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ANNUAL OPERATION AND MAINTENANCE STATUS REPORT FOR NUTRIENT INJECTION SYSTEM AT BUILDING 9 FORMER TANKS 9L1 AND 9L2 FROM 9 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 9, Former Tanks 9L1 and 9L2

January 9, 2001 – December 31, 2001

Naval Air Station Cecil Field
Jacksonville, Florida

Contract No. N62467-98-D-0995
Contract Task Order No. 0002

Submitted to:

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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	purgeable aromatic hydrocarbons
ppm	parts per million
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 9, 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 9, 2001, to December 31, 2001.

1.1 Objective

The objective of the remedial action at the Building 9 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 9 served as the NAS Cecil Field main fire base station from 1953 until base closure. Prior to 1953, the site served as a public works center and incorporated a transportation garage and automotive hobby shop. As such, the site contained two gasoline underground storage tanks (USTs), Tanks 9L1 and 9L2, which were removed from the site around 1985 (TtNUS June 2000). A fuel storage tank was located west of the former UST location; the removal date of this tank is unknown (Tetra Tech NUS, Inc. [TtNUS], February 1999).

A Site Assessment Report (SAR) prepared for Building 9 (Harding Lawson Associates [HLA], 1998) concluded that operation of the two former USTs had resulted in contamination of soil and groundwater with fuel-related compounds, including benzene, toluene, ethylbenzene, and xylenes (BTEX), naphthalene, acenaphthylene, and total recoverable petroleum hydrocarbons (TRPH). The SAR determined that an area of soil approximately 3,000 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 only to the shallow surficial aquifer (7 to 25 feet bls) to a depth of 20 feet bls over an area approximately 3,000 square feet in size, which coincides with the area of soil contamination.

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 9, 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 an effective microorganism population, propane is also injected as a carbon source (TtNUS, June 2000).

The Building 9 nutrient injection system consists of four 30 foot deep injection wells, labeled as CEF-9-I1 through CEF-9-I4 that are screened from 27 to 30 feet bls, and a temporary trailer containing a compressor, injection gas storage containers, and associated piping and instrumentation. 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 15 pounds per square inch gauge (psig). 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

	Period	To Date
Hours of Possible Operation	8568	8568
Hours of Actual Operation	8316	8316
Percent hours of Operation	97.1	97.1

2.2 Summary of Maintenance and System Downtime

During the period of January 9 to December 31, 2001, the nutrient injection system ran a total of 346.5 days out of a possible 357 days, resulting in 252 hours of downtime. The system downtime is the result of manual shutdowns for sampling and data collection, power outages from electrical storms, and routine equipment maintenance.

2.3 Pressure/Flow Rate Monitoring

During the first year of operation, the injection pressure at the compressors averaged 24.4 psig, compared to the design injection pressure of 15 psig. The total gas injection flow rate averaged 5.8 actual cubic feet per minute (acfm), compared to the design total gas injection flow rate of 12 to 20 acfm. The nitrous oxide injection rate averaged 0.58 actual cubic feet per hour (acfh) which is 0.17 percent by volume of air flow, compared to the design nitrous oxide injection rate of 0.07 to 0.10 percent by volume of air flow. The triethylphosphate (TEP) injection mass for the first year of operation totaled 24.7 pounds, compared to the design injection mass of 38 pounds per year. The data for the injection wells and injection system are tabulated in Tables 2-1 and 2-2, respectively.

TABLE 2-1
Injection Well Measurements

Injection Well	Date	Valve % Open	Wellhead Flow (acfm)
CEF-9-I1	01/09/2001	100	3
	02/28/2001	100	4.75
	03/30/2001	100	4
	04/13/2001	0	0
	05/10/2001	0	0
	06/07/2001	0	0
	07/02/2001	0	0
	08/06/2001	0	0
	09/11/2001	0	0
	10/03/2001	0	0
	11/15/2001	0	0
	12/10/2001	0	0
CEF-9-I2	01/09/2001	100	4
	02/28/2001	50	4
	03/30/2001	100	4
	04/13/2001	100	5
	05/10/2001	0	0
	06/07/2001	0	0
	07/02/2001	0	0
	08/06/2001	0	0
	09/11/2001	0	0
	10/03/2001	0	0
	11/15/2001	100	4
	12/10/2001	0	0
CEF-9-I3	01/09/2001	100	4
	02/28/2001	0	0
	03/30/2001	100	3
	04/13/2001	100	5
	05/10/2001	100	3
	06/07/2001	100	3
	07/02/2001	100	3
	08/06/2001	100	3
	09/11/2001	100	3
	10/03/2001	0	0
	11/15/2001	0	0
	12/10/2001	100	4
CEF-9-I4	01/09/2001	100	2.75
	02/28/2001	50	5
	03/30/2001	100	3
	04/13/2001	100	4
CEF-9-I4	05/10/2001	100	3
	06/07/2001	100	3
	07/02/2001	100	3
	08/06/2001	100	3
	09/11/2001	100	3
	10/03/2001	100	6
	11/15/2001	0	0
	12/10/2001	0	0

NR = No Reading
acfm = actual cubic feet per minute

TABLE 2-2
Injection System Data

Date	Air Supply Pressure (psig)	Total Gas Flow (acfm)	NOX Flow (acfh)	TEP Injection (pounds)
01/09/2001	NR	6.5	1	--
02/28/2001	17	6.5	0.8	1.78
03/30/2001	16	6.5	0.8	1.52
04/13/2001	19	6.5	0.8	0.00
05/10/2001	28	6	0.5	2.68
06/07/2001	28	6	0.5	3.57
07/02/2001	23	6	0.5	1.78
08/06/2001	24	6	0.5	1.78
09/11/2001	18	6	0.5	7.14
10/03/2001	35	6	0.5	1.78
11/15/2001	30	4	0.25	0.89
12/10/2001	30	4	0.25	1.78

NR = No Reading
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 top of casing elevation, depth to water measurements and calculated water level elevations are provided in Table 2-3. A map showing the groundwater flow direction as measured on December 17, 2001, is provided in Appendix A.

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

TABLE 2-3
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-9-2S	14.45	12/18/2000	78.74	no product	7.93	70.81
		01/18/2001		no product	8.55	70.19
		01/24/2001		no product	8.60	70.14
		01/31/2001		no product	8.74	70.00
		02/07/2001		no product	8.58	70.16
		02/14/2001		no product	8.72	70.02
		02/21/2001		no product	8.75	69.99
		03/07/2001		no product	8.49	70.25
		03/20/2001		no product	7.46	71.28
		04/03/2001		no product	6.99	71.75
		04/17/2001		no product	7.61	71.13
		05/01/2001		no product	8.13	70.61
		06/14/2001		no product	7.62	71.12
		07/24/2001		no product	6.62	72.12
		08/13/2001		no product	5.38	73.36
		09/17/2001		no product	3.41	75.33
		10/22/2001		no product	5.72	73.02
		11/13/2001		no product	6.50	72.24
		12/17/2001		no product	6.73	72.01
CEF-9-3S	15.54	12/18/2000	78.81	no product	8.04	70.77
		01/18/2001		no product	8.67	70.14
		01/24/2001		no product	8.72	70.09
		01/31/2001		no product	8.89	69.92
		02/07/2001		no product	8.69	70.12
		02/14/2001		no product	8.83	69.98
		02/21/2001		no product	8.87	69.94
		03/07/2001		no product	8.60	70.21
		03/20/2001		no product	7.55	71.26
		04/03/2001		no product	7.12	71.69
		04/17/2001		no product	7.72	71.09
		05/01/2001		no product	8.50	70.31
		06/14/2001		no product	7.75	71.06
		07/24/2001		no product	6.47	72.34
		08/13/2001		no product	5.50	73.31
		09/17/2001		no product	3.51	75.30
		10/22/2001		no product	5.86	72.95
		11/13/2001		no product	6.62	72.19
		12/17/2001		no product	6.87	71.94

TABLE 2-3
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-9-5S	13.72	12/18/2000	78.93	no product	8.34	70.59
		01/18/2001		no product	8.96	69.97
		01/24/2001		no product	9.03	69.90
		01/31/2001		no product	9.13	69.80
		02/07/2001		no product	8.97	69.96
		02/14/2001		no product	9.11	69.82
		02/21/2001		no product	9.10	69.83
		03/07/2001		no product	8.81	70.12
		03/20/2001		no product	7.61	71.32
		04/03/2001		no product	7.40	71.53
		04/17/2001		no product	8.02	70.91
		05/01/2001		no product	8.25	70.68
		06/14/2001		no product	7.99	70.94
		07/24/2001		no product	6.91	72.02
		08/13/2001		no product	5.78	73.15
		09/17/2001		no product	3.70	75.23
		10/22/2001		no product	6.21	72.72
		11/13/2001		no product	6.97	71.96
		12/17/2001		no product	7.17	71.76
CEF-9-7D	29.23	12/18/2000	78.59	no product	7.83	70.76
		01/18/2001		no product	8.45	70.14
		01/24/2001		no product	8.50	70.09
		01/31/2001		no product	8.63	69.96
		02/07/2001		no product	8.46	70.13
		02/14/2001		no product	8.61	69.98
		02/21/2001		no product	8.62	69.97
		03/07/2001		no product	8.36	70.23
		03/20/2001		no product	7.29	71.30
		04/03/2001		no product	6.90	71.69
		04/17/2001		no product	7.52	71.07
		05/01/2001		no product	8.02	70.57
		06/14/2001		no product	7.51	71.08
		07/24/2001		no product	6.38	72.21
		08/13/2001		no product	5.28	73.31
		09/17/2001		no product	3.25	75.34
		10/22/2001		no product	5.66	72.93
		11/13/2001		no product	6.42	72.17
		12/17/2001		no product	6.65	71.94

TABLE 2-3
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-9-9S	14.23	12/18/2000	78.89	no product	8.39	70.50
		01/18/2001		no product	8.81	70.08
		01/24/2001		no product	8.88	70.01
		01/31/2001		no product	9.00	69.89
		02/07/2001		no product	8.85	70.04
		02/14/2001		no product	8.98	69.91
		02/21/2001		no product	8.97	69.92
		03/07/2001		no product	8.72	70.17
		03/20/2001		no product	7.66	71.23
		04/03/2001		no product	7.28	71.61
		04/17/2001		no product	7.89	71.00
		05/01/2001		no product	8.38	70.51
		06/14/2001		no product	7.87	71.02
		07/24/2001		no product	6.78	72.11
		08/13/2001		no product	5.67	73.22
		09/17/2001		no product	3.63	75.26
		10/22/2001		no product	6.09	72.80
		11/13/2001		no product	6.80	72.09
		12/17/2001		no product	7.01	71.88

bls = below land surface
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. One soil boring was installed per quarter in various areas of the soil contamination plume. The most recent (fourth quarter 2001) soil boring, labeled as SB-4, was installed in the vicinity of the most contaminated groundwater monitoring well (CEF-9-9S). The soil was screened using an organic vapor analyzer (OVA) equipped with a flame ionization detector (FID) and a sample was collected for laboratory analysis. The most recent (fourth quarter 2001) OVA/FID readings are presented below in Table 3-1. The water table was encountered at 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-4	2	29	3	26
12/12/01	SB-4	4	20	3	17
12/12/01	SB-4	5	13	3	10

Note: laboratory sample collected at 2 feet bls.

The laboratory soil sample was analyzed for BTEX and MTBE by U. S. Environmental Protection Agency (EPA) Method 8021B, naphthalene and PAHs by EPA Method 8310, and total recoverable petroleum hydrocarbon (TRPH) by the Florida Petroleum Residual Organic (FL PRO) Method. The laboratory results for soil sample SB-4 indicated that TRPH was detected at a level that exceeded the Leachability and Direct Exposure Residential Soil Cleanup Target Levels (SCTLs) per Chapter 62-777 FAC except. No other constituents were above the SCTLs. A site map showing the location of SB-4 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	0.00067	<0.0011	0.00081	<.0032	0.00148	<0.0011	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	0.0565	0.055	0.019	0.035	0.077	0.039	0.073	0.056	0.113	0.18	73
	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-2	01/04/2001	<0.12	0.65	<0.12	0.53	1.18	<0.12	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	0.0285	0.056	0.01	0.027	0.065	0.022	0.062	0.046	0.055	0.0815	70
	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	<0.0013	<0.0013	<0.004	0.0049	0.0049	<0.0013	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.02	<0.02	<0.02	0.006	0.025	0.01	0.016	<0.02	0.015	0.013	21
	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-3	01/04/2001	<0.1	<0.1	0.5	4	4.5	<0.1	1.3	<0.18	<0.18	<0.18	<0.18	<0.18	<0.018	0.0425	<.018	0.017	0.042	0.02	0.042	0.028	0.041	0.0615	86
	06/27/2001	<0.0011	<0.0011	<0.0011	<0.0033	<0.0066	<0.0011	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	21
	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-4	01/04/2001	<0.11	<0.11	0.15	3.2	3.35	<0.11	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.019	0.0119	<.019	0.05	0.024	0.012	0.024	0.014	0.064	0.0275	220
	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	<0.0012	<0.0012	<0.0012	<0.0035	<0.0071	<0.0012	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.021	<0.021	<0.021	0.045	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	1100
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)
Method 8310 compounds are the average of duplicate runs
1 = Ch 62-777 SCTLs reported in mg/kg
Shaded values indicate the compounds that exceed the SCTLs
NS = Not Sampled

3.2 Groundwater Monitoring

Monitoring wells CEF-9-2S, CEF-9-3S, CEF-9-5S, CEF-9-7D, and CEF-9-9S were sampled monthly during the first year of operation. The samples were analyzed for BTEX and MTBE by U. S. Environmental Protection Agency (EPA) Method 8021B, naphthalene and PAHs by EPA Method 8310, TRPH by FL PRO Method, and nitrate, nitrite, phosphate by EPA Method 300.0. Monitoring wells CEF-9-2S and CEF-9-9S exhibited concentrations above the Groundwater Cleanup Target Levels (GCTLs) per Chapter 62-777 FAC. 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 the analytical results are summarized in Table 3-3.

Field analytical tests were performed on the five 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 monitoring well CEF-9-9S show that pH and temperature are acceptable for biological activity. The conductivity values have remained relatively constant indicating that the groundwater samples represent the same groundwater system. The dissolved oxygen level is greater than 1 mg/L, which indicates aerobic conditions. The carbon dioxide and alkalinity values are decreasing, which may indicate decreased aerobic activity. Ferrous iron values remain constant. An increase in ferrous iron may indicate anaerobic activity and a depletion of oxygen, nitrite, and manganese. Hydrogen sulfide values have fluctuated during the last 4 months after remaining relatively constant. This may indicate a reduction in natural hydrogen sulfide production.

TABLE 3-3
Groundwater Analytical Results

Well Identification	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	Nitrate	Nitrite	Phosphate	TRPH
CEF-9-2S	12/18/2000	<1.0	6.9	<1.0	1.7	8.6	NA	1.4	<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
	01/18/2001	<1.0	<1.0	<1.0	4.2	4.2	<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	0.21	<500
	01/24/2001	<1.0	1.6	<1.0	0.56	2.16	<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	0.28	<530
	01/31/2001	0.41	3.0	0.30	4.0	7.71	<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	0.31	<500
	02/07/2001	<1.0	0.98	<1.0	0.92	1.9	<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	0.11	<0.40	0.29	<500
	02/14/2001	<1.0	0.42	<1.0	0.76	1.18	<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	0.14	<0.40	0.20	220
	02/21/2001	<1.0	0.41	0.32	0.69	1.42	<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	0.11	<0.40	0.33	<500
	03/07/2001	<1.0	0.24	<1.0	0.51	0.75	<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	0.12	<.40	0.19	<530
	03/20/2001	<1.0	1.1	<1.0	0.57	1.67	<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	<0.40	0.28	<520
	04/03/2001	0.15	0.62	<1.0	0.51	1.28	<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	0.24	<0.40	0.23	<500
	04/17/2001	0.13	0.5	<1.0	<1.0	0.63	<1.0	0.6	<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	0.14	<0.40	0.17	<520
	05/01/2001	<1.0	1.2	<1.0	0.32	1.52	<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
	06/14/2001	<1.0	<1.0	<1.0	0.93	0.93	<1.0	1.1	<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	0.17	<0.40	0.36	280
	07/24/2001	<1.0	8.8	<1.0	6.7	15.5	<1.0	2.2	<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	0.3	<0.40	<1.0	1400
	08/13/2001	<1.0	7.6	<1.0	3.5	11.1	<1.0	2.5	<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	1200
	09/17/2001	<1.0	2.1	<1.0	<1.0	2.1	<1.0	1	<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	580
	10/22/2001	0.98	7.5	<1.0	0.98	9.46	<1.0	2.8	<1.0	<1.1	<1.1	<1.1	<1.1	<0.21	0.1	<0.21	<0.21	0.041	<0.21	<0.21	<0.21	<0.21	<0.21	0.16	<0.40	0.33	780
	11/13/2001	2.4	14	<1.0	2.7	19.1	<1.0	5.3	<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	0.15	<0.40	<1.0	720
	12/17/2001	1.1	21	2.1	5.6	29.8	<1.0	3.3	<1.1	<1.1	<1.0	<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	2000
CEF-9-3S	12/18/2000	18	130	8.9	170	326.9	NA	29	<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	1500
	01/18/2001	21	140	40	430	631	<1.0	20	<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	0.20	1700
	01/24/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	2.1	<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	0.21	720
	01/31/2001	<1.0	38	2.8	180	220.8	<1.0	3.6	<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	960
	02/07/2001	0.36	12	1.9	89	103.3	<1.0	0.75	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	0.039	<0.20	0.044	<0.20	<0.20	<0.20	<0.20	<0.20	0.074	<0.40	<1.0	720
	02/14/2001	0.21	8.0	2.8	53	64.01	<1.0	1.7	<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	0.24	7.2	3.7	45	56.14	<1.0	<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	0.15	<0.40	0.21	470
	03/07/2001	<1.0	<1.0	<1.0	4.6	4.6	<1.0	2.3	<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	0.20	<0.40	<1.0	440
	03/20/2001	<1.0	<1.0	<1.0	4.7	4.7	<1.0	2.0	<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	0.22	<0.40	<1.0	<270
	04/03/2001	<1.0	2.7	<1.0	3	5.7	<1.0	0.8	<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	0.25	0.063	0.18	<520
	04/17/2001	<1.0	5.9	0.95	5.6	12.45	<1.0	1.1	<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	0.16	<0.40	<1.0	300

TABLE 3-3
Groundwater Analytical Results

Well Identification	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	Nitrate	Nitrite	Phosphate	TRPH
CEF-9-3S	05/01/2001	0.65	6.2	1.9	12	20.75	<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	<1.0	600
(cont.)	06/14/2001	0.52	3.3	<1.0	4.2	8.02	<1.0	1	<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	0.19	<0.40	<1.0	780
	07/24/2001	<1.0	11	<1.0	4.4	15.4	<1.0	1.2	<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	0.24	<0.40	<1.0	540
	08/13/2001	<1.0	11	<1.0	3.2	14.2	<1.0	2.7	<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	0.2	<0.40	<1.0	760
	09/17/2001	<1.0	11	<1.0	20	31	<1.0	6	<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	1200
	10/22/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	8.3	<1.0	<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	780
	11/13/2001	<1.0	15	<1.0	5.9	20.9	<1.0	7.6	<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
	12/17/2001	<1.0	11	1.1	3.1	15.2	<1.0	4.9	<1.0	<1.1	<1.0	<1.1	<1.1	<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	440
CEF-9-5S	12/18/2000	<1.0	<1.0	<1.0	0.52	0.52	NA	<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	0.09	<0.40	<1.0	<530
	01/18/2001	0.12	<1.0	<1.0	<1.0	0.12	<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	0.31	<0.40	<1.0	<500
	01/24/2001	<1.0	0.77	0.30	2.2	3.27	<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	0.30	<0.40	<1.0	<530
	01/31/2001	0.30	<1.0	<1.0	<1.0	0.3	<1.0	<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	0.26	<0.40	<1.0	<530
	02/07/2001	0.34	0.26	<1.0	<1.0	0.6	<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	0.28	<0.40	<1.0	<500
	02/14/2001	0.84	0.66	<1.0	0.46	1.96	<1.0	<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	0.20	<0.40	<1.0	200
	02/21/2001	0.84	0.77	0.31	0.56	2.48	<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	<500
	03/07/2001	0.75	0.85	0.31	0.87	2.78	<1.0	<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	0.20	<0.40	<1.0	<530
	03/20/2001	0.10	0.11	<1.0	<1.0	0.21	<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	0.15	<0.40	<1.0	<520
	04/03/2001	0.16	<1.0	<1.0	<1.0	0.16	<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..074	<0.40	<1.0	<520
	04/17/2001	0.26	<1.0	<1.0	<1.0	0.26	<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	0.11	<0.40	<1.0	<520
	05/01/2001	<1.0	0.32	<1.0	<1.0	0.32	<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	0.22	<0.40	<1.0	<530
	06/14/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.25	<0.40	<1.0	<500
	07/24/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.2	<0.40	<1.0	<520
	08/13/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.16	<0.40	<1.0	<520
	09/17/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.32	<0.40	<1.0	<520
	10/22/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.1	<1.0	<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	0.2	<0.40	<1.0	<530
	11/13/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.2	<0.40	<1.0	<530
	12/17/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.1	<1.0	<1.0	<1.0	<1.1	<1.1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.36	<0.40	<1.0	<540
CEF-9-7D	12/18/2000	<1.0	<1.0	<1.0	<1.0	<4.0	NA	<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	0.30	<0.40	<1.0	<500
	01/18/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<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

TABLE 3-3
Groundwater Analytical Results

Well Identification	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	Nitrate	Nitrite	Phosphate	TRPH
CEF-9-7D	01/24/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<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
(cont.)	01/31/2001	0.13	<1.0	<1.0	0.37	0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<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
	02/07/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<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
	02/14/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<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
	02/21/2001	<1.0	<1.0	<1.0	0.24	0.24	<1.0	<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
	03/07/2001	<1.0	<1.0	<1.0	0.36	0.36	<1.0	<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	<530
	03/20/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<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	0.47	<1.0	<1.0	1.1	1.57	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	0.072	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.60	<0.40	<1.0	<520
	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	<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
	05/01/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<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
	06/14/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<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
	07/24/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.21	<0.40	<1.0	<520
	08/13/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<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
	09/17/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<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
	10/22/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<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	<0.40	<1.0	290
	11/13/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.1	<1.1	<1.1	<1.1	<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
	12/17/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.1	<1.0	<1.0	<1.0	<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	<530
CEF-9-9S	01/18/2001	24	210	99	640	973	<1.0	63	<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	2300
	01/24/2001	22	190	60	440	712	<1.0	45	<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
	01/31/2001	16	160	49	430	655	<5.0	57	<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	1800
	02/07/2001	8.7	160	40	360	568.7	<2.0	53	<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
	02/14/2001	16	260	74	590	940	<1.0	36	<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	2300
	02/21/2001	9.5	150	36	290	485.5	<10	50	<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	1800
	03/07/2001	27	210	82	410	729	<20	37	<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	2100
	03/20/2001	11	120	18	150	299	<5.0	45	<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	1600
	04/03/2001	14	140	36	250	440	<10	35	<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	0.081	<0.40	<1.0	870
	04/17/2001	23	200	44	370	637	<5.0	49	<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
	05/01/2001	12	210	38	310	570	<5.0	59	<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	1400
	06/14/2001	9.5	130	17	130	286.5	<10	24	1.2	<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	0.18	<0.40	0.35	1200

TABLE 3-3
Groundwater Analytical Results

Well Identification	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	Nitrate	Nitrite	Phosphate	TRPH
CEF-9-9S	07/24/2001	16	150	10	120	296	<1.0	25	3.3	7	<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	0.19	<0.40	<1.0	1200
(cont.)	08/13/2001	16	140	9.1	130	295.1	3.5	26	3.2	7.2	<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	0.2	<0.40	0.48	1500
	09/17/2001	18	150	30	290	488	2.9	23	<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	1500
	10/22/2001	1.9	6	0.67	13	21.6	<1.0	4.7	<1.1	<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	0.13	<0.40	<1.0	3100
	11/13/2001	6.8	54	2.8	44	107.6	<1.0	24	<1.1	<1.1	<1.1	<1.1	<1.1	<0.20	<0.21	<0.20	<0.21	<0.20	<0.20	<0.21	<0.20	<0.20	<0.20	<0.60	<0.40	<1.0	1700
	12/17/2001	1.8	43	<1.0	36	80.8	<1.0	32	<1.0	<1.1	<1.0	<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	1400
Groundwater Criteria [1]		1	30	40	20	n/a	50	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	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)
1 = Ch 62-777 GCTLs reported in µg/L
Shaded values indicate the compounds that exceed the GCTLs

TABLE 3-4
Groundwater Field Analytical Results

	Date	pH	Conductivity (mS/cm)	Temperature (^{o}C)	Dissolved Oxygen (mg/L)	Carbon Dioxide (mg/L)	Alkalinity as $CaCO_3$ (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)
CEF-9-2S	12/18/2000	6.19	0.192	27.20	0.0	NR	80	1.2	0.3
	01/18/2001	6.19	0.106	23.40	2.5	1000+	400+	0.0	0.3
	01/24/2001	6.41	0.650	22.30	3.9	1000+	400+	0.0	0.1
	01/31/2001	6.49	0.062	25.10	4.7	1000+	400	0.0	0.2
	02/07/2001	6.42	0.060	22.40	5.2	1000+	400+	0.2	0.1
	02/14/2001	6.30	0.070	23.00	5.8	1000+	400+	0.0	0.7
	02/21/2001	6.30	0.070	23.00	6.3	NR	NR	0.0	0.1
	03/07/2001	6.60	0.080	22.00	6.0	NR	NR	0.2	0.1
	03/20/2001	6.37	0.092	22.60	6.6	1000+	400+	0.0	0.5
	04/03/2001	6.40	0.100	23.00	6.5	>	400+	0.2	0.5
	04/17/2001	8.55	0.110	23.00	4.0	1000+	400+	0.2	0.1
	05/01/2001	6.20	0.110	23.00	3.0	1000+	400+	0.2	0.1
	06/14/2001	5.74	0.128	25.00	2.0	1000+	400+	0.0	0.1
	07/24/2001	5.71	0.144	26.4	2.1	500	120	0.6	0.1
	08/13/2001	6.11	0.153	27.8	1.9	1000+	220	0.0	0.3
	09/17/2001	5.59	0.174	27.8	1.7	180	60	1.8	0.2
	10/22/2001	6.13	0.167	27.3	1.8	1000+	400+	1.0	0.1
	11/13/2001	6.38	0.163	26.1	1.6	160	60	1.0	0.5
	12/17/2001	6.00	0.146	25.6	1.5	240	60	1.0	1.0
CEF-9-3S	12/18/2000	6.49	0.348	25.40	0.0	17	160	3.4	0.5
	01/18/2001	6.50	0.131	23.00	1.6	1000+	600	0.2	0.5
	01/24/2001	6.67	0.087	22.30	1.5	1000+	300	0.4	0.3
	01/31/2001	6.67	0.087	23.50	2.6	1000+	400	0.0	0.6
	02/07/2001	6.47	0.074	22.20	1.6	1000+	400+	1.2	0.1
	02/14/2001	6.50	0.067	22.00	2.4	1000+	400+	0.0	0.5
	02/21/2001	6.40	0.070	23.00	2.2	400	100	0.2	0.1
	03/07/2001	6.70	0.080	22.00	2.5	300	60	0.8	0.1
	03/20/2001	6.14	0.073	22.70	2.6	250	80	0.6	0.3
	04/03/2001	6.10	0.080	23.00	3.4	200	400+	0.1	0.1
	04/17/2001	5.90	0.080	23.00	1.8	160	80	0.8	0.5
	05/01/2001	6.20	0.090	24.00	1.7	120	60	1.2	0.3
	06/14/2001	5.41	0..098	26.10	1.9	228	80	1.1	2.0
	07/24/2001	6.82	0.111	27.20	3.1	120	40	2.0	2.0
	08/13/2001	6.61	0.108	27.90	2.5	84	60	2.2	0.5
	09/17/2001	6.24	0.139	28.20	2.1	60	60	1.0	0.3
	10/22/2001	6.82	0.119	27.40	1.8	120	80	1.4	0.7

TABLE 3-4
Groundwater Field Analytical Results

	Date	pH	Conductivity (mS/cm)	Temperature (^{o}C)	Dissolved Oxygen (mg/L)	Carbon Dioxide (mg/L)	Alkalinity as $CaCO_3$ (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)
CEF-9-3S	11/13/2001	6.58	0.121	26.30	0.5	100	40	1.4	0.8
	12/17/2001	5.00	0.118	25.60	1.7	100	60	1.2	1.0
	12/18/2000	6.20	0.186	22.70	0.0	10	100	0.0	0.1
	01/18/2001	6.43	0.158	22.40	3.8	1000+	400+	0.6	0.1
	01/24/2001	6.54	0.159	21.40	3.5	200	100	0.4	0.0
	01/31/2001	6.51	0.178	22.80	4.2	350	400	0.6	0.1
	02/07/2001	6.55	0.163	21.80	4.0	220	120	0.2	0.0
	02/14/2001	6.40	0.150	22.00	3.4	1000+	400+	0.0	0.2
	02/21/2001	6.40	0.150	21.00	4.5	140	100	0.2	0.1
	03/07/2001	6.57	0.141	20.90	3.3	300	80	0.2	0.0
	03/20/2001	6.20	0.130	21.00	3.5	300	160	0.1	0.1
	04/03/2001	5.90	0.070	21.00	5.7	500	120	0.4	0.1
	04/17/2001	6.10	0.080	22.00	4.3	260	100	0.9	0.1
	05/01/2001	6.10	0.110	22.00	3.4	280	100	0.4	0.1
	06/14/2001	6.11	0.119	25.20	NR	1000+	400+	0.0	3.0
	07/24/2001	5.36	0.062	25.50	3.8	260	120	1.0	0.1
	08/13/2001	6.85	0.058	26.60	3.8	1000+	180	0.0	0.1
	09/17/2001	6.57	0.164	26.50	5.5	200	80	0.6	0.1
	10/22/2001	6.27	0.074	25.90	2.5	220	80	0.8	0.1
	11/13/2001	6.71	0.075	24.90	2.1	80	60	0.4	0.1
	12/17/2001	6.00	0.072	24.20	2.9	140	40	0.6	0.0
CEF-9-7D	12/18/2000	7.45	0.264	25.20	0.1	8	85	0.0	0.1
	01/18/2001	6.69	0.133	24.40	2.0	80	100	0.4	0.1
	01/24/2001	6.29	0.079	24.20	1.9	130	100	0.6	0.0
	01/31/2001	6.29	0.092	25.40	1.0	50	60	0.1	0.1
	02/07/2001	5.93	0.057	24.20	2.4	140	60	0.2	0.0
	02/14/2001	5.90	0.050	24.00	2.6	70	40	0.2	0.1
	02/21/2001	5.80	0.050	24.00	2.4	100	40	0.4	0.0
	03/07/2001	6.10	0.060	23.30	1.9	140	40	0.6	0.0
	03/20/2001	5.47	0.049	23.60	2.4	50	40	0.3	0.1
	04/03/2001	5.40	0.050	23.00	2.8	80	40	0.4	0.1
	04/17/2001	5.30	0.050	24.00	2.7	60	40	0.6	0.0
	05/01/2001	5.50	0.050	24.00	2.5	80	40	0.8	0.0
	06/14/2001	9.82	0.047	24.40	NR	102	40	0.6	0.0
	07/24/2001	5.42	0.043	24.30	2.5	80	20	0.6	0.0
	08/13/2001	5.44	0.041	24.80	2.5	66	40	0.8	0.0

TABLE 3-4
Groundwater Field Analytical Results

	Date	pH	Conductivity (mS/cm)	Temperature (^{o}C)	Dissolved Oxygen (mg/L)	Carbon Dioxide (mg/L)	Alkalinity as $CaCO_3$ (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)
CEF-9-7D	09/17/2001	5.47	0.065	25.00	8.1	50	40	0.6	0.1
	10/22/2001	4.87	0.029	26.00	2.9	60	20	0.4	0.0
	11/13/2001	6.21	0.043	24.50	2.6	80	40	0.6	0.0
	12/17/2001	5.00	0.033	25.00	1.7	90	20	0.6	0.0
CEF-9-9S	12/18/2001	5.31	0.121	26.30	0.0	NR	NR	NR	NR
	01/18/2001	5.44	0.058	23.00	2.1	500	400+	1.0	5.0
	01/24/2001	5.53	0.054	22.60	1.7	500	200	0.8	5.0
	01/31/2001	5.44	0.059	23.30	2.1	500	400	1.1	5.0
	02/07/2001	5.46	0.052	22.60	2.4	260	100	0.6	5.0
	02/14/2001	5.40	0.050	23.00	2.0	120	140	1.0	4.0
	02/21/2001	5.40	0.050	22.00	1.9	300	80	0.6	5.0
	03/07/2001	5.56	0.540	22.00	1.5	200	80	0.6	5.0
	03/20/2001	5.28	0.052	22.30	2.3	360	80	0.4	5.0
	04/03/2001	5.00	0.060	22.00	2.4	280	160	0.3	5.0
	04/17/2001	5.00	0.060	23.00	2.2	200	100	0.6	5.0
	05/01/2001	5.20	0.060	23.00	2.2	220	60	0.4	5.0
	06/14/2001	5.02	0.064	26.00	NR	88	60	1.8	0.5
	07/24/2001	4.35	0.057	26.80	2.1	170	40	1.0	2.0
	08/13/2001	8.54	0.049	27.40	2.5	220	40	1.0	5.0
	09/17/2001	5.08	0.088	28.20	3.1	130	20	0.8	0.6
	10/22/2001	4.94	0.095	27.20	2.7	160	40	1.0	5.0
	11/13/2001	5.21	0.080	25.90	1.2	110	40	1.4	1.0
	12/17/2001	5.00	0.068	25.40	1.7	80	20	1.0	1.0

NR = No Reading

4.0 Conclusions and Recommendations

The soil screening results (soil boring SB-4) performed in the vicinity of the most contaminated groundwater monitoring well (CEF-9-9S) indicated that OVA/FID readings were less than 50 parts per million (ppm) before methane subtraction at all depths above the water table, which was encountered at 5.5 feet bls. The laboratory results for soil sample SB-4 indicated that TRPH was detected at a level that exceeded the Leachability and Direct Exposure Residential SCTLs per Chapter 62-777 FAC. No other constituents were above the SCTLs. The groundwater sampling results indicated that only monitoring wells CEF-9-9S and CEF-9-2S exhibited contaminant concentrations greater than the GCTLs during the monitoring period. The contaminant concentrations in monitoring well CEF-9-9S initially decreased during the first quarter then remained constant until the fourth quarter. Benzene, ethyl benzene, xylenes, and naphthalene concentrations in CEF-9-9S remain above the GCTLs. CEF-9-2S were reported below the GCTLs for all contaminant constituents until the fourth quarter. The low benzene concentration in monitoring well CEF-9-2S present during the fourth quarter may be due to rebound due to all injection being diverted to the area around monitoring well CEF-9-9S for the past three quarters, as discussed below. LNAPL was not noted in any monitoring well during the first year of operation.

The injection flow rates were re-balanced during the second quarter to maximize injection in the area of monitoring well CEF-9-9S by diverting all flow equally between injection wells CEF-9-I3 and CEF-9-I4 on a continuous basis (see Table 2-1). The injection flow rates remained in this configuration during the third quarter. The previous configuration was to alternate injection on 12-hour cycles between the four injection wells. During the fourth quarter, the injection rates were adjusted to divert 100 percent of the air flow to a single injection well for one month each during the quarter as follows: CEF-9-I4 (October), CEF-9-I2 (November), and CEF-9-I3 (December). Diverting all flow to a single injection well increased the radius of influence for the active injection well in an attempt to affect monitoring well CEF-9-9S. This change has caused a decrease in contaminant concentrations in CEF-9-9S during the fourth quarter.

CCI recommends continuing operation of the nutrient injection system and initially continuing to split the airflow between injection wells CEF-9-I1 and CEF-9-I3 and monitor the contaminant concentrations. The injection rates and configuration will be adjusted as needed during the upcoming quarter. All five 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. The soil screening and sampling will be conducted at soil boring location SB-4 again during the next quarter to evaluate the performance of the remediation system with respect to the soil in this location.

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.

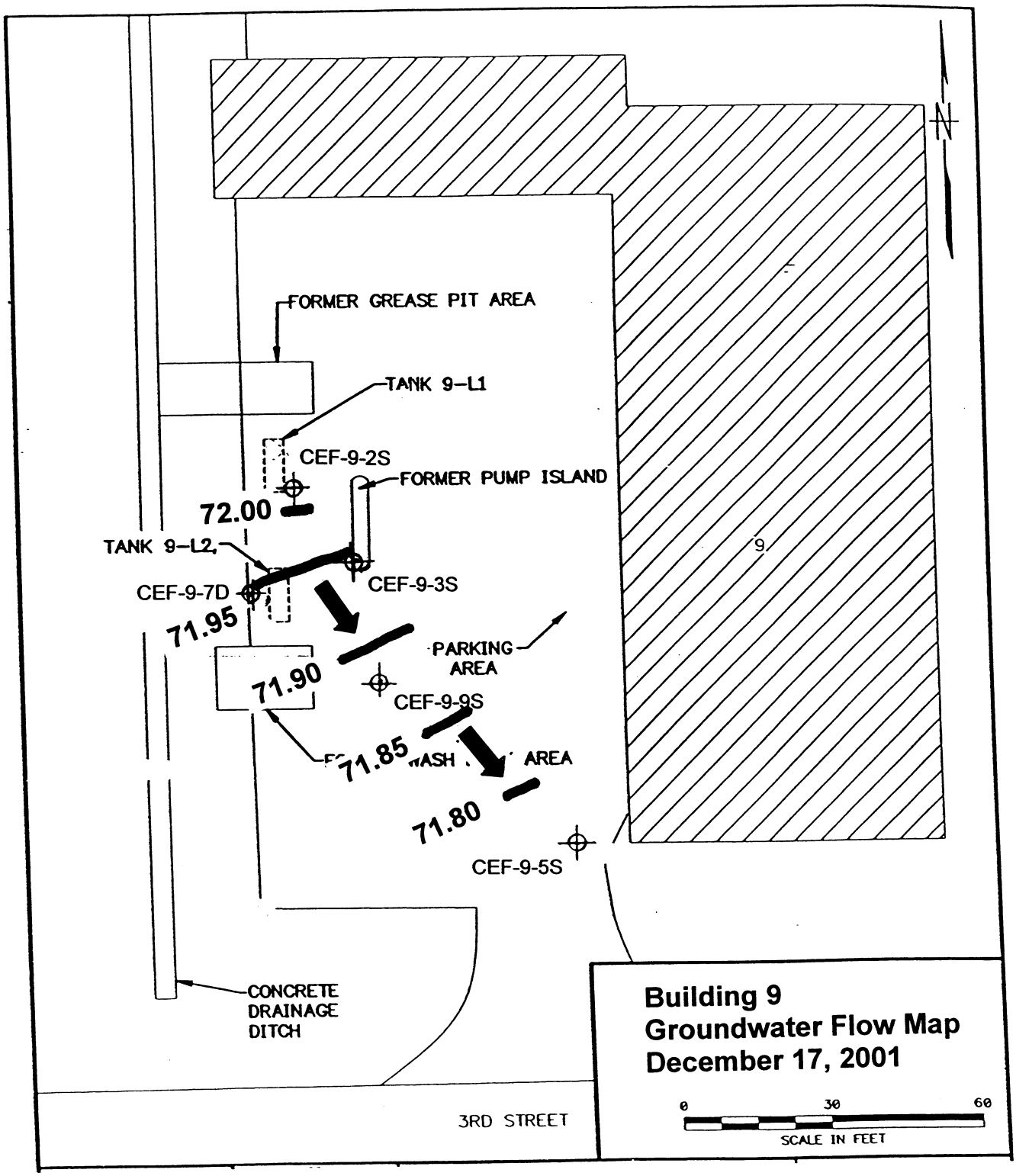
Harding Lawson Associates. 1998. Site Assessment Report, NAS Cecil Field, Jacksonville, Florida.

Priester and Associates. September 2000. PHA-ER Remediation System Design Specifications, Building 9 Site, Remedial Action Plan Addendum.

Tetra Tech NUS, Inc. June 2000. Remedial Action Plan Addendum; Building 9, Former Tanks 9L1 and 9L2; Naval Air Station Cecil Field, Jacksonville, Florida.

Appendix A

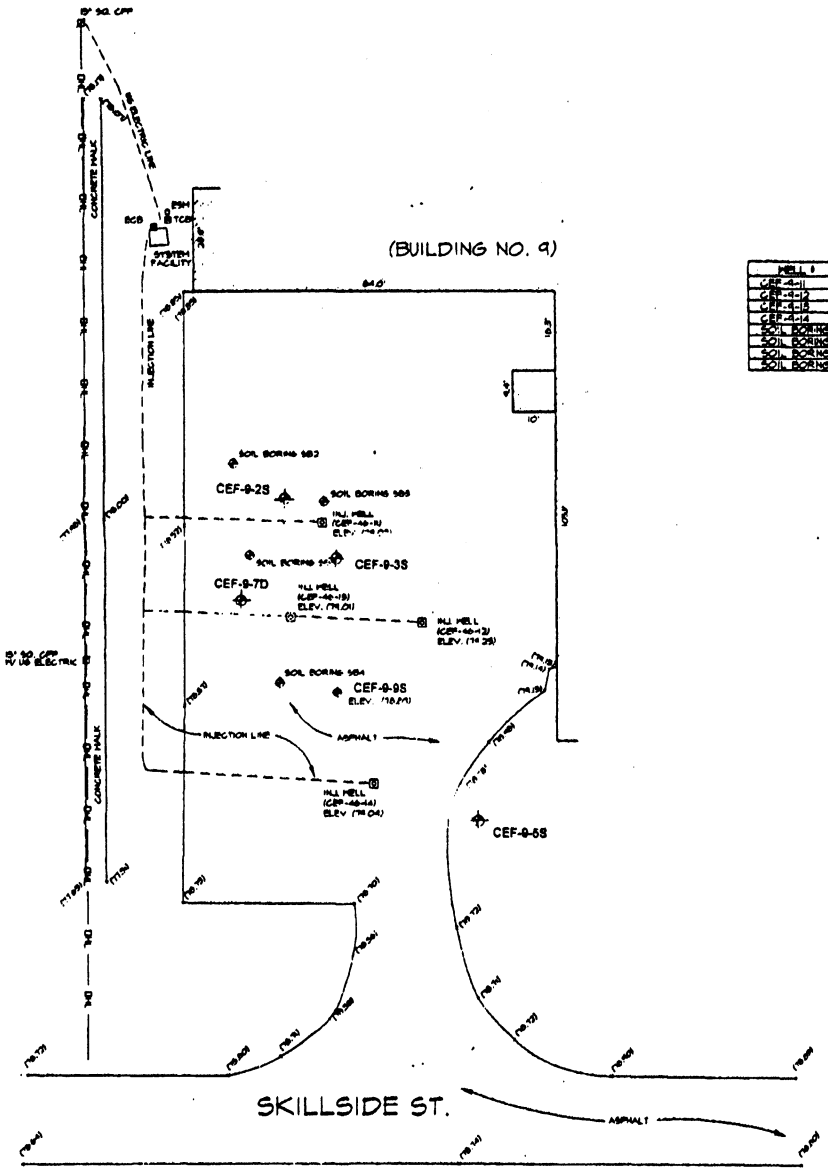
Maps



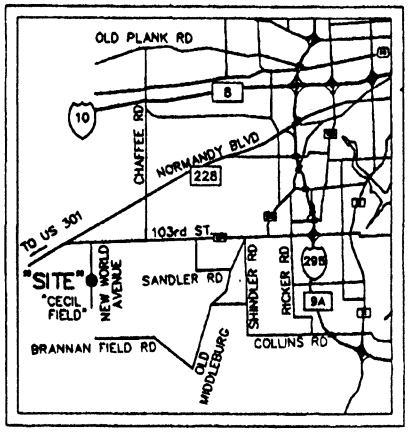
= direction of groundwater flow

MAP SHOWING SPECIFIC PURPOSE SURVEY OF

A PORTION OF SECTION 22, TOWNSHIP 3 SOUTH, RANGE 24 EAST, JACKSONVILLE HEIGHTS, PLAT BOOK 5, PAGE 93, OF THE CURRENT PUBLIC RECORDS OF DUVAL COUNTY, FLORIDA.



WELL #	NORTHING	EASTING
CEF-9-11	2142670.05	376265.68
CEF-9-12	2142646.27	376287.20
CEF-9-13	2142647.62	376256.09
CEF-9-14	2142608.87	376275.44
SOIL BORING SB1	2142662.16	376246.41
SOIL BORING SB2	2142664.15	376242.79
SOIL BORING SB3	2142673.29	376264.15
SOIL BORING SB4	2142652.16	376235.50



VICINITY MAP

NOT TO SCALE

LEGEND

BLDG - BUILDING
ELEV. - ELEVATION
INJ - INJECTION
CONC. - CONCRETE
SQ - SQUARE
CPP - CONCRETE POWER POLE
ESM - ELECTRIC SERVICE METER
TCB - TELEPHONE CONTROL BOX
ECB - ELECTRIC CONTROL BOX
US - UNDERGROUND
OHL - OVERHEAD LINE

N

SCALE: 1" = 20'

SURVEYOR'S NOTES

1) THE DESCRIPTION AS SHOWN HEREON WAS 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 AND/OR 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 (10.0) 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 SUBJECT SITE AT BUILDING 9.
8) INJECTION LINES SHOWN HEREON ARE AS PER CONTRACTOR.
ELEVATIONS ON NEW MONITORING WELLS WERE TAKEN ON NORTH TOP OF PVC CASING.

Injection Well, Monitor Well, and Soil Boring Location Map

Building 9

NAS Cecil Field

Jacksonville, Florida

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ROBERT E. HOLLAND
FL REGISTRATION NO. 4242
CHARLES R. BASSETT, JR.
FL REGISTRATION NO. 4541

DATE: JANUARY 23, 2001
WORK ORDER NO.: 264.00
PROJECT NUMBER: 17100
SHEET 1 OF 1
DRAWING NO. 17100

PARTY CHIEF: LSW COMPUTED BY: JLV CADD TECH: JLV CADD FILE: 17100AB DC FILE NO.: 17100 F.B.: - P.G.: -

Appendix B

Laboratory Analytical Reports for Soil Samples

(provided on CD)

KEMRON REPORT L0112258

Prepared for CCI / ATL

Work ID : NAS CECIL FIELD / BUILDING 9

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

L0112258

CHAIN OF CUSTODY:

The chain of custody number was 149152-180 .

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 Stepe DATE: 12/13/01

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0112258

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: The averaging % drifts option was used for the soil CCV file: 6G08851 analyzed 12/13/01 on HP6. 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: Not associated with this 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: CBN REVIEWED: [signature] DATE: 12/20/01

Rev. 6/00

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0112258

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 neither with water nor with soil sample delivery group.
SAMPLES

Samples: The soil sample fraction -01 required dilution analysis to obtain the results with in linear range of an instrument.
Surrogates: Due to the dilution analysis, the surrogate recovery of sample fraction -01 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: 12/7/01

Rev. 7/14/00

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0112258

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 02 yielded a percent recovery for benzo(g,h,i)perylene which was above the advisory limit. There was no positive result of this analyte for sample fraction 02.
Matrix Spikes: Sample fraction 01 was chosen for MS/MSD treatment. 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: 12/20/01

Rev. 7/14/00

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-CEF9-SB4-S-Q4-01	L0112258-01

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: **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-CEF9-SB4-S-Q4-01 Lab Sample ID: L0112258-01 Matrix: Soil

% Solids: 80 Initial Calibration ID: HP6 12-DEC-2001

Date Received: 13-DEC-01 Date Extracted: Date Analyzed: 13-DEC-01 14:59

Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.580	1.2	0.575	.92	ND
Ethylbenzene	0.580	1.2	0.575	.92	ND
Methyl tert-butyl ether	0.580	1.2	0.575	.92	ND
Toluene	0.580	1.2	0.575	.92	ND
Xylenes, Total	0.580	3.5	0.575	.92	ND

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	75.8	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**

AAB # : **WG110001**

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-CEF9-EQB-W-Q4-01	L0112258-02
002-CEF9-TB-W-Q4-01	L0112258-03

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 : 8021 Preparatory Method: 8021B AAB # : WG110001

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

Field Sample ID: 002-CEF9-EQB-W-Q4-01 Lab Sample ID: L0112258-02 Matrix: Water

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

Date Received: 13-DEC-01 Date Extracted: Date Analyzed: 14-DEC-01 14:33

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	103	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 # : WG110001

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

Field Sample ID: 002-CEF9-TB-W-Q4-01 Lab Sample ID: L0112258-03 Matrix: Water

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

Date Received: 13-DEC-01 Date Extracted: Date Analyzed: 14-DEC-01 15:08

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	101	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**

AAB # : **WG110051**

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-CEF9-SB4-S-Q4-01	L0112258-01

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: **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-CEF9-SB4-S-Q4-01 Lab Sample ID: L0112258-01 Matrix: Soil

% Solids: 80 Initial Calibration ID: HP2 13-DEC-2001

Date Received: 13-DEC-01 Date Extracted: 14-DEC-01 Date Analyzed: 14-DEC-01 12:31

Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	63000	130000	1100000	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 PACKAGE

Analytical Method : 8015

AAB # : WG110124

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-CEF9-EQB-W-Q4-01	L0112258-02

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

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

Field Sample ID: 002-CEF9-EQB-W-Q4-01 Lab Sample ID: L0112258-02 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 13:46

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	95.1	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 # : **WG109975**

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

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF9-SB4-S-Q4-01	L0112258-01

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: **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-CEF9-SB4-S-Q4-01 Lab Sample ID: L0112258-01 Matrix: Soil

% Solids: 80 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 13-DEC-01 Date Extracted: 13-DEC-01 Date Analyzed: 13-DEC-01 20:35

Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	6.56	210	6.56	1	ND
2-Methylnaphthalene	5.71	210	5.71	1	ND
Acenaphthene	70.0	210	70.0	1	ND
Acenaphthylene	56.3	210	56.3	1	ND
Anthracene	51.3	210	51.3	1	ND
Benzo(a)anthracene	4.75	21	4.75	1	ND
Benzo(a)pyrene	3.63	21	3.63	1	ND
Benzo(b)fluoranthene	6.00	21	6.00	1	ND
Benzo(g,h,i)perylene	4.50	21	4.50	1	ND
Benzo(k)fluoranthene	2.50	21	2.50	1	ND
Chrysene	4.75	21	23.0	1	P
Dibenzo(a,h)anthracene	5.63	21	5.63	1	ND
Fluoranthene	4.63	21	4.63	1	ND
Fluorene	71.3	210	71.3	1	ND
Indeno(1,2,3-cd)pyrene	4.00	21	4.00	1	ND
Naphthalene	78.8	210	78.8	1	ND
Phenanthrene	58.8	210	58.8	1	ND
Pyrene	4.63	21	4.63	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-CEF9-SB4-S-Q4-01 Lab Sample ID: L0112258-01 Matrix: Soil

% Solids: 80 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 13-DEC-01 Date Extracted: 13-DEC-01 Date Analyzed: 13-DEC-01 20:35

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	132	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-CEF9-SB4-S-Q4-01 Lab Sample ID: L0112258-01 Matrix: Soil

% Solids: 80 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 13-DEC-01 Date Extracted: 13-DEC-01 Date Analyzed: 13-DEC-01 20:35

Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	6.56	210	6.56	1	ND
2-Methylnaphthalene	5.71	210	5.71	1	ND
Acenaphthene	70.0	210	70.0	1	ND
Acenaphthylene	56.3	210	56.3	1	ND
Anthracene	51.3	210	51.3	1	ND
Benzo(a)anthracene	4.75	21	4.75	1	ND
Benzo(a)pyrene	3.63	21	3.63	1	ND
Benzo(b)fluoranthene	6.00	21	6.00	1	ND
Benzo(g,h,i)perylene	4.50	21	4.50	1	ND
Benzo(k)fluoranthene	2.50	21	2.50	1	ND
Chrysene	4.75	21	45.0	1	P
Dibenzo(a,h)anthracene	5.63	21	5.63	1	ND
Fluoranthene	4.63	21	4.63	1	ND
Fluorene	71.3	210	71.3	1	ND
Indeno(1,2,3-cd)pyrene	4.00	21	4.00	1	ND
Naphthalene	78.8	210	78.8	1	ND
Phenanthrene	58.8	210	58.8	1	ND
Pyrene	4.63	21	4.63	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-CEF9-SB4-S-Q4-01 Lab Sample ID: L0112258-01 Matrix: Soil

% Solids: 80 Initial Calibration ID: HPLC4 07-DEC-2001

Date Received: 13-DEC-01 Date Extracted: 13-DEC-01 Date Analyzed: 13-DEC-01 20:35

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	88.5	50 - 150	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : 8310

AAB # : WG110266

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-CEF9-EQB-W-Q4-01	L0112258-02

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: 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-CEF9-EQB-W-Q4-01 Lab Sample ID: L0112258-02 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 13:30

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	0.415	1.0	0.415	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.324	1.1	0.324	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	0.635	1.1	0.635	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.408	1.1	0.408	1	ND
Phenanthrene	0.326	1.1	0.326	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-CEF9-EQB-W-Q4-01 Lab Sample ID: L0112258-02 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 13:30

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	89.7	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA 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-CEF9-SB4-S-Q4-01	L0112258-01

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: **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-CEF9-SB4-S-Q4-01 Lab Sample ID: L0112258-01 Matrix: Soil

% Solids: 80 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	80.0	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
149152-180

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 9	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 9 / 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-CEF9-SB4-S-Q4-01	Soil Boring 4 @ 2' bls.	S	12/12/01	9:55	III/C	14	3	1	1						Grab	OVA : 26 ppm	
2	002-CEF9-EQB-W-Q4-01	Equipment Blank	W	12/12/01	9:40	III/C	14	2	2	2								
3	002-CEF9-TB-W-Q4-01	Trip Blank	W	–	–	III/C	14	2										
4		Temperature Blank	W	–	–						1							
5																		
6																		
7																		
8																		
9																		
10																		

SAMPLER(S) AND COMPANY: (please print)
Randy Dumaop / Sean Smith
J.A. Jones Environmental Services

COURIER AND SHIPPING NUMBER:
Federal Express Track #791729820500 .

C/C dated Sub contact cooler temp 1.69

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature: Randy Dumaop	12/12/01	17:00	Printed Name and Signature: 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

KEMRON Internal Laboratory Chain of Custody

Work Order: 1011225B **Client:** CCI **# of Samples:** 3 **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
01A	8310	EXT	CEB 12/13/01 @1254	WALK-IN	ENAB	BLG	CEB 12/13/01 @1310	WALK-IN	BLG	STORAGE
01	BTME	ANAL	CEB 12/13/01 @1255	LOGIN	ORG-3	BLG	BLG 12/27/01 @1500	Archive	BLG	Archive
2,03	"	"	"	"	"	BLG	"	"	"	"
01A	FLA-PRO	EXT	AM 12/14/01 @0810	WALKIN	SMB	DKW	CEB 12/14/01 @1100	WALK-IN	BLG	HOLD
01	PCT-S	test	Tmm 12/14 @910	walkin	wt	BLG	Tmm @1545 12/14/01	walkin	BLG	Hold
2,4A Rec 12/17	FLA-PRO	EXT	AM 12/17/01 @0700	WALKIN	SMB	CEB	CEB 12/18/01 @0730	Gusher	AM	Disposal
02A	8310	EXT	AM 12/17/01 @0850	WALKIN	SMB	BLG	"	"	AM	"
01	—	Archive-2	BLG 12/27/01 @1000	WALKIN	Archive	BLG	—	—	—	—

CRF #5

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	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
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

CTC 002-CEF9-TB-W-Q4-01 ~ Vials "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 2

PROJECT: NAS Cecil Field / Bldg 9 LIMS# L0112258

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: L0112258

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: The averaging % drifts option was used for the soil CCV file: 6G08851 analyzed 12/13/01 on HP6. 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: Not associated with this 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: CBN REVIEWED: _____ DATE: 12/20/01

Rev. 6/00

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BETX-GC DATA (8021)

Login Number: ~~L0112183~~ L0112258
12/20/01

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:** 12/26/01

2.1.3.1 QC Summary

METHOD BLANK SUMMARY

Login Number: L0112258
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-CEF9-SB4-S-Q4-01	L0112258-01	6G08842	12/13/01 14:59	

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0112258 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

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Version 1.1
Report generated 12/20/2001 11:12

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0112258 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

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SURROGATE STANDARDS

Login Number: L0112258
Instrument Id: HP6
Workgroup (AAB#): WG109922

Method: 8021
Matrix: SOLID

Sample Numbe	Dilution	Tag	1
L0112258-01	0.920		75.8

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

Underline = Result out of surrogate limits

DL = surrogate diluted out

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Version 1.1
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Method: 8021S.M
Title: METHOD 8021 SOIL - 12/12/01
Last Calibration: Wed Dec 12 15:05:02 2001

Calibration Files

Compound	1 6G08809.D	10 6G08811.D	20 6G08812.D	50 6G08813.D	100 6G08814.D	200 6G08815.D	300 6G08816.D	Avg	%RSD
MTBE	13854.581	12671.610	11106.348	17516.055	12902.814	11395.697	15335.218	13540.300	16.736
Benzene	137242.566	148556.298	119298.964	142650.716	124090.326	118977.184	132720.625	131934.000	8.801
TFT	39523.873	42982.745	40573.360	49131.892	43568.254	46276.056	48746.472	44400.400	8.523
Toluene	129940.473	122023.834	113755.791	132559.373	118993.452	122300.998	127267.355	123834.000	5.273
Chlorobenzene	128315.892	125640.916	117423.982	135366.172	122117.440	124510.937	127307.358	125812.000	4.420
Ethylbenzene	114637.866	119025.608	109870.931	124188.020	112441.627	109506.346	111973.383	114521.000	4.666
m-,p-Xylene	147639.899	146620.268	136445.294	147063.330	136332.664	134744.059	134210.589	140437.000	4.485
o-Xylene	128367.473	122465.203	116430.730	124384.125	115769.868	115458.938	115281.033	119737.000	4.424
BFB	103924.152	107344.563	108241.815	113423.041	106519.118	107625.830	106993.946	107725.000	2.662
1,3-Dichlorobenzene	156547.686	117539.942	112407.355	111852.258	106749.064	111511.084	108623.310	117890.000	14.740
1,4-Dichlorobenzene	156547.686	117539.942	112407.355	111852.258	106749.064	111511.084	108623.310	117890.000	14.740
1,2-Dichlorobenzene	88918.055	90160.379	86265.750	86302.456	82428.020	86455.560	84002.630	86361.800	3.064
BCB	120213.281	97837.610	99576.483	97071.626	93456.809	100363.447	95435.785	100565.000	8.927

Thu Dec 20 11:19:59 2001

Login Number: L0112258
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	*

Login Number: L0112258
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	

Login Number: L0112258
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	

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Login Number: L0112258
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	*

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 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	
6	6	6G08810.D	1.		WG109832-01 8021 STD1 1PPB 5G ANR	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 10:
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 11:
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 12:
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 13:
14	1	6G08818.D	1.		WG109894-01 SOIL BLANK 5G ✓	7,1 S-88-05	12 Dec 2001 14:
15	2	6G08819.D	1.		WG109894-02 SOIL LCS 20PPB 5G ✓	7,1 S-87-37,88-05	12 Dec 2001 16:
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 17:
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 18:
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 19:
22	7	6G08826.D	1.		L0112142-02 5G	7,1 S-88-05	12 Dec 2001 20:
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 21:
							12 Dec 2001 22:

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

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 07:16
3	3	6G08831.D	1.	WG109922-02 SOIL LCS 20PPB 5G	7,1 S-87-37,88-05	13 Dec 2001 07:48
4	1	6G08832.D	1.	WG109922-03 L0112129-03 5G ✓	7,1 S-88-05	13 Dec 2001 08:21
5	2	6G08833.D	1.	WG109922-04 L0112129-03 MS 5G ✓	7,1 S-87-37,88-05	13 Dec 2001 09:16
6	3	6G08834.D	1.	WG109922-05 L0112129-03 MSD 5G ✓	7,1 S-87-37,88-05	13 Dec 2001 09:49
7	4	6G08835.D	5.	L0112129-07 5X 1G ✓	7,5 S-88-05	13 Dec 2001 10:21
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	7,0.92 S-88-05	13 Dec 2001 15:31
17	5	6G08845.D	1.	5035 METHOD BLANK A 5G ✓	7,0.90 S-88-05	13 Dec 2001 16:04
18	6	6G08846.D	5.	L0112173-19 1G 5X ✓	7,1 S-88-05	13 Dec 2001 16:36
19	7	6G08847.D	1.	L0112173-39 5G ✓	7,5 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

L0112259-03

FILE #

KEMRON ENVIRONMENTAL SERVICES

METHOD BLANK SUMMARY

Login Number: L0112258
Work Group: WG110001
Blank File ID: 11G12852
Blank Sample ID: WG110001-01
Date Analyzed: 12/14/01
Instrument ID: HP11
Time Analyzed: 07:50
Method: 8021
Analyst: CBN

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG110001-02	11G12853	12/14/01 08:25	
002-CEF9-EQB-W-Q4-01	L0112258-02	11G12863	12/14/01 14:33	
002-CEF9-TB-W-Q4-01	L0112258-03	11G12864	12/14/01 15:08	

KEMRON FORMS - Modified 10/11/2001
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KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0112258 Run Date: 12/14/2001 Sample ID: WG110001-01
Instrument ID: HP11 Run Time: 07:50 Method: 8021B
File ID: 11G12852 Analyst: CBN Matrix: Water
Workgroup (AAB#): WG110001 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	0.500	1.00	ND

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	103	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 12/20/2001 11:12

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KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0112258 Run Date: 12/14/2001 Sample ID: WG110001-02
Instrument ID: HP11 Run Time: 08:25 Method: 8021B
File ID: 11G12853 Analyst: CBN Matrix: Water
Workgroup (AAB#): WG110001 Units: ug/L
Contract #: Cal ID: HP11-13-DEC-2001

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	20.4	102	34 - 150	
Benzene	20	20.1	100	79 - 120	
Toluene	20	19.9	99.4	80 - 120	
Ethylbenzene	20	20.3	101	80 - 120	
Total xylenes	60	59.3	98.8	78 - 120	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	107	70 - 130	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 12/06/2001
Version 1.1
Report generated 12/20/2001 11:12

SURROGATE STANDARDS

Login Number: L0112258 Method: 8021

Instrument Id: HP11 Matrix: WATER

Workgroup (AAB#): WG110001

Sample Numbe	Dilution	Tag	1
L0112258-02	1.00		103
L0112258-03	1.00		101

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 12/20/2001 11:13

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	61628.219	60981.202	59414.488	62474.288	64034.004	62521.108	62711.857	61966.500	2.375
Benzene	147603.681	159810.455	159151.375	158266.714	161749.776	161826.193	157879.197	158041.000	3.072
TFT	43510.578	49401.847	49398.326	49787.605	49971.490	49545.498	48808.466	48632.000	4.704
Toluene	146715.762	151626.884	152542.351	154573.914	150923.419	151646.020	147988.172	150860.000	1.780
Chlorobenzene	141357.377	158279.050	157855.417	159708.384	162554.479	162565.502	160856.464	157597.000	4.696
Ethylbenzene	128153.444	137969.176	136422.049	135450.539	136319.119	135776.149	133907.335	134857.000	2.370
m-,p-Xylene	163153.638	173051.154	166291.603	161297.192	161711.571	159890.978	157122.162	163217.000	3.167
o-Xylene	135092.980	148190.697	144198.159	140977.685	141690.197	141372.663	139156.171	141526.000	2.869
BFB	116287.667	133619.986	137285.773	142724.570	145859.413	142880.209	143407.706	137438.000	7.432
1,3-Dichlorobenzene	129687.968	135946.148	138116.619	138597.032	143828.518	146382.901	143765.515	139475.000	4.097
1,4-Dichlorobenzene	141174.759	150984.101	148049.515	147259.371	148698.266	150030.687	147395.922	147656.000	2.145
1,2-Dichlorobenzene	117537.214	128548.877	121765.231	126882.470	127836.603	124686.626	121878.859	124162.000	3.209
DCB	110104.631	122939.501	131780.919	130656.894	141296.237	139517.570	140859.698	132165.000	8.884

Thu Dec 20 11:20:27 2001

Login Number: L0112258
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	

Login Number: L0112258
File ID: 11G12851
CCV ID: WG110000-01
Units: ug/L

Instrument ID: HP11
Run Date: 12/14/2001
Run Time: 07:05
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	18.7	138000	6.5	
1,3-Dichlorobenzene		20	19.0	133000	5.0	
o-Xylene		20	20.0	142000	0.0	
m-,p-Xylene		40	40.8	166000	2.0	
Ethylbenzene		20	20.6	139000	3.0	
Chlorobenzene		20	19.7	155000	1.5	
Toluene		20	20.4	154000	2.0	
Benzene		20	20.2	159000	1.0	
MTBE		20	22.2	68800	11.0	

Login Number: L0112258
File ID: 11G12862
CCV ID: WG110000-02
Units: ug/L

Instrument ID: HP11
Run Date: 12/14/2001
Run Time: 13:48
Analyst: CBN
Cal ID: HP11 - 13-DEC-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	20.4	126000	2.0	
1,4-Dichlorobenzene		20	19.7	145000	1.5	
1,3-Dichlorobenzene		20	19.0	132000	5.0	
o-Xylene		20	19.7	139000	1.5	
m-,p-Xylene		40	40.1	164000	0.3	
Ethylbenzene		20	20.4	138000	2.0	
Chlorobenzene		20	19.6	155000	2.0	
Toluene		20	20.0	151000	0.0	
Benzene		20	20.4	161000	2.0	
MTBE		20	19.6	60900	2.0	

