vial :	4
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/20/2001 6:05:17 PM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Tuesday, November 20, 2001 6:05:17 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.250	BBA	737.43768	2.52962e-2	18.65437		Naphthalene #1
11.823	BB	887.16974	2.21330e-2	19.63569		1-Methylnaphthalene #3
12.397	BB	1169.24109	1.70635e-2	19.95134		2-Methylnaphthalene #4
12.875	BB	1590.84973	1.38416e-2	22.01985		Acenaphthene #5
13.527	BB	4005.78247	6.62187e-3	26.52576		Fluorene #6
14.913	BBA	181.33575	1.63652e-1	29.67600		Phenanthrene #7
16.306	BB	115.11960	3.10196e-1	35.70968		Anthracene #8
17.687	PB	165.32658	2.32678e-2	3.84679		Fluoranthene #9
18.701	BBA	93.15080	3.86587e-2	3.60109		Pyrene #10
21.067	BB	22.53539	2.97423e-1	6.70254	67.0%	p-Terphenyl d14 #11*
22.398	BB	491.99158	7.91256e-3	3.89291		Benzo(a)anthracene #12
23.280	BB	91.41657	3.90495e-2	3.56978		Chrysene #13
26.041	BB	218.83650	1.63222e-2	3.57189		Benzo(b)fluoranthene #14
27.502	BB	564.91486	2.76572e-3	1.56239		Benzo(k)fluoranthene #15
28.640	BB	750.89410	4.57119e-3	3.43248		Benzo(a)pyrene #16
30.556	BB	51.44018	3.93496e-2	2.02415		Dibenz(a,h)anthracene #17
31.360	BB	74.30765	2.65165e-2	1.97038		Benzo(g,h,i)perylene #18
32.303	BB	188.66826	1.38204e-2	2.60747		Indeno(1,2,3-cd)pyrene #1
Totals :				208.95455		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.229	BBA	2506.14355	8.25405e-3	20.68583		Naphthalene #1
10.852	BB	734.53693	2.96975e-2	21.81392		Acenaphthylene #2
11.803	BB	1598.34070	1.29459e-2	20.69189		1-Methylnaphthalene #3
12.376	BB	1886.76611	1.12393e-2	21.20589		2-Methylnaphthalene #4
12.855	BB	1104.93665	2.03163e-2	22.44827		Acenaphthene #5
13.506	BB	1455.21362	1.75240e-2	25.50117		Fluorene #6
14.892	BBA	1841.54346	1.72982e-2	31.85547		Phenanthrene #7
16.285	PBA	3509.16431	1.04262e-2	36.58719		Anthracene #8
17.666	BB	183.44432	2.17006e-2	3.98085		Fluoranthene #9
18.679	BBA	276.14120	1.43052e-2	3.95027		Pyrene #10
21.046	BBA	104.76454	6.56733e-2	6.88023	68.8%	p-Terphenyl d14 #11*
22.377	BBA	183.85371	2.22694e-2	4.09432		Benzo(a)anthracene #12
23.259	PB	244.58435	1.51453e-2	3.70430		Chrysene #13
26.019	BBA	177.00688	2.07330e-2	3.66988		Benzo(b)fluoranthene #14
27.480	BB	69.75284	2.25837e-2	1.57528		Benzo(k)fluoranthene #15
28.618	BBA	138.38022	2.61680e-2	3.62114		Benzo(a)pyrene #16
30.535	BB	22.40627	9.41116e-2	2.10869		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.338	BB	42.11931	5.60829e-2	2.36217		Benzo(g,h,i)perylene #18
32.279	BBA	128.15703	2.05608e-2	2.63501		Indeno(1,2,3-cd)pyrene #1

Totals : 239.37177

Results obtained with enhanced integrator!

*** End of Report ***

1,1 V176P29 112101 LCS

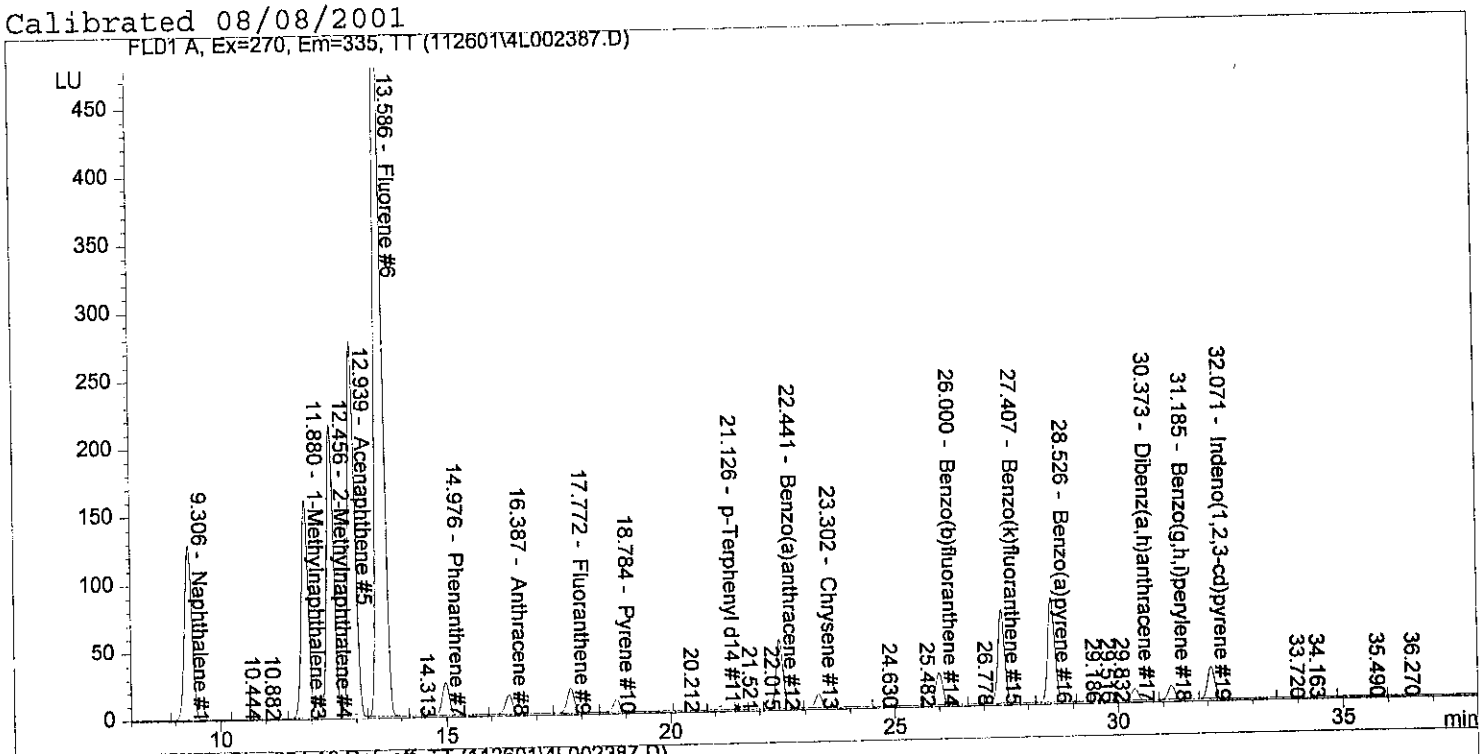
==========

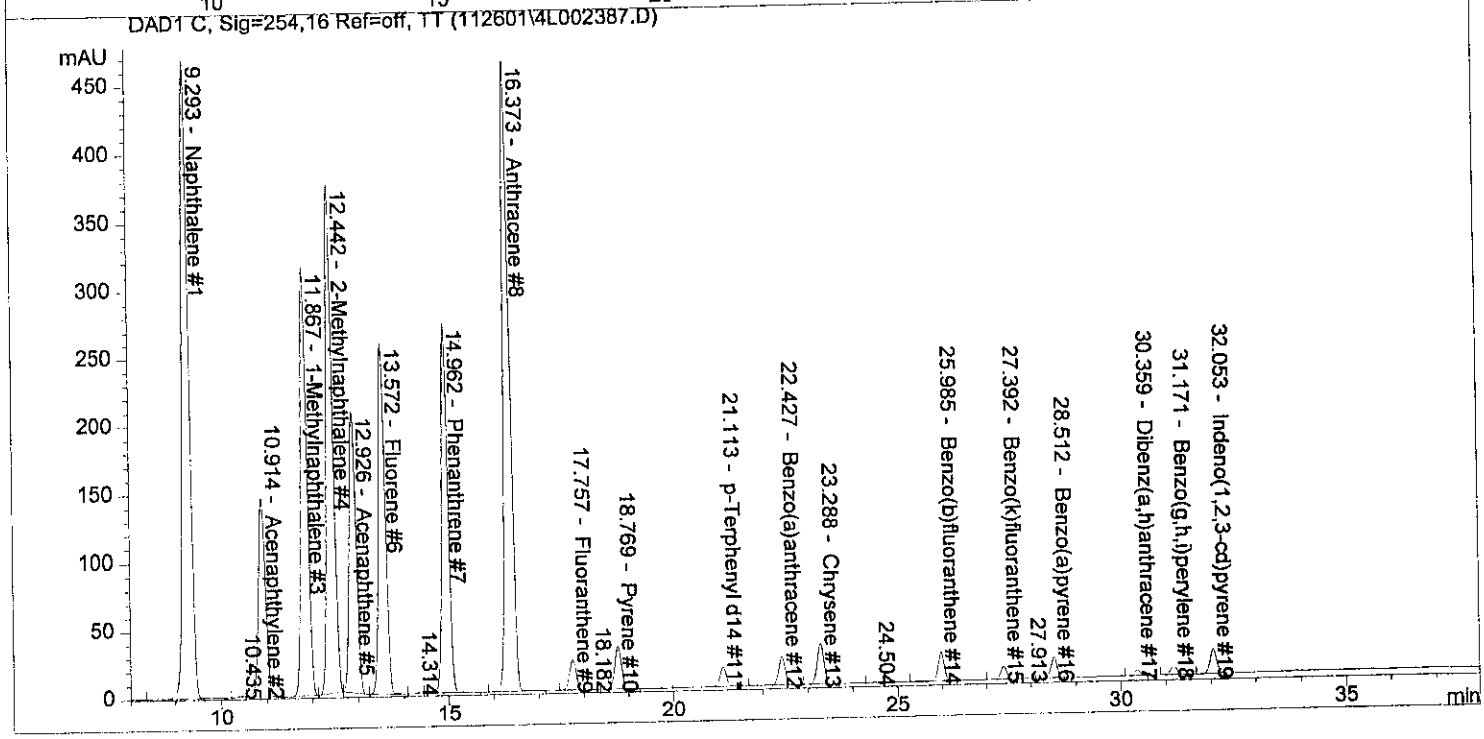
Injection Date : 11/26/2001 3:12:38 PM
Sample Name : WG108715-02 LCS
Acq. Operator : RDC

Seq. Line : 4
Vial : 4
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/27/2001 8:33:25 AM by RDC
(modified after loading)

Calibrated 08/08/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Tuesday, November 27, 2001 8:33:25 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.306	BBA	1468.23511	2.52962e-2	37.14076		Naphthalene #1
11.880	PB	1799.98193	2.21330e-2	39.83892		1-Methylnaphthalene #3
12.456	BB	2320.09229	1.70635e-2	39.58888		2-Methylnaphthalene #4
12.939	BB	3086.37158	1.38416e-2	42.72021		Acenaphthene #5
13.586	BB	7070.68848	6.62187e-3	46.82116		Fluorene #6
14.976	BBA	264.20233	1.63652e-1	43.23730		Phenanthrene #7
16.387	BB	150.07890	3.10196e-1	46.55393		Anthracene #8
17.772	BB	198.91119	2.32678e-2	4.62824		Fluoranthene #9
18.784	BBA	106.89128	3.86587e-2	4.13228		Pyrene #10
21.126	PB	31.95419	2.97423e-1	9.50390		p-Terphenyl d14 #11*
22.441	BB	558.17261	7.91256e-3	4.41658		Benzo(a)anthracene #12
23.302	BBA	110.79626	3.90495e-2	4.32654		Chrysene #13
26.000	BB	259.85919	1.63222e-2	4.24147		Benzo(b)fluoranthene #14
27.407	BB	743.55231	2.76572e-3	2.05645		Benzo(k)fluoranthene #15
28.526	BB	833.20325	4.57119e-3	3.80873		Benzo(a)pyrene #16
30.373	BB	89.43124	3.93496e-2	3.51908		Dibenz(a,h)anthracene #17
31.185	BB	115.34766	2.65165e-2	3.05862		Benzo(g,h,i)perylene #18
32.071	BB	273.50693	1.38204e-2	3.77998		Indeno(1,2,3-cd)pyrene #1

Totals : 343.37301

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.293	BBA	5090.51660	8.25405e-3	42.01738		Naphthalene #1
10.914	BB	1516.88098	2.96975e-2	45.04760		Acenaphthylene #2
11.867	BB	3328.06079	1.29459e-2	43.08460		1-Methylnaphthalene #3
12.442	BB	3861.47632	1.12393e-2	43.40020		2-Methylnaphthalene #4
12.926	BB	2185.36304	2.03163e-2	44.39859		Acenaphthene #5
13.572	BB	2611.46777	1.75240e-2	45.76337		Fluorene #6
14.962	BBA	2760.02759	1.72982e-2	47.74363		Phenanthrene #7
16.373	BBA	4632.37207	1.04262e-2	48.29796		Anthracene #8
17.757	PB	225.02049	2.17006e-2	4.88308		Fluoranthene #9
18.769	BBA	330.49948	1.43052e-2	4.72788	96.1%	Pyrene #10
21.113	PBA	146.29649	6.56733e-2	9.60777		p-Terphenyl d14 #11*
22.427	BB	214.82852	2.22694e-2	4.78411		Benzo(a)anthracene #12
23.288	BBA	302.29068	1.51453e-2	4.57828		Chrysene #13
25.985	BBA	212.96440	2.07330e-2	4.41539		Benzo(b)fluoranthene #14
27.392	BB	92.48402	2.25837e-2	2.08863		Benzo(k)fluoranthene #15
28.512	BB	148.58952	2.61680e-2	3.88829		Benzo(a)pyrene #16
30.359	BB	38.45943	9.41116e-2	3.61948		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.171	BBA	67.24266	5.60829e-2	3.77117		Benzo(g,h,i)perylene #18
32.053	PB	191.31146	2.05608e-2	3.93351		Indeno(1,2,3-cd)pyrene #1

Totals : 410.05090

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

Analysis Date/Time Aug 8, 2001 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 080801
Analyst Initials RDC SOP # HPLC01 Rev. # 2 ✓ 8310 SOP # HPLC02 Rev. # 0 ____ 8330

Filename	Sample ID	Dilution Factor	Soln #	Re-analysis (if applicable)	Status
4L001205	ACCN Blank	NA			✓
06	8310 CCV		SV53-25/5435		RR
07	V169P95 BLK				RR
08	↓ LCS				RR
09	8310 CCV		SV53-25/54-35		CC
10	↓ no-matrix		↓		CC
11	ESS 38-23 elab spike				✓
12	8310 SUR 6/100		SV54-35		✓
13	8310 STD 6/100		SV53-25		✓
14	↓ 5/50		SV54-35/53-25		✓
15	4/20		↓		✓
16	3/10				✓
17	2/5				✓
18	↓ 1/1		↓		✓
19	8310 ALT @ LVL 4	↓	SV53-27/SOSS5-29		✓

RDC 8/10/01

Reviewed By: [illegible]

Status:
✓ = Compliant Analysis. Reanalysis complete IS or SS = Interference with internal and/or surrogate standards SMI = Sample matrix interference
RR = Rerun MT = Missed Tune, beyond method tuning requirements CC = Continuing calibration failed
RR# = Rerun at a specified dilution RE = Re-extraction analysis required CF = Confirmation required
* = See comments on opposite page

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

alysis Date/Time Aug. 7, 2001 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 080801

Daily Check
✓ Mobile phase reservoir
✓ System pressure 113 bar
✓ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

4L001806 – NO result file contents / null

8310 CCV – failing low for p-terphenyl-d14

Reviewed By: mk 8/10/01

Sequence: C:\HPCHEM\2\SEQUENCE\NOV20.S

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG108586-01 CCV	8310	1	Sample		
3	3	WG108469-02 WBLK	8310	1	Sample		
4	4	WG108469-03 WLCS	8310	1	Sample		
5	5	L0111316-01 831W	8310	1	Sample		
6	6	WG108469-01 WREF	8310	1	Sample		
7	7	WG108469-04 WMS	8310	1	Sample		
8	8	WG108469-05 WMSD	8310	1	Sample		
9	9	L0111316-05 831W	8310	1	Sample		
10	10	L0111316-06 831W	8310	1	Sample		
11	11	L0111316-07 831W	8310	1	Sample		
12	12	L0111316-09 831W	8310	1	Sample		
13	13	WG108586-02 CCV	8310	1	Sample		
14	14	L0111316-10 831W	8310	1	Sample		
15	15	L0111316-11 831W	8310	1	Sample		
16	16	L0111316-12 831W	8310	1	Sample		
17	17	L0111316-13 831W	8310	1	Sample		
18	18	L0111316-14 831W	8310	1	Sample		
19	19	L0111344-01 831W	8310	1	Sample		
20	20	L0111344-02 831W	8310	1	Sample		
21	21	L0111344-03 831W	8310	1	Sample		
22	22	L0111344-04 831W	8310	1	Sample		
23	23	L0111344-05 831W	8310	1	Sample		
24	24	WG108586-03 CCV	8310	1	Sample		

Partial Sequence: C:\HPCHEM\2\SEQUENCE\NOV20.S

RDC 11/27/01

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L002349	01:01		accn blk
No	2	2	8310	4L002350	02:01	503 56-19/56-20	WG108586-01 CC
Yes	3	3	8310	4L002351	03:01		WG108469-02 WB
Yes	4	4	8310	4L002352	04:01		WG108469-03 WL
Yes	5	5	8310	4L002353	05:01		L0111316-01 83
Yes	6	6	8310	4L002354	06:01		WG108469-01 WR
Yes	7	7	8310	4L002355	07:01		WG108469-04 WM
Yes	8	8	8310	4L002356	08:01		WG108469-05 WM
Yes	9	9	8310	4L002357	09:01		L0111316-05 83
Yes	10	10	8310	4L002358	10:01		L0111316-06 83
Yes	11	11	8310	4L002359	11:01		L0111316-07 83
Yes	12	12	8310	4L002360	12:01		L0111316-09 83
Yes	13	13	8310	4L002361	13:01	503 56-19/56-20	WG108586-02 CC
Yes	14	14	8310	4L002362	RR 14:01		L0111316-10 83
Yes	15	15	8310	4L002363	RR 15:01		L0111316-11 83
Yes	16	16	8310	4L002364	RR 16:01		L0111316-12 83
Yes	17	17	8310	4L002365	RR 17:01		L0111316-13 83
Yes	18	18	8310	4L002366	RR 18:01		L0111316-14 83
Yes	19	19	8310	4L002367	19:01	DID NOT RUN	L0111344-01 83
Yes	20	20	8310	4L002368	20:01		L0111344-02 83
Yes	21	21	8310	4L002369	21:01		L0111344-03 83
Yes	22	22	8310	4L002370	22:01		L0111344-04 83
Yes	23	23	8310	4L002371	23:01		L0111344-05 83
Yes	24	24	8310	4L002372	24:01		WG108586-03 CC

RDC 11/27/01

ECZ 11/27/01

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Nov. 20 2001 Instrument ID HPLC 4 Column ID LC-PAH Data Subdirectory 112001
Analyst Initials RLC SOP # HPLC01 Rev. # 2 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 100 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

HPLC shut down due to high pressure after running LO111316-14. Appeared to have injected the next sample LO111344-01.

Reviewed By: ECL 11/27/01

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG108689-01 CCV	8310	1	Sample		
3	3	L0111316-10 831W	8310	1	Sample		
4	4	L0111316-11 831W	8310	1	Sample		
5	5	L0111316-12 831W	8310	1	Sample		
6	6	L0111316-13 831W	8310	1	Sample		
7	7	L0111316-14 831W	8310	1	Sample		
8	8	L0111344-01 831W	8310	1	Sample		
9	9	L0111344-02 831W	8310	1	Sample		
10	10	L0111344-03 831W	8310	1	Sample		
11	11	L0111344-04 831W	8310	1	Sample		
12	12	L0111344-05 831W	8310	1	Sample		
13	13	WG108689-02 CCV	8310	1	Sample		
14	14	L0111316-10 10X	8310	1	Sample		
15	15	L0111316-13 5X	8310	1	Sample		
16	13	WG108689-03 CCV	8310	1	Sample		

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
Yes	1	1	8310	4L002368	01:01		accn blk
Yes	2	2	8310	4L002369	02:01	SOS 56-19/56-20	WG108689-01 CC
Yes	3	3	8310	4L002370	03:01	RR 10	L0111316-10 83
Yes	4	4	8310	4L002371	04:01 ✓		L0111316-11 83
Yes	5	5	8310	4L002372	RQC 11/26/01 05:01	~~RR 5~~ RE	L0111316-12 83
Yes	6	6	8310	4L002373	06:01	RR 5	L0111316-13 83
Yes	7	7	8310	4L002374	07:01 ✓		L0111316-14 83
Yes	8	8	8310	4L002375	08:01 ✓		L0111344-01 83
Yes	9	9	8310	4L002376	09:01 ✓		L0111344-02 83
Yes	10	10	8310	4L002377	10:01 ✓		L0111344-03 83
Yes	11	11	8310	4L002378	11:01 ✓		L0111344-04 83
Yes	12	12	8310	4L002379	12:01 ✓		L0111344-05 83
Yes	13	13	8310	4L002380	13:01	SOS 56-19/56-20	WG108689-02 CC
Yes	14	14	8310	4L002381	14:01 ✓		L0111316-10 10
Yes	15	15	8310	4L002382	15:01 ✓		L0111316-13 5X
Yes	16	13	8310	4L002383	16:01 ✓	SOS 56-19/56-20	WG108689-03 CC

RQC 11/26/01

mde 11/26/01

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Nov. 21, 200 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 112101
Analyst Initials RDC SOP # HPLC01 Rev. # 2 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 116 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: high pressure

Action Taken: Changed frit and bottle intake filter on water and acid.

Comments

L0111316-12 re-ext. requested due to surr. recovery LCL
L0111316-10 - RR to conf. acenaphthylene.

Reviewed By: rdc 11/26/01

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG108752-01 CCV	8310	1	Sample		
3	3	WG108715-01 BLK	8310	1	Sample		
4	4	WG108715-02 LCS	8310	1	Sample		
5	5	L0111316-12 831W	8310	1	Sample	This is the re-ext.	
6	6	WG108752-02 CCV	8310	1	Sample		

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L002384	01:01		accn blk
No	2	2	8310	4L002385	02:01	50556-19/56 20	WG108752-01 CC
No	3	3	8310	4L002386	03:01		WG108715-01 BL
No	4	4	8310	4L002387	04:01		WG108715-02 LC
No	5	5	8310	4L002388	05:01		L0111316-12 83
No	6	6	8310	4L002389	06:01	50556-19/56 20	WG108752-02 CC

JLC 11/27/01

EC2 11/27/01

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Nov. 26, 2001 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 112601
Analyst Initials BLC SOP # HPLC01 Rev. # 2 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 1/2 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: ____

Action Taken: ____

Comments

L011316-12 re-ext with good surrogate recovery

Note: FLD results for CCV failed low for pyrene & benzo(g,h,i)perylene. There were not any hits of these analytes to be confirmed

Reviewed By: EG 11/27/01

Parameter: 8310-H_2O SOP #: EXTRCL Revision #: 6
Extraction Analyst(s): LMT/REK TV/KD Analyst(s): LMT
Date/Time Extracted: 11/19/01 @ 2:14 LMT 11/19/01 Date TV/KD: 11/19/01
Spike/Surrogate Analyst: LMT/REK Witness: REK/LMT
Surrogate #: ES00038-39 Earliest Hold Date: 11/22
Spike #: A = ES00039-22 Spike #: B = —
Surrogate B #: ES00039-27

Extraction Work Group WG 108469
Analytical Work Group WG 108520

Extract Relinquished By: LMT
Extract Received By & Date: 11/19/01

	Sample ID	Test Code	pH √ <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	BN	N	Comments
1	Blank			✓		1L	100ul		1ml	T				WG 108469-02
2	LCS			✓		1		500ul		C				WG 108469-03
3	11-316-01	8310		✓		990ml				T				
4	-02			✓		980ml				T				WG 108469-01
5	-03 MS			✓		970ml		500ul		C				WG 108469-04
6	-04 MSD			✓		960ml		1		C				WG 108469-05
7	-05			✓		970ml				T				
8	-06			✓		960ml				T				
9	-07			✓		970ml				T				
10	-09			✓		980ml				T				
11	-10			✓		960ml				C				
12	-11			✓		970ml				T				⊙
13	-12			✓		970ml				T				
14	-13			✓		990ml				T				
15	-14			✓		960ml				T				
16	11-344-01			✓		980ml				T				
17	-02			✓		980ml				T				⊙
18	-03			✓		980ml				T				
19	-04			✓		980ml				T				
20	-05			✓		920ml				T				
21														
22														
23														
24														

LMT 11/19/01

Methylene Chloride Lot #: 41109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: ~~Acetonitrile~~ Lot #: V8801 Acetonitrile
Reagent: ~~Fortified~~ Lot #: ER1978
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: ✓ Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER1979

LMT 11/19/01

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3664A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 11/19/01

Extraction Notes For Volume # 175 Page # 183

General Comments: ~~X~~ MS and MSD of ~~11~~ 11-316-02
LMT
11/19/01

Extraction Anomalies: Nothing to Report

Concentration Anomalies: (•) 11-316-11 and 11-344-02 formed a precipitate after exchanging on turbo-vap.

Clean-Up Anomalies: Not Applicable

Supervisor Review: _____ Date: _____

Parameter: 8310-H_2O SOP #: EXHPLC1 Revision #: 6
Extraction Analyst(s): LMT TV/KD Analyst(s): CSH
Date/Time Extracted: 11/21/01 @ 16:45 Date TV/KD: 11/21/01
Spike/Surrogate Analyst: LMT Witness: [illegible]
Surrogate #: 255000 39-27 Earliest Hold Date: 11/22
Spike #: A = 255000 39-22 Spike #: B = —

Extraction Work Group WG 108715
Analytical Work Group WG 108845

Extract Relinquished By: [illegible]
Extract Received By & Date: [illegible] 11/26/01

	Sample ID	Test Code	pH / <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions / A	BN	N	Comments
1	Blank					1L	100ul		1ml	T				WG 108715-01
2	LCS					↓	↓	500ul	↓	C				WG 108715-02
3	11-316-12	8310		✓		↓	↓		↓	T				*
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

LMT 11/21/01

Methylene Chloride Lot #: 41109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: Fortified Lot #: ER1986
Reagent: Acetonitrile Lot #: V35807
Reagent: — Lot #: —
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER1979

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3664A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: [illegible] Date: 11/26/01

Extraction Notes For Volume # 170 Page # 27

General Comments: ☒ Re-ext w/ in Hold.

Extraction Anomalies: Nothing to Report

Concentration Anomalies: Nothing to Report

Clean-Up Anomalies: Not Applicable

Supervisor Review: _____ Date: _____

Example 8310 Calculations

1.0 Calulating the Calibration Factor (CF) from the initial calibration (ICAL) data:

CF = Cs/As

Where:		Example:
	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ug/ml).	100
	CF	**0.01**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:

C = [(Ax)(Vf)(D)(CF)(1000)] / Vi

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	CF = Calibration factor from ICAL calculated above.	**0.01**
	Vi = Initial volume of sample (mL). (prep log)	1000
	1000 = conversion to ppb	
	C (ug/L) =	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report: C = [(Ax)(Vf)(D)(Cf)] / Vi

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL).	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	CF = Calibration factor from ICAL calculated above.	0.01
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**3.333333**

2.4 General Chemistry Data

2.4.5 Anions (9056)

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L0111316

METHOD

Analysis: SW-846 9056

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: Samples fractions -12 and -14 were re-analyzed at a 10x dilution out of hold due to required instrument cleaning and re-establishment of a new standard curve. The sample matrix from these two fractions resulted in failures of continuing calibration checks for PO4-P.

PREPARATION: All acceptance criteria were met.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : PO4-P in check standards failed twice after non-diluted analyses of sample fractions -12 and -14 of this sample delivery group.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: Sample fractions -03 and -04 were chosen externally for the MS/MSD of sample fraction -02 for this sample delivery group. All acceptance criteria were met.

SAMPLES
Samples were re-analyzed at a dilution in order to maintain the analyses within the range of calibration. All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: GSG REVIEWED: DATE: 12/6/01

Rev. 7/14/00

Figure 1
IC

Date: 11/16/01
Analyst: GSG
Method: 9056
Instrument: IC2
Work Group: LC 163784

-316

	Analyst
System Performance Check	✓
Initial Calibration	✓
Average RF	
Linear Reg or Higher Order Curve	✓
Second Source Standard % Difference	✓
Check Standards	✓
Project / Client Specific Requirements	
Special Standards	
Blanks	✓
TCL's	
Surrogates	
LCS (Laboratory Control Sample)	✓
Recoveries	
Surrogates	
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	
Surrogates	
Calculations & Correct Factors	
Dilutions Run	✓
Reruns	✓
Check Sample Histories	
Ending Check Standards	✓
Excel Spreadsheets	✓
Case Narrative	✓
Corrective Action	
Results Reporting / Data Qualifiers	
WorkGroups Traceability	
Client Data Package Assembly	
Check for Completeness	✓

Primary Reviewer Initials & Date Checked
GSG 11/16/01

Secondary Reviewer Initials & Date Checked
RRC 12/4/01

✓ • Check for compliance with Method and project-specific requirements
✓ • Check the completeness of the reported information
✓ • Check the information for the report narrative
✓ • Check the reasonableness of results

Supervisory Review Initials & Date Checked 12/4/01

Comments:

NA - Not Applicable

DL - Diluted Out

✓ - Checked & OK

316-12 RR Dil on 11/17/01
-14 CCV Due to system cleaning after high SO4

CCV-31
CCV-57 Pb4-1 failure Due to high SO4 recovery

316-12,13 RR on 11/17/01 2
-14 Dilution only.

Figure 1
IC

Date: 11/17/01
Analyst: GSC
Method: 9056
Instrument: IC2
Work Group: LIC 105428

- 344

	Analyst
System Performance Check	✓
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	✓
Second Source Standard % Difference	✓
Check Standards	✓
Project / Client Specific Requirements	
Special Standards	
Blanks	✓
TCL's	
Surrogates	
LCS (Laboratory Control Sample)	✓
Recoveries	
Surrogates	
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	
Surrogates	
Calculations & Correct Factors	
Dilutions Run	
Reruns	
Check Sample Histories	
Ending Check Standards	✓
Excel Spreadsheets	✓
Case Narrative	✓
Corrective Action	
Results Reporting / Data Qualifiers	
WorkGroups Traceability	
Client Data Package Assembly	
Check for Completeness	✓

Primary Reviewer Initials & Date Checked
GSC 11/26/01

Secondary Reviewer Initials & Date Checked
TJDC 12/10/01

- Check for compliance with Method and project-specific requirements
- Check the completeness of the reported information
- Check the information for the report narrative
- Check the reasonableness of results

Supervisory Review Initials & Date Checked PRR 12/5/01

Comments:

NA - Not Applicable

DL - Diluted Out

✓ - Checked & OK

Anions (9056)

Login Number: L0111316

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

____ Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data)

✓ Chromatograms and external standard reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and external standard reports (chronological)

____ Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

✓ Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

____ Extraction bench sheets

Checked By: GSG Date: 12/05/01

2.4.5.1 QC Summary

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, Water

Analytical Work Group:	WG108389	**Prep Work Group:**	NA	**Blank Filename:**	IC2_013
Method:	9056	**Ext Date:**	NA	**LCS Filename:**	IC2_014
Instrument:	IC2	**Ext Bench Sheet:**	NA	**Sample Number:**	L0111316-01
Analyst:	GSG	**Run Date:**	16-Nov-01	**Sample Filename:**	IC2_015
				Duplicate Filename:	IC2_016

	CONCENTRATION, mg/L										% RECOVERY												
Analyte	RDL	Blank	LCS Spike Amount	LCS	Sample	Dup	Sample	MS Spike Amount	MS	MSD	Blank	LCS	LCS LCL	LCS UCL	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL	LCS	MS	MSD
NITRITE-N	0.4	ND	3.66	3.57	ND	ND	ND	3.66	3.83	3.76	ND	97.5	90	110	105	103	80	120	NA	2	20			
NITRATE-N	0.6	ND	4.06	3.99	ND	ND	ND	4.06	4.17	4.19	ND	98.3	90	110	102.7	103.1	80	120	NA	0	20			
PHOSPHATE-P	1	ND	9.78	9.27	ND	ND	ND	9.78	10.01	9.93	ND	94.8	90	110	102	102	80	120	NA	1	20			

NOTES & DEFINITIONS :

NA = NOT APPLICABLE
ND = NOT DETECTED
RDL = REPORTING DETECTION LIMIT
D = DETECTED, RESULT MUST BE GREATER THAN ZERO

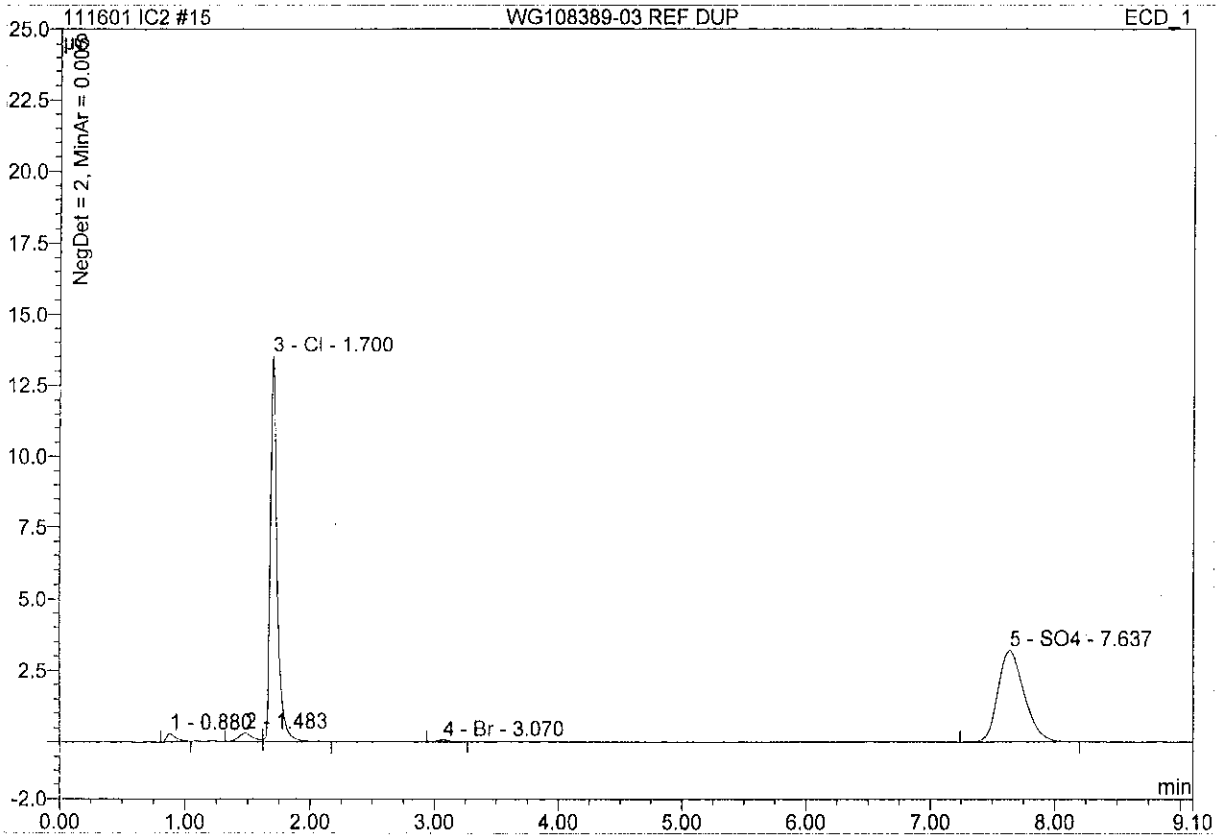
H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

2.4.5.2 Sample Data

15 WG108389-03 REF DUP

1,1 GSG L0111316-01

Sample Name:	**WG108389-03 REF DUP**	*Injection Volume:*	**25.0**
Vial Number:	**17**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 14:23**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

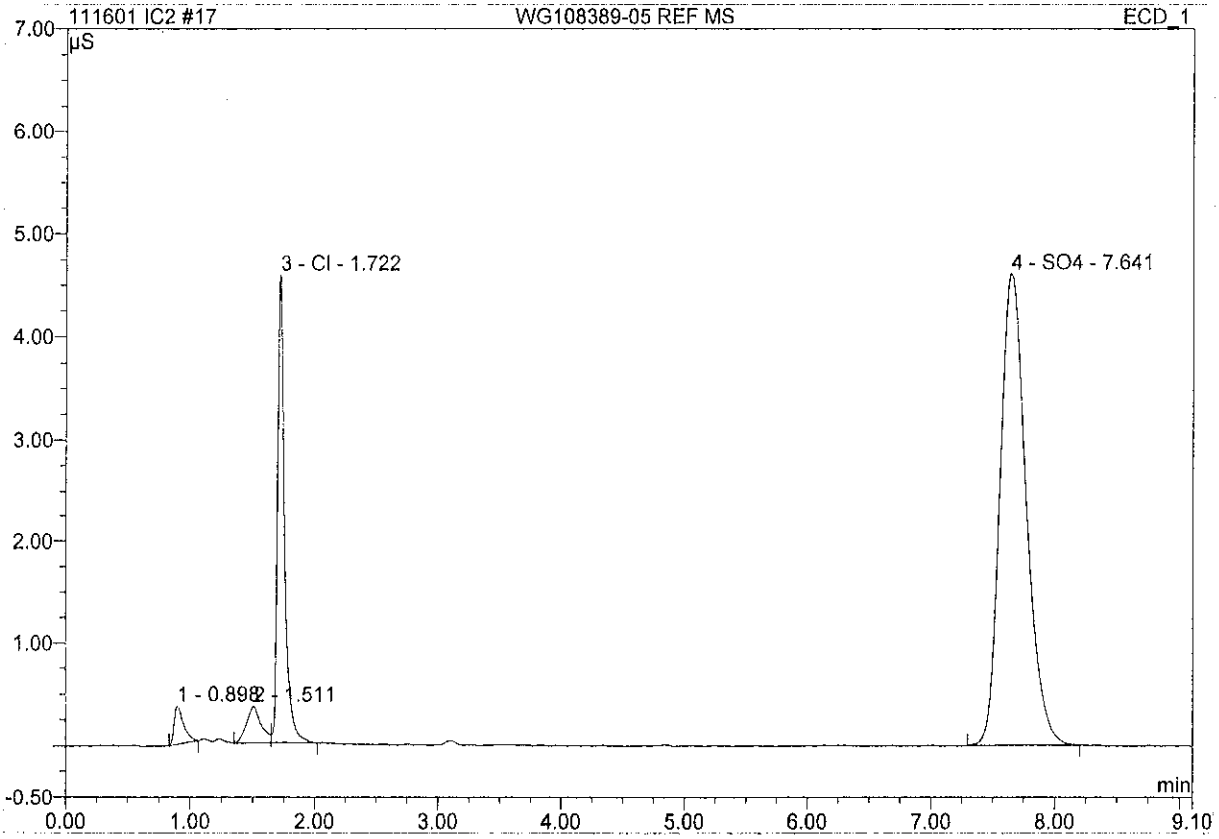


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.297	0.025	1.43	n.a.	BMB
2	1.48	n.a.	0.323	0.041	2.40	n.a.	BM
3	1.70	Cl	13.509	0.858	49.96	8.693	MB
4	3.07	Br	0.071	0.008	0.45	0.192	BMB
5	7.64	SO4	3.205	0.786	45.75	11.143	BMB
Total:			17.406	1.718	100.00	20.027	

17 WG108389-05 REF MS

1,1 GSG L0111316-02

Sample Name:	**WG108389-05 REF MS**	*Injection Volume:*	**25.0**
Vial Number:	**19**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 14:46**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

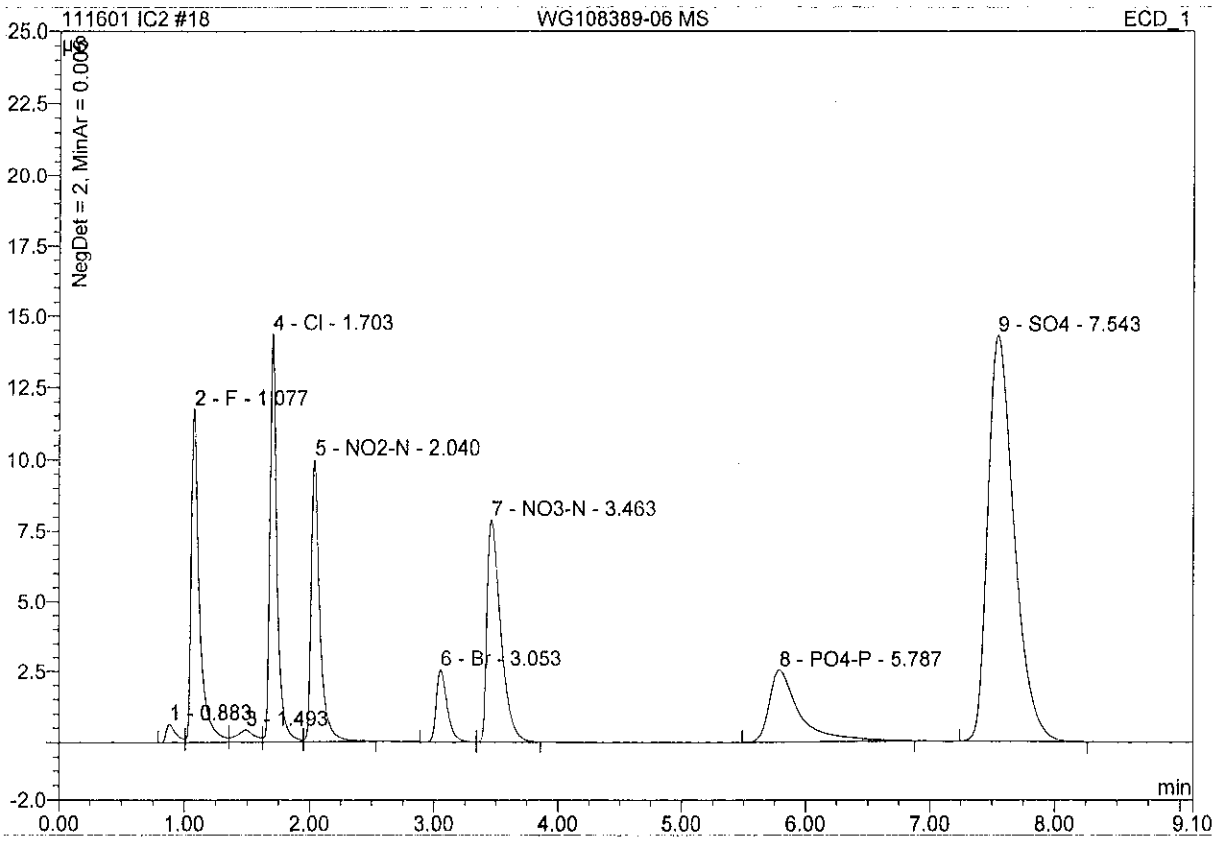


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.90	n.a.	0.370	0.032	2.11	n.a.	BMB
2	1.51	n.a.	0.355	0.048	3.17	n.a.	BM
3	1.72	Cl	4.573	0.303	20.02	3.087	MB
4	7.64	SO4	4.605	1.129	74.70	15.749	BMB
Total:			9.904	1.511	100.00	18.836	

18 WG108389-06 MS

1,1 GSG L0111316-03 MS SOS0056-35 111601

Sample Name:	**WG108389-06 MS**	*Injection Volume:*	**25.0**
Vial Number:	**20**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 14:57**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

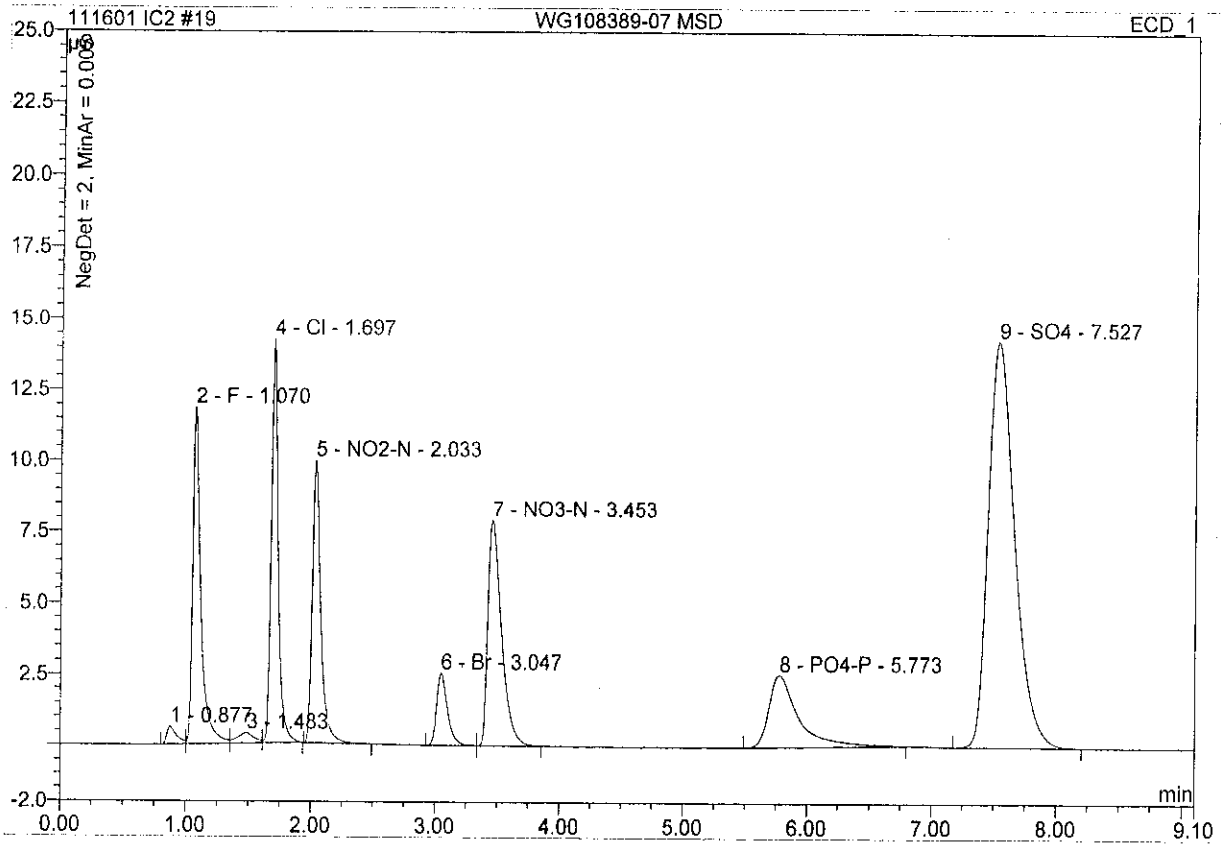


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.633	0.056	0.69	n.a.	BM
2	1.08	F	11.735	0.892	10.84	6.208	M
3	1.49	n.a.	0.417	0.067	0.82	n.a.	M
4	1.70	Cl	14.346	0.944	11.48	9.559	M
5	2.04	NO2-N	9.973	0.799	9.71	3.828	MB
6	3.05	Br	2.541	0.253	3.08	6.336	BM
7	3.46	NO3-N	7.873	1.002	12.18	4.170	MB
8	5.79	PO4-P	2.527	0.709	8.62	10.006	BMB
9	7.54	SO4	14.258	3.504	42.59	47.656	BMB
Total:			64.301	8.227	100.00	87.762	

19 WG108389-07 MSD

1,1 GSG L0111316-04 MSD SOS0056-35 111601

Sample Name:	**WG108389-07 MSD**	*Injection Volume:*	**25.0**
Vial Number:	**21**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 15:09**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

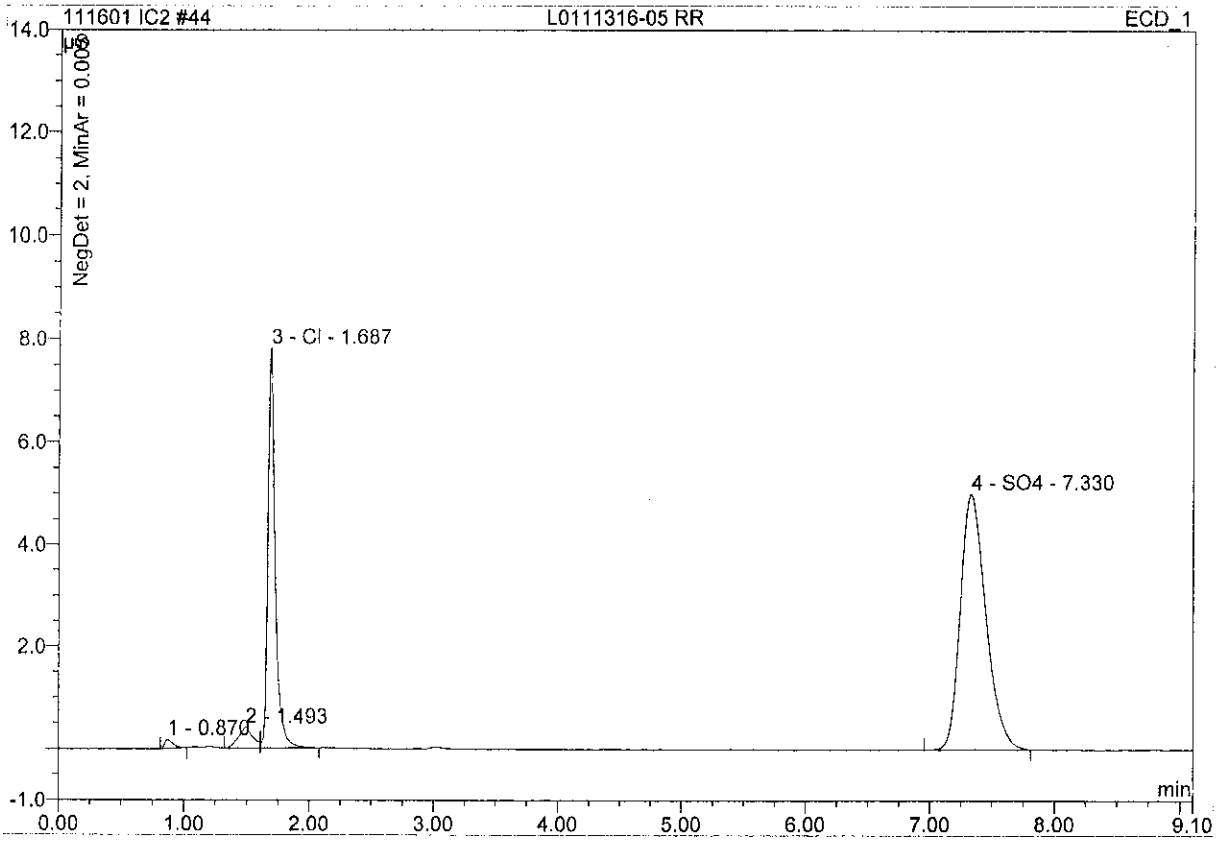


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.625	0.055	0.68	n.a.	BM
2	1.07	F	11.862	0.890	10.88	6.190	M
3	1.48	n.a.	0.370	0.054	0.66	n.a.	M
4	1.70	Cl	14.224	0.923	11.29	9.343	MB
5	2.03	NO2-N	9.932	0.784	9.59	3.758	BMB
6	3.05	Br	2.555	0.255	3.11	6.364	BM
7	3.45	NO3-N	7.901	1.006	12.30	4.187	MB
8	5.77	PO4-P	2.541	0.703	8.60	9.928	BMB
9	7.53	SO4	14.257	3.507	42.89	47.704	BMB
Total:			64.266	8.177	100.00	87.475	

44 L0111316-05 RR

1,1 GSG

Sample Name:	**L0111316-05 RR**	*Injection Volume:*	**25.0**
Vial Number:	**23**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 22:49**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

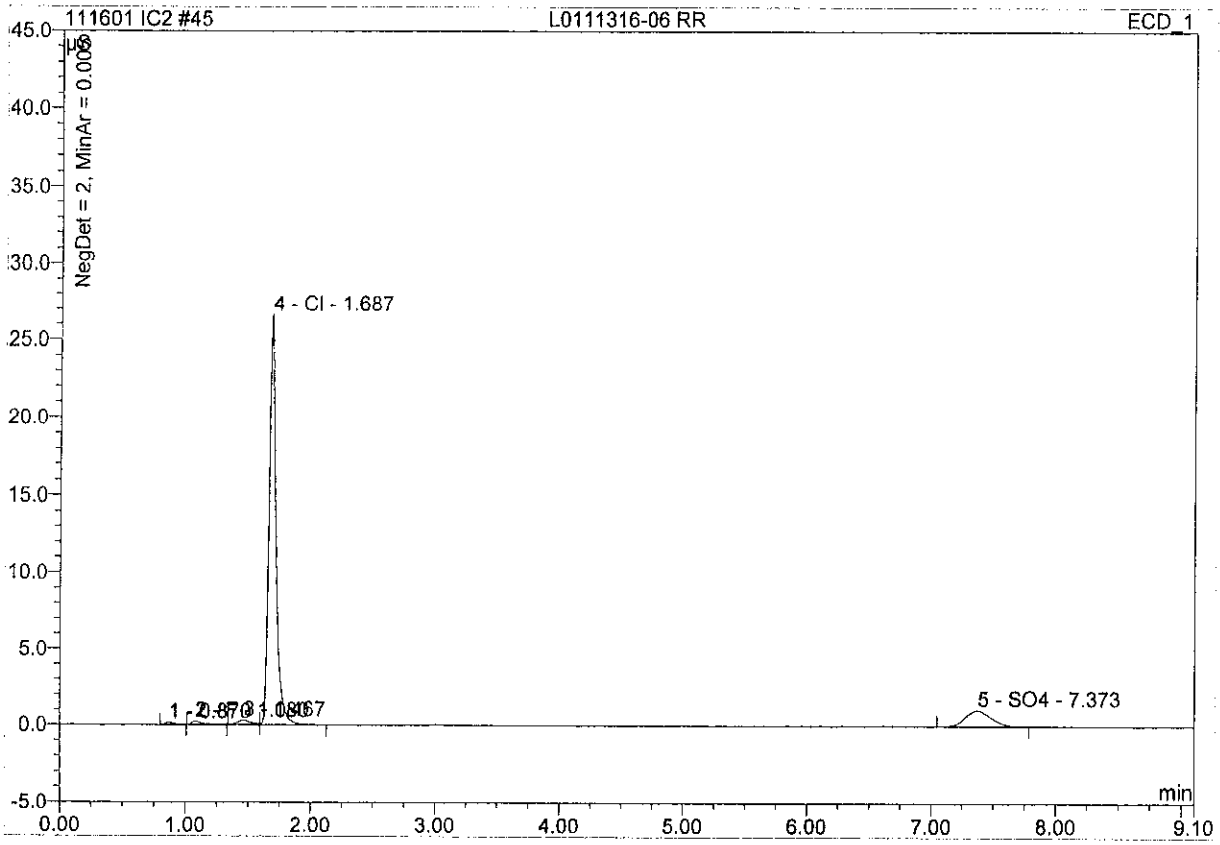


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.173	0.013	0.74	n.a.	BMB
2	1.49	n.a.	0.388	0.052	2.95	n.a.	BM
3	1.69	Cl	7.802	0.525	29.52	5.338	MB
4	7.33	SO4	4.992	1.187	66.78	16.170	BMB
Total:			13.354	1.778	100.00	21.508	

45 L0111316-06 RR

1,1 GSG

Sample Name:	**L0111316-06 RR**	*Injection Volume:*	**25.0**
Vial Number:	**23**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 23:01**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

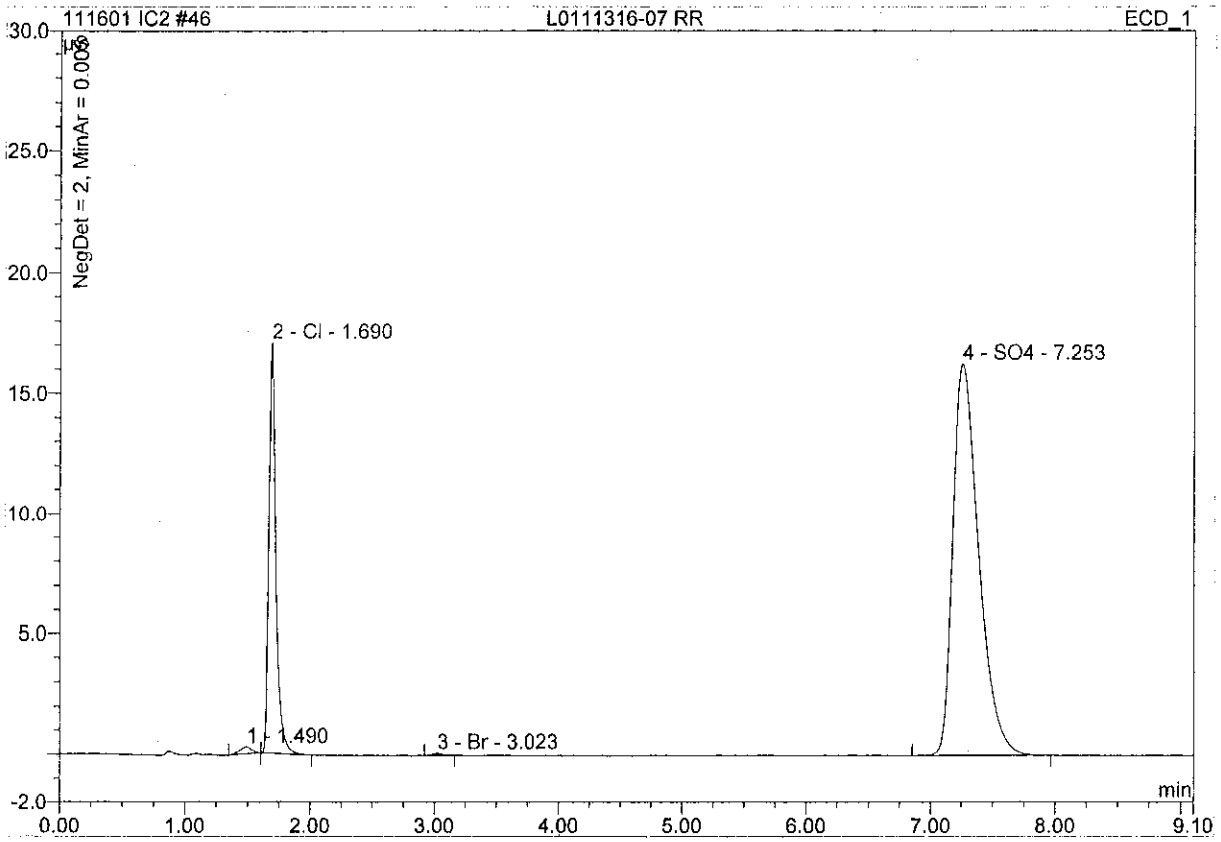


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.151	0.012	0.57	n.a.	BMB
2	1.08	F	0.215	0.020	0.98	0.240	BMB
3	1.47	n.a.	0.288	0.035	1.70	n.a.	BM
4	1.69	Cl	26.611	1.736	84.67	17.521	MB
5	7.37	SO4	1.028	0.248	12.08	3.886	BMB
Total:			28.293	2.050	100.00	21.647	

46 L0111316-07 RR

1,1 GSG

Sample Name:	**L0111316-07 RR**	*Injection Volume:*	**25.0**
Vial Number:	**24**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 23:12**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

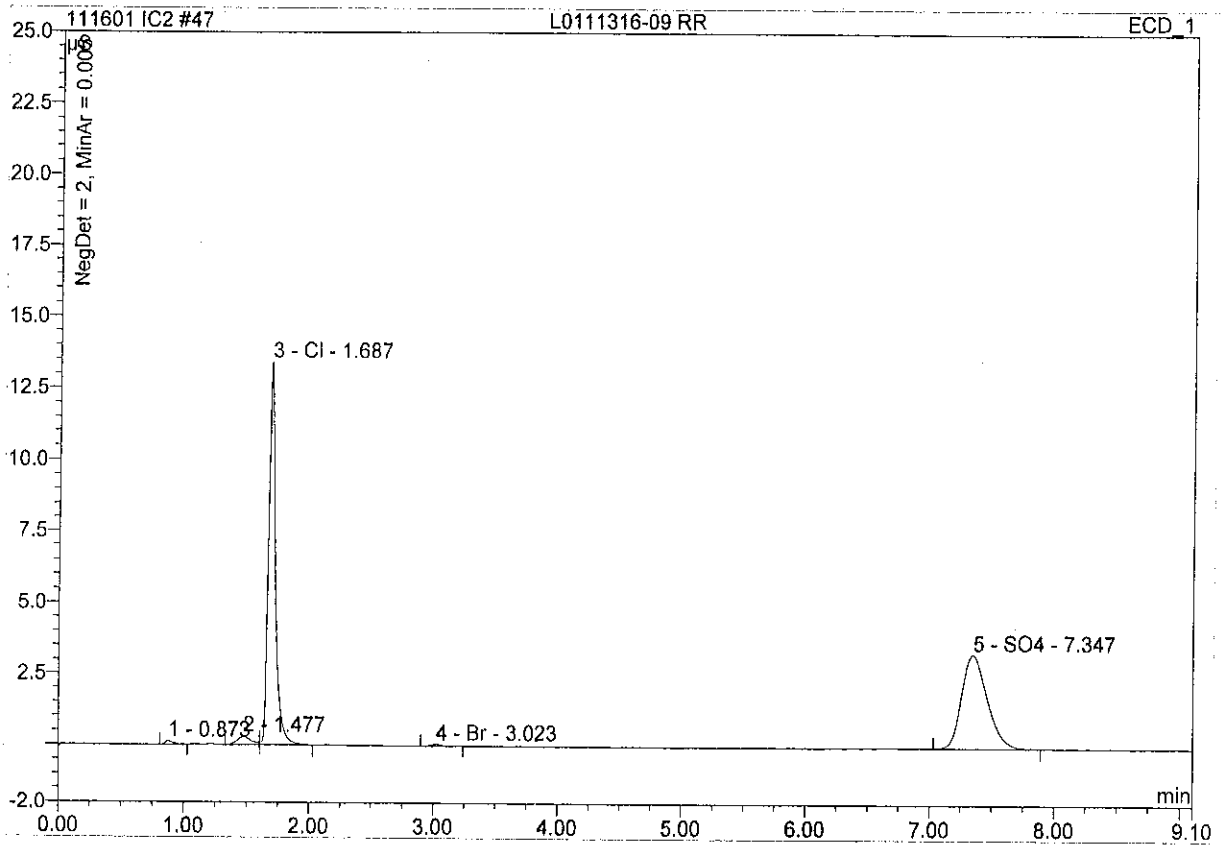


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.49	n.a.	0.288	0.032	0.62	n.a.	BMB
2	1.69	Cl	17.052	1.113	21.81	11.251	BMB
3	3.02	Br	0.090	0.009	0.18	0.213	BMB
4	7.25	SO4	16.271	3.949	77.40	52.258	BMB
Total:			33.702	5.102	100.00	63.722	

47 L0111316-09 RR

1,1 GSG

Sample Name:	**L0111316-09 RR**	*Injection Volume:*	**25.0**
Vial Number:	**25**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 23:24**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

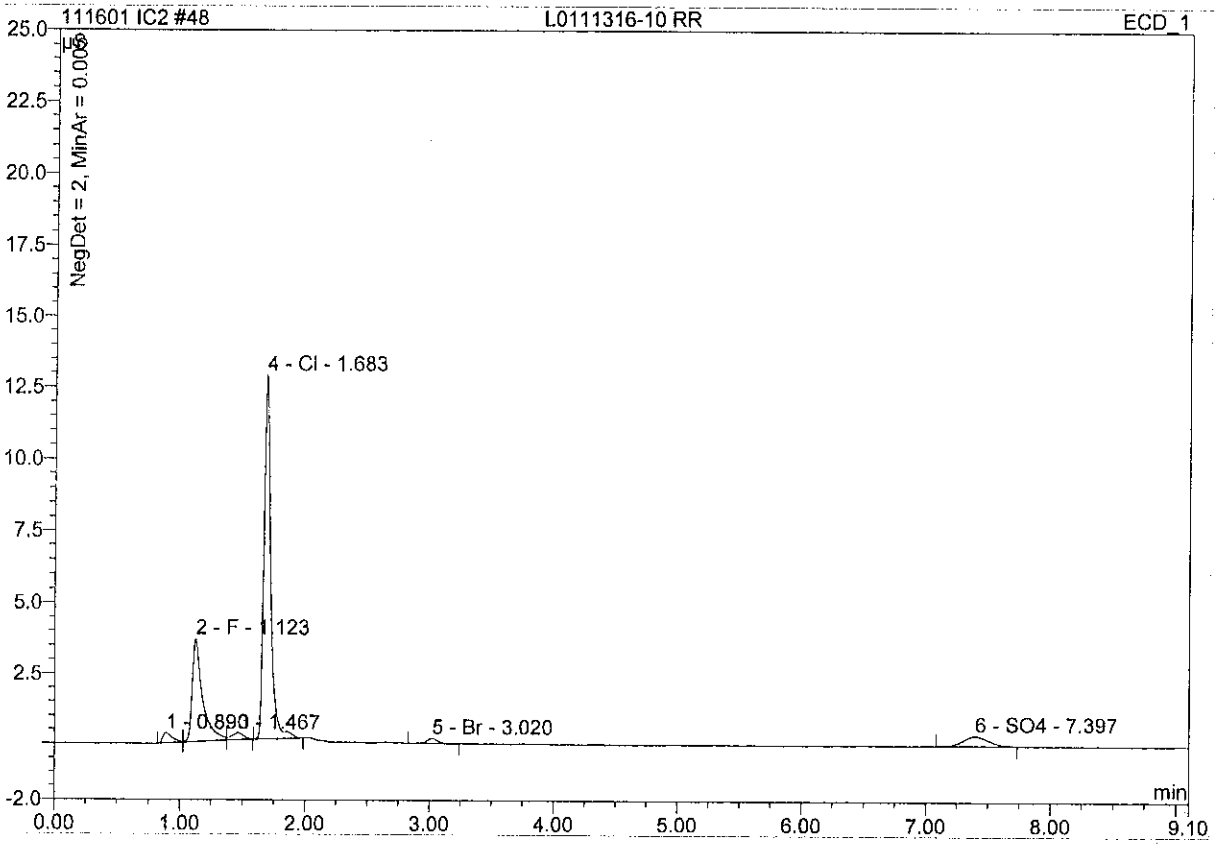


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.130	0.009	0.55	n.a.	BMB
2	1.48	n.a.	0.303	0.036	2.12	n.a.	BM
3	1.69	Cl	13.397	0.877	50.98	8.877	MB
4	3.02	Br	0.066	0.007	0.44	0.175	BMB
5	7.35	SO4	3.295	0.790	45.92	10.971	BMB
Total:			17.191	1.720	100.00	20.023	

48 L0111316-10 RR

1,1 GSG

Sample Name:	**L0111316-10 RR**	*Injection Volume:*	**25.0**
Vial Number:	**26**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 23:35**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

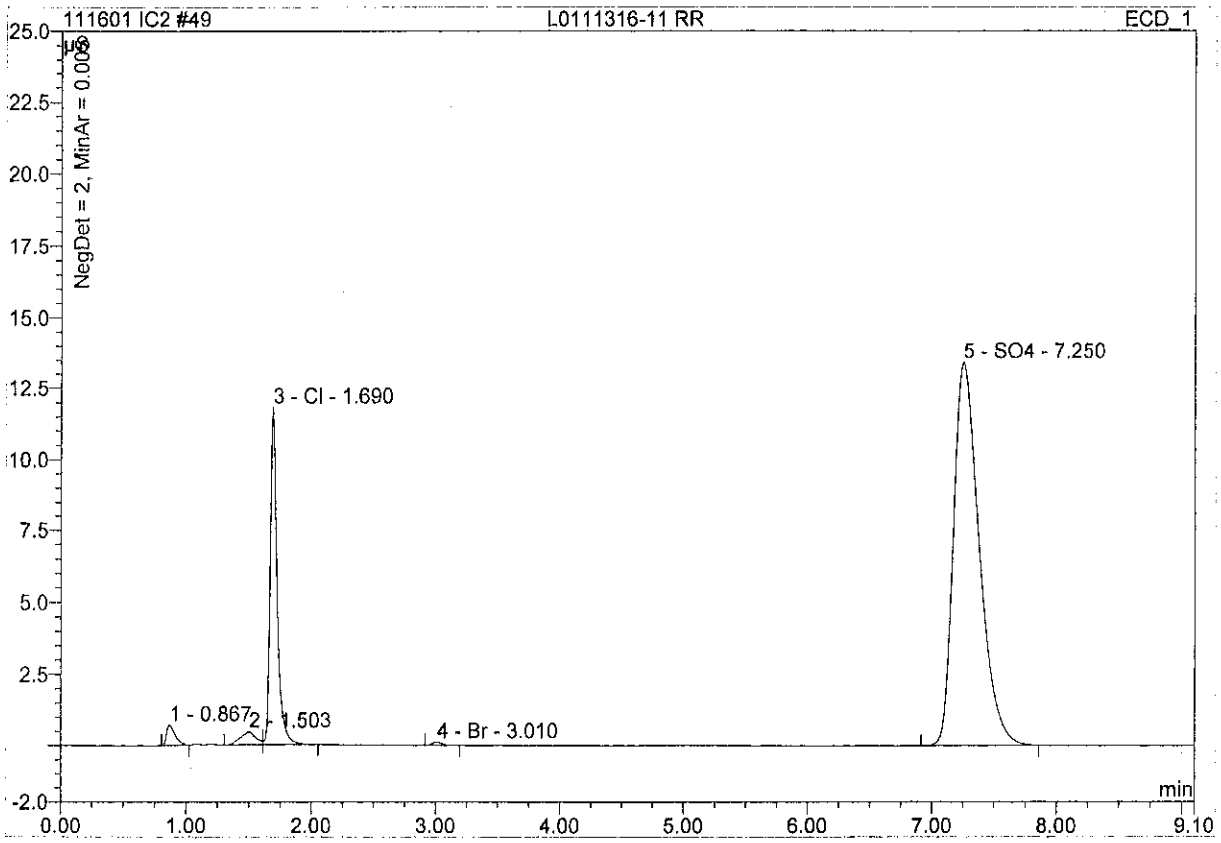


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.345	0.030	2.29	n.a.	BM
2	1.12	F	3.658	0.347	26.15	2.501	M
3	1.47	n.a.	0.237	0.026	1.93	n.a.	MB
4	1.68	Cl	12.753	0.824	62.04	8.349	BMB
5	3.02	Br	0.165	0.018	1.33	0.430	BMB
6	7.40	SO4	0.345	0.083	6.26	1.738	BMB
Total:			17.503	1.329	100.00	13.017	

49 L0111316-11 RR

1,1 GSG

Sample Name:	**L0111316-11 RR**	*Injection Volume:*	**25.0**
Vial Number:	**27**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 23:47**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

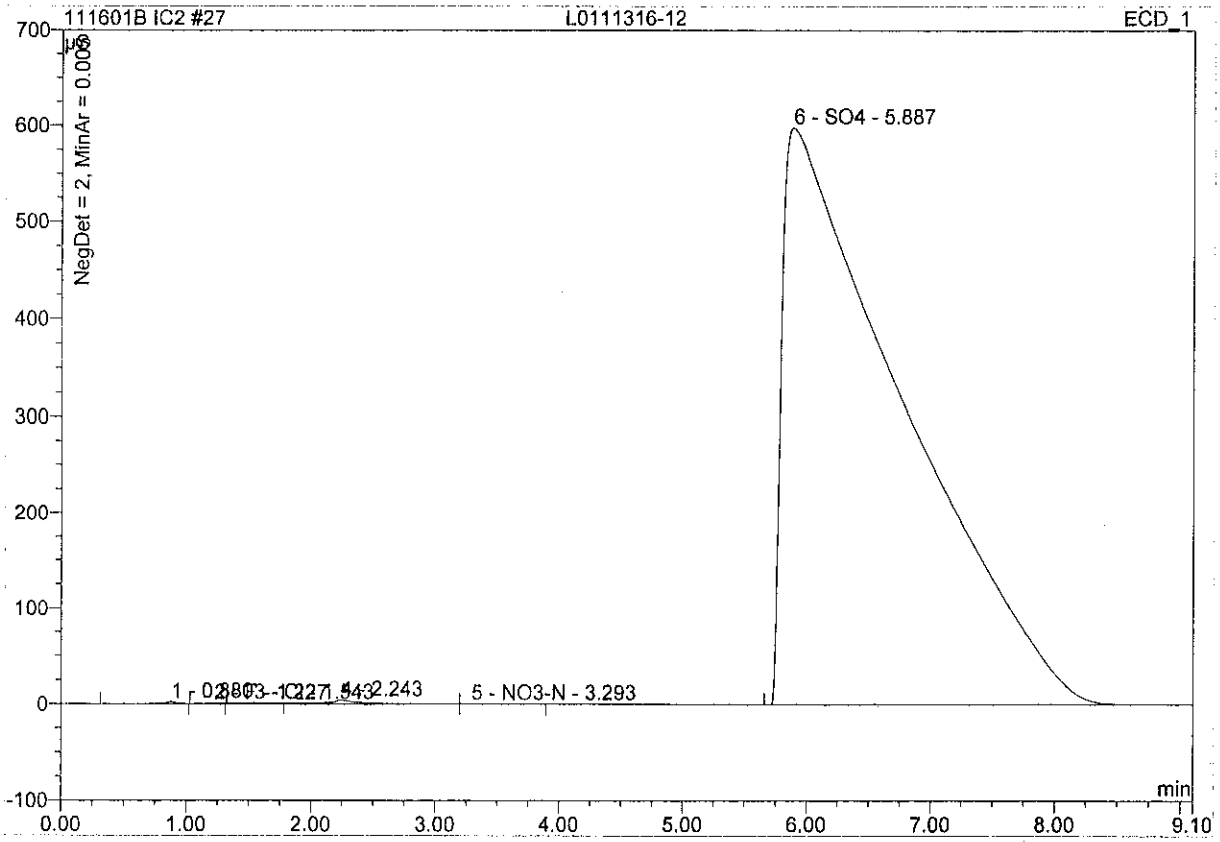


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.718	0.059	1.43	n.a.	BMB
2	1.50	n.a.	0.465	0.067	1.62	n.a.	BM
3	1.69	Cl	11.802	0.759	18.44	7.697	MB
4	3.01	Br	0.111	0.010	0.25	0.250	BMB
5	7.25	SO4	13.422	3.224	78.26	42.789	BMB
Total:			26.517	4.120	100.00	50.736	

27 L0111316-12

1,1 GSG

Sample Name:	**L0111316-12**	*Injection Volume:*	**25.0**
Vial Number:	**28**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 16:41**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

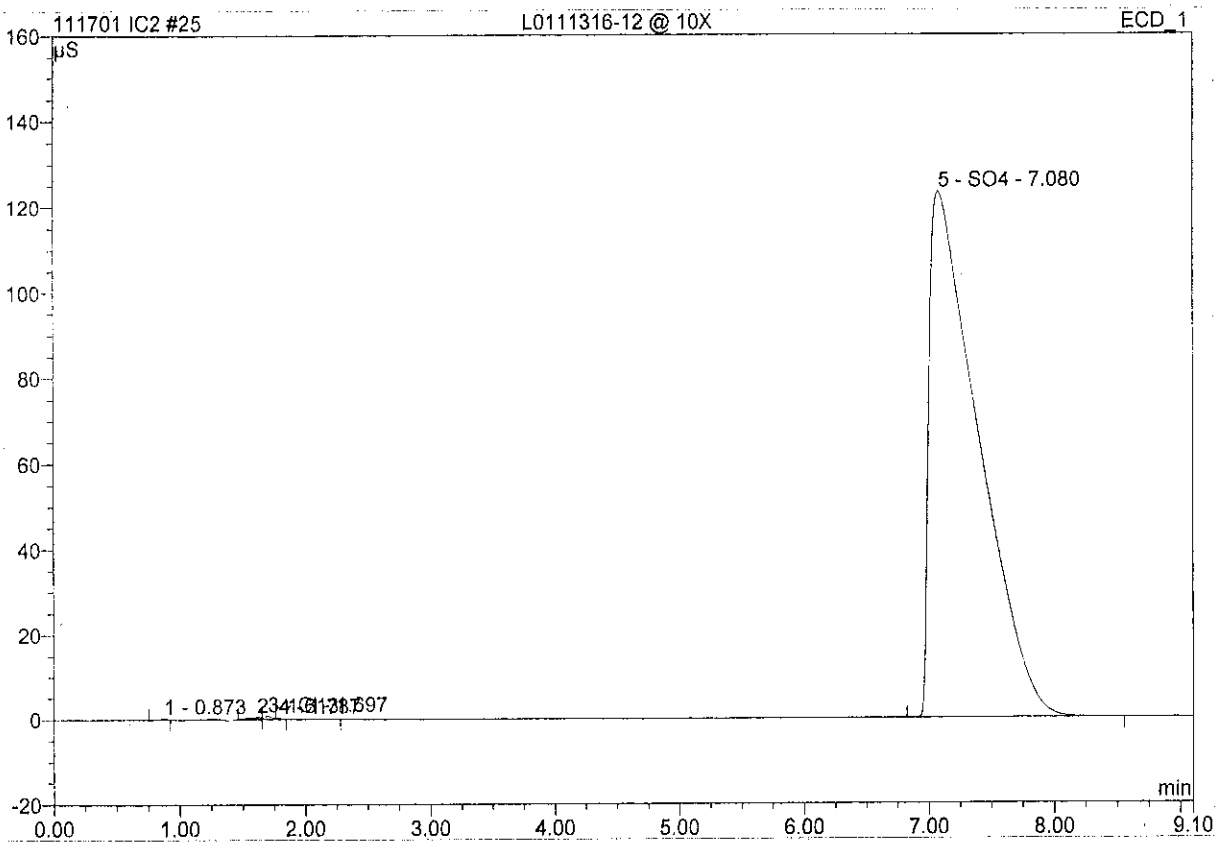


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	2.219	0.237	0.04	n.a.	BMB
2	1.23	F	0.283	0.043	0.01	0.393	Ru
3	1.54	Cl	0.459	0.109	0.02	1.133	Ru
4	2.24	n.a.	4.178	1.922	0.29	n.a.	BM
5	3.29	NO3-N	0.177	0.053	0.01	0.284	MB
6	5.89	SO4	597.764	669.746	99.65	#########	BMB
Total:			605.081	672.109	100.00	#########	

25 L0111316-12 @ 10X

1,10 GSG

Sample Name:	**L0111316-12 @ 10X**	*Injection Volume:*	**25.0**
Vial Number:	**26**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/18/2001 2:40**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

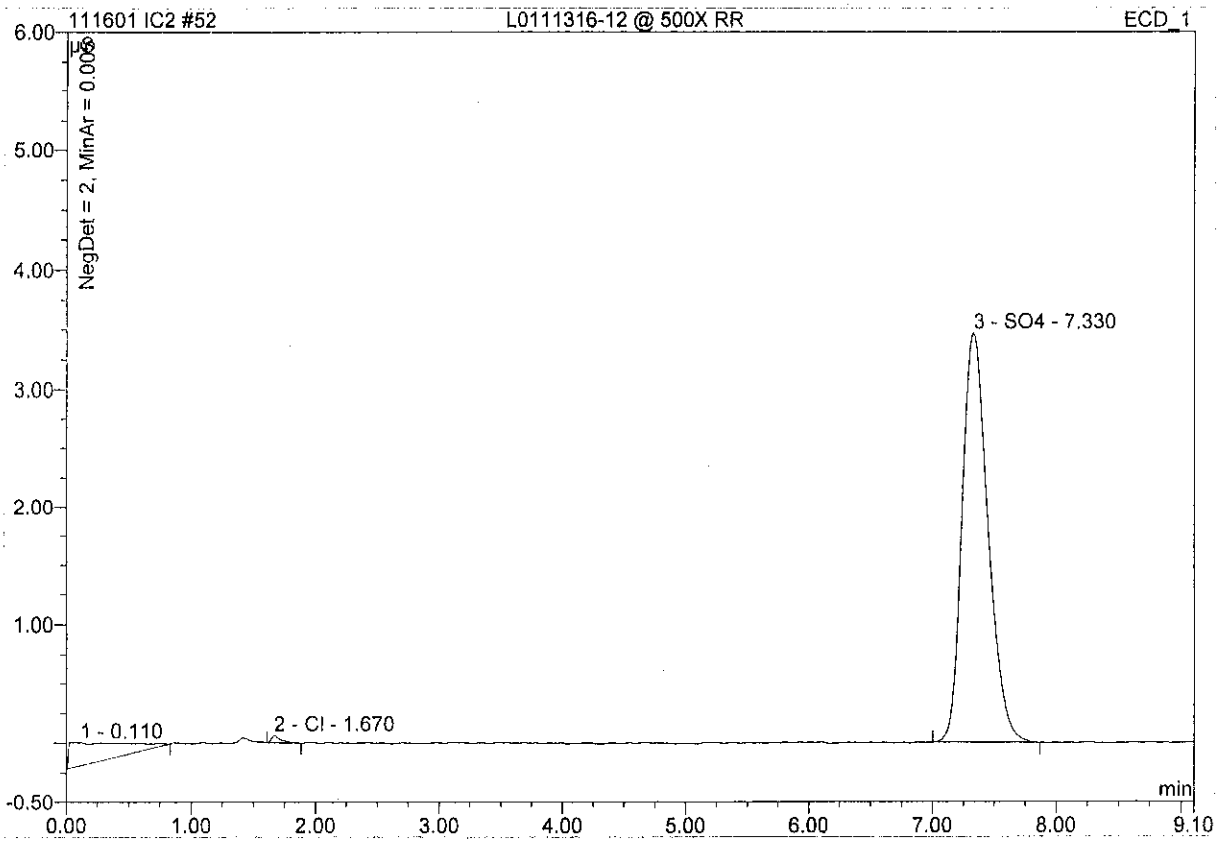


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.319	0.017	0.03	n.a.	BM
2	1.61	n.a.	0.482	0.057	0.10	n.a.	BM
3	1.70	Cl	0.703	0.087	0.15	1.054	MB
4	1.79	n.a.	0.095	0.004	0.01	n.a.	Rd
5	7.08	SO4	123.309	56.114	99.71	794.542	BMB
Total:			124.909	56.278	100.00	795.596	

52 L0111316-12 @ 500X RR

1,500 GSG

Sample Name:	**L0111316-12 @ 500X RR**	*Injection Volume:*	**25.0**
Vial Number:	**31**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/17/2001 0:21**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

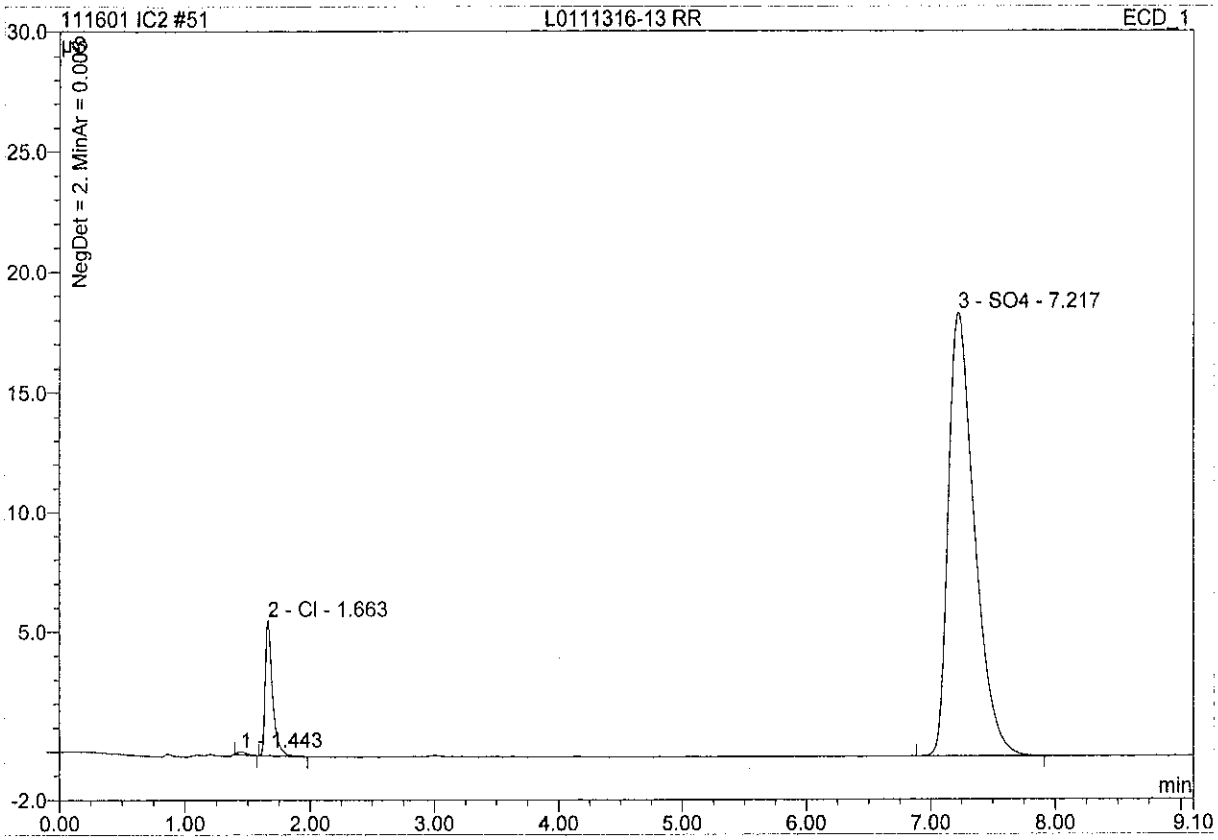


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.11	n.a.	0.189	0.086	9.20	n.a.	BMB
2	1.67	Cl	0.063	0.006	0.60	0.113	BMB
3	7.33	SO4	3.468	0.841	90.20	11.645	BMB
Total:			3.720	0.933	100.00	11.758	

51 L0111316-13 RR

1,1 GSG

Sample Name:	**L0111316-13 RR**	*Injection Volume:*	**25.0**
Vial Number:	**29**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/17/2001 0:10**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

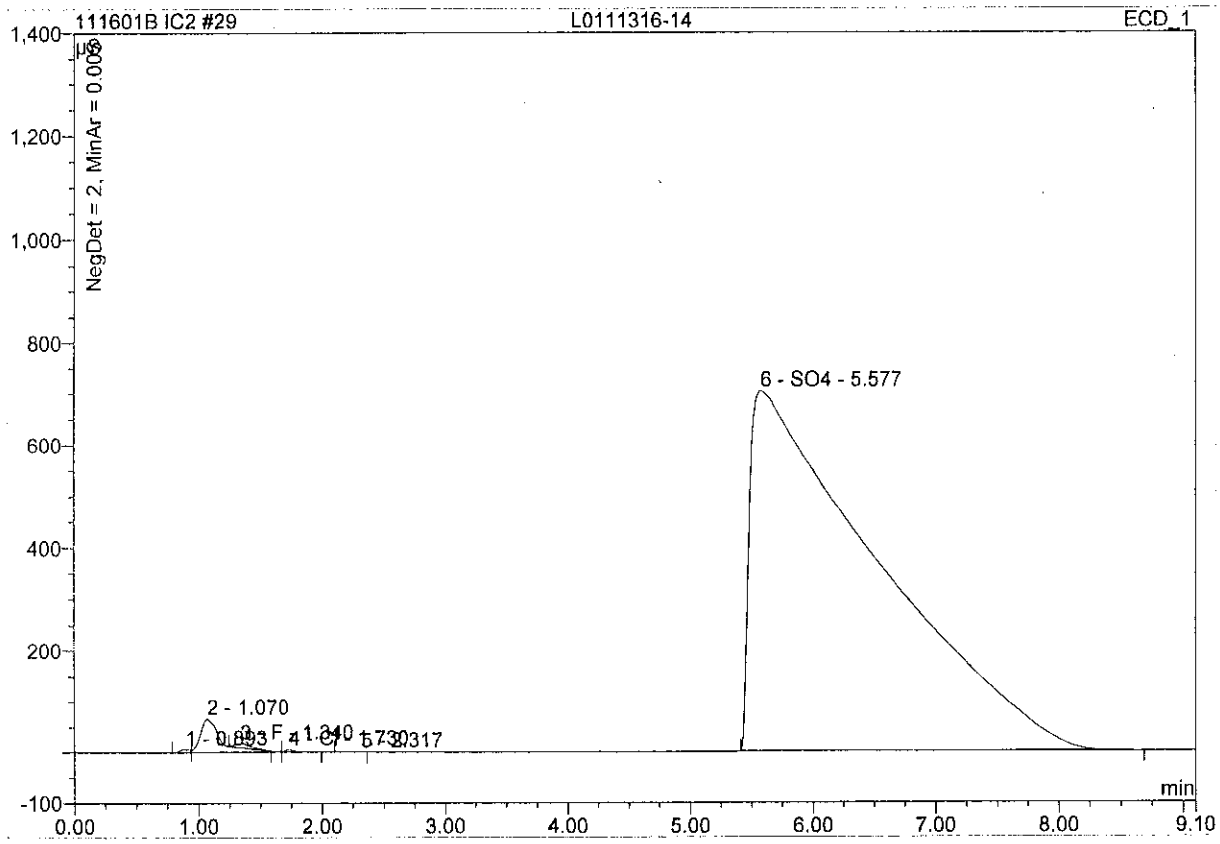


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.44	n.a.	0.125	0.009	0.19	n.a.	BMB
2	1.66	Cl	5.627	0.381	7.74	3.886	BMB
3	7.22	SO4	18.490	4.526	92.07	59.803	BMB
Total:			24.242	4.916	100.00	63.689	

29 L0111316-14

1,1 GSG

Sample Name:	**L0111316-14**	*Injection Volume:*	**25.0**
Vial Number:	**30**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 17:04**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

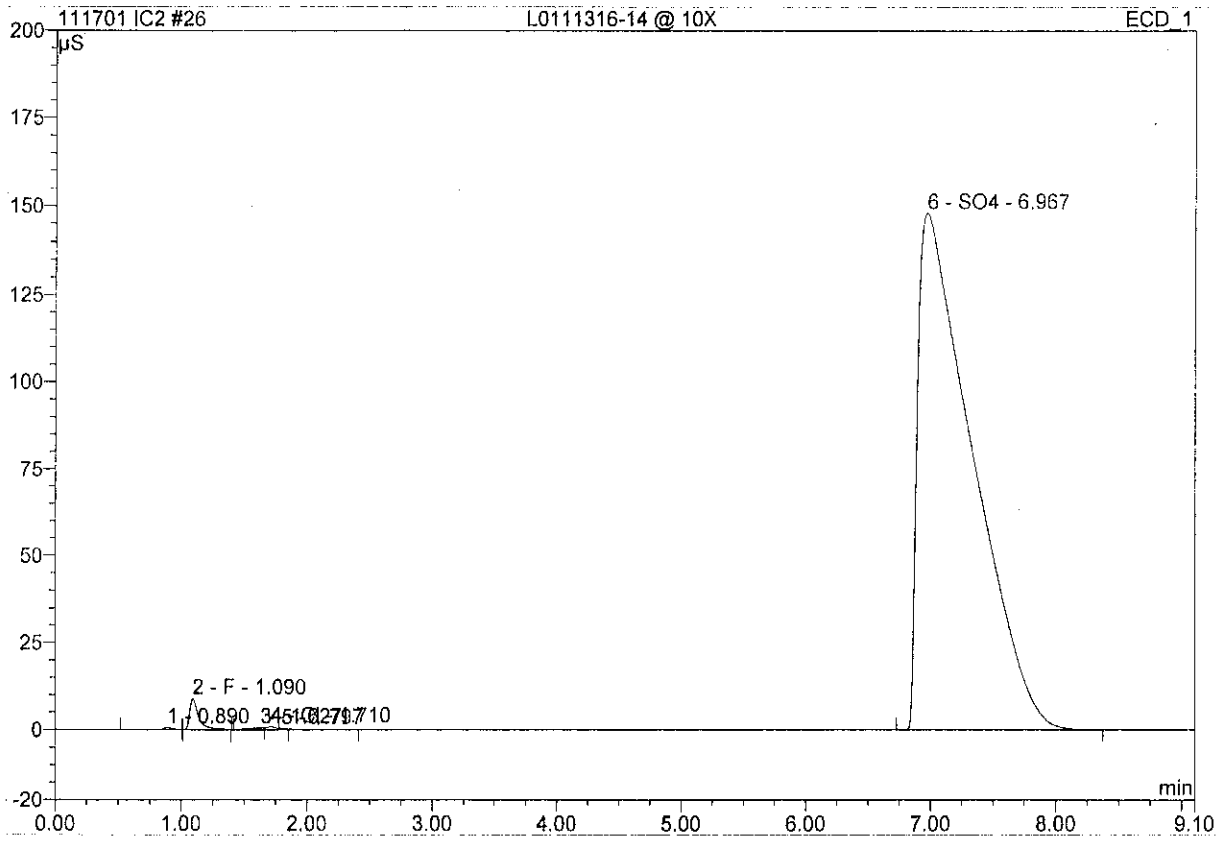


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	5.875	0.535	0.06	n.a.	BM
2	1.07	n.a.	66.485	13.059	1.52	n.a.	M
3	1.34	F	8.572	1.305	0.15	9.030	Rd
4	1.73	Cl	5.333	0.397	0.05	4.036	MB
5	2.32	n.a.	0.166	0.020	0.00	n.a.	BMB
6	5.58	SO4	702.077	844.079	98.22	#########	BMB
Total:			788.510	859.395	100.00	#########	

26 L0111316-14 @ 10X

1,10 GSG

Sample Name:	**L0111316-14 @ 10X**	*Injection Volume:*	**25.0**
Vial Number:	**27**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/18/2001 2:52**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

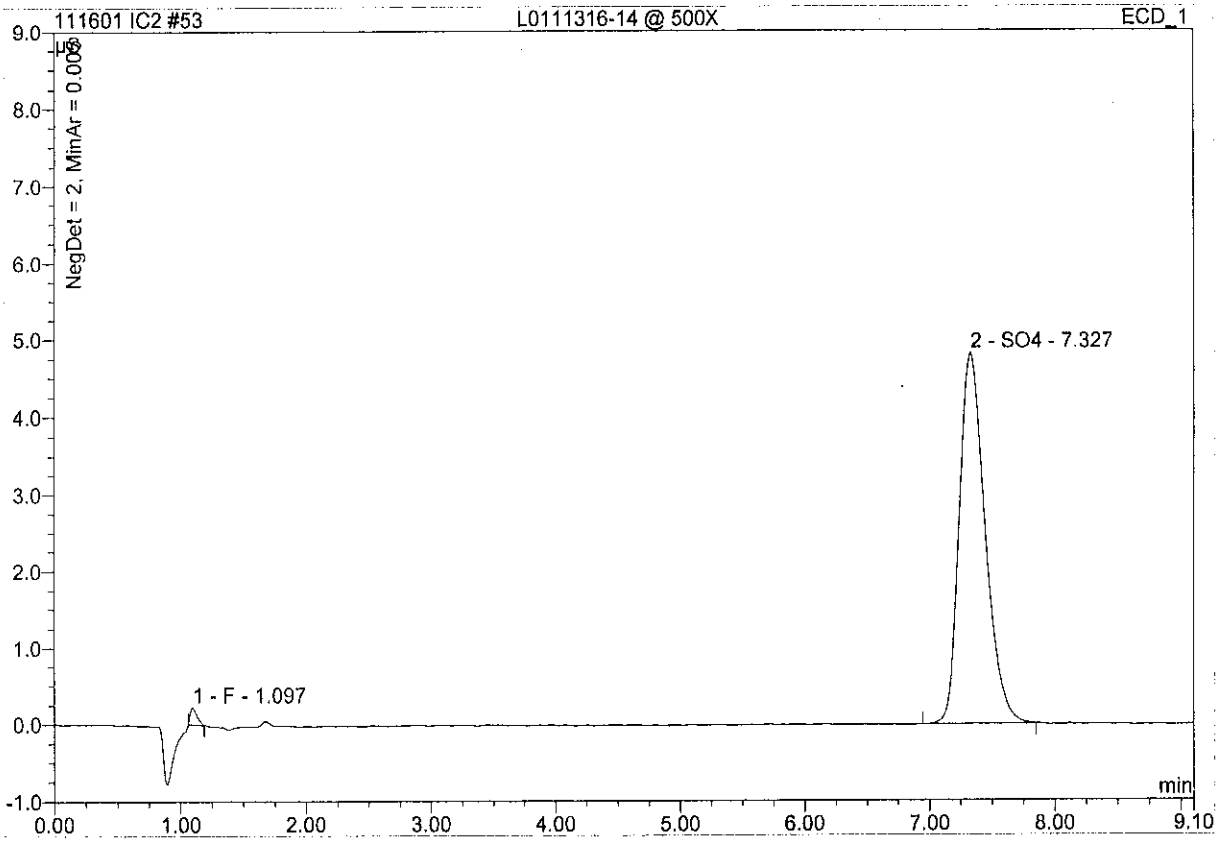


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.685	0.066	0.09	n.a.	BM
2	1.09	F	9.028	0.775	1.02	5.744	MB
3	1.63	n.a.	0.151	0.023	0.03	n.a.	Ru
4	1.71	Cl	0.913	0.226	0.30	2.570	BMB
5	1.80	n.a.	0.062	0.003	0.00	n.a.	Rd
6	6.97	SO4	147.930	74.644	98.56	1056.685	BMB
Total:			158.770	75.737	100.00	1064.999	

53 L0111316-14 @ 500X

1,500 GSG

Sample Name:	**L0111316-14 @ 500X**	*Injection Volume:*	**25.0**
Vial Number:	**32**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/17/2001 0:33**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



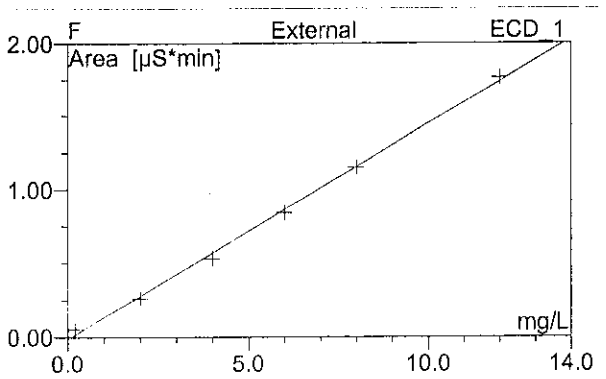
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.10	F	0.228	0.014	1.19	0.197	BM
2	7.33	SO4	4.818	1.154	98.81	15.739	BMB
Total:			5.046	1.168	100.00	15.936	

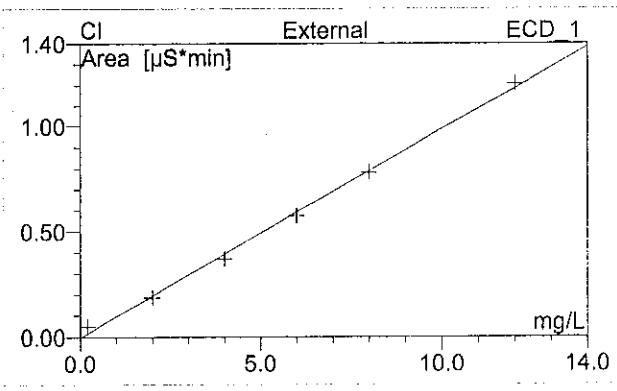
2.4.5.3 Standards Data

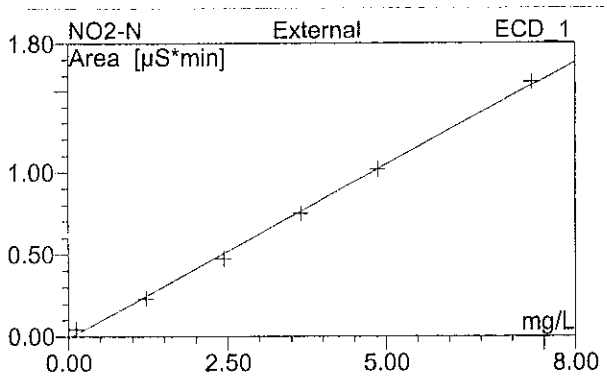
1 ANION LVL #1

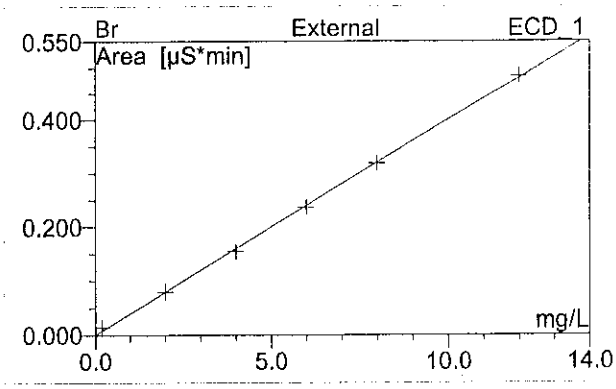
1,1 RDC ANION LVL #1 SOS0056-35

Sample Name:	**ANION LVL #1**	*Injection Volume:*	**25.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/15/2001 12:58**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**







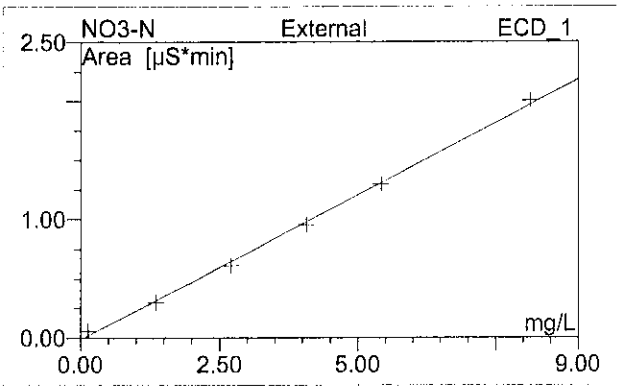


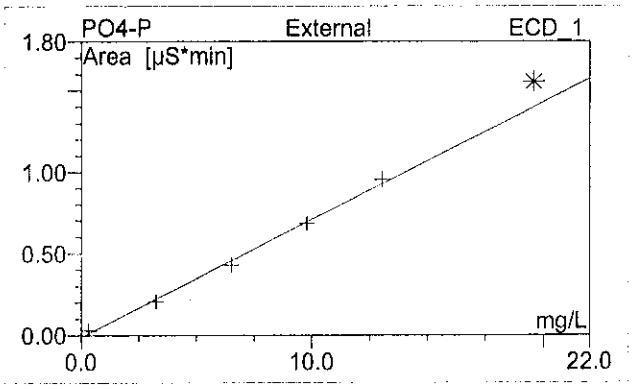
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.89	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.09	F	0LOff	6	99.8875	-0.0148	0.1461	0.0000
3	1.69	Cl	0LOff	6	99.8632	-0.0035	0.0991	0.0000
4	2.03	NO2-N	0LOff	6	99.9137	-0.0110	0.2116	0.0000
5	3.09	Br	0LOff	6	99.9671	0.0001	0.0400	0.0000
6	3.56	NO3-N	0LOff	6	99.9049	-0.0161	0.2441	0.0000
7	5.88	PO4-P	0LOff	5	99.8163	-0.0123	0.0721	0.0000
8	7.62	SO4	0LOff	6	99.8717	-0.0432	0.0744	0.0000
Average:					99.8892	-0.0144	0.1268	0.0000

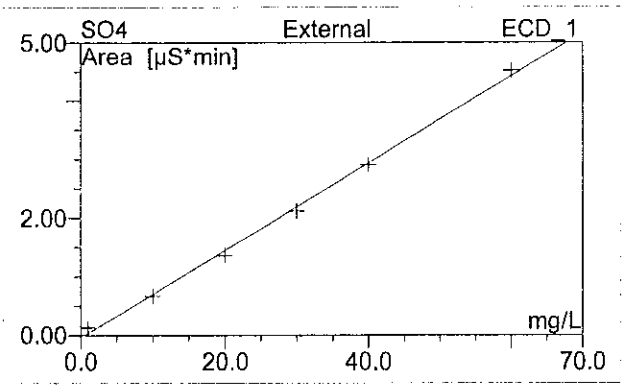
1 ANION LVL #1

1,1 RDC ANION LVL #1 SOS0056-35

Sample Name:	**ANION LVL #1**	*Injection Volume:*	**25.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/15/2001 12:58**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**





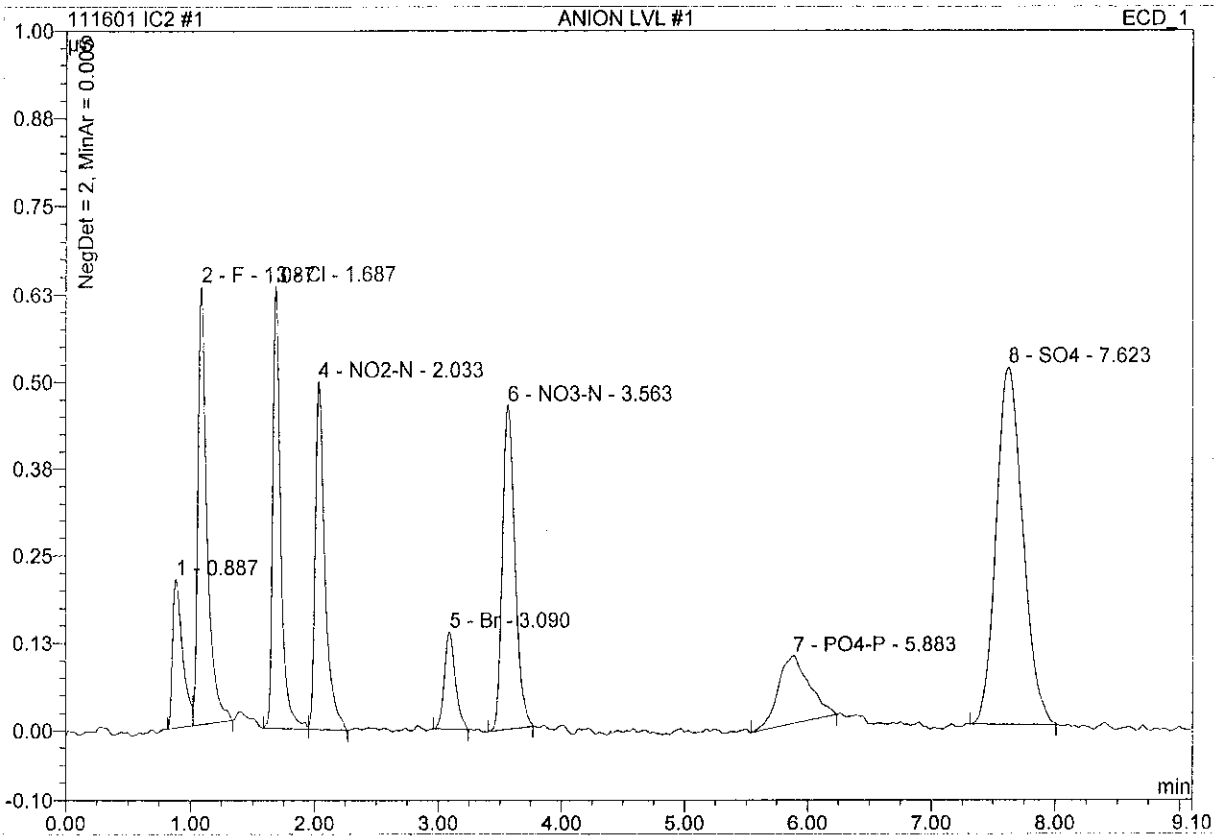


No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.89	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.09	F	0LOff	6	99.8875	-0.0148	0.1461	0.0000
3	1.69	Cl	0LOff	6	99.8632	-0.0035	0.0991	0.0000
4	2.03	NO2-N	0LOff	6	99.9137	-0.0110	0.2116	0.0000
5	3.09	Br	0LOff	6	99.9671	0.0001	0.0400	0.0000
6	3.56	NO3-N	0LOff	6	99.9049	-0.0161	0.2441	0.0000
7	5.88	PO4-P	0LOff	5	99.8163	-0.0123	0.0721	0.0000
8	7.62	SO4	0LOff	6	99.8717	-0.0432	0.0744	0.0000
Average:					99.8892	-0.0144	0.1268	0.0000

1 ANION LVL #1

1,1 RDC ANION LVL #1 SOS0056-35

Sample Name:	**ANION LVL #1**	*Injection Volume:*	**25.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/15/2001 12:58**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

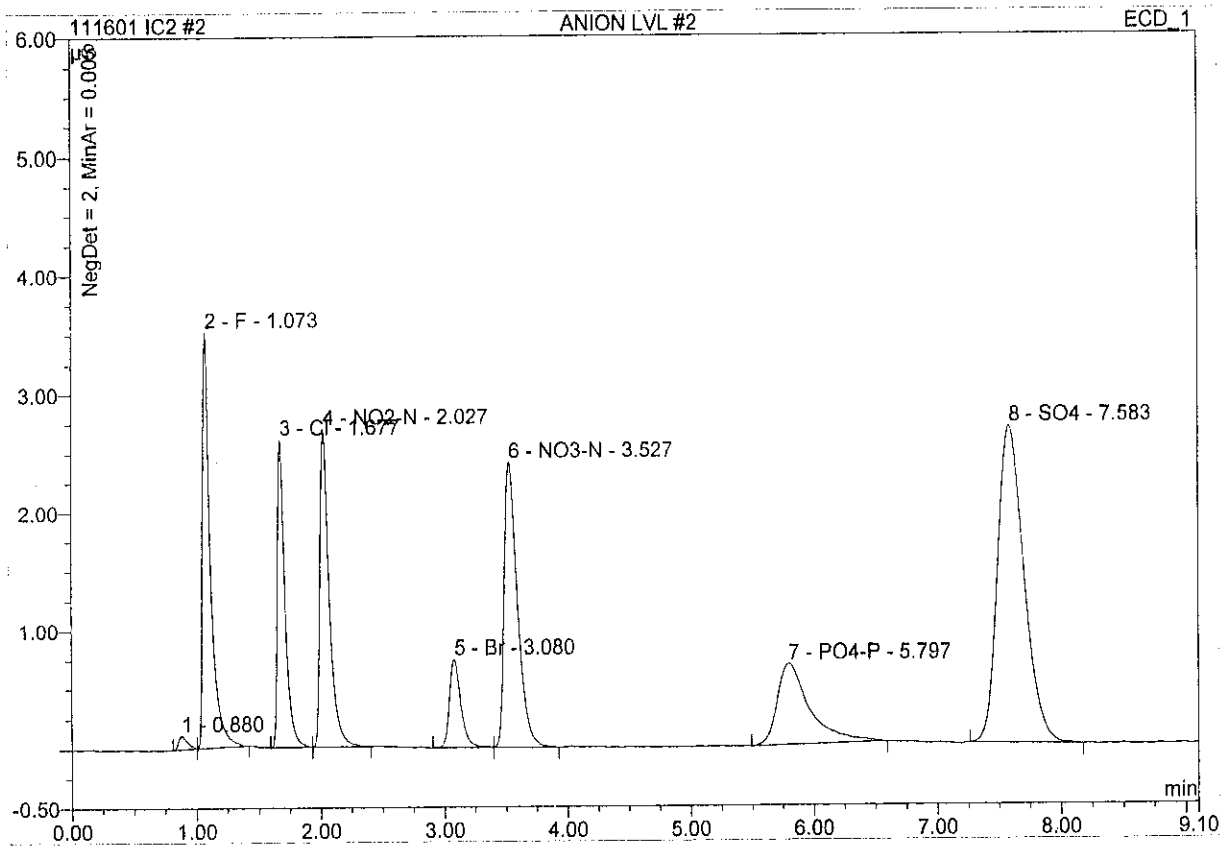


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.212	0.020	5.01	n.a.	BM
2	1.09	F	0.628	0.053	13.56	0.463	MB
3	1.69	Cl	0.634	0.047	12.18	0.514	BM
4	2.03	NO2-N	0.499	0.045	11.53	0.264	MB
5	3.09	Br	0.138	0.014	3.63	0.351	BMB
6	3.56	NO3-N	0.465	0.055	14.05	0.290	BMB
7	5.88	PO4-P	0.096	0.028	7.21	0.561	BMB
8	7.62	SO4	0.512	0.128	32.83	2.299	BMB
Total:			3.184	0.390	100.00	4.743	

2 ANION LVL #2

1,1 RDC ANION LVL #2 SOS0056-35

Sample Name:	**ANION LVL #2**	*Injection Volume:*	**25.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/15/2001 13:09**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

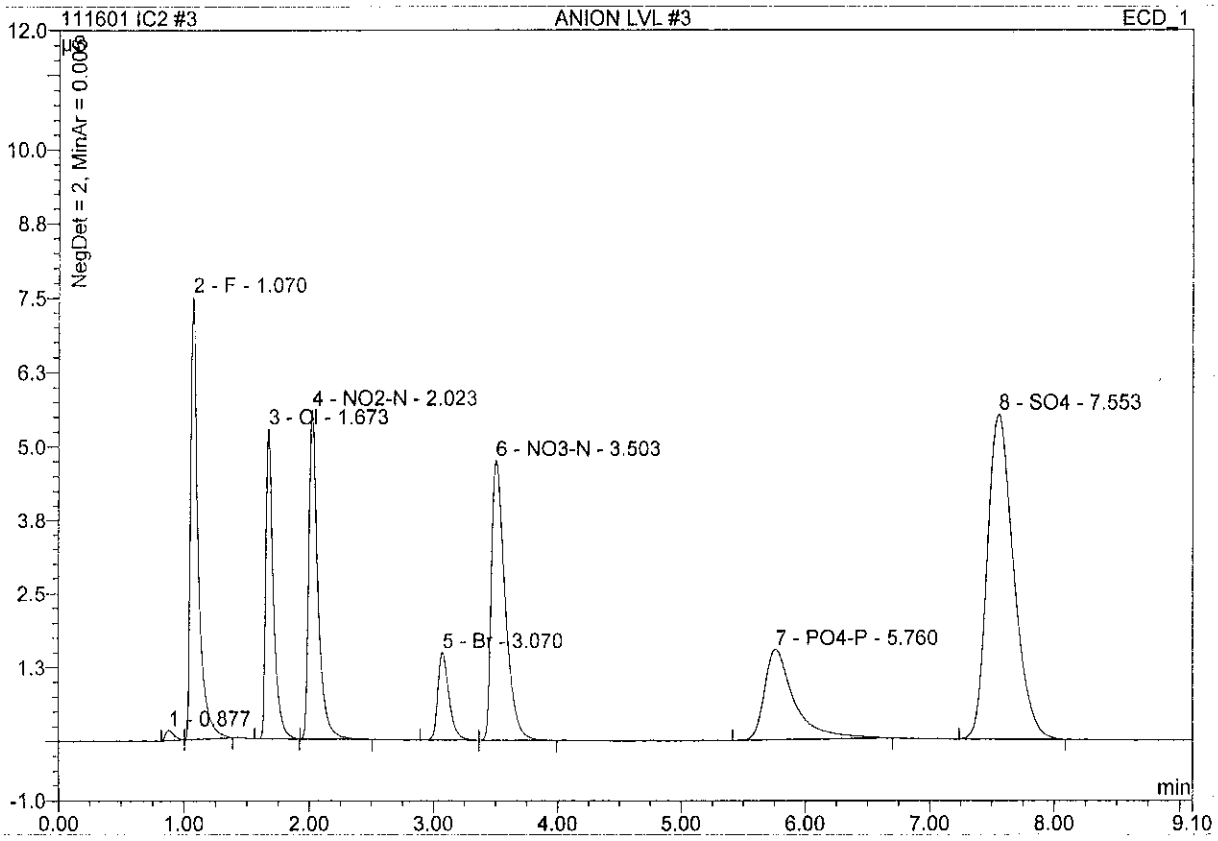


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.111	0.009	0.48	n.a.	BM
2	1.07	F	3.515	0.259	13.38	1.875	MB
3	1.68	Cl	2.607	0.186	9.60	1.912	BM
4	2.03	NO2-N	2.691	0.232	11.96	1.147	MB
5	3.08	Br	0.744	0.080	4.12	1.994	BM
6	3.53	NO3-N	2.418	0.300	15.49	1.295	MB
7	5.80	PO4-P	0.680	0.207	10.66	3.037	BMB
8	7.58	SO4	2.681	0.665	34.30	9.509	BMB
Total:			15.446	1.937	100.00	20.769	

3 ANION LVL #3

1,1 RDC ANION LVL #3 SOS0056-35

Sample Name:	**ANION LVL #3**	*Injection Volume:*	**25.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/15/2001 13:21**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

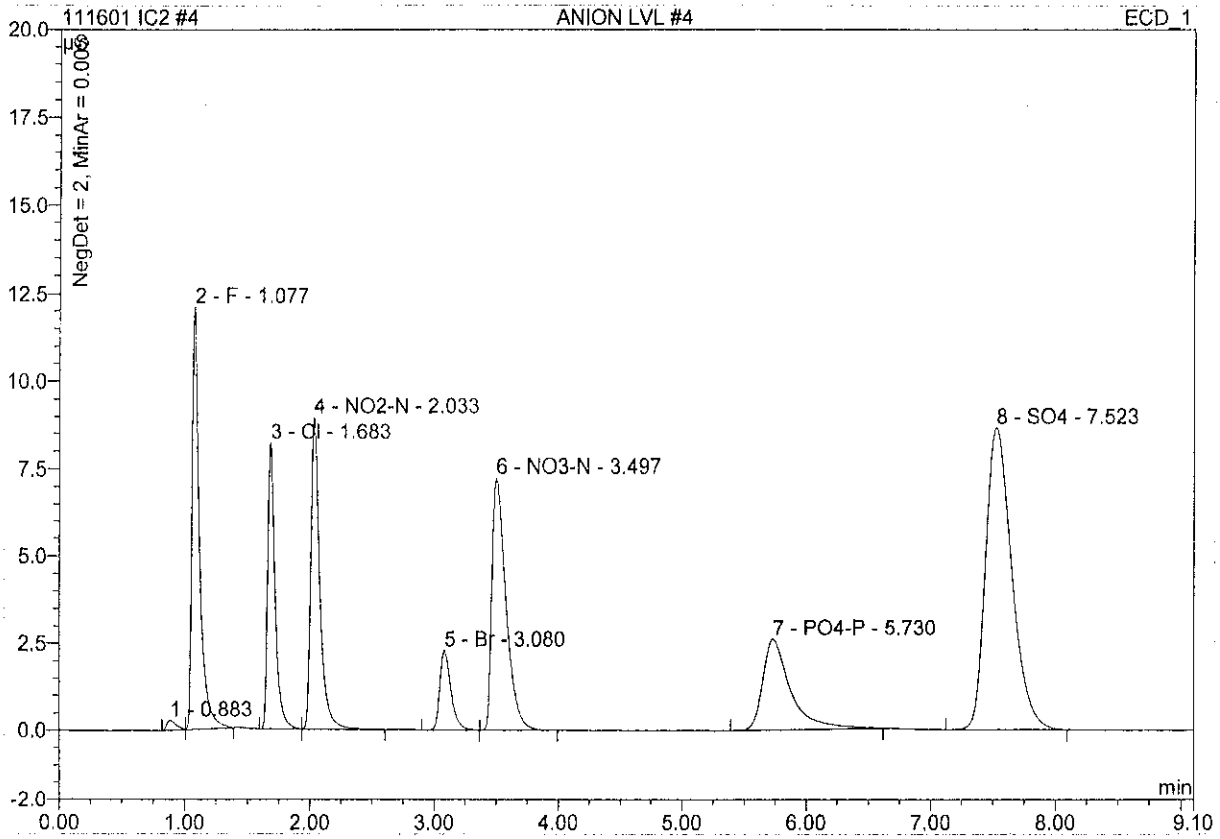


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.177	0.014	0.36	n.a.	BM
2	1.07	F	7.495	0.531	13.49	3.734	MB
3	1.67	Cl	5.266	0.371	9.42	3.776	BMB
4	2.02	NO2-N	5.585	0.474	12.04	2.291	BMB
5	3.07	Br	1.483	0.155	3.93	3.868	BM
6	3.50	NO3-N	4.755	0.608	15.46	2.558	MB
7	5.76	PO4-P	1.531	0.429	10.91	6.129	BMB
8	7.55	SO4	5.517	1.354	34.40	18.772	BMB
Total:			31.810	3.936	100.00	41.128	

4 ANION LVL #4

1,1 RDC ANION LVL #4 SOS0056-35

Sample Name:	**ANION LVL #4**	*Injection Volume:*	**25.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/15/2001 13:37**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

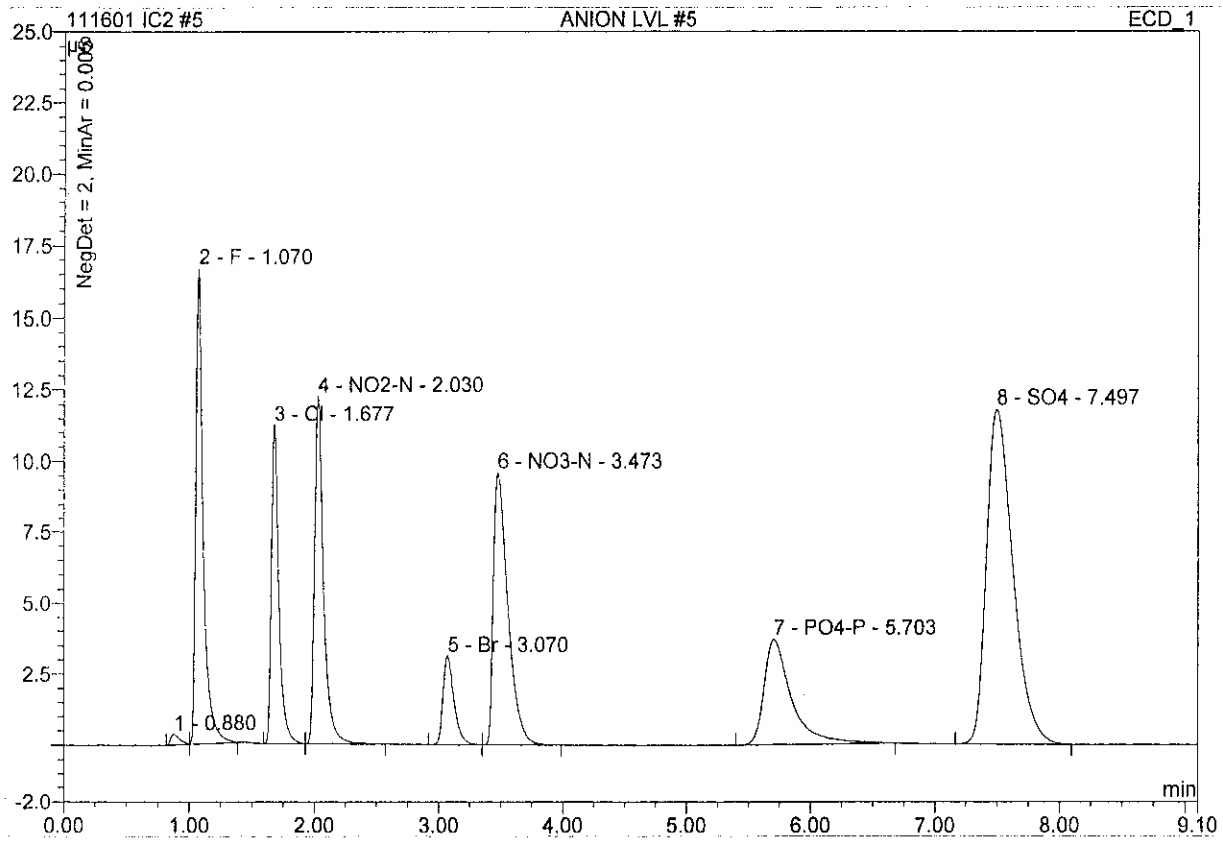


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.282	0.024	0.39	n.a.	BM
2	1.08	F	12.100	0.841	13.62	5.857	MB
3	1.68	Cl	8.206	0.573	9.27	5.811	BM
4	2.03	NO2-N	8.942	0.749	12.13	3.592	MB
5	3.08	Br	2.288	0.237	3.83	5.917	BMB
6	3.50	NO3-N	7.233	0.952	15.42	3.966	BMB
7	5.73	PO4-P	2.605	0.683	11.06	9.646	BMB
8	7.52	SO4	8.658	2.117	34.28	29.022	BMB
Total:			50.315	6.175	100.00	63.811	

5 ANION LVL #5

1,1 RDC ANION LVL #5 SOS0056-35

Sample Name:	**ANION LVL #5**	*Injection Volume:*	**25.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/15/2001 13:49**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

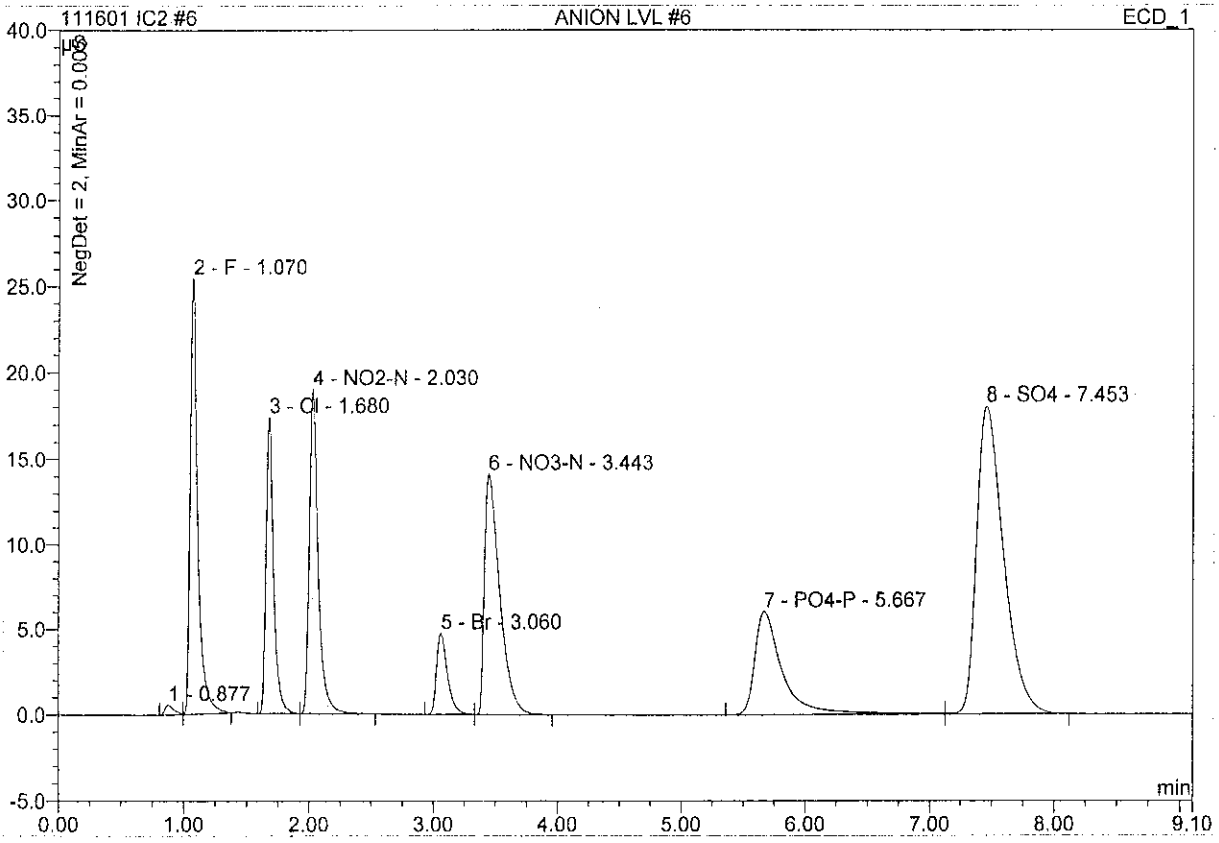


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.369	0.031	0.37	n.a.	BM
2	1.07	F	16.671	1.151	13.62	7.977	MB
3	1.68	Cl	11.219	0.782	9.25	7.921	BM
4	2.03	NO2-N	12.223	1.016	12.03	4.855	MB
5	3.07	Br	3.114	0.319	3.77	7.964	BMB
6	3.47	NO3-N	9.579	1.296	15.34	5.375	BMB
7	5.70	PO4-P	3.706	0.953	11.28	13.397	BMB
8	7.50	SO4	11.790	2.903	34.35	39.581	BMB
Total:			68.671	8.450	100.00	87.068	

6 ANION LVL #6

1,1 RDC ANION LVL #6 SOS0056-35

Sample Name:	**ANION LVL #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/15/2001 14:00**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

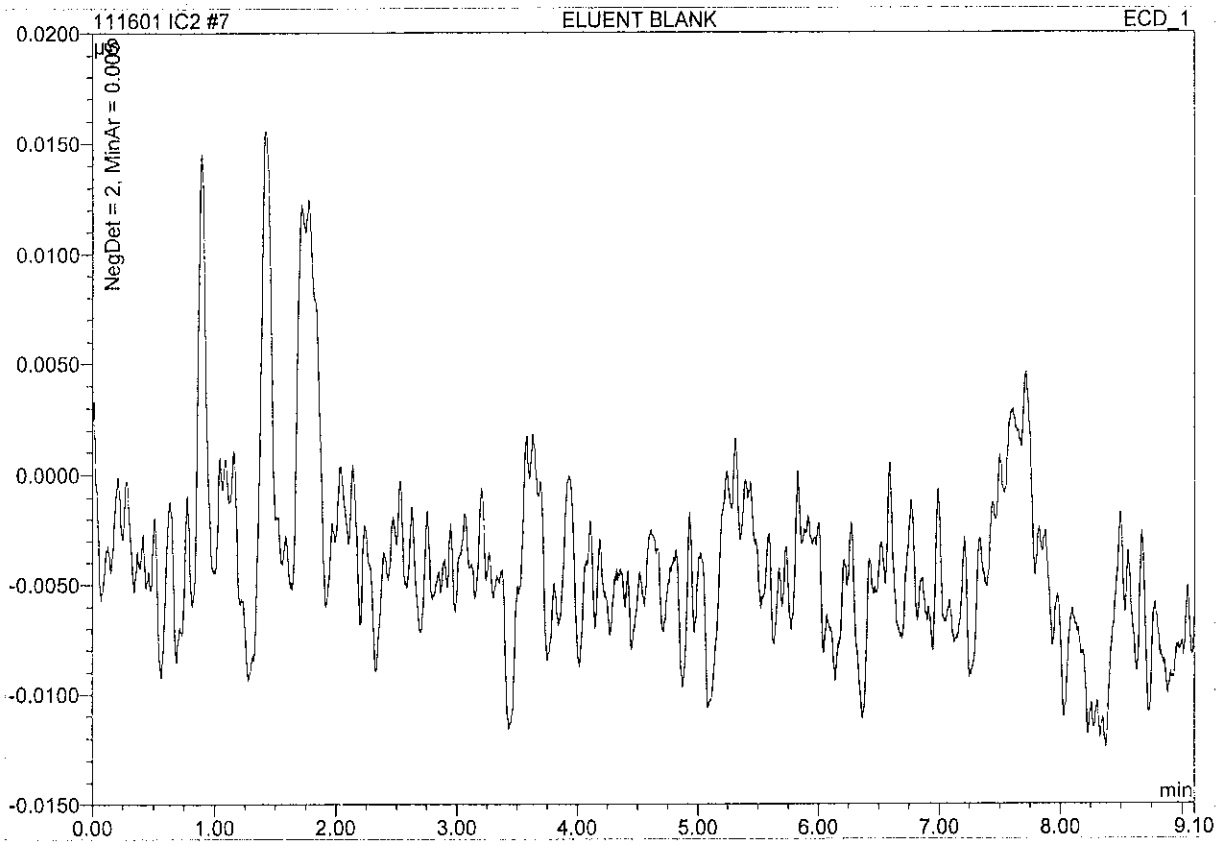


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.559	0.047	0.36	n.a.	BM
2	1.07	F	25.405	1.766	13.45	12.192	MB
3	1.68	Cl	17.356	1.209	9.20	12.231	BM
4	2.03	NO2-N	18.952	1.556	11.85	7.407	MB
5	3.06	Br	4.746	0.484	3.69	12.108	BM
6	3.44	NO3-N	14.100	2.003	15.25	8.272	MB
7	5.67	PO4-P	6.024	1.555	11.84	21.750	BM
8	7.45	SO4	18.014	4.515	34.37	61.238	MB
Total:			105.155	13.136	100.00	135.198	

7 ELUENT BLANK

1,1 RDC ELUENT BLANK

Sample Name:	**ELUENT BLANK**	*Injection Volume:*	**25.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/15/2001 14:12**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

8 ALT CCV SV53-30

1,1 RDC ANION ALT CCV SV0053-30

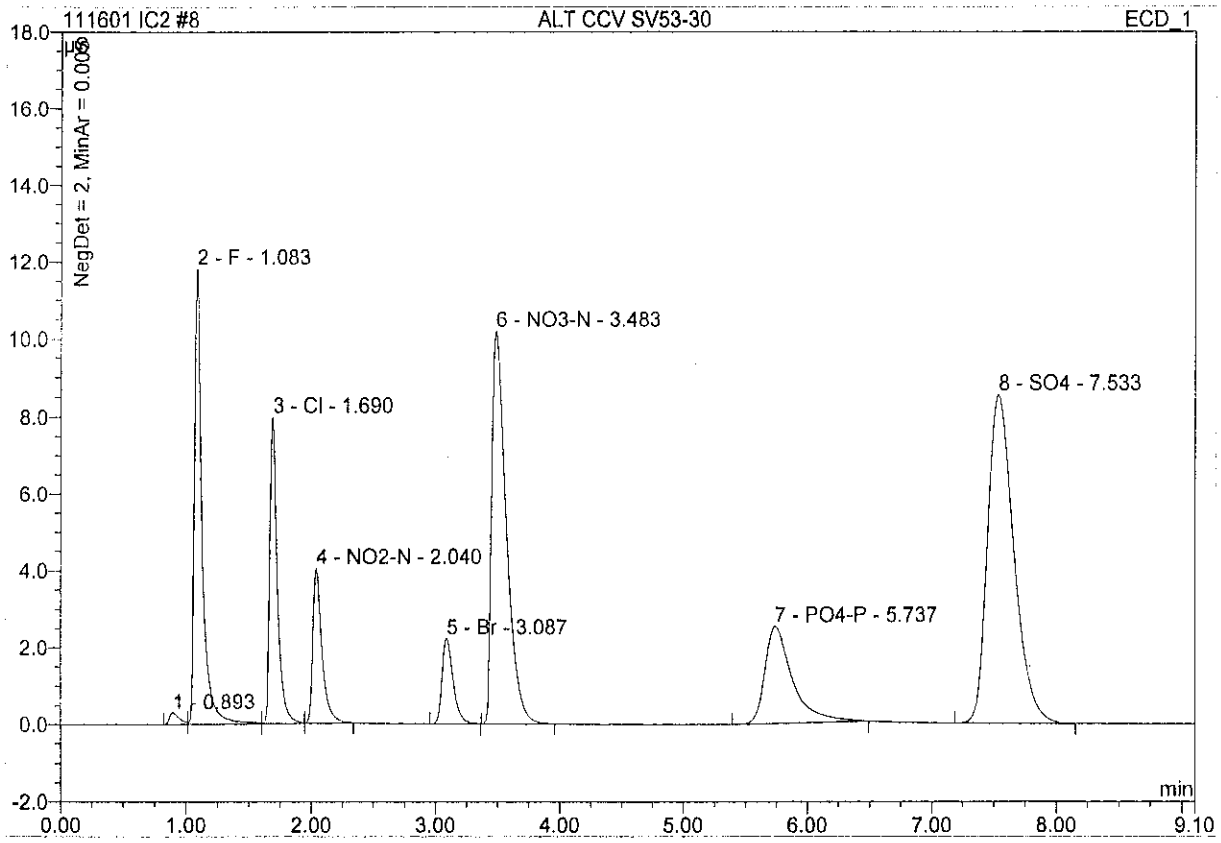
Sample Name:	**ALT CCV SV53-30**
Vial Number:	**8**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**11/15/2001 14:23**
Run Time (min):	**9.10**

ALT CCV SV53-30	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8962	-1.73	PASS
Cl	6	5.6919	-5.13	FAIL <10% only
NO2-N	3.65	NA	#VALUE!	#VALUE!
Br	6	5.7533	-4.11	PASS
NO3-N	4.07	NA	#VALUE!	#VALUE!
SO4	9.78	9.2549	-5.37	FAIL <10% only
SO4	30	28.7595	-4.14	PASS <10% only

8 ALT CCV SV53-30

1,1 RDC ANION ALT CCV SV0053-30

Sample Name:	**ALT CCV SV53-30**	*Injection Volume:*	**25.0**
Vial Number:	**8**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/15/2001 14:23**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.302	0.028	0.45	n.a.	BM
2	1.08	F	11.814	0.847	13.77	5.896	M
3	1.69	Cl	7.974	0.561	9.12	5.692	M
4	2.04	NO2-N	4.026	0.344	5.59	1.678	MB
5	3.09	Br	2.226	0.230	3.74	5.753	BMB
6	3.48	NO3-N	10.172	1.389	22.58	5.756	BMB
7	5.74	PO4-P	2.533	0.655	10.65	9.255	BMB
8	7.53	SO4	8.527	2.097	34.10	28.759	BMB
Total:			47.575	6.150	100.00	62.789	

9 ALT CCV SOS55-48

1,1 RDC ANION ALT NO2/NO3 SV0056-28

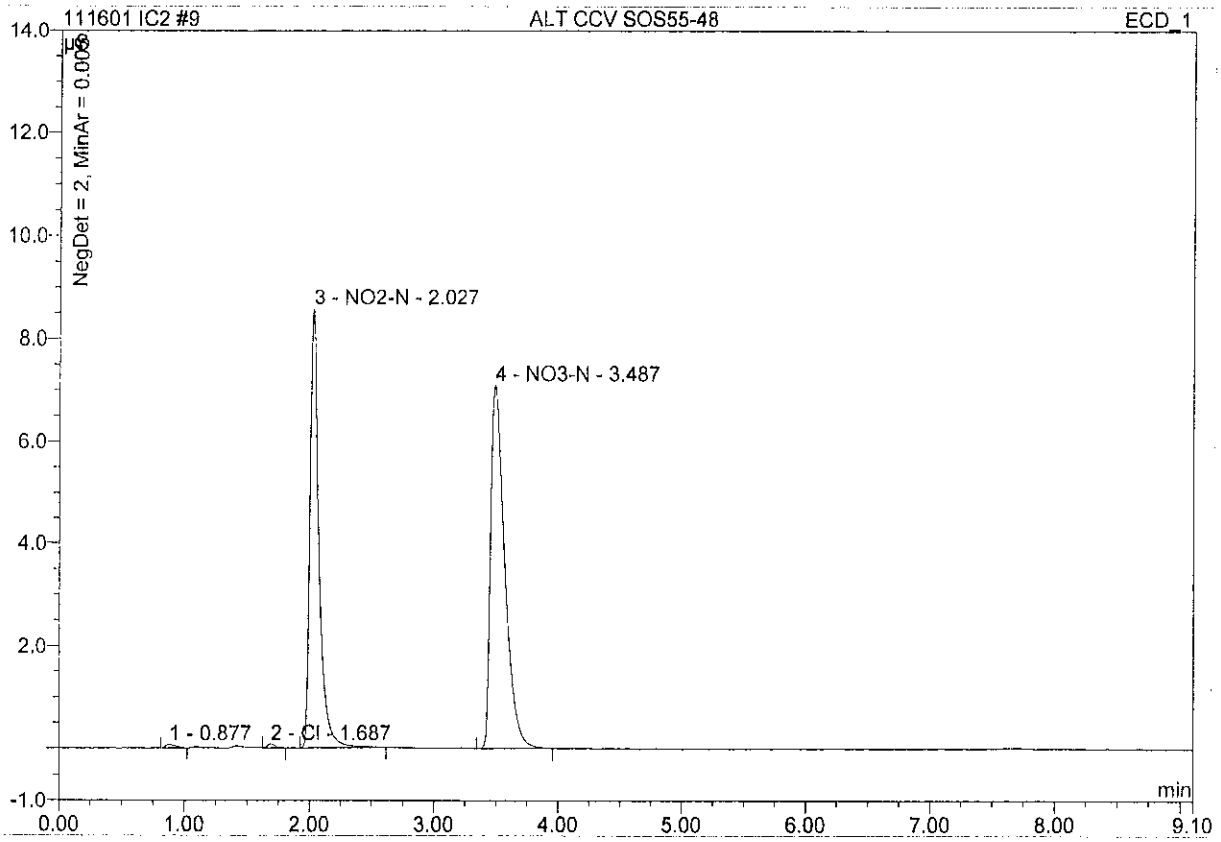
Sample Name:	**ALT CCV SOS55-48**
Vial Number:	**9**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**11/15/2001 14:35**
Run Time (min):	**9.10**

ALT CCV SOS55-4	Actual mg/L	Recoved mg/L	%Difference	
n.a.	6.00	n.a.	#VALUE!	#VALUE!
Cl	6	na	#VALUE!	#VALUE!
NO2-N	3.65	3.4640	-5.10	FAIL <10% neg
n.a.	6	n.a.	#VALUE!	#VALUE!
NO3-N	4.07	3.8984	-4.22	PASS
n.a.	9.78	n.a.	#VALUE!	#VALUE!
n.a.	30	n.a.	#VALUE!	#VALUE!

9 ALT CCV SOS55-48

1,1 RDC ANION ALT NO2/NO3 SV0056-28

Sample Name:	**ALT CCV SOS55-48**	*Injection Volume:*	**25.0**
Vial Number:	**9**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/15/2001 14:35**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

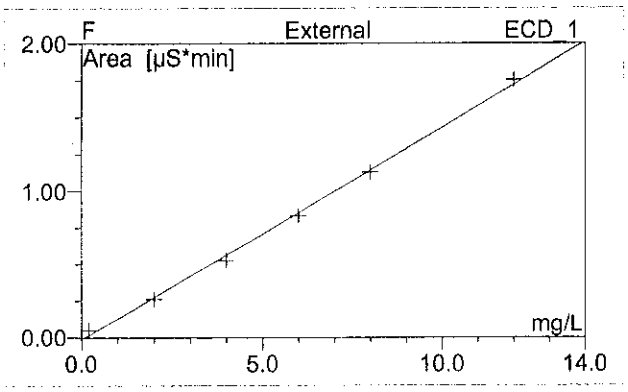


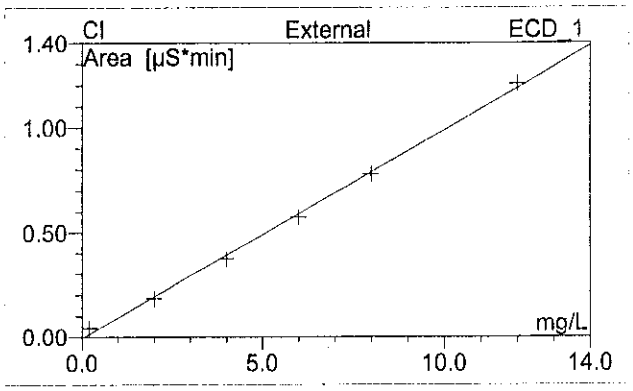
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.074	0.006	0.38	n.a.	BMB
2	1.69	Cl	0.078	0.005	0.33	0.090	BMB
3	2.03	NO2-N	8.578	0.722	43.25	3.464	BMB
4	3.49	NO3-N	7.096	0.936	56.04	3.898	BMB
Total:			15.826	1.669	100.00	7.452	

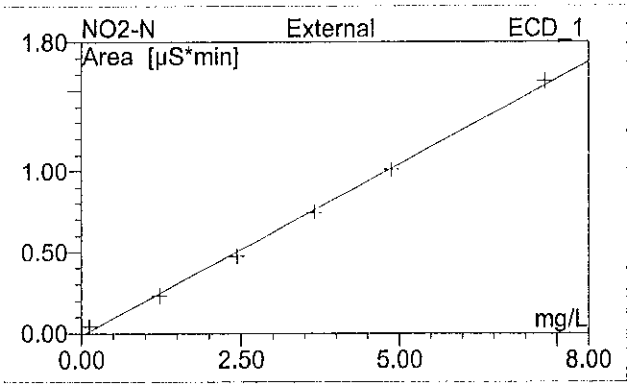
32 ANION STD #1

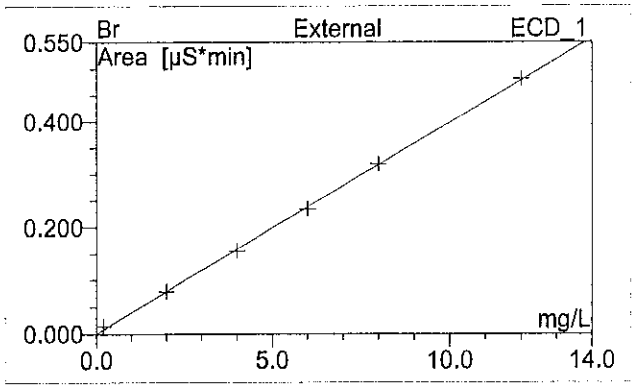
1,1 GSG ANION CCV SOS0056-35 111601

Sample Name:	**ANION STD #1**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 20:31**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**







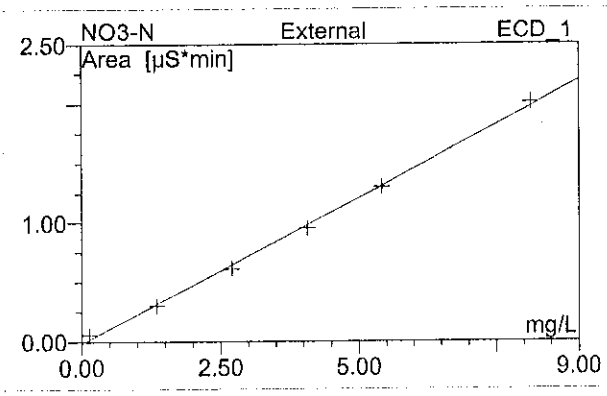


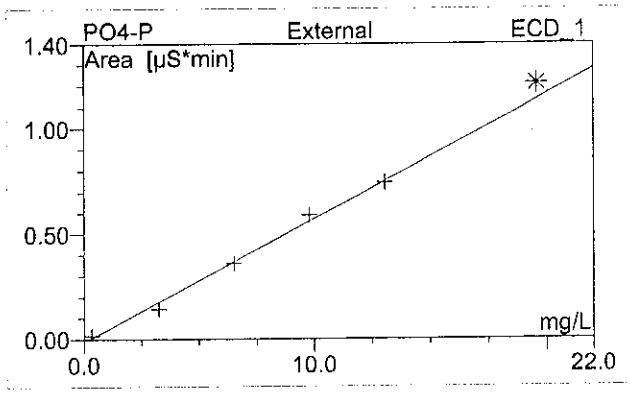
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.89	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.08	F	0LOff	6	99.8935	-0.0146	0.1447	0.0000
3	1.68	Cl	0LOff	6	99.8889	-0.0056	0.0994	0.0000
4	2.02	NO2-N	0LOff	6	99.9112	-0.0119	0.2115	0.0000
5	3.05	Br	0LOff	6	99.9716	0.0005	0.0398	0.0000
6	3.52	NO3-N	0LOff	6	99.9051	-0.0153	0.2450	0.0000
7	6.03	PO4-P	0LOff	5	99.6907	-0.0140	0.0588	0.0000
8	7.63	SO4	0LOff	6	99.8491	-0.0497	0.0765	0.0000
Average:					99.8729	-0.0158	0.1251	0.0000

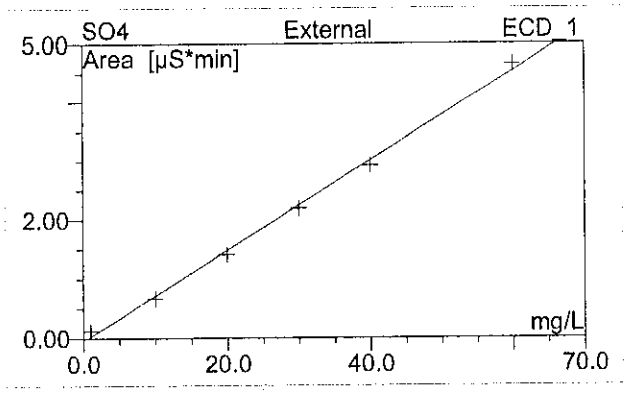
32 ANION STD #1

1,1 GSG ANION CCV SOS0056-35 111601

Sample Name:	**ANION STD #1**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 20:31**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**





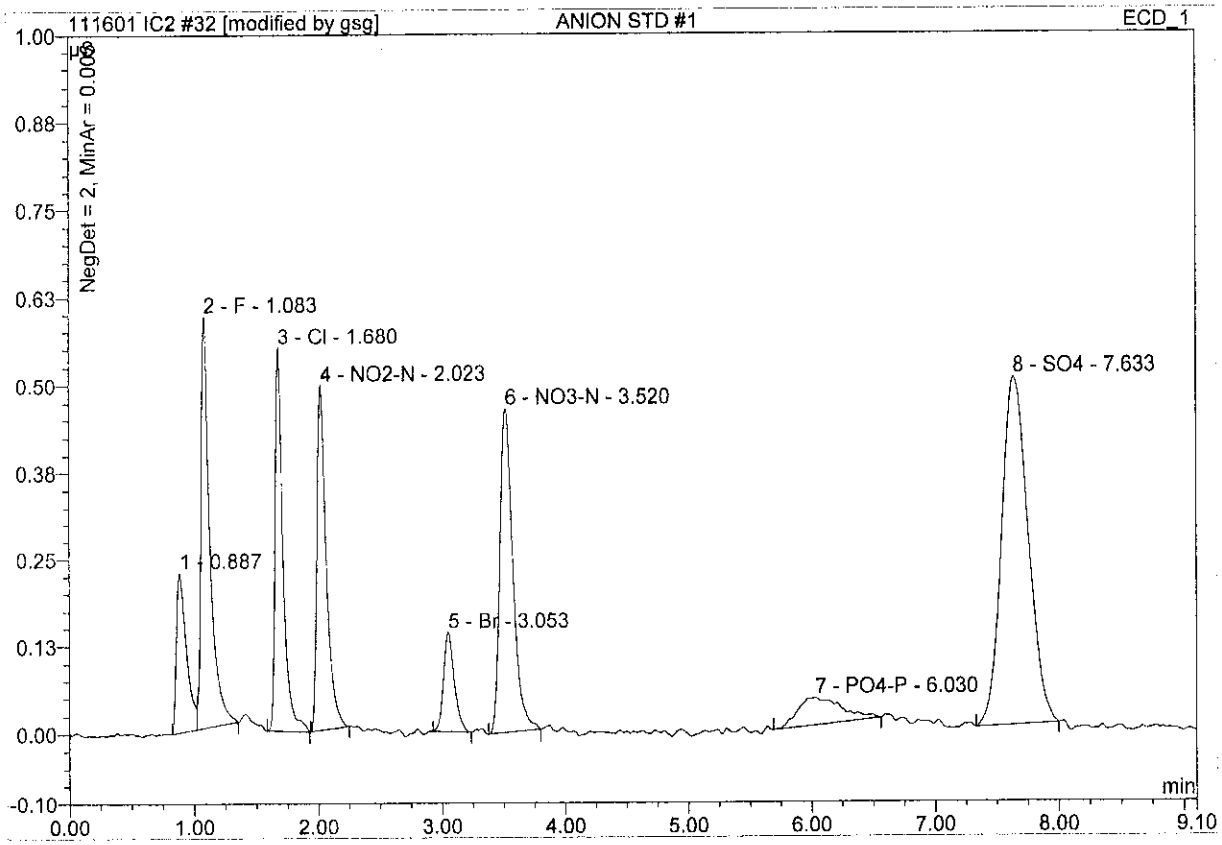


No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.89	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.08	F	0LOff	6	99.8935	-0.0146	0.1447	0.0000
3	1.68	Cl	0LOff	6	99.8889	-0.0056	0.0994	0.0000
4	2.02	NO2-N	0LOff	6	99.9112	-0.0119	0.2115	0.0000
5	3.05	Br	0LOff	6	99.9716	0.0005	0.0398	0.0000
6	3.52	NO3-N	0LOff	6	99.9051	-0.0153	0.2450	0.0000
7	6.03	PO4-P	0LOff	5	99.6907	-0.0140	0.0588	0.0000
8	7.63	SO4	0LOff	6	99.8491	-0.0497	0.0765	0.0000
Average:					99.8729	-0.0158	0.1251	0.0000

32 ANION STD #1

1,1 GSG ANION CCV SOS0056-35 111601

Sample Name:	**ANION STD #1**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 20:31**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

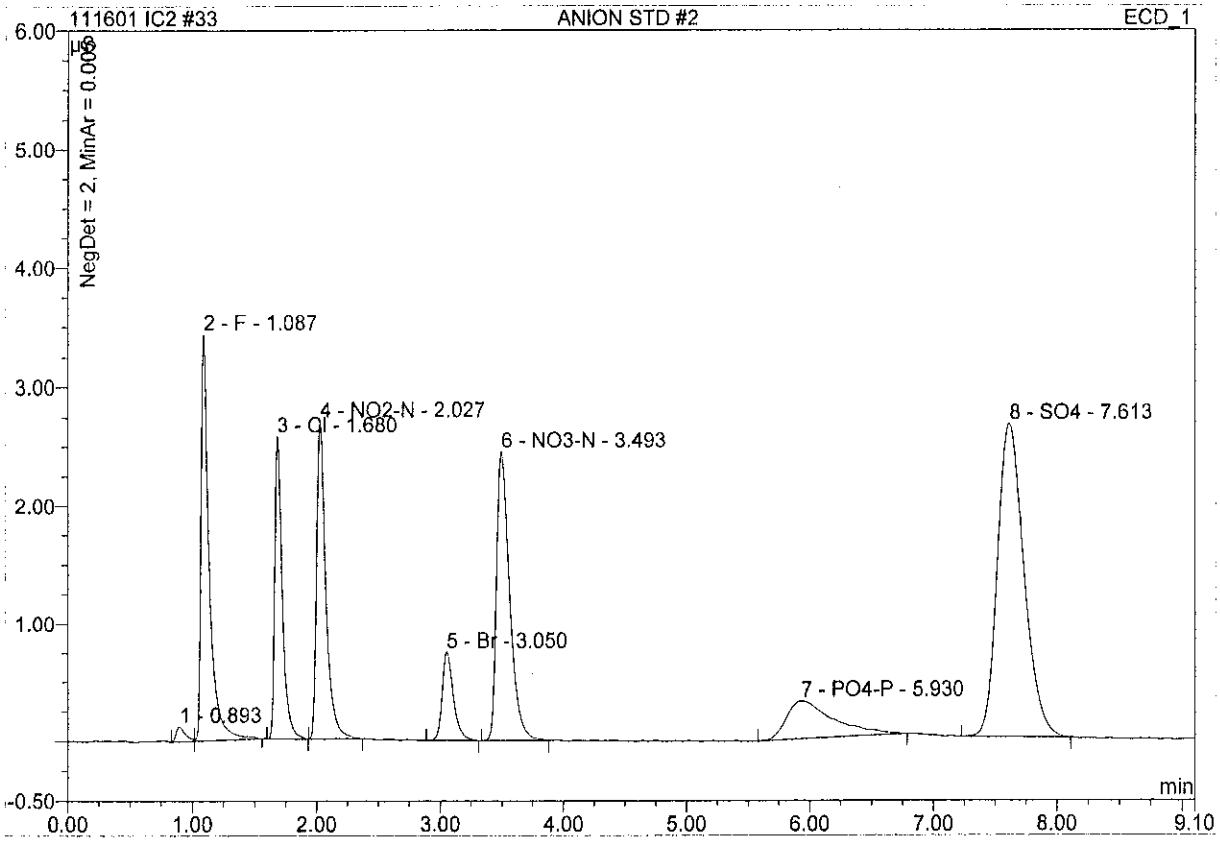


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.228	0.021	5.78	n.a.	BM
2	1.08	F	0.589	0.049	13.38	0.438	MB
3	1.68	Cl	0.548	0.041	11.31	0.472	BMB
4	2.02	NO2-N	0.494	0.043	11.75	0.259	BMB
5	3.05	Br	0.141	0.014	3.93	0.348	BMB
6	3.52	NO3-N	0.465	0.057	15.49	0.294	BMB
7	6.03	PO4-P	0.039	0.016	4.28	0.504	BMB*
8	7.63	SO4	0.499	0.125	34.09	2.279	BMB
Total:			3.003	0.366	100.00	4.595	

33 ANION STD #2

1,1 GSG ANION CCV SOS0056-35 111601

Sample Name:	**ANION STD #2**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 20:43**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

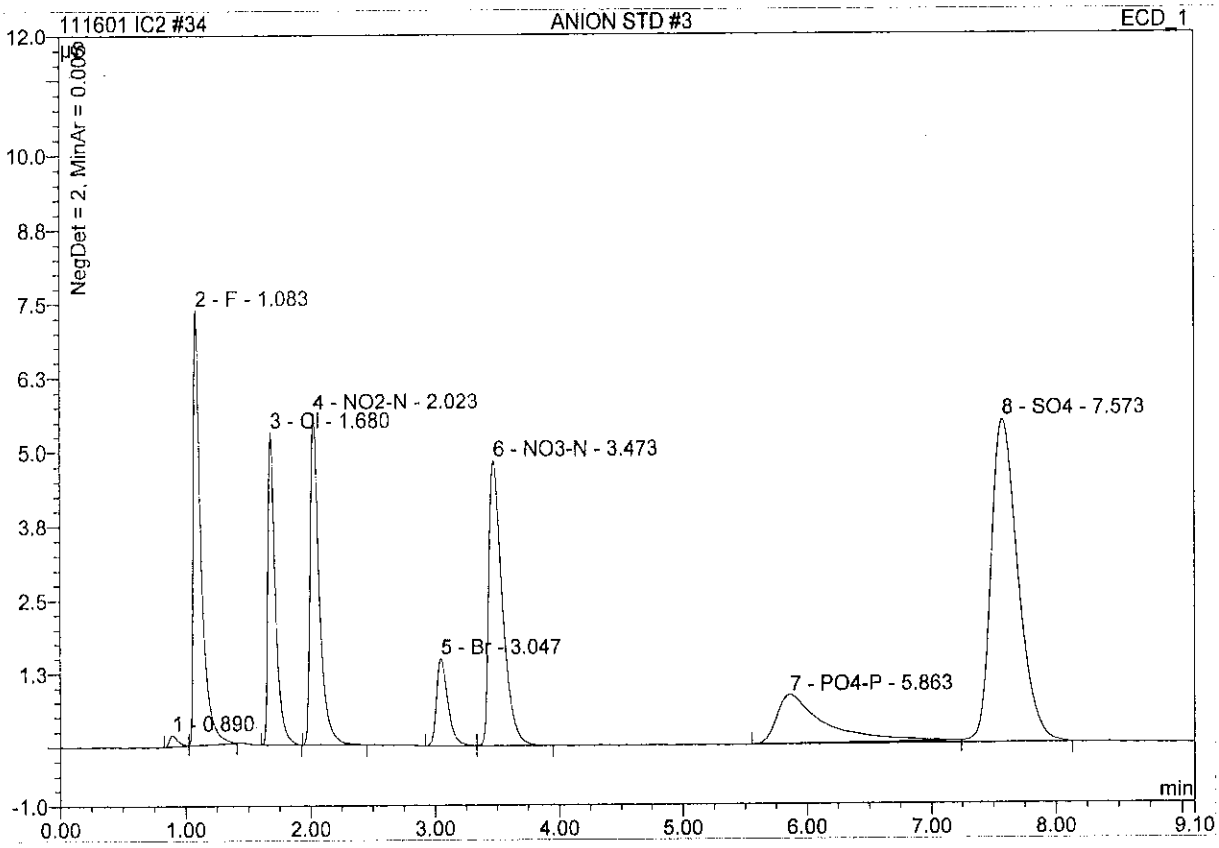


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.126	0.011	0.57	n.a.	BM
2	1.09	F	3.438	0.263	14.00	1.917	MB
3	1.68	Cl	2.570	0.183	9.75	1.898	BMB
4	2.03	NO2-N	2.701	0.233	12.41	1.158	BMB
5	3.05	Br	0.751	0.079	4.21	1.973	BMB
6	3.49	NO3-N	2.452	0.301	16.05	1.292	BMB
7	5.93	PO4-P	0.320	0.142	7.55	2.652	BMB
8	7.61	SO4	2.666	0.666	35.46	9.351	BMB
Total:			15.023	1.877	100.00	20.241	

34 ANION STD #3

1,1 GSG ANION CCV SOS0056-35 111601

Sample Name:	**ANION STD #3**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 20:54**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

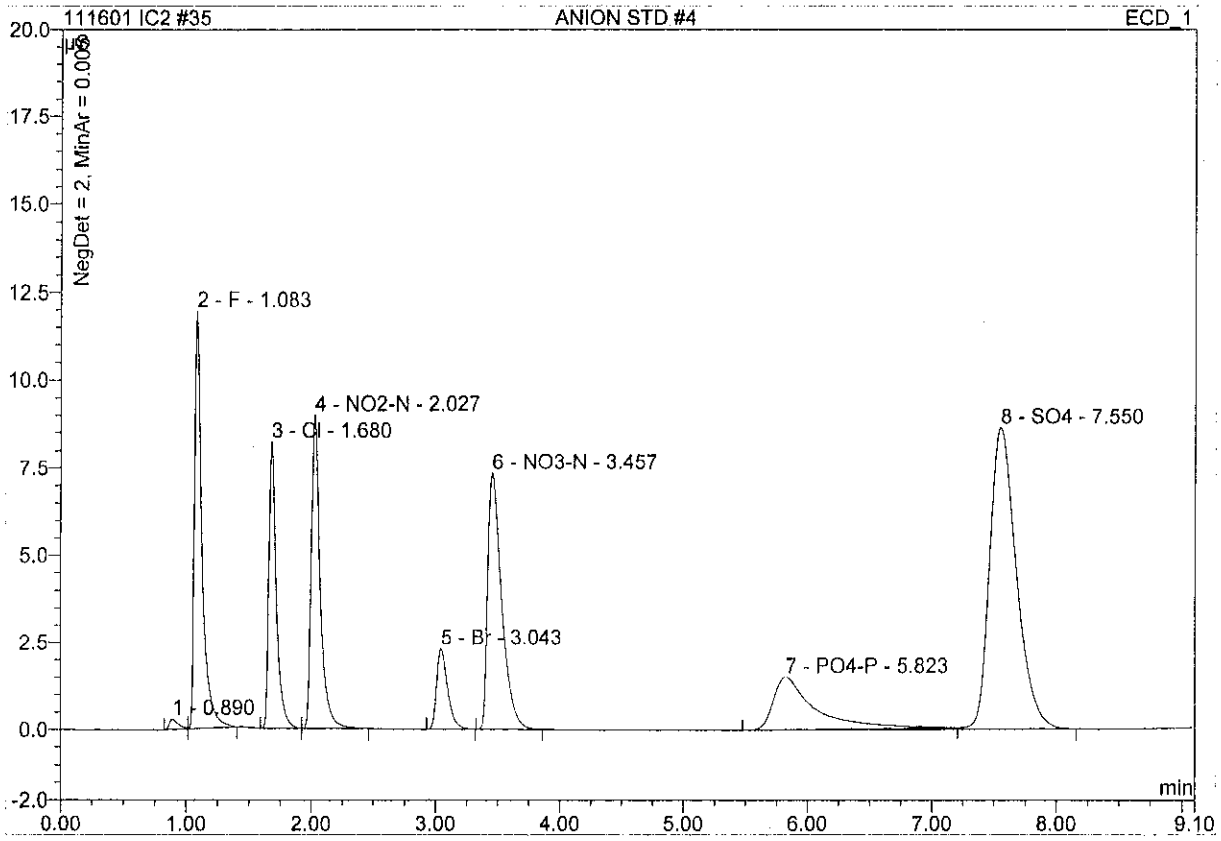


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.186	0.015	0.38	n.a.	BM
2	1.08	F	7.372	0.528	13.44	3.749	MB
3	1.68	Cl	5.307	0.374	9.51	3.814	BMB
4	2.02	NO2-N	5.615	0.475	12.09	2.302	BMB
5	3.05	Br	1.487	0.156	3.97	3.905	BM
6	3.47	NO3-N	4.834	0.613	15.59	2.563	MB
7	5.86	PO4-P	0.826	0.360	9.17	6.368	Ru
8	7.57	SO4	5.484	1.409	35.86	19.066	BMB
Total:			31.111	3.929	100.00	41.768	

35 ANION STD #4

1,1 GSG ANION CCV SOS0056-35 111601

Sample Name:	**ANION STD #4**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 21:06**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

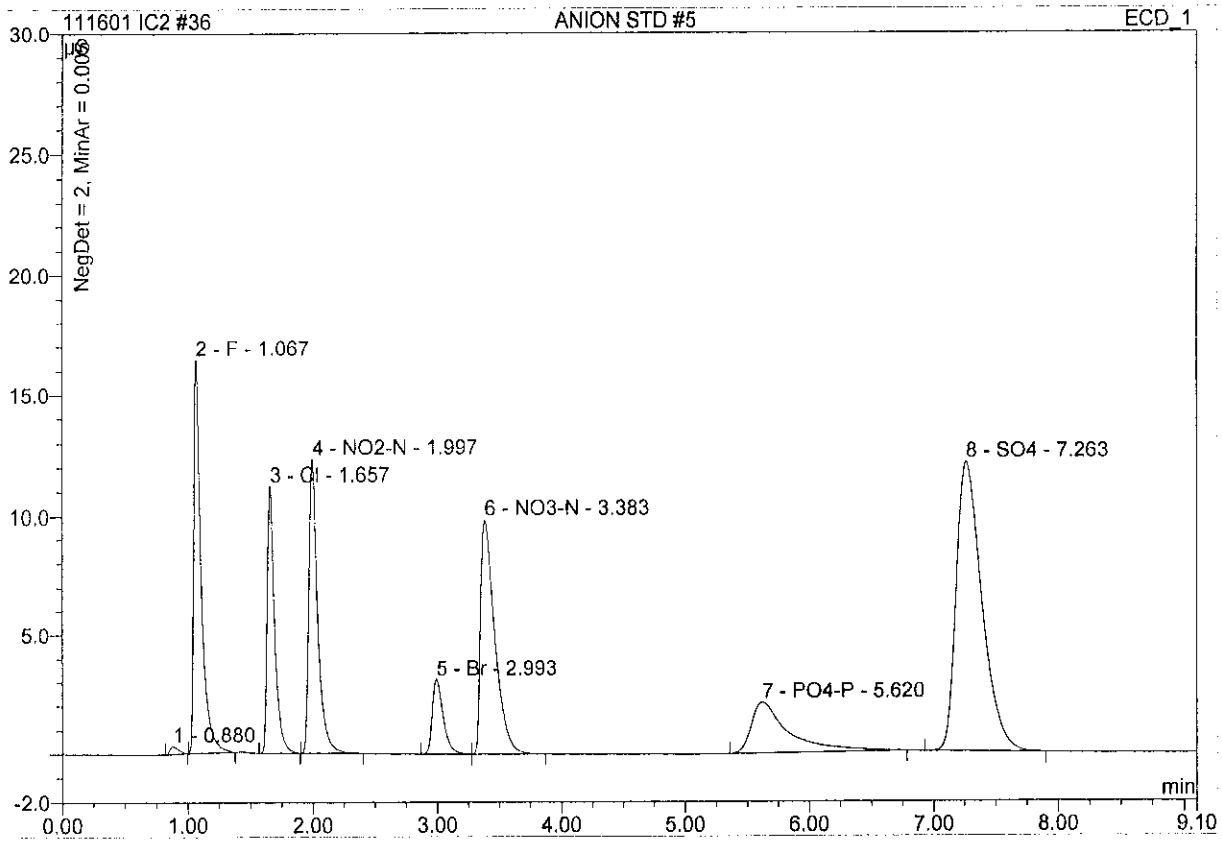


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.290	0.024	0.39	n.a.	BM
2	1.08	F	11.941	0.833	13.56	5.858	MB
3	1.68	Cl	8.202	0.574	9.34	5.835	BM
4	2.03	NO2-N	8.969	0.745	12.12	3.579	MB
5	3.04	Br	2.303	0.235	3.82	5.881	BMB
6	3.46	NO3-N	7.335	0.954	15.52	3.956	BMB
7	5.82	PO4-P	1.515	0.590	9.59	10.276	Ru
8	7.55	SO4	8.619	2.193	35.67	29.307	BMB
Total:			49.174	6.147	100.00	64.691	

36 ANION STD #5

1,1 GSG ANION CCV SOS0056-35 111601

Sample Name:	**ANION STD #5**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 21:17**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

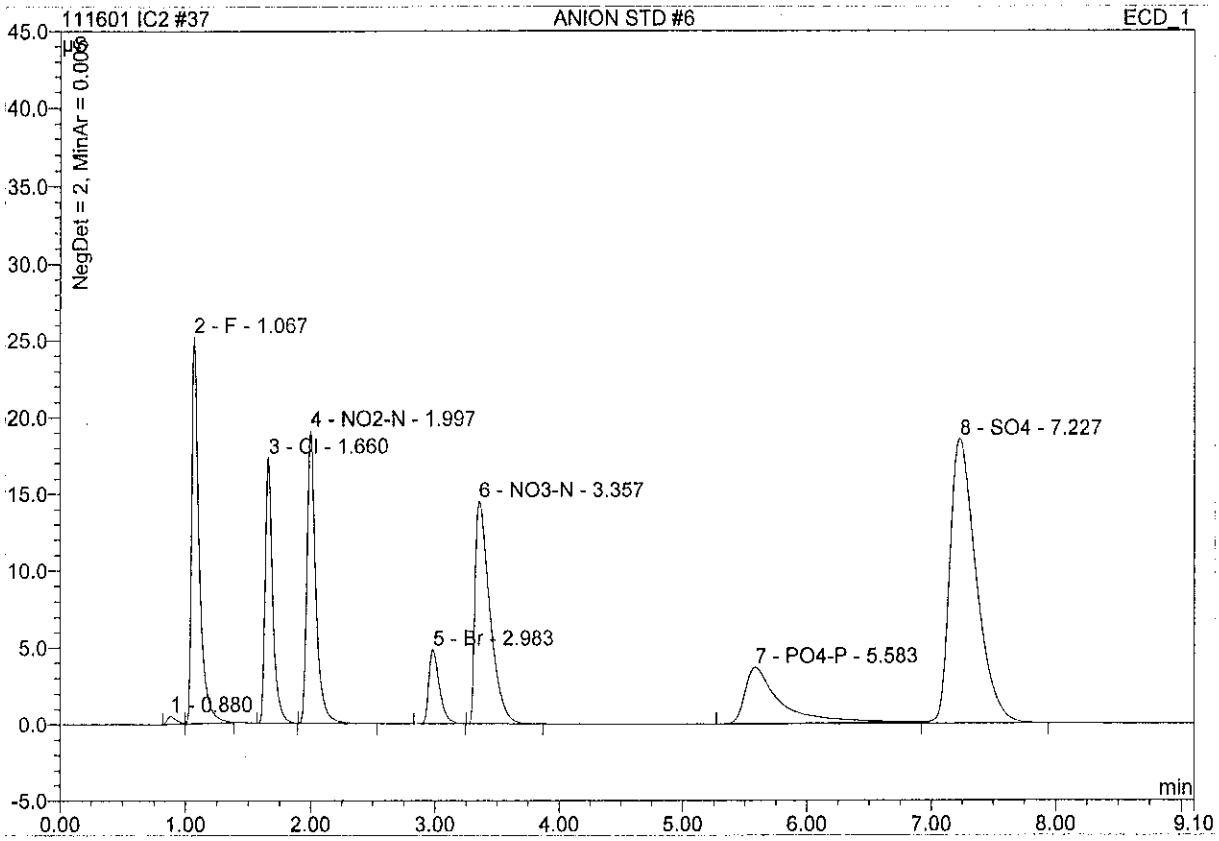


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.338	0.026	0.32	n.a.	BMB
2	1.07	F	16.402	1.131	13.74	7.917	BMB
3	1.66	Cl	11.194	0.780	9.47	7.901	BMB
4	2.00	NO2-N	12.306	1.009	12.25	4.825	BMB
5	2.99	Br	3.140	0.320	3.89	8.040	BM
6	3.38	NO3-N	9.859	1.304	15.84	5.387	MB
7	5.62	PO4-P	2.113	0.744	9.04	12.902	BMB
8	7.26	SO4	12.104	2.919	35.45	38.806	BMB
Total:			67.456	8.234	100.00	85.779	

37 ANION STD #6

1,1 GSG ANION CCV SOS0056-35 111601

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**37**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 21:29**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

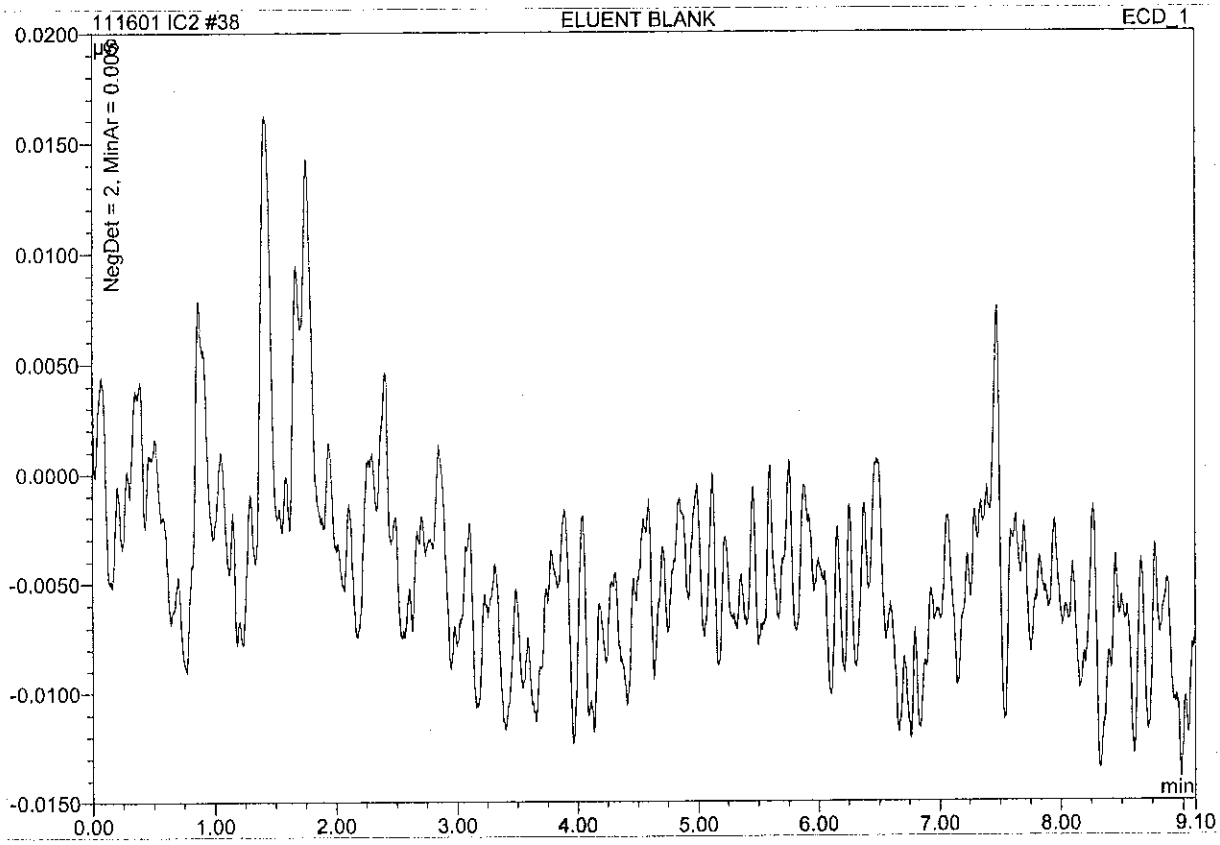


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.542	0.046	0.35	n.a.	BM
2	1.07	F	25.185	1.754	13.57	12.220	MB
3	1.66	Cl	17.285	1.209	9.35	12.223	BMB
4	2.00	NO2-N	19.078	1.559	12.06	7.427	BMB
5	2.98	Br	4.827	0.481	3.72	12.067	BMB
6	3.36	NO3-N	14.463	2.010	15.55	8.268	BMB
7	5.58	PO4-P	3.663	1.212	9.37	20.864	Ru
8	7.23	SO4	18.509	4.659	36.03	61.541	BMB
Total:			103.551	12.929	100.00	134.609	

38 ELUENT BLANK

1,1 GSG ANION CCV SOS0056-35 111601

Sample Name:	**ELUENT BLANK**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 21:40**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

39 ANION ALT SV53-30

1,1 GSG ANION CCV SOS0056-35 111601

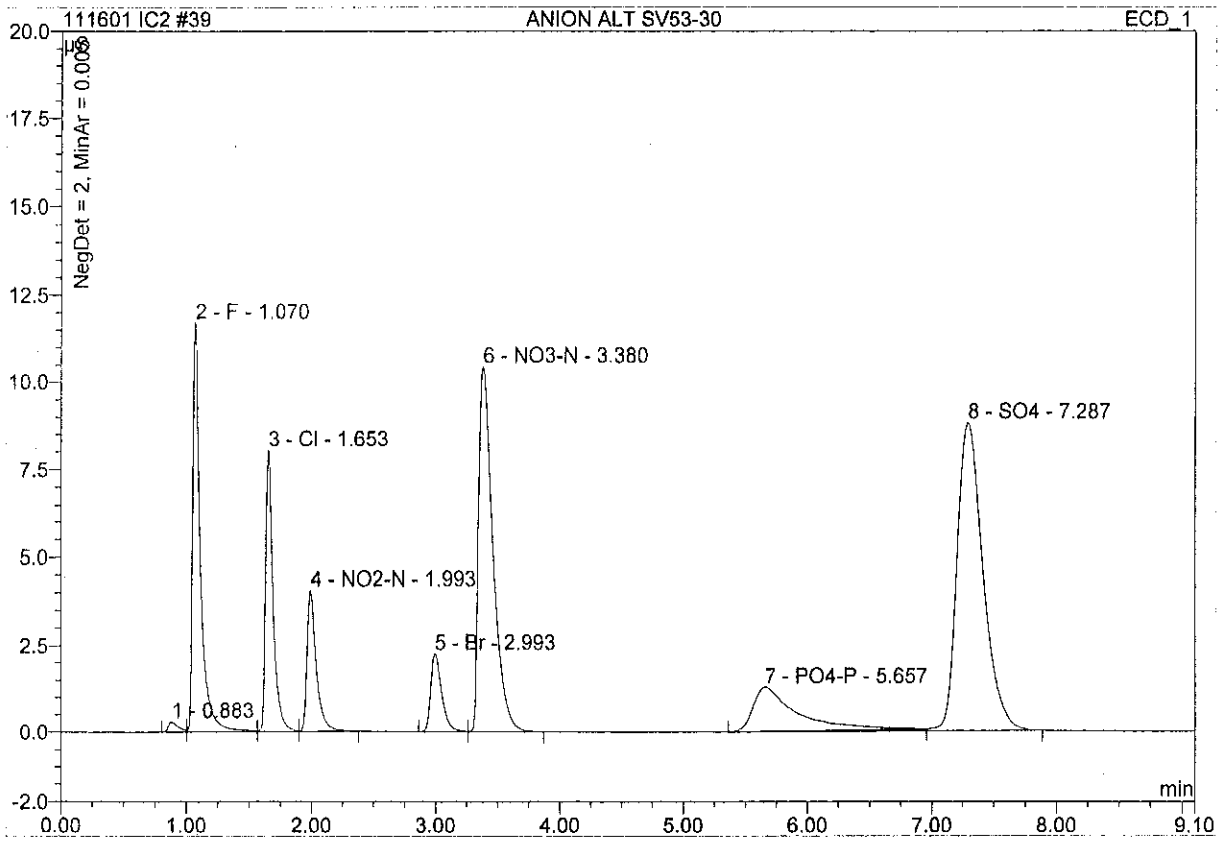
Sample Name:	**ANION ALT SV53-30**
Vial Number:	**36**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**11/16/2001 21:52**
Run Time (min):	**9.10**

ANION ALT SV53-3	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9258	-1.24	PASS
Cl	6	5.7390	-4.35	PASS
NO2-N	3.65	NA	#VALUE!	#VALUE!
Br	6	5.8021	-3.30	PASS
NO3-N	4.07	NA	#VALUE!	#VALUE!
SO4	9.78	9.1602	-6.34	FAIL LKR diff c
SO4	30	29.1032	-2.99	PASS

39 ANION ALT SV53-30

1,1 GSG ANION CCV SOS0056-35 111601

Sample Name:	**ANION ALT SV53-30**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 21:52**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.291	0.027	0.44	n.a.	BM
2	1.07	F	11.707	0.843	13.79	5.926	M
3	1.65	Cl	8.036	0.565	9.24	5.739	M
4	1.99	NO2-N	4.045	0.348	5.69	1.703	MB
5	2.99	Br	2.257	0.231	3.78	5.802	BM
6	3.38	NO3-N	10.442	1.400	22.89	5.776	MB
7	5.66	PO4-P	1.281	0.524	8.57	9.160	Ru
8	7.29	SO4	8.792	2.177	35.60	29.103	BMB
Total:			46.851	6.116	100.00	63.209	

40 ANION ALT SV55-38

1,1 GSG ANION CCV SOS0056-35 111601

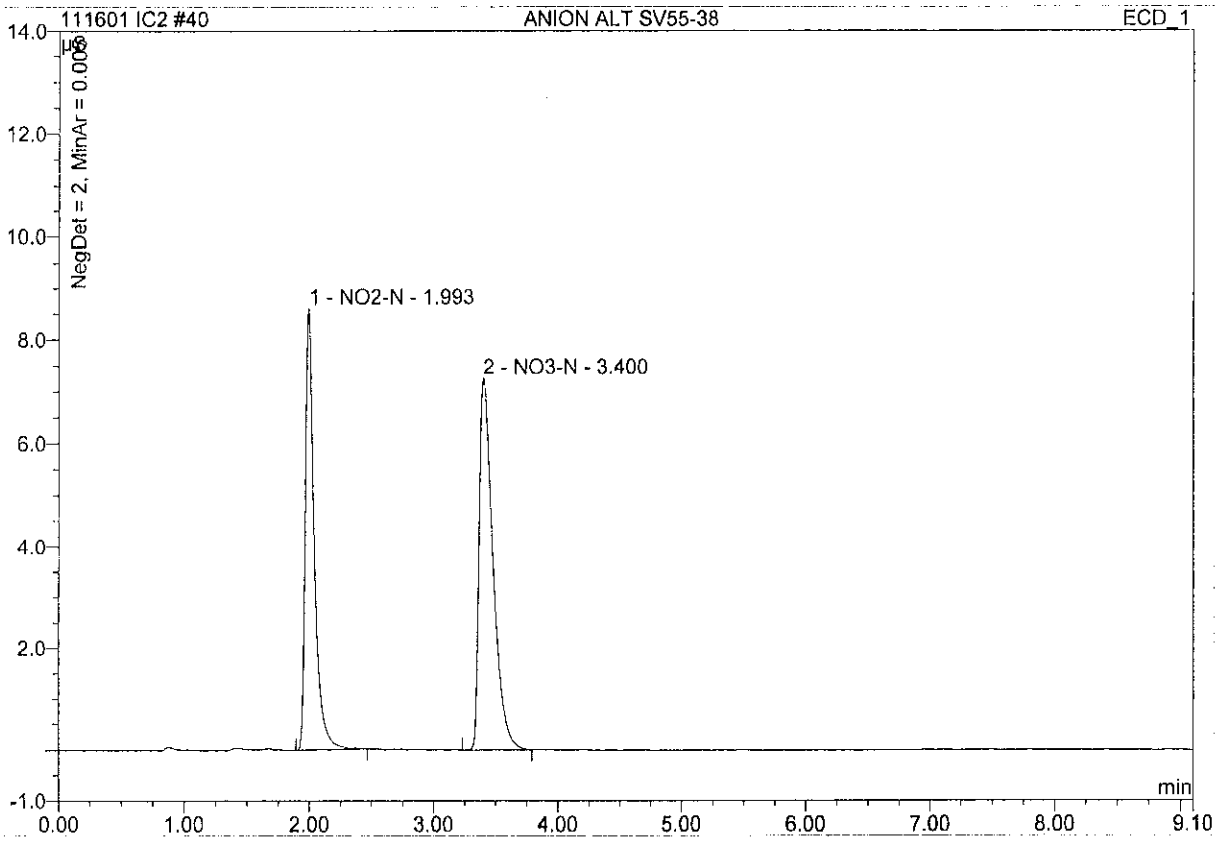
Sample Name:	**ANION ALT SV55-38**
Vial Number:	**36**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**11/16/2001 22:03**
Run Time (min):	**9.10**

ANION ALT SV55-3	Actual mg/L	Recoved mg/L	%Difference	
n.a.	6.00	n.a.	#VALUE!	#VALUE!
n.a.	6	n.a.	#VALUE!	#VALUE!
NO2-N	3.65	3.4439	-5.65	FAIL <NOR. 4/ ok
n.a.	6	n.a.	#VALUE!	#VALUE!
NO3-N	4.07	3.8793	-4.69	PASS
n.a.	9.78	n.a.	#VALUE!	#VALUE!
n.a.	30	n.a.	#VALUE!	#VALUE!

40 ANION ALT SV55-38

1,1 GSG ANION CCV SOS0056-35 111601

Sample Name:	**ANION ALT SV55-38**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 22:03**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

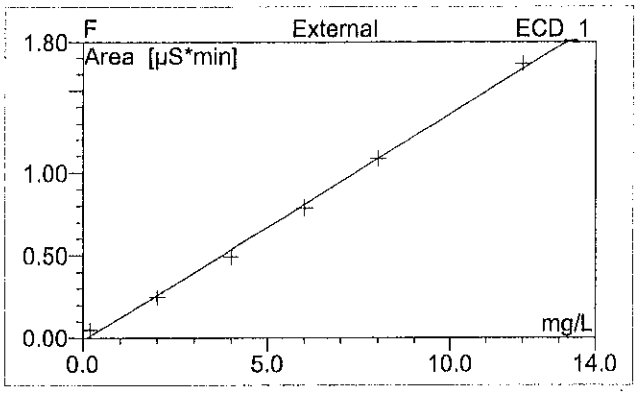


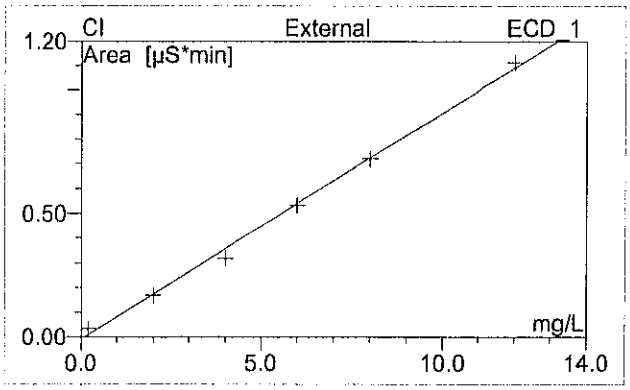
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.99	NO2-N	8.612	0.716	43.38	3.444	BMB
2	3.40	NO3-N	7.249	0.935	56.62	3.879	BMB
Total:			15.861	1.651	100.00	7.323	

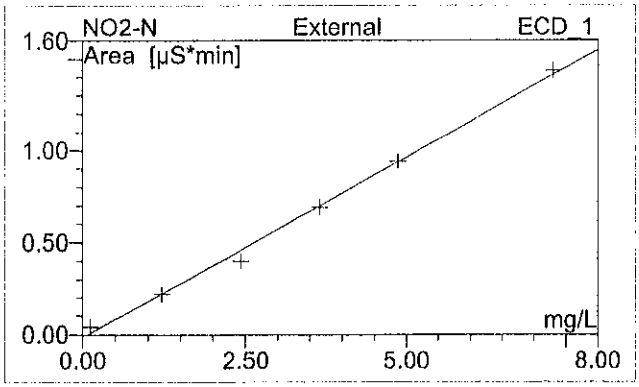
4 ANION STD #1

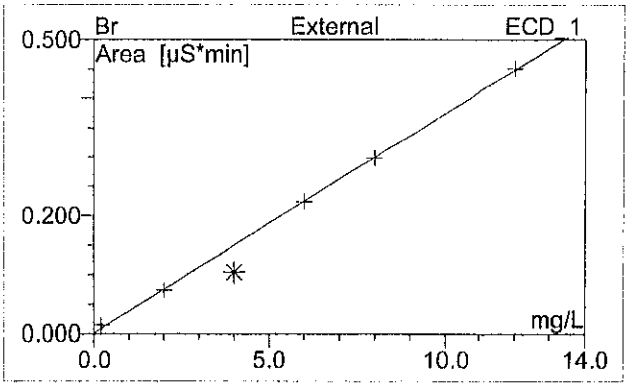
1,1 GSG ANION CCV SOS0056-35 111601

Sample Name:	**ANION STD #1**	*Injection Volume:*	**25.0**
Vial Number:	**38**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/17/2001 22:39**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.11**	*Sample Amount:*	**1.0000**







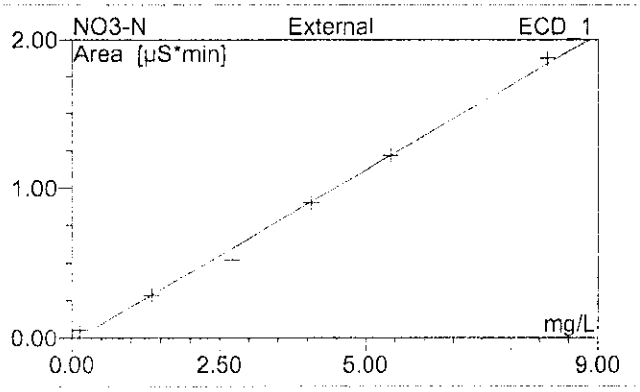


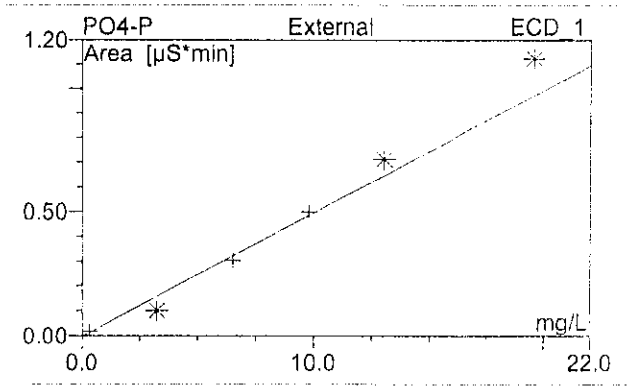
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.88	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.07	F	0LOff	6	99.8748	-0.0147	0.1375	0.0000
3	1.67	Cl	0LOff	6	99.8287	-0.0102	0.0918	0.0000
4	2.02	NO2-N	0LOff	6	99.8057	-0.0153	0.1956	0.0000
5	3.06	Br	0LOff	5	99.9869	0.0016	0.0373	0.0000
6	3.54	NO3-N	0LOff	6	99.7985	-0.0201	0.2283	0.0000
7	6.14	PO4-P	0LOff	3	99.7809	-0.0022	0.0498	0.0000
8	7.70	SO4	0LOff	6	99.7988	-0.0521	0.0707	0.0000
Average:					99.8392	-0.0161	0.1159	0.0000

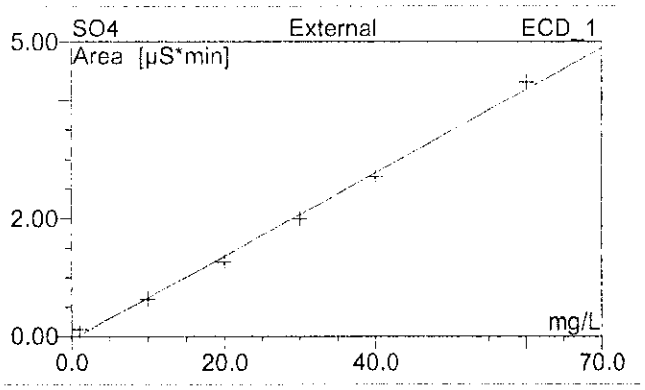
4 ANION STD #1

1,1 GSG ANION CCV SOS0056-35 111601

Sample Name:	**ANION STD #1**	*Injection Volume:*	**25.0**
Vial Number:	**38**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/17/2001 22:39**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.11**	*Sample Amount:*	**1.0000**





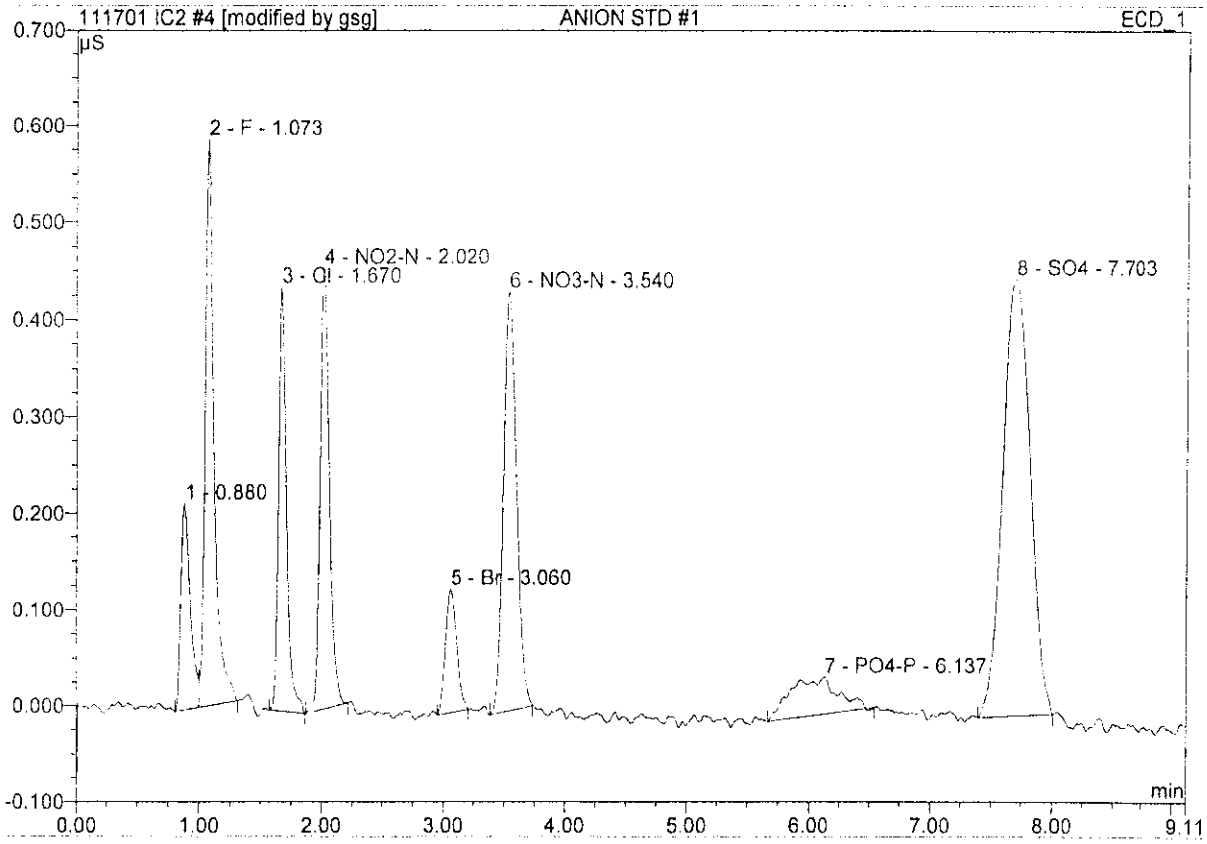


No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.88	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.07	F	0LOff	6	99.8748	-0.0147	0.1375	0.0000
3	1.67	Cl	0LOff	6	99.8287	-0.0102	0.0918	0.0000
4	2.02	NO2-N	0LOff	6	99.8057	-0.0153	0.1956	0.0000
5	3.06	Br	0LOff	5	99.9869	0.0016	0.0373	0.0000
6	3.54	NO3-N	0LOff	6	99.7985	-0.0201	0.2283	0.0000
7	6.14	PO4-P	0LOff	3	99.7809	-0.0022	0.0498	0.0000
8	7.70	SO4	0LOff	6	99.7988	-0.0521	0.0707	0.0000
Average:					99.8392	-0.0161	0.1159	0.0000

4 ANION STD #1

1,1 GSG ANION CCV SOS0056-35 111601

Sample Name:	**ANION STD #1**	*Injection Volume:*	**25.0**
Vial Number:	**38**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/17/2001 22:39**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.11**	*Sample Amount:*	**1.0000**

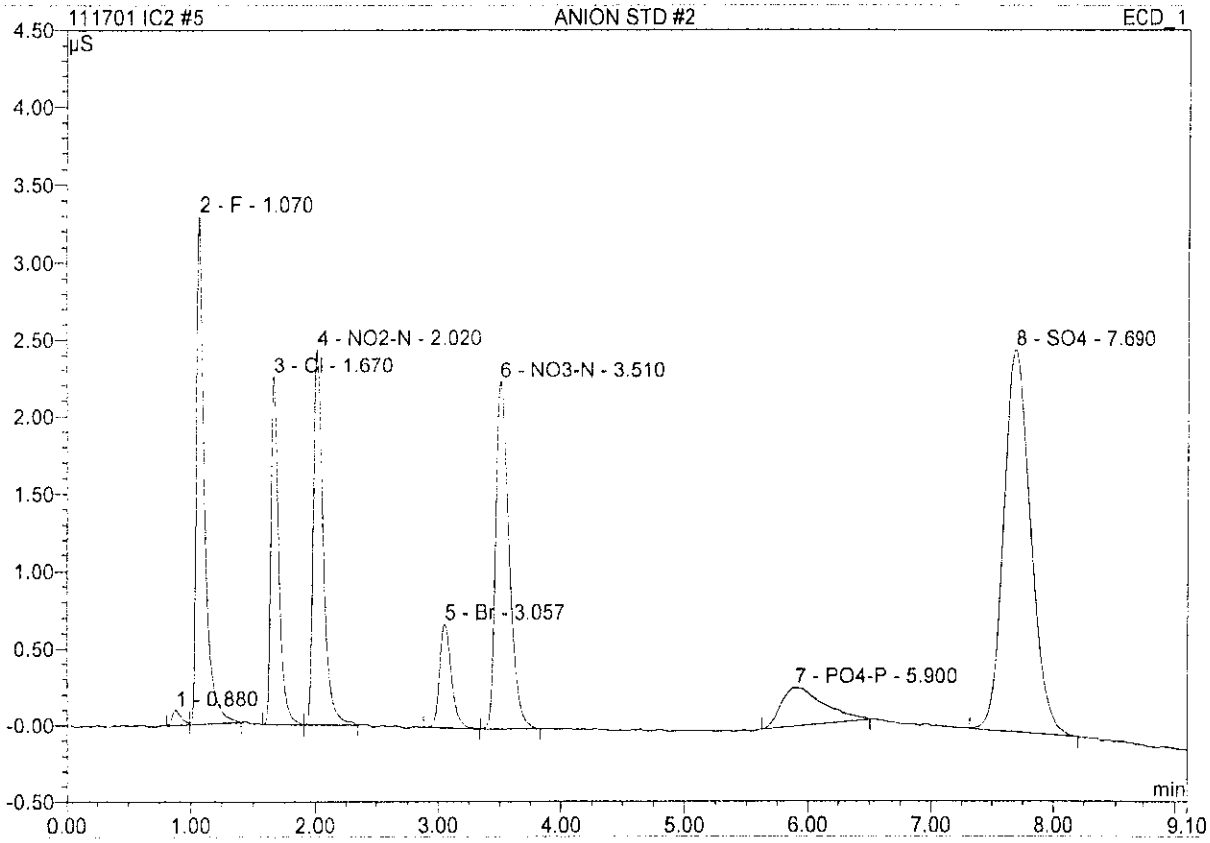


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.214	0.019	5.54	n.a.	BM
2	1.07	F	0.586	0.048	14.09	0.459	MB
3	1.67	Cl	0.439	0.034	9.78	0.477	BMB
4	2.02	NO2-N	0.456	0.040	11.70	0.284	BMB
5	3.06	Br	0.129	0.014	3.99	0.323	BMB
6	3.54	NO3-N	0.434	0.054	15.60	0.323	BMB
7	6.14	PO4-P	0.039	0.018	5.29	0.409	BMB*
8	7.70	SO4	0.452	0.117	34.01	2.390	BMB
Total:			2.750	0.343	100.00	4.664	

5 ANION STD #2

1,1 GSG ANION CCV SOS0056-35 111601

Sample Name:	**ANION STD #2**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/17/2001 22:50**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

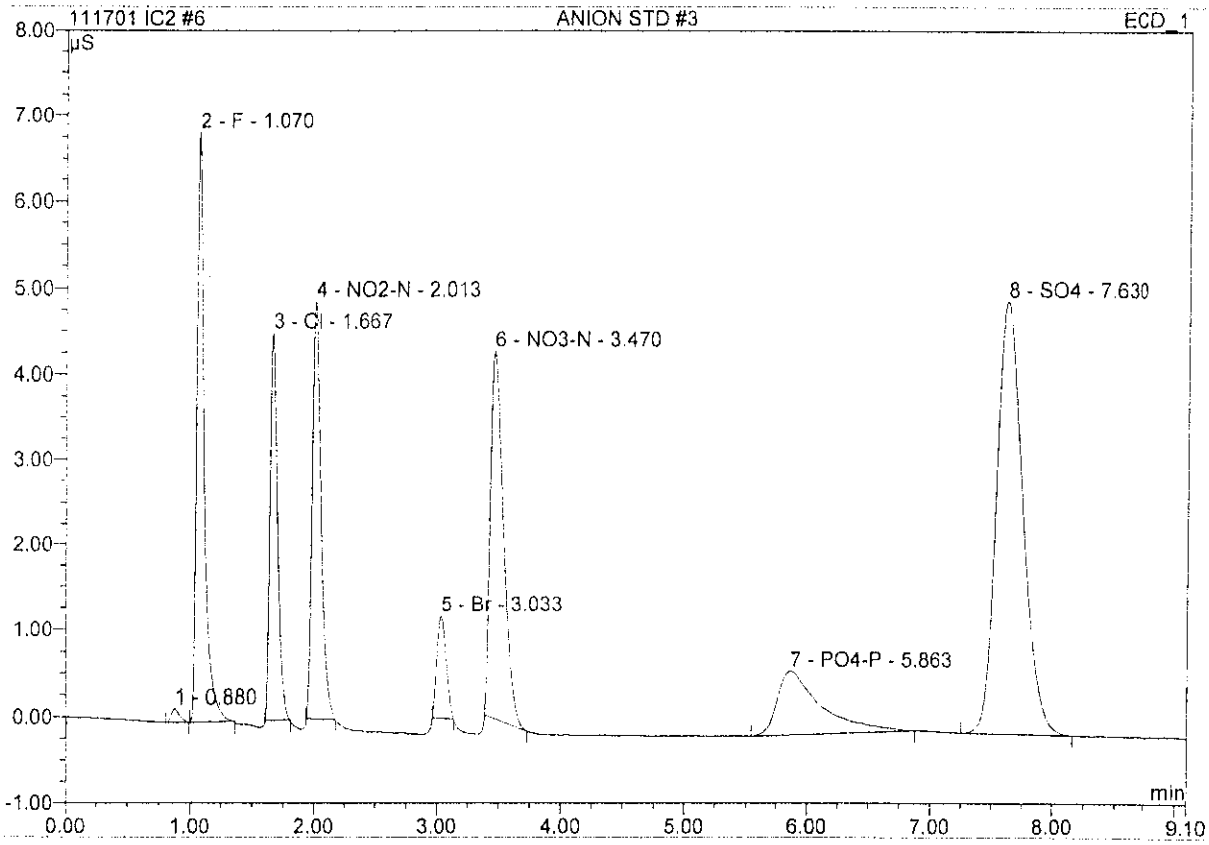


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.098	0.008	0.48	n.a.	BM
2	1.07	F	3.287	0.249	14.31	1.918	MB
3	1.67	Cl	2.251	0.170	9.74	1.959	BM
4	2.02	NO2-N	2.432	0.219	12.59	1.199	MB
5	3.06	Br	0.678	0.074	4.26	1.946	BMB
6	3.51	NO3-N	2.249	0.285	16.36	1.335	BMB
7	5.90	PO4-P	0.251	0.101	5.79	2.067	BMB
8	7.69	SO4	2.481	0.635	36.49	9.724	BMB
Total:			13.726	1.741	100.00	20.146	

6 ANION STD #3

1,1 GSG ANION STD SOS0056-35 111701

Sample Name:	**ANION STD #3**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/17/2001 23:02**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

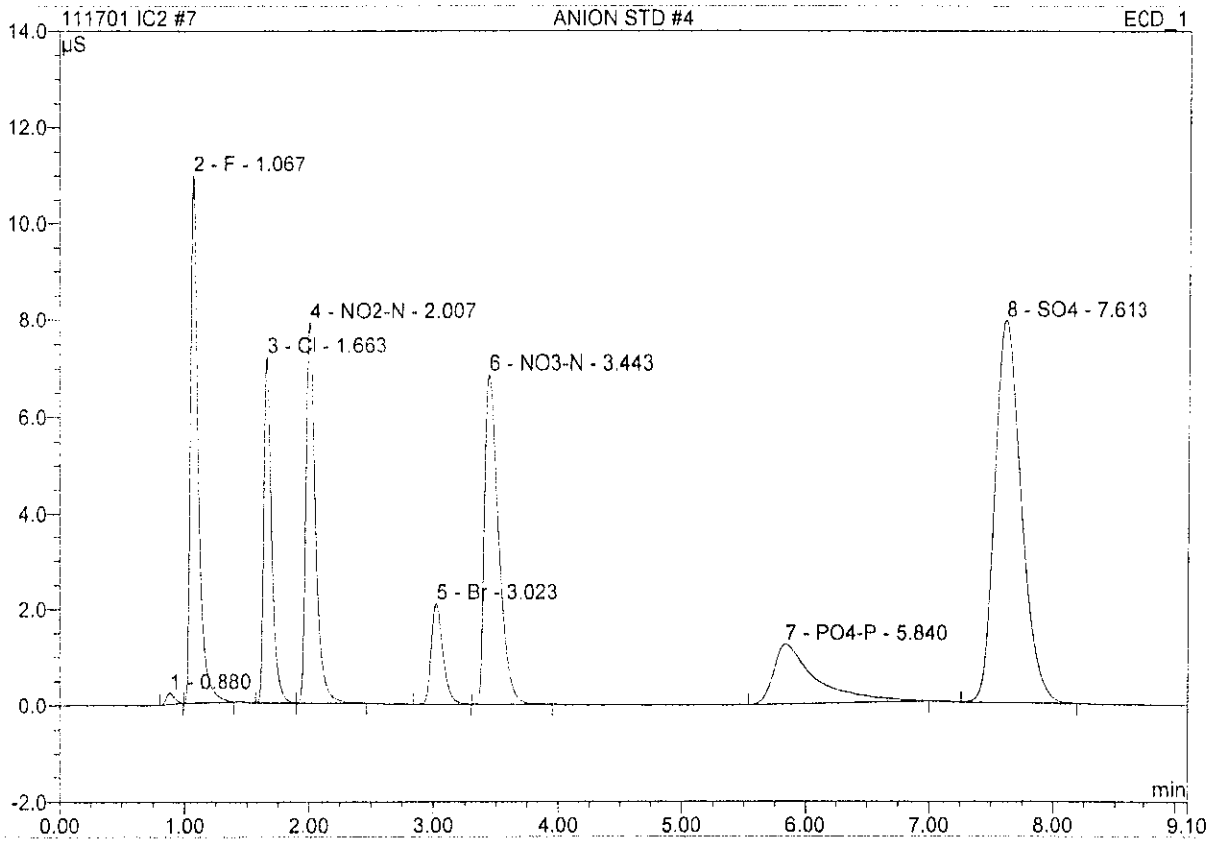


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.154	0.012	0.35	n.a.	BMB
2	1.07	F	6.862	0.493	14.44	3.690	BM
3	1.67	Cl	4.516	0.318	9.32	3.577	BM
4	2.01	NO2-N	4.874	0.401	11.74	2.127	BMB
5	3.03	Br	1.171	0.104	3.06	2.754	BMB
6	3.47	NO3-N	4.287	0.521	15.25	2.368	BMB
7	5.86	PO4-P	0.734	0.304	8.91	6.149	BMB
8	7.63	SO4	5.049	1.261	36.95	18.582	BMB
Total:			27.647	3.414	100.00	39.248	

7 ANION STD #4

1,1 GSG ANION STD SOS0056-35 111701

Sample Name:	**ANION STD #4**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/17/2001 23:13**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

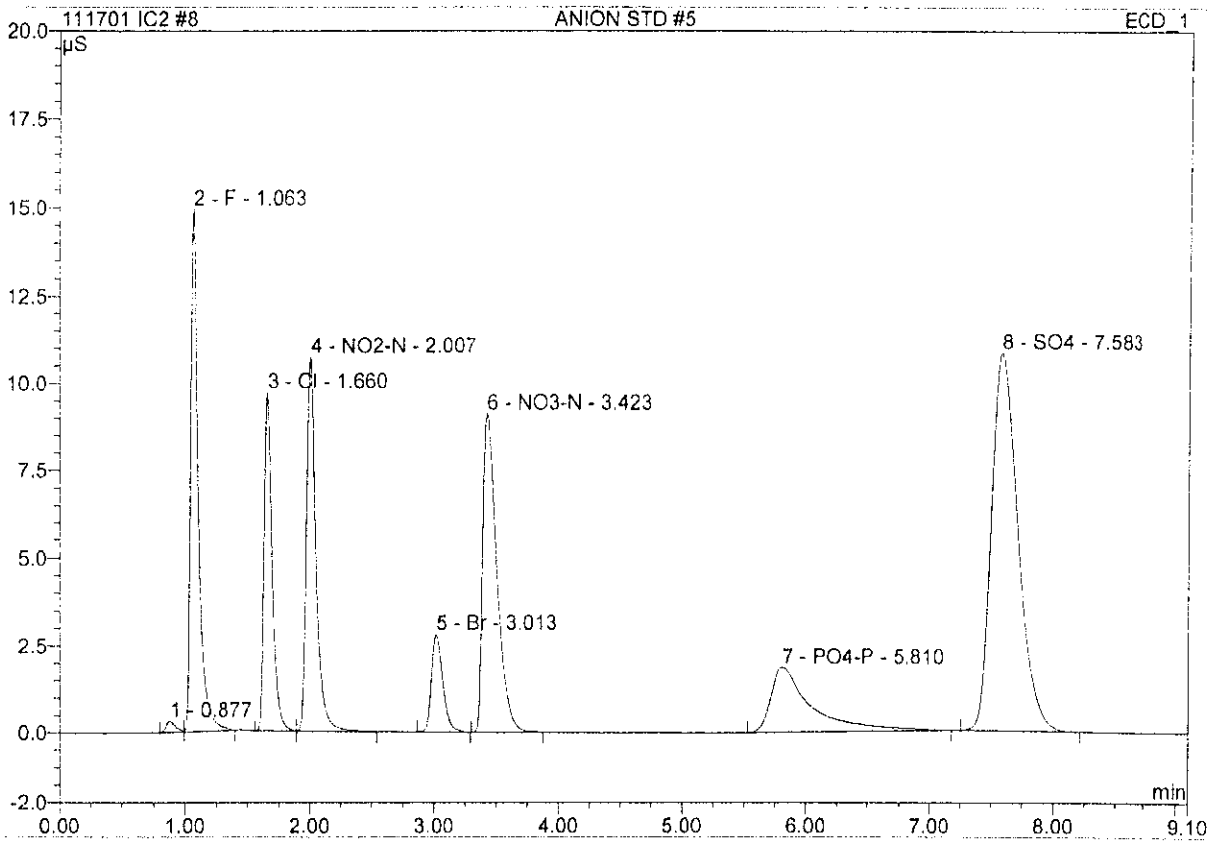


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.241	0.018	0.33	n.a.	BMB
2	1.07	F	10.961	0.789	14.00	5.844	BMB
3	1.66	Cl	7.189	0.532	9.44	5.908	BM
4	2.01	NO2-N	7.903	0.691	12.26	3.612	MB
5	3.02	Br	2.096	0.224	3.97	5.965	BMB
6	3.44	NO3-N	6.857	0.897	15.91	4.017	BMB
7	5.84	PO4-P	1.252	0.498	8.83	10.031	BMB
8	7.61	SO4	7.938	1.988	35.26	28.854	BMB
Total:			44.436	5.637	100.00	64.230	

8 ANION STD #5

1,1 GSG ANION STD SOS0056-35 111701

Sample Name:	**ANION STD #5**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/17/2001 23:25**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

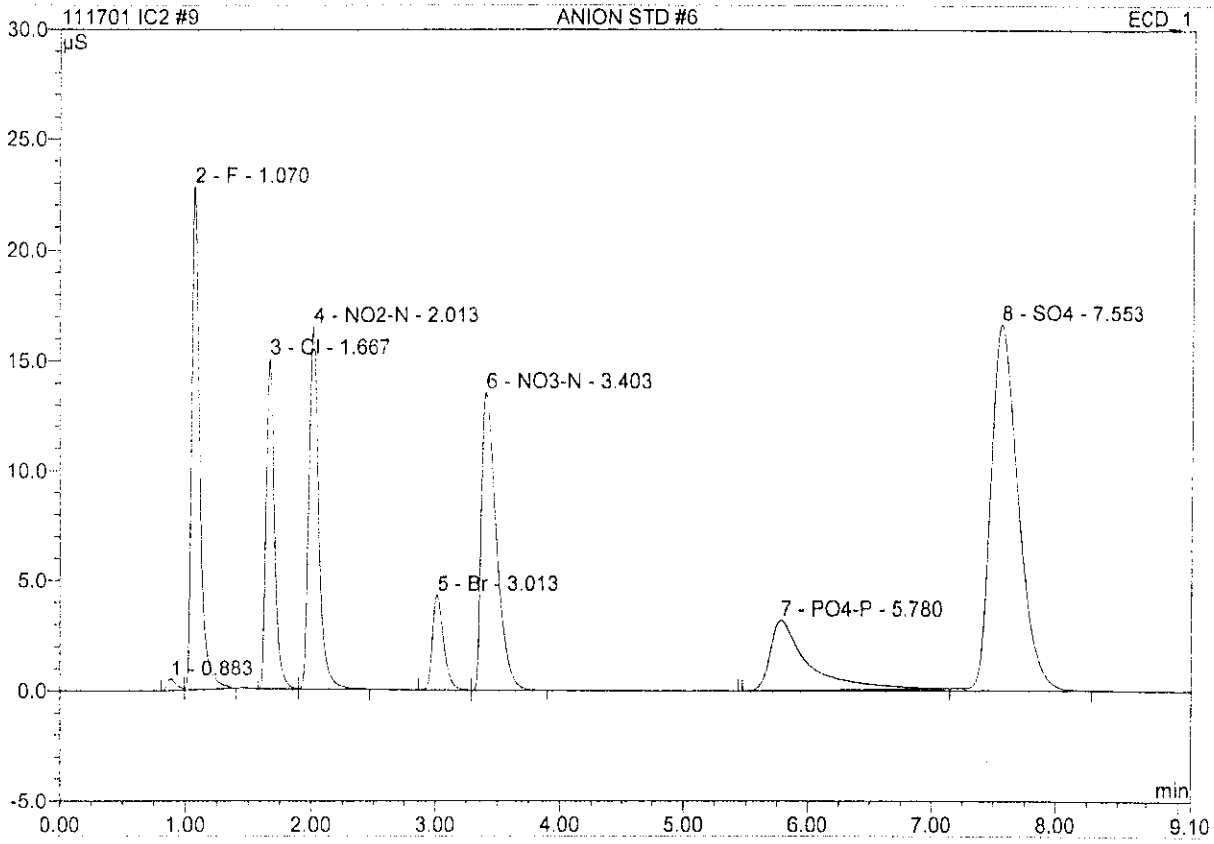


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.332	0.029	0.37	n.a.	BM
2	1.06	F	14.928	1.082	14.06	7.977	MB
3	1.66	Cl	9.676	0.718	9.33	7.937	BM
4	2.01	NO2-N	10.689	0.940	12.22	4.886	MB
5	3.01	Br	2.809	0.298	3.87	7.956	BMB
6	3.42	NO3-N	9.106	1.217	15.80	5.416	BMB
7	5.81	PO4-P	1.855	0.713	9.26	14.344	BMB
8	7.58	SO4	10.805	2.700	35.08	38.935	BMB
Total:			60.200	7.697	100.00	87.451	

9 ANION STD #6

1,1 GSG ANION STD SOS0056-35 111701

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**37**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/17/2001 23:36**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

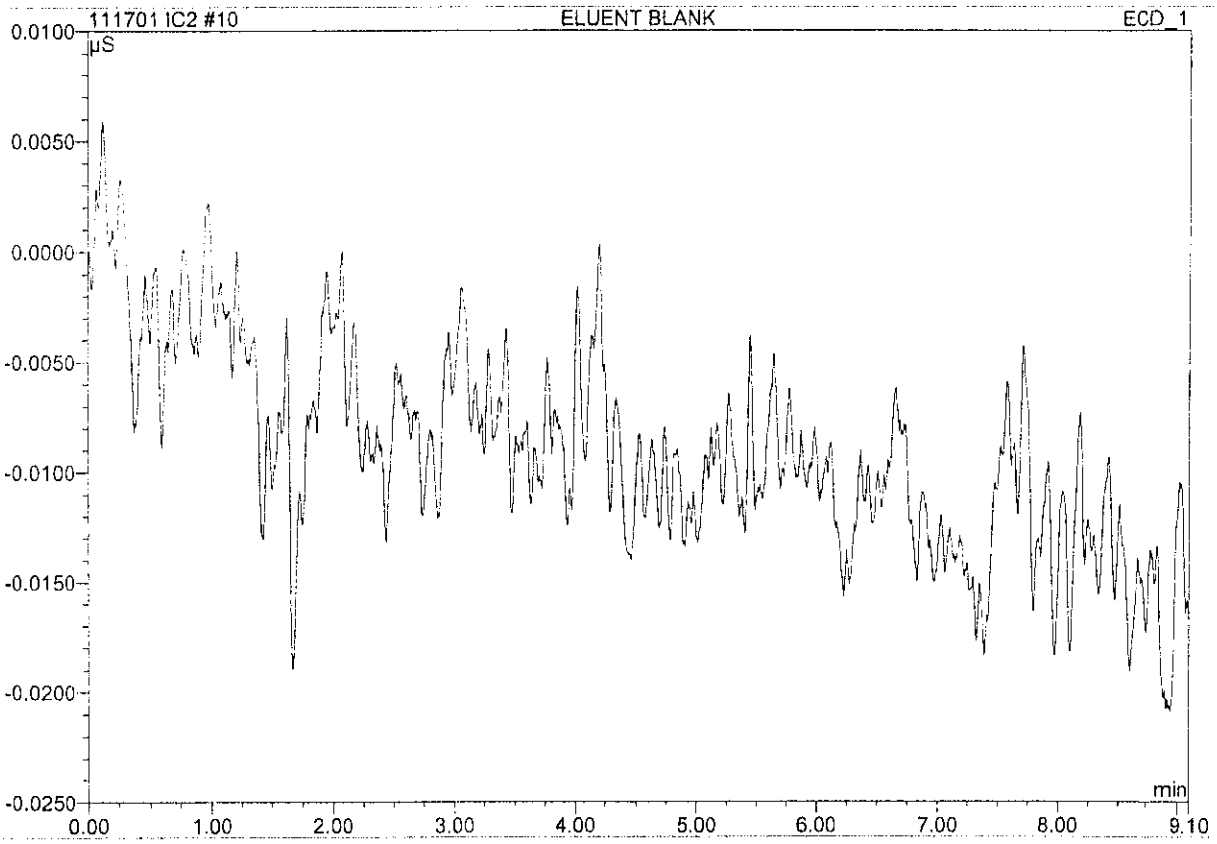


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.497	0.043	0.36	n.a.	BM
2	1.07	F	22.808	1.664	13.85	12.206	MB
3	1.67	Cl	15.006	1.112	9.26	12.231	BM
4	2.01	NO2-N	16.505	1.436	11.95	7.421	MB
5	3.01	Br	4.296	0.451	3.75	12.054	BM
6	3.40	NO3-N	13.537	1.869	15.56	8.275	MB
7	5.78	PO4-P	3.186	1.122	9.34	22.551	Ru
8	7.55	SO4	16.676	4.315	35.92	61.779	BMB
Total:			92.510	12.013	100.00	136.517	

10 ELUENT BLANK

1,1 GSG

Sample Name:	**ELUENT BLANK**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/17/2001 23:48**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

11 ANION ALT SV53-30

1,1 GSG ANION STD SV53-30 111701

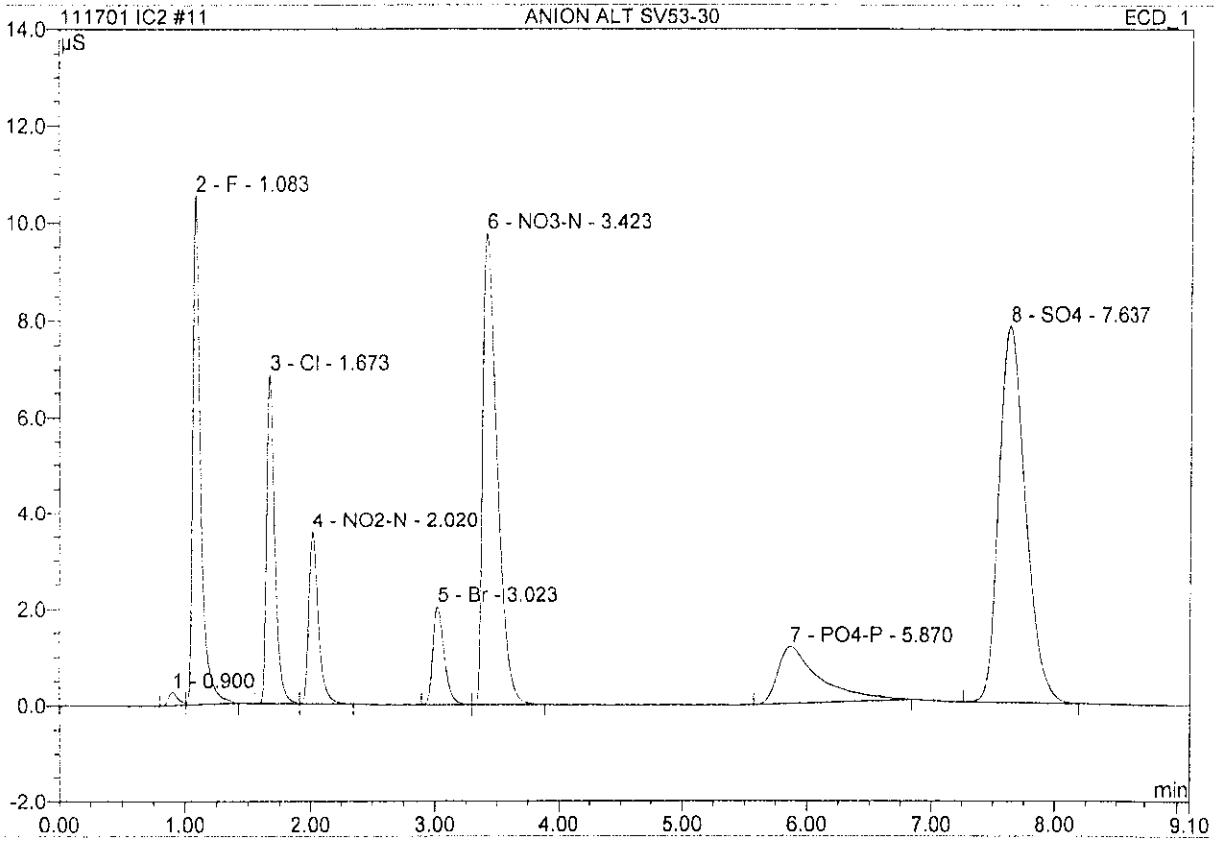
Sample Name:	**ANION ALT SV53-30**	*Injection Volume:*
Vial Number:	**36**	*Channel:*
Sample Type:	**unknown**	*Wavelength:*
Control Program:	**9056**	*Bandwidth:*
Quantif. Method:	**9056**	*Dilution Factor:*
Recording Time:	**11/17/2001 23:59**	*Sample Weight:*
Run Time (min):	**9.10**	*Sample Amount:*

ANION ALT SV53-3	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.7683	-3.86	PASS
Cl	6	5.7008	-4.99	PASS
NO2-N	3.65	na	#VALUE!	#VALUE!
NO3-N	4.07	na	#VALUE!	#VALUE!
Br	6	5.7421	-4.30	PASS
SO4	30	28.3802	-5.40	PASS
PO4-P	9.78	9.1563	-6.38	PASS

11 ANION ALT SV53-30

1,1 GSG ANION STD SV53-30 111701

Sample Name:	**ANION ALT SV53-30**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/17/2001 23:59**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.90	n.a.	0.268	0.024	0.44	n.a.	BM
2	1.08	F	10.546	0.779	14.00	5.768	MB
3	1.67	Cl	6.855	0.513	9.22	5.701	BM
4	2.02	NO2-N	3.553	0.318	5.71	1.702	MB
5	3.02	Br	2.030	0.216	3.88	5.742	BM
6	3.42	NO3-N	9.769	1.306	23.47	5.808	MB
7	5.87	PO4-P	1.184	0.454	8.16	9.156	BMB
8	7.64	SO4	7.832	1.954	35.12	28.380	BMB
Total:			42.037	5.564	100.00	62.258	

12 ANION ALT SV55-38

1,1 GSG ANION STD SOS0055-38 111701

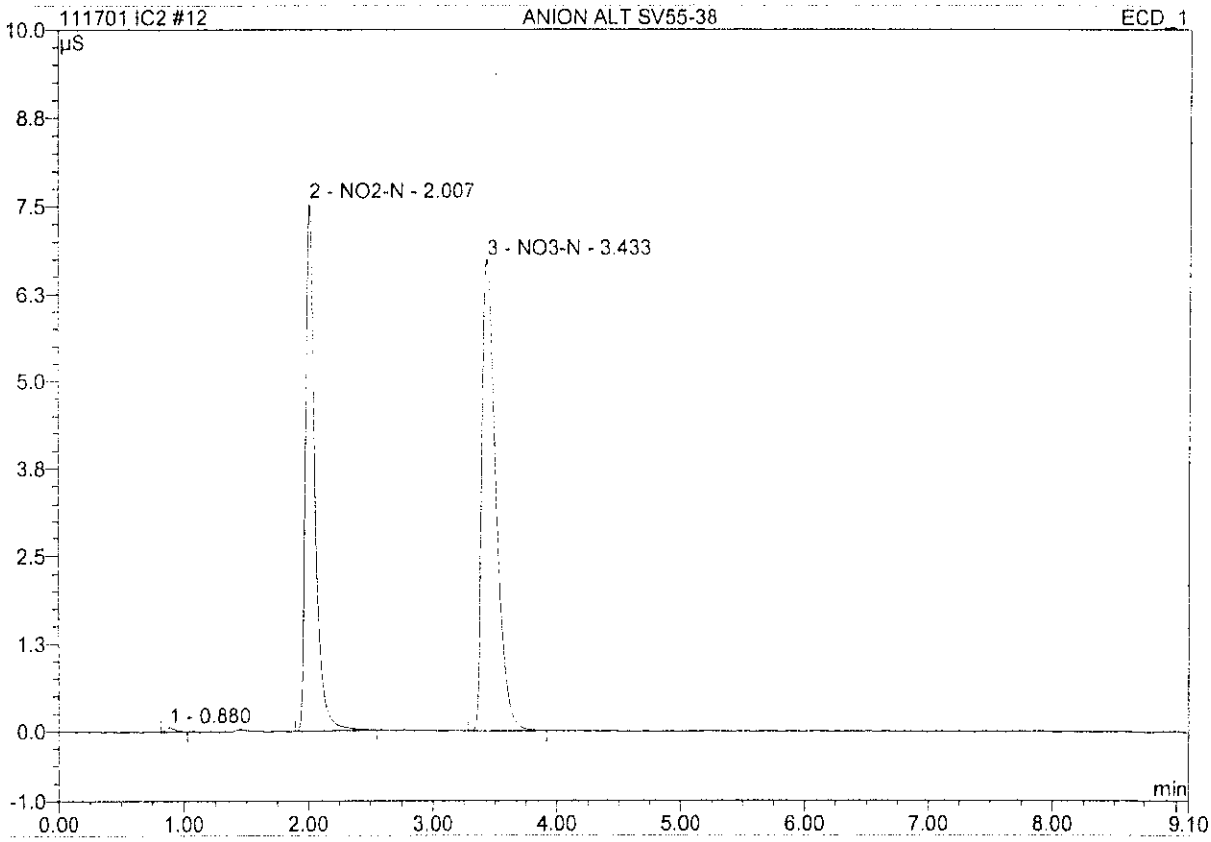
Sample Name:	**ANION ALT SV55-38**	*Injection Volume:*
Vial Number:	**36**	*Channel:*
Sample Type:	**unknown**	*Wavelength:*
Control Program:	**9056**	*Bandwidth:*
Quantif. Method:	**9056**	*Dilution Factor:*
Recording Time:	**11/18/2001 0:11**	*Sample Weight:*
Run Time (min):	**9.10**	*Sample Amount:*

ANION ALT SV55-3	Actual mg/L	Recoved mg/L	%Difference	
n.a.	6.00	n.a.	#VALUE!	#VALUE!
n.a.	6	n.a.	#VALUE!	#VALUE!
NO2-N	3.65	3.4903	-4.37	PASS
NO3-N	4.07	3.9215	-3.65	PASS
n.a.	6	n.a.	#VALUE!	#VALUE!
n.a.	30	n.a.	#VALUE!	#VALUE!
n.a.	9.78	n.a.	#VALUE!	#VALUE!

12 ANION ALT SV55-38

1,1 GSG ANION STD SOS0055-38 111701

Sample Name:	**ANION ALT SV55-38**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/18/2001 0:11**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.062	0.005	0.34	n.a.	BMB
2	2.01	NO2-N	7.550	0.667	43.11	3.490	BMB
3	3.43	NO3-N	6.740	0.875	56.55	3.922	BMB
Total:			14.352	1.548	100.00	7.412	

12 WG108388-01 CCV

1,1 GSG ANION CCV SOS0056-35 111601

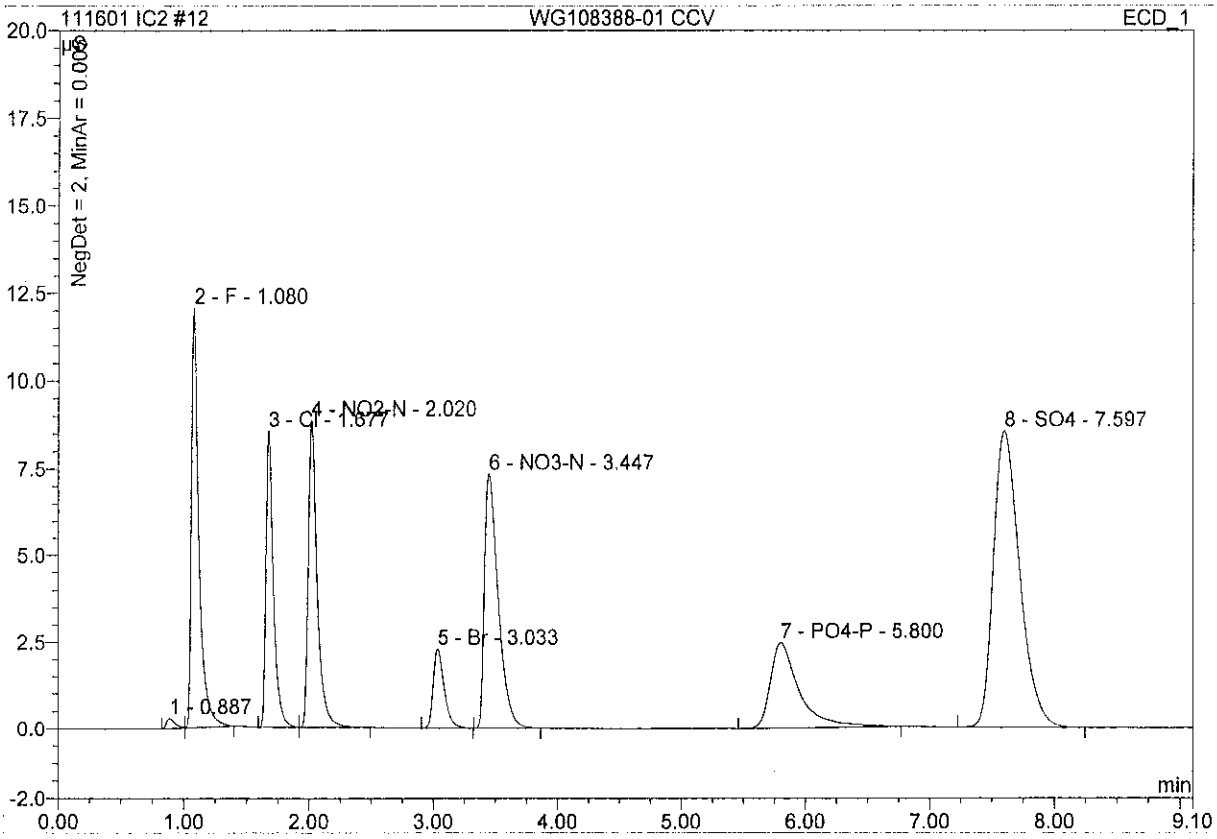
Sample Name:	**WG108388-01 CCV**
Vial Number:	**14**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**11/16/2001 12:55**
Run Time (min):	**9.10**

WG108388-01 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.7963	-3.39	PASS
Cl	6	5.9754	-0.41	PASS
NO2-N	3.65	3.5011	-4.08	PASS
Br	6	5.8384	-2.69	PASS
NO3-N	4.07	3.9147	-3.82	PASS
PO4-P	9.78	9.4722	-3.15	PASS
SO4	30	28.7375	-4.21	PASS

12 WG108388-01 CCV

1,1 GSG ANION CCV SOS0056-35 111601

Sample Name:	**WG108388-01 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**14**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 12:55**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.293	0.024	0.40	n.a.	BM
2	1.08	F	12.047	0.832	13.61	5.796	MB
3	1.68	Cl	8.534	0.589	9.63	5.975	BM
4	2.02	NO2-N	8.827	0.730	11.94	3.501	MB
5	3.03	Br	2.293	0.234	3.82	5.838	BMB
6	3.45	NO3-N	7.342	0.939	15.37	3.915	BMB
7	5.80	PO4-P	2.473	0.670	10.96	9.472	BMB
8	7.60	SO4	8.536	2.096	34.27	28.737	BMB
Total:			50.345	6.114	100.00	63.236	

CCV REPORT

INSTRUMENT : IC2
FILE NAME: IC2_020
DATE RUN: 16-Nov-01
ANALYST: GSG

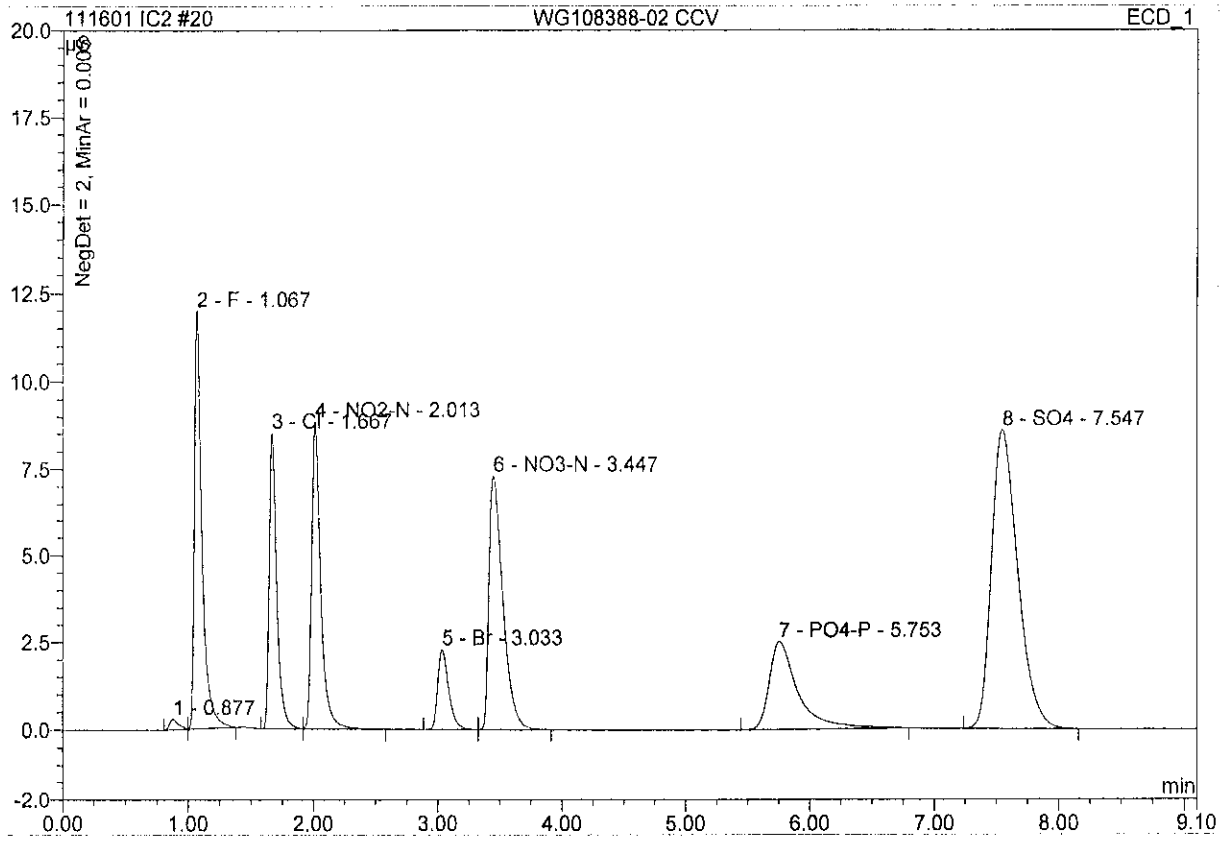
CCV RECOVERY

COMPONENT	ACTUAL mg/L		RECOVERED mg/L		% DIFF.	
F	6.00		5.80		-3.34	**PASS**
Cl	6.00		6.02		0.27	**PASS**
NO2-N	3.65		3.54		-3.10	**PASS**
Br	6.00		5.86		-2.42	**PASS**
NO3-N	4.07		3.92		-3.50	**PASS**
PO4-P	9.78		9.54		-2.45	**PASS**
SO4	30.00		28.8		-4.10	**PASS**

20 WG108388-02 CCV

1,1 GSG ANION CCV SOS0056-35 111601

Sample Name:	**WG108388-02 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**22**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 15:20**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.297	0.025	0.41	n.a.	BM
2	1.07	F	11.969	0.832	13.56	5.797	MB
3	1.67	Cl	8.509	0.593	9.66	6.016	BM
4	2.01	NO2-N	8.836	0.738	12.03	3.540	MB
5	3.03	Br	2.288	0.234	3.82	5.855	BM
6	3.45	NO3-N	7.301	0.942	15.34	3.924	MB
7	5.75	PO4-P	2.508	0.676	11.01	9.544	BMB
8	7.55	SO4	8.586	2.098	34.18	28.771	BMB
Total:			50.293	6.138	100.00	63.447	

31 WG108388-03 CCV

1,1 GSG ANION CCV SOS0056-35 111601

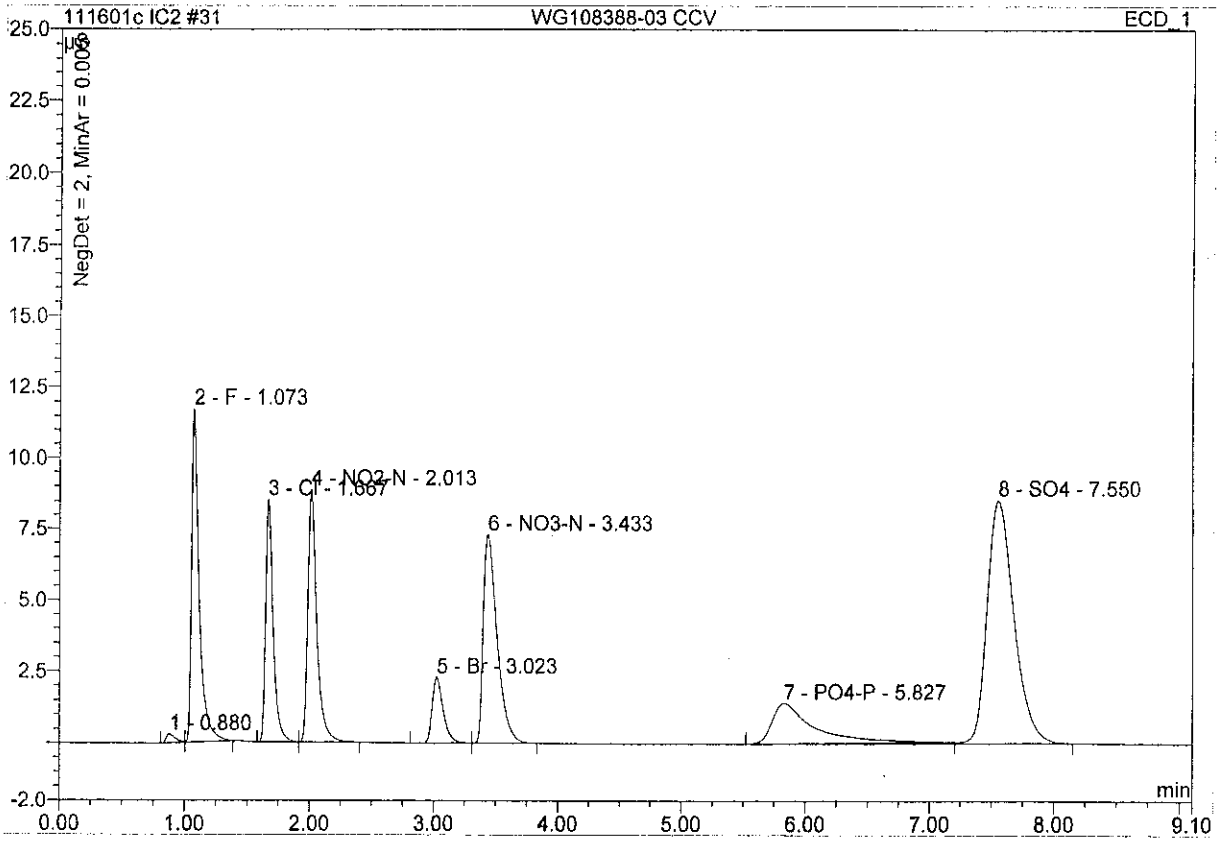
Sample Name:	**WG108388-03 CCV**
Vial Number:	**35**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**11/16/2001 19:45**
Run Time (min):	**9.10**

WG108388-03 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.7143	-4.76	PASS
Cl	6	6.0064	0.11	PASS
NO2-N	3.65	3.5098	-3.84	PASS
Br	6	5.8911	-1.81	PASS
NO3-N	4.07	3.9182	-3.73	PASS
PO4-P	9.78	7.5265	-23.04	FAIL
SO4	30	29.6493	-1.17	PASS

31 WG108388-03 CCV

1,1 GSG ANION CCV SOS0056-35 111601

Sample Name:	**WG108388-03 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**35**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 19:45**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.300	0.025	0.42	n.a.	BM
2	1.07	F	11.709	0.820	13.51	5.714	MB
3	1.67	Cl	8.503	0.592	9.75	6.006	BM
4	2.01	NO2-N	8.847	0.732	12.06	3.510	MB
5	3.02	Br	2.285	0.236	3.88	5.891	BM
6	3.43	NO3-N	7.287	0.940	15.49	3.918	MB
7	5.83	PO4-P	1.395	0.561	9.24	7.625	Ru
8	7.55	SO4	8.522	2.164	35.65	29.649	BMB
Total:			48.848	6.069	100.00	62.315	

43 WG108388-04 CCV

1,1 GSG ANION CCV SOS0056-35 111601

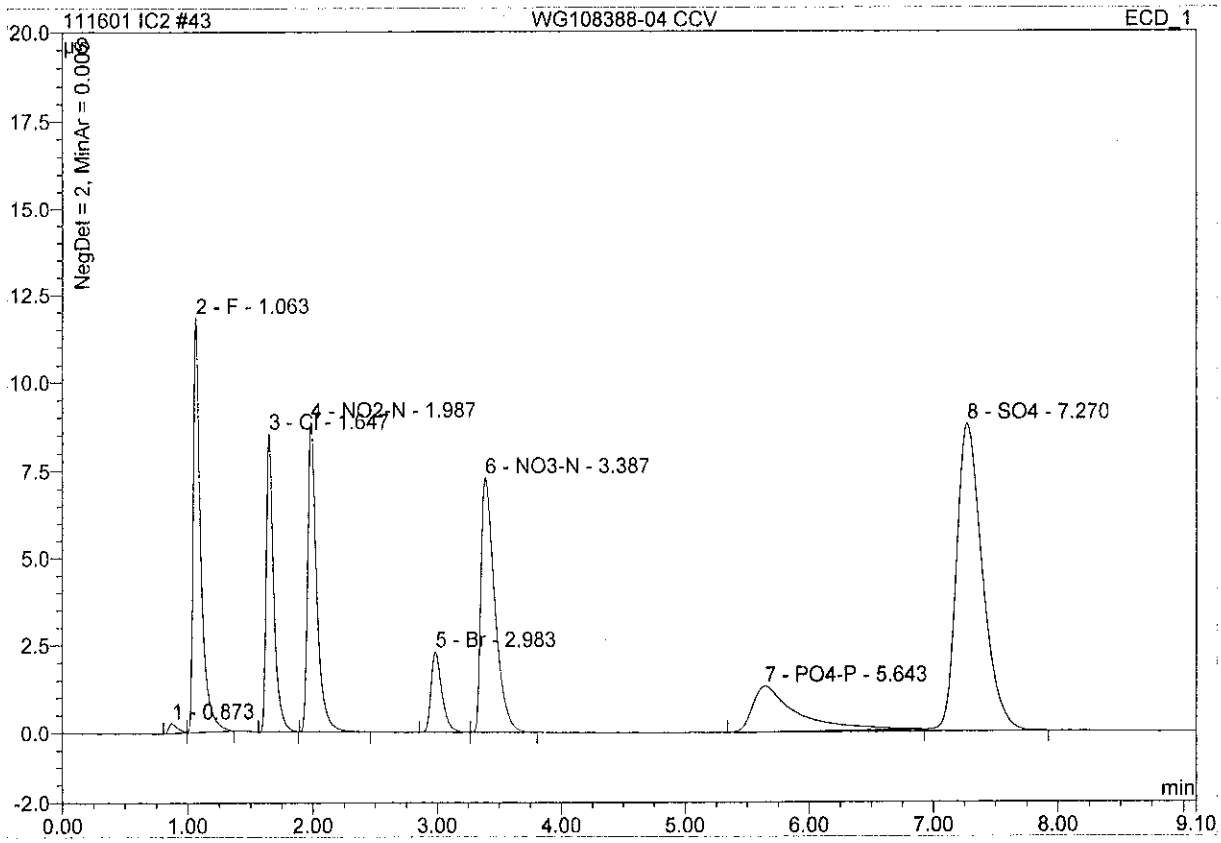
Sample Name:	**WG108388-04 CCV**
Vial Number:	**37**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**11/16/2001 22:38**
Run Time (min):	**9.10**

WG108388-04 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.7778	-3.70	PASS
Cl	6	6.0000	0.00	PASS
NO2-N	3.65	3.5230	-3.48	PASS
Br	6	5.8384	-2.69	PASS
NO3-N	4.07	3.8934	-4.34	PASS
SO4	9.78	9.2459	-5.46	FAIL ok <10%
SO4	30	29.1116	-2.96	PASS

43 WG108388-04 CCV

1,1 GSG ANION CCV SOS0056-35 111601

Sample Name:	**WG108388-04 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**37**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 22:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.280	0.023	0.38	n.a.	BM
2	1.06	F	11.822	0.822	13.59	5.778	MB
3	1.65	Cl	8.512	0.591	9.77	6.000	BMB
4	1.99	NO2-N	8.826	0.733	12.12	3.523	BMB
5	2.98	Br	2.298	0.233	3.85	5.838	BMB
6	3.39	NO3-N	7.292	0.938	15.52	3.893	BMB
7	5.64	PO4-P	1.298	0.529	8.75	9.246	Ru
8	7.27	SO4	8.770	2.178	36.01	29.112	BMB
Total:			49.098	6.047	100.00	63.390	

50 WG108388-05 CCV

1,1 GSG ANION CCV SOS0056-35 111601

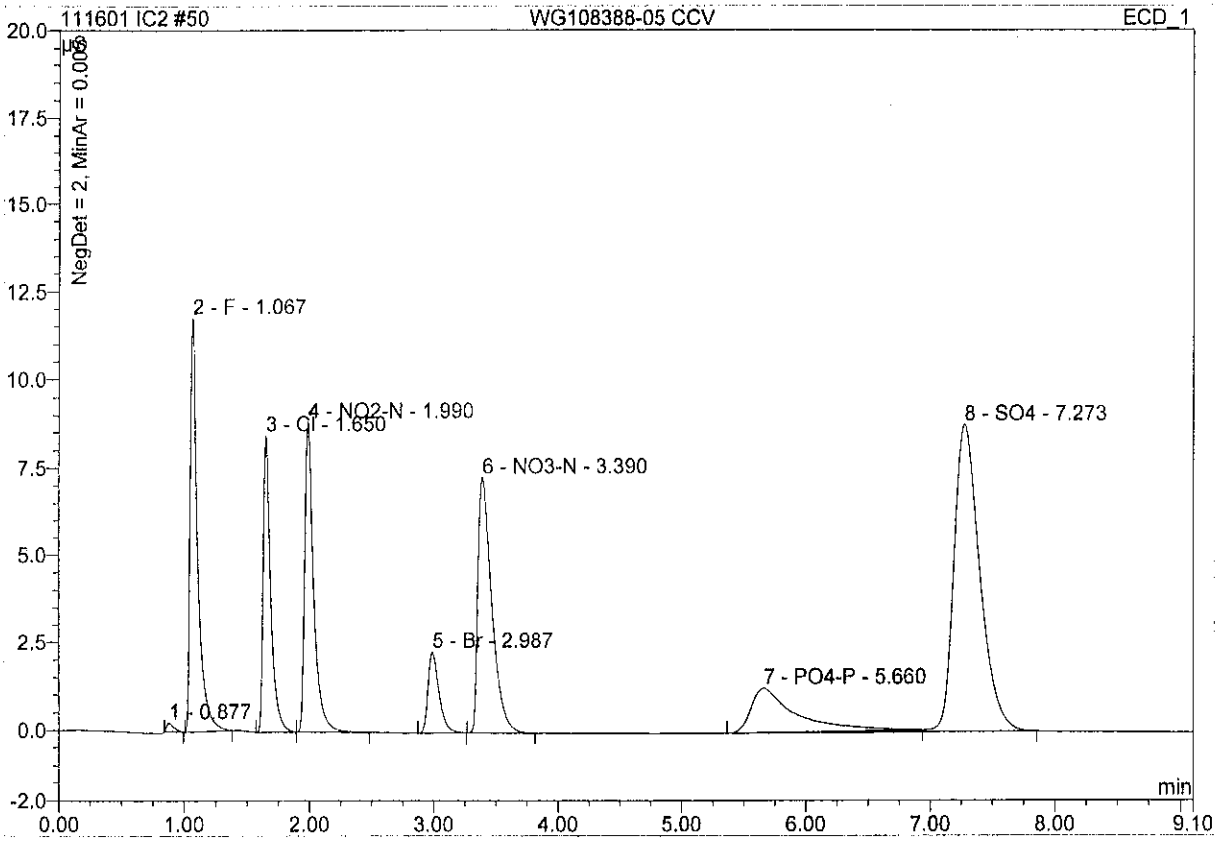
Sample Name:	**WG108388-05 CCV**
Vial Number:	**28**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**11/16/2001 23:58**
Run Time (min):	**9.10**

WG108388-05 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.7416	-4.31	PASS
Cl	6	5.9905	-0.16	PASS
NO2-N	3.65	3.5225	-3.49	PASS
Br	6	5.8644	-2.26	PASS
NO3-N	4.07	3.9091	-3.95	PASS
PO4-P	9.78	9.0403	-7.56	FAIL <10% diff. ok
SO4	30	29.0602	-3.13	PASS

50 WG108388-05 CCV

1,1 GSG ANION CCV SOS0056-35 111601

Sample Name:	**WG108388-05 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**28**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 23:58**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.225	0.016	0.26	n.a.	BMB
2	1.07	F	11.781	0.816	13.56	5.742	BMB
3	1.65	Cl	8.470	0.590	9.79	5.990	BMB
4	1.99	NO2-N	8.846	0.733	12.17	3.523	BMB
5	2.99	Br	2.288	0.234	3.88	5.864	BMB
6	3.39	NO3-N	7.302	0.942	15.65	3.909	BMB
7	5.66	PO4-P	1.254	0.517	8.59	9.040	Ru
8	7.27	SO4	8.770	2.174	36.09	29.060	BMB
Total:			48.936	6.022	100.00	63.129	

54 WG108388-06 CCV

1,1 GSG ANION CCV SOS0056-35 111601

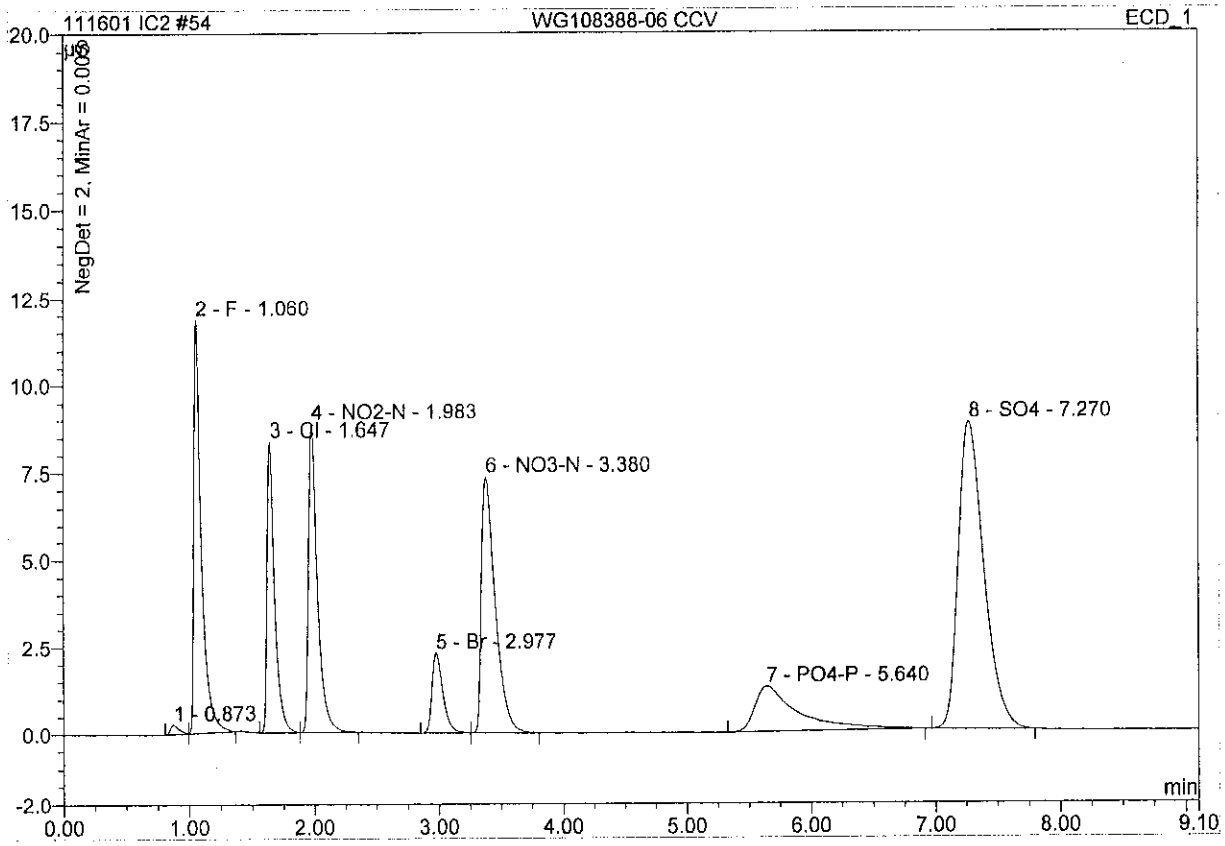
Sample Name:	**WG108388-06 CCV**
Vial Number:	**33**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**11/17/2001 0:44**
Run Time (min):	**9.10**

WG108388-06 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8294	-2.84	PASS
Cl	6	5.9352	-1.08	PASS
NO2-N	3.65	3.5297	-3.30	PASS
Br	6	5.8918	-1.80	PASS
NO3-N	4.07	3.9291	-3.46	PASS
PO4-P	9.78	9.3221	-4.68	PASS
SO4	30	28.2764	-5.75	FAIL <10% ok

54 WG108388-06 CCV

1,1 GSG ANION CCV SOS0056-35 111601

Sample Name:	**WG108388-06 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**33**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/17/2001 0:44**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.273	0.022	0.37	n.a.	BM
2	1.06	F	11.851	0.829	13.82	5.829	MB
3	1.65	Cl	8.347	0.584	9.74	5.935	BM
4	1.98	NO2-N	8.857	0.735	12.24	3.530	MB
5	2.98	Br	2.304	0.235	3.92	5.892	BMB
6	3.38	NO3-N	7.336	0.947	15.79	3.929	BMB
7	5.64	PO4-P	1.306	0.534	8.90	9.322	BMB
8	7.27	SO4	8.802	2.114	35.23	28.276	BMB
Total:			49.075	6.000	100.00	62.714	

13 WG108427-01 CCV

1,1 GSG ANION CCV SOS0056-35 111701

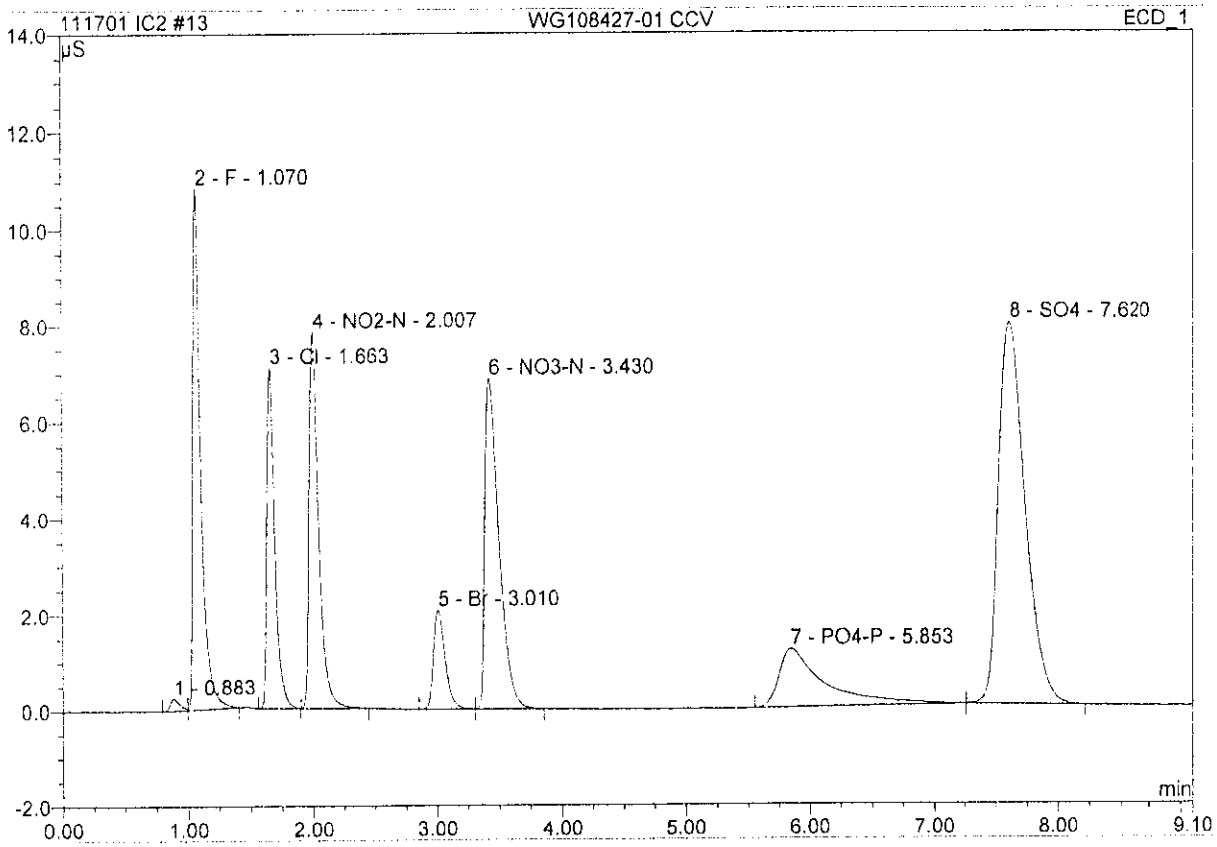
Sample Name:	**WG108427-01 CCV**	*Injection Volume:*	
Vial Number:	**14**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**11/18/2001 0:22**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG108427-01 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8711	-2.15	PASS
Cl	6	5.8713	-2.15	PASS
NO2-N	3.65	3.5992	-1.39	PASS
NO3-N	4.07	4.0009	-1.70	PASS
Br	6	5.9674	-0.54	PASS
SO4	30	28.7689	-4.10	PASS
PO4-P	9.78	10.4066	6.41	PASS

13 WG108427-01 CCV

1,1 GSG ANION CCV SOS0056-35 111701

Sample Name:	**WG108427-01 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**14**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/18/2001 0:22**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.243	0.021	0.37	n.a.	BM
2	1.07	F	10.832	0.793	14.04	5.871	MB
3	1.66	Cl	7.077	0.529	9.36	5.871	BMB
4	2.01	NO2-N	7.825	0.689	12.20	3.599	BMB
5	3.01	Br	2.079	0.224	3.97	5.967	BM
6	3.43	NO3-N	6.868	0.893	15.82	4.001	MB
7	5.85	PO4-P	1.230	0.516	9.15	10.407	BMB
8	7.62	SO4	7.952	1.982	35.09	28.769	BMB
Total:			44.106	5.647	100.00	64.485	

22 WG108427-02 CCV

1,1 GSG ANION CCV SOS0056-35 111701

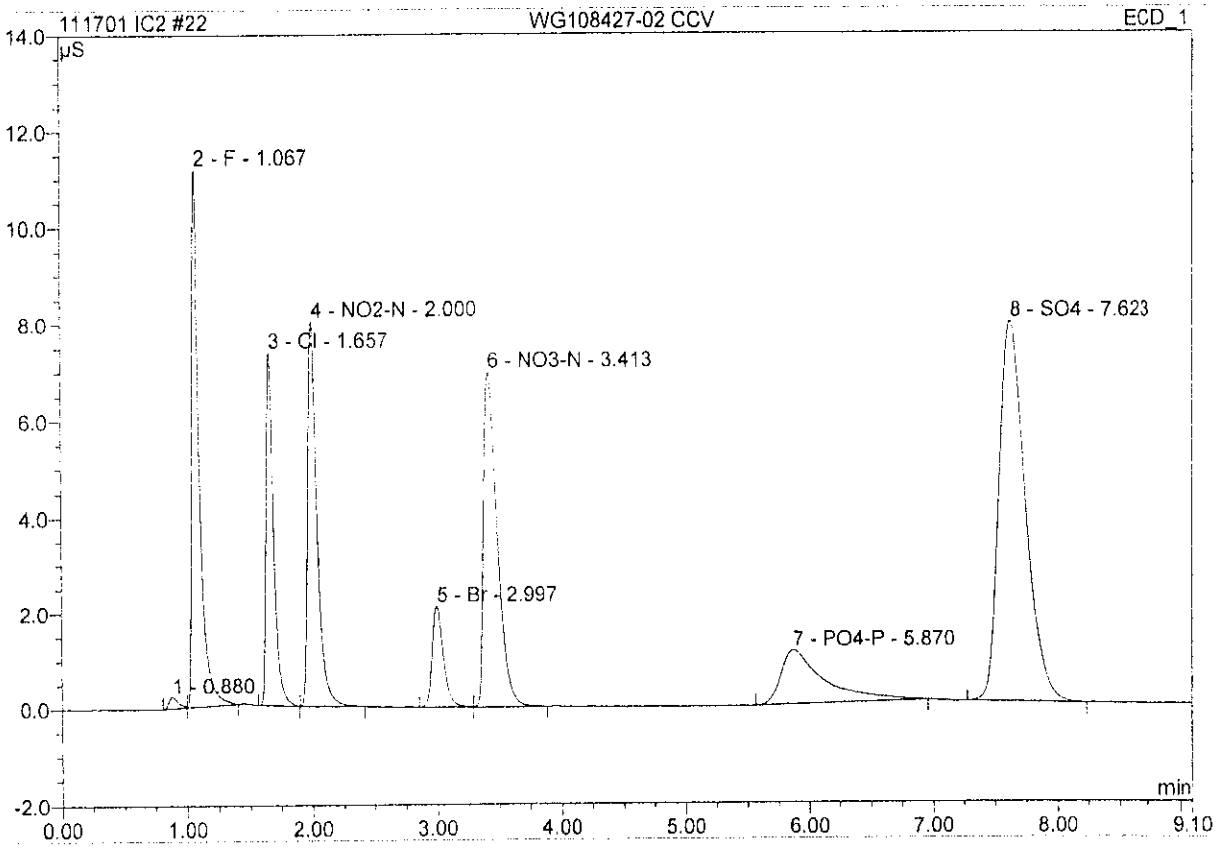
Sample Name:	**WG108427-02 CCV**	*Injection Volume:*	
Vial Number:	**23**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**11/18/2001 2:06**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG108427-02 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8485	-2.52	PASS
Cl	6	5.8716	-2.14	PASS
NO2-N	3.65	3.5634	-2.37	PASS
NO3-N	4.07	3.9723	-2.40	PASS
Br	6	5.8632	-2.28	PASS
SO4	30	28.5169	-4.94	PASS
PO4-P	9.78	9.4082	-3.80	PASS

22 WG108427-02 CCV

1,1 GSG ANION CCV SOS0056-35 111701

Sample Name:	**WG108427-02 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**23**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/18/2001 2:06**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.232	0.020	0.35	n.a.	BM
2	1.07	F	11.172	0.790	14.21	5.849	MB
3	1.66	Cl	7.344	0.529	9.51	5.872	BMB
4	2.00	NO2-N	8.013	0.682	12.27	3.563	BMB
5	3.00	Br	2.120	0.220	3.96	5.863	BM
6	3.41	NO3-N	6.969	0.887	15.96	3.972	MB
7	5.87	PO4-P	1.132	0.467	8.40	9.408	BMB
8	7.62	SO4	7.932	1.964	35.34	28.517	BMB
Total:			44.914	5.557	100.00	63.044	

27 WG108427-03 CCV

1,10 GSG

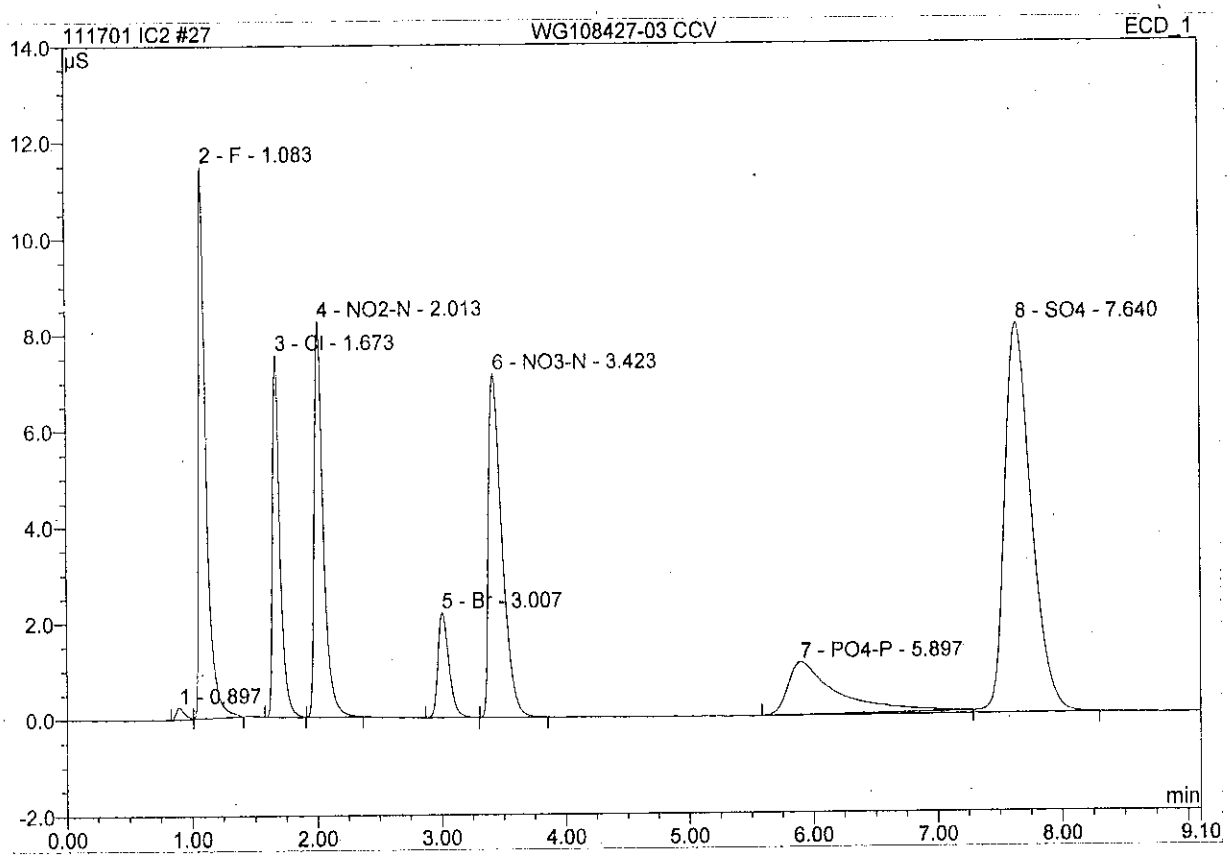
Sample Name:	**WG108427-03 CCV**	*Injection Volume:*	
Vial Number:	**28**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**11/18/2001 3:03**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG108427-03 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8429	-2.62	PASS
Cl	6	5.8712	-2.15	PASS
NO2-N	3.65	3.5977	-1.43	PASS
NO3-N	4.07	4.0137	-1.38	PASS
Br	6	5.9751	-0.41	PASS
SO4	30	30.0449	0.15	PASS
PO4-P	9.78	9.9502	1.74	PASS

27 WG108427-03 CCV

1,10 GSG

Sample Name:	**WG108427-03 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**28**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/18/2001 3:03**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



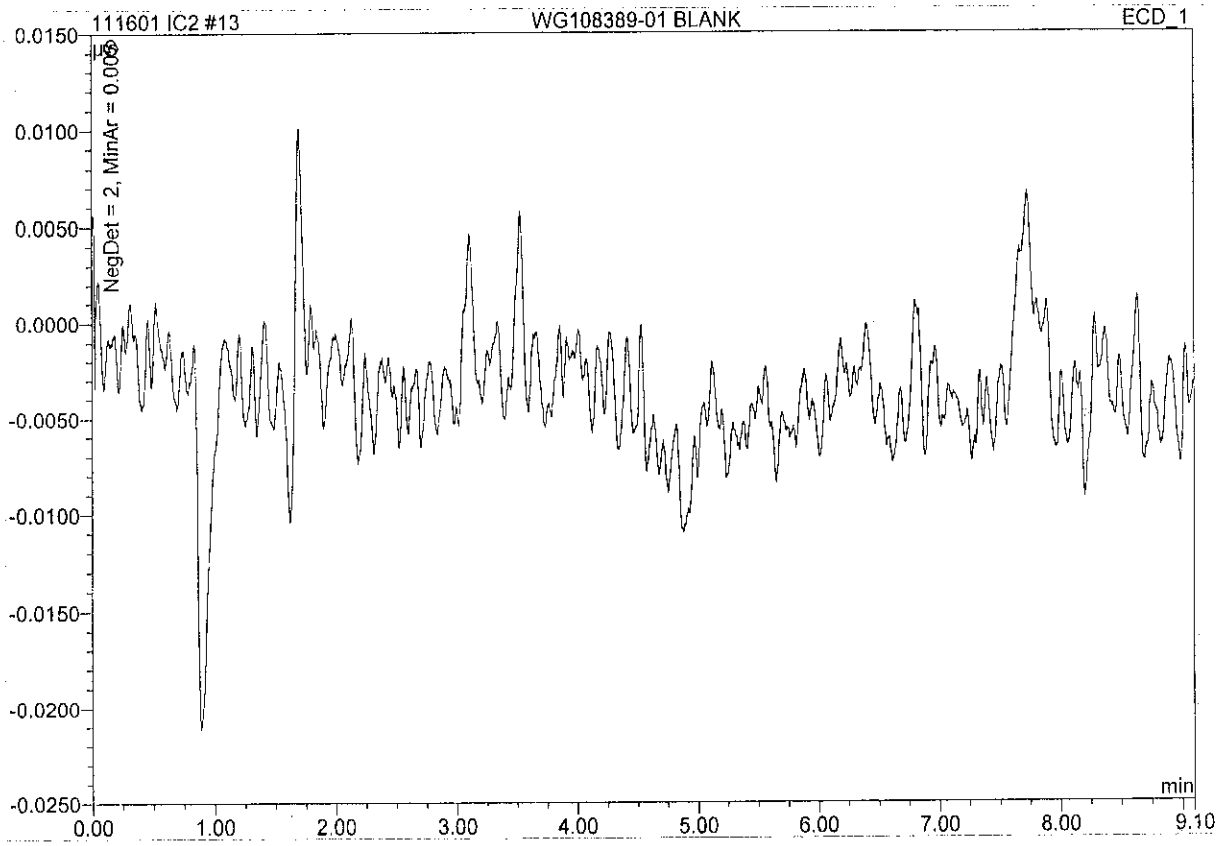
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.90	n.a.	0.254	0.020	0.36	n.a.	BM
2	1.08	F	11.477	0.789	13.81	5.843	MB
3	1.67	Cl	7.532	0.529	9.25	5.871	BMB
4	2.01	NO2-N	8.241	0.688	12.05	3.598	BMB
5	3.01	Br	2.188	0.224	3.93	5.975	BMB
6	3.42	NO3-N	7.145	0.896	15.69	4.014	BMB
7	5.90	PO4-P	1.095	0.494	8.64	9.950	Ru
8	7.64	SO4	8.115	2.072	36.27	30.045	BMB
Total:			46.048	5.712	100.00	65.296	

2.4.5.4 Raw QC Data

13 WG108389-01 BLANK

1,1 GSG BLANK

Sample Name:	**WG108389-01 BLANK**	*Injection Volume:*	**25.0**
Vial Number:	**15**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 13:07**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

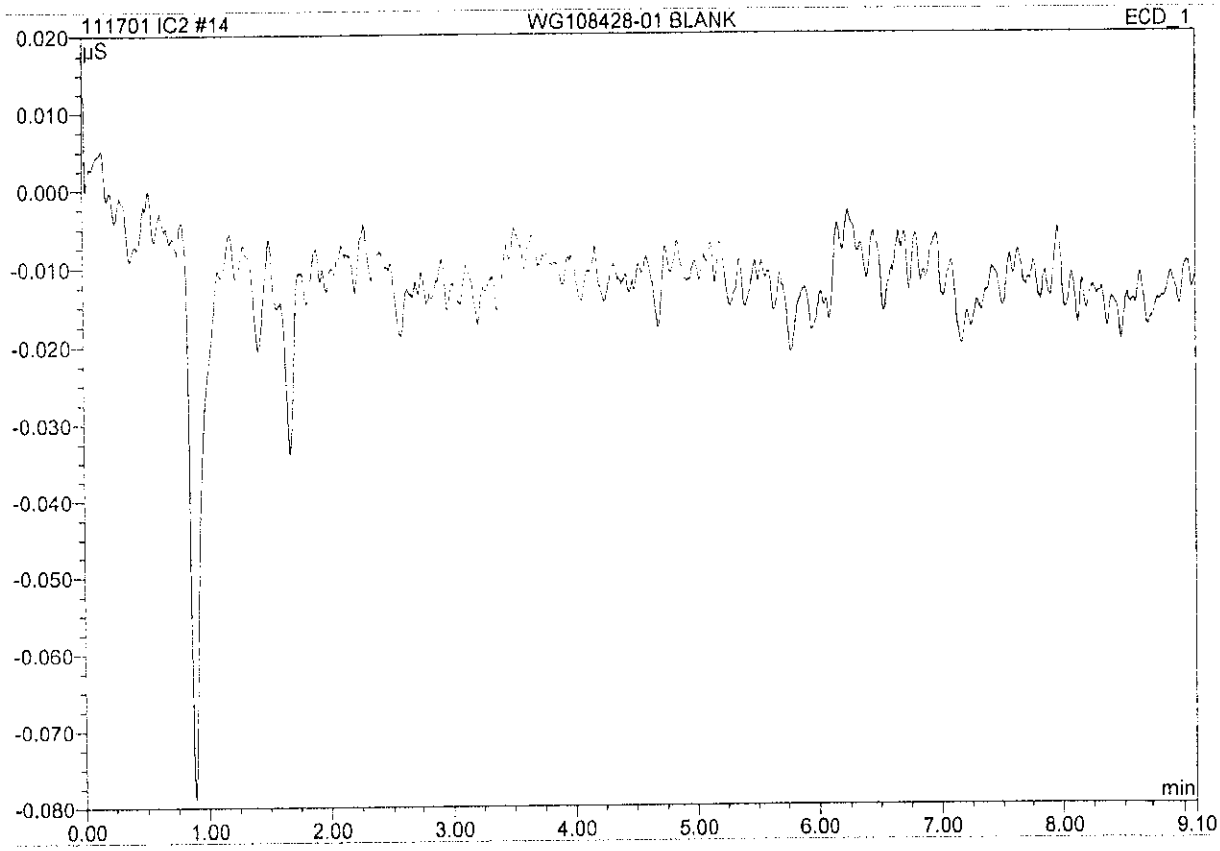


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

14 WG108428-01 BLANK

1,1 GSG

Sample Name:	**WG108428-01 BLANK**	*Injection Volume:*	**25.0**
Vial Number:	**15**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/18/2001 0:34**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

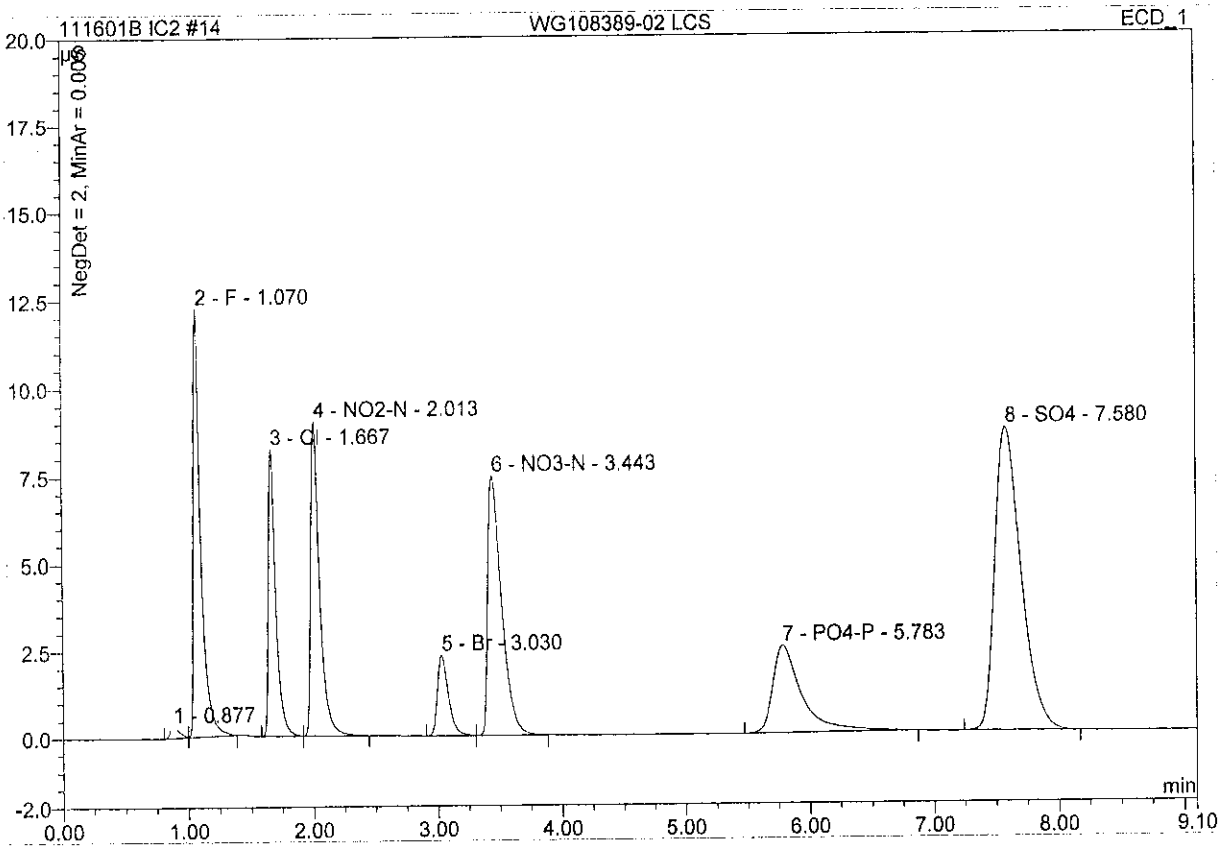


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

14 WG108389-02 LCS

1,1 GSG ANION LCS SOS0056-35 111601

Sample Name:	**WG108389-02 LCS**	*Injection Volume:*	**25.0**
Vial Number:	**16**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 13:18**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

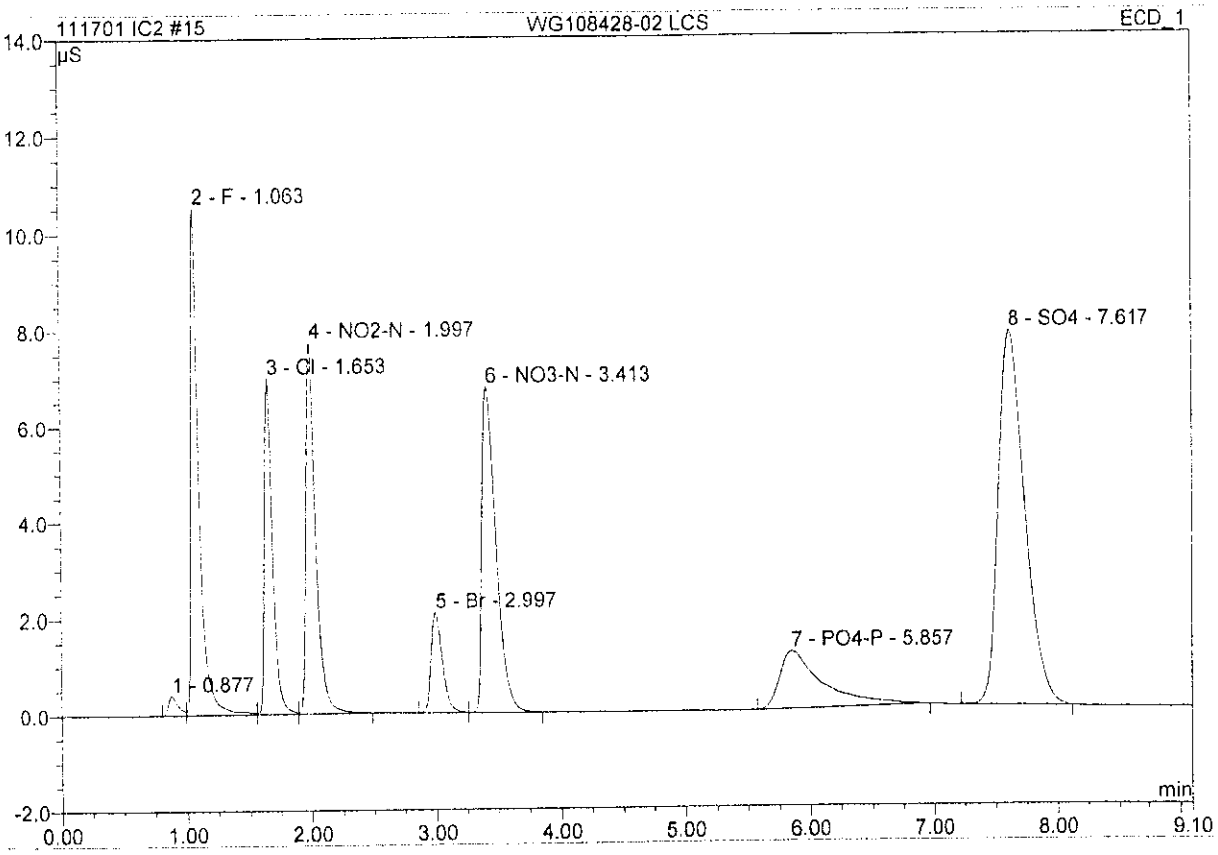


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.342	0.029	0.46	n.a.	BM
2	1.07	F	12.242	0.848	13.65	5.903	MB
3	1.67	Cl	8.227	0.571	9.20	5.799	BM
4	2.01	NO2-N	9.003	0.744	11.98	3.568	MB
5	3.03	Br	2.335	0.238	3.84	5.956	BM
6	3.44	NO3-N	7.449	0.959	15.44	3.993	MB
7	5.78	PO4-P	2.524	0.689	11.10	9.269	BMB
8	7.58	SO4	8.681	2.130	34.32	29.205	BMB
Total:			50.804	6.208	100.00	63.692	

15 WG108428-02 LCS

1,1 GSG

Sample Name:	**WG108428-02 LCS**	*Injection Volume:*	**25.0**
Vial Number:	**16**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/18/2001 0:45**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

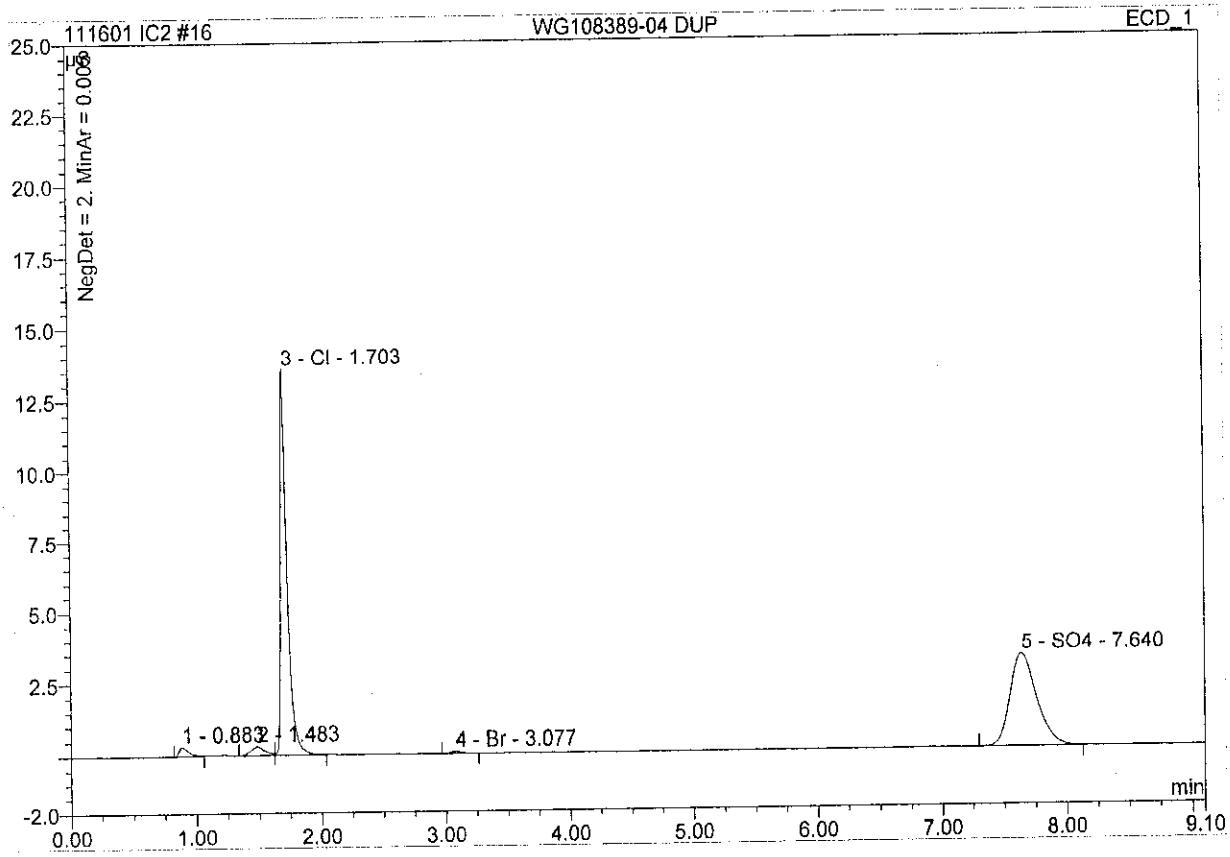


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.407	0.037	0.67	n.a.	BM
2	1.06	F	10.541	0.809	14.47	5.985	M
3	1.65	Cl	6.997	0.532	9.53	5.912	M
4	2.00	NO2-N	7.733	0.689	12.33	3.600	MB
5	3.00	Br	2.069	0.220	3.95	5.870	BM
6	3.41	NO3-N	6.776	0.882	15.78	3.950	MB
7	5.86	PO4-P	1.190	0.475	8.50	9.572	BMB
8	7.62	SO4	7.800	1.944	34.78	28.231	BMB
Total:			43.514	5.588	100.00	63.120	

16 WG108389-04 DUP

1,1 GSG L0111316-01

Sample Name:	**WG108389-04 DUP**	*Injection Volume:*	**25.0**
Vial Number:	**18**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/16/2001 14:34**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.309	0.026	1.53	n.a.	BMB
2	1.48	n.a.	0.308	0.038	2.24	n.a.	BM
3	1.70	Cl	13.539	0.852	49.91	8.624	MB
4	3.08	Br	0.071	0.007	0.42	0.177	BMB
5	7.64	SO4	3.192	0.783	45.89	11.100	BMB
Total:			17.419	1.706	100.00	19.901	

Sequence: 111601 IC2
Operator: gsg
Printed: 11/28/2001 3:13:40 PM

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 58

Created: 11/16/2001 12:31:36 PM by gsg
(Modified, not saved)

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
1	ANION LVL #1	Unknown	3	25.0	9056	9056	Finished	11/15/2001 12:58:12 PM
2	ANION LVL #2	Unknown	2	25.0	9056	9056	Finished	11/15/2001 1:09:42 PM
3	ANION LVL #3	Unknown	3	25.0	9056	9056	Finished	11/15/2001 1:21:11 PM
4	ANION LVL #4	Unknown	4	25.0	9056	9056	Finished	11/15/2001 1:37:36 PM
5	ANION LVL #5	Unknown	5	25.0	9056	9056	Finished	11/15/2001 1:49:06 PM
6	ANION LVL #6	Unknown	6	25.0	9056	9056	Finished	11/15/2001 2:00:36 PM
7	ELUENT BLANK	Unknown	7	25.0	9056	9056	Finished	11/15/2001 2:12:06 PM
8	ALT CCV SV53-30	Unknown	8	25.0	9056	9056	Finished	11/15/2001 2:23:36 PM
9	ALT CCV SOS55-48	Unknown	9	25.0	9056	9056	Finished	11/15/2001 2:35:05 PM
10	DI H2O BLANK	Unknown	12	25.0	9056	9056	Finished	11/16/2001 12:32:54 PM
11	ELUENT BLANK	Unknown	13	25.0	9056	9056	Finished	11/16/2001 12:44:24 PM
12	WG108388-01 CCV	Unknown	14	25.0	9056	9056	Finished	11/16/2001 12:55:54 PM
13	WG108389-01 BLANK	Unknown	15	25.0	9056	9056	Finished	11/16/2001 1:07:23 PM
14	WG108389-02 LCS	Unknown	16	25.0	9056	9056	Finished	11/16/2001 1:18:53 PM
15	WG108389-03 REF DUP	Unknown	17	25.0	9056	9056	Finished	11/16/2001 2:23:24 PM
16	WG108389-04 DUP	Unknown	18	25.0	9056	9056	Finished	11/16/2001 2:34:55 PM
17	WG108389-05 REF MS	Unknown	19	25.0	9056	9056	Finished	11/16/2001 2:46:25 PM
18	WG108389-06 MS	Unknown	20	25.0	9056	9056	Finished	11/16/2001 2:57:54 PM
19	WG108389-07 MSD	Unknown	21	25.0	9056	9056	Finished	11/16/2001 3:09:25 PM
20	WG108388-02 CCV	Unknown	22	25.0	9056	9056	Finished	11/16/2001 3:20:55 PM
21	L0111316-05	Unknown	23	25.0	9056	9056	Finished	11/16/2001 3:32:25 PM
22	L0111316-06	Unknown	23	25.0	9056	9056	Finished	11/16/2001 3:43:54 PM
23	L0111316-07	Unknown	24	25.0	9056	9056	Finished	11/16/2001 3:55:25 PM
24	L0111316-09	Unknown	25	25.0	9056	9056	Finished	11/16/2001 4:06:55 PM
25	L0111316-10	Unknown	26	25.0	9056	9056	Finished	11/16/2001 4:18:26 PM
26	L0111316-11	Unknown	27	25.0	9056	9056	Finished	11/16/2001 4:29:56 PM
27	L0111316-12	Unknown	28	25.0	9056	9056	Finished	11/16/2001 4:41:26 PM
28	L0111316-13	Unknown	29	25.0	9056	9056	Finished	11/16/2001 4:52:56 PM
29	L0111316-14	Unknown	30	25.0	9056	9056	Finished	11/16/2001 5:04:27 PM
30	L0111316-12 @ 500X	Unknown	31	25.0	9056	9056	Finished	11/16/2001 5:15:57 PM
31	WG108388-03 CCV	Unknown	35	25.0	9056	9056	Finished	11/16/2001 7:45:56 PM
32	ANION STD #1	Standard	36	25.0	9056	9056	Finished	11/16/2001 8:31:41 PM
33	ANION STD #2	Standard	36	25.0	9056	9056	Finished	11/16/2001 8:43:11 PM
34	ANION STD #3	Standard	36	25.0	9056	9056	Finished	11/16/2001 8:54:41 PM
35	ANION STD #4	Standard	36	25.0	9056	9056	Finished	11/16/2001 9:06:11 PM
36	ANION STD #5	Standard	36	25.0	9056	9056	Finished	11/16/2001 9:17:40 PM
37	ANION STD #6	Standard	37	25.0	9056	9056	Finished	11/16/2001 9:29:11 PM
38	ELUENT BLANK	Unknown	36	25.0	9056	9056	Finished	11/16/2001 9:40:40 PM
39	ANION ALT SV53-30	Unknown	36	25.0	9056	9056	Finished	11/16/2001 9:52:10 PM
40	ANION ALT SV55-38	Unknown	36	25.0	9056	9056	Finished	11/16/2001 10:03:40 PM
41	ELUENT BLANK	Unknown	36	25.0	9056	9056	Finished	11/16/2001 10:15:10 PM
42	WG~~108388-03~~ CCV	Unknown	36	25.0	9056	9056	Finished	11/16/2001 10:26:39 PM

PeakNet © Dionex Corporation, Version 6.30 SP1 Build 587

Sequence: 111601 IC2
Operator: gsg

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 58

Created: 11/16/2001 12:31:36 PM by gsg
(Modified, not saved)

No.	Name	Dil. Factor	Sample ID	Comment
1	ANION LVL #1	1.0000		1,1 RDC ANION LVL #1 SOS0056-35
2	ANION LVL #2	1.0000		1,1 RDC ANION LVL #2 SOS0056-35
3	ANION LVL #3	1.0000		1,1 RDC ANION LVL #3 SOS0056-35
4	ANION LVL #4	1.0000		1,1 RDC ANION LVL #4 SOS0056-35
5	ANION LVL #5	1.0000		1,1 RDC ANION LVL #5 SOS0056-35
6	ANION LVL #6	1.0000		1,1 RDC ANION LVL #6 SOS0056-35
7	ELUENT BLANK	1.0000		1,1 RDC ELUENT BLANK
8	ALT CCV SV53-30	1.0000		1,1 RDC ANION ALT CCV SV0053-30
9	ALT CCV SOS55-48	1.0000		1,1 RDC ANION ALT NO2/NO3 SV0056-28
10	DI H2O BLANK	1.0000		1,1 GSG
11	ELUENT BLANK	1.0000		1,1 GSG
12	WG108388-01 CCV	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
13	WG108389-01 BLANK	1.0000		1,1 GSG BLANK
14	WG108389-02 LCS	1.0000		1,1 GSG ANION LCS SOS0056-35 111601
15	WG108389-03 REF DUP	1.0000		1,1 GSG L0111316-01
16	WG108389-04 DUP	1.0000		1,1 GSG L0111316-01
17	WG108389-05 REF MS	1.0000		1,1 GSG L0111316-02
18	WG108389-06 MS	1.0000		1,1 GSG L0111316-03 MS SOS0056-35 111601
19	WG108389-07 MSD	1.0000		1,1 GSG L0111316-04 MSD SOS0056-35 111601
20	WG108388-02 CCV	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
21	L0111316-05	1.0000		1,1 GSG
22	L0111316-06	1.0000		1,1 GSG
23	L0111316-07	1.0000		1,1 GSG
24	L0111316-09	1.0000		1,1 GSG
25	L0111316-10	1.0000		1,1 GSG
26	L0111316-11	1.0000		1,1 GSG
27	L0111316-12	1.0000		1,1 GSG
28	L0111316-13	1.0000		1,1 GSG
29	L0111316-14	1.0000		1,1 GSG
30	L0111316-12 @ 500X	1.0000		1,500 GSG
31	WG108388-03 CCV	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
32	ANION STD #1	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
33	ANION STD #2	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
34	ANION STD #3	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
35	ANION STD #4	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
36	ANION STD #5	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
37	ANION STD #6	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
38	ELUENT BLANK	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
39	ANION ALT SV53-30	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
40	ANION ALT SV55-38	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
41	ELUENT BLANK	1.0000		1,1 GSG
42	WG108388-03 CCV	1.0000		1,1 GSG ANION CCV SOS0056-35 111601

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Sequence: 111601 IC2
Operator: gsg

Printed: 11/28/2001 3:13:40 PM

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 58

Created: 11/16/2001 12:31:36 PM by gsg
(Modified, not saved)

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
43	WG108388-04 CCV	Unknown	37	25.0	9056	9056	Finished	11/16/2001 10:38:10 PM
44	L0111316-05 RR	Unknown	23	25.0	9056	9056	Finished	11/16/2001 10:49:40 PM
45	L0111316-06 RR	Unknown	23	25.0	9056	9056	Finished	11/16/2001 11:01:11 PM
46	L0111316-07 RR	Unknown	24	25.0	9056	9056	Finished	11/16/2001 11:12:41 PM
47	L0111316-09 RR	Unknown	25	25.0	9056	9056	Finished	11/16/2001 11:24:11 PM
48	L0111316-10 RR	Unknown	26	25.0	9056	9056	Finished	11/16/2001 11:35:41 PM
49	L0111316-11 RR	Unknown	27	25.0	9056	9056	Finished	11/16/2001 11:47:10 PM
50	WG108388-08 CCV	Unknown	28	25.0	9056	9056	Finished	11/16/2001 11:58:41 PM
51	L0111316-13 RR	Unknown	29	25.0	9056	9056	Finished	11/17/2001 12:10:11 AM
52	L0111316-12 @ 500X RR	Unknown	31	25.0	9056	9056	Finished	11/17/2001 12:21:42 AM
53	L0111316-14 @ 500X	Unknown	32	25.0	9056	9056	Finished	11/17/2001 12:33:12 AM
54	WG108388-06 CCV	Unknown	33	25.0	9056	9056	Finished	11/17/2001 12:44:42 AM
55	L0111316-12 RR	Unknown	34	25.0	9056	9056	Finished	11/17/2001 12:56:12 AM
56	L0111316-14 RR	Unknown	34	25.0	9056	9056	Finished	11/17/2001 1:07:42 AM
57	WG108388-07 CCV	Unknown	34	25.0	9056	9056	Finished	11/17/2001 1:19:13 AM
58	END	Unknown	34	25.0	DX-320 OFF	9056	Finished	11/17/2001 1:30:43 AM

PeakNet © Dionex Corporation, Version 6.30 SP1 Build 587

Sequence: 111601 IC2
Operator: gsg
Printed: 11/28/2001 3:13:40 PM

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 58

Created: 11/16/2001 12:31:36 PM by gsg
(Modified, not saved)

No.	Name	Dil. Factor	Sample ID	Comment
43	WG108388-04 CCV	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
44	L0111316-05 RR	1.0000		1,1 GSG
45	L0111316-06 RR	1.0000		1,1 GSG
46	L0111316-07 RR	1.0000		1,1 GSG
47	L0111316-09 RR	1.0000		1,1 GSG
48	L0111316-10 RR	1.0000		1,1 GSG
49	L0111316-11 RR	1.0000		1,1 GSG
50	WG108388-08 CCV	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
51	L0111316-13 RR	1.0000		1,1 GSG
52	L0111316-12 @ 500X RR	1.0000		1,500 GSG
53	L0111316-14 @ 500X	1.0000		1,500 GSG
54	WG108388-06 CCV	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
55	L0111316-12 RR	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
56	L0111316-14 RR	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
57	WG108388-07 CCV	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
58	END	1.0000		1,1 GSG

12/4/01

Analysis Date/Time 11/26/01 Instrument ID ICP Column ID AG4A-SC AS4A-SC Data Subdirectory 11/6/01
Analyst Initials CSC SOP # IC01 Rev. # 01 9056 SOP # IC02 Rev. # 314.0

Daily Check

- ☑ Mobile phase reservoir
- ☑ System pressure 1241 PSI.
- ☑ Waste container

Returned to Control?

Yes ____ No _____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

Reviewed By: RPC 12/5/01

Sequence: 111701 IC2
Operator: gsg

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 28

Created: 11/17/2001 10:49:00 AM by gsg
Last Update: 11/26/2001 9:47:45 AM by gsg

No.	Name	Inj. Date/Time	Dil. Factor	Sample ID	Comment
1	DI H2O BLANK	11/17/2001 10:04:03 PM	1.0000		1,1 GSG
2	ELUENT BLANK	11/17/2001 10:15:33 PM	1.0000		1,1 GSG
3	ANION CCV TEST	11/17/2001 10:27:03 PM	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
4	ANION STD #1	11/17/2001 10:39:11 PM	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
5	ANION STD #2	11/17/2001 10:50:42 PM	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
6	ANION STD #3	11/17/2001 11:02:13 PM	1.0000		1,1 GSG ANION STD SOS0056-35 111701
7	ANION STD #4	11/17/2001 11:13:43 PM	1.0000		1,1 GSG ANION STD SOS0056-35 111701
8	ANION STD #5	11/17/2001 11:25:14 PM	1.0000		1,1 GSG ANION STD SOS0056-35 111701
9	ANION STD #6	11/17/2001 11:36:44 PM	1.0000		1,1 GSG ANION STD SOS0056-35 111701
10	ELUENT BLANK	11/17/2001 11:48:14 PM	1.0000		1,1 GSG
11	ANION ALT SV53-30	11/17/2001 11:59:45 PM	1.0000		1,1 GSG ANION STD SV53-30 111701
12	ANION ALT SV55-38	11/18/2001 12:11:15 AM	1.0000		1,1 GSG ANION STD SOS0055-38 111701
13	WG108427-01 CCV	11/18/2001 12:22:45 AM	1.0000		1,1 GSG ANION CCV SOS0056-35 111701
14	WG108428-01 BLANK	11/18/2001 12:34:15 AM	1.0000		1,1 GSG
15	WG108428-02 LCS	11/18/2001 12:45:44 AM	1.0000		1,1 GSG
16	WG108428-04 REF DUP	11/18/2001 12:57:15 AM	1.0000		1,1 GSG L0111344-01 REF DUP
17	WG108428-05 DUP	11/18/2001 1:08:45 AM	1.0000		1,1 GSG L0111344-01 DUP
18	L0111344-02	11/18/2001 1:20:15 AM	1.0000		1,1 GSG
19	WG108428-06 REF MS/MSD	11/18/2001 1:31:45 AM	1.0000		1,1 GSG L0111344-03 REF MS/MSD
20	WG108428-07 MS	11/18/2001 1:43:15 AM	1.0000		1,1 GSG L0111344-03 MS SOS0056-35
21	WG108428-08 MSD	11/18/2001 1:54:45 AM	1.0000		1,1 GSG L0111344-03 MSD SOS0056-35
22	WG108427-02 CCV	11/18/2001 2:06:15 AM	1.0000		1,1 GSG ANION CCV SOS0056-35 111701
23	L0111344-04	11/18/2001 2:17:45 AM	1.0000		1,1 GSG
24	L0111344-05	11/18/2001 2:29:16 AM	1.0000		1,1 GSG
25	L0111316-12 @ 10X	11/18/2001 2:40:46 AM	1.0000		1,10 GSG
26	L0111316-14 @ 10X	11/18/2001 2:52:16 AM	1.0000		1,10 GSG
27	WG108427-03 CCV	11/18/2001 3:03:47 AM	1.0000		1,10 GSG
28	END	11/18/2001 3:15:16 AM	1.0000		1,10 GSG

Richard Beaty 11/26/01
RAC 12/3/01

Sequence: 111701 IC2
Operator: gsg

Printed: 11/26/2001 9:47:53 AM

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 28

Created: 11/17/2001 10:49:00 AM by gsg
Last Update: 11/26/2001 9:47:45 AM by gsg

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status
1	DI H2O BLANK	Unknown	37	25.0	9056	9056	Finished
2	ELUENT BLANK	Unknown	38	25.0	9056	9056	Finished
3	ANION CCV TEST	Unknown	39	25.0	9056	9056	Finished
4	ANION STD #1	Standard	38	25.0	9056	9056	Finished
5	ANION STD #2	Standard	36	25.0	9056	9056	Finished
6	ANION STD #3	Standard	36	25.0	9056	9056	Finished
7	ANION STD #4	Standard	36	25.0	9056	9056	Finished
8	ANION STD #5	Standard	36	25.0	9056	9056	Finished
9	ANION STD #6	Standard	37	25.0	9056	9056	Finished
10	ELUENT BLANK	Unknown	36	25.0	9056	9056	Finished
11	ANION ALT SV53-30	Unknown	36	25.0	9056	9056	Finished
12	ANION ALT SV55-38	Unknown	36	25.0	9056	9056	Finished
13	WG108427-01 CCV	Unknown	14	25.0	9056	9056	Finished
14	WG108428-01 BLANK	Unknown	15	25.0	9056	9056	Finished
15	WG108428-02 LCS	Unknown	16	25.0	9056	9056	Finished
16	WG108428-04 REF DUP	Unknown	17	25.0	9056	9056	Finished
17	WG108428-05 DUP	Unknown	18	25.0	9056	9056	Finished
18	L0111344-02	Unknown	19	25.0	9056	9056	Finished
19	WG108428-06 REF MS/MSD	Unknown	20	25.0	9056	9056	Finished
20	WG108428-07 MS	Unknown	21	25.0	9056	9056	Finished
21	WG108428-08 MSD	Unknown	22	25.0	9056	9056	Finished
22	WG108427-02 CCV	Unknown	23	25.0	9056	9056	Finished
23	L0111344-04	Unknown	24	25.0	9056	9056	Finished
24	L0111344-05	Unknown	25	25.0	9056	9056	Finished
25	L0111316-12 @ 10X	Unknown	26	25.0	9056	9056	Finished
26	L0111316-14 @ 10X	Unknown	27	25.0	9056	9056	Finished
27	WG108427-03 CCV	Unknown	28	25.0	9056	9056	Finished
28	END	Unknown	29	25.0	DX-320 OFF	9056	Finished

Sequence: 111701 IC2
Operator: gsg
Printed: 11/17/2001 11:09:57 PM

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 28

Created: 11/17/2001 10:49:00 AM by gsg
Last Update: 11/17/2001 10:41:17 PM by gsg

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status
1	DI H2O BLANK	Standard	37	25.0	9056	9056	Finished
2	ELUENT BLANK	Standard	38	25.0	9056	9056	Finished
3	ANION CCV TEST	Standard	39	25.0	9056	9056	Finished
4	ANION STD #1	Standard	38	25.0	9056	9056	Finished
5	ANION STD #2	Standard	36	25.0	9056	9056	Finished
[redacted]	ANION STD #3	Standard	36	25.0	9056	9056	Running
7	ANION STD #4	Standard	36	25.0	9056	9056	Single
8	ANION STD #5	Standard	36	25.0	9056	9056	Single
9	ANION STD #6	Standard	37	25.0	9056	9056	Single
10	ELUENT BLANK	Unknown	36	25.0	9056	9056	Single
11	ANION ALT SV53-30	Unknown	36	25.0	9056	9056	Single
12	ANION ALT SV55-38	Unknown	36	25.0	9056	9056	Single
✓13	WG108427-01 CCV	Unknown	14	25.0	9056	9056	Single
✓14	WG108428-01 BLANK	Unknown	15	25.0	9056	9056	Single
✓15	WG108428-02 LCS	Unknown	16	25.0	9056	9056	Single
✓16	CEF46-24D-Q4-01-10	Unknown	17	25.0	9056	9056	Single
✓17	CEF46-24D-Q4-01-10 DUP	Unknown	18	25.0	9056	9056	Single
✓18	CEF46-21I-Q4-01-10	Unknown	19	25.0	9056	9056	Single
✓19	CEF46-25I-Q4-01-10	Unknown	20	25.0	9056	9056	Single
✓20	CEF46-25I-Q4-01-10 MS	Unknown	21	25.0	9056	9056	Single
✓21	CEF46-25I-Q4-01-10 MSD	Unknown	22	25.0	9056	9056	Single
✓22	WG108427-02 CCV	Unknown	23	25.0	9056	9056	Single
✓23	CEF46-26I-Q4-01-10	Unknown	24	25.0	9056	9056	Single
✓24	CEF46EQB-Q4-01-10	Unknown	25	25.0	9056	9056	Single
✓25	L0111316-12 @ 10X	Unknown	26	25.0	9056	9056	Single
✓26	L0111316-14 @ 10X	Unknown	27	25.0	9056	9056	Single
✓27	WG108427-03 CCV	Unknown	28	25.0	9056	9056	Single
28	END	Unknown	29	25.0	DX-320 OFF	9056	Single

Sequence: 111701 IC2
Operator: gsg
Printed: 11/17/2001 11:09:57 PM

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 28

Created: 11/17/2001 10:49:00 AM by gsg
Last Update: 11/17/2001 10:41:17 PM by gsg

No.	Name	Inj. Date/Time	Dil. Factor	Sample ID	Comment
1	DI H2O BLANK	11/17/2001 10:04:03 PM	1.0000		1,1 GSG
2	ELUENT BLANK	11/17/2001 10:15:33 PM	1.0000		1,1 GSG
3	ANION CCV TEST	11/17/2001 10:27:03 PM	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
4	ANION STD #1	11/17/2001 10:39:11 PM	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
5	ANION STD #2	11/17/2001 10:50:42 PM	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
[redacted]	ANION STD #3	11/17/2001 11:02:13 PM	1.0000		1,1 GSG ANION STD SOS0056-35 111701
7	ANION STD #4	11/16/2001 9:06:11 PM	1.0000		1,1 GSG ANION STD SOS0056-35 111701
8	ANION STD #5	11/16/2001 9:17:40 PM	1.0000		1,1 GSG ANION STD SOS0056-35 111701
9	ANION STD #6	11/16/2001 9:29:11 PM	1.0000		1,1 GSG ANION STD SOS0056-35 111701
10	ELUENT BLANK	11/16/2001 9:40:40 PM	1.0000		1,1 GSG
11	ANION ALT SV53-30	11/16/2001 9:52:10 PM	1.0000		1,1 GSG ANION STD SV53-30 111701
12	ANION ALT SV55-38	11/16/2001 10:03:40 PM	1.0000		1,1 GSG ANION STD SOS0055-38 111701
13	WG108427-01 CCV	11/17/2001 11:33:17 AM	1.0000		1,1 GSG ANION CCV SOS0056-35 111701
14	WG108428-01 BLANK	11/17/2001 11:44:48 AM	1.0000		1,1 GSG
15	WG108428-02 LCS	11/17/2001 11:56:17 AM	1.0000		1,1 GSG
16	CEF46-24D-Q4-01-10		1.0000		1,1 GSG
17	CEF46-24D-Q4-01-10 DUP		1.0000		1,1 GSG
18	CEF46-21I-Q4-01-10		1.0000		1,1 GSG
19	CEF46-25I-Q4-01-10		1.0000		1,1 GSG
20	CEF46-25I-Q4-01-10 MS		1.0000		1,1 GSG
21	CEF46-25I-Q4-01-10 MSD		1.0000		1,1 GSG
22	WG108427-02 CCV		1.0000		1,1 GSG ANION CCV SOS0056-35 111701
23	CEF46-26I-Q4-01-10		1.0000		1,1 GSG
24	CEF46EQB-Q4-01-10		1.0000		1,1 GSG
25	L0111316-12 @ 10X		1.0000		1,10 GSG
26	L0111316-14 @ 10X		1.0000		1,10 GSG
27	WG108427-03 CCV		1.0000		1,10 GSG
28	END		1.0000		1,10 GSG

KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance Log

Analysis Date/Time 11/17/01 Instrument ID IC2 Column ID AG4A-SC / AS4A-SC Data Subdirectory 111701
Analyst Initials GSO SOP # IC01 Rev. # 2.0 9056 SOP # IC02 Rev. # 314.0

Daily Check

- ☑ Mobile phase reservoir
- ☑ System pressure 1214 PSI.
- ☑ Waste container

Returned to Control?

Yes ____ No ____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

Reviewed By: RRC 12/3/01

KEMRON REPORT L0111344

Prepared for CCI

Work ID : NAS CECIL FIELD / BLDG. 46

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1.0 Summary Report

1.1 Laboratory Report

Cover Page
Laboratory Narrative
Laboratory Results

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

L0111344

CHAIN OF CUSTODY:

The chain of custody number was 149152-179 .

SHIPMENT CONDITIONS:

The chain of custody form was received sealed in a cooler. The cooler temperatures were 0, 2 and 1 ° C.

SAMPLE MANAGEMENT:

All samples received were intact.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

REVIEWED Stephanie L Sepe DATE: 11/19/01

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0111344

METHOD

Preparation: SW- 846 5030B
Analysis: SW-846 8021B

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration: The average % drift option was used for the calibration verifications performed 11/27/01 on HP11 due to MTBE % drift results below the lower control limit. MTBE was within advisory limits in the associated LCS.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.
Matrix Spikes: Fraction 04 was selected for MS/MSD analyses.

SAMPLES

Surrogates: Several samples required dilution analyses.
Samples: Several recovery results were outside control limits. Outliers were confirmed by reanalysis.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: jls

REVIEWED: [signature] DATE: 11/30/01

Rev. 6/00

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0111344

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8015

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD results were not associated with sample delivery group .

SAMPLES

Samples: All acceptance criteria were met.
Surrogates: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: HV

REVIEWED: Stacy Pearson DATE: 1/29/01

Rev. 7/14/00

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0111344

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8310

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds linear equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD results were not associated with this sample delivery group.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: RDC

REVIEWED: _____ DATE: 12/4/01

Rev. 7/14/00

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L0111344

METHOD

Analysis: SW-846 9056

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All acceptance criteria were met.

PREPARATION: All acceptance criteria were met.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: Sample fraction -03 was chosen internally for the MS/MSD of this sample delivery group. All acceptance criteria were met.

SAMPLES All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: GSG

REVIEWED: _____ DATE: 12/6/01

Rev. 7/14/00

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : 8021

AAB # : WG108823

Lab Name : Kemron Environmental Services

Contract # : N62467-98-D-0995

Base/Command : blgs 9 and 46

Prime Contractor : CCI

Field sample ID	Lab Sample ID
002-CEF46-24D-Q4-01-10	L0111344-01
002-CEF46-21I-Q4-01-10	L0111344-02
002-CEF46-25I-Q4-01-10	L0111344-03
002-CEF46-26I-Q4-01-10	L0111344-04
002-46EQB-Q4-01-10	L0111344-05
002-46TB3-Q4-01-10	L0111344-06

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: David L. Bumgarner

Date: 05-DEC-01

Title: Laboratory Director

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG108823

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-24D-04-01-10 Lab Sample ID: L0111344-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 09-NOV-2001

Date Received: 17-NOV-01 Date Extracted: Date Analyzed: 27-NOV-01 11:21

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	93.7	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG108823

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-21I-Q4-01-10 Lab Sample ID: L0111344-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 09-NOV-2001

Date Received: 17-NOV-01 Date Extracted: Date Analyzed: 27-NOV-01 11:54

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	99.5	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG108823

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-25I-Q4-01-10 Lab Sample ID: L0111344-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 09-NOV-2001

Date Received: 17-NOV-01 Date Extracted: Date Analyzed: 27-NOV-01 16:33

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	97.1	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG108823

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-26I-Q4-01-10 Lab Sample ID: L0111344-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 09-NOV-2001

Date Received: 17-NOV-01 Date Extracted: Date Analyzed: 27-NOV-01 12:26

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	5.00	10	1700	10	
Ethylbenzene	5.00	10	120	10	
Methyl tert-butyl ether	5.00	10	10.0	10	
Toluene	5.00	10	10.0	10	
Xylenes, Total	5.00	10	430	10	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	106	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG108823

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46EQB-Q4-01-10 Lab Sample ID: L0111344-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 09-NOV-2001

Date Received: 17-NOV-01 Date Extracted: Date Analyzed: 27-NOV-01 17:05

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	103	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG108823

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46TB3-Q4-01-10 Lab Sample ID: L0111344-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 09-NOV-2001

Date Received: 17-NOV-01 Date Extracted: Date Analyzed: 27-NOV-01 17:38

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	93.8	70 – 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8015**

Lab Name : **Kemron Environmental Services**

Base/Command : **blgs 9 and 46**

AAB # : **WG108512**

Contract # : **N62467-98-D-0995**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF46-24D-Q4-01-10	L0111344-01
002-CEF46-21I-Q4-01-10	L0111344-02
002-CEF46-25I-Q4-01-10	L0111344-03
002-CEF46-26I-Q4-01-10	L0111344-04
002-46EQB-Q4-01-10	L0111344-05

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **05-DEC-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG108512

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-24D-Q4-01-10 Lab Sample ID: L0111344-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 19-NOV-2001

Date Received: 17-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 19-NOV-01 22:07

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	258	520	258	1.03	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	89.0	49 – 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG108512

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-21I-Q4-01-10 Lab Sample ID: L0111344-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 19-NOV-2001

Date Received: 17-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 19-NOV-01 22:22

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	258	520	258	1.03	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	90.3	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG108512

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-25I-Q4-01-10 Lab Sample ID: L0111344-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 19-NOV-2001

Date Received: 17-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 19-NOV-01 22:37

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	255	510	255	1.02	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	88.5	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG108512

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-26I-Q4-01-10 Lab Sample ID: L0111344-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 19-NOV-2001

Date Received: 17-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 20-NOV-01 09:54

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	265	530	590	1.06	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	90.2	49 – 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG108512

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46EQB-Q4-01-10 Lab Sample ID: L0111344-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 19-NOV-2001

Date Received: 17-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 19-NOV-01 23:08

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	270	540	270	1.08	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	91.9	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8310**

AAB # : **WG108520**

Lab Name : **Kemron Environmental Services**

Contract # : **N62467-98-D-0995**

Base/Command : **blgs 9 and 46**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF46-24D-Q4-01-10	L0111344-01
002-CEF46-21I-Q4-01-10	L0111344-02
002-CEF46-25I-Q4-01-10	L0111344-03
002-CEF46-26I-Q4-01-10	L0111344-04
002-46EQB-Q4-01-10	L0111344-05

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **05-DEC-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-24D-Q4-01-10 Lab Sample ID: L0111344-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 17-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 22-NOV-01 00:12

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.343	1.0	0.343	1	ND
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.291	1.0	0.291	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0245	0.20	0.0245	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.570	1.0	0.570	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.366	1.0	0.366	1	ND
Phenanthrene	0.287	1.0	0.287	1	ND
Pyrene	0.0694	0.20	0.0694	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-24D-Q4-01-10 Lab Sample ID: L0111344-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 17-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 22-NOV-01 00:12

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	88.3	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-21I-Q4-01-10 Lab Sample ID: L0111344-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 17-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 22-NOV-01 01:08

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.336	1.0	0.336	1	ND
Acenaphthene	0.423	1.0	0.423	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.291	1.0	0.291	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0245	0.20	0.0245	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.570	1.0	0.570	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.366	1.0	0.366	1	ND
Phenanthrene	0.287	1.0	0.287	1	ND
Pyrene	0.0694	0.20	0.0694	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-21I-Q4-01-10 Lab Sample ID: L0111344-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 17-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 22-NOV-01 01:08

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	59.3	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-25I-Q4-01-10 Lab Sample ID: L0111344-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 17-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 22-NOV-01 02:05

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.343	1.0	0.343	1	ND
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.291	1.0	0.291	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.570	1.0	0.570	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.359	1.0	0.359	1	ND
Phenanthrene	0.293	1.0	0.293	1	ND
Pyrene	0.0694	0.20	0.0694	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-25I-Q4-01-10 Lab Sample ID: L0111344-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 17-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 22-NOV-01 02:05

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	52.7	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-26I-Q4-01-10 Lab Sample ID: L0111344-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 17-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 22-NOV-01 03:02

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.343	1.0	0.343	1	ND
Acenaphthene	0.423	1.0	0.423	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.291	1.0	0.291	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0245	0.20	0.0245	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.570	1.0	0.570	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.366	1.0	0.366	1	ND
Phenanthrene	0.293	1.0	0.293	1	ND
Pyrene	0.0694	0.20	0.0694	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-26I-Q4-01-10 Lab Sample ID: L0111344-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 17-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 22-NOV-01 03:02

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	96.0	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46EQB-Q4-01-10 Lab Sample ID: L0111344-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 17-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 22-NOV-01 03:58

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.365	1.1	0.365	1	ND
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.310	1.1	0.310	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0576	0.22	0.0576	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.608	1.1	0.608	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.390	1.1	0.390	1	ND
Phenanthrene	0.312	1.1	0.312	1	ND
Pyrene	0.0680	0.20	0.0680	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108520

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46EQB-Q4-01-10 Lab Sample ID: L0111344-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 17-NOV-01 Date Extracted: 19-NOV-01 Date Analyzed: 22-NOV-01 03:58

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	73.0	40 – 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : 9056

AAB # : WG108428

Lab Name : Kemron Environmental Services

Contract # : N62467-98-D-0995

Base/Command : blgs 9 and 46

Prime Contractor : CCI

Field sample ID	Lab Sample ID
002-CEF46-24D-Q4-01-10	L0111344-01
002-CEF46-21I-Q4-01-10	L0111344-02
002-CEF46-25I-Q4-01-10	L0111344-03
002-CEF46-26I-Q4-01-10	L0111344-04
002-46EQB-Q4-01-10	L0111344-05

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: David L. Bumgarner

Date: 05-DEC-01

Title: Laboratory Director

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG108428

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-24D-Q4-01-10 Lab Sample ID: L0111344-01 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 17-NOV-2001

Date Received: 17-NOV-01 Date Extracted: Date Analyzed: 18-NOV-01 00:57

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG108428

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-21I-Q4-01-10 Lab Sample ID: L0111344-02 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 17-NOV-2001

Date Received: 17-NOV-01 Date Extracted: Date Analyzed: 18-NOV-01 01:20

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG108428

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-25I-Q4-01-10 Lab Sample ID: L0111344-03 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 17-NOV-2001

Date Received: 17-NOV-01 Date Extracted: Date Analyzed: 18-NOV-01 01:31

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG108428

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-26I-Q4-01-10 Lab Sample ID: L0111344-04 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 17-NOV-2001

Date Received: 17-NOV-01 Date Extracted: Date Analyzed: 18-NOV-01 02:17

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.120	1	J
Nitrite	0.0610	0.40	0.150	1	J
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG108428

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46EQB-Q4-01-10 Lab Sample ID: L0111344-05 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 17-NOV-2001

Date Received: 17-NOV-01 Date Extracted: Date Analyzed: 18-NOV-01 02:29

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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1.2 Attachments

KEMRON ANALYST LIST

Ohio Valley Laboratory

11/13/2001

ADH - ANGELA D. HURST
AJF - AMANDA J. FICKIESEN
ALT - ANN L. THAYER
AMT - ANDREA M. TUCKER
ARS - ANGELINA R. SCOTT
BRG - BRENDA R. GREGORY
CAF - CHERYL A. FLOWERS
CAK - CHERYL A. KOELSCH
CBN - CHARLES B. NOLL
CEB - CHAD E. BARNES
CLC - CHRYS L. CRAWFORD
CLK - CARL L. KING
CLW - CHARISSA L. WINTERS
CMS - CRYSTAL M. STEVENS
CRC - CARLA R. COCHRAN
CSH - CHRIS S. HILL
DAM - DAN A. MUSGRAVE
DAS - DALLAS A. SULLIVAN
DAT - DEBBIE A. TORNES
DEL - DON E. LIGHTFRITZ
DEV - DAVID E. VANDENBERG
DGB - DOUGLAS G. BUTCHER
DIH - DEANNA I. HESSON
DLA - DENISE L. ADAMS
DLB - DAVID L. BUMGARNER
DLN - DEANNA L. NORTON
DLP - DOROTHY L. PAYNE
DLR - DIANNA L. RAUCH
DP - DEANNA L. PIERSON
DSM - DAVID S. MOSSOR
DST - DENNIS S. TEPE
ECL - ERIC C. LAWSON
GSG - GALEN S. GEORGE
HV - HEMA VILASAGAR
JAQ - JEROMY A. QUESENBERRY
JKW - JANE K. WARDEN
JLS - JANICE L. SCHIMMEL
JMM - JARROD M. MARTIN
JMT - JOY M. THOMAS
JWR - JOHN W. RICHARDS
JWS - JACK W. SHEAVES
JYH - JI Y. HU
KHR - KIM H. RHODES
KRA - KATHY R. ALBERTSON
KSL - KELLY S. LAUER
LKN - LINDA K. NEDEFF
LMT - LUCINDA M. TILTON
LRR - LUCYNDA R. ROBERTS
LSA - LUCINDA S. ARNOLD
LSB - LESLIE S. BUCINA
MDA - MICHAEL D. ALBERTSON
MDC - MICHAEL D. COCHRAN
MEF - MIKE E. FLANAGAN
MES - MARY E. SCHILLING
MLS - MICHAEL L. SCHIMMEL
MMB - MAREN M. BEERY
MRR - MICHELLE R. RAUCH
MSW - MATT S. WILSON
NJB - NATALIE J. BOOTH
RDC - REBECCA D. CUTLIP
REF - RON E. FERTILE
REK - ROBERT E. KYER
RJW - RHONDA J. WITTEKIND
RLW - RON L. WATSON
RSH - RENEE S. HENNES
RSS - REGINA S. SIMMONS
RVC - RUTH V. CALLIHAN
RWC - ROD W. CAMPBELL
SJK - SINDY J. KINNEY
SKH - SHARON K. HANDSCHUMACHER
SLP - SHERI L. PFALZGRAF
SLT - STEPHANIE L. TEPE
SMW - SHAUNA M. WELCH
SPL - STEVE P. LEARN
TJH - TIM J. HOEFLICH
TLD - TERESA L. DAVIS
TMM - TAMMY M. MORRIS
VC - VICKI COLLIER
VKL - VICKY K. LAUER

KEMRON Environmental Services, Inc
List of Valid Qualifiers
December 15, 2000

Standard Qualifiers

These are KEMRON's Standard Report Qualifiers

A	See the report narrative
B	Present in the method blank
C	Confirmed by GC/MS
CG	Confluent growth
D	The analyte was quantified at a secondary dilution factor
DL	Surrogate or spike was diluted out
E	Estimated concentration due to sample matrix interference
FL	Free liquid
I	Semiquantitative result, out of instrument calibration range
J	Present below nominal reporting limit
L	Sample reporting limits elevated due to matrix interference
M	Duplicate injection precision not met
N	Tentatively Identified Compound (TIC)
NA	Not applicable
ND	Not detected at or above the reporting limit (RL)
NF	Not found
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentration >40% difference between The two GC columns
QNS	Quantity not sufficient to perform analysis
R	Analyte exceeds regulatory limit
RA	Re analysis confirms reported results
RE	Re analysis confirms sample matrix Interference
S	Analyzed by method of standard addition
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TNTC	Too numerous to count
U	Analyzed for but not detected
W	Post-digestion spike for furnace AA out Of control limits
Z	Can not be resolved from isomer.***
+	Correlation coefficient for the MSA is less Than 0.995
<	Less than
>	Greater than
*	Surrogate or spike compound out of range

***** Special Notes for Organic Analytes**

1. Acrolein and acrylonitrile by method 624 are semiquantative screens only
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene
3. N-nitrosodiphenylamine cannot be separated from diphenylamine
4. 3-Methyphenol and 4-Methyphenol are unresolvable compounds
5. m-Xylene and p-Xylene are unresolvable compounds
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent

AFCEE Qualifiers

These are KEMRON's AFCEE Report Qualifiers

J	The analyte was positively identified, the quantitation is an estimation
U	The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL
F	The analyte was positively identified but the associated numerical value is below the RL
R	The data is unusable due to deficiencies in the ability to analyze the sample and meet QC criteria
B	The analyte was found in an associated blank, as well as in the sample
M	The matrix effect was present
S	To be applied to all field screening data
T	Tentatively identified compound (using GC/MS)

CH2M Hill Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No (770) 604-9182 ; Fax No (770) 604-9282

CHAIN-OF-CUSTODY RECORD

COC NUMBER
149152-179 page _1_ of _1_

PROJECT NAME:	PROJECT NUMBER:	LAB NAME AND CONTACT:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	RECIPIENT 1 (Address, Tel No. , and Fax No.):
N.A.S. Cecil Field Building 46	149152	Teressa Davis Kemron Environmental Services	Jennifer Zimmerman J.A Jones Env. Services	6219 Authority Road, Jacksonville, FL 32221 PH: (904) 7774812 FAX: (904) 7774262
PROJECT PHASE/SITE/TASK:	CTO OR DO NUMBER:	LAB PO NUMBER:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	RECIPIENT 2 (Address, Tel No. , and Fax No.):
Building 46 /Monthly GW Sampling Event	0002	2329	Christelle Newsome CH2M Hill Constuctors, Inc.	115 Perimeter Center Place, N.E. Suite 700 Atlanta, GA 30346 PH:(770)604-9182 Ext.561 FAX:604-9282
PROJECT CONTACT:	PROJECT TEL NO AND FAX NO:	LAB TEL NO AND FAX NO:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	RECIPIENT 3 (Address, Tel No. , and Fax No.):
Bill Canelos	Phone: 904-777-4812 Fax:904-777-4262	Phone: 740-373-4071 Fax: 740-373-4835		

ANALYSES REQUIRED (Include Method Numbers)

ITEM	SAMPLE IDENTIFIER	SAMPLE DESCRIPTION/LOCATION	MATRIX	DATE COLLECTED	TIME COLLECTED	~~PKG~~ DATA LEVEL	TAT (calendar days)	BTEX by 8021B	Naphthalene & 15 Methd Listed PAHs by 8310	TRPH by FL-PRO	NO2 NO3 PO4 by EPA Method 300.0				SAMPLE TYPE (see codes on back)	COMMENTS/ SCREENING READINGS	LAB ID
1	002-CEF46-24D-Q4-01-10	CEF-46-24D	W	11/16/01	8:50	III/C	14	2	2	2	1				Grab		
2	002-CEF46-21I-Q4-01-10	CEF-46-21I	W	11/16/01	9:40	III/C	14	2	2	2	1				Grab		
3	002-CEF46-25I-Q4-01-10	CEF-46-25I	W	11/16/01	10:10	III/C	14	2	2	2	1				Grab		
4	002-CEF46-26I-Q4-01-10	CEF-46-26I	W	11/16/01	10:50	III/C	14	2	2	2	1				Grab		
5	002-46EQB-Q4-01-10	Equipment Blank	W	11/16/01	10:20	III/C	14	2	2	2	1				Grab		
6	002-46TB3-Q4-01-10	Trip Blank No. 3	W	NA	NA	III/C	14	2							Grab	Prepared by Lab	
7	NA	Temperature Blank	W	NA	NA	III/C	14					3			Grab	Prepared by Lab	
8																	
9																	
10																	

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:
Randy Dumaop / Sott Sloan / Anthony Cain J.A. Jones Environmental Services	Federal Express Track #790219111424, 791707314778, 791160781976. (3 Coolers) Saturday Delivery

C/C Dated 11/19/01 rec'd
Sub intact temps 0/2/1 bg
Coolers SVS ~~stored~~ stored in locked cooler over weekend bg

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	11/16/01	12:00	Federal Express	11/16/01	12:00
Printed Name and Signature:			Printed Name and Signature:		
			Brenda Gregory / Brenda Gregory	11/19/01	0830

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

Form CCI001, Rev 02/00

KEMRON Internal Laboratory Chain of Custody

Work Order: L0111344 **Client:** ACI **# of Samples:** 6 **Due Date:** **Page:**

Sample #	Analysis	Reason	Removed By ADT	Removed From	Moved To	Reliq. by	Ret'd By ADT	Ret'd To	Rec'd By	Reason
1-5	9056	EXT	11/12/01 @10:00	1091n	Sr	BLG	11/30/01 @ 1:22	Archive-1	JKW	archive
1-5 A	FLA-PRO	Ext	11/14/01 @1115	Lg-rx	SHB	BLG	LMT @08:35 11/30/01	Crusher	BH	Disposal
1-5A	8310	Ext	11/14/01 @1130	Walkin	SHB	JKW	LMT @08:35 11/20/01	Crusher	BH	Disposal
1-6	8260	ABN	~~11-21-01~~ 1135	V-1	ORG-4					
1-6	8021	Analysis	11/30/01 @1010	V-1	VOA/org4	BLG	BLG 12/3/01 @1300	Archive-2	BLG	Archive

Mcf 11-21-01

(*) S/O rec'd 11/17/01. S/O released to the lab prior to logging due to short hold times. BLG 11/19/01

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KEMRON Environmental Services	SAMPLES RECEIPT FORM	Marietta Laboratory

CLIENT: CCI. Cecil Fd BRG LMT Other	DATE: 11/17/01	SHIPPED BY: (✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: KL940	COOLER ID: KL-1059	COOLER ID: KL 740
INDEX # : 79021911 1424	INDEX # : 7911 6078 1976	INDEX # : 7917 073 1 4778
SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO
CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO
TEMP : (C) (D) 0 °C	TEMP : (C) (D) 2 °C	TEMP : (C) (D) 1 °C
TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO	TEMP IN RANGE (4°C ± 2°) (✓) YES ( ) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO
WET ICE (✓) BLUE ICE ( )	WET ICE (✓) BLUE ICE ( )	WET ICE (✓) BLUE ICE ( )
ICE FROZEN (✓) MELTED ( )	ICE FROZEN (✓) MELTED ( )	ICE FROZEN (✓) MELTED ( )
RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED (✓) YES ( ) NO
SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO
SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )
LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO	LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO	LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO
pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO
SAMPLES FROZEN? ( ) YES (✓) NO	SAMPLES FROZEN? ( ) YES ( ) NO	SAMPLES FROZEN? ( ) YES (✓) NO
LOG-IN COMMENTS	LOG-IN COMMENTS	LOG-IN COMMENTS 1010
850	VO'S	1050
940	1020	

TSR COMMENTS

CONTACT:	DATE:	TIME:

COMMENTS: ( ) VOICE ( ) FAX ( ) E-MAIL

Revised 10/16/01

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CRF#4

Sample Receipt Form #2

Client: CCI Project:

Date Received: 11/17/01

_____Cooler temperature > than 6 degrees Celcius

Reason_____

_____Samples received not on chain of custody

_____Samples on chain of custody not received

✓ Information on sample containers different from chain of custody

Not all containers had Id filled out all the way on bottle labels.

_____Sample containers received broken, leaking or not sealed (List sample ID)

_____pH out (List sample ID & which container)

_____Insufficient sample volume

_____Air bubbles present in Voa vials (List sample ID)

_____Hold time expired (List sample ID)

TSR:

Was client notified regarding information: YES NO

Name of person contacted:_____ Company:_____

TSR:_____ Date:_____

Attach: Phone Logs, e-mails, faxes, etc.

COOLER RECEIPT FORM

Contractor Cooler _____
MRD Cooler # _____
Number of Coolers 3

PROJECT: NAS Cecil Field/Bldg. 46 LIMS# L 011344

USE OTHER SIDE OF THIS FORM TO NOTE DETAILS CONERNING CHECK-IN PROBLEMS

A. **PRELIMINARY EXAMINATION PHASE:** Date cooler opened: 11/17/01 C-of-C Number: 149152
by (print) Brenda Gregory (sign) Brenda Gregory

1. Did cooler come with a shipping slip (air bill, etc.)? ..... YES NO
   If YES, enter carrier name & air bill number here: Fed Ex (See CLF #3)
2. Were custody seals on outside of cooler? ..... YES NO
   How many & where? 2-front, seal date: 11/16/01 seal name: Kemron
3. Were custody seals unbroken and intact at the data and time of arrival? ..... YES NO
4. Did you screen samples for radioactivity using the Geiger Counter? ..... YES NO
5. Were custody papers sealed in a plastic bag & taped inside to the lid? ..... YES NO
6. Were custody papers filled out properly (ink, signed, etc.)? ..... YES NO
7. Did you sign custody papers in the appropriate place? ..... YES NO
8. Was project identifiable from custody papers? If yes, enter project name at the top of this form ..... YES NO
9. If required, was enough ice used? ..... Type of ice: Wet Temp See CLF #3 ..... YES NO
10. Have designated person initial here to acknowledge receipt of cooler: BG (date) 11/17/01

B. **LOG-IN PHASE:** Date samples were logged-in: 11-19-01
by (print) Brenda Gregory (sign) Brenda Gregory

11. Describe type of packing in cooler: dividers; bubble wrap baggies
12. Were all bottles sealed in separate plastic bags? ..... YES NO
13. Did all bottles arrive unbroken & were labels in good condition? ..... YES NO
14. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? ..... YES NO
15. Did all bottle labels agree with custody papers? ..... # ..... YES NO
16. Were correct containers used for the tests indicated? ..... YES NO
17. Were correct preservatives added to samples? ..... YES NO
18. Was a sufficient amount of sample sent for tests indicated? ..... YES NO
19. Were bubbles absent in volatile samples? If NO, list by Sample # _____ YES NO
20. Was the project manager called and status discussed? If YES, give details on the back of this form ..... YES NO
21. Who was called? _____ By whom? _____ (date) _____

2.0 Full Sample Data Package

2.1 Volatiles Data

2.1.3 BTEX GC Data (8021)

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0111344

METHOD

Preparation: SW- 846 5030B
Analysis: SW-846 8021B

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration: The average % drift option was used for the calibration verifications performed 11/27/01 on HP11 due to MTBE % drift results below the lower control limit. MTBE was within advisory limits in the associated LCS.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.
Matrix Spikes: Fraction 04 was selected for MS/MSD analyses.