Login Number: L0112258
File ID: 11G12873
CCV ID: WG110000-03
Units: ug/L

Instrument ID: HP11
Run Date: 12/14/2001
Run Time: 20:22
Analyst: CBN
Cal ID: HP11 - 13-DEC-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	19.9	124000	0.5	
1,4-Dichlorobenzene		20	18.7	138000	6.5	
1,3-Dichlorobenzene		20	18.8	131000	6.0	
o-Xylene		20	19.5	138000	2.5	
m-,p-Xylene		40	39.6	162000	1.0	
Ethylbenzene		20	20.2	136000	1.0	
Chlorobenzene		20	19.4	153000	3.0	
Toluene		20	19.9	150000	0.5	
Benzene		20	19.5	154000	2.5	
MTBE		20	20.1	62300	0.5	

Injection Log

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

WG 109919
1 31
68

ANALYST: C

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g12818.d	1.	WG109919-01 8021 STD 20PPB 5ML ecsd	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 08
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 START	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\121401

Injection Log

WG 110001

ANALYST: CB

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g12851.d	1.	WG110000-01 8021 STD 20PPB 5ML ✓		14 Dec 2001 07:
2	2	11g12852.d	1.	WG110001-01 WATER BLANK 5ML ✓	1,1 S-87-(37,23)	14 Dec 2001 07:
3	3	11g12853.d	1.	WG110001-02 WATER LCS 20PPB... ✓	1,1 S-87-23	14 Dec 2001 08:
4	1	11g12854.d	1.	WG110001-03 L0112173-53 A 5ML ✓	1,1 S-87-(37,23)	14 Dec 2001 09:
5	2	11g12855.d	1.	WG110001-04 L0112173-53 MS ... ✓	1,1 S-87-23	14 Dec 2001 09:
6	3	11g12856.d	1.	WG110001-05 L0112173-53 MSD... ✓	1,1 S-87-(37,23)	14 Dec 2001 10:
7	4	11g12857.d	1.	L0112172-04 B 5ML ✓	1,1 S-87-(37,23)	14 Dec 2001 10:
8	5	11g12858.d	5.	L0112170-01 B 1ML 5X ✓	1,1 S-87-23	14 Dec 2001 11:
9	6	11g12859.d	1.	L0112170-02 B 5ML ✓	1,5 S-87-23	14 Dec 2001 12:
10	7	11g12860.d	1.	L0112183-16 A 5ML ✓	1,1 S-87-23	14 Dec 2001 12:
11	8	11g12861.d	1.	L0112262-17 A 5ML ✓	1,1 S-87-23	14 Dec 2001 13:
12	9	11g12862.d	1.	WG110000-02 8021 STD 20PPB 5ML ✓	1,1 S-87-(37,23)	14 Dec 2001 13:
13	1	11g12863.d	1.	L0112258-02 A 5ML pH<2 ✓	1,1 S-87-23	14 Dec 2001 14:
14	2	11g12864.d	1.	L0112258-03 A 5ML pH<2 ✓	1,1 S-87-23	14 Dec 2001 15:
15	3	11g12865.d	1.	L0112262-18 A 5ML pH<2 ✓	1,1 S-87-23	14 Dec 2001 15:
16	4	11g12866.d	1.	L0112263-22 A 5ML pH<2 ✓	1,1 S-87-23	14 Dec 2001 16:
17	5	11g12867.d	1.	L0112262-12 A 5ML pH<2 ✓	1,1 S-87-23	14 Dec 2001 16:
18	6	11g12868.d	1.	L0112289-01 A 5ML pH<2 ✓	1,1 S-87-23	14 Dec 2001 17:
19	7	11g12869.d	1.	L0112289-02 A 5ML pH<2 ✓	1,1 S-87-23	14 Dec 2001 18:
20	8	11g12870.d	1.	L0112289-03 A 5ML pH<2 ✓	1,1 S-87-23	14 Dec 2001 18:
21	9	11g12871.d	1.	L0112289-04 A 5ML pH<2 ✓	1,1 S-87-23	14 Dec 2001 19:
22	10	11g12872.d	20.	L0112289-05 A 5ML pH<2 20X ✓	1,20 S-87-23	14 Dec 2001 19:
23	11	11g12873.d	1.	WG110000-03 8021 STD 20PPB 5ML ✓	1,1 S-87-(37,23)	14 Dec 2001 20:
24	12	11g12874.d	1.	L0112289-06 A 5ML pH<2 ✓	1,1 S-87-23	14 Dec 2001 20:
25	13	11g12875.d	1.	L0112289-07 A 5ML pH<2 ✓	1,1 S-87-23	14 Dec 2001 21:
26	14	11g12876.d	50.	L0112289-08 A 5ML pH<2 50X RR @ 1000R	1,50 S-87-23	14 Dec 2001 22:
27	15	11g12877.d	1.	L0112289-09 A 5ML pH<2 RR c/o	1,1 S-87-23	14 Dec 2001 22:
28	16	11g12878.d	1.	WG110000-04 8021 STD 20PPB 5ML ✓	1,1 S-87-(37,23)	14 Dec 2001 23:

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

Instrument: HP11 **Work Group:** WG 110001

	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: QJS 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: _____

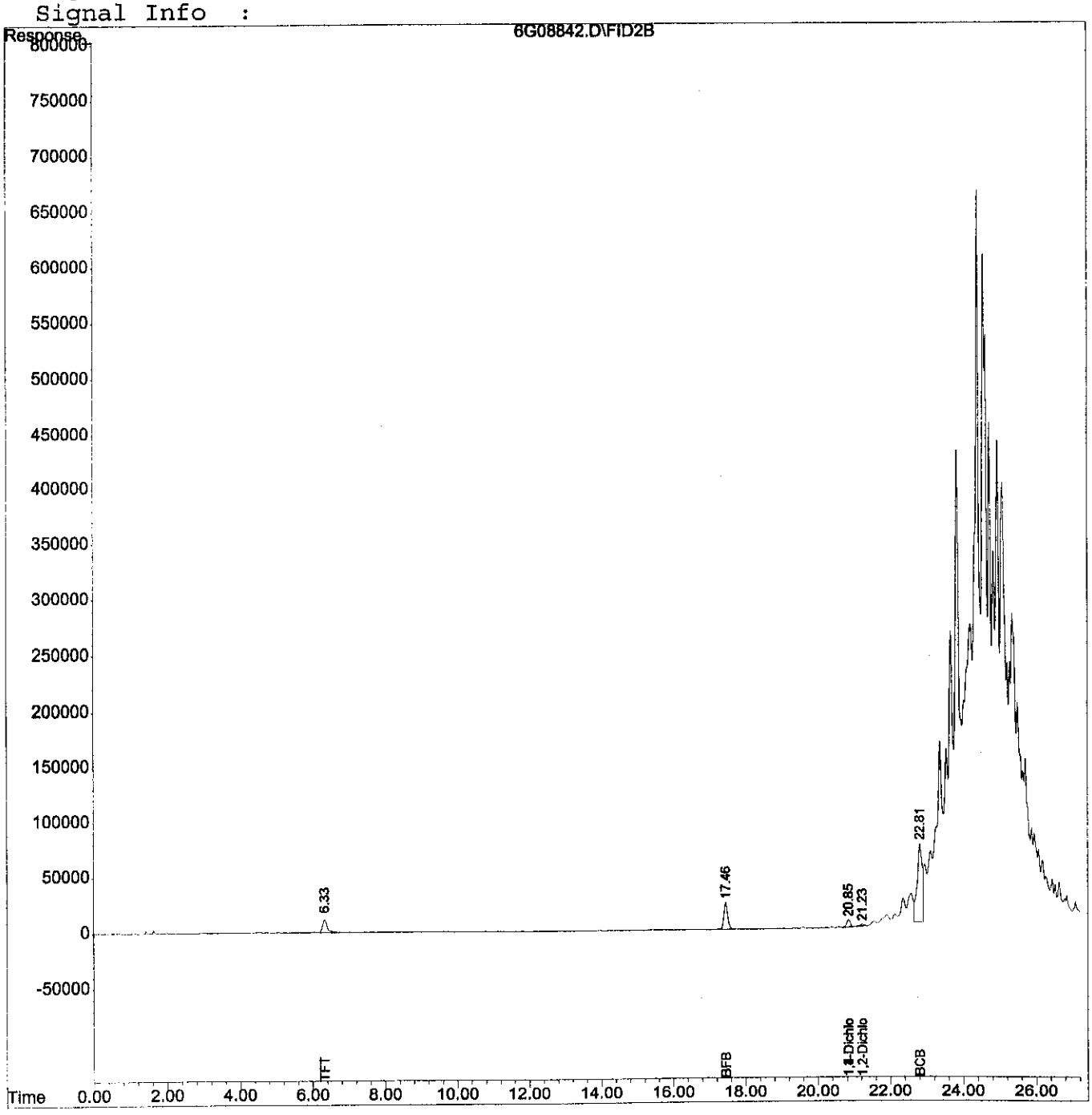
✓ = Checked & OK
NA = Not Applicable

2.1.3.2 Sample Data

Data File : C:\HPCHEM\1\DATA\121301\6G08842.D Vial: 2
Acq On : 13 Dec 2001 14:59 Operator: CBN
Sample : L0112258-01 A 5.42G 0.92X Inst : HP6
Misc : 7,0.92 S-88-05 Multiplr: 0.92
IntFile : autoint1.e
Quant Time: Dec 13 15:26 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 :



Data File : C:\HPCHEM\1\DATA\121301\6G08842.D Vial: 2
Acq On : 13 Dec 2001 14:59 Operator: CBN
Sample : L0112258-01 A 5.42G 0.92X Inst : HP6
Misc : 7,0.92 S-88-05 Multiplr: 0.92
IntFile : autoint1.e
Quant Time: Dec 13 15:26 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 :

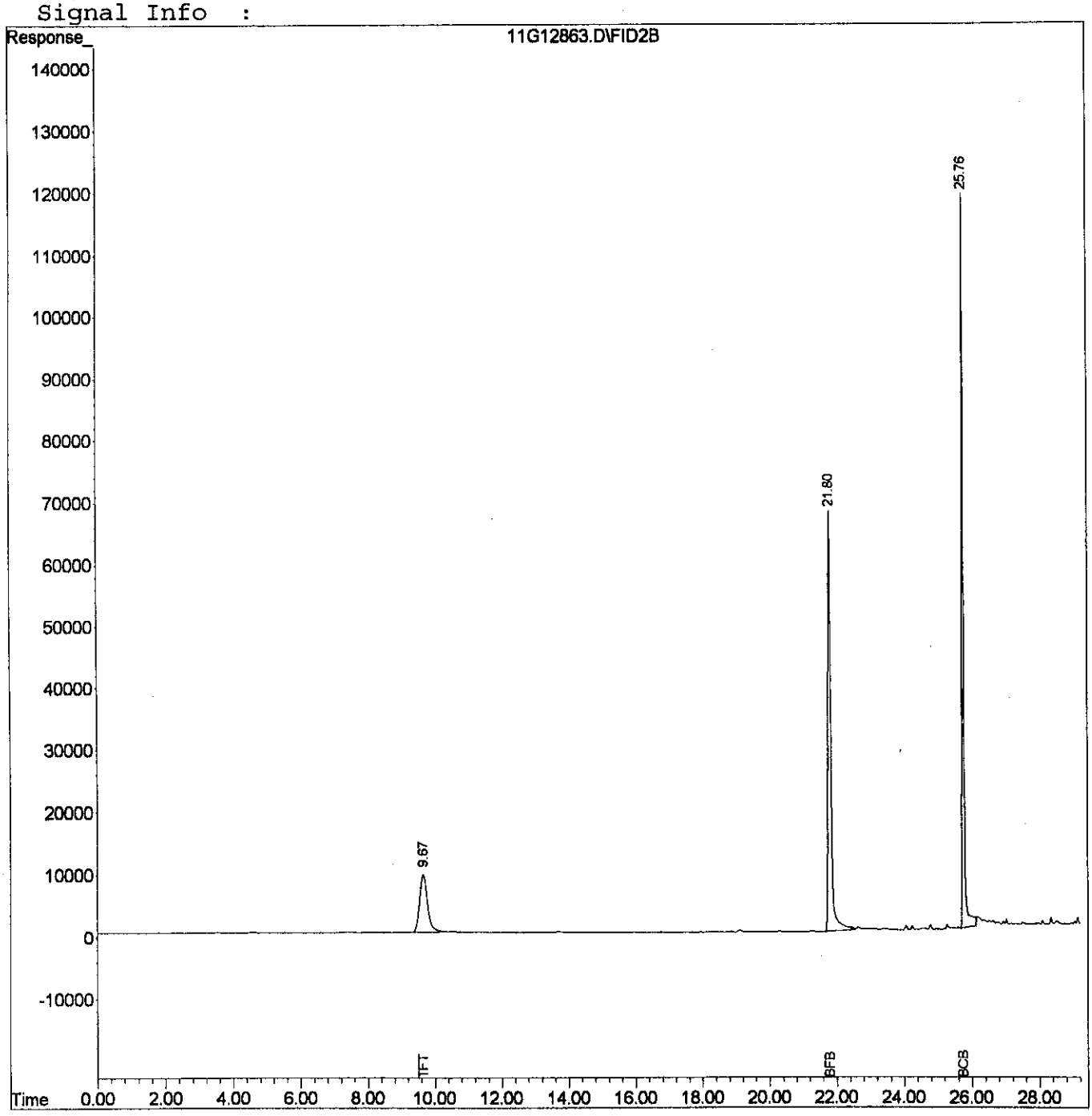
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			6.34	1009989	22.7473 UG/KG ✓
Spiked Amount	30.000	Range	47 - 121	Recovery =	75.82%
9) S BFB			17.46	1780307	16.5265 UG/KG
Spiked Amount	30.000	Range	70 - 130	Recovery =	55.09%#
13) S BCB			22.82	6761282	67.2330 UG/KG
Spiked Amount	30.000	Range	37 - 137	Recovery =	224.11%#
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			9.62	26143	<MDL 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	48158	<MDL UG/KG
8) TM o-Xylene			0.00	0	N.D. UG/KG
10) TM 1,3-Dichlorobenzene			20.85	437531	~~3.4144 UG/KG~~
11) TM 1,4-Dichlorobenzene			20.85	437531	~~3.4144 UG/KG~~
12) TM 1,2-Dichlorobenzene			21.23	126951	~~1.3524 UG/KG~~

(f)=RT Delta > 1/2 Window (m)=manual int.
6G08842.D 8021S.M Thu Dec 13 15:26:28 2001 Page 1

Data File : C:\HPCHEM\1\DATA\121401\11G12863.D Vial: 1
Acq On : 14 Dec 2001 2:33 pm Operator: CBN
Sample : L0112258-02 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-87-23 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 14 15:02 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 :



Data File : C:\HPCHEM\1\DATA\121401\11G12863.D Vial: 1
Acq On : 14 Dec 2001 2:33 pm Operator: CBN
Sample : L0112258-02 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-87-23 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 14 15:02 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 :

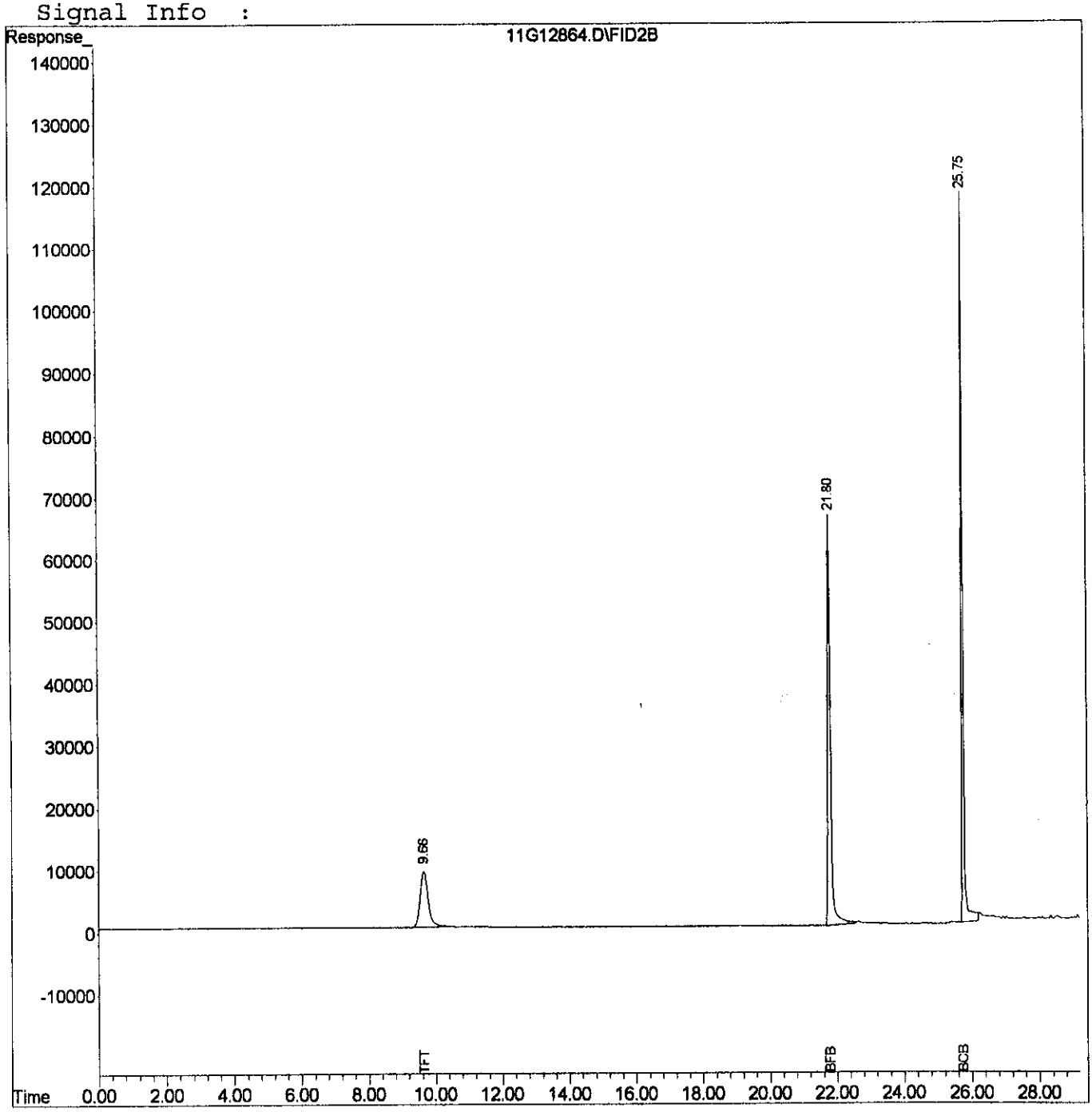
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.67	1503320	30.9122 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 103.04%
9) S BFB			21.80	4027413	29.3035 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 97.68%
13) S BCB			25.76	3844701	29.0901 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 96.97%
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			0.00	0	N.D. UG/L
5) TM Chlorobenzene			0.00	0	N.D. UG/L
6) TM Ethylbenzene			19.12	25892	<MDL UG/L
7) TM m-,p-Xylene			19.12	25892	<MDL UG/L
8) TM o-Xylene			0.00	0	N.D. UG/L
10) T 1,3-Dichlorobenzene			24.06	23749	<MDL UG/L
11) T 1,4-Dichlorobenzene			24.25	20341	<MDL UG/L
12) T 1,2-Dichlorobenzene			24.78	25369	<MDL UG/L

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

Data File : C:\HPCHEM\1\DATA\121401\11G12864.D Vial: 2
Acq On : 14 Dec 2001 3:08 pm Operator: CBN
Sample : L0112258-03 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-87-23 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 14 15:37 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 :



Data File : C:\HPCHEM\1\DATA\121401\11G12864.D Vial: 2
Acq On : 14 Dec 2001 3:08 pm Operator: CBN
Sample : L0112258-03 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-87-23 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 14 15:37 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			9.66	1472405	30.2765 UG/L ✓
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 100.92%
9) S BFB			21.80	3946266	28.7131 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 95.71%
13) S BCB			25.75	3890803	29.4390 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 98.13%
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			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) T 1,3-Dichlorobenzene			0.00	0	N.D. UG/L
11) T 1,4-Dichlorobenzene			0.00	0	N.D. 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: 8021S.M
Title: METHOD 8021 SOIL - 12/12/01
Last Calibration: Wed Dec 12 15:05:02 2001

Calibration Files

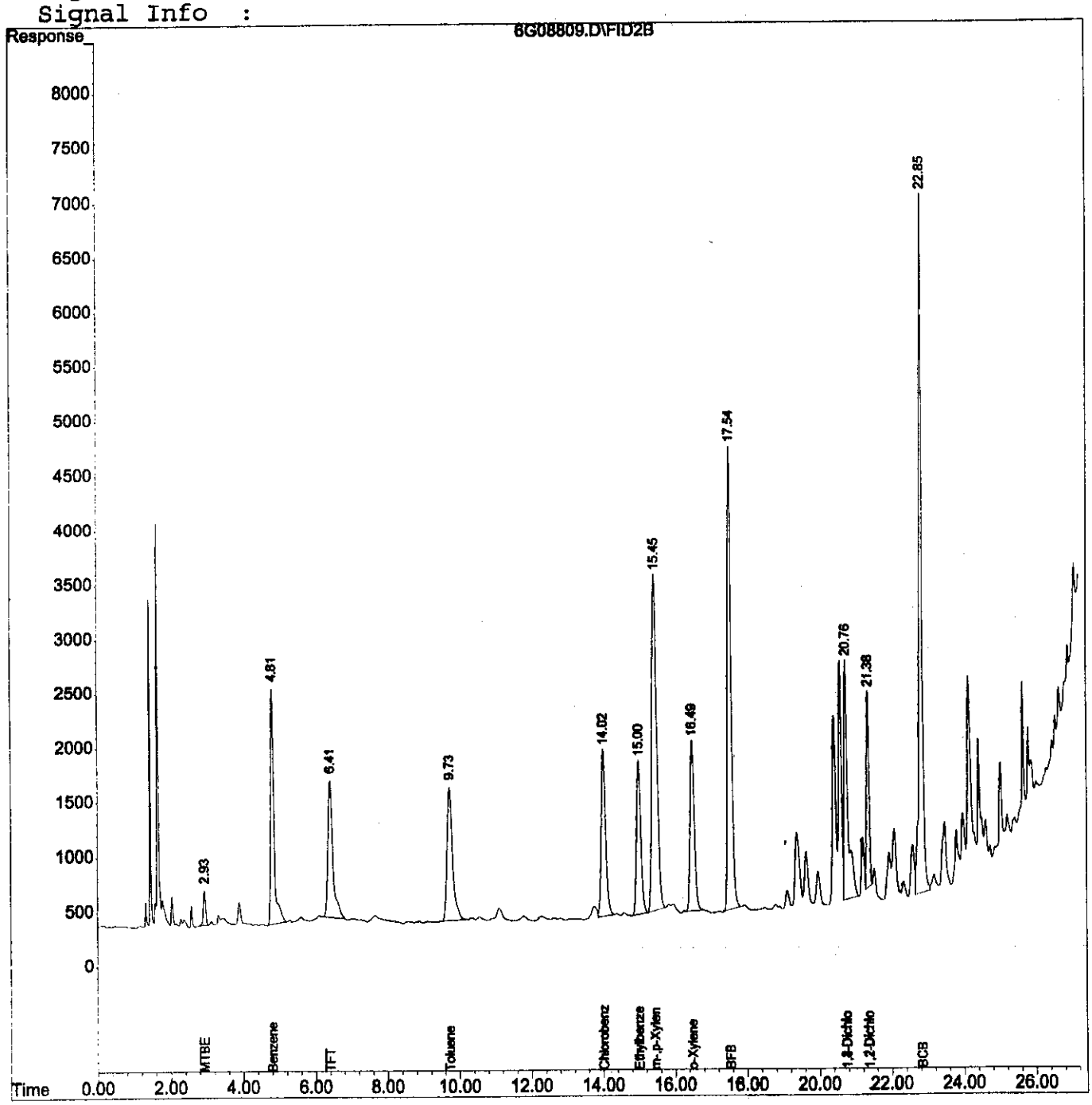
Compound	1 6G08809.D	10 6G08811.D	20 6G08812.D	50 6G08813.D	100 6G08814.D	200 6G08815.D	300 6G08816.D	Avg	%RSD
MTBE	13854.581	12671.610	11106.348	17516.055	12902.814	11395.697	15335.218	13540.300	16.736
Benzene	137242.566	148556.298	119298.964	142650.716	124090.326	118977.184	132720.625	131934.000	8.801
TFT	39523.873	42982.745	40573.360	49131.892	43568.254	46276.056	48746.472	44400.400	8.523
Toluene	129940.473	122023.834	113755.791	132559.373	118993.452	122300.998	127267.355	123834.000	5.273
Chlorobenzene	128315.892	125640.916	117423.982	135366.172	122117.440	124510.937	127307.358	125812.000	4.420
Ethylbenzene	114637.866	119025.608	109870.931	124188.020	112441.627	109506.346	111973.383	114521.000	4.666
m-,p-Xylene	147639.899	146620.268	136445.294	147063.330	136332.664	134744.059	134210.589	140437.000	4.485
o-Xylene	128367.473	122465.203	116430.730	124384.125	115769.868	115458.938	115281.033	119737.000	4.424
BFB	103924.152	107344.563	108241.815	113423.041	106519.118	107625.830	106993.946	107725.000	2.662
1,3-Dichlorobenzene	156547.686	117539.942	112407.355	111852.258	106749.064	111511.084	108623.310	117890.000	14.740
1,4-Dichlorobenzene	156547.686	117539.942	112407.355	111852.258	106749.064	111511.084	108623.310	117890.000	14.740
1,2-Dichlorobenzene	88918.055	90160.379	86265.750	86302.456	82428.020	86455.560	84002.630	86361.800	3.064
BCB	120213.281	97837.610	99576.483	97071.626	93456.809	100363.447	95435.785	100565.000	8.927

Thu Dec 20 11:19:59 2001

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 :



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 :

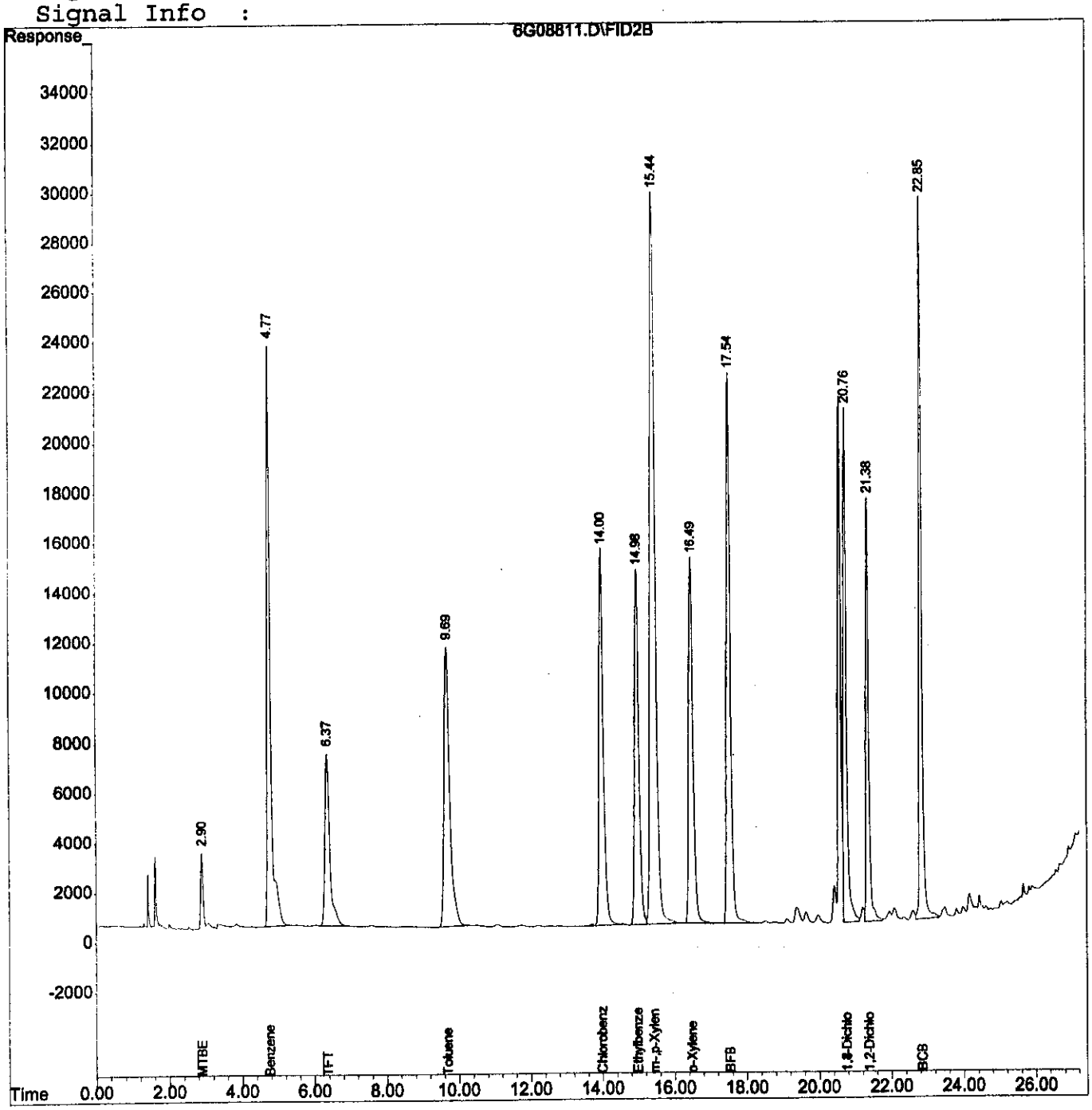
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			6.41	118572	2.4406 UG/KG
Spiked Amount	30.000	Range	47 - 121	Recovery =	8.14%#
9) S BFB			17.55	311772	2.7824 UG/KG
Spiked Amount	30.000	Range	70 - 130	Recovery =	9.27%#
13) S BCB			22.85	360640	3.6049 UG/KG
Spiked Amount	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.

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 :



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 :

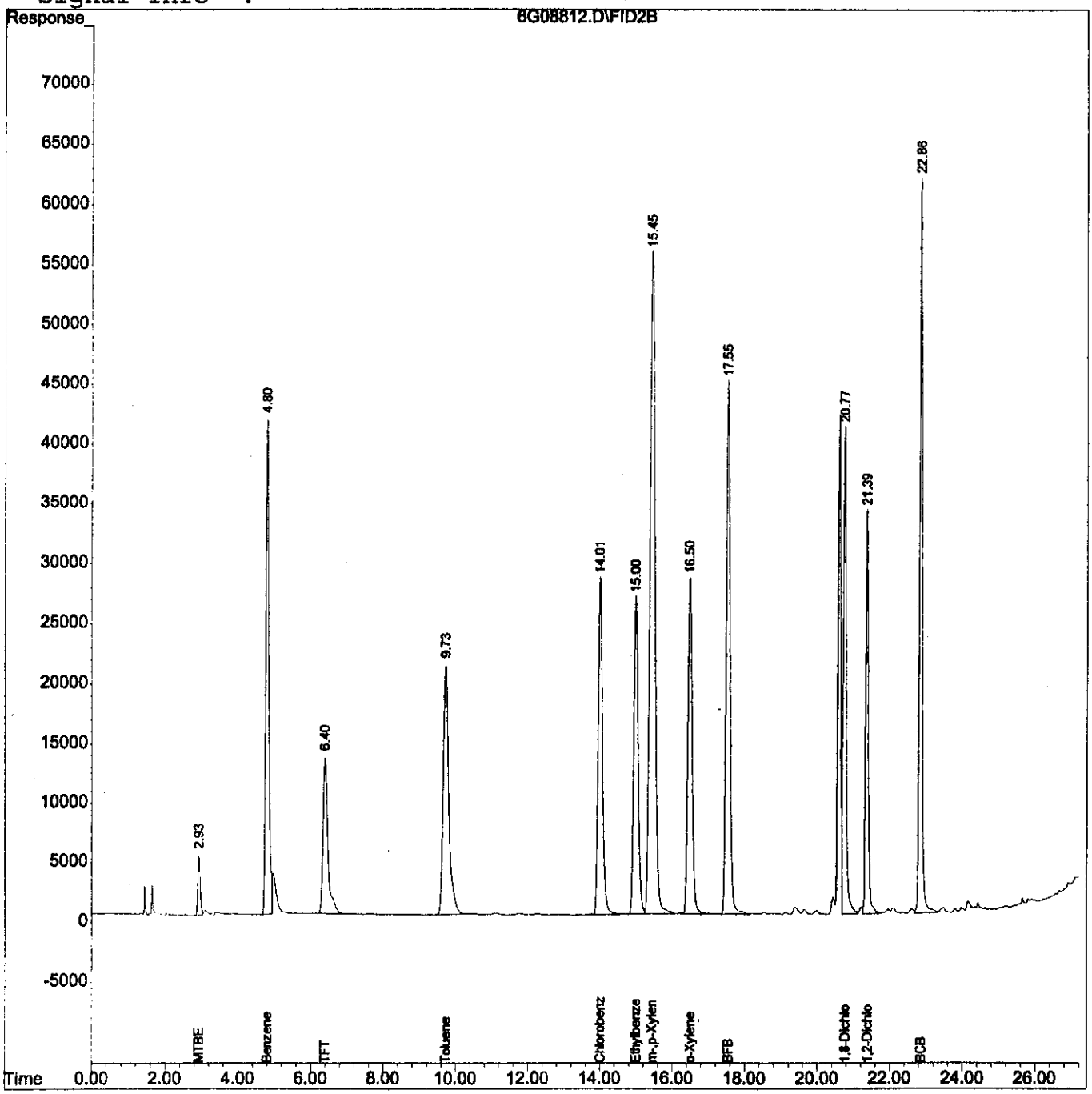
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			6.37	644741	13.2707 UG/KG
Spiked Amount	30.000	Range	47 - 121	Recovery =	44.24%#
9) S BFB			17.55	1610168	14.3700 UG/KG
Spiked Amount	30.000	Range	70 - 130	Recovery =	47.90%#
13) S BCB			22.85	1467564	14.6697 UG/KG
Spiked 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

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

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 :



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 :

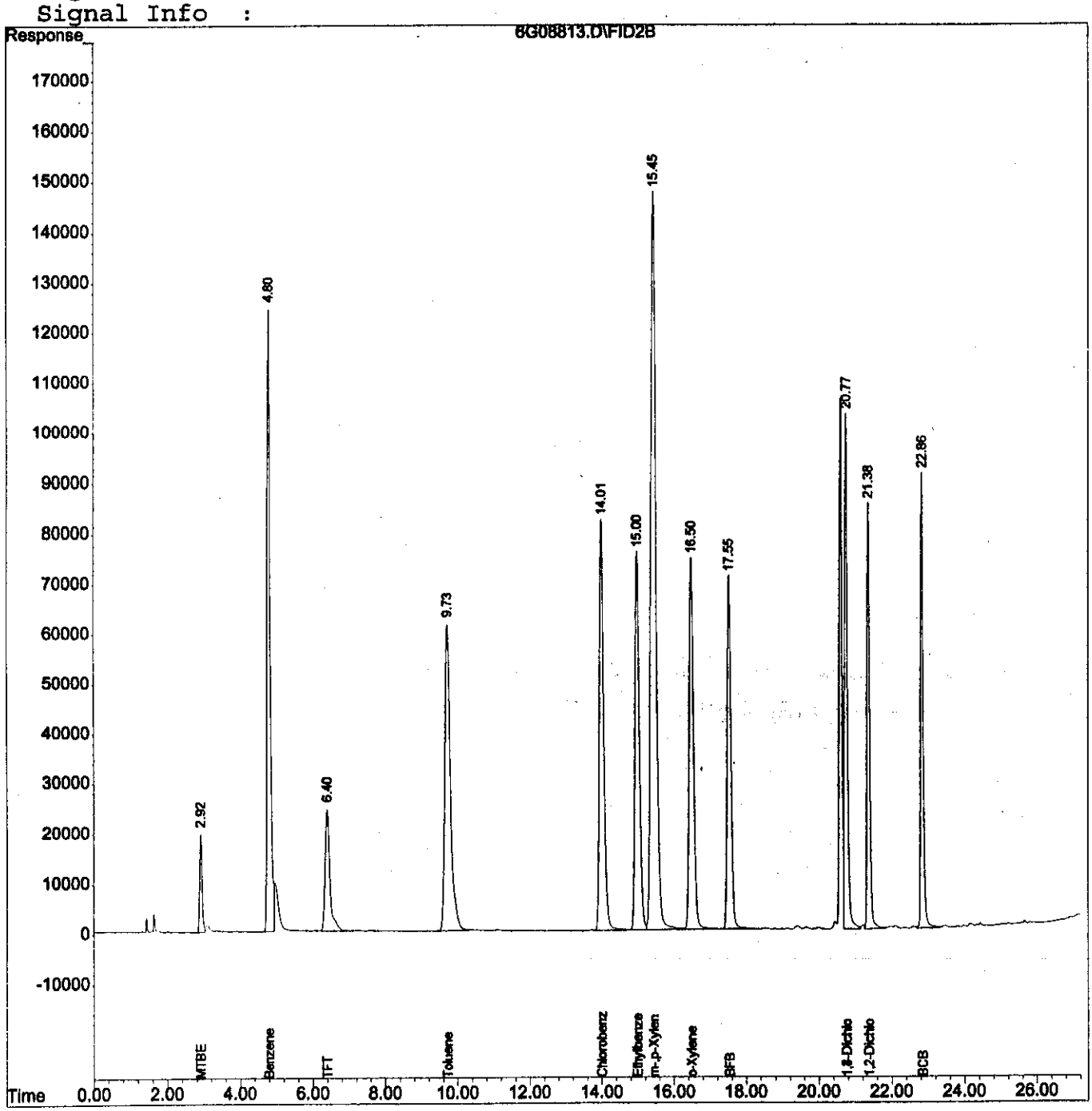
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			6.40	1217201	25.0537 UG/KG
Spiked Amount	30.000	Range	47 - 121	Recovery =	83.51%
9) S BFB			17.55	3247254	28.9803 UG/KG
Spiked Amount	30.000	Range	70 - 130	Recovery =	96.60%
13) S BCB			22.86	2987294	29.8609 UG/KG
Spiked 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

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

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 :



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 :

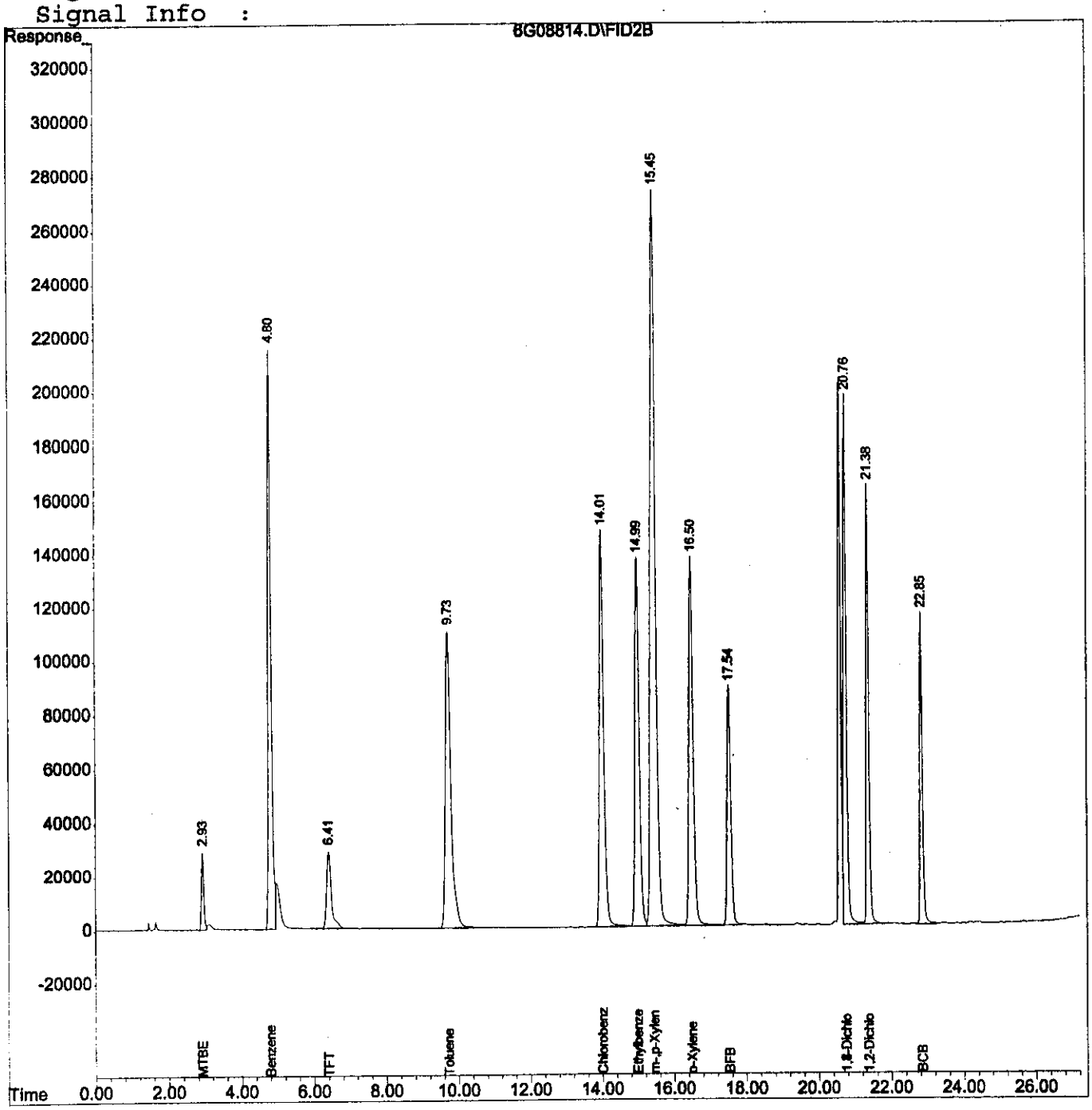
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			6.40	2210935	45.5077 UG/KG
Spiked Amount	30.000	Range	47 - 121	Recovery =	151.69%#
9) S BFB			17.55	5104037	45.5512 UG/KG
Spiked Amount	30.000	Range	70 - 130	Recovery =	151.84%#
13) S BCB			22.86	4368223	43.6646 UG/KG
Spiked 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.

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 :



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 :

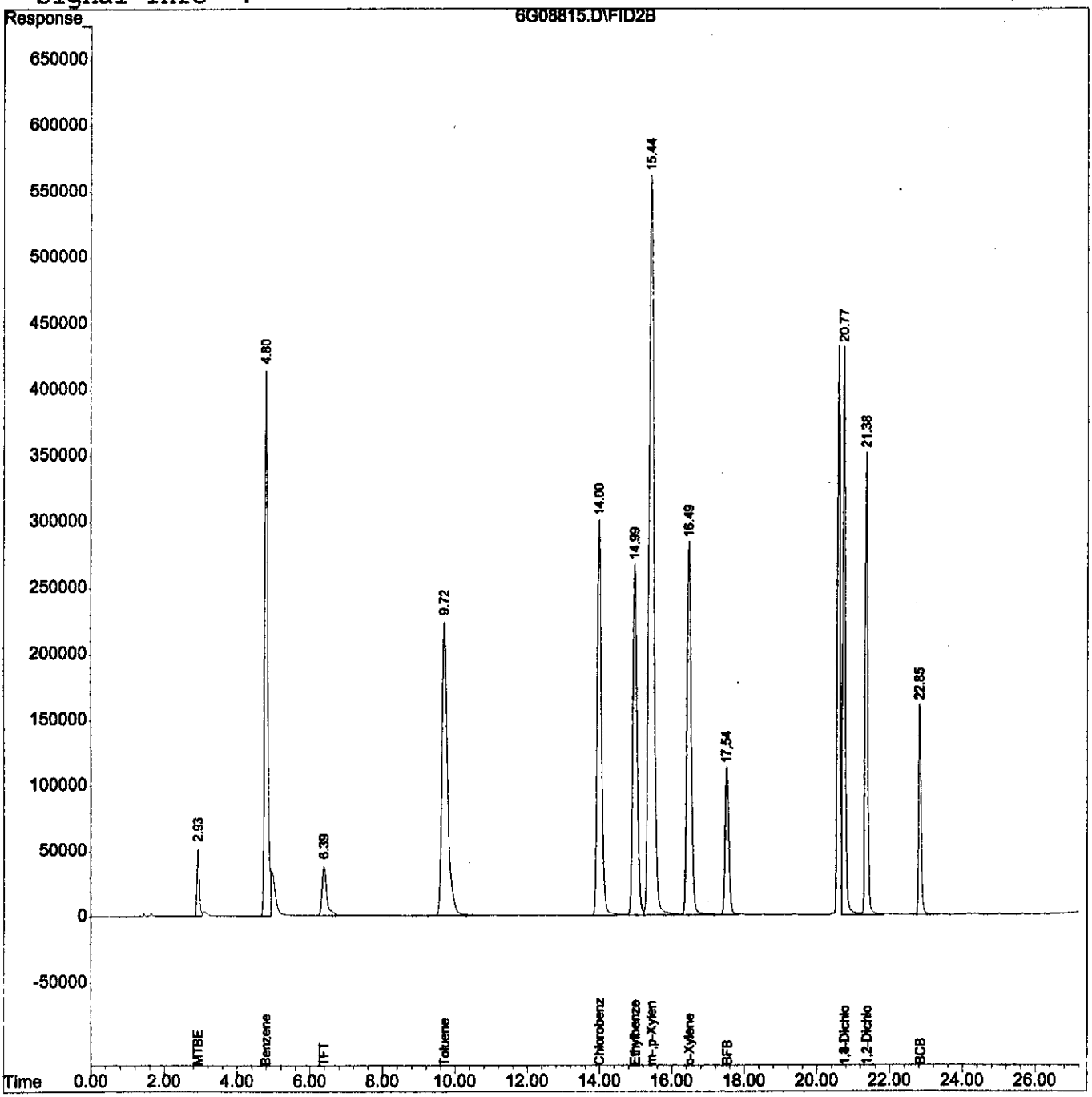
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			6.41	2614095	53.8059 UG/KG
Spiked Amount	30.000	Range	47 - 121	Recovery =	179.35%#
9) S BFB			17.54	6391147	57.0381 UG/KG
Spiked Amount	30.000	Range	70 - 130	Recovery =	190.13%#
13) S BCB			22.85	5607409	56.0514 UG/KG
Spiked 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.

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 :



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 :

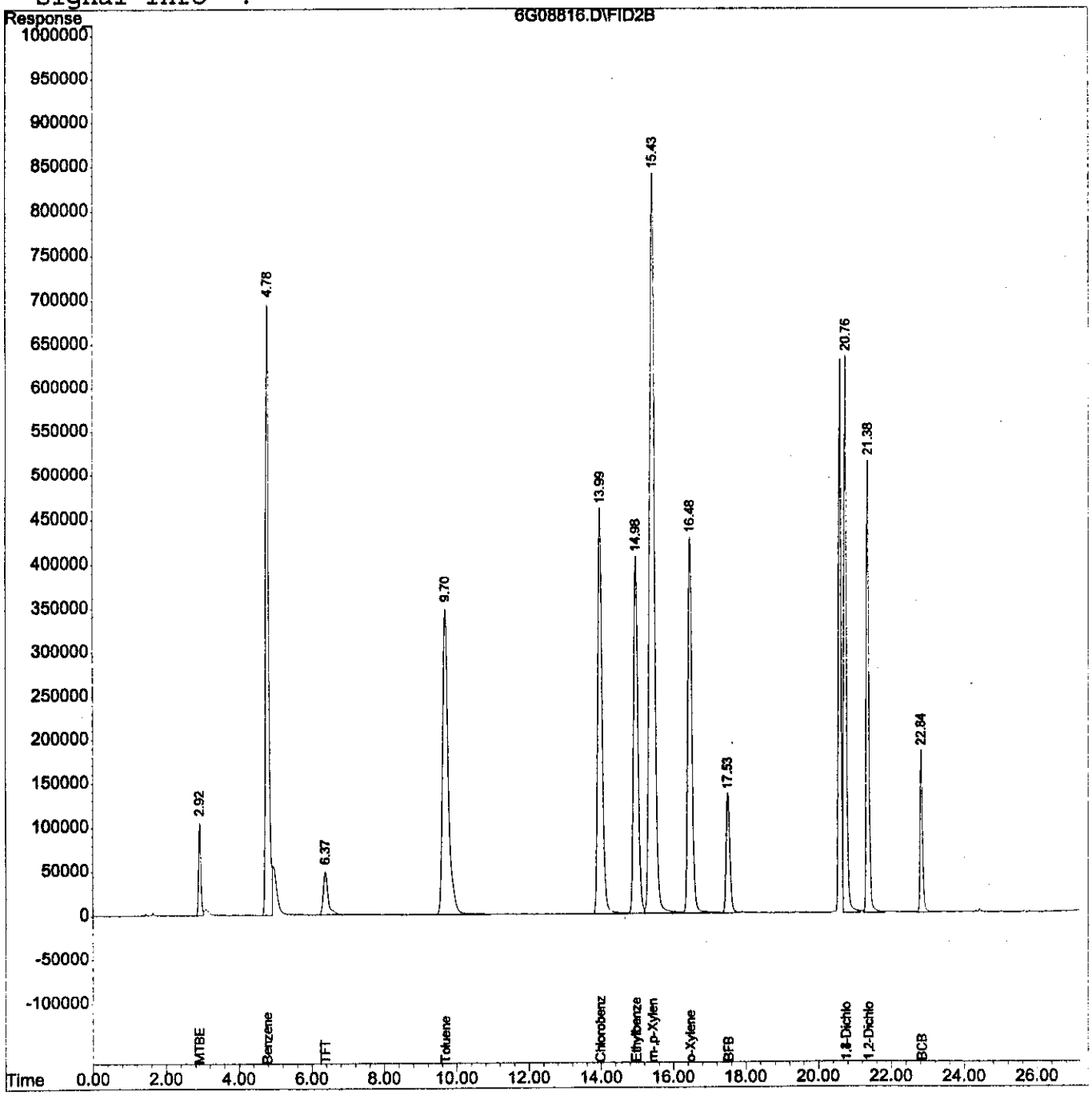
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	6.39	3470704	71.4375 UG/KG
Spiked Amount 30.000	Range 47 - 121	Recovery =	238.13%#
9) S BFB	17.54	8071937	72.0383 UG/KG
Spiked Amount 30.000	Range 70 - 130	Recovery =	240.13%#
13) S BCB	22.85	7527259	75.2422 UG/KG
Spiked Amount 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.

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 :



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 :

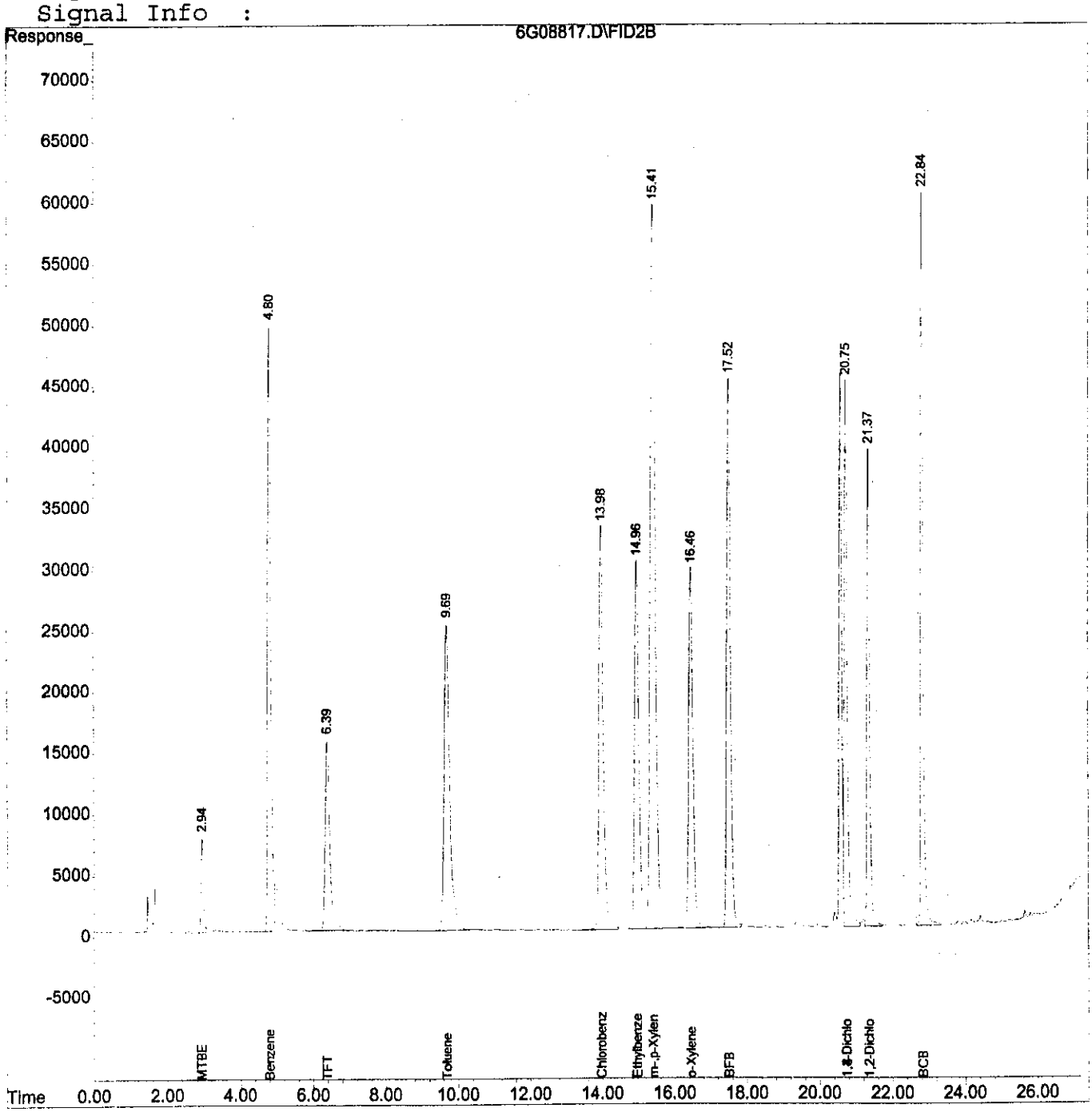
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			6.38	4387183	90.3014 UG/KG
Spiked Amount	30.000	Range	47 - 121	Recovery =	301.00%#
9) S BFB			17.53	9629455	85.9385 UG/KG
Spiked Amount	30.000	Range	70 - 130	Recovery =	286.46%#
13) S BCB			22.85	8589221	85.8575 UG/KG
Spiked 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.

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 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 : 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

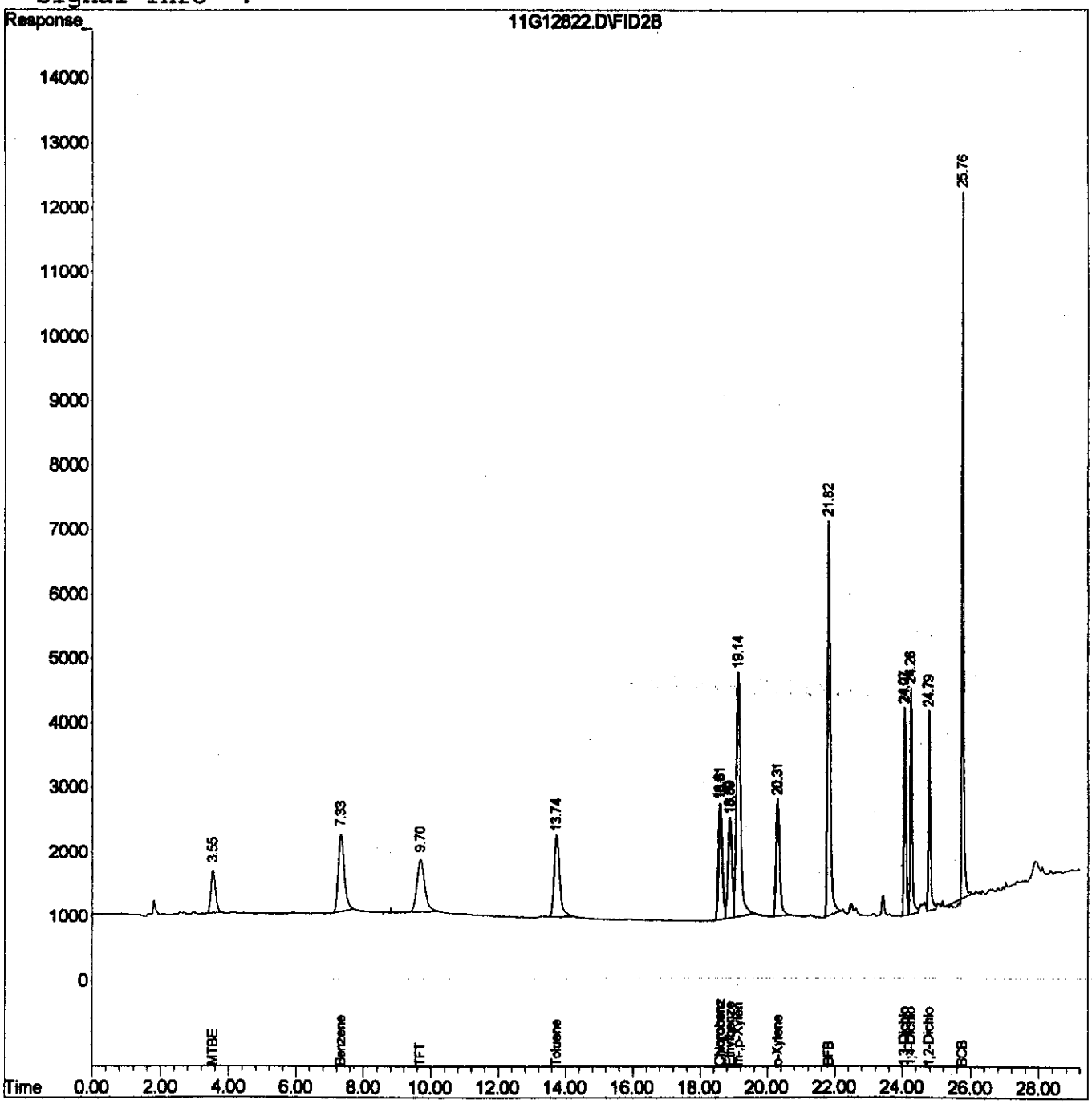
Compound	1 11G12822.D	10 11G12823.D	20 11G12824.D	50 11G12825.D	100 11G12826.D	200 11G12827.D	300 11G12828.D	Avg	%RSD
MTBE	61628.219	60981.202	59414.488	62474.288	64034.004	62521.108	62711.857	61966.500	2.375
Benzene	147603.681	159810.455	159151.375	158266.714	161749.776	161826.193	157879.197	158041.000	3.072
TFT	43510.578	49401.847	49398.326	49787.605	49971.490	49545.498	48808.466	48632.000	4.704
Toluene	146715.762	151626.884	152542.351	154573.914	150923.419	151646.020	147988.172	150860.000	1.780
Chlorobenzene	141357.377	158279.050	157855.417	159708.384	162554.479	162565.502	160856.464	157597.000	4.696
Ethylbenzene	128153.444	137969.176	136422.049	135450.539	136319.119	135776.149	133907.335	134857.000	2.370
m-,p-Xylene	163153.638	173051.154	166291.603	161297.192	161711.571	159890.978	157122.162	163217.000	3.167
o-Xylene	135092.980	148190.697	144198.159	140977.685	141690.197	141372.663	139156.171	141526.000	2.869
BFB	116287.667	133619.986	137285.773	142724.570	145859.413	142880.209	143407.706	137438.000	7.432
1,3-Dichlorobenzene	129687.968	135946.148	138116.619	138597.032	143828.518	146382.901	143765.515	139475.000	4.097
1,4-Dichlorobenzene	141174.759	150984.101	148049.515	147259.371	148698.266	150030.687	147395.922	147656.000	2.145
1,2-Dichlorobenzene	117537.214	128548.877	121765.231	126882.470	127836.603	124686.626	121878.859	124162.000	3.209
BCB	110104.631	122939.501	131780.919	138656.894	141296.237	139517.570	140859.698	132165.000	8.884

Thu Dec 20 11:20:27 2001

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 :



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 :

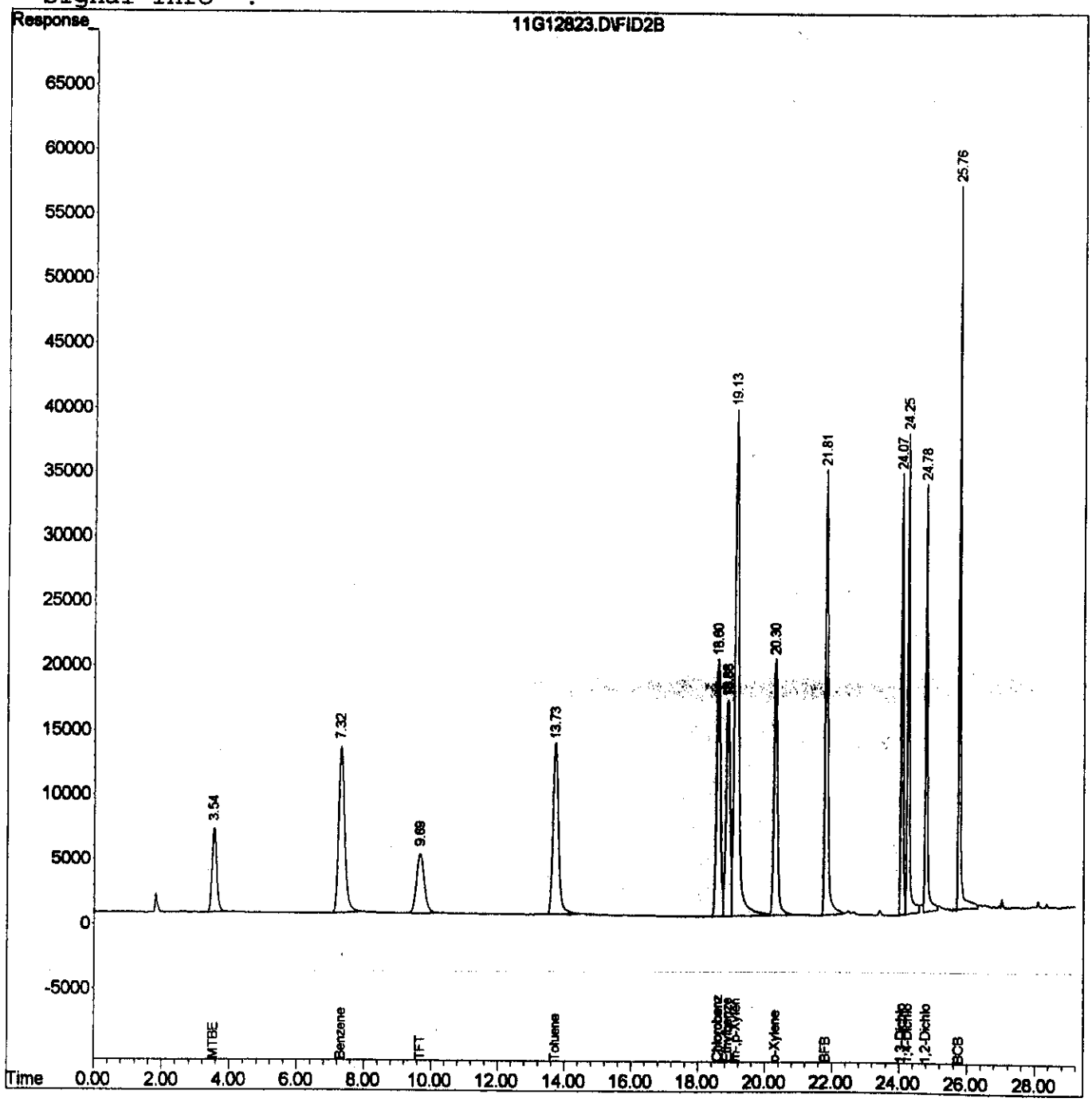
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.70	130532	2.3340 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery =	7.78%#
9) S BFB			21.83	348863	2.1655 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery =	7.22%#
13) S BCB			25.77	330314	2.0809 UG/L
Spiked Amount	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.

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 :



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 :

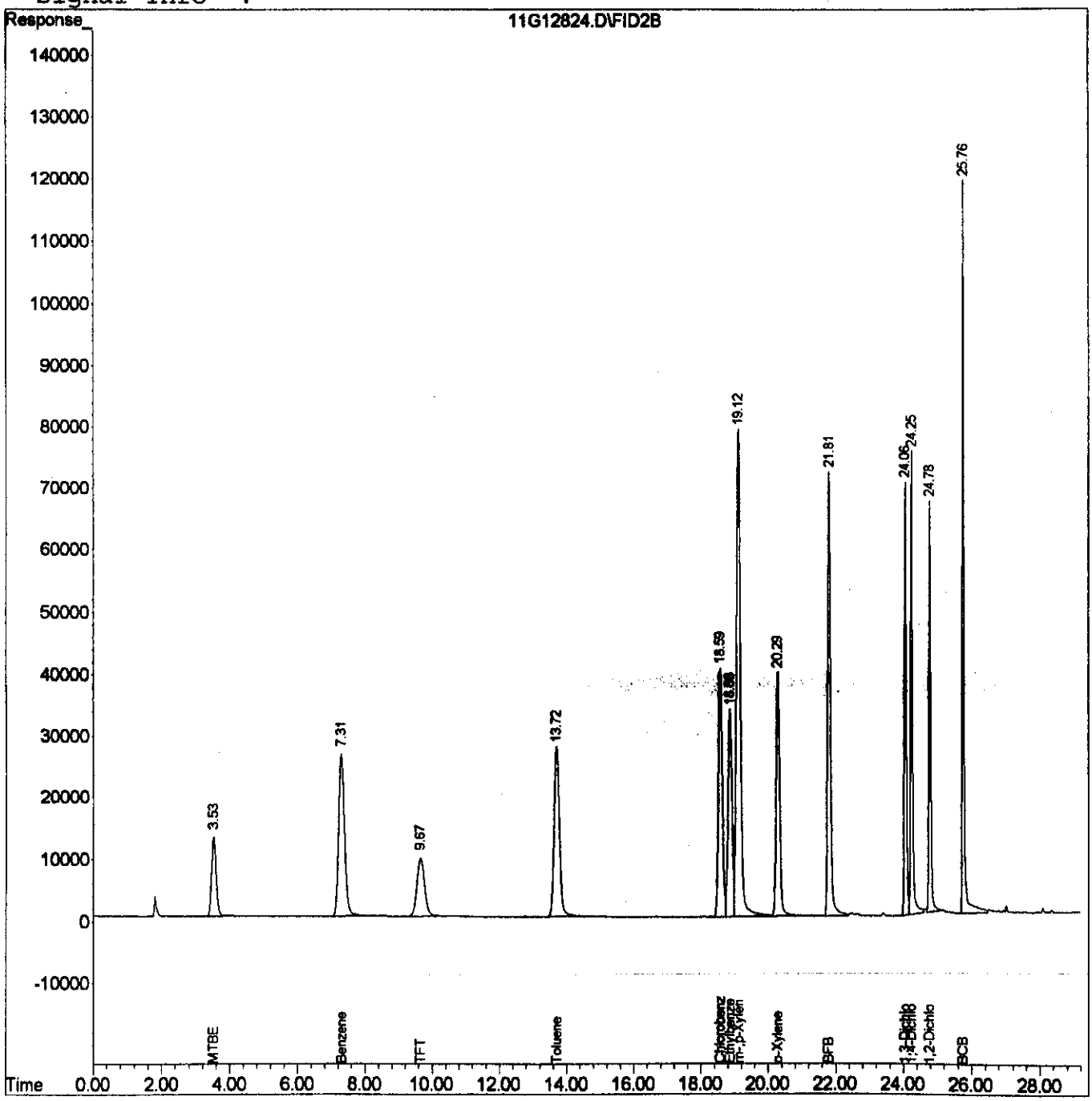
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.68	741028	13.2499 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 44.17%#
9) S BFB			21.82	2004300	12.4413 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 41.47%#
13) S BCB			25.76	1844093	11.6171 UG/L
Spiked 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.

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 :



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 :

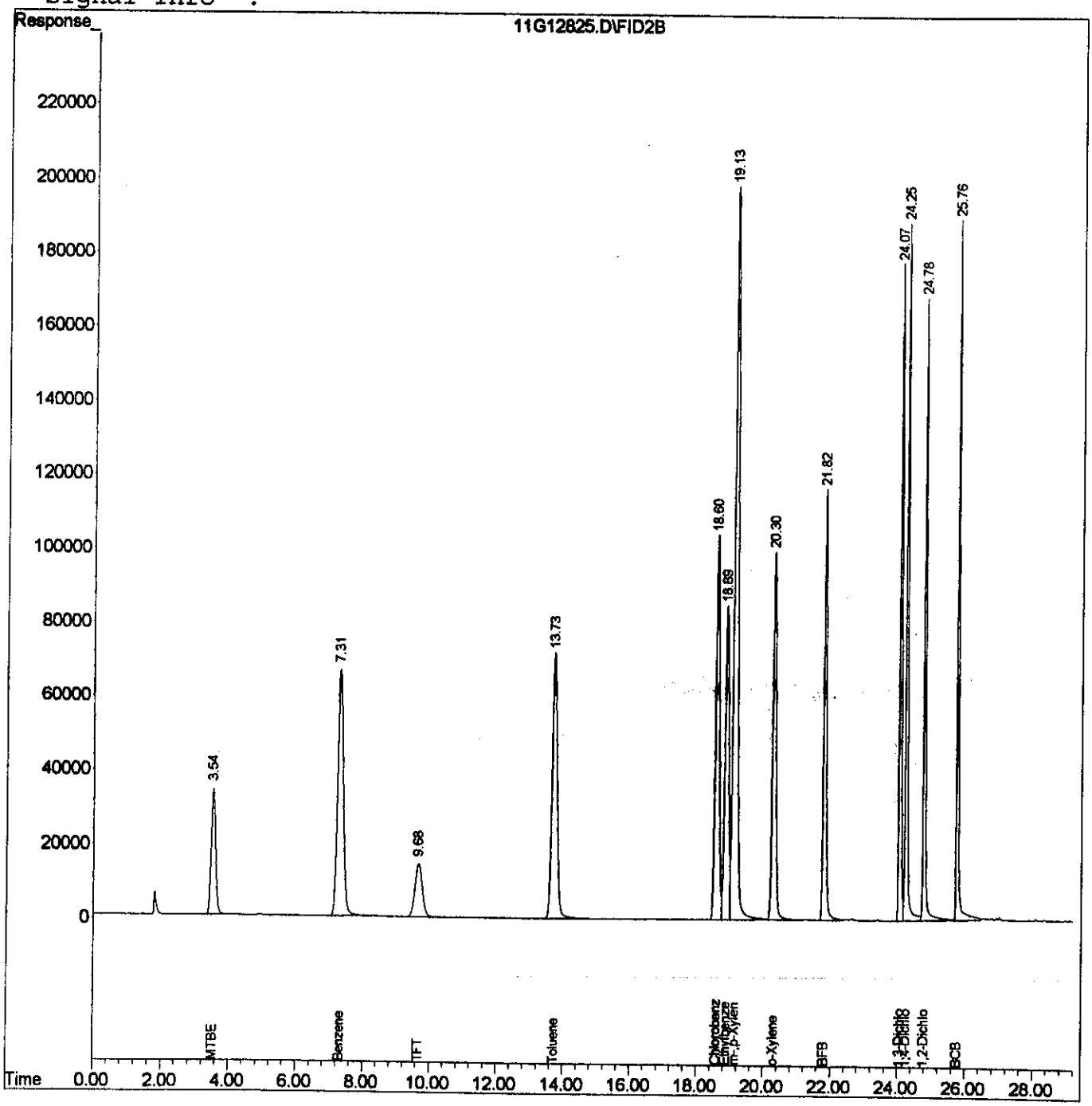
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.67	1481950	26.4979 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 88.33%
9) S BFB			21.81	4118573	25.5652 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 85.22%
13) S BCB			25.76	3953428	24.9051 UG/L
Spiked Amount	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.

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 :



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 :

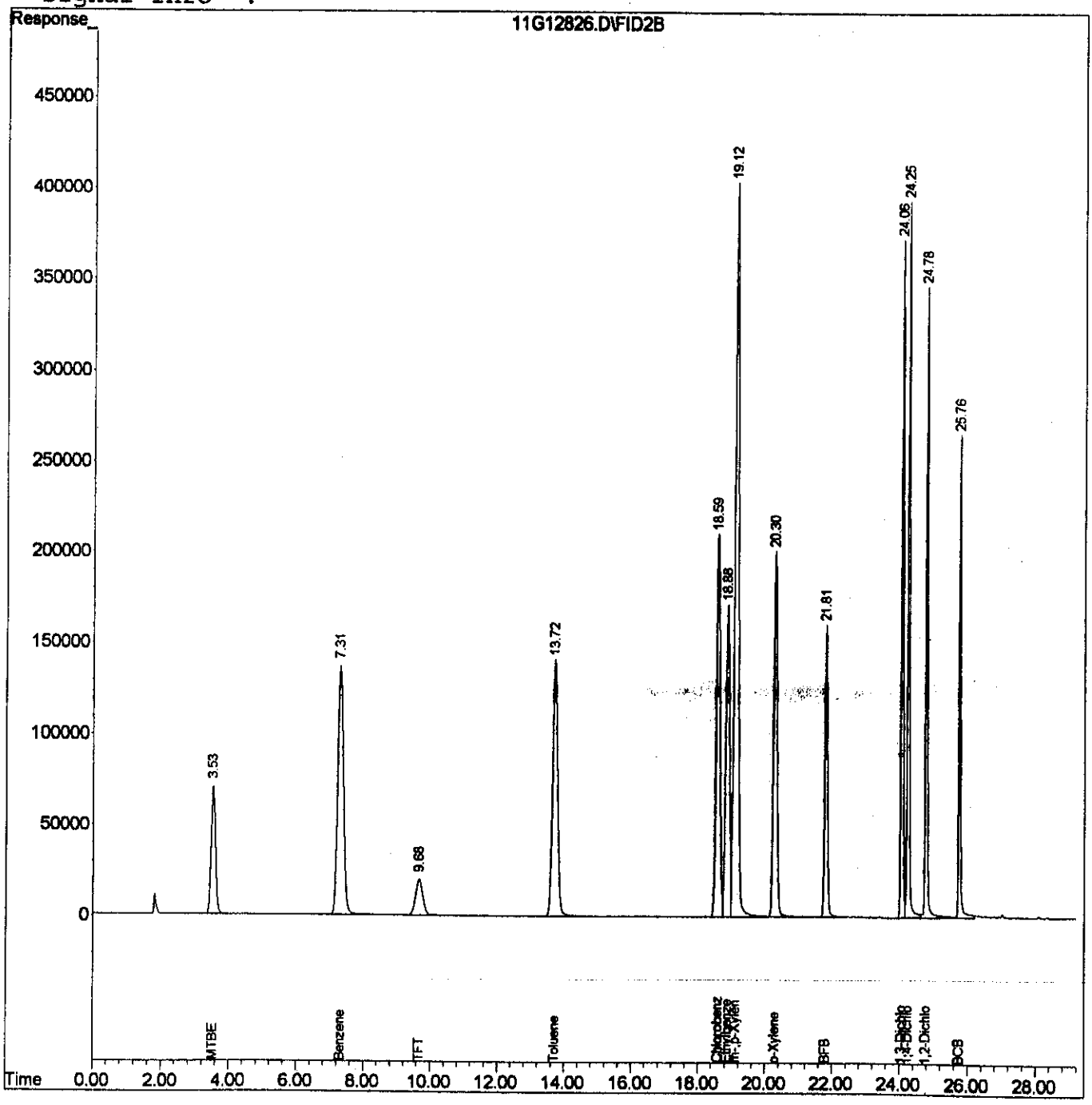
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.68	2240442	40.0601 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 133.53%#
9) S BFB			21.82	6422606	39.8670 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 132.89%#
13) S BCB			25.76	6239560	39.3068 UG/L
Spiked 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.

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 :



Data File : C:\HPCHEM\1\DATA\121301\11G12826.D
Acq On : 13 Dec 2001 11:46 am
Sample : WG109931-05 100PPB 8021 WATER STD 5ML
Misc : 1,1 S-87-21 S-88-05
IntFile : autoint1.e
Quant Time: Dec 13 12:15 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 13:33:23 2001
Response via : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

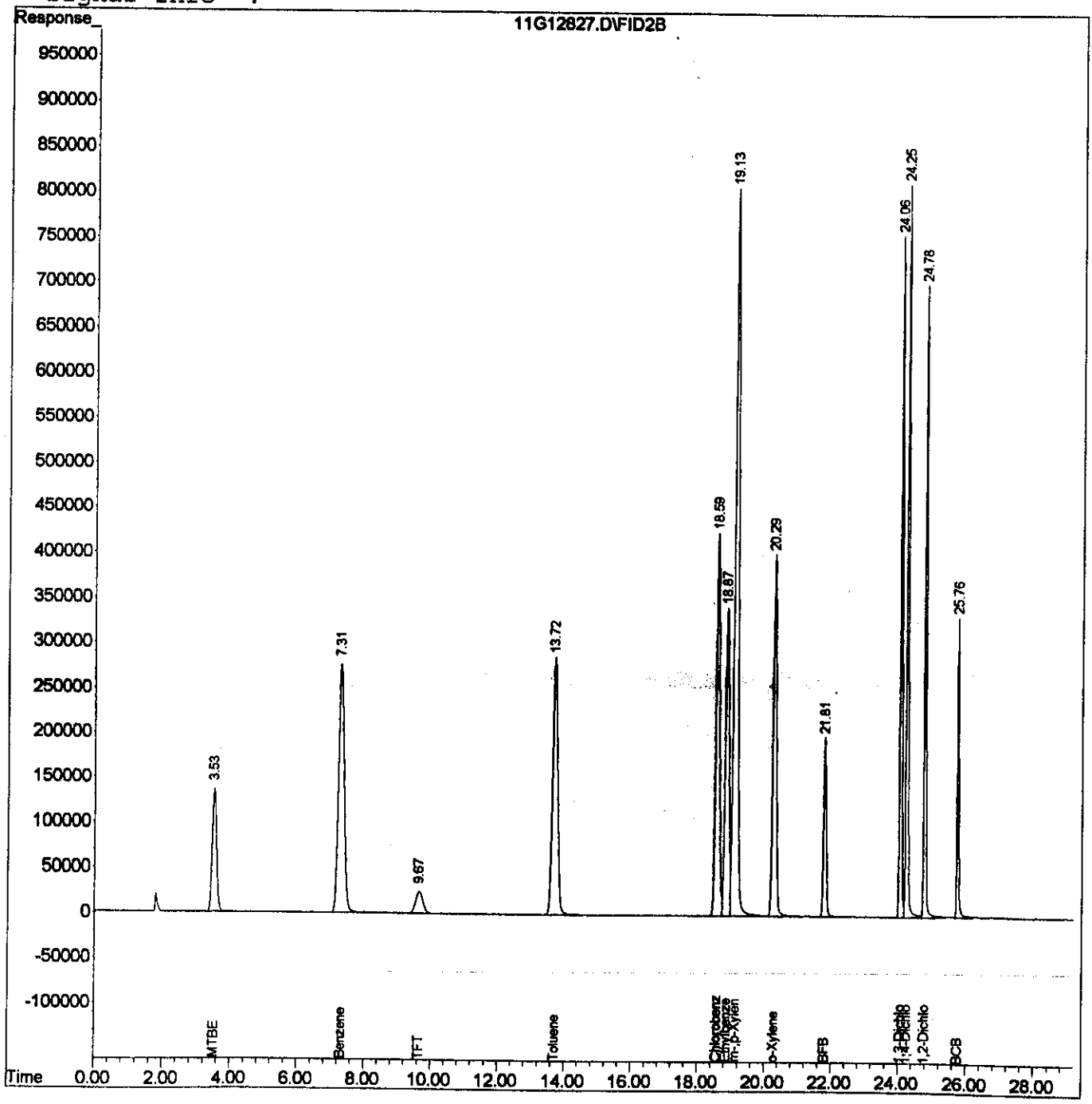
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.68	2998289	53.6108 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 178.70%#
9) S BFB			21.81	8751565	54.3236 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 181.08%#
13) S BCB			25.76	8477774	53.4067 UG/L
Spiked 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.

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 :



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 :

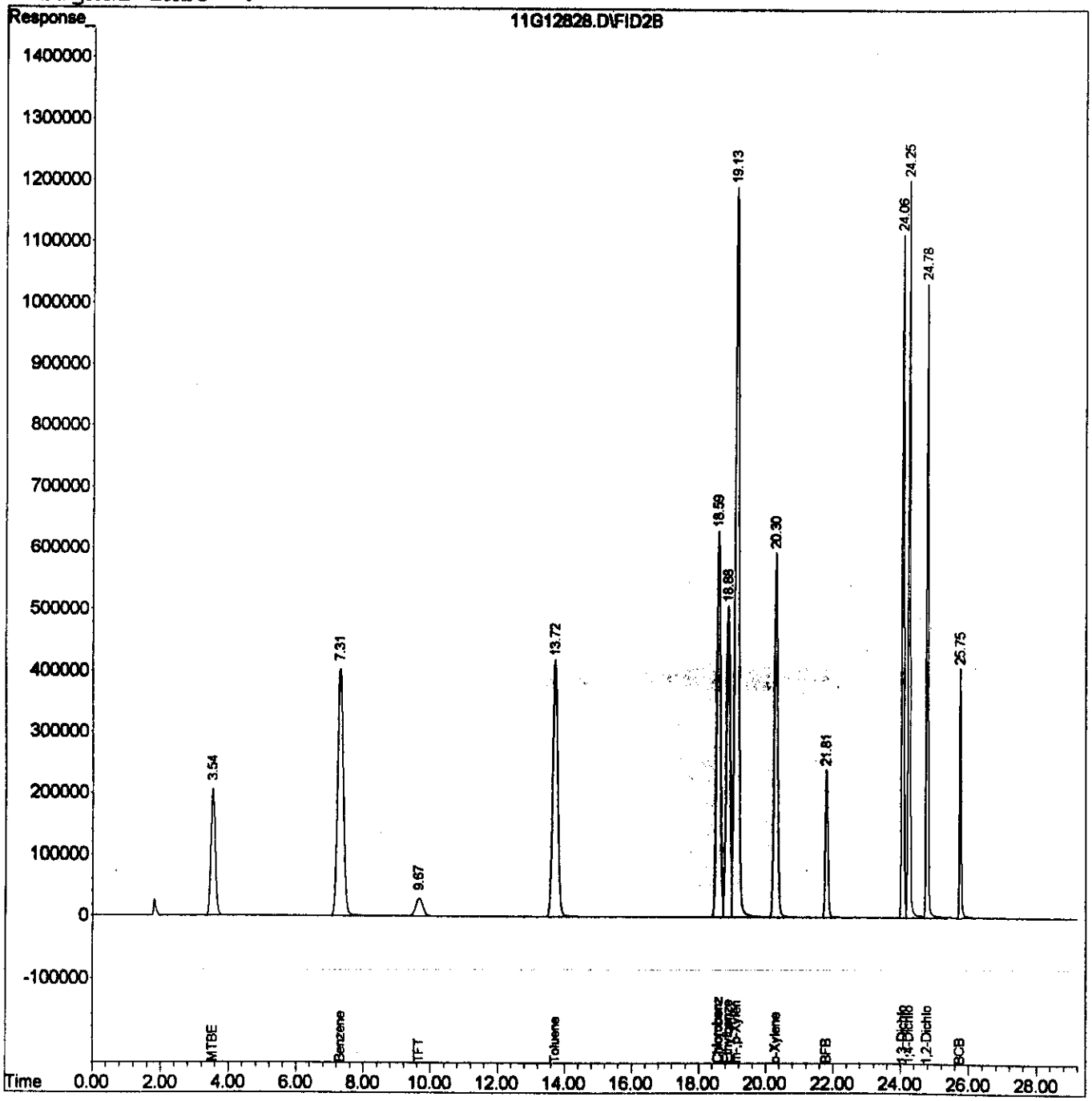
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.67	3715912	66.4422 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 221.47%#
9) S BFB			21.81	10716016	66.5175 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 221.72%#
13) S BCB			25.76	10463818	65.9180 UG/L
Spiked 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.

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 : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



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 :

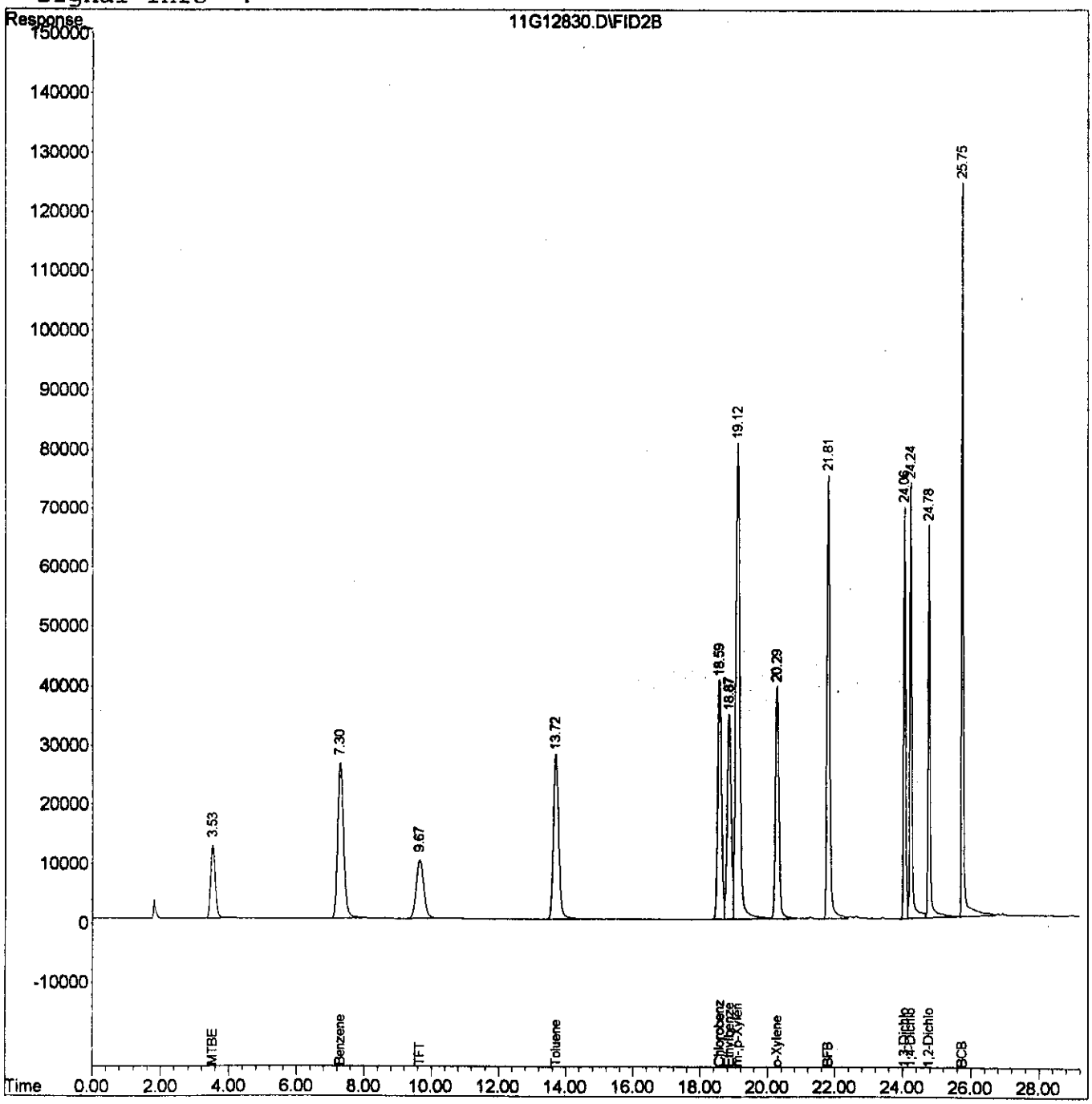
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.67	4392762	78.5446 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 261.82%#
9) S BFB			21.81	12906694	80.1157 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 267.05%#
13) S BCB			25.76	12677373	79.8626 UG/L
Spiked 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.

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 :



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.

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

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6G08829.D 8021S.M Thu Dec 13 11:56:50 2001 Page 1

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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%

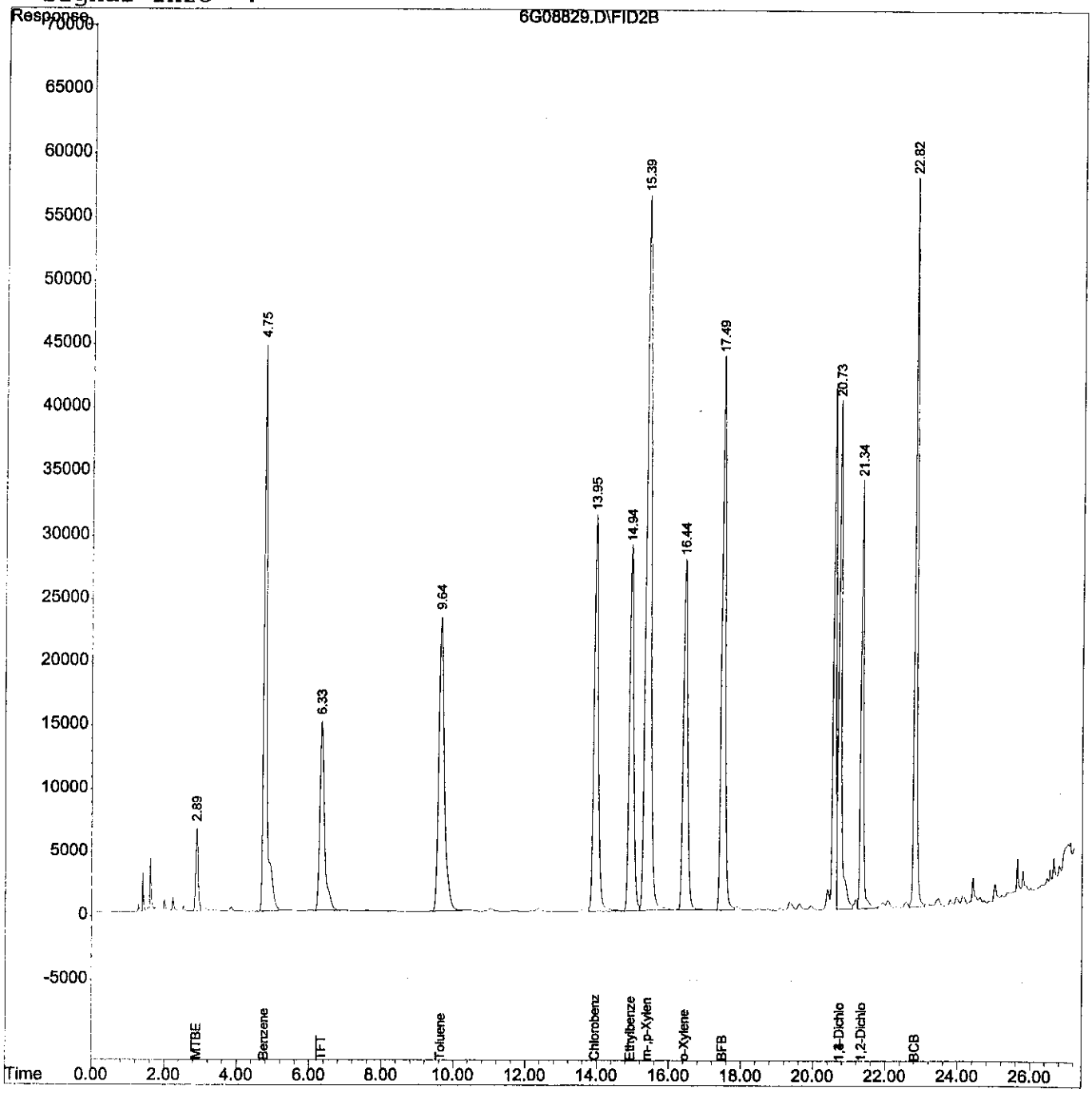
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	21.508	-7.5	131	-0.04
2	TM	Benzene	20.000	21.238	-6.2	117	-0.05
3	S	TFT	30.000	30.310	-1.0	111	-0.07
4	TM	Toluene	20.000	20.155	-0.8	110	-0.09
5	TM	Chlorobenzene	20.000	20.590	-2.9	110	-0.07
6	TM	Ethylbenzene	20.000	20.626	-3.1	107	-0.06
7	TM	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
6G08829.D 8021S.M Thu Dec 13 11:56:52 2001 Page 1

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 :



Data File : C:\HPCHEM\1\DATA\121301\6G08829.D
Acq On : 13 Dec 2001 7:16
Sample : WG109921-01 8021 STD 20PPB 5G
Misc : 7,1 S-87-37,88-05
IntFile : autoint1.e
Quant Time: Dec 13 7:43 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 : 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.

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
6G08840.D 8021S.M Thu Dec 13 14:06:48 2001 Page 1

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

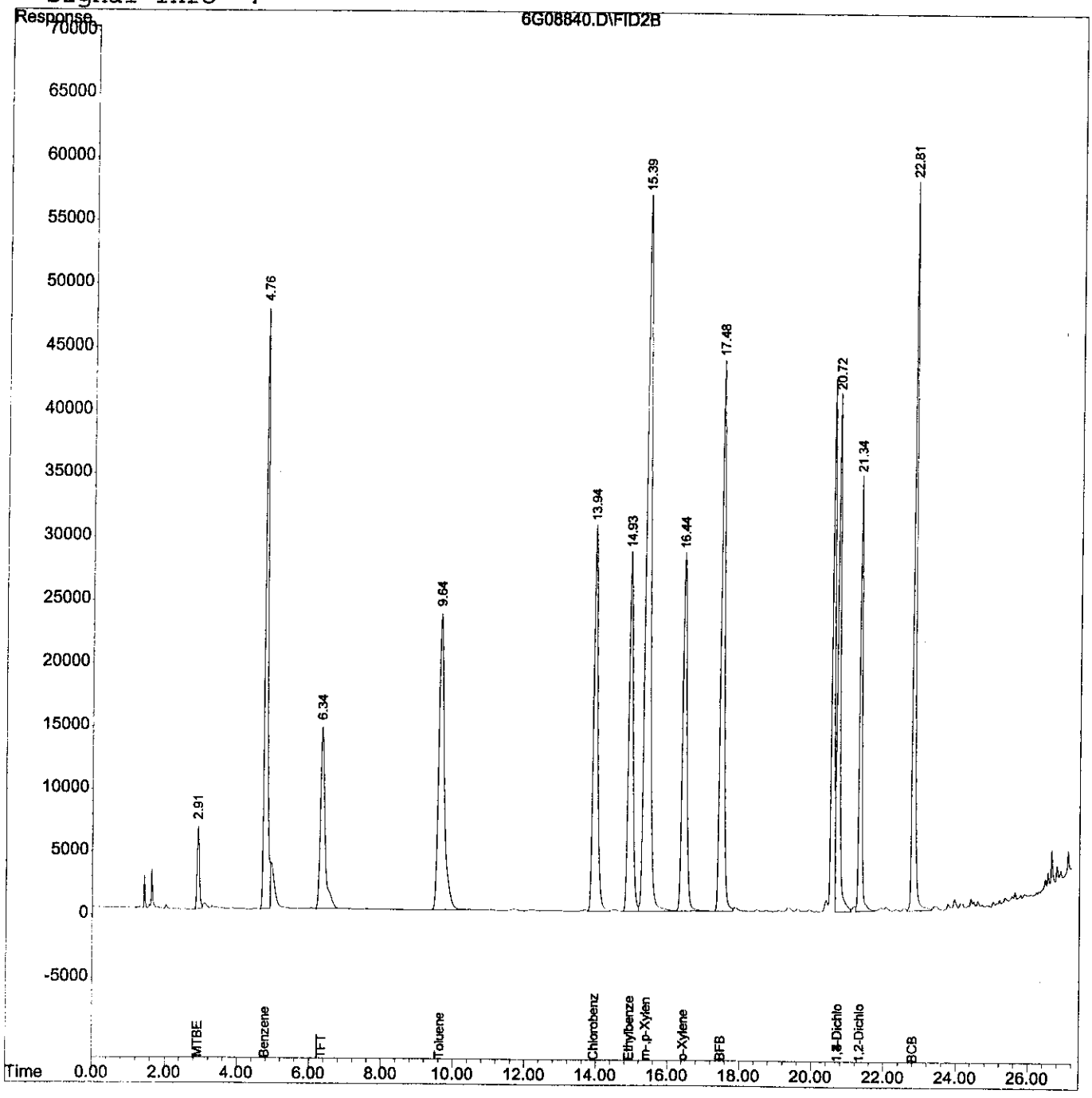
(#) = Out of Range SPCC's out = 0 CCC's out = 0
6G08840.D 8021S.M Thu Dec 13 14:06:45 2001 Page 1

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
Quant Time: Dec 13 14:04 2001 Quant Results File: 8021S.RES

Vial: 9
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 :



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.

Data File : C:\HPCHEM\1\DATA\121301\6G08851.D
Acq On : 13 Dec 2001 19:51
Sample : WG109921-03 8021 STD 20PPB 5G
Misc : 7,1 S-87-37,88-05
IntFile : autoint1.e

Vial: 11
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	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

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6G08851.D 8021S.M Fri Dec 14 07:26:28 2001 Page 1

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

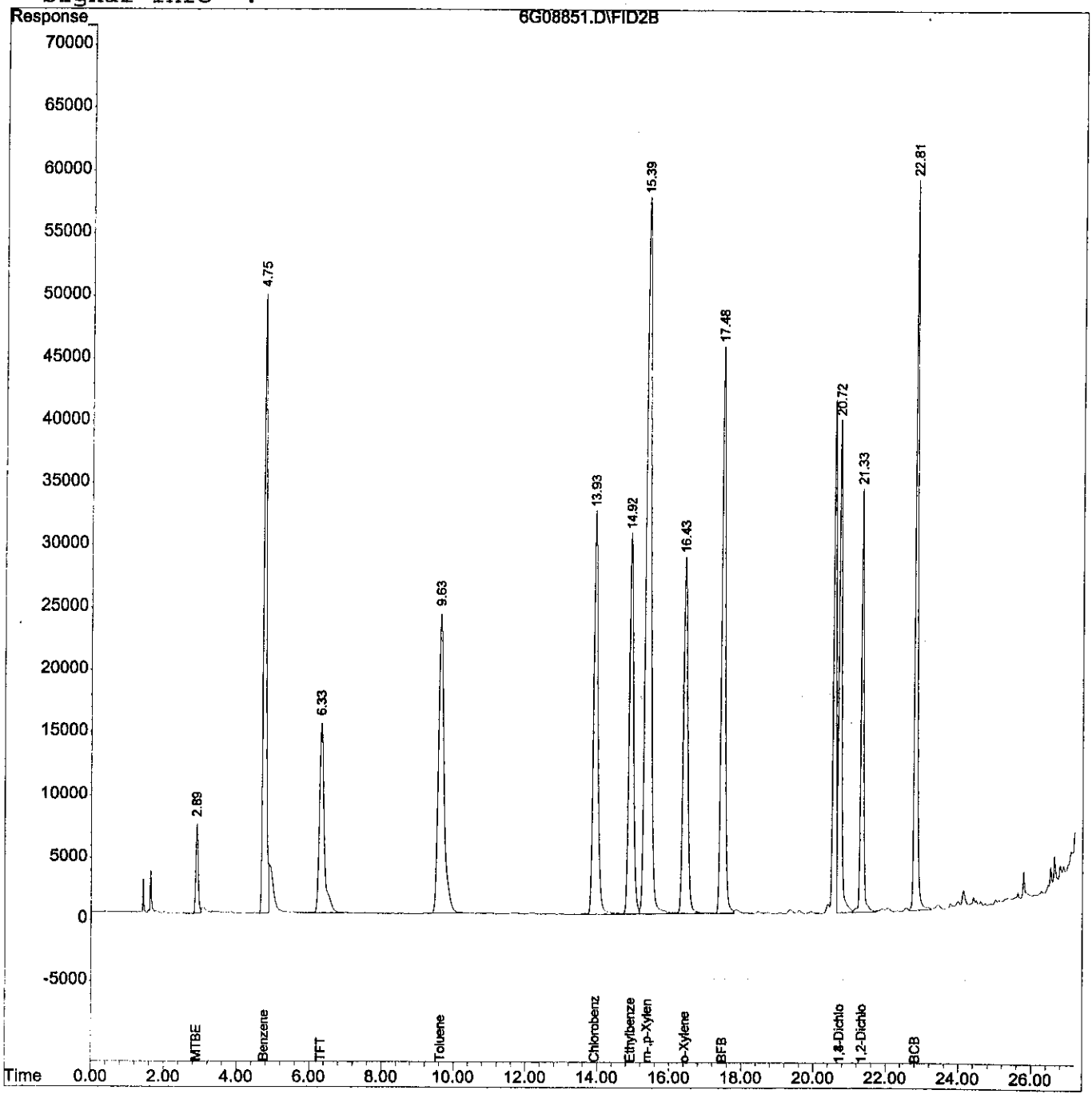
(#) = Out of Range SPCC's out = 0 CCC's out = 0
6G08851.D 8021S.M Fri Dec 14 07:26:30 2001 Page 1

Data File : C:\HPCHEM\1\DATA\121301\6G08851.D
Acq On : 13 Dec 2001 19:51
Sample : WG109921-03 8021 STD 20PPB 5G
Misc : 7,1 S-87-37,88-05
IntFile : autoint1.e
Quant Time: Dec 13 20:19 2001 Quant Results File: 8021S.RES

Vial: 11
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 :



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

Data File : C:\HPCHEM\1\DATA\121401\11G12851.D Vial: 1
Acq On : 14 Dec 2001 7:05 Operator: CBN
Sample : WG110000-01 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	68.795 E3	-11.0	116	0.00
2	TM	Benzene	158.041	159.350 E3	-0.8	100	0.00
3	S	TFT	48.632	51.701 E3	-6.3	105	0.00
4	TM	Toluene	150.860	154.239 E3	-2.2	101	0.00
5	TM	Chlorobenzene	157.597	155.187 E3	1.5	98	0.00
6	TM	Ethylbenzene	134.857	138.697 E3	-2.8	102	0.00
7	TM	m-,p-Xylene	163.217	166.452 E3	-2.0	100	0.00
8	TM	o-Xylene	141.526	141.794 E3	-0.2	98	0.00
9	S	BFB	137.438	141.180 E3	-2.7	103	0.00
10	T	1,3-Dichlorobenzene	139.475	132.594 E3	4.9	96	0.00
11	T	1,4-Dichlorobenzene	147.656	138.372 E3	6.3	93	0.00
12	T	1,2-Dichlorobenzene	124.162	118.051 E3	4.9	97	0.00
13	S	BCB	132.165	132.774 E3	-0.5	101	0.00

Data File : C:\HPCHEM\1\DATA\121401\11G12851.D Vial: 1
Acq On : 14 Dec 2001 7:05 Operator: CBN
Sample : WG110000-01 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

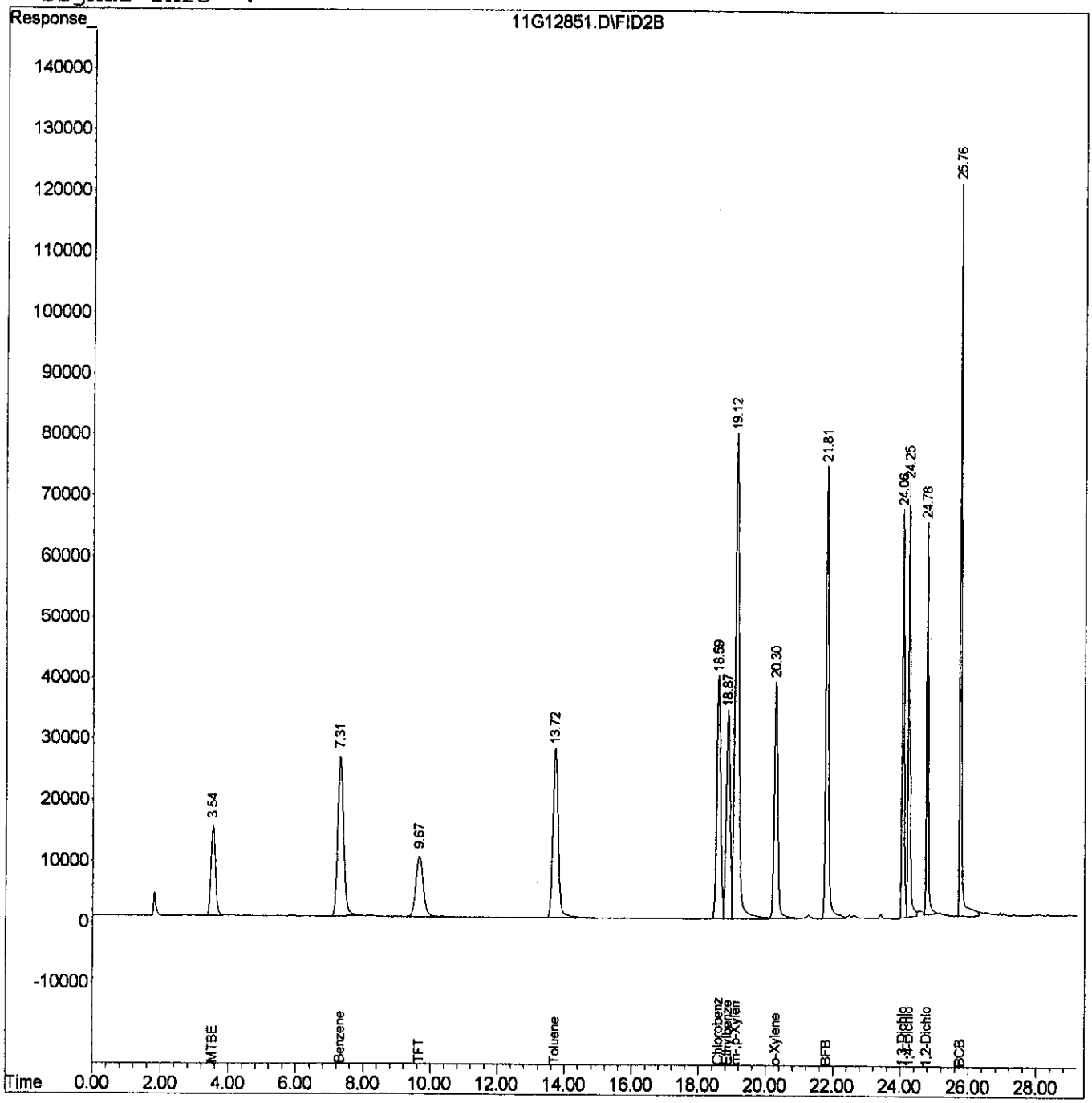
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	22.204	-11.0	116	0.00
2	TM	Benzene	20.000	20.166	-0.8	100	0.00
3	S	TFT	30.000	31.893	-6.3	105	0.00
4	TM	Toluene	20.000	20.448	-2.2	101	0.00
5	TM	Chlorobenzene	20.000	19.694	1.5	98	0.00
6	TM	Ethylbenzene	20.000	20.570	-2.9	102	0.00
7	TM	m-,p-Xylene	40.000	40.793	-2.0	100	0.00
8	TM	o-Xylene	20.000	20.038	-0.2	98	0.00
9	S	BFB	30.000	30.817	-2.7	103	0.00
10	T	1,3-Dichlorobenzene	20.000	19.013	4.9	96	0.00
11	T	1,4-Dichlorobenzene	20.000	18.742	6.3	93	0.00
12	T	1,2-Dichlorobenzene	20.000	19.016	4.9	97	0.00
13	S	BCB	30.000	30.138	-0.5	101	0.00

Data File : C:\HPCHEM\1\DATA\121401\11G12851.D Vial: 1
Acq On : 14 Dec 2001 7:05 am Operator: CBN
Sample : WG110000-01 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-87-(37,23) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 14 7:34 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 :



Data File : C:\HPCHEM\1\DATA\121401\11G12851.D Vial: 1
Acq On : 14 Dec 2001 7:05 am Operator: CBN
Sample : WG110000-01 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-87-(37,23) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 14 7:34 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	1551037	31.8934 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 106.31%
9) S BFB			21.81	4235398	30.8168 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 102.72%
13) S BCB			25.76	3983219	30.1382 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 100.46%
Target Compounds					
1) TM MTBE			3.54	1375898	22.2039 UG/L
2) TM Benzene			7.32	3186993	20.1656 UG/L
4) TM Toluene			13.72	3084780	20.4480 UG/L
5) TM Chlorobenzene			18.59	3103734	19.6942 UG/L
6) TM Ethylbenzene			18.87	2773939	20.5695 UG/L
7) TM m-,p-Xylene			19.12	6658067	40.7928 UG/L
8) TM o-Xylene			20.30	2835875	20.0379 UG/L
10) T 1,3-Dichlorobenzene			24.06	2651880	19.0133 UG/L
11) T 1,4-Dichlorobenzene			24.25	2767430	18.7424 UG/L
12) T 1,2-Dichlorobenzene			24.78	2361022	19.0156 UG/L

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

Data File : C:\HPCHEM\1\DATA\121401\11G12862.D Vial: 9
Acq On : 14 Dec 2001 13:48 Operator: CBN
Sample : WG110000-02 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	60.864	E3	1.8	102	0.00
2	TM	Benzene	158.041	160.985	E3	-1.9	101	0.00
3	S	TFT	48.632	52.927	E3	-8.8	107	0.00
4	TM	Toluene	150.860	151.215	E3	-0.2	99	0.00
5	TM	Chlorobenzene	157.597	154.688	E3	1.8	98	-0.01
6	TM	Ethylbenzene	134.857	137.582	E3	-2.0	101	-0.01
7	TM	m-,p-Xylene	163.217	163.570	E3	-0.2	98	-0.01
8	TM	o-Xylene	141.526	139.063	E3	1.7	96	0.00
9	S	BFB	137.438	143.774	E3	-4.6	105	0.00
10	T	1,3-Dichlorobenzene	139.475	132.394	E3	5.1	96	0.00
11	T	1,4-Dichlorobenzene	147.656	145.176	E3	1.7	98	0.00
12	T	1,2-Dichlorobenzene	124.162	126.455	E3	-1.8	104	0.00
13	S	BCB	132.165	137.497	E3	-4.0	104	0.00

Data File : C:\HPCHEM\1\DATA\121401\11G12862.D Vial: 9
Acq On : 14 Dec 2001 13:48 Operator: CBN
Sample : WG110000-02 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

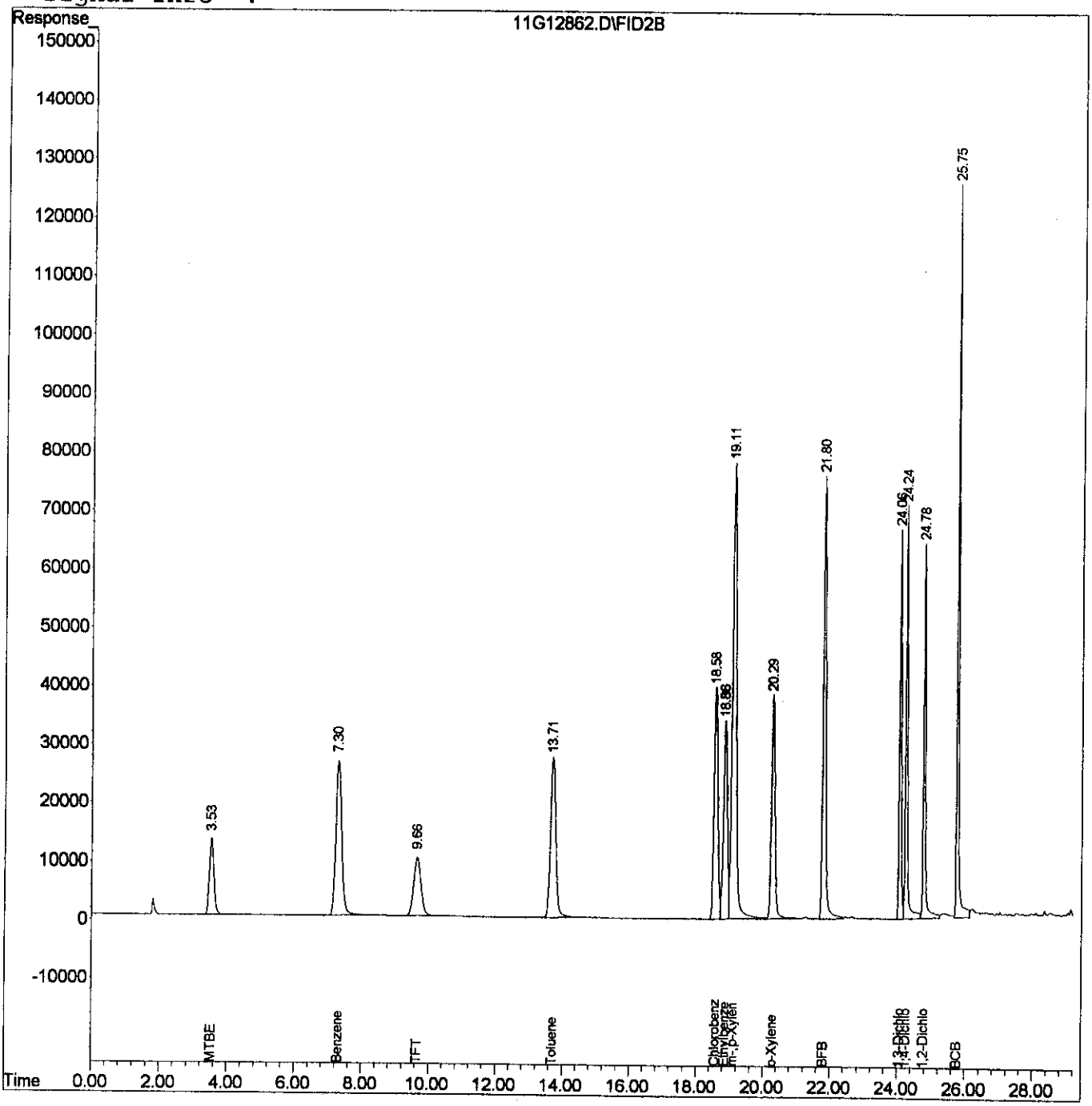
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	19.644	1.8	102	0.00
2	TM	Benzene	20.000	20.373	-1.9	101	0.00
3	S	TFT	30.000	32.649	-8.8	107	0.00
4	TM	Toluene	20.000	20.047	-0.2	99	0.00
5	TM	Chlorobenzene	20.000	19.631	1.8	98	-0.01
6	TM	Ethylbenzene	20.000	20.404	-2.0	101	-0.01
7	TM	m-,p-Xylene	40.000	40.086	-0.2	98	-0.01
8	TM	o-Xylene	20.000	19.652	1.7	96	0.00
9	S	BFB	30.000	31.383	-4.6	105	0.00
10	T	1,3-Dichlorobenzene	20.000	18.985	5.1	96	0.00
11	T	1,4-Dichlorobenzene	20.000	19.664	1.7	98	0.00
12	T	1,2-Dichlorobenzene	20.000	20.369	-1.8	104	0.00
13	S	BCB	30.000	31.210	-4.0	104	0.00

Data File : C:\HPCHEM\1\DATA\121401\11G12862.D Vial: 9
Acq On : 14 Dec 2001 1:48 pm Operator: CBN
Sample : WG110000-02 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-87-(37,23) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 14 14:17 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 :



Data File : C:\HPCHEM\1\DATA\121401\11G12862.D Vial: 9
Acq On : 14 Dec 2001 1:48 pm Operator: CBN
Sample : WG110000-02 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-87-(37,23) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 14 14:17 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			9.66	1587806	32.6494 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 108.83%
9) S BFB			21.80	4313233	31.3831 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 104.61%
13) S BCB			25.75	4124917	31.2103 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 104.03%
Target Compounds					
1) TM MTBE			3.53	1217287	19.6443 UG/L
2) TM Benzene			7.30	3219695	20.3725 UG/L
4) TM Toluene			13.71	3024309	20.0472 UG/L
5) TM Chlorobenzene			18.58	3093768	19.6309 UG/L
6) TM Ethylbenzene			18.86	2751645	20.4042 UG/L
7) TM m-,p-Xylene			19.11	6542781	40.0864 UG/L
8) TM o-Xylene			20.29	2781257	19.6520 UG/L
10) T 1,3-Dichlorobenzene			24.06	2647882	18.9846 UG/L
11) T 1,4-Dichlorobenzene			24.24	2903520	19.6641 UG/L
12) T 1,2-Dichlorobenzene			24.78	2529095	20.3693 UG/L

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

Data File : C:\HPCHEM\1\DATA\121401\11G12873.D Vial: 11
Acq On : 14 Dec 2001 20:22 Operator: CBN
Sample : WG110000-03 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	62.308	E3	-0.6	105	0.00
2	TM	Benzene	158.041	154.191	E3	2.4	97	0.00
3	S	TFT	48.632	52.997	E3	-9.0	107	0.00
4	TM	Toluene	150.860	150.230	E3	0.4	98	0.00
5	TM	Chlorobenzene	157.597	152.970	E3	2.9	97	0.00
6	TM	Ethylbenzene	134.857	136.483	E3	-1.2	100	0.00
7	TM	m-,p-Xylene	163.217	161.759	E3	0.9	97	0.00
8	TM	o-Xylene	141.526	137.647	E3	2.7	95	0.00
9	S	BFB	137.438	146.440	E3	-6.5	107	0.00
10	T	1,3-Dichlorobenzene	139.475	131.100	E3	6.0	95	0.00
11	T	1,4-Dichlorobenzene	147.656	137.948	E3	6.6	93	0.00
12	T	1,2-Dichlorobenzene	124.162	123.723	E3	0.4	102	0.00
13	S	BCB	132.165	138.877	E3	-5.1	105	0.00

Data File : C:\HPCHEM\1\DATA\121401\11G12873.D
Acq On : 14 Dec 2001 20:22
Sample : WG110000-03 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

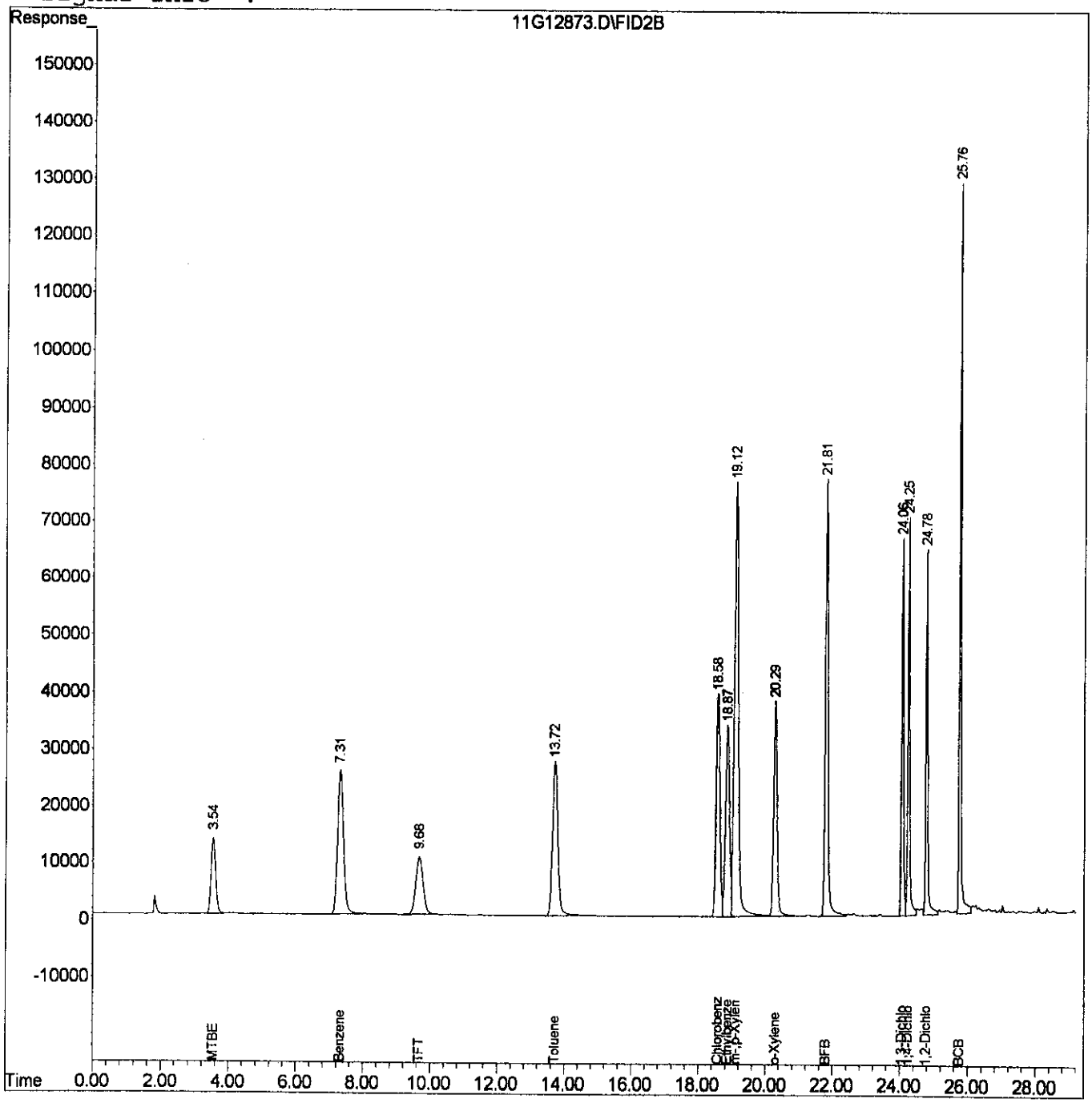
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	20.110	-0.5	105	0.00
2	TM	Benzene	20.000	19.513	2.4	97	0.00
3	S	TFT	30.000	32.693	-9.0	107	0.00
4	TM	Toluene	20.000	19.917	0.4	98	0.00
5	TM	Chlorobenzene	20.000	19.413	2.9	97	0.00
6	TM	Ethylbenzene	20.000	20.241	-1.2	100	0.00
7	TM	m-,p-Xylene	40.000	39.643	0.9	97	0.00
8	TM	o-Xylene	20.000	19.452	2.7	95	0.00
9	S	BFB	30.000	31.965	-6.5	107	0.00
10	T	1,3-Dichlorobenzene	20.000	18.799	6.0	95	0.00
11	T	1,4-Dichlorobenzene	20.000	18.685	6.6	93	0.00
12	T	1,2-Dichlorobenzene	20.000	19.929	0.4	102	0.00
13	S	BCB	30.000	31.523	-5.1	105	0.00

Data File : C:\HPCHEM\1\DATA\121401\11G12873.D Vial: 11
Acq On : 14 Dec 2001 8:22 pm Operator: CBN
Sample : WG110000-03 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-87-(37,23) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 14 20:52 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 :



Data File : C:\HPCHEM\1\DATA\121401\11G12873.D Vial: 11
Acq On : 14 Dec 2001 8:22 pm Operator: CBN
Sample : WG110000-03 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-87-(37,23) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 14 20:52 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	1589914	32.6928 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 108.98%
9) S BFB			21.81	4393197	31.9650 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 106.55%
13) S BCB			25.76	4166301	31.5235 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 105.08%
Target Compounds					
1) TM MTBE			3.54	1246163	20.1103 UG/L
2) TM Benzene			7.32	3083815	19.5127 UG/L
4) TM Toluene			13.72	3004606	19.9166 UG/L
5) TM Chlorobenzene			18.59	3059392	19.4128 UG/L
6) TM Ethylbenzene			18.87	2729651	20.2411 UG/L
7) TM m-,p-Xylene			19.12	6470343	39.6426 UG/L
8) TM o-Xylene			20.29	2752944	19.4519 UG/L
10) T 1,3-Dichlorobenzene			24.06	2621994	18.7990 UG/L
11) T 1,4-Dichlorobenzene			24.25	2758961	18.6850 UG/L
12) T 1,2-Dichlorobenzene			24.78	2474466	19.9293 UG/L

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

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: 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

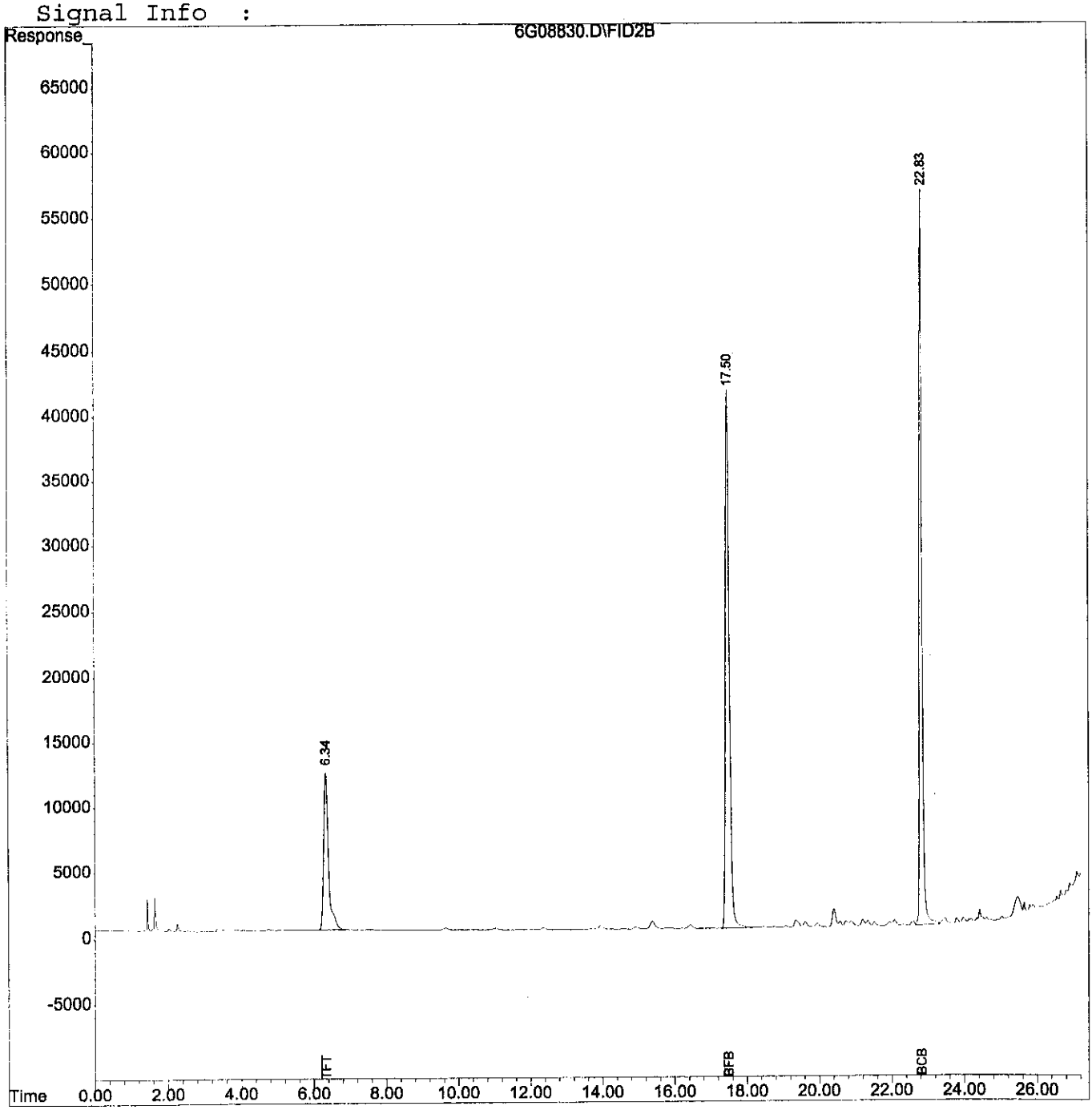
Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	3.550	3.549	3.542	3.547	0.004	0.013
benzene	7.315	7.310	7.294	7.306	0.011	0.033
1,1,1-trifluorotoluene (SS)	9.664	9.656	9.635	9.652	0.015	0.045
toluene	13.716	13.709	13.688	13.704	0.015	0.044
chlorobenzene	18.589	18.579	18.562	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

2.1.3.4 Raw Data

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 :



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 :

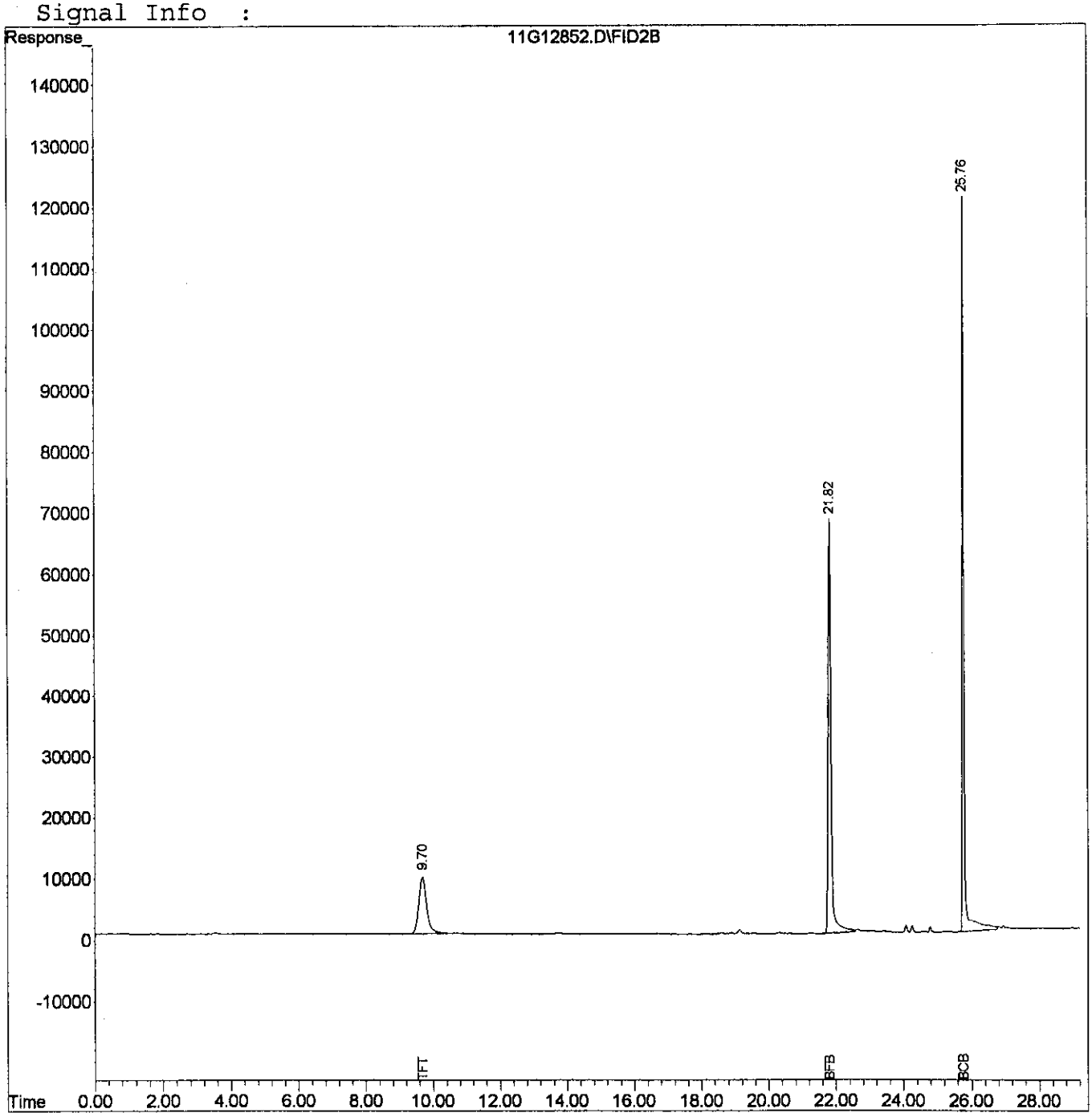
Compound			R.T.	Response	Conc	Units
System Monitoring Compounds						
3) S TFT			6.34	1105169	24.8910	UG/KG ✓
Spiked Amount	30.000	Range	47 - 121	Recovery =	82.97%	
9) S BFB			17.50	3048679	28.3007	UG/KG
Spiked Amount	30.000	Range	70 - 130	Recovery =	94.34%	
13) S BCB			22.83	2780970	27.6535	UG/KG
Spiked 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.
6G08830.D 8021S.M Thu Dec 13 08:16:16 2001 Page 1