SAMPLES

Surrogates: Several samples required dilution analyses.
Samples: Several recovery results were outside control limits. Outliers were confirmed by reanalysis.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: jls

REVIEWED: Mike Cannell DATE: 11/30/01

Rev. 6/00

BETX-GC DATA (8021)

Login Number: L0111344

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

✓ Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and quantitation report for each sample analysis and re-analysis (if re-analyzed) (Numerical order)

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data) (Chronological)

✓ Chromatograms and quantitation reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and quantitation reports (chronological)

✓ Retention time window summary (if applicable)(chronological)

D. Raw QC Data

✓ Method Blank, chromatogram and quantitation report for each matrix type (chronological)

✓ Laboratory Control Sample, chromatogram and quantitation report for each matrix type (chronological)

✓ Matrix Spike/Matrix Spike Duplicate, chromatograms and quantitation reports (if not reported as samples) and of the same client batch (chronological)

✓ Instrument runlogs (chronological)

NA Extraction bench sheets (for mid-level methanol extractions) (chronological)

NA 5035 logs (if applicable) (chronological)

Checked By: Cwinters **Date:** 11/30/01

2.1.3.1 QC Summary

METHOD BLANK SUMMARY

Login Number: L0111344
Blank File ID: 11G12509
Date Analyzed: 11/27/01
Time Analyzed: 10:03
Analyst: JLS

Work Group: WG108823
Blank Sample ID: WG108823-01
Instrument ID: HP11
Method: 8021

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG108823-02	11G12510	11/27/01 10:36	
002-CEF46-24D-Q4-01-10	L0111344-01	11G12511	11/27/01 11:21	
002-CEF46-21I-Q4-01-10	L0111344-02	11G12512	11/27/01 11:54	
002-CEF46-26I-Q4-01-10	L0111344-04	11G12513	11/27/01 12:26	
002-CEF46-25I-Q4-01-10	L0111344-03	11G12520	11/27/01 16:33	
002-46EQB-Q4-01-10	L0111344-05	11G12521	11/27/01 17:05	
002-46TB3-Q4-01-10	L0111344-06	11G12522	11/27/01 17:38	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0111344
Instrument ID: HP11
File ID: 11G12509
Workgroup (AAB#): WG108823
Contract #:

Run Date: 11/27/2001
Run Time: 10:03
Analyst: JLS

Sample ID: WG108823-01
Method: 8021B
Matrix: Water
Units: ug/L
Cal ID: HP11-09-NOV-2001

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
MTBE	.5	1	0.500	1.00	ND
Benzene	.5	1	0.500	1.00	ND
Toluene	.5	1	0.500	1.00	ND
Ethylbenzene	.5	1	0.500	1.00	ND
Total xylenes	.5	1	0.500	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	98.7	70 - 130	PASS

F Analyte concentration between MDL and RDL
* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 10/16/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0111344
Instrument ID: HP11
File ID: 11G12510
Workgroup (AAB#): WG108823
Contract #:

Run Date: 11/27/2001
Run Time: 10:36
Analyst: JLS

Sample ID: WG108823-02
Method: 8021B
Matrix: Water
Units: ug/L
Cal ID: HP11-09-NOV-2001

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	16.0	80.0	56 - 149	
Benzene	20	18.5	92.6	78 - 122	
Toluene	20	18.0	90.2	78 - 123	
Ethylbenzene	20	18.8	93.8	80 - 129	
Total xylenes	60	54.7	91.1	80 - 124	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	93.7	70 - 130	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 11/28/2001
Version 1.1
Report generated 11/30/2001 15:58

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021

AAB#: WG108823

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
002-CEF46-24D-Q4-01-10	16-NOV-01	17-NOV-01	27-NOV-01	14	11	27-NOV-01	14	11	
002-CEF46-21I-Q4-01-10	16-NOV-01	17-NOV-01	27-NOV-01	14	11	27-NOV-01	14	11	
002-CEF46-26I-Q4-01-10	16-NOV-01	17-NOV-01	27-NOV-01	14	11	27-NOV-01	14	11	
002-CEF46-25I-Q4-01-10	16-NOV-01	17-NOV-01	27-NOV-01	14	11	27-NOV-01	14	11	
002-46EQB-Q4-01-10	16-NOV-01	17-NOV-01	27-NOV-01	14	11	27-NOV-01	14	11	
002-46TB3-Q4-01-10	16-NOV-01	17-NOV-01	27-NOV-01	14	11	27-NOV-01	14	11	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

SURROGATE STANDARDS

Login Number: L0111344
Instrument Id: HP11
Workgroup (AAB#): WG108823

Method: 8021
Matrix: WATER

Sample Numbe	Dilution	Tag	1
L0111344-01	1.00		93.7
L0111344-02	1.00		99.5
L0111344-03	1.00		97.1
L0111344-04	10.0		106
L0111344-05	1.00		103
L0111344-06	1.00		93.8
WG108823-01	1.00		98.7
WG108823-02	1.00		93.7

Surrogates	Surrogate Limits		
1 - a,a,a-Trifluorotoluene	70	-	130

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 10/18/2001
Version 1.0

Calibration Table Report
Method: 8021W.M
Title: Method 8021B- WATER 11/09/01
Last Calibration: Fri Nov 09 13:33:23 2001

Calibration Files

Compound	1 11G12234 D	10 11G12235 D	20 11G12236 D	50 11G12237 D	100 11G12238 D	200 11G12239 D	300 11G12240 D	Avg	%RSD
MTBE	83798.460	76513.650	72705.102	73049.824	75613.201	73938.042	61793.761	73916.000	8.845
Benzene	201073.863	179591.409	182505.777	180139.685	182205.042	182815.034	174929.757	183323.000	4.519
TFT	53984.977	55911.046	56695.094	56679.262	56521.201	55917.354	55779.954	55927.000	1.681
Toluene	197061.431	174527.275	178210.379	175513.766	177290.962	174657.703	164289.885	177364.000	5.530
Chlorobenzene	171289.951	170335.133	178018.637	180667.683	184098.091	185201.253	176163.548	177968.000	3.271
Ethylbenzene	153985.380	149235.008	154805.296	153753.156	155105.500	154514.716	147569.644	152710.000	1.975
m-,p-Xylene	206004.190	187823.486	188266.672	183400.574	183845.234	181972.058	173603.521	186417.000	5.314
o-Xylene	181551.826	166876.205	165932.175	162629.276	163084.667	161642.660	154245.699	165138.000	5.033
BFB	147887.417	157091.375	161704.505	163886.654	165902.056	164860.100	166372.992	161101.000	4.116
1,3-Dichlorobenzene	149740.216	146570.252	154807.408	160600.508	166863.804	168326.490	160070.196	158140.000	5.196
1,4-Dichlorobenzene	162257.037	166565.345	169910.442	169158.939	172408.380	171955.157	163183.203	167920.000	2.412
1,2-Dichlorobenzene	142702.574	145219.822	147759.009	145104.571	145772.403	144099.864	135955.352	143802.000	2.635
BCB	142658.497	152733.980	156743.093	162010.516	166079.661	164159.866	166793.042	158740.000	5.501

Fri Nov 09 13:35:28 2001

Login Number: L0111344
File ID: 11G12242
ALT ID: WG107912-08
Units: ug/L

Instrument ID: HP11
Run Date: 11/09/2001
Run Time: 14:11
Analyst: CBN
Cal ID: HP11 - 09-NOV-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	21.2	153000	6.0	
1,4-Dichlorobenzene		20	20.4	171000	2.0	
1,3-Dichlorobenzene		20	19.9	157000	0.5	
o-Xylene		20	19.8	164000	1.0	
m-,p-Xylene		40	40.8	190000	2.0	
Ethylbenzene		20	20.8	159000	4.0	
Chlorobenzene		20	20.0	178000	0.0	
Toluene		20	20.0	177000	0.0	
Benzene		20	19.9	182000	0.5	
MTBE		20	20.4	75500	2.0	

Data File : C:\HPCHEM\1\DATA\112601\11G12508.D Vial: 27
Acq On : 27 Nov 2001 8:19 Operator: JLS
Sample : WG108734-05 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-13,S-87-22 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	15.413	22.9#	78	0.02
2	TM	Benzene	20.000	18.285	8.6	92	0.02
3	S	TFT	30.000	31.505	-5.0	104	0.02
4	TM	Toluene	20.000	17.860	10.7	89	0.00
5	TM	Chlorobenzene	20.000	17.625	11.9	88	0.00
6	TM	Ethylbenzene	20.000	18.320	8.4	90	0.00
7	TM	m-,p-Xylene	40.000	35.852	10.4	89	0.00
8	TM	o-Xylene	20.000	17.488	12.6	87	0.00
9	S	BFB	30.000	27.521	8.3	91	0.00
10	T	1,3-Dichlorobenzene	20.000	17.009	15.0	87	0.00
11	T	1,4-Dichlorobenzene	20.000	16.844	15.8#	83	0.00
12	T	1,2-Dichlorobenzene	20.000	17.666	11.7	86	0.00
13	S	BCB	30.000	26.262	12.5	89	0.00

average = 11.8%

(#) = Out of Range SPCC's out = 0 CCC's out = 0
11G12508.D 8021W.M Tue Nov 27 10:35:22 2001 Page 1

Login Number: L0111344
File ID: 11G12519
CCV ID: WG108842-01
Units: ug/L

Instrument ID: HP11
Run Date: 11/27/2001
Run Time: 15:41
Analyst: JLS
Cal ID: HP11 - 09-NOV-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	21.4	154000	7.0	
1,4-Dichlorobenzene		20	18.0	151000	10.0	
1,3-Dichlorobenzene		20	19.0	151000	5.0	
o-Xylene		20	17.8	147000	11.0	
m-,p-Xylene		40	36.6	171000	8.5	
Ethylbenzene		20	18.7	143000	6.5	
Chlorobenzene		20	17.5	156000	12.5	
Toluene		20	17.9	159000	10.5	
Benzene		20	18.0	165000	10.0	
MTBE		20	15.3	56700	23.5	*

KEMRON FORMS - Modified 10/11/2001
Version 1.0

Login Number: L0111344
File ID: 11G12530
CCV ID: WG108842-02
Units: ug/L

Instrument ID: HP11
Run Date: 11/27/2001
Run Time: 21:58
Analyst: JLS
Cal ID: HP11 - 09-NOV-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	17.9	129000	10.5	
1,4-Dichlorobenzene		20	17.1	144000	14.5	
1,3-Dichlorobenzene		20	17.4	137000	13.0	
o-Xylene		20	17.8	147000	11.0	
m-,p-Xylene		40	36.4	170000	9.0	
Ethylbenzene		20	18.7	142000	6.5	
Chlorobenzene		20	18.0	160000	10.0	
Toluene		20	17.8	158000	11.0	
Benzene		20	18.2	167000	9.0	
MTBE		20	15.7	57900	21.5	*

KEMRON FORMS - Modified 10/11/2001
Version 1.0

Injection Log

Directory: C:\HPCHEM\1\DATA\110901

WG107912

ANALYST: C

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g12231.d	1.	WG107895-01 8021 STD 20PPB 5ML ccmd	1,1 S-86-(13,08)	9 Nov 2001 07
2	2	11g12232.d	1.	WG107895-01 8021 STD 20PPB 5ML ⊥	1,1 S-86-(13,08)	9 Nov 2001 07
3	1	11g12233.d	1.	WG107912-01 8021 STD1 1PPB 5ML DNR	1,1 S-(85-35,86-08)	9 Nov 2001 09
4	2	11g12234.d	1.	WG107912-01 8021 STD1 1PPB 5ML ✓	1,1 S-(85-35,86-08)	9 Nov 2001 09
5	3	11g12235.d	1.	WG107912-02 8021 STD2 10PPB... ✓	1,1 S-(85-35,86-08)	9 Nov 2001 10
6	4	11g12236.d	1.	WG107912-03 8021 STD3 20PPB... ✓	1,1 S-(85-35,86-08)	9 Nov 2001 10
7	5	11g12237.d	1.	WG107912-04 8021 STD4 50PPB... ✓	1,1 S-(85-35,86-08)	9 Nov 2001 11
8	6	11g12238.d	1.	WG107912-05 8021 STD5 100PP... ✓	1,1 S-(85-35,86-08)	9 Nov 2001 11
9	7	11g12239.d	1.	WG107912-06 8021 STD6 200PP... ✓	1,1 S-(85-35,86-08)	9 Nov 2001 12
10	8	11g12240.d	1.	WG107912-07 8021 STD7 300PP... ✓	1,1 S-(85-35,86-08)	9 Nov 2001 13
11	9	11g12241.d	1.	RINSE 5ML ✓	1,1 S-86-08	9 Nov 2001 13
12	10	11g12242.d	1.	WG107912-08 ALT SOURCE 5ML ✓	1,1 S-86-(13,08)	9 Nov 2001 14

Injection Log

Directory: C:\HPCHEM\1\DATA\112701

Analyst: JCS

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
		11 6 12528		8021 Std ✓		
1	1	11g12509.d	1.	WG108823-01 WATER BLANK 5ML ✓	1,1 S-87-22	27 Nov 2001 10:03
2	2	11g12510.d	1.	WG108823-02 WATER LCS 5ML ✓	1,1 S-86-13, S-87-22	27 Nov 2001 10:36
3	1	11g12511.d	1.	L0111344-01 B 5ML pH<2 ✓	1,1 S-87-22	27 Nov 2001 11:27
4	2	11g12512.d	1.	L0111344-02 B 5ML pH<2 ✓	1,1 S-87-22	27 Nov 2001 11:54
5	3	11g12513.d	10.	WG108823-03 L0111344-04 B 1.. ✓	1,10 S-87-22	27 Nov 2001 12:26
6	4	11g12514.d	10.	WG108823-04 L0111344-04 B 1.. ✓	1,10 S-87-22	27 Nov 2001 12:59
7	5	11g12515.d	10.	WG108823-04 L0111344-04 B 1.. ✓	1,10 S-87-22	27 Nov 2001 13:32
8	6	11g12516.d	1.	L0111395-01 B 5ML pH<2 ✓	1,1 S-87-22	27 Nov 2001 14:04
9	7	11g12517.d	1.	L0111397-01 B 5ML pH<2 ✓	1,1 S-87-23	27 Nov 2001 14:37
10	8	11g12518.d	1.	L0111415-01 B 5ML pH<2 ✓	1,1 S-87-23	27 Nov 2001 15:09
11	9	11g12519.d	1.	WG108842-01 8021 STD 20PPB 5ML ✓	1,1 S-87-23	27 Nov 2001 15:41
12	1	11g12520.d	1.	L0111344-03 B 5ML pH<2 ✓	1,1 S-87-23	27 Nov 2001 16:33
13	2	11g12521.d	1.	L0111344-05 B 5ML pH<2 ✓	1,1 S-87-23	27 Nov 2001 17:05
14	3	11g12522.d	1.	L0111344-06 B 5ML pH<2 ✓	1,1 S-87-23	27 Nov 2001 17:38
15	4	11g12523.d	1.	L0111382-01 B 5ML pH<2 ✓	1,1 S-87-23	27 Nov 2001 18:10
16	5	11g12524.d	1.	L0111382-02 B 5ML pH<2 ✓	1,1 S-87-23	27 Nov 2001 18:43
17	6	11g12525.d	1.	L0111382-03 B 5ML pH<2 ✓	1,1 S-87-23	27 Nov 2001 19:15
18	7	11g12526.d	1.	L0111382-04 B 5ML pH<2 ✓	1,1 S-87-23	27 Nov 2001 19:48
19	8	11g12527.d	10.	L0111382-05 B 10X 5ML pH<2 ✓	1,10 S-87-23	27 Nov 2001 20:21
20	9	11g12528.d	10.	L0111382-06 B 10X 5ML pH<2 ✓	1,10 S-87-23	27 Nov 2001 20:53
21	10	11g12529.d	1.	L0111382-07 B 5ML pH<2 RR 5X	1,1 S-87-23	27 Nov 2001 21:29
22	11	11g12530.d	1.	WG108842-02 8021 STD 5ML ✓	1,1 S-86-13, S-87-22	27 Nov 2001 21:58
23	12	11g12531.d	5.	L0111382-07 B 5X 5ML ✓	1,5 S-87-22	27 Nov 2001 22:31
24	13	11g12532.d	1.	L0111382-08 B 5ML ✓	1,1 S-87-22	27 Nov 2001 23:04
25	14	11g12533.d	1.	L0111382-09 B 5ML ✓	1,1 S-87-22	27 Nov 2001 23:36
26	15	11g12534.d	1.	L0111382-10 B 5ML ✓	1,1 S-87-22	28 Nov 2001 00:09
27	16	11g12535.d	1.	WG108842-03 8021 STD 20PPB 5ML ✓	1,1 S-86-13, S-87-22	28 Nov 2001 00:42

VOA - GC

Date: 11/27/01 Analyst: ~~CSH~~ JLS Method: (8021) 8015 602

Instrument: HP11 Work Group: WG108823

	Analyst
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	NA
Second Source standard % Difference	✓
Continuing Calibration / Check Standards	✓
Project / Client Specific Requirements	✓
Special Standards	NA
Blanks	✓
TCL's	✓
Surrogates	✓
LCS (Laboratory Control Sample)	✓
Recoveries	✓
Surrogates	✓
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	✓
Dilutions Run	✓
Reruns	✓
Excel Spreadsheets	✓
Case Narrative	✓
Narrative Summary	✓
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: CSH 11/28/01

Secondary Reviewers Initials & Date Checked: JLS 11/28/01

✓ • Check for compliance with Method and project-specific requirements
✓ • Check the completeness of the reported information
✓ • Check the information for the report narrative
✓ • Check the reasonableness of results

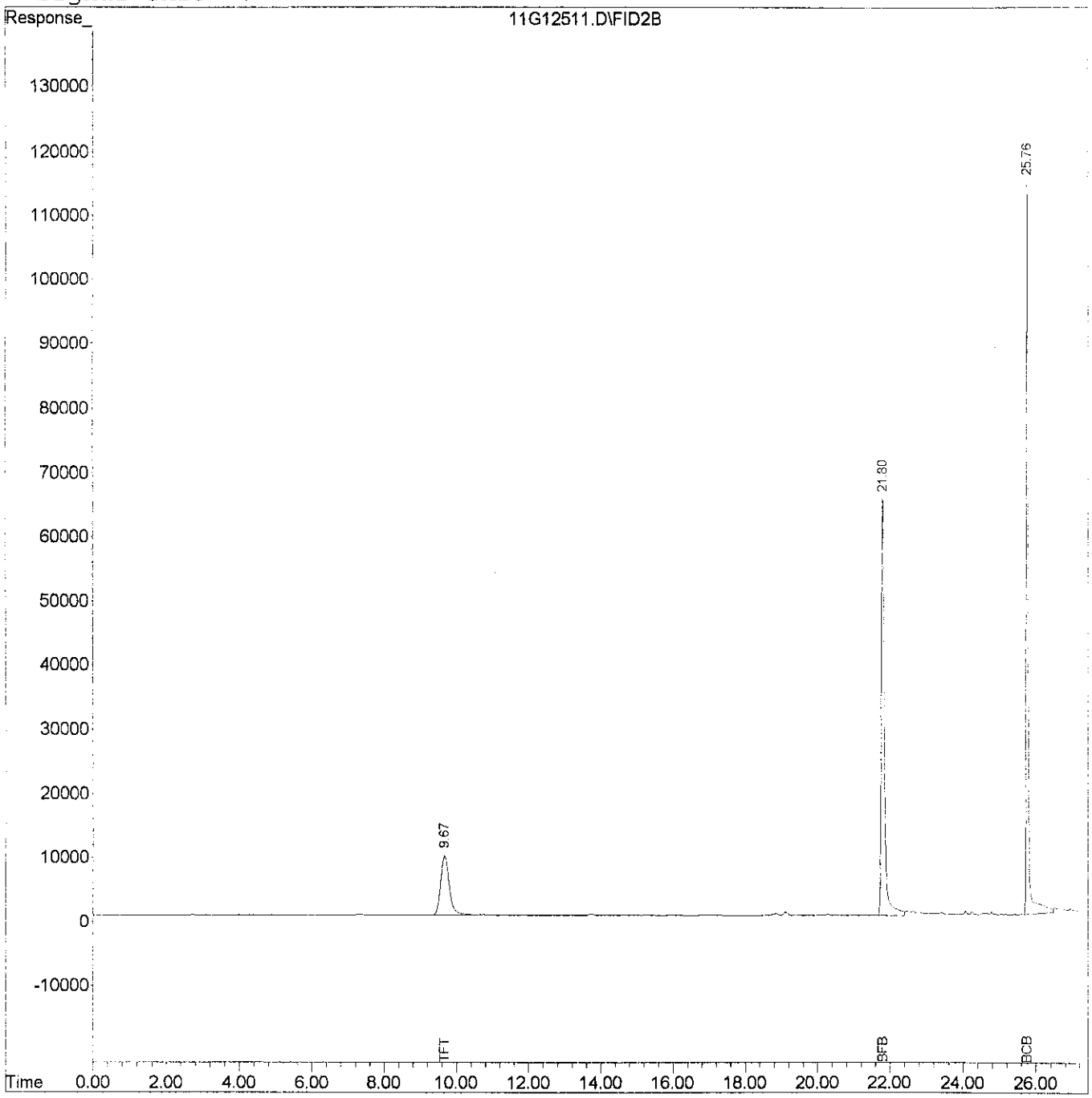
Supervisory Review Initials & Date Checked: [illegible] 11/28/01

Comments:

✓ = Checked & OK
NA = Not Applicable

2.1.3.2 Sample Data

```
Data File : C:\HPCHEM\1\DATA\112701\11G12511.D          Vial: 1
Acq On    : 27 Nov 2001  11:21                       Operator: JLS
Sample    : L0111344-01 B 5ML pH<2                   Inst    : HP11
Misc      : 1,1 S-87-22                              Multiplr: 1.00
IntFile   : autoint1.e
Quant Time: Nov 27 11:49 2001  Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title        : Method 8021B- WATER 11/09/01
Last Update  : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj.  :
Signal Phase :
Signal Info  :
```



Data File : C:\HPCHEM\1\DATA\112701\11G12511.D Vial: 1
Acq On : 27 Nov 2001 11:21 Operator: JLS
Sample : L0111344-01 B 5ML pH<2 Inst : HP11
Misc : 1,1 S-87-22 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 27 11:49 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

@11/28

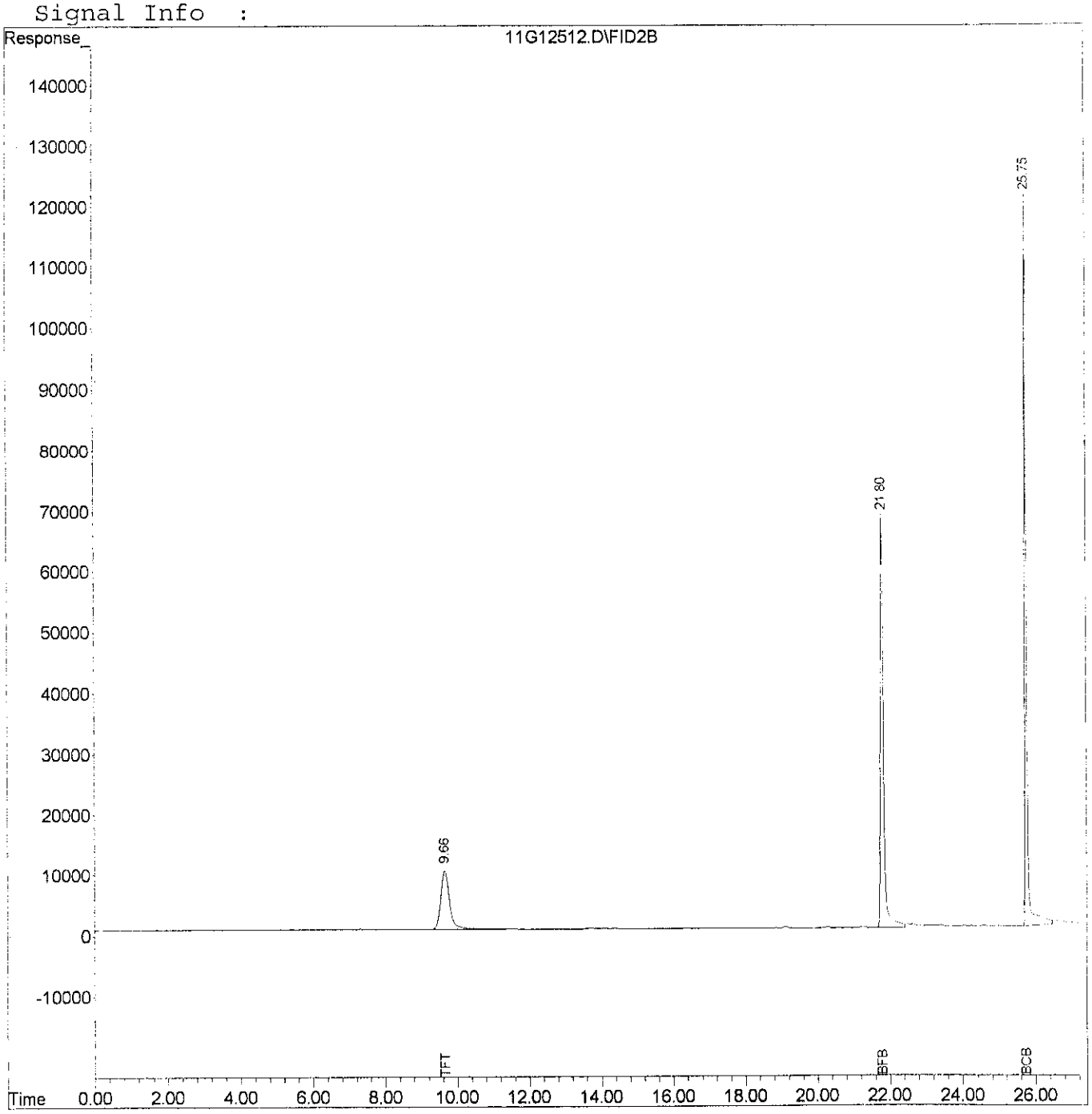
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.68	1572684	28.120 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	93.73%
9) S BFB	21.81	3941191	24.464 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	81.55%
13) S BCB	25.76	3977501	25.057 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	83.52%
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/L
2) TM Benzene	7.31	19587	<MDL UG/L
4) TM Toluene	13.72	32017	<MDL UG/L
5) TM Chlorobenzene	18.59	8669	<MDL UG/L
6) TM Ethylbenzene	18.86	34945	<MDL UG/L
7) TM m-,p-Xylene	19.12	46150	<MDL UG/L
8) TM o-Xylene	20.29	19141	<MDL UG/L
10) T 1,3-Dichlorobenzene	24.07	38258	<MDL UG/L
11) T 1,4-Dichlorobenzene	24.25	35495	<MDL UG/L
12) T 1,2-Dichlorobenzene	24.78	23039	<MDL UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\112701\11G12512.D Vial: 2
Acq On : 27 Nov 2001 11:54 Operator: JLS
Sample : L0111344-02 B 5ML pH<2 Inst : HP11
Misc : 1,1 S-87-22 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 27 12:21 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\112701\11G12512.D Vial: 2
Acq On : 27 Nov 2001 11:54 Operator: JLS
Sample : L0111344-02 B 5ML pH<2 Inst : HP11
Misc : 1,1 S-87-22 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 27 12:21 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

@11/28

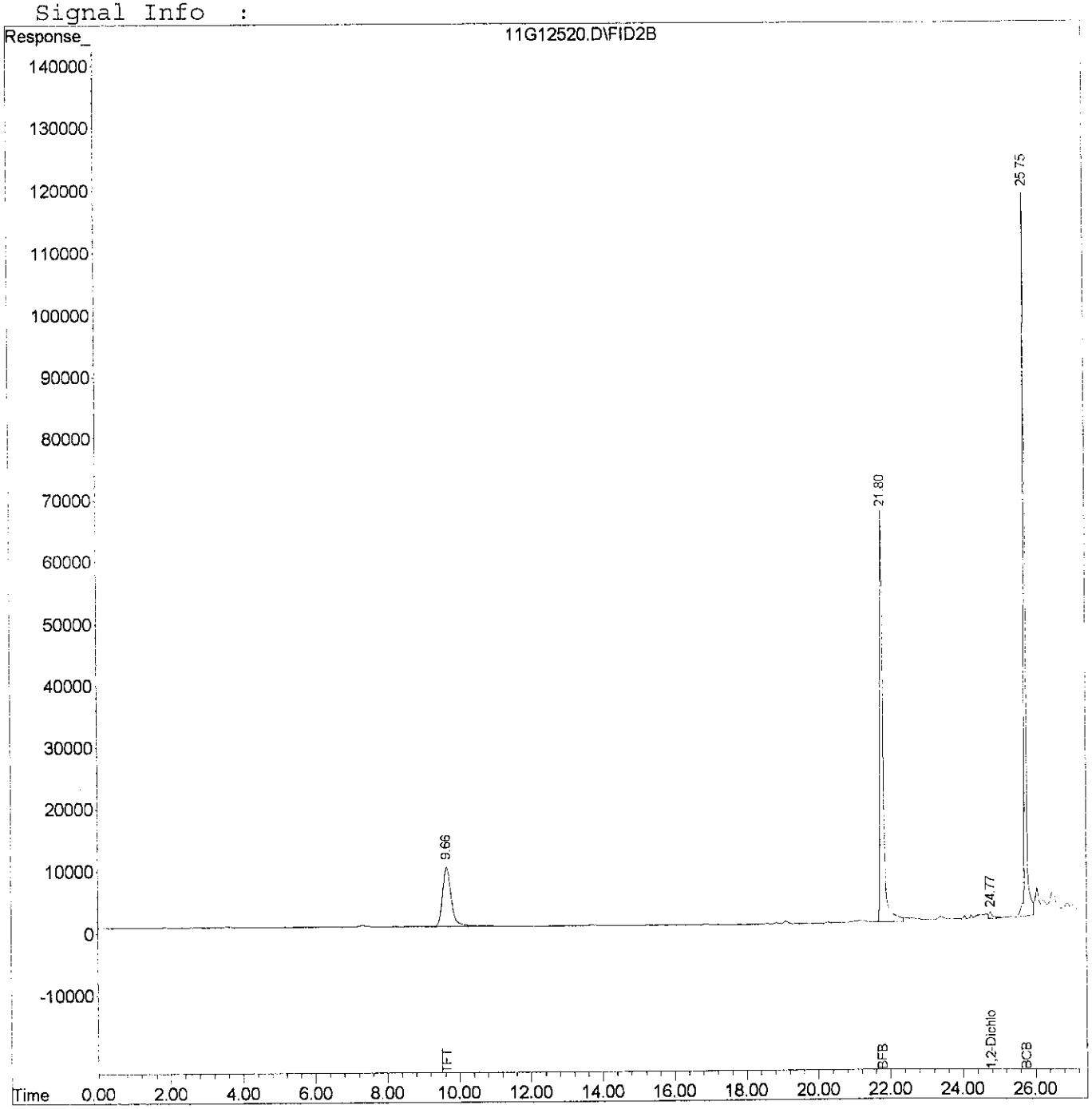
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.66	1669049	29.843 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	99.48%
9) S BFB	21.80	4127267	25.619 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	85.40%
13) S BCB	25.76	4200256	26.460 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	88.20%
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/L
2) TM Benzene	7.31	9092	<MDL UG/L
4) TM Toluene	13.71	18669	<MDL UG/L
5) TM Chlorobenzene	18.58	3180	<MDL UG/L
6) TM Ethylbenzene	18.85	8604	<MDL UG/L
7) TM m-,p-Xylene	19.12	27143	<MDL UG/L
8) TM o-Xylene	20.29	18514	<MDL UG/L
10) T 1,3-Dichlorobenzene	24.06	20800	<MDL UG/L
11) T 1,4-Dichlorobenzene	24.24	17152	<MDL UG/L
12) T 1,2-Dichlorobenzene	24.78	8101	<MDL UG/L

Data File : C:\HPCHEM\1\DATA\112701\11G12520.D
Acq On : 27 Nov 2001 16:33
Sample : L0111344-03 B 5ML pH<2
Misc : 1,1 S-87-23
IntFile : autoint1.e
Quant Time: Nov 27 17:00 2001 Quant Results File: 8021W.RES

Vial: 1
Operator: JLS
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\112701\11G12520.D Vial: 1
Acq On : 27 Nov 2001 16:33 Operator: JLS
Sample : L0111344-03 B 5ML pH<2 Inst : HP11
Misc : 1,1 S-87-23 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 27 17:00 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

@11/28

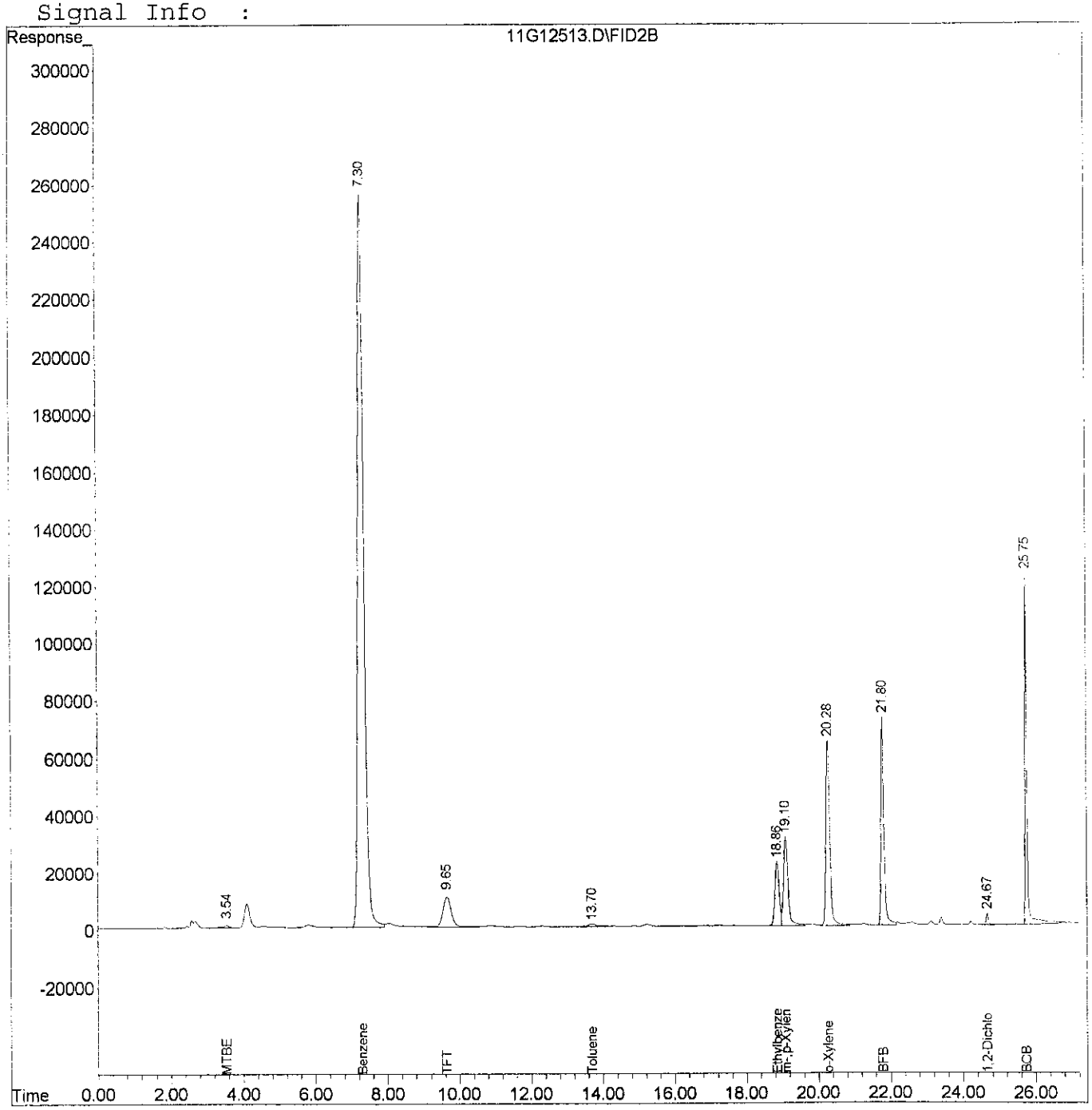
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.67	1628922	29.126 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	97.09%
9) S BFB			21.80	4010169	24.892 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	82.97%
13) S BCB			25.76	3924153	24.721 UG/L
Spiked Amount	30.000	Range	37 - 137	Recovery =	82.40%
Target Compounds					
1) TM MTBE			3.54	15742	<MDL UG/L
2) TM Benzene			7.31	34970	<MDL UG/L
4) TM Toluene			13.72	27743	<MDL UG/L
5) TM Chlorobenzene			18.59	5010	<MDL UG/L
6) TM Ethylbenzene			18.86	17596	<MDL UG/L
7) TM m-,p-Xylene			19.12	43367	<MDL UG/L
8) TM o-Xylene			20.29	14022	<MDL UG/L
10) T 1,3-Dichlorobenzene			24.06	25215	<MDL UG/L
11) T 1,4-Dichlorobenzene			24.24	27226	<MDL UG/L
12) T 1,2-Dichlorobenzene			24.77	80490	0.560 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\112701\11G12513.D Vial: 3
Acq On : 27 Nov 2001 12:26 Operator: JLS
Sample : WG108823-03 L0111344-04 B 10X 5ML pH<2 Inst : HP11
Misc : 1,10 S-87-22 Multiplr: 10.00
IntFile : autoint1.e
Quant Time: Nov 27 12:54 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\112701\11G12513.D Vial: 3
Acq On : 27 Nov 2001 12:26 Operator: JLS
Sample : WG108823-03 L0111344-04 B 10X 5ML pH<2 Inst : HP11
Misc : 1,10 S-87-22 Multiplr: 10.00
IntFile : autoint1.e
Quant Time: Nov 27 12:54 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

@11/28

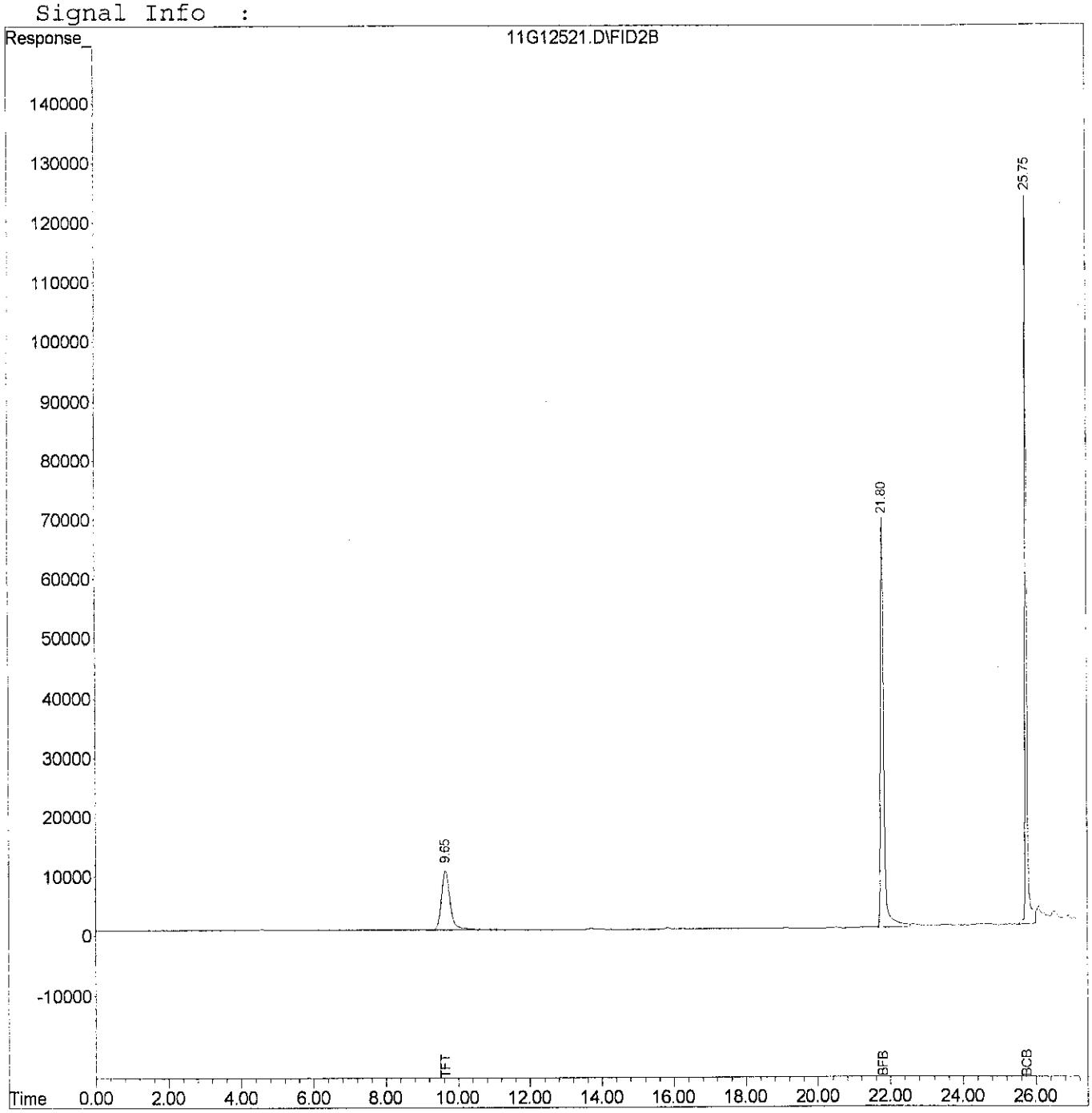
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.66	1772436	31.692 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	105.64%
9) S BFB	21.80	4214424	26.160 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	87.20%
13) S BCB	25.76	4288410	27.015 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	90.05%
Target Compounds			
1) TM MTBE	3.54	74239	10.044 UG/L
2) TM Benzene	7.31	30695634	1674.402 UG/L
4) TM Toluene	13.70	179031	10.094 UG/L
5) TM Chlorobenzene	0.00	0	N.D. UG/L
6) TM Ethylbenzene	18.86	1825347	119.530 UG/L
7) TM m-,p-Xylene	19.10	2670141	143.235 UG/L
8) TM o-Xylene	20.28	4776642	289.252 UG/L
10) T 1,3-Dichlorobenzene	24.06	11354	~~0.718 UG~~/L
11) T 1,4-Dichlorobenzene	24.21	61350	~~3.654 UG~~/L
12) T 1,2-Dichlorobenzene	24.67	172296	~~11.981 UG~~/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\112701\11G12521.D Vial: 2
Acq On : 27 Nov 2001 17:05 Operator: JLS
Sample : L0111344-05 B 5ML pH<2 Inst : HP11
Misc : 1,1 S-87-23 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 27 17:33 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\112701\11G12521.D Vial: 2
Acq On : 27 Nov 2001 17:05 Operator: JLS
Sample : L0111344-05 B 5ML pH<2 Inst : HP11
Misc : 1,1 S-87-23 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 27 17:33 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

11/28

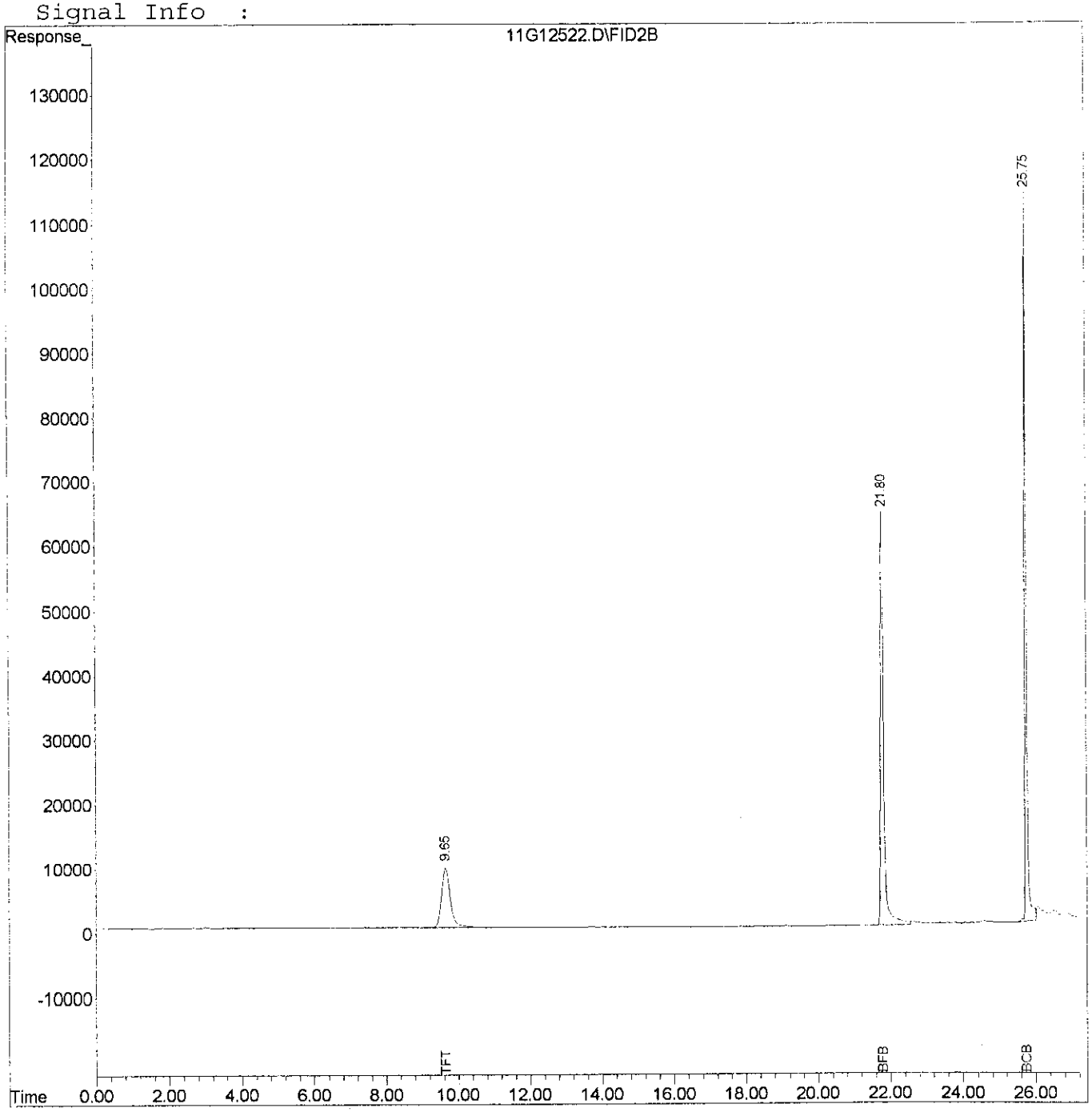
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.66	1724802	30.840 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	102.80% ✓
9) S BFB	21.80	4209118	26.127 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	87.09%
13) S BCB	25.75	4039770	25.449 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	84.83%
Target Compounds			
1) TM MTBE	3.55	3184	<MDL UG/L
2) TM Benzene	7.31	6295	<MDL UG/L
4) TM Toluene	13.71	23276	<MDL UG/L
5) TM Chlorobenzene	18.58	2847	<MDL UG/L
6) TM Ethylbenzene	18.86	4600	<MDL UG/L
7) TM m-,p-Xylene	19.11	16083	<MDL UG/L
8) TM o-Xylene	20.29	4603	<MDL UG/L
10) T 1,3-Dichlorobenzene	24.06	7851	<MDL UG/L
11) T 1,4-Dichlorobenzene	24.25	9510	<MDL UG/L
12) T 1,2-Dichlorobenzene	24.76	19695	<MDL UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\112701\11G12522.D Vial: 3
Acq On : 27 Nov 2001 17:38 Operator: JLS
Sample : L0111344-06 B 5ML pH<2 Inst : HP11
Misc : 1,1 S-87-23 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 27 18:05 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\112701\11G12522.D Vial: 3
Acq On : 27 Nov 2001 17:38 Operator: JLS
Sample : L0111344-06 B 5ML pH<2 Inst : HP11
Misc : 1,1 S-87-23 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 27 18:05 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

@11/28

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.66	1574064	28.145 UG/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	93.82%
9) S BFB	21.80	3916109	24.308 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	81.03%
13) S BCB	25.75	3689309	23.241 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	77.47%
Target Compounds			
1) TM MTBE	3.54	2810	<MDL UG/L
2) TM Benzene	7.30	2996	<MDL UG/L
4) TM Toluene	13.71	13690	<MDL UG/L
5) TM Chlorobenzene	18.59	2489	<MDL UG/L
6) TM Ethylbenzene	18.86	3043	<MDL UG/L
7) TM m-,p-Xylene	19.11	11881	<MDL UG/L
8) TM o-Xylene	20.29	4037	<MDL UG/L
10) T 1,3-Dichlorobenzene	24.06	6402	<MDL UG/L
11) T 1,4-Dichlorobenzene	24.24	5723	<MDL UG/L
12) T 1,2-Dichlorobenzene	24.77	22012	<MDL UG/L

2.1.3.3 Standards Data

Calibration Table Report
Method: 8021W.M
Title: Method 8021B- WATER 11/09/01
Last Calibration: Fri Nov 09 13:33:23 2001

Calibration Files

Compound	1 11G12234 D	10 11G12235 D	20 11G12236 D	50 11G12237 D	100 11G12238 D	200 11G12239 D	300 11G12240 D	Avg	%RSD
MTBE	83798.460	76513.650	72705.102	73049.824	75613.201	73938.042	61793.761	73916.000	8.845
Benzene	201073.863	179591.409	182505.777	180139.685	182205.042	182815.034	174929.757	183323.000	4.519
TFT	53984.977	55911.046	56695.094	56679.262	56521.201	55917.354	55779.954	55927.000	1.681
Toluene	197061.431	174527.275	178210.379	175513.766	177290.962	174657.703	164289.885	177364.000	5.530
Chlorobenzene	171289.951	170335.133	178018.637	180667.683	184098.091	185201.253	176163.548	177968.000	3.271
Ethylbenzene	153985.380	149235.008	154805.296	153753.156	155105.500	154514.716	147569.644	152710.000	1.975
m-,p-Xylene	206004.190	187823.486	188266.672	183400.574	183845.234	181972.058	173603.521	186417.000	5.314
o-Xylene	181551.826	166876.205	165932.175	162629.276	163084.667	161642.660	154245.699	165138.000	5.053
BFB	147887.417	157091.375	161704.505	163886.654	165902.056	164860.100	166372.992	161101.000	4.116
1,3-Dichlorobenzene	149740.216	146570.252	154807.408	160600.508	166863.804	168326.490	160070.196	158140.000	5.196
1,4-Dichlorobenzene	162257.037	166565.345	169910.442	169158.939	172408.380	171955.157	163183.203	167920.000	2.410
1,2-Dichlorobenzene	142702.574	145219.822	147759.009	145104.571	145772.403	144099.864	135955.352	143802.000	2.635
BCB	142658.497	152733.980	156743.093	162010.516	166079.661	164159.866	166793.042	158740.000	5.501

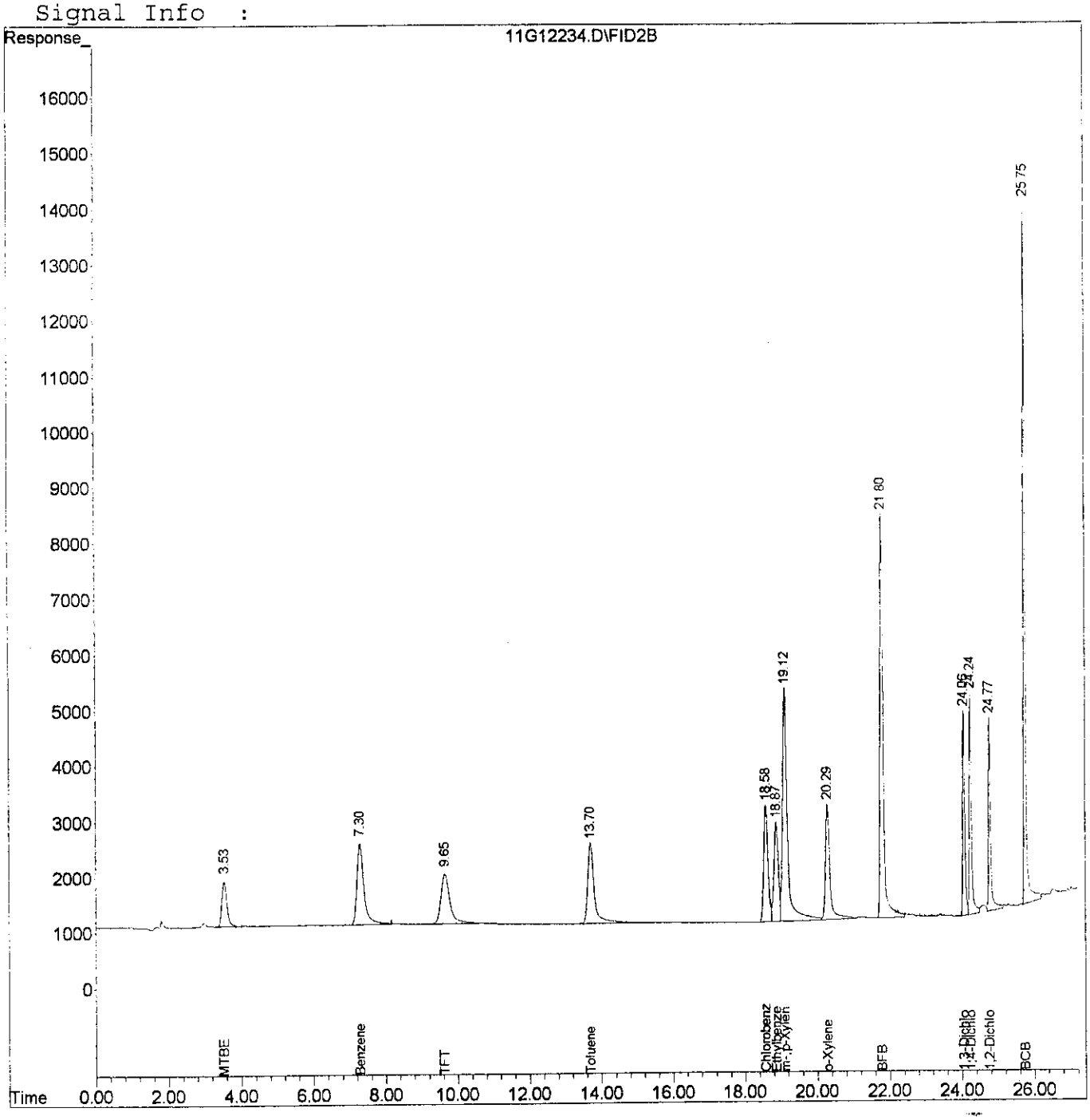
Fri Nov 09 13:35:28 2001

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\110901\11G12234.D Vial: 2
Acq On : 9 Nov 2001 9:49 Operator: CBN
Sample : WG107912-01 8021 STD1 1PPB 5ML Inst : HP11
Misc : 1,1 S-(85-35,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 9 10:16 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 10/30/01
Last Update : Tue Oct 30 14:25:22 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\110901\11G12234.D Vial: 2
Acq On : 9 Nov 2001 9:49 Operator: CBN
Sample : WG107912-01 8021 STD1 1PPB 5ML Inst : HP11
Misc : 1,1 S-(85-35,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 9 10:16 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 10/30/01
Last Update : Tue Oct 30 14:25:22 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.65	161955	2.510 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	8.37%#
9) S BFB	21.81	443662	2.320 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	7.73%#
13) S BCB	25.75	427975	2.221 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	7.40%#
Target Compounds			
1) TM MTBE	3.53	83798	0.918 UG/L
2) TM Benzene	7.30	201074	0.891 UG/L
4) TM Toluene	13.71	197061	0.950 UG/L
5) TM Chlorobenzene	18.59	171290	0.808 UG/L
6) TM Ethylbenzene	18.87	153985	0.843 UG/L
7) TM m-,p-Xylene	19.12	412008	1.834 UG/L
8) TM o-Xylene	20.29	181552	0.904 UG/L
10) T 1,3-Dichlorobenzene	24.06	149740	0.782 UG/L
11) T 1,4-Dichlorobenzene	24.24	162257	0.794 UG/L
12) T 1,2-Dichlorobenzene	24.78	142703	0.828 UG/L

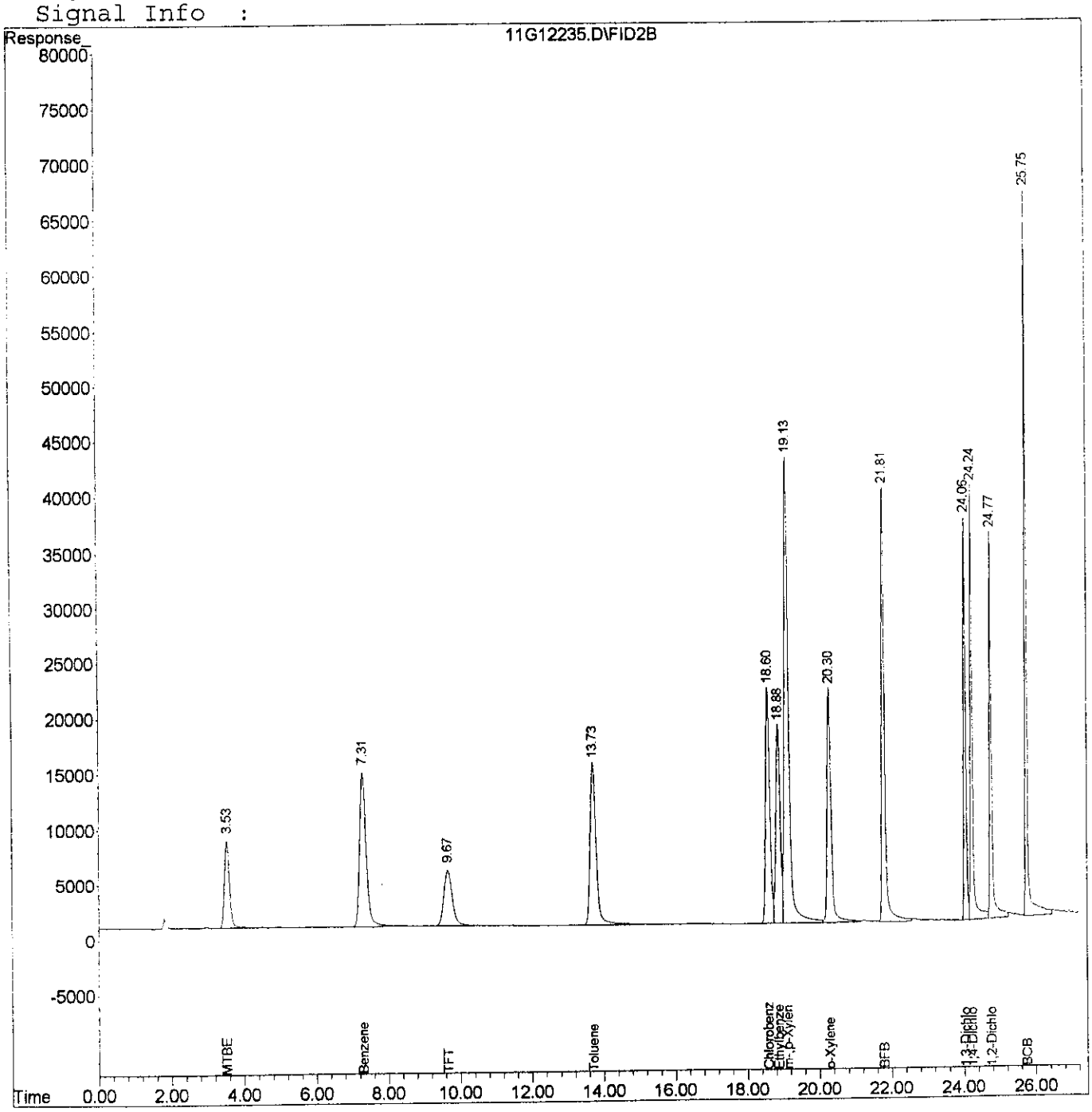
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\110901\11G12235.D
Acq On : 9 Nov 2001 10:21
Sample : WG107912-02 8021 STD2 10PPB 5ML
Misc : 1,1 S-(85-35,86-08)
IntFile : autoint1.e
Quant Time: Nov 9 10:49 2001 Quant Results File: 8021W.RES

Vial: 3
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 10/30/01
Last Update : Tue Oct 30 14:25:22 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\110901\11G12235.D Vial: 3
Acq On : 9 Nov 2001 10:21 Operator: CBN
Sample : WG107912-02 8021 STD2 10PPB 5ML Inst : HP11
Misc : 1,1 S-(85-35,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 9 10:49 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 10/30/01
Last Update : Tue Oct 30 14:25:22 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.67	838666	12.999 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	43.33%#
9) S BFB	21.81	2356371	12.322 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	41.07%#
13) S BCB	25.75	2291010	11.889 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	39.63%
Target Compounds			
1) TM MTBE	3.53	765136	8.383 UG/L
2) TM Benzene	7.31	1795914	7.962 UG/L
4) TM Toluene	13.73	1745273	8.412 UG/L
5) TM Chlorobenzene	18.60	1703351	8.039 UG/L
6) TM Ethylbenzene	18.88	1492350	8.174 UG/L
7) TM m-,p-Xylene	19.13	3756470	16.725 UG/L
8) TM o-Xylene	20.30	1668762	8.308 UG/L
10) T 1,3-Dichlorobenzene	24.06	1465703	7.656 UG/L
11) T 1,4-Dichlorobenzene	24.24	1665653	8.151 UG/L
12) T 1,2-Dichlorobenzene	24.78	1452198	8.426 UG/L

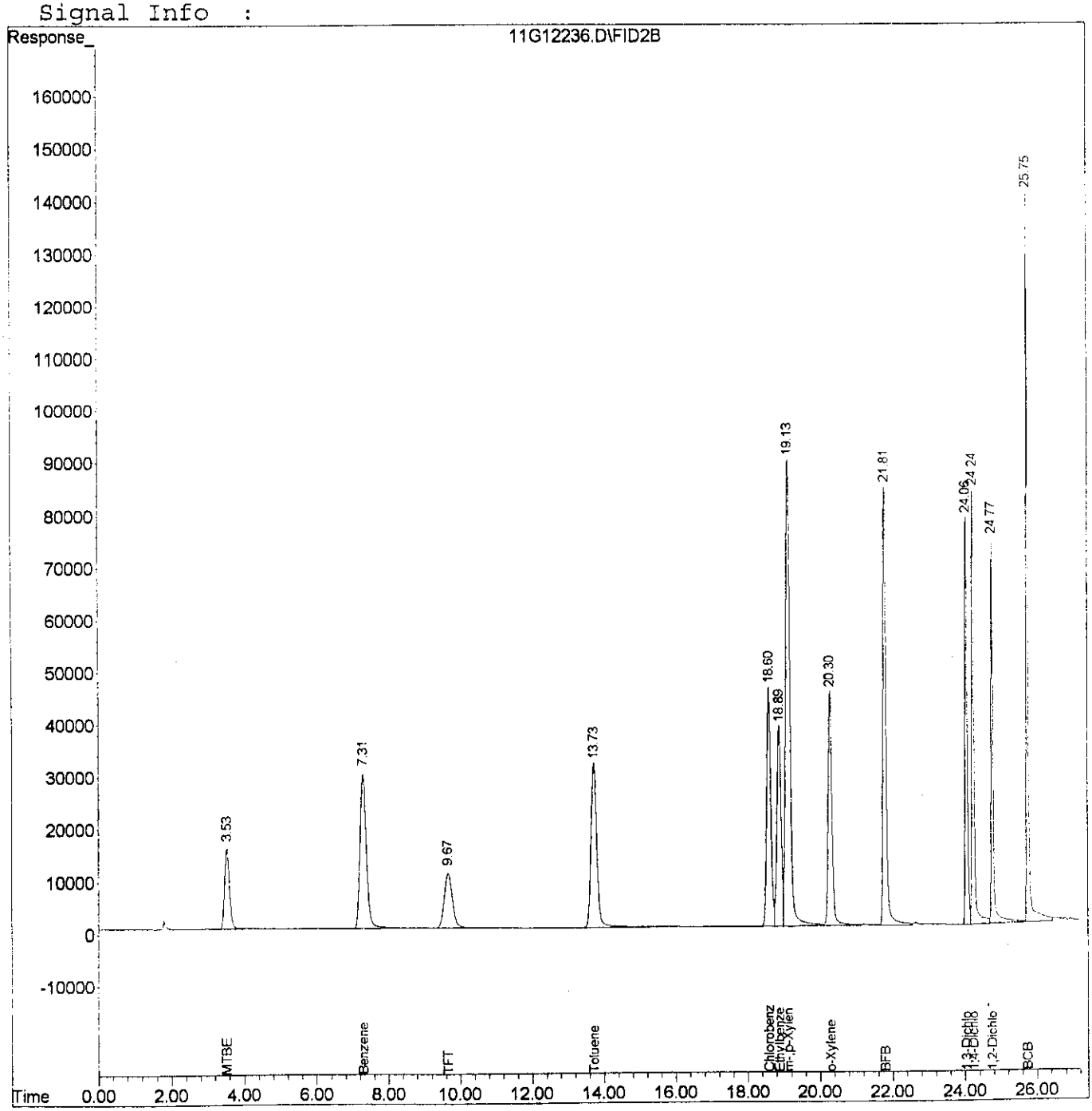
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\110901\11G12236.D
Acq On : 9 Nov 2001 10:54
Sample : WG107912-03 8021 STD3 20PPB 5ML
Misc : 1,1 S-(85-35,86-08)
IntFile : autoint1.e
Quant Time: Nov 9 11:22 2001 Quant Results File: 8021W.RES

Vial: 4
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 10/30/01
Last Update : Tue Oct 30 14:25:22 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\110901\11G12236.D
Acq On : 9 Nov 2001 10:54
Sample : WG107912-03 8021 STD3 20PPB 5ML
Misc : 1,1 S-(85-35,86-08)
IntFile : autoint1.e
Quant Time: Nov 9 11:22 2001 Quant Results File: 8021W.RES

Vial: 4
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 10/30/01
Last Update : Tue Oct 30 14:25:22 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.67	1700853	26.362 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	87.87%
9) S BFB	21.81	4851135	25.369 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	84.56%
13) S BCB	25.75	4702293	24.402 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	81.34%
Target Compounds			
1) TM MTBE	3.53	1454102	15.932 UG/L
2) TM Benzene	7.31	3650116	16.183 UG/L
4) TM Toluene	13.73	3564208	17.179 UG/L
5) TM Chlorobenzene	18.60	3560373	16.804 UG/L
6) TM Ethylbenzene	18.88	3096106	16.958 UG/L
7) TM m-,p-Xylene	19.13	7530667	33.530 UG/L
8) TM o-Xylene	20.30	3318644	16.522 UG/L
10) T 1,3-Dichlorobenzene	24.06	3096148	16.172 UG/L
11) T 1,4-Dichlorobenzene	24.24	3398209	16.629 UG/L
12) T 1,2-Dichlorobenzene	24.78	2955180	17.147 UG/L

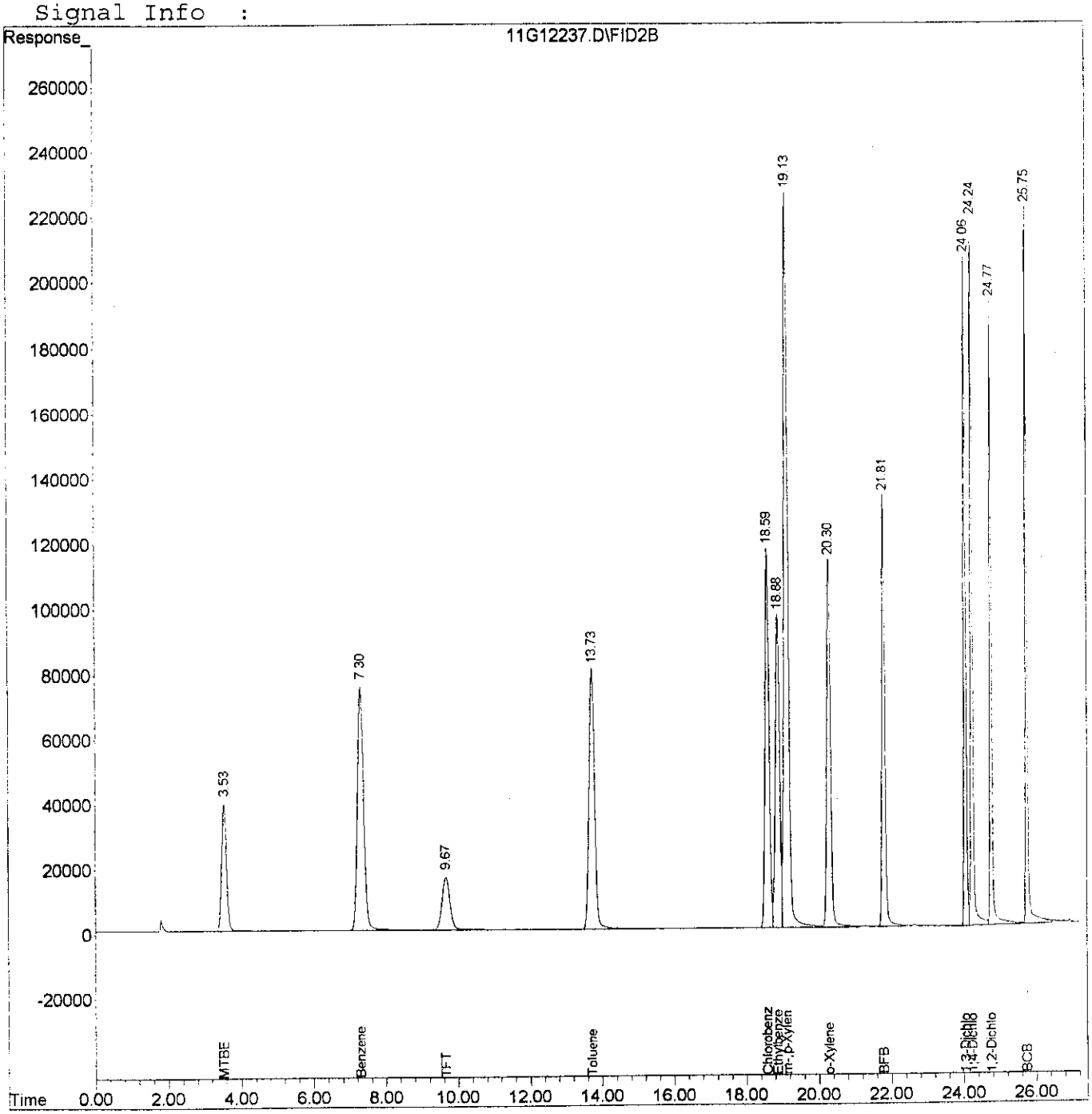
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\110901\11G12237.D
Acq On : 9 Nov 2001 11:27
Sample : WG107912-04 8021 STD4 50PPB 5ML
Misc : 1,1 S-(85-35,86-08)
IntFile : autoint1.e
Quant Time: Nov 9 11:54 2001 Quant Results File: 8021W.RES

Vial: 5
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 10/30/01
Last Update : Tue Oct 30 14:25:22 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\110901\11G12237.D Vial: 5
Acq On : 9 Nov 2001 11:27 Operator: CBN
Sample : WG107912-04 8021 STD4 50PPB 5ML Inst : HP11
Misc : 1,1 S-(85-35,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 9 11:54 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 10/30/01
Last Update : Tue Oct 30 14:25:22 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.67	2550567	39.532 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	131.77%#
9) S BFB	21.81	7374899	38.566 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	128.55%
13) S BCB	25.75	7290473	37.832 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	126.11%
Target Compounds			
1) TM MTBE	3.53	3652491	40.018 UG/L
2) TM Benzene	7.31	9006984	39.932 UG/L
4) TM Toluene	13.72	8775688	42.297 UG/L
5) TM Chlorobenzene	18.60	9033384	42.635 UG/L
6) TM Ethylbenzene	18.88	7687658	42.107 UG/L
7) TM m-,p-Xylene	19.13	18340057	81.658 UG/L
8) TM o-Xylene	20.30	8131464	40.483 UG/L
10) T 1,3-Dichlorobenzene	24.06	8030025	41.943 UG/L
11) T 1,4-Dichlorobenzene	24.24	8457947	41.389 UG/L
12) T 1,2-Dichlorobenzene	24.78	7255229	42.098 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

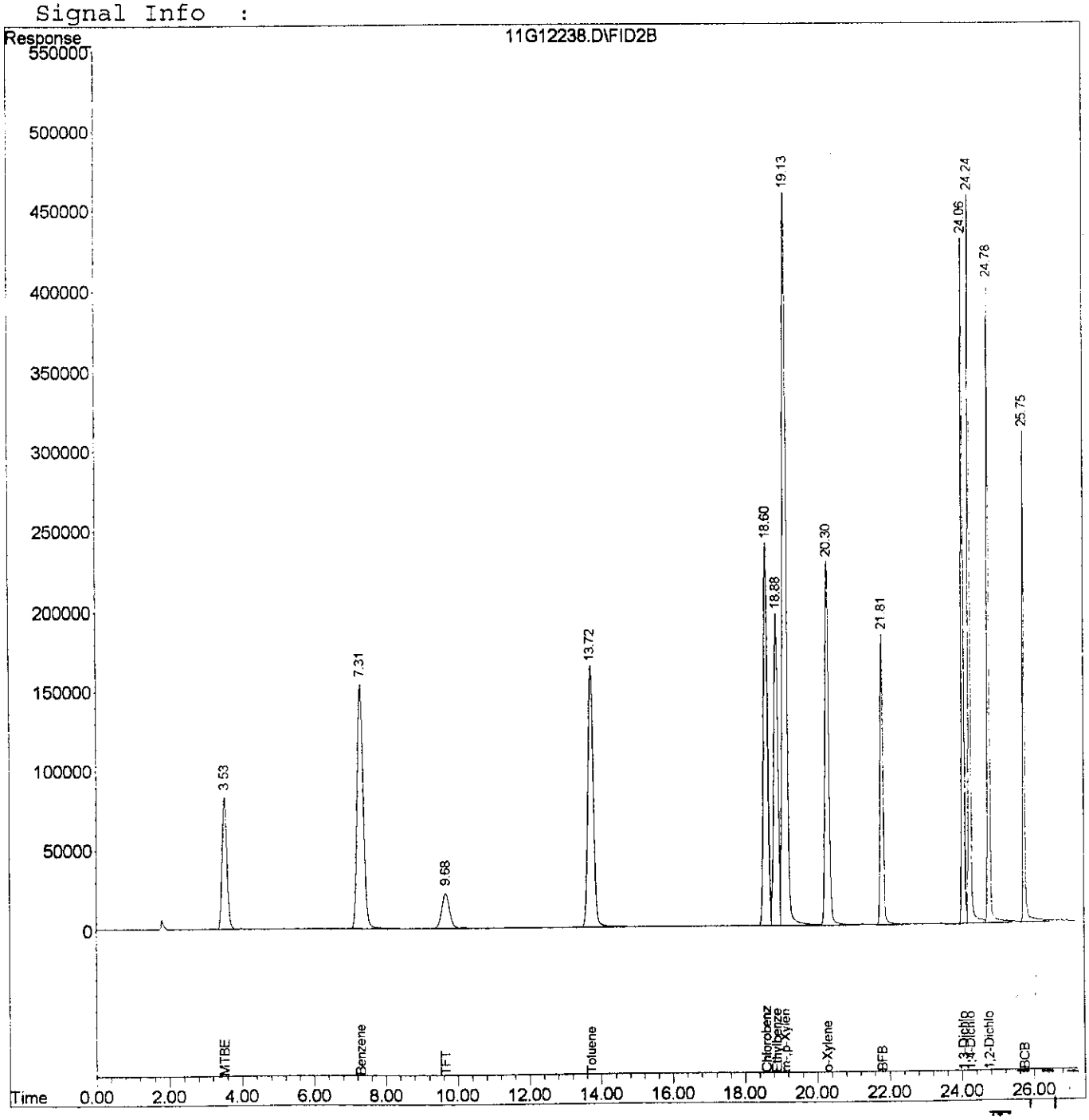
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\110901\11G12238.D
Acq On : 9 Nov 2001 11:59
Sample : WG107912-05 8021 STD5 100PPB 5ML
Misc : 1,1 S-(85-35,86-08)
IntFile : autoint1.e
Quant Time: Nov 9 12:27 2001 Quant Results File: 8021W.RES

Vial: 6
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 10/30/01
Last Update : Tue Oct 30 14:25:22 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\110901\11G12238.D Vial: 6
Acq On : 9 Nov 2001 11:59 Operator: CBN
Sample : WG107912-05 8021 STD5 100PPB 5ML Inst : HP11
Misc : 1,1 S-(85-35,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 9 12:27 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 10/30/01
Last Update : Tue Oct 30 14:25:22 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

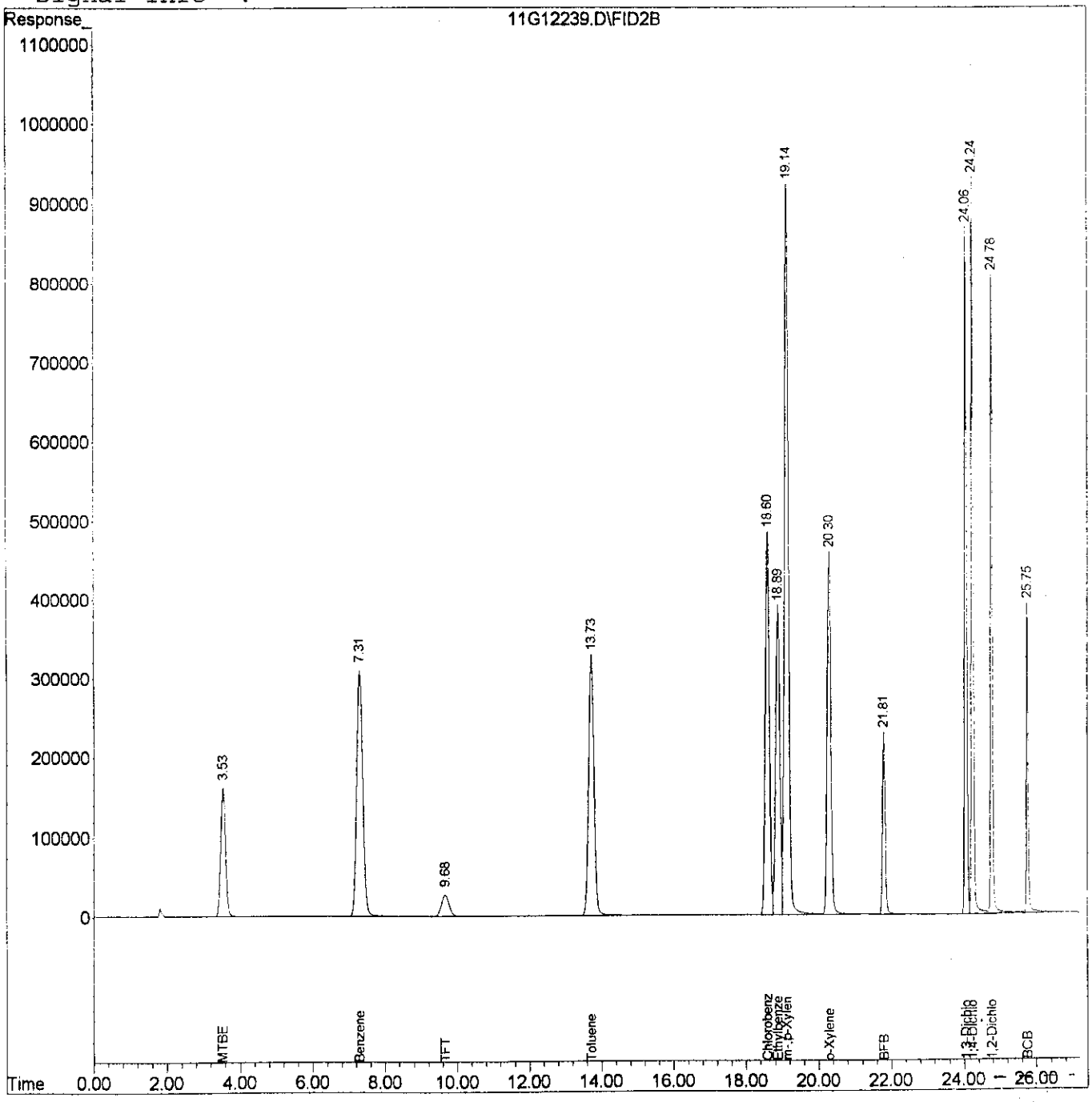
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.67	3391272	52.562 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	175.21%#
9) S BFB	21.81	9954123	52.054 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	173.51%#
13) S BCB	25.76	9964780	51.710 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	172.37%#
Target Compounds			
1) TM MTBE	3.53	7561320	82.844 UG/L
2) TM Benzene	7.31	18220504	80.779 UG/L
4) TM Toluene	13.73	17729096	85.451 UG/L
5) TM Chlorobenzene	18.60	18409809	86.889 UG/L
6) TM Ethylbenzene	18.89	15510550	84.956 UG/L
7) TM m-,p-Xylene	19.13	36769047	163.712 UG/L
8) TM o-Xylene	20.30	16308467	81.192 UG/L
10) T 1,3-Dichlorobenzene	24.06	16686380	87.157 UG/L
11) T 1,4-Dichlorobenzene	24.24	17240838	84.367 UG/L
12) T 1,2-Dichlorobenzene	24.78	14577240	84.583 UG/L

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\110901\11G12239.D Vial: 7
Acq On : 9 Nov 2001 12:32 Operator: CBN
Sample : WG107912-06 8021 STD6 200PPB 5ML Inst : HP11
Misc : 1,1 S-(85-35,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 9 13:00 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 10/30/01
Last Update : Tue Oct 30 14:25:22 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\110901\11G12239.D
Acq On : 9 Nov 2001 12:32
Sample : WG107912-06 8021 STD6 200PPB 5ML
Misc : 1,1 S-(85-35,86-08)
IntFile : autoint1.e
Quant Time: Nov 9 13:00 2001 Quant Results File: 8021W.RES

Vial: 7
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 10/30/01
Last Update : Tue Oct 30 14:25:22 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.67	4193802	65.000 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	216.67%#
9) S BFB	21.81	12364507	64.659 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	215.53%#
13) S BCB	25.76	12311990	63.890 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	212.97%#
Target Compounds			
1) TM MTBE	3.53	14787608	162.018 UG/L
2) TM Benzene	7.31	36563007	162.099 UG/L
4) TM Toluene	13.73	34931541	168.363 UG/L
5) TM Chlorobenzene	18.60	37040251	174.819 UG/L
6) TM Ethylbenzene	18.89	30902943	169.264 UG/L
7) TM m-,p-Xylene	19.14	72788823	324.088 UG/L
8) TM o-Xylene	20.30	32328532	160.949 UG/L
10) T 1,3-Dichlorobenzene	24.06	33665298	175.842 UG/L
11) T 1,4-Dichlorobenzene	24.25	34391031	168.291 UG/L
12) T 1,2-Dichlorobenzene	24.78	28819973	167.225 UG/L

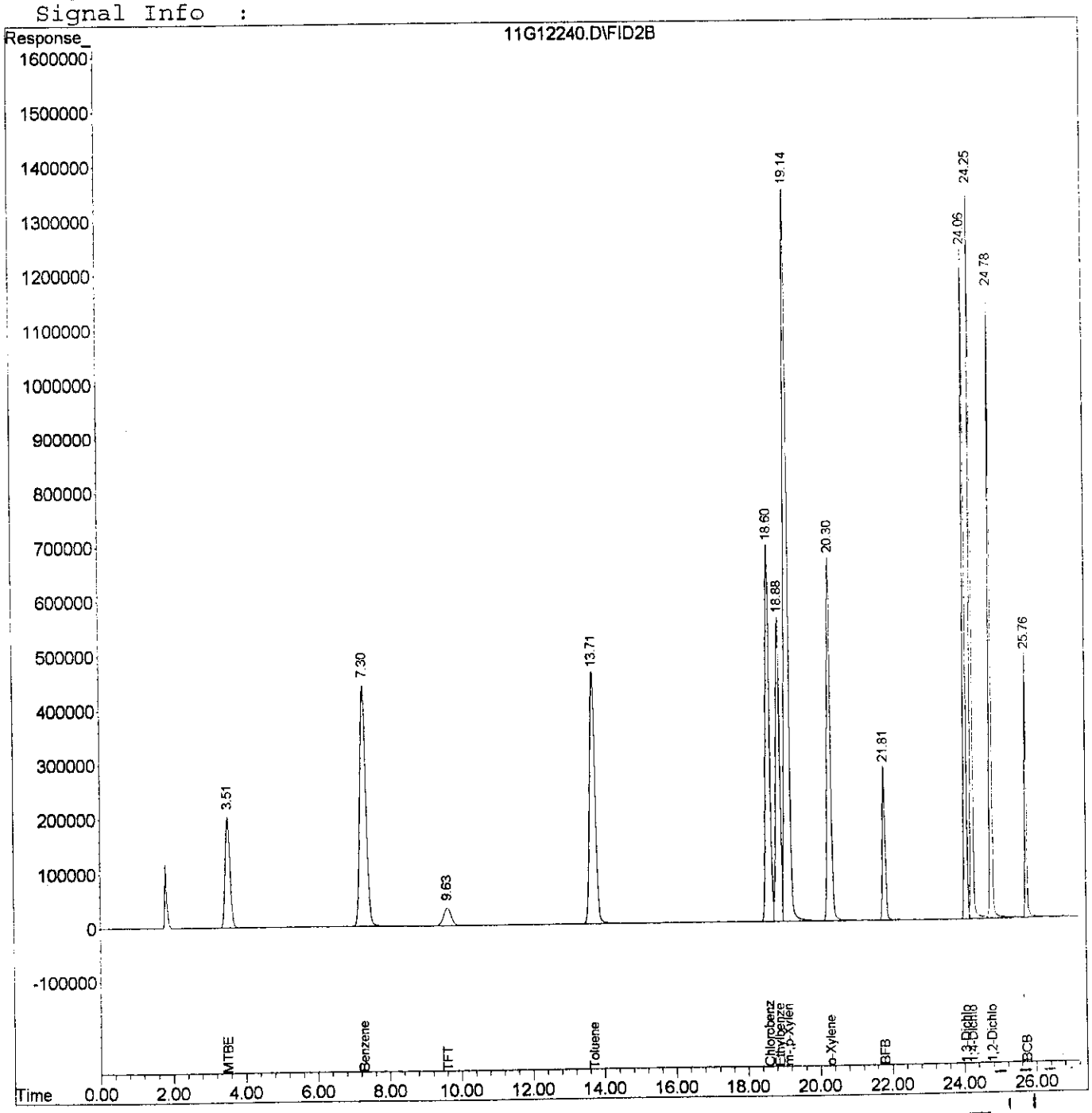
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\110901\11G12240.D
Acq On : 9 Nov 2001 13:05
Sample : WG107912-07 8021 STD7 300PPB 5ML
Misc : 1,1 S-(85-35,86-08)
IntFile : autoint1.e
Quant Time: Nov 9 13:33 2001 Quant Results File: 8021W.RES

Vial: 8
Operator: CBN
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:07:31 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\110901\11G12240.D Vial: 8
Acq On : 9 Nov 2001 13:05 Operator: CBN
Sample : WG107912-07 8021 STD7 300PPB 5ML Inst : HP11
Misc : 1,1 S-(85-35,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 9 13:33 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:07:31 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.63	5020196	89.724 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery = 299.08%#	
9) S BFB	21.81	14973569	93.455 UG/L
Spiked Amount 30.000 Range 70 - 130		Recovery = 311.52%#	
13) S BCB	25.76	15011374	95.372 UG/L
Spiked Amount 30.000 Range 37 - 137		Recovery = 317.91%#	
Target Compounds			
1) TM MTBE	3.52	18538128	244.127 UG/L
2) TM Benzene	7.30	52478927	284.097 UG/L
4) TM Toluene	13.71	49286966	274.513 UG/L
5) TM Chlorobenzene	18.60	52849064	296.458 UG/L
6) TM Ethylbenzene	18.89	44270893	288.285 UG/L
7) TM m-,p-Xylene	19.14	104162113	552.432 UG/L
8) TM o-Xylene	20.31	46273710	277.166 UG/L
10) T 1,3-Dichlorobenzene	24.07	48021059	304.281 UG/L
11) T 1,4-Dichlorobenzene	24.25	48954961	290.174 UG/L
12) T 1,2-Dichlorobenzene	24.78	40786606	281.074 UG/L

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\110901\11G12242.D
Acq On : 9 Nov 2001 14:11
Sample : WG107912-08 ALT SOURCE 5ML
Misc : 1,1 S-86-(13,08)
IntFile : autoint1.e

Vial: 10
Operator: CBN
Inst : HP11
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	73.916	75.458	E3	-2.1	104	0.00
2	TM	Benzene	183.323	182.309	E3	0.6	100	0.00
3	S	TFT	55.927	59.357	E3	-6.1	105	0.02
4	TM	Toluene	177.364	177.482	E3	-0.1	100	0.00
5	TM	Chlorobenzene	177.968	177.835	E3	0.1	100	0.00
6	TM	Ethylbenzene	152.710	159.110	E3	-4.2	103	0.00
7	TM	m-,p-Xylene	186.417	190.353	E3	-2.1	101	0.00
8	TM	o-Xylene	165.138	163.650	E3	0.9	99	0.00
9	S	BFB	161.101	157.725	E3	2.1	98	0.01
10	T	1,3-Dichlorobenzene	158.140	157.393	E3	0.5	102	0.00
11	T	1,4-Dichlorobenzene	167.920	171.290	E3	-2.0	101	0.00
12	T	1,2-Dichlorobenzene	143.802	152.764	E3	-6.2	103	0.00
13	S	BCB	158.740	156.062	E3	1.7	100	0.00

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\110901\11G12242.D
Acq On : 9 Nov 2001 14:11
Sample : WG107912-08 ALT SOURCE 5ML
Misc : 1,1 S-86-(13,08)
IntFile : autoint1.e

Vial: 10
Operator: CBN
Inst : HP11
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

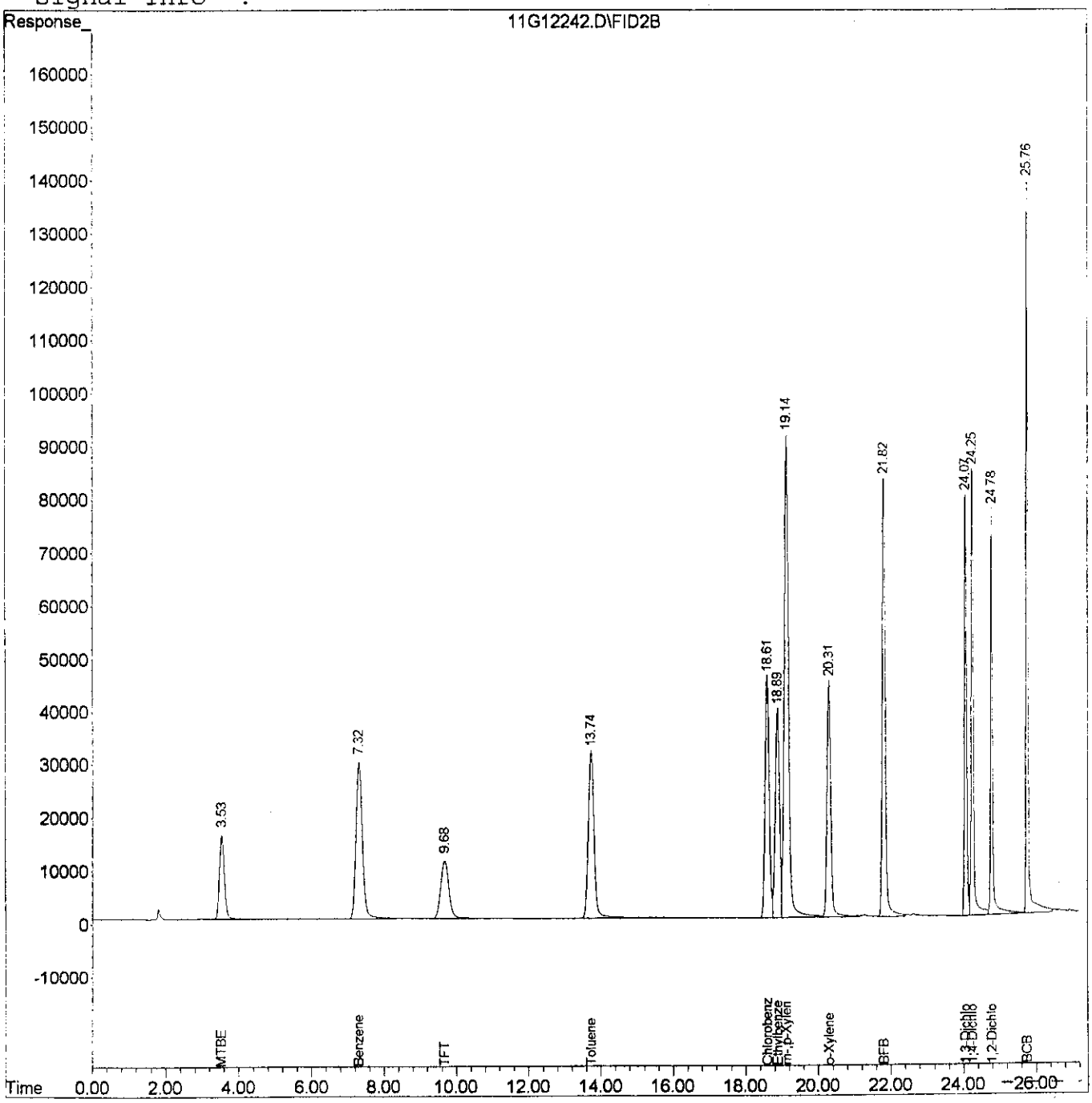
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	20.417	-2.1	104	0.00
2	TM	Benzene	20.000	19.889	0.6	100	0.00
3	S	TFT	30.000	31.840	-6.1	105	0.02
4	TM	Toluene	20.000	20.013	-0.1	100	0.00
5	TM	Chlorobenzene	20.000	19.985	0.1	100	0.00
6	TM	Ethylbenzene	20.000	20.838	-4.2	103	0.00
7	TM	m-,p-Xylene	40.000	40.845	-2.1	101	0.00
8	TM	o-Xylene	20.000	19.820	0.9	99	0.00
9	S	BFB	30.000	29.371	2.1	98	0.01
10	T	1,3-Dichlorobenzene	20.000	19.906	0.5	102	0.00
11	T	1,4-Dichlorobenzene	20.000	20.401	-2.0	101	0.00
12	T	1,2-Dichlorobenzene	20.000	21.246	-6.2	103	0.00
13	S	BCB	30.000	29.494	1.7	100	0.00

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\110901\11G12242.D Vial: 10
Acq On : 9 Nov 2001 14:11 Operator: CBN
Sample : WG107912-08 ALT SOURCE 5ML Inst : HP11
Misc : 1,1 S-86-(13,08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 9 14:38 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\110901\11G12242.D Vial: 10
Acq On : 9 Nov 2001 14:11 Operator: CBN
Sample : WG107912-08 ALT SOURCE 5ML Inst : HP11
Misc : 1,1 S-86-(13,08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 9 14:38 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.69	1780709	31.840 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	106.13%
9) S BFB	21.82	4731762	29.371 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	97.90%
13) S BCB	25.76	4681859	29.494 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	98.31%
Target Compounds			
1) TM MTBE	3.53	1509153	20.417 UG/L
2) TM Benzene	7.32	3646184	19.889 UG/L
4) TM Toluene	13.74	3549649	20.013 UG/L
5) TM Chlorobenzene	18.61	3556703	19.985 UG/L
6) TM Ethylbenzene	18.89	3182200	20.838 UG/L
7) TM m-,p-Xylene	19.14	7614101	40.845 UG/L
8) TM o-Xylene	20.31	3272994	19.820 UG/L
10) T 1,3-Dichlorobenzene	24.07	3147866	19.906 UG/L
11) T 1,4-Dichlorobenzene	24.25	3425806	20.401 UG/L
12) T 1,2-Dichlorobenzene	24.78	3055288	21.246 UG/L

Data File : C:\HPCHEM\1\DATA\112601\11G12508.D Vial: 27
Acq On : 27 Nov 2001 8:19 Operator: JLS
Sample : WG108734-05 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-13,S-87-22 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	15.413	22.9#	78	0.02
2	TM	Benzene	20.000	18.285	8.6	92	0.02
3	S	TFT	30.000	31.505	-5.0	104	0.02
4	TM	Toluene	20.000	17.860	10.7	89	0.00
5	TM	Chlorobenzene	20.000	17.625	11.9	88	0.00
6	TM	Ethylbenzene	20.000	18.320	8.4	90	0.00
7	TM	m-,p-Xylene	40.000	35.852	10.4	89	0.00
8	TM	o-Xylene	20.000	17.488	12.6	87	0.00
9	S	BFB	30.000	27.521	8.3	91	0.00
10	T	1,3-Dichlorobenzene	20.000	17.009	15.0	87	0.00
11	T	1,4-Dichlorobenzene	20.000	16.844	15.8#	83	0.00
12	T	1,2-Dichlorobenzene	20.000	17.666	11.7	86	0.00
13	S	BCB	30.000	26.262	12.5	89	0.00

Average = 11.8%

(#) = Out of Range SPCC's out = 0 CCC's out = 0
11G12508.D 8021W.M Tue Nov 27 10:35:22 2001 Page 1

Data File : C:\HPCHEM\1\DATA\112601\11G12508.D Vial: 27
Acq On : 27 Nov 2001 8:19 Operator: JLS
Sample : WG108734-05 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-13,S-87-22 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

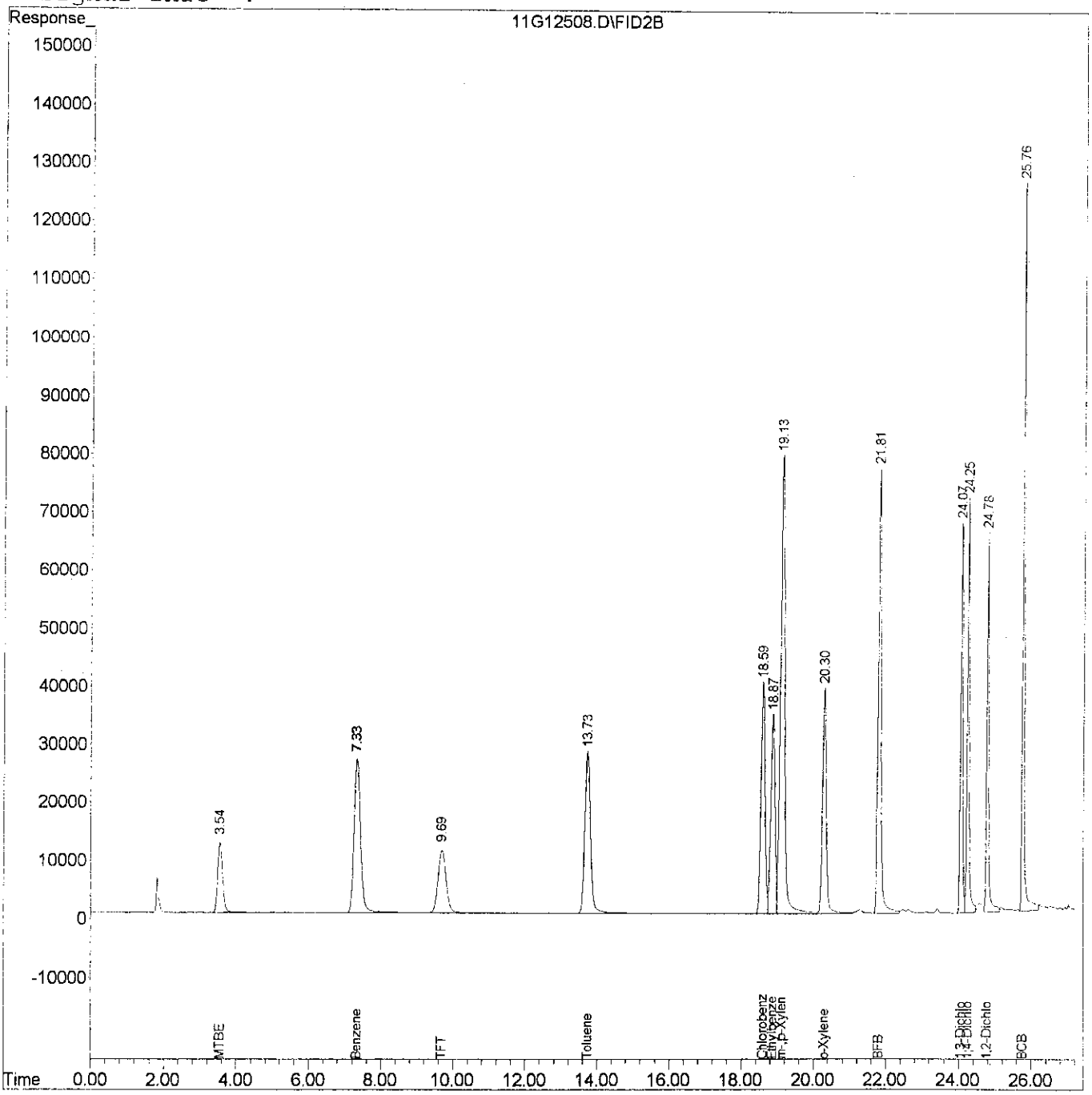
		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	73.916	56.962	E3	22.9#	78	0.02
2	TM	Benzene	183.323	167.604	E3	8.6	92	0.02
3	S	TFT	55.927	58.733	E3	-5.0	104	0.02
4	TM	Toluene	177.364	158.387	E3	10.7	89	0.00
5	TM	Chlorobenzene	177.968	156.832	E3	11.9	88	0.00
6	TM	Ethylbenzene	152.710	139.881	E3	8.4	90	0.00
7	TM	m-,p-Xylene	186.417	167.087	E3	10.4	89	0.00
8	TM	o-Xylene	165.138	144.400	E3	12.6	87	0.00
9	S	BFB	161.101	147.791	E3	8.3	91	0.00
10	T	1,3-Dichlorobenzene	158.140	134.494	E3	15.0	87	0.00
11	T	1,4-Dichlorobenzene	167.920	141.426	E3	15.8#	83	0.00
12	T	1,2-Dichlorobenzene	143.802	127.020	E3	11.7	86	0.00
13	S	BCB	158.740	138.960	E3	12.5	89	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\112601\11G12508.D Vial: 27
Acq On : 27 Nov 2001 8:19 Operator: JLS
Sample : WG108734-05 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-13,S-87-22 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 27 8:46 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\112601\11G12508.D Vial: 27
Acq On : 27 Nov 2001 8:19 Operator: JLS
Sample : WG108734-05 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-13,S-87-22 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 27 8:46 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.69	1761988	31.505 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	105.02%
9) S BFB	21.81	4433729	27.521 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	91.74%
13) S BCB	25.76	4168800	26.262 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	87.54%
Target Compounds			
1) TM MTBE	3.54	1139241	15.413 UG/L
2) TM Benzene	7.33	3352073	18.285 UG/L
4) TM Toluene	13.73	3167733	17.860 UG/L
5) TM Chlorobenzene	18.59	3136640	17.625 UG/L
6) TM Ethylbenzene	18.88	2797613	18.320 UG/L
7) TM m-,p-Xylene	19.13	6683469	35.852 UG/L
8) TM o-Xylene	20.30	2887993	17.488 UG/L
10) T 1,3-Dichlorobenzene	24.07	2689879	17.009 UG/L
11) T 1,4-Dichlorobenzene	24.25	2828522	16.844 UG/L
12) T 1,2-Dichlorobenzene	24.78	2540391	17.666 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
11G12508.D 8021W.M Tue Nov 27 10:10:29 2001 Page 101

Data File : C:\HPCHEM\1\DATA\112701\11G12519.D
Acq On : 27 Nov 2001 15:41
Sample : WG108842-01 8021 STD 20PPB 5ML
Misc : 1,1 S-87-23
IntFile : autoint1.e

Vial: 9
Operator: JLS
Inst : HP11
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	73.916	56.675	E3	23.3#	78	0.01
2	TM	Benzene	183.323	165.401	E3	9.8	91	0.00
3	S	TFT	55.927	54.077	E3	3.3	95	-0.01
4	TM	Toluene	177.364	158.634	E3	10.6	89	-0.02
5	TM	Chlorobenzene	177.968	155.685	E3	12.5	87	-0.02
6	TM	Ethylbenzene	152.710	142.526	E3	6.7	92	-0.02
7	TM	m-,p-Xylene	186.417	170.716	E3	8.4	91	-0.02
8	TM	o-Xylene	165.138	146.640	E3	11.2	88	-0.02
9	S	BFB	161.101	155.639	E3	3.4	96	-0.01
10	T	1,3-Dichlorobenzene	158.140	150.616	E3	4.8	97	0.00
11	T	1,4-Dichlorobenzene	167.920	151.450	E3	9.8	89	0.00
12	T	1,2-Dichlorobenzene	143.802	154.207	E3	-7.2	104	0.00
13	S	BCB	158.740	146.639	E3	7.6	94	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\112701\11G12519.D
Acq On : 27 Nov 2001 15:41
Sample : WG108842-01 8021 STD 20PPB 5ML
Misc : 1,1 S-87-23
IntFile : autoint1.e

Vial: 9
Operator: JLS
Inst : HP11
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration

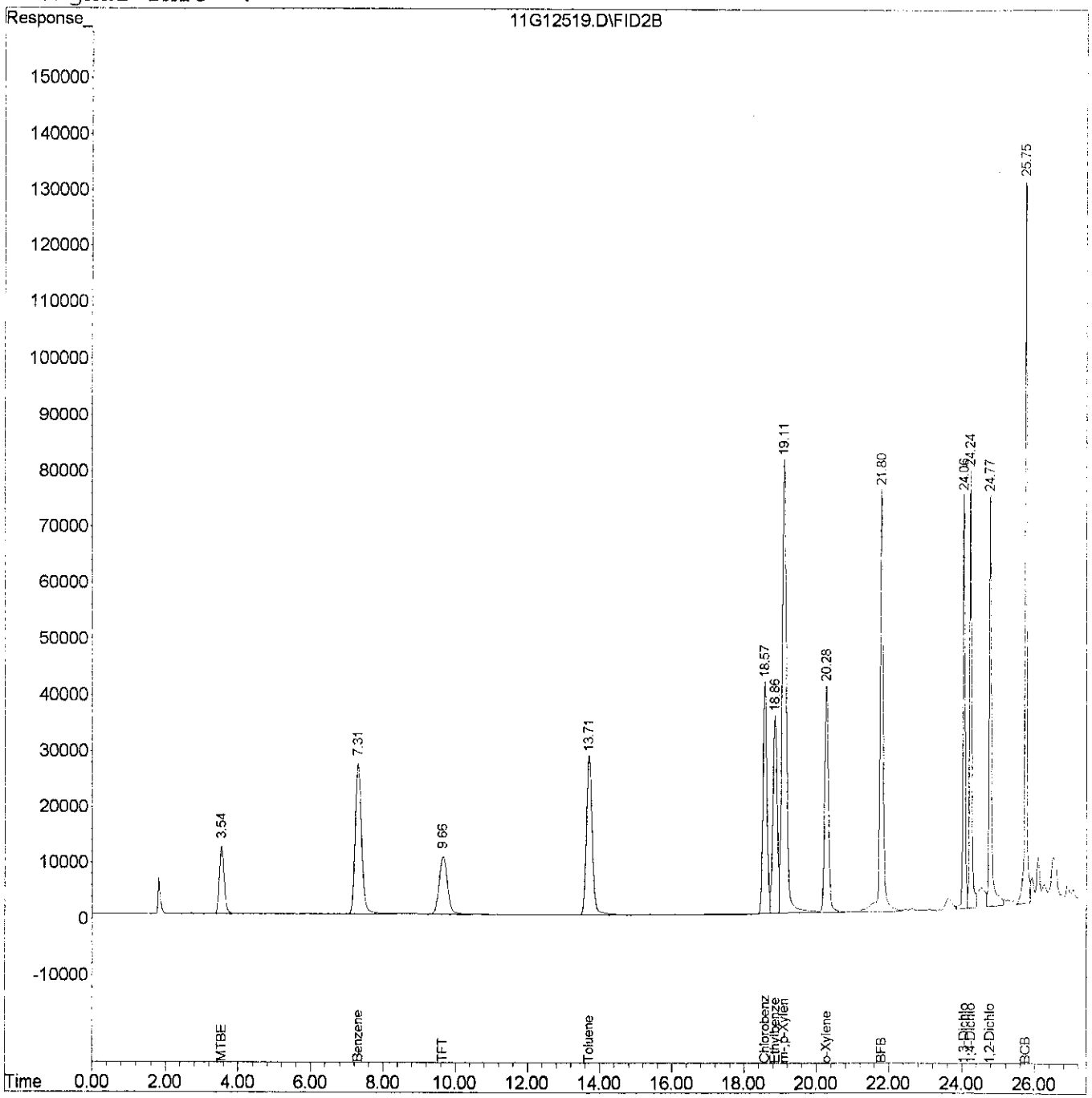
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	15.335	23.3#	78	0.01
2	TM	Benzene	20.000	18.045	9.8	91	0.00
3	S	TFT	30.000	29.008	3.3	95	-0.01
4	TM	Toluene	20.000	17.888	10.6	89	-0.02
5	TM	Chlorobenzene	20.000	17.496	12.5	87	-0.02
6	TM	Ethylbenzene	20.000	18.666	6.7	92	-0.02
7	TM	m-,p-Xylene	40.000	36.631	8.4	91	-0.02
8	TM	o-Xylene	20.000	17.760	11.2	88	-0.02
9	S	BFB	30.000	28.983	3.4	96	-0.01
10	T	1,3-Dichlorobenzene	20.000	19.049	4.8	97	0.00
11	T	1,4-Dichlorobenzene	20.000	18.038	9.8	89	0.00
12	T	1,2-Dichlorobenzene	20.000	21.447	-7.2	104	0.00
13	S	BCB	30.000	27.713	7.6	94	0.00

Data File : C:\HPCHEM\1\DATA\112701\11G12519.D Vial: 9
Acq On : 27 Nov 2001 15:41 Operator: JLS
Sample : WG108842-01 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-87-23 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 27 16:09 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\112701\11G12519.D Vial: 9
Acq On : 27 Nov 2001 15:41 Operator: JLS
Sample : WG108842-01 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-87-23 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 27 16:09 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.66	1622305	29.008 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	96.69%
9) S BFB	21.80	4669174	28.983 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	96.61%
13) S BCB	25.75	4399185	27.713 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	92.38%
Target Compounds			
1) TM MTBE	3.54	1133491	15.335 UG/L
2) TM Benzene	7.31	3308023	18.045 UG/L
4) TM Toluene	13.71	3172676	17.888 UG/L
5) TM Chlorobenzene	18.58	3113691	17.496 UG/L
6) TM Ethylbenzene	18.86	2850524	18.666 UG/L
7) TM m-,p-Xylene	19.11	6828622	36.631 UG/L
8) TM o-Xylene	20.28	2932792	17.760 UG/L
10) T 1,3-Dichlorobenzene	24.06	3012327	19.049 UG/L
11) T 1,4-Dichlorobenzene	24.24	3028998	18.038 UG/L
12) T 1,2-Dichlorobenzene	24.78	3084143	21.447 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
11G12519.D 8021W.M Tue Nov 27 16:09:15 2001 Page 1

Data File : C:\HPCHEM\1\DATA\112701\11G12530.D Vial: 11
Acq On : 27 Nov 2001 21:58 Operator: JLS
Sample : WG108842-02 8021 STD 5ML Inst : HP11
Misc : 1,1 S-86-13, S-87-22 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	73.916	57.920	E3	21.6#	80	0.01
2	TM	Benzene	183.323	166.645	E3	9.1	91	0.00
3	S	TFT	55.927	51.618	E3	7.7	91	0.00
4	TM	Toluene	177.364	158.143	E3	10.8	89	-0.02
5	TM	Chlorobenzene	177.968	159.790	E3	10.2	90	-0.02
6	TM	Ethylbenzene	152.710	142.465	E3	6.7	92	-0.02
7	TM	m-,p-Xylene	186.417	169.798	E3	8.9	90	-0.02
8	TM	o-Xylene	165.138	147.042	E3	11.0	89	-0.02
9	S	BFB	161.101	137.358	E3	14.7	85	0.00
10	T	1,3-Dichlorobenzene	158.140	137.291	E3	13.2	89	0.00
11	T	1,4-Dichlorobenzene	167.920	143.912	E3	14.3	85	0.00
12	T	1,2-Dichlorobenzene	143.802	128.916	E3	10.4	87	0.00
13	S	BCB	158.740	126.755	E3	20.1#	81	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\112701\11G12530.D Vial: 11
Acq On : 27 Nov 2001 21:58 Operator: JLS
Sample : WG108842-02 8021 STD 5ML Inst : HP11
Misc : 1,1 S-86-13, S-87-22 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	15.672	21.6#	80	0.01
2	TM	Benzene	20.000	18.180	9.1	91	0.00
3	S	TFT	30.000	27.688	7.7	91	0.00
4	TM	Toluene	20.000	17.833	10.8	89	-0.02
5	TM	Chlorobenzene	20.000	17.957	10.2	90	-0.02
6	TM	Ethylbenzene	20.000	18.658	6.7	92	-0.02
7	TM	m-,p-Xylene	40.000	36.434	8.9	90	-0.02
8	TM	o-Xylene	20.000	17.808	11.0	89	-0.02
9	S	BFB	30.000	25.579	14.7	85	0.00
10	T	1,3-Dichlorobenzene	20.000	17.363	13.2	89	0.00
11	T	1,4-Dichlorobenzene	20.000	17.141	14.3	85	0.00
12	T	1,2-Dichlorobenzene	20.000	17.930	10.4	87	0.00
13	S	BCB	30.000	23.955	20.2#	81	0.00

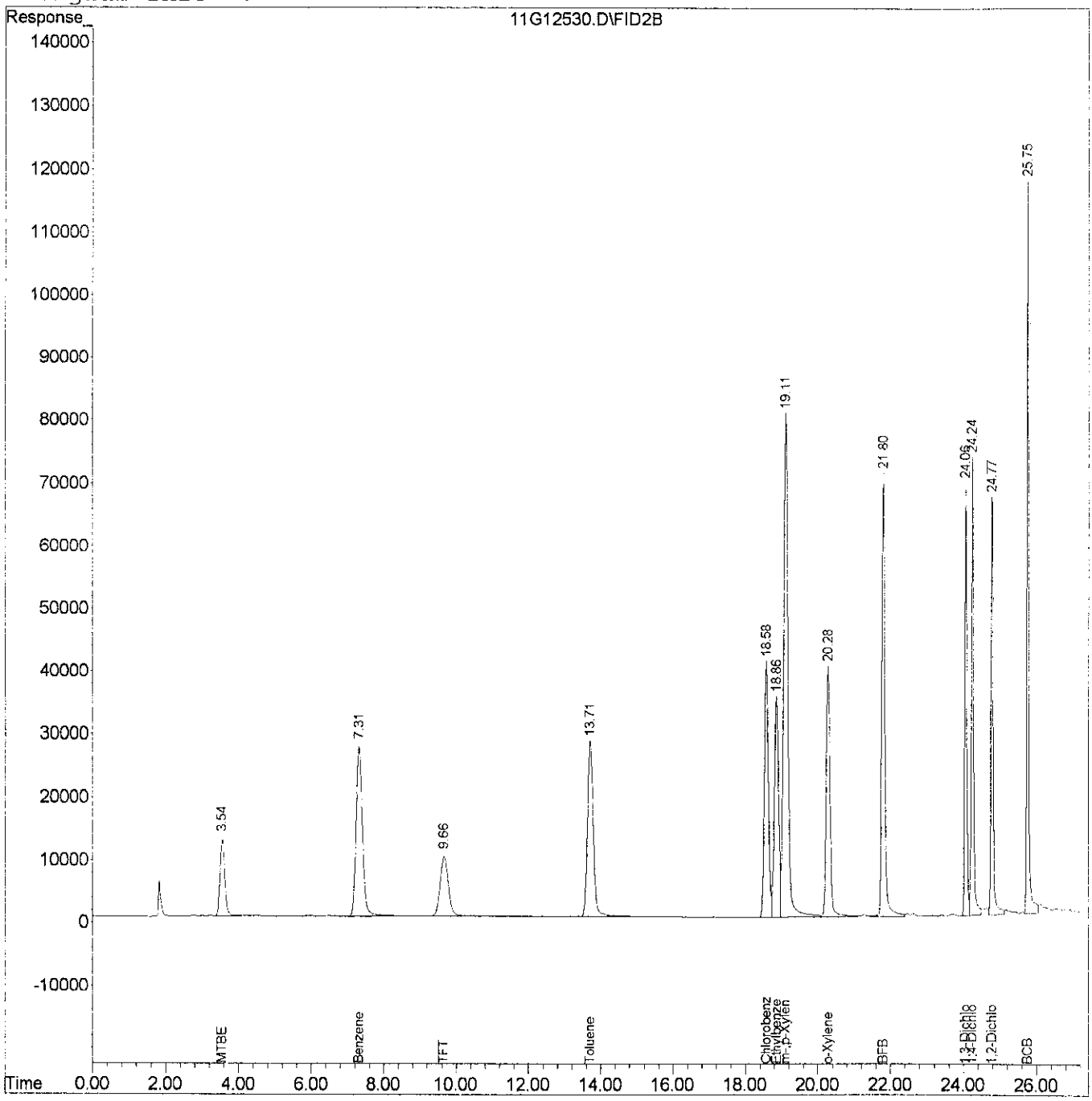
average = 12.2%

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\112701\11G12530.D Vial: 11
Acq On : 27 Nov 2001 21:58 Operator: JLS
Sample : WG108842-02 8021 STD 5ML Inst : HP11
Misc : 1,1 S-86-13, S-87-22 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 27 22:26 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\112701\11G12530.D Vial: 11
Acq On : 27 Nov 2001 21:58 Operator: JLS
Sample : WG108842-02 8021 STD 5ML Inst : HP11
Misc : 1,1 S-86-13, S-87-22 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 27 22:26 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.66	1548534	27.688 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	92.29%
9) S BFB	21.80	4120738	25.579 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	85.26%
13) S BCB	25.75	3802641	23.955 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	79.85%
Target Compounds			
1) TM MTBE	3.54	1158399	15.672 UG/L
2) TM Benzene	7.31	3332903	18.180 UG/L
4) TM Toluene	13.71	3162869	17.833 UG/L
5) TM Chlorobenzene	18.58	3195795	17.957 UG/L
6) TM Ethylbenzene	18.86	2849290	18.658 UG/L
7) TM m-,p-Xylene	19.11	6791920	36.434 UG/L
8) TM o-Xylene	20.29	2940840	17.808 UG/L
10) T 1,3-Dichlorobenzene	24.06	2745822	17.363 UG/L
11) T 1,4-Dichlorobenzene	24.24	2878239	17.141 UG/L
12) T 1,2-Dichlorobenzene	24.78	2578322	17.930 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 27-Nov-01
Filename: 11G12508
Sub Directory: 112701
Instrument: HP11
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	3.545	3.532	3.558
benzene	7.330	7.297	7.363
1,1,1-trifluorotoluene (SS)	9.692	9.647	9.737
toluene	13.734	13.690	13.778
chlorobenzene	18.594	18.553	18.635
ethylbenzene	18.878	18.839	18.917
m+p-xylene	19.126	19.088	19.164
o-xylene	20.299	20.264	20.334
bromofluorobenzene (SS)	21.812	21.782	21.842
1,3-dichlorobenzene	24.069	24.045	24.093
1,4-dichlorobenzene	24.251	24.228	24.274
1,2-dichlorobenzene	24.785	24.764	24.806
bromochlorobenzene (SS)	25.763	25.743	25.783

INSTRUMENT: HP11 **MATRIX:** SOIL
CONT STD #1: 11G11794 **DATE #1:** 10/2/2001
CONT STD #2: 11G11811 **DATE #2:** 10/3/2001
CONT STD #3: 11G11831 **DATE #3:** 10/4/2001

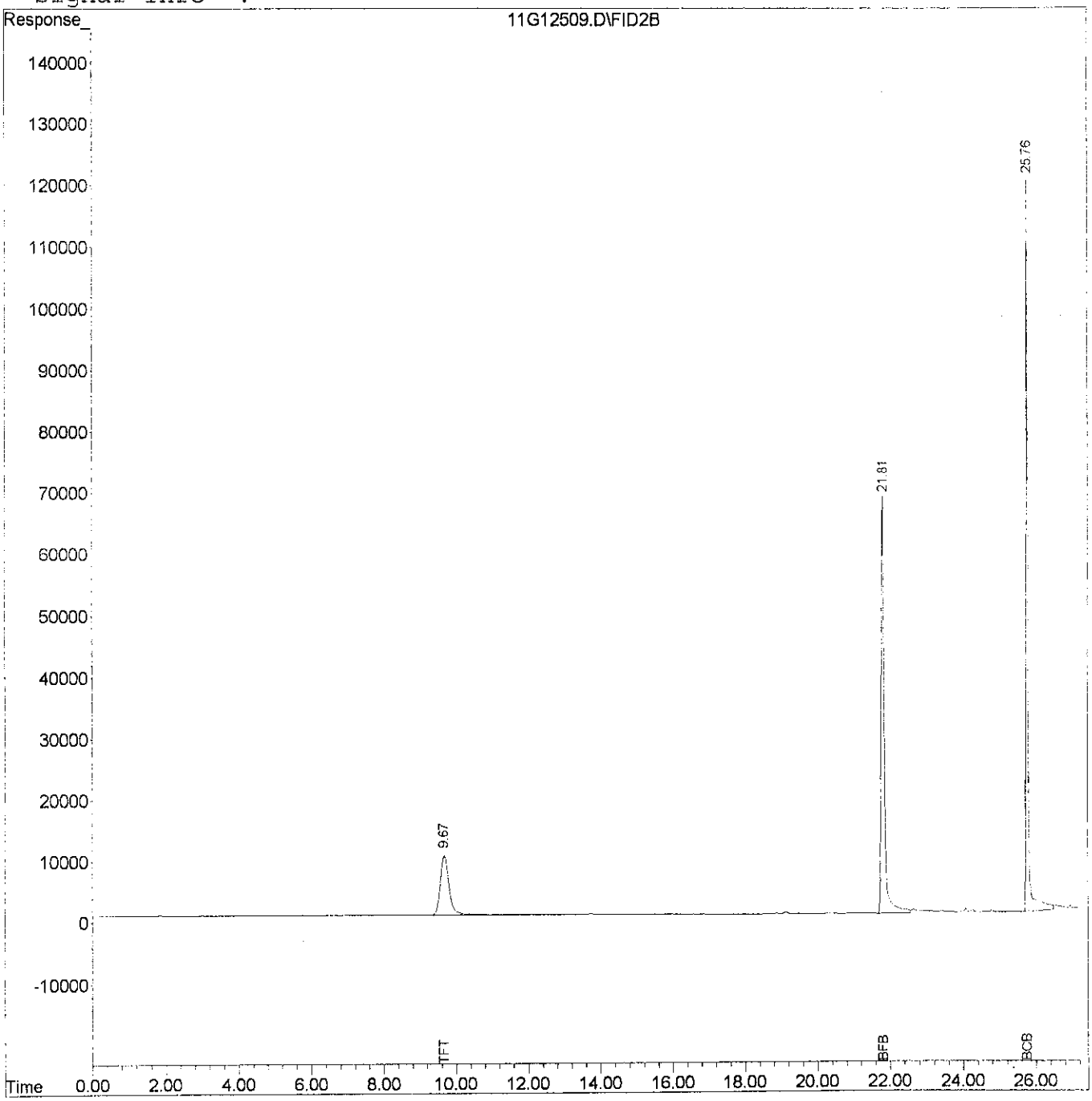
Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	3.550	3.549	3.542	3.547	0.004	0.013
benzene	7.315	7.310	7.294	7.306	0.011	0.033
1,1,1-trifluorotoluene (SS)	9.664	9.656	9.635	9.652	0.015	0.045
toluene	13.716	13.709	13.688	13.704	0.015	0.044
chlorobenzene	18.589	18.579	18.562	18.577	0.014	0.041
ethylbenzene	18.875	18.865	18.849	18.863	0.013	0.039
m+p-xylene	19.124	19.115	19.099	19.113	0.013	0.038
o-xylene	20.298	20.288	20.275	20.287	0.012	0.035
bromofluorobenzene (SS)	21.811	21.802	21.791	21.801	0.010	0.030
1,3-dichlorobenzene	24.066	24.057	24.050	24.058	0.008	0.024
1,4-dichlorobenzene	24.248	24.240	24.233	24.240	0.008	0.023
1,2-dichlorobenzene	24.782	24.775	24.768	24.775	0.007	0.021
bromochlorobenzene (SS)	25.761	25.754	25.748	25.754	0.007	0.020

2.1.3.4 Raw Data

Data File : C:\HPCHEM\1\DATA\112701\11G12509.D Vial: 1
Acq On : 27 Nov 2001 10:03 Operator: JLS
Sample : WG108823-01 WATER BLANK 5ML Inst : HP11
Misc : 1,1 S-87-22 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 27 10:30 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\112701\11G12509.D
Acq On : 27 Nov 2001 10:03
Sample : WG108823-01 WATER BLANK 5ML
Misc : 1,1 S-87-22
IntFile : autoint1.e
Quant Time: Nov 27 10:30 2001 Quant Results File: 8021W.RES

Vial: 1
Operator: JLS
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.68	1656200	29.614 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	98.71%
9) S BFB			21.81	4177262	25.930 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	86.43%
13) S BCB			25.76	4175944	26.307 UG/L
Spiked Amount	30.000	Range	37 - 137	Recovery =	87.69%
Target Compounds					
1) TM MTBE			0.00	0	N.D. UG/L
2) TM Benzene			7.31	6265	<MDL UG/L
4) TM Toluene			13.73	13665	<MDL UG/L
5) TM Chlorobenzene			18.60	6991	<MDL UG/L
6) TM Ethylbenzene			18.88	8771	<MDL UG/L
7) TM m-,p-Xylene			19.13	28086	<MDL UG/L
8) TM o-Xylene			20.30	9152	<MDL UG/L
10) T 1,3-Dichlorobenzene			24.07	32937	<MDL UG/L
11) T 1,4-Dichlorobenzene			24.25	32002	<MDL UG/L
12) T 1,2-Dichlorobenzene			24.79	22770	<MDL UG/L

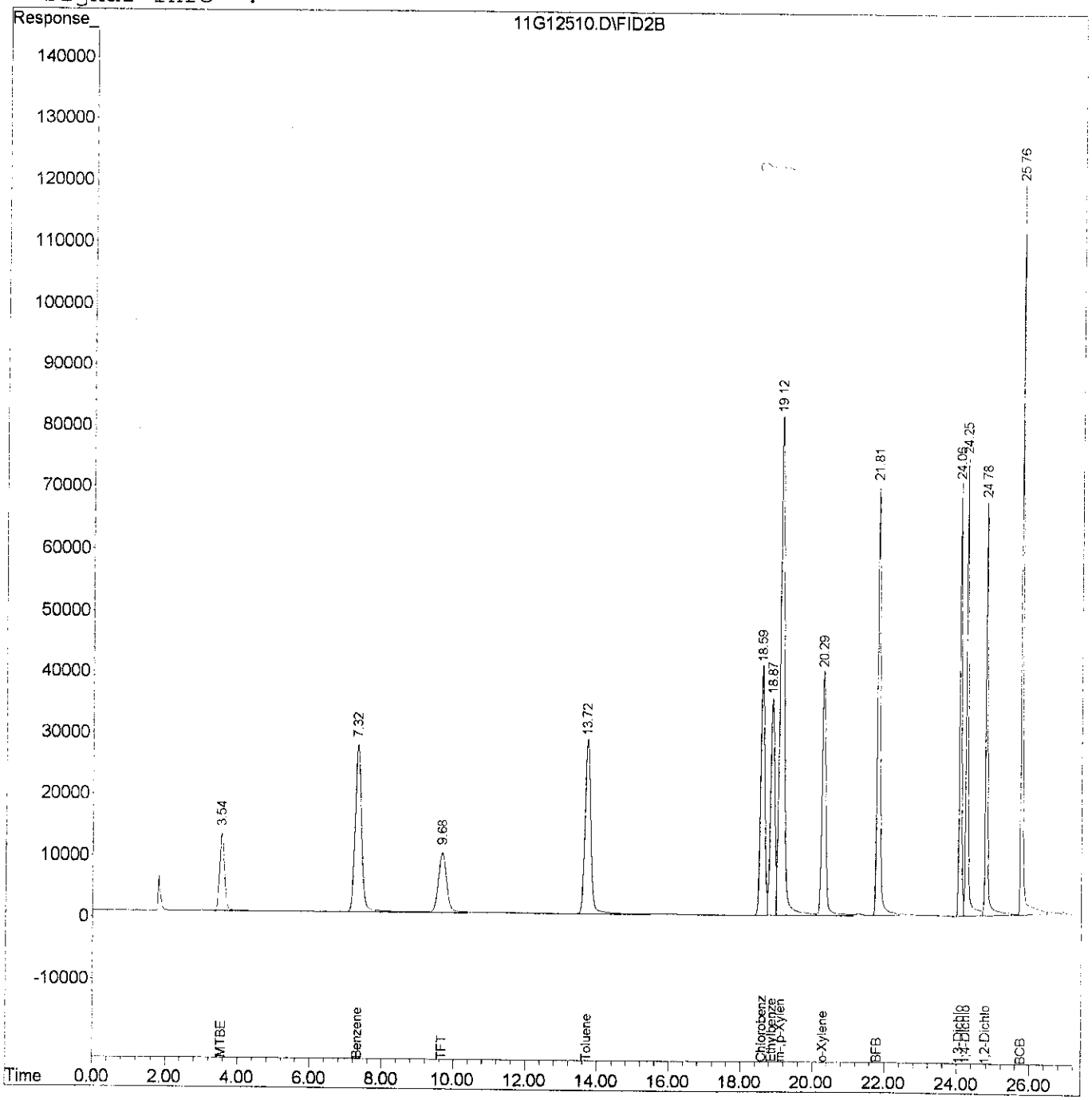
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\112701\11G12510.D
Acq On : 27 Nov 2001 10:36
Sample : WG108823-02 WATER LCS 5ML
Misc : 1,1 S-86-13, S-87-22
IntFile : autoint1.e
Quant Time: Nov 27 11:03 2001 Quant Results File: 8021W.RES

Vial: 2
Operator: JLS
Inst : HP11
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\112701\11G12510.D Vial: 2
Acq On : 27 Nov 2001 10:36 Operator: JLS
Sample : WG108823-02 WATER LCS 5ML Inst : HP11
Misc : 1,1 S-86-13, S-87-22 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 27 11:03 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

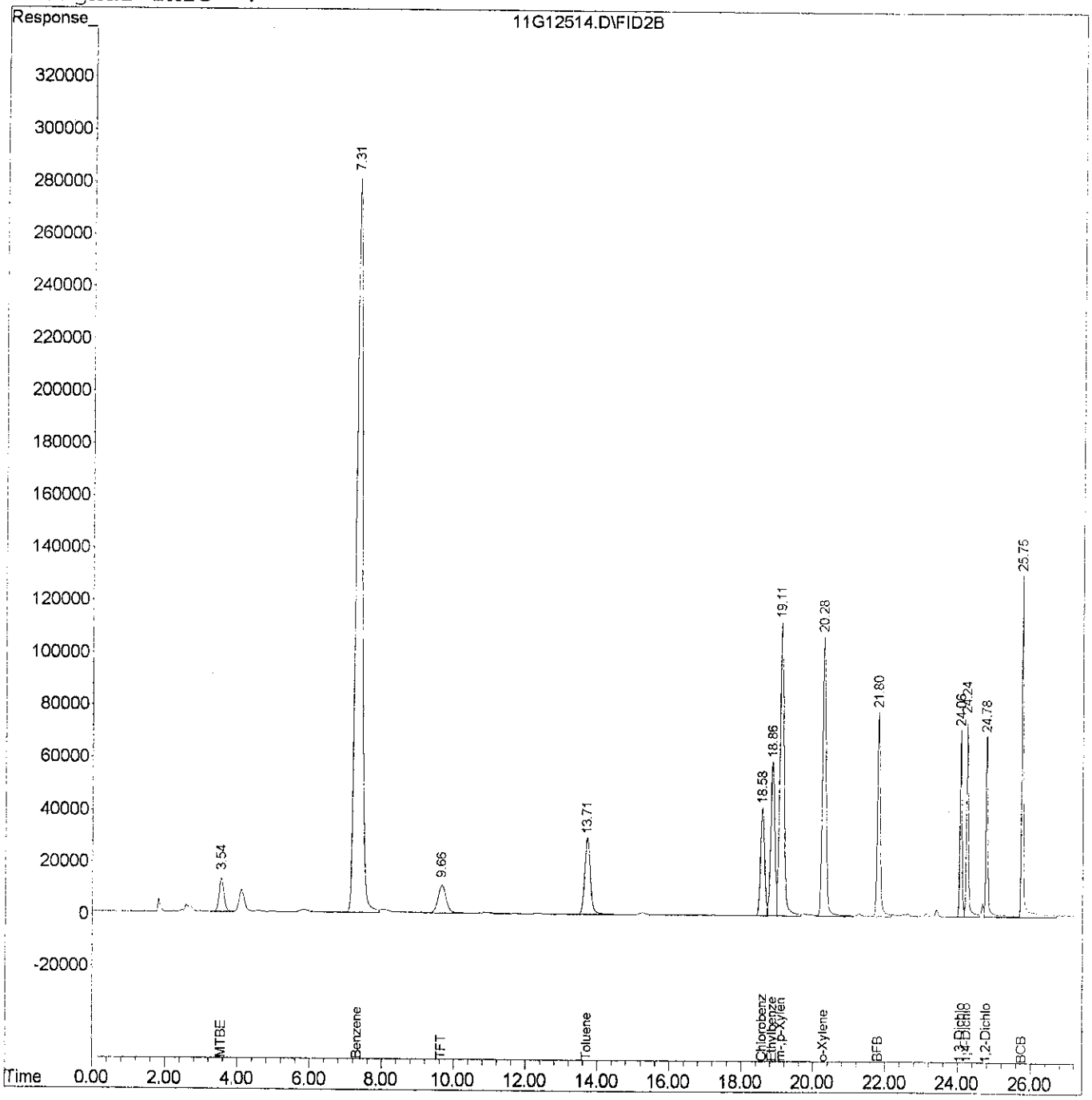
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.68	1571610	28.101 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	93.67%
9) S BFB	21.81	4052707	25.156 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	83.85%
13) S BCB	25.76	4043859	25.475 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	84.92%
Target Compounds			
1) TM MTBE	3.54	1182379	15.996 UG/L
2) TM Benzene	7.32	3393542	18.511 UG/L
4) TM Toluene	13.72	3198679	18.034 UG/L
5) TM Chlorobenzene	18.59	3198477	17.972 UG/L
6) TM Ethylbenzene	18.87	2865588	18.765 UG/L
7) TM m-,p-Xylene	19.12	6850865	36.750 UG/L
8) TM o-Xylene	20.29	2956096	17.901 UG/L
10) T 1,3-Dichlorobenzene	24.07	2788768	17.635 UG/L
11) T 1,4-Dichlorobenzene	24.25	3047079	18.146 UG/L
12) T 1,2-Dichlorobenzene	24.78	2713364	18.869 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\112701\11G12514.D Vial: 4
Acq On : 27 Nov 2001 12:59 Operator: JLS
Sample : WG108823-04 L0111344-04 B 10X MS 5ML pH< Inst : HP11
Misc : 1,10 S-87-22 Multiplr: 10.00
IntFile : autoint1.e
Quant Time: Nov 27 13:26 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\112701\11G12514.D Vial: 4
Acq On : 27 Nov 2001 12:59 Operator: JLS
Sample : WG108823-04 L0111344-04 B 10X MS 5ML pH< Inst : HP11
Misc : 1,10 S-87-22 Multiplr: 10.00
IntFile : autoint1.e
Quant Time: Nov 27 13:26 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

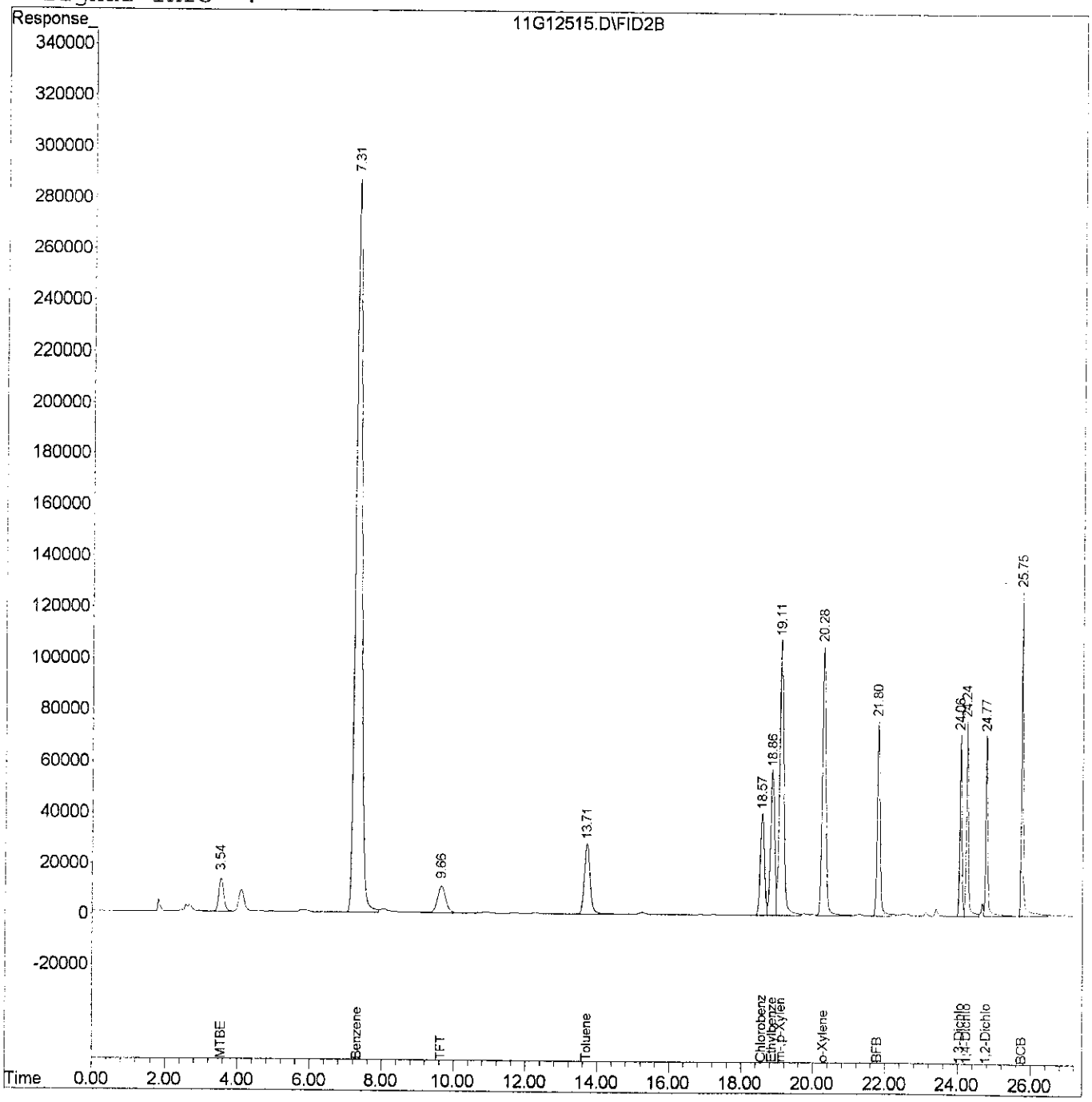
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.67	1777928	31.790 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	105.97%
9) S BFB	21.80	4409749	27.373 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	91.24%
13) S BCB	25.76	4699517	29.605 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	98.68%
Target Compounds			
1) TM MTBE	3.54	1218204	164.809 UG/L
2) TM Benzene	7.31	33411851	1822.568 UG/L
4) TM Toluene	13.71	3332415	187.885 UG/L
5) TM Chlorobenzene	18.58	3213649	180.575 UG/L
6) TM Ethylbenzene	18.86	4728827	309.661 UG/L
7) TM m-,p-Xylene	19.11	9243808	495.868 UG/L
8) TM o-Xylene	20.29	7709329	466.843 UG/L
10) T 1,3-Dichlorobenzene	24.06	2816610	178.109 UG/L
11) T 1,4-Dichlorobenzene	24.24	3072740	182.989 UG/L
12) T 1,2-Dichlorobenzene	24.78	2806961	195.196 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int..
11G12514.D 8021W.M Tue Nov 27 13:26:43 2001 Page 1

Data File : C:\HPCHEM\1\DATA\112701\11G12515.D Vial: 5
Acq On : 27 Nov 2001 13:32 Operator: JLS
Sample : WG108823-04 L0111344-04 B 10X MSD 5ML pH Inst : HP11
Misc : 1,10 S-87-22 Multiplr: 10.00
IntFile : autoint1.e
Quant Time: Nov 27 13:59 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\112701\11G12515.D Vial: 5
Acq On : 27 Nov 2001 13:32 Operator: JLS
Sample : WG108823-04 L0111344-04 B 10X MSD 5ML pH Inst : HP11
Misc : 1,10 S-87-22 Multiplr: 10.00
IntFile : autoint1.e
Quant Time: Nov 27 13:59 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\1\METHODS\8021W.M (Chemstation Integrator)
Title : Method 8021B- WATER 11/09/01
Last Update : Fri Nov 09 13:33:23 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.66	1772895	31.700 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	105.67%
9) S BFB	21.80	4335394	26.911 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	89.70%
13) S BCB	25.75	4299096	27.083 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	90.28%
Target Compounds			
1) TM MTBE	3.54	1254156	169.673 UG/L
2) TM Benzene	7.31	34038003	1856.724 UG/L
4) TM Toluene	13.71	3180142	179.300 UG/L
5) TM Chlorobenzene	18.58	3153661	177.204 UG/L
6) TM Ethylbenzene	18.86	4597796	301.081 UG/L
7) TM m-,p-Xylene	19.11	8936187	479.367 UG/L
8) TM o-Xylene	20.28	7689998	465.672 UG/L
10) T 1,3-Dichlorobenzene	24.06	2823725	178.559 UG/L
11) T 1,4-Dichlorobenzene	24.24	3091458	184.103 UG/L
12) T 1,2-Dichlorobenzene	24.77	2809036	195.341 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Injection Log

Directory: C:\HPCHEM\1\DATA\110901

WG107912

ANALYSTIC

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g12231.d	1.	WG107895-01 8021 STD 20PPB 5ML CCMA	1,1 S-86-(13,08)	9 Nov 2001 07
2	2	11g12232.d	1.	WG107895-01 8021 STD 20PPB 5ML ⊥	1,1 S-86-(13,08)	9 Nov 2001 07
3	1	11g12233.d	1.	WG107912-01 8021 STD1 1PPB 5ML DNR	1,1 S-(85-35,86-08)	9 Nov 2001 09
4	2	11g12234.d	1.	WG107912-01 8021 STD1 1PPB 5ML ✓	1,1 S-(85-35,86-08)	9 Nov 2001 09
5	3	11g12235.d	1.	WG107912-02 8021 STD2 10PPB... ✓	1,1 S-(85-35,86-08)	9 Nov 2001 10
6	4	11g12236.d	1.	WG107912-03 8021 STD3 20PPB... ✓	1,1 S-(85-35,86-08)	9 Nov 2001 10
7	5	11g12237.d	1.	WG107912-04 8021 STD4 50PPB... ✓	1,1 S-(85-35,86-08)	9 Nov 2001 11
8	6	11g12238.d	1.	WG107912-05 8021 STD5 100PP... ✓	1,1 S-(85-35,86-08)	9 Nov 2001 11
9	7	11g12239.d	1.	WG107912-06 8021 STD6 200PP... ✓	1,1 S-(85-35,86-08)	9 Nov 2001 12
10	8	11g12240.d	1.	WG107912-07 8021 STD7 300PP... ✓	1,1 S-(85-35,86-08)	9 Nov 2001 13
11	9	11g12241.d	1.	RINSE 5ML ✓	1,1 S-86-08	9 Nov 2001 13
12	10	11g12242.d	1.	WG107912-08 ALT SOURCE 5ML ✓	1,1 S-86-(13,08)	9 Nov 2001 14

Injection Log

Directory: C:\HPCHEM\1\DATA\112701

Analyst: JCS

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
		11612520		8021 Std ✓		
1	1	11g12509.d	1.	WG108823-01 WATER BLANK 5ML ✓	1,1 S-87-22	27 Nov 2001 10:0
2	2	11g12510.d	1.	WG108823-02 WATER LCS 5ML ✓	1,1 S-86-13, S-87-22	27 Nov 2001 10:3
3	1	11g12511.d	1.	L0111344-01 B 5ML pH<2 ✓	1,1 S-87-22	27 Nov 2001 11:2
4	2	11g12512.d	1.	L0111344-02 B 5ML pH<2 ✓	1,1 S-87-22	27 Nov 2001 11:5
5	3	11g12513.d	10.	WG108823-03 L0111344-04 B 1.. ✓	1,10 S-87-22	27 Nov 2001 12:2
6	4	11g12514.d	10.	WG108823-04 L0111344-04 B 1.. ✓	1,10 S-87-22	27 Nov 2001 12:5
7	5	11g12515.d	10.	WG108823-04 L0111344-04 B 1.. ✓	1,10 S-87-22	27 Nov 2001 13:3
8	6	11g12516.d	1.	L0111395-01 B 5ML pH<2 ✓	1,1 S-87-22	27 Nov 2001 14:0
9	7	11g12517.d	1.	L0111397-01 B 5ML pH<2 ✓	1,1 S-87-23	27 Nov 2001 14:3
10	8	11g12518.d	1.	L0111415-01 B 5ML pH<2 ✓	1,1 S-87-23	27 Nov 2001 15:0
11	9	11g12519.d	1.	WG108842-01 8021 STD 20PPB 5ML ✓	1,1 S-87-23	27 Nov 2001 15:4
12	1	11g12520.d	1.	L0111344-03 B 5ML pH<2 ✓	1,1 S-87-23	27 Nov 2001 16:3
13	2	11g12521.d	1.	L0111344-05 B 5ML pH<2 ✓	1,1 S-87-23	27 Nov 2001 17:0
14	3	11g12522.d	1.	L0111344-06 B 5ML pH<2 ✓	1,1 S-87-23	27 Nov 2001 17:3
15	4	11g12523.d	1.	L0111382-01 B 5ML pH<2 ✓	1,1 S-87-23	27 Nov 2001 18:1
16	5	11g12524.d	1.	L0111382-02 B 5ML pH<2 ✓	1,1 S-87-23	27 Nov 2001 18:4
17	6	11g12525.d	1.	L0111382-03 B 5ML pH<2 ✓	1,1 S-87-23	27 Nov 2001 19:1
18	7	11g12526.d	1.	L0111382-04 B 5ML pH<2 ✓	1,1 S-87-23	27 Nov 2001 19:4
19	8	11g12527.d	10.	L0111382-05 B 10X 5ML pH<2 ✓	1,10 S-87-23	27 Nov 2001 20:2
20	9	11g12528.d	10.	L0111382-06 B 10X 5ML pH<2 ✓	1,10 S-87-23	27 Nov 2001 20:5
21	10	11g12529.d	1.	L0111382-07 B 5ML pH<2 RR 5X	1,1 S-87-23	27 Nov 2001 21:2
22	11	11g12530.d	1.	WG108842-02 8021 STD 5ML ✓	1,1 S-86-13, S-87-22	27 Nov 2001 21:5
23	12	11g12531.d	5.	L0111382-07 B 5X 5ML ✓	1,5 S-87-22	27 Nov 2001 22:3
24	13	11g12532.d	1.	L0111382-08 B 5ML ✓	1,1 S-87-22	27 Nov 2001 23:0
25	14	11g12533.d	1.	L0111382-09 B 5ML ✓	1,1 S-87-22	27 Nov 2001 23:3
26	15	11g12534.d	1.	L0111382-10 B 5ML ✓	1,1 S-87-22	28 Nov 2001 00:0
27	16	11g12535.d	1.	WG108842-03 8021 STD 20PPB 5ML ✓	1,1 S-86-13, S-87-22	28 Nov 2001 00:4

2.2 Semivolatiles Data

2.2.5 DRO GC DATA (8015)

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0111344

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8015

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD results were not associated with sample delivery group .

SAMPLES

Samples: All acceptance criteria were met.
Surrogates: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: HV

REVIEWED: _____ DATE: 1/29/01

Rev. 7/14/00

Date: [illegible]
Analyst: HV
Method: 8010 - TH - PRD - W - 113144 (1,3 & 4), 113172 (2), 113166 (1-14) } water level 4
Instrument: HP2
Work Group: WG 108512

113144 - level 4

	Analyst
System Performance Check	✓
Endrin & DDT Breakdown	NA
Initial Calibration	
Average RF	
Linear Reg or Higher Order Curve	
Second Source Standard % Difference	✓
Check Standards	✓
Project / Client Specific Requirements	
Special Standards	✓
Blanks	✓
TCL's	
Surrogates	
LCS (Laboratory Control Sample)	✓
Recoveries	
Surrogates	
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	
Surrogates	
Calculations & Correct Factors	
Dilutions Run	✓
Reruns	
Check Sample Histories	
Ending Check Standards	✓
Excel Spreadsheets	✓
Case Narrative	
Corrective Action	
Results Reporting / Data Qualifiers	
WorkGroups Traceability	
Client Data Package Assembly	
Check for Completeness	

Primary Reviewer Initials & Date Checked HV 11/21/01

Secondary Reviewer Initials & Date Checked [illegible] 11/26/01

- Check for compliance with Method and project-specific requirements
- Check the completeness of the reported information
- Check the information for the report narrative
- Check the reasonableness of results

Supervisory Review Initials & Date Checked [illegible] 11/26/01

Comments: sample 316-10 was not reported, it required dilution analysis — and samples 316-04 & -07 sent for RE due to low surr rec.

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

DRO-GC DATA (8015)

Login Number: L0111344

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

✓ Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data)

✓ Chromatograms and external standard reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and external standard reports (chronological)

NA Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

NA Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

✓ Extraction bench sheets

Checked By: HY Date: 11/29/01

2.2.5.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP : WG108512
METHOD : 8015-PRO
MATRIX : WATER
CONCENTRATION UNITS : ug / l
PREP WORK GRP : WG108468

EXT DATE : 11-19-01
EXT BENCH SHEET : V175-P181
BLK FILENAME : 2G16602
LCS FILENAME : 2G16603
LCS DUP FILENAME : NA

RUN DATE : 11-19-01
SMPL ID : L0111318-02
SMPL FLNM : 2G16610
MS FLNM : 2G16611
MSD FLNM : 2G16612

INSTRUMENT : HP2
Analyst: HV

ANALYTE	CONCENTRATION , ug / L									PERCENT RECOVERY , %										PERCENT		
	RDL	BLANK	LCS SPIKE ADDED	LCS	LCS DUP	SAMPLE	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS DUP	LCS LCL	LCS ULC	SAMPLE	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL
PRO (C8 - C40)	500	ND	3400	2413	NA	ND	3672	2779	2915	NA	71.0	NA	55	118	ND	75.7	79.4	41	101	NA	5	20
SURROGATE:																						
o-TERPHENYL		21.0	20	18.1	NA	13.8	20	19.1	18.8	105	90.5	NA	49	174	69.2	95.5	93.9	49	174	NA	2	20

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

2.2.5.2 Sample Data

Data File : C:\HPCHEM\1\DATA\111901\2G16627.D
Acq On : 19 Nov 2001 22:07
Sample : L0111344-01 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Nov 20 8:40 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.03

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.88	425447	17.796 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		88.98%
3) s n-Nonatriacontane	7.51f	330	0.023 ppm
Spiked Amount 20.000	Recovery =		0.12%
Target Compounds			
1) H Petroleum Range	3.67	1485583	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

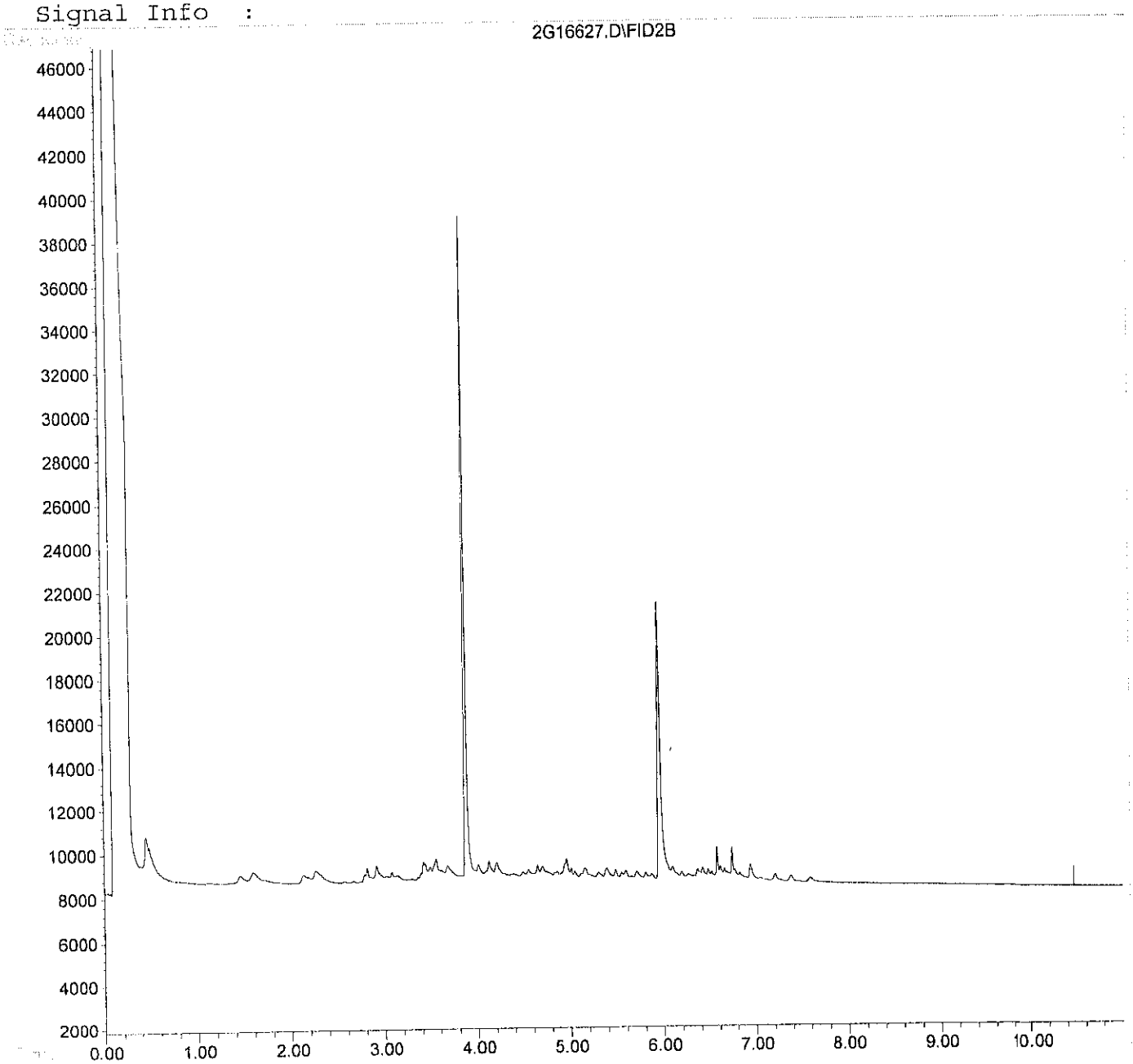
Data File : C:\HPCHEM\1\[illegible]

Acq On : 19 Nov 2001 22:07
Sample : L0111344-01 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Nov 20 8:40 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.03

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 19 Nov 2001 22:22
Sample : L0111344-02 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Nov 20 8:40 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.03

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.88	431628	18.054 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	90.27%
3) s n-Nonatriacontane	7.48	152	0.010 ppm
Spiked Amount 20.000		Recovery =	0.05%
Target Compounds			
1) H Petroleum Range	3.67	1145399	<MDL ppb

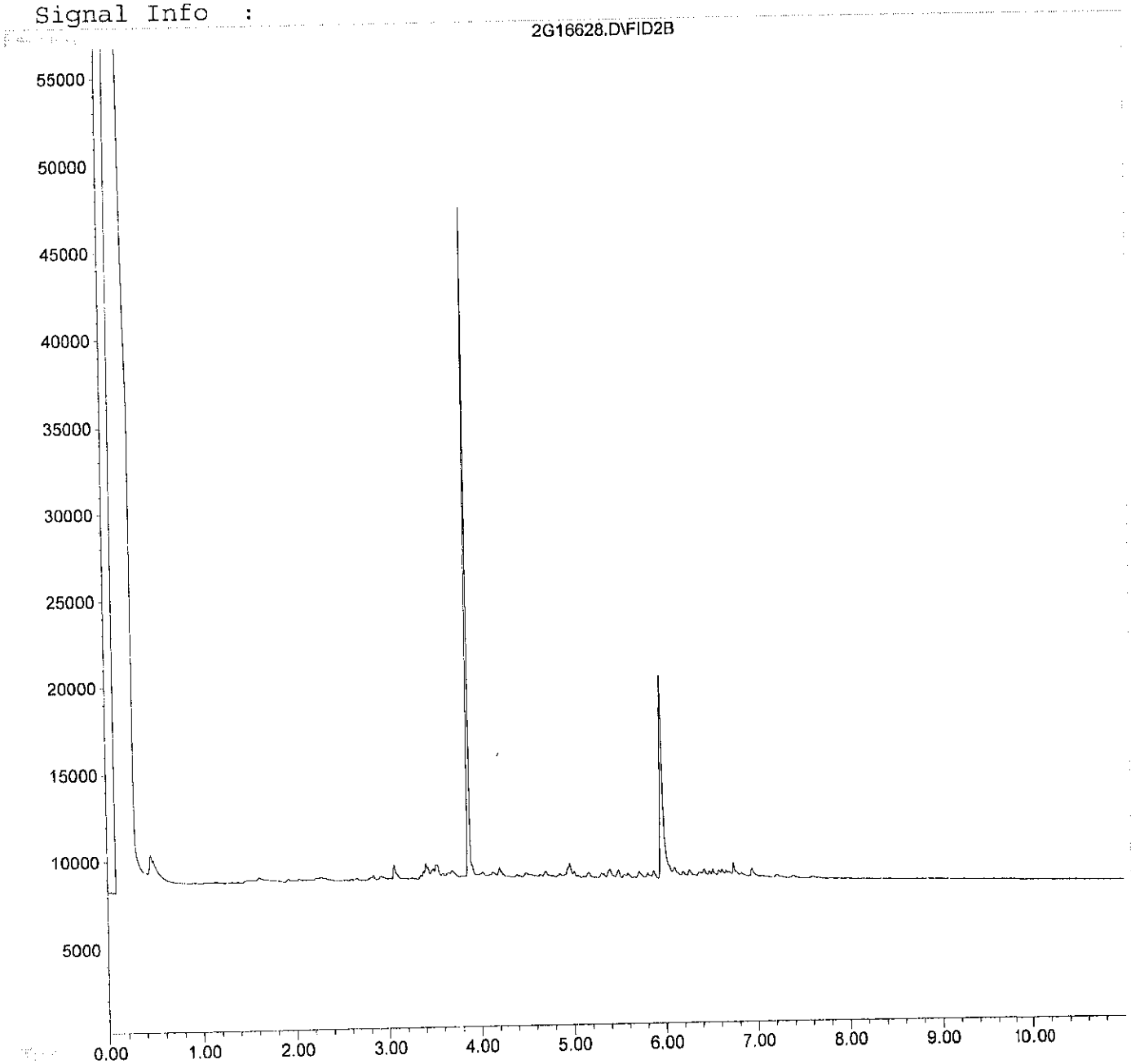
(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 19 Nov 2001 22:22
Sample : L0111344-02 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Nov 20 8:40 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.03

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 19 Nov 2001 22:37
Sample : L0111344-03 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Nov 20 8:40 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.02

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.88	422985	17.693 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		88.47%
3) s n-Nonatriacontane	7.51f	1066	0.073 ppm
Spiked Amount 20.000	Recovery =		0.36%
Target Compounds			
1) H Petroleum Range	3.67	1785503	<MDL ppb

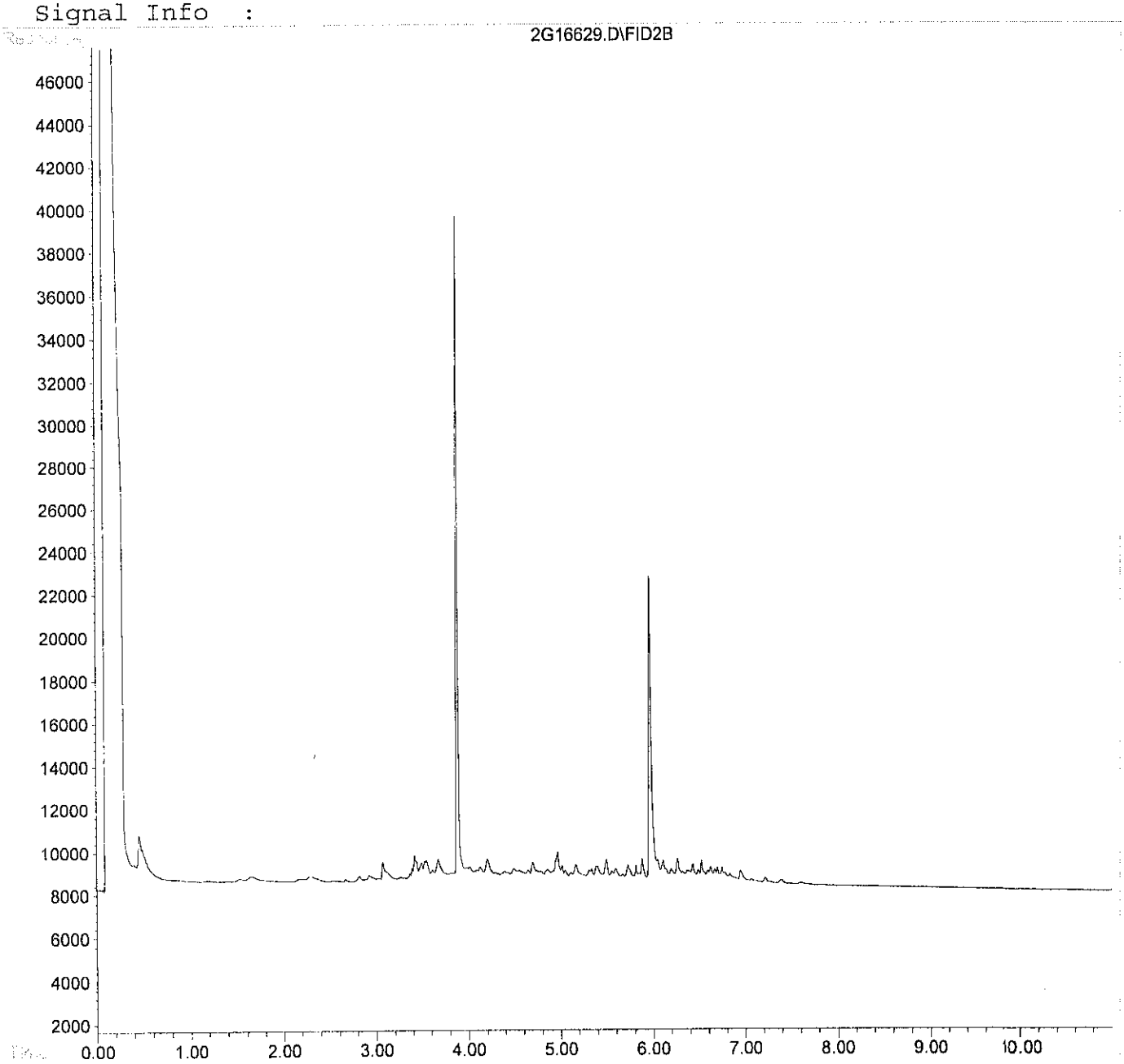
(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 19 Nov 2001 22:37
Sample : L0111344-03 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Nov 20 8:40 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.02

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 20 Nov 2001 9:54
Sample : L0100344-04 RR PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Nov 20 10:49 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.06

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

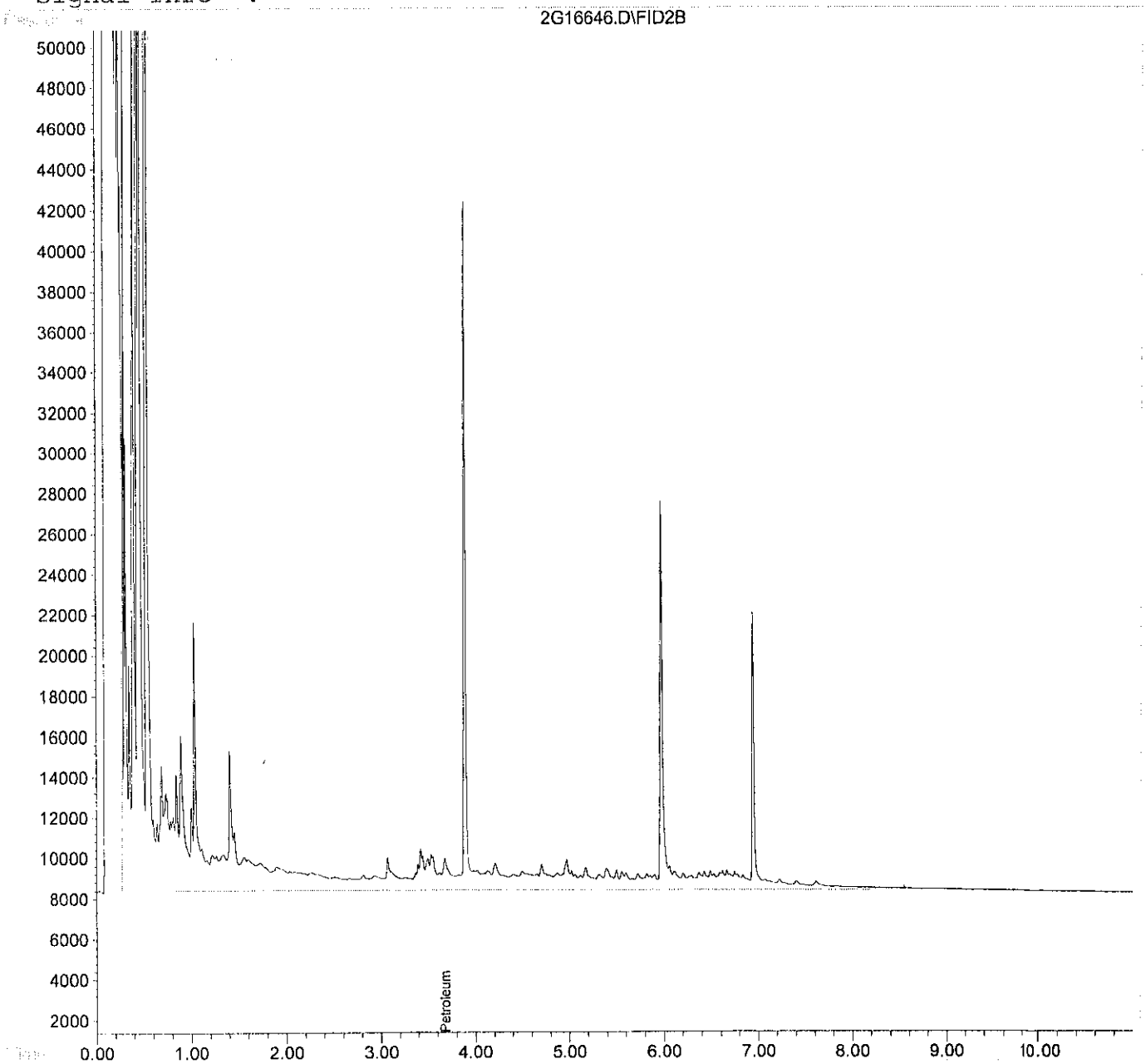
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.89	431104	18.032 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	90.16%
3) s n-Nonatriacontane	7.41	7157	0.489 ppm
Spiked Amount 20.000		Recovery =	2.45%
Target Compounds			
1) H Petroleum Range	3.67	11444155	590.912 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 20 Nov 2001 9:54 Operator: HV
Sample : L0100344-04 RR PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.06
IntFile : PETRO.E
Quant Time: Nov 20 10:49 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 19 Nov 2001 22:53 Operator: HV
Sample : L0111344-04 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.06
IntFile : PETRO.E
Quant Time: Nov 20 8:41 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.88	394881	16.517 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 82.58%			
3) s n-Nonatriacontane	7.49	276	0.019 ppm
Spiked Amount 20.000 Recovery = 0.10%			
Target Compounds			
1) H Petroleum Range	3.67	9941934	513.346 ppb

RR

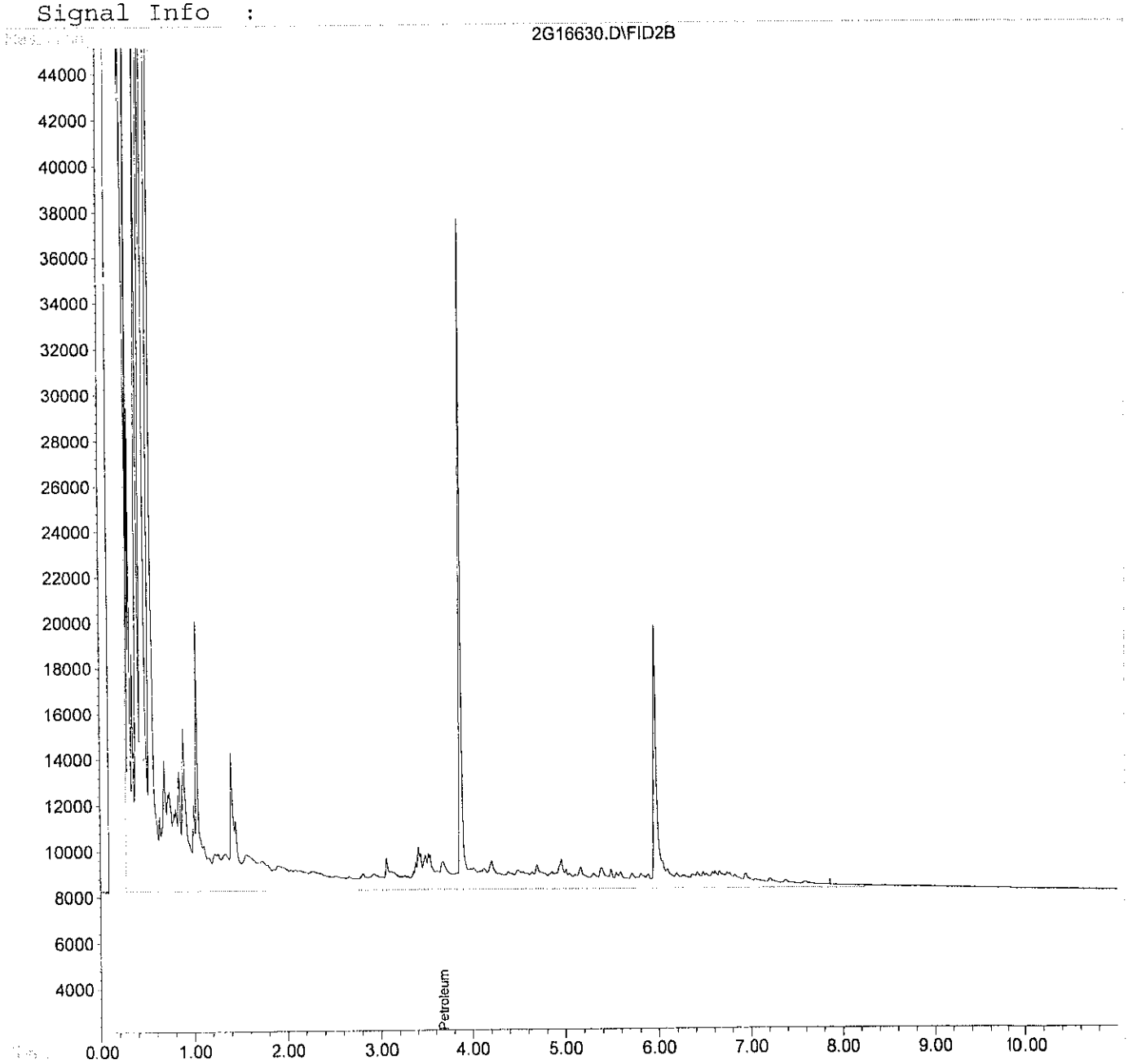
(f)=RT Delta > 1/2 Window (m)=manual int.
2G16630.D FLASHPRO.M Tue Nov 20 08:41:06 2001 Page 1

Acq On : 19 Nov 2001 22:53
Sample : L0111344-04 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Nov 20 8:41 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.06

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 19 Nov 2001 23:08
Sample : L0111344-05 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Nov 20 8:41 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.08

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.88	439596	18.388 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		91.94%
3) s n-Nonatriacontane	7.40f	6653	0.454 ppm
Spiked Amount 20.000	Recovery =		2.27%
Target Compounds			
1) H Petroleum Range	3.67	1384280	<MDL ppb

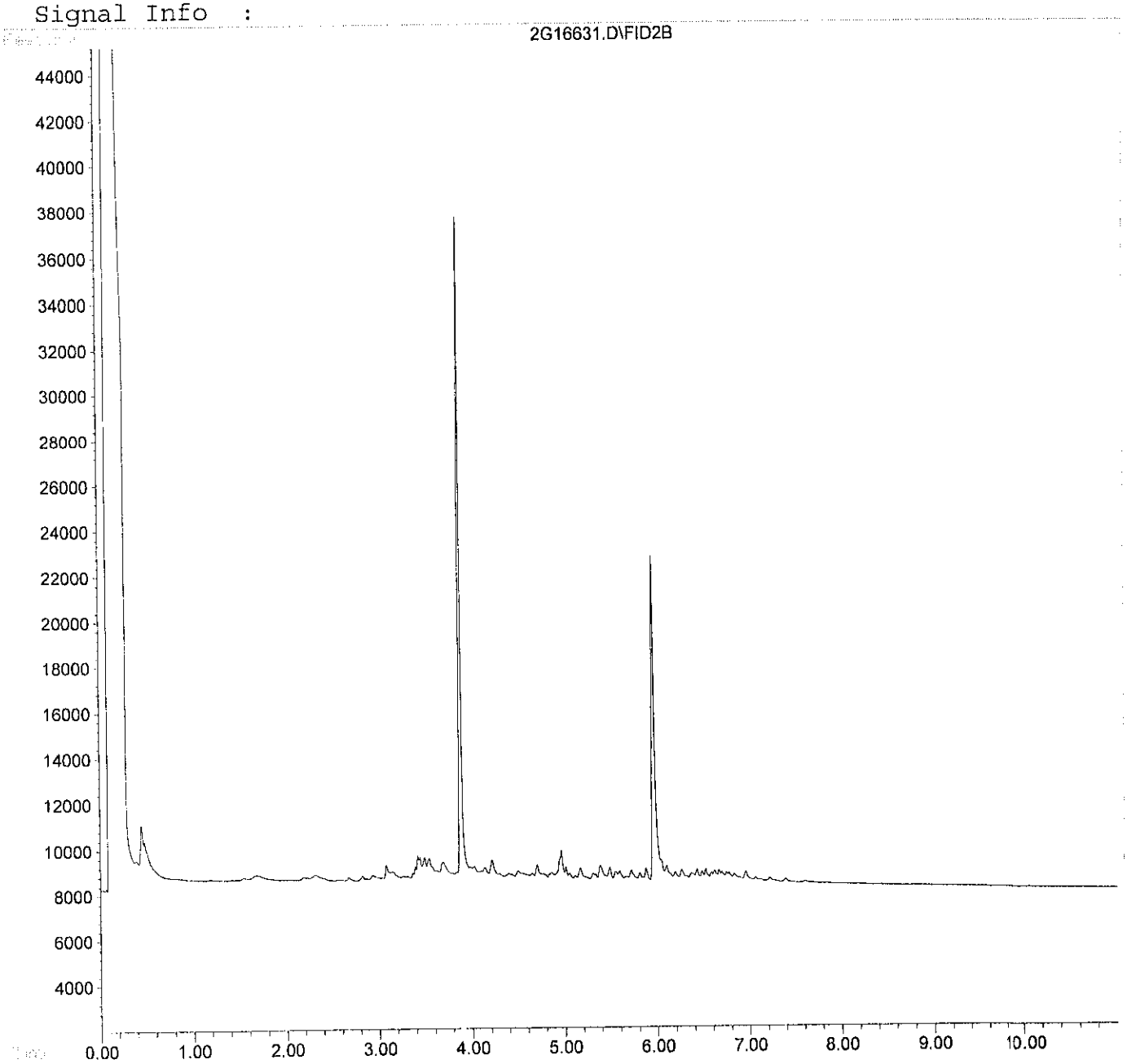
(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 19 Nov 2001 23:08
Sample : L0111344-05 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Nov 20 8:41 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.08

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2.2.5.3 Standards Data

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 11:54:14 2001

Calibration Files

5	=2G16588.D	50	=2G16587.D	100	=2G16586.D
200	=2G16585.D	400	=2G16584.D	600	=2G16583.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	2.099	2.110	1.977	1.925	2.014	2.191	2.053	E4	4.78
2)	s	O-Terphenyl	2.646	2.463	2.339	2.236	2.231	2.429	2.391	E4	6.59
3)	s	n-Nonatriacontane	1.659	1.506	1.399	1.454	1.601	1.167	1.464	E4	11.86

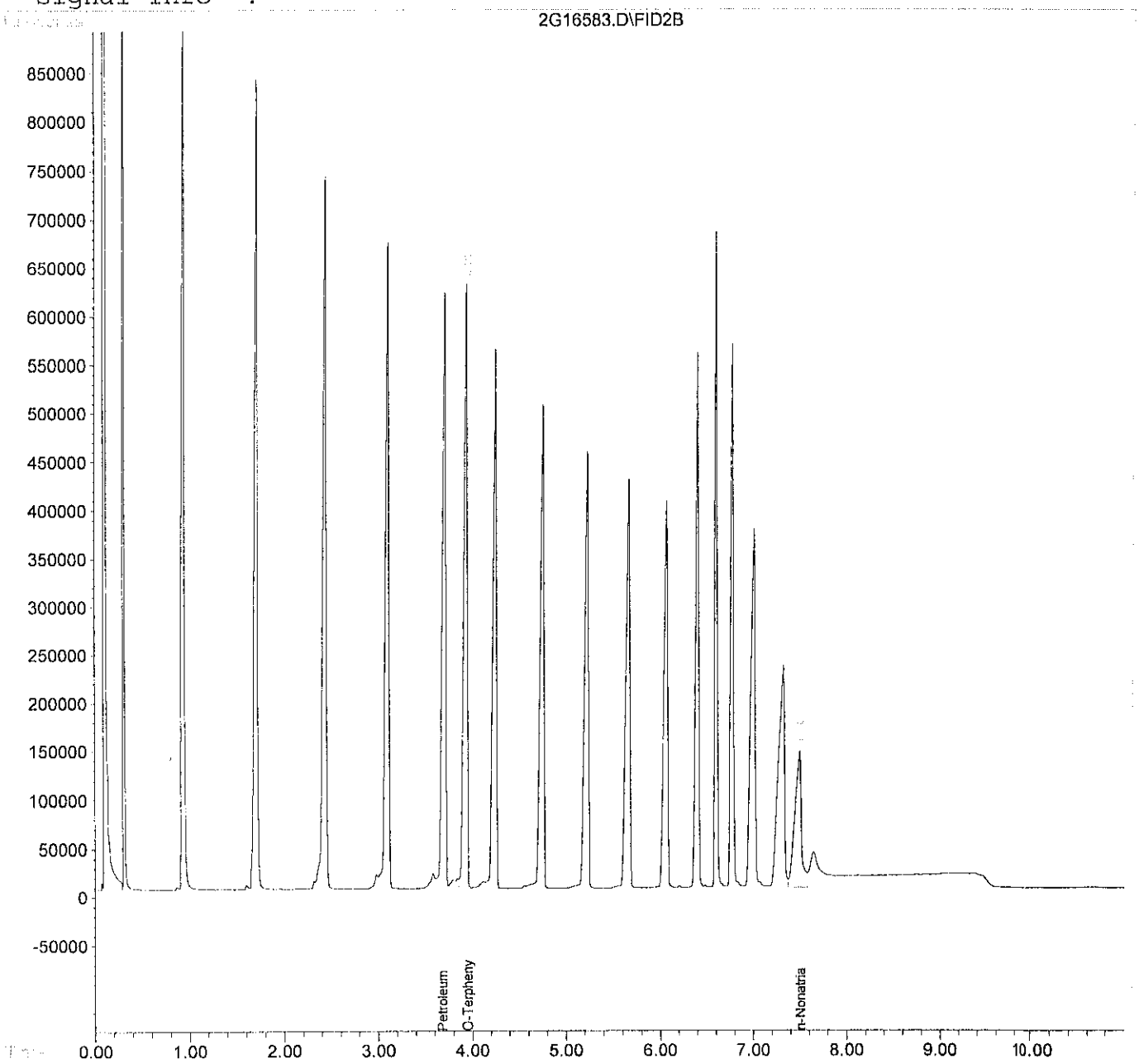
(#) = Out of Range

```
Acq On     : 19 Nov 2001  10:20                          Operator: HV
Sample     : WG108466-06 PRO @600ppm                     Inst    : hp2
Misc       : 1,1 SOS 56-21                               Multiplr: 1.00
IntFile    : PETRO.E
Quant Time: Nov 19 11:58 2001  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 11/16/01
Last Update  : Mon Nov 19 11:54:14 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                    3.95       14576336  609.703 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    = 3048.52%#
 3) s   n-Nonatriacontane              7.50f       7004397  478.333 ppm
Spiked Amount   20.000                    Recovery       = 2391.67%

  Target Compounds
 1) H   Petroleum Range                3.67      222974159 10861.447 ppb


-----------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window                                  (m)=manual int.
2G16583.D  FLASHPRO.M      Mon Nov 19 12:11:04 2001                Page 1
```

Acq On : 19 Nov 2001 10:20 Operator: HV
Sample : WG108466-06 PRO @600ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 11:58 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/16/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

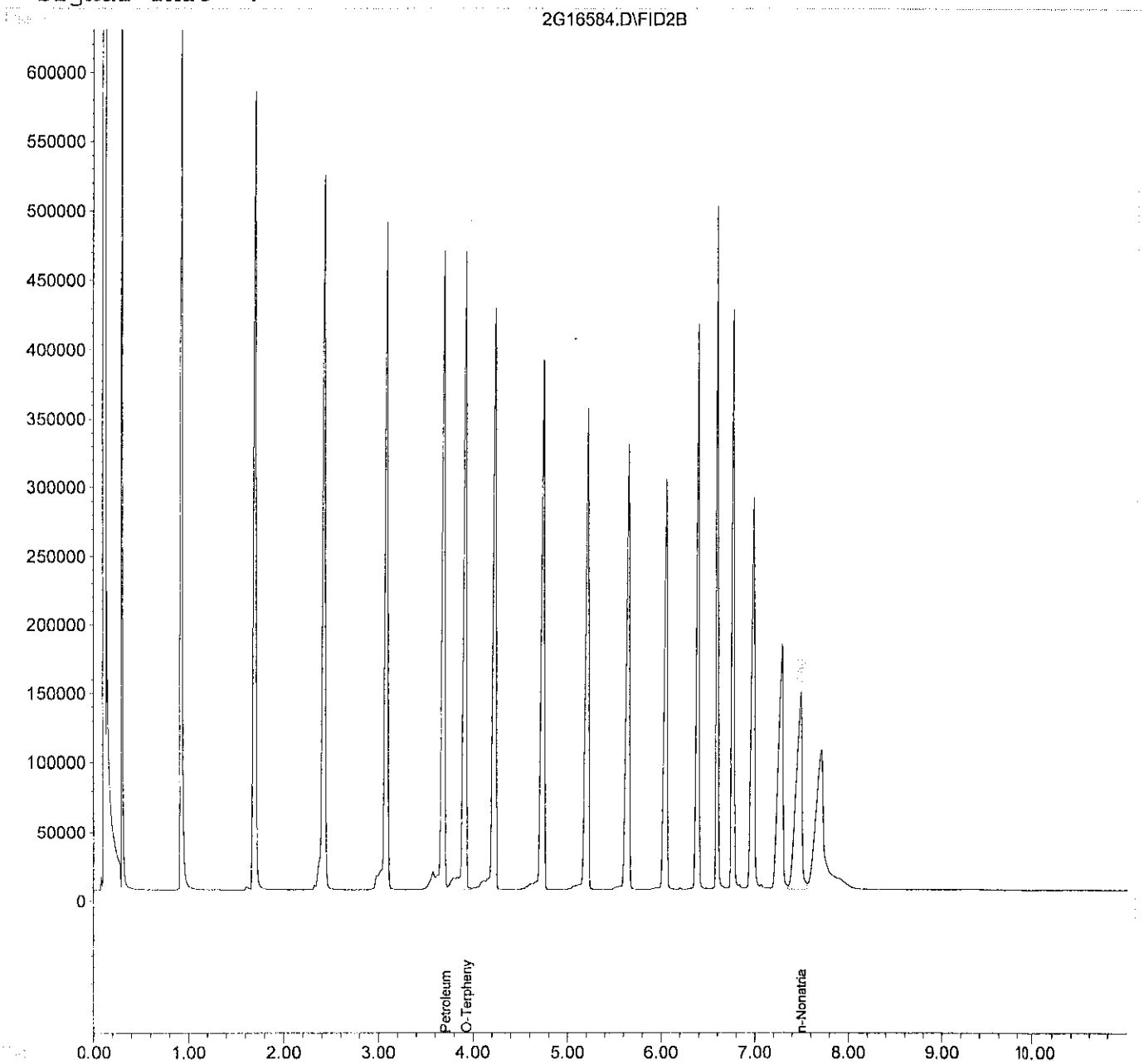


```
Acq On     : 19 Nov 2001  10:35                          Operator: HV
Sample     : WG108466-05 PRO @400ppm                     Inst     : hp2
Misc       : 1,1 SOS 56-21                               Multiplr: 1.00
IntFile    : PETRO.E
Quant Time: Nov 19 11:51 2001  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 11/16/01
Last Update  : Mon Nov 19 11:51:23 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

    Compound                        R.T.       Response    Conc Units
-------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                 3.93        8923577  309.989 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    = 1549.95%#
 3) s   n-Nonatriacontane           7.50        6403055  340.908 ppm
Spiked Amount   20.000                    Recovery       = 1704.54%

  Target Compounds
 1) H   Petroleum Range             3.72      136951680 5342.353 ppb
```

Acq On : 19 Nov 2001 10:35 Operator: HV
Sample : WG108466-05 PRO @400ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 11:51 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/16/01
Last Update : Mon Nov 19 11:51:23 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

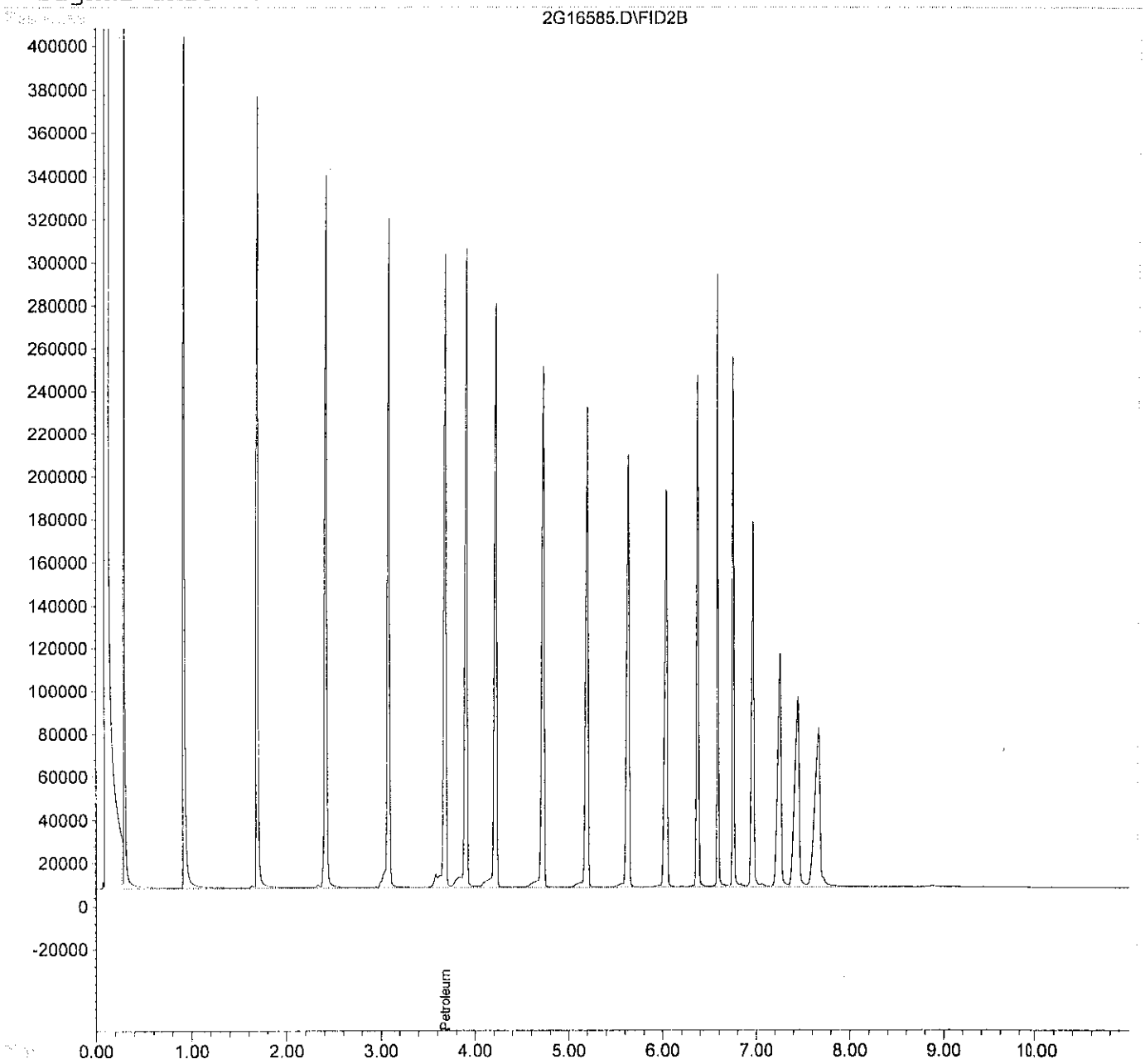


```
Acq On     : 19 Nov 2001  10:50                          Operator: HV
Sample     : WG108466-04 PRO @200ppm                     Inst    : hp2
Misc       : 1,1 SOS 56-21                               Multiplr: 1.00
IntFile    : PETRO.E
Quant Time: Nov 19 11:54 2001  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 11/16/01
Last Update  : Mon Nov 19 11:54:14 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
---------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                    3.92        4472326  155.361 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    =  776.80%#
 3) s   n-Nonatriacontane              7.45        2908197  154.836 ppm
Spiked Amount   20.000                    Recovery      =  774.18%

  Target Compounds
 1) H   Petroleum Range                3.67       65458766 2553.483 ppb
```

Acq On : 19 Nov 2001 10:50 Operator: HV
Sample : WG108466-04 PRO @200ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 11:54 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/16/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 19 Nov 2001 11:05 Operator: HV
Sample : wg108466-03 PRO @100ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 11:57 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/16/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.90	2338660	81.241 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	406.21%#
3) s n-Nonatriacontane	7.43	1398646	74.466 ppm
Spiked Amount 20.000		Recovery =	372.33%
Target Compounds			
1) H Petroleum Range	3.67	33614108	1311.254 ppb

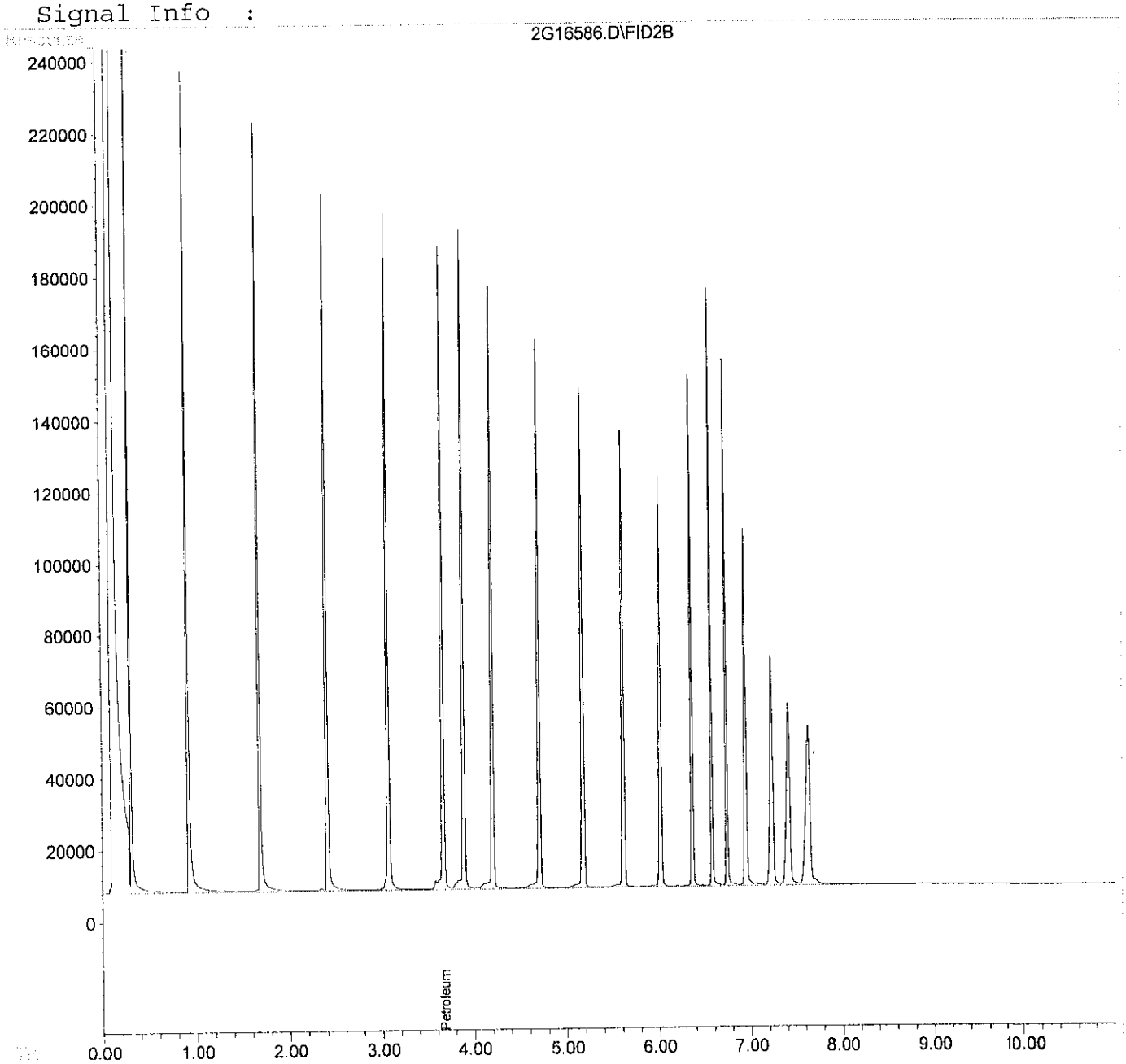
(f)=RT Delta > 1/2 Window (m)=manual int.
2G16586.D FLASHPRO.M Mon Nov 19 12:10:30 2001 Page 1

Acq On : 19 Nov 2001 11:05
Sample : wg108466-03 PRO @100ppm
Misc : 1,1 SOS 56-21
IntFile : PETRO.E
Quant Time: Nov 19 11:57 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/16/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 19 Nov 2001 11:20 Operator: HV
Sample : WG108466-02 PRO @50ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 11:54 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/16/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.89	1231516	42.781 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	213.91%#
3) s n-Nonatriacontane	7.41	752921	40.087 ppm
Spiked Amount 20.000		Recovery =	200.44%
Target Compounds			
1) H Petroleum Range	3.67	17938600	699.767 ppb

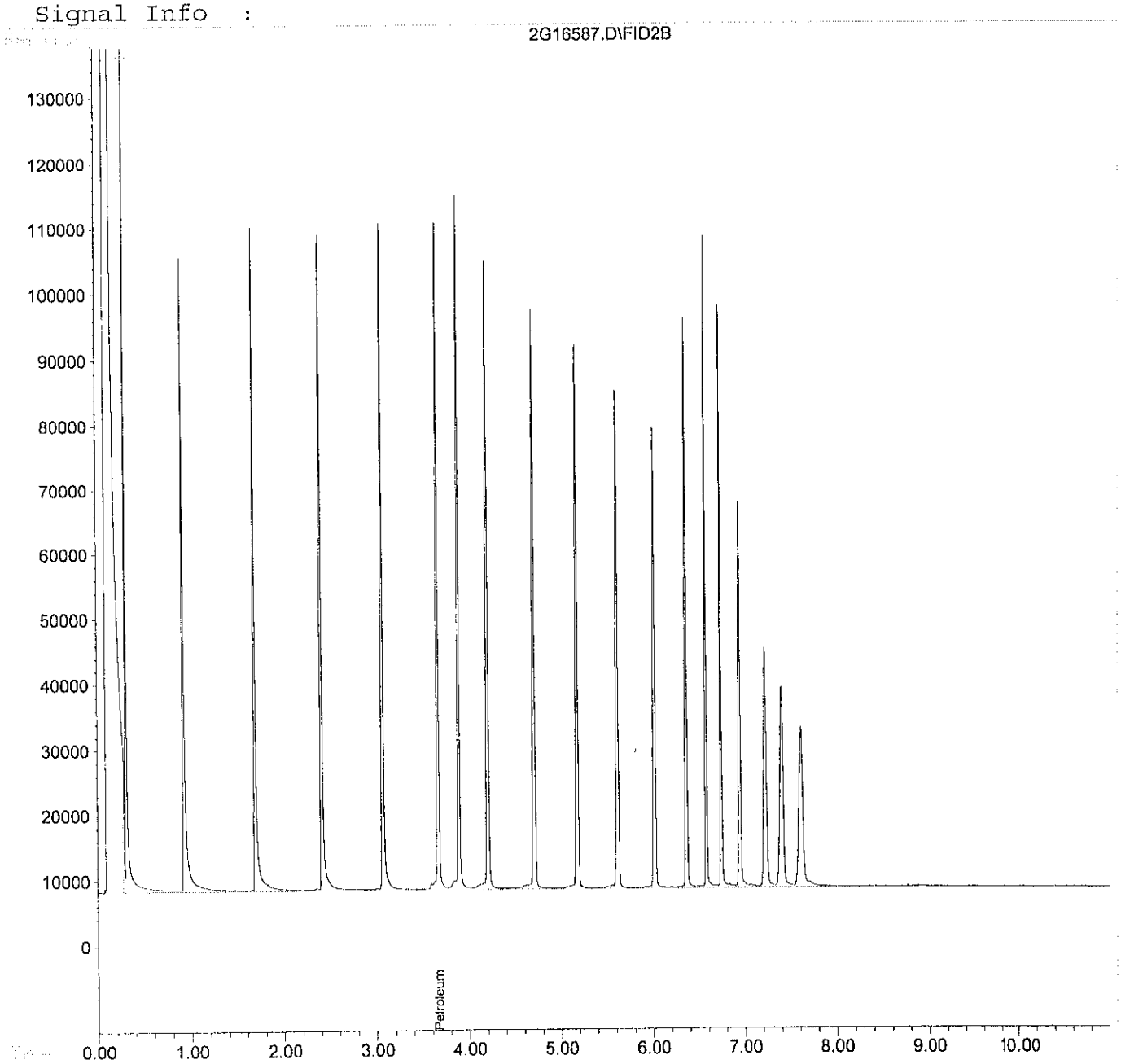
(f)=RT Delta > 1/2 Window (m)=manual int.
2G16587.D FLASHPRO.M Mon Nov 19 12:10:20 2001 Page 1

Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 19 Nov 2001 11:20 Operator: HV
Sample : WG108466-02 PRO @50ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 11:54 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/16/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 19 Nov 2001 11:35 Operator: HV
Sample : WG108466-01 PRO @5ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 12:09 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/16/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

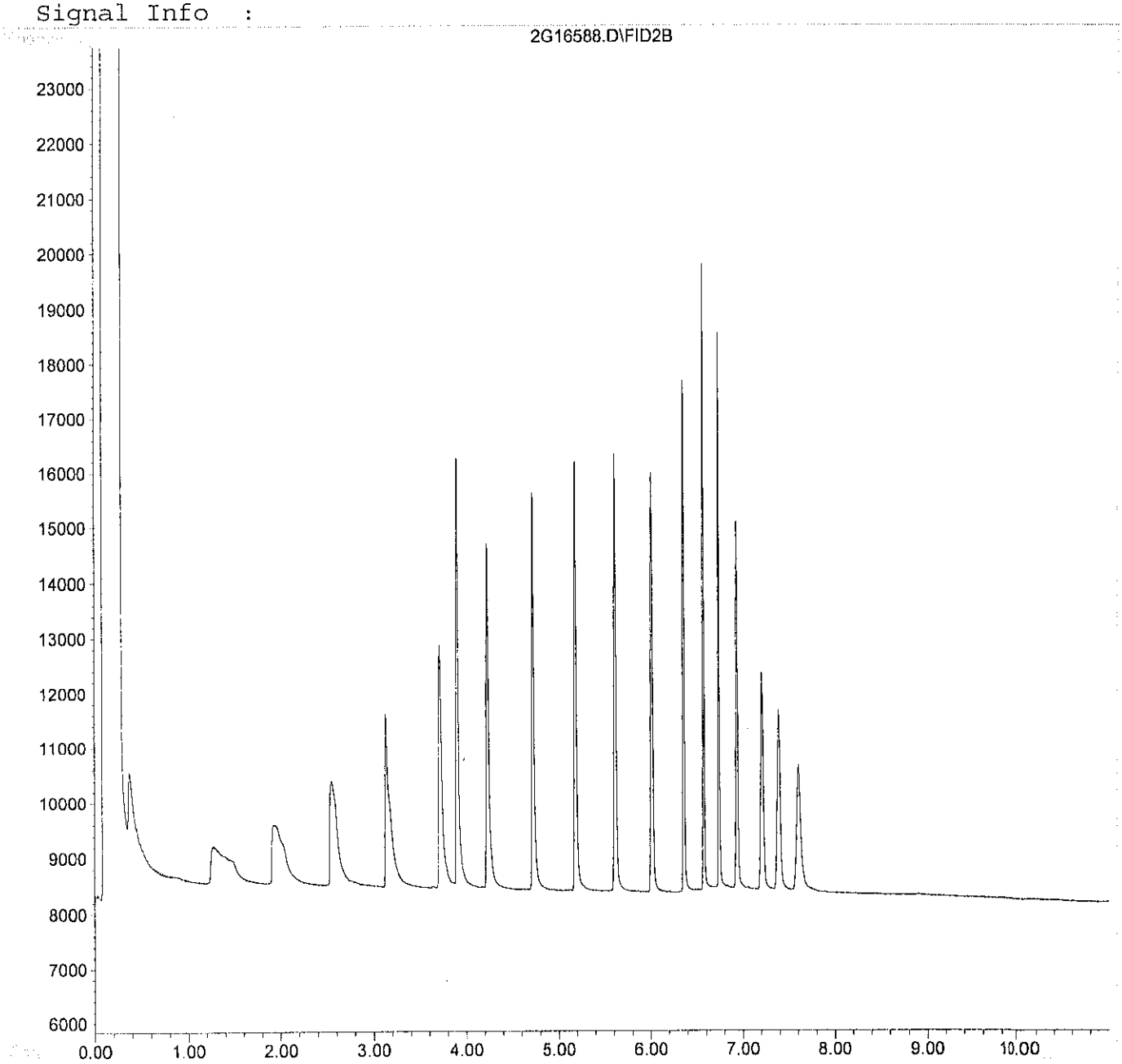
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.91	132312	5.534 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 27.67%#			
3) s n-Nonatriacontane	7.39f	82963	5.666 ppm
Spiked Amount 20.000 Recovery = 28.33%			
Target Compounds			
1) H Petroleum Range	3.67	1784345	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16588.D FLASHPRO.M Mon Nov 19 12:10:09 2001 Page 1

Acq On : 19 Nov 2001 11:35 Operator: HV
Sample : WG108466-01 PRO @5ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 12:09 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/16/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 19 Nov 2001 12:20
Sample : WG108466-07 ALT @200ppm
Misc : 1,1 SOS 56-26
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	2985.719	12.2	94	0.00
2	s	O-Terphenyl	200.000	1.103	99.4#	1	0.02
3	s	n-Nonatriacontane	200.000	0.081	100.0#	0	0.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\[illegible]

Acq On : 19 Nov 2001 12:20
Sample : WG108466-07 ALT @200ppm
Misc : 1,1 SOS 56-26
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Acq On : 19 Nov 2001 12:20 Operator: HV
Sample : WG108466-07 ALT @200ppm Inst : hp2
Misc : 1,1 SOS 56-26 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 12:32 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.93	26376	1.103 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	5.52%#
3) s n-Nonatriacontane	7.50	1180	0.081 ppm
Spiked Amount 20.000		Recovery =	0.41%
Target Compounds			
1) H Petroleum Range	3.67	61293686	2985.719 ppb

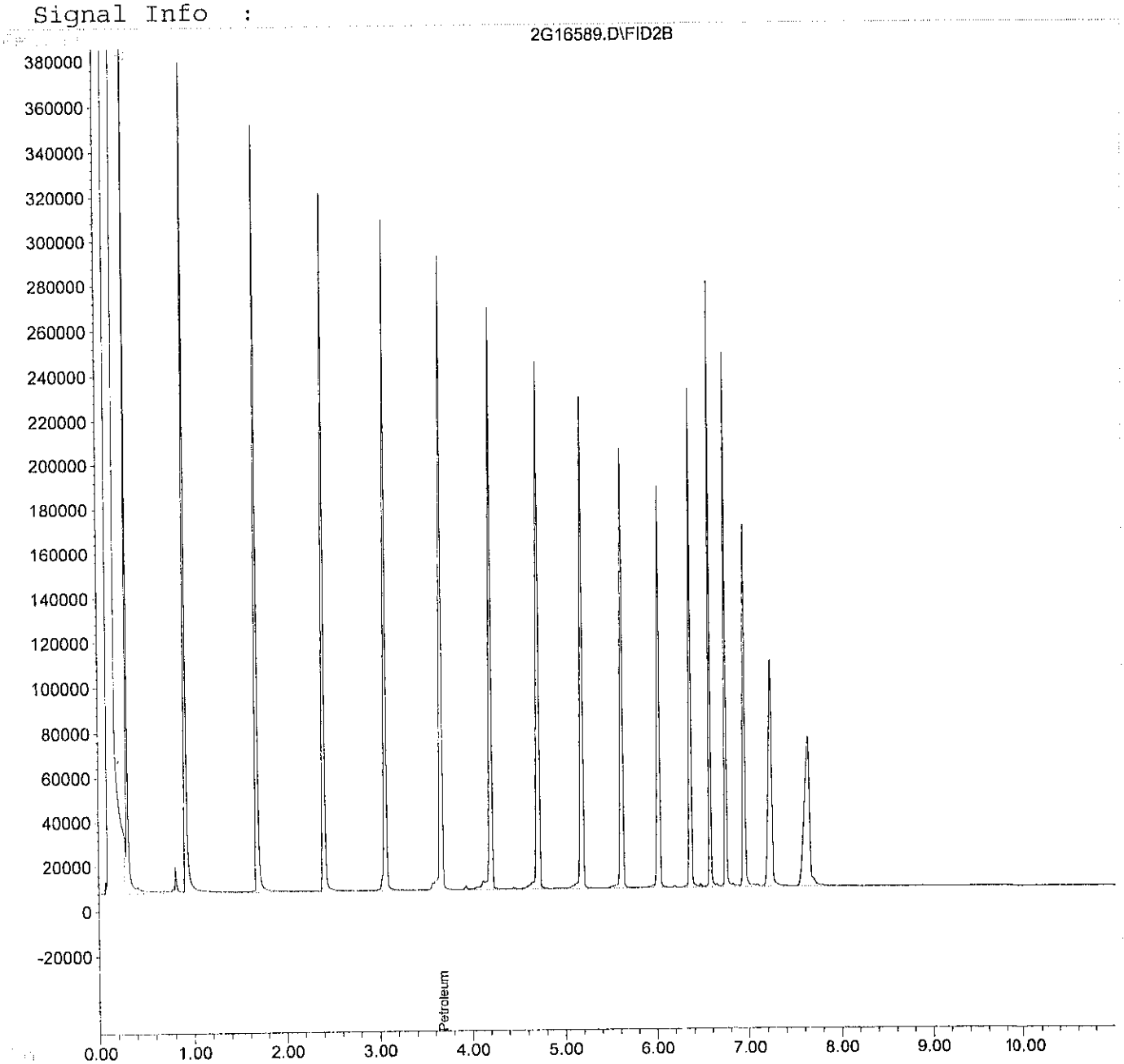
(f)=RT Delta > 1/2 Window (m)=manual int.
2G16589.D FLASHPRO.M Mon Nov 19 14:31:09 2001 Page 1

Acq On : 19 Nov 2001 12:20
Sample : WG108466-07 ALT @200ppm
Misc : 1,1 SOS 56-26
IntFile : PETRO.E
Quant Time: Nov 19 12:32 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 19 Nov 2001 [illegible]
Sample : WG108466-08 PRO CCV
Misc : 1,1 SOS 56-21
IntFile : PETRO.E

Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3311.559	2.6	104	0.00
2	s	O-Terphenyl	200.000	188.417	5.8	101	0.00
3	s	n-Nonatriacontane	200.000	216.455	-8.2	109	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16598.D FLASHPRO.M Tue Nov 20 08:03:46 2001 Page 1

Acq On : [illegible]
Sample : WG108466-08 PRO CCV
Misc : 1,1 SOS 56-21
IntFile : PETRO.E

Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16598.D FLASHPRO.M Tue Nov 20 08:03:46 2001 Page 2

Sample : WG108466-08 PRO CCV
Misc : 1,1 SOS 56-21
IntFile : PETRO.E
Quant Time: Nov 19 15:03 2001 Quant Results File: FLASHPRO.RES

Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.91	4504541	188.417 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 942.08%#
3) s n-Nonatriacontane	7.44	3169627	216.455 ppm
Spiked Amount 20.000		Recovery	= 1082.28%
Target Compounds			
1) H Petroleum Range	3.67	67982846	3311.559 ppb

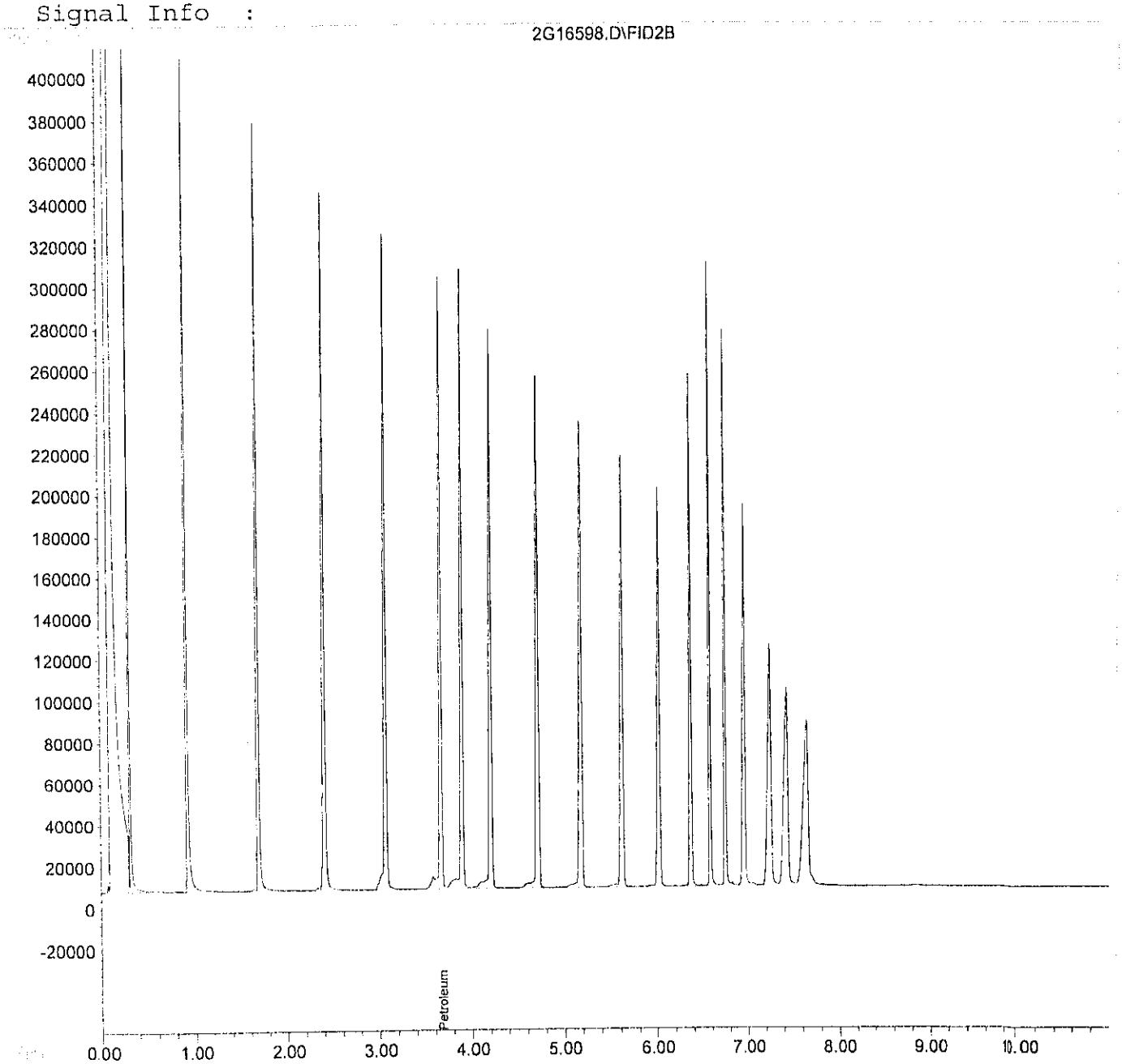
(f)=RT Delta > 1/2 Window (m)=manual int.

Sample : WG108466-08 PRO CCV
Misc : 1,1 SOS 56-21
IntFile : PETRO.E
Quant Time: Nov 19 15:03 2001 Quant Results File: FLASHPRO.RES

Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 19 Nov 2001 17:15
Sample : WG108466-09 PRO CCV
Misc : 1,1 SOS56-26
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3112.265	8.5	98	0.00
2	s	O-Terphenyl	200.000	180.510	9.7	96	0.03
3	s	n-Nonatriacontane	200.000	197.553	1.2	99	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16608.D FLASHPRO.M Tue Nov 20 08:19:00 2001 Page 1

Acq On : 19 Nov 2001 17:15 Operator: HV
Sample : WG108466-09 PRO CCV Inst : hp2
Misc : 1,1 SOS56-26 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

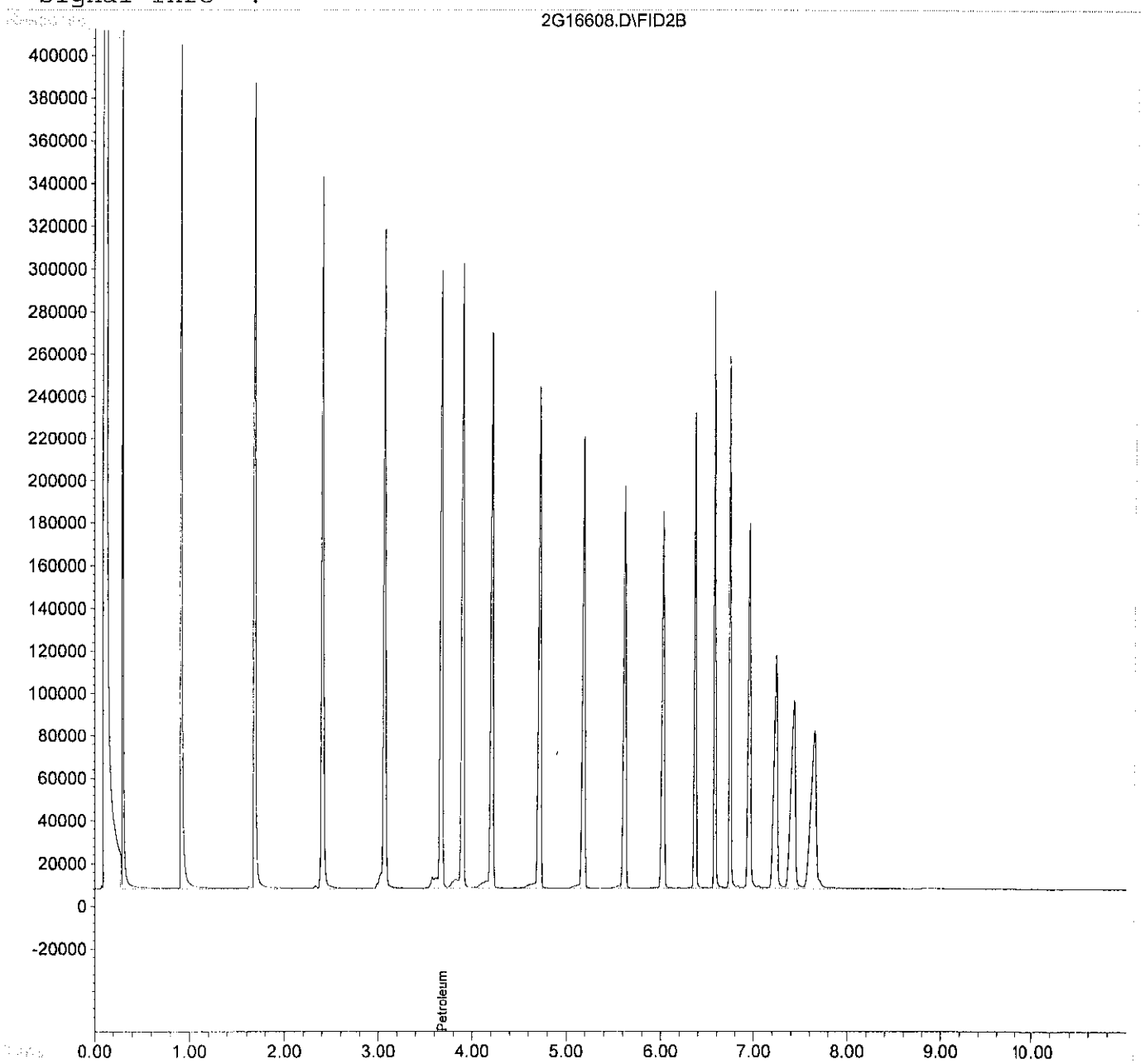
(#) = Out of Range SPCC's out = 0 CCC's out = 0

```
Acq On     : 19 Nov 2001  17:15                          Operator: HV
Sample     : WG108466-09 PRO CCV                         Inst     : hp2
Misc       : 1,1 SOS56-26                                Multiplr: 1.00
IntFile    : PETRO.E
Quant Time: Nov 20  8:03 2001  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 11/19/01
Last Update  : Mon Nov 19 12:58:50 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                    3.91        4315497  180.510 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    =  902.55%#
 3) s   n-Nonatriacontane              7.44        2892844  197.553 ppm
Spiked Amount   20.000                    Recovery       =  987.76%

  Target Compounds
 1) H   Petroleum Range                3.67       63891549 3112.265 ppb
```

Acq On : 19 Nov 2001 17:15 Operator: HV
Sample : WG108466-09 PRO CCV Inst : hp2
Misc : 1,1 SOS56-26 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 20 8:03 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 19 Nov 2001 21:51 Operator: HV
Sample : WG108466-11 PRO CCV Inst : hp2
Misc : 1,1 SOS 56-26 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3408.974	-0.3	107	0.00
2	s	O-Terphenyl	200.000	210.678	-5.3	113	0.00
3	s	n-Nonatriacontane	200.000	206.286	-3.1	104	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16626.D FLASHPRO.M Tue Nov 20 09:17:34 2001 Page 1

Acq On : 19 Nov 2001 21:51
Sample : WG108466-11 PRO CCV
Misc : 1,1 SOS 56-26
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Acq On : 19 Nov 2001 21:51 Operator: HV
Sample : WG108466-11 PRO CCV Inst : hp2
Misc : 1,1 SOS 56-26 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 20 8:20 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

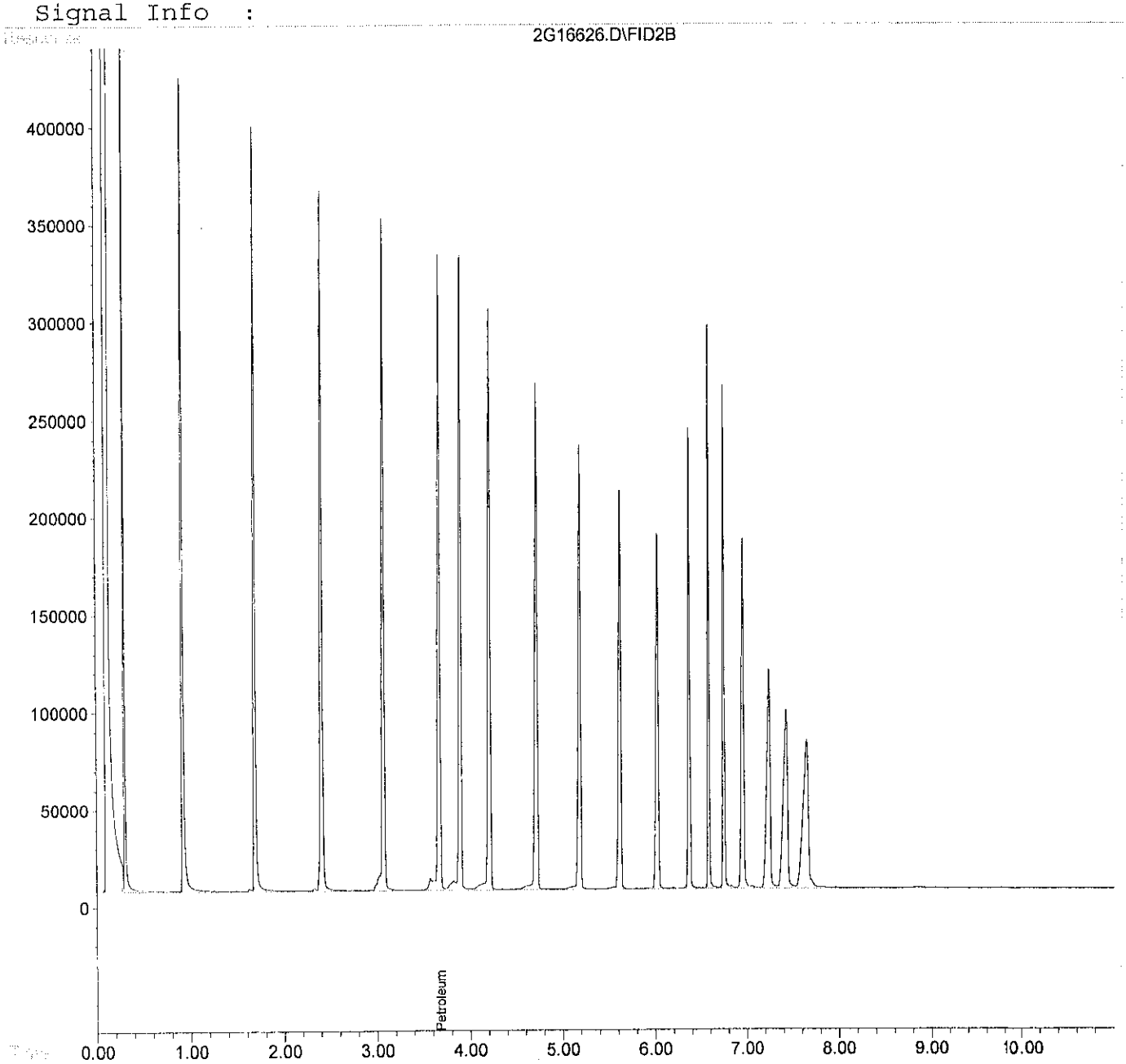
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.91	5036734	210.678 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 1053.39%#			
3) s n-Nonatriacontane	7.44	3020720	206.286 ppm
Spiked Amount 20.000 Recovery = 1031.43%			
Target Compounds			
1) H Petroleum Range	3.67	69982682	3408.974 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16626.D FLASHPRO.M Tue Nov 20 09:17:51 2001 Page 1

Acq On : 19 Nov 2001 21:51 Operator: HV
Sample : WG108466-11 PRO CCV Inst : hp2
Misc : 1,1 SOS 56-26 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 20 8:20 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 20 Nov 2001 00:10
Sample : WG108466-12 PRO CCV
Misc : 1,1 SOS 56-26
IntFile : PETRO.E

Operator: hv
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	4139.130	-21.7#	130	0.00
2	s	O-Terphenyl	200.000	236.270	-18.1#	126	0.03
3	s	n-Nonatriacontane	200.000	271.999	-36.0#	137	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16635.D FLASHPRO.M Tue Nov 20 08:42:06 2001 Page 1

Acq On : 20 Nov 2001 00:10
Sample : WG108466-12 PRO CCV
Misc : 1,1 SOS 56-26
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 11:54:14 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Acq On : 20 Nov 2001 00:10
Sample : WG108466-12 PRO CCV
Misc : 1,1 SOS 56-26
IntFile : PETRO.E
Quant Time: Nov 20 8:40 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.91	5648573	236.270 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1181.35%#
3) s n-Nonatriacontane	7.45	3982976	271.999 ppm
Spiked Amount 20.000		Recovery	= 1360.00%
Target Compounds			
1) H Petroleum Range	3.67	84972018	4139.130 ppb

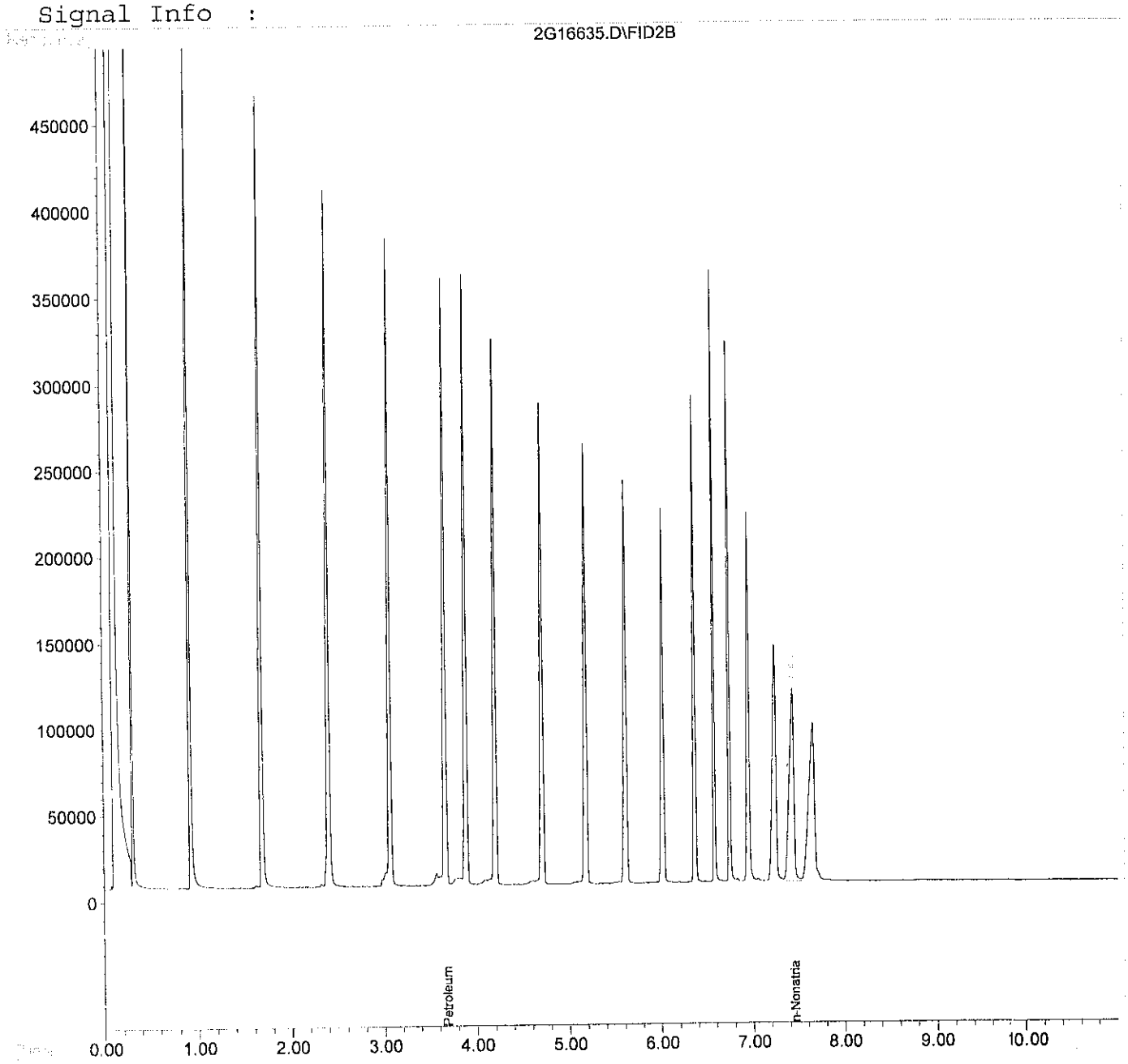
(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 20 Nov 2001 00:10
Sample : WG108466-12 PRO CCV
Misc : 1,1 SOS 56-26
IntFile : PETRO.E
Quant Time: Nov 20 8:40 2001 Quant Results File: FLASHPRO.RES

Operator: n/
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Tue Nov 20 08:08:22 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\[illegible]

Acq On : 20 Nov 2001 9:35
Sample : WG108569-01 PRO CCV
Misc : 1,1 SOS 56-26
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3360.292	1.2	105	0.00
2	s	O-Terphenyl	200.000	189.050	5.5	101	0.00
3	s	n-Nonatriacontane	200.000	195.808	2.1	99	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16645.D FLASHPRO.M Tue Nov 20 11:53:43 2001 Page 1

Data File : C:\HPCHEM\1\[illegible]
Acq On : 20 Nov 2001 9:35
Sample : WG108569-01 PRO CCV
Misc : 1,1 SOS 56-26
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

SPCC's out = 0 CCC's out = 0
(#) = Out of Range
2G16645.D FLASHPRO.M Tue Nov 20 11:53:43 2001 Page 2

Data File : C:\HPCHEM\1\DATA\[illegible]
Acq On : 20 Nov 2001 9:35
Sample : WG108569-01 PRO CCV
Misc : 1,1 SOS 56-26
IntFile : PETRO.E
Quant Time: Nov 20 9:48 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.92	4519668	189.050 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery = 945.25%#		
3) s n-Nonatriacontane	7.46	2867280	195.808 ppm
Spiked Amount 20.000	Recovery = 979.04%		
Target Compounds			
1) H Petroleum Range	3.67	68983295	3360.292 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

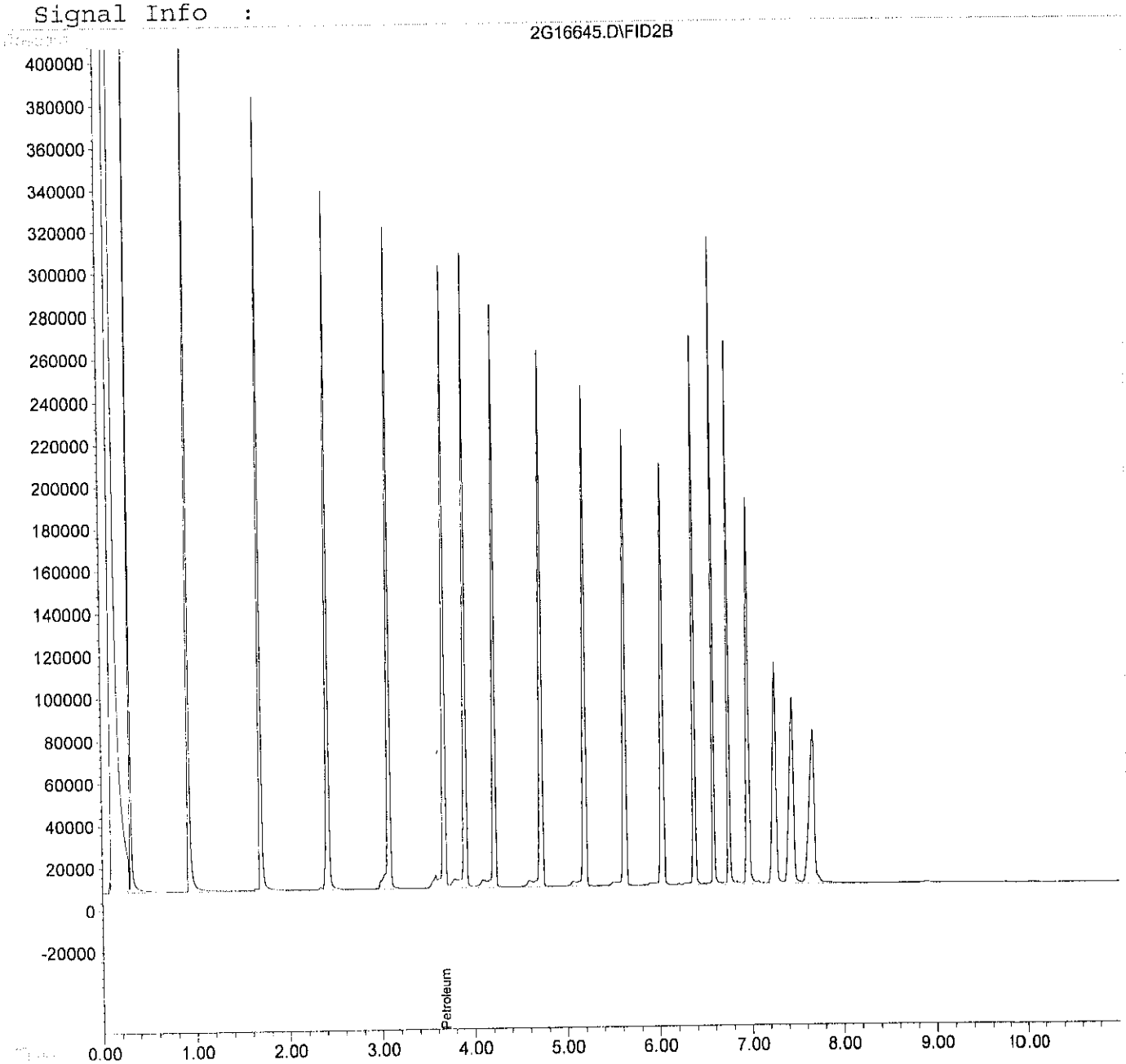
Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 20 Nov 2001 9:35
Sample : WG108569-01 PRO CCV
Misc : 1,1 SOS 56-26
IntFile : PETRO.E
Quant Time: Nov 20 9:48 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 20 Nov 2001 11:27
Sample : WG108569-02 PRO CCV
Misc : 1,1 SOS 56-26
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3442.719	-1.3	108	0.00
2	s	O-Terphenyl	200.000	192.073	4.0	103	0.00
3	s	n-Nonatriacontane	200.000	211.492	-5.7	106	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16652.D FLASHPRO.M Tue Nov 20 11:54:24 2001 Page 1

Acq On : 20 Nov 2001 11:27
Sample : WG108569-02 PRO CCV
Misc : 1,1 SOS 56-26
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Acq On : 20 Nov 2001 11:27 Operator: HV
Sample : WG108569-02 PRO CCV Inst : hp2
Misc : 1,1 SOS 56-26 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 20 11:38 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.91	4591951	192.073 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 960.37%#
3) s n-Nonatriacontane	7.45	3096947	211.492 ppm
Spiked Amount 20.000		Recovery	= 1057.46%
Target Compounds			
1) H Petroleum Range	3.67	70675419	3442.719 ppb

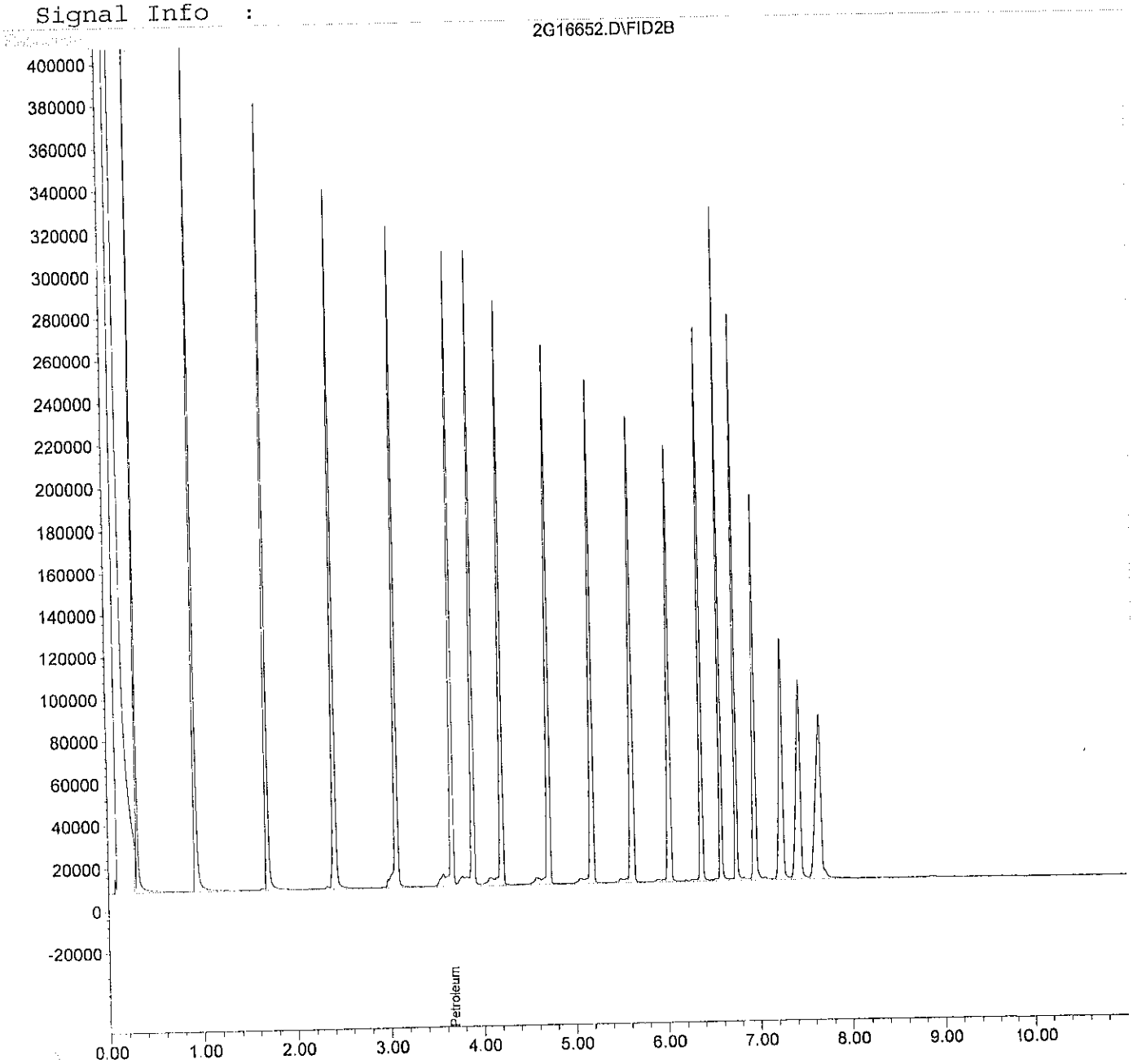
(f)=RT Delta > 1/2 Window (m)=manual int.
2G16652.D FLASHPRO.M Tue Nov 20 11:54:28 2001 Page 1

Acq On : 20 Nov 2001 11:27
Sample : WG108569-02 PRO CCV
Misc : 1,1 SOS 56-26
IntFile : PETRO.E
Quant Time: Nov 20 11:38 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2.2.5.4 Raw QC Data

Data File : C:\HPCHEM\1\DATA\

Acq On : 19 Nov 2001 15:43
Sample : WG108468-02 PRO water BLK
Misc : 1,1 water V175-P181
IntFile : PETRO.E
Quant Time: Nov 20 8:04 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.89	502053	21.000 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	105.00%
3) s n-Nonatriacontane	7.49	345	0.024 ppm
Spiked Amount 20.000		Recovery =	0.12%
Target Compounds			
1) H Petroleum Range	3.67	965309	<MDL ppb

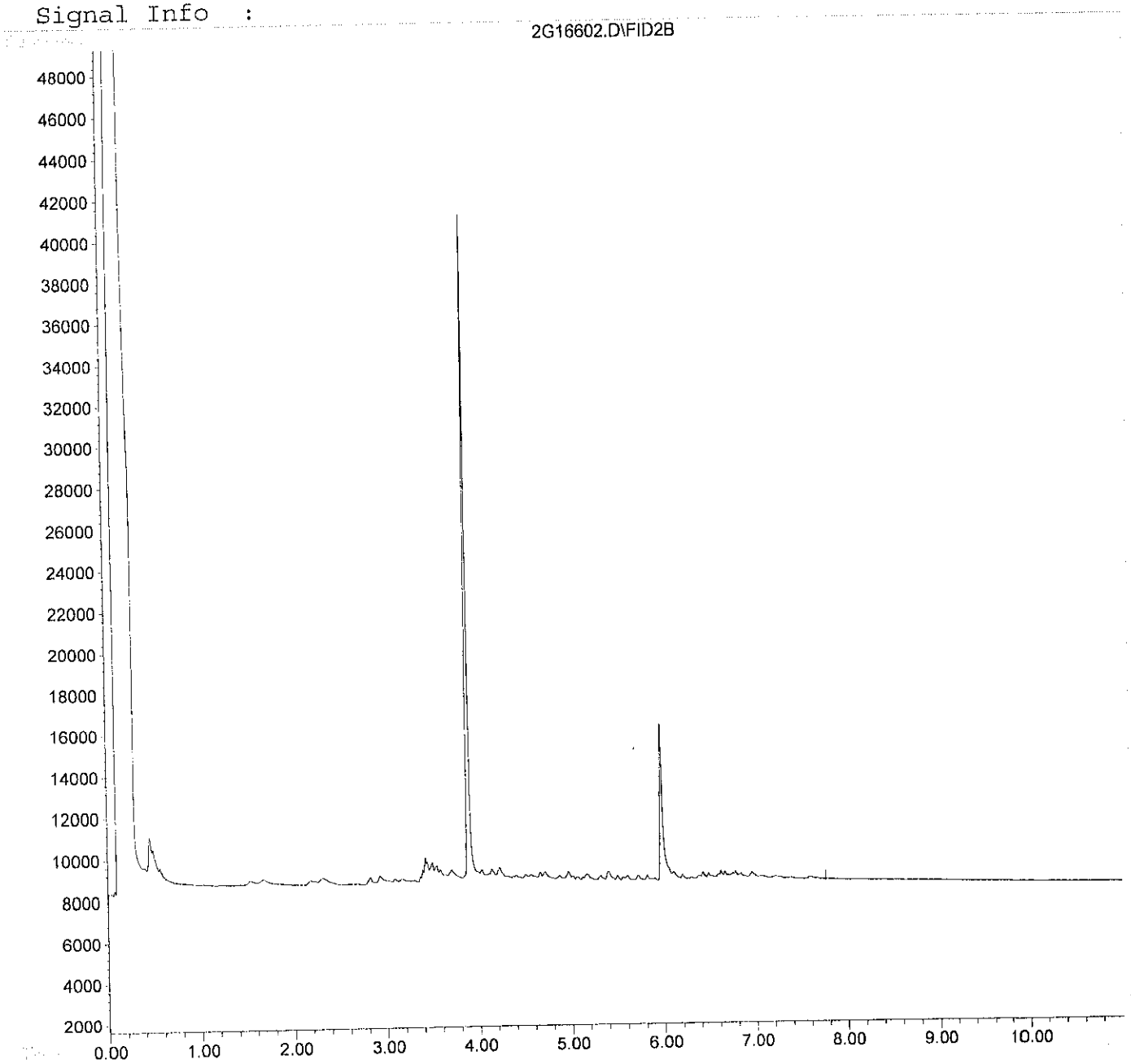
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\[illegible]
Acq On : 19 Nov 2001 15:43
Sample : WG108468-02 PRO water BLK
Misc : 1,1 water V175-P181
IntFile : PETRO.E
Quant Time: Nov 20 8:04 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\[illegible]

Acq On : 19 Nov 2001 15:59
Sample : WG108468-03 PRO water LCS
Misc : 1,1 water V175-P181
IntFile : PETRO.E
Quant Time: Nov 20 8:04 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.88	432845	18.105 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		90.53%
3) s n-Nonatriacontane	7.37f	20382	1.392 ppm
Spiked Amount 20.000	Recovery =		6.96%
Target Compounds			
1) H Petroleum Range	3.67	49530704	2412.724 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

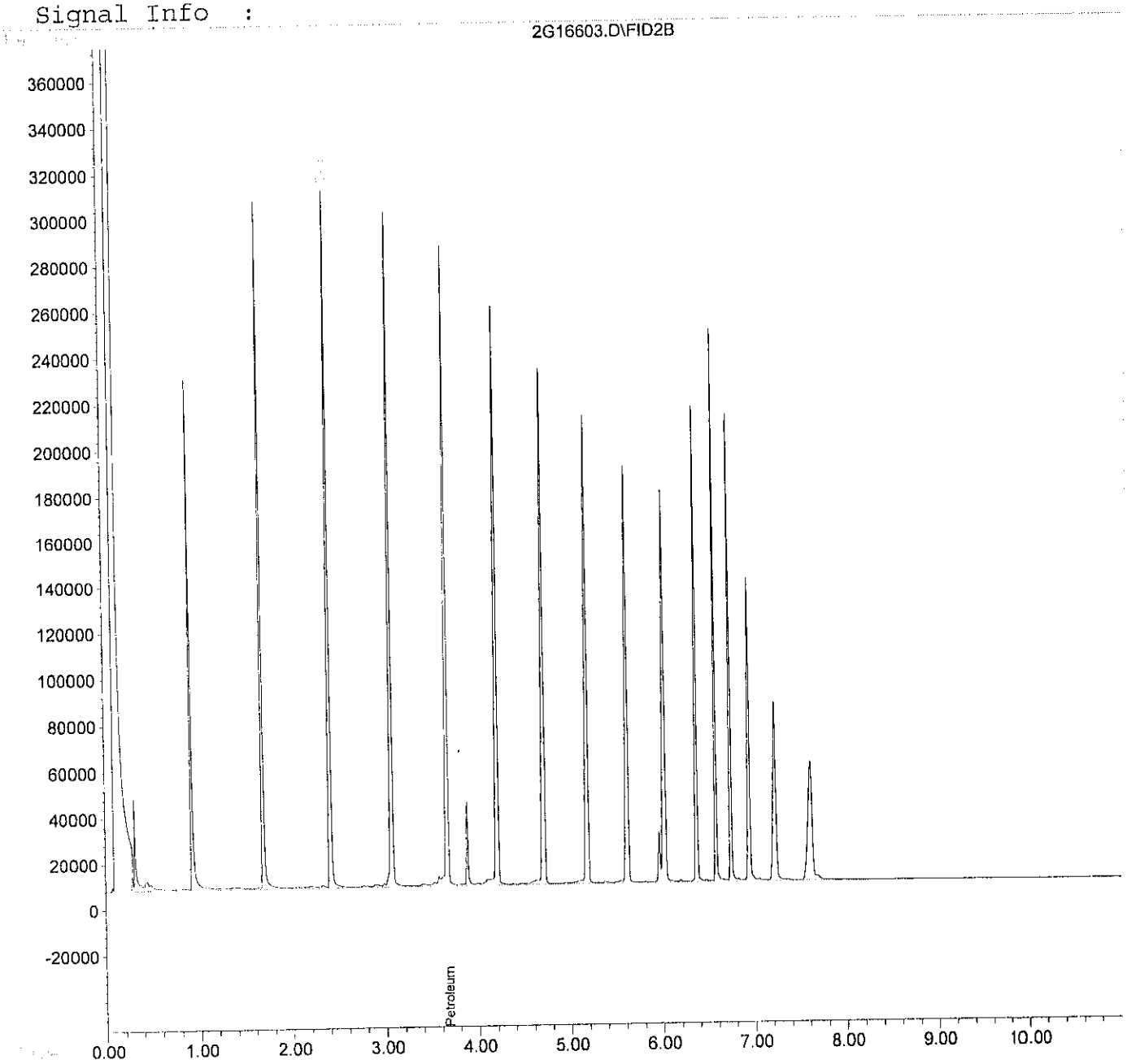
Data File : C:\HPCHEM\1\[illegible]

Acq On : 19 Nov 2001 15:59
Sample : WG108468-03 PRO water LCS
Misc : 1,1 water V175-P181
IntFile : PETRO.E
Quant Time: Nov 20 8:04 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 12:58:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g16580.d	1.	mecl2	1,1 SOS 56-21	19 Nov 101 12::1
2	2	2g16581.d	1.	win def std	1,1 ns 13-45	19 Nov 101 12::4
3	3	2g16582.d	1.	PRO CONT CHK	1,1 SOS 56-21	19 Nov 101 13::0
4	4	2g16583.d	1.	WG108466-06 PRO @600ppm	1,1 SOS 56-21	19 Nov 101 13::2
5	5	2g16584.d	1.	WG108466-05 PRO @400ppm	1,1 SOS 56-21	19 Nov 101 13::3
6	6	2g16585.d	1.	WG108466-04 PRO @200ppm	1,1 SOS 56-21	19 Nov 101 13::5
7	7	2g16586.d	1.	wg108466-03 PRO @100ppm	1,1 SOS 56-21	19 Nov 101 13::0
8	8	2g16587.d	1.	WG108466-02 PRO @50ppm	1,1 SOS 56-21	19 Nov 101 13::2
9	9	2g16588.d	1.	WG108466-01 PRO @5ppm	1,1 SOS 56-21	19 Nov 101 13::3
10	10	2g16589.d	1.	WG108466-07 ALT @200ppm	1,1 SOS 56-26	19 Nov 101 13::2
11	11	2g16590.d	40.	WG108325-02 PRO soil BLK	7,1 v175-p149	19 Nov 101 13::3
12	12	2g16591.d	40.	WG108325-03 PRO soil LCS	7,1 soil v175-p149	19 Nov 101 13::5
13	13	2g16592.d	400.	WG108325-01 Ref. 10x	7,1 soil v175-p149	19 Nov 101 12::0
14	14	2g16593.d	400.	WG108325-03 MS 10x	7,1 soil v175-p149	19 Nov 101 12::2
15	15	2g16594.d	400.	WG108325-04 MSD 10x	7,1 soil v175-p149	19 Nov 101 12::3
16	16	2g16595.d	400.	L0111282-03 10x PRO soil	7,1 soil v175-p149	19 Nov 101 12::5
17	17	2g16596.d	400.	L0111282-04 10x PRO soil	7,1 soil v175-p149	19 Nov 101 12::0
18	18	2g16597.d	1.	mecl2	1,1	19 Nov 101 12::2
19	19	2g16598.d	1.	WG108466-08 PRO CCV	1,1 SOS 56-21	19 Nov 101 12::3
20	20	2g16599.d	1.	WG108434-01 Ref. PRO soil	7,1 soil	19 Nov 101 12::5
21	21	2g16600.d	40.	WG108434-02 PRO soil BLK	7,1 soil V175-P177	19 Nov 101 12::1
22	22	2g16601.d	40.	WG108434-03 PRO soil LCS	7,1 soil V175-P177	19 Nov 101 12::2
23	23	2g16602.d	1.	WG108468-02 PRO water BLK	1,1 water V175-P181	19 Nov 101 12::4
24	24	2g16603.d	1.	WG108468-03 PRO water LCS	1,1 water V175-P181	19 Nov 101 12::5
25	25	2g16604.d	1.04	L0111314-01 PRO water	1,1 water V175-P181	19 Nov 101 12::1
26	26	2g16605.d	1.01	L0111314-03 PRO water	1,1 water V175-P181	19 Nov 101 12::2
27	27	2g16606.d	1.	L0111314-05 PRO water	1,1 water V175-P181	19 Nov 101 12::4
28	28	2g16607.d	1.	mecl2	1,1	19 Nov 101 12::0
29	29	2g16608.d	1.	WG108466-09 PRO CCV	1,1 SOS56-26	19 Nov 101 12::1
30	30	2g16609.d	1.03	L0111316-01 PRO water	1,1 water	19 Nov 101 12::3
31	31	2g16610.d	1.	WG108468-01 Ref. PRO water	1,1 L0111316-02 Ref.	19 Nov 101 12::4
32	32	2g16611.d	1.08	WG108468-04 MS PRO water	1,1 L0111316-03 MS	19 Nov 101 12::0
33	33	2g16612.d	1.04	WG108468-05 MSD PRO water	1,1 L0111316-04 MSD	19 Nov 101 12::1
34	34	2g16613.d	1.04	RE L0111316-05 PRO water RE	1,1 water	19 Nov 101 12::3
35	35	2g16614.d	1.	L0111316-06 PRO water	1,1 water	19 Nov 101 12::4
36	36	2g16615.d	1.02	RE L0111316-07 PRO water RE	1,1 water	19 Nov 101 12::0
37	37	2g16616.d	1.03	L0111316-09 PRO water	1,1 water	19 Nov 101 12::1
38	28	2g16617.d	1.	MECL2	1,1 water	19 Nov 101 12::3
39	29	2g16618.d	1.	WG108466-10 PRO CCV	1,1 SOS56-26	19 Nov 101 12::4
40	38	2g16619.d	1.06	L0111316-10 PRO water	1,1 water	19 Nov 101 12::0
41	39	2g16620.d	1.05	L0111316-11 PRO water	1,1 water	19 Nov 101 12::1
42	40	2g16621.d	1.02	L0111316-12 PRO water	1,1 water	19 Nov 101 12::3
43	41	2g16622.d	1.04	L0111316-13 PRO water	1,1 water	19 Nov 101 12::5
44	42	2g16623.d	1.03	L0111316-14 PRO water	1,1 water	19 Nov 101 12::0
45	43	2g16624.d	1.02	L0111317-02 PRO water	1,1 water	19 Nov 101 12::2
46	28	2g16625.d	1.02	mecl2	1,1 water	19 Nov 101 12::3
47	29	2g16626.d	1.	WG108466-11 PRO CCV	1,1 SOS 56-26	19 Nov 101 12::5
48	44	2g16627.d	1.03	L0111344-01 PRO water	1,1 water	19 Nov 101 13::0
49	45	2g16628.d	1.03	L0111344-02 PRO water	1,1 water	19 Nov 101 13::2
50	46	2g16629.d	1.02	L0111344-03 PRO water	1,1 water	19 Nov 101 13::3
51	47	2g16630.d	1.06	RR L0111344-04 PRO water	1,1 water	19 Nov 101 13::5
52	48	2g16631.d	1.08	L0111344-05 PRO water	1,1 water	19 Nov 101 13::0
53	49	2g16632.d	1.05	RR L0111253-07 RR PRO water	1,1 water	19 Nov 101 13::2
54	50	2g16633.d	1.06	L0111253-08 RR PRO water	1,1 water	19 Nov 101 13::3
55	28	2g16634.d	1.08	mecl2	1,1 water	19 Nov 101 13::5

11/20/01

.ine	Vial	FileName	Multiplier		SampleName	Misc Info	Injected
7	29	2g16635.d	1.	CC	WG108466-12 PRO CCV	1,1 SOS 56-26	20 Nov 101 13::1
7	51	2g16636.d	400.	RR	L0111312-01 10X	7,1 soil	20 Nov 101 13::2
8	52	2g16637.d	400.		L0111312-01 MS 10X	7,1 soil	20 Nov 101 13::4
9	53	2g16638.d	400.		L0111312-01 MSD 10X	7,1 soil	20 Nov 101 13::5
0	54	2g16639.d	400.		L0111312-02 10X	7,1 soil	20 Nov 101 12::1
1	55	2g16640.d	400.		L0111317-01 10X	7,1 soil	20 Nov 101 12::2
2	28	2g16641.d	400.		MECL2	7,1 soil	20 Nov 101 12::4
3	29	2g16642.d	1.	CC	WG108466-13 PRO CCV	1,1 SOS 56-26	20 Nov 101 12::5

HV 11/20/01

11/20/01

Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time NOV. 19 01 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 111901
Analyst Initials HV

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # ___ PRO ✓
SOP # GCS02 Rev. # ___ 8015B Modl (Alcohol) ____

SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS01 Rev. # ___ 8100 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
- ☐ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ☑ Change liner
- ☑ Change septum
- ☐ Clip column (___cm)
- ☐ Injection port seal (goldseal)
- ☑ Change gases ✓ Air & H2

Returned To Control?
Yes ___ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

2g 1bb 13 & -14 - need RE due to low sur. rec.
Samples with RR - need to re-run due to high ending ccv.
and also samples had hits.

Reviewed By: HK 11/20/01

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g16643.d	1.	MECL2	1,1 SOS 56-26	20 Nov 101 12::0
2	2	2g16644.d	1.	WIN DEF STD	1,1 NS 13-45	20 Nov 101 12::2
3	3	2g16645.d	1.	WG108569-01 PRO CCV	1,1 SOS 56-26	20 Nov 101 12::3
4	4	2g16646.d	1.06	L0100344-04 RR PRO water	1,1 water	20 Nov 101 12::5
5	5	2g16647.d	800.	L0111317-02 20x PRO soil	7,1 soil	20 Nov 101 13::0
6	6	2g16648.d	1.05	L0111253-07 RR PRO water	1,1 water	20 Nov 101 13::2
7	7	2g16649.d	1.06	L0111253-08 RR PRO water	1,1 water	20 Nov 101 13::4
8	8	2g16650.d	1.06	mecl2	1,1 water	20 Nov 101 13::5
9	8	2g16651.d	1.06	mecl2	1,1 water	20 Nov 101 13::1
10	9	2g16652.d	1.	WG108569-02 PRO CCV	1,1 SOS 56-26	20 Nov 101 13::2
11	10	2g16653.d	400.	WG108434-01 10x Ref. PRO soil	7,1 L0111312-01 Ref.	20 Nov 101 13::4
12	11	2g16654.d	400.	WG108434-03 10x MS PRO soil	7,1 L0111312-01 MS	20 Nov 101 13::5
13	12	2g16655.d	400.	WG108434-04 10x MSD PRO soil	7,1 L0111312-01 MSD	20 Nov 101 13::1
14	13	2g16656.d	400.	L0111312-02 10x PRO soil	7,1 soil	20 Nov 101 13::3
15	14	2g16657.d	1.	mecl2	7,1 soil	20 Nov 101 13::4
16	14	2g16658.d	1.	mecl2	1,1	20 Nov 101 12::0
17	15	2g16659.d	800.	L0111312-02 20X PRO soil	7,1 soil	20 Nov 101 12::1
18	16	2g16660.d	1.	mecl2	1,1 SOS56-26	20 Nov 101 12::3
19	17	2g16661.d	1.	WG108569-03 PRO CCV	1,1 SOS56-26	20 Nov 101 12::4
20	18	2g16662.d	40.	WG108531-01 PRO soil BLK	7,1 soil v175-p195	20 Nov 101 12::0
21	19	2g16663.d	40.	WG108531-02 PRO soil LCS	7,1 soil v175-p195	20 Nov 101 12::1
22	20	2g16664.d	40.	WG108531-03 PRO soil LCS2	7,1 soil v175-p195	20 Nov 101 12::3
23	21	2g16665.d	800.	L0111351-01 20x PRO soil	7,1 soil v175-p195	20 Nov 101 12::4
24	22	2g16666.d	1.	mecl2	7,1 soil v175-p195	20 Nov 101 12::0
25	23	2g16667.d	1.	mecl2	1,1	20 Nov 101 12::4
26	23	2g16668.d	1.	wg108569-04 PRO ccv	1,1 sos56-26	20 Nov 101 12::0
27	1	2g16669.d	1.	WIN DEF STD	1,1	20 Nov 101 12::2
28	2	2g16670.d	1.	DRO CONT CHK	1,1 NS 14-29	20 Nov 101 12::4
29	3	2g16671.d	1.	MECL2	1,1 NS 14-29	20 Nov 101 12::0
30	3	2g16672.d	1.	MECL2	1,1 NS 14-29	20 Nov 101 12::1
31	4	2g16673.d	1.	WIN DEF STD	1,1 NS 14-29	20 Nov 101 12::2
32	5	2g16674.d	1.	DRO CONT CHK	1,1 NS 14-29	20 Nov 101 12::4
33	6	2g16675.d	2000.	L0111231-01 50X DRO soil	7,1 soil	20 Nov 101 12::5
34	7	2g16676.d	400.	L0111231-02 10X DRO soil	7,1 soil	20 Nov 101 12::0
35	8	2g16677.d	400.	L0111232-03 10X DRO soil	7,1 soil	20 Nov 101 12::1
36	3	2g16678.d	1.	mecl2	7,1 soil	20 Nov 101 12::2
37	3	2g16679.d	1.	mecl2	7,1 soil	20 Nov 101 12::3
38	3	2g16680.d	1.	mecl2	7,1 soil	20 Nov 101 12::4
39	5	2g16681.d	1.	DRO CONT CHK	1,1 NS14-29	20 Nov 101 12::5

HV 11/21/01

Analysis Date/Time NOV. 20 Instrument ID HP2 Column ID RTX-5 Data Subdirectory H2101
Analyst Initials HV

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # ___ PRO ✓
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____

SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS01 Rev. # ___ 8100 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ✓
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
- ☐ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ☑ Change liner
- ☑ Change septum
- ☐ Clip column (___cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases _____

Returned To Control?
Yes ___ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

2g 16670 - failed high on surrogates.
2g 16674 - failed high

Reviewed By: [illegible] 11/21/01

Parameter: FLA-PRO-H2O SOP #: EXPRO Revision #: 2
Extraction Analyst(s): CSH/LMT/DP TV/KD Analyst(s): CSH
Date/Time Extracted: 11/19/01 @ 1100 Date TV/KD: 11/19/01
Spike/Surrogate Analyst: CSH Witness: LMT
Surrogate #: ESS0038-48 Earliest Hold Date: 11/22
Spike #: A = ESS0039-21 Spike #: B = —

Extraction Work Group WG 108468
Analytical Work Group WG 108512

Extract Relinquished By: CSH
Extract Received By & Date: [illegible] 11/19/01

	Sample ID	Test Code	pH <2	pH N	pH >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions A	Emulsions BN	Emulsions N	Comments
1	Blank		✓			1L	1ml		1ml	T				WG108468-02
2	LCS		✓			1		1ml		1				WG108468-03
3	11-314-01	FLA-PRO	✓			960ml				1				
4	1 -03	1	✓			990ml				C				
5	1 -05		✓			1L				1				
6	11-316-01		✓			970ml				T				
7	-02		✓			1L								WG108468-01*
8	-03MS		✓			920ml		1ml						WG108468-04*
9	-04MSD		✓			940ml		1						WG108468-05*
10	-05		✓			1								
11	-06		✓			1L								
12	-07		✓			980ml								
13	-09		✓			970ml				1				
14	-10		✓			940ml				C				
15	-11		✓			950ml				T				
16	-12		✓			980ml								
17	-13		✓			960ml								
18	-14		✓			970ml								
19	11-317-02		✓			980ml								
20	11-344-01		✓			970ml								
21	-02		✓			970ml								
22	-03		✓			980ml								
23	-04		✓			940ml								
24	-05		✓			920ml								

CSH 11/19/01

Methylene Chloride Lot #: 41109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: 1:1 HCl Lot #: ER1915
Florisil Lot #: —
Silica Gel Lot #: V32555
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER1979

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C	✓	Other	
Acid 3664A		N/A	
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 11/19/01

Extraction Notes For Volume # 175 Page # 181

General Comments: * MS and MSD of 11-316-02

Extraction Anomalies: NONE.

Concentration Anomalies: NONE

Clean-Up Anomalies: NONE

Supervisor Review: _____ Date: _____

Example FLA-PRO Calculations

1.0 Calulating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = As/ Cs

Where:		Example:
	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ng/ml).	100
	RF	**100**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:

C = [(Ax)(Vf)(D)] / [(RF)(Vi)]

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	**100**
	Vi = Initial volume of sample (mL). (prep log)	1000
	C (ug/L) =	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report: C = [(Ax)(Vf)(D)] / [(RF)(Vi)]

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL).	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	100
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**3.333333**

2.2.7 PAH HPLC DATA (8310)

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0111344

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8310

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds linear equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD results were not associated with this sample delivery group.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: RDC

REVIEWED: _____ DATE: 12/4/01

Rev. 7/14/00

Run Date: 11/20/01, 11/21/01, & 11/26/01

Analyst: RDC

Instrument: HPLC4

(re-ext. of 11-316-12)

Workorders:	Due Date:	Priority:
WG108520 11-316	11/26/2001	PFF
WG108520 11-344	11/26/2001	PFF
WG108845 11-316	11/26/2001	PFF

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadriatic regression	NA
	Alt Source Check	NA
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
	Surrogates	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	√
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Surrogates	√
	Correct Factors	√
	Dilutions	√
	Check Sample Histories	NA
	Corrective Action	√
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:

L0111316-12 sent for re-extract due to surr. recovery < LCL. Sample was re-extracted within holding time and surrogate met all criteria. However, re-ext. batch LCS was high for 7 analytes, none of which were detected in the sample. Both results have been reported.

L0111316-10 and 13 were re-analyzed at a dil'n. L0111316-10 requires confirmation analysis for acenaphthylene. NC

Primary Reviewer: RDC 11/27/01

Secondary Reviewer: 11/28/01

Supervisor Review: 11/28/01

√ = Checked & OK

NA = Not Applicable

Semi-Volatile 8310 Checklist

Workorders: Due Date: Priority:

Run Date: 8-Aug-01

Analyst: RDC

Instrument: HPLC4

		Analyst
Initial Calibration:	Average RF	
	Linear or quadriatic regression	√
	Alt Source Check	√
Continuing Calibration:	Continuing Calibration	
	Client Specific Requirements	
	Special Standards	
Blanks:	Quant Report/Chromatogram	
	Surrogates	
Laboratory Control Sample:	Quant Report/Chromatogram	
	Surrogates	
	Spike Compounds	
	MS/MSD	
	Excel Spreadsheet	
Samples:	TCL Hits	
	Surrogates	
	Correct Factors	
	Dilutions	
	Check Sample Histories	
	Corrective Action	
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:
Re-calibration curve only.....

Primary Reviewer: RDC 8/10/01

Secondary Reviewer: 8/10/01

Supervisor Review: 8/10/01

√ = Checked & OK
NA = Not Applicable

PAH HPLC DATA (8310)

Login Number: L0111344

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

_____ Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data)

✓ Chromatograms and external standard reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and external standard reports (chronological)

_____ Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

NA Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

✓ Extraction bench sheets

Checked By: RJC Date: 12/4/01

2.2.7.1 QC Summary

Login Number: L0111344
Blank File ID: 4L002351.R
Date Analyzed: 11/20/01
Time Analyzed: 16:32
Analyst: RDC

Work Group: WG108520
Blank Sample ID: WG108469-02
Instrument ID: HPLC4
Method: 8310

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG108469-03	4L002352.R	11/20/01 17:29	C202
002-CEF46-24D-Q4-01-10	L0111344-01	4L002375.R	11/22/01 00:12	C202
002-CEF46-21I-Q4-01-10	L0111344-02	4L002376.R	11/22/01 01:08	C202
002-CEF46-25I-Q4-01-10	L0111344-03	4L002377.R	11/22/01 02:05	C202
002-CEF46-26I-Q4-01-10	L0111344-04	4L002378.R	11/22/01 03:02	C202
002-46EQB-Q4-01-10	L0111344-05	4L002379.R	11/22/01 03:58	C202

KEMRON FORMS - Modified 10/11/2001
Version 1.0

BLANK REPORT

Login Number: L0111344
Instrument ID: HPLC4
File ID: 4L002351.R
Workgroup (AAB#): WG108520
Contract #:

Run Date: 11/20/2001
Run Time: 16:32
Analyst: RDC

Sample ID: WG108469-02
Method: 8310
Matrix: Water
Units: ug/L
Cal ID: HPLC4-

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Acenaphthene	.415	1	0.415	1.00	ND
Acenaphthylene	.351	1	0.351	1.00	ND
Anthracene	.285	1	0.285	1.00	ND
Benzo(a)anthracene	.03	.2	0.0300	1.00	ND
Benzo[a]pyrene	.053	.2	0.0530	1.00	ND
Benzo(b)Fluoranthene	.034	.2	0.0340	1.00	ND
Benzo[ghi]perylene	.05	.2	0.0500	1.00	ND
Benzo[k]fluoranthene	.072	.2	0.0720	1.00	ND
Chrysene	.024	.2	0.0240	1.00	ND
Dibenz(a,h)Anthracene	.077	.2	0.0770	1.00	ND
Fluoranthene	.05	.2	0.0500	1.00	ND
Fluorene	.559	1	0.559	1.00	ND
Indeno(1,2,3-cd)pyrene	.08	.2	0.0800	1.00	ND
Naphthalene	.359	1	0.359	1.00	ND
2-Methylnaphthalene	.336	1	0.336	1.00	ND
1-Methylnaphthalene	.362	1	0.362	1.00	ND
Phenanthrene	.287	1	0.287	1.00	ND
Pyrene	.068	.2	0.0680	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	98.4	40 - 132	PASS

F Analyte concentration between MDL and RDL
* Analyte detected above RDL
ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 10/16/2001
Version 1.0

LABORATORY CONTROL SAMPLE

Login Number: L0111344
Instrument ID: HPLC4
File ID: 4L002352.R
Workgroup (AAB#): WG108520
Contract #:

Run Date: 11/20/2001
Run Time: 17:29
Analyst: RDC

Sample ID: WG108469-03
Method: 8310
Matrix: Water
Units: ug/L
Cal ID: HPLC4-

Analytes	Expected	Found	% Rec	LCS Limits	Q
Acenaphthene	50	22.4	44.8	25 - 78	
Acenaphthylene	50	21.8	43.6	25 - 77	
Anthracene	50	36.6	73.2	47 - 101	
Benzo(a)anthracene	5	4.09	81.8	50 - 115	
Benzo[a]pyrene	5	3.62	72.4	29 - 113	
Benzo(b)Fluoranthene	5	3.67	73.4	41 - 110	
Benzo[ghi]perylene	5	2.36	47.2	11 - 84	
Benzo[k]fluoranthene	2.5	1.58	63.2	25 - 107	
Chrysene	5	3.70	74.0	39 - 120	
Dibenz(a,h)Anthracene	5	2.11	42.2	10 - 92	
Fluoranthene	5	3.98	79.6	55 - 104	
Fluorene	50	25.5	51.0	29 - 84	
Indeno(1,2,3-cd)pyrene	5	2.64	52.8	16 - 98	
Naphthalene	50	20.7	41.4	25 - 68	
2-Methylnaphthalene	50	21.2	42.4	26 - 72	
1-Methylnaphthalene	50	20.7	41.4	26 - 71	
Phenanthrene	50	31.9	63.8	39 - 95	
Pyrene	5	3.95	79.0	56 - 104	

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	68.8	40 - 132	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 10/16/2001
Version 1.0

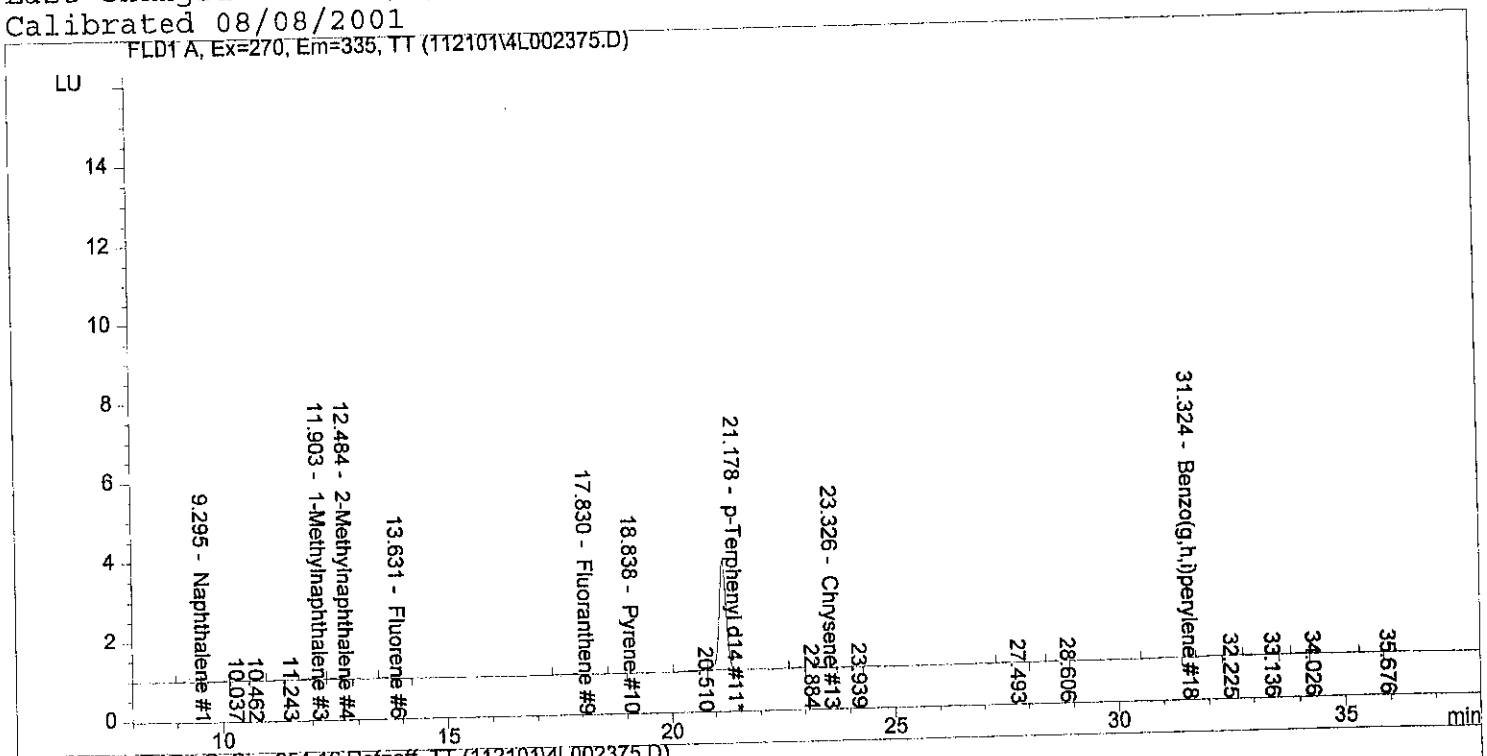
2.2.7.2 Sample Data

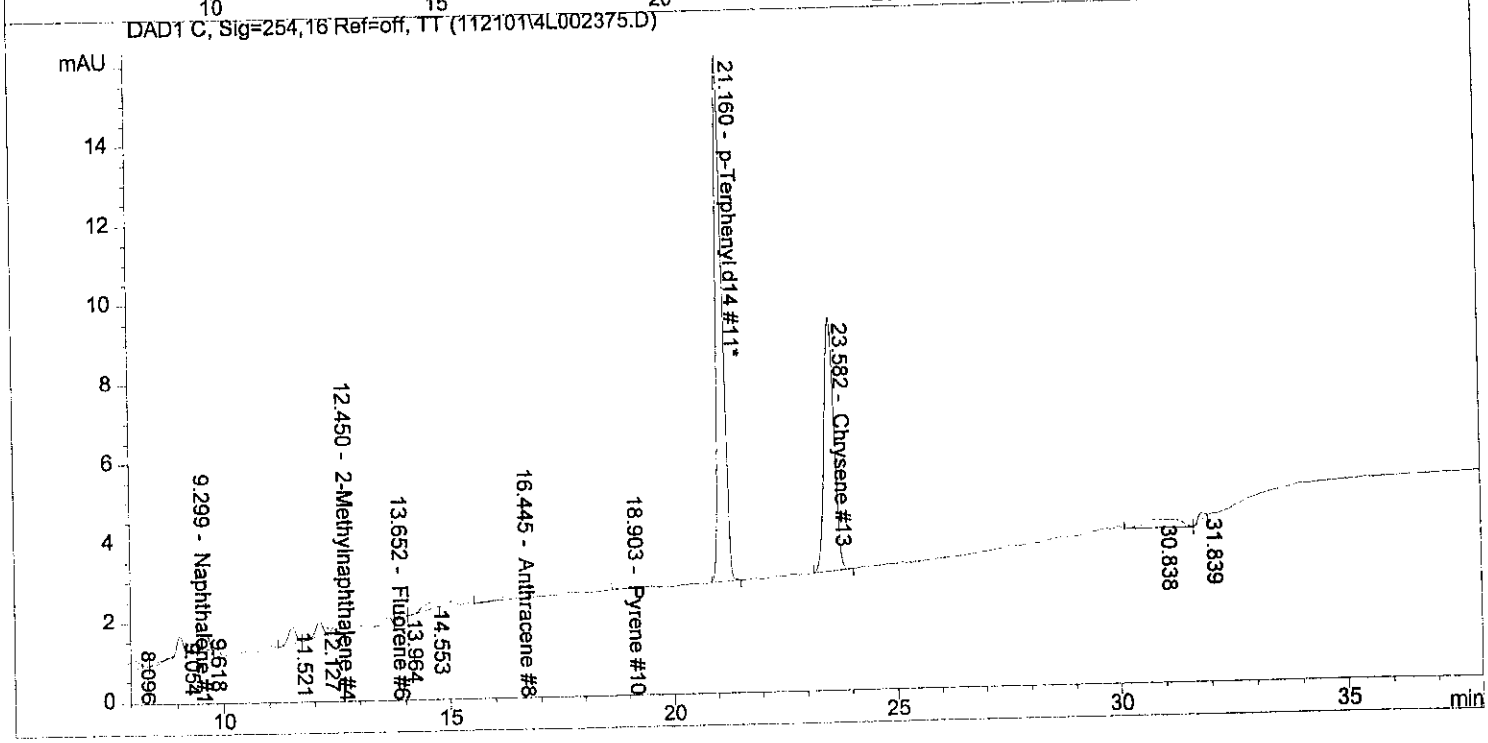
==========

Injection Date : 11/22/2001 12:12:20 AM
Sample Name : L0111344-01 831W
Acq. Operator : RDC

Seq. Line : 8
Vial : 8
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/21/2001 5:14:46 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/1/2001 3:33:11 PM by RDC
Calibrated 08/08/2001





External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Wednesday, October 31, 2001 9:15:43 AM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.295	BB	1.27322	2.52962e-2	3.22077e-2		Naphthalene #1
11.903	BB	4.85446e-1	2.21330e-2	1.07443e-2		1-Methylnaphthalene #3
12.484	BB	5.03697e-1	1.70635e-2	8.59482e-3		2-Methylnaphthalene #4
13.009		-	-	-		Acenaphthene #5
13.631	BB	2.78204e-1	6.62187e-3	1.84223e-3		Fluorene #6
15.072		-	-	-		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.830	BBA	4.37200e-1	2.32678e-2	1.01727e-2		Fluoranthene #9
18.838	BBA	1.48274e-1	3.86587e-2	5.73206e-3		Pyrene #10
21.178	BB	29.68125	2.97423e-1	8.82788		p-Terphenyl d14 #11*
22.587		-	-	-		Benzo(a)anthracene #12
23.326	BB	2.90808e-1	3.90495e-2	1.13559e-2		Chrysene #13
26.210		-	-	-		Benzo(b)fluoranthene #14
27.662		-	-	-		Benzo(k)fluoranthene #15
28.769		-	-	-		Benzo(a)pyrene #16
30.650		-	-	-		Dibenz(a,h)anthracene #17
31.324	BB	3.03939e-1	2.65165e-2	8.05940e-3		Benzo(g,h,i)perylene #18
32.406		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				8.91659		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.299	BB	1.19675	8.25405e-3	9.87804e-3	cmol	Naphthalene #1
10.981		-	-	-		Acenaphthylene #2
11.930		-	-	-		1-Methylnaphthalene #3
12.450	BB	2.23903	1.12393e-2	2.51651e-2		2-Methylnaphthalene #4
12.990		-	-	-		Acenaphthene #5
13.652	BB	2.27639	1.75240e-2	3.98915e-2		Fluorene #6
15.052		-	-	-		Phenanthrene #7
16.445	BB	4.70863	1.04262e-2	4.90931e-2		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.903	BBA	2.00498	1.43052e-2	2.86818e-2		Pyrene #10
21.160	BBA	134.38742	6.56733e-2	8.82566	88.3%	p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.582	BBA	99.36159	1.51453e-2	1.50486	NC	Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.642		-	-	-		Benzo(k)fluoranthene #15
28.749		-	-	-		Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.433		-	-	-		Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				10.48323		

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1

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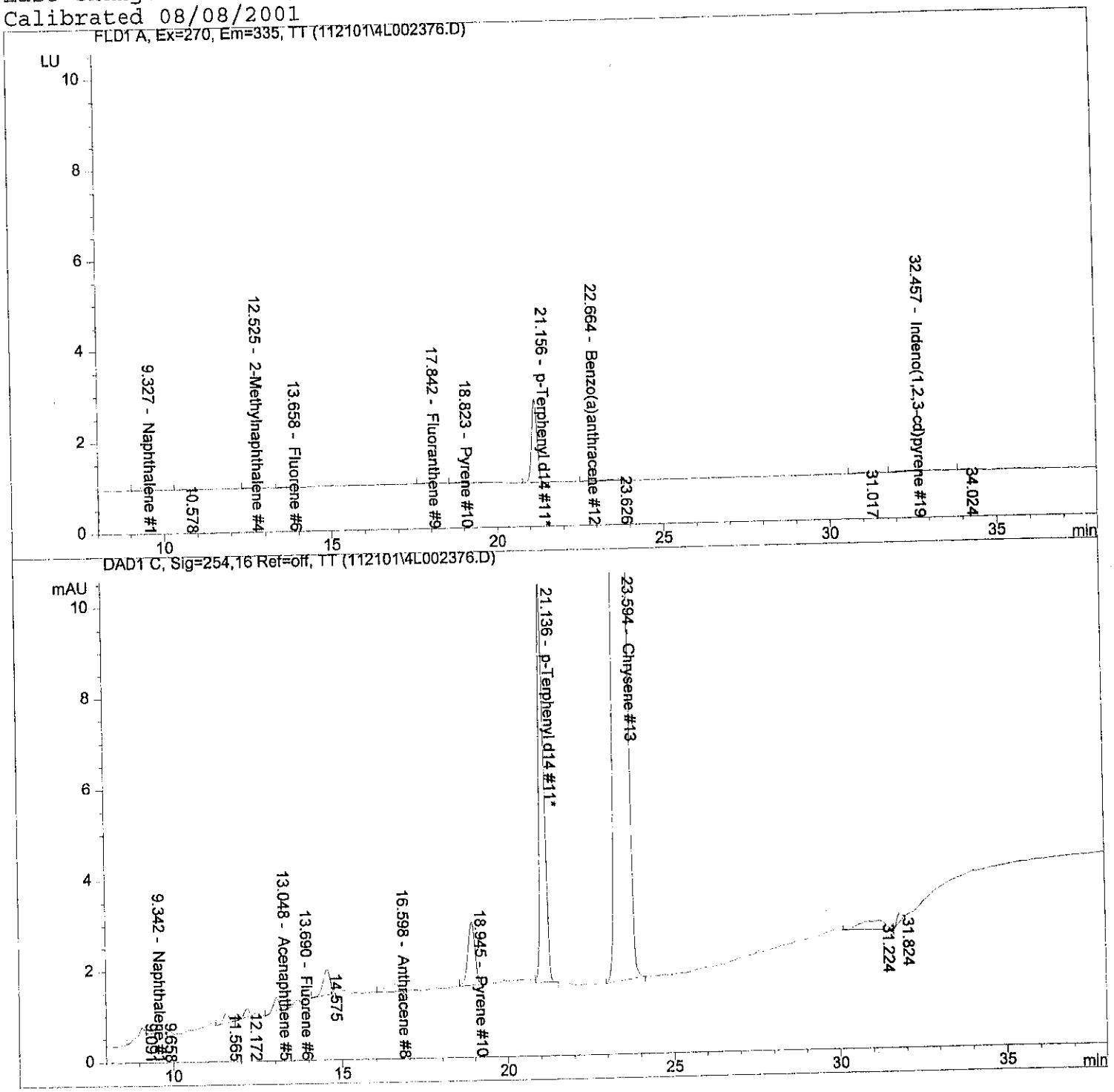
Injection Date : 11/22/2001 1:08:57 AM
Sample Name : L0111344-02 831W
Acq. Operator : RDC

Seq. Line : 9
Vial : 9
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/21/2001 5:14:46 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/1/2001 3:33:11 PM by RDC
Calibrated 08/08/2001



External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Wednesday, October 31, 2001 9:15:43 AM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.327	BB	7.19121e-1	2.52962e-2	1.81910e-2		Naphthalene #1
11.949		-	-	-		1-Methylnaphthalene #3
12.525	BB	2.73515e-1	1.70635e-2	4.66712e-3		2-Methylnaphthalene #4
13.009		-	-	-		Acenaphthene #5
13.658	BB	4.02028e-1	6.62187e-3	2.66217e-3		Fluorene #6
15.072		-	-	-		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.842	BBA	2.51842e-1	2.32678e-2	5.85981e-3		Fluoranthene #9
18.823	PBA	1.53229e-1	3.86587e-2	5.92365e-3		Pyrene #10
21.156	BB	20.10487	2.97423e-1	5.97965		p-Terphenyl d14 #11*
22.664	BB	1.48743e-1	7.91256e-3	1.17694e-3		Benzo(a)anthracene #12
23.473		-	-	-		Chrysene #13
26.210		-	-	-		Benzo(b)fluoranthene #14
27.662		-	-	-		Benzo(k)fluoranthene #15
28.769		-	-	-		Benzo(a)pyrene #16
30.650		-	-	-		Dibenz(a,h)anthracene #17
31.455		-	-	-		Benzo(g,h,i)perylene #18
32.457	BB	5.99465e-1	1.38204e-2	8.28485e-3		Indeno(1,2,3-cd)pyrene #1
Totals :				6.02641		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.342	BB	8.41732e-1	8.25405e-3	6.94770e-3	LMDL	Naphthalene #1
10.981		-	-	-		Acenaphthylene #2
11.930		-	-	-		1-Methylnaphthalene #3
12.510		-	-	-		2-Methylnaphthalene #4
13.048	BB	3.08929	2.03163e-2	6.27631e-2		Acenaphthene #5
13.690	BB	1.47035	1.75240e-2	2.57663e-2		Fluorene #6
15.052		-	-	-		Phenanthrene #7
16.598	PB	4.45826	1.04262e-2	4.64827e-2		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.945	BBA	21.24850	1.43052e-2	3.03965e-1	NC	Pyrene #10
21.136	BBA	90.23857	6.56733e-2	5.92626	59.3%	p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.594	PBA	1646.42273	1.51453e-2	24.93556	NC	Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.642		-	-	-		Benzo(k)fluoranthene #15
28.749		-	-	-		Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.433		-	-	-		Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				31.30775		

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

Data File C:\HPCHEM\2\

1,1

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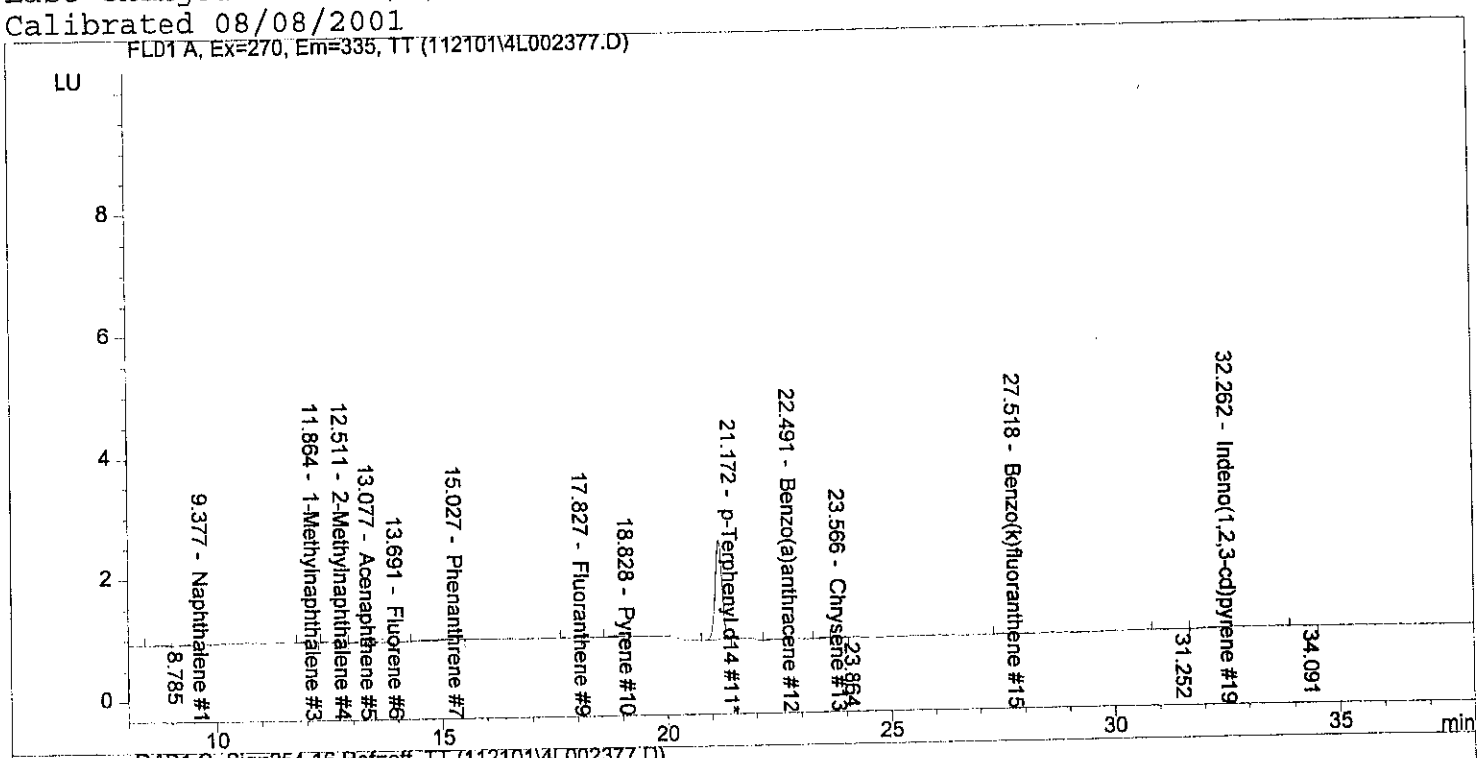
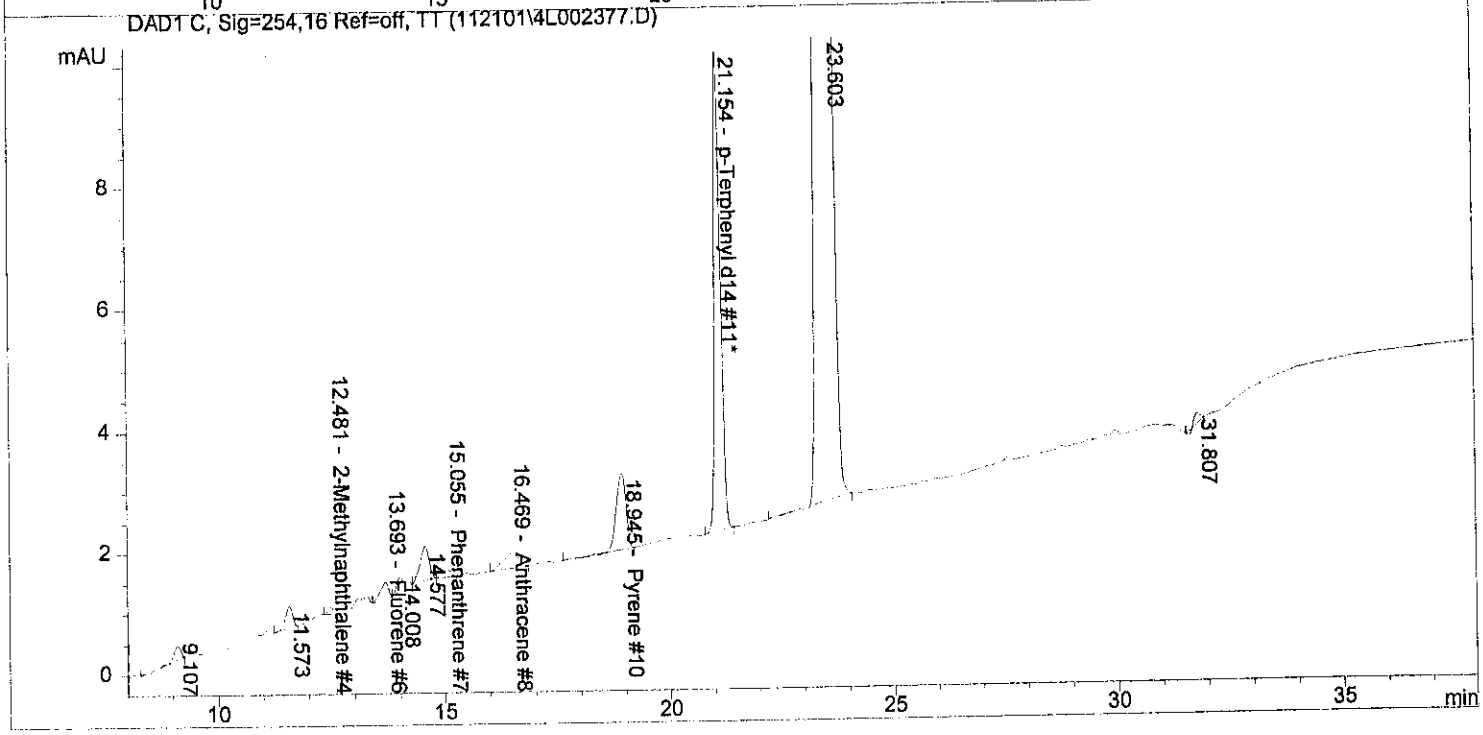
Injection Date : 11/22/2001 2:05:39 AM
Sample Name : L0111344-03 831W
Acq. Operator : RDC

Seq. Line : 10
Vial : 10
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/21/2001 5:14:46 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/1/2001 3:33:11 PM by RDC
Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, October 31, 2001 9:15:43 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.377	BB	3.13836e-1	2.52962e-2	7.93887e-3		Naphthalene #1
11.864	BBA	2.12099e-1	2.21330e-2	4.69437e-3		1-Methylnaphthalene #3
12.511	BB	4.76735e-1	1.70635e-2	8.13476e-3		2-Methylnaphthalene #4
13.077	BB	1.94440e-1	1.38416e-2	2.69135e-3		Acenaphthene #5
13.691	BB	9.92520e-1	6.62187e-3	6.57233e-3		Fluorene #6
15.027	BB	7.51983e-1	1.63652e-1	1.23064e-1		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.827	BBA	4.93503e-1	2.32678e-2	1.14828e-2		Fluoranthene #9
18.828	BBA	3.29943e-1	3.86587e-2	1.27552e-2		Pyrene #10
21.172	BB	18.05523	2.97423e-1	5.37004		p-Terphenyl d14 #11*
22.491	BB	4.33426e-1	7.91256e-3	3.42951e-3		Benzo(a)anthracene #12
23.566	BB	1.51414e-1	3.90495e-2	5.91263e-3		Chrysene #13
26.210		-	-	-		Benzo(b)fluoranthene #14
27.518	PBA	1.83022e-1	2.76572e-3	5.06187e-4		Benzo(k)fluoranthene #15
28.769		-	-	-		Benzo(a)pyrene #16
30.650		-	-	-		Dibenz(a,h)anthracene #17
31.455		-	-	-		Benzo(g,h,i)perylene #18
32.262	BB	3.46385e-1	1.38204e-2	4.78718e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 5.56201

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.347		-	-	-		Naphthalene #1
10.981		-	-	-		Acenaphthylene #2
11.930		-	-	-		1-Methylnaphthalene #3
12.481	BB	1.21043	1.12393e-2	1.36044e-2		2-Methylnaphthalene #4
12.990		-	-	-		Acenaphthene #5
13.693	BB	3.38559	1.75240e-2	5.93291e-2		Fluorene #6
15.055	BB	1.64915	1.72982e-2	2.85274e-2		Phenanthrene #7
16.469	BB	5.47620	1.04262e-2	5.70959e-2		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.945	PB	19.22669	1.43052e-2	2.75042e-1		Pyrene #10
21.154	PBA	80.27235	6.56733e-2	5.27175		p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.453		-	-	-		Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.642		-	-	-		Benzo(k)fluoranthene #15
28.749		-	-	-		Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.433		-	-	-		Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				5.70535		

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

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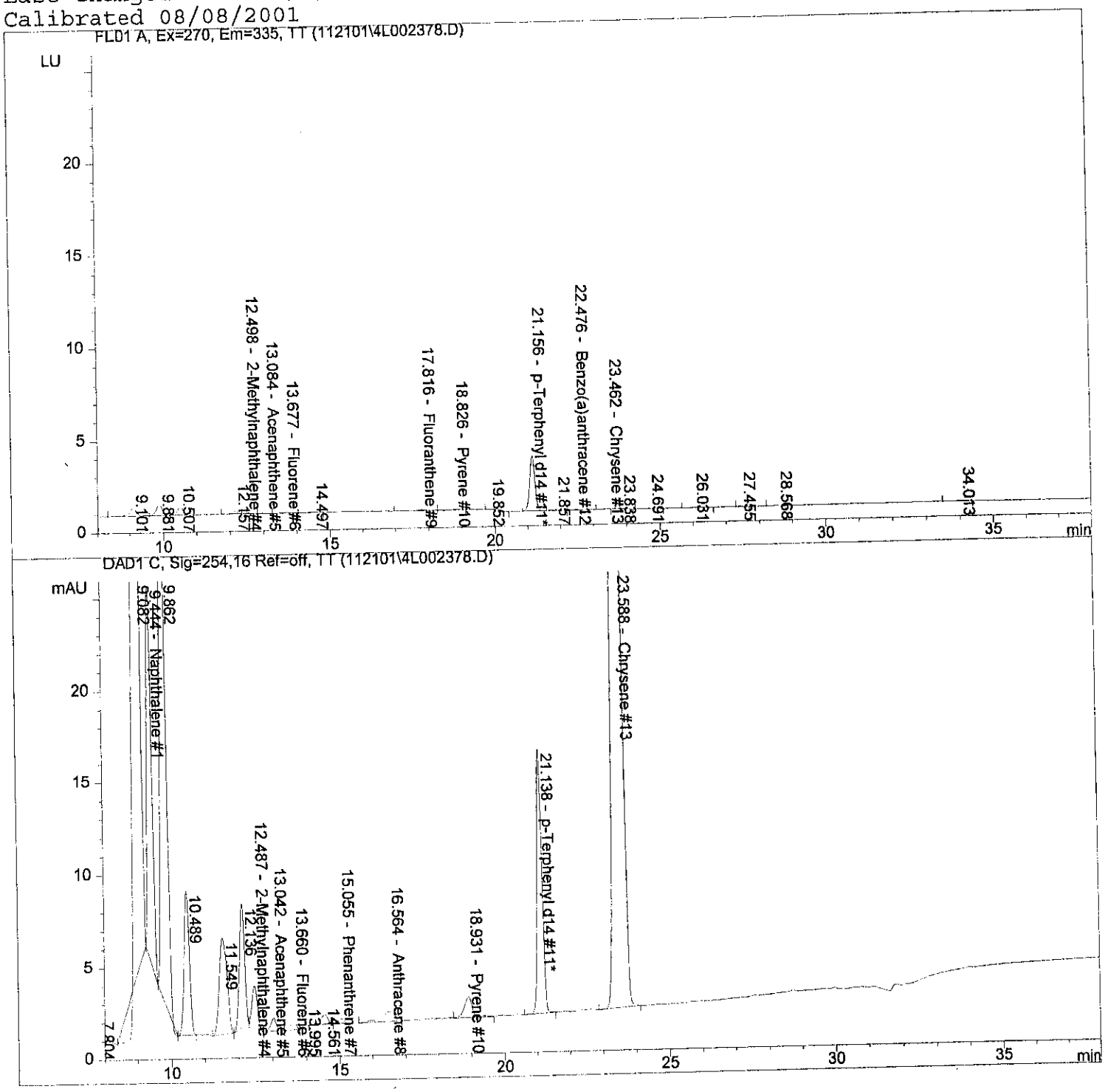
Injection Date : 11/22/2001 3:02:16 AM
Sample Name : L0111344-04 831W
Acq. Operator : RDC

Seq. Line : 11
Vial : 11
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/21/2001 5:14:46 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/1/2001 3:33:11 PM by RDC
Calibrated 08/08/2001



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Wednesday, October 31, 2001 9:15:43 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.367		-	-	-		Naphthalene #1
11.949		-	-	-		1-Methylnaphthalene #3
12.498	BB	5.15935e-1	1.70635e-2	8.80365e-3		2-Methylnaphthalene #4
13.084	BB	2.35817e-1	1.38416e-2	3.26408e-3		Acenaphthene #5
13.677	BB	1.10349	6.62187e-3	7.30713e-3		Fluorene #6
15.072		-	-	-		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.816	PB	9.02365e-1	2.32678e-2	2.09961e-2		Fluoranthene #9
18.826	BB	5.01619e-1	3.86587e-2	1.93919e-2		Pyrene #10
21.156	BBA	32.81808	2.97423e-1	9.76084		p-Terphenyl d14 #11*
22.476	BB	3.96114e-1	7.91256e-3	3.13428e-3		Benzo(a)anthracene #12
23.462	BB	1.53234e-1	3.90495e-2	5.98370e-3		Chrysene #13
26.210		-	-	-		Benzo(b)fluoranthene #14
27.662		-	-	-		Benzo(k)fluoranthene #15
28.769		-	-	-		Benzo(a)pyrene #16
30.650		-	-	-		Dibenz(a,h)anthracene #17
31.455		-	-	-		Benzo(g,h,i)perylene #18
32.406		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				9.82972		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.444	BB	198.85606	8.25405e-3	1.64137	NC	Naphthalene #1
10.981		-	-	-		Acenaphthylene #2
11.930		-	-	-		1-Methylnaphthalene #3
12.487	BB	24.64080	1.12393e-2	2.76945e-1	NC	2-Methylnaphthalene #4
13.042	BB	9.40328	2.03163e-2	1.91040e-1	NC	Acenaphthene #5
13.660	BB	5.17429	1.75240e-2	9.06742e-2	c/mol	Fluorene #6
15.055	BB	3.12914	1.72982e-2	5.41286e-2	↓	Phenanthrene #7
16.564	BB	15.14554	1.04262e-2	1.57910e-1	↓	Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.931	BB	20.14439	1.43052e-2	2.88170e-1	NC	Pyrene #10
21.138	BBA	146.21986	6.56733e-2	9.60273		p-Terphenyl d14 #11*
22.568		-	-	-	96.0%	Benzo(a)anthracene #12
23.588	BBA	1219.16101	1.51453e-2	18.46456		Chrysene #13
26.190		-	-	-	NC	Benzo(b)fluoranthene #14
27.642		-	-	-		Benzo(k)fluoranthene #15
28.749		-	-	-		Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.433		-	-	-		Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				30.76753		

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1

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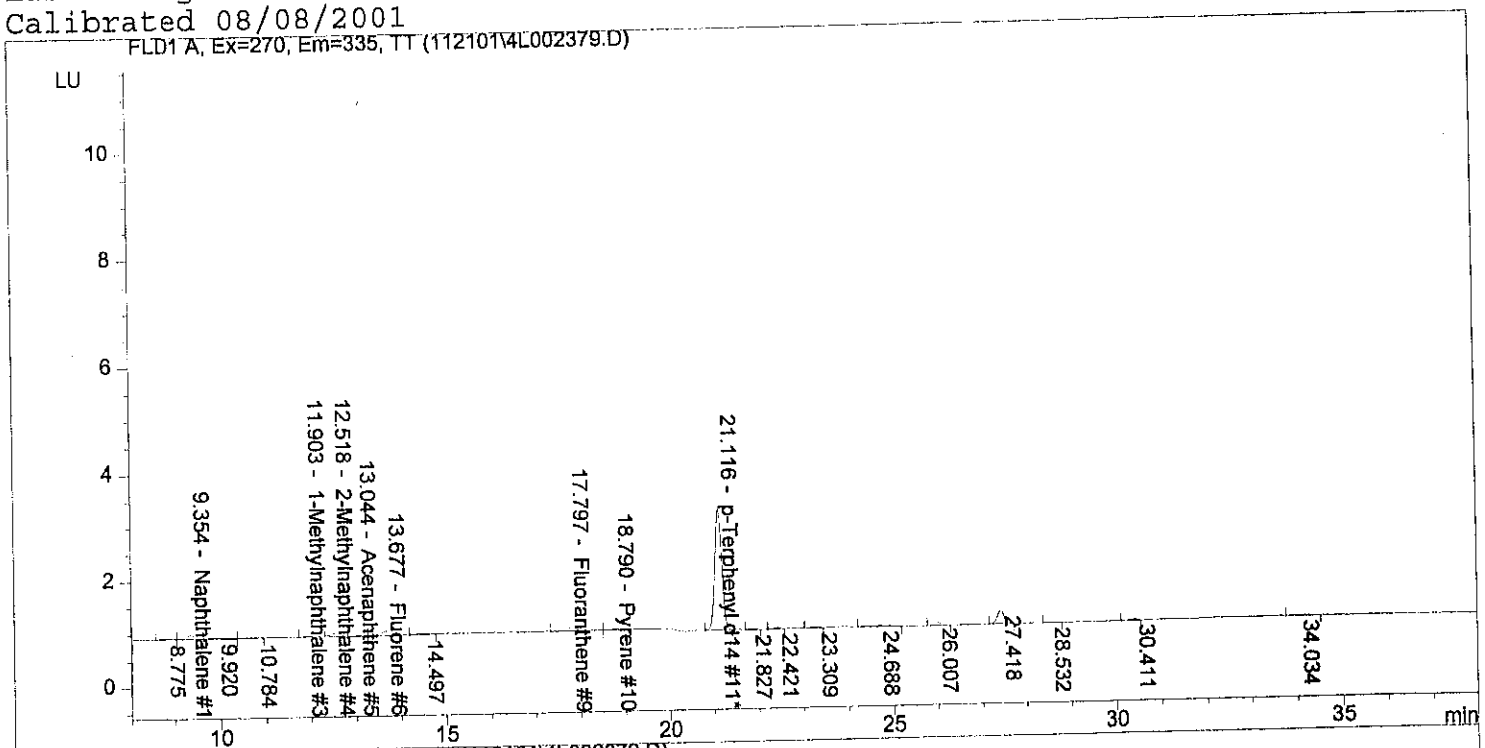
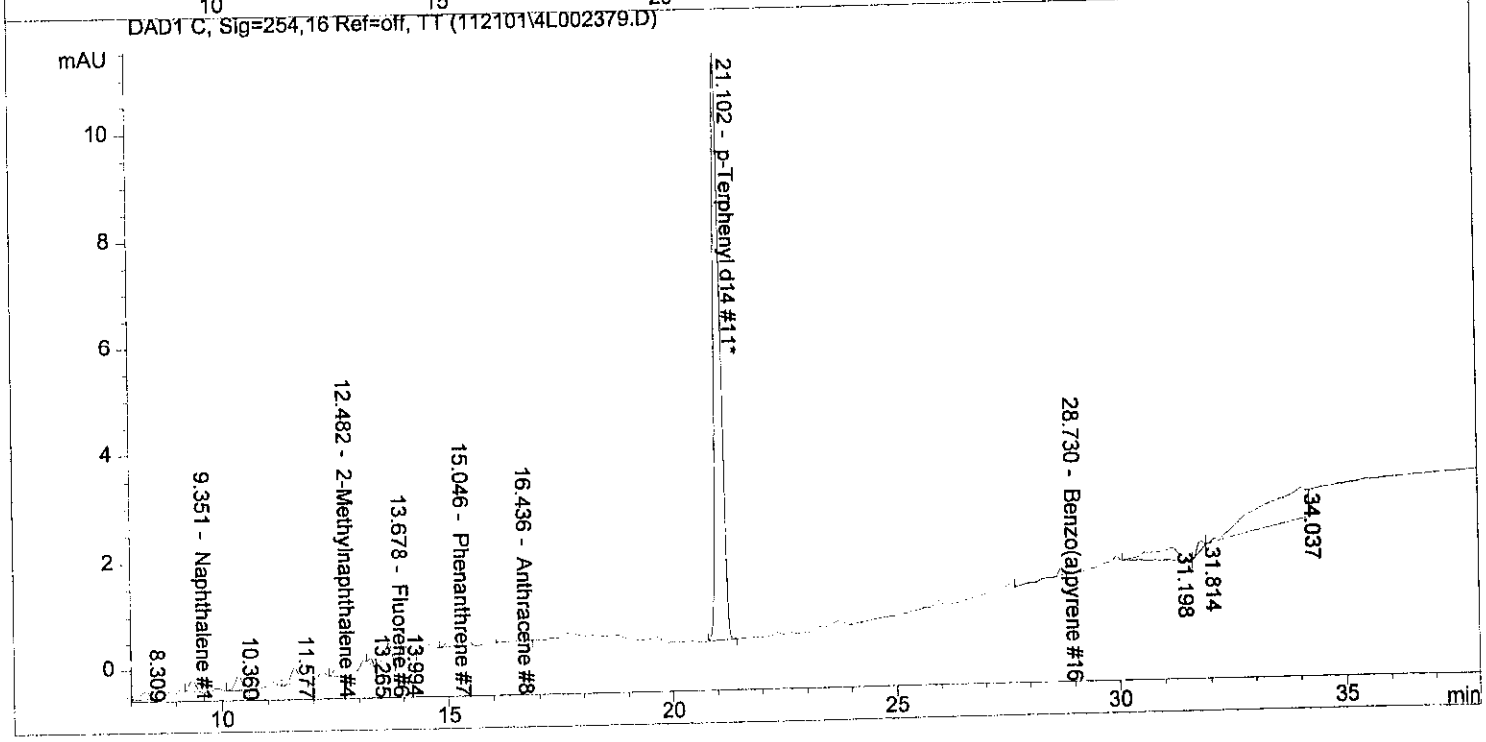
Injection Date : 11/22/2001 3:58:54 AM
Sample Name : L0111344-05 831W
Acq. Operator : RDC

Seq. Line : 12
Vial : 12
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/21/2001 5:14:46 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/1/2001 3:33:11 PM by RDC
Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, October 31, 2001 9:15:43 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.354	BB	1.05442	2.52962e-2	2.66728e-2		Naphthalene #1
11.903	PB	1.82846e-1	2.21330e-2	4.04692e-3		1-Methylnaphthalene #3
12.518	BB	8.34766e-1	1.70635e-2	1.42440e-2		2-Methylnaphthalene #4
13.044	BB	1.97383e-1	1.38416e-2	2.73208e-3		Acenaphthene #5
13.677	BB	1.30968	6.62187e-3	8.67256e-3		Fluorene #6
15.072		-	-	-		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.797	BB	8.56341e-1	2.32678e-2	1.99252e-2		Fluoranthene #9
18.790	BBA	2.24808e-1	3.86587e-2	8.69077e-3		Pyrene #10
21.116	BB	24.71497	2.97423e-1	7.35079		p-Terphenyl d14 #11*
22.587		-	-	-		Benzo(a)anthracene #12
23.473		-	-	-		Chrysene #13
26.210		-	-	-		Benzo(b)fluoranthene #14
27.662		-	-	-		Benzo(k)fluoranthene #15
28.769		-	-	-		Benzo(a)pyrene #16
30.650		-	-	-		Dibenz(a,h)anthracene #17
31.455		-	-	-		Benzo(g,h,i)perylene #18
32.406		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				7.43578		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.351	BB	2.05434	8.25405e-3	1.69566e-2	cmpl	Naphthalene #1
10.981		-	-	-		Acenaphthylene #2
11.930		-	-	-		1-Methylnaphthalene #3
12.482	BB	1.40604	1.12393e-2	1.58029e-2		2-Methylnaphthalene #4
12.990		-	-	-		Acenaphthene #5
13.678	BB	5.63843	1.75240e-2	9.88078e-2		Fluorene #6
15.046	BB	1.91109	1.72982e-2	3.30584e-2		Phenanthrene #7
16.436	BBA	4.26594	1.04262e-2	4.44774e-2		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.899		-	-	-		Pyrene #10
21.102	PBA	111.18384	6.56733e-2	7.30180	73.0%	p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.453		-	-	-		Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.642		-	-	-		Benzo(k)fluoranthene #15
28.730	BB	1.36617	2.61680e-2	3.57499e-2	cmpl	Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.433		-	-	-		Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				7.54666		

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

2.2.7.3 Standards Data

Calibration Table

HPLC4 8310 CALIBRATION

Calib. Data Modified : 8/9/2001 2:38:03 PM

Calculate : External Standard
Based on : Peak Area

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.300 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.300 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Forced
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FLD1 A, Ex=270, Em=335, TT
Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
9.446	2	1	1.00000	122.72835	8.14808e-3			Naphthalene #1
		2	5.00000	597.19745	8.37244e-3			
		3	10.00000	1248.26221	8.01114e-3			
		4	20.00000	2499.14551	8.00274e-3			
		5	50.00000	6202.44971	8.06133e-3			
		6	100.00000	1.20244e4	8.31644e-3			
9.462	1	1	1.00000	37.17168	2.69022e-2			Naphthalene #1
		2	5.00000	181.76619	2.75079e-2			
		3	10.00000	381.56079	2.62081e-2			
		4	20.00000	771.00281	2.59402e-2			
		5	50.00000	1948.04333	2.56668e-2			
		6	100.00000	3973.55249	2.51664e-2			
11.077	2	1	1.00000	32.52021	3.07501e-2			Acenaphthylene #2
		2	5.00000	157.20731	3.18051e-2			
		3	10.00000	328.40460	3.04502e-2			
		4	20.00000	660.92621	3.02606e-2			
		5	50.00000	1657.23242	3.01708e-2			
		6	100.00000	3384.39795	2.95474e-2			
12.023	2	1	1.00000	75.33028	1.32749e-2			1-Methylnaphthalene #3

Method C:\HPCHEM\2\METHODS\8310DATA.M

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		2	5.00000	365.03561	1.36973e-2			
		3	10.00000	763.85205	1.30915e-2			
		4	20.00000	1534.10083	1.30370e-2			
		5	50.00000	3838.97803	1.30243e-2			
		6	100.00000	7740.20703	1.29196e-2			
12.040	1	1	1.00000	42.88826	2.33164e-2			1-Methylnaphthalene #3
		2	5.00000	209.24336	2.38956e-2			
		3	10.00000	438.85303	2.27867e-2			
		4	20.00000	887.93890	2.25241e-2			
		5	50.00000	2235.18970	2.23695e-2			
		6	100.00000	4535.38281	2.20489e-2			
12.601	2	1	1.00000	88.22273	1.13349e-2			2-Methylnaphthalene #4
		2	5.00000	428.27109	1.16748e-2			
		3	10.00000	894.31500	1.11817e-2			
		4	20.00000	1794.47327	1.11453e-2			
		5	50.00000	4469.53662	1.11868e-2			
		6	100.00000	8884.32324	1.12558e-2			
12.617	1	1	1.00000	56.35436	1.77449e-2			2-Methylnaphthalene #4
		2	5.00000	274.39529	1.82219e-2			
		3	10.00000	575.43298	1.73782e-2			
		4	20.00000	1160.72327	1.72306e-2			
		5	50.00000	2909.70630	1.71839e-2			
		6	100.00000	5875.01660	1.70212e-2			
13.080	2	1	1.00000	47.72895	2.09516e-2			Acenaphthene #5
		2	5.00000	231.24211	2.16224e-2			
		3	10.00000	483.56268	2.06798e-2			
		4	20.00000	971.18744	2.05933e-2			
		5	50.00000	2433.60547	2.05456e-2			
		6	100.00000	4940.15088	2.02423e-2			
13.096	1	1	1.00000	70.47864	1.41887e-2			Acenaphthene #5
		2	5.00000	342.62488	1.45932e-2			
		3	10.00000	718.90424	1.39101e-2			
		4	20.00000	1445.95483	1.38317e-2			
		5	50.00000	3605.74121	1.38668e-2			
		6	100.00000	7228.99854	1.38332e-2			
13.740	2	1	1.00000	54.47855	1.83558e-2			Fluorene #6
		2	5.00000	266.30728	1.87753e-2			
		3	10.00000	557.46277	1.79384e-2			
		4	20.00000	1121.39856	1.78349e-2			
		5	50.00000	2816.46851	1.77527e-2			
		6	100.00000	5731.11230	1.74486e-2			
13.757	1	1	1.00000	154.16187	6.48669e-3			Fluorene #6
		2	5.00000	746.17523	6.70084e-3			
		3	10.00000	1559.63367	6.41176e-3			
		4	20.00000	3112.09448	6.42654e-3			
		5	50.00000	7656.80322	6.53014e-3			
		6	100.00000	1.50256e4	6.65533e-3			
15.136	2	1	1.00000	55.64261	1.79718e-2			Phenanthrene #7
		2	5.00000	270.24643	1.85016e-2			
		3	10.00000	565.66064	1.76784e-2			
		4	20.00000	1137.18030	1.75874e-2			
		5	50.00000	2852.19556	1.75304e-2			
		6	100.00000	5806.07617	1.72233e-2			
15.153	1	1	1.00000	5.49988	1.81822e-1			Phenanthrene #7
		2	5.00000	27.27178	1.83340e-1			
		3	10.00000	58.15233	1.71962e-1			

RetTime [min]	Lvl Sig		Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		4	20.00000	116.85247	1.71156e-1			
		5	50.00000	295.27972	1.69331e-1			
		6	100.00000	617.71191	1.61888e-1			
16.549	2	1	1.00000	95.56687	1.04639e-2			Anthracene #8
		2	5.00000	465.29129	1.07460e-2			
		3	10.00000	973.54010	1.02718e-2			
		4	20.00000	1952.77490	1.02418e-2			
		5	50.00000	4858.51855	1.02912e-2			
		6	100.00000	9552.15625	1.04688e-2			
16.566	1	1	1.00000	3.13834	3.18640e-1			Anthracene #8
		2	5.00000	15.29622	3.26878e-1			
		3	10.00000	32.12813	3.11254e-1			
		4	20.00000	63.99872	3.12506e-1			
		5	50.00000	159.95667	3.12585e-1			
		6	100.00000	323.14050	3.09463e-1			
17.931	2	1	1.00000e-1	4.46854	2.23787e-2			Fluoranthene #9
		2	5.00000e-1	21.37060	2.33966e-2			
		3	1.00000	44.25564	2.25960e-2			
		4	2.00000	89.62297	2.23157e-2			
		5	5.00000	226.24062	2.21004e-2			
		6	10.00000	463.67642	2.15668e-2			
17.948	1	1	1.00000e-1	3.92854	2.54548e-2			Fluoranthene #9
		2	5.00000e-1	19.73562	2.53349e-2			
		3	1.00000	41.21679	2.42620e-2			
		4	2.00000	83.17304	2.40463e-2			
		5	5.00000	210.50659	2.37522e-2			
		6	10.00000	432.79266	2.31058e-2			
18.944	2	1	1.00000e-1	6.23924	1.60276e-2			Pyrene #10
		2	5.00000e-1	31.33940	1.59544e-2			
		3	1.00000	67.74028	1.47623e-2			
		4	2.00000	135.53003	1.47569e-2			
		5	5.00000	342.22821	1.46101e-2			
		6	10.00000	703.95166	1.42055e-2			
18.961	1	1	1.00000e-1	2.27570	4.39426e-2			Pyrene #10
		2	5.00000e-1	11.52839	4.33712e-2			
		3	1.00000	24.49013	4.08328e-2			
		4	2.00000	50.45357	3.96404e-2			
		5	5.00000	130.27173	3.83813e-2			
21.302	2	1	1.00000	14.08348	7.10052e-2			p-Terphenyl d14 #11*
		2	5.00000	70.24126	7.11832e-2			
		3	10.00000	145.31215	6.88174e-2			
		4	20.00000	299.12198	6.68624e-2			
		5	50.00000	752.44629	6.64499e-2			
		6	100.00000	1529.22424	6.53926e-2			
21.319	1	1	1.00000	3.07342	3.25370e-1			p-Terphenyl d14 #11*
		2	5.00000	15.32359	3.26294e-1			
		3	10.00000	31.73221	3.15137e-1			
		4	20.00000	64.98736	3.07752e-1			
		5	50.00000	163.61835	3.05589e-1			
		6	100.00000	339.18564	2.94824e-1			
22.628	2	1	1.00000e-1	4.00703	2.49561e-2			Benzo(a)anthracene #12
		2	5.00000e-1	20.54964	2.43313e-2			
		3	1.00000	43.83417	2.28133e-2			
		4	2.00000	87.18385	2.29400e-2			
		5	5.00000	220.89987	2.26347e-2			
		6	10.00000	451.58978	2.21440e-2			

RetTime [min]	Lvl Sig		Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
22.644	1	1	1.00000e-1	11.54687	8.66035e-3			Benzo(a)anthracene #12
		2	5.00000e-1	56.84493	8.79586e-3			
		3	1.00000	119.82957	8.34519e-3			
		4	2.00000	242.58244	8.24462e-3			
		5	5.00000	616.44403	8.11104e-3			
		6	10.00000	1274.56396	7.84582e-3			
23.513	2	1	1.00000e-1	6.06011	1.65013e-2			Chrysene #13
		2	5.00000e-1	30.26713	1.65196e-2			
		3	1.00000	63.60076	1.57231e-2			
		4	2.00000	128.16238	1.56052e-2			
		5	5.00000	324.43796	1.54113e-2			
		6	10.00000	664.28351	1.50538e-2			
23.528	1	1	1.00000e-1	2.41118	4.14734e-2			Chrysene #13
		2	5.00000e-1	11.43981	4.37070e-2			
		3	1.00000	24.17820	4.13596e-2			
		4	2.00000	48.77195	4.10072e-2			
		5	5.00000	124.43752	4.01808e-2			
		6	10.00000	258.58917	3.86714e-2			
26.253	2	1	1.00000e-1	4.43454	2.25503e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	22.12707	2.25968e-2			
		3	1.00000	46.71288	2.14074e-2			
		4	2.00000	93.81008	2.13197e-2			
		5	5.00000	236.98158	2.10987e-2			
		6	10.00000	485.19955	2.06101e-2			
26.269	1	1	1.00000e-1	5.57386	1.79409e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	27.63313	1.80942e-2			
		3	1.00000	58.33105	1.71435e-2			
		4	2.00000	118.32101	1.69032e-2			
		5	5.00000	299.93723	1.66702e-2			
		6	10.00000	617.15186	1.62035e-2			
27.699	2	1	5.00000e-2	2.30033	2.17360e-2			Benzo(k)fluoranthene #
		2	2.50000e-1	10.19696	2.45171e-2			
		3	5.00000e-1	21.84682	2.28866e-2			
		4	1.00000	43.54576	2.29643e-2			
		5	2.50000	108.82767	2.29721e-2			
		6	5.00000	222.55347	2.24665e-2			
27.716	1	1	5.00000e-2	16.87873	2.96231e-3			Benzo(k)fluoranthene #
		2	2.50000e-1	83.81139	2.98289e-3			
		3	5.00000e-1	176.43927	2.83384e-3			
		4	1.00000	355.36359	2.81402e-3			
		5	2.50000	893.52496	2.79791e-3			
		6	5.00000	1815.06726	2.75472e-3			
28.826	2	1	1.00000e-1	3.45270	2.89628e-2			Benzo(a)pyrene #16
		2	5.00000e-1	16.98781	2.94329e-2			
		3	1.00000	35.68842	2.80203e-2			
		4	2.00000	71.60413	2.79313e-2			
		5	5.00000	186.41614	2.68217e-2			
		6	10.00000	385.80145	2.59201e-2			
28.843	1	1	1.00000e-1	19.26282	5.19135e-3			Benzo(a)pyrene #16
		2	5.00000e-1	96.67756	5.17183e-3			
		3	1.00000	203.54648	4.91288e-3			
		4	2.00000	414.51672	4.82490e-3			
		5	5.00000	1063.36975	4.70203e-3			
		6	10.00000	2209.61670	4.52567e-3			
30.713	2	1	1.00000e-1	1.04021	9.61345e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	6.85372	7.29531e-2			

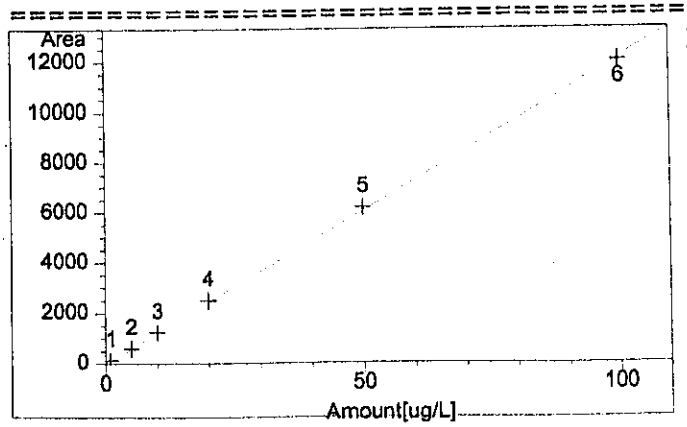
Method C:\HPCHEM\2\METHODS\8310DATA.M

RetTime [min]	Lvl Sig		Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		3	1.00000	10.35146	9.66047e-2			
		4	2.00000	21.07817	9.48849e-2			
		5	5.00000	52.55205	9.51438e-2			
		6	10.00000	106.53020	9.38701e-2			
30.721	1	1	1.00000e-1	2.12374	4.70867e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	10.91603	4.58042e-2			
		3	1.00000	23.53592	4.24882e-2			
		4	2.00000	47.95410	4.17066e-2			
		5	5.00000	122.84724	4.07010e-2			
		6	10.00000	257.09790	3.88957e-2			
31.544	2	1	1.00000e-1	8.44691e-1	1.18386e-1			Benzo(g,h,i)perylene #
		2	5.00000e-1	5.61006	8.91256e-2			
		3	1.00000	13.18469	7.58455e-2			
		4	2.00000	33.12908	6.03699e-2			
		5	5.00000	87.58637	5.70865e-2			
		6	10.00000	180.23679	5.54826e-2			
31.563	1	1	1.00000e-1	3.08265	3.24397e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	15.83937	3.15669e-2			
		3	1.00000	33.85759	2.95355e-2			
		4	2.00000	69.49560	2.87788e-2			
		5	5.00000	181.30618	2.75777e-2			
		6	10.00000	382.48065	2.61451e-2			
32.469	2	1	1.00000e-1	4.35778	2.29475e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	21.11818	2.36763e-2			
		3	1.00000	45.97294	2.17519e-2			
		4	2.00000	91.52023	2.18531e-2			
		5	5.00000	239.26749	2.08971e-2			
		6	10.00000	489.90164	2.04123e-2			
32.473	1	1	1.00000e-1	6.64809	1.50419e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	32.35181	1.54551e-2			
		3	1.00000	69.61817	1.43641e-2			
		4	2.00000	140.75026	1.42096e-2			
		5	5.00000	354.48691	1.41049e-2			
		6	10.00000	728.48004	1.37272e-2			

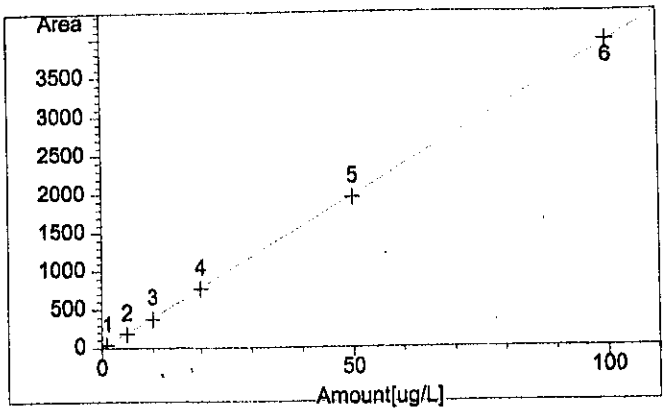
Peak Sum Table

No Entries in table

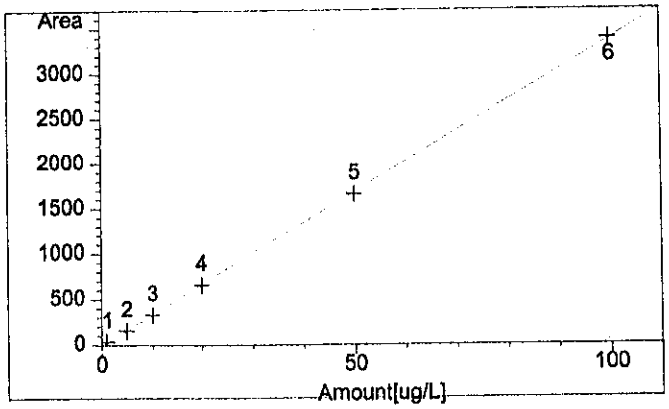
Calibration Curves



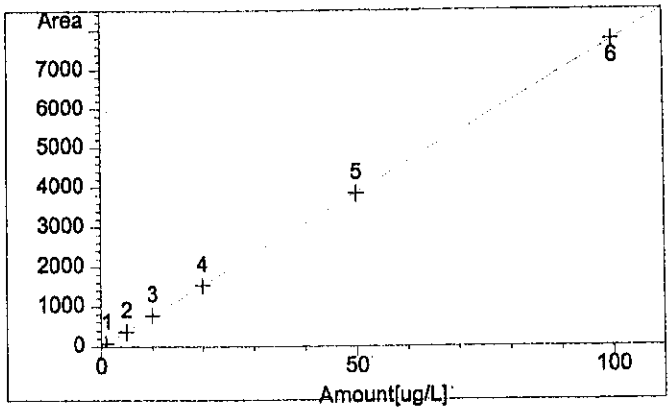
Naphthalene #1 at exp. RT: 9.446
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 85.37927
Formula: y = mx
m: 121.15265
x: Amount[ug/L]
y: Area



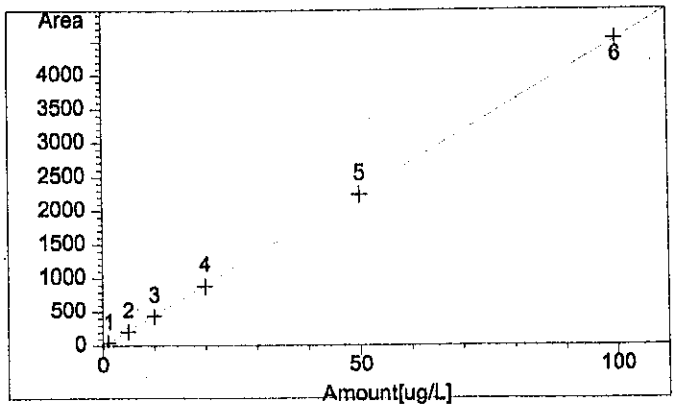
Naphthalene #1 at exp. RT: 9.462
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 20.31169
Formula: y = mx
m: 39.53164
x: Amount [ug/L]
y: Area



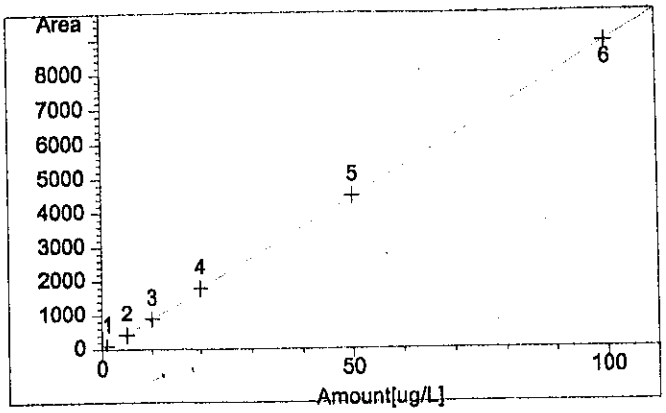
Acenaphthylene #2 at exp. RT: 11.077
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 16.38572
Formula: y = mx
m: 33.67285
x: Amount [ug/L]
y: Area



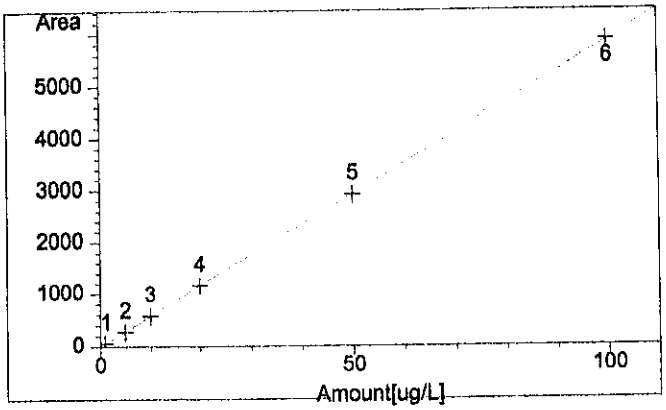
1-Methylnaphthalene #3 at exp. RT: 12.023
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 16.92039
Formula: y = mx
m: 77.24479
x: Amount [ug/L]
y: Area



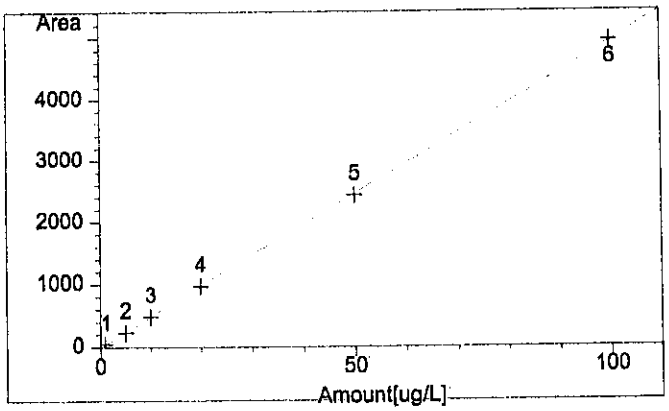
1-Methylnaphthalene #3 at exp. RT: 12.040
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 17.68985
Formula: y = mx
m: 45.18150
x: Amount [ug/L]
y: Area



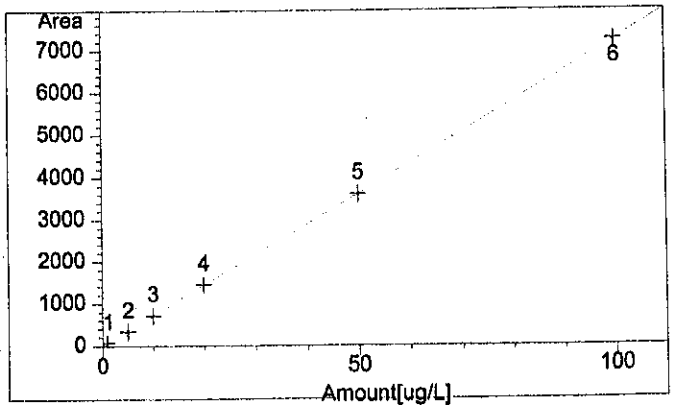
2-Methylnaphthalene #4 at exp. RT: 12.601
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 15.01321
Formula: y = mx
m: 88.97369
x: Amount [ug/L]
y: Area



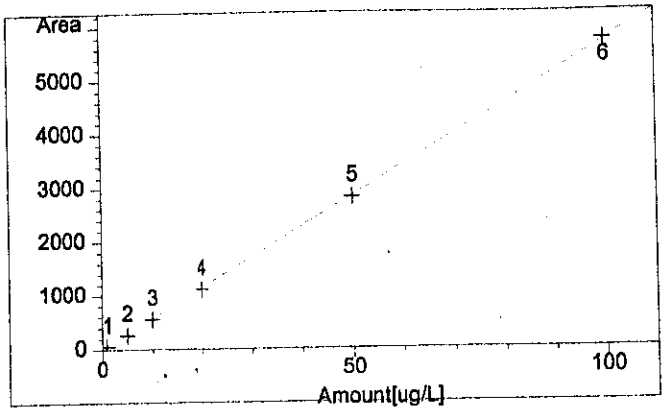
2-Methylnaphthalene #4 at exp. RT: 12.617
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 15.66561
Formula: y = mx
m: 58.60464
x: Amount [ug/L]
y: Area



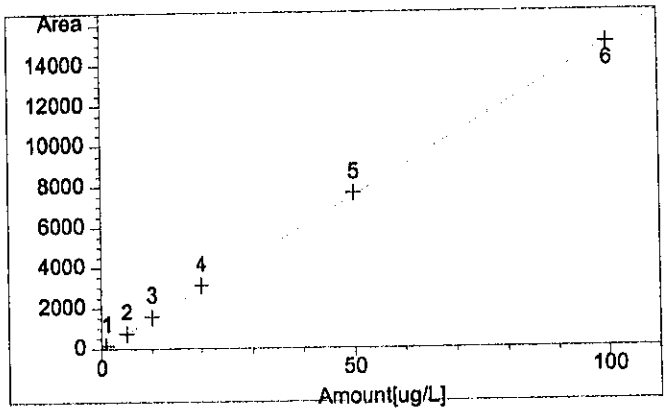
Acenaphthene #5 at exp. RT: 13.080
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 17.61841
Formula: y = mx
m: 49.22146
x: Amount [ug/L]
y: Area



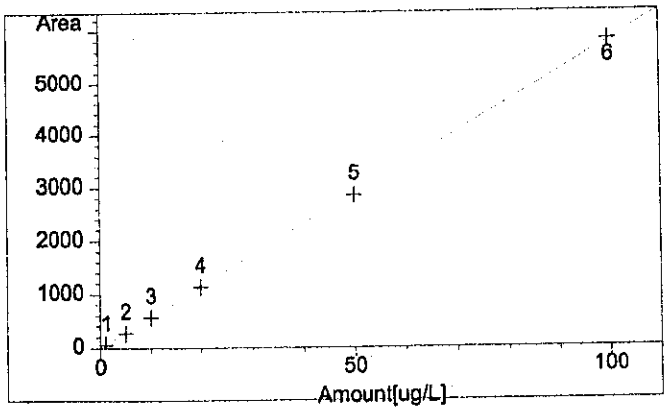
Acenaphthene #5 at exp. RT: 13.096
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 9.22337
Formula: y = mx
m: 72.24617
x: Amount [ug/L]
y: Area



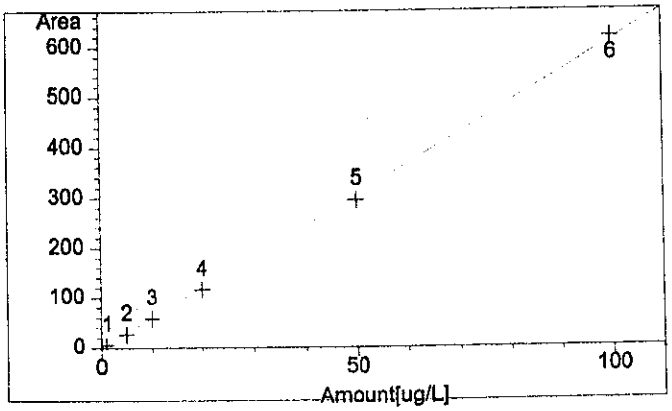
Fluorene #6 at exp. RT: 13.740
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 24.07063
Formula: y = mx
m: 57.06458
x: Amount [ug/L]
y: Area



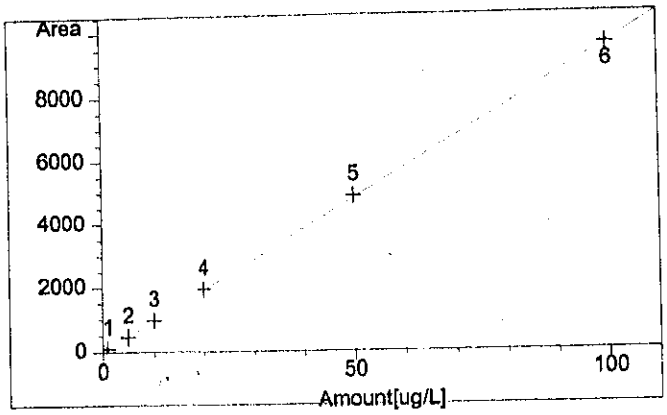
Fluorene #6 at exp. RT: 13.757
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 74.80461
Formula: y = mx
m: 151.01482
x: Amount [ug/L]
y: Area



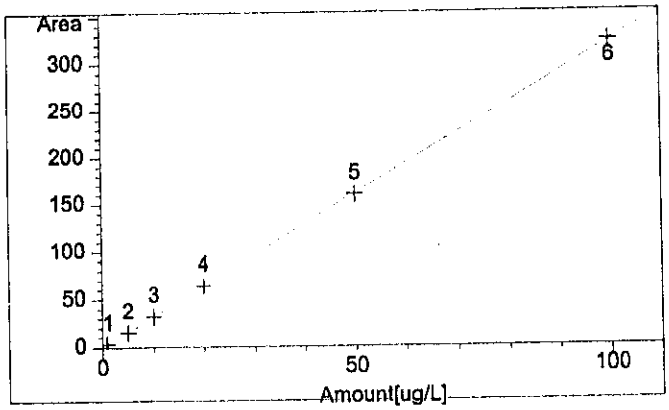
Phenanthrene #7 at exp. RT: 15.136
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 24.37539
Formula: y = mx
m: 57.80934
x: Amount [ug/L]
y: Area



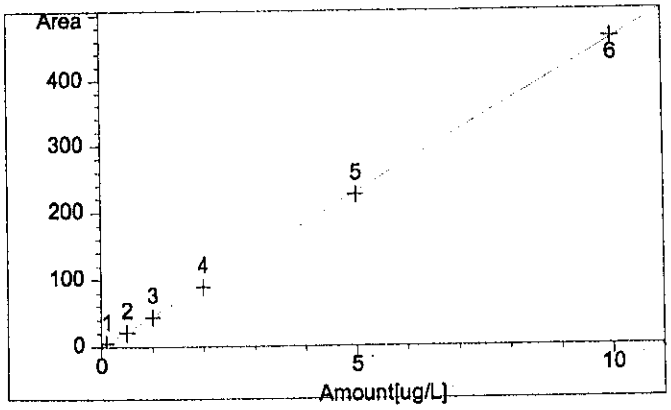
Phenanthrene #7 at exp. RT: 15.153
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99980
Residual Std. Dev.: 6.29133
Formula: y = mx
m: 6.11052
x: Amount [ug/L]
y: Area



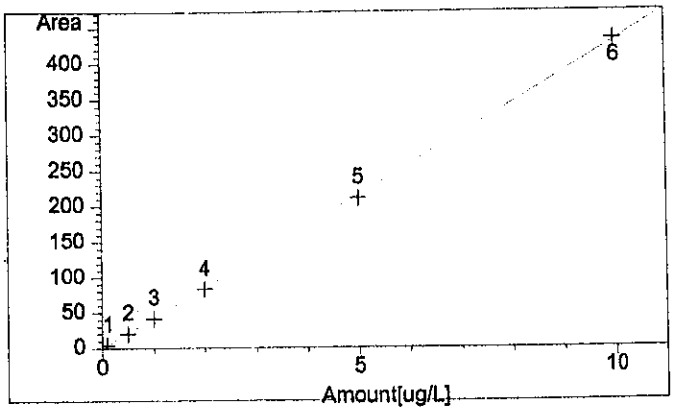
Anthracene #8 at exp. RT: 16.549
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 37.64962
Formula: y = mx
m: 95.91237
x: Amount [ug/L]
y: Area



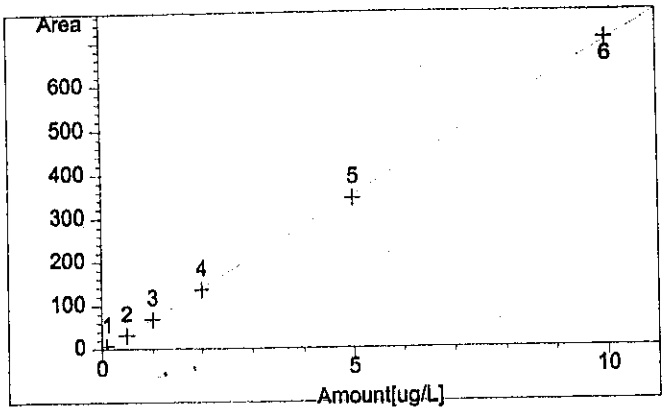
Anthracene #8 at exp. RT: 16.566
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 0.77764
Formula: y = mx
m: 3.22376
x: Amount [ug/L]
y: Area



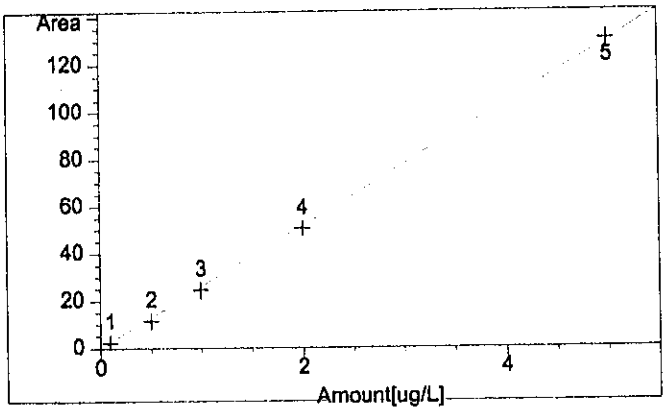
Fluoranthene #9 at exp. RT: 17.931
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 2.76207
Formula: y = mx
m: 46.08169
x: Amount [ug/L]
y: Area



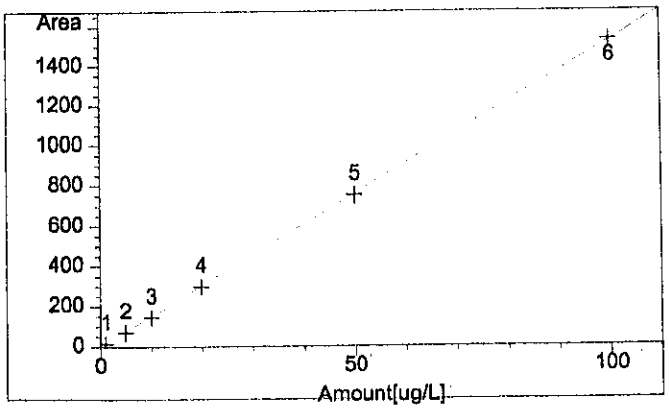
Fluoranthene #9 at exp. RT: 17.948
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 2.91025
Formula: y = mx
m: 42.97776
x: Amount [ug/L]
y: Area



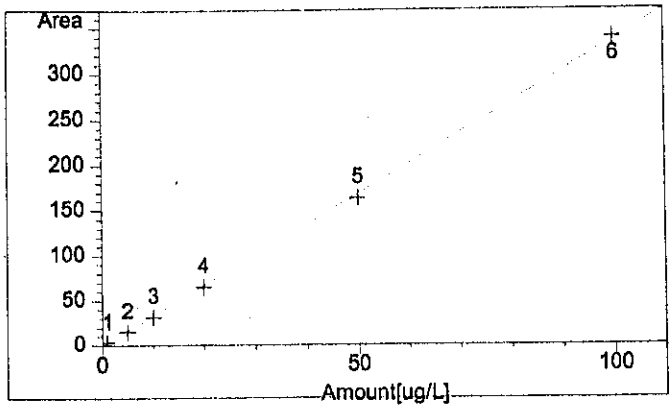
Pyrene #10 at exp. RT: 18.944
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99991
Residual Std. Dev.: 4.77268
Formula: y = mx
m: 69.90443
x: Amount [ug/L]
y: Area



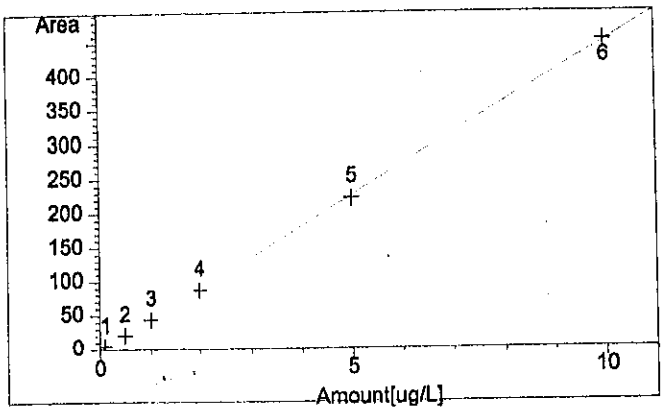
Pyrene #10 at exp. RT: 18.961
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99984
Residual Std. Dev.: 1.27317
Formula: y = mx
m: 25.86740
x: Amount [ug/L]
y: Area



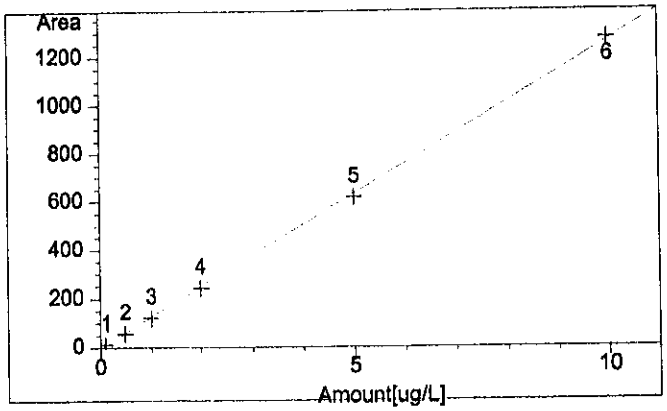
p-Terphenyl d14 #11* at exp. RT: 21.302
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 6.86516
Formula: y = mx
m: 15.22690
x: Amount [ug/L]
y: Area



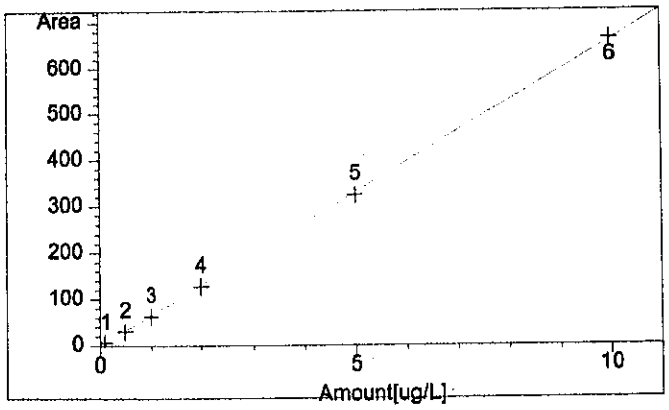
p-Terphenyl d14 #11* at exp. RT: 21.319
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99986
Residual Std. Dev.: 2.82593
Formula: y = mx
m: 3.36222
x: Amount [ug/L]
y: Area



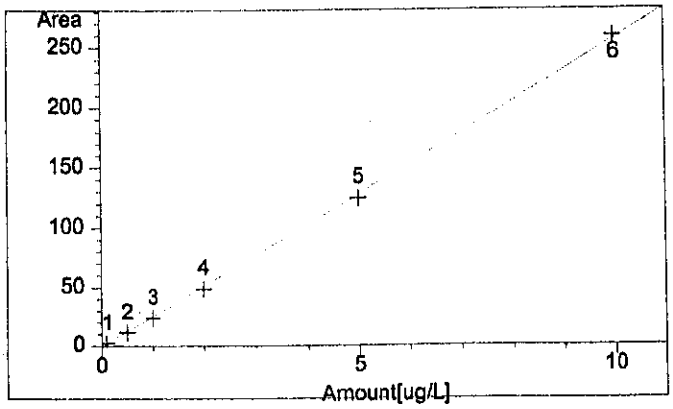
Benzo(a)anthracene #12 at exp. RT: 22.628
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.50958
Formula: y = mx
m: 44.90461
x: Amount [ug/L]
y: Area



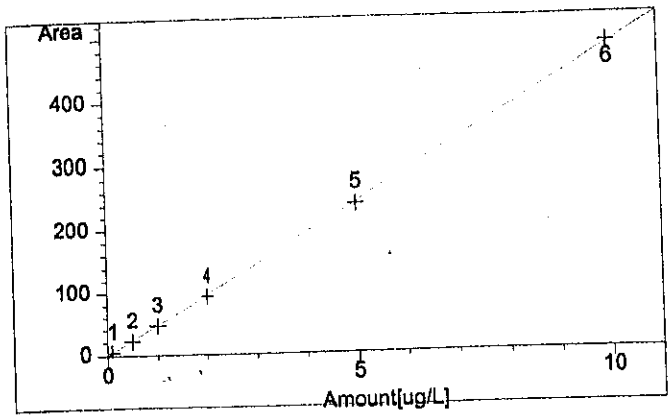
Benzo(a)anthracene #12 at exp. RT: 22.644
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99987
Residual Std. Dev.: 10.41817
Formula: y = mx
m: 126.38133
x: Amount [ug/L]
y: Area



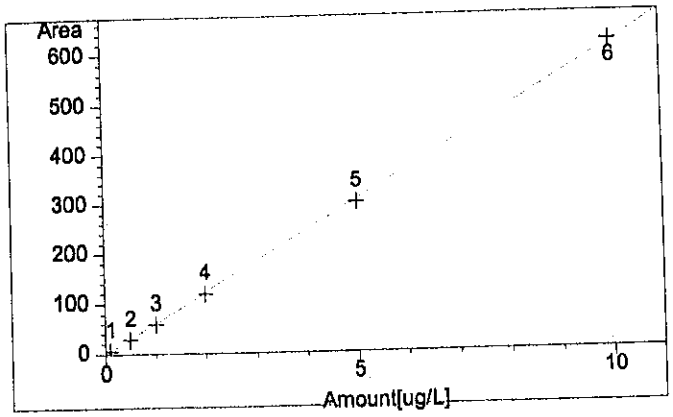
Chrysene #13 at exp. RT: 23.513
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 3.93530
Formula: y = mx
m: 66.02710
x: Amount [ug/L]
y: Area



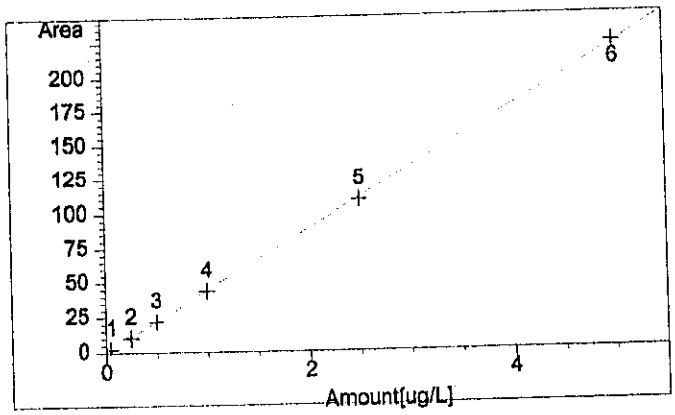
Chrysene #13 at exp. RT: 23.528
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99983
Residual Std. Dev.: 2.41557
Formula: y = mx
m: 25.60849
x: Amount [ug/L]
y: Area



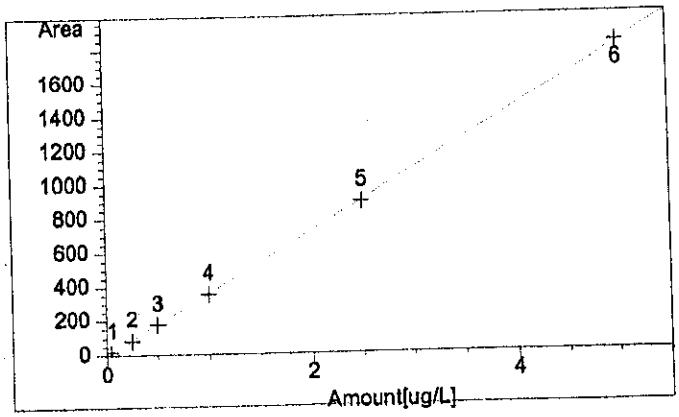
Benzo(b)fluoranthene #14 at exp. RT: 26.2
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.80032
Formula: y = mx
m: 48.23233
x: Amount [ug/L]
y: Area



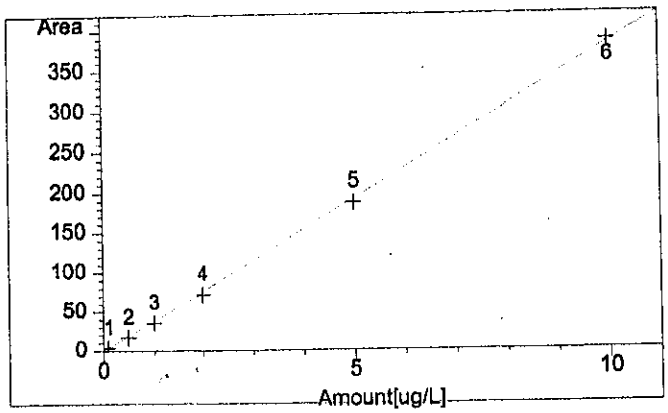
Benzo(b)fluoranthene #14 at exp. RT: 26.2
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 4.39762
Formula: y = mx
m: 61.26633
x: Amount [ug/L]
y: Area



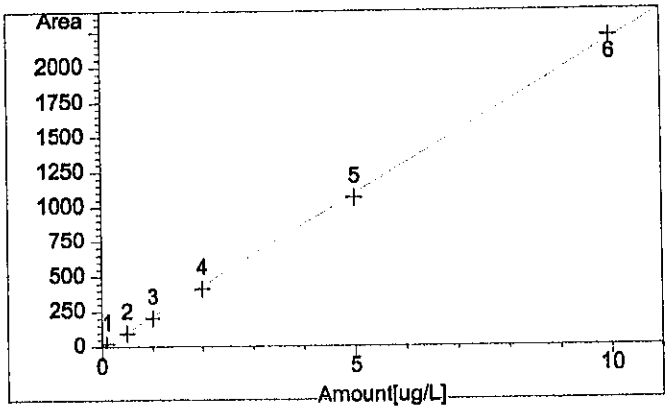
Benzo(k)fluoranthene #15 at exp. RT: 27.6
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 1.11632
Formula: y = mx
m: 44.27975
x: Amount [ug/L]
y: Area



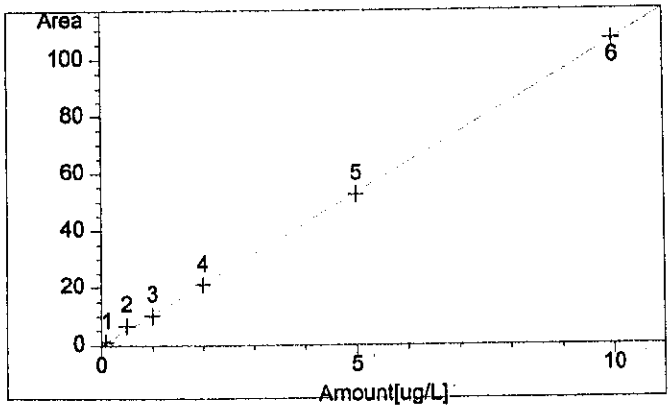
Benzo(k)fluoranthene #15 at exp. RT: 27.7
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 7.24438
Formula: y = mx
m: 361.57005
x: Amount [ug/L]
y: Area



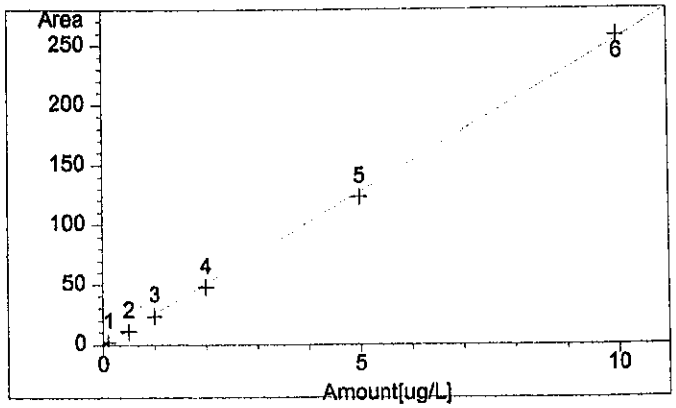
Benzo(a)pyrene #16 at exp. RT: 28.826
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 3.72397
Formula: y = mx
m: 38.21458
x: Amount [ug/L]
y: Area



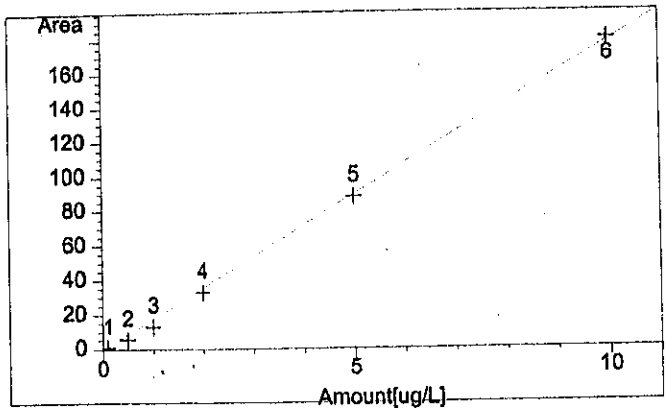
Benzo(a)pyrene #16 at exp. RT: 28.843
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99981
Residual Std. Dev.: 21.63108
Formula: y = mx
m: 218.76141
x: Amount [ug/L]
y: Area



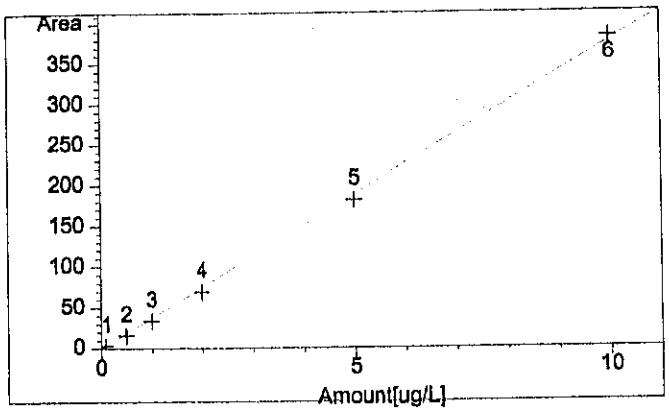
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 0.75986
Formula: y = mx
m: 10.62568
x: Amount [ug/L]
y: Area



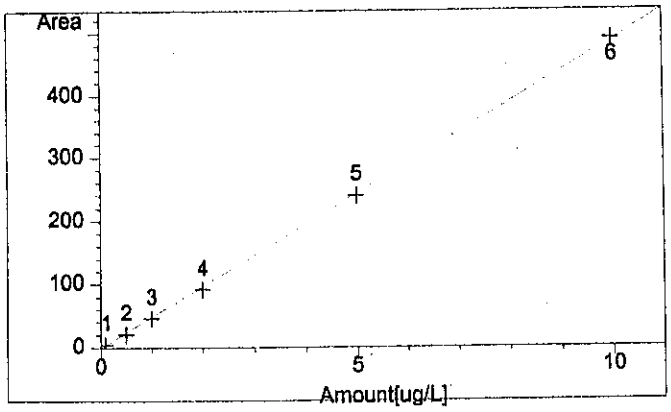
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99975
Residual Std. Dev.: 2.88961
Formula: y = mx
m: 25.41325
x: Amount [ug/L]
y: Area



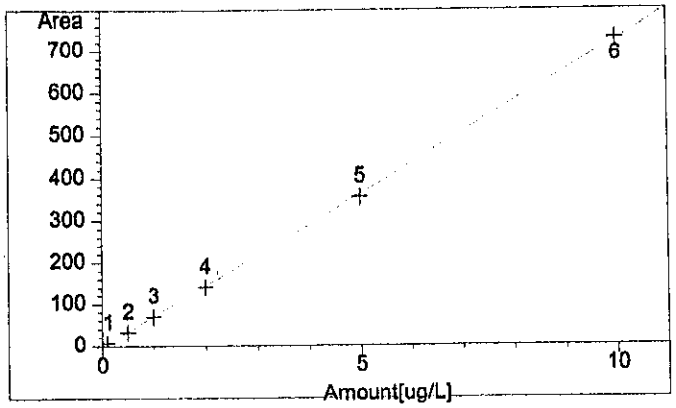
Benzo(g,h,i)perylene #18 at exp. RT: 31.5
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99945
Residual Std. Dev.: 3.03261
Formula: y = mx
m: 17.83074
x: Amount [ug/L]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.5
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99962
Residual Std. Dev.: 5.30907
Formula: y = mx
m: 37.71238
x: Amount [ug/L]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99987
Residual Std. Dev.: 3.96284
Formula: y = mx
m: 48.63628
x: Amount [ug/L]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99992
Residual Std. Dev.: 4.80774
Formula: y = mx
m: 72.35678
x: Amount [ug/L]
y: Area

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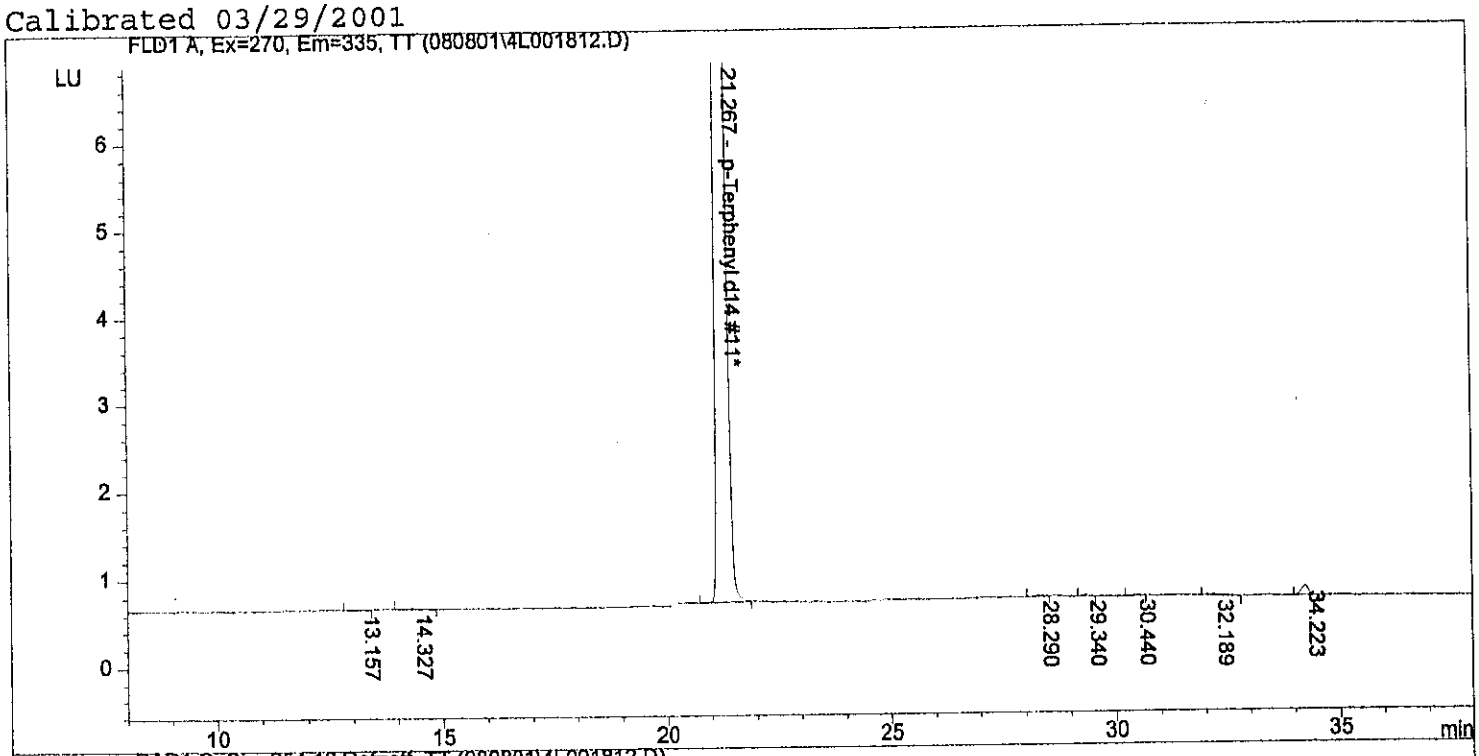
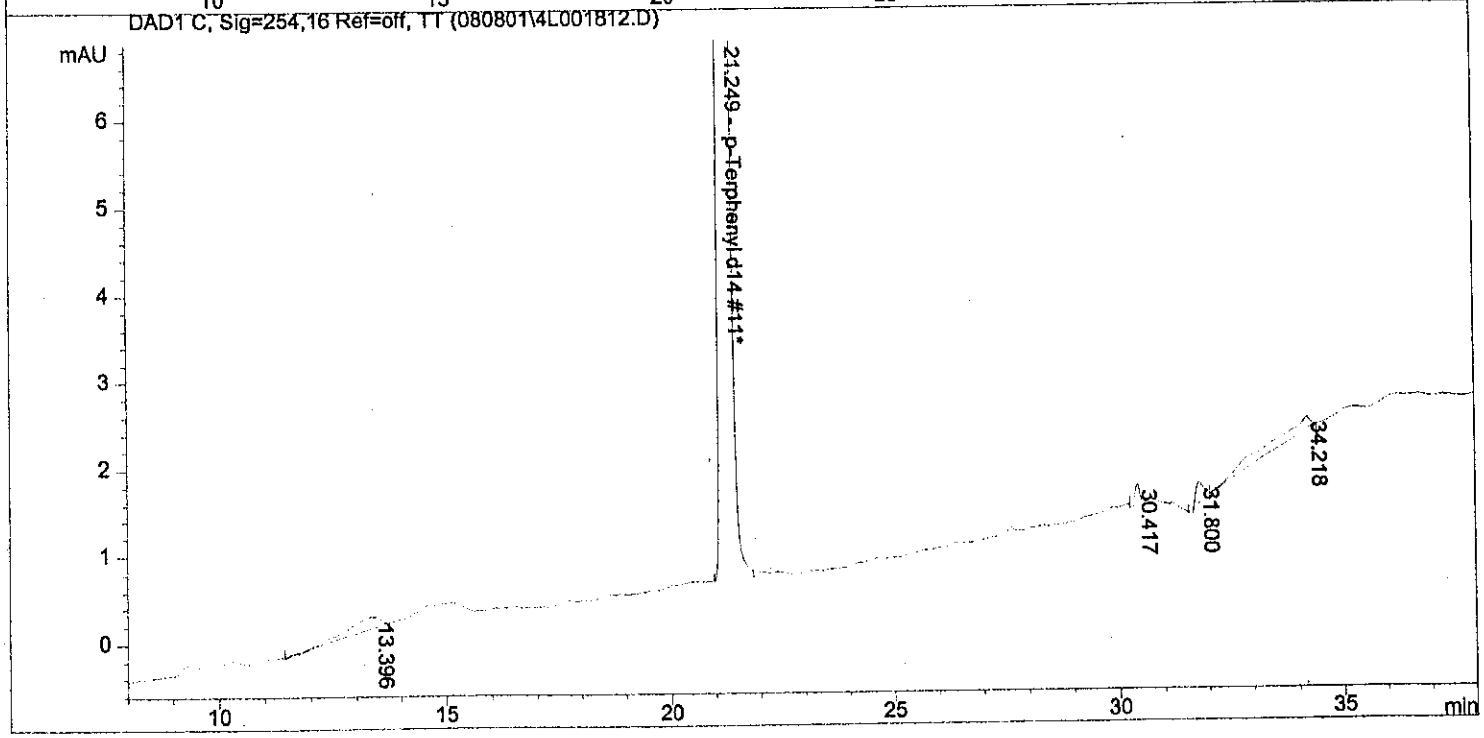
Injection Date : 8/8/2001 9:48:17 PM
Sample Name : 8310surr6/54-35
Acq. Operator : RDC

Seq. Line : 8
Vial : 5
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 12:12:11 PM by RDC
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 12:12:08 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.343		-	-	-		Naphthalene #1
11.976		-	-	-		1-Methylnaphthalene #3
12.520		-	-	-		2-Methylnaphthalene #4
13.006		-	-	-		Acenaphthene #5
13.674		-	-	-		Fluorene #6
15.213		-	-	-		Phenanthrene #7
16.611		-	-	-		Anthracene #8
17.978		-	-	-		Fluoranthene #9
18.981		-	-	-		Pyrene #10
21.267	PBA	339.18564	2.88970e-1	98.01453		p-Terphenyl d14 #11*
22.623		-	-	-		Benzo(a)anthracene #12
23.561		-	-	-		Chrysene #13
26.309		-	-	-		Benzo(b)fluoranthene #14
27.760		-	-	-		Benzo(k)fluoranthene #15
28.879		-	-	-		Benzo(a)pyrene #16
30.774		-	-	-		Dibenz(a,h)anthracene #17
31.597		-	-	-		Benzo(g,h,i)perylene #18
32.504		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				98.01453		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.326		-	-	-		Naphthalene #1
11.007		-	-	-		Acenaphthylene #2
11.957		-	-	-		1-Methylnaphthalene #3
12.534		-	-	-		2-Methylnaphthalene #4
12.989		-	-	-		Acenaphthene #5
13.657		-	-	-		Fluorene #6
15.198		-	-	-		Phenanthrene #7
16.595		-	-	-		Anthracene #8
17.962		-	-	-		Fluoranthene #9
18.965		-	-	-		Pyrene #10
21.249	PBA	1529.22424	6.36953e-2	97.40433		p-Terphenyl d14 #11*
22.608		-	-	-		Benzo(a)anthracene #12
23.546		-	-	-		Chrysene #13
26.293		-	-	-		Benzo(b)fluoranthene #14
27.744		-	-	-		Benzo(k)fluoranthene #15
28.863		-	-	-		Benzo(a)pyrene #16
30.759		-	-	-		Dibenz(a,h)anthracene #17

Data File C:\HPCHEM\2\DATA\080801\4L001812.D

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.579		-	-	-		Benzo(g,h,i)perylene #18
32.492		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				97.40433		

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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*** End of Report ***

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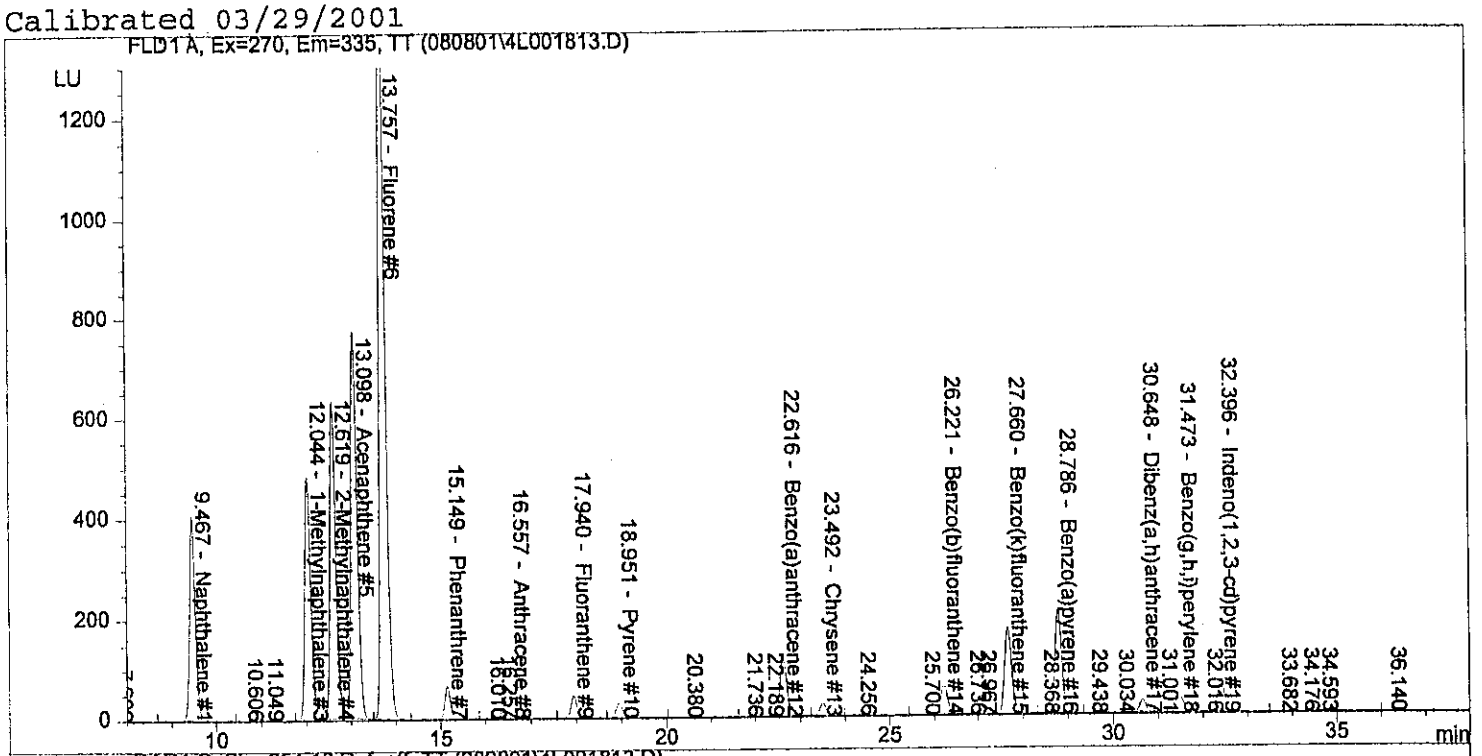
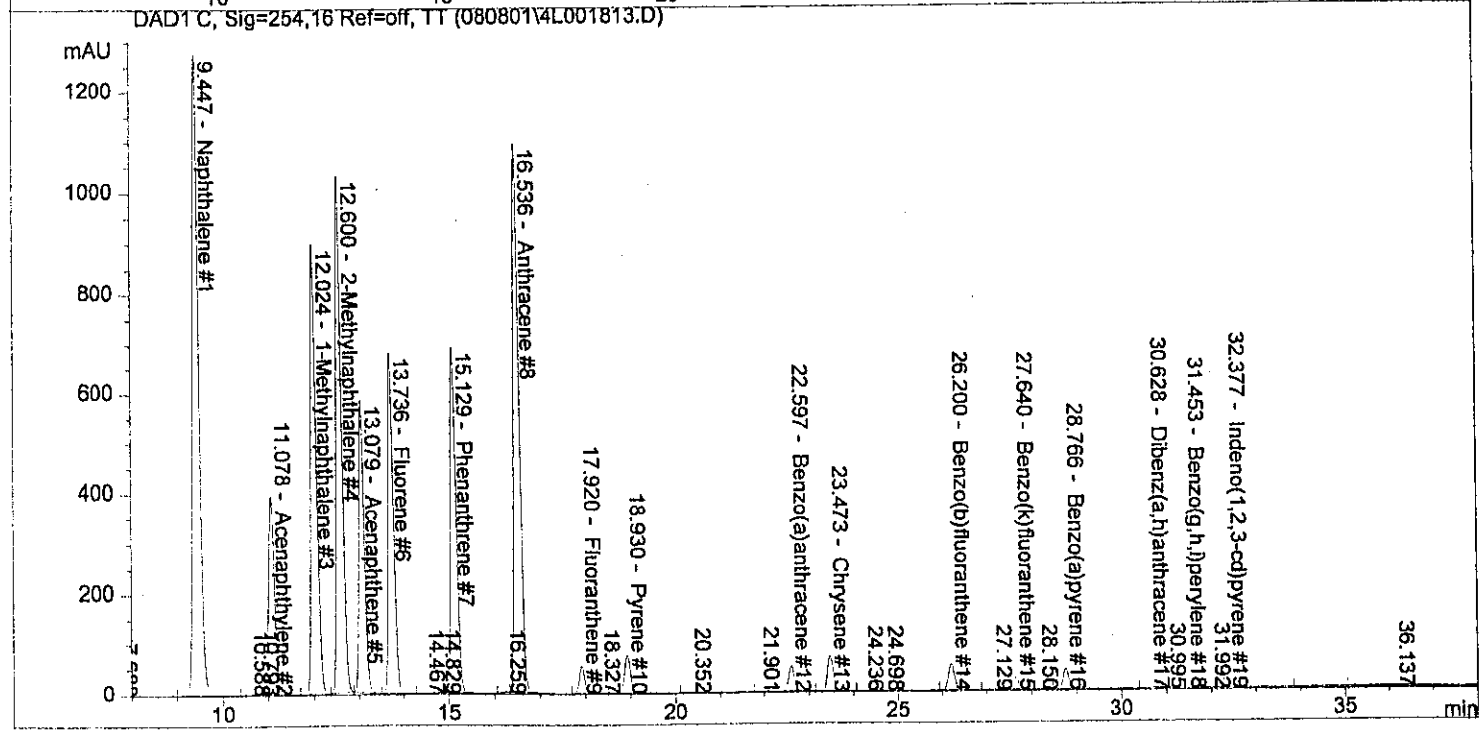
Injection Date : 8/8/2001 10:44:56 PM
Sample Name : 8310 std 6/53-25
Acq. Operator : RDC

Seq. Line : 9
Vial : 6
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 12:22:54 PM by RDC
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 12:22:51 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.467	BB	3973.55249	2.55317e-2	101.45138		Naphthalene #1
12.044	PB	4535.38281	2.23759e-2	101.48305		1-Methylnaphthalene #3
12.619	BB	5875.01660	1.72227e-2	101.18389		2-Methylnaphthalene #4
13.098	BB	7228.99854	1.39785e-2	101.05076		Acenaphthene #5
13.757	BB	1.50256e4	6.61784e-3	99.43674		Fluorene #6
15.149	BBA	617.71191	1.63970e-1	101.28640		Phenanthrene #7
16.557	BB	323.14050	3.11421e-1	100.63288		Anthracene #8
17.940	PB	432.79266	2.34467e-2	10.14758		Fluoranthene #9
18.951	BB	273.80585	3.77948e-2	10.34844		Pyrene #10
21.267		-	-	-		p-Terphenyl d14 #11*
22.616	BB	1274.56396	7.97394e-3	10.16330		Benzo(a)anthracene #12
23.492	BB	258.58917	3.94274e-2	10.19549		Chrysene #13
26.221	BB	617.15186	1.63647e-2	10.09953		Benzo(b)fluoranthene #14
27.660	BB	1815.06726	2.77359e-3	5.03425		Benzo(k)fluoranthene #15
28.786	BB	2209.61670	4.57456e-3	10.10801		Benzo(a)pyrene #16
30.648	BB	257.09790	3.95004e-2	10.15546		Dibenz(a,h)anthracene #17
31.473	BB	382.48065	2.68798e-2	10.28100		Benzo(g,h,i)perylene #18
32.396	BB	728.48004	1.37724e-2	10.03289		Indeno(1,2,3-cd)pyrene #1
Totals :				803.09104		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.447	BB	1.20244e4	8.25610e-3	99.27448		Naphthalene #1
11.078	BB	3384.39795	2.97245e-2	100.59951		Acenaphthylene #2
12.024	BB	7740.20703	1.29528e-2	100.25726		1-Methylnaphthalene #3
12.600	BB	8884.32324	1.12464e-2	99.91623		2-Methylnaphthalene #4
13.079	BB	4940.15088	2.03275e-2	100.42072		Acenaphthene #5
13.736	BB	5731.11230	1.75642e-2	100.66232		Fluorene #6
15.129	BBA	5806.07617	1.73002e-2	100.44635		Phenanthrene #7
16.536	BBA	9552.15625	1.04130e-2	99.46643		Anthracene #8
17.920	PB	463.67642	2.17440e-2	10.08217		Fluoranthene #9
18.930	BB	703.95166	1.43310e-2	10.08832		Pyrene #10
21.249		-	-	-		p-Terphenyl d14 #11*
22.597	BBA	451.58978	2.23017e-2	10.07124		Benzo(a)anthracene #12
23.473	BBA	664.28351	1.51547e-2	10.06704		Chrysene #13
26.200	BBA	485.19955	2.07746e-2	10.07983		Benzo(b)fluoranthene #14
27.640	BB	222.55347	2.26386e-2	5.03829		Benzo(k)fluoranthene #15
28.766	BB	385.80145	2.60127e-2	10.03572		Benzo(a)pyrene #16
30.628	PB	106.53020	9.38245e-2	9.99514		Dibenz(a,h)anthracene #17

Data File C:\HPCHEM\2\DATA\[illegible]

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.453	BB	180.23679	5.63755e-2	10.16093		Benzo(g,h,i)perylene #18
32.377	BBA	489.90164	2.05716e-2	10.07805		Indeno(1,2,3-cd)pyrene #1

Totals : 896.74006

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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*** End of Report ***

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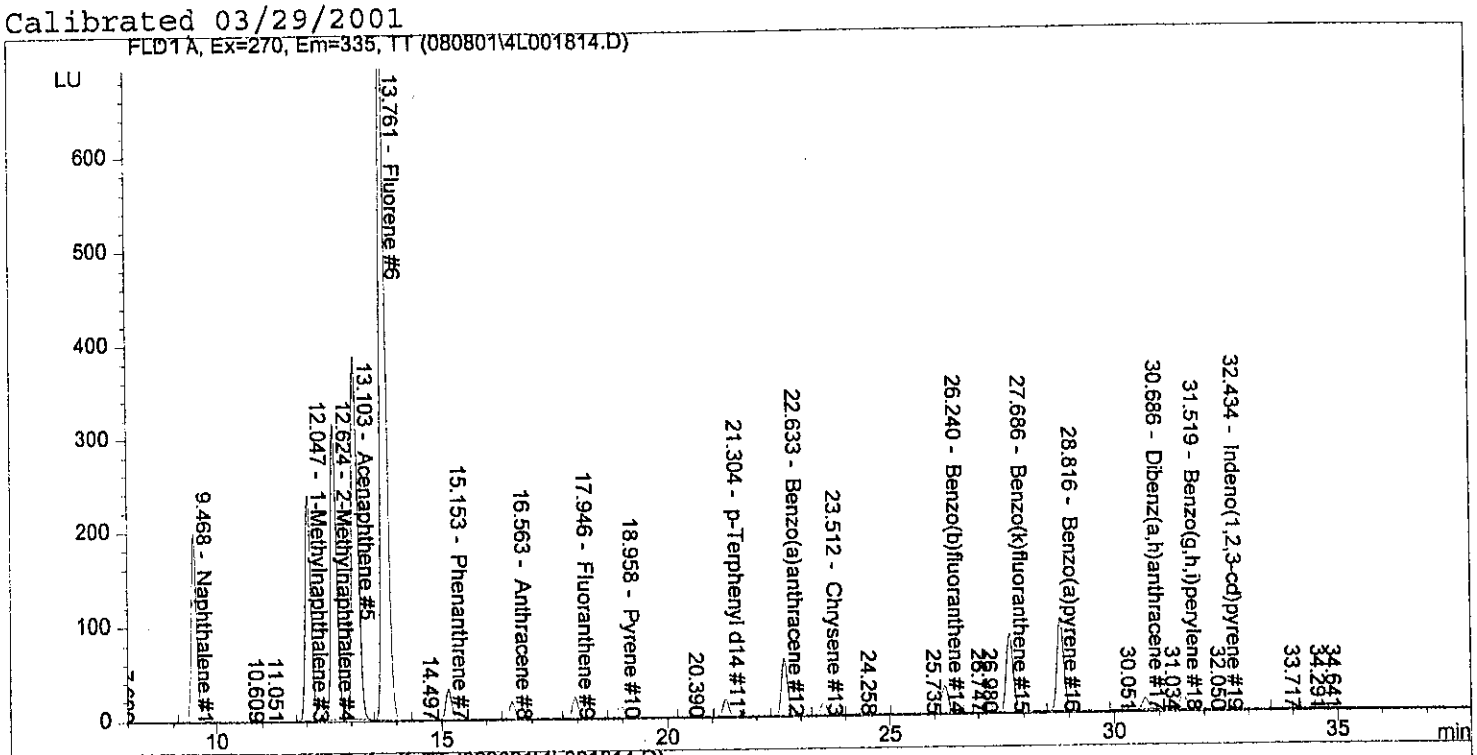
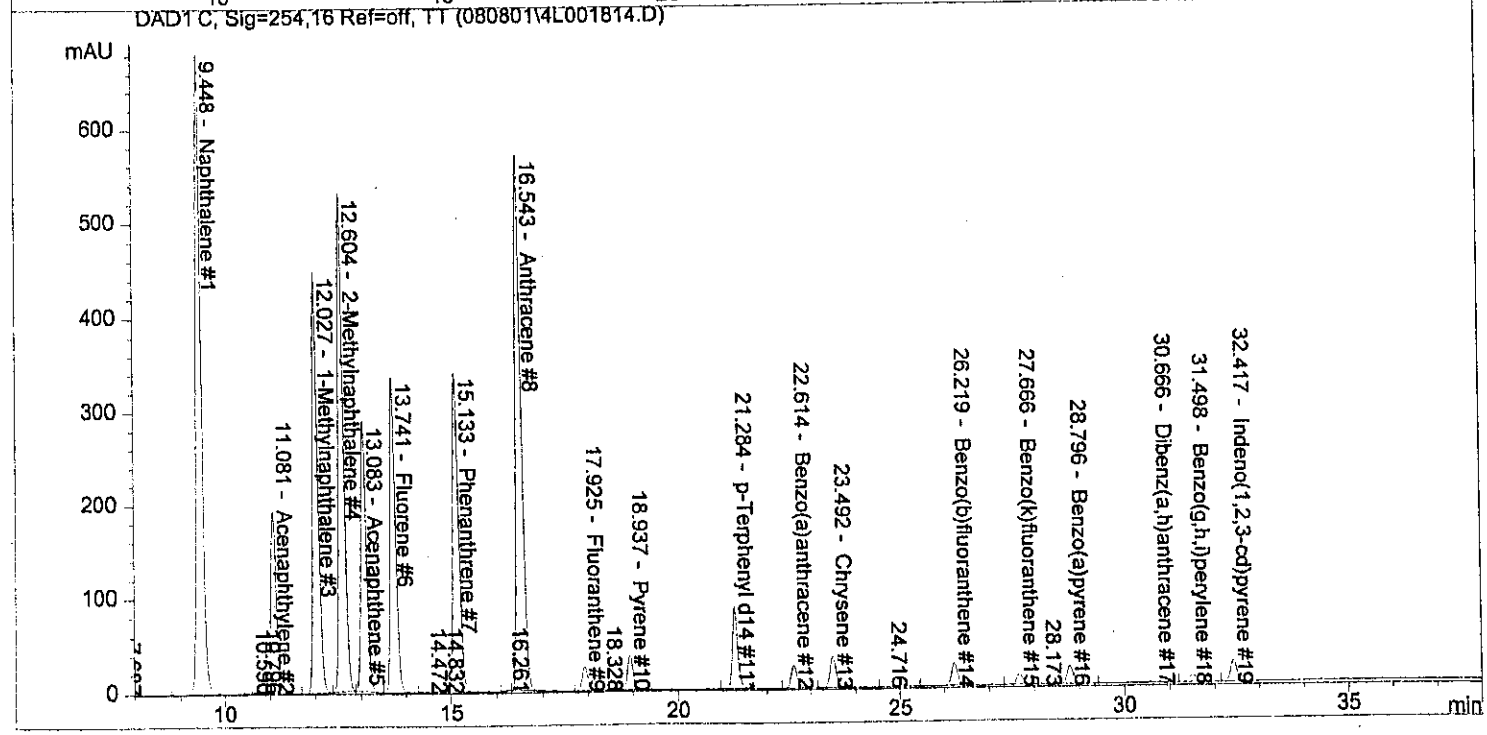
Injection Date : 8/8/2001 11:41:36 PM
Sample Name : 8310 std 5/53-25
Acq. Operator : RDC

Seq. Line : 10
Vial : 7
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 12:23:34 PM by RDC
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 12:23:32 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.468	PB	1948.04333	2.53373e-2	49.35817		Naphthalene #1
12.047	PB	2235.18970	2.21763e-2	49.56814		1-Methylnaphthalene #3
12.624	BB	2909.70630	1.70922e-2	49.73328		2-Methylnaphthalene #4
13.103	BB	3605.74121	1.38670e-2	50.00065		Acenaphthene #5
13.761	BB	7656.80322	6.53228e-3	50.01636		Fluorene #6
15.153	BBA	295.27972	1.63827e-1	48.37483		Phenanthrene #7
16.563	BB	159.95667	3.10549e-1	49.67436		Anthracene #8
17.946	BB	210.50659	2.32969e-2	4.90415		Fluoranthene #9
18.958	BBA	130.27173	3.71107e-2	4.83447		Pyrene #10
21.304	PB	163.61835	2.96033e-1	48.43651		p-Terphenyl d14 #11*
22.633	BB	616.44403	7.92426e-3	4.88486		Benzo(a)anthracene #12
23.512	BB	124.43752	3.91177e-2	4.86771		Chrysene #13
26.240	BB	299.93723	1.63317e-2	4.89849		Benzo(b)fluoranthene #14
27.686	BB	893.52496	2.76733e-3	2.47268		Benzo(k)fluoranthene #15
28.816	BB	1063.36975	4.57033e-3	4.85995		Benzo(a)pyrene #16
30.686	BB	122.84724	3.93851e-2	4.83834		Dibenz(a,h)anthracene #17
31.519	BB	181.30618	2.65675e-2	4.81686		Benzo(g,h,i)perylene #18
32.434	BB	354.48691	1.38152e-2	4.89732		Indeno(1,2,3-cd)pyrene #1
Totals :				441.43712		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.448	PBA	6202.44971	8.25915e-3	51.22699		Naphthalene #1
11.081	BB	1657.23242	2.97185e-2	49.25050		Acenaphthylene #2
12.027	BB	3838.97803	1.29547e-2	49.73284		1-Methylnaphthalene #3
12.604	BB	4469.53662	1.12471e-2	50.26953		2-Methylnaphthalene #4
13.083	BB	2433.60547	2.03296e-2	49.47421		Acenaphthene #5
13.741	BB	2816.46851	1.75408e-2	49.40304		Fluorene #6
15.133	BBA	2852.19556	1.73083e-2	49.36677		Phenanthrene #7
16.543	BBA	4858.51855	1.04295e-2	50.67187		Anthracene #8
17.925	PB	226.24062	2.17178e-2	4.91345		Fluoranthene #9
18.937	BBA	342.22821	1.43193e-2	4.90046		Pyrene #10
21.284	PBA	752.44629	6.53529e-2	49.17455		p-Terphenyl d14 #11*
22.614	PBA	220.89987	2.22893e-2	4.92370		Benzo(a)anthracene #12
23.492	BBA	324.43796	1.51547e-2	4.91677		Chrysene #13
26.219	BBA	236.98158	2.07517e-2	4.91778		Benzo(b)fluoranthene #14
27.666	BB	108.82767	2.26066e-2	2.46022		Benzo(k)fluoranthene #15
28.796	BBA	186.41614	2.61378e-2	4.87251		Benzo(a)pyrene #16
30.666	BB	52.55205	9.41932e-2	4.95004		Dibenz(a,h)anthracene #17

Data File C:\HPCHEM\2\DATA\080801\4L001814.D Sample Name: [illegible]

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.498	BB	87.58637	5.62695e-2	4.92844		Benzo(g,h,i)perylene #18
32.417	BBA	239.26749	2.05571e-2	4.91865		Indeno(1,2,3-cd)pyrene #1
Totals :				495.27231		

Results obtained with enhanced integrator!