Data File : C:\HPCHEM\1\DATA\121401\11G12852.D Vial: 2
Acq On : 14 Dec 2001 7:50 am Operator: CBN
Sample : WG110001-01 WATER BLANK 5ML Inst : HP11
Misc : 1,1 S-87-23 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 14 8:19 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 :



Data File : C:\HPCHEM\1\DATA\121401\11G12852.D Vial: 2
Acq On : 14 Dec 2001 7:50 am Operator: CBN
Sample : WG110001-01 WATER BLANK 5ML Inst : HP11
Misc : 1,1 S-87-23 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 14 8:19 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 :

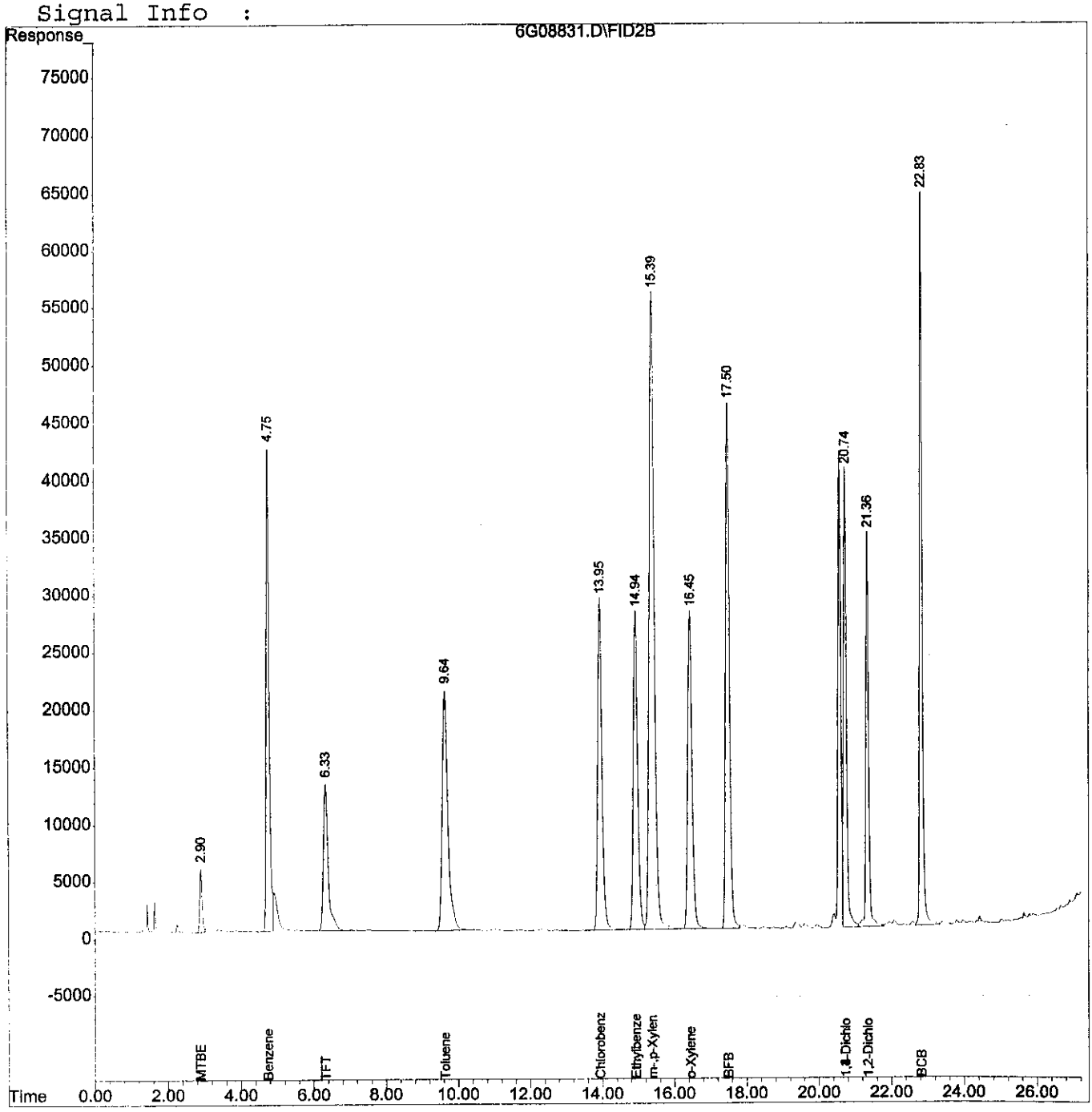
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.69	1506922	30.9862 UG/L ✓
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 103.29%
9) S BFB			21.82	4038801	29.3864 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 97.95%
13) S BCB			25.76	4278901	32.3754 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 107.92%
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	42773	<MDL UG/L
8) TM o-Xylene			0.00	0	N.D. UG/L
10) T 1,3-Dichlorobenzene			24.07	42739	<MDL UG/L
11) T 1,4-Dichlorobenzene			24.25	39090	<MDL UG/L
12) T 1,2-Dichlorobenzene			24.79	30360	<MDL UG/L

(f)=RT Delta > 1/2 Window (m)=manual int. 136

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 :



6G08831.D 8021S.M Thu Dec 13 08:51:05 2001 Page 2

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 :

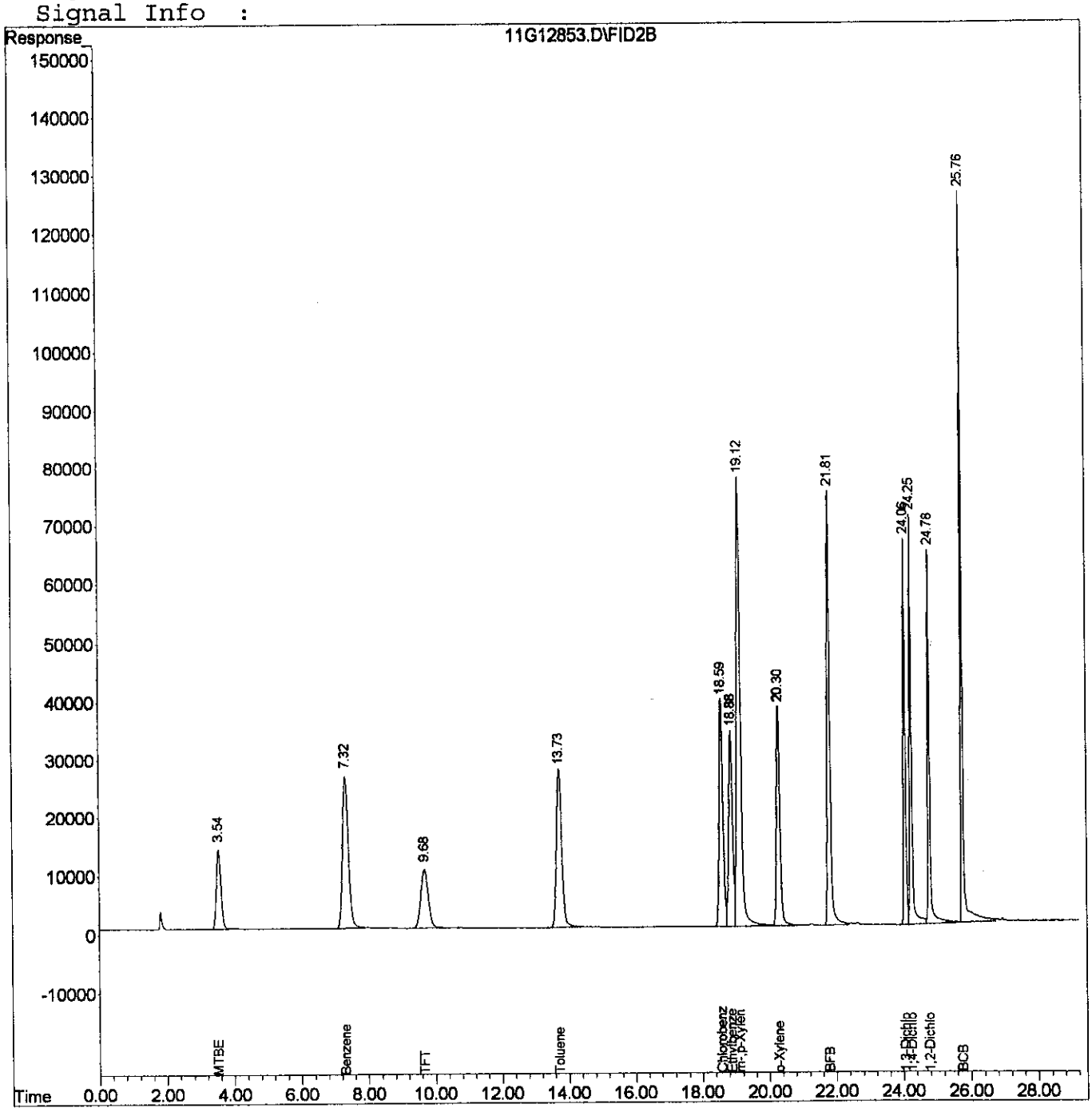
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			6.34	1177416	26.5182 UG/KG ✓
Spiked Amount	30.000	Range	47 - 121	Recovery =	88.39%
9) S BFB			17.50	3337415	30.9810 UG/KG
Spiked Amount	30.000	Range	70 - 130	Recovery =	103.27%
13) S BCB			22.83	3152093	31.3438 UG/KG
Spiked 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.
6G08831.D 8021S.M Thu Dec 13 08:51:04 2001 Page 1

Data File : C:\HPCHEM\1\DATA\121401\11G12853.D Vial: 3
Acq On : 14 Dec 2001 8:25 am Operator: CBN
Sample : WG110001-02 WATER LCS 20PPB 5ML Inst : HP11
Misc : 1,1 S-87-(37,23) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 14 8:54 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 :



Data File : C:\HPCHEM\1\DATA\121401\11G12853.D Vial: 3
Acq On : 14 Dec 2001 8:25 am Operator: CBN
Sample : WG110001-02 WATER LCS 20PPB 5ML Inst : HP11
Misc : 1,1 S-87-(37,23) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 14 8:54 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	1562359	32.1262 UG/L ✓
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 107.09%
9) S BFB			21.81	4253264	30.9468 UG/L
Spiked Amount	30.0000	Range	70 - 130	Recovery	= 103.16%
13) S BCB			25.76	4270103	32.3089 UG/L
Spiked Amount	30.0000	Range	37 - 137	Recovery	= 107.70%
Target Compounds					
1) TM MTBE			3.54	1267124	20.4485 UG/L
2) TM Benzene			7.32	3169165	20.0528 UG/L
4) TM Toluene			13.73	2999345	19.8817 UG/L
5) TM Chlorobenzene			18.59	3060835	19.4220 UG/L
6) TM Ethylbenzene			18.88	2732067	20.2590 UG/L
7) TM m-,p-Xylene			19.13	6499643	39.8221 UG/L
8) TM o-Xylene			20.30	2756005	19.4736 UG/L
10) T 1,3-Dichlorobenzene			24.07	2622413	18.8020 UG/L
11) T 1,4-Dichlorobenzene			24.25	2860999	19.3761 UG/L
12) T 1,2-Dichlorobenzene			24.78	2560355	20.6210 UG/L

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

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

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 07:16
3	3	6G08831.D	1.	WG109922-02 SOIL LCS 20PPB 5G	7,1 S-87-37,88-05	13 Dec 2001 07:48
4	1	6G08832.D	1.	WG109922-03 L0112129-03 5G ✓	7,1 S-88-05	13 Dec 2001 08:21
5	2	6G08833.D	1.	WG109922-04 L0112129-03 MS 5G ✓	7,1 S-87-37,88-05	13 Dec 2001 09:16
6	3	6G08834.D	1.	WG109922-05 L0112129-03 MSD 5G ✓	7,1 S-87-37,88-05	13 Dec 2001 09:49
7	4	6G08835.D	5.	L0112129-07 5X 1G ✓	7,5 S-88-05	13 Dec 2001 10:21
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

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

WG109919
1 31
68

ANALYST: CBI

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g12818.d	1.	WG109919-01 8021 STD 20PPB 5ML accuu	1,1 S-87-(37,22)	13 Dec 2001 07:0
2	2	11g12819.d	1.	WG109919-01 8021 STD 20PPB 5ML ⊥	1,1 S-87-(37,22)	13 Dec 2001 07:5
3	3	11g12821.d	1.	WG109931-01 1PPB 8021 WATER... DNR	1,1 S-87-21 S-88-05	13 Dec 2001 08:5
4	4	11g12822.d	1.	WG109931-01 1PPB 8021 WATER...✓	1,1 S-87-21 S-88-05	13 Dec 2001 09:2
5	5	11g12823.d	1.	WG109931-02 10PPB 8021 WATE...✓	1,1 S-87-21 S-88-05	13 Dec 2001 10:0
6	6	11g12824.d	1.	WG109931-03 20PPB 8021 WATE... ✓	1,1 S-87-21 S-88-05	13 Dec 2001 10:3
7	7	11g12825.d	1.	WG109931-04 50PPB 8021 WATE...✓	1,1 S-87-21 S-88-05	13 Dec 2001 11:1
8	8	11g12826.d	1.	WG109931-05 100PPB 8021 WAT... ✓	1,1 S-87-21 S-88-05	13 Dec 2001 11:4
9	9	11g12827.d	1.	WG109931-06 200PPB 8021 WAT... ✓	1,1 S-87-21 S-88-05	13 Dec 2001 12:2
10	10	11g12828.d	1.	WG109931-07 300PPB 8021 WAT...✓	1,1 S-87-21 S-88-05	13 Dec 2001 12:5
11	11	11g12829.d	1.	SYSTEM BLANK ✓	1,1 S-87-21 S-88-05	13 Dec 2001 13:3
12	11	11g12830.d	1.	WG109931-08 8021 ALT SOURCE...✓	1,1 S-87-37 S-88-05	13 Dec 2001 14:0
13	1	11g12831.d	1.	WG109968-01 WATER BLANK 5ML ✓	1,1 S-87-23	13 Dec 2001 16:2
14	2	11g12832.d	1.	WG109968-02 WATER LCS 20PPB... ✓	1,1 S-87-(37,23)	13 Dec 2001 17:0
15	3	11g12833.d	1.	L0112203-02 A 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 17:3
16	4	11g12834.d	1.	L0112252-02 A 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 18:1
17	5	11g12835.d	1.	L0112259-04 A 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 18:4
18	6	11g12836.d	1.	L0112259-05 A 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 19:1
19	7	11g12837.d	1.	L0112173-55 A 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 19:5
20	8	11g12838.d	1.	L0112173-56 A 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 20:2
21	9	11g12839.d	1.	L0112173-57 A 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 21:0
22	10	11g12840.d	1.	L0112183-16 A 5ML pH<2 ✓ RR (TOLUENE)	1,1 S-87-23	13 Dec 2001 21:3
23	11	11g12841.d	1.	WG109931-09 8021 STD 20PPB 5ML✓	1,1 S-87-(37,23)	13 Dec 2001 22:1
24	12	11g12842.d	20.	L0112173-53 A 5ML pH<2 20X RR START	1,20 S-87-23	13 Dec 2001 22:4
25	13	11g12843.d	1.	L0112180-03 B 5ML pH<2✓	1,1 S-87-23	13 Dec 2001 23:2
26	14	11g12844.d	1.	L0112180-04 B 5ML pH<2 ✓	1,1 S-87-23	13 Dec 2001 23:5
27	15	11g12845.d	1.	WG109968-03 L0112253-01 A 5... ✓	1,1 S-87-23	14 Dec 2001 00:3
28	16	11g12846.d	1.	WG109968-04 L0112253-01 MS ...✓	1,1 S-87-(37,23)	14 Dec 2001 01:0
29	17	11g12847.d	1.	WG109968-05 L0112253-01 MSD... ✓	1,1 S-87-(37,23)	14 Dec 2001 01:4
30	18	11g12848.d	1.	RINSE 5G ✓	1,1 S-87-23	14 Dec 2001 02:1
31	19	11g12849.d	1.	RINSE 5G ✓	1,1 S-87-23	14 Dec 2001 02:5
32	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

Injection Log

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

WG 110001

ANALYST: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g12851.d	1.	WG110000-01 8021 STD 20PPB 5ML ✓	1,1 S-87-(37,23)	14 Dec 2001 07:05
2	2	11g12852.d	1.	WG110001-01 WATER BLANK 5ML ✓	1,1 S-87-23	14 Dec 2001 07:50
3	3	11g12853.d	1.	WG110001-02 WATER LCS 20PPB... ✓	1,1 S-87-(37,23)	14 Dec 2001 08:25
4	1	11g12854.d	1.	WG110001-03 L0112173-53 A 5ML ✓	1,1 S-87-23	14 Dec 2001 09:08
5	2	11g12855.d	1.	WG110001-04 L0112173-53 MS ... ✓	1,1 S-87-(37,23)	14 Dec 2001 09:43
6	3	11g12856.d	1.	WG110001-05 L0112173-53 MSD... ✓	1,1 S-87-(37,23)	14 Dec 2001 10:18
7	4	11g12857.d	1.	L0112172-04 B 5ML ✓	1,1 S-87-23	14 Dec 2001 10:53
8	5	11g12858.d	5.	L0112170-01 B 1ML 5X ✓	1,5 S-87-23	14 Dec 2001 11:28
9	6	11g12859.d	1.	L0112170-02 B 5ML ✓	1,1 S-87-23	14 Dec 2001 12:03
10	7	11g12860.d	1.	L0112183-16 A 5ML ✓	1,1 S-87-23	14 Dec 2001 12:38
11	8	11g12861.d	1.	L0112262-17 A 5ML ✓	1,1 S-87-23	14 Dec 2001 13:13
12	9	11g12862.d	1.	WG110000-02 8021 STD 20PPB 5ML ✓	1,1 S-87-(37,23)	14 Dec 2001 13:48
13	1	11g12863.d	1.	L0112258-02 A 5ML pH<2 ✓	1,1 S-87-23	14 Dec 2001 14:33
14	2	11g12864.d	1.	L0112258-03 A 5ML pH<2 ✓	1,1 S-87-23	14 Dec 2001 15:08
15	3	11g12865.d	1.	L0112262-18 A 5ML pH<2 ✓	1,1 S-87-23	14 Dec 2001 15:43
16	4	11g12866.d	1.	L0112263-22 A 5ML pH<2 ✓	1,1 S-87-23	14 Dec 2001 16:17
17	5	11g12867.d	1.	L0112262-12 A 5ML pH<2 ✓	1,1 S-87-23	14 Dec 2001 16:52
18	6	11g12868.d	1.	L0112289-01 A 5ML pH<2 ✓	1,1 S-87-23	14 Dec 2001 17:27
19	7	11g12869.d	1.	L0112289-02 A 5ML pH<2 ✓	1,1 S-87-23	14 Dec 2001 18:02
20	8	11g12870.d	1.	L0112289-03 A 5ML pH<2 ✓	1,1 S-87-23	14 Dec 2001 18:37
21	9	11g12871.d	1.	L0112289-04 A 5ML pH<2 ✓	1,1 S-87-23	14 Dec 2001 19:12
22	10	11g12872.d	20.	L0112289-05 A 5ML pH<2 20X ✓	1,20 S-87-23	14 Dec 2001 19:47
23	11	11g12873.d	1.	WG110000-03 8021 STD 20PPB 5ML ✓	1,1 S-87-(37,23)	14 Dec 2001 20:22
24	12	11g12874.d	1.	L0112289-06 A 5ML pH<2 ✓	1,1 S-87-23	14 Dec 2001 20:57
25	13	11g12875.d	1.	L0112289-07 A 5ML pH<2 ✓	1,1 S-87-23	14 Dec 2001 21:32
26	14	11g12876.d	50.	L0112289-08 A 5ML pH<2 50X RR @ 1000PPB	1,50 S-87-23	14 Dec 2001 22:07
27	15	11g12877.d	1.	L0112289-09 A 5ML pH<2 RR c/o	1,1 S-87-23	14 Dec 2001 22:42
28	16	11g12878.d	1.	WG110000-04 8021 STD 20PPB 5ML ✓	1,1 S-87-(37,23)	14 Dec 2001 23:17

Method 5035 Preservation 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 pile #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	⊥	—	⊥	⊥
ITCorpTN-613	L0112238-01	A	12-11-01	0900	12-12-01	1345	5.08	5mL	—	CMS	□ * arms not open
⊥	⊥ -02	⊥	⊥	0805	⊥	1348	4.90	⊥	—	⊥	⊥ ⊥
URS: L0112247-01	IE07-04-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~~ 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	

Comments:

TSR NOTIFIED re SX prepped 12/12/01

Supervisor Review: LMA

* = improperly sealed cap

• = improperly sealed plunger

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.: L0112258

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 neither with water nor with soil sample delivery group.
SAMPLES

Samples: The soil sample fraction -01 required dilution analysis to obtain the results with in linear range of an instrument.
Surrogates: Due to the dilution analysis, the surrogate recovery of sample fraction -01 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: 12/4/01

Rev. 7/14/00

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Analyst: HV
Method: 8015 - FLA PRO - soil
Instrument: HP2
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 RDC 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 [signature] 12/17/01

Comments: Several samples required to analyze at dilution, due to SMS ending chk was failed in surrogate -

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

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DRO-GC DATA (8015)

Login Number: 1-0112258

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 UCL	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-CEF9-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

METHOD BLANK SUMMARY

Login Number: L0112258
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-CEF9-EQB-W-Q4-01	L0112258-02	2G17275	12/17/01 13:46	

KEMRON FORMS - Modified 10/11/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0112258 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 14:44

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0112258 Run Date: 12/17/2001 Sample ID: WG110076-02
Instrument ID: HP2 Run Time: 13:16 Method: 8015 MOD
File ID: 2G17273 Analyst: HV Matrix: Water
Workgroup (AAB#): WG110124 Units: ug/L
Contract #: 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 14:44

SURROGATE STANDARDS

Login Number: L0112258
Instrument Id: HP2
Workgroup (AAB#): WG110124

Method: DRO
Matrix: WATER

Sample Numbe	Dilution	Tag	1
L0112258-02	1.06		95.1

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 12/18/2001 14:44

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-CEF9-SB4-S-Q4-01	12-DEC-01	13-DEC-01	14-DEC-01	14	2	14-DEC-01	40	0	

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

METHOD BLANK SUMMARY

Login Number: L0112258
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-CEF9-SB4-S-Q4-01	L0112258-01	2G17245	12/14/01 12:31	
LCS	WG110005-02	2G17255	12/14/01 17:26	
LCS2	WG110005-03	2G17256	12/14/01 17:41	

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0112258 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 14:44

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0112258 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 14:44

SURROGATE STANDARDS

Login Number: L0112258
Instrument Id: HP2
Workgroup (AAB#): WG110051

Method: DRO
Matrix: SOLID

Sample Numbe	Dilution	Tag	1
L0112258-01	10.0		DL

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 14:44

2.2.5.2 Sample Data

Data Path : C:\HPCHEM\1\DATA\2G17245\

Acq On : 14 Dec 2001 12:31 Operator: HV
Sample : L0112258-01 10X PRO soil Inst : hp2
Misc : 7,1 soil Multiplr: 400.00
IntFile : PETRO.E
Quant Time: Dec 14 12:49 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 :

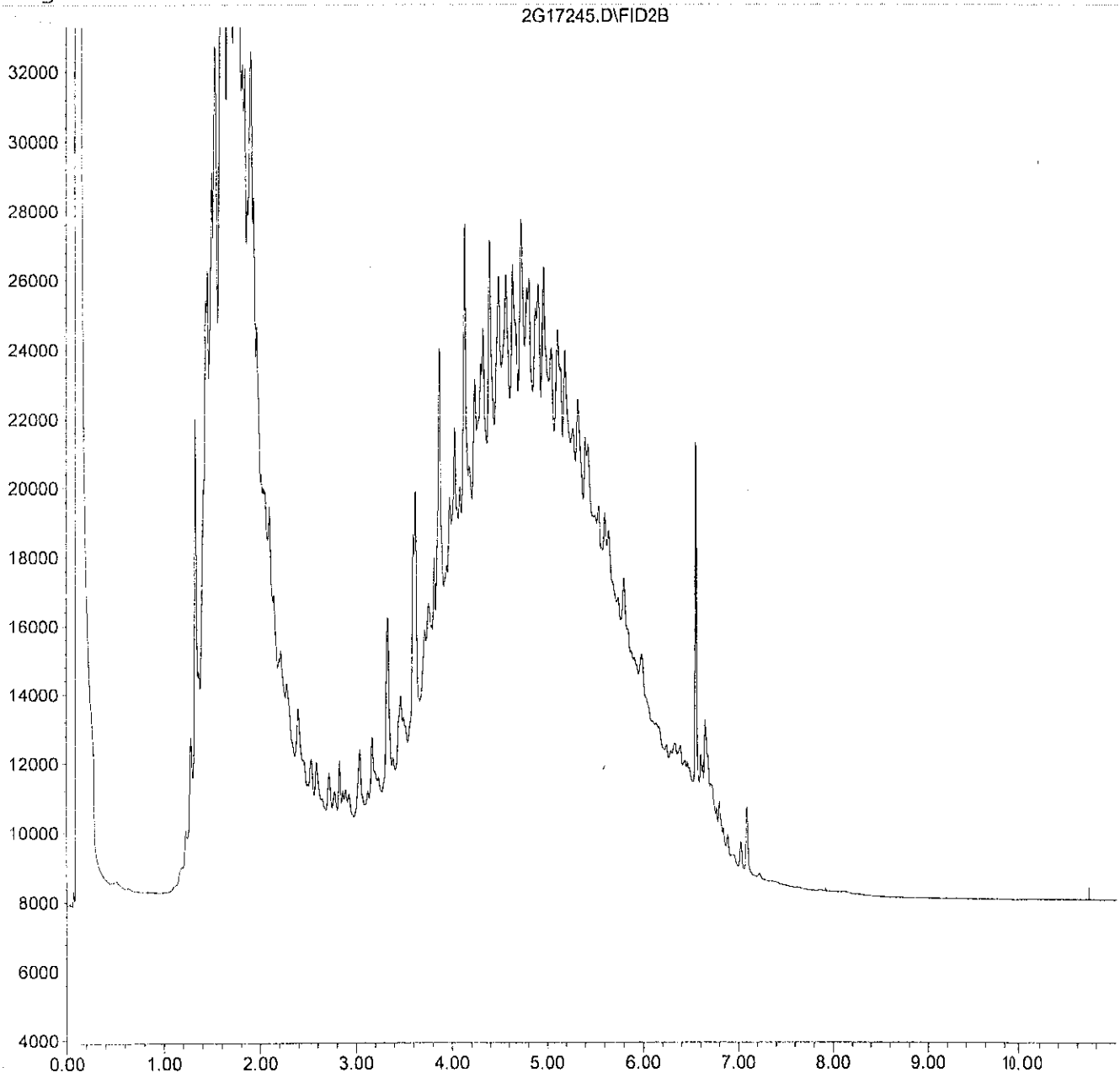
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.81	164322	3349.494 ppb
Spiked Amount 800.000 Range 43 - 136	Recovery = 418.69%#		
3) s n-Nonatriacontane	7.44	11240	579.955 ppm
Spiked Amount 800.000	Recovery = 72.49%		
Target Compounds			
1) H Petroleum Range	3.64	32952357	844463.738 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17245.D FLASHPRO.M Fri Dec 14 12:49:13 2001 Page 1

Acq On : 14 Dec 2001 12:31 Operator: HV
Sample : L0112258-01 10X PRO soil Inst : hp2
Misc : 7,1 soil Multiplr: 400.00
IntFile : PETRO.E
Quant Time: Dec 14 12:49 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 :



Acq On : 14 Dec 2001 11:16 Operator: HV
Sample : L0112258-01 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	1640232	3343.410 ppb
Spiked Amount 800.000 Range 43 - 136	Recovery = 417.93%#		
3) s n-Nonatriacontane	7.39f	490780	2532.381 ppm
Spiked Amount 800.000	Recovery = 316.55%		
Target Compounds			
1) H Petroleum Range	3.64	287033589	735575.468 ppb

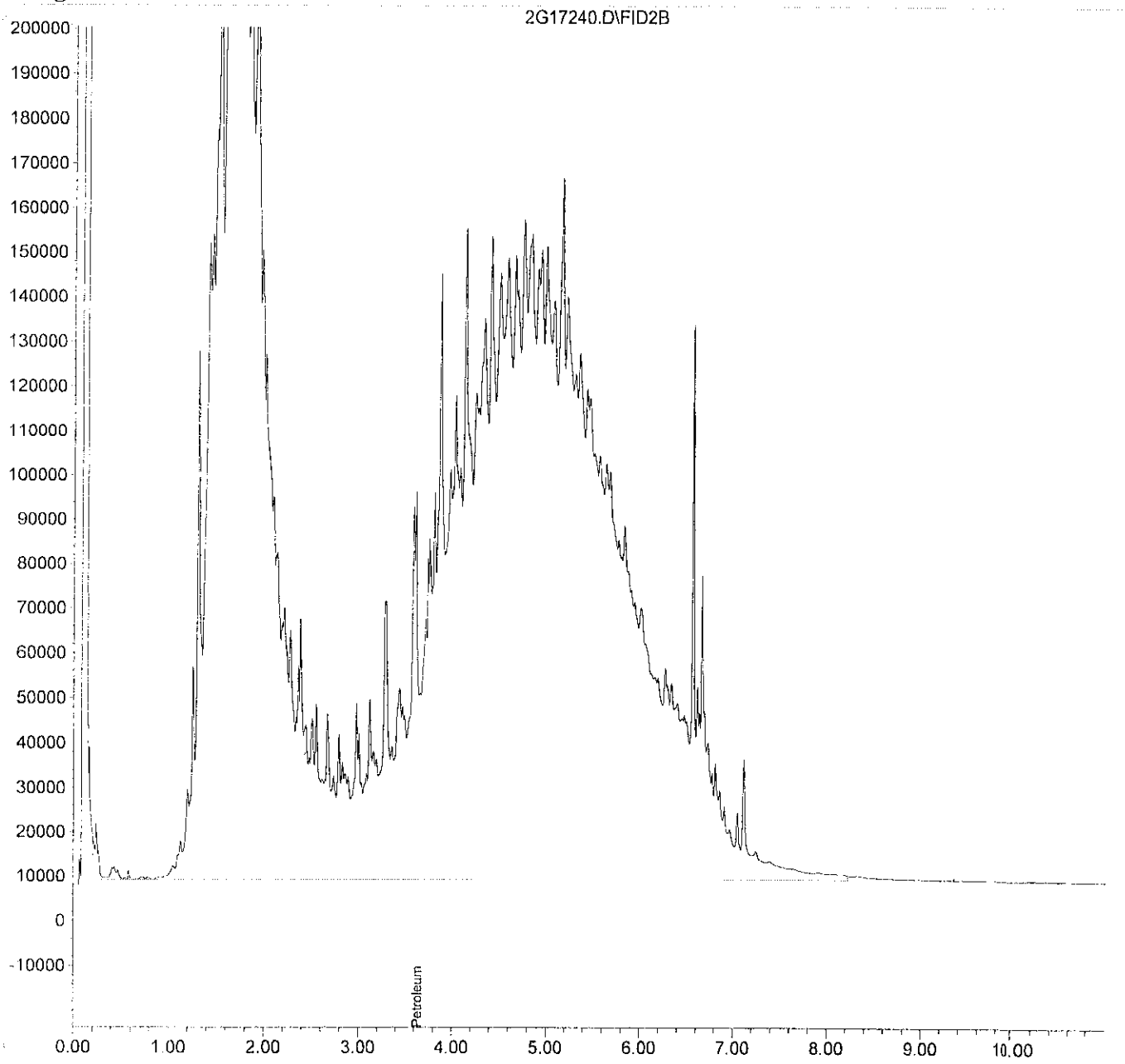
RR @ 10X D.

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17240.D FLASHPRO.M Fri Dec 14 12:46:05 2001 Page 1

Acq On : 14 Dec 2001 11:16 Operator: HV
Sample : L0112258-01 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 :



Acq On : 17 Dec 2001 15:48 Operator: RV
Sample : L0112258-02 FLA PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.06
IntFile : PETRO.E
Quant Time: Dec 17 14:00 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 :

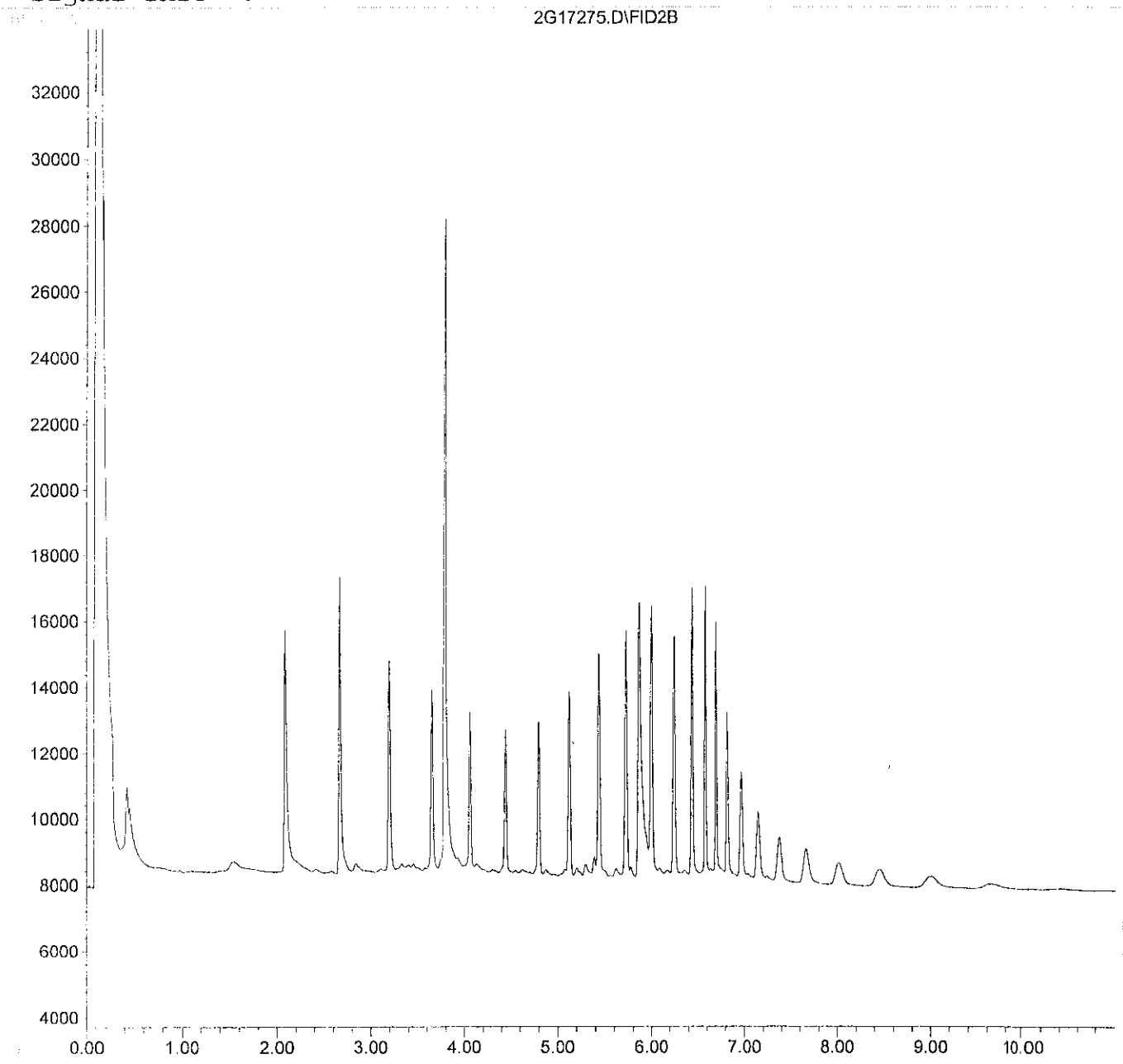
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.78	373450	19.031 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	95.15%
3) s n-Nonatriacontane	7.51f	151	0.020 ppm
Spiked Amount 20.000		Recovery =	0.10%
Target Compounds			
1) H Petroleum Range	3.64	2545729	172.883 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17275.D FLASHPRO.M Mon Dec 17 15:09:09 2001 Page 1

Acq On : 17 Dec 2001 13:46 Operator: RV
Sample : L0112258-02 FLA PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.06
IntFile : PETRO.E
Quant Time: Dec 17 14:00 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 :



2.2.5.3 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 :

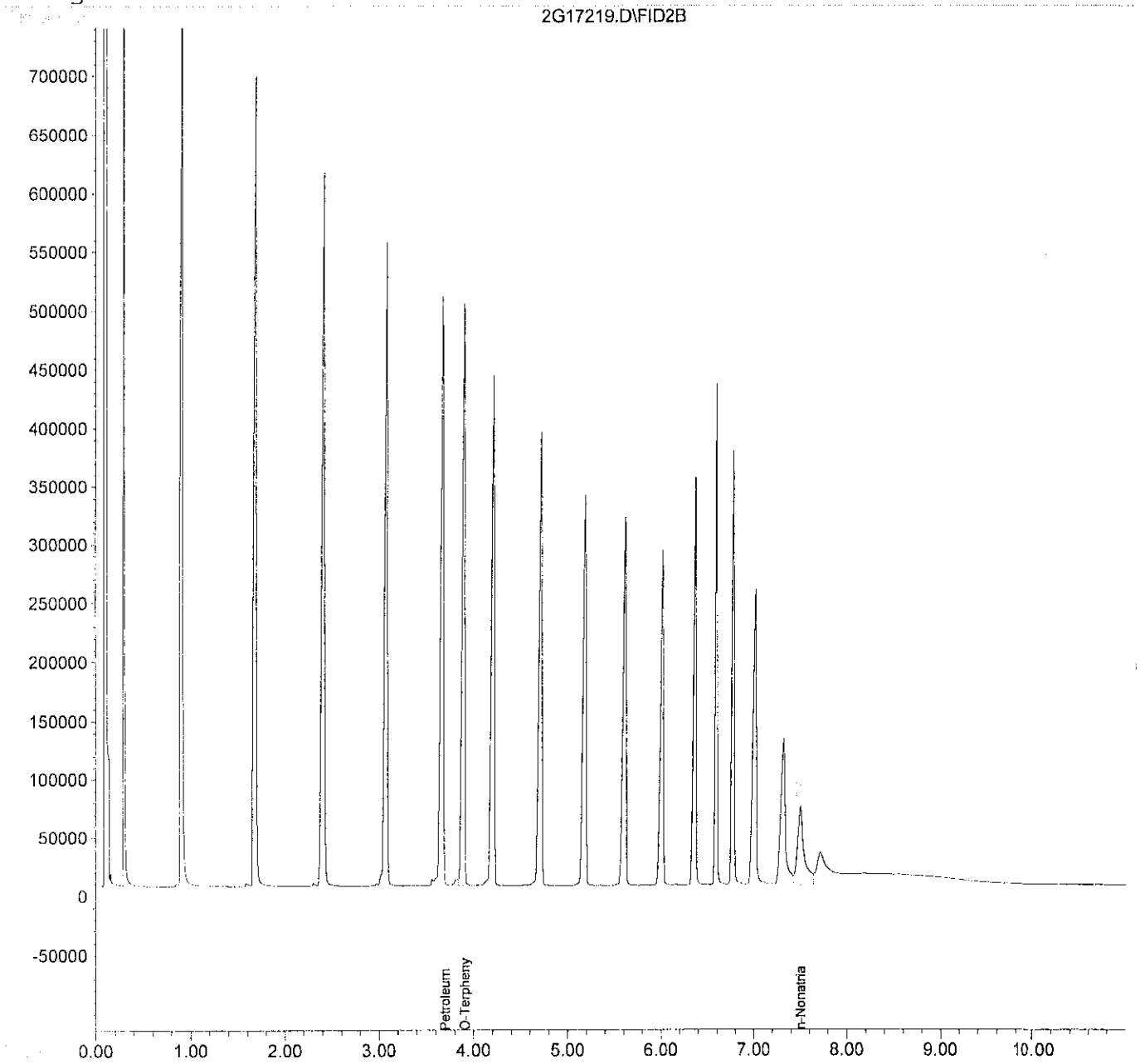
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.91	9752484	453.918 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 2269.59%#
3) s n-Nonatriacontane	7.51f	3450759	569.692 ppm
Spiked Amount 20.000		Recovery	= 2848.46%
Target Compounds			
1) H Petroleum Range	3.71	142529861	8884.829 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17219.D FLASHPRO.M Thu Dec 13 15:36:02 2001 Page 1

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 :

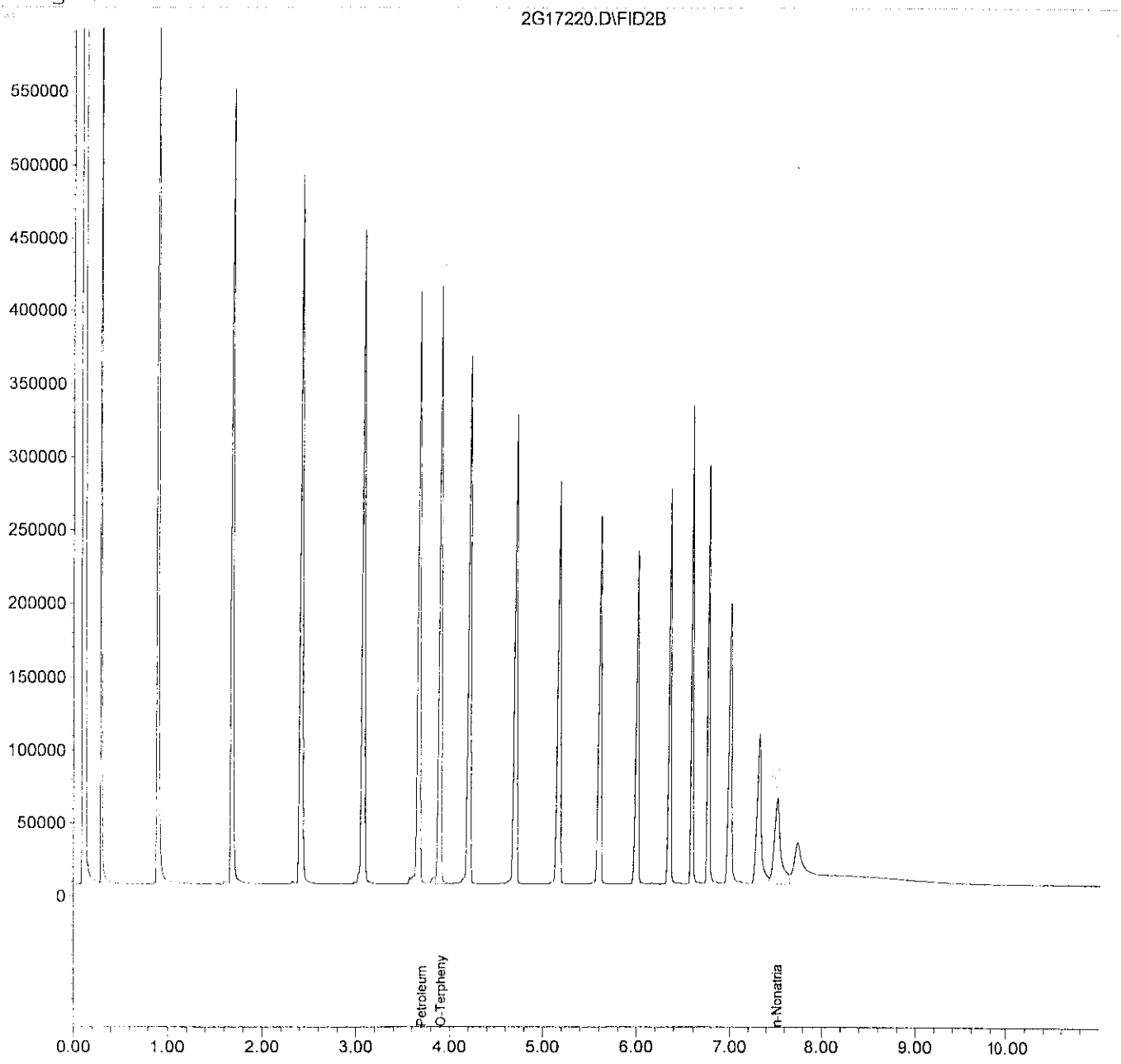
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.90	7049793	328.124 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1640.62%#
3) s n-Nonatriacontane	7.52f	2831416	467.443 ppm
Spiked Amount 20.000		Recovery	= 2337.22%
Target Compounds			
1) H Petroleum Range	3.71	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

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 : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



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 :

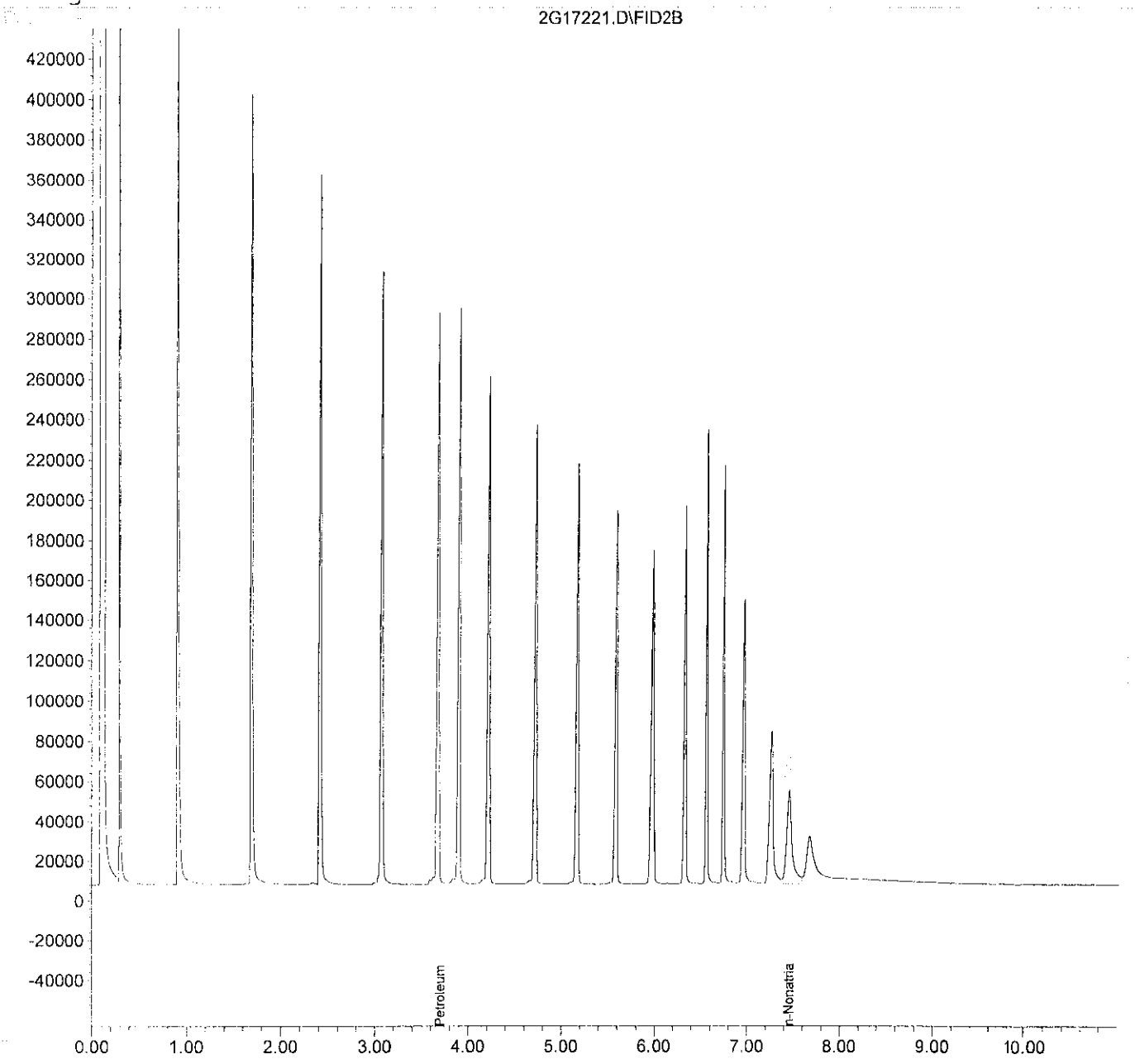
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.91	4295825	199.944 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 999.72%#			
3) s n-Nonatriacontane	7.45	1950182	321.959 ppm
Spiked Amount 20.000 Recovery = 1609.80%			
Target Compounds			
1) H Petroleum Range	3.71	61394844	3827.147 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17221.D FLASHPRO.M Thu Dec 13 15:36:45 2001 Page 1

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 :



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 :

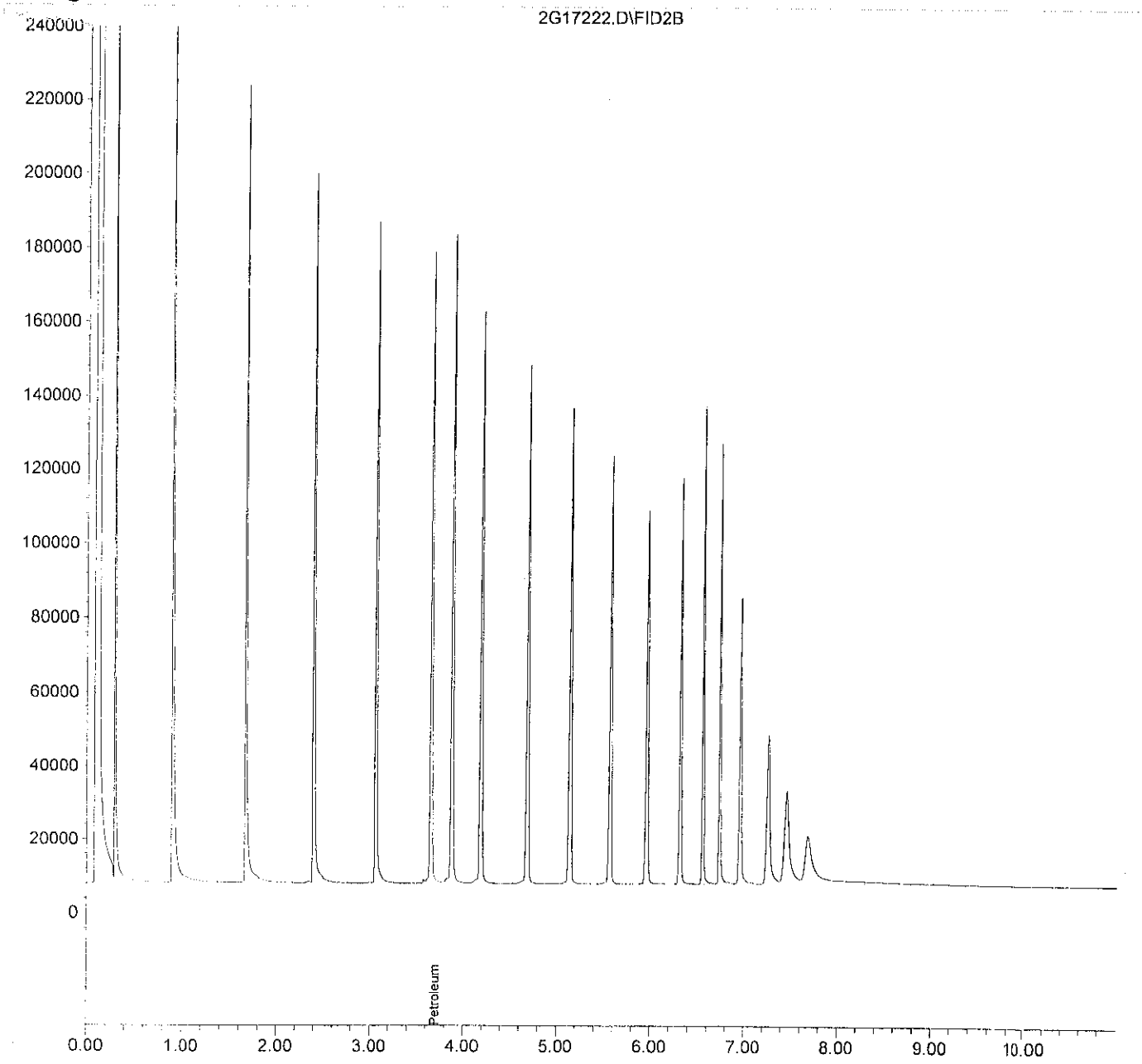
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.88	2187990	101.837 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery = 509.19%#		
3) s n-Nonatriacontane	7.45	981705	162.071 ppm
Spiked Amount 20.000	Recovery = 810.36%		
Target Compounds			
1) H Petroleum Range	3.71	31272165	1949.401 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17222.D FLASHPRO.M Thu Dec 13 15:37:13 2001 Page 1

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 :



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 :

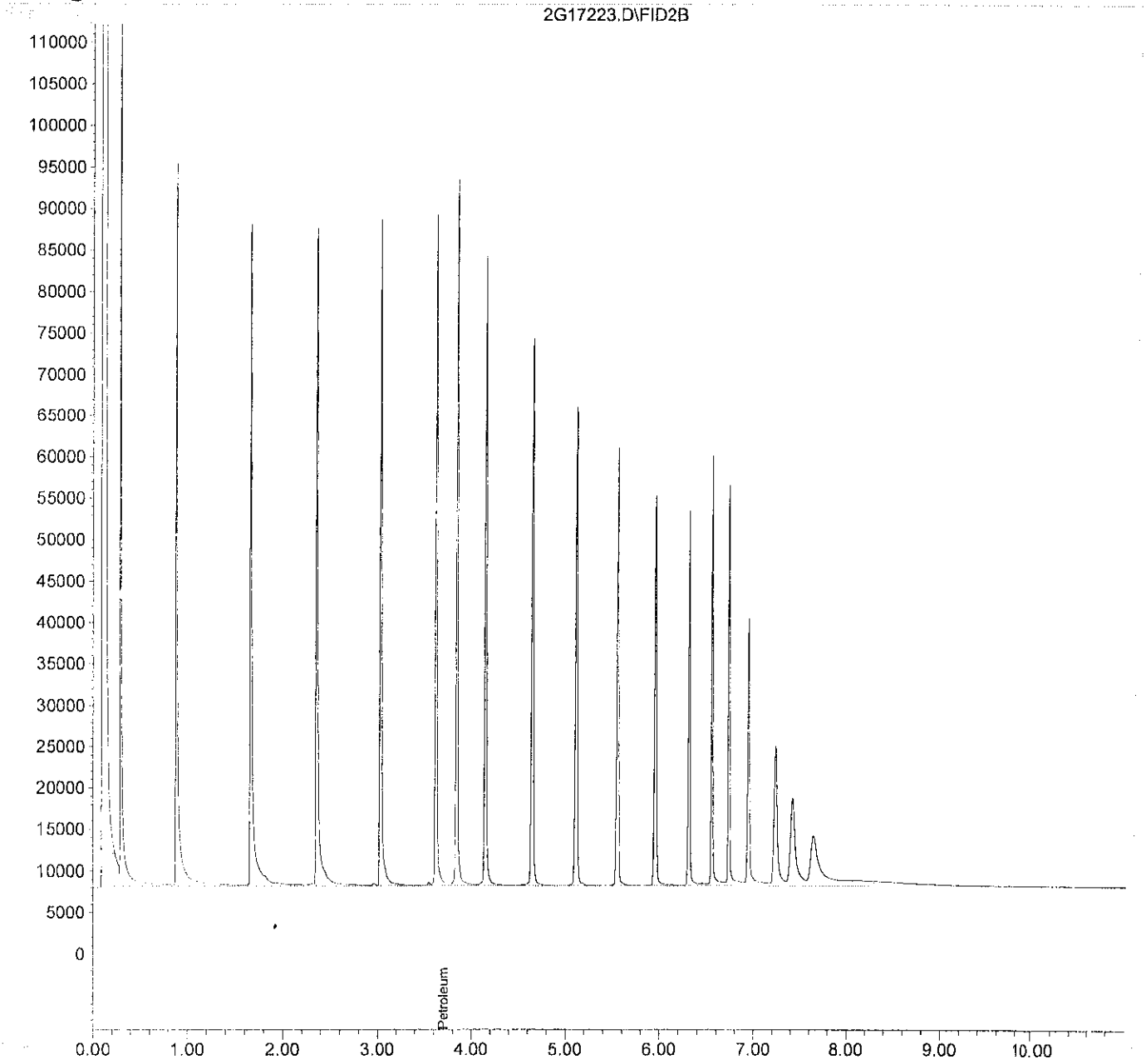
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.84	996401	46.376 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =	231.88%#	
3) s n-Nonatriacontane	7.42	361178	59.628 ppm
Spiked Amount 20.000	Recovery =	298.14%	
Target Compounds			
1) H Petroleum Range	3.71	12974414	808.781 ppb

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

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 :



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 :

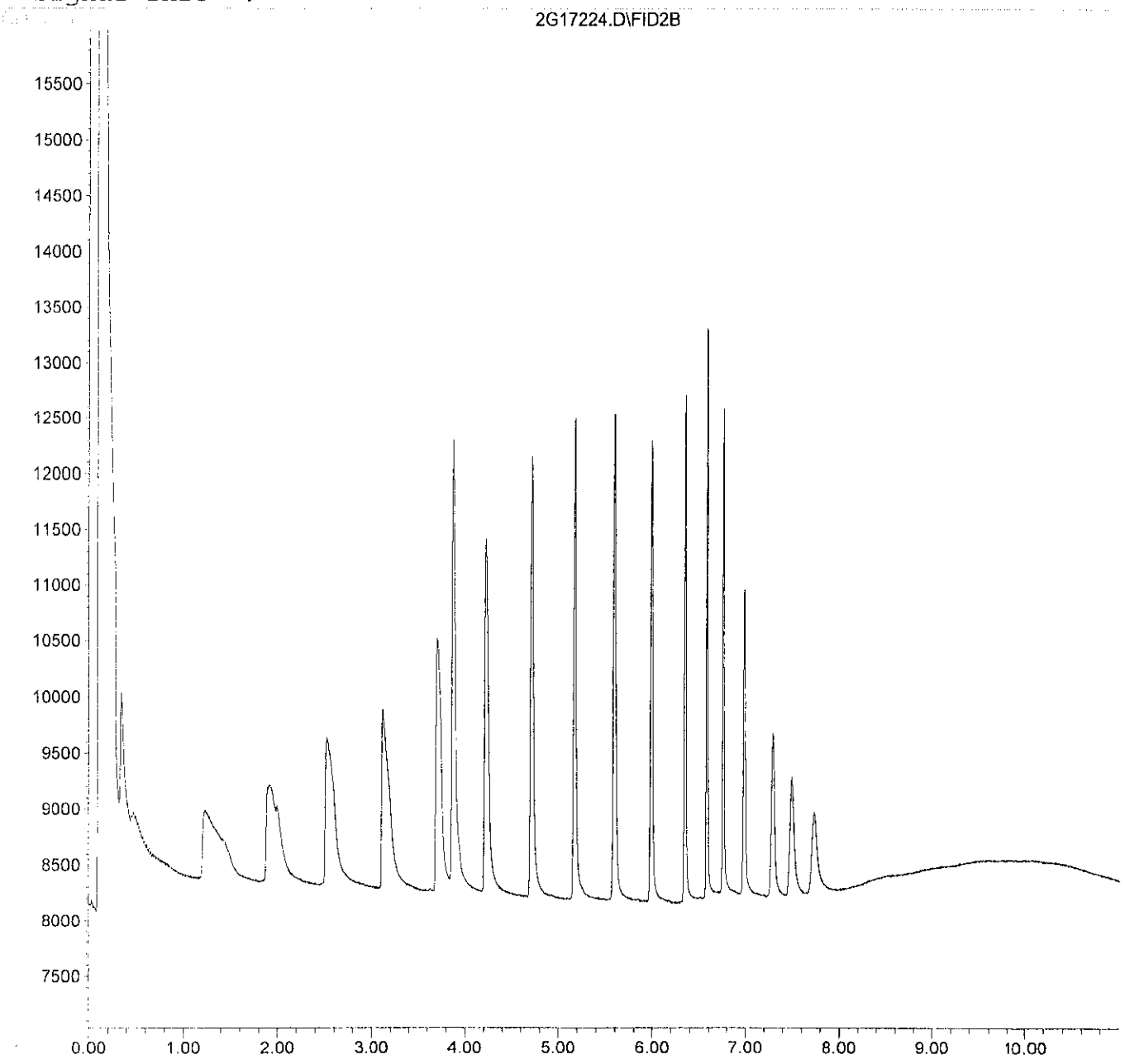
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.87	102876	4.788 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =	23.94%#	
3) s n-Nonatriacontane	7.49	34455	5.688 ppm
Spiked Amount 20.000	Recovery =	28.44%	
Target Compounds			
1) H Petroleum Range	3.71	1124094	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17224.D FLASHPRO.M Thu Dec 13 15:37:56 2001 Page 1

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 : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



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)
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

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
2G17226.D FLASHPRO.M Thu Dec 13 15:35:29 2001 Page 2

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
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 : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

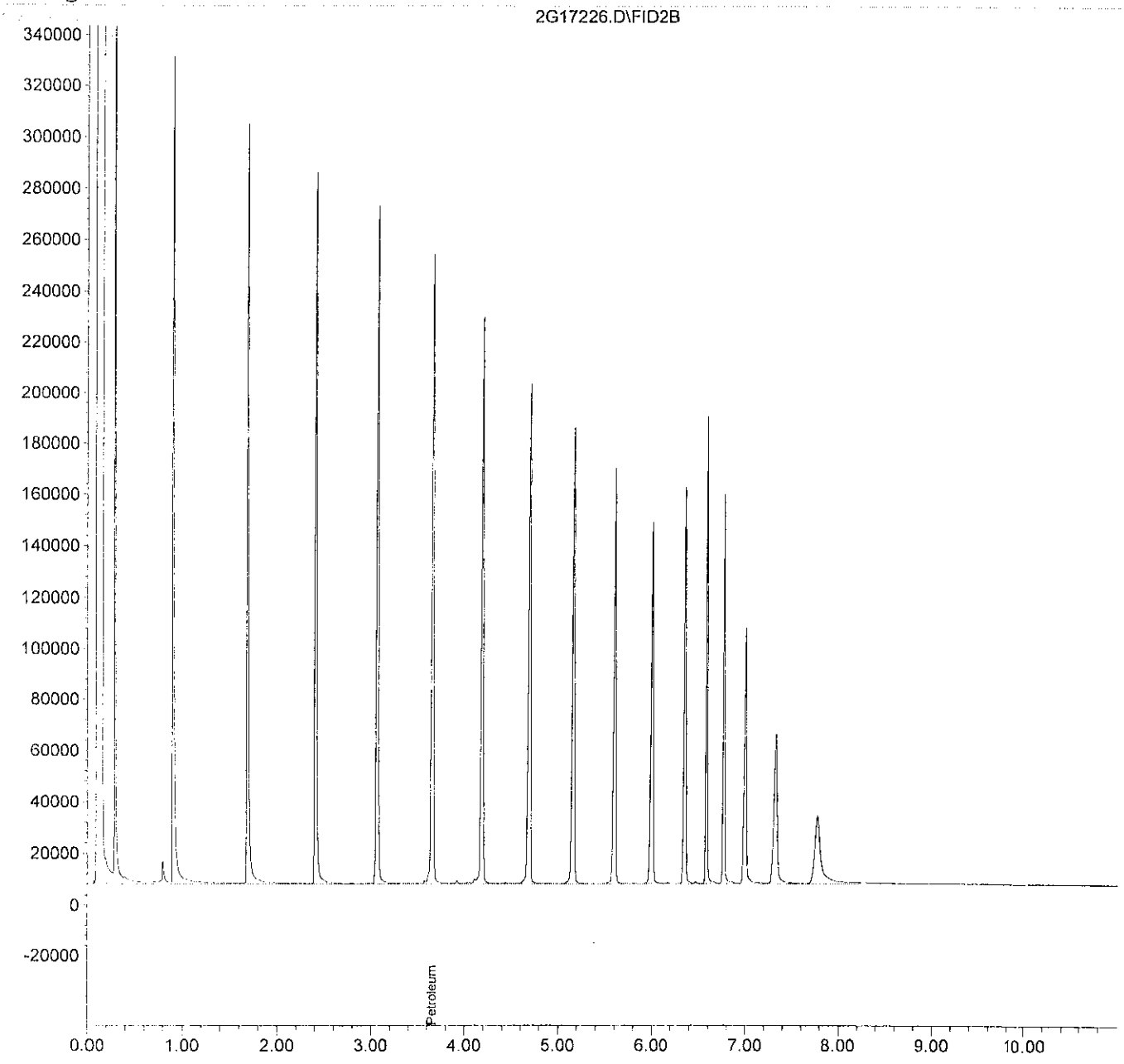
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.92	18254	0.930 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	4.65%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.64	46662112	2989.502 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17226.D FLASHPRO.M Thu Dec 13 15:35:33 2001 Page 1

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
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 :



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
2G17238.D FLASHPRO.M Fri Dec 14 12:45:40 2001 Page 1

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
2G17238.D FLASHPRO.M Fri Dec 14 12:45:40 2001 Page 2

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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

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17238.D FLASHPRO.M Fri Dec 14 12:45:44 2001 Page 1

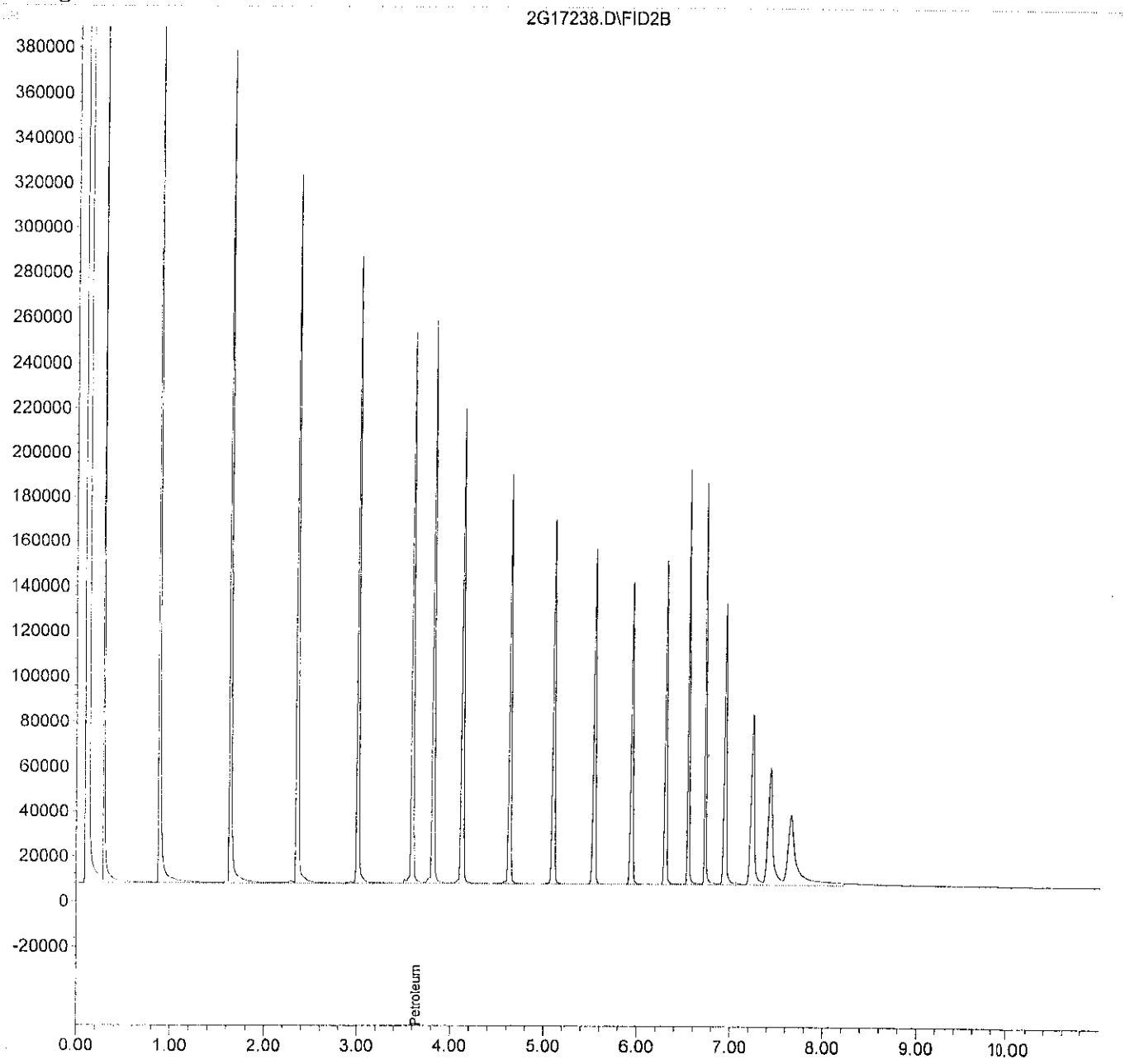
Acq On : 14 Dec 2001 10:04
Sample : WG110039-01 PRO CCV
Misc : 1,1 SOS56-21
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

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 :



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
2G17247.D FLASHPRO.M Fri Dec 14 14:39:39 2001 Page 1

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
2G17247.D FLASHPRO.M Fri Dec 14 14:39:39 2001 Page 2

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
Quant Time: Dec 14 13:15 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 : Fri Dec 14 13:15:20 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

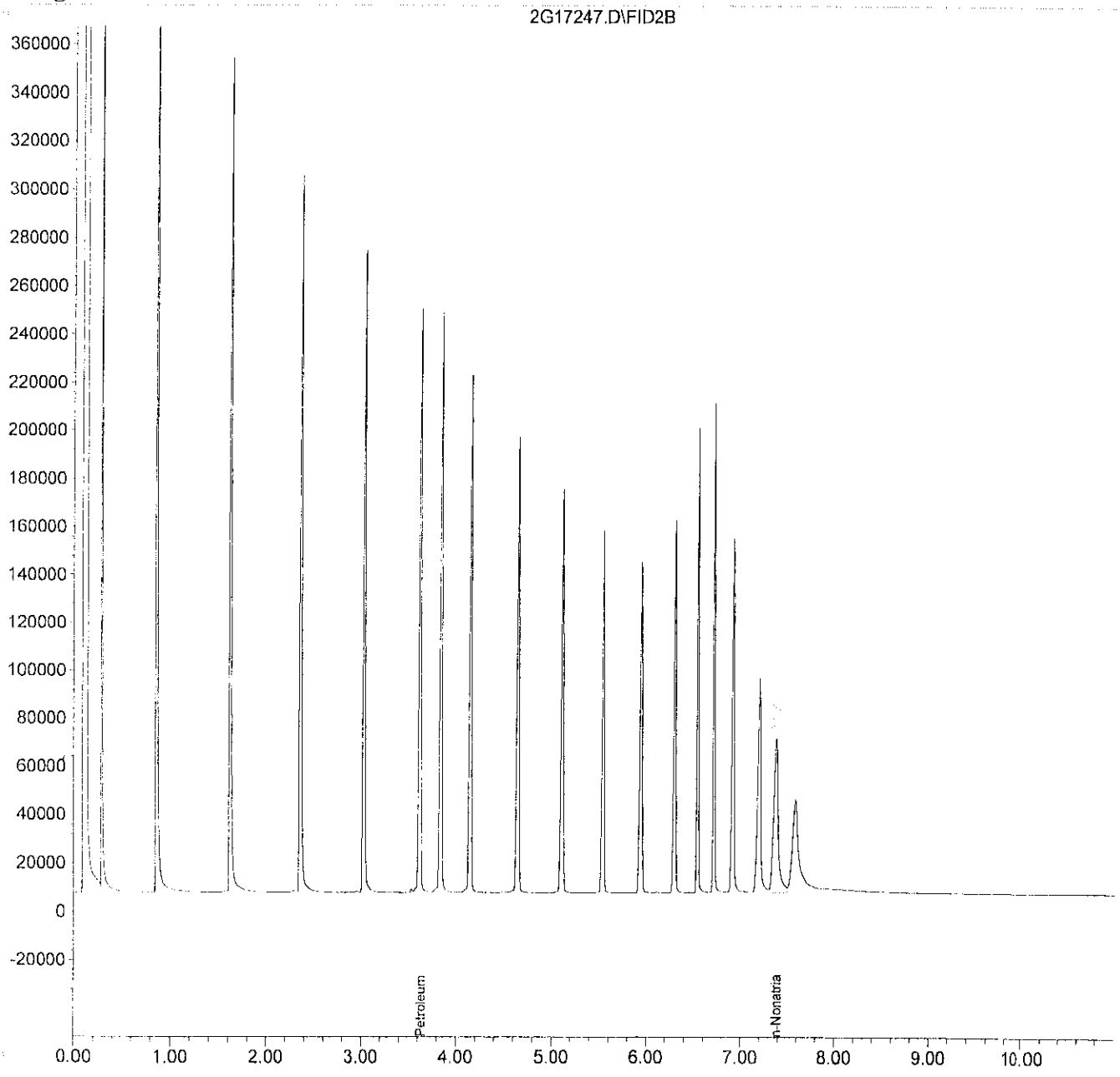
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.85	3296679	167.997 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery = 839.99%#	
3) s n-Nonatriacontane	7.38f	2118642	273.300 ppm
Spiked Amount 20.000		Recovery = 1366.50%	
Target Compounds			
1) H Petroleum Range	3.64	51668447	3310.243 ppb

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

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
Quant Time: Dec 14 13:15 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 : Fri Dec 14 13:15:20 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 14 Dec 2001 16:56 Operator: HV
Sample : WG110039-03 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)
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
2G17253.D FLASHPRO.M Mon Dec 17 08:14:26 2001 Page 1

Acq On : 14 Dec 2001 16:56
Sample : WG110039-03 PRO CCV
Misc : 1,1
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 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
2G17253.D FLASHPRO.M Mon Dec 17 08:14:26 2001 Page

Acq On : 14 Dec 2001 16:56 Operator: HV
Sample : WG110039-03 PRO CCV Inst : hp2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 14 17:15 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 : Thu Dec 13 14:48:38 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

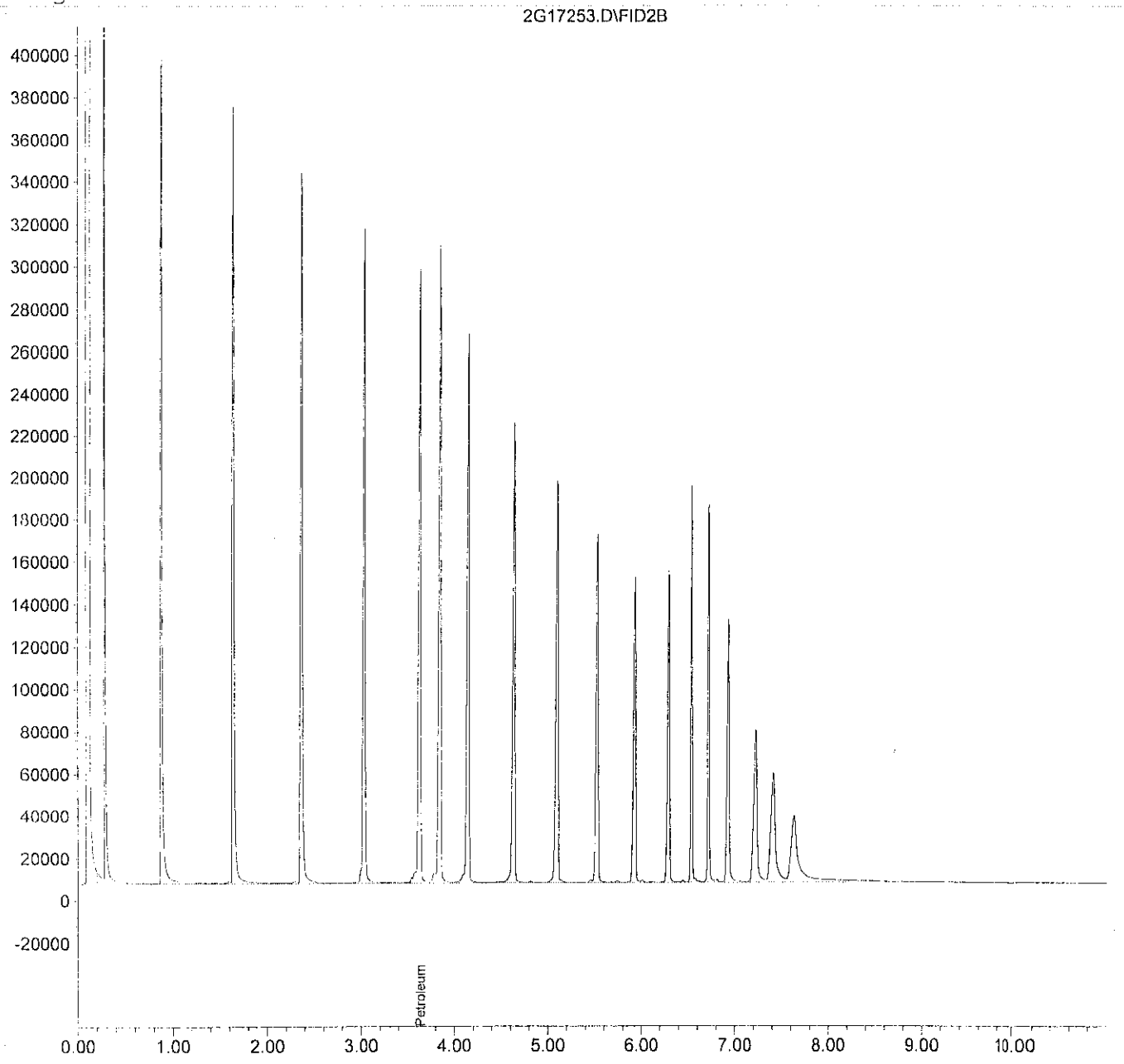
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.85	4290688	218.651 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1093.26%#
3) s n-Nonatriacontane	7.41	1725727	222.615 ppm
Spiked Amount 20.000		Recovery	= 1113.08%
Target Compounds			
1) H Petroleum Range	3.64	54639235	3500.573 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17253.D FLASHPRO.M Mon Dec 17 08:14:30 2001 Page 1

Acq On : 14 Dec 2001 16:56 Operator: HV
Sample : WG110039-03 PRO CCV Inst : hp2
Misc : 1,1 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 14 17:15 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 : 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\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)
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
2G17260.D FLASHPRO.M Mon Dec 17 08:32:57 2001 Page 1

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)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G17260.D FLASHPRO.M Mon Dec 17 08:32:57 2001 Page 2

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 : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

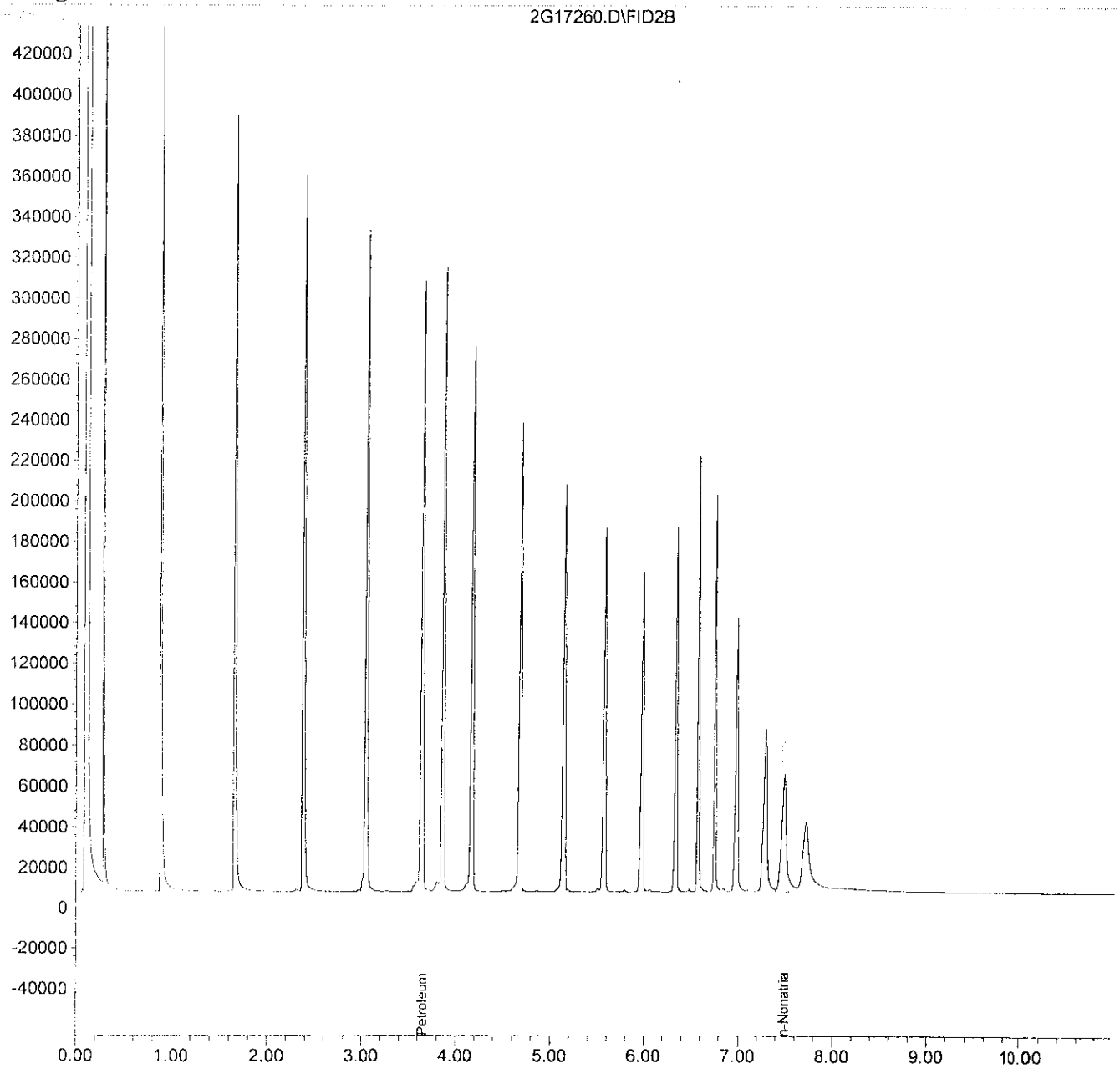
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.87	4538980	231.304 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 1156.52%#			
3) s n-Nonatriacontane	7.49	2110096	272.198 ppm
Spiked Amount 20.000 Recovery = 1360.99%			
Target Compounds			
1) H Petroleum Range	3.64	60238516	3859.302 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17260.D FLASHPRO.M Mon Dec 17 08:33:00 2001 Page 1

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 :



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
2G17270.D FLASHPRO.M Mon Dec 17 15:08:22 2001 Page 1

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 :

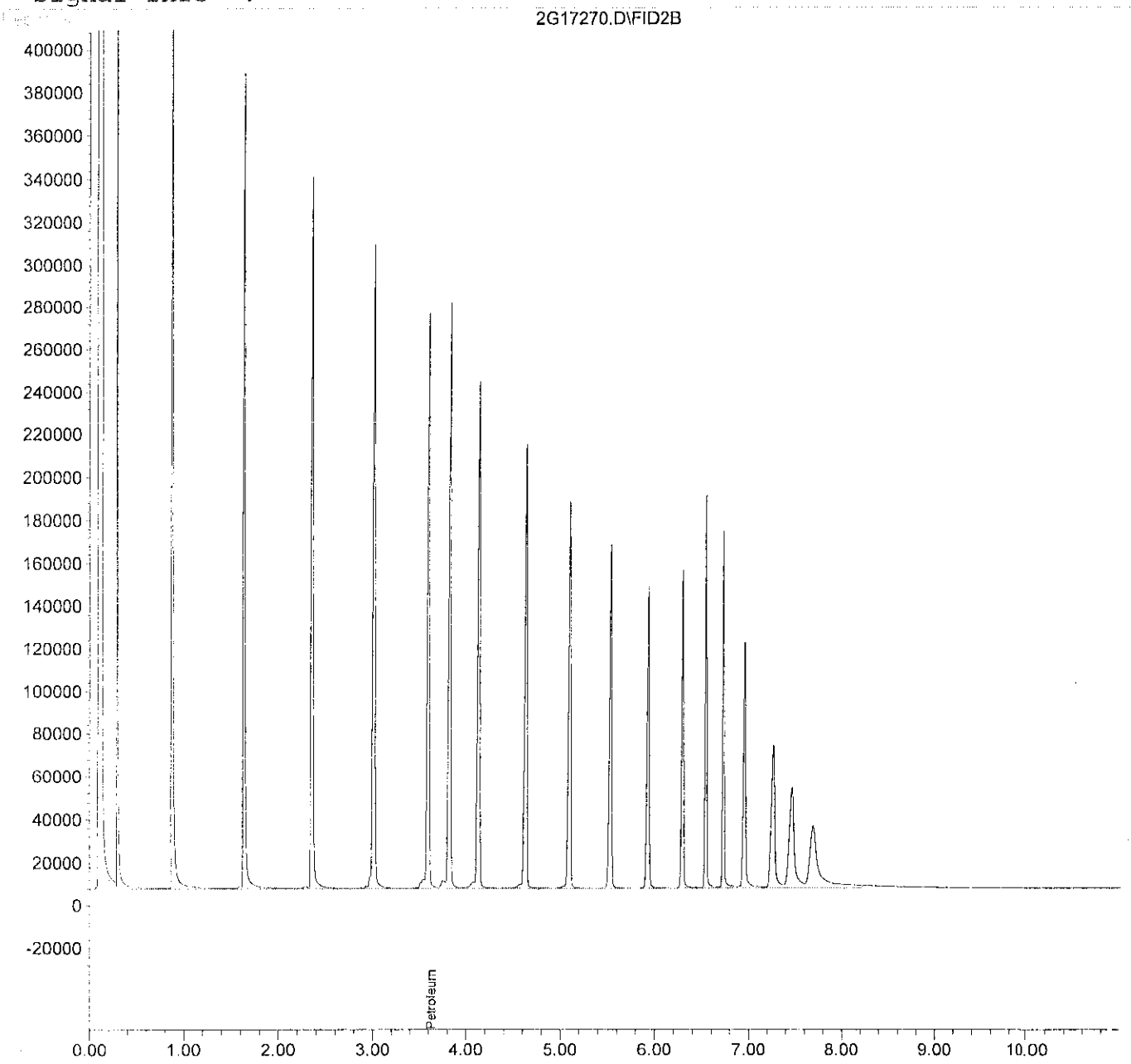
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	3902548	198.872 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery = 994.36%#		
3) s n-Nonatriacontane	7.47	1750518	225.813 ppm
Spiked Amount 20.000	Recovery = 1129.07%		
Target Compounds			
1) H Petroleum Range	3.64	54198172	3472.315 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17270.D FLASHPRO.M Mon Dec 17 15:08:26 2001 Page 1

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
2G17279.D FLASHPRO.M Mon Dec 17 15:10:21 2001 Page 1

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 :

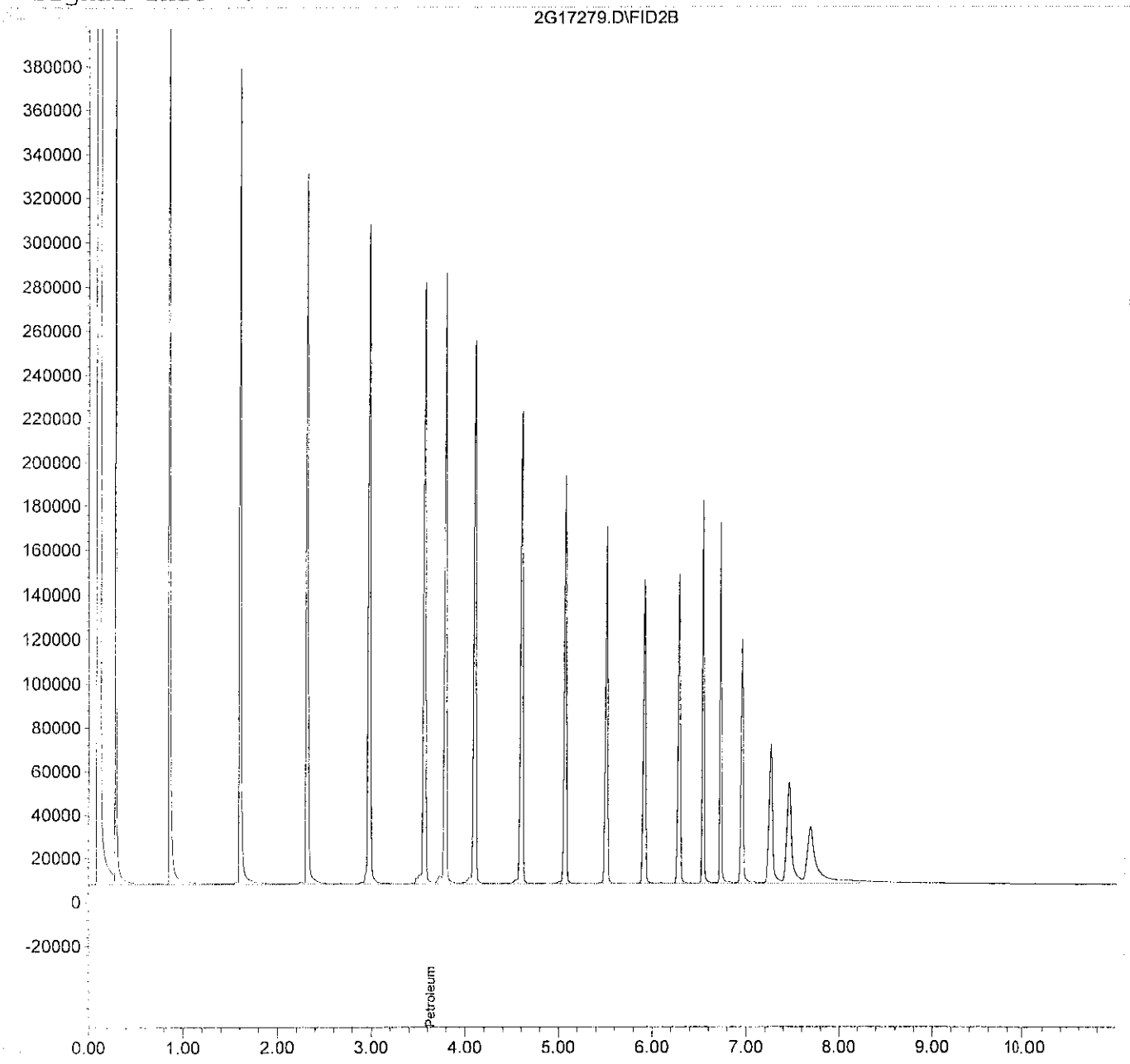
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.80	4012659	204.483 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1022.42%#
3) s n-Nonatriacontane	7.47	1673719	215.906 ppm
Spiked Amount 20.000		Recovery	= 1079.53%
Target Compounds			
1) H Petroleum Range	3.64	53887373	3452.403 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17279.D FLASHPRO.M Mon Dec 17 15:10:27 2001 Page 1

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

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 : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

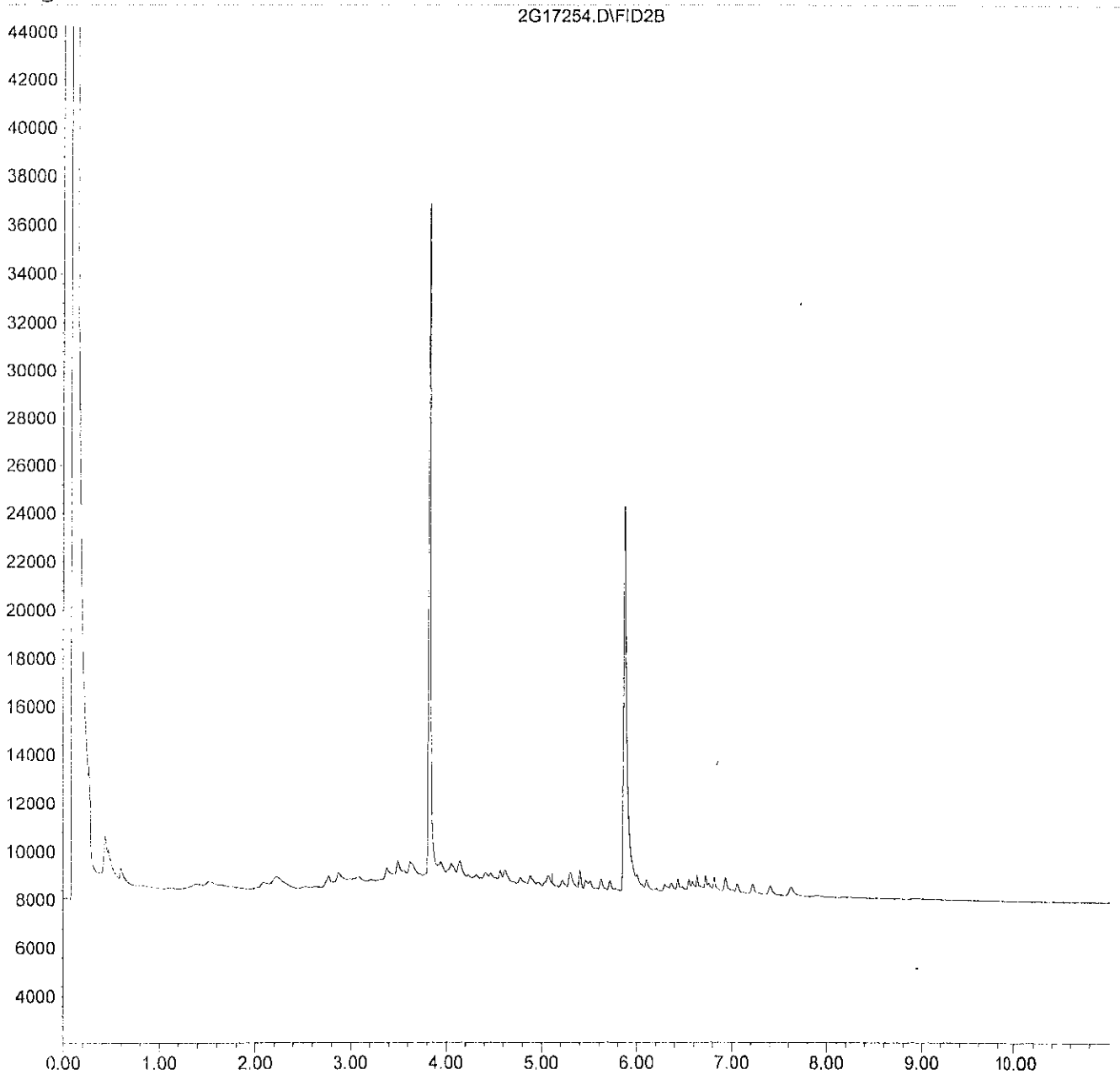
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.82	408610	832.902 ppb
Spiked Amount 800.000 Range 43 - 136 Recovery = 104.11%			
3) s n-Nonatriacontane	7.40	13620	70.276 ppm
Spiked Amount 800.000 Recovery = 8.78%			
Target Compounds			
1) H Petroleum Range	3.64	1395410	3575.992 ppb ∠ MDL

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17254.D FLASHPRO.M Mon Dec 17 08:14:40 2001 Page 1

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
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 : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

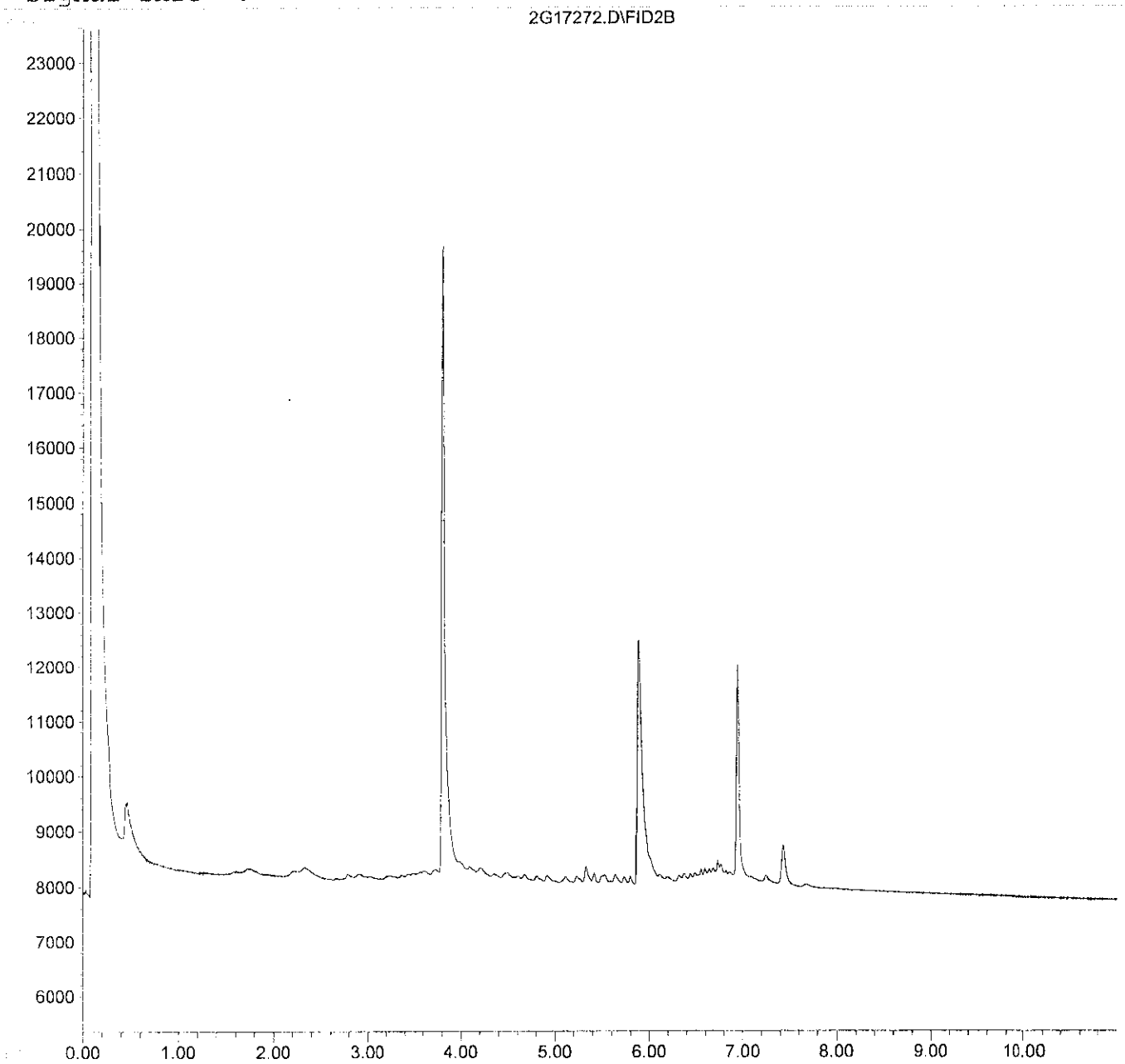
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.80	318823	16.247 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	81.24%
3) s n-Nonatriacontane	7.43	34225	4.415 ppm
Spiked Amount 20.000		Recovery =	22.08%
Target Compounds			
1) H Petroleum Range	3.64	701044	<MDL ppb

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

Data File : C:\HPCHEM\1\DATA\121701\2G17272.D 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 : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



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 :

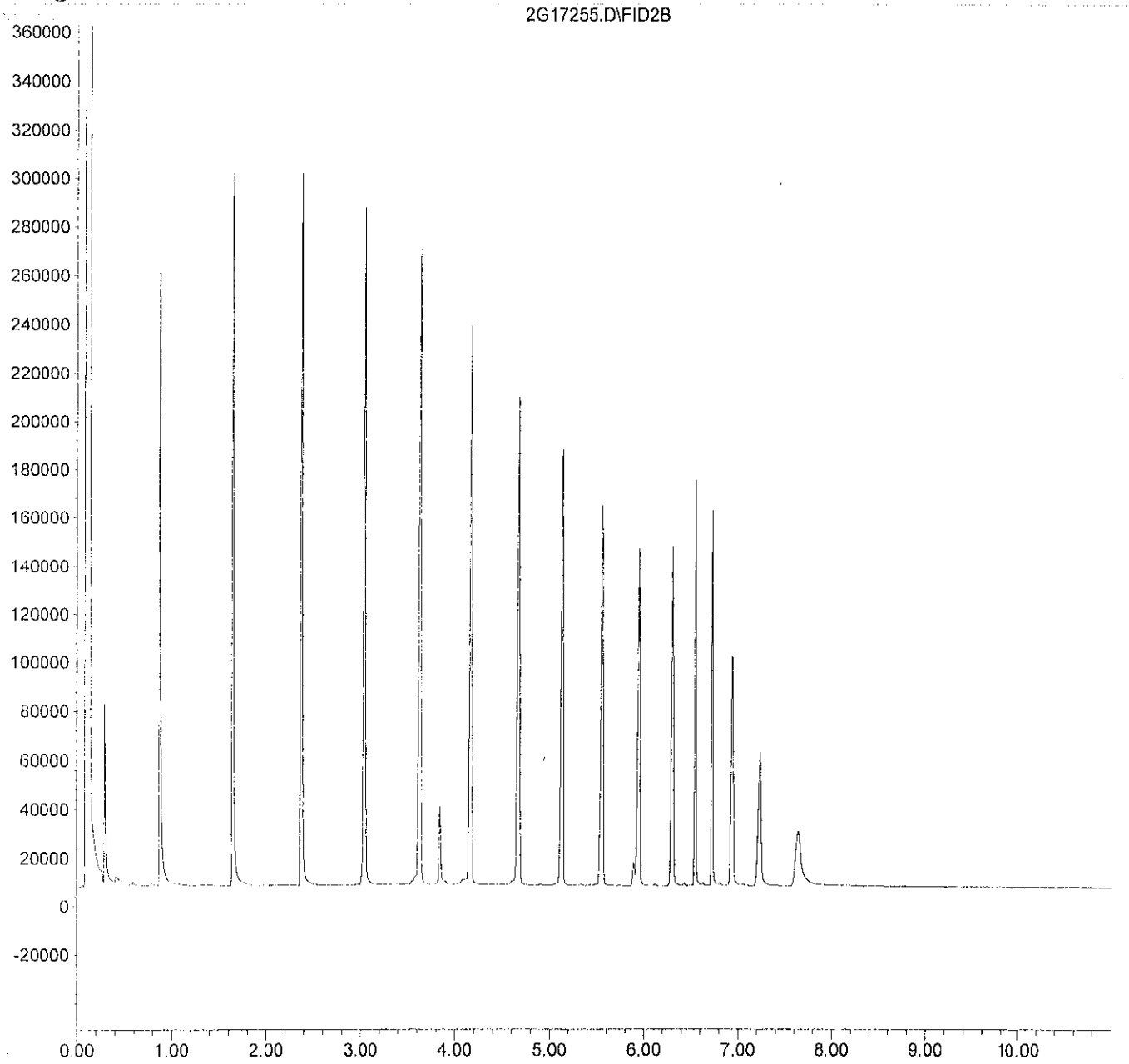
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.84	412370	840.565 ppb
Spiked Amount 800.000 Range 43 - 136	Recovery = 105.07%		
3) s n-Nonatriacontane	7.40f	27618	142.505 ppm
Spiked Amount 800.000	Recovery = 17.81%		
Target Compounds			
1) H Petroleum Range	3.64	43163249	110613.629 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17255.D FLASHPRO.M Mon Dec 17 08:15:26 2001 Page 1

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 Vial: 3
Acq On : 17 Dec 2001 13:16 Operator: HV
Sample : WG110076-02 PRO water LCS Inst : hp2
Misc : 1,1 V177-P139 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 17 13:47 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 :

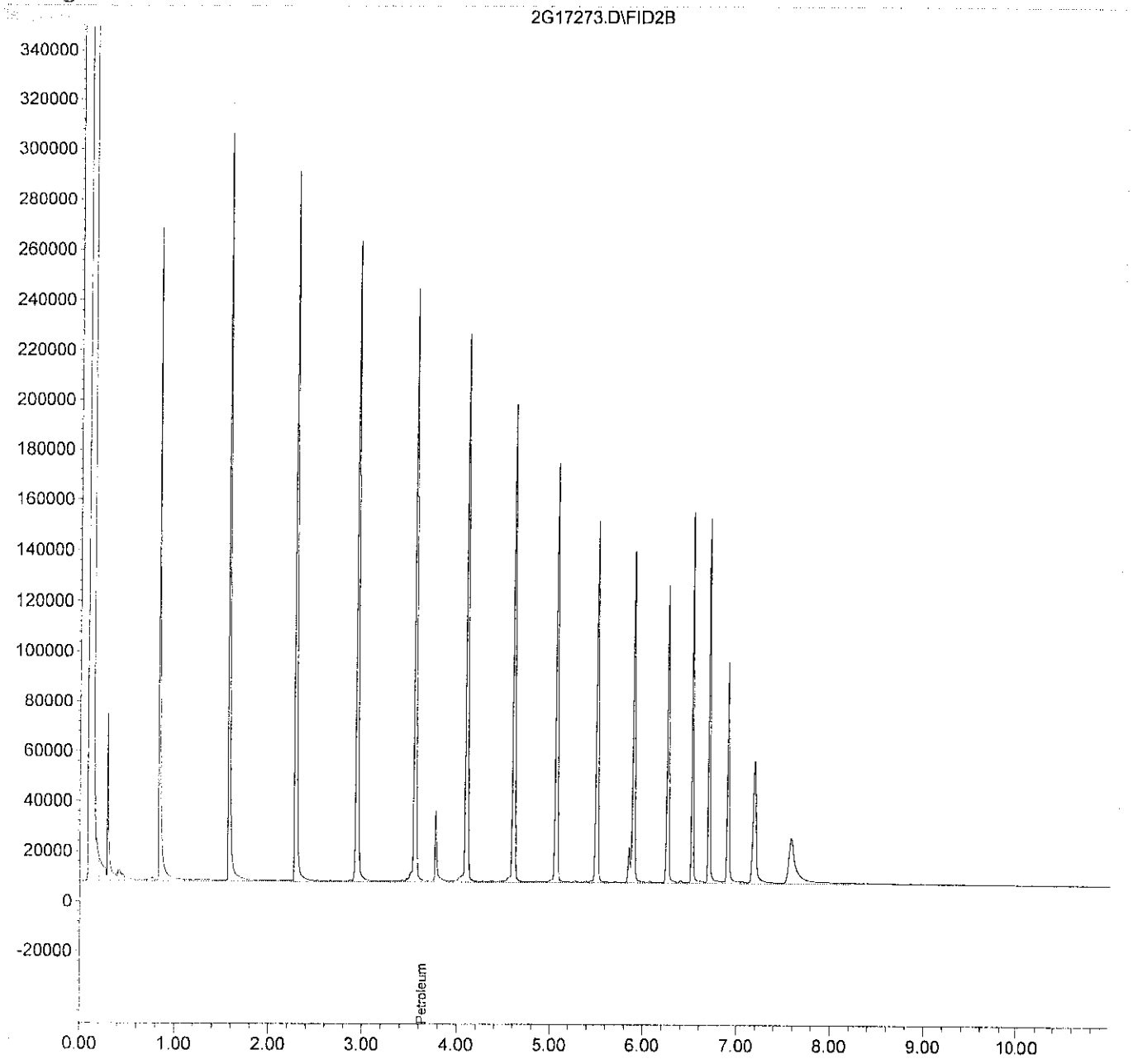
	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
2) s	O-Terphenyl	3.77	381853	19.459 ppb
Spiked Amount	20.000 Range 49 - 174	Recovery =		97.30%
3) s	n-Nonatriacontane	7.46	2876	0.371 ppm
Spiked Amount	20.000	Recovery =		1.86%
	Target Compounds			
1) H	Petroleum Range	3.64	39459465	2528.050 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17273.D FLASHPRO.M Mon Dec 17 15:08:49 2001 Page 1

Data File : C:\HPCHEM\1\DATA\121701\2G17273.D Vial: 3
Acq On : 17 Dec 2001 13:16 Operator: HV
Sample : WG110076-02 PRO water LCS Inst : hp2
Misc : 1,1 V177-P139 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Dec 17 13:47 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 : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



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 :

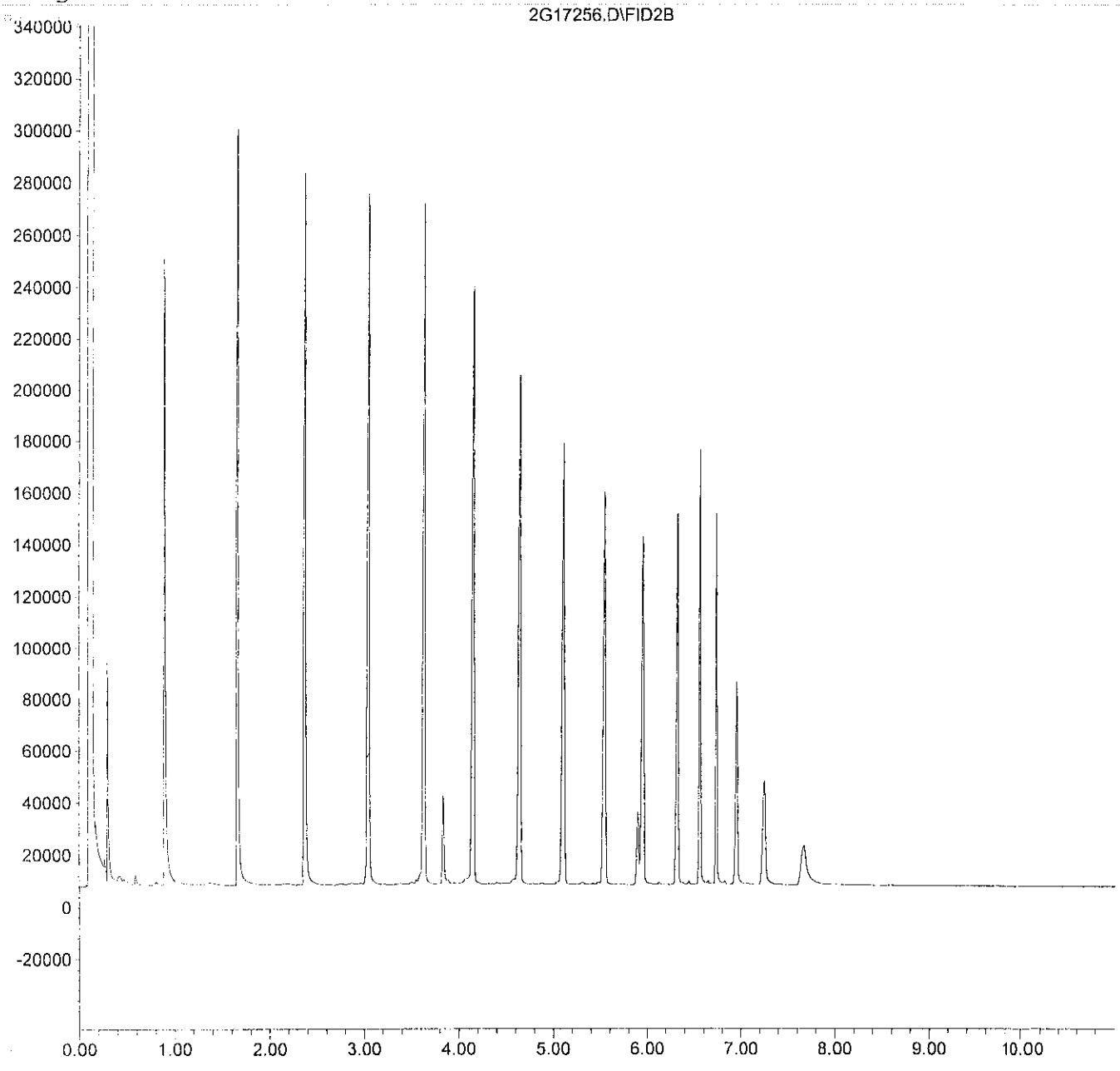
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	430932	878.401 ppb
Spiked Amount 800.000 Range 43 - 136 Recovery = 109.80%			
3) s n-Nonatriacontane	7.42	22571	116.465 ppm
Spiked Amount 800.000 Recovery = 14.56%			
Target Compounds			
1) H Petroleum Range	3.64	41608021	106628.075 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17256.D FLASHPRO.M Mon Dec 17 08:15:48 2001 Page 1

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 : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2G17256.D FLASHPRO.M Mon Dec 17 08:15:49 2001 Page 2

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 :

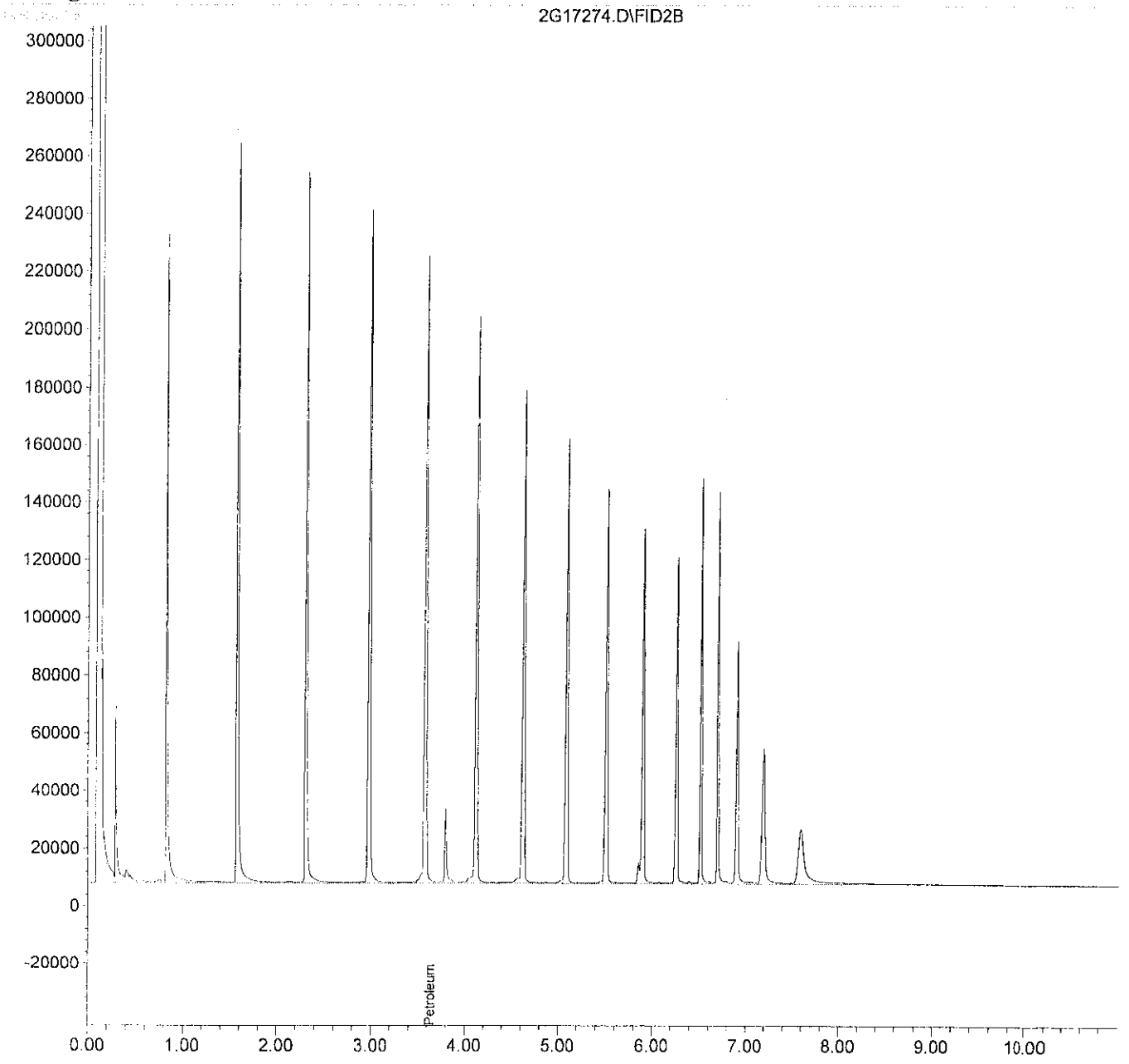
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.79	328856	16.758 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	83.79%
3) s n-Nonatriacontane	7.46	413	0.053 ppm
Spiked Amount 20.000		Recovery =	0.27%
Target Compounds			
1) H Petroleum Range	3.64	35183793	2254.121 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17274.D FLASHPRO.M Mon Dec 17 15:08:58 2001 Page 1

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 :



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

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

#V 12/14/01

TDC 12/14/01

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 22 7 - RR at dilution.

Reviewed By: RHC 12/14/01

228

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

.ine	Vial	FileName	Multiplier		SampleName	Misc Info	Injected
	1	2g17235.d	1.		mecl2	1,1 SOS56-21	14 Dec 101 12::0
2	1	2g17236.d	1.		mecl2	1,1 SOS56-21	14 Dec 101 12::1
3	2	2g17237.d	1.		WIN DEF STD	1,1 NS14-41	14 Dec 101 12::3
4	3	2g17238.d	1.		WG110039-01 PRO CCV	1,1 SOS56-21	14 Dec 101 12::0
5	4	2g17239.d	40.	RR	L0112251-01 PRO soil	7,1 soil	14 Dec 101 13::0
6	5	2g17240.d	40.		L0112258-01 PRO soil	7,1 soil	14 Dec 101 13::1
7	6	2g17241.d	40.		L0112259-01 PRO soil	7,1 soil	14 Dec 101 13::3
8	7	2g17242.d	40.		L0112259-02 PRO soil	7,1 soil	14 Dec 101 13::4
9	8	2g17243.d	400.		L0112259-03 10x PRO soil	7,1 soil	14 Dec 101 13::0
10	9	2g17244.d	400.		L0112251-01 10X PRO soil	7,1 soil	14 Dec 101 13::1
11	10	2g17245.d	400.		L0112258-01 10X PRO soil	7,1 soil	14 Dec 101 13::3
12	11	2g17246.d	400.		L0112259-02 10X PRO soil	7,1 soil	14 Dec 101 13::4
13	12	2g17247.d	1.	CC	WG110039-02-02 PRO CCV	1,1 SOS56-21	14 Dec 101 12::0
14	13	2g17248.d	1.	RR	mecl2	1,1	14 Dec 101 12::4
15	13	2g17249.d	1.		mecl2	1,1	14 Dec 101 12::0
16	14	2g17250.d	1.		WG109-03 PRO CCV	1,1	14 Dec 101 12::2
17	15	2g17251.d	40.		WG110005-01 PRO soil BLK	7,1 soil	14 Dec 101 12::3
18	13	2g17252.d	1.		mecl2	1,1	14 Dec 101 12::4
19	14	2g17253.d	1.		WG110039-03 PRO CCV	1,1	14 Dec 101 12::5
20	15	2g17254.d	40.		WG110005-01 PRO soil BLK	7,1 soil	14 Dec 101 12::1
21	16	2g17255.d	40.		WG110005-02 PRO soil LCS	7,1 soil	14 Dec 101 12::2
22	17	2g17256.d	40.		WG110005-03 PRO soil LCS2	7,1 soil	14 Dec 101 12::4
23	18	2g17257.d	40.	RR	L0111259-01 PRO soil	7,1 soil	14 Dec 101 12::5
24	19	2g17258.d	40.		L0111259-03 PRO soil	7,1 soil	14 Dec 101 12::1
25	20	2g17259.d	1.		Elab PRO spike		14 Dec 101 12::2
26	14	2g17260.d	1.	CC	WG110039-04 PRO CCV	1,1	14 Dec 101 12::4

HV 12/17/01

RRC 12/17/01

Analysis Date/Time Dec. 14 01 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 12 14 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

2g17239, 2g17240, 2g17242 — RR @ dilution
2g17241 & 2g17243 — RR ~~Straight~~ Straight
2g17247 — cc - failed ~~high~~ in surr: 0-Terphenyl
2g17260
2g17257 & -258 - RR Straight
2g17248 — -252 - sequence was stopped by power failure

Reviewed By: RPC - 12/19/01

.ine	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

PAQC 12/17/01

Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time Dec. 17 01 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 1217-01
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: RRc 12/17/01

Parameter: FLA-PRO SOIL SOP #: EXPRO Revision #: 2
Extraction Analyst(s): REK TV/KD Analyst(s): REK
Date/Time Extracted: 12/14/01 @ 0830 Date TV/KD: 12/14/01
Spike/Surrogate Analyst: REK Witness: CSS
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: REK
Extract Received By & Date: RV 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	C				WG 110005-01
2	LCS					"	"	1 mL	"	C				WG " -02
3	LCS DUP					"	"	"	"	C				" " -03
4	12-251-01	FLA-PRO				25.05				C				
5	12-258-01	"				25.00				C				
6	12-259-01	"				25.02				C				
7	-02	"				25.05				C				
8	-03	"				25.00				C				
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

12/14/01 RV

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 #: VJ25555
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: _____ Date: 12/14/01

Extraction Notes For Volume # 117 Page # 123

General Comments: none

Extraction Anomalies: None

Concentration Anomalies: None

Clean-Up Anomalies: None

Supervisor Review: _____ Date: _____

Parameter: FLA-PRO H2O SOP #: EXPRO Revision #: 2
Extraction Analyst(s): RR TV/KD Analyst(s): DP
Date/Time Extracted: 12/17/01 @ 930 Date TV/KD: 12/17/01
Spike/Surrogate Analyst: RR 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 110134
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		✓			1		1mL						WG 1 -02
3	LCS DUP	1/1L	✓			1		1						1 -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

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.: L0112258

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 02 yielded a percent recovery for benzo(g,h,i)perylene which was above the advisory limit. There was no positive result of this analyte for sample fraction 02.
Matrix Spikes: Sample fraction 01 was chosen for MS/MSD treatment. 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: 12/28/01

Rev. 7/14/00

PAH HPLC DATA (8310)

Login Number: L0112258

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: RLC 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	**PREP WORK GRP :** WG109980	**RUN DATE :** 12/13/01	**SAMP ID :** L0112258	-01
METHOD : 8310	**EXT DATE :** 12/13/2001	**BLK FLNM :** 4L002545	**SMPL FLNM :** 4L002547	
INSTRUMENT : HPLC4	**EXT BENCH SHEET :** V177P109	**LCS FLNM :** 4L002546	**MS FLNM :** 4L002548	
ANALYST : RDC			**MSD FLNM :** 4L002549	

	CONCENTRATION, µg/Kg								% RECOVERY													
ANALYTE	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	1165	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	116	NA	82.6	85.0	53	116	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

	CONCENTRATION, µg/L									% RECOVERY														
ANALYTE	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	26	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	2.16	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

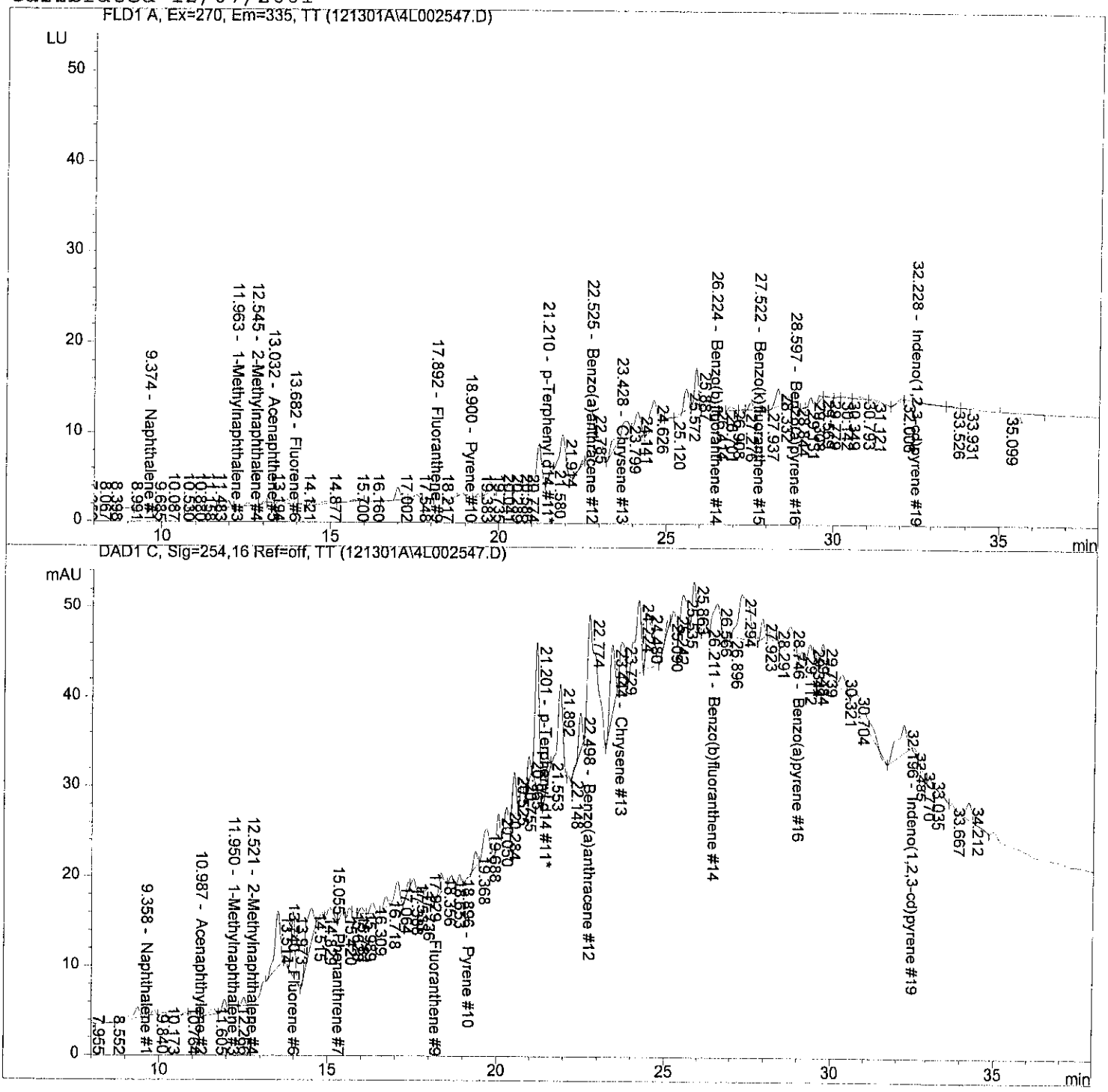
12/14/2001

Injection Date : 12/13/2001 8:35:01 PM
Sample Name : WG109660-01 SREF
Acq. Operator : RDC

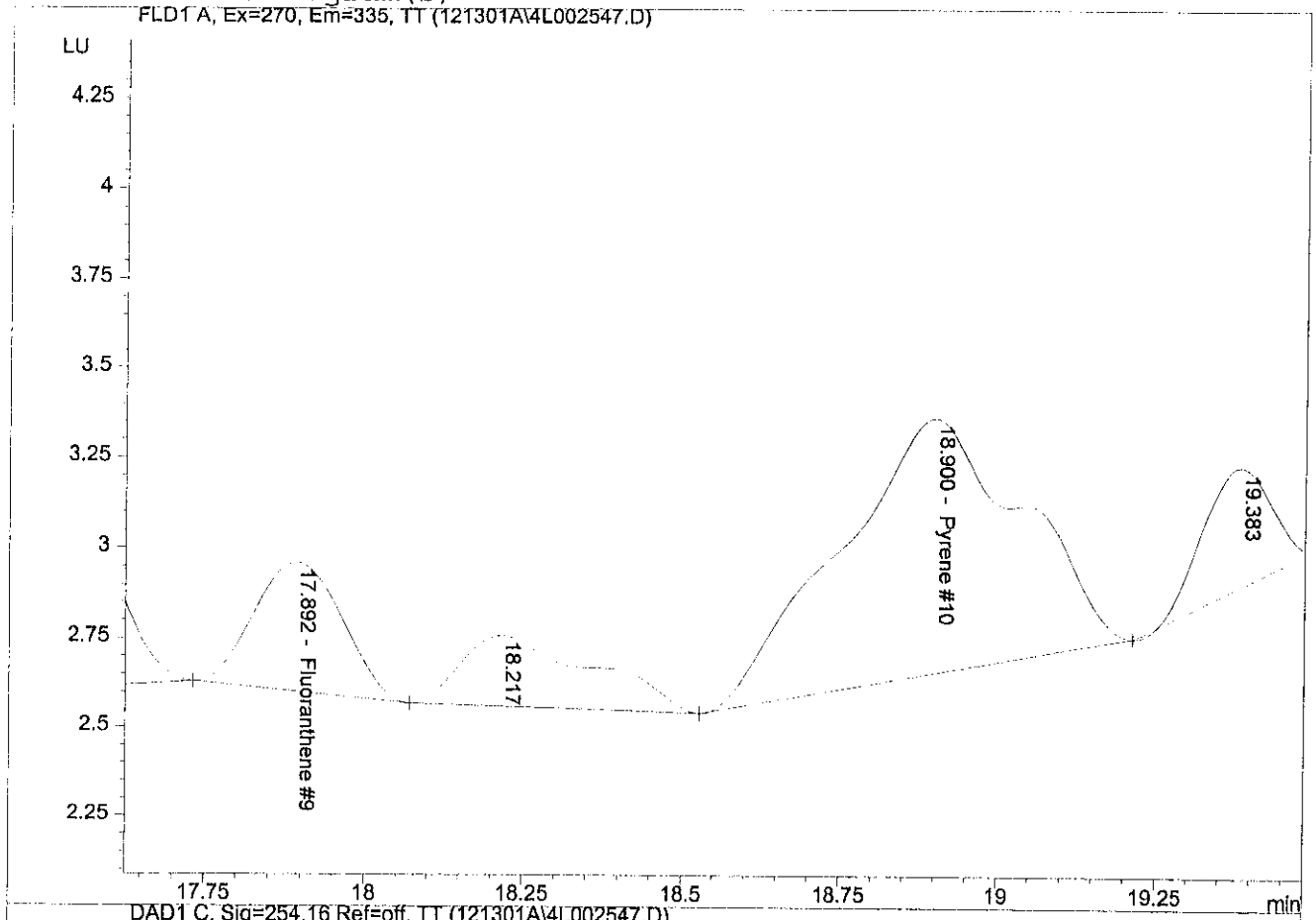
Seq. Line : 5
Vial : 5
Inj : 1
Inj Volume : 8 µl