*** End of Report ***

Data File C:\HPCHEM\2\DATA\080801\4L001815.D Sample Name: [illegible]

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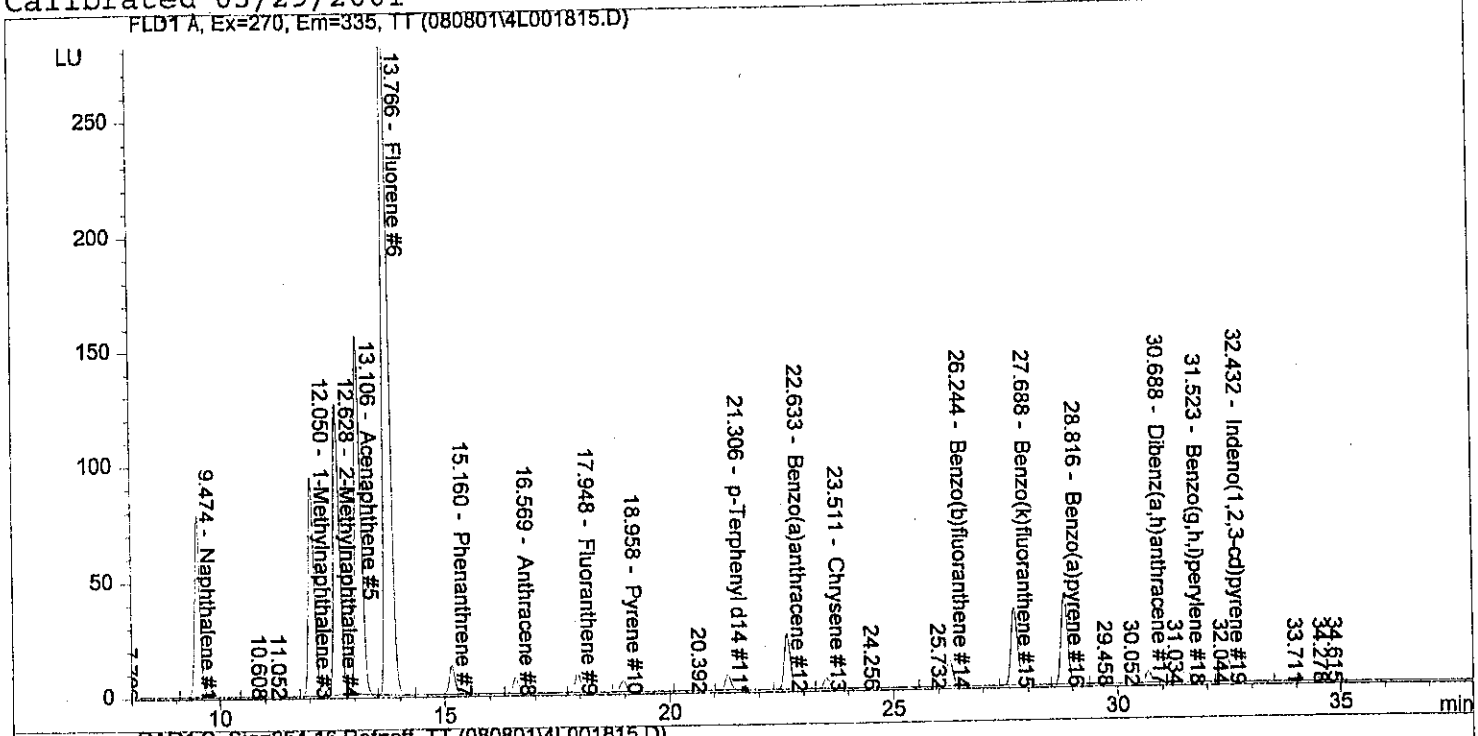
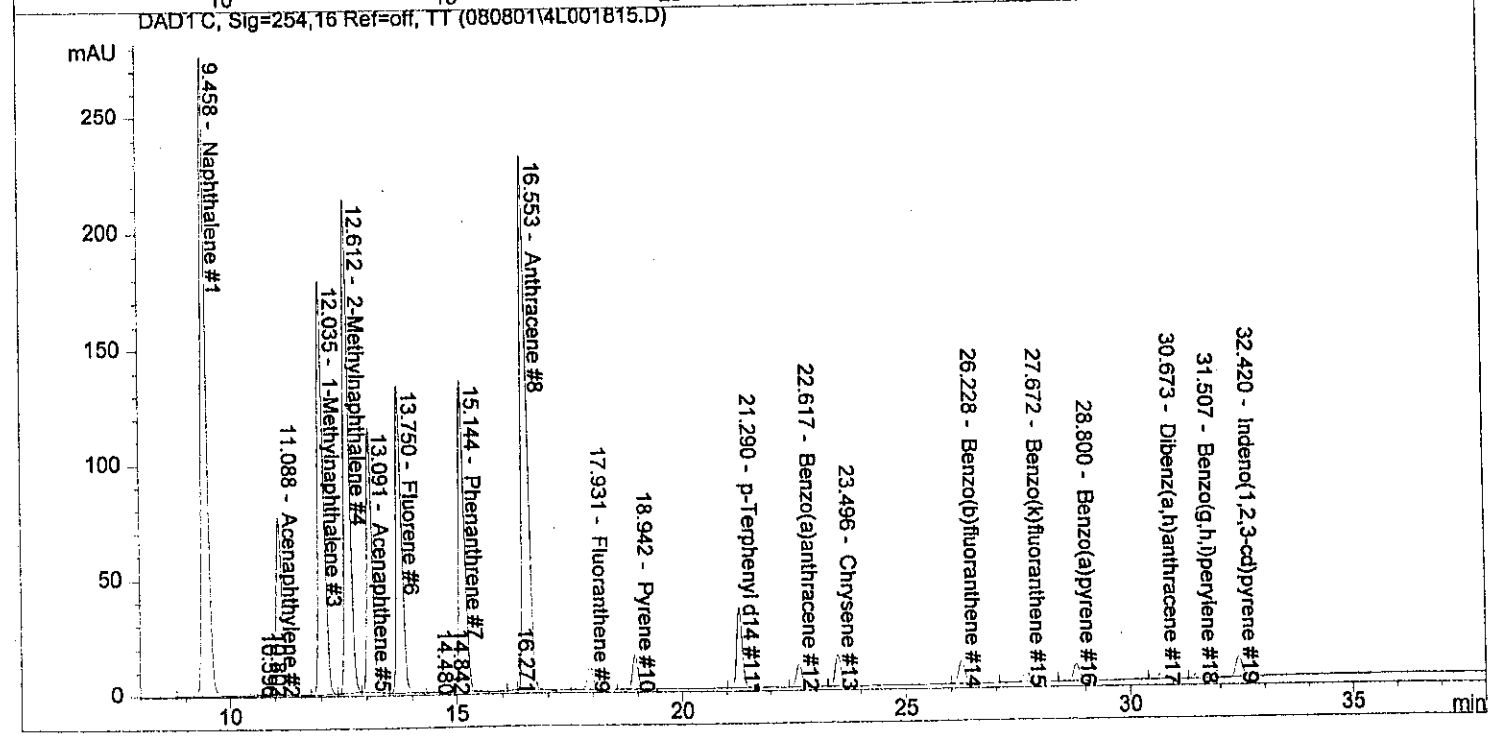
Injection Date : 8/9/2001 12:38:12 AM
Sample Name : 8310 std 4/53-25
Acq. Operator : RDC

Seq. Line : 11
Vial : 8
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 12:24:08 PM by RDC
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 12:24:05 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.474	PBA	771.00281	2.53062e-2	19.51118		Naphthalene #1
12.050	PB	887.93890	2.21431e-2	19.66168		1-Methylnaphthalene #3
12.628	BB	1160.72327	1.70700e-2	19.81357		2-Methylnaphthalene #4
13.106	BB	1445.95483	1.38473e-2	20.02258		Acenaphthene #5
13.766	BB	3112.09448	6.51797e-3	20.28453		Fluorene #6
15.160	BBA	116.85247	1.63688e-1	19.12731		Phenanthrene #7
16.569	BBA	63.99872	3.10306e-1	19.85918		Anthracene #8
17.948	BBA	83.17304	2.32743e-2	1.93580		Fluoranthene #9
18.958	BBA	50.45357	3.70193e-2	1.86776		Pyrene #10
21.306	BBA	64.98736	2.97101e-1	19.30782		p-Terphenyl d14 #11*
22.633	BB	242.58244	7.91528e-3	1.92011		Benzo(a)anthracene #12
23.511	BB	48.77195	3.90649e-2	1.90527		Chrysene #13
26.244	BBA	118.32101	1.63243e-2	1.93151		Benzo(b)fluoranthene #14
27.688	BB	355.36359	2.76617e-3	9.82998e-1		Benzo(k)fluoranthene #15
28.816	BB	414.51672	4.57086e-3	1.89470		Benzo(a)pyrene #16
30.688	BB	47.95410	3.93563e-2	1.88730		Dibenz(a,h)anthracene #17
31.523	BB	69.49560	2.65273e-2	1.84353		Benzo(g,h,i)perylene #18
32.432	BBA	140.75026	1.38193e-2	1.94508		Indeno(1,2,3-cd)pyrene #1
Totals :				175.70189		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.458	PBA	2499.14551	8.25594e-3	20.63280		Naphthalene #1
11.088	BBA	660.92621	2.97039e-2	19.63209		Acenaphthylene #2
12.035	PB	1534.10083	1.29485e-2	19.86429		1-Methylnaphthalene #3
12.612	BB	1794.47327	1.12416e-2	20.17276		2-Methylnaphthalene #4
13.091	BB	971.18744	2.03201e-2	19.73465		Acenaphthene #5
13.750	BBA	1121.39856	1.75287e-2	19.65661		Fluorene #6
15.144	BBA	1137.18030	1.73013e-2	19.67475		Phenanthrene #7
16.553	BBA	1952.77490	1.04274e-2	20.36233		Anthracene #8
17.931	PB	89.62297	2.17050e-2	1.94527		Fluoranthene #9
18.942	BBA	135.53003	1.43101e-2	1.93944		Pyrene #10
21.290	BBA	299.12198	6.56026e-2	19.62319		p-Terphenyl d14 #11*
22.617	PBA	87.18385	2.22768e-2	1.94218		Benzo(a)anthracene #12
23.496	PBA	128.16238	1.51490e-2	1.94153		Chrysene #13
26.228	PBA	93.81008	2.07392e-2	1.94555		Benzo(b)fluoranthene #14
27.672	BB	43.54576	2.25926e-2	9.83811e-1		Benzo(k)fluoranthene #15
28.800	BBA	71.60413	2.61650e-2	1.87352		Benzo(a)pyrene #16
30.673	BBA	21.07817	9.41491e-2	1.98449		Dibenz(a,h)anthracene #17

Data File C:\HPCHEM\2\DATA\080801\4L001815.D

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.507	PB	33.12908	5.60918e-2	1.85827		Benzo(g,h,i)perylene #18
32.420	BB	91.52023	2.05641e-2	1.88203		Indeno(1,2,3-cd)pyrene #1
Totals :				197.64957		

Results obtained with enhanced integrator!

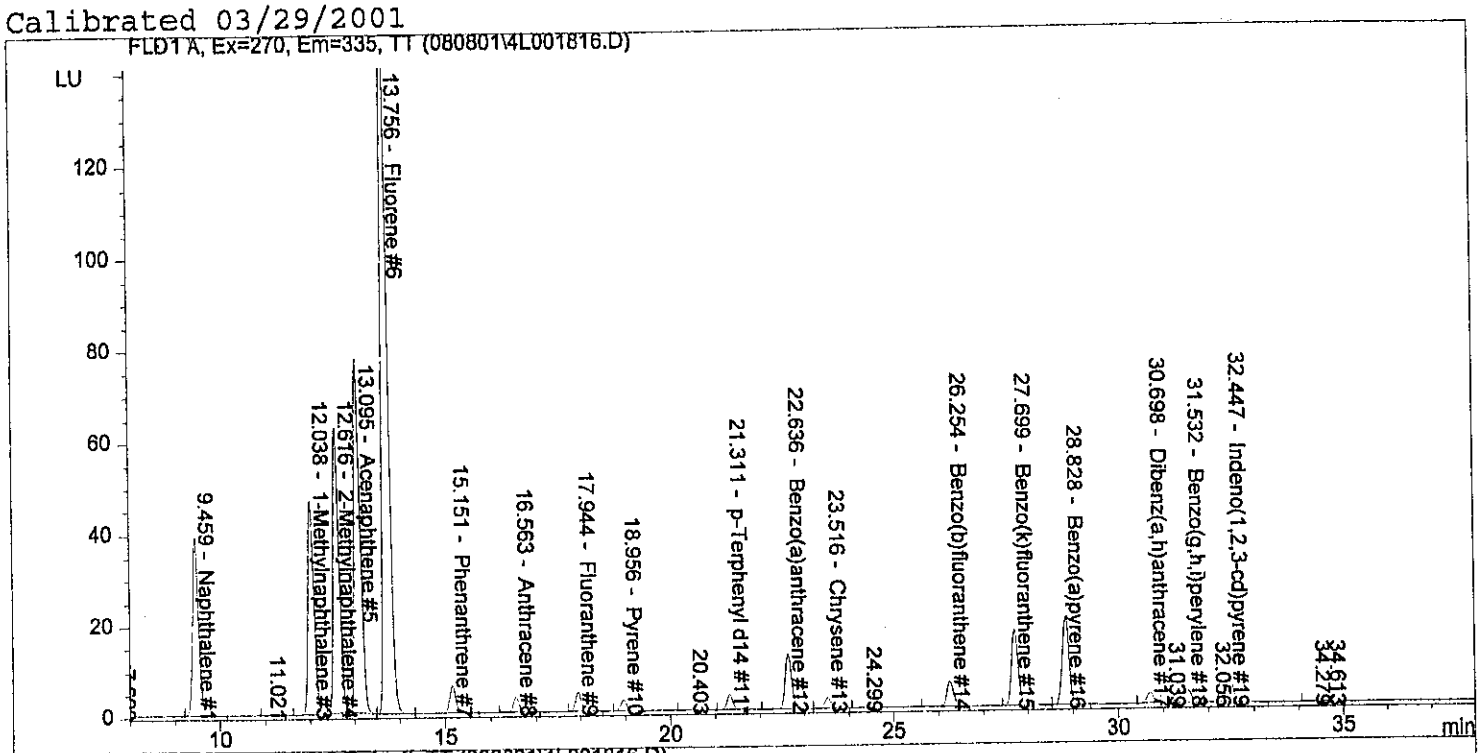
*** End of Report ***

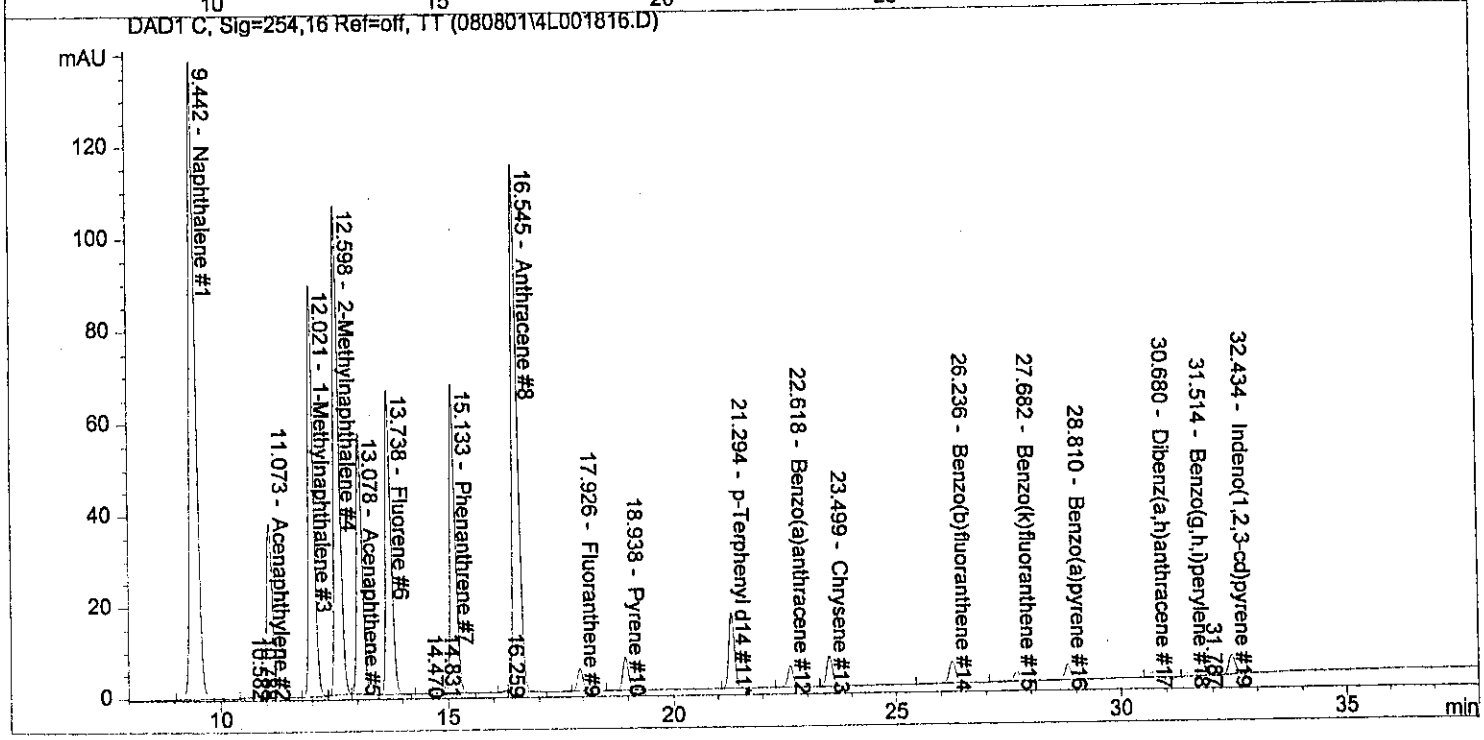
Data File C:\HPCHEM\2\DATA\080801\4L001816.D

Injection Date	: 8/9/2001 1:34:48 AM	Seq. Line	: 12
Sample Name	: 8310 std 3/53-25	Vial	: 9
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 1:53:54 PM by RDC
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 1:53:51 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.459	BBA	381.56079	2.52975e-2	9.65254		Naphthalene #1
12.038	PB	438.85303	2.21343e-2	9.71369		1-Methylnaphthalene #3
12.616	BB	575.43298	1.70643e-2	9.81937		2-Methylnaphthalene #4
13.095	BB	718.90424	1.38423e-2	9.95132		Acenaphthene #5
13.756	BB	1559.63367	6.51366e-3	10.15893		Fluorene #6
15.151	BBA	58.15233	1.63652e-1	9.51677		Phenanthrene #7
16.563	BBA	32.12813	3.10210e-1	9.96646		Anthracene #8
17.944	BBA	41.21679	2.32680e-2	9.59030e-1		Fluoranthene #9
18.956	BBA	24.49013	3.70002e-2	9.06140e-1		Pyrene #10
21.311	BBA	31.73221	2.97355e-1	9.43572		p-Terphenyl d14 #11*
22.636	PB	119.82957	7.91289e-3	9.48198e-1		Benzo(a)anthracene #12
23.516	BBA	24.17820	3.90514e-2	9.44192e-1		Chrysene #13
26.254	PBA	58.33105	1.63221e-2	9.52086e-1		Benzo(b)fluoranthene #14
27.699	BB	176.43927	2.76576e-3	4.87989e-1		Benzo(k)fluoranthene #15
28.828	BB	203.54648	4.57102e-3	9.30415e-1		Benzo(a)pyrene #16
30.698	PB	23.53592	3.93487e-2	9.26108e-1		Dibenz(a,h)anthracene #17
31.532	BB	33.85759	2.65177e-2	8.97824e-1		Benzo(g,h,i)perylene #18
32.447	BBA	69.61817	1.38197e-2	9.62101e-1		Indeno(1,2,3-cd)pyrene #1
Totals :				87.12889		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.442	PBA	1248.26221	8.25422e-3	10.30343		Naphthalene #1
11.073	BBA	328.40460	2.96983e-2	9.75306		Acenaphthylene #2
12.021	PB	763.85205	1.29461e-2	9.88889		1-Methylnaphthalene #3
12.598	BB	894.31500	1.12395e-2	10.05166		2-Methylnaphthalene #4
13.078	BB	483.56268	2.03168e-2	9.82443		Acenaphthene #5
13.738	BBA	557.46277	1.75246e-2	9.76933		Fluorene #6
15.133	BBA	565.66064	1.72985e-2	9.78506		Phenanthrene #7
16.545	BBA	973.54010	1.04262e-2	10.15030		Anthracene #8
17.926	PB	44.25564	2.17013e-2	9.60407e-1		Fluoranthene #9
18.938	BBA	67.74028	1.43056e-2	9.69062e-1		Pyrene #10
21.294	BBA	145.31215	6.56589e-2	9.54104		p-Terphenyl d14 #11*
22.618	BBA	43.83417	2.22701e-2	9.76191e-1		Benzo(a)anthracene #12
23.499	BBA	63.60076	1.51457e-2	9.63280e-1		Chrysene #13
26.236	PBA	46.71288	2.07333e-2	9.68511e-1		Benzo(b)fluoranthene #14
27.682	BBA	21.84682	2.25837e-2	4.93381e-1		Benzo(k)fluoranthene #15
28.810	BBA	35.68842	2.61682e-2	9.33903e-1		Benzo(a)pyrene #16
30.680	BBA	10.35146	9.41628e-2	9.74722e-1		Dibenz(a,h)anthracene #17

Data File C:\HPCHEM\2\[illegible]

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.514	PB	13.18469	5.60856e-2	7.39471e-1		Benzo(g,h,i)perylene #18
32.434	BB	45.97294	2.05614e-2	9.45269e-1		Indeno(1,2,3-cd)pyrene #1
Totals :				97.99139		

Results obtained with enhanced integrator!

*** End of Report ***

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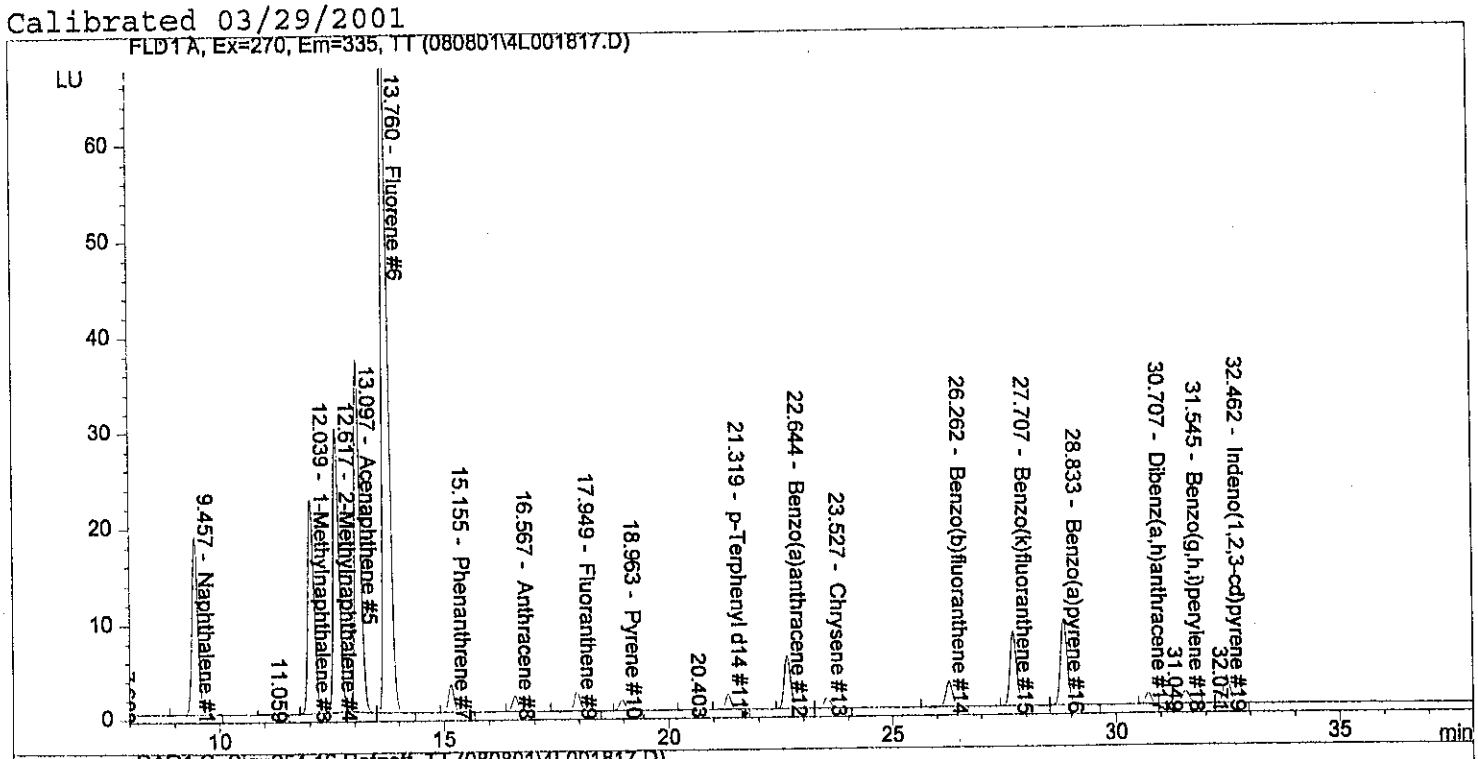
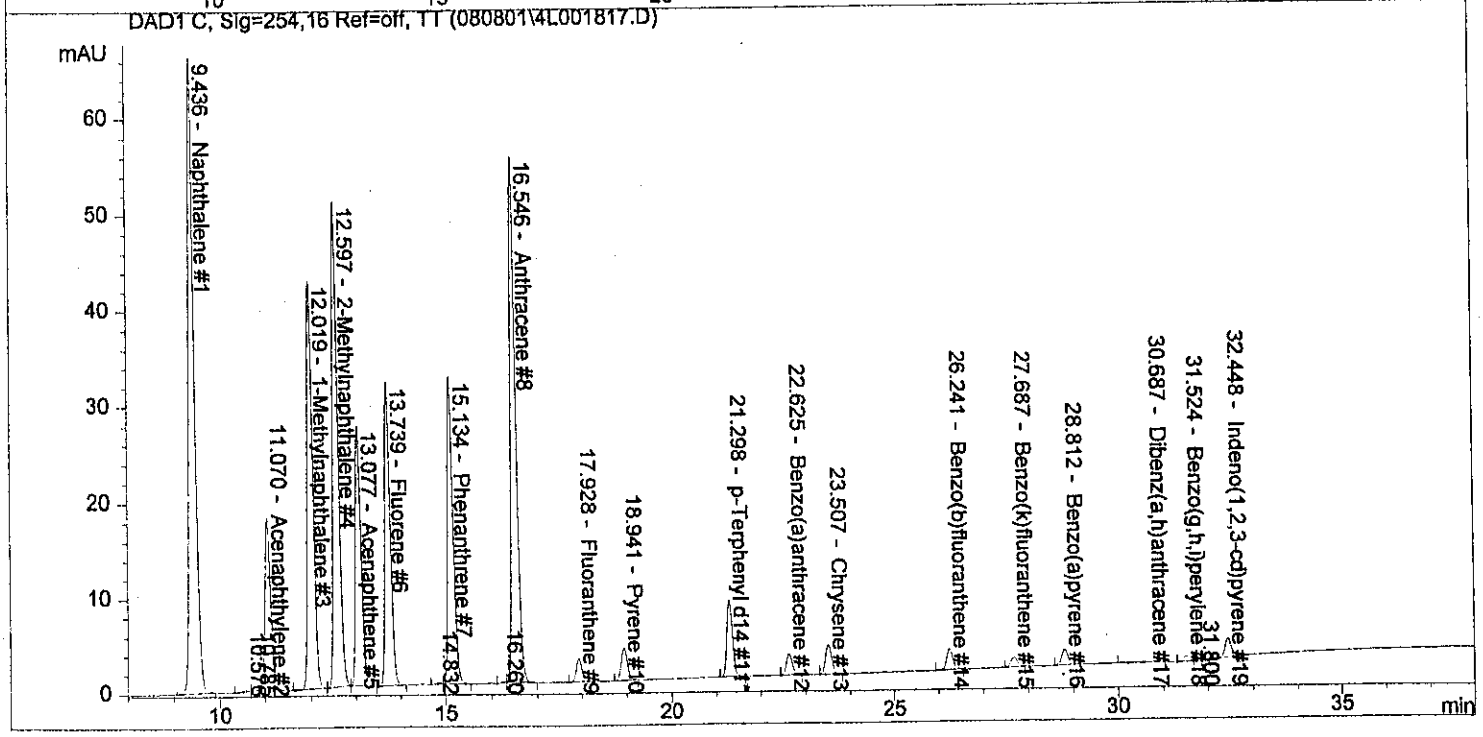
Injection Date : 8/9/2001 2:31:25 AM
Sample Name : 8310 std 2/53-25
Acq. Operator : RDC

Seq. Line : 13
Vial : 10
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 1:55:11 PM by RDC
(modified after loading)

Calibrated 03/29/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 1:55:07 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.457	PBA	181.76619	2.52963e-2	4.59801		Naphthalene #1
12.039	PB	209.24336	2.21330e-2	4.63119		1-Methylnaphthalene #3
12.617	BB	274.39529	1.70636e-2	4.68216		2-Methylnaphthalene #4
13.097	BB	342.62488	1.38416e-2	4.74248		Acenaphthene #5
13.760	BBA	746.17523	6.51370e-3	4.86036		Fluorene #6
15.155	PBA	27.27178	1.63653e-1	4.46310		Phenanthrene #7
16.567	BBA	15.29622	3.10197e-1	4.74485		Anthracene #8
17.949	BBA	19.73562	2.32679e-2	4.59206e-1		Fluoranthene #9
18.963	BBA	11.52839	3.69974e-2	4.26520e-1		Pyrene #10
21.319	BBA	15.32359	2.97421e-1	4.55755		p-Terphenyl d14 #11*
22.644	BB	56.84493	7.91259e-3	4.49791e-1		Benzo(a)anthracene #12
23.527	BBA	11.43981	3.90499e-2	4.46723e-1		Chrysene #13
26.262	PBA	27.63313	1.63222e-2	4.51033e-1		Benzo(b)fluoranthene #14
27.707	PB	83.81139	2.76572e-3	2.31799e-1		Benzo(k)fluoranthene #15
28.833	BBA	96.67756	4.57119e-3	4.41931e-1		Benzo(a)pyrene #16
30.707	PB	10.91603	3.93495e-2	4.29540e-1		Dibenz(a,h)anthracene #17
31.545	BB	15.83937	2.65166e-2	4.20006e-1		Benzo(g,h,i)perylene #18
32.462	BBA	32.35181	1.38204e-2	4.47116e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 41.48338

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.436	PBA	597.19745	8.25408e-3	4.92931		Naphthalene #1
11.070	BBA	157.20731	2.96976e-2	4.66868		Acenaphthylene #2
12.019	BB	365.03561	1.29459e-2	4.72572		1-Methylnaphthalene #3
12.597	BB	428.27109	1.12393e-2	4.81347		2-Methylnaphthalene #4
13.077	BBA	231.24211	2.03164e-2	4.69801		Acenaphthene #5
13.739	BBA	266.30728	1.75241e-2	4.66679		Fluorene #6
15.134	BBA	270.24643	1.72983e-2	4.67479		Phenanthrene #7
16.546	BBA	465.29129	1.04262e-2	4.85122		Anthracene #8
17.928	PBA	21.37060	2.17007e-2	4.63757e-1		Fluoranthene #9
18.941	BBA	31.33940	1.43053e-2	4.48319e-1		Pyrene #10
21.298	PBA	70.24126	6.56728e-2	4.61294		p-Terphenyl d14 #11*
22.625	BBA	20.54964	2.22694e-2	4.57628e-1		Benzo(a)anthracene #12
23.507	BBA	30.26713	1.51453e-2	4.58406e-1		Chrysene #13
26.241	PBA	22.12707	2.07330e-2	4.58761e-1		Benzo(b)fluoranthene #14
27.687	PBA	10.19696	2.25839e-2	2.30287e-1		Benzo(k)fluoranthene #15
28.812	BBA	16.98781	2.61681e-2	4.44538e-1		Benzo(a)pyrene #16
30.687	BBA	6.85372	9.41128e-2	6.45023e-1		Dibenz(a,h)anthracene #17

Data File C:\HPCHEM\2\DATA\080801\4L001817.D

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.524	PB	5.61006	5.60813e-2	3.14619e-1		Benzo(g,h,i)perylene #18
32.448	BB	21.11818	2.05610e-2	4.34211e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 46.99648

Results obtained with enhanced integrator!

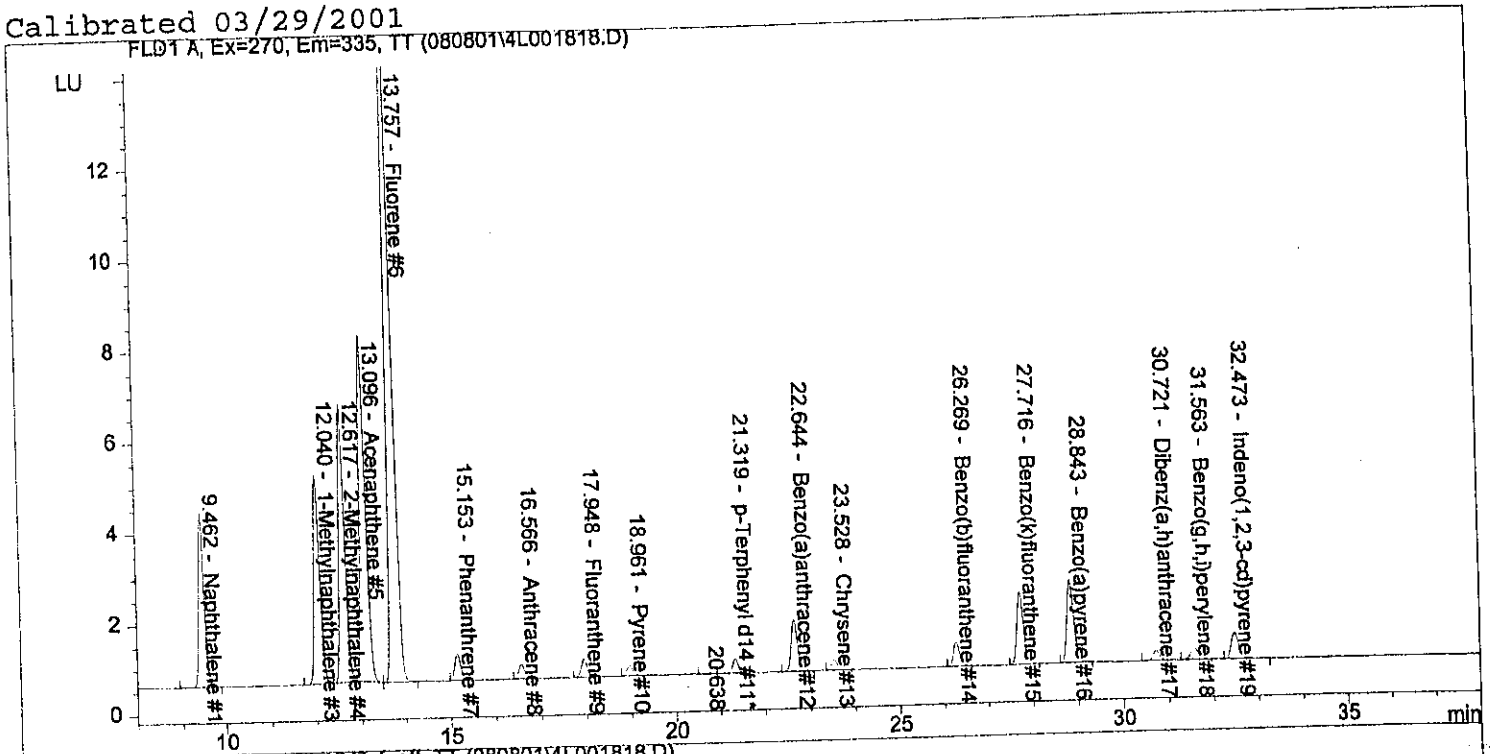
*** End of Report ***

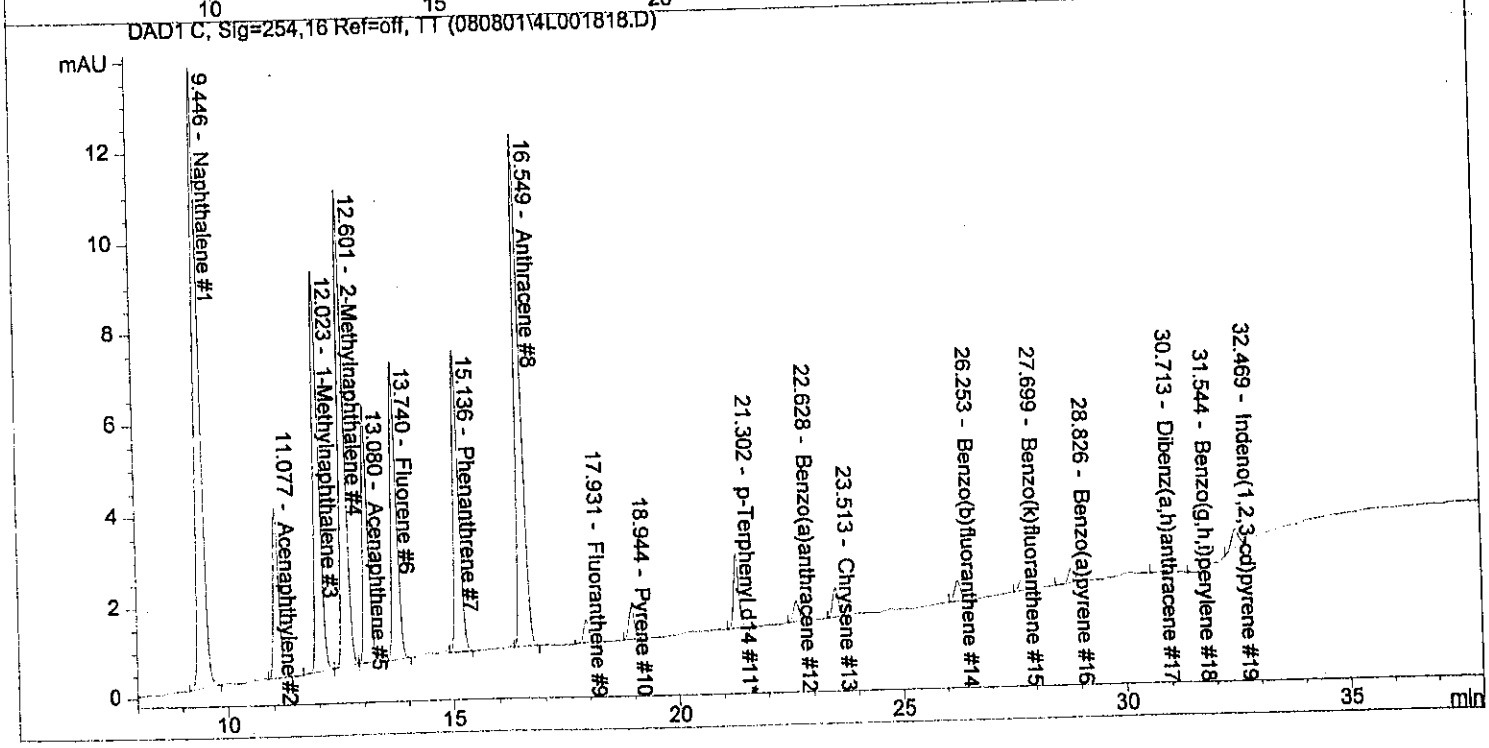
ata File C:\HPCHEM\2\DATA\080801\4L001818.D

Injection Date	: 8/9/2001 3:28:00 AM	Seq. Line	: 14
Sample Name	: 8310 std 1/53-25	Vial	: 11
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

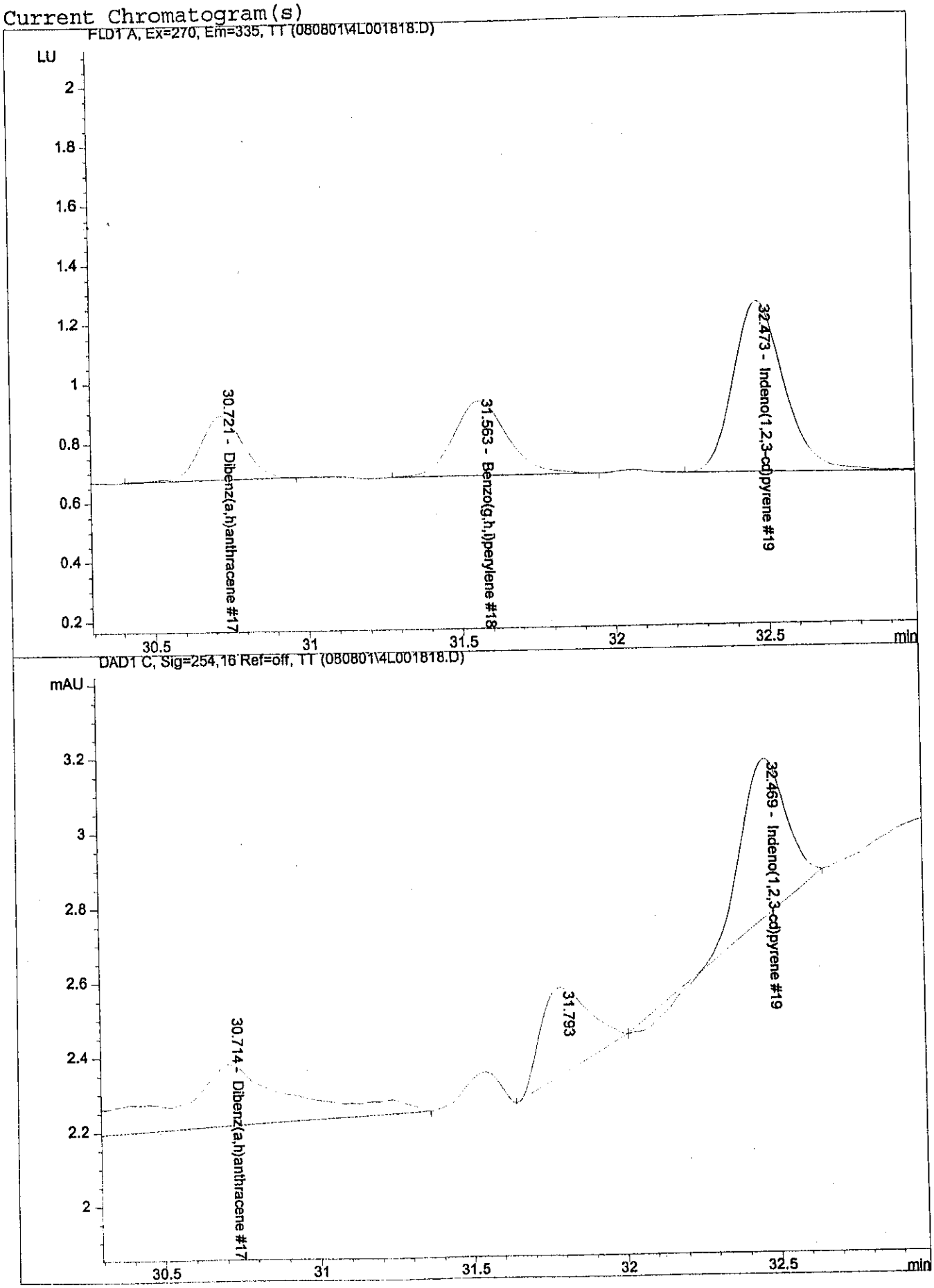
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 1:57:07 PM by RDC
(modified after loading)

Calibrated 03/29/2001



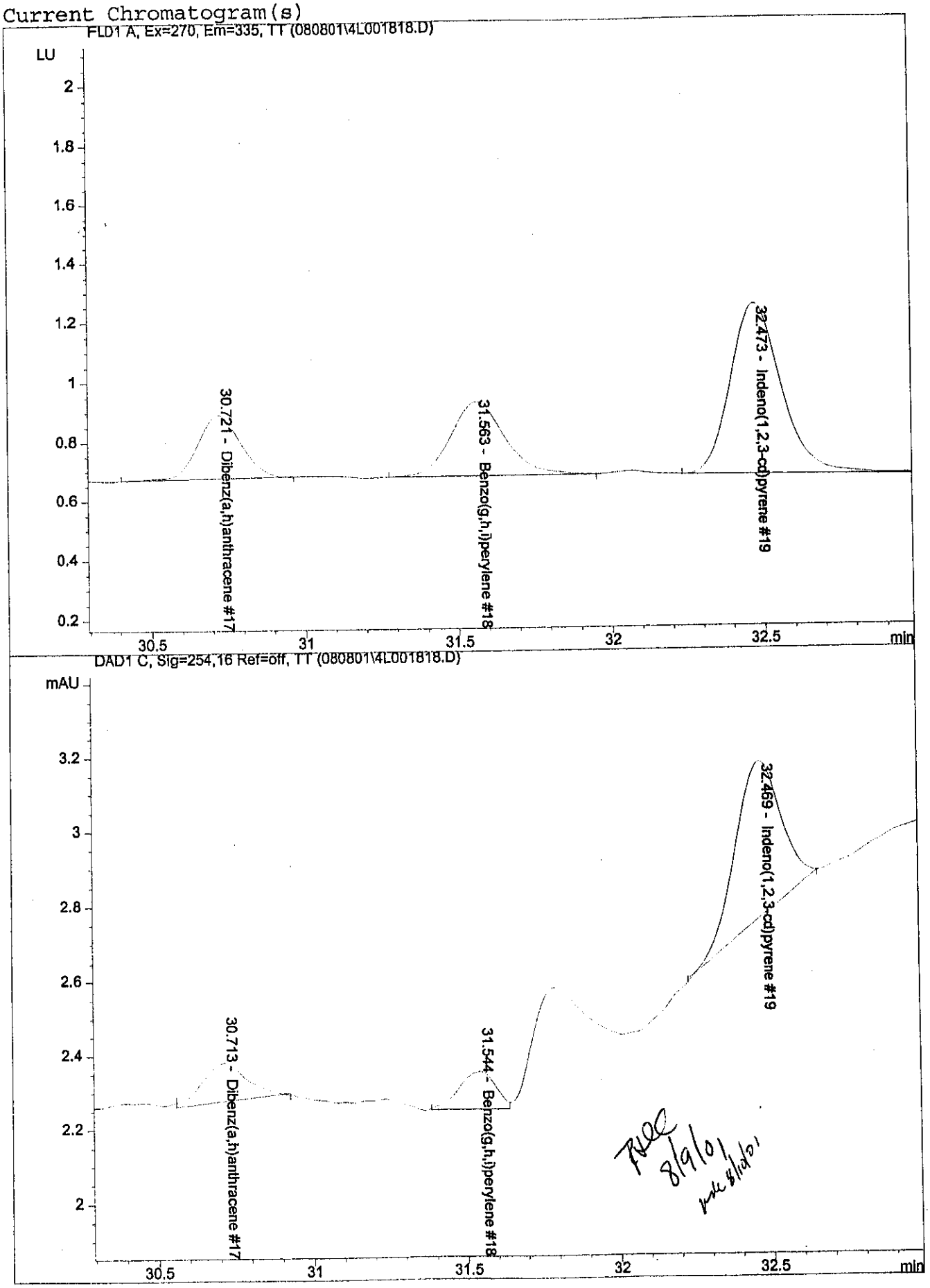


Current Chromatogram(s)



Print of window 38: Current Chromatogram(s)

Current Chromatogram(s)



RDC 8/9/01
pde 8/10/01

257

External Standard Report

Sorted By : Signal
Calib. Data Modified : Thursday, August 09, 2001 1:57:05 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.462	PBA	37.17168	2.52962e-2	9.40302e-1		Naphthalene #1
12.040	PB	42.88826	2.21330e-2	9.49244e-1		1-Methylnaphthalene #3
12.617	BB	56.35436	1.70635e-2	9.61602e-1		2-Methylnaphthalene #4
13.096	BB	70.47864	1.38416e-2	9.75535e-1		Acenaphthene #5
13.757	BBA	154.16187	6.51364e-3	1.00416		Fluorene #6
15.153	BBA	5.49988	1.63652e-1	9.00067e-1		Phenanthrene #7
16.566	BBA	3.13834	3.10196e-1	9.73501e-1		Anthracene #8
17.948	BBA	3.92854	2.32678e-2	9.14086e-2		Fluoranthene #9
18.961	PBA	2.27570	3.69972e-2	8.41944e-2		Pyrene #10
21.319	BBA	3.07342	2.97423e-1	9.14105e-1		p-Terphenyl d14 #11*
22.644	BB	11.54687	7.91256e-3	9.13654e-2		Benzo(a)anthracene #12
23.528	BB	2.41118	3.90495e-2	9.41556e-2		Chrysene #13
26.269	BBA	5.57386	1.63222e-2	9.09776e-2		Benzo(b)fluoranthene #14
27.716	PBA	16.87873	2.76572e-3	4.66818e-2		Benzo(k)fluoranthene #15
28.843	PBA	19.26282	4.57119e-3	8.80540e-2		Benzo(a)pyrene #16
30.721	PBA	2.12374	3.93496e-2	8.35682e-2		Dibenz(a,h)anthracene #17
31.563	PB	3.08265	2.65165e-2	8.17409e-2		Benzo(g,h,i)perylene #18
32.473	BBA	6.64809	1.38204e-2	9.18793e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 8.46254

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.446	PBA	122.72835	8.25405e-3	1.01301		Naphthalene #1
11.077	BBA	32.52021	2.96975e-2	9.65769e-1		Acenaphthylene #2
12.023	BB	75.33028	1.29459e-2	9.75215e-1		1-Methylnaphthalene #3
12.601	BB	88.22273	1.12393e-2	9.91560e-1		2-Methylnaphthalene #4
13.080	BBA	47.72895	2.03163e-2	9.69678e-1		Acenaphthene #5
13.740	BBA	54.47855	1.75240e-2	9.54682e-1		Fluorene #6
15.136	BBA	55.64261	1.72982e-2	9.62519e-1		Phenanthrene #7
16.549	BBA	95.56687	1.04262e-2	9.96398e-1		Anthracene #8
17.931	PBA	4.46854	2.17006e-2	9.69699e-2		Fluoranthene #9
18.944	BBA	6.23924	1.43052e-2	8.92539e-2		Pyrene #10
21.302	PBA	14.08348	6.56733e-2	9.24908e-1		p-Terphenyl d14 #11*
22.628	BBA	4.00703	2.22694e-2	8.92344e-2		Benzo(a)anthracene #12
23.513	PBA	6.06011	1.51453e-2	9.17822e-2		Chrysene #13
26.253	BBA	4.43454	2.07330e-2	9.19412e-2		Benzo(b)fluoranthene #14
27.699	BBA	2.30033	2.25837e-2	5.19499e-2		Benzo(k)fluoranthene #15
28.826	BBA	3.45270	2.61680e-2	9.03503e-2		Benzo(a)pyrene #16
30.713	MM	1.04021	9.41116e-2	9.78958e-2		Dibenz(a,h)anthracene #17

Data File C:\HPCHEM\2\DATA\080801\4L001818.D

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.544	MV	8.44691e-1	5.60829e-2	4.73728e-2		Benzo(g,h,i)perylene #18
32.469	FM	4.35778	2.05608e-2	8.95994e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.59008

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\080801\4L001819.D Sample Name: 8310alt5327/5529
HPLC4 8/9/2001 2:40:05 PM RDC

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Injection Date : 8/9/2001 4:24:36 AM
Sample Name : 8310alt5327/5529
Acq. Operator : RDC

Seq. Line : 15
Vial : 12
Inj : 1

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.470	20.0	19.085	-4.6
1-Methylnaphthalene #3	12.051	20.0	19.612	-1.9
2-Methylnaphthalene #4	12.628	20.0	19.236	-3.8
Acenaphthene #5	13.106	20.0	20.107	0.5
Fluorene #6	13.767	20.0	20.476	2.4
Phenanthrene #7	15.162	20.0	18.244	-8.8
Anthracene #8	16.577	20.0	20.286	1.4
Fluoranthene #9	17.959	2.0	1.875	-6.2
Pyrene #10	18.972	2.0	1.773	-11.4
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.654	2.0	1.764	-11.8
Chrysene #13	23.539	2.0	1.812	-9.4
Benzo(b)fluoranthene #14	26.279	2.0	1.900	-5.0
Benzo(k)fluoranthene #15	27.731	1.0	0.859	-14.1
Benzo(a)pyrene #16	28.859	2.0	1.936	-3.2
Dibenz(a,h)anthracene #1	30.737	2.0	2.044	2.2
Benzo(g,h,i)perylene #18	31.575	2.0	1.778	-11.1
Indeno(1,2,3-cd)pyrene #	32.488	2.0	1.863	-6.9

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.449	20.0	20.445	2.2
Acenaphthylene #2	11.083	20.0	19.230	-3.8
1-Methylnaphthalene #3	12.030	20.0	20.220	1.1
2-Methylnaphthalene #4	12.606	20.0	19.941	-0.3
Acenaphthene #5	13.085	20.0	20.110	0.5
Fluorene #6	13.745	20.0	19.598	-2.0
Phenanthrene #7	15.141	20.0	19.075	-4.6
Anthracene #8	16.555	20.0	20.838	4.2
Fluoranthene #9	17.937	2.0	1.904	-4.8
Pyrene #10	18.950	2.0	1.866	-6.7
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.633	2.0	1.817	-9.1
Chrysene #13	23.517	2.0	1.889	-5.5
Benzo(b)fluoranthene #14	26.257	2.0	1.916	-4.2
Benzo(k)fluoranthene #15	27.709	1.0	0.861	-13.9
Benzo(a)pyrene #16	28.837	2.0	1.945	-2.8
Dibenz(a,h)anthracene #1	30.716	2.0	2.113	5.6
Benzo(g,h,i)perylene #18	31.551	2.0	1.876	-6.2
Indeno(1,2,3-cd)pyrene #	32.471	2.0	1.847	-7.7

= Failed 15.0% Criteria

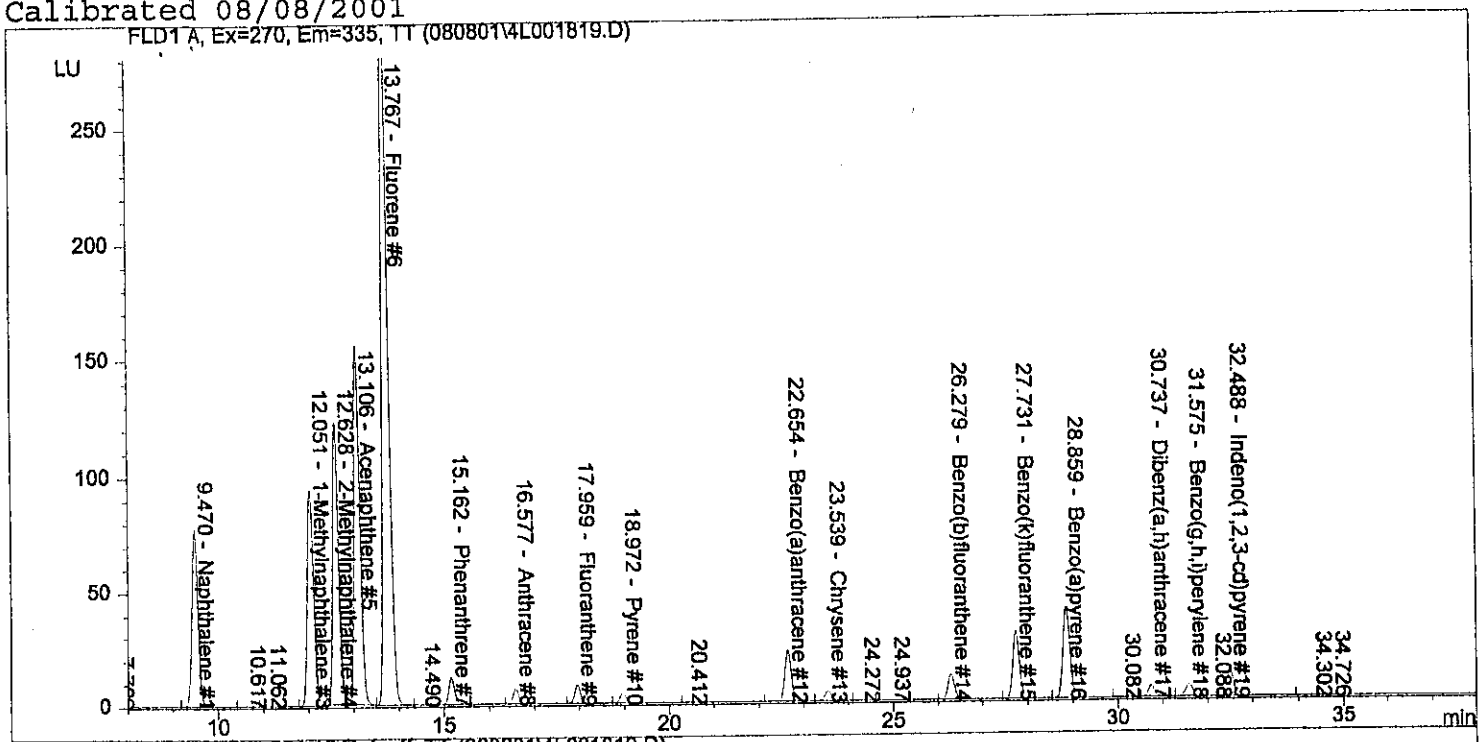
Data File C:\HPCHEM\2\DATA\080801\4L001819.D Sample Name: 8310alt5327/5529

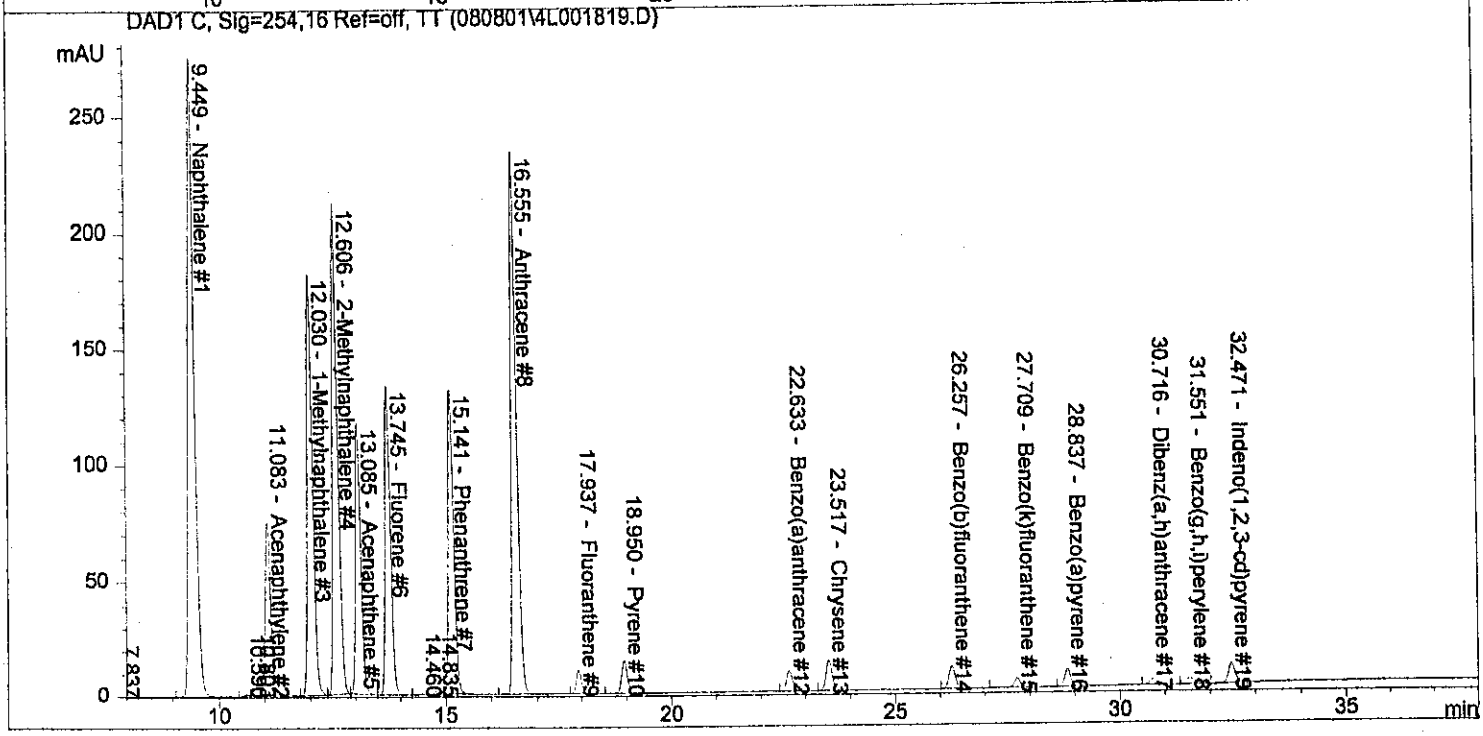
==========

Injection Date : 8/9/2001 4:24:36 AM
Sample Name : 8310alt5327/5529
Acq. Operator : RDC

Seq. Line : 15
Vial : 12
Inj : 1
Inj Volume : 8 µl

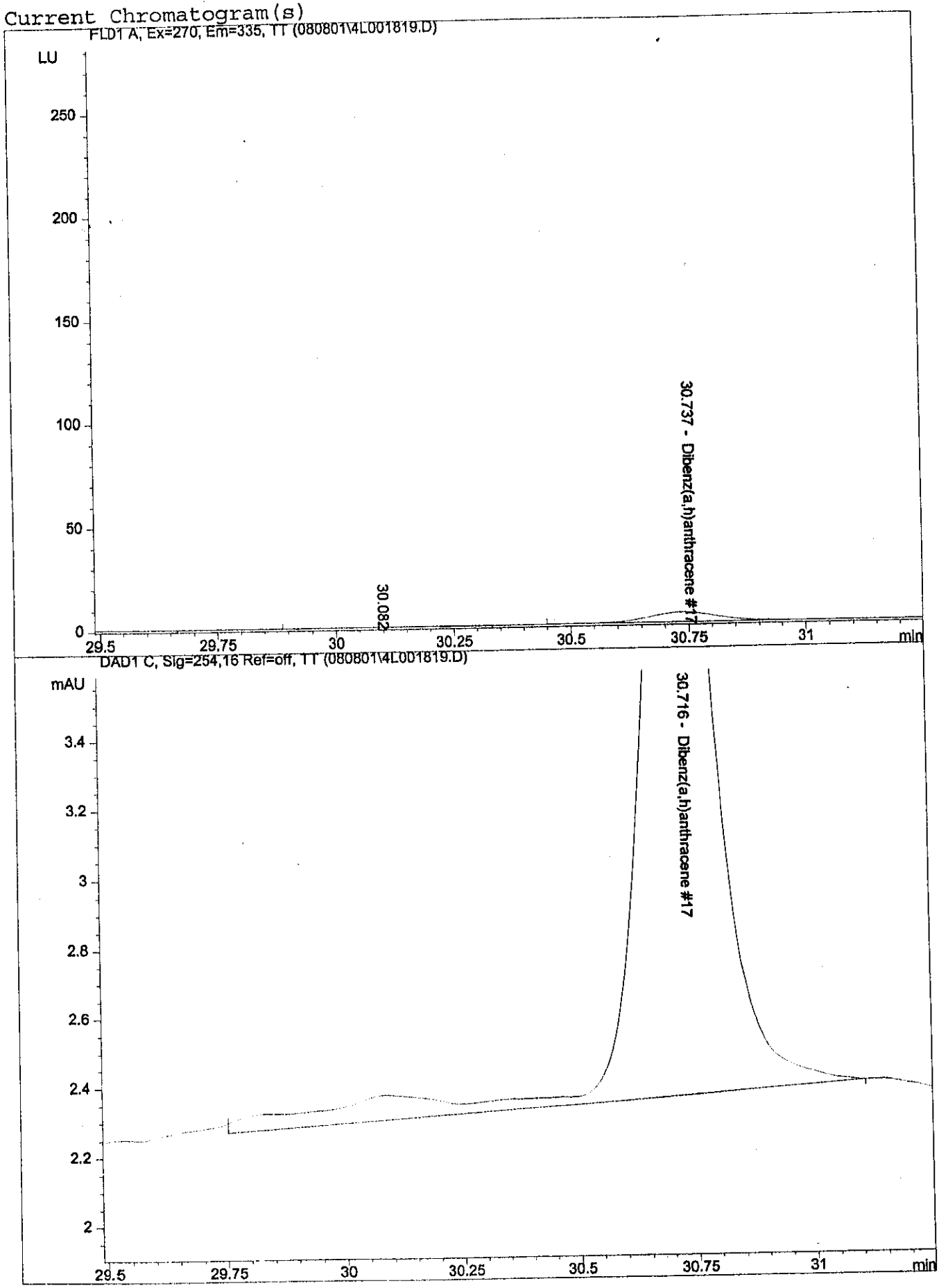
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 2:38:26 PM by RDC
Calibrated 08/08/2001





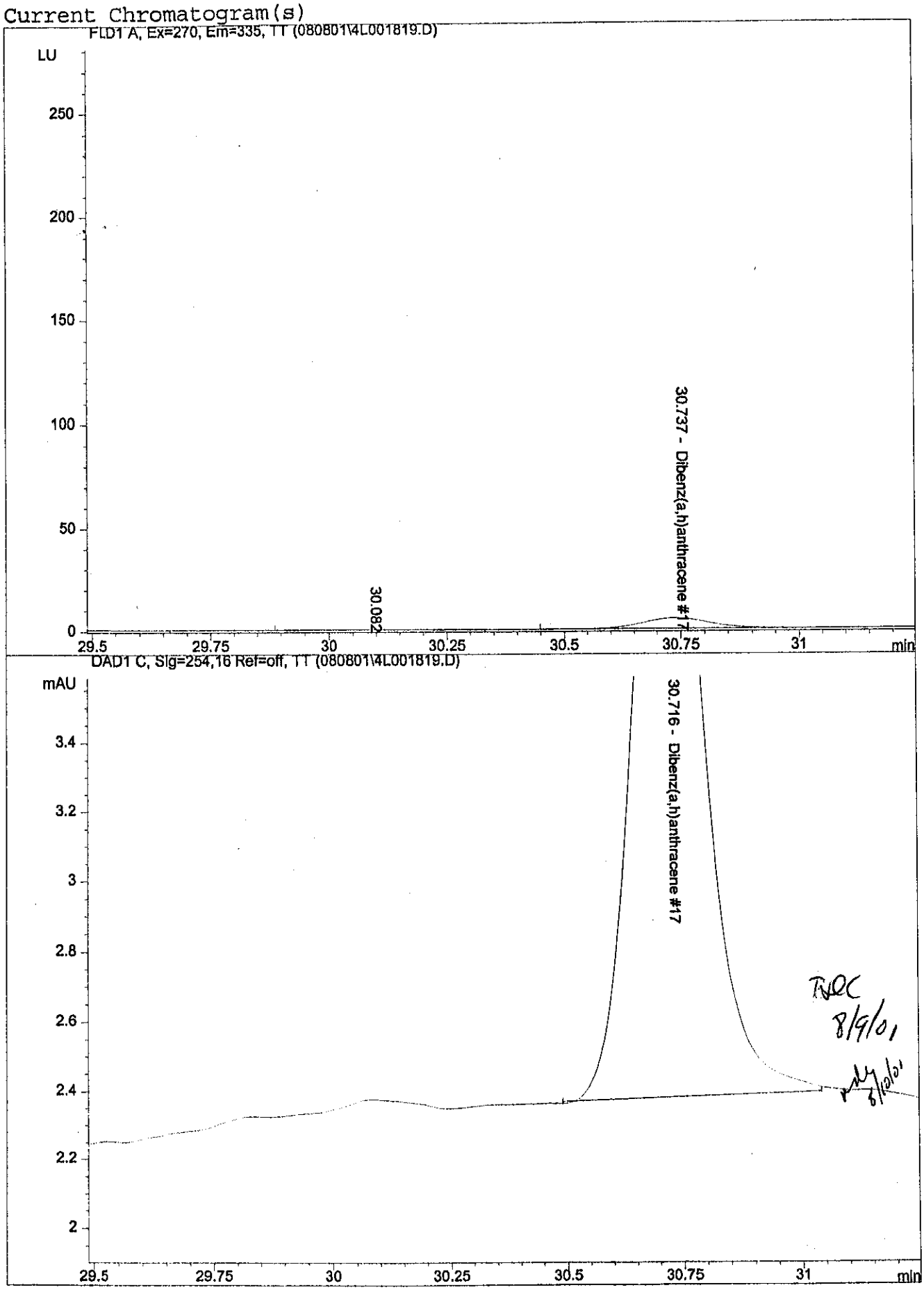
Print of window 38: Current Chromatogram(s)

Current Chromatogram(s)



Print of window 38: Current Chromatogram(s)

Current Chromatogram(s)



Data File C:\HPCHEM\2\DATA\080801\4L001819.D Sample Name: [illegible]

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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 8/9/2001 2:38:03 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.470	BBA	754.46277	2.52962e-2	19.08504		Naphthalene #1
12.051	PB	886.09137	2.21330e-2	19.61182		1-Methylnaphthalene #3
12.628	BB	1127.34106	1.70635e-2	19.23638		2-Methylnaphthalene #4
13.106	BB	1452.62085	1.38416e-2	20.10654		Acenaphthene #5
13.767	BB	3092.24097	6.62187e-3	20.47641		Fluorene #6
15.162	BBA	111.47997	1.63652e-1	18.24395		Phenanthrene #7
16.577	BBA	65.39610	3.10196e-1	20.28563		Anthracene #8
17.959	BBA	80.59158	2.32678e-2	1.87519		Fluoranthene #9
18.972	BBA	45.85996	3.86587e-2	1.77289		Pyrene #10
21.319		-	-	-		p-Terphenyl d14 #11*
22.654	BB	222.98581	7.91256e-3	1.76439		Benzo(a)anthracene #12
23.539	BBA	46.41417	3.90495e-2	1.81245		Chrysene #13
26.279	BBA	116.38370	1.63222e-2	1.89964		Benzo(b)fluoranthene #14
27.731	PB	310.48468	2.76572e-3	8.58712e-1		Benzo(k)fluoranthene #15
28.859	BBA	423.47870	4.57119e-3	1.93580		Benzo(a)pyrene #16
30.737	BB	51.95090	3.93496e-2	2.04424		Dibenz(a,h)anthracene #17
31.575	BB	67.06937	2.65165e-2	1.77844		Benzo(g,h,i)perylene #18
32.488	BBA	134.78470	1.38204e-2	1.86278		Indeno(1,2,3-cd)pyrene #1
Totals :				154.65030		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.449	PBA	2477.01978	8.25405e-3	20.44544		Naphthalene #1
11.083	BB	647.54114	2.96975e-2	19.23036		Acenaphthylene #2
12.030	BB	1561.87817	1.29459e-2	20.21985		1-Methylnaphthalene #3
12.606	BB	1774.18762	1.12393e-2	19.94059		2-Methylnaphthalene #4
13.085	BB	989.82544	2.03163e-2	20.10963		Acenaphthene #5
13.745	BB	1118.36353	1.75240e-2	19.59821		Fluorene #6
15.141	BBA	1102.72717	1.72982e-2	19.07524		Phenanthrene #7
16.555	BBA	1998.58276	1.04262e-2	20.83759		Anthracene #8
17.937	PB	87.72285	2.17006e-2	1.90364		Fluoranthene #9
18.950	BBA	130.42879	1.43052e-2	1.86582		Pyrene #10
21.302		-	-	-		p-Terphenyl d14 #11*
22.633	BBA	81.60189	2.22694e-2	1.81723		Benzo(a)anthracene #12
23.517	PBA	124.75014	1.51453e-2	1.88938		Chrysene #13
26.257	BBA	92.43634	2.07330e-2	1.91648		Benzo(b)fluoranthene #14
27.709	BBA	38.12810	2.25837e-2	8.61073e-1		Benzo(k)fluoranthene #15
28.837	BBA	74.32523	2.61680e-2	1.94494		Benzo(a)pyrene #16
30.716	MM	22.44932	9.41116e-2	2.11274		Dibenz(a,h)anthracene #17

Data File C:\HPCHEM\2\DATA\080801\4L001819.D Sample Name: 8310a1t5327/5529

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.551	PB	33.44667	5.60829e-2	1.87579		Benzo(g,h,i)perylene #18
32.471	BB	89.81290	2.05608e-2	1.84662		Indeno(1,2,3-cd)pyrene #1

Totals : 177.49063

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\112001\4L002350.D Sample Name: WG108586-01 CCV
HPLC4 11/20/2001 6:03:06 PM RDC

1,1 SOS56-19/56-20

==========

Injection Date : 11/20/2001 3:09:03 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.214	20.0	18.855	-5.7
1-Methylnaphthalene #3	11.821	20.0	19.011	-4.9
2-Methylnaphthalene #4	12.403	20.0	19.193	-4.0
Acenaphthene #5	12.885	20.0	19.508	-2.5
Fluorene #6	13.539	20.0	20.202	1.0
Phenanthrene #7	14.927	20.0	18.178	-9.1
Anthracene #8	16.338	20.0	20.249	1.2
Fluoranthene #9	17.718	2.0	1.879	-6.0
Pyrene #10	18.728	2.0	1.763	-11.8
p-Terphenyl d14 #11*	21.085	20.0	19.506	-2.5
Benzo(a)anthracene #12	22.416	2.0	1.862	-6.9
Chrysene #13	23.297	2.0	1.857	-7.1
Benzo(b)fluoranthene #14	26.057	2.0	1.881	-5.9
Benzo(k)fluoranthene #15	27.522	1.0	0.959	-4.1
Benzo(a)pyrene #16	28.665	2.0	1.990	-0.5
Dibenz(a,h)anthracene #1	30.588	2.0	1.840	-8.0
Benzo(g,h,i)perylene #18	31.390	2.0	1.794	-10.3
Indeno(1,2,3-cd)pyrene #	32.334	2.0	1.929	-3.6

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.199	20.0	20.299	1.5
Acenaphthylene #2	10.845	20.0	19.103	-4.5
1-Methylnaphthalene #3	11.806	20.0	19.648	-1.8
2-Methylnaphthalene #4	12.387	20.0	19.980	-0.1
Acenaphthene #5	12.870	20.0	19.554	-2.2
Fluorene #6	13.523	20.0	19.247	-3.8
Phenanthrene #7	14.911	20.0	19.307	-3.5
Anthracene #8	16.322	20.0	20.664	3.3
Fluoranthene #9	17.701	2.0	1.914	-4.3
Pyrene #10	18.711	2.0	1.887	-5.7
p-Terphenyl d14 #11*	21.070	20.0	19.426	-2.9
Benzo(a)anthracene #12	22.400	2.0	1.916	-4.2
Chrysene #13	23.281	2.0	1.914	-4.3
Benzo(b)fluoranthene #14	26.040	2.0	1.914	-4.3
Benzo(k)fluoranthene #15	27.506	1.0	0.961	-3.9
Benzo(a)pyrene #16	28.648	2.0	2.050	2.5
Dibenz(a,h)anthracene #1	30.572	2.0	1.924	-3.8
Benzo(g,h,i)perylene #18	31.372	2.0	2.039	2.0
Indeno(1,2,3-cd)pyrene #	32.318	2.0	1.915	-4.2

= Failed 15.0% Criteria

1,1 SOS56-19/56-20

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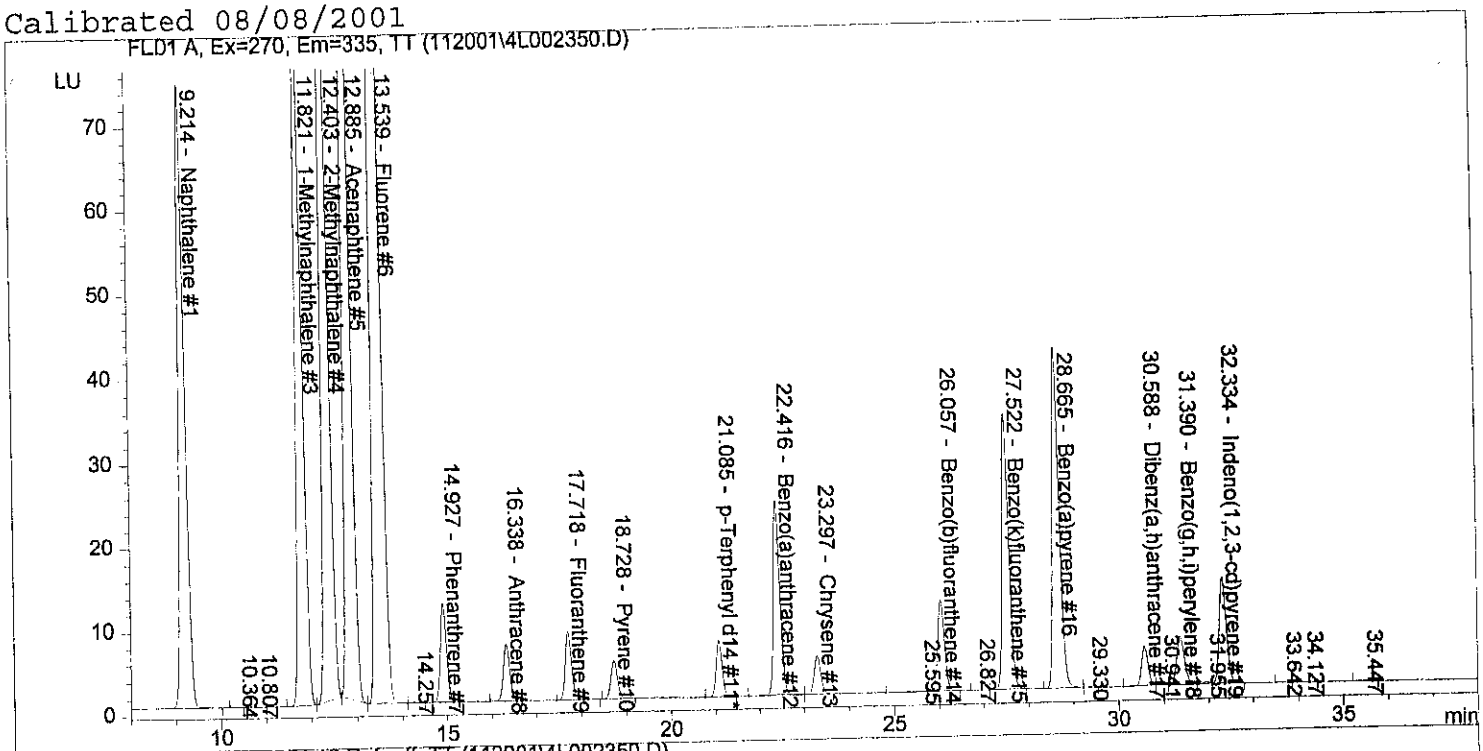
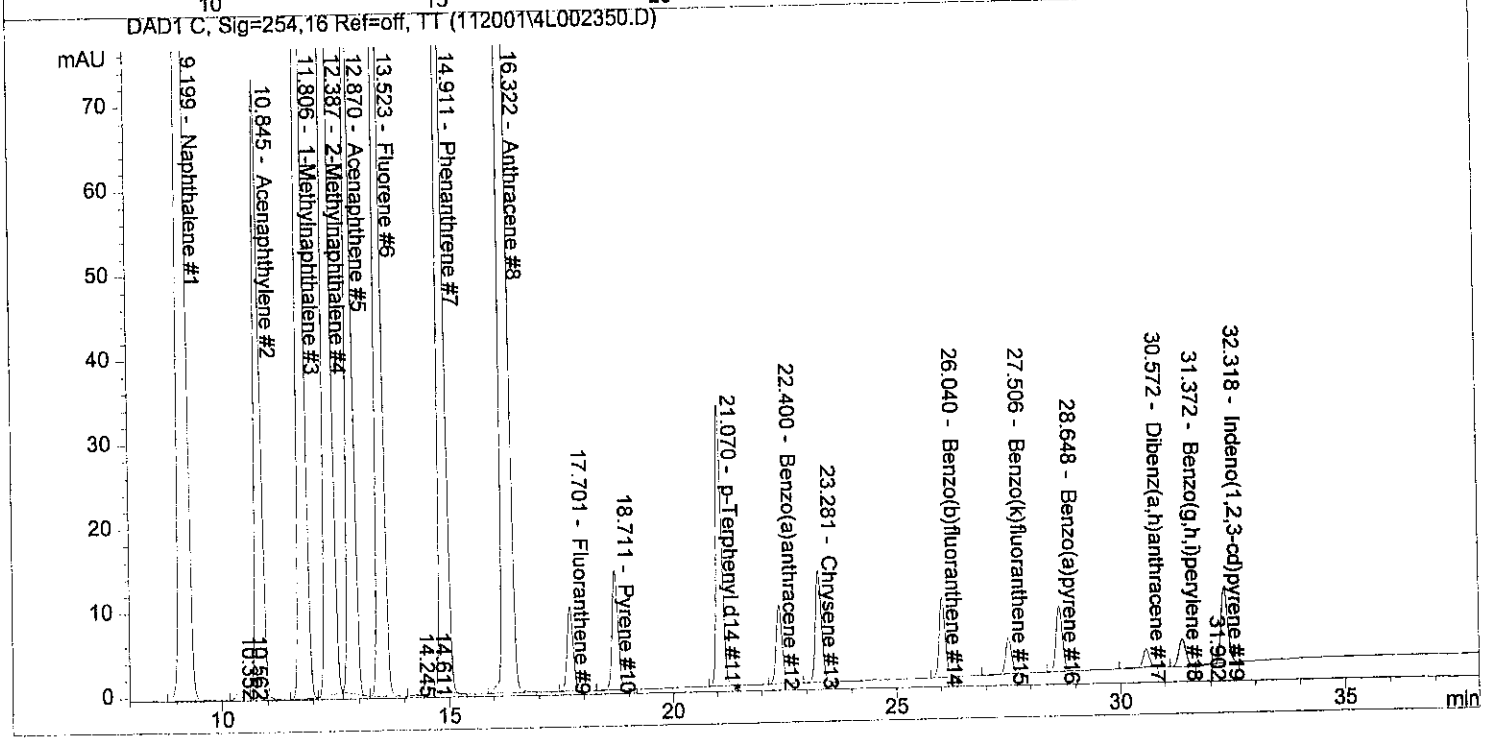
Injection Date : 11/20/2001 3:09:03 PM
Sample Name : WG108586-01 CCV
Acq. Operator : RDC

Seq. Line : 2
Vial : 2
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/20/2001 6:02:58 PM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	11/20/2001 6:02:58 PM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.214	BBA	745.38470	2.52962e-2	18.85540		Naphthalene #1
11.821	PB	858.93915	2.21330e-2	19.01086		1-Methylnaphthalene #3
12.403	BB	1124.80469	1.70635e-2	19.19310		2-Methylnaphthalene #4
12.885	BB	1409.40698	1.38416e-2	19.50840		Acenaphthene #5
13.539	BB	3050.77563	6.62187e-3	20.20183		Fluorene #6
14.927	BBA	111.07926	1.63652e-1	18.17837		Phenanthrene #7
16.338	PB	65.27890	3.10196e-1	20.24928		Anthracene #8
17.718	BBA	80.76973	2.32678e-2	1.87934		Fluoranthene #9
18.728	BBA	45.61041	3.86587e-2	1.76324		Pyrene #10
21.085	BB	65.58199	2.97423e-1	19.50558		p-Terphenyl d14 #11*
22.416	BB	235.29422	7.91256e-3	1.86178		Benzo(a)anthracene #12
23.297	BB	47.55685	3.90495e-2	1.85707		Chrysene #13
26.057	BB	115.25386	1.63222e-2	1.88119		Benzo(b)fluoranthene #14
27.522	BB	346.92325	2.76572e-3	9.59491e-1		Benzo(k)fluoranthene #15
28.665	BB	435.23410	4.57119e-3	1.98954		Benzo(a)pyrene #16
30.588	BB	46.75999	3.93496e-2	1.83998		Dibenz(a,h)anthracene #17
31.390	BB	67.65892	2.65165e-2	1.79408		Benzo(g,h,i)perylene #18
32.334	BB	139.57231	1.38204e-2	1.92895		Indeno(1,2,3-cd)pyrene #1
Totals :				172.45747		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.199	PBA	2459.23438	8.25405e-3	20.29864		Naphthalene #1
10.845	BBA	643.26294	2.96975e-2	19.10331		Acenaphthylene #2
11.806	PB	1517.67749	1.29459e-2	19.64764		1-Methylnaphthalene #3
12.387	BB	1777.70325	1.12393e-2	19.98010		2-Methylnaphthalene #4
12.870	BB	962.45306	2.03163e-2	19.55353		Acenaphthene #5
13.523	BBA	1098.32678	1.75240e-2	19.24708		Fluorene #6
14.911	BBA	1116.13574	1.72982e-2	19.30719		Phenanthrene #7
16.322	PBA	1981.94788	1.04262e-2	20.66415		Anthracene #8
17.701	PB	88.17795	2.17006e-2	1.91351		Fluoranthene #9
18.711	BBA	131.90790	1.43052e-2	1.88697		Pyrene #10
21.070	BBA	295.80029	6.56733e-2	19.42617		p-Terphenyl d14 #11*
22.400	BBA	86.02634	2.22694e-2	1.91576		Benzo(a)anthracene #12
23.281	BBA	126.38978	1.51453e-2	1.91421		Chrysene #13
26.040	PBA	92.32178	2.07330e-2	1.91411		Benzo(b)fluoranthene #14
27.506	BBA	42.54090	2.25837e-2	9.60730e-1		Benzo(k)fluoranthene #15
28.648	BBA	78.32493	2.61680e-2	2.04961		Benzo(a)pyrene #16
30.572	PB	20.44073	9.41116e-2	1.92371		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.372	BB	36.36242	5.60829e-2	2.03931		Benzo(g,h,i)perylene #18
32.318	BB	93.16173	2.05608e-2	1.91548		Indeno(1,2,3-cd)pyrene #1
Totals :				195.66121		

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\112001\4L002361.D Sample Name: WG108586-02 CCV
HPLC4 11/21/2001 12:26:25 PM RDC

1,1 SOS56-19/56-20

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Injection Date : 11/21/2001 1:59:02 AM Seq. Line : 13

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.378	20.0	18.057	-9.7
1-Methylnaphthalene #3	11.958	20.0	18.213	-8.9
2-Methylnaphthalene #4	12.532	20.0	18.323	-8.4
Acenaphthene #5	13.014	20.0	18.873	-5.6
Fluorene #6	13.662	20.0	19.857	-0.7
Phenanthrene #7	15.040	20.0	17.764	-11.2
Anthracene #8	16.433	20.0	19.735	-1.3
Fluoranthene #9	17.802	2.0	1.828	-8.6
Pyrene #10	18.803	2.0	1.707	-14.6
p-Terphenyl d14 #11*	21.116	20.0	19.491	-2.5
Benzo(a)anthracene #12	22.422	2.0	1.820	-9.0
Chrysene #13	23.276	2.0	1.842	-7.9
Benzo(b)fluoranthene #14	25.972	2.0	1.840	-8.0
Benzo(k)fluoranthene #15	27.388	1.0	0.945	-5.5
Benzo(a)pyrene #16	28.515	2.0	1.908	-4.6
Dibenz(a,h)anthracene #1	30.374	2.0	1.864	-6.8
Benzo(g,h,i)perylene #18	31.187	2.0	1.795	-10.2
Indeno(1,2,3-cd)pyrene #	32.102	2.0	1.882	-5.9

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.359	20.0	20.245	1.2
Acenaphthylene #2	10.986	20.0	18.963	-5.2
1-Methylnaphthalene #3	11.940	20.0	19.534	-2.3
2-Methylnaphthalene #4	12.514	20.0	19.817	-0.9
Acenaphthene #5	12.996	20.0	19.373	-3.1
Fluorene #6	13.643	20.0	19.201	-4.0
Phenanthrene #7	15.022	20.0	19.122	-4.4
Anthracene #8	16.415	20.0	20.481	2.4
Fluoranthene #9	17.782	2.0	1.904	-4.8
Pyrene #10	18.784	2.0	1.867	-6.6
p-Terphenyl d14 #11*	21.098	20.0	19.319	-3.4
Benzo(a)anthracene #12	22.403	2.0	1.907	-4.6
Chrysene #13	23.258	2.0	1.907	-4.6
Benzo(b)fluoranthene #14	25.953	2.0	1.908	-4.6
Benzo(k)fluoranthene #15	27.369	1.0	0.955	-4.5
Benzo(a)pyrene #16	28.496	2.0	1.894	-5.3
Dibenz(a,h)anthracene #1	30.354	2.0	2.032	1.6
Benzo(g,h,i)perylene #18	31.167	2.0	2.104	5.2
Indeno(1,2,3-cd)pyrene #	32.081	2.0	2.001	0.1

= Failed 15.0% Criteria

1,1 SOS56-19/56-20

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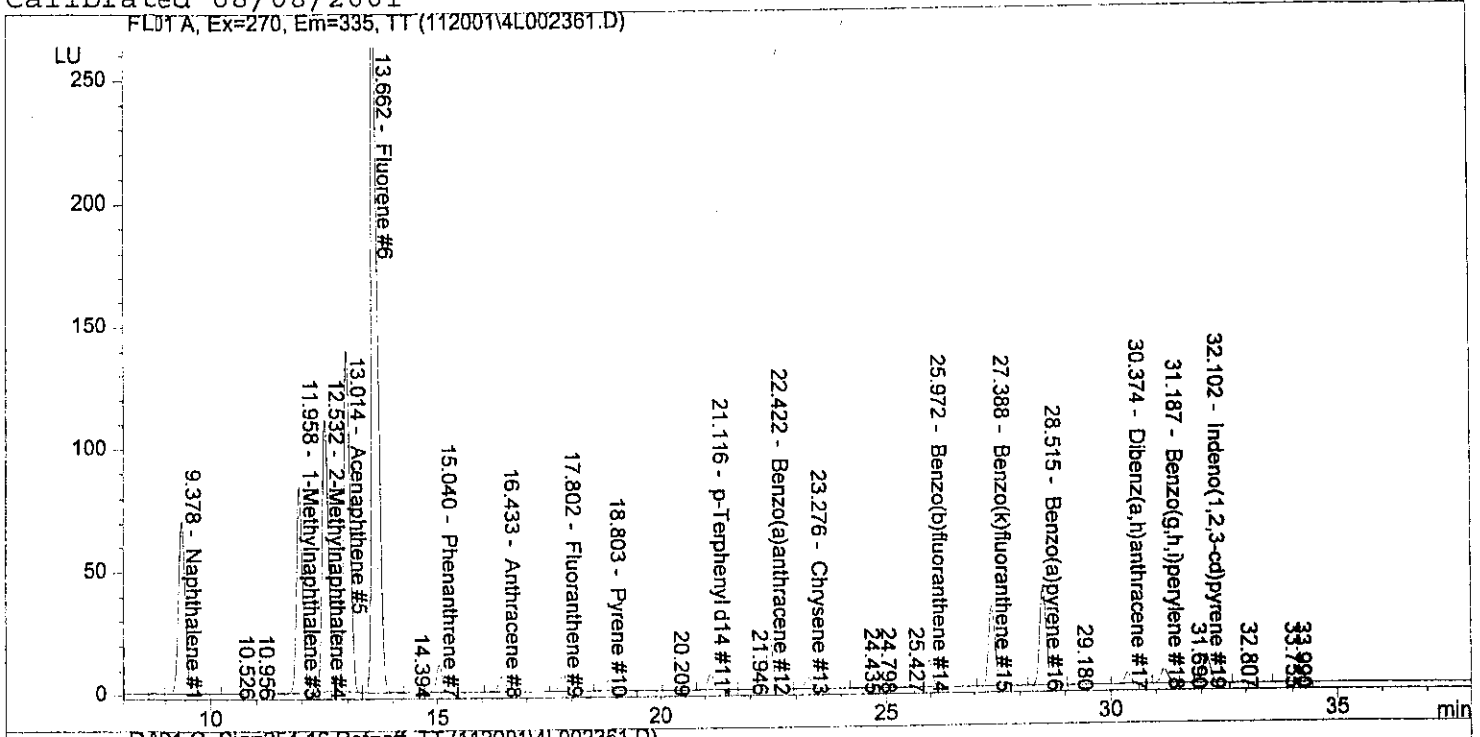
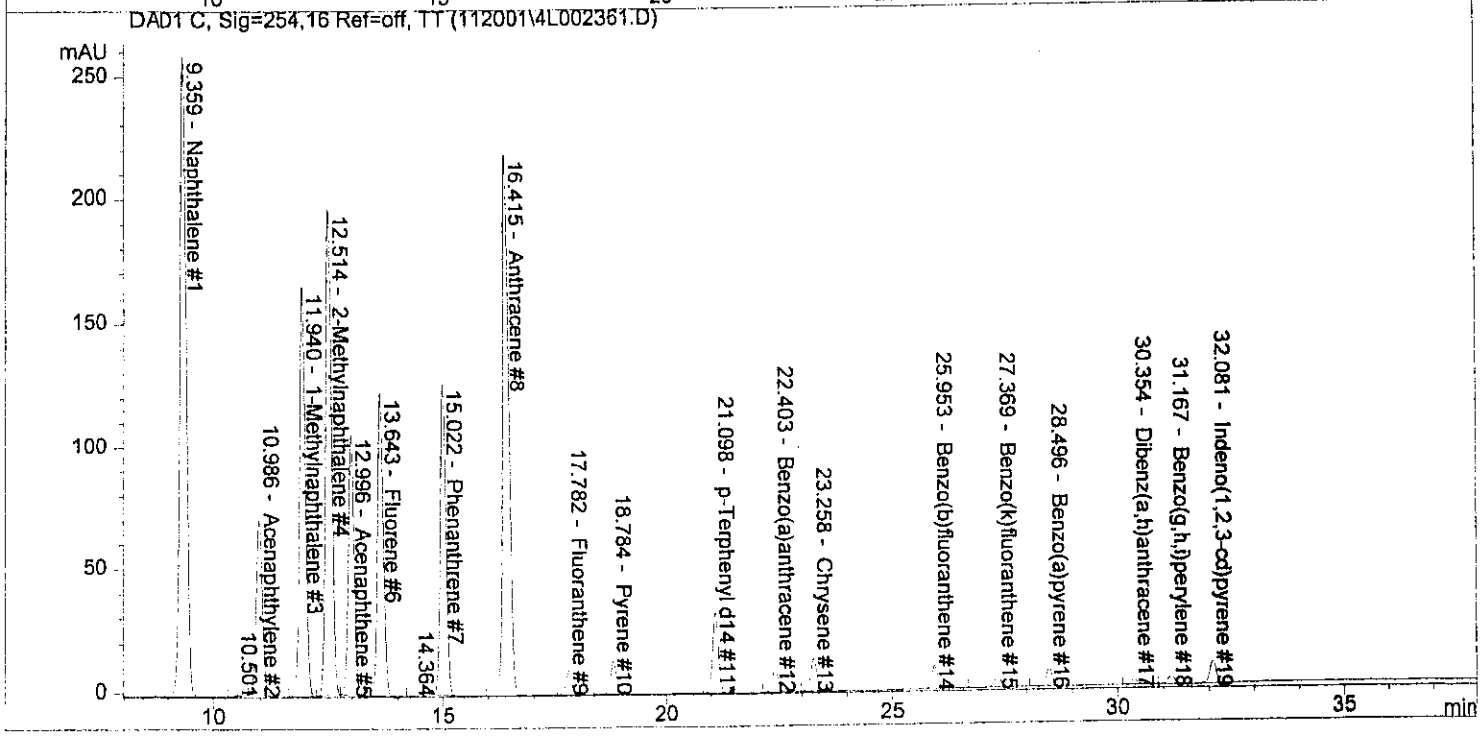
Injection Date : 11/21/2001 1:59:02 AM
Sample Name : WG108586-02 CCV
Acq. Operator : RDC

Seq. Line : 13
Vial : 13
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/21/2001 12:25:47 PM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, November 21, 2001 12:25:47 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.378	BBA	713.84192	2.52962e-2	18.05749		Naphthalene #1
11.958	BB	822.90344	2.21330e-2	18.21328		1-Methylnaphthalene #3
12.532	BB	1073.83911	1.70635e-2	18.32345		2-Methylnaphthalene #4
13.014	BB	1363.50964	1.38416e-2	18.87311		Acenaphthene #5
13.662	BB	2998.73169	6.62187e-3	19.85720		Fluorene #6
15.040	BBA	108.54491	1.63652e-1	17.76362		Phenanthrene #7
16.433	PB	63.62175	3.10196e-1	19.73523		Anthracene #8
17.802	BBA	78.58060	2.32678e-2	1.82840		Fluoranthene #9
18.803	BBA	44.16053	3.86587e-2	1.70719		Pyrene #10
21.116	BB	65.53138	2.97423e-1	19.49053		p-Terphenyl d14 #11*
22.422	BB	230.06712	7.91256e-3	1.82042		Benzo(a)anthracene #12
23.276	BB	47.18345	3.90495e-2	1.84249		Chrysene #13
25.972	BB	112.75446	1.63222e-2	1.84040		Benzo(b)fluoranthene #14
27.388	PB	341.62549	2.76572e-3	9.44839e-1		Benzo(k)fluoranthene #15
28.515	BB	417.30978	4.57119e-3	1.90760		Benzo(a)pyrene #16
30.374	PB	47.38241	3.93496e-2	1.86448		Dibenz(a,h)anthracene #17
31.187	BB	67.69653	2.65165e-2	1.79507		Benzo(g,h,i)perylene #18
32.102	BBA	136.17615	1.38204e-2	1.88201		Indeno(1,2,3-cd)pyrene #1
Totals :				167.74680		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.359	PBA	2452.72778	8.25405e-3	20.24494		Naphthalene #1
10.986	BBA	638.53857	2.96975e-2	18.96301		Acenaphthylene #2
11.940	PB	1508.92102	1.29459e-2	19.53428		1-Methylnaphthalene #3
12.514	BB	1763.21851	1.12393e-2	19.81730		2-Methylnaphthalene #4
12.996	BB	953.58539	2.03163e-2	19.37337		Acenaphthene #5
13.643	BBA	1095.67566	1.75240e-2	19.20062		Fluorene #6
15.022	BBA	1105.42297	1.72982e-2	19.12187		Phenanthrene #7
16.415	PBA	1964.37439	1.04262e-2	20.48093		Anthracene #8
17.782	BB	87.76057	2.17006e-2	1.90446		Fluoranthene #9
18.784	BBA	130.53215	1.43052e-2	1.86729		Pyrene #10
21.098	BBA	294.16901	6.56733e-2	19.31904		p-Terphenyl d14 #11*
22.403	BBA	85.63338	2.22694e-2	1.90701		Benzo(a)anthracene #12
23.258	BBA	125.91673	1.51453e-2	1.90705		Chrysene #13
25.953	BBA	92.03997	2.07330e-2	1.90826		Benzo(b)fluoranthene #14
27.369	PB	42.28928	2.25837e-2	9.55048e-1		Benzo(k)fluoranthene #15
28.496	BB	72.36155	2.61680e-2	1.89356		Benzo(a)pyrene #16
30.354	BB	21.58934	9.41116e-2	2.03181		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.167	BB	37.52325	5.60829e-2	2.10441		Benzo(g,h,i)perylene #18
32.081	BB	97.32325	2.05608e-2	2.00104		Indeno(1,2,3-cd)pyrene #1
Totals :				194.53529		

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

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*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\112101\4L002369.D Sample Name: WG108689-01 CCV
HPLC4 11/26/2001 9:16:19 AM RDC

1,1 SOS56-19/56-20

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Injection Date : 11/21/2001 6:32:46 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.333	20.0	20.259	1.3
1-Methylnaphthalene #3	11.902	20.0	20.183	0.9
2-Methylnaphthalene #4	12.475	20.0	19.934	-0.3
Acenaphthene #5	12.953	20.0	20.174	0.9
Fluorene #6	13.607	20.0	20.862	4.3
Phenanthrene #7	15.012	20.0	19.504	-2.5
Anthracene #8	16.443	20.0	20.576	2.9
Fluoranthene #9	17.833	2.0	1.921	-3.9
Pyrene #10	18.852	2.0	2.034	1.7
p-Terphenyl d14 #11*	21.213	20.0	19.932	-0.3
Benzo(a)anthracene #12	22.539	2.0	1.985	-0.8
Chrysene #13	23.422	2.0	1.997	-0.1
Benzo(b)fluoranthene #14	26.169	2.0	1.991	-0.5
Benzo(k)fluoranthene #15	27.625	1.0	0.997	-0.3
Benzo(a)pyrene #16	28.752	2.0	1.990	-0.5
Dibenz(a,h)anthracene #1	30.667	2.0	1.999	-0.1
Benzo(g,h,i)perylene #18	31.451	2.0	2.042	2.1
Indeno(1,2,3-cd)pyrene #	32.386	2.0	1.988	-0.6

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

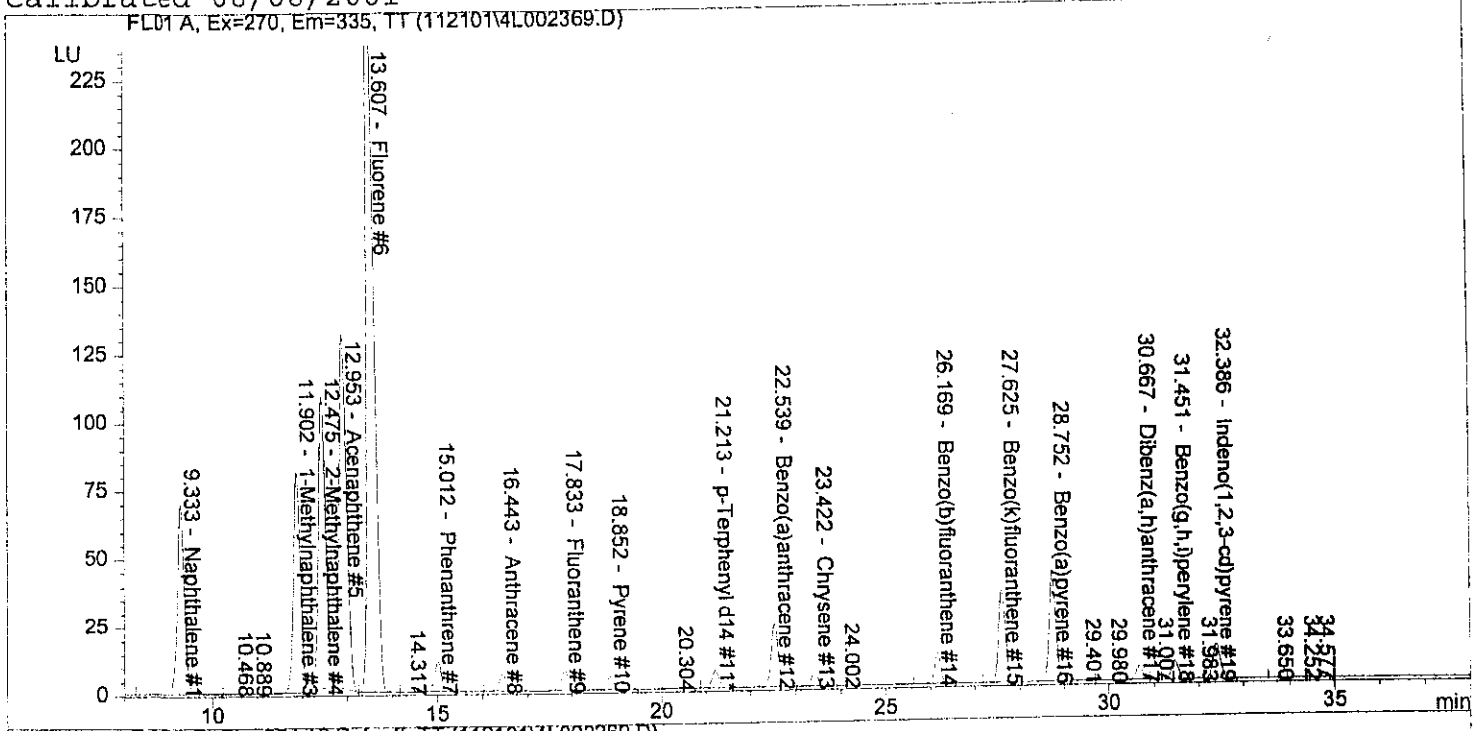
Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.319	20.0	21.006	5.0
Acenaphthylene #2	10.941	20.0	20.057	0.3
1-Methylnaphthalene #3	11.889	20.0	20.193	1.0
2-Methylnaphthalene #4	12.461	20.0	20.361	1.8
Acenaphthene #5	12.940	20.0	19.729	-1.4
Fluorene #6	13.593	20.0	19.723	-1.4
Phenanthrene #7	14.998	20.0	20.130	0.7
Anthracene #8	16.429	20.0	20.892	4.5
Fluoranthene #9	17.818	2.0	1.963	-1.9
Pyrene #10	18.837	2.0	1.936	-3.2
p-Terphenyl d14 #11*	21.199	20.0	19.902	-0.5
Benzo(a)anthracene #12	22.525	2.0	1.956	-2.2
Chrysene #13	23.408	2.0	1.958	-2.1
Benzo(b)fluoranthene #14	26.154	2.0	1.955	-2.2
Benzo(k)fluoranthene #15	27.610	1.0	1.010	1.0
Benzo(a)pyrene #16	28.737	2.0	1.913	-4.4
Dibenz(a,h)anthracene #1	30.653	2.0	1.877	-6.2
Benzo(g,h,i)perylene #18	31.435	2.0	1.984	-0.8
Indeno(1,2,3-cd)pyrene #	32.374	2.0	1.942	-2.9

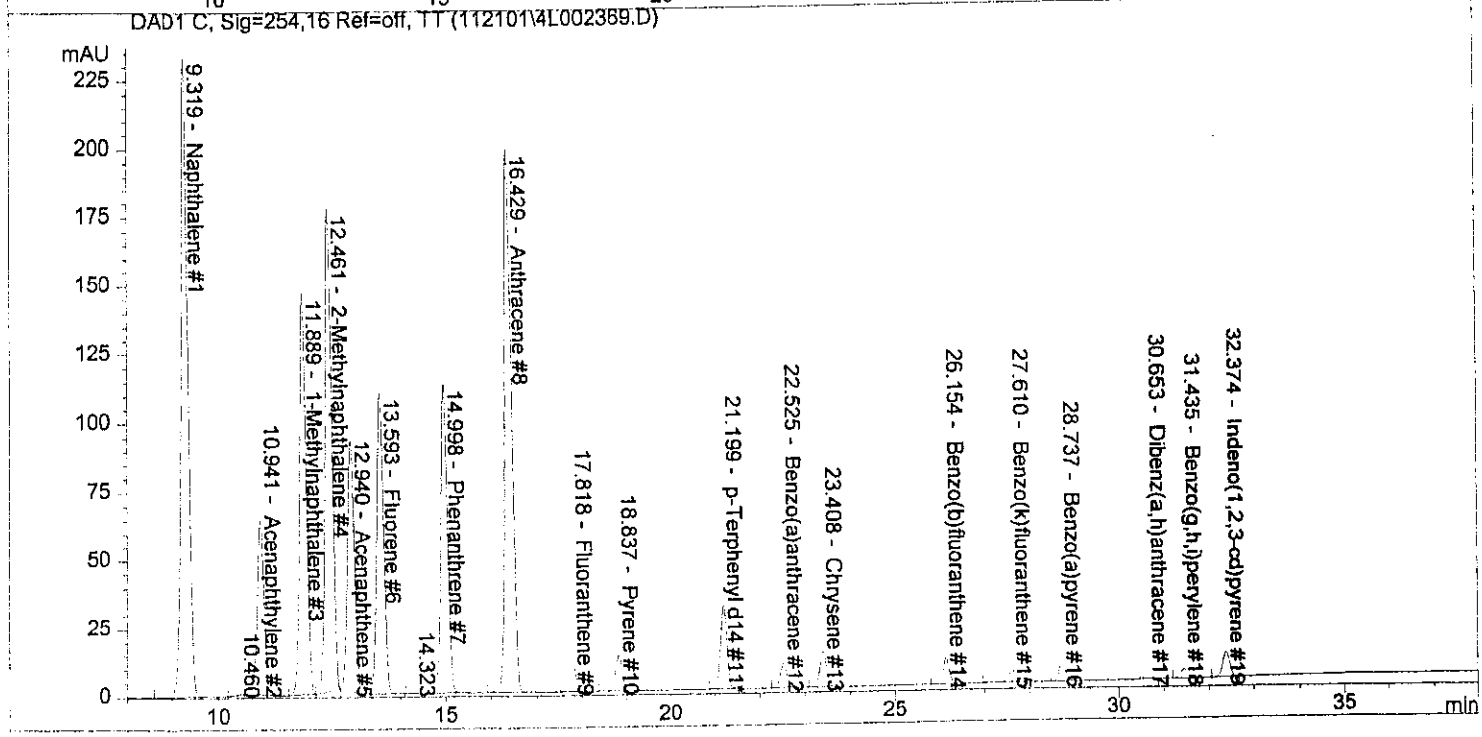
= Failed 15.0% Criteria

1,1 SOS56-19/56-20

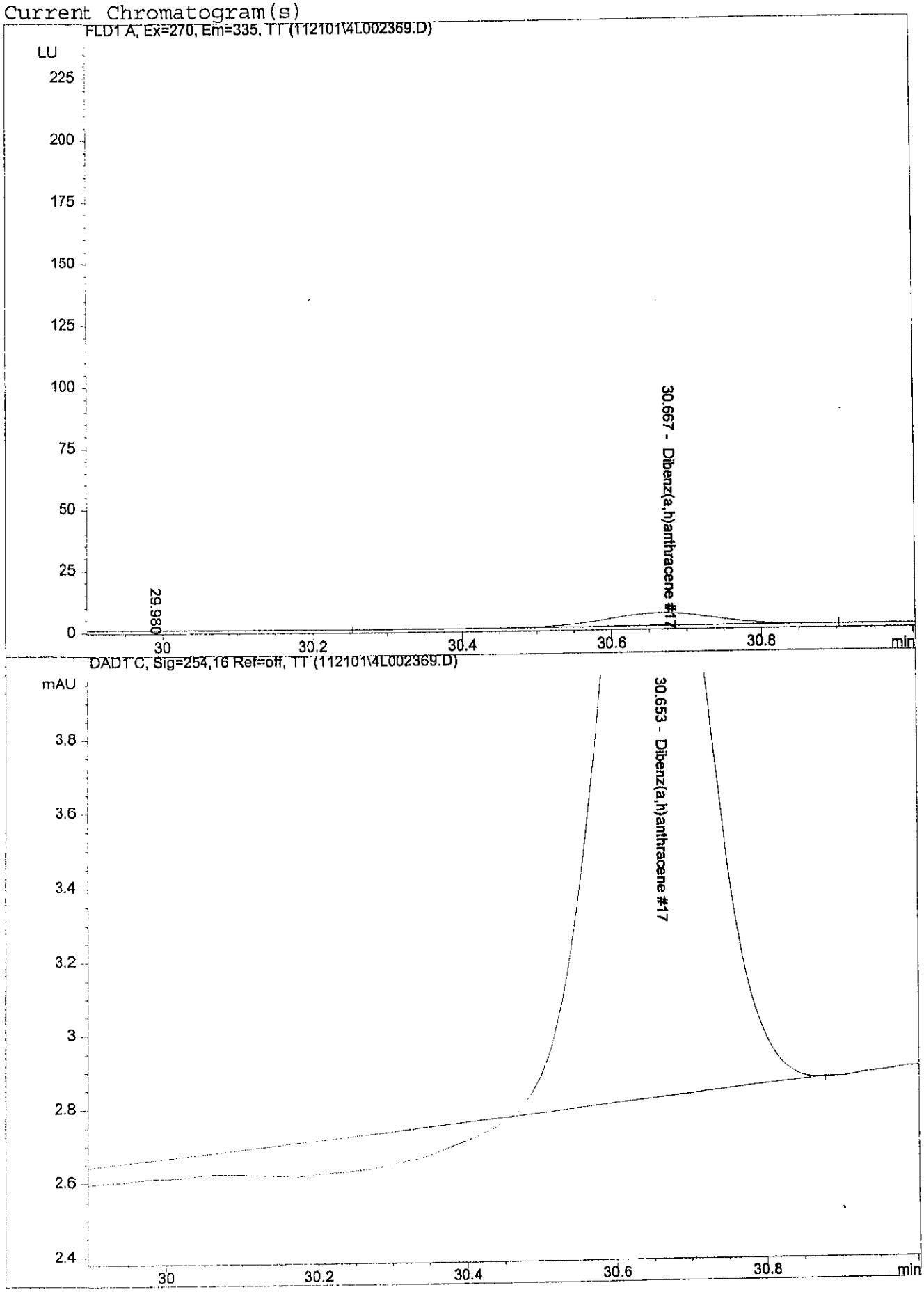
Injection Date	: 11/21/2001 6:32:46 PM	Seq. Line	: 2
Sample Name	: WG108689-01 CCV	Vial	: 2
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/21/2001 5:14:46 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/1/2001 3:33:11 PM by RDC
Calibrated 08/08/2001





Current Chromatogram(s)



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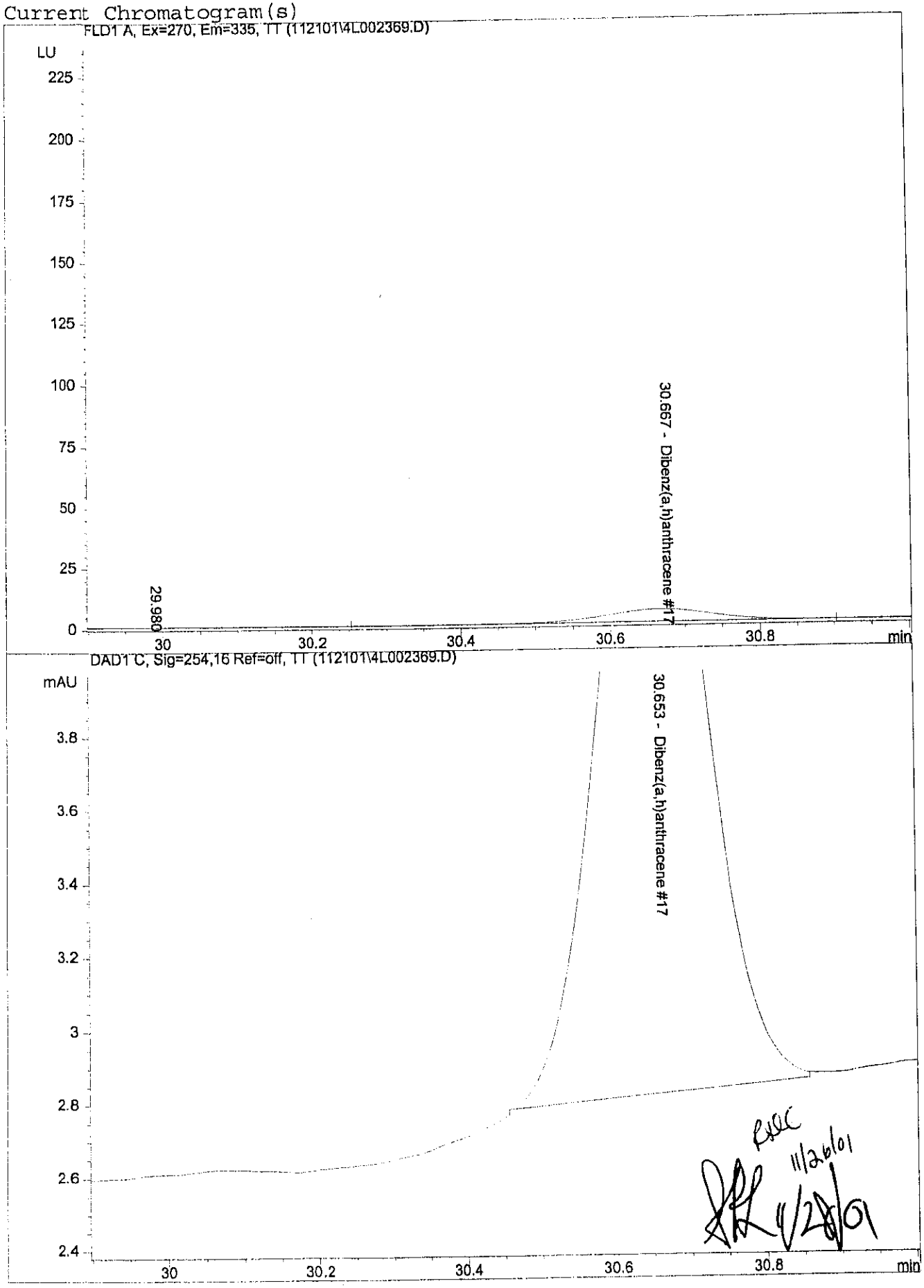
Current Chromatogram(s)



RSC 11/26/01

4/28/01

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External Standard Report

Sorted By : Signal
Calib. Data Modified : Wednesday, October 31, 2001 9:15:43 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.333	BBA	800.85718	2.52962e-2	20.25864		Naphthalene #1
11.902	BB	911.91974	2.21330e-2	20.18348		1-Methylnaphthalene #3
12.475	BB	1168.21069	1.70635e-2	19.93376		2-Methylnaphthalene #4
12.953	BB	1457.50085	1.38416e-2	20.17409		Acenaphthene #5
13.607	BB	3150.53101	6.62187e-3	20.86240		Fluorene #6
15.012	BBA	119.17832	1.63652e-1	19.50380		Phenanthrene #7
16.443	PBA	66.33259	3.10196e-1	20.57613		Anthracene #8
17.833	PB	82.57946	2.32678e-2	1.92145		Fluoranthene #9
18.852	BBA	52.62373	3.86587e-2	2.03436		Pyrene #10
21.213	BB	67.01636	2.97423e-1	19.93219		p-Terphenyl d14 #11*
22.539	BB	250.82458	7.91256e-3	1.98466		Benzo(a)anthracene #12
23.422	BB	51.14318	3.90495e-2	1.99712		Chrysene #13
26.169	BB	121.97822	1.63222e-2	1.99095		Benzo(b)fluoranthene #14
27.625	BB	360.66141	2.76572e-3	9.97487e-1		Benzo(k)fluoranthene #15
28.752	BB	435.32761	4.57119e-3	1.98997		Benzo(a)pyrene #16
30.667	BB	50.79196	3.93496e-2	1.99864		Dibenz(a,h)anthracene #17
31.451	BB	77.00357	2.65165e-2	2.04186		Benzo(g,h,i)perylene #18
32.386	BB	143.86230	1.38204e-2	1.98824		Indeno(1,2,3-cd)pyrene #1

Totals : 180.36921

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.319	PBA	2544.89429	8.25405e-3	21.00568		Naphthalene #1
10.941	BBA	675.36737	2.96975e-2	20.05673		Acenaphthylene #2
11.889	PB	1559.80994	1.29459e-2	20.19308		1-Methylnaphthalene #3
12.461	BB	1811.60425	1.12393e-2	20.36112		2-Methylnaphthalene #4
12.940	BB	971.07019	2.03163e-2	19.72860		Acenaphthene #5
13.593	BBA	1125.46338	1.75240e-2	19.72262		Fluorene #6
14.998	BBA	1163.71460	1.72982e-2	20.13022		Phenanthrene #7
16.429	PBA	2003.78589	1.04262e-2	20.89184		Anthracene #8
17.818	BB	90.45788	2.17006e-2	1.96299		Fluoranthene #9
18.837	BBA	135.32181	1.43052e-2	1.93581		Pyrene #10
21.199	BBA	303.04599	6.56733e-2	19.90202		p-Terphenyl d14 #11*
22.525	BBA	87.82442	2.22694e-2	1.95580		Benzo(a)anthracene #12
23.408	BBA	129.30290	1.51453e-2	1.95833		Chrysene #13
26.154	BBA	94.29734	2.07330e-2	1.95506		Benzo(b)fluoranthene #14
27.610	BBA	44.72556	2.25837e-2	1.01007		Benzo(k)fluoranthene #15
28.737	BBA	73.09599	2.61680e-2	1.91278		Benzo(a)pyrene #16
30.653	MM	19.94123	9.41116e-2	1.87670		Dibenz(a,h)anthracene #17

Data File C:\HPCHEM\2\DATA\112101\4L002369.D Sample Name: [illegible]

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.435	BB	35.38375	5.60829e-2	1.98442		Benzo(g,h,i)perylene #18
32.374	BBA	94.42970	2.05608e-2	1.94155		Indeno(1,2,3-cd)pyrene #1

Totals : 200.48543

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\112101\4L002380.D Sample Name: WG108689-02 CCV
HPLC4 11/26/2001 9:23:19 AM RDC

1,1 SOS56-19/56-20

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Injection Date : 11/22/2001 4:55:31 AM Seq. Line : 13

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.359	20.0	18.399	-8.0
1-Methylnaphthalene #3	11.940	20.0	18.600	-7.0
2-Methylnaphthalene #4	12.514	20.0	18.461	-7.7
Acenaphthene #5	12.996	20.0	19.091	-4.5
Fluorene #6	13.641	20.0	20.341	1.7
Phenanthrene #7	15.026	20.0	18.257	-8.7
Anthracene #8	16.423	20.0	19.864	-0.7
Fluoranthene #9	17.795	2.0	1.878	-6.1
Pyrene #10	18.801	2.0	1.746	-12.7
p-Terphenyl d14 #11*	21.131	20.0	19.859	-0.7
Benzo(a)anthracene #12	22.453	2.0	1.857	-7.2
Chrysene #13	23.320	2.0	1.864	-6.8
Benzo(b)fluoranthene #14	26.038	2.0	1.883	-5.8
Benzo(k)fluoranthene #15	27.461	1.0	0.969	-3.1
Benzo(a)pyrene #16	28.587	2.0	1.752	-12.4
Dibenz(a,h)anthracene #1	30.449	2.0	1.873	-6.4
Benzo(g,h,i)perylene #18	31.265	2.0	1.758	-12.1
Indeno(1,2,3-cd)pyrene #	32.217	2.0	1.910	-4.5

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.341	20.0	20.609	3.0
Acenaphthylene #2	10.968	20.0	19.761	-1.2
1-Methylnaphthalene #3	11.922	20.0	19.894	-0.5
2-Methylnaphthalene #4	12.496	20.0	20.085	0.4
Acenaphthene #5	12.978	20.0	19.568	-2.2
Fluorene #6	13.623	20.0	19.622	-1.9
Phenanthrene #7	15.008	20.0	19.925	-0.4
Anthracene #8	16.404	20.0	20.637	3.2
Fluoranthene #9	17.776	2.0	1.947	-2.6
Pyrene #10	18.782	2.0	1.911	-4.5
p-Terphenyl d14 #11*	21.113	20.0	19.723	-1.4
Benzo(a)anthracene #12	22.434	2.0	1.948	-2.6
Chrysene #13	23.302	2.0	1.943	-2.8
Benzo(b)fluoranthene #14	26.019	2.0	1.941	-2.9
Benzo(k)fluoranthene #15	27.442	1.0	0.989	-1.1
Benzo(a)pyrene #16	28.567	2.0	1.735	-13.3
Dibenz(a,h)anthracene #1	30.430	2.0	1.961	-2.0
Benzo(g,h,i)perylene #18	31.246	2.0	2.063	3.2
Indeno(1,2,3-cd)pyrene #	32.195	2.0	1.908	-4.6

= Failed 15.0% Criteria

1,1 SOS56-19/56-20

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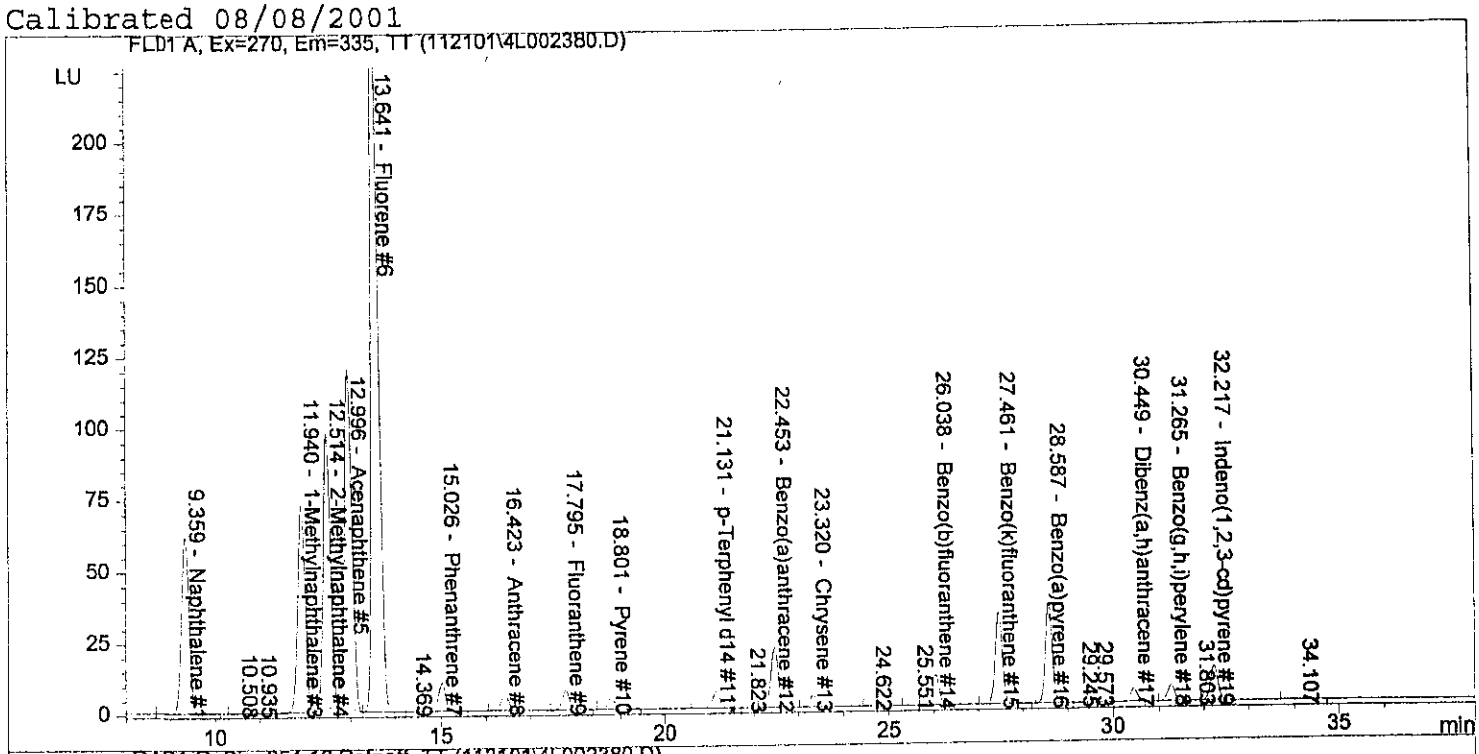
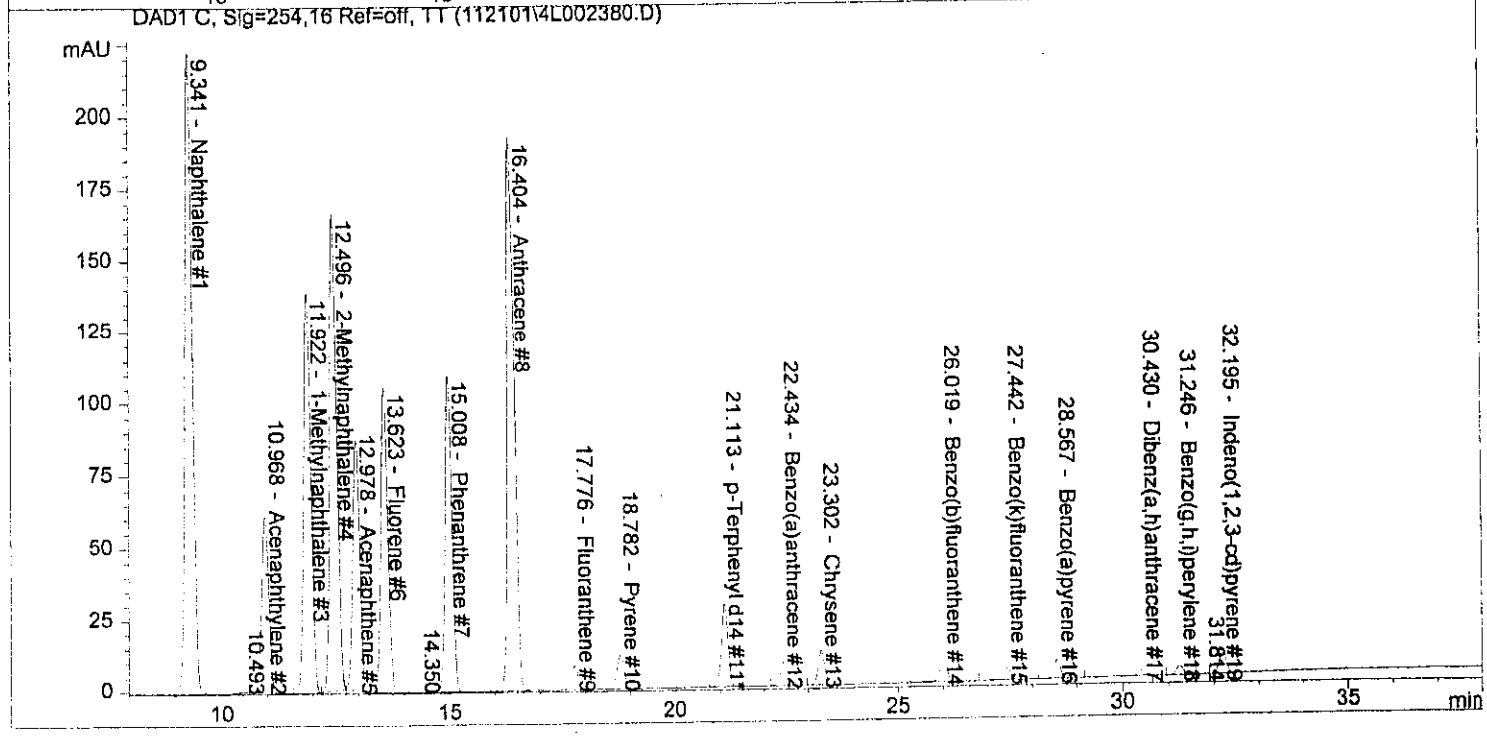
Injection Date : 11/22/2001 4:55:31 AM
Sample Name : WG108689-02 CCV
Acq. Operator : RDC

Seq. Line : 13
Vial : 13
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/21/2001 5:14:46 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/26/2001 9:22:46 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, November 26, 2001 9:22:46 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.359	BBA	727.35492	2.52962e-2	18.39931		Naphthalene #1
11.940	BB	840.39130	2.21330e-2	18.60034		1-Methylnaphthalene #3
12.514	BB	1081.88989	1.70635e-2	18.46082		2-Methylnaphthalene #4
12.996	BB	1379.22058	1.38416e-2	19.09057		Acenaphthene #5
13.641	BB	3071.79614	6.62187e-3	20.34102		Fluorene #6
15.026	BBA	111.56015	1.63652e-1	18.25707		Phenanthrene #7
16.423	PBA	64.03661	3.10196e-1	19.86392		Anthracene #8
17.795	PBA	80.72729	2.32678e-2	1.87835		Fluoranthene #9
18.801	BBA	45.17604	3.86587e-2	1.74645		Pyrene #10
21.131	BB	66.77051	2.97423e-1	19.85907		p-Terphenyl d14 #11*
22.453	BBA	234.62769	7.91256e-3	1.85651		Benzo(a)anthracene #12
23.320	BB	47.72924	3.90495e-2	1.86380		Chrysene #13
26.038	BB	115.38990	1.63222e-2	1.88341		Benzo(b)fluoranthene #14
27.461	BBA	350.30920	2.76572e-3	9.68856e-1		Benzo(k)fluoranthene #15
28.587	PB	383.18643	4.57119e-3	1.75162		Benzo(a)pyrene #16
30.449	BB	47.58835	3.93496e-2	1.87258		Dibenz(a,h)anthracene #17
31.265	BB	66.28826	2.65165e-2	1.75773		Benzo(g,h,i)perylene #18
32.217	BB	138.22176	1.38204e-2	1.91028		Indeno(1,2,3-cd)pyrene #1

Totals : 170.36172

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.341	PBA	2496.79614	8.25405e-3	20.60868		Naphthalene #1
10.968	BBA	665.40137	2.96975e-2	19.76077		Acenaphthylene #2
11.922	PB	1536.68054	1.29459e-2	19.89365		1-Methylnaphthalene #3
12.496	BB	1787.01331	1.12393e-2	20.08474		2-Methylnaphthalene #4
12.978	BB	963.16083	2.03163e-2	19.56791		Acenaphthene #5
13.623	BB	1119.72095	1.75240e-2	19.62199		Fluorene #6
15.008	BBA	1151.87512	1.72982e-2	19.92542		Phenanthrene #7
16.404	PBA	1979.37866	1.04262e-2	20.63737		Anthracene #8
17.776	PB	89.74076	2.17006e-2	1.94743		Fluoranthene #9
18.782	BBA	133.56090	1.43052e-2	1.91062		Pyrene #10
21.113	PBA	300.31509	6.56733e-2	19.72267		p-Terphenyl d14 #11*
22.434	BBA	87.47271	2.22694e-2	1.94797		Benzo(a)anthracene #12
23.302	BBA	128.30185	1.51453e-2	1.94317		Chrysene #13
26.019	PBA	93.62488	2.07330e-2	1.94112		Benzo(b)fluoranthene #14
27.442	BBA	43.80904	2.25837e-2	9.89370e-1		Benzo(k)fluoranthene #15
28.567	BB	66.28896	2.61680e-2	1.73465		Benzo(a)pyrene #16
30.430	BB	20.83160	9.41116e-2	1.96050		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.246	BB	36.78757	5.60829e-2	2.06315		Benzo(g,h,i)perylene #18
32.195	BB	92.80994	2.05608e-2	1.90824		Indeno(1,2,3-cd)pyrene #1
Totals :				198.16941		

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\112101\4L002383.D Sample Name: WG108689-03 CCV
HPLC4 11/26/2001 9:37:48 AM RDC

1,1 SOS56-19/56-20

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Injection Date : 11/22/2001 7:45:28 AM Seq. Line : 16

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.342	20.0	18.362	-8.2
1-Methylnaphthalene #3	11.926	20.0	18.538	-7.3
2-Methylnaphthalene #4	12.501	20.0	18.369	-8.2
Acenaphthene #5	12.985	20.0	18.937	-5.3
Fluorene #6	13.632	20.0	20.199	1.0
Phenanthrene #7	15.018	20.0	18.030	-9.9
Anthracene #8	16.417	20.0	19.702	-1.5
Fluoranthene #9	17.792	2.0	1.863	-6.8
Pyrene #10	18.800	2.0	1.719	-14.0
p-Terphenyl d14 #11*	21.136	20.0	19.525	-2.4
Benzo(a)anthracene #12	22.460	2.0	1.842	-7.9
Chrysene #13	23.331	2.0	1.850	-7.5
Benzo(b)fluoranthene #14	26.052	2.0	1.867	-6.6
Benzo(k)fluoranthene #15	27.475	1.0	0.962	-3.8
Benzo(a)pyrene #16	28.600	2.0	1.708	-14.6
Dibenz(a,h)anthracene #1	30.456	2.0	1.856	-7.2
Benzo(g,h,i)perylene #18	31.277	2.0	1.729	-13.5
Indeno(1,2,3-cd)pyrene #	32.233	2.0	1.891	-5.4

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.323	20.0	20.538	2.7
Acenaphthylene #2	10.951	20.0	19.668	-1.7
1-Methylnaphthalene #3	11.907	20.0	19.817	-0.9
2-Methylnaphthalene #4	12.482	20.0	20.016	0.1
Acenaphthene #5	12.966	20.0	19.462	-2.7
Fluorene #6	13.611	20.0	19.527	-2.4
Phenanthrene #7	14.997	20.0	19.801	-1.0
Anthracene #8	16.397	20.0	20.480	2.4
Fluoranthene #9	17.771	2.0	1.937	-3.2
Pyrene #10	18.779	2.0	1.899	-5.1
p-Terphenyl d14 #11*	21.116	20.0	19.637	-1.8
Benzo(a)anthracene #12	22.439	2.0	1.937	-3.1
Chrysene #13	23.311	2.0	1.934	-3.3
Benzo(b)fluoranthene #14	26.031	2.0	1.922	-3.9
Benzo(k)fluoranthene #15	27.455	1.0	0.979	-2.1
Benzo(a)pyrene #16	28.579	2.0	1.792	-10.4
Dibenz(a,h)anthracene #1	30.435	2.0	1.990	-0.5
Benzo(g,h,i)perylene #18	31.255	2.0	2.042	2.1
Indeno(1,2,3-cd)pyrene #	32.209	2.0	1.903	-4.8

= Failed 15.0% Criteria

Data File C:\HPCHEM\2\DATA\112101\4L002383.D

1,1 SOS56-19/56-20

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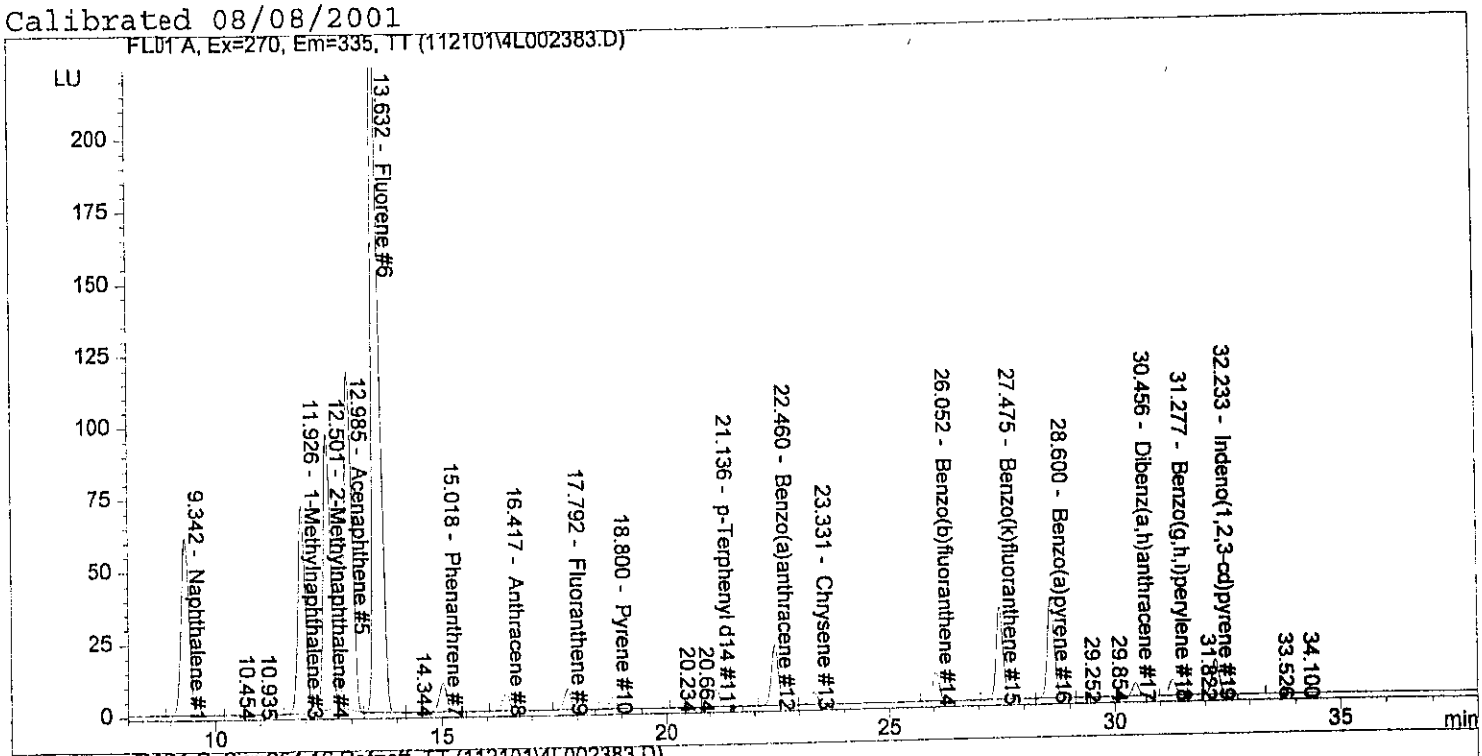
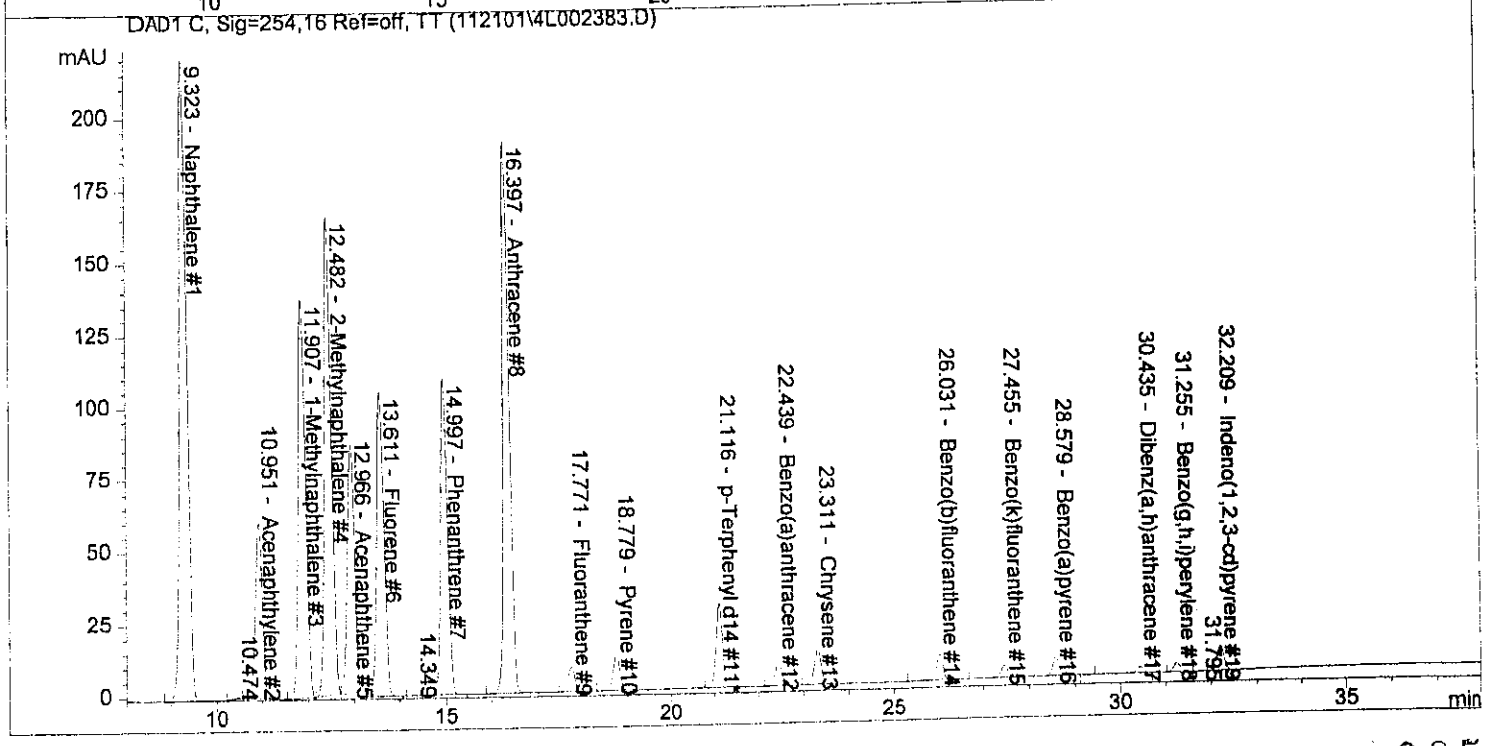
Injection Date : 11/22/2001 7:45:28 AM
Sample Name : WG108689-03 CCV
Acq. Operator : RDC

Seq. Line : 16
Vial : 13
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/21/2001 5:14:46 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/26/2001 9:28:48 AM by RDC
(modified after loading)

Calibrated 08/08/2001





External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Monday, November 26, 2001 9:28:47 AM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.342	BB	725.86407	2.52962e-2	18.36160		Naphthalene #1
11.926	BB	837.58521	2.21330e-2	18.53823		1-Methylnaphthalene #3
12.501	BB	1076.52429	1.70635e-2	18.36927		2-Methylnaphthalene #4
12.985	BB	1368.14575	1.38416e-2	18.93728		Acenaphthene #5
13.632	BB	3050.27979	6.62187e-3	20.19855		Fluorene #6
15.018	BBA	110.17255	1.63652e-1	18.02998		Phenanthrene #7
16.417	BBA	63.51363	3.10196e-1	19.70170		Anthracene #8
17.792	BBA	80.07972	2.32678e-2	1.86328		Fluoranthene #9
18.800	BBA	44.47536	3.86587e-2	1.71936		Pyrene #10
21.136	BB	65.64638	2.97423e-1	19.52473		p-Terphenyl d14 #11*
22.460	BB	232.74318	7.91256e-3	1.84159		Benzo(a)anthracene #12
23.331	BB	47.37600	3.90495e-2	1.85001		Chrysene #13
26.052	BB	114.40967	1.63222e-2	1.86742		Benzo(b)fluoranthene #14
27.475	BB	347.99615	2.76572e-3	9.62458e-1		Benzo(k)fluoranthene #15
28.600	BB	373.60382	4.57119e-3	1.70781		Benzo(a)pyrene #16
30.456	BB	47.17293	3.93496e-2	1.85623		Dibenz(a,h)anthracene #17
31.277	BB	65.21278	2.65165e-2	1.72921		Benzo(g,h,i)perylene #18
32.233	BB	136.83208	1.38204e-2	1.89107		Indeno(1,2,3-cd)pyrene #1
Totals :				168.94979		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.323	PBA	2488.21680	8.25405e-3	20.53787		Naphthalene #1
10.951	BBA	662.26587	2.96975e-2	19.66765		Acenaphthylene #2
11.907	PB	1530.73865	1.29459e-2	19.81672		1-Methylnaphthalene #3
12.482	BB	1780.87952	1.12393e-2	20.01580		2-Methylnaphthalene #4
12.966	BB	957.93158	2.03163e-2	19.46167		Acenaphthene #5
13.611	BBA	1114.28015	1.75240e-2	19.52665		Fluorene #6
14.997	BBA	1144.69373	1.72982e-2	19.80119		Phenanthrene #7
16.397	PBA	1964.26721	1.04262e-2	20.47981		Anthracene #8
17.771	PB	89.25994	2.17006e-2	1.93699		Fluoranthene #9
18.779	BBA	132.73897	1.43052e-2	1.89886		Pyrene #10
21.116	BBA	299.01587	6.56733e-2	19.63734		p-Terphenyl d14 #11*
22.439	PBA	86.98570	2.22694e-2	1.93712		Benzo(a)anthracene #12
23.311	BBA	127.72491	1.51453e-2	1.93443		Chrysene #13
26.031	PBA	92.69143	2.07330e-2	1.92177		Benzo(b)fluoranthene #14
27.455	PB	43.35667	2.25837e-2	9.79154e-1		Benzo(k)fluoranthene #15
28.579	BBA	68.46283	2.61680e-2	1.79154		Benzo(a)pyrene #16
30.435	BBA	21.14586	9.41116e-2	1.99007		Dibenz(a,h)anthracene #17

Data File C:\HPCHEM\2\DATA\112101\4L0025001.D

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.255	BB	36.41705	5.60829e-2	2.04237		Benzo(g,h,i)perylene #18
32.209	BBA	92.56941	2.05608e-2	1.90330		Indeno(1,2,3-cd)pyrene #1
Totals :				197.28032		

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

==========
*** End of Report ***

2.2.7.4 Raw QC Data

1,1 V175P183 BLANK 111901

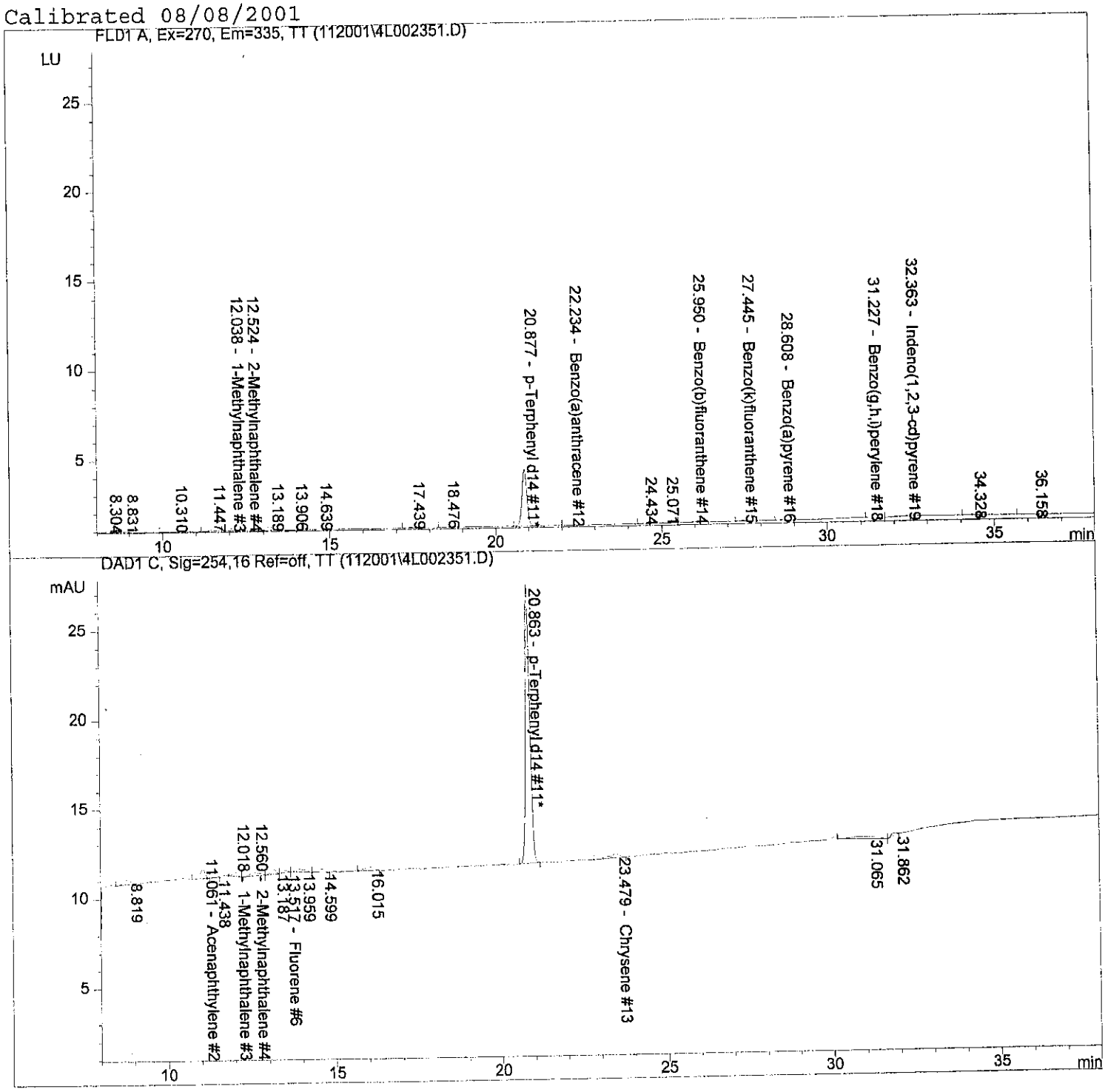
==========

Injection Date : 11/20/2001 4:32:47 PM
Sample Name : WG108469-02 WBLK
Acq. Operator : RDC

Seq. Line : 3
Vial : 3
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/20/2001 6:04:33 PM by RDC
(modified after loading)

Calibrated 08/08/2001



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Tuesday, November 20, 2001 6:04:33 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.214		-	-	-		Naphthalene #1
12.038	BB	1.56414	2.21330e-2	3.46190e-2		1-Methylnaphthalene #3
12.524	BB	1.27532	1.70635e-2	2.17615e-2		2-Methylnaphthalene #4
12.885		-	-	-		Acenaphthene #5
13.539		-	-	-		Fluorene #6
14.927		-	-	-		Phenanthrene #7
16.338		-	-	-		Anthracene #8
17.748		-	-	-		Fluoranthene #9
18.728		-	-	-		Pyrene #10
20.877	BB	33.88282	2.97423e-1	10.07752	10/16	p-Terphenyl d14 #11*
22.234	BB	2.47897e-1	7.91256e-3	1.96150e-3		Benzo(a)anthracene #12
23.297		-	-	-		Chrysene #13
25.950	BBA	2.82819e-1	1.63222e-2	4.61622e-3		Benzo(b)fluoranthene #14
27.445	PB	4.25478e-1	2.76572e-3	1.17675e-3		Benzo(k)fluoranthene #15
28.608	BBA	2.36044e-1	4.57119e-3	1.07900e-3		Benzo(a)pyrene #16
30.588		-	-	-		Dibenz(a,h)anthracene #17
31.227	BB	2.13299e-1	2.65165e-2	5.65594e-3		Benzo(g,h,i)perylene #18
32.363	BB	6.91885e-1	1.38204e-2	9.56213e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 10.15796

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.199		-	-	-		Naphthalene #1
11.061	BB	5.17754	2.96975e-2	1.53760e-1	<MDL	Acenaphthylene #2
12.018	BB	2.14264	1.29459e-2	2.77383e-2		1-Methylnaphthalene #3
12.560	BB	3.66656	1.12393e-2	4.12095e-2		2-Methylnaphthalene #4
12.870		-	-	-		Acenaphthene #5
13.517	BB	1.32516	1.75240e-2	2.32221e-2		Fluorene #6
14.911		-	-	-		Phenanthrene #7
16.322		-	-	-		Anthracene #8
17.701		-	-	-		Fluoranthene #9
18.711		-	-	-		Pyrene #10
20.863	BBA	149.77599	6.56733e-2	9.83628	98.4%	p-Terphenyl d14 #11*
22.400		-	-	-		Benzo(a)anthracene #12
23.479	PB	4.97884	1.51453e-2	7.54061e-2	<MDL	Chrysene #13
26.040		-	-	-		Benzo(b)fluoranthene #14
27.506		-	-	-		Benzo(k)fluoranthene #15
28.648		-	-	-		Benzo(a)pyrene #16
30.572		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.372		-	-	-		Benzo(g,h,i)perylene #18
32.318		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				10.15761		

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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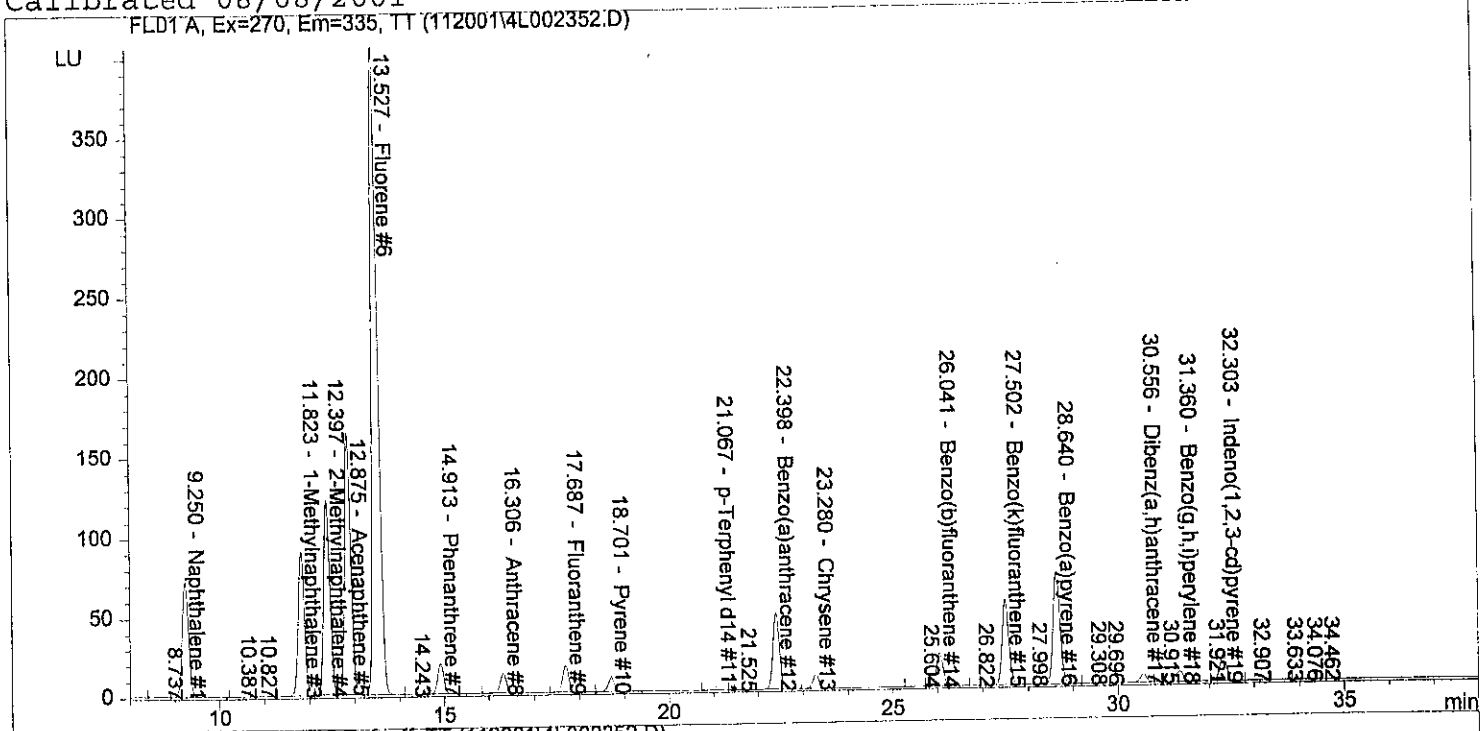
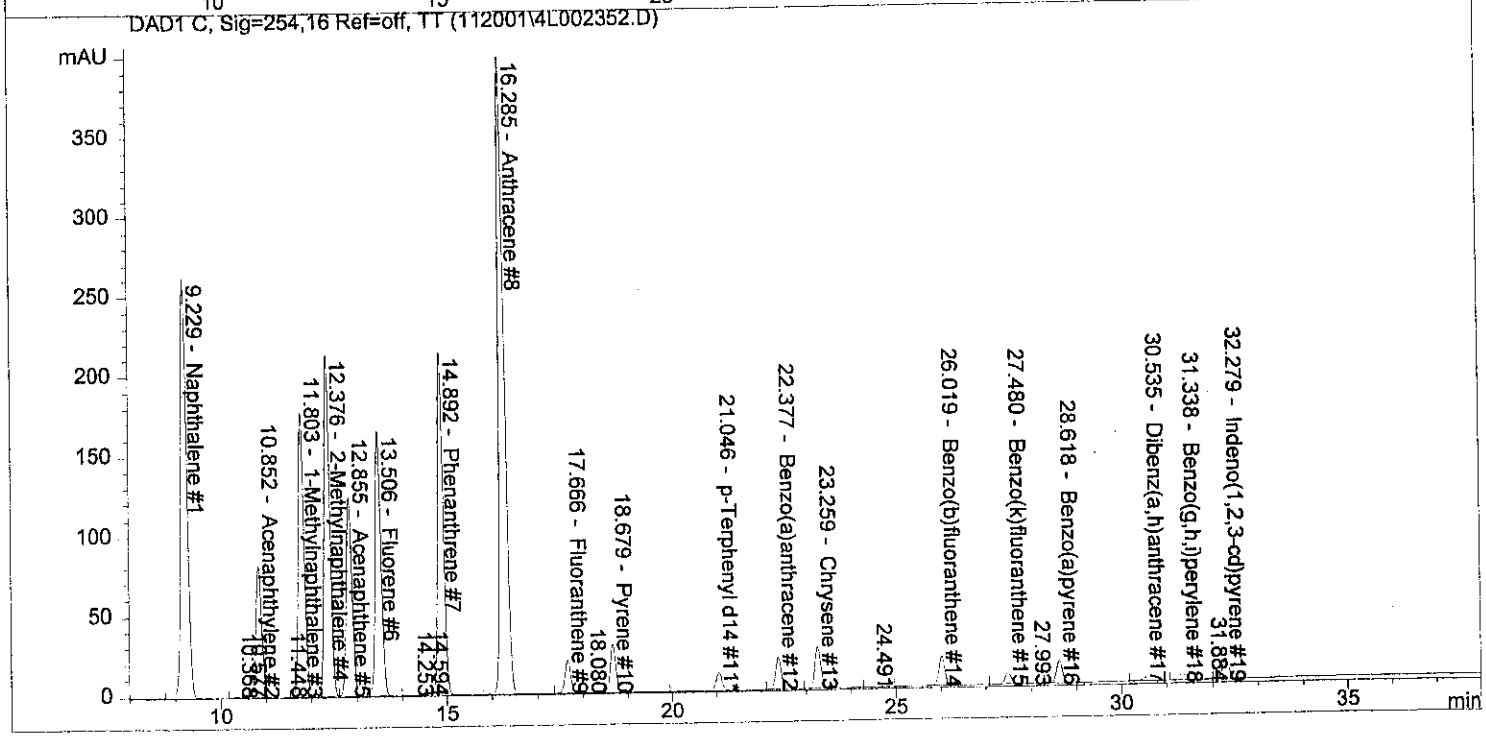
Injection Date : 11/20/2001 5:29:26 PM
Sample Name : WG108469-03 WLCS
Acq. Operator : RDC

Seq. Line : 4
Vial : 4
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/20/2001 6:05:17 PM by RDC
(modified after loading)

Calibrated 08/08/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Tuesday, November 20, 2001 6:05:17 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.250	BBA	737.43768	2.52962e-2	18.65437		Naphthalene #1
11.823	BB	887.16974	2.21330e-2	19.63569		1-Methylnaphthalene #3
12.397	BB	1169.24109	1.70635e-2	19.95134		2-Methylnaphthalene #4
12.875	BB	1590.84973	1.38416e-2	22.01985		Acenaphthene #5
13.527	BB	4005.78247	6.62187e-3	26.52576		Fluorene #6
14.913	BBA	181.33575	1.63652e-1	29.67600		Phenanthrene #7
16.306	BB	115.11960	3.10196e-1	35.70968		Anthracene #8
17.687	PB	165.32658	2.32678e-2	3.84679		Fluoranthene #9
18.701	BBA	93.15080	3.86587e-2	3.60109		Pyrene #10
21.067	BB	22.53539	2.97423e-1	6.70254	67.0%	p-Terphenyl d14 #11*
22.398	BB	491.99158	7.91256e-3	3.89291		Benzo(a)anthracene #12
23.280	BB	91.41657	3.90495e-2	3.56978		Chrysene #13
26.041	BB	218.83650	1.63222e-2	3.57189		Benzo(b)fluoranthene #14
27.502	BB	564.91486	2.76572e-3	1.56239		Benzo(k)fluoranthene #15
28.640	BB	750.89410	4.57119e-3	3.43248		Benzo(a)pyrene #16
30.556	BB	51.44018	3.93496e-2	2.02415		Dibenz(a,h)anthracene #17
31.360	BB	74.30765	2.65165e-2	1.97038		Benzo(g,h,i)perylene #18
32.303	BB	188.66826	1.38204e-2	2.60747		Indeno(1,2,3-cd)pyrene #1
Totals :				208.95455		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.229	BBA	2506.14355	8.25405e-3	20.68583		Naphthalene #1
10.852	BB	734.53693	2.96975e-2	21.81392		Acenaphthylene #2
11.803	BB	1598.34070	1.29459e-2	20.69189		1-Methylnaphthalene #3
12.376	BB	1886.76611	1.12393e-2	21.20589		2-Methylnaphthalene #4
12.855	BB	1104.93665	2.03163e-2	22.44827		Acenaphthene #5
13.506	BB	1455.21362	1.75240e-2	25.50117		Fluorene #6
14.892	BBA	1841.54346	1.72982e-2	31.85547		Phenanthrene #7
16.285	PBA	3509.16431	1.04262e-2	36.58719		Anthracene #8
17.666	BB	183.44432	2.17006e-2	3.98085		Fluoranthene #9
18.679	BBA	276.14120	1.43052e-2	3.95027		Pyrene #10
21.046	BBA	104.76454	6.56733e-2	6.88023	68.8%	p-Terphenyl d14 #11*
22.377	BBA	183.85371	2.22694e-2	4.09432		Benzo(a)anthracene #12
23.259	PB	244.58435	1.51453e-2	3.70430		Chrysene #13
26.019	BBA	177.00688	2.07330e-2	3.66988		Benzo(b)fluoranthene #14
27.480	BB	69.75284	2.25837e-2	1.57528		Benzo(k)fluoranthene #15
28.618	BBA	138.38022	2.61680e-2	3.62114		Benzo(a)pyrene #16
30.535	BB	22.40627	9.41116e-2	2.10869		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.338	BB	42.11931	5.60829e-2	2.36217		Benzo(g,h,i)perylene #18
32.279	BBA	128.15703	2.05608e-2	2.63501		Indeno(1,2,3-cd)pyrene #1

Totals : 239.37177

Results obtained with enhanced integrator!

*** End of Report ***

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

Analysis Date/Time Aug 8, 2001 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 080801
Analyst Initials RDC SOP # HPLC01 Rev. # 2 ✓ 8310 SOP # HPLC02 Rev. # 0 ____ 8330

Filename	Sample ID	Dilution Factor	Soln #	Re-analysis (if applicable)	Status
4L001205	ACCN Blank	NA			✓
06	8310 CCV		SV53-25	/5435	RR
07	V169 pg5 BLK				RR
08	↓ LCS				RR
09	8310 CCV		SV53-25	/54-35	CC
10	↓ re-make		↓		CC
11	ESC 38-23 e/2b spike				✓
12	8310 SUR 6/100		SV54-35		✓
13	8310 STD 6/100		SV53-25		✓
14	5/50		SV54-35	/53-25	✓
15	4/20				✓
16	3/10				✓
17	2/5				✓
18	1/1				✓
19	8310 ALT @ LVL 4		SV53-27	/SOS55-29	✓

RDC 8/10/01

Reviewed By: [illegible]

Status:
✓ = Compliant Analysis. Reanalysis complete
RR = Rerun
RR# = Rerun at a specified dilution
* = See comments on opposite page
IS or SS = Interference with internal and/or surrogate standards
MT = Missed Tune, beyond method tuning requirements
RE = Re-extraction analysis required
SMI = Sample matrix interference
CC = Continuing calibration failed
CF = Confirmation required

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance / Runlog

alysis Date/Time Aug. 3, 2001 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 030801

Daily Check
- ✓ Mobile phase reservoir
- ✓ System pressure 113 bar
- ✓ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

4L001806 – no result file contents / null

8310 CCV – failing low for p-terphenyl-d14

Reviewed By: rde 8/1/01

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG108586-01 CCV	8310	1	Sample		
3	3	WG108469-02 WBLK	8310	1	Sample		
4	4	WG108469-03 WLCS	8310	1	Sample		
5	5	L0111316-01 831W	8310	1	Sample		
6	6	WG108469-01 WREF	8310	1	Sample		
7	7	WG108469-04 WMS	8310	1	Sample		
8	8	WG108469-05 WMSD	8310	1	Sample		
9	9	L0111316-05 831W	8310	1	Sample		
10	10	L0111316-06 831W	8310	1	Sample		
11	11	L0111316-07 831W	8310	1	Sample		
12	12	L0111316-09 831W	8310	1	Sample		
13	13	WG108586-02 CCV	8310	1	Sample		
14	14	L0111316-10 831W	8310	1	Sample		
15	15	L0111316-11 831W	8310	1	Sample		
16	16	L0111316-12 831W	8310	1	Sample		
17	17	L0111316-13 831W	8310	1	Sample		
18	18	L0111316-14 831W	8310	1	Sample		
19	19	L0111344-01 831W	8310	1	Sample		
20	20	L0111344-02 831W	8310	1	Sample		
21	21	L0111344-03 831W	8310	1	Sample		
22	22	L0111344-04 831W	8310	1	Sample		
23	23	L0111344-05 831W	8310	1	Sample		
24	24	WG108586-03 CCV	8310	1.	Sample		

Partial Sequence: C:\HPCHEM\2\SEQUENCE\NOV20.S

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L002349	01:01		accn blk
No	2	2	8310	4L002350	02:01	503 56-19/56-20	WG108586-01 CC
Yes	3	3	8310	4L002351	03:01		WG108469-02 WB
Yes	4	4	8310	4L002352	04:01		WG108469-03 WL
Yes	5	5	8310	4L002353	05:01		L0111316-01 83
Yes	6	6	8310	4L002354	06:01		WG108469-01 WR
Yes	7	7	8310	4L002355	07:01		WG108469-04 WM
Yes	8	8	8310	4L002356	08:01		WG108469-05 WM
Yes	9	9	8310	4L002357	09:01		L0111316-05 83
Yes	10	10	8310	4L002358	10:01		L0111316-06 83
Yes	11	11	8310	4L002359	11:01		L0111316-07 83
Yes	12	12	8310	4L002360	12:01		L0111316-09 83
Yes	13	13	8310	4L002361	13:01	503 56-19/56-20	WG108586-02 CC
Yes	14	14	8310	4L002362	RR14:01		L0111316-10 83
Yes	15	15	8310	4L002363	RR15:01		L0111316-11 83
Yes	16	16	8310	4L002364	RR16:01		L0111316-12 83
Yes	17	17	8310	4L002365	RR17:01		L0111316-13 83
Yes	18	18	8310	4L002366	RR18:01		L0111316-14 83
Yes	19	19	8310	4L002367	19:01	DID NOT RUN	L0111344-01 83
Yes	20	20	8310	4L002368	20:01		L0111344-02 83
Yes	21	21	8310	4L002369	21:01		L0111344-03 83
Yes	22	22	8310	4L002370	22:01		L0111344-04 83
Yes	23	23	8310	4L002371	23:01		L0111344-05 83
Yes	24	24	8310	4L002372	24:01		WG108586-03 CC

RDC 11/27/01

ECZ 11/27/01

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Nov 20 2001 Instrument ID HPLC 4 Column ID LC-PAH Data Subdirectory 112001
Analyst Initials RLC SOP # HPLC01 Rev. # 2 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check
- [x] Mobile phase reservoir
- [x] System pressure 100 bar
- [x] Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: ____

Action Taken: ____

Comments

HPLC shut down due to high pressure after running LO111316-14. Appeared to have injected the next sample LO111344-01.

Reviewed By: EC 11/27/01

Sequence: C:\HPCHEM\2\SEQUENCE\NOV21.S

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG108689-01 CCV	8310	1	Sample		
3	3	L0111316-10 831W	8310	1	Sample		
4	4	L0111316-11 831W	8310	1	Sample		
5	5	L0111316-12 831W	8310	1	Sample		
6	6	L0111316-13 831W	8310	1	Sample		
7	7	L0111316-14 831W	8310	1	Sample		
8	8	L0111344-01 831W	8310	1	Sample		
9	9	L0111344-02 831W	8310	1	Sample		
10	10	L0111344-03 831W	8310	1	Sample		
11	11	L0111344-04 831W	8310	1	Sample		
12	12	L0111344-05 831W	8310	1	Sample		
13	13	WG108689-02 CCV	8310	1	Sample		
14	14	L0111316-10 10X	8310	1	Sample		
15	15	L0111316-13 5X	8310	1	Sample		
16	13	WG108689-03 CCV	8310	1	Sample		

Partial Sequence: C:\HPCHEM\2\SEQUENCE\NOV21.S

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
Yes	1	1	8310	4L002368	01:01		accn blk
Yes	2	2	8310	4L002369	02:01	SOS 5619/56-20	WG108689-01 CC
Yes	3	3	8310	4L002370	03:01	RR 10	L0111316-10 83
Yes	4	4	8310	4L002371	04:01 ✓		L0111316-11 83
Yes	5	5	8310	4L002372	05:01 ~~RR 5~~ RE		L0111316-12 83
Yes	6	6	8310	4L002373	06:01 RR 5		L0111316-13 83
Yes	7	7	8310	4L002374	07:01 ✓		L0111316-14 83
Yes	8	8	8310	4L002375	08:01 ✓		L0111344-01 83
Yes	9	9	8310	4L002376	09:01 ✓		L0111344-02 83
Yes	10	10	8310	4L002377	10:01 ✓		L0111344-03 83
Yes	11	11	8310	4L002378	11:01 ✓		L0111344-04 83
Yes	12	12	8310	4L002379	12:01 ✓		L0111344-05 83
Yes	13	13	8310	4L002380	13:01	SOS 56-19/56-20	WG108689-02 CC
Yes	14	14	8310	4L002381	14:01 ✓		L0111316-10 10
Yes	15	15	8310	4L002382	15:01 ✓		L0111316-13 5X
Yes	16	13	8310	4L002383	16:01 ✓	SOS 56-19/56-20	WG108689-03 CC

RVQC 11/26/01

rde 11/26/01

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Nov. 21, 2001 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 112101
Analyst Initials RDC SOP # HPLC01 Rev. # 2 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check
- ☐ Mobile phase reservoir
- ☑ System pressure 116 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: high pressure

Action Taken: Changed frit and bottle intake filter on water and acet.

Comments

L011316-12 re-ext. requested due to surr. recovery LCL
L011316-10 - RR to conf. acenaphthylene

Reviewed By: rdc 11/26/01

Parameter: 8310-H_2O SOP #: EXHPLC1 Revision #: 6
Extraction Analyst(s): LMT/REK TV/KD Analyst(s): LMT
Date/Time Extracted: 11/19/01 @ 2:14 LMT 11/19/01 Date TV/KD: 11/19/01
Spike/Surrogate Analyst: LMT/REK Witness: REK/LMT
Surrogate #: ES50038-39 Earliest Hold Date: 11/22
Spike #: A = ES50039-22 Spike #: B = —
Surrogate B #: ES50039-27

Extraction Work Group WG 108469
Analytical Work Group WG 108520

Extract Relinquished By: LMT
Extract Received By & Date: [illegible] 11/19/01

	Sample ID	Test Code	pH √ <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	BN	N	Comments
1	Blank			✓		1L	100ul		1ml	T				WG 108469-02
2	LCS			✓		1		500ul		C				WG 108469-03
3	11-316-01	8310		✓		990ml				T				
4	-02			✓		980ml				T				WG 108469-01
5	-03MS			✓		970ml		500ul		C				WG 108469-04*
6	-04MSD			✓		960ml		1		C				WG 108469-05*
7	-05			✓		970ml				T				
8	-06			✓		960ml				T				
9	-07			✓		970ml				T				
10	-09			✓		980ml				T				
11	-10			✓		960ml				C				
12	-11			✓		970ml				T				⊙
13	-12			✓		970ml				T				
14	-13			✓		990ml				T				
15	-14			✓		960ml				T				
16	11-344-01			✓		980ml				T				
17	-02			✓		980ml				T				⊙
18	-03			✓		980ml				T				
19	-04			✓		980ml				T				
20	-05			✓		920ml				T				
21														
22														
23														
24														

LMT 11/19/01

Methylene Chloride Lot #: 41109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: ~~Acetonitrile~~ Lot #: M8801 Acetonitrile
Reagent: ~~Florisil~~ Lot #: ER1978
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: ✓ Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER1979

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3664A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 11/19/01

Extraction Notes For Volume # 175 Page # 183

General Comments: ~~X~~ MS and MSD of ~~#~~ 11-316-02
EMT
11/19/01

Extraction Anomalies: Nothing to Report

Concentration Anomalies: (•) 11-316-11 and 11-344-02 formed a precipitate after exchanging on turbo-vap.

Clean-Up Anomalies: Not Applicable

Supervisor Review: _____ Date: _____

Example 8310 Calculations

1.0 Calulating the Calibration Factor (CF) from the initial calibration (ICAL) data:

CF = Cs/As

Where:		Example:
	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ug/ml).	100
	CF	**0.01**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:

C = [(Ax)(Vf)(D)(CF)(1000)] / Vi

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	CF = Calibration factor from ICAL calculated above.	**0.01**
	Vi = Initial volume of sample (mL). (prep log)	1000
	1000 = conversion to ppb	
	C (ug/L) =	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report: C = [(Ax)(Vf)(D)(Cf)] / Vi

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL).	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	CF = Calibration factor from ICAL calculated above.	0.01
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**3.333333**

2.4 General Chemistry Data

2.4.5 Anions (9056)

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L0111344

METHOD

Analysis: SW-846 9056

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All acceptance criteria were met.

PREPARATION: All acceptance criteria were met.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: Sample fraction -03 was chosen internally for the MS/MSD of this sample delivery group. All acceptance criteria were met.

SAMPLES All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: GSG

REVIEWED: _____ DATE: 12/6/01

Rev. 7/14/00

Figure 1
1C

Date: 11/12/01
Analyst: GSC
Method: 9056
Instrument: IC2
Work Group: GC 105728

- 344

	Analyst
System Performance Check	✓
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	✓
Second Source Standard % Difference	✓
Check Standards	✓
Project / Client Specific Requirements	
Special Standards	
Blanks	✓
TCL's	
Surrogates	
LCS (Laboratory Control Sample)	✓
Recoveries	
Surrogates	
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	
Surrogates	
Calculations & Correct Factors	
Dilutions Run	
Reruns	
Check Sample Histories	
Ending Check Standards	✓
Excel Spreadsheets	✓
Case Narrative	✓
Corrective Action	
Results Reporting / Data Qualifiers	
WorkGroups Traceability	
Client Data Package Assembly	
Check for Completeness	✓

Primary Reviewer Initials & Date Checked
GSC 11/12/01

Secondary Reviewer Initials & Date Checked
Robert Mosher

- Check for compliance with Method and project-specific requirements
- Check the completeness of the reported information
- Check the information for the report narrative
- Check the reasonableness of results

Supervisory Review Initials & Date Checked JRR 12/5/01

Comments:

NA - Not Applicable

DL - Diluted Out

✓ - Checked & OK

Anions (9056)

Login Number: L0111344

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

____ Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data)

✓ Chromatograms and external standard reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and external standard reports (chronological)

____ Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

✓ Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

____ Extraction bench sheets

Checked By: GSG Date: 12/5/01

2.4.5.1 QC Summary

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, Water

Analytical Work Group: WG108428
Method: 9056
Instrument: IC2
Analyst: GSG

Prep Work Group: NA
Ext Date: NA
Ext Bench Sheet: NA
Run Date: 17-Nov-01

Blank Filename: IC2_014
LCS Filename: IC2_015
Sample Number: L0111344-01
Sample Filename: IC2_016
Duplicate Filename: IC2_017

Sample Number: L0111344-03
Sample Filename: IC2_019
MS Filename: IC2_020
MSD Filename: IC2_021

Analyte	CONCENTRATION, mg/L										% RECOVERY													
	RDL	Blank	LCS Spike Amount	LCS	Sample	Dup	Sample	MS Spike Amount	MS	MSD	Blank	LCS	LCS LCL	LCS UCL	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL	LCS	MS	MSD
NITRITE-N	0.4	ND	3.66	3.60	ND	ND	ND	3.66	3.83	3.82	ND	98.4	90	110	105	104	80	120	NA	0.3	20			
NITRATE-N	0.6	ND	4.06	3.95	ND	ND	ND	4.06	4.10	4.13	ND	97.3	90	110	101	102	80	120	NA	0.9	20			
PHOSPHATE-P	1	ND	9.24	9.57	ND	ND	ND	9.24	ND	ND	ND	104	90	110	ND	ND	80	120	NA	NA	20			

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL = REPORTING DETECTION LIMIT
D = DETECTED, RESULT MUST BE GREATER THAN ZERO

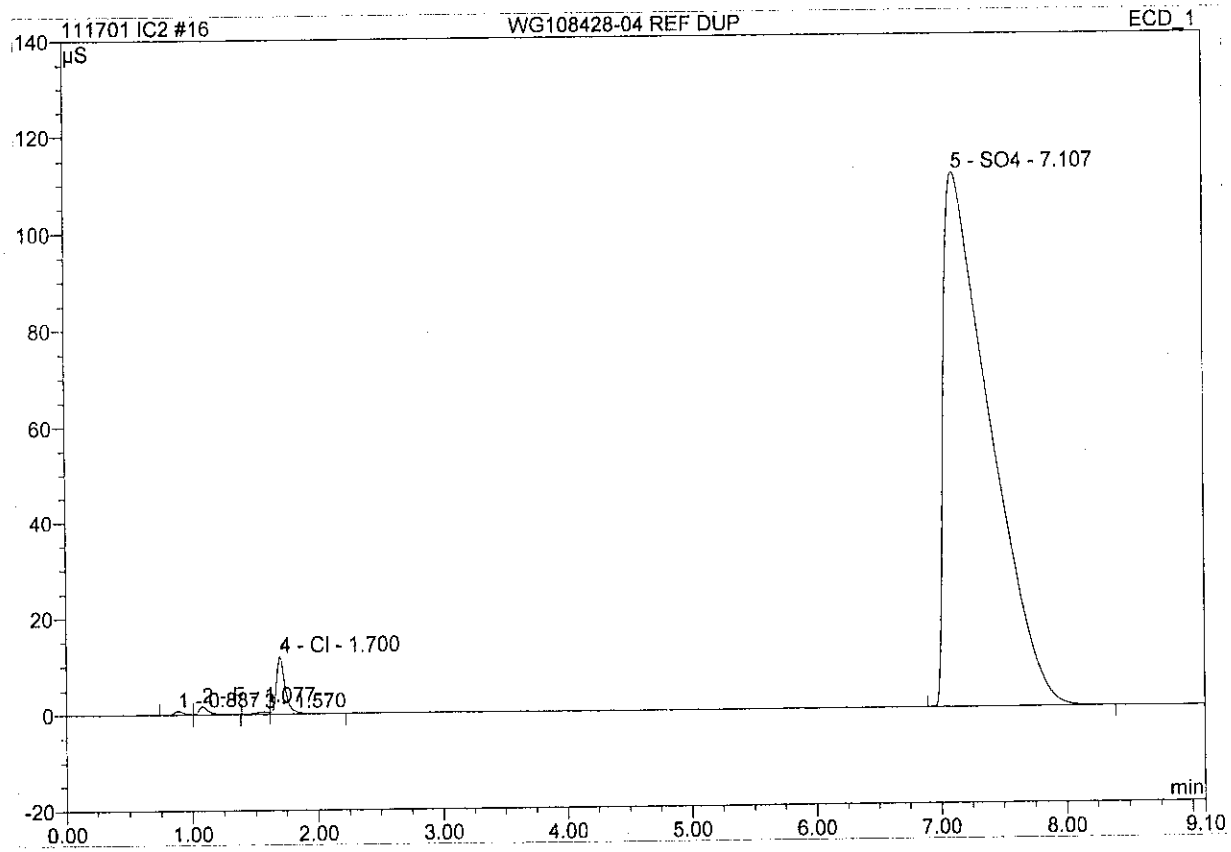
H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

2.4.5.2 Sample Data

16 WG108428-04 REF DUP

1,1 GSG L0111344-01 REF DUP

Sample Name:	**WG108428-04 REF DUP**	*Injection Volume:*	**25.0**
Vial Number:	**17**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/18/2001 0:57**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

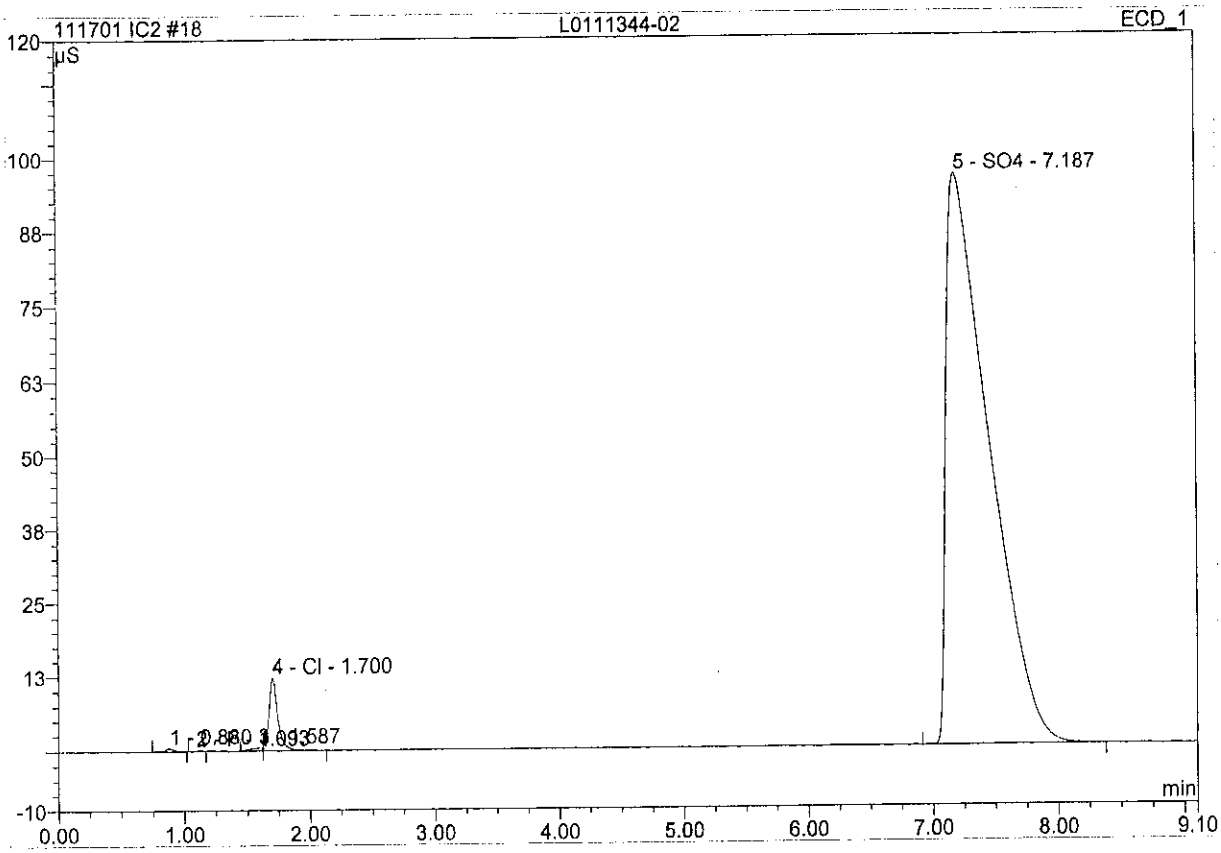


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.711	0.065	0.13	n.a.	BM
2	1.08	F	1.701	0.164	0.34	1.297	MB
3	1.57	n.a.	0.439	0.056	0.11	n.a.	BM
4	1.70	Cl	12.019	0.999	2.05	11.000	MB
5	7.11	SO4	111.150	47.549	97.37	673.384	BMB
Total:			126.019	48.833	100.00	685.680	

18 L0111344-02

1,1 GSG

Sample Name:	**L0111344-02**	*Injection Volume:*	**25.0**
Vial Number:	**19**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/18/2001 1:20**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

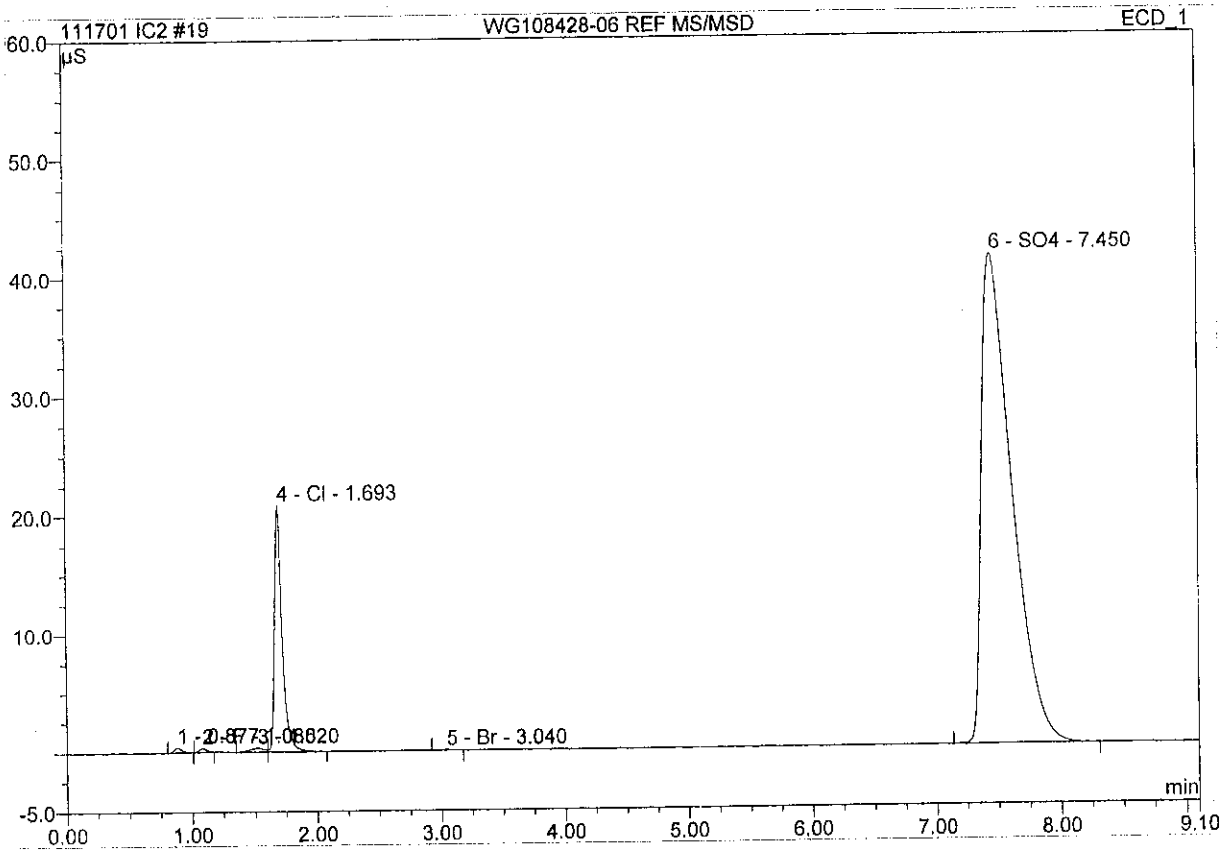


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.465	0.036	0.09	n.a.	BMB
2	1.09	F	0.083	0.006	0.01	0.148	BMB
3	1.59	n.a.	0.421	0.047	0.12	n.a.	BM
4	1.70	Cl	12.150	0.977	2.48	10.753	MB
5	7.19	SO4	96.458	38.295	97.29	542.474	BMB
Total:			109.576	39.360	100.00	553.375	

19 WG108428-06 REF MS/MSD

1,1 GSG L0111344-03 REF MS/MSD

Sample Name:	**WG108428-06 REF MS/MSD**	*Injection Volume:*	**25.0**
Vial Number:	**20**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/18/2001 1:31**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

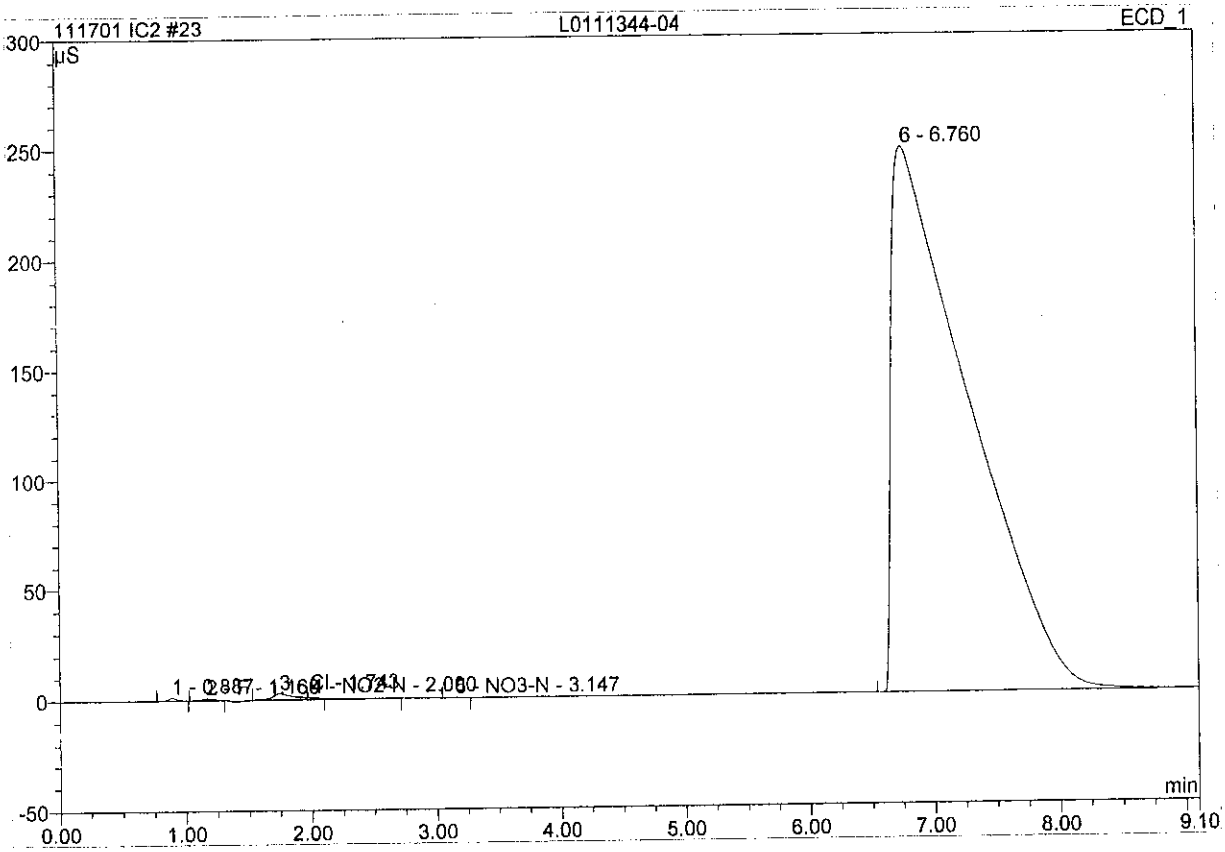


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.391	0.029	0.22	n.a.	BMB
2	1.08	F	0.290	0.020	0.15	0.251	BMB
3	1.52	n.a.	0.308	0.039	0.29	n.a.	BM
4	1.69	Cl	20.892	1.505	11.31	16.506	MB
5	3.04	Br	0.052	0.006	0.04	0.105	BMB
6	7.45	SO4	41.436	11.700	87.98	166.252	BMB
Total:			63.369	13.298	100.00	183.114	

23 L0111344-04

1,1 GSG

Sample Name:	**L0111344-04**	*Injection Volume:*	**25.0**
Vial Number:	**24**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/18/2001 2:17**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

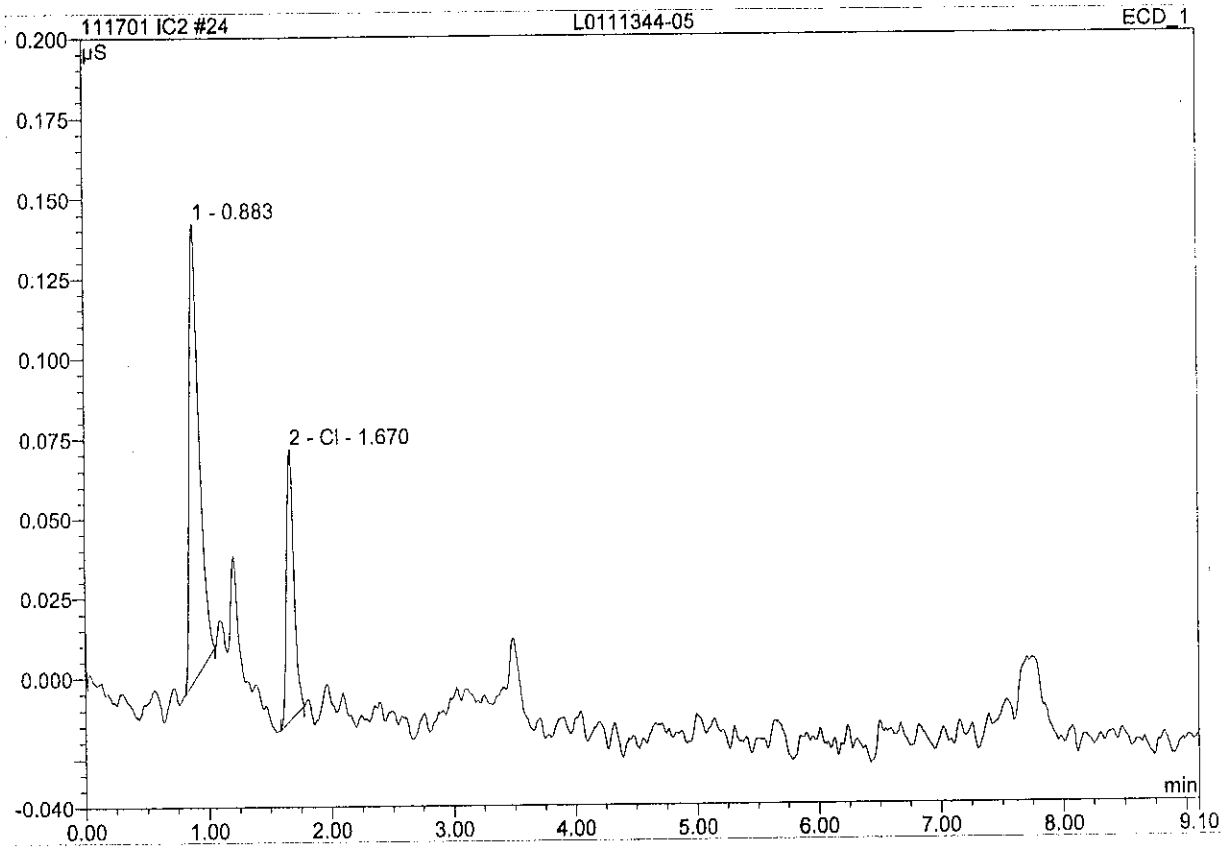


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	1.196	0.098	0.06	n.a.	BMB
2	1.16	F	0.732	0.107	0.06	0.885	BMB
3	1.74	Cl	2.747	0.696	0.39	7.700	BMB
4	2.00	NO2-N	0.225	0.015	0.01	0.153	Rd
5	3.15	NO3-N	0.069	0.007	0.00	0.121	BMB
6	6.76	n.a.	247.738	175.664	99.48	n.a.	BMB
Total:			252.707	176.588	100.00	8.859	

24 L0111344-05

1,1 GSG

Sample Name:	**L0111344-05**	*Injection Volume:*	**25.0**
Vial Number:	**25**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/18/2001 2:29**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



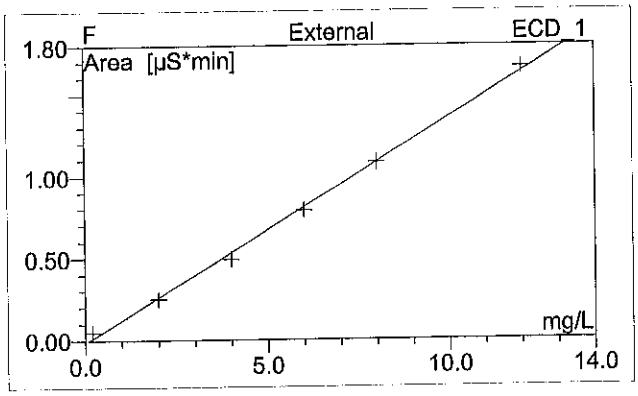
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.143	0.013	68.50	n.a.	BMB
2	1.67	Cl	0.085	0.006	31.50	0.176	BMB
Total:			0.228	0.019	100.00	0.176	

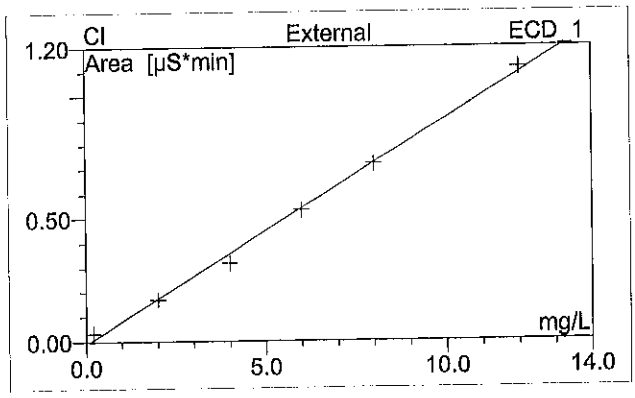
2.4.5.3 Standards Data

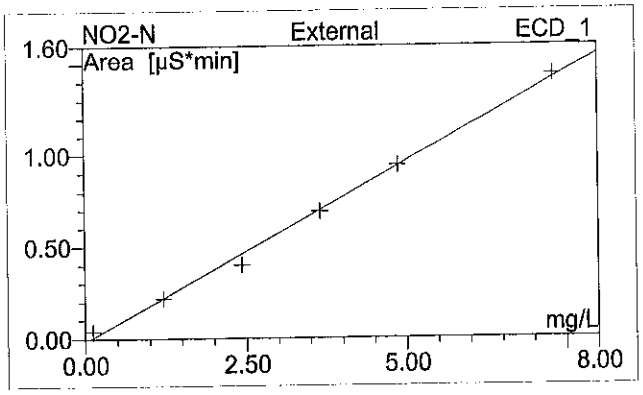
4 ANION STD #1

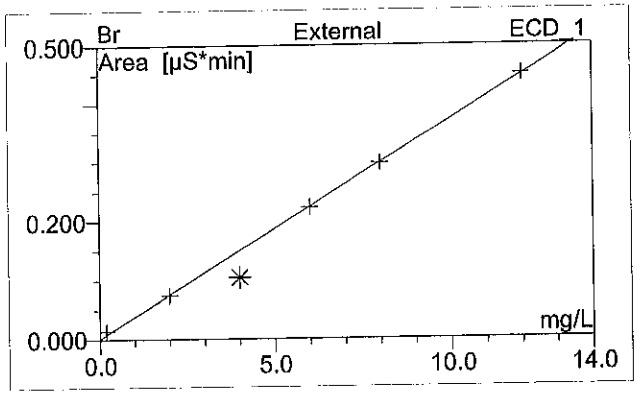
1,1 GSG ANION CCV SOS0056-35 111601

Sample Name:	**ANION STD #1**	*Injection Volume:*	**25.0**
Vial Number:	**38**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/17/2001 22:39**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.11**	*Sample Amount:*	**1.0000**







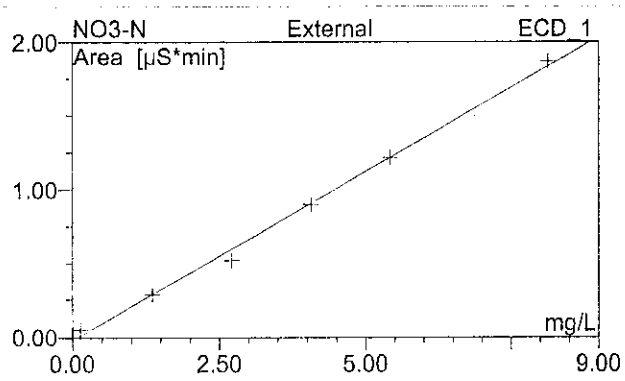


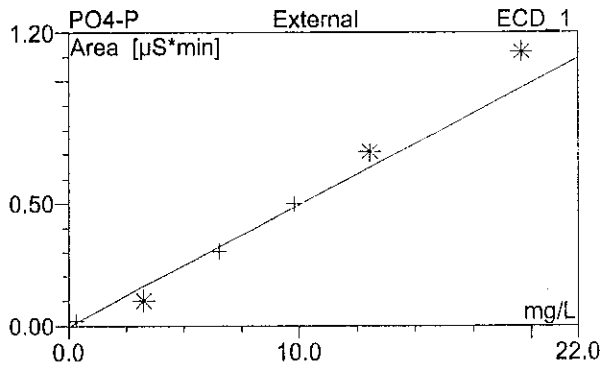
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.88	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.07	F	0LOff	6	99.8748	-0.0147	0.1375	0.0000
3	1.67	Cl	0LOff	6	99.8287	-0.0102	0.0918	0.0000
4	2.02	NO2-N	0LOff	6	99.8057	-0.0153	0.1956	0.0000
5	3.06	Br	0LOff	5	99.9869	0.0016	0.0373	0.0000
6	3.54	NO3-N	0LOff	6	99.7985	-0.0201	0.2283	0.0000
7	6.14	PO4-P	0LOff	3	99.7809	-0.0022	0.0498	0.0000
8	7.70	SO4	0LOff	6	99.7988	-0.0521	0.0707	0.0000
Average:					99.8392	-0.0161	0.1159	0.0000

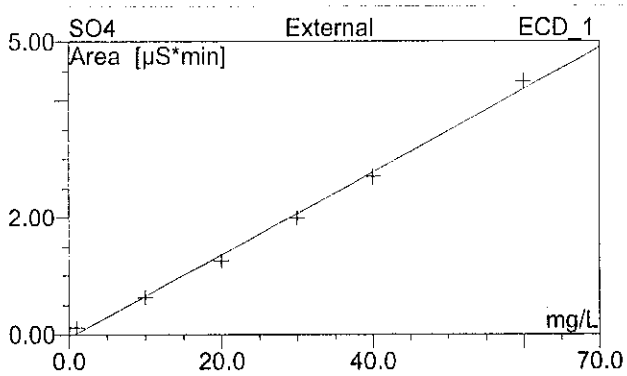
4 ANION STD #1

1,1 GSG ANION CCV SOS0056-35 111601

Sample Name:	**ANION STD #1**	*Injection Volume:*	**25.0**
Vial Number:	**38**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/17/2001 22:39**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.11**	*Sample Amount:*	**1.0000**





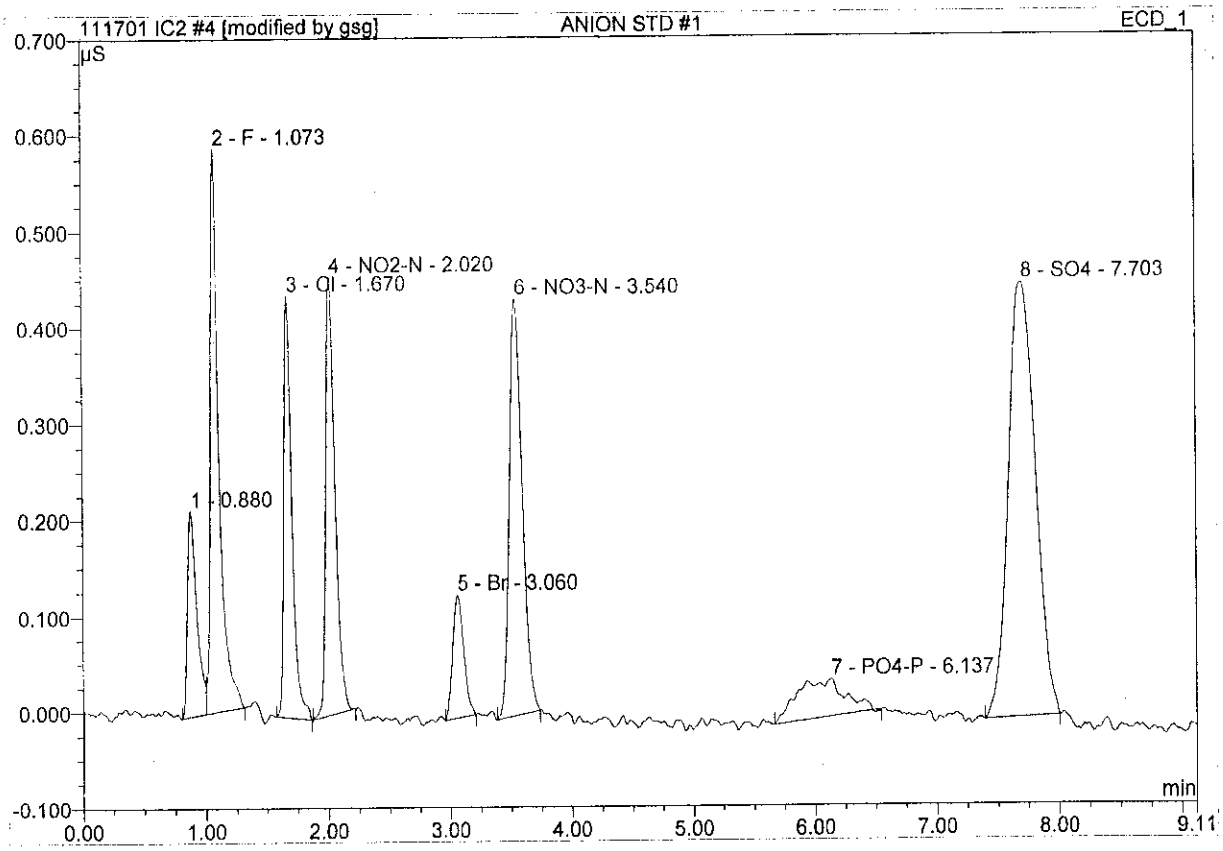


No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.88	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.07	F	0LOff	6	99.8748	-0.0147	0.1375	0.0000
3	1.67	Cl	0LOff	6	99.8287	-0.0102	0.0918	0.0000
4	2.02	NO2-N	0LOff	6	99.8057	-0.0153	0.1956	0.0000
5	3.06	Br	0LOff	5	99.9869	0.0016	0.0373	0.0000
6	3.54	NO3-N	0LOff	6	99.7985	-0.0201	0.2283	0.0000
7	6.14	PO4-P	0LOff	3	99.7809	-0.0022	0.0498	0.0000
8	7.70	SO4	0LOff	6	99.7988	-0.0521	0.0707	0.0000
Average:					99.8392	-0.0161	0.1159	0.0000

4 ANION STD #1

1,1 GSG ANION CCV SOS0056-35 111601

Sample Name:	**ANION STD #1**	*Injection Volume:*	**25.0**
Vial Number:	**38**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/17/2001 22:39**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.11**	*Sample Amount:*	**1.0000**

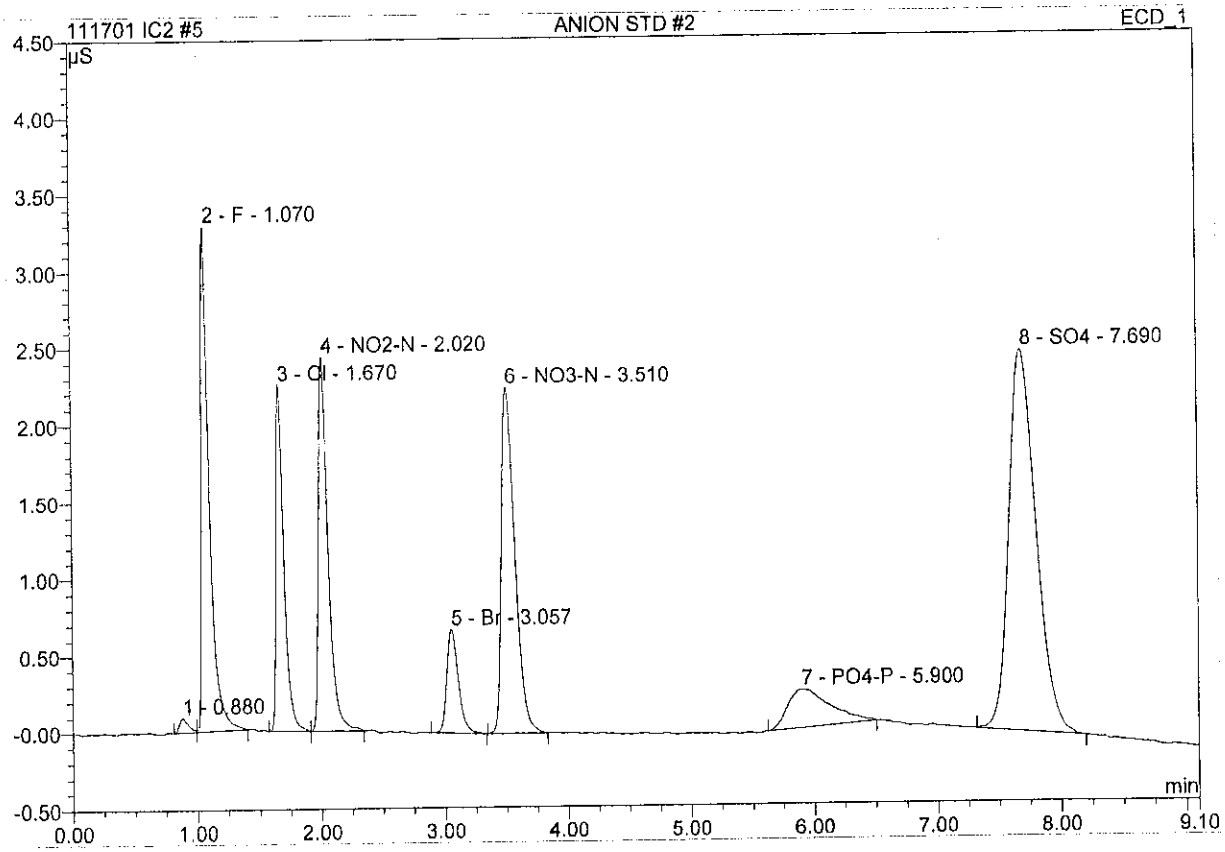


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.214	0.019	5.54	n.a.	BM
2	1.07	F	0.586	0.048	14.09	0.459	MB
3	1.67	Cl	0.439	0.034	9.78	0.477	BMB
4	2.02	NO2-N	0.456	0.040	11.70	0.284	BMB
5	3.06	Br	0.129	0.014	3.99	0.323	BMB
6	3.54	NO3-N	0.434	0.054	15.60	0.323	BMB
7	6.14	PO4-P	0.039	0.018	5.29	0.409	BMB*
8	7.70	SO4	0.452	0.117	34.01	2.390	BMB
Total:			2.750	0.343	100.00	4.664	

5 ANION STD #2

1,1 GSG ANION CCV SOS0056-35 111601

Sample Name:	**ANION STD #2**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/17/2001 22:50**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

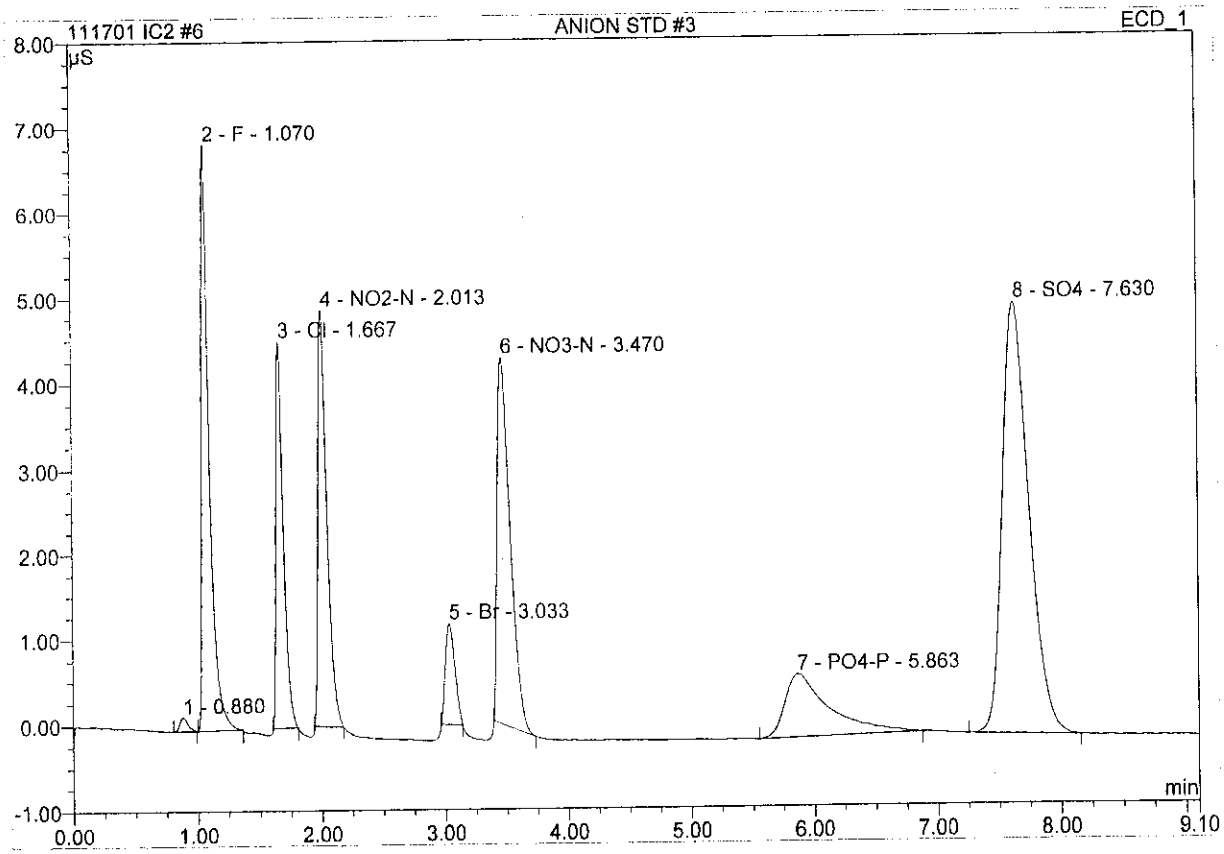


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.098	0.008	0.48	n.a.	BM
2	1.07	F	3.287	0.249	14.31	1.918	MB
3	1.67	Cl	2.251	0.170	9.74	1.959	BM
4	2.02	NO2-N	2.432	0.219	12.59	1.199	MB
5	3.06	Br	0.678	0.074	4.26	1.946	BMB
6	3.51	NO3-N	2.249	0.285	16.36	1.335	BMB
7	5.90	PO4-P	0.251	0.101	5.79	2.067	BMB
8	7.69	SO4	2.481	0.635	36.49	9.724	BMB
Total:			13.726	1.741	100.00	20.146	

6 ANION STD #3

1,1 GSG ANION STD SOS0056-35 111701

Sample Name:	**ANION STD #3**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/17/2001 23:02**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

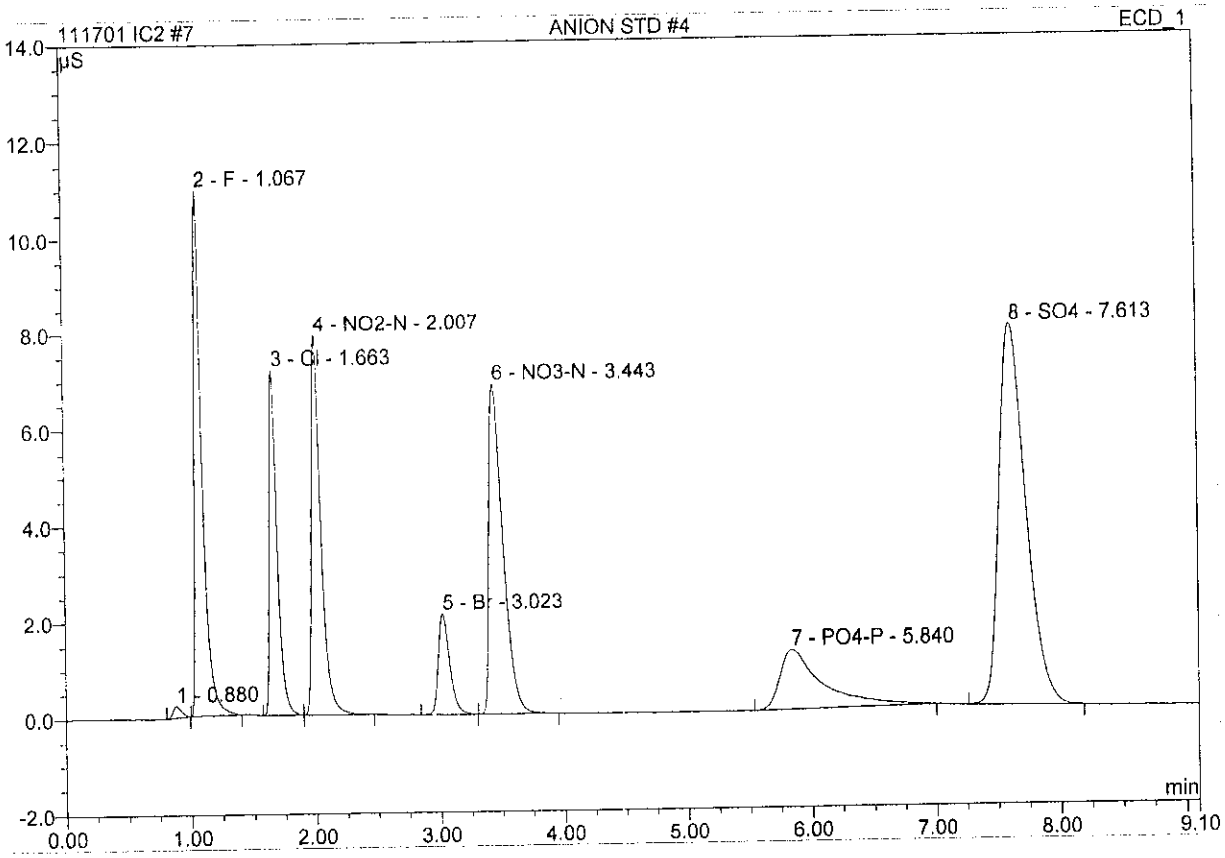


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.154	0.012	0.35	n.a.	BMB
2	1.07	F	6.862	0.493	14.44	3.690	BM
3	1.67	Cl	4.516	0.318	9.32	3.577	BM
4	2.01	NO2-N	4.874	0.401	11.74	2.127	BMB
5	3.03	Br	1.171	0.104	3.06	2.754	BMB
6	3.47	NO3-N	4.287	0.521	15.25	2.368	BMB
7	5.86	PO4-P	0.734	0.304	8.91	6.149	BMB
8	7.63	SO4	5.049	1.261	36.95	18.582	BMB
Total:			27.647	3.414	100.00	39.248	

7 ANION STD #4

1,1 GSG ANION STD SOS0056-35 111701

Sample Name:	**ANION STD #4**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/17/2001 23:13**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

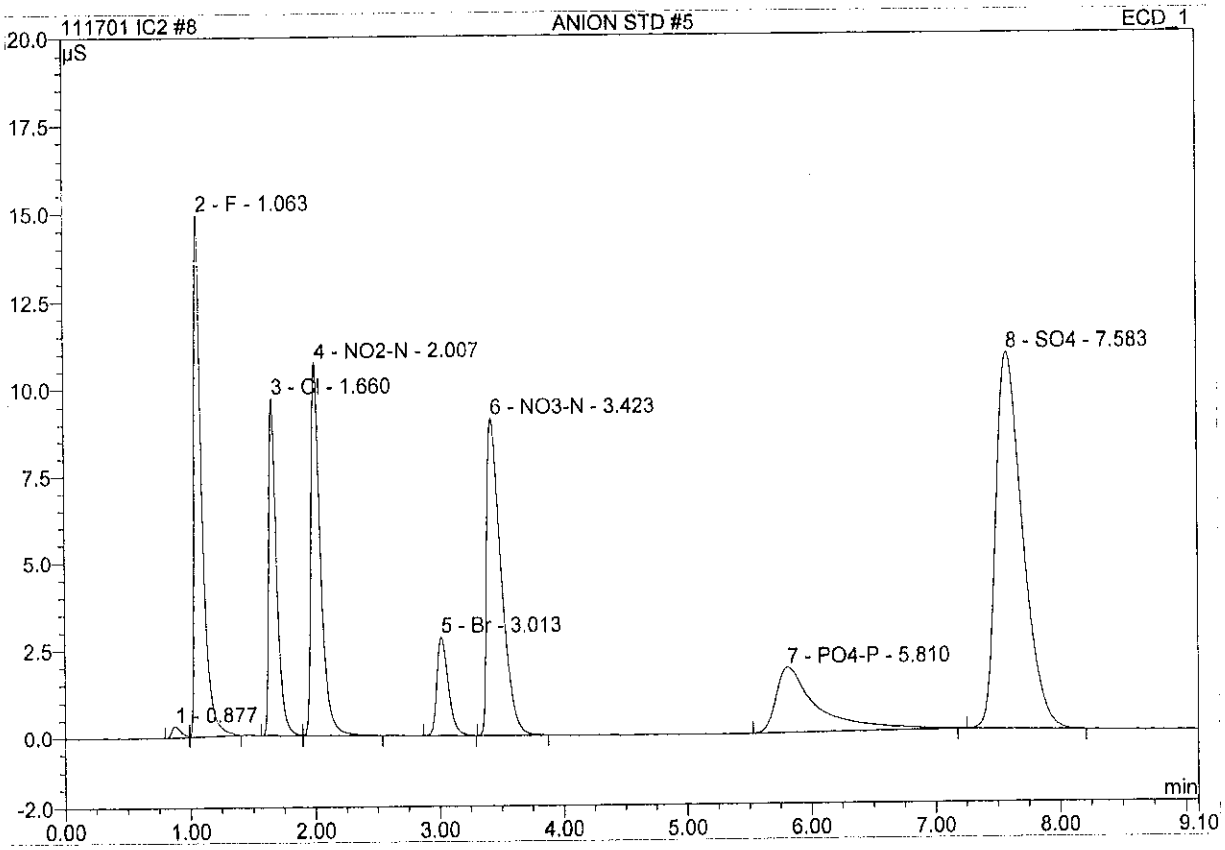


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.241	0.018	0.33	n.a.	BMB
2	1.07	F	10.961	0.789	14.00	5.844	BMB
3	1.66	Cl	7.189	0.532	9.44	5.908	BM
4	2.01	NO2-N	7.903	0.691	12.26	3.612	MB
5	3.02	Br	2.096	0.224	3.97	5.965	BMB
6	3.44	NO3-N	6.857	0.897	15.91	4.017	BMB
7	5.84	PO4-P	1.252	0.498	8.83	10.031	BMB
8	7.61	SO4	7.938	1.988	35.26	28.854	BMB
Total:			44.436	5.637	100.00	64.230	

8 ANION STD #5

1,1 GSG ANION STD SOS0056-35 111701

Sample Name:	**ANION STD #5**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/17/2001 23:25**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

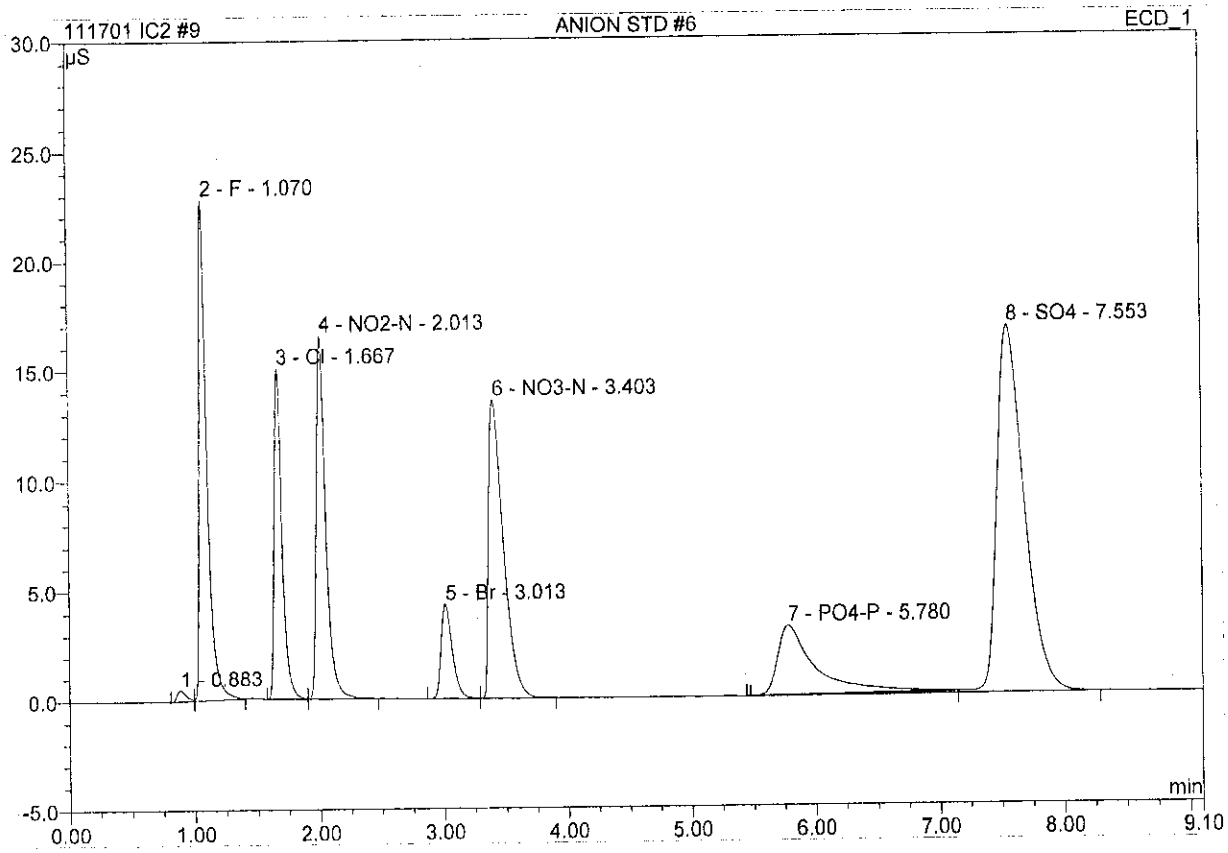


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.332	0.029	0.37	n.a.	BM
2	1.06	F	14.928	1.082	14.06	7.977	MB
3	1.66	Cl	9.676	0.718	9.33	7.937	BM
4	2.01	NO2-N	10.689	0.940	12.22	4.886	MB
5	3.01	Br	2.809	0.298	3.87	7.956	BMB
6	3.42	NO3-N	9.106	1.217	15.80	5.416	BMB
7	5.81	PO4-P	1.855	0.713	9.26	14.344	BMB
8	7.58	SO4	10.805	2.700	35.08	38.935	BMB
Total:			60.200	7.697	100.00	87.451	

9 ANION STD #6

1,1 GSG ANION STD SOS0056-35 111701

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**37**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/17/2001 23:36**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

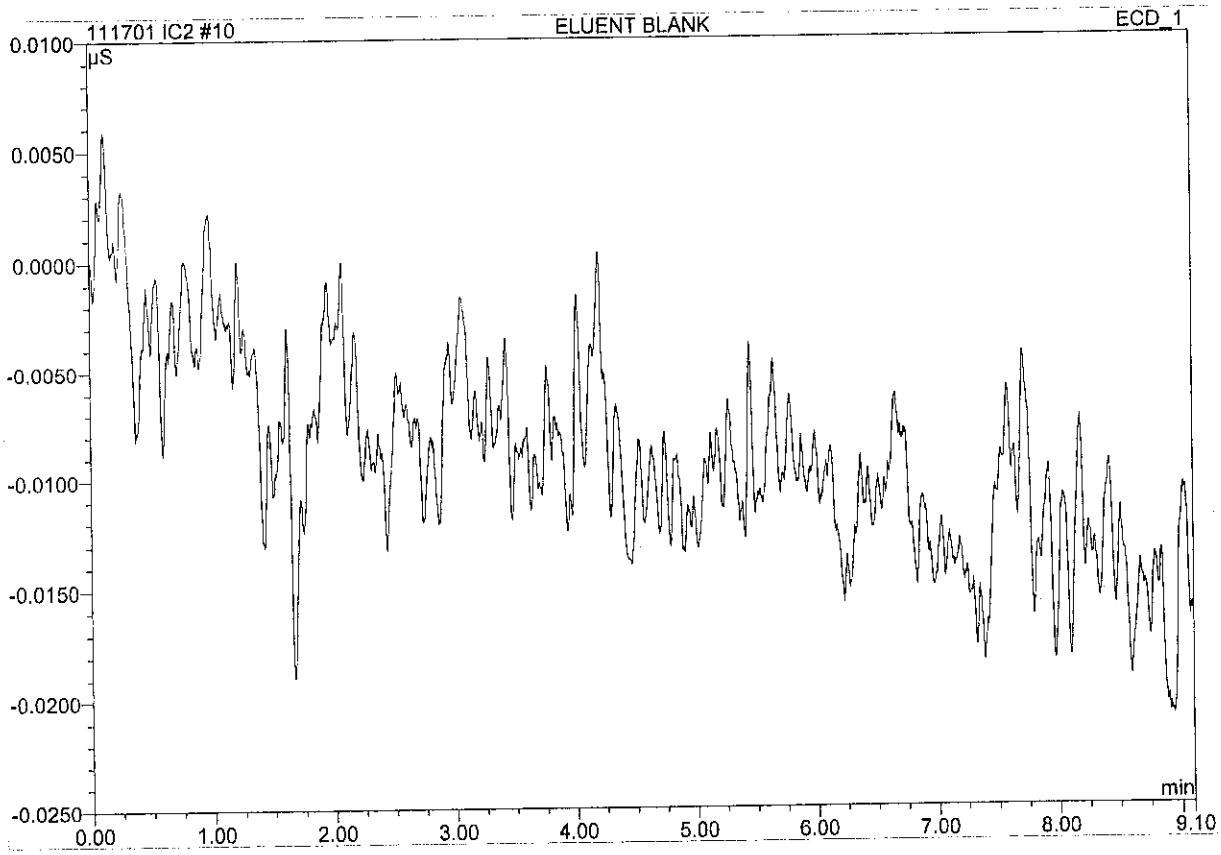


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.497	0.043	0.36	n.a.	BM
2	1.07	F	22.808	1.664	13.85	12.206	MB
3	1.67	Cl	15.006	1.112	9.26	12.231	BM
4	2.01	NO2-N	16.505	1.436	11.95	7.421	MB
5	3.01	Br	4.296	0.451	3.75	12.054	BM
6	3.40	NO3-N	13.537	1.869	15.56	8.275	MB
7	5.78	PO4-P	3.186	1.122	9.34	22.551	Ru
8	7.55	SO4	16.676	4.315	35.92	61.779	BMB
Total:			92.510	12.013	100.00	136.517	

10 ELUENT BLANK

1,1 GSG

Sample Name:	**ELUENT BLANK**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/17/2001 23:48**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

11 ANION ALT SV53-30

1,1 GSG ANION STD SV53-30 111701

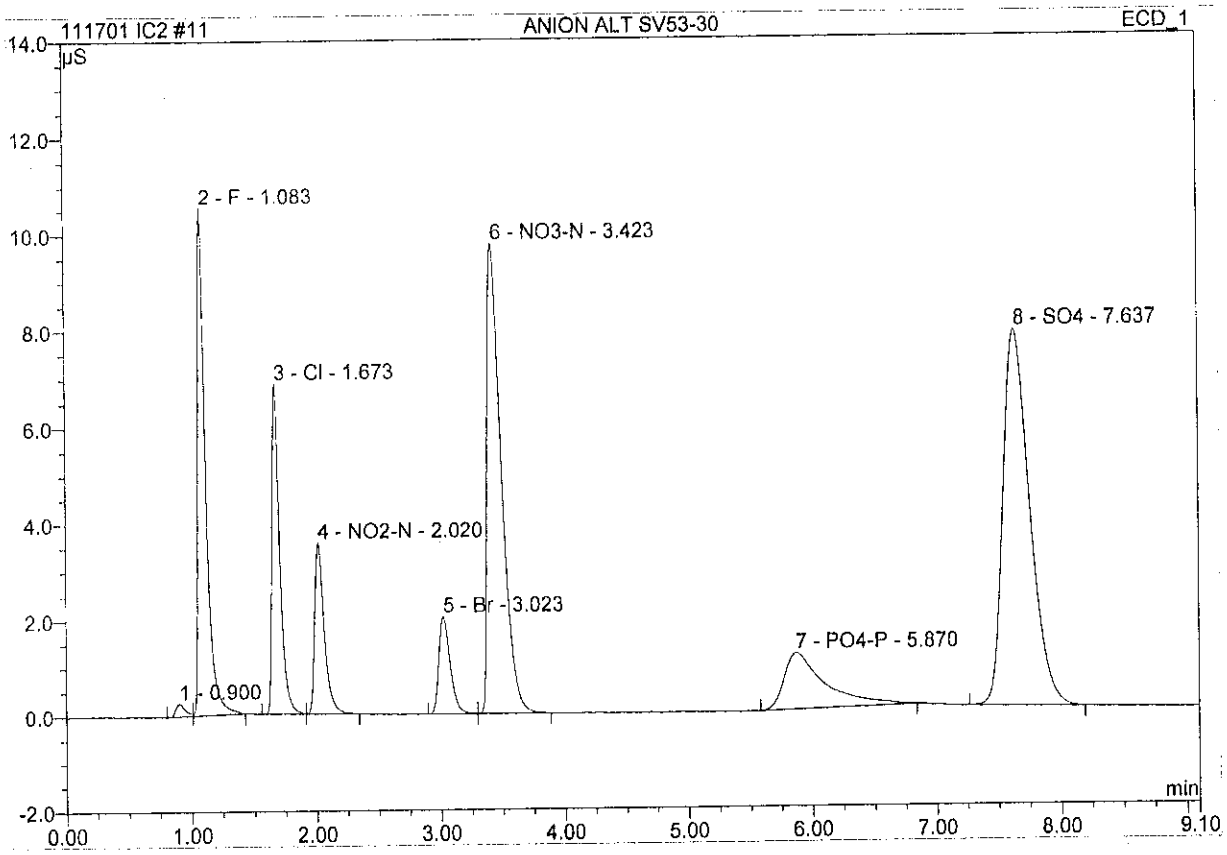
Sample Name:	**ANION ALT SV53-30**	*Injection Volume:*	
Vial Number:	**36**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**11/17/2001 23:59**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

ANION ALT SV53-3	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.7683	-3.86	PASS
Cl	6	5.7008	-4.99	PASS
NO2-N	3.65	na	#VALUE!	#VALUE!
NO3-N	4.07	na	#VALUE!	#VALUE!
Br	6	5.7421	-4.30	PASS
SO4	30	28.3802	-5.40	PASS
PO4-P	9.78	9.1563	-6.38	PASS

11 ANION ALT SV53-30

1,1 GSG ANION STD SV53-30 111701

Sample Name:	**ANION ALT SV53-30**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/17/2001 23:59**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.90	n.a.	0.268	0.024	0.44	n.a.	BM
2	1.08	F	10.546	0.779	14.00	5.768	MB
3	1.67	Cl	6.855	0.513	9.22	5.701	BM
4	2.02	NO2-N	3.553	0.318	5.71	1.702	MB
5	3.02	Br	2.030	0.216	3.88	5.742	BM
6	3.42	NO3-N	9.769	1.306	23.47	5.808	MB
7	5.87	PO4-P	1.184	0.454	8.16	9.156	BMB
8	7.64	SO4	7.832	1.954	35.12	28.380	BMB
Total:			42.037	5.564	100.00	62.258	

12 ANION ALT SV55-38

1,1 GSG ANION STD SOS0055-38 111701

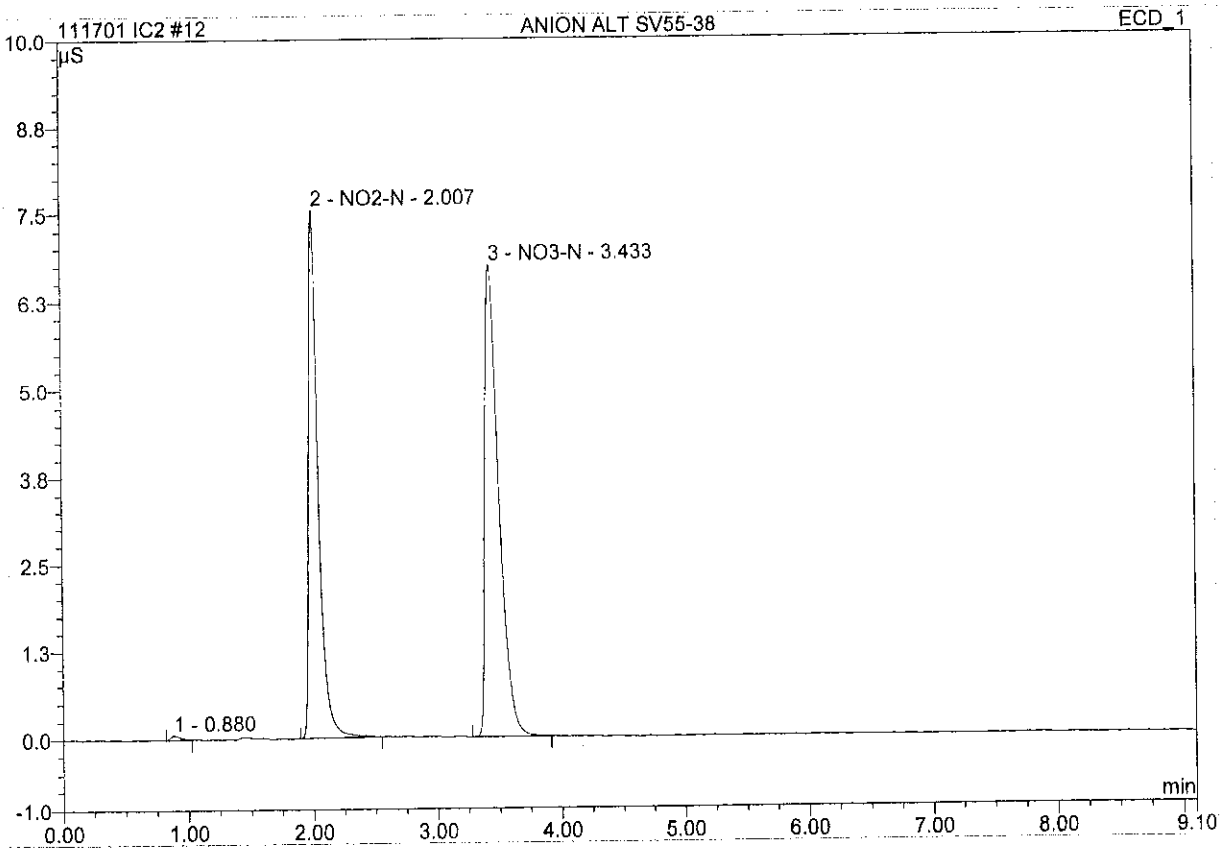
Sample Name:	**ANION ALT SV55-38**	*Injection Volume:*	
Vial Number:	**36**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**11/18/2001 0:11**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

ANION ALT SV55-3	Actual mg/L	Recoved mg/L	%Difference	
n.a.	6.00	n.a.	#VALUE!	#VALUE!
n.a.	6	n.a.	#VALUE!	#VALUE!
NO2-N	3.65	3.4903	-4.37	PASS
NO3-N	4.07	3.9215	-3.65	PASS
n.a.	6	n.a.	#VALUE!	#VALUE!
n.a.	30	n.a.	#VALUE!	#VALUE!
n.a.	9.78	n.a.	#VALUE!	#VALUE!

12 ANION ALT SV55-38

1,1 GSG ANION STD SOS0055-38 111701

Sample Name:	**ANION ALT SV55-38**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/18/2001 0:11**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.062	0.005	0.34	n.a.	BMB
2	2.01	NO2-N	7.550	0.667	43.11	3.490	BMB
3	3.43	NO3-N	6.740	0.875	56.55	3.922	BMB
Total:			14.352	1.548	100.00	7.412	

13 WG108427-01 CCV

1,1 GSG ANION CCV SOS0056-35 111701

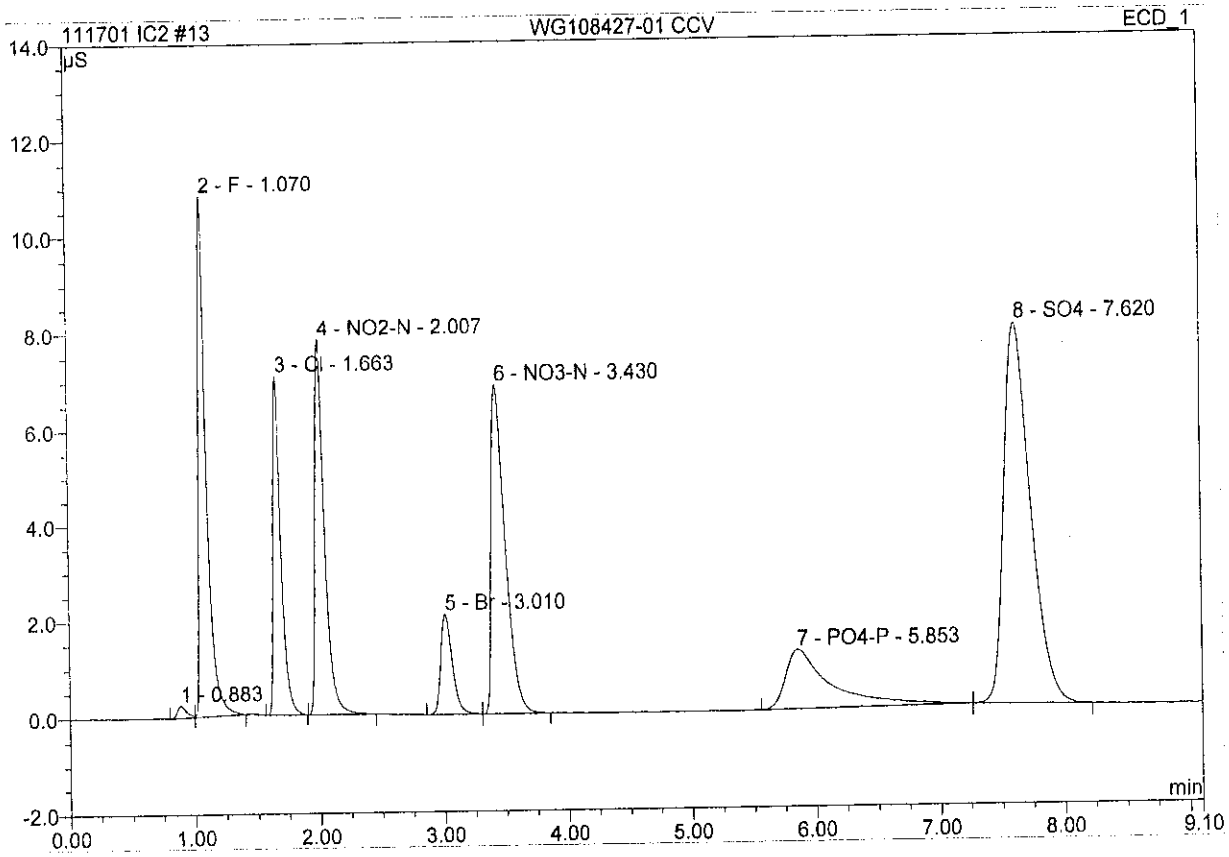
Sample Name:	**WG108427-01 CCV**	*Injection Volume:*	
Vial Number:	**14**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**11/18/2001 0:22**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG108427-01 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8711	-2.15	PASS
Cl	6	5.8713	-2.15	PASS
NO2-N	3.65	3.5992	-1.39	PASS
NO3-N	4.07	4.0009	-1.70	PASS
Br	6	5.9674	-0.54	PASS
SO4	30	28.7689	-4.10	PASS
PO4-P	9.78	10.4066	6.41	PASS

13 WG108427-01 CCV

1,1 GSG ANION CCV SOS0056-35 111701

Sample Name:	**WG108427-01 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**14**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/18/2001 0:22**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.243	0.021	0.37	n.a.	BM
2	1.07	F	10.832	0.793	14.04	5.871	MB
3	1.66	Cl	7.077	0.529	9.36	5.871	BMB
4	2.01	NO2-N	7.825	0.689	12.20	3.599	BMB
5	3.01	Br	2.079	0.224	3.97	5.967	BM
6	3.43	NO3-N	6.868	0.893	15.82	4.001	MB
7	5.85	PO4-P	1.230	0.516	9.15	10.407	BMB
8	7.62	SO4	7.952	1.982	35.09	28.769	BMB
Total:			44.106	5.647	100.00	64.485	

22 WG108427-02 CCV

1,1 GSG ANION CCV SOS0056-35 111701

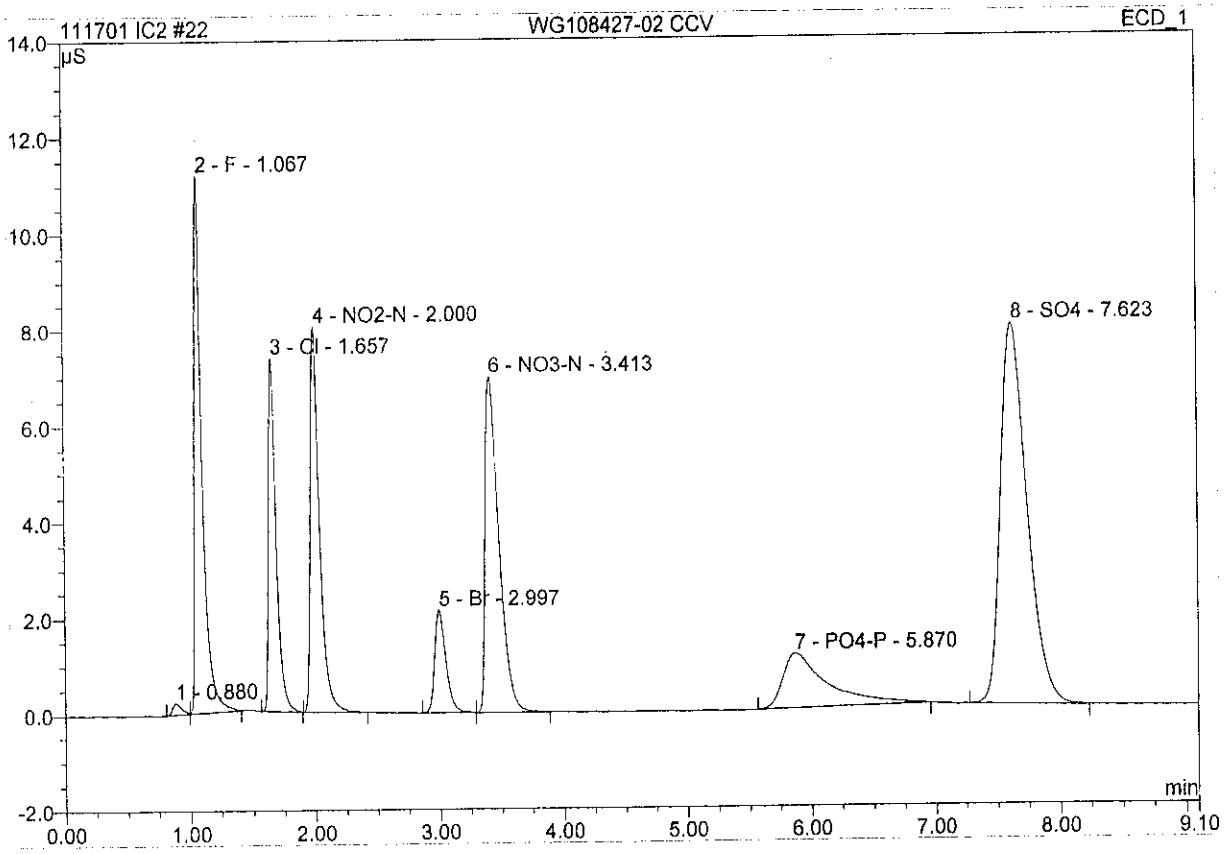
Sample Name:	**WG108427-02 CCV**	*Injection Volume:*	
Vial Number:	**23**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**11/18/2001 2:06**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG108427-02 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8485	-2.52	PASS
Cl	6	5.8716	-2.14	PASS
NO2-N	3.65	3.5634	-2.37	PASS
NO3-N	4.07	3.9723	-2.40	PASS
Br	6	5.8632	-2.28	PASS
SO4	30	28.5169	-4.94	PASS
PO4-P	9.78	9.4082	-3.80	PASS

22 WG108427-02 CCV

1,1 GSG ANION CCV SOS0056-35 111701

Sample Name:	**WG108427-02 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**23**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/18/2001 2:06**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.232	0.020	0.35	n.a.	BM
2	1.07	F	11.172	0.790	14.21	5.849	MB
3	1.66	Cl	7.344	0.529	9.51	5.872	BMB
4	2.00	NO2-N	8.013	0.682	12.27	3.563	BMB
5	3.00	Br	2.120	0.220	3.96	5.863	BM
6	3.41	NO3-N	6.969	0.887	15.96	3.972	MB
7	5.87	PO4-P	1.132	0.467	8.40	9.408	BMB
8	7.62	SO4	7.932	1.964	35.34	28.517	BMB
Total:			44.914	5.557	100.00	63.044	

27 WG108427-03 CCV

1,10 GSG

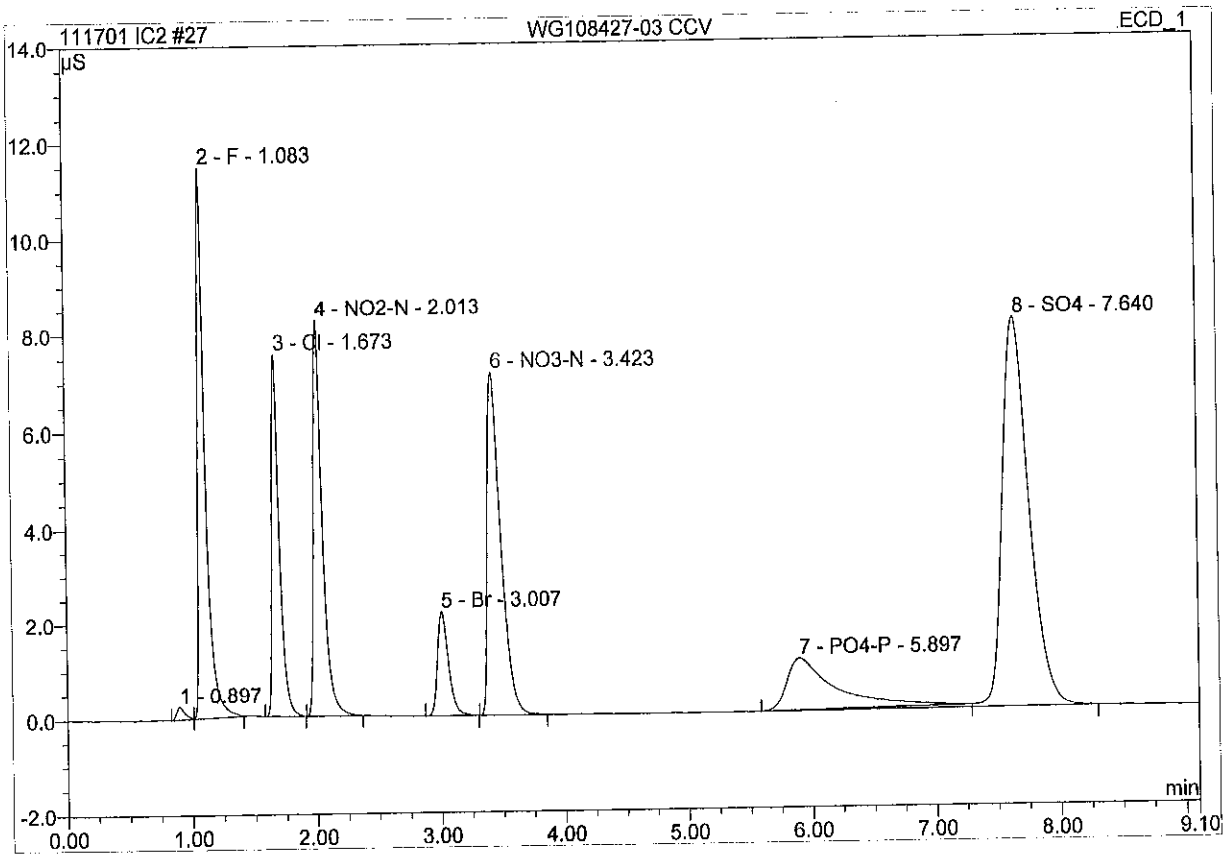
Sample Name:	**WG108427-03 CCV**	*Injection Volume:*	
Vial Number:	**28**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**11/18/2001 3:03**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG108427-03 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8429	-2.62	PASS
Cl	6	5.8712	-2.15	PASS
NO2-N	3.65	3.5977	-1.43	PASS
NO3-N	4.07	4.0137	-1.38	PASS
Br	6	5.9751	-0.41	PASS
SO4	30	30.0449	0.15	PASS
PO4-P	9.78	9.9502	1.74	PASS

27 WG108427-03 CCV

1,10 GSG

Sample Name:	**WG108427-03 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**28**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/18/2001 3:03**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



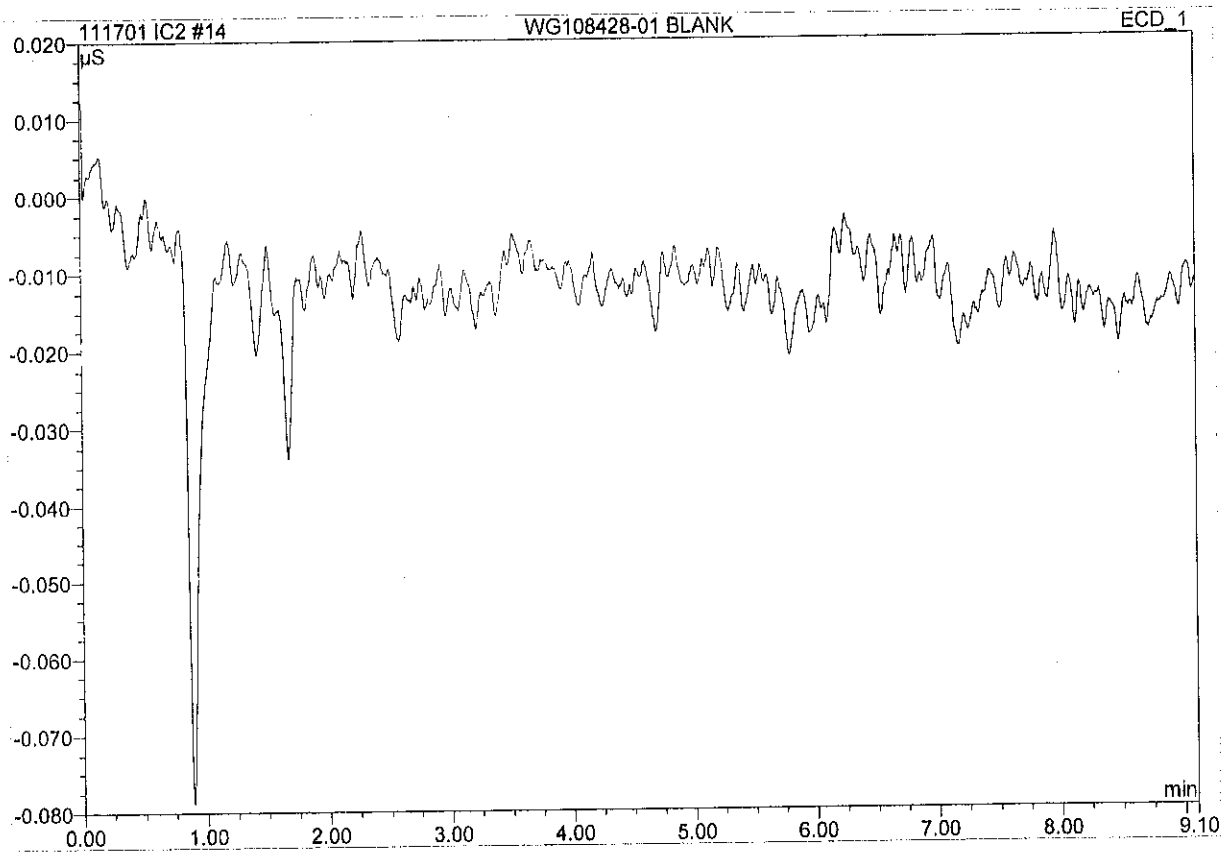
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.90	n.a.	0.254	0.020	0.36	n.a.	BM
2	1.08	F	11.477	0.789	13.81	5.843	MB
3	1.67	Cl	7.532	0.529	9.25	5.871	BMB
4	2.01	NO2-N	8.241	0.688	12.05	3.598	BMB
5	3.01	Br	2.188	0.224	3.93	5.975	BMB
6	3.42	NO3-N	7.145	0.896	15.69	4.014	BMB
7	5.90	PO4-P	1.095	0.494	8.64	9.950	Ru
8	7.64	SO4	8.115	2.072	36.27	30.045	BMB
Total:			46.048	5.712	100.00	65.296	

2.4.5.4 Raw QC Data

14 WG108428-01 BLANK

1,1 GSG

Sample Name:	**WG108428-01 BLANK**	*Injection Volume:*	**25.0**
Vial Number:	**15**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/18/2001 0:34**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

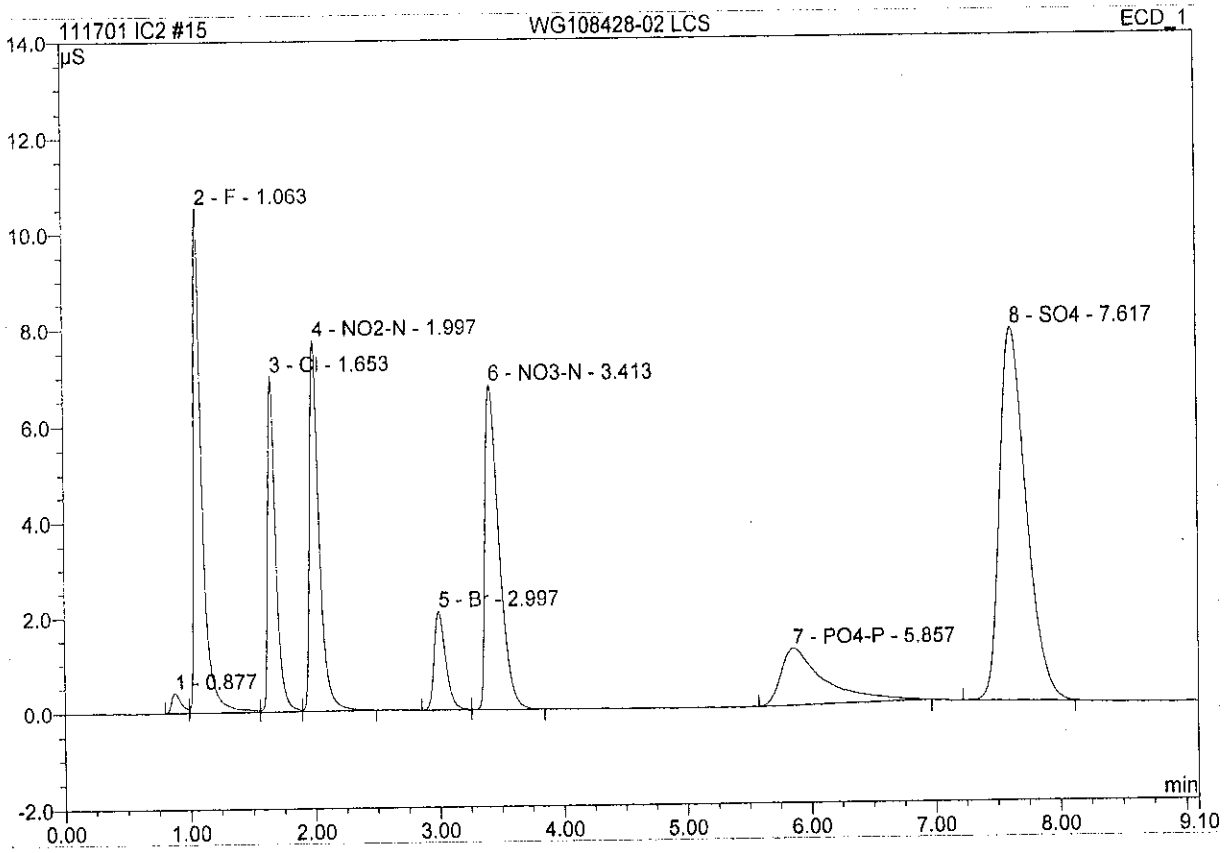


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

15 WG108428-02 LCS

1,1 GSG

Sample Name:	**WG108428-02 LCS**	*Injection Volume:*	**25.0**
Vial Number:	**16**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/18/2001 0:45**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

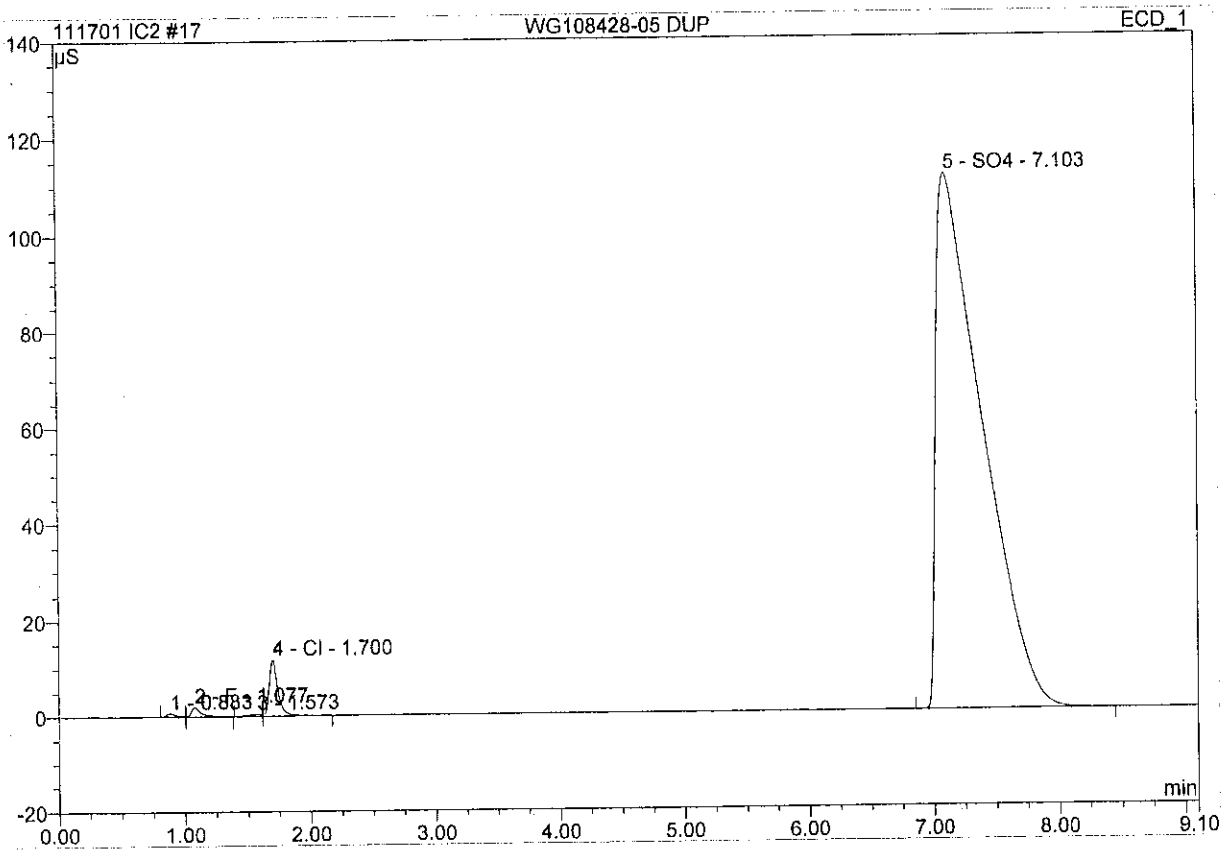


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.407	0.037	0.67	n.a.	BM
2	1.06	F	10.541	0.809	14.47	5.985	M
3	1.65	Cl	6.997	0.532	9.53	5.912	M
4	2.00	NO2-N	7.733	0.689	12.33	3.600	MB
5	3.00	Br	2.069	0.220	3.95	5.870	BM
6	3.41	NO3-N	6.776	0.882	15.78	3.950	MB
7	5.86	PO4-P	1.190	0.475	8.50	9.572	BMB
8	7.62	SO4	7.800	1.944	34.78	28.231	BMB
Total:			43.514	5.588	100.00	63.120	

17 WG108428-05 DUP

1,1 GSG L0111344-01 DUP

Sample Name:	**WG108428-05 DUP**	*Injection Volume:*	**25.0**
Vial Number:	**18**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/18/2001 1:08**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

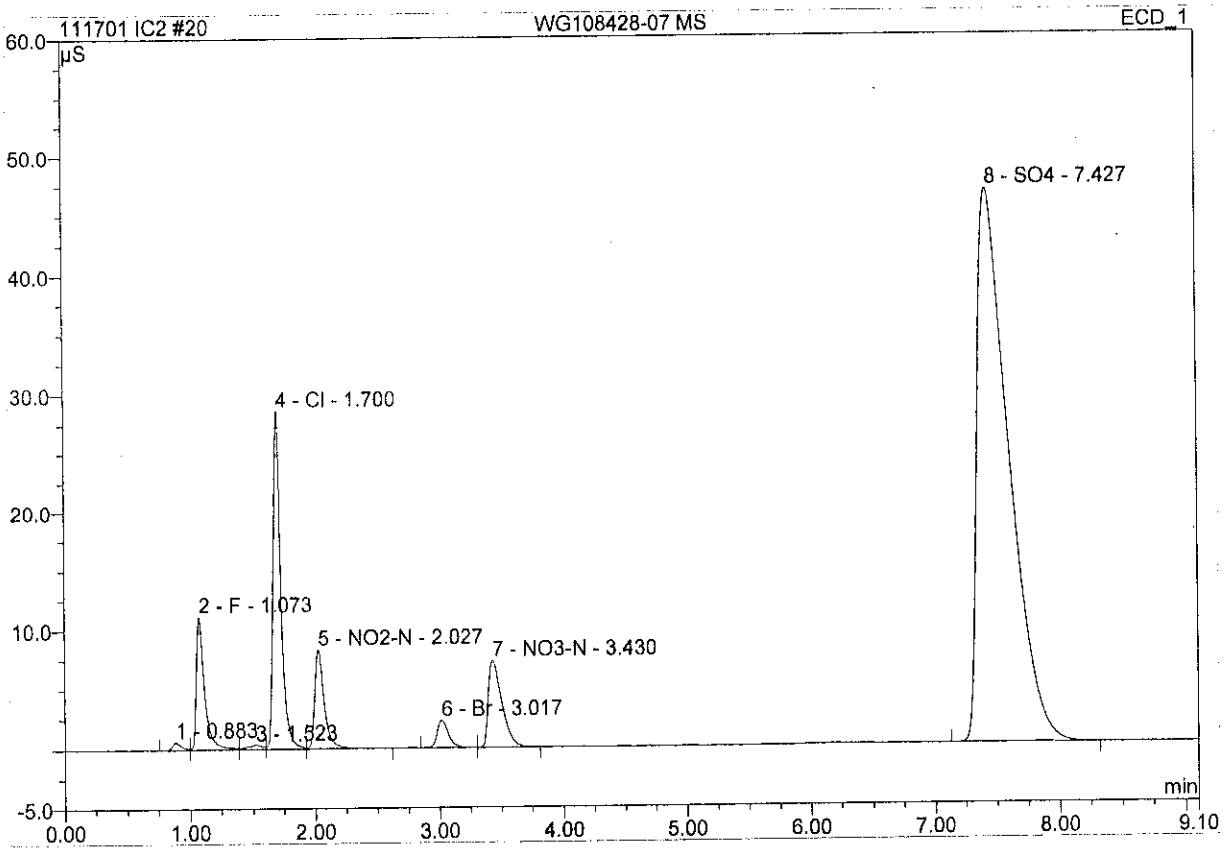


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.697	0.062	0.13	n.a.	BM
2	1.08	F	2.005	0.191	0.39	1.495	MB
3	1.57	n.a.	0.452	0.057	0.12	n.a.	BM
4	1.70	Cl	11.772	0.977	2.00	10.759	MB
5	7.10	SO4	111.285	47.534	97.36	673.167	BMB
Total:			126.212	48.820	100.00	685.421	

20 WG108428-07 MS

1,1 GSG L0111344-03 MS SOS0056-35

Sample Name:	**WG108428-07 MS**	*Injection Volume:*	**25.0**
Vial Number:	**21**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/18/2001 1:43**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

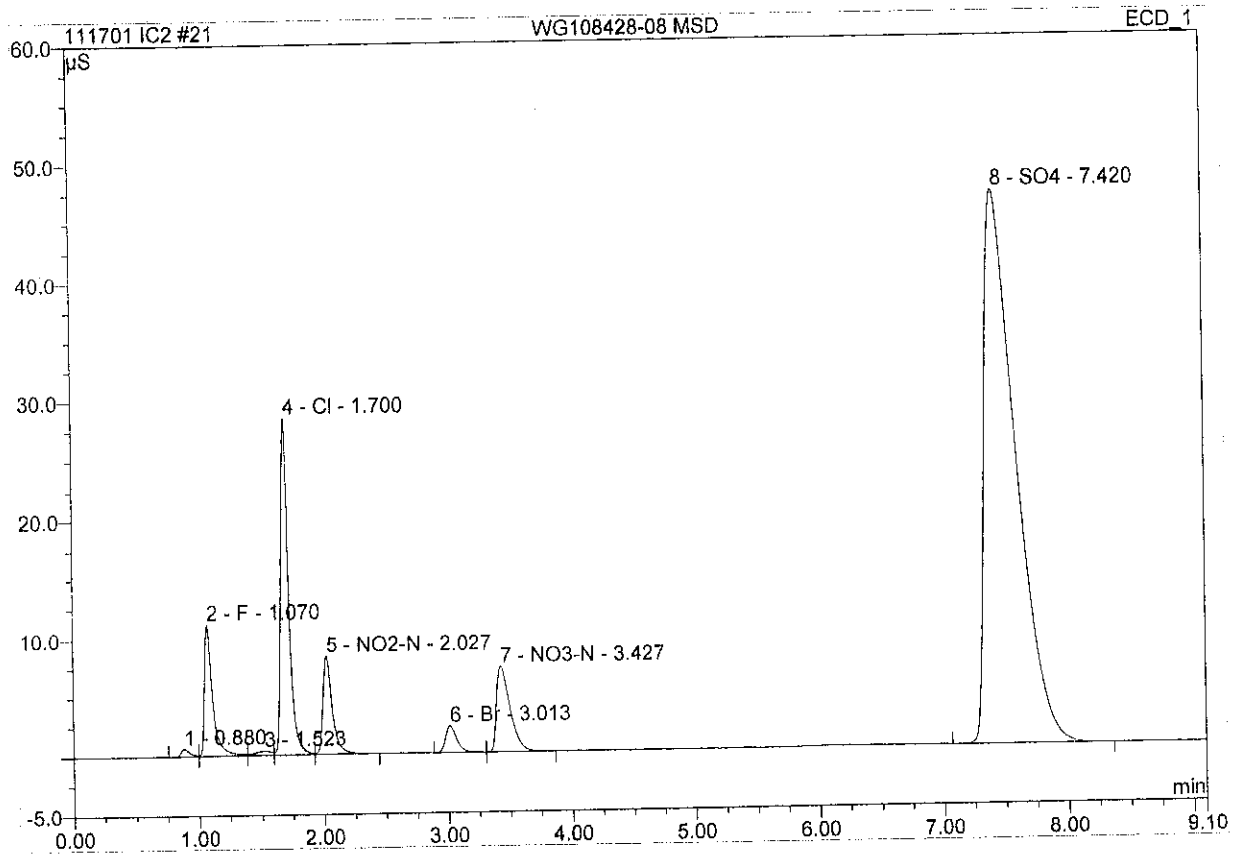


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.612	0.051	0.27	n.a.	BM
2	1.07	F	11.109	0.844	4.54	6.242	M
3	1.52	n.a.	0.351	0.050	0.27	n.a.	M
4	1.70	Cl	28.572	2.089	11.23	22.877	M
5	2.03	NO2-N	8.314	0.734	3.95	3.834	MB
6	3.02	Br	2.257	0.235	1.26	6.259	BM
7	3.43	NO3-N	7.273	0.916	4.92	4.098	MB
8	7.43	SO4	46.798	13.689	73.57	194.386	BMB
Total:			105.286	18.608	100.00	237.696	

21 WG108428-08 MSD

1,1 GSG L0111344-03 MSD SOS0056-35

Sample Name:	**WG108428-08 MSD**	*Injection Volume:*	**25.0**
Vial Number:	**22**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/18/2001 1:54**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.624	0.052	0.28	n.a.	BM
2	1.07	F	11.225	0.858	4.60	6.343	M
3	1.52	n.a.	0.378	0.055	0.29	n.a.	M
4	1.70	Cl	28.513	2.096	11.23	22.946	M
5	2.03	NO2-N	8.414	0.732	3.92	3.821	MB
6	3.01	Br	2.286	0.237	1.27	6.301	BM
7	3.43	NO3-N	7.331	0.924	4.95	4.134	MB
8	7.42	SO4	46.962	13.705	73.46	194.613	BMB
Total:			105.731	18.657	100.00	238.158	

Sequence: 111701 IC2
Operator: gsg

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 28

Created: 11/17/2001 10:49:00 AM by gsg
Last Update: 11/26/2001 9:47:45 AM by gsg

No.	Name	Inj. Date/Time	Dil. Factor	Sample ID	Comment
1	DI H2O BLANK	11/17/2001 10:04:03 PM	1.0000		1,1 GSG
2	ELUENT BLANK	11/17/2001 10:15:33 PM	1.0000		1,1 GSG
3	ANION CCV TEST	11/17/2001 10:27:03 PM	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
4	ANION STD #1	11/17/2001 10:39:11 PM	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
5	ANION STD #2	11/17/2001 10:50:42 PM	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
6	ANION STD #3	11/17/2001 11:02:13 PM	1.0000		1,1 GSG ANION STD SOS0056-35 111701
7	ANION STD #4	11/17/2001 11:13:43 PM	1.0000		1,1 GSG ANION STD SOS0056-35 111701
8	ANION STD #5	11/17/2001 11:25:14 PM	1.0000		1,1 GSG ANION STD SOS0056-35 111701
9	ANION STD #6	11/17/2001 11:36:44 PM	1.0000		1,1 GSG ANION STD SOS0056-35 111701
10	ELUENT BLANK	11/17/2001 11:48:14 PM	1.0000		1,1 GSG
11	ANION ALT SV53-30	11/17/2001 11:59:45 PM	1.0000		1,1 GSG ANION STD SV53-30 111701
12	ANION ALT SV55-38	11/18/2001 12:11:15 AM	1.0000		1,1 GSG ANION STD SOS0055-38 111701
13	WG108427-01 CCV	11/18/2001 12:22:45 AM	1.0000		1,1 GSG ANION CCV SOS0056-35 111701
14	WG108428-01 BLANK	11/18/2001 12:34:15 AM	1.0000		1,1 GSG
15	WG108428-02 LCS	11/18/2001 12:45:44 AM	1.0000		1,1 GSG
16	WG108428-04 REF DUP	11/18/2001 12:57:15 AM	1.0000		1,1 GSG L0111344-01 REF DUP
17	WG108428-05 DUP	11/18/2001 1:08:45 AM	1.0000		1,1 GSG L0111344-01 DUP
18	L0111344-02	11/18/2001 1:20:15 AM	1.0000		1,1 GSG
19	WG108428-06 REF MS/MSD	11/18/2001 1:31:45 AM	1.0000		1,1 GSG L0111344-03 REF MS/MSD
20	WG108428-07 MS	11/18/2001 1:43:15 AM	1.0000		1,1 GSG L0111344-03 MS SOS0056-35
21	WG108428-08 MSD	11/18/2001 1:54:45 AM	1.0000		1,1 GSG L0111344-03 MSD SOS0056-35
22	WG108427-02 CCV	11/18/2001 2:06:15 AM	1.0000		1,1 GSG ANION CCV SOS0056-35 111701
23	L0111344-04	11/18/2001 2:17:45 AM	1.0000		1,1 GSG
24	L0111344-05	11/18/2001 2:29:16 AM	1.0000		1,1 GSG
25	L0111316-12 @ 10X	11/18/2001 2:40:46 AM	1.0000		1,10 GSG
26	L0111316-14 @ 10X	11/18/2001 2:52:16 AM	1.0000		1,10 GSG
27	WG108427-03 CCV	11/18/2001 3:03:47 AM	1.0000		1,10 GSG
28	END	11/18/2001 3:15:16 AM	1.0000		1,10 GSG

11/26/01

12/3/01

Sequence: 111701 IC2
Operator: gsg

Printed: 11/26/2001 9:47:53 AM

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 28

Created: 11/17/2001 10:49:00 AM by gsg
Last Update: 11/26/2001 9:47:45 AM by gsg

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status
1	DI H2O BLANK	Unknown	37	25.0	9056	9056	Finished
2	ELUENT BLANK	Unknown	38	25.0	9056	9056	Finished
3	ANION CCV TEST	Unknown	39	25.0	9056	9056	Finished
4	ANION STD #1	Standard	38	25.0	9056	9056	Finished
5	ANION STD #2	Standard	36	25.0	9056	9056	Finished
6	ANION STD #3	Standard	36	25.0	9056	9056	Finished
7	ANION STD #4	Standard	36	25.0	9056	9056	Finished
8	ANION STD #5	Standard	36	25.0	9056	9056	Finished
9	ANION STD #6	Standard	37	25.0	9056	9056	Finished
10	ELUENT BLANK	Unknown	36	25.0	9056	9056	Finished
11	ANION ALT SV53-30	Unknown	36	25.0	9056	9056	Finished
12	ANION ALT SV55-38	Unknown	36	25.0	9056	9056	Finished
13	WG108427-01 CCV	Unknown	14	25.0	9056	9056	Finished
14	WG108428-01 BLANK	Unknown	15	25.0	9056	9056	Finished
15	WG108428-02 LCS	Unknown	16	25.0	9056	9056	Finished
16	WG108428-04 REF DUP	Unknown	17	25.0	9056	9056	Finished
17	WG108428-05 DUP	Unknown	18	25.0	9056	9056	Finished
18	L0111344-02	Unknown	19	25.0	9056	9056	Finished
19	WG108428-06 REF MS/MSD	Unknown	20	25.0	9056	9056	Finished
20	WG108428-07 MS	Unknown	21	25.0	9056	9056	Finished
21	WG108428-08 MSD	Unknown	22	25.0	9056	9056	Finished
22	WG108427-02 CCV	Unknown	23	25.0	9056	9056	Finished
23	L0111344-04	Unknown	24	25.0	9056	9056	Finished
24	L0111344-05	Unknown	25	25.0	9056	9056	Finished
25	L0111316-12 @ 10X	Unknown	26	25.0	9056	9056	Finished
26	L0111316-14 @ 10X	Unknown	27	25.0	9056	9056	Finished
27	WG108427-03 CCV	Unknown	28	25.0	9056	9056	Finished
28	END	Unknown	29	25.0	DX-320 OFF	9056	Finished

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Sequence: 111701 IC2
Operator: gsg

Printed: 11/17/2001 11:09:57 PM

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 28

Created: 11/17/2001 10:49:00 AM by gsg
Last Update: 11/17/2001 10:41:17 PM by gsg

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status
1	DI H2O BLANK	Standard	37	25.0	9056	9056	Finished
2	ELUENT BLANK	Standard	38	25.0	9056	9056	Finished
3	ANION CCV TEST	Standard	39	25.0	9056	9056	Finished
4	ANION STD #1	Standard	38	25.0	9056	9056	Finished
5	ANION STD #2	Standard	36	25.0	9056	9056	Finished
[redacted]	ANION STD #3	Standard	36	25.0	9056	9056	Running
7	ANION STD #4	Standard	36	25.0	9056	9056	Single
8	ANION STD #5	Standard	36	25.0	9056	9056	Single
9	ANION STD #6	Standard	37	25.0	9056	9056	Single
10	ELUENT BLANK	Unknown	36	25.0	9056	9056	Single
11	ANION ALT SV53-30	Unknown	36	25.0	9056	9056	Single
12	ANION ALT SV55-38	Unknown	36	25.0	9056	9056	Single
✓13	WG108427-01 CCV	Unknown	14	25.0	9056	9056	Single
✓14	WG108428-01 BLANK	Unknown	15	25.0	9056	9056	Single
✓15	WG108428-02 LCS	Unknown	16	25.0	9056	9056	Single
✓16	CEF46-24D-Q4-01-10	Unknown	17	25.0	9056	9056	Single
✓17	CEF46-24D-Q4-01-10 DUP	Unknown	18	25.0	9056	9056	Single
✓18	CEF46-21I-Q4-01-10	Unknown	19	25.0	9056	9056	Single
✓19	CEF46-25I-Q4-01-10	Unknown	20	25.0	9056	9056	Single
✓20	CEF46-25I-Q4-01-10 MS	Unknown	21	25.0	9056	9056	Single
✓21	CEF46-25I-Q4-01-10 MSD	Unknown	22	25.0	9056	9056	Single
✓22	WG108427-02 CCV	Unknown	23	25.0	9056	9056	Single
✓23	CEF46-26I-Q4-01-10	Unknown	24	25.0	9056	9056	Single
✓24	CEF46EQB-Q4-01-10	Unknown	25	25.0	9056	9056	Single
✓25	L0111316-12 @ 10X	Unknown	26	25.0	9056	9056	Single
✓26	L0111316-14 @ 10X	Unknown	27	25.0	9056	9056	Single
✓27	WG108427-03 CCV	Unknown	28	25.0	9056	9056	Single
28	END	Unknown	29	25.0	DX-320 OFF	9056	Single

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Sequence: 111701 IC2
Operator: gsg

Printed: 11/17/2001 11:09:57 PM

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 28

Created: 11/17/2001 10:49:00 AM by gsg
Last Update: 11/17/2001 10:41:17 PM by gsg

No.	Name	Inj. Date/Time	Dil. Factor	Sample ID	Comment
1	DI H2O BLANK	11/17/2001 10:04:03 PM	1.0000		1,1 GSG
2	ELUENT BLANK	11/17/2001 10:15:33 PM	1.0000		1,1 GSG
3	ANION CCV TEST	11/17/2001 10:27:03 PM	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
4	ANION STD #1	11/17/2001 10:39:11 PM	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
5	ANION STD #2	11/17/2001 10:50:42 PM	1.0000		1,1 GSG ANION CCV SOS0056-35 111601
[redacted]	ANION STD #3	11/17/2001 11:02:13 PM	1.0000		1,1 GSG ANION STD SOS0056-35 111701
7	ANION STD #4	11/16/2001 9:06:11 PM	1.0000		1,1 GSG ANION STD SOS0056-35 111701
8	ANION STD #5	11/16/2001 9:17:40 PM	1.0000		1,1 GSG ANION STD SOS0056-35 111701
9	ANION STD #6	11/16/2001 9:29:11 PM	1.0000		1,1 GSG ANION STD SOS0056-35 111701
10	ELUENT BLANK	11/16/2001 9:40:40 PM	1.0000		1,1 GSG
11	ANION ALT SV53-30	11/16/2001 9:52:10 PM	1.0000		1,1 GSG ANION STD SV53-30 111701
12	ANION ALT SV55-38	11/16/2001 10:03:40 PM	1.0000		1,1 GSG ANION STD SOS0055-38 111701
13	WG108427-01 CCV	11/17/2001 11:33:17 AM	1.0000		1,1 GSG ANION CCV SOS0056-35 111701
14	WG108428-01 BLANK	11/17/2001 11:44:48 AM	1.0000		1,1 GSG
15	WG108428-02 LCS	11/17/2001 11:56:17 AM	1.0000		1,1 GSG
16	CEF46-24D-Q4-01-10		1.0000		1,1 GSG
17	CEF46-24D-Q4-01-10 DUP		1.0000		1,1 GSG
18	CEF46-21I-Q4-01-10		1.0000		1,1 GSG
19	CEF46-25I-Q4-01-10		1.0000		1,1 GSG
20	CEF46-25I-Q4-01-10 MS		1.0000		1,1 GSG
21	CEF46-25I-Q4-01-10 MSD		1.0000		1,1 GSG
22	WG108427-02 CCV		1.0000		1,1 GSG ANION CCV SOS0056-35 111701
23	CEF46-26I-Q4-01-10		1.0000		1,1 GSG
24	CEF46EQB-Q4-01-10		1.0000		1,1 GSG
25	L0111316-12 @ 10X		1.0000		1,10 GSG
26	L0111316-14 @ 10X		1.0000		1,10 GSG
27	WG108427-03 CCV		1.0000		1,10 GSG
28	END		1.0000		1,10 GSG

IC Laboratory Maintenance Log

Analysis Date/Time 11/17/01 Instrument ID IC1 Column ID AG4A-SC / AS4A-SC Data Subdirectory 111701
Analyst Initials GTO SOP # IC01 Rev. # 2 9056 SOP # IC02 Rev. # 314.0

Daily Check

- ☑ Mobile phase reservoir
- ☑ System pressure 1214 psi.
- ☑ Waste container

Returned to Control?

Yes ____ No ____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

Reviewed By: RWC 12/3/01

KEMRON REPORT L0112349

Prepared for CCI / ATL

Work ID : BLG. 46 / MONTHLY GW SAMPLING

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1.0 Summary Report

1.1 Laboratory Report

Cover Page
Laboratory Narrative
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KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

L0112349

CHAIN OF CUSTODY:

The chain of custody number was 149152-183 .

SHIPMENT CONDITIONS:

The chain of custody form was received sealed in a cooler. The cooler temperature were 1, 1, 1, 1, 1 and 2 ° C.

SAMPLE MANAGEMENT:

All samples received were intact.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

REVIEWED: Stephanie A Lepe DATE: 12/18/01

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0112349

METHOD

Preparation: SW- 846 5030B
Analysis: SW-846 8021B

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.
Matrix Spikes: All acceptance criteria were met.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: Sample fraction 01 required a dilution analysis to obtain results within the linear range.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: CBN REVIEWED: Janice L. Schimmel DATE: 12/27/01

Rev. 6/00

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0112349

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8015

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD were not associated with this sample delivery group.

SAMPLES

Samples: Sample fraction 01 was analyzed at a 10X dilution in order to maintain the analysis within the range of calibration. All acceptance criteria were met.
Surrogates: The analysis of sample fraction 01 at a 10X dilution resulted in the surrogate being diluted from the sample results. All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: RDC REVIEWED: DATE: 12/28/01

Rev. 7/14/00

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0112349

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8310

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds linear equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD results were not associated with this sample delivery group.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: Sample fraction 01 was re-analyzed at a dilution in order to maintain the analysis within the range of calibration. All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: RDC REVIEWED: _____ DATE: 12/28/01

Rev. 7/14/00

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L0112349

METHOD

Analysis: SW-846 9056

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION: All acceptance criteria were met.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD results were not associated with this sample delivery group.

SAMPLES
All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: GSG REVIEWED: DATE: 12/2/01

Rev. 7/14/00

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8021**

Lab Name : **Kemron Environmental Services**

Base/Command : **blgs 9 and 46**

AAB # : **WG110252**

Contract # : **N62467-98-D-0995**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF46-1S-Q4-01-11	L0112349-01

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **26-DEC-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG110252

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-11 Lab Sample ID: L0112349-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 18-DEC-01 Date Extracted: Date Analyzed: 19-DEC-01 15:51

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	1700	1	I
Ethylbenzene	0.500	1.0	1600	1	I
Methyl tert-butyl ether	0.500	1.0	190	1	
Toluene	0.500	1.0	12000	1	I
Xylenes, Total	0.500	1.0	13000	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	165	70 -- 130	*

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : 8021

AAB # : WG110358

Lab Name : Kemron Environmental Services

Contract # : N62467-98-D-0995

Base/Command : blgs 9 and 46

Prime Contractor : CCI

Field sample ID	Lab Sample ID
002-CEF46-1S-Q4-01-11	L0112349-01
002-CEF46-2S-Q4-01-11	L0112349-02
002-46TB1-Q4-01-11	L0112349-03

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: David L. Bumgarner

Date: 26-DEC-01

Title: Laboratory Director

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG110358

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-11 Lab Sample ID: L0112349-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 18-DEC-01 Date Extracted: Date Analyzed: 20-DEC-01 14:45

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	50.0	100	2000	100	
Ethylbenzene	50.0	100	1600	100	
Methyl tert-butyl ether	50.0	100	190	100	
Toluene	50.0	100	18000	100	
Xylenes, Total	50.0	100	17000	100	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	103	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG110358

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-2S-Q4-01-11 Lab Sample ID: L0112349-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 18-DEC-01 Date Extracted: Date Analyzed: 20-DEC-01 13:35

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	39.0	1	
Ethylbenzene	0.500	1.0	82.0	1	
Methyl tert-butyl ether	0.500	1.0	51.0	1	
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	21.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	99.0	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG110358

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46TB1-Q4-01-11 Lab Sample ID: L0112349-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 18-DEC-01 Date Extracted: Date Analyzed: 20-DEC-01 14:10

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	99.8	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8015**

AAB # : **WG110316**

Lab Name : **Kemron Environmental Services**

Contract # : **N62467-98-D-0995**

Base/Command : **blgs 9 and 46**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF46-1S-Q4-01-11	L0112349-01
002-CEF46-2S-Q4-01-11	L0112349-02

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

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Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **26-DEC-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG110316

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-11 Lab Sample ID: L0112349-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 20-DEC-2001

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 14:55

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	2680	5400	51000	10.7	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl		49 -- 174	DL

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG110316

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-2S-Q4-01-11 Lab Sample ID: L0112349-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 20-DEC-2001

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 14:40

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	270	540	920	1.08	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	103	49 – 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8310**

Lab Name : **Kemron Environmental Services**

Base/Command : **blgs 9 and 46**

AAB # : **WG110293**

Contract # : **N62467-98-D-0995**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF46-1S-Q4-01-11	L0112349-01
002-CEF46-2S-Q4-01-11	L0112349-02

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **26-DEC-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110293

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-18-Q4-01-11 Lab Sample ID: L0112349-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 03:39

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.396	1.1	54.0	1	
2-Methylnaphthalene	0.367	1.1	110	1	
Acenaphthene	0.454	1.1	0.454	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.311	1.1	0.311	1	ND
Benzo(a)anthracene	0.0328	0.22	0.0328	1	ND
Benzo(a)pyrene	0.0579	0.22	0.0579	1	ND
Benzo(b)fluoranthene	0.0372	0.22	0.0372	1	ND
Benzo(g,h,i)perylene	0.0546	0.22	0.0546	1	ND
Benzo(k)fluoranthene	0.0787	0.22	0.0787	1	ND
Chrysene	0.0262	0.22	0.0262	1	ND
Dibenzo(a,h)anthracene	0.0842	0.22	0.0842	1	ND
Fluoranthene	0.0546	0.22	0.0546	1	ND
Fluorene	0.611	1.1	0.611	1	ND
Indeno(1,2,3-cd)pyrene	0.0874	0.22	0.0874	1	ND
Naphthalene	0.392	1.1	520	1	I
Phenanthrene	0.314	1.1	0.314	1	ND
Pyrene	0.0743	0.22	0.0743	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110293

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-11 Lab Sample ID: L0112349-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 03:39

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	47.4	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 2 of 2

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110293

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-19-Q4-01-11 Lab Sample ID: L0112349-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 03:39

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.396	1.1	48.0	1	
2-Methylnaphthalene	0.367	1.1	170	1	I
Acenaphthene	0.454	1.1	0.454	1	ND
Acenaphthylene	0.384	1.1	0.384	1	ND
Anthracene	0.311	1.1	0.311	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0546	0.22	0.0546	1	ND
Fluorene	0.611	1.1	0.611	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.392	1.1	160	1	I
Phenanthrene	0.314	1.1	0.314	1	ND
Pyrene	0.0743	0.22	0.0743	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110293

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-11 Lab Sample ID: L0112349-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 03:39

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	47.4	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 2 of 2

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110293

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-11 Lab Sample ID: L0112349-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 10:32

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	1.98	5.5	48.0	5	P
2-Methylnaphthalene	1.84	5.5	110	5	P
Acenaphthene	2.27	5.5	2.27	5	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	1.56	5.5	1.56	5	ND
Benzo(a)anthracene	0.164	1.1	0.164	5	ND
Benzo(a)pyrene	0.290	1.1	0.290	5	ND
Benzo(b)fluoranthene	0.186	1.1	0.186	5	ND
Benzo(g,h,i)perylene	0.273	1.1	0.273	5	ND
Benzo(k)fluoranthene	0.393	1.1	0.393	5	ND
Chrysene	0.131	1.1	0.131	5	ND
Dibenzo(a,h)anthracene	0.421	1.1	0.421	5	ND
Fluoranthene	0.273	1.1	0.273	5	ND
Fluorene	3.05	5.5	3.05	5	ND
Indeno(1,2,3-cd)pyrene	0.437	1.1	0.437	5	ND
Naphthalene	1.96	5.5	550	5	
Phenanthrene	1.57	5.5	1.57	5	ND
Pyrene	0.372	1.1	0.372	5	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110293

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-11 Lab Sample ID: L0112349-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 10:32

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	48.9	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110293

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-11 Lab Sample ID: L0112349-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 10:32

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	1.98	5.5	26.0	5	P
2-Methylnaphthalene	1.84	5.5	170	5	P
Acenaphthene	2.27	5.5	2.27	5	ND
Acenaphthylene	1.92	5.5	1.92	5	ND
Anthracene	1.56	5.5	1.56	5	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	3.05	5.5	3.05	5	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	1.96	5.5	490	5	
Phenanthrene	1.57	5.5	1.57	5	ND
Pyrene	0.372	1.1	0.372	5	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110293

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-11 Lab Sample ID: L0112349-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 10:32

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	45.0	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110293

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-2S-Q4-01-11 Lab Sample ID: L0112349-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 04:36

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.385	1.1	0.385	1	ND
2-Methylnaphthalene	0.357	1.1	0.357	1	ND
Acenaphthene	0.441	1.1	0.441	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.303	1.1	0.303	1	ND
Benzo(a)anthracene	0.0319	0.21	0.0319	1	ND
Benzo(a)pyrene	0.0564	0.21	0.0564	1	ND
Benzo(b)fluoranthene	0.0362	0.21	0.0362	1	ND
Benzo(g,h,i)perylene	0.0532	0.21	0.0532	1	ND
Benzo(k)fluoranthene	0.0766	0.21	0.0766	1	ND
Chrysene	0.0255	0.21	0.0255	1	ND
Dibenzo(a,h)anthracene	0.0819	0.21	0.0819	1	ND
Fluoranthene	0.0532	0.21	0.0532	1	ND
Fluorene	0.595	1.1	0.595	1	ND
Indeno(1,2,3-cd)pyrene	0.0851	0.21	0.0851	1	ND
Naphthalene	0.382	1.1	1.50	1	
Phenanthrene	0.305	1.1	0.305	1	ND
Pyrene	0.0723	0.21	0.0723	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110293

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-2S-Q4-01-11 Lab Sample ID: L0112349-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 04:36

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	43.5	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 2 of 2

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110293

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-2S-Q4-01-11 Lab Sample ID: L0112349-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 04:36

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.385	1.1	0.385	1	ND
2-Methylnaphthalene	0.357	1.1	0.357	1	ND
Acenaphthene	0.441	1.1	0.441	1	ND
Acenaphthylene	0.373	1.1	0.373	1	ND
Anthracene	0.303	1.1	0.303	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.559	1.0	0.559	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.382	1.1	1.50	1	
Phenanthrene	0.305	1.1	0.305	1	ND
Pyrene	0.0723	0.21	0.0723	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110293

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-2S-Q4-01-11 Lab Sample ID: L0112349-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 04:36

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	42.2	40 – 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **9056**

Lab Name : **Kemron Environmental Services**

Base/Command : **blgs 9 and 46**

AAB # : **WG110193**

Contract # : **N62467-98-D-0995**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF46-1S-Q4-01-11	L0112349-01
002-CEF46-2S-Q4-01-11	L0112349-02

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **26-DEC-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG110193

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-1S-Q4-01-11 Lab Sample ID: L0112349-01 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 13-DEC-2001

Date Received: 18-DEC-01 Date Extracted: Date Analyzed: 18-DEC-01 16:00

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.160	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG110193

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-2S-Q4-01-11 Lab Sample ID: L0112349-02 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 13-DEC-2001

Date Received: 18-DEC-01 Date Extracted: Date Analyzed: 18-DEC-01 16:11

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.160	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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1.2 Attachments

KEMRON ANALYST LIST

Ohio Valley Laboratory

11/13/2001

ADH - ANGELA D. HURST
AJF - AMANDA J. FICKIESEN
ALT - ANN L. THAYER
AMT - ANDREA M. TUCKER
ARS - ANGELINA R. SCOTT
BRG - BRENDA R. GREGORY
CAF - CHERYL A. FLOWERS
CAK - CHERYL A. KOELSCH
CBN - CHARLES B. NOLL
CEB - CHAD E. BARNES
CLC - CHRYS L. CRAWFORD
CLK - CARL L. KING
CLW - CHARISSA L. WINTERS
CMS - CRYSTAL M. STEVENS
CRC - CARLA R. COCHRAN
CSH - CHRIS S. HILL
DAM - DAN A. MUSGRAVE
DAS - DALLAS A. SULLIVAN
DAT - DEBBIE A. TORNES
DEL - DON E. LIGHTFRITZ
DEV - DAVID E. VANDENBERG
DGB - DOUGLAS G. BUTCHER
DIH - DEANNA I. HESSON
DLA - DENISE L. ADAMS
DLB - DAVID L. BUMGARNER
DLN - DEANNA L. NORTON
DLP - DOROTHY L. PAYNE
DLR - DIANNA L. RAUCH
DP - DEANNA L. PIERSON
DSM - DAVID S. MOSSOR
DST - DENNIS S. TEPE
ECL - ERIC C. LAWSON
GSG - GALEN S. GEORGE
HV - HEMA VILASAGAR
JAQ - JEROMY A. QUESENBERRY
JKW - JANE K. WARDEN
JLS - JANICE L. SCHIMMEL
JMM - JARROD M. MARTIN
JMT - JOY M. THOMAS
JWR - JOHN W. RICHARDS
JWS - JACK W. SHEAVES
JYH - JI Y. HU
KHR - KIM H. RHODES
KRA - KATHY R. ALBERTSON
KSL - KELLY S. LAUER
LKN - LINDA K. NEDEFF
LMT - LUCINDA M. TILTON
LRR - LUCYNDA R. ROBERTS
LSA - LUCINDA S. ARNOLD
LSB - LESLIE S. BUCINA
MDA - MICHAEL D. ALBERTSON
MDC - MICHAEL D. COCHRAN
MEF - MIKE E. FLANAGAN
MES - MARY E. SCHILLING
MLS - MICHAEL L. SCHIMMEL
MMB - MAREN M. BEERY
MRR - MICHELLE R. RAUCH
MSW - MATT S. WILSON
NJB - NATALIE J. BOOTH
RDC - REBECCA D. CUTLIP
REF - RON E. FERTILE
REK - ROBERT E. KYER
RJW - RHONDA J. WITTEKIND
RLW - RON L. WATSON
RSH - RENEE S. HENNES
RSS - REGINA S. SIMMONS
RVC - RUTH V. CALLIHAN
RWC - ROD W. CAMPBELL
SJK - SINDY J. KINNEY
SKH - SHARON K. HANDSCHUMACHER
SLP - SHERI L. PFALZGRAF
SLT - STEPHANIE L. TEPE
SMW - SHAUNA M. WELCH
SPL - STEVE P. LEARN
TJH - TIM J. HOEFLICH
TLD - TERESA L. DAVIS
TMM - TAMMY M. MORRIS
VC - VICKI COLLIER
VKL - VICKY K. LAUER

KEMRON Environmental Services, Inc
List of Valid Qualifiers
December 15, 2000

Standard Qualifiers

These are KEMRON's Standard Report Qualifiers

A	See the report narrative
B	Present in the method blank
C	Confirmed by GC/MS
CG	Confluent growth
D	The analyte was quantified at a secondary dilution factor
DL	Surrogate or spike was diluted out
E	Estimated concentration due to sample matrix interference
FL	Free liquid
I	Semiquantitative result, out of instrument calibration range
J	Present below nominal reporting limit
L	Sample reporting limits elevated due to matrix interference
M	Duplicate injection precision not met
N	Tentatively Identified Compound (TIC)
NA	Not applicable
ND	Not detected at or above the reporting limit (RL)
NF	Not found
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentration >40% difference between The two GC columns
QNS	Quantity not sufficient to perform analysis
R	Analyte exceeds regulatory limit
RA	Re analysis confirms reported results
RE	Re analysis confirms sample matrix Interference
S	Analyzed by method of standard addition
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TNTC	Too numerous to count
U	Analyzed for but not detected
W	Post-digestion spike for furnace AA out Of control limits
Z	Can not be resolved from isomer.***
+	Correlation coefficient for the MSA is less Than 0.995
<	Less than
>	Greater than
*	Surrogate or spike compound out of range

***** Special Notes for Organic Analytes**

1. Acrolein and acrylonitrile by method 624 are semiquantative screens only
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene
3. N-nitrosodiphenylamine cannot be separated from diphenylamine
4. 3-Methyphenol and 4-Methyphenol are unresolvable compounds
5. m-Xylene and p-Xylene are unresolvable compounds
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent

AFCEE Qualifiers

These are KEMRON's AFCEE Report Qualifiers

J	The analyte was positively identified, the quantitation is an estimation
U	The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL
F	The analyte was positively identified but the associated numerical value is below the RL
R	The data is unusable due to deficiencies in the ability to analyze the sample and meet QC criteria
B	The analyte was found in an associated blank, as well as in the sample
M	The matrix effect was present
S	To be applied to all field screening data
T	Tentatively identified compound (using GC/MS)

CH2M Hill Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No (770) 604-9182 ; Fax No (770) 604-9282

CHAIN-OF-CUSTODY RECORD

COC NUMBER
149152-183 page _1_ of _1_

PROJECT NAME:	PROJECT NUMBER:	LAB NAME AND CONTACT:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	RECIPIENT 1 (Address, Tel No. , and Fax No.):
N.A.S. Cecil Field Building 46	149152	Teressa Davis Kemron Environmental Services	Bill Canelos J.A Jones Env. Services	6219 Authority Road, Jacksonville, FL 32221 PH: (904) 7774812 FAX: (904) 7774262
PROJECT PHASE/SITE/TASK:	CTO OR DO NUMBER:	LAB PO NUMBER:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	RECIPIENT 2 (Address, Tel No. , and Fax No.):
Building 46 /Monthly GW Sampling Event	0002	2329	Christelle Newsome CH2M Hill Constuctors, Inc.	115 Perimeter Center Place, N.E. Suite 700 Atlanta, GA 30346 PH:(770)604-9182 Ext.561 FAX:604-9282
PROJECT CONTACT:	PROJECT TEL NO AND FAX NO:	LAB TEL NO AND FAX NO:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	RECIPIENT 3 (Address, Tel No. , and Fax No.):
Bill Canelos	Phone: 904-777-4812 Fax:904-777-4262	Phone: 740-373-4071 Fax: 740-373-4835		

ANALYSES REQUIRED (Include Method Numbers)

ITEM	SAMPLE IDENTIFIER	SAMPLE DESCRIPTION/LOCATION	MATRIX	DATE COLLECTED	TIME COLLECTED	~~DATA PKG~~ LEVEL	TAT (calendar days)	BTEX by 8021B	Naphthalene & 15 Method Listed PAHs by 8310	TRPH by FL-PRO	NO2 NO3 PO4 by EPA Method 300.0				SAMPLE TYPE (see codes on back)	COMMENTS/ SCREENING READINGS	LAB ID
1	002-CEF46-1S-Q4-01-11	CEF-46-1S	W	12/17/01	15:40	III/C	14	2	2	2	1				Grab		
2	002-CEF46-2S-Q4-01-11	CEF-46-2S	W	12/17/01	16:05	III/C	14	2	2	2	1				Grab		
3	002-46TB1-Q4-01-11	Trip Blank	W	NA	NA	III/C	14	2							Grab	Prepared by Lab	
4	NA	Temperature Blank	W	NA	NA	III/C	14					1			Grab	Prepared by Lab	
5																	
6																	
7																	
8																	
9																	
10																	
11																	

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:
Randy Dumaop / Sean Smith J.A. Jones Environmental Services	Federal Express Track # 7902 4930 9124. (1 Cooler)

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	12/17/01	18:00	Federal Express		
Printed Name and Signature:			Printed Name and Signature:		
Lucinda M. Tilton	12/18/01	10:38			

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CCI001, Rev 02/00

Cooler Temp: 1°

KEMRON Internal Laboratory Chain of Custody

Work Order: L0112349 **Client:** CCI **# of Samples:** 3 **Due Date:** 12/26/01 **Page:**

Sample #	Analysis	Reason	Removed By ADT	Removed From	Moved To	Reliq. by	Ret'd By ADT	Ret'd To	Rec'd By	Reason
1-2A	905G	Anal	12/18/01 @ 13:10	Login	SV	LMT	12/18/01 @ 12:10 JEA	Archive-2	LMT	Archive
1,2A	8310	EXT	12/19/01 @ 0710	Walk-in	SVB	CEB	12/20/01 @ 0900 JEA	dumpster	DD	disposal
1,2A	PRO	EXT	12/19/01 @ 0710	Walk-in	SVB	CEB	12/20/01 @ 0900 JEA	dumpster	DD	disposal
1-3	8021	ANAL	LBN 12/19/01 @ 0825	V-1	ORG-3	BLG				

report sent to client 1/2

KEMRON Environmental Services | **SAMPLES RECEIPT FORM** | Marietta Laboratory

CLIENT: CCI	DATE: 12/18/01	SHIPPED BY: (✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT
BRG (✓) LMT Other _____		

COOLER ID: KL462	COOLER ID: KL942	COOLER ID: KL993
INDEX # : 79097956 6595	INDEX # : 79116515 1876	INDEX # : 79024879 3184
SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO
CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO
TEMP : (C) (D) 1 °C	TEMP : (C) (D) 1 °C	TEMP : (C) (D) 2 °C
TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO	TEMP IN RANGE (4°C ± 2°) (✓) YES ( ) NO
WET ICE (✓) BLUE ICE ( )	WET ICE ( ) (✓) BLUE ICE ( )	WET ICE (✓) BLUE ICE ( )
ICE FROZEN (✓) MELTED ( )	ICE FROZEN (✓) MELTED ( )	ICE FROZEN (✓) MELTED ( )
RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED (✓) YES ( ) NO
SAMPLE INTACT (✓) YES ( ) NO	SAMPLE INTACT (✓) YES ( ) NO	SAMPLE INTACT (✓) YES ( ) NO
SALVAGEBLE ( ) YES ( ) NO	SALVAGEBLE ( ) YES ( ) NO	SALVAGEBLE ( ) YES ( ) NO
SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )
LABELS: INTACT (✓) YES ( ) NO	LABELS: INTACT (✓) YES ( ) NO	LABELS: INTACT (✓) YES ( ) NO
LEGIBLE (✓) YES ( ) NO	LEGIBLE (✓) YES ( ) NO	LEGIBLE (✓) YES ( ) NO
MATCH COC (✓) YES ( ) NO	MATCH COC (✓) YES ( ) NO	MATCH COC (✓) YES ( ) NO
pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO
SAMPLES FROZEN? ( ) YES (✓) NO	SAMPLES FROZEN? ( ) YES (✓) NO	SAMPLES FROZEN? ( ) YES ( ) NO
LOG-IN COMMENTS	LOG-IN COMMENTS	LOG-IN COMMENTS
1325	1200 ms/msD	1400
DUP	1200 ✓	VO's

TSR COMMENTS

CONTACT:	DATE:	TIME:
COMMENTS: ( ) VOICE ( ) FAX ( ) E-MAIL		

Revised 10/16/01

KEMRON Environmental Services | **SAMPLES RECEIPT FORM** | Marietta Laboratory

CLIENT: CCI BRG LMT Other _____	DATE: 12/18/01	SHIPPED BY: (✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: KL1059	COOLER ID: KL599	COOLER ID: KL581
INDEX # : 79024930124	INDEX # : 79024879322 1	INDEX # : 79024879341 6
SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO
CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO
TEMP : (C) (D) / °C	TEMP : (C) (D) / °C	TEMP : (C) (D) / °C
TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO
WET ICE (✓) BLUE ICE ( )	WET ICE (✓) BLUE ICE ( )	WET ICE (✓) BLUE ICE ( )
ICE FROZEN (✓) MELTED ( )	ICE FROZEN (✓) MELTED ( )	ICE FROZEN (✓) MELTED ( )
RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED (✓) YES ( ) NO
SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO
SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )
LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO	LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO	LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO
pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO
SAMPLES FROZEN? ( ) YES (✓) NO	SAMPLES FROZEN? ( ) YES (✓) NO	SAMPLES FROZEN? ( ) YES (✓) NO
LOG-IN COMMENTS	LOG-IN COMMENTS	LOG-IN COMMENTS
1540	1100	1200
1605	1125	1216

TSR COMMENTS

CONTACT:	DATE:	TIME:

COMMENTS: ( ) VOICE ( ) FAX ( ) E-MAIL

Revised 10/16/01

CRF#4

Sample Receipt Form #2

Client: CCI Project:

Date Received: 12/18/01

_____Cooler temperature > than 6 degrees Celcius

Reason_____

_____Samples received not on chain of custody

_____Samples on chain of custody not received

✓ Information on sample containers different from chain of custody

(1) NO Id's on Trip Blank's except "Trip Blank"

(2) Ids not complete on bottles (only middle part of Id's) CEF.....

_____Sample containers received broken, leaking or not sealed (List sample ID)

_____pH out (List sample ID & which container)

_____Insufficient sample volume

_____Air bubbles present in Voa vials (List sample ID)

_____Hold time expired (List sample ID)

TSR:

Was client notified regarding information: YES NO

Name of person contacted:_____ Company:_____

TSR:_____ Date:_____

Attach: Phone Logs, e-mails, faxes, etc.