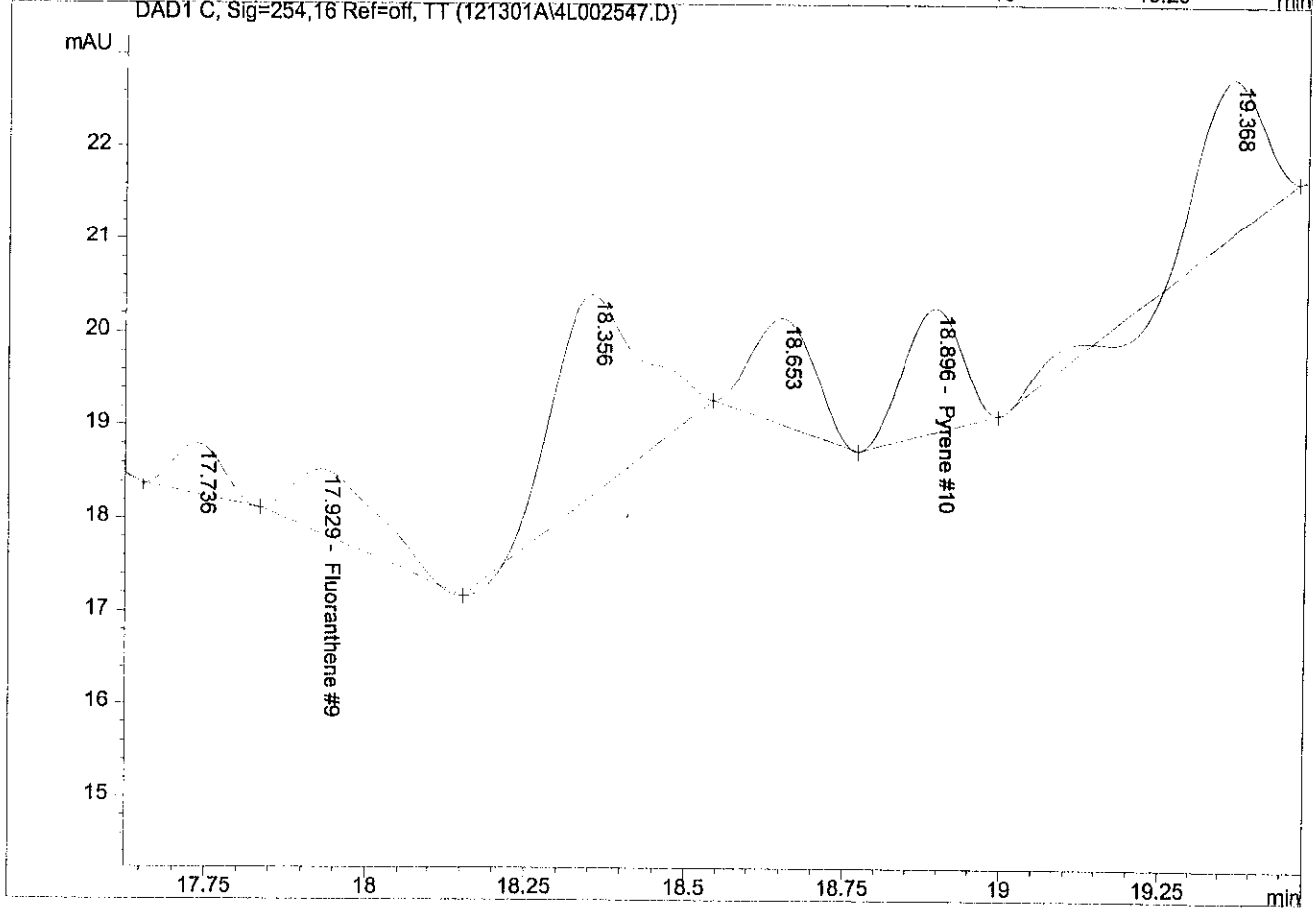
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/14/2001 3:33:37 PM by RDC
(modified after loading)

Calibrated 12/07/2001



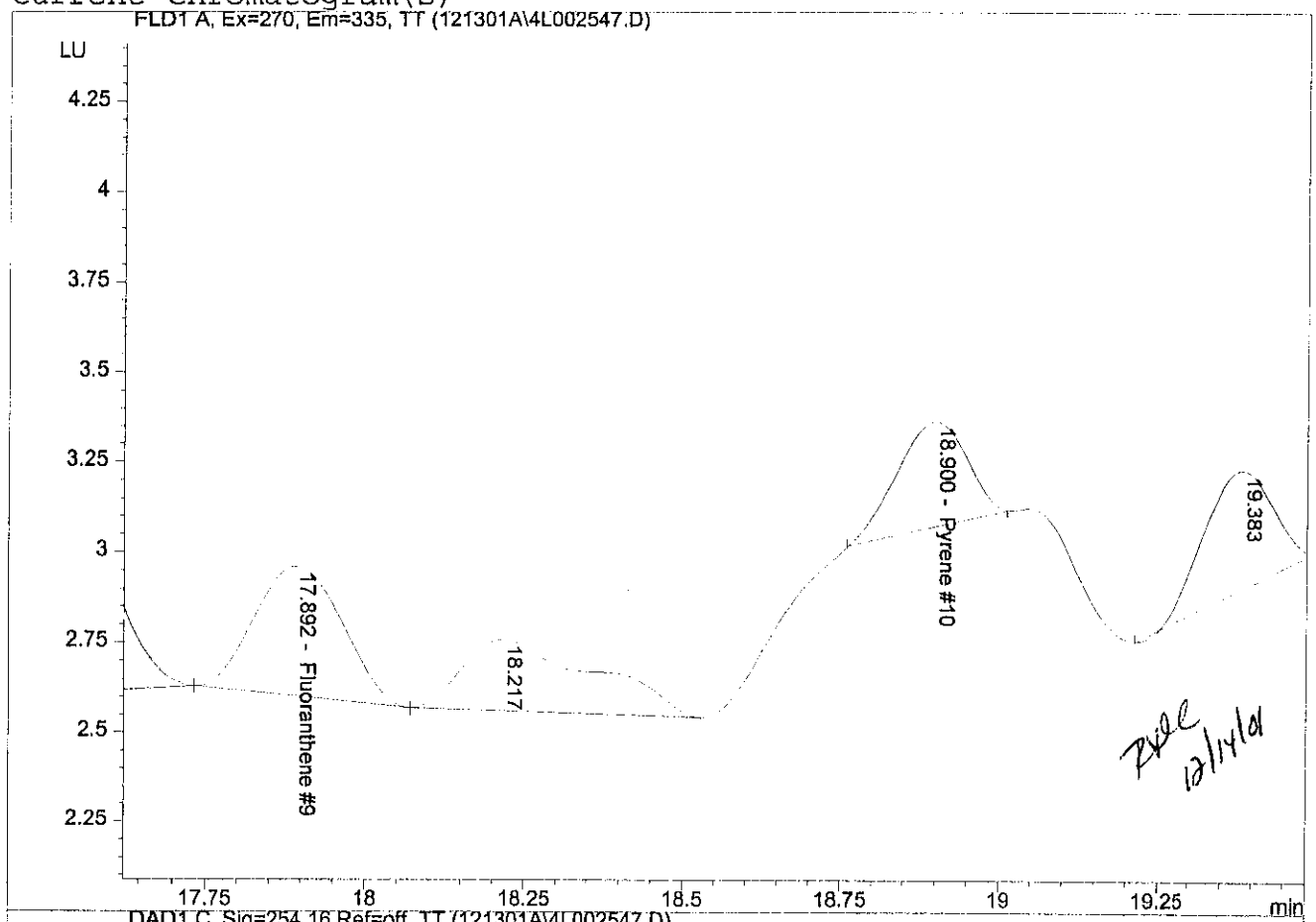
Current Chromatogram(s)

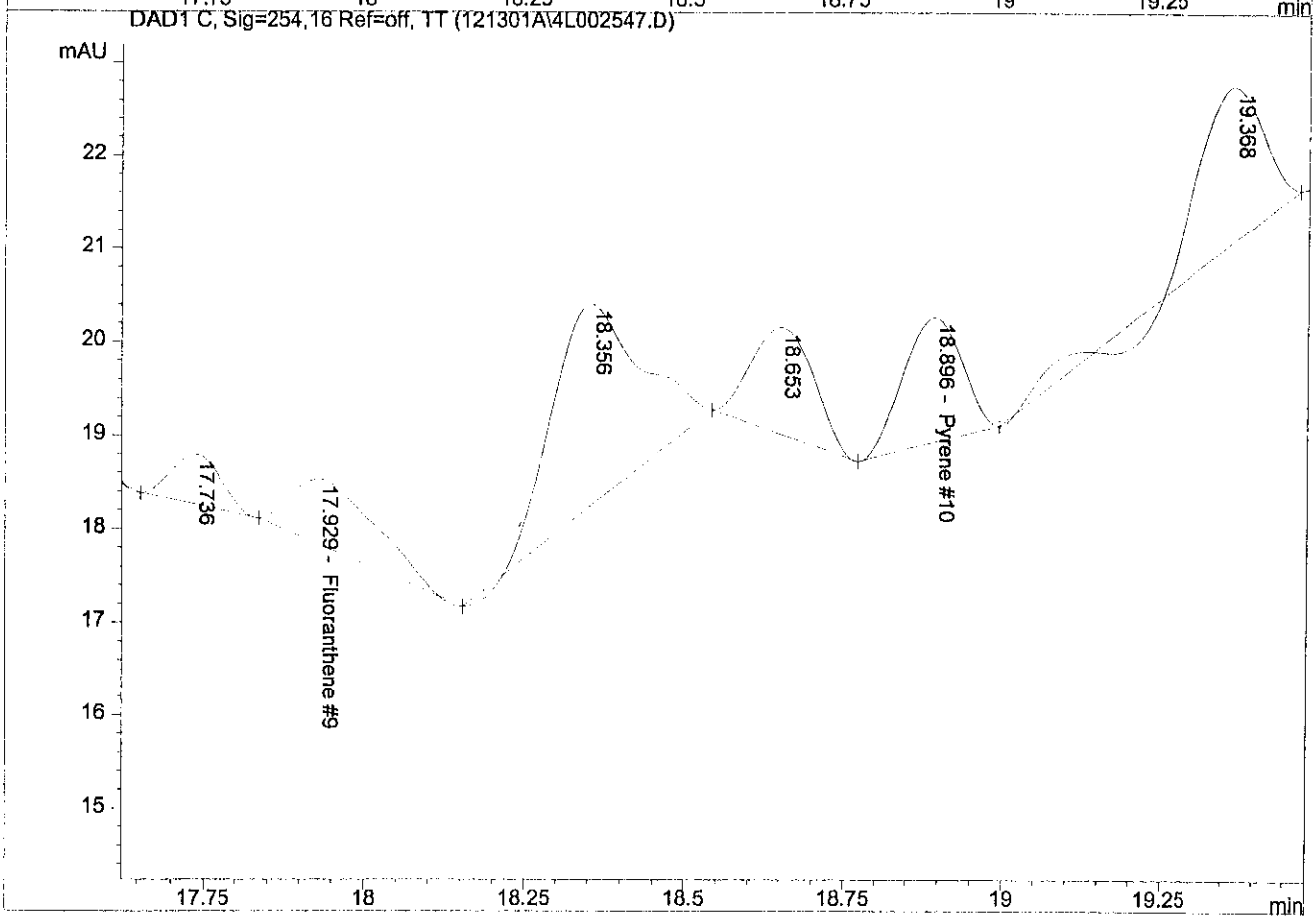




HPLC4 12/14/2001 3:31:34 PM RDC

Current Chromatogram(s)





HPLC4 12/14/2001 3:31:56 PM RDC

External Standard Report

RR 12/20/01

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
9.374	BB	2.50147	2.64309e-2	6.61161e-2		Naphthalene #1
11.963	BB	7.12769	2.30826e-2	1.64525e-1		1-Methylnaphthalene #3
12.545	BB	2.72276	1.77135e-2	4.82298e-2		2-Methylnaphthalene #4
13.032	BB	1.57351	1.41307e-2	2.22348e-2		Acenaphthene #5
13.682	BB	10.19163	6.55799e-3	6.68366e-2		Fluorene #6
15.126		-	-	-		Phenanthrene #7
16.532		-	-	-		Anthracene #8
17.892	BB	3.41811	2.51883e-2	8.60965e-2		Fluoranthene #9
18.900	MM	2.23811	4.52106e-2	1.01186e-1		Pyrene #10
21.210	BB	44.24287	2.98861e-1	13.22248	132%	p-Terphenyl d14 #11*
22.525	BB	4.25784	8.29841e-3	3.53333e-2		Benzo(a)anthracene #12
23.428	BB	13.76951	4.07647e-2	5.61310e-1		Chrysene #13
26.224	BB	8.06852	1.66521e-2	1.34358e-1		Benzo(b)fluoranthene #14
27.522	BB	8.00138	2.77713e-3	2.22209e-2		Benzo(k)fluoranthene #15
28.597	BB	9.48392	5.23910e-3	4.96872e-2		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.334		-	-	-		Benzo(g,h,i)perylene #18
32.228	BB	1.82001e-1	1.37336e-2	2.49952e-3		Indeno(1,2,3-cd)pyrene #1
Totals :				14.58312		

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/L]	Grp	Name
9.358	BB	17.76303	8.11569e-3	1.44159e-1	cmDL	Naphthalene #1
10.987	BB	4.00600	2.94003e-2	1.17778e-1		Acenaphthylene #2
11.950	BB	9.62029	1.26957e-2	1.22136e-1		1-Methylnaphthalene #3
12.521	BB	7.05884	1.10418e-2	7.79421e-2		2-Methylnaphthalene #4
13.062		-	-	-		Acenaphthene #5
13.740	BB	3.25316	1.72604e-2	5.61509e-2		Fluorene #6
15.055	BB	11.48717	1.70751e-2	1.96144e-1		Phenanthrene #7
16.513		-	-	-		Anthracene #8
17.929	BB	6.61501	2.13939e-2	1.41521e-1		Fluoranthene #9 F (NC)
18.896	BB	8.56765	1.42346e-2	1.21957e-1		Pyrene #10 F (NC)
21.201	BB	135.81322	6.51566e-2	8.84912	88.5%	p-Terphenyl d14 #11*
22.498	BB	30.07858	2.19558e-2	6.60398e-1	NC	Benzo(a)anthracene #12
23.444	BB	73.31432	1.48093e-2	1.08574		Chrysene #13
26.211	BB	5.71935	2.03417e-2	1.16341e-1	cmDL	Benzo(b)fluoranthene #14
27.548		-	-	-		Benzo(k)fluoranthene #15
28.746	BB	57.69158	2.80792e-2	1.61993	NC	Benzo(a)pyrene #16
30.509		-	-	-		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.196	BB	69.92947	2.02125e-2	1.41345		Indeno(1,2,3-cd)pyrene #1