CRF #1

COOLER RECEIPT FORM

Contractor Cooler _____
MRD Cooler # _____
Number of Coolers 6

PROJECT: _____ LIMS# _____

USE OTHER SIDE OF THIS FORM TO NOTE DETAILS CONERNING CHECK-IN PROBLEMS

A. **PRELIMINARY EXAMINATION PHASE:** Date cooler opened: 12/18/01 C-of-C Number: 149152
by (print) Brenda Gregory (sign) Brenda Gregory

1. Did cooler come with a shipping slip (air bill, etc.)? ..... (YES) NO
   If YES, enter carrier name & air bill number here: Fed Ex (See CRF #3)
2. Were custody seals on outside of cooler? ..... YES NO
   How many & where? 1-front, seal date: 12/17/01 seal name: Kemron
3. Were custody seals unbroken and intact at the data and time of arrival? ..... (YES) NO
4. Did you screen samples for radioactivity using the Geiger Counter? ..... (YES) NO
5. Were custody papers sealed in a plastic bag & taped inside to the lid? ..... YES (NO)
6. Were custody papers filled out properly (ink, signed, etc.)? ..... (YES) NO
7. Did you sign custody papers in the appropriate place? ..... (YES) NO
8. Was project identifiable from custody papers? If yes, enter project name at the top of this form ..... (YES) NO
9. If required, was enough ice used? ..... Type of ice: Wet Temp See CRF #3 ..... (YES) NO
10. Have designated person initial here to acknowledge receipt of cooler: BG (date) 12/18/01

B. **LOG-IN PHASE:** Date samples were logged-in: _____
by (print) _____ (sign) _____

11. Describe type of packing in cooler: Divider
12. Were all bottles sealed in separate plastic bags? ..... YES (NO)
13. Did all bottles arrive unbroken & were labels in good condition? ..... (YES) NO
14. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? ..... YES (NO)
15. Did all bottle labels agree with custody papers? ..... (YES) NO
16. Were correct containers used for the tests indicated? ..... (YES) NO
17. Were correct preservatives added to samples? ..... (YES) NO
18. Was a sufficient amount of sample sent for tests indicated? ..... (YES) NO
19. Were bubbles absent in volatile samples? If NO, list by Sample # _____ (YES) NO
20. Was the project manager called and status discussed? If YES, give details on the back of this form ..... YES NO
21. Who was called? _____ By whom? _____ (date) _____

2.0 Full Sample Data Package

2.1 Volatiles Data

2.1.3 BTEX GC Data (8021)

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0112349

METHOD

Preparation: SW- 846 5030B
Analysis: SW-846 8021B

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.
Matrix Spikes: All acceptance criteria were met.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: Sample fraction 01 required a dilution analysis to obtain results within the linear range.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: CBN

REVIEWED: Janice L. Schimmel DATE: 12/27/00

Rev. 6/00

BETX-GC DATA (8021)

Login Number: L0112349

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

✓ Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and quantitation report for each sample analysis and re-analysis (if re-analyzed) (Numerical order)

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data) (Chronological)

✓ Chromatograms and quantitation reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and quantitation reports (chronological)

✓ Retention time window summary (if applicable)(chronological)

D. Raw QC Data

✓ Method Blank, chromatogram and quantitation report for each matrix type (chronological)

✓ Laboratory Control Sample, chromatogram and quantitation report for each matrix type (chronological)

na Matrix Spike/Matrix Spike Duplicate, chromatograms and quantitation reports (if not reported as samples) and of the same client batch (chronological)

✓ Instrument runlogs (chronological)

na Extraction bench sheets (for mid-level methanol extractions) (chronological)

na 5035 logs (if applicable) (chronological)

Checked By: Cwinters **Date:** 12-21-01

2.1.3.1 QC Summary

METHOD BLANK SUMMARY

Login Number: L0112349
Blank File ID: 5G11405
Date Analyzed: 12/19/01
Time Analyzed: 07:54
Analyst: CBN

Work Group: WG110252
Blank Sample ID: WG110252-01
Instrument ID: HP5
Method: 8021

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG110252-02	5G11406	12/19/01 08:27	
002-CEF46-1S-Q4-01-11	L0112349-01	5G11419	12/19/01 15:51	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0112349
Run Date: 12/19/2001
Sample ID: WG110252-01
Instrument ID: HP5
Run Time: 07:54
Method: 8021B
File ID: 5G11405
Analyst: CBN
Matrix: Water
Workgroup (AAB#): WG110252
Units: ug/L
Contract #:
Cal ID: HP5-19-NOV-2001

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
MTBE	0.500	1.00	0.500	1.00	ND
Benzene	0.500	1.00	0.500	1.00	ND
Toluene	0.500	1.00	0.500	1.00	ND
Ethylbenzene	0.500	1.00	0.500	1.00	ND
Total xylenes	0.500	1.00	0.500	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	101	70 - 130	PASS

F Analyte concentration between MDL and RDL
* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 12/06/2001
Version 1.1
Report generated 12/21/2001 14:31

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0112349 Run Date: 12/19/2001 Sample ID: WG110252-02
Instrument ID: HP5 Run Time: 08:27 Method: 8021B
File ID: 5G11406 Analyst: CBN Matrix: Water
Workgroup (AAB#): WG110252 Units: ug/L
Contract #: Cal ID: HP5-19-NOV-2001

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	18.7	93.6	34 - 150	
Benzene	20	18.4	91.9	79 - 120	
Toluene	20	18.6	92.9	80 - 120	
Ethylbenzene	20	19.3	96.5	80 - 120	
Total xylenes	60	56.7	94.5	78 - 120	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	101	70 - 130	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 12/06/2001
Version 1.1
Report generated 12/21/2001 14:31

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021 AAB#: WG110252

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
002-CEF46-1S-Q4-01-11	17-DEC-01	18-DEC-01	19-DEC-01	14	2	19-DEC-01	14	2	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

SURROGATE STANDARDS

Login Number: L0112349
Instrument Id: HP5
Workgroup (AAB#): WG110252

Method: 8021
Matrix: WATER

Sample Numbe	Dilution	Tag	1
L0112349-01	1.00		165

Surrogates	Surrogate Limits		
1 - a,a,a-Trifluorotoluene	70	-	130

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 12/07/2001
Version 1.1
Report generated 12/21/2001 14:32

Calibration Table Report
Method: 8021W.M
Title: METHOD 8021B - Water - 11/19/01
Last Calibration: Mon Nov 19 14:58:57 2001

Calibration Files

Compound	1 5G10907.	10 5G10908.	20 5G10909.	50 5G10910.	100 5G10911.	200 5G10912.	300 5G10913.D	Avg	%RSD	
MTBE	17928.1	15757.4	15977.3	15705.6	16375.8	15833.7	15660.9	16177.0	5.002	
Benzene	99790.0	89314.0	90391.8	89213.1	89659.6	87758.8	87854.6	90568.9	4.609	
TFT	27514.0	26529.5	27740.5	27712.0	27569.2	27069.0	24555.3	26955.7	4.239	
Toluene	91223.3	82284.1	83471.4	81889.8	82269.7	80912.5	82171.9	83460.4	4.199	
Chlorobenzene	142785.6	90493.5	89103.4	87023.5	86260.6	85319.6	85791.8	95254.0	22.090	LR, 1.000
Ethylbenzene	76777.0	70859.6	71518.0	71121.0	70777.1	70298.7	70633.0	71712.1	3.160	
m-,p-Xylene	92261.5	83694.2	84557.0	83881.4	83175.9	81902.1	81749.0	84460.2	4.251	
o-Xylene	79222.9	72756.6	73618.4	72754.2	72631.0	72113.4	72214.0	73615.8	3.424	
BFB	76570.3	73113.5	74836.8	74862.6	74613.7	74295.4	65795.0	73441.1	4.796	
1,3-Dichlorobenzene	84334.7	69306.0	71664.7	70887.2	71839.3	71422.0	72754.5	73172.6	6.880	
1,4-Dichlorobenzene	89077.4	73163.6	76417.9	75588.1	76220.0	74531.6	75754.7	77250.5	6.905	
1,2-Dichlorobenzene	73100.2	61053.8	60836.5	59381.5	60314.3	59445.4	60404.8	62076.6	7.897	
BCB	74758.0	68514.5	69410.2	69067.1	69707.8	69797.3	62669.1	69132.0	5.102	

Mon Nov 19 15:13:16 2001

Login Number: L0112349
File ID: 5G10915
ALT ID: WG108448-08
Units: ug/L

Instrument ID: HP5
Run Date: 11/19/2001
Run Time: 15:43
Analyst: JLS
Cal ID: HP5 - 19-NOV-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	19.9	61800	0.5	
1,4-Dichlorobenzene		20	19.8	76600	1.0	
1,3-Dichlorobenzene		20	19.7	72200	1.5	
o-Xylene		20	19.6	72100	2.0	
m-,p-Xylene		40	39.8	84100	0.5	
Ethylbenzene		20	20.3	72600	1.5	
Chlorobenzene		20	19.8	87700	1.0	
Toluene		20	19.8	82600	1.0	
Benzene		20	19.7	89100	1.5	
MTBE		20	19.6	15900	2.0	

KEMRON FORMS - Modified 10/17/2001
Version 1.0

Login Number: L0112349
File ID: 5G11404
CCV ID: WG110251-01
Units: ug/L

Instrument ID: HP5
Run Date: 12/19/2001
Run Time: 07:12
Analyst: CBN
Cal ID: HP5 - 19-NOV-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	19.2	59600	4.0	
1,4-Dichlorobenzene		20	18.9	73000	5.5	
1,3-Dichlorobenzene		20	19.2	70100	4.0	
o-Xylene		20	18.7	68900	6.5	
m-,p-Xylene		40	38.3	80800	4.3	
Ethylbenzene		20	19.3	69300	3.5	
Chlorobenzene		20	18.7	82800	6.5	
Toluene		20	18.8	78600	6.0	
Benzene		20	18.8	85000	6.0	
MTBE		20	18.8	15200	6.0	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

Login Number: L0112349
File ID: 5G11415
CCV ID: WG110251-02
Units: ug/L

Instrument ID: HP5
Run Date: 12/19/2001
Run Time: 13:28
Analyst: CBN
Cal ID: HP5 - 19-NOV-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	18.2	56500	9.0	
1,4-Dichlorobenzene		20	17.9	69100	10.5	
1,3-Dichlorobenzene		20	17.6	64500	12.0	
o-Xylene		20	17.5	64500	12.5	
m-,p-Xylene		40	35.8	75600	10.5	
Ethylbenzene		20	18.2	65400	9.0	
Chlorobenzene		20	17.4	77200	13.0	
Toluene		20	17.8	74200	11.0	
Benzene		20	17.8	80700	11.0	
MTBE		20	17.8	14400	11.0	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

Login Number: L0112349
File ID: 5G11426
CCV ID: WG110251-03
Units: ug/L

Instrument ID: HP5
Run Date: 12/19/2001
Run Time: 19:42
Analyst: CBN
Cal ID: HP5 - 19-NOV-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	17.6	54600	12.0	
1,4-Dichlorobenzene		20	17.2	66400	14.0	
1,3-Dichlorobenzene		20	17.1	62600	14.5	
o-Xylene		20	17.2	63200	14.0	
m-,p-Xylene		40	35.2	74300	12.0	
Ethylbenzene		20	17.4	62500	13.0	
Chlorobenzene		20	16.5	73500	17.5	*
Toluene		20	17.4	72700	13.0	
Benzene		20	17.0	76800	15.0	
MTBE		20	17.4	14100	13.0	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

Injection Log

Directory: c:\hpchem\2\data\111901

Analyst: JLS

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g10904.d	1.	WG108448-01 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	19 Nov 101 12:
2	1	5g10905.d	1.	WG108448-01 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	19 Nov 101 12:
3	1	5g10906.d	1.	WG108448-01 8021 STD1 1PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13:
4	2	5g10907.d	1.	WG108448-01 8021 STD1 1PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13:
5	3	5g10908.d	1.	WG108448-02 8021 STD2 10PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13:
6	4	5g10909.d	1.	WG108448-03 8021 STD3 20PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13:
7	5	5g10910.d	1.	WG108448-04 8021 STD4 50PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13:
8	6	5g10911.d	1.	WG108448-05 8021 STD5 100PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 12:
9	7	5g10912.d	1.	WG108448-06 8021 STD6 200PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 12:
10	8	5g10913.d	1.	WG108448-07 8021 STD7 300PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 12:
11	9	5g10914.d	1.	RINSE 5ML	1,1 S-86-08	19 Nov 101 12:
12	10	5g10915.d	1.	WG108448-08 ALT SOURCE 20PPB 5ML	1,1 S-86-13,86-08	19 Nov 101 12:
13	1	5g10916.d	1.	WG108507-01 WATER BLANK 5ML	1,1 S-86-12	19 Nov 101 12:
14	2	5g10917.d	1.	WG108507-02 WATER LCS 20PPB 5ML	1,1 S-86-12	19 Nov 101 12:
15	1	5g10918.d	1.	L0111312-03 A 5ML pH<2	1,1 S-86-12	19 Nov 101 12:
16	2	5g10919.d	1.	L0111317-03 A 5ML pH<2	1,1 S-86-12	19 Nov 101 12:
17	3	5g10920.d	1.	L0111280-01 B 5ML pH<2	1,1 S-86-12	19 Nov 101 12:
18	4	5g10921.d	1.	L0111280-02 B 5ML pH<2	1,1 S-86-12	19 Nov 101 12:
19	5	5g10922.d	1.	L0111280-03 B 5ML pH<2	1,1 S-86-12	19 Nov 101 12:
20	6	5g10923.d	20.	WG108507-03 L0111283-01 B 20X 5ML pH<2 RR100X	1,20 S-86-12	19 Nov 101 12:
21	7	5g10924.d	20.	WG108507-04 L0111283-01 B MS 20X 5ML pH	1,20 S-86-(13,12)	19 Nov 101 12:
22	8	5g10925.d	20.	WG108507-05 L0111283-01 B MSD 20X 5ML p	1,20 S-86-(13,12)	19 Nov 101 12:
23	9	5g10926.d	1.	WG108448-09 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	19 Nov 101 12:
24	10	5g10927.d	10.	L0111283-02 B 10X 5ML pH<2	1,10 S-86-12	19 Nov 101 13:
25	11	5g10928.d	1.	L0111283-03 B 5ML pH<2	1,1 S-86-12	19 Nov 101 13:
26	12	5g10929.d	5.	L0111283-04 B 5X 5ML pH<2	1,5 S-86-12	19 Nov 101 13:
27	13	5g10930.d	1.	L0111283-04 B 5ML pH<2	1,1 S-86-12	19 Nov 101 13:
28	14	5g10931.d	10.	L0111283-05 B 10X 5ML pH<2	1,10 S-86-12	20 Nov 101 13:
29	15	5g10932.d	1.	L0111283-06 B 5ML pH<2	1,1 S-86-12	20 Nov 101 13:
30	16	5g10933.d	10.	L0111283-07 B 10X 5ML pH<2	1,10 S-86-12	20 Nov 101 12:
31	17	5g10934.d	1.	L0111283-08 B 5ML pH<2	1,1 S-86-12	20 Nov 101 12:
32	18	5g10935.d	1.	L0111283-09 B 5ML pH<2	1,1 S-86-12	20 Nov 101 12:
33	19	5g10936.d	1.	L0111301-01 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12:
34	20	5g10937.d	1.	WG108448-10 8021 STD 20PPB 5ML	1,1 S-86-12	20 Nov 101 12:
35	21	5g10938.d	1.	L0111301-02 A 5ML pH=10	1,1 S-86-12	20 Nov 101 12:
36	22	5g10939.d	1.	L0111301-03 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12:
37	23	5g10940.d	1.	L0111301-04 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12:
38	24	5g10941.d	1.	WG108448-11 8021 STD 20PPB 5ML	1,1 S-86-12	20 Nov 101 12:

Directory: c:\hpchem\2\data\121901

Injection Log

Analyst: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g11404.d	1.	WG110251-01 8021 STD 20PPB 5ML	1,1 S-(88-04,87-26)	19 Dec 101 1
2	2	5g11405.d	1.	WG110252-01 WATER BLANK 5ML	1,1 S-87-26	19 Dec 101 1
3	3	5g11406.d	1.	WG110252-02 WATER LCS 20PPB 5ML	1,1 S-(88-04,87-26)	19 Dec 101 1
4	1	5g11407.d	20.	L0112289-05 A 5ML 20X	1,20,RE S-87-26	19 Dec 101 1
5	2	5g11408.d	1.	L0112348-01 A 5ML	1,1 S-87-26	19 Dec 101 1
6	3	5g11409.d	1.	L0112348-02 A 5ML	1,1 S-87-26	19 Dec 101 1
7	4	5g11410.d	1.	L0112348-03 A 5ML	1,1 S-87-26	19 Dec 101 1
8	5	5g11411.d	1.	WG110252-03 L0112348-04 A 5ML	1,1 S-87-26	19 Dec 101 1
9	6	5g11412.d	1.	WG110252-04 L0112348-05 MS A 5ML	1,1 S-(88-04,87-26)	19 Dec 101 1
10	7	5g11413.d	1.	WG110252-05 L0112348-06 MSD A 5ML	1,1 S-(88-04,87-26)	19 Dec 101 1
11	8	5g11414.d	1.	L0112348-07 A 5ML	1,1 S-87-26	19 Dec 101 1
12	9	5g11415.d	1.	WG110251-02 8021 STD 20PPB 5ML	1,1 S-(88-04,87-26)	19 Dec 101 1
13	1	5g11416.d	1.	L0112348-08 A 5ML	1,1 S-87-26	19 Dec 101 1
14	2	5g11417.d	1.	L0112348-09 A 5ML	1,1 S-87-26	19 Dec 101 1
15	3	5g11418.d	1.	L0112348-10 A 5ML	1,1 S-87-26	19 Dec 101 1
16	4	5g11419.d	1.	L0112349-01 A 5ML RR100X	1,1 S-87-26	19 Dec 101 1
17	5	5g11420.d	1.	L0112349-02 A 5ML RR clo	1,1 S-87-26	19 Dec 101 1
18	6	5g11421.d	1.	L0112349-03 A 5ML RR clo	1,1 S-87-26	19 Dec 101 1
19	7	5g11422.d	20.	L0112184-03 B 5ML 20X pH<2	1,20 S-87-26	19 Dec 101 1
20	8	5g11423.d	20.	L0112184-04 B 5ML 20X pH<2	1,20 S-87-26	19 Dec 101 1
21	9	5g11424.d	10.	L0112346-01 A 5ML 10X	1,10 S-87-26	19 Dec 101 1
22	10	5g11425.d	100.	L0112346-02 A 5ML 100X pH<2	1,100 S-87-26	19 Dec 101 1
23	11	5g11426.d	1.	WG110251-03 8021 STD 20PPB 5ML	1,1 S-(88-04,87-26)	19 Dec 101 1
24	12	5g11427.d	100.	L0112346-03 A 5ML 100X pH<2	1,100 S-87-26	19 Dec 101 1
25	13	5g11428.d	1.	L0112364-01 A 5ML	1,1 S-87-26	19 Dec 101 1
26	14	5g11429.d	1.	RINSE 5ML MTBE	1,1 S-87-26	19 Dec 101 1
27	15	5g11430.d	1.	RINSE 5ML	1,1 S-87-26	19 Dec 101 1
28	16	5g11431.d	1.	WG110251-04 8021 STD 20PPB 5ML	1,1 S-(88-04,87-26)	19 Dec 101 13

METHOD BLANK SUMMARY

Login Number: L0112349
Blank File ID: 5G11433
Date Analyzed: 12/20/01
Time Analyzed: 11:24
Analyst: JLS

Work Group: WG110358
Blank Sample ID: WG110358-01
Instrument ID: HP5
Method: 8021

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG110358-02	5G11434	12/20/01 11:58	
002-CEF46-2S-Q4-01-11	L0112349-02	5G11435	12/20/01 13:35	
002-46TB1-Q4-01-11	L0112349-03	5G11436	12/20/01 14:10	
002-CEF46-1S-Q4-01-11	L0112349-01	5G11437	12/20/01 14:45	D1

KEMRON FORMS - Modified 10/11/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0112349
Run Date: 12/20/2001
Sample ID: WG110358-01
Instrument ID: HP5
Run Time: 11:24
Method: 8021B
File ID: 5G11433
Analyst: JLS
Matrix: Water
Workgroup (AAB#): WG110358
Units: ug/L
Contract #:
Cal ID: HP5-19-NOV-2001

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
MTBE	0.500	1.00	0.500	1.00	ND
Benzene	0.500	1.00	0.500	1.00	ND
Toluene	0.500	1.00	0.500	1.00	ND
Ethylbenzene	0.500	1.00	0.500	1.00	ND
Total xylenes	0.500	1.00	0.500	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	98.3	70 - 130	PASS

F Analyte concentration between MDL and RDL
* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 12/06/2001
Version 1.1
Report generated 12/21/2001 14:31

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0112349
Run Date: 12/20/2001
Sample ID: WG110358-02
Instrument ID: HP5
Run Time: 11:58
Method: 8021B
File ID: 5G11434
Analyst: JLS
Matrix: Water
Workgroup (AAB#): WG110358
Units: ug/L
Contract #:
Cal ID: HP5-19-NOV-2001

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	18.1	90.3	34 - 150	
Benzene	20	17.9	89.7	79 - 120	
Toluene	20	17.9	89.5	80 - 120	
Ethylbenzene	20	18.3	91.5	80 - 120	
Total xylenes	60	54.1	90.2	78 - 120	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	99.0	70 - 130	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 12/06/2001
Version 1.1
Report generated 12/21/2001 14:31

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021 AAB#: WG110358

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
002-CEF46-2S-Q4-01-11	17-DEC-01	18-DEC-01	20-DEC-01	14	3	20-DEC-01	14	3	
002-46TB1-Q4-01-11	17-DEC-01	18-DEC-01	20-DEC-01	14	3	20-DEC-01	14	3	
002-CEF46-1S-Q4-01-11	17-DEC-01	18-DEC-01	20-DEC-01	14	3	20-DEC-01	14	3	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

SURROGATE STANDARDS

Login Number: L0112349
Instrument Id: HP5
Workgroup (AAB#): WG110358

Method: 8021
Matrix: WATER

Sample Numbe	Dilution	Tag	1
L0112349-01	100	D1	103
L0112349-02	1.00		99.0
L0112349-03	1.00		99.8

Surrogates	Surrogate Limits		
1 - a,a,a-Trifluorotoluene	70	-	130

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 12/07/2001
Version 1.1
Report generated 12/21/2001 14:32

Calibration Table Report
Method: 8021W.M
Title: METHOD 8021B - Water - 11/19/01
Last Calibration: Mon Nov 19 14:58:57 2001

Calibration Files

Compound	1 5G10907.	10 5G10908.	20 5G10909.	50 5G10910.	100 5G10911.	200 5G10912.	300 5G10913.D	Avg	%RSD	
MTBE	17928.1	15757.4	15977.3	15705.6	16375.8	15833.7	15660.9	16177.0	5.002	
Benzene	99790.0	89314.0	90391.8	89213.1	89659.6	87758.8	87854.6	90568.9	4.609	
TFT	27514.0	26529.5	27740.5	27712.0	27569.2	27069.0	24555.3	26955.7	4.239	
Toluene	91223.3	82284.1	83471.4	81889.8	82269.7	80912.5	82171.9	83460.4	4.199	
Chlorobenzene	142785.6	90493.5	89103.4	87023.5	86260.6	85319.6	85791.8	95254.0	22.090	LR, 1.000
Ethylbenzene	76777.0	70859.6	71518.0	71121.0	70777.1	70298.7	70633.0	71712.1	3.160	
m-,p-Xylene	92261.5	83694.2	84557.0	83881.4	83175.9	81902.1	81749.0	84460.2	4.251	
o-Xylene	79222.9	72756.6	73618.4	72754.2	72631.0	72113.4	72214.0	73615.8	3.424	
BFB	76570.3	73113.5	74836.8	74862.6	74613.7	74295.4	65795.0	73441.1	4.796	
1,3-Dichlorobenzene	84334.7	69306.0	71664.7	70887.2	71839.3	71422.0	72754.5	73172.6	6.880	
1,4-Dichlorobenzene	89077.4	73163.6	76417.9	75588.1	76220.0	74531.6	75754.7	77250.5	6.905	
1,2-Dichlorobenzene	73100.2	61053.8	60836.5	59381.5	60314.3	59445.4	60404.8	62076.6	7.897	
BCB	74758.0	68514.5	69410.2	69067.1	69707.8	69797.3	62669.1	69132.0	5.102	

Mon Nov 19 15:13:16 2001

Login Number: L0112349
File ID: 5G10915
ALT ID: WG108448-08
Units: ug/L

Instrument ID: HP5
Run Date: 11/19/2001
Run Time: 15:43
Analyst: JLS
Cal ID: HP5 - 19-NOV-01

Analyte	Expected	Found	RF	%D	Q
1,2-Dichlorobenzene	20	19.9	61800	0.5	
1,4-Dichlorobenzene	20	19.8	76600	1.0	
1,3-Dichlorobenzene	20	19.7	72200	1.5	
o-Xylene	20	19.6	72100	2.0	
m-,p-Xylene	40	39.8	84100	0.5	
Ethylbenzene	20	20.3	72600	1.5	
Chlorobenzene	20	19.8	87700	1.0	
Toluene	20	19.8	82600	1.0	
Benzene	20	19.7	89100	1.5	
MTBE	20	19.6	15900	2.0	

KEMRON FORMS - Modified 10/17/2001
Version 1.0

Login Number: L0112349
File ID: 5G11432
CCV ID: WG110357-01
Units: ug/L

Instrument ID: HP5
Run Date: 12/20/2001
Run Time: 09:56
Analyst: JLS
Cal ID: HP5 - 19-NOV-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	18.2	56400	9.0	
1,4-Dichlorobenzene		20	17.6	68100	12.0	
1,3-Dichlorobenzene		20	17.9	65600	10.5	
o-Xylene		20	17.8	65400	11.0	
m-,p-Xylene		40	36.6	77200	8.5	
Ethylbenzene		20	17.8	63900	11.0	
Chlorobenzene		20	17.3	76800	13.5	
Toluene		20	18.7	78200	6.5	
Benzene		20	17.4	78900	13.0	
MTBE		20	18.4	14900	8.0	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

Login Number: L0112349
File ID: 5G11443
CCV ID: WG110357-02
Units: ug/L

Instrument ID: HP5
Run Date: 12/20/2001
Run Time: 18:23
Analyst: JLS
Cal ID: HP5 - 19-NOV-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	18.1	56100	9.5	
1,4-Dichlorobenzene		20	17.9	69000	10.5	
1,3-Dichlorobenzene		20	17.7	64600	11.5	
o-Xylene		20	17.8	65600	11.0	
m-,p-Xylene		40	36.6	77300	8.5	
Ethylbenzene		20	18.6	66700	7.0	
Chlorobenzene		20	17.6	78400	12.0	
Toluene		20	18.2	76000	9.0	
Benzene		20	18.1	82000	9.5	
MTBE		20	17.8	14400	11.0	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

Injection Log

Directory: c:\hpchem\2\data\111901

Analyst: JLS

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g10904.d	1.	WG108448-01 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	19 Nov 101 12
2	1	5g10905.d	1.	WG108448-01 8021 STD 20PPB 5ML	1,1 S-86-(13;12)	19 Nov 101 12
3	1	5g10906.d	1.	WG108448-01 8021 STD1 1PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13
4	2	5g10907.d	1.	WG108448-01 8021 STD1 1PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13
5	3	5g10908.d	1.	WG108448-02 8021 STD2 10PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13
6	4	5g10909.d	1.	WG108448-03 8021 STD3 20PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13
7	5	5g10910.d	1.	WG108448-04 8021 STD4 50PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13
8	6	5g10911.d	1.	WG108448-05 8021 STD5 100PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 12
9	7	5g10912.d	1.	WG108448-06 8021 STD6 200PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 12
10	8	5g10913.d	1.	WG108448-07 8021 STD7 300PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 12
11	9	5g10914.d	1.	RINSE 5ML	1,1 S-86-08	19 Nov 101 12
12	10	5g10915.d	1.	WG108448-08 ALT SOURCE 20PPB 5ML	1,1 S-86-13,86-08	19 Nov 101 12
13	1	5g10916.d	1.	WG108507-01 WATER BLANK 5ML	1,1 S-86-12	19 Nov 101 12
14	2	5g10917.d	1.	WG108507-02 WATER LCS 20PPB 5ML	1,1 S-86-12	19 Nov 101 12
15	1	5g10918.d	1.	L0111312-03 A 5ML pH<2	1,1 S-86-12	19 Nov 101 12
16	2	5g10919.d	1.	L0111317-03 A 5ML pH<2	1,1 S-86-12	19 Nov 101 12
17	3	5g10920.d	1.	L0111280-01 B 5ML pH<2	1,1 S-86-12	19 Nov 101 12
18	4	5g10921.d	1.	L0111280-02 B 5ML pH<2	1,1 S-86-12	19 Nov 101 12
19	5	5g10922.d	1.	L0111280-03 B 5ML pH<2	1,1 S-86-12	19 Nov 101 12
20	6	5g10923.d	20	WG108507-03 L0111283-01 B 20X 5ML pH<2 RR100X	1,20 S-86-12	19 Nov 101 12
21	7	5g10924.d	20	WG108507-04 L0111283-01 B MS 20X 5ML pH	1,20 S-86-(13,12)	19 Nov 101 12
22	8	5g10925.d	20.	WG108507-05 L0111283-01 B MSD 20X 5ML p	1,20 S-86-(13,12)	19 Nov 101 12
23	9	5g10926.d	1.	WG108448-09 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	19 Nov 101 12
24	10	5g10927.d	10.	L0111283-02 B 10X 5ML pH<2	1,10 S-86-12	19 Nov 101 13
25	11	5g10928.d	1.	L0111283-03 B 5ML pH<2	1,1 S-86-12	19 Nov 101 13
26	12	5g10929.d	5.	L0111283-04 B 5X 5ML pH<2	1,5 S-86-12	19 Nov 101 13
27	13	5g10930.d	1.	L0111283-04 B 5ML pH<2	1,1 S-86-12	19 Nov 101 13
28	14	5g10931.d	10.	L0111283-05 B 10X 5ML pH<2	1,10 S-86-12	20 Nov 101 13
29	15	5g10932.d	1.	L0111283-06 B 5ML pH<2	1,1 S-86-12	20 Nov 101 13
30	16	5g10933.d	10.	L0111283-07 B 10X 5ML pH<2	1,10 S-86-12	20 Nov 101 12
31	17	5g10934.d	1.	L0111283-08 B 5ML pH<2	1,1 S-86-12	20 Nov 101 12
32	18	5g10935.d	1.	L0111283-09 B 5ML pH<2	1,1 S-86-12	20 Nov 101 12
33	19	5g10936.d	1.	L0111301-01 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12
34	20	5g10937.d	1.	WG108448-10 8021 STD 20PPB 5ML	1,1 S-86-12	20 Nov 101 12
35	21	5g10938.d	1.	L0111301-02 A 5ML pH=10	1,1 S-86-12	20 Nov 101 12
36	22	5g10939.d	1.	L0111301-03 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12
37	23	5g10940.d	1.	L0111301-04 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12
38	24	5g10941.d	1.	WG108448-11 8021 STD 20PPB 5ML	1,1 S-86-12	20 Nov 101 12

Injection Log

Directory: c:\hpchem\2\data\122001

WG110358

ANALYST: JLS

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g11432.d	1.	WG110357-01 8021 STD 20PPB 5ML ✓	1,1 S-(88-04,87-26)	20 Dec 101 12::5
2	2	5g11433.d	1.	WG110358-01 WATER BLANK 5ML ✓	1,1 S-87-26	20 Dec 101 13::2
3	3	5g11434.d	1.	WG110358-02 WATER LCS 20PPB 5ML ✓	1,1 S-(88-04,87-26)	20 Dec 101 13::5
4	4	5g11435.d	1.	L0112349-02 B 5ML ✓	1,1 S-87-26	20 Dec 101 12::3
5	5	5g11436.d	1.	L0112349-03 B 5ML ✓	1,1 S-87-26	20 Dec 101 12::1
6	3	5g11437.d	100.	L0112349-01 B 100X 5ML pH<2 ✓	1,100 S-87-26	20 Dec 101 12::4
7	4	5g11438.d	1.	L0112366-01 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::2
8	5	5g11439.d	1.	L0112366-02 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::0
9	6	5g11440.d	1.	WG110358-03 L0112366-04 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::3
10	7	5g11441.d	1.	WG110358-04 L0112366-05 MS A 5ML pH<2 ✓	1,1 S-(88-04,87-26)	20 Dec 101 12::1
11	8	5g11442.d	1.	WG110358-04 L0112366-06 MSD A 5ML pH<2 ✓	1,1 S-(88-04,87-26)	20 Dec 101 12::4
12	9	5g11443.d	1.	WG110357-02 8021 STD 20PPB 5ML ✓	1,1 S-(88-04,87-26)	20 Dec 101 12::2
13	10	5g11444.d	20.	L0112366-03 20X 5ML pH<2 ✓	1,20 S-87-26	20 Dec 101 12::5
14	11	5g11445.d	1.	L0112366-07 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::3
15	12	5g11446.d	1.	L0112366-08 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::0
16	13	5g11447.d	1.	L0112366-09 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::4
17	14	5g11448.d	1.	L0112366-10 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::1
18	15	5g11449.d	1.	L0112366-11 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::5
19	16	5g11450.d	1.	L0112366-12 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 13::2
20	17	5g11451.d	1.	L0112366-13 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 13::0
21	18	5g11452.d	10.	L0112366-14 A 10X 5ML pH<2 ✓	1,10 S-87-26	20 Dec 101 13::3
22	19	5g11453.d	1.	L0112366-15 A 5ML pH<2 ✓	1,1 S-87-26	21 Dec 101 13::1
23	20	5g11454.d	1.	WG110357-03 8021 STD 20PPB 5ML ✓	1,1 S-(88-04,87-26)	21 Dec 101 13::4
24	21	5g11455.d	1.	L0112366-16 A 5ML pH<2 ✓	1,1 S-87-26	21 Dec 101 12::2
25	22	5g11456.d	1.	L0112366-17 A 5ML pH<2 ✓	1,1 S-87-26	21 Dec 101 12::5
26	23	5g11457.d	1.	WG110357-04 8021 STD 20PPB 5ML ✓	1,1 S-(88-04,87-26)	21 Dec 101 12::2

VOA - GC

Date: 12/19/01 **Analyst:** CBN **Method:** (8021) 8015 602

Instrument: MP5 **Work Group:** WG110252

	Analyst
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	NA
Second Source standard % Difference	✓
Continuing Calibration / Check Standards	✓
Project / Client Specific Requirements	✓
Special Standards	NA
Blanks	✓
TCL's	✓
Surrogates	✓
LCS (Laboratory Control Sample)	✓
Recoveries	✓
Surrogates	✓
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	✓
Dilutions Run	✓
Reruns	✓
Excel Spreadsheets	NA
Case Narrative	✓
Narrative Summary	NA
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: MJ 12-20-01

Secondary Reviewers Initials & Date Checked: GJS 12/20/01

CMA 12/20/01

✓ • Check for compliance with Method and project-specific requirements
✓ • Check the completeness of the reported information
✓ • Check the information for the report narrative
✓ • Check the reasonableness of results

Supervisory Review Initials & Date Checked: CMA 12/20/01

Comments: _____

✓ = Checked & OK
NA = Not Applicable

VOA - GC

Date: 12/20/01 **Analyst:** JLS **Method:** (8021) 8015 602

Instrument: HP5 **Work Group:** WG 110358

	Analyst
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	NA
Second Source standard % Difference	✓
Continuing Calibration / Check Standards	✓
Project / Client Specific Requirements	✓
Special Standards	NA
Blanks	✓
TCL's	✓
Surrogates	✓
LCS (Laboratory Control Sample)	✓
Recoveries	✓
Surrogates	✓
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	✓
Dilutions Run	✓
Reruns	✓
Excel Spreadsheets	✓
Case Narrative	✓
Narrative Summary	✓
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: CBN 12/21/01

Secondary Reviewers Initials & Date Checked: [illegible] 12/21/01

_____ • Check for compliance with Method and project-specific requirements
_____ • Check the completeness of the reported information
_____ • Check the information for the report narrative
_____ • Check the reasonableness of results

Supervisory Review Initials & Date Checked: _____

Comments: _____

✓ = Checked & OK
NA = Not Applicable

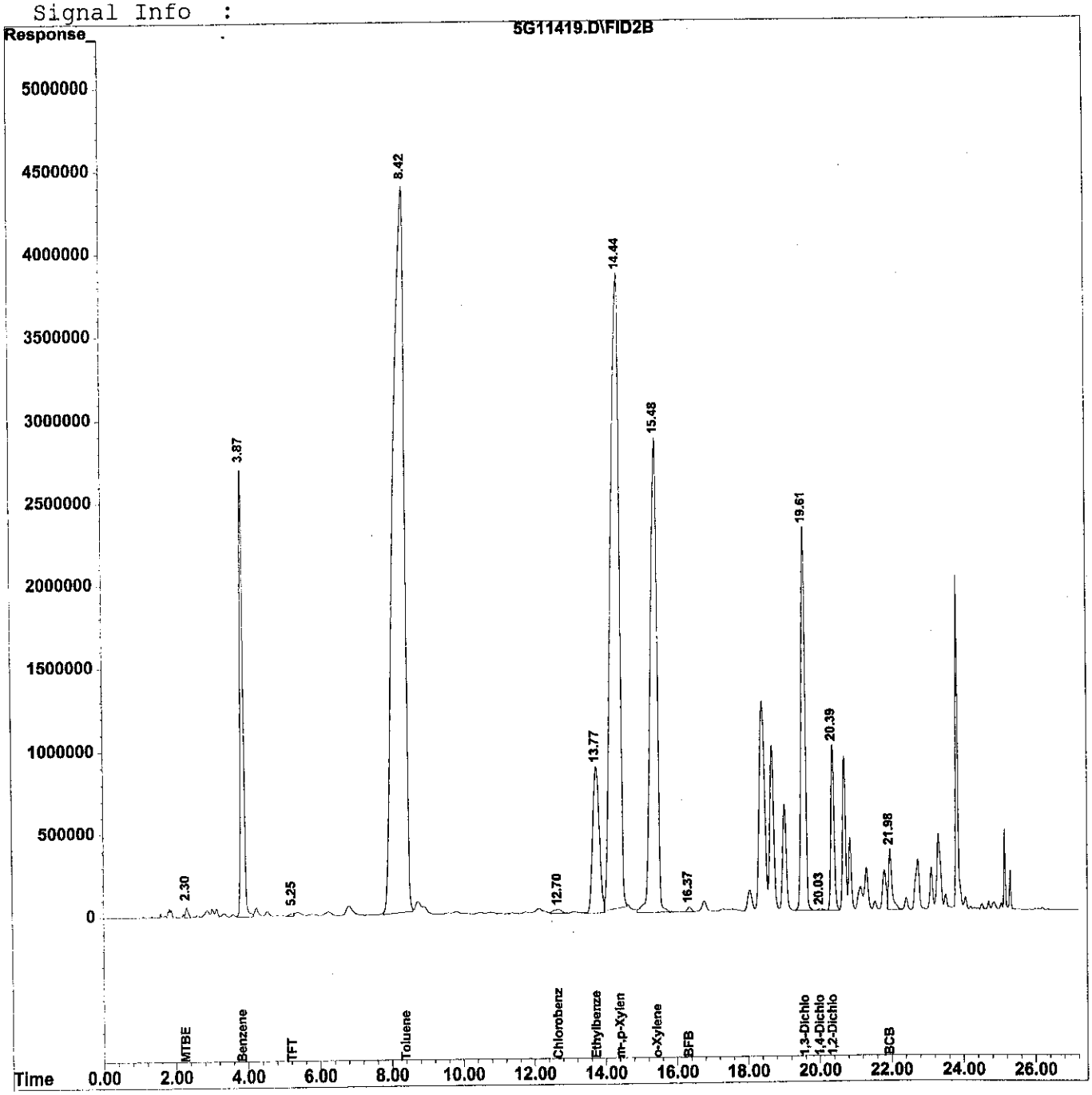
2.1.3.2 Sample Data

Data File : C:\HPCHEM\2\DATA\121901\5G11419.D
Acq On : 19 Dec 2001 15:51
Sample : L0112349-01 A 5ML
Misc : 1,1 S-87-26
IntFile : autoint1.e
Quant Time: Dec 20 11:24 2001 Quant Results File: 8021W.RES

Vial: 4
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121901\5G11419.D
Acq On : 19 Dec 2001 15:51
Sample : L0112349-01 A 5ML
Misc : 1,1 S-87-26
IntFile : autoint1.e
Quant Time: Dec 20 11:24 2001 Quant Results File: 8021W.RES

Vial: 4
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

@ 12/21

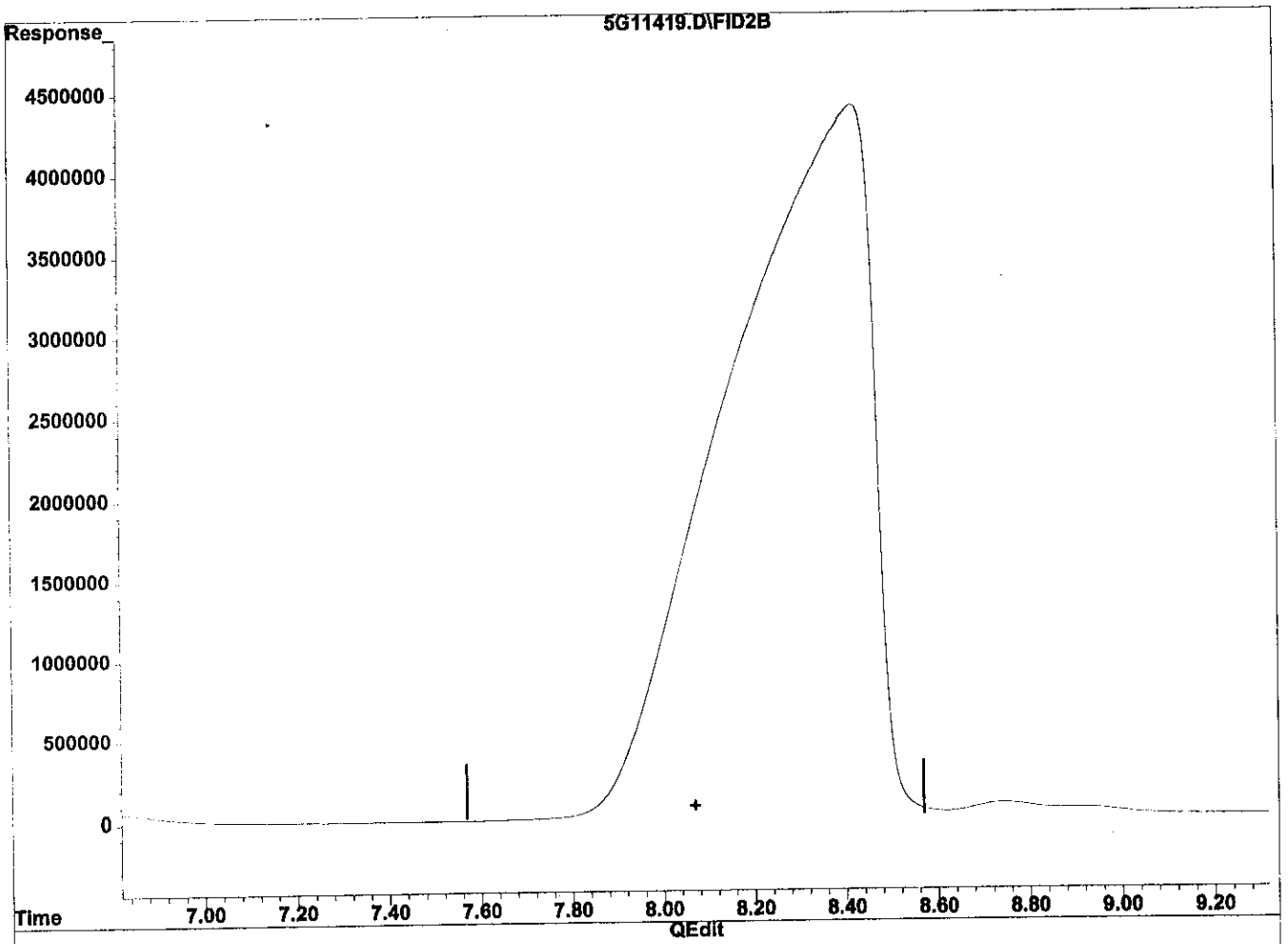
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.25	1336325	49.5749 ug/L * , RE
Spiked Amount 30.000	Range 70 - 130	Recovery	= 165.25%#
9) S BFB	16.37	2255499	30.7117 ug/L
Spiked Amount 30.000		Recovery	= 102.37%
13) S BCB	21.98	24341438	352.1009 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery	= 1173.67%#
Target Compounds			
1) TM MTBE	2.30	3024127	~~186.9401 ug/L~~
2) TM Benzene	3.87	157885706	1743.2672 ug/L I
4) TM Toluene	8.42f	960079547	11503.4136 ug/L m I
5) TM Chlorobenzene	12.69	3995786	~~46.0570 ug/L~~
6) TM Ethylbenzene	13.78	113429262	1581.7322 ug/L I
7) TM m-,p-Xylene	14.44f	645952938	7648.0201 ug/L m I
8) TM o-Xylene	15.48	369228619	5015.6169 ug/L I
10) TM 1,3-Dichlorobenzene	19.61	178965684	~~2445.8012~~ ug/L
11) TM 1,4-Dichlorobenzene	20.04	1115917	~~14.4454~~ ug/L
12) TM 1,2-Dichlorobenzene	20.39	62972876	~~1014.4375~~ ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\121901\5G11419.D
Acq On : 19 Dec 2001 15:51
Sample : L0112349-01 A 5ML
Misc : 1,1 S-87-26
IntFile : autoint1.e
Quant Time: Dec 19 16:18 2001 Quant Results File: 8021W.RES

Vial: 4
Operator: CBN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration



(4) Toluene (TM)

8.07min 0.000ug/L

response 0

(+) = Expected Retention Time

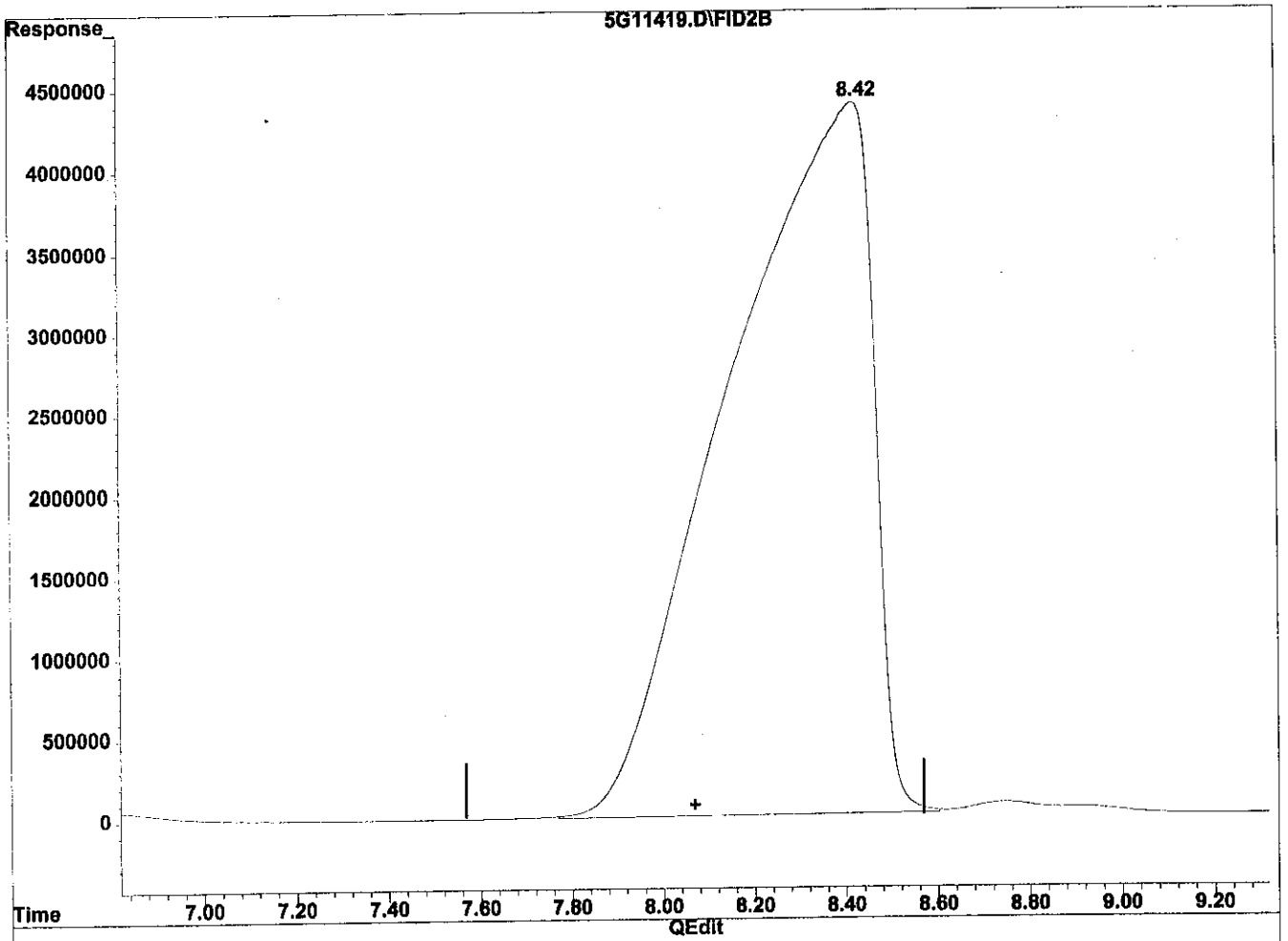
5G11419.D 8021W.M Thu Dec 20 11:23:50 2001

Quantitation Report

Data File : C:\HPCHEM\2\DATA\121901\5G11419.D
Acq On : 19 Dec 2001 15:51
Sample : L0112349-01 A 5ML
Misc : 1,1 S-87-26
IntFile : autoint1.e
Quant Time: Dec 19 16:18 2001 Quant Results File: 8021W.RES

Vial: 4
Operator: CBN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration



(4) Toluene (TM)

8.42min 11503.414ug/L m

response 960079547

gs 12/20/01

12/20/01

(+) = Expected Retention Time

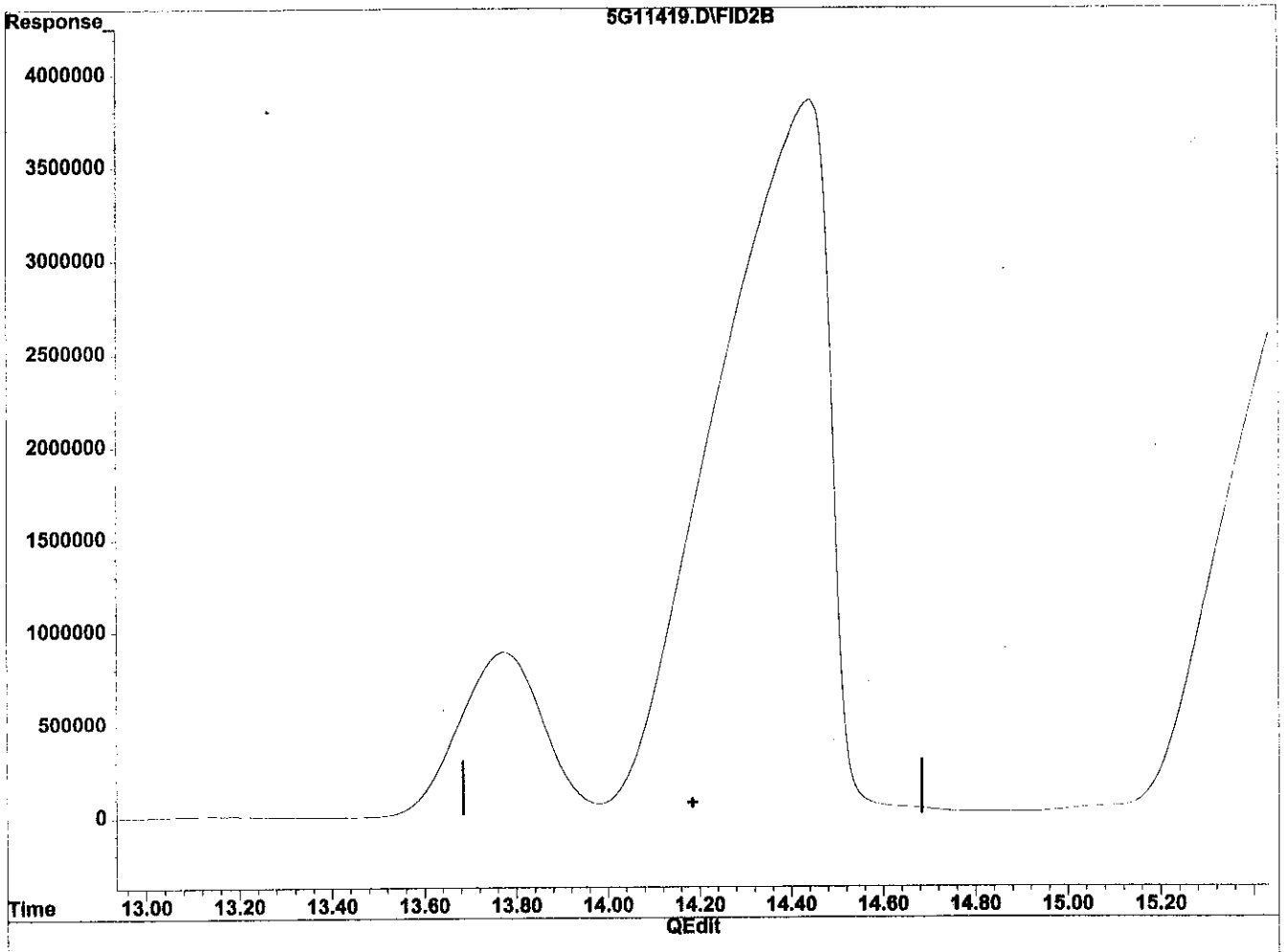
5G11419.D 8021W.M Thu Dec 20 11:23:58 2001

77

Quantitation Report

Data File : C:\HPCHEM\2\DATA\121901\5G11419.D Vial: 4
Acq On : 19 Dec 2001 15:51 Operator: CBN
Sample : L0112349-01 A 5ML Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 19 16:18 2001 Quant Results File: 8021W.RES

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration



(7) m-,p-Xylene (TM)

14.18min 0.000ug/L

response 0

(+) = Expected Retention Time

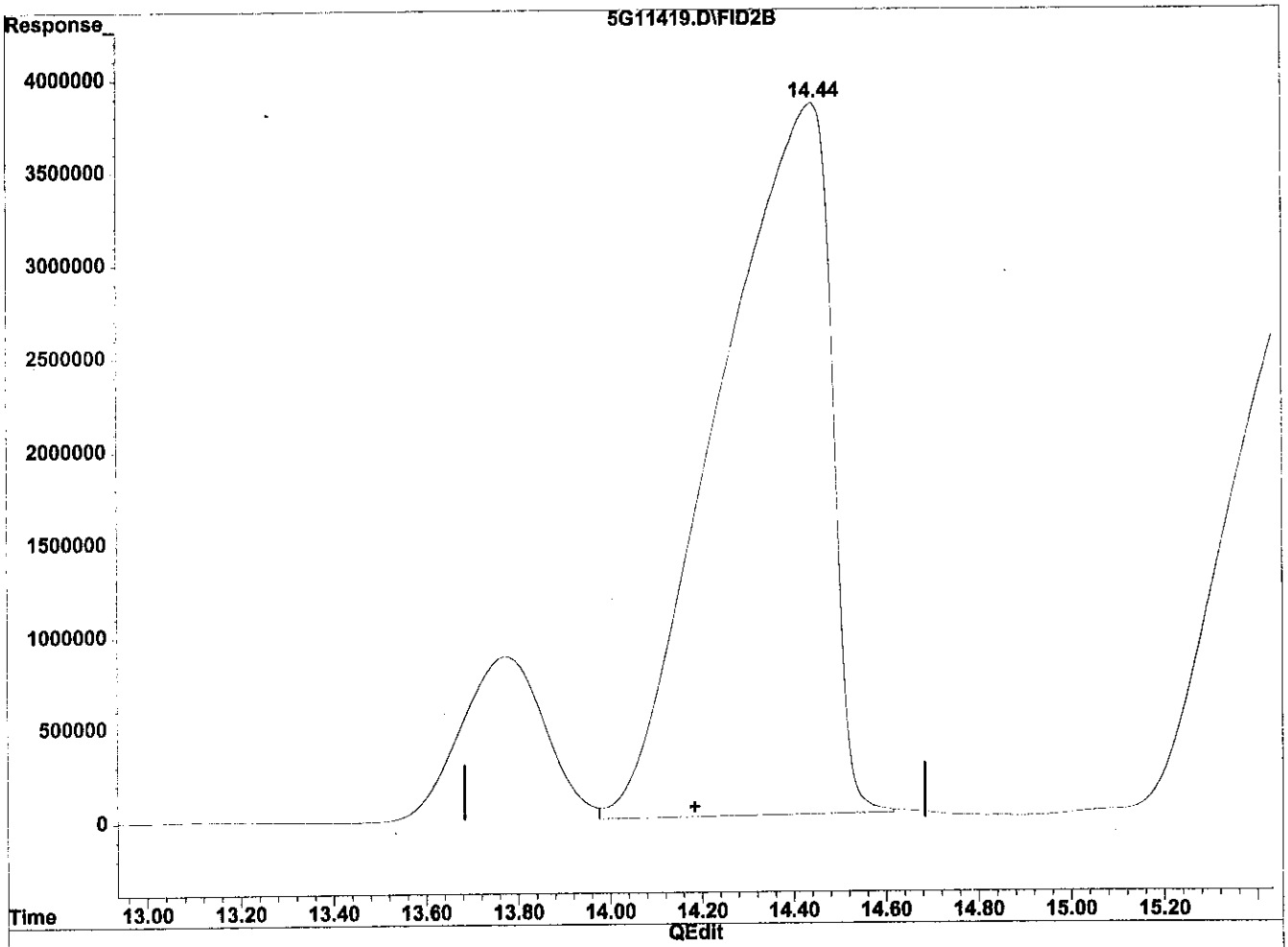
5G11419.D 8021W.M Thu Dec 20 11:24:04 2001

Quantitation Report

Data File : C:\HPCHEM\2\DATA\121901\5G11419.D
Acq On : 19 Dec 2001 15:51
Sample : L0112349-01 A 5ML
Misc : 1,1 S-87-26
IntFile : autoint1.e
Quant Time: Dec 19 16:18 2001 Quant Results File: 8021W.RES

Vial: 4
Operator: CBN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration



(7) m-,p-Xylene (TM)

14.44min 7648.020ug/L m

response 645952938

gb 12/20/01

12/20/01

(+) = Expected Retention Time

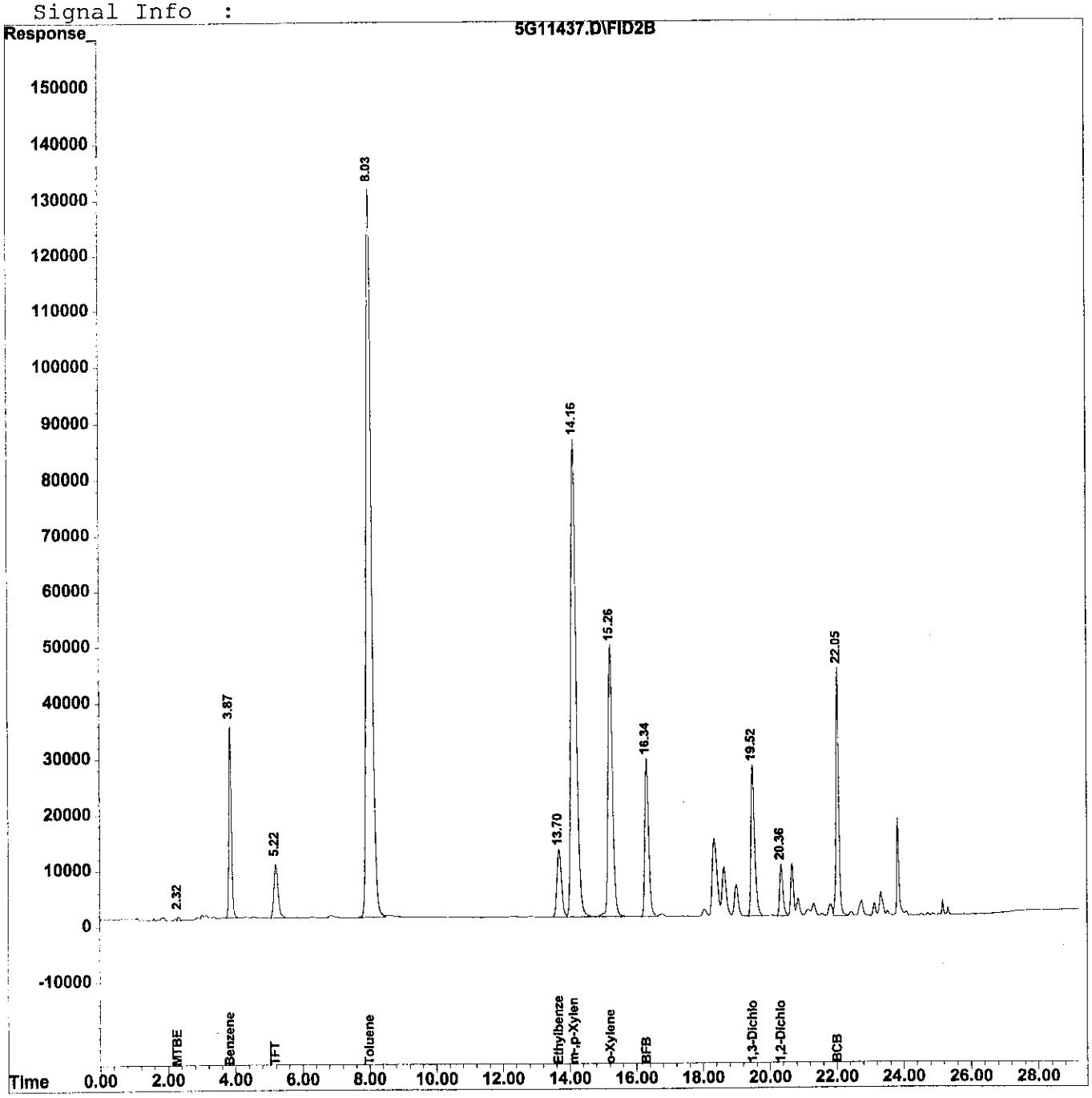
5G11419.D 8021W.M Thu Dec 20 11:24:14 2001

79

Data File : C:\HPCHEM\2\DATA\122001\5G11437.D Vial: 3
Acq On : 20 Dec 2001 14:45 Operator: jls
Sample : L0112349-01 B 100X 5ML pH<2 Inst : HP5
Misc : 1,100 S-87-26 Multiplr: 100.00
IntFile : autoint1.e
Quant Time: Dec 20 15:14 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\122001\5G11437.D
Acq On : 20 Dec 2001 14:45
Sample : L0112349-01 B 100X 5ML pH<2
Misc : 1,100 S-87-26
IntFile : autoint1.e
Quant Time: Dec 20 15:14 2001 Quant Results File: 8021W.RES

Vial: 3
Operator: jls
Inst : HP5
Multiplr: 100.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

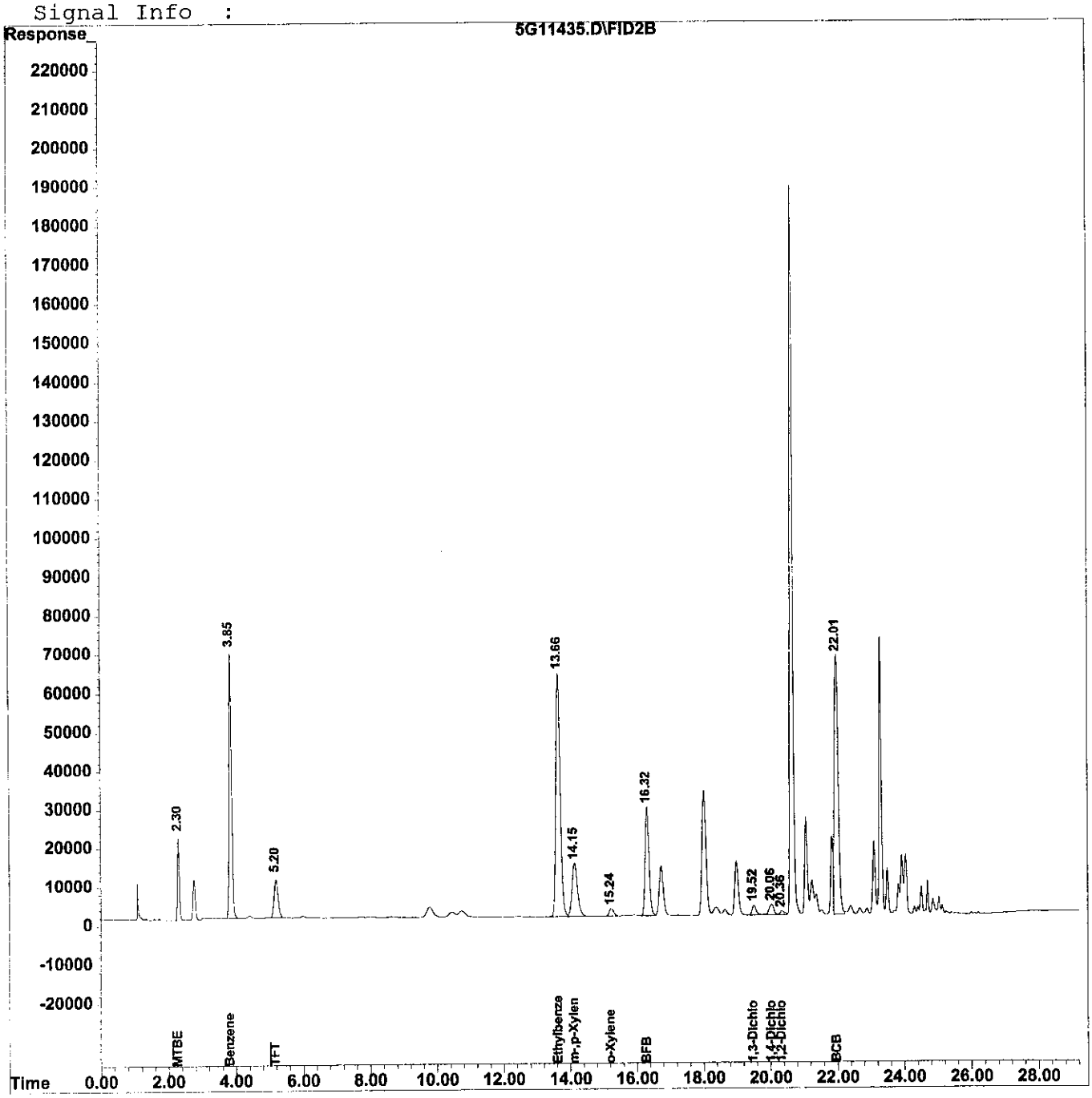
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.22	831805	30.8583 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	102.86%
9) S BFB	16.34	2289326	31.1723 ug/L
Spiked Amount 30.000		Recovery =	103.91%
13) S BCB	22.05	2480068	35.8744 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	119.58%
Target Compounds			
1) TM MTBE	2.32	30899	191.0062 ug/L
2) TM Benzene	3.87	1823830	2013.7499 ug/L
4) TM Toluene	8.03	14648372	17551.2833 ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	13.70	1139651	1589.2039 ug/L
7) TM m-,p-Xylene	14.16	9238871	10938.7340 ug/L
8) TM o-Xylene	15.26	4637663	6299.8205 ug/L
10) TM 1,3-Dichlorobenzene	19.52	2059602	2814.7168 ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	20.36	627907	1011.5029 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\122001\5G11435.D Vial: 4
Acq On : 20 Dec 2001 13:35 Operator: jls
Sample : L0112349-02 B 5ML Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 14:04 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\122001\5G11435.D
Acq On : 20 Dec 2001 13:35
Sample : L0112349-02 B 5ML
Misc : 1,1 S-87-26
IntFile : autoint1.e
Quant Time: Dec 20 14:04 2001 Quant Results File: 8021W.RES

Vial: 4
Operator: jls
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

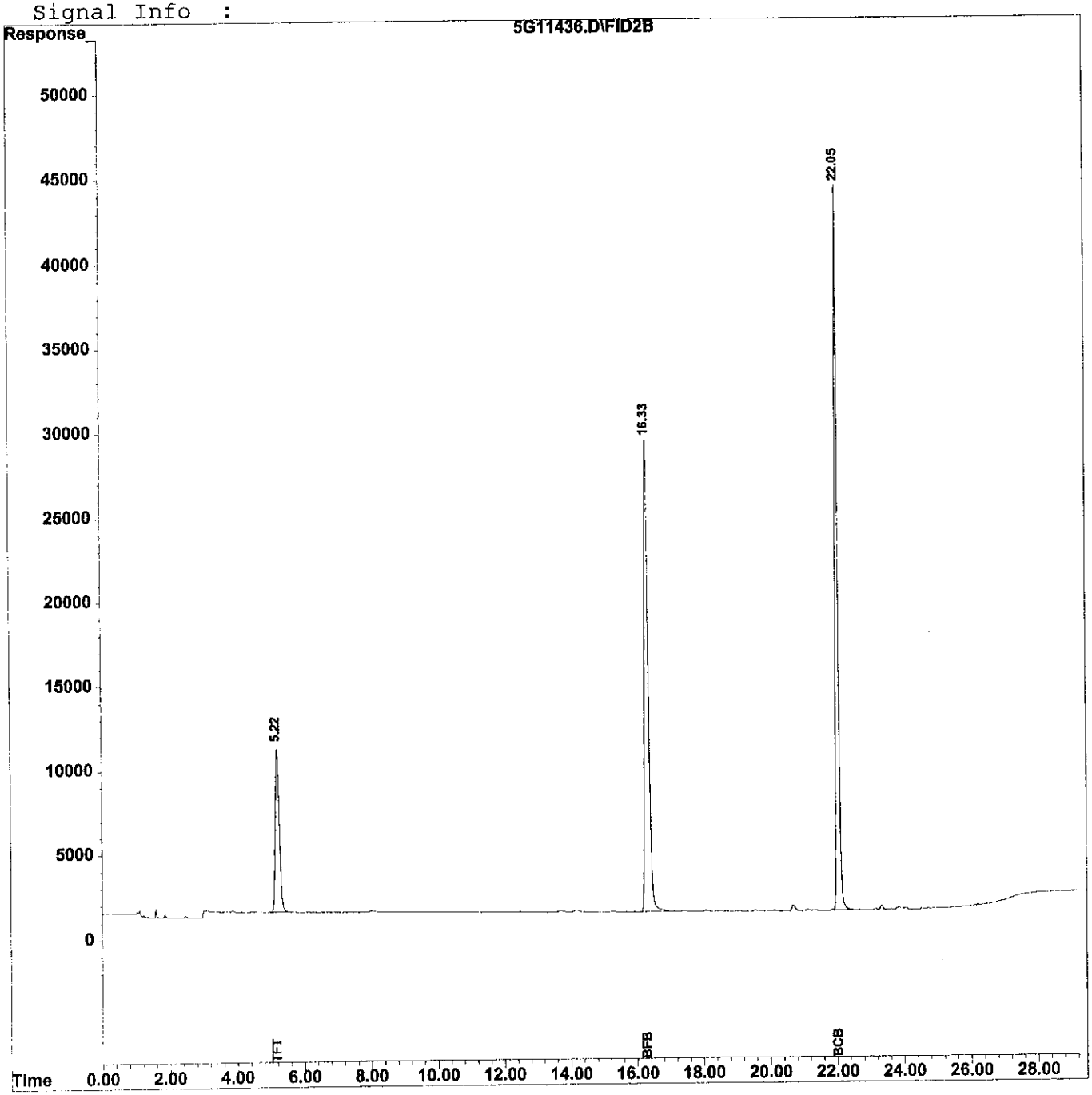
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.20	800386	29.6927 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	98.98%
9) S BFB	16.33	2259424	30.7651 ug/L
Spiked Amount 30.000		Recovery =	102.55%
13) S BCB	22.01	5490324	79.4180 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	264.73%#
Target Compounds			
1) TM MTBE	2.30	824318	50.9562 ug/L
2) TM Benzene	3.86	3532637	39.0050 ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	13.66	5877064	81.9536 ug/L
7) TM m-,p-Xylene	14.15	1571948	18.6117 ug/L
8) TM o-Xylene	15.25	175182	2.3797 ug/L
10) TM 1,3-Dichlorobenzene	19.52	201589	~~2.7550~~ ug/L
11) TM 1,4-Dichlorobenzene	20.06	262092	3~~.3920~~ ug/L
12) TM 1,2-Dichlorobenzene	20.36	88297	1.~~4224~~ ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\122001\5G11436.D Vial: 5
Acq On : 20 Dec 2001 14:10 Operator: jls
Sample : L0112349-03 B 5ML Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 14:39 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\122001\5G11436.D
Acq On : 20 Dec 2001 14:10
Sample : L0112349-03 B 5ML
Misc : 1,1 S-87-26
IntFile : autoint1.e
Quant Time: Dec 20 14:39 2001 Quant Results File: 8021W.RES

Vial: 5
Operator: jls
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.22	806860	29.9329 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	99.78%
9) S BFB	16.33	2291708	31.2047 ug/L
Spiked Amount 30.000		Recovery =	104.02%
13) S BCB	22.06	2258702	32.6723 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	108.91%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	20.70	23633	<MDL ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

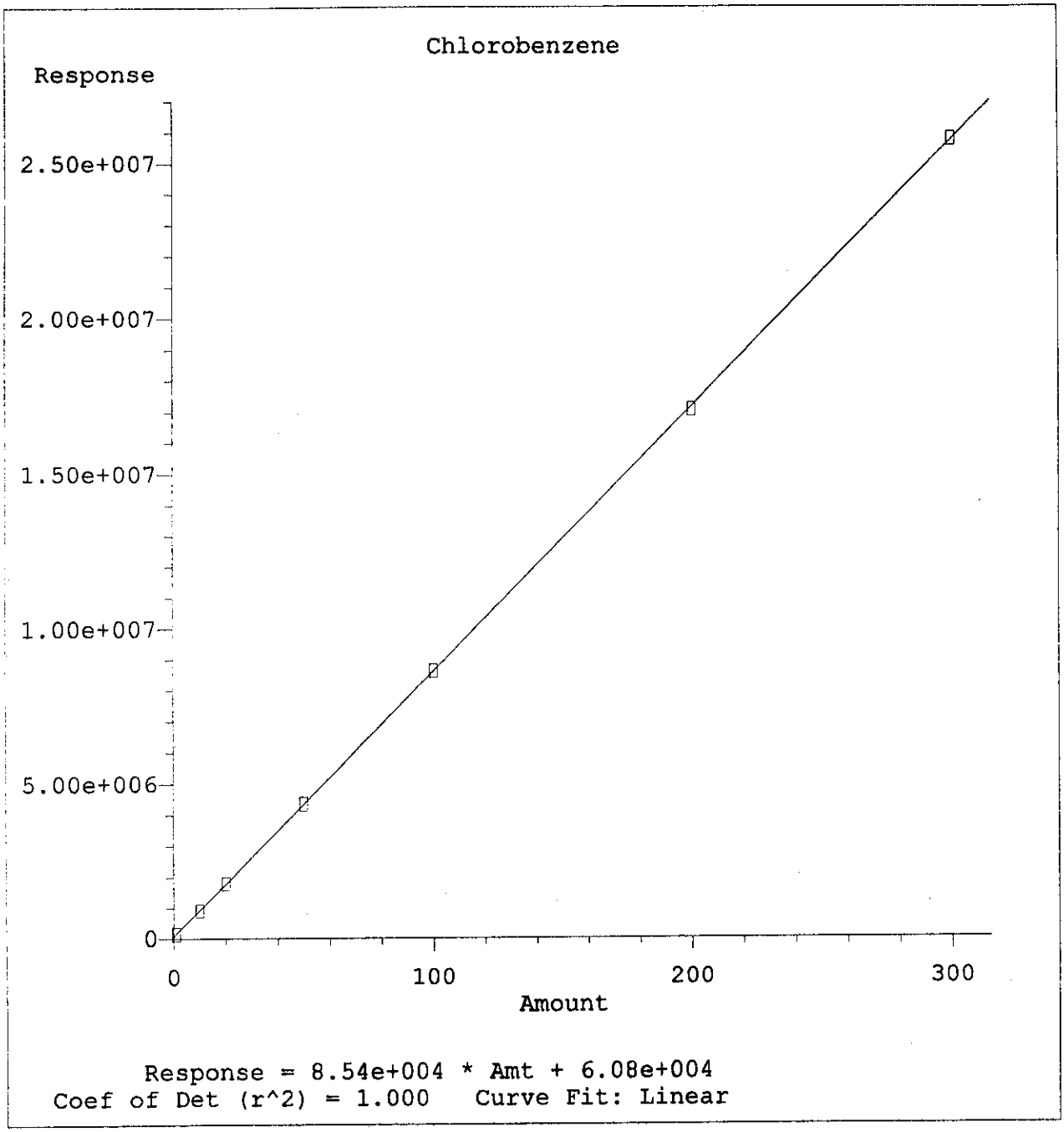
2.1.3.3 Standards Data

Calibration Table Report
Method: 8021W.M
Title: METHOD 8021B - Water - 11/19/01
Last Calibration: Mon Nov 19 14:58:57 2001

Calibration Files

Compound	1 5G10907.	10 5G10908.	20 5G10909.	50 5G10910.	100 5G10911.	200 5G10912.	300 5G10913.D	Avg	%RSD	
MTBE	17928.1	15757.4	15977.3	15705.6	16375.8	15833.7	15660.9	16177.0	5.002	
Benzene	99790.0	89314.0	90391.8	89213.1	89659.6	87758.8	87854.6	90568.9	4.609	
TFT	27514.0	26529.5	27740.5	27712.0	27569.2	27069.0	24555.3	26955.7	4.239	
Toluene	91223.3	82284.1	83471.4	81889.8	82269.7	80912.5	82171.9	83460.4	4.199	
Chlorobenzene	142785.6	90493.5	89103.4	87023.5	86260.6	85319.6	85791.8	95254.0	22.090	LR, 1.000
Ethylbenzene	76777.0	70859.6	71518.0	71121.0	70777.1	70298.7	70633.0	71712.1	3.160	
m-,p-Xylene	92261.5	83694.2	84557.0	83881.4	83175.9	81902.1	81749.0	84460.2	4.251	
o-Xylene	79222.9	72756.6	73618.4	72754.2	72631.0	72113.4	72214.0	73615.8	3.424	
BFB	76570.3	73113.5	74836.8	74862.6	74613.7	74295.4	65795.0	73441.1	4.796	
1,3-Dichlorobenzene	84334.7	69306.0	71664.7	70887.2	71839.3	71422.0	72754.5	73172.6	6.880	
1,4-Dichlorobenzene	89077.4	73163.6	76417.9	75588.1	76220.0	74531.6	75754.7	77250.5	6.905	
1,2-Dichlorobenzene	73100.2	61053.8	60836.5	59381.5	60314.3	59445.4	60404.8	62076.6	7.897	
BCB	74758.0	68514.5	69410.2	69067.1	69707.8	69797.3	62669.1	69132.0	5.102	

Mon Nov 19 15:13:16 2001



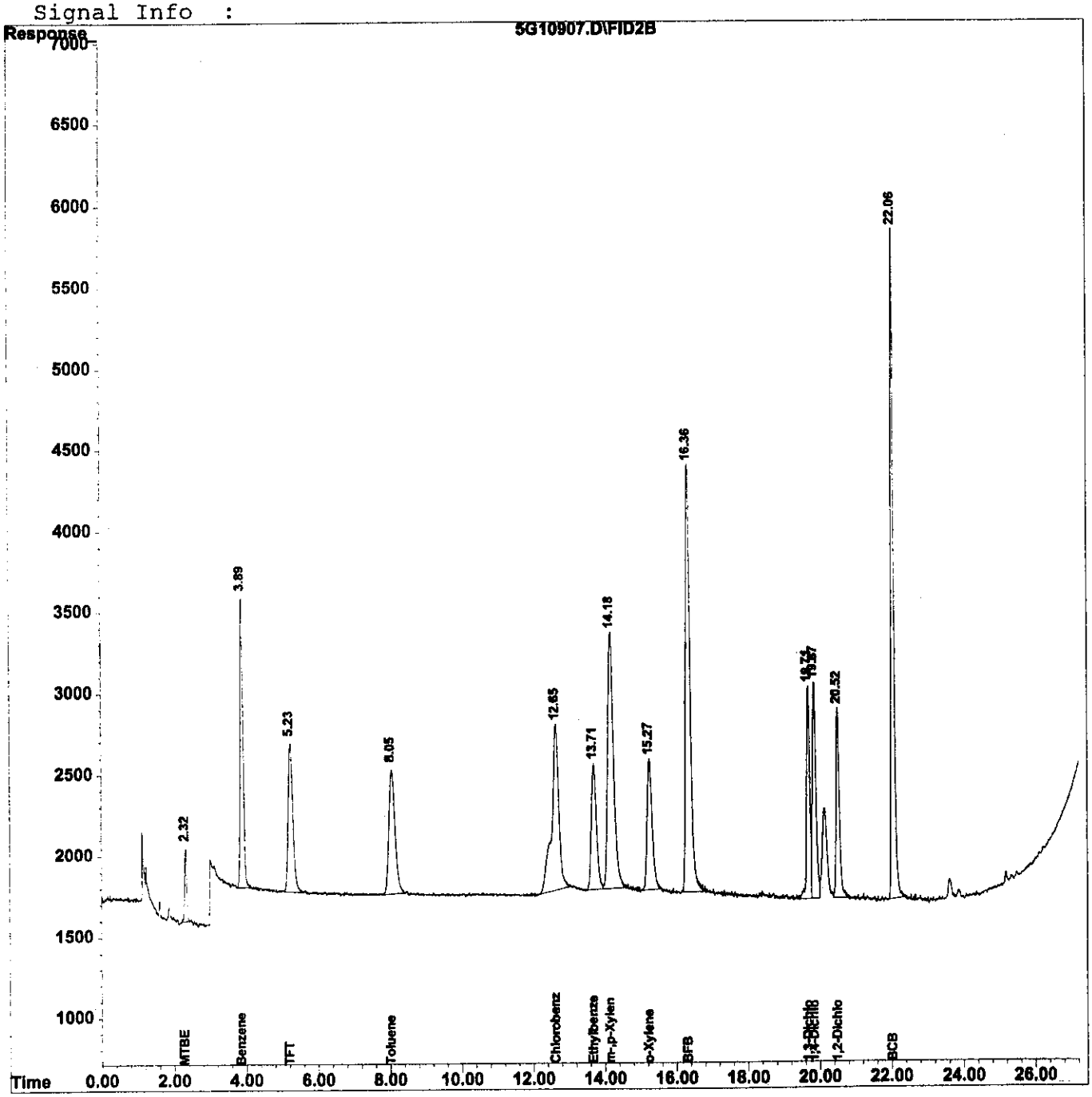
Method Name: C:\HPCHEM\2\METHODS\8021W.M
Calibration Table Last Updated: Mon Nov 19 14:59:08 2001

Quantitation Report

Data File : C:\HPCHEM\2\DATA\111901\5G10907.D Vial: 2
Acq On : 19 Nov 2001 11:13 Operator: JLS
Sample : WG108448-01 8021 STD1 1PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 11:41 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\111901\5G10907.D Vial: 2
Acq On : 19 Nov 2001 11:13 Operator: JLS
Sample : WG108448-01 8021 STD1 1PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 11:41 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

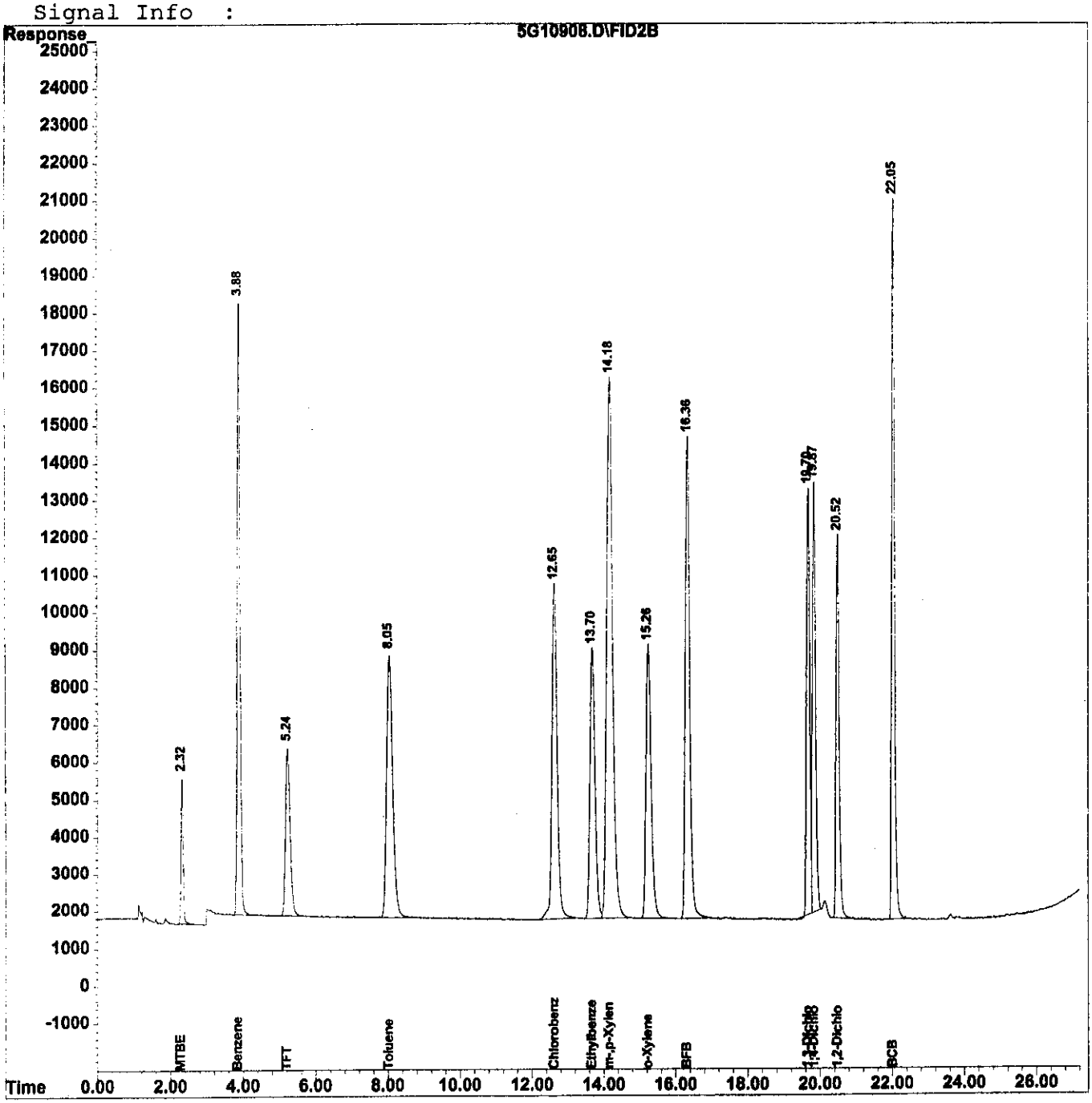
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.24	82542	2.4702 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 8.23%#			
9) S BFB	16.36	229711	2.5587 ug/L
Spiked Amount 30.000 Recovery = 8.53%			
13) S BCB	22.06	224274	2.5975 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 8.66%#			
Target Compounds			
1) TM MTBE	2.32	17928	0.9943 ug/L
2) TM Benzene	3.89	99790	0.9063 ug/L
4) TM Toluene	8.06	91223	0.9165 ug/L
5) TM Chlorobenzene	12.65	142786	1.3065 ug/L
6) TM Ethylbenzene	13.71	76777	0.8829 ug/L
7) TM m-,p-Xylene	14.19	184523	1.7994 ug/L
8) TM o-Xylene	15.27	79223	0.8834 ug/L
10) TM 1,3-Dichlorobenzene	19.71	84335	0.9627 ug/L
11) TM 1,4-Dichlorobenzene	19.87	89077	0.9549 ug/L
12) TM 1,2-Dichlorobenzene	20.52	73100	0.9737 ug/L

Quantitation Report

Data File : C:\HPCHEM\2\DATA\111901\5G10908.D Vial: 3
Acq On : 19 Nov 2001 11:46 Operator: JLS
Sample : WG108448-02 8021 STD2 10PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 12:13 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\111901\5G10908.D Vial: 3
Acq On : 19 Nov 2001 11:46 Operator: JLS
Sample : WG108448-02 8021 STD2 10PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 12:13 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

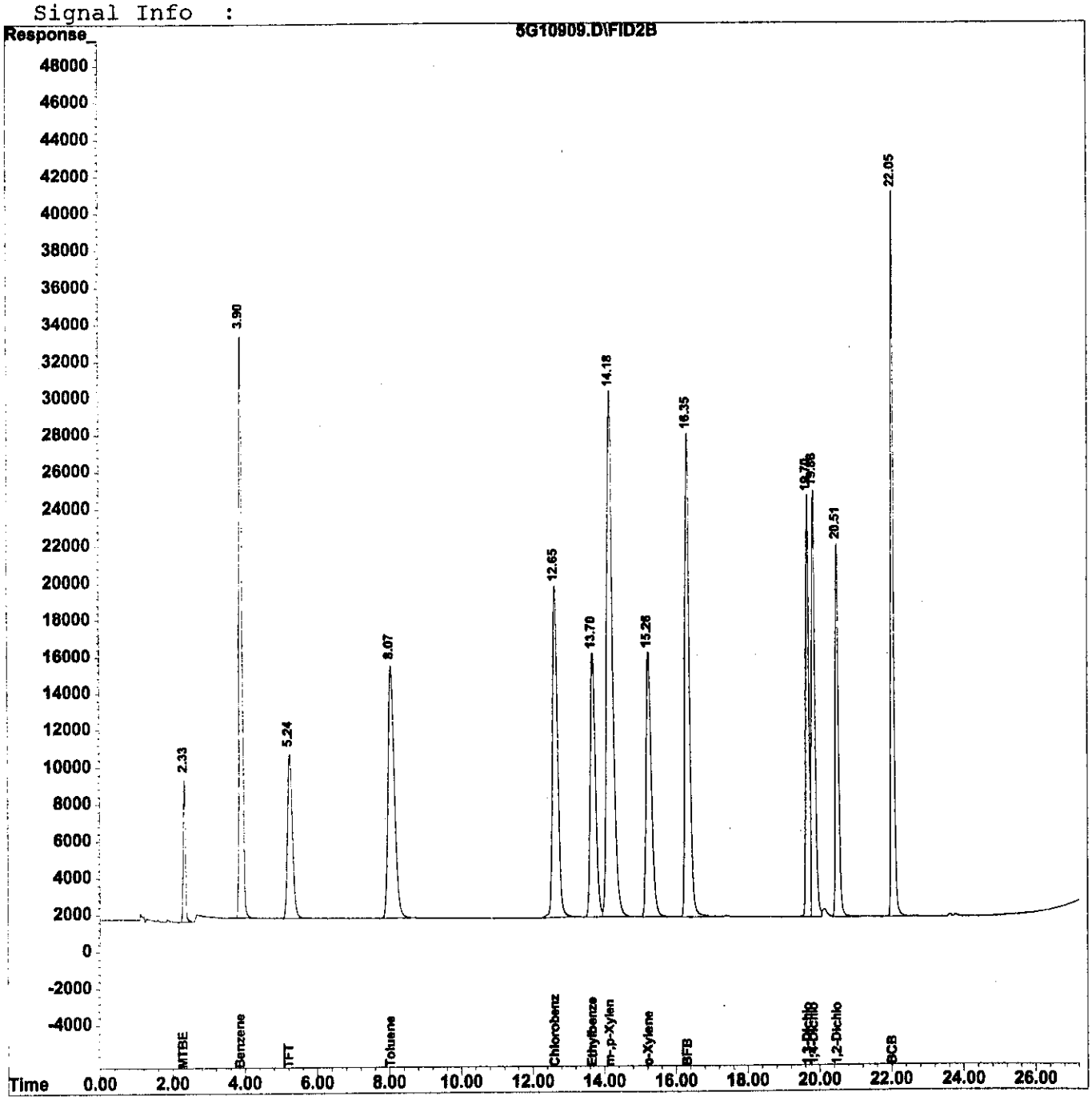
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.24	397943	11.9092 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 39.70%#			
9) S BFB	16.35	1096703	12.2158 ug/L
Spiked Amount 30.000 Recovery = 40.72%			
13) S BCB	22.06	1027717	11.9028 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 39.68%			
Target Compounds			
1) TM MTBE	2.32	157574	8.7393 ug/L
2) TM Benzene	3.88	893140	8.1115 ug/L
4) TM Toluene	8.06	822841	8.2666 ug/L
5) TM Chlorobenzene	12.65	904935	8.2803 ug/L
6) TM Ethylbenzene	13.71	708596	8.1481 ug/L
7) TM m-,p-Xylene	14.18	1673884	16.3233 ug/L
8) TM o-Xylene	15.26	727566	8.1133 ug/L
10) TM 1,3-Dichlorobenzene	19.70	693060	7.9112 ug/L
11) TM 1,4-Dichlorobenzene	19.87	731636	7.8430 ug/L
12) TM 1,2-Dichlorobenzene	20.52	610538	8.1327 ug/L

Quantitation Report

Data File : C:\HPCHEM\2\DATA\111901\5G10909.D Vial: 4
Acq On : 19 Nov 2001 12:18 Operator: JLS
Sample : WG108448-03 8021 STD3 20PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 12:45 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\111901\5G10909.D
Acq On : 19 Nov 2001 12:18
Sample : WG108448-03 8021 STD3 20PPB 5ML
Misc : 1,1 S-87-21,86-08
IntFile : autoint1.e
Quant Time: Nov 19 12:45 2001 Quant Results File: 8021W.RES

Vial: 4
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

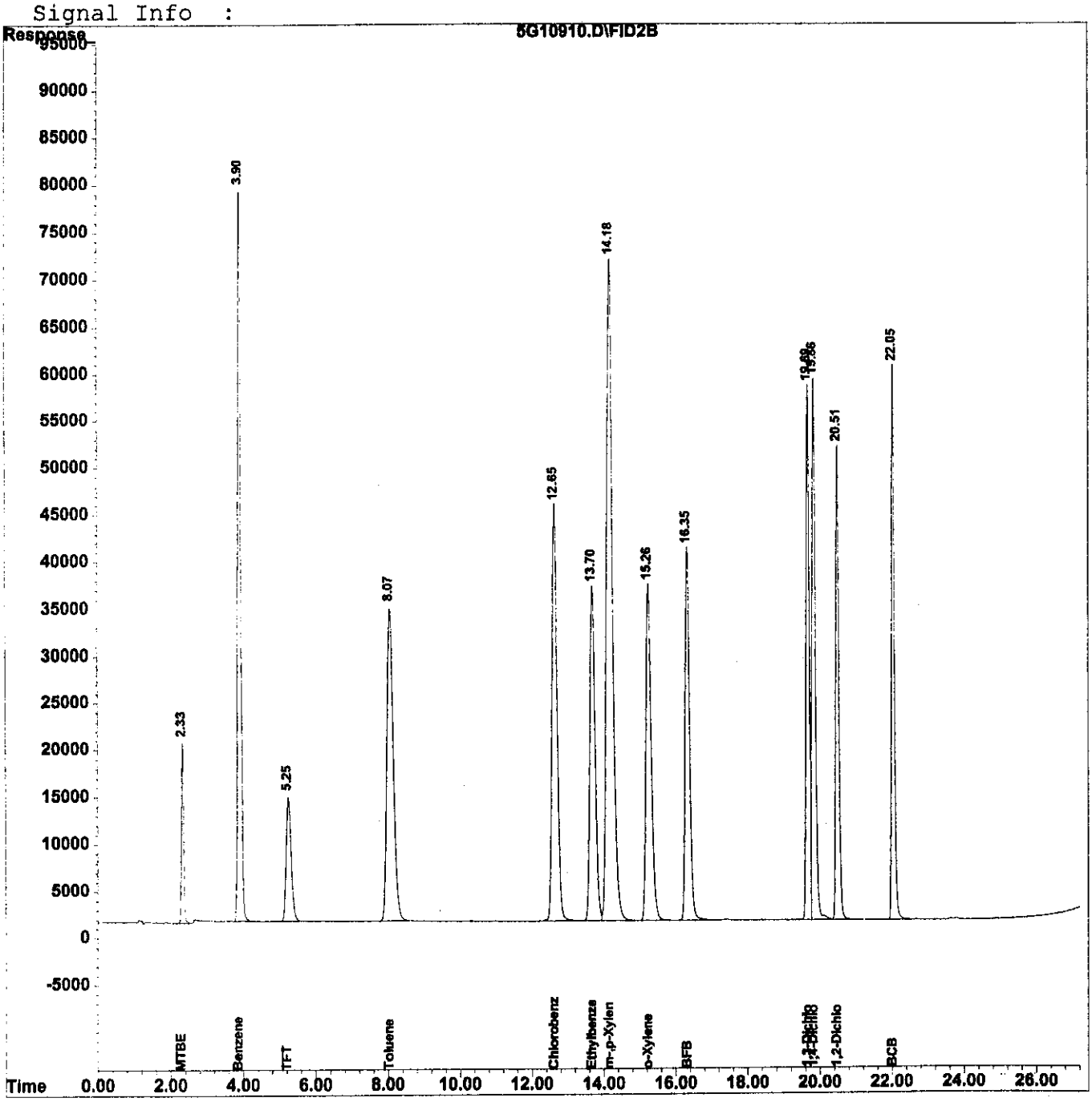
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.25	832216	24.9056 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	83.02%
9) S BFB	16.35	2245103	25.0073 ug/L
Spiked Amount 30.000		Recovery =	83.36%
13) S BCB	22.05	2082306	24.1168 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	80.39%
Target Compounds			
1) TM MTBE	2.33	319546	17.7224 ug/L
2) TM Benzene	3.90	1807837	16.4188 ug/L
4) TM Toluene	8.07	1669428	16.7717 ug/L
5) TM Chlorobenzene	12.65	1782068	16.3062 ug/L
6) TM Ethylbenzene	13.71	1430360	16.4476 ug/L
7) TM m-,p-Xylene	14.18	3382280	32.9831 ug/L
8) TM o-Xylene	15.27	1472367	16.4189 ug/L
10) TM 1,3-Dichlorobenzene	19.70	1433294	16.3610 ug/L
11) TM 1,4-Dichlorobenzene	19.86	1528358	16.3837 ug/L
12) TM 1,2-Dichlorobenzene	20.52	1216730	16.2075 ug/L

Quantitation Report

Data File : C:\HPCHEM\2\DATA\111901\5G10910.D Vial: 5
Acq On : 19 Nov 2001 12:50 Operator: JLS
Sample : WG108448-04 8021 STD4 50PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 13:18 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\111901\5G10910.D
Acq On : 19 Nov 2001 12:50
Sample : WG108448-04 8021 STD4 50PPB 5ML
Misc : 1,1 S-87-21,86-08
IntFile : autoint1.e
Quant Time: Nov 19 13:18 2001 Quant Results File: 8021W.RES

Vial: 5
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

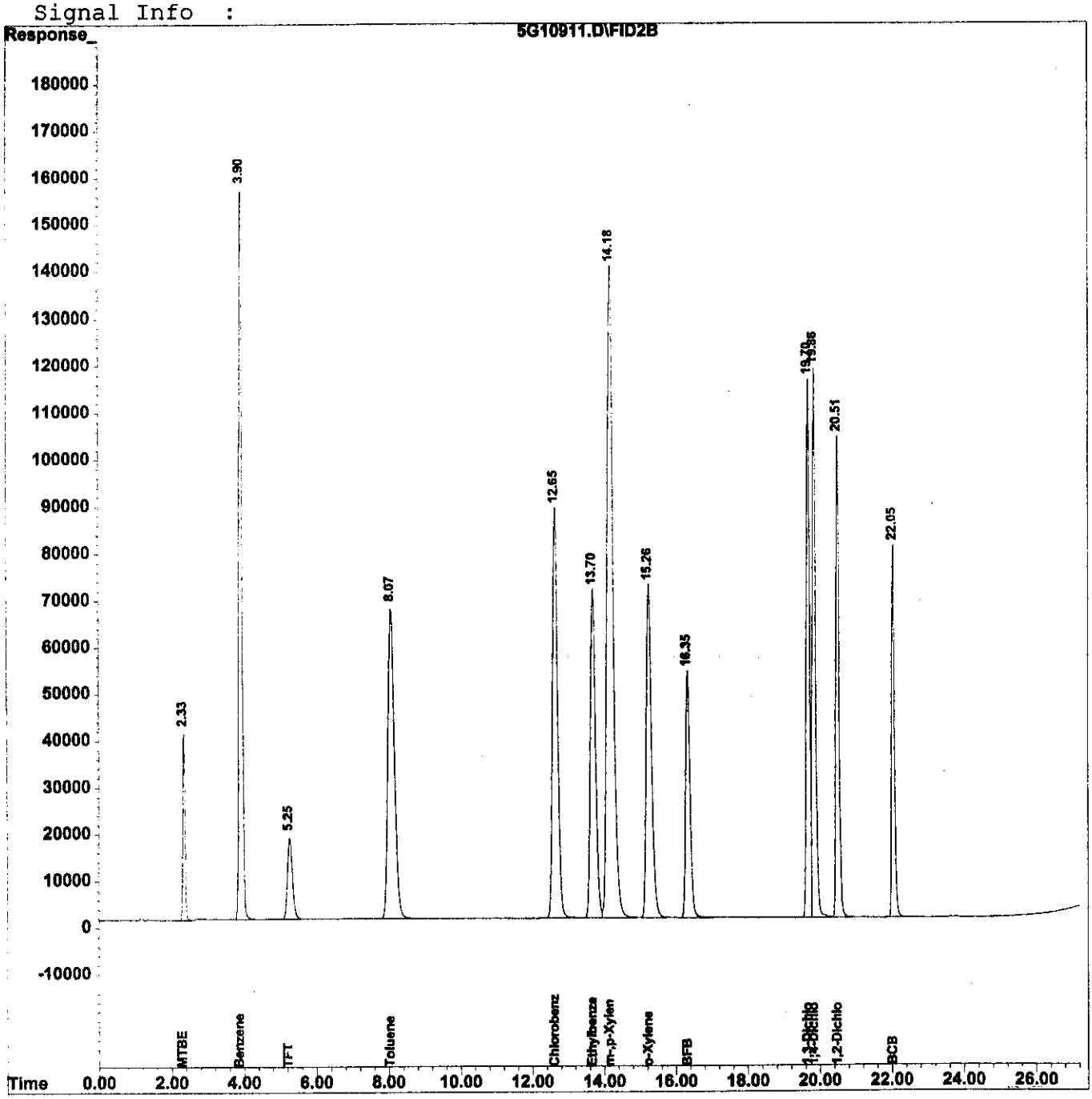
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.25	1247040	37.3200 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery	= 124.40%
9) S BFB	16.35	3368819	37.5240 ug/L
Spiked Amount 30.000		Recovery	= 125.08%
13) S BCB	22.05	3108021	35.9964 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery	= 119.99%
Target Compounds			
1) TM MTBE	2.33	785282	43.5527 ug/L
2) TM Benzene	3.90	4460656	40.5117 ug/L
4) TM Toluene	8.07	4094492	41.1349 ug/L
5) TM Chlorobenzene	12.65	4351173	39.8140 ug/L
6) TM Ethylbenzene	13.71	3556049	40.8906 ug/L
7) TM m-,p-Xylene	14.18	8388144	81.7989 ug/L
8) TM o-Xylene	15.26	3637711	40.5654 ug/L
10) TM 1,3-Dichlorobenzene	19.70	3544360	40.4586 ug/L
11) TM 1,4-Dichlorobenzene	19.86	3779403	40.5146 ug/L
12) TM 1,2-Dichlorobenzene	20.51	2969073	39.5496 ug/L

Quantitation Report

Data File : C:\HPCHEM\2\DATA\111901\5G10911.D Vial: 6
Acq On : 19 Nov 2001 13:23 Operator: JLS
Sample : WG108448-05 8021 STD5 100PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 13:50 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\111901\5G10911.D
Acq On : 19 Nov 2001 13:23
Sample : WG108448-05 8021 STD5 100PPB 5ML
Misc : 1,1 S-87-21,86-08
IntFile : autoint1.e
Quant Time: Nov 19 13:50 2001 Quant Results File: 8021W.RES

Vial: 6
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.25	1654151	49.5036 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	165.01%#
9) S BFB	16.35	4476824	49.8656 ug/L
Spiked Amount 30.000		Recovery =	166.22%
13) S BCB	22.05	4182469	48.4405 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	161.47%#
Target Compounds			
1) TM MTBE	2.33	1637578	90.8221 ug/L
2) TM Benzene	3.90	8965963	81.4289 ug/L
4) TM Toluene	8.07	8226969	82.6514 ug/L
5) TM Chlorobenzene	12.65	8626062	78.9300 ug/L
6) TM Ethylbenzene	13.71	7077705	81.3858 ug/L
7) TM m-,p-Xylene	14.18	16635172	162.2216 ug/L
8) TM o-Xylene	15.26	7263099	80.9933 ug/L
10) TM 1,3-Dichlorobenzene	19.70	7183927	82.0041 ug/L
11) TM 1,4-Dichlorobenzene	19.86	7621999	81.7065 ug/L
12) TM 1,2-Dichlorobenzene	20.52	6031432	80.3417 ug/L

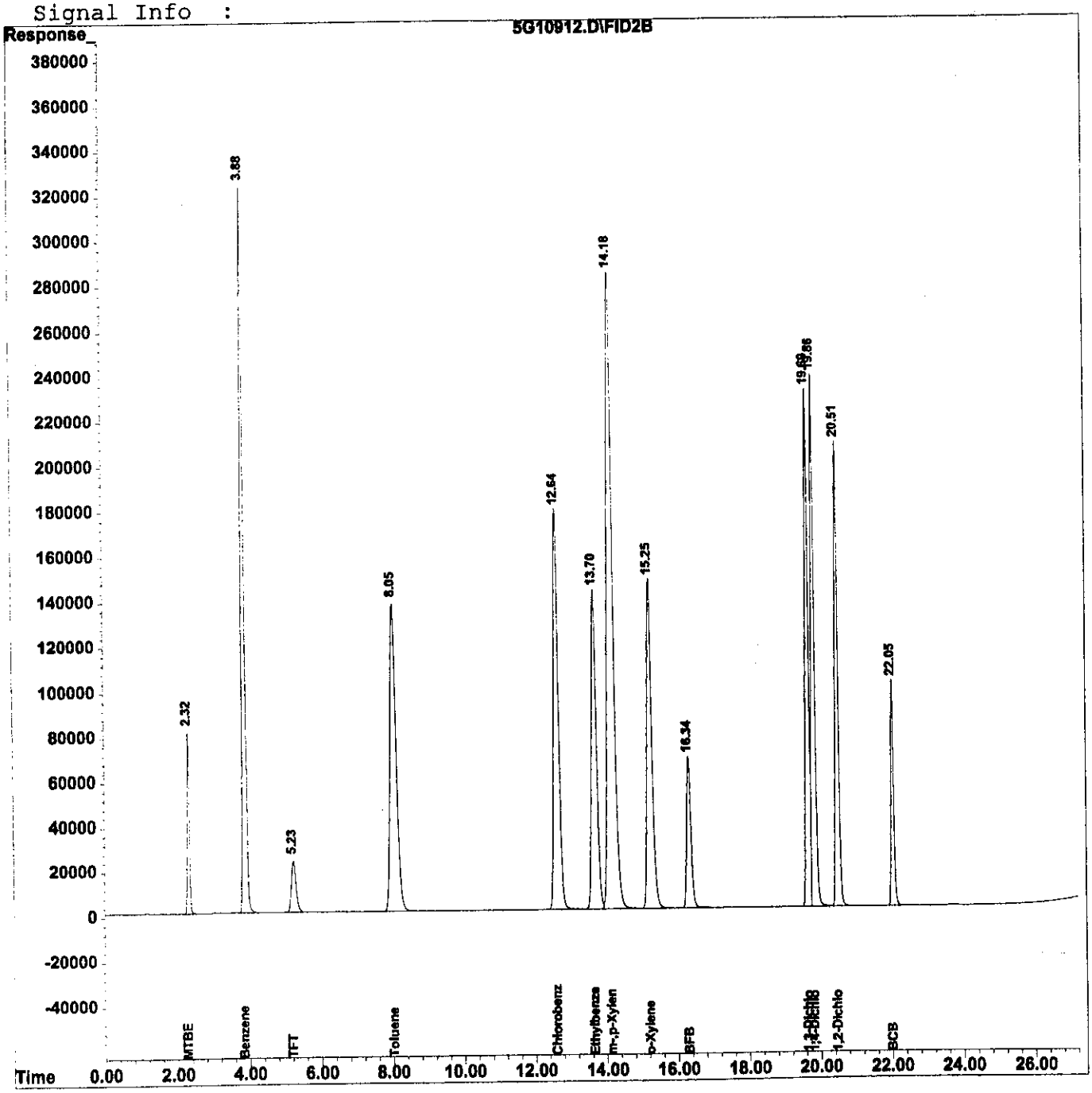
Quantitation Report

Data File : C:\HPCHEM\2\DATA\111901\5G10912.D
Acq On : 19 Nov 2001 13:55
Sample : WG108448-06 8021 STD6 200PPB 5ML
Misc : 1,1 S-87-21,86-08
IntFile : autoint1.e
Quant Time: Nov 19 14:22 2001 Quant Results File: 8021W.RES

Vial: 7
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\111901\5G10912.D Vial: 7
Acq On : 19 Nov 2001 13:55 Operator: JLS
Sample : WG108448-06 8021 STD6 200PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 14:22 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

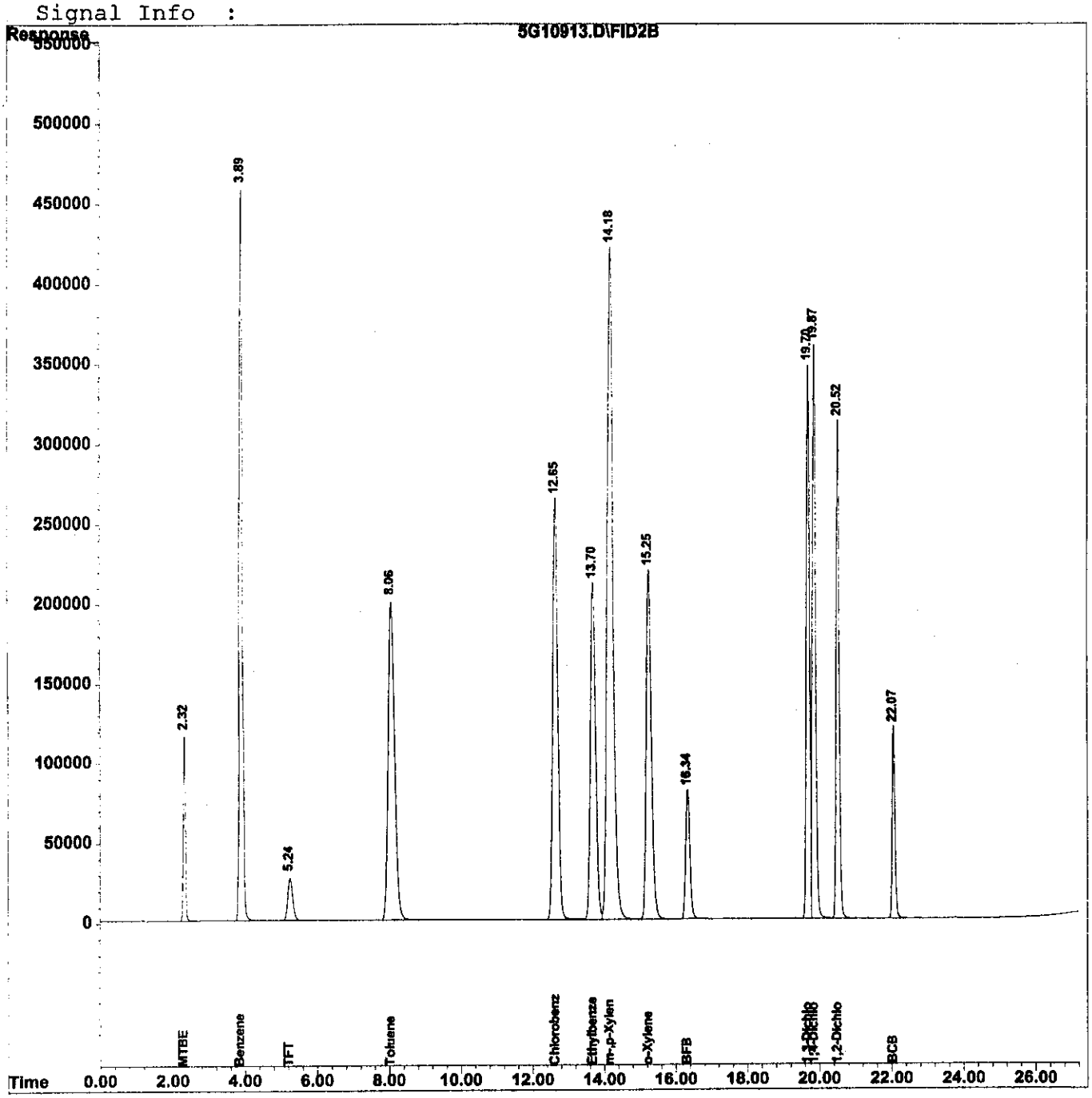
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.24	2030172	60.7567 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 202.52%#			
9) S BFB	16.34	5572156	62.0661 ug/L
Spiked Amount 30.000 Recovery = 206.89%			
13) S BCB	22.05	5234796	60.6283 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 202.09%#			
Target Compounds			
1) TM MTBE	2.32	3166735	175.6310 ug/L
2) TM Benzene	3.88	17551755	159.4050 ug/L
4) TM Toluene	8.05	16182507	162.5758 ug/L
5) TM Chlorobenzene	12.64	17063927	156.1380 ug/L
6) TM Ethylbenzene	13.70	14059739	161.6715 ug/L
7) TM m-,p-Xylene	14.18	32760829	319.4745 ug/L
8) TM o-Xylene	15.26	14422682	160.8322 ug/L
10) TM 1,3-Dichlorobenzene	19.69	14284390	163.0554 ug/L
11) TM 1,4-Dichlorobenzene	19.86	14906319	159.7932 ug/L
12) TM 1,2-Dichlorobenzene	20.51	11889074	158.3685 ug/L

Quantitation Report

Data File : C:\HPCHEM\2\DATA\111901\5G10913.D Vial: 8
Acq On : 19 Nov 2001 14:27 Operator: JLS
Sample : WG108448-07 8021 STD7 300PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 14:54 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:23:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\111901\5G10913.D Vial: 8
Acq On : 19 Nov 2001 14:27 Operator: JLS
Sample : WG108448-07 8021 STD7 300PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 14:54 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:23:13 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.25	2455534	89.7631 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery = 299.21%#	
9) S BFB	16.34	6579502	88.0609 ug/L
Spiked Amount 30.000		Recovery = 293.54%	
13) S BCB	22.07	6266914	89.2606 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery = 297.54%#	
Target Compounds			
1) TM MTBE	2.32	4698275	288.8936 ug/L
2) TM Benzene	3.89	26356370	289.5629 ug/L
4) TM Toluene	8.06	24651577	294.6105 ug/L
5) TM Chlorobenzene	12.65	25737550	265.7986 ug/L
6) TM Ethylbenzene	13.70	21189913	294.7469 ug/L
7) TM m-,p-Xylene	14.18	49049393	577.6494 ug/L
8) TM o-Xylene	15.26	21664212	293.3566 ug/L
10) TM 1,3-Dichlorobenzene	19.70	21826356	298.0020 ug/L
11) TM 1,4-Dichlorobenzene	19.87	22726422	293.2451 ug/L
12) TM 1,2-Dichlorobenzene	20.52	18121438	290.6159 ug/L

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\111901\5G10915.D
Acq On : 19 Nov 2001 15:43
Sample : WG108448-08 ALT SOURCE 20PPB 5ML
Misc : 1,1 S-86-13,86-08
IntFile : autoint1.e

Vial: 10
Operator: JLS
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	16.177	15.889 E3	1.8	99	-0.02
2	TM	Benzene	90.569	89.138 E3	1.6	99	-0.03
3	S	TFT	26.956	29.628 E3	-9.9	107	-0.03
4	TM	Toluene	83.460	82.597 E3	1.0	99	-0.04
5	TM	Chlorobenzene	95.254	87.667 E3	8.0	98	-0.03
6	TM	Ethylbenzene	71.712	72.642 E3	-1.3	102	-0.03
7	TM	m-,p-Xylene	84.460	84.130 E3	0.4	99	-0.02
8	TM	o-Xylene	73.616	72.079 E3	2.1	98	-0.02
9	S	BFB	73.441	80.713 E3	-9.9	108	-0.02
10	TM	1,3-Dichlorobenzene	73.173	72.182 E3	1.4	101	0.00
11	TM	1,4-Dichlorobenzene	77.250	76.625 E3	0.8	100	0.00
12	TM	1,2-Dichlorobenzene	62.077	61.812 E3	0.4	102	0.00
13	S	BCB	69.132	77.107 E3	-11.5	111	0.00

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\111901\5G10915.D Vial: 10
Acq On : 19 Nov 2001 15:43 Operator: JLS
Sample : WG108448-08 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-86-13,86-08 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

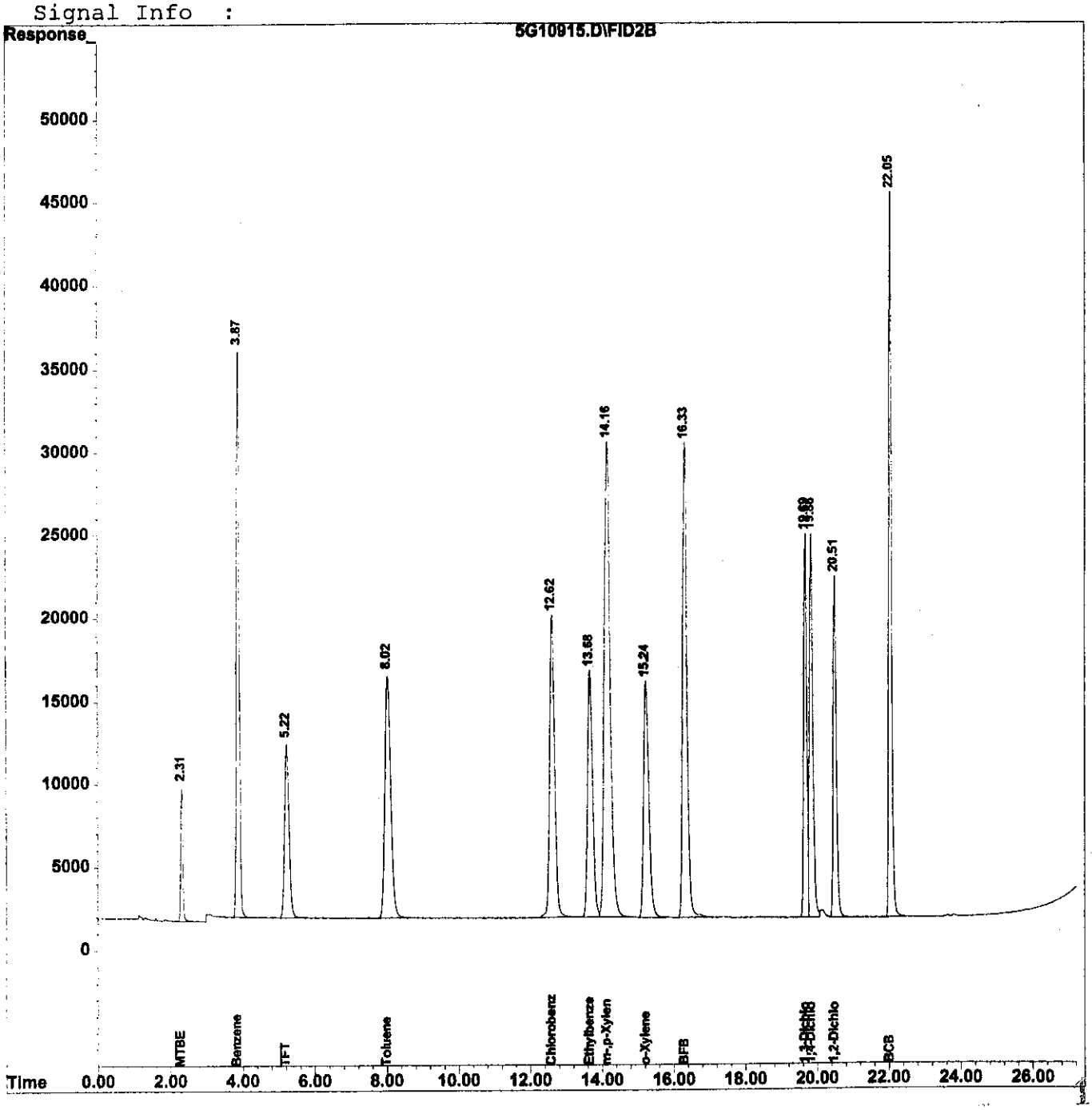
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	19.644	1.8	99	-0.02
2	TM	Benzene	20.000	19.684	1.6	99	-0.03
3	S	TFT	30.000	32.974	-9.9	107	-0.03
4	TM	Toluene	20.000	19.793	1.0	99	-0.04
5	TM	Chlorobenzene	20.000	19.810	1.0	98	-0.03
6	TM	Ethylbenzene	20.000	20.259	-1.3	102	-0.03
7	TM	m-,p-Xylene	40.000	39.843	0.4	99	-0.02
8	TM	o-Xylene	20.000	19.583	2.1	98	-0.02
9	S	BFB	30.000	32.971	-9.9	108	-0.02
10	TM	1,3-Dichlorobenzene	20.000	19.729	1.4	101	0.00
11	TM	1,4-Dichlorobenzene	20.000	19.838	0.8	100	0.00
12	TM	1,2-Dichlorobenzene	20.000	19.915	0.4	102	0.00
13	S	BCB	30.000	33.461	-11.5	111	0.00

Quantitation Report

Data File : C:\HPCHEM\2\DATA\111901\5G10915.D Vial: 10
Acq On : 19 Nov 2001 15:43 Operator: JLS
Sample : WG108448-08 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-86-13,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 16:10 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\111901\5G10915.D Vial: 10
Acq On : 19 Nov 2001 15:43 Operator: JLS
Sample : WG108448-08 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-86-13,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 16:10 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.22	888839	32.9741 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery = 109.91%	
9) S BFB	16.33	2421389	32.9705 ug/L
Spiked Amount 30.000		Recovery = 109.90%	
13) S BCB	22.05	2313207	33.4607 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery = 111.54%	
Target Compounds			
1) TM MTBE	2.31	317779	19.6439 ug/L
2) TM Benzene	3.87	1782757	19.6840 ug/L
4) TM Toluene	8.03	1651945	19.7932 ug/L
5) TM Chlorobenzene	12.62	1753330	19.8102 ug/L
6) TM Ethylbenzene	13.68	1452834	20.2593 ug/L
7) TM m-,p-Xylene	14.16	3365188	39.8435 ug/L
8) TM o-Xylene	15.25	1441583	19.5825 ug/L
10) TM 1,3-Dichlorobenzene	19.69	1443632	19.7291 ug/L
11) TM 1,4-Dichlorobenzene	19.86	1532501	19.8381 ug/L
12) TM 1,2-Dichlorobenzene	20.51	1236239	19.9147 ug/L

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\121901\5G11404.D Vial: 1
Acq On : 19 Dec 2001 7:12 Operator: CBN
Sample : WG110251-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	16.177	15.177 E3	6.2	95	-0.05
2	TM	Benzene	90.569	85.015 E3	6.1	94	-0.08
3	S	TFT	26.956	27.188 E3	-0.9	98	-0.10
4	TM	Toluene	83.460	78.558 E3	5.9	94	-0.15
5	TM	Chlorobenzene	95.254	82.835 E3	13.0	93	-0.13
6	TM	Ethylbenzene	71.712	69.266 E3	3.4	97	-0.12
7	TM	m-,p-Xylene	84.460	80.800 E3	4.3	96	-0.12
8	TM	o-Xylene	73.616	68.937 E3	6.4	94	-0.11
9	S	BFB	73.441	75.278 E3	-2.5	101	-0.11
10	TM	1,3-Dichlorobenzene	73.173	70.149 E3	4.1	98	-0.07
11	TM	1,4-Dichlorobenzene	77.250	72.964 E3	5.5	95	-0.07
12	TM	1,2-Dichlorobenzene	62.077	59.560 E3	4.1	98	-0.07
13	S	BCB	69.132	70.840 E3	-2.5	102	-0.06

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G11404.D 8021W.M Wed Dec 19 08:55:46 2001 Page 107

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\121901\5G11404.D Vial: 1
Acq On : 19 Dec 2001 7:12 Operator: CBN
Sample : WG110251-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration

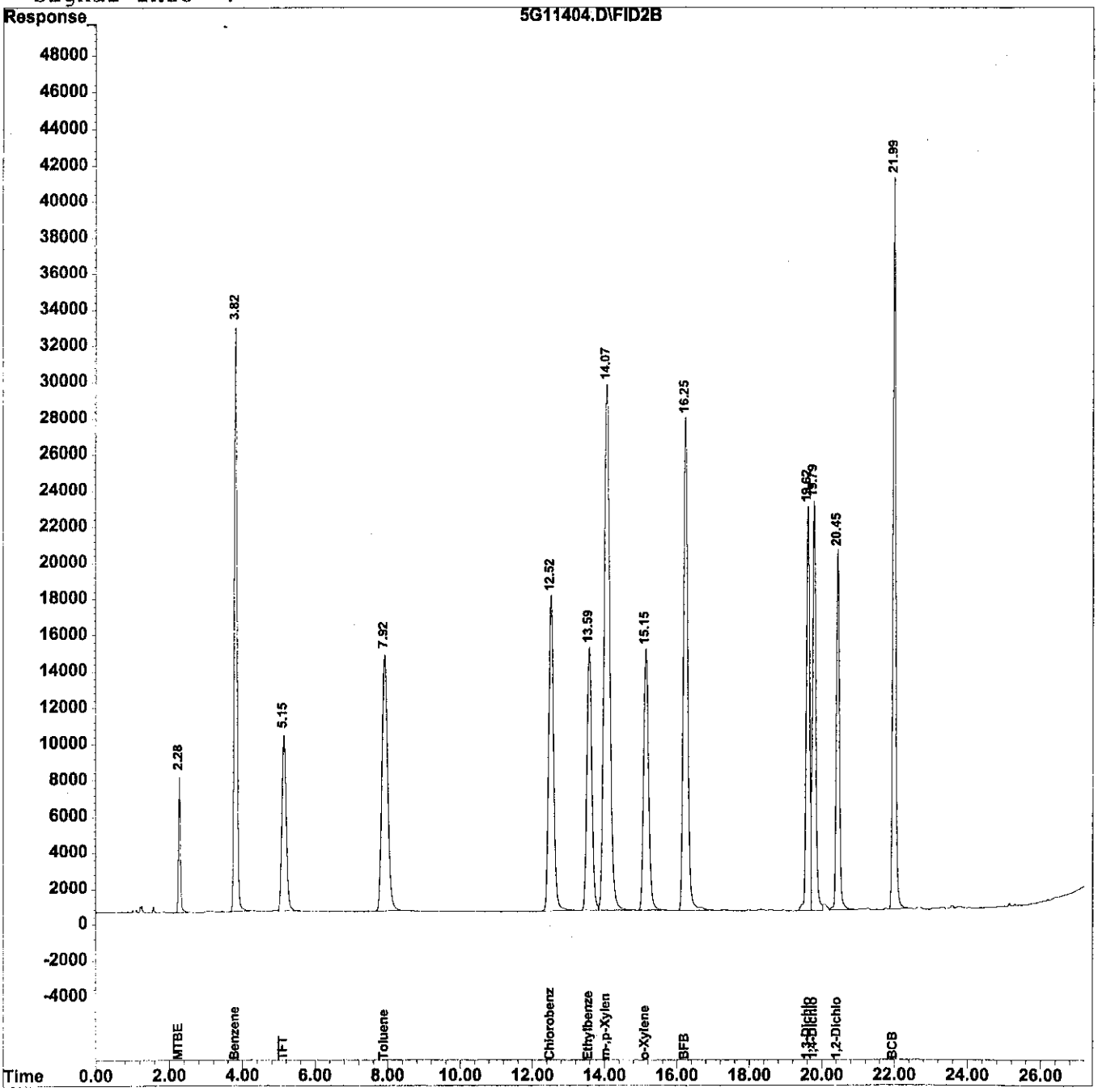
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.763	6.2	95	-0.05
2	TM	Benzene	20.000	18.774	6.1	94	-0.08
3	S	TFT	30.000	30.259	-0.9	98	-0.10
4	TM	Toluene	20.000	18.825	5.9	94	-0.15
5	TM	Chlorobenzene	20.000	18.679	6.6	93	-0.13
6	TM	Ethylbenzene	20.000	19.318	3.4	97	-0.12
7	TM	m-,p-Xylene	40.000	38.267	4.3	96	-0.12
8	TM	o-Xylene	20.000	18.729	6.4	94	-0.11
9	S	BFB	30.000	30.750	-2.5	101	-0.11
10	TM	1,3-Dichlorobenzene	20.000	19.174	4.1	98	-0.07
11	TM	1,4-Dichlorobenzene	20.000	18.890	5.5	95	-0.07
12	TM	1,2-Dichlorobenzene	20.000	19.189	4.1	98	-0.07
13	S	BCB	30.000	30.741	-2.5	102	-0.06

Data File : C:\HPCHEM\2\DATA\121901\5G11404.D Vial: 1
Acq On : 19 Dec 2001 7:12 Operator: CBN
Sample : WG110251-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 19 7:39 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\121901\5G11404.D Vial: 1
Acq On : 19 Dec 2001 7:12 Operator: CBN
Sample : WG110251-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 19 7:39 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.15	815653	30.2591 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 100.86%			
9) S BFB	16.25	2258333	30.7503 ug/L
Spiked Amount 30.000 Recovery = 102.50%			
13) S BCB	22.00	2125195	30.7411 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 102.47%			
Target Compounds			
1) TM MTBE	2.28	303537	18.7635 ug/L
2) TM Benzene	3.82	1700309	18.7737 ug/L
4) TM Toluene	7.92	1571159	18.8252 ug/L
5) TM Chlorobenzene	12.52	1656696	18.6792 ug/L
6) TM Ethylbenzene	13.59	1385313	19.3177 ug/L
7) TM m-,p-Xylene	14.07	3231997	38.2665 ug/L
8) TM o-Xylene	15.15	1378743	18.7289 ug/L
10) TM 1,3-Dichlorobenzene	19.63	1402983	19.1736 ug/L
11) TM 1,4-Dichlorobenzene	19.79	1459272	18.8901 ug/L
12) TM 1,2-Dichlorobenzene	20.45	1191198	19.1891 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\121901\5G11415.D Vial: 9
Acq On : 19 Dec 2001 13:28 Operator: CBN
Sample : WG110251-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	17.760	11.2	90	-0.02
2	TM	Benzene	20.000	17.818	10.9	89	-0.04
3	S	TFT	30.000	30.694	-2.3	99	-0.04
4	TM	Toluene	20.000	17.784	11.1	89	-0.06
5	TM	Chlorobenzene	20.000	17.362	13.2	87	-0.04
6	TM	Ethylbenzene	20.000	18.229	8.9	91	-0.04
7	TM	m-,p-Xylene	40.000	35.799	10.5	89	-0.03
8	TM	o-Xylene	20.000	17.525	12.4	88	-0.03
9	S	BFB	30.000	31.303	-4.3	102	-0.03
10	TM	1,3-Dichlorobenzene	20.000	17.641	11.8	90	-0.01
11	TM	1,4-Dichlorobenzene	20.000	17.894	10.5	90	0.00
12	TM	1,2-Dichlorobenzene	20.000	18.216	8.9	93	0.00
13	S	BCB	30.000	32.503	-8.3	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\121901\5G11415.D Vial: 9
Acq On : 19 Dec 2001 13:28 Operator: CBN
Sample : WG110251-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

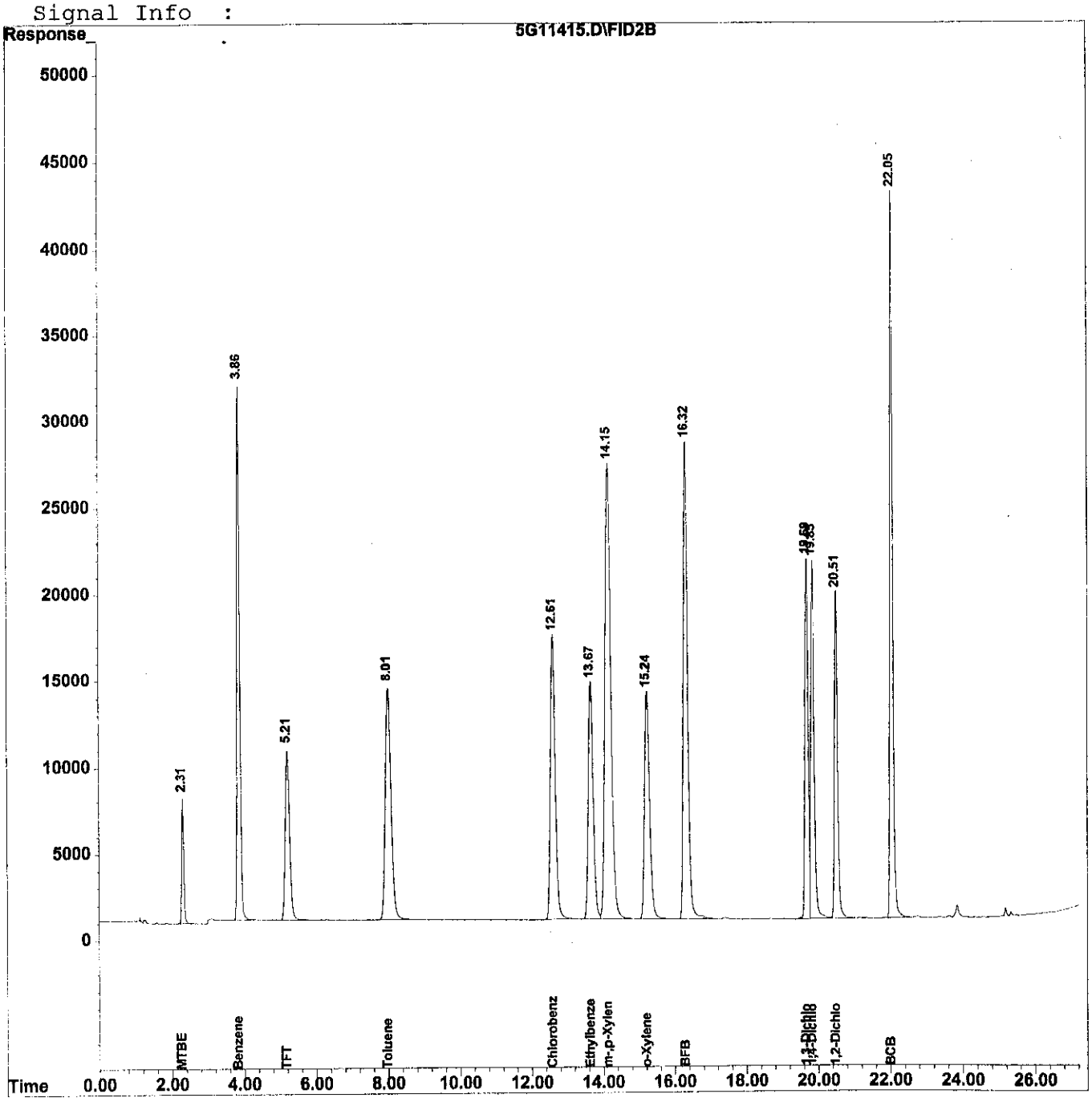
		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	16.177	14.365 E3	11.2	90	-0.02
2	TM	Benzene	90.569	80.689 E3	10.9	89	-0.04
3	S	TFT	26.956	27.579 E3	-2.3	99	-0.04
4	TM	Toluene	83.460	74.214 E3	11.1	89	-0.06
5	TM	Chlorobenzene	95.254	77.208 E3	18.9#	87	-0.04
6	TM	Ethylbenzene	71.712	65.362 E3	8.9	91	-0.04
7	TM	m-,p-Xylene	84.460	75.590 E3	10.5	89	-0.03
8	TM	o-Xylene	73.616	64.506 E3	12.4	88	-0.03
9	S	BFB	73.441	76.631 E3	-4.3	102	-0.03
10	TM	1,3-Dichlorobenzene	73.173	64.542 E3	11.8	90	-0.01
11	TM	1,4-Dichlorobenzene	77.250	69.116 E3	10.5	90	0.00
12	TM	1,2-Dichlorobenzene	62.077	56.540 E3	8.9	93	0.00
13	S	BCB	69.132	74.900 E3	-8.3	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G11415.D 8021W.M Thu Dec 20 08:31:54 2001 Page 1

Data File : C:\HPCHEM\2\DATA\121901\5G11415.D Vial: 9
Acq On : 19 Dec 2001 13:28 Operator: CBN
Sample : WG110251-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 19 13:56 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\121901\5G11415.D Vial: 9
Acq On : 19 Dec 2001 13:28 Operator: CBN
Sample : WG110251-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 19 13:56 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.21	827380	30.6941 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 102.31%			
9) S BFB	16.32	2298931	31.3031 ug/L
Spiked Amount 30.000 Recovery = 104.34%			
13) S BCB	22.05	2246991	32.5029 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 108.34%			
Target Compounds			
1) TM MTBE	2.31	287308	17.7603 ug/L
2) TM Benzene	3.86	1613783	17.8183 ug/L
4) TM Toluene	8.01	1484282	17.7843 ug/L
5) TM Chlorobenzene	12.61	1544154	17.3619 ug/L
6) TM Ethylbenzene	13.67	1307234	18.2289 ug/L
7) TM m-,p-Xylene	14.15	3023598	35.7991 ug/L
8) TM o-Xylene	15.24	1290118	17.5250 ug/L
10) TM 1,3-Dichlorobenzene	19.69	1290838	17.6410 ug/L
11) TM 1,4-Dichlorobenzene	19.86	1382321	17.8940 ug/L
12) TM 1,2-Dichlorobenzene	20.51	1130793	18.2161 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\121901\5G11426.D Vial: 11
Acq On : 19 Dec 2001 19:42 Operator: CBN
Sample : WG110251-03 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	17.403	13.0	88	-0.03
2	TM	Benzene	20.000	16.957	15.2#	85	-0.05
3	S	TFT	30.000	28.870	3.8	94	-0.06
4	TM	Toluene	20.000	17.412	12.9	87	-0.07
5	TM	Chlorobenzene	20.000	16.488	17.6#	82	-0.05
6	TM	Ethylbenzene	20.000	17.418	12.9	87	-0.05
7	TM	m-,p-Xylene	40.000	35.209	12.0	88	-0.04
8	TM	o-Xylene	20.000	17.180	14.1	86	-0.03
9	S	BFB	30.000	30.256	-0.9	99	-0.03
10	TM	1,3-Dichlorobenzene	20.000	17.118	14.4	87	-0.01
11	TM	1,4-Dichlorobenzene	20.000	17.188	14.1	87	-0.01
12	TM	1,2-Dichlorobenzene	20.000	17.607	12.0	90	-0.02
13	S	BCB	30.000	31.679	-5.6	105	-0.01

Average = 11.4%

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G11426.D 8021W.M Thu Dec 20 07:58:14 2001 Page 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\121901\5G11426.D
Acq On : 19 Dec 2001 19:42
Sample : WG110251-03 8021 STD 20PPB 5ML
Misc : 1,1 S-(88-04,87-26)
IntFile : autoint1.e

Vial: 11
Operator: CBN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	16.177	14.077 E3	13.0	88	-0.03
2	TM	Benzene	90.569	76.787 E3	15.2#	85	-0.05
3	S	TFT	26.956	25.940 E3	3.8	94	-0.06
4	TM	Toluene	83.460	72.661 E3	12.9	87	-0.07
5	TM	Chlorobenzene	95.254	73.473 E3	22.9#	82	-0.05
6	TM	Ethylbenzene	71.712	62.454 E3	12.9	87	-0.05
7	TM	m-,p-Xylene	84.460	74.343 E3	12.0	88	-0.04
8	TM	o-Xylene	73.616	63.235 E3	14.1	86	-0.03
9	S	BFB	73.441	74.067 E3	-0.9	99	-0.03
10	TM	1,3-Dichlorobenzene	73.173	62.630 E3	14.4	87	-0.01
11	TM	1,4-Dichlorobenzene	77.250	66.390 E3	14.1	87	-0.01
12	TM	1,2-Dichlorobenzene	62.077	54.648 E3	12.0	90	-0.02
13	S	BCB	69.132	73.000 E3	-5.6	105	-0.01

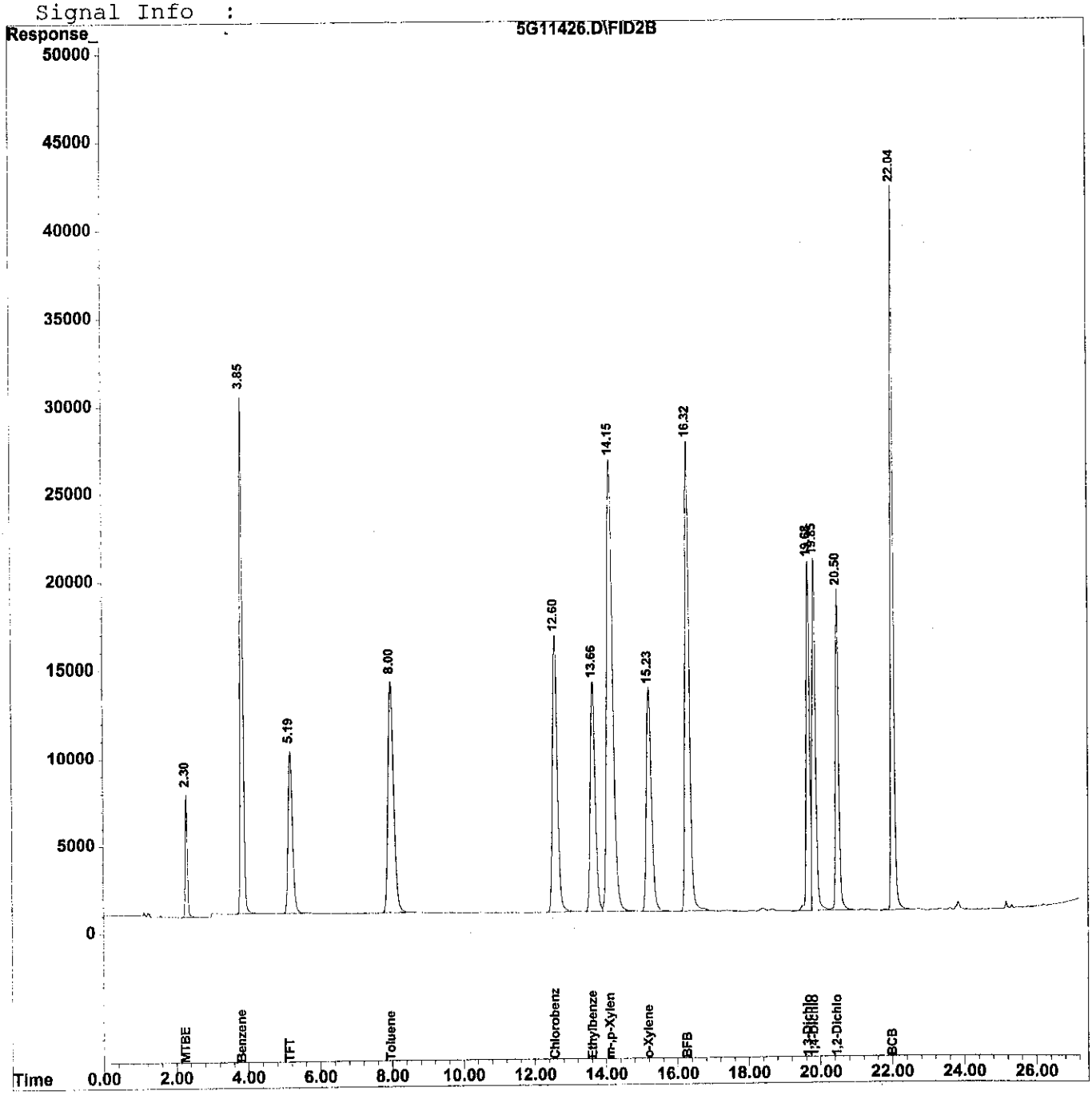
(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G11426.D 8021W.M Thu Dec 20 07:58:18 2001

Quantitation Report

Data File : C:\HPCHEM\2\DATA\121901\5G11426.D Vial: 11
Acq On : 19 Dec 2001 19:42 Operator: CBN
Sample : WG110251-03 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 19 20:09 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\121901\5G11426.D Vial: 11
Acq On : 19 Dec 2001 19:42 Operator: CBN
Sample : WG110251-03 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 19 20:09 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.19	778196	28.8695 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	96.23%
9) S BFB	16.32	2222006	30.2556 ug/L
Spiked Amount 30.000		Recovery =	100.85%
13) S BCB	22.04	2190015	31.6787 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	105.60%
Target Compounds			
1) TM MTBE	2.30	281533	17.4033 ug/L
2) TM Benzene	3.85	1535750	16.9567 ug/L
4) TM Toluene	8.00	1453229	17.4122 ug/L
5) TM Chlorobenzene	12.60	1469452	16.4876 ug/L
6) TM Ethylbenzene	13.66	1249088	17.4181 ug/L
7) TM m-,p-Xylene	14.15	2973733	35.2087 ug/L
8) TM o-Xylene	15.23	1264691	17.1796 ug/L
10) TM 1,3-Dichlorobenzene	19.69	1252595	17.1184 ug/L
11) TM 1,4-Dichlorobenzene	19.85	1327804	17.1883 ug/L
12) TM 1,2-Dichlorobenzene	20.50	1092966	17.6067 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\121901\5G11431.D Vial: 16
Acq On : 19 Dec 2001 22:25 Operator: CBN
Sample : WG110251-04 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	17.816	10.9	90	-0.03
2	TM	Benzene	20.000	17.293	13.5	87	-0.06
3	S	TFT	30.000	29.037	3.2	94	-0.06
4	TM	Toluene	20.000	17.433	12.8	87	-0.09
5	TM	Chlorobenzene	20.000	16.823	15.9#	84	-0.07
6	TM	Ethylbenzene	20.000	17.665	11.7	89	-0.05
7	TM	m-,p-Xylene	40.000	35.377	11.6	88	-0.04
8	TM	o-Xylene	20.000	17.295	13.5	86	-0.03
9	S	BFB	30.000	30.540	-1.8	100	-0.04
10	TM	1,3-Dichlorobenzene	20.000	17.056	14.7	87	-0.02
11	TM	1,4-Dichlorobenzene	20.000	17.279	13.6	87	-0.02
12	TM	1,2-Dichlorobenzene	20.000	17.593	12.0	90	-0.01
13	S	BCB	30.000	31.617	-5.4	105	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\121901\5G11431.D
Acq On : 19 Dec 2001 22:25
Sample : WG110251-04 8021 STD 20PPB 5ML
Misc : 1,1 S-(88-04,87-26)
IntFile : autoint1.e

Vial: 16
Operator: CBN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

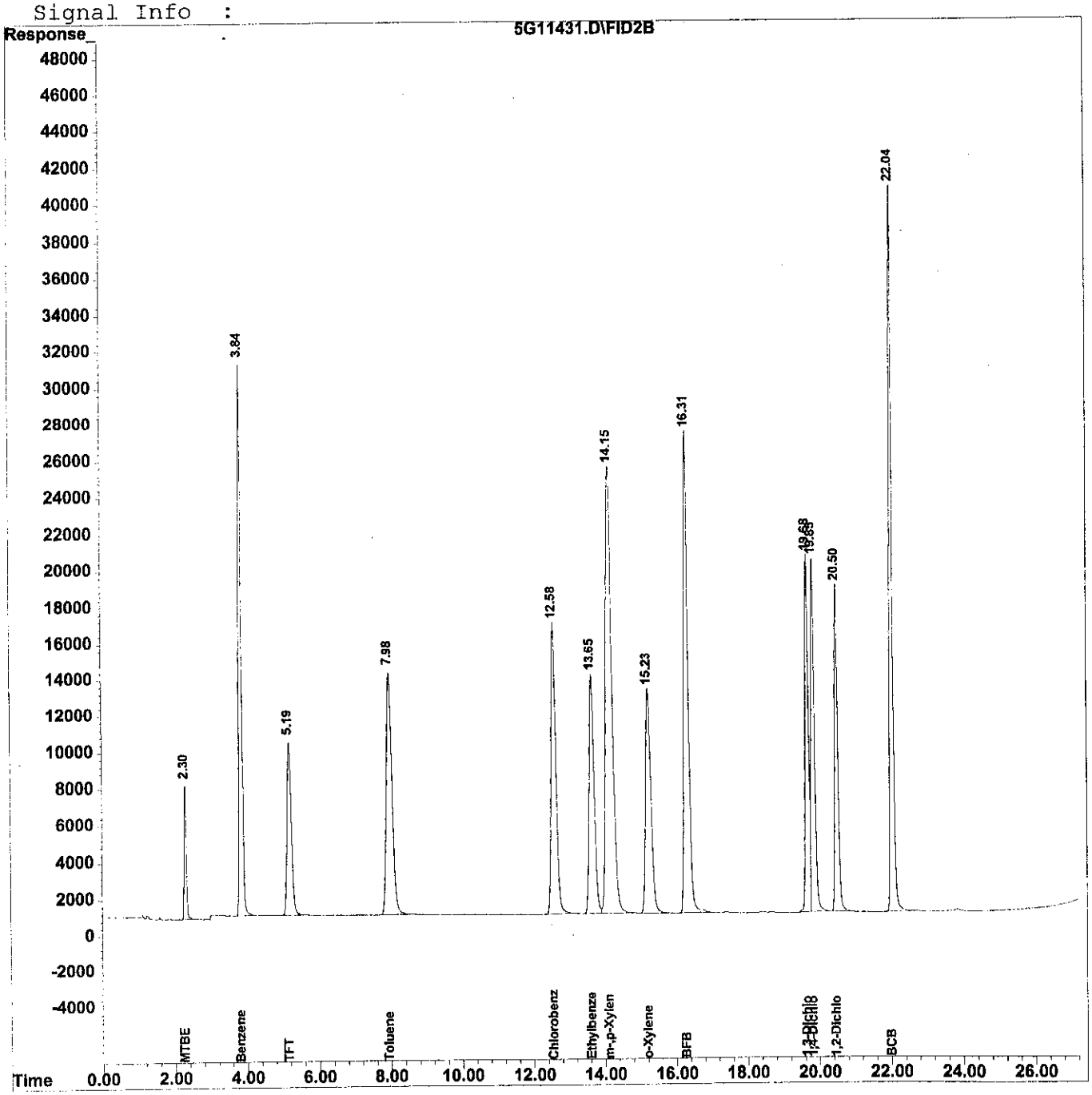
		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	16.177	14.410 E3	10.9	90	-0.03
2	TM	Benzene	90.569	78.312 E3	13.5	87	-0.06
3	S	TFT	26.956	26.090 E3	3.2	94	-0.06
4	TM	Toluene	83.460	72.750 E3	12.8	87	-0.09
5	TM	Chlorobenzene	95.254	74.904 E3	21.4#	84	-0.07
6	TM	Ethylbenzene	71.712	63.339 E3	11.7	89	-0.05
7	TM	m-,p-Xylene	84.460	74.698 E3	11.6	88	-0.04
8	TM	o-Xylene	73.616	63.661 E3	13.5	86	-0.03
9	S	BFB	73.441	74.764 E3	-1.8	100	-0.04
10	TM	1,3-Dichlorobenzene	73.173	62.403 E3	14.7	87	-0.02
11	TM	1,4-Dichlorobenzene	77.250	66.742 E3	13.6	87	-0.02
12	TM	1,2-Dichlorobenzene	62.077	54.605 E3	12.0	90	-0.01
13	S	BCB	69.132	72.858 E3	-5.4	105	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\2\DATA\121901\5G11431.D Vial: 16
Acq On : 19 Dec 2001 22:25 Operator: CBN
Sample : WG110251-04 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 19 22:53 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\121901\5G11431.D Vial: 16
Acq On : 19 Dec 2001 22:25 Operator: CBN
Sample : WG110251-04 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 19 22:53 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.19	782699	29.0365 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	96.79%
9) S BFB	16.31	2242906	30.5402 ug/L
Spiked Amount 30.000		Recovery =	101.80%
13) S BCB	22.04	2185743	31.6169 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	105.39%
Target Compounds			
1) TM MTBE	2.30	288209	17.8160 ug/L
2) TM Benzene	3.84	1566248	17.2934 ug/L
4) TM Toluene	7.98	1455006	17.4335 ug/L
5) TM Chlorobenzene	12.59	1498086	16.8227 ug/L
6) TM Ethylbenzene	13.65	1266785	17.6649 ug/L
7) TM m-,p-Xylene	14.15	2987935	35.3769 ug/L
8) TM o-Xylene	15.23	1273222	17.2955 ug/L
10) TM 1,3-Dichlorobenzene	19.68	1248060	17.0564 ug/L
11) TM 1,4-Dichlorobenzene	19.85	1334833	17.2793 ug/L
12) TM 1,2-Dichlorobenzene	20.50	1092099	17.5928 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\122001\5G11432.D Vial: 1
Acq On : 20 Dec 2001 9:56 Operator: JLS
Sample : WG110357-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.443	7.8	93	-0.04
2	TM	Benzene	20.000	17.421	12.9	87	-0.06
3	S	TFT	30.000	28.927	3.6	94	-0.07
4	TM	Toluene	20.000	18.733	6.3	94	-0.10
5	TM	Chlorobenzene	20.000	17.271	13.6	86	-0.08
6	TM	Ethylbenzene	20.000	17.812	10.9	89	-0.07
7	TM	m-,p-Xylene	40.000	36.573	8.6	91	-0.06
8	TM	o-Xylene	20.000	17.755	11.2	89	-0.06
9	S	BFB	30.000	30.797	-2.7	101	-0.07
10	TM	1,3-Dichlorobenzene	20.000	17.920	10.4	91	-0.03
11	TM	1,4-Dichlorobenzene	20.000	17.631	11.8	89	-0.03
12	TM	1,2-Dichlorobenzene	20.000	18.178	9.1	93	-0.03
13	S	BCB	30.000	31.361	-4.5	104	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G11432.D 8021W.M Thu Dec 20 10:34:38 2001 Page 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\122001\5G11432.D
Acq On : 20 Dec 2001 9:56
Sample : WG110357-01 8021 STD 20PPB 5ML
Misc : 1,1 S-(88-04,87-26)
IntFile : autoint1.e

Vial: 1
Operator: JLS
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

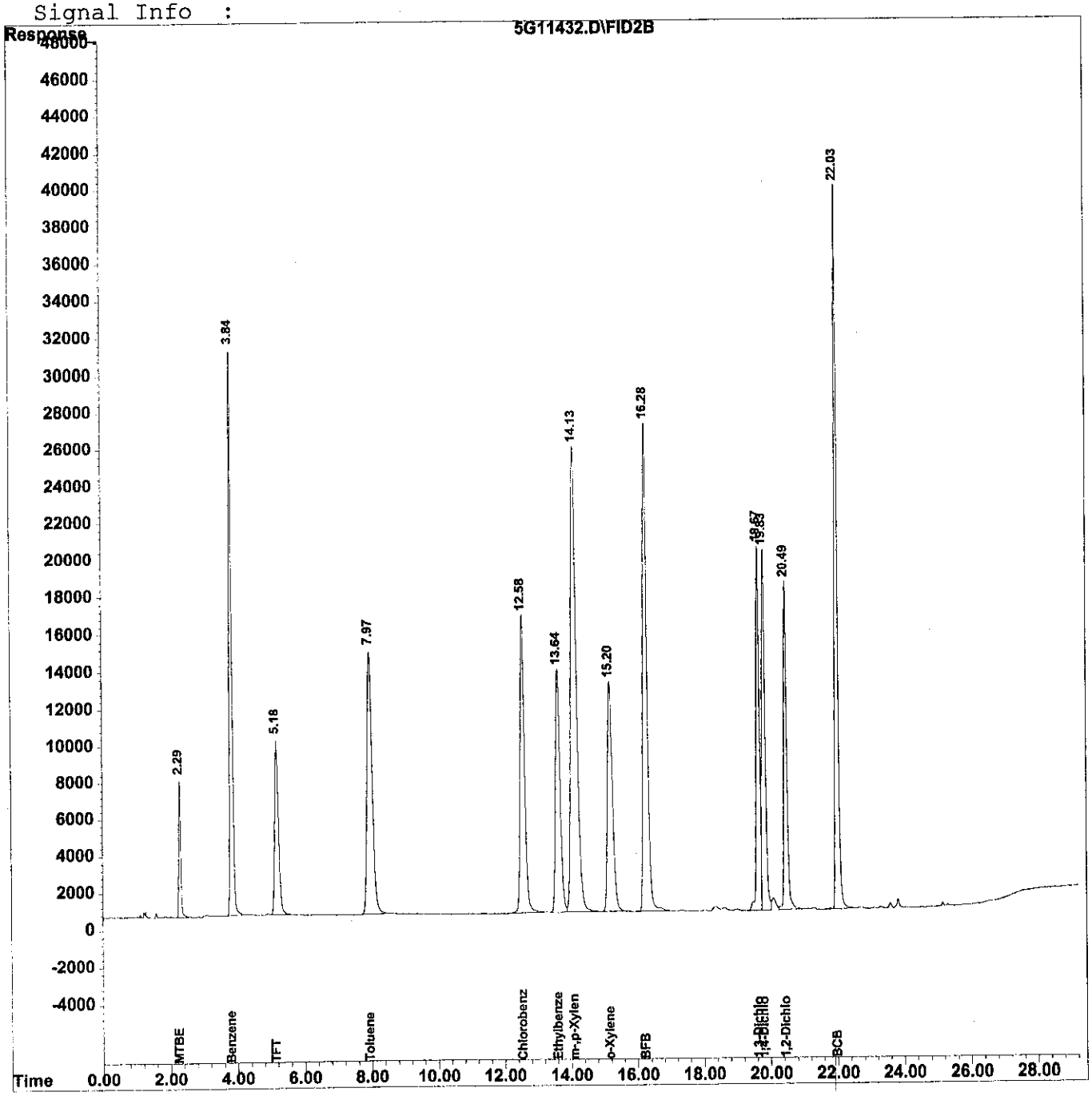
		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	16.177	14.918 E3	7.8	93	-0.04
2	TM	Benzene	90.569	78.892 E3	12.9	87	-0.06
3	S	TFT	26.956	25.991 E3	3.6	94	-0.07
4	TM	Toluene	83.460	78.171 E3	6.3	94	-0.10
5	TM	Chlorobenzene	95.254	76.819 E3	19.4#	86	-0.08
6	TM	Ethylbenzene	71.712	63.867 E3	10.9	89	-0.07
7	TM	m-,p-Xylene	84.460	77.224 E3	8.6	91	-0.06
8	TM	o-Xylene	73.616	65.354 E3	11.2	89	-0.06
9	S	BFB	73.441	75.392 E3	-2.7	101	-0.07
10	TM	1,3-Dichlorobenzene	73.173	65.564 E3	10.4	91	-0.03
11	TM	1,4-Dichlorobenzene	77.250	68.100 E3	11.8	89	-0.03
12	TM	1,2-Dichlorobenzene	62.077	56.420 E3	9.1	93	-0.03
13	S	BCB	69.132	72.269 E3	-4.5	104	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\2\DATA\122001\5G11432.D Vial: 1
Acq On : 20 Dec 2001 9:56 Operator: JLS
Sample : WG110357-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 10:25 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\122001\5G11432.D Vial: 1
Acq On : 20 Dec 2001 9:56 Operator: JLS
Sample : WG110357-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 10:25 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.18	779743	28.9269 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 96.42%			
9) S BFB	16.28	2261748	30.7968 ug/L
Spiked Amount 30.000 Recovery = 102.66%			
13) S BCB	22.03	2168058	31.3611 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 104.54%			
Target Compounds			
1) TM MTBE	2.29	298360	18.4435 ug/L
2) TM Benzene	3.84	1577837	17.4214 ug/L
4) TM Toluene	7.97	1563429	18.7326 ug/L
5) TM Chlorobenzene	12.58	1536371	17.2708 ug/L
6) TM Ethylbenzene	13.64	1277350	17.8122 ug/L
7) TM m-,p-Xylene	14.13	3088956	36.5729 ug/L
8) TM o-Xylene	15.21	1307072	17.7553 ug/L
10) TM 1,3-Dichlorobenzene	19.67	1311286	17.9204 ug/L
11) TM 1,4-Dichlorobenzene	19.84	1362003	17.6310 ug/L
12) TM 1,2-Dichlorobenzene	20.49	1128406	18.1776 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\122001\5G11443.D
Acq On : 20 Dec 2001 18:23
Sample : WG110357-02 8021 STD 20PPB 5ML
Misc : 1,1 S-(88-04,87-26)
IntFile : autoint1.e

Vial: 9
Operator: jls
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	16.177	14.401 E3	11.0	90	-0.03
2	TM	Benzene	90.569	82.022 E3	9.4	91	-0.06
3	S	TFT	26.956	26.824 E3	0.5	97	-0.06
4	TM	Toluene	83.460	76.002 E3	8.9	91	-0.09
5	TM	Chlorobenzene	95.254	78.415 E3	17.7#	88	-0.05
6	TM	Ethylbenzene	71.712	66.689 E3	7.0	93	-0.05
7	TM	m-,p-Xylene	84.460	77.347 E3	8.4	91	-0.04
8	TM	o-Xylene	73.616	65.618 E3	10.9	89	-0.03
9	S	BFB	73.441	76.631 E3	-4.3	102	-0.03
10	TM	1,3-Dichlorobenzene	73.173	64.616 E3	11.7	90	-0.02
11	TM	1,4-Dichlorobenzene	77.250	69.024 E3	10.6	90	-0.02
12	TM	1,2-Dichlorobenzene	62.077	56.105 E3	9.6	92	-0.02
13	S	BCB	69.132	74.215 E3	-7.4	107	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G11443.D 8021W.M Fri Dec 21 09:18:50 2001 Page 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\122001\5G11443.D
Acq On : 20 Dec 2001 18:23
Sample : WG110357-02 8021 STD 20PPB 5ML
Misc : 1,1 S-(88-04,87-26)
IntFile : autoint1.e

Vial: 9
Operator: jls
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	17.804	11.0	90	-0.03
2	TM	Benzene	20.000	18.113	9.4	91	-0.06
3	S	TFT	30.000	29.854	0.5	97	-0.06
4	TM	Toluene	20.000	18.213	8.9	91	-0.09
5	TM	Chlorobenzene	20.000	17.644	11.8	88	-0.05
6	TM	Ethylbenzene	20.000	18.599	7.0	93	-0.05
7	TM	m-,p-Xylene	40.000	36.631	8.4	91	-0.04
8	TM	o-Xylene	20.000	17.827	10.9	89	-0.03
9	S	BFB	30.000	31.303	-4.3	102	-0.03
10	TM	1,3-Dichlorobenzene	20.000	17.661	11.7	90	-0.02
11	TM	1,4-Dichlorobenzene	20.000	17.870	10.7	90	-0.02
12	TM	1,2-Dichlorobenzene	20.000	18.076	9.6	92	-0.02
13	S	BCB	30.000	32.206	-7.4	107	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G11443.D 8021W.M Fri Dec 21 06:51:44 2001

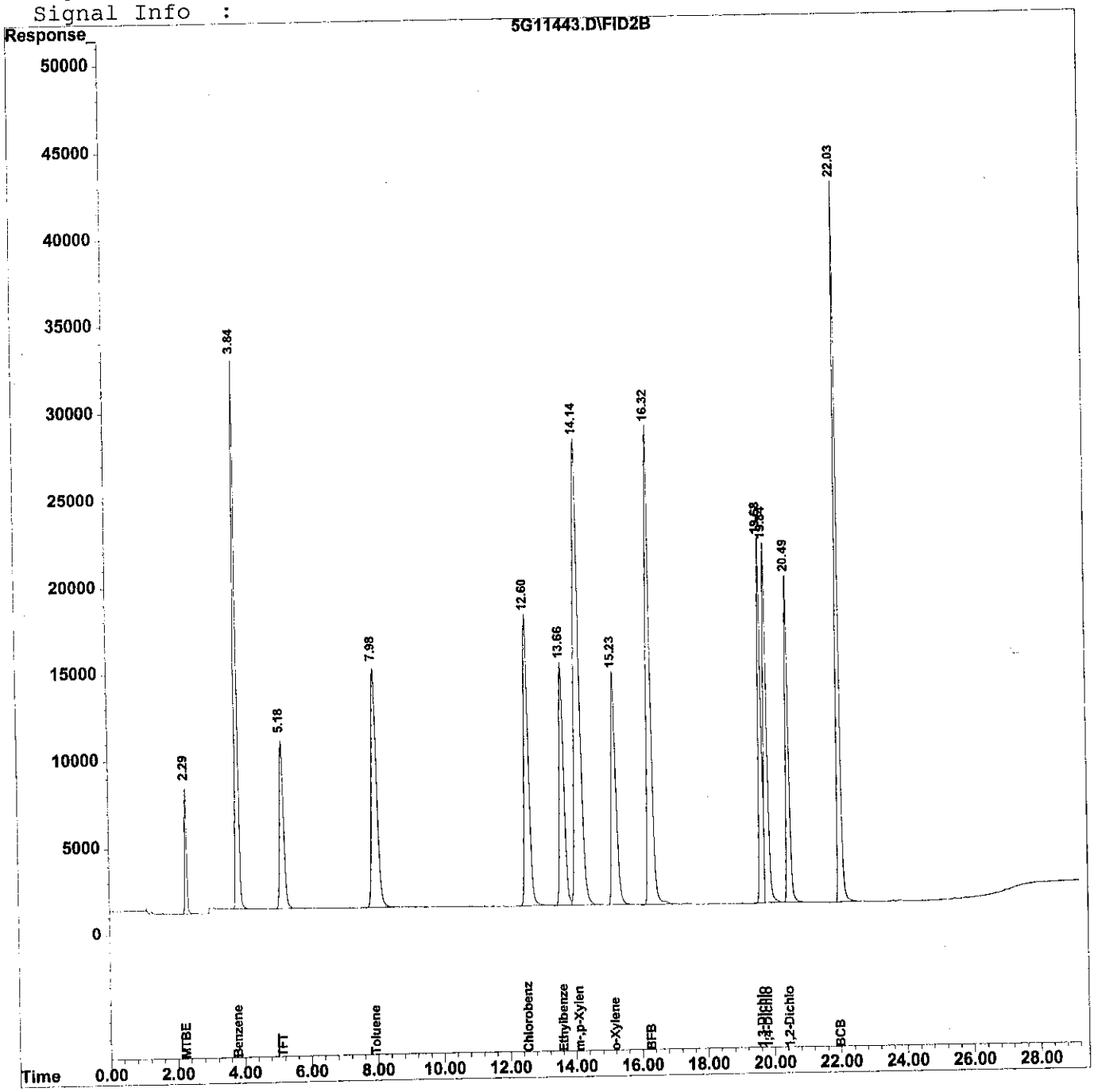
Quantitation Report

Data File : C:\HPCHEM\2\DATA\122001\5G11443.D
Acq On : 20 Dec 2001 18:23
Sample : WG110357-02 8021 STD 20PPB 5ML
Misc : 1,1 S-(88-04,87-26)
IntFile : autoint1.e
Quant Time: Dec 20 18:52 2001 Quant Results File: 8021W.RES

Vial: 9
Operator: jls
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\122001\5G11443.D
Acq On : 20 Dec 2001 18:23
Sample : WG110357-02 8021 STD 20PPB 5ML
Misc : 1,1 S-(88-04,87-26)
IntFile : autoint1.e
Quant Time: Dec 20 18:52 2001 Quant Results File: 8021W.RES

Vial: 9
Operator: jls
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.19	804726	29.8537 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	99.51%
9) S BFB	16.32	2298925	31.3030 ug/L
Spiked Amount 30.000		Recovery =	104.34%
13) S BCB	22.03	2226447	32.2057 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	107.35%
Target Compounds			
1) TM MTBE	2.30	288012	17.8038 ug/L
2) TM Benzene	3.84	1640431	18.1125 ug/L
4) TM Toluene	7.98	1520032	18.2126 ug/L
5) TM Chlorobenzene	12.60	1568294	17.6445 ug/L
6) TM Ethylbenzene	13.66	1333778	18.5991 ug/L
7) TM m-,p-Xylene	14.15	3093892	36.6314 ug/L
8) TM o-Xylene	15.23	1312354	17.8271 ug/L
10) TM 1,3-Dichlorobenzene	19.68	1292328	17.6614 ug/L
11) TM 1,4-Dichlorobenzene	19.84	1380479	17.8702 ug/L
12) TM 1,2-Dichlorobenzene	20.49	1122093	18.0759 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 19-Dec-01
Filename: 5G11404
Sub Directory: 121901
Instrument: HP5
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	2.282	**2.235**	**2.329**
benzene	3.820	**3.751**	**3.889**
1,1,1-trifluorotoluene (SS)	5.151	**5.063**	**5.239**
toluene	7.922	**7.821**	**8.023**
chlorobenzene	12.525	**12.462**	**12.588**
ethylbenzene	13.586	**13.534**	**13.638**
m+p-xylene	14.067	**14.024**	**14.110**
o-xylene	15.154	**15.112**	**15.196**
bromofluorobenzene (SS)	16.247	**16.202**	**16.292**
1,3-dichlorobenzene	19.625	**19.592**	**19.658**
1,4-dichlorobenzene	19.791	**19.758**	**19.824**
1,2-dichlorobenzene	20.449	**20.418**	**20.480**
bromochlorobenzene (SS)	21.996	**21.971**	**22.021**

INSTRUMENT: HP5 **MATRIX:** WATER
CONT STD #1: 5G10333 **DATE #1:** 3-Oct-01
CONT STD #2: 5G10339 **DATE #2:** 4-Oct-01
CONT STD #3: 5G10367 **DATE #3:** 5-Oct-01

Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	2.348	2.321	2.321	2.330	0.016	**0.047**
benzene	3.933	3.894	3.892	3.906	0.023	**0.069**
1,1,1-trifluorotoluene (SS)	5.300	5.245	5.255	5.267	0.029	**0.088**
toluene	8.129	8.062	8.093	8.095	0.034	**0.101**
chlorobenzene	12.696	12.656	12.687	12.680	0.021	**0.063**
ethylbenzene	13.744	13.712	13.740	13.732	0.017	**0.052**
m+p-xylene	14.211	14.191	14.219	14.207	0.014	**0.043**
o-xylene	15.289	15.274	15.302	15.288	0.014	**0.042**
bromofluorobenzene (SS)	16.379	16.359	16.388	16.375	0.015	**0.045**
1,3-dichlorobenzene	19.718	19.713	19.734	19.722	0.011	**0.033**
1,4-dichlorobenzene	19.882	19.878	19.899	19.886	0.011	**0.033**
1,2-dichlorobenzene	20.533	20.530	20.549	20.537	0.010	**0.031**
bromochlorobenzene (SS)	22.070	22.069	22.084	22.074	0.008	**0.025**

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 20-Dec-01
Filename: 5G11432
Sub Directory: 122001
Instrument: HP5
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	2.293	**2.246**	**2.340**
benzene	3.840	**3.771**	**3.909**
1,1,1-trifluorotoluene (SS)	5.182	**5.094**	**5.270**
toluene	7.974	**7.873**	**8.075**
chlorobenzene	12.577	**12.514**	**12.640**
ethylbenzene	13.639	**13.587**	**13.691**
m+p-xylene	14.128	**14.085**	**14.171**
o-xylene	15.206	**15.164**	**15.248**
bromofluorobenzene (SS)	16.281	**16.236**	**16.326**
1,3-dichlorobenzene	19.670	**19.637**	**19.703**
1,4-dichlorobenzene	19.836	**19.803**	**19.869**
1,2-dichlorobenzene	20.488	**20.457**	**20.519**
bromochlorobenzene (SS)	22.028	**22.003**	**22.053**

INSTRUMENT:	HP5	**MATRIX:**	WATER
CONT STD #1:	5G10333	**DATE #1:**	3-Oct-01
CONT STD #2:	5G10339	**DATE #2:**	4-Oct-01
CONT STD #3:	5G10367	**DATE #3:**	5-Oct-01

Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	2.348	2.321	2.321	2.330	0.016	**0.047**
benzene	3.933	3.894	3.892	3.906	0.023	**0.069**
1,1,1-trifluorotoluene (SS)	5.300	5.245	5.255	5.267	0.029	**0.088**
toluene	8.129	8.062	8.093	8.095	0.034	**0.101**
chlorobenzene	12.696	12.656	12.687	12.680	0.021	**0.063**
ethylbenzene	13.744	13.712	13.740	13.732	0.017	**0.052**
m+p-xylene	14.211	14.191	14.219	14.207	0.014	**0.043**
o-xylene	15.289	15.274	15.302	15.288	0.014	**0.042**
bromofluorobenzene (SS)	16.379	16.359	16.388	16.375	0.015	**0.045**
1,3-dichlorobenzene	19.718	19.713	19.734	19.722	0.011	**0.033**
1,4-dichlorobenzene	19.882	19.878	19.899	19.886	0.011	**0.033**
1,2-dichlorobenzene	20.533	20.530	20.549	20.537	0.010	**0.031**
bromochlorobenzene (SS)	22.070	22.069	22.084	22.074	0.008	**0.025**

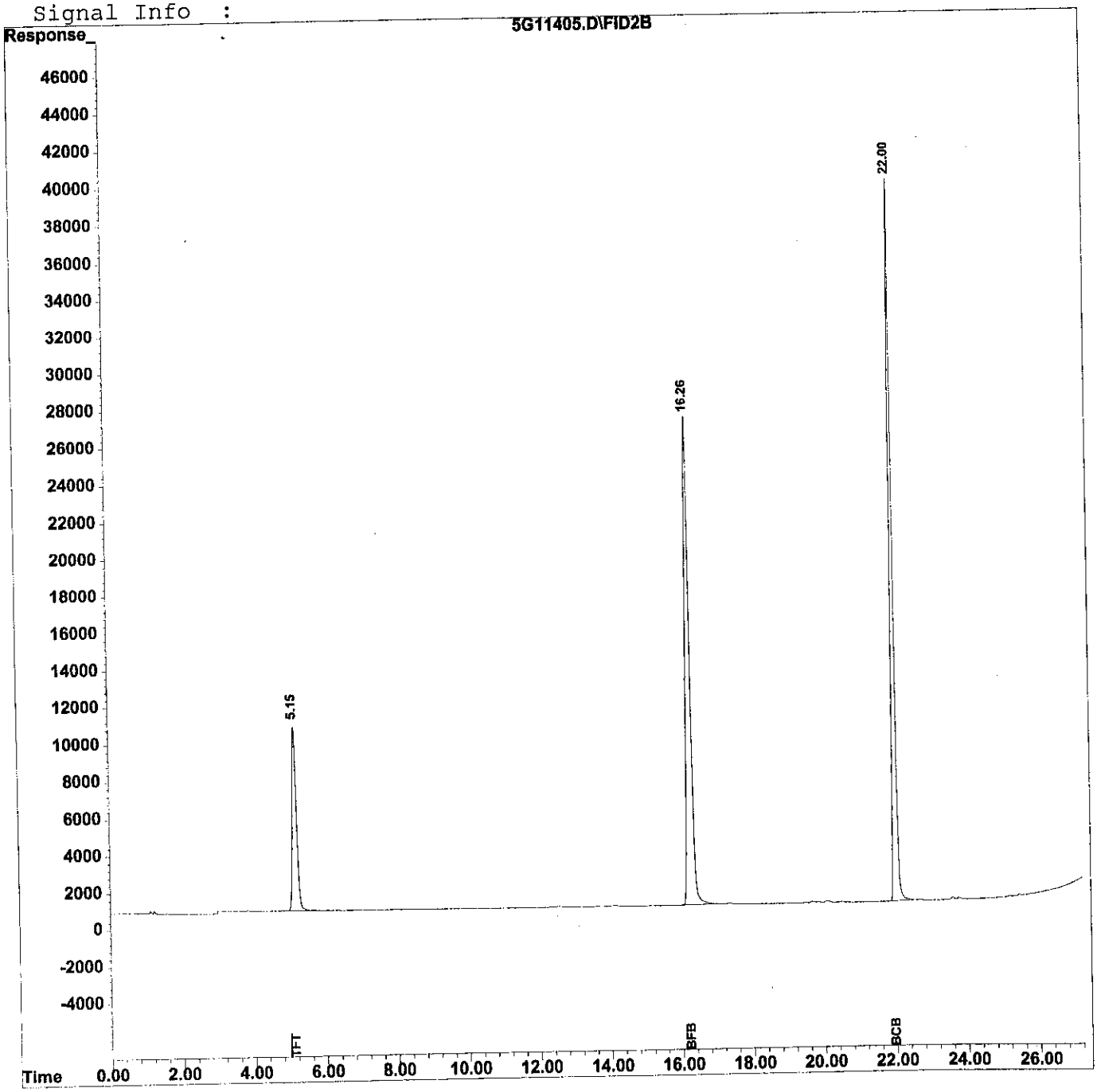
2.1.3.4 Raw Data

Data File : C:\HPCHEM\2\DATA\121901\5G11405.D
Acq On : 19 Dec 2001 7:54
Sample : WG110252-01 WATER BLANK 5ML
Misc : 1,1 S-87-26
IntFile : autoint1.e
Quant Time: Dec 19 8:22 2001 Quant Results File: 8021W.RES

Vial: 2
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report

Data File : C:\HPCHEM\2\DATA\121901\5G11405.D
Acq On : 19 Dec 2001 7:54
Sample : WG110252-01 WATER BLANK 5ML
Misc : 1,1 S-87-26
IntFile : autoint1.e
Quant Time: Dec 19 8:22 2001 Quant Results File: 8021W.RES

Vial: 2
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.15	818322	30.3581 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	101.19% ✓
9) S BFB	16.26	2240124	30.5023 ug/L
Spiked Amount 30.000		Recovery =	101.67%
13) S BCB	22.00	2132679	30.8494 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	102.83%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

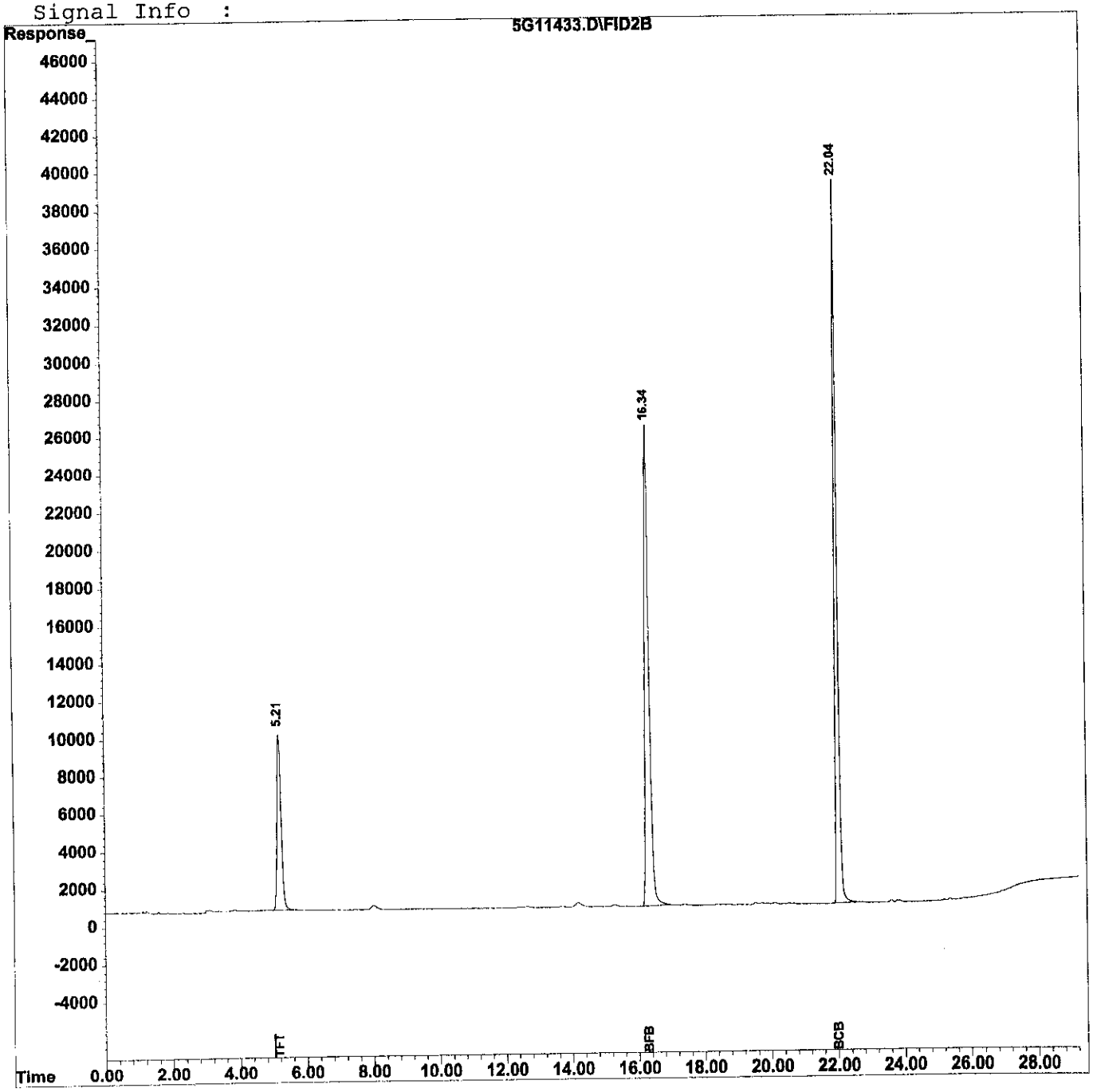
Quantitation Report

Data File : C:\HPCHEM\2\DATA\122001\5G11433.D
Acq On : 20 Dec 2001 11:24
Sample : WG110358-01 WATER BLANK 5ML
Misc : 1,1 S-87-26
IntFile : autoint1.e
Quant Time: Dec 20 11:53 2001 Quant Results File: 8021W.RES

Vial: 2
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\122001\5G11433.D
Acq On : 20 Dec 2001 11:24
Sample : WG110358-01 WATER BLANK 5ML
Misc : 1,1 S-87-26
IntFile : autoint1.e
Quant Time: Dec 20 11:53 2001 Quant Results File: 8021W.RES

Vial: 2
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.21	794924	29.4901 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	98.30%
9) S BFB	16.34	2262587	30.8082 ug/L
Spiked Amount 30.000		Recovery =	102.69%
13) S BCB	22.05	2164065	31.3034 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	104.34%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

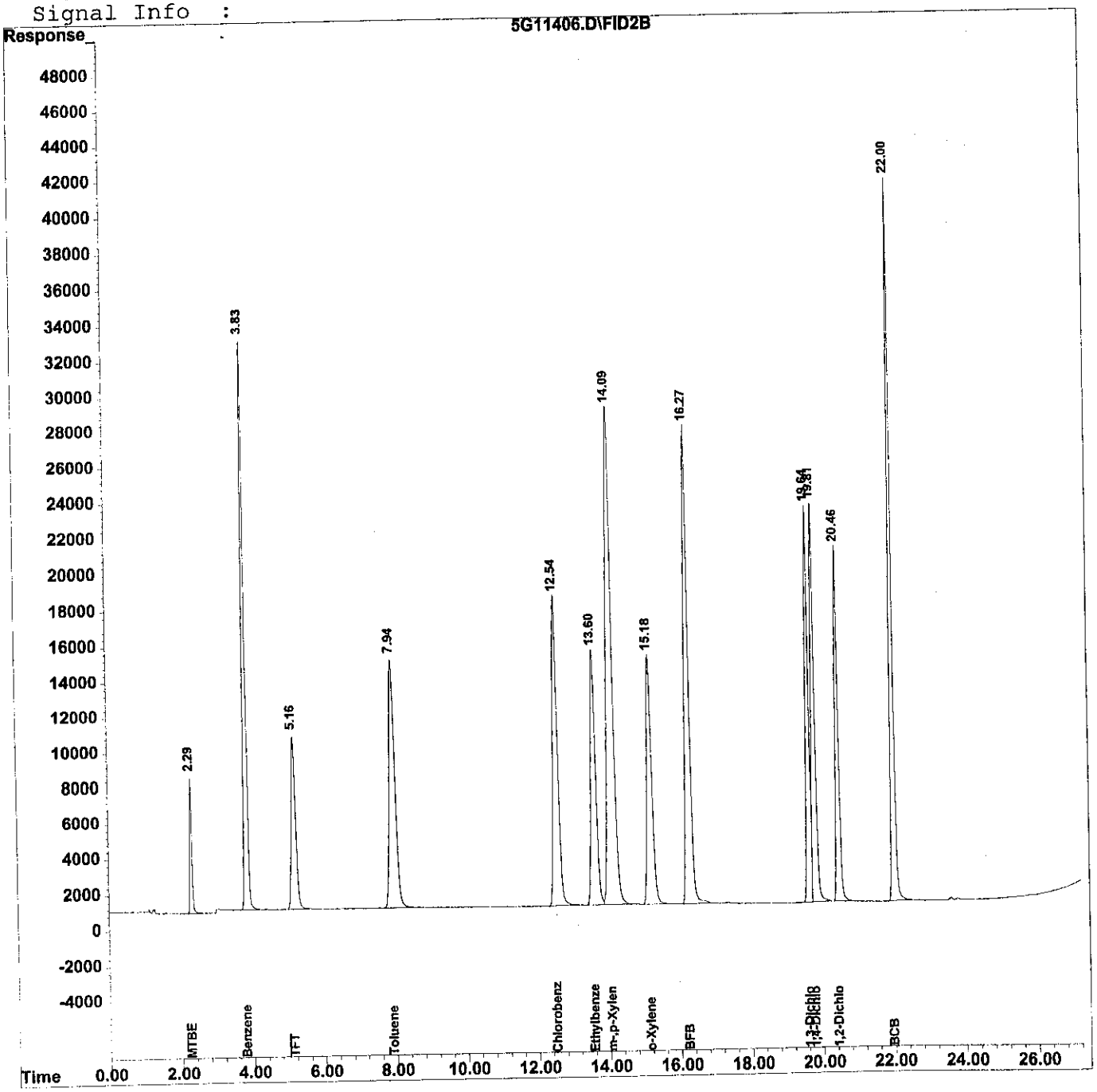
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\121901\5G11406.D
Acq On : 19 Dec 2001 8:27
Sample : WG110252-02 WATER LCS 20PPB 5ML
Misc : 1,1 S-(88-04,87-26)
IntFile : autoint1.e
Quant Time: Dec 19 8:54 2001 Quant Results File: 8021W.RES

Vial: 3
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report

Data File : C:\HPCHEM\2\DATA\121901\5G11406.D
Acq On : 19 Dec 2001 8:27
Sample : WG110252-02 WATER LCS 20PPB 5ML
Misc : 1,1 S-(88-04,87-26)
IntFile : autoint1.e
Quant Time: Dec 19 8:54 2001 Quant Results File: 8021W.RES

Vial: 3
Operator: CBN
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.16	817528	30.3286 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	101.10% ✓
9) S BFB	16.27	2249433	30.6291 ug/L
Spiked Amount 30.000		Recovery =	102.10%
13) S BCB	22.01	2152772	31.1400 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	103.80%
Target Compounds			
1) TM MTBE	2.29	302738	18.7141 ug/L
2) TM Benzene	3.83	1663912	18.3718 ug/L
4) TM Toluene	7.94	1550778	18.5810 ug/L
5) TM Chlorobenzene	12.54	1648781	18.5865 ug/L
6) TM Ethylbenzene	13.61	1384132	19.3012 ug/L
7) TM m-,p-Xylene	14.09	3211257	38.0210 ug/L
8) TM o-Xylene	15.18	1377170	18.7075 ug/L
10) TM 1,3-Dichlorobenzene	19.64	1382107	18.8883 ug/L
11) TM 1,4-Dichlorobenzene	19.81	1469862	19.0272 ug/L
12) TM 1,2-Dichlorobenzene	20.46	1186587	19.1149 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

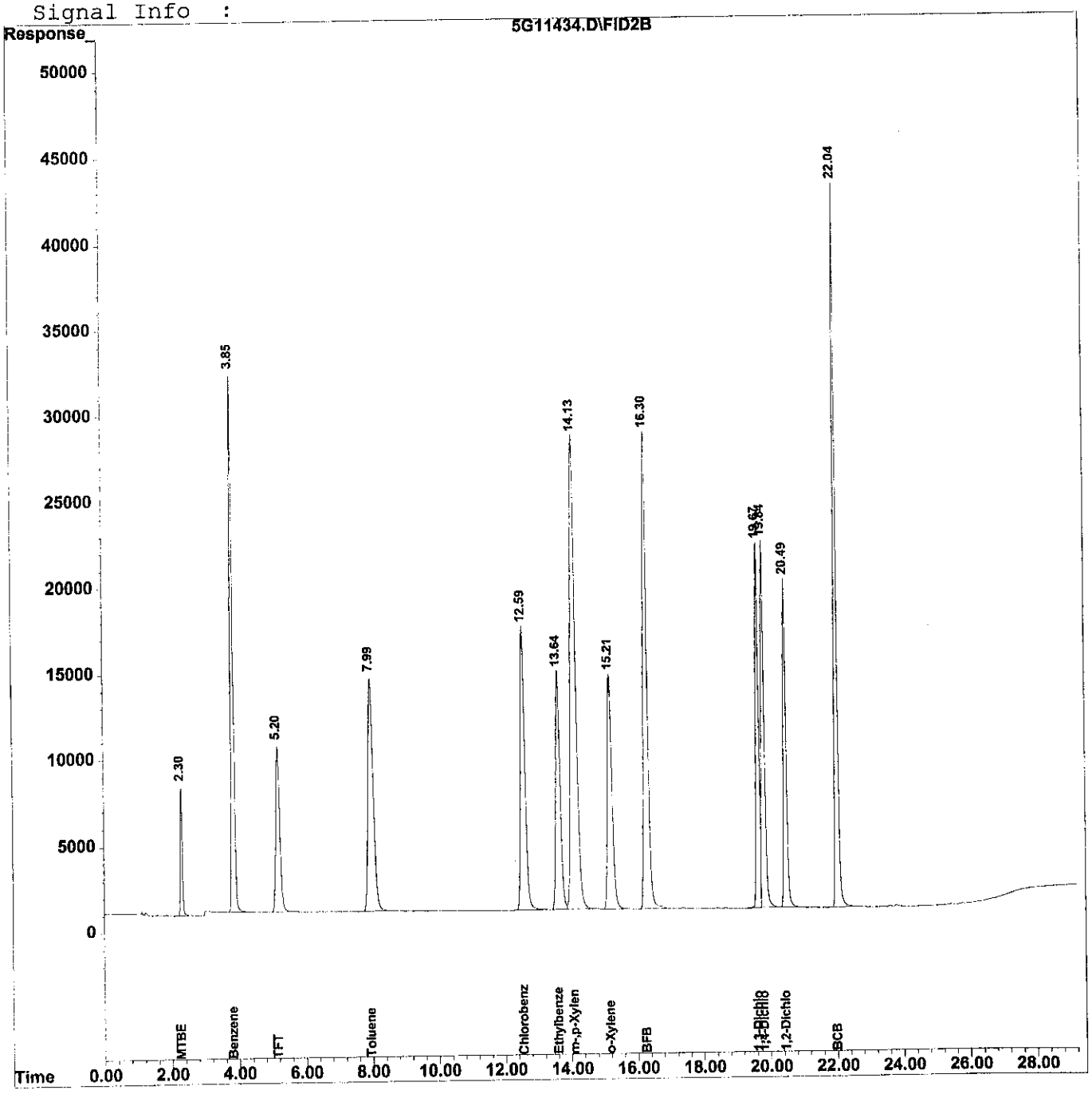
Quantitation Report

Data File : C:\HPCHEM\2\DATA\122001\5G11434.D
Acq On : 20 Dec 2001 11:58
Sample : WG110358-02 WATER LCS 20PPB 5ML
Misc : 1,1 S-(88-04,87-26)
IntFile : autoint1.e
Quant Time: Dec 20 12:27 2001 Quant Results File: 8021W.RES

Vial: 3
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\122001\5G11434.D
Acq On : 20 Dec 2001 11:58
Sample : WG110358-02 WATER LCS 20PPB 5ML
Misc : 1,1 S-(88-04,87-26)
IntFile : autoint1.e
Quant Time: Dec 20 12:27 2001 Quant Results File: 8021W.RES

Vial: 3
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.20	800630	29.7018 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	99.01%
9) S BFB	16.30	2289396	31.1732 ug/L
Spiked Amount 30.000		Recovery =	103.91%
13) S BCB	22.04	2225049	32.1855 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	107.29%
Target Compounds			
1) TM MTBE	2.30	292089	18.0558 ug/L
2) TM Benzene	3.86	1624452	17.9361 ug/L
4) TM Toluene	7.99	1494336	17.9047 ug/L
5) TM Chlorobenzene	12.59	1546659	17.3912 ug/L
6) TM Ethylbenzene	13.65	1312123	18.2971 ug/L
7) TM m-,p-Xylene	14.13	3071384	36.3649 ug/L
8) TM o-Xylene	15.21	1307441	17.7603 ug/L
10) TM 1,3-Dichlorobenzene	19.68	1299363	17.7575 ug/L
11) TM 1,4-Dichlorobenzene	19.84	1382714	17.8991 ug/L
12) TM 1,2-Dichlorobenzene	20.49	1119388	18.0324 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Injection Log

Directory: c:\hpchem\2\data\111901

Analyst: JLS

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g10904.d	1.	WG108448-01 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	19 Nov 101 12::4
2	1	5g10905.d	1.	WG108448-01 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	19 Nov 101 12::3
3	1	5g10906.d	1.	WG108448-01 8021 STD1 1PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13::4
4	2	5g10907.d	1.	WG108448-01 8021 STD1 1PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13::1
5	3	5g10908.d	1.	WG108448-02 8021 STD2 10PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13::4
6	4	5g10909.d	1.	WG108448-03 8021 STD3 20PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13::1
7	5	5g10910.d	1.	WG108448-04 8021 STD4 50PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13::5
8	6	5g10911.d	1.	WG108448-05 8021 STD5 100PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 12::2
9	7	5g10912.d	1.	WG108448-06 8021 STD6 200PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 12::5
10	8	5g10913.d	1.	WG108448-07 8021 STD7 300PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 12::2
11	9	5g10914.d	1.	RINSE 5ML	1,1 S-86-08	19 Nov 101 12::5
12	10	5g10915.d	1.	WG108448-08 ALT SOURCE 20PPB 5ML	1,1 S-86-13,86-08	19 Nov 101 12::4
13	1	5g10916.d	1.	WG108507-01 WATER BLANK 5ML	1,1 S-86-12	19 Nov 101 12::1
14	2	5g10917.d	1.	WG108507-02 WATER LCS 20PPB 5ML	1,1 S-86-12	19 Nov 101 12::4
15	1	5g10918.d	1.	L0111312-03 A 5ML pH<2	1,1 S-86-12	19 Nov 101 12::2
16	2	5g10919.d	1.	L0111317-03 A 5ML pH<2	1,1 S-86-12	19 Nov 101 12::5
17	3	5g10920.d	1.	L0111280-01 B 5ML pH<2	1,1 S-86-12	19 Nov 101 12::2
18	4	5g10921.d	1.	L0111280-02 B 5ML pH<2	1,1 S-86-12	19 Nov 101 12::5
19	5	5g10922.d	1.	L0111280-03 B 5ML pH<2	1,1 S-86-12	19 Nov 101 12::3
20	6	5g10923.d	20.	WG108507-03 L0111283-01 B 20X 5ML pH<2 RR100X	1,20 S-86-12	19 Nov 101 12::0
21	7	5g10924.d	20.	WG108507-04 L0111283-01 B MS 20X 5ML pH	1,20 S-86-(13,12)	19 Nov 101 12::3
22	8	5g10925.d	20.	WG108507-05 L0111283-01 B MSD 20X 5ML p	1,20 S-86-(13,12)	19 Nov 101 12::0
23	9	5g10926.d	1.	WG108448-09 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	19 Nov 101 12::4
24	10	5g10927.d	10.	L0111283-02 B 10X 5ML pH<2	1,10 S-86-12	19 Nov 101 13::1
25	11	5g10928.d	1.	L0111283-03 B 5ML pH<2	1,1 S-86-12	19 Nov 101 13::4
26	12	5g10929.d	5.	L0111283-04 B 5X 5ML pH<2	1,5 S-86-12	19 Nov 101 13::1
27	13	5g10930.d	1.	L0111283-04 B 5ML pH<2	1,1 S-86-12	19 Nov 101 13::5
28	14	5g10931.d	10.	L0111283-05 B 10X 5ML pH<2	1,10 S-86-12	20 Nov 101 13::2
29	15	5g10932.d	1.	L0111283-06 B 5ML pH<2	1,1 S-86-12	20 Nov 101 13::5
30	16	5g10933.d	10.	L0111283-07 B 10X 5ML pH<2	1,10 S-86-12	20 Nov 101 12::2
31	17	5g10934.d	1.	L0111283-08 B 5ML pH<2	1,1 S-86-12	20 Nov 101 12::0
32	18	5g10935.d	1.	L0111283-09 B 5ML pH<2	1,1 S-86-12	20 Nov 101 12::3
33	19	5g10936.d	1.	L0111301-01 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::0
34	20	5g10937.d	1.	WG108448-10 8021 STD 20PPB 5ML	1,1 S-86-12	20 Nov 101 12::3
35	21	5g10938.d	1.	L0111301-02 A 5ML pH=10	1,1 S-86-12	20 Nov 101 12::0
36	22	5g10939.d	1.	L0111301-03 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::4
37	23	5g10940.d	1.	L0111301-04 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::1
38	24	5g10941.d	1.	WG108448-11 8021 STD 20PPB 5ML	1,1 S-86-12	20 Nov 101 12::4

Injection Log

Directory: c:\hpchem\2\data\121901

Analyst: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g11404.d	1.	WG110251-01 8021 STD 20PPB 5ML	1,1 S-(88-04,87-26)	19 Dec 101 12:
2	2	5g11405.d	1.	WG110252-01 WATER BLANK 5ML	1,1 S-87-26	19 Dec 101 12:
3	3	5g11406.d	1.	WG110252-02 WATER LCS 20PPB 5ML	1,1 S-(88-04,87-26)	19 Dec 101 12:
4	1	5g11407.d	20.	L0112289-05 A 5ML 20X	1,20,RE S-87-26	19 Dec 101 12:
5	2	5g11408.d	1.	L0112348-01 A 5ML	1,1 S-87-26	19 Dec 101 12:
6	3	5g11409.d	1.	L0112348-02 A 5ML	1,1 S-87-26	19 Dec 101 13:
7	4	5g11410.d	1.	L0112348-03 A 5ML	1,1 S-87-26	19 Dec 101 13:
8	5	5g11411.d	1.	WG110252-03 L0112348-04 A 5ML	1,1 S-87-26	19 Dec 101 13:
9	6	5g11412.d	1.	WG110252-04 L0112348-05 MS A 5ML	1,1 S-(88-04,87-26)	19 Dec 101 13:
10	7	5g11413.d	1.	WG110252-05 L0112348-06 MSD A 5ML	1,1 S-(88-04,87-26)	19 Dec 101 13:
11	8	5g11414.d	1.	L0112348-07 A 5ML	1,1 S-87-26	19 Dec 101 13:
12	9	5g11415.d	1.	WG110251-02 8021 STD 20PPB 5ML	1,1 S-(88-04,87-26)	19 Dec 101 12:
13	1	5g11416.d	1.	L0112348-08 A 5ML	1,1 S-87-26	19 Dec 101 12:
14	2	5g11417.d	1.	L0112348-09 A 5ML	1,1 S-87-26	19 Dec 101 12:
15	3	5g11418.d	1.	L0112348-10 A 5ML	1,1 S-87-26	19 Dec 101 12:
16	4	5g11419.d	1.	L0112349-01 A 5ML RR100X	1,1 S-87-26	19 Dec 101 12:
17	5	5g11420.d	1.	L0112349-02 A 5ML RRclo	1,1 S-87-26	19 Dec 101 12:
18	6	5g11421.d	1.	L0112349-03 A 5ML RRclo	1,1 S-87-26	19 Dec 101 12:
19	7	5g11422.d	20.	L0112184-03 B 5ML 20X pH<2	1,20 S-87-26	19 Dec 101 12:
20	8	5g11423.d	20.	L0112184-04 B 5ML 20X pH<2	1,20 S-87-26	19 Dec 101 12:
21	9	5g11424.d	10.	L0112346-01 A 5ML 10X	1,10 S-87-26	19 Dec 101 12:
22	10	5g11425.d	100.	L0112346-02 A 5ML 100X pH<2	1,100 S-87-26	19 Dec 101 12:
23	11	5g11426.d	1.	WG110251-03 8021 STD 20PPB 5ML	1,1 S-(88-04,87-26)	19 Dec 101 12:
24	12	5g11427.d	100.	L0112346-03 A 5ML 100X pH<2	1,100 S-87-26	19 Dec 101 12:
25	13	5g11428.d	1.	L0112364-01 A 5ML	1,1 S-87-26	19 Dec 101 12:
26	14	5g11429.d	1.	RINSE 5ML MTBE	1,1 S-87-26	19 Dec 101 12:
27	15	5g11430.d	1.	RINSE 5ML	1,1 S-87-26	19 Dec 101 12:
28	16	5g11431.d	1.	WG110251-04 8021 STD 20PPB 5ML	1,1 S-(88-04,87-26)	19 Dec 101 13:

Injection Log

Directory: c:\hpchem\2\data\122001

WG110358

ANALYST: JLS

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g11432.d	1.	WG110357-01 8021 STD 20PPB 5ML ✓	1,1 S-(88-04,87-26)	20 Dec 101 12::5
2	2	5g11433.d	1.	WG110358-01 WATER BLANK 5ML ✓	1,1 S-87-26	20 Dec 101 13::2
3	3	5g11434.d	1.	WG110358-02 WATER LCS 20PPB 5ML ✓	1,1 S-(88-04,87-26)	20 Dec 101 13::5
4	4	5g11435.d	1.	L0112349-02 B 5ML ✓	1,1 S-87-26	20 Dec 101 12::3
5	5	5g11436.d	1.	L0112349-03 B 5ML ✓	1,1 S-87-26	20 Dec 101 12::1
6	3	5g11437.d	100.	L0112349-01 B 100X 5ML pH<2 ✓	1,100 S-87-26	20 Dec 101 12::4
7	4	5g11438.d	1.	L0112366-01 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::2
8	5	5g11439.d	1.	L0112366-02 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::0
9	6	5g11440.d	1.	WG110358-03 L0112366-04 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::3
10	7	5g11441.d	1.	WG110358-04 L0112366-05 MS A 5ML pH<2 ✓	1,1 S-(88-04,87-26)	20 Dec 101 12::1
11	8	5g11442.d	1.	WG110358-04 L0112366-06 MSD A 5ML pH<2 ✓	1,1 S-(88-04,87-26)	20 Dec 101 12::4
12	9	5g11443.d	1.	WG110357-02 8021 STD 20PPB 5ML ✓	1,1 S-(88-04,87-26)	20 Dec 101 12::2
13	10	5g11444.d	20.	L0112366-03 20X 5ML pH<2 ✓	1,20 S-87-26	20 Dec 101 12::5
14	11	5g11445.d	1.	L0112366-07 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::3
15	12	5g11446.d	1.	L0112366-08 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::0
16	13	5g11447.d	1.	L0112366-09 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::4
17	14	5g11448.d	1.	L0112366-10 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::1
18	15	5g11449.d	1.	L0112366-11 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::5
19	16	5g11450.d	1.	L0112366-12 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 13::2
20	17	5g11451.d	1.	L0112366-13 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 13::0
21	18	5g11452.d	10.	L0112366-14 A 10X 5ML pH<2 ✓	1,10 S-87-26	20 Dec 101 13::3
22	19	5g11453.d	1.	L0112366-15 A 5ML pH<2 ✓	1,1 S-87-26	21 Dec 101 13::1
23	20	5g11454.d	1.	WG110357-03 8021 STD 20PPB 5ML ✓	1,1 S-(88-04,87-26)	21 Dec 101 13::4
24	21	5g11455.d	1.	L0112366-16 A 5ML pH<2 ✓	1,1 S-87-26	21 Dec 101 12::2
25	22	5g11456.d	1.	L0112366-17 A 5ML pH<2 ✓	1,1 S-87-26	21 Dec 101 12::5
26	23	5g11457.d	1.	WG110357-04 8021 STD 20PPB 5ML ✓	1,1 S-(88-04,87-26)	21 Dec 101 12::2

2.2 Semivolatiles Data

2.2.5 DRO GC DATA (8015)

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0112349

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8015

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD were not associated with this sample delivery group.

SAMPLES

Samples: Sample fraction 01 was analyzed at a 10X dilution in order to maintain the analysis within the range of calibration. All acceptance criteria were met.
Surrogates: The analysis of sample fraction 01 at a 10X dilution resulted in the surrogate being diluted from the sample results. All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: RDC REVIEWED: _____ DATE: 12/28/01

Rev. 7/14/00

DRO-GC DATA (8015)

Login Number: L0112349

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

_____ Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data)

✓ Chromatograms and external standard reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and external standard reports (chronological)

_____ Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

NA Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

✓ Extraction bench sheets

Checked By: RDC Date: 12/28/01

2.2.5.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP : WG110316
METHOD : 8015-PRO
MATRIX : WATER
CONCENTRATION UNITS : ug/l
PREP WORK GRP : WG110258

EXT DATE : 12-19-01
EXT BENCH SHEET : V177-P181
BLK FILENAME : 2G17379
LCS FILENAME : 2G17380
LCS DUP FILENAME : NA

RUN DATE : 12-20-01
SMPL ID : L0112348-04
SMPL FLNM : 2G17384
MS FLNM : 2G17385
MSD FLNM : 2G17386

INSTRUMENT : HP2
Analyst: HV

ANALYTE	CONCENTRATION , ug/L									PERCENT RECOVERY , %										PERCENT		
	RDL	BLANK	LCS SPIKE ADDED	LCS	LCS DUP	SAMPLE	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS DUP	LCS LCL	LCS ULC	SAMPLE	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD LCL
PRO (C8 - C40)	500	ND	3400	2689	NA	ND	3400	2665	2627	NA	79.1	NA	55	118	ND	78.4	77.3	41	101	NA	1	20
SURROGATE:																						
o-TERPHENYL		16.3	20	18.3	NA	12.8	20	18.5	17.8	81.7	91.7	NA	49	174	64.2	92.6	88.9	49	174	NA	4	20

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

2.2.5.2 Sample Data

Acq On : 21 Dec 2001 14:55 Operator: HV
Sample : L0112349-01 10x PRO water Inst : hp2
Misc : 1,1 water Multiplr: 10.70
IntFile : PETRO.E
Quant Time: Dec 21 15:08 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Fri Dec 21 14:34:21 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.73	14469	0.923 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		4.62%#
3) s n-Nonatriacontane	7.57f	1904	0.239 ppm DL
Spiked Amount 20.000	Recovery =		1.20%
Target Compounds			
1) H Petroleum Range	3.65	63071252	50773.271 ppb

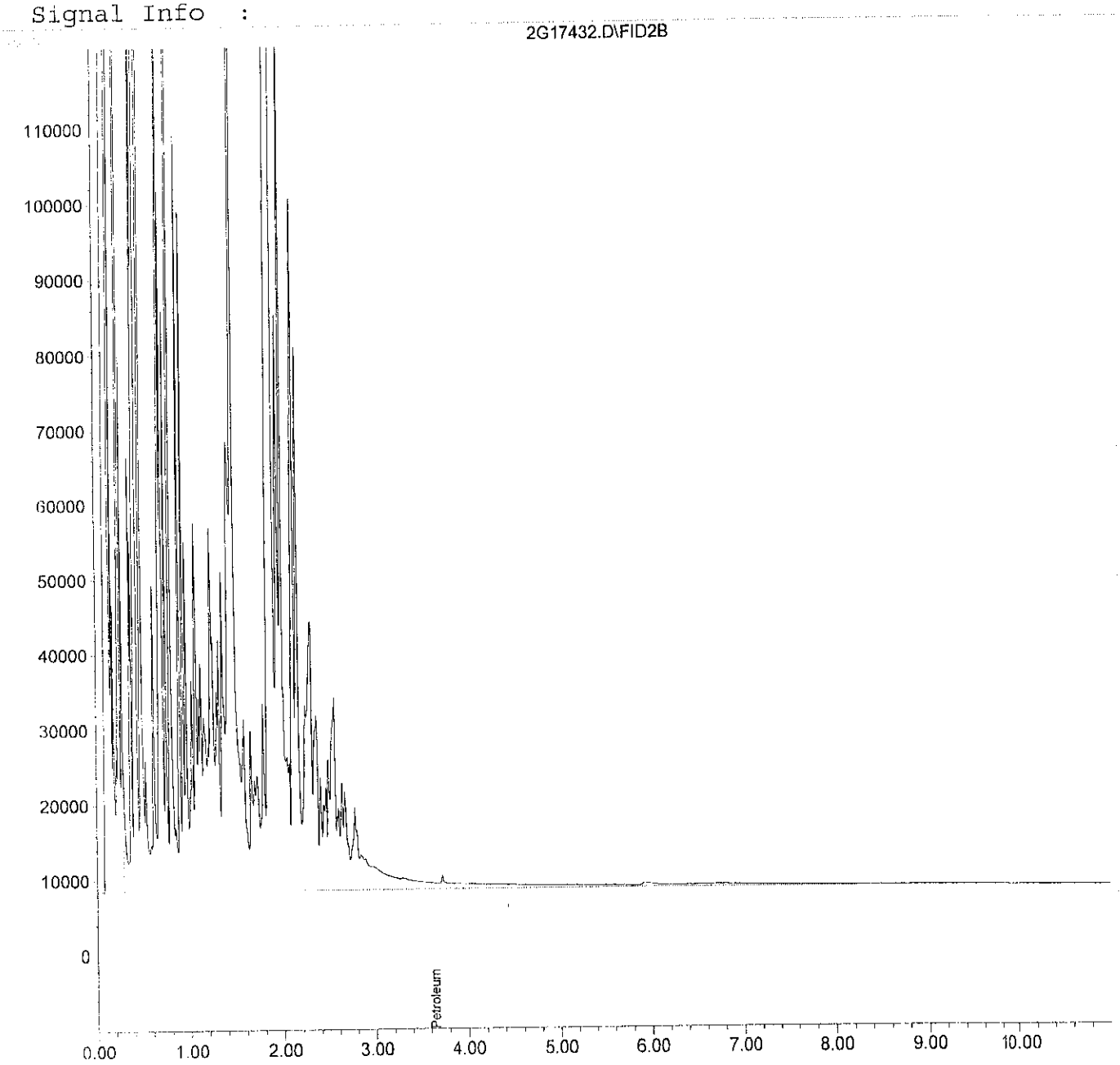
(f)=RT Delta > 1/2 Window (m)=manual int.
2G17432.D FLASHPRO.M Fri Dec 21 15:08:24 2001 Page 1

Acq On : 21 Dec 2001 14:55
Sample : L0112349-01 10x PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Dec 21 15:08 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 10.70

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Fri Dec 21 14:34:21 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 21 Dec 2001 14:40 Operator: HV
Sample : L0112349-02 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.08
IntFile : PETRO.E
Quant Time: Dec 21 15:01 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Fri Dec 21 14:34:21 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.73	331113	21.126 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery	=	105.63%
3) s n-Nonatriacontane	7.50	478	0.060 ppm
Spiked Amount 20.000	Recovery	=	0.30%
Target Compounds			
1) H Petroleum Range	3.65	11331368	920.717 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17431.D FLASHPRO.M Fri Dec 21 15:01:13 2001 Page

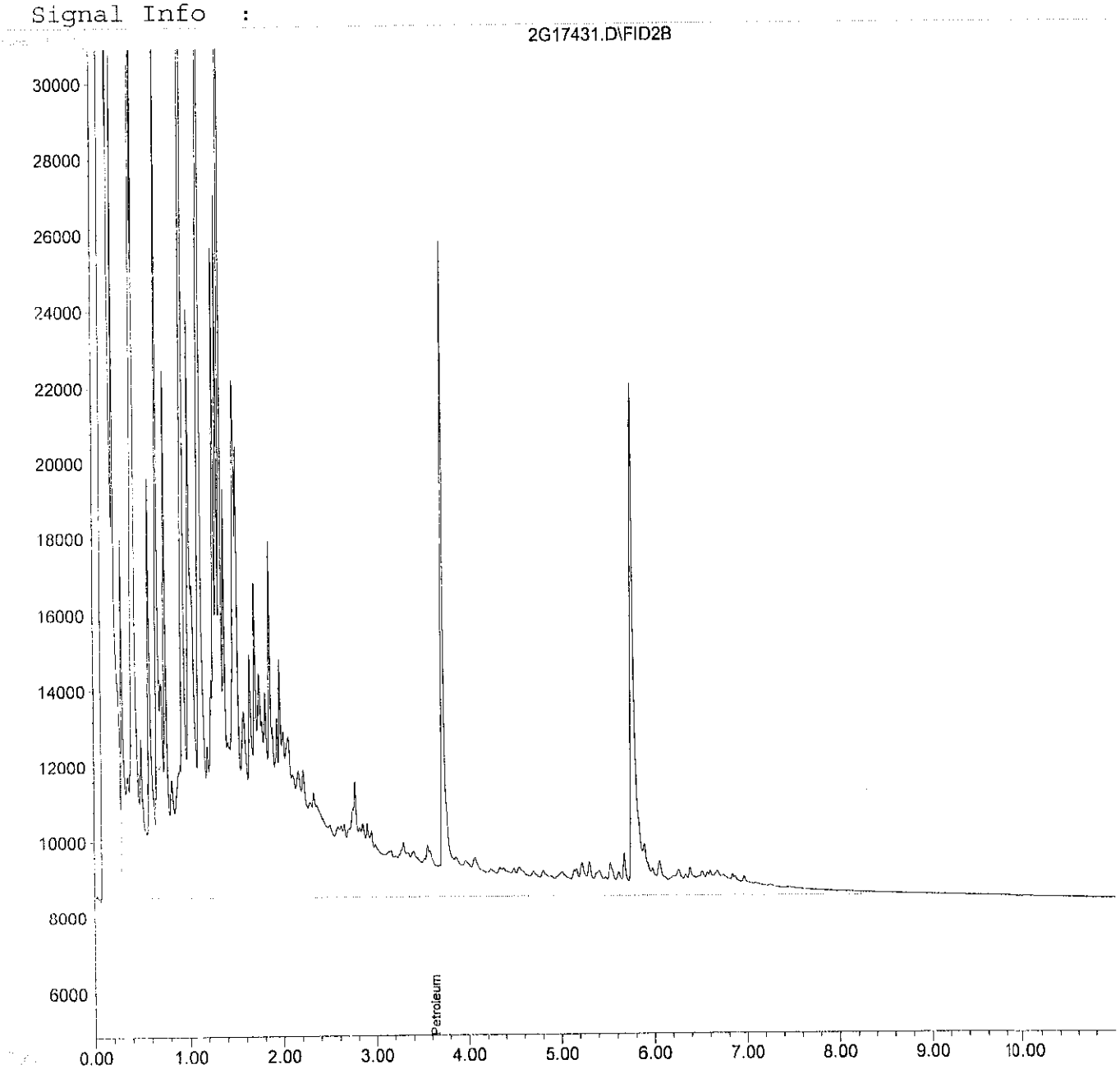
Data File : C:\HPCHEM\1\[illegible]

Acq On : 21 Dec 2001 14:40
Sample : L0112349-02 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Dec 21 15:01 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.08

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Fri Dec 21 14:34:21 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2.2.5.3 Standards Data

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/20/01
Last Update : Thu Dec 20 16:03:38 2001

Calibration Files

5	=2G17377.D	50	=2G17376.D	100	=2G17375.D
200	=2G17374.D	400	=2G17373.D	600	=2G17372.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	1.388	1.743	1.919	1.340	1.440	1.373	1.534	E4	15.58
2)	s	O-Terphenyl	1.902	2.254	2.429	1.655	1.808	1.648	1.949	E4	16.[illegible]
3)	s	n-Nonatriacontane	0.937	0.837	1.002	0.714	0.709	0.615	0.802	E4	18.[illegible]

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\122001\2G17372.D
Acq On : 20 Dec 2001 14:30 Operator: HV
Sample : WG110451-06 PRO @600ppm Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 20 16:26 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 20 16:03:38 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

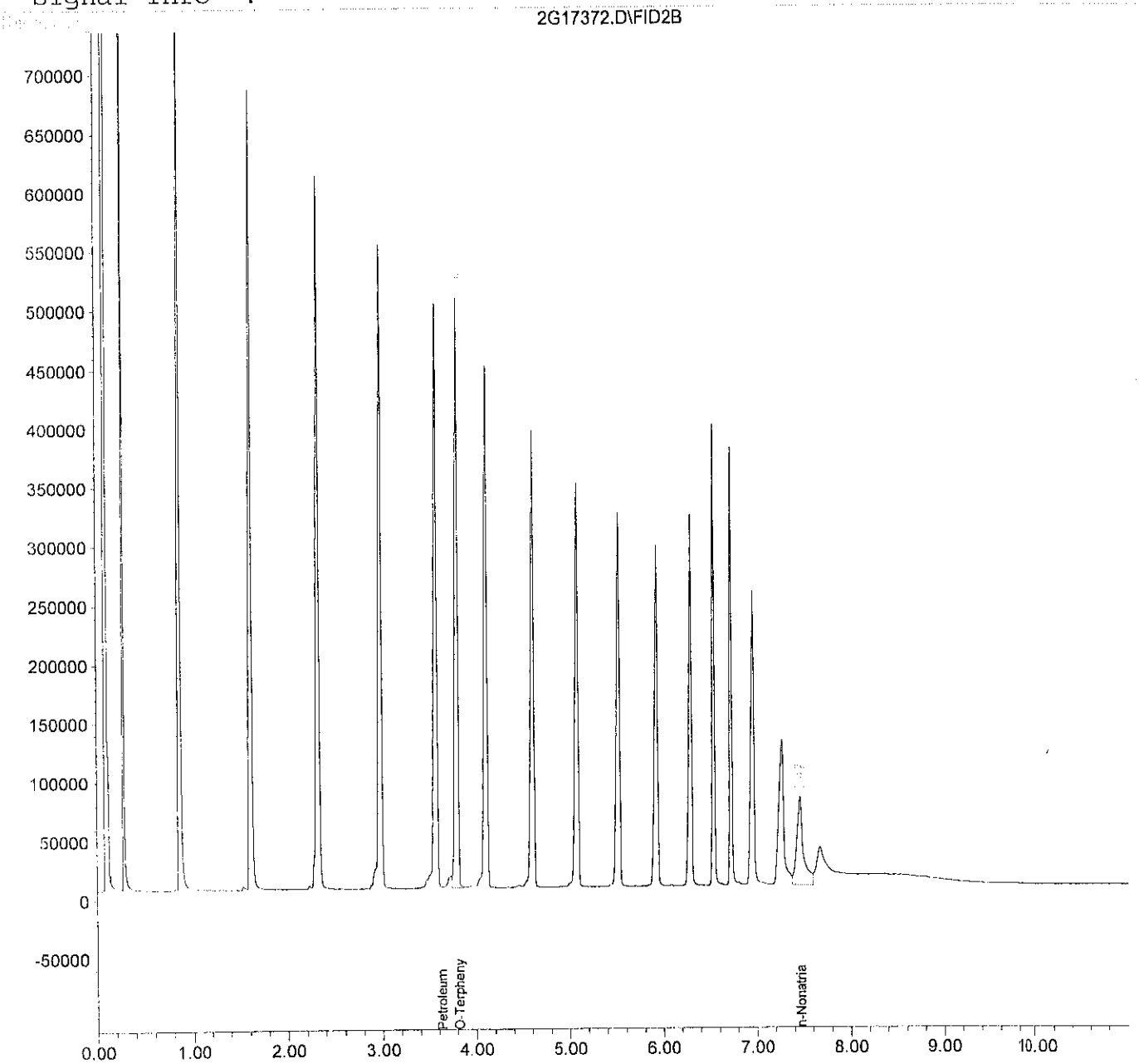
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.82	9889703	507.338 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 2536.69%#			
3) s n-Nonatriacontane	7.47	3689537	459.788 ppm
Spiked Amount 20.000 Recovery = 2298.94%			
Target Compounds			
1) H Petroleum Range	3.64	140078788	9132.774 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17372.D FLASHPRO.M Fri Dec 21 11:04:20 2001 Page 1

Acq On : 20 Dec 2001 14:30 Operator: HV
Sample : WG110451-06 PRO @600ppm Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 20 16:26 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 20 16:03:38 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 20 Dec 2001 14:46
Sample : WG110451-05 PRO @400ppm
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 20 16:03 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 20 16:03:38 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.82	7230594	368.467 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1842.34%#
3) s n-Nonatriacontane	7.49	2837444	366.024 ppm
Spiked Amount 20.000		Recovery	= 1830.12%
Target Compounds			
1) H Petroleum Range	3.64	97915629	6273.163 ppb

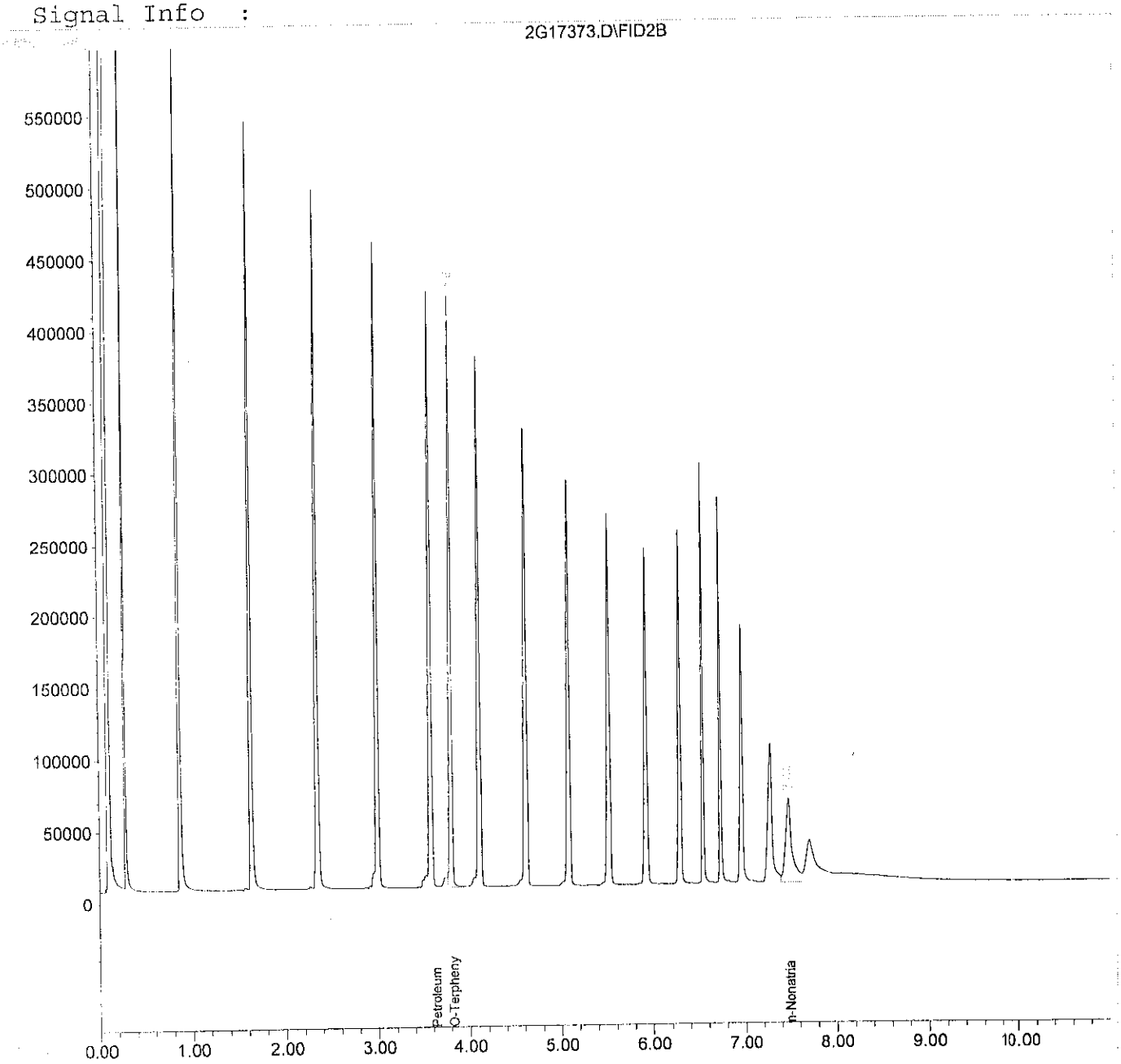
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\[illegible]
Acq On : 20 Dec 2001 14:46
Sample : WG110451-05 PRO @400ppm
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 20 16:03 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 20 16:03:38 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 20 Dec 2001 15:01 Operator: HV
Sample : WG110451-04 PRO @200ppm Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 20 16:04 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 20 16:03:38 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.82	3309145	168.632 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 843.16%#
3) s n-Nonatriacontane	7.47	1428580	184.284 ppm
Spiked Amount 20.000		Recovery	= 921.42%
Target Compounds			
1) H Petroleum Range	3.64	45555298	2918.592 ppb

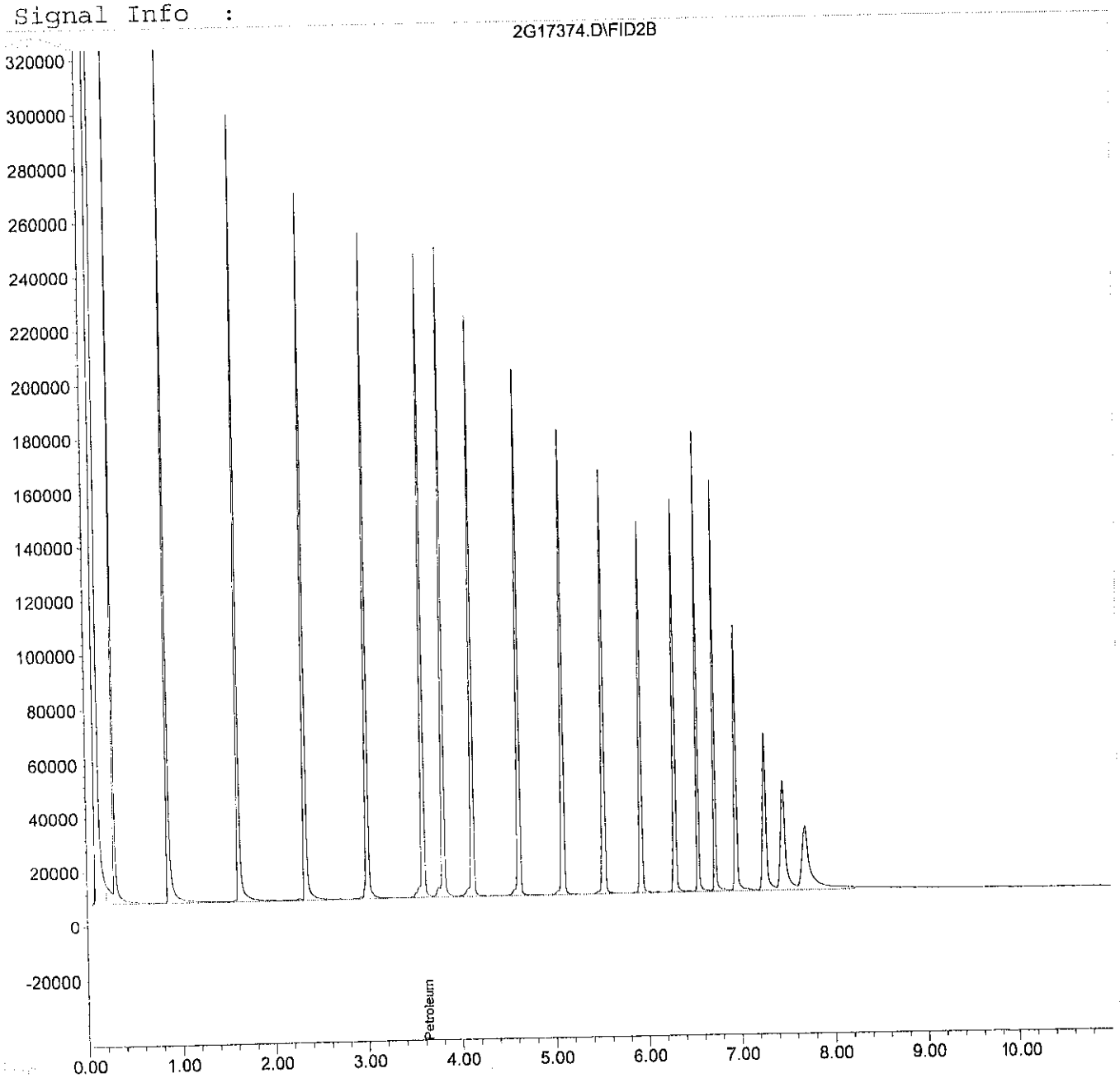
(f)=RT Delta > 1/2 Window (m)=manual int.
2G17374.D FLASHPRO.M Fri Dec 21 11:05:46 2001 Page 1

Data File : C:\HPCHEM\1\DATA\[illegible]
Acq On : 20 Dec 2001 15:01
Sample : WG110451-04 PRO @200ppm
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 20 16:04 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 20 16:03:38 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

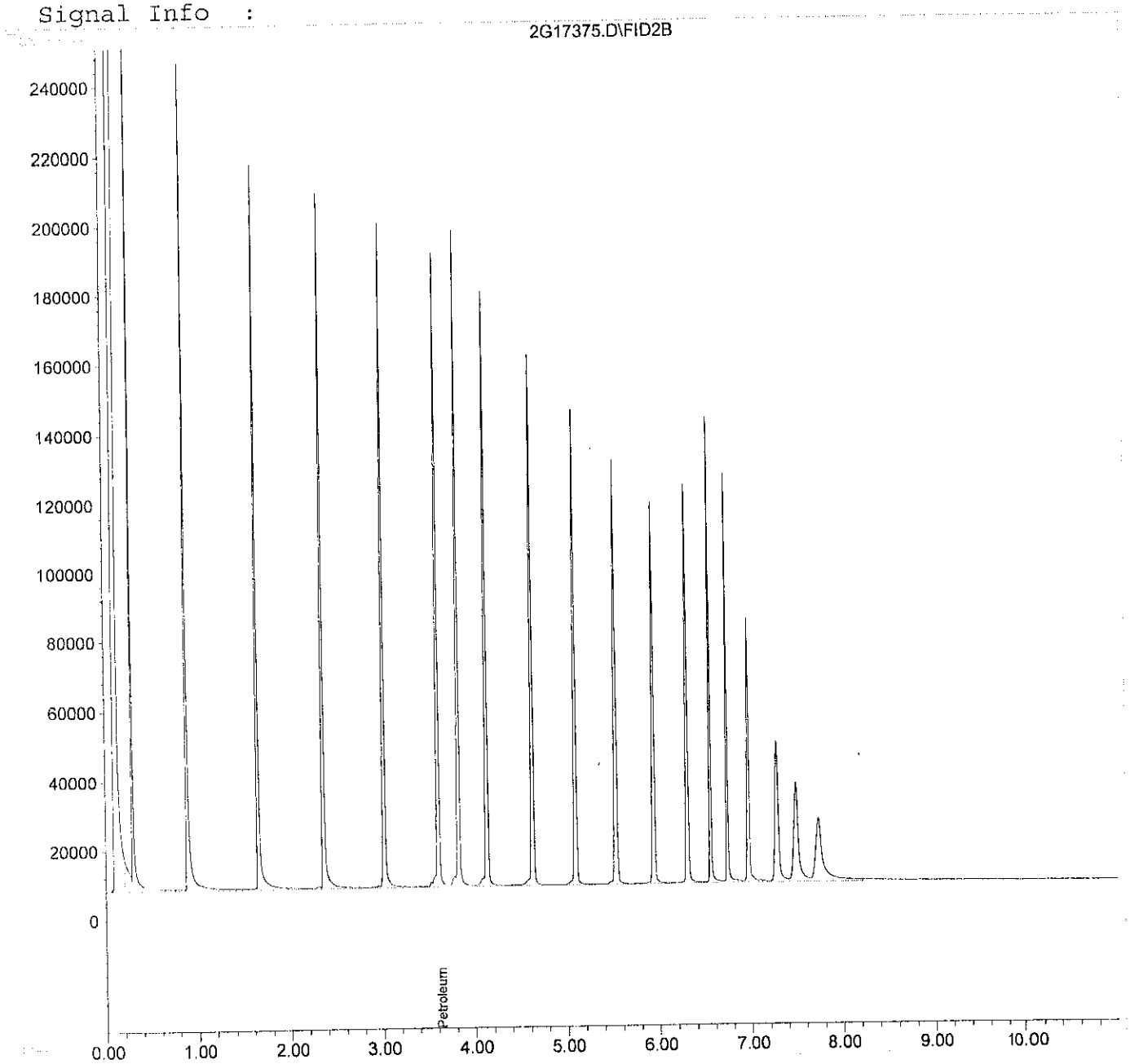


Acq On : 20 Dec 2001 15:17
Sample : WG110451-03 PRO @100ppm
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 20 16:05 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 20 16:03:38 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\[illegible]

Acq On : 20 Dec 2001 15:32
Sample : WG110451-02 PRO @50ppm
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 20 16:08 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 20 16:03:38 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.80	1127222	57.443 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery = 287.22%#		
3) s n-Nonatriacontane	7.47	418631	54.002 ppm
Spiked Amount 20.000	Recovery = 270.01%		
Target Compounds			
1) H Petroleum Range	3.64	14814041	949.091 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\[illegible]
Acq On : 20 Dec 2001 15:17
Sample : WG110451-03 PRO @100ppm
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 20 16:05 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 20 16:03:38 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	2428971	123.779 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 618.90%#
3) s n-Nonatriacontane	7.50	1002294	129.294 ppm
Spiked Amount 20.000		Recovery	= 646.47%
Target Compounds			
1) H Petroleum Range	3.64	32624150	2090.132 ppb

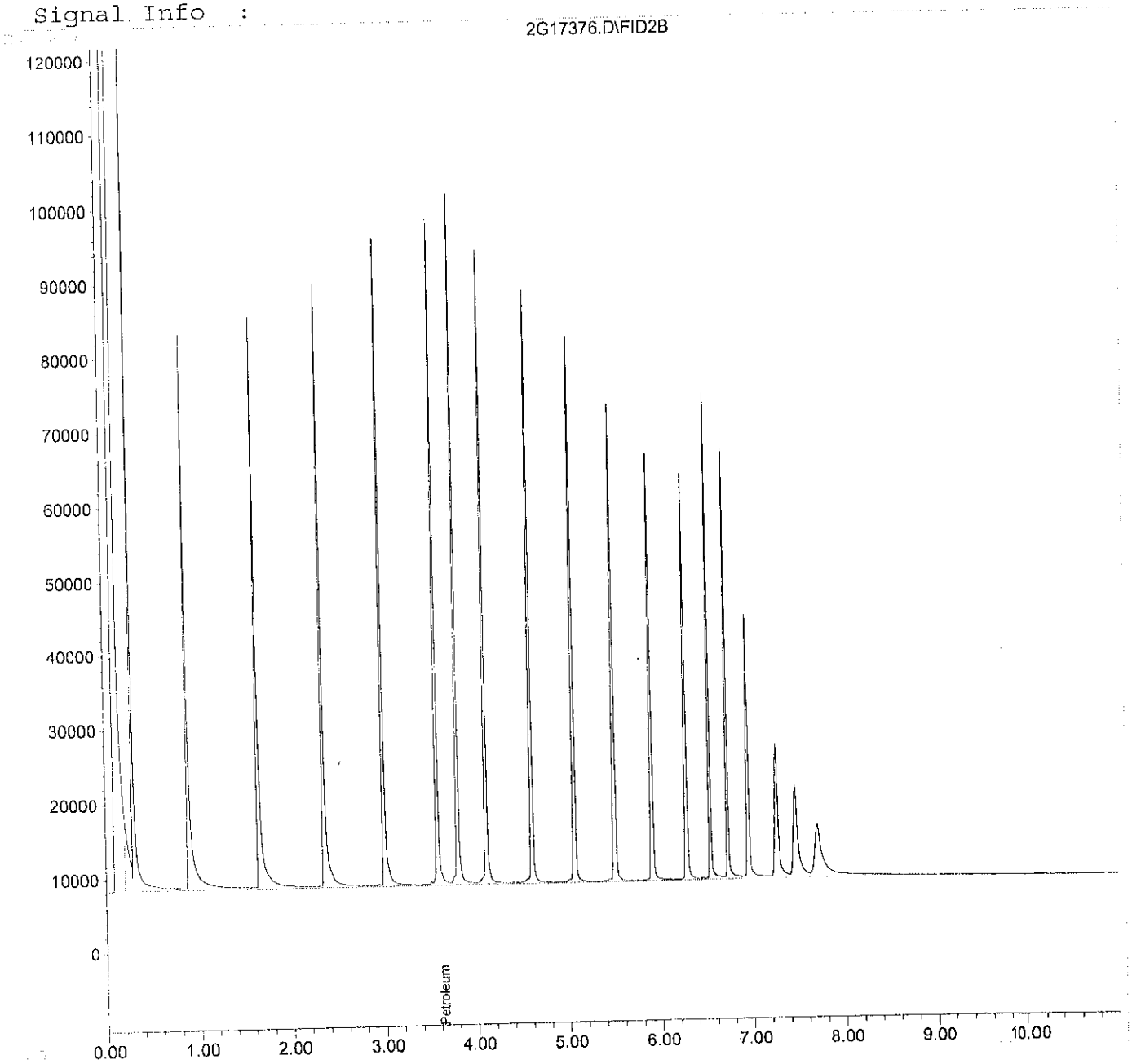
(f)=RT Delta > 1/2 Window (m)=manual int.
2G17375.D FLASHPRO.M Fri Dec 21 11:06:23 2001 Page 1

Data File : C:\HPCHEM\1\DATA\[illegible]
Acq On : 20 Dec 2001 15:32
Sample : WG110451-02 PRO @50ppm
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 20 16:08 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 20 16:03:38 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\[illegible]

Acq On : 20 Dec 2001 15:48
Sample : WG110451-01 PRO @5ppm
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 20 16:10 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 20 16:03:38 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.81	95103	4.846 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		24.23%#
3) s n-Nonatriacontane	7.38f	46827	6.041 ppm
Spiked Amount 20.000	Recovery =		30.21%
Target Compounds			
1) H Petroleum Range	3.64	1179634	<MDL ppb

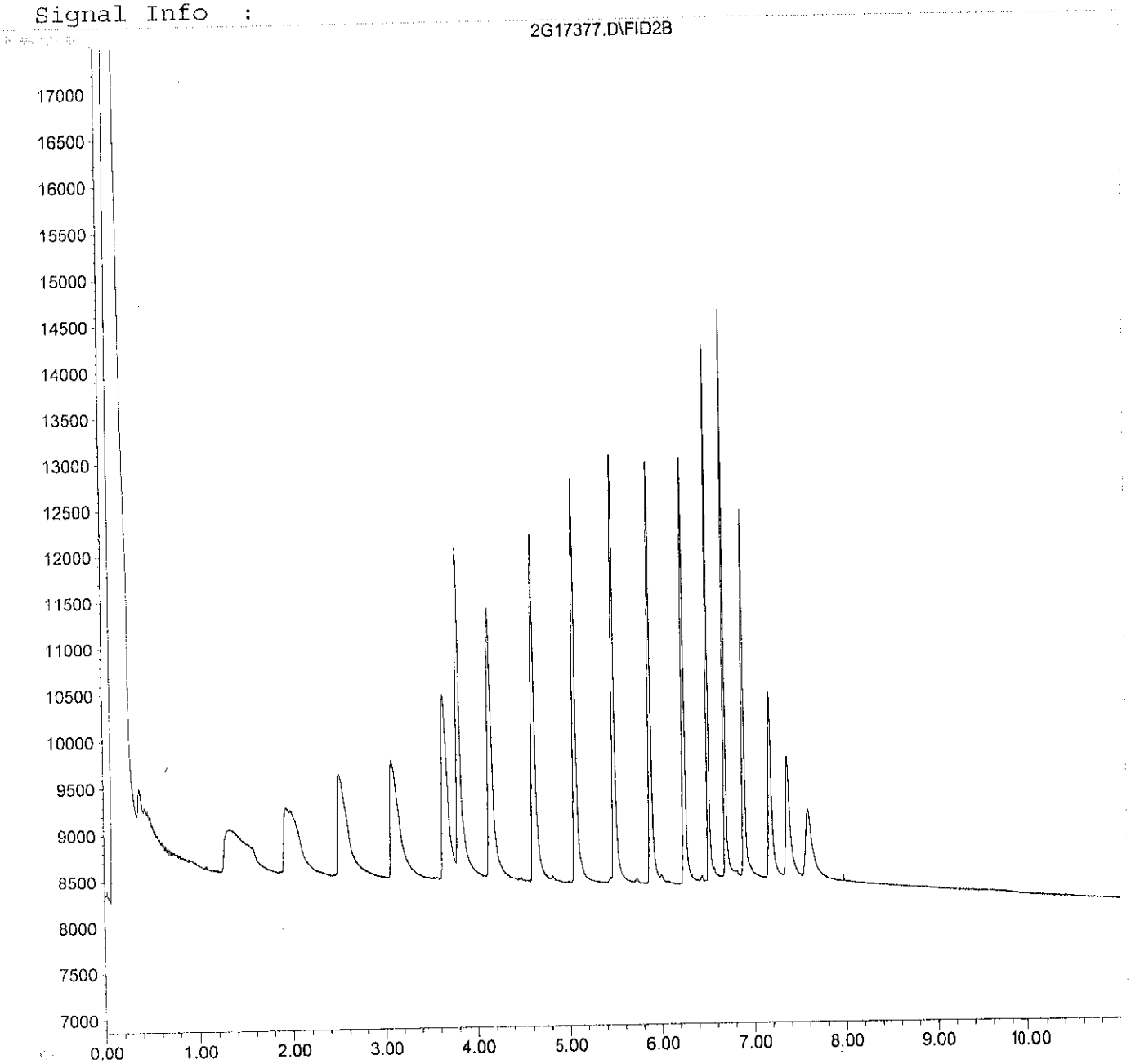
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\[illegible]
Acq On : 20 Dec 2001 15:48
Sample : WG110451-01 PRO @5ppm
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 20 16:10 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 20 16:03:38 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 20 Dec 2001 16:13 Operator: HV
Sample : WG110451-07 ALT PRO @200ppm Inst : hp2
Misc : 1,1 SOS56-26 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 20 16:03:38 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	2947.115	13.3	99	0.00
2	s	O-Terphenyl	200.000	0.057	100.0#	0	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G17378.D FLASHPRO.M Fri Dec 21 11:10:21 2001 Page 1

Acq On : 20 Dec 2001 16:13 Operator: HV
Sample : WG110451-07 ALT PRO @200ppm Inst : hp2
Misc : 1,1 SOS56-26 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 20 16:03:38 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
3 s	n-Nonatriacontane	200.000	0.000	100.0#	0	-7.47#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Acq On : 20 Dec 2001 16:13 Operator: HV
Sample : WG110451-07 ALT PRO @200ppm Inst : hp2
Misc : 1,1 SOS56-26 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 20 16:26 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 20 16:03:38 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.81	1121	0.057 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery	=	0.29%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000	Recovery	=	0.00%
Target Compounds			
1) H Petroleum Range	3.64	45202954	2947.115 ppb

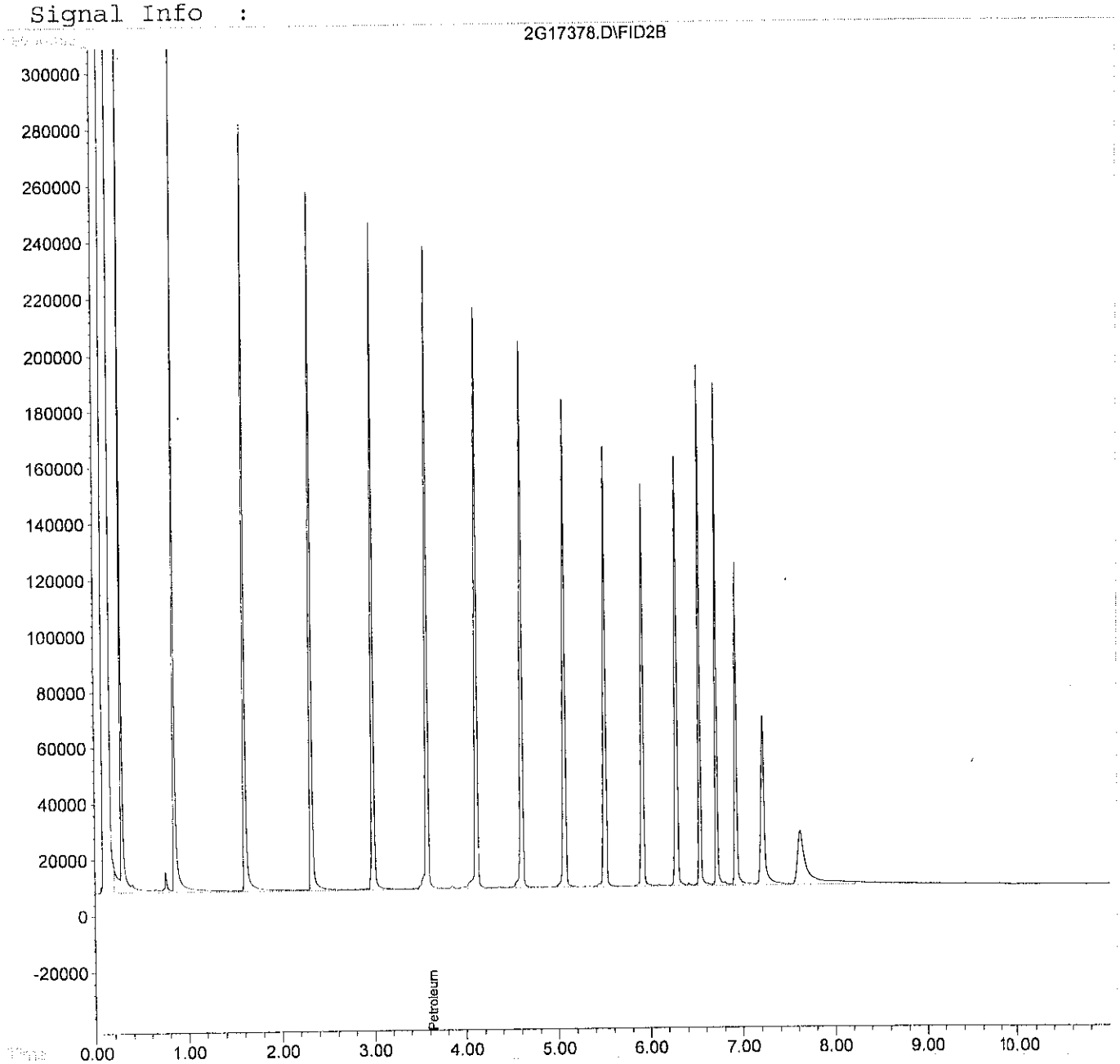
(f)=RT Delta > 1/2 Window (m)=manual int.
2G17378.D FLASHPRO.M Fri Dec 21 11:10:24 2001 Page 1

Acq On : 20 Dec 2001 16:13
Sample : WG110451-07 ALT PRO @200ppm
Misc : 1,1 SOS56-26
IntFile : PETRO.E
Quant Time: Dec 20 16:26 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 20 16:03:38 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Fri Dec 21 14:34:21 2001

Calibration Files

5	=2G17426.D	50	=2G17425.D	100	=2G17424.D
200	=2G17421.D	400	=2G17423.D	600	=2G17422.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	1.314	1.303	1.298	1.131	1.572	1.356	1.329	E4	10
2)	s	O-Terphenyl	1.848	1.489	1.511	1.328	1.723	1.504	1.567	E4	11
3)	s	n-Nonatriacontane	0.940	0.743	0.741	0.575	1.002	0.768	0.795	E4	19.38

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\122101\2G17421.D Vial: 4
Acq On : 21 Dec 2001 11:52 Operator: HV
Sample : WG110458-04 PRO CCV Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 21 13:10 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/20/01
Last Update : Fri Dec 21 13:09:39 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.85	2656637	136.285 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 681.43%#
3) s n-Nonatriacontane	7.50f	1150192	143.336 ppm
Spiked Amount 20.000		Recovery	= 716.68%
Target Compounds			
1) H Petroleum Range	3.65	38456788	2507.283 ppb

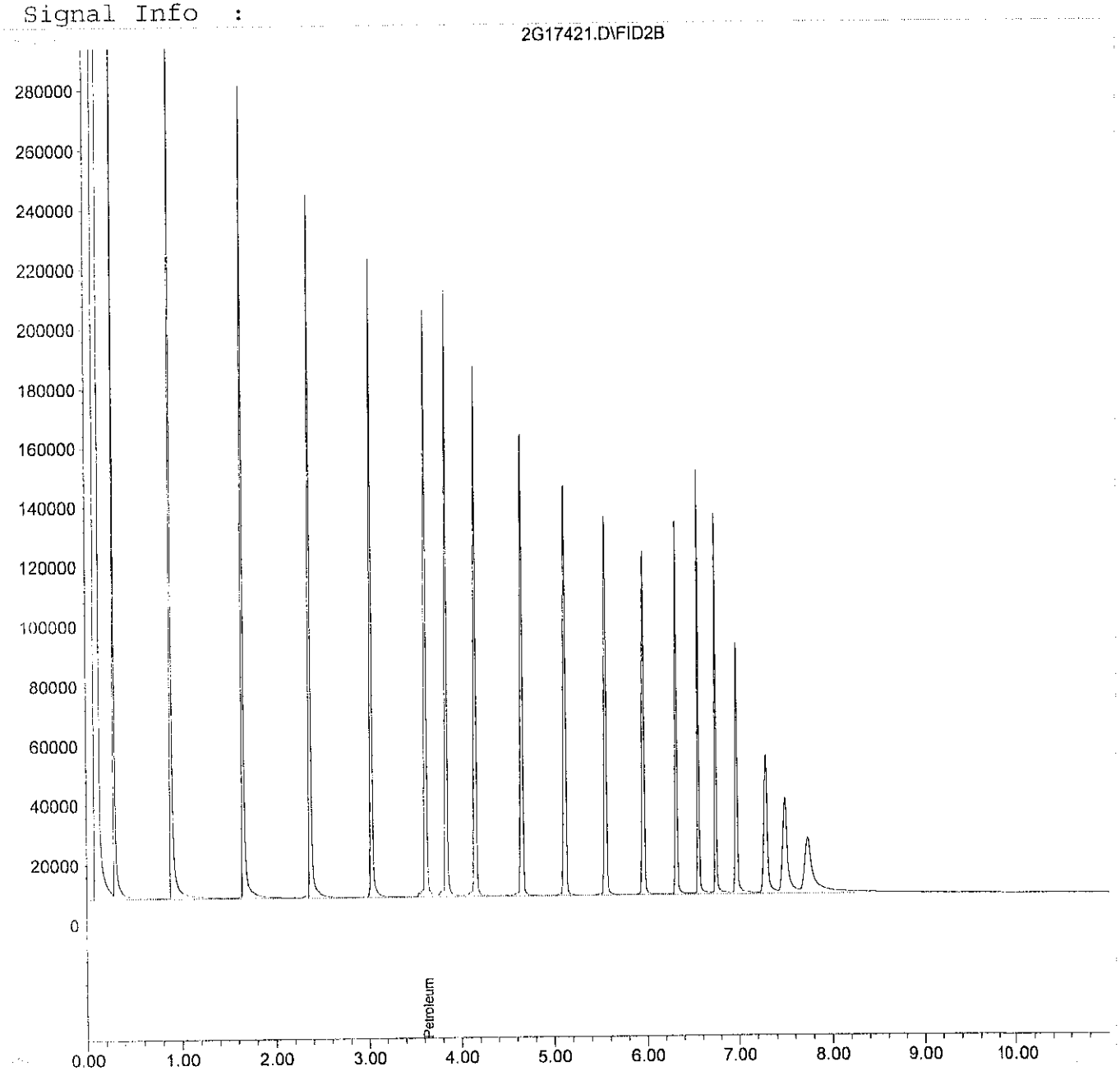
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\122101\2G17421.D
Acq On : 21 Dec 2001 11:52
Sample : WG110458-04 PRO CCV
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 21 13:10 2001 Quant Results File: FLASHPRO.RES

Vial: 4
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/20/01
Last Update : Fri Dec 21 13:09:39 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\122101\2G17422.D
Acq On : 21 Dec 2001 12:07
Sample : WG110458-06 PRO @600ppm
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 21 13:09 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/20/01
Last Update : Fri Dec 21 13:09:39 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.88	9025334	462.996 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 2314.98%#
3) s n-Nonatriacontane	7.58	4610174	574.517 ppm
Spiked Amount 20.000		Recovery	= 2872.59%
Target Compounds			
1) H Petroleum Range	3.65	138299622	9016.777 ppb

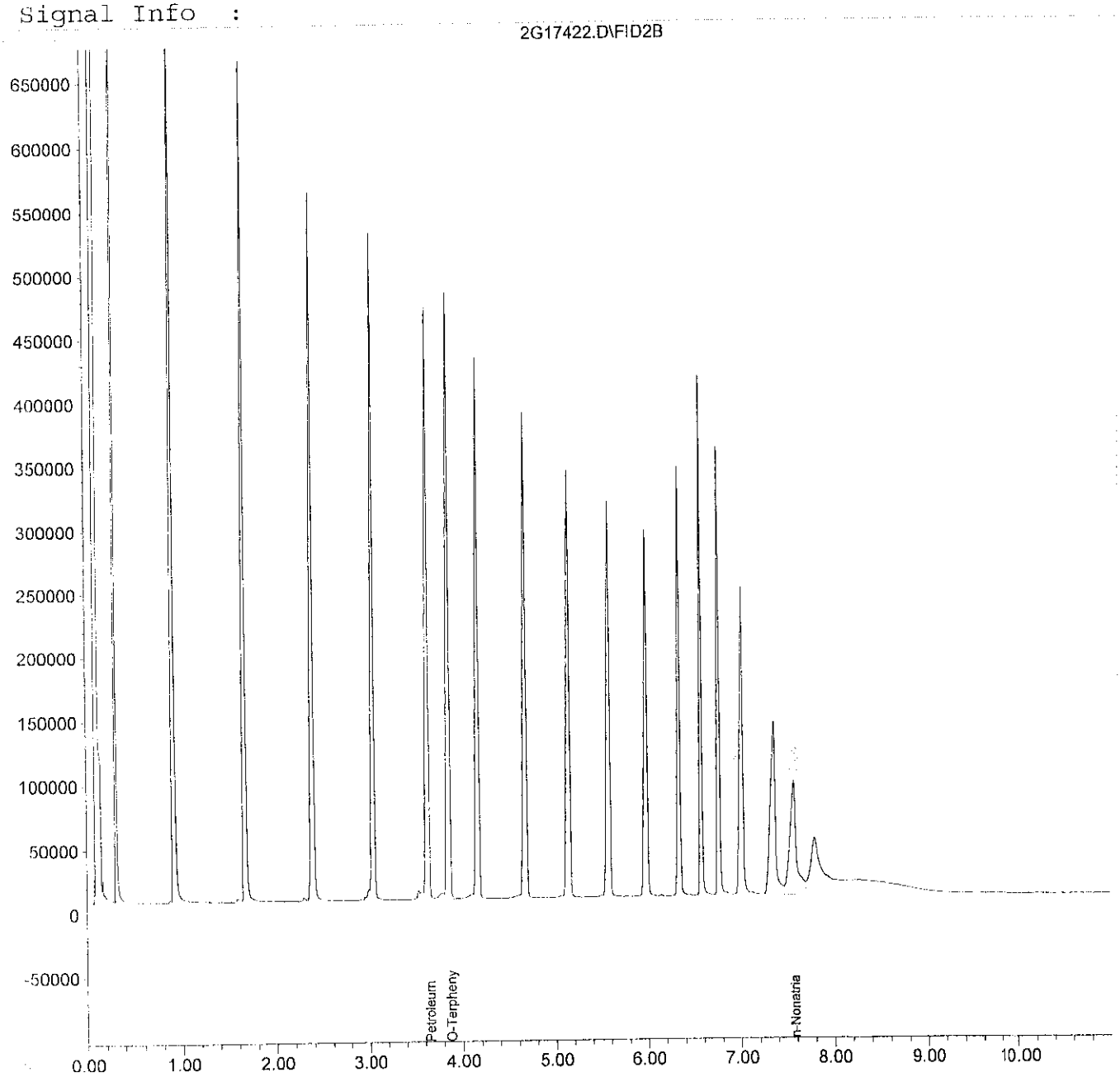
(f)=RT Delta > 1/2 Window (m)=manual int.
2G17422.D FLASHPRO.M Fri Dec 21 14:59:06 2001 Page

Data File : C:\HPCHEM\1\DATA\122101\2G17422.D
Acq On : 21 Dec 2001 12:07
Sample : WG110458-06 PRO @600ppm
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 21 13:09 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/20/01
Last Update : Fri Dec 21 13:09:39 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\122101\2G17423.D Vial: 5
Acq On : 21 Dec 2001 12:22 Operator: HV
Sample : WG110458-05 PRO @400ppm Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 21 13:11 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/20/01
Last Update : Fri Dec 21 13:09:39 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.88	6893780	353.648 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1768.24%#
3) s n-Nonatriacontane	7.57	4008497	499.536 ppm
Spiked Amount 20.000		Recovery	= 2497.68%
Target Compounds			
1) H Petroleum Range	3.65	106889408	6968.912 ppb

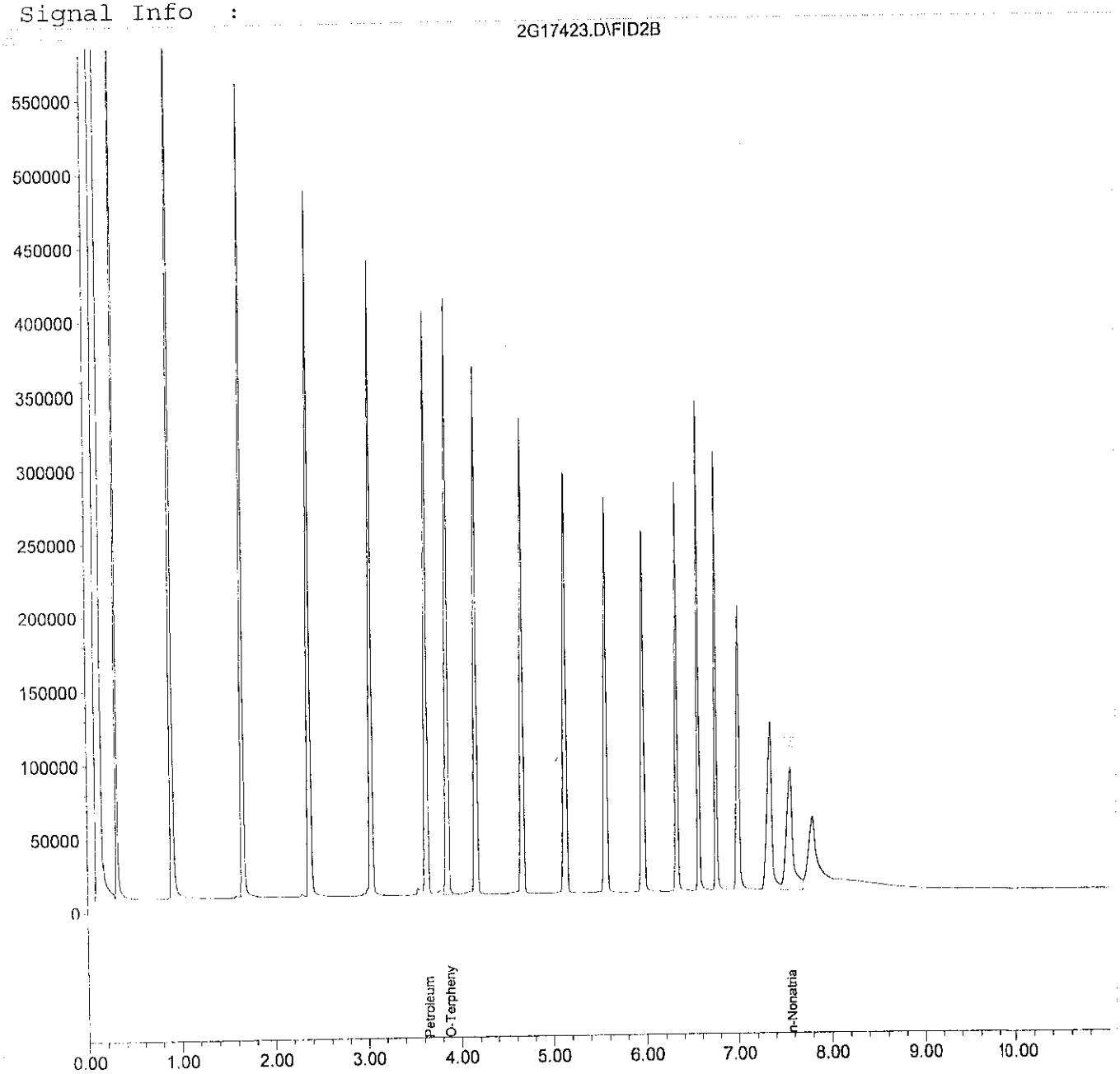
(f)=RT Delta > 1/2 Window (m)=manual int.
2G17423.D FLASHPRO.M Fri Dec 21 14:59:12 2001 Page 1

Data File : C:\HPCHEM\1\DATA\122101\2G17423.D
Acq On : 21 Dec 2001 12:22
Sample : WG110458-05 PRO @400ppm
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 21 13:11 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/20/01
Last Update : Fri Dec 21 13:09:39 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\122101\2G17424.D Vial: 7
Acq On : 21 Dec 2001 12:37 Operator: HV
Sample : WG110458-03 PRO @100ppm Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 21 13:11 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/20/01
Last Update : Fri Dec 21 13:09:39 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.85	1511047	77.516 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	387.58%#
3) s n-Nonatriacontane	7.53	740513	92.282 ppm
Spiked Amount 20.000		Recovery =	461.41%
Target Compounds			
1) H Petroleum Range	3.65	22074251	1439.184 ppb

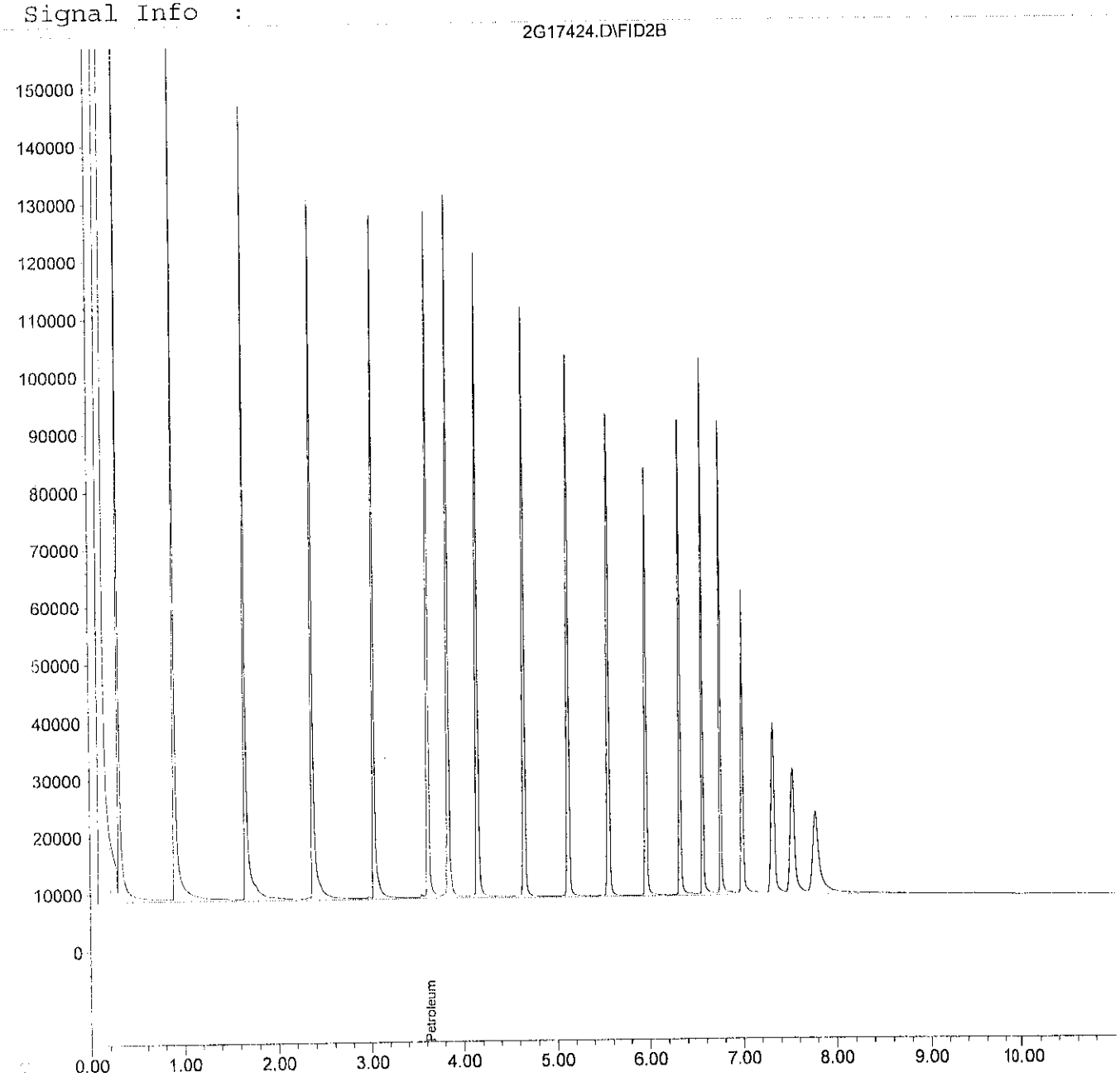
(f)=RT Delta > 1/2 Window (m)=manual int.
2G17424.D FLASHPRO.M Fri Dec 21 14:59:20 2001 Page 1

Data File : C:\HPCHEM\1\DATA\122101\2G17424.D
Acq On : 21 Dec 2001 12:37
Sample : WG110458-03 PRO @100ppm
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 21 13:11 2001 Quant Results File: FLASHPRO.RES

Vial: 7
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/20/01
Last Update : Fri Dec 21 13:09:39 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\122101\2G17425.D Vial: 6
Acq On : 21 Dec 2001 13:05 Operator: HV
Sample : WG110458-02 PRO @50ppm Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 21 13:34 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/20/01
Last Update : Fri Dec 21 13:34:04 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

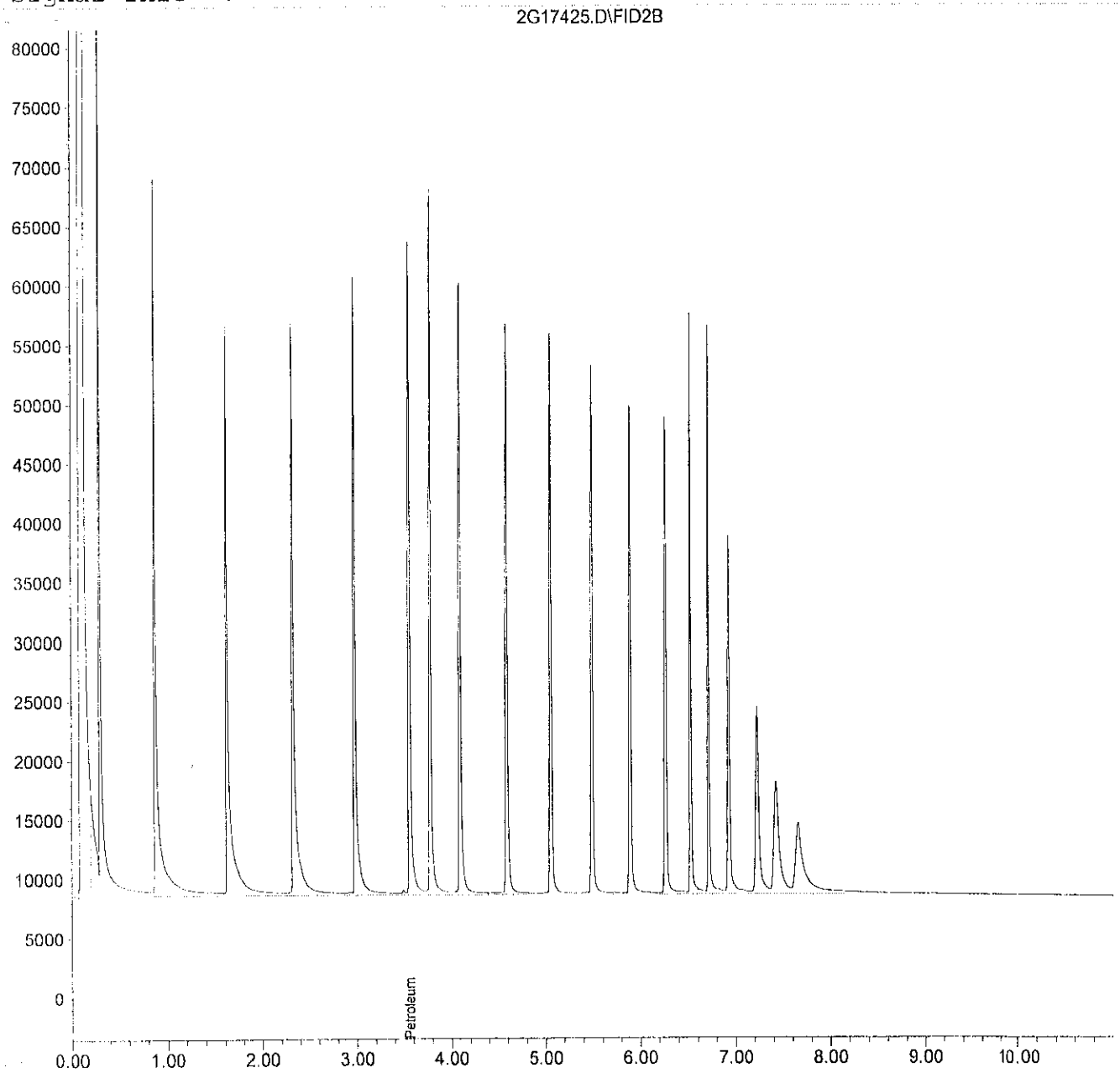
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.78	744504	38.193 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 190.97%#
3) s n-Nonatriacontane	7.43	371570	46.305 ppm
Spiked Amount 20.000		Recovery	= 231.53%
Target Compounds			
1) H Petroleum Range	3.56	11077319	722.212 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17425.D FLASHPRO.M Fri Dec 21 14:59:28 2001 Page 1

Acq On : 21 Dec 2001 13:05 Operator: HV
Sample : WG110458-02 PRO @50ppm Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 21 13:34 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/20/01
Last Update : Fri Dec 21 13:34:04 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\122101\2G17426.D Vial: 9
Acq On : 21 Dec 2001 13:20 Operator: HV
Sample : WG110458-01 PRO @5ppm Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 21 13:34 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/20/01
Last Update : Fri Dec 21 13:34:04 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	92404	4.740 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		23.70%#
3) s n-Nonatriacontane	7.44	47009	5.858 ppm
Spiked Amount 20.000	Recovery =		29.29%
Target Compounds			
1) H Petroleum Range	3.56	1117281	<MDL ppb

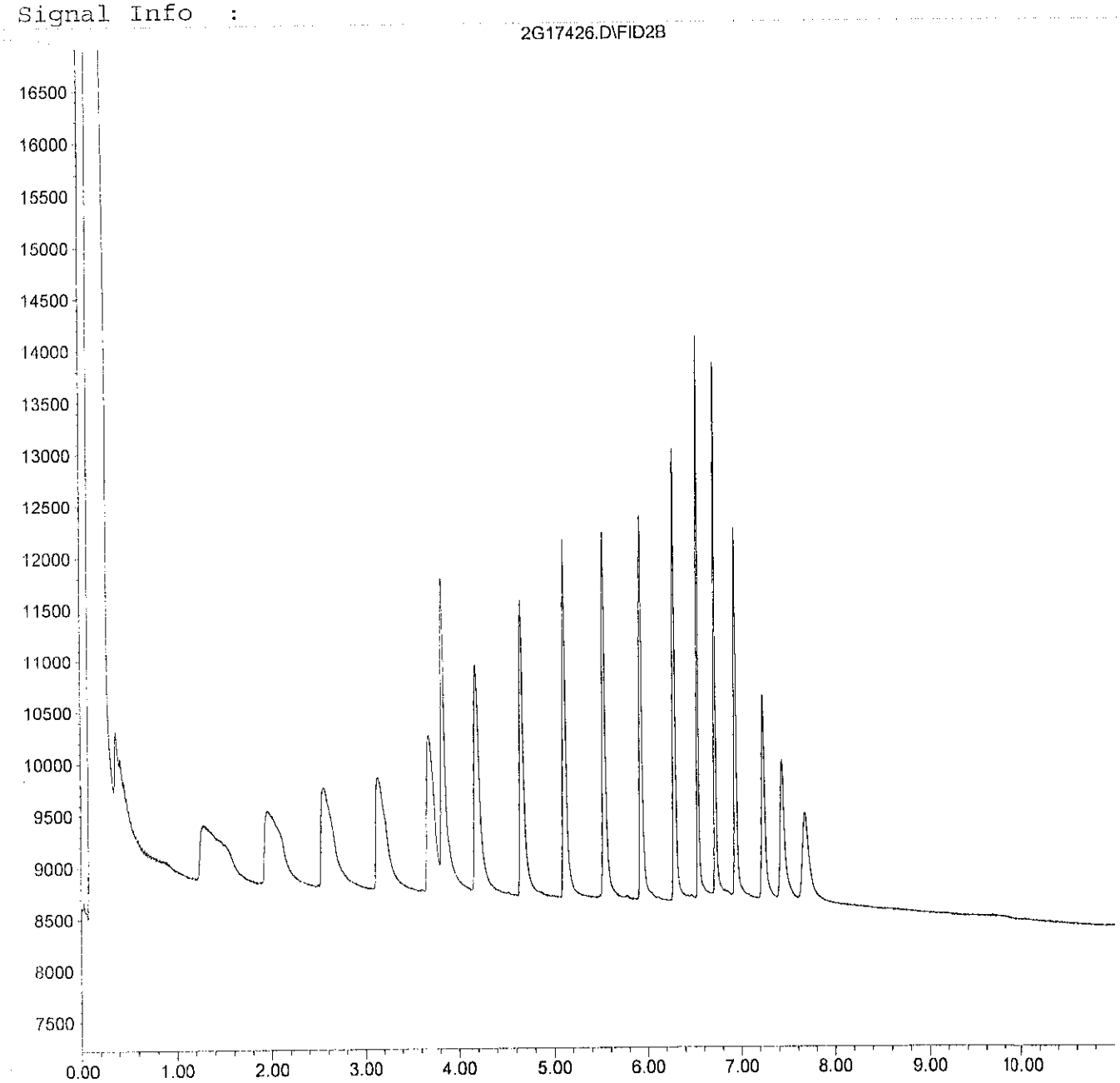
(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 21 Dec 2001 13:20
Sample : WG110458-01 PRO @5ppm
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 21 13:34 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/20/01
Last Update : Fri Dec 21 13:34:04 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 21 Dec 2001 13:39
Sample : WG110458-07 ALT @200ppm
Misc : 1,1 SOS56-26
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Fri Dec 21 14:34:21 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3313.403	2.5	115	0.00
2	s	O-Terphenyl	200.000	1.144	99.4#	1	0.12
3	s	n-Nonatriacontane	200.000	0.064	100.0#	0	0.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G17427.D FLASHPRO.M Fri Dec 21 14:59:50 2001 Page

Acq On : 21 Dec 2001 13:39
Sample : WG110458-07 ALT @200ppm
Misc : 1,1 SOS56-26
IntFile : PETRO.E
Quant Time: Dec 21 14:33 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Fri Dec 21 13:34:43 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.84	17935	1.144 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	5.72%#
3) s n-Nonatriacontane	7.54	510	0.064 ppm
Spiked Amount 20.000		Recovery =	0.32%
Target Compounds			
1) H Petroleum Range	3.65	44040716	3313.403 ppb

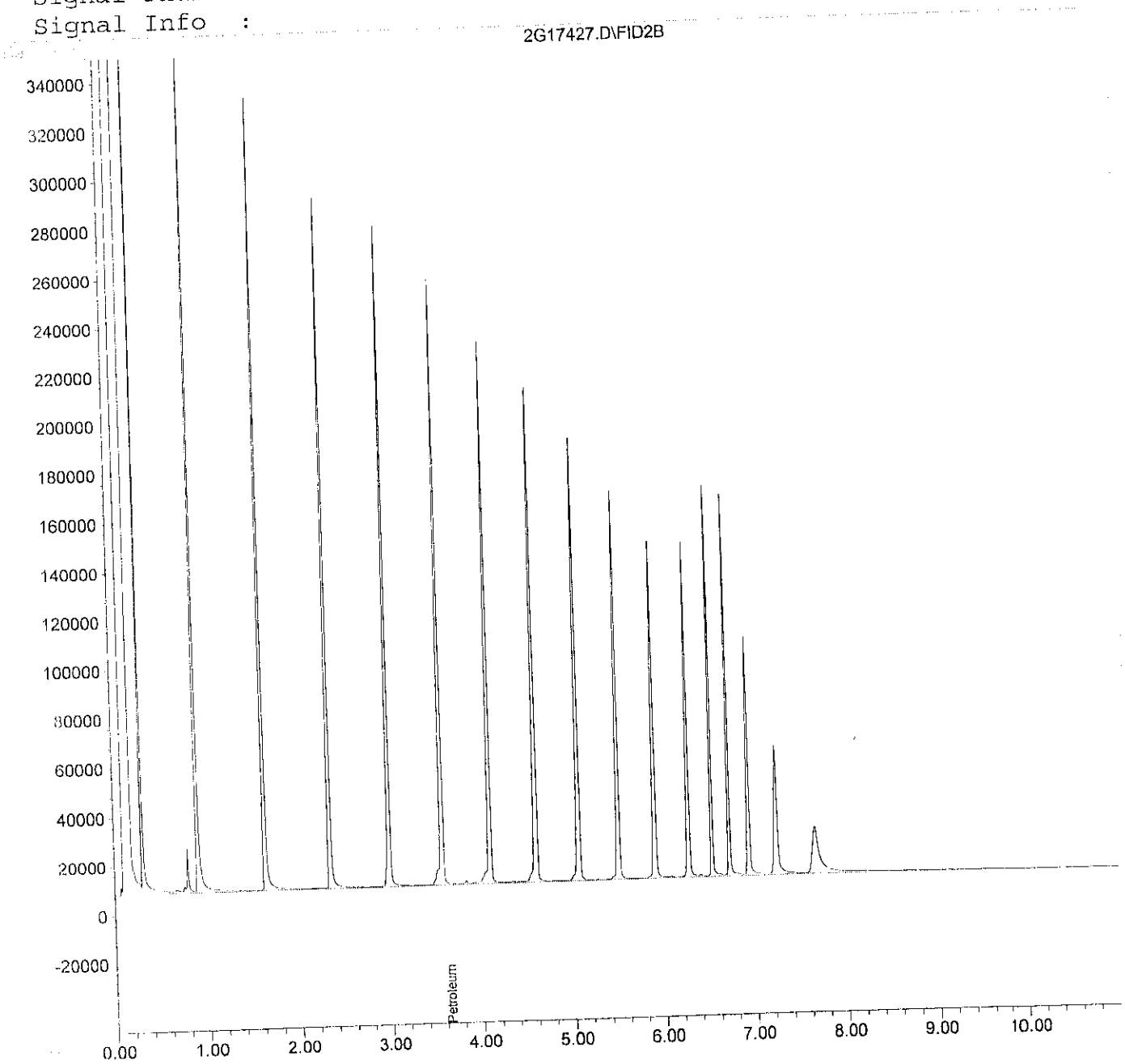
(f) RT Delta > 1/2 Window (m)=manual int.
2G17427.D FLASHPRO.M Fri Dec 21 14:59:53 2001 Page 1

Data File : C:\HPCHEM\1\DATA\122101\2G17427.D
Acq On : 21 Dec 2001 13:39
Sample : WG110458-07 ALT @200ppm
Misc : 1,1 SOS56-26
IntFile : PETRO.E
Quant Time: Dec 21 14:33 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Fri Dec 21 13:34:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 20 Dec 2001 18:48
Sample : WG110451-08 PRO CCV
Misc : 1,1 SOS56-21
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 20 16:03:38 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3198.249	5.9	108	0.00
2	s	O-Terphenyl	200.000	190.775	4.6	112	0.00
3	s	n-Nonatriacontane	200.000	194.866	2.6	109	0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G17388.D FLASHPRO.M Fri Dec 21 11:10:52 2001 Page

Data File : [illegible]

Acq On : 20 Dec 2001 18:48
Sample : WG110451-08 PRO CCV
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 21 10:05 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 20 16:03:38 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	3718836	190.775 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	953.88%#
3) s n-Nonatriacontane	7.50	1563687	194.866 ppm
Spiked Amount 20.000		Recovery =	974.33%
Target Compounds			
1) H Petroleum Range	3.64	49054853	3198.249 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

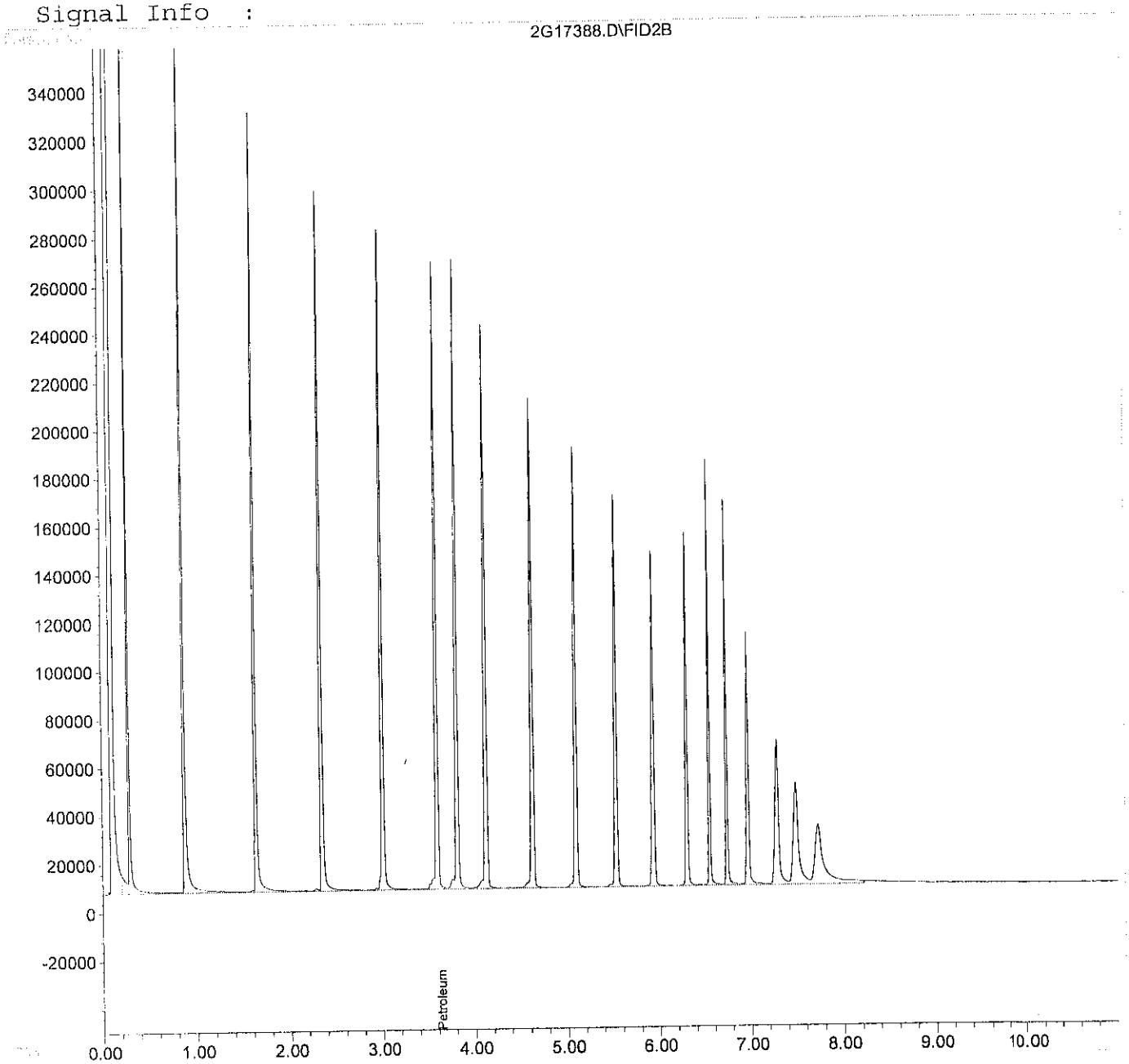
Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 20 Dec 2001 18:48
Sample : WG110451-08 PRO CCV
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 21 10:05 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 20 16:03:38 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\[illegible]
Acq On : 21 Dec 2001 15:11
Sample : WG110458-08 PRO CCV
Misc : 1,1 SOS56-21
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Fri Dec 21 15:23:14 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3024.114	11.1	105	0.00
2	s	O-Terphenyl	200.000	174.777	12.6	103	0.00
3	s	n-Nonatriacontane	200.000	185.656	7.2	128	0.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G17433.D FLASHPRO.M Fri Dec 21 15:37:08 2001 Page 1

Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 21 Dec 2001 15:11
Sample : WG110458-08 PRO CCV
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 21 15:23 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Fri Dec 21 15:23:14 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.76	2739381	174.777 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery	=	873.89%#
3) s n-Nonatriacontane	7.54	1475785	185.656 ppm
Spiked Amount 20.000	Recovery	=	928.28%
Target Compounds			
1) H Petroleum Range	3.54	40195570	3024.114 ppb

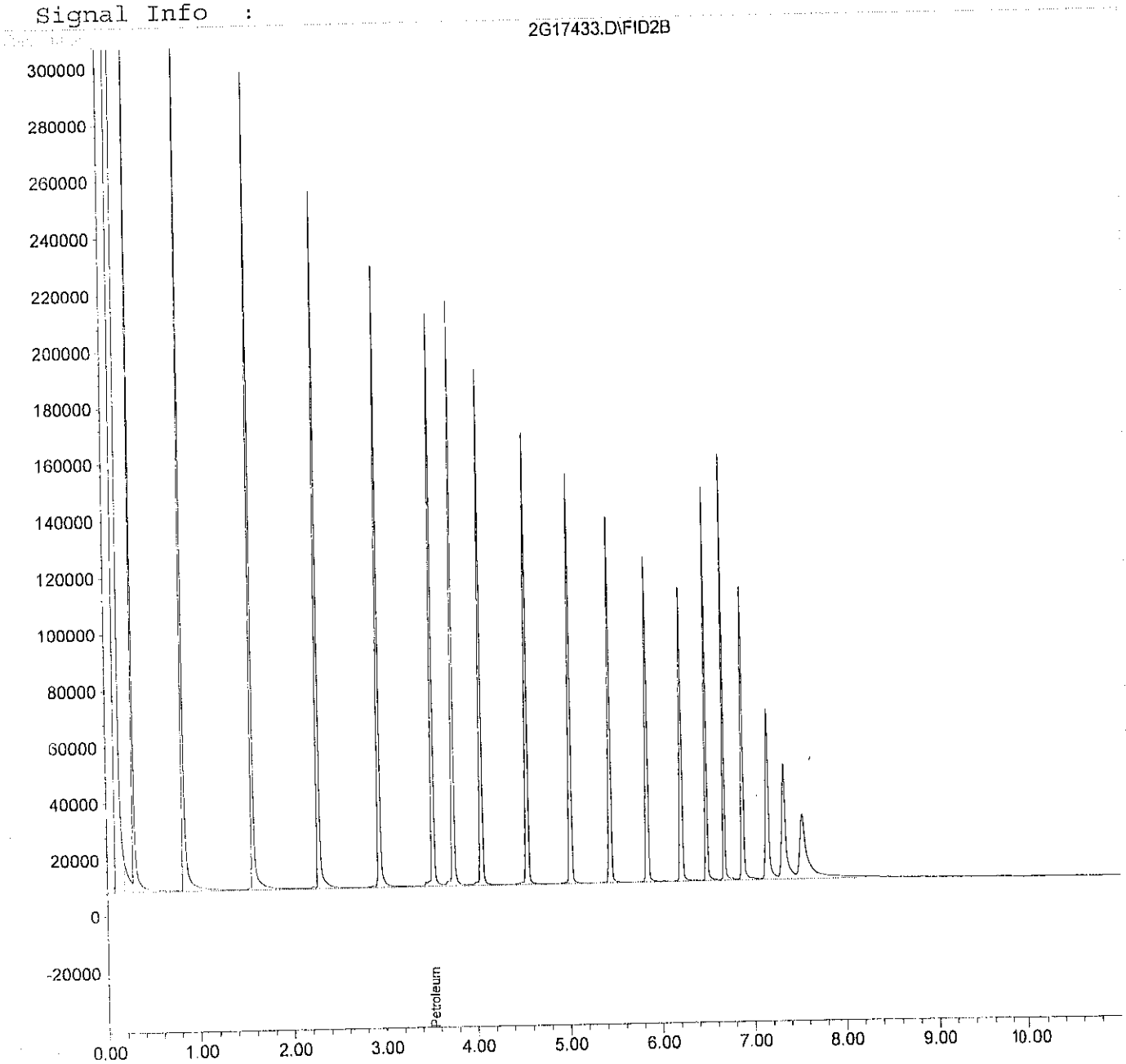
(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 21 Dec 2001 15:11
Sample : WG110458-08 PRO CCV
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 21 15:23 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Fri Dec 21 15:23:14 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2.2.5.4 Raw QC Data

Data File : C:\HPCHEM\1\[illegible]

Acq On : 20 Dec 2001 16:29
Sample : WG110258-02 PRO water BLK
Misc : 1,1 v177-p181
IntFile : PETRO.E
Quant Time: Dec 21 10:09 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.81	318356	16.332 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		81.66%
3) s n-Nonatriacontane	7.45	2263	0.282 ppm
Spiked Amount 20.000	Recovery =		1.41%
Target Compounds			
1) H Petroleum Range	3.64	1052290	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

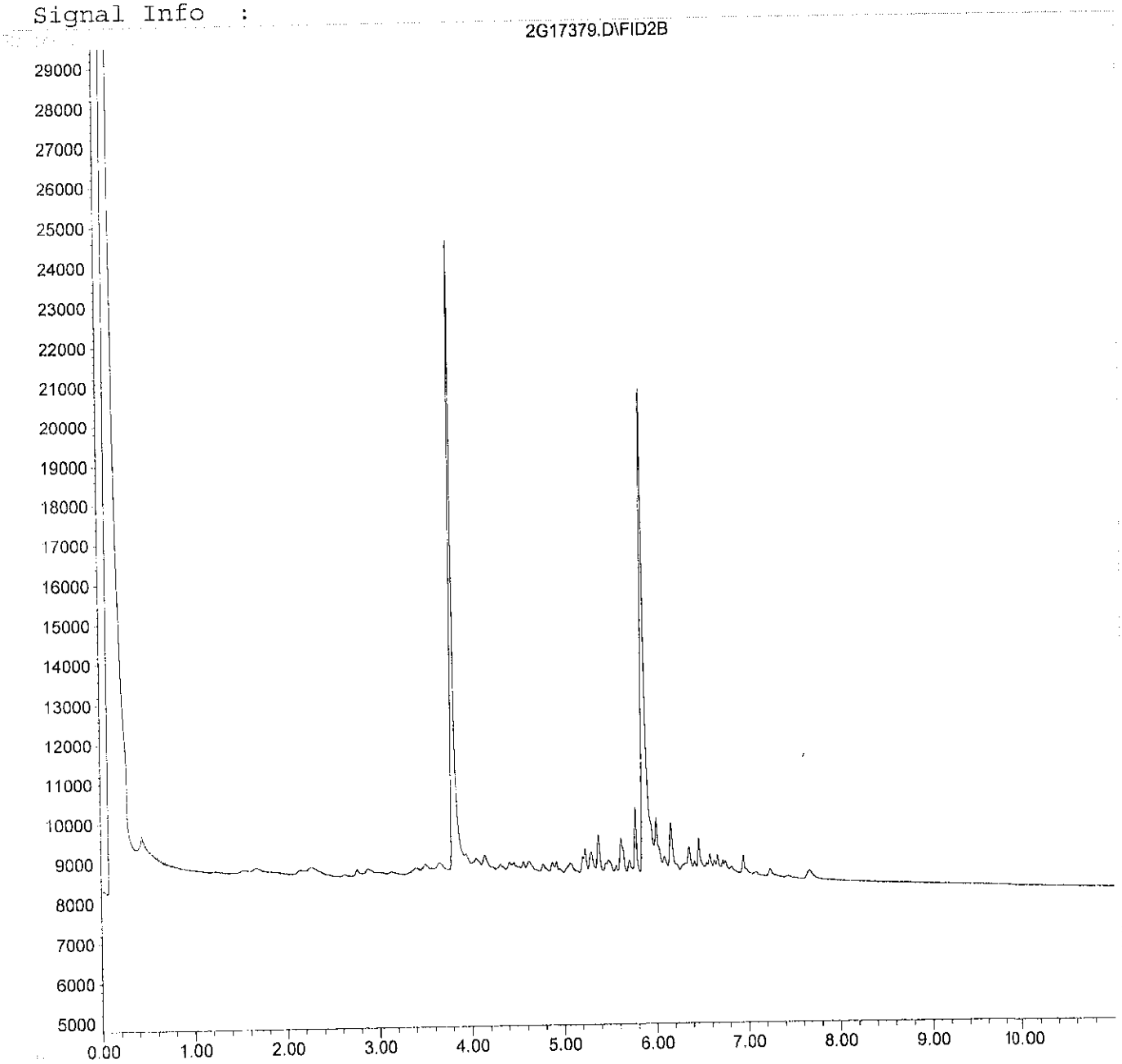
Data File : C:\HPCHEM\1\[illegible]

Acq On : 20 Dec 2001 16:29
Sample : WG110258-02 PRO water BLK
Misc : 1,1 v177-p181
IntFile : PETRO.E
Quant Time: Dec 21 10:09 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\[illegible]

Acq On : 20 Dec 2001 16:44
Sample : WG110258-03 PRO water LCS
Misc : 1,1 v177-p181
IntFile : PETRO.E
Quant Time: Dec 21 10:09 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.80	357452	18.337 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =	91.68%	
3) s n-Nonatriacontane	7.43	11916	1.485 ppm
Spiked Amount 20.000	Recovery =	7.43%	
Target Compounds			
1) H Petroleum Range	3.64	41245113	2689.074 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

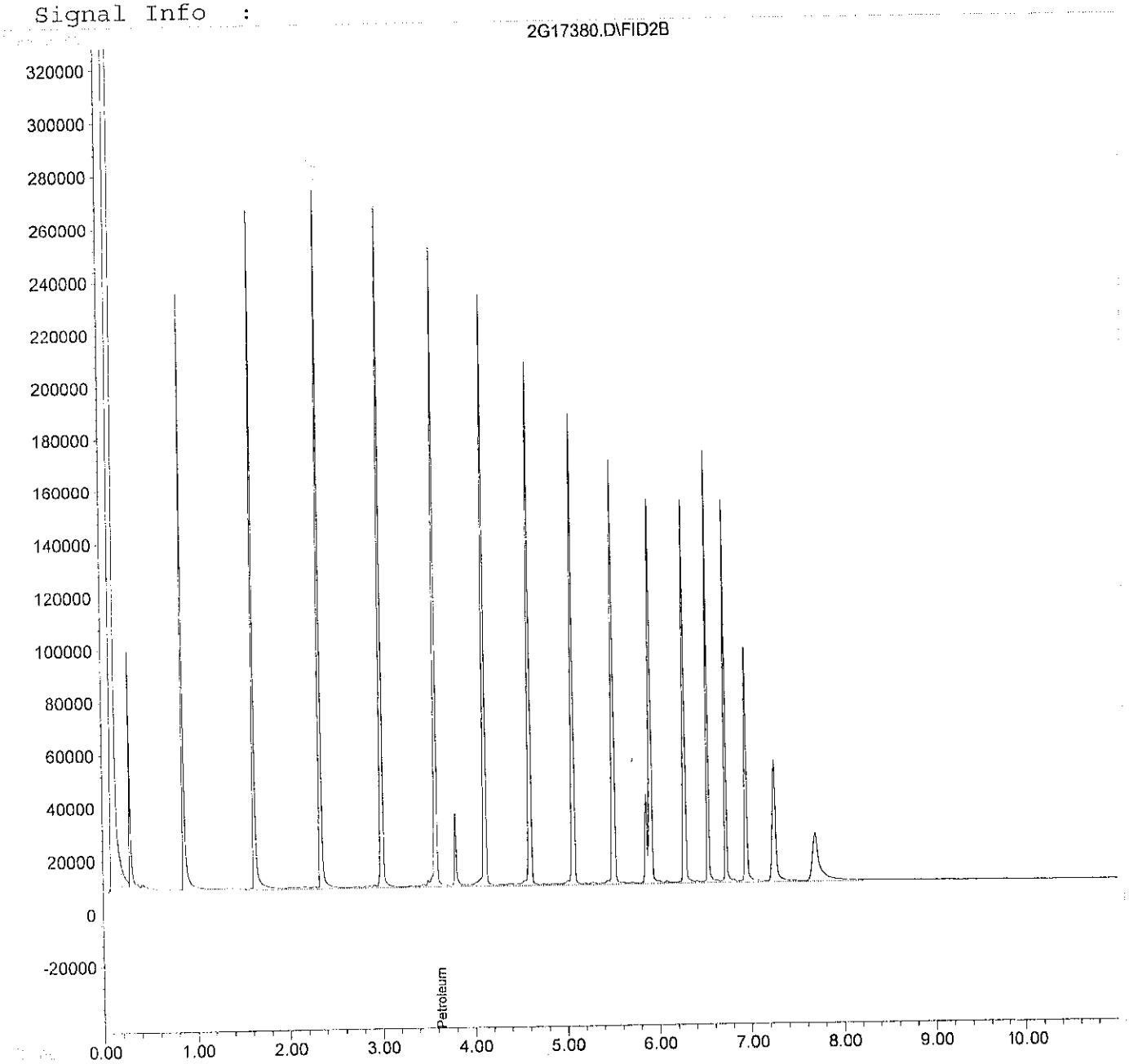
Data File : C:\HPCHEM\1\[illegible]

Acq On : 20 Dec 2001 16:44
Sample : WG110258-03 PRO water LCS
Misc : 1,1 v177-p181
IntFile : PETRO.E
Quant Time: Dec 21 10:09 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g17354.d	1.	MECL2	1,1	20 Dec 101 12::0
2	2	2g17355.d	1.	WIN DEF STD	1,1	20 Dec 101 12::2
3	3	2g17356.d	1.	DRO CONT CHK	1,1	20 Dec 101 12::3
4	4	2g17357.d	10.	L0112289-05 10X	1,10 water	20 Dec 101 12::5
5	5	2g17358.d	10.	DRO CONT CHK	1,10 water	20 Dec 101 [illegible]
6	6	2g17359.d	40.	WG110256-02 DRO soil BLK	7,1 V177-P175	20 Dec 101 [illegible]
7	7	2g17360.d	40.	WG110256-03 DRO soil LCS	7,1 soil V177-P175	20 Dec 10[illegible]
8	8	2g17361.d	400.	WG110256-01 10x REF DRO soil	7,1 L0112308-07 Ref	20 Dec 10[illegible]
9	9	2g17362.d	400.	WG110256-04 MS 10x DRO soil	7,1 L0112308-07 MS	20 Dec 101 [illegible]
10	10	2g17363.d	40.	WG110256-01 DRO soil	7,1 L0112308-07 Ref	20 Dec 101 13::2
11	11	2g17364.d	40.	WG110256-04 MS DRO soil	7,1 soil L0112308-07 MS	20 Dec 101 [illegible]
12	12	2g17365.d	40.	WG110256-05 MSD DRO soil	7,1 soil L0112308-07 MSD	20 Dec 101 [illegible]
13	13	2g17366.d	40.	MECL2	7,1 L0112308-07 MSD	20 Dec 101 1[illegible]::5
14	14	2g17367.d	1.	DRO CONT CHK	1,1	20 Dec 101 13::0
15	1	2g17368.d	1.	MECL2	1,1	20 Dec 101 12::2
16	2	2g17369.d	1.	WIN DEF STD	1,1 10X NS14-41	20 Dec 101 12::4
17	3	2g17370.d	1.	PRO CONT CHK	1,1 SOS56-21	20 Dec 101 [illegible]
18	4	2g17371.d	1.	PRO CONT CHK	1,1 SOS56-21	20 Dec 101 [illegible]
19	5	2g17372.d	1.	WG110451-06 PRO @600ppm	1,1 SOS56-21	20 Dec 101 [illegible]
20	6	2g17373.d	1.	WG110451-05 PRO @400ppm	1,1 SOS56-21	20 Dec 101 12::4
21	7	2g17374.d	1.	WG110451-04 PRO @200ppm	1,1 SOS56-21	20 Dec 101 12::0
22	8	2g17375.d	1.	WG110451-03 PRO @100ppm	1,1 SOS56-21	20 Dec 101 12::1
23	9	2g17376.d	1.	WG110451-02 PRO @50ppm	1,1 SOS56-21	20 Dec 101 12::3
24	10	2g17377.d	1.	WG110451-01 PRO @5ppm	1,1 SOS56-21	20 Dec 101 12::4
25	11	2g17378.d	1.	WG110451-07 ALT PRO @200ppm	1,1 SOS56-26	20 Dec 101 12::1
26	12	2g17379.d	1.	WG110258-02 PRO water	1,1 v177-p181	20 Dec 101 12::2
27	13	2g17380.d	1.	WG110258-03 PRO water LCS	1,1 v177-p181	20 Dec 101 [illegible]
28	14	2g17381.d	1.1	L0112348-01 PRO water	1,1 v177-p181	20 Dec 101 [illegible]
29	15	2g17382.d	1.06	L0112348-02 PRO water	1,1 v177-p181	20 Dec 101 [illegible]
30	16	2g17383.d	1.07	L0112348-03 PRO water	1,1 v177-p181	20 Dec 101 [illegible]
31	17	2g17384.d	1.06	WG110258-01 Ref PRO water	1,1 L0112348-04 REF	20 Dec 101 [illegible]
32	18	2g17385.d	1.05	WG110258-04 MS PRO water	1,1 L0112348-05 MS	20 Dec 101 [illegible]
33	19	2g17386.d	1.06	WG110258-05 MSD PRO water	1,1 L0112348-06 MSD	20 Dec 101 [illegible]
34	20	2g17387.d	1.	mecl2	1,1	20 Dec 101 [illegible]
35	1	2g17388.d	1.	WG110451-08 PRO CCV	1,1 SOS56-21	20 Dec 101 [illegible]
36	22	2g17389.d	1.06	L0112348-07 PRO water	1,1 water	20 Dec 101 12::0
37	23	2g17390.d	1.05	L0112348-08 PRO water	1,1 water	20 Dec 101 12::1
38	24	2g17391.d	1.	L0112348-09 PRO water	1,1 water	20 Dec 101 12::3
39	25	2g17392.d	1.07	L0112349-01 PRO water	1,1 water	20 Dec 101 [illegible]
40	26	2g17393.d	1.08	L0112349-02 PRO water	1,1 water	20 Dec 101 [illegible]
41	20	2g17394.d	1.	mecl2	1,1 water	20 Dec 101 [illegible]
42	1	2g17395.d	1.	WG110451-09 PRO CCV	1,1 SOS56-21	20 Dec 101 12::3
43	27	2g17396.d	1.	WG110302-02 PRO water BLK	1,1 V177-P189	20 Dec 101 12::5
44	28	2g17397.d	1.	WG110302-03 PRO water LCS	1,1 V177-P189	20 Dec 101 12::0
45	29	2g17398.d	1.04	L0112366-01 PRO water	1,1 water	20 Dec 101 12::2
46	30	2g17399.d	1.08	L0112366-02 PRO water	1,1 water	20 Dec 101 12::3
47	31	2g17400.d	1.08	L0112366-03 PRO water	1,1 water	20 Dec 101 12::5
48	32	2g17401.d	1.	WG110302-01 REF PRO water	1,1 L0112366-04 REF	20 Dec 101 13::0
49	33	2g17402.d	1.	WG110302-04 MS PRO water	1,1 L0112366-05 MS	20 Dec 101 [illegible]
50	34	2g17403.d	1.	WG110302-05 MSD PRO water	1,1 L0112366-06 MSD	20 Dec 101 [illegible]
51	35	2g17404.d	1.1	L0112366-07 PRO water	1,1 water	20 Dec 101 [illegible]
52	2	2g17405.d	1.1	mecl2	1,1 water	20 Dec 101 [illegible]
53	3	2g17406.d	1.	WG110451-10 PRO CCV	1,1 SOS56-21	20 Dec 101 [illegible]
54	36	2g17407.d	1.08	L0112366-08 PRO water	1,1 water	20 Dec 101 13::4
55	37	2g17408.d	1.07	L0112366-09 PRO water	1,1 water	20 Dec 101 [illegible]

.ine	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
56	38	2g17409.d	1.1	L0112366-10 PRO water	1,1 water	21 Dec 101 13::1
57	39	2g17410.d	1.05	L0112366-11 PRO water	1,1 water	21 Dec 101 13::2
58	40	2g17411.d	1.	L0112366-12 PRO water	1,1 water	21 Dec 101 13::4
59	41	2g17412.d	1.08	L0112366-13 PRO water	1,1 water	21 Dec 101 [illegible]
60	42	2g17413.d	1.08	L0112366-14 PRO water	1,1 water	21 Dec 101 [illegible]
61	43	2g17414.d	1.07	L0112366-15 PRO water	1,1 water	21 Dec 101 [illegible]
62	44	2g17415.d	1.08	L0112366-16 PRO water	1,1 water	21 Dec 101 12::4
63	2	2g17416.d	1.	mecl2	1,1 water	21 Dec 101 12::5
64	3	2g17417.d	1.	WG110451-10 PRO CCV	1,1 SOS56-21	21 Dec 101 12::1

AV 12/21/01
mc 12/21/01

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time Dec 2001 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 152001
Analyst Initials HV

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # ___ PRO ____
SOP # GCS02 Rev. # ___ 8015B Modl (Alcohol) ____

SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS01 Rev. # ___ 8100 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
- ☐ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ☑ Change liner
- ☑ Change septum
- ☐ Clip column (___cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases _____

Returned To Control?
Yes ___ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Sep 17395 - PRO CCV - failed high

Reviewed By: mdc 12/21/01

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g17418.d	1.	mecl2	1,1 water	21 Dec 101 13::4
2	2	2g17419.d	1.	WIN DEF STD	1,1 NS14-41	21 Dec 101 13::1
3	3	2g17420.d	1.	WG110458-04 PRO CCV	1,1 SOS56-21	21 Dec 101 13::3
4	4	2g17421.d	1.	WG110458-04 PRO CCV	1,1 SOS56-21	21 Dec 101 13::5
5	5	2g17422.d	1.	WG110458-06 PRO @600ppm	1,1 SOS56-21	21 Dec 101 13::0
6	6	2g17423.d	1.	WG110458-05 PRO @400ppm	1,1 SOS56-21	21 Dec 101 13::2
7	7	2g17424.d	1.	WG110458-03 PRO @100ppm	1,1 SOS56-21	21 Dec 101 [illegible]
8	8	2g17425.d	1.	WG110458-02 PRO @50ppm	1,1 SOS56-21	21 Dec 10[illegible]
9	9	2g17426.d	1.	WG110458-01 PRO @5ppm	1,1 SOS56-21	21 Dec 1[illegible]
10	10	2g17427.d	1.	WG110458-07 ALT @200ppm	1,1 SOS56-26	21 Dec 10[illegible]
11	1	2g17428.d	1.06	L0112348-07 PRO water	1,1 water	21 Dec 101 1[illegible]::5
12	2	2g17429.d	1.05	L0112348-08 PRO water	1,1 water	21 Dec 101 1[illegible]::0
13	3	2g17430.d	1.	L0112348-09 PRO water	1,1 water	21 Dec 101 [illegible]
14	4	2g17431.d	1.08	L0112349-02 PRO water	1,1 water	21 Dec 101 [illegible]
15	5	2g17432.d	10.7	L0112349-01 10x PRO water	1,1 water	21 Dec 101 [illegible]
16	6	2g17433.d	1.	WG110458-08 PRO CCV	1,1 SOS56-21	21 Dec 101 12::1
17	7	2g17434.d	1.	mecl2	1,1 SOS56-21	21 Dec 101 12::4
18	8	2g17435.d	1.	WG110458-09 PRO CCV	1,1 SOS56-21	21 Dec 101 12::5
19	9	2g17436.d	1.	WG110302-02 PRO water BLK	1,1 v177-p189	21 Dec 101 [illegible]
20	10	2g17437.d	1.	WG110302-03 PRO water LCS	1,1 v177-p189	21 Dec [illegible]
21	11	2g17438.d	1.04	L0112366-01 PRO water	1,1 water	21 Dec [illegible]
22	12	2g17439.d	1.08	L0112366-02 PRO water	1,1 water	21 Dec 101 [illegible]::5
23	13	2g17440.d	1.08	L0112366-03 PRO water	1,1 water	21 Dec 101 12::1
24	14	2g17441.d	1.	WG110302-01 REF	1,1 L0112366-04 REF	21 Dec 101 12::3
25	15	2g17442.d	1.04	WG110302-04 MS	1,1 L0112366-05 MS	21 Dec 101 12::4
26	16	2g17443.d	1.05	WG110302-05 MSD	1,1 L0112366-06 MSD	21 Dec 101 12::0
27	17	2g17444.d	1.1	RE L0112366-07 PRO water	1,1 water	21 Dec 101 12::1
28	18	2g17445.d	1.	mecl2	1,1 water	21 Dec 101 12::3
29	19	2g17446.d	1.	WG110458-10 PRO CCV	1,1 SOS56-21	21 Dec 101 [illegible]

HV 12/28/01
MDC 12/26/01

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time Dec 21 01 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 122101
Analyst Initials HV

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # ___ PRO ✓
SOP # GCS02 Rev. # ___ 8015B Modl (Alcohol) ____

SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS01 Rev. # ___ 8100 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
- ☐ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ☑ Change liner
- ☐ Change septum
- ☐ Clip column (___cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases _____

Returned To Control?
Yes ___ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

29 17 HHH - RE - low in surrogate rec.

Reviewed By: RRC 12/26/01

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Sample Extract Log Sheet

Volume 177
Page 181

Parameter: FLAPRO 1ho SOP #: ExPRO Revision #: 2
Extraction Analyst(s): CSH RFK TV/KD Analyst(s): CSH
Date/Time Extracted: 12/19/01 11:15 Date TV/KD: 12/19/01
Spike/Surrogate Analyst: CSH Witness: JMG
Surrogate #: E5500 39-39 Earliest Hold Date: 12/26
Spike #: A = E5500 39-44 Spike #: B = —

Extraction Work Group WG 110259
Analytical Work Group WG 110316

Extract Relinquished By: CSH
Extract Received By & Date: HN 12/19/01

	Sample ID	Test Code	pH √ <2	pH √ N	pH √ >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	Emulsions √ BN	Emulsions √ N	Comments
1	Blank		✓			1L	1ml		1ml	T				WG 110258-02
2	LCS		✓			⊥		1ml						WG 110258-03
2/3	12-343-01	FLA-PRO	✓			910ml								
4	02		✓			940ml								
5	03		✓			930ml								
6	04		✓			940ml								WG 110259-01
7	05MS		✓			950ml		1ml					*	WG 110259-04
8	06MSD		✓			940ml		⊥					⊥	WG 110259-05
9	07		✓			⊥								
10	08		✓			950ml								
11	⊥ 09		✓			1L								
12	12-349-01		✓			930ml								
13	⊥ 02	⊥	✓			920ml	⊥		⊥	⊥				
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

CSH 12/19/01

Methylene Chloride Lot #: 41109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: 1:1 HCl Lot #: ER 1991
Florisil Lot #: —
Silica Gel Lot #: V32555
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER 1979

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C	✓	Other	
Acid 3664A		N/A	
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 12/19/01

Extraction Notes For Volume # 177 Page # 181

General Comments: * MS of 12-349-04
MSD of ⊥

Extraction Anomalies: nothing to rpt

Concentration Anomalies: NONE

Clean-Up Anomalies: NONE

Supervisor Review: _____ Date: _____

Example FLA-PRO Calculations

1.0 Calulating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = As/ Cs

Where:		Example:
	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ng/ml).	100
	RF	**100**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:

C = [(Ax)(Vf)(D)] / [(RF)(Vi)]

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	**100**
	Vi = Initial volume of sample (mL). (prep log)	1000
	C (ug/L) =	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report: C = [(Ax)(Vf)(D)] / [(RF)(Vi)]

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL).	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	100
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**3.333333**

Analyst: FIX
Method: 8015 - PRO water (12348 (1-4) level 4
Instrument: HP2
Work Group: WG110316 12349 (1-2) "

	Analyst
System Performance Check	✓
Endrin & DDT Breakdown	NA
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	
Second Source Standard % Difference	✓
Check Standards	✓
Project / Client Specific Requirements	
Special Standards	
Blanks	✓
TCL's	
Surrogates	
LCS (Laboratory Control Sample)	✓
Recoveries	
Surrogates	
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	
Surrogates	
Calculations & Correct Factors	
Dilutions Run	✓
Reruns	✓
Check Sample Histories	
Ending Check Standards	✓
Excel Spreadsheets	✓
Case Narrative	
Corrective Action	
Results Reporting / Data Qualifiers	
WorkGroups Traceability	
Client Data Package Assembly	
Check for Completeness	

Primary Reviewer Initials & Date Checked HN 12/21/01

Secondary Reviewer Initials & Date Checked PR 12/21/01

- Check for compliance with Method and project-specific requirements
- Check the completeness of the reported information
- Check the information for the report narrative
- Check the reasonableness of results

Supervisory Review Initials & Date Checked PR 12/21/01

Comments: sample 12349-01 fraction required dilution analysis.

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

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2.2.7 PAH HPLC DATA (8310)

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0112349

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8310

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds linear equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD results were not associated with this sample delivery group.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: Sample fraction 01 was re-analyzed at a dilution in order to maintain the analysis within the range of calibration. All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: RDC REVIEWED: _____ DATE: 12/28/01

Rev. 7/14/00

PAH HPLC DATA (8310)

Login Number: L0112349

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

_____ Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data)

✓ Chromatograms and external standard reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and external standard reports (chronological)

_____ Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

NA Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

✓ Extraction bench sheets

Checked By: ZHO C Date: 12/28/01

2.2.7.1 QC Summary

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, WATERS

ANAL WORK GRP : WG110293
METHOD : 8310
INSTRUMENT : HPLC4
ANALYST : RDC

PREP WORK GRP : WG110257
EXT DATE : 19-Dec-01
EXT BENCH SHEET : V177P173

RUN DATE : 12/19/01
BLK FLNM : 4L002562
LCS FLNM : 4L002563
LCS2 FLNM : NA

SAMP ID : L0112348 04
SMPL FLNM : 4L002567
MS FLNM : 4L002568
MSD FLNM : 4L002569

ANALYTE	CONCENTRATION, µg/L									% RECOVERY																
	RDL	BLK	LCS SPIKE ADDED	LCS	LCS2	SAMPLE	MS SPIKE ADDED	MS	MSD	BLK	LCS	LCS2	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	MSD RPD	RPC UCL	BLK	LCS	LCS2	MS	MSD
NAPHTHALENE	1	ND	50	23.1	NA	ND	50.0	28.7	18.3	ND	46.2		25	68	NA	57.4	36.6	25	68	44	50					
ACENAPTHYLENE	1	ND	50	25.9	NA	ND	50.0	29.8	17.8	ND	51.8		25	77	NA	59.6	35.6	25	77	50	50					
1-METHYLNAPHTHALENE	1	ND	50	23.2	NA	ND	50.0	28.6	17.3	ND	46.4		26	71	NA	57.2	34.6	26	71	49	50					
2-METHYLNAPHTHALENE	1	ND	50	24.0	NA	ND	50.0	29.3	18.5	ND	48.0		26	72	NA	58.6	37.0	26	72	45	50					
ACENAPHTHENE	1	ND	50	26.0	NA	ND	50.0	29.6	17.7	ND	52.0		25	78	NA	59.2	35.4	25	78	50	50					
FLUORENE	1	ND	50	32.3	NA	ND	50.0	32.8	22.9	ND	64.6		29	84	NA	65.6	45.8	29	84	36	50					
PHENANTHRENE	1	ND	50	37.6	NA	ND	50.0	37.4	29.7	ND	75.2		39	95	NA	74.8	59.4	39	95	23	50					
ANTHRACENE	1	ND	50	43.1	NA	ND	50.0	43.2	40.3	ND	86.2		47	101	NA	86.4	80.6	47	101	6.9	50					
FLUORANTHENE	0.2	ND	5	4.21	NA	ND	5.00	4.41	4.14	ND	84.2		55	104	NA	88.2	82.8	55	104	6.3	50					
PYRENE	0.2	ND	5	4.23	NA	ND	5.00	4.45	4.20	ND	84.6		56	104	NA	89.0	84.0	56	104	5.8	50					
BENZO[a]ANTHRACENE	0.2	ND	5	4.46	NA	ND	5.00	4.56	4.51	ND	89.2		50	115	NA	91.2	90.2	50	115	1.1	50					
CHRYSENE	0.2	ND	5	4.38	NA	ND	5.00	4.48	4.48	ND	87.6		39	120	NA	89.6	89.6	39	120	0.0	50					
BENZO[b]FLUORANTHENE	0.2	ND	5	4.22	NA	ND	5.00	4.13	4.18	ND	84.4		41	110	NA	82.6	83.6	41	110	1.2	50					
BENZO[k]FLUORANTHENE	0.2	ND	2.5	2.06	NA	ND	2.50	1.87	1.94	ND	82.4		25	107	NA	74.8	77.6	25	107	3.7	50					
BENZO[a]PYRENE	0.2	ND	5	4.34	NA	ND	5.00	4.20	4.27	ND	86.8		29	113	NA	84.0	85.4	29	113	1.7	50					
DIBENZO[a,h]ANTHRACENE	0.2	ND	5	3.76	NA	ND	5.00	2.85	3.01	ND	76.2		10	92	NA	67.0	60.2	10	92	5.5	50					
BENZO[g,h,i]PERYLENE	0.2	ND	5	3.97	NA	ND	5.00	3.15	3.14	ND	79.4		11	84	NA	63.0	62.8	11	84	0.3	50					
INDENO[1,2,3-cd]PYRENE	0.2	ND	5	3.86	NA	ND	5.00	3.18	3.40	ND	77.2		16	98	NA	63.6	67.9	16	98	6.6	50					
SURROGATE p-TERPHENYL-d14		9.17	10	9.13	NA	8.12	10.0	8.22	8.44	91.7	91.3		40	132	81.2	82.2	84.4	40	132							

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL = REPORTING DETECTION LIMIT
D = DETECTED, RESULT MUST BE GREATER THAN ZERO

H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

8310

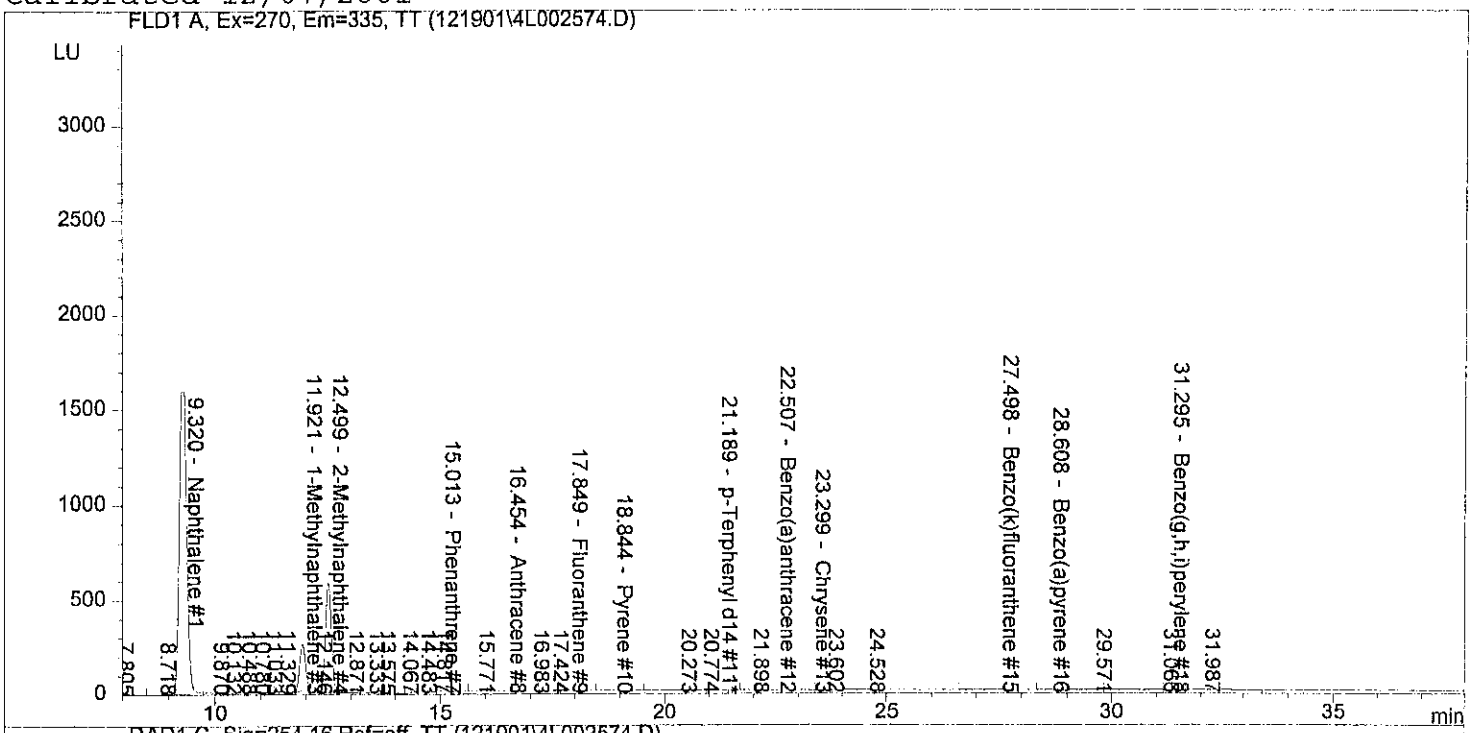
2.2.7.2 Sample Data

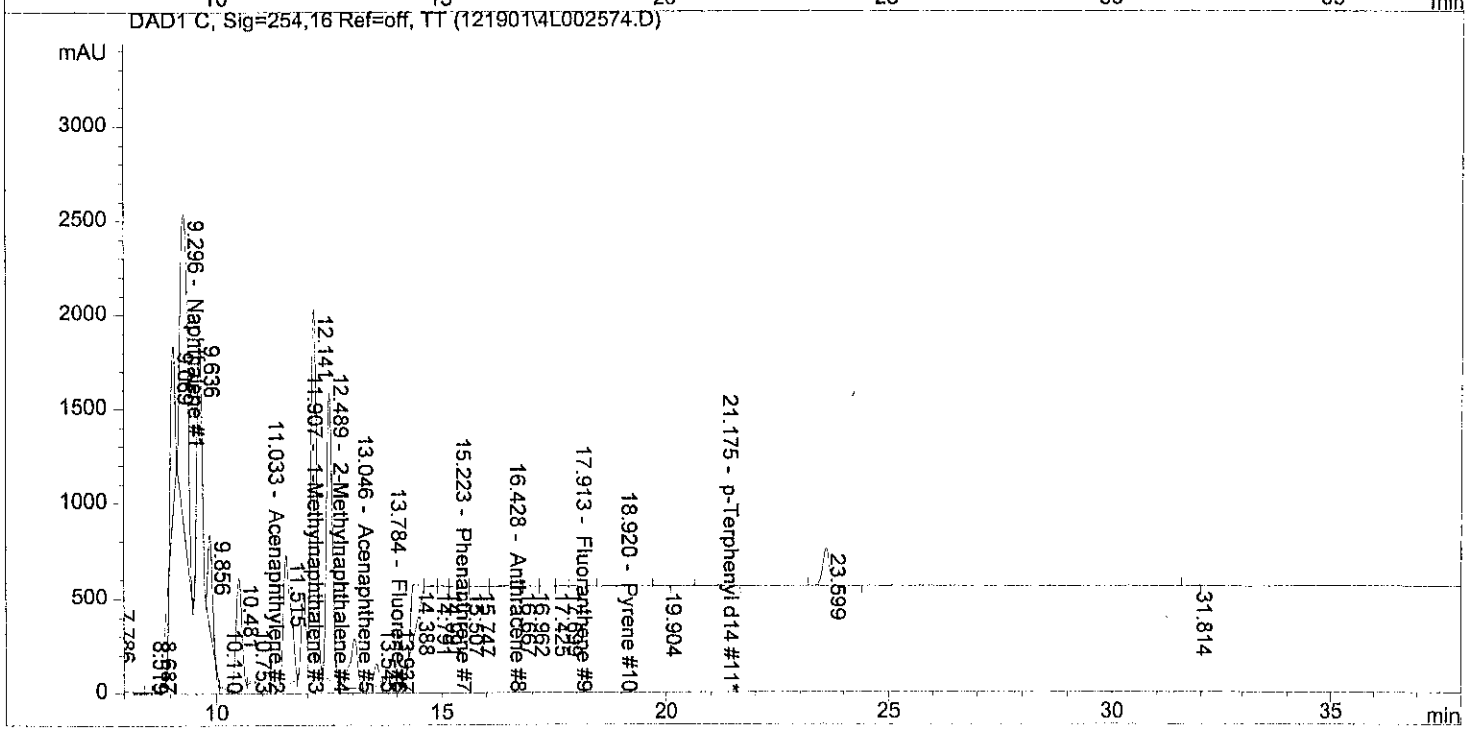
==========

Injection Date : 12/20/2001 3:39:57 AM Seq. Line : 21
Sample Name : L0112349-01 831W Vial : 21
Acq. Operator : RDC Inj : 1
Inj Volume : 8 µl

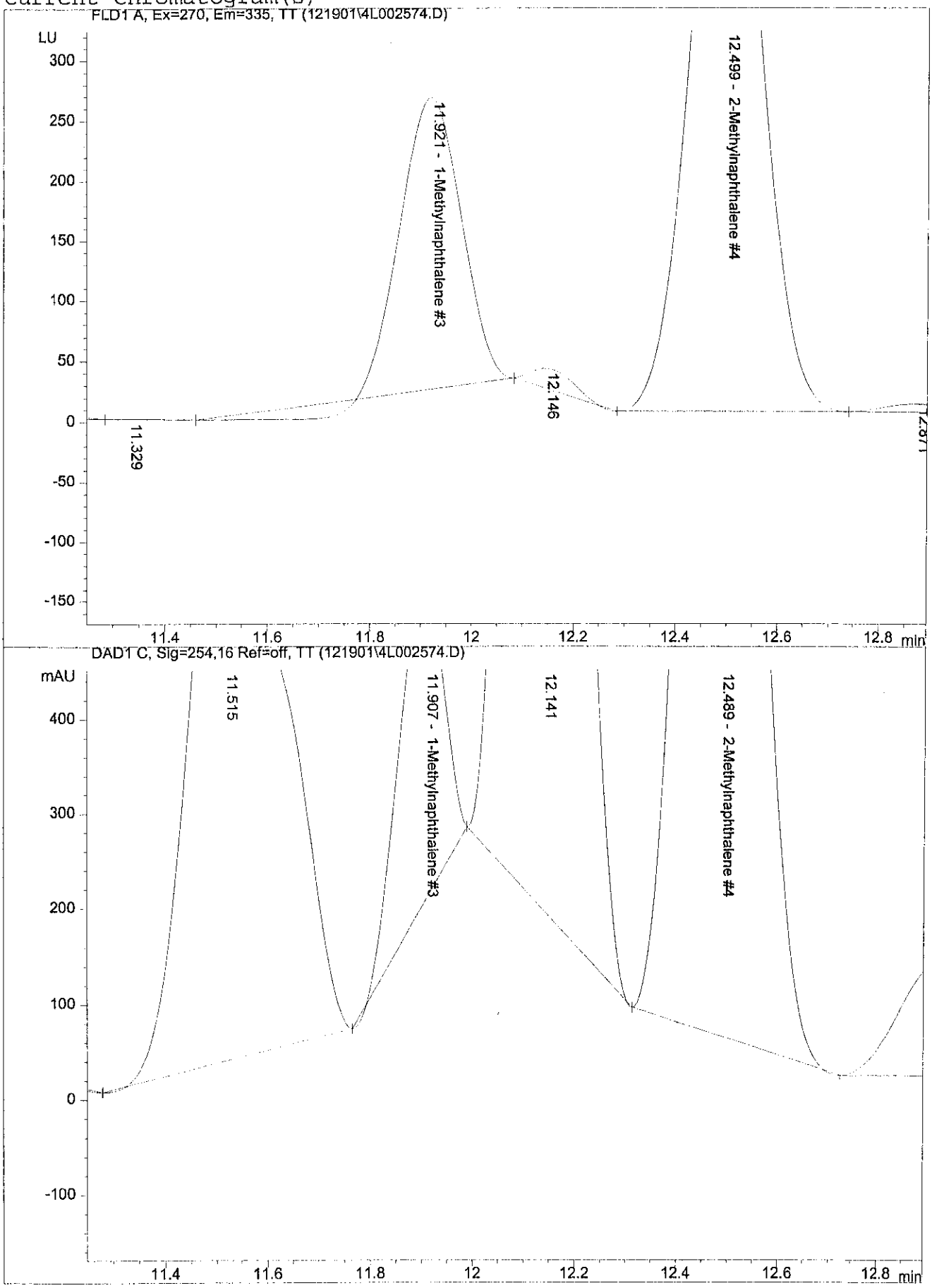
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/20/2001 1:39:21 PM by RDC
(modified after loading)

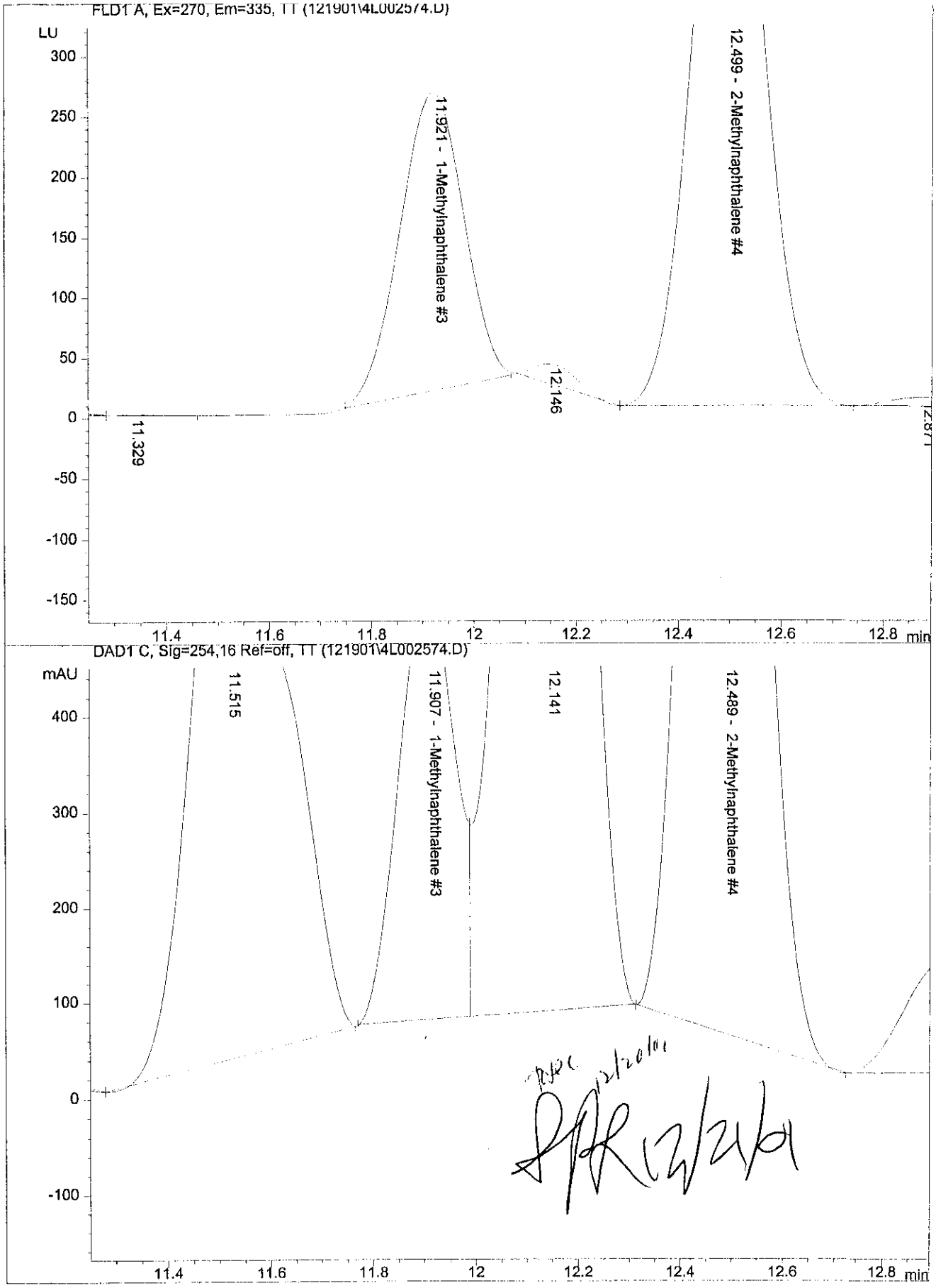
Calibrated 12/07/2001





Current Chromatogram(s)





HPLC4 12/20/2001 2:34:40 PM RDC

Page 1 of 1

External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:34:24 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.320	BB	1.78656e4	2.64309e-2	472.20193	✓ I	Naphthalene #1
11.921	MM	2142.44946	2.30826e-2	49.45320	C	1-Methylnaphthalene #3
12.499	BB	5427.69141	1.77135e-2	96.14363	C	2-Methylnaphthalene #4
13.080		-	-	-		Acenaphthene #5
13.738		-	-	-		Fluorene #6
15.013	BB	9.43242e-1	1.72114e-1	1.62345e-1		Phenanthrene #7
16.454	BB	1.64561e-1	3.11763e-1	5.13041e-2		Anthracene #8
17.849	BBA	4.30906e-1	2.51883e-2	1.08538e-2		Fluoranthene #9
18.844	BBA	3.44477e-1	4.52106e-2	1.55740e-2		Pyrene #10
21.189	BB	15.87162	2.98861e-1	4.74341	47.4%	p-Terphenyl d14 #11*
22.507	BB	3.39351e-1	8.29841e-3	2.81607e-3		Benzo(a)anthracene #12
23.299	BB	1.52475e-1	4.07647e-2	6.21561e-3		Chrysene #13
26.140		-	-	-		Benzo(b)fluoranthene #14
27.498	PB	3.95218e-1	2.77713e-3	1.09757e-3		Benzo(k)fluoranthene #15
28.608	PB	2.41010e-1	5.23910e-3	1.26268e-3		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.295	BB	2.92307e-1	3.02212e-2	8.83389e-3		Benzo(g,h,i)perylene #18
32.273		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 622.80249

Results obtained with enhanced integrator!

RR@ 5X

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.296	BB	1.85686e4	8.11569e-3	150.69653	✓ I	Naphthalene #1
11.033	BB	893.52057	2.94003e-2	26.26980	✓	Acenaphthylene #2 Needs conf
11.907	MF	3432.83765	1.26957e-2	43.58225	✓	1-Methylnaphthalene #3
12.489	BB	1.38813e4	1.10418e-2	153.27394	✓ I	2-Methylnaphthalene #4
13.046	BB	3160.08008	1.99953e-2	63.18671	NC	Acenaphthene #5
13.784	BB	69.00990	1.72604e-2	1.19114	NC	Fluorene #6
15.223	BB	5.44413e-1	1.70751e-2	9.29590e-3	~MDL	Phenanthrene #7
16.428	BB	30.88662	1.03316e-2	3.19107e-1	NC	Anthracene #8
17.913	BB	7.41257e-1	2.13939e-2	1.58584e-2	~MDL	Fluoranthene #9
18.920	BB	31.02966	1.42346e-2	4.41695e-1	NC	Pyrene #10
21.175	BB	72.75730	6.51566e-2	4.74062		p-Terphenyl d14 #11*
22.544		-	-	-	47.4%	Benzo(a)anthracene #12
23.412		-	-	-		Chrysene #13
26.121		-	-	-		Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.509		-	-	-		Dibenz(a,h)anthracene #17

31.312		-	-	-		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 443.72695

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

Data File : C:\MSDCHEM\1\DATA\122001\7M14837.D
Acq On : 20 Dec 2001 18:26
Sample : L0112349-01 8310W conf.
Misc : 1,1
MS Integration Params: RTEINT.P
Quant Time: Dec 21 09:15:02 2001

Vial: 10
Operator: mdc
Inst : HPMS7
Multiplr: 10.00

Quant Results File: PAHLOW.RES

Quant Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 12/11/01
Last Update : Tue Dec 18 14:25:43 2001
Response via : Initial Calibration
DataAcq Meth : PAHL

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.26	136	304432	1.00 ug/ml	0.06
6) Acenaphthene-d10	7.00	164	1748912	1.00 ug/ml	0.04
11) Phenanthrene-d10	8.49	188	1265596	1.00 ug/ml	0.01
15) Chrysene-d12	11.49	240	1269080	1.00 ug/ml	0.00
20) Perylene-d12	14.82	264	844527	1.00 ug/ml	0.02

System Monitoring Compounds					
2) Nitrobenzene-d5	4.51	82	577025	64.3202 ug/ml	-0.03
Spiked Amount 2.500	Range 35 - 114		Recovery	= 2572.80%#	
7) 2-Fluorobiphenyl	6.23	172	6061	0.0314 ug/ml	0.00
Spiked Amount 2.500	Range 43 - 116		Recovery	= 1.20%#	
17) p-Terphenyl-d14	10.06	244	3424337	36.8307 ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery	= 1473.20%#	

Target Compounds					Qvalue
3) Naphthalene	5.22	128	28730644	108.5597 ug/ml#	69
4) 2-Methylnaphthalene	5.89	142	21620212	132.8906 ug/ml	93
5) 1-Methylnaphthalene	6.01	142	8086736	49.5244 ug/ml#	1
8) Acenaphthylene	6.79	152	294460	~~0.1177 ug/ml#~~	91
12) Phenanthrene	8.51	178	272409	0.2526 ug/ml#	78

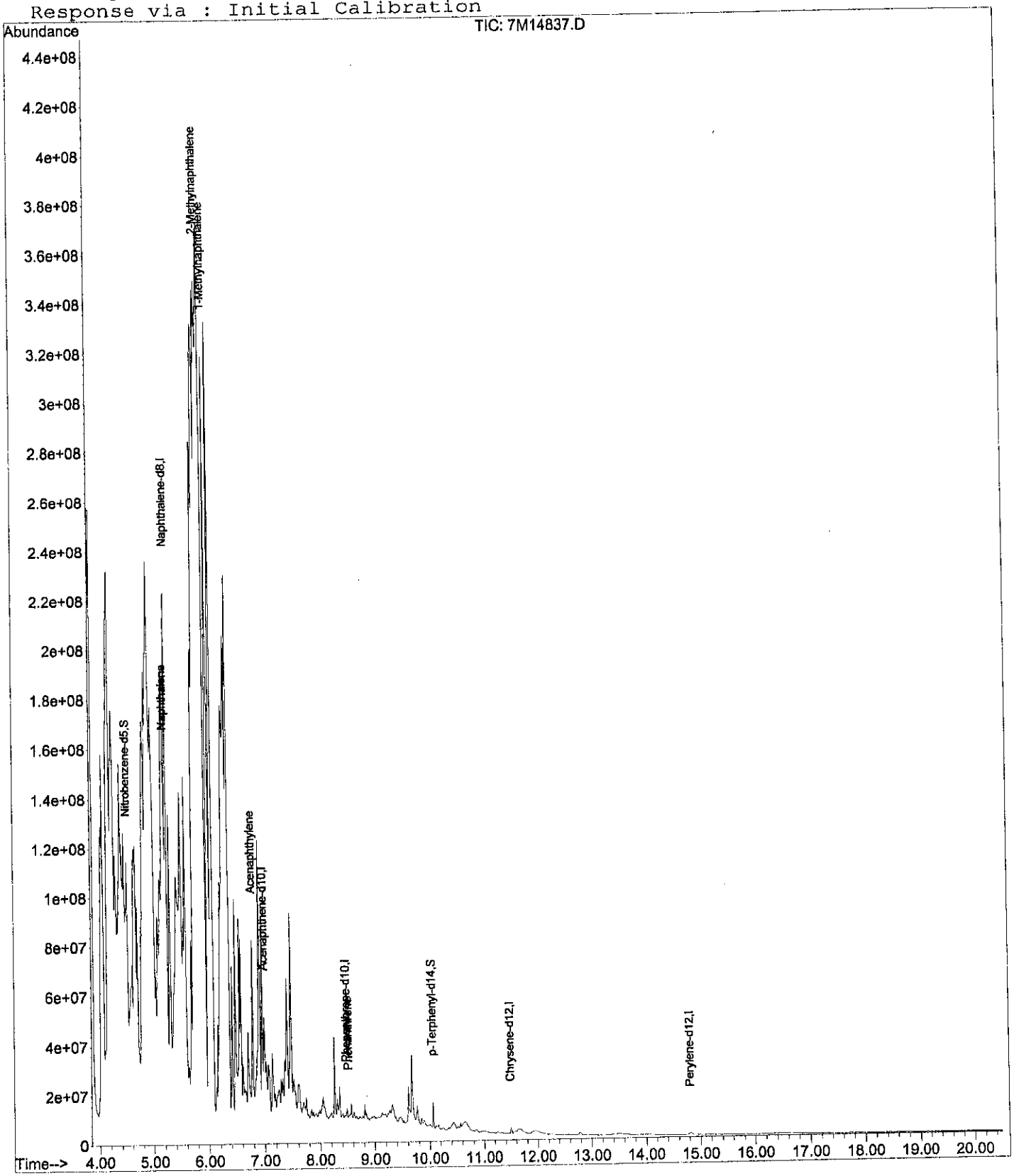
(#) = qualifier out of range (m) = manual integration

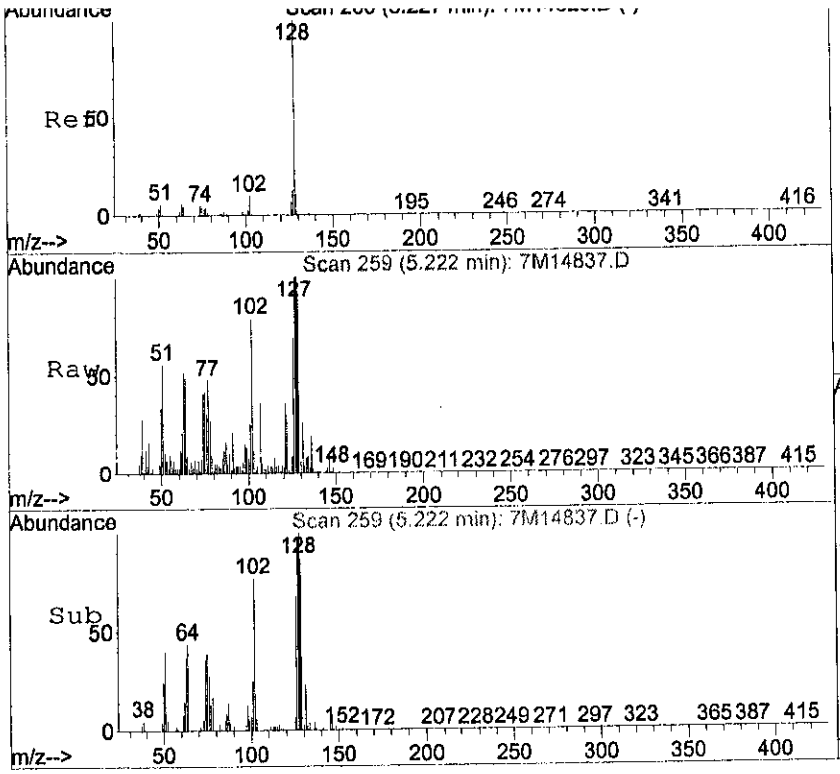
Data File : C:\MSDCHEM\1\DATA\122001\7M14837.D
Acq On : 20 Dec 2001 18:26
Sample : L0112349-01 8310W conf.
Misc : 1,1
MS Integration Params: RTEINT.P
Quant Time: Dec 21 9:15 2001

Vial: 10
Operator: mdc
Inst : HPMS7
Multiplr: 10.00

Quant Results File: PAHLOW.RES

Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 12/11/01
Last Update : Tue Dec 18 14:25:43 2001
Response via : Initial Calibration

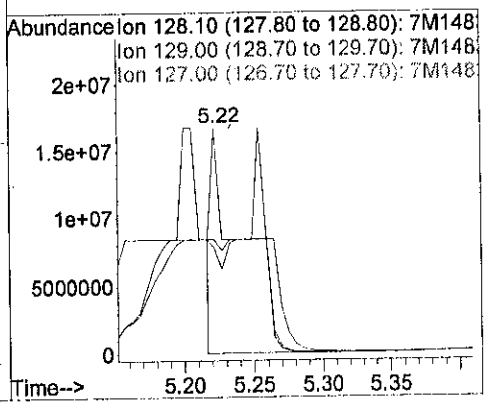


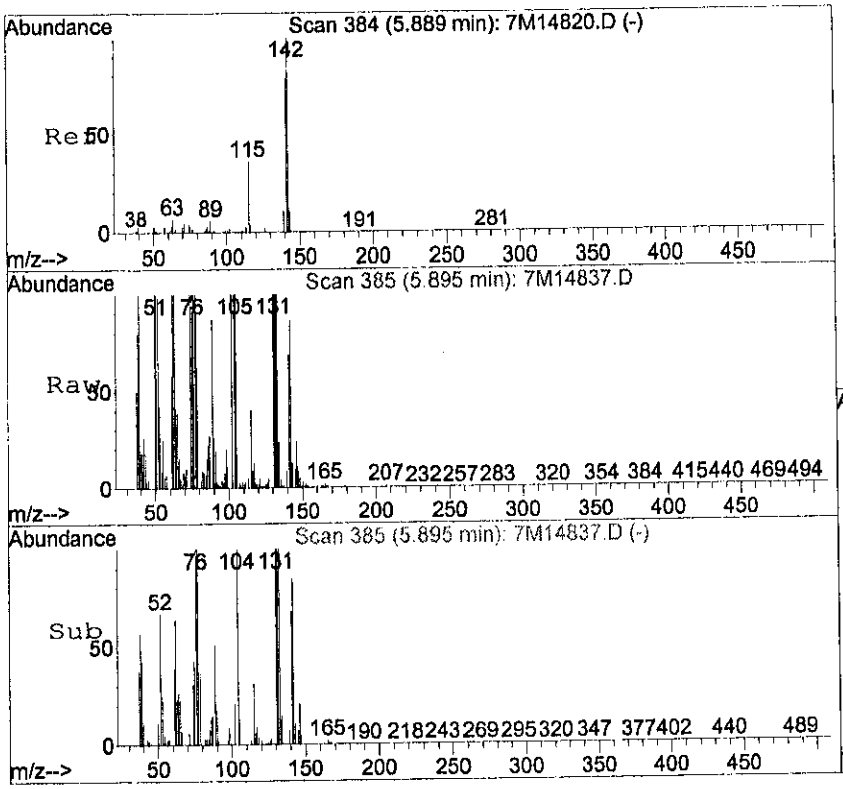


Naphthalene
Concen: 108.56 ug/ml
RT: 5.22 min Scan# 259
Delta R.T. -0.00 min
Lab File: 7M14837.D
Acq: 20 Dec 2001 18:26

Tgt Ion:128 Resp:28730644

Ion	Ratio	Lower	Upper
128	100		
129	0.0	8.8	13.2#
127	0.0	10.7	16.1#

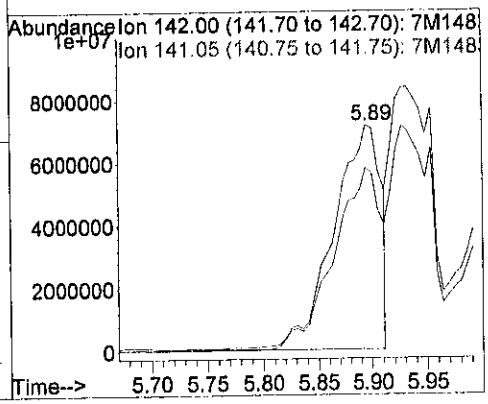


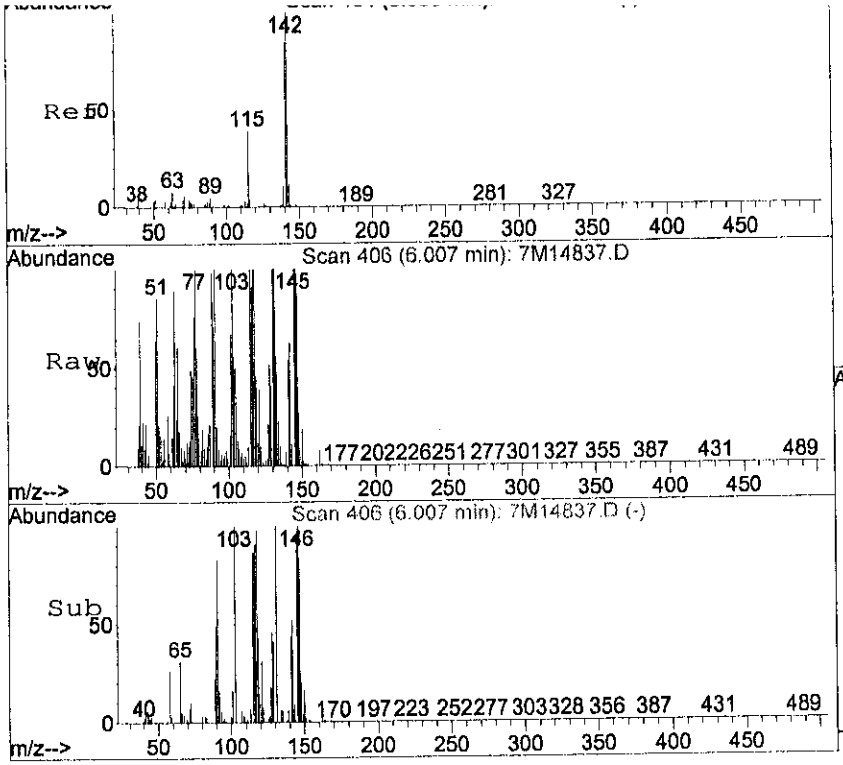


#4
2-Methylnaphthalene
Concen: 132.89 ug/ml
RT: 5.89 min Scan# 385
Delta R.T. 0.01 min
Lab File: 7M14837.D
Acq: 20 Dec 2001 18:26

Tgt Ion:142 Resp:21620212

Ion	Ratio	Lower	Upper
142	100		
141	78.4	67.7	101.5

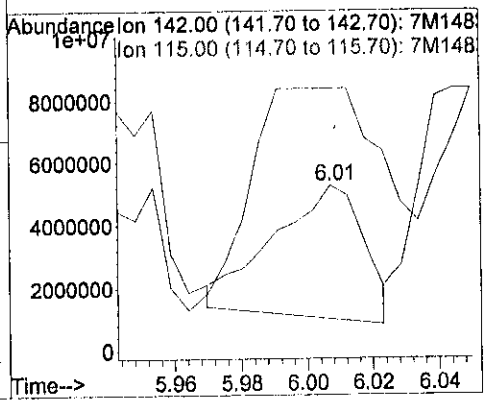


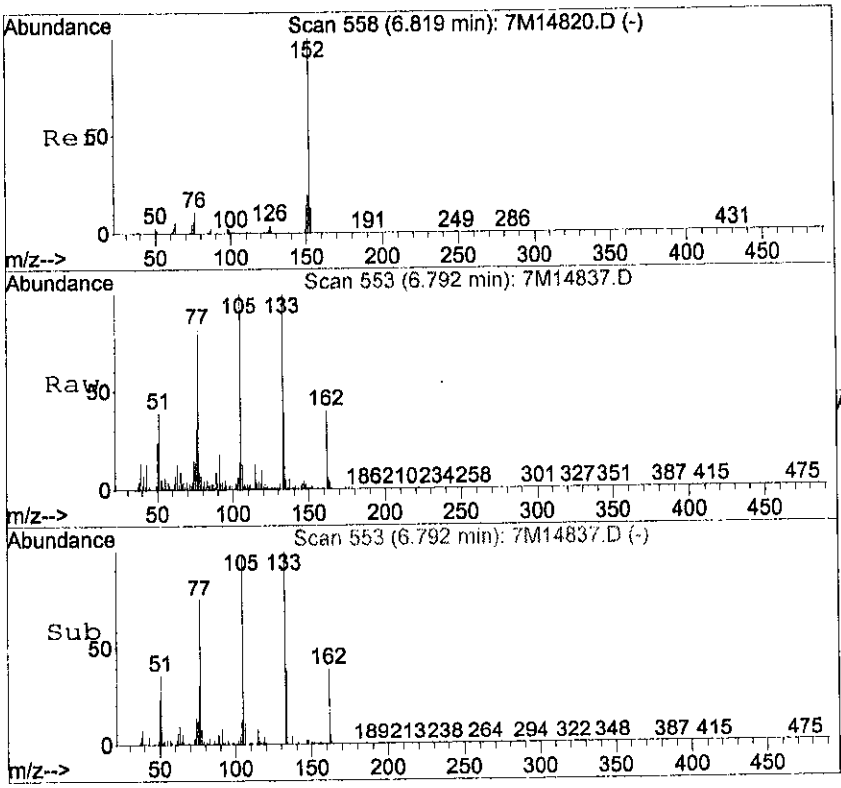


1-Methylnaphthalene
Concen: 49.52 ug/ml
RT: 6.01 min Scan# 406
Delta R.T. 0.01 min
Lab File: 7M14837.D
Acq: 20 Dec 2001 18:26

Tgt Ion:142 Resp: 8086736

Ion	Ratio	Lower	Upper
142	100		
115	274.2	31.6	47.4#

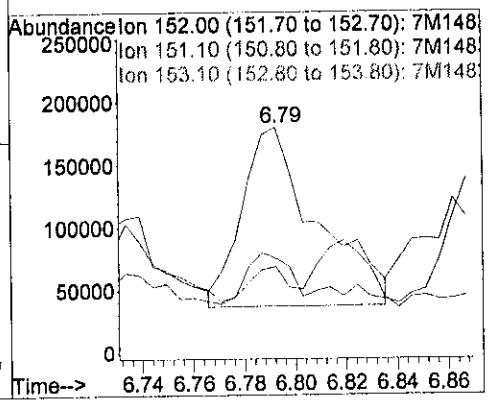


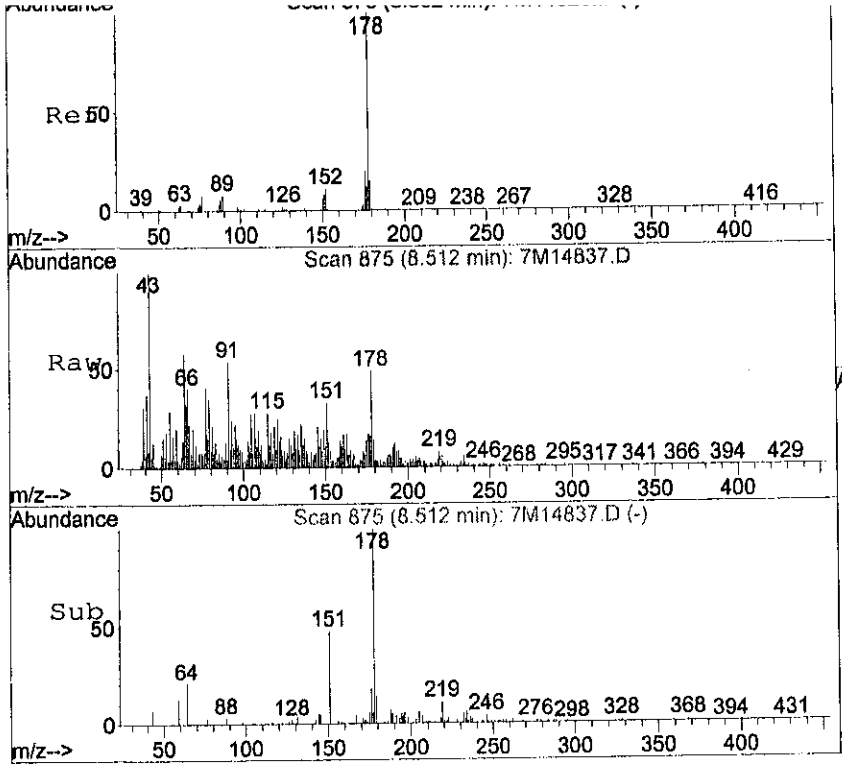


#8
Acenaphthylene
Concen: 0.12 ug/ml
RT: 6.79 min Scan# 553
Delta R.T. -0.02 min
Lab File: 7M14837.D
Acq: 20 Dec 2001 18:26

Tgt Ion:152 Resp: 294460

Ion	Ratio	Lower	Upper
152	100		
151	25.0	16.0	24.0#
153	10.6	10.6	15.8

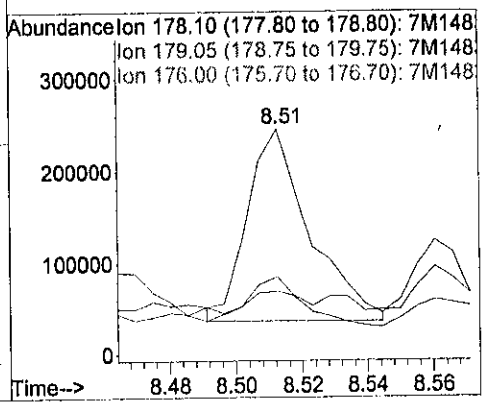




Phenanthrene
Concen: 0.25 ug/ml
RT: 8.51 min Scan# 875
Delta R.T. 0.01 min
Lab File: 7M14837.D
Acq: 20 Dec 2001 18:26

Tgt Ion:178 Resp: 272409

Ion	Ratio	Lower	Upper
178	100		
179	30.0	12.7	19.1#
176	25.1	15.4	23.2#



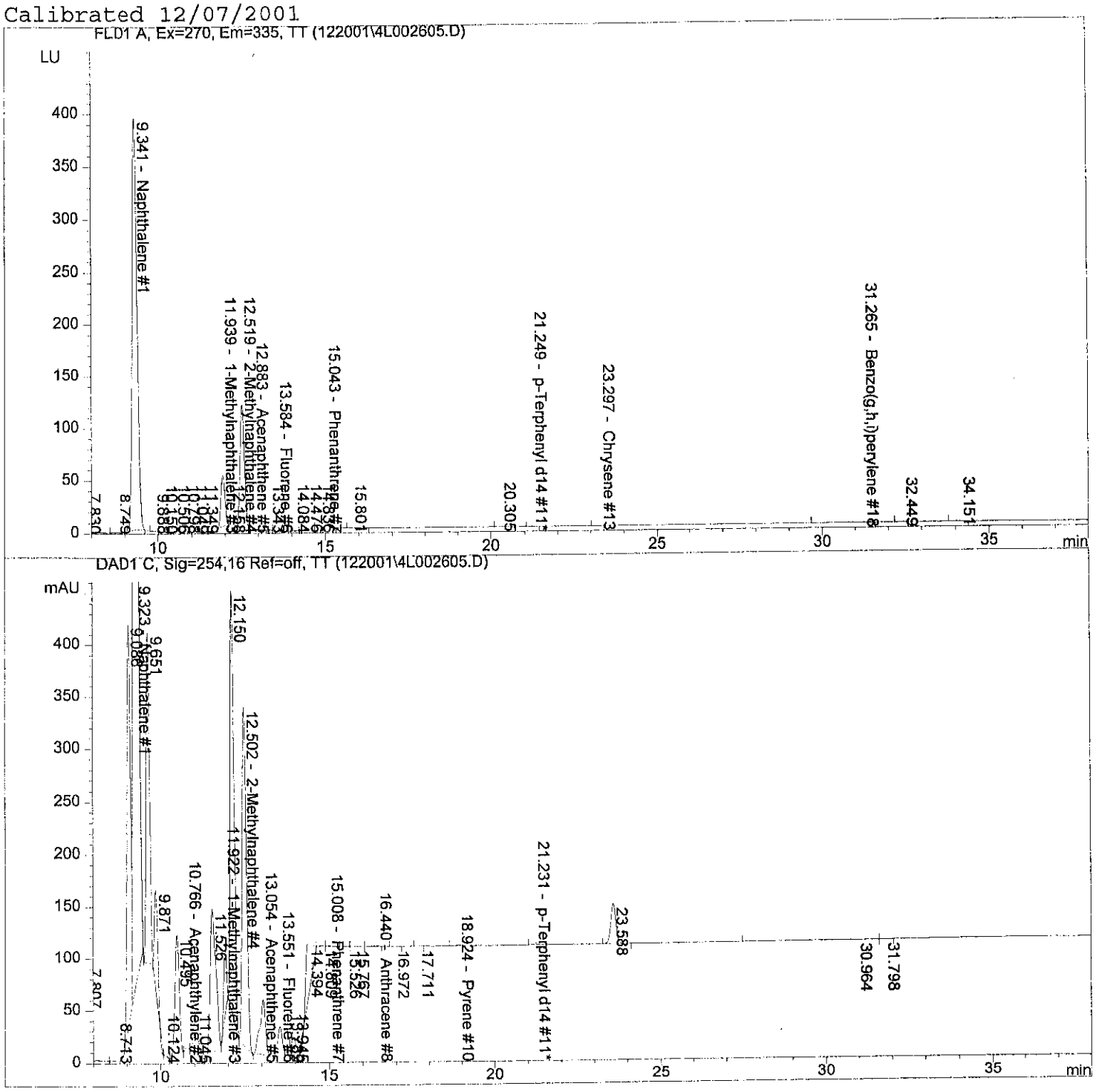
1,5 L0112349-01 @ 5X dil'n.

==========

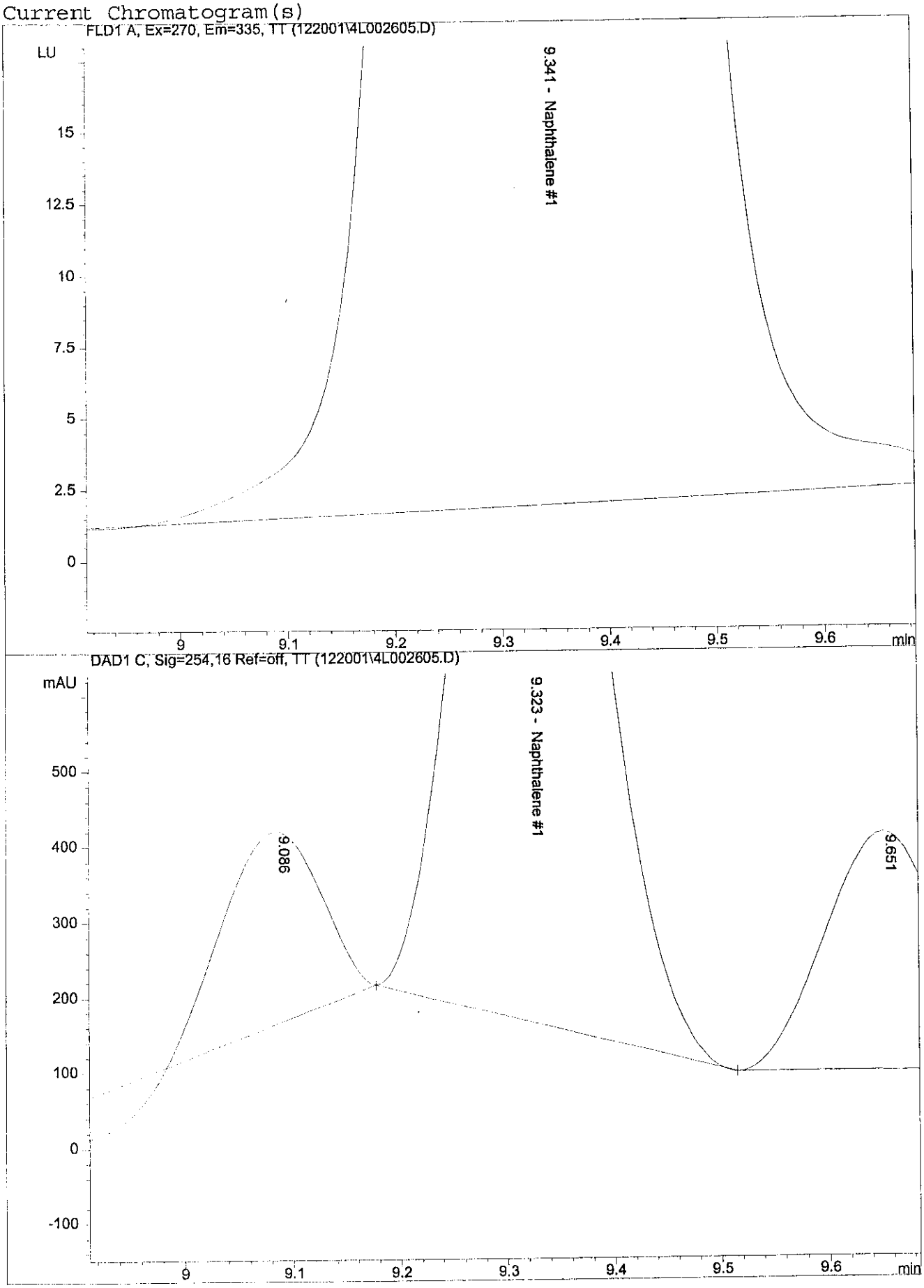
Injection Date	: 12/21/2001 10:32:43 AM	Seq. Line :	23
Sample Name	: L0112349-01 5X	Vial :	22
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/21/2001 3:17:16 PM by RDC
(modified after loading)

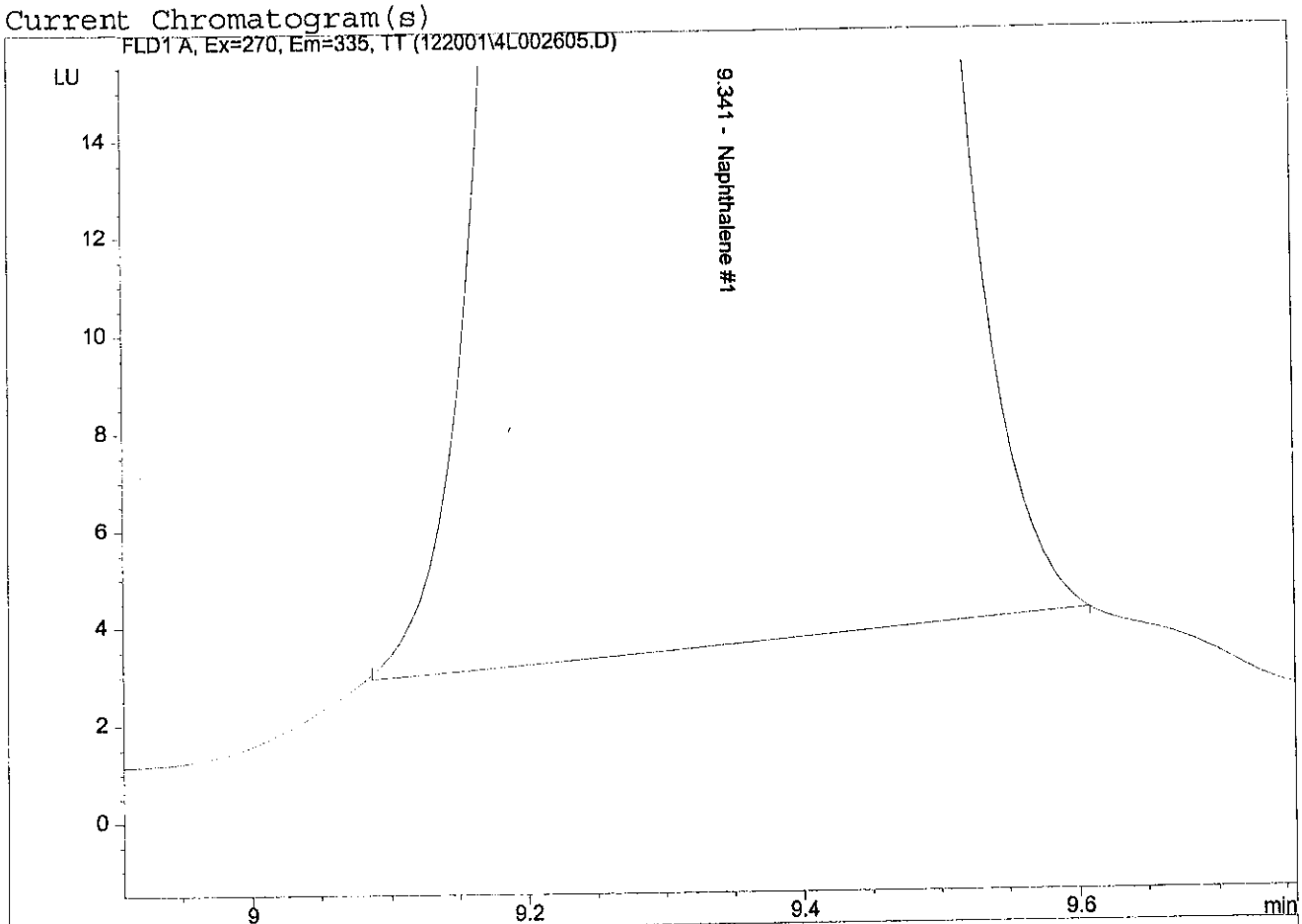
Calibrated 12/07/2001

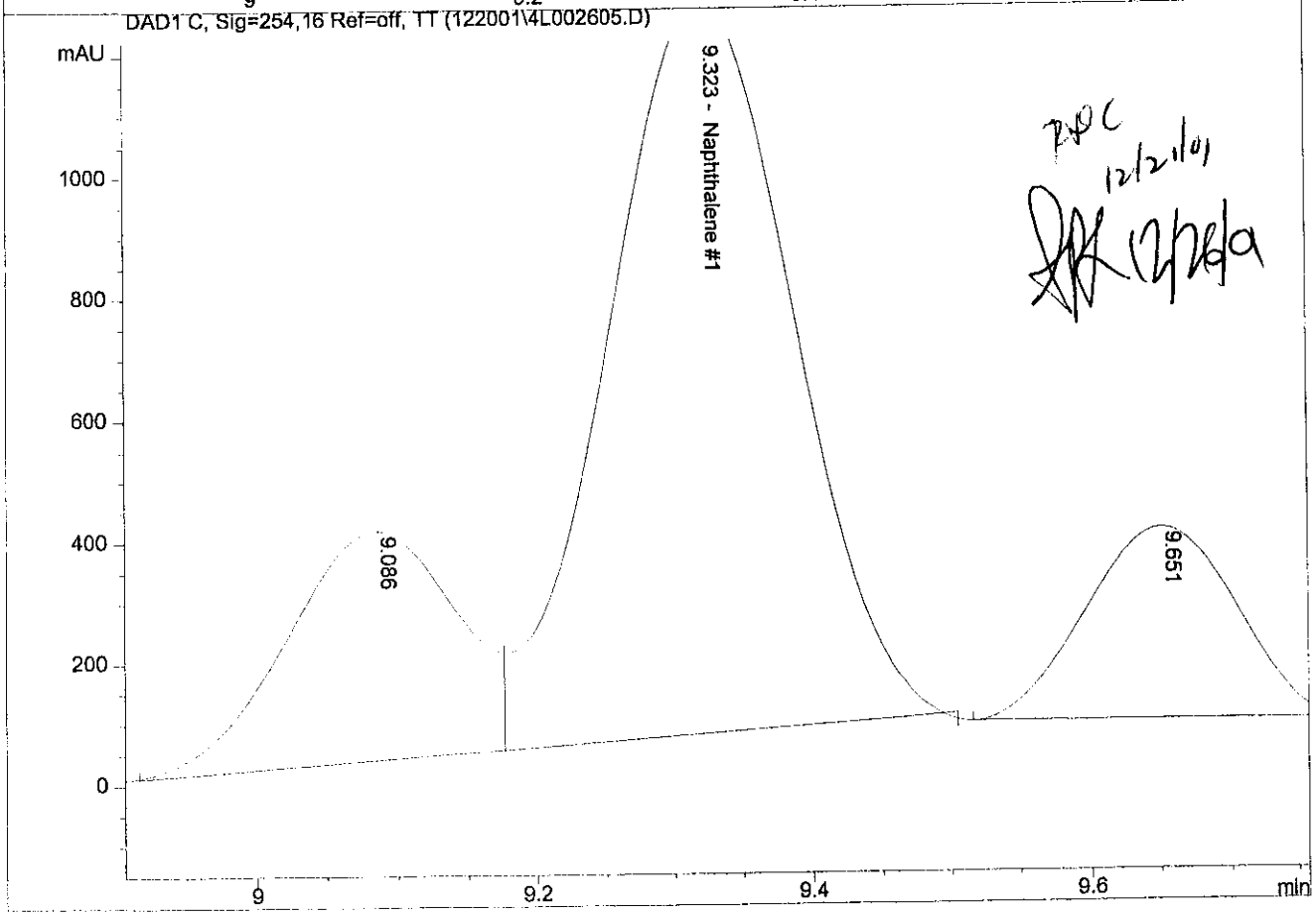


Current Chromatogram(s)



Current Chromatogram(s)





RDC 12/21/01

12/26/01

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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 12/21/2001 2:20:40 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.341	MM	3829.69897	2.64309e-2	101.22224		Naphthalene #1
11.939	BB	382.57526	2.30826e-2	8.83081		1-Methylnaphthalene #3
12.519	BB	1105.60974	1.77135e-2	19.58426		2-Methylnaphthalene #4
12.883	BB	17.66691	1.41307e-2	2.49645e-1		Acenaphthene #5
13.584	BB	32.52253	6.55799e-3	2.13282e-1		Fluorene #6
15.043	BB	1.89246e-1	1.72114e-1	3.25718e-2		Phenanthrene #7
16.422		-	-	-		Anthracene #8
17.907		-	-	-		Fluoranthene #9
18.912		-	-	-		Pyrene #10
21.249	BB	3.27501	2.98861e-1	9.78775e-1		p-Terphenyl d14 #11*
22.562		-	-	-		Benzo(a)anthracene #12
23.297	BB	1.64722e-1	4.07647e-2	6.71485e-3		Chrysene #13
26.140		-	-	-		Benzo(b)fluoranthene #14
27.562		-	-	-		Benzo(k)fluoranthene #15
28.676		-	-	-		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.265	PB	3.01769	3.02212e-2	9.11983e-2		Benzo(g,h,i)perylene #18
32.273		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 131.20950

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.323	FM	1.11164e4	8.11569e-3	90.21722		Naphthalene #1
10.766	BB	18.62877	2.94003e-2	5.47692e-1		Acenaphthylene #2
11.922	BB	378.12436	1.26957e-2	4.80055		1-Methylnaphthalene #3
12.502	BB	2858.73047	1.10418e-2	31.56547		2-Methylnaphthalene #4
13.054	BB	622.52692	1.99953e-2	12.44761		Acenaphthene #5
13.551	BB	218.53377	1.72604e-2	3.77198		Fluorene #6
15.008	BB	2.75039	1.70751e-2	4.69632e-2		Phenanthrene #7
16.440	BB	6.44432	1.03316e-2	6.65800e-2		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.924	BBA	6.83480	1.42346e-2	9.72906e-2		Pyrene #10
21.231	BBA	13.82438	6.51566e-2	9.00749e-1		p-Terphenyl d14 #11*
22.544		-	-	-		Benzo(a)anthracene #12
23.412		-	-	-		Chrysene #13
26.121		-	-	-		Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.509		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 144.46210

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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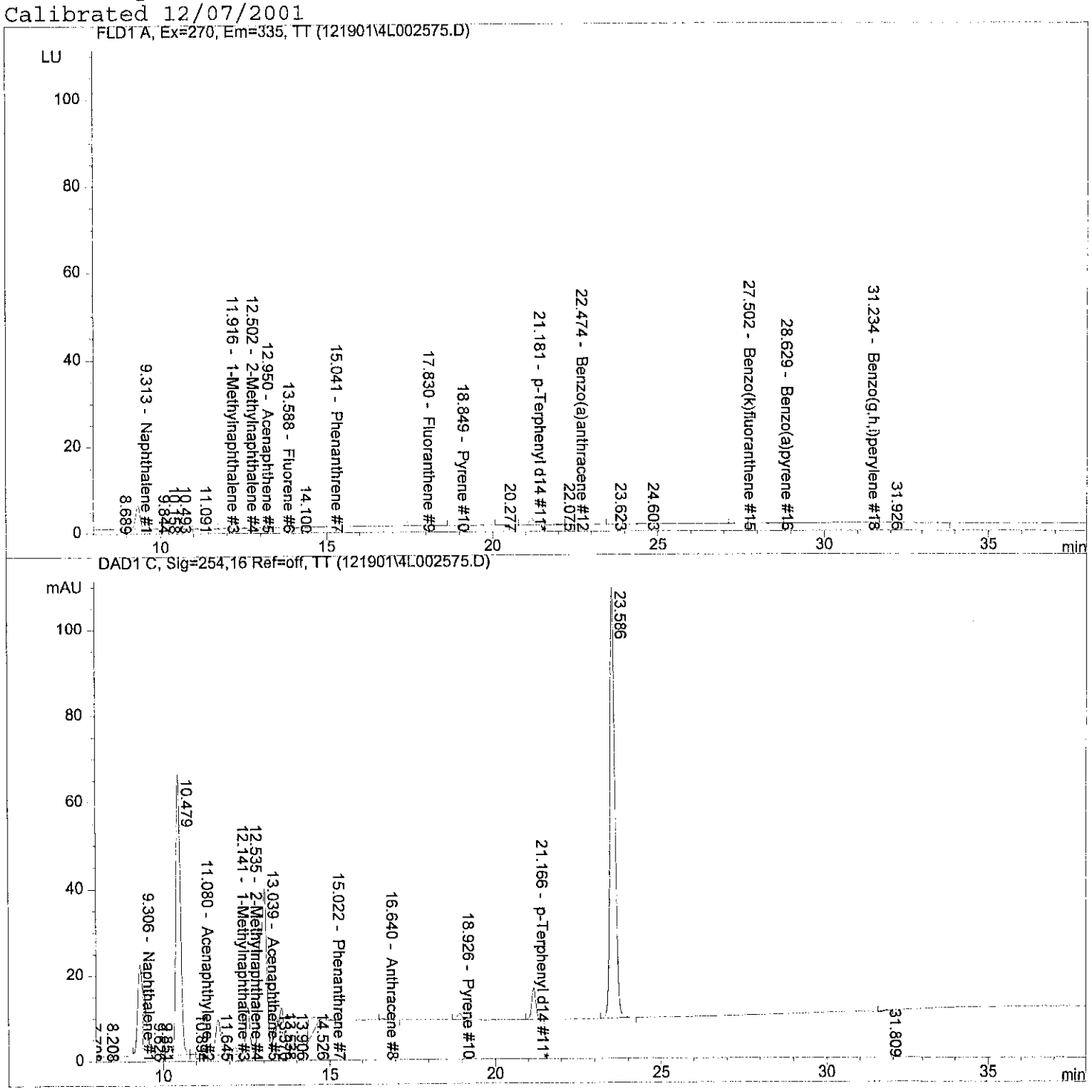
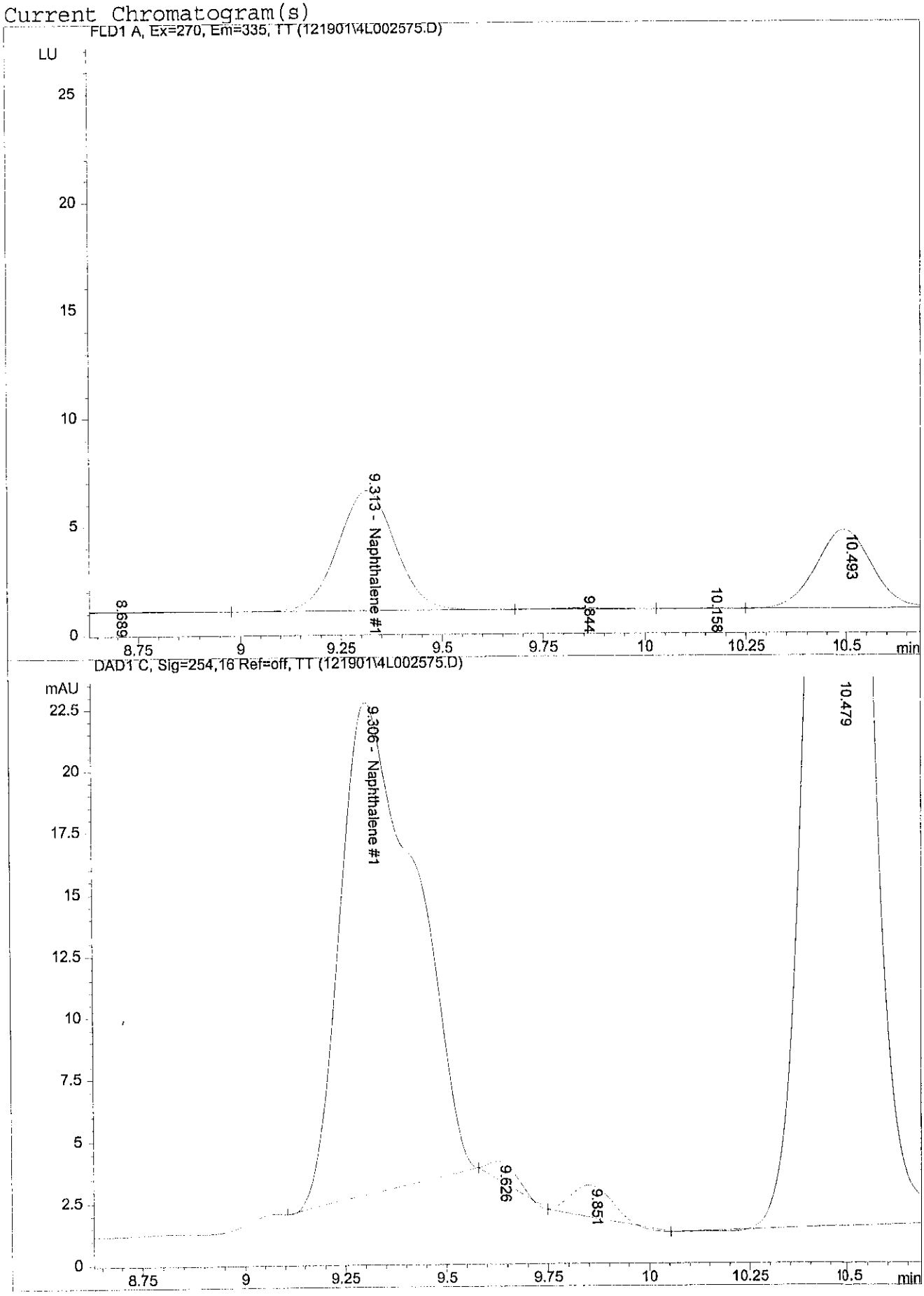
Injection Date : 12/20/2001 4:36:34 AM
Sample Name : L0112349-02 831W
Acq. Operator : RDC

Seq. Line : 22
Vial : 22
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:34:37 AM by RDC
Calibrated 12/07/2001



Current Chromatogram(s)



HPLC4 12/20/2001 1:30:03 PM RDC

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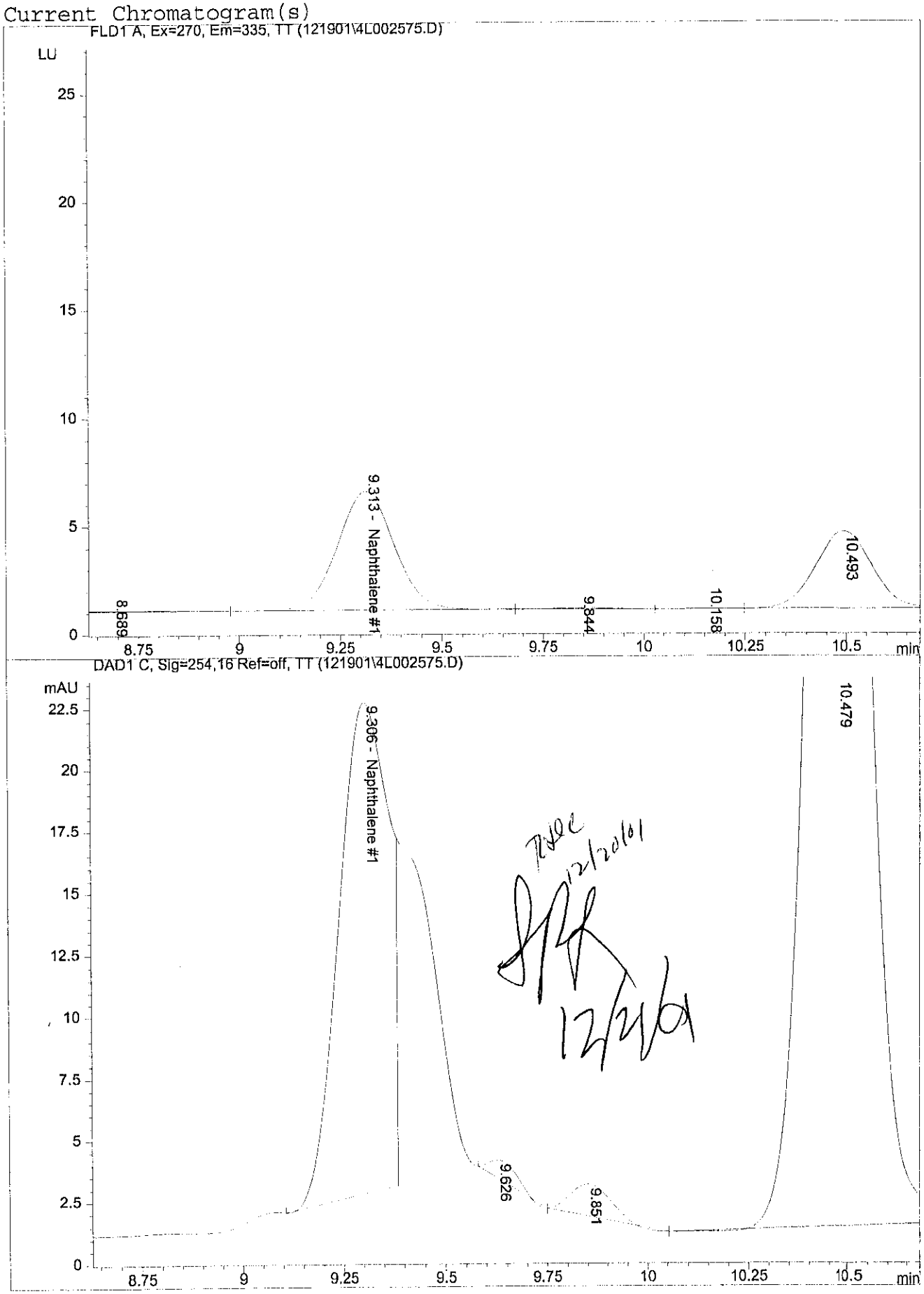
Current Chromatogram(s)



RDC 12/20/01

12/20/01

HPLC4 12/20/2001 1:30:14 PM RDC

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External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:34:24 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.313	BB	54.06550	2.64309e-2	1.42900		Naphthalene #1
11.916	BB	1.25148	2.30826e-2	2.88873e-2		1-Methylnaphthalene #3
12.502	BB	1.85979	1.77135e-2	3.29436e-2		2-Methylnaphthalene #4
12.950	BB	14.68009	1.41307e-2	2.07439e-1		Acenaphthene #5
13.588	BB	23.07555	6.55799e-3	1.51329e-1		Fluorene #6
15.041	BB	8.31282	1.72114e-1	1.43075		Phenanthrene #7
16.532		-	-	-		Anthracene #8
17.830	BBA	5.18563e-1	2.51883e-2	1.30617e-2		Fluoranthene #9
18.849	BBA	1.90211e-1	4.52106e-2	8.59955e-3		Pyrene #10
21.181	BBA	14.55931	2.98861e-1	4.35122		p-Terphenyl d14 #11*
22.474	BB	3.10147e-1	8.29841e-3	2.57372e-3		Benzo(a)anthracene #12
23.431		-	-	-		Chrysene #13
26.140		-	-	-		Benzo(b)fluoranthene #14
27.502	PB	3.11118e-1	2.77713e-3	8.64018e-4		Benzo(k)fluoranthene #15
28.629	BB	3.20247e-1	5.23910e-3	1.67781e-3		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.234	BB	4.47845	3.02212e-2	1.35344e-1		Benzo(g,h,i)perylene #18
32.273		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 7.79368

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.306	MF	172.77510	8.11569e-3	1.40219		Naphthalene #1
11.080	BB	2.62299	2.94003e-2	7.71169e-2		Acenaphthylene #2
12.141	BB	14.34553	1.26957e-2	1.82126e-1		1-Methylnaphthalene #3
12.535	BB	94.45296	1.10418e-2	1.04293		2-Methylnaphthalene #4
13.039	BB	513.08807	1.99953e-2	10.25934		Acenaphthene #5
13.719		-	-	-		Fluorene #6
15.022	BB	1.26094	1.70751e-2	2.15307e-2		Phenanthrene #7
16.640	BBA	1.34236	1.03316e-2	1.38686e-2		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.926	BBA	14.86049	1.42346e-2	2.11533e-1		Pyrene #10
21.166	BBA	64.82014	6.51566e-2	4.22346		p-Terphenyl d14 #11*
22.544		-	-	-		Benzo(a)anthracene #12
23.412		-	-	-		Chrysene #13
26.121		-	-	-		Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.509		-	-	-		Dibenz(a,h)anthracene #17

[min]	[mAU*s]		[ug/L]		
31.312	-	-	-		Benzo(g,h,i)perylene #18
32.264	-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 17.43410

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

2.2.7.3 Standards Data

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Calibration Table
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HPLC4 8310 CALIBRATION

Calib. Data Modified : Monday, December 10, 2001 11:34:24 AM

Calculate : External Standard
Based on : Peak Area

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.300 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.300 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Forced
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FLD1 A, Ex=270, Em=335, TT
Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
9.427	2	1	1.00000	115.80276	8.63537e-3			Naphthalene #1
		2	5.00000	606.36218	8.24590e-3			
		3	10.00000	1228.04895	8.14300e-3			
		4	20.00000	2515.62280	7.95032e-3			
		5	50.00000	6239.97021	8.01286e-3			
		6	100.00000	1.22730e4	8.14796e-3			
9.445	1	1	1.00000	34.14394	2.92878e-2			Naphthalene #1
		2	5.00000	175.20758	2.85376e-2			
		3	10.00000	357.36987	2.79822e-2			
		4	20.00000	737.47040	2.71197e-2			
		5	50.00000	1851.06140	2.70115e-2			
		6	100.00000	3810.46631	2.62435e-2			
11.059	2	1	1.00000	31.43988	3.18067e-2			Acenaphthylene #2
		2	5.00000	158.72070	3.15019e-2			
		3	10.00000	320.25964	3.12247e-2			
		4	20.00000	657.36005	3.04247e-2			
		5	50.00000	1651.06335	3.02835e-2			
		6	100.00000	3433.28174	2.91267e-2			
12.007	2	1	1.00000	72.32628	1.38262e-2			1-Methylnaphthalene #3

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		2	5.00000	371.50211	1.34589e-2			
		3	10.00000	751.04242	1.33148e-2			
		4	20.00000	1541.22485	1.29767e-2			
		5	50.00000	3860.07959	1.29531e-2			
		6	100.00000	7927.48535	1.26143e-2			
12.025	1	1	1.00000	39.21505	2.55004e-2			1-Methylnaphthalene #3
		2	5.00000	202.11798	2.47380e-2			
		3	10.00000	411.64304	2.42929e-2			
		4	20.00000	845.22443	2.36624e-2			
		5	50.00000	2126.27832	2.35153e-2			
		6	100.00000	4359.37695	2.29391e-2			
12.583	2	1	1.00000	84.52537	1.18308e-2			2-Methylnaphthalene #4
		2	5.00000	434.66425	1.15031e-2			
		3	10.00000	878.19104	1.13870e-2			
		4	20.00000	1800.34558	1.11090e-2			
		5	50.00000	4488.76758	1.11389e-2			
		6	100.00000	9082.16113	1.10106e-2			
12.602	1	1	1.00000	51.48040	1.94249e-2			2-Methylnaphthalene #4
		2	5.00000	265.18561	1.88547e-2			
		3	10.00000	539.40985	1.85388e-2			
		4	20.00000	1111.04944	1.80010e-2			
		5	50.00000	2777.27686	1.80032e-2			
		6	100.00000	5675.13281	1.76207e-2			
13.062	2	1	1.00000	45.57931	2.19398e-2			Acenaphthene #5
		2	5.00000	234.14653	2.13541e-2			
		3	10.00000	472.85046	2.11483e-2			
		4	20.00000	971.48230	2.05871e-2			
		5	50.00000	2437.01563	2.05169e-2			
		6	100.00000	5042.28223	1.98323e-2			
13.080	1	1	1.00000	65.08414	1.53647e-2			Acenaphthene #5
		2	5.00000	335.57715	1.48997e-2			
		3	10.00000	680.59875	1.46929e-2			
		4	20.00000	1398.43469	1.43017e-2			
		5	50.00000	3490.80957	1.43233e-2			
		6	100.00000	7107.66846	1.40693e-2			
13.719	2	1	1.00000	52.40231	1.90831e-2			Fluorene #6
		2	5.00000	269.92172	1.85239e-2			
		3	10.00000	545.33289	1.83374e-2			
		4	20.00000	1121.15540	1.78387e-2			
		5	50.00000	2817.43921	1.77466e-2			
		6	100.00000	5845.24707	1.71079e-2			
13.738	1	1	1.00000	144.45450	6.92260e-3			Fluorene #6
		2	5.00000	742.47473	6.73424e-3			
		3	10.00000	1498.75659	6.67220e-3			
		4	20.00000	3062.98730	6.52957e-3			
		5	50.00000	7578.60205	6.59752e-3			
		6	100.00000	1.52725e4	6.54773e-3			
15.107	2	1	1.00000	53.48583	1.86965e-2			Phenanthrene #7
		2	5.00000	273.70901	1.82676e-2			
		3	10.00000	553.08002	1.80806e-2			
		4	20.00000	1137.95862	1.75753e-2			
		5	50.00000	2853.04907	1.75251e-2			
		6	100.00000	5905.01465	1.69348e-2			
15.126	1	1	1.00000	5.16262	1.93700e-1			Phenanthrene #7
		2	5.00000	26.34856	1.89764e-1			
		3	10.00000	53.12293	1.88243e-1			

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		4	20.00000	110.76902	1.80556e-1			
		5	50.00000	281.05099	1.77904e-1			
		6	100.00000	587.46509	1.70223e-1			
16.513	2	1	1.00000	88.39832	1.13124e-2			Anthracene #8
		2	5.00000	456.11115	1.09622e-2			
		3	10.00000	924.44818	1.08173e-2			
		4	20.00000	1885.26465	1.06086e-2			
		5	50.00000	4812.97998	1.03886e-2			
		6	100.00000	9708.27441	1.03005e-2			
16.532	1	1	1.00000	2.73816	3.65209e-1			Anthracene #8
		2	5.00000	14.95346	3.34371e-1			
		3	10.00000	30.15903	3.31576e-1			
		4	20.00000	62.19715	3.21558e-1			
		5	50.00000	156.76224	3.18954e-1			
		6	100.00000	323.20529	3.09401e-1			
17.887	2	1	1.00000e-1	4.29404	2.32881e-2			Fluoranthene #9
		2	5.00000e-1	21.55572	2.31957e-2			
		3	1.00000	43.55686	2.29585e-2			
		4	2.00000	89.84662	2.22602e-2			
		5	5.00000	226.59413	2.20659e-2			
		6	10.00000	472.12201	2.11810e-2			
17.907	1	1	1.00000e-1	3.35839	2.97762e-2			Fluoranthene #9
		2	5.00000e-1	19.23926	2.59885e-2			
		3	1.00000	39.02326	2.56257e-2			
		4	2.00000	77.06699	2.59514e-2			
		5	5.00000	191.95184	2.60482e-2			
		6	10.00000	400.85757	2.49465e-2			
18.891	2	1	1.00000e-1	6.05919	1.65038e-2			Pyrene #10
		2	5.00000e-1	31.22189	1.60144e-2			
		3	1.00000	65.35954	1.53000e-2			
		4	2.00000	135.25577	1.47868e-2			
		5	5.00000	340.46393	1.46858e-2			
		6	10.00000	709.65320	1.40914e-2			
18.912	1	1	1.00000e-1	1.73975	5.74796e-2			Pyrene #10
		2	5.00000e-1	10.39580	4.80963e-2			
		3	1.00000	21.21303	4.71408e-2			
		4	2.00000	43.99789	4.54567e-2			
		5	5.00000	110.94641	4.50668e-2			
21.231	2	1	1.00000	13.90912	7.18953e-2			p-Terphenyl d14 #11*
		2	5.00000	71.85631	6.95833e-2			
		3	10.00000	147.07727	6.79915e-2			
		4	20.00000	301.76755	6.62762e-2			
		5	50.00000	767.66412	6.51327e-2			
		6	100.00000	1536.55896	6.50805e-2			
21.248	1	1	1.00000	3.10528	3.22032e-1			p-Terphenyl d14 #11*
		2	5.00000	15.82066	3.16042e-1			
		3	10.00000	31.79696	3.14496e-1			
		4	20.00000	65.33878	3.06097e-1			
		5	50.00000	166.28719	3.00685e-1			
		6	100.00000	335.64120	2.97937e-1			
22.544	2	1	1.00000e-1	4.04760	2.47060e-2			Benzo(a)anthracene #12
		2	5.00000e-1	20.88080	2.39454e-2			
		3	1.00000	42.08236	2.37629e-2			
		4	2.00000	87.47297	2.28642e-2			
		5	5.00000	220.45860	2.26800e-2			
		6	10.00000	460.26733	2.17265e-2			

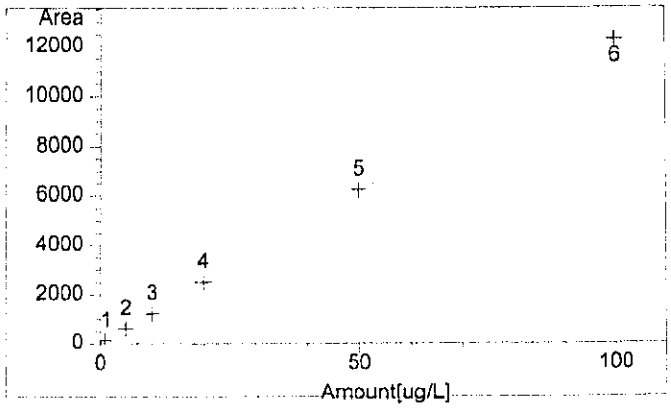
RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
22.562	1	1	1.00000e-1	10.98394	9.10420e-3			Benzo(a)anthracene #12
		2	5.00000e-1	55.03781	9.08466e-3			
		3	1.00000	111.32906	8.98238e-3			
		4	2.00000	231.59561	8.63574e-3			
		5	5.00000	583.97321	8.56204e-3			
		6	10.00000	1217.39807	8.21424e-3			
23.412	2	1	1.00000e-1	5.94315	1.68261e-2			Chrysene #13
		2	5.00000e-1	30.72799	1.62718e-2			
		3	1.00000	62.67461	1.59554e-2			
		4	2.00000	128.96687	1.55079e-2			
		5	5.00000	326.67627	1.53057e-2			
		6	10.00000	682.58563	1.46502e-2			
23.431	1	1	1.00000e-1	2.36736	4.22412e-2			Chrysene #13
		2	5.00000e-1	11.46110	4.36258e-2			
		3	1.00000	22.85746	4.37494e-2			
		4	2.00000	46.97458	4.25762e-2			
		5	5.00000	118.82884	4.20773e-2			
		6	10.00000	247.84904	4.03471e-2			
26.121	2	1	1.00000e-1	4.52168	2.21157e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	22.90010	2.18340e-2			
		3	1.00000	46.43794	2.15341e-2			
		4	2.00000	94.51936	2.11597e-2			
		5	5.00000	237.99123	2.10092e-2			
		6	10.00000	496.62497	2.01359e-2			
26.140	1	1	1.00000e-1	5.61101	1.78221e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	28.96787	1.72605e-2			
		3	1.00000	55.92225	1.78820e-2			
		4	2.00000	116.34737	1.71899e-2			
		5	5.00000	291.22507	1.71689e-2			
		6	10.00000	606.26263	1.64945e-2			
27.548	2	1	5.00000e-2	2.10015	2.38078e-2			Benzo(k)fluoranthene #
		2	2.50000e-1	11.10531	2.25118e-2			
		3	5.00000e-1	21.05570	2.37465e-2			
		4	1.00000	43.61720	2.29267e-2			
		5	2.50000	109.46035	2.28393e-2			
		6	5.00000	227.90102	2.19393e-2			
27.562	1	1	5.00000e-2	16.30576	3.06640e-3			Benzo(k)fluoranthene #
		2	2.50000e-1	83.71040	2.98649e-3			
		3	5.00000e-1	169.56526	2.94872e-3			
		4	1.00000	349.97339	2.85736e-3			
		5	2.50000	877.84839	2.84787e-3			
		6	5.00000	1814.99976	2.75482e-3			
28.658	2	1	1.00000e-1	2.59946	3.84695e-2			Benzo(a)pyrene #16
		2	5.00000e-1	15.20856	3.28762e-2			
		3	1.00000	31.26832	3.19813e-2			
		4	2.00000	67.33721	2.97013e-2			
		5	5.00000	170.42978	2.93376e-2			
		6	10.00000	361.30676	2.76773e-2			
28.676	1	1	1.00000e-1	16.72118	5.98044e-3			Benzo(a)pyrene #16
		2	5.00000e-1	86.88049	5.75503e-3			
		3	1.00000	175.19550	5.70791e-3			
		4	2.00000	364.55637	5.48612e-3			
		5	5.00000	924.72375	5.40702e-3			
		6	10.00000	1929.00012	5.18403e-3			
30.509	2	1	1.00000e-1	6.44712e-1	1.55108e-1			Dibenz(a,h)anthracene
		2	5.00000e-1	5.01077	9.97851e-2			

RetTime [min]	Lvl Sig		Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		3	1.00000	13.35335	7.48876e-2			
		4	2.00000	21.45176	9.32324e-2			
		5	5.00000	51.97754	9.61954e-2			
		6	10.00000	108.58928	9.20901e-2			
30.526	1	1	1.00000e-1	2.05262	4.87183e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	11.18928	4.46856e-2			
		3	1.00000	20.45066	4.88982e-2			
		4	2.00000	45.38562	4.40668e-2			
		5	5.00000	118.41199	4.22255e-2			
		6	10.00000	249.58025	4.00673e-2			
31.312	2	1	1.00000e-1	2.00007	4.99982e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	8.76552	5.70417e-2			
		3	1.00000	17.44936	5.73087e-2			
		4	2.00000	32.76551	6.10398e-2			
		5	5.00000	84.71449	5.90218e-2			
		6	10.00000	182.81955	5.46987e-2			
31.334	1	1	1.00000e-1	3.47096	2.88105e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	15.50431	3.22491e-2			
		3	1.00000	30.57295	3.27087e-2			
		4	2.00000	61.80997	3.23572e-2			
		5	5.00000	158.65286	3.15153e-2			
		6	10.00000	335.46561	2.98093e-2			
32.264	2	1	1.00000e-1	3.57299	2.79878e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	22.66177	2.20636e-2			
		3	1.00000	44.40019	2.25224e-2			
		4	2.00000	98.87786	2.02270e-2			
		5	5.00000	239.21368	2.09018e-2			
		6	10.00000	499.46121	2.00216e-2			
32.273	1	1	1.00000e-1	6.30039	1.58720e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	34.34013	1.45602e-2			
		3	1.00000	77.95903	1.28273e-2			
		4	2.00000	142.06572	1.40780e-2			
		5	5.00000	352.51187	1.41839e-2			
		6	10.00000	734.23254	1.36197e-2			

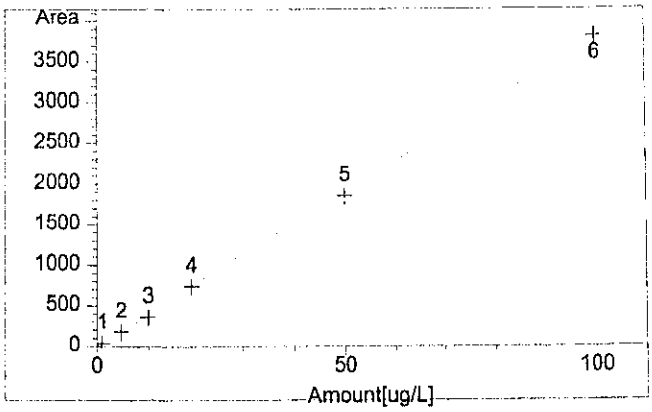
Peak Sum Table

No Entries in table

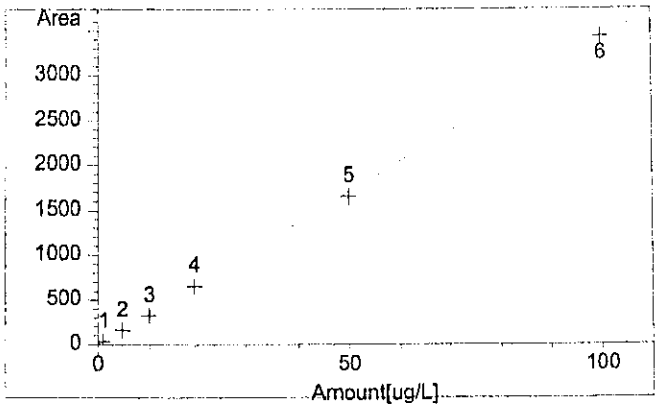
Calibration Curves



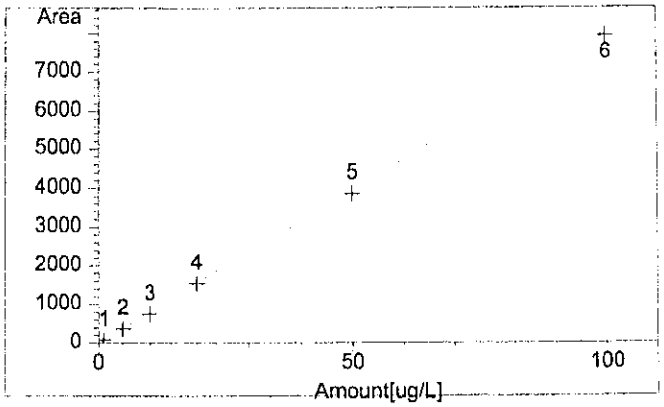
Naphthalene #1 at exp. RT: 9.427
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 47.80615
Formula: y = mx
m: 123.21818
x: Amount [ug/L]
y: Area



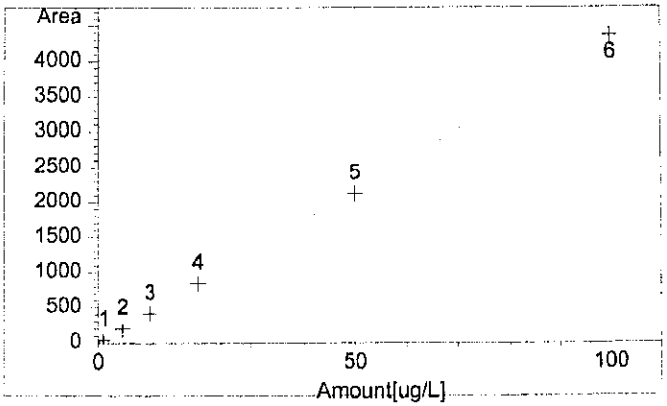
Naphthalene #1 at exp. RT: 9.445
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 26.08217
Formula: y = mx
m: 37.83456
x: Amount [ug/L]
y: Area



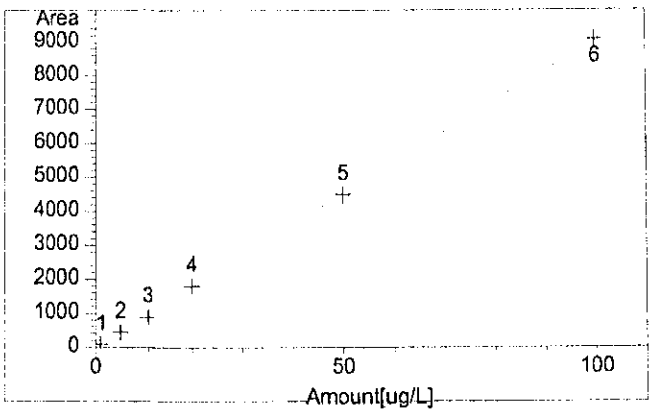
Acenaphthylene #2 at exp. RT: 11.059
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99985
Residual Std. Dev.: 30.12049
Formula: y = mx
m: 34.01322
x: Amount [ug/L]
y: Area



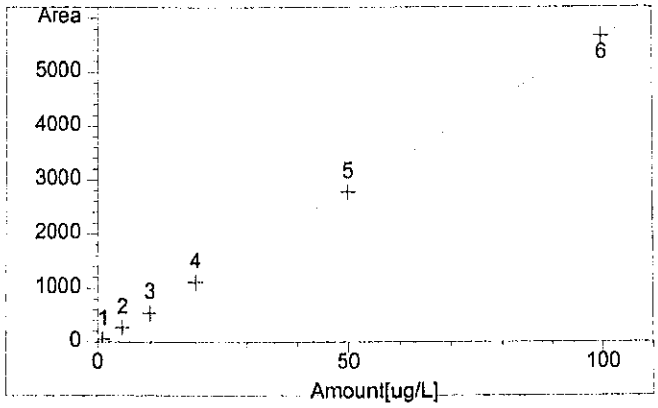
1-Methylnaphthalene #3 at exp. RT: 12.007
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 48.47901
Formula: y = mx
m: 78.76687
x: Amount [ug/L]
y: Area



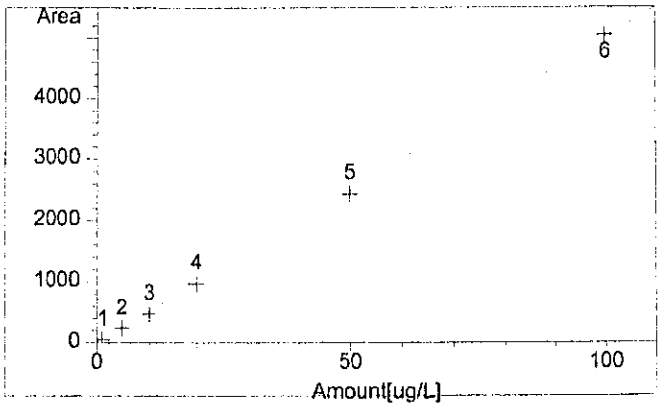
1-Methylnaphthalene #3 at exp. RT: 12.025
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 26.33210
Formula: y = mx
m: 43.32276
x: Amount [ug/L]
y: Area



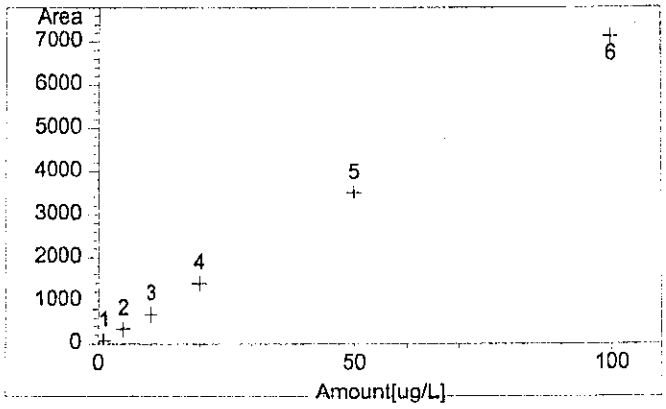
2-Methylnaphthalene #4 at exp. RT: 12.583
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 26.29692
Formula: y = mx
m: 90.56511
x: Amount [ug/L]
y: Area



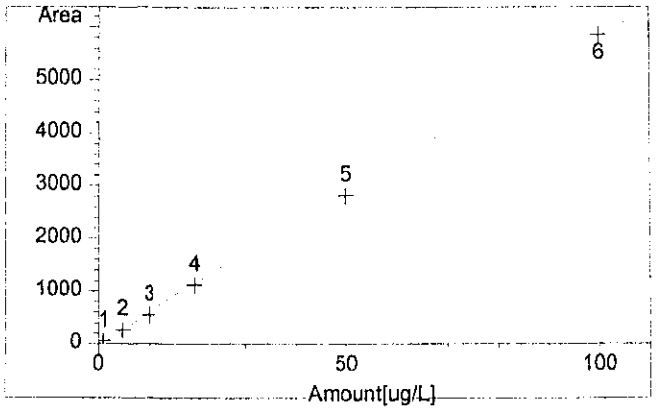
2-Methylnaphthalene #4 at exp. RT: 12.602
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 29.05354
Formula: y = mx
m: 56.45399
x: Amount [ug/L]
y: Area



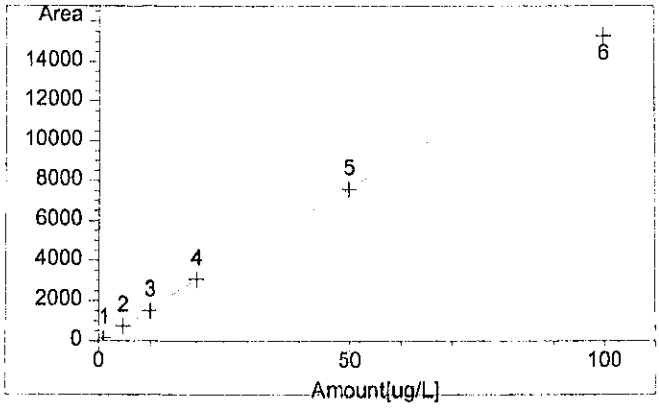
Acenaphthene #5 at exp. RT: 13.062
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99988
Residual Std. Dev.: 38.92105
Formula: y = mx
m: 50.01178
x: Amount [ug/L]
y: Area



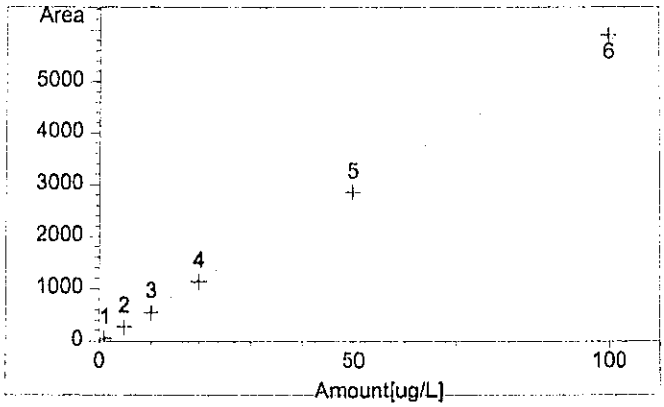
Acenaphthene #5 at exp. RT: 13.080
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99996
Residual Std. Dev.: 30.34274
Formula: y = mx
m: 70.76808
x: Amount [ug/L]
y: Area



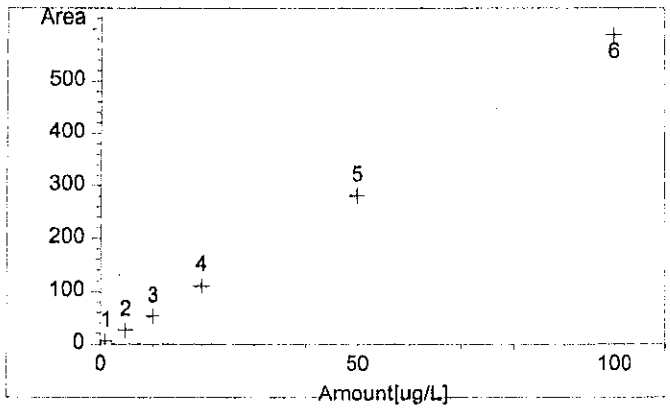
Fluorene #6 at exp. RT: 13.719
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99986
Residual Std. Dev.: 48.89890
Formula: y = mx
m: 57.93606
x: Amount [ug/L]
y: Area



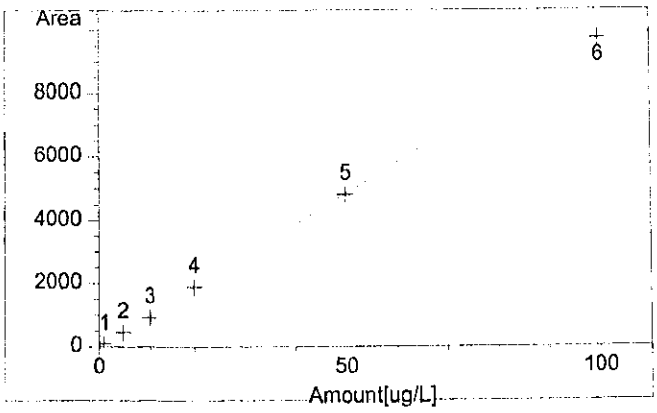
Fluorene #6 at exp. RT: 13.738
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 28.20492
Formula: y = mx
m: 152.48579
x: Amount [ug/L]
y: Area



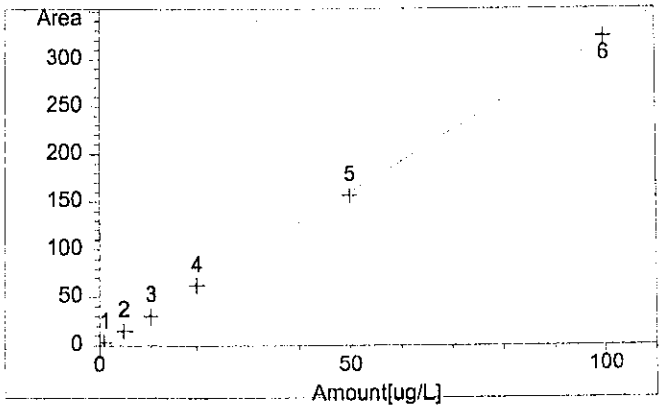
Phenanthrene #7 at exp. RT: 15.107
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99988
Residual Std. Dev.: 45.98374
Formula: y = mx
m: 58.56486
x: Amount [ug/L]
y: Area



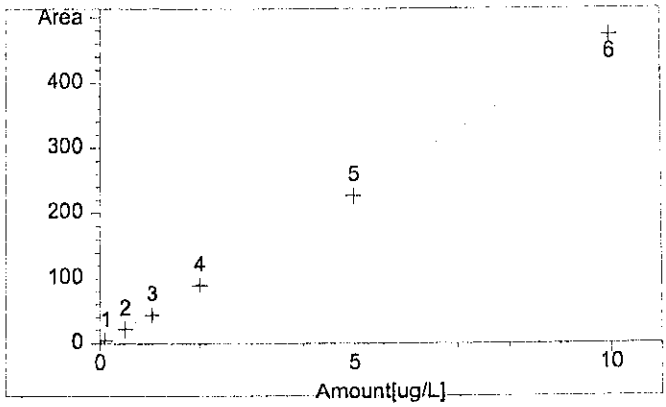
Phenanthrene #7 at exp. RT: 15.126
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99978
Residual Std. Dev.: 6.21393
Formula: y = mx
m: 5.81012
x: Amount [ug/L]
y: Area



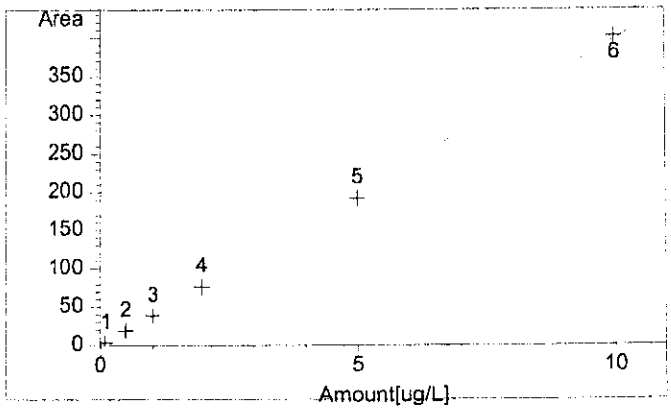
Anthracene #8 at exp. RT: 16.513
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 37.00703
Formula: y = mx
m: 96.79066
x: Amount [ug/L]
y: Area



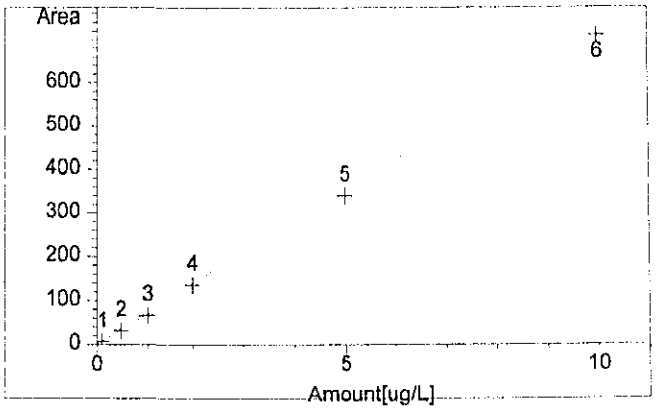
Anthracene #8 at exp. RT: 16.532
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 2.36476
Formula: y = mx
m: 3.20756
x: Amount [ug/L]
y: Area



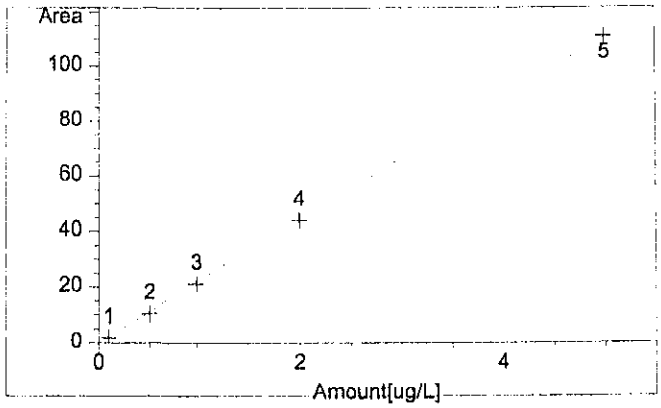
Fluoranthene #9 at exp. RT: 17.887
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99983
Residual Std. Dev.: 4.46228
Formula: y = mx
m: 46.74227
x: Amount [ug/L]
y: Area



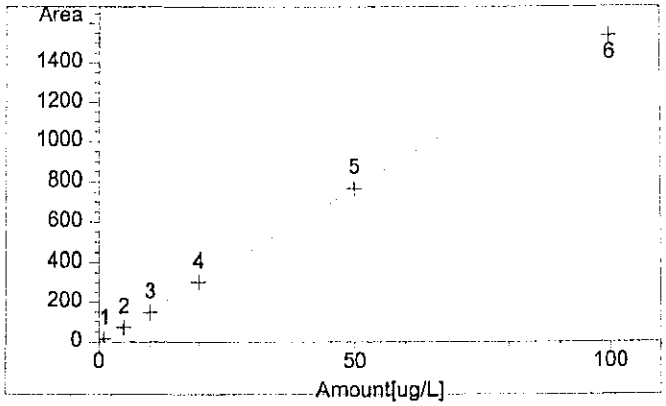
Fluoranthene #9 at exp. RT: 17.907
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99984
Residual Std. Dev.: 3.58907
Formula: y = mx
m: 39.70096
x: Amount [ug/L]
y: Area



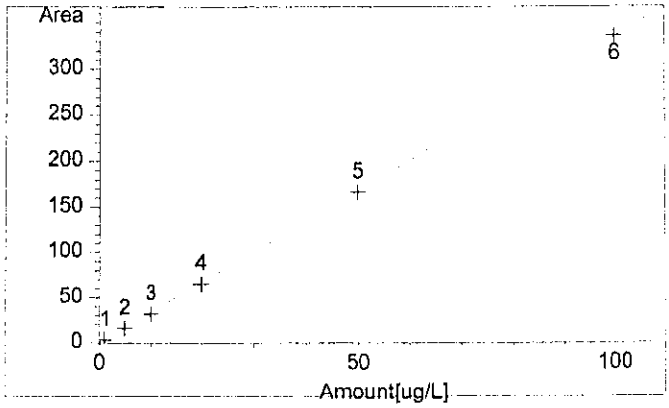
Pyrene #10 at exp. RT: 18.891
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 6.85701
Formula: y = mx
m: 70.25134
x: Amount [ug/L]
y: Area



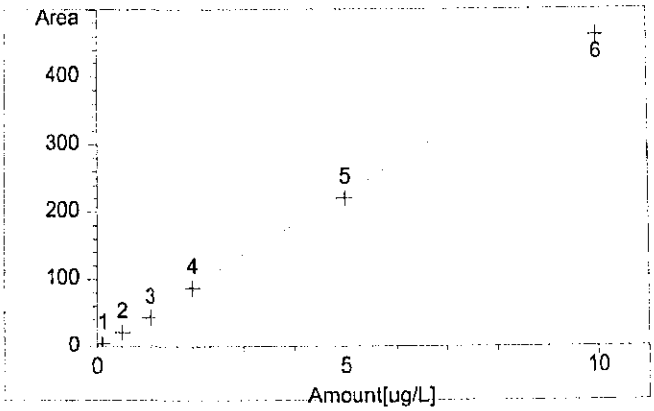
Pyrene #10 at exp. RT: 18.912
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99994
Residual Std. Dev.: 0.64524
Formula: y = mx
m: 22.11873
x: Amount [ug/L]
y: Area



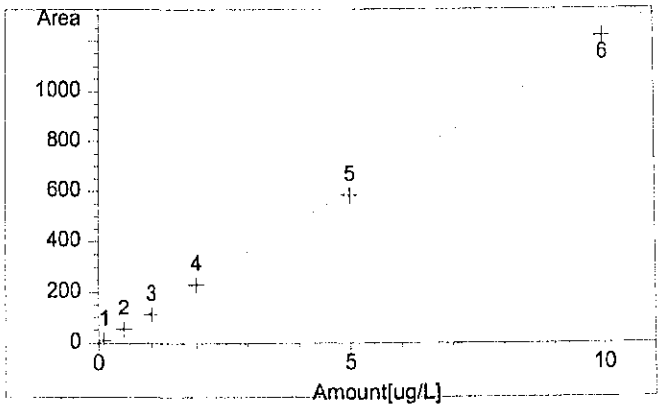
p-Terphenyl d14 #11* at exp. RT: 21.231
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 4.40544
Formula: y = mx
m: 15.34764
x: Amount [ug/L]
y: Area



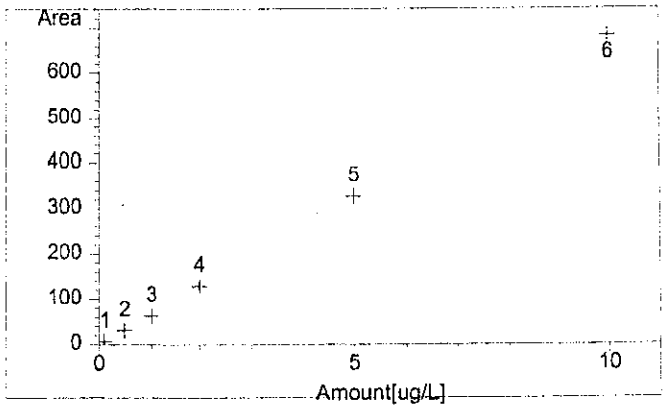
p-Terphenyl d14 #11* at exp. RT: 21.248
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 1.28536
Formula: y = mx
m: 3.34603
x: Amount [ug/L]
y: Area



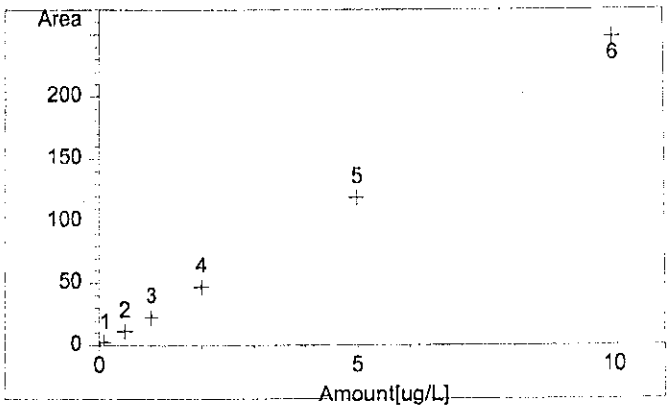
Benzo(a)anthracene #12 at exp. RT: 22.544
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99981
Residual Std. Dev.: 4.58073
Formula: y = mx
m: 45.54614
x: Amount[ug/L]
y: Area



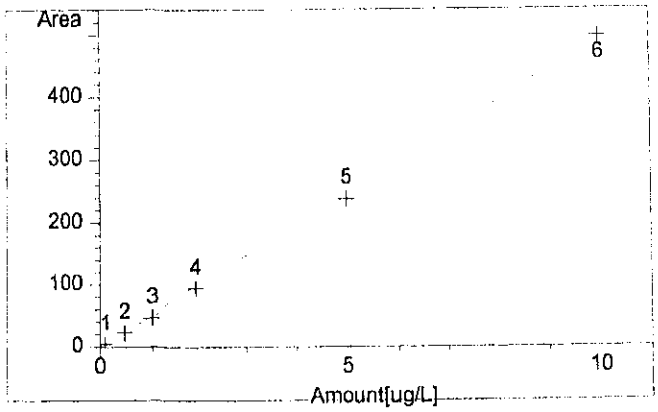
Benzo(a)anthracene #12 at exp. RT: 22.562
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99982
Residual Std. Dev.: 11.81358
Formula: y = mx
m: 120.50502
x: Amount[ug/L]
y: Area



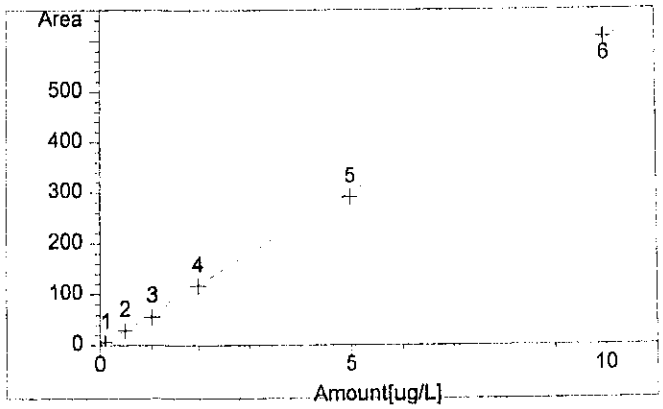
Chrysene #13 at exp. RT: 23.412
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99979
Residual Std. Dev.: 6.98685
Formula: y = mx
m: 67.52498
x: Amount[ug/L]
y: Area



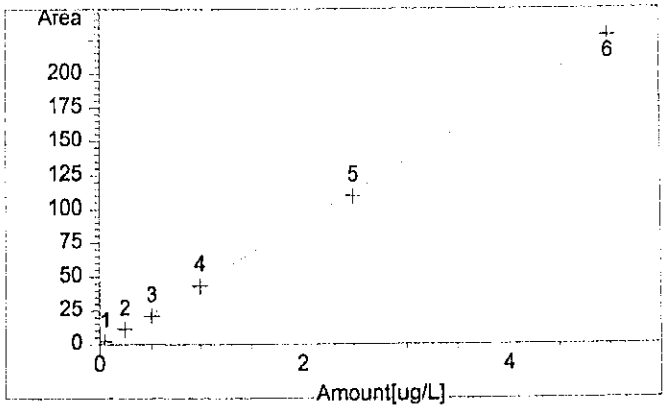
Chrysene #13 at exp. RT: 23.431
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99982
Residual Std. Dev.: 2.40411
Formula: y = mx
m: 24.53100
x: Amount[ug/L]
y: Area



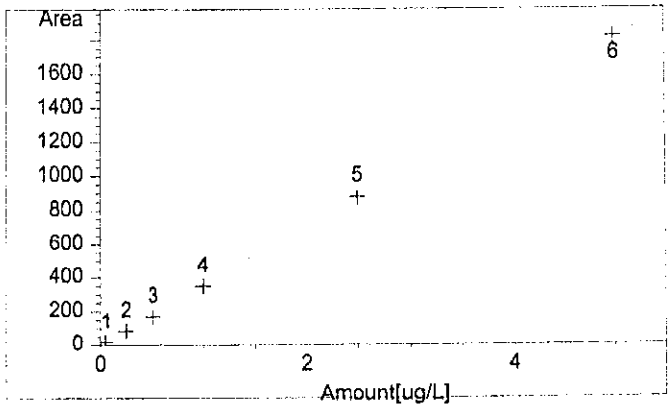
Benzo(b)fluoranthene #14 at exp. RT: 26.1
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 4.71295
Formula: y = mx
m: 49.16002
x: Amount [ug/L]
y: Area



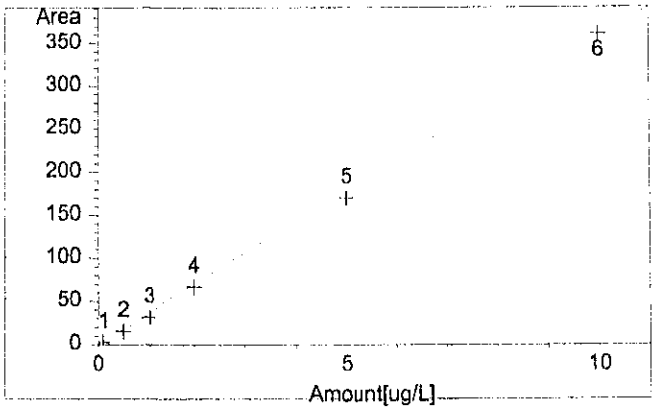
Benzo(b)fluoranthene #14 at exp. RT: 26.1
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99984
Residual Std. Dev.: 5.42310
Formula: y = mx
m: 60.05231
x: Amount [ug/L]
y: Area



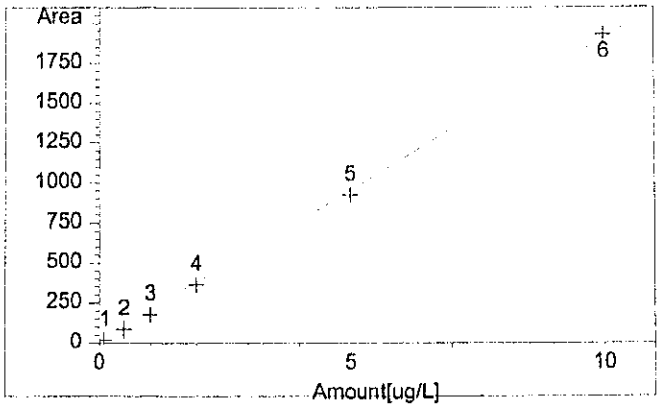
Benzo(k)fluoranthene #15 at exp. RT: 27.5
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99984
Residual Std. Dev.: 2.04948
Formula: y = mx
m: 45.14609
x: Amount [ug/L]
y: Area



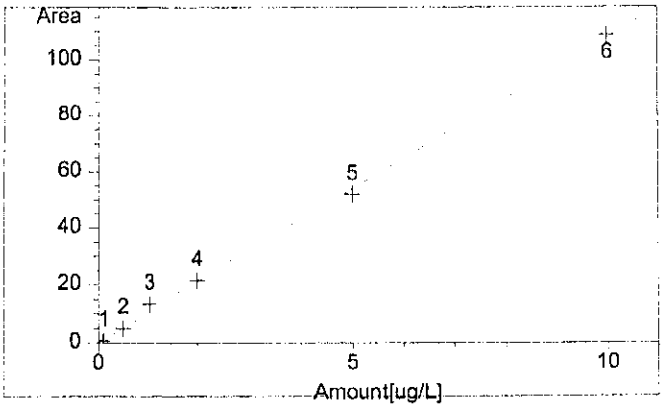
Benzo(k)fluoranthene #15 at exp. RT: 27.5
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99989
Residual Std. Dev.: 13.90903
Formula: y = mx
m: 360.08348
x: Amount [ug/L]
y: Area



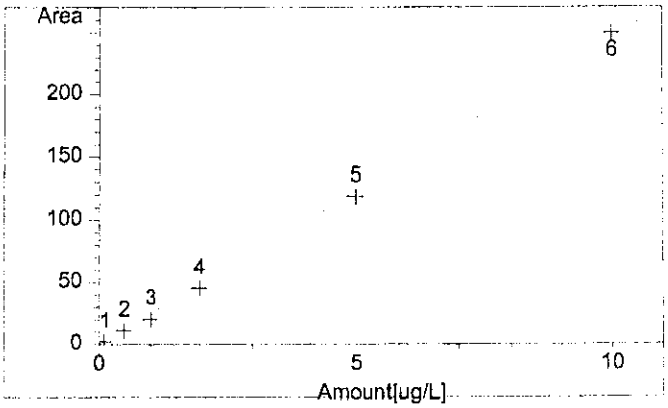
Benzo(a)pyrene #16 at exp. RT: 28.658
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99962
Residual Std. Dev.: 5.03525
Formula: y = mx
m: 35.61357
x: Amount [ug/L]
y: Area



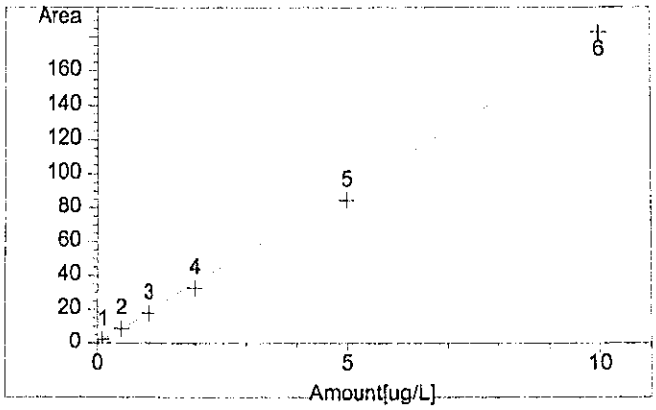
Benzo(a)pyrene #16 at exp. RT: 28.676
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99980
Residual Std. Dev.: 19.54253
Formula: y = mx
m: 190.87241
x: Amount [ug/L]
y: Area



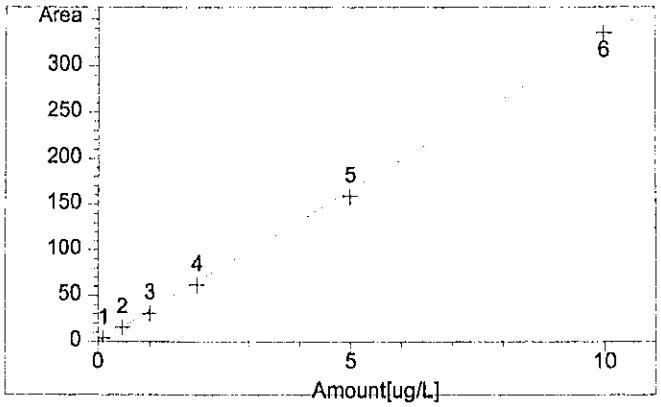
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99963
Residual Std. Dev.: 1.50220
Formula: y = mx
m: 10.78310
x: Amount [ug/L]
y: Area



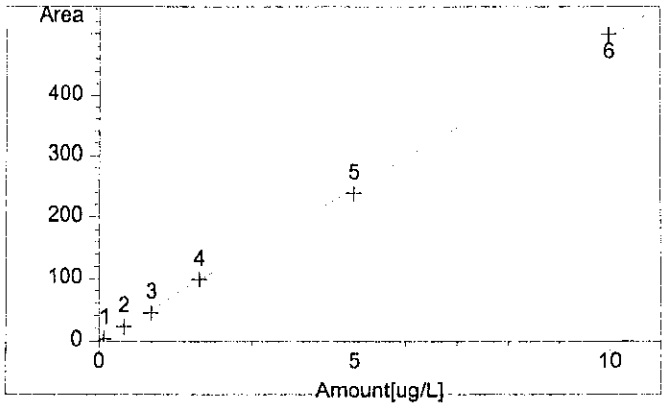
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99958
Residual Std. Dev.: 3.66148
Formula: y = mx
m: 24.60375
x: Amount [ug/L]
y: Area



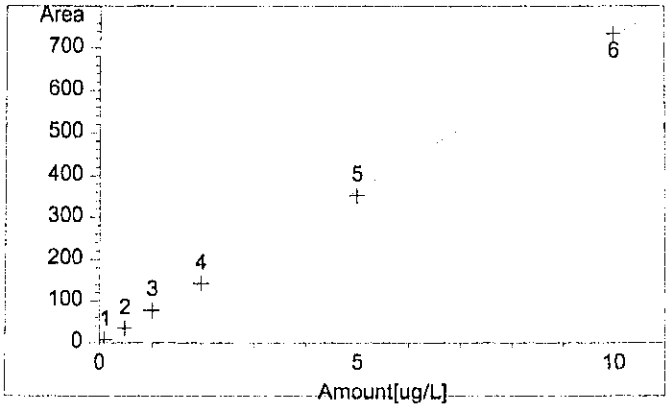
Benzo(g,h,i)perylene #18 at exp. RT: 31.3
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99945
Residual Std. Dev.: 3.05047
Formula: y = mx
m: 17.95894
x: Amount[ug/L]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.3
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99967
Residual Std. Dev.: 4.32638
Formula: y = mx
m: 33.08930
x: Amount[ug/L]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99981
Residual Std. Dev.: 4.91446
Formula: y = mx
m: 49.47432
x: Amount[ug/L]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99984
Residual Std. Dev.: 6.55904
Formula: y = mx
m: 72.81418
x: Amount[ug/L]
y: Area

==========

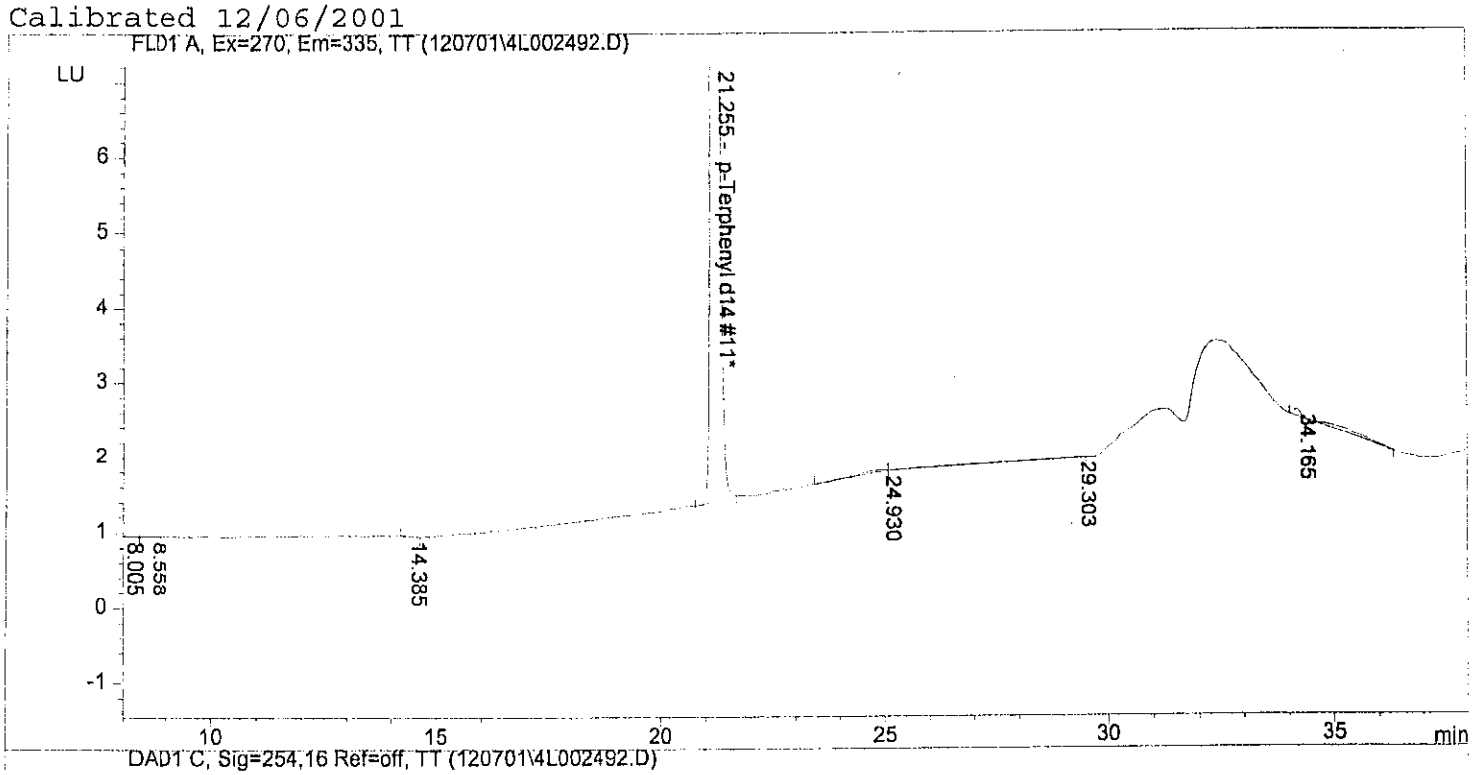
1,1 SOS56-19 level 6 surrogate 100 ppm

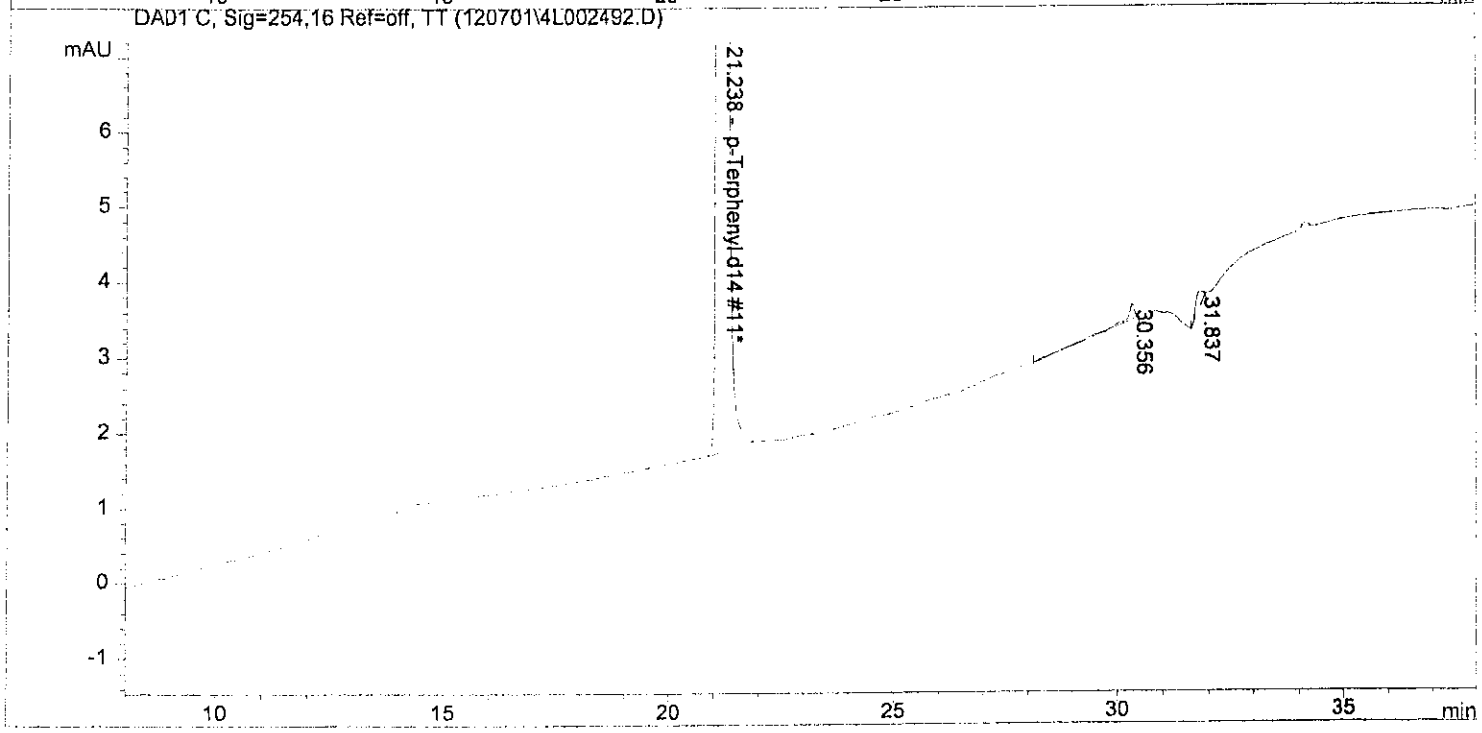
==========

Injection Date	: 12/7/2001 5:41:55 PM	Seq. Line :	2
Sample Name	: WG109608-01	Vial :	2
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:20:37 AM by RDC
(modified after loading)

Calibrated 12/06/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:20:32 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.405		-	-	-		Naphthalene #1
11.969		-	-	-		1-Methylnaphthalene #3
12.543		-	-	-		2-Methylnaphthalene #4
13.017		-	-	-		Acenaphthene #5
13.667		-	-	-		Fluorene #6
15.061		-	-	-		Phenanthrene #7
16.484		-	-	-		Anthracene #8
17.873		-	-	-		Fluoranthene #9
18.888		-	-	-		Pyrene #10
21.255	BBA	335.64120	2.98888e-1	100.31928		p-Terphenyl d14 #11*
22.588		-	-	-		Benzo(a)anthracene #12
23.470		-	-	-		Chrysene #13
26.210		-	-	-		Benzo(b)fluoranthene #14
27.650		-	-	-		Benzo(k)fluoranthene #15
28.750		-	-	-		Benzo(a)pyrene #16
30.626		-	-	-		Dibenz(a,h)anthracene #17
31.428		-	-	-		Benzo(g,h,i)perylene #18
32.370		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 100.31928

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.385		-	-	-		Naphthalene #1
11.006		-	-	-		Acenaphthylene #2
11.949		-	-	-		1-Methylnaphthalene #3
12.523		-	-	-		2-Methylnaphthalene #4
12.997		-	-	-		Acenaphthene #5
13.647		-	-	-		Fluorene #6
15.041		-	-	-		Phenanthrene #7
16.463		-	-	-		Anthracene #8
17.853		-	-	-		Fluoranthene #9
18.867		-	-	-		Pyrene #10
21.238	PBA	1536.55896	6.52368e-2	100.24013		p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.449		-	-	-		Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.638		-	-	-		Benzo(k)fluoranthene #15
28.730		-	-	-		Benzo(a)pyrene #16
30.614		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.395		-	-	-		Benzo(g,h,i)perylene #18
32.361		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 100.24013

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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*** End of Report ***

1,1 SOS56-20 level 6 std. 100/10/5 ppm

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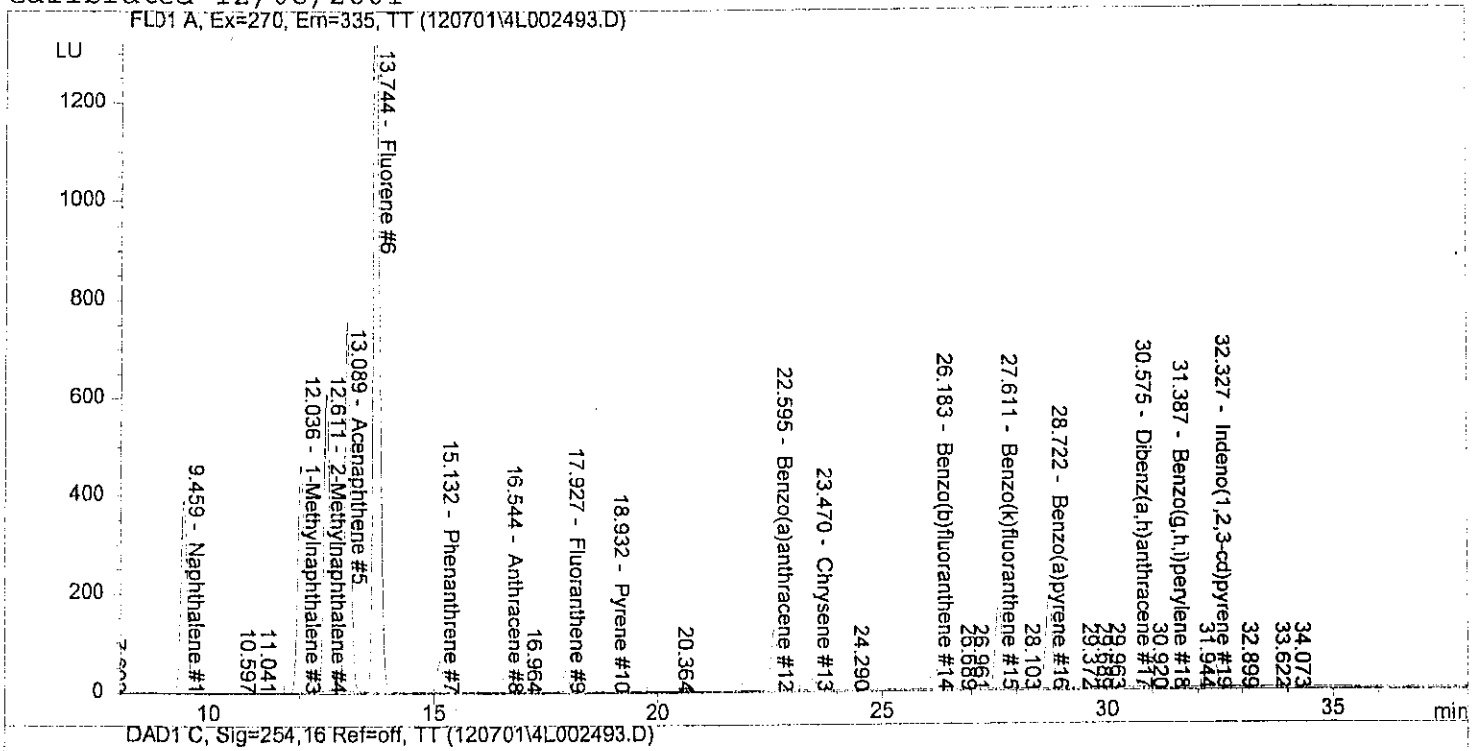
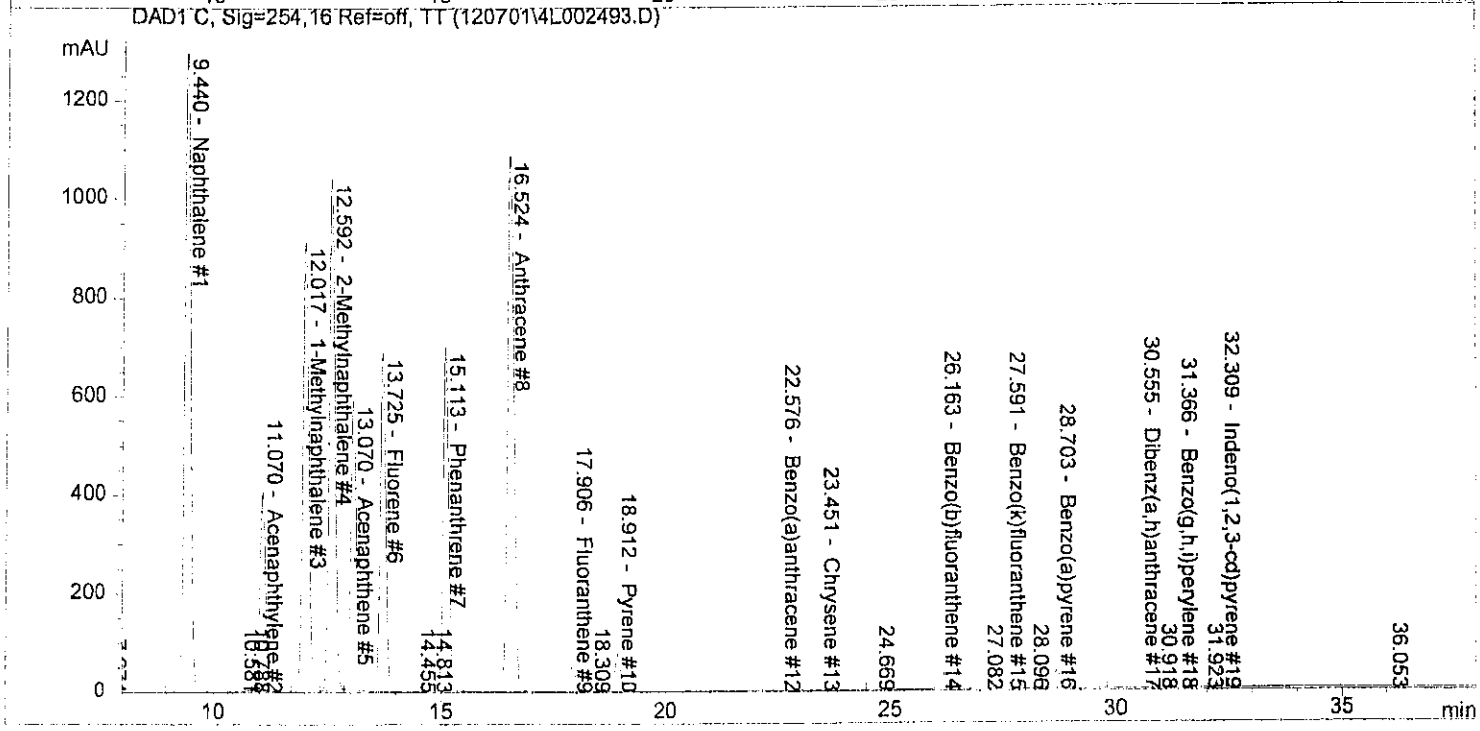
Injection Date	: 12/7/2001 6:38:30 PM	Seq. Line	: 3
Sample Name	: WG109608-02	Vial	: 3
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:21:54 AM by RDC
(modified after loading)

Calibrated 12/06/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:21:49 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.459	BB	3810.46631	2.61883e-2	99.78966		Naphthalene #1
12.036	BB	4359.37695	2.28975e-2	99.81872		1-Methylnaphthalene #3
12.611	BB	5675.13281	1.75970e-2	99.86544		2-Methylnaphthalene #4
13.089	BB	7107.66846	1.40652e-2	99.97090		Acenaphthene #5
13.744	BB	1.52725e4	6.55338e-3	100.08626		Fluorene #6
15.132	BBA	587.46509	1.70551e-1	100.19252		Phenanthrene #7
16.544	PB	323.20529	3.12373e-1	100.96056		Anthracene #8
17.927	BB	400.85757	2.50705e-2	10.04971		Fluoranthene #9
18.932	BBA	231.07681	4.18876e-2	9.67925		Pyrene #10
21.255		-	-	-		p-Terphenyl d14 #11*
22.595	BB	1217.39807	8.23976e-3	10.03107		Benzo(a)anthracene #12
23.470	BB	247.84904	4.04059e-2	10.01457		Chrysene #13
26.183	BB	606.26263	1.65830e-2	10.05366		Benzo(b)fluoranthene #14
27.611	BB	1814.99976	2.76980e-3	5.02719		Benzo(k)fluoranthene #15
28.722	BB	1929.00012	5.16562e-3	9.96448		Benzo(a)pyrene #16
30.575	BB	249.58025	4.03089e-2	10.06031		Dibenz(a,h)anthracene #17
31.387	BB	335.46561	2.97620e-2	9.98414		Benzo(g,h,i)perylene #18
32.327	BB	734.23254	1.37394e-2	10.08790		Indeno(1,2,3-cd)pyrene #1

Totals : 795.63632

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.440	BB	1.22730e4	8.11884e-3	99.64265		Naphthalene #1
11.070	BB	3433.28174	2.94291e-2	101.03836		Acenaphthylene #2
12.017	BB	7927.48535	1.27078e-2	100.74070		1-Methylnaphthalene #3
12.592	BB	9082.16113	1.10597e-2	100.44627		2-Methylnaphthalene #4
13.070	BB	5042.28223	2.00372e-2	101.03302		Acenaphthene #5
13.725	BB	5845.24707	1.72916e-2	101.07375		Fluorene #6
15.113	BBA	5905.01465	1.70965e-2	100.95524		Phenanthrene #7
16.524	BBA	9708.27441	1.03699e-2	100.67377		Anthracene #8
17.906	PB	472.12201	2.14272e-2	10.11627		Fluoranthene #9
18.912	BBA	709.65320	1.42906e-2	10.14134		Pyrene #10
21.238		-	-	-		p-Terphenyl d14 #11*
22.576	BBA	460.26733	2.20058e-2	10.12854		Benzo(a)anthracene #12
23.451	BBA	682.58563	1.48428e-2	10.13151		Chrysene #13
26.163	PBA	496.62497	2.03814e-2	10.12191		Benzo(b)fluoranthene #14
27.591	BB	227.90102	2.21933e-2	5.05787		Benzo(k)fluoranthene #15
28.703	BB	361.30676	2.80051e-2	10.11844		Benzo(a)pyrene #16
30.555	BB	108.58928	9.37682e-2	10.18223		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.366	BB	182.81955	5.59741e-2	10.23315		Benzo(g,h,i)perylene #18
32.309	BBA	499.46121	2.02543e-2	10.11624		Indeno(1,2,3-cd)pyrene #1

Totals : 901.95127

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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*** End of Report ***

1,1 SOS56-19/56-20 level 5 std. 50/5/2.5 ppm

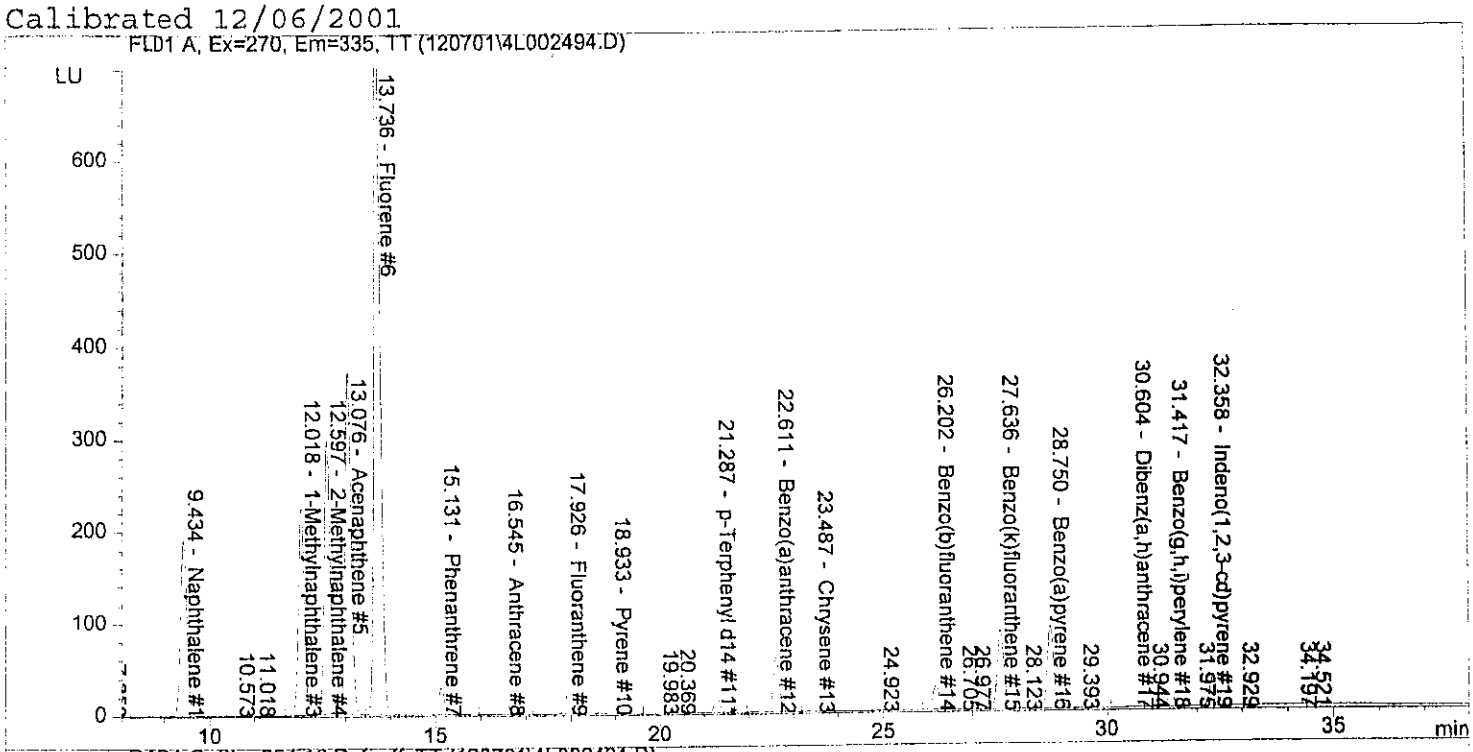
==========

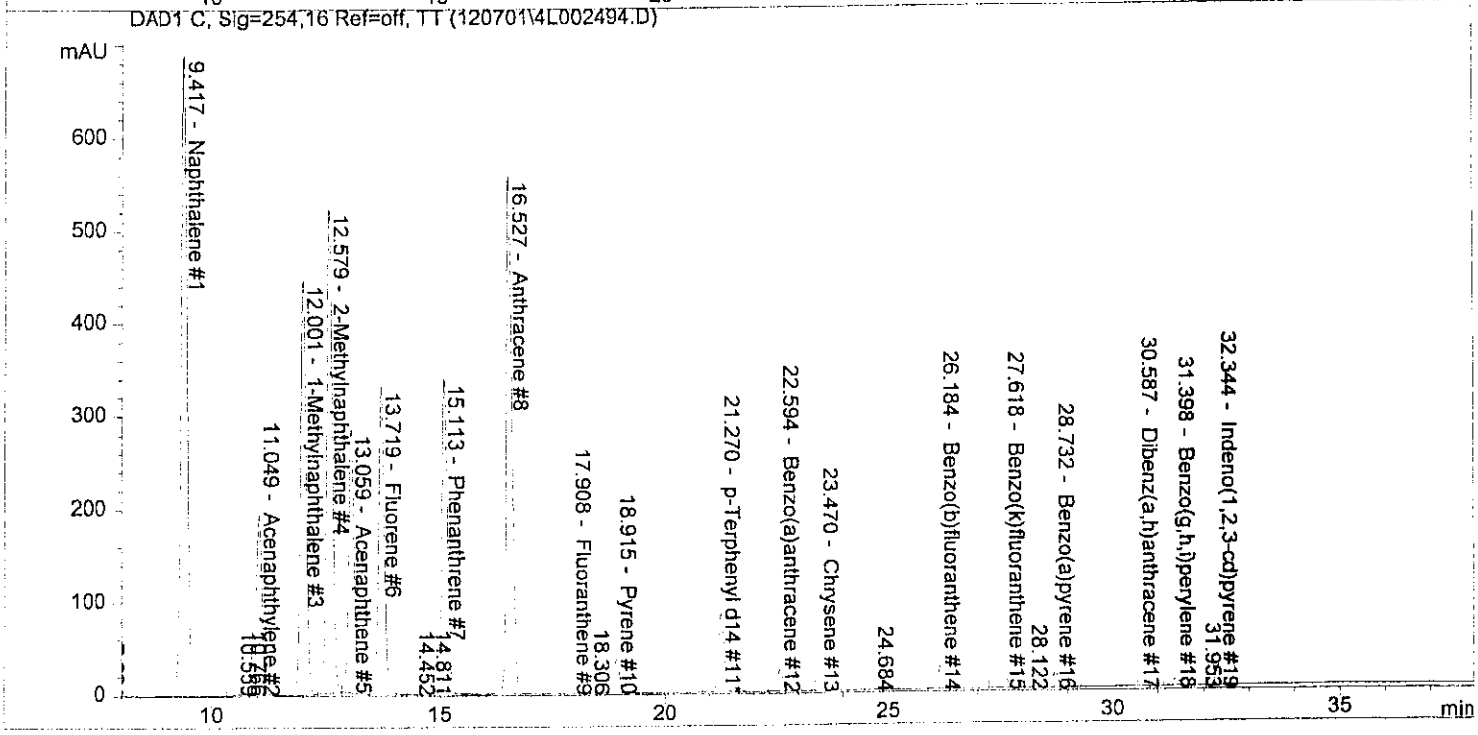
Injection Date : 12/7/2001 7:35:10 PM
Sample Name : WG109608-03
Acq. Operator : RDC

Seq. Line : 4
Vial : 4
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:22:49 AM by RDC
(modified after loading)

Calibrated 12/06/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:22:45 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.434	PB	1851.06140	2.63924e-2	48.85390		Naphthalene #1
12.018	BB	2126.27832	2.30523e-2	49.01558		1-Methylnaphthalene #3
12.597	BB	2777.27686	1.76945e-2	49.14256		2-Methylnaphthalene #4
13.076	BB	3490.80957	1.41193e-2	49.28790		Acenaphthene #5
13.736	BB	7578.60205	6.55670e-3	49.69061		Fluorene #6
15.131	BBA	281.05099	1.71845e-1	48.29711		Phenanthrene #7
16.545	PB	156.76224	3.11830e-1	48.88313		Anthracene #8
17.926	BB	191.95184	2.51930e-2	4.83585		Fluoranthene #9
18.933	BB	110.94641	4.46431e-2	4.95299		Pyrene #10
21.287	BB	166.28719	2.98838e-1	49.69290		p-Terphenyl d14 #11*
22.611	BB	583.97321	8.28880e-3	4.84044		Benzo(a)anthracene #12
23.487	BB	118.82884	4.07063e-2	4.83708		Chrysene #13
26.202	BB	291.22507	1.66409e-2	4.84625		Benzo(b)fluoranthene #14
27.636	BB	877.84839	2.77609e-3	2.43698		Benzo(k)fluoranthene #15
28.750	BB	924.72375	5.22706e-3	4.83358		Benzo(a)pyrene #16
30.604	BB	118.41199	4.06335e-2	4.81150		Dibenz(a,h)anthracene #17
31.417	BB	158.65286	3.01562e-2	4.78437		Benzo(g,h,i)perylene #18
32.358	BB	352.51187	1.37503e-2	4.84716		Indeno(1,2,3-cd)pyrene #1

Totals : 438.88988

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.417	PB	6239.97021	8.11649e-3	50.64668		Naphthalene #1
11.049	BBA	1651.06335	2.94032e-2	48.54652		Acenaphthylene #2
12.001	PB	3860.07959	1.26972e-2	49.01231		1-Methylnaphthalene #3
12.579	BB	4488.76758	1.10441e-2	49.57431		2-Methylnaphthalene #4
13.059	BB	2437.01563	2.00011e-2	48.74299		Acenaphthene #5
13.719	BB	2817.43921	1.72644e-2	48.64143		Fluorene #6
15.113	BBA	2853.04907	1.70775e-2	48.72307		Phenanthrene #7
16.527	PBA	4812.97998	1.03370e-2	49.75188		Anthracene #8
17.908	PB	226.59413	2.13955e-2	4.84809		Fluoranthene #9
18.915	BBA	340.46393	1.42440e-2	4.84958		Pyrene #10
21.270	PBA	767.66412	6.51631e-2	50.02338		p-Terphenyl d14 #11*
22.594	PBA	220.45860	2.19648e-2	4.84232		Benzo(a)anthracene #12
23.470	BBA	326.67627	1.48134e-2	4.83917		Chrysene #13
26.184	PBA	237.99123	2.03490e-2	4.84288		Benzo(b)fluoranthene #14
27.618	BB	109.46035	2.21581e-2	2.42543		Benzo(k)fluoranthene #15
28.732	BBA	170.42978	2.80552e-2	4.78145		Benzo(a)pyrene #16
30.587	PB	51.97754	9.31421e-2	4.84130		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.398	BB	84.71449	5.57356e-2	4.72161		Benzo(g,h,i)perylene #18
32.344	BBA	239.21368	2.02256e-2	4.83824		Indeno(1,2,3-cd)pyrene #1

Totals : 489.49265

Results obtained with enhanced integrator!

*** End of Report ***

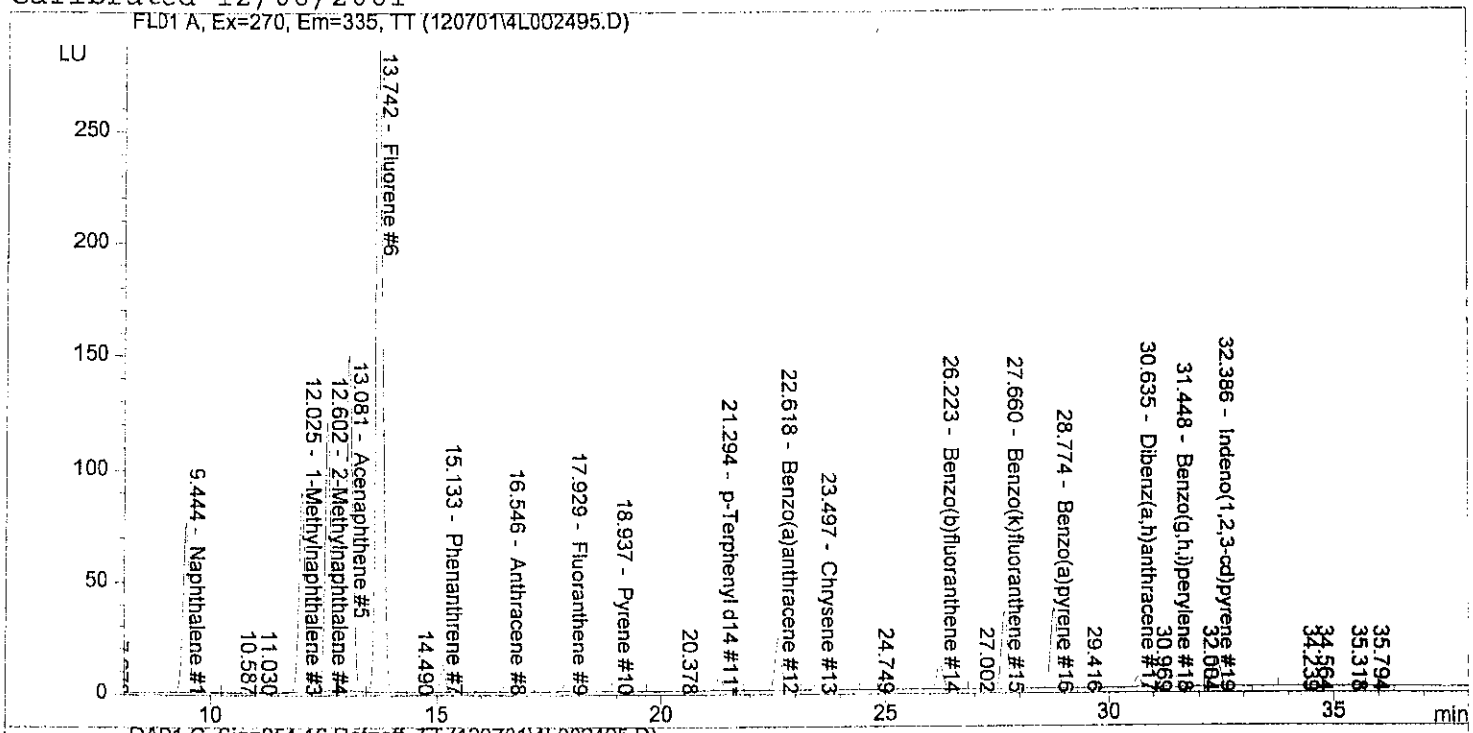
1,1 SOS56-19/56-20 level 4 std. 20/2/1 ppm

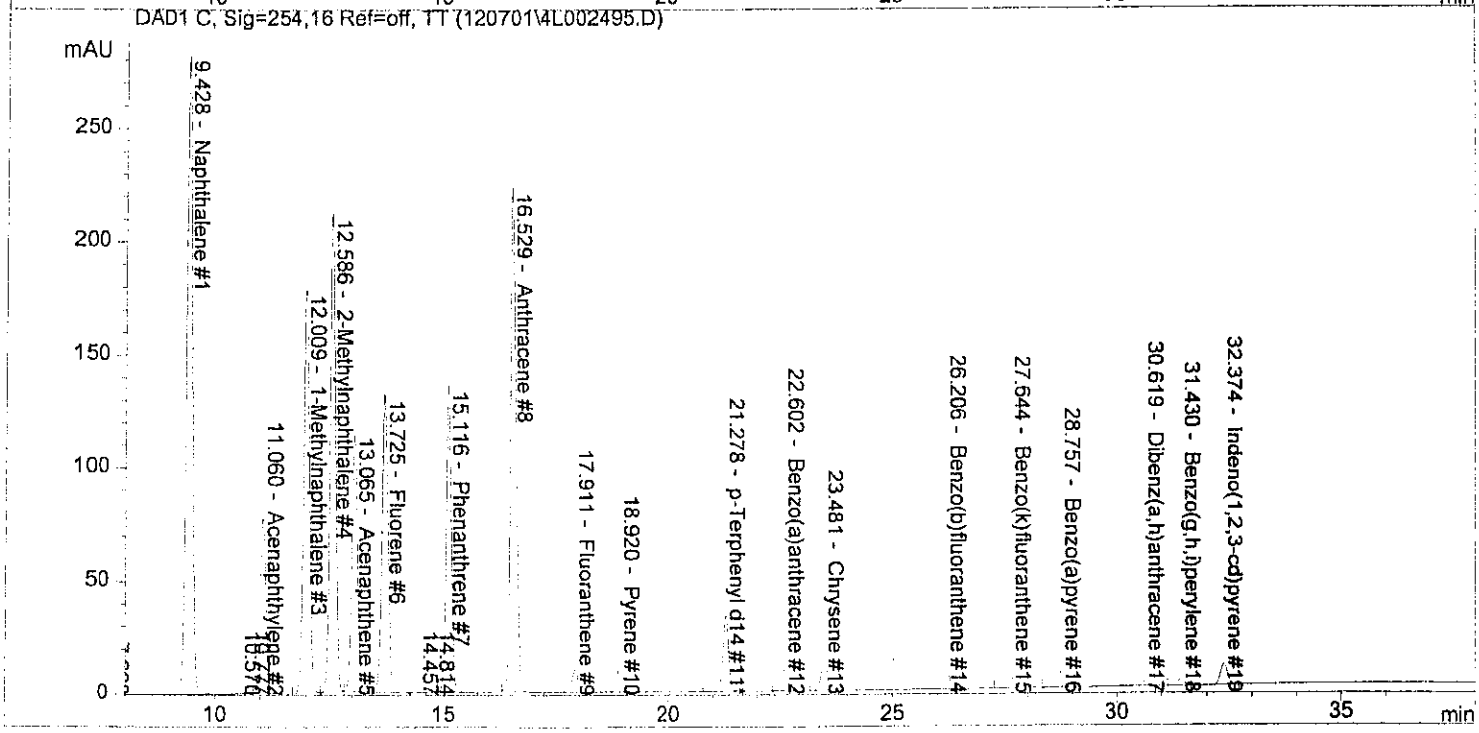
==========

Injection Date	: 12/7/2001 8:31:48 PM	Seq. Line	: 5
Sample Name	: WG109608-04	Vial	: 5
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:23:28 AM by RDC
(modified after loading)

Calibrated 12/06/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:23:23 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.444	BB	737.47040	2.64211e-2	19.48480		Naphthalene #1
12.025	BB	845.22443	2.30752e-2	19.50376		1-Methylnaphthalene #3
12.602	BB	1111.04944	1.77087e-2	19.67520		2-Methylnaphthalene #4
13.081	BB	1398.43469	1.41279e-2	19.75691		Acenaphthene #5
13.742	BB	3062.98730	6.55759e-3	20.08580		Fluorene #6
15.133	BBA	110.76902	1.72061e-1	19.05906		Phenanthrene #7
16.546	PB	62.19715	3.11782e-1	19.39194		Anthracene #8
17.929	BB	77.06699	2.51999e-2	1.94208		Fluoranthene #9
18.937	BBA	43.99789	4.50817e-2	1.98350		Pyrene #10
21.294	BB	65.33878	2.98821e-1	19.52460		p-Terphenyl d14 #11*
22.618	BB	231.59561	8.29596e-3	1.92131		Benzo(a)anthracene #12
23.497	BB	46.97458	4.07482e-2	1.91413		Chrysene #13
26.223	BB	116.34737	1.66463e-2	1.93675		Benzo(b)fluoranthene #14
27.660	BB	349.97339	2.77681e-3	9.71808e-1		Benzo(k)fluoranthene #15
28.774	BB	364.55637	5.23634e-3	1.90894		Benzo(a)pyrene #16
30.635	BB	45.38562	4.06222e-2	1.84367		Dibenz(a,h)anthracene #17
31.448	BB	61.80997	3.02122e-2	1.86741		Benzo(g,h,i)perylene #18
32.386	BBA	142.06572	1.37468e-2	1.95294		Indeno(1,2,3-cd)pyrene #1

Totals : 174.72461

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.428	PBA	2515.62280	8.11579e-3	20.41627		Naphthalene #1
11.060	BBA	657.36005	2.93997e-2	19.32620		Acenaphthylene #2
12.009	PB	1541.22485	1.26959e-2	19.56718		1-Methylnaphthalene #3
12.586	BB	1800.34558	1.10420e-2	19.87950		2-Methylnaphthalene #4
13.065	BB	971.48230	1.99964e-2	19.42615		Acenaphthene #5
13.725	BB	1121.15540	1.72611e-2	19.35233		Fluorene #6
15.116	BBA	1137.95862	1.70751e-2	19.43081		Phenanthrene #7
16.529	BBA	1885.26465	1.03334e-2	19.48113		Anthracene #8
17.911	PB	89.84662	2.13940e-2	1.92218		Fluoranthene #9
18.920	BBA	135.25577	1.42363e-2	1.92554		Pyrene #10
21.278	PBA	301.76755	6.51559e-2	19.66194		p-Terphenyl d14 #11*
22.602	PBA	87.47297	2.19568e-2	1.92063		Benzo(a)anthracene #12
23.481	BBA	128.96687	1.48097e-2	1.90996		Chrysene #13
26.206	BBA	94.51936	2.03449e-2	1.92298		Benzo(b)fluoranthene #14
27.644	BB	43.61720	2.21484e-2	9.66050e-1		Benzo(k)fluoranthene #15
28.757	BB	67.33721	2.80589e-2	1.88941		Benzo(a)pyrene #16
30.619	BB	21.45176	9.29457e-2	1.99385		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.430	BB	32.76551	5.57256e-2	1.82588		Benzo(g,h,i)perylene #18
32.374	BB	98.87786	2.01948e-2	1.99682		Indeno(1,2,3-cd)pyrene #1
Totals :				194.81481		

Results obtained with enhanced integrator!

*** End of Report ***

1,1 SOS56-19/56-20 level 3 std. 10/2/1 ppm

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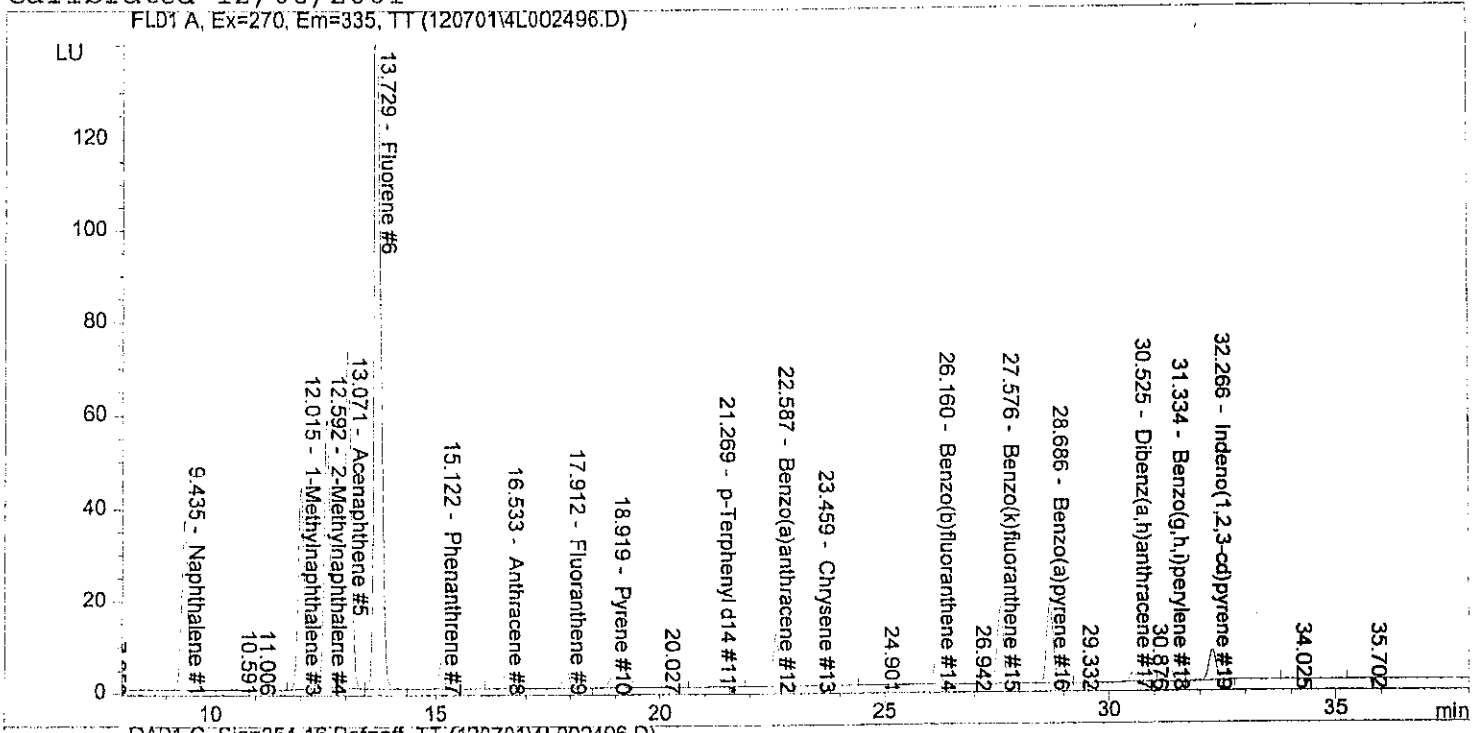
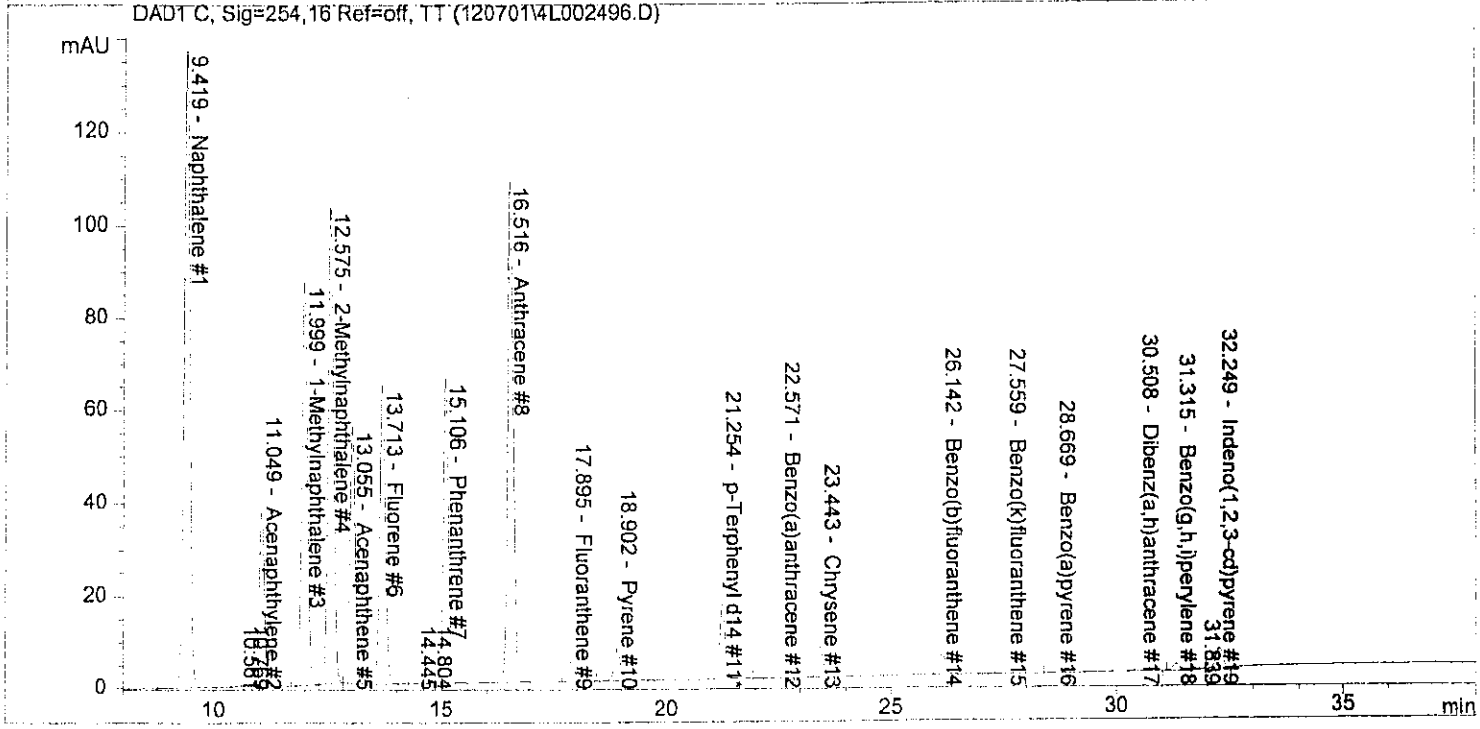
Injection Date	: 12/7/2001 9:28:27 PM	Seq. Line	: 6
Sample Name	: WG109608-05	Vial	: 6
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:24:04 AM by RDC
(modified after loading)

Calibrated 12/06/2001





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External Standard Report
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Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:24:01 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.435	PBA	357.36987	2.64284e-2	9.44473		Naphthalene #1
12.015	PB	411.64304	2.30808e-2	9.50106		1-Methylnaphthalene #3
12.592	BB	539.40985	1.77123e-2	9.55420		2-Methylnaphthalene #4
13.071	BB	680.59875	1.41300e-2	9.61685		Acenaphthene #5
13.729	BB	1498.75659	6.55788e-3	9.82866		Fluorene #6
15.122	BBA	53.12293	1.72104e-1	9.14266		Phenanthrene #7
16.533	BB	30.15903	3.11768e-1	9.40263		Anthracene #8
17.912	BBA	39.02326	2.51906e-2	9.83019e-1		Fluoranthene #9
18.919	BB	21.21303	4.51824e-2	9.58456e-1		Pyrene #10
21.269	PB	31.79696	2.98857e-1	9.50273		p-Terphenyl d14 #11*
22.587	BB	111.32906	8.29795e-3	9.23802e-1		Benzo(a)anthracene #12
23.459	BB	22.85746	4.07639e-2	9.31759e-1		Chrysene #13
26.160	BB	55.92225	1.66526e-2	9.31249e-1		Benzo(b)fluoranthene #14
27.576	BB	169.56526	2.77707e-3	4.70895e-1		Benzo(k)fluoranthene #15
28.686	BB	175.19550	5.23862e-3	9.17782e-1		Benzo(a)pyrene #16
30.525	BB	20.45066	4.06439e-2	8.31194e-1		Dibenz(a,h)anthracene #17
31.334	BB	30.57295	3.02209e-2	9.23943e-1		Benzo(g,h,i)perylene #18
32.266	BB	77.95903	1.37337e-2	1.07067		Indeno(1,2,3-cd)pyrene #1

Totals : 84.93630

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.419	PBA	1228.04895	8.11562e-3	9.96637		Naphthalene #1
11.049	BBA	320.25964	2.94003e-2	9.41572		Acenaphthylene #2
11.999	PB	751.04242	1.26957e-2	9.53500		1-Methylnaphthalene #3
12.575	BB	878.19104	1.10418e-2	9.69679		2-Methylnaphthalene #4
13.055	BB	472.85046	1.99955e-2	9.45486		Acenaphthene #5
13.713	BBA	545.33289	1.72605e-2	9.41272		Fluorene #6
15.106	BBA	553.08002	1.70750e-2	9.44386		Phenanthrene #7
16.516	PBA	924.44818	1.03318e-2	9.55123		Anthracene #8
17.895	PB	43.55686	2.13939e-2	9.31851e-1		Fluoranthene #9
18.902	BBA	65.35954	1.42349e-2	9.30386e-1		Pyrene #10
21.254	PBA	147.07727	6.51561e-2	9.58299		p-Terphenyl d14 #11*
22.571	PBA	42.08236	2.19560e-2	9.23962e-1		Benzo(a)anthracene #12
23.443	BBA	62.67461	1.48093e-2	9.28164e-1		Chrysene #13
26.142	BBA	46.43794	2.03417e-2	9.44628e-1		Benzo(b)fluoranthene #14
27.559	PBA	21.05570	2.21518e-2	4.66422e-1		Benzo(k)fluoranthene #15
28.669	PBA	31.26832	2.80737e-2	8.77819e-1		Benzo(a)pyrene #16
30.508	PBA	13.35335	9.27506e-2	1.23853		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.315	BB	17.44936	5.56926e-2	9.71800e-1		Benzo(g,h,i)perylene #18
32.249	BB	44.40019	2.02130e-2	8.97460e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 95.17057

Results obtained with enhanced integrator!

*** End of Report ***

1,1 SOS56-19/56-20 level 2 std. 5/.5/.25 ppm

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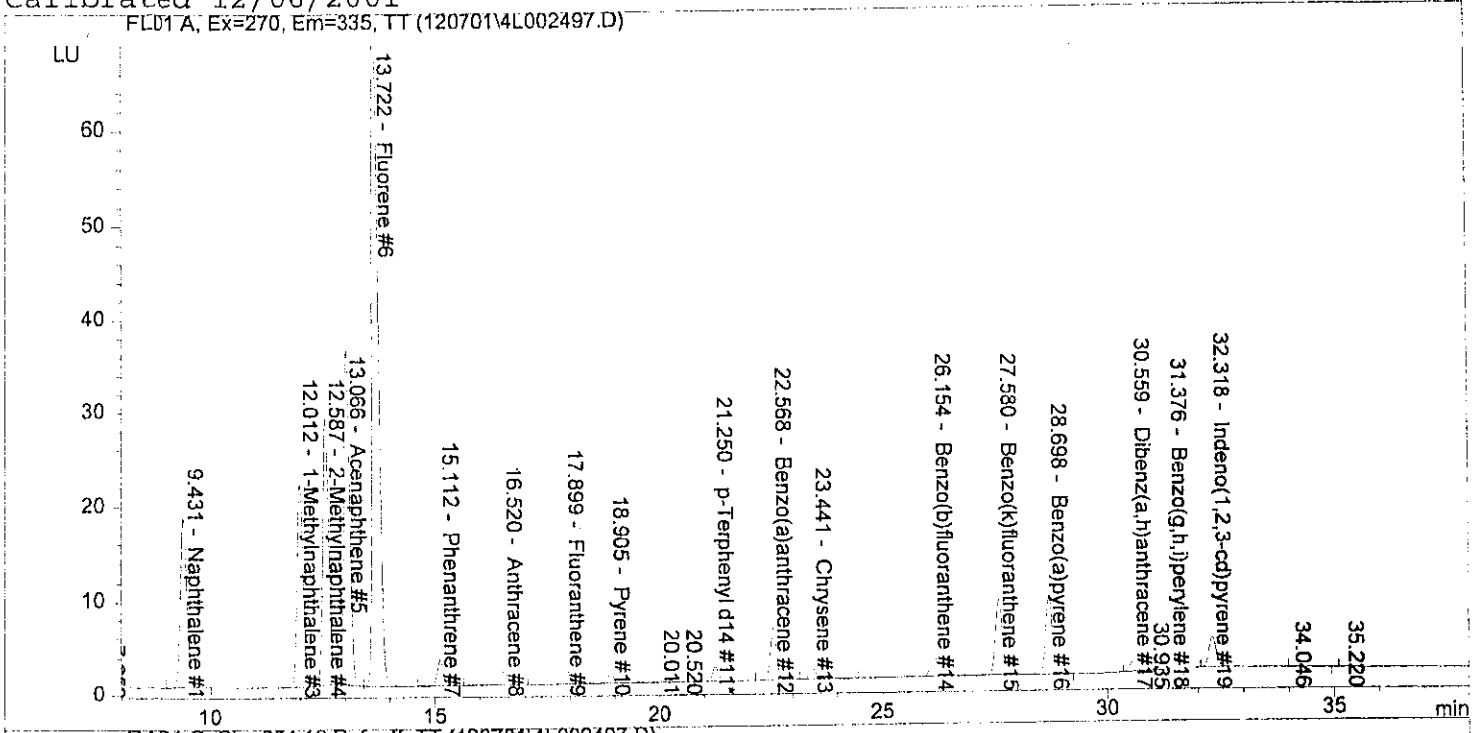
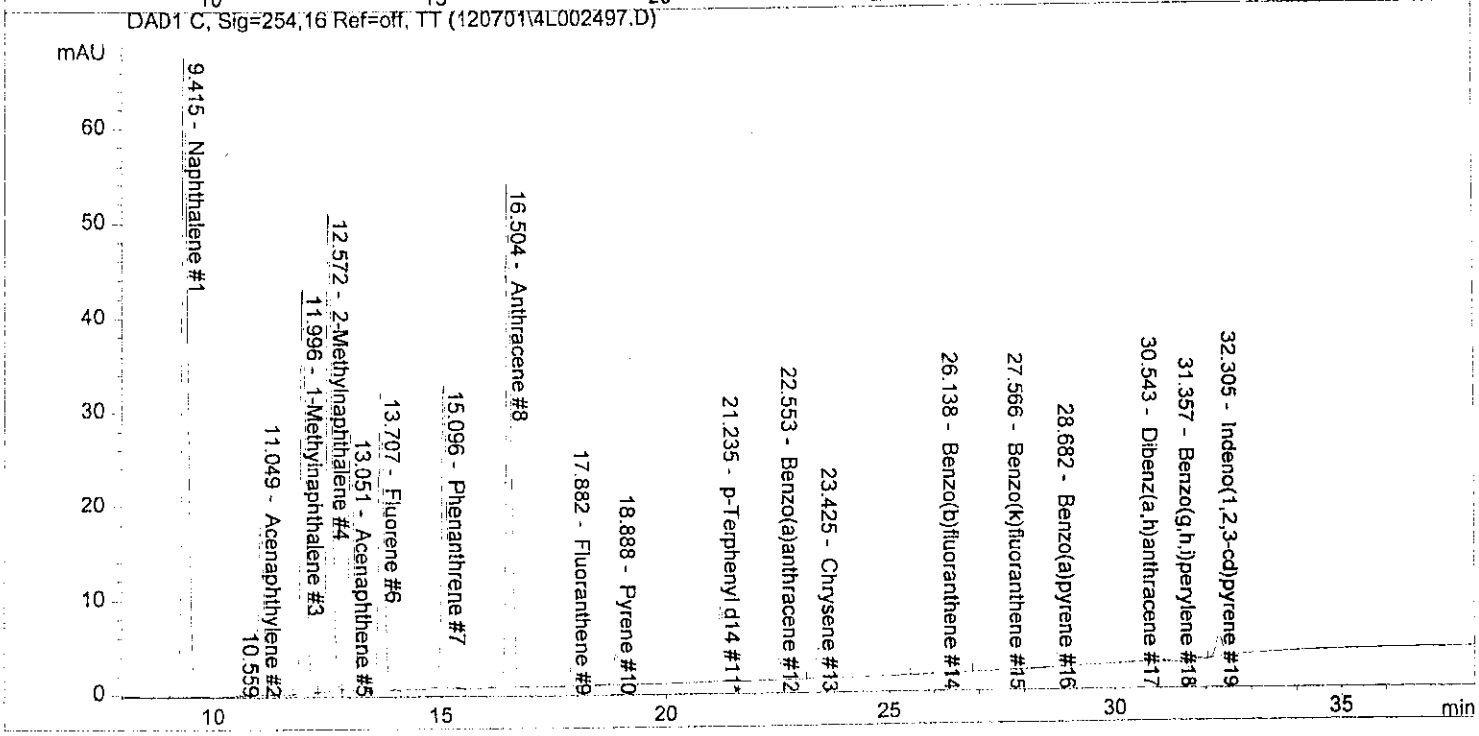
Injection Date : 12/7/2001 10:25:05 PM
Sample Name : WG109608-06
Acq. Operator : RDC

Seq. Line : 7
Vial : 7
Inj : 1
Inj Volume : 8 µl

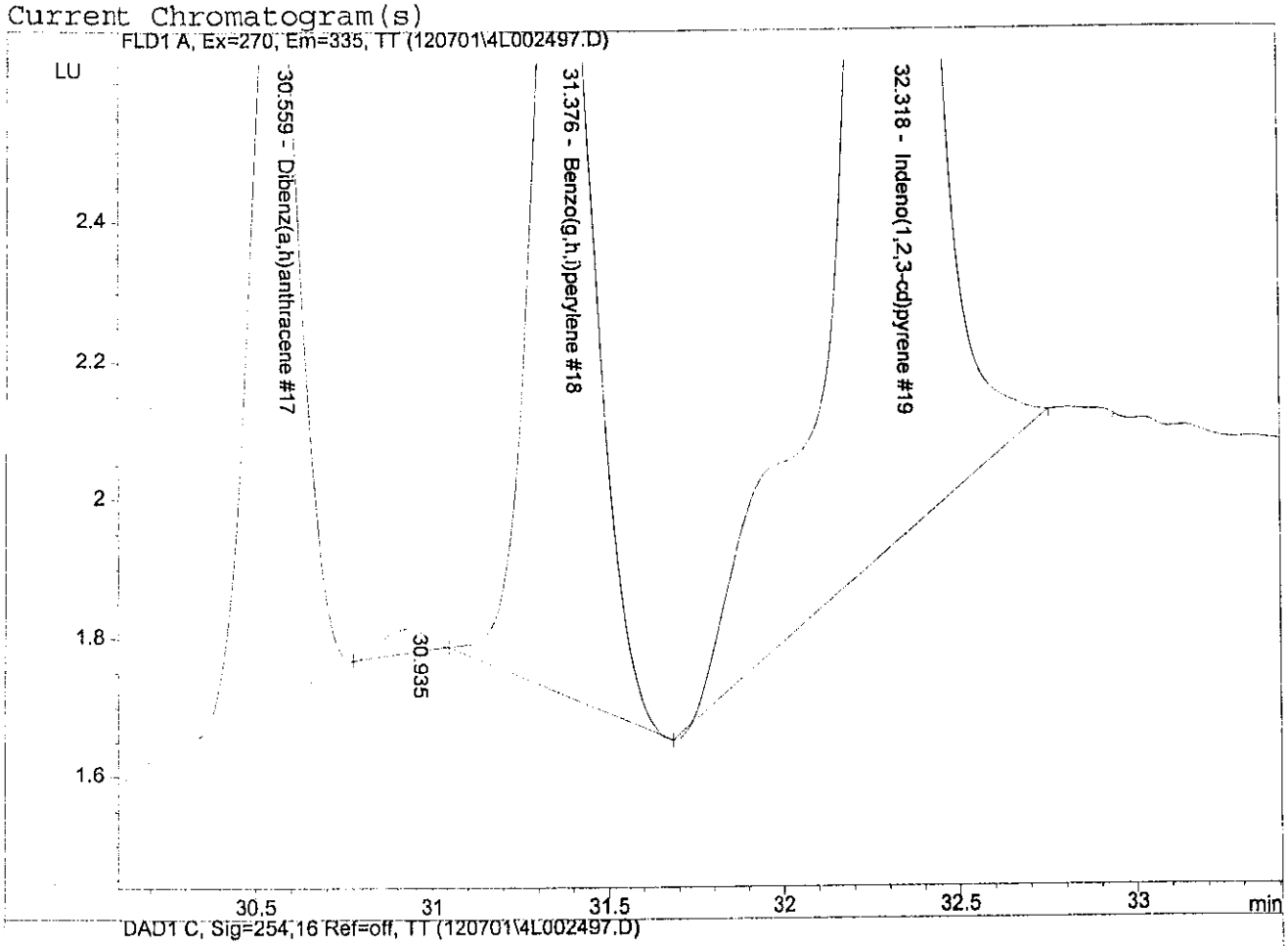
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:25:39 AM by RDC
(modified after loading)

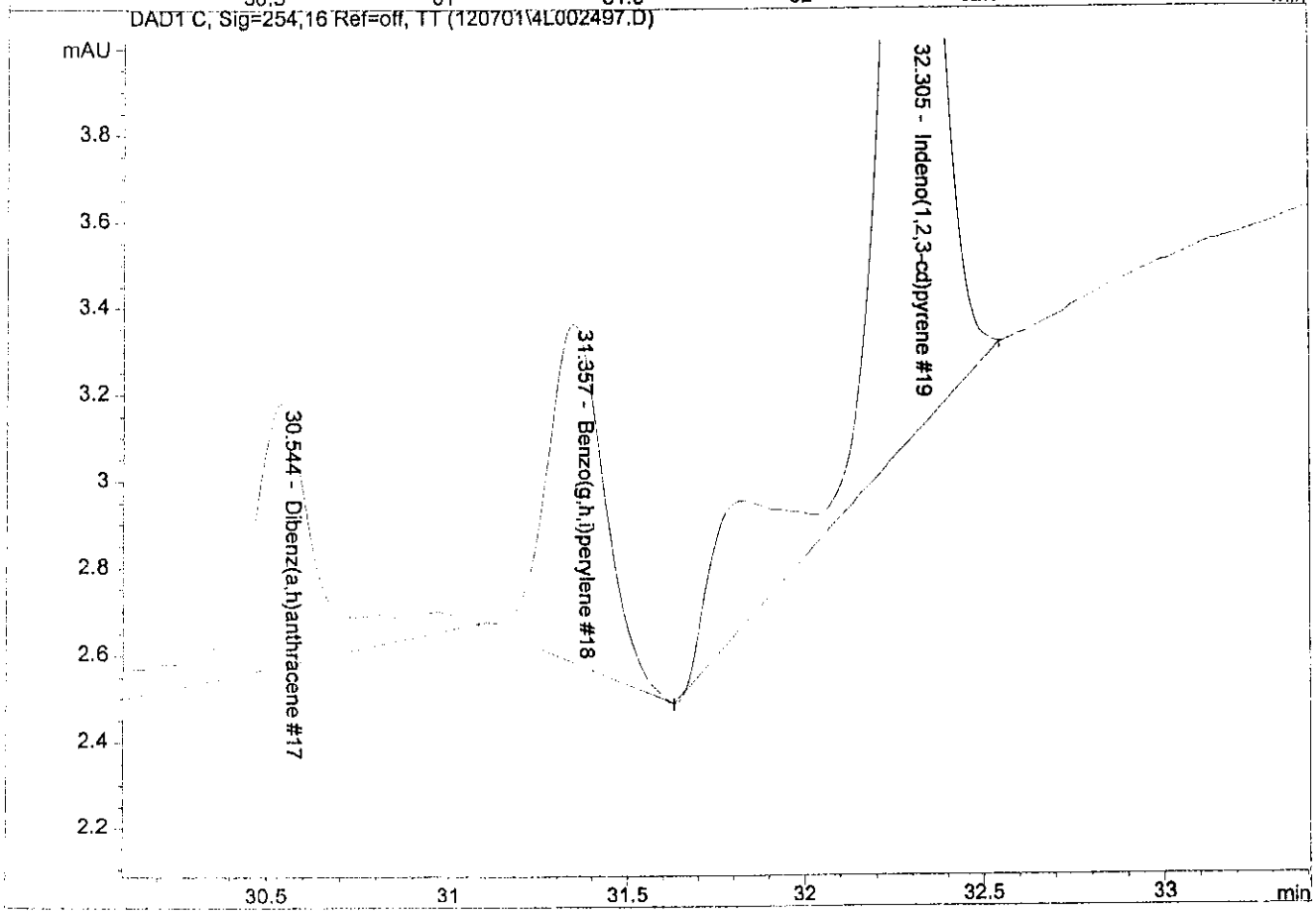
Calibrated 12/06/2001



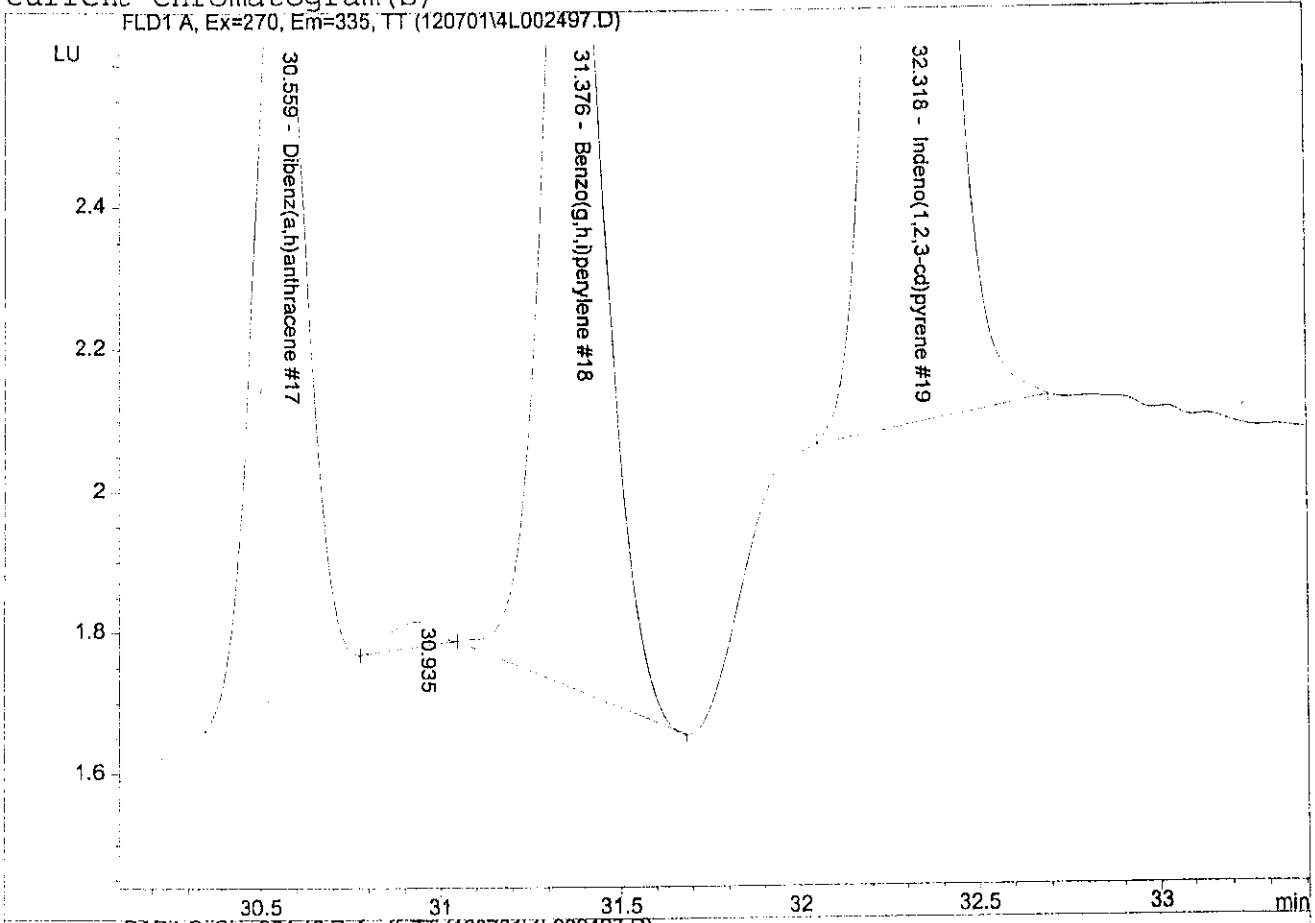


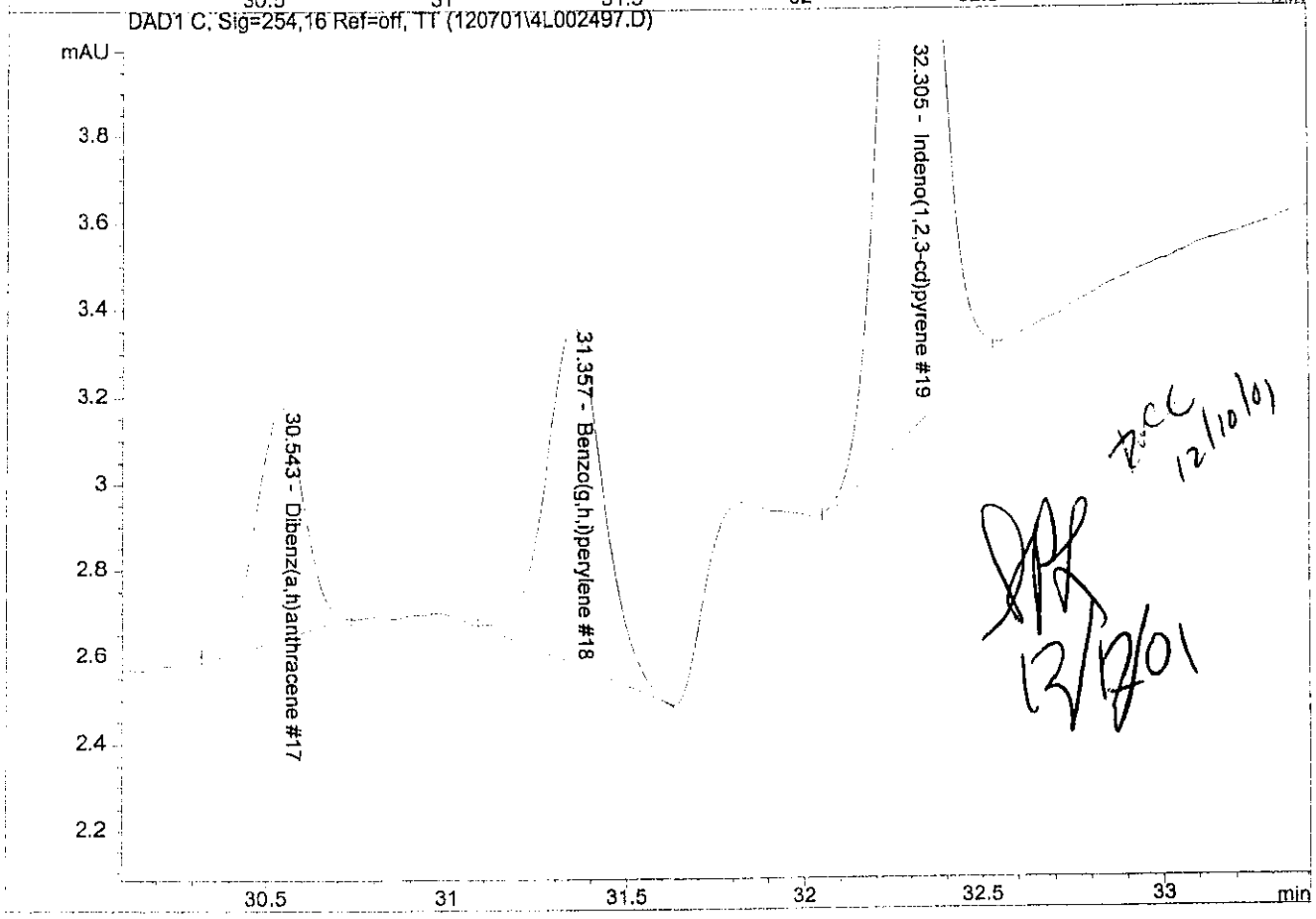
Current Chromatogram(s)





Current Chromatogram(s)





RCC 12/10/01

12/17/01

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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:25:36 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.431	BBA	175.20758	2.64308e-2	4.63087		Naphthalene #1
12.012	PB	202.11798	2.30825e-2	4.66539		1-Methylnaphthalene #3
12.587	BB	265.18561	1.77135e-2	4.69736		2-Methylnaphthalene #4
13.066	BB	335.57715	1.41306e-2	4.74192		Acenaphthene #5
13.722	BBA	742.47473	6.55798e-3	4.86914		Fluorene #6
15.112	PBA	26.34856	1.72113e-1	4.53493		Phenanthrene #7
16.520	PBA	14.95346	3.11760e-1	4.66189		Anthracene #8
17.899	PBA	19.23926	2.51881e-2	4.84601e-1		Fluoranthene #9
18.905	BBA	10.39580	4.52083e-2	4.69976e-1		Pyrene #10
21.250	BB	15.82066	2.98859e-1	4.72815		p-Terphenyl d14 #11*
22.568	BBA	55.03781	8.29841e-3	4.56726e-1		Benzo(a)anthracene #12
23.441	BB	11.46110	4.07648e-2	4.67210e-1		Chrysene #13
26.154	BBA	28.96787	1.66522e-2	4.82378e-1		Benzo(b)fluoranthene #14
27.580	PB	83.71040	2.77713e-3	2.32475e-1		Benzo(k)fluoranthene #15
28.698	BB	86.88049	5.23908e-3	4.55174e-1		Benzo(a)pyrene #16
30.559	FM	11.18928	4.06445e-2	4.54782e-1		Dibenz(a,h)anthracene #17
31.376	BB	15.50431	3.02213e-2	4.68560e-1		Benzo(g,h,i)perylene #18
32.318	MM	34.34013	1.37336e-2	4.71613e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 41.97315

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.415	PBA	606.36218	8.11567e-3	4.92104		Naphthalene #1
11.049	BBA	158.72070	2.94003e-2	4.66643		Acenaphthylene #2
11.996	PB	371.50211	1.26957e-2	4.71648		1-Methylnaphthalene #3
12.572	BB	434.66425	1.10418e-2	4.79947		2-Methylnaphthalene #4
13.051	BB	234.14653	1.99953e-2	4.68183		Acenaphthene #5
13.707	BBA	269.92172	1.72604e-2	4.65896		Fluorene #6
15.096	BBA	273.70901	1.70751e-2	4.67360		Phenanthrene #7
16.504	PBA	456.11115	1.03316e-2	4.71235		Anthracene #8
17.882	BBA	21.55572	2.13940e-2	4.61163e-1		Fluoranthene #9
18.888	BBA	31.22189	1.42346e-2	4.44432e-1		Pyrene #10
21.235	PBA	71.85631	6.51566e-2	4.68191		p-Terphenyl d14 #11*
22.553	BBA	20.88080	2.19558e-2	4.58455e-1		Benzo(a)anthracene #12
23.425	BBA	30.72799	1.48093e-2	4.55061e-1		Chrysene #13
26.138	PBA	22.90010	2.03417e-2	4.65826e-1		Benzo(b)fluoranthene #14
27.566	BBA	11.10531	2.21504e-2	2.45987e-1		Benzo(k)fluoranthene #15
28.682	BBA	15.20856	2.80787e-2	4.27036e-1		Benzo(a)pyrene #16
30.543	MM	5.01077	9.27367e-2	4.64682e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.357	BB	8.76552	5.56830e-2	4.88091e-1		Benzo(g,h,i)perylene #18
32.305	MM	22.66177	2.02125e-2	4.58050e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 46.88085

Results obtained with enhanced integrator!

*** End of Report ***

1,1 SOS56-19/56-20 level 1 std. 1/.1/.05 ppm

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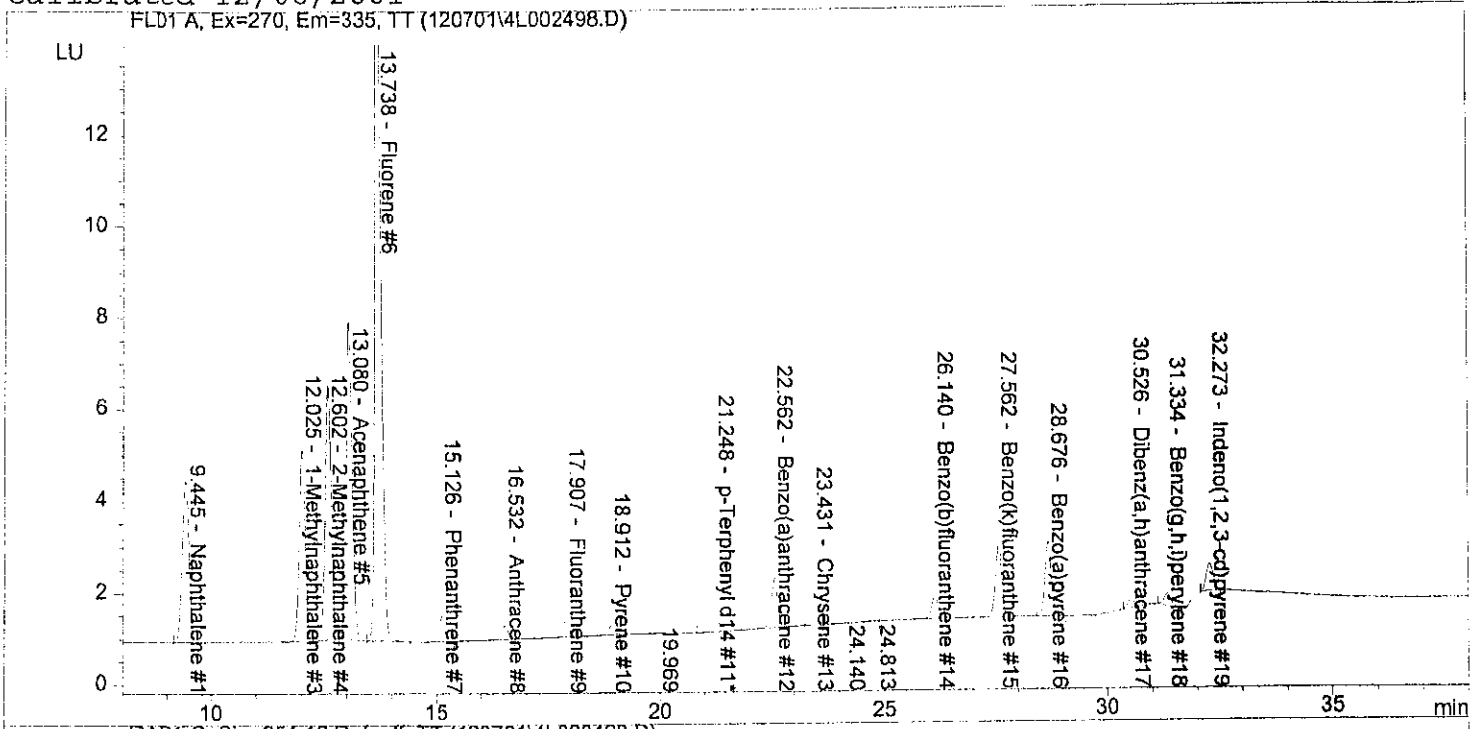
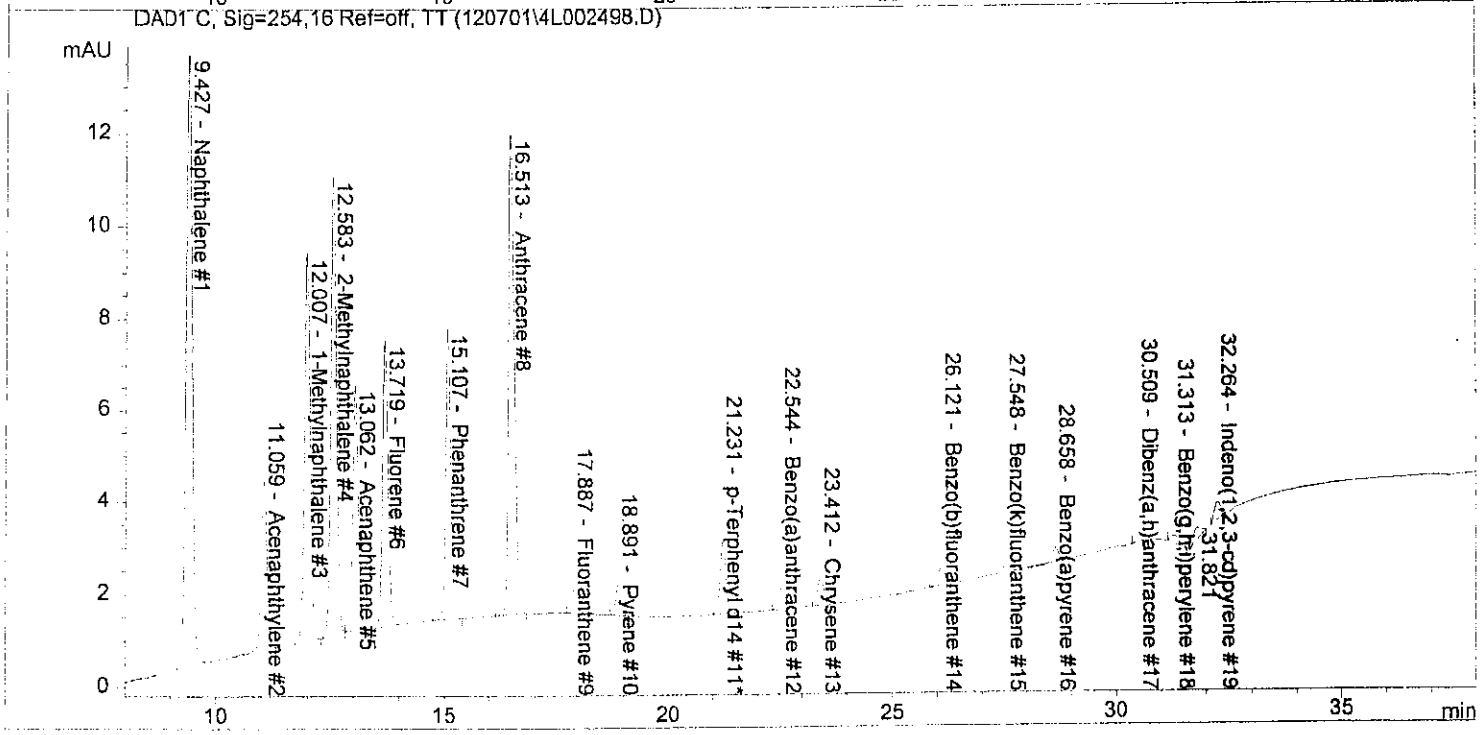
Injection Date	: 12/7/2001 11:21:43 PM	Seq. Line	: 8
Sample Name	: WG109608-07	Vial	: 8
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

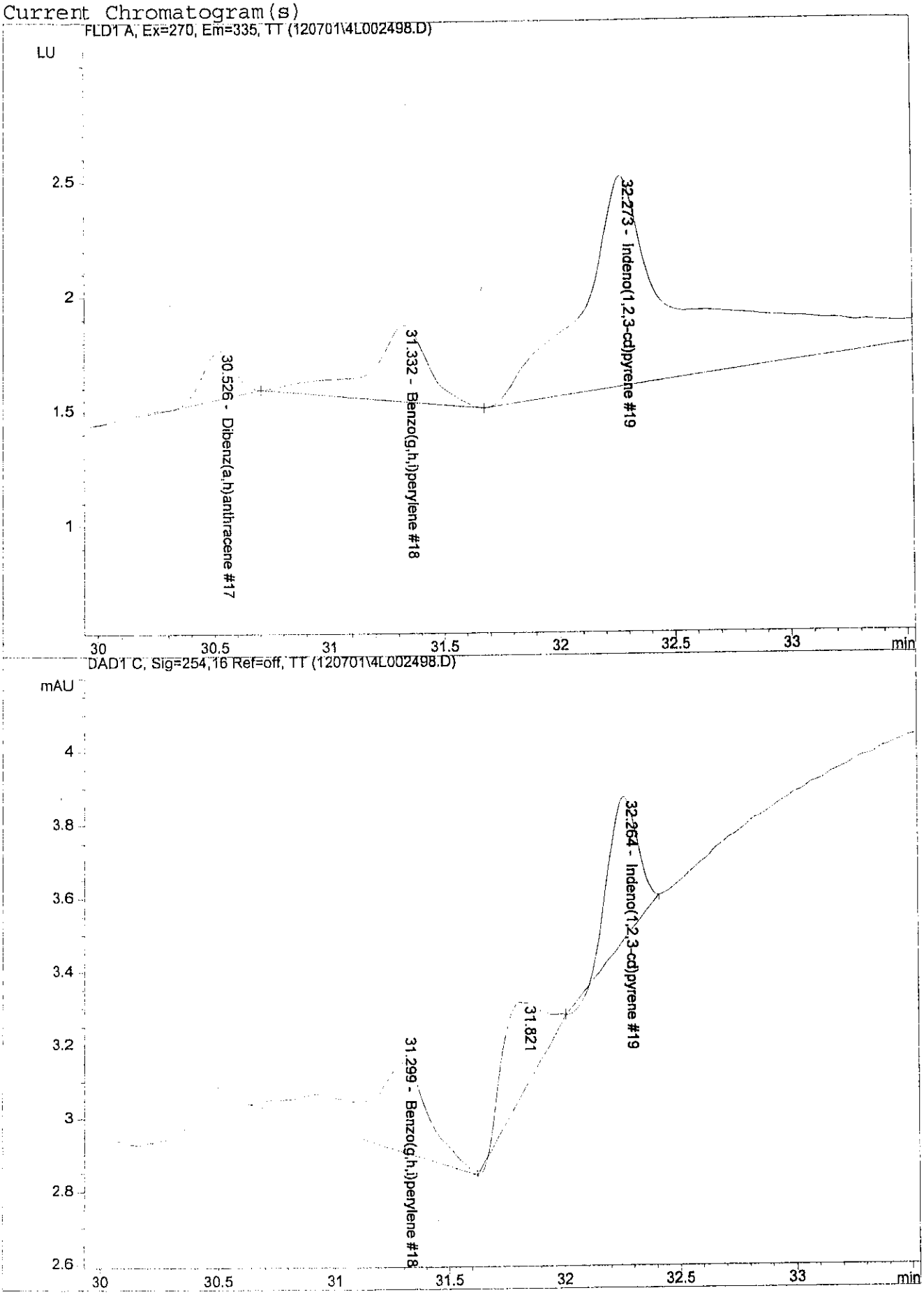
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:28:14 AM by RDC
(modified after loading)

Calibrated 12/06/2001

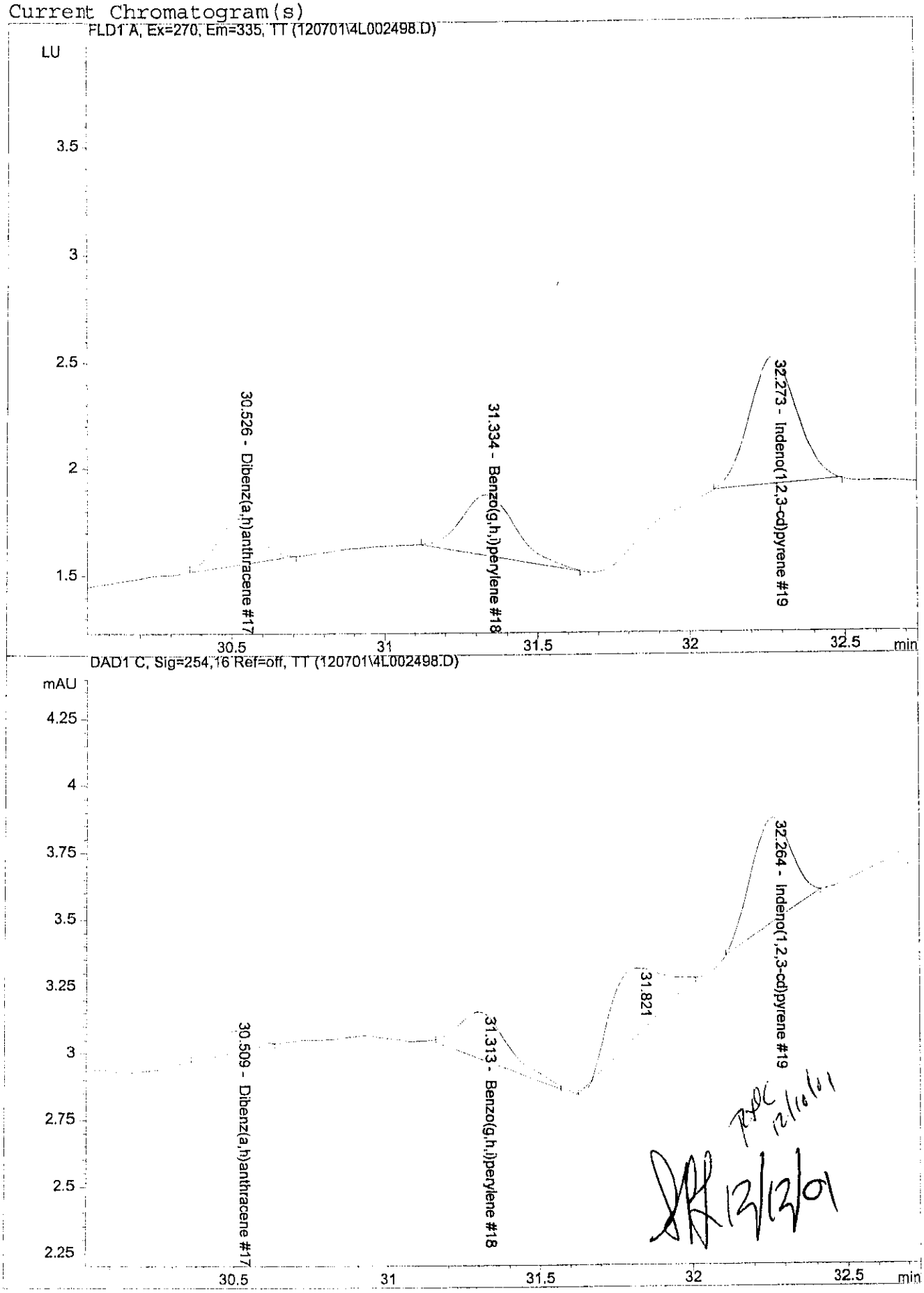




Current Chromatogram(s)



Current Chromatogram(s)



RDC 12/10/01

12/12/01

External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:28:10 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.445	PB	34.14394	2.64309e-2	9.02454e-1		Naphthalene #1
12.025	BB	39.21505	2.30826e-2	9.05184e-1		1-Methylnaphthalene #3
12.602	BB	51.48040	1.77135e-2	9.11900e-1		2-Methylnaphthalene #4
13.080	BB	65.08414	1.41307e-2	9.19682e-1		Acenaphthene #5
13.738	BBA	144.45450	6.55799e-3	9.47331e-1		Fluorene #6
15.126	PB	5.16262	1.72114e-1	8.88558e-1		Phenanthrene #7
16.532	BB	2.73816	3.11763e-1	8.53657e-1		Anthracene #8
17.907	BB	3.35839	2.51883e-2	8.45920e-2		Fluoranthene #9
18.912	BB	1.73975	4.52106e-2	7.86550e-2		Pyrene #10
21.248	BB	3.10528	2.98861e-1	9.28047e-1		p-Terphenyl d14 #11*
22.562	BB	10.98394	8.29841e-3	9.11492e-2		Benzo(a)anthracene #12
23.431	BB	2.36736	4.07647e-2	9.65047e-2		Chrysene #13
26.140	BB	5.61101	1.66521e-2	9.34354e-2		Benzo(b)fluoranthene #14
27.562	BBA	16.30576	2.77713e-3	4.52833e-2		Benzo(k)fluoranthene #15
28.676	BBA	16.72118	5.23910e-3	8.76039e-2		Benzo(a)pyrene #16
30.526	FM	2.05262	4.06442e-2	8.34270e-2		Dibenz(a,h)anthracene #17
31.334	MM	3.47096	3.02212e-2	1.04897e-1		Benzo(g,h,i)perylene #18
32.273	MM	6.30039	1.37336e-2	8.65270e-2		Indeno(1,2,3-cd)pyrene #1
Totals :				8.10889		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.427	PBA	115.80276	8.11569e-3	9.39819e-1		Naphthalene #1
11.059	PBA	31.43988	2.94003e-2	9.24343e-1		Acenaphthylene #2
12.007	PBA	72.32628	1.26957e-2	9.18232e-1		1-Methylnaphthalene #3
12.583	PB	84.52537	1.10418e-2	9.33310e-1		2-Methylnaphthalene #4
13.062	BBA	45.57931	1.99953e-2	9.11371e-1		Acenaphthene #5
13.719	PBA	52.40231	1.72604e-2	9.04485e-1		Fluorene #6
15.107	BBA	53.48583	1.70751e-2	9.13275e-1		Phenanthrene #7
16.513	BBA	88.39832	1.03316e-2	9.13294e-1		Anthracene #8
17.887	BBA	4.29404	2.13939e-2	9.18663e-2		Fluoranthene #9
18.891	BBA	6.05919	1.42346e-2	8.62502e-2		Pyrene #10
21.231	BBA	13.90912	6.51566e-2	9.06271e-1		p-Terphenyl d14 #11*
22.544	BBA	4.04760	2.19558e-2	8.88682e-2		Benzo(a)anthracene #12
23.412	BBA	5.94315	1.48093e-2	8.80142e-2		Chrysene #13
26.121	BB	4.52168	2.03417e-2	9.19789e-2		Benzo(b)fluoranthene #14
27.548	PB	2.10015	2.21503e-2	4.65190e-2		Benzo(k)fluoranthene #15
28.658	BB	2.59946	2.80792e-2	7.29908e-2		Benzo(a)pyrene #16
30.509	MM	6.44712e-1	9.27377e-2	5.97891e-2		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.312	MM	2.00007	5.56826e-2	1.11369e-1		Benzo(g,h,i)perylene #18
32.264	FM	3.57299	2.02125e-2	7.22190e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.07427

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\120701\4L002499.D Sample Name: WG109608-08
HPLC4 12/10/2001 11:36:24 AM RDC

1,1 SOS57-27/57-28 alt level 4 std. 20/2/1 ppm

==========

Injection Date : 12/8/2001 12:18:21 AM Seq. Line : 9

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.448	20.0	18.988	-5.1
1-Methylnaphthalene #3	12.026	20.0	19.627	-1.9
2-Methylnaphthalene #4	12.603	20.0	18.646	-6.8
Acenaphthene #5	13.081	20.0	19.741	-1.3
Fluorene #6	13.736	20.0	19.908	-0.5
Phenanthrene #7	15.124	20.0	19.180	-4.1
Anthracene #8	16.531	20.0	19.722	-1.4
Fluoranthene #9	17.910	2.0	1.966	-1.7
Pyrene #10	18.916	2.0	1.877	-6.1
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.583	2.0	1.793	-10.4
Chrysene #13	23.457	2.0	1.850	-7.5
Benzo(b)fluoranthene #14	26.174	2.0	1.937	-3.2
Benzo(k)fluoranthene #15	27.601	1.0	0.860	-14.0
Benzo(a)pyrene #16	28.712	2.0	1.983	-0.9
Dibenz(a,h)anthracene #1	30.555	2.0	2.111	5.6
Benzo(g,h,i)perylene #18	31.369	2.0	1.899	-5.0
Indeno(1,2,3-cd)pyrene #	32.298	2.0	1.930	-3.5

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.431	20.0	20.166	0.8
Acenaphthylene #2	11.061	20.0	18.484	-7.6
1-Methylnaphthalene #3	12.010	20.0	19.908	-0.5
2-Methylnaphthalene #4	12.587	20.0	19.127	-4.4
Acenaphthene #5	13.065	20.0	19.623	-1.9
Fluorene #6	13.719	20.0	19.343	-3.3
Phenanthrene #7	15.107	20.0	19.002	-5.0
Anthracene #8	16.514	20.0	20.224	1.1
Fluoranthene #9	17.892	2.0	1.900	-5.0
Pyrene #10	18.899	2.0	1.854	-7.3
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.567	2.0	1.803	-9.9
Chrysene #13	23.441	2.0	1.871	-6.5
Benzo(b)fluoranthene #14	26.157	2.0	1.894	-5.3
Benzo(k)fluoranthene #15	27.584	1.0	0.858	-14.2
Benzo(a)pyrene #16	28.695	2.0	1.938	-3.1
Dibenz(a,h)anthracene #1	30.538	2.0	2.146	7.3
Benzo(g,h,i)perylene #18	31.349	2.0	1.912	-4.4
Indeno(1,2,3-cd)pyrene #	32.283	2.0	1.822	-8.9

= Failed 15.0% Criteria

1,1 SOS57-27/57-28 alt level 4 std. 20/2/1 ppm

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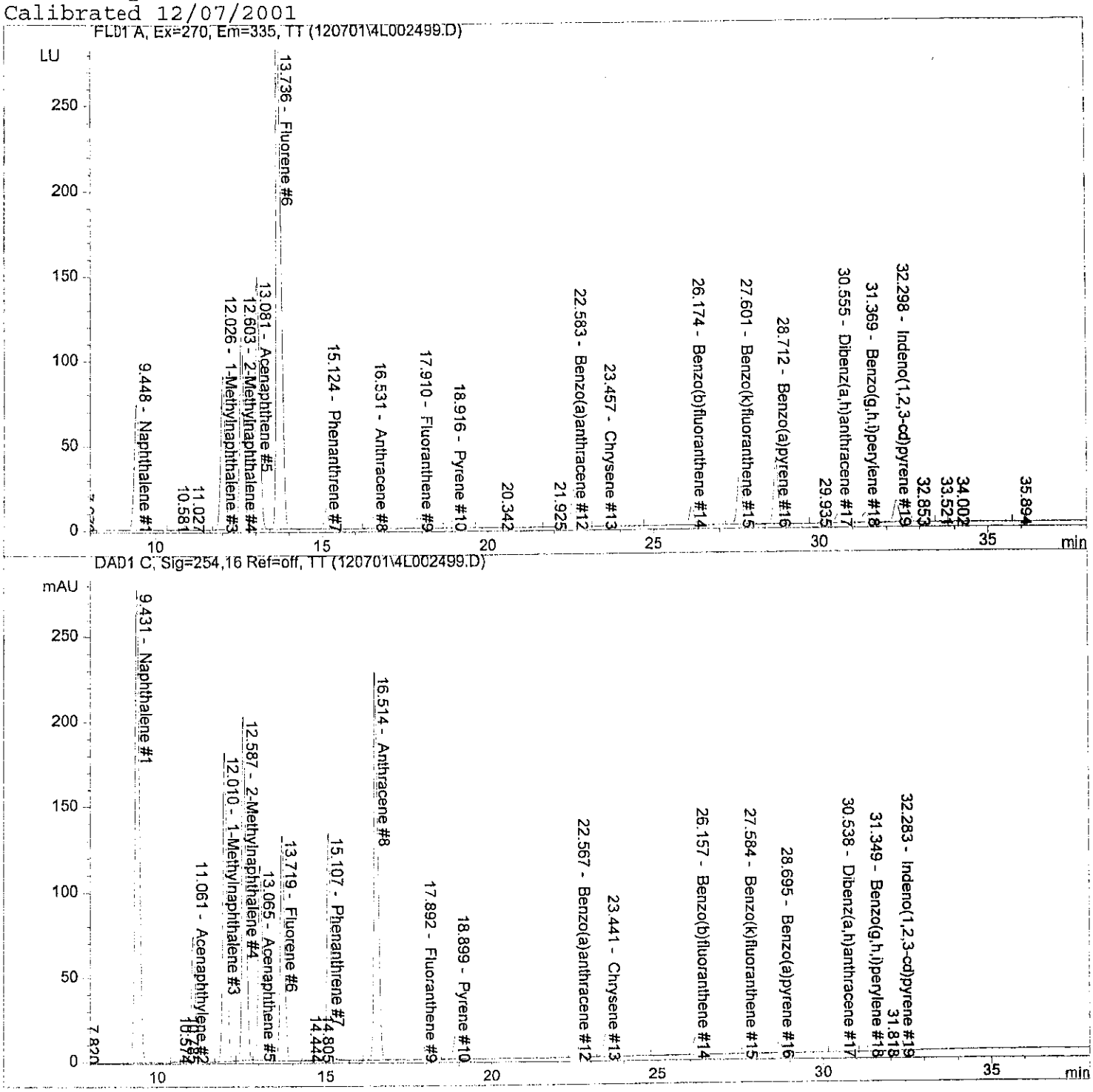
Injection Date : 12/8/2001 12:18:21 AM
Sample Name : WG109608-08
Acq. Operator : RDC

Seq. Line : 9
Vial : 9
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:34:24 AM by RDC
Calibrated 12/07/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:34:24 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.448	PBA	718.41638	2.64309e-2	18.98836		Naphthalene #1
12.026	PB	850.30682	2.30826e-2	19.62725		1-Methylnaphthalene #3
12.603	BB	1052.66821	1.77135e-2	18.64648		2-Methylnaphthalene #4
13.081	BB	1397.06580	1.41307e-2	19.74147		Acenaphthene #5
13.736	BB	3035.62598	6.55799e-3	19.90760		Fluorene #6
15.124	BBA	111.43582	1.72114e-1	19.17962		Phenanthrene #7
16.531	PBA	63.26065	3.11763e-1	19.72236		Anthracene #8
17.910	PBA	78.05544	2.51883e-2	1.96608		Fluoranthene #9
18.916	BBA	41.52039	4.52106e-2	1.87716		Pyrene #10
21.248		-	-	-		p-Terphenyl d14 #11*
22.583	BB	216.05219	8.29841e-3	1.79289		Benzo(a)anthracene #12
23.457	BBA	45.38344	4.07647e-2	1.85004		Chrysene #13
26.174	BBA	116.30862	1.66521e-2	1.93679		Benzo(b)fluoranthene #14
27.601	BB	309.80493	2.77713e-3	8.60370e-1		Benzo(k)fluoranthene #15
28.712	BBA	378.43121	5.23910e-3	1.98264		Benzo(a)pyrene #16
30.555	BB	51.94407	4.06442e-2	2.11123		Dibenz(a,h)anthracene #17
31.369	BB	62.84625	3.02212e-2	1.89929		Benzo(g,h,i)perylene #18
32.298	BB	140.51279	1.37336e-2	1.92974		Indeno(1,2,3-cd)pyrene #1

Totals : 154.01938

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.431	PBA	2484.78711	8.11569e-3	20.16575		Naphthalene #1
11.061	BBA	628.69238	2.94003e-2	18.48377		Acenaphthylene #2
12.010	PB	1568.06946	1.26957e-2	19.90773		1-Methylnaphthalene #3
12.587	BB	1732.25586	1.10418e-2	19.12719		2-Methylnaphthalene #4
13.065	BB	981.37512	1.99953e-2	19.62288		Acenaphthene #5
13.719	BBA	1120.66248	1.72604e-2	19.34309		Fluorene #6
15.107	BBA	1112.86951	1.70751e-2	19.00234		Phenanthrene #7
16.514	PBA	1957.45850	1.03316e-2	20.22363		Anthracene #8
17.892	PB	88.79617	2.13939e-2	1.89970		Fluoranthene #9
18.899	BBA	130.27521	1.42346e-2	1.85442		Pyrene #10
21.231		-	-	-		p-Terphenyl d14 #11*
22.567	BBA	82.10786	2.19558e-2	1.80274		Benzo(a)anthracene #12
23.441	BBA	126.32463	1.48093e-2	1.87078		Chrysene #13
26.157	BB	93.10676	2.03417e-2	1.89395		Benzo(b)fluoranthene #14
27.584	BB	38.75732	2.21503e-2	8.58487e-1		Benzo(k)fluoranthene #15
28.695	BB	69.01395	2.80792e-2	1.93786		Benzo(a)pyrene #16
30.538	BB	23.13591	9.27377e-2	2.14557		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.349	BB	34.33689	5.56826e-2	1.91197		Benzo(g,h,i)perylene #18
32.283	BB	90.14058	2.02125e-2	1.82197		Indeno(1,2,3-cd)pyrene #1

Totals : 173.87381

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\121901\4L002561.D Sample Name: WG110267-02 CCV
HPLC4 12/20/2001 11:54:39 AM RDC

1,1 SOS56-19/56-20 level 4 std. 20/2/1 ppm

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Injection Date : 12/19/2001 3:23:41 PM Seq. Line : 8

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.385	20.0	19.656	-1.7
1-Methylnaphthalene #3	11.979	20.0	19.754	-1.2
2-Methylnaphthalene #4	12.557	20.0	19.796	-1.0
Acenaphthene #5	13.038	20.0	19.909	-0.5
Fluorene #6	13.694	20.0	19.957	-0.2
Phenanthrene #7	15.083	20.0	19.279	-3.6
Anthracene #8	16.491	20.0	19.734	-1.3
Fluoranthene #9	17.869	2.0	2.028	1.4
Pyrene #10	18.876	2.0	2.096	4.8
p-Terphenyl d14 #11*	21.216	20.0	20.061	0.3
Benzo(a)anthracene #12	22.533	2.0	1.967	-1.7
Chrysene #13	23.400	2.0	1.968	-1.6
Benzo(b)fluoranthene #14	26.108	2.0	1.925	-3.8
Benzo(k)fluoranthene #15	27.524	1.0	0.968	-3.2
Benzo(a)pyrene #16	28.633	2.0	2.077	3.9
Dibenz(a,h)anthracene #1	30.482	2.0	1.944	-2.8
Benzo(g,h,i)perylene #18	31.290	2.0	2.039	1.9
Indeno(1,2,3-cd)pyrene #	32.224	2.0	1.917	-4.1

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.370	20.0	20.228	1.1
Acenaphthylene #2	11.009	20.0	19.211	-3.9
1-Methylnaphthalene #3	11.964	20.0	19.402	-3.0
2-Methylnaphthalene #4	12.541	20.0	19.713	-1.4
Acenaphthene #5	13.023	20.0	19.278	-3.6
Fluorene #6	13.678	20.0	19.219	-3.9
Phenanthrene #7	15.068	20.0	19.277	-3.6
Anthracene #8	16.475	20.0	20.116	0.6
Fluoranthene #9	17.853	2.0	1.906	-4.7
Pyrene #10	18.860	2.0	1.893	-5.4
p-Terphenyl d14 #11*	21.201	20.0	19.666	-1.7
Benzo(a)anthracene #12	22.517	2.0	1.913	-4.4
Chrysene #13	23.385	2.0	1.891	-5.4
Benzo(b)fluoranthene #14	26.092	2.0	1.900	-5.0
Benzo(k)fluoranthene #15	27.508	1.0	0.954	-4.6
Benzo(a)pyrene #16	28.617	2.0	2.001	0.0
Dibenz(a,h)anthracene #1	30.467	2.0	1.934	-3.3
Benzo(g,h,i)perylene #18	31.274	2.0	2.049	2.5
Indeno(1,2,3-cd)pyrene #	32.206	2.0	1.873	-6.4

= Failed 15.0% Criteria

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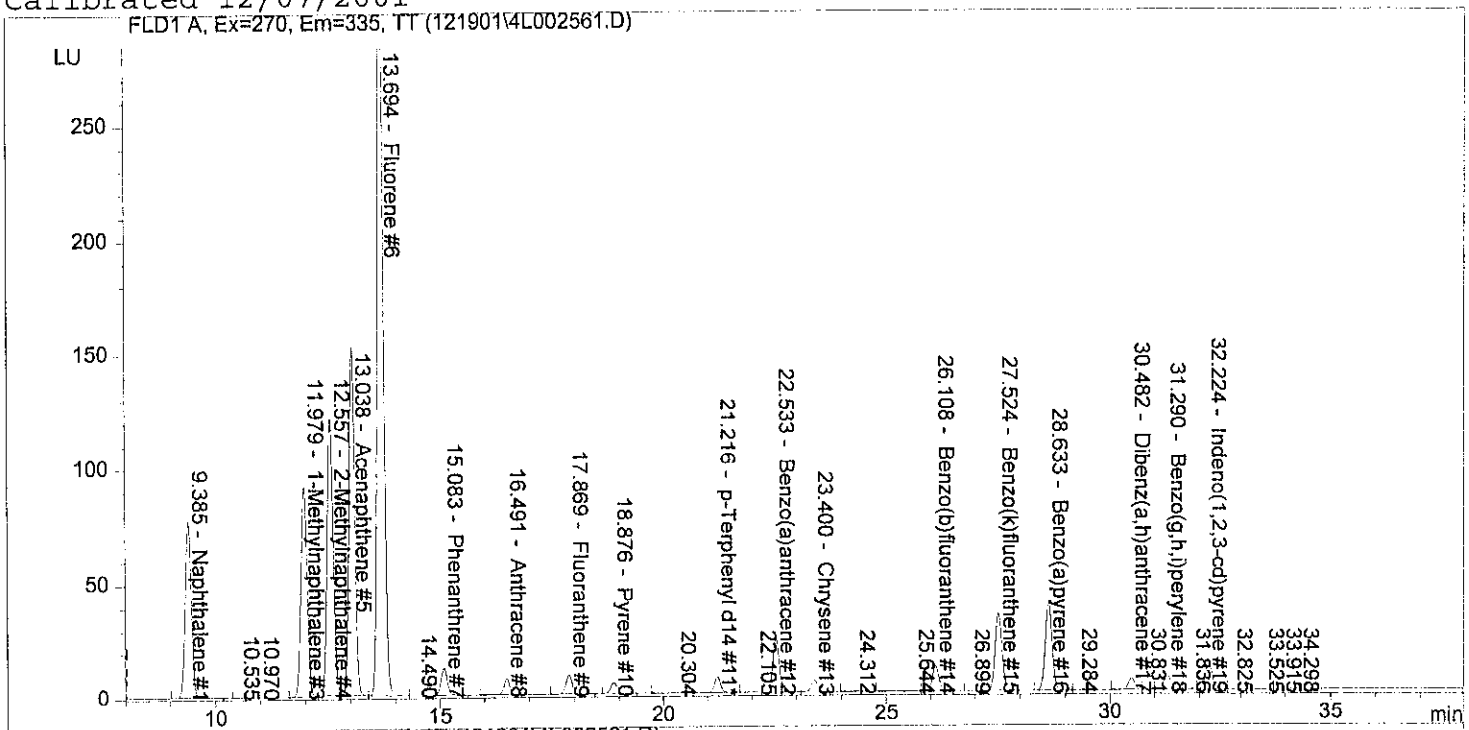
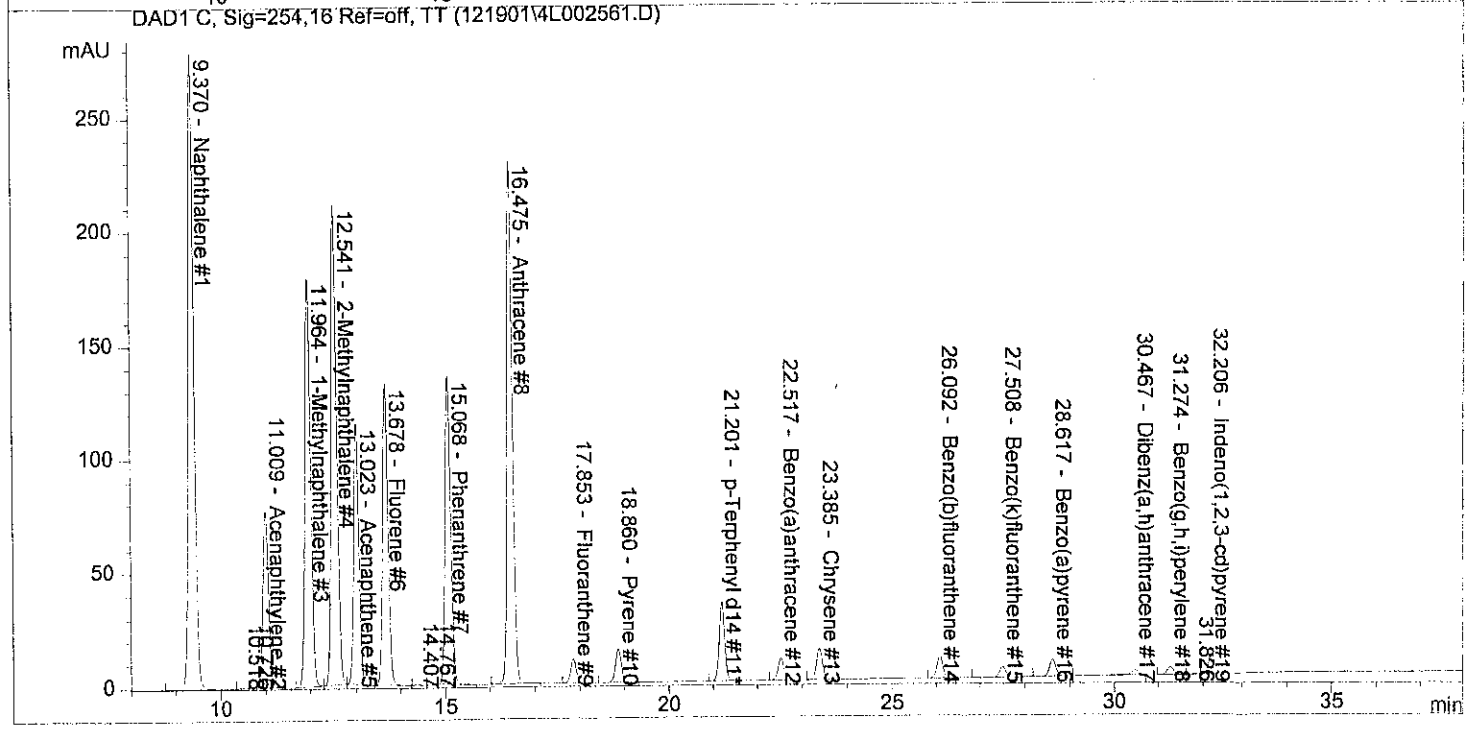
Injection Date : 12/19/2001 3:23:41 PM
Sample Name : WG110267-02 CCV
Acq. Operator : RDC

Seq. Line : 8
Vial : 8
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:34:37 AM by RDC
Calibrated 12/07/2001





External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Monday, December 10, 2001 11:34:24 AM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.385	BBA	743.67645	2.64309e-2	19.65601		Naphthalene #1
11.979	BB	855.81219	2.30826e-2	19.75433		1-Methylnaphthalene #3
12.557	BB	1117.57544	1.77135e-2	19.79622		2-Methylnaphthalene #4
13.038	BB	1408.94080	1.41307e-2	19.90927		Acenaphthene #5
13.694	BB	3043.16040	6.55799e-3	19.95701		Fluorene #6
15.083	BBA	112.01334	1.72114e-1	19.27902		Phenanthrene #7
16.491	PBA	63.29950	3.11763e-1	19.73447		Anthracene #8
17.869	PBA	80.51553	2.51883e-2	2.02805		Fluoranthene #9
18.876	BBA	46.36762	4.52106e-2	2.09631		Pyrene #10
21.216	BB	67.12491	2.98861e-1	20.06104		p-Terphenyl d14 #11*
22.533	BB	237.02682	8.29841e-3	1.96695		Benzo(a)anthracene #12
23.400	BB	48.28241	4.07647e-2	1.96822		Chrysene #13
26.108	BB	115.58603	1.66521e-2	1.92476		Benzo(b)fluoranthene #14
27.524	BB	348.73691	2.77713e-3	9.68489e-1		Benzo(k)fluoranthene #15
28.633	BB	396.47925	5.23910e-3	2.07720		Benzo(a)pyrene #16
30.482	BB	47.82090	4.06442e-2	1.94364		Dibenz(a,h)anthracene #17
31.290	BB	67.45325	3.02212e-2	2.03852		Benzo(g,h,i)perylene #18
32.224	BB	139.59027	1.37336e-2	1.91708		Indeno(1,2,3-cd)pyrene #1
Totals :				177.07656		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.370	PBA	2492.43481	8.11569e-3	20.22782		Naphthalene #1
11.009	BBA	653.42755	2.94003e-2	19.21099		Acenaphthylene #2
11.964	PB	1528.23376	1.26957e-2	19.40199		1-Methylnaphthalene #3
12.541	BB	1785.29260	1.10418e-2	19.71281		2-Methylnaphthalene #4
13.023	BB	964.12671	1.99953e-2	19.27799		Acenaphthene #5
13.678	BBA	1113.48706	1.72604e-2	19.21924		Fluorene #6
15.068	BBA	1128.92847	1.70751e-2	19.27655		Phenanthrene #7
16.475	PBA	1947.08081	1.03316e-2	20.11641		Anthracene #8
17.853	PB	89.10999	2.13939e-2	1.90641		Fluoranthene #9
18.860	BBA	132.98395	1.42346e-2	1.89297		Pyrene #10
21.201	PBA	301.83105	6.51566e-2	19.66628		p-Terphenyl d14 #11*
22.517	PBA	87.12578	2.19558e-2	1.91291		Benzo(a)anthracene #12
23.385	BBA	127.69934	1.48093e-2	1.89114		Chrysene #13
26.092	BBA	93.39716	2.03417e-2	1.89986		Benzo(b)fluoranthene #14
27.508	BBA	43.07663	2.21503e-2	9.54161e-1		Benzo(k)fluoranthene #15
28.617	BB	71.25577	2.80792e-2	2.00080		Benzo(a)pyrene #16
30.467	BB	20.84957	9.27377e-2	1.93354		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.274	BB	36.80598	5.56826e-2	2.04945		Benzo(g,h,i)perylene #18
32.206	BB	92.65092	2.02125e-2	1.87271		Indeno(1,2,3-cd)pyrene #1

Totals : 194.42403

Results obtained with enhanced integrator!

*** End of Report ***

Data File C:\HPCHEM\2\DATA\121901\4L002572.D Sample Name: WG110267-03 CCV
HPLC4 12/20/2001 1:24:43 PM RDC

1,1 SOS56-19/56-20 level 4 std. 20/2/1 ppm

Injection Date : 12/20/2001 1:46:35 AM Seq. Line : 19

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.336	20.0	19.368	-3.2
1-Methylnaphthalene #3	11.933	20.0	19.372	-3.1
2-Methylnaphthalene #4	12.513	20.0	19.496	-2.5
Acenaphthene #5	12.996	20.0	19.671	-1.6
Fluorene #6	13.654	20.0	19.917	-0.4
Phenanthrene #7	15.050	20.0	19.269	-3.7
Anthracene #8	16.461	20.0	19.993	0.0
Fluoranthene #9	17.843	2.0	2.014	0.7
Pyrene #10	18.851	2.0	1.999	-0.1
p-Terphenyl d14 #11*	21.194	20.0	20.061	0.3
Benzo(a)anthracene #12	22.508	2.0	1.928	-3.6
Chrysene #13	23.375	2.0	1.922	-3.9
Benzo(b)fluoranthene #14	26.079	2.0	1.908	-4.6
Benzo(k)fluoranthene #15	27.493	1.0	0.964	-3.6
Benzo(a)pyrene #16	28.600	2.0	2.084	4.2
Dibenz(a,h)anthracene #1	30.453	2.0	1.892	-5.4
Benzo(g,h,i)perylene #18	31.263	2.0	2.007	0.4
Indeno(1,2,3-cd)pyrene #	32.193	2.0	1.903	-4.9

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.317	20.0	20.296	1.5
Acenaphthylene #2	10.960	20.0	19.276	-3.6
1-Methylnaphthalene #3	11.914	20.0	19.441	-2.8
2-Methylnaphthalene #4	12.493	20.0	19.756	-1.2
Acenaphthene #5	12.977	20.0	19.366	-3.2
Fluorene #6	13.634	20.0	19.286	-3.6
Phenanthrene #7	15.030	20.0	19.336	-3.3
Anthracene #8	16.441	20.0	20.486	2.4
Fluoranthene #9	17.822	2.0	1.902	-4.9
Pyrene #10	18.830	2.0	1.905	-4.8
p-Terphenyl d14 #11*	21.174	20.0	19.719	-1.4
Benzo(a)anthracene #12	22.488	2.0	1.918	-4.1
Chrysene #13	23.355	2.0	1.900	-5.0
Benzo(b)fluoranthene #14	26.059	2.0	1.901	-5.0
Benzo(k)fluoranthene #15	27.473	1.0	0.960	-4.0
Benzo(a)pyrene #16	28.580	2.0	1.976	-1.2
Dibenz(a,h)anthracene #1	30.433	2.0	1.990	-0.5
Benzo(g,h,i)perylene #18	31.243	2.0	2.236	11.8
Indeno(1,2,3-cd)pyrene #	32.168	2.0	1.889	-5.6

= Failed 15.0% Criteria

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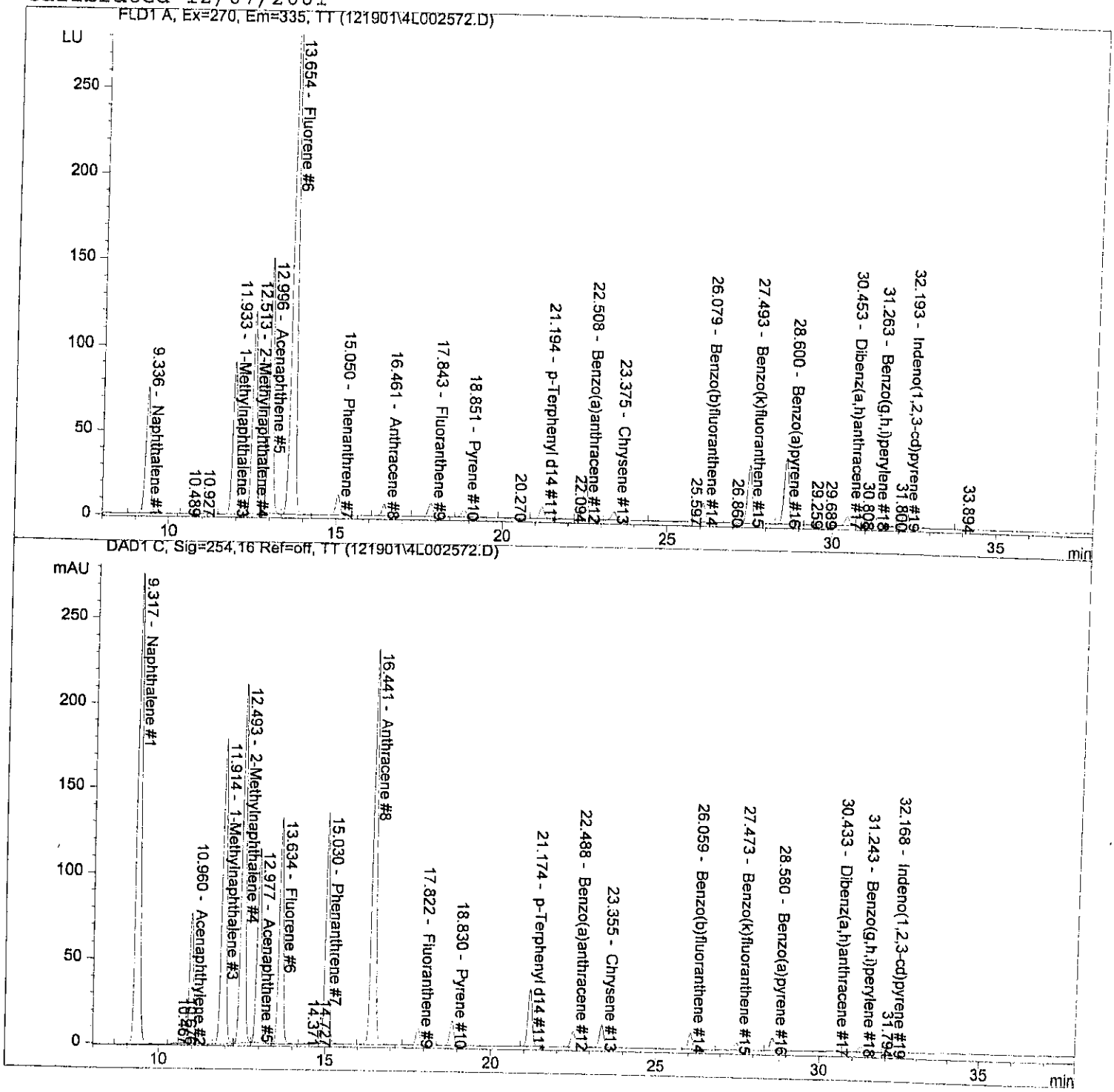
Injection Date : 12/20/2001 1:46:35 AM
Sample Name : WG110267-03 CCV
Acq. Operator : RDC

Seq. Line : 19
Vial : 19
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:34:37 AM by RDC
Calibrated 12/07/2001



HPLC4 12/20/2001 1:24:41 PM RDC

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:34:24 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.336	BBA	732.77991	2.64309e-2	19.36800		Naphthalene #1
11.933	BB	839.23553	2.30826e-2	19.37170		1-Methylnaphthalene #3
12.513	BB	1100.59900	1.77135e-2	19.49551		2-Methylnaphthalene #4
12.996	BB	1392.04932	1.41307e-2	19.67058		Acenaphthene #5
13.654	BB	3036.99316	6.55799e-3	19.91656		Fluorene #6
15.050	BBA	111.95587	1.72114e-1	19.26913		Phenanthrene #7
16.461	PB	64.12800	3.11763e-1	19.99277		Anthracene #8
17.843	BBA	79.95046	2.51883e-2	2.01382		Fluoranthene #9
18.851	BB	44.20723	4.52106e-2	1.99863		Pyrene #10
21.194	BB	67.12396	2.98861e-1	20.06076		p-Terphenyl d14 #11*
22.508	BB	232.32736	8.29841e-3	1.92795		Benzo(a)anthracene #12
23.375	BBA	47.15191	4.07647e-2	1.92214		Chrysene #13
26.079	BB	114.57164	1.66521e-2	1.90786		Benzo(b)fluoranthene #14
27.493	BB	347.13672	2.77713e-3	9.64045e-1		Benzo(k)fluoranthene #15
28.600	BB	397.80286	5.23910e-3	2.08413		Benzo(a)pyrene #16
30.453	BB	46.54641	4.06442e-2	1.89184		Dibenz(a,h)anthracene #17
31.263	BB	66.41383	3.02212e-2	2.00711		Benzo(g,h,i)perylene #18
32.193	BB	138.56567	1.37336e-2	1.90300		Indeno(1,2,3-cd)pyrene #1
Totals :				175.76553		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.317	PBA	2500.84863	8.11569e-3	20.29610		Naphthalene #1
10.960	BBA	655.64917	2.94003e-2	19.27630		Acenaphthylene #2
11.914	PB	1531.32239	1.26957e-2	19.44120		1-Methylnaphthalene #3
12.493	BB	1789.21704	1.10418e-2	19.75614		2-Methylnaphthalene #4
12.977	BB	968.52228	1.99953e-2	19.36588		Acenaphthene #5
13.634	BBA	1117.35901	1.72604e-2	19.28607		Fluorene #6
15.030	BBA	1132.41956	1.70751e-2	19.33616		Phenanthrene #7
16.441	PBA	1982.89954	1.03316e-2	20.48648		Anthracene #8
17.822	PB	88.88225	2.13939e-2	1.90154		Fluoranthene #9
18.830	BBA	133.80525	1.42346e-2	1.90466		Pyrene #10
21.174	BBA	302.63925	6.51566e-2	19.71894		p-Terphenyl d14 #11*
22.488	PBA	87.37507	2.19558e-2	1.91839		Benzo(a)anthracene #12
23.355	PBA	128.31345	1.48093e-2	1.90024		Chrysene #13
26.059	BBA	93.43134	2.03417e-2	1.90056		Benzo(b)fluoranthene #14
27.473	BBA	43.32637	2.21503e-2	9.59693e-1		Benzo(k)fluoranthene #15
28.580	BB	70.38770	2.80792e-2	1.97643		Benzo(a)pyrene #16
30.433	BB	21.45428	9.27377e-2	1.98962		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.243	BB	40.15855	5.56826e-2	2.23613		Benzo(g,h,i)perylene #18
32.168	BBA	93.44720	2.02125e-2	1.88880		Indeno(1,2,3-cd)pyrene #1

Totals : 195.53933

Results obtained with enhanced integrator!

*** End of Report ***

Data File C:\HPCHEM\2\DATA\121901\4L002582.D Sample Name: WG110267-04 CCV
HPLC4 12/20/2001 1:39:55 PM RDC

1,1 SOS56-19/56-20 level 4 std. 20/2/1 ppm

Injection Date : 12/20/2001 11:13:05 AM Seq. Line : 29

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.335	20.0	19.822	-0.9
1-Methylnaphthalene #3	11.931	20.0	19.908	-0.5
2-Methylnaphthalene #4	12.510	20.0	19.995	0.0
Acenaphthene #5	12.992	20.0	20.128	0.6
Fluorene #6	13.649	20.0	20.097	0.5
Phenanthrene #7	15.039	20.0	19.364	-3.2
Anthracene #8	16.455	20.0	20.248	1.2
Fluoranthene #9	17.841	2.0	2.047	2.3
Pyrene #10	18.852	2.0	2.106	5.3
p-Terphenyl d14 #11*	21.210	20.0	19.968	-0.2
Benzo(a)anthracene #12	22.531	2.0	1.982	-0.9
Chrysene #13	23.407	2.0	1.981	-0.9
Benzo(b)fluoranthene #14	26.138	2.0	1.946	-2.7
Benzo(k)fluoranthene #15	27.575	1.0	0.976	-2.4
Benzo(a)pyrene #16	28.691	2.0	2.113	5.6
Dibenz(a,h)anthracene #1	30.558	2.0	1.917	-4.2
Benzo(g,h,i)perylene #18	31.367	2.0	2.090	4.5
Indeno(1,2,3-cd)pyrene #	32.303	2.0	1.948	-2.6

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.320	20.0	20.360	1.8
Acenaphthylene #2	10.959	20.0	19.367	-3.2
1-Methylnaphthalene #3	11.917	20.0	19.552	-2.2
2-Methylnaphthalene #4	12.495	20.0	19.890	-0.6
Acenaphthene #5	12.978	20.0	19.528	-2.4
Fluorene #6	13.634	20.0	19.357	-3.2
Phenanthrene #7	15.024	20.0	19.450	-2.8
Anthracene #8	16.440	20.0	20.532	2.7
Fluoranthene #9	17.826	2.0	1.921	-4.0
Pyrene #10	18.836	2.0	1.921	-3.9
p-Terphenyl d14 #11*	21.196	20.0	19.833	-0.8
Benzo(a)anthracene #12	22.516	2.0	1.932	-3.4
Chrysene #13	23.393	2.0	1.922	-3.9
Benzo(b)fluoranthene #14	26.123	2.0	1.923	-3.9
Benzo(k)fluoranthene #15	27.560	1.0	0.982	-1.8
Benzo(a)pyrene #16	28.676	2.0	2.035	1.8
Dibenz(a,h)anthracene #1	30.543	2.0	1.928	-3.6
Benzo(g,h,i)perylene #18	31.351	2.0	2.034	1.7
Indeno(1,2,3-cd)pyrene #	32.287	2.0	1.924	-3.8

= Failed 15.0% Criteria

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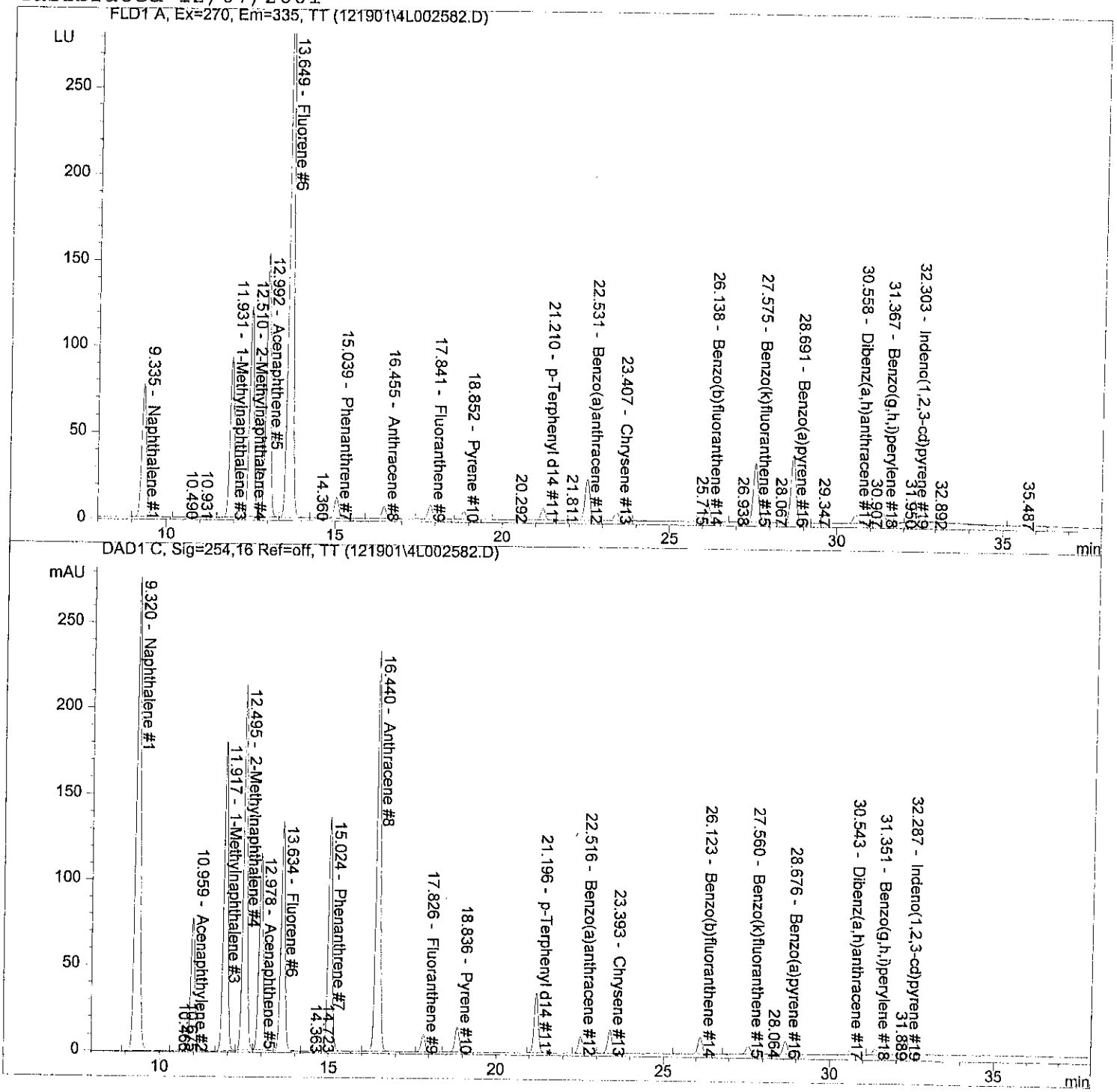
Injection Date : 12/20/2001 11:13:05 AM
Sample Name : WG110267-04 CCV
Acq. Operator : RDC

Seq. Line : 29
Vial : 19
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/20/2001 1:39:21 PM by RDC
(modified after loading)

Calibrated 12/07/2001



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Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:34:24 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.335	BBA	749.94928	2.64309e-2	19.82180		Naphthalene #1
11.931	BB	862.46069	2.30826e-2	19.90779		1-Methylnaphthalene #3
12.510	BB	1128.79980	1.77135e-2	19.99504		2-Methylnaphthalene #4
12.992	BB	1424.39404	1.41307e-2	20.12764		Acenaphthene #5
13.649	BB	3064.43335	6.55799e-3	20.09652		Fluorene #6
15.039	BBA	112.50610	1.72114e-1	19.36383		Phenanthrene #7
16.455	PBA	64.94707	3.11763e-1	20.24812		Anthracene #8
17.841	PBA	81.26759	2.51883e-2	2.04699		Fluoranthene #9
18.852	BBA	46.57216	4.52106e-2	2.10555		Pyrene #10
21.210	BB	66.81271	2.98861e-1	19.96774		p-Terphenyl d14 #11*
22.531	BB	238.79767	8.29841e-3	1.98164		Benzo(a)anthracene #12
23.407	BB	48.60495	4.07647e-2	1.98137		Chrysene #13
26.138	BB	116.85297	1.66521e-2	1.94585		Benzo(b)fluoranthene #14
27.575	BB	351.52377	2.77713e-3	9.76229e-1		Benzo(k)fluoranthene #15
28.691	BB	403.28207	5.23910e-3	2.11284		Benzo(a)pyrene #16
30.558	BB	47.16200	4.06442e-2	1.91686		Dibenz(a,h)anthracene #17
31.367	BB	69.15968	3.02212e-2	2.09009		Benzo(g,h,i)perylene #18
32.303	BB	141.84358	1.37336e-2	1.94802		Indeno(1,2,3-cd)pyrene #1

Totals : 178.63393

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.320	PBA	2508.69189	8.11569e-3	20.35975		Naphthalene #1
10.959	BBA	658.73242	2.94003e-2	19.36695		Acenaphthylene #2
11.917	PB	1540.05579	1.26957e-2	19.55208		1-Methylnaphthalene #3
12.495	BB	1801.33093	1.10418e-2	19.88990		2-Methylnaphthalene #4
12.978	BB	976.64227	1.99953e-2	19.52824		Acenaphthene #5
13.634	BBA	1121.49683	1.72604e-2	19.35749		Fluorene #6
15.024	BBA	1139.06299	1.70751e-2	19.44960		Phenanthrene #7
16.440	PBA	1987.33081	1.03316e-2	20.53226		Anthracene #8
17.826	PB	89.77870	2.13939e-2	1.92072		Fluoranthene #9
18.836	BBA	134.97229	1.42346e-2	1.92128		Pyrene #10
21.196	PBA	304.38901	6.51566e-2	19.83295		p-Terphenyl d14 #11*
22.516	BBA	87.97906	2.19558e-2	1.93165		Benzo(a)anthracene #12
23.393	BBA	129.77362	1.48093e-2	1.92186		Chrysene #13
26.123	PBA	94.51910	2.03417e-2	1.92268		Benzo(b)fluoranthene #14
27.560	PB	44.34573	2.21503e-2	9.82272e-1		Benzo(k)fluoranthene #15
28.676	BB	72.48521	2.80792e-2	2.03533		Benzo(a)pyrene #16
30.543	BB	20.78556	9.27377e-2	1.92760		Dibenz(a,h)anthracene #17

31.351	BB	36.53463	5.56826e-2	2.03434		Benzo(g,h,i)perylene #18
32.287	BB	95.16743	2.02125e-2	1.92357		Indeno(1,2,3-cd)pyrene #1

Totals : 196.39052

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\122001\4L002596.D Sample Name: WG110383-02 CCV
HPLC4 12/21/2001 2:29:38 PM RDC

1,1 SOS56-19/56-20 level 4 std. 20/2/1 ppm

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Injection Date : 12/21/2001 2:03:07 AM Seq. Line : 14

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.348	20.0	19.443	-2.8
1-Methylnaphthalene #3	11.940	20.0	19.496	-2.5
2-Methylnaphthalene #4	12.518	20.0	19.676	-1.6
Acenaphthene #5	12.999	20.0	19.904	-0.5
Fluorene #6	13.653	20.0	20.113	0.6
Phenanthrene #7	15.041	20.0	19.217	-3.9
Anthracene #8	16.448	20.0	20.279	1.4
Fluoranthene #9	17.829	2.0	2.032	1.6
Pyrene #10	18.838	2.0	2.052	2.6
p-Terphenyl d14 #11*	21.181	20.0	20.236	1.2
Benzo(a)anthracene #12	22.498	2.0	1.969	-1.6
Chrysene #13	23.367	2.0	1.977	-1.2
Benzo(b)fluoranthene #14	26.083	2.0	1.930	-3.5
Benzo(k)fluoranthene #15	27.509	1.0	0.974	-2.6
Benzo(a)pyrene #16	28.621	2.0	2.112	5.6
Dibenz(a,h)anthracene #1	30.471	2.0	1.942	-2.9
Benzo(g,h,i)perylene #18	31.281	2.0	2.075	3.8
Indeno(1,2,3-cd)pyrene #	32.206	2.0	1.926	-3.7

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.329	20.0	20.413	2.1
Acenaphthylene #2	10.967	20.0	19.472	-2.6
1-Methylnaphthalene #3	11.921	20.0	19.629	-1.9
2-Methylnaphthalene #4	12.498	20.0	19.954	-0.2
Acenaphthene #5	12.980	20.0	19.568	-2.2
Fluorene #6	13.633	20.0	19.491	-2.5
Phenanthrene #7	15.022	20.0	19.504	-2.5
Anthracene #8	16.428	20.0	20.813	4.1
Fluoranthene #9	17.809	2.0	1.930	-3.5
Pyrene #10	18.818	2.0	1.926	-3.7
p-Terphenyl d14 #11*	21.162	20.0	19.951	-0.2
Benzo(a)anthracene #12	22.479	2.0	1.928	-3.6
Chrysene #13	23.348	2.0	1.918	-4.1
Benzo(b)fluoranthene #14	26.063	2.0	1.931	-3.4
Benzo(k)fluoranthene #15	27.489	1.0	0.966	-3.4
Benzo(a)pyrene #16	28.601	2.0	2.084	4.2
Dibenz(a,h)anthracene #1	30.451	2.0	1.936	-3.2
Benzo(g,h,i)perylene #18	31.261	2.0	2.100	5.0
Indeno(1,2,3-cd)pyrene #	32.183	2.0	1.908	-4.6

= Failed 15.0% Criteria

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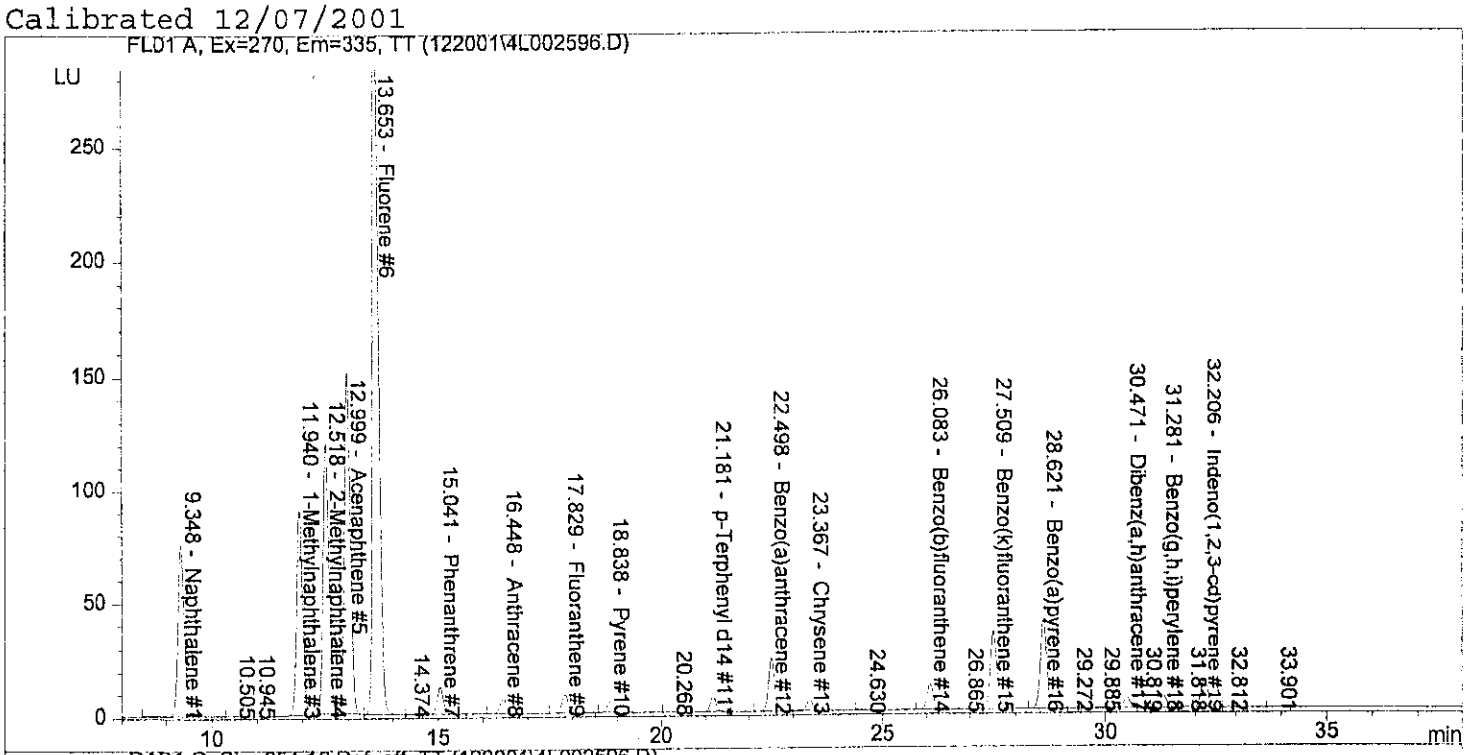
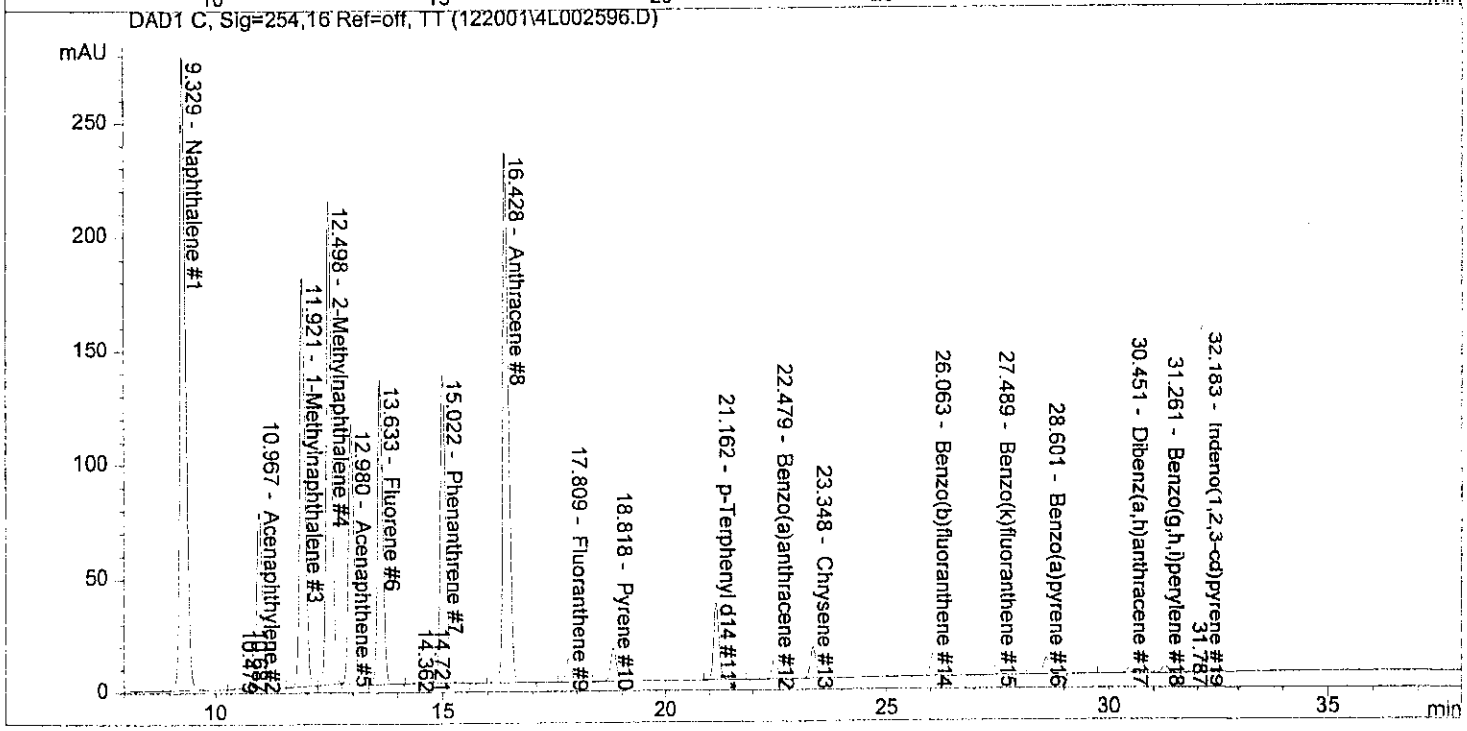
Injection Date : 12/21/2001 2:03:07 AM
Sample Name : WG110383-02 CCV
Acq. Operator : RDC

Seq. Line : 14
Vial : 13
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/21/2001 2:20:40 PM by RDC
(modified after loading)

Calibrated 12/07/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 12/21/2001 2:20:40 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.348	BBA	735.62323	2.64309e-2	19.44315		Naphthalene #1
11.940	BB	844.62646	2.30826e-2	19.49613		1-Methylnaphthalene #3
12.518	BB	1110.76477	1.77135e-2	19.67558		2-Methylnaphthalene #4
12.999	BB	1408.58582	1.41307e-2	19.90425		Acenaphthene #5
13.653	BB	3067.00806	6.55799e-3	20.11340		Fluorene #6
15.041	BBA	111.65412	1.72114e-1	19.21719		Phenanthrene #7
16.448	BBA	65.04553	3.11763e-1	20.27882		Anthracene #8
17.829	PBA	80.65395	2.51883e-2	2.03154		Fluoranthene #9
18.838	BBA	45.38219	4.52106e-2	2.05175		Pyrene #10
21.181	BBA	67.70876	2.98861e-1	20.23553		p-Terphenyl d14 #11*
22.498	BB	237.26166	8.29841e-3	1.96889		Benzo(a)anthracene #12
23.367	BBA	48.49391	4.07647e-2	1.97684		Chrysene #13
26.083	BB	115.92429	1.66521e-2	1.93039		Benzo(b)fluoranthene #14
27.509	BB	350.65955	2.77713e-3	9.73828e-1		Benzo(k)fluoranthene #15
28.621	BB	403.15668	5.23910e-3	2.11218		Benzo(a)pyrene #16
30.471	BB	47.77784	4.06442e-2	1.94189		Dibenz(a,h)anthracene #17
31.281	BB	68.67204	3.02212e-2	2.07535		Benzo(g,h,i)perylene #18
32.206	BB	140.21672	1.37336e-2	1.92568		Indeno(1,2,3-cd)pyrene #1

Totals : 177.35241

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.329	BBA	2515.20190	8.11569e-3	20.41259		Naphthalene #1
10.967	BBA	662.30048	2.94003e-2	19.47186		Acenaphthylene #2
11.921	PB	1546.07764	1.26957e-2	19.62853		1-Methylnaphthalene #3
12.498	BB	1807.13782	1.10418e-2	19.95402		2-Methylnaphthalene #4
12.980	BB	978.60828	1.99953e-2	19.56755		Acenaphthene #5
13.633	BBA	1129.25842	1.72604e-2	19.49146		Fluorene #6
15.022	BBA	1142.25720	1.70751e-2	19.50414		Phenanthrene #7
16.428	PBA	2014.46143	1.03316e-2	20.81256		Anthracene #8
17.809	PB	90.22990	2.13939e-2	1.93037		Fluoranthene #9
18.818	BBA	135.29968	1.42346e-2	1.92594		Pyrene #10
21.162	PBA	306.20575	6.51566e-2	19.95132		p-Terphenyl d14 #11*
22.479	PBA	87.83202	2.19558e-2	1.92842		Benzo(a)anthracene #12
23.348	BBA	129.54256	1.48093e-2	1.91844		Chrysene #13
26.063	PBA	94.93294	2.03417e-2	1.93110		Benzo(b)fluoranthene #14
27.489	BBA	43.59282	2.21503e-2	9.65595e-1		Benzo(k)fluoranthene #15
28.601	BBA	74.22778	2.80792e-2	2.08426		Benzo(a)pyrene #16
30.451	BB	20.88074	9.27377e-2	1.93643		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]		
31.261	BB	37.71241	5.56826e-2	2.09992		Benzo(g,h,i)perylene #18
32.183	BB	94.37650	2.02125e-2	1.90759		Indeno(1,2,3-cd)pyrene #1

Totals : 197.42208

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\122001\4L002606.D Sample Name: WG110383-03 CCV
HPLC4 12/21/2001 2:36:32 PM RDC

1,1 SOS56-19/56-20 level 4 std. 20/2/1 ppm

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Injection Date : 12/21/2001 11:29:21 AM Seq. Line : 24

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.359	20.0	19.771	-1.1
1-Methylnaphthalene #3	11.951	20.0	19.775	-1.1
2-Methylnaphthalene #4	12.529	20.0	19.937	-0.3
Acenaphthene #5	13.011	20.0	20.074	0.4
Fluorene #6	13.668	20.0	20.166	0.8
Phenanthrene #7	15.063	20.0	19.858	-0.7
Anthracene #8	16.476	20.0	20.379	1.9
Fluoranthene #9	17.859	2.0	2.055	2.7
Pyrene #10	18.870	2.0	2.088	4.4
p-Terphenyl d14 #11*	21.223	20.0	20.001	0.0
Benzo(a)anthracene #12	22.545	2.0	1.980	-1.0
Chrysene #13	23.419	2.0	1.976	-1.2
Benzo(b)fluoranthene #14	26.146	2.0	1.944	-2.8
Benzo(k)fluoranthene #15	27.585	1.0	0.978	-2.2
Benzo(a)pyrene #16	28.703	2.0	2.184	9.2
Dibenz(a,h)anthracene #1	30.569	2.0	1.931	-3.5
Benzo(g,h,i)perylene #18	31.377	2.0	2.088	4.4
Indeno(1,2,3-cd)pyrene #	32.316	2.0	1.940	-3.0

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.342	20.0	20.389	1.9
Acenaphthylene #2	10.979	20.0	19.436	-2.8
1-Methylnaphthalene #3	11.934	20.0	19.566	-2.2
2-Methylnaphthalene #4	12.511	20.0	19.943	-0.3
Acenaphthene #5	12.994	20.0	19.555	-2.2
Fluorene #6	13.651	20.0	19.426	-2.9
Phenanthrene #7	15.045	20.0	19.500	-2.5
Anthracene #8	16.458	20.0	20.803	4.0
Fluoranthene #9	17.840	2.0	1.931	-3.5
Pyrene #10	18.851	2.0	1.927	-3.6
p-Terphenyl d14 #11*	21.205	20.0	19.915	-0.4
Benzo(a)anthracene #12	22.528	2.0	1.942	-2.9
Chrysene #13	23.402	2.0	1.917	-4.1
Benzo(b)fluoranthene #14	26.127	2.0	1.920	-4.0
Benzo(k)fluoranthene #15	27.567	1.0	0.972	-2.8
Benzo(a)pyrene #16	28.685	2.0	2.133	6.7
Dibenz(a,h)anthracene #1	30.551	2.0	2.163	8.1
Benzo(g,h,i)perylene #18	31.358	2.0	2.069	3.4
Indeno(1,2,3-cd)pyrene #	32.300	2.0	1.920	-4.0

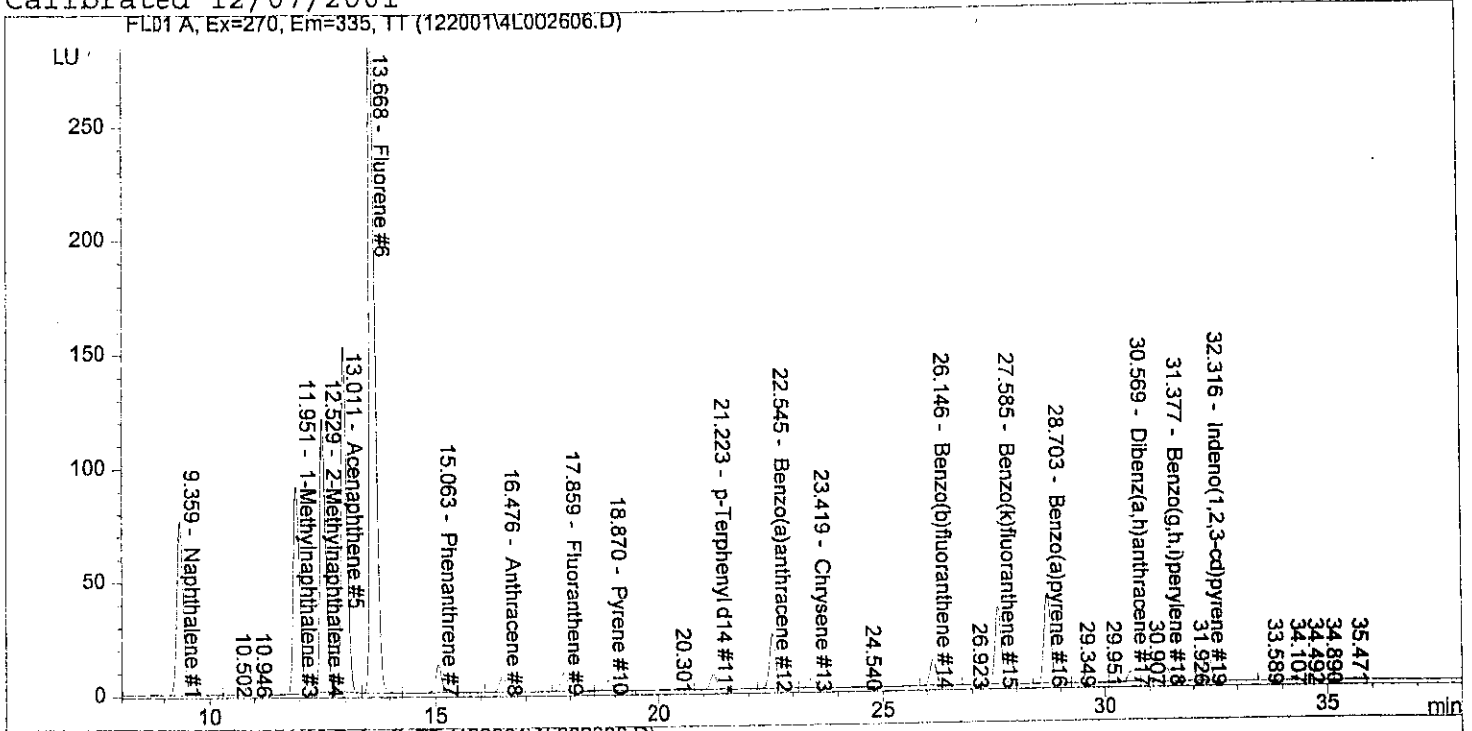
= Failed 15.0% Criteria

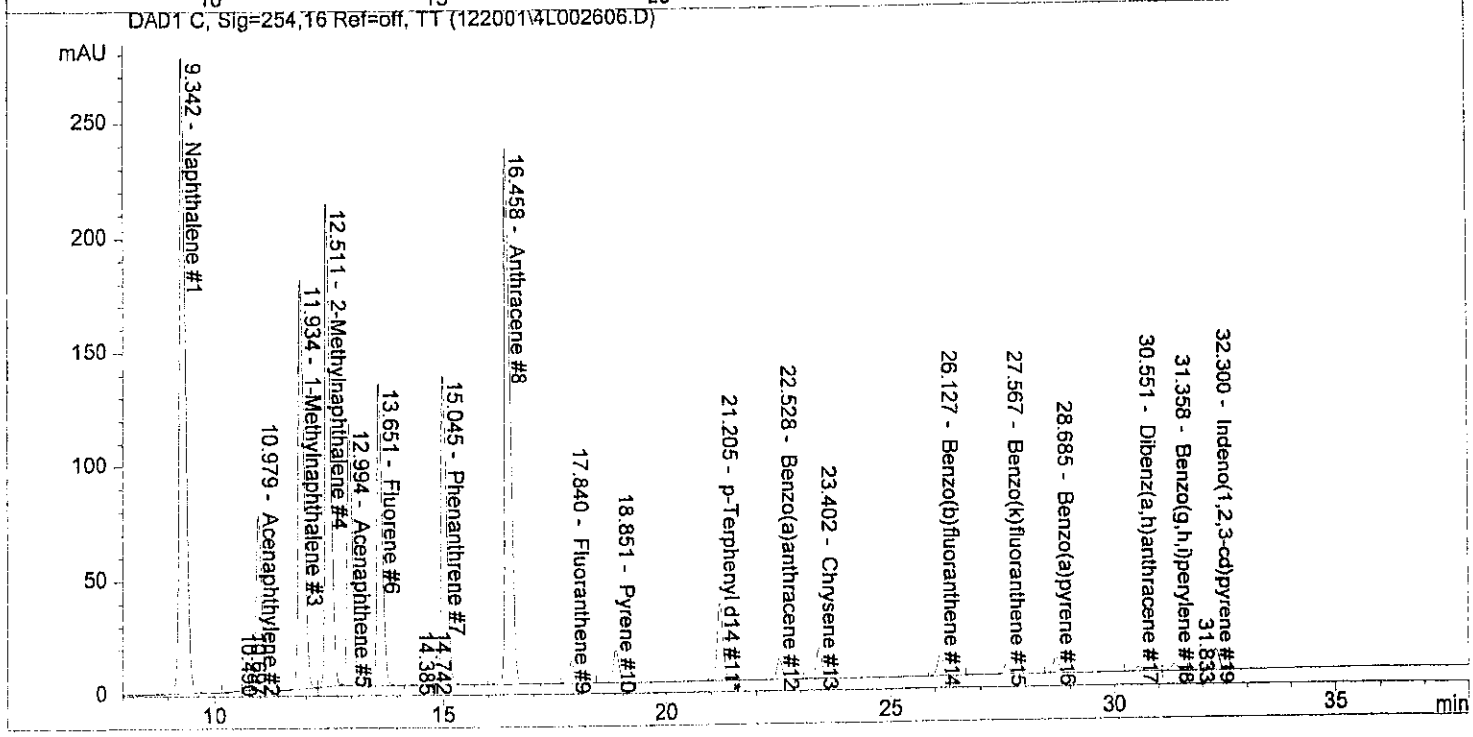
1,1 SOS56-19/56-20 level 4 std. 20/2/1 ppm

Injection Date	: 12/21/2001 11:29:21 AM	Seq. Line	: 24
Sample Name	: WG110383-03 CCV	Vial	: 13
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/21/2001 2:20:40 PM by RDC
(modified after loading)

Calibrated 12/07/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 12/21/2001 2:20:40 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.359	PBA	748.03357	2.64309e-2	19.77117		Naphthalene #1
11.951	BB	856.72272	2.30826e-2	19.77535		1-Methylnaphthalene #3
12.529	BB	1125.53589	1.77135e-2	19.93723		2-Methylnaphthalene #4
13.011	BB	1420.61157	1.41307e-2	20.07419		Acenaphthene #5
13.668	BB	3074.96045	6.55799e-3	20.16555		Fluorene #6
15.063	BBA	115.37533	1.72114e-1	19.85766		Phenanthrene #7
16.476	BBA	65.36832	3.11763e-1	20.37945		Anthracene #8
17.859	BB	81.57933	2.51883e-2	2.05485		Fluoranthene #9
18.870	BBA	46.19246	4.52106e-2	2.08839		Pyrene #10
21.223	BBA	66.92503	2.98861e-1	20.00130		p-Terphenyl d14 #11*
22.545	BB	238.58943	8.29841e-3	1.97991		Benzo(a)anthracene #12
23.419	BBA	48.47287	4.07647e-2	1.97598		Chrysene #13
26.146	BB	116.72026	1.66521e-2	1.94364		Benzo(b)fluoranthene #14
27.585	BB	352.00778	2.77713e-3	9.77573e-1		Benzo(k)fluoranthene #15
28.703	BB	416.94766	5.23910e-3	2.18443		Benzo(a)pyrene #16
30.569	BB	47.50431	4.06442e-2	1.93078		Dibenz(a,h)anthracene #17
31.377	BB	69.09045	3.02212e-2	2.08800		Benzo(g,h,i)perylene #18
32.316	BB	141.28061	1.37336e-2	1.94029		Indeno(1,2,3-cd)pyrene #1

Totals : 179.12574

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.342	BBA	2512.32056	8.11569e-3	20.38920		Naphthalene #1
10.979	BB	661.06903	2.94003e-2	19.43565		Acenaphthylene #2
11.934	BB	1541.18457	1.26957e-2	19.56641		1-Methylnaphthalene #3
12.511	BB	1806.09656	1.10418e-2	19.94252		2-Methylnaphthalene #4
12.994	BB	977.97577	1.99953e-2	19.55491		Acenaphthene #5
13.651	BBA	1125.46973	1.72604e-2	19.42607		Fluorene #6
15.045	BBA	1142.03540	1.70751e-2	19.50035		Phenanthrene #7
16.458	PBA	2013.49023	1.03316e-2	20.80253		Anthracene #8
17.840	PB	90.25776	2.13939e-2	1.93097		Fluoranthene #9
18.851	BBA	135.39920	1.42346e-2	1.92735		Pyrene #10
21.205	PBA	305.64709	6.51566e-2	19.91492		p-Terphenyl d14 #11*
22.528	PBA	88.45904	2.19558e-2	1.94219		Benzo(a)anthracene #12
23.402	BBA	129.47792	1.48093e-2	1.91748		Chrysene #13
26.127	PBA	94.39573	2.03417e-2	1.92017		Benzo(b)fluoranthene #14
27.567	BBA	43.88935	2.21503e-2	9.72163e-1		Benzo(k)fluoranthene #15
28.685	BBA	75.97926	2.80792e-2	2.13344		Benzo(a)pyrene #16
30.551	BB	23.31854	9.27377e-2	2.16251		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.358	BB	37.15154	5.56826e-2	2.06869		Benzo(g,h,i)perylene #18
32.300	BB	94.99895	2.02125e-2	1.92017		Indeno(1,2,3-cd)pyrene #1

Totals : 197.42767

Results obtained with enhanced integrator!

*** End of Report ***

2.2.7.4 Raw QC Data

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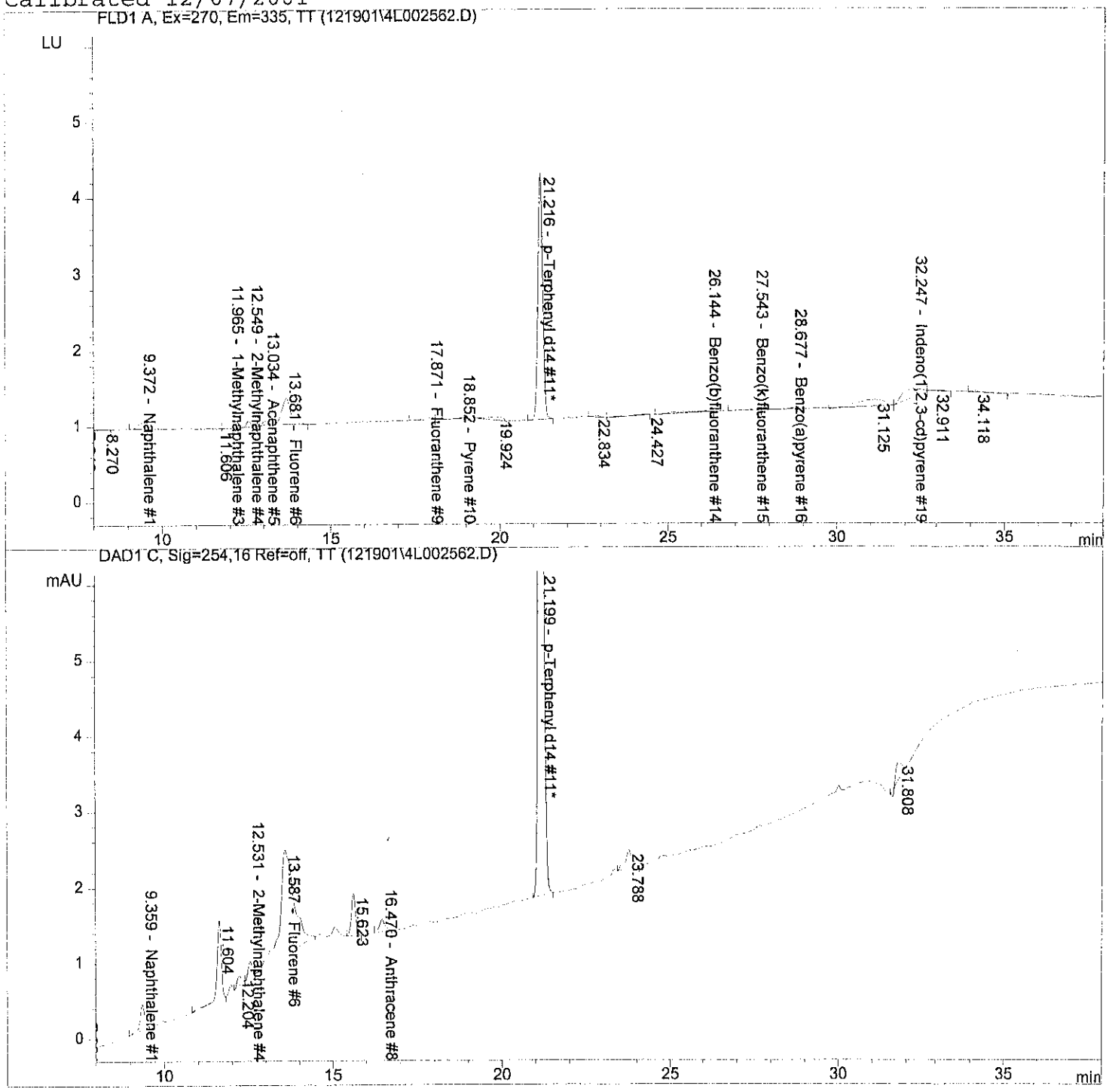
Injection Date	: 12/19/2001 4:20:18 PM	Seq. Line :	9
Sample Name	: WG110257-02 WBLK	Vial :	9
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:34:37 AM by RDC
Calibrated 12/07/2001



External Standard Report

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Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:34:24 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.372	BB	1.00974	2.64309e-2	2.66882e-2		Naphthalene #1
11.965	BB	6.82986e-1	2.30826e-2	1.57651e-2		1-Methylnaphthalene #3
12.549	BB	8.68217e-1	1.77135e-2	1.53792e-2		2-Methylnaphthalene #4
13.034	BB	5.23395e-1	1.41307e-2	7.39592e-3		Acenaphthene #5
13.681	BBA	6.76324	6.55799e-3	4.43533e-2		Fluorene #6
15.126		-	-	-		Phenanthrene #7
16.532		-	-	-		Anthracene #8
17.871	BB	4.04422e-1	2.51883e-2	1.01867e-2		Fluoranthene #9
18.852	BB	3.63137e-1	4.52106e-2	1.64176e-2		Pyrene #10
21.216	BB	31.18791	2.98861e-1	9.32086	93.2%	p-Terphenyl d14 #11*
22.562		-	-	-		Benzo(a)anthracene #12
23.431		-	-	-		Chrysene #13
26.144	BB	1.03178	1.66521e-2	1.71814e-2		Benzo(b)fluoranthene #14
27.543	PB	3.15914e-1	2.77713e-3	8.77336e-4		Benzo(k)fluoranthene #15
28.677	BB	2.17329e-1	5.23910e-3	1.13861e-3		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.334		-	-	-		Benzo(g,h,i)perylene #18
32.247	BB	4.40385	1.37336e-2	6.04807e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.53672

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.359	BB	3.13814	8.11569e-3	2.54681e-2	2.5mL	Naphthalene #1
11.059		-	-	-		Acenaphthylene #2
12.007		-	-	-		1-Methylnaphthalene #3
12.531	BB	1.69650	1.10418e-2	1.87324e-2		2-Methylnaphthalene #4
13.062		-	-	-		Acenaphthene #5
13.587	BB	40.92511	1.72604e-2	7.06384e-1	NC	Fluorene #6
15.107		-	-	-		Phenanthrene #7
16.470	BBA	1.86192	1.03316e-2	1.92366e-2	2mL	Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.891		-	-	-		Pyrene #10
21.199	BBA	140.71674	6.51566e-2	9.16862	91.7%	p-Terphenyl d14 #11*
22.544		-	-	-		Benzo(a)anthracene #12
23.412		-	-	-		Chrysene #13
26.121		-	-	-		Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.509		-	-	-		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 9.93844

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

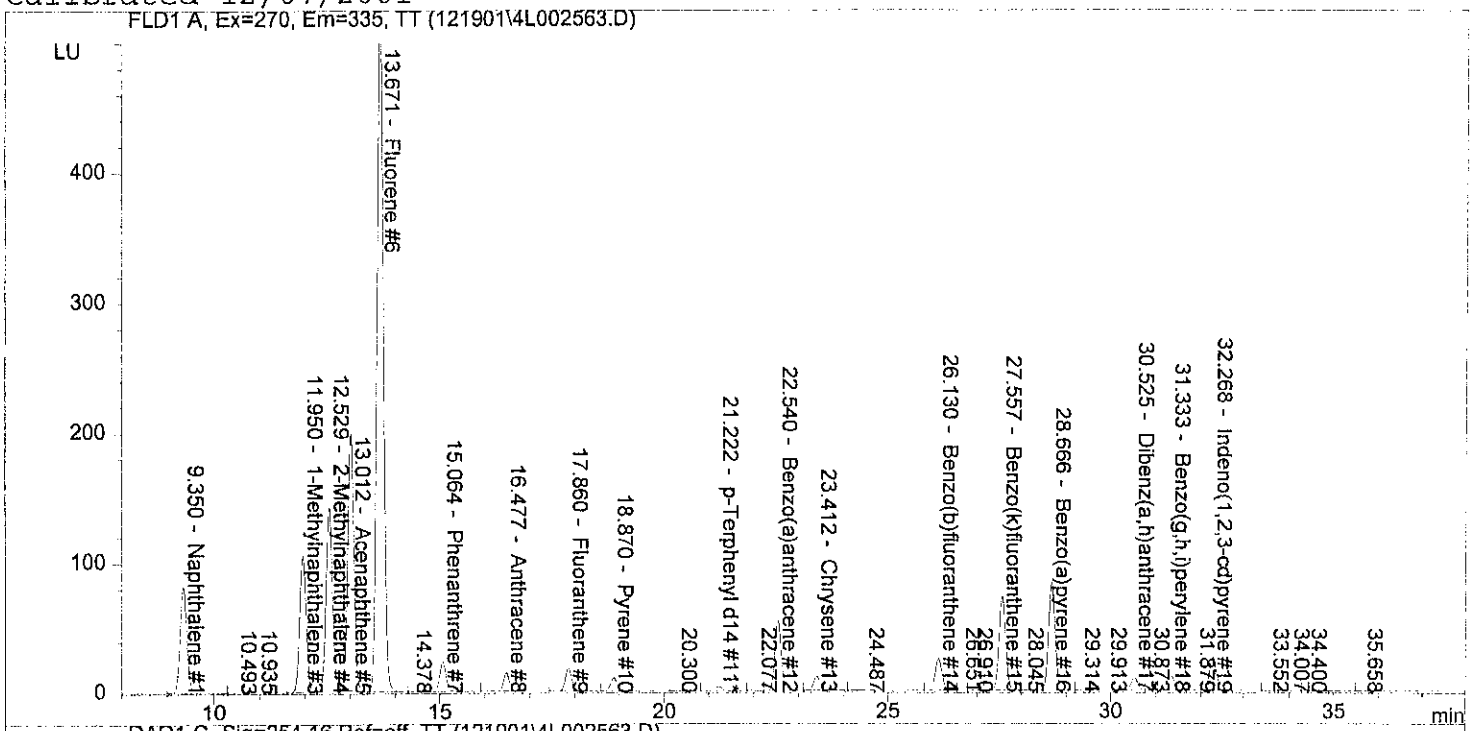
*** End of Report ***

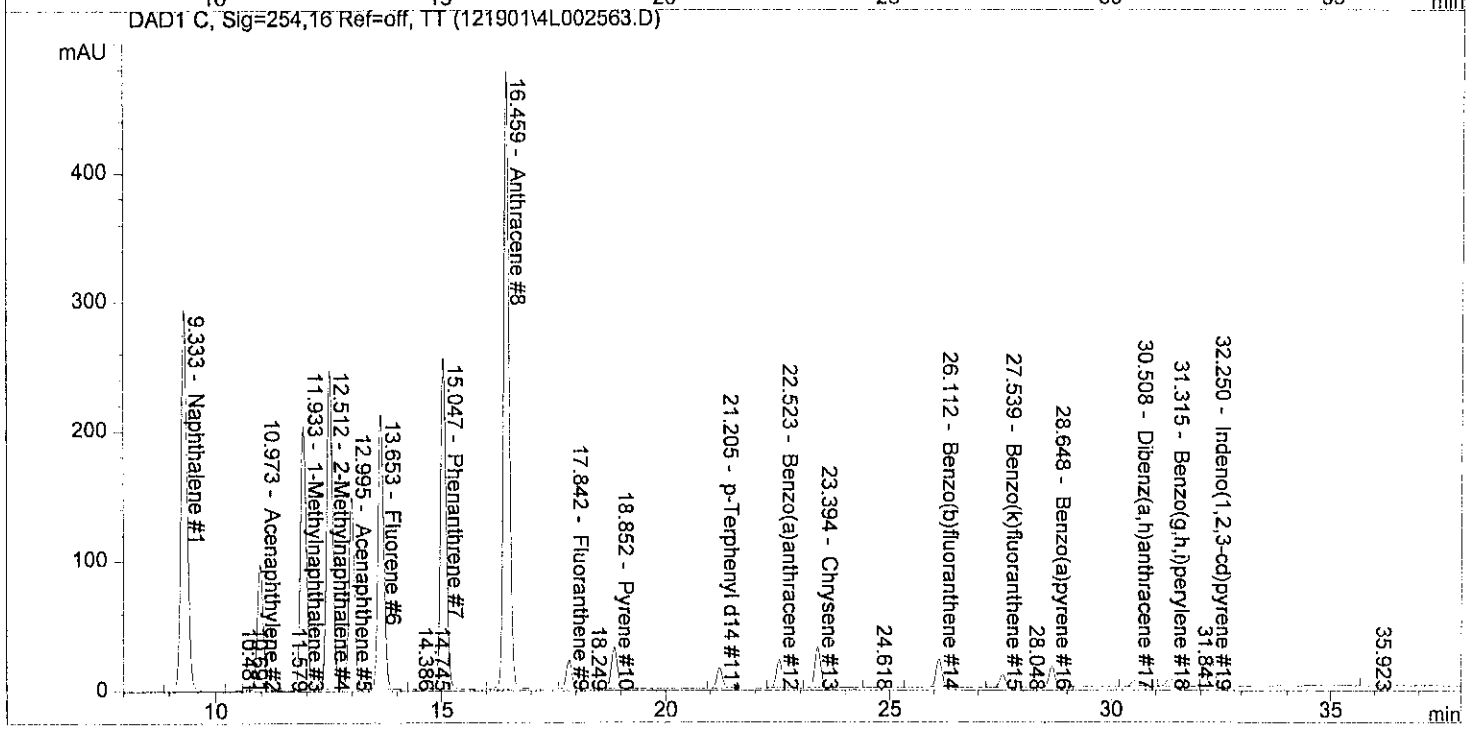
==========

Injection Date : 12/19/2001 5:16:57 PM
Sample Name : WG110257-03 WLCS
Acq. Operator : RDC

Seq. Line : 10
Vial : 10
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:34:37 AM by RDC
Calibrated 12/07/2001





External Standard Report

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Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:34:24 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.350	BB	845.60516	2.64309e-2	22.35007		Naphthalene #1
11.950	PB	1021.64862	2.30826e-2	23.58226		1-Methylnaphthalene #3
12.529	BB	1361.02649	1.77135e-2	24.10860		2-Methylnaphthalene #4
13.012	BB	1899.21399	1.41307e-2	26.83716		Acenaphthene #5
13.671	BB	5020.31689	6.55799e-3	32.92318		Fluorene #6
15.064	BBA	219.56627	1.72114e-1	37.79034		Phenanthrene #7
16.477	PB	135.80026	3.11763e-1	42.33756		Anthracene #8
17.860	BBA	176.52684	2.51883e-2	4.44641		Fluoranthene #9
18.870	BBA	103.24881	4.52106e-2	4.66794		Pyrene #10
21.222	BBA	30.67793	2.98861e-1	9.16845	117%	p-Terphenyl d14 #11*
22.540	BB	550.37415	8.29841e-3	4.56723		Benzo(a)anthracene #12
23.412	BBA	112.15233	4.07647e-2	4.57186		Chrysene #13
26.130	BB	257.74863	1.66521e-2	4.29207		Benzo(b)fluoranthene #14
27.557	BB	752.18542	2.77713e-3	2.08892		Benzo(k)fluoranthene #15
28.666	BB	855.85345	5.23910e-3	4.48390		Benzo(a)pyrene #16
30.525	BB	94.17481	4.06442e-2	3.82766		Dibenz(a,h)anthracene #17
31.333	BB	133.68257	3.02212e-2	4.04005		Benzo(g,h,i)perylene #18
32.268	BB	281.49988	1.37336e-2	3.86600		Indeno(1,2,3-cd)pyrene #1

Totals : 259.94965

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.333	BBA	2843.30591	8.11569e-3	23.07538		Naphthalene #1
10.973	BB	880.38409	2.94003e-2	25.88359		Acenaphthylene #2
11.933	BB	1825.63123	1.26957e-2	23.17765		1-Methylnaphthalene #3
12.512	BB	2176.81055	1.10418e-2	24.03586		2-Methylnaphthalene #4
12.995	BB	1302.17371	1.99953e-2	26.03734		Acenaphthene #5
13.653	BB	1871.92737	1.72604e-2	32.31023		Fluorene #6
15.047	BBA	2204.29321	1.70751e-2	37.63849		Phenanthrene #7
16.459	BBA	4175.49170	1.03316e-2	43.13941		Anthracene #8
17.842	PB	196.84929	2.13939e-2	4.21138		Fluoranthene #9
18.852	BBA	297.37747	1.42346e-2	4.23305		Pyrene #10
21.205	PBA	140.13570	6.51566e-2	9.13076	91.3%	p-Terphenyl d14 #11*
22.523	PBA	203.18089	2.19558e-2	4.46099		Benzo(a)anthracene #12
23.394	PBA	295.57172	1.48093e-2	4.37722		Chrysene #13
26.112	PBA	207.54637	2.03417e-2	4.22185		Benzo(b)fluoranthene #14
27.539	BB	93.11050	2.21503e-2	2.06243		Benzo(k)fluoranthene #15
28.648	BBA	154.69392	2.80792e-2	4.34368		Benzo(a)pyrene #16
30.508	BB	40.56296	9.27377e-2	3.76171		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.315	BB	71.23035	5.56826e-2	3.96629		Benzo(g,h,i)perylene #18
32.250	BBA	190.78758	2.02125e-2	3.85630		Indeno(1,2,3-cd)pyrene #1
Totals :				283.92360		

Results obtained with enhanced integrator!

*** End of Report ***

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG109608-01	8310	1	Sample		
3	3	WG109608-02	8310	1	Sample		
4	4	WG109608-03	8310	1	Sample		
5	5	WG109608-04	8310	1	Sample		
6	6	WG109608-05	8310	1	Sample		
7	7	WG109608-06	8310	1	Sample		
8	8	WG109608-07	8310	1	Sample		
9	9	WG109608-08	8310	1	Sample		
10	10	WG109418-01 WBLK	8310	1	Sample		
11	11	WG109418-02 WLCS	8310	1	Sample		
12	12	WG109418-03 WLCS	8310	1	Sample		
13	13	L0112048-09 610W	8310	1	Sample		
14	14	L0112048-12 610W	8310	1	Sample		
15	15	L0112048-15 610W	8310	1	Sample		
16	16	L0112048-18 610W	8310	1	Sample		
17	17	L0112048-05 610W	8310	1	Sample		
18	18	L0112048-07 610W	8310	1	Sample		
19	19	WG109609-01 CCV	8310	1	Sample		
20	20	WG109116-02 SBLK	8310	1	Sample		
21	21	WG109116-03 SLCS	8310	1	Sample		
22	22	WG109116-01 SREF	8310	1	Sample		
23	23	WG109116-04 SMS	8310	1	Sample		
24	24	WG109116-05 SMSD	8310	1	Sample		
25	25	L0111540-05 831S	8310	1	Sample		
26	26	L0111540-06 831S	8310	1	Sample		
27	27	L0111540-07 831S	8310	1	Sample		
28	28	L0111540-08 831S	8310	1	Sample		
29	29	L0111540-09 831S	8310	1	Sample		
30	30	WG109609-02 CCV	8310	1	Sample		
31	31	L0111540-11 831S	8310	1	Sample		
32	32	L0111540-10 831S	8310	1	Sample		
33	33	L0111540-06 5X	8310	1	Sample		
34	34	L0111540-07 2X	8310	1	Sample		
35	30	WG109609-03 CCV	8310	1	Sample		

RDC 12/10/01 Page 2 of 2

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name	
No	1	1	8310	4L002491	01:01		accn blk	
No	2	2	8310	4L002492	02:01		WG109608-01	
No	3	3	8310	4L002493	03:01		WG109608-02	
No	4	4	8310	4L002494	04:01		WG109608-03	
No	5	5	8310	4L002495	05:01	SOS 56-19/56-20	WG109608-04	
No	6	6	8310	4L002496	06:01		WG109608-05	
No	7	7	8310	4L002497	07:01		WG109608-06	
No	8	8	8310	4L002498	08:01		WG109608-07	
No	9	9	8310	4L002499	09:01	SOS 57-27/57-28	WG109608-08	
No	10	10	8310	4L002500	10:01		WG109418-01	WB
No	11	11	8310	4L002501	11:01		WG109418-02	WL
No	12	12	8310	4L002502	12:01		WG109418-03	WL
No	13	13	8310	4L002503	13:01		L0112048-09	61
No	14	14	8310	4L002504	14:01		L0112048-12	61
No	15	15	8310	4L002505	15:01		L0112048-15	61
No	16	16	8310	4L002506	16:01		L0112048-18	61
No	17	17	8310	4L002507	17:01		L0112048-05	61
No	18	18	8310	4L002508	18:01		L0112048-07	61
No	19	19	8310	4L002509	19:01	SOS 56-19/56-20	WG109609-01	CC
No	20	20	8310	4L002510	20:01		WG109116-02	SB
No	21	21	8310	4L002511	21:01		WG109116-03	SL
No	22	22	8310	4L002512	22:01		WG109116-01	SR
No	23	23	8310	4L002513	23:01		WG109116-04	SM
No	24	24	8310	4L002514	24:01		WG109116-05	SM
No	25	25	8310	4L002515	25:01		L0111540-05	83
No	26	26	8310	4L002516	26:01	RR 5X	L0111540-06	83
No	27	27	8310	4L002517	27:01	RR 2X	L0111540-07	83
No	28	28	8310	4L002518	28:01		L0111540-08	83
No	29	29	8310	4L002519	29:01		L0111540-09	83
No	30	30	8310	4L002520	30:01	SOS 56-19/56-20	WG109609-02	CC
No	31	31	8310	4L002521	31:01		L0111540-11	83
No	32	32	8310	4L002522	32:01		L0111540-10	83
No	33	33	8310	4L002523	33:01		L0111540-06	5X
No	34	34	8310	4L002524	34:01		L0111540-07	2X
No	35	30	8310	4L002525	35:01	SOS 56-19/56-20	WG109609-03	CC

RDC 12/10/01

EC 12/10/01

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Dec. 07, 2001 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 120701
Analyst Initials RDC SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 107 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Reviewed By: EC 12/10/0

308

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG110267-01 CCV	8310	1	Sample		S0556-19/56-20 *
3	3	WG110089-01 WBLK	8310	1	Sample		
4	4	WG110089-02 WLCS	8310	1	Sample		
5	5	WG110089-03 WLCS	8310	1	Sample		
6	6	L0112258-02 831W	8310	1	Sample		
7	7	L0112259-04 831W	8310	1	Sample		
8	8	WG110267-02 CCV	8310	1	Sample		S0556-19/56-20
9	9	WG110257-02 WBLK	8310	1	Sample		
10	10	WG110257-03 WLCS	8310	1	Sample		
11	11	L0112348-01 831W	8310	1	Sample		
12	12	L0112348-02 831W	8310	1	Sample		
13	13	L0112348-03 831W	8310	1	Sample		
14	14	WG110257-01 WREF	8310	1	Sample		
15	15	WG110257-04 WMS	8310	1	Sample		
16	16	WG110257-05 WMSD	8310	1	Sample		
17	17	L0112348-07 831W	8310	1	Sample		
18	18	L0112348-08 831W	8310	1	Sample		
19	19	WG110267-03 CCV	8310	1	Sample		S0556-19/56-20
20	20	L0112348-09 831W	8310	1	Sample		
21	21	L0112349-01 831W	8310	1	Sample		RR - 5X dil'n & conf. accuracy
22	22	L0112349-02 831W	8310	1	Sample		
23	23	WG110285-01 SBLK	8310	1	Sample		
24	24	WG110285-02 SLCS	8310	1	Sample		
25	25	WG110285-03 SLCS	8310	1	Sample		
26	26	L0112362-01 831S	8310	1	Sample		
27	27	L0112362-01 10X	8310	1	Sample		NOT NEEDED
28	28	L0112259-02 10X	8310	1	Sample		
29	19	WG110267-04 CCV	8310	1	Sample		S0556-19/56-20

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L002554	01:01		accn blk
No	2	2	8310	4L002555	02:01		WG110267-01 CC
No	3	3	8310	4L002556	03:01		WG110089-01 WB
No	4	4	8310	4L002557	04:01		WG110089-02 WL
No	5	5	8310	4L002558	05:01		WG110089-03 WL
No	6	6	8310	4L002559	06:01		L0112258-02 83
No	7	7	8310	4L002560	07:01		L0112259-04 83
No	8	8	8310	4L002561	08:01		WG110267-02 CC
No	9	9	8310	4L002562	09:01		WG110257-02 WB
No	10	10	8310	4L002563	10:01		WG110257-03 WL
No	11	11	8310	4L002564	11:01		L0112348-01 83
No	12	12	8310	4L002565	12:01		L0112348-02 83
No	13	13	8310	4L002566	13:01		L0112348-03 83
No	14	14	8310	4L002567	14:01		WG110257-01 WR
No	15	15	8310	4L002568	15:01		WG110257-04 WM
No	16	16	8310	4L002569	16:01		WG110257-05 WM
No	17	17	8310	4L002570	17:01		L0112348-07 83
No	18	18	8310	4L002571	18:01		L0112348-08 83
No	19	19	8310	4L002572	19:01		WG110267-03 CC
No	20	20	8310	4L002573	20:01		L0112348-09 83
No	21	21	8310	4L002574	21:01		L0112349-01 83
No	22	22	8310	4L002575	22:01		L0112349-02 83
No	23	23	8310	4L002576	23:01		WG110285-01 SB
No	24	24	8310	4L002577	24:01		WG110285-02 SL
No	25	25	8310	4L002578	25:01		WG110285-03 SL
No	26	26	8310	4L002579	26:01		L0112362-01 83
No	27	27	8310	4L002580	27:01		L0112362-01 10
No	28	28	8310	4L002581	28:01		L0112259-02 10
No	29	19	8310	4L002582	29:01		WG110267-04 CC

TOC
12/20/01
mw 12/20/01

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Dec 19, 2001 Instrument ID #2104 Column ID LC-[illegible] Data Subdirectory 121901
Analyst Initials [illegible] SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 111 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: ____

Action Taken: ____

Comments

* MF 110267-01 / 4L 002555 CCV failed high for propane & butane (filled pipeline log FLD), there were no hits to conc

Reviewed By: [illegible] 12/20/01

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG110383-01 CCV	8310	1	Sample		SOS 56-19/56-20
3	2	WG110383-01 CCV	8310	1	Sample		SOS 56-19/56-20
4	3	WG110292-02 WBLK	8310	1	Sample		
5	4	WG110292-03 WLCS	8310	1	Sample		
6	5	L0112366-01 831W	8310	1	Sample		
7	6	L0112366-02 831W	8310	1	Sample		
8	7	L0112366-03 831W	8310	1	Sample		
9	8	WG110292-01 WREF	8310	1	Sample		
10	9	WG110292-04 WMS	8310	1	Sample		
11	10	WG110292-05 WMSD	8310	1	Sample		
12	11	L0112366-07 831W	8310	1	Sample		
13	12	L0112366-08 831W	8310	1	Sample		
14	13	WG110383-02 CCV	8310	1	Sample		SOS56-19/56-20
15	14	L0112366-09 831W	8310	1	Sample		
16	15	L0112366-10 831W	8310	1	Sample		
17	16	L0112366-11 831W	8310	1	Sample		
18	17	L0112366-12 831W	8310	1	Sample		
19	18	L0112366-13 831W	8310	1	Sample		
20	19	L0112366-14 831W	8310	1	Sample		
21	20	L0112366-15 831W	8310	1	Sample		
22	21	L0112366-16 831W	8310	1	Sample		
23	22	L0112349-01 5X	8310	1	Sample		
24	13	WG110383-03 CCV	8310	1	Sample		SOS 56-19-56-20

RDC 12/21/01

RDC 12/21/01

RDC 12/21/01

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Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L002583	01:01		accn blk
No	2	2	8310	4L002584	02:01		WG110383-01 CC
No	3	2	8310	4L002585	03:01		WG110383-01 CC
No	4	3	8310	4L002586	04:01		WG110292-02 WB
No	5	4	8310	4L002587	05:01		WG110292-03 WL
No	6	5	8310	4L002588	06:01		L0112366-01 83
No	7	6	8310	4L002589	07:01		L0112366-02 83
No	8	7	8310	4L002590	08:01		L0112366-03 83
No	9	8	8310	4L002591	09:01		WG110292-01 WR
No	10	9	8310	4L002592	10:01		WG110292-04 WM
No	11	10	8310	4L002593	11:01		WG110292-05 WM
No	12	11	8310	4L002594	12:01		L0112366-07 83
No	13	12	8310	4L002595	13:01		L0112366-08 83
No	14	13	8310	4L002596	14:01		WG110383-02 CC
No	15	14	8310	4L002597	15:01		L0112366-09 83
No	16	15	8310	4L002598	16:01		L0112366-10 83
No	17	16	8310	4L002599	17:01		L0112366-11 83
No	18	17	8310	4L002600	18:01		L0112366-12 83
No	19	18	8310	4L002601	19:01		L0112366-13 83
No	20	19	8310	4L002602	20:01		L0112366-14 83
No	21	20	8310	4L002603	21:01		L0112366-15 83
No	22	21	8310	4L002604	22:01		L0112366-16 83
No	23	22	8310	4L002605	23:01		L0112349-01 5X
No	24	13	8310	4L002606	24:01		WG110383-03 CC

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Dec. 30, 2001 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 122001
Analyst Initials RAC SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ____ ____ 8330

Daily Check

- ☑ Mobile phase reservoir
- ☑ System pressure 111 bar
- ☑ Waste container

Returned to Control?

Yes ____ No ____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

Reviewed By: [illegible] 12/31/01

Parameter: 8310 · H_2O SOP #: EXHPLC1 Revision #: 6
Extraction Analyst(s): REK, CSH TV/KD Analyst(s): CSH, DP
Date/Time Extracted: 12/19/01 @0830 Date TV/KD: 12/19/01
Spike/Surrogate Analyst: REK Witness: DP
Surrogate #: ES50034-27 Earliest Hold Date: 12/24/01
Spike #: A = ES50039-22 Spike #: B = —

Extraction Work Group WG 110257
Analytical Work Group WG 110293

Extract Relinquished By: CSH
Extract Received By & Date: HV 12/19/01

	Sample ID	Test Code	pH <2	pH N	pH >12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions A	Emulsions BN	Emulsions N	Comments
1	Blank			✓		1L	100 µL		1 mL	T				WG 110257-02
2	LCS			✓		↓		500 µL		C				WG ↓ -03
3	12-348-01	8310		✓		920 mL				T				
4	-02			✓		910 mL								
5	-03			✓		940 mL								
6	-04			✓		940 mL				↓				WG110257-01
7	-05 MS			✓		950 mL		500 µL		C				↓ -04
8	-06 MSD			✓		930 mL		↓		↓				↓ -05
9	-07			✓		900 mL				T				
10	-08			✓		910 mL				↓				
11	↓ -09			✓		910 mL								
12	12-349-01			✓		915 mL				C				
13	↓ -02	↓		✓		940 mL	↓		↓	T				
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

CSH 12/19/01

Methylene Chloride Lot #: 41105
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetonitrile Lot #: 41264
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: Florisil Lot #: ER2614
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER1979

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3664A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 12/19/01

Extraction Notes For Volume # 177 Page # 173

General Comments: MS OF 12-348-04 I
MSD

Extraction Anomalies: NONE

Concentration Anomalies: NONE

Clean-Up Anomalies: Not applicable

Supervisor Review: _____ Date: _____

Example 8310 Calculations

1.0 Calulating the Calibration Factor (CF) from the initial calibration (ICAL) data:

CF = Cs/As

Where:		Example:
	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ug/ml).	100
	CF	**0.01**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:

C = [(Ax)(Vf)(D)(CF)(1000)] / Vi

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	CF = Calibration factor from ICAL calculated above.	**0.01**
	Vi = Initial volume of sample (mL). (prep log)	1000
	1000 = conversion to ppb	
	C (ug/L) =	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report: C = [(Ax)(Vf)(D)(Cf)] / Vi

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL).	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	CF = Calibration factor from ICAL calculated above.	0.01
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**3.333333**

Semi-Volatile 8310 Checklist

Run Date: 7-Dec-01

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG109171 11-540	12/7/2001	FPT
WG109610 12-048	12/11/2001	M

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadratic regression	√
	Alt Source Check	√
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
	Surrogates	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	√
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Surrogates	√
	Correct Factors	√
	Dilutions	√
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:

This is a re-calib. and re-analysis of SDG L0111540. The initial run resulted in failure of analytes for the CCV via the fluorescence detector.

Sample fractions 06 and 07 required dil'n. and re-analysis.

Sample fractions 01, 01MS, 01MSD, 07, 09, and 11 recovered surr. > UCL. Sample fraction recovered surr. > UCL for both detectors. "J" flags were used for positive results.

L0111540 12/12/01

For SDG ~~L0112048~~ the non-client requested MS/MSD recovered high for several analytes.

Primary Reviewer: 12/12/01

Secondary Reviewer: 12/12/01

Supervisor Review: 12/12/01

√ = Checked & OK

NA = Not Applicable

Run Date: 19-Dec-01

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG109975 12-259 (dil'n.)	12/20/2001	
WG110304 12-362	12/21/2001	FPT
WG110293 12-348	12/26/2001	PFF
WG110293 12-349	12/26/2001	PFF
WG110266 12-258	12/20/2001	
WG110266 12-259	12/20/2001	

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadratic regression	NA
	Alt Source Check	NA
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
	Surrogates	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	√
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Surrogates	√
	Correct Factors	√
	Dilutions	√
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:

L0112349-01 needs 5X dil'n. and conf. of acenaphthylene.

MS/MSD reproducibility for 2 analytes is >UCL for L0112348-05 & 06.

LCS WG110089 for 12-258 and 12-259 water recovered high for benzo(g,h,i)perylene but there were no hits of this analyte in the samples.

L0112362-01 surrogate recovered high but chromatogram indicates SMI. Positive results were "J" flagged.

Primary Reviewer: RDC 12/20/01

Secondary Reviewer: 12/21/01

Supervisor Review: 12/21/01

√ = Checked & OK

NA = Not Applicable

Semi-Volatile 8310 Checklist

Run Date: 20-Dec-01

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG110293 12-349 (dil'n.)	12/26/2001	PFF
WG110372 12-366	12/26/2001	

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadriatic regression	NA
	Alt Source Check	NA
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
	Surrogates	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	√
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Surrogates	√
	Correct Factors	√
	Dilutions	√
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:

5X dil'n. of L0112349-01

LCS for WG110372 failed high for benzo(g,h,i)perylene.
There were no hits of this analyte.

Primary Reviewer: RDC 12/21/01

Secondary Reviewer: 12/26/01

Supervisor Review: 12/26/01

√ = Checked & OK

NA = Not Applicable

2.4 General Chemistry Data

2.4.5 Anions (9056)

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L0112349

METHOD

Analysis: SW-846 9056

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION: All acceptance criteria were met.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD results were not associated with this sample delivery group.

SAMPLES
All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: GSG REVIEWED: _____ DATE: 12/21/01

Rev. 7/14/00

Anions (9056)

Login Number: 6012349

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

____ Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data)

✓ Chromatograms and external standard reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and external standard reports (chronological)

____ Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

✓ Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

____ Extraction bench sheets

Checked By: GSG Date: 12/20/01

2.4.5.1 QC Summary

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, Water

Analytical Work Group: WG110193	**Prep Work Group:** NA	**Blank Filename:** IC2_016	**Sample Number:** L0112348-04
Method: 9056	**Ext Date:** NA	**LCS Filename:** IC2_017	**Sample Filename:** IC2_022
Instrument: IC2	**Ext Bench Sheet:** NA	**Sample Number:** L0112348-01	**MS Filename:** IC2_023
Analyst: GSG	**Run Date:** 18-Dec-01	**Sample Filename:** IC2_018	**MSD Filename:** IC2_024
		Duplicate Filename: IC2_019	

	CONCENTRATION, mg/L										% RECOVERY													
Analyte	RDL	Blank	LCS Spike Amount	LCS	Sample	Dup	Sample	MS Spike Amount	MS	MSD	Blank	LCS	LCS LCL	LCS UCL	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL	LCS	MS	MSD
NITRITE-N	0.4	ND	3.66	3.95	ND	ND	ND	3.66	4.87	4.84	ND	108.0	90	110	133	132	80	120	NA	0.7	20		H	H
NITRATE-N	0.6	ND	4.06	4.33	ND	ND	ND	4.06	5.29	5.25	ND	106.7	90	110	130	129	80	120	NA	0.8	20		H	H
PHOSPHATE-P	1	ND	9.78	9.81	ND	ND	ND	9.78	11.7	11.8	ND	100	90	110	120	121	80	120	NA	0.8	20		H	H

NOTES & DEFINITIONS :

NA = NOT APPLICABLE
ND = NOT DETECTED
RDL = REPORTING DETECTION LIMIT
D = DETECTED, RESULT MUST BE GREATER THAN ZERO

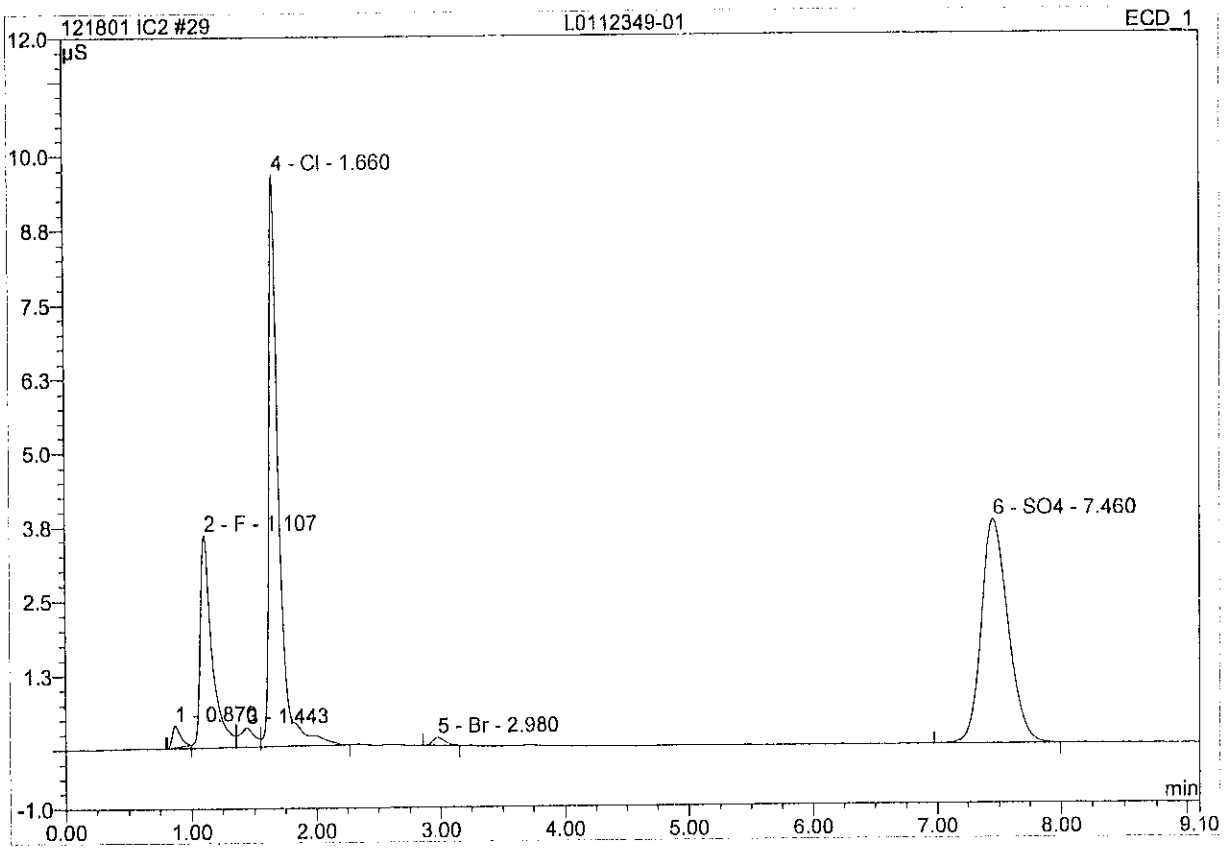
H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

2.4.5.2 Sample Data

29 L0112349-01

1,1 GSG

Sample Name:	**L0112349-01**	*Injection Volume:*	**25.0**
Vial Number:	**54**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/18/2001 16:00**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

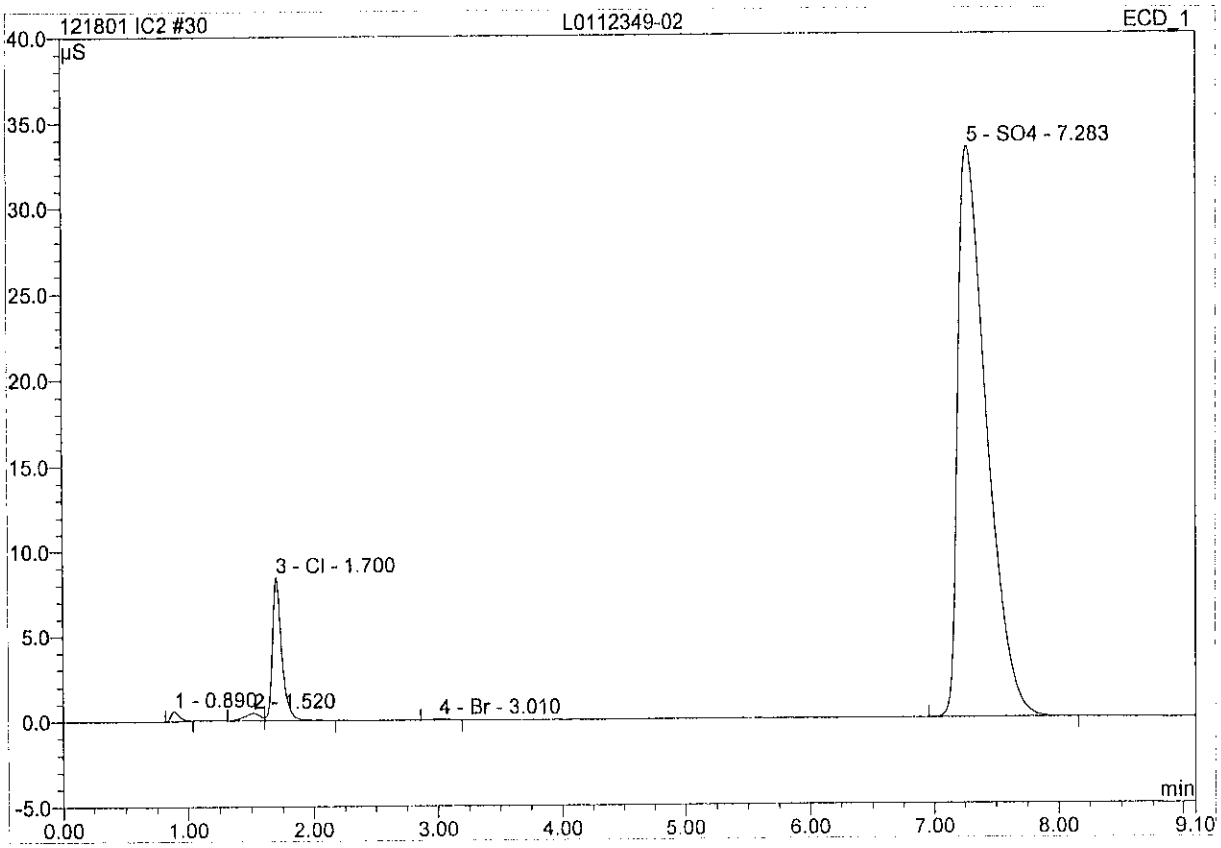


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.364	0.029	1.25	n.a.	Ru
2	1.11	F	3.581	0.399	17.42	3.109	BM
3	1.44	n.a.	0.322	0.045	1.98	n.a.	M
4	1.66	Cl	9.626	0.857	37.43	9.669	MB
5	2.98	Br	0.139	0.016	0.69	0.414	BMB
6	7.46	SO4	3.773	0.944	41.23	14.391	BMB
Total:			17.806	2.290	100.00	27.582	

30 L0112349-02

1,1 GSG

Sample Name:	**L0112349-02**	*Injection Volume:*	**25.0**
Vial Number:	**55**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/18/2001 16:11**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



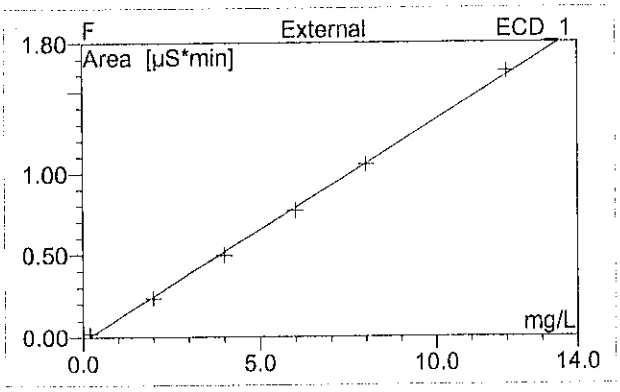
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.568	0.046	0.46	n.a.	BMB
2	1.52	n.a.	0.448	0.063	0.64	n.a.	BM
3	1.70	Cl	8.393	0.715	7.27	8.081	MB
4	3.01	Br	0.091	0.010	0.11	0.264	BMB
5	7.28	SO4	33.405	9.001	91.52	130.633	BMB
Total:			42.905	9.835	100.00	138.979	

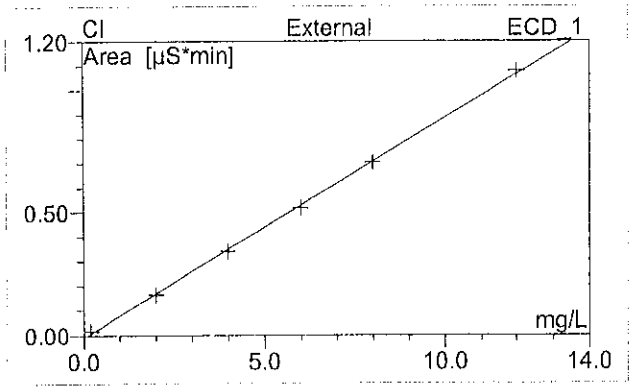
2.4.5.3 Standards Data

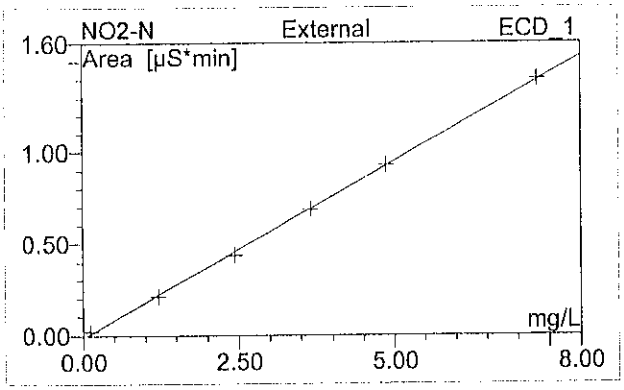
1 ANION STD #1

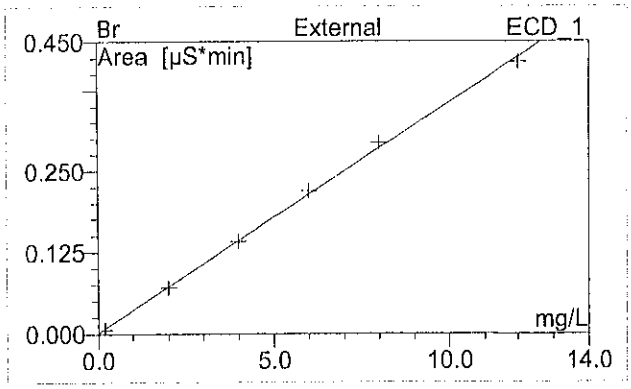
1,1 GSG ANION STD SOS0057-03 121301

Sample Name:	**ANION STD #1**	*Injection Volume:*	**25.0**
Vial Number:	**38**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/13/2001 12:41**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**







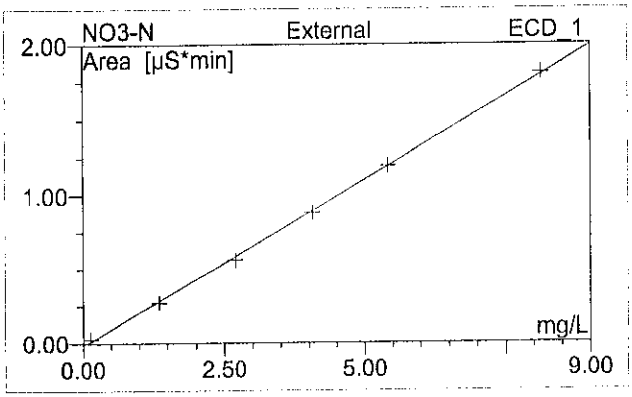


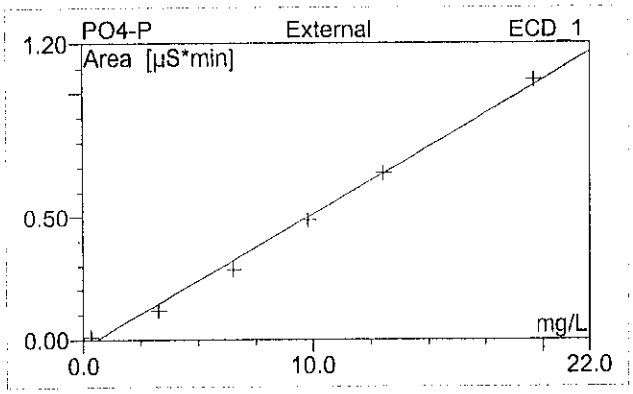
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	1.09	F	0LOff	6	99.9527	-0.0206	0.1350	0.0000
2	1.68	Cl	0LOff	6	99.9691	-0.0093	0.0896	0.0000
3	2.01	NO2-N	0LOff	6	99.9763	-0.0126	0.1927	0.0000
4	3.02	Br	0LOff	6	99.9225	0.0011	0.0355	0.0000
5	3.49	NO3-N	0LOff	6	99.9706	-0.0183	0.2233	0.0000
6	5.95	PO4-P	0LOff	6	99.8010	-0.0321	0.0544	0.0000
7	7.49	SO4	0LOff	6	99.9298	-0.0532	0.0693	0.0000
Average:					99.9317	-0.0207	0.1143	0.0000

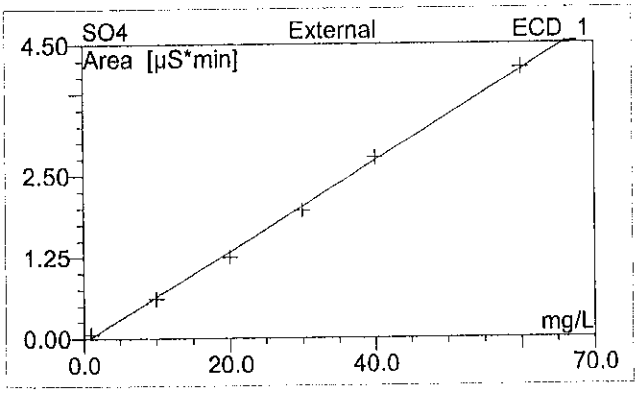
1 ANION STD #1

1,1 GSG ANION STD SOS0057-03 121301

Sample Name:	**ANION STD #1**	*Injection Volume:*	**25.0**
Vial Number:	**38**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/13/2001 12:41**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**





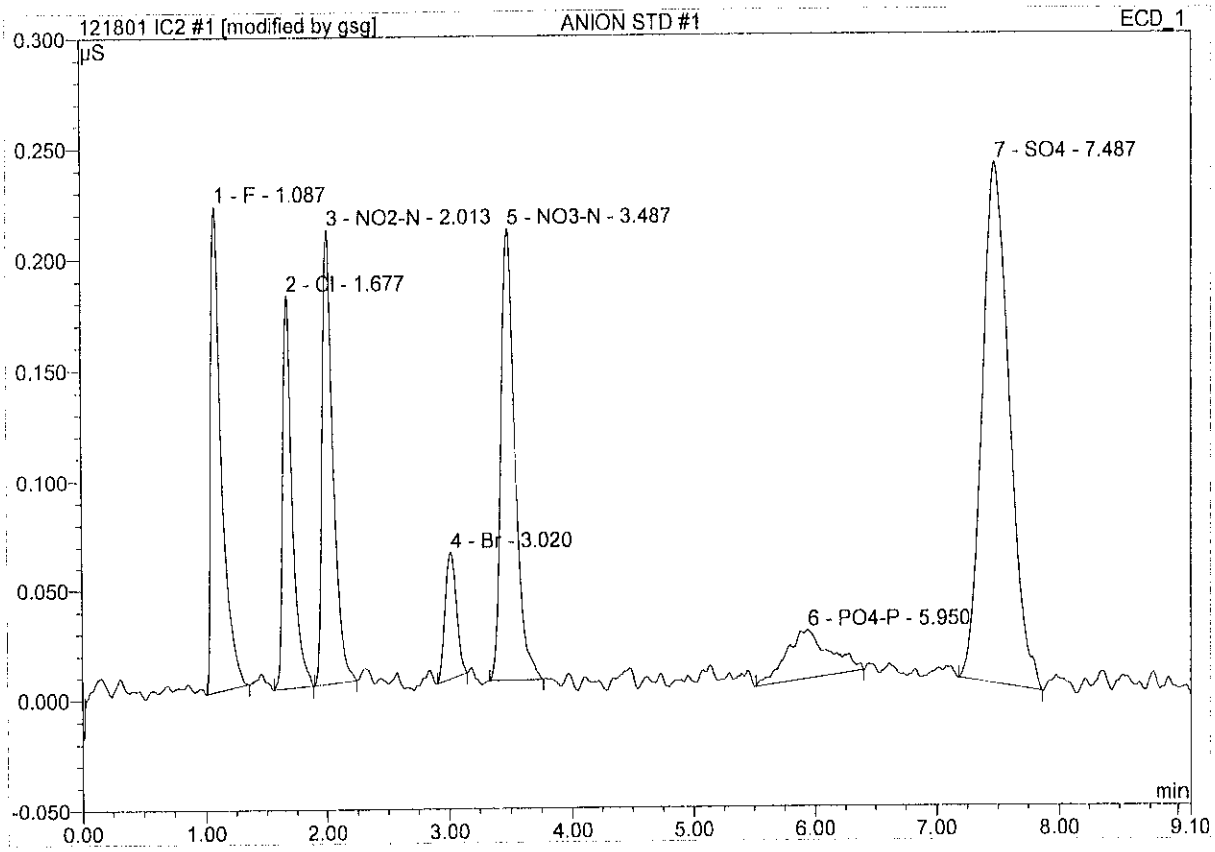


No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	1.09	F	0LOff	6	99.9527	-0.0206	0.1350	0.0000
2	1.68	Cl	0LOff	6	99.9691	-0.0093	0.0896	0.0000
3	2.01	NO2-N	0LOff	6	99.9763	-0.0126	0.1927	0.0000
4	3.02	Br	0LOff	6	99.9225	0.0011	0.0355	0.0000
5	3.49	NO3-N	0LOff	6	99.9706	-0.0183	0.2233	0.0000
6	5.95	PO4-P	0LOff	6	99.8010	-0.0321	0.0544	0.0000
7	7.49	SO4	0LOff	6	99.9298	-0.0532	0.0693	0.0000
Average:					99.9317	-0.0207	0.1143	0.0000

1 ANION STD #1

1,1 GSG ANION STD SOS0057-03 121301

Sample Name:	**ANION STD #1**	*Injection Volume:*	**25.0**
Vial Number:	**38**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/13/2001 12:41**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.09	F	0.221	0.023	13.86	0.322	BMB
2	1.68	Cl	0.179	0.017	10.40	0.295	BMB
3	2.01	NO2-N	0.206	0.022	13.15	0.178	BMB
4	3.02	Br	0.058	0.006	3.84	0.148	BMB
5	3.49	NO3-N	0.205	0.027	16.22	0.202	BMB
6	5.95	PO4-P	0.022	0.009	5.57	0.759	BMB*
7	7.49	SO4	0.237	0.061	36.96	1.646	BMB
Total:			1.127	0.165	100.00	3.549	

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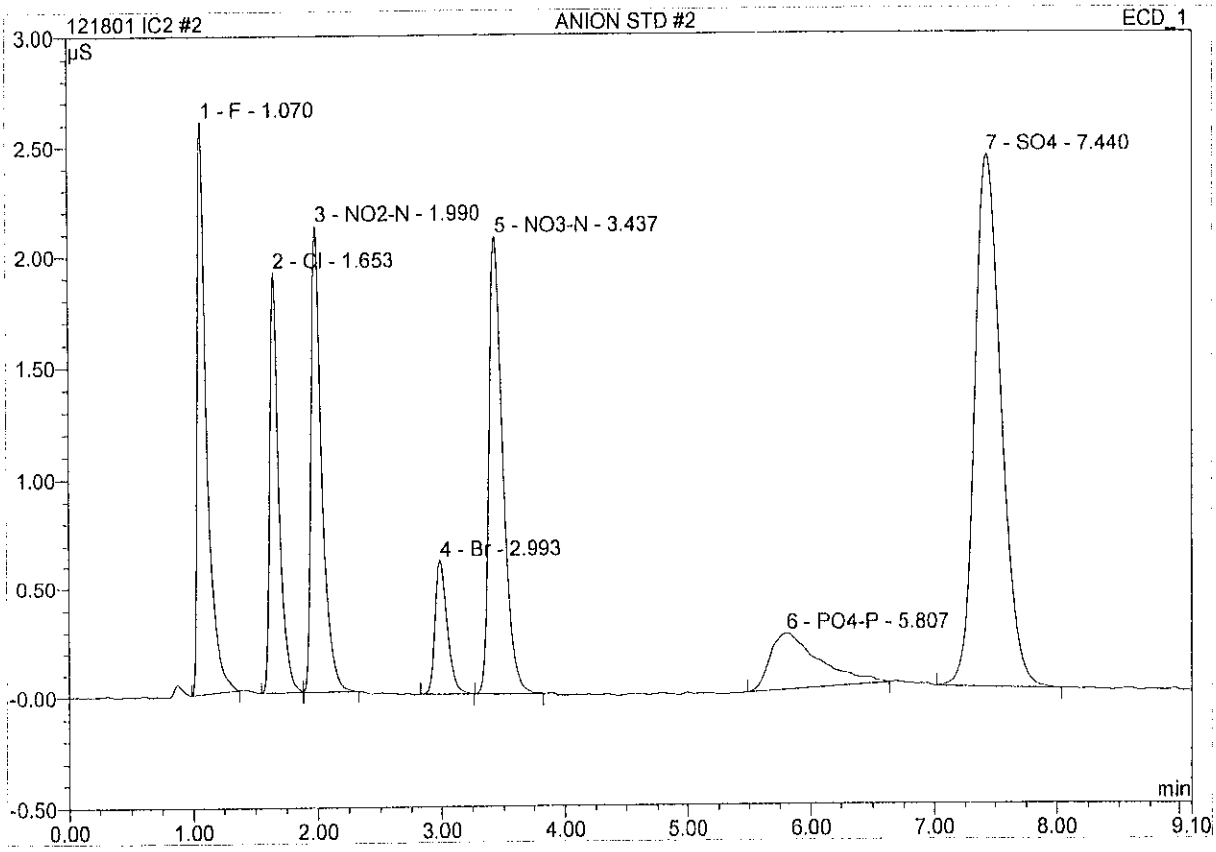
Version 6.30 SP1 Build 587

IC/Integration

2 ANION STD #2

1,1 GSG ANION STD SOS0057-03 121301

Sample Name:	**ANION STD #2**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/13/2001 12:53**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.07	F	2.600	0.236	14.08	1.904	BMB
2	1.65	Cl	1.906	0.165	9.84	1.947	BM
3	1.99	NO2-N	2.114	0.210	12.53	1.156	MB
4	2.99	Br	0.617	0.070	4.17	1.941	BMB
5	3.44	NO3-N	2.075	0.272	16.20	1.300	BMB
6	5.81	PO4-P	0.259	0.116	6.94	2.730	BMB
7	7.44	SO4	2.419	0.608	36.24	9.542	BMB
Total:			11.991	1.678	100.00	20.520	

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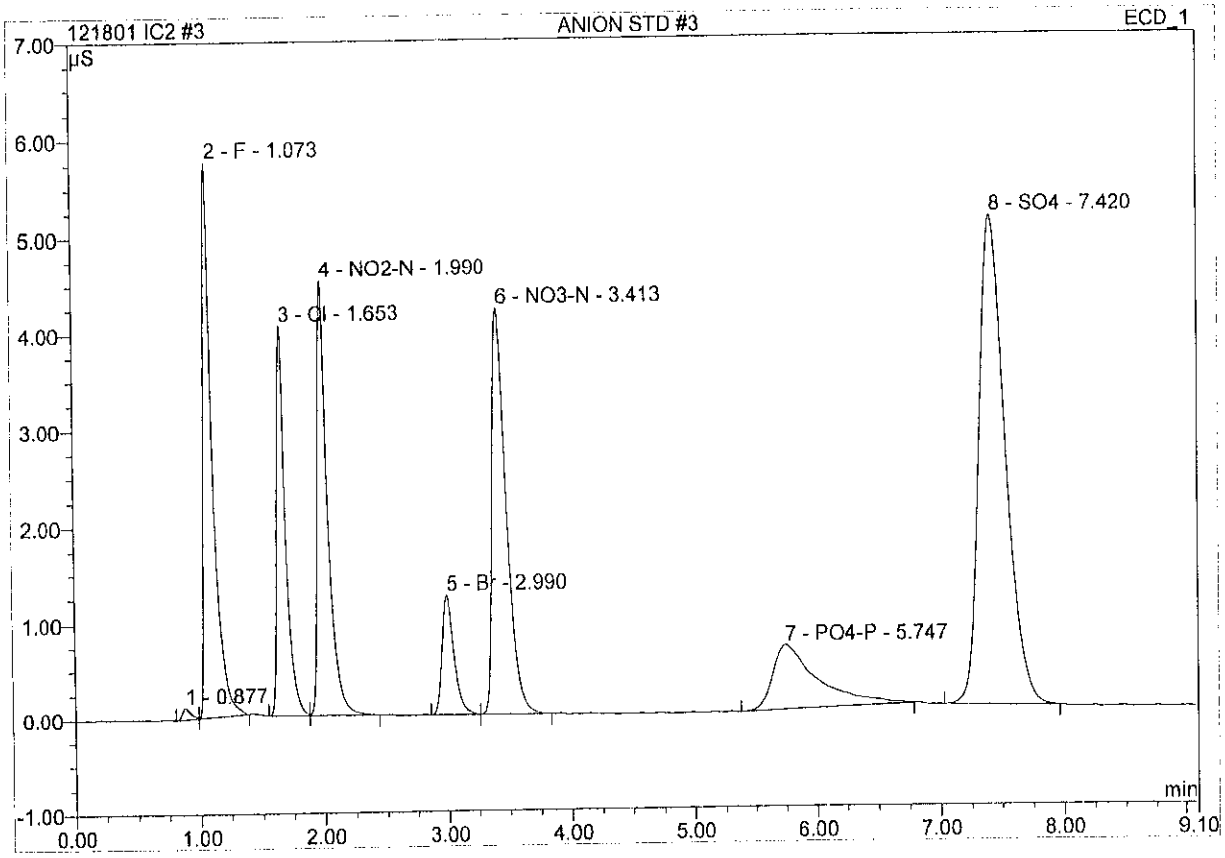
Version 6.30 SP1 Build 587

3 ANION STD #3

1,1 GSG ANION STD SOS0057-03 121301

Sample Name:	**ANION STD #3**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/13/2001 13:04**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.117	0.009	0.27	n.a.	BM
2	1.07	F	5.755	0.497	14.10	3.831	MB
3	1.65	Cl	4.051	0.340	9.64	3.892	BM
4	1.99	NO2-N	4.517	0.439	12.46	2.343	MB
5	2.99	Br	1.247	0.141	4.02	3.955	BM
6	3.41	NO3-N	4.225	0.560	15.91	2.592	MB
7	5.75	PO4-P	0.678	0.286	8.11	5.839	BMB
8	7.42	SO4	5.090	1.251	35.50	18.813	BMB
Total:			25.681	3.523	100.00	41.266	

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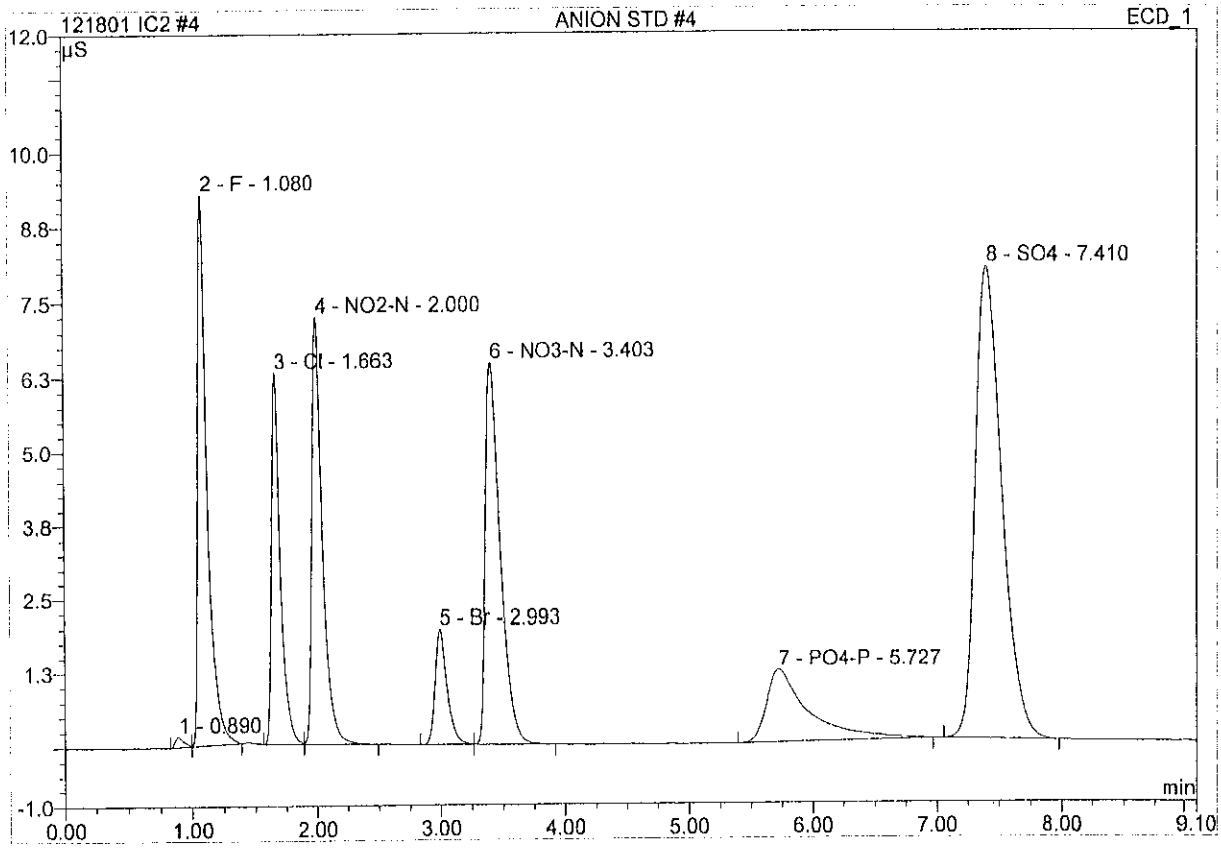
Version 6.30 SP1 Build 587

IC/Integration

4 ANION STD #4

1,1 GSG ANION STD SOS0057-03 121301

Sample Name:	**ANION STD #4**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/13/2001 13:16**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.176	0.014	0.26	n.a.	BM
2	1.08	F	9.272	0.772	13.94	5.869	MB
3	1.66	Cl	6.284	0.517	9.34	5.871	BM
4	2.00	NO2-N	7.210	0.686	12.39	3.625	MB
5	2.99	Br	1.951	0.220	3.97	6.156	BM
6	3.40	NO3-N	6.460	0.879	15.88	4.021	MB
7	5.73	PO4-P	1.219	0.486	8.78	9.524	BMB
8	7.41	SO4	7.958	1.963	35.45	29.086	BMB
Total:			40.529	5.537	100.00	64.151	

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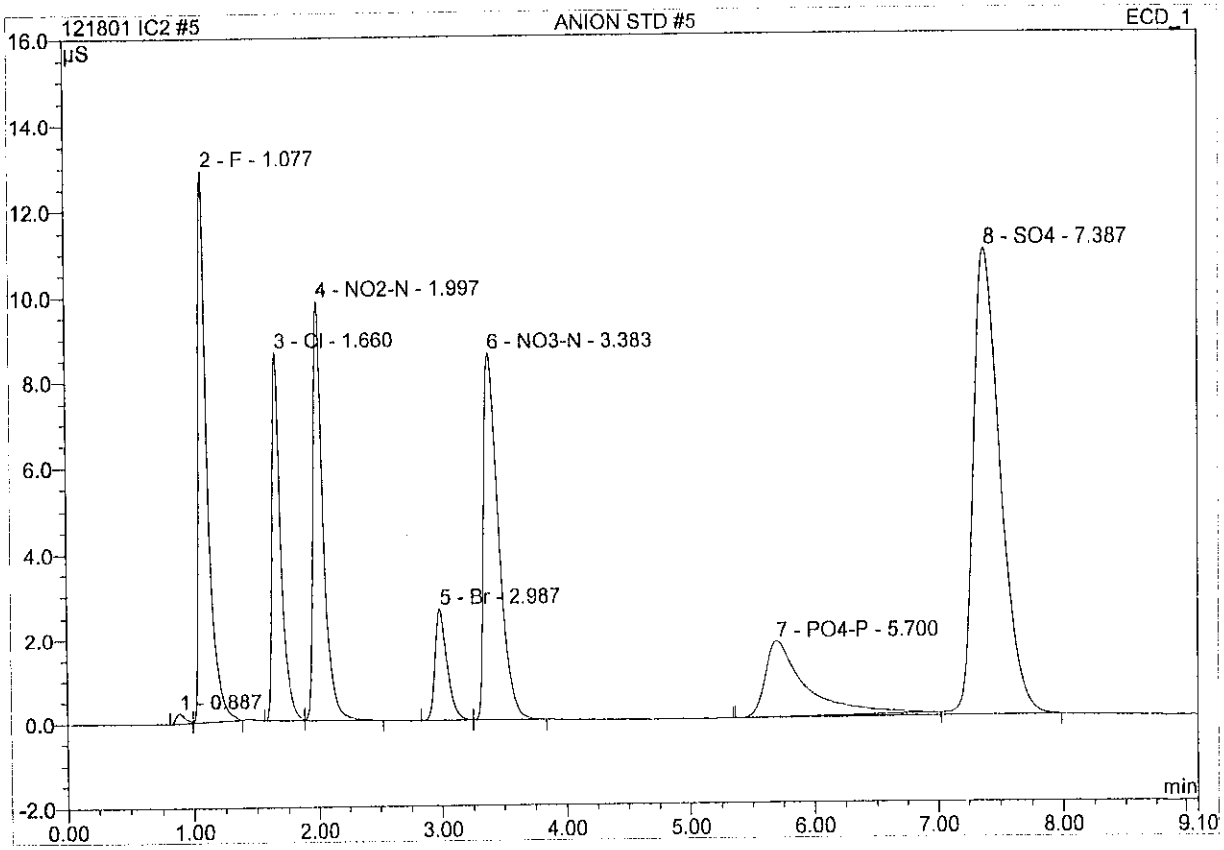
5 ANION STD #5

1,1 GSG ANION STD SOS0057-03 121301

Sample Name:	**ANION STD #5**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/13/2001 13:27**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.240	0.020	0.26	n.a.	BM
2	1.08	F	12.911	1.053	13.79	7.955	MB
3	1.66	Cl	8.625	0.703	9.21	7.951	BM
4	2.00	NO2-N	9.825	0.930	12.18	4.893	MB
5	2.99	Br	2.642	0.294	3.85	8.248	BM
6	3.38	NO3-N	8.606	1.193	15.61	5.424	MB
7	5.70	PO4-P	1.807	0.680	8.90	13.083	Ru
8	7.39	SO4	10.947	2.766	36.21	40.681	BMB
Total:			55.602	7.639	100.00	88.236	

IC/Integration

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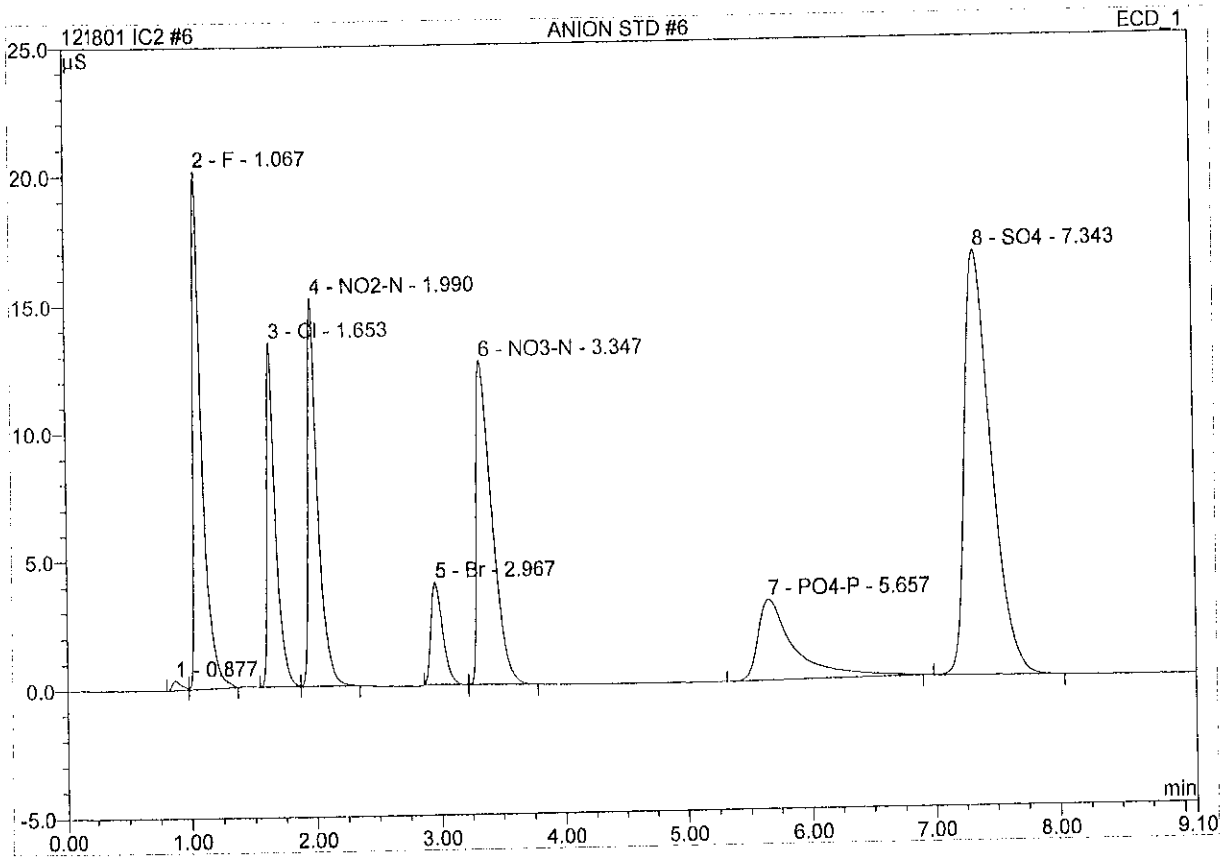
Version 6.30 SP1 Build 587

6 ANION STD #6

1,1 GSG ANION STD SOS0057-03 121301

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**37**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/13/2001 13:39**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

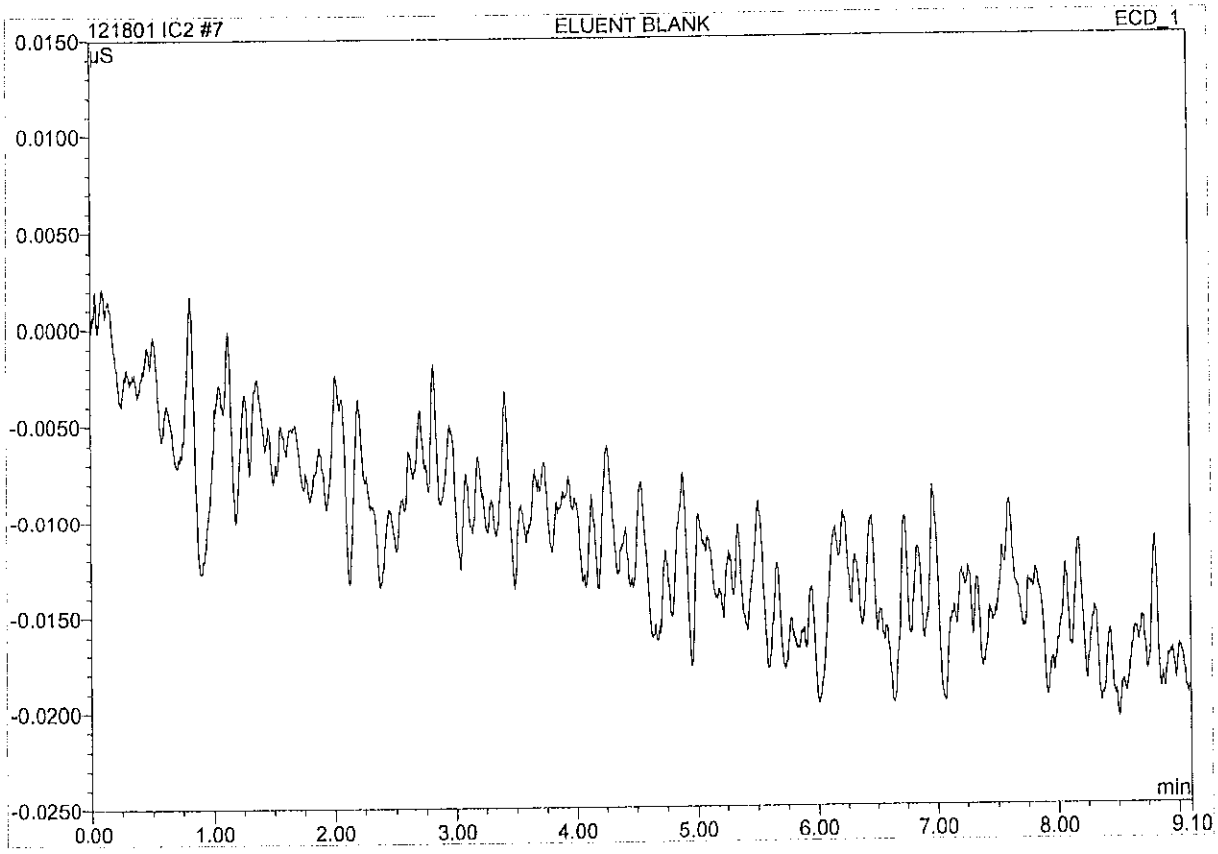


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.366	0.032	0.27	n.a.	BM
2	1.07	F	20.139	1.622	14.03	12.165	MB
3	1.65	Cl	13.454	1.079	9.33	12.141	BM
4	1.99	NO2-N	15.172	1.403	12.14	7.347	M
5	2.97	Br	3.963	0.419	3.63	11.782	BM
6	3.35	NO3-N	12.645	1.813	15.68	8.201	MB
7	5.66	PO4-P	3.127	1.055	9.13	19.983	BMB
8	7.34	SO4	16.561	4.137	35.79	60.464	BMB
Total:			85.426	11.560	100.00	132.083	

7 ELUENT BLANK

1,1 GSG

Sample Name:	**ELUENT BLANK**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/13/2001 13:50**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

8 ANION ALT SV53-30

1,1 GSG ANION STD SV0053-30 121301

Sample Name:	**ANION ALT SV53-30**	*Injection Volume:*	
Vial Number:	**36**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**12/13/2001 14:02**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

ANION ALT SV53-3	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8436	-2.61	PASS
Cl	6	5.7913	-3.48	PASS
NO2-N	3.65	na	#VALUE!	#VALUE!
NO3-N	4.07	na	#VALUE!	#VALUE!
Br	6	6.0586	0.98	PASS
SO4	30	29.9639	-0.12	PASS
PO4-P	9.78	9.5787	-2.06	PASS

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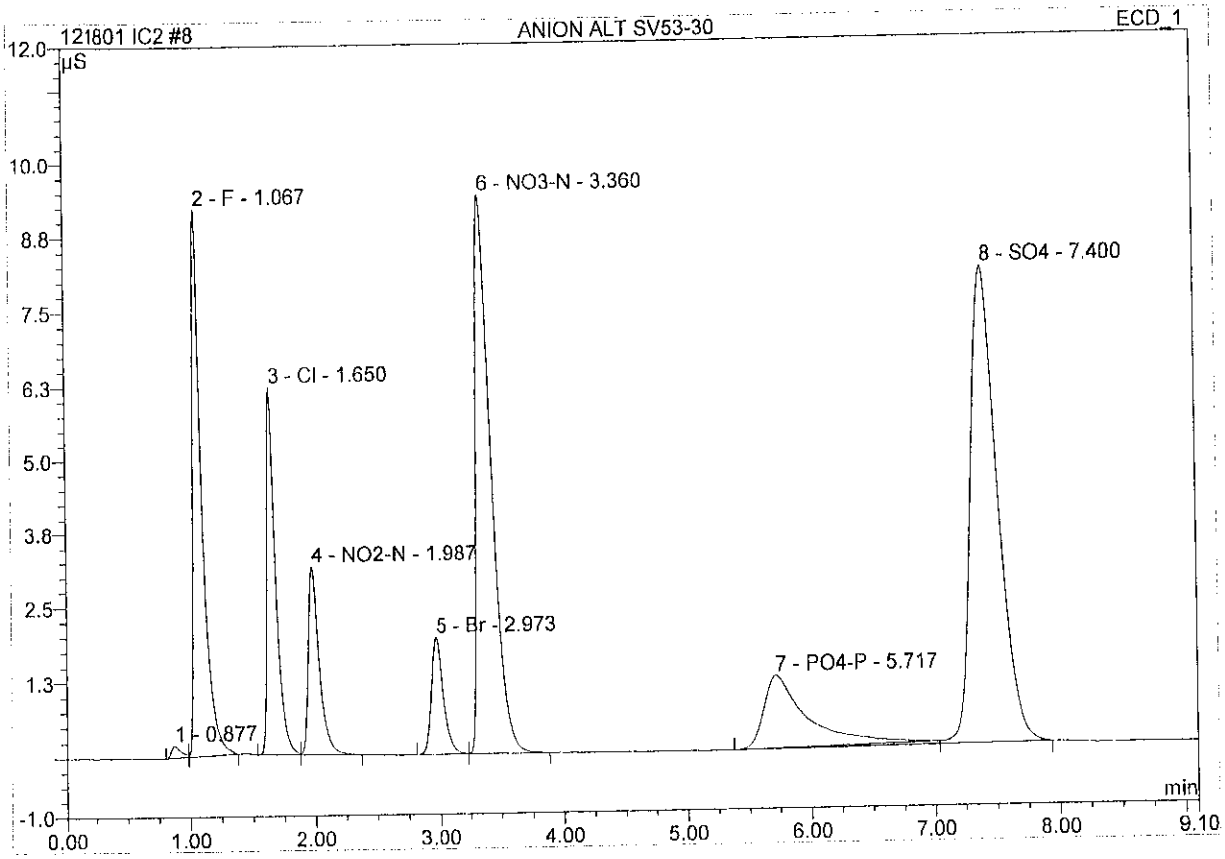
8 ANION ALT SV53-30

1,1 GSG ANION STD SV0053-30 121301

Sample Name:	**ANION ALT SV53-30**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/13/2001 14:02**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.206	0.019	0.33	n.a.	BM
2	1.07	F	9.213	0.768	13.59	5.844	MB
3	1.65	Cl	6.198	0.510	9.02	5.791	BM
4	1.99	NO2-N	3.134	0.309	5.47	1.670	MB
5	2.97	Br	1.939	0.216	3.82	6.059	BM
6	3.36	NO3-N	9.413	1.320	23.34	5.993	MB
7	5.72	PO4-P	1.208	0.489	8.65	9.579	Ru
8	7.40	SO4	8.039	2.024	35.79	29.964	BMB
Total:			39.350	5.654	100.00	64.898	

9 ANION ALT SOS57-18

1,1 GSG ANION STD SOS0057-18 121301

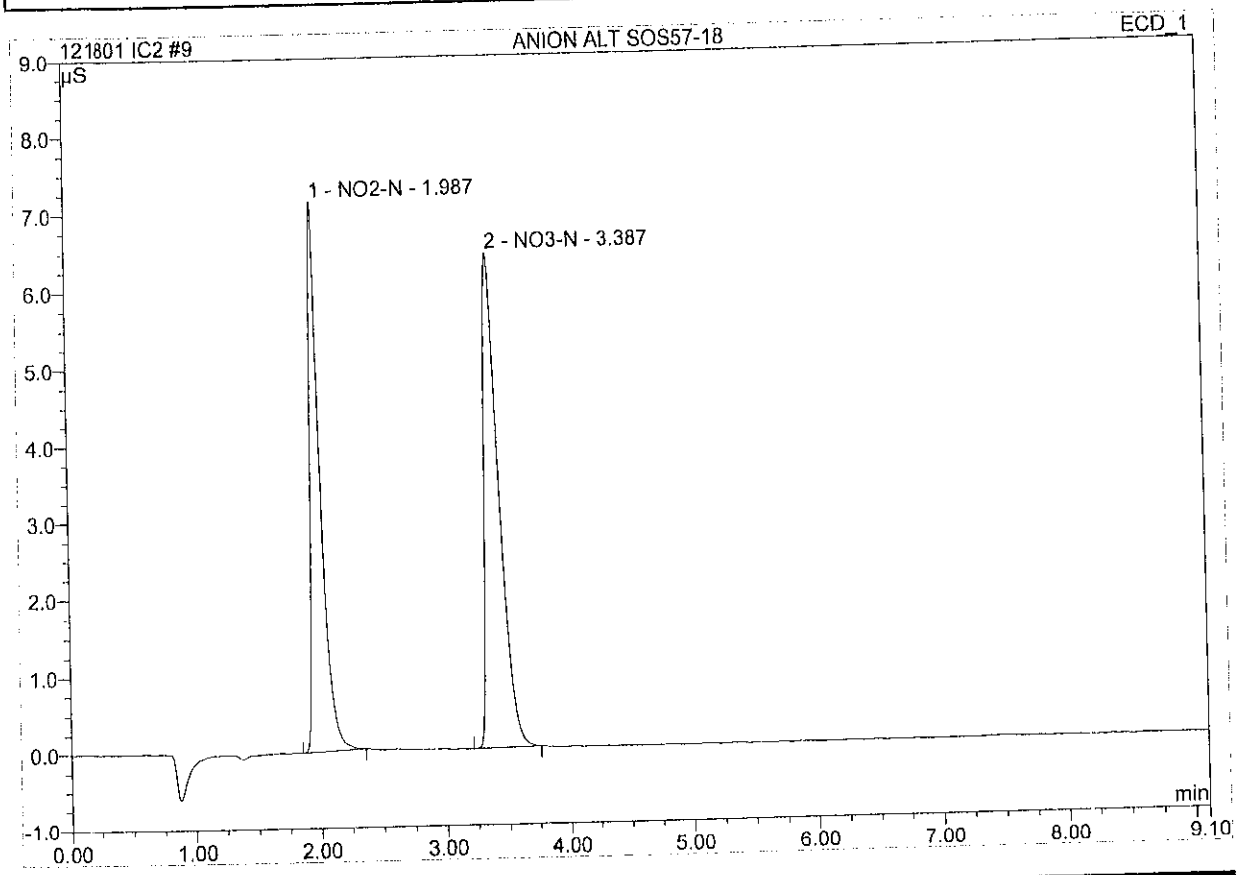
Sample Name:	**ANION ALT SOS57-18**	*Injection Volume:*
Vial Number:	**37**	*Channel:*
Sample Type:	**unknown**	*Wavelength:*
Control Program:	**9056**	*Bandwidth:*
Quantif. Method:	**9056**	*Dilution Factor:*
Recording Time:	**12/13/2001 14:13**	*Sample Weight:*
Run Time (min):	**9.10**	*Sample Amount:*

ANION ALT SOS57	Actual mg/L	Recoved mg/L	%Difference	
n.a.	6.00	n.a.	#VALUE!	#VALUE!
n.a.	6	n.a.	#VALUE!	#VALUE!
NO2-N	3.65	3.5189	-3.59	PASS
NO3-N	4.07	3.9449	-3.07	PASS
n.a.	6	n.a.	#VALUE!	#VALUE!
n.a.	30	n.a.	#VALUE!	#VALUE!
n.a.	9.78	n.a.	#VALUE!	#VALUE!

9 ANION ALT SOS57-18

1,1 GSG ANION STD SOS0057-18 121301

Sample Name:	**ANION ALT SOS57-18**	*Injection Volume:*	**25.0**
Vial Number:	**37**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/13/2001 14:13**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.99	NO2-N	7.138	0.666	43.56	3.519	BMB
2	3.39	NO3-N	6.430	0.862	56.44	3.945	BMB
Total:			13.567	1.528	100.00	7.464	

15 WG110192-01 CCV

1,1 GSG ANION CCV SOS0057-03 121801

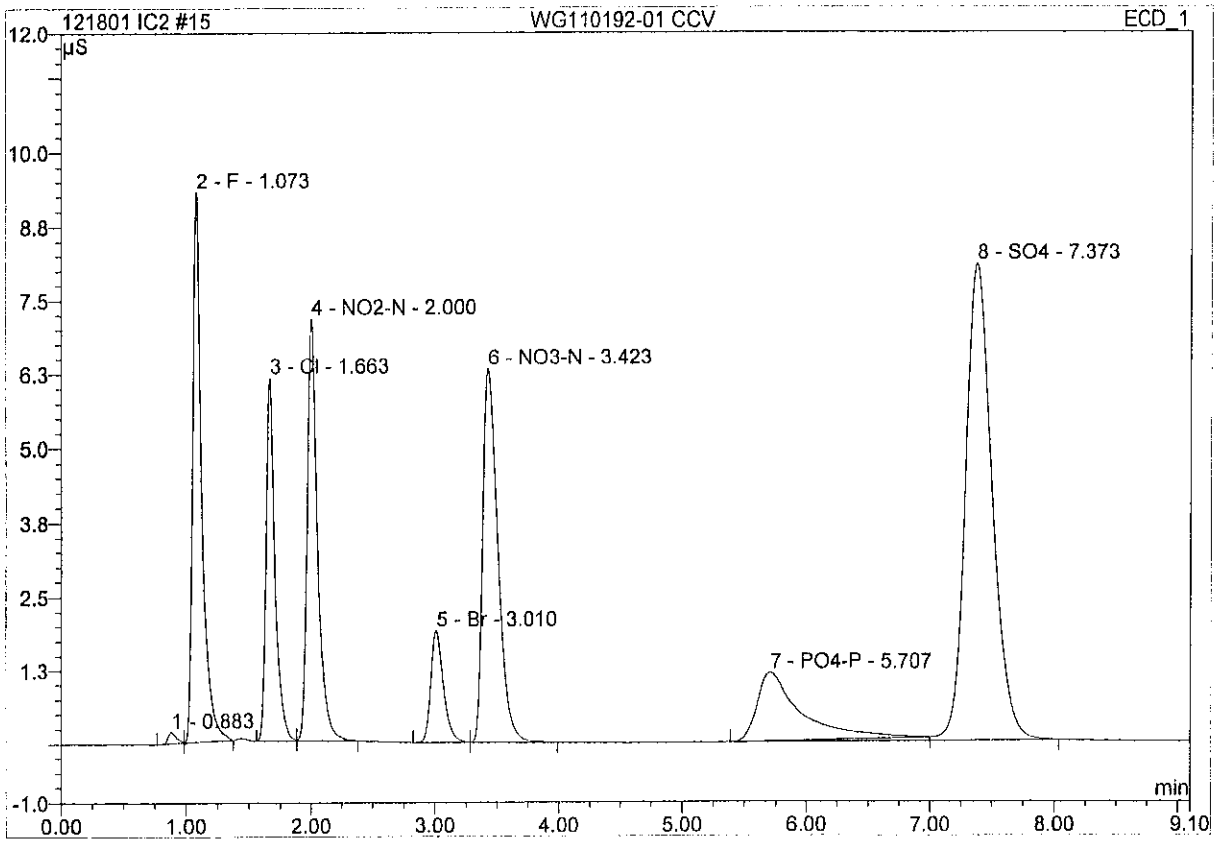
Sample Name:	**WG110192-01 CCV**	*Injection Volume:*	
Vial Number:	**43**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**12/18/2001 8:38**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG110192-01 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9464	-0.89	PASS
Cl	6	5.8936	-1.77	PASS
NO2-N	3.65	3.6616	0.32	PASS
NO3-N	4.07	4.0519	-0.45	PASS
Br	6	6.2245	3.74	PASS
SO4	30	30.5759	1.92	PASS
PO4-P	9.78	9.2077	-5.85	PASS

15 WG110192-01 CCV

1,1 GSG ANION CCV SOS0057-03 121801

Sample Name:	**WG110192-01 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**43**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/18/2001 8:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.181	0.015	0.26	n.a.	BM
2	1.07	F	9.293	0.782	13.84	5.946	MB
3	1.66	Cl	6.127	0.519	9.18	5.894	BM
4	2.00	NO2-N	7.133	0.693	12.26	3.662	MB
5	3.01	Br	1.902	0.222	3.93	6.225	BM
6	3.42	NO3-N	6.304	0.886	15.68	4.052	MB
7	5.71	PO4-P	1.160	0.469	8.30	9.208	Ru
8	7.37	SO4	8.067	2.066	36.55	30.576	BMB
Total:			40.167	5.652	100.00	65.562	

25 WG110192-02 CCV

1,1 GSG ANION CCV SOS0057-03 121801

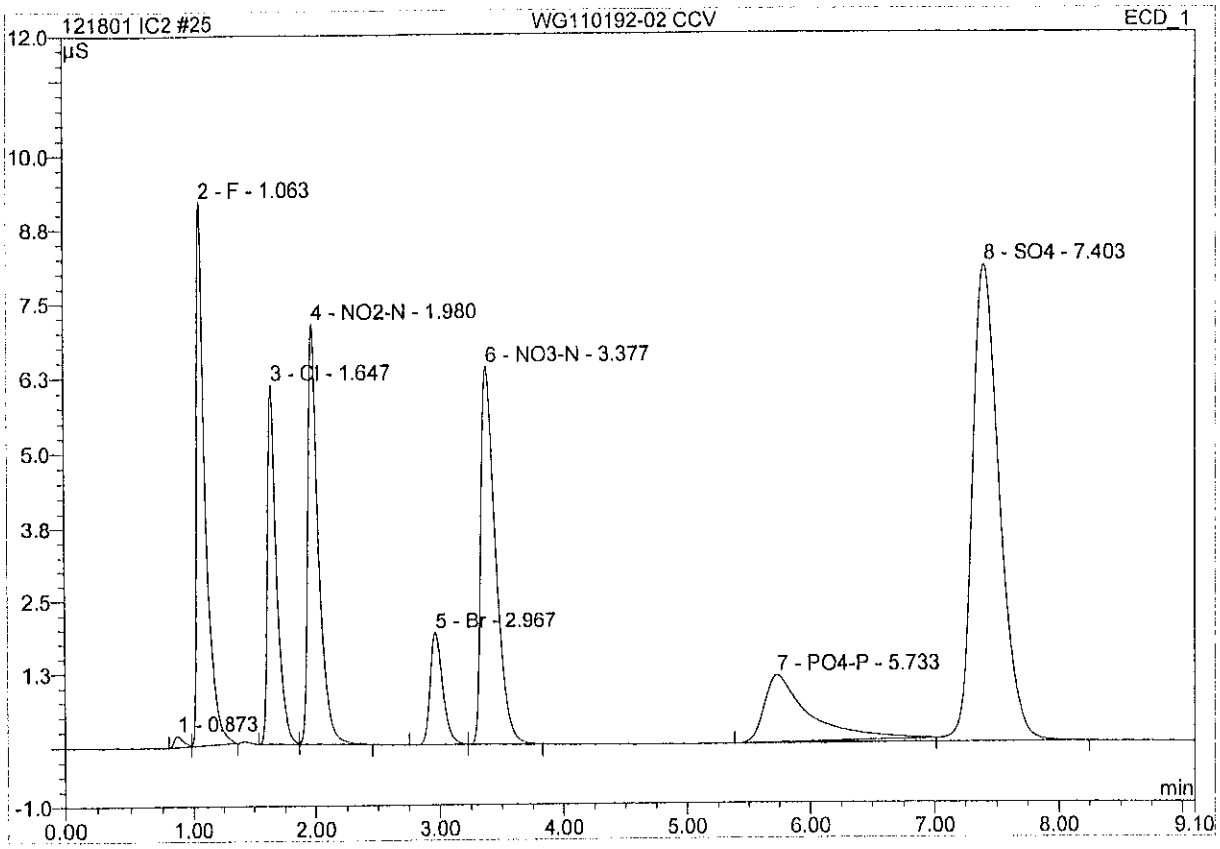
Sample Name:	**WG110192-02 CCV**	*Injection Volume:*	
Vial Number:	**50**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**12/18/2001 15:14**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG110192-02 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9348	-1.09	PASS
Cl	6	5.9067	-1.56	PASS
NO2-N	3.65	3.6720	0.60	PASS
NO3-N	4.07	4.0410	-0.71	PASS
Br	6	6.1898	3.16	PASS
SO4	30	30.8007	2.67	PASS
PO4-P	9.78	9.2932	-4.98	PASS

25 WG110192-02 CCV

1,1 GSG ANION CCV SOS0057-03 121801

Sample Name:	**WG110192-02 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**50**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/18/2001 15:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.185	0.015	0.27	n.a.	BM
2	1.06	F	9.190	0.780	13.76	5.935	MB
3	1.65	Cl	6.080	0.520	9.17	5.907	BM
4	1.98	NO2-N	7.101	0.695	12.26	3.672	MB
5	2.97	Br	1.913	0.221	3.89	6.190	BM
6	3.38	NO3-N	6.391	0.884	15.59	4.041	MB
7	5.73	PO4-P	1.139	0.474	8.35	9.293	Ru
8	7.40	SO4	8.067	2.082	36.71	30.801	BMB
Total:			40.065	5.671	100.00	65.838	

IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

31 WG110192-03 CCV

1,1 GSG ANION CCV SOS0057-03 121801

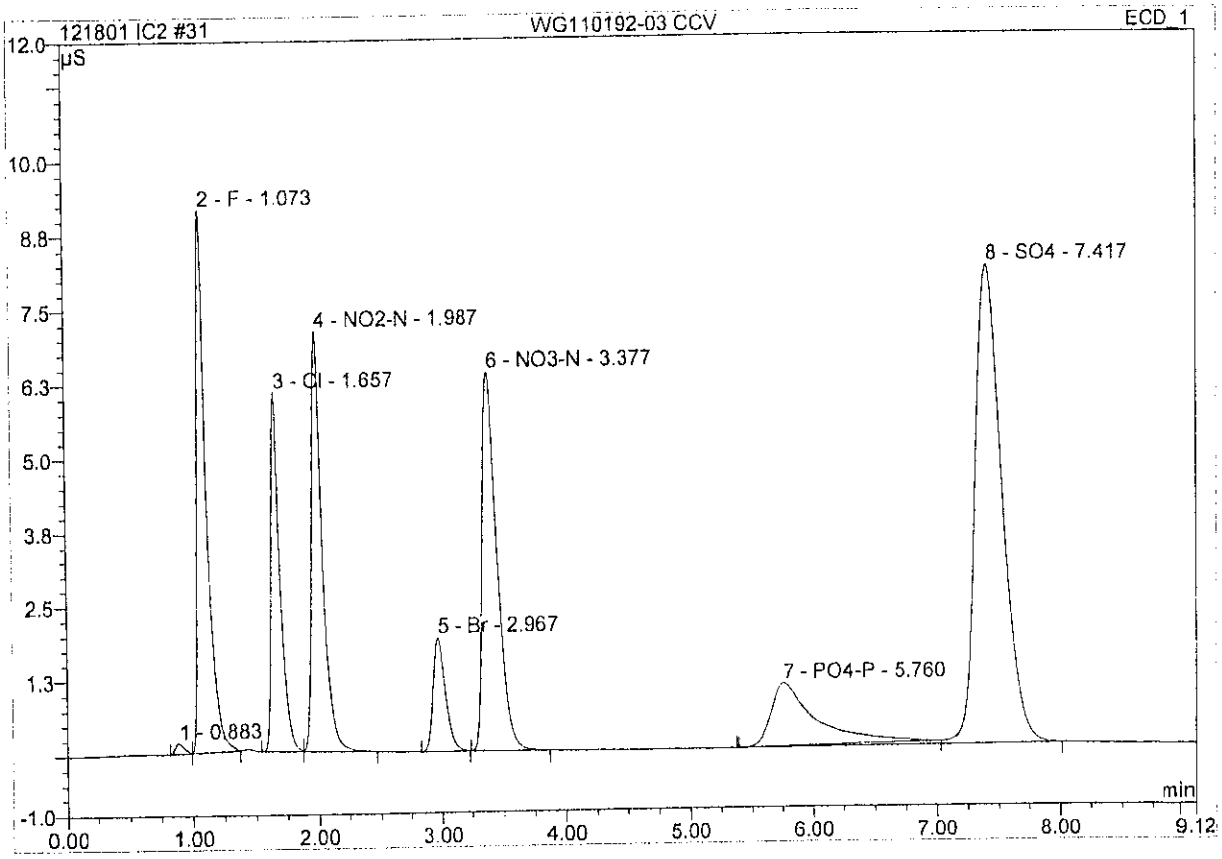
Sample Name:	**WG110192-03 CCV**	*Injection Volume:*	
Vial Number:	**56**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**12/18/2001 16:23**	*Sample Weight:*	
Run Time (min):	**9.12**	*Sample Amount:*	

WG110192-03 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9396	-1.01	PASS
Cl	6	5.8929	-1.78	PASS
NO2-N	3.65	3.6792	0.80	PASS
NO3-N	4.07	4.0365	-0.82	PASS
Br	6	6.1369	2.28	PASS
SO4	30	30.5409	1.80	PASS
PO4-P	9.78	8.8630	-9.38	PASS

31 WG110192-03 CCV

1,1 GSG ANION CCV SOS0057-03 121801

Sample Name:	**WG110192-03 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**56**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/18/2001 16:23**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.12**	*Sample Amount:*	**1.0000**



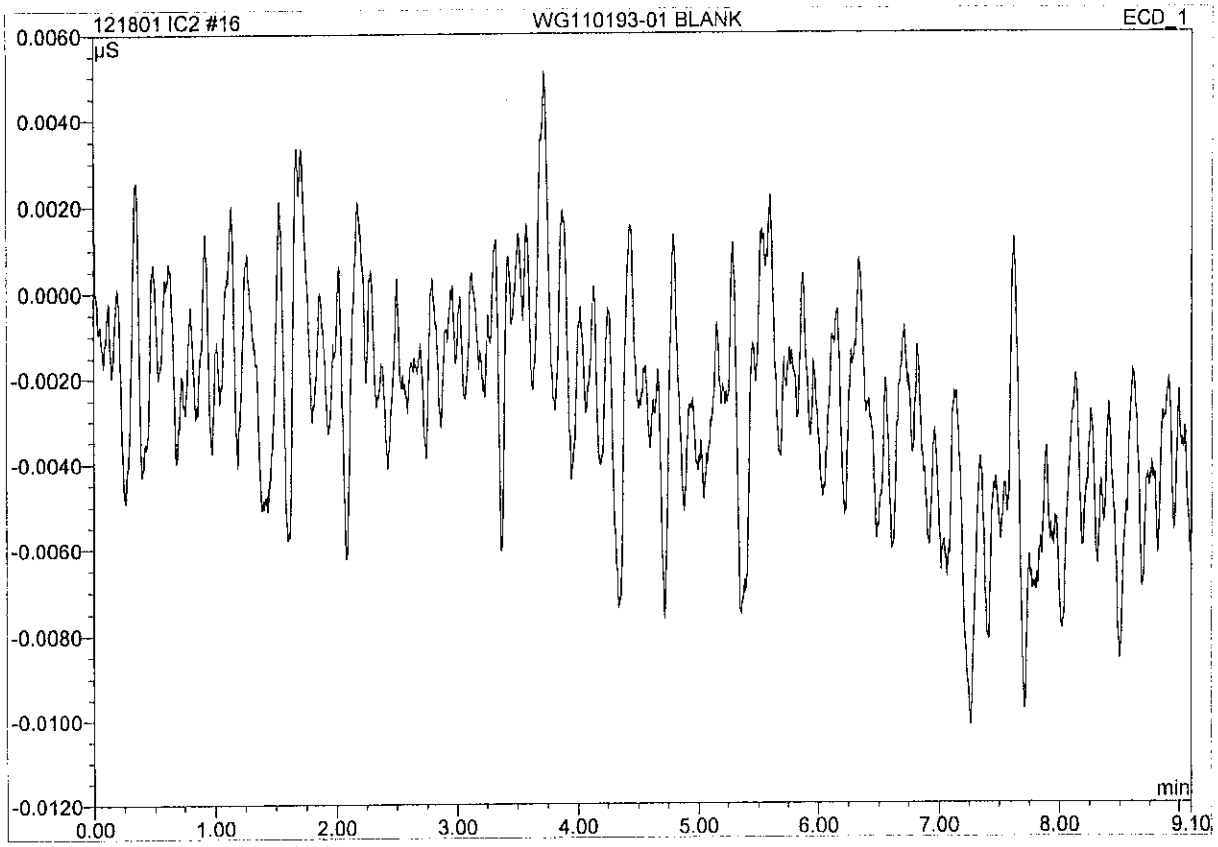
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.183	0.015	0.26	n.a.	BM
2	1.07	F	9.145	0.781	13.88	5.940	MB
3	1.66	Cl	6.058	0.519	9.22	5.893	BM
4	1.99	NO2-N	7.095	0.696	12.38	3.679	MB
5	2.97	Br	1.909	0.219	3.89	6.137	BMB
6	3.38	NO3-N	6.392	0.883	15.69	4.037	BMB
7	5.76	PO4-P	1.049	0.450	8.00	8.863	Ru
8	7.42	SO4	8.068	2.064	36.67	30.541	BMB
Total:			39.899	5.627	100.00	65.089	

2.4.5.4 Raw QC Data

16 WG110193-01 BLANK

1,1 GSG ANION METHOD BLANK 121801

Sample Name:	**WG110193-01 BLANK**	*Injection Volume:*	**25.0**
Vial Number:	**41**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/18/2001 8:55**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

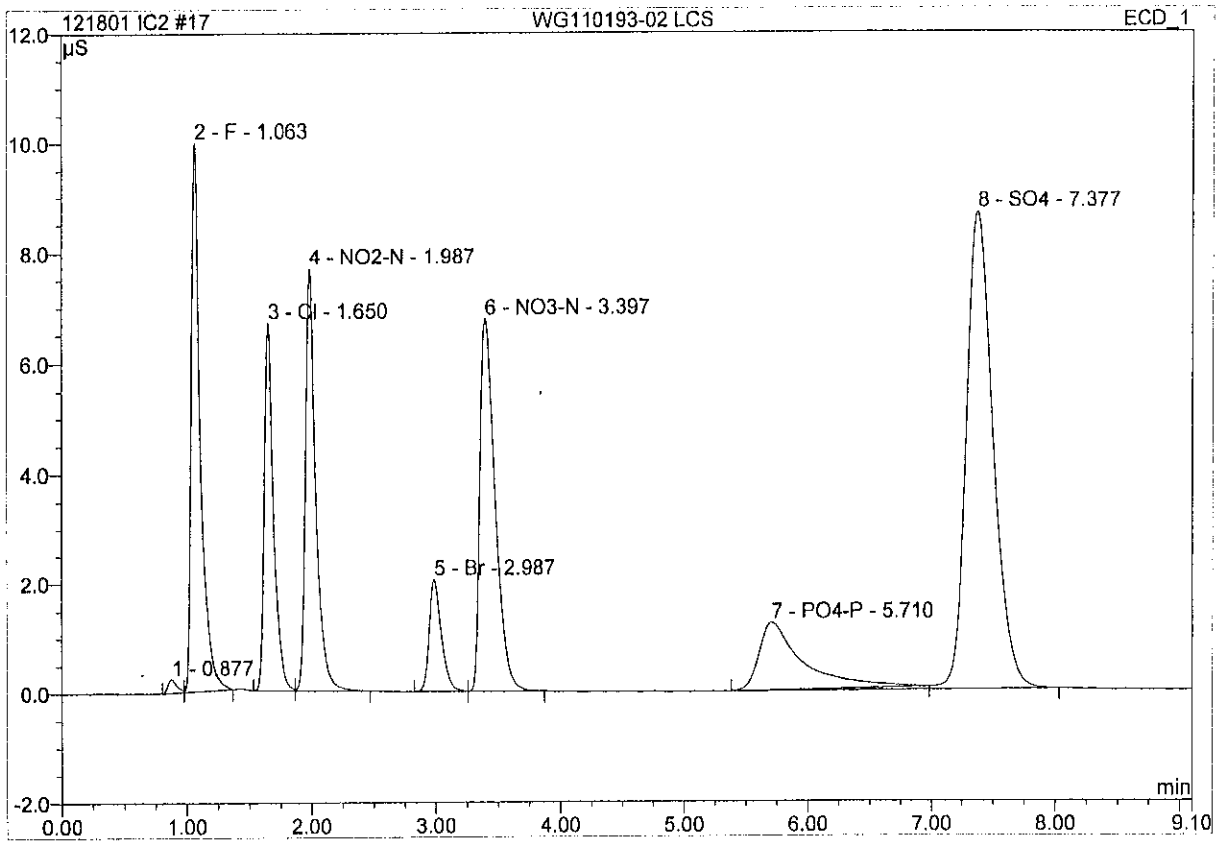


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

17 WG110193-02 LCS

1,1 GSG ANION LCS SOS0057-03 121801

Sample Name:	**WG110193-02 LCS**	*Injection Volume:*	**25.0**
Vial Number:	**42**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/18/2001 9:07**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.253	0.022	0.35	n.a.	BM
2	1.06	F	9.965	0.846	13.91	6.423	MB
3	1.65	Cl	6.688	0.568	9.34	6.447	BM
4	1.99	NO2-N	7.668	0.749	12.31	3.953	MB
5	2.99	Br	2.041	0.235	3.87	6.599	BM
6	3.40	NO3-N	6.780	0.949	15.58	4.331	MB
7	5.71	PO4-P	1.233	0.502	8.24	9.808	Ru
8	7.38	SO4	8.663	2.216	36.40	32.735	BMB
Total:			43.291	6.087	100.00	70.297	

Operator: gsg

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 31

Created: 12/18/2001 7:30:57 AM by gsg
Last Update: 12/18/2001 1:55:48 PM by gsg

No.	Name	Inj. Date/Time	Dil. Factor	Sample ID	Comment
1	ANION STD #1	12/13/2001 12:41:43 PM	1.0000		1,1 GSG ANION STD SOS0057-03 121301
2	ANION STD #2	12/13/2001 12:53:12 PM	1.0000		1,1 GSG ANION STD SOS0057-03 121301
3	ANION STD #3	12/13/2001 1:04:42 PM	1.0000		1,1 GSG ANION STD SOS0057-03 121301
4	ANION STD #4	12/13/2001 1:16:12 PM	1.0000		1,1 GSG ANION STD SOS0057-03 121301
5	ANION STD #5	12/13/2001 1:27:42 PM	1.0000		1,1 GSG ANION STD SOS0057-03 121301
6	ANION STD #6	12/13/2001 1:39:12 PM	1.0000		1,1 GSG ANION STD SOS0057-03 121301
7	ELUENT BLANK	12/13/2001 1:50:42 PM	1.0000		1,1 GSG
8	ANION ALT SV53-30	12/13/2001 2:02:12 PM	1.0000		1,1 GSG ANION STD SV0053-30 121301
9	ANION ALT SOS57-18	12/13/2001 2:13:43 PM	1.0000		1,1 GSG ANION STD SOS0057-18 121301
~~10~~	DI H2O BLANK	12/18/2001 7:33:16 AM	1.0000		1,1 GSG
~~11~~	ELUENT BLANK	12/18/2001 7:44:46 AM	1.0000		1,1 GSG
~~12~~	ANION CCV RR	12/18/2001 7:56:16 AM	1.0000		1,1 GSG ANION CCV SOS0057-03 121801
~~13~~	ANION BLANK RR	12/18/2001 8:07:46 AM	1.0000		1,1 GSG
~~14~~	ANION LCS RR	12/18/2001 8:19:16 AM	1.0000		1,1 GSG ANION LCS SOS0057-03 121801
15	WG110192-01 CCV	12/18/2001 8:38:28 AM	1.0000		1,1 GSG ANION CCV SOS0057-03 121801
16	WG110193-01 BLANK	12/18/2001 8:55:45 AM	1.0000		1,1 GSG ANION METHOD BLANK 121801
17	WG110193-02 LCS	12/18/2001 9:07:16 AM	1.0000		1,1 GSG ANION LCS SOS0057-03 121801
18	WG110193-03 REF DUP	12/18/2001 1:53:36 PM	1.0000		1,1 GSG L0112348-01 REF DUP
19	WG110193-04 DUP	12/18/2001 2:05:06 PM	1.0000		1,1 GSG L0112348-01 DUP
20	L0112348-02	12/18/2001 2:16:36 PM	1.0000		1,1 GSG
21	L0112348-03	12/18/2001 2:28:06 PM	1.0000		1,1 GSG
22	WG110193-05 REF MS/MSD	12/18/2001 2:39:37 PM	1.0000		1,1 GSG L0112348-04 REF MS/MSD
23	WG110193-06 MS	12/18/2001 2:51:08 PM	1.0000		1,1 GSG L0112348-05 MS
24	WG110193-07 MSD	12/18/2001 3:02:38 PM	1.0000		1,1 GSG L0112348-06 MSD
25	WG110192-02 CCV	12/18/2001 3:14:08 PM	1.0000		1,1 GSG ANION CCV SOS0057-03 121801
26	L0112348-07	12/18/2001 3:25:39 PM	1.0000		1,1 GSG
27	L0112348-08	12/18/2001 3:37:09 PM	1.0000		1,1 GSG
28	L0112348-09	12/18/2001 3:48:39 PM	1.0000		1,1 GSG
29	L0112349-01	12/18/2001 4:00:09 PM	1.0000		1,1 GSG
30	L0112349-02	12/18/2001 4:11:39 PM	1.0000		1,1 GSG
31	WG110192-03 CCV	12/18/2001 4:23:09 PM	1.0000		1,1 GSG ANION CCV SOS0057-03 121801

12/18/01

12/18/01

PeakNet © Dionex Corporation, Version 6.30 SP1 Build 587

Operator: gsg

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 31

Created: 12/18/2001 7:30:57 AM by gsg
Last Update: 12/18/2001 1:55:48 PM by gsg

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status
1	ANION STD #1	Standard	38	25.0	9056	9056	Finished
2	ANION STD #2	Standard	36	25.0	9056	9056	Finished
3	ANION STD #3	Standard	36	25.0	9056	9056	Finished
4	ANION STD #4	Standard	36	25.0	9056	9056	Finished
5	ANION STD #5	Standard	36	25.0	9056	9056	Finished
6	ANION STD #6	Standard	37	25.0	9056	9056	Finished
7	ELUENT BLANK	Unknown	36	25.0	9056	9056	Finished
8	ANION ALT SV53-30	Unknown	36	25.0	9056	9056	Finished
9	ANION ALT SOS57-18	Unknown	37	25.0	9056	9056	Finished
10	DI H2O BLANK	Unknown	39	25.0	9056	9056	Finished
11	ELUENT BLANK	Unknown	40	25.0	9056	9056	Finished
12	ANION CCV	Unknown	40	25.0	9056	9056	Finished
13	ANION BLANK	Unknown	41	25.0	9056	9056	Finished
14	ANION LCS	Unknown	42	25.0	9056	9056	Finished
15	WG110192-01 CCV	Unknown	43	25.0	9056	9056	Finished
16	WG110193-01 BLANK	Unknown	41	25.0	9056	9056	Finished
17	WG110193-02 LCS	Unknown	42	25.0	9056	9056	Finished
18	WG110193-03 REF DUP	Unknown	43	25.0	9056	9056	Finished
19	WG110193-04 DUP	Unknown	44	25.0	9056	9056	Finished
20	L0112348-02	Unknown	45	25.0	9056	9056	Finished
21	L0112348-03	Unknown	46	25.0	9056	9056	Finished
22	WG110193-05 REF MS/MSD	Unknown	47	25.0	9056	9056	Finished
23	WG110193-06 MS	Unknown	48	25.0	9056	9056	Finished
24	WG110193-07 MSD	Unknown	49	25.0	9056	9056	Finished
25	WG110192-02 CCV	Unknown	50	25.0	9056	9056	Finished
26	L0112348-07	Unknown	51	25.0	9056	9056	Finished
27	L0112348-08	Unknown	52	25.0	9056	9056	Finished
28	L0112348-09	Unknown	53	25.0	9056	9056	Finished
29	L0112349-01	Unknown	54	25.0	9056	9056	Finished
30	L0112349-02	Unknown	55	25.0	9056	9056	Finished
31	WG110192-03 CCV	Unknown	56	25.0	9056	9056	Finished

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Analysis Date/Time 12/18/01 Instrument ID IC2 Column ID AG4A-SC / AS4A-SC Data Subdirectory 121801
Analyst Initials CSC SOP # IC01 Rev. # 2 ✓ 9056 SOP # IC02 Rev. # ____ 314.0

Daily Check

- ☑ Mobile phase reservoir
- ☑ System pressure 1214 PSI
- ☑ Waste container

Returned to Control?

Yes ____ No ____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

Reviewed By: CSC 12/19/01

356

Figure 1
IC

Date: 12/18/01
Analyst: BSC
Method: 9056
Instrument: IC2
Work Group: UG110193

	Analyst
System Performance Check	✓
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	✓
Second Source Standard % Difference	✓
Check Standards	✓
Project / Client Specific Requirements	
Special Standards	
Blanks	✓
TCL's	
Surrogates	
LCS (Laboratory Control Sample)	✓
Recoveries	
Surrogates	
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	
Surrogates	
Calculations & Correct Factors	
Dilutions Run	
Reruns	
Check Sample Histories	
Ending Check Standards	✓
Excel Spreadsheets	✓
Case Narrative	✓
Corrective Action	
Results Reporting / Data Qualifiers	
WorkGroups Traceability	
Client Data Package Assembly	
Check for Completeness	✓

Primary Reviewer Initials & Date Checked
BSC 12/18/01

Secondary Reviewer Initials & Date Checked
CJC 12/19/01

- Check for compliance with Method and project-specific requirements
- Check the completeness of the reported information
- Check the information for the report narrative
- Check the reasonableness of results

Supervisory Review Initials & Date Checked SPR 12/19/01

Comments:

NA - Not Applicable

DL - Diluted Out

✓ - Checked & OK

KEMRON REPORT L0112366

Prepared for CCI / ATL

Work ID : NAS CECIL FIELD / BUILDING 46

Summary Report 1
Laboratory Report 2
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1.0 Summary Report

1.1 Laboratory Report

Cover Page
Laboratory Narrative
Laboratory Results

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

L0112366

CHAIN OF CUSTODY:

The chain of custody number was 149152-184 .