Totals : 14.72277

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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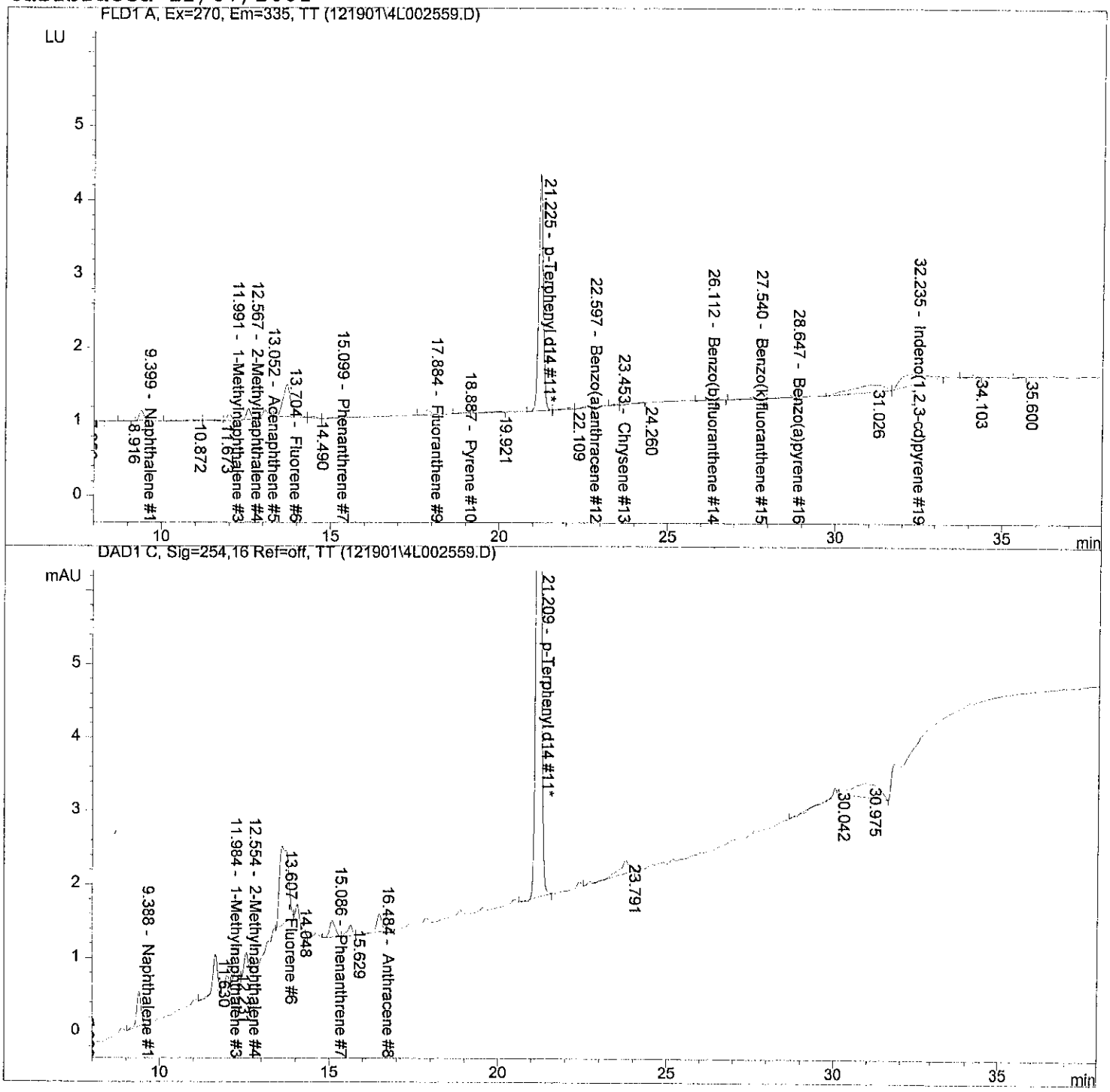
*** End of Report ***

```
Injection Date   : 12/19/2001 1:30:29 PM          Seq. Line :   6
Sample Name      : L0112258-02 831W                    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 11:34:37 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
9.399	PBA	1.28827	2.64309e-2	3.40502e-2		Naphthalene #1
11.991	BBA	9.07549e-1	2.30826e-2	2.09485e-2		1-Methylnaphthalene #3
12.567	BB	1.49360	1.77135e-2	2.64570e-2		2-Methylnaphthalene #4
13.052	BB	1.08060	1.41307e-2	1.52696e-2		Acenaphthene #5
13.704	BB	7.71911	6.55799e-3	5.06218e-2		Fluorene #6
15.099	BB	2.25817e-1	1.72114e-1	3.88661e-2		Phenanthrene #7
16.532		-	-	-		Anthracene #8
17.884	BBA	8.03986e-1	2.51883e-2	2.02511e-2		Fluoranthene #9
18.887	BBA	3.09484e-1	4.52106e-2	1.39920e-2		Pyrene #10
21.225	BB	30.96376	2.98861e-1	9.25387		p-Terphenyl d14 #11*
22.597	BB	3.02660e-1	8.29841e-3	2.51160e-3		Benzo(a)anthracene #12
23.453	BB	2.01131e-1	4.07647e-2	8.19907e-3		Chrysene #13
26.112	BBA	4.65336e-1	1.66521e-2	7.74884e-3		Benzo(b)fluoranthene #14
27.540	BB	7.08612e-1	2.77713e-3	1.96791e-3		Benzo(k)fluoranthene #15
28.647	BB	4.70087e-1	5.23910e-3	2.46283e-3		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.334		-	-	-		Benzo(g,h,i)perylene #18
32.235	BB	7.97311	1.37336e-2	1.09499e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 9.60672

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
9.388	BB	4.40123	8.11569e-3	3.57190e-2		Naphthalene #1
11.059		-	-	-		Acenaphthylene #2
11.984	BB	9.99205e-1	1.26957e-2	1.26856e-2		1-Methylnaphthalene #3
12.554	BB	2.63925	1.10418e-2	2.91420e-2		2-Methylnaphthalene #4
13.062		-	-	-		Acenaphthene #5
13.607	BB	19.29215	1.72604e-2	3.32990e-1		Fluorene #6
15.086	BB	2.61635	1.70751e-2	4.46743e-2		Phenanthrene #7
16.484	BB	3.03150	1.03316e-2	3.13202e-2		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.891		-	-	-		Pyrene #10
21.209	BBA	137.69083	6.51566e-2	8.97146		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 : 9.45799

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 : 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			

[min]	Sig		[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			

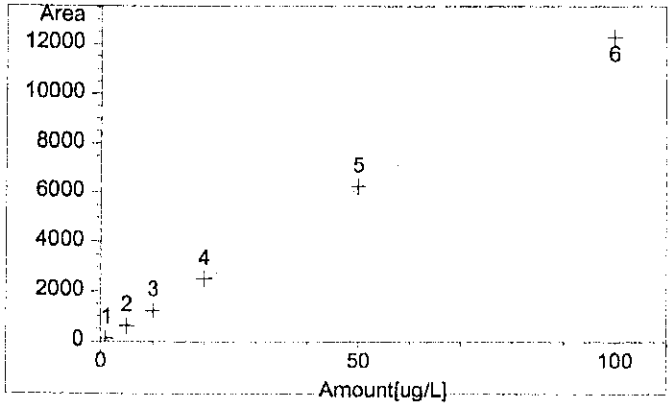
RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
22.562	1	1	1.00000e-1	10.98394	9.10420e-3			Benzo(a)anthracene #12
		2	5.00000e-1	55.03781	9.08466e-3			
		3	1.00000	111.32906	8.98238e-3			
		4	2.00000	231.59561	8.63574e-3			
		5	5.00000	583.97321	8.56204e-3			
		6	10.00000	1217.39807	8.21424e-3			
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			

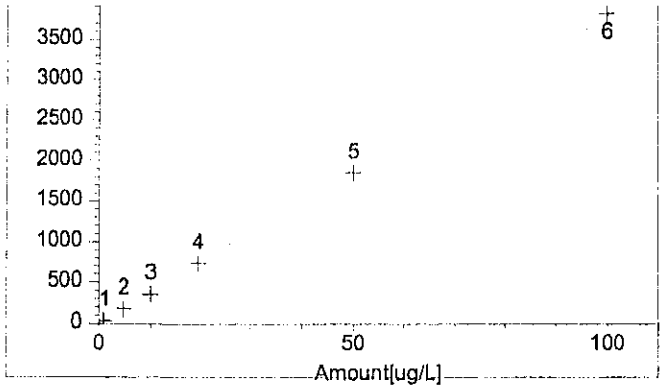
Peak Sum Table

No Entries in table

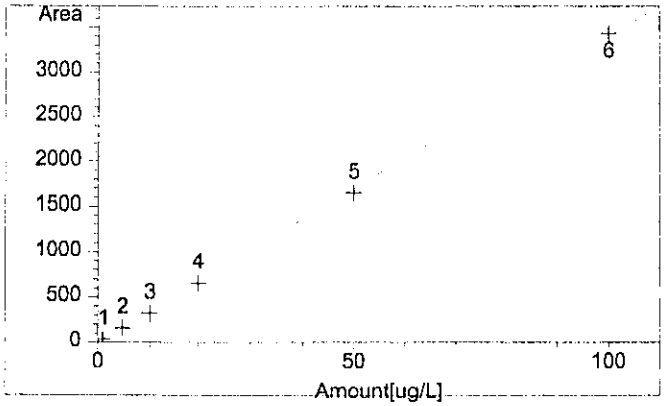
Calibration Curves



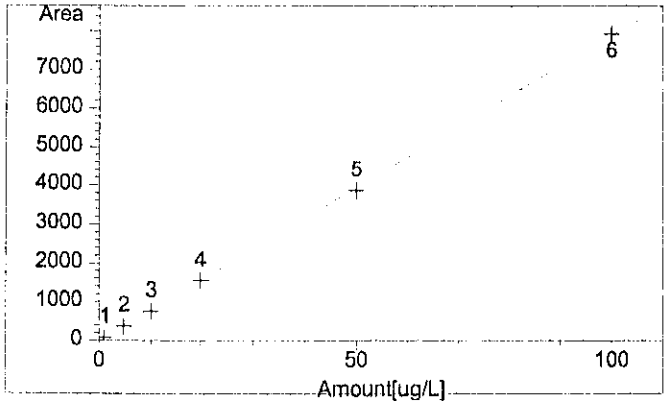
Naphthalene #1 at exp. RT: 9.427
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 47.80615
Formula: y = mx
m: 123.21818
x: Amount [ug/L]
y: Area



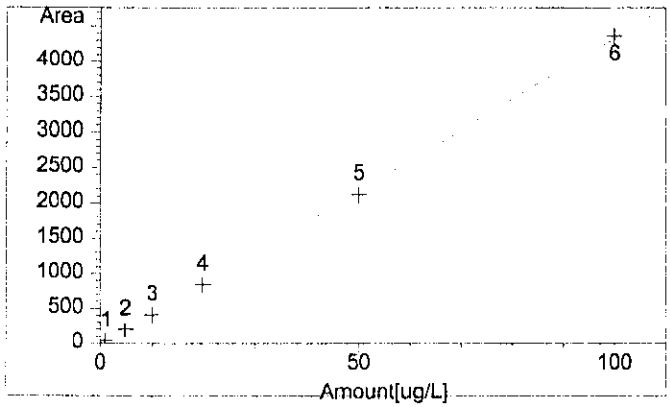
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 26.08217
Formula: y = mx
m: 37.83456
x: Amount [ug/L]
y: Area



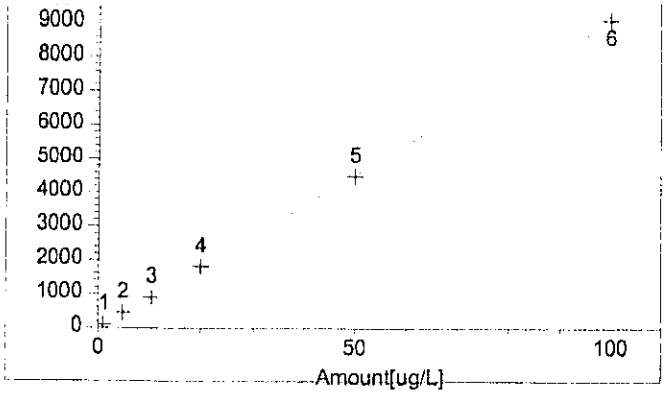
Acenaphthylene #2 at exp. RT: 11.059
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99985
Residual Std. Dev.: 30.12049
Formula: y = mx
m: 34.01322
x: Amount [ug/L]
y: Area



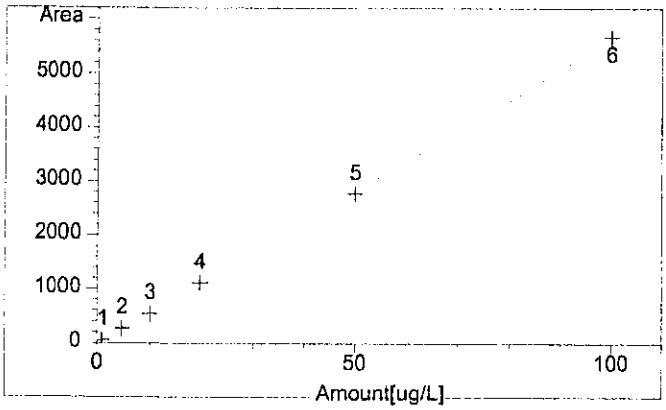
1-Methylnaphthalene #3 at exp. RT: 12.007
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 48.47901
Formula: y = mx
m: 78.76687
x: Amount [ug/L]
y: Area



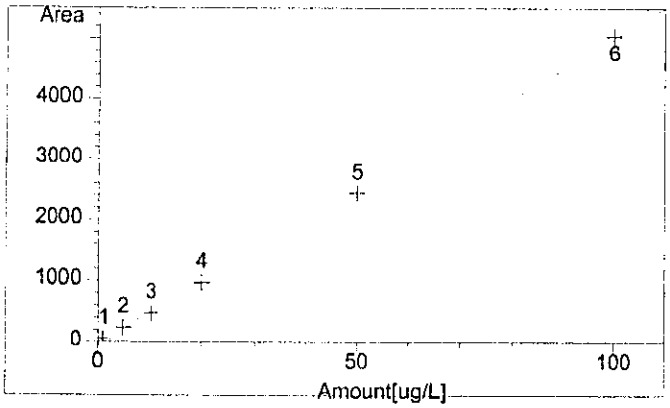
1-Methylnaphthalene #3 at exp. RT: 12.025
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 26.33210
Formula: y = mx
m: 43.32276
x: Amount [ug/L]
y: Area



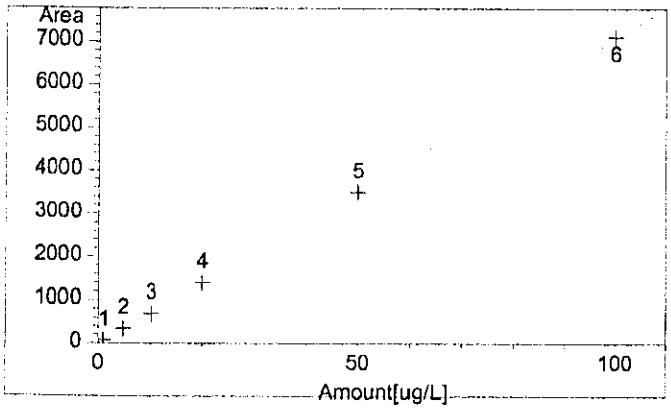
2-Methylnaphthalene #4 at exp. RT: 12.583
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 26.29692
Formula: y = mx
m: 90.56511
x: Amount[ug/L]
y: Area



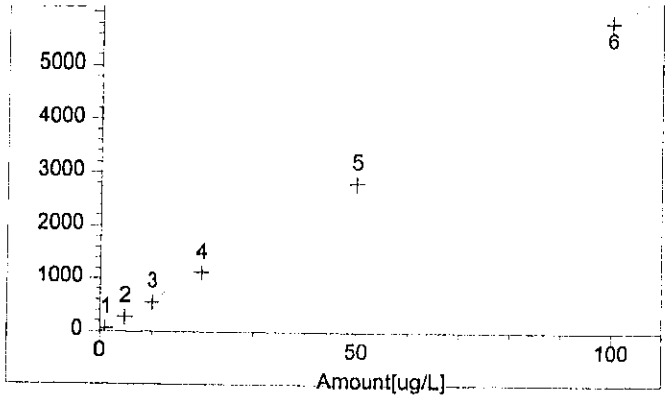
2-Methylnaphthalene #4 at exp. RT: 12.602
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 29.05354
Formula: y = mx
m: 56.45399
x: Amount[ug/L]
y: Area



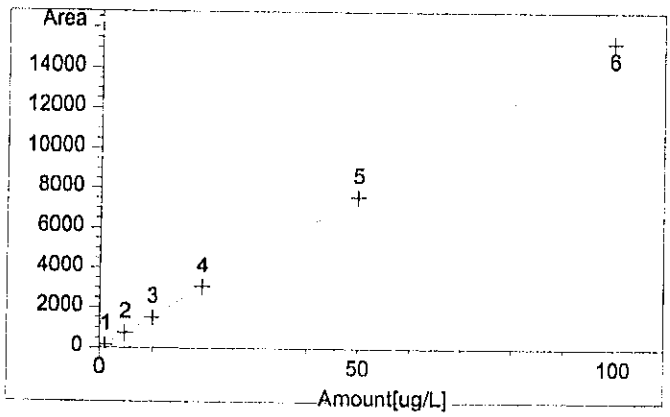
Acenaphthene #5 at exp. RT: 13.062
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99988
Residual Std. Dev.: 38.92105
Formula: y = mx
m: 50.01178
x: Amount[ug/L]
y: Area



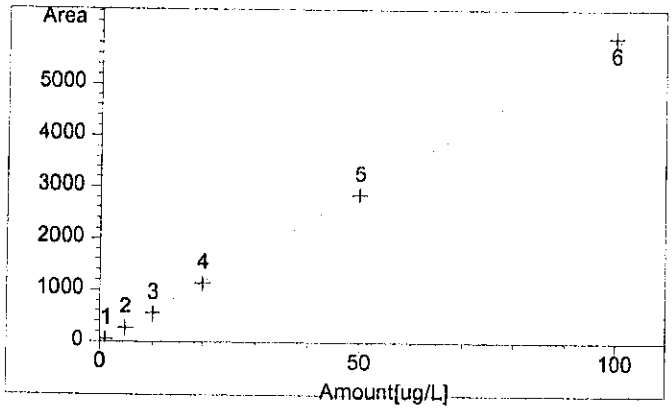
Acenaphthene #5 at exp. RT: 13.080
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99996
Residual Std. Dev.: 30.34274
Formula: y = mx
m: 70.76808
x: Amount[ug/L]
y: Area



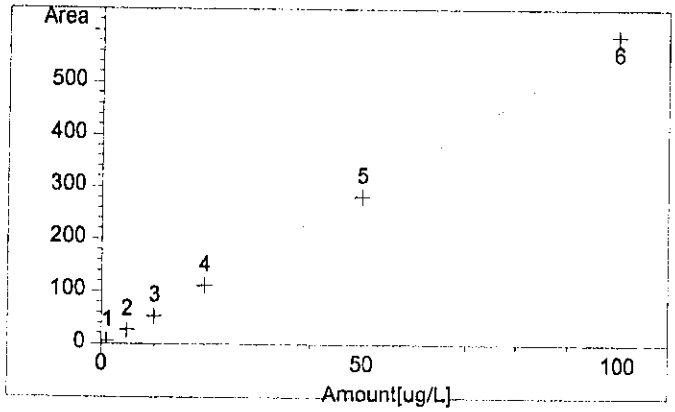
Fluorene #6 at exp. RT: 13.719
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99986
Residual Std. Dev.: 48.89890
Formula: y = mx
m: 57.93606
x: Amount [ug/L]
y: Area



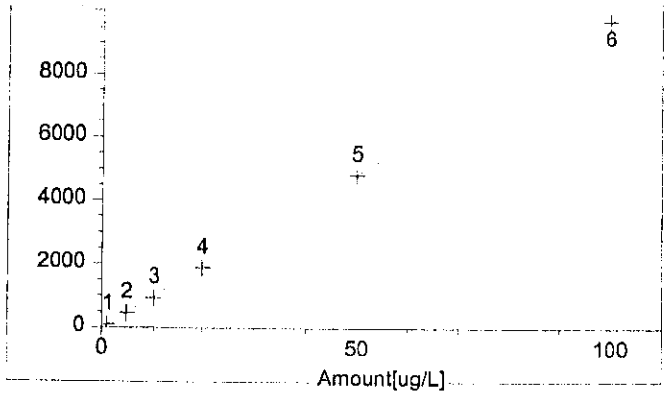
Fluorene #6 at exp. RT: 13.738
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 28.20492
Formula: y = mx
m: 152.48579
x: Amount [ug/L]
y: Area



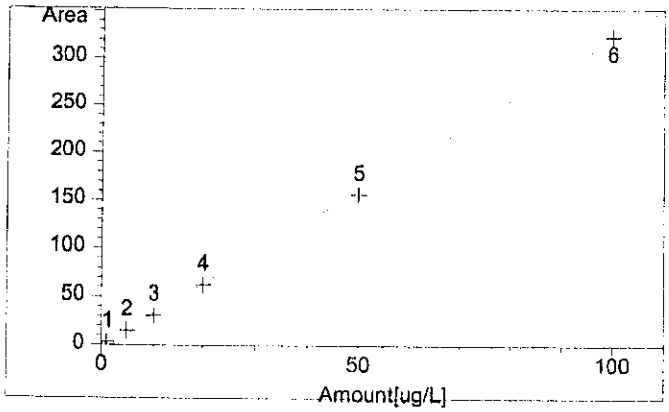
Phenanthrene #7 at exp. RT: 15.107
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99988
Residual Std. Dev.: 45.98374
Formula: y = mx
m: 58.56486
x: Amount [ug/L]
y: Area



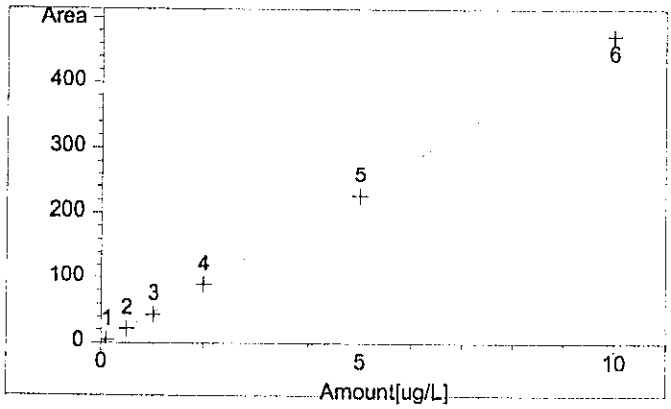
Phenanthrene #7 at exp. RT: 15.126
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99978
Residual Std. Dev.: 6.21393
Formula: y = mx
m: 5.81012
x: Amount [ug/L]
y: Area



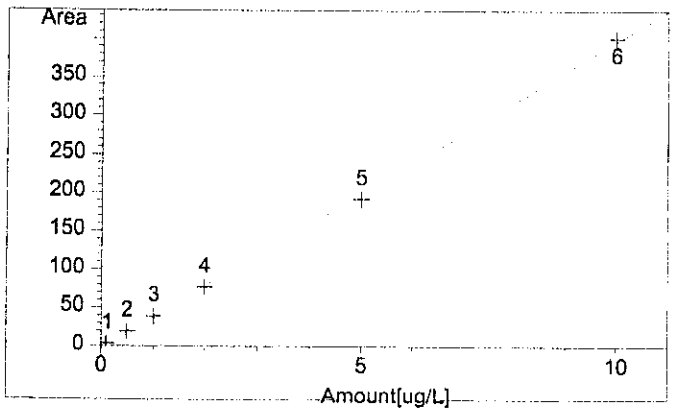
Anthracene #8 at exp. RT: 16.513
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 37.00703
Formula: y = mx
m: 96.79066
x: Amount[ug/L]
y: Area



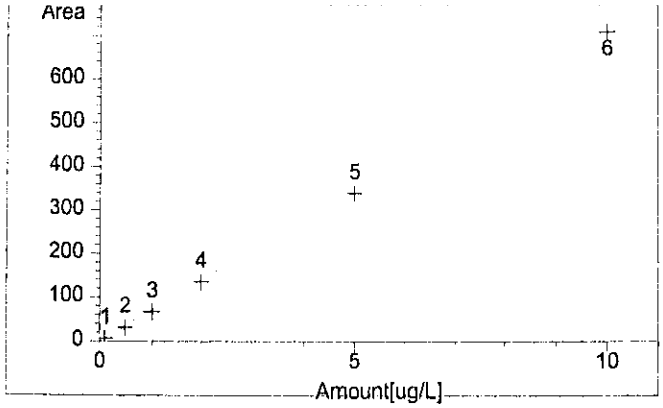
Anthracene #8 at exp. RT: 16.532
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 2.36476
Formula: y = mx
m: 3.20756
x: Amount[ug/L]
y: Area



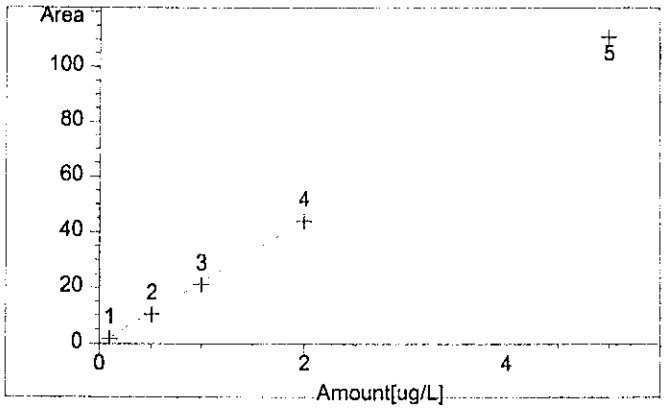
Fluoranthene #9 at exp. RT: 17.887
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99983
Residual Std. Dev.: 4.46228
Formula: y = mx
m: 46.74227
x: Amount[ug/L]
y: Area



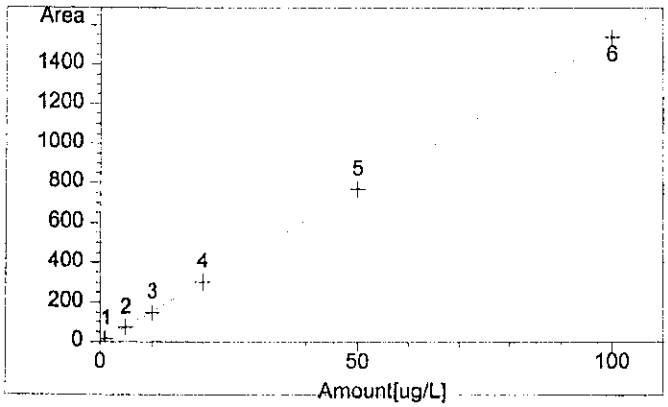
Fluoranthene #9 at exp. RT: 17.907
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99984
Residual Std. Dev.: 3.58907
Formula: y = mx
m: 39.70096
x: Amount[ug/L]
y: Area



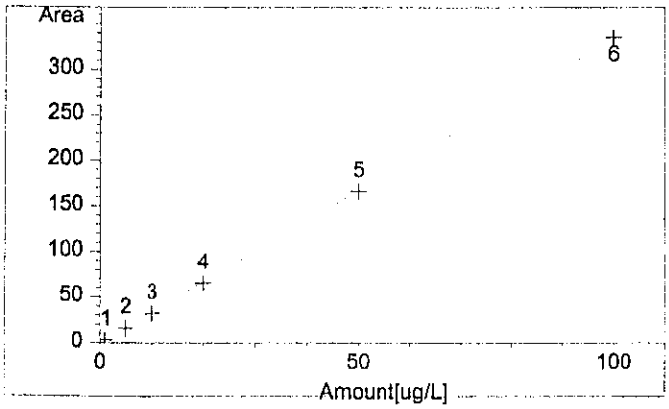
Pyrene #10 at exp. RT: 18.891
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 6.85701
Formula: y = mx
m: 70.25134
x: Amount [ug/L]
y: Area



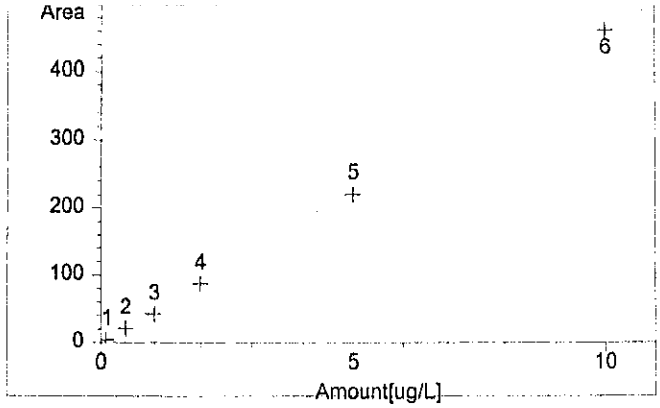
Pyrene #10 at exp. RT: 18.912
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99994
Residual Std. Dev.: 0.64524
Formula: y = mx
m: 22.11873
x: Amount [ug/L]
y: Area



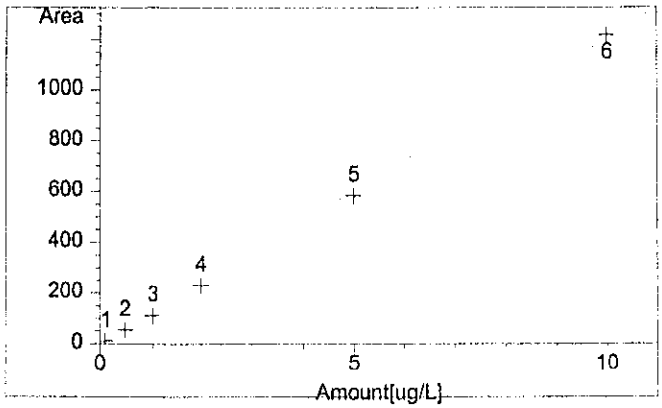
p-Terphenyl d14 #11* at exp. RT: 21.231
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 4.40544
Formula: y = mx
m: 15.34764
x: Amount [ug/L]
y: Area



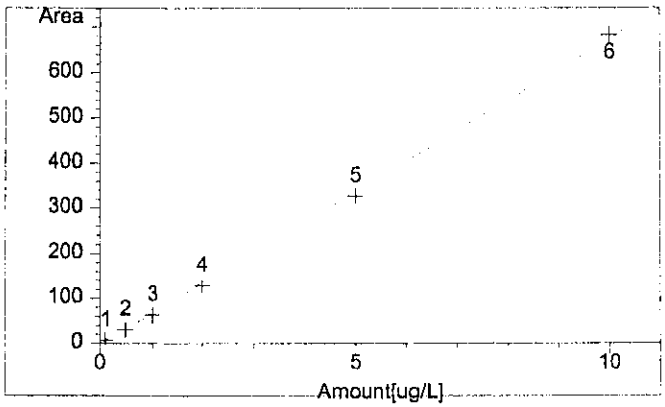
p-Terphenyl d14 #11* at exp. RT: 21.248
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 1.28536
Formula: y = mx
m: 3.34603
x: Amount [ug/L]
y: Area



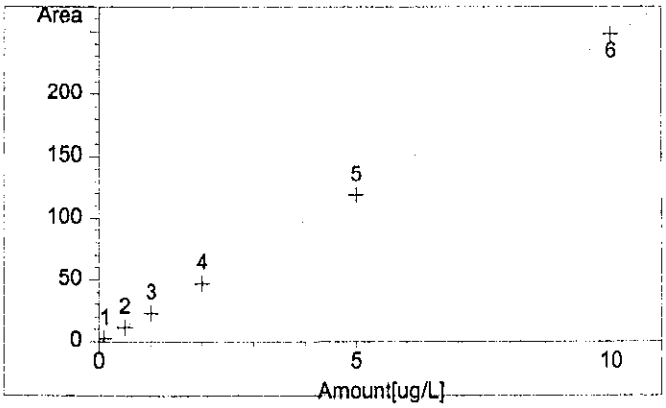
Benzo(a)anthracene #12 at exp. RT: 22.544
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99981
Residual Std. Dev.: 4.58073
Formula: y = mx
m: 45.54614
x: Amount[ug/L]
y: Area



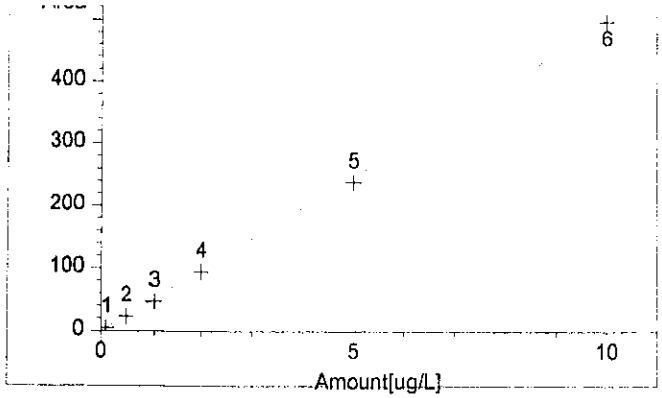
Benzo(a)anthracene #12 at exp. RT: 22.562
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99982
Residual Std. Dev.: 11.81358
Formula: y = mx
m: 120.50502
x: Amount[ug/L]
y: Area



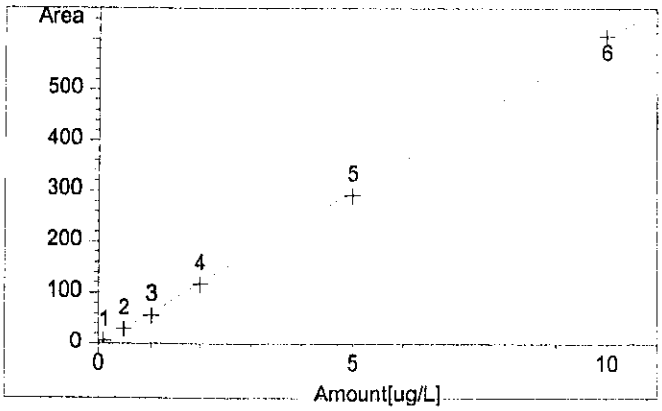
Chrysene #13 at exp. RT: 23.412
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99979
Residual Std. Dev.: 6.98685
Formula: y = mx
m: 67.52498
x: Amount[ug/L]
y: Area



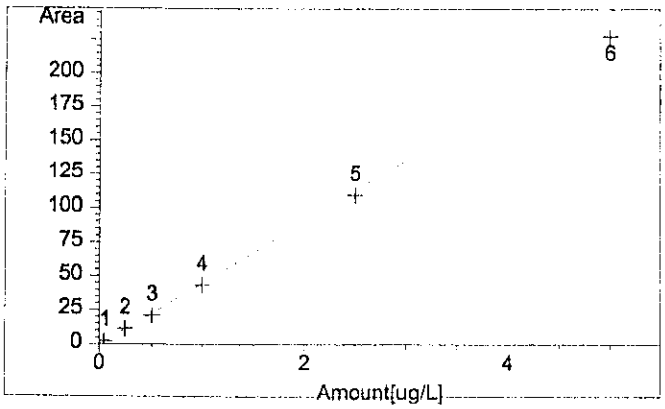
Chrysene #13 at exp. RT: 23.431
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99982
Residual Std. Dev.: 2.40411
Formula: y = mx
m: 24.53100
x: Amount[ug/L]
y: Area



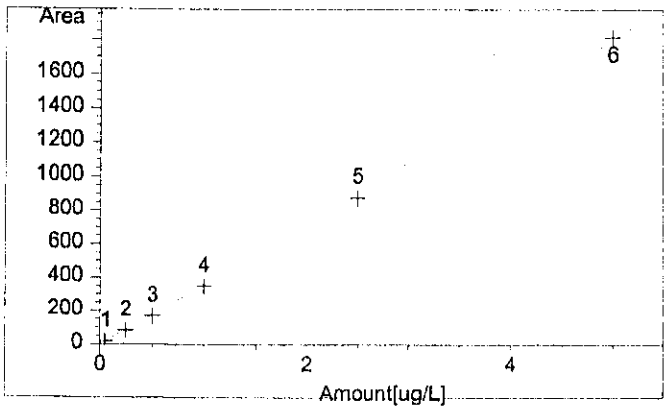
Benzo(b)fluoranthene #14 at exp. RT: 26.1
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 4.71295
Formula: y = mx
m: 49.16002
x: Amount[ug/L]
y: Area



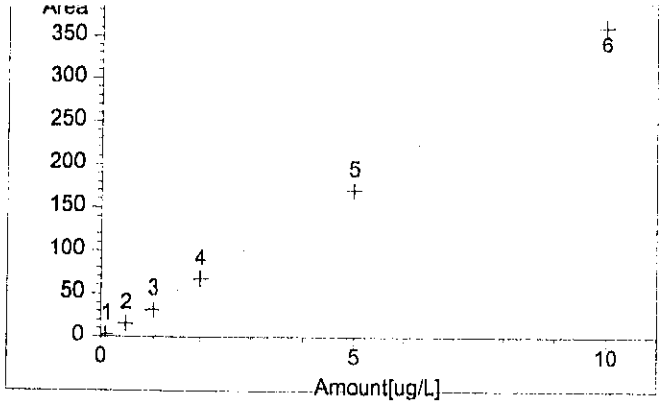
Benzo(b)fluoranthene #14 at exp. RT: 26.1
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99984
Residual Std. Dev.: 5.42310
Formula: y = mx
m: 60.05231
x: Amount[ug/L]
y: Area



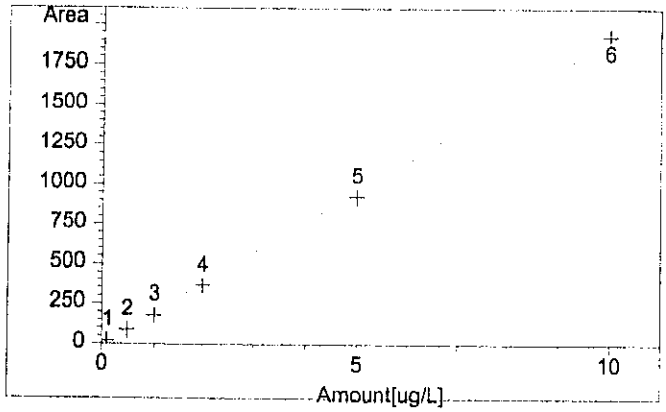
Benzo(k)fluoranthene #15 at exp. RT: 27.5
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99984
Residual Std. Dev.: 2.04948
Formula: y = mx
m: 45.14609
x: Amount[ug/L]
y: Area



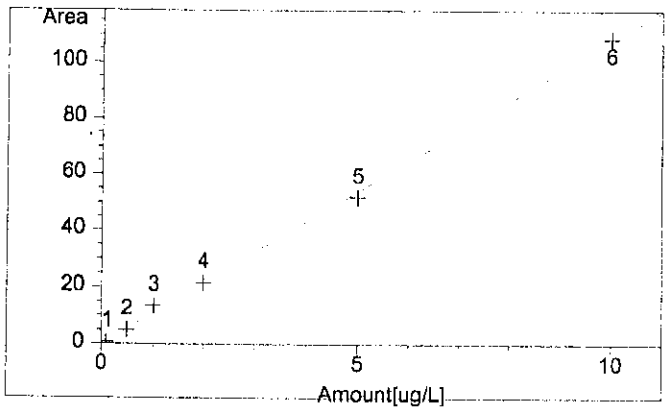
Benzo(k)fluoranthene #15 at exp. RT: 27.5
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99989
Residual Std. Dev.: 13.90903
Formula: y = mx
m: 360.08348
x: Amount[ug/L]
y: Area



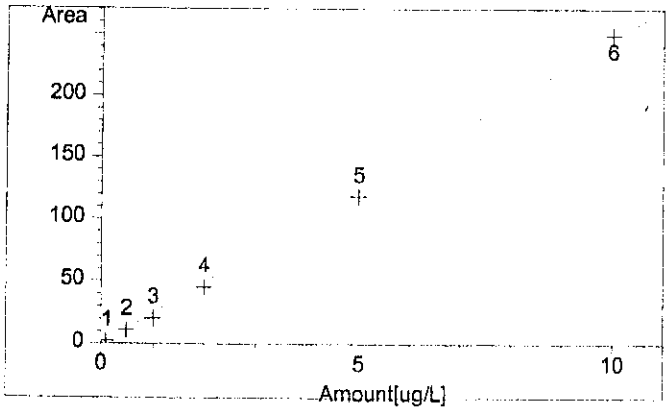
Benzo(a)pyrene #16 at exp. RT: 28.658
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99962
Residual Std. Dev.: 5.03525
Formula: y = mx
m: 35.61357
x: Amount[ug/L]
y: Area



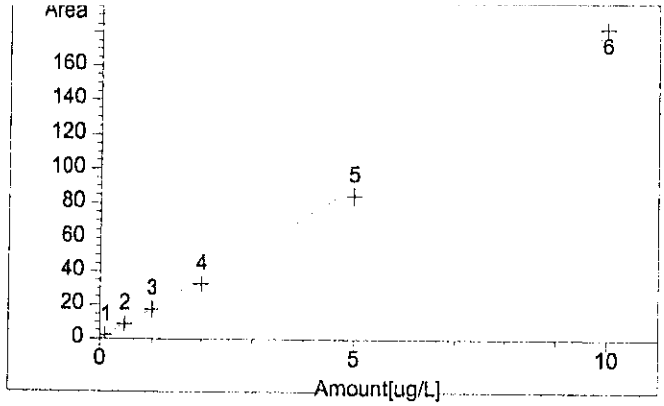
Benzo(a)pyrene #16 at exp. RT: 28.676
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99980
Residual Std. Dev.: 19.54253
Formula: y = mx
m: 190.87241
x: Amount[ug/L]
y: Area



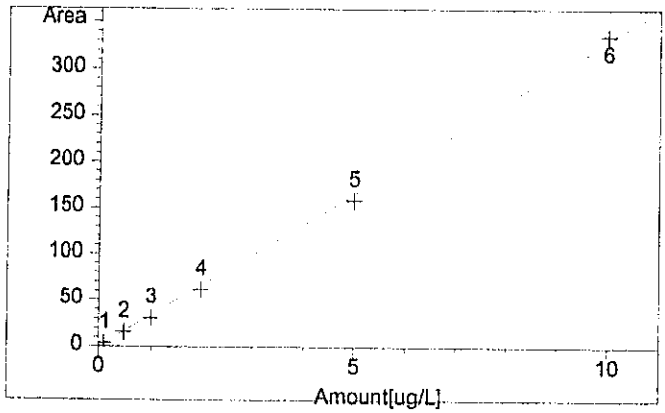
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99963
Residual Std. Dev.: 1.50220
Formula: y = mx
m: 10.78310
x: Amount[ug/L]
y: Area



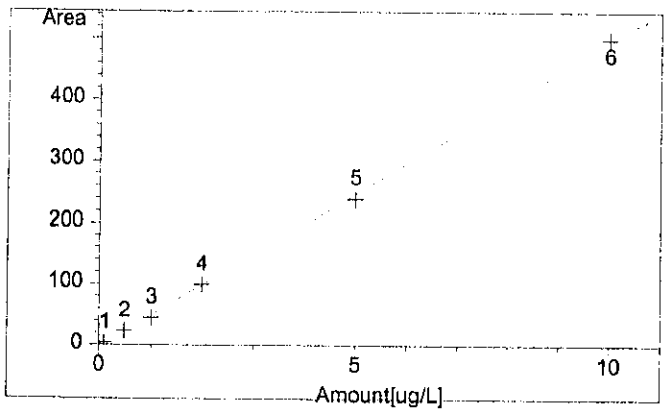
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99958
Residual Std. Dev.: 3.66148
Formula: y = mx
m: 24.60375
x: Amount[ug/L]
y: Area



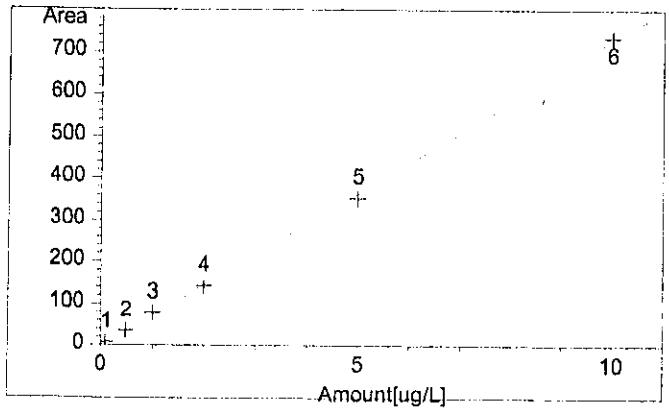
Benzo(g,h,i)perylene #18 at exp. RT: 31.3
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99945
Residual Std. Dev.: 3.05047
Formula: y = mx
m: 17.95894
x: Amount[ug/L]
y: Area



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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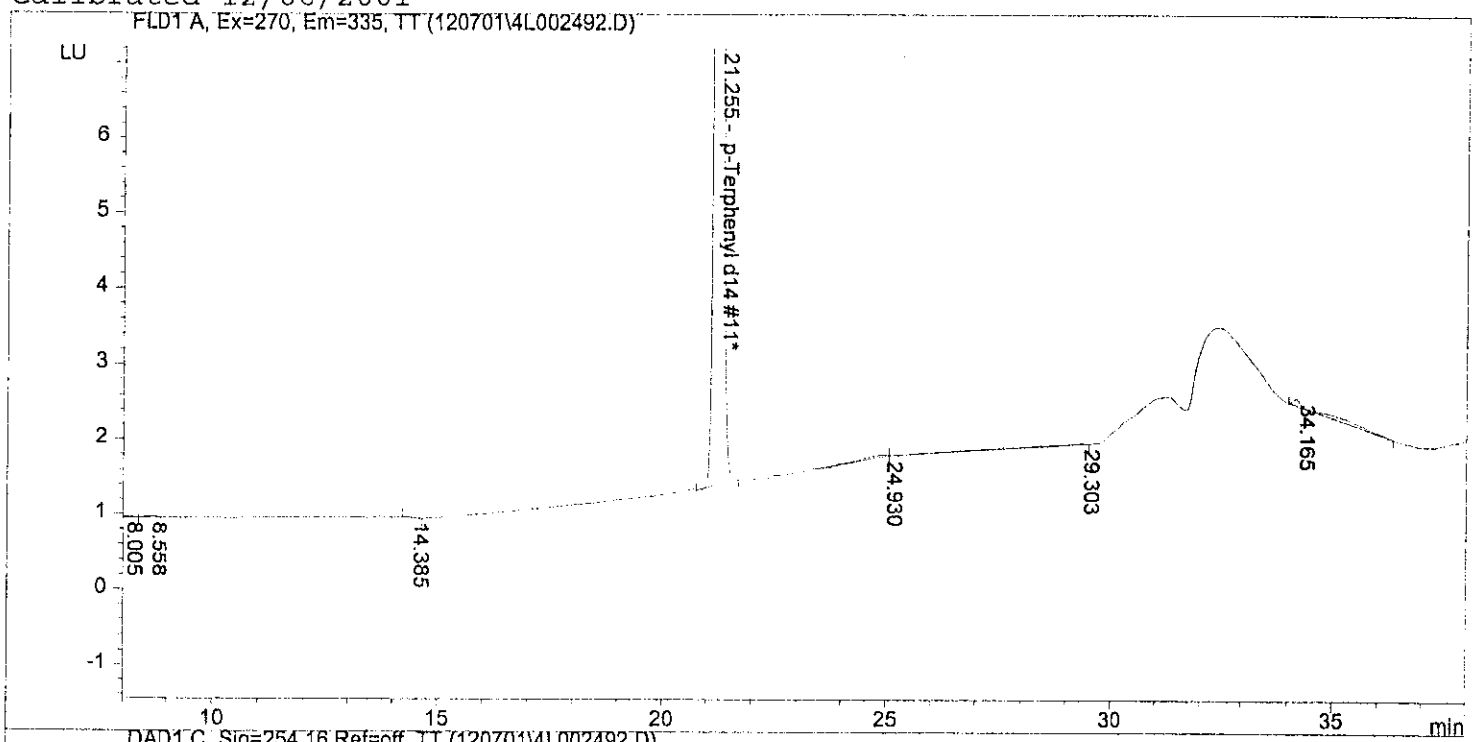