SHIPMENT CONDITIONS:

The chain of custody form was received sealed in a cooler. The cooler temperatures were 2, 2, 3, 2, 3, 2, 1, 1 and 2 ° C.

SAMPLE MANAGEMENT:

All samples received were intact.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

REVIEWED Stephanie R Lepe DATE: 12/20/01

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0112366

METHOD

Preparation: SW- 846 5030B
Analysis: SW-846 8021B

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.
Matrix Spikes: All acceptance criteria were met.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: Samples 03 and 14 required dilution analysis to obtain results within the linear range.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: JLS REVIEWED: Janice L. Schimmel DATE: 12/3/01

Rev. 6/00

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0112366

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8015

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: There were no MS/MSD results associated with sample in re-extracted group.

SAMPLES

Samples: All acceptance criteria were met.
Surrogates: Sample 366-07 fraction yielded % recovery for o-terphenyl that was outside advisory limit. And this sample was re-extracted outside of holding time with acceptable surrogate. Both analyses were reported.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: HV REVIEWED: _____ DATE: 1/3/02

Rev. 7/14/00

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0112366

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8310

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds linear equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: The LCS yielded a percent recovery for benzo(g,h,i)perylene which was above the advisory limit. There were no positive results of this analyte for the sample fractions of this sample delivery group.
Matrix Spikes: All acceptance criteria were met.
SAMPLES

Surrogates: All acceptance criteria were met.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: RDC REVIEWED: _____ DATE: 1/2/02

Rev. 7/14/00

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L0112366

METHOD

Analysis: SW-846 9056

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION: All acceptance criteria were met.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: Sample fractions -05 and -06 were chosen externally for the MS/MSD of sample fraction -04 for this sample delivery group. All acceptance criteria were met.

SAMPLES
All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: GSG REVIEWED: _____ DATE: 12/6/01

Rev. 7/14/00

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8021**

AAB # : **WG110358**

Lab Name : **Kemron Environmental Services**

Contract # : **N62467-98-D-0995**

Base/Command : **blgs 9 and 46**

Prime Contractor : **CCI**

Field sample ID		Lab Sample ID
002-CEF46-5I-Q4-01-11		L0112366-01
002-CEF46-6D-Q4-01-11		L0112366-02
002-CEF46-7I-Q4-01-11		L0112366-03
002-CEF46-9I-Q4-01-11	RS01	L0112366-04
002-CEF46-9I-Q4-01-11	MS01	L0112366-05
002-CEF46-9I-Q4-01-11	SD01	L0112366-06
002-CEF46-12I-Q4-01-11		L0112366-07
002-CEF46-13I-Q4-01-11		L0112366-08
002-CEF46-14D-Q4-01-11		L0112366-09
002-CEF46-15I-Q4-01-11		L0112366-10

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **03-JAN-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8021**

AAB # : **WG110358**

Lab Name : **Kemron Environmental Services**

Contract # : **N62467-98-D-0995**

Base/Command : **blgs 9 and 46**

Prime Contractor : **CCI**

Field sample ID	
002-CEF46-21I-Q4-01-11	L0112366-11
002-CEF46-24D-Q4-01-11	L0112366-12
002-CEF46-25I-Q4-01-11	L0112366-13
002-CEF46-26I-Q4-01-11	L0112366-14
002-46DUP-Q4-01-11	L0112366-15
002-46EQB-Q4-01-11	L0112366-16
002-46TB2-Q4-01-11	L0112366-17

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **03-JAN-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG110358

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-5I-Q4-01-11 Lab Sample ID: L0112366-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 20-DEC-01 15:29

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	2.90	1	
Ethylbenzene	0.500	1.0	8.50	1	
Methyl tert-butyl ether	0.500	1.0	1.10	1	
Toluene	0.500	1.0	19.0	1	
Xylenes, Total	0.500	1.0	74.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	101	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG110358

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-6D-Q4-01-11 Lab Sample ID: L0112366-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 20-DEC-01 16:04

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.840	1	J
Xylenes, Total	0.500	1.0	4.10	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	100	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG110358

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-7I-Q4-01-11 Lab Sample ID: L0112366-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 20-DEC-01 18:58

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	10.0	20	500	20	
Ethylbenzene	10.0	20	96.0	20	
Methyl tert-butyl ether	10.0	20	2600	20	
Toluene	10.0	20	540	20	
Xylenes, Total	10.0	20	680	20	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	100	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG110358

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-9I-Q4-01-11 Lab Sample ID: L0112366-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 20-DEC-01 16:39

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	99.5	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG110358

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-9I-Q4-01-11 Lab Sample ID: L0112366-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 20-DEC-01 17:14

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	18.0	1	
Ethylbenzene	0.500	1.0	18.0	1	
Methyl tert-butyl ether	0.500	1.0	18.0	1	
Toluene	0.500	1.0	18.0	1	
Xylenes, Total	0.500	1.0	54.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	99.7	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG110358

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-9I-Q4-01-11 Lab Sample ID: L0112366-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 20-DEC-01 17:48

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	18.0	1	
Ethylbenzene	0.500	1.0	19.0	1	
Methyl tert-butyl ether	0.500	1.0	19.0	1	
Toluene	0.500	1.0	18.0	1	
Xylenes, Total	0.500	1.0	55.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	99.4	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG110358

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-11 Lab Sample ID: L0112366-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 20-DEC-01 19:32

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	12.0	1	
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	99.5	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG110358

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-13I-Q4-01-11 Lab Sample ID: L0112366-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 20-DEC-01 20:07

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	140	1	
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	100	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG110358

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-14D-Q4-01-11 Lab Sample ID: L0112366-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 20-DEC-01 20:42

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	99.2	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG110358

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-15I-Q4-01-11 Lab Sample ID: L0112366-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 20-DEC-01 21:17

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	99.2	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG110358

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-21I-Q4-01-11 Lab Sample ID: L0112366-11 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 20-DEC-01 21:52

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	100	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG110358

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-24D-Q4-01-11 Lab Sample ID: L0112366-12 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 20-DEC-01 22:26

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	99.9	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG110358

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-25I-Q4-01-11 Lab Sample ID: L0112366-13 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 20-DEC-01 23:01

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	100	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG110358

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-26I-Q4-01-11 Lab Sample ID: L0112366-14 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 20-DEC-01 23:36

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	5.00	10	1300	10	
Ethylbenzene	5.00	10	68.0	10	
Methyl tert-butyl ether	5.00	10	11.0	10	
Toluene	5.00	10	5.00	10	ND
Xylenes, Total	5.00	10	370	10	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	102	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG110358

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46DUP-Q4-01-11 Lab Sample ID: L0112366-15 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 21-DEC-01 00:10

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	99.1	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG110358

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46EQB-Q4-01-11 Lab Sample ID: L0112366-16 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 21-DEC-01 01:20

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	99.5	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG110358

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46TB2-Q4-01-11 Lab Sample ID: L0112366-17 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 21-DEC-01 01:54

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	0.500	1	ND
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.500	1	ND
Xylenes, Total	0.500	1.0	0.500	1	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	98.9	70 - 130	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8015**

AAB # : **WG110382**

Lab Name : **Kemron Environmental Services**

Contract # : **N62467-98-D-0995**

Base/Command : **blgs 9 and 46**

Prime Contractor : **CCI**

Field sample ID		Lab Sample ID
002-CEF46-5I-Q4-01-11		L0112366-01
002-CEF46-6D-Q4-01-11		L0112366-02
002-CEF46-7I-Q4-01-11		L0112366-03
002-CEF46-9I-Q4-01-11	RS01	L0112366-04
002-CEF46-9I-Q4-01-11	MS01	L0112366-05
002-CEF46-9I-Q4-01-11	SD01	L0112366-06
002-CEF46-12I-Q4-01-11		L0112366-07
002-CEF46-13I-Q4-01-11		L0112366-08
002-CEF46-14D-Q4-01-11		L0112366-09
002-CEF46-15I-Q4-01-11		L0112366-10

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **03-JAN-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : 8015

Lab Name : Kemron Environmental Services

Base/Command : blgs 9 and 46

AAB # : WG110382

Contract # : N62467-98-D-0995

Prime Contractor : CCI

Field sample ID	
002-CEF46-21I-Q4-01-11	L0112366-11
002-CEF46-24D-Q4-01-11	L0112366-12
002-CEF46-25I-Q4-01-11	L0112366-13
002-CEF46-26I-Q4-01-11	L0112366-14
002-46DUP-Q4-01-11	L0112366-15
002-46EQB-Q4-01-11	L0112366-16

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: David L. Bumgarner

Date: 03-JAN-02

Title: Laboratory Director

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG110382

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-5I-Q4-01-11 Lab Sample ID: L0112366-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 21-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 16:44

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	260	520	260	1.04	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	79.0	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG110382

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-6D-Q4-01-11 Lab Sample ID: L0112366-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 21-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 16:59

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	270	540	270	1.08	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	103	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG110382

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-7I-Q4-01-11 Lab Sample ID: L0112366-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 21-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 17:15

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	270	540	1900	1.08	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	80.6	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG110382

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-9I-Q4-01-11 Lab Sample ID: L0112366-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 21-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 17:31

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	250	500	250	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	73.1	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG110382

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-9I-Q4-01-11 Lab Sample ID: L0112366-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 21-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 17:46

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	260	520	2500	1.04	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	81.8	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG110382

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-9I-Q4-01-11 Lab Sample ID: L0112366-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 21-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 18:02

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	263	530	2800	1.05	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	93.5	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG110382

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-11 Lab Sample ID: L0112366-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 21-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 18:17

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	275	550	275	1.1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	20.7	49 - 174	*

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG110382

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-13I-Q4-01-11 Lab Sample ID: L0112366-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 20-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 23:40

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	270	540	270	1.08	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	70.1	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG110382

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-14D-Q4-01-11 Lab Sample ID: L0112366-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 20-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 23:55

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	268	540	268	1.07	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	78.8	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG110382

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-15I-Q4-01-11 Lab Sample ID: L0112366-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 21-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 00:10

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	275	550	275	1.1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	78.0	49 -- 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG110382

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-21I-Q4-01-11 Lab Sample ID: L0112366-11 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 21-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 00:26

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	263	530	263	1.05	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	71.5	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG110382

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-24D-Q4-01-11 Lab Sample ID: L0112366-12 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 21-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 00:41

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	250	500	250	1	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	89.3	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG110382

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-25I-Q4-01-11 Lab Sample ID: L0112366-13 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 21-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 00:57

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	270	540	270	1.08	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	94.6	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG110382

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-26I-Q4-01-11 Lab Sample ID: L0112366-14 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 21-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 01:12

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	270	540	720	1.08	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	95.1	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG110382

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46DUP-Q4-01-11 Lab Sample ID: L0112366-15 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 21-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 01:28

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	268	540	268	1.07	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	102	49 – 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG110382

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46EQB-Q4-01-11 Lab Sample ID: L0112366-16 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 21-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 01:43

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	270	540	270	1.08	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	79.7	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8015**

Lab Name : **Kemron Environmental Services**

Base/Command : **blgs 9 and 46**

AAB # : **WG110773**

Contract # : **N62467-98-D-0995**

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF46-12I-Q4-01-11	L0112366-07

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **03-JAN-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG110773

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-11 Lab Sample ID: L0112366-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 03-JAN-2002

Date Received: 19-DEC-01 Date Extracted: 31-DEC-01 Date Analyzed: 03-JAN-02 12:48

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	280	560	280	1.12	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	85.4	49 - 174	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8310**

Lab Name : **Kemron Environmental Services**

Base/Command : **blgs 9 and 46**

AAB # : **WG110372**

Contract # : **N62467-98-D-0995**

Prime Contractor : **CCI**

Field sample ID		Lab Sample ID
002-CEF46-5I-Q4-01-11		L0112366-01
002-CEF46-6D-Q4-01-11		L0112366-02
002-CEF46-7I-Q4-01-11		L0112366-03
002-CEF46-9I-Q4-01-11	RS01	L0112366-04
002-CEF46-9I-Q4-01-11	MS01	L0112366-05
002-CEF46-9I-Q4-01-11	SD01	L0112366-06
002-CEF46-12I-Q4-01-11		L0112366-07
002-CEF46-13I-Q4-01-11		L0112366-08
002-CEF46-14D-Q4-01-11		L0112366-09
002-CEF46-15I-Q4-01-11		L0112366-10

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

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Signature: David L. Bumgarner

Name: **David L. Bumgarner**

Date: **03-JAN-02**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : 8310

AAB # : WG110372

Lab Name : Kemron Environmental Services

Contract # : N62467-98-D-0995

Base/Command : blgs 9 and 46

Prime Contractor : CCI

Field sample ID	
002-CEF46-21I-Q4-01-11	L0112366-11
002-CEF46-24D-Q4-01-11	L0112366-12
002-CEF46-25I-Q4-01-11	L0112366-13
002-CEF46-26I-Q4-01-11	L0112366-14
002-46DUP-Q4-01-11	L0112366-15
002-46EQB-Q4-01-11	L0112366-16

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: David L. Bumgarner

Date: 03-JAN-02

Title: Laboratory Director

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-5I-Q4-01-11 Lab Sample ID: L0112366-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 18:30

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.357	1.1	0.357	1	ND
Acenaphthene	0.441	1.1	0.441	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.303	1.1	0.303	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.595	1.1	0.595	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.359	1.0	0.359	1	ND
Phenanthrene	0.305	1.1	0.305	1	ND
Pyrene	0.0680	0.20	0.0680	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-5I-Q4-01-11 Lab Sample ID: L0112366-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 18:30

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	66.6	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-6D-Q4-01-11 Lab Sample ID: L0112366-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 19:26

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.369	1.1	0.369	1	ND
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.313	1.1	0.313	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.614	1.1	0.614	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.395	1.1	0.395	1	ND
Phenanthrene	0.315	1.1	0.315	1	ND
Pyrene	0.0680	0.20	0.0680	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-6D-Q4-01-11 Lab Sample ID: L0112366-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 19:26

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	86.7	40 – 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-7I-Q4-01-11 Lab Sample ID: L0112366-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 20:23

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.393	1.1	0.393	1	ND
2-Methylnaphthalene	0.365	1.1	0.530	1	J,P
Acenaphthene	0.451	1.1	0.451	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.310	1.1	0.310	1	ND
Benzo(a)anthracene	0.0326	0.22	0.0326	1	ND
Benzo(a)pyrene	0.0576	0.22	0.0576	1	ND
Benzo(b)fluoranthene	0.0370	0.22	0.0370	1	ND
Benzo(g,h,i)perylene	0.0543	0.22	0.0543	1	ND
Benzo(k)fluoranthene	0.0783	0.22	0.0783	1	ND
Chrysene	0.0261	0.22	0.0261	1	ND
Dibenzo(a,h)anthracene	0.0837	0.22	0.0837	1	ND
Fluoranthene	0.0543	0.22	0.0543	1	ND
Fluorene	0.608	1.1	0.608	1	ND
Indeno(1,2,3-cd)pyrene	0.0870	0.22	0.0870	1	ND
Naphthalene	0.390	1.1	9.70	1	
Phenanthrene	0.312	1.1	0.312	1	ND
Pyrene	0.0739	0.22	0.0739	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-7I-Q4-01-11 Lab Sample ID: L0112366-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 20:23

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	70.2	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-7I-Q4-01-11 Lab Sample ID: L0112366-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 20:23

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.365	1.1	2.80	1	P
Acenaphthene	0.451	1.1	0.451	1	ND
Acenaphthylene	0.382	1.1	0.382	1	ND
Anthracene	0.310	1.1	0.310	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0261	0.22	0.0261	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.608	1.1	0.608	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.390	1.1	8.70	1	
Phenanthrene	0.312	1.1	0.312	1	ND
Pyrene	0.0680	0.20	0.0680	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-7I-Q4-01-11 Lab Sample ID: L0112366-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 20:23

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	68.8	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-9I-Q4-01-11 Lab Sample ID: L0112366-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 21:20

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.348	1.0	0.348	1	ND
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.295	1.0	0.295	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0249	0.21	0.0249	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.579	1.0	0.579	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.372	1.0	0.372	1	ND
Phenanthrene	0.297	1.0	0.297	1	ND
Pyrene	0.0705	0.21	0.0705	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-9I-Q4-01-11 Lab Sample ID: L0112366-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 21:20

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	90.1	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-15I-Q4-01-11 Lab Sample ID: L0112366-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 03:56

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.385	1.1	0.385	1	ND
2-Methylnaphthalene	0.357	1.1	0.357	1	ND
Acenaphthene	0.441	1.1	0.441	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.303	1.1	0.303	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.595	1.1	0.595	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.382	1.1	0.382	1	ND
Phenanthrene	0.305	1.1	0.305	1	ND
Pyrene	0.0680	0.20	0.0680	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WQ110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-9I-Q4-01-11 Lab Sample ID: L0112366-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 22:16

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	22.0	1	
2-Methylnaphthalene	0.348	1.0	22.0	1	
Acenaphthene	0.430	1.0	24.0	1	
Acenaphthylene	0.364	1.0	24.0	1	
Anthracene	0.295	1.0	47.0	1	
Benzo(a)anthracene	0.0311	0.21	4.80	1	
Benzo(a)pyrene	0.0549	0.21	3.90	1	
Benzo(b)fluoranthene	0.0352	0.21	4.00	1	
Benzo(g,h,i)perylene	0.0518	0.21	2.70	1	
Benzo(k)fluoranthene	0.0746	0.21	1.70	1	
Chrysene	0.0249	0.21	3.30	1	
Dibenzo(a,h)anthracene	0.0798	0.21	2.30	1	
Fluoranthene	0.0518	0.21	4.90	1	
Fluorene	0.579	1.0	30.0	1	
Indeno(1,2,3-cd)pyrene	0.0829	0.21	2.60	1	
Naphthalene	0.372	1.0	22.0	1	
Phenanthrene	0.297	1.0	42.0	1	
Pyrene	0.0705	0.21	4.90	1	

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-9I-Q4-01-11 Lab Sample ID: L0112366-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 22:16

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	77.1	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-9I-Q4-01-11 Lab Sample ID: L0112366-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 23:13

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.381	1.1	20.0	1	
2-Methylnaphthalene	0.354	1.1	21.0	1	
Acenaphthene	0.437	1.1	23.0	1	
Acenaphthylene	0.369	1.1	23.0	1	
Anthracene	0.300	1.1	48.0	1	
Benzo(a)anthracene	0.0316	0.21	4.80	1	
Benzo(a)pyrene	0.0558	0.21	4.30	1	
Benzo(b)fluoranthene	0.0358	0.21	4.30	1	
Benzo(g,h,i)perylene	0.0526	0.21	3.40	1	
Benzo(k)fluoranthene	0.0758	0.21	2.00	1	
Chrysene	0.0253	0.21	5.60	1	
Dibenzo(a,h)anthracene	0.0811	0.21	3.00	1	
Fluoranthene	0.0526	0.21	4.80	1	
Fluorene	0.588	1.1	31.0	1	
Indeno(1,2,3-cd)pyrene	0.0842	0.21	3.30	1	
Naphthalene	0.378	1.1	20.0	1	
Phenanthrene	0.302	1.1	40.0	1	
Pyrene	0.0716	0.21	4.80	1	

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES
ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-9I-Q4-01-11 Lab Sample ID: L0112366-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 23:13

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	83.4	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-11 Lab Sample ID: L0112366-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 00:09

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.393	1.1	0.393	1	ND
2-Methylnaphthalene	0.365	1.1	0.365	1	ND
Acenaphthene	0.451	1.1	0.451	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.310	1.1	0.310	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.608	1.1	0.608	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.390	1.1	0.390	1	ND
Phenanthrene	0.312	1.1	0.312	1	ND
Pyrene	0.0680	0.20	0.0680	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-11 Lab Sample ID: L0112366-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 00:09

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	62.8	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-13I-Q4-01-11 Lab Sample ID: L0112366-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 01:06

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.357	1.1	0.357	1	ND
Acenaphthene	0.441	1.1	0.441	1	ND
Acenaphthylene	0.373	1.1	0.373	1	ND
Anthracene	0.303	1.1	0.303	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0255	0.21	0.0255	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.595	1.1	0.595	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.382	1.1	0.382	1	ND
Phenanthrene	0.305	1.1	0.305	1	ND
Pyrene	0.0723	0.21	0.0723	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-13I-Q4-01-11 Lab Sample ID: L0112366-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 01:06

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	58.0	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-14D-Q4-01-11 Lab Sample ID: L0112366-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 02:59

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.389	1.1	0.389	1	ND
2-Methylnaphthalene	0.361	1.1	0.361	1	ND
Acenaphthene	0.446	1.1	0.446	1	ND
Acenaphthylene	0.377	1.1	0.377	1	ND
Anthracene	0.306	1.1	0.306	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0258	0.22	0.0258	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.601	1.1	0.601	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.386	1.1	0.386	1	ND
Phenanthrene	0.309	1.1	0.309	1	ND
Pyrene	0.0731	0.22	0.0731	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-14D-Q4-01-11 Lab Sample ID: L0112366-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 02:59

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	64.1	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-15I-Q4-01-11 Lab Sample ID: L0112366-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 03:56

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	77.8	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-21I-Q4-01-11 Lab Sample ID: L0112366-11 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 04:52

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.336	1.0	0.336	1	ND
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.285	1.0	0.285	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0798	0.21	0.0798	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.579	1.0	0.579	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.359	1.0	0.359	1	ND
Phenanthrene	0.287	1.0	0.287	1	ND
Pyrene	0.0705	0.21	0.0705	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-21I-Q4-01-11 Lab Sample ID: L0112366-11 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 04:52

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	56.2	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-24D-Q4-01-11 Lab Sample ID: L0112366-12 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 05:49

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.336	1.0	0.336	1	ND
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.285	1.0	0.285	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.601	1.1	0.601	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.359	1.0	0.359	1	ND
Phenanthrene	0.309	1.1	0.309	1	ND
Pyrene	0.0731	0.22	0.0731	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-24D-Q4-01-11 Lab Sample ID: L0112366-12 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 05:49

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	69.8	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-25I-Q4-01-11 Lab Sample ID: L0112366-13 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 06:46

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.336	1.0	0.336	1	ND
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.285	1.0	0.285	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.621	1.1	0.621	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.359	1.0	0.359	1	ND
Phenanthrene	0.287	1.0	0.287	1	ND
Pyrene	0.0756	0.22	0.0756	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-25I-Q4-01-11 Lab Sample ID: L0112366-13 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 06:46

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	74.9	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-26I-Q4-01-11 Lab Sample ID: L0112366-14 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 07:42

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.365	1.1	0.365	1	ND
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.285	1.0	0.285	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.608	1.1	0.608	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.390	1.1	0.390	1	ND
Phenanthrene	0.312	1.1	0.312	1	ND
Pyrene	0.0739	0.22	0.0739	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-26I-Q4-01-11 Lab Sample ID: L0112366-14 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 07:42

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	56.8	40 -- 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46DUP-Q4-01-11 Lab Sample ID: L0112366-15 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 08:39

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.373	1.1	0.373	1	ND
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.285	1.0	0.285	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.621	1.1	0.621	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.399	1.1	0.399	1	ND
Phenanthrene	0.287	1.0	0.287	1	ND
Pyrene	0.0680	0.20	0.0680	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46DUP-Q4-01-11 Lab Sample ID: L0112366-15 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 08:39

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	83.6	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46EQB-Q4-01-11 Lab Sample ID: L0112366-16 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 09:36

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.362	1.0	0.362	1	ND
2-Methylnaphthalene	0.378	1.1	0.378	1	ND
Acenaphthene	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.320	1.1	0.320	1	ND
Benzo(a)anthracene	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0530	0.20	0.0530	1	ND
Benzo(b)fluoranthene	0.0340	0.20	0.0340	1	ND
Benzo(g,h,i)perylene	0.0500	0.20	0.0500	1	ND
Benzo(k)fluoranthene	0.0720	0.20	0.0720	1	ND
Chrysene	0.0240	0.20	0.0240	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.559	1.0	0.559	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.403	1.1	0.403	1	ND
Phenanthrene	0.287	1.0	0.287	1	ND
Pyrene	0.0680	0.20	0.0680	1	ND

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WQ110372

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46EQB-Q4-01-11 Lab Sample ID: L0112366-16 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 19-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 21-DEC-01 09:36

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	88.0	40 - 132	

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : 9056

Lab Name : Kemron Environmental Services

Base/Command : blgs 9 and 46

AAB # : WG110288

Contract # : N62467-98-D-0995

Prime Contractor : CCI

Field sample ID		Lab Sample ID
002-CEF46-5I-Q4-01-11		L0112366-01
002-CEF46-6D-Q4-01-11		L0112366-02
002-CEF46-7I-Q4-01-11		L0112366-03
002-CEF46-9I-Q4-01-11	RS01	L0112366-04
002-CEF46-9I-Q4-01-11	MS01	L0112366-05
002-CEF46-9I-Q4-01-11	SD01	L0112366-06
002-CEF46-12I-Q4-01-11		L0112366-07
002-CEF46-13I-Q4-01-11		L0112366-08
002-CEF46-14D-Q4-01-11		L0112366-09
002-CEF46-15I-Q4-01-11		L0112366-10

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: David L. Bumgarner

Date: 03-JAN-02

Title: Laboratory Director

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : 9056

AAB # : WG110288

Lab Name : Kemron Environmental Services

Contract # : N62467-98-D-0995

Base/Command : blgs 9 and 46

Prime Contractor : CCI

Field sample ID	
002-CEF46-21I-Q4-01-11	L0112366-11
002-CEF46-24D-Q4-01-11	L0112366-12
002-CEF46-25I-Q4-01-11	L0112366-13
002-CEF46-26I-Q4-01-11	L0112366-14
002-46DUP-Q4-01-11	L0112366-15
002-46EQB-Q4-01-11	L0112366-16

Comments:

RS=Parent Sample, MS or SS=Matrix Spike, SD=Spike Duplicate, DS=Duplicate Sample.

Suffix Matches parent to QC

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: David L. Bumgarner

Name: David L. Bumgarner

Date: 03-JAN-02

Title: Laboratory Director

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG110288

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-5I-Q4-01-11 Lab Sample ID: L0112366-01 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 19-DEC-01

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 19-DEC-01 12:45

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	3.40	1	
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG110288

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-6D-Q4-01-11 Lab Sample ID: L0112366-02 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 19-DEC-01

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 19-DEC-01 13:08

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG110288

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-7I-Q4-01-11 Lab Sample ID: L0112366-03 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 19-DEC-01

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 19-DEC-01 13:20

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG110288

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-9I-Q4-01-11 Lab Sample ID: L0112366-04 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 19-DEC-01

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 19-DEC-01 13:31

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG110288

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-9I-Q4-01-11 Lab Sample ID: L0112366-05 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 19-DEC-01

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 19-DEC-01 16:58

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	4.60	1	
Nitrite	0.0610	0.40	4.30	1	
Phosphate	0.163	1.0	11.0	1	

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG110288

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-9I-Q4-01-11 Lab Sample ID: L0112366-06 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 19-DEC-01

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 19-DEC-01 13:54

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	4.00	1	
Nitrite	0.0610	0.40	3.80	1	
Phosphate	0.163	1.0	9.90	1	

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG110288

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-12I-Q4-01-11 Lab Sample ID: L0112366-07 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 19-DEC-01

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 19-DEC-01 14:17

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG110288

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-13I-Q4-01-11 Lab Sample ID: L0112366-08 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 19-DEC-01

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 19-DEC-01 14:29

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG110288

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-14D-Q4-01-11 Lab Sample ID: L0112366-09 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 19-DEC-01

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 19-DEC-01 14:40

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG110288

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-15I-Q4-01-11 Lab Sample ID: L0112366-10 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 19-DEC-01

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 19-DEC-01 14:52

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG110288

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-21I-Q4-01-11 Lab Sample ID: L0112366-11 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 19-DEC-01

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 19-DEC-01 15:03

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG110288

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-24D-Q4-01-11 Lab Sample ID: L0112366-12 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 19-DEC-01

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 19-DEC-01 15:15

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG110288

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-25I-Q4-01-11 Lab Sample ID: L0112366-13 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 19-DEC-01

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 19-DEC-01 15:26

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

Page 1 of 1

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG110288

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-CEF46-26I-Q4-01-11 Lab Sample ID: L0112366-14 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 19-DEC-01

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 19-DEC-01 15:38

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG110288

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46DUP-Q4-01-11 Lab Sample ID: L0112366-15 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 19-DEC-01

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 19-DEC-01 15:49

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG110288

Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995

Field Sample ID: 002-46EQB-Q4-01-11 Lab Sample ID: L0112366-16 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 19-DEC-01

Date Received: 19-DEC-01 Date Extracted: Date Analyzed: 19-DEC-01 16:01

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.0670	1	ND
Nitrite	0.0610	0.40	0.0610	1	ND
Phosphate	0.163	1.0	0.163	1	ND

Surrogate	Recovery	Control Limits	Qualifier

Internal Std	Qualifier

Comments:

All results, MDLs, and RLs have been corrected to dry weight, where applicable.

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1.2 Attachments

KEMRON ANALYST LIST

Ohio Valley Laboratory

12/26/2001

ADH - ANGELA D. HURST
AJF - AMANDA J. FICKIESEN
ALT - ANN L. THAYER
AMT - ANDREA M. TUCKER
ARS - ANGELINA R. SCOTT
BRG - BRENDA R. GREGORY
CAF - CHERYL A. FLOWERS
CAK - CHERYL A. KOELSCH
CBN - CHARLES B. NOLL
CEB - CHAD E. BARNES
CLC - CHRYS L. CRAWFORD
CLK - CARL L. KING
CLW - CHARISSA L. WINTERS
CMS - CRYSTAL M. STEVENS
CRC - CARLA R. COCHRAN
CSH - CHRIS S. HILL
DAM - DAN A. MUSGRAVE
DAS - DALLAS A. SULLIVAN
DAT - DEBBIE A. TORNES
DEL - DON E. LIGHTFRITZ
DEV - DAVID E. VANDENBERG
DGB - DOUGLAS G. BUTCHER
DIH - DEANNA I. HESSON
DLA - DENISE L. ADAMS
DLB - DAVID L. BUMGARNER
DLN - DEANNA L. NORTON
DLP - DOROTHY L. PAYNE
DLR - DIANNA L. RAUCH
DP - DEANNA L. PIERSON
DSM - DAVID S. MOSSOR
DST - DENNIS S. TEPE
ECL - ERIC C. LAWSON
GSG - GALEN S. GEORGE
HV - HEMA VILASAGAR
JAQ - JEROMY A. QUESENBERRY
JKW - JANE K. WARDEN
JLS - JANICE L. SCHIMMEL
JMM - JARROD M. MARTIN
JMT - JOY M. THOMAS
JWR - JOHN W. RICHARDS
JWS - JACK W. SHEAVES
JYH - JI Y. HU
KHR - KIM H. RHODES
KRA - KATHY R. ALBERTSON
KSL - KELLY S. LAUER
LKN - LINDA K. NEDEFF
LMT - LUCINDA M. TILTON
LRR - LUCYNDA R. ROBERTS
LSA - LUCINDA S. ARNOLD
LSB - LESLIE S. BUCINA
MDA - MICHAEL D. ALBERTSON
MDC - MICHAEL D. COCHRAN
MEF - MIKE E. FLANAGAN
MES - MARY E. SCHILLING
MLS - MICHAEL L. SCHIMMEL
MMB - MAREN M. BEERY
MRR - MICHELLE R. RAUCH
MSW - MATT S. WILSON
NJB - NATALIE J. BOOTH
RDC - REBECCA D. CUTLIP
REF - RON E. FERTILE
REK - ROBERT E. KYER
RJW - RHONDA J. WITTEKIND
RLW - RON L. WATSON
RSH - RENEE S. HENNES
RSS - REGINA S. SIMMONS
RWC - ROD W. CAMPBELL
SJK - SINDY J. KINNEY
SLP - SHERI L. PFALZGRAF
SLT - STEPHANIE L. TEPE
SMW - SHAUNA M. WELCH
SPL - STEVE P. LEARN
TJH - TIM J. HOEFLICH
TLD - TERESA L. DAVIS
TMM - TAMMY M. MORRIS
VC - VICKI COLLIER
VKL - VICKY K. LAUER

KEMRON Environmental Services, Inc
List of Valid Qualifiers
December 15, 2000

Standard Qualifiers

These are KEMRON's Standard Report Qualifiers

A	See the report narrative
B	Present in the method blank
C	Confirmed by GC/MS
CG	Confluent growth
D	The analyte was quantified at a secondary dilution factor
DL	Surrogate or spike was diluted out
E	Estimated concentration due to sample matrix interference
FL	Free liquid
I	Semiquantitative result, out of instrument calibration range
J	Present below nominal reporting limit
L	Sample reporting limits elevated due to matrix interference
M	Duplicate injection precision not met
N	Tentatively Identified Compound (TIC)
NA	Not applicable
ND	Not detected at or above the reporting limit (RL)
NF	Not found
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentration >40% difference between The two GC columns
QNS	Quantity not sufficient to perform analysis
R	Analyte exceeds regulatory limit
RA	Re analysis confirms reported results
RE	Re analysis confirms sample matrix Interference
S	Analyzed by method of standard addition
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TNTC	Too numerous to count
U	Analyzed for but not detected
W	Post-digestion spike for furnace AA out Of control limits
Z	Can not be resolved from isomer.***
+	Correlation coefficient for the MSA is less Than 0.995
<	Less than
>	Greater than
*	Surrogate or spike compound out of range

***** Special Notes for Organic Analytes**

1. Acrolein and acrylonitrile by method 624 are semiquantative screens only
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene
3. N-nitrosodiphenylamine cannot be separated from diphenylamine
4. 3-Methyphenol and 4-Methyphenol are unresolvable compounds
5. m-Xylene and p-Xylene are unresolvable compounds
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent

AFCEE Qualifiers

These are KEMRON's AFCEE Report Qualifiers

J	The analyte was positively identified, the quantitation is an estimation
U	The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL
F	The analyte was positively identified but the associated numerical value is below the RL
R	The data is unusable due to deficiencies in the ability to analyze the sample and meet QC criteria
B	The analyte was found in an associated blank, as well as in the sample
M	The matrix effect was present
S	To be applied to all field screening data
T	Tentatively identified compound (using GC/MS)

CH2M Hill Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No (770) 604-9182 ; Fax No (770) 604-9282

CHAIN-OF-CUSTODY RECORD

COC NUMBER
149152-184 page _1_ of _2_

PROJECT NAME:	PROJECT NUMBER:	LAB NAME AND CONTACT:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	RECIPIENT 1 (Address, Tel No. , and Fax No.):
N.A.S. Cecil Field Building 46	149152	Teressa Davis Kemron Environmental Services	Bill Canelos J.A Jones Env. Services	6219 Authority Road, Jacksonville, FL 32221 PH: (904) 7774812 FAX: (904) 7774262
PROJECT PHASE/SITE/TASK:	CTO OR DO NUMBER:	LAB PO NUMBER:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	RECIPIENT 2 (Address, Tel No. , and Fax No.):
Building 46 /Monthly GW Sampling Event	0002	2329	Christelle Newsome CH2M Hill Constuctors, Inc.	115 Perimeter Center Place, N.E. Suite 700 Atlanta, GA 30346 PH:(770)604-9182 Ext.561 FAX:604-9282
PROJECT CONTACT:	PROJECT TEL NO AND FAX NO:	LAB TEL NO AND FAX NO:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	RECIPIENT 3 (Address, Tel No. , and Fax No.):
Randy Dumaop	Phone: 904-777-4812 Fax:904-777-4262	Phone: 740-373-4071 Fax: 740-373-4835		

ANALYSES REQUIRED (Include Method Numbers)

ITEM	SAMPLE IDENTIFIER	SAMPLE DESCRIPTION/LOCATION	MATRIX	DATE COLLECTED	TIME COLLECTED	DATA LEVEL	TAT (calendar days)	BTEX by 8021B	Naphthalene & 15 Method Listed PAHs by 8310	TRPH by FL-PRO	NO2 NO3 PO4 by EPA Method 300.0				SAMPLE TYPE (see codes on back)	COMMENTS/ SCREENING READINGS	LAB ID
1	002-CEF46-5I-Q4-01-11	CEF-46-5I	W	12/18/01	11:40	III/C	14	2	2	2	1				Grab		
2	002-CEF46-6D-Q4-01-11	CEF-46-6D	W	12/18/01	11:35	III/C	14	2	2	2	1				Grab		
3	002-CEF46-7I-Q4-01-11	CEF-46-7I	W	12/18/01	13:20	III/C	14	2	2	2	1				Grab		
4	002-CEF46-9I-Q4-01-11	CEF-46-9I	W	12/18/01	11:00	III/C	14	6	6	6	3				Grab	MS/MSD	
5	002-CEF46-12I-Q4-01-11	CEF-46-12I	W	12/18/01	9:40	III/C	14	2	2	2	1				Grab		
6	002-CEF46-13I-Q4-01-11	CEF-46-13I	W	12/18/01	10:05	III/C	14	2	2	2	1				Grab		
7	002-CEF46-14D-Q4-01-11	CEF-46-14D	W	12/18/01	10:30	III/C	14	2	2	2	1				Grab		
8	002-CEF46-15I-Q4-01-11	CEF-46-15I	W	12/18/01	9:15	III/C	14	2	2	2	1				Grab		
9	002-CEF46-21I-Q4-01-11	CEF-46-21I	W	12/18/01	14:30	III/C	14	2	2	2	1				Grab		
10	002-CEF46-24D-Q4-01-11	CEF-46-24D	W	12/18/01	14:00	III/C	14	2	2	2	1				Grab		

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:
Randy Dumaop / Sean Smith J.A. Jones Environmental Services	Federal Express Track 791165484681, 791165484692, 790251085209, 792472821055, 791735926355, 792690322269, 792690322280, 790980076368, 832582559670.

C/O Sealed Sp intact Coolers Temps 2/3/2 4/2 2/2/3

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	12/18/01	18:00	Federal Express	12/18/01	18:00
Printed Name and Signature:			Printed Name and Signature:		
			Brenda Gregory Brenda Gregory	12/19/01	1029

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CCI001, Rev 02/00

CH2M Hill Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No (770) 604-9182 ; Fax No (770) 604-9282

CHAIN-OF-CUSTODY RECORD

COC NUMBER
149152-184 page _2_ of _2_

PROJECT NAME:	PROJECT NUMBER:	LAB NAME AND CONTACT:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	RECIPIENT 1 (Address, Tel No. , and Fax No.):
N.A.S. Cecil Field Building 46	149152	Teressa Davis Kemron Environmental Services	Bill Canelos J.A Jones Env. Services	6219 Authority Road, Jacksonville, FL 32221 PH: (904) 7774812 FAX: (904) 7774262
PROJECT PHASE/SITE/TASK:	CTO OR DO NUMBER:	LAB PO NUMBER:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	RECIPIENT 2 (Address, Tel No. , and Fax No.):
Building 46 /Monthly GW Sampling Event	0002	2329	Christelle Newsome CH2M Hill Constuctors, Inc.	115 Perimeter Center Place, N.E. Suite 700 Atlanta, GA 30346 PH:(770)604-9182 Ext.561 FAX:604-9282
PROJECT CONTACT:	PROJECT TEL NO AND FAX NO:	LAB TEL NO AND FAX NO:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	RECIPIENT 3 (Address, Tel No. , and Fax No.):
Randy Dumaop	Phone: 904-777-4812 Fax:904-777-4262	Phone: 740-373-4071 Fax: 740-373-4835		

ANALYSES REQUIRED (Include Method Numbers)

ITEM	SAMPLE IDENTIFIER	SAMPLE DESCRIPTION/LOCATION	MATRIX	DATE COLLECTED	TIME COLLECTED	~~DATA PKG~~ DATA LEVEL	TAT (calendar days)	BTEX by 8021B	Naphthalene & 15 Method Listed PAHs by 8310	TRPH by FL-PRO	NO2 NO3 PO4 by EPA Method 300.0				SAMPLE TYPE (see codes on back)	COMMENTS/ SCREENING READINGS	LAB ID
1	002-CEF46-25I-Q4-01-11	CEF-46-25I	W	12/18/01	15:00	III/C	14	2	2	2	1				Grab		
2	002-CEF46-26I-Q4-01-11	CEF-46-26I	W	12/18/01	15:30	III/C	14	2	2	2	1				Grab		
3	002-46DUP-Q4-01-11	Duplicate	W	12/18/01	NA	III/C	14	2	2	2	1				Grab		
4	002-46EQB-Q4-01-11	Equipment Blank	W	12/18/01	13:30	III/C	14	2	2	2	1				Grab		
5	002-46TB2-Q4-01-11	Trip Blank No. 2	W	NA	NA	III/C	14	2							Grab	Prepared by Lab	
6	NA	Temperature Blank	W	NA	NA	III/C	14								Grab	Prepared by Lab	
7																	
8																	
9																	
10																	

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:
Randy Dumaop / Sean Smith J.A. Jones Environmental Services	Federal Express Track 791165484681, 791165484692, 790251085209, 792472821055, 791735926355, 792690322269, 792690322280, 790980076368, 832582559670.

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	12/18/01	18:00	Federal Express	12/18/01	18:00
Printed Name and Signature:			Printed Name and Signature:		
			Brenda Gregory / Brenda Gregory	12/19/01	1029

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CCI001, Rev 02/00

KEMRON Internal Laboratory Chain of Custody

Work Order: L0112366 **Client:** CCI **# of Samples:** 17 **Due Date:** _____ **Page:** _____

Sample #	Analysis	Reason	Removed By ADT	Removed From	Moved To	Reliq. by	Ret'd By ADT	Ret'd To	Rec'd By	Reason
1-16	9056	EXT	12/19/01 @ 1300	LOGIN	SV	BLG	12/21/01 09:30	Archived-2	BLG	archive
1-16A	8310	EXT	CEB 12-19-01 @ 1224	LOGIN	ELAB	BLG	JEA 12/20/01 0900	dumpster	DS	disposal
1-16A	PRO	EXT	CEB 12-19-01 @ 1336	WALKIN	ELAB	LMT	JEA 12/20/01 0900	dumpster	DS	disposal
1-K617	Beta	analysis	GS 12/20/01 @ 0935	GS 12/20/01 LOT V1	org 3/WA	BLG				
07B	PRO	REEXT	CEB 12/31/01 @ 0937	WALKIN	ELAB	LS	JEA 1/3/02 0830	dumpster	LMT	disposal

report sent to client 1/4 MPR

KEMRON Environmental Services | **SAMPLES RECEIPT FORM** | Marietta Laboratory

CLIENT: CCI BRG LMT Other _____	**DATE:** 12/19/01	**SHIPPED BY:** (✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: KL130	**COOLER ID:** KL480	**COOLER ID:** Coleman
INDEX #: 83258255 9670	**INDEX #:** 790251085209	**INDEX #:** 79098007 6368
SEALED (✓) YES ( ) NO	**SEALED** (✓) YES ( ) NO	**SEALED** (✓) YES ( ) NO
CUSTODY (✓) YES ( ) NO	**CUSTODY** (✓) YES ( ) NO	**CUSTODY** (✓) YES ( ) NO
TEMP: (C) (D) 2 °C	**TEMP:** (C) (D) 2 °C	**TEMP:** (C) (D) 3 °C
TEMP IN RANGE (4°C ± 2°) (✓) YES ( ) NO	**TEMP IN RANGE** (4°C ± 2°) (✓) YES ( ) NO	**TEMP IN RANGE** (4°C ± 2°) (✓) YES ( ) NO
WET ICE (✓) **BLUE ICE** ( )	**WET ICE** (✓) **BLUE ICE** ( )	**WET ICE** (✓) **BLUE ICE** ( )
ICE FROZEN (✓) **MELTED** ( )	**ICE FROZEN** (✓) **MELTED** ( )	**ICE FROZEN** (✓) **MELTED** ( )
RADIATION CHECKED (✓) YES ( ) NO	**RADIATION CHECKED** (✓) YES ( ) NO	**RADIATION CHECKED** (✓) YES ( ) NO
SAMPLE INTACT (✓) YES ( ) NO **SALVAGEBLE** ( ) YES ( ) NO	**SAMPLE INTACT** (✓) YES ( ) NO **SALVAGEBLE** ( ) YES ( ) NO	**SAMPLE INTACT** (✓) YES ( ) NO **SALVAGEBLE** ( ) YES ( ) NO
SAMPLE TYPE: **WATER** (✓) **SOIL** ( ) **OTHER** ( )	**SAMPLE TYPE:** **WATER** (✓) **SOIL** ( ) **OTHER** ( )	**SAMPLE TYPE:** **WATER** (✓) **SOIL** ( ) **OTHER** ( )
LABELS: INTACT (✓) YES ( ) NO **LEGIBLE** (✓) YES ( ) NO **MATCH COC** (✓) YES ( ) NO	**LABELS: INTACT** (✓) YES ( ) NO **LEGIBLE** (✓) YES ( ) NO **MATCH COC** (✓) YES ( ) NO	**LABELS: INTACT** (✓) YES ( ) NO **LEGIBLE** (✓) YES ( ) NO **MATCH COC** (✓) YES ( ) NO
pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	**pH IN RANGE (2 - >9 - >12) AS APPROPRIATE** ( ) YES ( ) NO	**pH IN RANGE (2 - >9 - >12) AS APPROPRIATE** ( ) YES ( ) NO
SAMPLES FROZEN? ( ) YES ( ) NO	**SAMPLES FROZEN?** ( ) YES ( ) NO	**SAMPLES FROZEN?** ( ) YES ( ) NO
LOG-IN COMMENTS	**LOG-IN COMMENTS** 1320	**LOG-IN COMMENTS**
1100	1400	VO'S
MS/MSD		

TSR COMMENTS

CONTACT:	**DATE:**	**TIME:**

COMMENTS: ( ) VOICE ( ) FAX ( ) E-MAIL

Revised 10/16/01

KEMRON Environmental Services | **SAMPLES RECEIPT FORM** | Marietta Laboratory

CLIENT: CCI	DATE: 12/19/01	SHIPPED BY: (✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT
BRG LMT Other _____		

COOLER ID: KL926	COOLER ID: KL1034	COOLER ID: KL981
INDEX #: 79269032280	INDEX #: 79116548468 1	INDEX #: 79173592 6355
SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO	SEALED (✓) YES ( ) NO
CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO	CUSTODY (✓) YES ( ) NO
TEMP: (C) (D) 2 °C	TEMP: (C) (D) 3 °C	TEMP: (C) (D) 2 °C
TEMP IN RANGE (4°C ± 2°) (✓) YES ( ) NO	TEMP IN RANGE (4°C ± 2°) (✓) YES ( ) NO	TEMP IN RANGE (4°C ± 2°) (✓) YES ( ) NO
WET ICE (✓) BLUE ICE ( )	WET ICE (✓) BLUE ICE ( )	WET ICE (✓) BLUE ICE ( )
ICE FROZEN (✓) MELTED ( )	ICE FROZEN (✓) MELTED (✓)	ICE FROZEN (✓) MELTED ( )
RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED (✓) YES ( ) NO
SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO
SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER (✓) SOIL ( ) OTHER ( )
LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO	LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO	LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO
pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE (✓) YES ( ) NO
SAMPLES FROZEN? ( ) YES ( ) NO	SAMPLES FROZEN? ( ) YES ( ) NO	SAMPLES FROZEN? ( ) YES ( ) NO
LOG-IN COMMENTS 1100	LOG-IN COMMENTS	LOG-IN COMMENTS
1030	1500	1430
	1530	1330

TSR COMMENTS

CONTACT:	DATE:	TIME:

COMMENTS: ( ) VOICE ( ) FAX ( ) E-MAIL

Revised 10/16/01

KEMRON Environmental Services | **SAMPLES RECEIPT FORM** | Marietta Laboratory

CLIENT: CCI (BRG) LMT Other _____	**DATE:** 12/19/01	**SHIPPED BY:** (✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: KL1080	**COOLER ID:** KL1008	**COOLER ID:** KL270
INDEX #: 792472821055	**INDEX #:** 791165484692	**INDEX #:** 792690322269
SEALED (✓) YES ( ) NO	**SEALED** (✓) YES ( ) NO	**SEALED** ( ) YES ( ) NO
CUSTODY (✓) YES ( ) NO	**CUSTODY** (✓) YES ( ) NO	**CUSTODY** ( ) YES ( ) NO
TEMP: (C) (D) 1 °C	**TEMP:** (C) (D) 1 °C	**TEMP:** (C) (D) 2 °C
TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO	**TEMP IN RANGE** (4°C ± 2°) ( ) YES (✓) NO	**TEMP IN RANGE** (4°C ± 2°) (✓) YES ( ) NO
WET ICE (✓) **BLUE ICE** ( )	**WET ICE** (✓) **BLUE ICE** ( )	**WET ICE** (✓) **BLUE ICE** ( )
ICE FROZEN (✓) **MELTED** ( )	**ICE FROZEN** (✓) **MELTED** ( )	**ICE FROZEN** (✓) **MELTED** ( )
RADIATION CHECKED (✓) YES ( ) NO	**RADIATION CHECKED** (✓) YES ( ) NO	**RADIATION CHECKED** (✓) YES ( ) NO
SAMPLE INTACT (✓) YES ( ) NO **SALVAGEBLE** ( ) YES ( ) NO	**SAMPLE INTACT** (✓) YES ( ) NO **SALVAGEBLE** ( ) YES ( ) NO	**SAMPLE INTACT** (✓) YES ( ) NO **SALVAGEBLE** ( ) YES ( ) NO
SAMPLE TYPE: **WATER** (✓) **SOIL** ( ) **OTHER** ( )	**SAMPLE TYPE:** **WATER** (✓) **SOIL** ( ) **OTHER** ( )	**SAMPLE TYPE:** **WATER** (✓) **SOIL** ( ) **OTHER** ( )
LABELS: **INTACT** (✓) YES ( ) NO **LEGIBLE** (✓) YES ( ) NO **MATCH COC** (✓) YES ( ) NO	**LABELS:** **INTACT** (✓) YES ( ) NO **LEGIBLE** (✓) YES ( ) NO **MATCH COC** (✓) YES ( ) NO	**LABELS:** **INTACT** (✓) YES ( ) NO **LEGIBLE** (✓) YES ( ) NO **MATCH COC** (✓) YES ( ) NO
pH IN RANGE (2 - >9 - >12) **AS APPROPRIATE** (✓) YES ( ) NO	**pH IN RANGE** (2 - >9 - >12) **AS APPROPRIATE** (✓) YES ( ) NO	**pH IN RANGE** (2 - >9 - >12) **AS APPROPRIATE** (✓) YES ( ) NO
SAMPLES FROZEN? ( ) YES (✓) NO	**SAMPLES FROZEN?** ( ) YES (✓) NO	**SAMPLES FROZEN?** ( ) YES ( ) NO
LOG-IN COMMENTS	**LOG-IN COMMENTS** 1005	**LOG-IN COMMENTS** 1135
915	940	1140
DUP		

TSR COMMENTS

CONTACT:	**DATE:**	**TIME:**

COMMENTS: ( ) VOICE ( ) FAX ( ) E-MAIL

Revised 10/16/01

109

CRF#4

Sample Receipt Form #2

Client: CCI Project:

Date Received: 12/19/01

_____Cooler temperature > than 6 degrees Celcius

Reason_____

_____Samples received not on chain of custody

_____Samples on chain of custody not received

✓ Information on sample containers different from chain of custody

All labels on containers not finished. Only middle of sample Id on jars

_____Sample containers received broken, leaking or not sealed (List sample ID)

_____pH out (List sample ID & which container)

_____Insufficient sample volume

_____Air bubbles present in Voa vials (List sample ID)

_____Hold time expired (List sample ID)

TSR:

Was client notified regarding information: YES NO

Name of person contacted:_____ Company:_____

TSR:_____ Date:_____

Attach: Phone Logs, e-mails, faxes, etc.

CRF #1

COOLER RECEIPT FORM

Contractor Cooler _____
MRD Cooler # _____
Number of Coolers 9

PROJECT: NAS Cecil Field | Bldg 46 LIMS# L0112366

USE OTHER SIDE OF THIS FORM TO NOTE DETAILS CONERNING CHECK-IN PROBLEMS

A. **PRELIMINARY EXAMINATION PHASE:** Date cooler opened: 12/19/01 C-of-C Number: 149152
by (print) Brenda Gregory (sign) Brenda Gregory

1. Did cooler come with a shipping slip (air bill, etc.)? ..... (YES) NO
   If YES, enter carrier name & air bill number here: Fed ex (See CRF #3)
2. Were custody seals on outside of cooler? ..... (YES) NO
   How many & where? 1-front, seal date: 12/18/01 seal name: Kemron
3. Were custody seals unbroken and intact at the data and time of arrival? ..... (YES) NO
4. Did you screen samples for radioactivity using the Geiger Counter? ..... (YES) NO
5. Were custody papers sealed in a plastic bag & taped inside to the lid? ..... YES (NO)
6. Were custody papers filled out properly (ink, signed, etc.)? ..... (YES) NO
7. Did you sign custody papers in the appropriate place? ..... (YES) NO
8. Was project identifiable from custody papers? If yes, enter project name at the top of this form ..... (YES) NO
9. If required, was enough ice used? ..... Type of ice: Wet Temp See CRF #3 ..... (YES) NO
10. Have designated person initial here to acknowledge receipt of cooler: BG (date) 12/19/01

B. **LOG-IN PHASE:** Date samples were logged-in: 12-19-01
by (print) Brenda Gregory (sign) Brenda Gregory

11. Describe type of packing in cooler: dividers; wet ice
12. Were all bottles sealed in separate plastic bags? ..... YES (NO)
13. Did all bottles arrive unbroken & were labels in good condition? ..... (YES) NO
14. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? ..... YES (NO)
15. Did all bottle labels agree with custody papers? ..... (YES) NO
16. Were correct containers used for the tests indicated? ..... (YES) NO
17. Were correct preservatives added to samples? ..... (YES) NO
18. Was a sufficient amount of sample sent for tests indicated? ..... (YES) NO
19. Were bubbles absent in volatile samples? If NO, list by Sample # _____ (YES) NO
20. Was the project manager called and status discussed? If YES, give details on the back of this form ..... YES NO
21. Who was called? _____ By whom? _____ (date) _____

2.0 Full Sample Data Package

2.1 Volatiles Data

2.1.3 BTEX GC Data (8021)

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0112366

METHOD

Preparation: SW- 846 5030B
Analysis: SW-846 8021B

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.
Matrix Spikes: All acceptance criteria were met.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: Samples 03 and 14 required dilution analysis to obtain results within the linear range.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: JLS

REVIEWED: Janice L. Schimmel DATE: 12/3/04

Rev. 6/00

BETX-GC DATA (8021)

Login Number: L0112366

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

NA Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and quantitation report for each sample analysis and re-analysis (if re-analyzed) (Numerical order)

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data) (Chronological)

✓ Chromatograms and quantitation reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and quantitation reports (chronological)

✓ Retention time window summary (if applicable)(chronological)

D. Raw QC Data

✓ Method Blank, chromatogram and quantitation report for each matrix type (chronological)

✓ Laboratory Control Sample, chromatogram and quantitation report for each matrix type (chronological)

✓ Matrix Spike/Matrix Spike Duplicate, chromatograms and quantitation reports (if not reported as samples) and of the same client batch (chronological)

✓ Instrument runlogs (chronological)

NA Extraction bench sheets (for mid-level methanol extractions) (chronological)

NA 5035 logs (if applicable) (chronological)

Checked By: Janice L. Schimmel **Date:** 6/26/01

2.1.3.1 QC Summary

METHOD BLANK SUMMARY

Login Number: L0112366
Blank File ID: 5G11433
Date Analyzed: 12/20/01
Time Analyzed: 11:24
Analyst: JLS

Work Group: WG110358
Blank Sample ID: WG110358-01
Instrument ID: HP5
Method: 8021

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG110358-02	5G11434	12/20/01 11:58	
002-CEF46-5I-Q4-01-11	L0112366-01	5G11438	12/20/01 15:29	
002-CEF46-6D-Q4-01-11	L0112366-02	5G11439	12/20/01 16:04	
002-CEF46-9I-Q4-01-11	L0112366-04	5G11440	12/20/01 16:39	
002-CEF46-9I-Q4-01-11	L0112366-05	5G11441	12/20/01 17:14	
002-CEF46-9I-Q4-01-11	L0112366-06	5G11442	12/20/01 17:48	
002-CEF46-7I-Q4-01-11	L0112366-03	5G11444	12/20/01 18:58	
002-CEF46-12I-Q4-01-11	L0112366-07	5G11445	12/20/01 19:32	
002-CEF46-13I-Q4-01-11	L0112366-08	5G11446	12/20/01 20:07	
002-CEF46-14D-Q4-01-11	L0112366-09	5G11447	12/20/01 20:42	
002-CEF46-15I-Q4-01-11	L0112366-10	5G11448	12/20/01 21:17	
002-CEF46-21I-Q4-01-11	L0112366-11	5G11449	12/20/01 21:52	
002-CEF46-24D-Q4-01-11	L0112366-12	5G11450	12/20/01 22:26	
002-CEF46-25I-Q4-01-11	L0112366-13	5G11451	12/20/01 23:01	
002-CEF46-26I-Q4-01-11	L0112366-14	5G11452	12/20/01 23:36	
002-46DUP-Q4-01-11	L0112366-15	5G11453	12/21/01 00:10	
002-46EQB-Q4-01-11	L0112366-16	5G11455	12/21/01 01:20	
002-46TB2-Q4-01-11	L0112366-17	5G11456	12/21/01 01:54	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0112366
Instrument ID: HP5
File ID: 5G11433
Workgroup (AAB#): WG110358
Contract #:

Run Date: 12/20/2001
Run Time: 11:24
Analyst: JLS

Sample ID: WG110358-01
Method: 8021B
Matrix: Water
Units: ug/L
Cal ID: HP5-19-NOV-2001

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
MTBE	0.500	1.00	0.500	1.00	ND
Benzene	0.500	1.00	0.500	1.00	ND
Toluene	0.500	1.00	0.500	1.00	ND
Ethylbenzene	0.500	1.00	0.500	1.00	ND
Total xylenes	0.500	1.00	0.500	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	98.3	70 - 130	PASS

F Analyte concentration between MDL and RDL
* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 12/06/2001
Version 1.1
Report generated 12/21/2001 14:29

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0112366
Instrument ID: HP5
File ID: 5G11434
Workgroup (AAB#): WG110358
Contract #:

Run Date: 12/20/2001
Run Time: 11:58
Analyst: JLS

Sample ID: WG110358-02
Method: 8021B
Matrix: Water
Units: ug/L
Cal ID: HP5-19-NOV-2001

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	18.1	90.3	34 - 150	
Benzene	20	17.9	89.7	79 - 120	
Toluene	20	17.9	89.5	80 - 120	
Ethylbenzene	20	18.3	91.5	80 - 120	
Total xylenes	60	54.1	90.2	78 - 120	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	99.0	70 - 130	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 12/06/2001
Version 1.1
Report generated 12/21/2001 14:29

KEMRON ENVIRONMENTAL SERVICES
MS/MSD REPORT

Loginnum: L0112366
Instrument ID: HP5
Parent ID: L0112366-04
Sample ID: L0112366-05 MS
Sample ID: L0112366-06 MSD

Cal ID: HP5-19-NOV-2001
Contract #:
File ID: 5G11440 Dil: 1
File ID: 5G11441 Dil: 1
File ID: 5G11442 Dil: 1

Worknum: WG110358
Method: 8021B
Matrix: Water
Units: ug/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Benzene	0	20.0	18.1	90.5	20.0	18.4	92.0	1.64	79 - 120	29	
Ethylbenzene	0	20.0	18.4	92.0	20.0	18.7	93.5	1.61	80 - 120	25	
Methyl tert-butyl ether	0	20.0	17.5	87.5	20.0	18.8	94.0	7.14	34 - 150	75	
Toluene	0	20.0	18.0	90.0	20.0	18.3	91.5	1.65	80 - 120	24	
Xylenes, Total	0	60.0	54.2	90.3	60.0	55.1	91.8	1.65	78 - 120	24	

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON FORMS - Modified 12/13/2001
Version 1.2
Report generated 12/21/2001 14:29

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021

AAB#: WG110358

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
002-CEF46-5I-Q4-01-11	18-DEC-01	19-DEC-01	20-DEC-01	14	2	20-DEC-01	14	2	
002-CEF46-6D-Q4-01-11	18-DEC-01	19-DEC-01	20-DEC-01	14	2	20-DEC-01	14	2	
002-CEF46-9I-Q4-01-11	18-DEC-01	19-DEC-01	20-DEC-01	14	2	20-DEC-01	14	2	
002-CEF46-9I-Q4-01-11	18-DEC-01	19-DEC-01	20-DEC-01	14	2	20-DEC-01	14	2	
002-CEF46-9I-Q4-01-11	18-DEC-01	19-DEC-01	20-DEC-01	14	2	20-DEC-01	14	2	
002-CEF46-7I-Q4-01-11	18-DEC-01	19-DEC-01	20-DEC-01	14	2	20-DEC-01	14	2	
002-CEF46-12I-Q4-01-11	18-DEC-01	19-DEC-01	20-DEC-01	14	2	20-DEC-01	14	2	
002-CEF46-13I-Q4-01-11	18-DEC-01	19-DEC-01	20-DEC-01	14	2	20-DEC-01	14	2	
002-CEF46-14D-Q4-01-11	18-DEC-01	19-DEC-01	20-DEC-01	14	2	20-DEC-01	14	2	
002-CEF46-15I-Q4-01-11	18-DEC-01	19-DEC-01	20-DEC-01	14	2	20-DEC-01	14	2	
002-CEF46-21I-Q4-01-11	18-DEC-01	19-DEC-01	20-DEC-01	14	2	20-DEC-01	14	2	
002-CEF46-24D-Q4-01-11	18-DEC-01	19-DEC-01	20-DEC-01	14	2	20-DEC-01	14	2	
002-CEF46-25I-Q4-01-11	18-DEC-01	19-DEC-01	20-DEC-01	14	2	20-DEC-01	14	2	
002-CEF46-26I-Q4-01-11	18-DEC-01	19-DEC-01	20-DEC-01	14	2	20-DEC-01	14	2	
002-46DUP-Q4-01-11	18-DEC-01	19-DEC-01	21-DEC-01	14	3	21-DEC-01	14	3	
002-46EQB-Q4-01-11	18-DEC-01	19-DEC-01	21-DEC-01	14	3	21-DEC-01	14	3	
002-46TB2-Q4-01-11	18-DEC-01	19-DEC-01	21-DEC-01	14	3	21-DEC-01	14	3	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

Calibration Table Report
Method: 8021W.M
Title: METHOD 8021B - Water - 11/19/01
Last Calibration: Mon Nov 19 14:58:57 2001

Calibration Files

Compound	1 5G10907.	10 5G10908.	20 5G10909.	50 5G10910.	100 5G10911.	200 5G10912.	300 5G10913.D	Avg	%RSD	
MTBE	17928.1	15757.4	15977.3	15705.6	16375.8	15833.7	15660.9	16177.0	5.002	
Benzene	99790.0	89314.0	90391.8	89213.1	89659.6	87758.8	87854.6	90568.9	4.609	
TFT	27514.0	26529.5	27740.5	27712.0	27569.2	27069.0	24555.3	26955.7	4.239	
Toluene	91223.3	82284.1	83471.4	81889.8	82269.7	80912.5	82171.9	83460.4	4.199	
Chlorobenzene	142785.6	90493.5	89103.4	87023.5	86260.6	85319.6	85791.8	95254.0	22.090	LR, 1.000
Ethylbenzene	76777.0	70859.6	71518.0	71121.0	70777.1	70298.7	70633.0	71712.1	3.160	
m-,p-Xylene	92261.5	83694.2	84557.0	83881.4	83175.9	81902.1	81749.0	84460.2	4.251	
o-Xylene	79222.9	72756.6	73618.4	72754.2	72631.0	72113.4	72214.0	73615.8	3.424	
BFB	76570.3	73113.5	74836.8	74862.6	74613.7	74295.4	65795.0	73441.1	4.796	
1,3-Dichlorobenzene	84334.7	69306.0	71664.7	70887.2	71839.3	71422.0	72754.5	73172.6	6.880	
1,4-Dichlorobenzene	89077.4	73163.6	76417.9	75588.1	76220.0	74531.6	75754.7	77250.5	6.905	
1,2-Dichlorobenzene	73100.2	61053.8	60836.5	59381.5	60314.3	59445.4	60404.8	62076.6	7.897	
BCB	74758.0	68514.5	69410.2	69067.1	69707.8	69797.3	62669.1	69132.0	5.102	

Mon Nov 19 15:13:16 2001

Login Number: L0112366
File ID: 5G10915
ALT ID: WG108448-08
Units: ug/L

Instrument ID: HP5
Run Date: 11/19/2001
Run Time: 15:43
Analyst: JLS
Cal ID: HP5 - 19-NOV-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	19.9	61800	0.5	
1,4-Dichlorobenzene		20	19.8	76600	1.0	
1,3-Dichlorobenzene		20	19.7	72200	1.5	
o-Xylene		20	19.6	72100	2.0	
m-,p-Xylene		40	39.8	84100	0.5	
Ethylbenzene		20	20.3	72600	1.5	
Chlorobenzene		20	19.8	87700	1.0	
Toluene		20	19.8	82600	1.0	
Benzene		20	19.7	89100	1.5	
MTBE		20	19.6	15900	2.0	

KEMRON FORMS - Modified 10/17/2001
Version 1.0

Login Number: L0112366
File ID: 5G11432
CCV ID: WG110357-01
Units: ug/L

Instrument ID: HP5
Run Date: 12/20/2001
Run Time: 09:56
Analyst: JLS
Cal ID: HP5 - 19-NOV-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	18.2	56400	9.0	
1,4-Dichlorobenzene		20	17.6	68100	12.0	
1,3-Dichlorobenzene		20	17.9	65600	10.5	
o-Xylene		20	17.8	65400	11.0	
m-,p-Xylene		40	36.6	77200	8.5	
Ethylbenzene		20	17.8	63900	11.0	
Chlorobenzene		20	17.3	76800	13.5	
Toluene		20	18.7	78200	6.5	
Benzene		20	17.4	78900	13.0	
MTBE		20	18.4	14900	8.0	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

Login Number: L0112366
File ID: 5G11443
CCV ID: WG110357-02
Units: ug/L

Instrument ID: HP5
Run Date: 12/20/2001
Run Time: 18:23
Analyst: JLS
Cal ID: HP5 - 19-NOV-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	18.1	56100	9.5	
1,4-Dichlorobenzene		20	17.9	69000	10.5	
1,3-Dichlorobenzene		20	17.7	64600	11.5	
o-Xylene		20	17.8	65600	11.0	
m-,p-Xylene		40	36.6	77300	8.5	
Ethylbenzene		20	18.6	66700	7.0	
Chlorobenzene		20	17.6	78400	12.0	
Toluene		20	18.2	76000	9.0	
Benzene		20	18.1	82000	9.5	
MTBE		20	17.8	14400	11.0	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

Login Number: L0112366
File ID: 5G11454
CCV ID: WG110357-03
Units: ug/L

Instrument ID: HP5
Run Date: 12/21/2001
Run Time: 00:45
Analyst: JLS
Cal ID: HP5 - 19-NOV-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	18.3	56800	8.5	
1,4-Dichlorobenzene		20	18.2	70100	9.0	
1,3-Dichlorobenzene		20	17.8	65100	11.0	
o-Xylene		20	17.9	65800	10.5	
m-,p-Xylene		40	36.6	77300	8.5	
Ethylbenzene		20	18.5	66500	7.5	
Chlorobenzene		20	17.6	78200	12.0	
Toluene		20	18.1	75500	9.5	
Benzene		20	18.2	82500	9.0	
MTBE		20	18.0	14600	10.0	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

Login Number: L0112366
File ID: 5G11457
CCV ID: WG110357-04
Units: ug/L

Instrument ID: HP5
Run Date: 12/21/2001
Run Time: 02:29
Analyst: JLS
Cal ID: HP5 - 19-NOV-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	18.1	56200	9.5	
1,4-Dichlorobenzene		20	17.9	69100	10.5	
1,3-Dichlorobenzene		20	17.5	63900	12.5	
o-Xylene		20	17.5	64400	12.5	
m-,p-Xylene		40	35.8	75600	10.5	
Ethylbenzene		20	18.2	65100	9.0	
Chlorobenzene		20	17.4	77200	13.0	
Toluene		20	17.9	74500	10.5	
Benzene		20	17.9	81100	10.5	
MTBE		20	18.1	14700	9.5	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

SURROGATE STANDARDS

Login Number: L0112366
Instrument Id: HP5
Workgroup (AAB#): WG110358

Method: 8021
Matrix: WATER

Sample Numbe	Dilution	Tag	1
L0112366-01	1.00		101
L0112366-02	1.00		100
L0112366-03	20.0		100
L0112366-04	1.00		99.5
L0112366-05	1.00		99.7
L0112366-06	1.00		99.4
L0112366-07	1.00		99.5
L0112366-08	1.00		100
L0112366-09	1.00		99.2
L0112366-10	1.00		99.2
L0112366-11	1.00		100
L0112366-12	1.00		99.9
L0112366-13	1.00		100
L0112366-14	10.0		102
L0112366-15	1.00		99.1
L0112366-16	1.00		99.5
L0112366-17	1.00		98.9

Surrogates	Surrogate Limits		
1 - a,a,a-Trifluorotoluene	70	-	130

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 12/07/2001
Version 1.1
Report generated 12/21/2001 14:30

Injection Log

Directory: c:\hpchem\2\data\111901

Analyst: JLS

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g10904.d	1.	WG108448-01 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	19 Nov 101 12
2	1	5g10905.d	1.	WG108448-01 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	19 Nov 101 12
3	1	5g10906.d	1.	WG108448-01 8021 STD1 1PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13
4	2	5g10907.d	1.	WG108448-01 8021 STD1 1PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13
5	3	5g10908.d	1.	WG108448-02 8021 STD2 10PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13
6	4	5g10909.d	1.	WG108448-03 8021 STD3 20PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13
7	5	5g10910.d	1.	WG108448-04 8021 STD4 50PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13
8	6	5g10911.d	1.	WG108448-05 8021 STD5 100PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 12
9	7	5g10912.d	1.	WG108448-06 8021 STD6 200PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 12
10	8	5g10913.d	1.	WG108448-07 8021 STD7 300PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 12
11	9	5g10914.d	1.	RINSE 5ML	1,1 S-86-08	19 Nov 101 12
12	10	5g10915.d	1.	WG108448-08 ALT SOURCE 20PPB 5ML	1,1 S-86-13,86-08	19 Nov 101 12
13	1	5g10916.d	1.	WG108507-01 WATER BLANK 5ML	1,1 S-86-12	19 Nov 101 12
14	2	5g10917.d	1.	WG108507-02 WATER LCS 20PPB 5ML	1,1 S-86-12	19 Nov 101 12
15	1	5g10918.d	1.	L0111312-03 A 5ML pH<2	1,1 S-86-12	19 Nov 101 12
16	2	5g10919.d	1.	L0111317-03 A 5ML pH<2	1,1 S-86-12	19 Nov 101 12
17	3	5g10920.d	1.	L0111280-01 B 5ML pH<2	1,1 S-86-12	19 Nov 101 12
18	4	5g10921.d	1.	L0111280-02 B 5ML pH<2	1,1 S-86-12	19 Nov 101 12
19	5	5g10922.d	1.	L0111280-03 B 5ML pH<2	1,1 S-86-12	19 Nov 101 12
20	6	5g10923.d	20.	WG108507-03 L0111283-01 B 20X 5ML pH<2 RR100X	1,20 S-86-12	19 Nov 101 12
21	7	5g10924.d	20.	WG108507-04 L0111283-01 B MS 20X 5ML pH	1,20 S-86-(13,12)	19 Nov 101 12
22	8	5g10925.d	20.	WG108507-05 L0111283-01 B MSD 20X 5ML p	1,20 S-86-(13,12)	19 Nov 101 12
23	9	5g10926.d	1.	WG108448-09 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	19 Nov 101 12
24	10	5g10927.d	10.	L0111283-02 B 10X 5ML pH<2	1,10 S-86-12	19 Nov 101 13
25	11	5g10928.d	1.	L0111283-03 B 5ML pH<2	1,1 S-86-12	19 Nov 101 13
26	12	5g10929.d	5.	L0111283-04 B 5X 5ML pH<2	1,5 S-86-12	19 Nov 101 13
27	13	5g10930.d	1.	L0111283-04 B 5ML pH<2	1,1 S-86-12	19 Nov 101 13
28	14	5g10931.d	10.	L0111283-05 B 10X 5ML pH<2	1,10 S-86-12	20 Nov 101 13
29	15	5g10932.d	1.	L0111283-06 B 5ML pH<2	1,1 S-86-12	20 Nov 101 13
30	16	5g10933.d	10.	L0111283-07 B 10X 5ML pH<2	1,10 S-86-12	20 Nov 101 12
31	17	5g10934.d	1.	L0111283-08 B 5ML pH<2	1,1 S-86-12	20 Nov 101 12
32	18	5g10935.d	1.	L0111283-09 B 5ML pH<2	1,1 S-86-12	20 Nov 101 12
33	19	5g10936.d	1.	L0111301-01 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12
34	20	5g10937.d	1.	WG108448-10 8021 STD 20PPB 5ML	1,1 S-86-12	20 Nov 101 12
35	21	5g10938.d	1.	L0111301-02 A 5ML pH=10	1,1 S-86-12	20 Nov 101 12
36	22	5g10939.d	1.	L0111301-03 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12
37	23	5g10940.d	1.	L0111301-04 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12
38	24	5g10941.d	1.	WG108448-11 8021 STD 20PPB 5ML	1,1 S-86-12	20 Nov 101 12

Directory: c:\hpchem\2\data\122001

Injection Log

WG110358

ANALYST: JLS

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g11432.d	1.	WG110357-01 8021 STD 20PPB 5ML ✓	1,1 S-(88-04,87-26)	20 Dec 101 12::5
2	2	5g11433.d	1.	WG110358-01 WATER BLANK 5ML ✓	1,1 S-87-26	20 Dec 101 13::2
3	3	5g11434.d	1.	WG110358-02 WATER LCS 20PPB 5ML ✓	1,1 S-(88-04,87-26)	20 Dec 101 13::5
4	4	5g11435.d	1.	L0112349-02 B 5ML ✓	1,1 S-87-26	20 Dec 101 12::3
5	5	5g11436.d	1.	L0112349-03 B 5ML ✓	1,1 S-87-26	20 Dec 101 12::1
6	3	5g11437.d	100.	L0112349-01 B 100X 5ML pH<2 ✓	1,100 S-87-26	20 Dec 101 12::4
7	4	5g11438.d	1.	L0112366-01 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::2
8	5	5g11439.d	1.	L0112366-02 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::0
9	6	5g11440.d	1.	WG110358-03 L0112366-04 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::3
10	7	5g11441.d	1.	WG110358-04 L0112366-05 MS A 5ML pH<2 ✓	1,1 S-(88-04,87-26)	20 Dec 101 12::1
11	8	5g11442.d	1.	WG110358-04 L0112366-06 MSD A 5ML pH<2 ✓	1,1 S-(88-04,87-26)	20 Dec 101 12::4
12	9	5g11443.d	1.	WG110357-02 8021 STD 20PPB 5ML ✓	1,1 S-(88-04,87-26)	20 Dec 101 12::2
13	10	5g11444.d	20.	L0112366-03 20X 5ML pH<2 ✓	1,20 S-87-26	20 Dec 101 12::5
14	11	5g11445.d	1.	L0112366-07 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::3
15	12	5g11446.d	1.	L0112366-08 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::0
16	13	5g11447.d	1.	L0112366-09 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::4
17	14	5g11448.d	1.	L0112366-10 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::1
18	15	5g11449.d	1.	L0112366-11 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::5
19	16	5g11450.d	1.	L0112366-12 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 13::2
20	17	5g11451.d	1.	L0112366-13 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 13::0
21	18	5g11452.d	10.	L0112366-14 A 10X 5ML pH<2 ✓	1,10 S-87-26	20 Dec 101 13::3
22	19	5g11453.d	1.	L0112366-15 A 5ML pH<2 ✓	1,1 S-87-26	21 Dec 101 13::1
23	20	5g11454.d	1.	WG110357-03 8021 STD 20PPB 5ML ✓	1,1 S-(88-04,87-26)	21 Dec 101 13::4
24	21	5g11455.d	1.	L0112366-16 A 5ML pH<2 ✓	1,1 S-87-26	21 Dec 101 12::2
25	22	5g11456.d	1.	L0112366-17 A 5ML pH<2 ✓	1,1 S-87-26	21 Dec 101 12::5
26	23	5g11457.d	1.	WG110357-04 8021 STD 20PPB 5ML ✓	1,1 S-(88-04,87-26)	21 Dec 101 12::2

VOA - GC

Date: 12/20/01 **Analyst:** JLS **Method:** (8021) 8015 602

Instrument: HPS **Work Group:** WG 110358

	Analyst
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	NA
Second Source standard % Difference	✓
Continuing Calibration / Check Standards	✓
Project / Client Specific Requirements	✓
Special Standards	NA
Blanks	✓
TCL's	✓
Surrogates	✓
LCS (Laboratory Control Sample)	✓
Recoveries	✓
Surrogates	✓
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	✓
Surrogates	✓
Calculations & Correct Factors	✓
Dilutions Run	✓
Reruns	✓
Excel Spreadsheets	✓
Case Narrative	✓
Narrative Summary	✓
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: CBN 12/21/01

Secondary Reviewers Initials & Date Checked: [illegible] 12/21/01

_____ • Check for compliance with Method and project-specific requirements
_____ • Check the completeness of the reported information
_____ • Check the information for the report narrative
_____ • Check the reasonableness of results

Supervisory Review Initials & Date Checked: _____

Comments: _____

✓ = Checked & OK
NA = Not Applicable

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0112366
Blank File ID: 5G11433
Date Analyzed: 12/20/01
Time Analyzed: 11:24
Analyst: JLS

Work Group: WG110358
Blank Sample ID: WG110358-01
Instrument ID: HP5
Method: 8021

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG110358-02	5G11434	12/20/01 11:58	01
002-CEF46-5I-Q4-01-11	L0112366-01	5G11438	12/20/01 15:29	01
002-CEF46-6D-Q4-01-11	L0112366-02	5G11439	12/20/01 16:04	01
002-CEF46-9I-Q4-01-11	L0112366-04	5G11440	12/20/01 16:39	01
002-CEF46-9I-Q4-01-11	L0112366-05	5G11441	12/20/01 17:14	01
002-CEF46-9I-Q4-01-11	L0112366-06	5G11442	12/20/01 17:48	01
002-CEF46-7I-Q4-01-11	L0112366-03	5G11444	12/20/01 18:58	DL01
002-CEF46-12I-Q4-01-11	L0112366-07	5G11445	12/20/01 19:32	01
002-CEF46-13I-Q4-01-11	L0112366-08	5G11446	12/20/01 20:07	01
002-CEF46-14D-Q4-01-11	L0112366-09	5G11447	12/20/01 20:42	01
002-CEF46-15I-Q4-01-11	L0112366-10	5G11448	12/20/01 21:17	01
002-CEF46-21I-Q4-01-11	L0112366-11	5G11449	12/20/01 21:52	01
002-CEF46-24D-Q4-01-11	L0112366-12	5G11450	12/20/01 22:26	01
002-CEF46-25I-Q4-01-11	L0112366-13	5G11451	12/20/01 23:01	01
002-CEF46-26I-Q4-01-11	L0112366-14	5G11452	12/20/01 23:36	DL01
002-46DUP-Q4-01-11	L0112366-15	5G11453	12/21/01 00:10	01
002-46EQB-Q4-01-11	L0112366-16	5G11455	12/21/01 01:20	01
002-46TB2-Q4-01-11	L0112366-17	5G11456	12/21/01 01:54	01

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0112366
Instrument ID: HP5
File ID: 5G11433
Workgroup (AAB#): WG110358
Contract #:

Run Date: 12/20/2001
Run Time: 11:24
Analyst: JLS

Sample ID: WG110358-01
Method: 8021B
Matrix: Water
Units: ug/L
Cal ID: HP5-19-NOV-2001

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
MTBE	0.500	1.00	0.500	1.00	ND
Benzene	0.500	1.00	0.500	1.00	ND
Toluene	0.500	1.00	0.500	1.00	ND
Ethylbenzene	0.500	1.00	0.500	1.00	ND
Total xylenes	0.500	1.00	0.500	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	98.3	70 - 130	PASS

F Analyte concentration between MDL and RDL
* Analyte detected above RDL

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0112366
Instrument ID: HP5
File ID: 5G11434
Workgroup (AAB#): WG110358
Contract #:

Run Date: 12/20/2001
Run Time: 11:58
Analyst: JLS

Sample ID: WG110358-02
Method: 8021B
Matrix: Water
Units: ug/L
Cal ID: HP5-19-NOV-2001

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	18.1	90.3	34 - 150	
Benzene	20	17.9	89.7	79 - 120	
Toluene	20	17.9	89.5	80 - 120	
Ethylbenzene	20	18.3	91.5	80 - 120	
Total xylenes	60	54.1	90.2	78 - 120	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	99.0	70 - 130	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON ENVIRONMENTAL SERVICES
MS/MSD REPORT

Loginnum: L0112366 | Cal ID: HP5-19-NOV-2001 | Worknum: WG110358
Instrument ID: HP5 | Contract #: | Method: 8021B
Parent ID: L0112366-04 | File ID: 5G11440 | Dil: 1 | Matrix: Water
Sample ID: L0112366-05 MS | File ID: 5G11441 | Dil: 1 | Units: ug/L
Sample ID: L0112366-06 MSD | File ID: 5G11442 | Dil: 1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limi	Q
Benzene	0	20.0	18.1	90.5	20.0	18.4	92.0	1.64	79 - 120	29	
Ethylbenzene	0	20.0	18.4	92.0	20.0	18.7	93.5	1.61	80 - 120	25	
Methyl tert-butyl ether	0	20.0	17.5	87.5	20.0	18.8	94.0	7.14	34 - 150	75	
Toluene	0	20.0	18.0	90.0	20.0	18.3	91.5	1.65	80 - 120	24	
Xylenes, Total	0	60.0	54.2	90.3	60.0	55.1	91.8	1.65	78 - 120	24	

* FAILS %REC LIMIT

FAILS RPD LIMIT

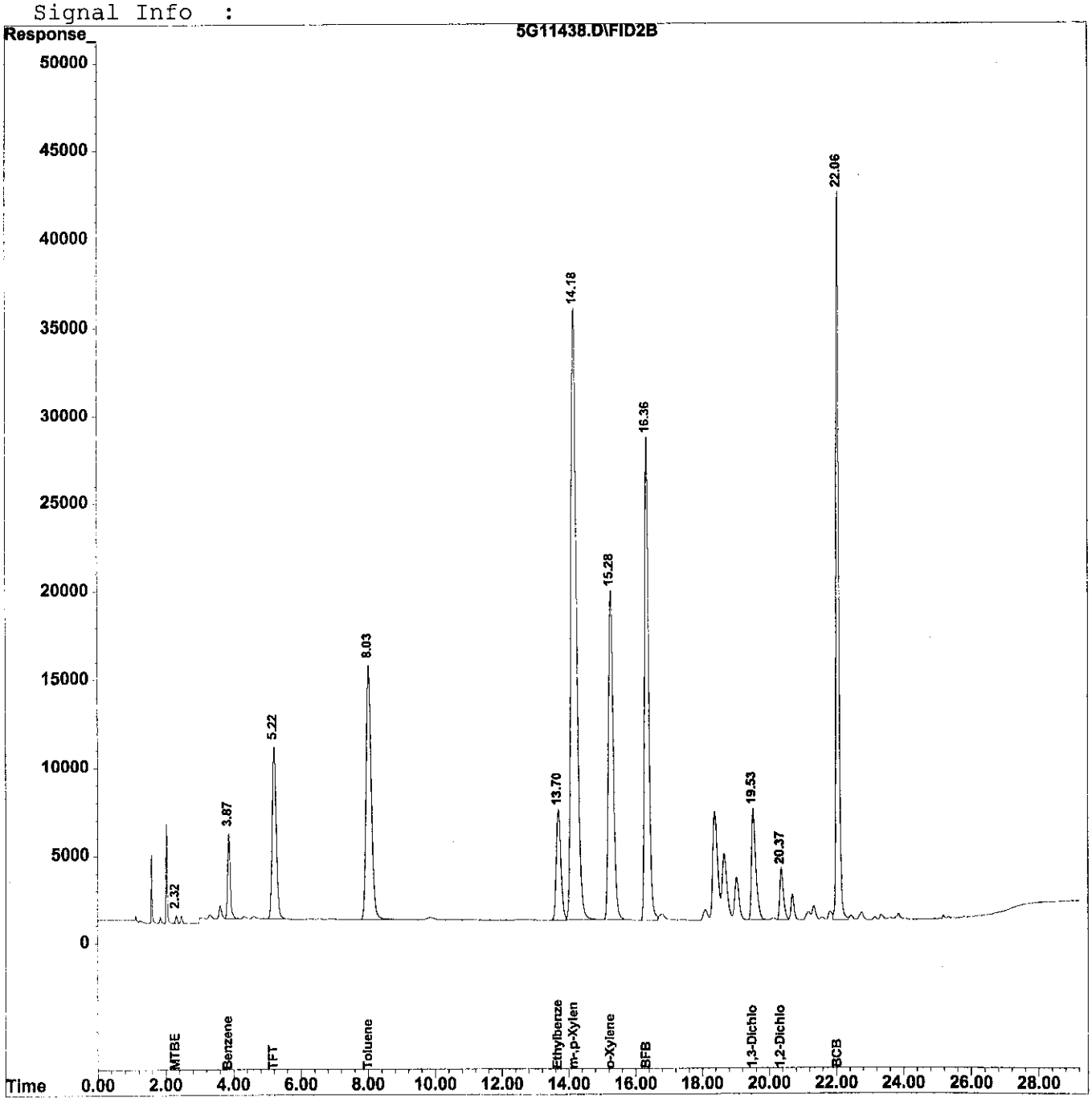
2.1.3.2 Sample Data

Quantitation Report

Data File : C:\HPCHEM\2\DATA\122001\5G11438.D Vial: 4
Acq On : 20 Dec 2001 15:29 Operator: jls
Sample : L0112366-01 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 15:59 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\122001\5G11438.D Vial: 4
Acq On : 20 Dec 2001 15:29 Operator: jls
Sample : L0112366-01 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 15:59 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

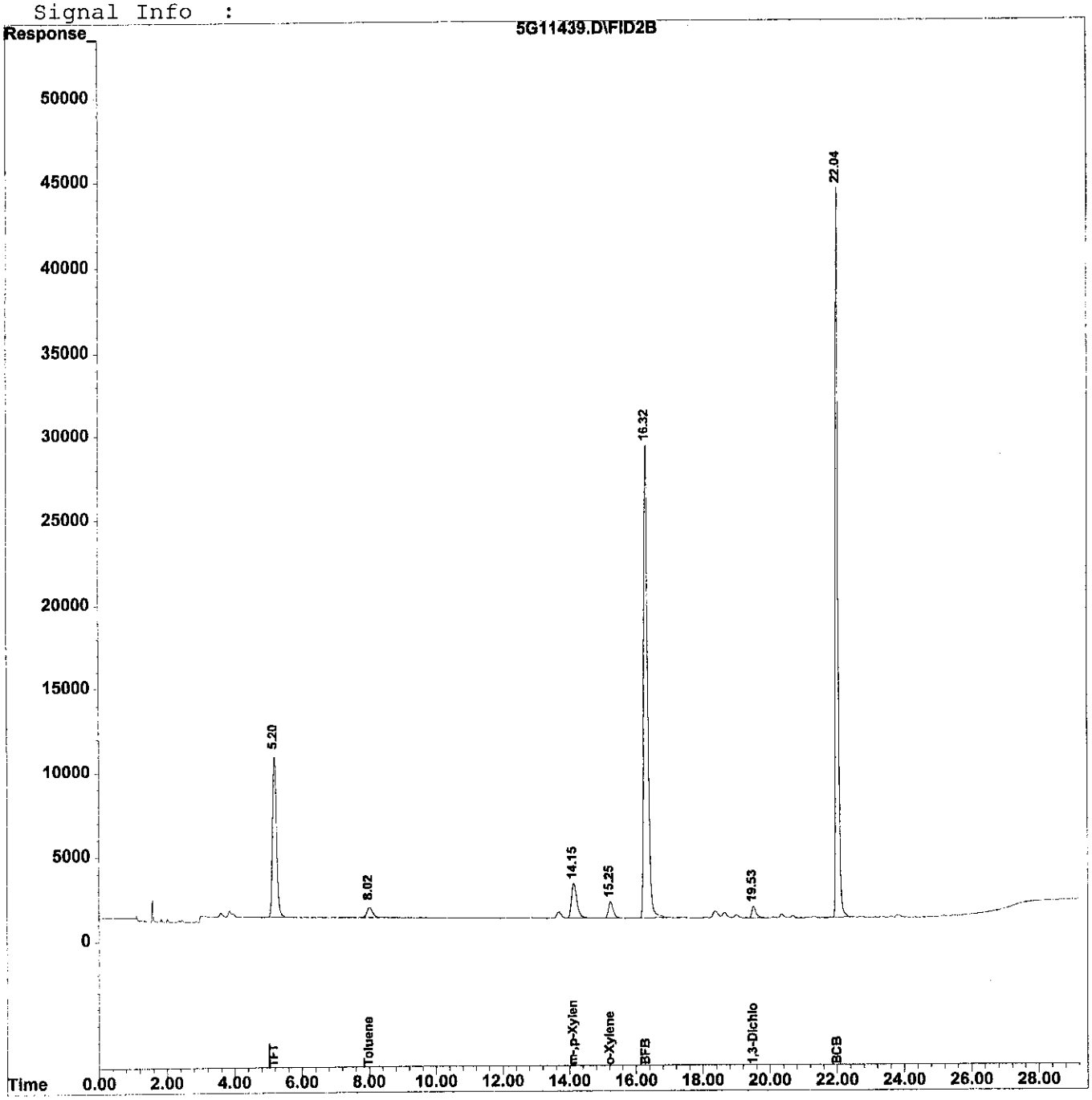
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.22	816190	30.2790 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery	= 100.93%
9) S BFB	16.36	2302927	31.3575 ug/L
Spiked Amount 30.000		Recovery	= 104.53%
13) S BCB	22.06	2317738	33.5263 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery	= 111.75%
Target Compounds			
1) TM MTBE	2.32	18354	1.1346 ug/L
2) TM Benzene	3.87	262580	2.8992 ug/L
4) TM Toluene	8.03	1588331	19.0310 ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	13.71	611557	8.5280 ug/L
7) TM m-,p-Xylene	14.18	4072663	48.2199 ug/L
8) TM o-Xylene	15.28	1934137	26.2734 ug/L
10) TM 1,3-Dichlorobenzene	19.54	559369	7.6445 ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	20.37	224510	3.6167 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\122001\5G11439.D Vial: 5
Acq On : 20 Dec 2001 16:04 Operator: jls
Sample : L0112366-02 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 16:33 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\122001\5G11439.D
Acq On : 20 Dec 2001 16:04
Sample : L0112366-02 A 5ML pH<2
Misc : 1,1 S-87-26
IntFile : autoint1.e
Quant Time: Dec 20 16:33 2001 Quant Results File: 8021W.RES

Vial: 5
Operator: jls
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

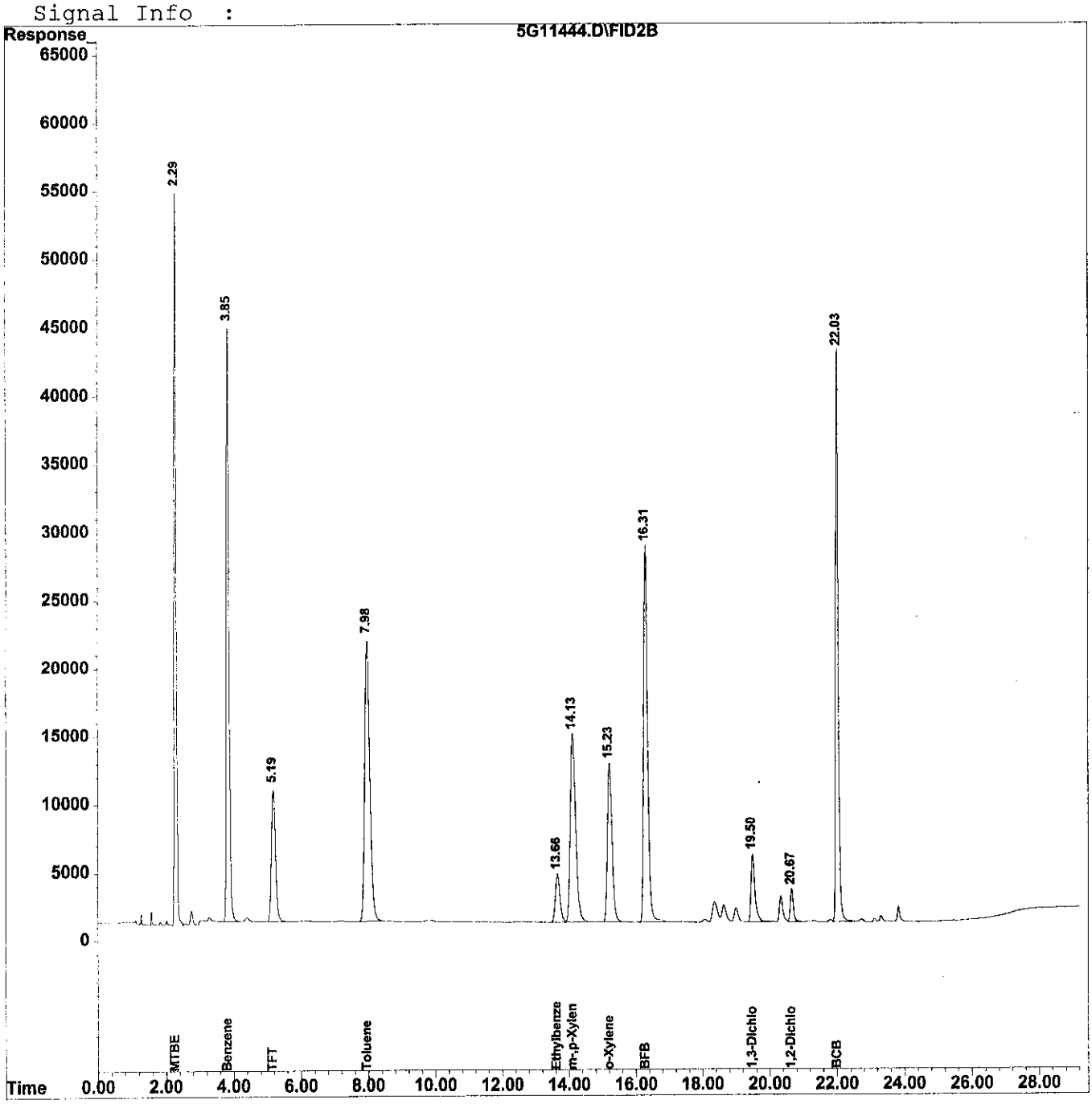
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.20	812174	30.1300 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	100.43%
9) S BFB	16.32	2292600	31.2169 ug/L
Spiked Amount 30.000		Recovery =	104.06%
13) S BCB	22.04	2261855	32.7179 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	109.06%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	3.86	11017	<MDL ug/L
4) TM Toluene	8.02	70040	0.8392 ug/L F
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	13.69	34541	<MDL ug/L
7) TM m-,p-Xylene	14.15	237530	2.8123 ug/L
8) TM o-Xylene	15.25	95654	1.2994 ug/L
10) TM 1,3-Dichlorobenzene	19.53	57488	0.7857 ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\122001\5G11444.D Vial: 10
Acq On : 20 Dec 2001 18:58 Operator: jls
Sample : L0112366-03 20X 5ML pH<2 Inst : HP5
Misc : 1,20 S-87-26 Multiplr: 20.00
IntFile : autoint1.e
Quant Time: Dec 20 19:27 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\122001\5G11444.D Vial: 10
Acq On : 20 Dec 2001 18:58 Operator: jls
Sample : L0112366-03 20X 5ML pH<2 Inst : HP5
Misc : 1,20 S-87-26 Multiplr: 20.00
IntFile : autoint1.e
Quant Time: Dec 20 19:27 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.19	808381	29.9893 ug/L ✓
Spiked Amount 30.000 Range 70 - 130 Recovery = 99.96%			
9) S BFB	16.31	2300643	31.3264 ug/L
Spiked Amount 30.000 Recovery = 104.42%			
13) S BCB	22.03	2249396	32.5377 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 108.46%			
Target Compounds			
1) TM MTBE	2.30 ✓	2093877	2588.7109 ug/L
2) TM Benzene	3.85 ✓	2281602	503.8380 ug/L
4) TM Toluene	7.98 ✓	2266234	543.0680 ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	13.67 ✓	344532	96.0877 ug/L
7) TM m-,p-Xylene	14.13 ✓	1569698	371.7014 ug/L
8) TM o-Xylene	15.23 ✓	1137211	308.9585 ug/L
10) TM 1,3-Dichlorobenzene	19.50	406843	~~111.2009 ug/L~~
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	20.67	155289	~~50.0315 ug/L~~

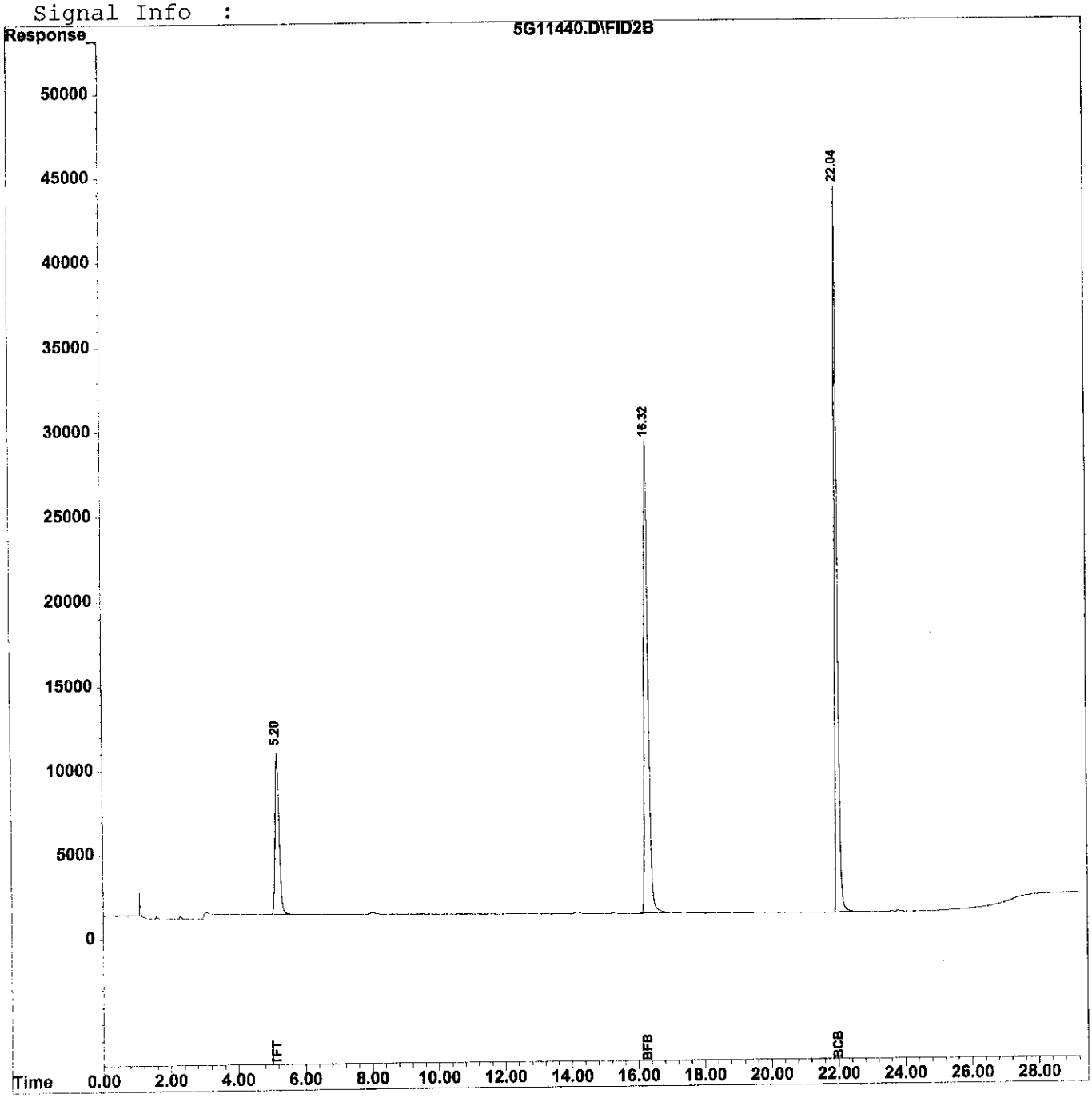
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\122001\5G11440.D
Acq On : 20 Dec 2001 16:39
Sample : WG110358-03 L0112366-04 A 5ML pH<2
Misc : 1,1 S-87-26
IntFile : autoint1.e
Quant Time: Dec 20 17:08 2001 Quant Results File: 8021W.RES

Vial: 6
Operator: jls
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\122001\5G11440.D
Acq On : 20 Dec 2001 16:39
Sample : WG110358-03 L0112366-04 A 5ML pH<2
Misc : 1,1 S-87-26
IntFile : autoint1.e
Quant Time: Dec 20 17:08 2001 Quant Results File: 8021W.RES

Vial: 6
Operator: jls
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

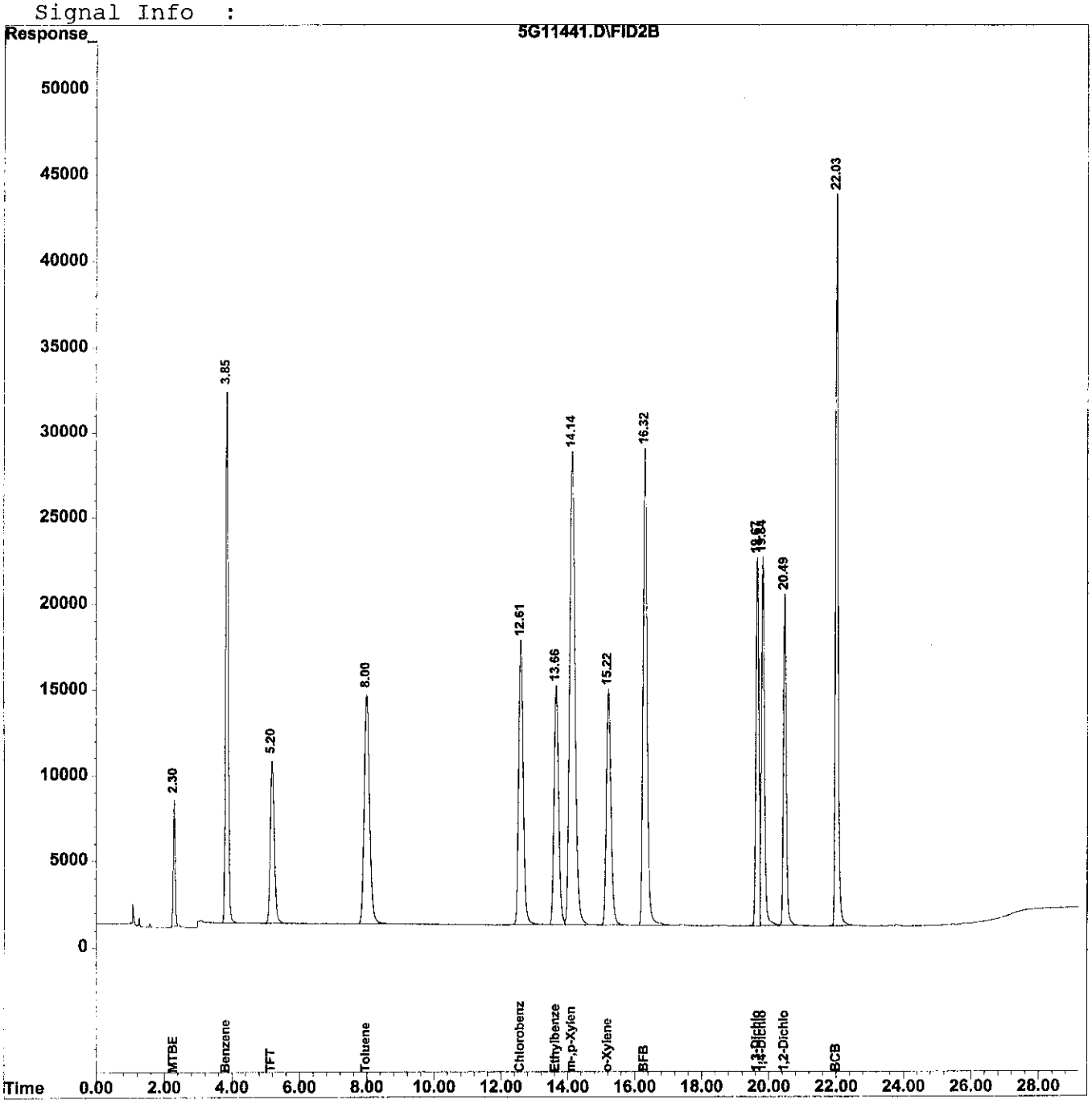
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.20	804239	29.8356 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	99.45%
9) S BFB	16.32	2275990	30.9907 ug/L
Spiked Amount 30.000		Recovery =	103.30%
13) S BCB	22.04	2232234	32.2895 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	107.63%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\122001\5G11441.D Vial: 7
Acq On : 20 Dec 2001 17:14 Operator: jls
Sample : WG110358-04 L0112366-05 MS A 5ML pH<2 Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 17:43 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\122001\5G11441.D Vial: 7
Acq On : 20 Dec 2001 17:14 Operator: jls
Sample : WG110358-04 L0112366-05 MS A 5ML pH<2 Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 17:43 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

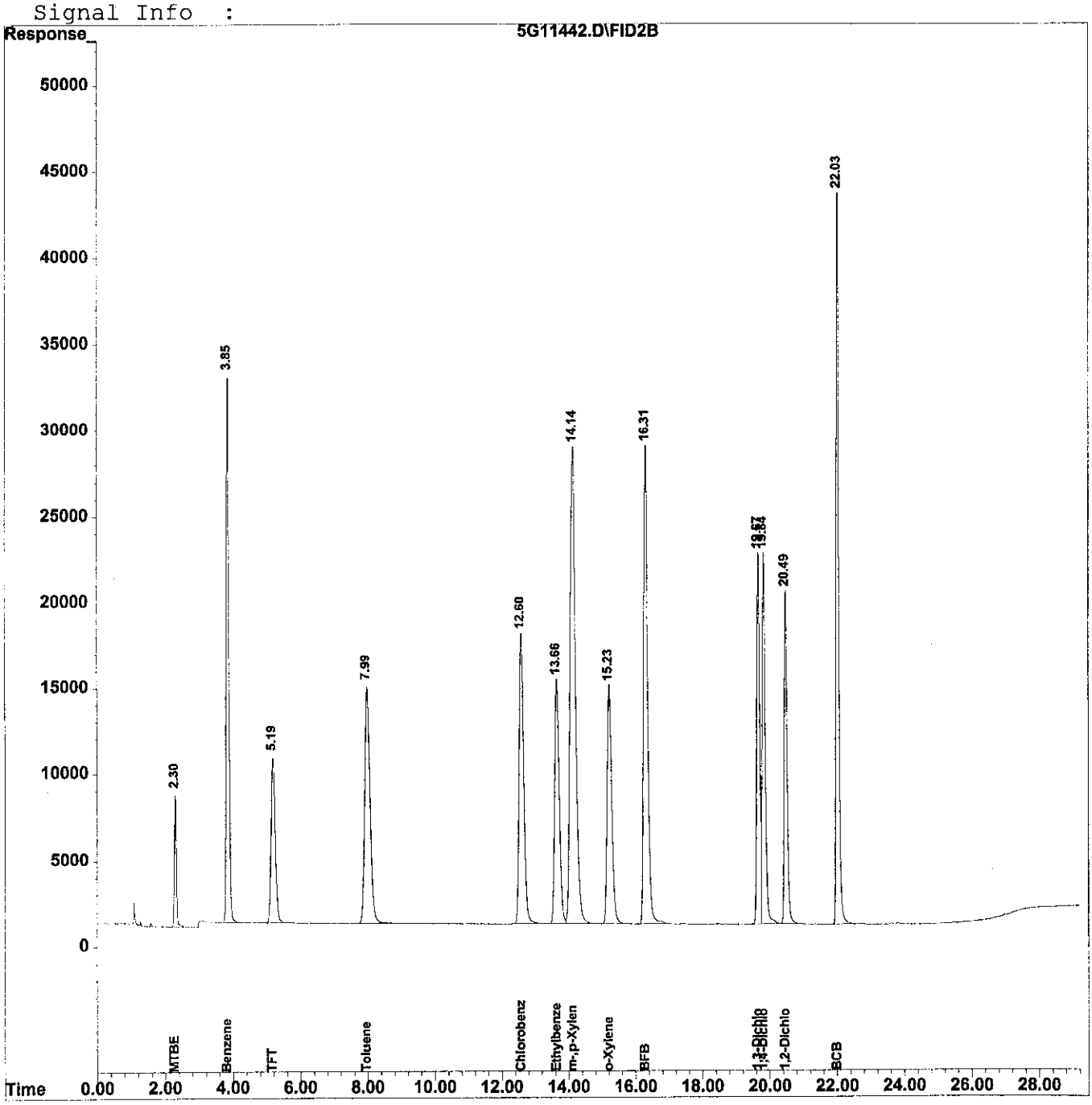
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.20	806190	29.9080 ug/L ✓
Spiked Amount 30.000 Range 70 - 130 Recovery = 99.69%			
9) S BFB	16.32	2297292	31.2808 ug/L
Spiked Amount 30.000 Recovery = 104.27%			
13) S BCB	22.03	2245128	32.4760 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 108.25%			
Target Compounds			
1) TM MTBE	2.30	283559	17.5285 ug/L
2) TM Benzene	3.85	1641803	18.1277 ug/L
4) TM Toluene	8.00	1500977	17.9843 ug/L
5) TM Chlorobenzene	12.61	1558379	17.5284 ug/L
6) TM Ethylbenzene	13.66	1319408	18.3987 ug/L
7) TM m-,p-Xylene	14.14	3074917	36.4067 ug/L
8) TM o-Xylene	15.23	1311390	17.8140 ug/L
10) TM 1,3-Dichlorobenzene	19.68	1297477	17.7317 ug/L
11) TM 1,4-Dichlorobenzene	19.84	1395300	18.0620 ug/L
12) TM 1,2-Dichlorobenzene	20.49	1133587	18.2611 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\122001\5G11442.D Vial: 8
Acq On : 20 Dec 2001 17:48 Operator: jls
Sample : WG110358-04 L0112366-06 MSD A 5ML pH<2 Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 18:18 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\122001\5G11442.D Vial: 8
Acq On : 20 Dec 2001 17:48 Operator: jls
Sample : WG110358-04 L0112366-06 MSD A 5ML pH<2 Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 18:18 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

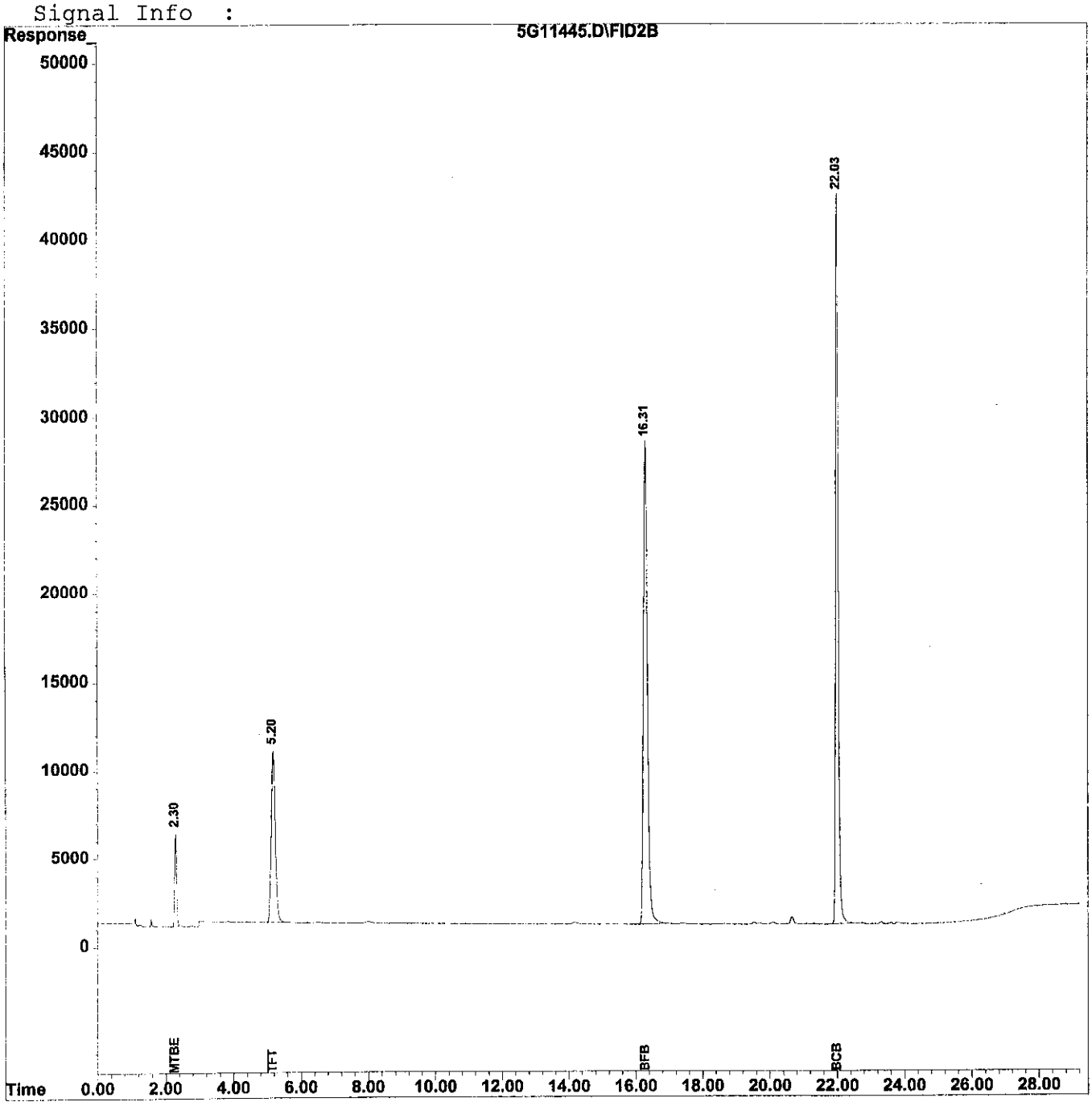
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.19	804169	29.8331 ug/L ✓
Spiked Amount 30.000 Range 70 - 130 Recovery = 99.44%			
9) S BFB	16.31	2297711	31.2865 ug/L
Spiked Amount 30.000 Recovery = 104.29%			
13) S BCB	22.03	2241357	32.4214 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 108.07%			
Target Compounds			
1) TM MTBE	2.30	303422	18.7564 ug/L
2) TM Benzene	3.85	1664605	18.3794 ug/L
4) TM Toluene	7.99	1530009	18.3322 ug/L
5) TM Chlorobenzene	12.60	1587119	17.8648 ug/L
6) TM Ethylbenzene	13.66	1343712	18.7376 ug/L
7) TM m-,p-Xylene	14.14	3124249	36.9908 ug/L
8) TM o-Xylene	15.23	1333053	18.1083 ug/L
10) TM 1,3-Dichlorobenzene	19.68	1312630	17.9388 ug/L
11) TM 1,4-Dichlorobenzene	19.84	1405564	18.1949 ug/L
12) TM 1,2-Dichlorobenzene	20.49	1138443	18.3393 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\122001\5G11445.D Vial: 11
Acq On : 20 Dec 2001 19:32 Operator: jls
Sample : L0112366-07 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 20:02 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\122001\5G11445.D Vial: 11
Acq On : 20 Dec 2001 19:32 Operator: jls
Sample : L0112366-07 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 20:02 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.20	804283	29.8373 ug/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery =	99.46%
9) S BFB	16.31	2277731	31.0144 ug/L
Spiked Amount 30.000		Recovery =	103.38%
13) S BCB	22.03	2226640	32.2085 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	107.36%
Target Compounds			
1) TM MTBE	2.31✓	201674	12.4667 ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	20.68	24811	<MDL ug/L

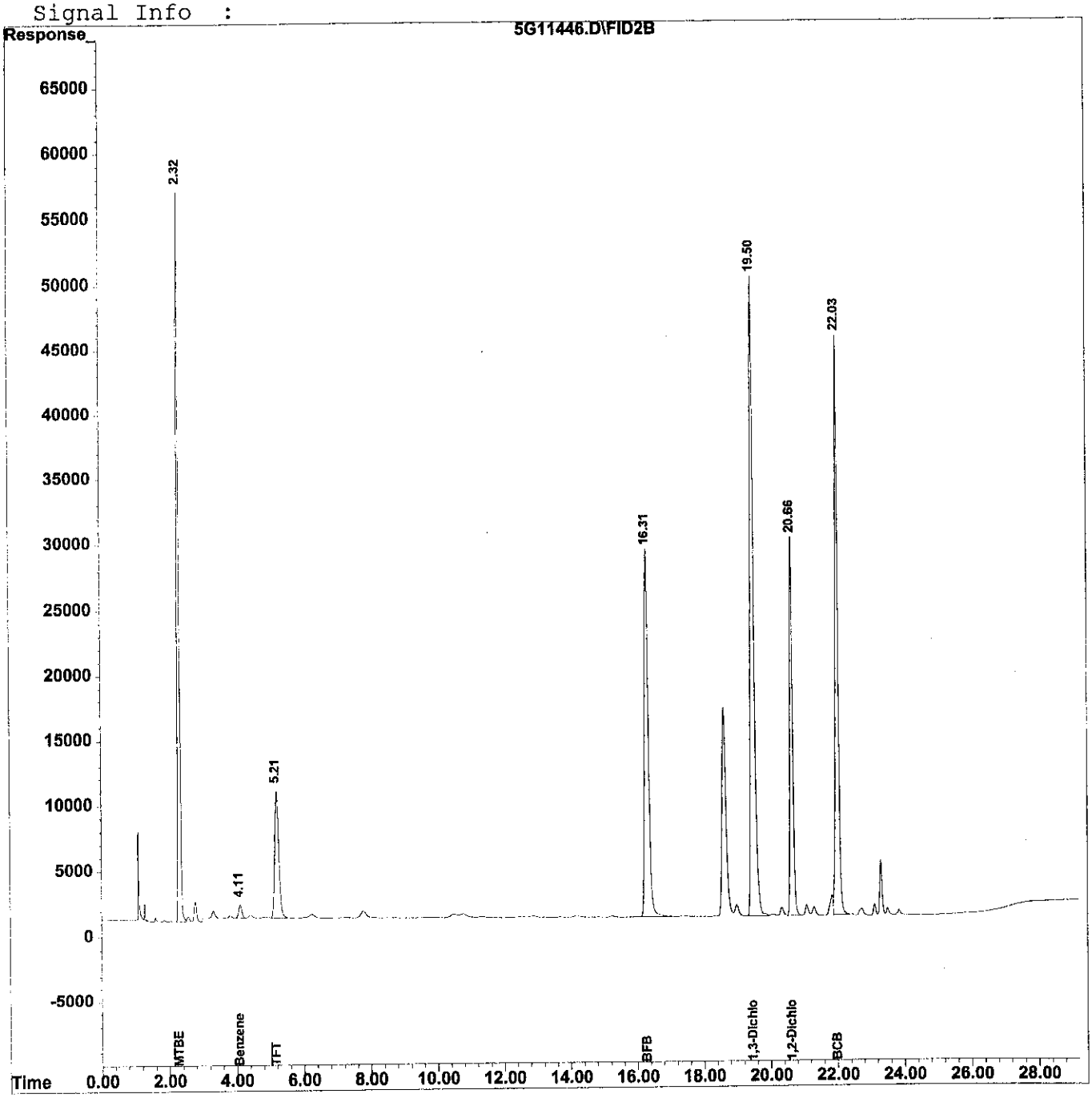
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\122001\5G11446.D
Acq On : 20 Dec 2001 20:07
Sample : L0112366-08 A 5ML pH<2
Misc : 1,1 S-87-26
IntFile : autoint1.e
Quant Time: Dec 20 20:37 2001 Quant Results File: 8021W.RES

Vial: 12
Operator: jls
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\122001\5G11446.D Vial: 12
Acq On : 20 Dec 2001 20:07 Operator: jls
Sample : L0112366-08 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 20:37 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

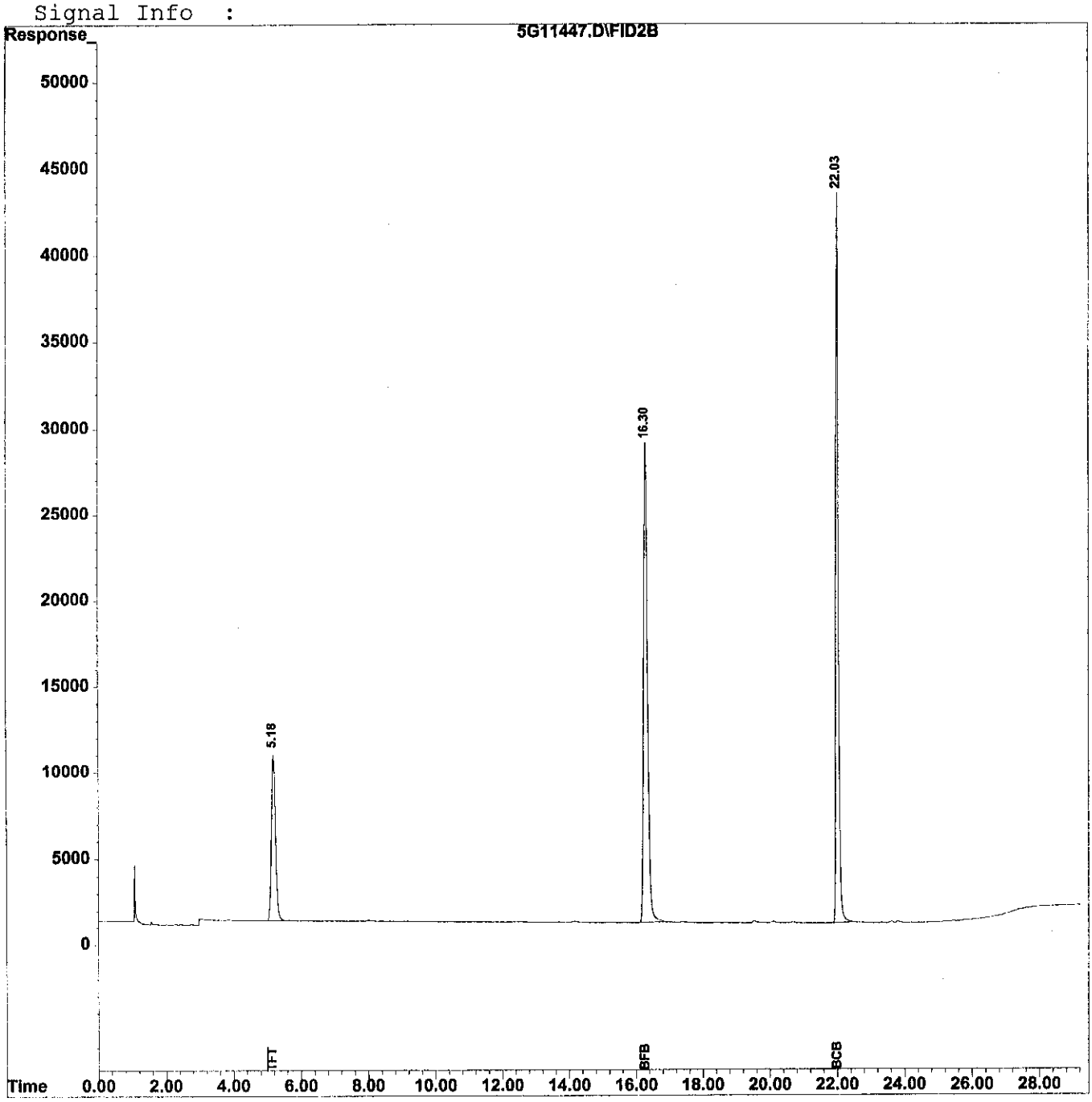
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.21	811265	30.0963 ug/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery =	100.32%
9) S BFB	16.32	2296065	31.2641 ug/L
Spiked Amount 30.000		Recovery =	104.21%
13) S BCB	22.03	2568115	37.1480 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	123.83%
Target Compounds			
1) TM MTBE	2.32 ✓	2192286	135.5188 ug/L
2) TM Benzene	4.11	62939	~~0.6949 ug/L~~
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	19.50	3565540	~~48.7278 ug/L~~
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	20.66	1658285	~~26.7135 ug/L~~

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\122001\5G11447.D Vial: 13
Acq On : 20 Dec 2001 20:42 Operator: jls
Sample : L0112366-09 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 21:11 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\122001\5G11447.D Vial: 13
Acq On : 20 Dec 2001 20:42 Operator: jls
Sample : L0112366-09 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 21:11 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

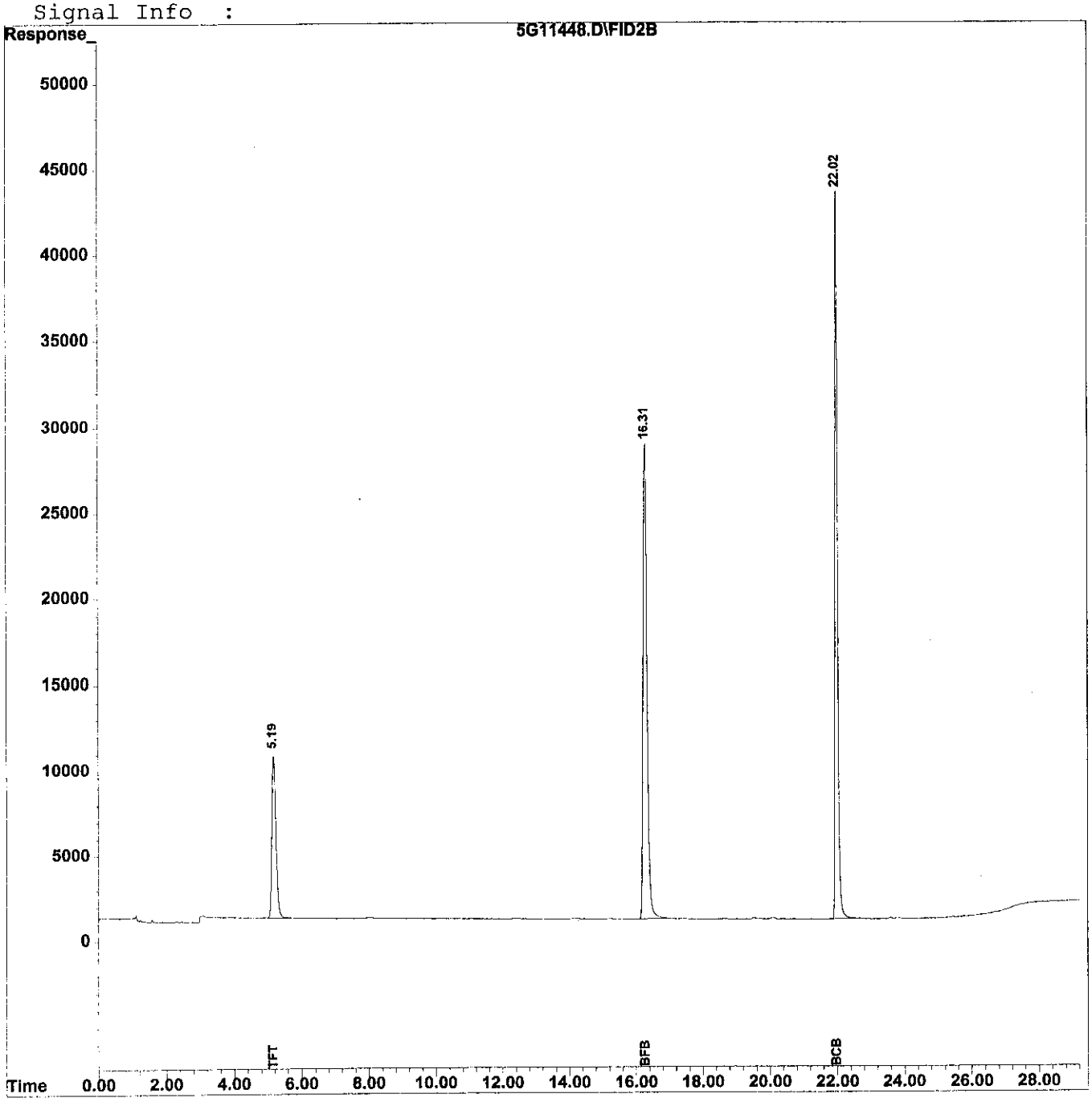
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.18	802104	29.7564 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	99.19%
9) S BFB	16.31	2279799	31.0426 ug/L
Spiked Amount 30.000		Recovery =	103.48%
13) S BCB	22.03	2229008	32.2428 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	107.48%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\122001\5G11448.D Vial: 14
Acq On : 20 Dec 2001 21:17 Operator: jls
Sample : L0112366-10 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 21:46 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\122001\5G11448.D Vial: 14
Acq On : 20 Dec 2001 21:17 Operator: jls
Sample : L0112366-10 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 21:46 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.20	801962	29.7511 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	99.17%
9) S BFB	16.31	2275908	30.9896 ug/L
Spiked Amount 30.000		Recovery =	103.30%
13) S BCB	22.02	2222047	32.1421 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	107.14%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

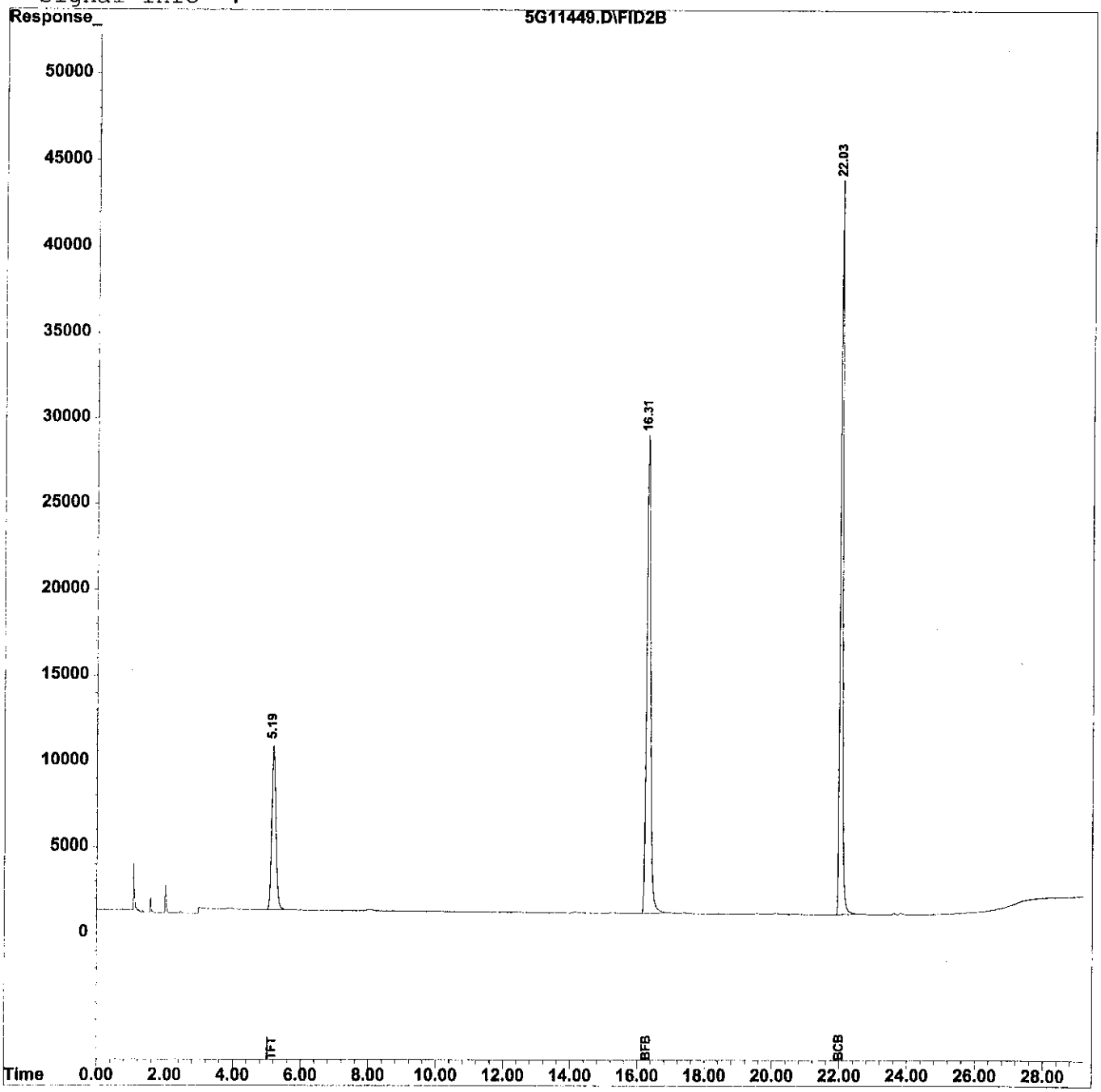
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\122001\5G11449.D Vial: 15
Acq On : 20 Dec 2001 21:52 Operator: jls
Sample : L0112366-11 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 22:21 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\122001\5G11449.D Vial: 15
Acq On : 20 Dec 2001 21:52 Operator: jls
Sample : L0112366-11 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 22:21 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.19	812609	30.1461 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery = 100.49%	
9) S BFB	16.31	2287671	31.1498 ug/L
Spiked Amount 30.000		Recovery = 103.83%	
13) S BCB	22.03	2237638	32.3676 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 107.89%	
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

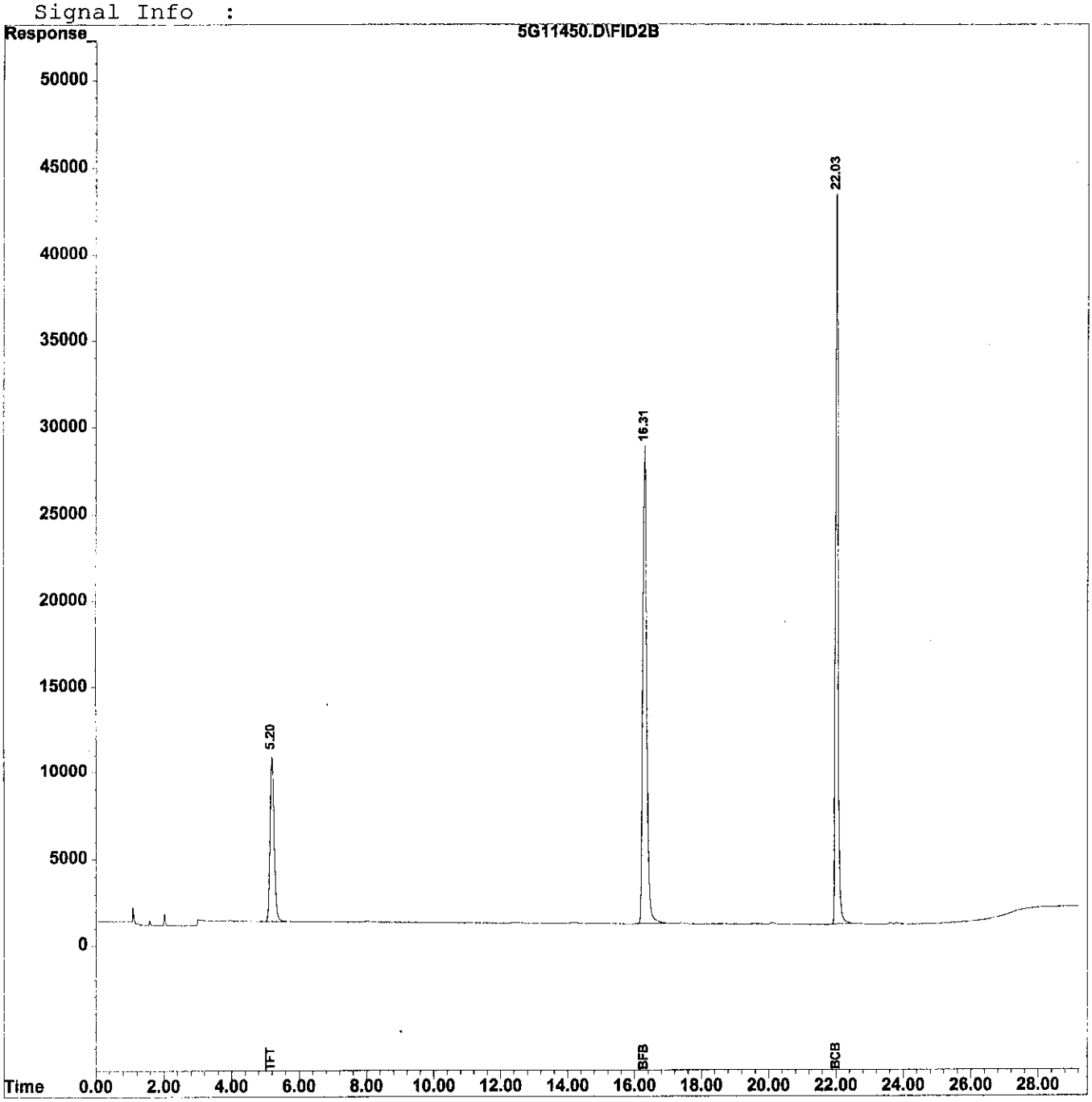
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\122001\5G11450.D Vial: 16
Acq On : 20 Dec 2001 22:26 Operator: jls
Sample : L0112366-12 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 22:56 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\122001\5G11450.D Vial: 16
Acq On : 20 Dec 2001 22:26 Operator: jls
Sample : L0112366-12 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 22:56 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.20	807704	29.9642 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	99.88%
9) S BFB	16.31	2292159	31.2109 ug/L
Spiked Amount 30.000		Recovery =	104.04%
13) S BCB	22.03	2233514	32.3080 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	107.69%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

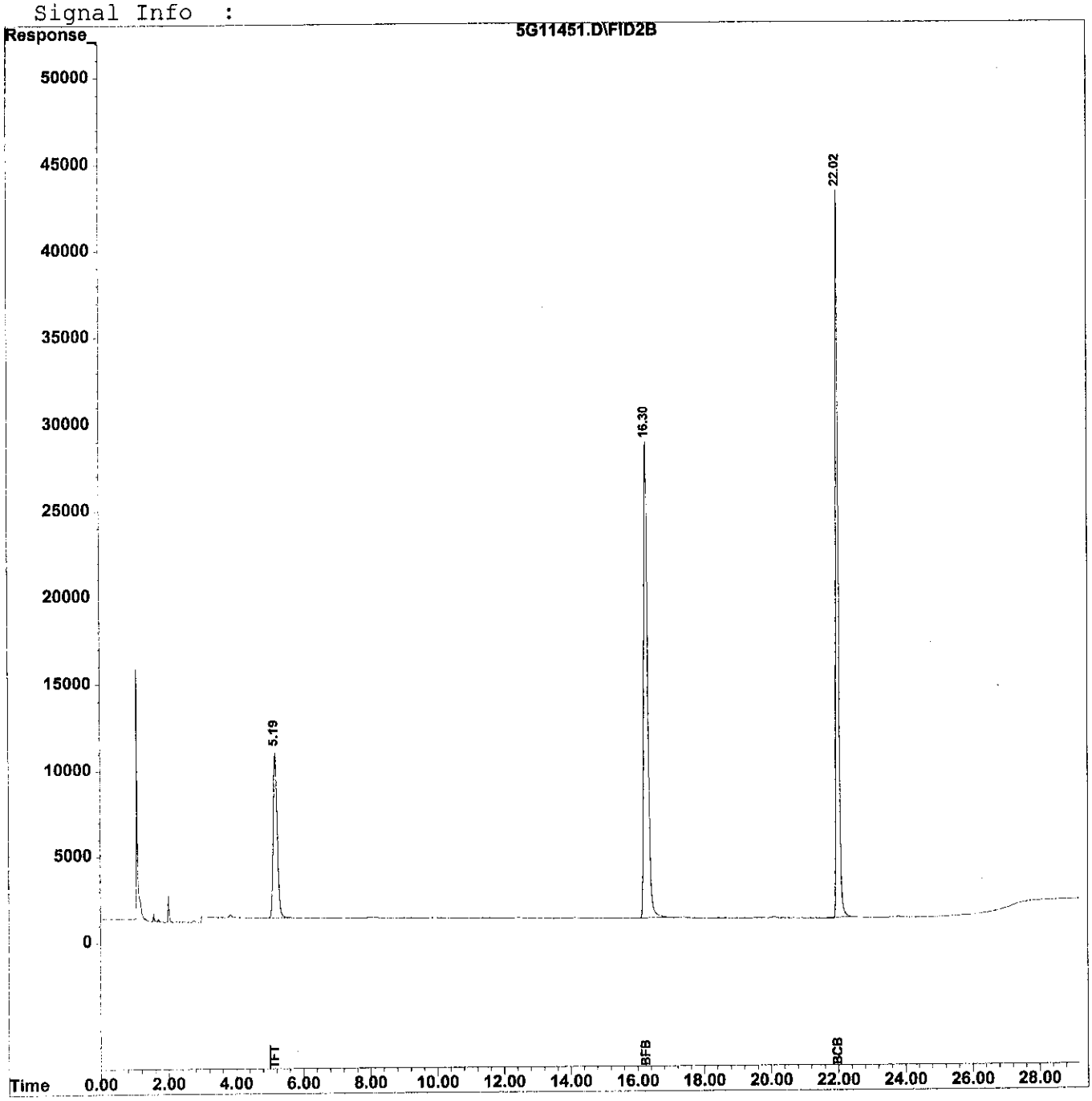
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\122001\5G11451.D Vial: 17
Acq On : 20 Dec 2001 23:01 Operator: jls
Sample : L0112366-13 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 23:30 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\122001\5G11451.D Vial: 17
Acq On : 20 Dec 2001 23:01 Operator: jls
Sample : L0112366-13 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 23:30 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

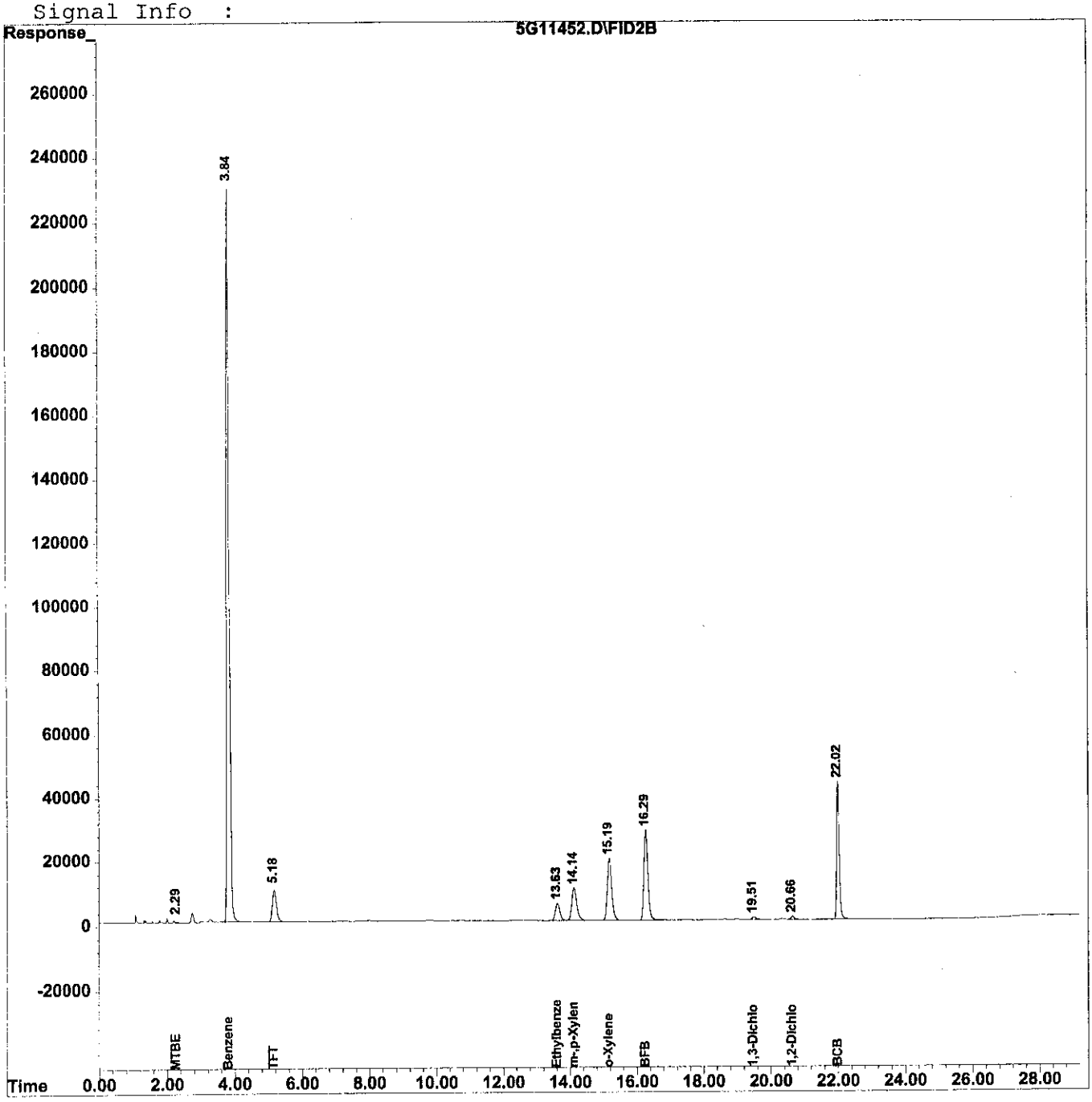
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.19	809682	30.0376 ug/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery = 100.13%	
9) S BFB	16.30	2267047	30.8689 ug/L
Spiked Amount 30.000		Recovery = 102.90%	
13) S BCB	22.02	2220159	32.1148 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery = 107.05%	
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

Quantitation Report

Data File : C:\HPCHEM\2\DATA\122001\5G11452.D Vial: 18
Acq On : 20 Dec 2001 23:36 Operator: jls
Sample : L0112366-14 A 10X 5ML pH<2 Inst : HP5
Misc : 1,10 S-87-26 Multiplr: 10.00
IntFile : autoint1.e
Quant Time: Dec 21 0:05 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\122001\5G11452.D Vial: 18
Acq On : 20 Dec 2001 23:36 Operator: jls
Sample : L0112366-14 A 10X 5ML pH<2 Inst : HP5
Misc : 1,10 S-87-26 Multiplr: 10.00
IntFile : autoint1.e
Quant Time: Dec 21 0:05 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.18	827735	30.7073 ug/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery =	102.36%
9) S BFB	16.29	2312639	31.4897 ug/L
Spiked Amount 30.000		Recovery =	104.97%
13) S BCB	22.03	2256200	32.6361 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	108.79%
Target Compounds			
1) TM MTBE	2.29 ✓	18390	11.3681 ug/L
2) TM Benzene	3.84 ✓	12065217	1332.1597 ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	13.63 ✓	491111	68.4837 ug/L
7) TM m-,p-Xylene	14.14 ✓	1029359	121.8751 ug/L
8) TM o-Xylene	15.20 ✓	1804733	245.1556 ug/L
10) TM 1,3-Dichlorobenzene	19.51	60544	~~8.2741 ug/L~~
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	20.66	58455	~~9.4167 ug/L~~

(f)=RT Delta > 1/2 Window (m)=manual int.

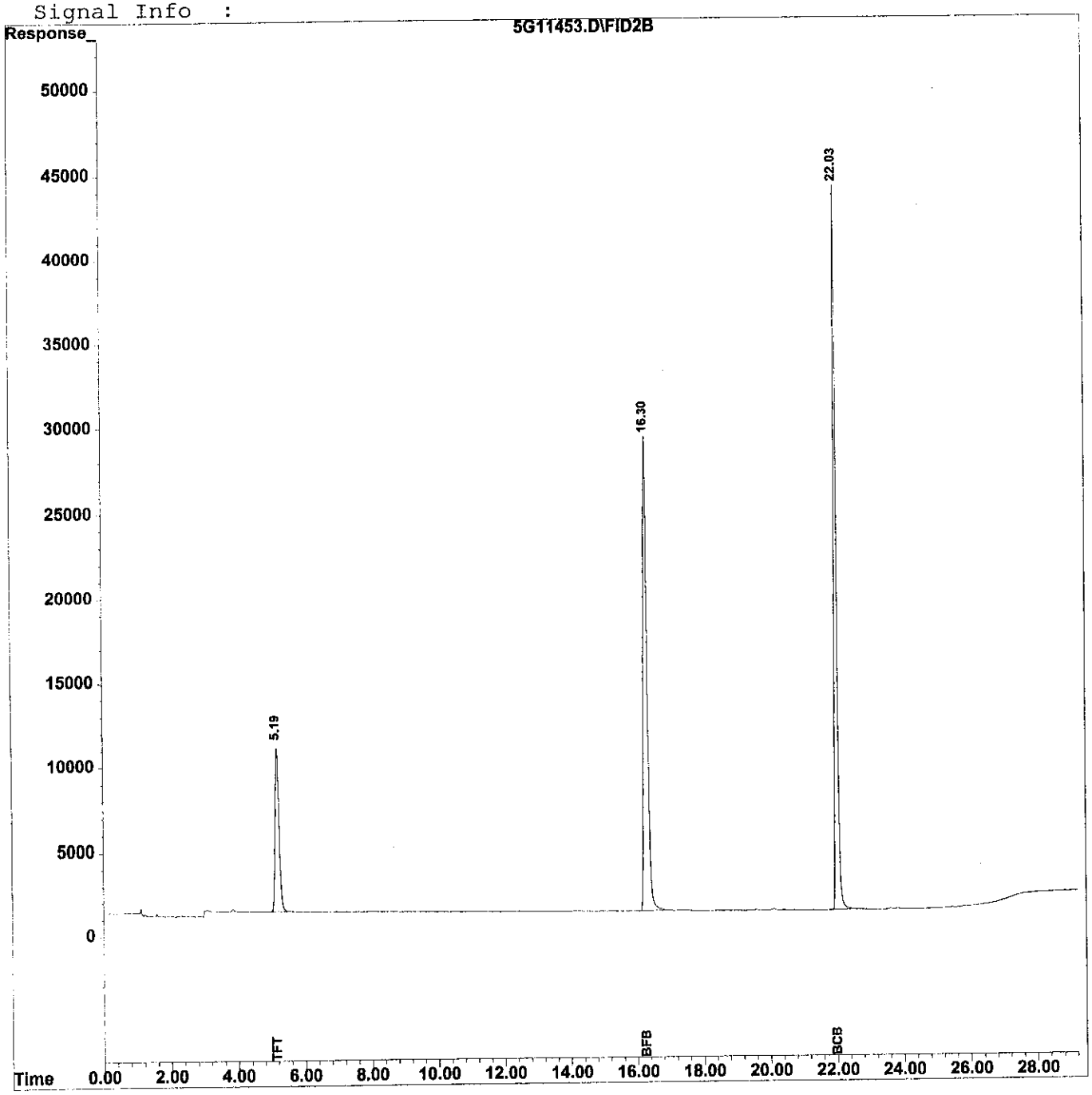
Quantitation Report

Data File : C:\HPCHEM\2\DATA\122001\5G11453.D
Acq On : 21 Dec 2001 00:10
Sample : L0112366-15 A 5ML pH<2
Misc : 1,1 S-87-26
IntFile : autointl.e
Quant Time: Dec 21 0:40 2001 Quant Results File: 8021W.RES

Vial: 19
Operator: jls
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\122001\5G11453.D Vial: 19
Acq On : 21 Dec 2001 00:10 Operator: jls
Sample : L0112366-15 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 21 0:40 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.19	801716	29.7420 ug/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery =	99.14%
9) S BFB	16.30	2288909	31.1666 ug/L
Spiked Amount 30.000		Recovery =	103.89%
13) S BCB	22.03	2250417	32.5525 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	108.51%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

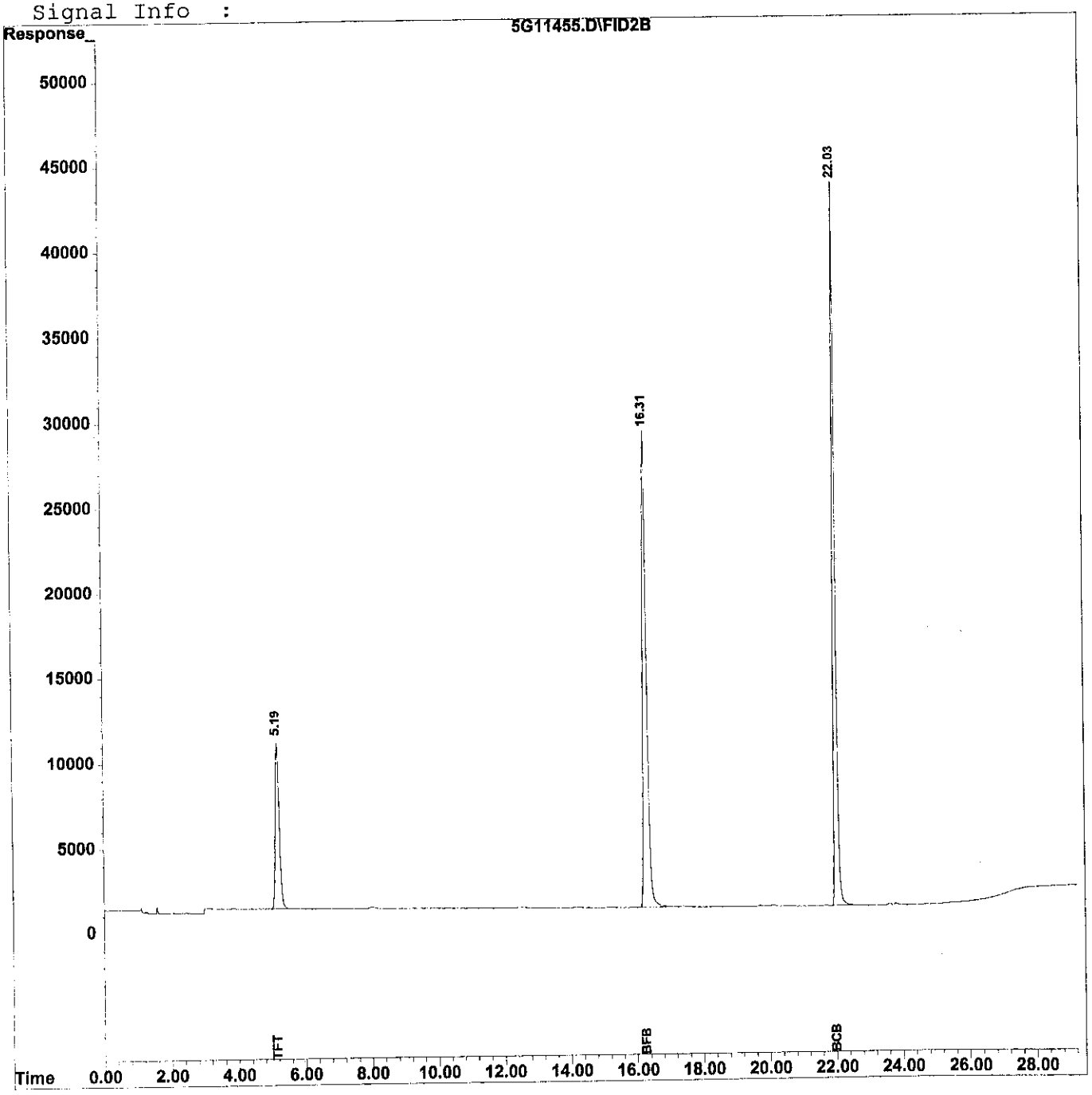
Quantitation Report

Data File : C:\HPCHEM\2\DATA\122001\5G11455.D
Acq On : 21 Dec 2001 1:20
Sample : L0112366-16 A 5ML pH<2
Misc : 1,1 S-87-26
IntFile : autoint1.e
Quant Time: Dec 21 1:49 2001 Quant Results File: 8021W.RES

Vial: 21
Operator: jls
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\122001\5G11455.D Vial: 21
Acq On : 21 Dec 2001 1:20 Operator: jls
Sample : L0112366-16 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 21 1:49 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.19	804758	29.8549 ug/L ✓
Spiked Amount 30.000 Range 70 - 130		Recovery =	99.52%
9) S BFB	16.31	2307513	31.4199 ug/L
Spiked Amount 30.000		Recovery =	104.73%
13) S BCB	22.03	2255237	32.6222 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	108.74%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

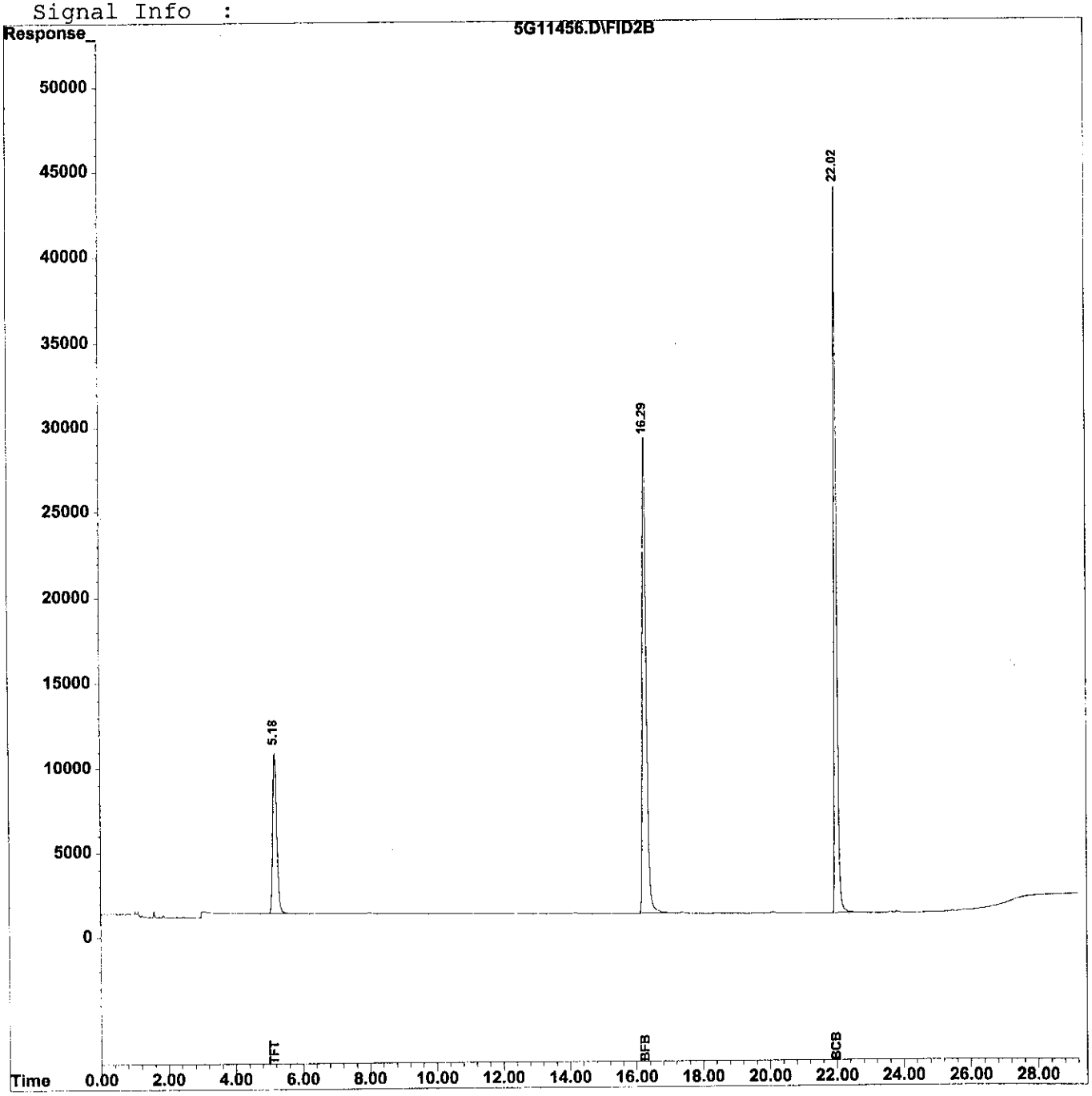
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\122001\5G11456.D Vial: 22
Acq On : 21 Dec 2001 1:54 Operator: jls
Sample : L0112366-17 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 21 2:24 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\122001\5G11456.D Vial: 22
Acq On : 21 Dec 2001 1:54 Operator: jls
Sample : L0112366-17 A 5ML pH<2 Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 21 2:24 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.19	799512	29.6603 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery = 98.87%	
9) S BFB	16.29	2287628	31.1492 ug/L
Spiked Amount 30.000		Recovery = 103.83%	
13) S BCB	22.03	2246048	32.4893 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 108.30%	
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

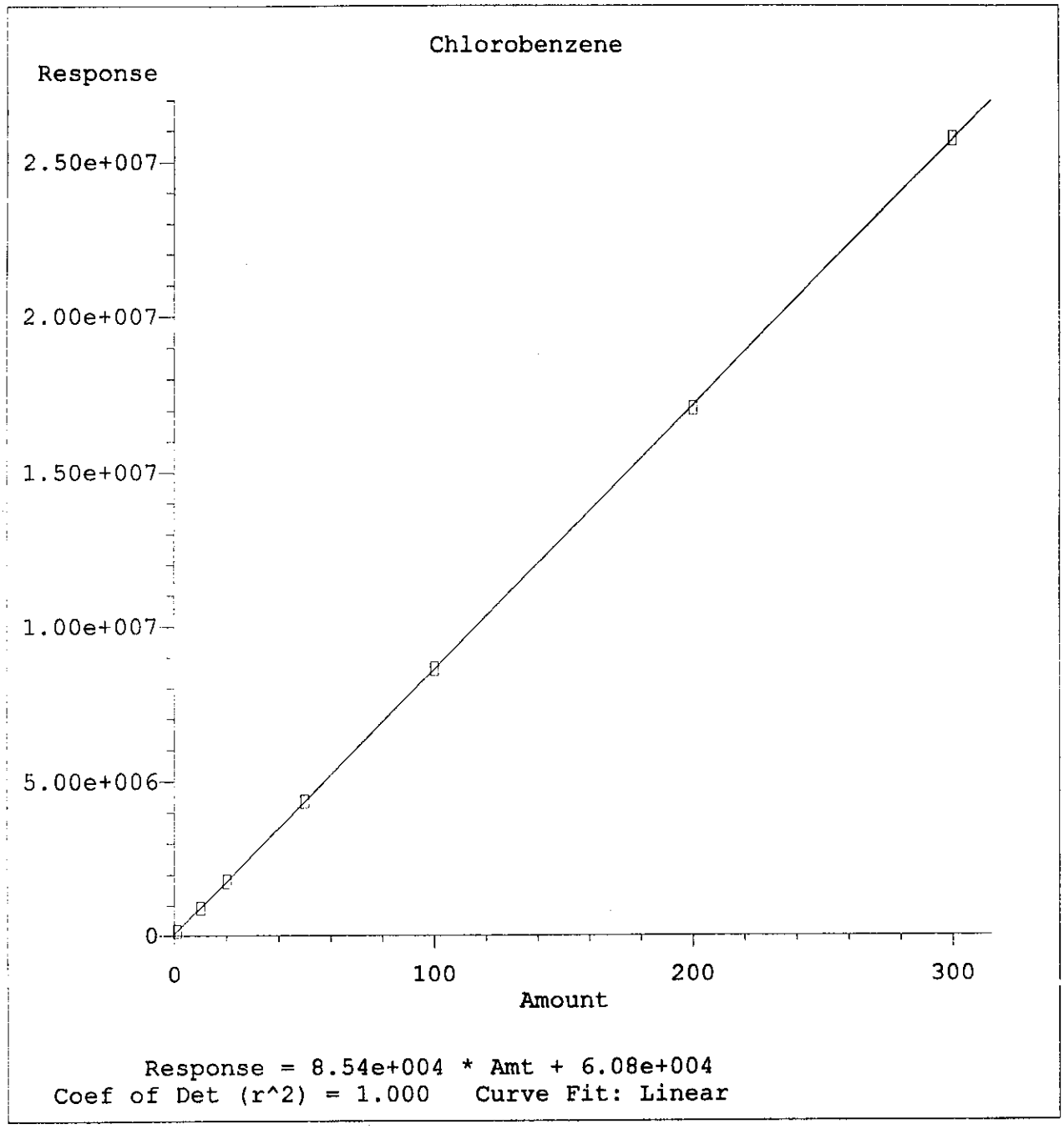
2.1.3.3 Standards Data

Calibration Table Report
Method: 8021W.M
Title: METHOD 8021B - Water - 11/19/01
Last Calibration: Mon Nov 19 14:58:57 2001

Calibration Files

Compound	1 5G10907.	10 5G10908.	20 5G10909.	50 5G10910.	100 5G10911.	200 5G10912.	300 5G10913.D	Avg	%RSD	
MTBE	17928.1	15757.4	15977.3	15705.6	16375.8	15833.7	15660.9	16177.0	5.002	
Benzene	99790.0	89314.0	90391.8	89213.1	89659.6	87758.8	87854.6	90568.9	4.609	
TFT	27514.0	26529.5	27740.5	27712.0	27569.2	27069.0	24555.3	26955.7	4.239	
Toluene	91223.3	82284.1	83471.4	81889.8	82269.7	80912.5	82171.9	83460.4	4.199	
Chlorobenzene	142785.6	90493.5	89103.4	87023.5	86260.6	85319.6	85791.8	95254.0	22.090	LR, 1.000
Ethylbenzene	76777.0	70859.6	71518.0	71121.0	70777.1	70298.7	70633.0	71712.1	3.160	
m-,p-Xylene	92261.5	83694.2	84557.0	83881.4	83175.9	81902.1	81749.0	84460.2	4.251	
o-Xylene	79222.9	72756.6	73618.4	72754.2	72631.0	72113.4	72214.0	73615.8	3.424	
BFB	76570.3	73113.5	74836.8	74862.6	74613.7	74295.4	65795.0	73441.1	4.796	
1,3-Dichlorobenzene	84334.7	69306.0	71664.7	70887.2	71839.3	71422.0	72754.5	73172.6	6.880	
1,4-Dichlorobenzene	89077.4	73163.6	76417.9	75588.1	76220.0	74531.6	75754.7	77250.5	6.905	
1,2-Dichlorobenzene	73100.2	61053.8	60836.5	59381.5	60314.3	59445.4	60404.8	62076.6	7.897	
BCB	74758.0	68514.5	69410.2	69067.1	69707.8	69797.3	62669.1	69132.0	5.102	

Mon Nov 19 15:13:16 2001



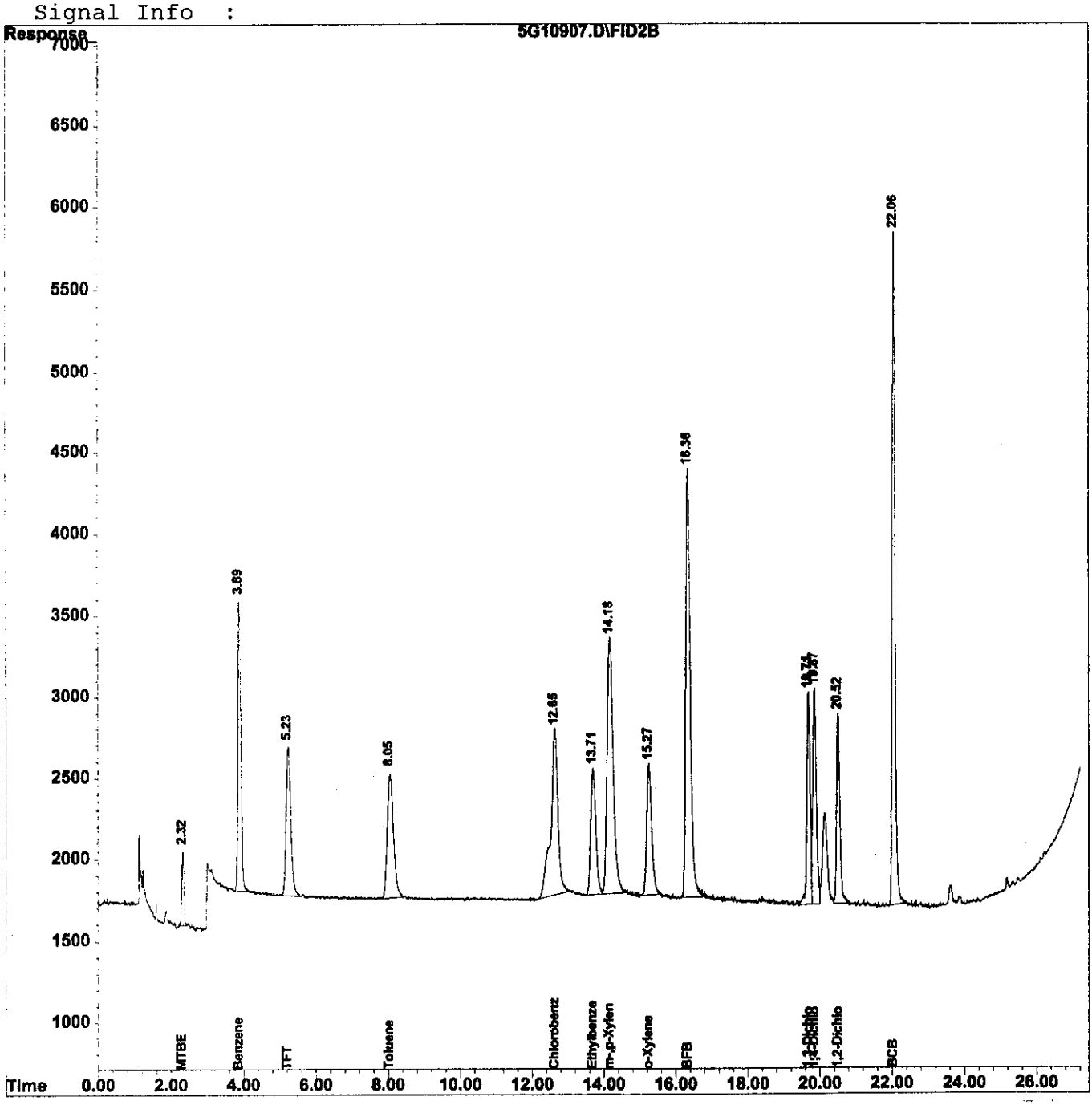
Method Name: C:\HPCHEM\2\METHODS\8021W.M
Calibration Table Last Updated: Mon Nov 19 14:59:08 2001

Quantitation Report

Data File : C:\HPCHEM\2\DATA\111901\5G10907.D Vial: 2
Acq On : 19 Nov 2001 11:13 Operator: JLS
Sample : WG108448-01 8021 STD1 1PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 11:41 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\111901\5G10907.D Vial: 2
Acq On : 19 Nov 2001 11:13 Operator: JLS
Sample : WG108448-01 8021 STD1 1PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 11:41 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

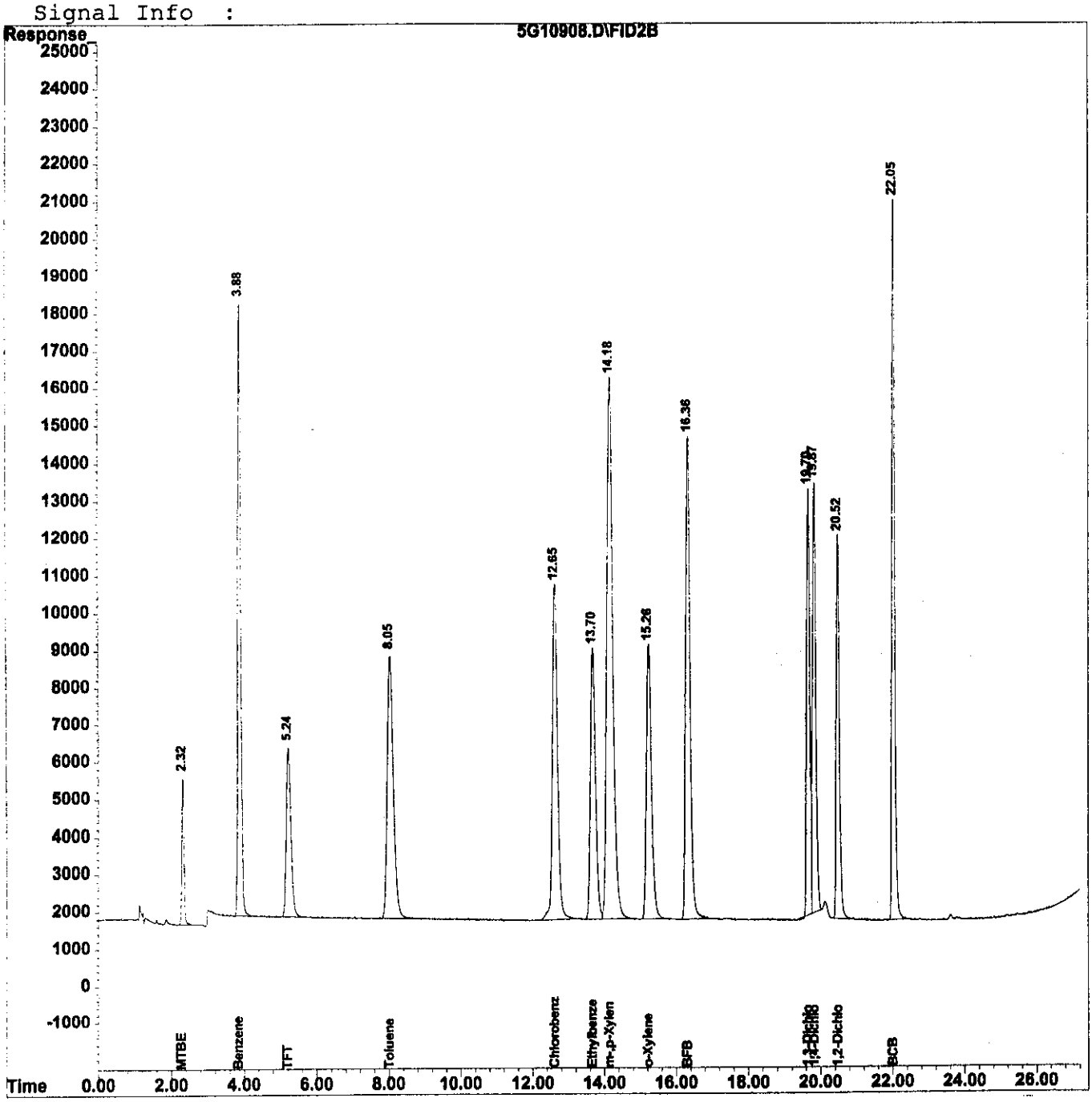
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.24	82542	2.4702 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	8.23%#
9) S BFB	16.36	229711	2.5587 ug/L
Spiked Amount 30.000		Recovery =	8.53%
13) S BCB	22.06	224274	2.5975 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	8.66%#
Target Compounds			
1) TM MTBE	2.32	17928	0.9943 ug/L
2) TM Benzene	3.89	99790	0.9063 ug/L
4) TM Toluene	8.06	91223	0.9165 ug/L
5) TM Chlorobenzene	12.65	142786	1.3065 ug/L
6) TM Ethylbenzene	13.71	76777	0.8829 ug/L
7) TM m-,p-Xylene	14.19	184523	1.7994 ug/L
8) TM o-Xylene	15.27	79223	0.8834 ug/L
10) TM 1,3-Dichlorobenzene	19.71	84335	0.9627 ug/L
11) TM 1,4-Dichlorobenzene	19.87	89077	0.9549 ug/L
12) TM 1,2-Dichlorobenzene	20.52	73100	0.9737 ug/L

Quantitation Report

Data File : C:\HPCHEM\2\DATA\111901\5G10908.D Vial: 3
Acq On : 19 Nov 2001 11:46 Operator: JLS
Sample : WG108448-02 8021 STD2 10PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 12:13 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\111901\5G10908.D Vial: 3
Acq On : 19 Nov 2001 11:46 Operator: JLS
Sample : WG108448-02 8021 STD2 10PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 12:13 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.24	397943	11.9092 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 39.70%#			
9) S BFB	16.35	1096703	12.2158 ug/L
Spiked Amount 30.000 Recovery = 40.72%			
13) S BCB	22.06	1027717	11.9028 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 39.68%			
Target Compounds			
1) TM MTBE	2.32	157574	8.7393 ug/L
2) TM Benzene	3.88	893140	8.1115 ug/L
4) TM Toluene	8.06	822841	8.2666 ug/L
5) TM Chlorobenzene	12.65	904935	8.2803 ug/L
6) TM Ethylbenzene	13.71	708596	8.1481 ug/L
7) TM m-,p-Xylene	14.18	1673884	16.3233 ug/L
8) TM o-Xylene	15.26	727566	8.1133 ug/L
10) TM 1,3-Dichlorobenzene	19.70	693060	7.9112 ug/L
11) TM 1,4-Dichlorobenzene	19.87	731636	7.8430 ug/L
12) TM 1,2-Dichlorobenzene	20.52	610538	8.1327 ug/L

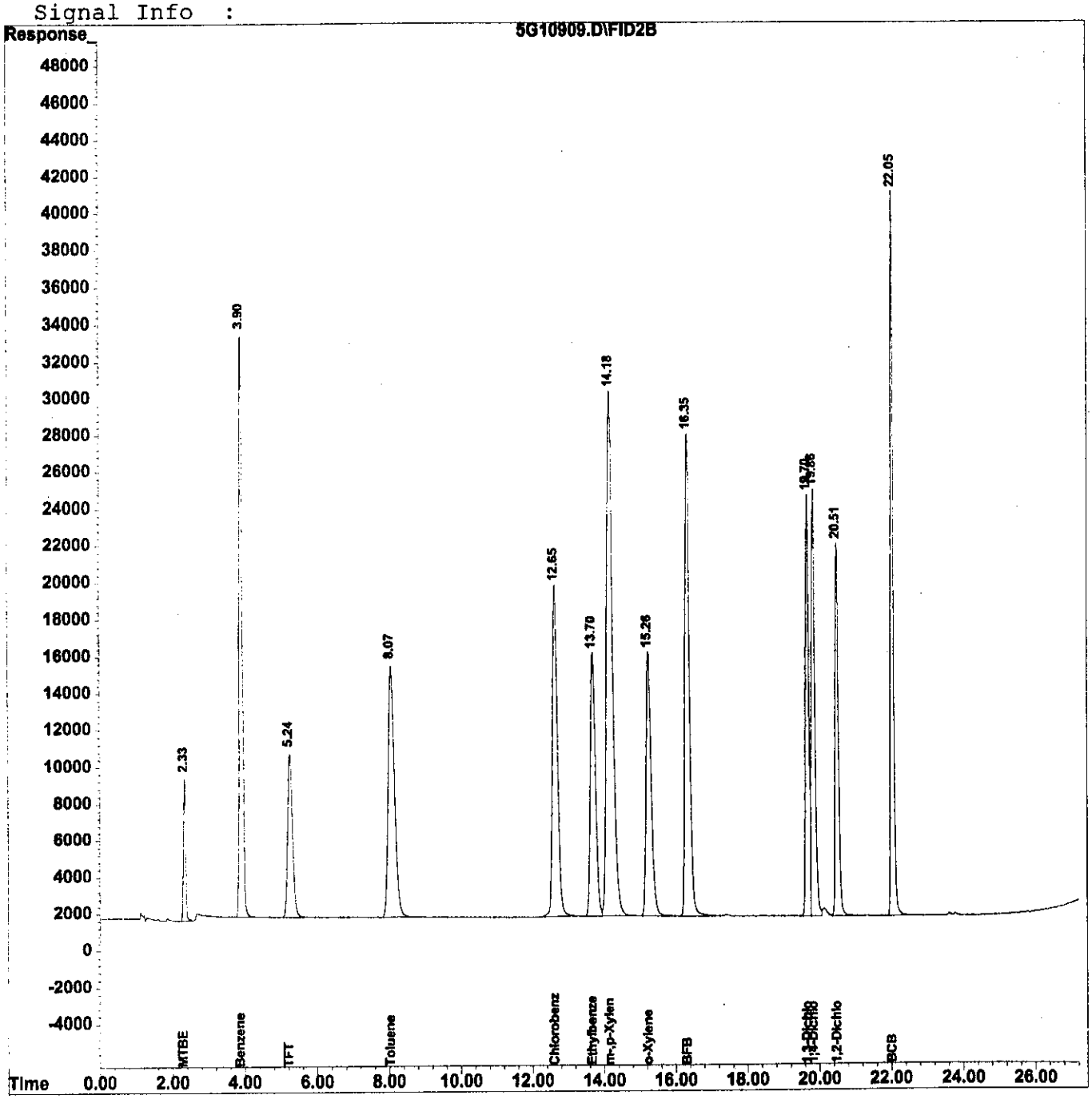
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\111901\5G10909.D Vial: 4
Acq On : 19 Nov 2001 12:18 Operator: JLS
Sample : WG108448-03 8021 STD3 20PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 12:45 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



5G10909.D 8021W.M Mon Nov 19 12:45:57 2001 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\111901\5G10909.D Vial: 4
Acq On : 19 Nov 2001 12:18 Operator: JLS
Sample : WG108448-03 8021 STD3 20PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 12:45 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

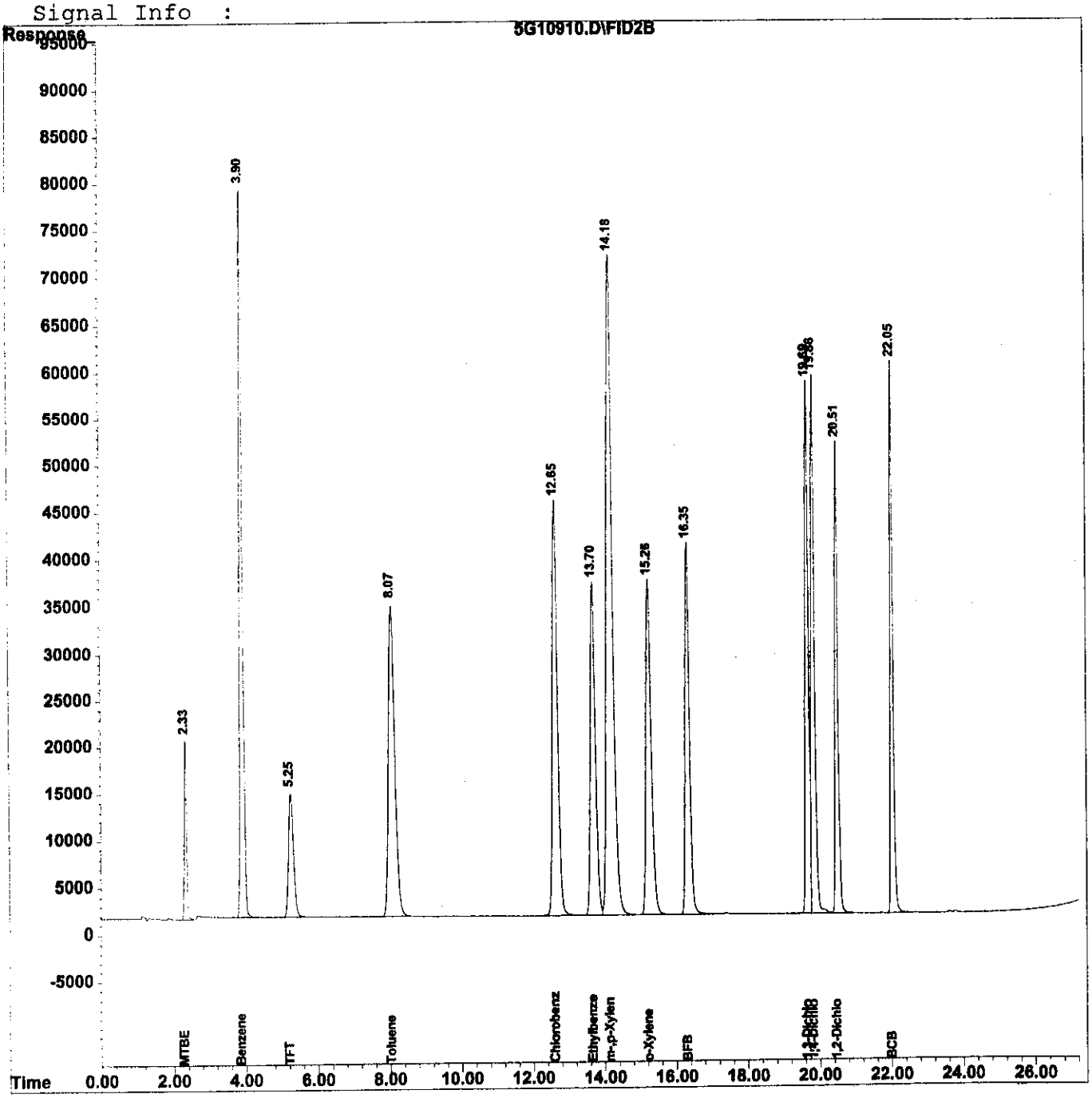
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.25	832216	24.9056 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 83.02%			
9) S BFB	16.35	2245103	25.0073 ug/L
Spiked Amount 30.000 Recovery = 83.36%			
13) S BCB	22.05	2082306	24.1168 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 80.39%			
Target Compounds			
1) TM MTBE	2.33	319546	17.7224 ug/L
2) TM Benzene	3.90	1807837	16.4188 ug/L
4) TM Toluene	8.07	1669428	16.7717 ug/L
5) TM Chlorobenzene	12.65	1782068	16.3062 ug/L
6) TM Ethylbenzene	13.71	1430360	16.4476 ug/L
7) TM m-,p-Xylene	14.18	3382280	32.9831 ug/L
8) TM o-Xylene	15.27	1472367	16.4189 ug/L
10) TM 1,3-Dichlorobenzene	19.70	1433294	16.3610 ug/L
11) TM 1,4-Dichlorobenzene	19.86	1528358	16.3837 ug/L
12) TM 1,2-Dichlorobenzene	20.52	1216730	16.2075 ug/L

Quantitation Report

Data File : C:\HPCHEM\2\DATA\111901\5G10910.D Vial: 5
Acq On : 19 Nov 2001 12:50 Operator: JLS
Sample : WG108448-04 8021 STD4 50PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 13:18 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\111901\5G10910.D Vial: 5
Acq On : 19 Nov 2001 12:50 Operator: JLS
Sample : WG108448-04 8021 STD4 50PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 13:18 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

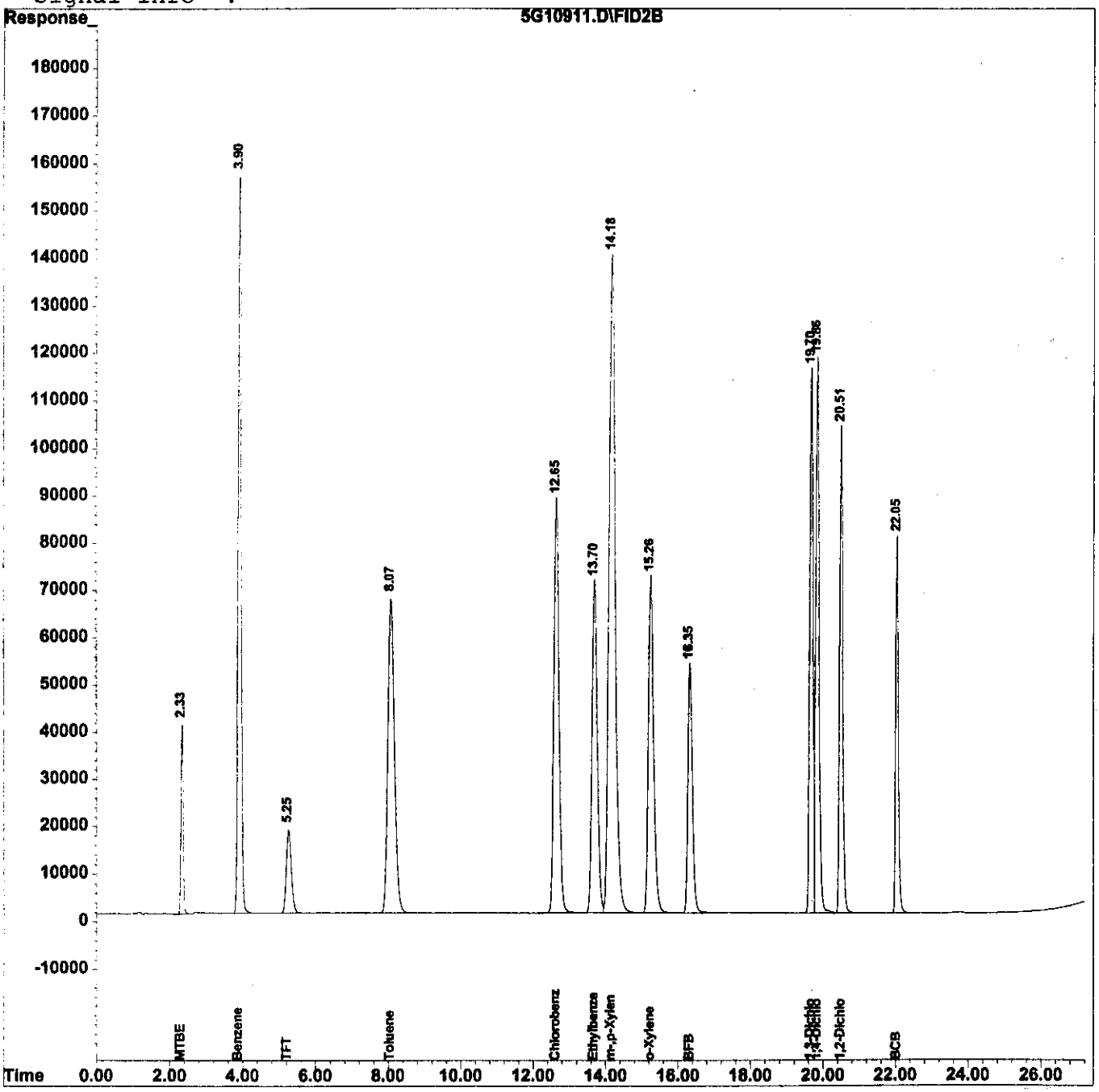
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.25	1247040	37.3200 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 124.40%			
9) S BFB	16.35	3368819	37.5240 ug/L
Spiked Amount 30.000 Recovery = 125.08%			
13) S BCB	22.05	3108021	35.9964 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 119.99%			
Target Compounds			
1) TM MTBE	2.33	785282	43.5527 ug/L
2) TM Benzene	3.90	4460656	40.5117 ug/L
4) TM Toluene	8.07	4094492	41.1349 ug/L
5) TM Chlorobenzene	12.65	4351173	39.8140 ug/L
6) TM Ethylbenzene	13.71	3556049	40.8906 ug/L
7) TM m-,p-Xylene	14.18	8388144	81.7989 ug/L
8) TM o-Xylene	15.26	3637711	40.5654 ug/L
10) TM 1,3-Dichlorobenzene	19.70	3544360	40.4586 ug/L
11) TM 1,4-Dichlorobenzene	19.86	3779403	40.5146 ug/L
12) TM 1,2-Dichlorobenzene	20.51	2969073	39.5496 ug/L

Quantitation Report

Data File : C:\HPCHEM\2\DATA\111901\5G10911.D Vial: 6
Acq On : 19 Nov 2001 13:23 Operator: JLS
Sample : WG108448-05 8021 STD5 100PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 13:50 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\111901\5G10911.D Vial: 6
Acq On : 19 Nov 2001 13:23 Operator: JLS
Sample : WG108448-05 8021 STD5 100PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 13:50 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.25	1654151	49.5036 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	165.01%#
9) S BFB	16.35	4476824	49.8656 ug/L
Spiked Amount 30.000		Recovery =	166.22%
13) S BCB	22.05	4182469	48.4405 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	161.47%#
Target Compounds			
1) TM MTBE	2.33	1637578	90.8221 ug/L
2) TM Benzene	3.90	8965963	81.4289 ug/L
4) TM Toluene	8.07	8226969	82.6514 ug/L
5) TM Chlorobenzene	12.65	8626062	78.9300 ug/L
6) TM Ethylbenzene	13.71	7077705	81.3858 ug/L
7) TM m-,p-Xylene	14.18	16635172	162.2216 ug/L
8) TM o-Xylene	15.26	7263099	80.9933 ug/L
10) TM 1,3-Dichlorobenzene	19.70	7183927	82.0041 ug/L
11) TM 1,4-Dichlorobenzene	19.86	7621999	81.7065 ug/L
12) TM 1,2-Dichlorobenzene	20.52	6031432	80.3417 ug/L

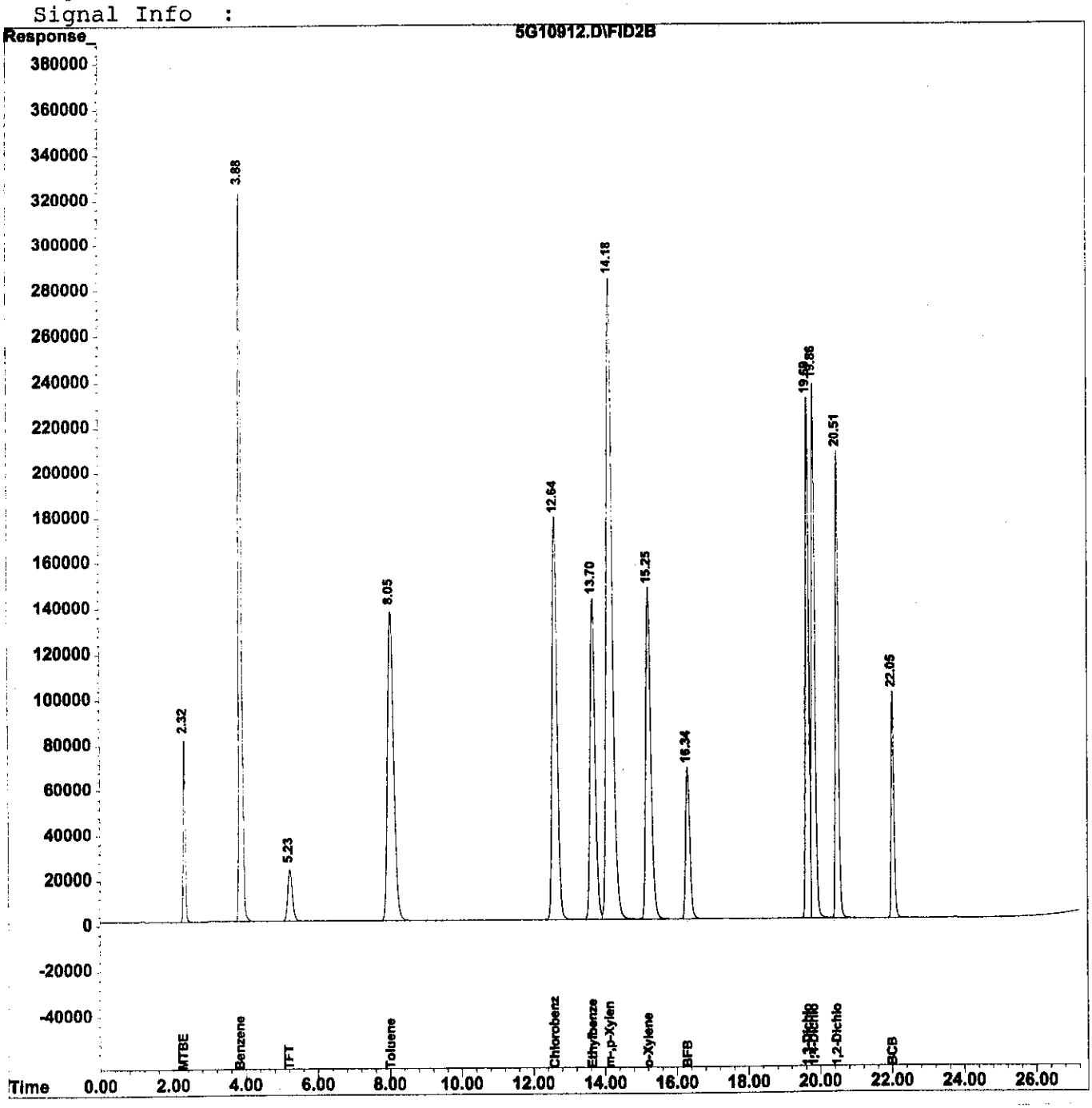
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\111901\5G10912.D Vial: 7
Acq On : 19 Nov 2001 13:55 Operator: JLS
Sample : WG108448-06 8021 STD6 200PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 14:22 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\111901\5G10912.D Vial: 7
Acq On : 19 Nov 2001 13:55 Operator: JLS
Sample : WG108448-06 8021 STD6 200PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 14:22 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 10/26/01
Last Update : Mon Oct 29 08:23:07 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

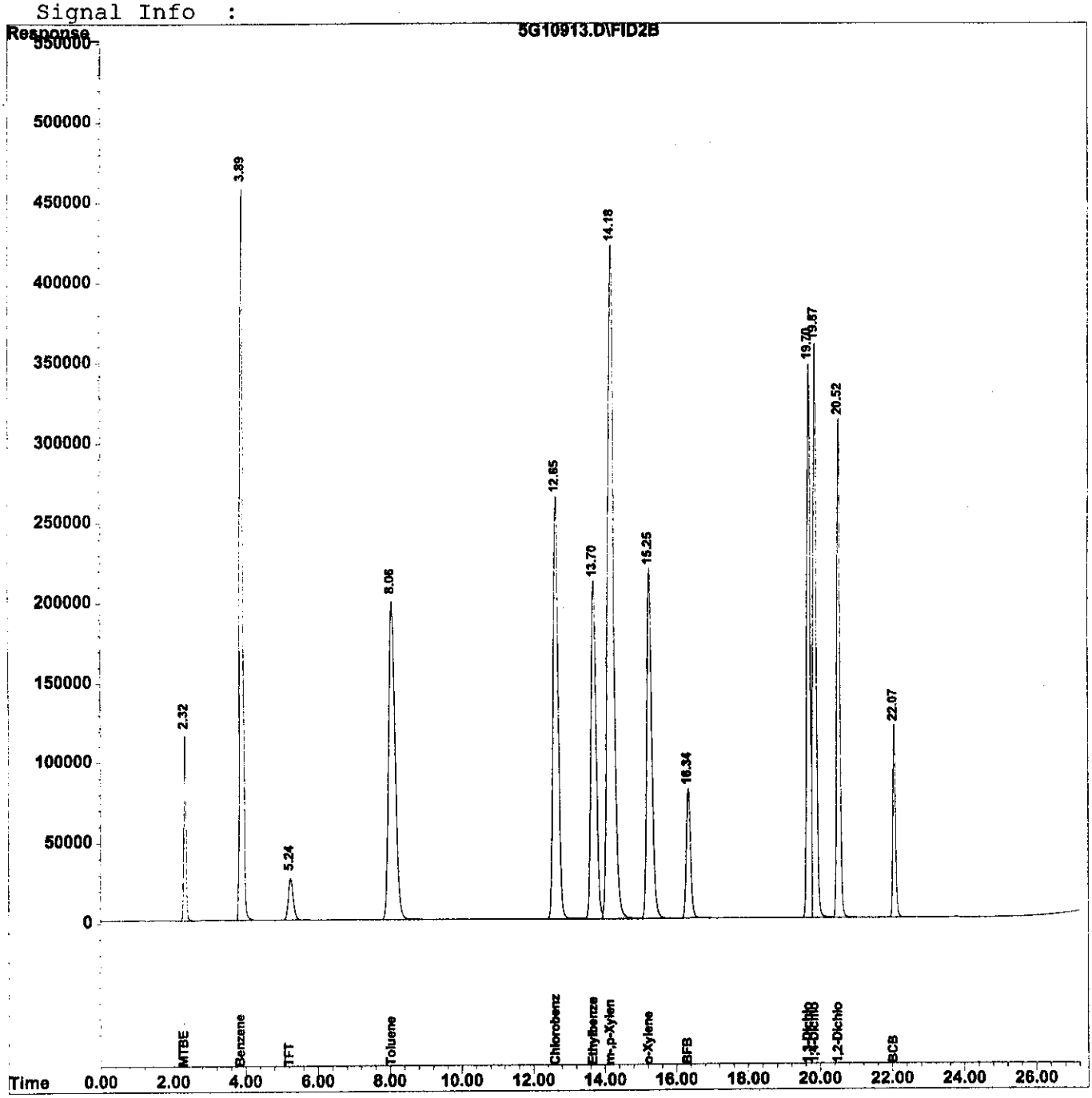
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.24	2030172	60.7567 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery = 202.52%#	
9) S BFB	16.34	5572156	62.0661 ug/L
Spiked Amount 30.000		Recovery = 206.89%	
13) S BCB	22.05	5234796	60.6283 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery = 202.09%#	
Target Compounds			
1) TM MTBE	2.32	3166735	175.6310 ug/L
2) TM Benzene	3.88	17551755	159.4050 ug/L
4) TM Toluene	8.05	16182507	162.5758 ug/L
5) TM Chlorobenzene	12.64	17063927	156.1380 ug/L
6) TM Ethylbenzene	13.70	14059739	161.6715 ug/L
7) TM m-,p-Xylene	14.18	32760829	319.4745 ug/L
8) TM o-Xylene	15.26	14422682	160.8322 ug/L
10) TM 1,3-Dichlorobenzene	19.69	14284390	163.0554 ug/L
11) TM 1,4-Dichlorobenzene	19.86	14906319	159.7932 ug/L
12) TM 1,2-Dichlorobenzene	20.51	11889074	158.3685 ug/L

Quantitation Report

Data File : C:\HPCHEM\2\DATA\111901\5G10913.D Vial: 8
Acq On : 19 Nov 2001 14:27 Operator: JLS
Sample : WG108448-07 8021 STD7 300PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 14:54 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:23:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\111901\5G10913.D Vial: 8
Acq On : 19 Nov 2001 14:27 Operator: JLS
Sample : WG108448-07 8021 STD7 300PPB 5ML Inst : HP5
Misc : 1,1 S-87-21,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 14:54 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:23:13 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.25	2455534	89.7631 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery = 299.21%#	
9) S BFB	16.34	6579502	88.0609 ug/L
Spiked Amount 30.000		Recovery = 293.54%	
13) S BCB	22.07	6266914	89.2606 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery = 297.54%#	
Target Compounds			
1) TM MTBE	2.32	4698275	288.8936 ug/L
2) TM Benzene	3.89	26356370	289.5629 ug/L
4) TM Toluene	8.06	24651577	294.6105 ug/L
5) TM Chlorobenzene	12.65	25737550	265.7986 ug/L
6) TM Ethylbenzene	13.70	21189913	294.7469 ug/L
7) TM m-,p-Xylene	14.18	49049393	577.6494 ug/L
8) TM o-Xylene	15.26	21664212	293.3566 ug/L
10) TM 1,3-Dichlorobenzene	19.70	21826356	298.0020 ug/L
11) TM 1,4-Dichlorobenzene	19.87	22726422	293.2451 ug/L
12) TM 1,2-Dichlorobenzene	20.52	18121438	290.6159 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\111901\5G10915.D Vial: 10
Acq On : 19 Nov 2001 15:43 Operator: JLS
Sample : WG108448-08 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-86-13,86-08 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	16.177	15.889 E3	1.8	99	-0.02
2	TM	Benzene	90.569	89.138 E3	1.6	99	-0.03
3	S	TFT	26.956	29.628 E3	-9.9	107	-0.03
4	TM	Toluene	83.460	82.597 E3	1.0	99	-0.04
5	TM	Chlorobenzene	95.254	87.667 E3	8.0	98	-0.03
6	TM	Ethylbenzene	71.712	72.642 E3	-1.3	102	-0.03
7	TM	m-,p-Xylene	84.460	84.130 E3	0.4	99	-0.02
8	TM	o-Xylene	73.616	72.079 E3	2.1	98	-0.02
9	S	BFB	73.441	80.713 E3	-9.9	108	-0.02
10	TM	1,3-Dichlorobenzene	73.173	72.182 E3	1.4	101	0.00
11	TM	1,4-Dichlorobenzene	77.250	76.625 E3	0.8	100	0.00
12	TM	1,2-Dichlorobenzene	62.077	61.812 E3	0.4	102	0.00
13	S	BCB	69.132	77.107 E3	-11.5	111	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\111901\5G10915.D Vial: 10
Acq On : 19 Nov 2001 15:43 Operator: JLS
Sample : WG108448-08 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-86-13,86-08 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	19.644	1.8	99	-0.02
2	TM	Benzene	20.000	19.684	1.6	99	-0.03
3	S	TFT	30.000	32.974	-9.9	107	-0.03
4	TM	Toluene	20.000	19.793	1.0	99	-0.04
5	TM	Chlorobenzene	20.000	19.810	1.0	98	-0.03
6	TM	Ethylbenzene	20.000	20.259	-1.3	102	-0.03
7	TM	m-,p-Xylene	40.000	39.843	0.4	99	-0.02
8	TM	o-Xylene	20.000	19.583	2.1	98	-0.02
9	S	BFB	30.000	32.971	-9.9	108	-0.02
10	TM	1,3-Dichlorobenzene	20.000	19.729	1.4	101	0.00
11	TM	1,4-Dichlorobenzene	20.000	19.838	0.8	100	0.00
12	TM	1,2-Dichlorobenzene	20.000	19.915	0.4	102	0.00
13	S	BCB	30.000	33.461	-11.5	111	0.00

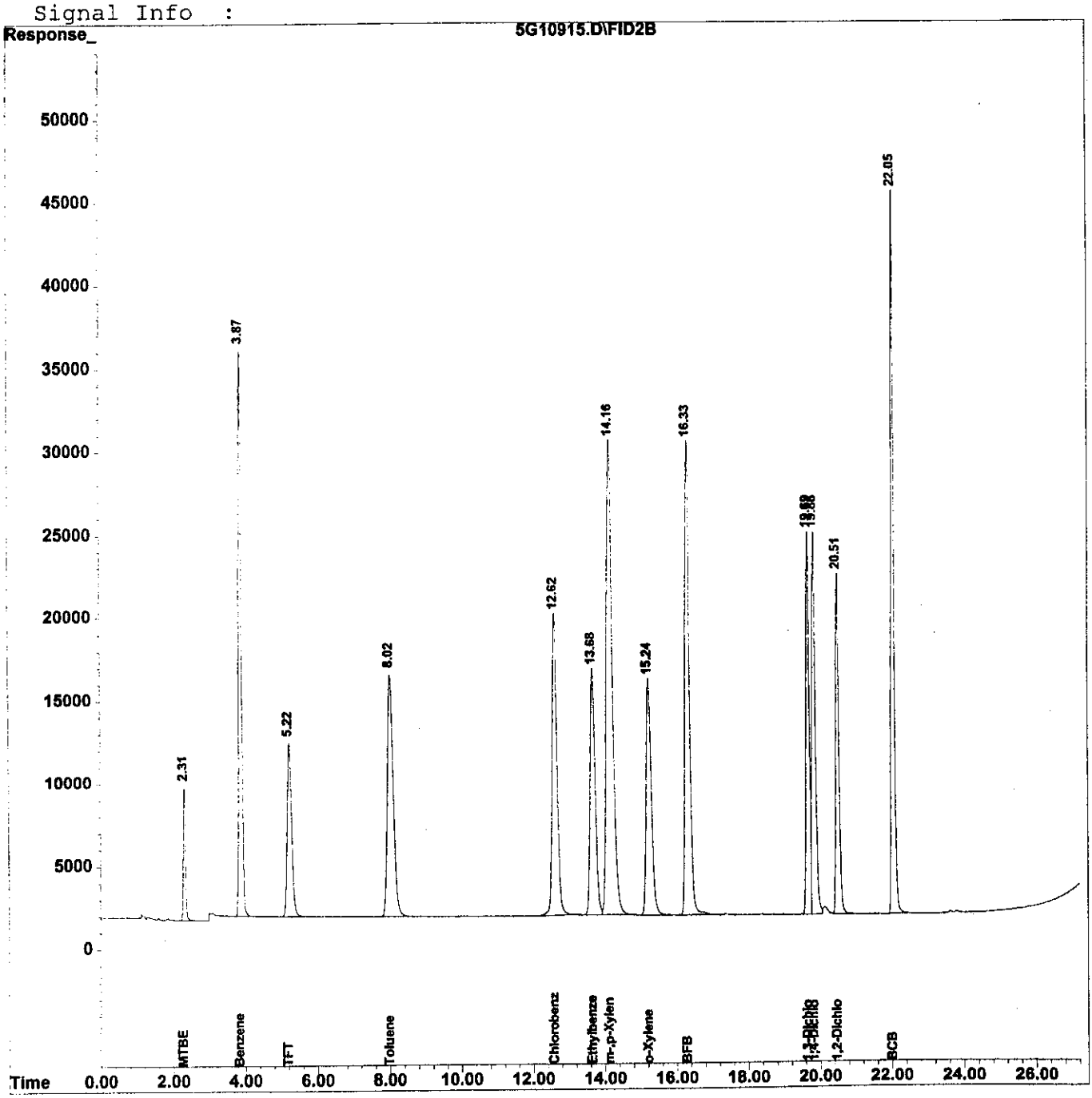
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report

Data File : C:\HPCHEM\2\DATA\111901\5G10915.D Vial: 10
Acq On : 19 Nov 2001 15:43 Operator: JLS
Sample : WG108448-08 ALT SOURCE 20PPB 5ML Inst : HP5
Misc : 1,1 S-86-13,86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 19 16:10 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\111901\5G10915.D
Acq On : 19 Nov 2001 15:43
Sample : WG108448-08 ALT SOURCE 20PPB 5ML
Misc : 1,1 S-86-13,86-08
IntFile : autoint1.e
Quant Time: Nov 19 16:10 2001 Quant Results File: 8021W.RES

Vial: 10
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.22	888839	32.9741 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery = 109.91%	
9) S BFB	16.33	2421389	32.9705 ug/L
Spiked Amount 30.000		Recovery = 109.90%	
13) S BCB	22.05	2313207	33.4607 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery = 111.54%	
Target Compounds			
1) TM MTBE	2.31	317779	19.6439 ug/L
2) TM Benzene	3.87	1782757	19.6840 ug/L
4) TM Toluene	8.03	1651945	19.7932 ug/L
5) TM Chlorobenzene	12.62	1753330	19.8102 ug/L
6) TM Ethylbenzene	13.68	1452834	20.2593 ug/L
7) TM m-,p-Xylene	14.16	3365188	39.8435 ug/L
8) TM o-Xylene	15.25	1441583	19.5825 ug/L
10) TM 1,3-Dichlorobenzene	19.69	1443632	19.7291 ug/L
11) TM 1,4-Dichlorobenzene	19.86	1532501	19.8381 ug/L
12) TM 1,2-Dichlorobenzene	20.51	1236239	19.9147 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\122001\5G11432.D Vial: 1
Acq On : 20 Dec 2001 9:56 Operator: JLS
Sample : WG110357-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.443	7.8	93	-0.04
2	TM	Benzene	20.000	17.421	12.9	87	-0.06
3	S	TFT	30.000	28.927	3.6	94	-0.07
4	TM	Toluene	20.000	18.733	6.3	94	-0.10
5	TM	Chlorobenzene	20.000	17.271	13.6	86	-0.08
6	TM	Ethylbenzene	20.000	17.812	10.9	89	-0.07
7	TM	m-,p-Xylene	40.000	36.573	8.6	91	-0.06
8	TM	o-Xylene	20.000	17.755	11.2	89	-0.06
9	S	BFB	30.000	30.797	-2.7	101	-0.07
10	TM	1,3-Dichlorobenzene	20.000	17.920	10.4	91	-0.03
11	TM	1,4-Dichlorobenzene	20.000	17.631	11.8	89	-0.03
12	TM	1,2-Dichlorobenzene	20.000	18.178	9.1	93	-0.03
13	S	BCB	30.000	31.361	-4.5	104	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\122001\5G11432.D Vial: 1
Acq On : 20 Dec 2001 9:56 Operator: JLS
Sample : WG110357-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	16.177	14.918 E3	7.8	93	-0.04
2	TM	Benzene	90.569	78.892 E3	12.9	87	-0.06
3	S	TFT	26.956	25.991 E3	3.6	94	-0.07
4	TM	Toluene	83.460	78.171 E3	6.3	94	-0.10
5	TM	Chlorobenzene	95.254	76.819 E3	19.4#	86	-0.08
6	TM	Ethylbenzene	71.712	63.867 E3	10.9	89	-0.07
7	TM	m-,p-Xylene	84.460	77.224 E3	8.6	91	-0.06
8	TM	o-Xylene	73.616	65.354 E3	11.2	89	-0.06
9	S	BFB	73.441	75.392 E3	-2.7	101	-0.07
10	TM	1,3-Dichlorobenzene	73.173	65.564 E3	10.4	91	-0.03
11	TM	1,4-Dichlorobenzene	77.250	68.100 E3	11.8	89	-0.03
12	TM	1,2-Dichlorobenzene	62.077	56.420 E3	9.1	93	-0.03
13	S	BCB	69.132	72.269 E3	-4.5	104	-0.02

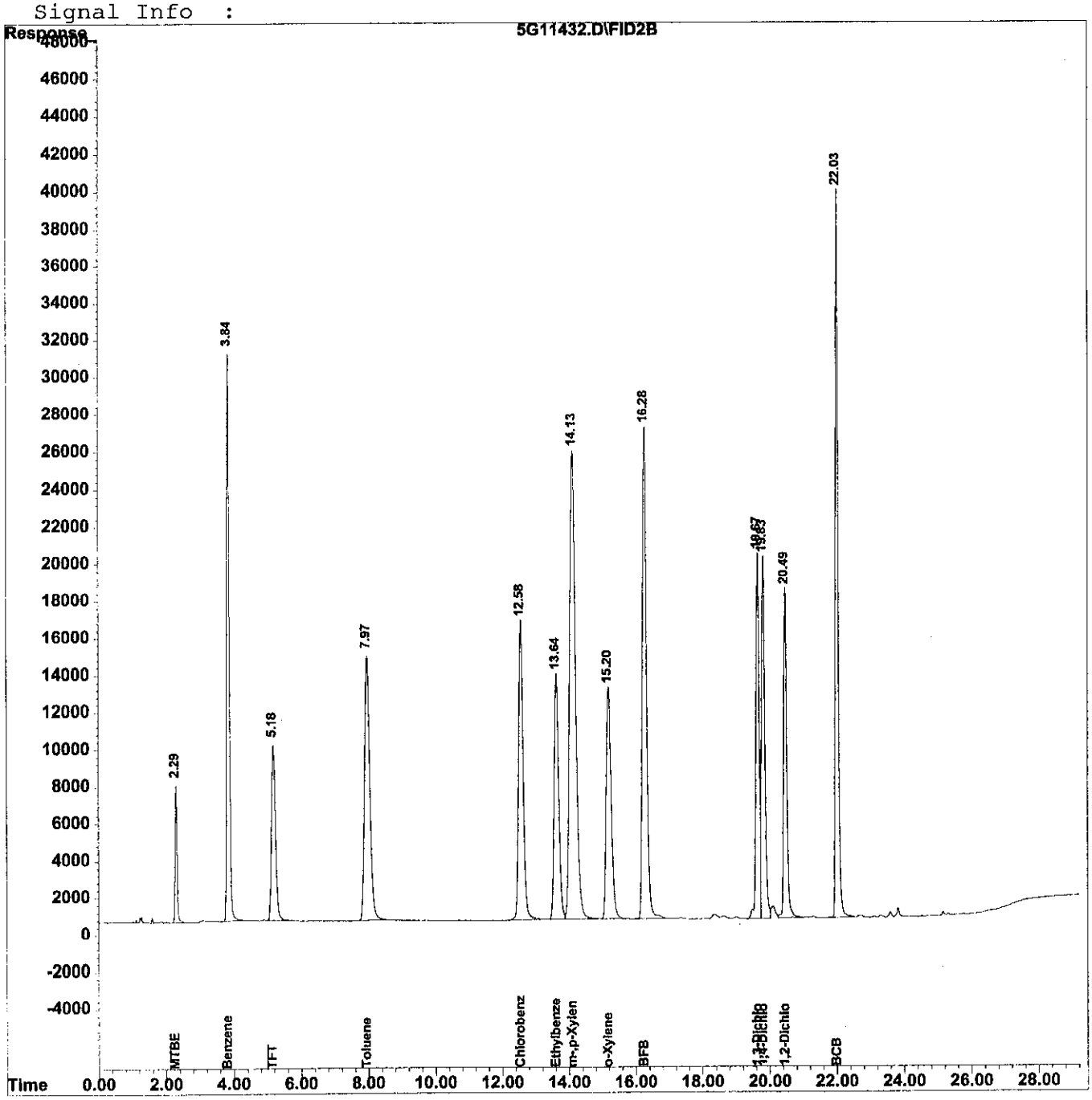
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report

Data File : C:\HPCHEM\2\DATA\122001\5G11432.D Vial: 1
Acq On : 20 Dec 2001 9:56 Operator: JLS
Sample : WG110357-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 10:25 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\122001\5G11432.D Vial: 1
Acq On : 20 Dec 2001 9:56 Operator: JLS
Sample : WG110357-01 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 10:25 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.18	779743	28.9269 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 96.42%			
9) S BFB	16.28	2261748	30.7968 ug/L
Spiked Amount 30.000 Recovery = 102.66%			
13) S BCB	22.03	2168058	31.3611 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 104.54%			
Target Compounds			
1) TM MTBE	2.29	298360	18.4435 ug/L
2) TM Benzene	3.84	1577837	17.4214 ug/L
4) TM Toluene	7.97	1563429	18.7326 ug/L
5) TM Chlorobenzene	12.58	1536371	17.2708 ug/L
6) TM Ethylbenzene	13.64	1277350	17.8122 ug/L
7) TM m-,p-Xylene	14.13	3088956	36.5729 ug/L
8) TM o-Xylene	15.21	1307072	17.7553 ug/L
10) TM 1,3-Dichlorobenzene	19.67	1311286	17.9204 ug/L
11) TM 1,4-Dichlorobenzene	19.84	1362003	17.6310 ug/L
12) TM 1,2-Dichlorobenzene	20.49	1128406	18.1776 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\122001\5G11443.D Vial: 9
Acq On : 20 Dec 2001 18:23 Operator: jls
Sample : WG110357-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	16.177	14.401 E3	11.0	90	-0.03
2	TM	Benzene	90.569	82.022 E3	9.4	91	-0.06
3	S	TFT	26.956	26.824 E3	0.5	97	-0.06
4	TM	Toluene	83.460	76.002 E3	8.9	91	-0.09
5	TM	Chlorobenzene	95.254	78.415 E3	17.7#	88	-0.05
6	TM	Ethylbenzene	71.712	66.689 E3	7.0	93	-0.05
7	TM	m-,p-Xylene	84.460	77.347 E3	8.4	91	-0.04
8	TM	o-Xylene	73.616	65.618 E3	10.9	89	-0.03
9	S	BFB	73.441	76.631 E3	-4.3	102	-0.03
10	TM	1,3-Dichlorobenzene	73.173	64.616 E3	11.7	90	-0.02
11	TM	1,4-Dichlorobenzene	77.250	69.024 E3	10.6	90	-0.02
12	TM	1,2-Dichlorobenzene	62.077	56.105 E3	9.6	92	-0.02
13	S	BCB	69.132	74.215 E3	-7.4	107	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\122001\5G11443.D Vial: 9
Acq On : 20 Dec 2001 18:23 Operator: jls
Sample : WG110357-02 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	17.804	11.0	90	-0.03
2	TM	Benzene	20.000	18.113	9.4	91	-0.06
3	S	TFT	30.000	29.854	0.5	97	-0.06
4	TM	Toluene	20.000	18.213	8.9	91	-0.09
5	TM	Chlorobenzene	20.000	17.644	11.8	88	-0.05
6	TM	Ethylbenzene	20.000	18.599	7.0	93	-0.05
7	TM	m-,p-Xylene	40.000	36.631	8.4	91	-0.04
8	TM	o-Xylene	20.000	17.827	10.9	89	-0.03
9	S	BFB	30.000	31.303	-4.3	102	-0.03
10	TM	1,3-Dichlorobenzene	20.000	17.661	11.7	90	-0.02
11	TM	1,4-Dichlorobenzene	20.000	17.870	10.7	90	-0.02
12	TM	1,2-Dichlorobenzene	20.000	18.076	9.6	92	-0.02
13	S	BCB	30.000	32.206	-7.4	107	-0.02

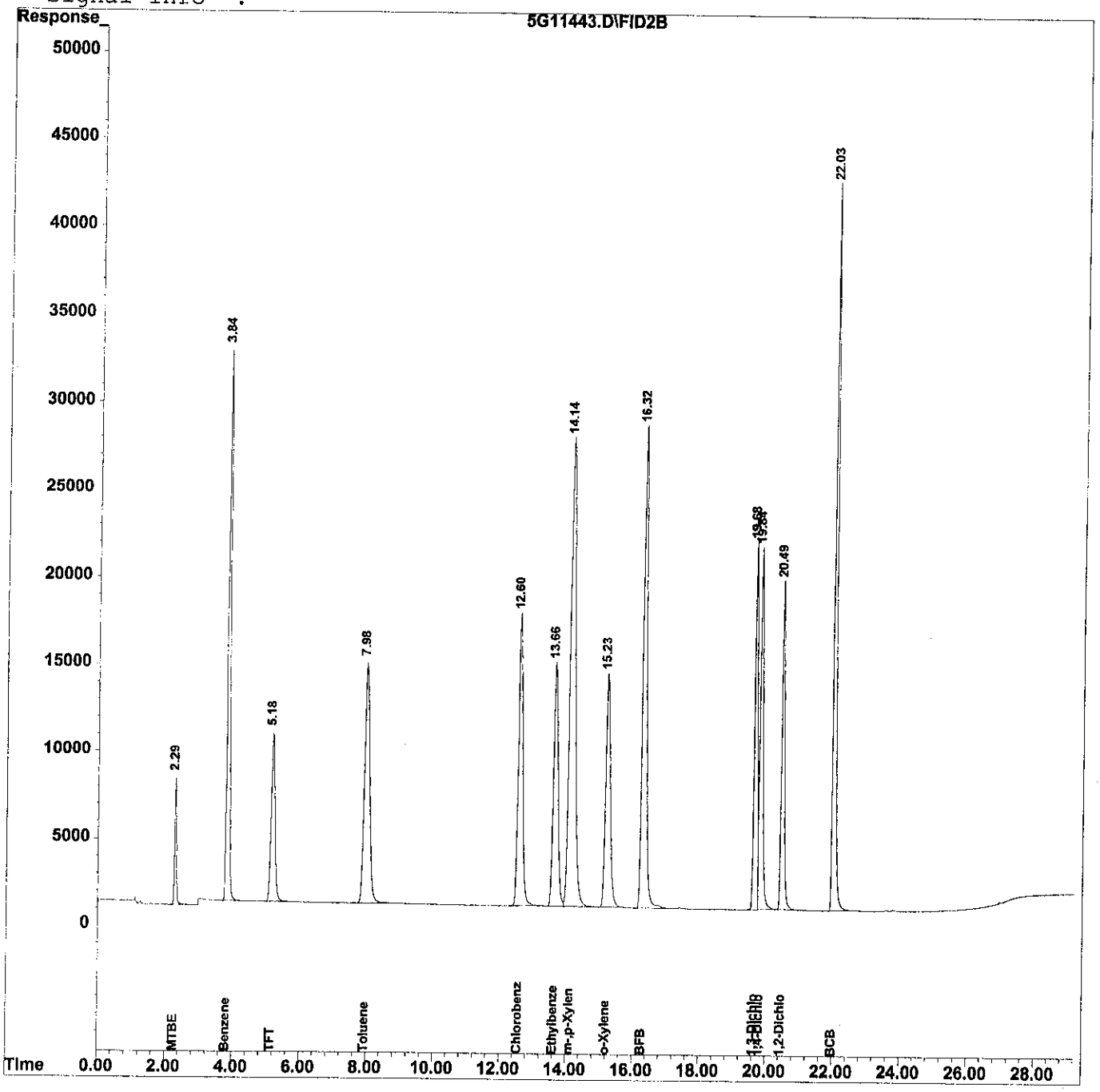
(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G11443.D 8021W.M Fri Dec 21 06:51:44 2001 Page 1

Data File : C:\HPCHEM\2\DATA\122001\5G11443.D
Acq On : 20 Dec 2001 18:23
Sample : WG110357-02 8021 STD 20PPB 5ML
Misc : 1,1 S-(88-04,87-26)
IntFile : autoint1.e
Quant Time: Dec 20 18:52 2001 Quant Results File: 8021W.RES

Vial: 9
Operator: jls
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\122001\5G11443.D
Acq On : 20 Dec 2001 18:23
Sample : WG110357-02 8021 STD 20PPB 5ML
Misc : 1,1 S-(88-04,87-26)
IntFile : autoint1.e
Quant Time: Dec 20 18:52 2001 Quant Results File: 8021W.RES

Vial: 9
Operator: jls
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.19	804726	29.8537 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	99.51%
9) S BFB	16.32	2298925	31.3030 ug/L
Spiked Amount 30.000		Recovery =	104.34%
13) S BCB	22.03	2226447	32.2057 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	107.35%
Target Compounds			
1) TM MTBE	2.30	288012	17.8038 ug/L
2) TM Benzene	3.84	1640431	18.1125 ug/L
4) TM Toluene	7.98	1520032	18.2126 ug/L
5) TM Chlorobenzene	12.60	1568294	17.6445 ug/L
6) TM Ethylbenzene	13.66	1333778	18.5991 ug/L
7) TM m-,p-Xylene	14.15	3093892	36.6314 ug/L
8) TM o-Xylene	15.23	1312354	17.8271 ug/L
10) TM 1,3-Dichlorobenzene	19.68	1292328	17.6614 ug/L
11) TM 1,4-Dichlorobenzene	19.84	1380479	17.8702 ug/L
12) TM 1,2-Dichlorobenzene	20.49	1122093	18.0759 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\122001\5G11454.D Vial: 20
Acq On : 21 Dec 2001 00:45 Operator: jls
Sample : WG110357-03 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	16.177	14.575 E3	9.9	91	-0.04
2	TM	Benzene	90.569	82.478 E3	8.9	91	-0.06
3	S	TFT	26.956	26.742 E3	0.8	96	-0.07
4	TM	Toluene	83.460	75.473 E3	9.6	90	-0.10
5	TM	Chlorobenzene	95.254	78.241 E3	17.9#	88	-0.08
6	TM	Ethylbenzene	71.712	66.499 E3	7.3	93	-0.08
7	TM	m-,p-Xylene	84.460	77.295 E3	8.5	91	-0.08
8	TM	o-Xylene	73.616	65.834 E3	10.6	89	-0.07
9	S	BFB	73.441	77.089 E3	-5.0	103	-0.06
10	TM	1,3-Dichlorobenzene	73.173	65.147 E3	11.0	91	-0.04
11	TM	1,4-Dichlorobenzene	77.250	70.126 E3	9.2	92	-0.04
12	TM	1,2-Dichlorobenzene	62.077	56.765 E3	8.6	93	-0.03
13	S	BCB	69.132	75.306 E3	-8.9	108	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\122001\5G11454.D Vial: 20
Acq On : 21 Dec 2001 00:45 Operator: jls
Sample : WG110357-03 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.019	9.9	91	-0.04
2	TM	Benzene	20.000	18.213	8.9	91	-0.06
3	S	TFT	30.000	29.762	0.8	96	-0.07
4	TM	Toluene	20.000	18.086	9.6	90	-0.10
5	TM	Chlorobenzene	20.000	17.604	12.0	88	-0.08
6	TM	Ethylbenzene	20.000	18.546	7.3	93	-0.08
7	TM	m-,p-Xylene	40.000	36.607	8.5	91	-0.08
8	TM	o-Xylene	20.000	17.886	10.6	89	-0.07
9	S	BFB	30.000	31.490	-5.0	103	-0.06
10	TM	1,3-Dichlorobenzene	20.000	17.807	11.0	91	-0.04
11	TM	1,4-Dichlorobenzene	20.000	18.155	9.2	92	-0.04
12	TM	1,2-Dichlorobenzene	20.000	18.289	8.6	93	-0.03
13	S	BCB	30.000	32.679	-8.9	108	-0.02

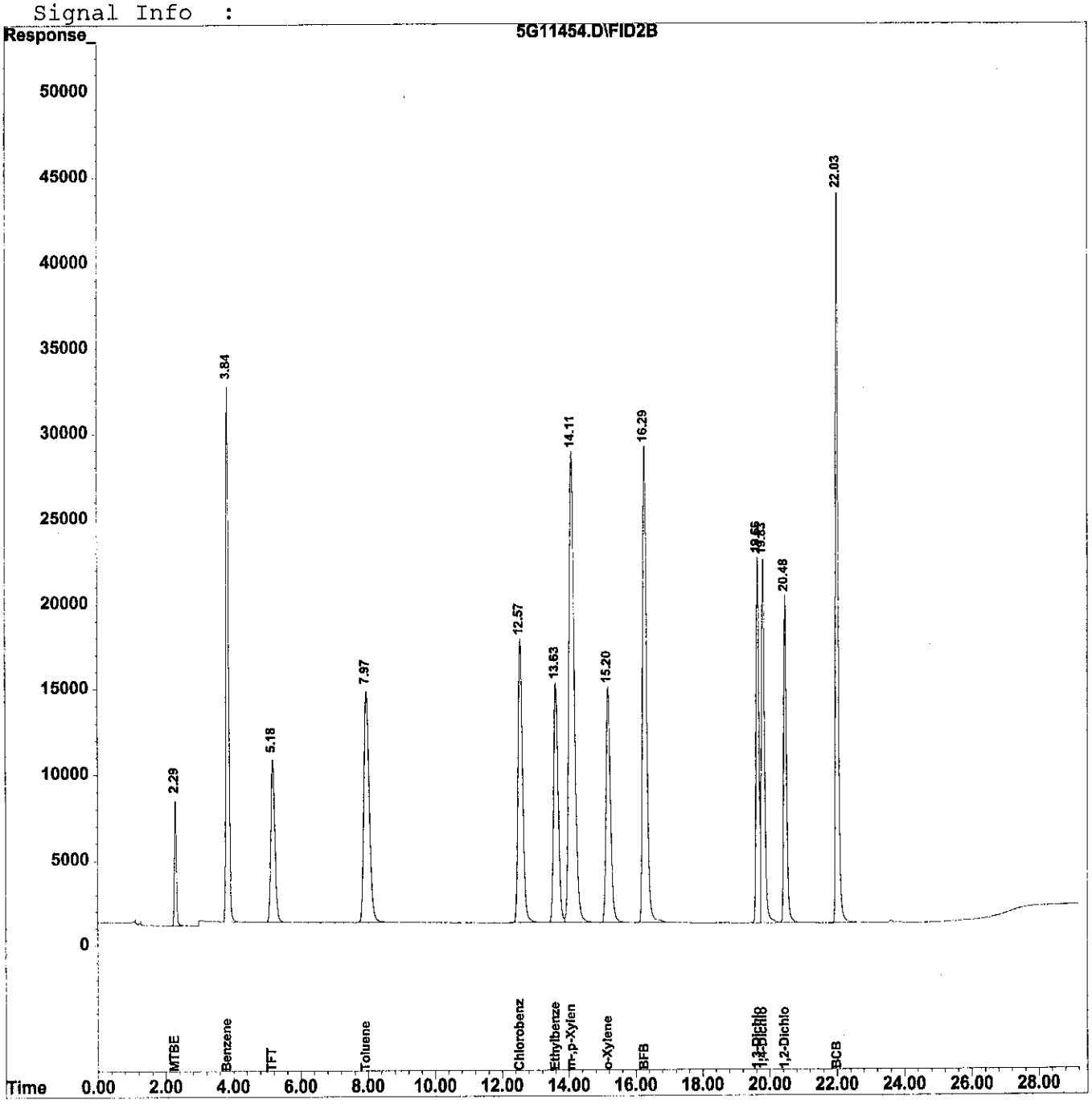
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report

Data File : C:\HPCHEM\2\DATA\122001\5G11454.D Vial: 20
Acq On : 21 Dec 2001 00:45 Operator: jls
Sample : WG110357-03 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 21 1:14 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\122001\5G11454.D Vial: 20
Acq On : 21 Dec 2001 00:45 Operator: jls
Sample : WG110357-03 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 21 1:14 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.18	802265	29.7624 ug/L
Spiked Amount 30.000 Range 70 - 130 Recovery = 99.21%			
9) S BFB	16.29	2312685	31.4903 ug/L
Spiked Amount 30.000 Recovery = 104.97%			
13) S BCB	22.03	2259192	32.6794 ug/L
Spiked Amount 30.000 Range 37 - 137 Recovery = 108.93%			
Target Compounds			
1) TM MTBE	2.29	291500	18.0194 ug/L
2) TM Benzene	3.84	1649568	18.2134 ug/L
4) TM Toluene	7.97	1509453	18.0859 ug/L
5) TM Chlorobenzene	12.57	1564815	17.6037 ug/L
6) TM Ethylbenzene	13.63	1329971	18.5460 ug/L
7) TM m-,p-Xylene	14.11	3091808	36.6067 ug/L
8) TM o-Xylene	15.20	1316688	17.8859 ug/L
10) TM 1,3-Dichlorobenzene	19.66	1302950	17.8065 ug/L
11) TM 1,4-Dichlorobenzene	19.83	1402516	18.1554 ug/L
12) TM 1,2-Dichlorobenzene	20.48	1135300	18.2887 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\122001\5G11457.D
Acq On : 21 Dec 2001 2:29
Sample : WG110357-04 8021 STD 20PPB 5ML
Misc : 1,1 S-(88-04,87-26)
IntFile : autoint1.e

Vial: 23
Operator: jls
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	TM	MTBE	16.177	14.677 E3	9.3	92	-0.02
2	TM	Benzene	90.569	81.143 E3	10.4	90	-0.04
3	S	TFT	26.956	26.740 E3	0.8	96	-0.05
4	TM	Toluene	83.460	74.537 E3	10.7	89	-0.07
5	TM	Chlorobenzene	95.254	77.224 E3	18.9#	87	-0.06
6	TM	Ethylbenzene	71.712	65.087 E3	9.2	91	-0.05
7	TM	m-,p-Xylene	84.460	75.640 E3	10.4	89	-0.04
8	TM	o-Xylene	73.616	64.445 E3	12.5	88	-0.03
9	S	BFB	73.441	77.533 E3	-5.6	104	-0.04
10	TM	1,3-Dichlorobenzene	73.173	63.935 E3	12.6	89	-0.02
11	TM	1,4-Dichlorobenzene	77.250	69.113 E3	10.5	90	-0.02
12	TM	1,2-Dichlorobenzene	62.077	56.248 E3	9.4	92	-0.02
13	S	BCB	69.132	76.216 E3	-10.2	110	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\122001\5G11457.D Vial: 23
Acq On : 21 Dec 2001 2:29 Operator: jls
Sample : WG110357-04 8021 STD 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 14:58:57 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.146	9.3	92	-0.02
2	TM	Benzene	20.000	17.919	10.4	90	-0.04
3	S	TFT	30.000	29.761	0.8	96	-0.05
4	TM	Toluene	20.000	17.862	10.7	89	-0.07
5	TM	Chlorobenzene	20.000	17.366	13.2	87	-0.06
6	TM	Ethylbenzene	20.000	18.152	9.2	91	-0.05
7	TM	m-,p-Xylene	40.000	35.823	10.4	89	-0.04
8	TM	o-Xylene	20.000	17.508	12.5	88	-0.03
9	S	BFB	30.000	31.672	-5.6	104	-0.04
10	TM	1,3-Dichlorobenzene	20.000	17.475	12.6	89	-0.02
11	TM	1,4-Dichlorobenzene	20.000	17.893	10.5	90	-0.02
12	TM	1,2-Dichlorobenzene	20.000	18.122	9.4	92	-0.02
13	S	BCB	30.000	33.074	-10.2	110	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

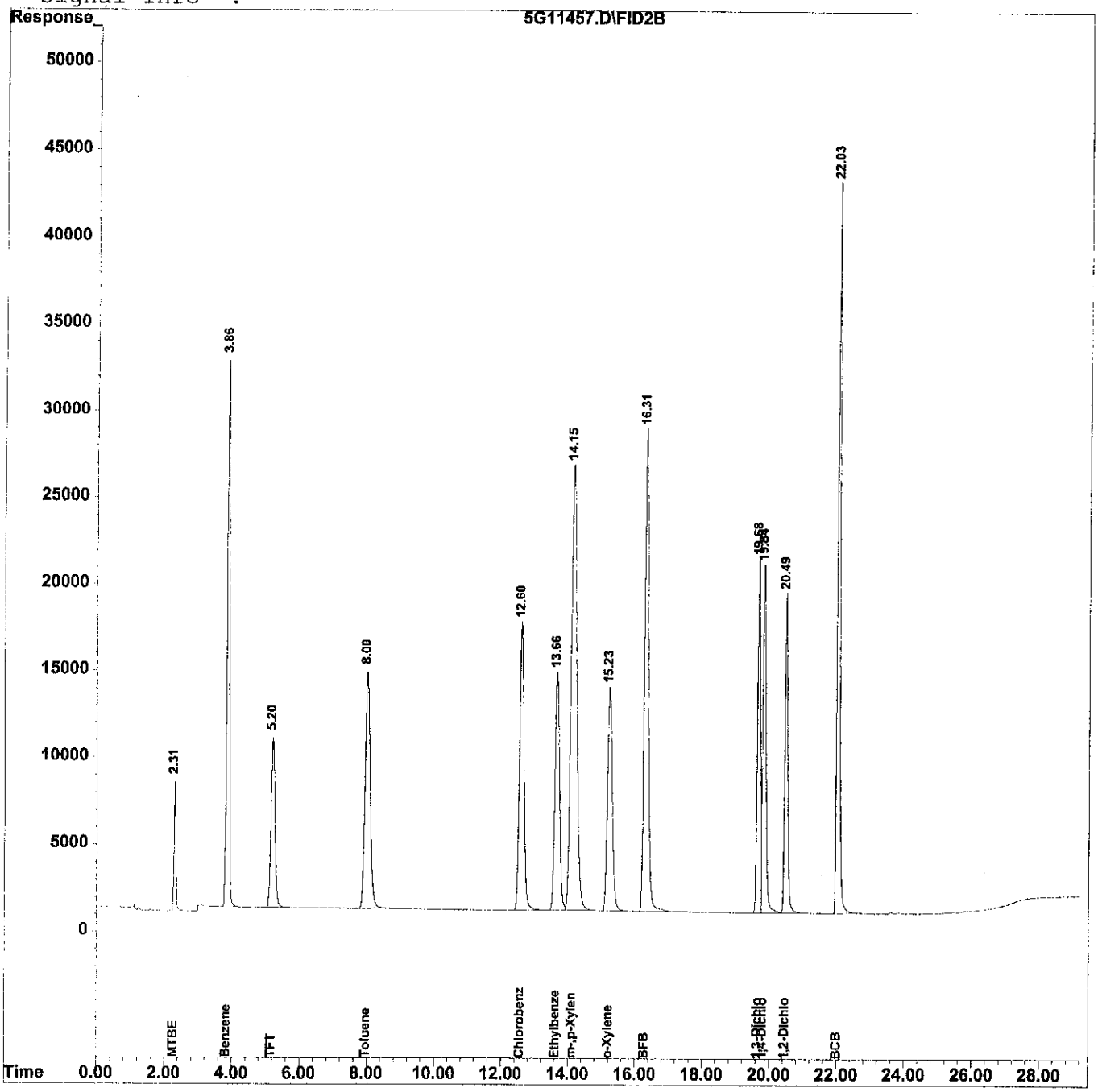
Quantitation Report

Data File : C:\HPCHEM\2\DATA\122001\5G11457.D
Acq On : 21 Dec 2001 2:29
Sample : WG110357-04 8021 STD 20PPB 5ML
Misc : 1,1 S-(88-04,87-26)
IntFile : autoint1.e
Quant Time: Dec 21 2:58 2001 Quant Results File: 8021W.RES

Vial: 23
Operator: jls
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\122001\5G11457.D
Acq On : 21 Dec 2001 2:29
Sample : WG110357-04 8021 STD 20PPB 5ML
Misc : 1,1 S-(88-04,87-26)
IntFile : autoint1.e
Quant Time: Dec 21 2:58 2001 Quant Results File: 8021W.RES

Vial: 23
Operator: jls
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.20	802215	29.7605 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	99.20%
9) S BFB	16.31	2326003	31.6717 ug/L
Spiked Amount 30.000		Recovery =	105.57%
13) S BCB	22.03	2286492	33.0743 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	110.25%
Target Compounds			
1) TM MTBE	2.31	293545	18.1458 ug/L
2) TM Benzene	3.86	1622868	17.9186 ug/L
4) TM Toluene	8.00	1490749	17.8618 ug/L
5) TM Chlorobenzene	12.60	1544481	17.3657 ug/L
6) TM Ethylbenzene	13.66	1301747	18.1524 ug/L
7) TM m-,p-Xylene	14.15	3025588	35.8227 ug/L
8) TM o-Xylene	15.23	1288897	17.5084 ug/L
10) TM 1,3-Dichlorobenzene	19.68	1278695	17.4751 ug/L
11) TM 1,4-Dichlorobenzene	19.84	1382268	17.8933 ug/L
12) TM 1,2-Dichlorobenzene	20.49	1124957	18.1221 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 20-Dec-01
Filename: 5G11432
Sub Directory: 122001
Instrument: HP5
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	2.293	**2.246**	**2.340**
benzene	3.840	**3.771**	**3.909**
1,1,1-trifluorotoluene (SS)	5.182	**5.094**	**5.270**
toluene	7.974	**7.873**	**8.075**
chlorobenzene	12.577	**12.514**	**12.640**
ethylbenzene	13.639	**13.587**	**13.691**
m+p-xylene	14.128	**14.085**	**14.171**
o-xylene	15.206	**15.164**	**15.248**
bromofluorobenzene (SS)	16.281	**16.236**	**16.326**
1,3-dichlorobenzene	19.670	**19.637**	**19.703**
1,4-dichlorobenzene	19.836	**19.803**	**19.869**
1,2-dichlorobenzene	20.488	**20.457**	**20.519**
bromochlorobenzene (SS)	22.028	**22.003**	**22.053**

INSTRUMENT:	HP5	**MATRIX:**	WATER
CONT STD #1:	5G10333	**DATE #1:**	3-Oct-01
CONT STD #2:	5G10339	**DATE #2:**	4-Oct-01
CONT STD #3:	5G10367	**DATE #3:**	5-Oct-01

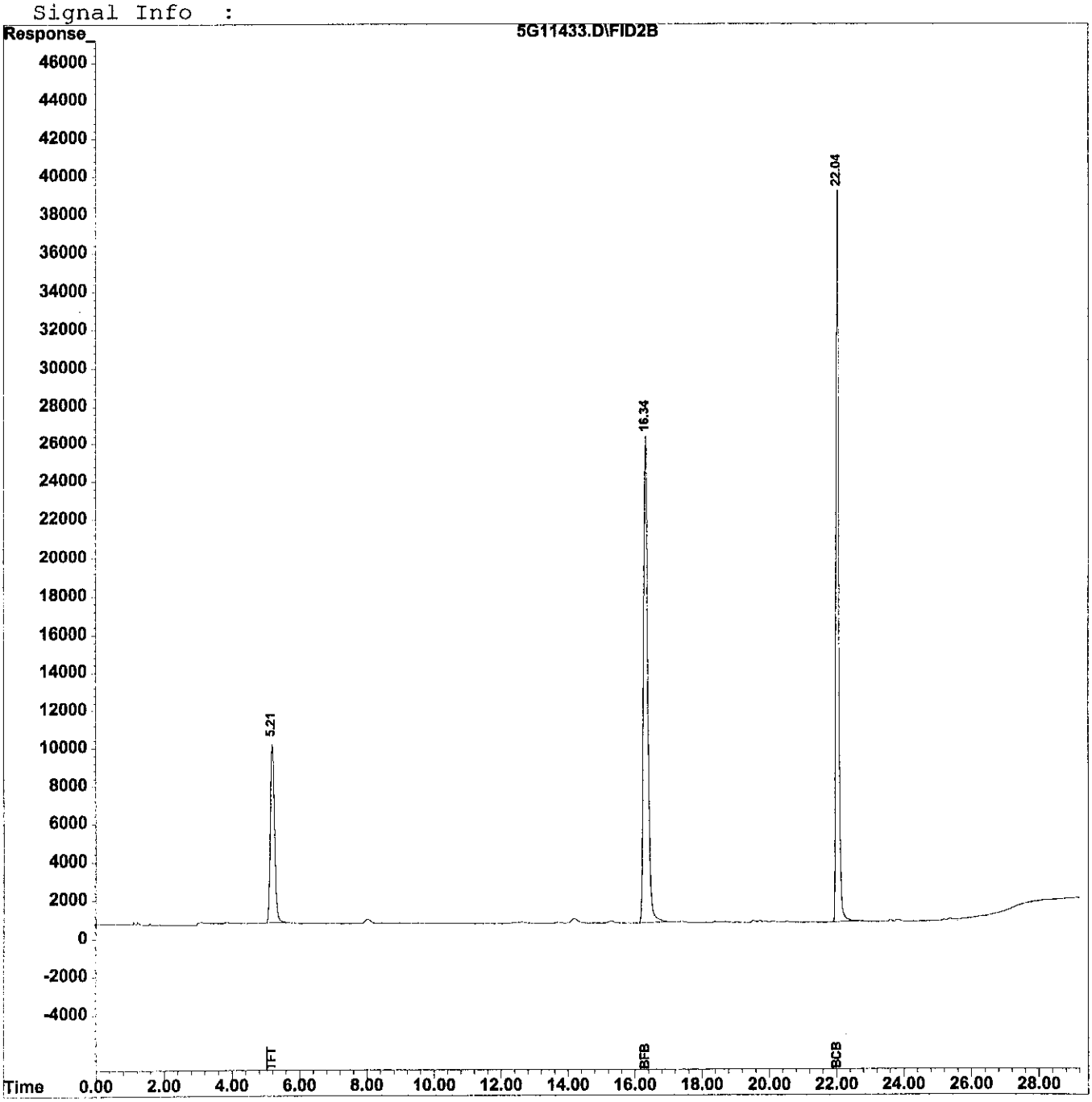
Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	2.348	2.321	2.321	2.330	0.016	**0.047**
benzene	3.933	3.894	3.892	3.906	0.023	**0.069**
1,1,1-trifluorotoluene (SS)	5.300	5.245	5.255	5.267	0.029	**0.088**
toluene	8.129	8.062	8.093	8.095	0.034	**0.101**
chlorobenzene	12.696	12.656	12.687	12.680	0.021	**0.063**
ethylbenzene	13.744	13.712	13.740	13.732	0.017	**0.052**
m+p-xylene	14.211	14.191	14.219	14.207	0.014	**0.043**
o-xylene	15.289	15.274	15.302	15.288	0.014	**0.042**
bromofluorobenzene (SS)	16.379	16.359	16.388	16.375	0.015	**0.045**
1,3-dichlorobenzene	19.718	19.713	19.734	19.722	0.011	**0.033**
1,4-dichlorobenzene	19.882	19.878	19.899	19.886	0.011	**0.033**
1,2-dichlorobenzene	20.533	20.530	20.549	20.537	0.010	**0.031**
bromochlorobenzene (SS)	22.070	22.069	22.084	22.074	0.008	**0.025**

2.1.3.4 Raw Data

Data File : C:\HPCHEM\2\DATA\122001\5G11433.D Vial: 2
Acq On : 20 Dec 2001 11:24 Operator: JLS
Sample : WG110358-01 WATER BLANK 5ML Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 11:53 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\122001\5G11433.D Vial: 2
Acq On : 20 Dec 2001 11:24 Operator: JLS
Sample : WG110358-01 WATER BLANK 5ML Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 11:53 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.21	794924	29.4901 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	98.30%
9) S BFB	16.34	2262587	30.8082 ug/L
Spiked Amount 30.000		Recovery =	102.69%
13) S BCB	22.05	2164065	31.3034 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	104.34%
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	0.00	0	N.D. ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	0.00	0	N.D. ug/L
6) TM Ethylbenzene	0.00	0	N.D. ug/L
7) TM m-,p-Xylene	0.00	0	N.D. ug/L
8) TM o-Xylene	0.00	0	N.D. ug/L
10) TM 1,3-Dichlorobenzene	0.00	0	N.D. ug/L
11) TM 1,4-Dichlorobenzene	0.00	0	N.D. ug/L
12) TM 1,2-Dichlorobenzene	0.00	0	N.D. ug/L

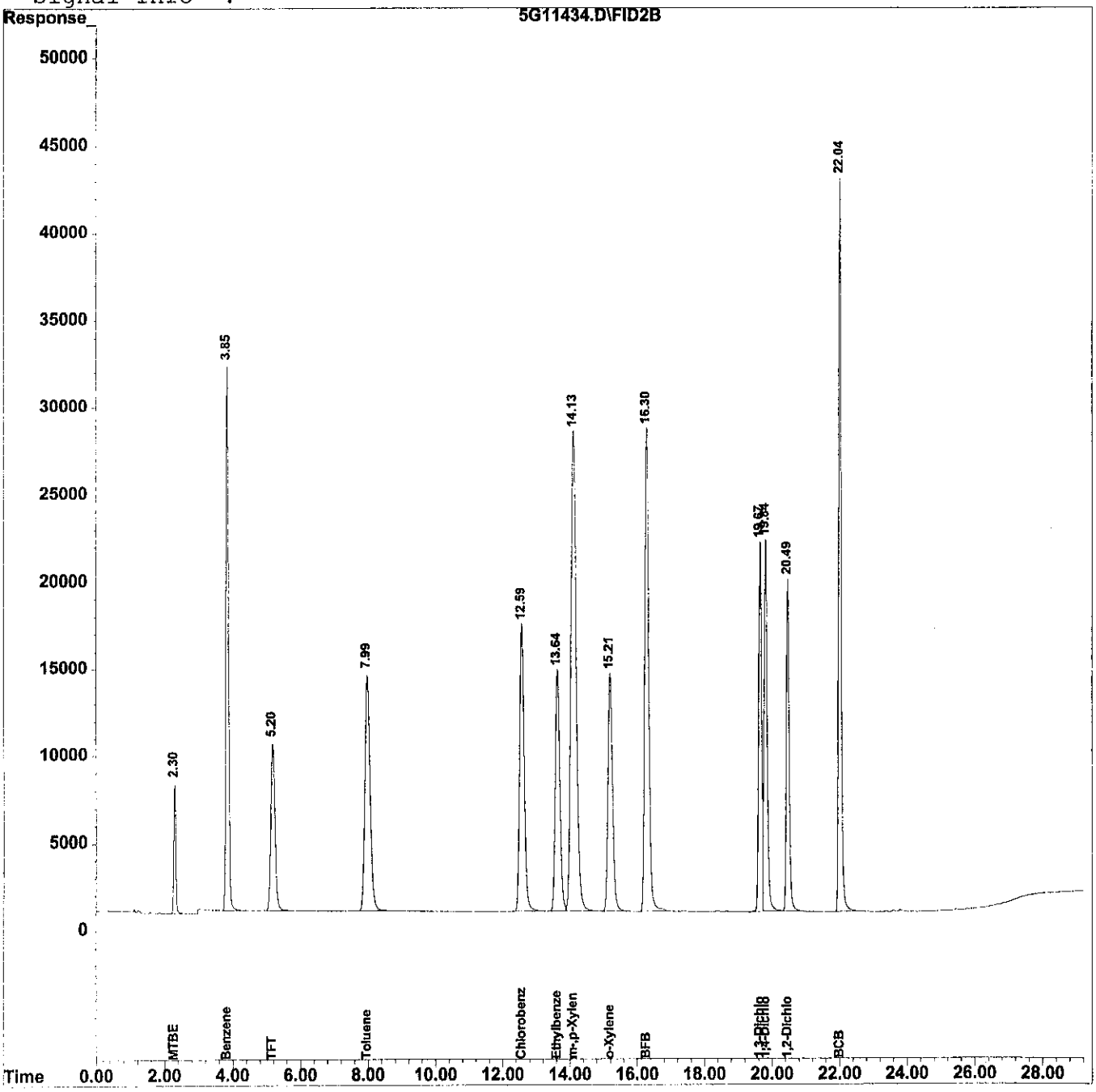
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\122001\5G11434.D Vial: 3
Acq On : 20 Dec 2001 11:58 Operator: JLS
Sample : WG110358-02 WATER LCS 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 12:27 2001 Quant Results File: 8021W.RES

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\122001\5G11434.D
Acq On : 20 Dec 2001 11:58
Sample : WG110358-02 WATER LCS 20PPB 5ML
Misc : 1,1 S-(88-04,87-26)
IntFile : autoint1.e
Quant Time: Dec 20 12:27 2001 Quant Results File: 8021W.RES

Vial: 3
Operator: JLS
Inst : HP5
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\8021W.M (Chemstation Integrator)
Title : METHOD 8021B - Water - 11/19/01
Last Update : Mon Nov 19 15:00:05 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.20	800630	29.7018 ug/L
Spiked Amount 30.000 Range 70 - 130		Recovery =	99.01%
9) S BFB	16.30	2289396	31.1732 ug/L
Spiked Amount 30.000		Recovery =	103.91%
13) S BCB	22.04	2225049	32.1855 ug/L
Spiked Amount 30.000 Range 37 - 137		Recovery =	107.29%
Target Compounds			
1) TM MTBE	2.30	292089	18.0558 ug/L
2) TM Benzene	3.86	1624452	17.9361 ug/L
4) TM Toluene	7.99	1494336	17.9047 ug/L
5) TM Chlorobenzene	12.59	1546659	17.3912 ug/L
6) TM Ethylbenzene	13.65	1312123	18.2971 ug/L
7) TM m-,p-Xylene	14.13	3071384	36.3649 ug/L
8) TM o-Xylene	15.21	1307441	17.7603 ug/L
10) TM 1,3-Dichlorobenzene	19.68	1299363	17.7575 ug/L
11) TM 1,4-Dichlorobenzene	19.84	1382714	17.8991 ug/L
12) TM 1,2-Dichlorobenzene	20.49	1119388	18.0324 ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Injection Log

Directory: c:\hpchem\2\data\111901

Analyst: JLS

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g10904.d	1.	WG108448-01 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	19 Nov 101 12::4
2	1	5g10905.d	1.	WG108448-01 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	19 Nov 101 12::3
3	1	5g10906.d	1.	WG108448-01 8021 STD1 1PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13::4
4	2	5g10907.d	1.	WG108448-01 8021 STD1 1PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13::1
5	3	5g10908.d	1.	WG108448-02 8021 STD2 10PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13::4
6	4	5g10909.d	1.	WG108448-03 8021 STD3 20PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13::1
7	5	5g10910.d	1.	WG108448-04 8021 STD4 50PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 13::5
8	6	5g10911.d	1.	WG108448-05 8021 STD5 100PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 12::2
9	7	5g10912.d	1.	WG108448-06 8021 STD6 200PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 12::5
10	8	5g10913.d	1.	WG108448-07 8021 STD7 300PPB 5ML	1,1 S-87-21,86-08	19 Nov 101 12::2
11	9	5g10914.d	1.	RINSE 5ML	1,1 S-86-08	19 Nov 101 12::5
12	10	5g10915.d	1.	WG108448-08 ALT SOURCE 20PPB 5ML	1,1 S-86-13,86-08	19 Nov 101 12::4
13	1	5g10916.d	1.	WG108507-01 WATER BLANK 5ML	1,1 S-86-12	19 Nov 101 12::1
14	2	5g10917.d	1.	WG108507-02 WATER LCS 20PPB 5ML	1,1 S-86-12	19 Nov 101 12::4
15	1	5g10918.d	1.	L0111312-03 A 5ML pH<2	1,1 S-86-12	19 Nov 101 12::2
16	2	5g10919.d	1.	L0111317-03 A 5ML pH<2	1,1 S-86-12	19 Nov 101 12::5
17	3	5g10920.d	1.	L0111280-01 B 5ML pH<2	1,1 S-86-12	19 Nov 101 12::2
18	4	5g10921.d	1.	L0111280-02 B 5ML pH<2	1,1 S-86-12	19 Nov 101 12::5
19	5	5g10922.d	1.	L0111280-03 B 5ML pH<2	1,1 S-86-12	19 Nov 101 12::3
20	6	5g10923.d	20.	WG108507-03 L0111283-01 B 20X 5ML pH<2 RR100X	1,20 S-86-12	19 Nov 101 12::0
21	7	5g10924.d	20.	WG108507-04 L0111283-01 B MS 20X 5ML pH	1,20 S-86-(13,12)	19 Nov 101 12::3
22	8	5g10925.d	20.	WG108507-05 L0111283-01 B MSD 20X 5ML p	1,20 S-86-(13,12)	19 Nov 101 12::0
23	9	5g10926.d	1.	WG108448-09 8021 STD 20PPB 5ML	1,1 S-86-(13,12)	19 Nov 101 12::4
24	10	5g10927.d	10.	L0111283-02 B 10X 5ML pH<2	1,10 S-86-12	19 Nov 101 13::1
25	11	5g10928.d	1.	L0111283-03 B 5ML pH<2	1,1 S-86-12	19 Nov 101 13::4
26	12	5g10929.d	5.	L0111283-04 B 5X 5ML pH<2	1,5 S-86-12	19 Nov 101 13::1
27	13	5g10930.d	1.	L0111283-04 B 5ML pH<2	1,1 S-86-12	19 Nov 101 13::5
28	14	5g10931.d	10.	L0111283-05 B 10X 5ML pH<2	1,10 S-86-12	20 Nov 101 13::2
29	15	5g10932.d	1.	L0111283-06 B 5ML pH<2	1,1 S-86-12	20 Nov 101 13::5
30	16	5g10933.d	10.	L0111283-07 B 10X 5ML pH<2	1,10 S-86-12	20 Nov 101 12::2
31	17	5g10934.d	1.	L0111283-08 B 5ML pH<2	1,1 S-86-12	20 Nov 101 12::0
32	18	5g10935.d	1.	L0111283-09 B 5ML pH<2	1,1 S-86-12	20 Nov 101 12::3
33	19	5g10936.d	1.	L0111301-01 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::0
34	20	5g10937.d	1.	WG108448-10 8021 STD 20PPB 5ML	1,1 S-86-12	20 Nov 101 12::3
35	21	5g10938.d	1.	L0111301-02 A 5ML pH=10	1,1 S-86-12	20 Nov 101 12::0
36	22	5g10939.d	1.	L0111301-03 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::4
37	23	5g10940.d	1.	L0111301-04 A 5ML pH<2	1,1 S-86-12	20 Nov 101 12::1
38	24	5g10941.d	1.	WG108448-11 8021 STD 20PPB 5ML	1,1 S-86-12	20 Nov 101 12::4

Injection Log

Directory: c:\hpchem\2\data\122001

WG110358

ANALYST: JLS

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	5g11432.d	1.	WG110357-01 8021 STD 20PPB 5ML ✓	1,1 S-(88-04,87-26)	20 Dec 101 12::5
2	2	5g11433.d	1.	WG110358-01 WATER BLANK 5ML ✓	1,1 S-87-26	20 Dec 101 13::2
3	3	5g11434.d	1.	WG110358-02 WATER LCS 20PPB 5ML ✓	1,1 S-(88-04,87-26)	20 Dec 101 13::5
4	4	5g11435.d	1.	L0112349-02 B 5ML ✓	1,1 S-87-26	20 Dec 101 12::3
5	5	5g11436.d	1.	L0112349-03 B 5ML ✓	1,1 S-87-26	20 Dec 101 12::1
6	3	5g11437.d	100.	L0112349-01 B 100X 5ML pH<2 ✓	1,100 S-87-26	20 Dec 101 12::4
7	4	5g11438.d	1.	L0112366-01 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::2
8	5	5g11439.d	1.	L0112366-02 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::0
9	6	5g11440.d	1.	WG110358-03 L0112366-04 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::3
10	7	5g11441.d	1.	WG110358-04 L0112366-05 MS A 5ML pH<2 ✓	1,1 S-(88-04,87-26)	20 Dec 101 12::1
11	8	5g11442.d	1.	WG110358-04 L0112366-06 MSD A 5ML pH<2 ✓	1,1 S-(88-04,87-26)	20 Dec 101 12::4
12	9	5g11443.d	1.	WG110357-02 8021 STD 20PPB 5ML ✓	1,1 S-(88-04,87-26)	20 Dec 101 12::2
13	10	5g11444.d	20.	L0112366-03 20X 5ML pH<2 ✓	1,20 S-87-26	20 Dec 101 12::5
14	11	5g11445.d	1.	L0112366-07 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::3
15	12	5g11446.d	1.	L0112366-08 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::0
16	13	5g11447.d	1.	L0112366-09 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::4
17	14	5g11448.d	1.	L0112366-10 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::1
18	15	5g11449.d	1.	L0112366-11 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 12::5
19	16	5g11450.d	1.	L0112366-12 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 13::2
20	17	5g11451.d	1.	L0112366-13 A 5ML pH<2 ✓	1,1 S-87-26	20 Dec 101 13::0
21	18	5g11452.d	10.	L0112366-14 A 10X 5ML pH<2 ✓	1,10 S-87-26	20 Dec 101 13::3
22	19	5g11453.d	1.	L0112366-15 A 5ML pH<2 ✓	1,1 S-87-26	21 Dec 101 13::1
23	20	5g11454.d	1.	WG110357-03 8021 STD 20PPB 5ML ✓	1,1 S-(88-04,87-26)	21 Dec 101 13::4
24	21	5g11455.d	1.	L0112366-16 A 5ML pH<2 ✓	1,1 S-87-26	21 Dec 101 12::2
25	22	5g11456.d	1.	L0112366-17 A 5ML pH<2 ✓	1,1 S-87-26	21 Dec 101 12::5
26	23	5g11457.d	1.	WG110357-04 8021 STD 20PPB 5ML ✓	1,1 S-(88-04,87-26)	21 Dec 101 12::2

2.2 Semivolatiles Data

2.2.5 DRO GC DATA (8015)

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0112366

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8015

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: There were no MS/MSD results associated with sample in re-extracted group.

SAMPLES

Samples: All acceptance criteria were met.
Surrogates: Sample 366-07 fraction yielded % recovery for o-terphenyl that was outside advisory limit. And this sample was re-extracted outside of holding time with acceptable surrogate. Both analyses were reported.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: HV REVIEWED: DATE: 1/3/02

Rev. 7/14/00

Method: 8014 - FIA PRO water 1,2,3tb - level 4
Instrument: HP2
Work Group: WG 110382

	Analyst
System Performance Check	✓
Endrin & DDT Breakdown	NA
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	
Second Source Standard % Difference	✓
Check Standards	✓
Project / Client Specific Requirements	
Special Standards	
Blanks	✓
TCL's	
Surrogates	
LCS (Laboratory Control Sample)	✓
Recoveries	
Surrogates	
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	
Surrogates	
Calculations & Correct Factors	
Dilutions Run	
Reruns	✓
Check Sample Histories	
Ending Check Standards	✓
Excel Spreadsheets	✓
Case Narrative	
Corrective Action	
Results Reporting / Data Qualifiers	
WorkGroups Traceability	
Client Data Package Assembly	
Check for Completeness	

Primary Reviewer Initials & Date Checked HV 12/26/01

Secondary Reviewer Initials & Date Checked 12/26/01

- Check for compliance with Method and project-specific requirements
- Check the completeness of the reported information
- Check the information for the report narrative
- Check the reasonableness of results

Supervisory Review Initials & Date Checked 12/26/01

Comments: sample fraction 3tb-07 sent for RE due to high surr. rec.

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

Method: 8010 - TLM - PXD water 12366-07 (only) PEW 11-7
Instrument: HP2 RE
Work Group: WG110773

	Analyst
System Performance Check	✓
Endrin & DDT Breakdown	NA
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	
Second Source Standard % Difference	
Check Standards	✓
Project / Client Specific Requirements	
Special Standards	
Blanks	✓
TCL's	
Surrogates	
LCS (Laboratory Control Sample)	✓
Recoveries	
Surrogates	
MS / MSD / Duplicates	NA
Samples	✓
TCL Hits	
Surrogates	
Calculations & Correct Factors	
Dilutions Run	
Reruns	
Check Sample Histories	
Ending Check Standards	✓
Excel Spreadsheets	✓
Case Narrative	
Corrective Action	
Results Reporting / Data Qualifiers	
WorkGroups Traceability	
Client Data Package Assembly	
Check for Completeness	

Primary Reviewer Initials & Date Checked HV 1/3/02

Secondary Reviewer Initials & Date Checked PPR 1/3/02

- Check for compliance with Method and project-specific requirements
- Check the completeness of the reported information
- Check the information for the report narrative
- Check the reasonableness of results

Supervisory Review Initials & Date Checked PPR 1/3/02

Comments: Sample 12366-07 was reextracted (with acceptable surrog. recov.) and a hold. Both results were reported.

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

DRO-GC DATA (8015)

Login Number: L0112366

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

✓ Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data)

✓ Chromatograms and external standard reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and external standard reports (chronological)

NA Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

✓ Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

✓ Extraction bench sheets

Checked By: HV Date: 1/3/02

2.2.5.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP : WG110382
METHOD : 8015-PRO
MATRIX : WATER
CONCENTRATION UNITS : ug / l
PREP WORK GRP : WG110302

EXT DATE : 12-19-01
EXT BENCH SHEET : V177-P189
BLK FILENAME : 2G17436
LCS FILENAME : 2G17437
LCS DUP FILENAME : NA

RUN DATE : 12-21-01
SMPL ID : L0112366-04
SMPL FLNM : 2G17441
MS FLNM : 2G17442
MSD FLNM : 2G17443

INSTRUMENT : HP2
Analyst: HV

ANALYTE	CONCENTRATION , ug / L									PERCENT RECOVERY , %										PERCENT		
	RDL	BLANK	LCS SPIKE ADDED	LCS	LCS DUP	SAMPLE	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS DUP	LCS LCL	LCS ULC	SAMPLE	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL
PRO (C8 - C40)	500	ND	3400	3086	NA	ND	3400	2466	2639	ND	90.8	NA	55	118	ND	72.5	83.5	41	101	NA	14	20
SURROGATE																						
o-TERPHENYL		14.8	20	22.5	NA	14.6	20	16.4	18.7	73.9	113	NA	49	174	73.1	81.8	93.5	49	174	NA	13	

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP : WG110773
METHOD : 8015-PRO
MATRIX : WATER
CONCENTRATION UNITS : ug / l
PREP WORK GRP : WG110731

EXT DATE : 12-31-01
EXT BENCH SHEET : V178-P77
BLK FILENAME : 2G17564
LCS FILENAME : 2G17565
LCS DUP FILENAME : 2G17566

RUN DATE : 01-03-02
SMPL ID : NA
SMPL FLNM : NA
MS FLNM : NA
MSD FLNM : NA

INSTRUMENT : HP2
Analyst: HV

ANALYTE	CONCENTRATION , ug / L									PERCENT RECOVERY , %										PERCENT		
	RDL	BLANK	LCS SPIKE ADDED	LCS	LCS DUP	SAMPLE	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS DUP	LCS LCL	LCS ULC	SAMPLE	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL
PRO (C8 - C40)	500	ND	3400	2657	2406	NA	3400	NA	NA	NA	78.1	70.8	55	118	NA	NA	NA	41	101	10	NA	20
SURROGATE:																						
o-TERPHENYL		11.8	20	19.7	19.1	NA	20	NA	NA	59.0	98.5	95.3	49	174	NA	NA	NA	49	174	3	NA	20

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8015

AAB#: WG110382

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
002-CEF46-5I-Q4-01-11	18-DEC-01	19-DEC-01	19-DEC-01	7	1	21-DEC-01	7	3	
002-CEF46-6D-Q4-01-11	18-DEC-01	19-DEC-01	19-DEC-01	7	1	21-DEC-01	7	3	
002-CEF46-7I-Q4-01-11	18-DEC-01	19-DEC-01	19-DEC-01	7	1	21-DEC-01	7	3	
002-CEF46-9I-Q4-01-11	18-DEC-01	19-DEC-01	19-DEC-01	7	1	21-DEC-01	7	3	
002-CEF46-9I-Q4-01-11	18-DEC-01	19-DEC-01	19-DEC-01	7	1	21-DEC-01	7	3	
002-CEF46-9I-Q4-01-11	18-DEC-01	19-DEC-01	19-DEC-01	7	1	21-DEC-01	7	3	
002-CEF46-15I-Q4-01-11	18-DEC-01	19-DEC-01	19-DEC-01	7	1	21-DEC-01	7	3	
002-CEF46-21I-Q4-01-11	18-DEC-01	19-DEC-01	19-DEC-01	7	1	21-DEC-01	7	3	
002-CEF46-24D-Q4-01-11	18-DEC-01	19-DEC-01	19-DEC-01	7	1	21-DEC-01	7	3	
002-CEF46-25I-Q4-01-11	18-DEC-01	19-DEC-01	19-DEC-01	7	1	21-DEC-01	7	3	
002-CEF46-26I-Q4-01-11	18-DEC-01	19-DEC-01	19-DEC-01	7	1	21-DEC-01	7	3	
002-46DUP-Q4-01-11	18-DEC-01	19-DEC-01	19-DEC-01	7	1	21-DEC-01	7	3	
002-46EQB-Q4-01-11	18-DEC-01	19-DEC-01	19-DEC-01	7	1	21-DEC-01	7	3	
002-CEF46-13I-Q4-01-11	18-DEC-01	19-DEC-01	19-DEC-01	7	1	20-DEC-01	7	2	
002-CEF46-14D-Q4-01-11	18-DEC-01	19-DEC-01	19-DEC-01	7	1	20-DEC-01	7	2	

* EXT = MISSED EXTRACTION HOLD TIME
*ANAL = MISSED ANALYTICAL HOLD TIME

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8015

AAB#: WG110773

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
002-CEF46-12I-Q4-01-11	18-DEC-01	19-DEC-01	31-DEC-01	7	13	03-JAN-02	7	16	*ANAL

* EXT = MISSED EXTRACTION HOLD TIME

*ANAL = MISSED ANALYTICAL HOLD TIME

METHOD BLANK SUMMARY

Login Number: L0112366
Blank File ID: 2G17436
Date Analyzed: 12/21/01
Time Analyzed: 16:13
Analyst: HV

Work Group: WG110382
Blank Sample ID: WG110302-02
Instrument ID: HP2
Method: 8015

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
002-CEF46-13I-Q4-01-11	L0112366-08	2G17407	12/20/01 23:40	
002-CEF46-14D-Q4-01-11	L0112366-09	2G17408	12/20/01 23:55	
002-CEF46-15I-Q4-01-11	L0112366-10	2G17409	12/21/01 00:10	
002-CEF46-21I-Q4-01-11	L0112366-11	2G17410	12/21/01 00:26	
002-CEF46-24D-Q4-01-11	L0112366-12	2G17411	12/21/01 00:41	
002-CEF46-25I-Q4-01-11	L0112366-13	2G17412	12/21/01 00:57	
002-CEF46-26I-Q4-01-11	L0112366-14	2G17413	12/21/01 01:12	
002-46DUP-Q4-01-11	L0112366-15	2G17414	12/21/01 01:28	
002-46EQB-Q4-01-11	L0112366-16	2G17415	12/21/01 01:43	
LCS	WG110302-03	2G17437	12/21/01 16:29	
002-CEF46-5I-Q4-01-11	L0112366-01	2G17438	12/21/01 16:44	
002-CEF46-6D-Q4-01-11	L0112366-02	2G17439	12/21/01 16:59	
002-CEF46-7I-Q4-01-11	L0112366-03	2G17440	12/21/01 17:15	
002-CEF46-9I-Q4-01-11	L0112366-04	2G17441	12/21/01 17:31	
002-CEF46-9I-Q4-01-11	L0112366-05	2G17442	12/21/01 17:46	
002-CEF46-9I-Q4-01-11	L0112366-06	2G17443	12/21/01 18:02	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

METHOD BLANK SUMMARY

Login Number: L0112366
Blank File ID: 2G17564
Date Analyzed: 01/03/02
Time Analyzed: 12:02
Analyst: HV

Work Group: WG110773
Blank Sample ID: WG110731-01
Instrument ID: HP2
Method: 8015

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG110731-02	2G17565	01/03/01 12:18	
LCS2	WG110731-03	2G17566	01/03/02 12:33	
002-CEF46-12I-Q4-01-11	L0112366-07	2G17567	01/03/02 12:48	RE

KEMRON FORMS - Modified 10/11/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0112366
Instrument ID: HP2
File ID: 2G17436
Workgroup (AAB#): WG110382
Contract #:

Run Date: 12/21/2001
Run Time: 16:13
Analyst: HV

Sample ID: WG110302-02
Method: 8015 MOD
Matrix: Water
Units: ug/L
Cal ID: HP2-20-DEC-2001

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	250	500	250	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	73.9	49 - 174	PASS

F Analyte concentration between MDL and RDL
* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 12/06/2001
Version 1.1
Report generated 01/03/2002 15:33

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0112366
Instrument ID: HP2
File ID: 2G17437
Workgroup (AAB#): WG110382
Contract #:

Run Date: 12/21/2001
Run Time: 16:29
Analyst: HV

Sample ID: WG110302-03
Method: 8015 MOD
Matrix: Water
Units: ug/L
Cal ID: HP2-20-DEC-2001

Analytes	Expected	Found	% Rec	LCS Limits	Q
TRPH-Florida PRO	3400	3090	90.9	50 - 150	

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	113	49 - 174	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 12/06/2001
Version 1.1
Report generated 01/03/2002 15:33

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0112366
Instrument ID: HP2
File ID: 2G17564
Workgroup (AAB#): WG110773
Contract #:

Run Date: 01/03/2002
Run Time: 12:02
Analyst: HV

Sample ID: WG110731-01
Method: 8015 MOD
Matrix: Water
Units: ug/L
Cal ID: HP2-03-JAN-2002

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	250	500	250	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	58.9	49 - 174	PASS

F Analyte concentration between MDL and RDL
* Analyte detected above RDL

ND Not detected at or above the reporting limit

KEMRON FORMS - Modified 12/06/2001
Version 1.1
Report generated 01/03/2002 15:33

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0112366
Instrument ID: HP2
File ID: 2G17565
Workgroup (AAB#): WG110773
Contract #:

Run Date: 01/03/2001
Run Time: 12:18
Analyst: HV

Sample ID: WG110731-02
Method: 8015 MOD
Matrix: Water
Units: ug/L
Cal ID: HP2-03-JAN-2002

Analytes	Expected	Found	% Rec	LCS Limits	Q
TRPH-Florida PRO	3400	2660	78.2	50 - 150	

Surrogates	% Recovery	Surrogate Limits	Qualifier
o-Terphenyl	985	49 - 174	FAIL

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 12/06/2001
Version 1.1
Report generated 01/03/2002 15:33

KEMRON ENVIRONMENTAL SERVICES
MS/MSD REPORT

Loginnum: L0112366 Cal ID: HP2-20-DEC-2001 Worknum: WG110382
Instrument ID: HP2 Contract #: Method: 8015 MOD
Parent ID: L0112366-04 File ID: 2G17441 Dil: Matrix: Water
Sample ID: L0112366-05 MS File ID: 2G17442 Dil: 1.04 Units: ug/L
Sample ID: L0112366-06 MSD File ID: 2G17443 Dil: 1.05

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
TRPH-Florida PRO	0	3680	2470	67.1	3680	2840	75.9	13.9	50 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON FORMS - Modified 12/13/2001
Version 1.2
Report generated 01/03/2002 15:33

SURROGATE STANDARDS

Login Number: L0112366
Instrument Id: HP2
Workgroup (AAB#): WG110382

Method: DRO
Matrix: WATER

Sample Numbe	Dilution	Tag	1
L0112366-01	1.04		79.0
L0112366-02	1.08		103
L0112366-03	1.08		80.6
L0112366-04			73.1
L0112366-05	1.04		81.8
L0112366-06	1.05		93.5
L0112366-08	1.08		70.1
L0112366-09	1.07		78.8
L0112366-10	1.10		78.0
L0112366-11	1.05		71.5
L0112366-12			89.3
L0112366-13	1.08		94.6
L0112366-14	1.08		95.1
L0112366-15	1.07		102
L0112366-16	1.08		79.7

Surrogates	Surrogate Limits		
1 - o-Terphenyl	49	-	174

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 12/07/2001
Version 1.1
Report generated 01/03/2002 15:33

SURROGATE STANDARDS

Login Number: L0112366
Instrument Id: HP2
Workgroup (AAB#): WG110773

Method: DRO
Matrix: WATER

Sample Numbe	Dilution	Tag	1
L0112366-07	1.12	RE	85.4

Surrogates	Surrogate Limits		
1 - o-Terphenyl	49	-	174

Underline = Result out of surrogate limits

DL = surrogate diluted out

KEMRON FORMS - Modified 12/07/2001
Version 1.1
Report generated 01/03/2002 15:33

2.2.5.2 Sample Data

Acq On : 21 Dec 2001 16:44 Operator: HV
Sample : L0112366-01 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Dec 26 10:08 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Wed Dec 26 10:04:03 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

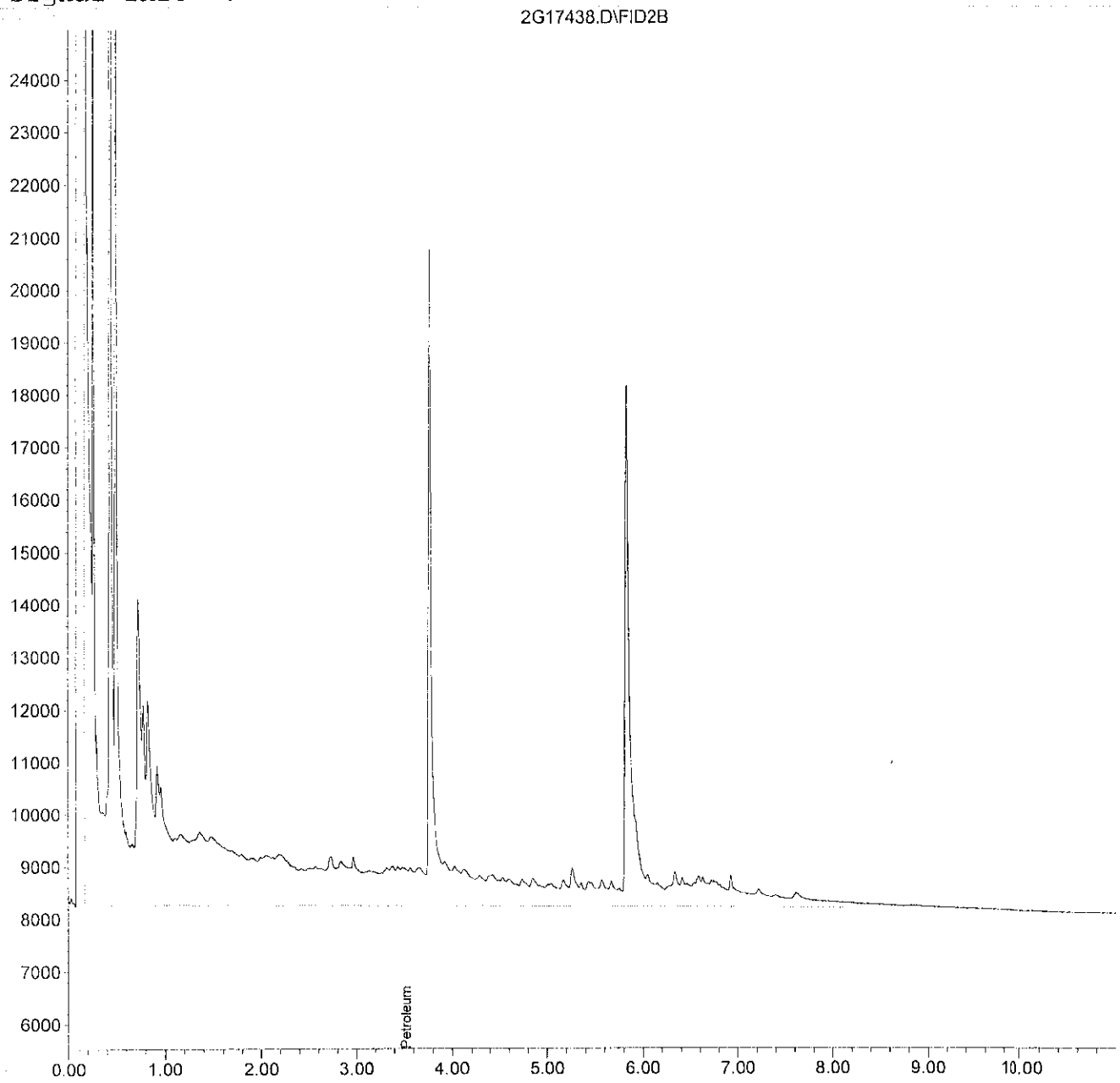
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.76	247523	15.792 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	78.96%
3) s n-Nonatriacontane	7.40	1357	0.171 ppm
Spiked Amount 20.000		Recovery =	0.86%
Target Compounds			
1) H Petroleum Range	3.53	2416275	189.060 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17438.D FLASHPRO.M Wed Dec 26 10:08:39 2001 Page 1

Acq On : 21 Dec 2001 16:44 Operator: HV
Sample : L0112366-01 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Dec 26 10:08 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Wed Dec 26 10:04:03 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2G17438.D FLASHPRO.M Wed Dec 26 10:08:39 2001 Page

Acq On : 21 Dec 2001 16:59 Operator: HV
Sample : L0112366-02 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.08
IntFile : PETRO.E
Quant Time: Dec 26 10:09 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Wed Dec 26 10:04:03 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

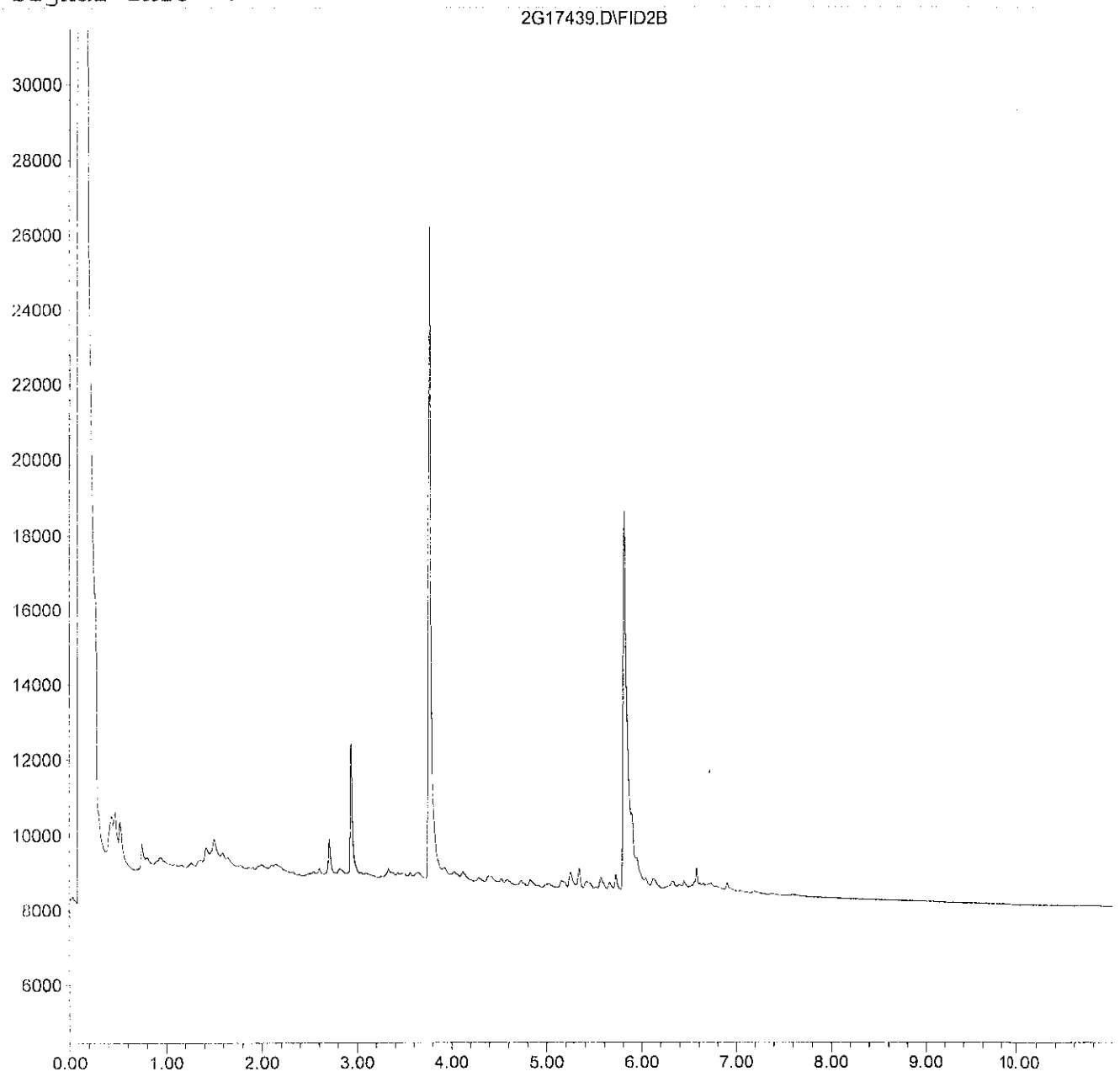
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.76	324015	20.673 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	103.37%
3) s n-Nonatriacontane	7.39	738	0.093 ppm
Spiked Amount 20.000		Recovery =	0.47%
Target Compounds			
1) H Petroleum Range	3.53	1874174	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17439.D FLASHPRO.M Wed Dec 26 10:09:06 2001 Page 1

Acq On : 21 Dec 2001 16:59 Operator: HV
Sample : L0112366-02 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.08
IntFile : PETRO.E
Quant Time: Dec 26 10:09 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Wed Dec 26 10:04:03 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2G17439.D FLASHPRO.M Wed Dec 26 10:09:07 2001 Page

Data File : C:\HPCHEM\1\DATA\122101\2G17440.D
Acq On : 21 Dec 2001 17:15
Sample : L0112366-03 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Dec 26 10:09 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.08

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Wed Dec 26 10:04:03 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

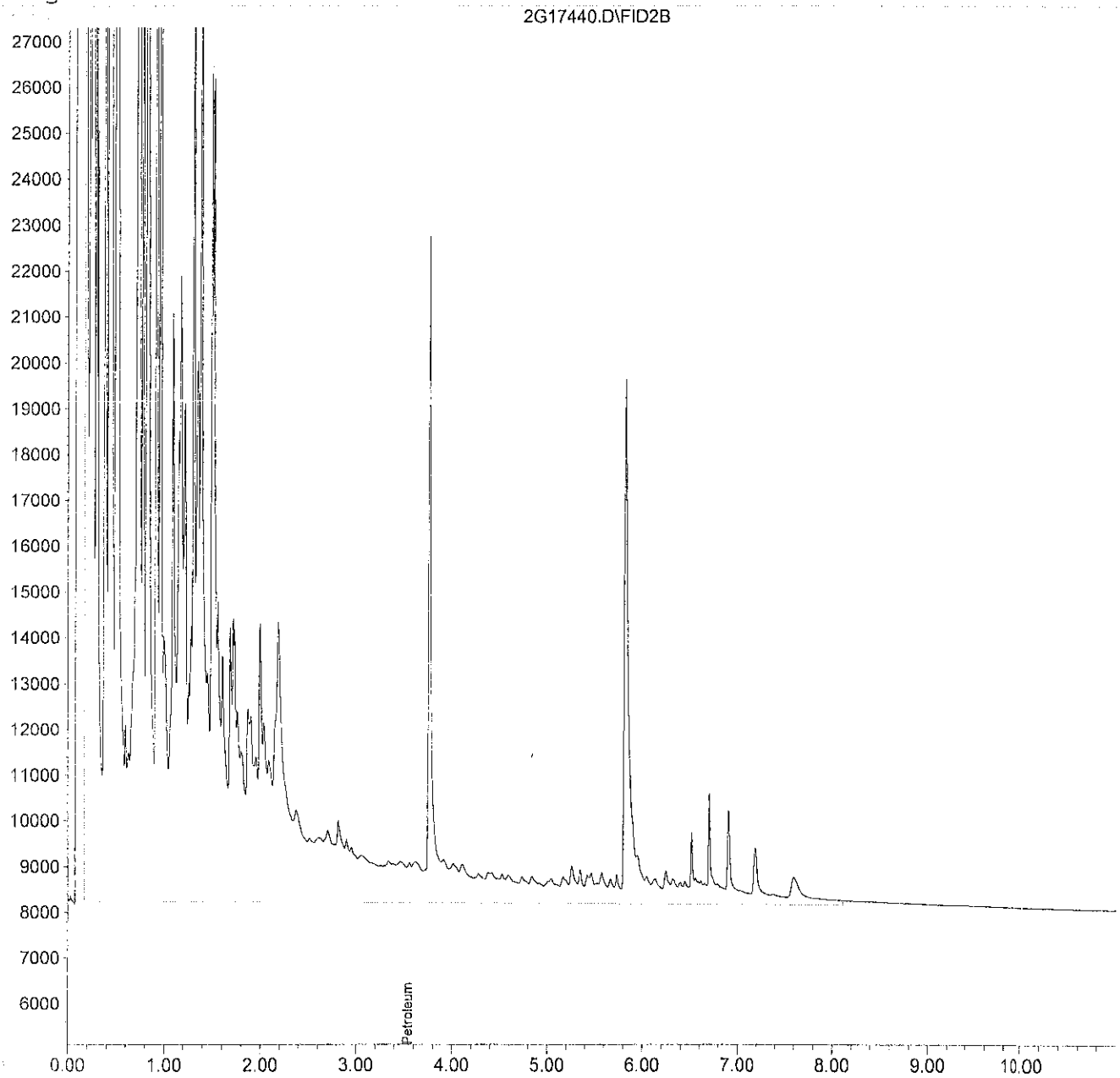
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.76	252779	16.128 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	80.64%
3) s n-Nonatriacontane	7.38	1680	0.211 ppm
Spiked Amount 20.000		Recovery =	1.06%
Target Compounds			
1) H Petroleum Range	3.53	23307824	1893.849 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 21 Dec 2001 17:15 Operator: HV
Sample : L0112366-03 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.08
IntFile : PETRO.E
Quant Time: Dec 26 10:09 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Wed Dec 26 10:04:03 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\[illegible]

Acq On : 21 Dec 2001 17:31 Operator: HV
Sample : WG110302-01 REF Inst : hp2
Misc : 1,1 L0112366-04 REF Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 26 10:10 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Wed Dec 26 10:04:03 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

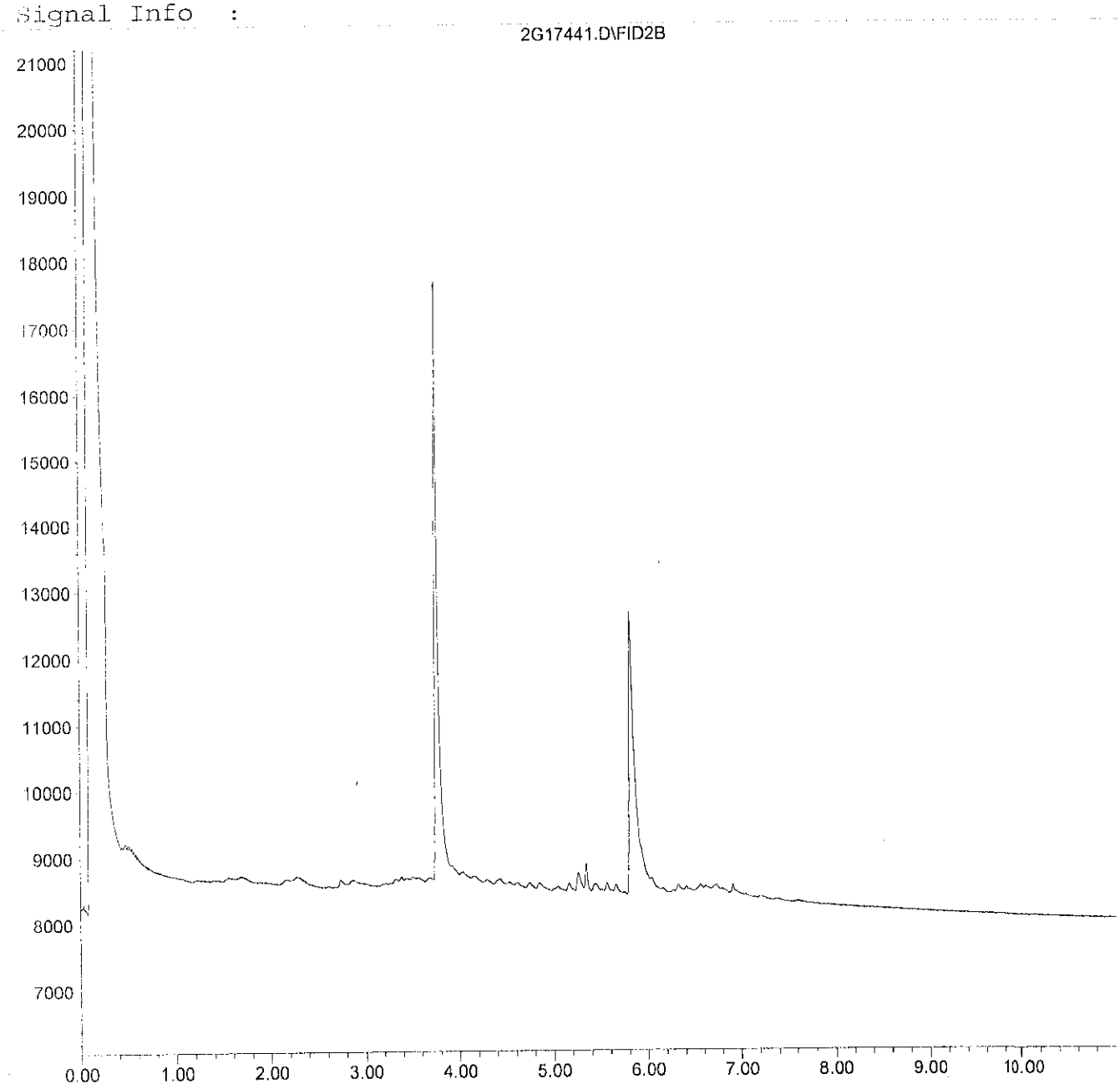
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.76	229115	14.618 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	73.09%
3) s n-Nonatriacontane	7.39	1235	0.155 ppm
Spiked Amount 20.000		Recovery =	0.78%
Target Compounds			
1) H Petroleum Range	3.53	1047763	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17441.D FLASHPRO.M Wed Dec 26 10:10:08 2001 Page 1

Acq On : 21 Dec 2001 17:31 Operator: hv
Sample : WG110302-01 REF Inst : hp2
Misc : 1,1 L0112366-04 REF Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 26 10:10 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Wed Dec 26 10:04:03 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2G17441.D FLASHPRO.M Wed Dec 26 10:10:08 2001 Page

Data File : C:\HPCHEM\1\[illegible]

Acq On : 21 Dec 2001 17:46 Operator: HV
Sample : WG110302-04 MS Inst : hp2
Misc : 1,1 L0112366-05 MS Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Dec 26 10:10 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Wed Dec 26 10:04:03 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

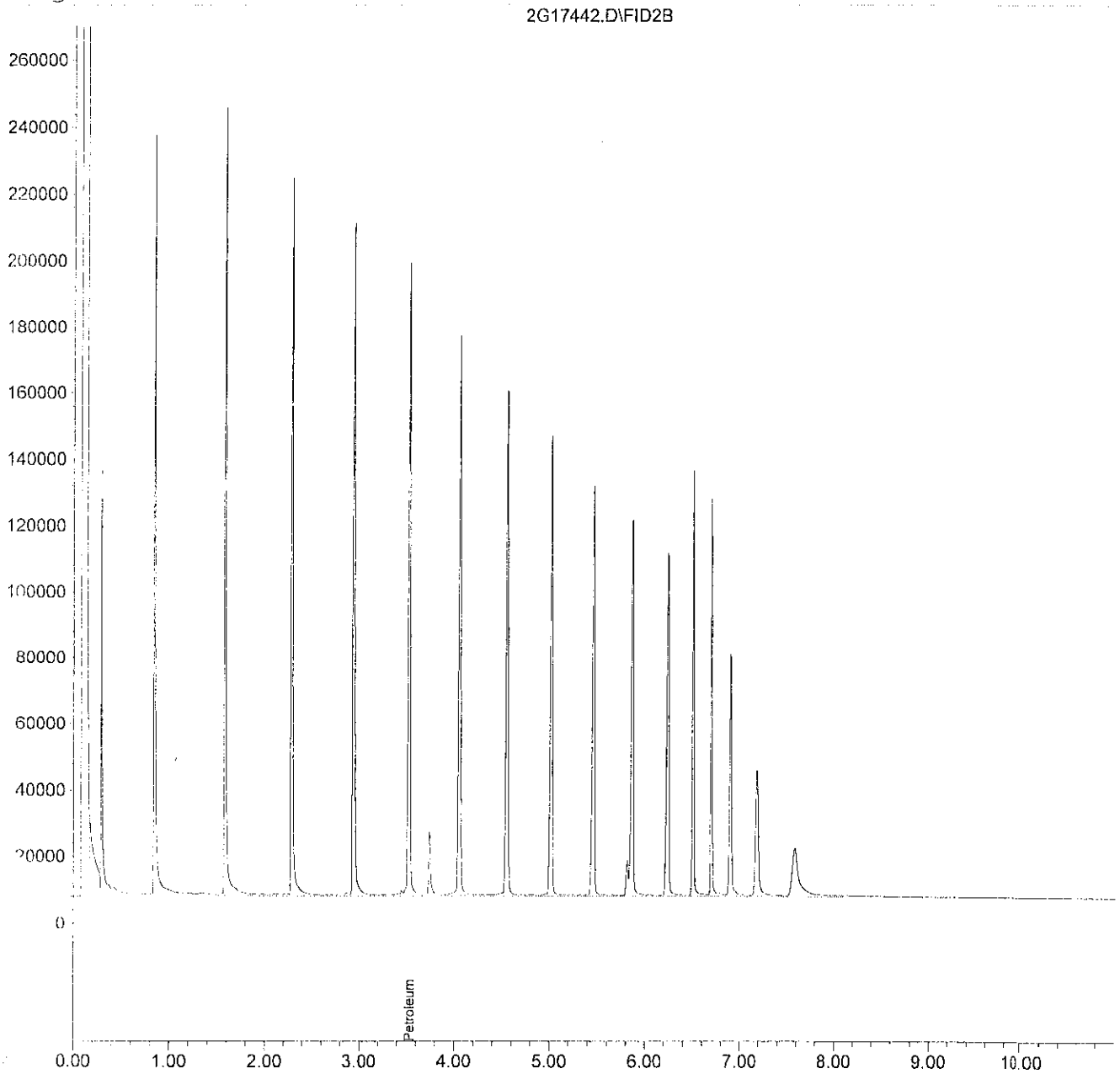
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.74	256446	16.362 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 81.81%			
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000 Recovery = 0.00%			
Target Compounds			
1) H Petroleum Range	3.53	31516327	2465.976 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 21 Dec 2001 17:46 Operator: HV
Sample : WG110302-04 MS Inst : hp2
Misc : 1,1 L0112366-05 MS Multiplr: 1.04
IntFile : PETRO.E
Quant Time: Dec 26 10:10 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Wed Dec 26 10:04:03 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 21 Dec 2001 18:02 Operator: HV
Sample : WG110302-05 MSD Inst : hp2
Misc : 1,1 L0112366-06 MSD Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Dec 26 10:11 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Wed Dec 26 10:04:03 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

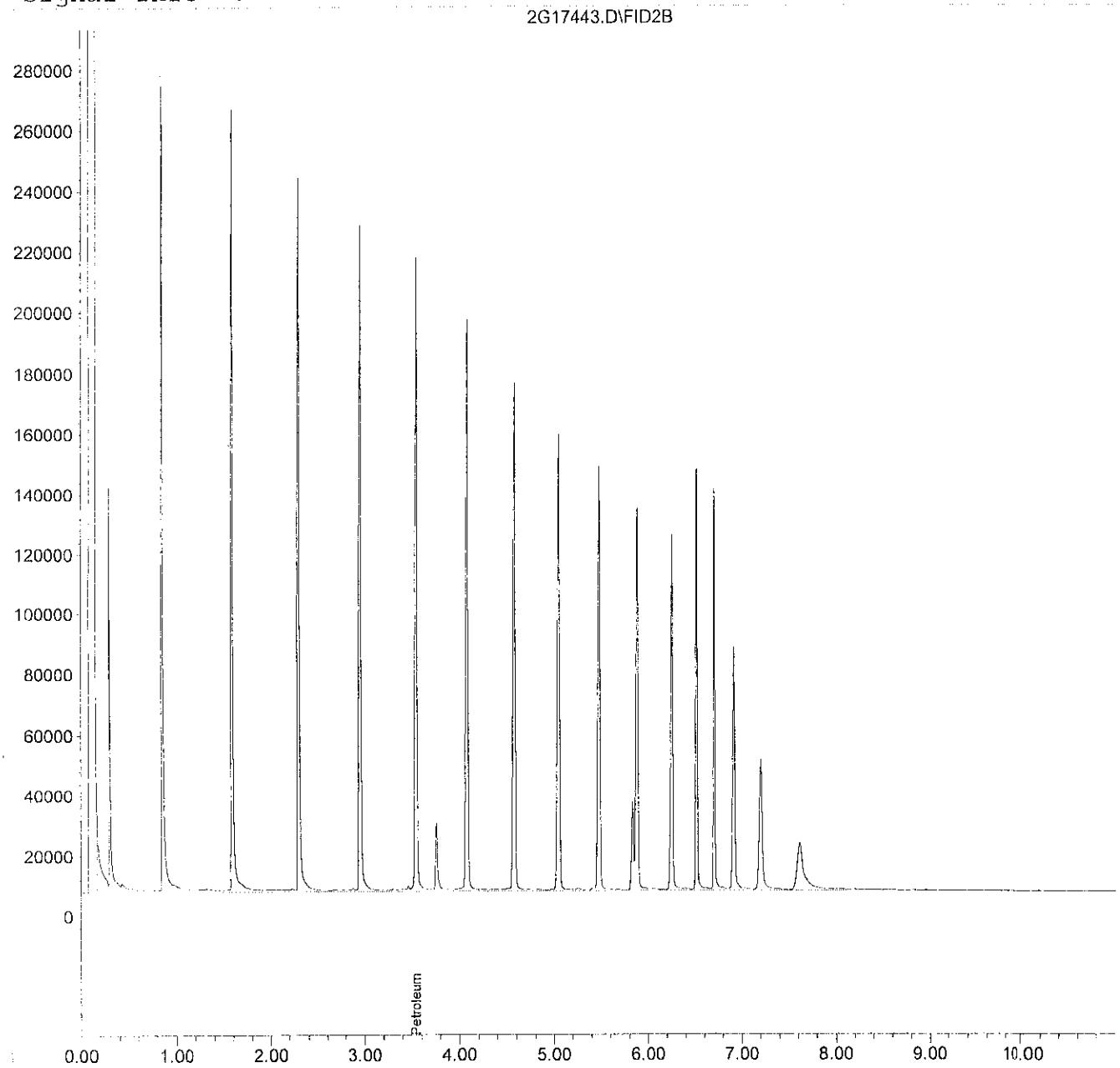
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.76	293189	18.706 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	93.53%
3) s n-Nonatriacontane	7.37	13791	1.735 ppm
Spiked Amount 20.000		Recovery =	8.68%
Target Compounds			
1) H Petroleum Range	3.53	35941767	2839.283 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17443.D FLASHPRO.M Wed Dec 26 10:11:10 2001 Page

Acq On : 21 Dec 2001 18:02 Operator: HV
Sample : WG110302-05 MSD Inst : hp2
Misc : 1,1 L0112366-06 MSD Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Dec 26 10:11 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Wed Dec 26 10:04:03 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\[illegible]

Acq On : 21 Dec 2001 18:17 Operator: HV
Sample : L0112366-07 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.10
IntFile : PETRO.E
Quant Time: Dec 26 10:19 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Wed Dec 26 10:18:39 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.80	64848	4.137 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		20.69%# RE
3) s n-Nonatriacontane	7.49	7773	0.978 ppm
Spiked Amount 20.000	Recovery =		4.89%
Target Compounds			
1) H Petroleum Range	3.65	328876	<MDL ppb

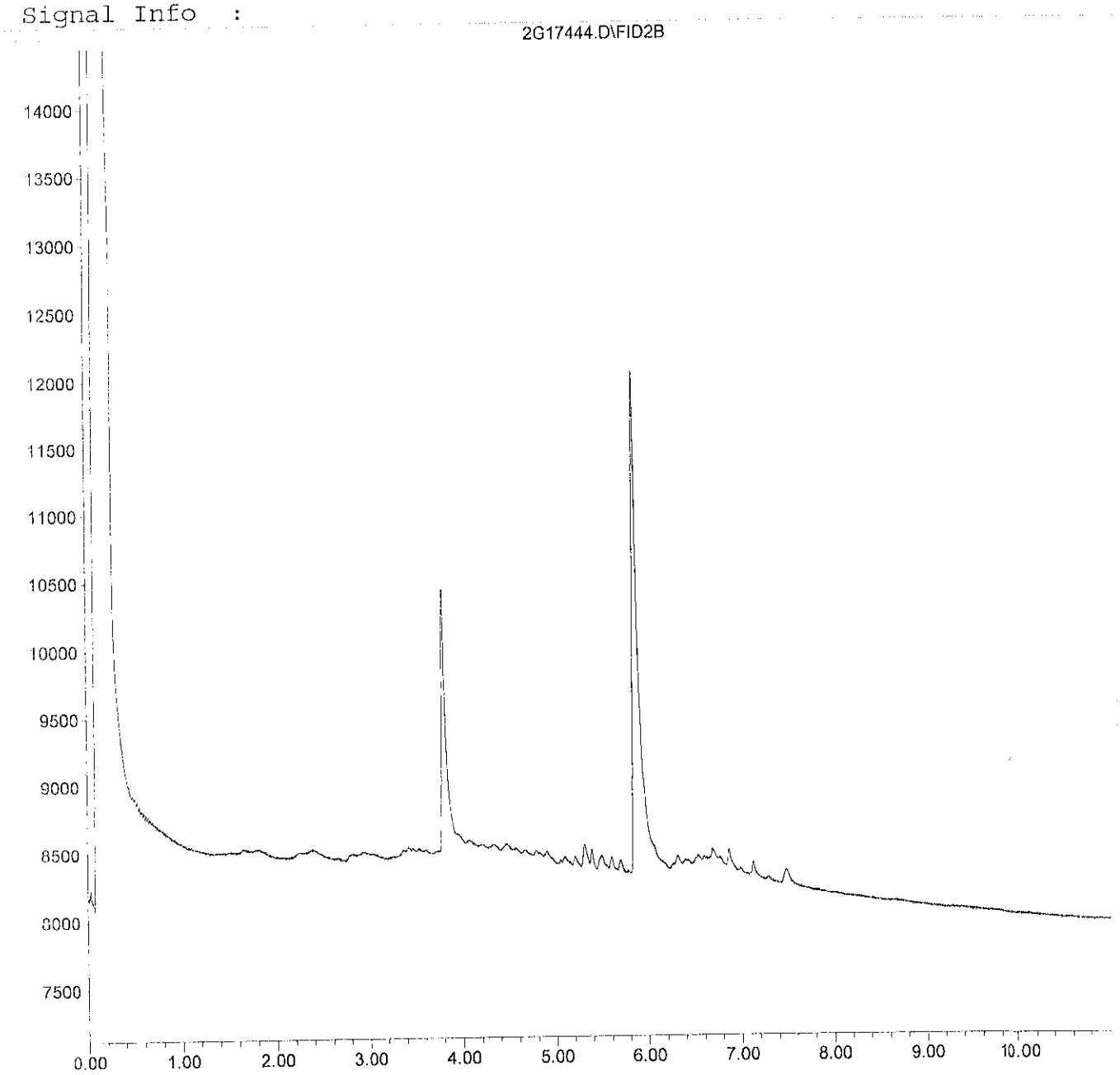
(f)=RT Delta > 1/2 Window (m)=manual int.
2G17444.D FLASHPRO.M Wed Dec 26 10:19:25 2001 Page

Acq On : 21 Dec 2001 18:17
Sample : L0112366-07 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Dec 26 10:19 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.10

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Wed Dec 26 10:18:39 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2G17444.D FLASHPRO.M Wed Dec 26 10:19:26 2001 Page

Data File : C:\HPCHEM\1\DATA\010302\2G17567.D Vial: 15
Acq On : 3 Jan 2002 12:48 Operator: HV
Sample : L0112366-07 RE PRO water Inst : hp2
Misc : 1,1 water V178-P77 Multiplr: 1.12
IntFile : PETRO.E
Quant Time: Jan 3 14:10 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/03/02
Last Update : Thu Jan 03 14:10:05 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

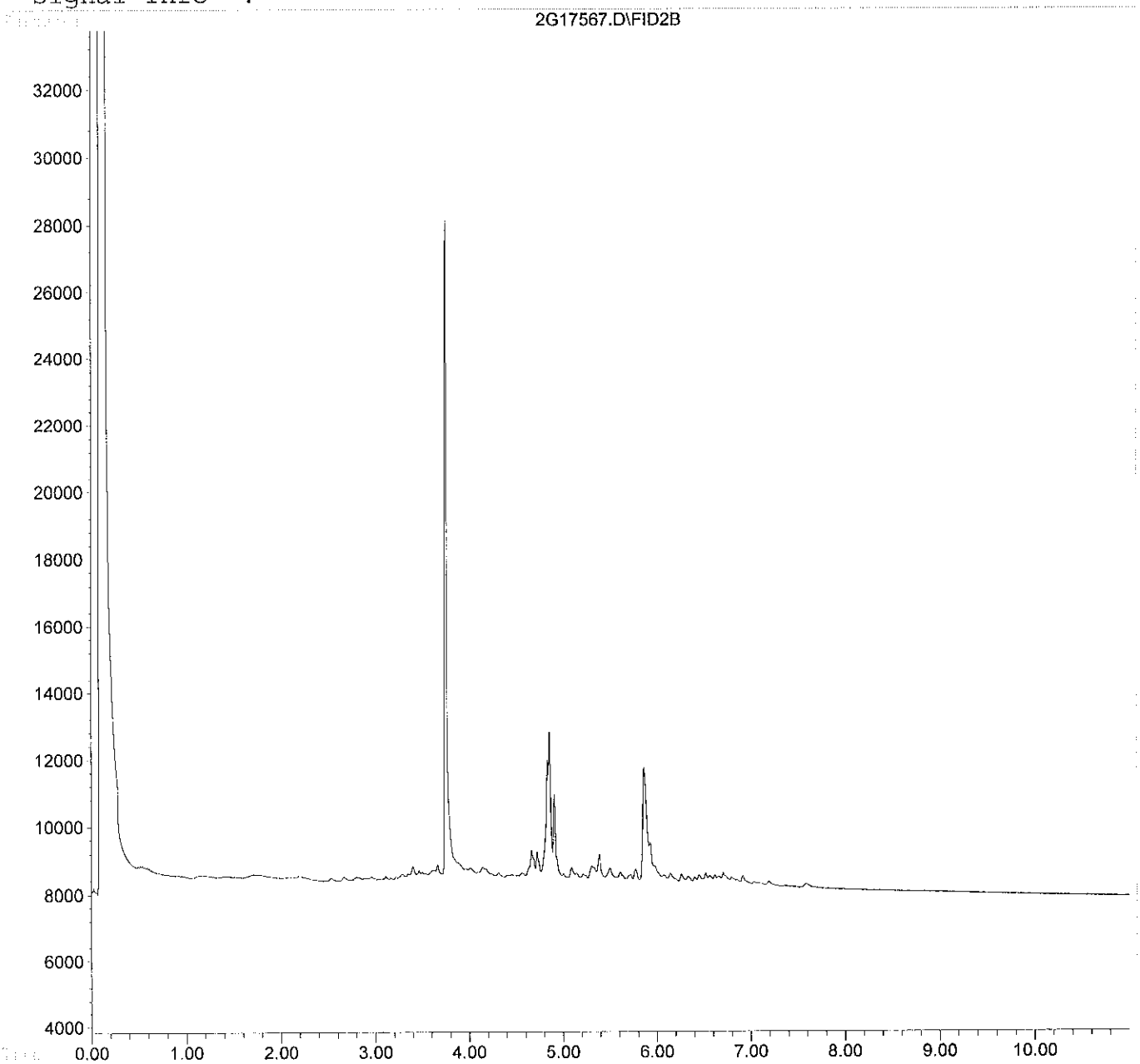
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) s O-Terphenyl	3.75	342701	17.088	ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 85.44%				
3) s n-Nonatriacontane	7.44	40	0.005	ppm
Spiked Amount 20.000 Recovery = 0.03%				
Target Compounds				
1) H Petroleum Range	3.61	1029391	<MDL	ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\010302\2G17567.D Vial: 15
Acq On : 3 Jan 2002 12:48 Operator: HV
Sample : L0112366-07 RE PRO water Inst : hp2
Misc : 1,1 water V178-P77 Multiplr: 1.12
IntFile : PETRO.E
Quant Time: Jan 3 14:10 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/03/02
Last Update : Thu Jan 03 14:10:05 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 20 Dec 2001 23:40 Operator: HV
Sample : L0112366-08 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.08
IntFile : PETRO.E
Quant Time: Dec 21 10:10 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

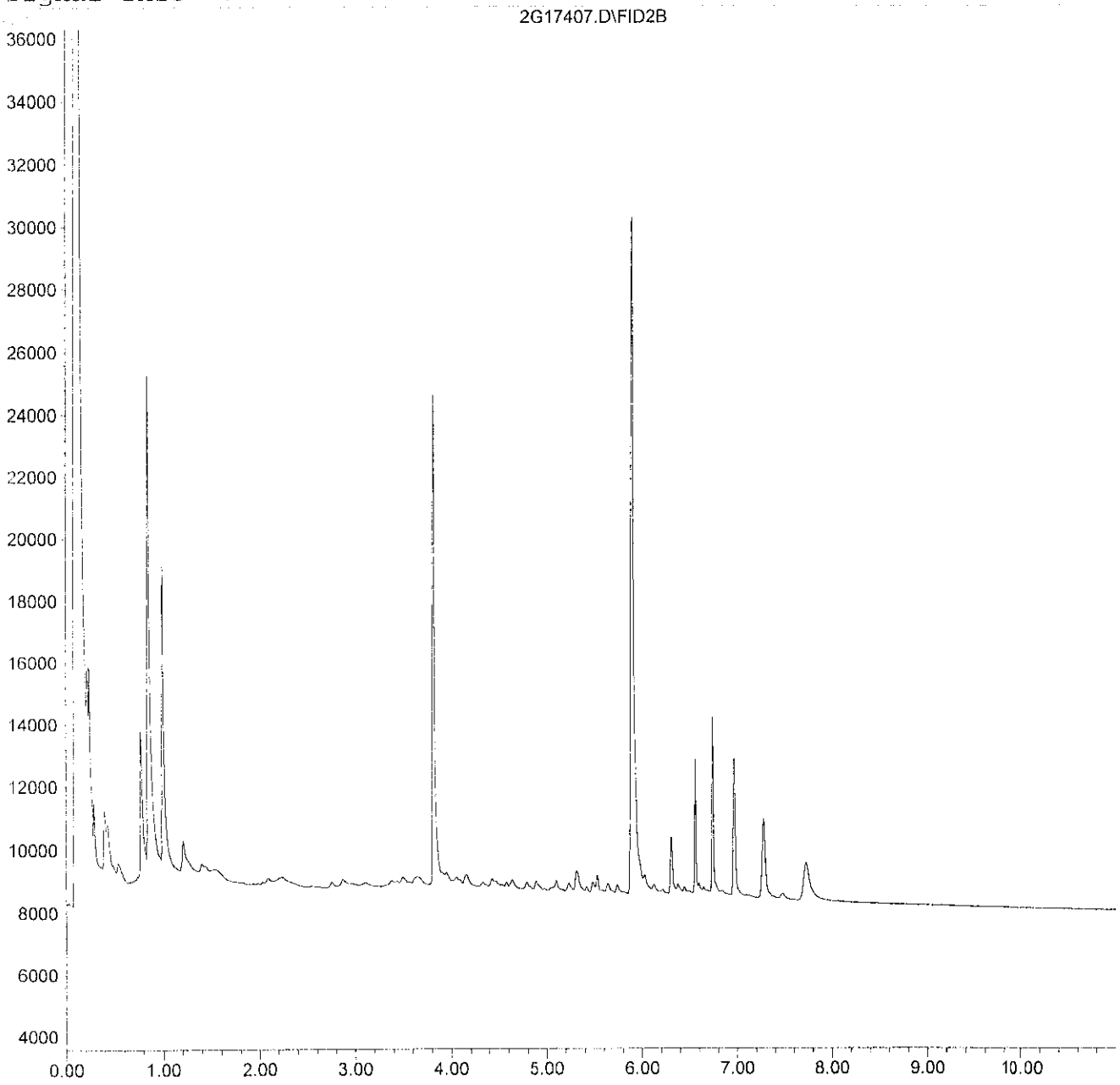
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) s O-Terphenyl	3.81	273393	14.025	ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 70.13%				
3) s n-Nonatriacontane	7.48	5841	0.728	ppm
Spiked Amount 20.000 Recovery = 3.64%				
Target Compounds				
1) H Petroleum Range	3.64	2182830	<MDL	ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 20 Dec 2001 23:40 Operator: HV
Sample : L0112366-08 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.08
IntFile : PETRO.E
Quant Time: Dec 21 10:10 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

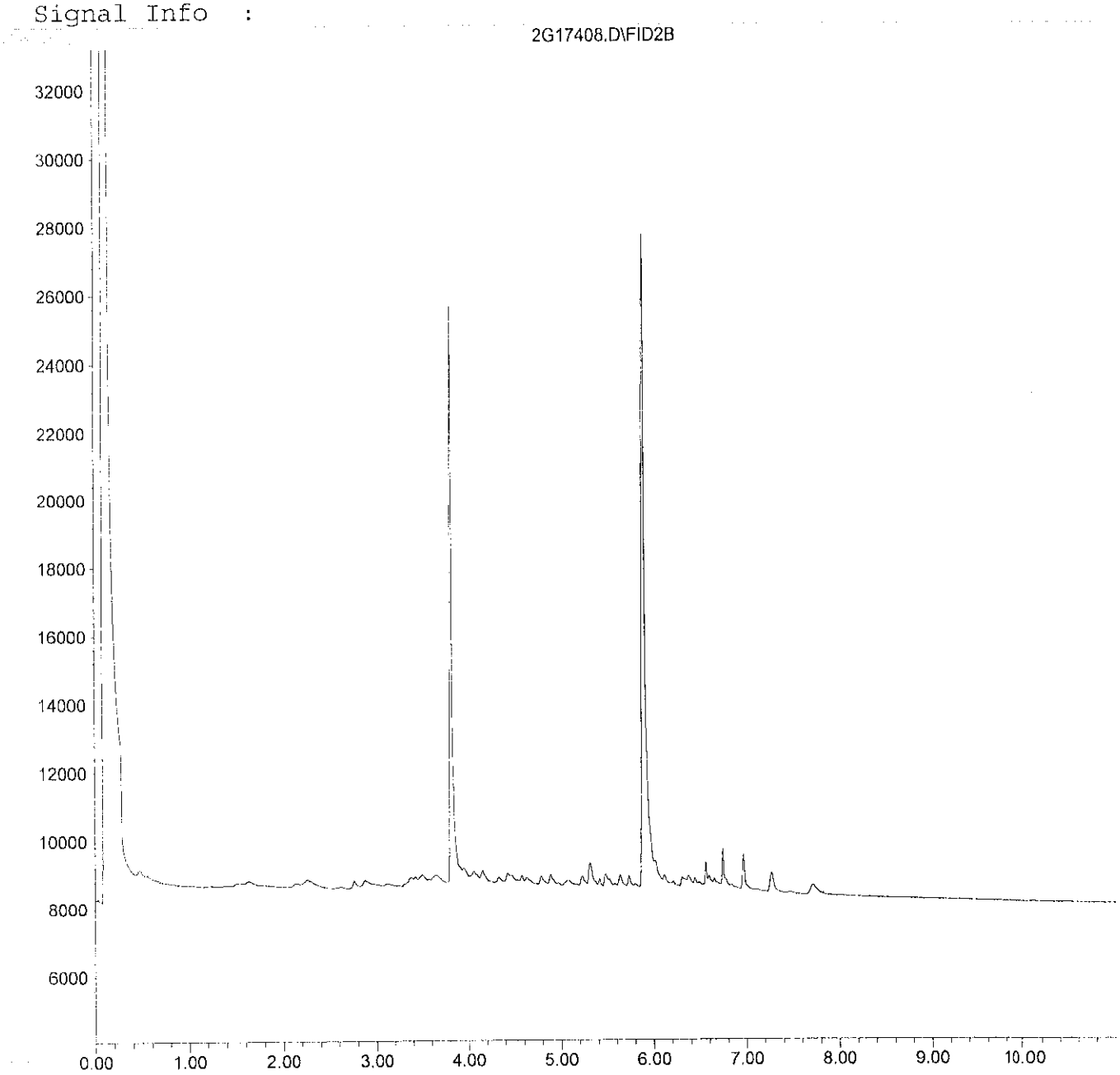


```
Acq On     : 20 Dec 2001  23:55                          Operator: HV
Sample     : L0112366-09 PRO water                       Inst     : hp2
Misc       : 1,1 water                                   Multiplr: 1.07
IntFile    : PETRO.E
Quant Time: Dec 21 10:10 2001  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 12/13/01
Last Update  : Thu Dec 13 14:33:00 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

System Monitoring Compounds
 2) s   O-Terphenyl                    3.82         307388  15.769  ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    =   78.85%
 3) s   n-Nonatriacontane              7.47           1838   0.229  ppm
Spiked Amount   20.000                    Recovery       =    1.15%

Target Compounds
 1) H   Petroleum Range                3.64        1142490    <MDL  ppb
```

Data File : C:\HPCHEM\1\DATA\122001\2G17408.D
Acq On : 20 Dec 2001 23:55 Operator: HV
Sample : L0112366-09 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.07
IntFile : PETRO.E
Quant Time: Dec 21 10:10 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 21 Dec 2001 00:10 Operator: HV
Sample : L0112366-10 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.10
IntFile : PETRO.E
Quant Time: Dec 21 10:10 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

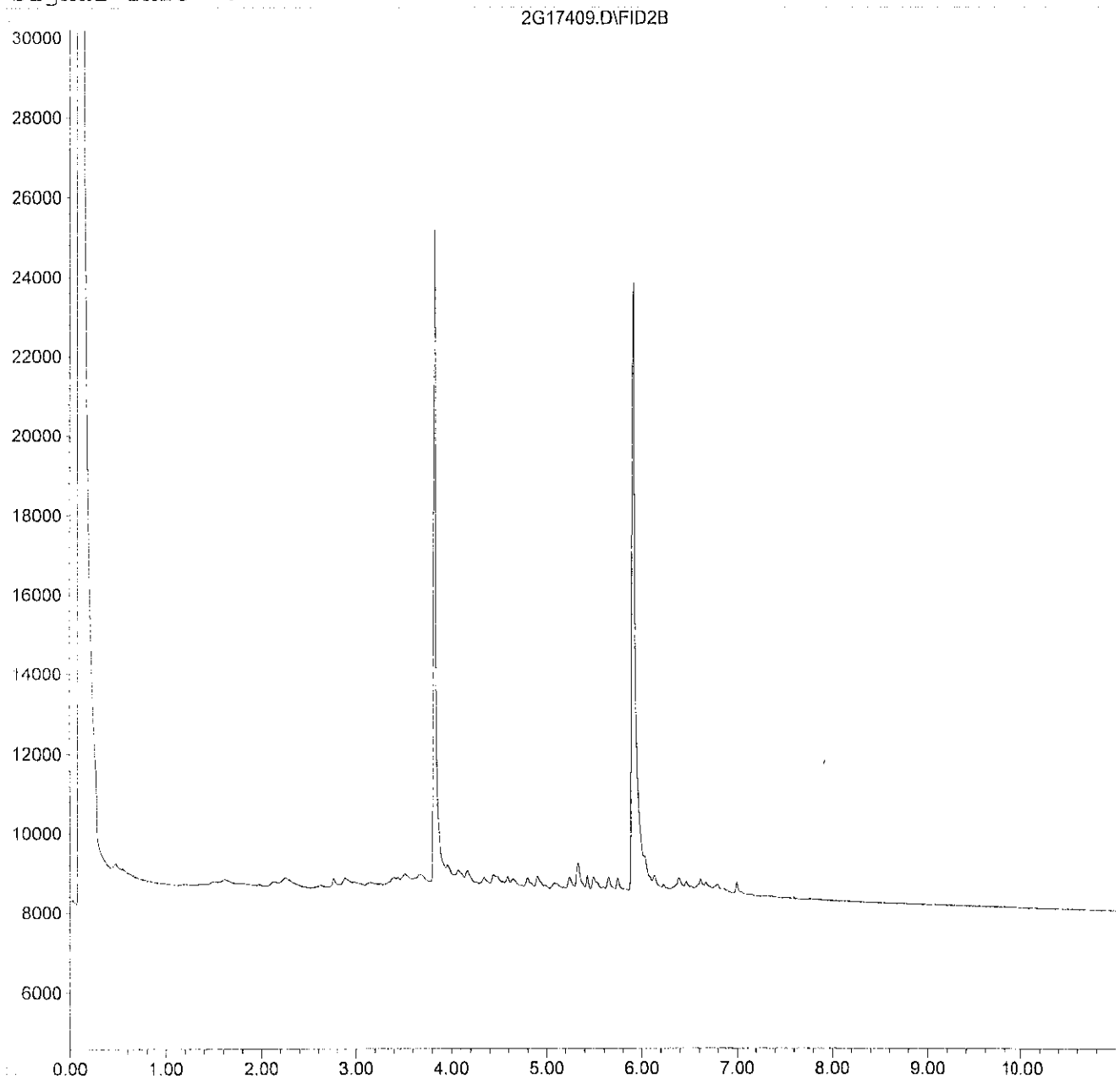
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) s O-Terphenyl	3.82	304063	15.598	ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 77.99%				
3) s n-Nonatriacontane	7.47	146	0.018	ppm
Spiked Amount 20.000 Recovery = 0.09%				
Target Compounds				
1) H Petroleum Range	3.64	876075	<MDL	ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17409.D FLASHPRO.M Fri Dec 21 10:10:41 2001 Page 3

Acq On : 21 Dec 2001 00:10 Operator: HV
Sample : L0112366-10 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.10
IntFile : PETRO.E
Quant Time: Dec 21 10:10 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 21 Dec 2001 00:26 Operator: HV
Sample : L0112366-11 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Dec 21 10:10 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) s O-Terphenyl	3.82	278932	14.309	ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 71.54%				
3) s n-Nonatriacontane	7.48	141	0.018	ppm
Spiked Amount 20.000 Recovery = 0.09%				
Target Compounds				
1) H Petroleum Range	3.64	913700	<MDL	ppb

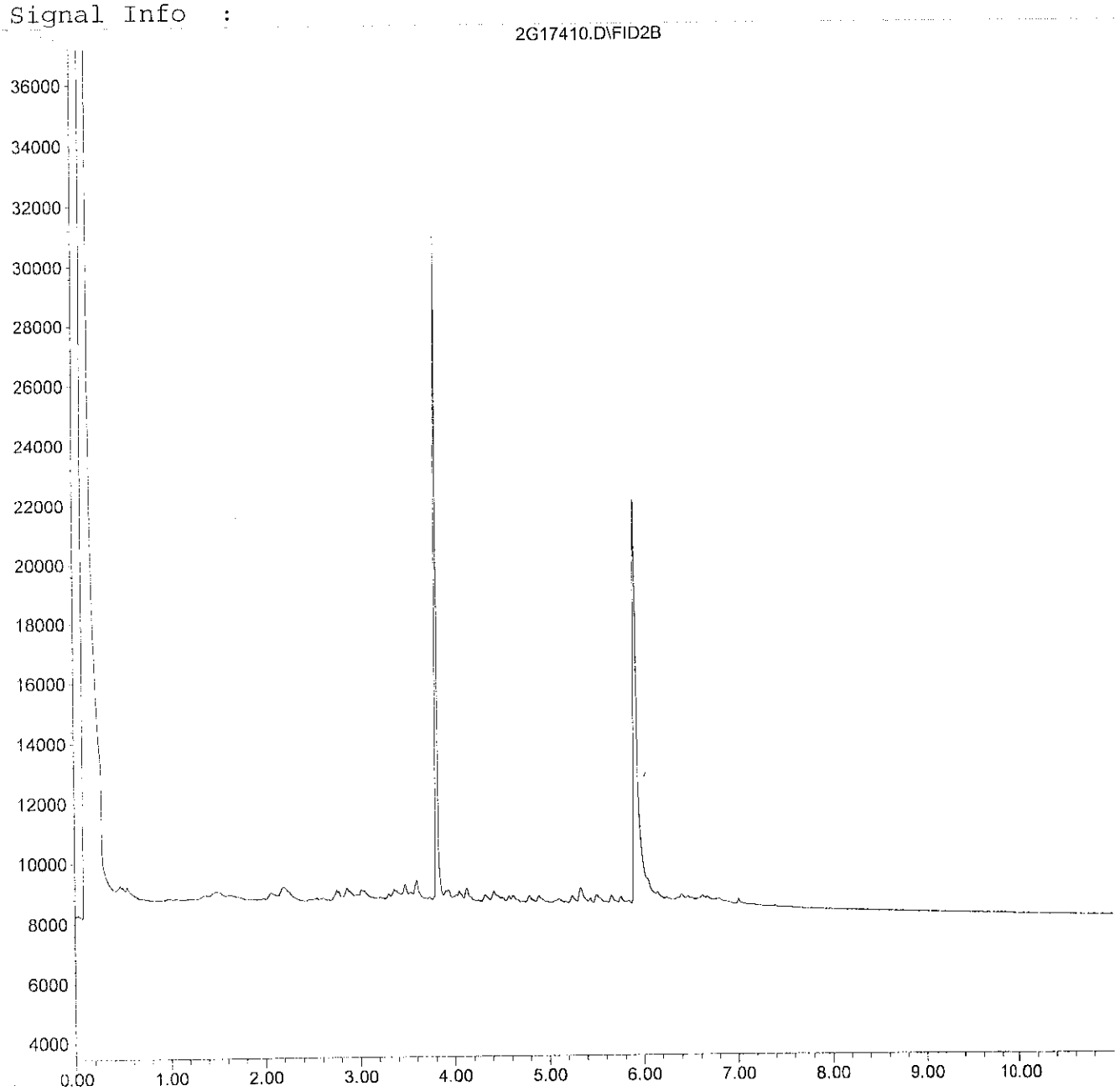
(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 21 Dec 2001 00:26
Sample : L0112366-11 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Dec 21 10:10 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.05

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

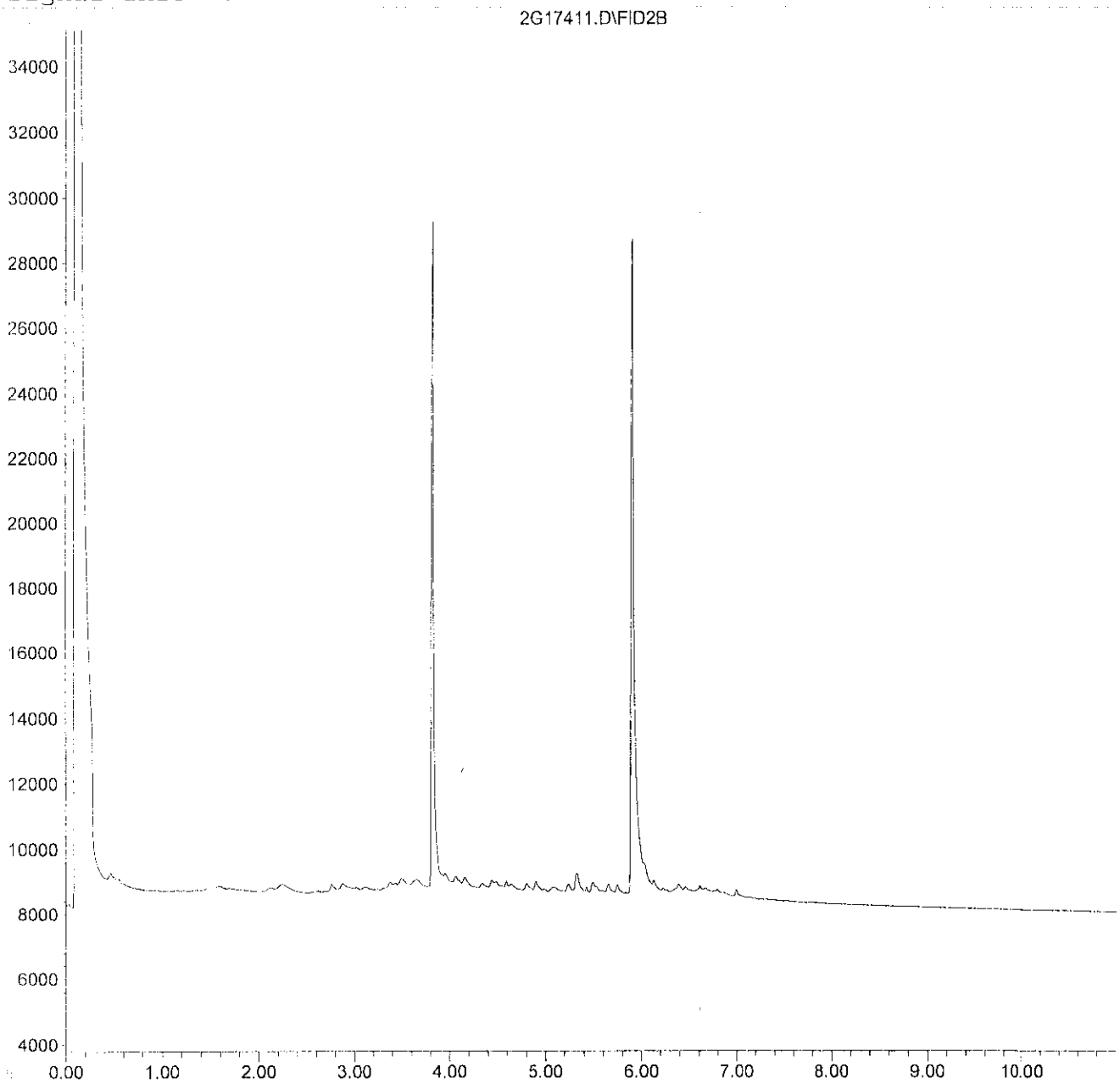


```
Acq On     : 21 Dec 2001  00:41                          Operator: HV
Sample     : L0112366-12 PRO water                       Inst     : hp2
Misc       : 1,1 water                                   Multiplr: 1.00
IntFile    : PETRO.E
Quant Time: Dec 21 10:10 2001  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 12/13/01
Last Update  : Thu Dec 13 14:33:00 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
-----------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                    3.82         347986  17.852  ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    =   89.26%
 3) s   n-Nonatriacontane              7.47             70   0.009  ppm
Spiked Amount   20.000                    Recovery      =    0.05%

  Target Compounds
 1) H   Petroleum Range                3.64        1149754    <MDL  ppb
```

Acq On : 21 Dec 2001 00:41 Operator: HV
Sample : L0112366-12 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 21 10:10 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 21 Dec 2001 00:57 Operator: HV
Sample : L0112366-13 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.08
IntFile : PETRO.E
Quant Time: Dec 21 10:10 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

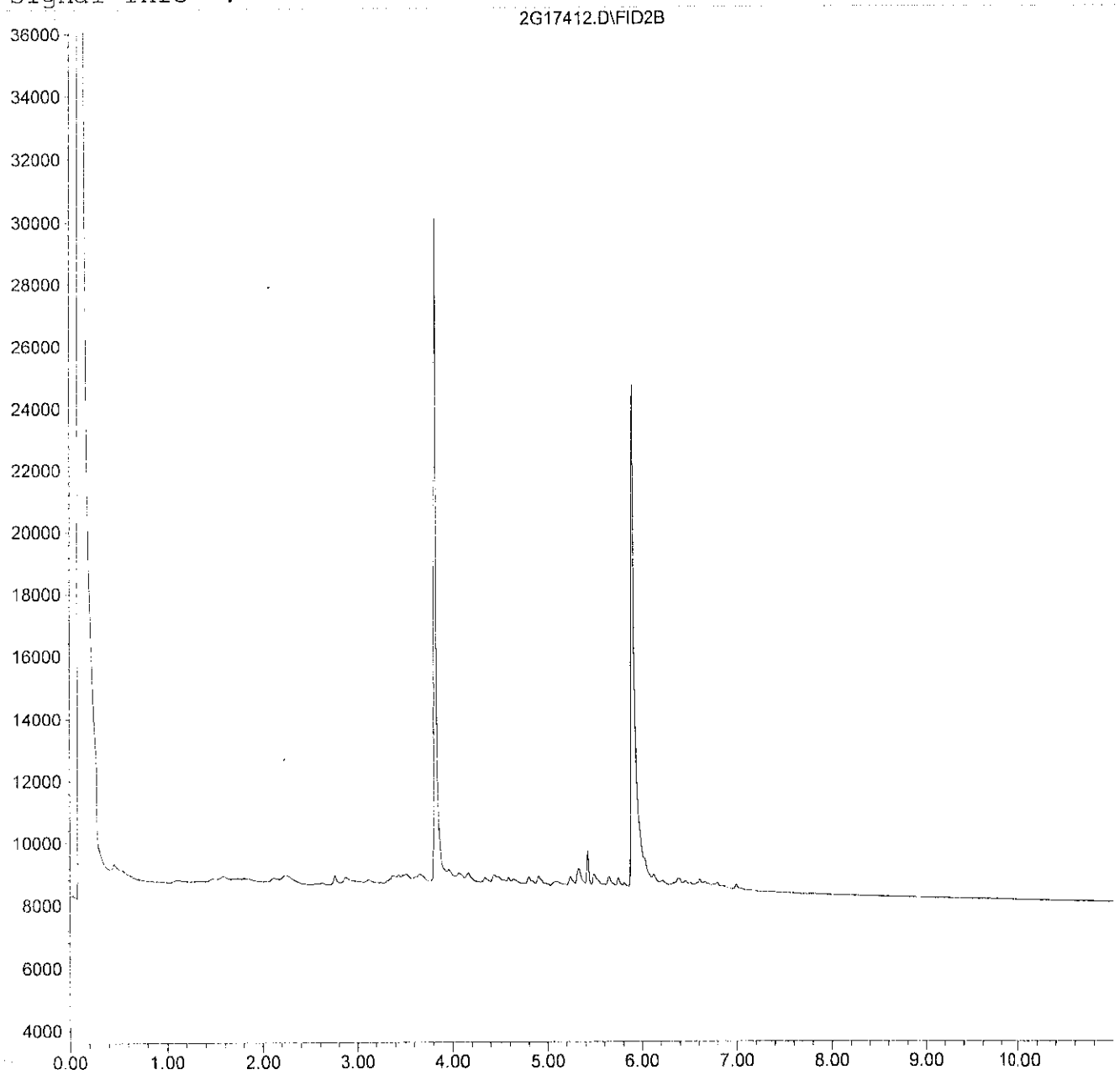
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) s O-Terphenyl	3.82	368960	18.928	ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 94.64%				
3) s n-Nonatriacontane	7.46	44	0.005	ppm
Spiked Amount 20.000 Recovery = 0.03%				
Target Compounds				
1) H Petroleum Range	3.64	982556	<MDL	ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17412.D FLASHPRO.M Fri Dec 21 10:10:55 2001 Page 1

Acq On : 21 Dec 2001 00:57 Operator: HV
Sample : L0112366-13 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.08
IntFile : PETRO.E
Quant Time: Dec 21 10:10 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 21 Dec 2001 1:12 Operator: hv
Sample : L0112366-14 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.08
IntFile : PETRO.E
Quant Time: Dec 21 10:11 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

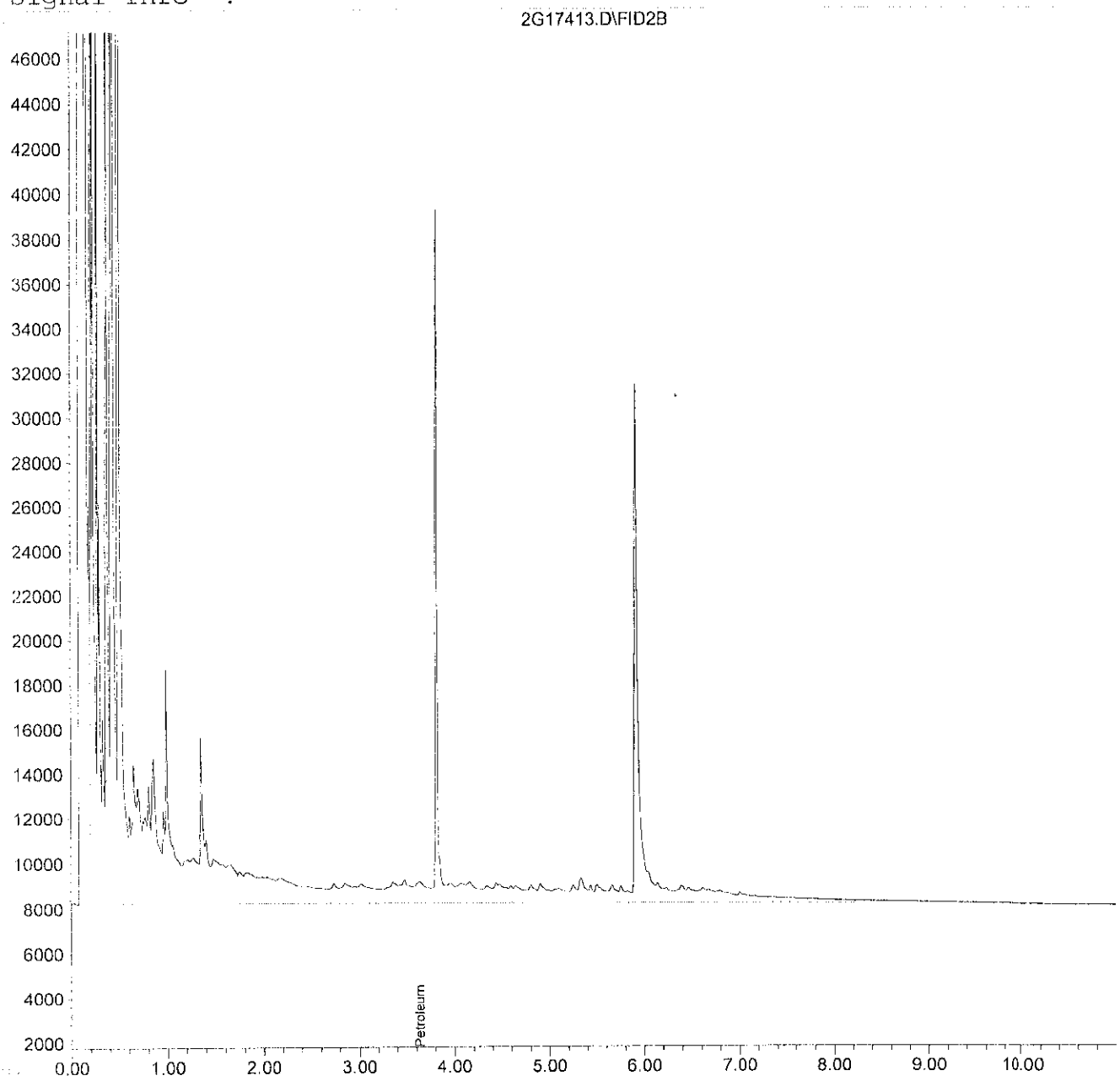
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.81	370863	19.025 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	95.13%
3) s n-Nonatriacontane	7.47	61	0.008 ppm
Spiked Amount 20.000		Recovery =	0.04%
Target Compounds			
1) H Petroleum Range	3.64	10225518	720.011 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17413.D FLASHPRO.M Fri Dec 21 10:11:02 2001 Page 1

Acq On : 21 Dec 2001 1:12 Operator: HV
Sample : L0112366-14 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.08
IntFile : PETRO.E
Quant Time: Dec 21 10:11 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2G17413.D FLASHPRO.M Fri Dec 21 10:11:03 2001 Page ...

Acq On : 21 Dec 2001 1:28 Operator: HV
Sample : L0112366-15 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.07
IntFile : PETRO.E
Quant Time: Dec 21 10:11 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) s O-Terphenyl	3.83	396748	20.353	ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 101.77%				
3) s n-Nonatriacontane	7.44	1783	0.222	ppm
Spiked Amount 20.000 Recovery = 1.11%				
Target Compounds				
1) H Petroleum Range	3.64	1685597	<MDL	ppb

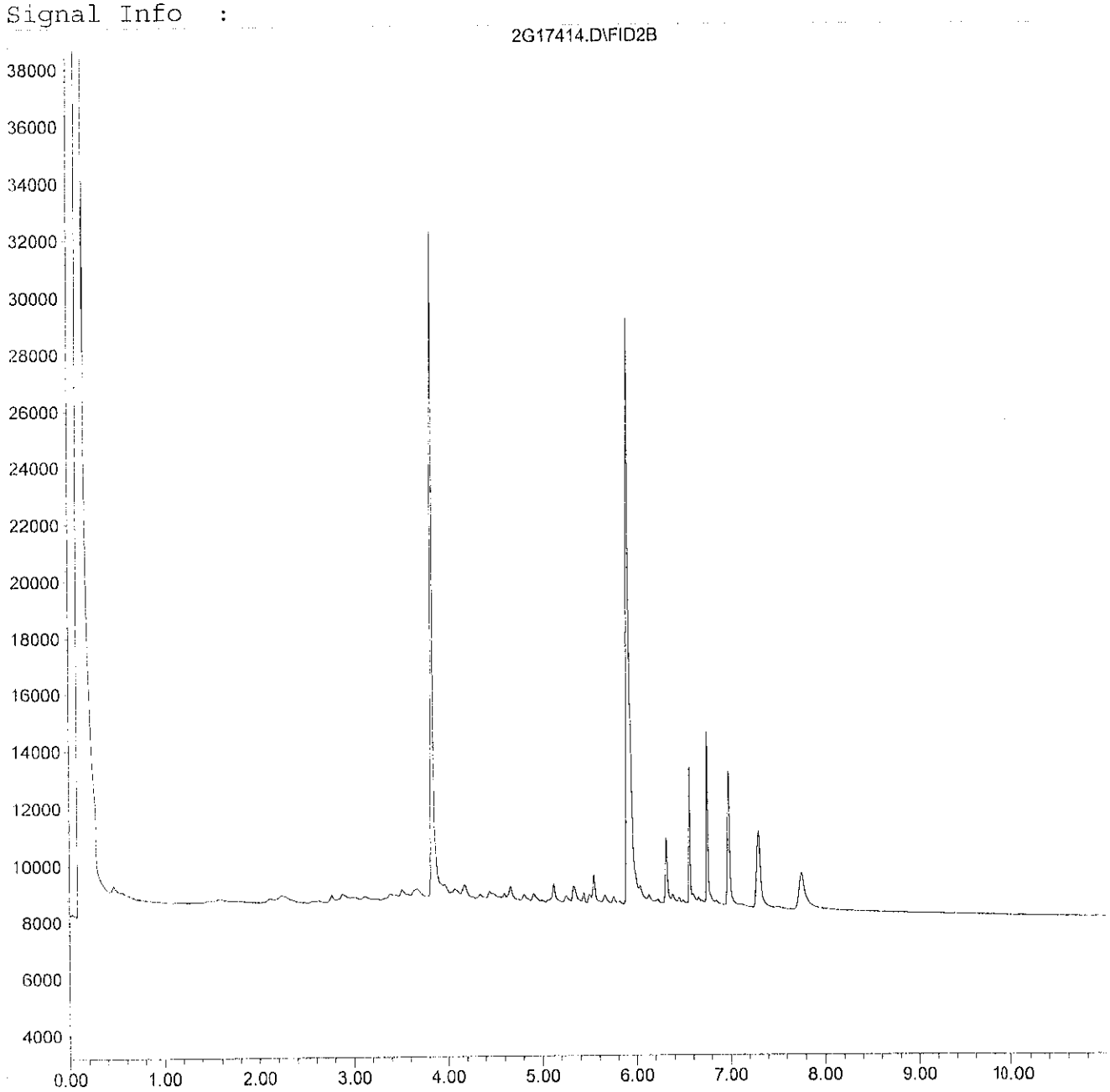
(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 21 Dec 2001 1:28
Sample : L0112366-15 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Dec 21 10:11 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.07

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 21 Dec 2001 1:45 Operator: ...
Sample : L0112366-16 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.08
IntFile : PETRO.E
Quant Time: Dec 21 10:11 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

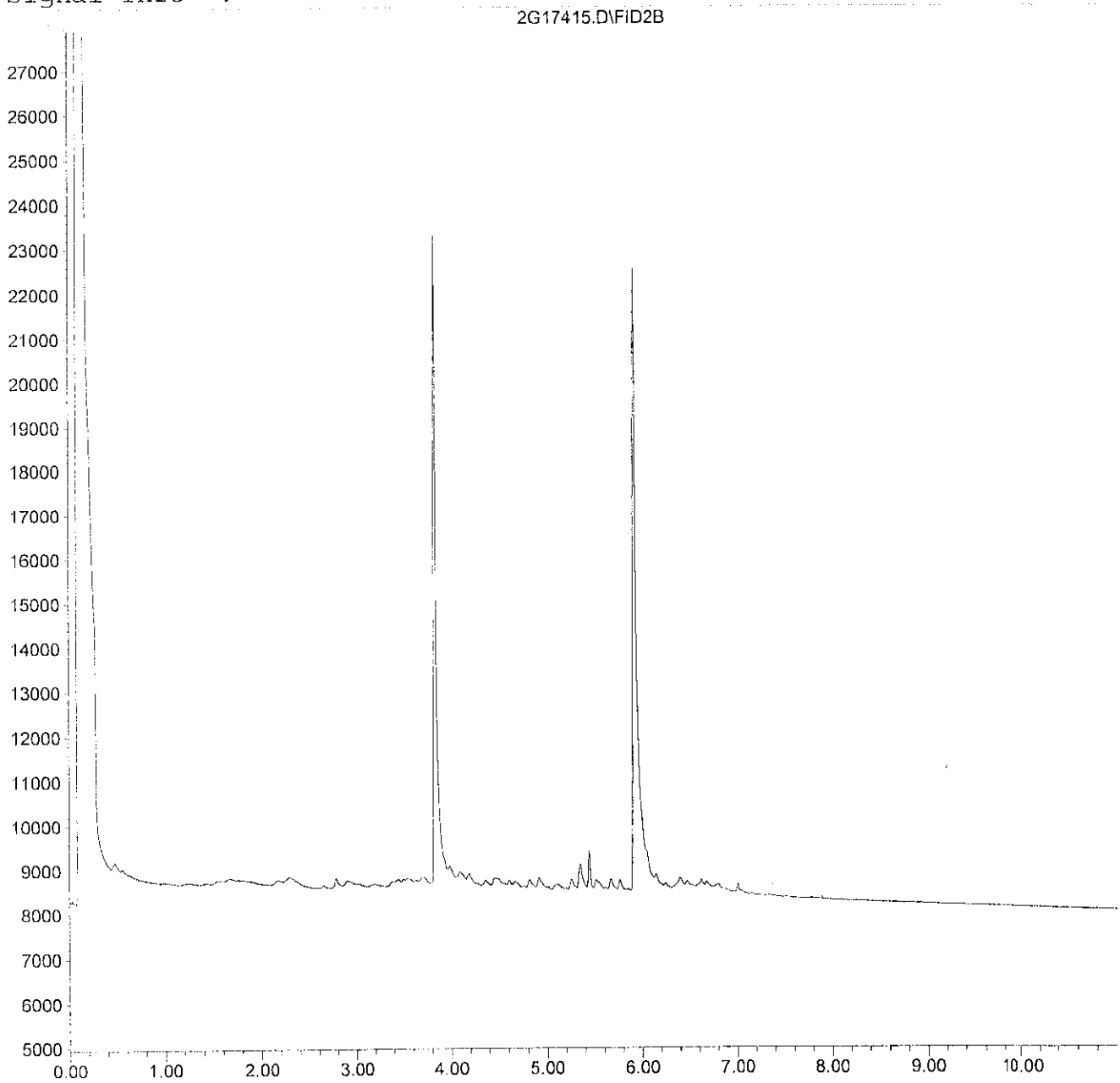
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) s O-Terphenyl	3.83	310886	15.948	ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 79.74%				
3) s n-Nonatriacontane	7.51	1665	0.207	ppm
Spiked Amount 20.000 Recovery = 1.04%				
Target Compounds				
1) H Petroleum Range	3.64	960084	<MDL	ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17415.D FLASHPRO.M Fri Dec 21 10:11:13 2001 Page 1

Acq On : 21 Dec 2001 1:43 Operator: HV
Sample : L0112366-16 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.08
IntFile : PETRO.E
Quant Time: Dec 21 10:11 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2G17415.D FLASHPRO.M Fri Dec 21 10:11:13 2001 Page

2.2.5.3 Standards Data

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:48:38 2001

Calibration Files

5	=2G17224.D	50	=2G17223.D	100	=2G17222.D
200	=2G17221.D	400	=2G17220.D	600	=2G17219.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	1.322	1.526	1.840	1.806	1.474	1.397	1.561	E4	13.74
2)	s	O-Terphenyl	2.058	1.993	2.188	2.148	1.762	1.625	1.962	E4	11.37
3)	s	n-Nonatriacontane	6.891	7.224	9.817	9.751	7.079	5.751	7.752	E3	21.38

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\121301\2G17219.D Vial: 4
Acq On : 13 Dec 2001 11:50 Operator: HV
Sample : wg109976-06 PRO @600ppm Inst : hp2
Misc : 1,1 sos56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 13 14:14 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/08/01
Last Update : Thu Dec 13 14:13:52 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

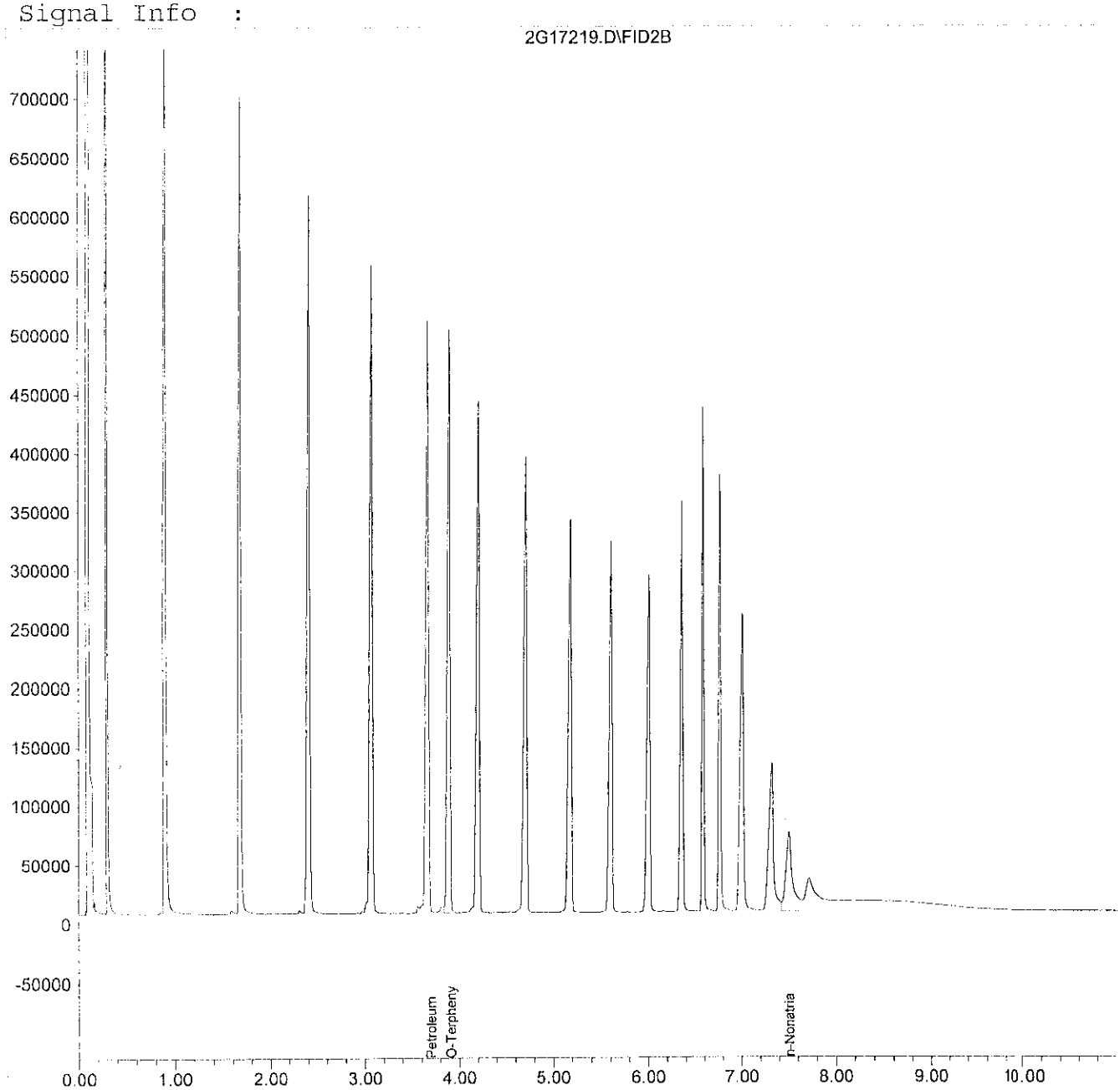
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.91	9752484	453.918 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 2269.59%#			
3) s n-Nonatriacontane	7.51f	3450759	569.692 ppm
Spiked Amount 20.000 Recovery = 2848.46%			
Target Compounds			
1) H Petroleum Range	3.71	142529861	8884.829 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\121301\2G17219.D Vial: 4
Acq On : 13 Dec 2001 11:50 Operator: HV
Sample : wg109976-06 PRO @600ppm Inst : hp2
Misc : 1,1 sos56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 13 14:14 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/08/01
Last Update : Thu Dec 13 14:13:52 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\121301\2G17220.D Vial: 5
Acq On : 13 Dec 2001 12:05 Operator: HV
Sample : wg109976-05 PRO @400ppm Inst : hp2
Misc : 1,1 sos56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 13 14:14 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/08/01
Last Update : Thu Dec 13 14:13:52 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

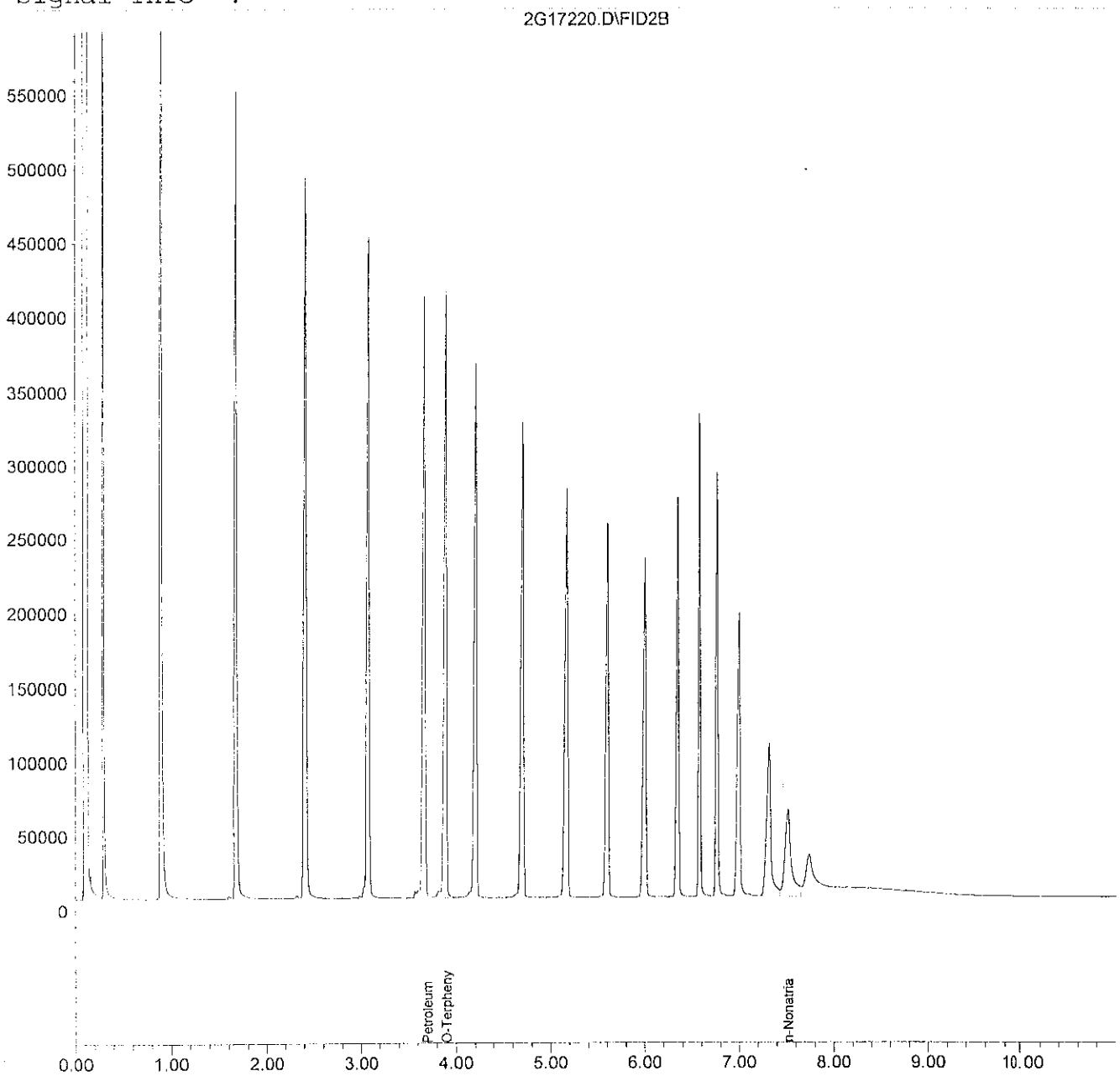
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.90	7049793	328.124 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1640.62%#
3) s n-Nonatriacontane	7.52f	2831416	467.443 ppm
Spiked Amount 20.000		Recovery	= 2337.22%
Target Compounds			
1) H Petroleum Range	3.71	100212023	6246.878 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17220.D FLASHPRO.M Thu Dec 13 15:36:23 2001 Page 1

Acq On : 13 Dec 2001 12:05 Operator: HV
Sample : wg109976-05 PRO @400ppm Inst : hp2
Misc : 1,1 sos56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 13 14:14 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/08/01
Last Update : Thu Dec 13 14:13:52 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 13 Dec 2001 12:20 Operator: HV
Sample : wg109976-04 PRO @200ppm Inst : hp2
Misc : 1,1 sos56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 13 14:14 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/08/01
Last Update : Thu Dec 13 14:13:52 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.91	4295825	199.944 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 999.72%#			
3) s n-Nonatriacontane	7.45	1950182	321.959 ppm
Spiked Amount 20.000 Recovery = 1609.80%			
Target Compounds			
1) H Petroleum Range	3.71	61394844	3827.147 ppb

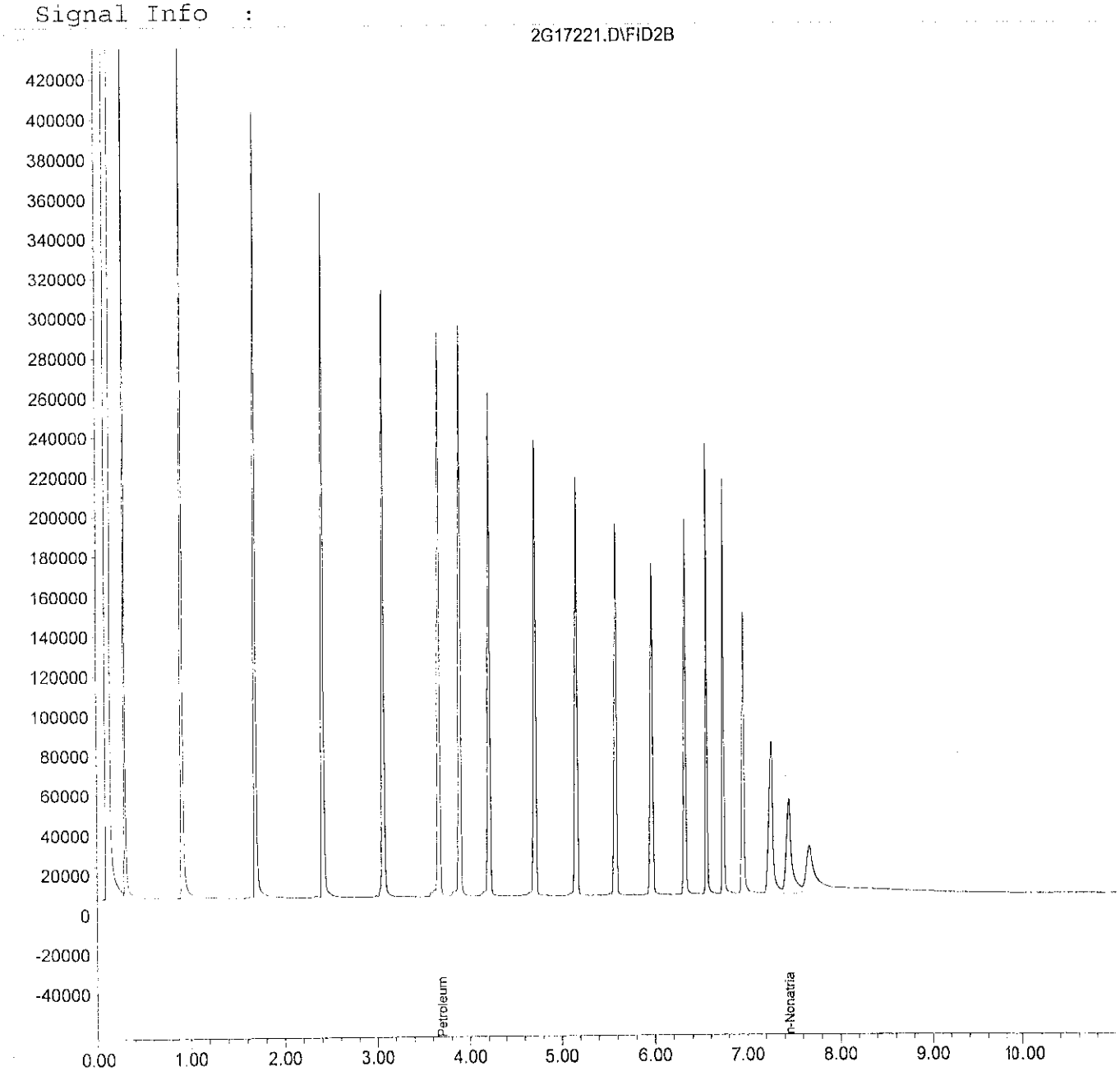
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\121301\2G17221.D

Acq On : 13 Dec 2001 12:20 Operator: HV
Sample : wg109976-04 PRO @200ppm Inst : hp2
Misc : 1,1 sos56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 13 14:14 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/08/01
Last Update : Thu Dec 13 14:13:52 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\121301\2G17222.D
Acq On : 13 Dec 2001 12:35 Operator: HV
Sample : wg109976-03 PRO @100ppm Inst : hp2
Misc : 1,1 sos56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 13 14:14 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/08/01
Last Update : Thu Dec 13 14:13:52 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.88	2187990	101.837 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 509.19%#
3) s n-Nonatriacontane	7.45	981705	162.071 ppm
Spiked Amount 20.000		Recovery	= 810.36%
Target Compounds			
1) H Petroleum Range	3.71	31272165	1949.401 ppb

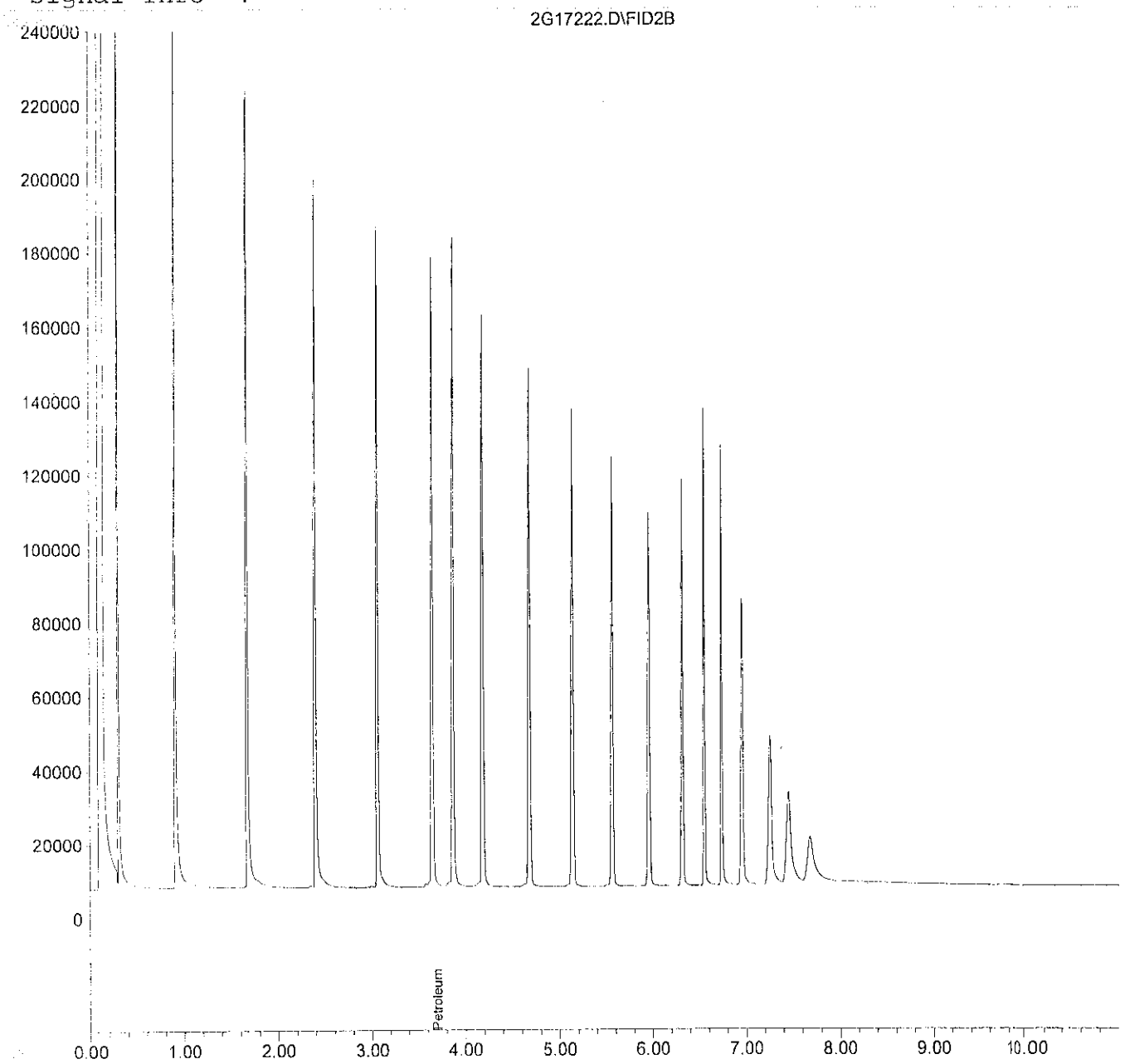
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 13 Dec 2001 12:35 Operator: HV
Sample : wg109976-03 PRO @100ppm Inst : hp2
Misc : 1,1 sos56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 13 14:14 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/08/01
Last Update : Thu Dec 13 14:13:52 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 13 Dec 2001 14:04 Operator: HV
Sample : wg109976-02 PRO @50ppm Inst : hp2
Misc : 1,1 sos56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 13 14:16 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/08/01
Last Update : Thu Dec 13 14:13:52 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.84	996401	46.376 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 231.88%#
3) s n-Nonatriacontane	7.42	361178	59.628 ppm
Spiked Amount 20.000		Recovery	= 298.14%
Target Compounds			
1) H Petroleum Range	3.71	12974414	808.781 ppb

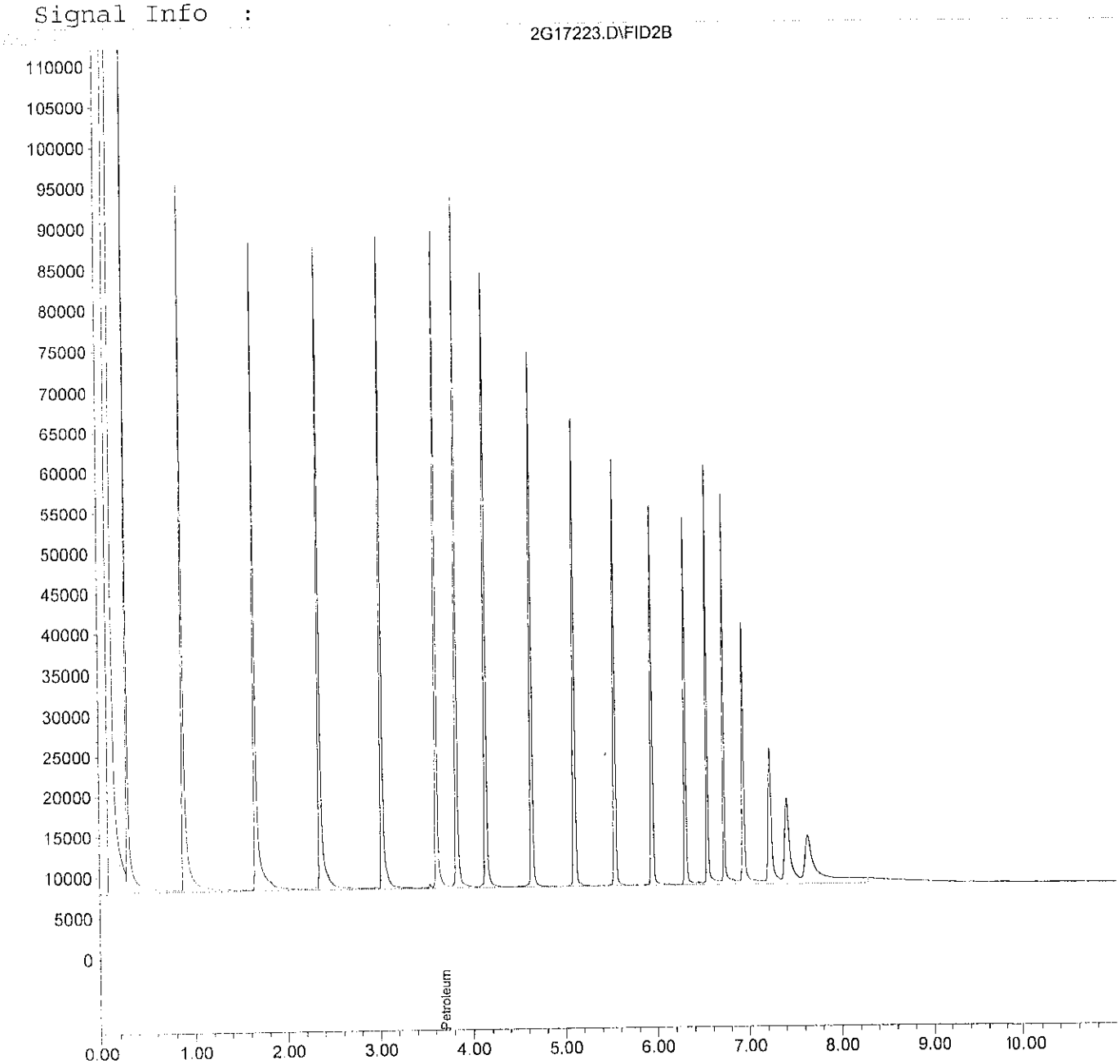
(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 13 Dec 2001 14:04
Sample : wg109976-02 PRO @50ppm
Misc : 1,1 sos56-21
IntFile : PETRO.E
Quant Time: Dec 13 14:16 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/08/01
Last Update : Thu Dec 13 14:13:52 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 13 Dec 2001 14:19 Operator: HV
Sample : wg109976-01 PRO @5ppm Inst : hp2
Misc : 1,1 sos56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 13 14:32 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/08/01
Last Update : Thu Dec 13 14:13:52 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.87	102876	4.788 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		23.94%#
3) s n-Nonatriacontane	7.49	34455	5.688 ppm
Spiked Amount 20.000	Recovery =		28.44%
Target Compounds			
1) H Petroleum Range	3.71	1124094	<MDL ppb

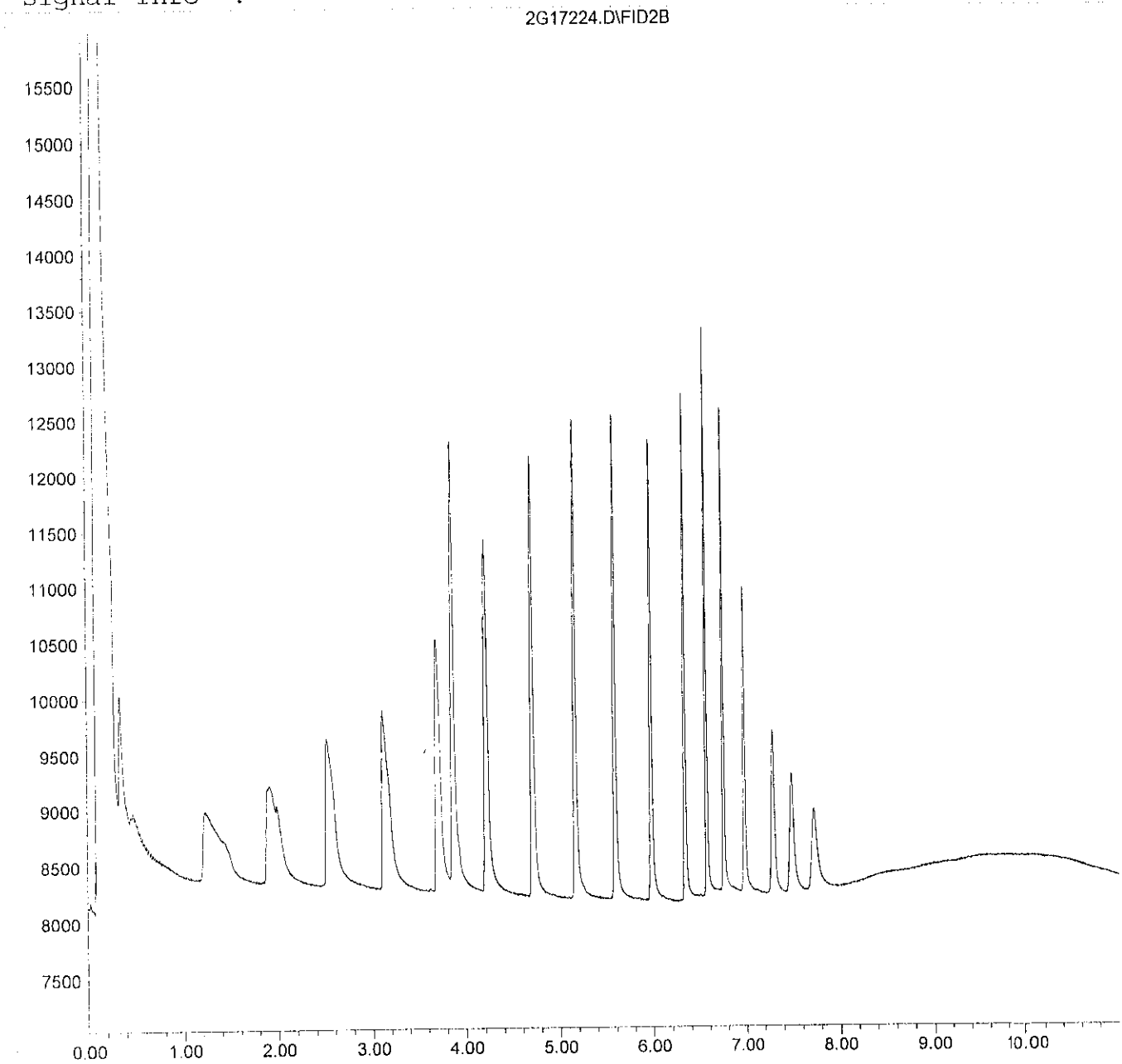
(f)=RT Delta > 1/2 Window (m)=manual int.
2G17224.D FLASHPRO.M Thu Dec 13 15:37:56 2001 Page 1

Acq On : 13 Dec 2001 14:19
Sample : wg109976-01 PRO @5ppm
Misc : 1,1 sos56-21
IntFile : PETRO.E
Quant Time: Dec 13 14:32 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/08/01
Last Update : Thu Dec 13 14:13:52 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 13 Dec 2001 14:49 Operator: HV
Sample : wg109976-07 ALT @200ppm Inst : hp2
Misc : 1,1 sos56-26 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	2989.502	12.1	76	0.00
2	s	O-Terphenyl	200.000	0.930	99.5#	0	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G17226.D FLASHPRO.M Thu Dec 13 15:35:29 2001 Page 1

Acq On : 13 Dec 2001 14:49 Operator: HV
Sample : wg109976-07 ALT @200ppm Inst : hp2
Misc : 1,1 sos56-26 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
3 s	n-Nonatriacontane	200.000	0.000	100.0#	0	-7.45#

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G17226.D FLASHPRO.M Thu Dec 13 15:35:29 2001 Page 2

Acq On : 13 Dec 2001 14:49
Sample : wg109976-07 ALT @200ppm
Misc : 1,1 sos56-26
IntFile : PETRO.E
Quant Time: Dec 13 15:04 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:48:38 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

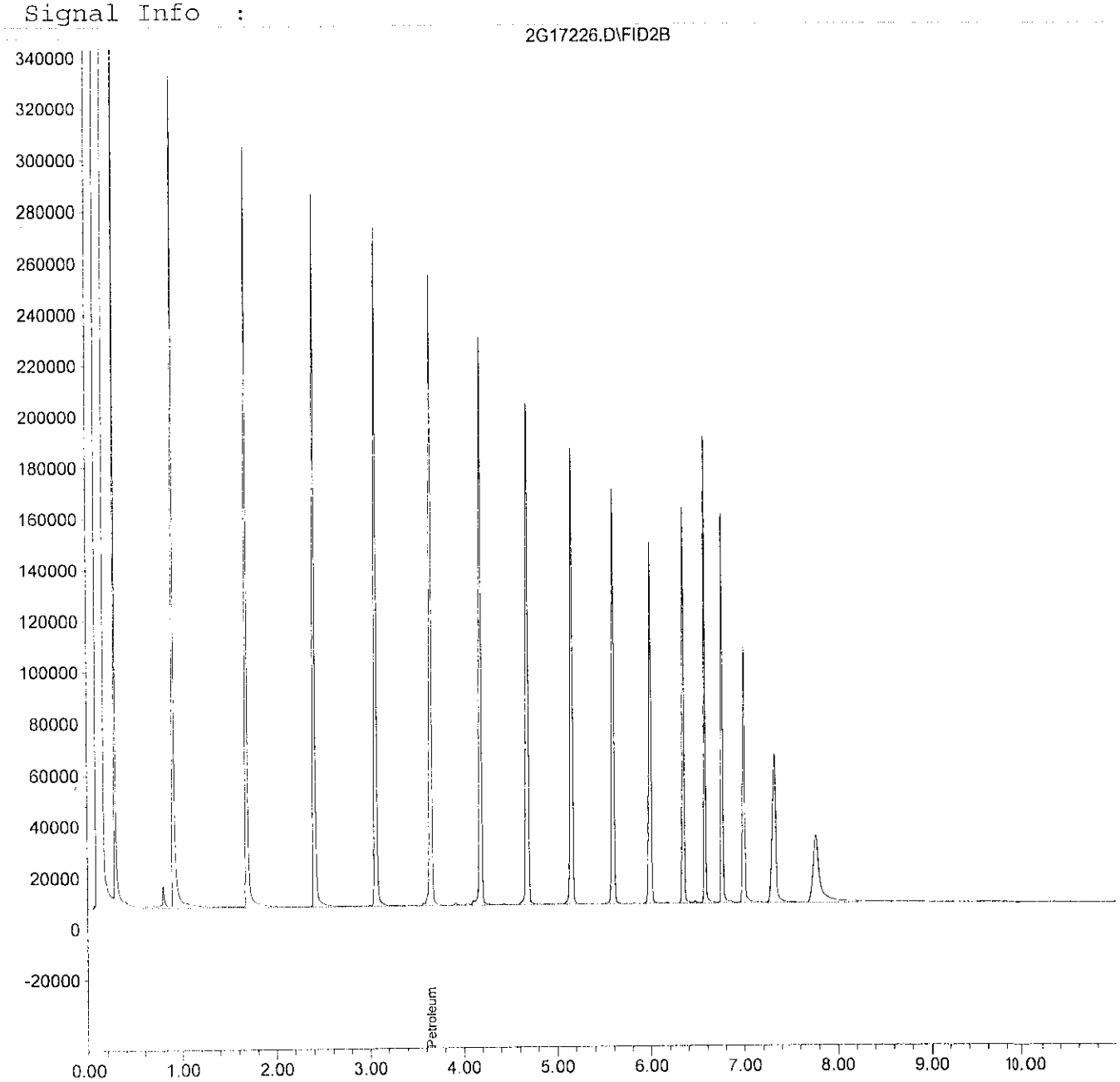
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.92	18254	0.930 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery	=	4.65%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000	Recovery	=	0.00%
Target Compounds			
1) H Petroleum Range	3.64	46662112	2989.502 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17226.D FLASHPRO.M Thu Dec 13 15:35:33 2001 Page 1

Acq On : 13 Dec 2001 14:49 Operator: HV
Sample : wg109976-07 ALT @200ppm Inst : hp2
Misc : 1,1 sos56-26 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 13 15:04 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:48:38 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\

Acq On : 20 Dec 2001 23:24
Sample : WG110451-10 PRO CCV
Misc : 1,1 SOS56-21
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 20 16:03:38 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3175.781	6.6	107	0.00
2	s	O-Terphenyl	200.000	190.587	4.7	112	0.00
3	s	n-Nonatriacontane	200.000	183.974	8.0	103	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Acq On : 20 Dec 2001 23:24 Operator: HV
Sample : WG110451-10 PRO CCV Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 20 16:03:38 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Acq On : 20 Dec 2001 23:24 Operator: HV
Sample : WG110451-10 PRO CCV Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 21 10:10 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

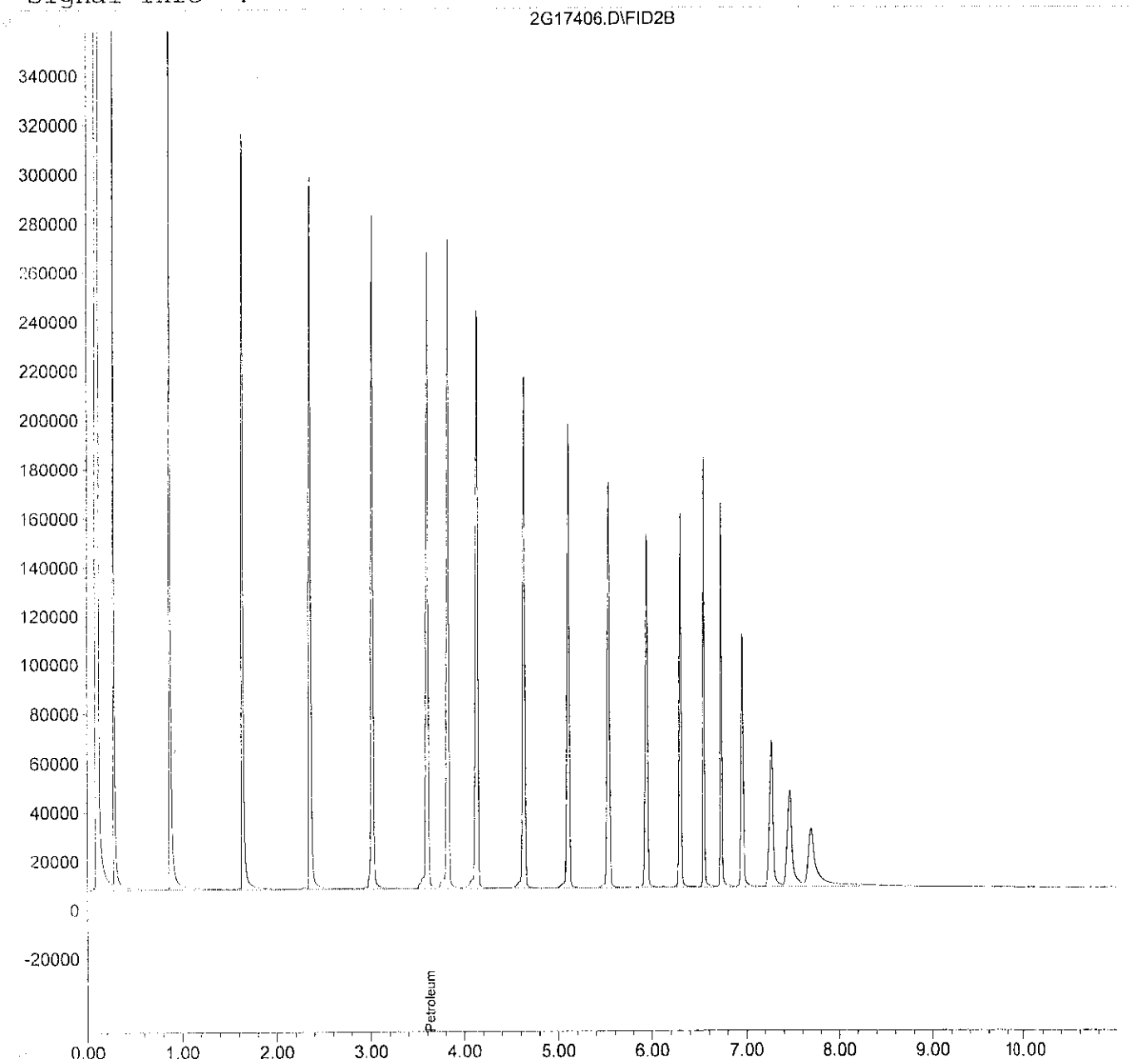
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	3715178	190.587 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	952.93%#
3) s n-Nonatriacontane	7.47	1476289	183.974 ppm
Spiked Amount 20.000		Recovery =	919.87%
Target Compounds			
1) H Petroleum Range	3.64	48710227	3175.781 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17406.D FLASHPRO.M Fri Dec 21 11:12:55 2001 Page 1

Acq On : 20 Dec 2001 23:24 Operator: HV
Sample : WG110451-10 PRO CCV Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 21 10:10 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 21 Dec 2001 2:13
Sample : WG110451-10 PRO CCV
Misc : 1,1 SOS56-21
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 20 16:03:38 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3709.886	-9.1	125	0.00
2	s	O-Terphenyl	200.000	227.477	-13.7	134	0.02
3	s	n-Nonatriacontane	200.000	220.225	-10.1	124	0.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G17417.D FLASHPRO.M Fri Dec 21 11:13:31 2001 Page

Acq On : 21 Dec 2001 2:13 Operator: HV
Sample : WG110451-10 PRO CCV Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 20 16:03:38 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G17417.D FLASHPRO.M Fri Dec 21 11:13:31 2001 Page

Acq On : 21 Dec 2001 2:13 Operator: hv
Sample : WG110451-10 PRO CCV Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 21 10:11 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.84	4434279	227.477 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1137.39%#
3) s n-Nonatriacontane	7.52	1767181	220.225 ppm
Spiked Amount 20.000		Recovery	= 1101.13%
Target Compounds			
1) H Petroleum Range	3.64	56902347	3709.886 ppb

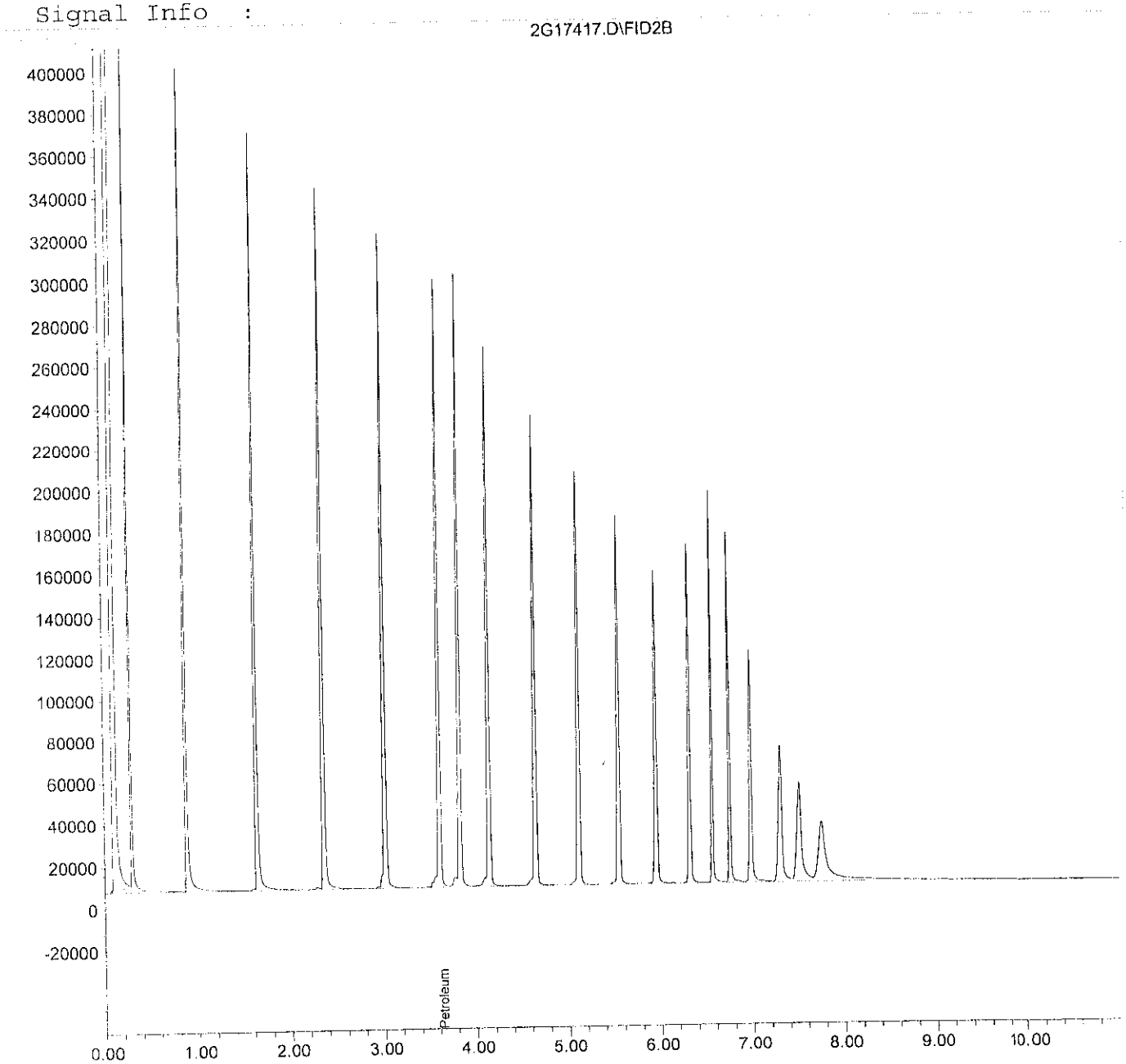
(f)=RT Delta > 1/2 Window (m)=manual int.
2G17417.D FLASHPRO.M Fri Dec 21 11:13:34 2001 Page 1

Acq On : 21 Dec 2001 2:13
Sample : WG110451-10 PRO CCV
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 21 10:11 2001 Quant Results File: FLASHPRO.RES

Operator: nv
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/13/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Fri Dec 21 14:34:21 2001

Calibration Files

5	=2G17426.D	50	=2G17425.D	100	=2G17424.D
200	=2G17421.D	400	=2G17423.D	600	=2G17422.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	1.314	1.303	1.298	1.131	1.572	1.356	1.329	E4	10
2)	s	O-Terphenyl	1.848	1.489	1.511	1.328	1.723	1.504	1.567	E4	11
3)	s	n-Nonatriacontane	0.940	0.743	0.741	0.575	1.002	0.768	0.795	E4	19.38

(#) = Out of Range

Data File : C:\HPCHEM\1\[illegible]

Acq On : 21 Dec 2001 11:52 Operator: HV
Sample : WG110458-04 PRO CCV Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 21 13:10 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/20/01
Last Update : Fri Dec 21 13:09:39 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

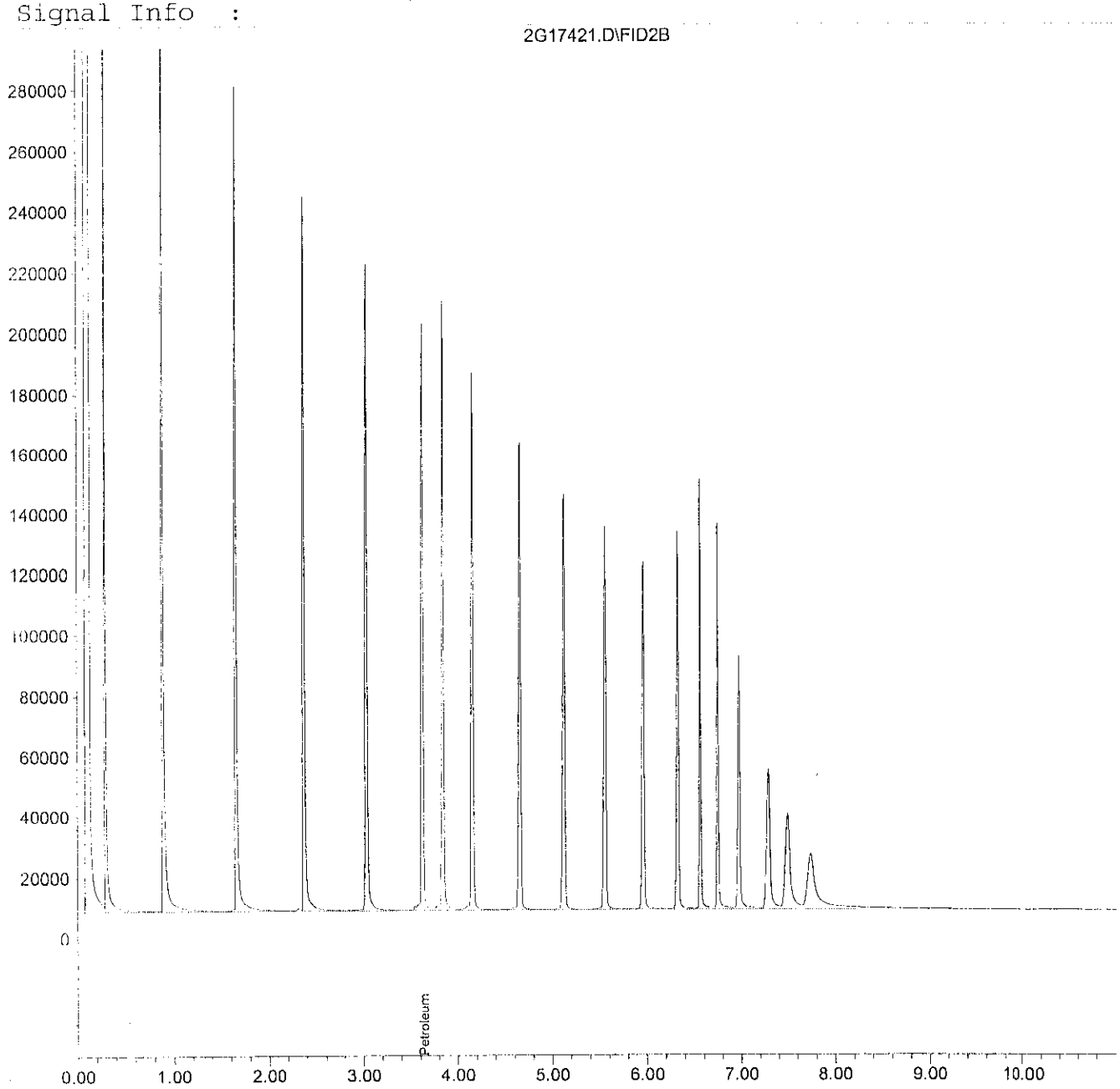
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.85	2656637	136.285 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 681.43%#
3) s n-Nonatriacontane	7.50f	1150192	143.336 ppm
Spiked Amount 20.000		Recovery	= 716.68%
Target Compounds			
1) H Petroleum Range	3.65	38456788	2507.283 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 21 Dec 2001 11:52 Operator: HV
Sample : WG110458-04 PRO CCV Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 21 13:10 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/20/01
Last Update : Fri Dec 21 13:09:39 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 21 Dec 2001 12:07 Operator: HV
Sample : WG110458-06 PRO @600ppm Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 21 13:09 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/20/01
Last Update : Fri Dec 21 13:09:39 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.88	9025334	462.996 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 2314.98%#
3) s n-Nonatriacontane	7.58	4610174	574.517 ppm
Spiked Amount 20.000		Recovery	= 2872.59%
Target Compounds			
1) H Petroleum Range	3.65	138299622	9016.777 ppb

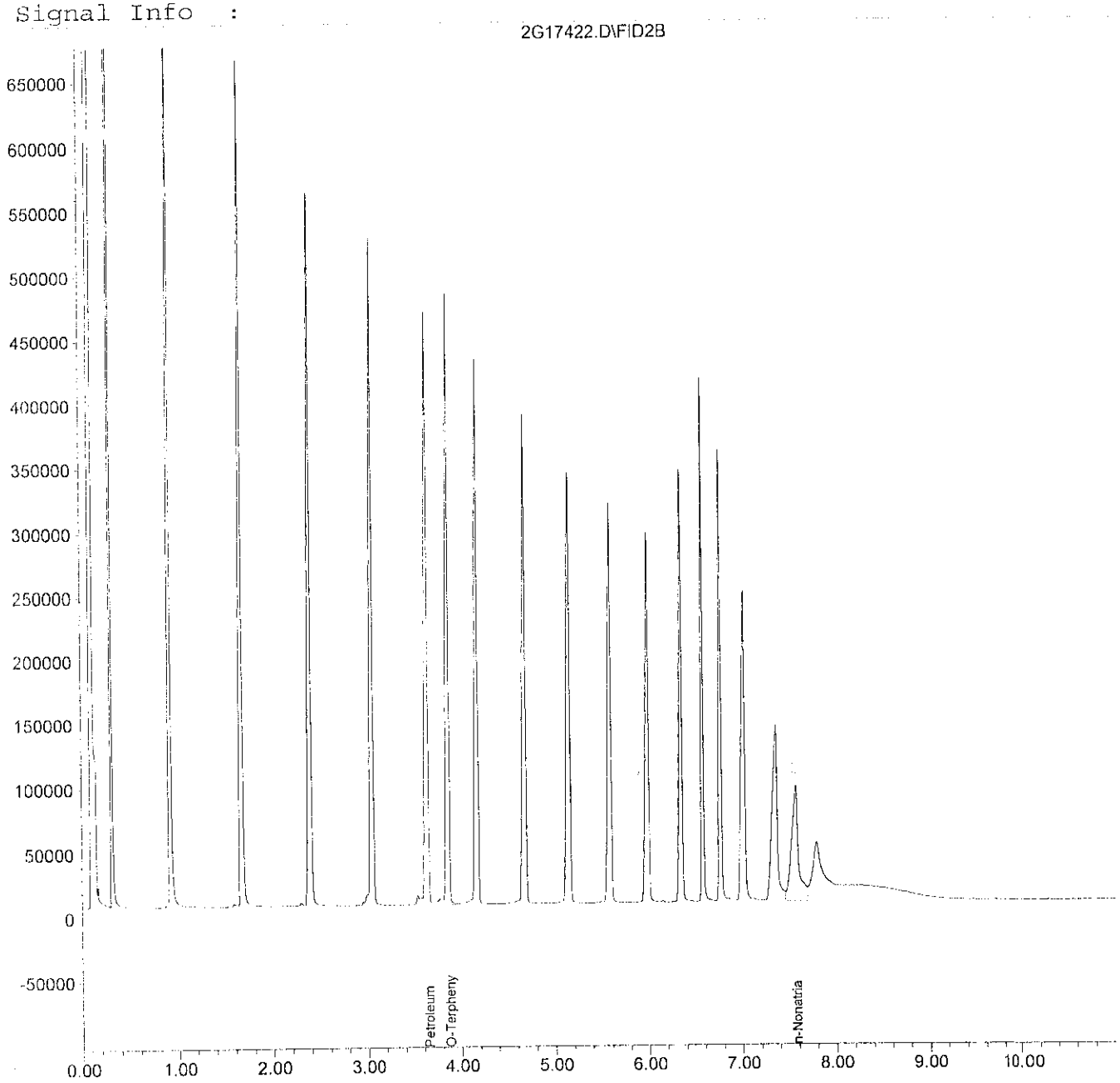
(f)=RT Delta > 1/2 Window (m)=manual int.
2G17422.D FLASHPRO.M Fri Dec 21 14:59:06 2001 Page

Acq On : 21 Dec 2001 12:07
Sample : WG110458-06 PRO @600ppm
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 21 13:09 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/20/01
Last Update : Fri Dec 21 13:09:39 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 21 Dec 2001 12:22 Operator: HV
Sample : WG110458-05 PRO @400ppm Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 21 13:11 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/20/01
Last Update : Fri Dec 21 13:09:39 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

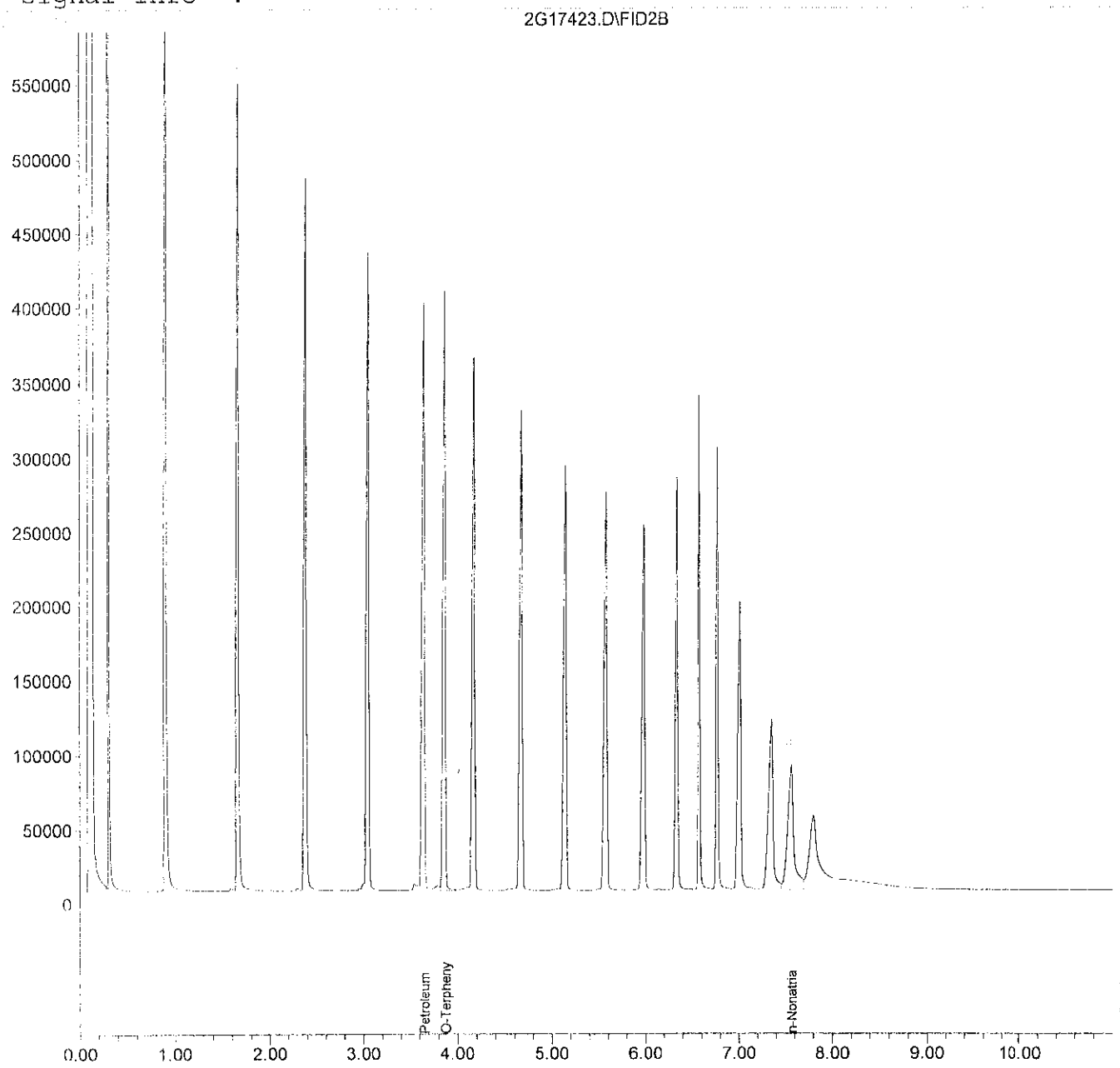
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.88	6893780	353.648 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 1768.24%#			
3) s n-Nonatriacontane	7.57	4008497	499.536 ppm
Spiked Amount 20.000 Recovery = 2497.68%			
Target Compounds			
1) H Petroleum Range	3.65	106889408	6968.912 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17423.D FLASHPRO.M Fri Dec 21 14:59:12 2001 Page 1

Acq On : 21 Dec 2001 12:22 Operator: RV
Sample : WG110458-05 PRO @400ppm Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 21 13:11 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/20/01
Last Update : Fri Dec 21 13:09:39 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 21 Dec 2001 12:37 Operator: HV
Sample : WG110458-03 PRO @100ppm Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 21 13:11 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/20/01
Last Update : Fri Dec 21 13:09:39 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.85	1511047	77.516 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	387.58%#
3) s n-Nonatriacontane	7.53	740513	92.282 ppm
Spiked Amount 20.000		Recovery =	461.41%
Target Compounds			
1) H Petroleum Range	3.65	22074251	1439.184 ppb

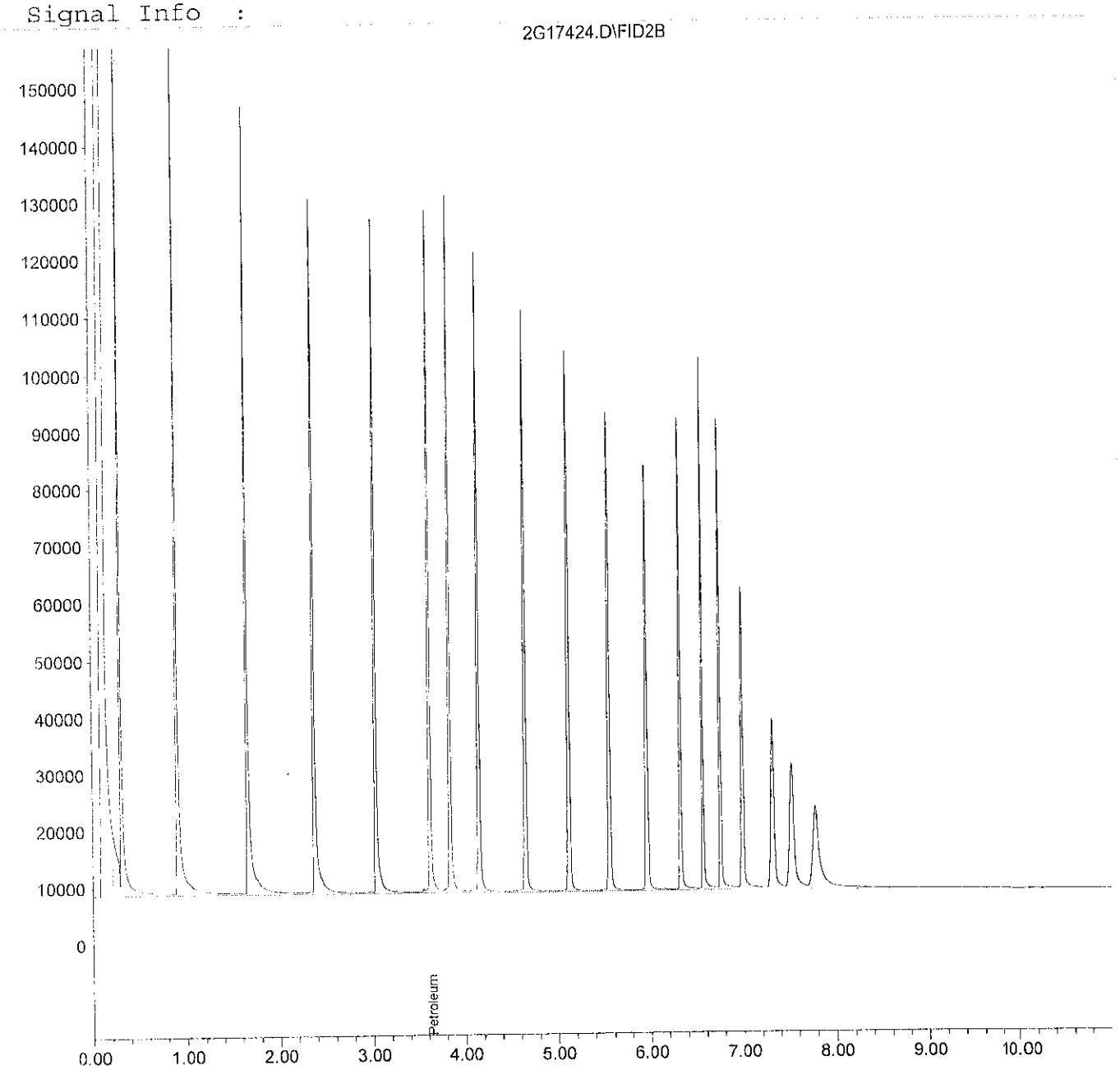
(f)=RT Delta > 1/2 Window (m)=manual int.
2G17424.D FLASHPRO.M Fri Dec 21 14:59:20 2001 Page 1

Acq On : 21 Dec 2001 12:37
Sample : WG110458-03 PRO @100ppm
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 21 13:11 2001 Quant Results File: FLASHPRO.RES

Operator: hv
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/20/01
Last Update : Fri Dec 21 13:09:39 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 21 Dec 2001 13:05 Operator: HV
Sample : WG110458-02 PRO @50ppm Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 21 13:34 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/20/01
Last Update : Fri Dec 21 13:34:04 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

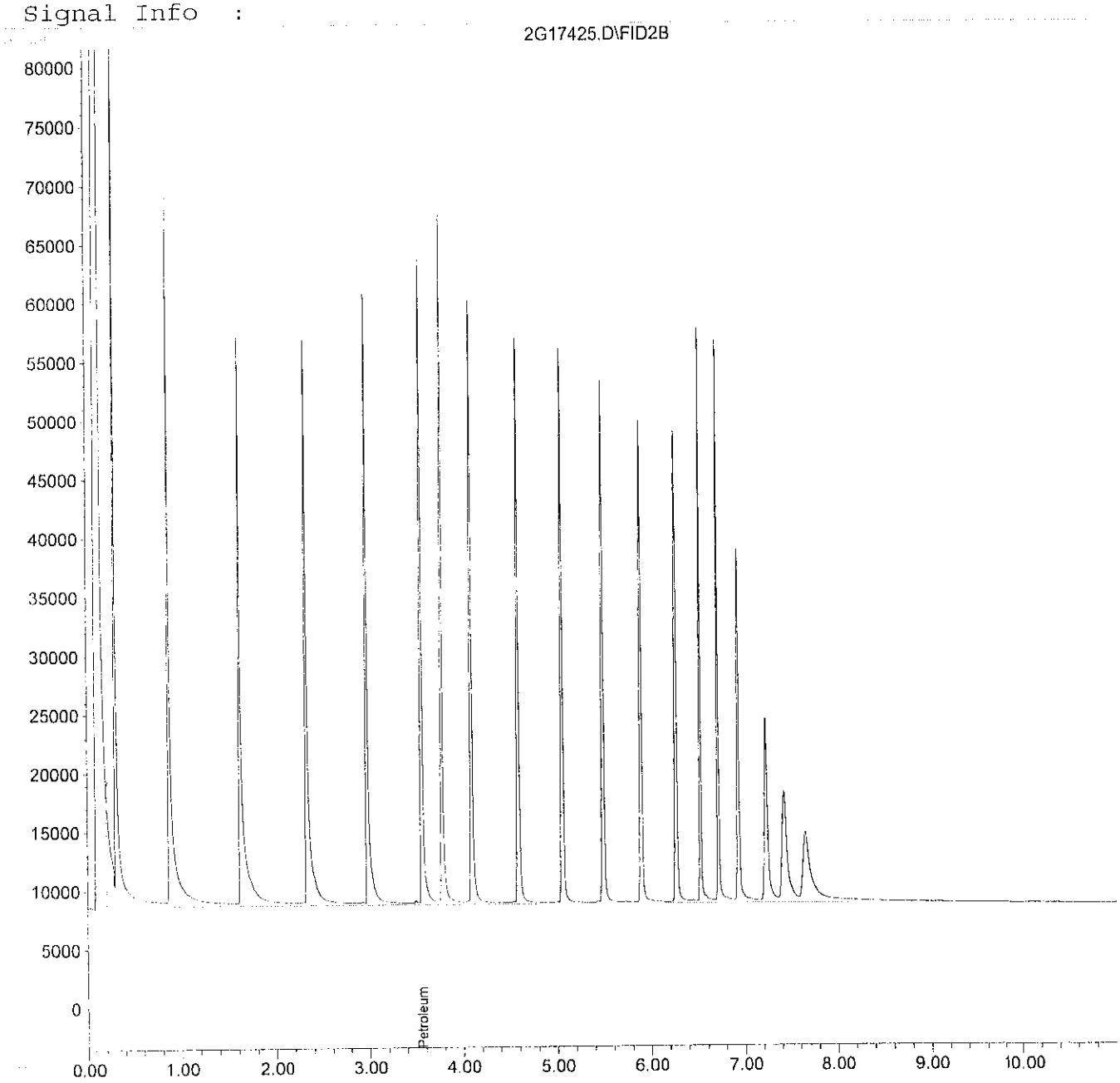
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.78	744504	38.193 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	190.97%#
3) s n-Nonatriacontane	7.43	371570	46.305 ppm
Spiked Amount 20.000		Recovery =	231.53%
Target Compounds			
1) H Petroleum Range	3.56	11077319	722.212 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17425.D FLASHPRO.M Fri Dec 21 14:59:28 2001 Page 1

Acq On : 21 Dec 2001 13:05 Operator: hv
Sample : WG110458-02 PRO @50ppm Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 21 13:34 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/20/01
Last Update : Fri Dec 21 13:34:04 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 21 Dec 2001 13:20 Operator: HV
Sample : WG110458-01 PRO @5ppm Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 21 13:34 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/20/01
Last Update : Fri Dec 21 13:34:04 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

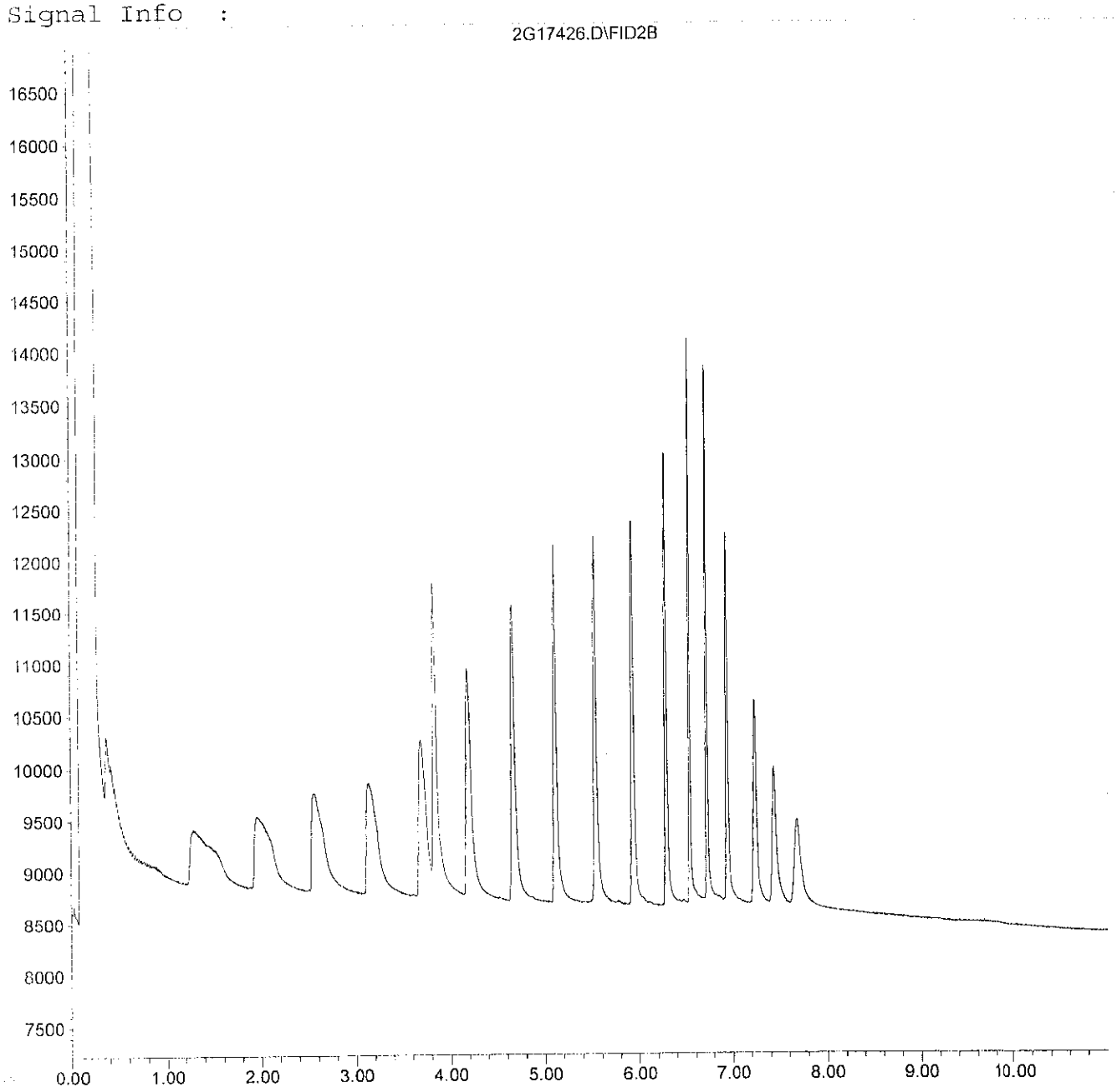
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	92404	4.740 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		23.70%#
3) s n-Nonatriacontane	7.44	47009	5.858 ppm
Spiked Amount 20.000	Recovery =		29.29%
Target Compounds			
1) H Petroleum Range	3.56	1117281	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17426.D FLASHPRO.M Fri Dec 21 14:59:36 2001 Page 1

Acq On : 21 Dec 2001 13:20 Operator: HV
Sample : WG110458-01 PRO @5ppm Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 21 13:34 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/20/01
Last Update : Fri Dec 21 13:34:04 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2G17426.D FLASHPRO.M Fri Dec 21 14:59:37 2001 Page

Acq On : 21 Dec 2001 13:39
Sample : WG110458-07 ALT @200ppm
Misc : 1,1 SOS56-26
IntFile : PETRO.E

Operator: ...
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Fri Dec 21 14:34:21 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3313.403	2.5	115	0.00
2	s	O-Terphenyl	200.000	1.144	99.4#	1	0.12
3	s	n-Nonatriacontane	200.000	0.064	100.0#	0	0.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G17427.D FLASHPRO.M Fri Dec 21 14:59:50 2001 Page

Acq On : 21 Dec 2001 13:39 Operator: hv
Sample : WG110458-07 ALT @200ppm Inst : hp2
Misc : 1,1 SOS56-26 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Fri Dec 21 14:34:21 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G17427.D FLASHPRO.M Fri Dec 21 14:59:50 2001 Page

Acq On : 21 Dec 2001 13:39 Operator: hv
Sample : WG110458-07 ALT @200ppm Inst : hp2
Misc : 1,1 SOS56-26 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 21 14:33 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Fri Dec 21 13:34:43 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.84	17935	1.144 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	5.72%#
3) s n-Nonatriacontane	7.54	510	0.064 ppm
Spiked Amount 20.000		Recovery =	0.32%
Target Compounds			
1) H Petroleum Range	3.65	44040716	3313.403 ppb

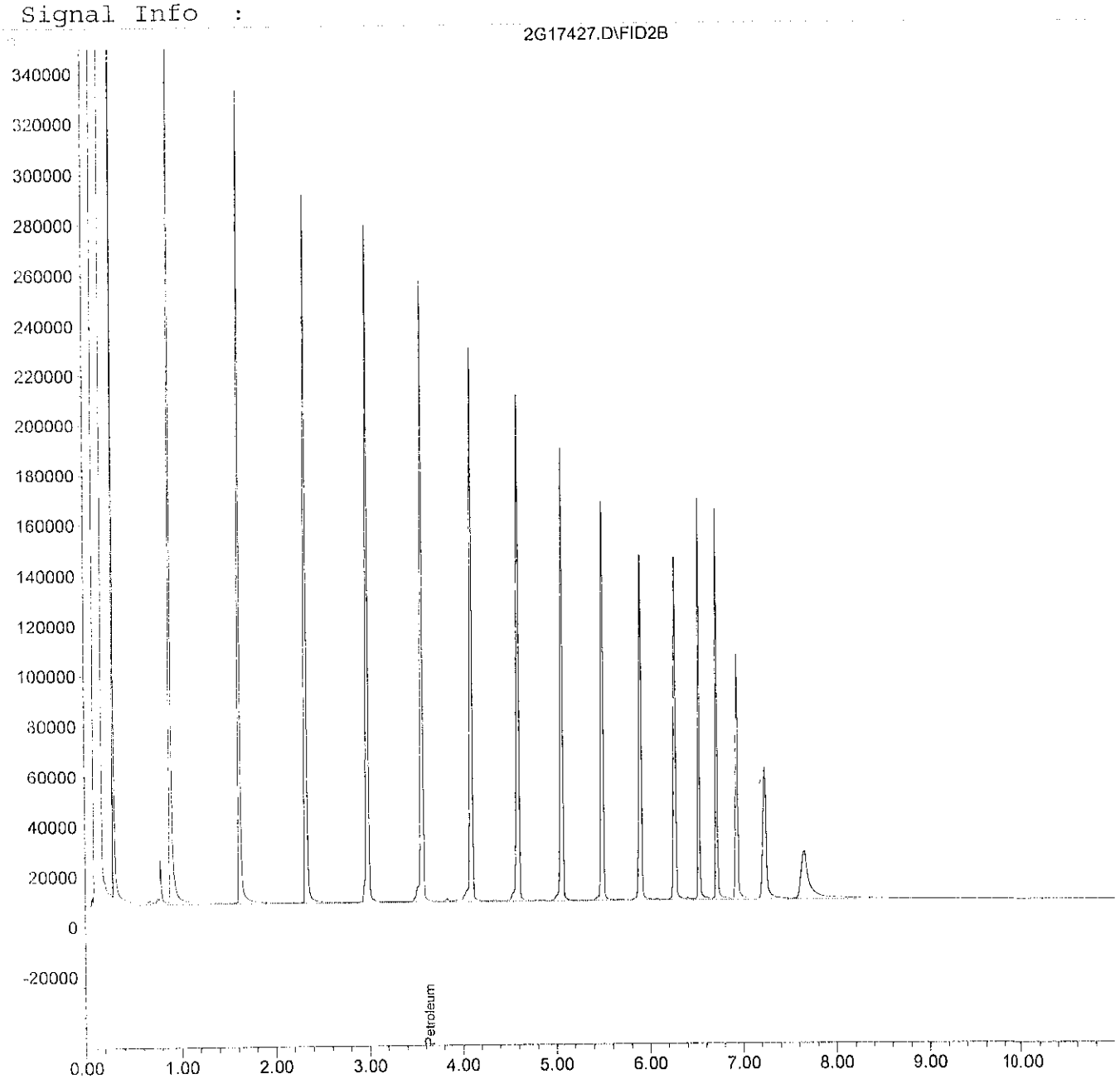
(f)=RT Delta > 1/2 Window (m)=manual int.
2G17427.D FLASHPRO.M Fri Dec 21 14:59:53 2001 Page 1

Acq On : 21 Dec 2001 13:39
Sample : WG110458-07 ALT @200ppm
Misc : 1,1 SOS56-26
IntFile : PETRO.E
Quant Time: Dec 21 14:33 2001 Quant Results File: FLASHPRO.RES

Operator: m
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Fri Dec 21 13:34:43 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 21 Dec 2001 15:57
Sample : WG110458-09 PRO CCV
Misc : 1,1 SOS56-21
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Wed Dec 26 10:04:03 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3459.925	-1.8	120	0.00
2	s	O-Terphenyl	200.000	192.648	3.7	114	0.00
3	s	n-Nonatriacontane	200.000	214.210	-7.1	148	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G17435.D FLASHPRO.M Wed Dec 26 10:04:21 2001 Page 1

Acq On : 21 Dec 2001 15:57 Operator: HV
Sample : WG110458-09 PRO CCV Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Wed Dec 26 10:04:03 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Acq On : 21 Dec 2001 15:57
Sample : WG110458-09 PRO CCV
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 26 10:04 2001 Quant Results File: FLASHPRO.RES

Operator: hv
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Wed Dec 26 10:04:03 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.76	3019473	192.648 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 963.24%#
3) s n-Nonatriacontane	7.39	1702757	214.210 ppm
Spiked Amount 20.000		Recovery	= 1071.05%
Target Compounds			
1) H Petroleum Range	3.53	45988244	3459.925 ppb

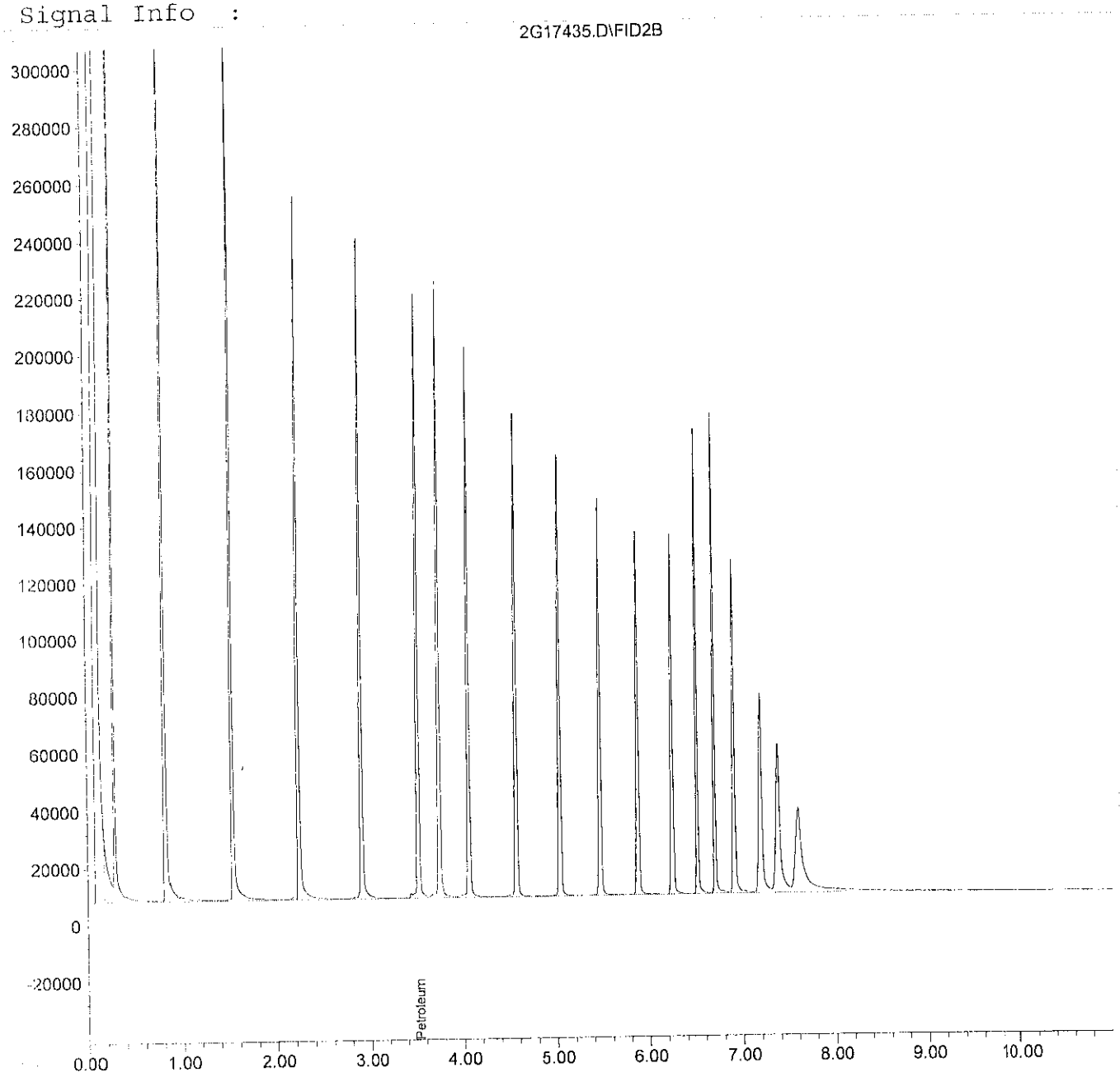
(f)=RT Delta > 1/2 Window (m)=manual int.

Acq On : 21 Dec 2001 15:57
Sample : WG110458-09 PRO CCV
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 26 10:04 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Wed Dec 26 10:04:03 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 21 Dec 2001 18:50
Sample : WG110458-10 PRO CCV
Misc : 1,1 SOS56-21
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3174.540	6.6	110	-0.12
2	s	O-Terphenyl	200.000	178.611	10.7	105	-0.02
3	s	n-Nonatriacontane	200.000	188.825	5.6	130	-0.11

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G17446.D FLASHPRO.M Wed Dec 26 10:19:34 2001 Page

Acq On : 21 Dec 2001 18:50
Sample : WG110458-10 PRO CCV
Misc : 1,1 SOS56-21
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Acq On : 21 Dec 2001 18:50 Operator: HV
Sample : WG110458-10 PRO CCV Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 26 10:05 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Wed Dec 26 10:04:03 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.78	2799467	178.611 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 893.06%#
3) s n-Nonatriacontane	7.39	1500975	188.825 ppm
Spiked Amount 20.000		Recovery	= 944.13%
Target Compounds			
1) H Petroleum Range	3.53	42194988	3174.540 ppb

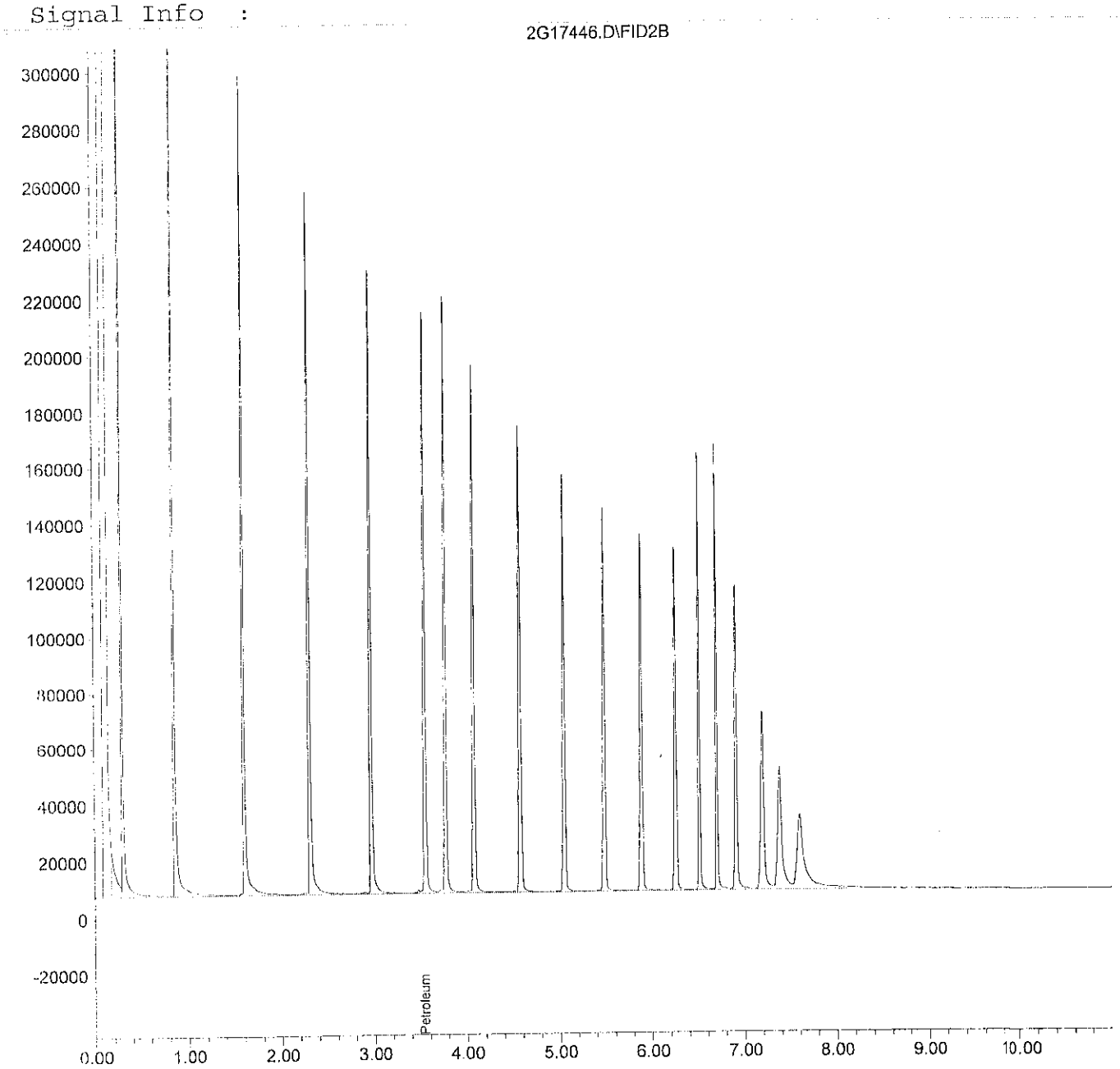
(f)=RT Delta > 1/2 Window (m)=manual int.
2G17446.D FLASHPRO.M Wed Dec 26 10:06:37 2001 Page

Acq On : 21 Dec 2001 18:50
Sample : WG110458-10 PRO CCV
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 26 10:05 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Wed Dec 26 10:04:03 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/03/02
Last Update : Thu Jan 03 14:10:05 2002

Calibration Files

5	=2G17562.D	50	=2G17561.D	100	=2G17560.D
200	=2G17559.D	400	=2G17558.D	600	=2G17557.D

		Compound	5	50	100	200	400	600	Avg	%RSD
1)	H	Petroleum Range	1.881	1.815	1.545	1.461	1.601	1.268	1.595 E4	14.22
2)	s	O-Terphenyl	2.398	2.247	1.993	1.944	1.986	1.466	2.006 E4	15.88
3)	s	n-Nonatriacontane	1.045	0.821	0.691	0.688	0.911	0.643	0.800 E4	19.54

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\010302\2G17557.D Vial: 5
Acq On : 3 Jan 2002 10:12 Operator: HV
Sample : WG110845-06 PRO @600ppm Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 3 12:05 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/03/02
Last Update : Thu Jan 03 12:04:55 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

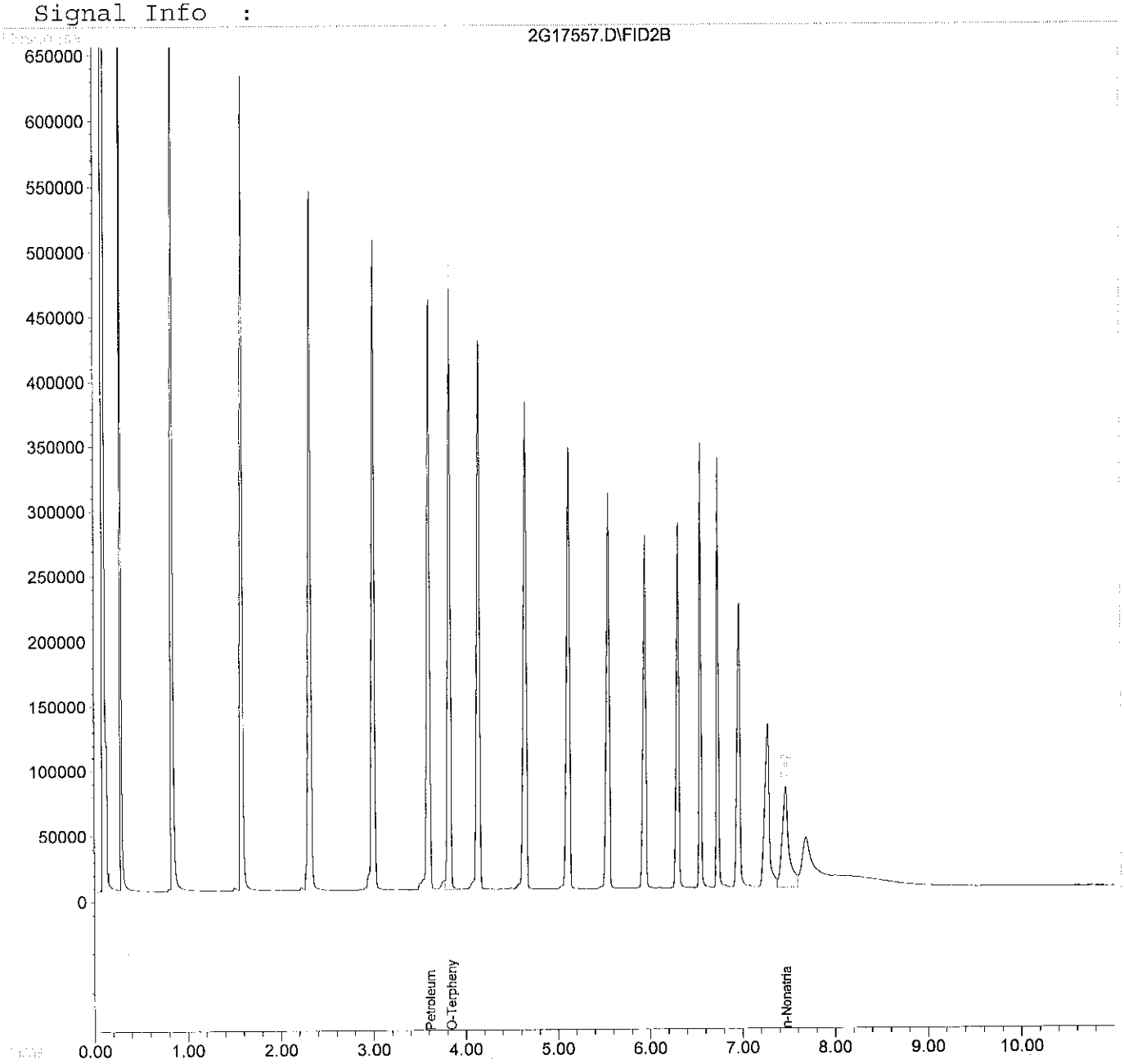
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) s O-Terphenyl	3.84	8796355	438.601	ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 2193.01%#				
3) s n-Nonatriacontane	7.47	3856753	482.170	ppm
Spiked Amount 20.000 Recovery = 2410.85%				
Target Compounds				
1) H Petroleum Range	3.61	129357136	8109.363	ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\010302\2G17557.D Vial: 5
Acq On : 3 Jan 2002 10:12 Operator: HV
Sample : WG110845-06 PRO @600ppm Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 3 12:05 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/03/02
Last Update : Thu Jan 03 12:04:55 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\010302\2G17558.D Vial: 6
Acq On : 3 Jan 2002 10:28 Operator: HV
Sample : WG110845-05 PRO @400ppm Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 3 12:06 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/03/02
Last Update : Thu Jan 03 12:04:55 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

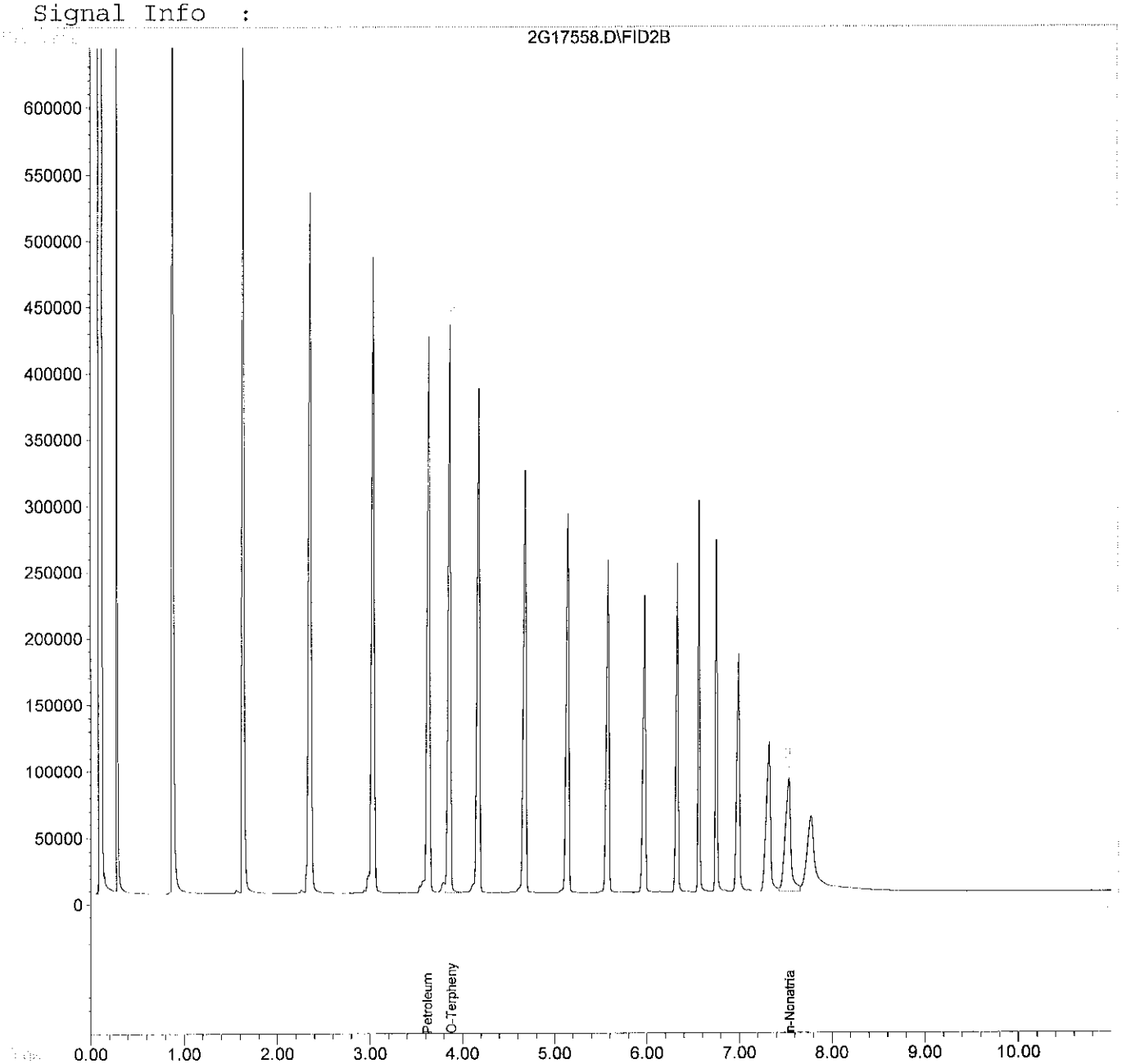
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) s O-Terphenyl	3.88	7945638	396.183	ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 1980.92%#				
3) s n-Nonatriacontane	7.54	3645701	455.784	ppm
Spiked Amount 20.000 Recovery = 2278.92%				
Target Compounds				
1) H Petroleum Range	3.61	108861672	6824.508	ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\010302\2G17558.D Vial: 6
Acq On : 3 Jan 2002 10:28 Operator: HV
Sample : WG110845-05 PRO @400ppm Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 3 12:06 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/03/02
Last Update : Thu Jan 03 12:04:55 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

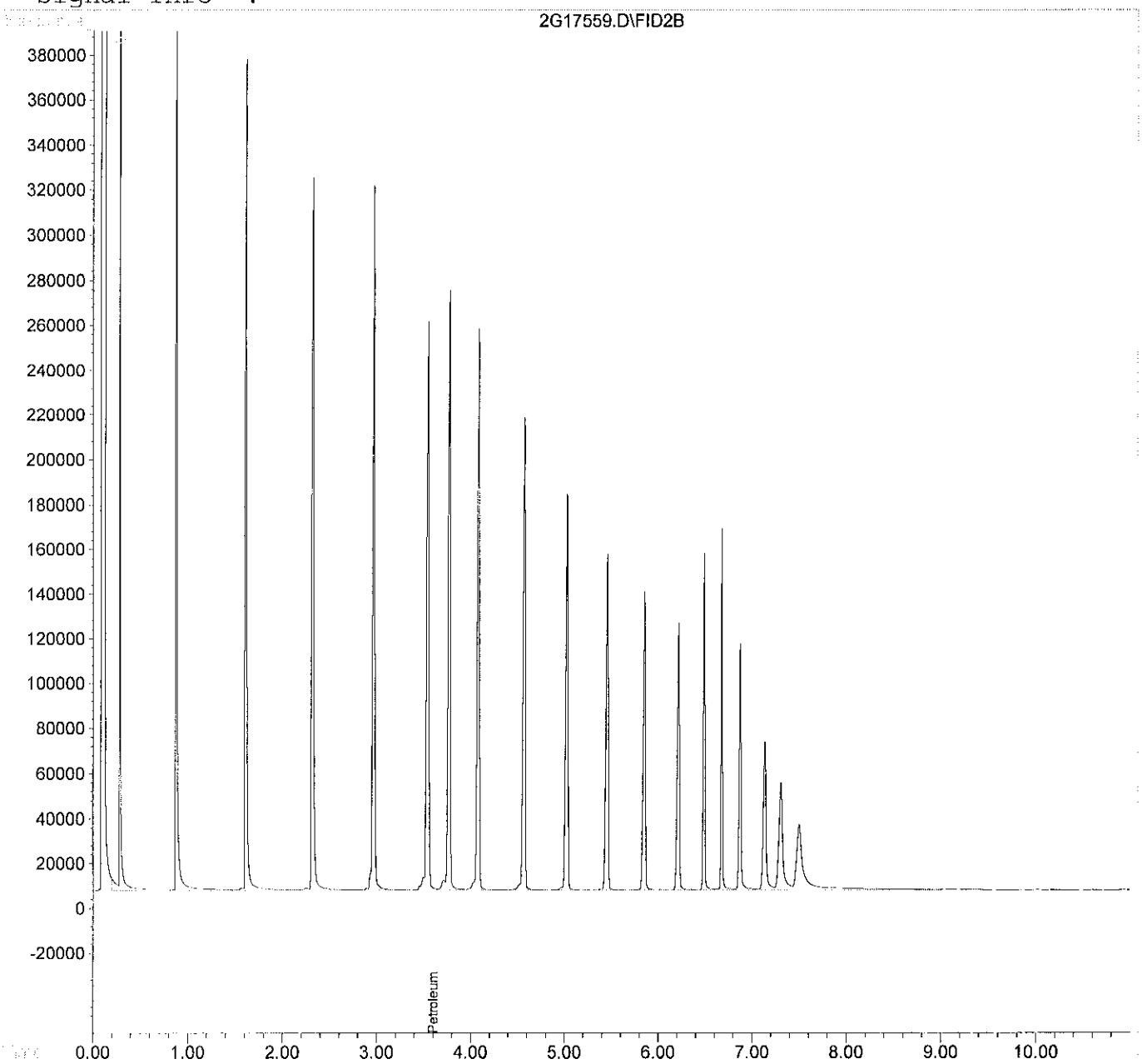


```
Data File : C:\HPCHEM\1\DATA\010302\2G17559.D            Vial: 7
Acq On    :  3 Jan 2002  10:44                       Operator: HV
Sample    : WG110845-04 PRO @200ppm                  Inst     : hp2
Misc      : 1,1  SOS56-21                            Multiplr: 1.00
IntFile   : PETRO.E
Quant Time: Jan  3 11:03 2002  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 12/21/01
Last Update  : Thu Jan 03 10:49:04 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                          R.T.       Response    Conc Units
---------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                    3.78        3887316 248.018  ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    = 1240.09%#
 3) s   n-Nonatriacontane              7.50        1375212 173.004  ppm
Spiked Amount   20.000                    Recovery      =  865.02%

  Target Compounds
 1) H   Petroleum Range                3.61       49674732 3737.278 ppb
```

Data File : C:\HPCHEM\1\DATA\010302\2G17559.D Vial: 7
Acq On : 3 Jan 2002 10:44 Operator: HV
Sample : WG110845-04 PRO @200ppm Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 3 11:03 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Thu Jan 03 10:49:04 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\010302\2G17560.D Vial: 8
Acq On : 3 Jan 2002 10:59 Operator: HV
Sample : WG110845-03 PRO @100ppm Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 3 11:26 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Thu Jan 03 11:26:03 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

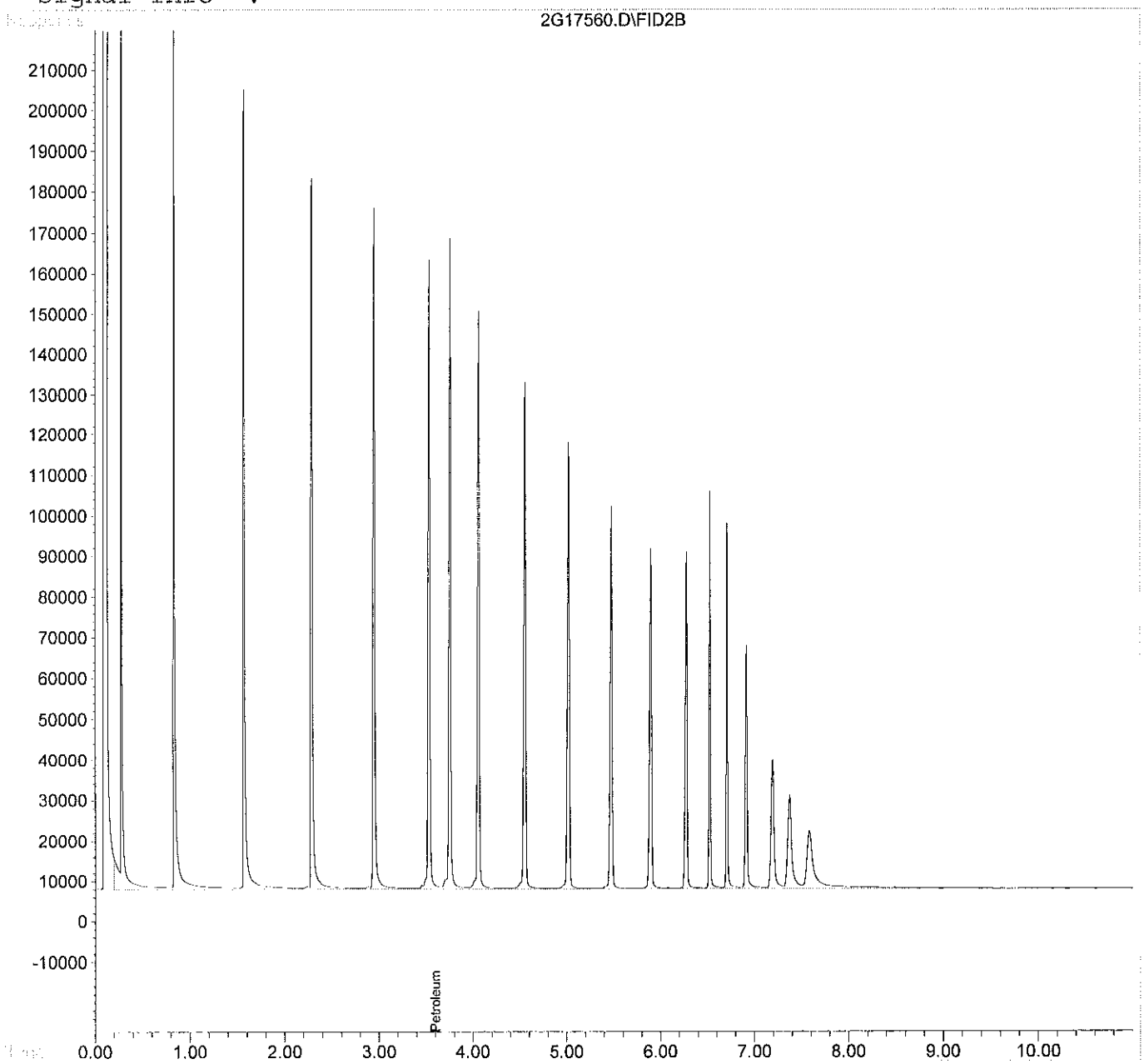
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) s O-Terphenyl	3.76	1992551	127.128	ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 635.64%#				
3) s n-Nonatriacontane	7.38	691272	86.963	ppm
Spiked Amount 20.000 Recovery = 434.81%				
Target Compounds				
1) H Petroleum Range	3.61	26263260	1975.916	ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\010302\2G17560.D Vial: 8
Acq On : 3 Jan 2002 10:59 Operator: HV
Sample : WG110845-03 PRO @100ppm Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 3 11:26 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Thu Jan 03 11:26:03 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

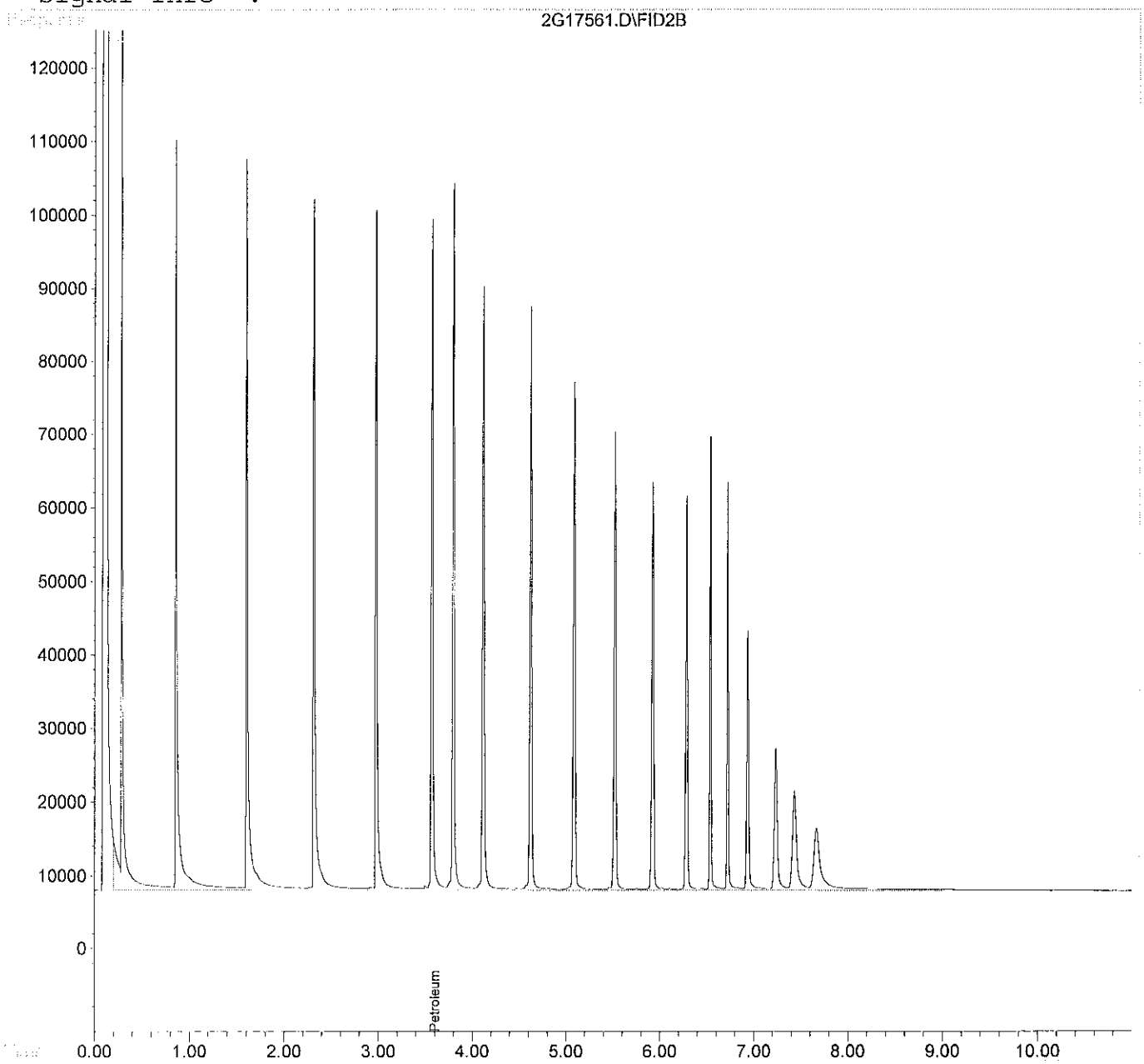


```
Data File : C:\HPCHEM\1\DATA\010302\2G17561.D            Vial: 9
Acq On    :  3 Jan 2002  11:14                       Operator: HV
Sample    : WG110845-02 PRO @50ppm                   Inst    : hp2
Misc      : 1,1  SOS56-21                            Multiplr: 1.00
IntFile   : PETRO.E
Quant Time: Jan  3 11:52 2002  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 01/03/02
Last Update  : Thu Jan 03 11:27:31 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                        R.T.       Response    Conc Units
---------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                  3.80        1123504  55.161  ppb  m
Spiked Amount     20.000   Range  49 - 174    Recovery    =  275.81%#
 3) s   n-Nonatriacontane            7.43f        410497  51.320  ppm
Spiked Amount   20.000                   Recovery      =  256.60%

  Target Compounds
 1) H   Petroleum Range              3.61       15429951  968.414 ppb
```

Data File : C:\HPCHEM\1\DATA\010302\2G17561.D Vial: 9
Acq On : 3 Jan 2002 11:14 Operator: HV
Sample : WG110845-02 PRO @50ppm Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 3 11:52 2002 Quant Results File: FLASHPRO.RES

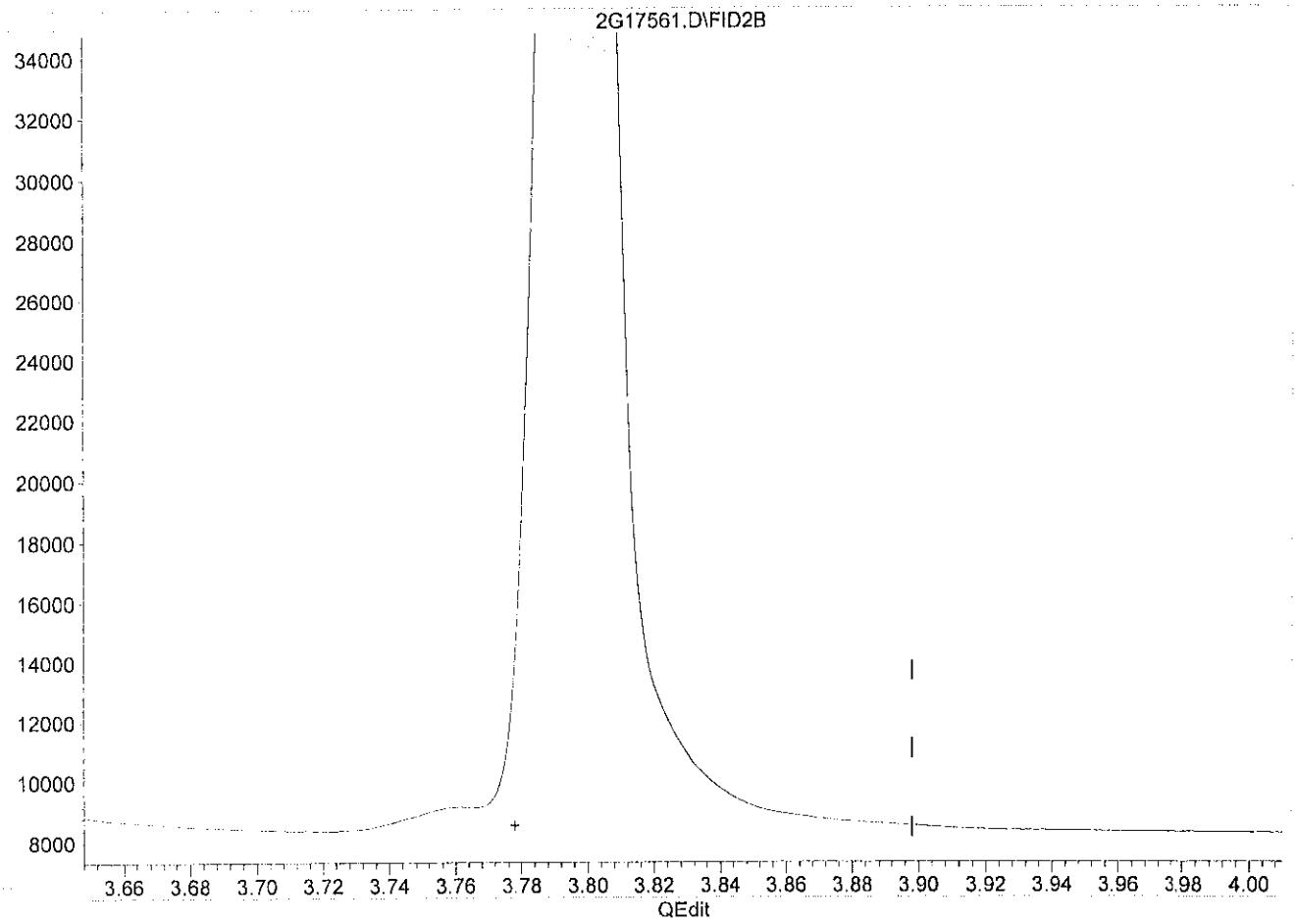
Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/03/02
Last Update : Thu Jan 03 11:27:31 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 3 Jan 2002 11:14 Operator: hv
Sample : WG110845-02 PRO @50ppm Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 3 11:52 2002 Quant Results File: FLASHPRO.RES

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/03/02
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration



(2) O-Terphenyl (s)

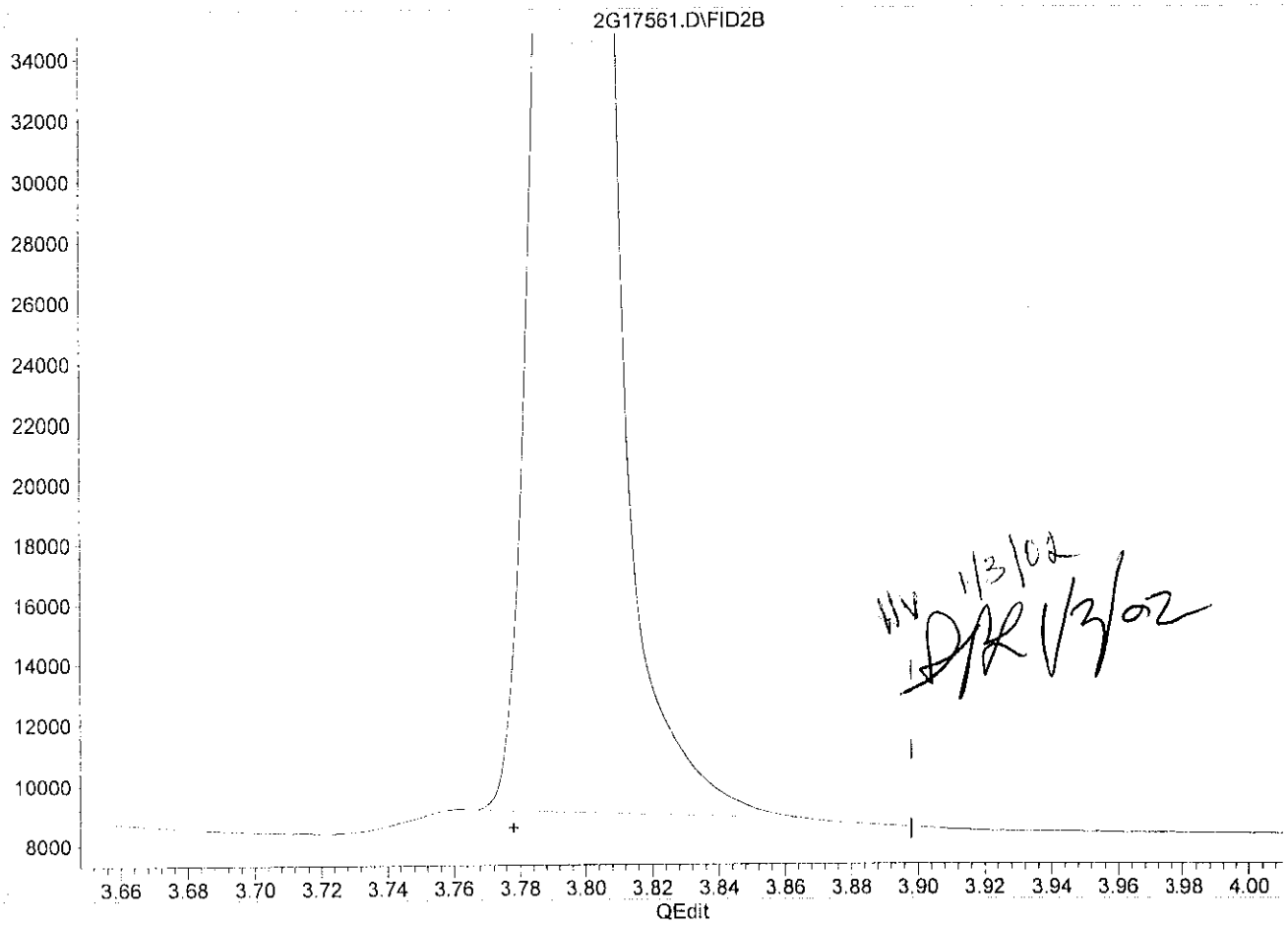
3.80min 59.203ppb

response 1205818

(+) = Expected Retention Time
2G17561.D FLASHPRO.M Thu Jan 03 11:52:45 2002

Acq On : 3 Jan 2002 11:14 Operator: HV
Sample : WG110845-02 PRO @50ppm Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 3 11:52 2002 Quant Results File: FLASHPRO.RES

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/03/02
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration



(2) O-Terphenyl (s)

3.80min 55.161ppb m

response 1123504

(+) = Expected Retention Time
2G17561.D FLASHPRO.M Thu Jan 03 11:52:53 2002

Data File : C:\HPCHEM\1\DATA\010302\2G17562.D Vial: 10
Acq On : 3 Jan 2002 11:30 Operator: HV
Sample : WG110845-01 PRO @5ppm Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 3 11:53 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Thu Jan 03 11:27:31 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

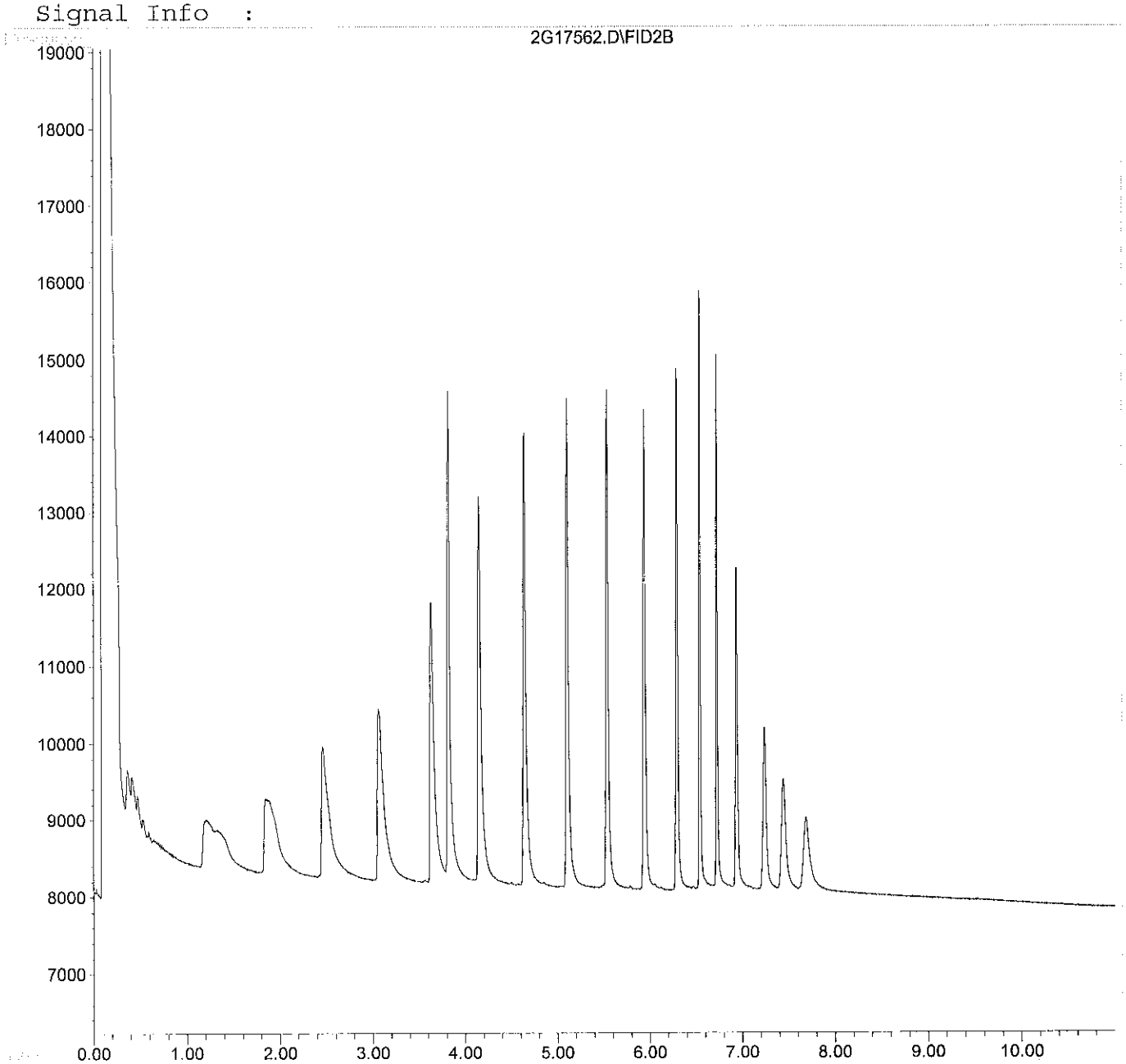
Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
2) s O-Terphenyl	3.82	119881	7.649	ppb	m
Spiked Amount 20.000 Range 49 - 174 Recovery = 38.25%#					
3) s n-Nonatriacontane	7.44	52258	6.574	ppm	
Spiked Amount 20.000 Recovery = 32.87%					
Target Compounds					
1) H Petroleum Range	3.61	1598531	<MDL	ppb	

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\010302\2G17562.D Vial: 10
Acq On : 3 Jan 2002 11:30 Operator: HV
Sample : WG110845-01 PRO @5ppm Inst : hp2
Misc : 1,1 SOS56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 3 11:53 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Thu Jan 03 11:27:31 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

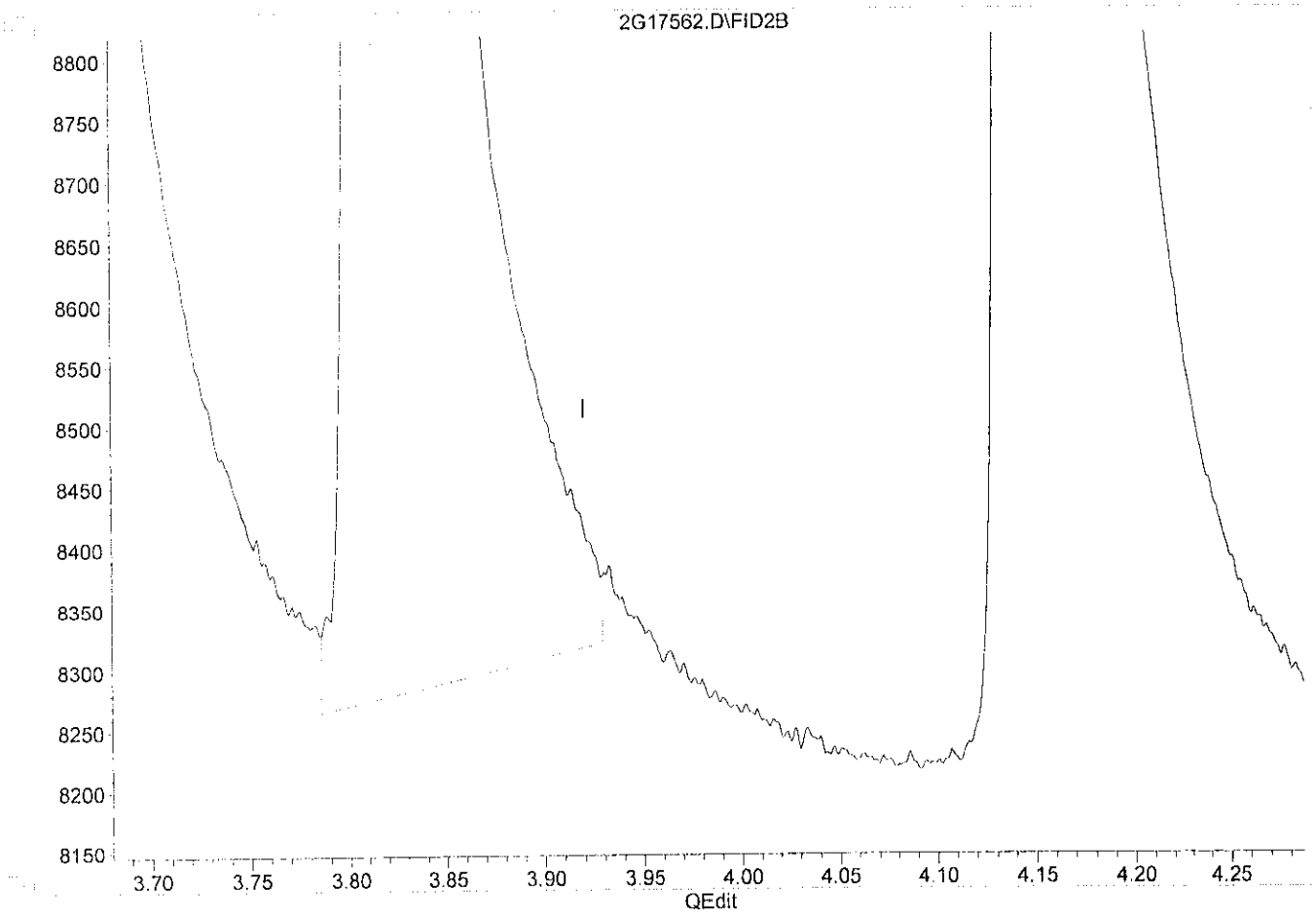
Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 3 Jan 2002 11:30
Sample : WG110845-01 PRO @5ppm
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Jan 3 11:43 2002 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/03/02
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration



(2) O-Terphenyl (s)

3.82min 7.966ppb

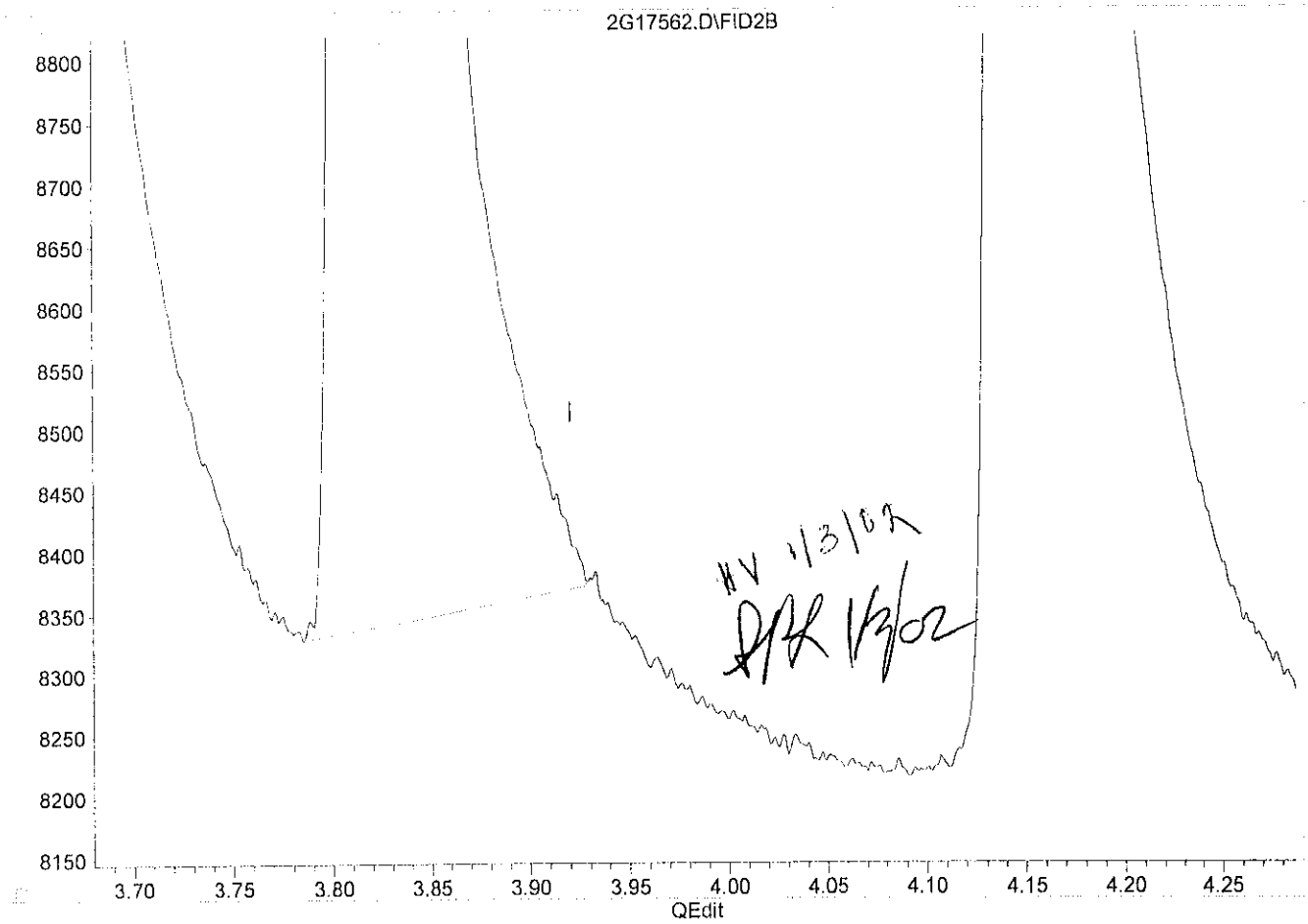
response 124853

(+) = Expected Retention Time
2G17562.D FLASHPRO.M Thu Jan 03 11:53:25 2002

Acq On : 3 Jan 2002 11:30
Sample : WG110845-01 PRO @5ppm
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Jan 3 11:43 2002 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/03/02
Last Update : Thu Dec 13 14:33:00 2001
Response via : Multiple Level Calibration



(2) O-Terphenyl (s)

3.82min 7.649ppb m

response 119881

(+) = Expected Retention Time
2G17562.D FLASHPRO.M Thu Jan 03 11:53:50 2002

Data File : C:\HPCHEM\1\DATA\010302\2G17563.D Vial: 11
Acq On : 3 Jan 2002 11:46 Operator: HV
Sample : WG110845-07 ALT @200ppm Inst : hp2
Misc : 1,1 SOS56-26 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/03/02
Last Update : Thu Jan 03 12:04:55 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3518.355	-3.5	113	0.00
2	s	O-Terphenyl	200.000	0.009	100.0#	0	-0.08
3	s	n-Nonatriacontane	200.000	0.048	100.0#	0	0.10

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G17563.D FLASHPRO.M Thu Jan 03 12:48:26 2002 Page 1

Data File : C:\HPCHEM\1\DATA\010302\2G17563.D Vial: 11
Acq On : 3 Jan 2002 11:46 Operator: HV
Sample : WG110845-07 ALT @200ppm Inst : hp2
Misc : 1,1 SOS56-26 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/03/02
Last Update : Thu Jan 03 12:04:55 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\010302\2G17563.D Vial: 11
Acq On : 3 Jan 2002 11:46 Operator: HV
Sample : WG110845-07 ALT @200ppm Inst : hp2
Misc : 1,1 SOS56-26 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 3 11:58 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/03/02
Last Update : Thu Jan 03 11:57:19 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

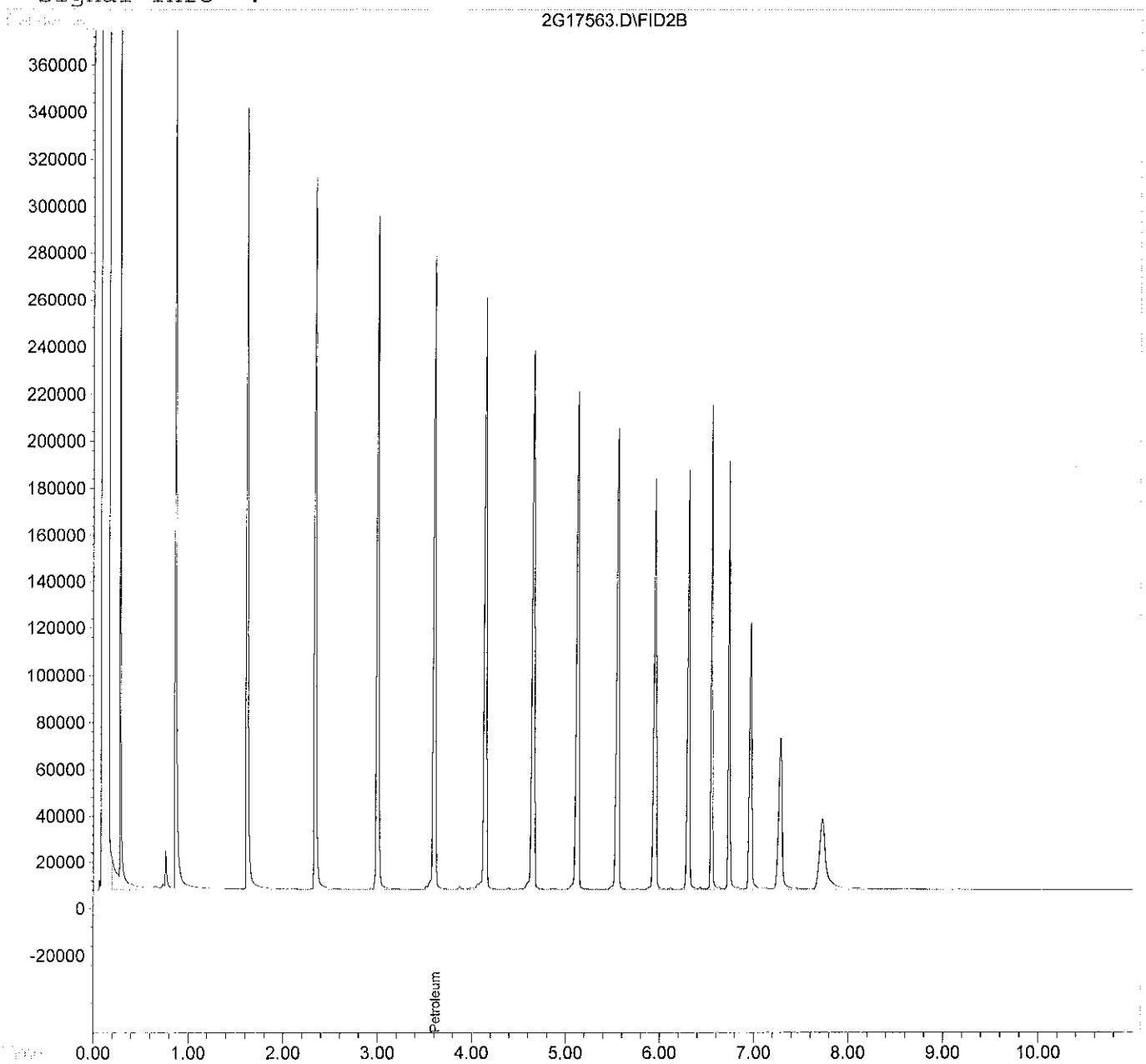
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) s O-Terphenyl	3.76	173	0.009	ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 0.05%#				
3) s n-Nonatriacontane	7.60f	381	0.048	ppm
Spiked Amount 20.000 Recovery = 0.24%				
Target Compounds				
1) H Petroleum Range	3.61	56123315	3518.355	ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\010302\2G17563.D Vial: 11
Acq On : 3 Jan 2002 11:46 Operator: HV
Sample : WG110845-07 ALT @200ppm Inst : hp2
Misc : 1,1 SOS56-26 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 3 11:58 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/03/02
Last Update : Thu Jan 03 11:57:19 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\010302\2G17569.D
Acq On : 3 Jan 2002 13:19
Sample : WG110845-08 PRO CCV
Misc : 1,1 SOS 56-21
IntFile : PETRO.E

Vial: 17
Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/03/02
Last Update : Thu Jan 03 14:10:05 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Petroleum Range	3400.000	3720.359	-9.4	119	0.00
2	s	O-Terphenyl	200.000	220.699	-10.3	114	0.05
3	s	n-Nonatriacontane	200.000	214.418	-7.2	125	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\010302\2G17569.D Vial: 17
Acq On : 3 Jan 2002 13:19 Operator: HV
Sample : WG110845-08 PRO CCV Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/03/02
Last Update : Thu Jan 03 14:10:05 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\1\DATA\010302\2G17569.D Vial: 17
Acq On : 3 Jan 2002 13:19 Operator: HV
Sample : WG110845-08 PRO CCV Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 3 14:06 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/03/02
Last Update : Thu Jan 03 14:06:52 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) s O-Terphenyl	3.80	4426218	220.699	ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 1103.50%#				
3) s n-Nonatriacontane	7.42	1715074	214.418	ppm
Spiked Amount 20.000 Recovery = 1072.09%				
Target Compounds				
1) H Petroleum Range	3.61	59345596	3720.359	ppb

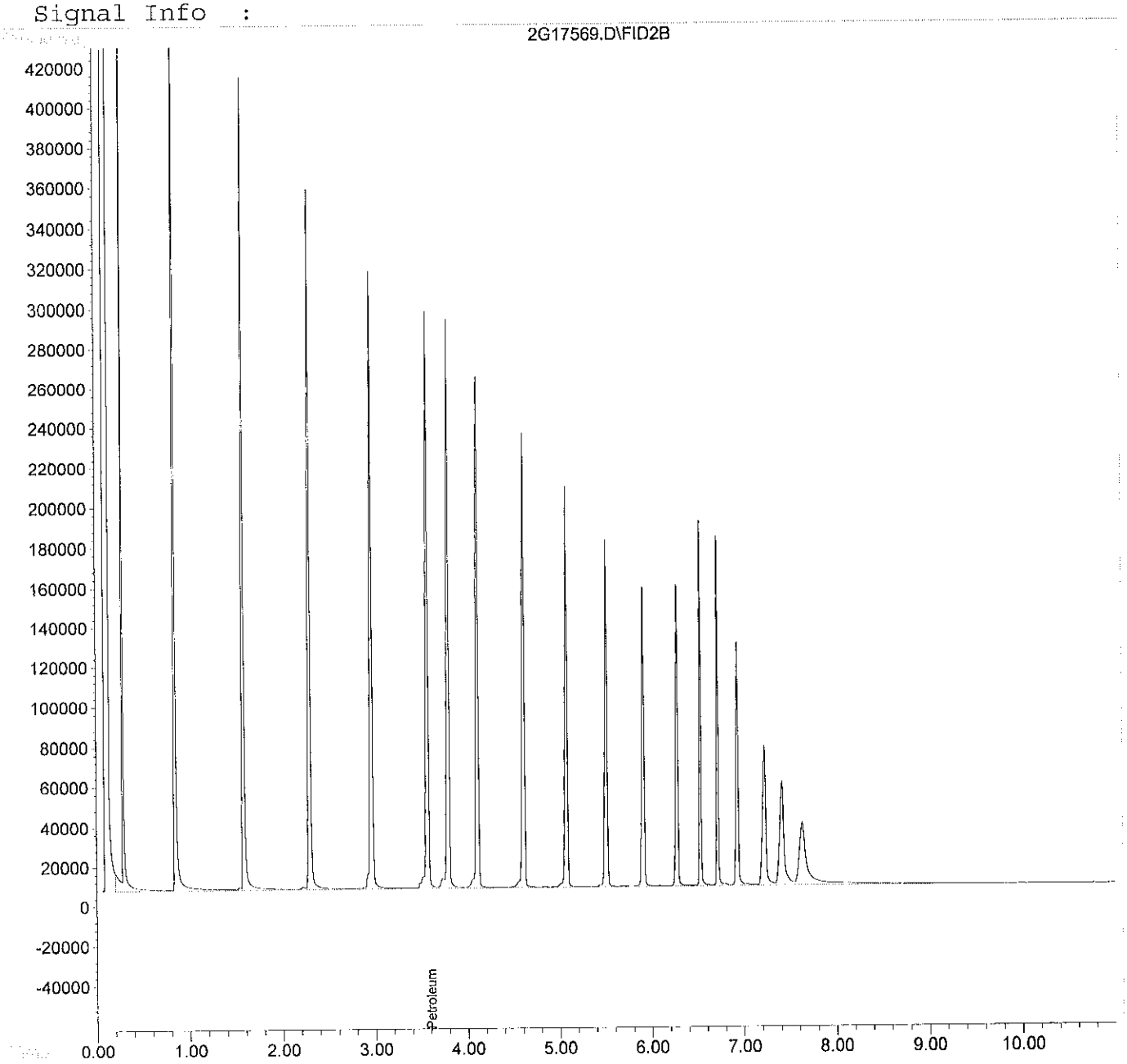
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\010302\2G17569.D
Acq On : 3 Jan 2002 13:19
Sample : WG110845-08 PRO CCV
Misc : 1,1 SOS 56-21
IntFile : PETRO.E
Quant Time: Jan 3 14:06 2002 Quant Results File: FLASHPRO.RES

Vial: 17
Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/03/02
Last Update : Thu Jan 03 14:06:52 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2.2.5.4 Raw QC Data

Data File : C:\HPCHEM\1\DATA\122101\2G17436.D

Acq On : 21 Dec 2001 16:13 Operator: HV
Sample : WG110302-02 PRO water BLK Inst : hp2
Misc : 1,1 v177-p189 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 26 10:07 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Wed Dec 26 10:04:03 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) s O-Terphenyl	3.74	231676	14.781 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	73.91%
3) s n-Nonatriacontane	7.45f	24016	3.021 ppm
Spiked Amount 20.000		Recovery =	15.11%
Target Compounds			
1) H Petroleum Range	3.53	748941	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

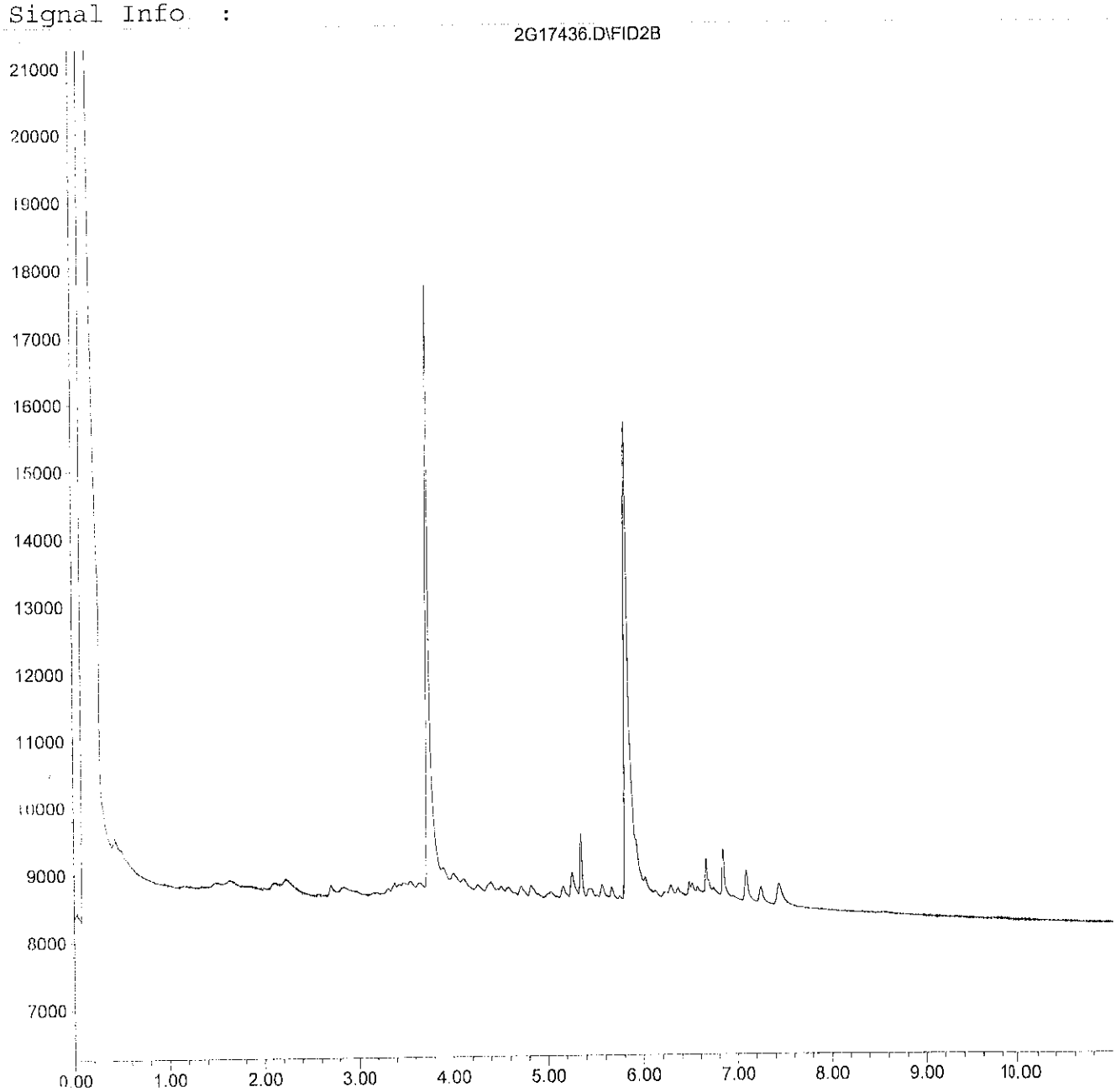
Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 21 Dec 2001 16:13
Sample : WG110302-02 PRO water BLK
Misc : 1,1 v177-p189
IntFile : PETRO.E
Quant Time: Dec 26 10:07 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Wed Dec 26 10:04:03 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\122101\2G17437.D Vial: 10
Acq On : 21 Dec 2001 16:29 Operator: HV
Sample : WG110302-03 PRO water LCS Inst : hp2
Misc : 1,1 v177-p189 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 26 10:08 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Wed Dec 26 10:04:03 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.75	353387	22.547 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	112.74%
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.53	41021817	3086.276 ppb

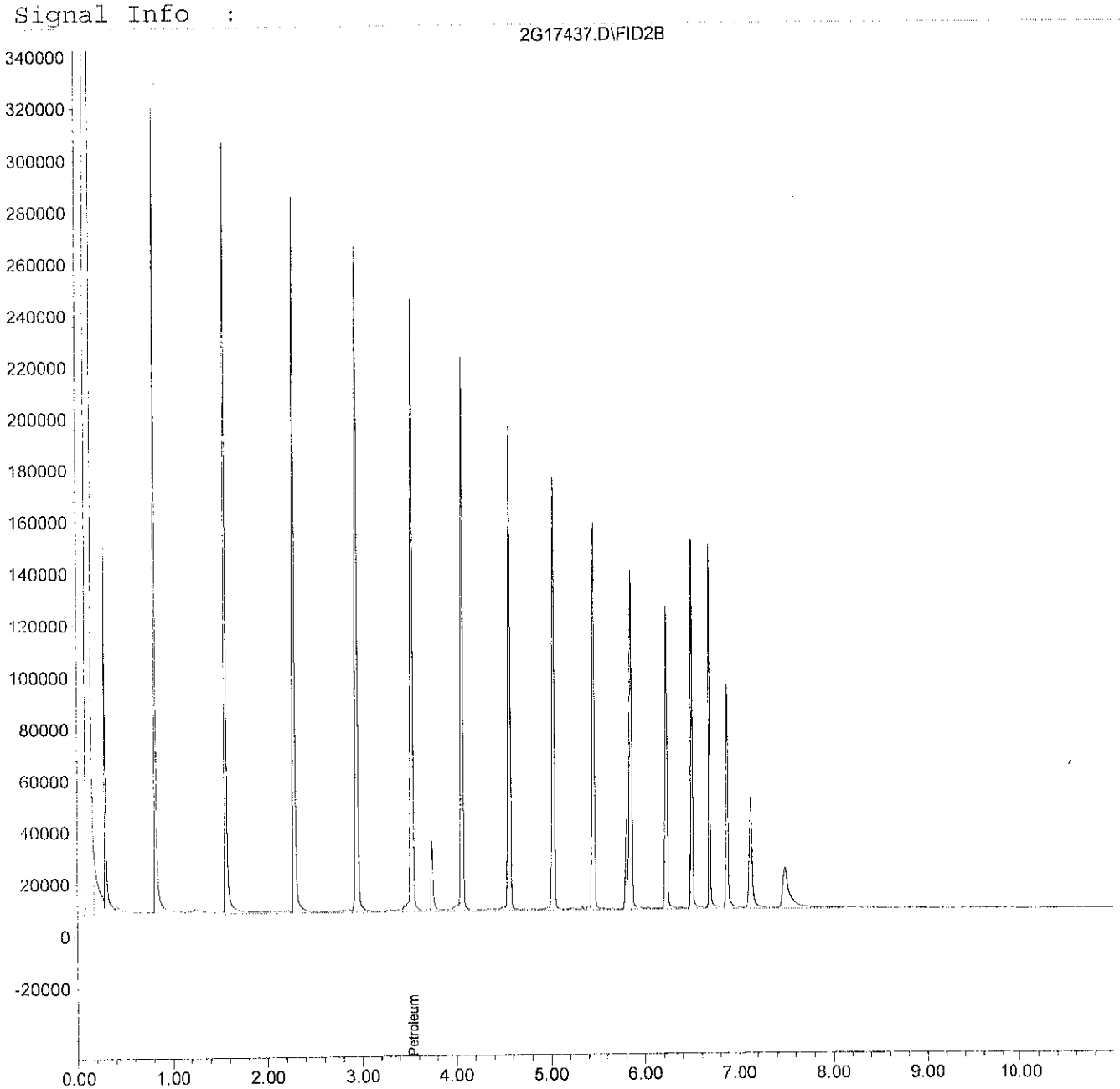
(f)=RT Delta > 1/2 Window (m)=manual int.
2G17437.D FLASHPRO.M Wed Dec 26 10:08:20 2001 Page 1

Data File : C:\HPCHEM\1\DATA\[illegible]
Acq On : 21 Dec 2001 16:29
Sample : WG110302-03 PRO water LCS
Misc : 1,1 v177-p189
IntFile : PETRO.E
Quant Time: Dec 26 10:08 2001 Quant Results File: FLASHPRO.RES

Operator: HV
Inst : hp2
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 12/21/01
Last Update : Wed Dec 26 10:04:03 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\010302\2G17564.D Vial: 12
Acq On : 3 Jan 2002 12:02 Operator: HV
Sample : WG110731-01 PRO water BLK Inst : hp2
Misc : 1,1 V178-P77 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 3 14:08 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/03/02
Last Update : Thu Jan 03 14:07:46 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

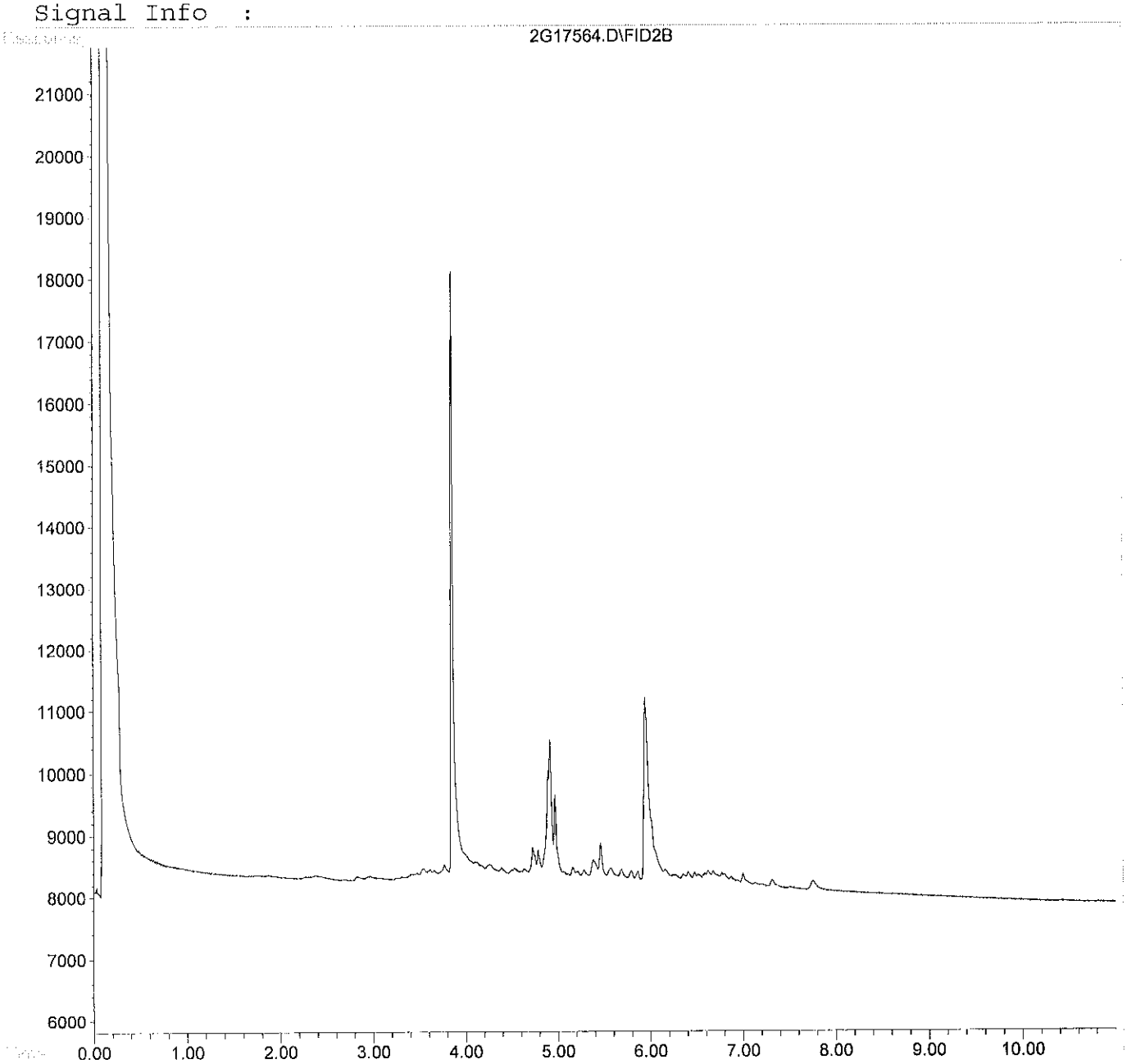
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) s O-Terphenyl	3.85	236448	11.790	ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 58.95%				
3) s n-Nonatriacontane	7.43	302	0.038	ppm
Spiked Amount 20.000 Recovery = 0.19%				
Target Compounds				
1) H Petroleum Range	3.61	732382	<MDL	ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\010302\2G17564.D Vial: 12
Acq On : 3 Jan 2002 12:02 Operator: HV
Sample : WG110731-01 PRO water BLK Inst : hp2
Misc : 1,1 V178-P77 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 3 14:08 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/03/02
Last Update : Thu Jan 03 14:07:46 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

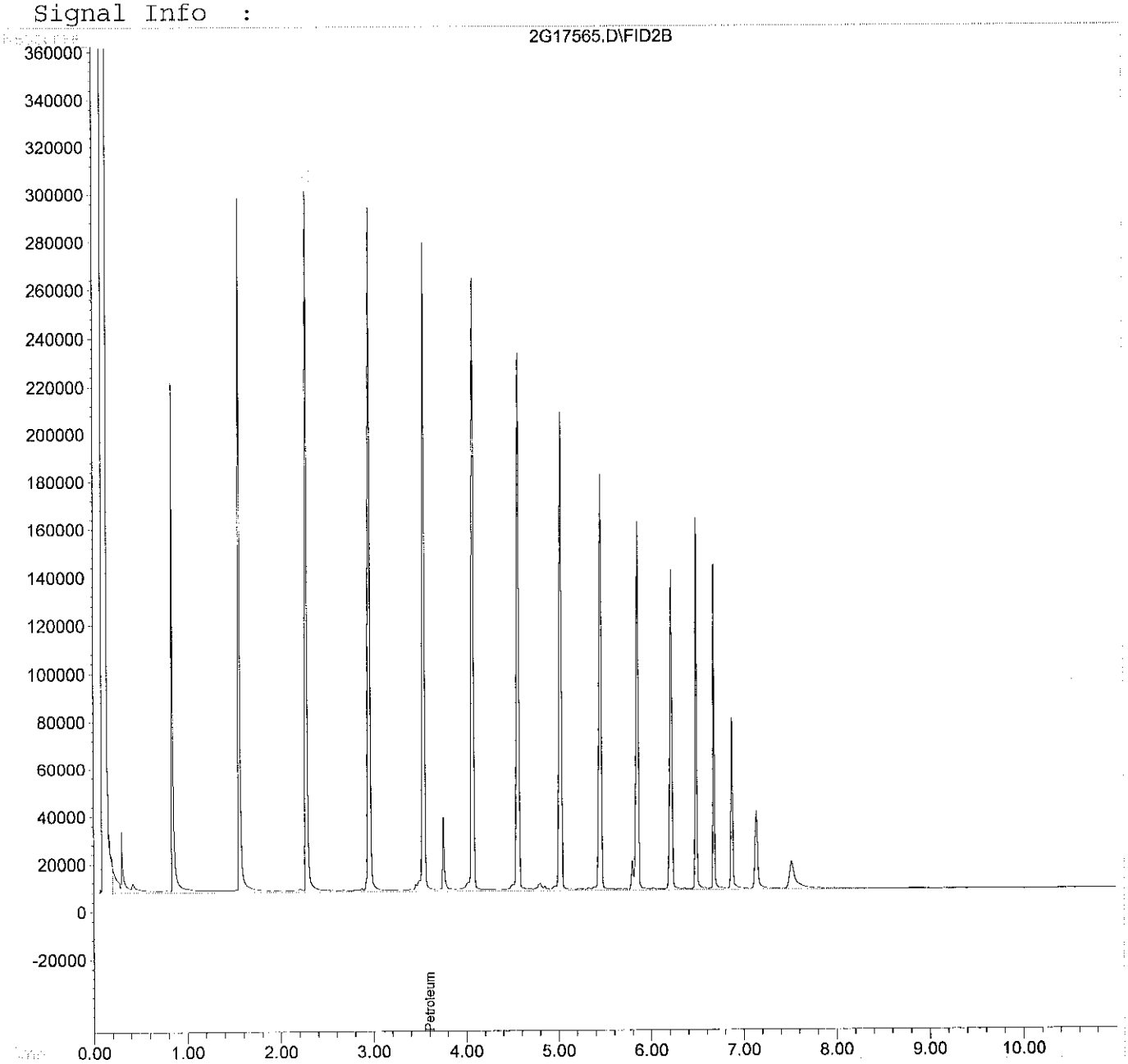


```
Data File : C:\HPCHEM\1\DATA\010302\2G17565.D            Vial: 13
Acq On    :  3 Jan 2002  12:18                        Operator: HV
Sample    : WG110731-02 PRO water LCS                 Inst    : hp2
Misc      : 1,1  V178-P77                             Multiplr: 1.00
IntFile   : PETRO.E
Quant Time: Jan  3 14:08 2002  Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title        : PETROLEUM RANGE ORGANICS 01/03/02
Last Update  : Thu Jan 03 14:08:41 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj.  :
Signal Phase :
Signal Info  :

     Compound                        R.T.       Response    Conc Units
---------------------------------------------------------------------------

  System Monitoring Compounds
 2) s   O-Terphenyl                  3.76         395000  19.695  ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    =   98.47%
 3) s   n-Nonatriacontane            7.41             96   0.012  ppm
Spiked Amount   20.000                   Recovery      =    0.06%

  Target Compounds
 1) H   Petroleum Range              3.61       42378656 2656.706 ppb
```

Data File : C:\HPCHEM\1\DATA\010302\2G17565.D Vial: 13
Acq On : 3 Jan 2002 12:18 Operator: HV
Sample : WG110731-02 PRO water LCS Inst : hp2
Misc : 1,1 V178-P77 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 3 14:08 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/03/02
Last Update : Thu Jan 03 14:08:41 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\010302\2G17566.D Vial: 14
Acq On : 3 Jan 2002 12:33 Operator: HV
Sample : WG110731-03 PRO water LCS2 Inst : hp2
Misc : 1,1 V178-P77 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 3 14:09 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/03/02
Last Update : Thu Jan 03 14:09:31 2002
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

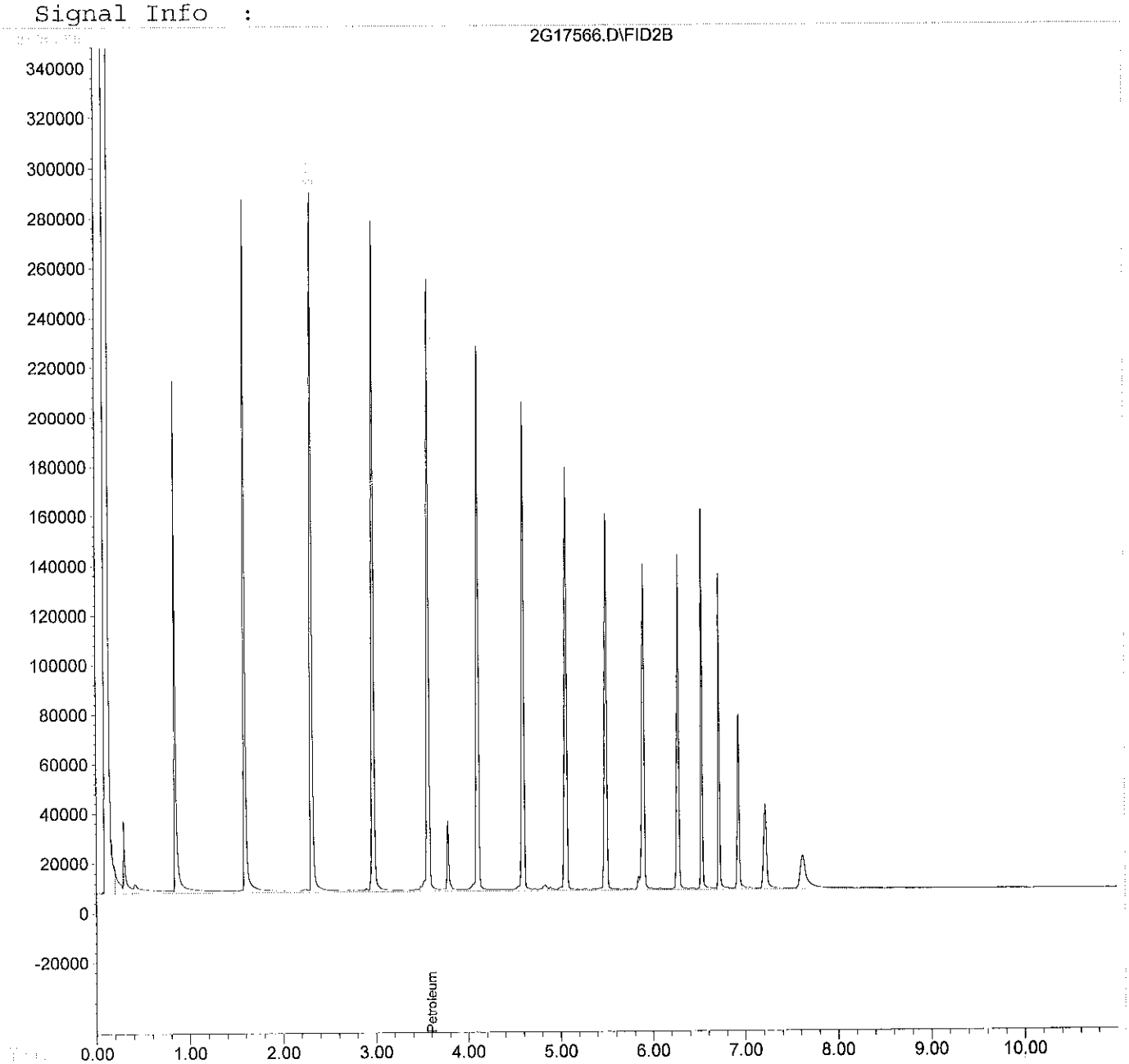
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) s O-Terphenyl	3.78	382163	19.055	ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 95.28%				
3) s n-Nonatriacontane	7.36f	8009	1.001	ppm
Spiked Amount 20.000 Recovery = 5.01%				
Target Compounds				
1) H Petroleum Range	3.61	38380349	2406.054	ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\010302\2G17566.D Vial: 14
Acq On : 3 Jan 2002 12:33 Operator: HV
Sample : WG110731-03 PRO water LCS2 Inst : hp2
Misc : 1,1 V178-P77 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Jan 3 14:09 2002 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 01/03/02
Last Update : Thu Jan 03 14:09:31 2002
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g17215.d	1.	MECL2	1,1	13 Dec 101 13::1
2	2	2g17216.d	1.	WIN DEF STD	1,1 10x NS14-41	13 Dec 101 13::2
3	3	2g17217.d	1.	CC PRO CONT CHK	1,1 10x NS14-41	13 Dec 101 13::1
4	1	2g17218.d	1.	mecl2	1,1 10x NS14-41	13 Dec 101 13::3
5	4	2g17219.d	1.	wg109976-06 PRO @600ppm	1,1 sos56-21	13 Dec 101 13::5
6	5	2g17220.d	1.	wg109976-05 PRO @400ppm	1,1 sos56-21	13 Dec 101 13::0
7	6	2g17221.d	1.	wg109976-04 PRO @200ppm	1,1 sos56-21	13 Dec 101 13::2
8	7	2g17222.d	1.	wg109976-03 PRO @100ppm	1,1 sos56-21	13 Dec 101 13::3
9	8	2g17223.d	1.	wg109976-02 PRO @50ppm	1,1 sos56-21	13 Dec 101 12::0
10	9	2g17224.d	1.	wg109976-01 PRO @5ppm	1,1 sos56-21	13 Dec 101 12::1
11	10	2g17225.d	1.	wg109976-07 ALT @200ppm	1,1 sos56-26	13 Dec 101 12::3
12	11	2g17226.d	1.	wg109976-07 ALT @200ppm	1,1 sos56-26	13 Dec 101 12::4
13	12	2g17227.d	40.	RR L0112202-01 PRO soil - D 10X	7,1 soil	13 Dec 101 12::1
14	13	2g17228.d	40.	WG109778-01 PRO soil BLK	7,1 soil	13 Dec 101 12::3
15	14	2g17229.d	40.	WG109778-02 PRO soil LCS	7,1 soil	13 Dec 101 12::4
16	15	2g17230.d	40.	WG109778-03 PRO soil LCS2	7,1 soil	13 Dec 101 12::0
17	16	2g17231.d	400.	L0112202-01 10x PRO soil	7,1 soil	13 Dec 101 12::1
18	17	2g17232.d	1.	WG109976-08 PRO CCV	1,1 SOS56-21	13 Dec 101 12::3
19	18	2g17233.d	1.	EXT LAB PRO SPK	1,1 SOS56-21	13 Dec 101 12::4
20	18	2g17234.d	1.	EXT LAB PRO SPK	1,1 SOS56-21	13 Dec 101 12::0

HV 12/14/01

TRC 12/14/01

KEMRON ENVIRONMENTAL SERVICES

Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time Dec. 13 01 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 12 13 01
Analyst Initials HV

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # ___ PRO ✓
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____

SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS01 Rev. # ___ 8100 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
- ☐ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ☑ Change liner
- ☑ Change septum
- ☐ Clip column (___cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases _____

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

29 17 227 - RR at dilution.

Reviewed By: RHC 12/14/01

Work Group Report (wk02)

13-DEC-01 03:34 PM

Work Group: WG109976 **Created:** 13-DEC-01

Department: 9 Semivolatile - GC **Operator:** HV **Due:**

Sample	Account Name	C	Product	Mat#	Matrix	Status	UA	Workdate	PR	Location
WG109976-01	STD	S	8015QC	1	Water	DONE	U	13-DEC-01		
WG109976-02	STD	S	8015QC	1	Water	DONE	U	13-DEC-01		
WG109976-03	STD	S	8015QC	1	Water	DONE	U	13-DEC-01		
WG109976-04	STD	S	8015QC	1	Water	DONE	U	13-DEC-01		
WG109976-05	STD	S	8015QC	1	Water	DONE	U	13-DEC-01		
WG109976-06	STD	S	8015QC	1	Water	DONE	U	13-DEC-01		
WG109976-07	SSCV	S	8015QC	1	Water	DONE	U	13-DEC-01		
WG109976-08	CCV	S	8015QC	1	Water	DONE	U	13-DEC-01		
WG109976-09	CCV	S	8015QC	1	Water	DONE	U	13-DEC-01		

Comments

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	1	2g17354.d	1.	MECL2	1,1	20 Dec 101 12::0
2	2	2g17355.d	1.	WIN DEF STD	1,1	20 Dec 101 12::2
3	3	2g17356.d	1.	DRO CONT CHK	1,1	20 Dec 101 12::3
4	4	2g17357.d	10.	L0112289-05 10X	1,10 water	20 Dec 101 [illegible]
5	5	2g17358.d	10.	DRO CONT CHK	1,10 water	20 Dec 101 [illegible]
6	6	2g17359.d	40.	WG110256-02 DRO soil BLK	7,1 V177-P175	20 Dec 101 [illegible]
7	7	2g17360.d	40.	WG110256-03 DRO soil LCS	7,1 soil V177-P175	20 Dec 101 [illegible]
8	8	2g17361.d	400.	WG110256-01 10x REF DRO soil	7,1 L0112308-07 Ref	20 Dec 101 [illegible]
9	9	2g17362.d	400.	WG110256-04 MS 10x DRO soil	7,1 L0112308-07 MS	20 Dec 101 [illegible]
10	10	2g17363.d	40.	WG110256-01 DRO soil	7,1 L0112308-07 Ref	20 Dec 101 [illegible]
11	11	2g17364.d	40.	WG110256-04 MS DRO soil	7,1 soil L0112308-07 MS	20 Dec 101 [illegible]
12	12	2g17365.d	40.	WG110256-05 MSD DRO soil	7,1 soil L0112308-07 MSD	20 Dec 101 [illegible]
13	13	2g17366.d	40.	MECL2	7,1 L0112308-07 MSD	20 Dec 101 [illegible]
14	14	2g17367.d	1.	DRO CONT CHK	1,1	20 Dec 101 13::0
15	1	2g17368.d	1.	MECL2	1,1	20 Dec 101 12::2
16	2	2g17369.d	1.	WIN DEF STD	1,1 10X NS14-41	20 Dec 101 [illegible]
17	3	2g17370.d	1.	PRO CONT CHK	1,1 SOS56-21	20 Dec 101 [illegible]
18	4	2g17371.d	1.	PRO CONT CHK	1,1 SOS56-21	20 Dec 101 [illegible]
19	5	2g17372.d	1.	WG110451-06 PRO @600ppm	1,1 SOS56-21	20 Dec 101 [illegible]
20	6	2g17373.d	1.	WG110451-05 PRO @400ppm	1,1 SOS56-21	20 Dec 101 [illegible]
21	7	2g17374.d	1.	WG110451-04 PRO @200ppm	1,1 SOS56-21	20 Dec 101 12::0
22	8	2g17375.d	1.	WG110451-03 PRO @100ppm	1,1 SOS56-21	20 Dec 101 12::1
23	9	2g17376.d	1.	WG110451-02 PRO @50ppm	1,1 SOS56-21	20 Dec 101 12::3
24	10	2g17377.d	1.	WG110451-01 PRO @5ppm	1,1 SOS56-21	20 Dec 101 12::4
25	11	2g17378.d	1.	WG110451-07 ALT PRO @200ppm	1,1 SOS56-26	20 Dec 101 12::1
26	12	2g17379.d	1.	WG110258-02 PRO water	1,1 v177-p181	20 Dec 101 12::2
27	13	2g17380.d	1.	WG110258-03 PRO water LCS	1,1 v177-p181	20 Dec 101 [illegible]
28	14	2g17381.d	1.1	L0112348-01 PRO water	1,1 v177-p181	20 Dec 101 [illegible]
29	15	2g17382.d	1.06	L0112348-02 PRO water	1,1 v177-p181	20 Dec 101 [illegible]
30	16	2g17383.d	1.07	L0112348-03 PRO water	1,1 v177-p181	20 Dec 101 [illegible]
31	17	2g17384.d	1.06	WG110258-01 Ref PRO water	1,1 L0112348-04 REF	20 Dec 101 [illegible]
32	18	2g17385.d	1.05	WG110258-04 MS PRO water	1,1 L0112348-05 MS	20 Dec 101 [illegible]
33	19	2g17386.d	1.06	WG110258-05 MSD PRO water	1,1 L0112348-06 MSD	20 Dec 101 [illegible]
34	20	2g17387.d	1.	mecl2	1,1	20 Dec 101 [illegible]
35	1	2g17388.d	1.	WG110451-08 PRO CCV	1,1 SOS56-21	20 Dec 101 [illegible]
36	22	2g17389.d	1.06	L0112348-07 PRO water	1,1 water	20 Dec 101 12::0
37	23	2g17390.d	1.05	L0112348-08 PRO water	1,1 water	20 Dec 101 12::1
38	24	2g17391.d	1.	L0112348-09 PRO water	1,1 water	20 Dec 101 12::3
39	25	2g17392.d	1.07	L0112349-01 PRO water	1,1 water	20 Dec 101 [illegible]
40	26	2g17393.d	1.08	L0112349-02 PRO water	1,1 water	20 Dec 101 [illegible]
41	20	2g17394.d	1.	mecl2	1,1 water	20 Dec 101 [illegible]
42	1	2g17395.d	1.	WG110451-09 PRO CCV	1,1 SOS56-21	20 Dec 101 12::3
43	27	2g17396.d	1.	WG110302-02 PRO water BLK	1,1 V177-P189	20 Dec 101 12::5
44	28	2g17397.d	1.	WG110302-03 PRO water LCS	1,1 V177-P189	20 Dec 101 12::0
45	29	2g17398.d	1.04	L0112366-01 PRO water	1,1 water	20 Dec 101 12::2
46	30	2g17399.d	1.08	L0112366-02 PRO water	1,1 water	20 Dec 101 12::3
47	31	2g17400.d	1.08	L0112366-03 PRO water	1,1 water	20 Dec 101 12::5
48	32	2g17401.d	1.	WG110302-01 REF PRO water	1,1 L0112366-04 REF	20 Dec 101 13::0
49	33	2g17402.d	1.	WG110302-04 MS PRO water	1,1 L0112366-05 MS	20 Dec 101 [illegible]
50	34	2g17403.d	1.	WG110302-05 MSD PRO water	1,1 L0112366-06 MSD	20 Dec 101 [illegible]
51	35	2g17404.d	1.1	L0112366-07 PRO water	1,1 water	20 Dec 101 [illegible]
52	2	2g17405.d	1.1	mecl2	1,1 water	20 Dec 101 [illegible]
53	3	2g17406.d	1.	WG110451-10 PRO CCV	1,1 SOS56-21	20 Dec 101 [illegible]
54	36	2g17407.d	1.08	L0112366-08 PRO water	1,1 water	20 Dec 101 [illegible]
55	37	2g17408.d	1.07	L0112366-09 PRO water	1,1 water	20 Dec 101 [illegible]

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
56	38	2g17409.d	1.1	L0112366-10 PRO water	1,1 water	21 Dec 101 13::1
57	39	2g17410.d	1.05	L0112366-11 PRO water	1,1 water	21 Dec 101 13::2
58	40	2g17411.d	1.	L0112366-12 PRO water	1,1 water	21 Dec 101 13::4
59	41	2g17412.d	1.08	L0112366-13 PRO water	1,1 water	21 Dec 101 [illegible]
60	42	2g17413.d	1.08	L0112366-14 PRO water	1,1 water	21 Dec 101 [illegible]
61	43	2g17414.d	1.07	L0112366-15 PRO water	1,1 water	21 Dec 101 [illegible]
62	44	2g17415.d	1.08	L0112366-16 PRO water	1,1 water	21 Dec 101 12::4
63	2	2g17416.d	1.	mecl2	1,1 water	21 Dec 101 12::5
64	3	2g17417.d	1.	WG110451-10 PRO CCV	1,1 SOS56-21	21 Dec 101 12::1

HV 12/21/01
MC 12/21/01

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time Dec. 2001 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 152001
Analyst Initials HV

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # ___ PRO ____
SOP # GCS02 Rev. # ___ 8015B Modl (Alcohol) ____

SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS01 Rev. # ___ 8100 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
- ☐ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ☐ Change liner
- ☑ Change septum
- ☐ Clip column (___cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases _____

Returned To Control?
Yes ___ No ___

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Sg 17395 - PNO CCV - failed high

Reviewed By: mdc 12/21/01

Line	Vial	FileName	Multiplier		SampleName	Misc Info	Injected
1	[illegible]	2g17418.d	1.		mecl2	1,1 water	21 Dec 101 13::4
2	[illegible]	2g17419.d	1.		WIN DEF STD	1,1 NS14-41	21 Dec 101 13::1
3	3	2g17420.d	1.		WG110458-04 PRO CCV	1,1 SOS56-21	21 Dec 101 13::3
4	4	2g17421.d	1.		WG110458-04 PRO CCV	1,1 SOS56-21	21 Dec 101 13::5
5	5	2g17422.d	1.		WG110458-06 PRO @600ppm	1,1 SOS56-21	21 Dec 101 13::0
6	6	2g17423.d	1.		WG110458-05 PRO @400ppm	1,1 SOS56-21	21 Dec 101 [illegible]
7	7	2g17424.d	1.		WG110458-03 PRO @100ppm	1,1 SOS56-21	21 Dec 101 [illegible]
8	8	2g17425.d	1.		WG110458-02 PRO @50ppm	1,1 SOS56-21	21 Dec 1[illegible]
9	9	2g17426.d	1.		WG110458-01 PRO @5ppm	1,1 SOS56-21	21 Dec [illegible]
10	10	2g17427.d	1.		WG110458-07 ALT @200ppm	1,1 SOS56-26	21 Dec 1[illegible]
11	1	2g17428.d	1.06		L0112348-07 PRO water	1,1 water	21 Dec 101 [illegible]
12	2	2g17429.d	1.05		L0112348-08 PRO water	1,1 water	21 Dec 101 [illegible]
13	3	2g17430.d	1.		L0112348-09 PRO water	1,1 water	21 Dec 101 [illegible]
14	4	2g17431.d	1.08		L0112349-02 PRO water	1,1 water	21 Dec 101 [illegible]
15	5	2g17432.d	10.7		L0112349-01 10x PRO water	1,1 water	21 Dec 101 [illegible]
16	6	2g17433.d	1.	✓	WG110458-08 PRO CCV	1,1 SOS56-21	21 Dec 101 [illegible]
17	7	2g17434.d	1.		mecl2	1,1 SOS56-21	21 Dec 101 12::4
18	8	2g17435.d	1.	✓	WG110458-09 PRO CCV	1,1 SOS56-21	21 Dec 101 12::5
19	9	2g17436.d	1.		WG110302-02 PRO water BLK	1,1 v177-p189	21 Dec 101 [illegible]
20	10	2g17437.d	1.		WG110302-03 PRO water LCS	1,1 v177-p189	21 Dec [illegible]
21	11	2g17438.d	1.04		L0112366-01 PRO water	1,1 water	21 Dec [illegible]
22	12	2g17439.d	1.08		L0112366-02 PRO water	1,1 water	21 Dec 101 [illegible]
23	13	2g17440.d	1.08		L0112366-03 PRO water	1,1 water	21 Dec 101 12::1
24	14	2g17441.d	1.		WG110302-01 REF	1,1 L0112366-04 REF	21 Dec 101 12::3
25	15	2g17442.d	1.04		WG110302-04 MS	1,1 L0112366-05 MS	21 Dec 101 12::4
26	16	2g17443.d	1.05		WG110302-05 MSD	1,1 L0112366-06 MSD	21 Dec 101 12::0
27	17	2g17444.d	1.1	RE	L0112366-07 PRO water	1,1 water	21 Dec 101 12::1
28	18	2g17445.d	1.		mecl2	1,1 water	21 Dec 101 [illegible]
29	19	2g17446.d	1.	✓	WG110458-10 PRO CCV	1,1 SOS56-21	21 Dec 101 [illegible]

HV 12/26/01
12/26/01

Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time Dec 21 01 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 12210 1
Analyst Initials HV

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # ___ PRO ✓
SOP # GCS02 Rev. # ___ 8015B Modi (Alcohol) ____

SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS01 Rev. # ___ 8100 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
- ☐ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ☑ Change liner
- ☐ Change septum
- ☐ Clip column (___cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases _____

Returned To Control?
Yes ___ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

SG 17444 - RE KW in Surrogate rec.

Reviewed By: TRC 12/27/01

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	2g17552.d	1.	MECL2	1,1	3 Jan 102 12::5
2	1	2g17553.d	1.	MECL2	1,1	3 Jan 102 12::0
3	2	2g17554.d	1.	WIN DEF STD	1,1 SOS57-25	3 Jan 102 12::2
4	3	2g17555.d	1.	WG110845-04 PRO CCV	1,1 SOS56-21	3 Jan 102 12::3
5	4	2g17556.d	1.	WG110845-04 PRO CCV	1,1 SOS56-21	3 Jan 102 12::5
6	5	2g17557.d	1.	WG110845-06 PRO @600ppm	1,1 SOS56-21	3 Jan 102 13::1
7	6	2g17558.d	1.	WG110845-05 PRO @400ppm	1,1 SOS56-21	3 Jan 102 13::2
8	7	2g17559.d	1.	WG110845-04 PRO @200ppm	1,1 SOS56-21	3 Jan 102 13::4
9	8	2g17560.d	1.	WG110845-03 PRO @100ppm	1,1 SOS56-21	3 Jan 102 13::5
10	9	2g17561.d	1.	WG110845-02 PRO @50ppm	1,1 SOS56-21	3 Jan 102 13::1
11	10	2g17562.d	1.	WG110845-01 PRO @5ppm	1,1 SOS56-21	3 Jan 102 13::3
12	11	2g17563.d	1.	WG110845-07 ALT @200ppm	1,1 SOS56-26	3 Jan 102 13::4
13	12	2g17564.d	1.	WG110731-01 PRO water BLK	1,1 V178-P77	3 Jan 102 13::0
14	13	2g17565.d	1.	WG110731-02 PRO water LCS	1,1 V178-P77	3 Jan 102 13::1
15	14	2g17566.d	1.	WG110731-03 PRO water LCS2	1,1 V178-P77	3 Jan 102 13::3
16	15	2g17567.d	1.12	L0112366-07 RE PRO water	1,1 water V178-P77	3 Jan 102 13::4
17	16	2g17568.d	1.	MECL2	1,1	3 Jan 102 12::0
18	17	2g17569.d	1.	WG110845-08 PRO CCV	1,1 SOS 56-21	3 Jan 102 12::1

HV 1/3/02 PAC 1/3/02

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time JAN 3 01 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 010302
Analyst Initials HV

SOP # GCS09 Rev. # ___ 8081A ____
SOP # GCS04 Rev. # ___ 8151A ____
SOP # GCS03 Rev. # ___ PRO ✓
SOP # GCS02 Rev. # ___ 8015B Mod (Alcohol) ____

SOP # GCS10 Rev. # ___ 8082 ____
SOP # GCS01 Rev. # ___ 8100 ____
SOP # GCS02 Rev. # ___ 8015B Mod (DRO) ____
SOP # GCS07 Rev. # ___ 8011 ____

Analysis Date/Time _____ Instrument ID _____ Column ID _____ Data Subdirectory _____

Daily Check
- ☐ Gases >500 psi

Preventative Maintenance
- ☐ Change o-ring
- ☑ Change liner
- ☑ Change septum
- ☐ Clip column (___cm)
- ☐ Injection port seal (goldseal)
- ☐ Change gases _____

Returned To Control?
Yes ___ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Reviewed By: BAC 1/3/02

Parameter: PCB 1260 SOP #: EXPRO Revision #: 2
Extraction Analyst(s): DP TV/KD Analyst(s): JAP
Date/Time Extracted: 12/19/01, 15:30 Date TV/KD: 12/19/01
Spike/Surrogate Analyst: DP Witness: JEA
Surrogate #: Essco 39-39 Earliest Hold Date: 12/25
Spike #: A = Essco 39-44 Spike #: B = —

Extraction Work Group WG 110302
Analytical Work Group WG
Extract Relinquished By: DP
Extract Received By & Date: 12/20/01

	Sample ID	Test Code	pH / <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions / A	BN	N	Comments
1	Blank		✓			1L	1ml		1ml	T				WG 110302-02
2	LCS		✓			↓		1ml						WG 110302-03
3	12-366 01	FLA PCB	✓			965ml								
4	02		✓			920ml								
5	03		✓			↓								
6	04		✓			1L								WG 110302-01
7	05MS		✓			960ml		1ml					*	WG 110302-04
8	06MSD		✓			955ml		↓					↓	WG 110302-05
9	07		✓			910ml								
10	08		✓			920ml								
11	09		✓			930ml								
12	10		✓			910ml								
13	11		✓			950ml								
14	12		✓			1L								
15	13		✓			920ml								
16	14		✓			↓								
17	15		✓			930ml								
18	16		✓			920ml								
19														
20														
21														
22														
23														
24														

12/19/01 JAP

Methylene Chloride Lot #: 41109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: 1:1 HCl Lot #: ER 119
Florisil Lot #: —
Silica Gel Lot #: V32555
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER 137

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C	✓	Other	
Acid 3664A		N/A	
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 12/20/01

Extraction Notes For Volume # 177 Page # 129

General Comments: * MS of 12-366 01
⊥ MD of ⊥

Extraction Anomalies: nothing to report

Concentration Anomalies: nothing to report

Clean-Up Anomalies: nothing to report

Supervisor Review: _____ Date: _____

Parameter: PRO-H_2O SOP #: EXPRO2 Revision #: 2
Extraction Analyst(s): DP TV/KD Analyst(s): DP
Date/Time Extracted: 12/31/01 @ 10:20 Date TV/KD: 12/31/01
Spike/Surrogate Analyst: DP Witness: LMT
Surrogate #: ESS8039-39 Earliest Hold Date: OUT
Spike #: A = ESS8039-44 Spike #: B = —

Extraction Work Group WG 110731
Analytical Work Group WG 110773

Extract Relinquished By: DP
Extract Received By & Date: EWC 12/31/01

	Sample ID	Test Code	pH √ <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	BN	N	Comments
1	Blank		✓			1L	1mL		1mL	T				WG 110731-01
2	LCS		✓			⊥	⊥	1mL	⊥	T				WG ⊥ -02
3	LCS Dup		✓			⊥	⊥	⊥	⊥	T				WG ⊥ -03
4	12-360-07 FLA PRO		✓			890mL	⊥		⊥	T				*
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

DP 12/31/01

Methylene Chloride Lot #: 41104
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: 1:1 HCL Lot #: ER1999
Florisil Lot #: —
Silica Gel Lot #: V32555
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER 2042

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C	✓	Other	
Acid 3664A		N/A	
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 12/31/01

Extraction Notes For Volume # 178 Page # -

General Comments: * Re-extract, out of hold.

Extraction Anomalies: Nothing to report

Concentration Anomalies: Nothing to report.

Clean-Up Anomalies: Nothing to report.

Supervisor Review: _____ Date: _____

Analytical Corrective Action Report

Date: 12-26-01 Department: SV Employee: HV

Prep WG# 110302 Preparation Date: 12-19-01 Parameter: PRO - water

I. Description of Non-Conformance:

Sample fraction 12-366-07 had low recovery for surrogate.

Re-extract need PK 12/26/01

II. Action Taken:

REEXTRACTED OUT of HOLD → 12/31/01
NEW WORKGROUP → WG 110731

CWB 12/31/01

III. Return to Control?:	Not Applicable _____	Yes _____	No _____

IV. Further Action Required?: (required if no checked in III.)

Approvals:

Department Supervisor: _____ Date: _____
QA/QC Supervisor: _____ Date: _____
Director/Manager: _____ Date: _____

Form NC02

Example FLA-PRO Calculations

1.0 Calulating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = As/ Cs

Where:		Example:
	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ng/ml).	100
	RF	**100**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:

C = [(Ax)(Vf)(D)] / [(RF)(Vi)]

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	100
	Vi = Initial volume of sample (mL). (prep log)	1000
	C (ug/L) =	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report: C = [(Ax)(Vf)(D)] / [(RF)(Vi)]

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL).	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	RF = Response factor from ICAL calculated above.	100
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**3.333333**

2.2.7 PAH HPLC DATA (8310)

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0112366

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8310

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds linear equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: The LCS yielded a percent recovery for benzo(g,h,i)perylene which was above the advisory limit. There were no positive results of this analyte for the sample fractions of this sample delivery group.
Matrix Spikes: All acceptance criteria were met.
SAMPLES

Surrogates: All acceptance criteria were met.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: RDC REVIEWED: _____ DATE: 1/2/02

Rev. 7/14/00

PAH HPLC DATA (8310)

Login Number: L0112366

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

_____ Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data)

✓ Chromatograms and external standard reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and external standard reports (chronological)

_____ Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

✓ Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

✓ Extraction bench sheets

Checked By: TDC Date: 1/2/02

2.2.7.1 QC Summary

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, WATERS

ANAL WORK GRP : WG110372
METHOD : 8310
INSTRUMENT : HPLC4
ANALYST : RDC

PREP WORK GRP : WG110292
EXT DATE : 19-Dec-01
EXT BENCH SHEET : V177P183

RUN DATE : 12/20/01
BLK FLNM : 4L002586
LCS FLNM : 4L002587
LCS2 FLNM : NA

SAMP ID : L0112366 -04
SMPL FLNM : 4L002591
MS FLNM : 4L002592
MSD FLNM : 4L002593

ANALYTE	CONCENTRATION, µg/L									% RECOVERY																	
	RDL	BLK	LCS SPIKE ADDED	LCS	LCS2	SAMPLE	MS SPIKE ADDED	MS	MSD	BLK	LCS	LCS2	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	MSD RPD	RPC UCL	BLK	LCS	LCS2	MS	MSD
NAPHTHALENE	1	ND	50	30.2	28.3	ND	50.0	21.6	18.8	ND	60.4	56.6	25	68	NA	43.0	37.6	25	68	13	50					
ACENAPTHYLENE	1	ND	50	31.2	31.9	ND	50.0	22.9	21.8	ND	62.4	63.8	25	77	NA	45.8	43.6	25	77	4.9	50					
1-METHYLNAPHTHALENE	1	ND	50	29.9	29.3	ND	50.0	21.0	18.9	ND	59.8	58.6	26	71	NA	42.0	37.8	26	71	11	50					
2-METHYLNAPHTHALENE	1	ND	50	30.9	29.1	ND	50.0	21.5	20.0	ND	61.8	58.2	26	72	NA	43.0	40.0	26	72	7.3	50					
ACENAPHTHENE	1	ND	50	31.2	32.0	ND	50.0	22.9	21.9	ND	62.4	64.0	25	78	NA	45.8	43.8	25	78	4.5	50					
FLUORENE	1	ND	50	36.7	34.4	ND	50.0	29.0	29.2	ND	73.4	68.8	29	84	NA	58.0	58.4	29	84	0.7	50					
PHENANTHRENE	1	ND	50	43.0	40.8	ND	50.0	41.0	37.9	ND	86.0	81.6	39	95	NA	82.0	75.8	39	95	7.8	50					
ANTHRACENE	1	ND	50	49.0	42.5	ND	50.0	44.9	46.0	ND	98.0	85.0	47	101	NA	89.8	92.0	47	101	2.4	50					
FLUORANTHENE	0.2	ND	5	4.78	4.70	ND	5.00	4.74	4.56	ND	95.6	94.0	55	104	NA	94.8	91.2	55	104	3.9	50					
PYRENE	0.2	ND	5	4.81	4.66	ND	5.00	4.75	4.60	ND	96.2	93.2	56	104	NA	95.0	92.0	56	104	3.3	50					
BENZO[a]ANTHRACENE	0.2	ND	5	4.90	4.82	ND	5.00	4.60	4.59	ND	98.0	96.4	50	115	NA	92.0	91.8	50	115	0.2	50					
CHRYSENE	0.2	ND	5	4.88	4.80	ND	5.00	3.17	5.28	ND	97.6	96.0	39	120	NA	63.4	105.6	39	120	50	50					
BENZO[b]FLUORANTHENE	0.2	ND	5	4.78	4.54	ND	5.00	3.82	4.09	ND	95.6	90.8	41	110	NA	76.4	81.8	41	110	6.8	50					
BENZO[k]FLUORANTHENE	0.2	ND	2.5	2.36	2.13	ND	2.50	1.63	1.88	ND	94.4	85.2	25	107	NA	65.2	75.2	25	107	14	50					
BENZO[a]PYRENE	0.2	ND	5	4.93	4.18	ND	5.00	3.75	4.11	ND	98.6	83.6	29	113	NA	75.0	82.2	29	113	9.2	50					
DIBENZO[a,h]ANTHRACENE	0.2	ND	5	4.56	3.45	ND	5.00	2.19	2.83	ND	91.2	69.0	10	92	NA	43.8	56.6	10	92	25	50					
BENZO[g,h,i]PERYLENE	0.2	ND	5	4.87	3.47	ND	5.00	2.62	3.24	ND	97.4	69.4	11	84	NA	52.4	64.8	11	84	21	50		H			
INDENO[1,2,3-cd]PYRENE	0.2	ND	5	4.59	3.74	ND	5.00	2.55	3.18	ND	91.8	74.8	16	98	NA	51.0	63.6	16	98	22	50					
SURROGATE p-TERPHENYL-d14		9.33	10	10.0	8.93	9.01	10.0	7.71	8.34	93.3	100	89.3	40	132	90.1	77.1	83.4	40	132							

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL = REPORTING DETECTION LIMIT
D = DETECTED, RESULT MUST BE GREATER THAN ZERO

H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

2.2.7.2 Sample Data

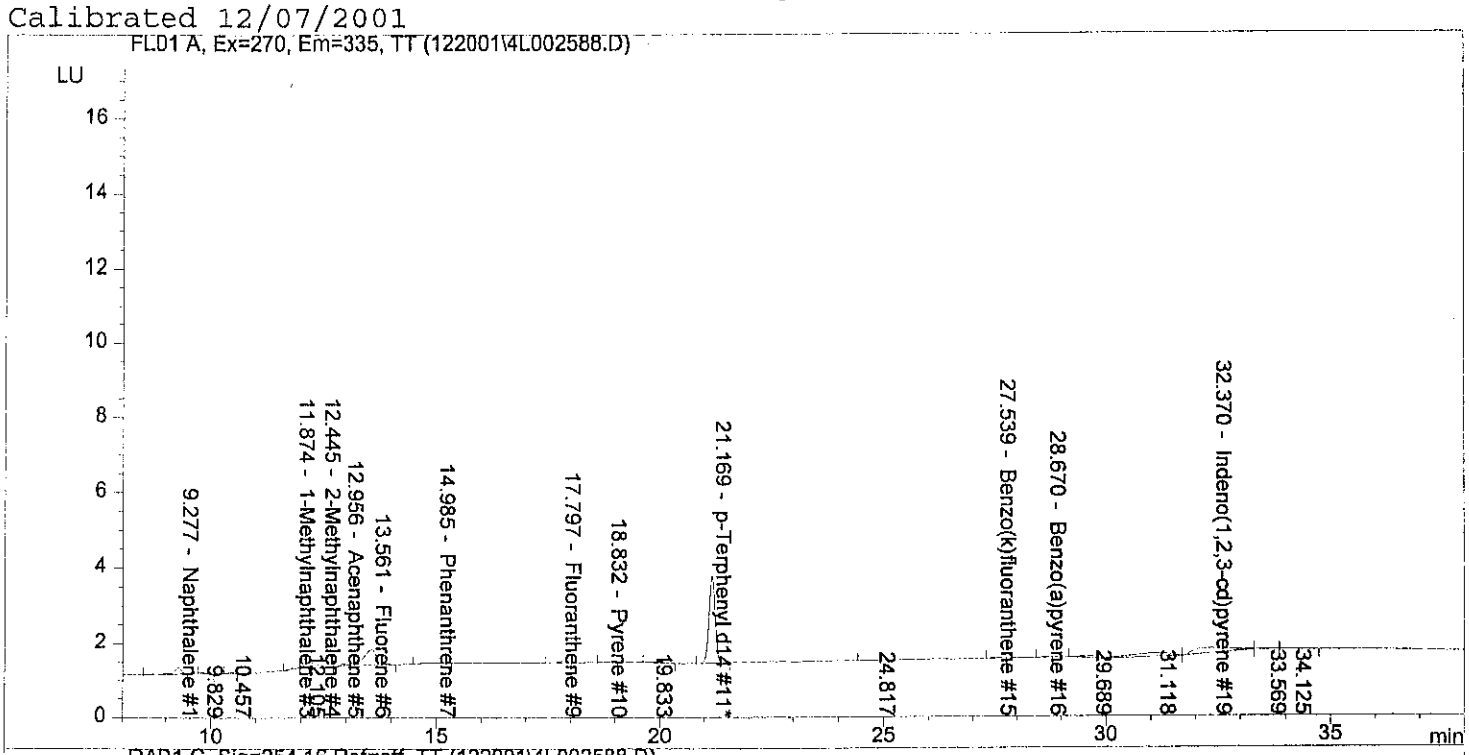
==========

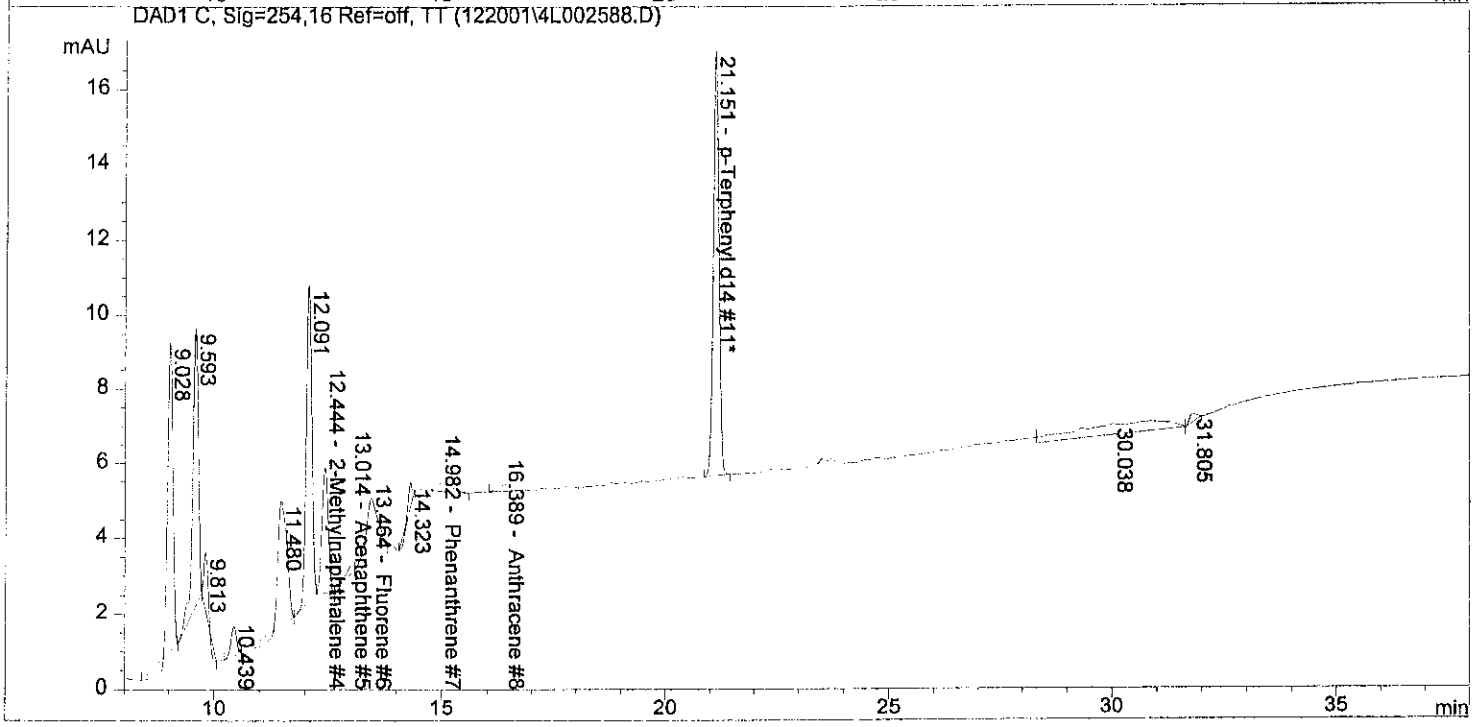
Injection Date : 12/20/2001 6:30:09 PM
Sample Name : L0112366-01 831W
Acq. Operator : RDC

Seq. Line : 6
Vial : 5
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/21/2001 2:20:40 PM by RDC
(modified after loading)

Calibrated 12/07/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 12/21/2001 2:20:40 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.277	BB	2.26803	2.64309e-2	5.99459e-2		Naphthalene #1
11.874	BB	4.75147e-1	2.30826e-2	1.09676e-2		1-Methylnaphthalene #3
12.445	BB	1.78505	1.77135e-2	3.16195e-2		2-Methylnaphthalene #4
12.956	BB	6.12903e-1	1.41307e-2	8.66072e-3		Acenaphthene #5
13.561	BB	7.98753	6.55799e-3	5.23821e-2		Fluorene #6
14.985	BBA	3.92262e-1	1.72114e-1	6.75135e-2		Phenanthrene #7
16.422		-	-	-		Anthracene #8
17.797	BBA	4.42968e-1	2.51883e-2	1.11576e-2		Fluoranthene #9
18.832	BBA	2.16983e-1	4.52106e-2	9.80993e-3		Pyrene #10
21.169	BB	22.84377	2.98861e-1	6.82712		p-Terphenyl d14 #11*
22.562		-	-	-	68.3%	Benzo(a)anthracene #12
23.431		-	-	-		Chrysene #13
26.140		-	-	-		Benzo(b)fluoranthene #14
27.539	PBA	3.54426e-1	2.77713e-3	9.84289e-4		Benzo(k)fluoranthene #15
28.670	PBA	1.77433e-1	5.23910e-3	9.29592e-4		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.334		-	-	-		Benzo(g,h,i)perylene #18
32.370	BB	7.83746	1.37336e-2	1.07636e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 7.18873

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.238		-	-	-		Naphthalene #1
10.878		-	-	-		Acenaphthylene #2
11.843		-	-	-		1-Methylnaphthalene #3
12.444	BB	31.46744	1.10418e-2	3.47457e-1	NC	2-Methylnaphthalene #4
13.014	BB	2.49404	1.99953e-2	4.98691e-2	omol	Acenaphthene #5
13.464	BB	27.46045	1.72604e-2	4.73979e-1	NC	Fluorene #6
14.982	BBA	3.89783	1.70751e-2	6.65558e-2	omol	Phenanthrene #7
16.389	BBA	3.04315	1.03316e-2	3.14406e-2	↓	Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.891		-	-	-		Pyrene #10
21.151	PBA	102.14122	6.51566e-2	6.65517		p-Terphenyl d14 #11*
22.544		-	-	-	66.6%	Benzo(a)anthracene #12
23.412		-	-	-		Chrysene #13
26.121		-	-	-		Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.509		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 7.62447

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

1,1

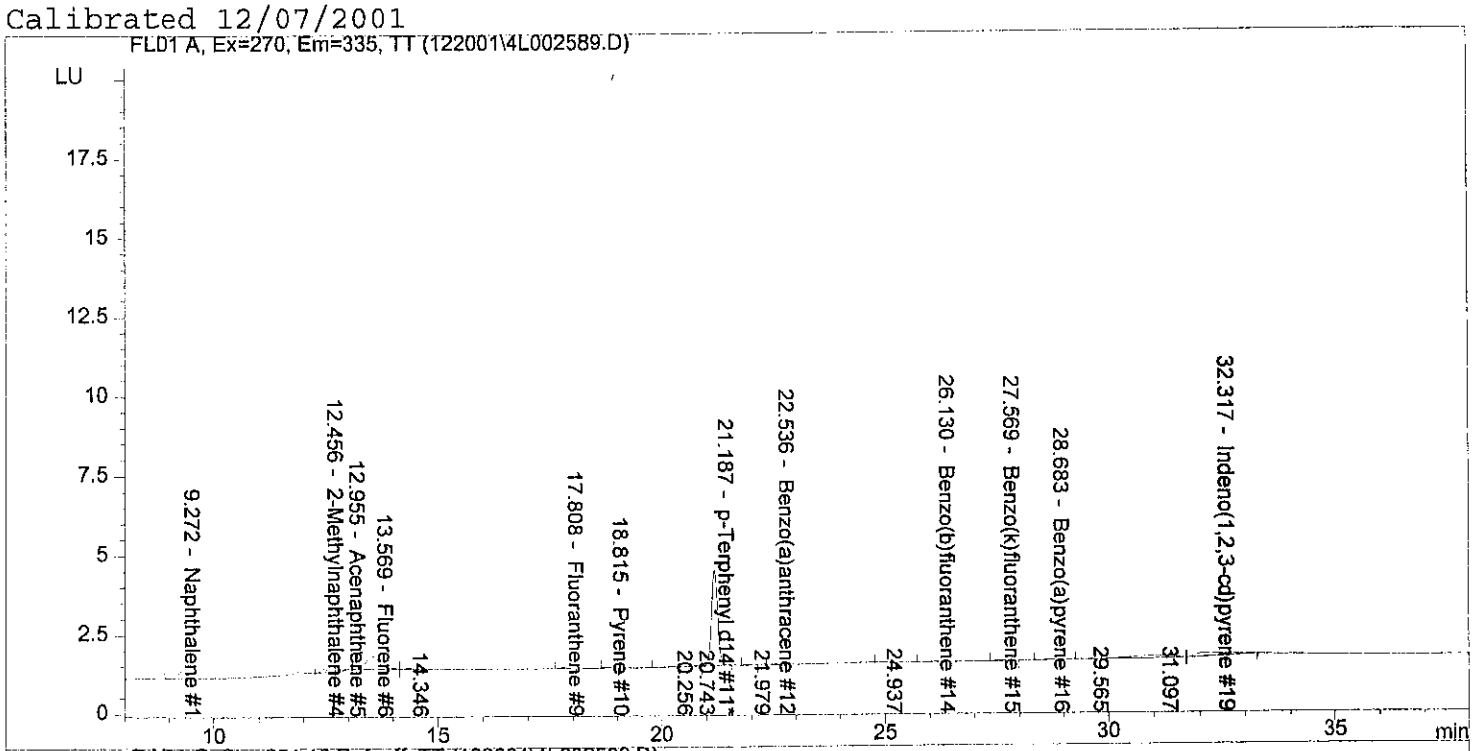
==========

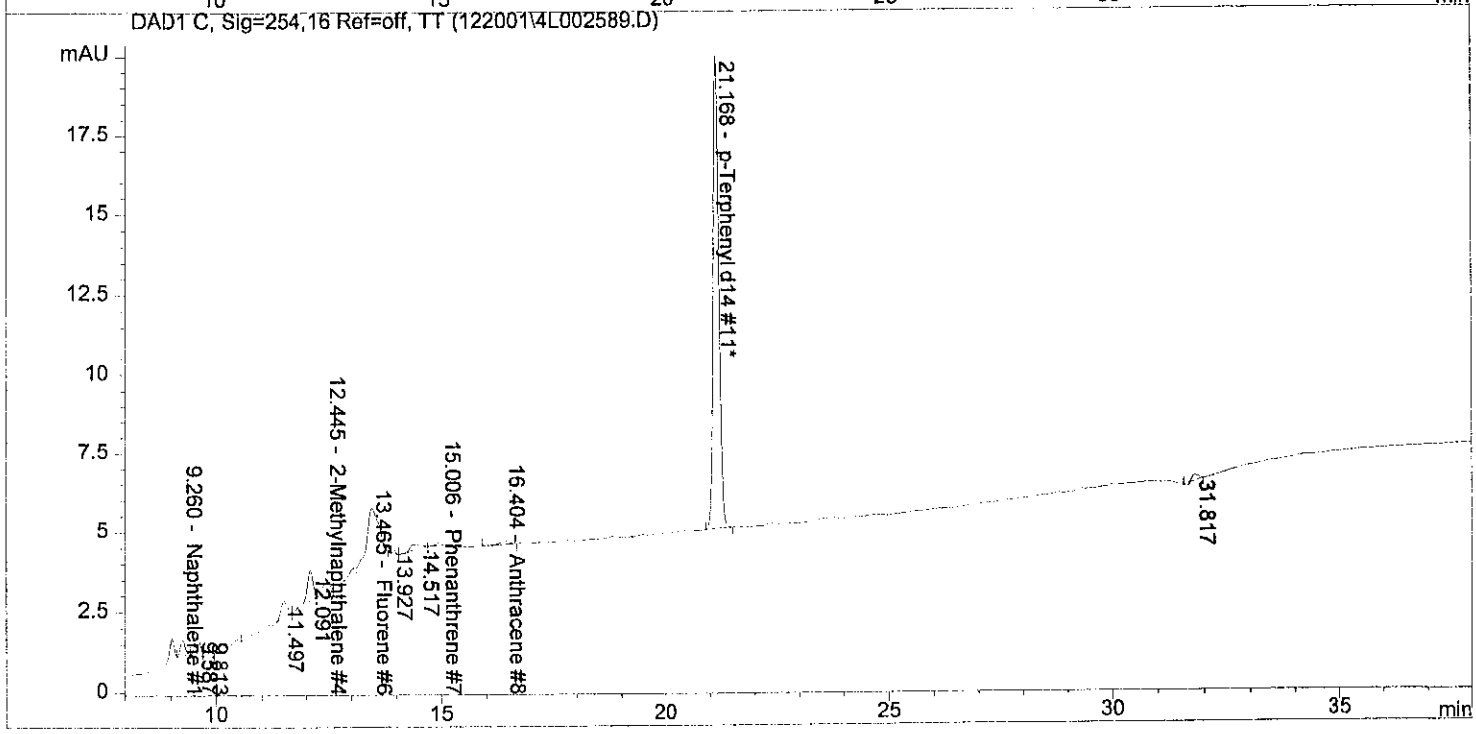
Injection Date : 12/20/2001 7:26:48 PM
Sample Name : L0112366-02 831W
Acq. Operator : RDC

Seq. Line : 7
Vial : 6
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/21/2001 2:20:40 PM by RDC
(modified after loading)

Calibrated 12/07/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 12/21/2001 2:20:40 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.272	BB	2.04234	2.64309e-2	5.39808e-2		Naphthalene #1
11.861		-	-	-		1-Methylnaphthalene #3
12.456	BB	1.02675	1.77135e-2	1.81874e-2		2-Methylnaphthalene #4
12.955	BB	3.79758e-1	1.41307e-2	5.36623e-3		Acenaphthene #5
13.569	BB	8.43312	6.55799e-3	5.53043e-2		Fluorene #6
14.997		-	-	-		Phenanthrene #7
16.422		-	-	-		Anthracene #8
17.808	BBA	4.53831e-1	2.51883e-2	1.14312e-2		Fluoranthene #9
18.815	BBA	1.83138e-1	4.52106e-2	8.27979e-3		Pyrene #10
21.187	BB	29.59502	2.98861e-1	8.84481		p-Terphenyl d14 #11*
22.536	BB	3.02776e-1	8.29841e-3	2.51256e-3		Benzo(a)anthracene #12
23.431		-	-	-		Chrysene #13
26.130	BB	2.07190e-1	1.66521e-2	3.45016e-3		Benzo(b)fluoranthene #14
27.569	BBA	4.12827e-1	2.77713e-3	1.14648e-3		Benzo(k)fluoranthene #15
28.683	BBA	2.73567e-1	5.23910e-3	1.43325e-3		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.334		-	-	-		Benzo(g,h,i)perylene #18
32.317	BB	6.39206	1.37336e-2	8.77859e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.09368

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.260	BB	3.70830	8.11569e-3	3.00954e-2	mol	Naphthalene #1
10.878		-	-	-		Acenaphthylene #2
11.843		-	-	-		1-Methylnaphthalene #3
12.445	BB	3.82680	1.10418e-2	4.22546e-2		2-Methylnaphthalene #4
12.912		-	-	-		Acenaphthene #5
13.465	BB	35.12281	1.72604e-2	6.06234e-1	NC	Fluorene #6
15.006	BB	1.62953	1.70751e-2	2.78244e-2	imol	Phenanthrene #7
16.404	BB	1.67629	1.03316e-2	1.73188e-2		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.891		-	-	-		Pyrene #10
21.168	PBA	133.07199	6.51566e-2	8.67052		p-Terphenyl d14 #11*
22.544		-	-	-	86.7%	Benzo(a)anthracene #12
23.412		-	-	-		Chrysene #13
26.121		-	-	-		Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.509		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				9.39424		

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

1,1

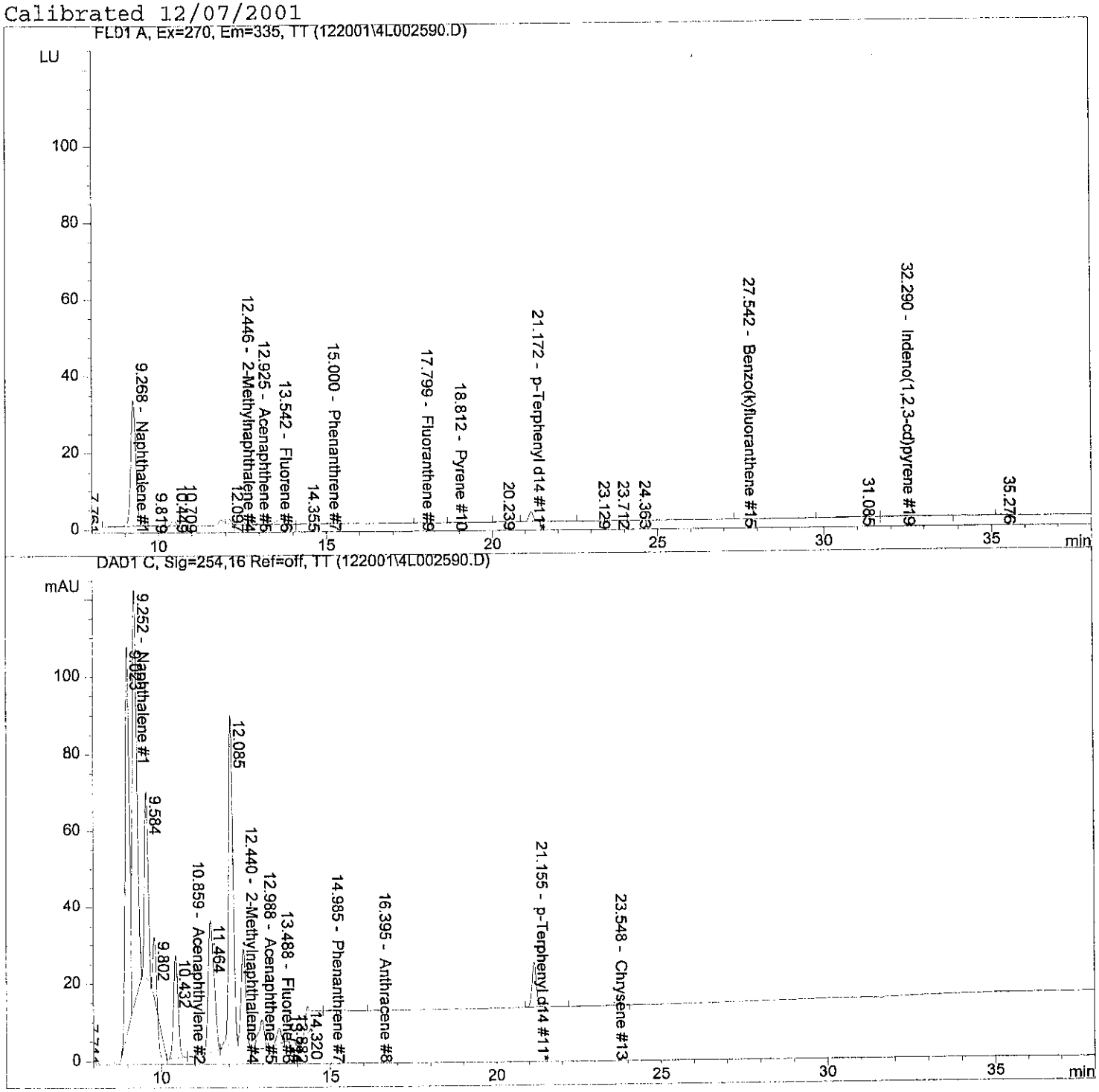
==========

Injection Date : 12/20/2001 8:23:24 PM
Sample Name : L0112366-03 831W
Acq. Operator : RDC

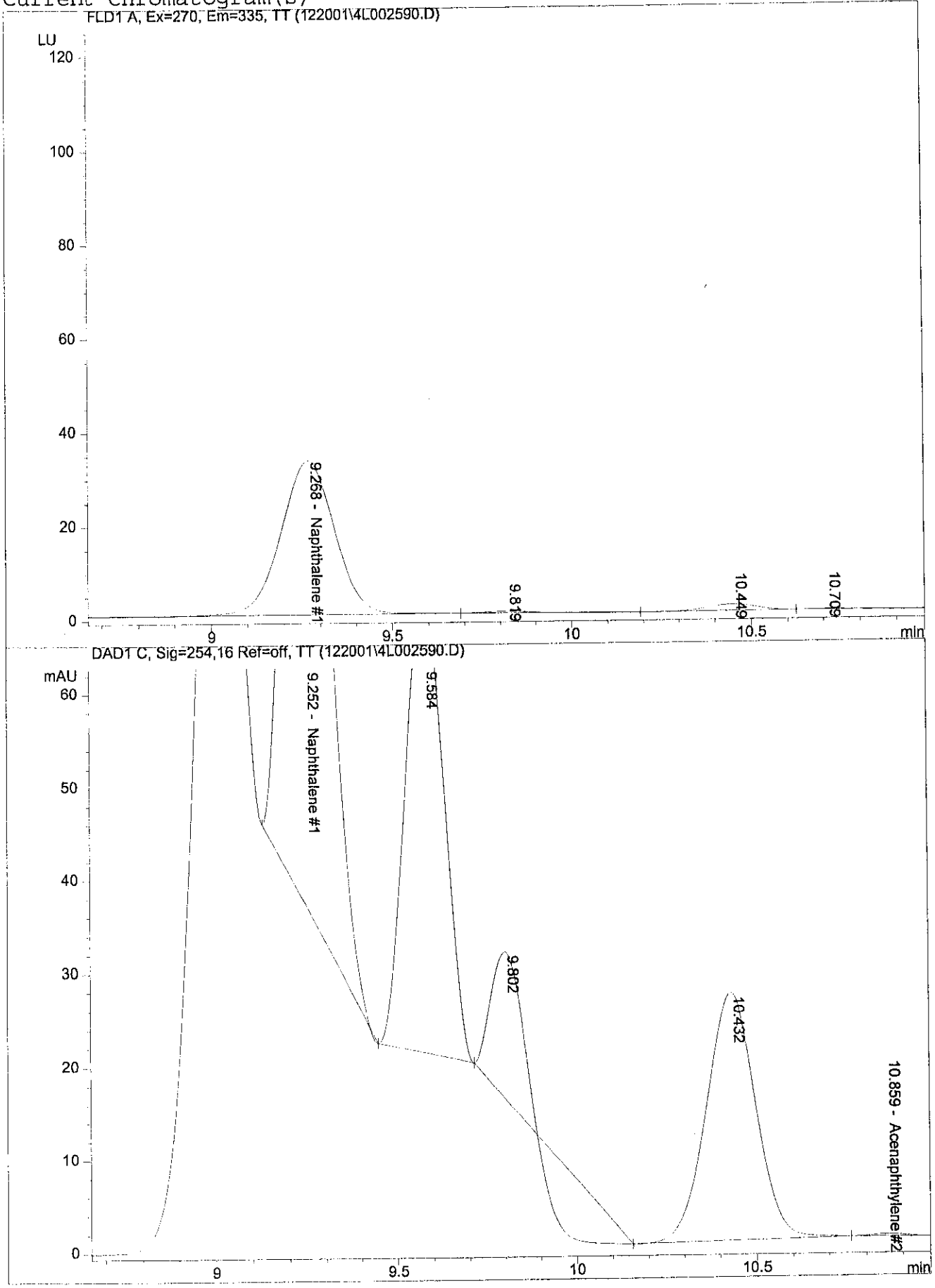
Seq. Line : 8
Vial : 7
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/21/2001 2:20:40 PM by RDC
(modified after loading)

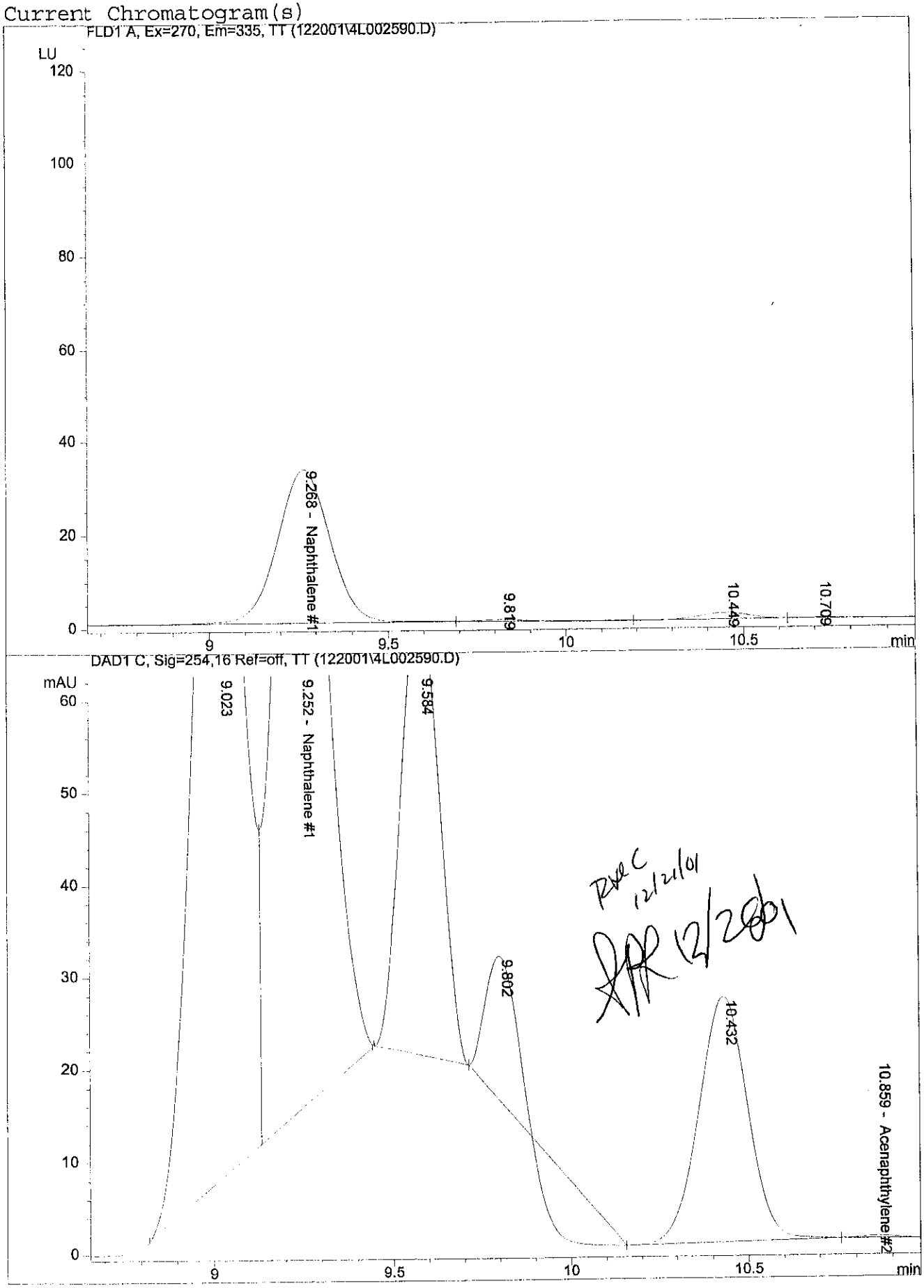
Calibrated 12/07/2001



Current Chromatogram(s)



Current Chromatogram(s)



RDC 12/21/01

12/21/01

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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 12/21/2001 2:20:40 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.268	BB	336.71533	2.64309e-2	8.89968	C	Naphthalene #1
11.861		-	-	-		1-Methylnaphthalene #3
12.446	BB	27.78301	1.77135e-2	4.92136e-1	F (P)	2-Methylnaphthalene #4
12.925	BB	3.31208	1.41307e-2	4.68019e-2		Acenaphthene #5
13.542	BB	14.07627	6.55799e-3	9.23120e-2		Fluorene #6
15.000	BB	9.16801e-1	1.72114e-1	1.57794e-1		Phenanthrene #7
16.422		-	-	-		Anthracene #8
17.799	BBA	3.61626e-1	2.51883e-2	9.10875e-3		Fluoranthene #9
18.812	BBA	1.91607e-1	4.52106e-2	8.66267e-3		Pyrene #10
21.172	BB	23.47474	2.98861e-1	7.01569	70.2%	p-Terphenyl d14 #11*
22.562		-	-	-		Benzo(a)anthracene #12
23.431		-	-	-		Chrysene #13
26.140		-	-	-		Benzo(b)fluoranthene #14
27.542	BB	3.59197e-1	2.77713e-3	9.97537e-4		Benzo(k)fluoranthene #15
28.676		-	-	-		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.334		-	-	-		Benzo(g,h,i)perylene #18
32.290	BB	8.90298	1.37336e-2	1.22270e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 16.84545

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.252	FM	987.74927	8.11569e-3	8.01626		Naphthalene #1
10.859	BB	1.67783	2.94003e-2	4.93287e-2	2mol	Acenaphthylene #2
11.843		-	-	-		1-Methylnaphthalene #3
12.440	BB	237.33121	1.10418e-2	2.62056	(P)	2-Methylnaphthalene #4
12.988	BB	97.10720	1.99953e-2	1.94169	NC	Acenaphthene #5
13.488	BB	42.24664	1.72604e-2	7.29194e-1	NC	Fluorene #6
14.985	BB	1.93983	1.70751e-2	3.31227e-2	2mol	Phenanthrene #7
16.395	BBA	2.19289	1.03316e-2	2.26560e-2		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.891		-	-	-		Pyrene #10
21.155	PBA	105.60179	6.51566e-2	6.88065	67.7%	p-Terphenyl d14 #11*
22.544		-	-	-		Benzo(a)anthracene #12
23.548	PBA	12.12550	1.48093e-2	1.79571e-1	NC	Chrysene #13
26.121		-	-	-		Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.509		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 20.47303

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

1,1 L0112366-04 REF

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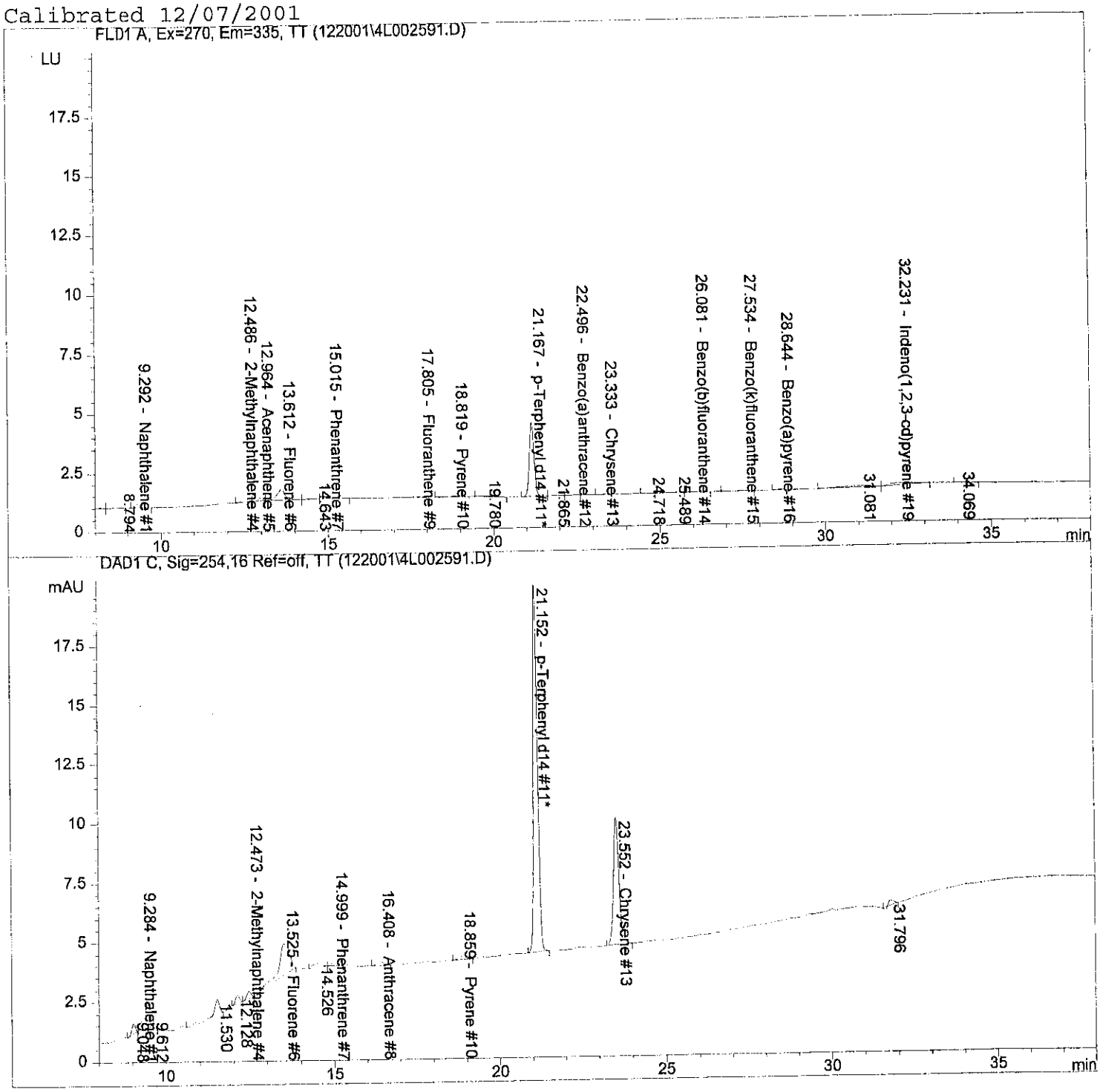
Injection Date : 12/20/2001 9:20:00 PM
Sample Name : WG110292-01 WREF
Acq. Operator : RDC

Seq. Line : 9
Vial : 8
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/21/2001 2:20:40 PM by RDC
(modified after loading)

Calibrated 12/07/2001



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 12/21/2001 2:20:40 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.292	BBA	1.54047	2.64309e-2	4.07158e-2		Naphthalene #1
11.861		-	-	-		1-Methylnaphthalene #3
12.486	BB	1.25238	1.77135e-2	2.21841e-2		2-Methylnaphthalene #4
12.964	BB	1.07866	1.41307e-2	1.52422e-2		Acenaphthene #5
13.612	BB	7.95562	6.55799e-3	5.21728e-2		Fluorene #6
15.015	BBA	2.75809e-1	1.72114e-1	4.74705e-2		Phenanthrene #7
16.422		-	-	-		Anthracene #8
17.805	BBA	5.88456e-1	2.51883e-2	1.48222e-2		Fluoranthene #9
18.819	BBA	5.21448e-1	4.52106e-2	2.35749e-2		Pyrene #10
21.167	BB	31.06007	2.98861e-1	9.28265	92.3%	p-Terphenyl d14 #11*
22.496	BB	2.85957e-1	8.29841e-3	2.37299e-3		Benzo(a)anthracene #12
23.333	BB	2.64531e-1	4.07647e-2	1.07835e-2		Chrysene #13
26.081	BBA	2.43452e-1	1.66521e-2	4.05401e-3		Benzo(b)fluoranthene #14
27.534	BB	6.58351e-1	2.77713e-3	1.82833e-3		Benzo(k)fluoranthene #15
28.644	PBA	3.49721e-1	5.23910e-3	1.83222e-3		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.334		-	-	-		Benzo(g,h,i)perylene #18
32.231	BBA	4.94304	1.37336e-2	6.78857e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.58759

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.284	BB	3.01806	8.11569e-3	2.44936e-2	imdl	Naphthalene #1
10.878		-	-	-		Acenaphthylene #2
11.843		-	-	-		1-Methylnaphthalene #3
12.473	BB	2.69102	1.10418e-2	2.97137e-2		2-Methylnaphthalene #4
12.912		-	-	-		Acenaphthene #5
13.525	BB	29.55300	1.72604e-2	5.10097e-1	NC	Fluorene #6
14.999	BB	1.98173	1.70751e-2	3.38382e-2	imdl	Phenanthrene #7
16.408	BBA	2.38235	1.03316e-2	2.46135e-2		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.859	BBA	1.85364	1.42346e-2	2.63859e-2		Pyrene #10
21.152	PBA	138.30147	6.51566e-2	9.01125	90.1%	p-Terphenyl d14 #11*
22.544		-	-	-		Benzo(a)anthracene #12
23.552	BBA	60.10599	1.48093e-2	8.90130e-1	NC	Chrysene #13
26.121		-	-	-		Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.509		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 10.55052

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1 L0112366-05 MS

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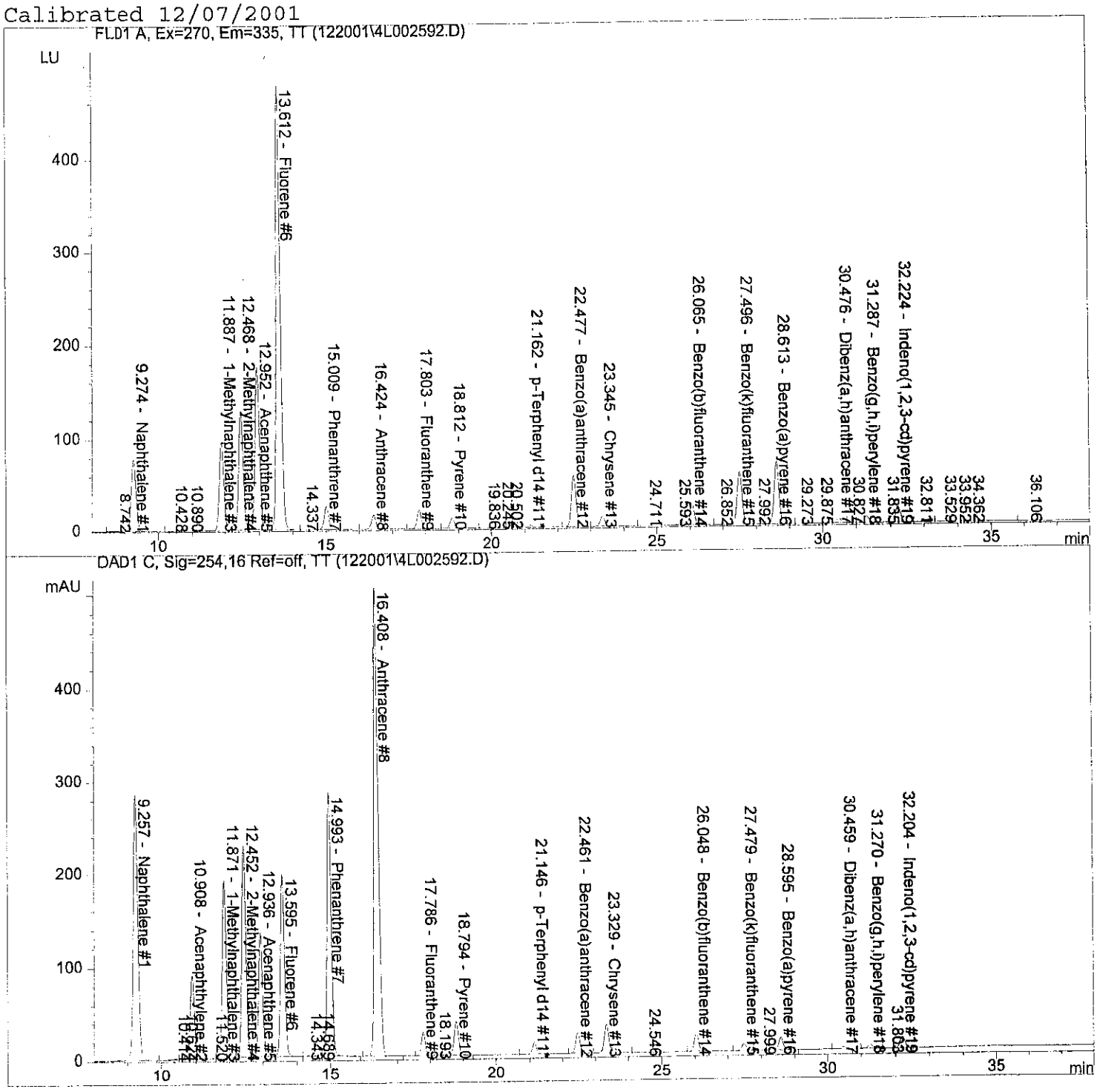
Injection Date : 12/20/2001 10:16:39 PM
Sample Name : WG110292-04 WMS
Acq. Operator : RDC

Seq. Line : 10
Vial : 9
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/21/2001 2:20:40 PM by RDC
(modified after loading)

Calibrated 12/07/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : 12/21/2001 2:20:40 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.274	BB	777.30432	2.64309e-2	20.54482		Naphthalene #1
11.887	BB	909.07672	2.30826e-2	20.98381		1-Methylnaphthalene #3
12.468	BB	1200.36511	1.77135e-2	21.26272		2-Methylnaphthalene #4
12.952	BB	1646.17029	1.41307e-2	23.26148		Acenaphthene #5
13.612	BB	4476.97900	6.55799e-3	29.35997		Fluorene #6
15.009	BBA	236.82021	1.72114e-1	40.75998		Phenanthrene #7
16.424	BB	141.04457	3.11763e-1	43.97254		Anthracene #8
17.803	PB	198.35541	2.51883e-2	4.99624		Fluoranthene #9
18.812	BBA	112.65266	4.52106e-2	5.09309		Pyrene #10
21.162	BBA	26.45659	2.98861e-1	7.90685	79.1%	p-Terphenyl d14 #11*
22.477	BB	559.30701	8.29841e-3	4.64136		Benzo(a)anthracene #12
23.345	BB	109.58685	4.07647e-2	4.46728		Chrysene #13
26.065	BB	229.75731	1.66521e-2	3.82595		Benzo(b)fluoranthene #14
27.496	BB	595.37695	2.77713e-3	1.65344		Benzo(k)fluoranthene #15
28.613	BB	711.81311	5.23910e-3	3.72926		Benzo(a)pyrene #16
30.476	BB	52.87509	4.06442e-2	2.14907		Dibenz(a,h)anthracene #17
31.287	BB	81.34282	3.02212e-2	2.45828		Benzo(g,h,i)perylene #18
32.224	BB	184.94743	1.37336e-2	2.53999		Indeno(1,2,3-cd)pyrene #1

Totals : 243.60613

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.257	BBA	2646.80640	8.11569e-3	21.48065		Naphthalene #1
10.908	BB	777.44379	2.94003e-2	22.85711		Acenaphthylene #2
11.871	BB	1654.82520	1.26957e-2	21.00915		1-Methylnaphthalene #3
12.452	BB	1946.88818	1.10418e-2	21.49711		2-Methylnaphthalene #4
12.936	BB	1143.07092	1.99953e-2	22.85603		Acenaphthene #5
13.595	BBA	1681.08289	1.72604e-2	29.01618		Fluorene #6
14.993	BBA	2400.28784	1.70751e-2	40.98512		Phenanthrene #7
16.408	BBA	4348.83936	1.03316e-2	44.93036		Anthracene #8
17.786	PB	221.37570	2.13939e-2	4.73609		Fluoranthene #9
18.794	BBA	333.99789	1.42346e-2	4.75433		Pyrene #10
21.146	BBA	118.27414	6.51566e-2	7.70634	77.1%	p-Terphenyl d14 #11*
22.461	PBA	209.51271	2.19558e-2	4.60001		Benzo(a)anthracene #12
23.329	PB	214.31927	1.48093e-2	3.17393		Chrysene #13
26.048	BBA	187.86046	2.03417e-2	3.82141		Benzo(b)fluoranthene #14
27.479	BB	73.77742	2.21503e-2	1.63419		Benzo(k)fluoranthene #15
28.595	BB	133.71959	2.80792e-2	3.75474		Benzo(a)pyrene #16
30.459	BB	23.56762	9.27377e-2	2.18561		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.270	BB	46.97957	5.56826e-2	2.61594		Benzo(g,h,i)perylene #18
32.204	BB	126.03172	2.02125e-2	2.54742		Indeno(1,2,3-cd)pyrene #1
Totals :				266.16170		

Results obtained with enhanced integrator!

*** End of Report ***

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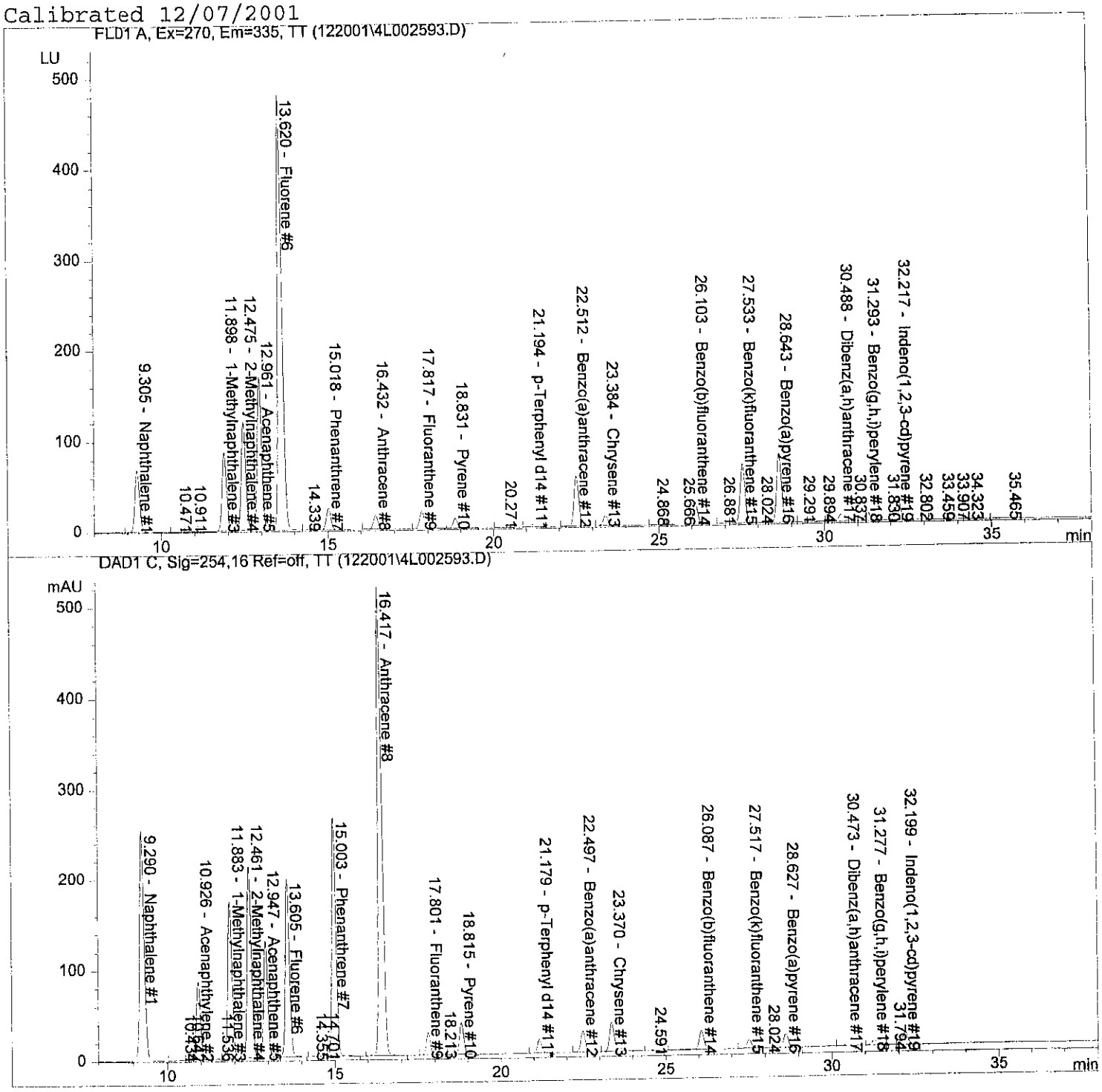
Injection Date : 12/20/2001 11:13:17 PM
Sample Name : WG110292-05 WMSD
Acq. Operator : RDC

Seq. Line : 11
Vial : 10
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/21/2001 2:20:40 PM by RDC
(modified after loading)

Calibrated 12/07/2001



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 12/21/2001 2:20:40 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.305	BB	678.53162	2.64309e-2	17.93417		Naphthalene #1
11.898	BB	822.18683	2.30826e-2	18.97817		1-Methylnaphthalene #3
12.475	BB	1121.23889	1.77135e-2	19.86111		2-Methylnaphthalene #4
12.961	BB	1583.57275	1.41307e-2	22.37694		Acenaphthene #5
13.620	BB	4503.06543	6.55799e-3	29.53105		Fluorene #6
15.018	BBA	218.38332	1.72114e-1	37.58674		Phenanthrene #7
16.432	BB	144.13719	3.11763e-1	44.93671		Anthracene #8
17.817	BBA	191.14008	2.51883e-2	4.81449		Fluoranthene #9
18.831	BBA	108.64503	4.52106e-2	4.91190		Pyrene #10
21.194	BBA	28.20878	2.98861e-1	8.43051 84.3%		p-Terphenyl d14 #11*
22.512	BB	556.46783	8.29841e-3	4.61780		Benzo(a)anthracene #12
23.384	BB	110.73057	4.07647e-2	4.51390		Chrysene #13
26.103	BB	245.10638	1.66521e-2	4.08155		Benzo(b)fluoranthene #14
27.533	BB	681.83789	2.77713e-3	1.89356		Benzo(k)fluoranthene #15
28.643	BB	794.05182	5.23910e-3	4.16012		Benzo(a)pyrene #16
30.488	BB	69.80476	4.06442e-2	2.83716		Dibenz(a,h)anthracene #17
31.293	BB	105.60291	3.02212e-2	3.19145		Benzo(g,h,i)perylene #18
32.217	BB	229.87154	1.37336e-2	3.15696		Indeno(1,2,3-cd)pyrene #1

Totals : 237.81429

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.290	BBA	2311.87915	8.11569e-3	18.76248		Naphthalene #1
10.926	BB	740.79340	2.94003e-2	21.77957		Acenaphthylene #2
11.883	BB	1491.64392	1.26957e-2	18.93745		1-Methylnaphthalene #3
12.461	BB	1810.65295	1.10418e-2	19.99283		2-Methylnaphthalene #4
12.947	BB	1095.67407	1.99953e-2	21.90832		Acenaphthene #5
13.605	BBA	1690.68408	1.72604e-2	29.18190		Fluorene #6
15.003	BBA	2220.09839	1.70751e-2	37.90837		Phenanthrene #7
16.417	PBA	4451.33740	1.03316e-2	45.98933		Anthracene #8
17.801	BB	213.14049	2.13939e-2	4.55991		Fluoranthene #9
18.815	BBA	323.00076	1.42346e-2	4.59779		Pyrene #10
21.179	PBA	127.97050	6.51566e-2	8.33812 83.4%		p-Terphenyl d14 #11*
22.497	PBA	208.83261	2.19558e-2	4.58508		Benzo(a)anthracene #12
23.370	PBA	356.70261	1.48093e-2	5.28253		Chrysene #13
26.087	BBA	200.90228	2.03417e-2	4.08670		Benzo(b)fluoranthene #14
27.517	BB	84.65480	2.21503e-2	1.87513		Benzo(k)fluoranthene #15
28.627	BB	146.45447	2.80792e-2	4.11232		Benzo(a)pyrene #16
30.473	BB	30.51137	9.27377e-2	2.82955		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.277	BB	58.17213	5.56826e-2	3.23917		Benzo(g,h,i)perylene #18
32.199	BBA	157.37054	2.02125e-2	3.18085		Indeno(1,2,3-cd)pyrene #1

Totals : 261.14741

Results obtained with enhanced integrator!

*** End of Report ***

1,1

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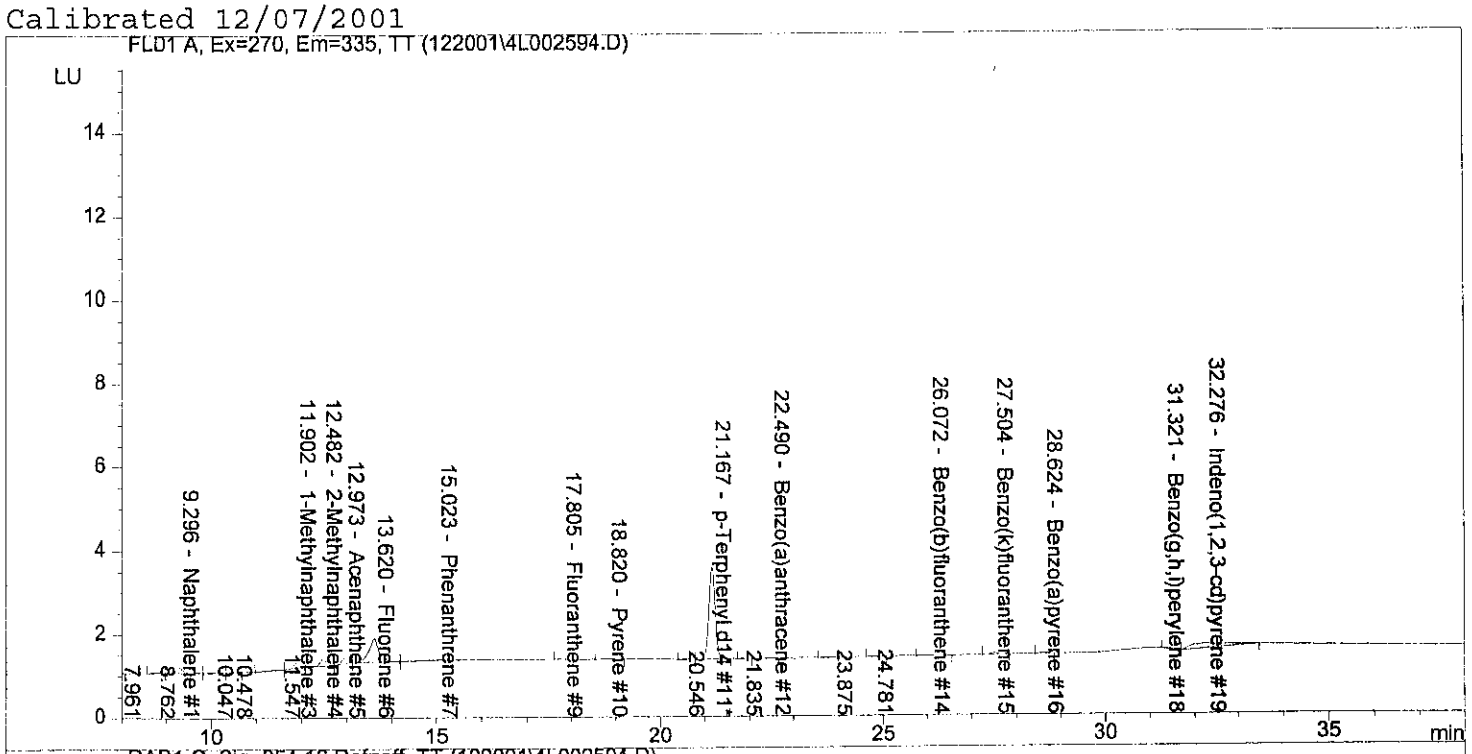
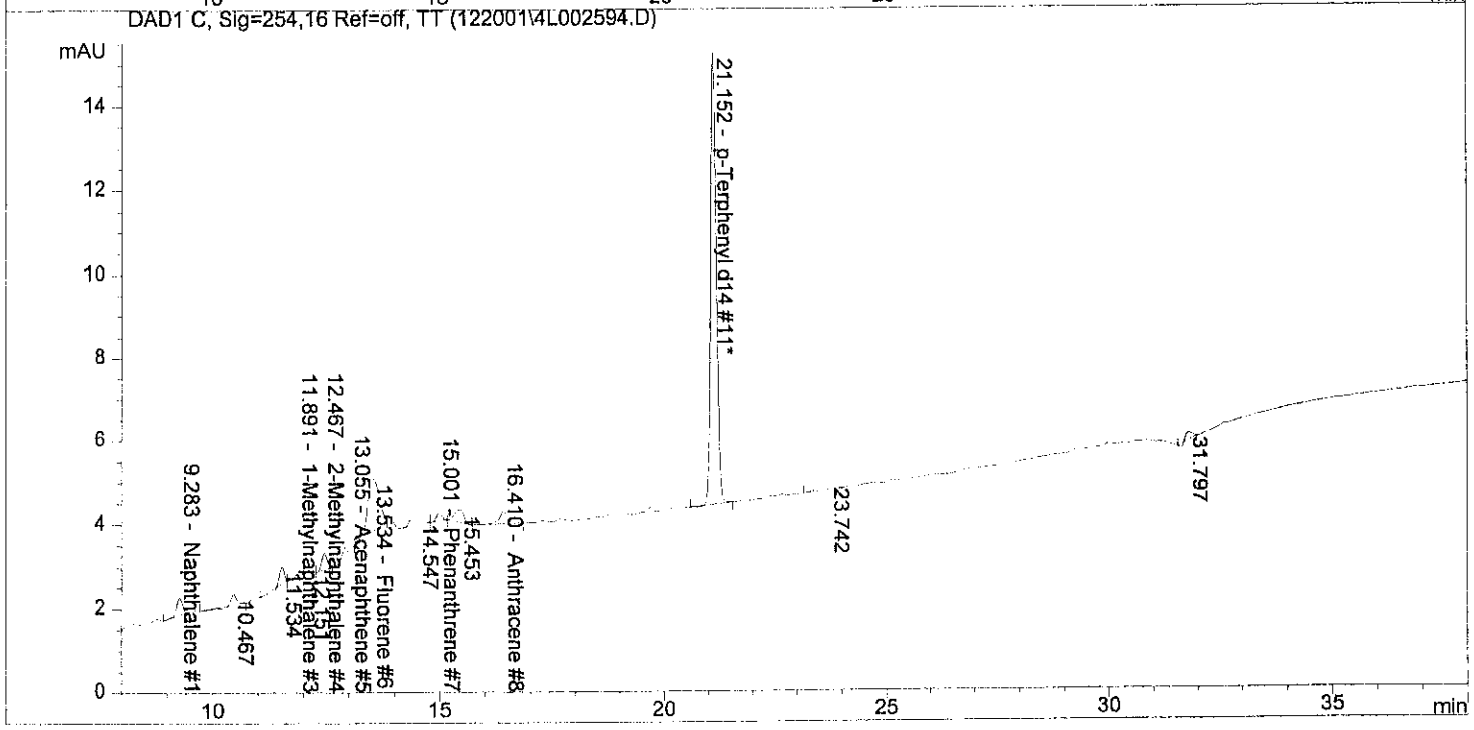
Injection Date	: 12/21/2001 12:09:54 AM	Seq. Line	: 12
Sample Name	: L0112366-07 831W	Vial	: 11
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/21/2001 2:20:40 PM by RDC
(modified after loading)

Calibrated 12/07/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 12/21/2001 2:20:40 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.296	BB	1.82516	2.64309e-2	4.82406e-2		Naphthalene #1
11.902	BB	1.10191	2.30826e-2	2.54350e-2		1-Methylnaphthalene #3
12.482	BB	1.81301	1.77135e-2	3.21148e-2		2-Methylnaphthalene #4
12.973	BB	1.49650	1.41307e-2	2.11466e-2		Acenaphthene #5
13.620	BB	9.13390	6.55799e-3	5.99000e-2		Fluorene #6
15.023	BBA	1.02624	1.72114e-1	1.76629e-1		Phenanthrene #7
16.422		-	-	-		Anthracene #8
17.805	BBA	4.33819e-1	2.51883e-2	1.09272e-2		Fluoranthene #9
18.820	BB	4.08308e-1	4.52106e-2	1.84598e-2		Pyrene #10
21.167	BB	21.68541	2.98861e-1	6.48093		p-Terphenyl d14 #11*
22.490	BB	3.26210e-1	8.29841e-3	2.70703e-3		Benzo(a)anthracene #12
23.431		-	-	-		Chrysene #13
26.072	BBA	2.83496e-1	1.66521e-2	4.72081e-3		Benzo(b)fluoranthene #14
27.504	BBA	4.59848e-1	2.77713e-3	1.27706e-3		Benzo(k)fluoranthene #15
28.624	PBA	2.58727e-1	5.23910e-3	1.35550e-3		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.321	BB	1.62049e-1	3.02212e-2	4.89733e-3		Benzo(g,h,i)perylene #18
32.276	BB	6.94223	1.37336e-2	9.53418e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 6.98408

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.283	BB	3.52754	8.11569e-3	2.86284e-2	2mDL	Naphthalene #1
10.878		-	-	-		Acenaphthylene #2
11.891	BB	1.17677	1.26957e-2	1.49399e-2		1-Methylnaphthalene #3
12.467	BB	3.33082	1.10418e-2	3.67782e-2		2-Methylnaphthalene #4
13.055	BB	2.08689	1.99953e-2	4.17280e-2		Acenaphthene #5
13.534	BB	23.02276	1.72604e-2	3.97382e-1		Fluorene #6
15.001	BB	1.67050	1.70751e-2	2.85240e-2		Phenanthrene #7
16.410	BB	4.43699	1.03316e-2	4.58411e-2		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.891		-	-	-		Pyrene #10
21.152	BBA	96.39987	6.51566e-2	6.28109		p-Terphenyl d14 #11*
22.544		-	-	-		Benzo(a)anthracene #12
23.412		-	-	-	62.3%	Chrysene #13
26.121		-	-	-		Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.509		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 6.87491

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

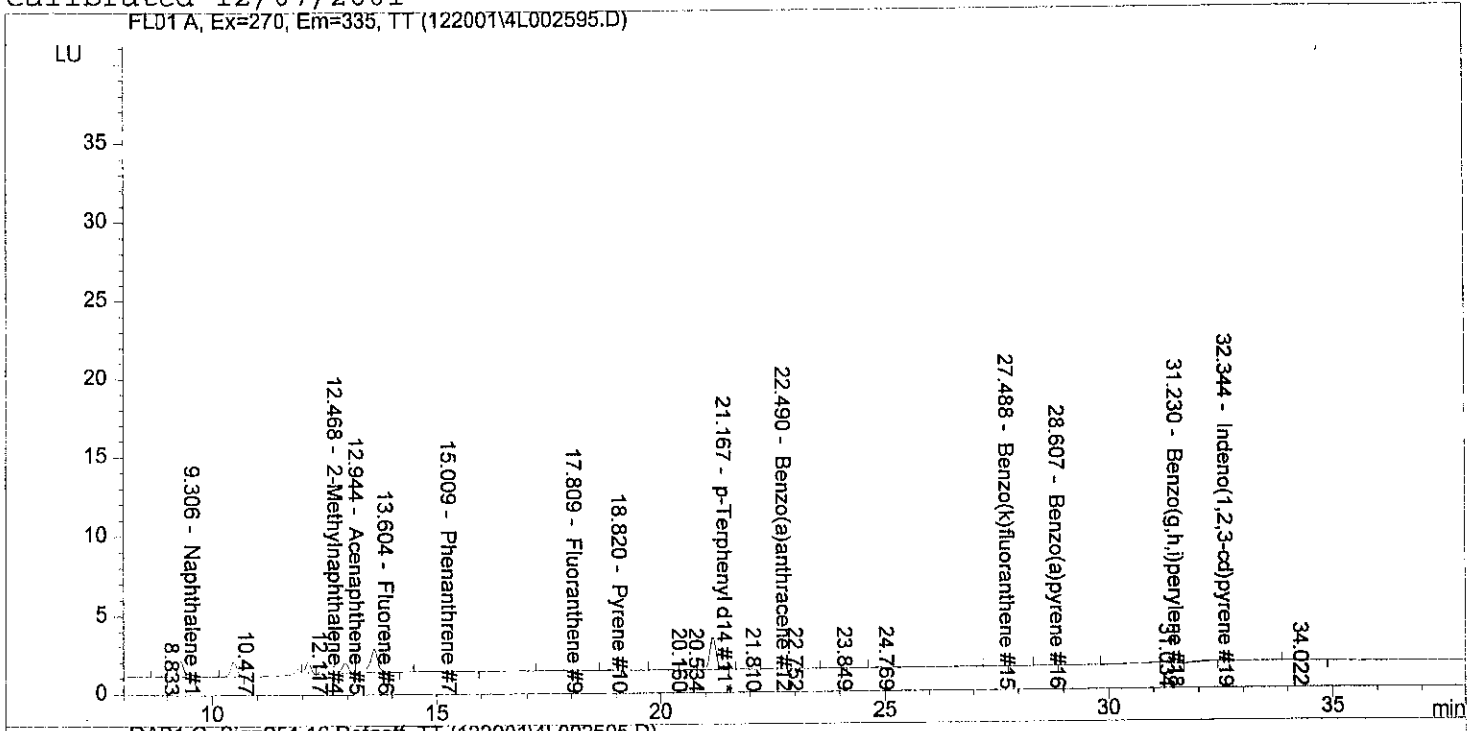
==========

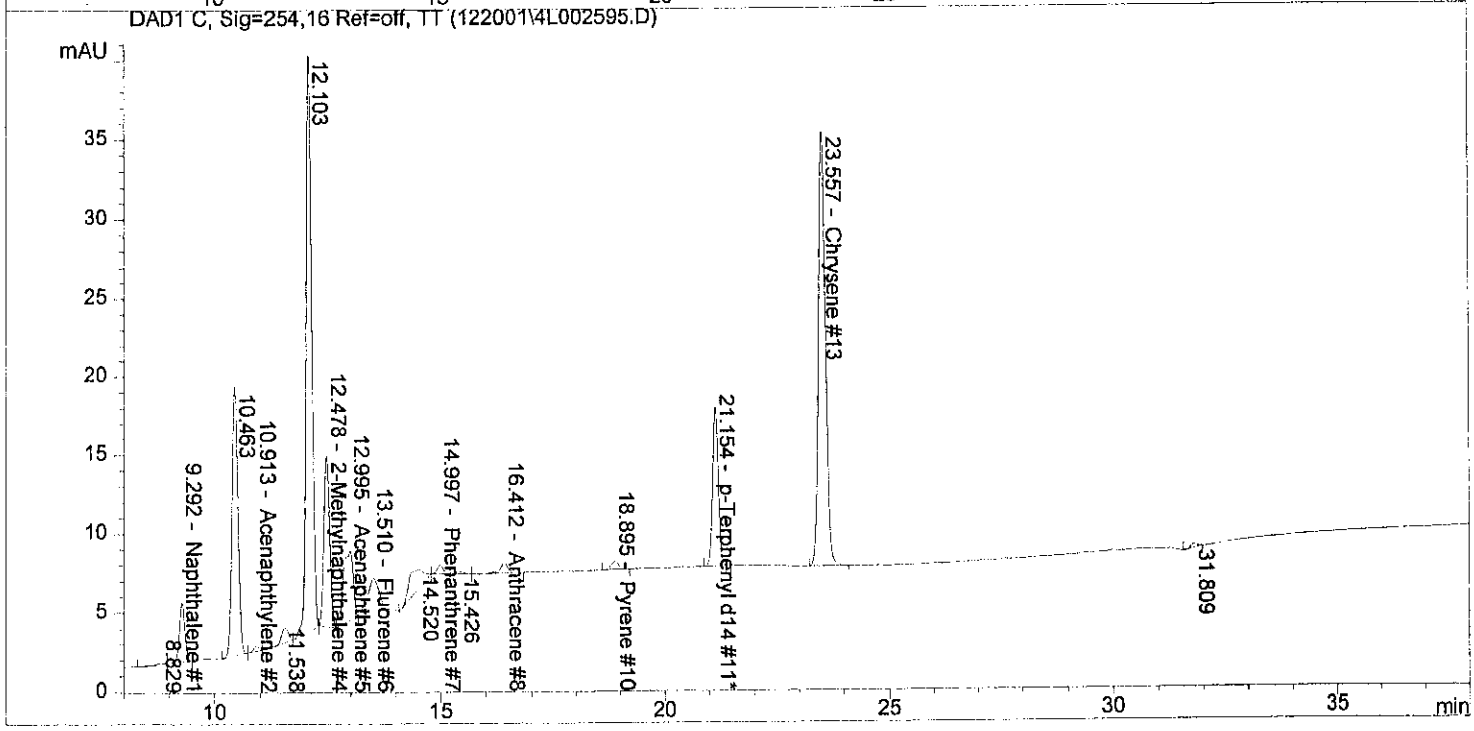
Injection Date : 12/21/2001 1:06:31 AM
Sample Name : L0112366-08 831W
Acq. Operator : RDC

Seq. Line : 13
Vial : 12
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/21/2001 2:20:40 PM by RDC
(modified after loading)

Calibrated 12/07/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 12/21/2001 2:20:40 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.306	BBA	10.08388	2.64309e-2	2.66526e-1		Naphthalene #1
11.861		-	-	-		1-Methylnaphthalene #3
12.468	BB	4.58886	1.77135e-2	8.12849e-2		2-Methylnaphthalene #4
12.944	BB	6.38072	1.41307e-2	9.01638e-2		Acenaphthene #5
13.604	BB	18.72243	6.55799e-3	1.22782e-1		Fluorene #6
15.009	BBA	1.12080	1.72114e-1	1.92905e-1		Phenanthrene #7
16.422		-	-	-		Anthracene #8
17.809	BBA	5.88251e-1	2.51883e-2	1.48170e-2		Fluoranthene #9
18.820	BBA	4.47752e-1	4.52106e-2	2.02431e-2		Pyrene #10
21.167	BB	20.11604	2.98861e-1	6.01191		p-Terphenyl d14 #11*
22.490	BB	2.64024e-1	8.29841e-3	2.19098e-3		Benzo(a)anthracene #12
23.431		-	-	-		Chrysene #13
26.140		-	-	-		Benzo(b)fluoranthene #14
27.488	BBA	3.01285e-1	2.77713e-3	8.36708e-4		Benzo(k)fluoranthene #15
28.607	BBA	2.01956e-1	5.23910e-3	1.05807e-3		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.230	BB	3.28627e-1	3.02212e-2	9.93152e-3		Benzo(g,h,i)perylene #18
32.344	BB	1.37815	1.37336e-2	1.89270e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 6.83357

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.292	BB	33.40117	8.11569e-3	2.71073e-1	<mdl	Naphthalene #1
10.913	BB	2.74537	2.94003e-2	8.07147e-2	↓	Acenaphthylene #2
11.843		-	-	-		1-Methylnaphthalene #3
12.478	BB	92.58475	1.10418e-2	1.02230	NC	2-Methylnaphthalene #4
12.995	BB	66.67239	1.99953e-2	1.33313	NC	Acenaphthene #5
13.510	BB	41.06010	1.72604e-2	7.08714e-1	NC	Fluorene #6
14.997	BB	4.93579	1.70751e-2	8.42791e-2	<mdl	Phenanthrene #7
16.412	BB	7.64601	1.03316e-2	7.89953e-2	↓	Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.895	PB	6.05789	1.42346e-2	8.62317e-2	NC	Pyrene #10
21.154	BBA	89.09253	6.51566e-2	5.80496	57.0%	p-Terphenyl d14 #11*
22.544		-	-	-		Benzo(a)anthracene #12
23.557	BBA	296.20691	1.48093e-2	4.38663	NC	Chrysene #13
26.121		-	-	-		Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.509		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 13.85703

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1

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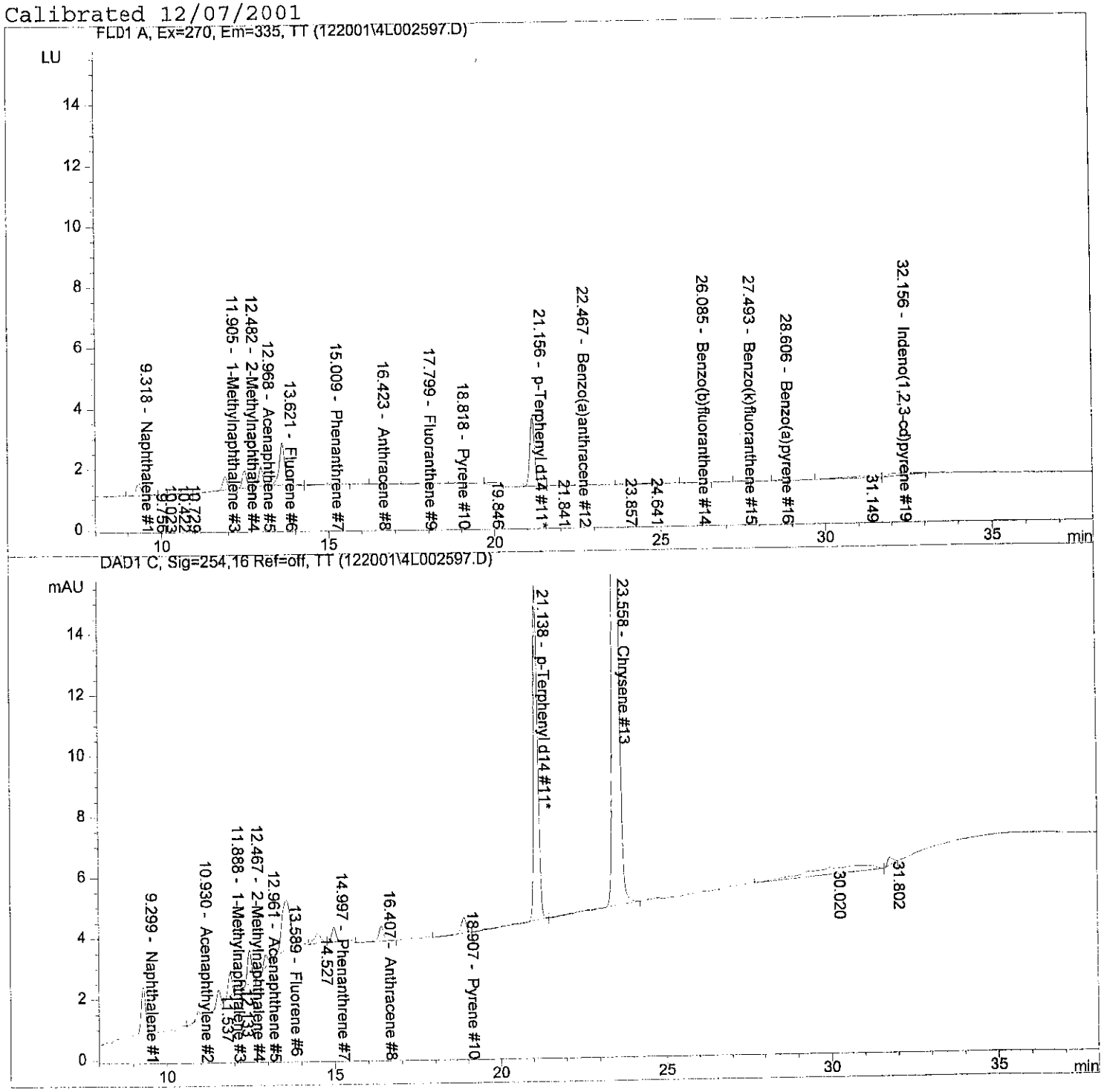
Injection Date : 12/21/2001 2:59:44 AM
Sample Name : L0112366-09 831W
Acq. Operator : RDC

Seq. Line : 15
Vial : 14
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/21/2001 2:20:40 PM by RDC
(modified after loading)

Calibrated 12/07/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : 12/21/2001 2:20:40 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.318	BB	4.37913	2.64309e-2	1.15744e-1		Naphthalene #1
11.905	BB	4.88088	2.30826e-2	1.12663e-1		1-Methylnaphthalene #3
12.482	BB	5.47829	1.77135e-2	9.70400e-2		2-Methylnaphthalene #4
12.968	BB	5.82974	1.41307e-2	8.23782e-2		Acenaphthene #5
13.621	BB	17.48103	6.55799e-3	1.14640e-1		Fluorene #6
15.009	BB	1.60635	1.72114e-1	2.76474e-1		Phenanthrene #7
16.423	PBA	1.57977e-1	3.11763e-1	4.92515e-2		Anthracene #8
17.799	PBA	6.98618e-1	2.51883e-2	1.75970e-2		Fluoranthene #9
18.818	BBA	2.65774e-1	4.52106e-2	1.20158e-2		Pyrene #10
21.156	BB	22.39514	2.98861e-1	6.69304		p-Terphenyl d14 #11*
22.467	BB	3.80019e-1	8.29841e-3	3.15355e-3		Benzo(a)anthracene #12
23.431		-	-	-		Chrysene #13
26.085	BB	2.46961e-1	1.66521e-2	4.11243e-3		Benzo(b)fluoranthene #14
27.493	BBA	4.78563e-1	2.77713e-3	1.32903e-3		Benzo(k)fluoranthene #15
28.606	BBA	3.75572e-1	5.23910e-3	1.96766e-3		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.334		-	-	-		Benzo(g,h,i)perylene #18
32.156	BBA	4.12559	1.37336e-2	5.66591e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 7.63807

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.299	BB	19.03307	8.11569e-3	1.54466e-1	MDL	Naphthalene #1
10.930	BB	2.18238	2.94003e-2	6.41627e-2		Acenaphthylene #2
11.888	BB	6.11358	1.26957e-2	7.76161e-2		1-Methylnaphthalene #3
12.467	BB	9.52825	1.10418e-2	1.05209e-1		2-Methylnaphthalene #4
12.961	BB	2.98913	1.99953e-2	5.97684e-2		Acenaphthene #5
13.589	BB	28.47121	1.72604e-2	4.91425e-1		Fluorene #6
14.997	BB	4.45966	1.70751e-2	7.61490e-2		Phenanthrene #7
16.407	BB	5.60893	1.03316e-2	5.79491e-2		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.907	BB	5.46294	1.42346e-2	7.77628e-2	NC	Pyrene #10
21.138	BB	98.40610	6.51566e-2	6.41180	64.1%	p-Terphenyl d14 #11*
22.544		-	-	-		Benzo(a)anthracene #12
23.558	BB	334.14331	1.48093e-2	NC 4.94844		Chrysene #13
26.121		-	-	-		Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.509		-	-	-		Dibenz(a,h)anthracene #17

49.5% RDC 12/21/01

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 12.52475

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1

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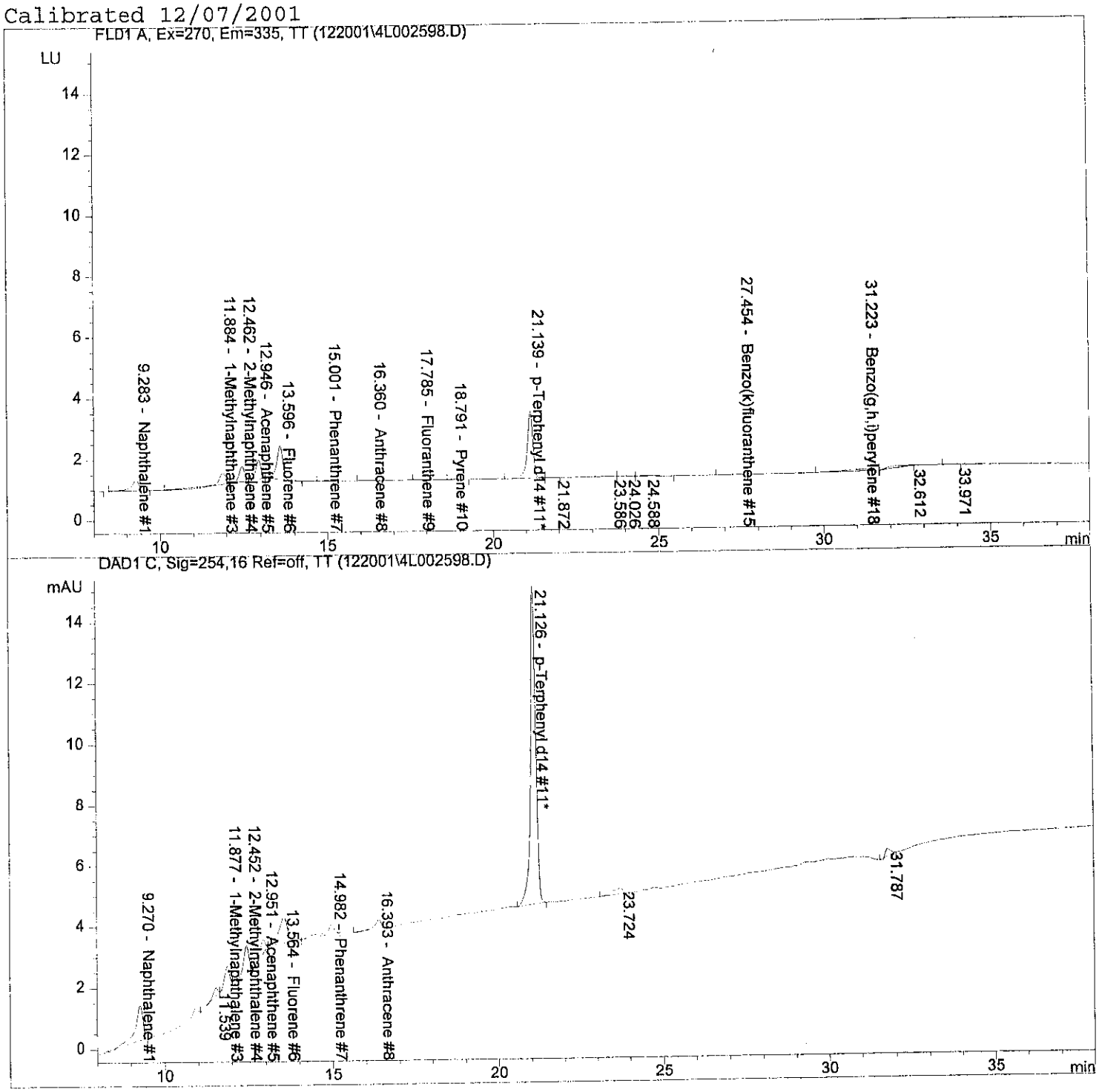
Injection Date : 12/21/2001 3:56:24 AM
Sample Name : L0112366-10 831W
Acq. Operator : RDC

Seq. Line : 16
Vial : 15
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/21/2001 2:20:40 PM by RDC
(modified after loading)

Calibrated 12/07/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : 12/21/2001 2:20:40 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.283	BB	5.85915	2.64309e-2	1.54863e-1		Naphthalene #1
11.884	BB	2.67671	2.30826e-2	6.17853e-2		1-Methylnaphthalene #3
12.462	BB	5.96292	1.77135e-2	1.05624e-1		2-Methylnaphthalene #4
12.946	BB	7.08449	1.41307e-2	1.00109e-1		Acenaphthene #5
13.596	BBA	14.53880	6.55799e-3	9.53453e-2		Fluorene #6
15.001	PBA	3.30707e-1	1.72114e-1	5.69191e-2		Phenanthrene #7
16.360	BBA	1.54848e-1	3.11763e-1	4.82760e-2		Anthracene #8
17.785	BB	2.74369e-1	2.51883e-2	6.91088e-3		Fluoranthene #9
18.791	BBA	2.23729e-1	4.52106e-2	1.01149e-2		Pyrene #10
21.139	BB	26.83615	2.98861e-1	8.02029		p-Terphenyl d14 #11*
22.562		-	-	-		Benzo(a)anthracene #12
23.431		-	-	-		Chrysene #13
26.140		-	-	-		Benzo(b)fluoranthene #14
27.454	BBA	2.60046e-1	2.77713e-3	7.22183e-4		Benzo(k)fluoranthene #15
28.676		-	-	-		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.223	PB	3.96589	3.02212e-2	1.19854e-1		Benzo(g,h,i)perylene #18
32.273		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.78081

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.270	PB	17.62029	8.11569e-3	1.43001e-1	mDL	Naphthalene #1
10.878		-	-	-		Acenaphthylene #2
11.877	BB	6.44301	1.26957e-2	8.17985e-2		1-Methylnaphthalene #3
12.452	BB	9.16954	1.10418e-2	1.01248e-1		2-Methylnaphthalene #4
12.951	BB	4.34569	1.99953e-2	8.68932e-2		Acenaphthene #5
13.564	BB	17.21034	1.72604e-2	2.97058e-1		Fluorene #6
14.982	BB	6.40847	1.70751e-2	1.09425e-1		Phenanthrene #7
16.393	BB	3.23759	1.03316e-2	3.34494e-2		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.891		-	-	-		Pyrene #10
21.126	BBA	119.42278	6.51566e-2	7.78118		p-Terphenyl d14 #11*
22.544		-	-	-	77.8%	Benzo(a)anthracene #12
23.412		-	-	-		Chrysene #13
26.121		-	-	-		Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.509		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.63405

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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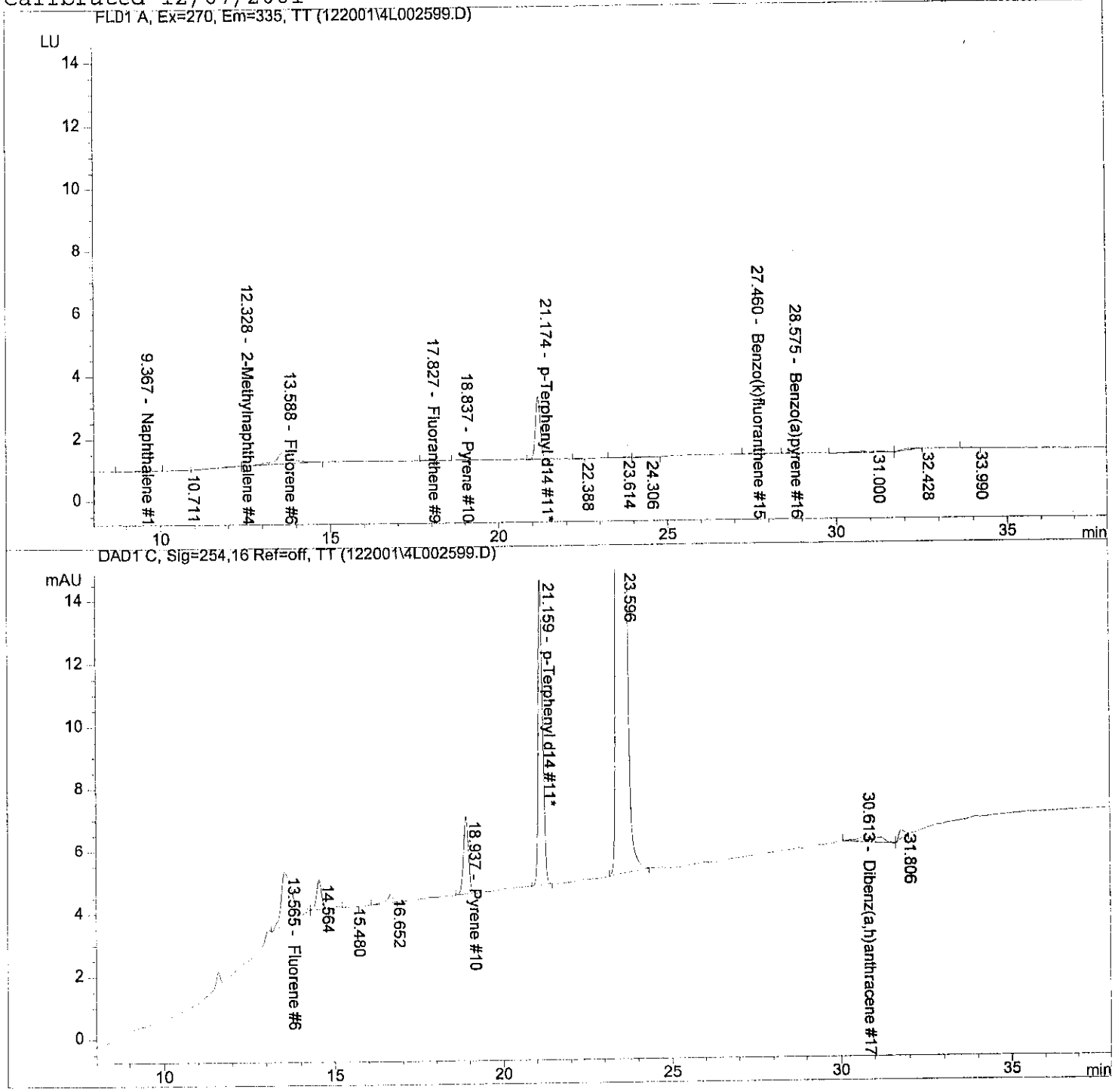
Injection Date : 12/21/2001 4:52:59 AM
Sample Name : L0112366-11 831W
Acq. Operator : RDC

Seq. Line : 17
Vial : 16
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/21/2001 2:20:40 PM by RDC
(modified after loading)

Calibrated 12/07/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : 12/21/2001 2:20:40 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.367	BB	3.77424e-1	2.64309e-2	9.97564e-3		Naphthalene #1
11.861		-	-	-		1-Methylnaphthalene #3
12.328	BB	4.11783e-1	1.77135e-2	7.29413e-3		2-Methylnaphthalene #4
12.930		-	-	-		Acenaphthene #5
13.588	BBA	11.60605	6.55799e-3	7.61123e-2		Fluorene #6
14.997		-	-	-		Phenanthrene #7
16.422		-	-	-		Anthracene #8
17.827	PBA	2.73316e-1	2.51883e-2	6.88437e-3		Fluoranthene #9
18.837	PBA	2.04943e-1	4.52106e-2	9.26559e-3		Pyrene #10
21.174	BB	19.10973	2.98861e-1	5.71116		p-Terphenyl d14 #11*
22.562		-	-	-		Benzo(a)anthracene #12
23.431		-	-	-		Chrysene #13
26.140		-	-	-		Benzo(b)fluoranthene #14
27.460	BBA	2.21432e-1	2.77713e-3	6.14945e-4		Benzo(k)fluoranthene #15
28.575	BB	1.73348e-1	5.23910e-3	9.08186e-4		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.334		-	-	-		Benzo(g,h,i)perylene #18
32.273		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 5.82222

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.238		-	-	-		Naphthalene #1
10.878		-	-	-		Acenaphthylene #2
11.843		-	-	-		1-Methylnaphthalene #3
12.427		-	-	-		2-Methylnaphthalene #4
12.912		-	-	-		Acenaphthene #5
13.565	BB	40.05610	1.72604e-2	6.91385e-1	NC	Fluorene #6
14.979		-	-	-		Phenanthrene #7
16.404		-	-	-		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.937	PBA	25.88892	1.42346e-2	3.68519e-1	NC	Pyrene #10
21.159	PBA	86.28194	6.51566e-2	5.62184	56.26	p-Terphenyl d14 #11*
22.544		-	-	-		Benzo(a)anthracene #12
23.412		-	-	-		Chrysene #13
26.121		-	-	-		Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.613	BB	7.19309	9.27377e-2	6.67070e-1	NC	Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 7.34881

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1

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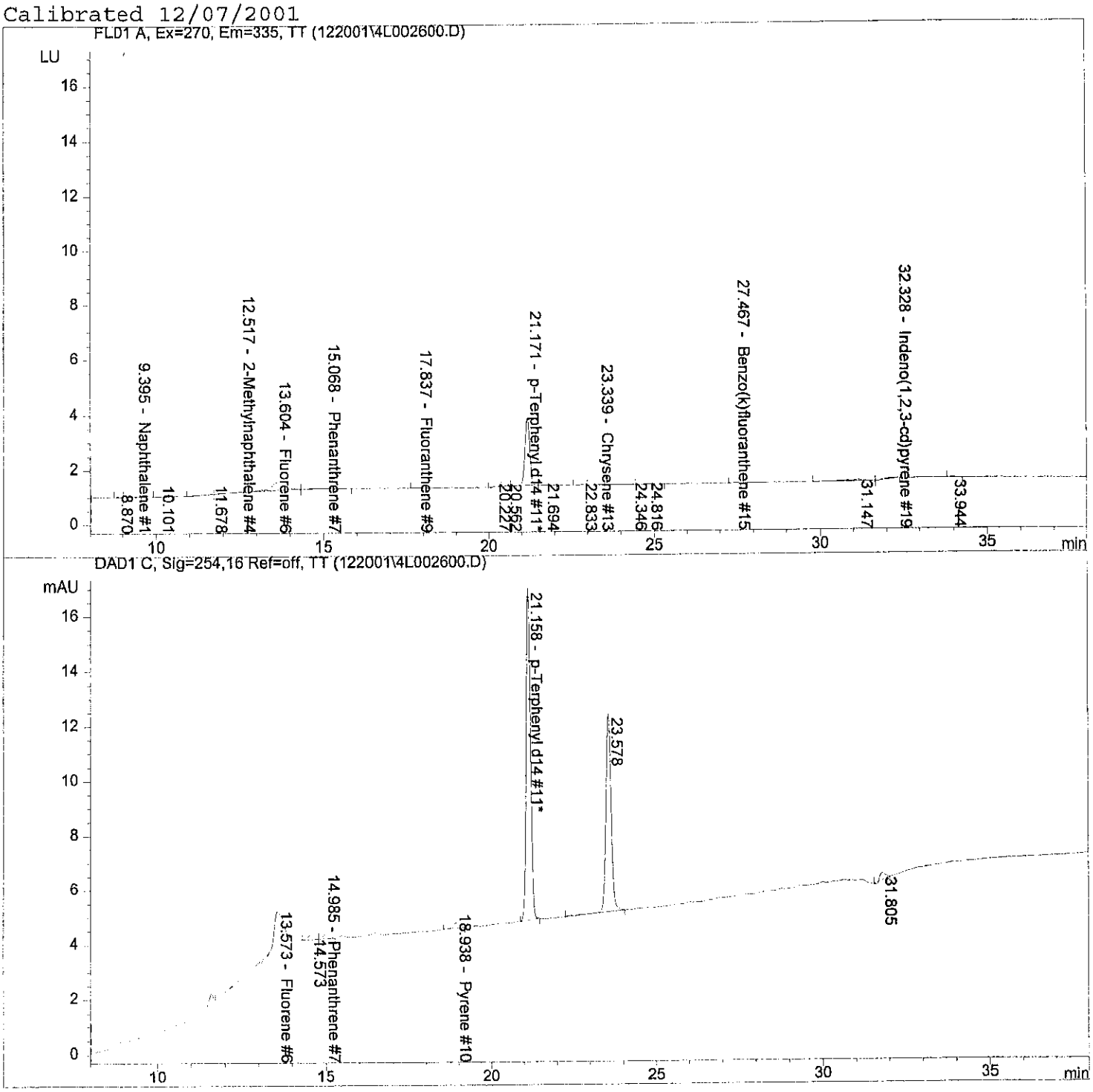
Injection Date : 12/21/2001 5:49:32 AM
Sample Name : L0112366-12 831W
Acq. Operator : RDC

Seq. Line : 18
Vial : 17
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/21/2001 2:20:40 PM by RDC
(modified after loading)

Calibrated 12/07/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : 12/21/2001 2:20:40 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.395	BB	1.78917e-1	2.64309e-2	4.72892e-3		Naphthalene #1
11.861		-	-	-		1-Methylnaphthalene #3
12.517	BB	3.48595e-1	1.77135e-2	6.17485e-3		2-Methylnaphthalene #4
12.930		-	-	-		Acenaphthene #5
13.604	BB	8.50497	6.55799e-3	5.57755e-2		Fluorene #6
15.068	BBA	1.21881	1.72114e-1	2.09773e-1		Phenanthrene #7
16.422		-	-	-		Anthracene #8
17.837	PBA	2.72172e-1	2.51883e-2	6.85556e-3		Fluoranthene #9
18.912		-	-	-		Pyrene #10
21.171	BB	23.86457	2.98861e-1	7.13220		p-Terphenyl d14 #11*
22.562		-	-	-		Benzo(a)anthracene #12
23.339	BB	2.47740e-1	4.07647e-2	1.00990e-2		Chrysene #13
26.140		-	-	-		Benzo(b)fluoranthene #14
27.467	BBA	1.75122e-1	2.77713e-3	4.86338e-4		Benzo(k)fluoranthene #15
28.676		-	-	-		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.334		-	-	-		Benzo(g,h,i)perylene #18
32.328	BB	1.10408	1.37336e-2	1.51630e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 7.44125

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.238		-	-	-		Naphthalene #1
10.878		-	-	-		Acenaphthylene #2
11.843		-	-	-		1-Methylnaphthalene #3
12.427		-	-	-		2-Methylnaphthalene #4
12.912		-	-	-		Acenaphthene #5
13.573	BB	15.29260	1.72604e-2	2.63957e-1	Impl	Fluorene #6
14.985	BB	1.86827	1.70751e-2	3.19009e-2		Phenanthrene #7
16.404		-	-	-		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.938	BBA	2.50562	1.42346e-2	3.56665e-2		Pyrene #10
21.158	PBA	107.08819	6.51566e-2	6.97750		p-Terphenyl d14 #11*
22.544		-	-	-		Benzo(a)anthracene #12
23.412		-	-	-	69.8%	Chrysene #13
26.121		-	-	-		Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.509		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 7.30902

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

1,1

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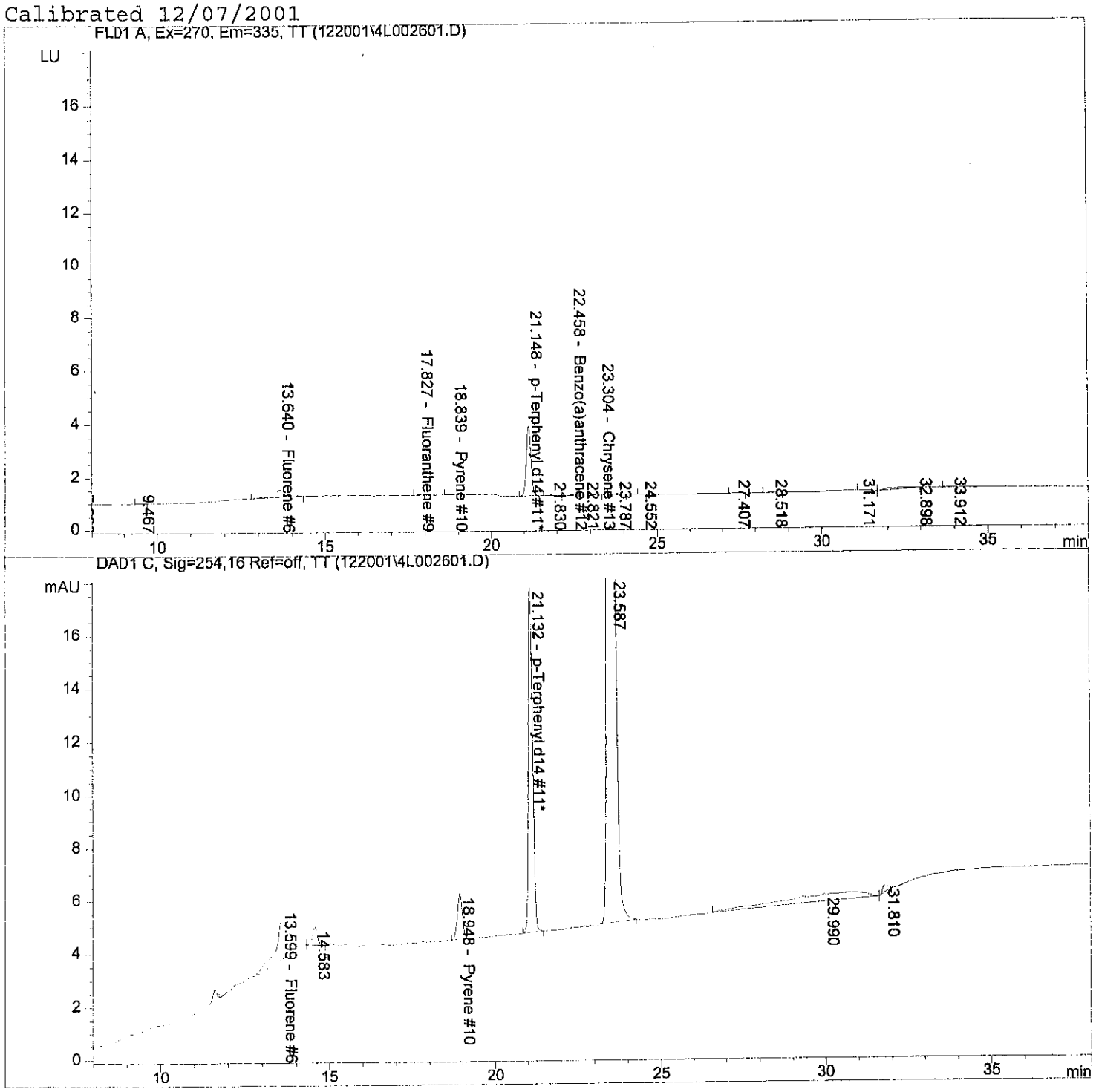
Injection Date : 12/21/2001 6:46:09 AM
Sample Name : L0112366-13 831W
Acq. Operator : RDC

Seq. Line : 19
Vial : 18
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/21/2001 2:20:40 PM by RDC
(modified after loading)

Calibrated 12/07/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : 12/21/2001 2:20:40 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.255		-	-	-		Naphthalene #1
11.861		-	-	-		1-Methylnaphthalene #3
12.444		-	-	-		2-Methylnaphthalene #4
12.930		-	-	-		Acenaphthene #5
13.640	BB	7.85949	6.55799e-3	5.15425e-2		Fluorene #6
14.997		-	-	-		Phenanthrene #7
16.422		-	-	-		Anthracene #8
17.827	PB	1.76279e-1	2.51883e-2	4.44016e-3		Fluoranthene #9
18.839	BBA	2.22776e-1	4.52106e-2	1.00718e-2		Pyrene #10
21.148	BB	25.71426	2.98861e-1	7.68500		p-Terphenyl d14 #11*
22.458	BB	2.89782e-1	8.29841e-3	2.40473e-3		Benzo(a)anthracene #12
23.304	BB	1.84991e-1	4.07647e-2	7.54112e-3		Chrysene #13
26.140		-	-	-		Benzo(b)fluoranthene #14
27.562		-	-	-		Benzo(k)fluoranthene #15
28.676		-	-	-		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.334		-	-	-		Benzo(g,h,i)perylene #18
32.273		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				7.76100		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.238		-	-	-		Naphthalene #1
10.878		-	-	-		Acenaphthylene #2
11.843		-	-	-		1-Methylnaphthalene #3
12.427		-	-	-		2-Methylnaphthalene #4
12.912		-	-	-		Acenaphthene #5
13.599	BB	51.83176	1.72604e-2	8.94637e-1	NC	Fluorene #6
14.979		-	-	-		Phenanthrene #7
16.404		-	-	-		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.948	PBA	18.14141	1.42346e-2	2.58236e-1	NC	Pyrene #10
21.132	BBA	114.95488	6.51566e-2	7.49007		p-Terphenyl d14 #11*
22.544		-	-	-		Benzo(a)anthracene #12
23.412		-	-	-	74.9%	Chrysene #13
26.121		-	-	-		Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.509		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.64294

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

1,1

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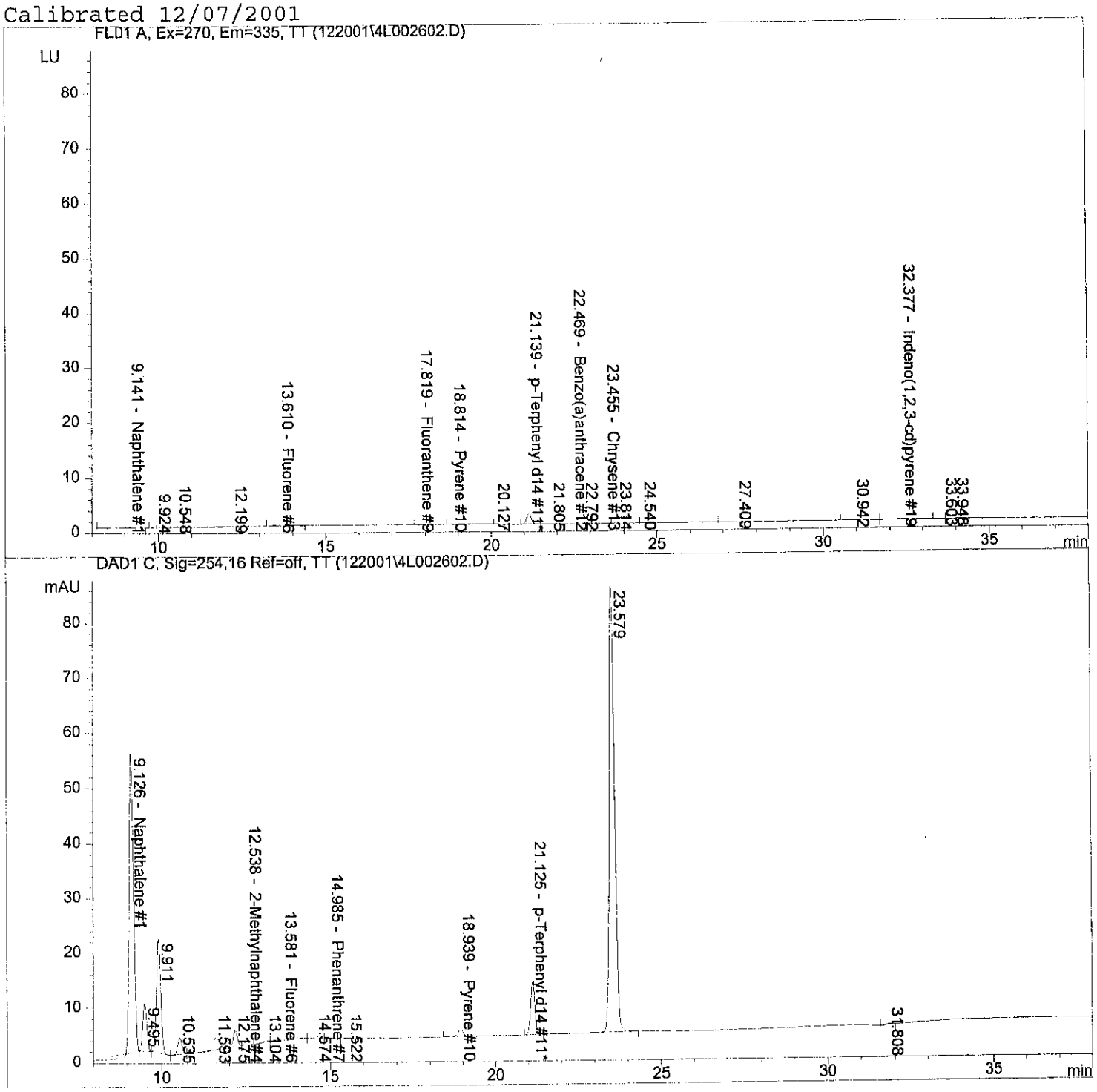
Injection Date : 12/21/2001 7:42:46 AM
Sample Name : L0112366-14 831W
Acq. Operator : RDC

Seq. Line : 20
Vial : 19
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/21/2001 2:20:40 PM by RDC
(modified after loading)

Calibrated 12/07/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : 12/21/2001 2:20:40 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.141	BBA	3.06768	2.64309e-2	8.10814e-2	<mdl	Naphthalene #1
11.861		-	-	-		1-Methylnaphthalene #3
12.444		-	-	-		2-Methylnaphthalene #4
12.930		-	-	-		Acenaphthene #5
13.610	BBA	6.93614	6.55799e-3	4.54871e-2		Fluorene #6
14.997		-	-	-		Phenanthrene #7
16.422		-	-	-		Anthracene #8
17.819	BBA	1.58809e-1	2.51883e-2	4.00013e-3		Fluoranthene #9
18.814	BBA	2.04787e-1	4.52106e-2	9.25852e-3		Pyrene #10
21.139	BB	19.95069	2.98861e-1	5.96249		p-Terphenyl d14 #11*
22.469	BB	3.70121e-1	8.29841e-3	3.07142e-3		Benzo(a)anthracene #12
23.455	BB	2.18039e-1	4.07647e-2	8.88832e-3		Chrysene #13
26.140		-	-	-		Benzo(b)fluoranthene #14
27.562		-	-	-		Benzo(k)fluoranthene #15
28.676		-	-	-		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.334		-	-	-		Benzo(g,h,i)perylene #18
32.377	BB	1.51794	1.37336e-2	2.08467e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 6.13512

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.126	BB	478.01318	8.11569e-3	3.87940	NC	Naphthalene #1
10.878		-	-	-		Acenaphthylene #2
11.843		-	-	-		1-Methylnaphthalene #3
12.538	BB	9.68469	1.10418e-2	1.06936e-1	<mdl	2-Methylnaphthalene #4
12.912		-	-	-		Acenaphthene #5
13.581	BB	36.07948	1.72604e-2	6.22747e-1	NC	Fluorene #6
14.985	BB	1.82336	1.70751e-2	3.11340e-2	<mdl	Phenanthrene #7
16.404		-	-	-		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.939	PBA	15.41299	1.42346e-2	2.19398e-1	NC	Pyrene #10
21.125	BBA	87.13810	6.51566e-2	5.67762		p-Terphenyl d14 #11*
22.544		-	-	-		Benzo(a)anthracene #12
23.412		-	-	-	56.8%	Chrysene #13
26.121		-	-	-		Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.509		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 10.53724

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

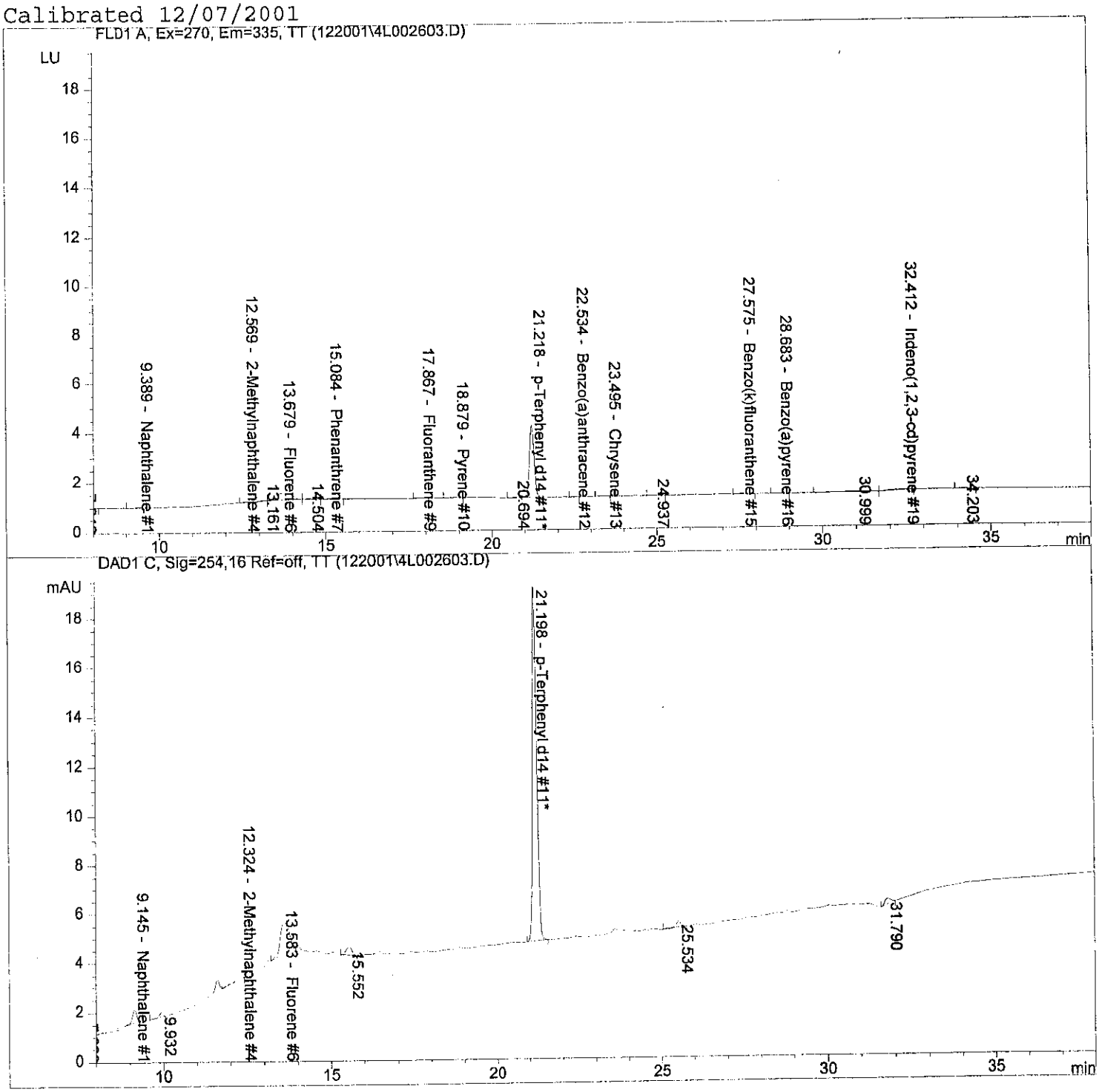
==========

Injection Date : 12/21/2001 8:39:25 AM
Sample Name : L0112366-15 831W
Acq. Operator : RDC

Seq. Line : 21
Vial : 20
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/21/2001 2:20:40 PM by RDC
(modified after loading)

Calibrated 12/07/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : 12/21/2001 2:20:40 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.389	BB	2.12957e-1	2.64309e-2	5.62862e-3		Naphthalene #1
11.861		-	-	-		1-Methylnaphthalene #3
12.569	BB	1.57136e-1	1.77135e-2	2.78344e-3		2-Methylnaphthalene #4
12.930		-	-	-		Acenaphthene #5
13.679	BB	6.15454	6.55799e-3	4.03614e-2		Fluorene #6
15.084	BBA	1.65736e-1	1.72114e-1	2.85254e-2		Phenanthrene #7
16.422		-	-	-		Anthracene #8
17.867	BBA	3.74533e-1	2.51883e-2	9.43386e-3		Fluoranthene #9
18.879	BBA	2.54032e-1	4.52106e-2	1.14849e-2		Pyrene #10
21.218	BB	28.41834	2.98861e-1	8.49314		p-Terphenyl d14 #11*
22.534	BB	1.52324e-1	8.29841e-3	1.26404e-3		Benzo(a)anthracene #12
23.495	BB	2.03076e-1	4.07647e-2	8.27834e-3		Chrysene #13
26.140		-	-	-		Benzo(b)fluoranthene #14
27.575	BBA	3.68182e-1	2.77713e-3	1.02249e-3		Benzo(k)fluoranthene #15
28.683	PBA	2.26744e-1	5.23910e-3	1.18794e-3		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.334		-	-	-		Benzo(g,h,i)perylene #18
32.412	BB	1.69789	1.37336e-2	2.33181e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 8.62643

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.145	BB	2.22554	8.11569e-3	1.80618e-2	MDL	Naphthalene #1
10.878		-	-	-		Acenaphthylene #2
11.843		-	-	-		1-Methylnaphthalene #3
12.324	BB	2.35340	1.10418e-2	2.59857e-2		2-Methylnaphthalene #4
12.912		-	-	-		Acenaphthene #5
13.583	BB	22.42997	1.72604e-2	3.87150e-1		Fluorene #6
14.979		-	-	-		Phenanthrene #7
16.404		-	-	-		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.891		-	-	-		Pyrene #10
21.198	PBA	128.24040	6.51566e-2	8.35571		p-Terphenyl d14 #11*
22.544		-	-	-		Benzo(a)anthracene #12
23.412		-	-	-	83.6%	Chrysene #13
26.121		-	-	-		Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.509		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.78690

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

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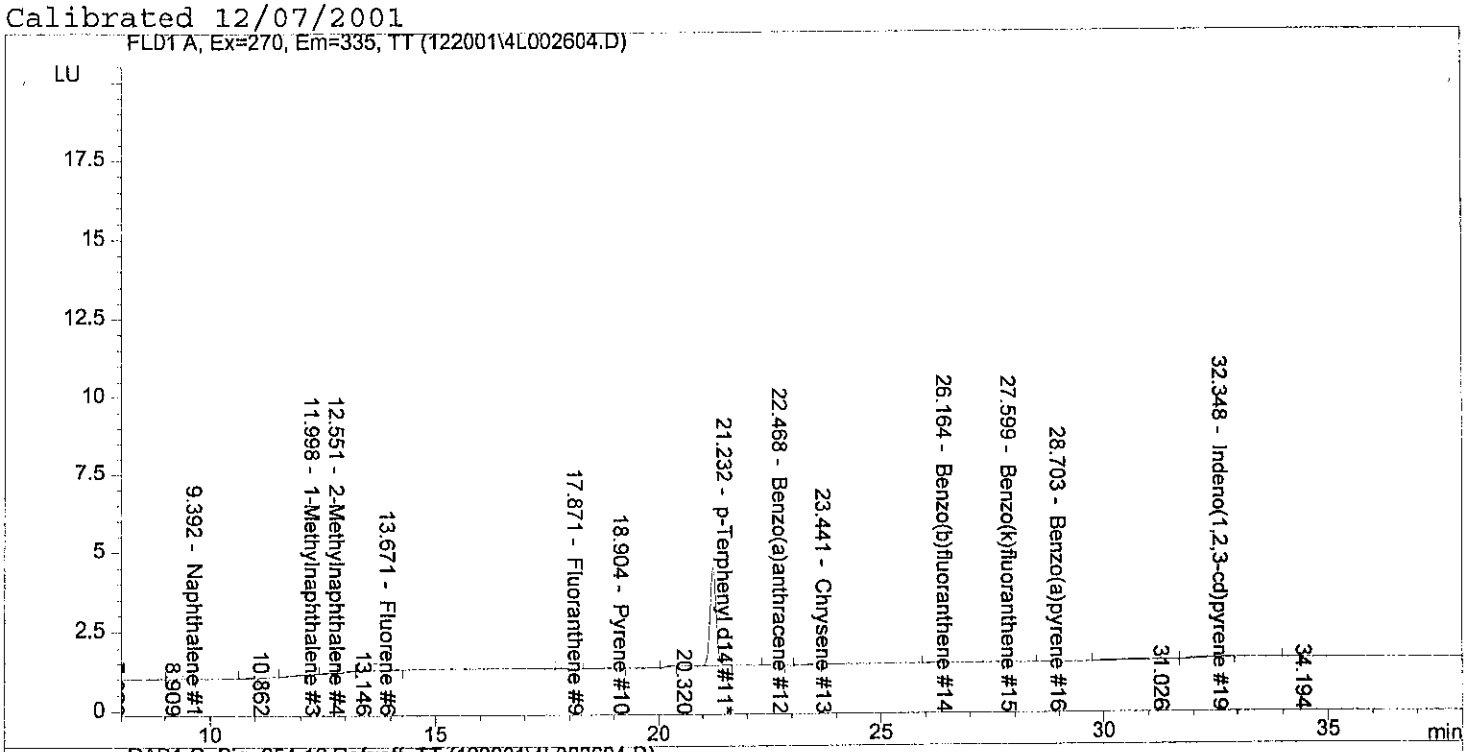
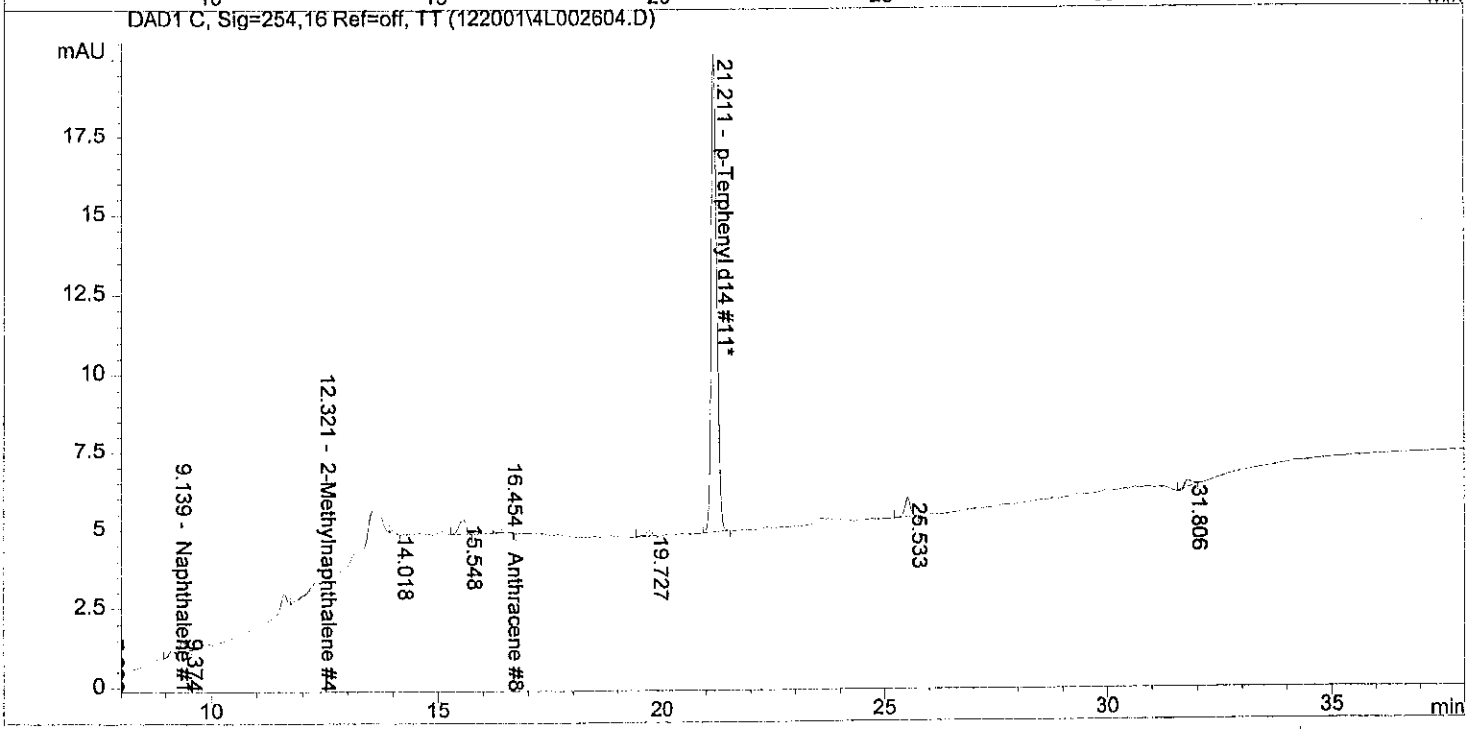
Injection Date : 12/21/2001 9:36:06 AM
Sample Name : L0112366-16 831W
Acq. Operator : RDC

Seq. Line : 22
Vial : 21
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/21/2001 2:20:40 PM by RDC
(modified after loading)

Calibrated 12/07/2001





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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 12/21/2001 2:20:40 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.392	BBA	1.34255	2.64309e-2	3.54849e-2		Naphthalene #1
11.998	BB	2.50859e-1	2.30826e-2	5.79047e-3		1-Methylnaphthalene #3
12.551	BB	4.02818e-1	1.77135e-2	7.13533e-3		2-Methylnaphthalene #4
12.930		-	-	-		Acenaphthene #5
13.671	BB	5.91577	6.55799e-3	3.87956e-2		Fluorene #6
14.997		-	-	-		Phenanthrene #7
16.422		-	-	-		Anthracene #8
17.871	BBA	3.96194e-1	2.51883e-2	9.97947e-3		Fluoranthene #9
18.904	BBA	2.92843e-1	4.52106e-2	1.32396e-2		Pyrene #10
21.232	BBA	30.17677	2.98861e-1	9.01867		p-Terphenyl d14 #11*
22.468	BB	1.85226e-1	8.29841e-3	1.53708e-3		Benzo(a)anthracene #12
23.441	BB	2.94724e-1	4.07647e-2	1.20143e-2		Chrysene #13
26.164	BBA	1.54246e-1	1.66521e-2	2.56854e-3		Benzo(b)fluoranthene #14
27.599	PBA	2.11816e-1	2.77713e-3	5.88242e-4		Benzo(k)fluoranthene #15
28.703	BBA	1.86818e-1	5.23910e-3	9.78760e-4		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.334		-	-	-		Benzo(g,h,i)perylene #18
32.348	BB	2.14933	1.37336e-2	2.95179e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.17630

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.139	BB	1.12125	8.11569e-3	9.09968e-3		Naphthalene #1
10.878		-	-	-		Acenaphthylene #2
11.843		-	-	-		1-Methylnaphthalene #3
12.321	BB	1.45548	1.10418e-2	1.60711e-2		2-Methylnaphthalene #4
12.912		-	-	-		Acenaphthene #5
13.574		-	-	-		Fluorene #6
14.979		-	-	-		Phenanthrene #7
16.454	BBA	1.35547	1.03316e-2	1.40042e-2		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.891		-	-	-		Pyrene #10
21.211	PBA	135.02570	6.51566e-2	8.79781		p-Terphenyl d14 #11*
22.544		-	-	-		Benzo(a)anthracene #12
23.412		-	-	-		Chrysene #13
26.121		-	-	-		Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.509		-	-	-		Dibenz(a,h)anthracene #17

mol

88.0%

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.83699

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

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*** End of Report ***

2.2.7.3 Standards Data

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Calibration Table

==========

HPLC4 8310 CALIBRATION

Calib. Data Modified : Monday, December 10, 2001 11:34:24 AM

Calculate : External Standard
Based on : Peak Area

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.300 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.300 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Forced
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FLD1 A, Ex=270, Em=335, TT
Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
9.427	2	1	1.00000	115.80276	8.63537e-3			Naphthalene #1
		2	5.00000	606.36218	8.24590e-3			
		3	10.00000	1228.04895	8.14300e-3			
		4	20.00000	2515.62280	7.95032e-3			
		5	50.00000	6239.97021	8.01286e-3			
		6	100.00000	1.22730e4	8.14796e-3			
9.445	1	1	1.00000	34.14394	2.92878e-2			Naphthalene #1
		2	5.00000	175.20758	2.85376e-2			
		3	10.00000	357.36987	2.79822e-2			
		4	20.00000	737.47040	2.71197e-2			
		5	50.00000	1851.06140	2.70115e-2			
		6	100.00000	3810.46631	2.62435e-2			
11.059	2	1	1.00000	31.43988	3.18067e-2			Acenaphthylene #2
		2	5.00000	158.72070	3.15019e-2			
		3	10.00000	320.25964	3.12247e-2			
		4	20.00000	657.36005	3.04247e-2			
		5	50.00000	1651.06335	3.02835e-2			
		6	100.00000	3433.28174	2.91267e-2			
12.007	2	1	1.00000	72.32628	1.38262e-2			1-Methylnaphthalene #3

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
		2	5.00000	371.50211	1.34589e-2			
		3	10.00000	751.04242	1.33148e-2			
		4	20.00000	1541.22485	1.29767e-2			
		5	50.00000	3860.07959	1.29531e-2			
		6	100.00000	7927.48535	1.26143e-2			
12.025	1	1	1.00000	39.21505	2.55004e-2			1-Methylnaphthalene #3
		2	5.00000	202.11798	2.47380e-2			
		3	10.00000	411.64304	2.42929e-2			
		4	20.00000	845.22443	2.36624e-2			
		5	50.00000	2126.27832	2.35153e-2			
		6	100.00000	4359.37695	2.29391e-2			
12.583	2	1	1.00000	84.52537	1.18308e-2			2-Methylnaphthalene #4
		2	5.00000	434.66425	1.15031e-2			
		3	10.00000	878.19104	1.13870e-2			
		4	20.00000	1800.34558	1.11090e-2			
		5	50.00000	4488.76758	1.11389e-2			
		6	100.00000	9082.16113	1.10106e-2			
12.602	1	1	1.00000	51.48040	1.94249e-2			2-Methylnaphthalene #4
		2	5.00000	265.18561	1.88547e-2			
		3	10.00000	539.40985	1.85388e-2			
		4	20.00000	1111.04944	1.80010e-2			
		5	50.00000	2777.27686	1.80032e-2			
		6	100.00000	5675.13281	1.76207e-2			
13.062	2	1	1.00000	45.57931	2.19398e-2			Acenaphthene #5
		2	5.00000	234.14653	2.13541e-2			
		3	10.00000	472.85046	2.11483e-2			
		4	20.00000	971.48230	2.05871e-2			
		5	50.00000	2437.01563	2.05169e-2			
		6	100.00000	5042.28223	1.98323e-2			
13.080	1	1	1.00000	65.08414	1.53647e-2			Acenaphthene #5
		2	5.00000	335.57715	1.48997e-2			
		3	10.00000	680.59875	1.46929e-2			
		4	20.00000	1398.43469	1.43017e-2			
		5	50.00000	3490.80957	1.43233e-2			
		6	100.00000	7107.66846	1.40693e-2			
13.719	2	1	1.00000	52.40231	1.90831e-2			Fluorene #6
		2	5.00000	269.92172	1.85239e-2			
		3	10.00000	545.33289	1.83374e-2			
		4	20.00000	1121.15540	1.78387e-2			
		5	50.00000	2817.43921	1.77466e-2			
		6	100.00000	5845.24707	1.71079e-2			
13.738	1	1	1.00000	144.45450	6.92260e-3			Fluorene #6
		2	5.00000	742.47473	6.73424e-3			
		3	10.00000	1498.75659	6.67220e-3			
		4	20.00000	3062.98730	6.52957e-3			
		5	50.00000	7578.60205	6.59752e-3			
		6	100.00000	1.52725e4	6.54773e-3			
15.107	2	1	1.00000	53.48583	1.86965e-2			Phenanthrene #7
		2	5.00000	273.70901	1.82676e-2			
		3	10.00000	553.08002	1.80806e-2			
		4	20.00000	1137.95862	1.75753e-2			
		5	50.00000	2853.04907	1.75251e-2			
		6	100.00000	5905.01465	1.69348e-2			
15.126	1	1	1.00000	5.16262	1.93700e-1			Phenanthrene #7
		2	5.00000	26.34856	1.89764e-1			
		3	10.00000	53.12293	1.88243e-1			

Retime [min]	Lvl Sig		Amount [ug/L]	Area	Amt/Area			Name
		4	20.00000	110.76902	1.80556e-1			
		5	50.00000	281.05099	1.77904e-1			
		6	100.00000	587.46509	1.70223e-1			
16.513	2	1	1.00000	88.39832	1.13124e-2			Anthracene #8
		2	5.00000	456.11115	1.09622e-2			
		3	10.00000	924.44818	1.08173e-2			
		4	20.00000	1885.26465	1.06086e-2			
		5	50.00000	4812.97998	1.03886e-2			
		6	100.00000	9708.27441	1.03005e-2			
16.532	1	1	1.00000	2.73816	3.65209e-1			Anthracene #8
		2	5.00000	14.95346	3.34371e-1			
		3	10.00000	30.15903	3.31576e-1			
		4	20.00000	62.19715	3.21558e-1			
		5	50.00000	156.76224	3.18954e-1			
		6	100.00000	323.20529	3.09401e-1			
17.887	2	1	1.00000e-1	4.29404	2.32881e-2			Fluoranthene #9
		2	5.00000e-1	21.55572	2.31957e-2			
		3	1.00000	43.55686	2.29585e-2			
		4	2.00000	89.84662	2.22602e-2			
		5	5.00000	226.59413	2.20659e-2			
		6	10.00000	472.12201	2.11810e-2			
17.907	1	1	1.00000e-1	3.35839	2.97762e-2			Fluoranthene #9
		2	5.00000e-1	19.23926	2.59885e-2			
		3	1.00000	39.02326	2.56257e-2			
		4	2.00000	77.06699	2.59514e-2			
		5	5.00000	191.95184	2.60482e-2			
		6	10.00000	400.85757	2.49465e-2			
18.891	2	1	1.00000e-1	6.05919	1.65038e-2			Pyrene #10
		2	5.00000e-1	31.22189	1.60144e-2			
		3	1.00000	65.35954	1.53000e-2			
		4	2.00000	135.25577	1.47868e-2			
		5	5.00000	340.46393	1.46858e-2			
		6	10.00000	709.65320	1.40914e-2			
18.912	1	1	1.00000e-1	1.73975	5.74796e-2			Pyrene #10
		2	5.00000e-1	10.39580	4.80963e-2			
		3	1.00000	21.21303	4.71408e-2			
		4	2.00000	43.99789	4.54567e-2			
		5	5.00000	110.94641	4.50668e-2			
21.231	2	1	1.00000	13.90912	7.18953e-2			p-Terphenyl d14 #11*
		2	5.00000	71.85631	6.95833e-2			
		3	10.00000	147.07727	6.79915e-2			
		4	20.00000	301.76755	6.62762e-2			
		5	50.00000	767.66412	6.51327e-2			
		6	100.00000	1536.55896	6.50805e-2			
21.248	1	1	1.00000	3.10528	3.22032e-1			p-Terphenyl d14 #11*
		2	5.00000	15.82066	3.16042e-1			
		3	10.00000	31.79696	3.14496e-1			
		4	20.00000	65.33878	3.06097e-1			
		5	50.00000	166.28719	3.00685e-1			
		6	100.00000	335.64120	2.97937e-1			
22.544	2	1	1.00000e-1	4.04760	2.47060e-2			Benzo(a)anthracene #12
		2	5.00000e-1	20.88080	2.39454e-2			
		3	1.00000	42.08236	2.37629e-2			
		4	2.00000	87.47297	2.28642e-2			
		5	5.00000	220.45860	2.26800e-2			
		6	10.00000	460.26733	2.17265e-2			

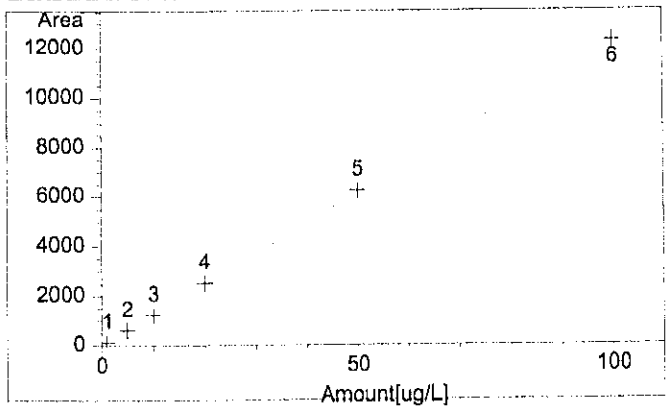
RetTime [min]	Lvl Sig		Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
22.562	1	1	1.00000e-1	10.98394	9.10420e-3			Benzo(a)anthracene #12
		2	5.00000e-1	55.03781	9.08466e-3			
		3	1.00000	111.32906	8.98238e-3			
		4	2.00000	231.59561	8.63574e-3			
		5	5.00000	583.97321	8.56204e-3			
		6	10.00000	1217.39807	8.21424e-3			
23.412	2	1	1.00000e-1	5.94315	1.68261e-2			Chrysene #13
		2	5.00000e-1	30.72799	1.62718e-2			
		3	1.00000	62.67461	1.59554e-2			
		4	2.00000	128.96687	1.55079e-2			
		5	5.00000	326.67627	1.53057e-2			
		6	10.00000	682.58563	1.46502e-2			
23.431	1	1	1.00000e-1	2.36736	4.22412e-2			Chrysene #13
		2	5.00000e-1	11.46110	4.36258e-2			
		3	1.00000	22.85746	4.37494e-2			
		4	2.00000	46.97458	4.25762e-2			
		5	5.00000	118.82884	4.20773e-2			
		6	10.00000	247.84904	4.03471e-2			
26.121	2	1	1.00000e-1	4.52168	2.21157e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	22.90010	2.18340e-2			
		3	1.00000	46.43794	2.15341e-2			
		4	2.00000	94.51936	2.11597e-2			
		5	5.00000	237.99123	2.10092e-2			
		6	10.00000	496.62497	2.01359e-2			
26.140	1	1	1.00000e-1	5.61101	1.78221e-2			Benzo(b)fluoranthene #
		2	5.00000e-1	28.96787	1.72605e-2			
		3	1.00000	55.92225	1.78820e-2			
		4	2.00000	116.34737	1.71899e-2			
		5	5.00000	291.22507	1.71689e-2			
		6	10.00000	606.26263	1.64945e-2			
27.548	2	1	5.00000e-2	2.10015	2.38078e-2			Benzo(k)fluoranthene #
		2	2.50000e-1	11.10531	2.25118e-2			
		3	5.00000e-1	21.05570	2.37465e-2			
		4	1.00000	43.61720	2.29267e-2			
		5	2.50000	109.46035	2.28393e-2			
		6	5.00000	227.90102	2.19393e-2			
27.562	1	1	5.00000e-2	16.30576	3.06640e-3			Benzo(k)fluoranthene #
		2	2.50000e-1	83.71040	2.98649e-3			
		3	5.00000e-1	169.56526	2.94872e-3			
		4	1.00000	349.97339	2.85736e-3			
		5	2.50000	877.84839	2.84787e-3			
		6	5.00000	1814.99976	2.75482e-3			
28.658	2	1	1.00000e-1	2.59946	3.84695e-2			Benzo(a)pyrene #16
		2	5.00000e-1	15.20856	3.28762e-2			
		3	1.00000	31.26832	3.19813e-2			
		4	2.00000	67.33721	2.97013e-2			
		5	5.00000	170.42978	2.93376e-2			
		6	10.00000	361.30676	2.76773e-2			
28.676	1	1	1.00000e-1	16.72118	5.98044e-3			Benzo(a)pyrene #16
		2	5.00000e-1	86.88049	5.75503e-3			
		3	1.00000	175.19550	5.70791e-3			
		4	2.00000	364.55637	5.48612e-3			
		5	5.00000	924.72375	5.40702e-3			
		6	10.00000	1929.00012	5.18403e-3			
30.509	2	1	1.00000e-1	6.44712e-1	1.55108e-1			Dibenz(a,h)anthracene
		2	5.00000e-1	5.01077	9.97851e-2			

RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Sig	Name
		3	1.00000	13.35335	7.48876e-2			
		4	2.00000	21.45176	9.32324e-2			
		5	5.00000	51.97754	9.61954e-2			
		6	10.00000	108.58928	9.20901e-2			
30.526	1	1	1.00000e-1	2.05262	4.87183e-2			Dibenz(a,h)anthracene
		2	5.00000e-1	11.18928	4.46856e-2			
		3	1.00000	20.45066	4.88982e-2			
		4	2.00000	45.38562	4.40668e-2			
		5	5.00000	118.41199	4.22255e-2			
		6	10.00000	249.58025	4.00673e-2			
31.312	2	1	1.00000e-1	2.00007	4.99982e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	8.76552	5.70417e-2			
		3	1.00000	17.44936	5.73087e-2			
		4	2.00000	32.76551	6.10398e-2			
		5	5.00000	84.71449	5.90218e-2			
		6	10.00000	182.81955	5.46987e-2			
31.334	1	1	1.00000e-1	3.47096	2.88105e-2			Benzo(g,h,i)perylene #
		2	5.00000e-1	15.50431	3.22491e-2			
		3	1.00000	30.57295	3.27087e-2			
		4	2.00000	61.80997	3.23572e-2			
		5	5.00000	158.65286	3.15153e-2			
		6	10.00000	335.46561	2.98093e-2			
32.264	2	1	1.00000e-1	3.57299	2.79878e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	22.66177	2.20636e-2			
		3	1.00000	44.40019	2.25224e-2			
		4	2.00000	98.87786	2.02270e-2			
		5	5.00000	239.21368	2.09018e-2			
		6	10.00000	499.46121	2.00216e-2			
32.273	1	1	1.00000e-1	6.30039	1.58720e-2			Indeno(1,2,3-cd)pyrene
		2	5.00000e-1	34.34013	1.45602e-2			
		3	1.00000	77.95903	1.28273e-2			
		4	2.00000	142.06572	1.40780e-2			
		5	5.00000	352.51187	1.41839e-2			
		6	10.00000	734.23254	1.36197e-2			

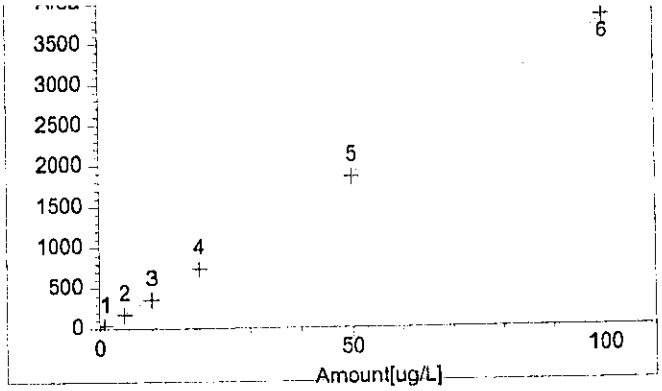
Peak Sum Table

No Entries in table

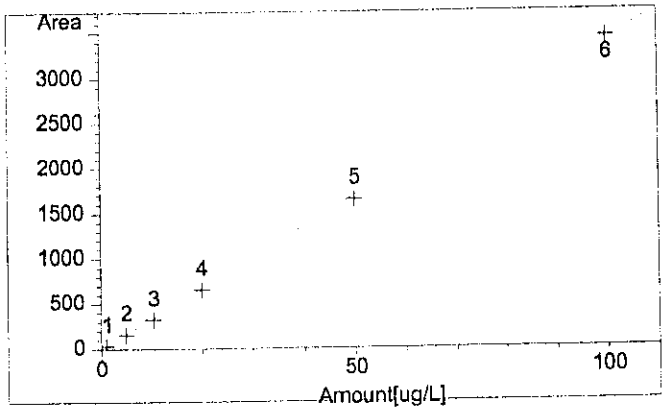
Calibration Curves



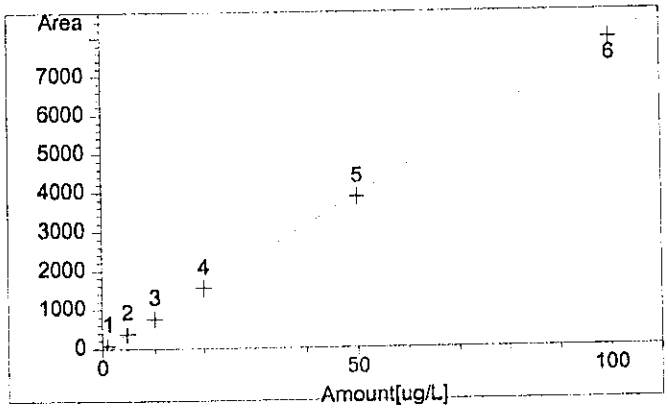
Naphthalene #1 at exp. RT: 9.427
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 47.80615
Formula: y = mx
m: 123.21818
x: Amount [ug/L]
y: Area



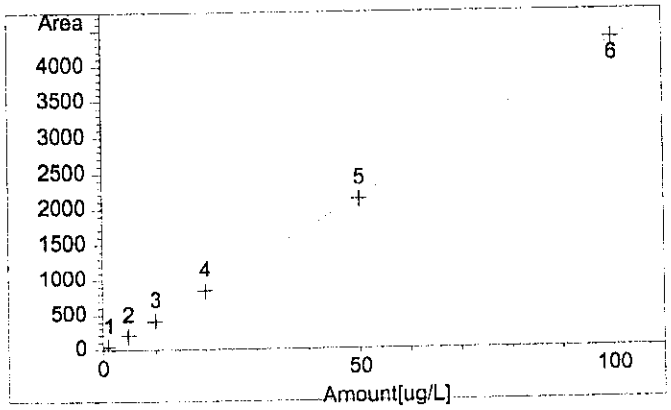
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 26.08217
Formula: y = mx
m: 37.83456
x: Amount [ug/L]
y: Area



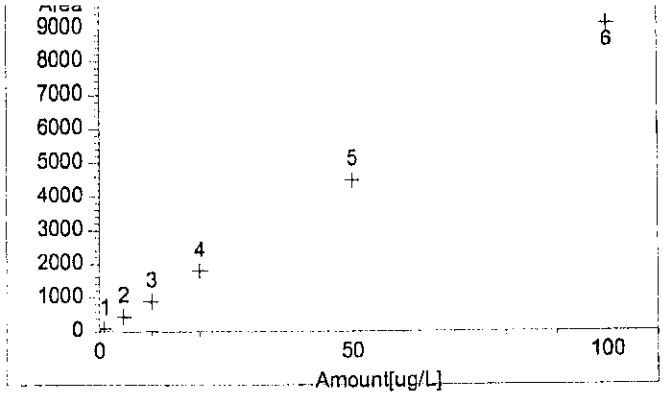
Acenaphthylene #2 at exp. RT: 11.059
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99985
Residual Std. Dev.: 30.12049
Formula: y = mx
m: 34.01322
x: Amount [ug/L]
y: Area



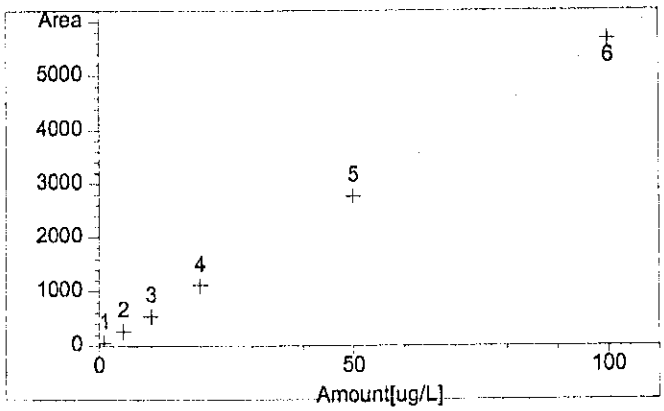
1-Methylnaphthalene #3 at exp. RT: 12.007
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 48.47901
Formula: y = mx
m: 78.76687
x: Amount [ug/L]
y: Area



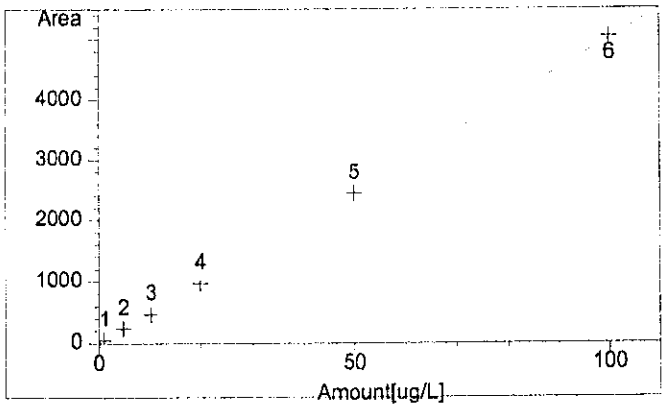
1-Methylnaphthalene #3 at exp. RT: 12.025
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 26.33210
Formula: y = mx
m: 43.32276
x: Amount [ug/L]
y: Area



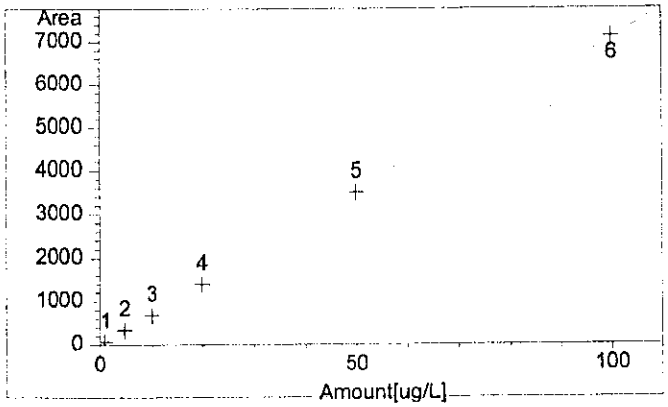
2-Methylnaphthalene #1 at exp. RT: [illegible]
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 26.29692
Formula: y = mx
m: 90.56511
x: Amount[ug/L]
y: Area



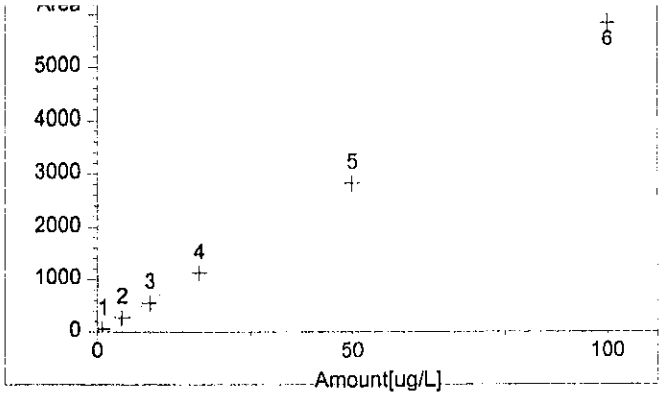
2-Methylnaphthalene #4 at exp. RT: 12.602
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 29.05354
Formula: y = mx
m: 56.45399
x: Amount[ug/L]
y: Area



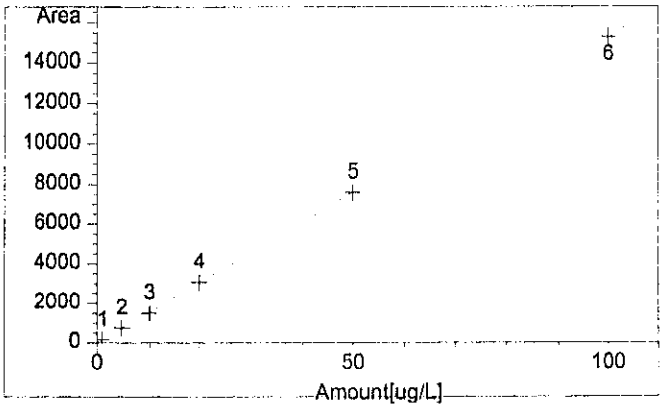
Acenaphthene #5 at exp. RT: 13.062
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99988
Residual Std. Dev.: 38.92105
Formula: y = mx
m: 50.01178
x: Amount[ug/L]
y: Area



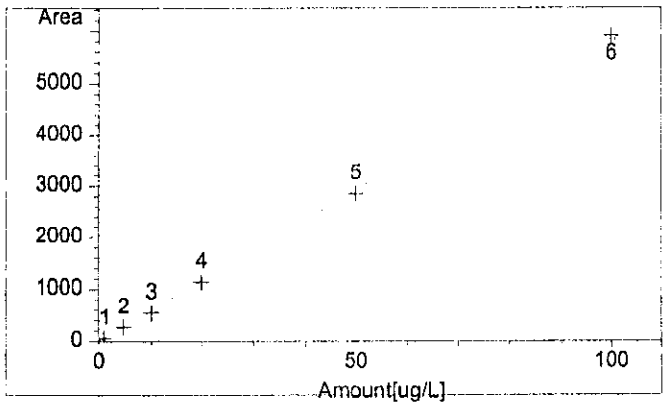
Acenaphthene #5 at exp. RT: 13.080
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99996
Residual Std. Dev.: 30.34274
Formula: y = mx
m: 70.76808
x: Amount[ug/L]
y: Area



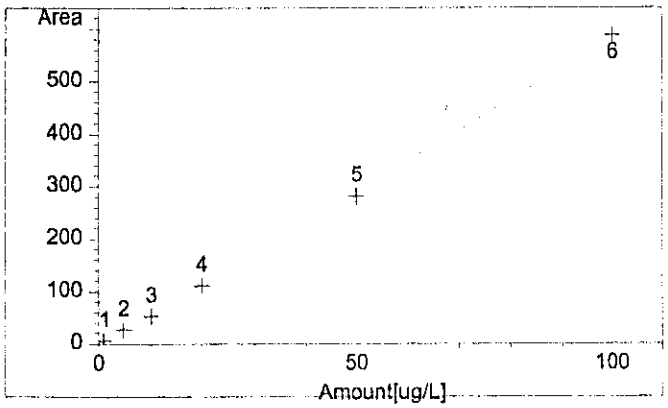
Fluorene #6 at exp. RT: 13.719
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99986
Residual Std. Dev.: 48.89890
Formula: y = mx
m: 57.93606
x: Amount [ug/L]
y: Area



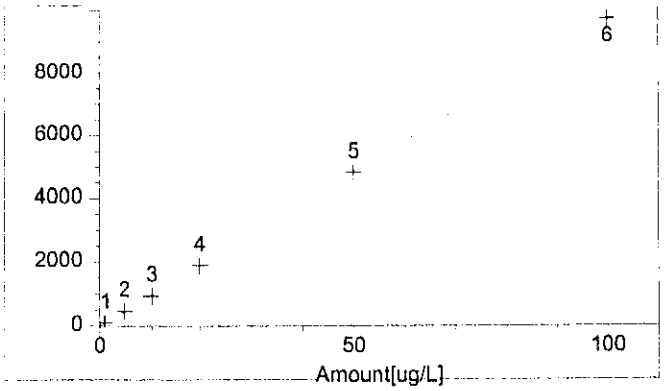
Fluorene #6 at exp. RT: 13.738
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 28.20492
Formula: y = mx
m: 152.48579
x: Amount [ug/L]
y: Area



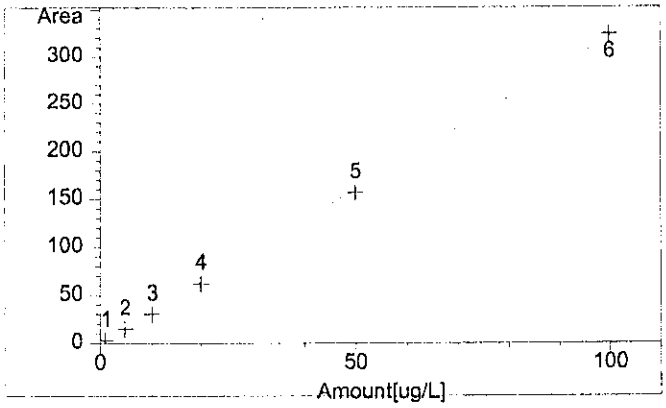
Phenanthrene #7 at exp. RT: 15.107
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99988
Residual Std. Dev.: 45.98374
Formula: y = mx
m: 58.56486
x: Amount [ug/L]
y: Area



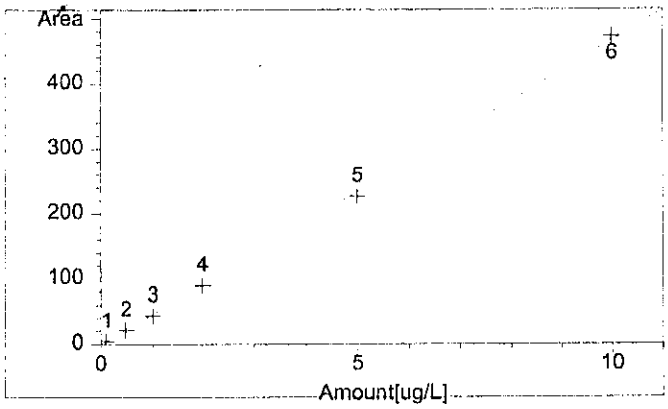
Phenanthrene #7 at exp. RT: 15.126
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99978
Residual Std. Dev.: 6.21393
Formula: y = mx
m: 5.81012
x: Amount [ug/L]
y: Area



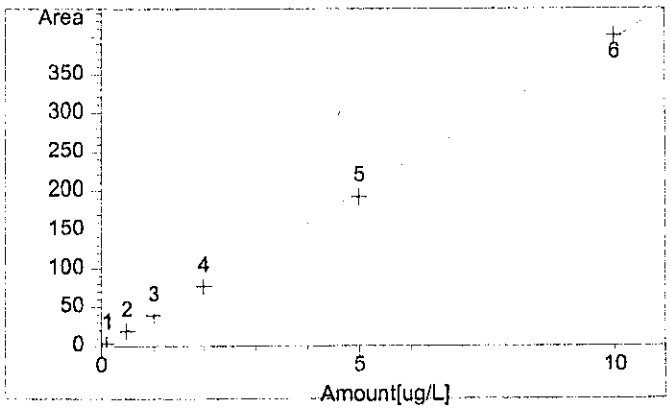
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 37.00703
Formula: y = mx
m: 96.79066
x: Amount[ug/L]
y: Area



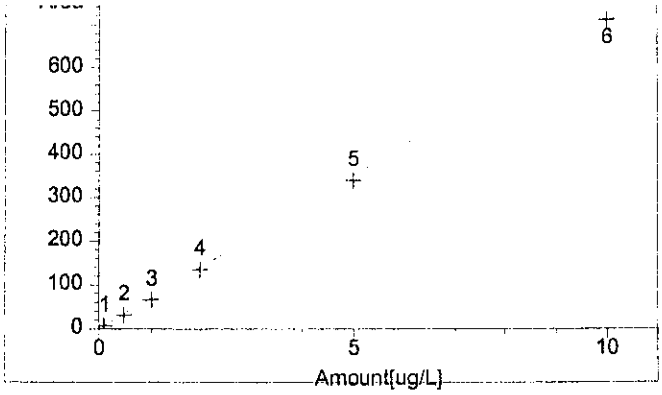
Anthracene #8 at exp. RT: 16.532
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 2.36476
Formula: y = mx
m: 3.20756
x: Amount[ug/L]
y: Area



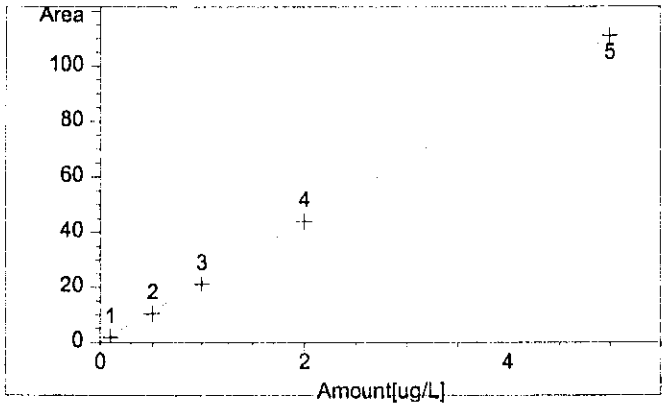
Fluoranthene #9 at exp. RT: 17.887
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99983
Residual Std. Dev.: 4.46228
Formula: y = mx
m: 46.74227
x: Amount[ug/L]
y: Area



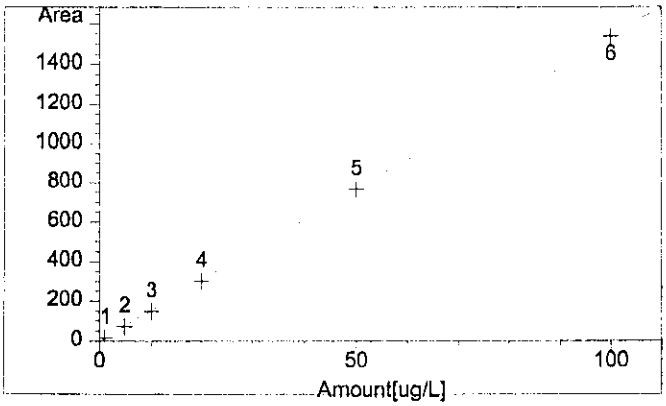
Fluoranthene #9 at exp. RT: 17.907
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99984
Residual Std. Dev.: 3.58907
Formula: y = mx
m: 39.70096
x: Amount[ug/L]
y: Area



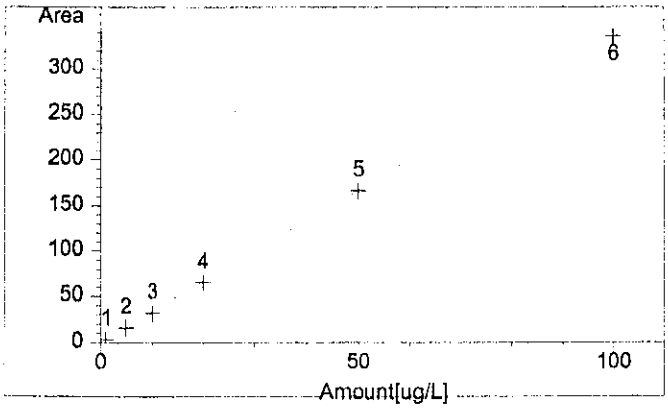
Pyrene #10 at exp. RT: 18.691
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 6.85701
Formula: y = mx
m: 70.25134
x: Amount [ug/L]
y: Area



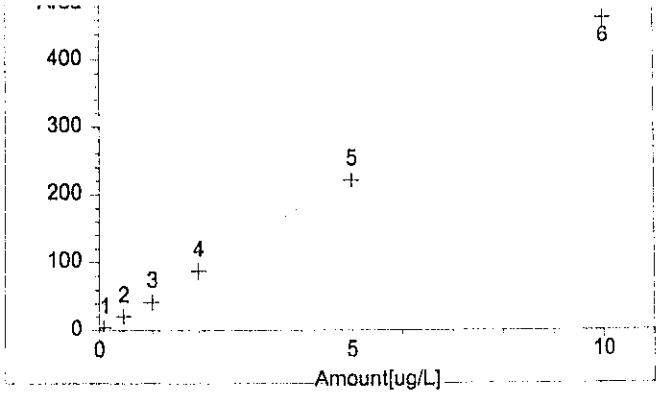
Pyrene #10 at exp. RT: 18.912
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99994
Residual Std. Dev.: 0.64524
Formula: y = mx
m: 22.11873
x: Amount [ug/L]
y: Area



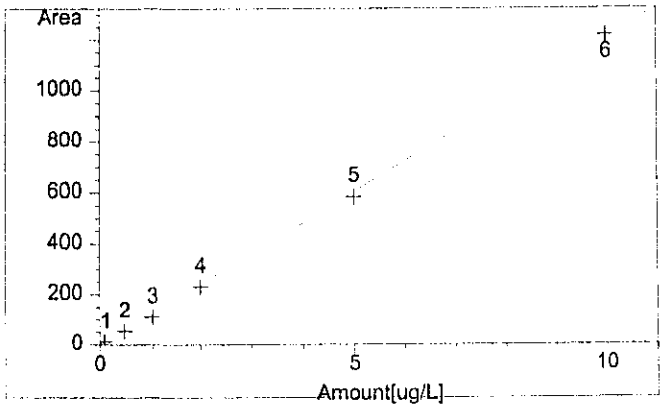
p-Terphenyl d14 #11* at exp. RT: 21.231
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 4.40544
Formula: y = mx
m: 15.34764
x: Amount [ug/L]
y: Area



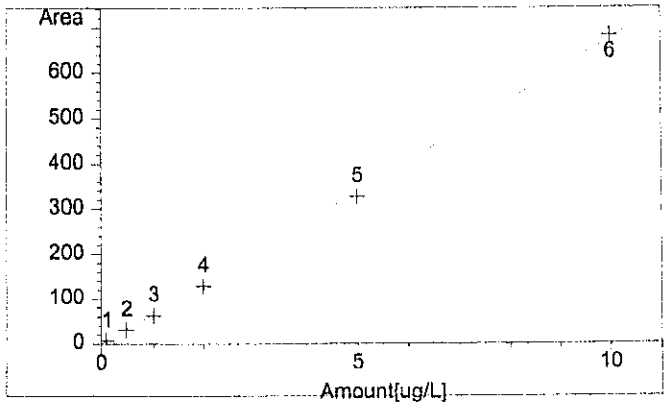
p-Terphenyl d14 #11* at exp. RT: 21.248
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 1.28536
Formula: y = mx
m: 3.34603
x: Amount [ug/L]
y: Area



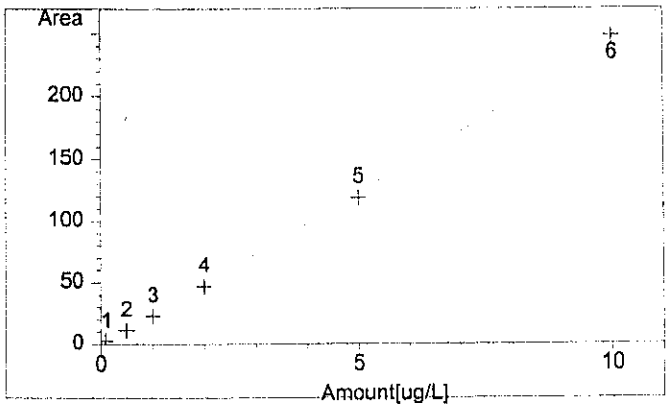
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99981
Residual Std. Dev.: 4.58073
Formula: y = mx
m: 45.54614
x: Amount[ug/L]
y: Area



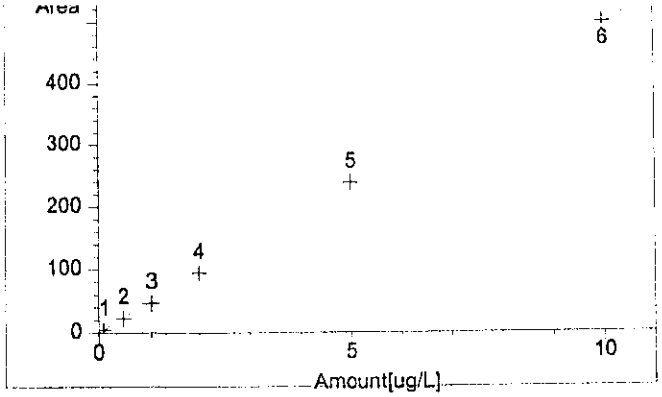
Benzo(a)anthracene #12 at exp. RT: 22.562
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99982
Residual Std. Dev.: 11.81358
Formula: y = mx
m: 120.50502
x: Amount[ug/L]
y: Area



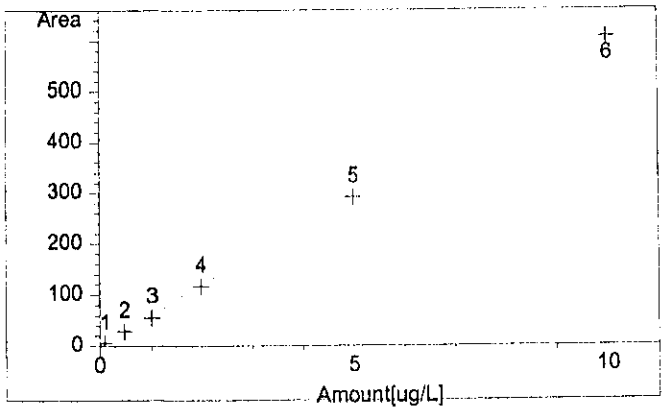
Chrysene #13 at exp. RT: 23.412
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99979
Residual Std. Dev.: 6.98685
Formula: y = mx
m: 67.52498
x: Amount[ug/L]
y: Area



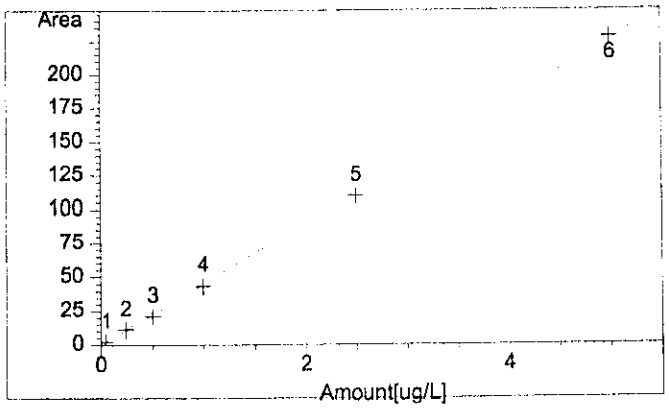
Chrysene #13 at exp. RT: 23.431
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99982
Residual Std. Dev.: 2.40411
Formula: y = mx
m: 24.53100
x: Amount[ug/L]
y: Area



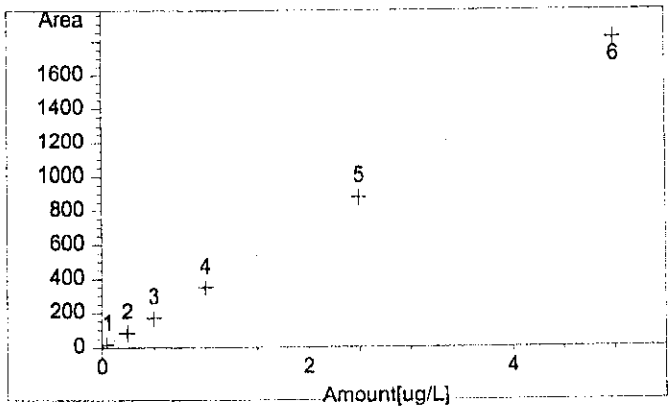
Benzo(b)fluoranthene #14 at exp. RT: 26.1
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 4.71295
Formula: y = mx
m: 49.16002
x: Amount[ug/L]
y: Area



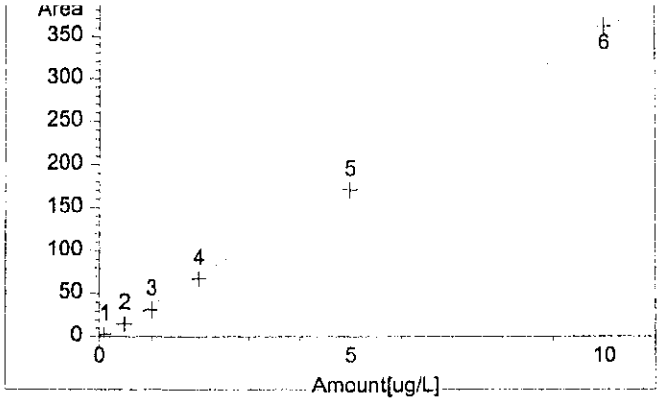
Benzo(b)fluoranthene #14 at exp. RT: 26.1
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99984
Residual Std. Dev.: 5.42310
Formula: y = mx
m: 60.05231
x: Amount[ug/L]
y: Area



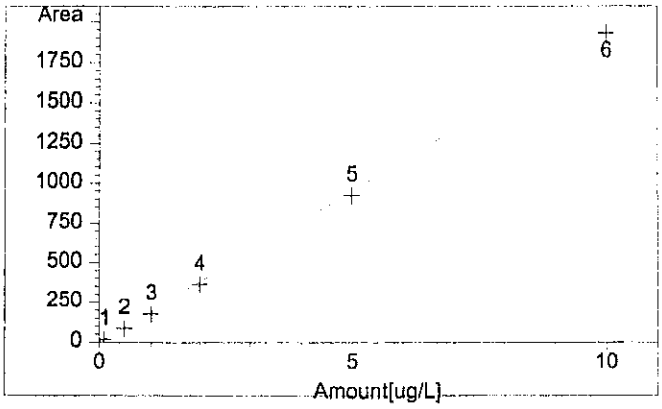
Benzo(k)fluoranthene #15 at exp. RT: 27.5
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99984
Residual Std. Dev.: 2.04948
Formula: y = mx
m: 45.14609
x: Amount[ug/L]
y: Area



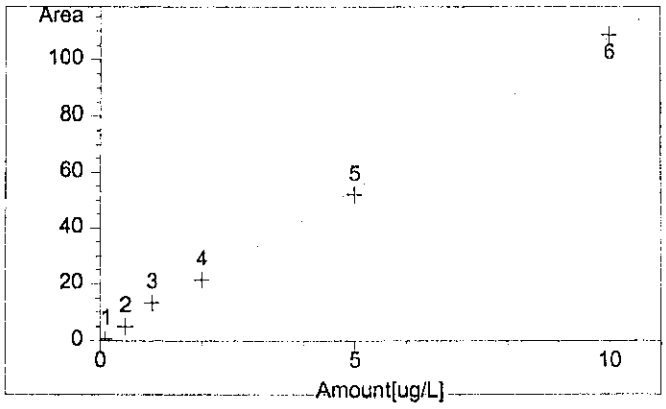
Benzo(k)fluoranthene #15 at exp. RT: 27.5
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99989
Residual Std. Dev.: 13.90903
Formula: y = mx
m: 360.08348
x: Amount[ug/L]
y: Area



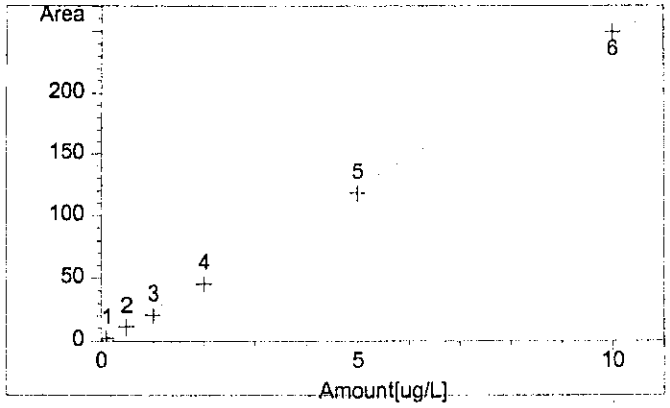
Benzo(a)pyrene #16 at exp. RT: 28.658
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99962
Residual Std. Dev.: 5.03525
Formula: y = mx
m: 35.61357
x: Amount[ug/L]
y: Area



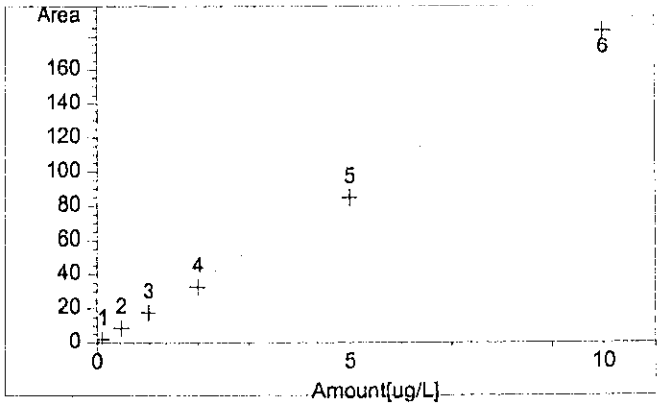
Benzo(a)pyrene #16 at exp. RT: 28.676
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99980
Residual Std. Dev.: 19.54253
Formula: y = mx
m: 190.87241
x: Amount[ug/L]
y: Area



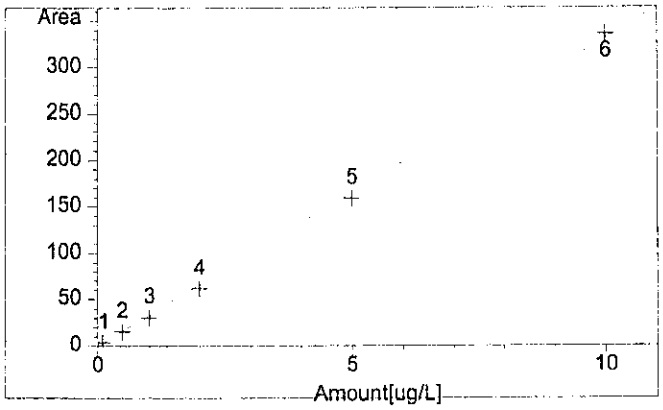
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99963
Residual Std. Dev.: 1.50220
Formula: y = mx
m: 10.78310
x: Amount[ug/L]
y: Area



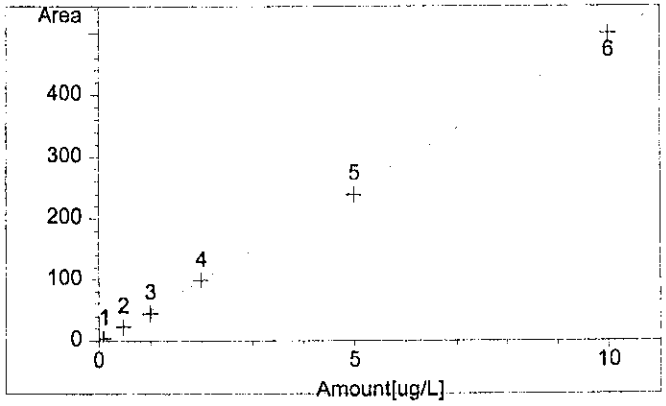
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99958
Residual Std. Dev.: 3.66148
Formula: y = mx
m: 24.60375
x: Amount[ug/L]
y: Area



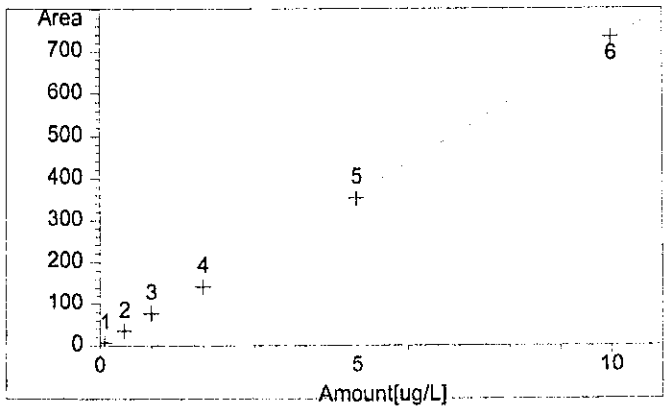
Benzo(g,h,i)perylene #18 at exp. RT: 31.3
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99945
Residual Std. Dev.: 3.05047
Formula: y = mx
m: 17.95894
x: Amount[ug/L]
y: Area



Benzo(g,h,i)perylene #18 at exp. RT: 31.3
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99967
Residual Std. Dev.: 4.32638
Formula: y = mx
m: 33.08930
x: Amount[ug/L]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99981
Residual Std. Dev.: 4.91446
Formula: y = mx
m: 49.47432
x: Amount[ug/L]
y: Area



Indeno(1,2,3-cd)pyrene #19 at exp. RT: 32
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99984
Residual Std. Dev.: 6.55904
Formula: y = mx
m: 72.81418
x: Amount[ug/L]
y: Area

==========

1,1 SOB50-19 level 6 surrogate 100 ppm

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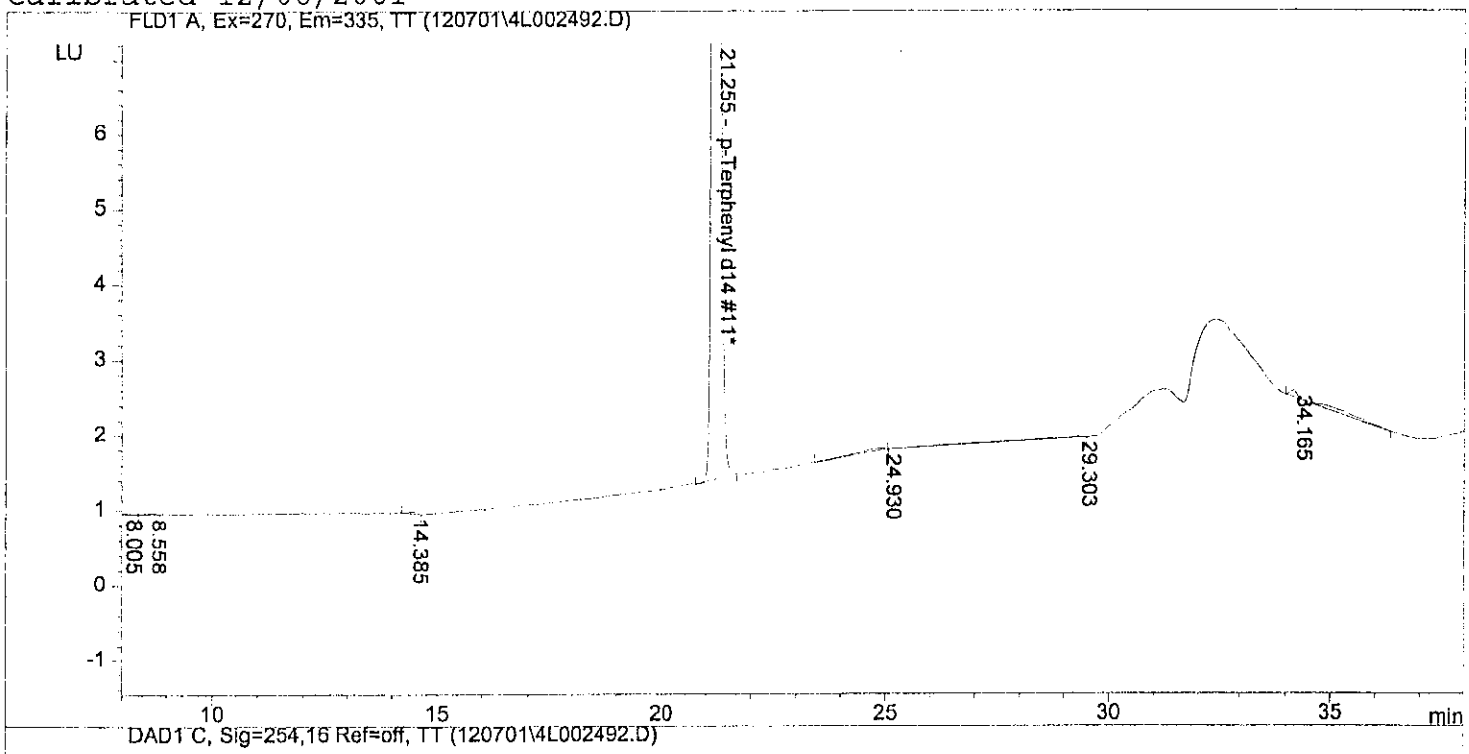
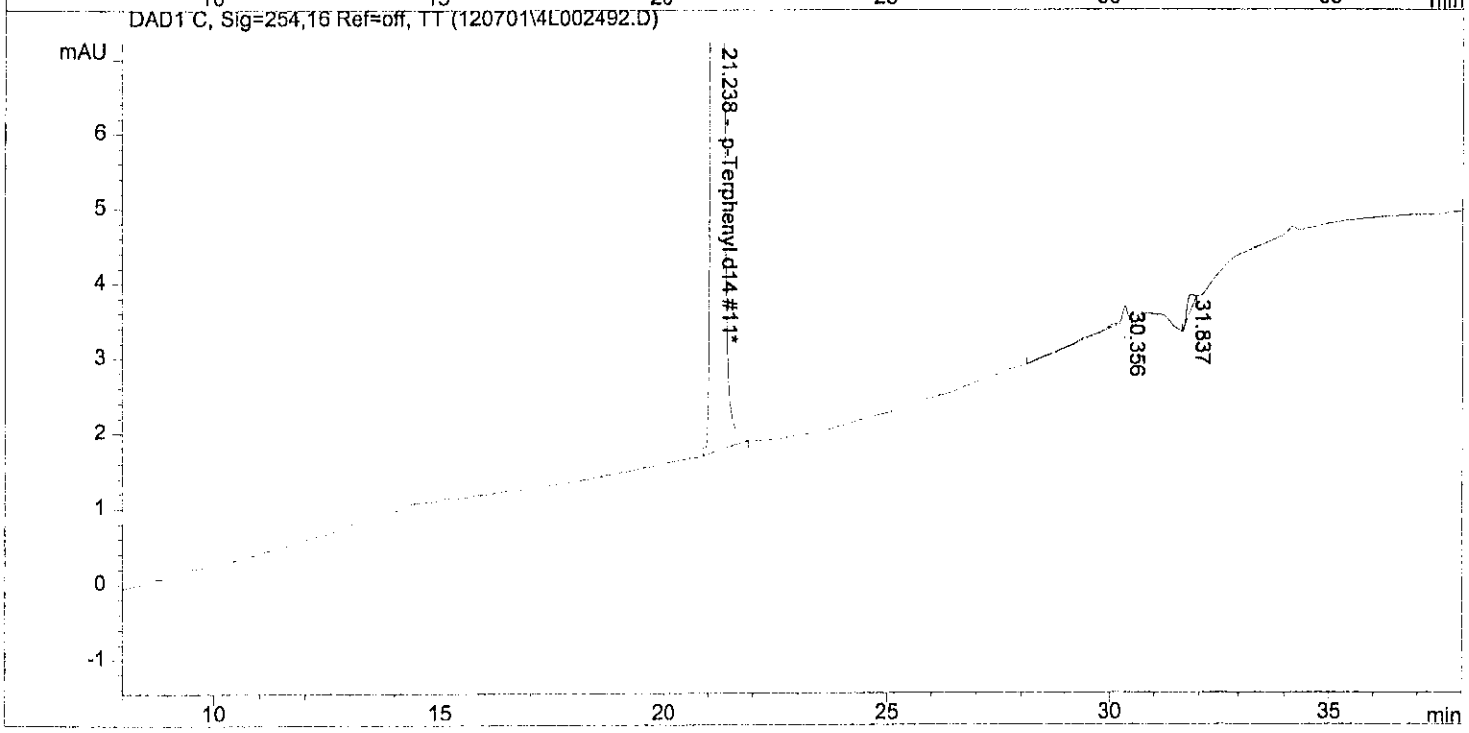
Injection Date	: 12/7/2001 5:41:55 PM	Seq. Line :	2
Sample Name	: WG109608-01	Vial :	2
Acq. Operator	: RDC	Inj :	1
		Inj Volume :	8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:20:37 AM by RDC
(modified after loading)

Calibrated 12/06/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:20:32 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.405		-	-	-		Naphthalene #1
11.969		-	-	-		1-Methylnaphthalene #3
12.543		-	-	-		2-Methylnaphthalene #4
13.017		-	-	-		Acenaphthene #5
13.667		-	-	-		Fluorene #6
15.061		-	-	-		Phenanthrene #7
16.484		-	-	-		Anthracene #8
17.873		-	-	-		Fluoranthene #9
18.888		-	-	-		Pyrene #10
21.255	BBA	335.64120	2.98888e-1	100.31928		p-Terphenyl d14 #11*
22.588		-	-	-		Benzo(a)anthracene #12
23.470		-	-	-		Chrysene #13
26.210		-	-	-		Benzo(b)fluoranthene #14
27.650		-	-	-		Benzo(k)fluoranthene #15
28.750		-	-	-		Benzo(a)pyrene #16
30.626		-	-	-		Dibenz(a,h)anthracene #17
31.428		-	-	-		Benzo(g,h,i)perylene #18
32.370		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 100.31928

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.385		-	-	-		Naphthalene #1
11.006		-	-	-		Acenaphthylene #2
11.949		-	-	-		1-Methylnaphthalene #3
12.523		-	-	-		2-Methylnaphthalene #4
12.997		-	-	-		Acenaphthene #5
13.647		-	-	-		Fluorene #6
15.041		-	-	-		Phenanthrene #7
16.463		-	-	-		Anthracene #8
17.853		-	-	-		Fluoranthene #9
18.867		-	-	-		Pyrene #10
21.238	PBA	1536.55896	6.52368e-2	100.24013		p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.449		-	-	-		Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.638		-	-	-		Benzo(k)fluoranthene #15
28.730		-	-	-		Benzo(a)pyrene #16
30.614		-	-	-		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.395		-	-	-		Benzo(g,h,i)perylene #18
32.361		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 100.24013

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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*** End of Report ***

1,1 SOS56-20 level 6 std. 100/10/5 ppm

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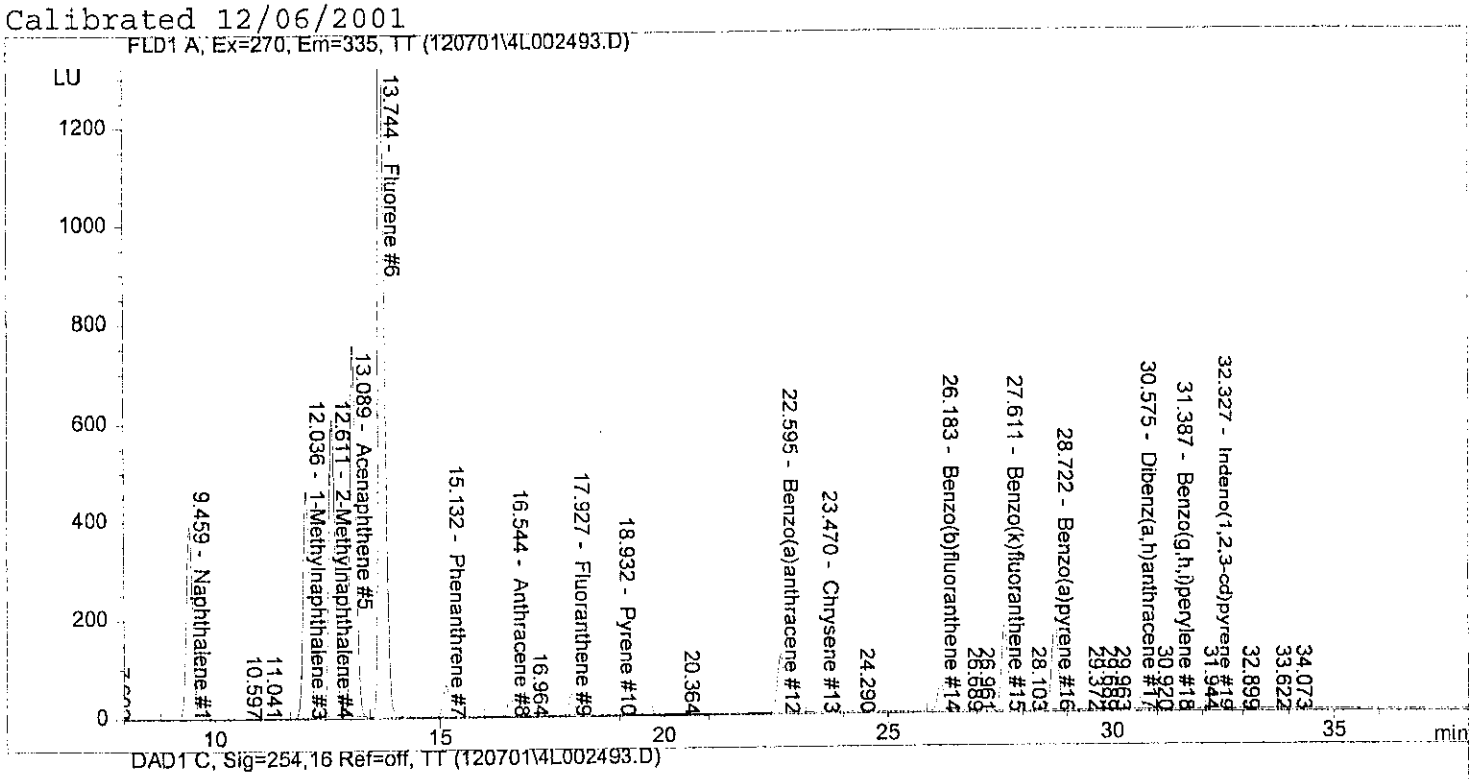
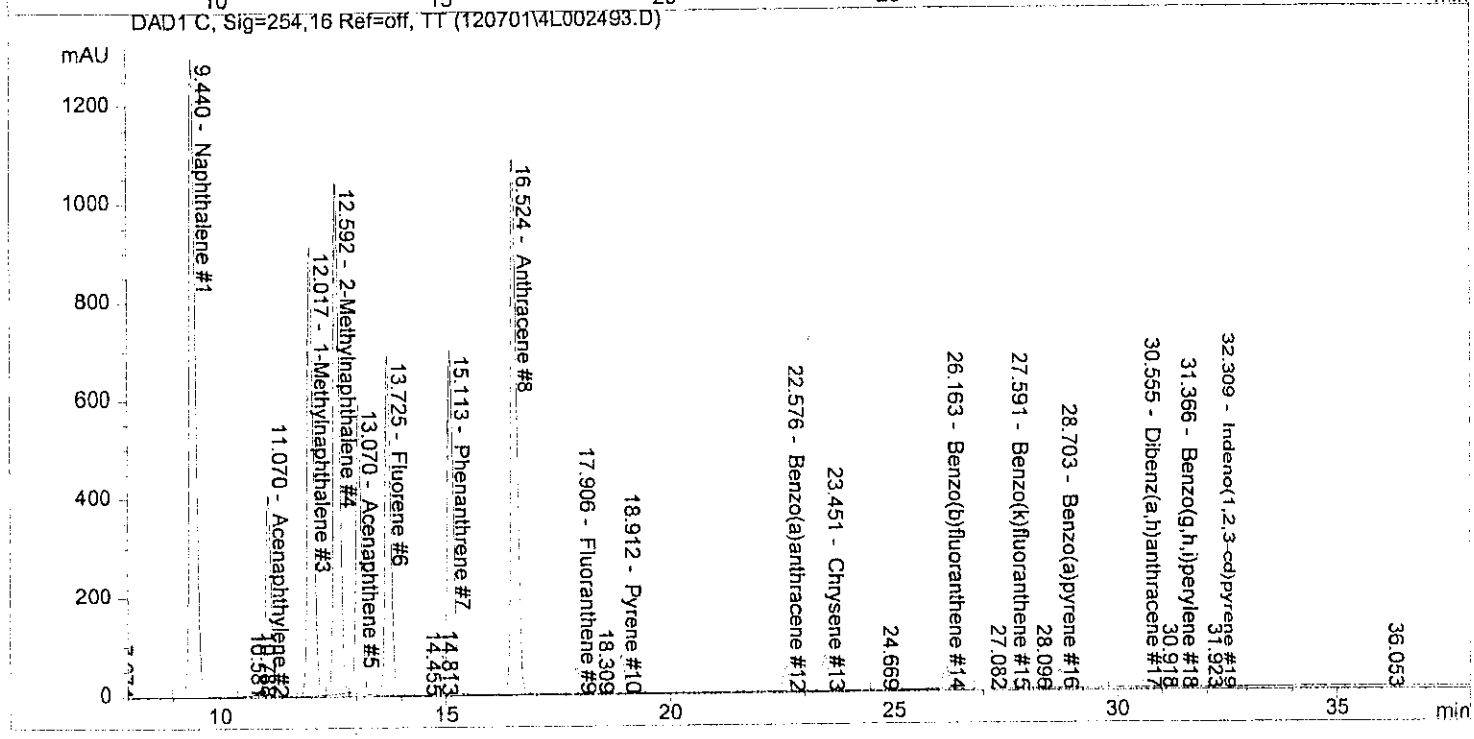
Injection Date : 12/7/2001 6:38:30 PM
Sample Name : WG109608-02
Acq. Operator : RDC

Seq. Line : 3
Vial : 3
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:21:54 AM by RDC
(modified after loading)

Calibrated 12/06/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:21:49 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.459	BB	3810.46631	2.61883e-2	99.78966		Naphthalene #1
12.036	BB	4359.37695	2.28975e-2	99.81872		1-Methylnaphthalene #3
12.611	BB	5675.13281	1.75970e-2	99.86544		2-Methylnaphthalene #4
13.089	BB	7107.66846	1.40652e-2	99.97090		Acenaphthene #5
13.744	BB	1.52725e4	6.55338e-3	100.08626		Fluorene #6
15.132	BBA	587.46509	1.70551e-1	100.19252		Phenanthrene #7
16.544	PB	323.20529	3.12373e-1	100.96056		Anthracene #8
17.927	BB	400.85757	2.50705e-2	10.04971		Fluoranthene #9
18.932	BBA	231.07681	4.18876e-2	9.67925		Pyrene #10
21.255		-	-	-		p-Terphenyl d14 #11*
22.595	BB	1217.39807	8.23976e-3	10.03107		Benzo(a)anthracene #12
23.470	BB	247.84904	4.04059e-2	10.01457		Chrysene #13
26.183	BB	606.26263	1.65830e-2	10.05366		Benzo(b)fluoranthene #14
27.611	BB	1814.99976	2.76980e-3	5.02719		Benzo(k)fluoranthene #15
28.722	BB	1929.00012	5.16562e-3	9.96448		Benzo(a)pyrene #16
30.575	BB	249.58025	4.03089e-2	10.06031		Dibenz(a,h)anthracene #17
31.387	BB	335.46561	2.97620e-2	9.98414		Benzo(g,h,i)perylene #18
32.327	BB	734.23254	1.37394e-2	10.08790		Indeno(1,2,3-cd)pyrene #1

Totals : 795.63632

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.440	BB	1.22730e4	8.11884e-3	99.64265		Naphthalene #1
11.070	BB	3433.28174	2.94291e-2	101.03836		Acenaphthylene #2
12.017	BB	7927.48535	1.27078e-2	100.74070		1-Methylnaphthalene #3
12.592	BB	9082.16113	1.10597e-2	100.44627		2-Methylnaphthalene #4
13.070	BB	5042.28223	2.00372e-2	101.03302		Acenaphthene #5
13.725	BB	5845.24707	1.72916e-2	101.07375		Fluorene #6
15.113	BBA	5905.01465	1.70965e-2	100.95524		Phenanthrene #7
16.524	BBA	9708.27441	1.03699e-2	100.67377		Anthracene #8
17.906	PB	472.12201	2.14272e-2	10.11627		Fluoranthene #9
18.912	BBA	709.65320	1.42906e-2	10.14134		Pyrene #10
21.238		-	-	-		p-Terphenyl d14 #11*
22.576	BBA	460.26733	2.20058e-2	10.12854		Benzo(a)anthracene #12
23.451	BBA	682.58563	1.48428e-2	10.13151		Chrysene #13
26.163	PBA	496.62497	2.03814e-2	10.12191		Benzo(b)fluoranthene #14
27.591	BB	227.90102	2.21933e-2	5.05787		Benzo(k)fluoranthene #15
28.703	BB	361.30676	2.80051e-2	10.11844		Benzo(a)pyrene #16
30.555	BB	108.58928	9.37682e-2	10.18223		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Cap	Name
31.366	BB	182.81955	5.59741e-2	10.23315		Benzo(g,h,i)perylene #18
32.309	BBA	499.46121	2.02543e-2	10.11624		Indeno(1,2,3-cd)pyrene #1

Totals : 901.95127

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

==========
*** End of Report ***

1,1 SOS56-19/56-20 level 5 std. 50/5/2.5 ppm

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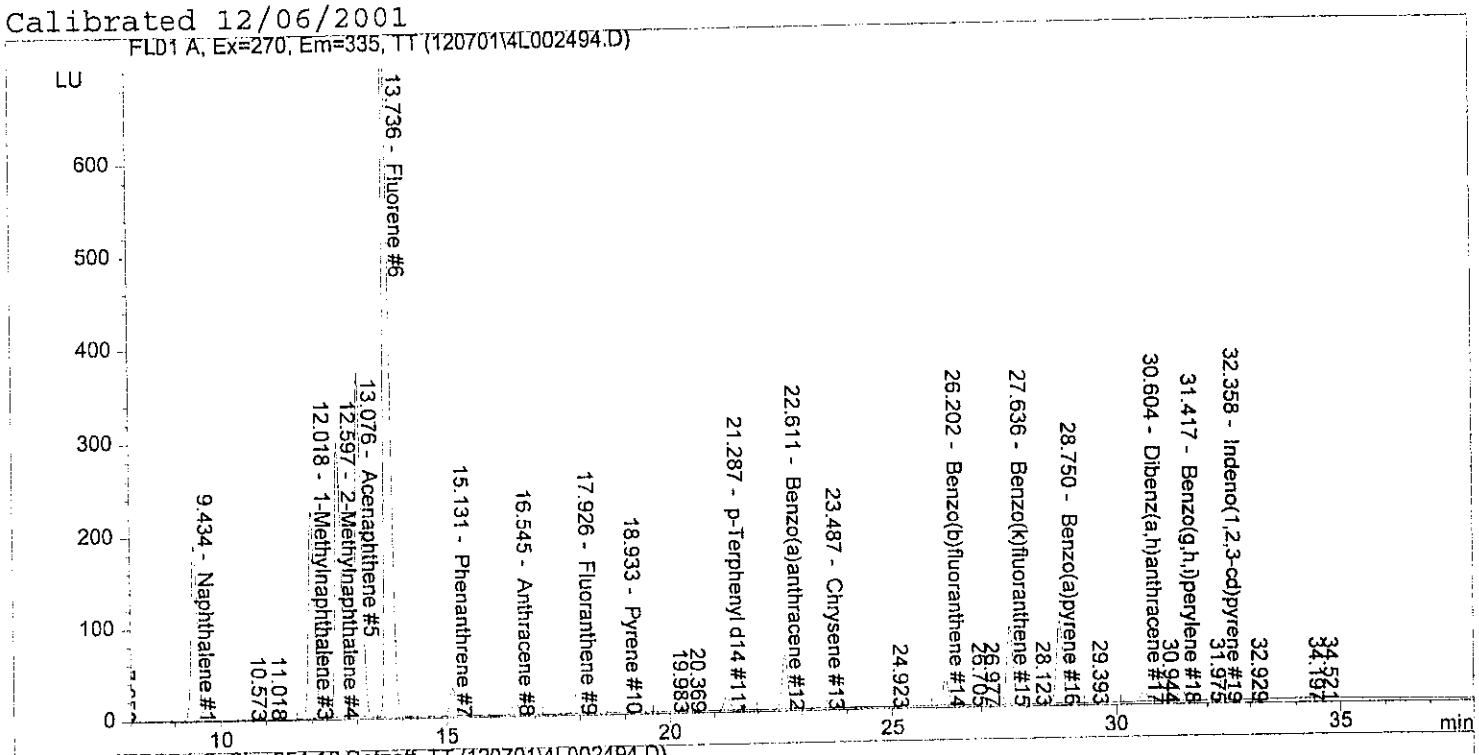
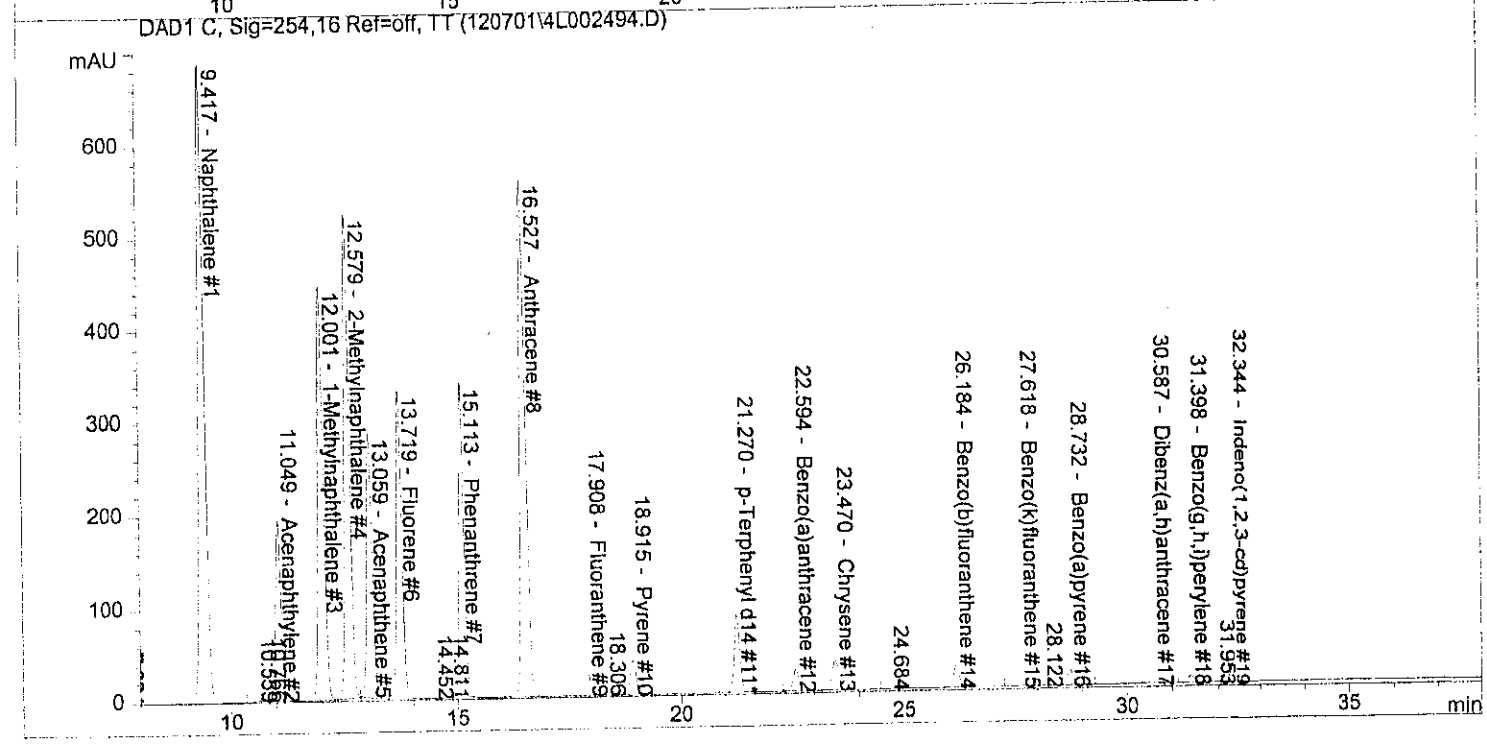
Injection Date : 12/7/2001 7:35:10 PM
Sample Name : WG109608-03
Acq. Operator : RDC

Seq. Line : 4
Vial : 4
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:22:49 AM by RDC
(modified after loading)

Calibrated 12/06/2001





External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Monday, December 10, 2001 11:22:45 AM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.434	PB	1851.06140	2.63924e-2	48.85390		Naphthalene #1
12.018	BB	2126.27832	2.30523e-2	49.01558		1-Methylnaphthalene #3
12.597	BB	2777.27686	1.76945e-2	49.14256		2-Methylnaphthalene #4
13.076	BB	3490.80957	1.41193e-2	49.28790		Acenaphthene #5
13.736	BB	7578.60205	6.55670e-3	49.69061		Fluorene #6
15.131	BBA	281.05099	1.71845e-1	48.29711		Phenanthrene #7
16.545	PB	156.76224	3.11830e-1	48.88313		Anthracene #8
17.926	BB	191.95184	2.51930e-2	4.83585		Fluoranthene #9
18.933	BB	110.94641	4.46431e-2	4.95299		Pyrene #10
21.287	BB	166.28719	2.98838e-1	49.69290		p-Terphenyl d14 #11*
22.611	BB	583.97321	8.28880e-3	4.84044		Benzo(a)anthracene #12
23.487	BB	118.82884	4.07063e-2	4.83708		Chrysene #13
26.202	BB	291.22507	1.66409e-2	4.84625		Benzo(b)fluoranthene #14
27.636	BB	877.84839	2.77609e-3	2.43698		Benzo(k)fluoranthene #15
28.750	BB	924.72375	5.22706e-3	4.83358		Benzo(a)pyrene #16
30.604	BB	118.41199	4.06335e-2	4.81150		Dibenz(a,h)anthracene #17
31.417	BB	158.65286	3.01562e-2	4.78437		Benzo(g,h,i)perylene #18
32.358	BB	352.51187	1.37503e-2	4.84716		Indeno(1,2,3-cd)pyrene #1
Totals :				438.88988		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.417	PB	6239.97021	8.11649e-3	50.64668		Naphthalene #1
11.049	BBA	1651.06335	2.94032e-2	48.54652		Acenaphthylene #2
12.001	PB	3860.07959	1.26972e-2	49.01231		1-Methylnaphthalene #3
12.579	BB	4488.76758	1.10441e-2	49.57431		2-Methylnaphthalene #4
13.059	BB	2437.01563	2.00011e-2	48.74299		Acenaphthene #5
13.719	BB	2817.43921	1.72644e-2	48.64143		Fluorene #6
15.113	BBA	2853.04907	1.70775e-2	48.72307		Phenanthrene #7
16.527	PBA	4812.97998	1.03370e-2	49.75188		Anthracene #8
17.908	PB	226.59413	2.13955e-2	4.84809		Fluoranthene #9
18.915	BBA	340.46393	1.42440e-2	4.84958		Pyrene #10
21.270	PBA	767.66412	6.51631e-2	50.02338		p-Terphenyl d14 #11*
22.594	PBA	220.45860	2.19648e-2	4.84232		Benzo(a)anthracene #12
23.470	BBA	326.67627	1.48134e-2	4.83917		Chrysene #13
26.184	PBA	237.99123	2.03490e-2	4.84288		Benzo(b)fluoranthene #14
27.618	BB	109.46035	2.21581e-2	2.42543		Benzo(k)fluoranthene #15
28.732	BBA	170.42978	2.80552e-2	4.78145		Benzo(a)pyrene #16
30.587	PB	51.97754	9.31421e-2	4.84130		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.398	BB	84.71449	5.57356e-2	4.72161		Benzo(g,h,i)perylene #18
32.344	BBA	239.21368	2.02256e-2	4.83824		Indeno(1,2,3-cd)pyrene #1
Totals :				489.49265		

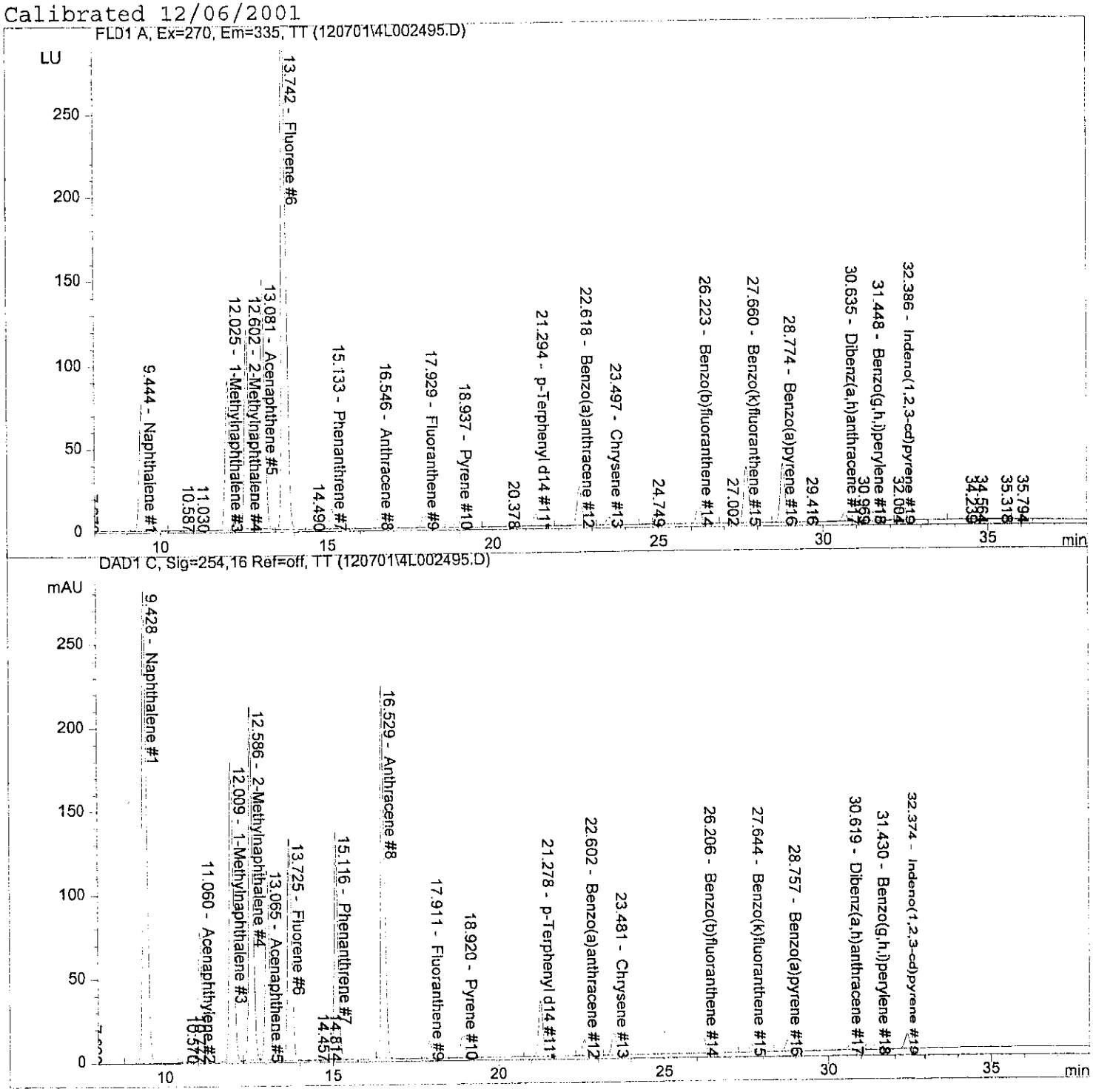
Results obtained with enhanced integrator!

*** End of Report ***

Injection Date	: 12/7/2001 8:31:48 PM	Seq. Line	: 5
Sample Name	: WG109608-04	Vial	: 5
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:23:28 AM by RDC
(modified after loading)

Calibrated 12/06/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:23:23 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.444	BB	737.47040	2.64211e-2	19.48480		Naphthalene #1
12.025	BB	845.22443	2.30752e-2	19.50376		1-Methylnaphthalene #3
12.602	BB	1111.04944	1.77087e-2	19.67520		2-Methylnaphthalene #4
13.081	BB	1398.43469	1.41279e-2	19.75691		Acenaphthene #5
13.742	BB	3062.98730	6.55759e-3	20.08580		Fluorene #6
15.133	BBA	110.76902	1.72061e-1	19.05906		Phenanthrene #7
16.546	PB	62.19715	3.11782e-1	19.39194		Anthracene #8
17.929	BB	77.06699	2.51999e-2	1.94208		Fluoranthene #9
18.937	BBA	43.99789	4.50817e-2	1.98350		Pyrene #10
21.294	BB	65.33878	2.98821e-1	19.52460		p-Terphenyl d14 #11*
22.618	BB	231.59561	8.29596e-3	1.92131		Benzo(a)anthracene #12
23.497	BB	46.97458	4.07482e-2	1.91413		Chrysene #13
26.223	BB	116.34737	1.66463e-2	1.93675		Benzo(b)fluoranthene #14
27.660	BB	349.97339	2.77681e-3	9.71808e-1		Benzo(k)fluoranthene #15
28.774	BB	364.55637	5.23634e-3	1.90894		Benzo(a)pyrene #16
30.635	BB	45.38562	4.06222e-2	1.84367		Dibenz(a,h)anthracene #17
31.448	BB	61.80997	3.02122e-2	1.86741		Benzo(g,h,i)perylene #18
32.386	BBA	142.06572	1.37468e-2	1.95294		Indeno(1,2,3-cd)pyrene #1

Totals : 174.72461

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.428	PBA	2515.62280	8.11579e-3	20.41627		Naphthalene #1
11.060	BBA	657.36005	2.93997e-2	19.32620		Acenaphthylene #2
12.009	PB	1541.22485	1.26959e-2	19.56718		1-Methylnaphthalene #3
12.586	BB	1800.34558	1.10420e-2	19.87950		2-Methylnaphthalene #4
13.065	BB	971.48230	1.99964e-2	19.42615		Acenaphthene #5
13.725	BB	1121.15540	1.72611e-2	19.35233		Fluorene #6
15.116	BBA	1137.95862	1.70751e-2	19.43081		Phenanthrene #7
16.529	BBA	1885.26465	1.03334e-2	19.48113		Anthracene #8
17.911	PB	89.84662	2.13940e-2	1.92218		Fluoranthene #9
18.920	BBA	135.25577	1.42363e-2	1.92554		Pyrene #10
21.278	PBA	301.76755	6.51559e-2	19.66194		p-Terphenyl d14 #11*
22.602	PBA	87.47297	2.19568e-2	1.92063		Benzo(a)anthracene #12
23.481	BBA	128.96687	1.48097e-2	1.90996		Chrysene #13
26.206	BBA	94.51936	2.03449e-2	1.92298		Benzo(b)fluoranthene #14
27.644	BB	43.61720	2.21484e-2	9.66050e-1		Benzo(k)fluoranthene #15
28.757	BB	67.33721	2.80589e-2	1.88941		Benzo(a)pyrene #16
30.619	BB	21.45176	9.29457e-2	1.99385		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.430	BB	32.76551	5.57256e-2	1.82588		Benzo(g,h,i)perylene #18
32.374	BB	98.87786	2.01948e-2	1.99682		Indeno(1,2,3-cd)pyrene #1
Totals :				194.81481		

Results obtained with enhanced integrator!

*** End of Report ***

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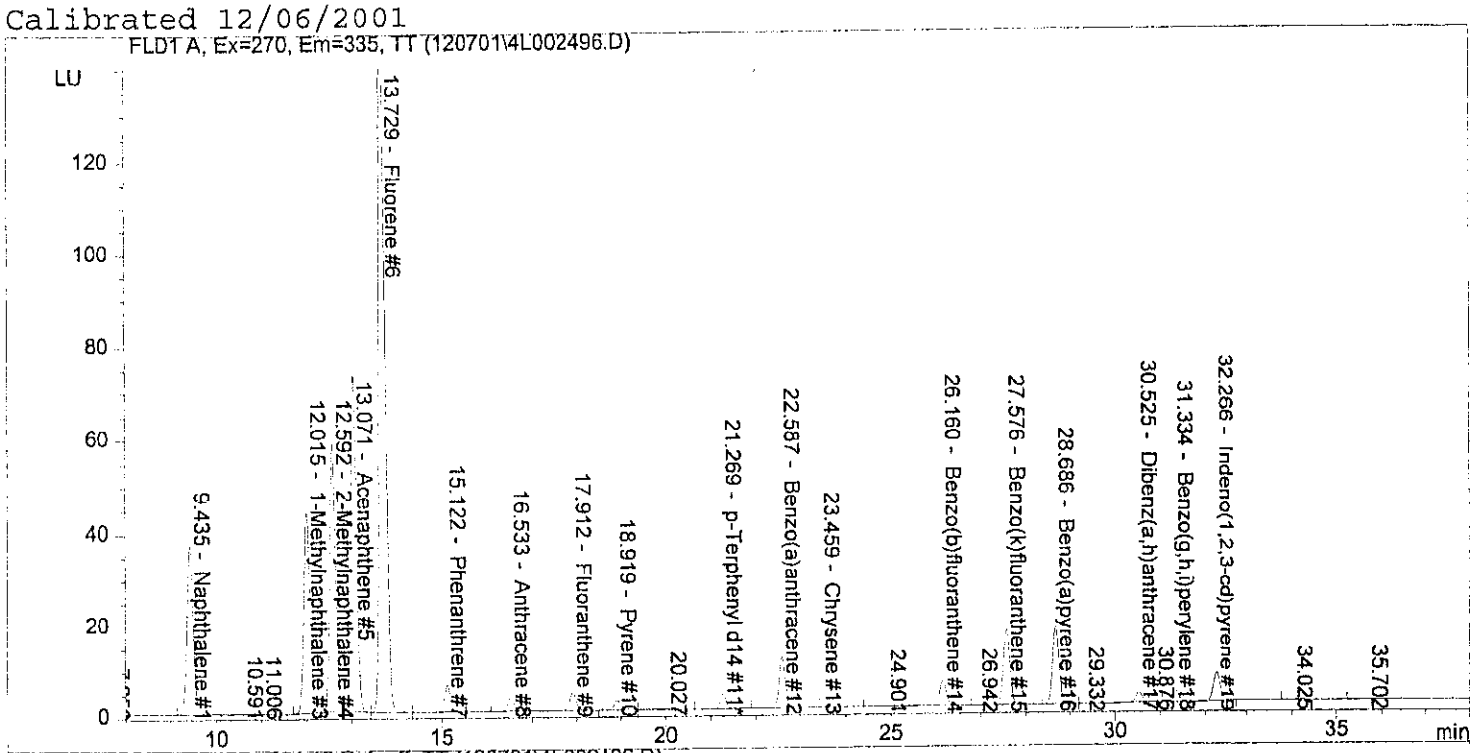
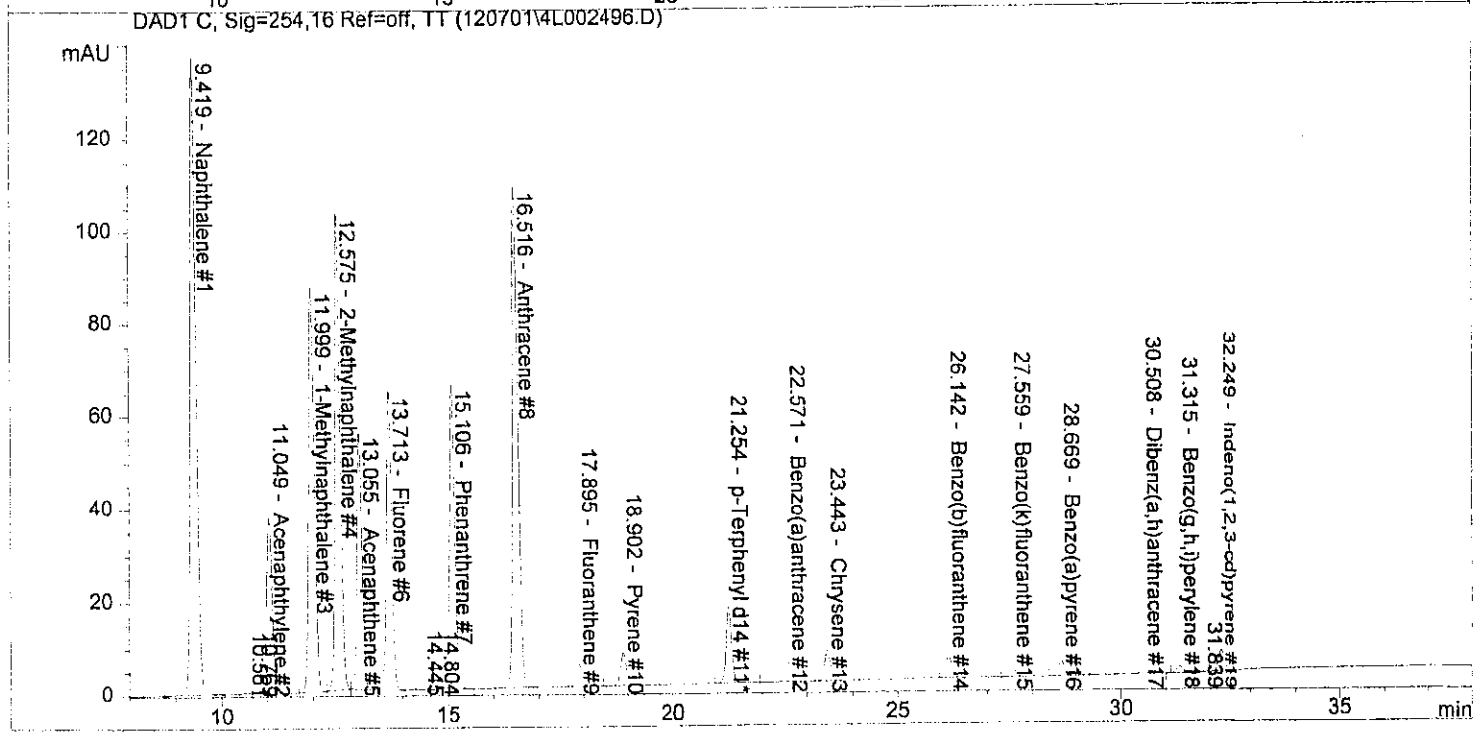
Injection Date	: 12/7/2001 9:28:27 PM	Seq. Line	: 6
Sample Name	: WG109608-05	Vial	: 6
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:24:04 AM by RDC
(modified after loading)

Calibrated 12/06/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:24:01 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.435	PBA	357.36987	2.64284e-2	9.44473		Naphthalene #1
12.015	PB	411.64304	2.30808e-2	9.50106		1-Methylnaphthalene #3
12.592	BB	539.40985	1.77123e-2	9.55420		2-Methylnaphthalene #4
13.071	BB	680.59875	1.41300e-2	9.61685		Acenaphthene #5
13.729	BB	1498.75659	6.55788e-3	9.82866		Fluorene #6
15.122	BBA	53.12293	1.72104e-1	9.14266		Phenanthrene #7
16.533	BB	30.15903	3.11768e-1	9.40263		Anthracene #8
17.912	BBA	39.02326	2.51906e-2	9.83019e-1		Fluoranthene #9
18.919	BB	21.21303	4.51824e-2	9.58456e-1		Pyrene #10
21.269	PB	31.79696	2.98857e-1	9.50273		p-Terphenyl d14 #11*
22.587	BB	111.32906	8.29795e-3	9.23802e-1		Benzo(a)anthracene #12
23.459	BB	22.85746	4.07639e-2	9.31759e-1		Chrysene #13
26.160	BB	55.92225	1.66526e-2	9.31249e-1		Benzo(b)fluoranthene #14
27.576	BB	169.56526	2.77707e-3	4.70895e-1		Benzo(k)fluoranthene #15
28.686	BB	175.19550	5.23862e-3	9.17782e-1		Benzo(a)pyrene #16
30.525	BB	20.45066	4.06439e-2	8.31194e-1		Dibenz(a,h)anthracene #17
31.334	BB	30.57295	3.02209e-2	9.23943e-1		Benzo(g,h,i)perylene #18
32.266	BB	77.95903	1.37337e-2	1.07067		Indeno(1,2,3-cd)pyrene #1
Totals :				84.93630		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.419	PBA	1228.04895	8.11562e-3	9.96637		Naphthalene #1
11.049	BBA	320.25964	2.94003e-2	9.41572		Acenaphthylene #2
11.999	PB	751.04242	1.26957e-2	9.53500		1-Methylnaphthalene #3
12.575	BB	878.19104	1.10418e-2	9.69679		2-Methylnaphthalene #4
13.055	BB	472.85046	1.99955e-2	9.45486		Acenaphthene #5
13.713	BBA	545.33289	1.72605e-2	9.41272		Fluorene #6
15.106	BBA	553.08002	1.70750e-2	9.44386		Phenanthrene #7
16.516	PBA	924.44818	1.03318e-2	9.55123		Anthracene #8
17.895	PB	43.55686	2.13939e-2	9.31851e-1		Fluoranthene #9
18.902	BBA	65.35954	1.42349e-2	9.30386e-1		Pyrene #10
21.254	PBA	147.07727	6.51561e-2	9.58299		p-Terphenyl d14 #11*
22.571	PBA	42.08236	2.19560e-2	9.23962e-1		Benzo(a)anthracene #12
23.443	BBA	62.67461	1.48093e-2	9.28164e-1		Chrysene #13
26.142	BBA	46.43794	2.03417e-2	9.44628e-1		Benzo(b)fluoranthene #14
27.559	PBA	21.05570	2.21518e-2	4.66422e-1		Benzo(k)fluoranthene #15
28.669	PBA	31.26832	2.80737e-2	8.77819e-1		Benzo(a)pyrene #16
30.508	PBA	13.35335	9.27506e-2	1.23853		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.315	BB	17.44936	5.56926e-2	9.71800e-1		Benzo(g,h,i)perylene #18
32.249	BB	44.40019	2.02130e-2	8.97460e-1		Indeno(1,2,3-cd)pyrene #1
Totals :				95.17057		

Results obtained with enhanced integrator!

*** End of Report ***

1,1 SOS56-19/56-20 level 2 std. 5/.5/.25 ppm

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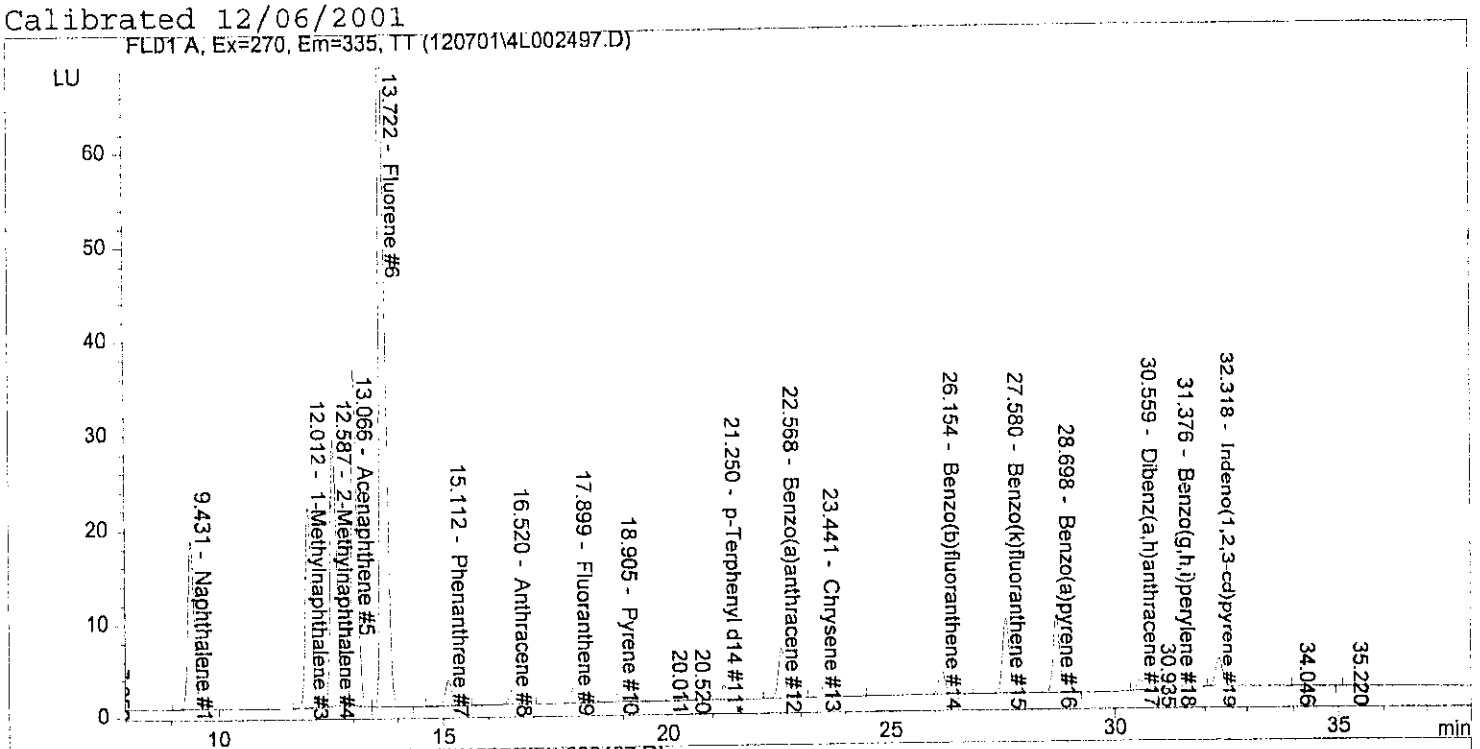
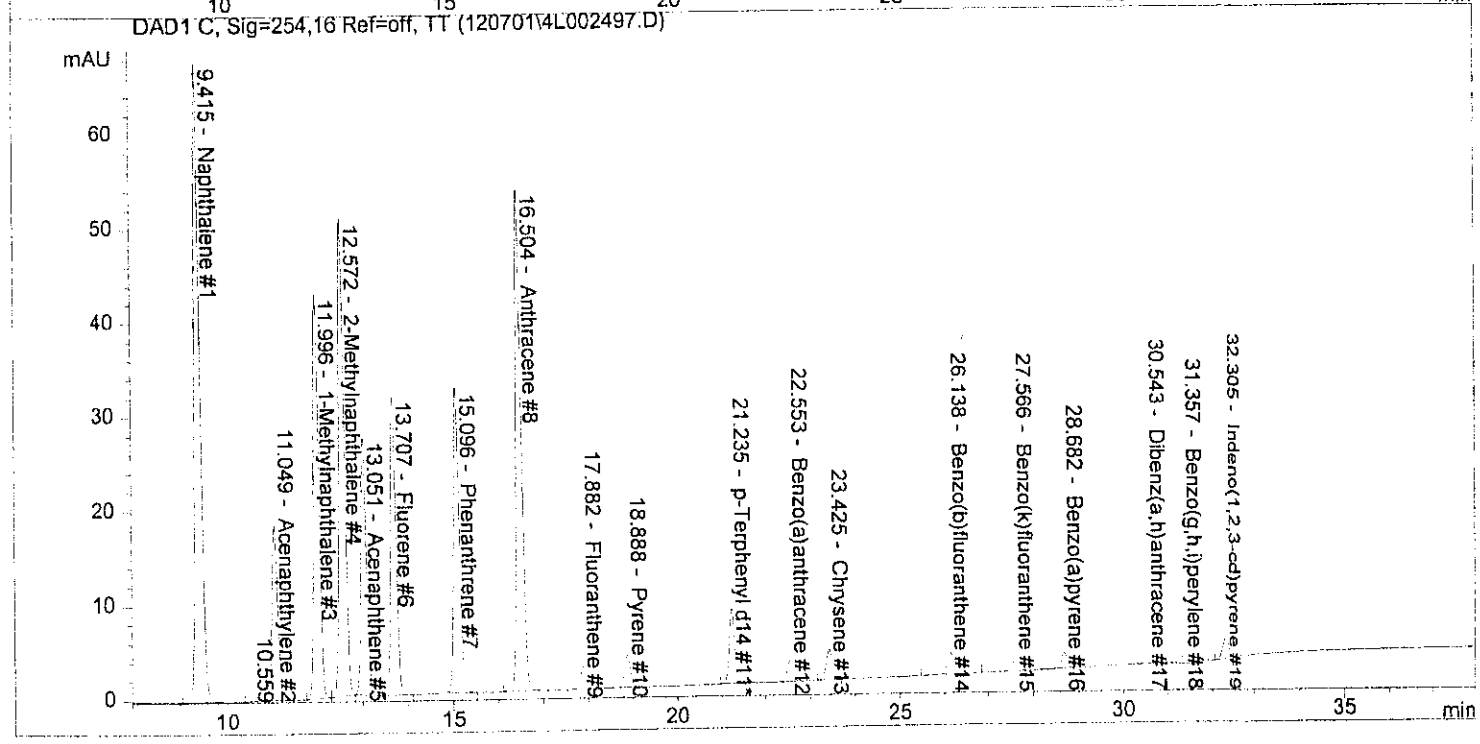
Injection Date : 12/7/2001 10:25:05 PM
Sample Name : WG109608-06
Acq. Operator : RDC

Seq. Line : 7
Vial : 7
Inj : 1
Inj Volume : 8 µl

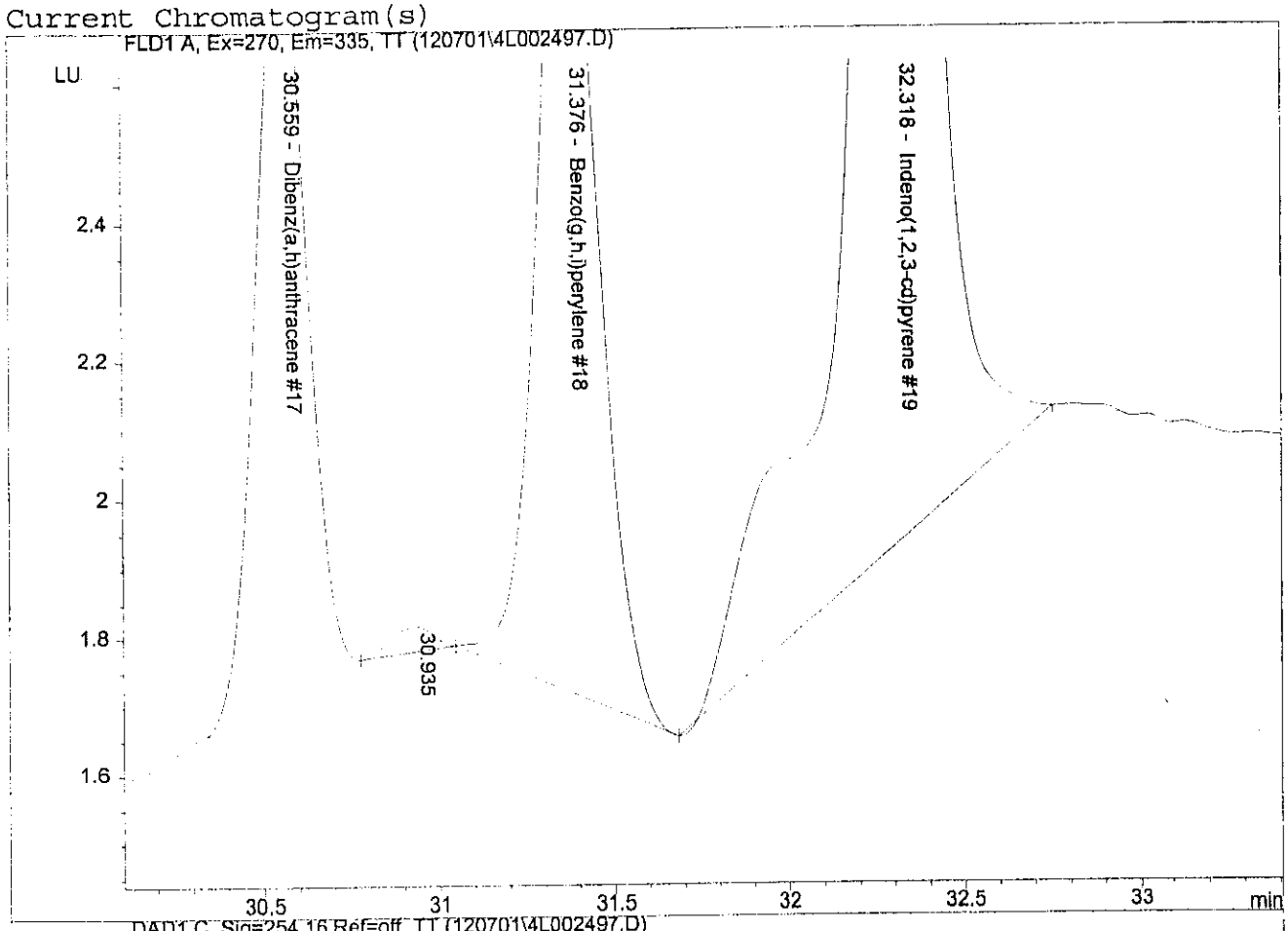
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:25:39 AM by RDC
(modified after loading)

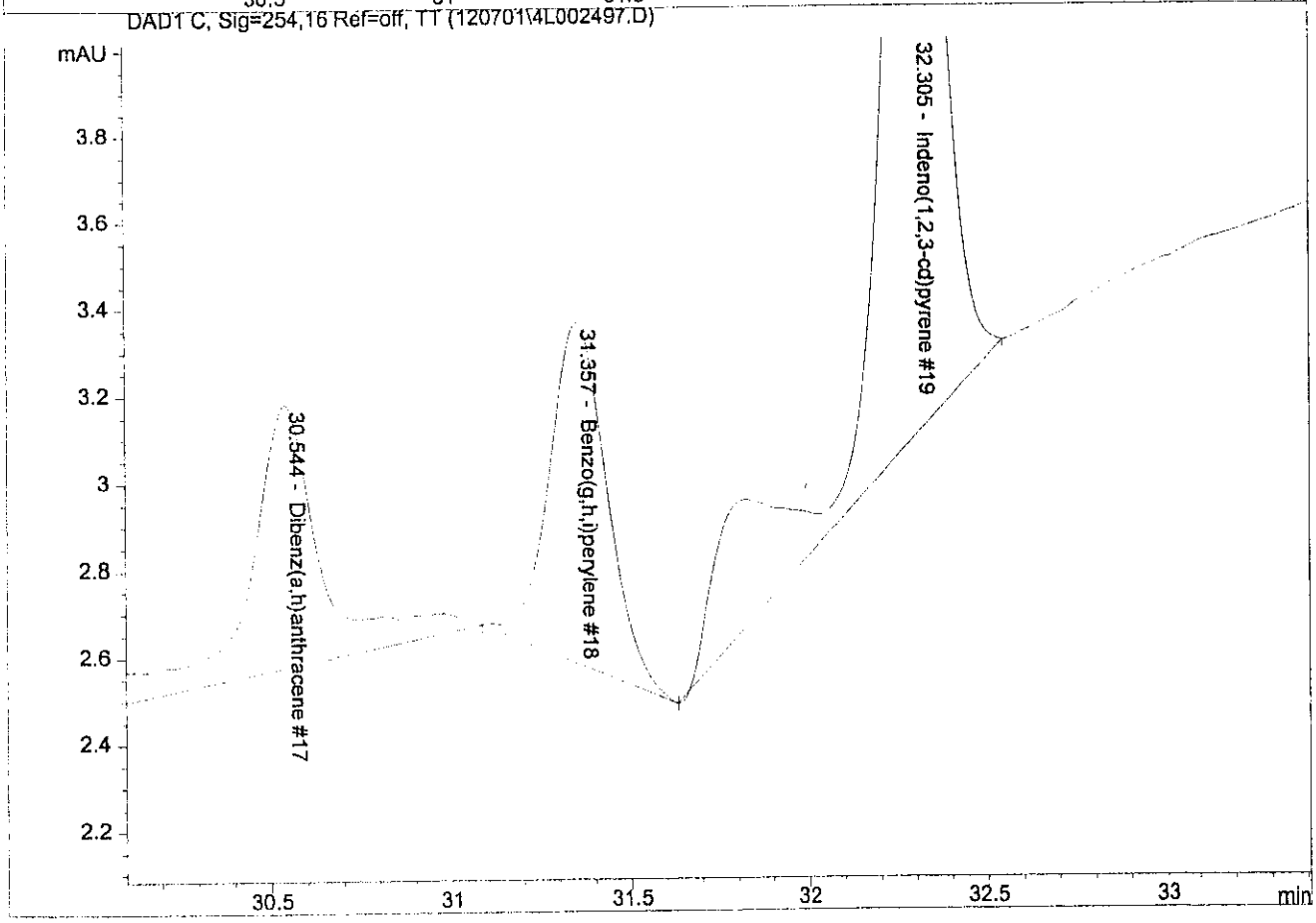
Calibrated 12/06/2001



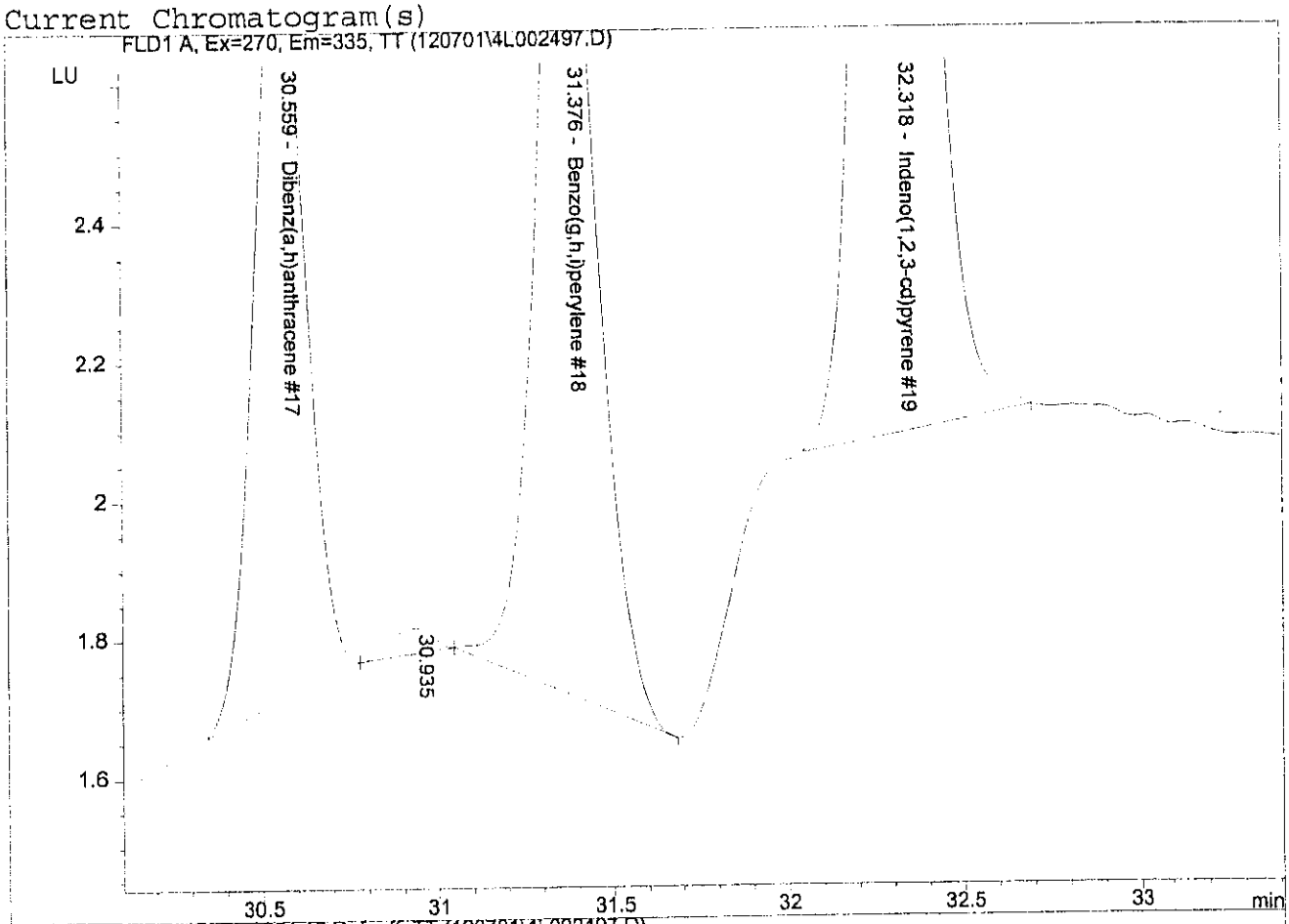


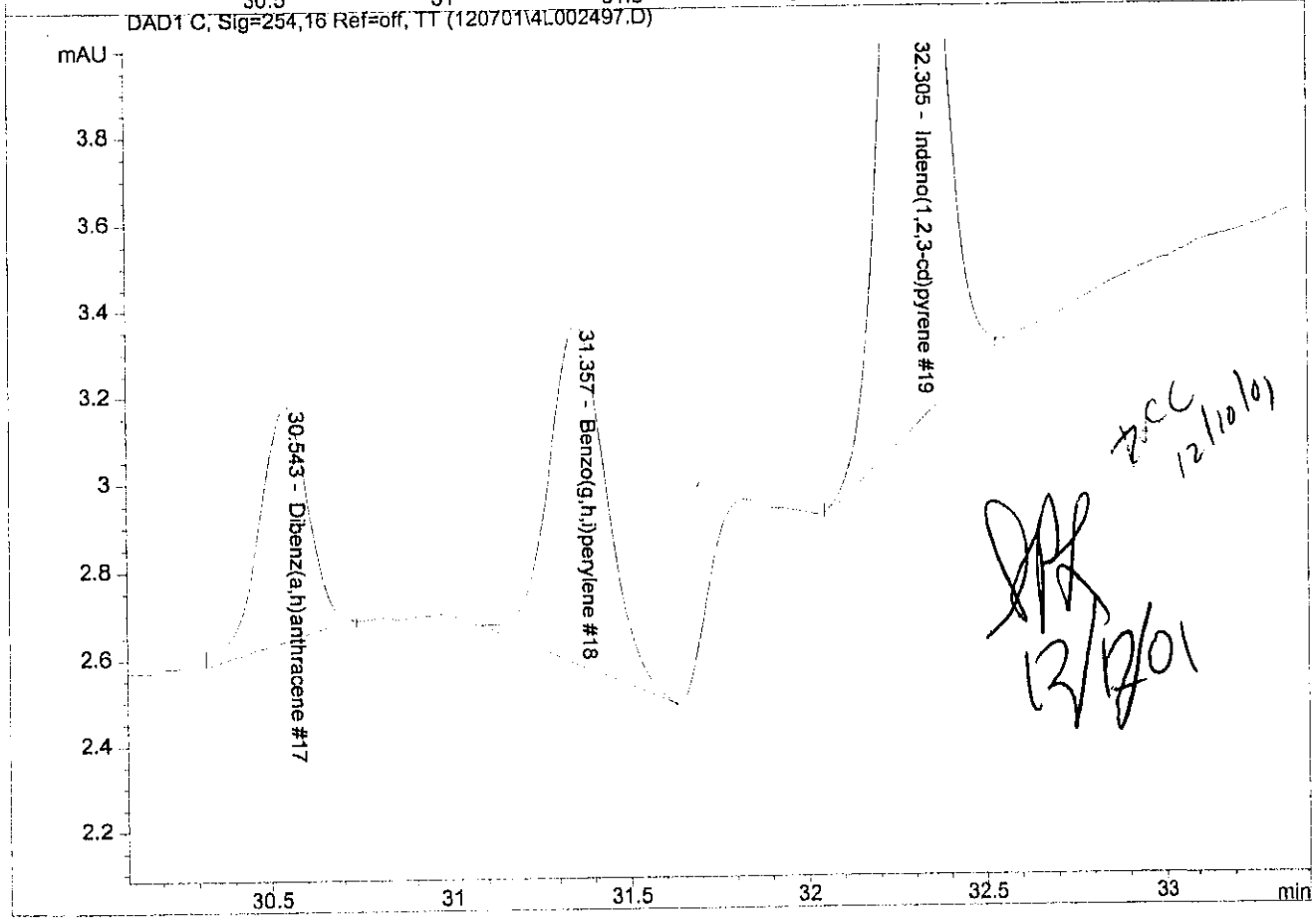
Current Chromatogram(s)





Current Chromatogram(s)





RCC 12/10/01

12/12/01

External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:25:36 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.431	BBA	175.20758	2.64308e-2	4.63087		Naphthalene #1
12.012	PB	202.11798	2.30825e-2	4.66539		1-Methylnaphthalene #3
12.587	BB	265.18561	1.77135e-2	4.69736		2-Methylnaphthalene #4
13.066	BB	335.57715	1.41306e-2	4.74192		Acenaphthene #5
13.722	BBA	742.47473	6.55798e-3	4.86914		Fluorene #6
15.112	PBA	26.34856	1.72113e-1	4.53493		Phenanthrene #7
16.520	PBA	14.95346	3.11760e-1	4.66189		Anthracene #8
17.899	PBA	19.23926	2.51881e-2	4.84601e-1		Fluoranthene #9
18.905	BBA	10.39580	4.52083e-2	4.69976e-1		Pyrene #10
21.250	BB	15.82066	2.98859e-1	4.72815		p-Terphenyl d14 #11*
22.568	BBA	55.03781	8.29841e-3	4.56726e-1		Benzo(a)anthracene #12
23.441	BB	11.46110	4.07648e-2	4.67210e-1		Chrysene #13
26.154	BBA	28.96787	1.66522e-2	4.82378e-1		Benzo(b)fluoranthene #14
27.580	PB	83.71040	2.77713e-3	2.32475e-1		Benzo(k)fluoranthene #15
28.698	BB	86.88049	5.23908e-3	4.55174e-1		Benzo(a)pyrene #16
30.559	FM	11.18928	4.06445e-2	4.54782e-1		Dibenz(a,h)anthracene #17
31.376	BB	15.50431	3.02213e-2	4.68560e-1		Benzo(g,h,i)perylene #18
32.318	MM	34.34013	1.37336e-2	4.71613e-1		Indeno(1,2,3-cd)pyrene #1
Totals :				41.97315		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.415	PBA	606.36218	8.11567e-3	4.92104		Naphthalene #1
11.049	BBA	158.72070	2.94003e-2	4.66643		Acenaphthylene #2
11.996	PB	371.50211	1.26957e-2	4.71648		1-Methylnaphthalene #3
12.572	BB	434.66425	1.10418e-2	4.79947		2-Methylnaphthalene #4
13.051	BB	234.14653	1.99953e-2	4.68183		Acenaphthene #5
13.707	BBA	269.92172	1.72604e-2	4.65896		Fluorene #6
15.096	BBA	273.70901	1.70751e-2	4.67360		Phenanthrene #7
16.504	PBA	456.11115	1.03316e-2	4.71235		Anthracene #8
17.882	BBA	21.55572	2.13940e-2	4.61163e-1		Fluoranthene #9
18.888	BBA	31.22189	1.42346e-2	4.44432e-1		Pyrene #10
21.235	PBA	71.85631	6.51566e-2	4.68191		p-Terphenyl d14 #11*
22.553	BBA	20.88080	2.19558e-2	4.58455e-1		Benzo(a)anthracene #12
23.425	BBA	30.72799	1.48093e-2	4.55061e-1		Chrysene #13
26.138	PBA	22.90010	2.03417e-2	4.65826e-1		Benzo(b)fluoranthene #14
27.566	BBA	11.10531	2.21504e-2	2.45987e-1		Benzo(k)fluoranthene #15
28.682	BBA	15.20856	2.80787e-2	4.27036e-1		Benzo(a)pyrene #16
30.543	MM	5.01077	9.27367e-2	4.64682e-1		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.357	BB	8.76552	5.56830e-2	4.88091e-1		Benzo(g,h,i)perylene #18
32.305	MM	22.66177	2.02125e-2	4.58050e-1		Indeno(1,2,3-cd)pyrene #1
Totals :				46.88085		

Results obtained with enhanced integrator!

*** End of Report ***

1,1 SOS56-19/56-20 level 1 std. 1/.1/.05 ppm

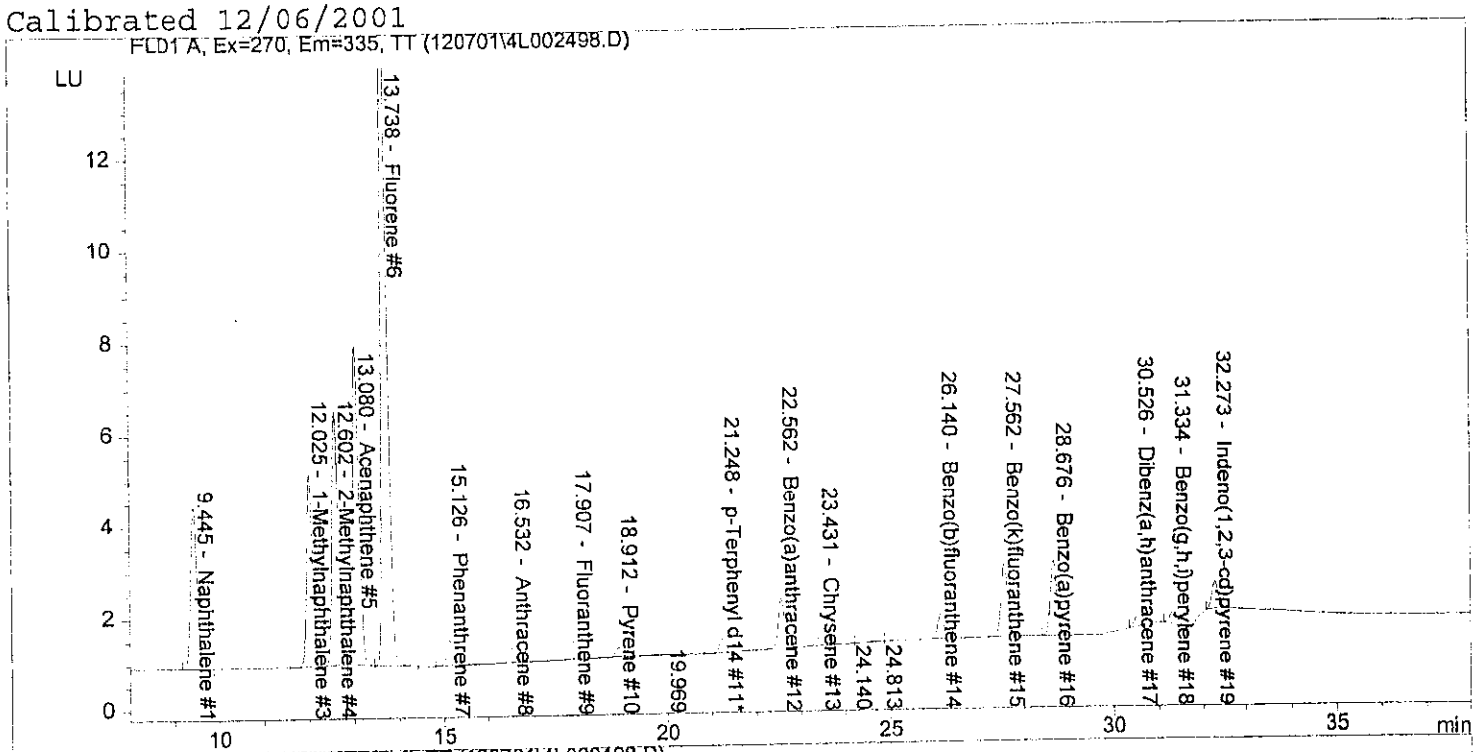
==========

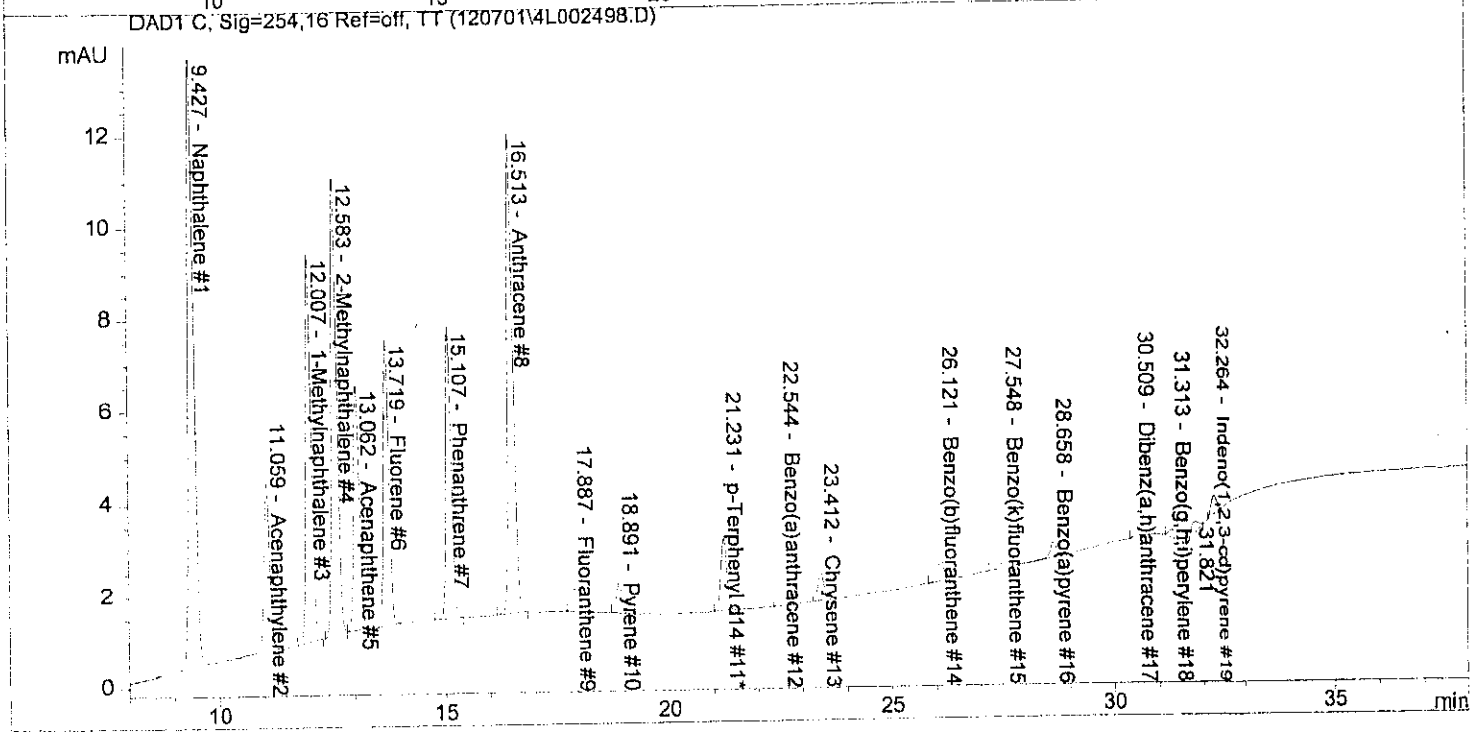
Injection Date : 12/7/2001 11:21:43 PM
Sample Name : WG109608-07
Acq. Operator : RDC

Seq. Line : 8
Vial : 8
Inj : 1
Inj Volume : 8 µl

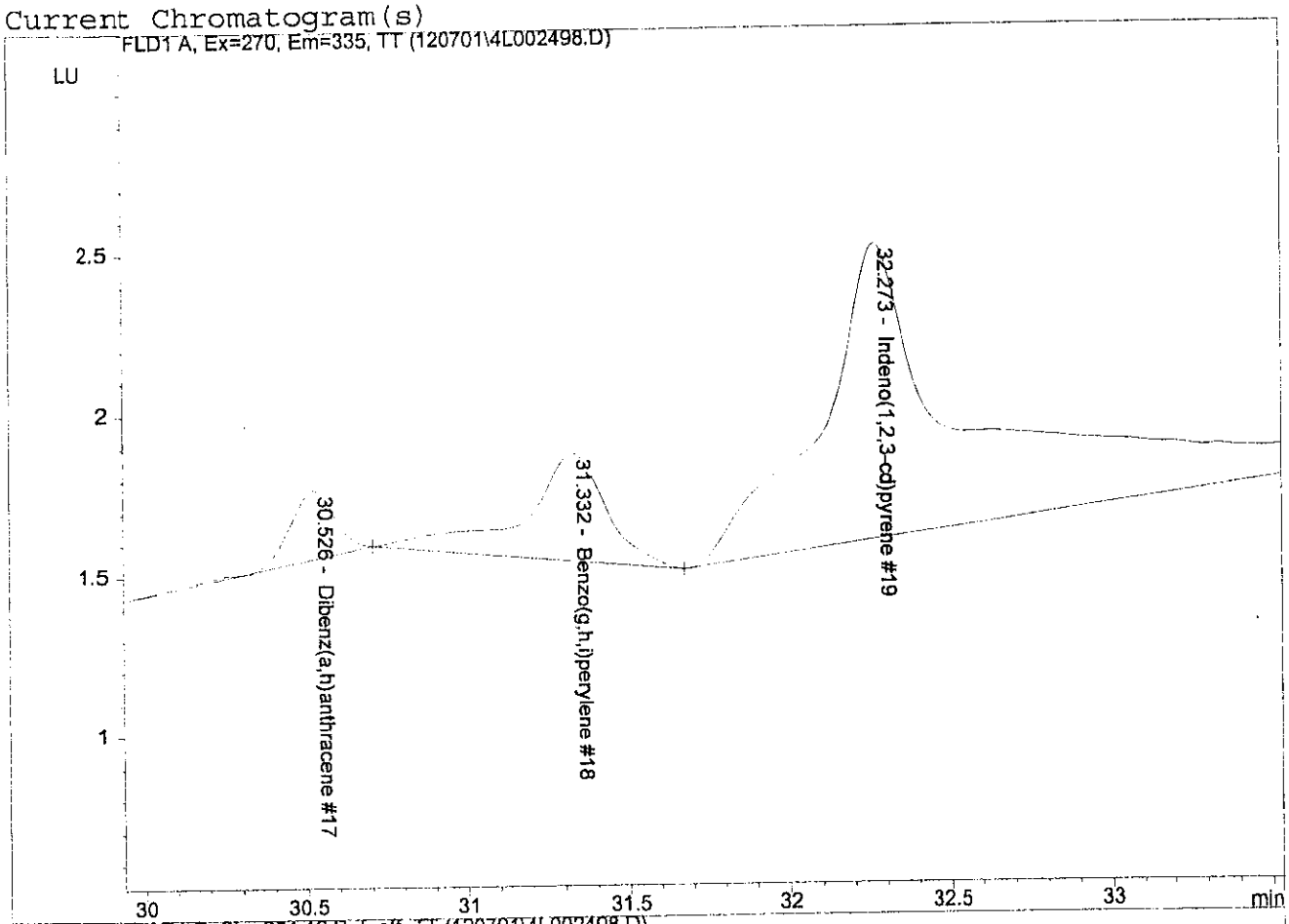
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:28:14 AM by RDC
(modified after loading)

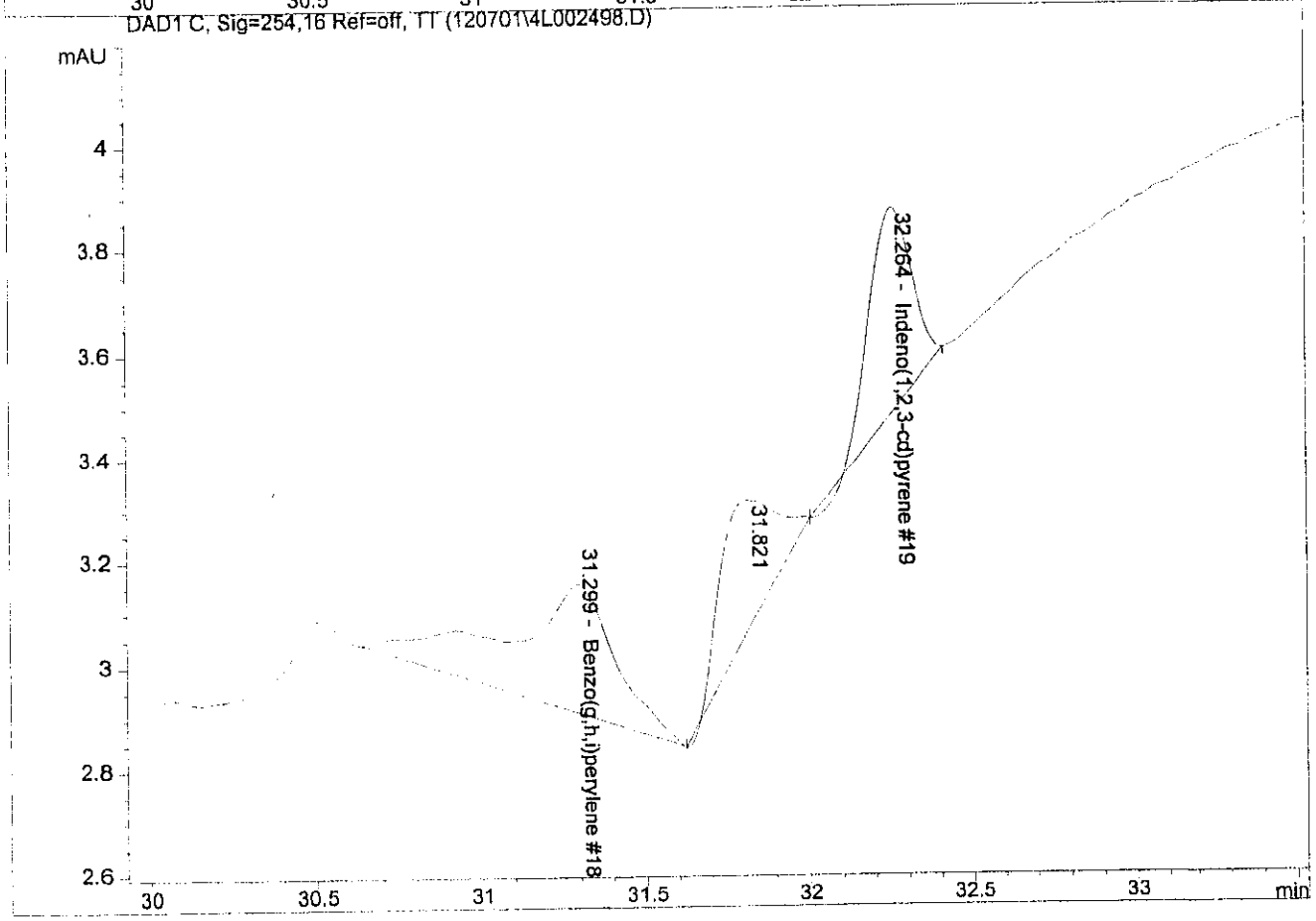
Calibrated 12/06/2001



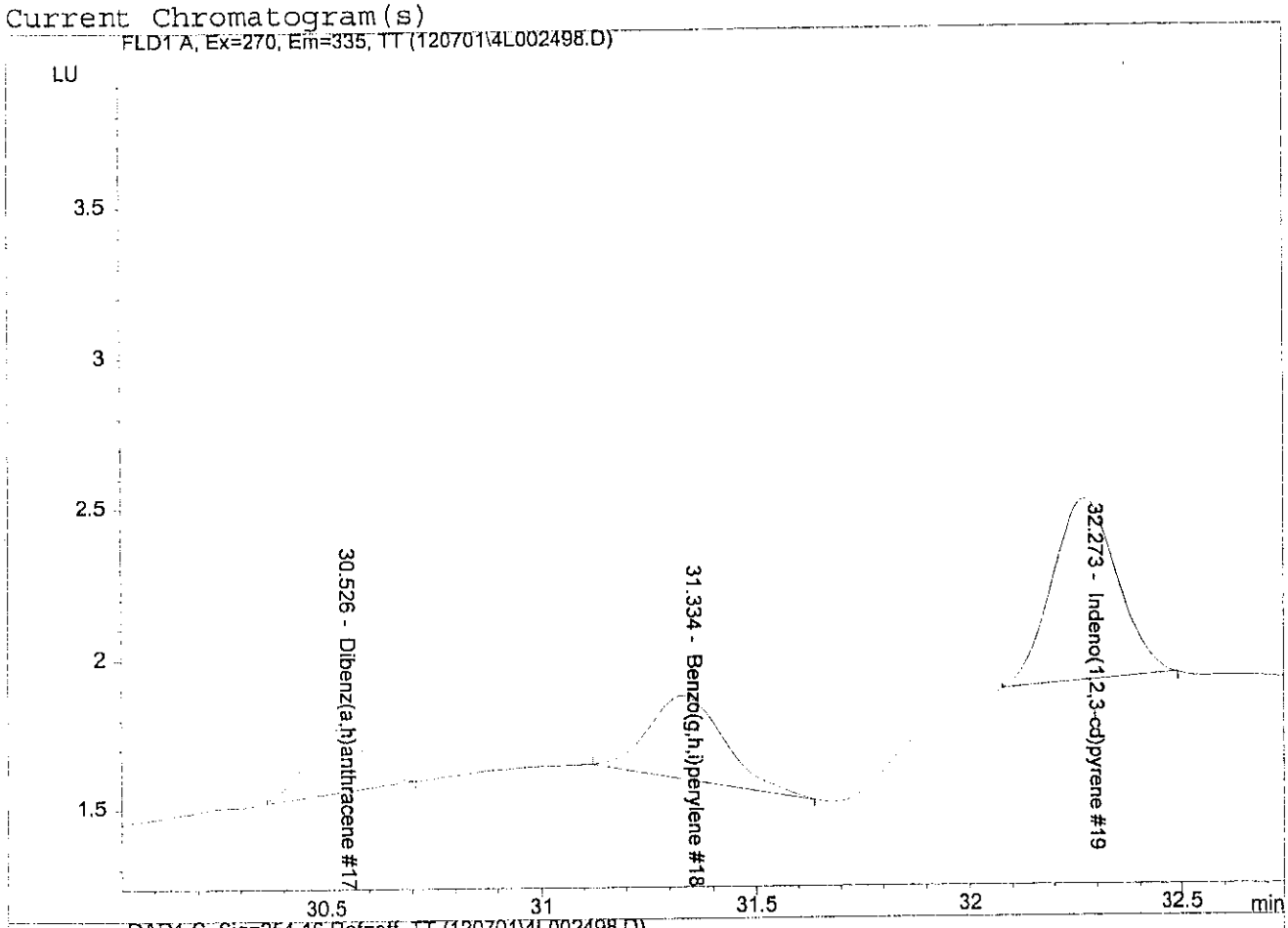


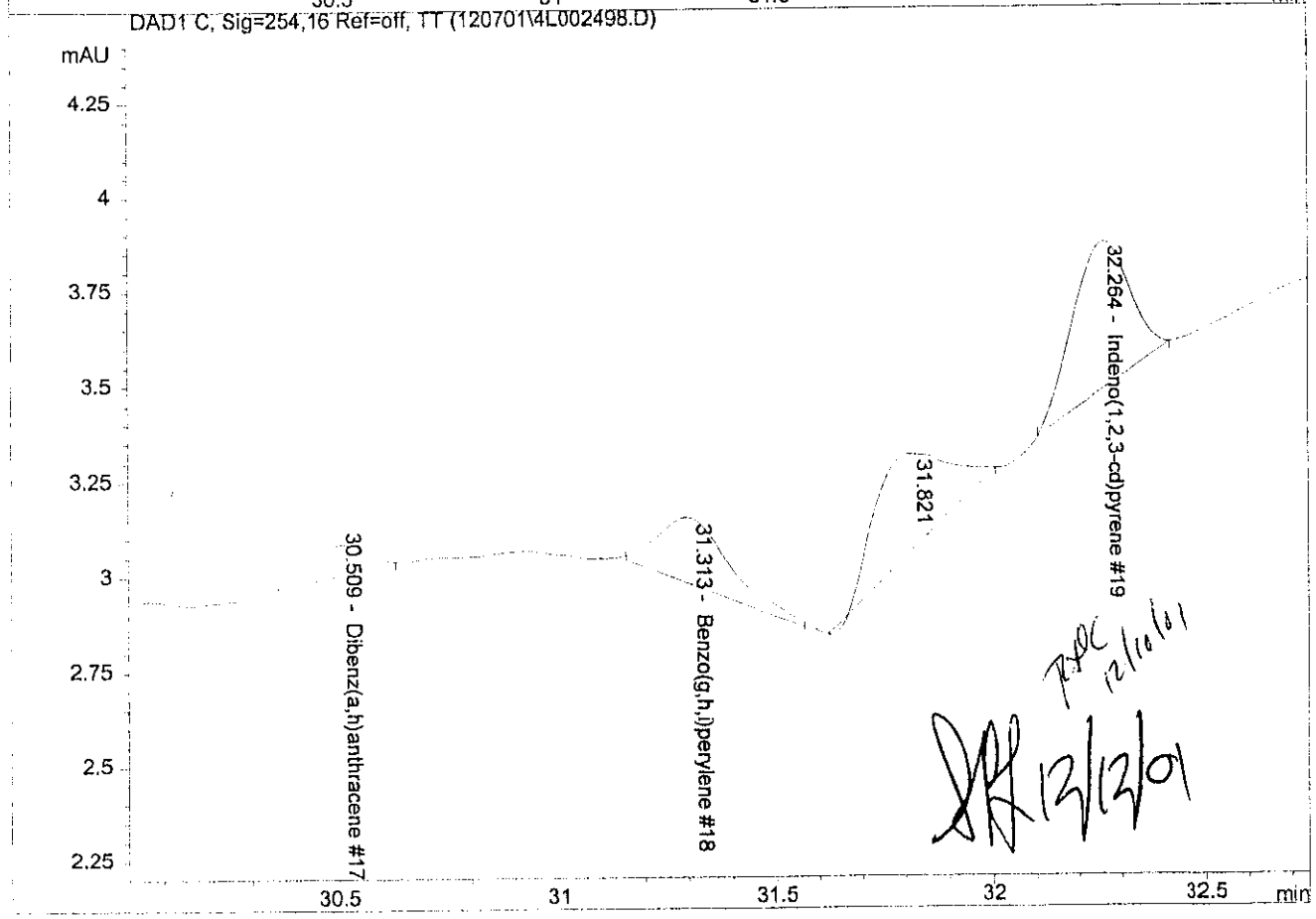
Current Chromatogram(s)





Current Chromatogram(s)





RDC 12/10/01

12/12/01

External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	Monday, December 10, 2001 11:28:10 AM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.445	PB	34.14394	2.64309e-2	9.02454e-1		Naphthalene #1
12.025	BB	39.21505	2.30826e-2	9.05184e-1		1-Methylnaphthalene #3
12.602	BB	51.48040	1.77135e-2	9.11900e-1		2-Methylnaphthalene #4
13.080	BB	65.08414	1.41307e-2	9.19682e-1		Acenaphthene #5
13.738	BBA	144.45450	6.55799e-3	9.47331e-1		Fluorene #6
15.126	PB	5.16262	1.72114e-1	8.88558e-1		Phenanthrene #7
16.532	BB	2.73816	3.11763e-1	8.53657e-1		Anthracene #8
17.907	BB	3.35839	2.51883e-2	8.45920e-2		Fluoranthene #9
18.912	BB	1.73975	4.52106e-2	7.86550e-2		Pyrene #10
21.248	BB	3.10528	2.98861e-1	9.28047e-1		p-Terphenyl d14 #11*
22.562	BB	10.98394	8.29841e-3	9.11492e-2		Benzo(a)anthracene #12
23.431	BB	2.36736	4.07647e-2	9.65047e-2		Chrysene #13
26.140	BB	5.61101	1.66521e-2	9.34354e-2		Benzo(b)fluoranthene #14
27.562	BBA	16.30576	2.77713e-3	4.52833e-2		Benzo(k)fluoranthene #15
28.676	BBA	16.72118	5.23910e-3	8.76039e-2		Benzo(a)pyrene #16
30.526	FM	2.05262	4.06442e-2	8.34270e-2		Dibenz(a,h)anthracene #17
31.334	MM	3.47096	3.02212e-2	1.04897e-1		Benzo(g,h,i)perylene #18
32.273	MM	6.30039	1.37336e-2	8.65270e-2		Indeno(1,2,3-cd)pyrene #1
Totals :				8.10889		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.427	PBA	115.80276	8.11569e-3	9.39819e-1		Naphthalene #1
11.059	PBA	31.43988	2.94003e-2	9.24343e-1		Acenaphthylene #2
12.007	PBA	72.32628	1.26957e-2	9.18232e-1		1-Methylnaphthalene #3
12.583	PB	84.52537	1.10418e-2	9.33310e-1		2-Methylnaphthalene #4
13.062	BBA	45.57931	1.99953e-2	9.11371e-1		Acenaphthene #5
13.719	PBA	52.40231	1.72604e-2	9.04485e-1		Fluorene #6
15.107	BBA	53.48583	1.70751e-2	9.13275e-1		Phenanthrene #7
16.513	BBA	88.39832	1.03316e-2	9.13294e-1		Anthracene #8
17.887	BBA	4.29404	2.13939e-2	9.18663e-2		Fluoranthene #9
18.891	BBA	6.05919	1.42346e-2	8.62502e-2		Pyrene #10
21.231	BBA	13.90912	6.51566e-2	9.06271e-1		p-Terphenyl d14 #11*
22.544	BBA	4.04760	2.19558e-2	8.88682e-2		Benzo(a)anthracene #12
23.412	BBA	5.94315	1.48093e-2	8.80142e-2		Chrysene #13
26.121	BB	4.52168	2.03417e-2	9.19789e-2		Benzo(b)fluoranthene #14
27.548	PB	2.10015	2.21503e-2	4.65190e-2		Benzo(k)fluoranthene #15
28.658	BB	2.59946	2.80792e-2	7.29908e-2		Benzo(a)pyrene #16
30.509	MM	6.44712e-1	9.27377e-2	5.97891e-2		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.312	MM	2.00007	5.56826e-2	1.11369e-1		Benzo(g,h,i)perylene #18
32.264	FM	3.57299	2.02125e-2	7.22190e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.07427

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

==========

Data File C:\HPCHEM\2\DATA\120701\4L002499.D Sample Name: WG109608-08
HPLC4 12/10/2001 11:36:24 AM RDC

1,1 SOS57-27/57-28 alt level 4 std. 20/2/1 ppm

==========

Injection Date : 12/8/2001 12:18:21 AM Seq. Line : 9

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.448	20.0	18.988	-5.1
1-Methylnaphthalene #3	12.026	20.0	19.627	-1.9
2-Methylnaphthalene #4	12.603	20.0	18.646	-6.8
Acenaphthene #5	13.081	20.0	19.741	-1.3
Fluorene #6	13.736	20.0	19.908	-0.5
Phenanthrene #7	15.124	20.0	19.180	-4.1
Anthracene #8	16.531	20.0	19.722	-1.4
Fluoranthene #9	17.910	2.0	1.966	-1.7
Pyrene #10	18.916	2.0	1.877	-6.1
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.583	2.0	1.793	-10.4
Chrysene #13	23.457	2.0	1.850	-7.5
Benzo(b)fluoranthene #14	26.174	2.0	1.937	-3.2
Benzo(k)fluoranthene #15	27.601	1.0	0.860	-14.0
Benzo(a)pyrene #16	28.712	2.0	1.983	-0.9
Dibenz(a,h)anthracene #1	30.555	2.0	2.111	5.6
Benzo(g,h,i)perylene #18	31.369	2.0	1.899	-5.0
Indeno(1,2,3-cd)pyrene #	32.298	2.0	1.930	-3.5

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.431	20.0	20.166	0.8
Acenaphthylene #2	11.061	20.0	18.484	-7.6
1-Methylnaphthalene #3	12.010	20.0	19.908	-0.5
2-Methylnaphthalene #4	12.587	20.0	19.127	-4.4
Acenaphthene #5	13.065	20.0	19.623	-1.9
Fluorene #6	13.719	20.0	19.343	-3.3
Phenanthrene #7	15.107	20.0	19.002	-5.0
Anthracene #8	16.514	20.0	20.224	1.1
Fluoranthene #9	17.892	2.0	1.900	-5.0
Pyrene #10	18.899	2.0	1.854	-7.3
p-Terphenyl d14 #11*	Not Found	20.0	Not Found	
Benzo(a)anthracene #12	22.567	2.0	1.803	-9.9
Chrysene #13	23.441	2.0	1.871	-6.5
Benzo(b)fluoranthene #14	26.157	2.0	1.894	-5.3
Benzo(k)fluoranthene #15	27.584	1.0	0.858	-14.2
Benzo(a)pyrene #16	28.695	2.0	1.938	-3.1
Dibenz(a,h)anthracene #1	30.538	2.0	2.146	7.3
Benzo(g,h,i)perylene #18	31.349	2.0	1.912	-4.4
Indeno(1,2,3-cd)pyrene #	32.283	2.0	1.822	-8.9

= Failed 15.0% Criteria

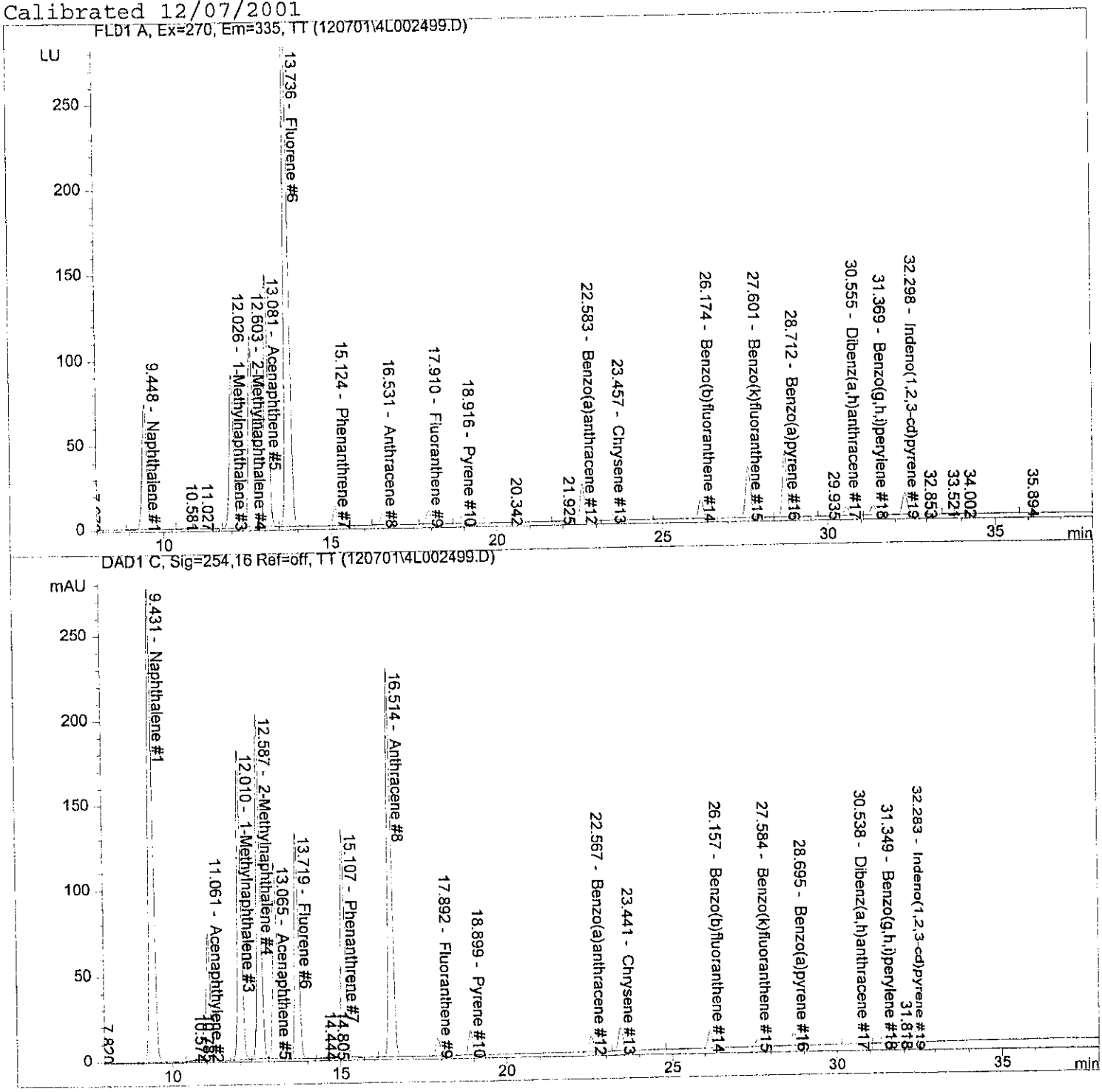
1,1 SOS57-27/57-28 alt level 4 std. 20/2/1 ppm

==========

Injection Date : 12/8/2001 12:18:21 AM
Sample Name : WG109608-08
Acq. Operator : RDC

Seq. Line : 9
Vial : 9
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:34:24 AM by RDC
Calibrated 12/07/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:34:24 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.448	PBA	718.41638	2.64309e-2	18.98836		Naphthalene #1
12.026	PB	850.30682	2.30826e-2	19.62725		1-Methylnaphthalene #3
12.603	BB	1052.66821	1.77135e-2	18.64648		2-Methylnaphthalene #4
13.081	BB	1397.06580	1.41307e-2	19.74147		Acenaphthene #5
13.736	BB	3035.62598	6.55799e-3	19.90760		Fluorene #6
15.124	BBA	111.43582	1.72114e-1	19.17962		Phenanthrene #7
16.531	PBA	63.26065	3.11763e-1	19.72236		Anthracene #8
17.910	PBA	78.05544	2.51883e-2	1.96608		Fluoranthene #9
18.916	BBA	41.52039	4.52106e-2	1.87716		Pyrene #10
21.248		-	-	-		p-Terphenyl d14 #11*
22.583	BB	216.05219	8.29841e-3	1.79289		Benzo(a)anthracene #12
23.457	BBA	45.38344	4.07647e-2	1.85004		Chrysene #13
26.174	BBA	116.30862	1.66521e-2	1.93679		Benzo(b)fluoranthene #14
27.601	BB	309.80493	2.77713e-3	8.60370e-1		Benzo(k)fluoranthene #15
28.712	BBA	378.43121	5.23910e-3	1.98264		Benzo(a)pyrene #16
30.555	BB	51.94407	4.06442e-2	2.11123		Dibenz(a,h)anthracene #17
31.369	BB	62.84625	3.02212e-2	1.89929		Benzo(g,h,i)perylene #18
32.298	BB	140.51279	1.37336e-2	1.92974		Indeno(1,2,3-cd)pyrene #1
Totals :				154.01938		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.431	PBA	2484.78711	8.11569e-3	20.16575		Naphthalene #1
11.061	BBA	628.69238	2.94003e-2	18.48377		Acenaphthylene #2
12.010	PB	1568.06946	1.26957e-2	19.90773		1-Methylnaphthalene #3
12.587	BB	1732.25586	1.10418e-2	19.12719		2-Methylnaphthalene #4
13.065	BB	981.37512	1.99953e-2	19.62288		Acenaphthene #5
13.719	BBA	1120.66248	1.72604e-2	19.34309		Fluorene #6
15.107	BBA	1112.86951	1.70751e-2	19.00234		Phenanthrene #7
16.514	PBA	1957.45850	1.03316e-2	20.22363		Anthracene #8
17.892	PB	88.79617	2.13939e-2	1.89970		Fluoranthene #9
18.899	BBA	130.27521	1.42346e-2	1.85442		Pyrene #10
21.231		-	-	-		p-Terphenyl d14 #11*
22.567	BBA	82.10786	2.19558e-2	1.80274		Benzo(a)anthracene #12
23.441	BBA	126.32463	1.48093e-2	1.87078		Chrysene #13
26.157	BB	93.10676	2.03417e-2	1.89395		Benzo(b)fluoranthene #14
27.584	BB	38.75732	2.21503e-2	8.58487e-1		Benzo(k)fluoranthene #15
28.695	BB	69.01395	2.80792e-2	1.93786		Benzo(a)pyrene #16
30.538	BB	23.13591	9.27377e-2	2.14557		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.349	BB	34.33689	5.56826e-2	1.91197		Benzo(g,h,i)perylene #18
32.283	BB	90.14058	2.02125e-2	1.82197		Indeno(1,2,3-cd)pyrene #1

Totals : 173.87381

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\122001\4L002585.D Sample Name: WG110383-01 CCV
HPLC4 12/21/2001 2:21:35 PM RDC

1,1 SOS56-19/56-20 level 4 std. 20/2/1 ppm

==========

Injection Date : 12/20/2001 3:40:22 PM Seq. Line : 3

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.280	20.0	20.178	0.9
1-Methylnaphthalene #3	11.863	20.0	20.073	0.4
2-Methylnaphthalene #4	12.445	20.0	20.196	1.0
Acenaphthene #5	12.929	20.0	20.244	1.2
Fluorene #6	13.592	20.0	20.121	0.6
Phenanthrene #7	14.996	20.0	19.548	-2.3
Anthracene #8	16.417	20.0	20.226	1.1
Fluoranthene #9	17.805	2.0	2.035	1.7
Pyrene #10	18.819	2.0	2.175	8.8
p-Terphenyl d14 #11*	21.191	20.0	20.053	0.3
Benzo(a)anthracene #12	22.514	2.0	2.002	0.1
Chrysene #13	23.391	2.0	2.003	0.1
Benzo(b)fluoranthene #14	26.126	2.0	1.957	-2.1
Benzo(k)fluoranthene #15	27.569	1.0	0.979	-2.1
Benzo(a)pyrene #16	28.686	2.0	2.111	5.5
Dibenz(a,h)anthracene #1	30.555	2.0	1.970	-1.5
Benzo(g,h,i)perylene #18	31.360	2.0	2.154	7.7
Indeno(1,2,3-cd)pyrene #	32.296	2.0	1.925	-3.7

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.262	20.0	20.398	2.0
Acenaphthylene #2	10.894	20.0	19.358	-3.2
1-Methylnaphthalene #3	11.846	20.0	19.481	-2.6
2-Methylnaphthalene #4	12.427	20.0	19.850	-0.8
Acenaphthene #5	12.912	20.0	19.429	-2.9
Fluorene #6	13.574	20.0	19.291	-3.5
Phenanthrene #7	14.979	20.0	19.370	-3.1
Anthracene #8	16.399	20.0	20.557	2.8
Fluoranthene #9	17.786	2.0	1.919	-4.1
Pyrene #10	18.800	2.0	1.929	-3.5
p-Terphenyl d14 #11*	21.174	20.0	19.827	-0.9
Benzo(a)anthracene #12	22.497	2.0	1.929	-3.6
Chrysene #13	23.374	2.0	1.908	-4.6
Benzo(b)fluoranthene #14	26.108	2.0	1.911	-4.4
Benzo(k)fluoranthene #15	27.551	1.0	0.964	-3.6
Benzo(a)pyrene #16	28.667	2.0	1.984	-0.8
Dibenz(a,h)anthracene #1	30.537	2.0	1.923	-3.9
Benzo(g,h,i)perylene #18	31.341	2.0	2.022	1.1
Indeno(1,2,3-cd)pyrene #	32.279	2.0	1.906	-4.7

= Failed 15.0% Criteria

1,1 SOS56-19/56-20 level 4 std. 20/2/1 ppm

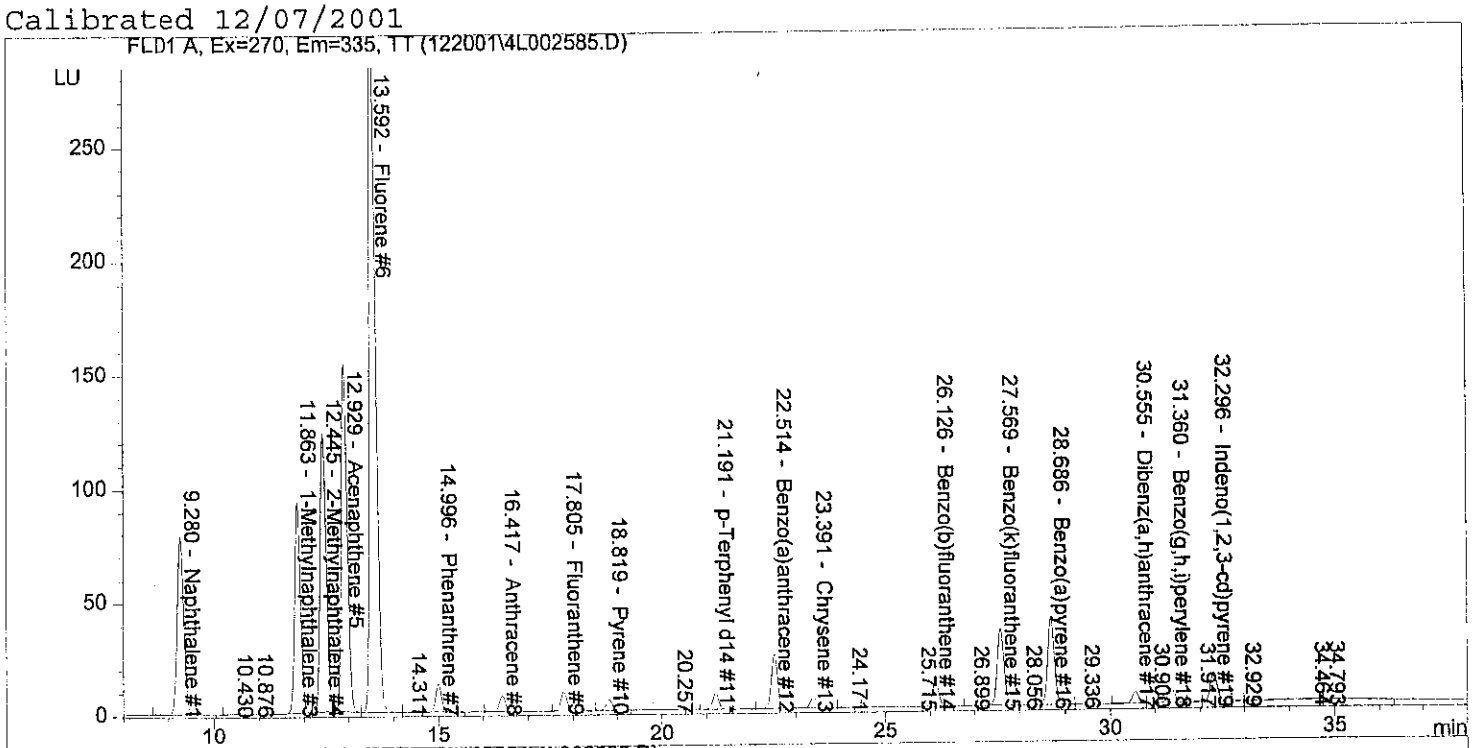
==========

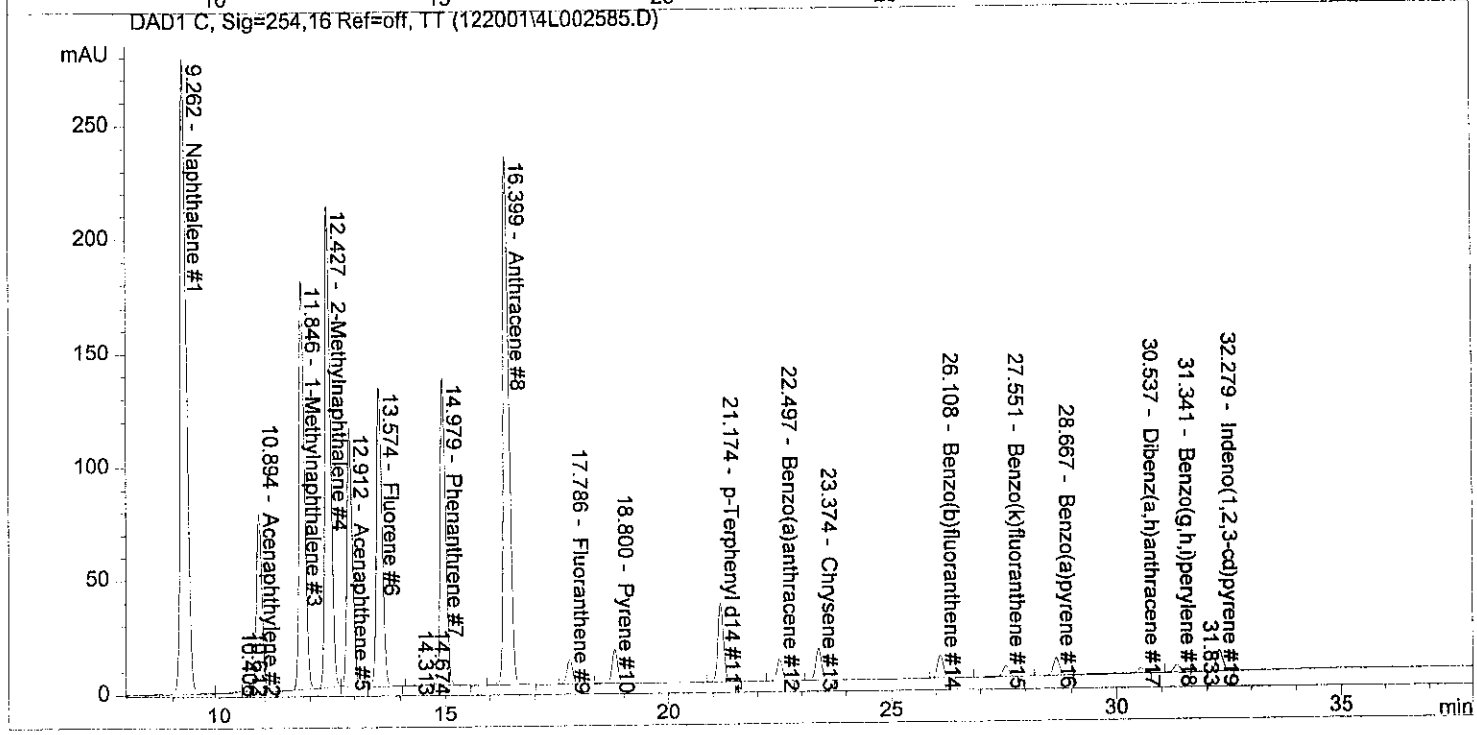
Injection Date : 12/20/2001 3:40:22 PM
Sample Name : WG110383-01 CCV
Acq. Operator : RDC

Seq. Line : 3
Vial : 2
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/21/2001 2:20:40 PM by RDC
(modified after loading)

Calibrated 12/07/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 12/21/2001 2:20:40 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.280	BBA	763.41302	2.64309e-2	20.17766		Naphthalene #1
11.863	BB	869.60083	2.30826e-2	20.07261		1-Methylnaphthalene #3
12.445	BB	1140.14282	1.77135e-2	20.19597		2-Methylnaphthalene #4
12.929	BB	1432.59436	1.41307e-2	20.24351		Acenaphthene #5
13.592	BB	3068.20068	6.55799e-3	20.12122		Fluorene #6
14.996	BBA	113.57792	1.72114e-1	19.54830		Phenanthrene #7
16.417	PBA	64.87731	3.11763e-1	20.22637		Anthracene #8
17.805	PBA	80.78119	2.51883e-2	2.03474		Fluoranthene #9
18.819	BBA	48.11544	4.52106e-2	2.17533		Pyrene #10
21.191	BB	67.09769	2.98861e-1	20.05290		p-Terphenyl d14 #11*
22.514	BB	241.29274	8.29841e-3	2.00235		Benzo(a)anthracene #12
23.391	BB	49.12889	4.07647e-2	2.00273		Chrysene #13
26.126	BB	117.52851	1.66521e-2	1.95710		Benzo(b)fluoranthene #14
27.569	BB	352.56564	2.77713e-3	9.79122e-1		Benzo(k)fluoranthene #15
28.686	BB	402.92822	5.23910e-3	2.11098		Benzo(a)pyrene #16
30.555	BB	48.46462	4.06442e-2	1.96981		Dibenz(a,h)anthracene #17
31.360	BB	71.29047	3.02212e-2	2.15449		Benzo(g,h,i)perylene #18
32.296	BB	140.19279	1.37336e-2	1.92535		Indeno(1,2,3-cd)pyrene #1

Totals : 179.95054

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.262	BB	2513.38501	8.11569e-3	20.39784		Naphthalene #1
10.894	BB	658.41742	2.94003e-2	19.35769		Acenaphthylene #2
11.846	BB	1534.41785	1.26957e-2	19.48050		1-Methylnaphthalene #3
12.427	BB	1797.69897	1.10418e-2	19.84980		2-Methylnaphthalene #4
12.912	BB	971.67078	1.99953e-2	19.42884		Acenaphthene #5
13.574	BBA	1117.65686	1.72604e-2	19.29121		Fluorene #6
14.979	BBA	1134.41528	1.70751e-2	19.37024		Phenanthrene #7
16.399	PBA	1989.68616	1.03316e-2	20.55659		Anthracene #8
17.786	PB	89.68562	2.13939e-2	1.91873		Fluoranthene #9
18.800	BBA	135.54633	1.42346e-2	1.92945		Pyrene #10
21.174	PBA	304.29706	6.51566e-2	19.82696		p-Terphenyl d14 #11*
22.497	PBA	87.84161	2.19558e-2	1.92863		Benzo(a)anthracene #12
23.374	BBA	128.83794	1.48093e-2	1.90800		Chrysene #13
26.108	PBA	93.95855	2.03417e-2	1.91128		Benzo(b)fluoranthene #14
27.551	PB	43.50084	2.21503e-2	9.63557e-1		Benzo(k)fluoranthene #15
28.667	BB	70.65652	2.80792e-2	1.98398		Benzo(a)pyrene #16
30.537	BB	20.73426	9.27377e-2	1.92285		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.341	BB	36.31827	5.56826e-2	2.02230		Benzo(g,h,i)perylene #18
32.279	BB	94.27973	2.02125e-2	1.90563		Indeno(1,2,3-cd)pyrene #1

Totals : 195.95406

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\122001\4L002596.D Sample Name: WG110383-02 CCV
HPLC4 12/21/2001 2:29:38 PM RDC

1,1 SOS56-19/56-20 level 4 std. 20/2/1 ppm

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Injection Date : 12/21/2001 2:03:07 AM Seq. Line : 14

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.348	20.0	19.443	-2.8
1-Methylnaphthalene #3	11.940	20.0	19.496	-2.5
2-Methylnaphthalene #4	12.518	20.0	19.676	-1.6
Acenaphthene #5	12.999	20.0	19.904	-0.5
Fluorene #6	13.653	20.0	20.113	0.6
Phenanthrene #7	15.041	20.0	19.217	-3.9
Anthracene #8	16.448	20.0	20.279	1.4
Fluoranthene #9	17.829	2.0	2.032	1.6
Pyrene #10	18.838	2.0	2.052	2.6
p-Terphenyl d14 #11*	21.181	20.0	20.236	1.2
Benzo(a)anthracene #12	22.498	2.0	1.969	-1.6
Chrysene #13	23.367	2.0	1.977	-1.2
Benzo(b)fluoranthene #14	26.083	2.0	1.930	-3.5
Benzo(k)fluoranthene #15	27.509	1.0	0.974	-2.6
Benzo(a)pyrene #16	28.621	2.0	2.112	5.6
Dibenz(a,h)anthracene #1	30.471	2.0	1.942	-2.9
Benzo(g,h,i)perylene #18	31.281	2.0	2.075	3.8
Indeno(1,2,3-cd)pyrene #	32.206	2.0	1.926	-3.7

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.329	20.0	20.413	2.1
Acenaphthylene #2	10.967	20.0	19.472	-2.6
1-Methylnaphthalene #3	11.921	20.0	19.629	-1.9
2-Methylnaphthalene #4	12.498	20.0	19.954	-0.2
Acenaphthene #5	12.980	20.0	19.568	-2.2
Fluorene #6	13.633	20.0	19.491	-2.5
Phenanthrene #7	15.022	20.0	19.504	-2.5
Anthracene #8	16.428	20.0	20.813	4.1
Fluoranthene #9	17.809	2.0	1.930	-3.5
Pyrene #10	18.818	2.0	1.926	-3.7
p-Terphenyl d14 #11*	21.162	20.0	19.951	-0.2
Benzo(a)anthracene #12	22.479	2.0	1.928	-3.6
Chrysene #13	23.348	2.0	1.918	-4.1
Benzo(b)fluoranthene #14	26.063	2.0	1.931	-3.4
Benzo(k)fluoranthene #15	27.489	1.0	0.966	-3.4
Benzo(a)pyrene #16	28.601	2.0	2.084	4.2
Dibenz(a,h)anthracene #1	30.451	2.0	1.936	-3.2
Benzo(g,h,i)perylene #18	31.261	2.0	2.100	5.0
Indeno(1,2,3-cd)pyrene #	32.183	2.0	1.908	-4.6

= Failed 15.0% Criteria

1,1 SOS56-19/56-20 level 4 std. 20/2/1 ppm

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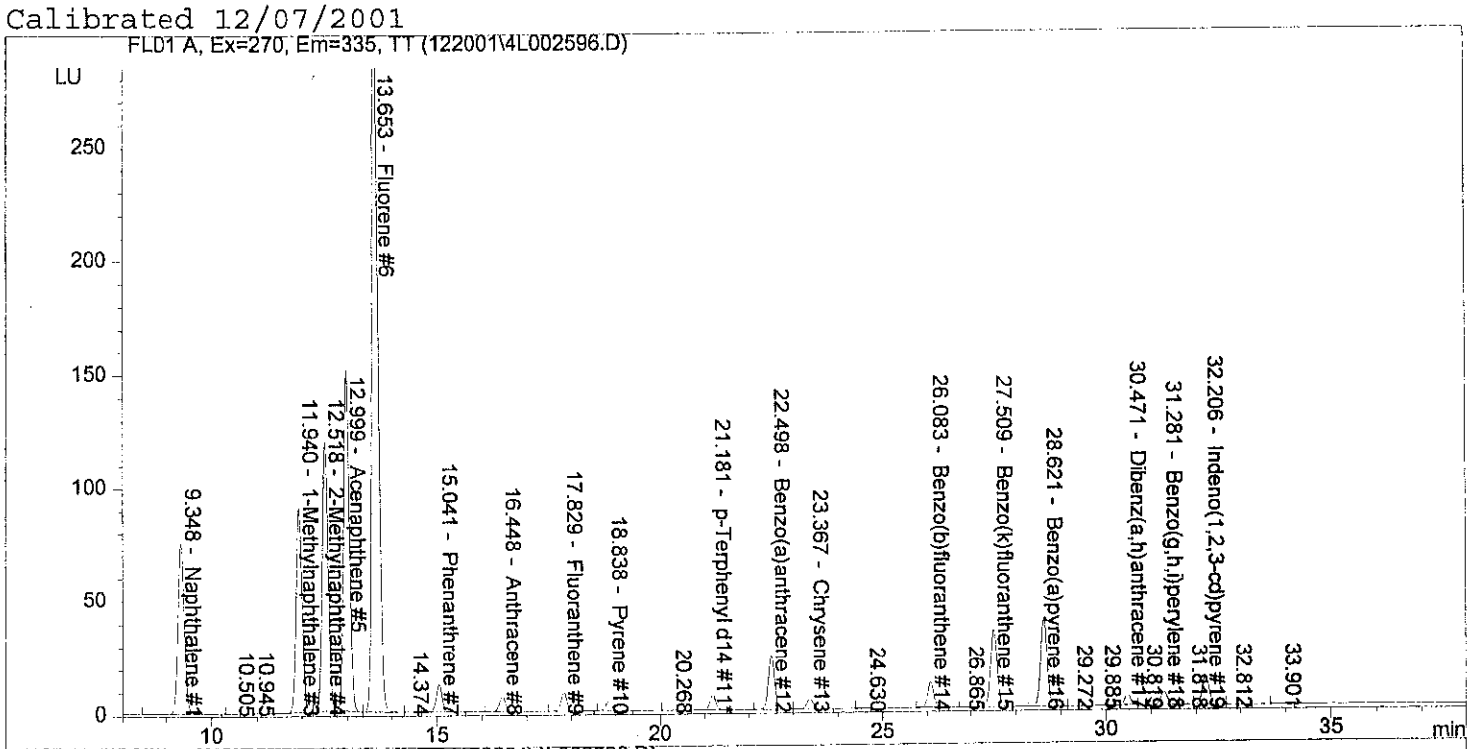
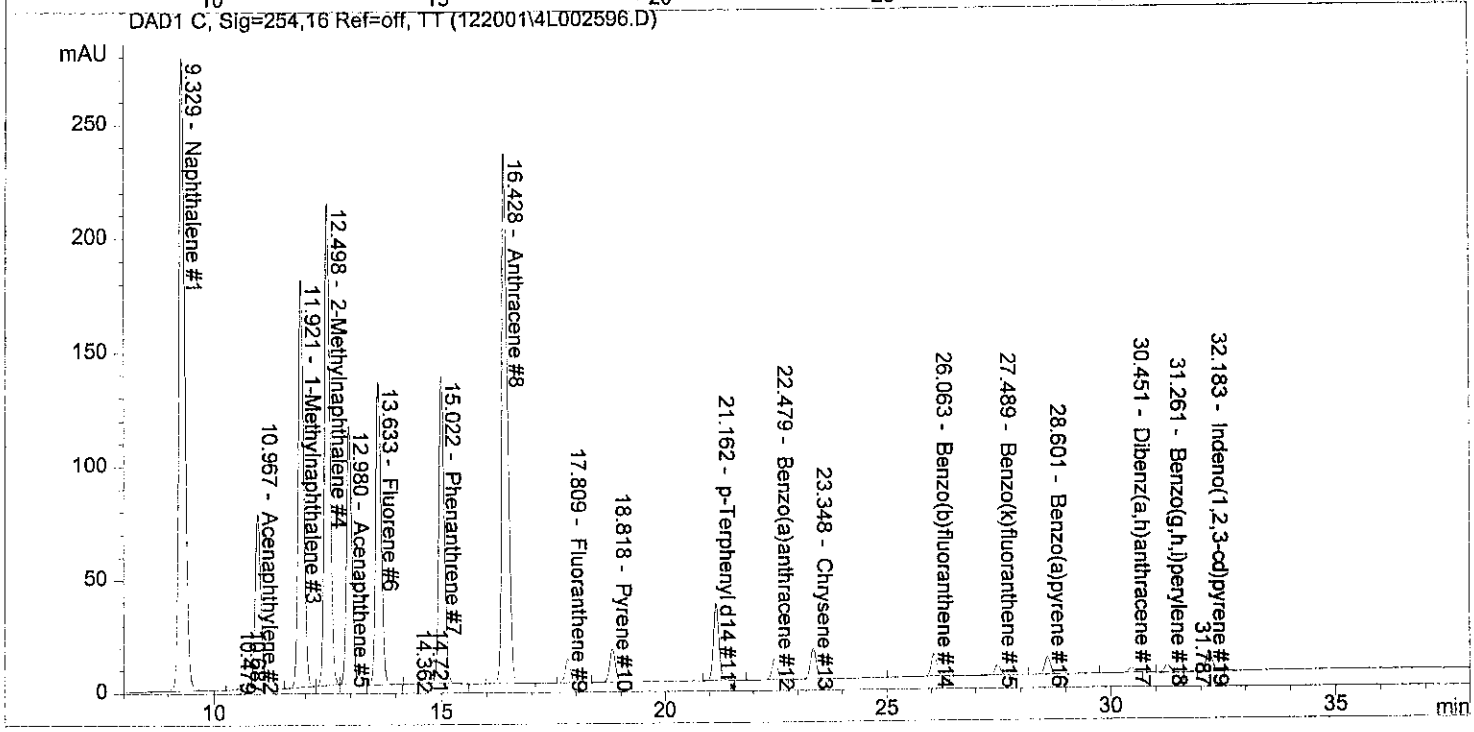
Injection Date	: 12/21/2001 2:03:07 AM	Seq. Line	: 14
Sample Name	: WG110383-02 CCV	Vial	: 13
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/21/2001 2:20:40 PM by RDC
(modified after loading)

Calibrated 12/07/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 12/21/2001 2:20:40 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.348	BBA	735.62323	2.64309e-2	19.44315		Naphthalene #1
11.940	BB	844.62646	2.30826e-2	19.49613		1-Methylnaphthalene #3
12.518	BB	1110.76477	1.77135e-2	19.67558		2-Methylnaphthalene #4
12.999	BB	1408.58582	1.41307e-2	19.90425		Acenaphthene #5
13.653	BB	3067.00806	6.55799e-3	20.11340		Fluorene #6
15.041	BBA	111.65412	1.72114e-1	19.21719		Phenanthrene #7
16.448	BBA	65.04553	3.11763e-1	20.27882		Anthracene #8
17.829	PBA	80.65395	2.51883e-2	2.03154		Fluoranthene #9
18.838	BBA	45.38219	4.52106e-2	2.05175		Pyrene #10
21.181	BBA	67.70876	2.98861e-1	20.23553		p-Terphenyl d14 #11*
22.498	BB	237.26166	8.29841e-3	1.96889		Benzo(a)anthracene #12
23.367	BBA	48.49391	4.07647e-2	1.97684		Chrysene #13
26.083	BB	115.92429	1.66521e-2	1.93039		Benzo(b)fluoranthene #14
27.509	BB	350.65955	2.77713e-3	9.73828e-1		Benzo(k)fluoranthene #15
28.621	BB	403.15668	5.23910e-3	2.11218		Benzo(a)pyrene #16
30.471	BB	47.77784	4.06442e-2	1.94189		Dibenz(a,h)anthracene #17
31.281	BB	68.67204	3.02212e-2	2.07535		Benzo(g,h,i)perylene #18
32.206	BB	140.21672	1.37336e-2	1.92568		Indeno(1,2,3-cd)pyrene #1

Totals : 177.35241

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.329	BBA	2515.20190	8.11569e-3	20.41259		Naphthalene #1
10.967	BBA	662.30048	2.94003e-2	19.47186		Acenaphthylene #2
11.921	PB	1546.07764	1.26957e-2	19.62853		1-Methylnaphthalene #3
12.498	BB	1807.13782	1.10418e-2	19.95402		2-Methylnaphthalene #4
12.980	BB	978.60828	1.99953e-2	19.56755		Acenaphthene #5
13.633	BBA	1129.25842	1.72604e-2	19.49146		Fluorene #6
15.022	BBA	1142.25720	1.70751e-2	19.50414		Phenanthrene #7
16.428	PBA	2014.46143	1.03316e-2	20.81256		Anthracene #8
17.809	PB	90.22990	2.13939e-2	1.93037		Fluoranthene #9
18.818	BBA	135.29968	1.42346e-2	1.92594		Pyrene #10
21.162	PBA	306.20575	6.51566e-2	19.95132		p-Terphenyl d14 #11*
22.479	PBA	87.83202	2.19558e-2	1.92842		Benzo(a)anthracene #12
23.348	BBA	129.54256	1.48093e-2	1.91844		Chrysene #13
26.063	PBA	94.93294	2.03417e-2	1.93110		Benzo(b)fluoranthene #14
27.489	BBA	43.59282	2.21503e-2	9.65595e-1		Benzo(k)fluoranthene #15
28.601	BBA	74.22778	2.80792e-2	2.08426		Benzo(a)pyrene #16
30.451	BB	20.88074	9.27377e-2	1.93643		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.261	BB	37.71241	5.56826e-2	2.09992		Benzo(g,h,i)perylene #18
32.183	BB	94.37650	2.02125e-2	1.90759		Indeno(1,2,3-cd)pyrene #1

Totals : 197.42208

Results obtained with enhanced integrator!

*** End of Report ***

Check Standard Report

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Data File C:\HPCHEM\2\DATA\122001\4L002606.D Sample Name: WG110383-03 CCV
HPLC4 12/21/2001 2:36:32 PM RDC

1,1 SOS56-19/56-20 level 4 std. 20/2/1 ppm

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Injection Date : 12/21/2001 11:29:21 AM Seq. Line : 24

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.359	20.0	19.771	-1.1
1-Methylnaphthalene #3	11.951	20.0	19.775	-1.1
2-Methylnaphthalene #4	12.529	20.0	19.937	-0.3
Acenaphthene #5	13.011	20.0	20.074	0.4
Fluorene #6	13.668	20.0	20.166	0.8
Phenanthrene #7	15.063	20.0	19.858	-0.7
Anthracene #8	16.476	20.0	20.379	1.9
Fluoranthene #9	17.859	2.0	2.055	2.7
Pyrene #10	18.870	2.0	2.088	4.4
p-Terphenyl d14 #11*	21.223	20.0	20.001	0.0
Benzo(a)anthracene #12	22.545	2.0	1.980	-1.0
Chrysene #13	23.419	2.0	1.976	-1.2
Benzo(b)fluoranthene #14	26.146	2.0	1.944	-2.8
Benzo(k)fluoranthene #15	27.585	1.0	0.978	-2.2
Benzo(a)pyrene #16	28.703	2.0	2.184	9.2
Dibenz(a,h)anthracene #1	30.569	2.0	1.931	-3.5
Benzo(g,h,i)perylene #18	31.377	2.0	2.088	4.4
Indeno(1,2,3-cd)pyrene #	32.316	2.0	1.940	-3.0

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.342	20.0	20.389	1.9
Acenaphthylene #2	10.979	20.0	19.436	-2.8
1-Methylnaphthalene #3	11.934	20.0	19.566	-2.2
2-Methylnaphthalene #4	12.511	20.0	19.943	-0.3
Acenaphthene #5	12.994	20.0	19.555	-2.2
Fluorene #6	13.651	20.0	19.426	-2.9
Phenanthrene #7	15.045	20.0	19.500	-2.5
Anthracene #8	16.458	20.0	20.803	4.0
Fluoranthene #9	17.840	2.0	1.931	-3.5
Pyrene #10	18.851	2.0	1.927	-3.6
p-Terphenyl d14 #11*	21.205	20.0	19.915	-0.4
Benzo(a)anthracene #12	22.528	2.0	1.942	-2.9
Chrysene #13	23.402	2.0	1.917	-4.1
Benzo(b)fluoranthene #14	26.127	2.0	1.920	-4.0
Benzo(k)fluoranthene #15	27.567	1.0	0.972	-2.8
Benzo(a)pyrene #16	28.685	2.0	2.133	6.7
Dibenz(a,h)anthracene #1	30.551	2.0	2.163	8.1
Benzo(g,h,i)perylene #18	31.358	2.0	2.069	3.4
Indeno(1,2,3-cd)pyrene #	32.300	2.0	1.920	-4.0

= Failed 15.0% Criteria

1,1 SOS56-19/56-20 level 4 std. 20/2/1 ppm

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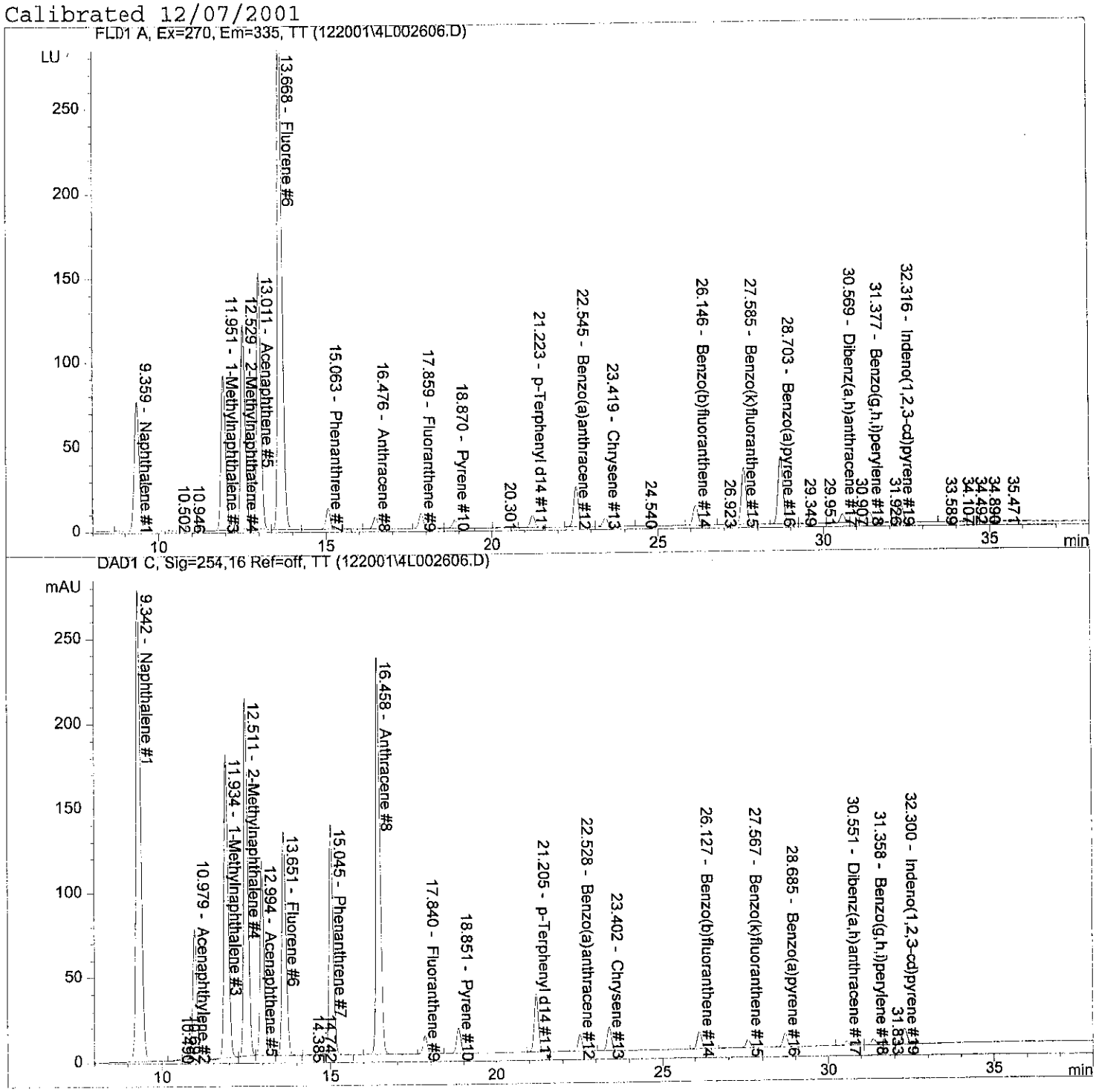
Injection Date : 12/21/2001 11:29:21 AM
Sample Name : WG110383-03 CCV
Acq. Operator : RDC

Seq. Line : 24
Vial : 13
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/21/2001 2:20:40 PM by RDC
(modified after loading)

Calibrated 12/07/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : 12/21/2001 2:20:40 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.359	PBA	748.03357	2.64309e-2	19.77117		Naphthalene #1
11.951	BB	856.72272	2.30826e-2	19.77535		1-Methylnaphthalene #3
12.529	BB	1125.53589	1.77135e-2	19.93723		2-Methylnaphthalene #4
13.011	BB	1420.61157	1.41307e-2	20.07419		Acenaphthene #5
13.668	BB	3074.96045	6.55799e-3	20.16555		Fluorene #6
15.063	BBA	115.37533	1.72114e-1	19.85766		Phenanthrene #7
16.476	BBA	65.36832	3.11763e-1	20.37945		Anthracene #8
17.859	BB	81.57933	2.51883e-2	2.05485		Fluoranthene #9
18.870	BBA	46.19246	4.52106e-2	2.08839		Pyrene #10
21.223	BBA	66.92503	2.98861e-1	20.00130		p-Terphenyl d14 #11*
22.545	BB	238.58943	8.29841e-3	1.97991		Benzo(a)anthracene #12
23.419	BBA	48.47287	4.07647e-2	1.97598		Chrysene #13
26.146	BB	116.72026	1.66521e-2	1.94364		Benzo(b)fluoranthene #14
27.585	BB	352.00778	2.77713e-3	9.77573e-1		Benzo(k)fluoranthene #15
28.703	BB	416.94766	5.23910e-3	2.18443		Benzo(a)pyrene #16
30.569	BB	47.50431	4.06442e-2	1.93078		Dibenz(a,h)anthracene #17
31.377	BB	69.09045	3.02212e-2	2.08800		Benzo(g,h,i)perylene #18
32.316	BB	141.28061	1.37336e-2	1.94029		Indeno(1,2,3-cd)pyrene #1

Totals : 179.12574

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.342	BBA	2512.32056	8.11569e-3	20.38920		Naphthalene #1
10.979	BB	661.06903	2.94003e-2	19.43565		Acenaphthylene #2
11.934	BB	1541.18457	1.26957e-2	19.56641		1-Methylnaphthalene #3
12.511	BB	1806.09656	1.10418e-2	19.94252		2-Methylnaphthalene #4
12.994	BB	977.97577	1.99953e-2	19.55491		Acenaphthene #5
13.651	BBA	1125.46973	1.72604e-2	19.42607		Fluorene #6
15.045	BBA	1142.03540	1.70751e-2	19.50035		Phenanthrene #7
16.458	PBA	2013.49023	1.03316e-2	20.80253		Anthracene #8
17.840	PB	90.25776	2.13939e-2	1.93097		Fluoranthene #9
18.851	BBA	135.39920	1.42346e-2	1.92735		Pyrene #10
21.205	PBA	305.64709	6.51566e-2	19.91492		p-Terphenyl d14 #11*
22.528	PBA	88.45904	2.19558e-2	1.94219		Benzo(a)anthracene #12
23.402	BBA	129.47792	1.48093e-2	1.91748		Chrysene #13
26.127	PBA	94.39573	2.03417e-2	1.92017		Benzo(b)fluoranthene #14
27.567	BBA	43.88935	2.21503e-2	9.72163e-1		Benzo(k)fluoranthene #15
28.685	BBA	75.97926	2.80792e-2	2.13344		Benzo(a)pyrene #16
30.551	BB	23.31854	9.27377e-2	2.16251		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.358	BB	37.15154	5.56826e-2	2.06869		Benzo(g,h,i)perylene #18
32.300	BB	94.99895	2.02125e-2	1.92017		Indeno(1,2,3-cd)pyrene #1

Totals : 197.42767

Results obtained with enhanced integrator!

*** End of Report ***

2.2.7.4 Raw QC Data

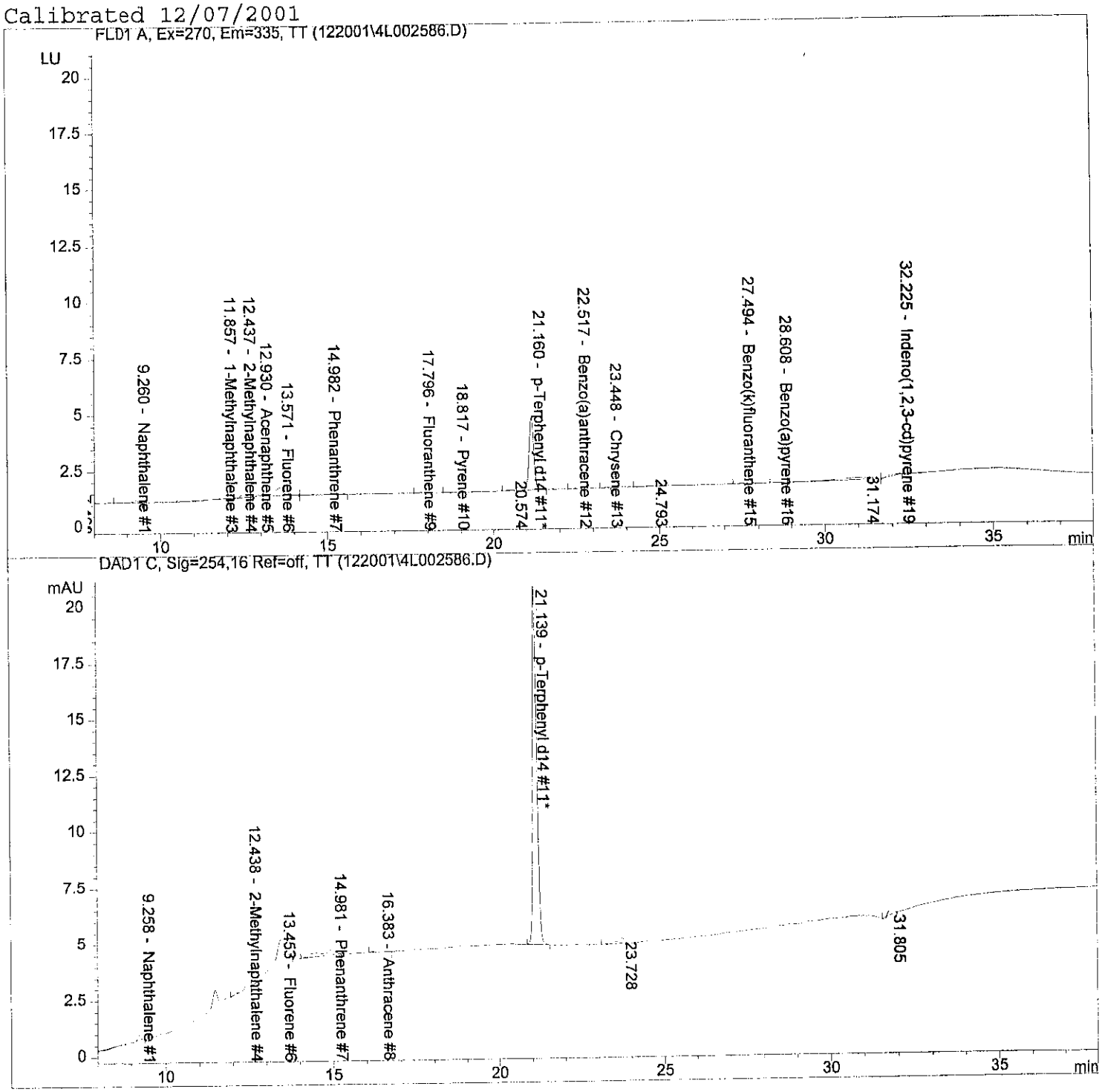
==========

Injection Date : 12/20/2001 4:36:57 PM
Sample Name : WG110292-02 WBLK
Acq. Operator : RDC

Seq. Line : 4
Vial : 3
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/21/2001 2:20:40 PM by RDC
(modified after loading)

Calibrated 12/07/2001



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 12/21/2001 2:20:40 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.260	BB	9.77341e-1	2.64309e-2	2.58320e-2		Naphthalene #1
11.857	BB	5.13699e-1	2.30826e-2	1.18575e-2		1-Methylnaphthalene #3
12.437	BB	1.02613	1.77135e-2	1.81764e-2		2-Methylnaphthalene #4
12.930	BB	6.76387e-1	1.41307e-2	9.55781e-3		Acenaphthene #5
13.571	BB	6.59657	6.55799e-3	4.32602e-2		Fluorene #6
14.982	BBA	8.01199e-1	1.72114e-1	1.37897e-1		Phenanthrene #7
16.422		-	-	-		Anthracene #8
17.796	PBA	2.58204e-1	2.51883e-2	6.50373e-3		Fluoranthene #9
18.817	PB	2.02605e-1	4.52106e-2	9.15986e-3		Pyrene #10
21.160	BBA	32.12736	2.98861e-1	9.60163	96%	p-Terphenyl d14 #11*
22.517	BB	1.76335e-1	8.29841e-3	1.46330e-3		Benzo(a)anthracene #12
23.448	BB	1.96316e-1	4.07647e-2	8.00276e-3		Chrysene #13
26.140		-	-	-		Benzo(b)fluoranthene #14
27.494	PB	2.77059e-1	2.77713e-3	7.69429e-4		Benzo(k)fluoranthene #15
28.608	PB	2.39441e-1	5.23910e-3	1.25446e-3		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.334		-	-	-		Benzo(g,h,i)perylene #18
32.225	BB	1.56783	1.37336e-2	2.15320e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.89689

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.258	BB	9.12182e-2	8.11569e-3	7.40298e-4	200	Naphthalene #1
10.878		-	-	-		Acenaphthylene #2
11.843		-	-	-		1-Methylnaphthalene #3
12.438	BB	1.21839	1.10418e-2	1.34532e-2		2-Methylnaphthalene #4
12.912		-	-	-		Acenaphthene #5
13.453	BB	27.76189	1.72604e-2	4.79182e-1	NC	Fluorene #6
14.981	BB	7.81148	1.70751e-2	1.33382e-1	200	Phenanthrene #7
16.383	BBA	2.05044	1.03316e-2	2.11843e-2		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.891		-	-	-		Pyrene #10
21.139	BBA	143.16902	6.51566e-2	9.32840	93%	p-Terphenyl d14 #11*
22.544		-	-	-		Benzo(a)anthracene #12
23.412		-	-	-		Chrysene #13
26.121		-	-	-		Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.658		-	-	-		Benzo(a)pyrene #16
30.509		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1
Totals :				9.97634		

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

==========

*** End of Report ***

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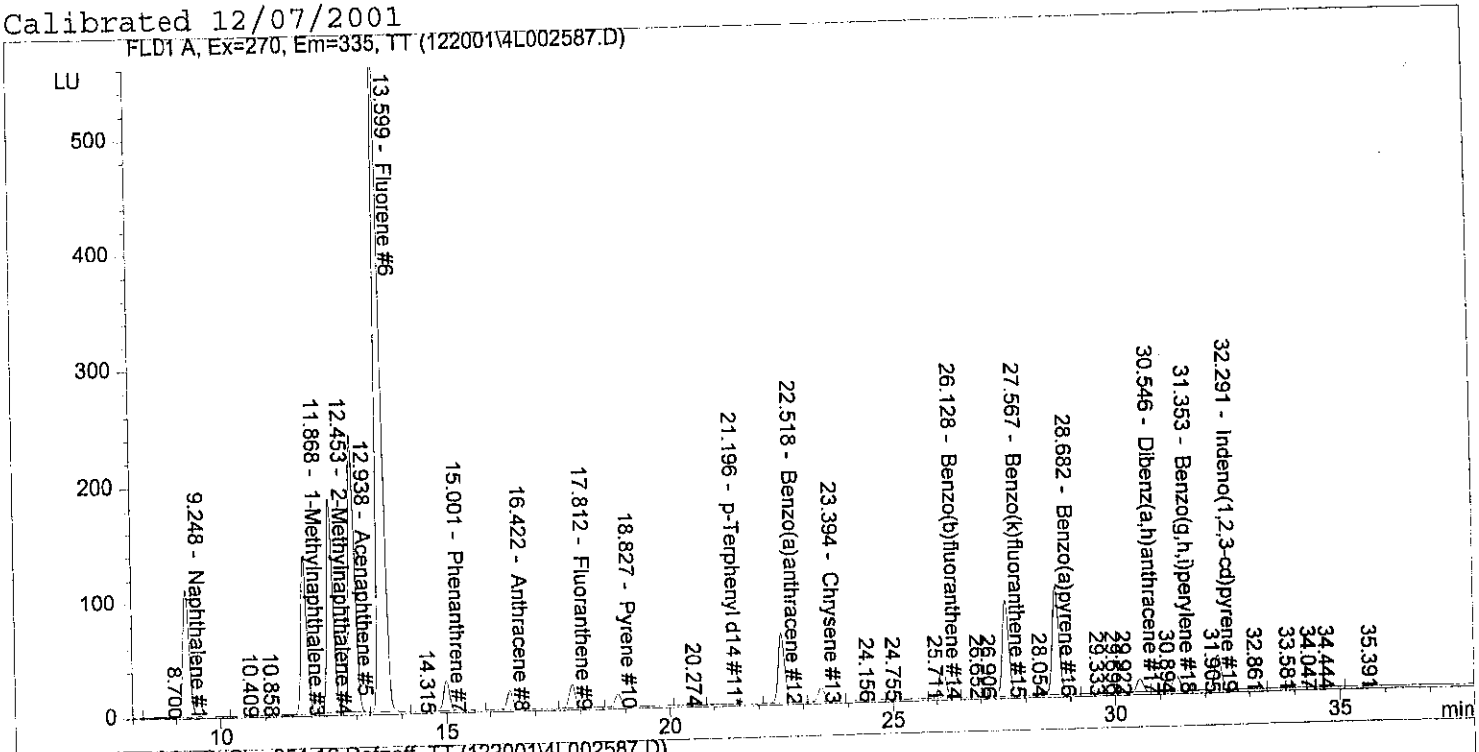
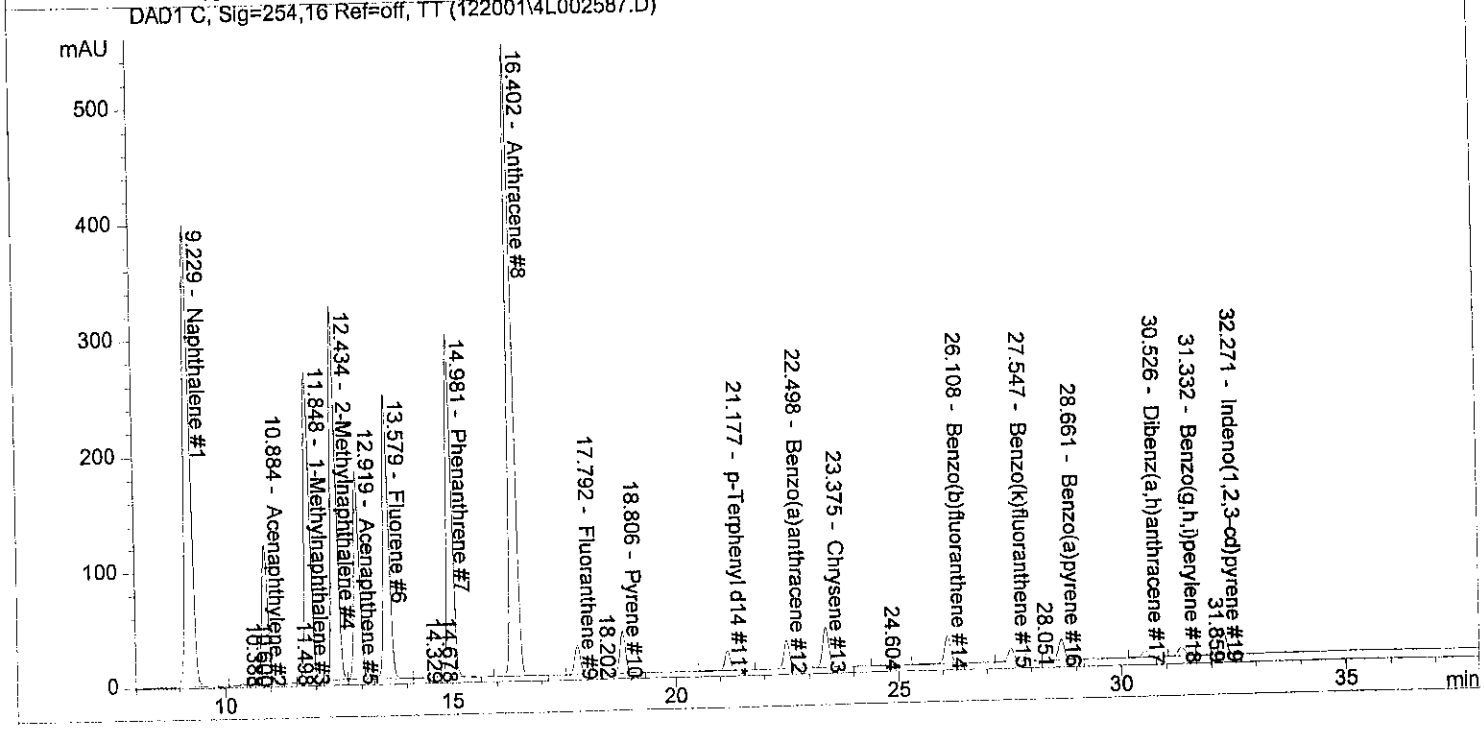
Injection Date	: 12/20/2001 5:33:35 PM	Seq. Line	: 5
Sample Name	: WG110292-03 WLCS	Vial	: 4
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/21/2001 2:20:40 PM by RDC
(modified after loading)

Calibrated 12/07/2001





External Standard Report

Sorted By : Signal
Calib. Data Modified : 12/21/2001 2:20:40 PM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.248	BB	1119.48950	2.64309e-2	29.58907		Naphthalene #1
11.868	BB	1321.55688	2.30826e-2	30.50491		1-Methylnaphthalene #3
12.453	BB	1759.87769	1.77135e-2	31.17367		2-Methylnaphthalene #4
12.938	BB	2279.99854	1.41307e-2	32.21790		Acenaphthene #5
13.599	BB	5692.83887	6.55799e-3	37.33357		Fluorene #6
15.001	BBA	251.27437	1.72114e-1	43.24774		Phenanthrene #7
16.422	PB	154.49980	3.11763e-1	48.16739		Anthracene #8
17.812	BBA	199.21246	2.51883e-2	5.01782		Fluoranthene #9
18.827	BBA	118.07941	4.52106e-2	5.33844		Pyrene #10
21.196	BBA	33.92976	2.98861e-1	10.14029	101%	p-Terphenyl d14 #11*
22.518	BB	606.16528	8.29841e-3	5.03021		Benzo(a)anthracene #12
23.394	BB	123.67137	4.07647e-2	5.04143		Chrysene #13
26.128	BB	291.27756	1.66521e-2	4.85040		Benzo(b)fluoranthene #14
27.567	BB	863.92108	2.77713e-3	2.39922		Benzo(k)fluoranthene #15
28.682	BB	976.42578	5.23910e-3	5.11559		Benzo(a)pyrene #16
30.546	BB	115.18523	4.06442e-2	4.68161		Dibenz(a,h)anthracene #17
31.353	BB	167.90178	3.02212e-2	5.07420		Benzo(g,h,i)perylene #18
32.291	BB	335.50449	1.37336e-2	4.60768		Indeno(1,2,3-cd)pyrene #1
Totals :				309.53113		

Results obtained with enhanced integrator!

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
9.229	BBA	3724.47974	8.11569e-3	30.22671		Naphthalene #1
10.884	BB	1060.88354	2.94003e-2	31.19033		Acenaphthylene #2
11.848	BB	2354.38965	1.26957e-2	29.89061		1-Methylnaphthalene #3
12.434	BB	2798.38208	1.10418e-2	30.89912		2-Methylnaphthalene #4
12.919	BB	1560.78516	1.99953e-2	31.20835		Acenaphthene #5
13.579	BB	2127.25488	1.72604e-2	36.71729		Fluorene #6
14.981	BBA	2517.65845	1.70751e-2	42.98923		Phenanthrene #7
16.402	PBA	4744.73389	1.03316e-2	49.02057		Anthracene #8
17.792	PB	223.31889	2.13939e-2	4.77766		Fluoranthene #9
18.806	BBA	338.15482	1.42346e-2	4.81350		Pyrene #10
21.177	BBA	153.66808	6.51566e-2	10.01249	100%	p-Terphenyl d14 #11*
22.498	BBA	223.20178	2.19558e-2	4.90056		Benzo(a)anthracene #12
23.375	BBA	329.55441	1.48093e-2	4.88048		Chrysene #13
26.108	PBA	234.86314	2.03417e-2	4.77752		Benzo(b)fluoranthene #14
27.547	BB	106.61157	2.21503e-2	2.36148		Benzo(k)fluoranthene #15
28.661	BB	175.72931	2.80792e-2	4.93434		Benzo(a)pyrene #16
30.526	BB	49.18793	9.27377e-2	4.56157		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.332	BB	87.45063	5.56826e-2	4.86948		Benzo(g,h,i)perylene #18
32.271	BBA	227.27335	2.02125e-2	4.59376		Indeno(1,2,3-cd)pyrene #1

Totals : 337.62505

Results obtained with enhanced integrator!

*** End of Report ***

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG109608-01	8310	1	Sample		
3	3	WG109608-02	8310	1	Sample		
4	4	WG109608-03	8310	1	Sample		
5	5	WG109608-04	8310	1	Sample		
6	6	WG109608-05	8310	1	Sample		
7	7	WG109608-06	8310	1	Sample		
8	8	WG109608-07	8310	1	Sample		
9	9	WG109608-08	8310	1	Sample		
10	10	WG109418-01 WBLK	8310	1	Sample		
11	11	WG109418-02 WLCS	8310	1	Sample		
12	12	WG109418-03 WLCS	8310	1	Sample		
13	13	L0112048-09 610W	8310	1	Sample		
14	14	L0112048-12 610W	8310	1	Sample		
15	15	L0112048-15 610W	8310	1	Sample		
16	16	L0112048-18 610W	8310	1	Sample		
17	17	L0112048-05 610W	8310	1	Sample		
18	18	L0112048-07 610W	8310	1	Sample		
19	19	WG109609-01 CCV	8310	1	Sample		
20	20	WG109116-02 SBLK	8310	1	Sample		
21	21	WG109116-03 SLCS	8310	1	Sample		
22	22	WG109116-01 SREF	8310	1	Sample		
23	23	WG109116-04 SMS	8310	1	Sample		
24	24	WG109116-05 SMSD	8310	1	Sample		
25	25	L0111540-05 831S	8310	1	Sample		
26	26	L0111540-06 831S	8310	1	Sample		
27	27	L0111540-07 831S	8310	1	Sample		
28	28	L0111540-08 831S	8310	1	Sample		
29	29	L0111540-09 831S	8310	1	Sample		
30	30	WG109609-02 CCV	8310	1	Sample		
31	31	L0111540-11 831S	8310	1	Sample		
32	32	L0111540-10 831S	8310	1	Sample		
33	33	L0111540-06 5X	8310	1	Sample		
34	34	L0111540-07 2X	8310	1	Sample		
35	30	WG109609-03 CCV	8310	1	Sample		

RDC 12/10/01

Sel	Run	Vial	Method	Datafile	Seqtable	Calib:Rf:Rt	Sample Name	
No	1	1	8310	4L002491	01:01		accn blk	
No	2	2	8310	4L002492 SOS 56-19	02:01		WG109608-01	
No	3	3	8310	4L002493 SOS 56-20	03:01		WG109608-02	
No	4	4	8310	4L002494	04:01		WG109608-03	
No	5	5	8310	4L002495	05:01	SOS 56-19/	WG109608-04	
No	6	6	8310	4L002496	06:01	56-20	WG109608-05	
No	7	7	8310	4L002497	07:01		WG109608-06	
No	8	8	8310	4L002498	08:01		WG109608-07	
No	9	9	8310	4L002499	09:01	SOS 57-27/57-28	WG109608-08	
No	10	10	8310	4L002500	10:01		WG109418-01	WB
No	11	11	8310	4L002501	11:01		WG109418-02	WL
No	12	12	8310	4L002502	12:01		WG109418-03	WL
No	13	13	8310	4L002503	13:01		L0112048-09	61
No	14	14	8310	4L002504	14:01		L0112048-12	61
No	15	15	8310	4L002505	15:01		L0112048-15	61
No	16	16	8310	4L002506	16:01		L0112048-18	61
No	17	17	8310	4L002507	17:01		L0112048-05	61
No	18	18	8310	4L002508	18:01		L0112048-07	61
No	19	19	8310	4L002509	19:01	SOS 56-19/56-20	WG109609-01	CC
No	20	20	8310	4L002510	20:01		WG109116-02	SB
No	21	21	8310	4L002511	21:01		WG109116-03	SL
No	22	22	8310	4L002512	22:01		WG109116-01	SR
No	23	23	8310	4L002513	23:01		WG109116-04	SM
No	24	24	8310	4L002514	24:01		WG109116-05	SM
No	25	25	8310	4L002515	25:01		L0111540-05	83
No	26	26	8310	4L002516	26:01	RR 5X	L0111540-06	83
No	27	27	8310	4L002517	27:01	RR 2X	L0111540-07	83
No	28	28	8310	4L002518	28:01		L0111540-08	83
No	29	29	8310	4L002519	29:01		L0111540-09	83
No	30	30	8310	4L002520	30:01	SOS 56-19/56-20	WG109609-02	CC
No	31	31	8310	4L002521	31:01		L0111540-11	83
No	32	32	8310	4L002522	32:01		L0111540-10	83
No	33	33	8310	4L002523	33:01		L0111540-06	5X
No	34	34	8310	4L002524	34:01		L0111540-07	2X
No	35	30	8310	4L002525	35:01	SOS 56-19/56-20	WG109609-03	CC

RDC 12/10/01

EC 12/10/01

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Dec. 07, 2010 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 120701
Analyst Initials RDC SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # _____ 8330

Daily Check

- ☑ Mobile phase reservoir
- ☑ System pressure 107 bar
- ☑ Waste container

Returned to Control?

Yes ____ No _____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

Reviewed By: EC 12/10/0

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG110383-01 CCV	8310	1	Sample		SOS 56-19/56-20
3	2	WG110383-01 CCV	8310	1	Sample		SOS 56-19/56-20
4	3	WG110292-02 WBLK	8310	1	Sample		
5	4	WG110292-03 WLCS	8310	1	Sample		
6	5	L0112366-01 831W	8310	1	Sample		
7	6	L0112366-02 831W	8310	1	Sample		
8	7	L0112366-03 831W	8310	1	Sample		
9	8	WG110292-01 WREF	8310	1	Sample		
10	9	WG110292-04 WMS	8310	1	Sample		
11	10	WG110292-05 WMSD	8310	1	Sample		
12	11	L0112366-07 831W	8310	1	Sample		
13	12	L0112366-08 831W	8310	1	Sample		
14	13	WG110383-02 CCV	8310	1	Sample		SOS56-19/56-20
15	14	L0112366-09 831W	8310	1	Sample		
16	15	L0112366-10 831W	8310	1	Sample		
17	16	L0112366-11 831W	8310	1	Sample		
18	17	L0112366-12 831W	8310	1	Sample		
19	18	L0112366-13 831W	8310	1	Sample		
20	19	L0112366-14 831W	8310	1	Sample		
21	20	L0112366-15 831W	8310	1	Sample		
22	21	L0112366-16 831W	8310	1	Sample		
23	22	L0112349-01 5X	8310	1	Sample		
24	13	WG110383-03 CCV	8310	1	Sample		SOS 56-19-56-20

RDC 12/21/01

RDC 12/21/01

RDC 12/21/01

Partial Sequence: C:\HPCHEM\2\SEQUENCE\...

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L002583	01:01		accn blk
No	2	2	8310	4L002584	02:01		WG110383-01 CC
No	3	2	8310	4L002585	03:01		WG110383-01 CC
No	4	3	8310	4L002586	04:01		WG110292-02 WB
No	5	4	8310	4L002587	05:01		WG110292-03 WL
No	6	5	8310	4L002588	06:01		L0112366-01 83
No	7	6	8310	4L002589	07:01		L0112366-02 83
No	8	7	8310	4L002590	08:01		L0112366-03 83
No	9	8	8310	4L002591	09:01		WG110292-01 WR
No	10	9	8310	4L002592	10:01		WG110292-04 WM
No	11	10	8310	4L002593	11:01		WG110292-05 WM
No	12	11	8310	4L002594	12:01		L0112366-07 83
No	13	12	8310	4L002595	13:01		L0112366-08 83
No	14	13	8310	4L002596	14:01		WG110383-02 CC
No	15	14	8310	4L002597	15:01		L0112366-09 83
No	16	15	8310	4L002598	16:01		L0112366-10 83
No	17	16	8310	4L002599	17:01		L0112366-11 83
No	18	17	8310	4L002600	18:01		L0112366-12 83
No	19	18	8310	4L002601	19:01		L0112366-13 83
No	20	19	8310	4L002602	20:01		L0112366-14 83
No	21	20	8310	4L002603	21:01		L0112366-15 83
No	22	21	8310	4L002604	22:01		L0112366-16 83
No	23	22	8310	4L002605	23:01		L0112349-01 5X
No	24	13	8310	4L002606	24:01		WG110383-03 CC

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Dec. 20, 2001 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 12-2001
Analyst Initials BC SOP # HPLC01 Rev. # 3 ✓ 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check

- ☑ Mobile phase reservoir
- ☑ System pressure 111 bar
- ☑ Waste container

Returned to Control?

Yes ____ No ____

Additional Maintenance

Problem: _____

Action Taken: _____

Comments

Reviewed By: [illegible] 12/31/01

Sample Extract Log Sheet

Volume 177
Page 183

Parameter: 8310-H_2O SOP #: EXHPLC Revision #: 6
Extraction Analyst(s): DM RSK TV/KD Analyst(s): 12/19/01
Date/Time Extracted: 12/19/01 @ 1335 Date TV/KD: 12/19/01
Spike/Surrogate Analyst: RSK/DM Witness: DM
Surrogate #: ES5003 9-27 Earliest Hold Date: 12/23/01
Spike #: A = ES5003 9-22 Spike #: B = —

Extraction Work Group WG 110292
Analytical Work Group WG 110372

Extract Relinquished By: JAa
Extract Received By & Date: 12/19/01

	Sample ID	Test Code	pH √ <2	N	>12	Initial Vol / Wt	Amount Surrogate	Amount Spike	Final Volume	Extract Color	Emulsions √ A	BN	N	Comments
1	Blank			✓		1L	100ul		1mL	T				WG 110292-02
2	LCS			✓		⊥		500ul		C				WG ⊥ -03
3	12-366-01	8310		✓		940mL				T				
4	-02			✓		910mL				⊥				
5	-03			✓		920mL				T				
6	-04			✓		965mL				⊥				WG110292-01
7	-05MS			✓		⊥		500ul		C				⊥ -04
8	-06MSD			✓		950mL		⊥		⊥				⊥ -05
9	-07			✓		920mL				T				
10	-08			✓		940mL								
11	-09			✓		930mL								
12	-10			✓		940mL								
13	-11			✓		965mL								
14	-12			✓		930mL								
15	-13			✓		900mL								
16	-14			✓		920mL								
17	-15			✓		900mL								
18	-16			✓		890mL								
19														
20														
21														
22														
23														
24														

12/19/01 JAa

Methylene Chloride Lot #: 41109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: ACETONITRILE Lot #: 41264
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: FORTIFIED Lot #: ER 2014
Acid: — Lot #: —
Florisil Lot #: —
Silica Gel Lot #: —
IR Analyst / Date / Time: —
Dried Na_2SO_4 Lot #: ER1979

Color Code
T = Transparent
C = Colored
O = Opaque

SW-846 Method			On	Off	On	Off
Continuous	3520C					
Soxhlet	3540C					
ASE*	3545					
Sep Funnel	3510C	✓				
Sonication	3550B					
Waste	3580A					

* Accelerated Solvent Extractor (ASE)

Clean-ups			
Florisil 3620B		GPC 3640A	
Silica Gel 3630C		Other	
Acid 3664A		N/A	✓
Sulfur 3660B			

Peer Reviewed By: [signature] Date: 12/19/01

500

Extraction Notes For Volume # 177 Page # 183

General Comments: MS OF 12-366-04 I
MSD

Extraction Anomalies: nothing to report

Concentration Anomalies: nothing to report

Clean-Up Anomalies: NA

Supervisor Review: _____ Date: _____

Example 8310 Calculations

1.0 Calulating the Calibration Factor (CF) from the initial calibration (ICAL) data:

CF = Cs/As

Where:		Example:
	As = Area of the compound being measured in the standard	10000
	Cs = Concentration of the compound being measured (ug/ml).	100
	CF	**0.01**

2.0 Calculating the concentration (C) of a compound in water using data from prep log and quantitation report:

C = [(Ax)(Vf)(D)(CF)(1000)] / Vi

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL). (prep log)	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	CF = Calibration factor from ICAL calculated above.	**0.01**
	Vi = Initial volume of sample (mL). (prep log)	1000
	1000 = conversion to ppb	
	C (ug/L) =	**0.1**

3.0 Calculating the concentration (C) of a compound in soil using data from prep log and quantitation report: C = [(Ax)(Vf)(D)(Cf)] / Vi

Where:		Example:
	Ax = Area of the compound being measured	10000
	Vf = Final volume of sample extract (mL).	1
	D = Dilution factor for sample as a multiplier (10X = 10).	1
	CF = Calibration factor from ICAL calculated above.	0.01
	Wi = Initial weight of sample (g).	30
	C (ug/kg)	**3.333333**

Semi-Volatile 8310 Checklist

Run Date: 7-Dec-01

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG109171 11-540	12/7/2001	FPT
WG109610 12-048	12/11/2001	M

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadratic regression	√
	Alt Source Check	√
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
	Surrogates	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	√
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Surrogates	√
	Correct Factors	√
	Dilutions	√
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:

This is a re-calib. and re-analysis of SDG L0111540. The initial run resulted in failure of analytes for the CCV via the fluorescence detector.

Sample fractions 06 and 07 required dil'n. and re-analysis.

Sample fractions 01, 01MS, 01MSD, 07, 09, and 11 recovered surr. > UCL. Sample fraction recovered surr. > UCL for both detectors. "J" flags were used for positive results.

L0111540 12/12/01

For SDG ~~L0112048~~ the non-client requested MS/MSD recovered high for several analytes.

Primary Reviewer: C 12/12/01

Secondary Reviewer: 12/12/01

Supervisor Review: 12/12/01

√ = Checked & OK

NA = Not Applicable

Semi-Volatile 8310 Checklist

Run Date: 20-Dec-01 (dil'n.)

Analyst: RDC

Instrument: HPLC4

Workorders:	Due Date:	Priority:
WG110293 12-349	12/26/2001	PFF
WG110372 12-366	12/26/2001	

		Analyst
Initial Calibration:	Average RF	NA
	Linear or quadriatic regression	NA
	Alt Source Check	NA
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
	Surrogates	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	√
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Surrogates	√
	Correct Factors	√
	Dilutions	√
	Check Sample Histories	NA
	Corrective Action	NA
Data Package:	Level 2	
	Level 3	
	Level 4	
	Case narrative	

	Supervisor
Case Narrative:	
Corrective Action:	
Results Reporting/Data Qualifiers:	
Client Data Package Assembly:	
Check for Completeness:	
Check for compliance with method and project requirements:	
Check the reasonableness of results:	

Comments:

5X dil'n. of L0112349-01

LCS for WG110372 failed high for benzo(g,h,i)perylene.
There were no hits of this analyte.

Primary Reviewer: RDC 12/21/01

Secondary Reviewer: 12/26/01

Supervisor Review: 12/26/01

√ = Checked & OK

NA = Not Applicable

2.4 General Chemistry Data

2.4.5 Anions (9056)

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L0112366

METHOD

Analysis: SW-846 9056

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION: All acceptance criteria were met.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: Sample fractions -05 and -06 were chosen externally for the MS/MSD of sample fraction -04 for this sample delivery group. All acceptance criteria were met.

SAMPLES
All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: GSG REVIEWED: DATE: 12/2/9

Rev. 7/14/00

Anions (9056)

Login Number: 6011236

A. QC Summary

✓ Batch QC Summary Form

B. Sample Data

____ Target Compound List results and surrogate recoveries - See section 1.0 (c) (laboratory report)

✓ Chromatogram and external standard report for each sample analysis and re-analysis (if re-analyzed).

C. Standards Data

✓ Initial calibration summary form (Average Response Factor Calibration Data)

✓ Chromatograms and external standard reports for standards

✓ Calibration verification standards (Continuing Calibration Data) initial and ending checks, chromatograms and external standard reports (chronological)

____ Retention time window summary (if applicable)

D. Raw QC Data

✓ Method Blank, chromatogram and external standard report for each matrix type

✓ Laboratory Control Sample, chromatogram and external standard report for each matrix type

✓ Matrix Spike/Matrix Spike Duplicate, chromatograms and external standard reports (if not reported as samples)

✓ Instrument runlogs

____ Extraction bench sheets

Checked By: GSC Date: 12/21/01

2.4.5.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0112366
Blank File ID: 121901.13
Date Analyzed: 12/19/01
Time Analyzed: 10:23
Analyst: GSG

Work Group: WG110288
Blank Sample ID: WG110288-01
Instrument ID: IC2
Method: 9056

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG110288-02	121901.14	12/19/01 10:35	01
002-CEF46-5I-Q4-01-11	L0112366-01	121901.15	12/19/01 12:45	01
DUP	WG110288-04	121901.16	12/19/01 12:57	01
002-CEF46-6D-Q4-01-11	L0112366-02	121901.17	12/19/01 13:08	01
002-CEF46-7I-Q4-01-11	L0112366-03	121901.18	12/19/01 13:20	01
002-CEF46-9I-Q4-01-11	L0112366-04	121901.19	12/19/01 13:31	01
002-CEF46-9I-Q4-01-11	L0112366-06	121901.21	12/19/01 13:54	01
002-CEF46-12I-Q4-01-11	L0112366-07	121901.23	12/19/01 14:17	01
002-CEF46-13I-Q4-01-11	L0112366-08	121901.24	12/19/01 14:29	01
002-CEF46-14D-Q4-01-11	L0112366-09	121901.25	12/19/01 14:40	01
002-CEF46-15I-Q4-01-11	L0112366-10	121901.26	12/19/01 14:52	01
002-CEF46-21I-Q4-01-11	L0112366-11	121901.27	12/19/01 15:03	01
002-CEF46-24D-Q4-01-11	L0112366-12	121901.28	12/19/01 15:15	01
002-CEF46-25I-Q4-01-11	L0112366-13	121901.29	12/19/01 15:26	01
002-CEF46-26I-Q4-01-11	L0112366-14	121901.30	12/19/01 15:38	01
002-46DUP-Q4-01-11	L0112366-15	121901.31	12/19/01 15:49	01
002-46EQB-Q4-01-11	L0112366-16	121901.32	12/19/01 16:01	01
002-CEF46-9I-Q4-01-11	L0112366-05	121901.37	12/19/01 16:58	01

KEMRON FORMS - Modified 10/11/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0112366
Instrument ID: IC2
File ID: 121901.13
Workgroup (AAB#): WG110288
Contract #:

Run Date: 12/19/2001
Run Time: 10:23
Analyst: GSG

Sample ID: WG110288-01
Method: 9056
Matrix: Water
Units: mg/L
Cal ID: IC2-

Analytes	MDL	RDL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.600	0.0670	1.00	ND
Nitrite	0.0610	0.400	0.0610	1.00	ND
Phosphate	0.163	1.00	0.163	1.00	ND

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, Water

Analytical Work Group: WG110288
Method: 9056
Instrument: IC2
Analyst: GSG

Prep Work Group: NA
Ext Date: NA
Ext Bench Sheet: NA
Run Date: 19-Dec-01

Blank Filename: IC2_013
LCS Filename: IC2_014
Sample Number: L0112366-01
Sample Filename: IC2_015
Duplicate Filename: IC2_016

Sample Number: L0112366-04
Sample Filename: IC2_019
MS Filename: IC2_037
MSD Filename: IC2_021

	CONCENTRATION, mg/L										% RECOVERY												
Analyte	RDL	Blank	LCS Spike Amount	LCS	Sample	Dup	Sample	MS Spike Amount	MS	MSD	Blank	LCS	LCS LCL	LCS UCL	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL	LCS	MS	MSD
NITRITE-N	0.4	ND	3.66	3.61	3.44	3.59	ND	3.66	3.64	3.82	ND	98.6	90	110	99	104	80	120	4.13	4.8	20			
NITRATE-N	0.6	ND	4.06	3.97	ND	0.24	ND	4.06	4.00	4.05	ND	97.8	90	110	99	100	80	120	#####	1.1	20			
PHOSPHATE-P	1	ND	9.78	9.12	ND	ND	ND	9.78	10.0	9.95	ND	93	90	110	103	102	80	120	NA	0.9	20			

NOTES & DEFINITIONS :

NA = NOT APPLICABLE
ND = NOT DETECTED
RDL = REPORTING DETECTION LIMIT
D = DETECTED, RESULT MUST BE GREATER THAN ZERO

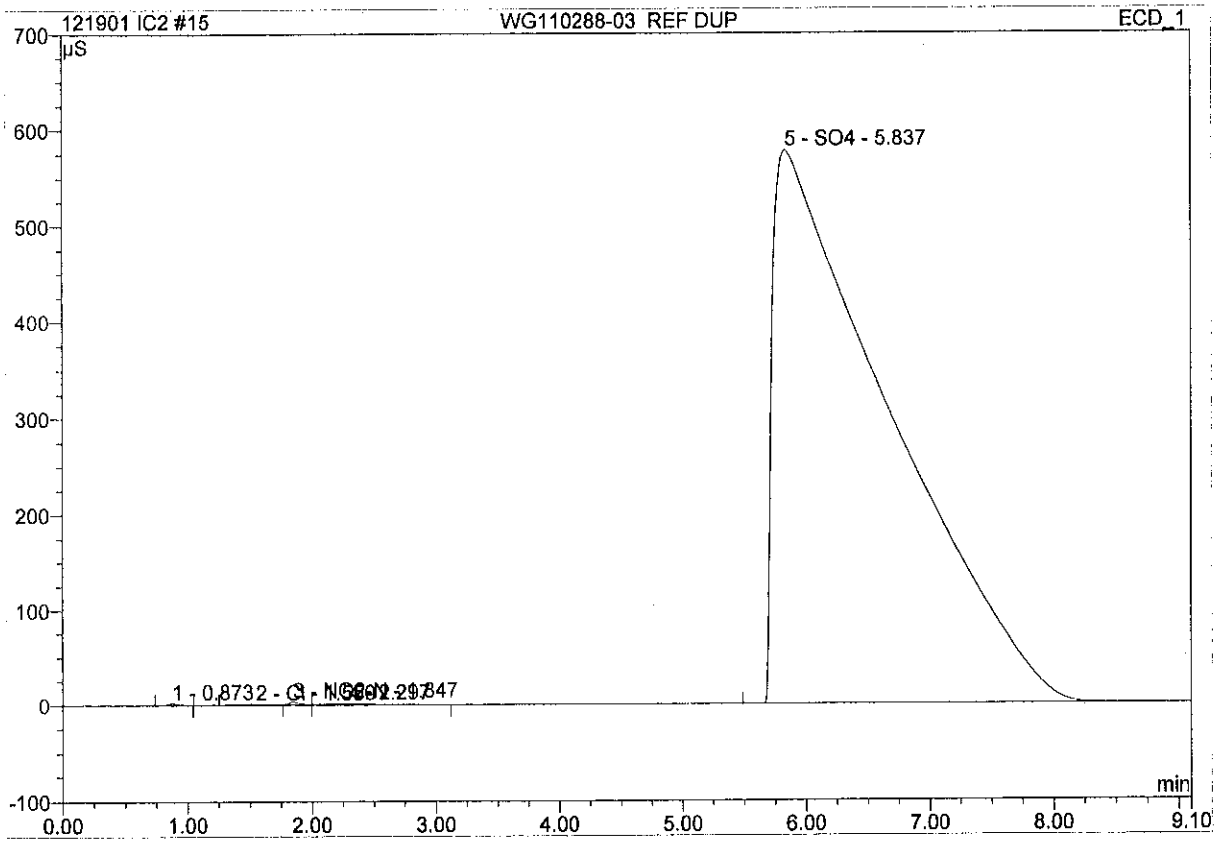
H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

2.4.5.2 Sample Data

15 WG110288-03 REF DUP

1,1 GSG L0112366-01 REF DUP

Sample Name:	**WG110288-03 REF DUP**	*Injection Volume:*	**25.0**
Vial Number:	**43**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/19/2001 12:45**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

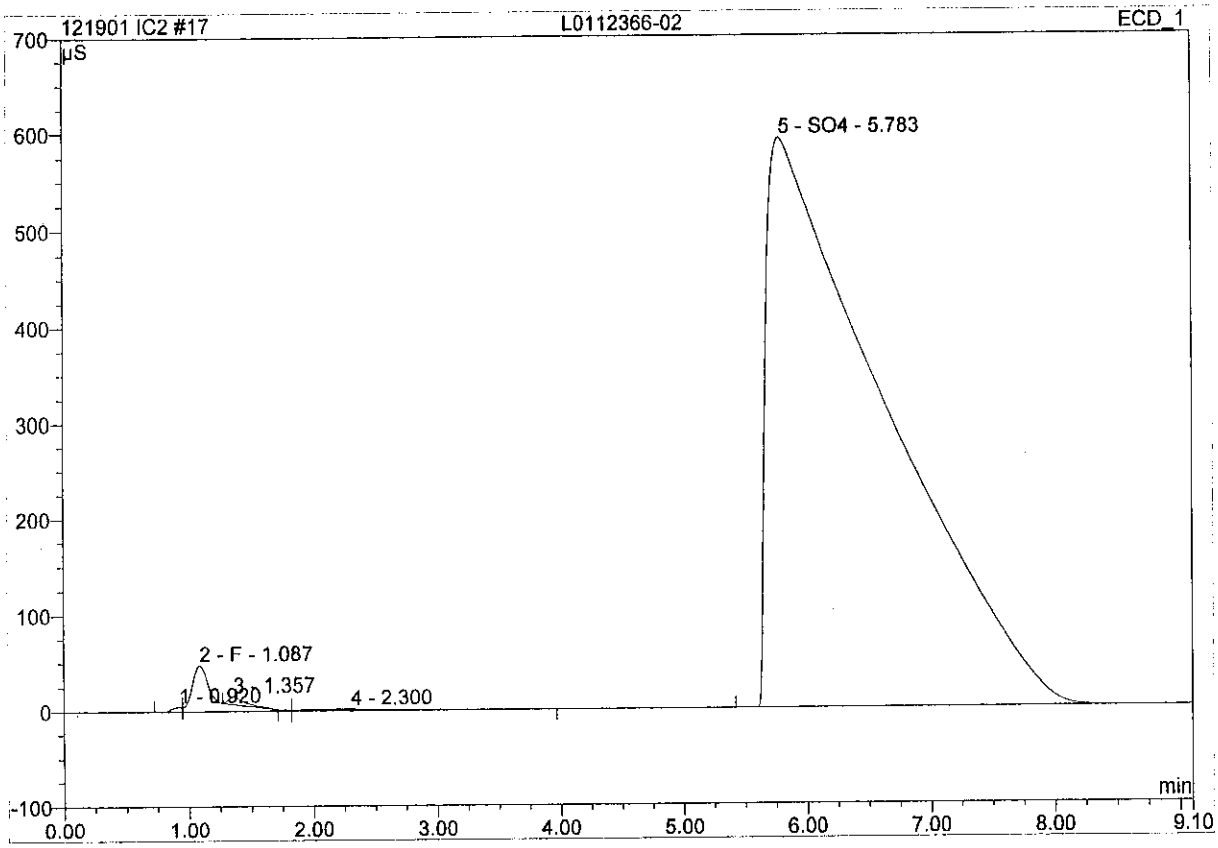


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	1.869	0.187	0.03	n.a.	BMB
2	1.55	Cl	0.559	0.156	0.02	1.842	Ru
3	1.85	NO2-N	3.550	0.650	0.10	3.440	BM
4	2.30	n.a.	1.368	0.606	0.10	n.a.	MB
5	5.84	SO4	578.514	625.725	99.75	#########	BMB
Total:			585.860	627.324	100.00	#########	

17 L0112366-02

1,1 GSG

Sample Name:	**L0112366-02**	*Injection Volume:*	**25.0**
Vial Number:	**45**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/19/2001 13:08**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

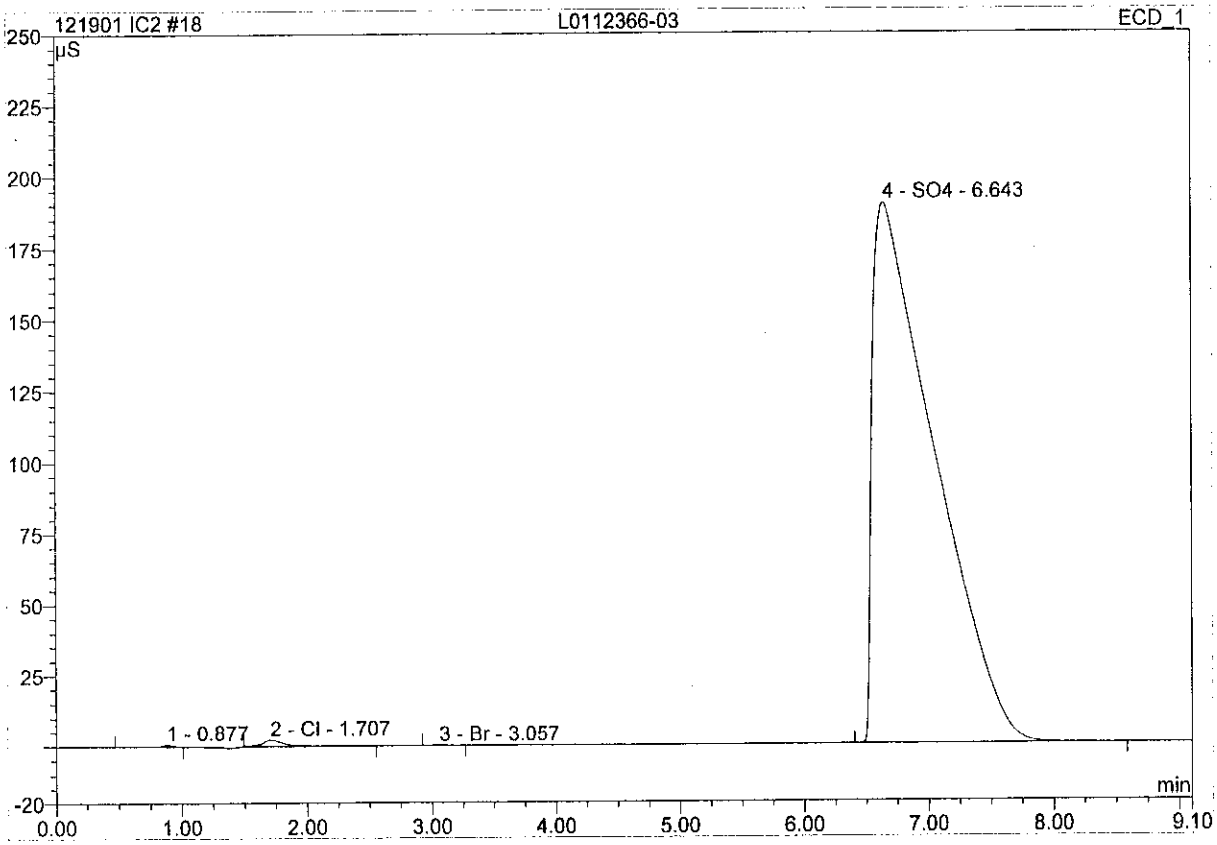


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.92	n.a.	4.407	0.396	0.06	n.a.	BM
2	1.09	F	47.769	9.972	1.49	74.029	M
3	1.36	n.a.	7.975	1.239	0.19	n.a.	Rd
4	2.30	n.a.	1.518	0.907	0.14	n.a.	MB
5	5.78	SO4	592.345	654.949	98.13	#########	BMB
Total:			654.014	667.463	100.00	#########	

18 L0112366-03

1,1 GSG

Sample Name:	**L0112366-03**	*Injection Volume:*	**25.0**
Vial Number:	**46**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/19/2001 13:20**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

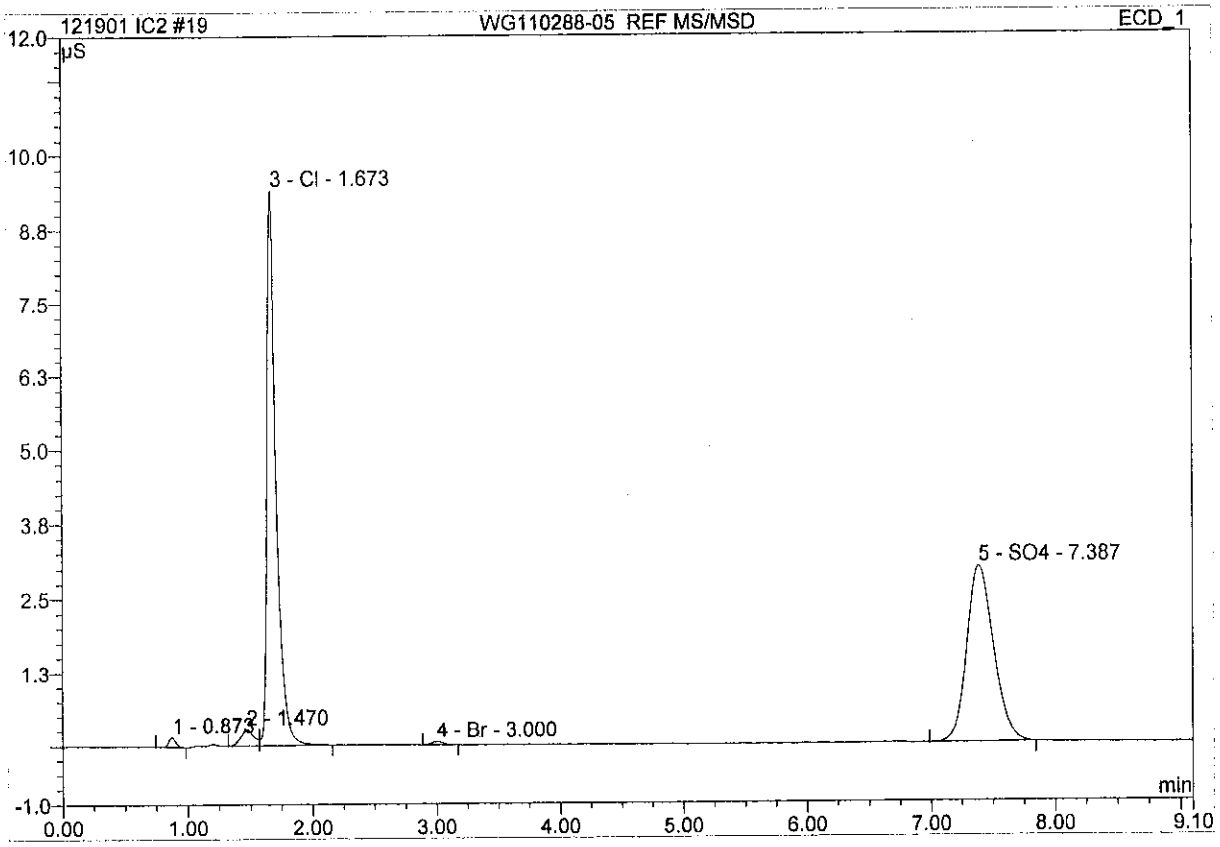


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.734	0.076	0.07	n.a.	BMB
2	1.71	Cl	2.136	0.435	0.40	4.955	BMB
3	3.06	Br	0.057	0.008	0.01	0.181	BMB
4	6.64	SO4	189.899	109.129	99.53	6147.244	BMB
Total:			192.826	109.647	100.00	6152.380	

19 WG110288-05 REF MS/MSD

1,1 GSG L0112366-04 REF MS/MSD

Sample Name:	**WG110288-05 REF MS/MSD**	*Injection Volume:*	**25.0**
Vial Number:	**47**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/19/2001 13:31**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

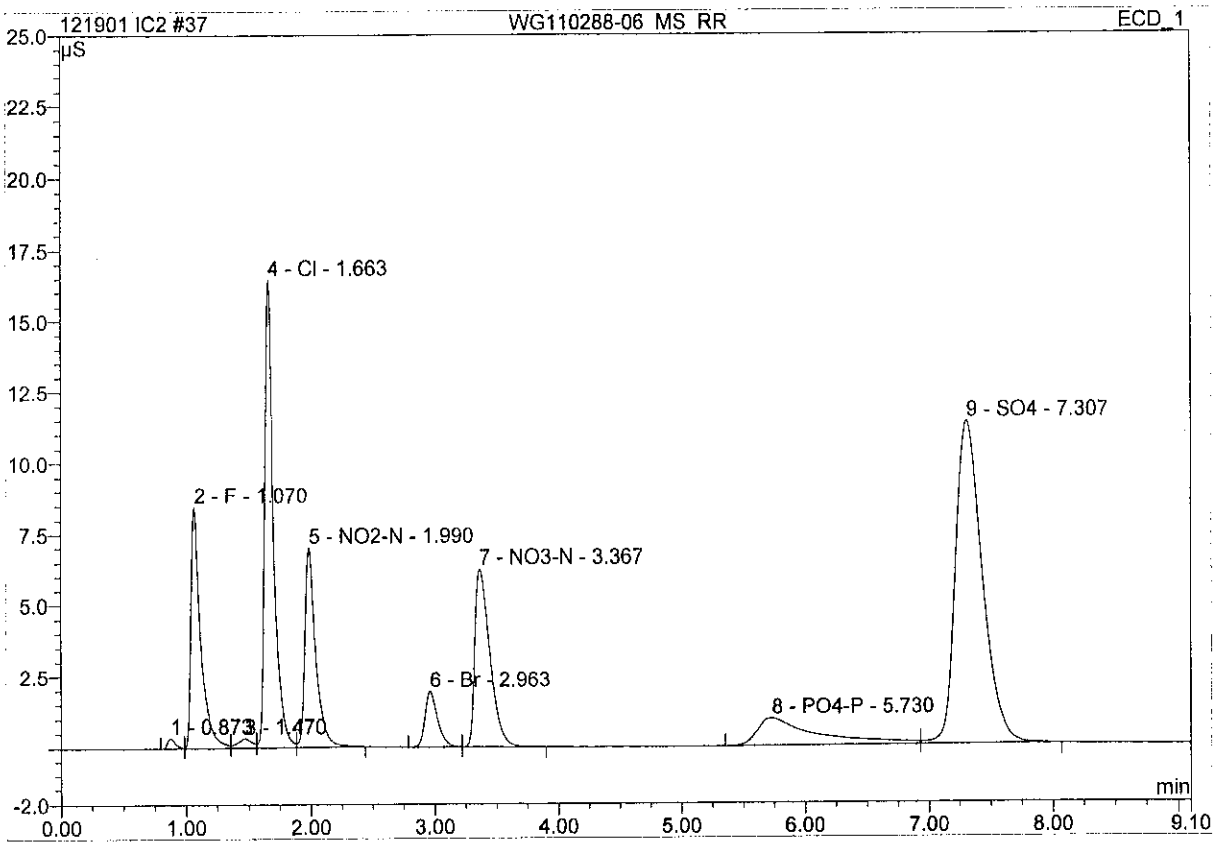


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.160	0.011	0.66	n.a.	BMB
2	1.47	n.a.	0.277	0.032	2.02	n.a.	BM
3	1.67	Cl	9.415	0.806	50.17	9.100	MB
4	3.00	Br	0.053	0.006	0.39	0.146	BMB
5	7.39	SO4	2.988	0.752	46.77	44.163	BMB
Total:			12.893	1.607	100.00	53.409	

37 WG110288-06 MS RR

1,1 GSG L0112366-05 MS RR

Sample Name:	**WG110288-06 MS RR**	*Injection Volume:*	**25.0**
Vial Number:	**65**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/19/2001 16:58**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

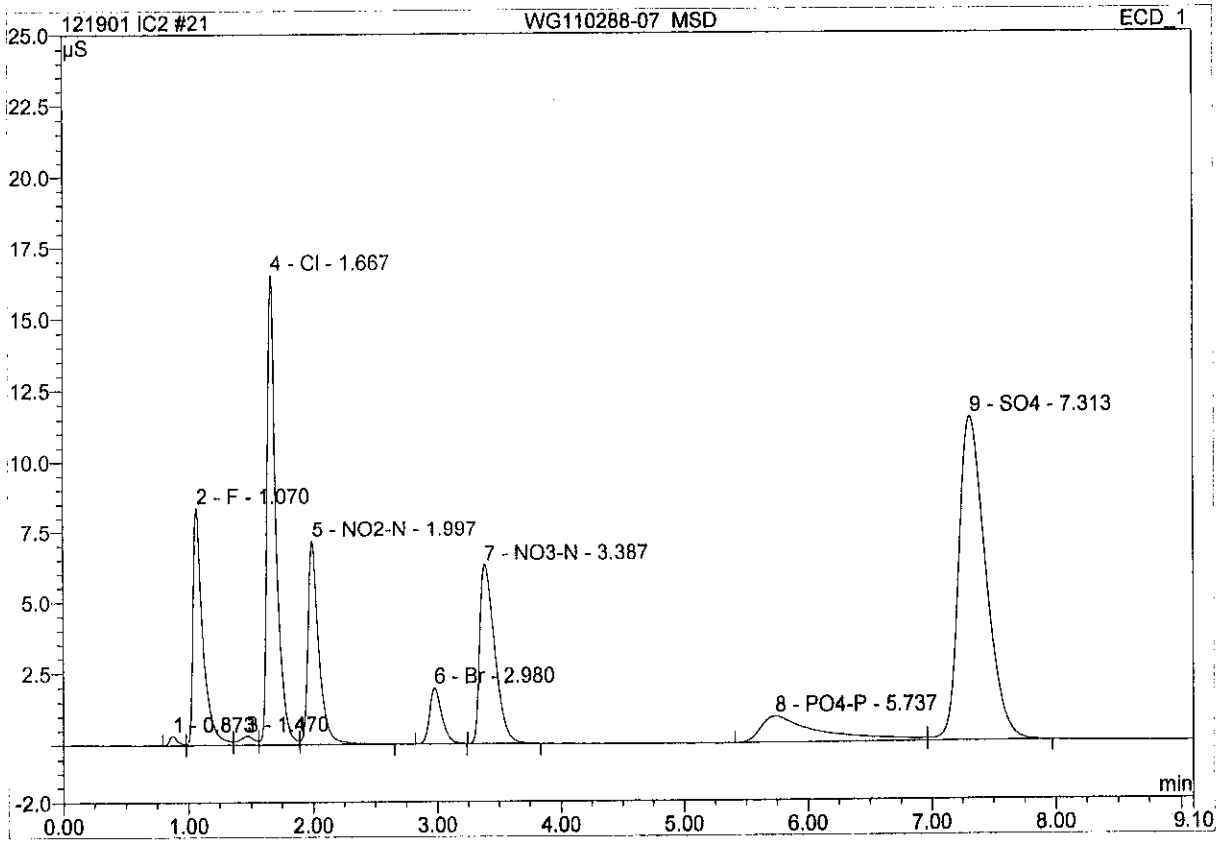


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.348	0.027	0.36	n.a.	BM
2	1.07	F	8.460	0.767	10.41	5.838	M
3	1.47	n.a.	0.314	0.042	0.57	n.a.	M
4	1.66	Cl	16.446	1.375	18.65	15.443	M
5	1.99	NO2-N	7.006	0.699	9.49	3.694	MB
6	2.96	Br	1.933	0.225	3.05	6.308	BM
7	3.37	NO3-N	6.257	0.875	11.87	4.001	MB
8	5.73	PO4-P	0.937	0.514	6.97	10.035	BM
9	7.31	SO4	11.337	2.846	38.61	41.825	MB
Total:			53.038	7.370	100.00	87.146	

21 WG110288-07 MSD

1,1 GSG L0112366-06 MSD SOS0057-03

Sample Name:	**WG110288-07 MSD**	*Injection Volume:*	**25.0**
Vial Number:	**49**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/19/2001 13:54**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

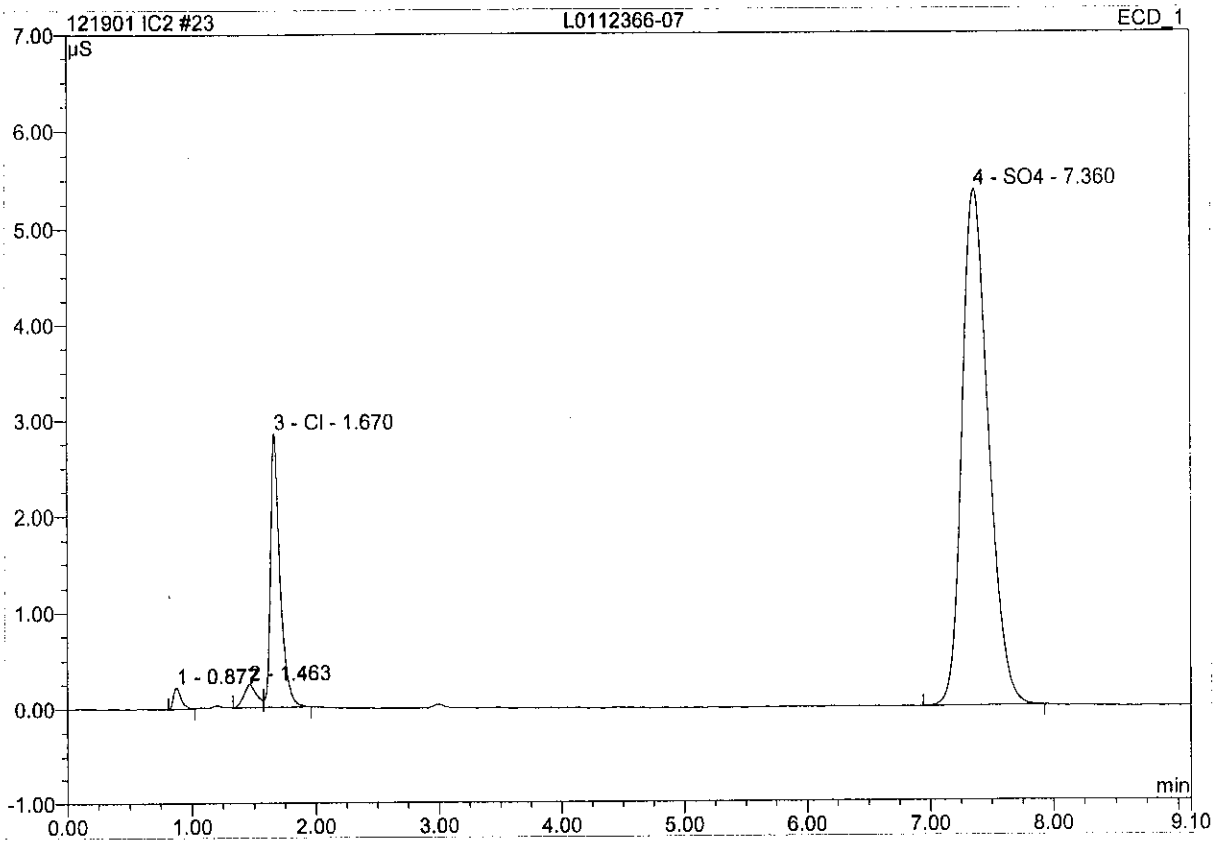


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.331	0.025	0.33	n.a.	BM
2	1.07	F	8.382	0.770	10.36	5.860	M
3	1.47	n.a.	0.327	0.044	0.59	n.a.	M
4	1.67	Cl	16.533	1.390	18.68	15.609	M
5	2.00	NO2-N	7.164	0.723	9.72	3.817	MB
6	2.98	Br	1.962	0.226	3.04	6.341	BMB
7	3.39	NO3-N	6.308	0.885	11.89	4.045	BMB
8	5.74	PO4-P	0.925	0.509	6.84	9.946	BM
9	7.31	SO4	11.438	2.867	38.54	42.131	MB
Total:			53.372	7.438	100.00	87.749	

23 L0112366-07

1,1 GSG

Sample Name:	**L0112366-07**	*Injection Volume:*	**25.0**
Vial Number:	**51**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/19/2001 14:17**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

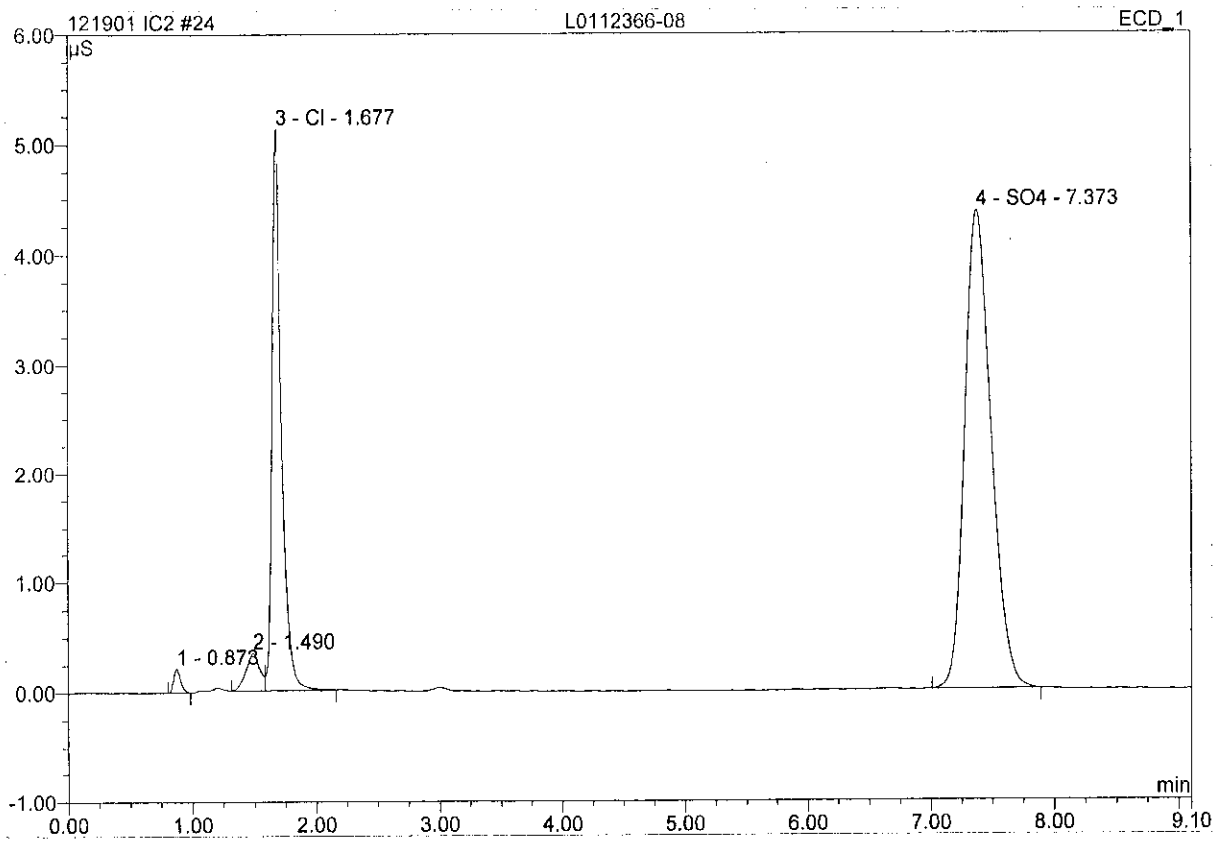


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.224	0.016	0.99	n.a.	BMB
2	1.46	n.a.	0.242	0.029	1.76	n.a.	BM
3	1.67	Cl	2.843	0.258	15.73	2.981	MB
4	7.36	SO4	5.376	1.336	81.51	20.047	BMB
Total:			8.684	1.639	100.00	23.028	

24 L0112366-08

1,1 GSG

Sample Name:	**L0112366-08**	*Injection Volume:*	**25.0**
Vial Number:	**52**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/19/2001 14:29**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

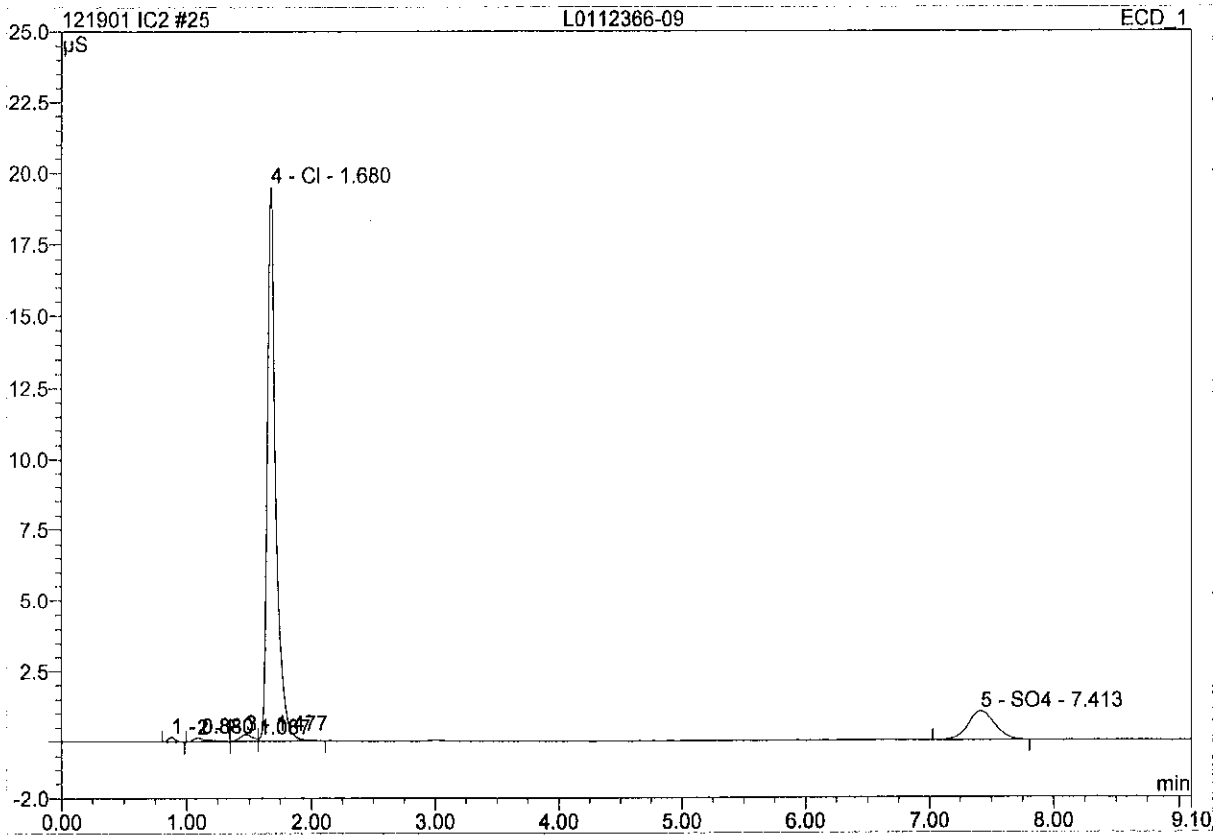


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.221	0.014	0.90	n.a.	BMB
2	1.49	n.a.	0.344	0.045	2.80	n.a.	BM
3	1.68	Cl	5.115	0.456	28.46	5.190	MB
4	7.37	SO4	4.368	1.087	67.85	16.451	BMB
Total:			10.049	1.602	100.00	21.641	

25 L0112366-09

1,1 GSG

Sample Name:	**L0112366-09**	*Injection Volume:*	**25.0**
Vial Number:	**53**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/19/2001 14:40**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

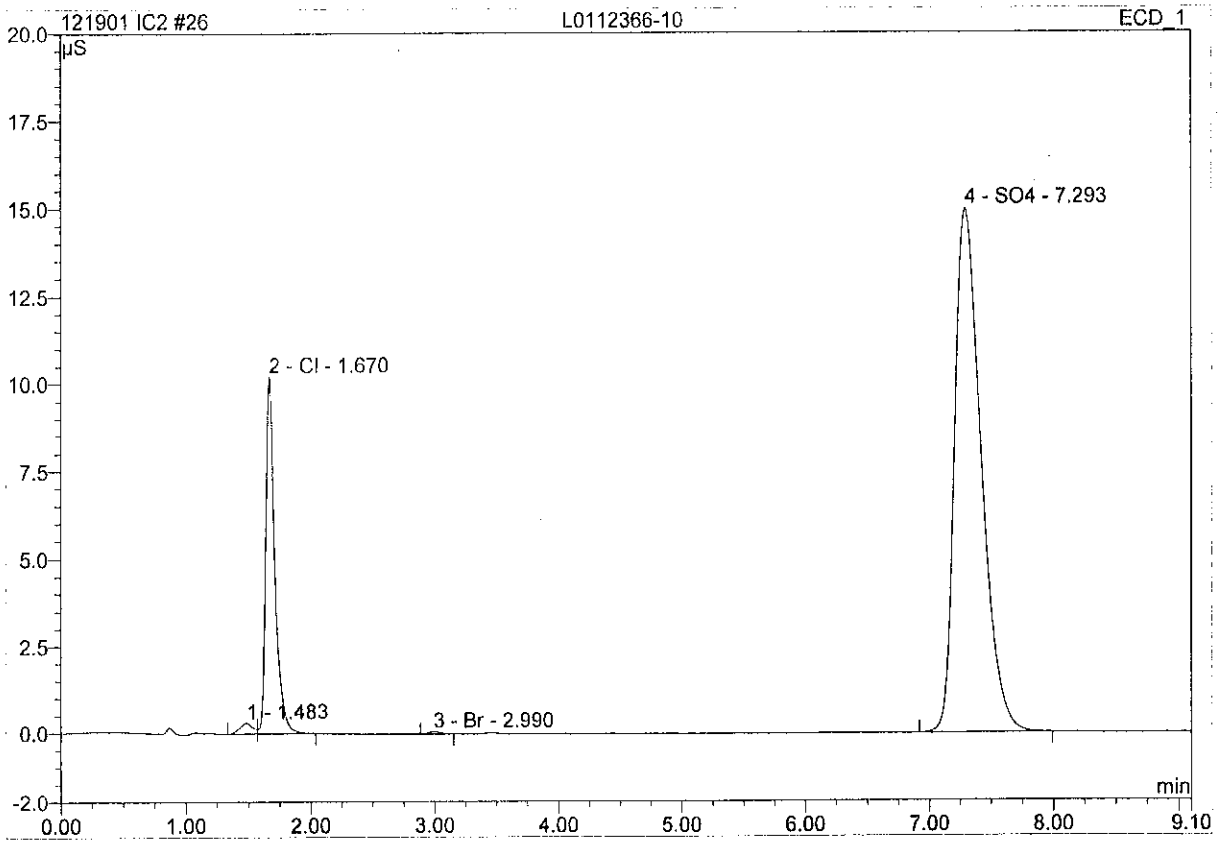


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.160	0.010	0.51	n.a.	BMB
2	1.09	F	0.132	0.017	0.91	0.281	BM
3	1.48	n.a.	0.255	0.030	1.56	n.a.	M
4	1.68	Cl	19.516	1.587	83.47	17.809	MB
5	7.41	SO4	1.014	0.257	13.54	4.481	BMB
Total:			21.077	1.901	100.00	22.571	

26 L0112366-10

1,1 GSG

Sample Name:	**L0112366-10**	*Injection Volume:*	**25.0**
Vial Number:	**54**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/19/2001 14:52**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

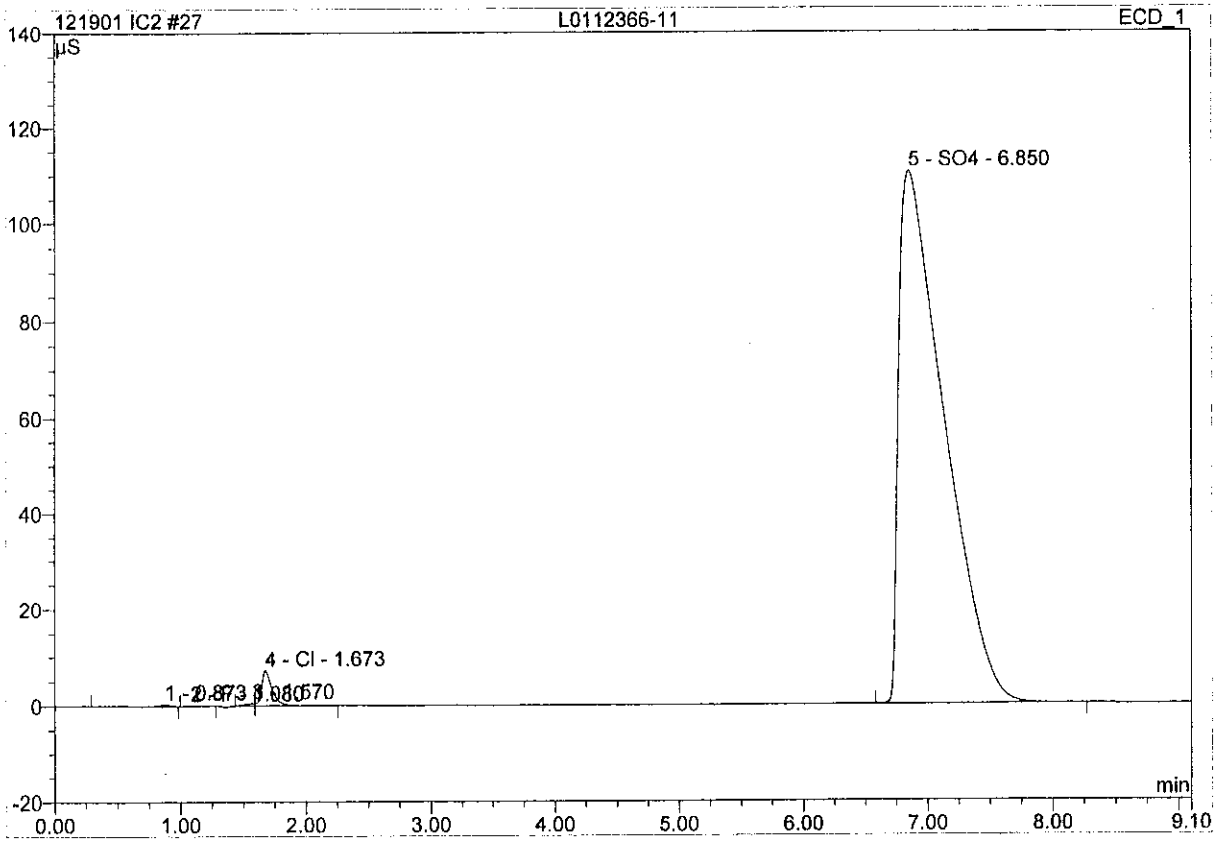


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.48	n.a.	0.314	0.037	0.80	n.a.	BM
2	1.67	Cl	10.225	0.870	18.75	9.814	MB
3	2.99	Br	0.061	0.007	0.15	0.172	BMB
4	7.29	SO4	15.017	3.727	80.30	54.547	BMB
Total:			25.617	4.642	100.00	64.533	

27 L0112366-11

1,1 GSG

Sample Name:	**L0112366-11**	*Injection Volume:*	**25.0**
Vial Number:	**55**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/19/2001 15:03**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

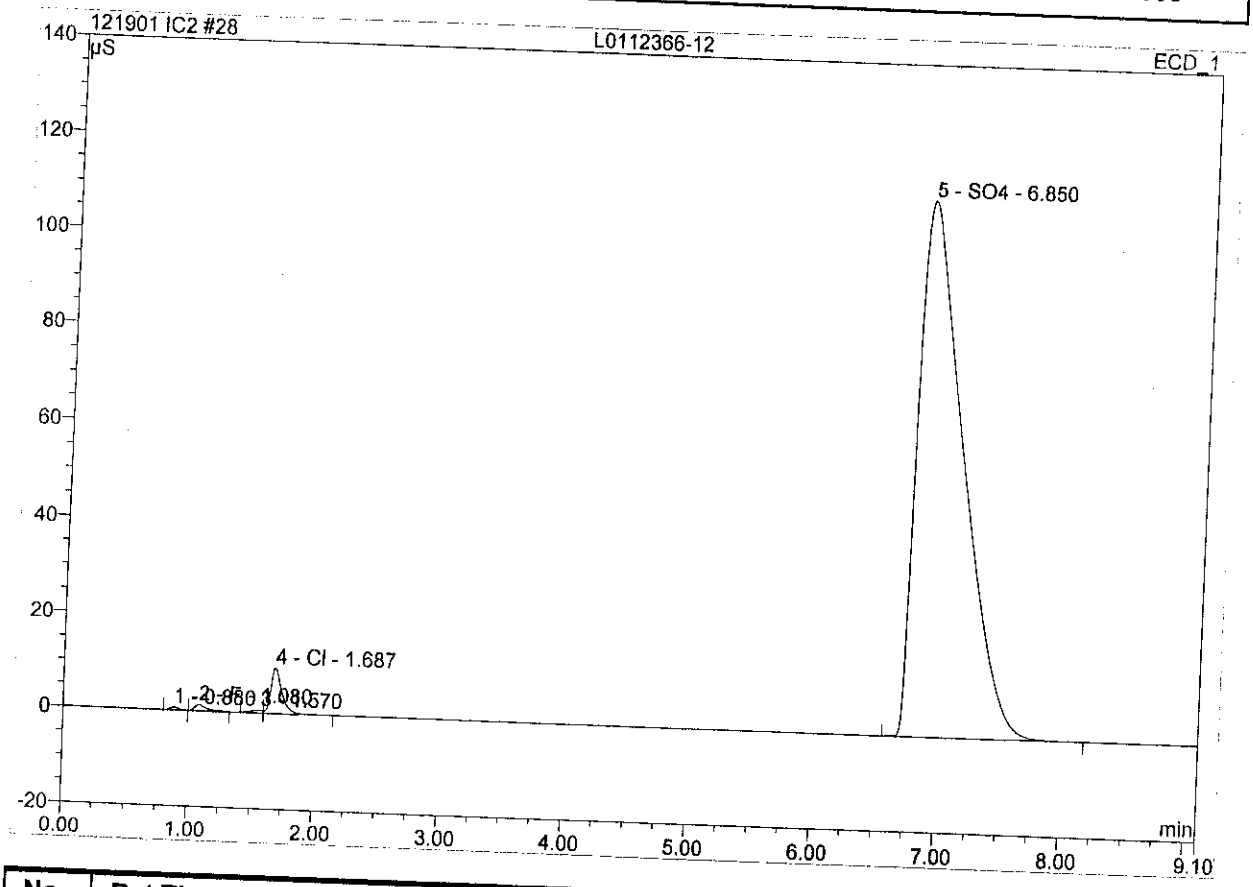


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.392	0.044	0.09	n.a.	BMB
2	1.08	F	0.147	0.016	0.03	0.270	BMB
3	1.57	n.a.	0.491	0.047	0.10	n.a.	BM
4	1.67	Cl	7.299	0.723	1.53	8.175	MB
5	6.85	SO4	110.605	46.525	98.25	672.063	BMB
Total:			118.933	47.355	100.00	680.507	

28 L0112366-12

1,1 GSG

Sample Name:	**L0112366-12**	*Injection Volume:*	**25.0**
Vial Number:	**56**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/19/2001 15:15**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

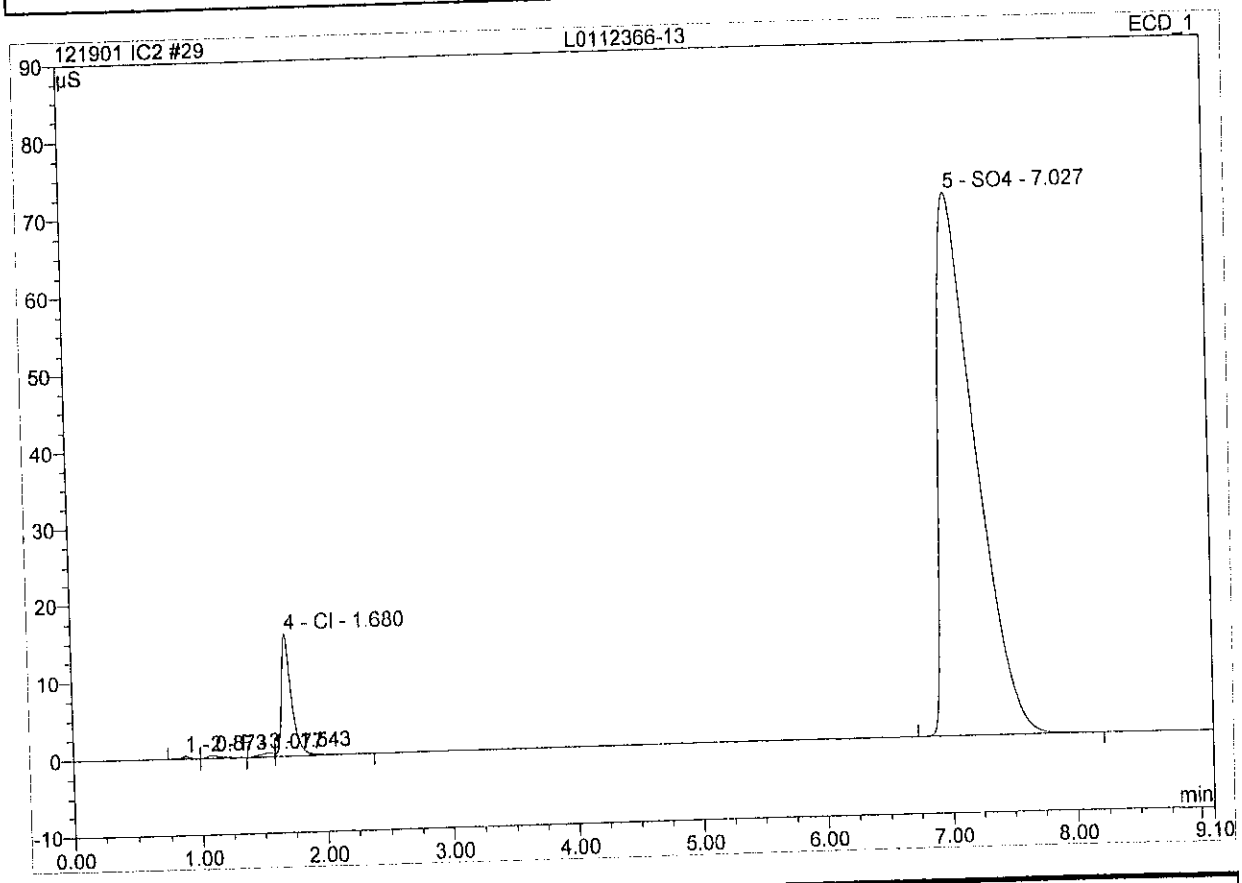


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.522	0.040	0.08	n.a.	BMB
2	1.08	F	1.188	0.133	0.27	1.135	BM
3	1.57	n.a.	0.535	0.059	0.12	n.a.	BM
4	1.69	Cl	9.550	0.961	1.99	10.828	MB
5	6.85	SO4	111.640	47.117	97.53	680.601	BMB
Total:			123.435	48.310	100.00	692.564	

29 L0112366-13

1,1 GSG

Sample Name:	**L0112366-13**	*Injection Volume:*	**25.0**
Vial Number:	**57**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/19/2001 15:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.361	0.027	0.11	n.a.	BM
2	1.08	F	0.377	0.056	0.22	0.567	MB
3	1.54	n.a.	0.518	0.064	0.25	n.a.	BM
4	1.68	Cl	15.753	1.464	5.74	16.439	MB
5	7.03	SO4	70.485	23.882	93.68	345.355	BMB
Total:			87.494	25.494	100.00	362.361	

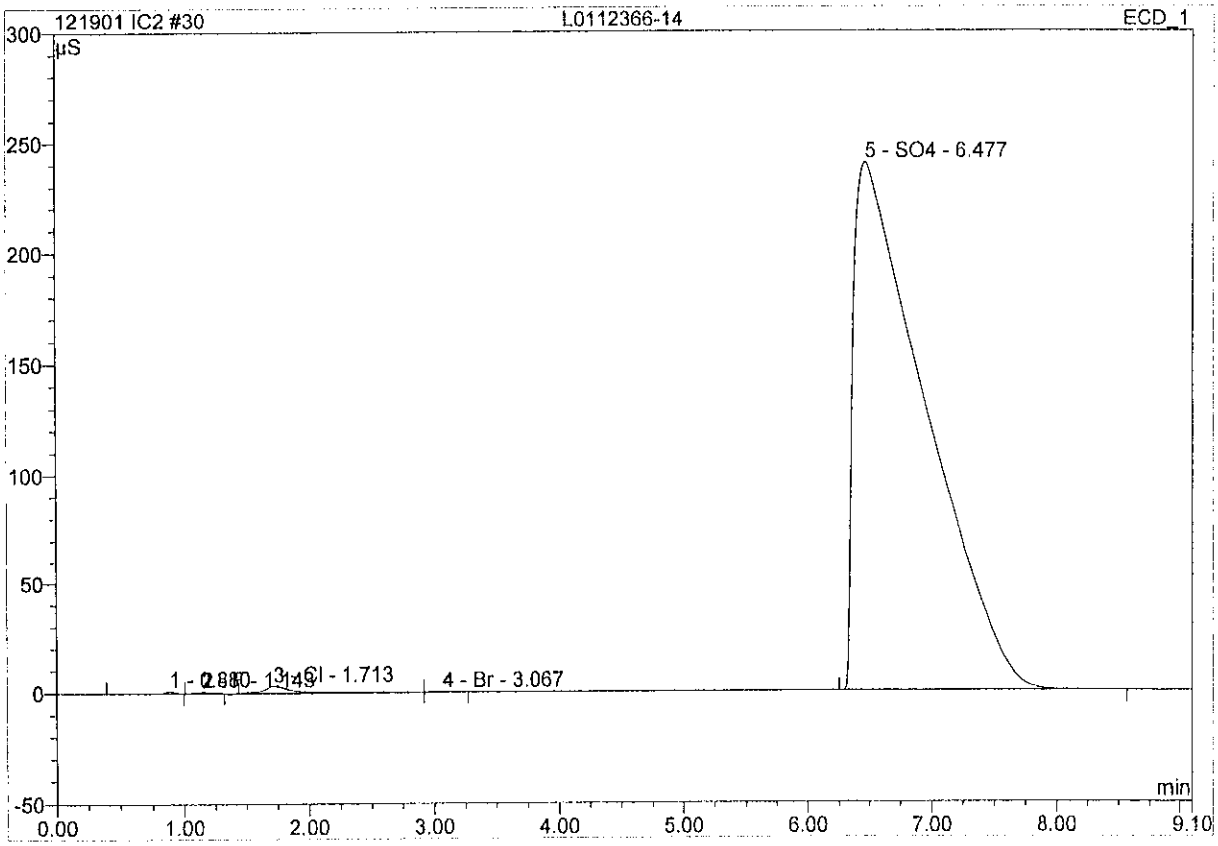
Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

IC/Integration

30 L0112366-14

1,1 GSG

Sample Name:	**L0112366-14**	*Injection Volume:*	**25.0**
Vial Number:	**58**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/19/2001 15:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.903	0.087	0.05	n.a.	BMB
2	1.14	F	0.599	0.094	0.06	0.851	BMB
3	1.71	Cl	2.959	0.808	0.50	9.116	BM
4	3.07	Br	0.086	0.016	0.01	0.414	MB
5	6.48	SO4	240.379	159.645	99.37	2304.224	BMB
Total:			244.927	160.650	100.00	2314.606	

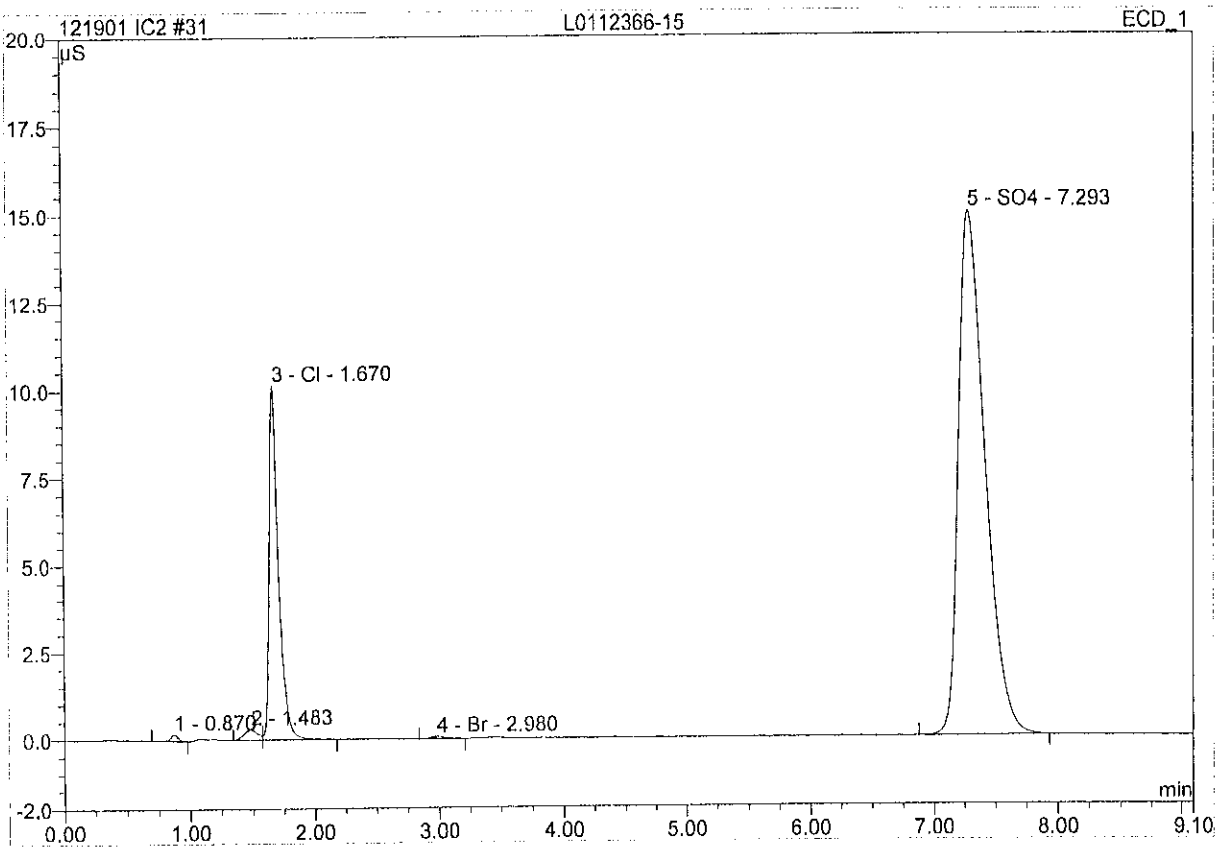
IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

31 L0112366-15

1,1 GSG

Sample Name:	**L0112366-15**	*Injection Volume:*	**25.0**
Vial Number:	**59**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/19/2001 15:49**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.185	0.013	0.28	n.a.	BMB
2	1.48	n.a.	0.308	0.037	0.80	n.a.	BM
3	1.67	Cl	10.141	0.875	18.69	9.867	MB
4	2.98	Br	0.065	0.009	0.19	0.216	BMB
5	7.29	SO4	15.013	3.749	80.05	54.856	BMB
Total:			25.713	4.683	100.00	64.939	

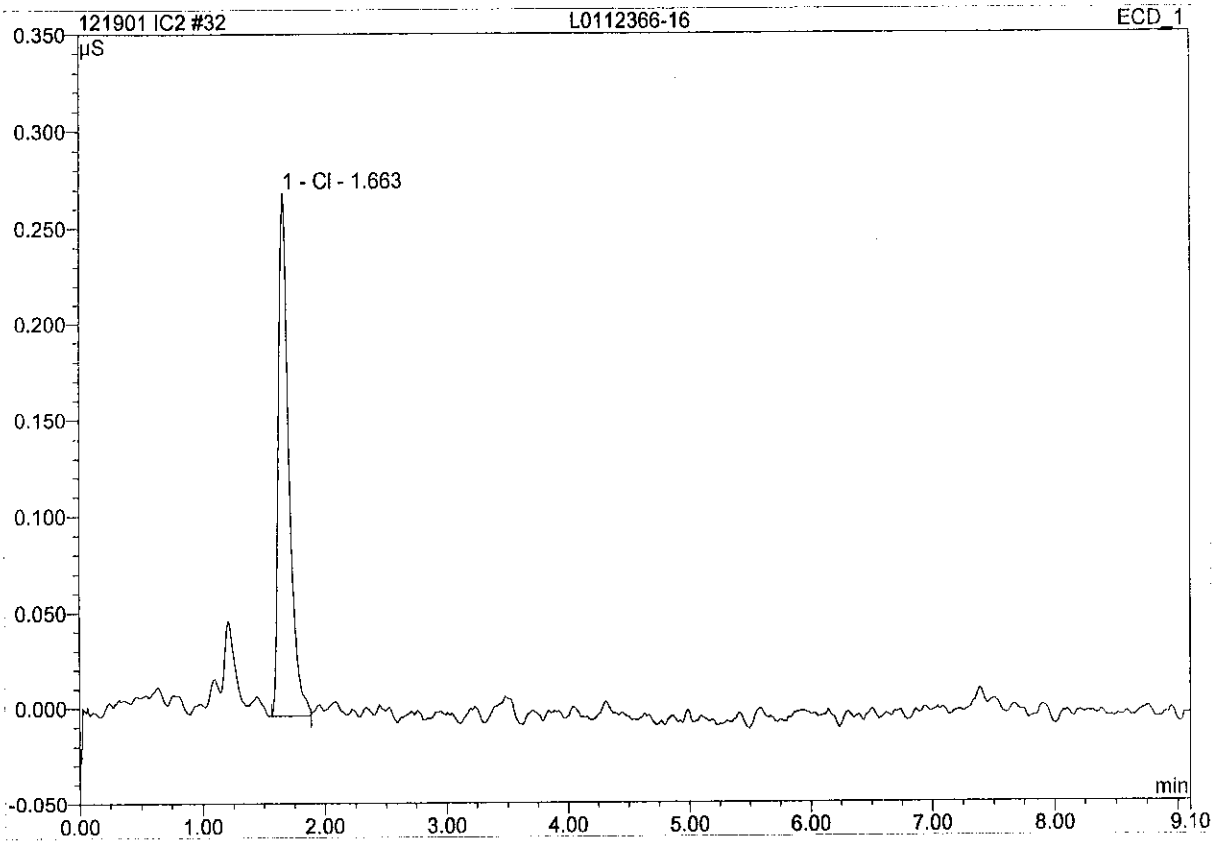
IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

32 L0112366-16

1,1 GSG

Sample Name:	**L0112366-16**	*Injection Volume:*	**25.0**
Vial Number:	**60**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/19/2001 16:01**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



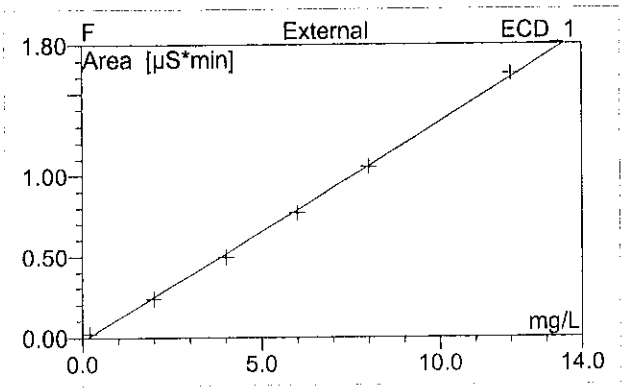
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.66	Cl	0.273	0.027	100.00	0.406	BMB
Total:			0.273	0.027	100.00	0.406	

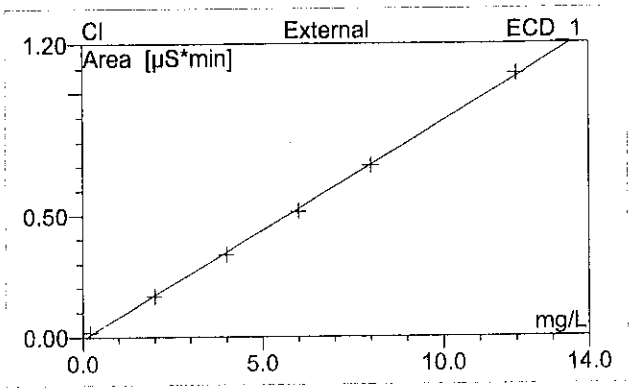
2.4.5.3 Standards Data

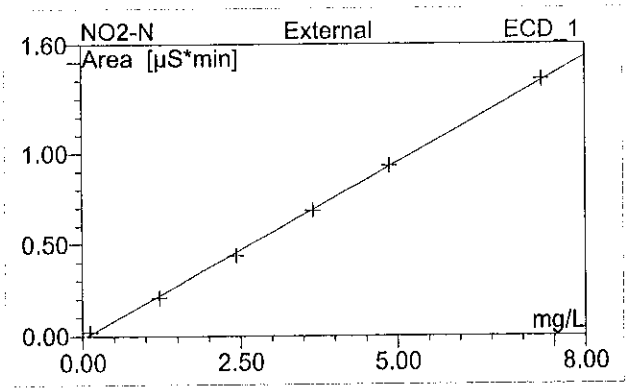
1 ANION STD #1

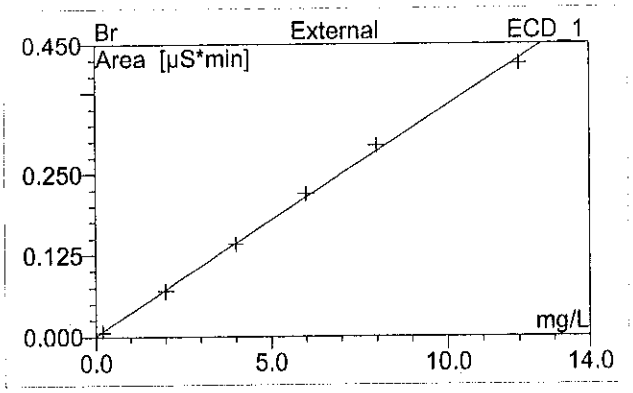
1,1 GSG ANION STD SOS0057-03 121301

Sample Name:	**ANION STD #1**	*Injection Volume:*	**25.0**
Vial Number:	**38**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/13/2001 12:41**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**







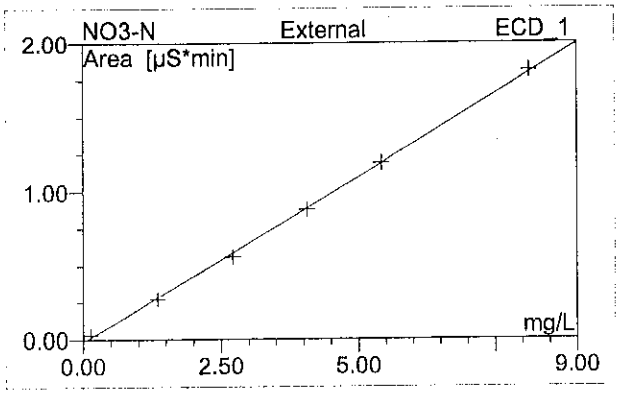


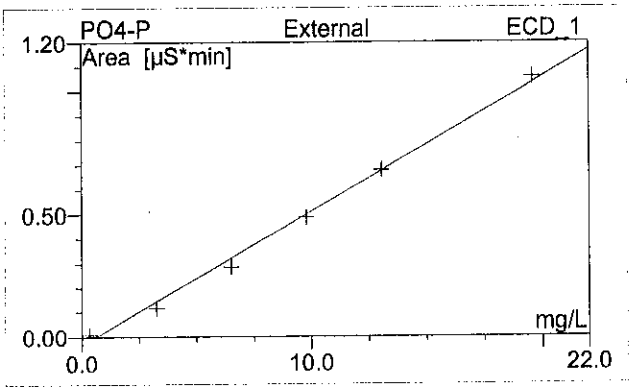
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	1.09	F	0LOff	6	99.9527	-0.0206	0.1350	0.0000
2	1.68	Cl	0LOff	6	99.9691	-0.0093	0.0896	0.0000
3	2.01	NO2-N	0LOff	6	99.9763	-0.0126	0.1927	0.0000
4	3.02	Br	0LOff	6	99.9225	0.0011	0.0355	0.0000
5	3.49	NO3-N	0LOff	6	99.9706	-0.0183	0.2233	0.0000
6	5.95	PO4-P	0LOff	6	99.8075	-0.0325	0.0544	0.0000
7	7.49	SO4	0LOff	6	99.9298	-0.0532	0.0693	0.0000
Average:					99.9326	-0.0208	0.1143	0.0000

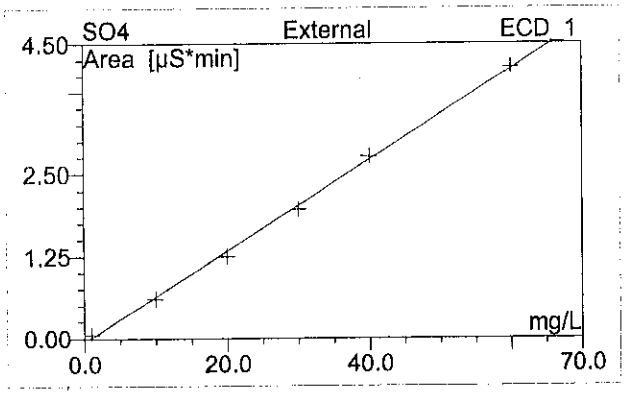
1 ANION STD #1

1,1 GSG ANION STD SOS0057-03 121301

Sample Name:	**ANION STD #1**	*Injection Volume:*	**25.0**
Vial Number:	**38**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/13/2001 12:41**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**





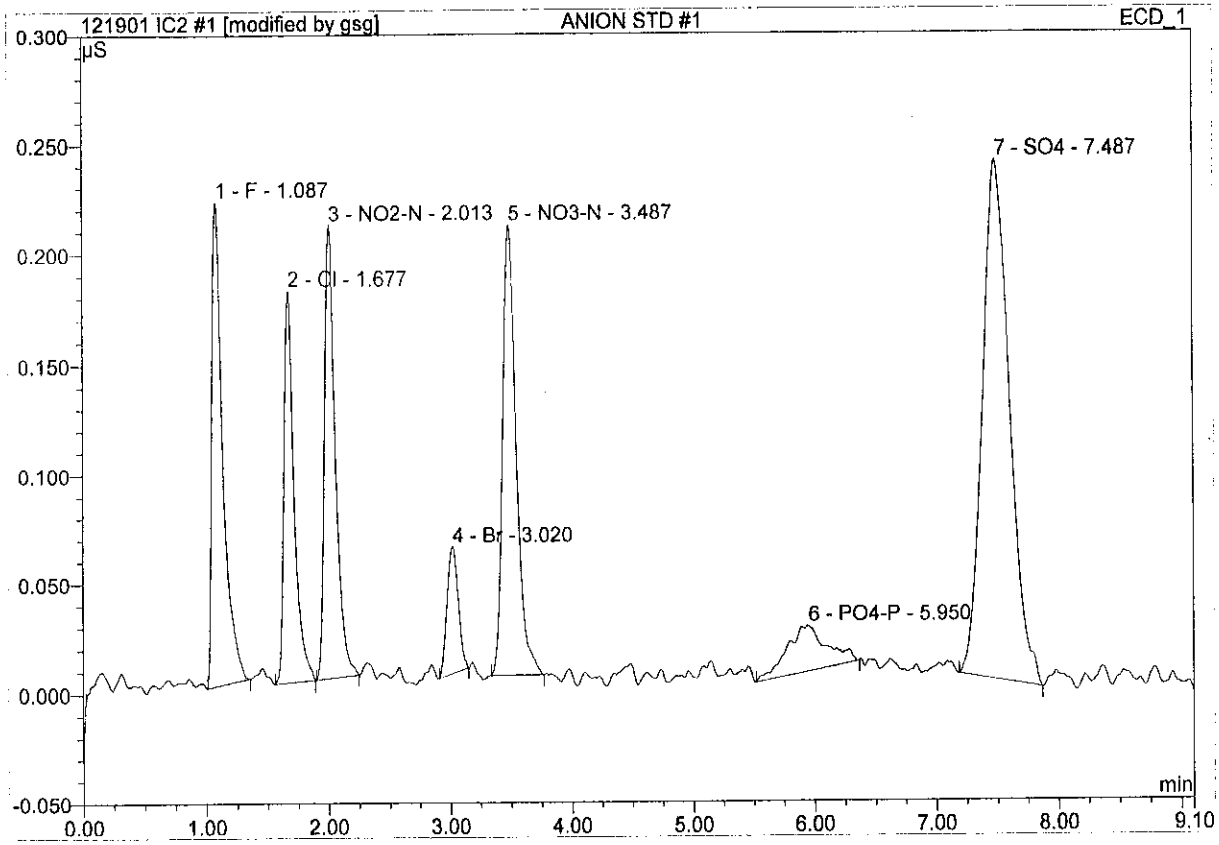


No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	1.09	F	0LOff	6	99.9527	-0.0206	0.1350	0.0000
2	1.68	Cl	0LOff	6	99.9691	-0.0093	0.0896	0.0000
3	2.01	NO2-N	0LOff	6	99.9763	-0.0126	0.1927	0.0000
4	3.02	Br	0LOff	6	99.9225	0.0011	0.0355	0.0000
5	3.49	NO3-N	0LOff	6	99.9706	-0.0183	0.2233	0.0000
6	5.95	PO4-P	0LOff	6	99.8075	-0.0325	0.0544	0.0000
7	7.49	SO4	0LOff	6	99.9298	-0.0532	0.0693	0.0000
Average:					99.9326	-0.0208	0.1143	0.0000

1 ANION STD #1

1,1 GSG ANION STD SOS0057-03 121301

Sample Name:	**ANION STD #1**	*Injection Volume:*	**25.0**
Vial Number:	**38**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/13/2001 12:41**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

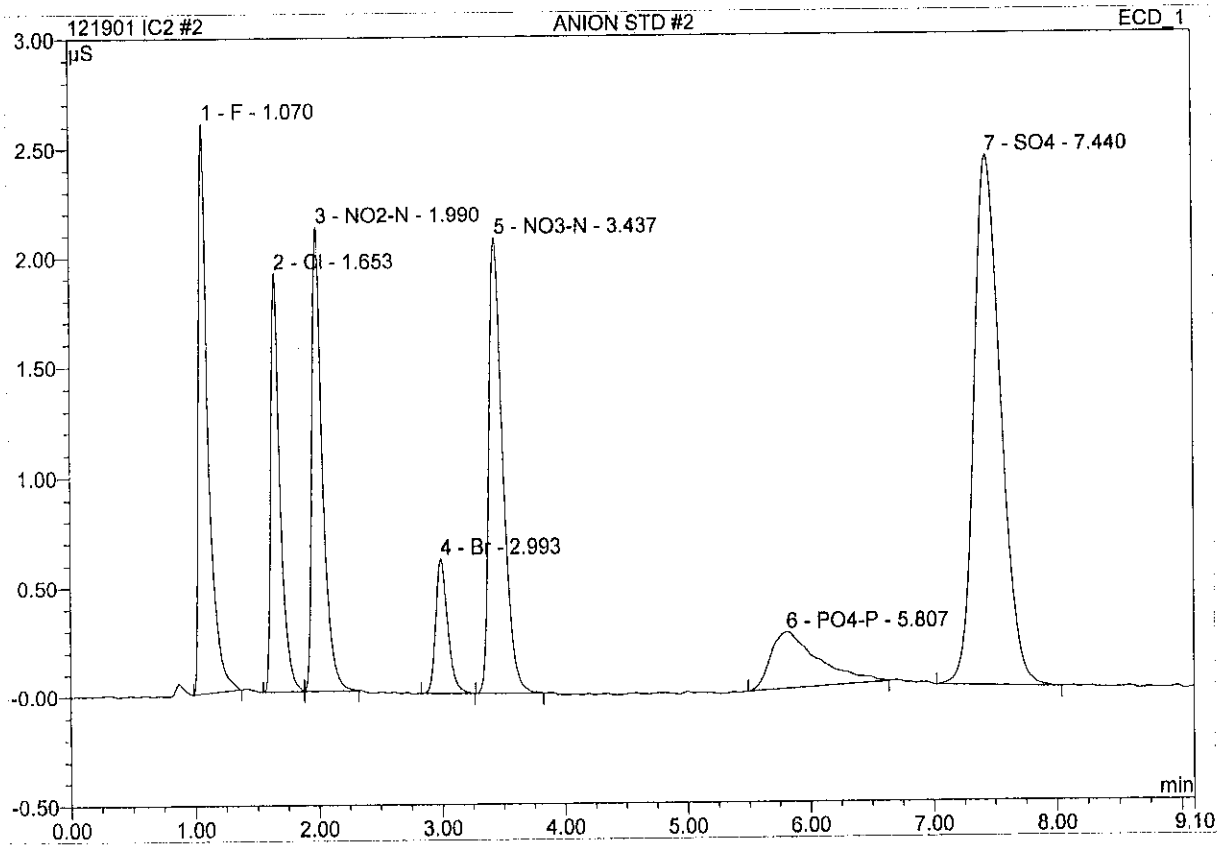


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.09	F	0.221	0.023	13.97	0.322	BMB
2	1.68	Cl	0.179	0.017	10.48	0.295	BMB
3	2.01	NO2-N	0.206	0.022	13.24	0.178	BMB
4	3.02	Br	0.058	0.006	3.87	0.148	BMB
5	3.49	NO3-N	0.205	0.027	16.34	0.202	BMB
6	5.95	PO4-P	0.021	0.008	4.87	0.743	BMB*
7	7.49	SO4	0.237	0.061	37.23	1.646	BMB
Total:			1.125	0.163	100.00	3.533	

2 ANION STD #2

1,1 GSG ANION STD SOS0057-03 121301

Sample Name:	**ANION STD #2**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/13/2001 12:53**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

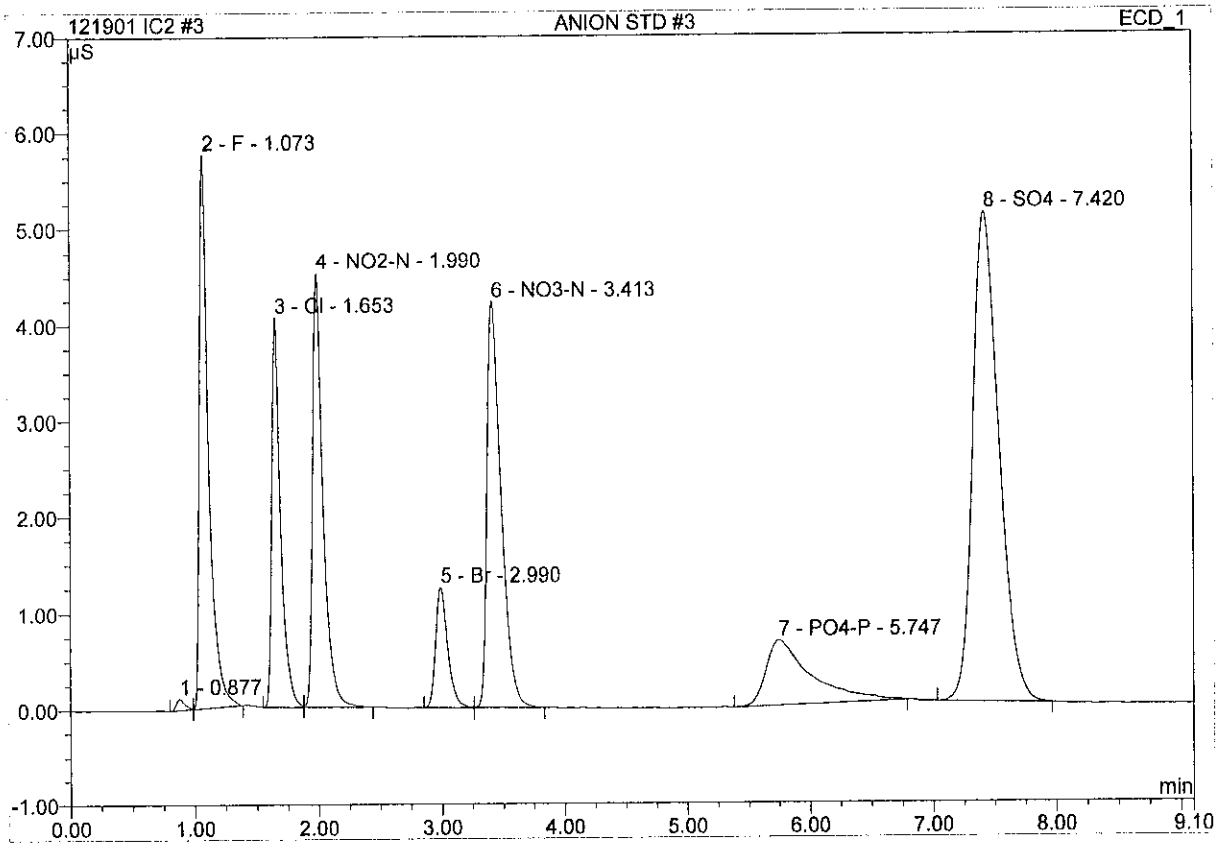


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.07	F	2.600	0.236	14.08	1.904	BMB
2	1.65	Cl	1.906	0.165	9.84	1.947	BM
3	1.99	NO2-N	2.114	0.210	12.53	1.156	MB
4	2.99	Br	0.617	0.070	4.17	1.941	BMB
5	3.44	NO3-N	2.075	0.272	16.20	1.300	BMB
6	5.81	PO4-P	0.259	0.116	6.94	2.736	BMB
7	7.44	SO4	2.419	0.608	36.24	9.542	BMB
Total:			11.991	1.678	100.00	20.526	

3 ANION STD #3

1,1 GSG ANION STD SOS0057-03 121301

Sample Name:	**ANION STD #3**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/13/2001 13:04**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

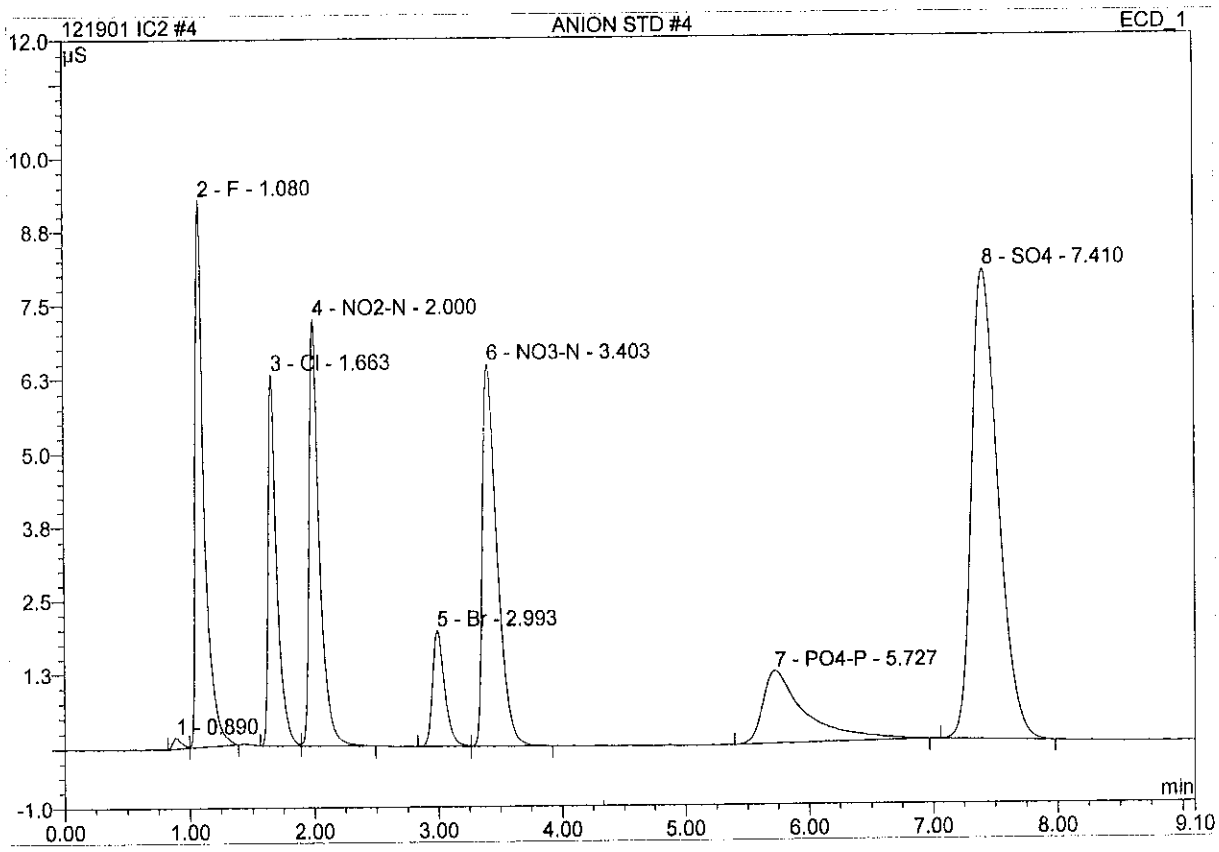


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.117	0.009	0.27	n.a.	BM
2	1.07	F	5.755	0.497	14.10	3.831	MB
3	1.65	Cl	4.051	0.340	9.64	3.892	BM
4	1.99	NO2-N	4.517	0.439	12.46	2.343	MB
5	2.99	Br	1.247	0.141	4.02	3.955	BM
6	3.41	NO3-N	4.225	0.560	15.91	2.592	MB
7	5.75	PO4-P	0.678	0.286	8.11	5.843	BMB
8	7.42	SO4	5.090	1.251	35.50	18.813	BMB
Total:			25.681	3.523	100.00	41.270	

4 ANION STD #4

1,1 GSG ANION STD SOS0057-03 121301

Sample Name:	**ANION STD #4**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/13/2001 13:16**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

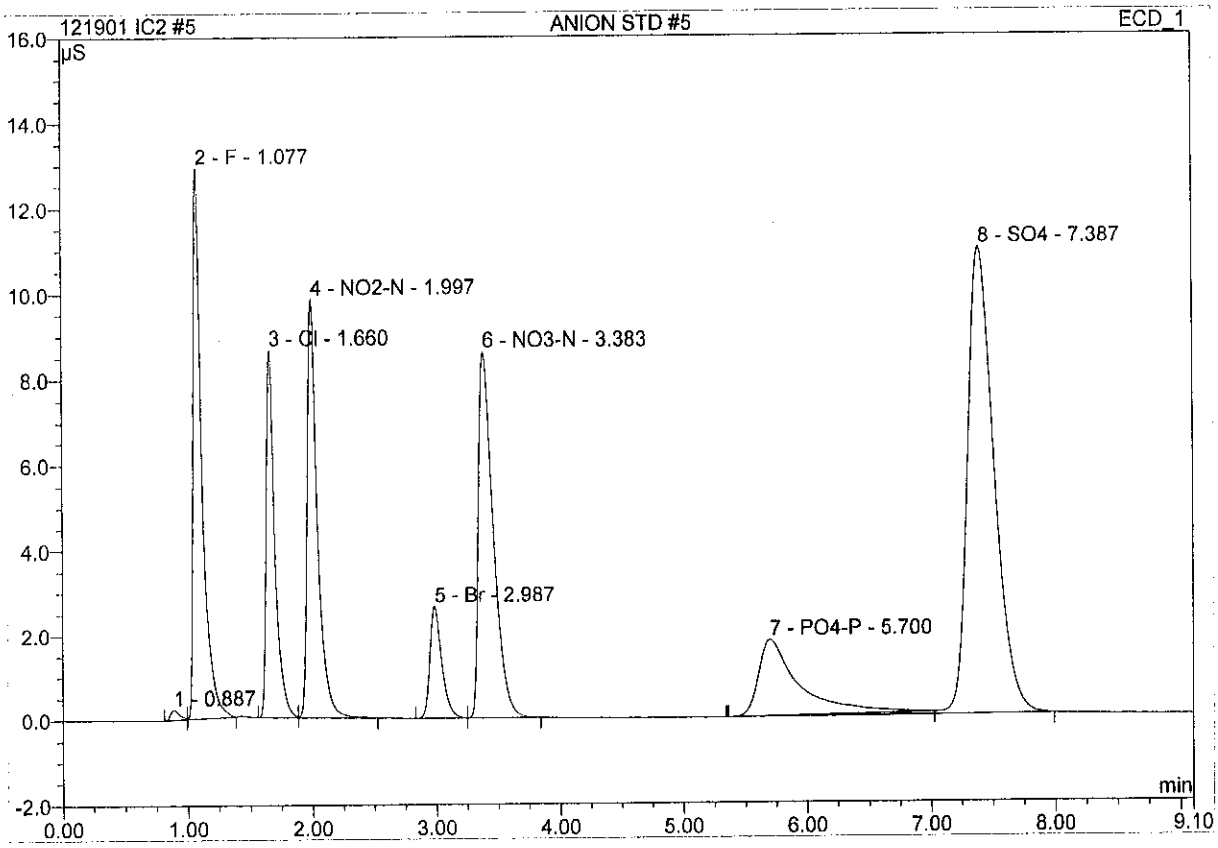


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.176	0.014	0.26	n.a.	BM
2	1.08	F	9.272	0.772	13.94	5.869	MB
3	1.66	Cl	6.284	0.517	9.34	5.871	BM
4	2.00	NO2-N	7.210	0.686	12.39	3.625	MB
5	2.99	Br	1.951	0.220	3.97	6.156	BM
6	3.40	NO3-N	6.460	0.879	15.88	4.021	MB
7	5.73	PO4-P	1.219	0.486	8.78	9.526	BMB
8	7.41	SO4	7.958	1.963	35.45	29.086	BMB
Total:			40.529	5.537	100.00	64.154	

5 ANION STD #5

1,1 GSG ANION STD SOS0057-03 121301

Sample Name:	**ANION STD #5**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/13/2001 13:27**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

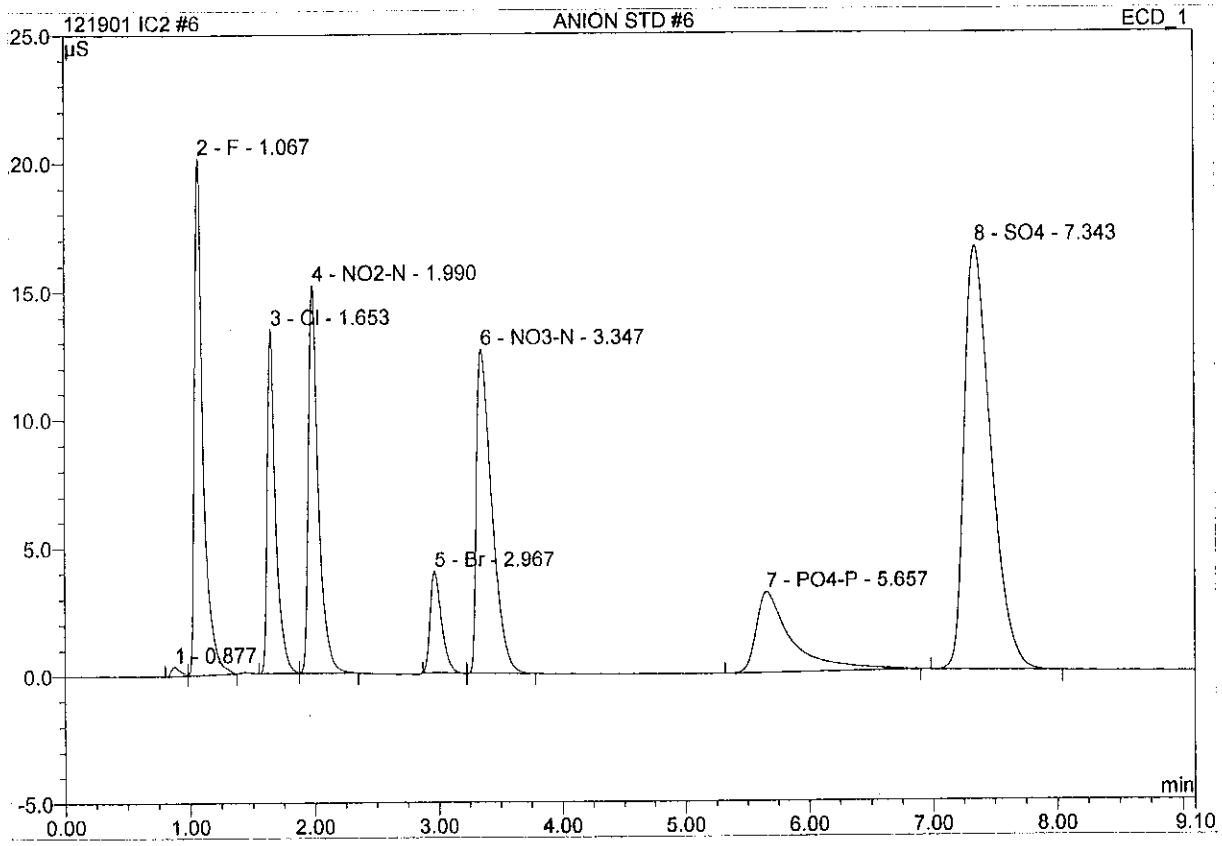


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.240	0.020	0.26	n.a.	BM
2	1.08	F	12.911	1.053	13.79	7.955	MB
3	1.66	Cl	8.625	0.703	9.21	7.951	BM
4	2.00	NO2-N	9.825	0.930	12.18	4.893	MB
5	2.99	Br	2.642	0.294	3.85	8.248	BM
6	3.38	NO3-N	8.606	1.193	15.61	5.424	MB
7	5.70	PO4-P	1.807	0.680	8.90	13.083	Ru
8	7.39	SO4	10.947	2.766	36.21	40.681	BMB
Total:			55.602	7.639	100.00	88.236	

6 ANION STD #6

1,1 GSG ANION STD SOS0057-03 121301

Sample Name:	**ANION STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**37**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/13/2001 13:39**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

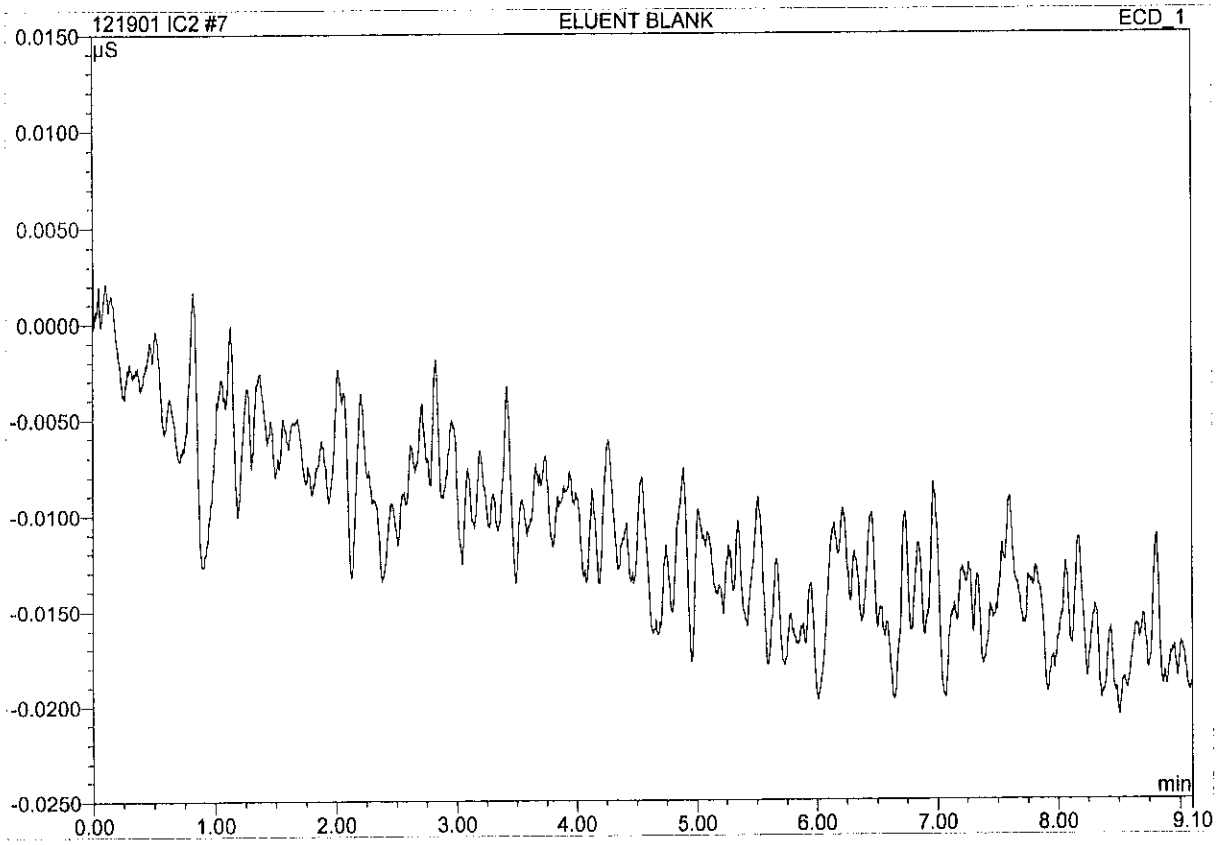


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.366	0.032	0.27	n.a.	BM
2	1.07	F	20.139	1.622	14.03	12.165	MB
3	1.65	Cl	13.454	1.079	9.33	12.141	BM
4	1.99	NO2-N	15.172	1.403	12.14	7.347	M
5	2.97	Br	3.963	0.419	3.63	11.782	BM
6	3.35	NO3-N	12.645	1.813	15.68	8.201	MB
7	5.66	PO4-P	3.127	1.055	9.13	19.980	BMB
8	7.34	SO4	16.561	4.137	35.79	60.464	BMB
Total:			85.426	11.560	100.00	132.080	

7 ELUENT BLANK

1,1 GSG

Sample Name:	**ELUENT BLANK**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/13/2001 13:50**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

8 ANION ALT SV53-30

1,1 GSG ANION STD SV0053-30 121301

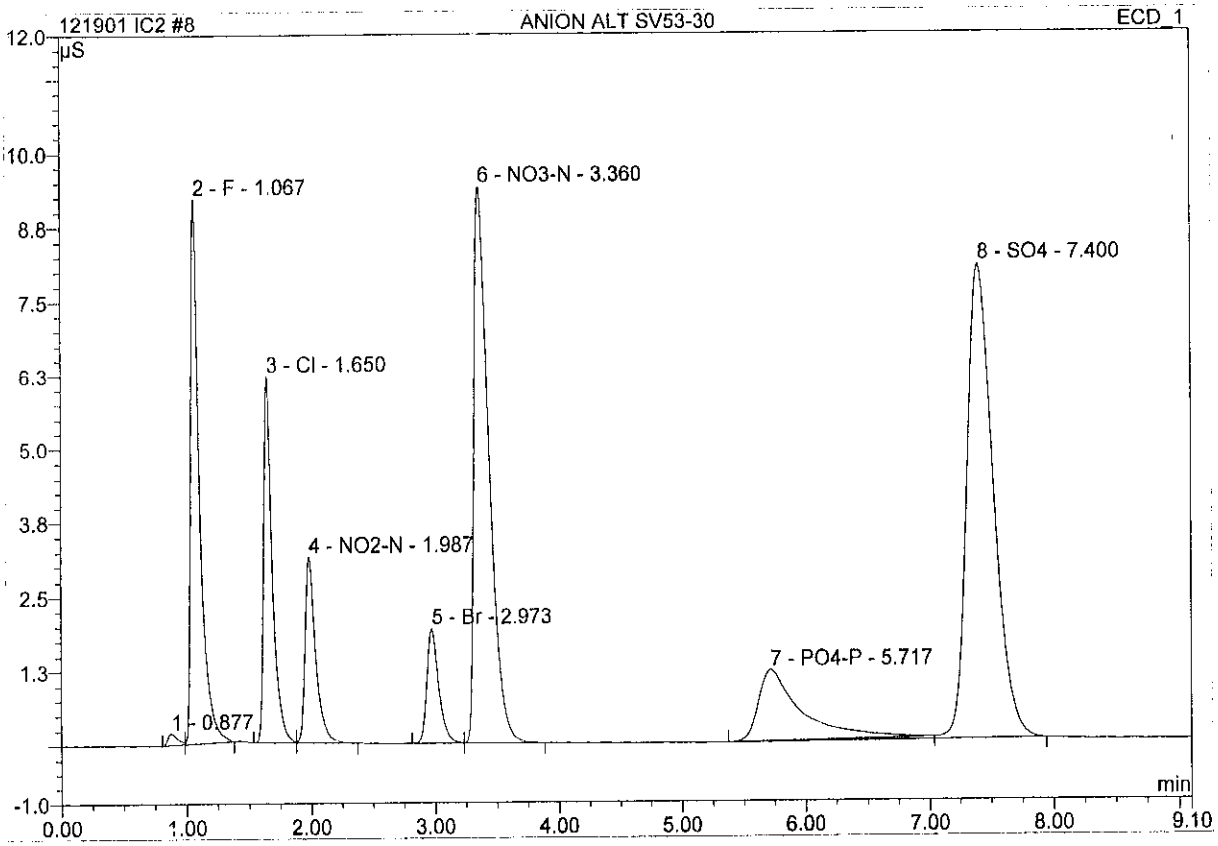
Sample Name:	**ANION ALT SV53-30**	*Injection Volume:*
Vial Number:	**36**	*Channel:*
Sample Type:	**unknown**	*Wavelength:*
Control Program:	**9056**	*Bandwidth:*
Quantif. Method:	**9056**	*Dilution Factor:*
Recording Time:	**12/13/2001 14:02**	*Sample Weight:*
Run Time (min):	**9.10**	*Sample Amount:*

ANION ALT SV53-3	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8436	-2.61	PASS
Cl	6	5.7913	-3.48	PASS
NO2-N	3.65	NA	#VALUE!	#VALUE!
NO3-N	4.07	NA	#VALUE!	#VALUE!
Br	6	6.0586	0.98	PASS
SO4	30	29.9639	-0.12	PASS
PO4-P	9.78	9.5808	-2.04	PASS

8 ANION ALT SV53-30

1,1 GSG ANION STD SV0053-30 121301

Sample Name:	**ANION ALT SV53-30**	*Injection Volume:*	**25.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/13/2001 14:02**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.206	0.019	0.33	n.a.	BM
2	1.07	F	9.213	0.768	13.59	5.844	MB
3	1.65	Cl	6.198	0.510	9.02	5.791	BM
4	1.99	NO2-N	3.134	0.309	5.47	1.670	MB
5	2.97	Br	1.939	0.216	3.82	6.059	BM
6	3.36	NO3-N	9.413	1.320	23.34	5.993	MB
7	5.72	PO4-P	1.208	0.489	8.65	9.581	Ru
8	7.40	SO4	8.039	2.024	35.79	29.964	BMB
Total:			39.350	5.654	100.00	64.900	

9 ANION ALT SOS57-18

1,1 GSG ANION STD SOS0057-18 121301

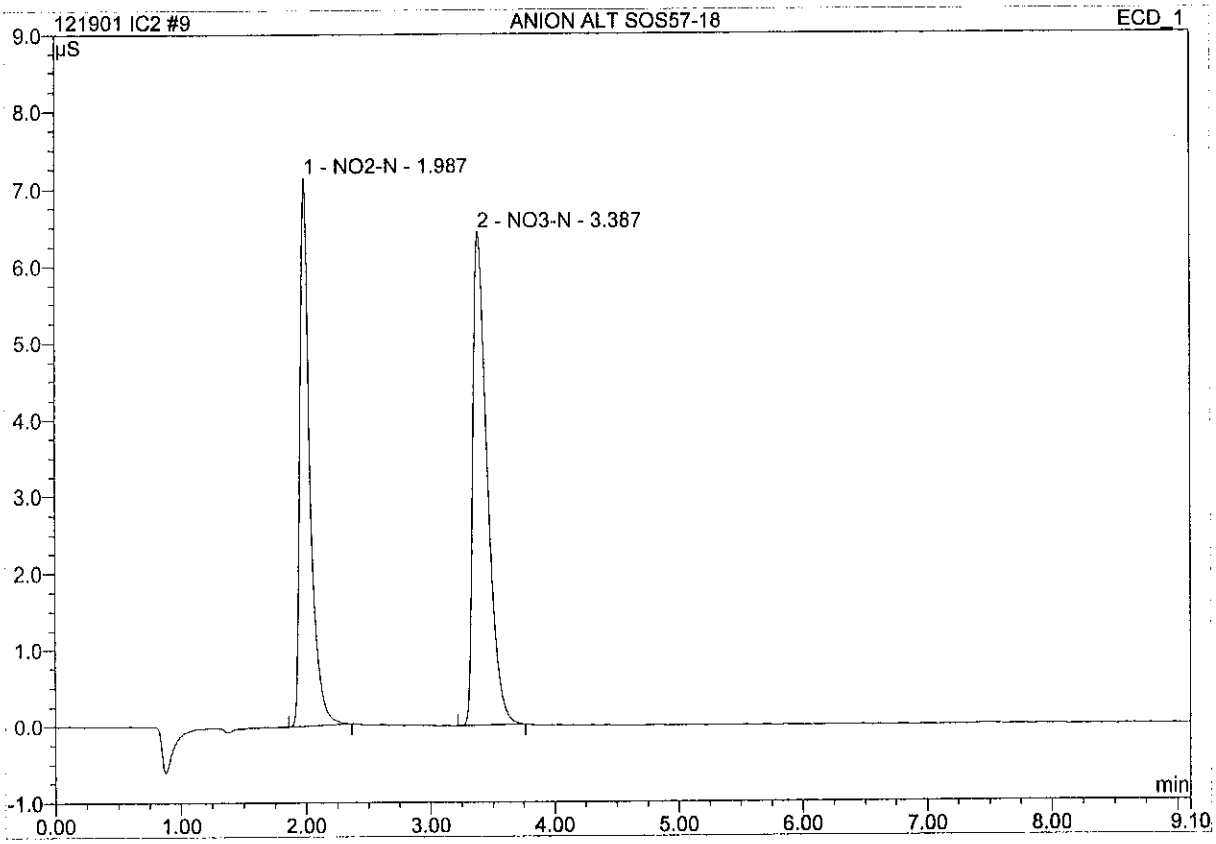
Sample Name:	**ANION ALT SOS57-18**	*Injection Volume:*
Vial Number:	**37**	*Channel:*
Sample Type:	**unknown**	*Wavelength:*
Control Program:	**9056**	*Bandwidth:*
Quantif. Method:	**9056**	*Dilution Factor:*
Recording Time:	**12/13/2001 14:13**	*Sample Weight:*
Run Time (min):	**9.10**	*Sample Amount:*

ANION ALT SOS57	Actual mg/L	Recoved mg/L	%Difference	
n.a.	6.00	n.a.	#VALUE!	#VALUE!
n.a.	6	n.a.	#VALUE!	#VALUE!
NO2-N	3.65	3.5189	-3.59	PASS
NO3-N	4.07	3.9449	-3.07	PASS
n.a.	6	n.a.	#VALUE!	#VALUE!
n.a.	30	n.a.	#VALUE!	#VALUE!
n.a.	9.78	n.a.	#VALUE!	#VALUE!

9 ANION ALT SOS57-18

1,1 GSG ANION STD SOS0057-18 121301

Sample Name:	**ANION ALT SOS57-18**	*Injection Volume:*	**25.0**
Vial Number:	**37**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/13/2001 14:13**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.99	NO2-N	7.138	0.666	43.56	3.519	BMB
2	3.39	NO3-N	6.430	0.862	56.44	3.945	BMB
Total:			13.567	1.528	100.00	7.464	

12 WG110287-01 CCV

1,1 GSG ANION CCV SOS0057-03 121901

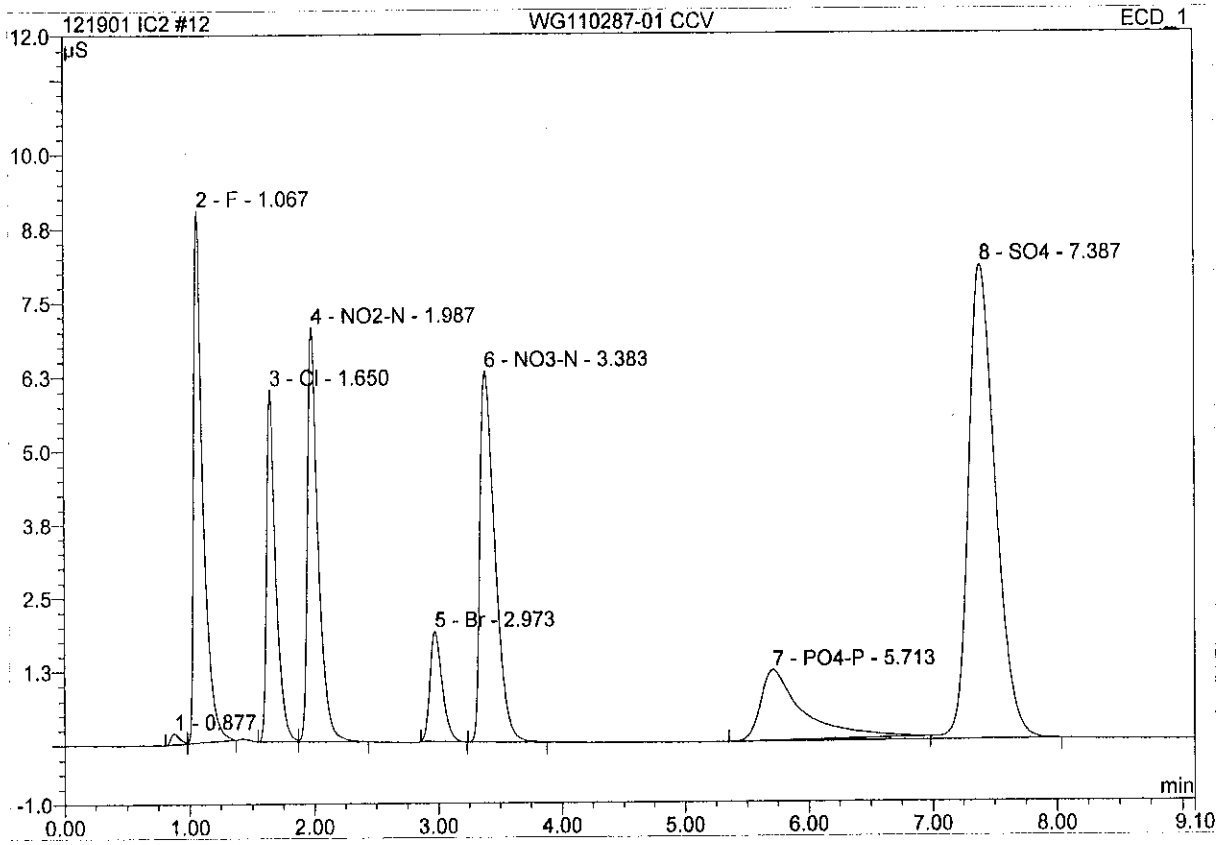
Sample Name:	**WG110287-01 CCV**	*Injection Volume:*	
Vial Number:	**40**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**12/19/2001 10:12**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG110287-01 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9410	-0.98	PASS
Cl	6	5.9117	-1.47	PASS
NO2-N	3.65	3.6719	0.60	PASS
NO3-N	4.07	4.0348	-0.86	PASS
Br	6	6.0183	0.31	PASS
SO4	30	30.5325	1.78	PASS
PO4-P	9.78	9.3576	-4.32	PASS

12 WG110287-01 CCV

1,1 GSG ANION CCV SOS0057-03 121901

Sample Name:	**WG110287-01 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**40**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/19/2001 10:12**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.184	0.015	0.27	n.a.	BM
2	1.07	F	9.020	0.781	13.83	5.941	MB
3	1.65	Cl	5.980	0.521	9.21	5.912	BM
4	1.99	NO2-N	7.023	0.695	12.30	3.672	MB
5	2.97	Br	1.872	0.215	3.80	6.018	BMB
6	3.38	NO3-N	6.299	0.882	15.62	4.035	BMB
7	5.71	PO4-P	1.195	0.477	8.44	9.358	Ru
8	7.39	SO4	8.047	2.063	36.52	30.533	BMB
Total:			39.621	5.649	100.00	65.468	

22 WG110287-02 CCV

1,1 GSG ANION CCV SOS0057-03 121901

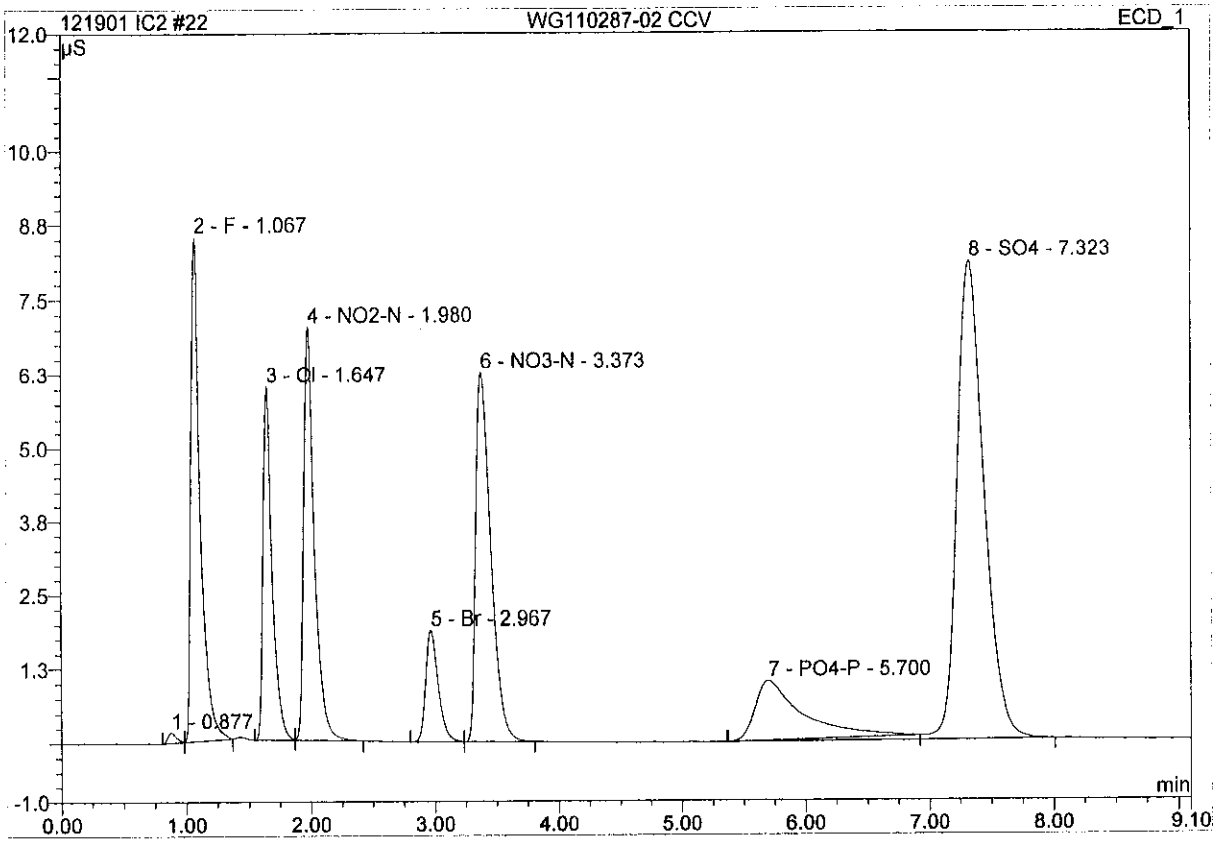
Sample Name:	**WG110287-02 CCV**	*Injection Volume:*	
Vial Number:	**50**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**12/19/2001 14:06**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG110287-02 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.7037	-4.94	PASS
Cl	6	5.8727	-2.12	PASS
NO2-N	3.65	3.6691	0.52	PASS
NO3-N	4.07	4.0371	-0.81	PASS
Br	6	6.1979	3.30	PASS
SO4	30	30.9404	3.13	PASS
PO4-P	9.78	8.8547	-9.46	PASS

22 WG110287-02 CCV

1,1 GSG ANION CCV SOS0057-03 121901

Sample Name:	**WG110287-02 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**50**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/19/2001 14:06**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.180	0.014	0.25	n.a.	BM
2	1.07	F	8.524	0.749	13.33	5.704	MB
3	1.65	Cl	5.990	0.517	9.20	5.873	BM
4	1.98	NO2-N	7.002	0.694	12.36	3.669	MB
5	2.97	Br	1.889	0.221	3.93	6.198	BM
6	3.37	NO3-N	6.262	0.883	15.71	4.037	MB
7	5.70	PO4-P	1.000	0.450	8.00	8.855	Ru
8	7.32	SO4	8.082	2.091	37.21	30.940	BMB
Total:			38.928	5.620	100.00	65.275	

33 WG110287-03 CCV

1,1 GSG ANION CCV SOS0057-03 121901

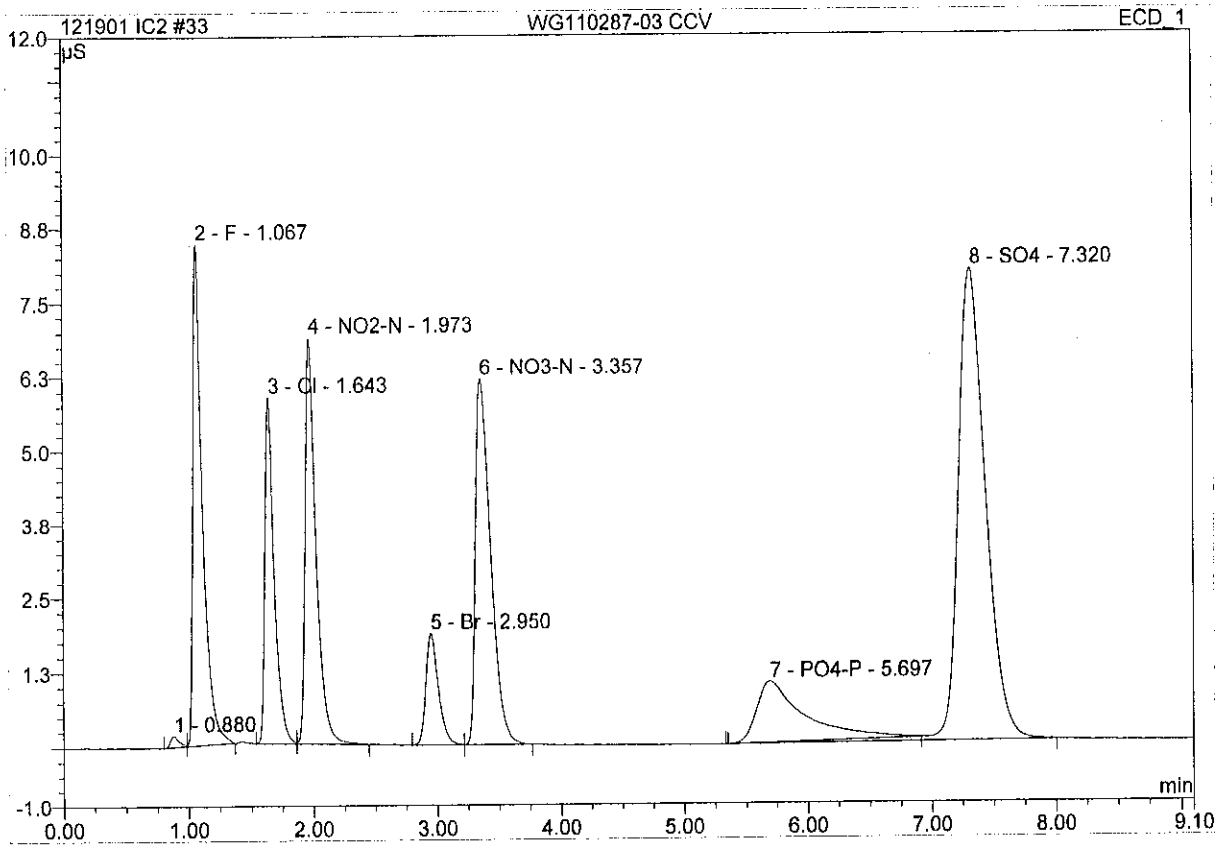
Sample Name:	**WG110287-03 CCV**	*Injection Volume:*	
Vial Number:	**61**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**12/19/2001 16:12**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG110287-03 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.6996	-5.01	PASS
Cl	6	5.8284	-2.86	PASS
NO2-N	3.65	3.6375	-0.34	PASS
NO3-N	4.07	3.9991	-1.74	PASS
Br	6	6.1120	1.87	PASS
SO4	30	30.5803	1.93	PASS
PO4-P	9.78	8.9635	-8.35	PASS

33 WG110287-03 CCV

1,1 GSG ANION CCV SOS0057-03 121901

Sample Name:	**WG110287-03 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**61**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/19/2001 16:12**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.182	0.015	0.27	n.a.	BM
2	1.07	F	8.464	0.749	13.42	5.700	MB
3	1.64	Cl	5.855	0.513	9.20	5.828	BM
4	1.97	NO2-N	6.869	0.688	12.34	3.637	MB
5	2.95	Br	1.861	0.218	3.91	6.112	BM
6	3.36	NO3-N	6.174	0.875	15.67	3.999	MB
7	5.70	PO4-P	1.017	0.456	8.16	8.964	Ru
8	7.32	SO4	7.973	2.066	37.03	30.580	BMB
Total:			38.394	5.580	100.00	64.820	

38 WG110287-04 CCV

1,1 GSG ANION CCV SOS0057-03 121901

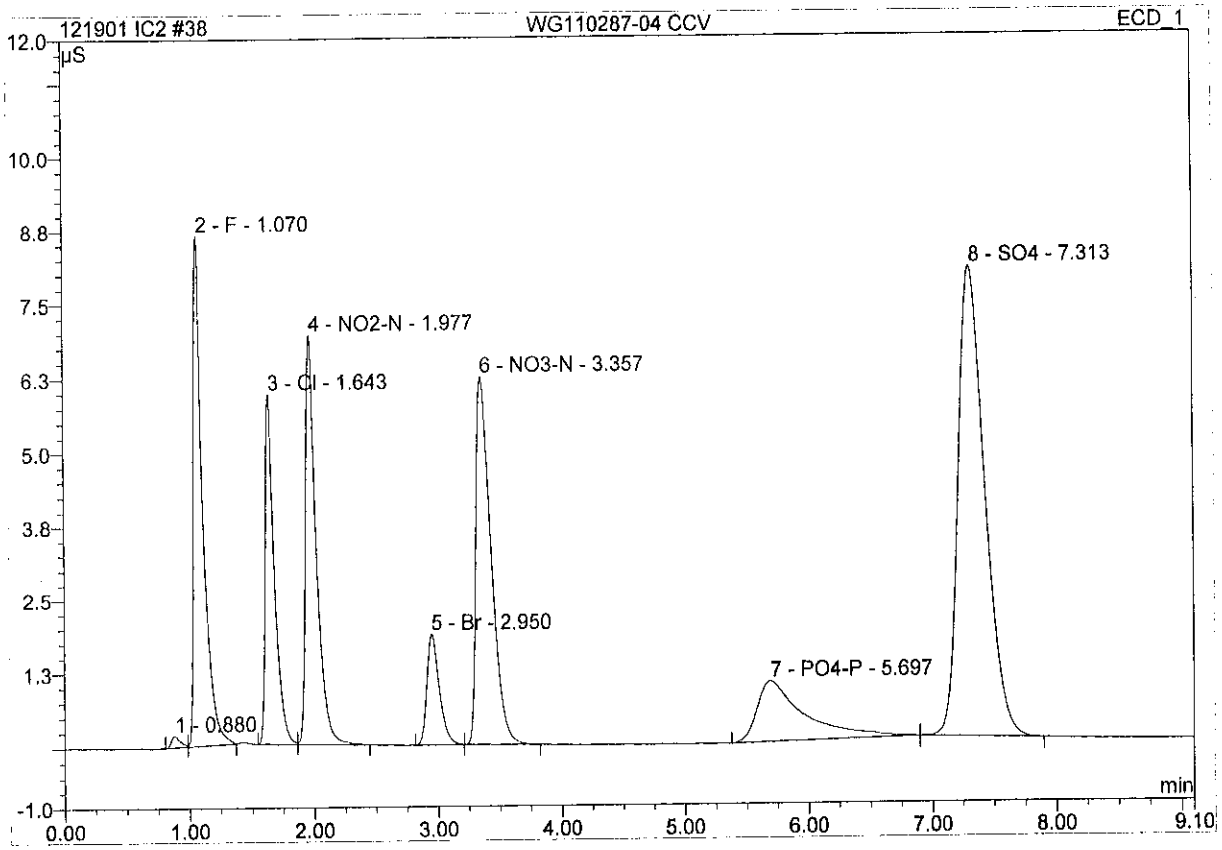
Sample Name:	**WG110287-04 CCV**	*Injection Volume:*	
Vial Number:	**66**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**12/19/2001 17:10**	*Sample Weight:*	
Run Time (min):	**9.10**	*Sample Amount:*	

WG110287-04 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.7374	-4.38	PASS
Cl	6	5.8510	-2.48	PASS
NO2-N	3.65	3.6497	-0.01	PASS
NO3-N	4.07	4.0095	-1.49	PASS
Br	6	6.0753	1.26	PASS
SO4	30	29.2586	-2.47	PASS
PO4-P	9.78	8.9940	-8.04	PASS

38 WG110287-04 CCV

1,1 GSG ANION CCV SOS0057-03 121901

Sample Name:	**WG110287-04 CCV**	*Injection Volume:*	**25.0**
Vial Number:	**66**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/19/2001 17:10**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



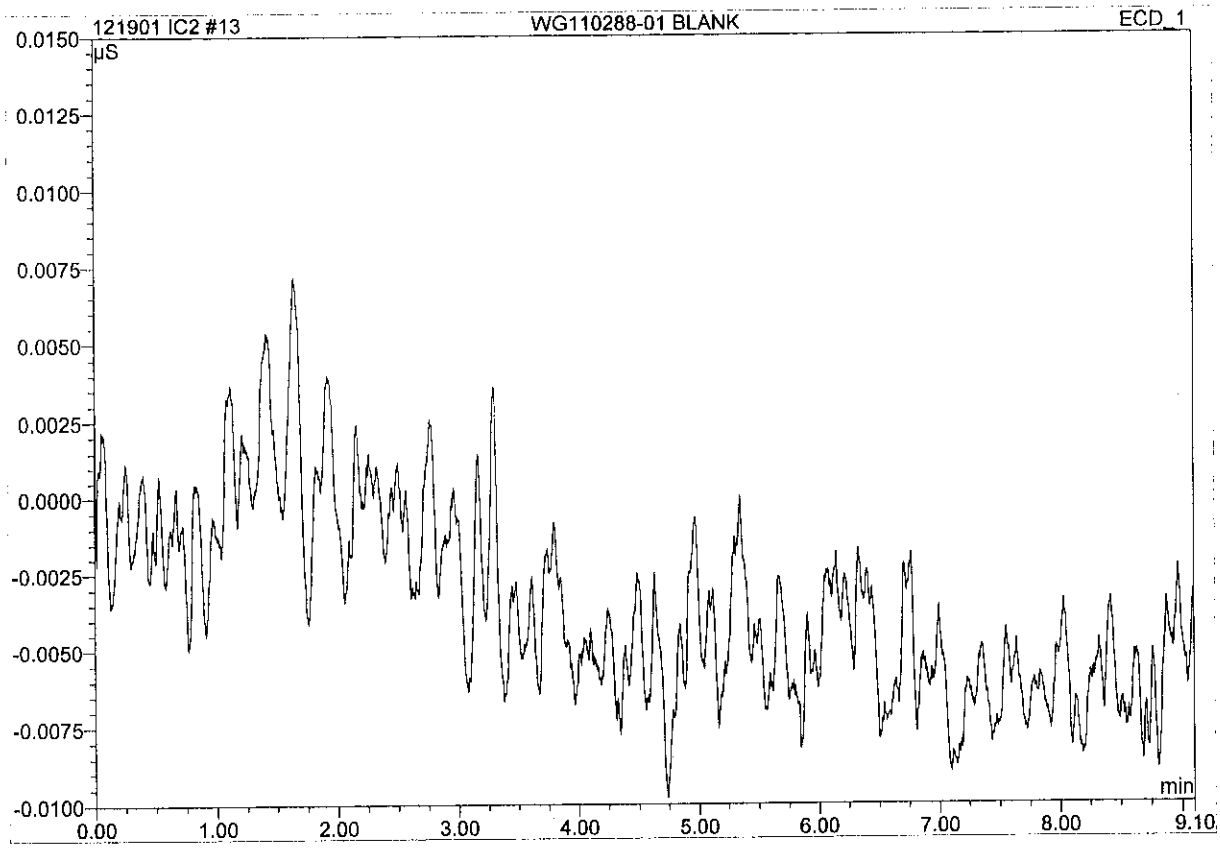
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.187	0.015	0.28	n.a.	BM
2	1.07	F	8.644	0.754	13.70	5.737	MB
3	1.64	Cl	5.941	0.515	9.36	5.851	BM
4	1.98	NO2-N	6.934	0.691	12.56	3.650	MB
5	2.95	Br	1.868	0.217	3.94	6.075	BMB
6	3.36	NO3-N	6.236	0.877	15.94	4.010	BMB
7	5.70	PO4-P	1.026	0.457	8.31	8.994	BMB
8	7.31	SO4	7.964	1.975	35.90	29.259	bMB
Total:			38.802	5.501	100.00	63.576	

2.4.5.4 Raw QC Data

13 WG110288-01 BLANK

1,1 GSG ANION BLANK

Sample Name:	**WG110288-01 BLANK**	*Injection Volume:*	**25.0**
Vial Number:	**41**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/19/2001 10:23**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

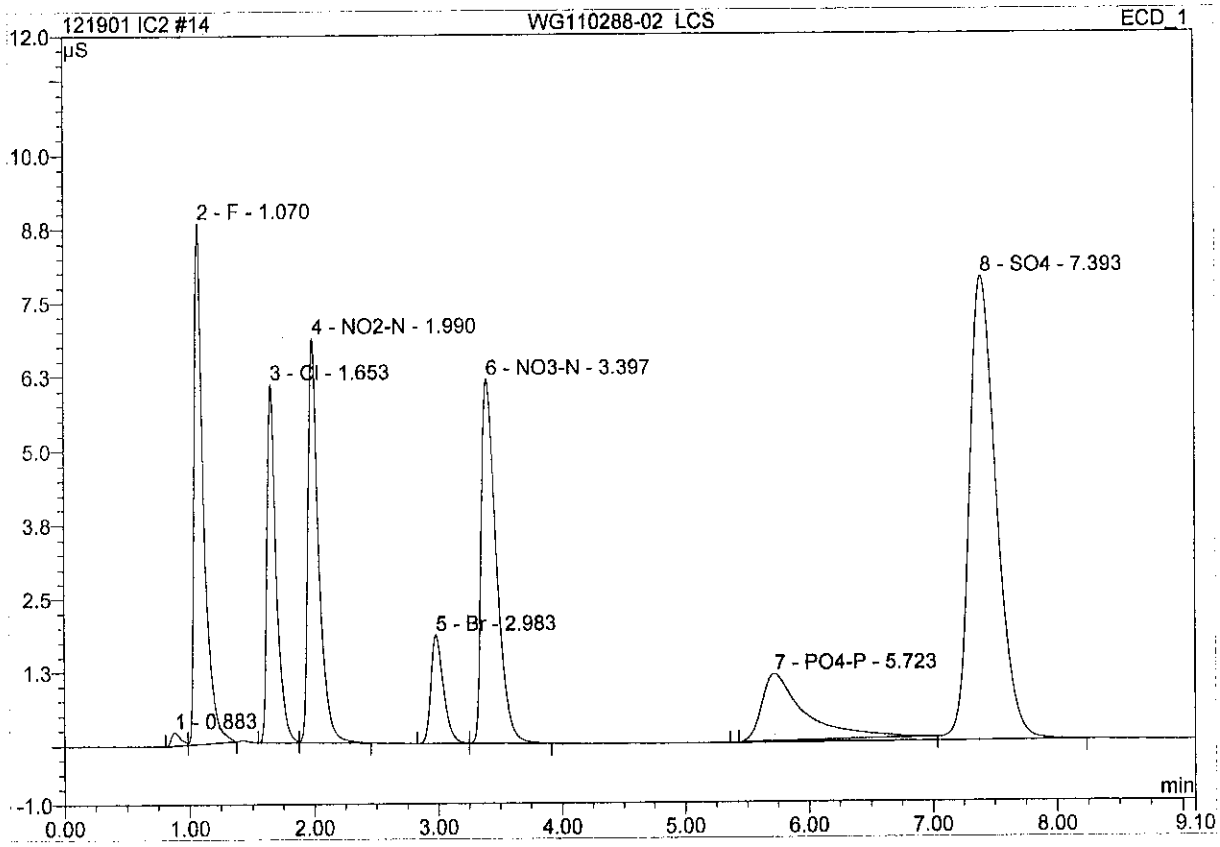


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

14 WG110288-02 LCS

1,1 GSG ANION LCS SOS0057-03 121901

Sample Name:	**WG110288-02 LCS**	*Injection Volume:*	**25.0**
Vial Number:	**42**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/19/2001 10:35**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

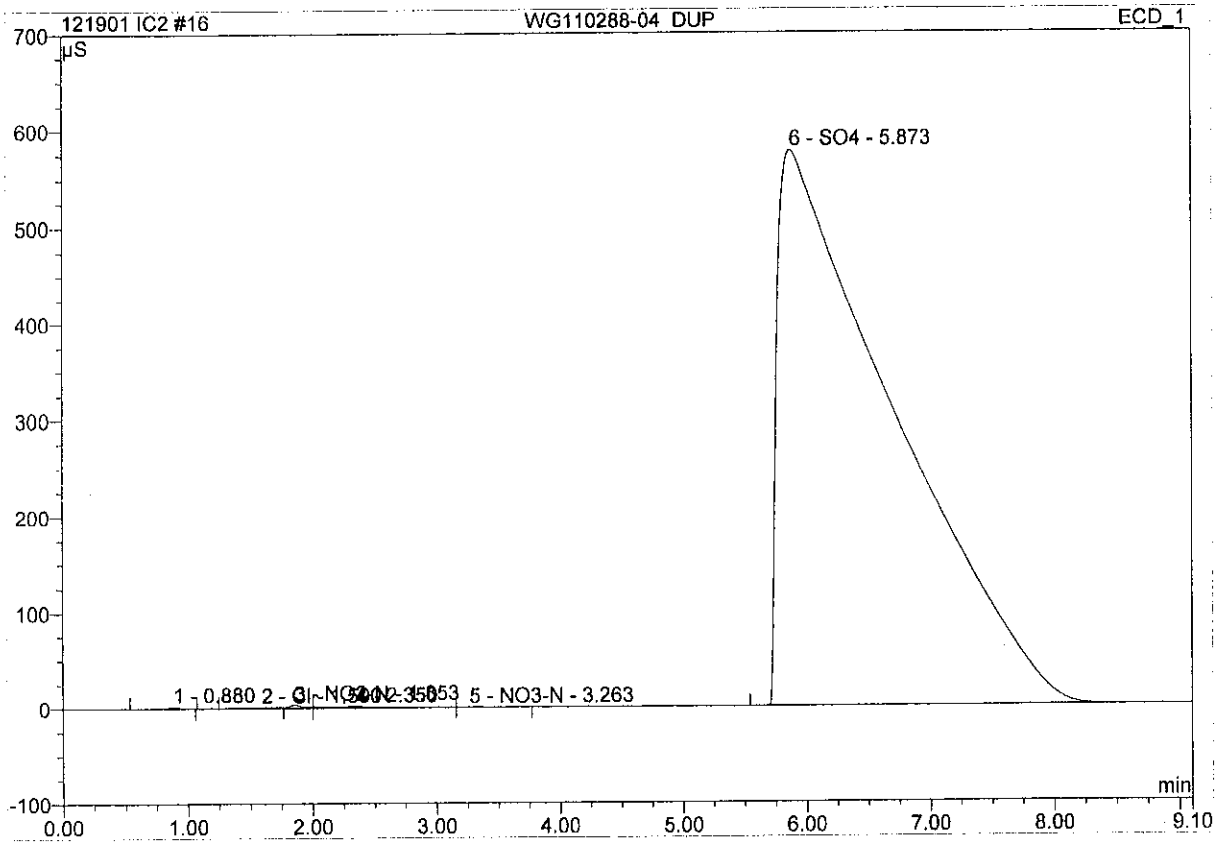


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.217	0.019	0.33	n.a.	BM
2	1.07	F	8.825	0.771	13.77	5.865	MB
3	1.65	Cl	6.069	0.530	9.47	6.021	BM
4	1.99	NO2-N	6.853	0.683	12.19	3.608	MB
5	2.98	Br	1.848	0.217	3.87	6.071	BM
6	3.40	NO3-N	6.165	0.868	15.51	3.971	MB
7	5.72	PO4-P	1.145	0.464	8.29	9.123	Ru
8	7.39	SO4	7.866	2.046	36.56	30.295	BMB
Total:			38.988	5.598	100.00	64.955	

16 WG110288-04 DUP

1,1 GSG L0112366-01 DUP

Sample Name:	**WG110288-04 DUP**	*Injection Volume:*	**25.0**
Vial Number:	**44**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**12/19/2001 12:57**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	1.938	0.198	0.03	n.a.	BMB
2	1.59	Cl	0.511	0.143	0.02	1.700	Ru
3	1.85	NO2-N	3.408	0.678	0.11	3.585	BM
4	2.35	n.a.	1.502	0.763	0.12	n.a.	M
5	3.26	NO3-N	0.130	0.035	0.01	0.240	MB
6	5.87	SO4	578.030	624.727	99.71	#########	BMB
Total:			585.519	626.544	100.00	#########	

Sequence: 121901 IC2
Operator: gsg

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 49

Created: 12/19/2001 9:46:47 AM by gsg
Last Update: 12/20/2001 7:42:08 AM by gsg

No.	Name	Comment
1	ANION STD #1	1,1 GSG ANION STD SOS0057-03 121301
2	ANION STD #2	1,1 GSG ANION STD SOS0057-03 121301
3	ANION STD #3	1,1 GSG ANION STD SOS0057-03 121301
4	ANION STD #4	1,1 GSG ANION STD SOS0057-03 121301
5	ANION STD #5	1,1 GSG ANION STD SOS0057-03 121301
6	ANION STD #6	1,1 GSG ANION STD SOS0057-03 121301
7	ELUENT BLANK	1,1 GSG
8	ANION ALT SV53-30	1,1 GSG ANION STD SV0053-30 121301
9	ANION ALT SOS57-18	1,1 GSG ANION STD SOS0057-18 121301
~~10~~	DI H2O BLANK	1,1 GSG
~~11~~	ELUENT BLANK	1,1 GSG
12	WG110287-01 CCV	1,1 GSG ANION CCV SOS0057-03 121901
13	WG110288-01 BLANK	1,1 GSG ANION BLANK
14	WG110288-02 LCS	1,1 GSG ANION LCS SOS0057-03 121901
15	WG110288-03 REF DUP	1,1 GSG L0112366-01 REF DUP
16	WG110288-04 DUP	1,1 GSG L0112366-01 DUP
17	L0112366-02	1,1 GSG
18	L0112366-03	1,1 GSG
19	WG110288-05 REF MS/MSD	1,1 GSG L0112366-04 REF MS/MSD
~~20~~	L0112366-05 MS	1,1 GSG L0112366-05 MS SOS0057-03
21	WG110288-07 MSD	1,1 GSG L0112366-06 MSD SOS0057-03
22	WG110287-02 CCV	1,1 GSG ANION CCV SOS0057-03 121901
23	L0112366-07	1,1 GSG
24	L0112366-08	1,1 GSG
25	L0112366-09	1,1 GSG
26	L0112366-10	1,1 GSG
27	L0112366-11	1,1 GSG
28	L0112366-12	1,1 GSG
29	L0112366-13	1,1 GSG
30	L0112366-14	1,1 GSG
31	L0112366-15	1,1 GSG
32	L0112366-16	1,1 GSG
33	WG110287-03 CCV	1,1 GSG ANION CCV SOS0057-03 121901
~~34~~	L0112366-01 @ 100X	1,100 GSG
~~35~~	L0112366-02 @ 100X	1,100 GSG
~~36~~	L0112366-03 @ 100X	1,100 GSG
37	WG110288-06 MS RR	1,1 GSG L0112366-05 MS RR
38	WG110287-04 CCV	1,1 GSG ANION CCV SOS0057-03 121901
39	~~WG110325-01 CCV~~	1,1 GSG ANION CCV SOS0057-03 121901
40	WG110326-01 TXUCC BLANK	1,1 GSG TXUCC BLANK 121901
~~41~~	WG110326-02 TXUCC LCS	1,1 GSG TXUCC LCS 121901
42	WG110326-03 TXUCC REF DUP	1,1 GSG TXUCC L0112286-03 REF DUP

now WC.

RR 2X on 12/20/01

Sequence: 121901 IC2
Operator: gsg
Printed: 12/20/2001 8:09:20 AM

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 49

Created: 12/19/2001 9:46:47 AM by gsg
Last Update: 12/20/2001 7:42:08 AM by gsg

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status
1	ANION STD #1	Standard	38	25.0	9056	9056	Finished
2	ANION STD #2	Standard	36	25.0	9056	9056	Finished
3	ANION STD #3	Standard	36	25.0	9056	9056	Finished
4	ANION STD #4	Standard	36	25.0	9056	9056	Finished
5	ANION STD #5	Standard	36	25.0	9056	9056	Finished
6	ANION STD #6	Standard	37	25.0	9056	9056	Finished
7	ELUENT BLANK	Unknown	36	25.0	9056	9056	Finished
8	ANION ALT SV53-30	Unknown	36	25.0	9056	9056	Finished
9	ANION ALT SOS57-18	Unknown	37	25.0	9056	9056	Finished
10	DI H2O BLANK	Unknown	39	25.0	9056	9056	Finished
11	ELUENT BLANK	Unknown	40	25.0	9056	9056	Finished
12	WG110287-01 CCV	Unknown	40	25.0	9056	9056	Finished
13	WG110288-01 BLANK	Unknown	41	25.0	9056	9056	Finished
14	WG110288-02 LCS	Unknown	42	25.0	9056	9056	Finished
15	WG110288-03 REF DUP	Unknown	43	25.0	9056	9056	Finished
16	WG110288-04 DUP	Unknown	44	25.0	9056	9056	Finished
17	L0112366-02	Unknown	45	25.0	9056	9056	Finished
18	L0112366-03	Unknown	46	25.0	9056	9056	Finished
19	WG110288-05 REF MS/MSD	Unknown	47	25.0	9056	9056	Finished
20	L0112366-05 MS	Unknown	48	25.0	9056	9056	Finished
21	WG110288-07 MSD	Unknown	49	25.0	9056	9056	Finished
22	WG110287-02 CCV	Unknown	50	25.0	9056	9056	Finished
23	L0112366-07	Unknown	51	25.0	9056	9056	Finished
24	L0112366-08	Unknown	52	25.0	9056	9056	Finished
25	L0112366-09	Unknown	53	25.0	9056	9056	Finished
26	L0112366-10	Unknown	54	25.0	9056	9056	Finished
27	L0112366-11	Unknown	55	25.0	9056	9056	Finished
28	L0112366-12	Unknown	56	25.0	9056	9056	Finished
29	L0112366-13	Unknown	57	25.0	9056	9056	Finished
30	L0112366-14	Unknown	58	25.0	9056	9056	Finished
31	L0112366-15	Unknown	59	25.0	9056	9056	Finished
32	L0112366-16	Unknown	60	25.0	9056	9056	Finished
33	WG110287-03 CCV	Unknown	61	25.0	9056	9056	Finished
34	L0112366-01 @ 100X	Unknown	62	25.0	9056	9056	Finished
35	L0112366-02 @ 100X	Unknown	63	25.0	9056	9056	Finished
36	L0112366-03 @ 100X	Unknown	64	25.0	9056	9056	Finished
37	WG110288-06 MS RR	Unknown	65	25.0	9056	9056	Finished
38	WG110287-04 CCV	Unknown	66	25.0	9056	9056	Finished
39	WG110325-01 CCV	Unknown	67	25.0	9056	9056	Finished
40	WG110326-01 TXUCC BLANK	Unknown	68	25.0	9056	9056	Finished
41	WG110326-02 TXUCC LCS	Unknown	69	25.0	9056	9056	Finished
42	WG110326-03 TXUCC REF DUP	Unknown	70	25.0	9056	9056	Finished

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Sequence: 121901 IC2
Operator: gsg
Printed: 12/20/2001 8:09:20 AM

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 49

Created: 12/19/2001 9:46:47 AM by gsg
Last Update: 12/20/2001 7:42:08 AM by gsg

No.	Name	Inj. Date/Time	Dil. Factor	Sample ID
1	ANION STD #1	12/13/2001 12:41:43 PM	1.0000	
2	ANION STD #2	12/13/2001 12:53:12 PM	1.0000	
3	ANION STD #3	12/13/2001 1:04:42 PM	1.0000	
4	ANION STD #4	12/13/2001 1:16:12 PM	1.0000	
5	ANION STD #5	12/13/2001 1:27:42 PM	1.0000	
6	ANION STD #6	12/13/2001 1:39:12 PM	1.0000	
7	ELUENT BLANK	12/13/2001 1:50:42 PM	1.0000	
8	ANION ALT SV53-30	12/13/2001 2:02:12 PM	1.0000	
9	ANION ALT SOS57-18	12/13/2001 2:13:43 PM	1.0000	
10	DI H2O BLANK	12/19/2001 9:49:19 AM	1.0000	
11	ELUENT BLANK	12/19/2001 10:00:49 AM	1.0000	
12	WG110287-01 CCV	12/19/2001 10:12:19 AM	1.0000	1214 psi
13	WG110288-01 BLANK	12/19/2001 10:23:50 AM	1.0000	
14	WG110288-02 LCS	12/19/2001 10:35:20 AM	1.0000	
15	WG110288-03 REF DUP	12/19/2001 12:45:38 PM	1.0000	
16	WG110288-04 DUP	12/19/2001 12:57:08 PM	1.0000	
17	L0112366-02	12/19/2001 1:08:38 PM	1.0000	
18	L0112366-03	12/19/2001 1:20:09 PM	1.0000	
19	WG110288-05 REF MS/MSD	12/19/2001 1:31:39 PM	1.0000	
20	L0112366-05 MS	12/19/2001 1:43:09 PM	1.0000	RR
21	WG110288-07 MSD	12/19/2001 1:54:39 PM	1.0000	
22	WG110287-02 CCV	12/19/2001 2:06:09 PM	1.0000	
23	L0112366-07	12/19/2001 2:17:39 PM	1.0000	
24	L0112366-08	12/19/2001 2:29:09 PM	1.0000	
25	L0112366-09	12/19/2001 2:40:39 PM	1.0000	
26	L0112366-10	12/19/2001 2:52:09 PM	1.0000	
27	L0112366-11	12/19/2001 3:03:39 PM	1.0000	
28	L0112366-12	12/19/2001 3:15:10 PM	1.0000	
29	L0112366-13	12/19/2001 3:26:40 PM	1.0000	
30	L0112366-14	12/19/2001 3:38:09 PM	1.0000	
31	L0112366-15	12/19/2001 3:49:39 PM	1.0000	
32	L0112366-16	12/19/2001 4:01:10 PM	1.0000	
33	WG110287-03 CCV	12/19/2001 4:12:40 PM	1.0000	
34	L0112366-01 @ 100X	12/19/2001 4:24:10 PM	1.0000	
35	L0112366-02 @ 100X	12/19/2001 4:35:40 PM	1.0000	
36	L0112366-03 @ 100X	12/19/2001 4:47:11 PM	1.0000	
37	WG110288-06 MS RR	12/19/2001 4:58:41 PM	1.0000	
38	WG110287-04 CCV	12/19/2001 5:10:11 PM	1.0000	
39	WG110325-01 CCV	12/19/2001 5:21:41 PM	1.0000	
40	WG110326-01 TXUCC BLANK	12/19/2001 5:33:11 PM	100.0000	
41	WG110326-02 TXUCC LCS	12/19/2001 5:44:41 PM	99.9000	1.0006g
42	WG110326-03 TXUCC REF DUP	12/19/2001 5:56:11 PM	99.9000	1.0007g

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Sequence: 121901 IC2
Operator: gsg
Printed: 12/20/2001 8:09:20 AM

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 49
Created: 12/19/2001 9:46:47 AM by gsg
Last Update: 12/20/2001 7:42:08 AM by gsg

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status
43	WG110326-04 TXUCC DUP	Unknown	71	25.0	9056	9056	Finished
44	WG110326-05 TXUCC REF SPK	Unknown	72	25.0	9056	9056	Finished
45	WG110326-06 TXUCC SPK	Unknown	73	25.0	9056	9056	Finished
46	L0112286-03 TX unbombed	Unknown	74	25.0	9056	9056	Finished
47	L0112286-03 TX unbombed DUP	Unknown	75	25.0	9056	9056	Finished
48	WG110325-02 CCV	Unknown	76	25.0	9056	9056	Finished
49	END	Unknown	77	25.0	DX-320 OFF	9056	Finished

PeakNet © Dionex Corporation, Version 6.30 SP1 Build 587

Sequence: 121901 IC2
Operator: gsg

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 49

Created: 12/19/2001 9:46:47 AM by gsg
Last Update: 12/20/2001 7:42:08 AM by gsg

No.	Name	Inj. Date/Time	Dil. Factor	Sample ID
43	WG110326-04 TXUCC DUP	12/19/2001 6:07:41 PM	99.9000	1.0007g
44	WG110326-05 TXUCC REF SPK	12/19/2001 6:19:11 PM	99.9000	1.0007g
45	WG110326-06 TXUCC SPK	12/19/2001 6:30:40 PM	98.6000	1.0140g
46	L0112286-03 TX unbombed	12/19/2001 6:42:10 PM	99.3000	1.0071g
47	L0112286-03 TX unbombed DUP	12/19/2001 6:53:40 PM	98.2000	1.0187g
48	WG110325-02 CCV	12/19/2001 7:05:11 PM	1.0000	
49	END	12/19/2001 7:16:41 PM	1.0000	

Sequence: 121901 IC2
Operator: gsg

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 49

Created: 12/19/2001 9:46:47 AM by gsg
Last Update: 12/20/2001 7:42:08 AM by gsg

No.	Name	Comment
43	WG110326-04 TXUCC DUP	1,1 GSG TXUCC L0112286-03 DUP
44	WG110326-05 TXUCC REF SPK	1,1 GSG TXUCC L0112286-03 REF SPK
45	WG110326-06 TXUCC SPK	1,1 GSG TX L0112286-03 SPK (REPORT 1/2 amt)
~~46~~	L0112286-03 TX unbombed	1,1 GSG TXUCC L0112286-03 unbombed
~~47~~	L0112286-03 TX unbombed DUP	1,1 GSG TXUCC L0112286-03 unbombed DUP
48	WG110325-02 CCV	1,1 GSG ANION CCV SOS0057-03 121901
~~49~~	END	1,1 GSG 12/11 PSI.

12/20/01

12/20/01

KEMRON ENVIRONMENTAL SERVICES
IC Laboratory Maintenance Log

Analysis Date/Time 12/19/01 Instrument ID ICL Column ID AG4A-SC AS4A-SC Data Subdirectory 121901
Analyst Initials GSG SOP # IC01 Rev. # 2 ✓ 9056 SOP # IC02 Rev. # _____ 314.0

Daily Check

- ☑ Mobile phase reservoir
- ☑ System pressure 1211 psi
- ☑ Waste container

Returned to Control?

Yes ____ No _____

Additional Maintenance

Problem: _____

_____

_____

Action Taken: _____

_____

_____

Comments

Reviewed By: RHC 12/20/01

Figure 1
IC

Date: 12/19/01
Analyst: GSC
Method: 9056
Instrument: IC2
Work Group: WG 110288

	Analyst
System Performance Check	✓
Initial Calibration	✓
Average RF	✓
Linear Reg or Higher Order Curve	✓
Second Source Standard % Difference	✓
Check Standards	✓
Project / Client Specific Requirements	
Special Standards	
Blanks	✓
TCL's	
Surrogates	
LCS (Laboratory Control Sample)	✓
Recoveries	
Surrogates	
MS / MSD / Duplicates	✓
Samples	✓
TCL Hits	
Surrogates	
Calculations & Correct Factors	
Dilutions Run	✓
Reruns	✓
Check Sample Histories	
Ending Check Standards	✓
Excel Spreadsheets	✓
Case Narrative	✓
Corrective Action	
Results Reporting / Data Qualifiers	
WorkGroups Traceability	
Client Data Package Assembly	
Check for Completeness	✓

Primary Reviewer Initials & Date Checked
GSC 12/20/01

Secondary Reviewer Initials & Date Checked
DJC 12/20/01

- Check for compliance with Method and project-specific requirements
- Check the completeness of the reported information
- Check the information for the report narrative
- Check the reasonableness of results

Supervisory Review Initials & Date Checked 12/21/01

Comments:

NA - Not Applicable

DL - Diluted Out

✓ - Checked & OK

Appendix D

FDEP Annual Status Report Form

Active Remediation
Annual Status Report Summary

DEP Form # 62-770.900(5)
Form Title: Active Remediation Annual Status Report Summary
Effective Date: September 23, 1997

Site Name Building 46
Location NAS Cecil Field, Jacksonville, Florida
RAP Approval Date ___/___/___
Media Contaminated: ☑ Groundwater ☑ Soil

FDEP Facility ID No. _____
Applicable Dates 1/18/1 to 12/31/1
System Startup Date 1/18/1

Method of Groundwater Remediation:

☐ Pump-and-Treat
- Design Flow Rate _____ (gpm)
- Actual Flow Rate _____ (gpm)
- Total Vol. Recovered to Date _____ (1000 gal)

☐ In Situ Air Sparging
- Design Air Flow Rate _____ (cfm)
- Actual Air Flow Rate _____ (cfm)
- Estimated Radius of Influence _____ (ft)

☐ Biosparging
- Design Flow Rate _____ (gpm)
- Actual Flow Rate _____ (gpm)

☐ Bioremediation
☑ Other PHOSter Nutrient Injection System

Estimated Total Mass Recovered or Remediated This Period: _____ (lbs)
- Mass Removed by Pump-and-Treat _____ (lbs)
- Mass Removed by VES and/or AS _____ (lbs)
- Mass Removed by FP Recovery _____ (lbs)
- Other Estimated Mass Removed _____ (lbs)
  (specify method: _____)

Concentration of Total VOAs in Designated Wells at End of:

	This Period	Previous Period
• MW-1S	34600 ppb	74900 ppb
• MW-2S	142 ppb	623 ppb
• MW-7I	1816 ppb	43900 ppb
• MW-26I	1738 ppb	1729 ppb

Method of Soil Remediation:

☐ Vapor Extraction System (VES)
- Design Air Flow Rate _____ (cfm)
- Actual Air Flow Rate _____ (cfm)
- Estimated Radius of Influence _____ (ft)
- Air Emissions Treatment
  ☐ Discontinued / date ___/___/___ ☐ Ongoing

☐ Soil Bioventing
- Design Air Flow Rate _____ (cfm)
- Actual Air Flow Rate _____ (cfm)

☐ In Situ Bioremediation
☑ Other PHOSter Nutrient Injection System

Free Product Present: ☐ Yes ☑ No
- Volume Recovered to Date _____ (gal)

Estimated Time of Cleanup for Active Remediation: 10472 (days)
- Estimated time of cleanup based on target level concentration C and on the exponential decay equation, $C_1 = C_0 e^{xt_1}$, where C_1 = present concentration at the most contaminated source well (ppb); C_0 = highest initial concentration of applicable chemical of concern at system startup (ppb); x = decay coefficient; and t_1 = length of time between initial and present concentration (days). A semi-log plot for cleanup times should be provided.

Cleanup Time Predicted in RAP: 365 (days) [explain below, difference between RAP and calculated]

O & M Problems: ☐ Yes ☐ No (if yes, provide explanation below)
- No. of scheduled O & M visits weekly
- Down-time 81 (days)
- No. of unscheduled O & M visits _____

Description of O & M Problems: Air compressor equipment failure, problem solved by replacing with different style and brand. System must be shut down for period prior to sampling due to tendency of some monitoring wells to flow.

Short Description of Effectiveness of Cleanup: soil COC concentrations have decreased below baseline concentrations but still exceed SCTLs. six of the seven monitoring wells with baseline contaminant concentrations above GCTLs still exceed the GCTLs but concentrations have decreased in all but one well.

Recommendations and Proposed Modifications: _____