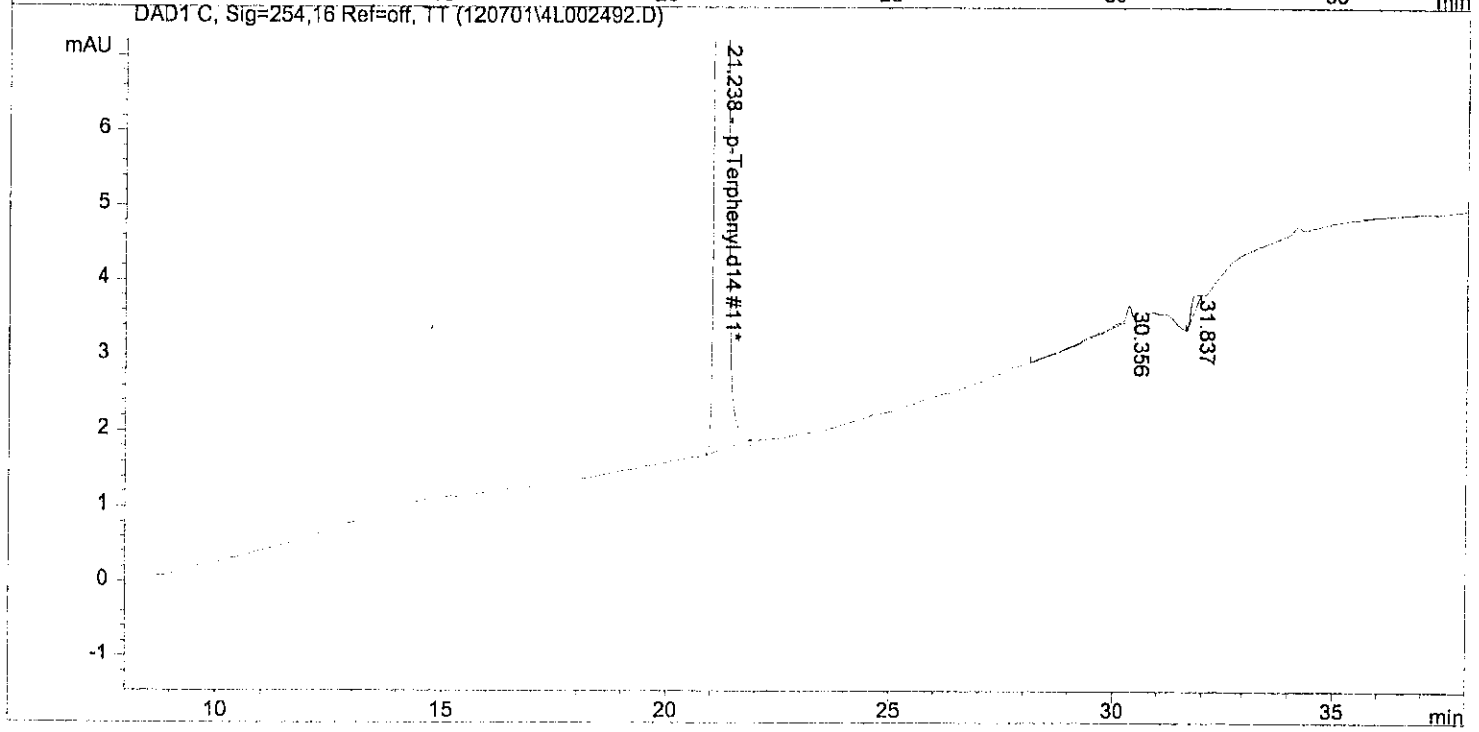
Injection Date	: 12/7/2001 5:41:55 PM	Seq. Line	: 2
Sample Name	: WG109608-01	Vial	: 2
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl
Acq. Method	: C:\HPCHEM\2\METHODS\8310.M		
Last changed	: 11/26/2001 11:42:54 AM by RDC		
Analysis Method	: C:\HPCHEM\2\METHODS\8310DATA.M		
Last changed	: 12/10/2001 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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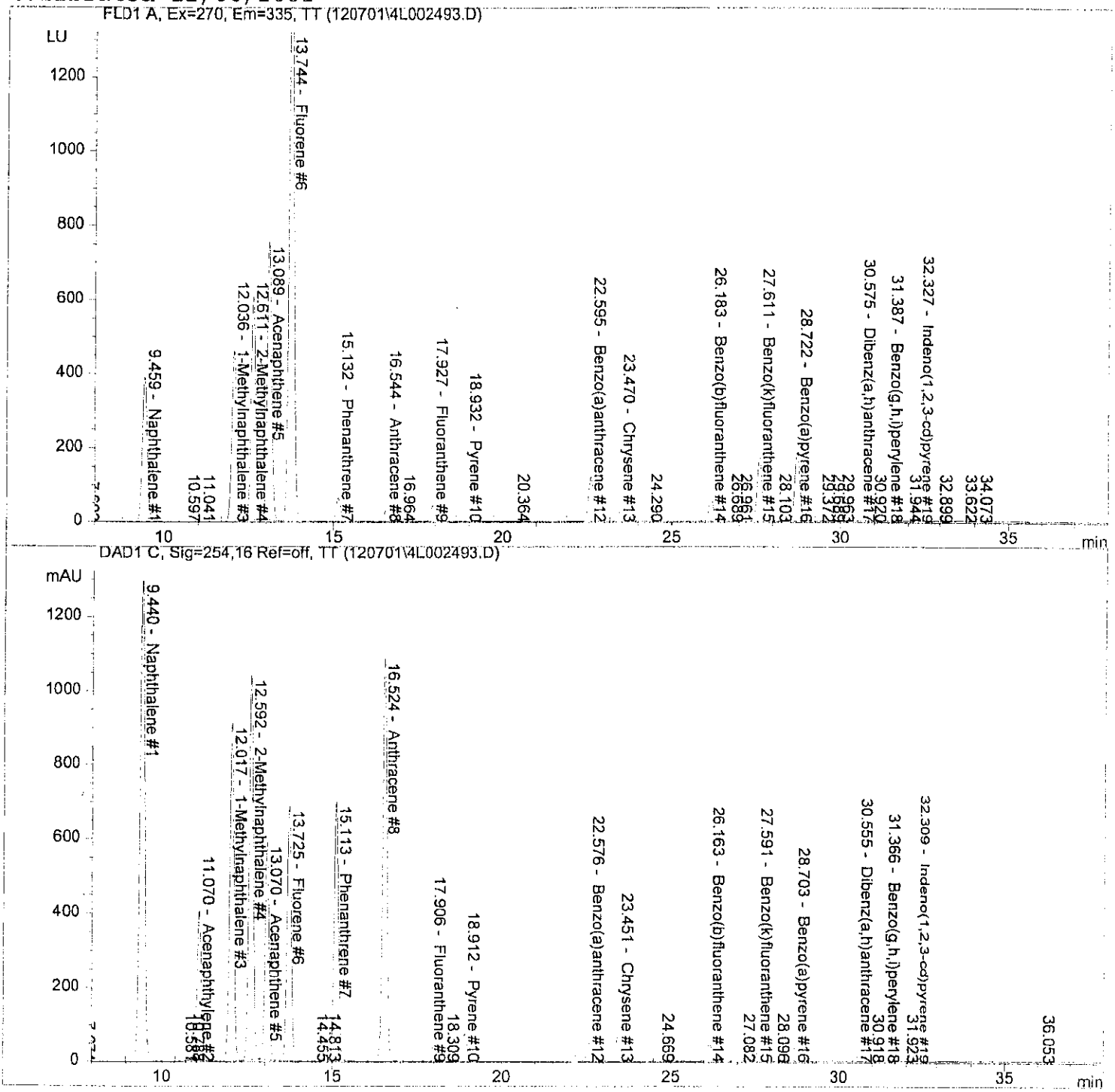
*** End of Report ***

1,1 30856-20 level 6 Std. 100/10/5 ppm

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

[min]		[mAU*s]		[ug/L]		
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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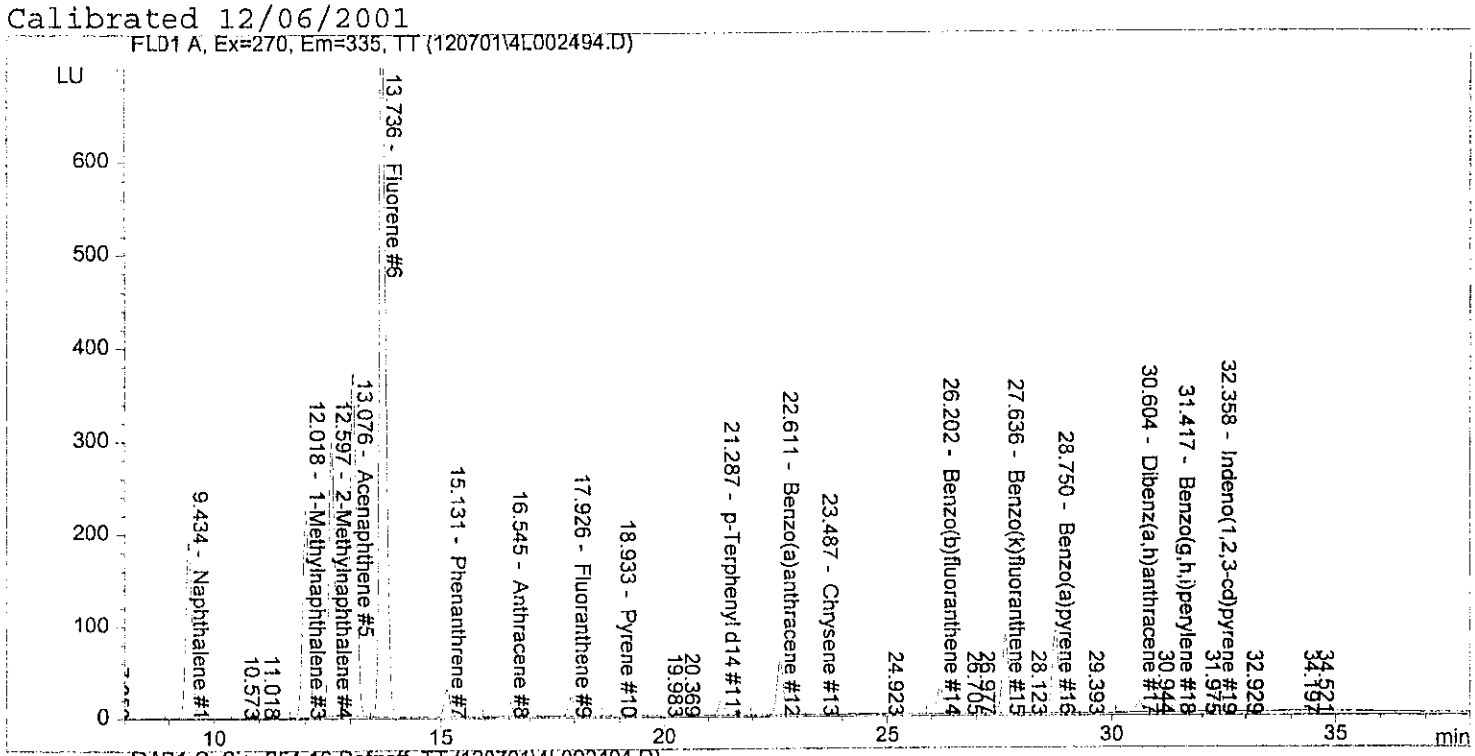
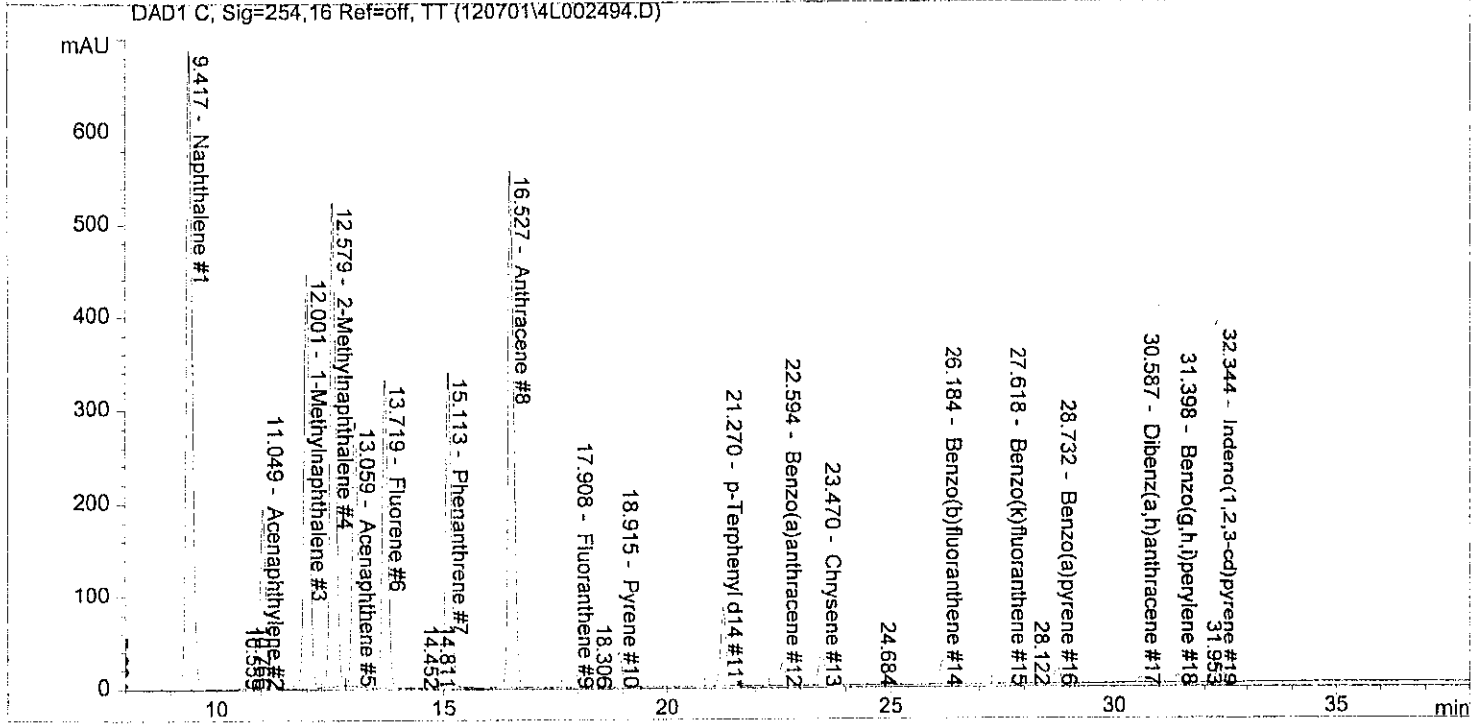
*** End of Report ***

1,1 SOS56-19/56-20 level 5 std. 50/5/2.5 ppm

Injection Date	: 12/7/2001 7:35:10 PM	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!

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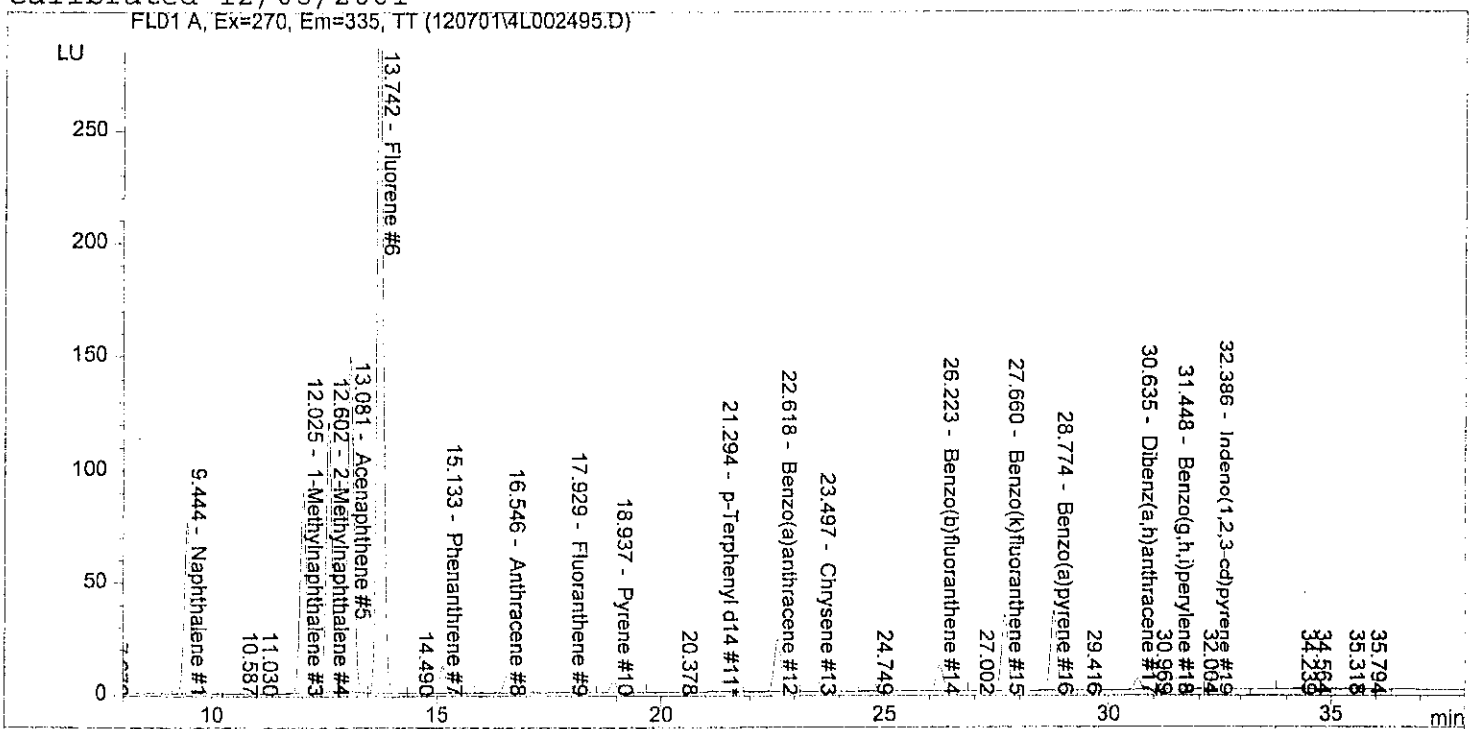
*** End of Report ***

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



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

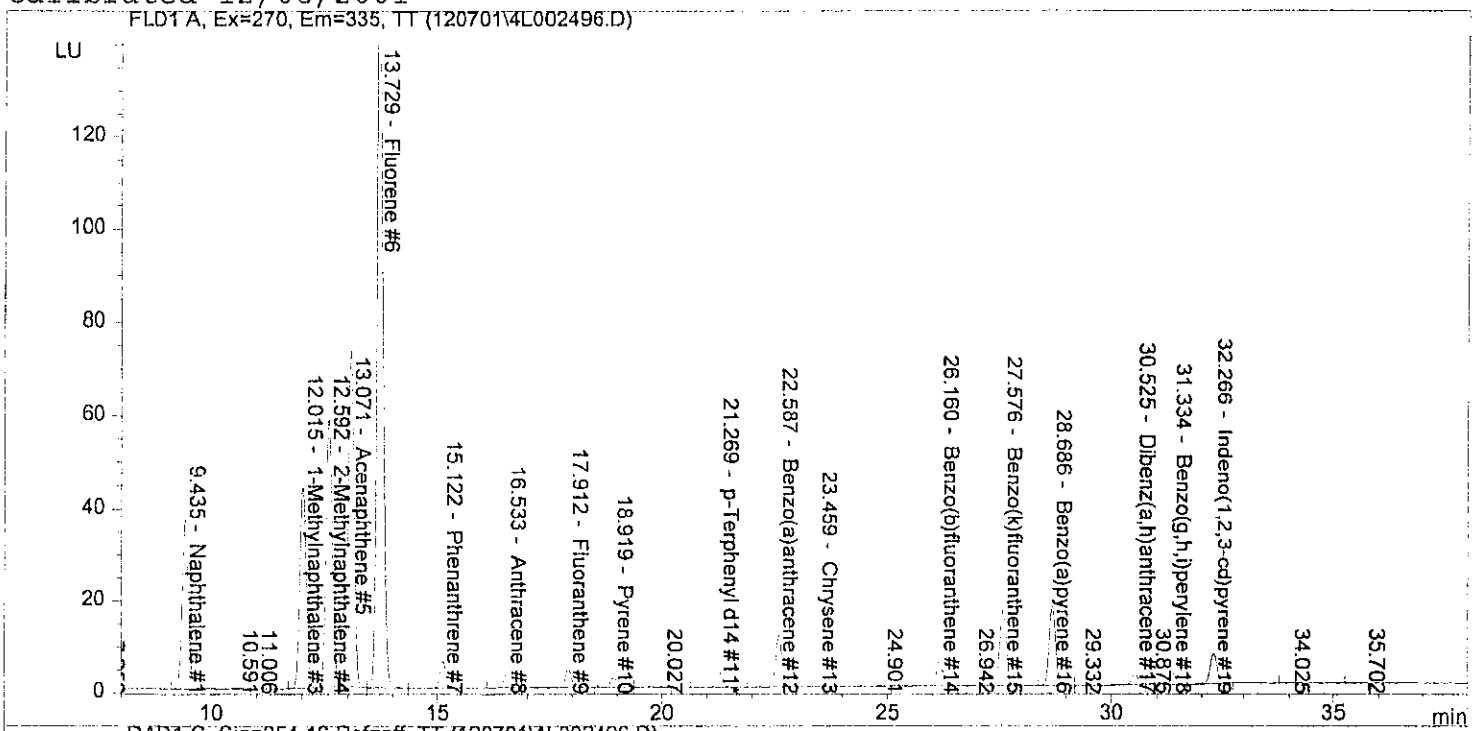
Results obtained with enhanced integrator!

*** 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!

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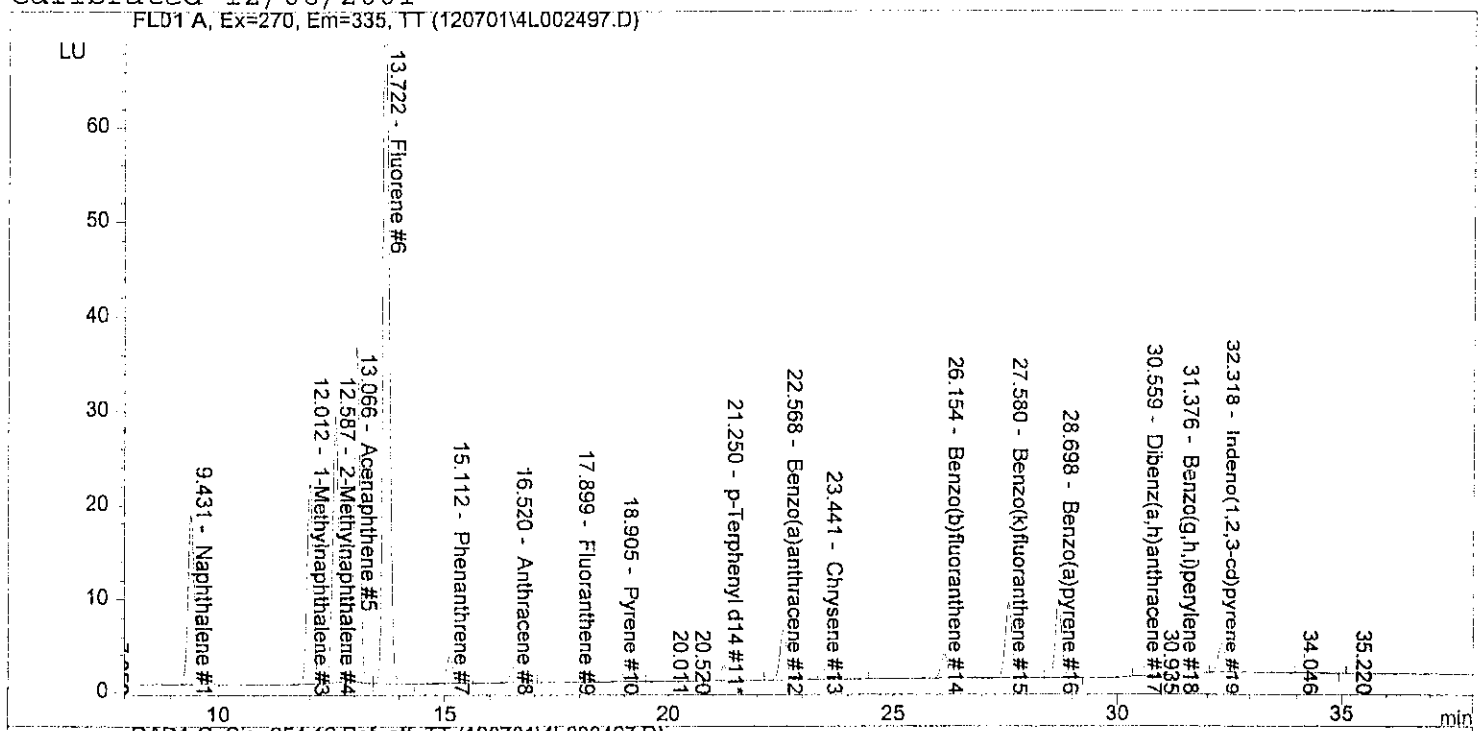
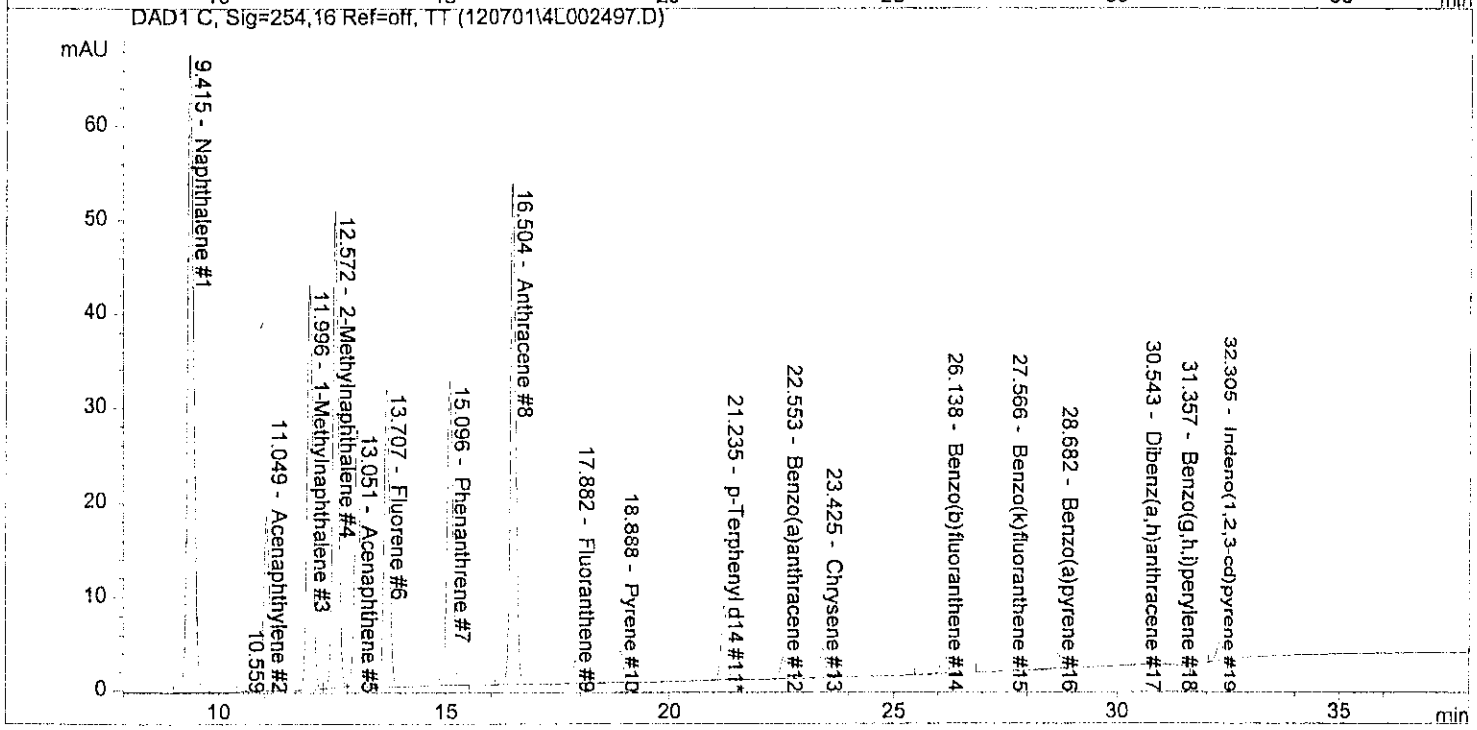
*** End of Report ***

1,1 SOS56-19/56-20 level 2 std. 5/.5/.25 ppm

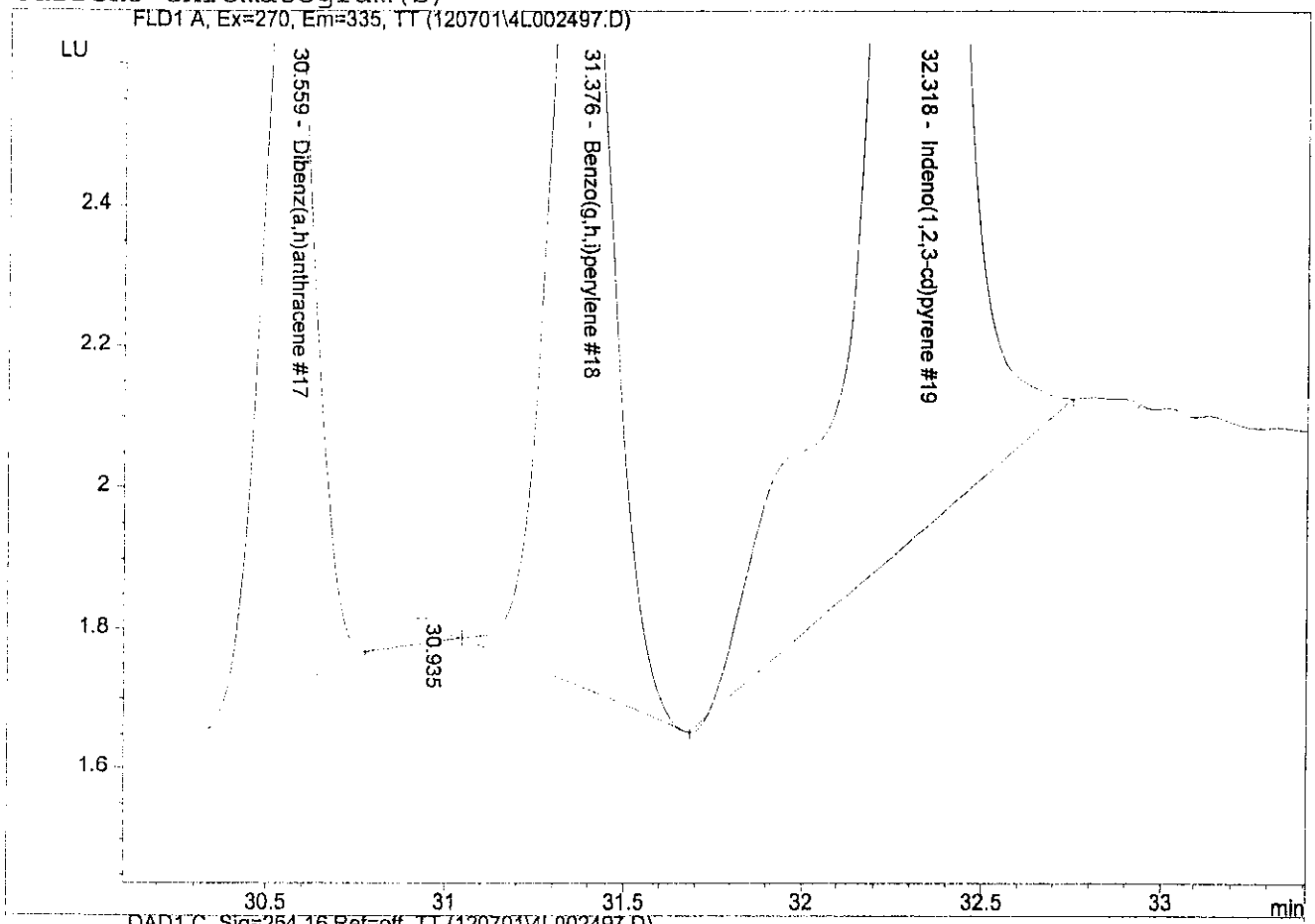
Injection Date	: 12/7/2001 10:25:05 PM	Seq. Line	: 7
Sample Name	: WG109608-06	Vial	: 7
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl
Acq. Method	: C:\HPCHEM\2\METHODS\8310.M		
Last changed	: 11/26/2001 11:42:54 AM by RDC		
Analysis Method	: C:\HPCHEM\2\METHODS\8310DATA.M		
Last changed	: 12/10/2001 11:25:39 AM by RDC (modified after loading)		

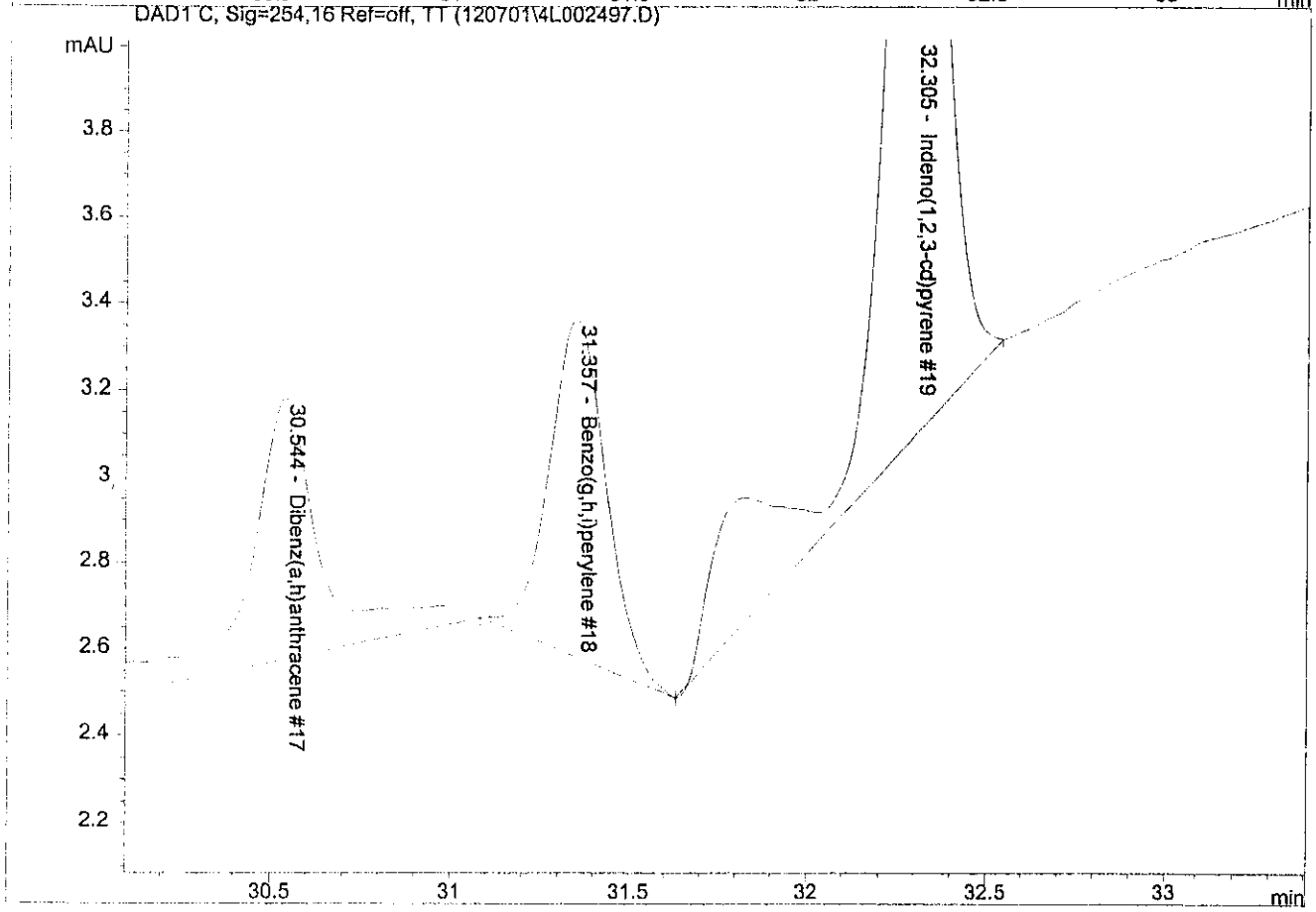
Calibrated 12/06/2001



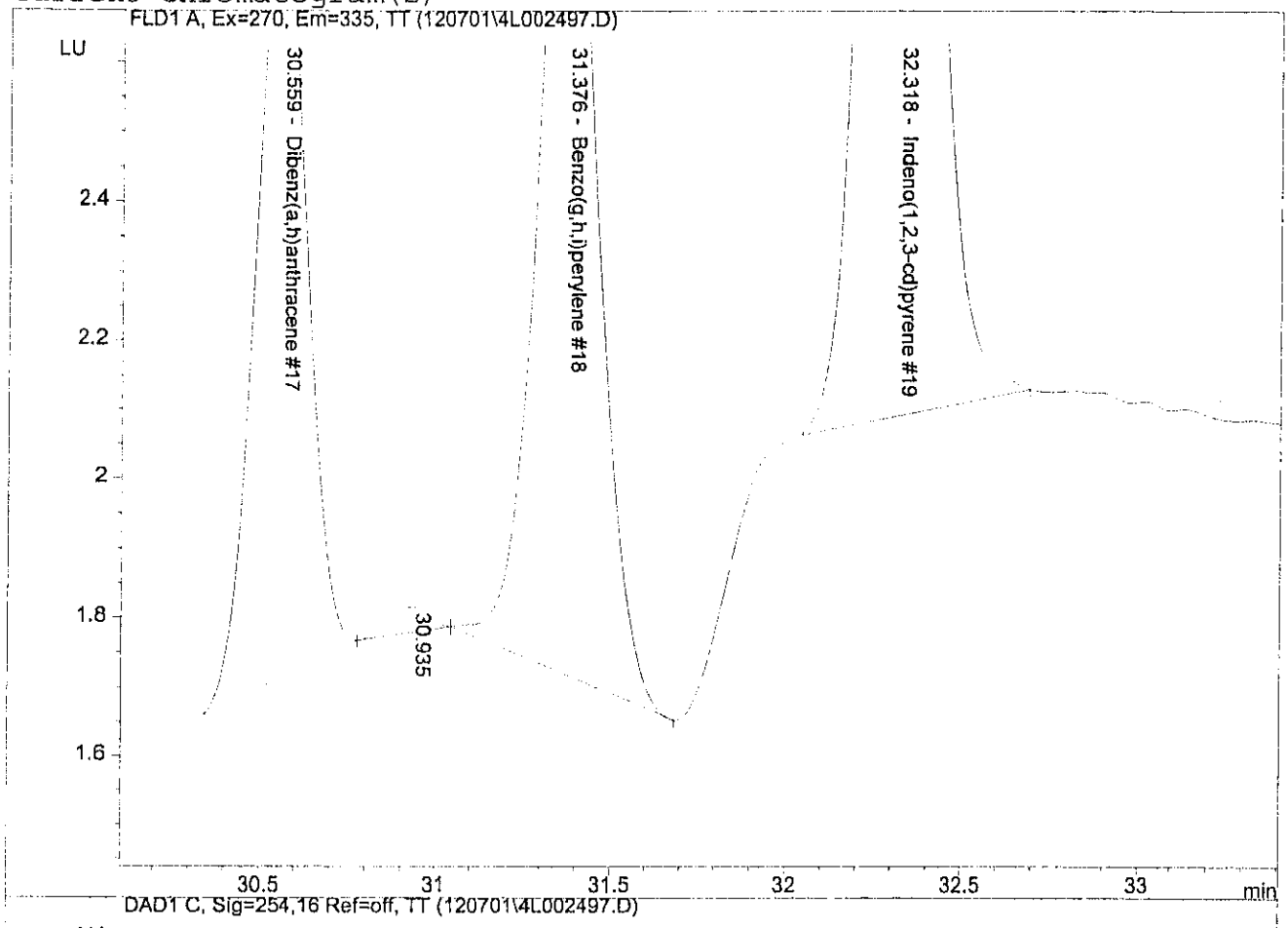


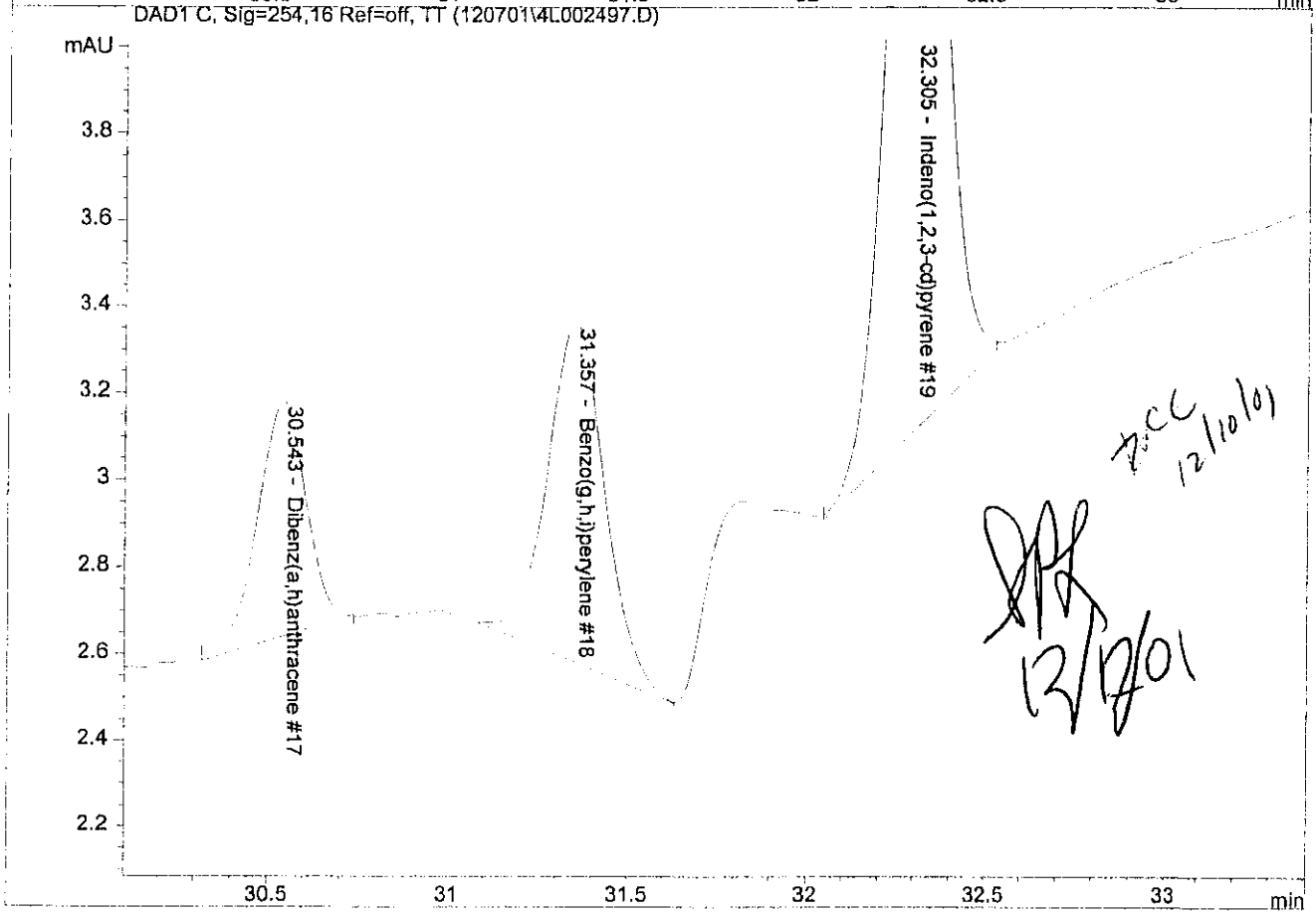
Current Chromatogram(s)





Current Chromatogram(s)





TCC 12/10/01

12/17/01

HPLC4 12/10/2001 11:25:20 AM RDC

Page 1 of 1

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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

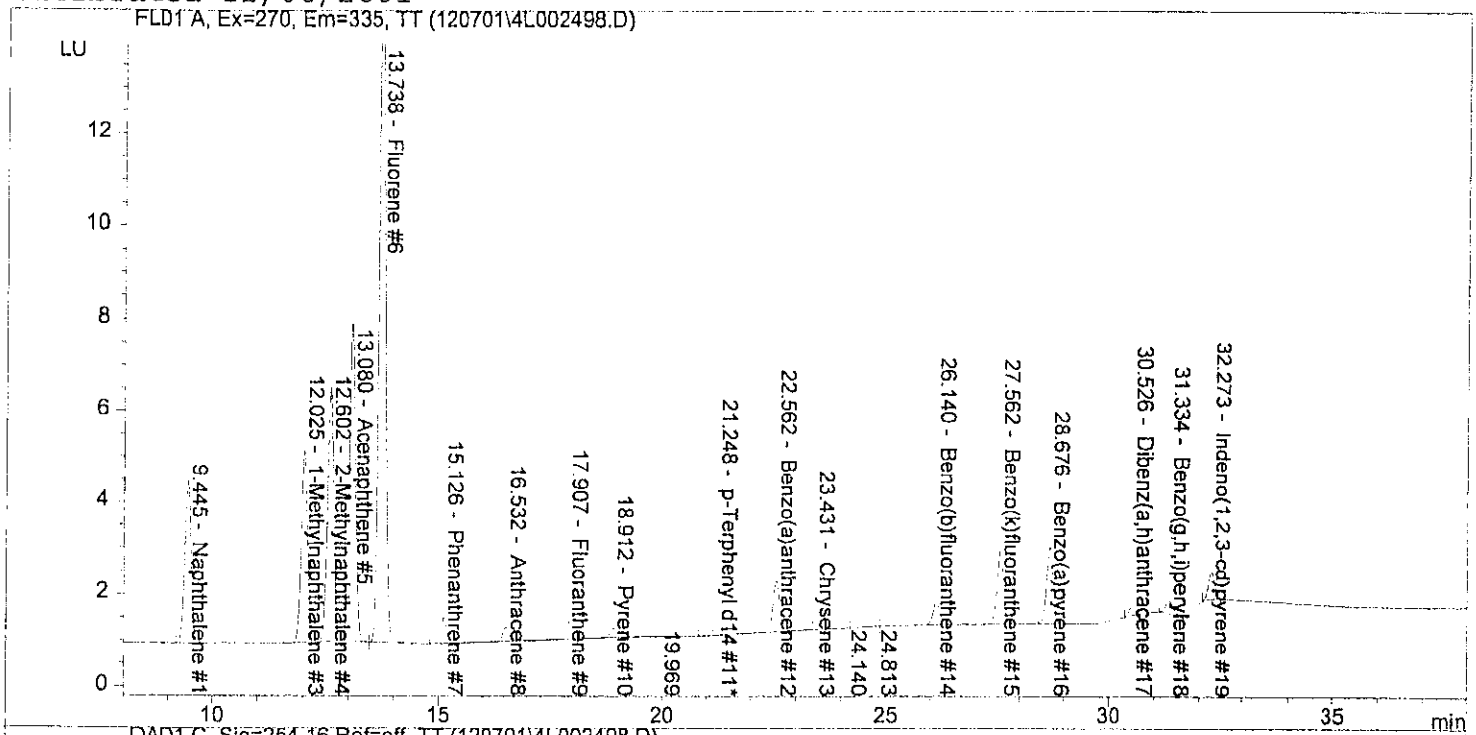
Results obtained with enhanced integrator!

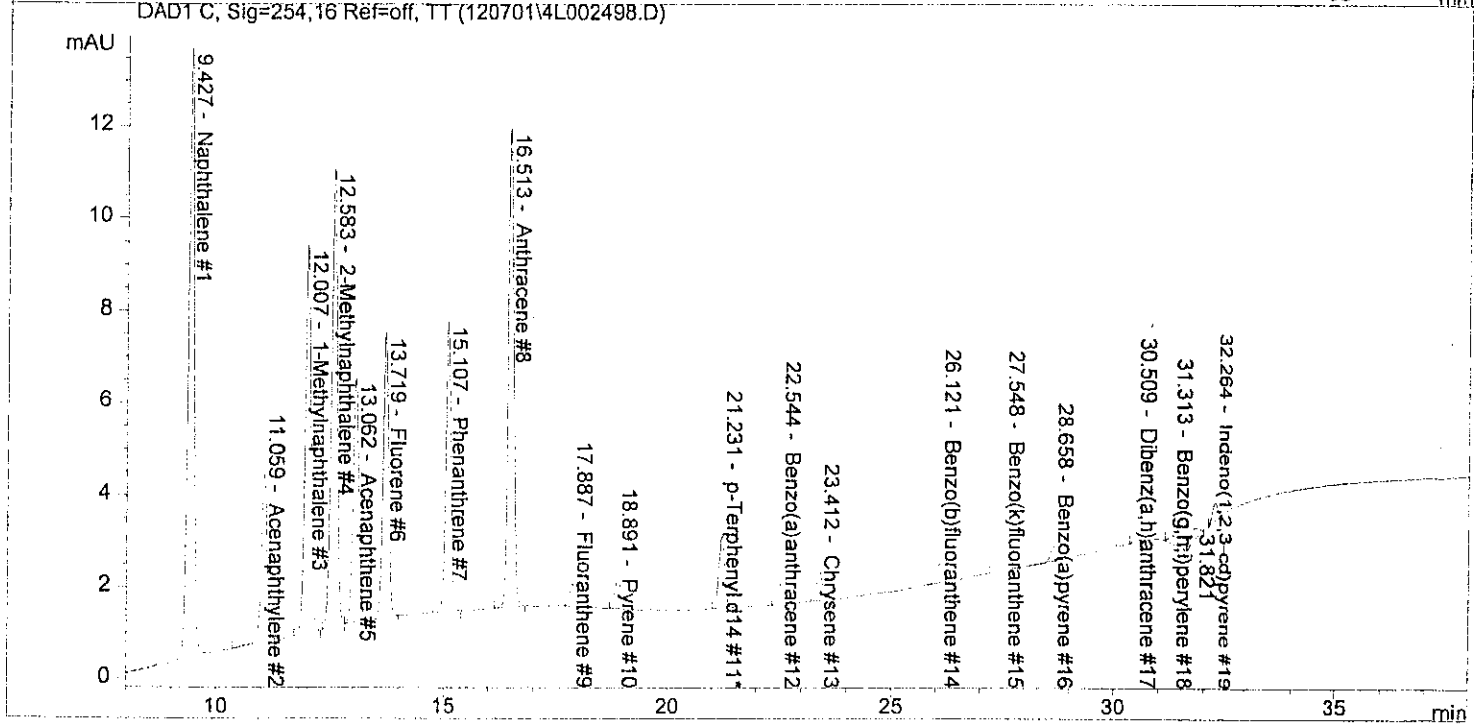
*** End of Report ***

1,1 SOS56-19/56-20 level 1 std. 1/.1/.05 ppm

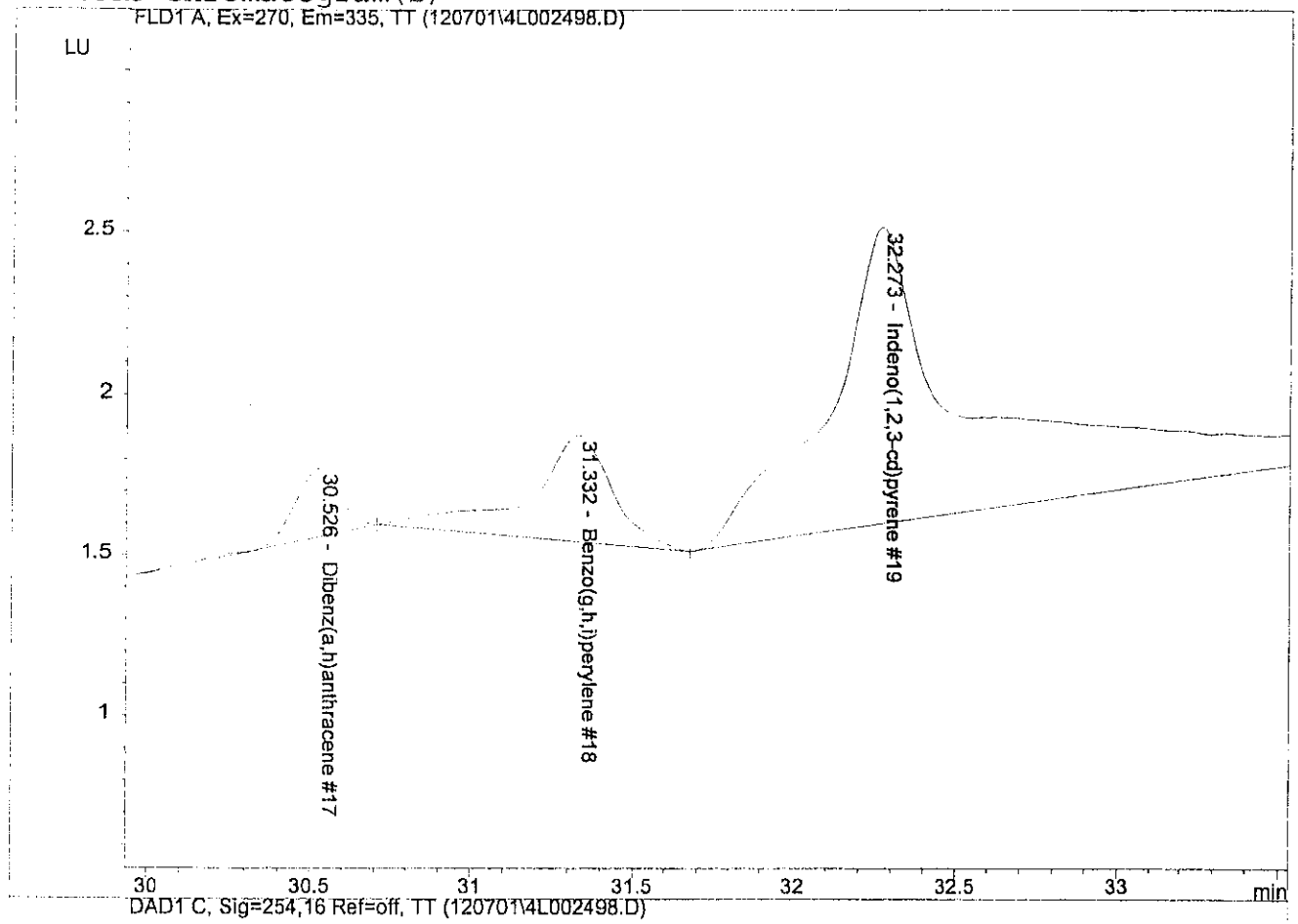
Injection Date	: 12/7/2001 11:21:43 PM	Seq. Line	: 8
Sample Name	: WG109608-07	Vial	: 8
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl
Acq. Method	: C:\HPCHEM\2\METHODS\8310.M		
Last changed	: 11/26/2001 11:42:54 AM by RDC		
Analysis Method	: C:\HPCHEM\2\METHODS\8310DATA.M		
Last changed	: 12/10/2001 11:28:14 AM by RDC		
	(modified after loading)		

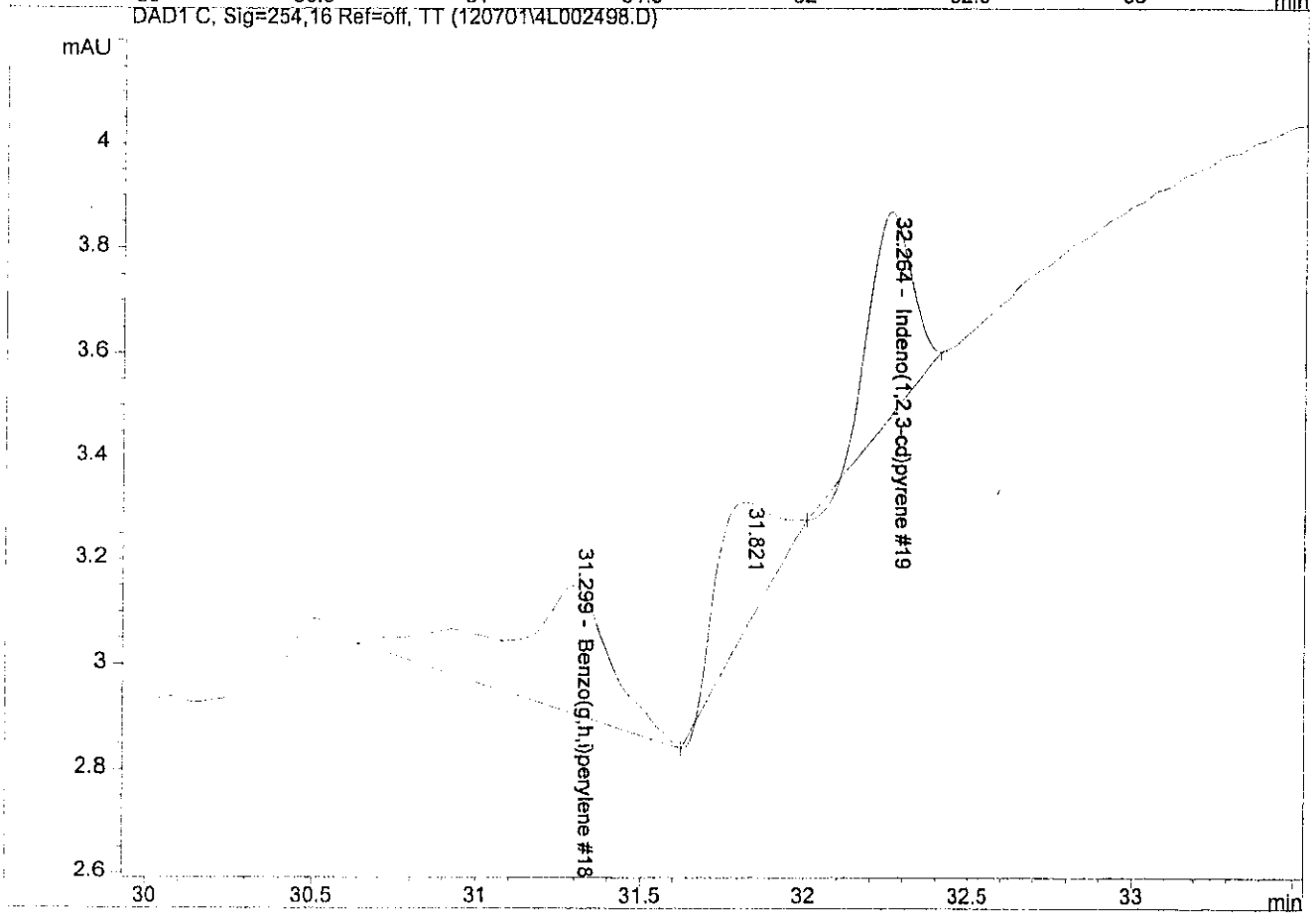
Calibrated 12/06/2001



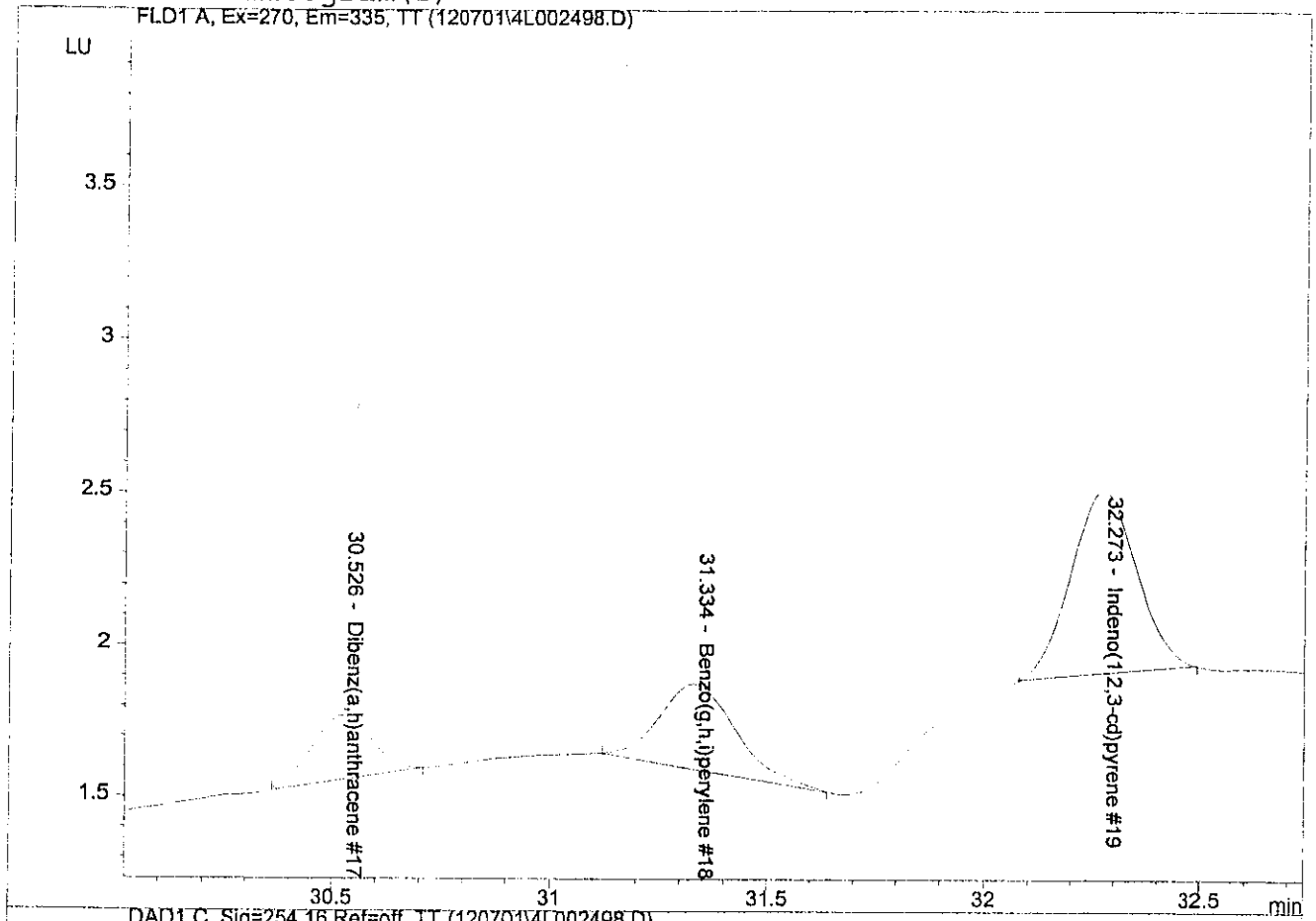


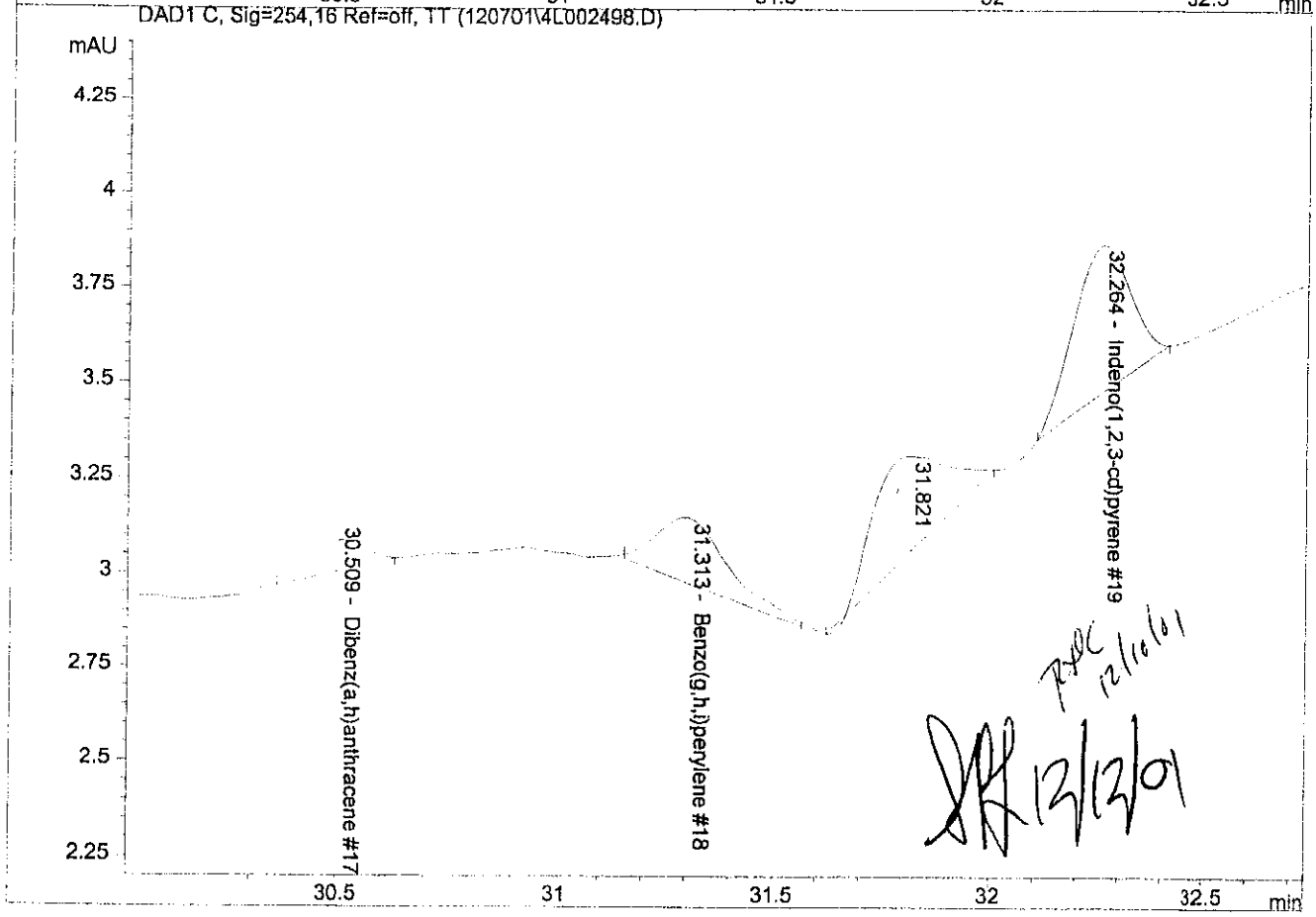
Current Chromatogram(s)





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

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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

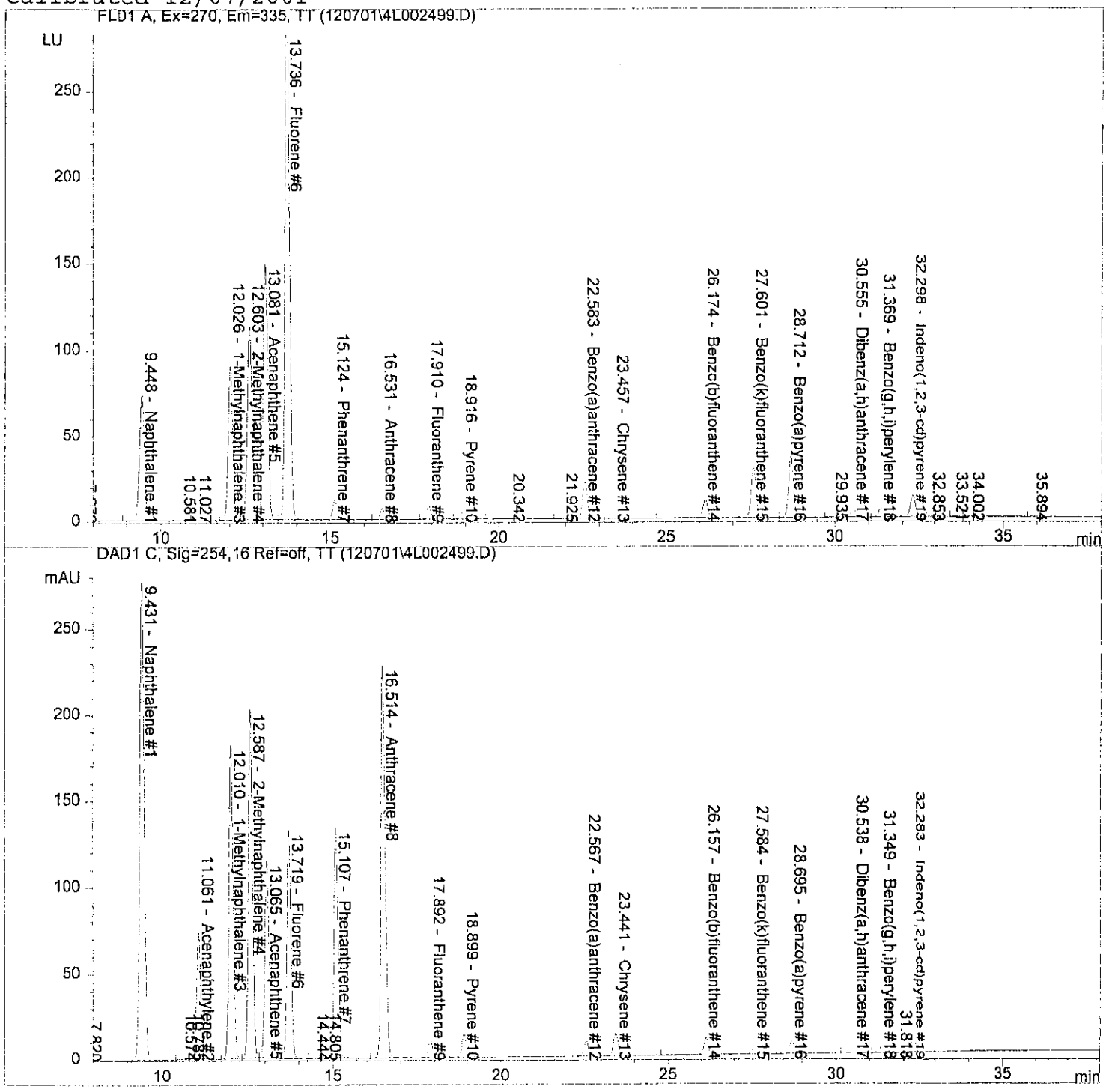
Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.431	20.0	20.166	0.8
Acenaphthylene #2	11.061	20.0	18.484	-7.6
1-Methylnaphthalene #3	12.010	20.0	19.908	-0.5
2-Methylnaphthalene #4	12.587	20.0	19.127	-4.4
Acenaphthene #5	13.065	20.0	19.623	-1.9
Fluorene #6	13.719	20.0	19.343	-3.3
Phenanthrene #7	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

Injection Date	: 12/8/2001 12:18:21 AM	Seq. Line	: 9
Sample Name	: WG109608-08	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 11:34:24 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 ***

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

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

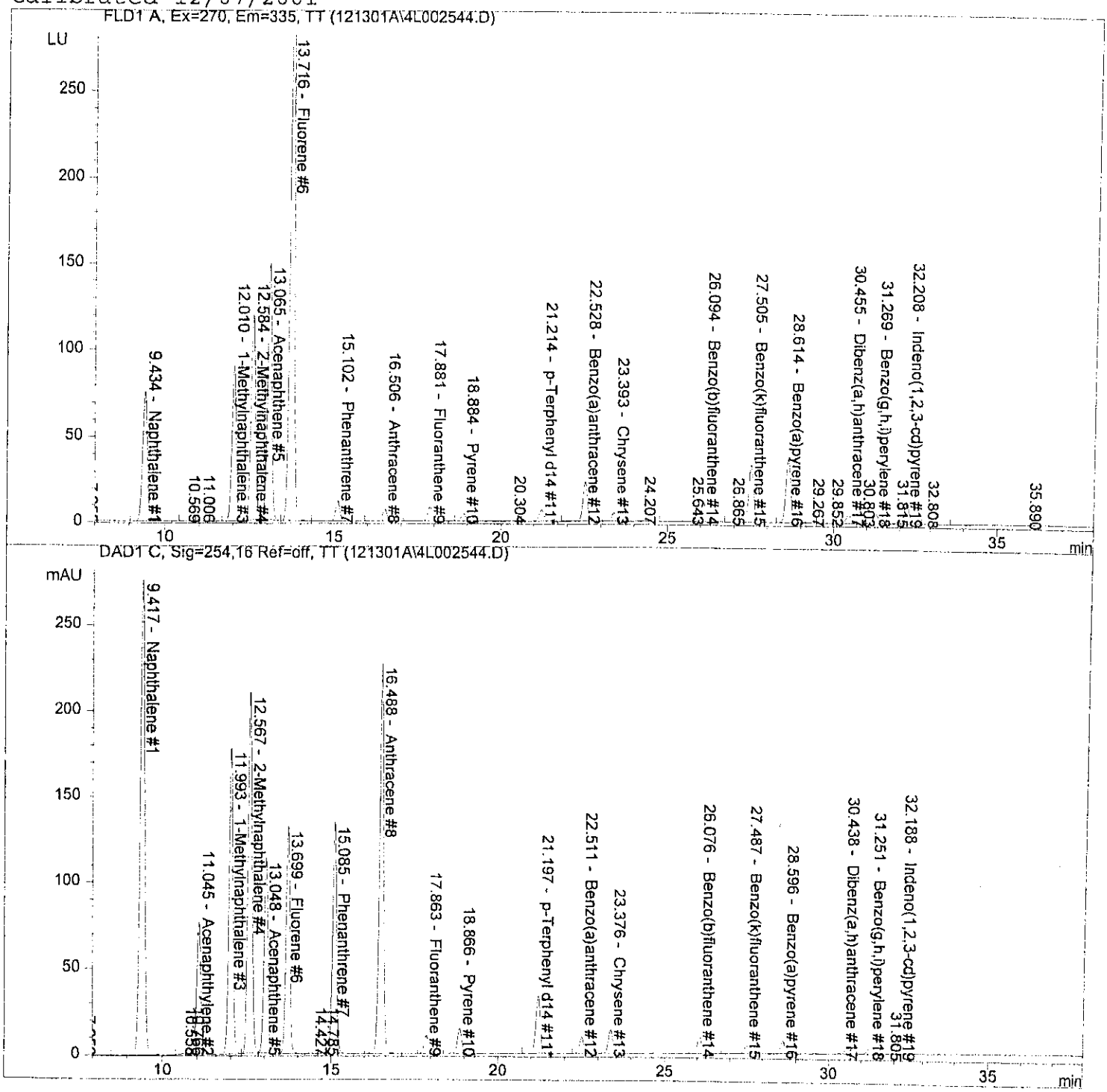
= Failed 15.0% Criteria

Injection Date : 12/13/2001 5:45:09 PM
Sample Name : WG109984-01 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 : 12/13/2001 12:49:22 PM by RDC
(modified after loading)

Calibrated 12/07/2001



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

[min]		[mAU*s]		[ug/L]		
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!

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*** End of Report ***

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

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

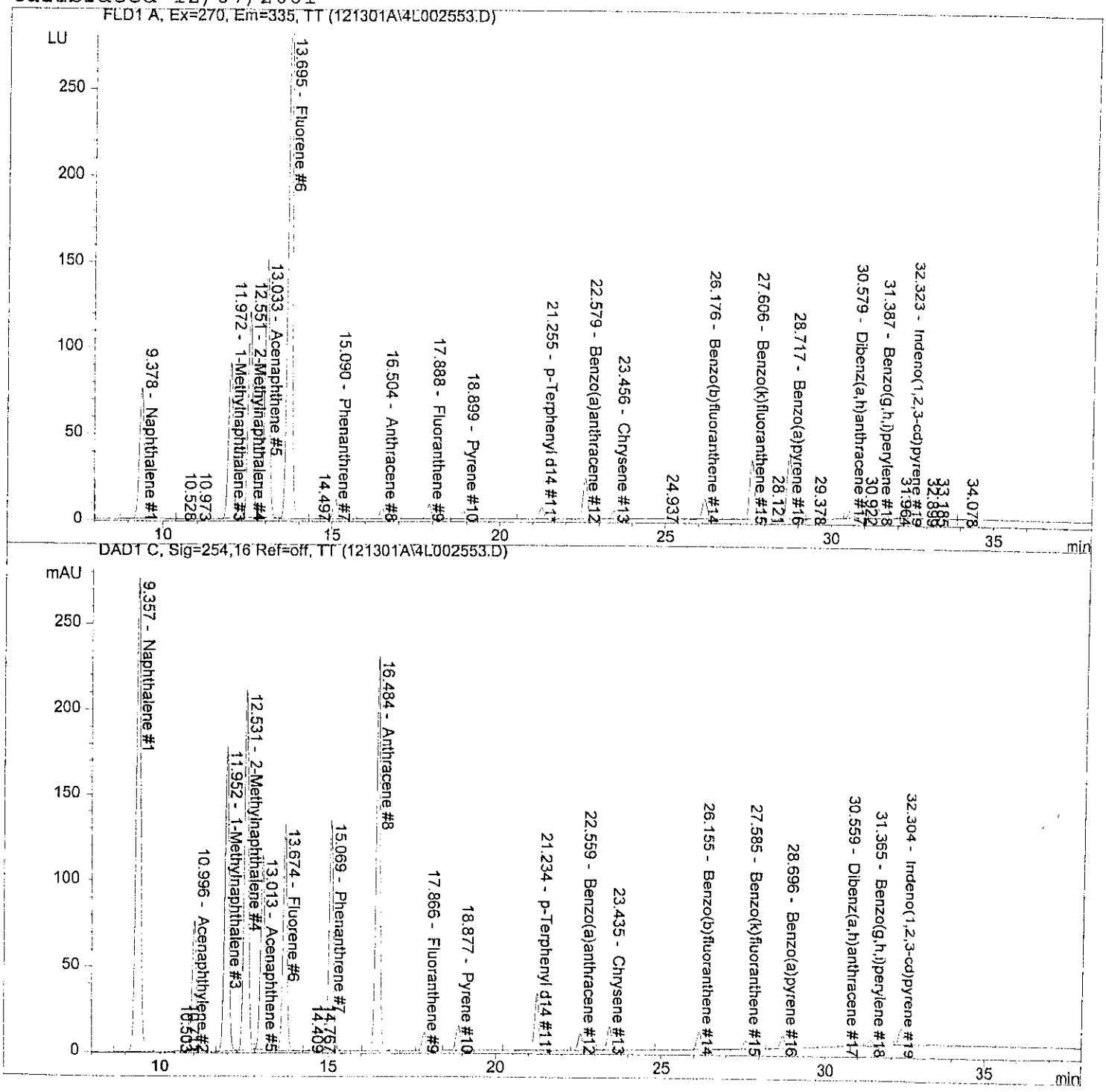
= Failed 15.0% Criteria

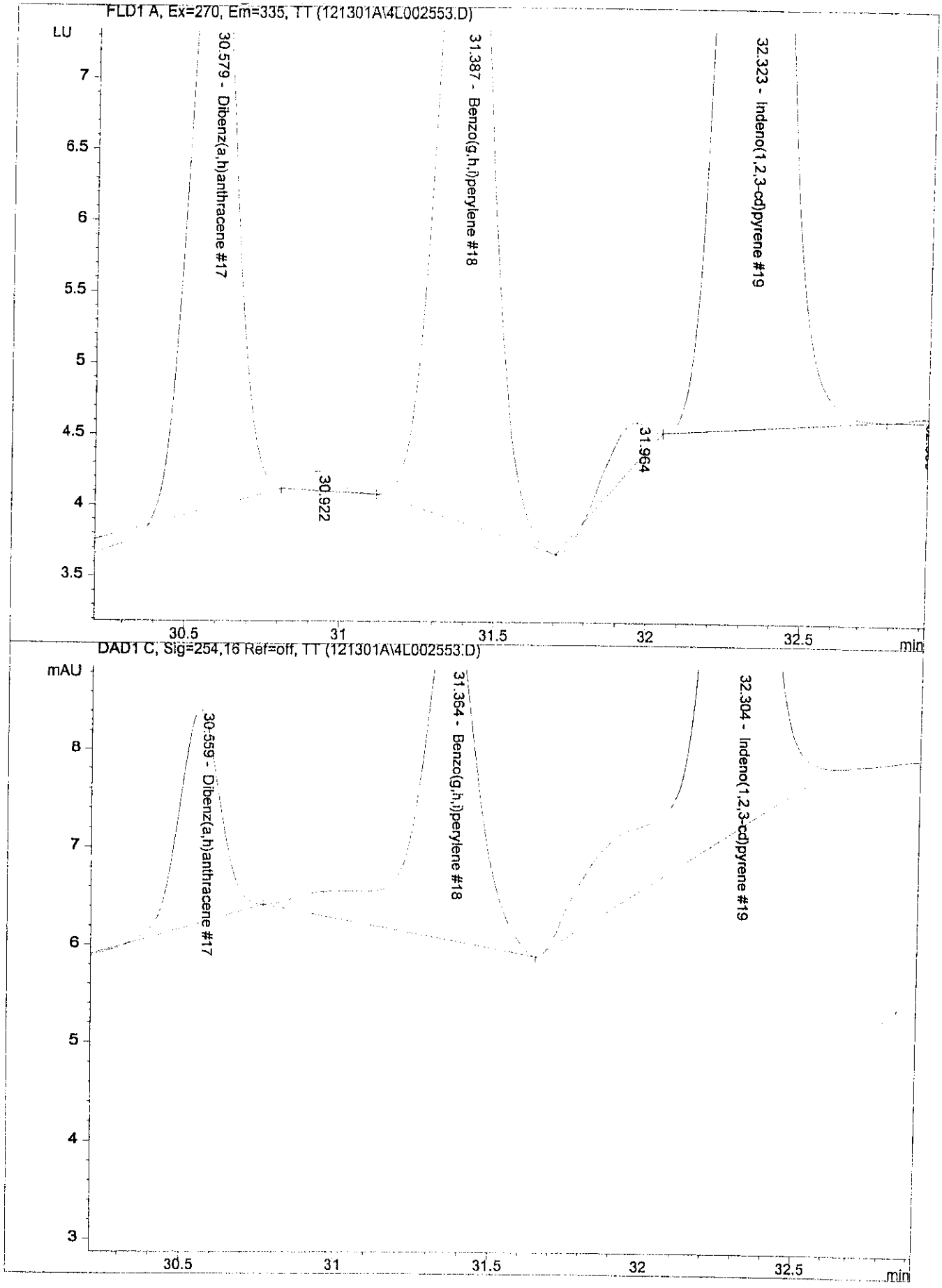
Injection Date : 12/14/2001 2:14:47 AM
Sample Name : WG109984-02 CCV
Acq. Operator : RDC

Seq. Line : 11
Vial : 2
Inj : 1
Inj Volume : 8 µl

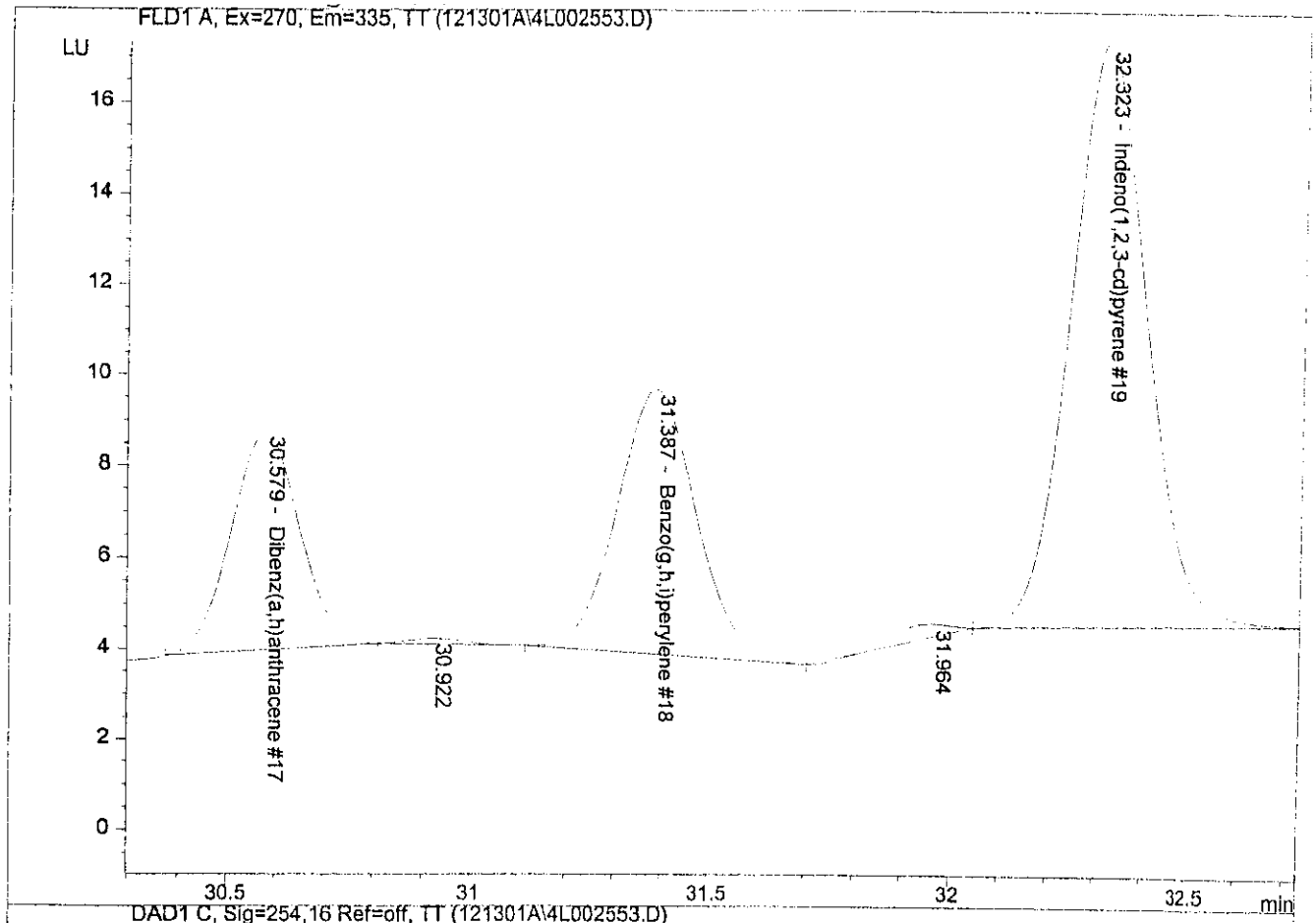
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/13/2001 12:49:22 PM by RDC
(modified after loading)

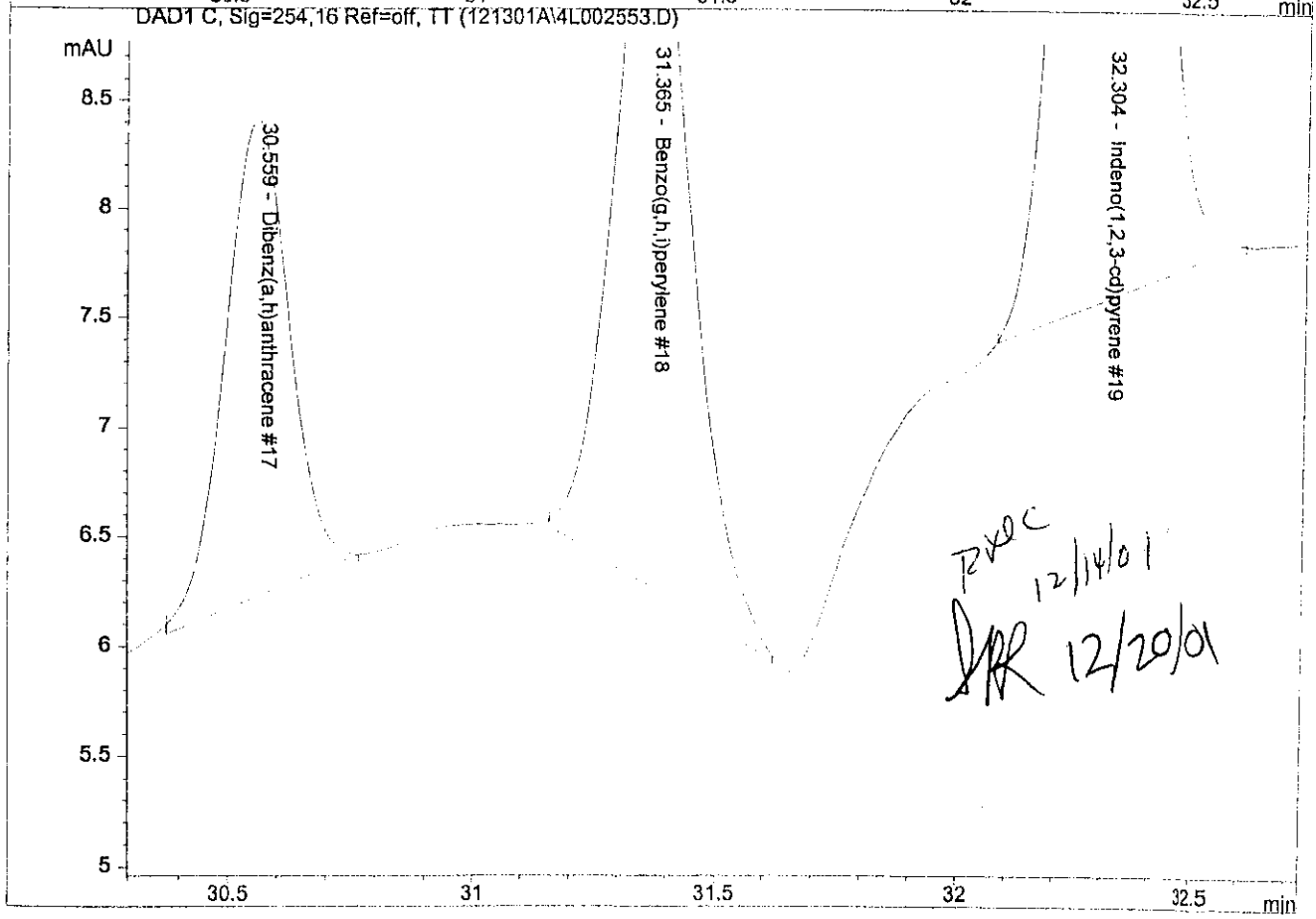
Calibrated 12/07/2001





HPLC4 12/14/2001 3:09:06 PM RDC





RDC 12/14/01

DRR 12/20/01

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

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!

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*** End of Report ***

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

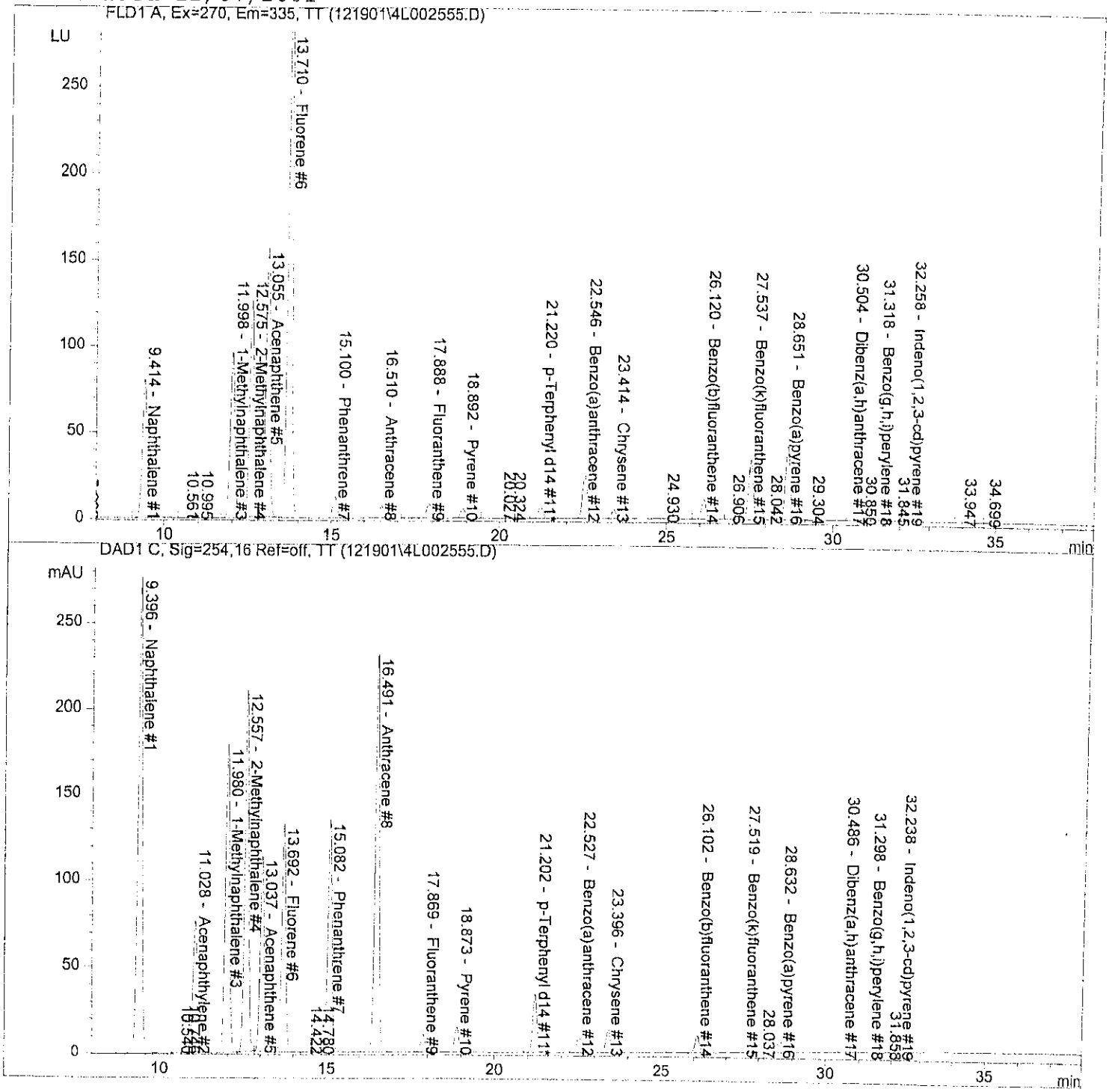
Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.396	20.0	20.199	1.0
Acenaphthylene #2	11.028	20.0	19.172	-4.1
1-Methylnaphthalene #3	11.980	20.0	19.369	-3.2
2-Methylnaphthalene #4	12.557	20.0	19.682	-1.6
Acenaphthene #5	13.037	20.0	19.278	-3.6
Fluorene #6	13.692	20.0	19.212	-3.9
Phenanthrene #7	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

Injection Date : 12/19/2001 9:44:00 AM
Sample Name : WG110267-01 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 : 12/10/2001 11:34:37 AM by RDC
Calibrated 12/07/2001



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

[min]		[mAU*s]		[ug/L]		
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 ***

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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

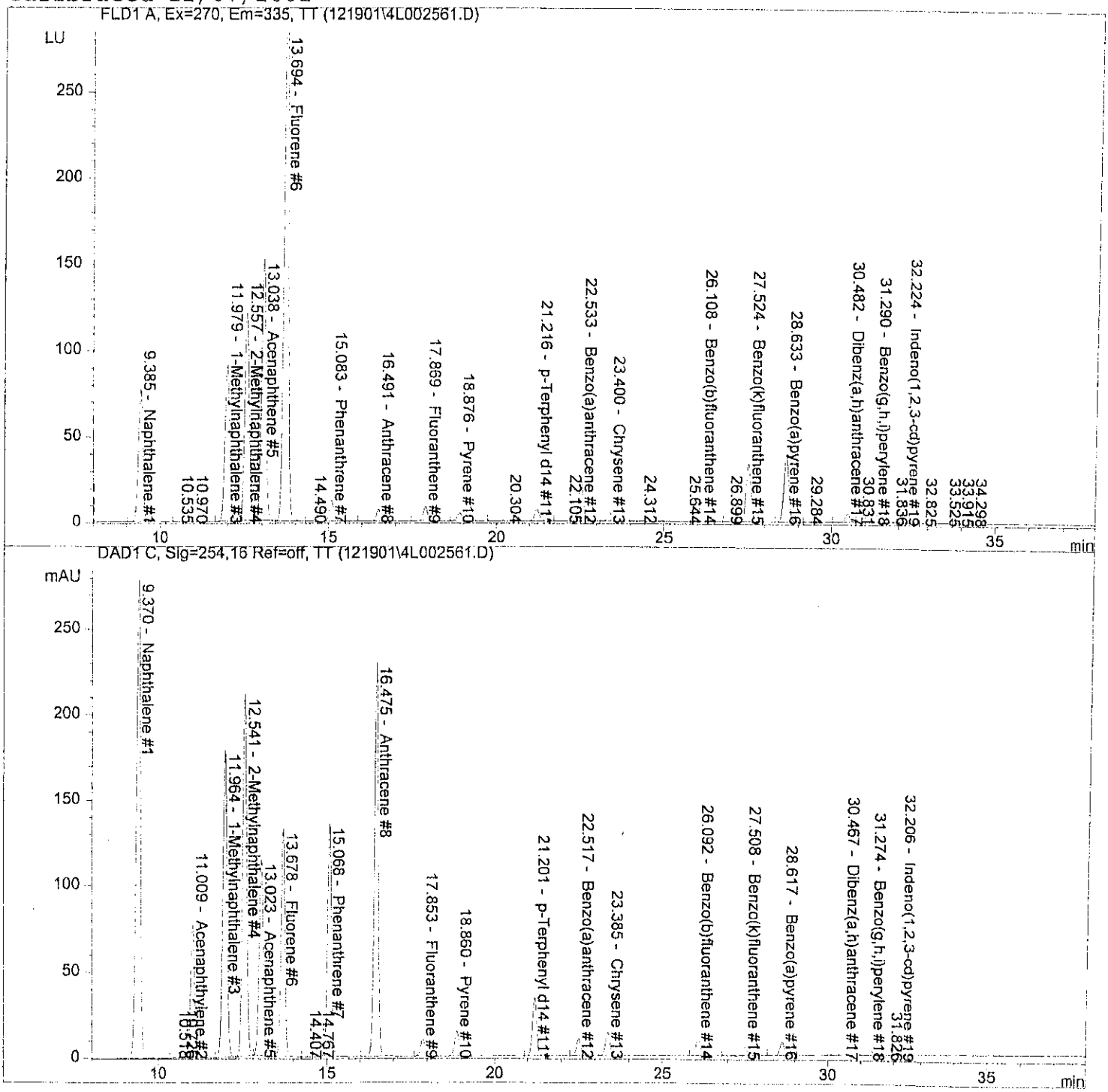
Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.370	20.0	20.228	1.1
Acenaphthylene #2	11.009	20.0	19.211	-3.9
1-Methylnaphthalene #3	11.964	20.0	19.402	-3.0
2-Methylnaphthalene #4	12.541	20.0	19.713	-1.4
Acenaphthene #5	13.023	20.0	19.278	-3.6
Fluorene #6	13.678	20.0	19.219	-3.9
Phenanthrene #7	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

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



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 ***

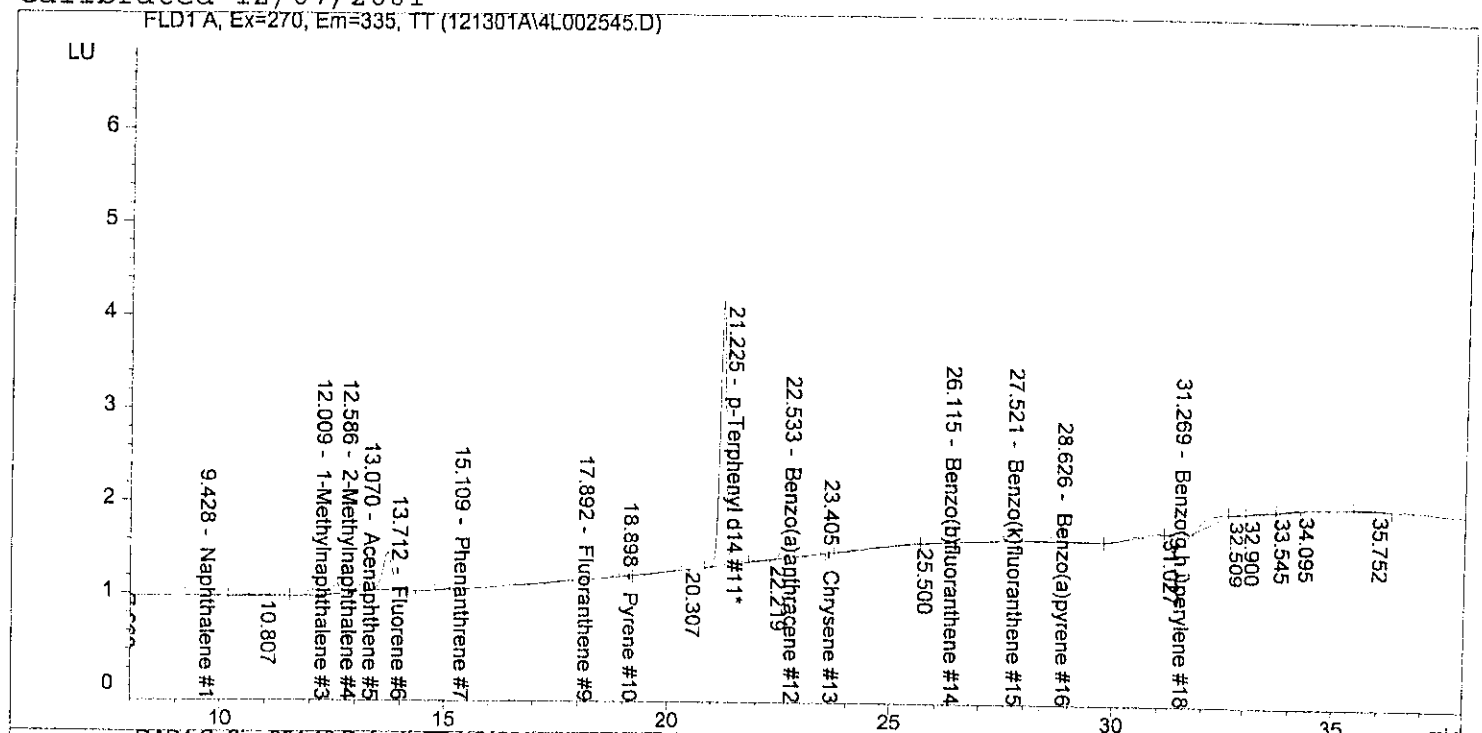
2.2.7.4 Raw QC Data

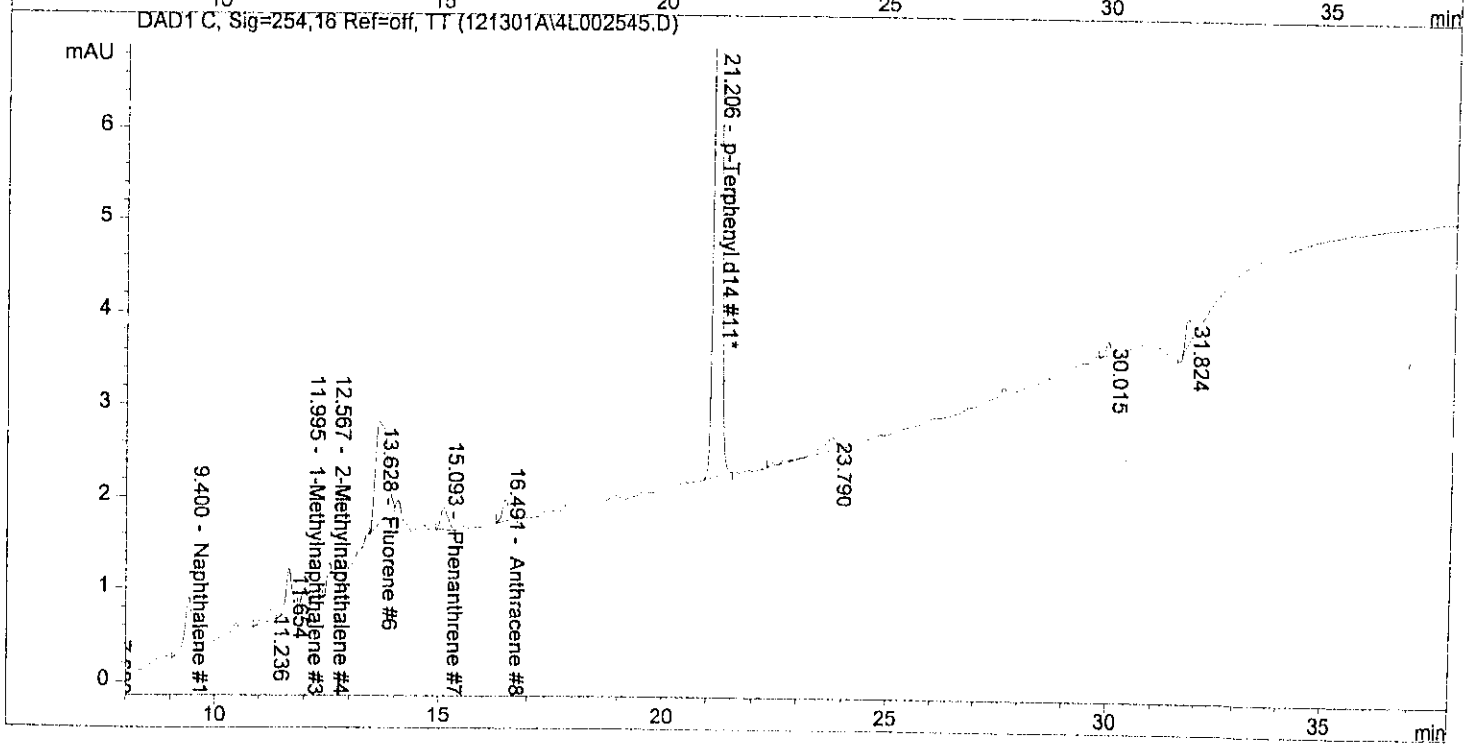
Injection Date : 12/13/2001 6:41:46 PM
Sample Name : WG109960-02 SBLK
Acq. Operator : RDC

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





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		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!

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		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		Fluorene #6
15.093	BB	2.47520	1.70751e-2	4.22643e-2		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		-	-	-		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 : 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 ***

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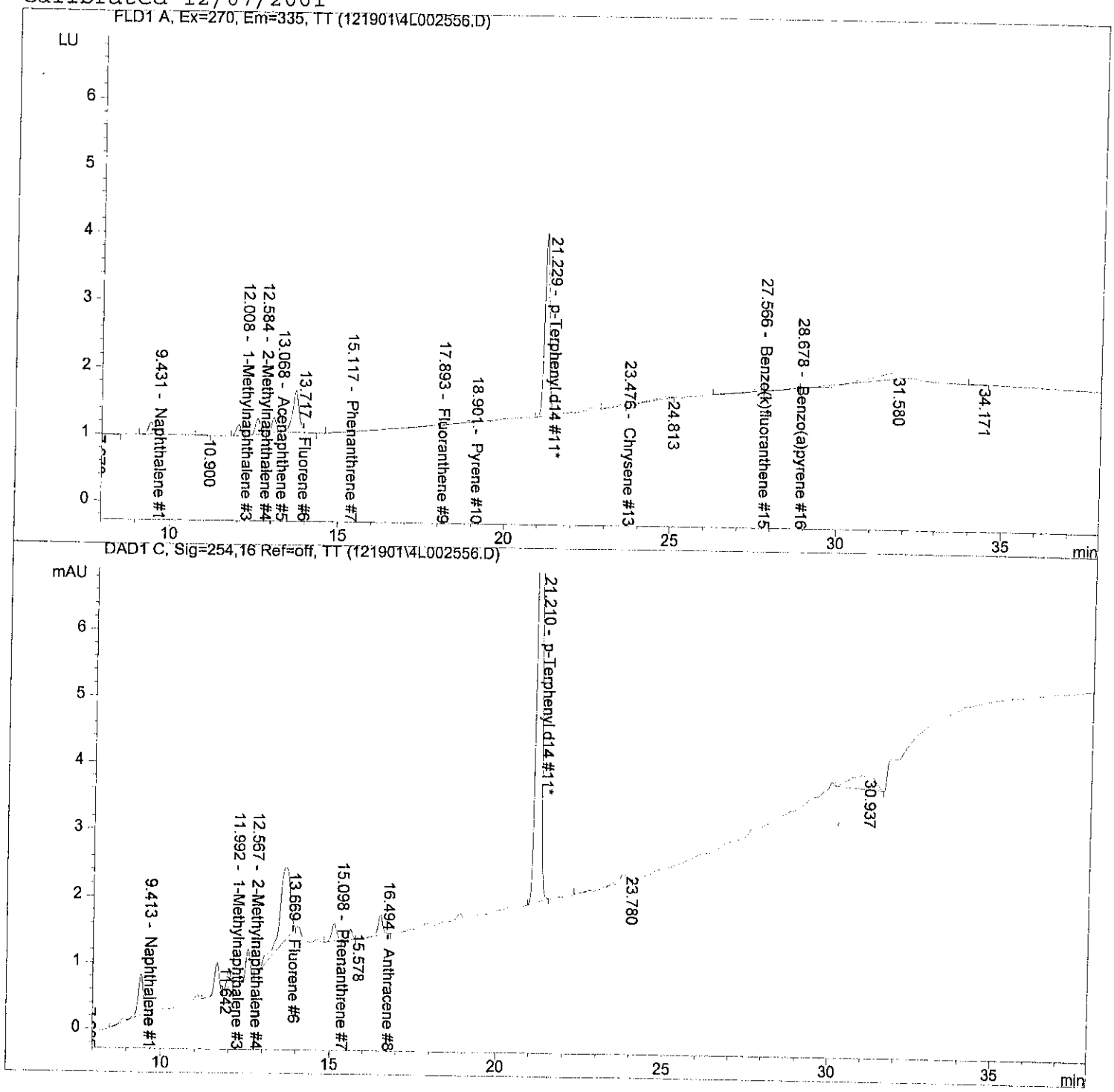
Injection Date : 12/19/2001 10:40:39 AM
Sample Name : WG110089-01 WBLK
Acq. Operator : RDC

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		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		Fluorene #6
15.098	BB	2.82535	1.70751e-2	4.82431e-2		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		-	-	-		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 : 8.43191

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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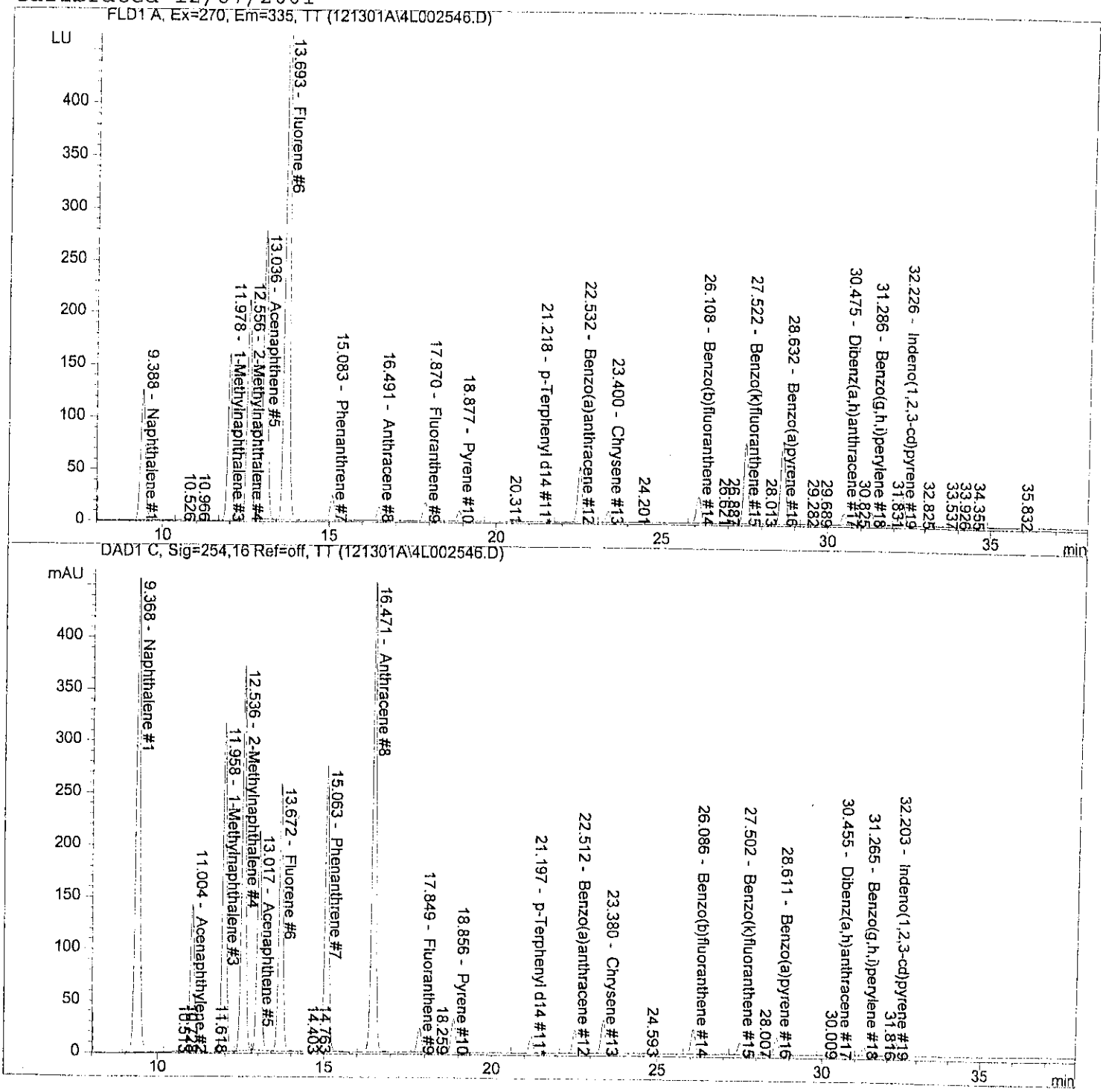
*** End of Report ***

Injection Date : 12/13/2001 7:38:22 PM
Sample Name : WG109960-03 SLCS
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 : 12/13/2001 12:49:22 PM by RDC
(modified after loading)

Calibrated 12/07/2001



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		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

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		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

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

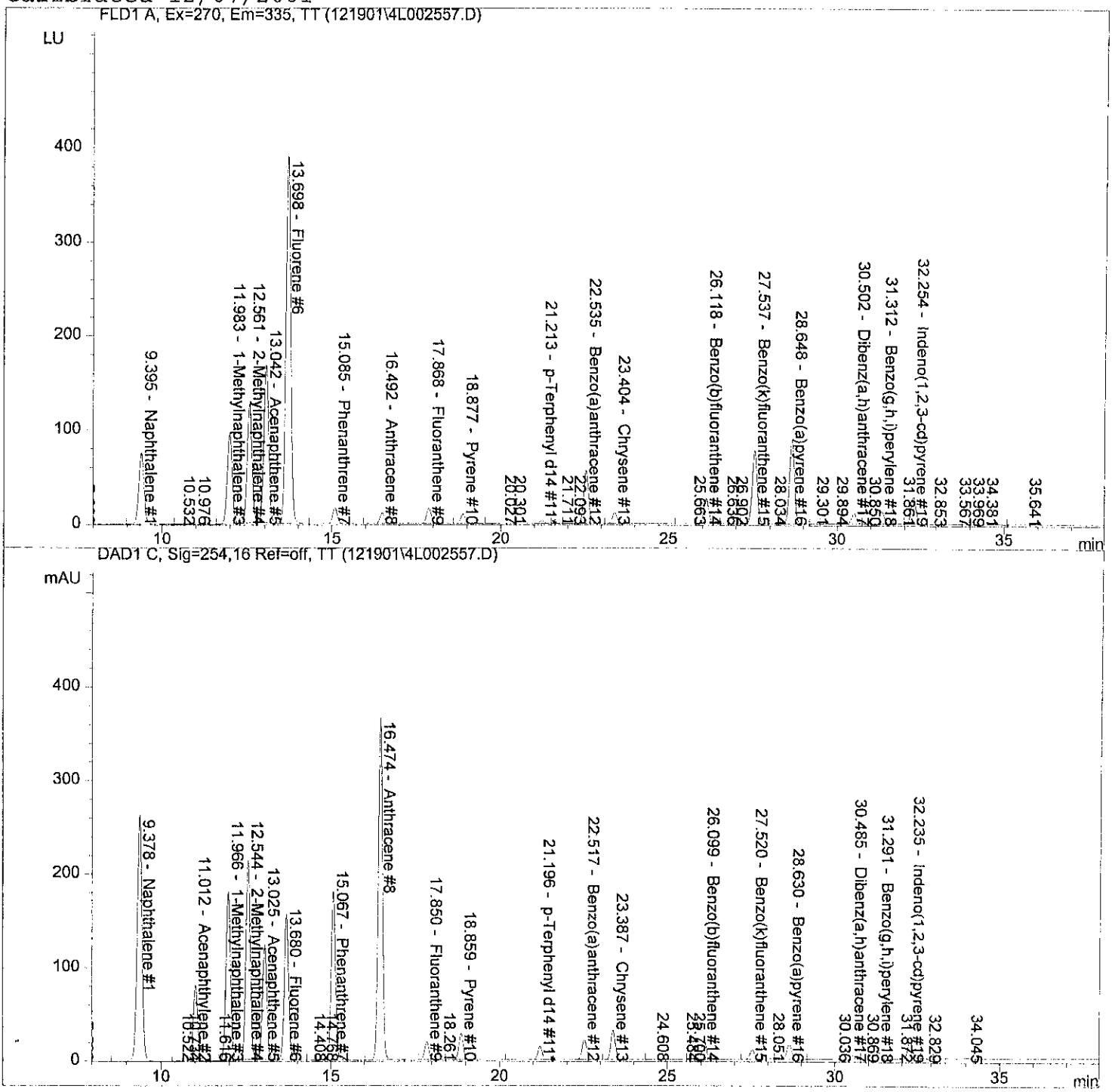
Totals : 342.86330

Results obtained with enhanced integrator!

*** End of Report ***

Injection Date : 12/19/2001 11:37:14 AM Seq. Line : 4
Sample Name : WG110089-02 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 : 12/10/2001 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	98.4%	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	97.5%	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

[min]		[mAU*s]		[ug/L]		
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

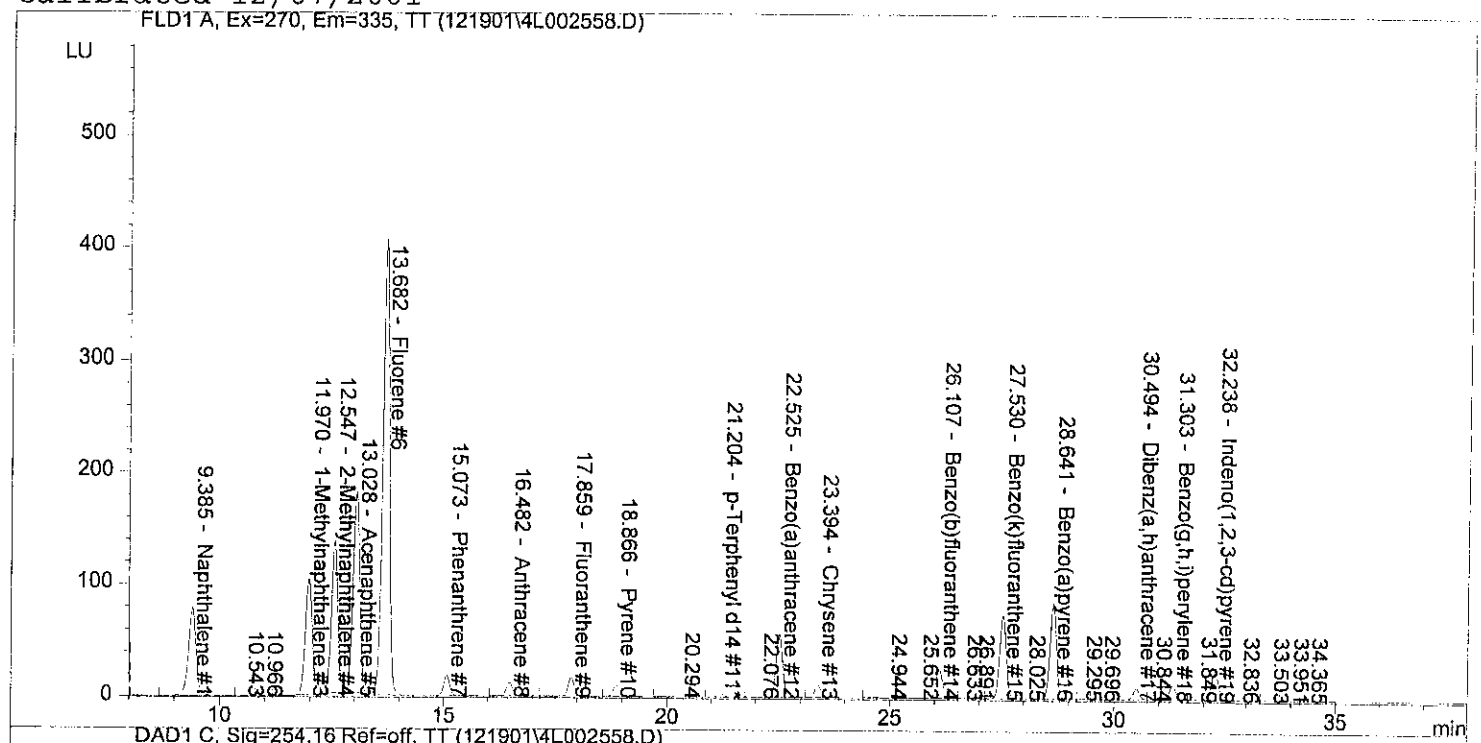
Totals : 243.30155

Results obtained with enhanced integrator!

*** End of Report ***

Injection Date : 12/19/2001 12:33:50 PM Seq. Line : 5
Sample Name : WG110089-03 WLCS 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 11:34:37 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	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		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		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

[min]		[mAU*s]		[ug/L]		
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 ***

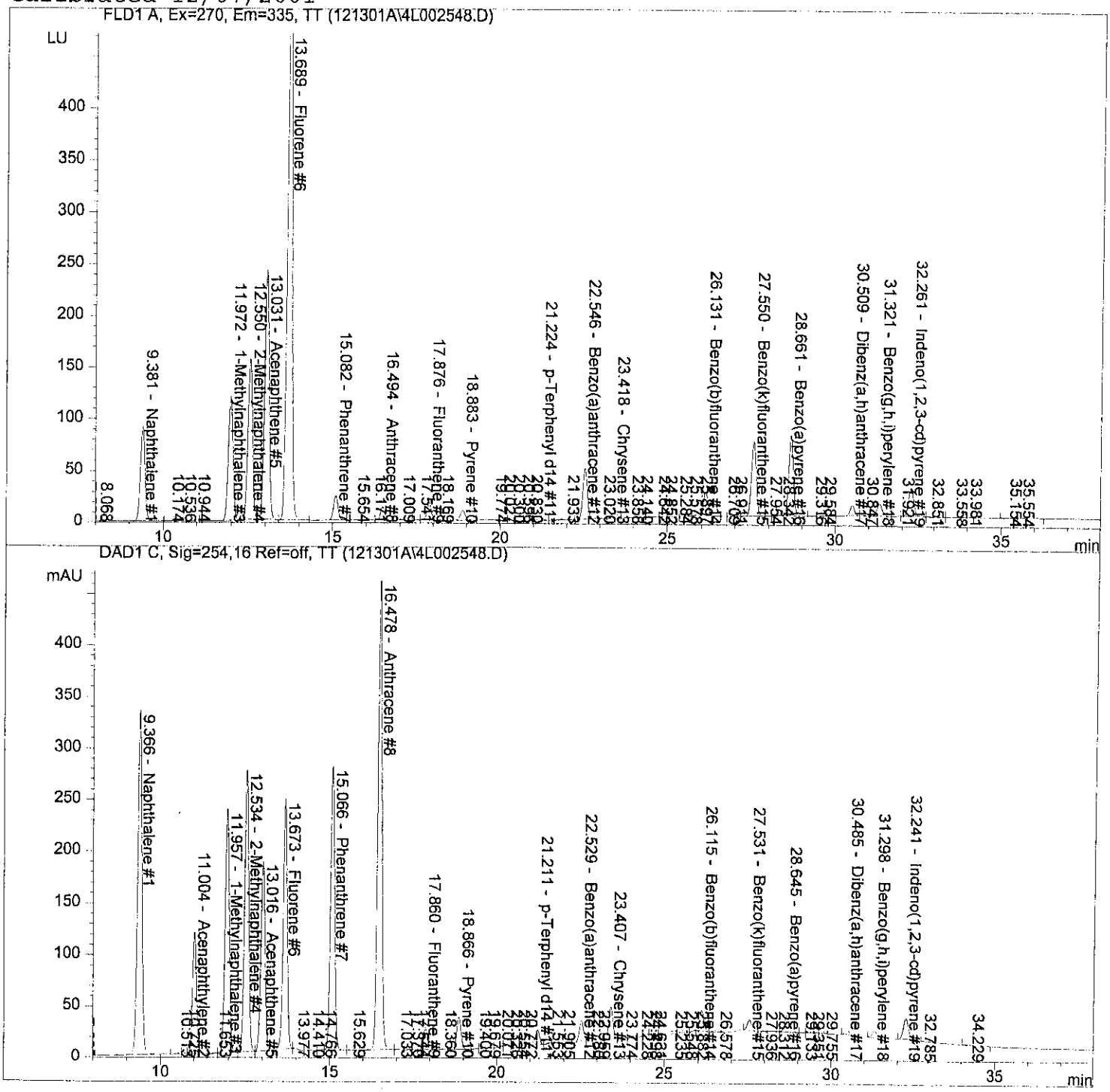
12/20/01

Injection Date : 12/13/2001 9:31:36 PM
Sample Name : WG109660-04 SMS
Acq. Operator : RDC

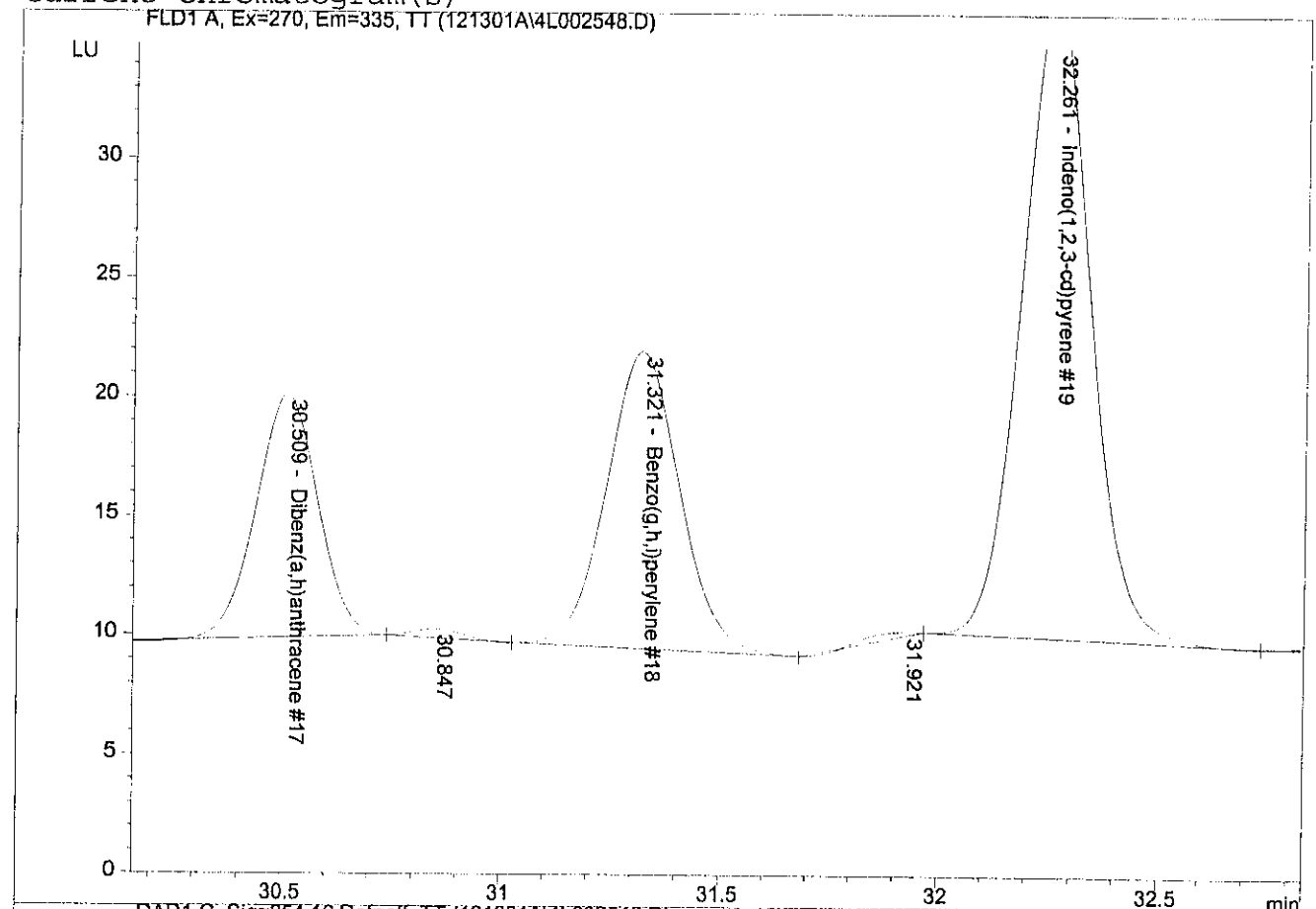
Seq. Line : 6
Vial : 6
Inj : 1
Inj Volume : 8 µl

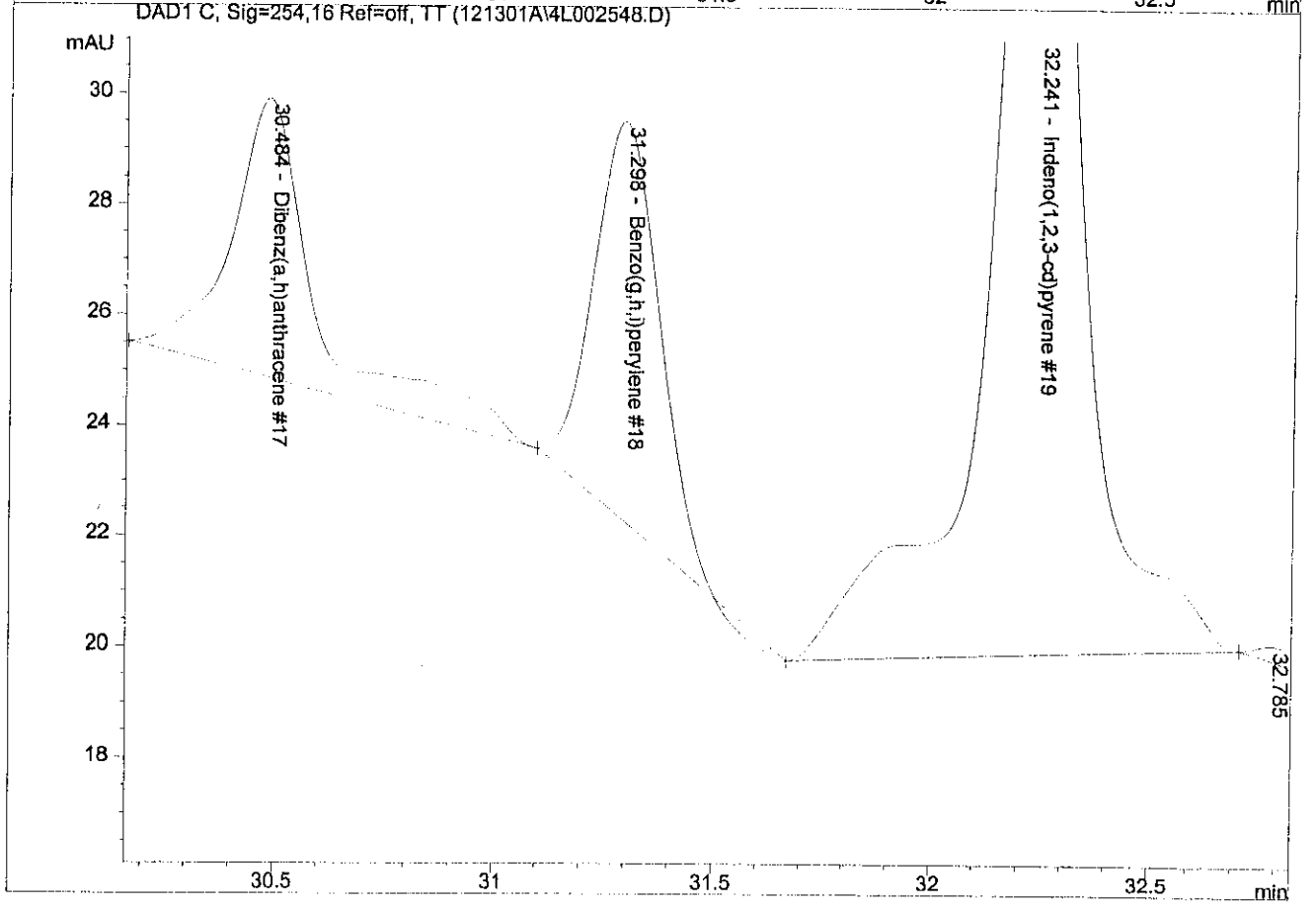
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/14/2001 3:33:37 PM by RDC
(modified after loading)

Calibrated 12/07/2001



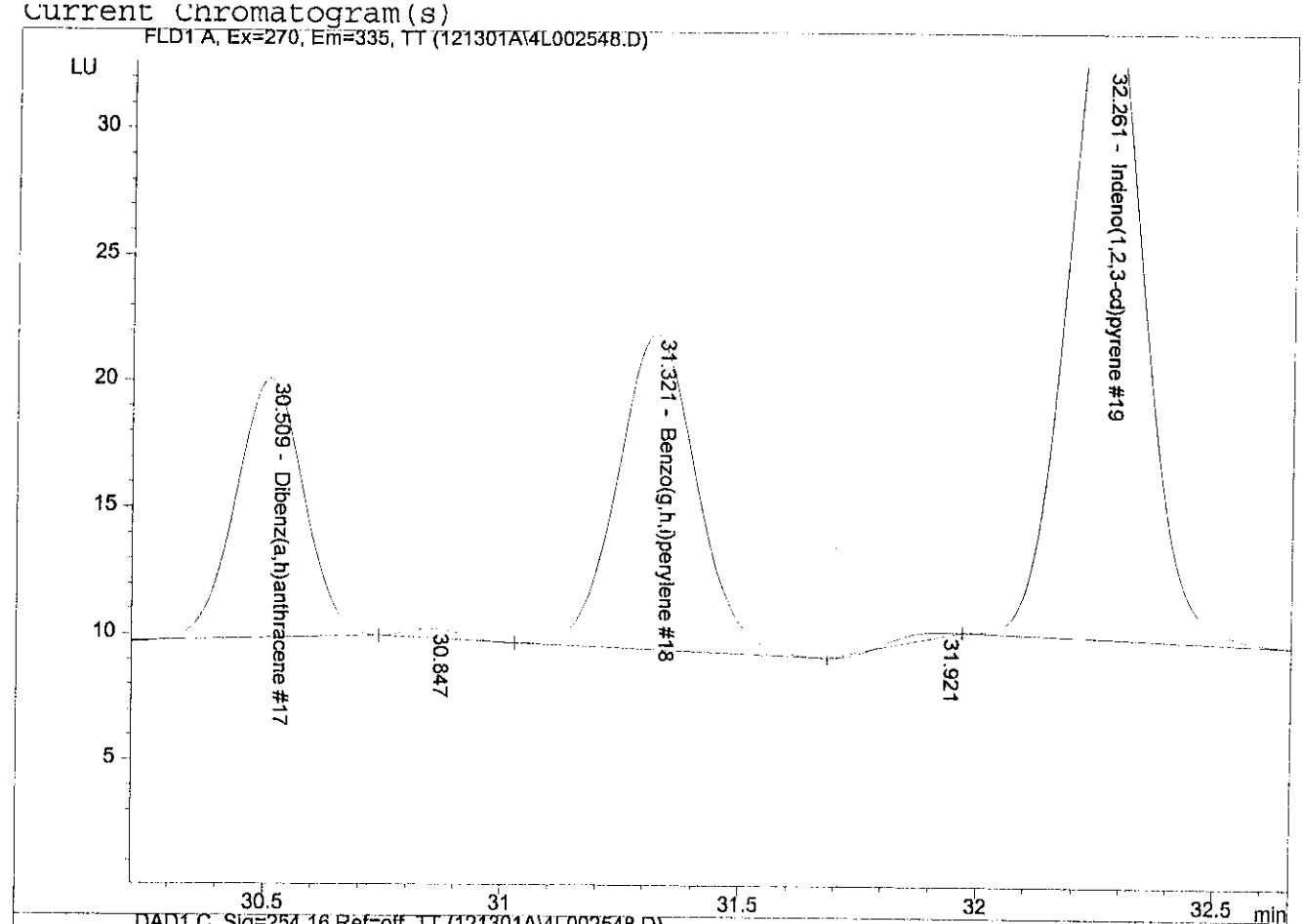
Current Chromatogram(s)

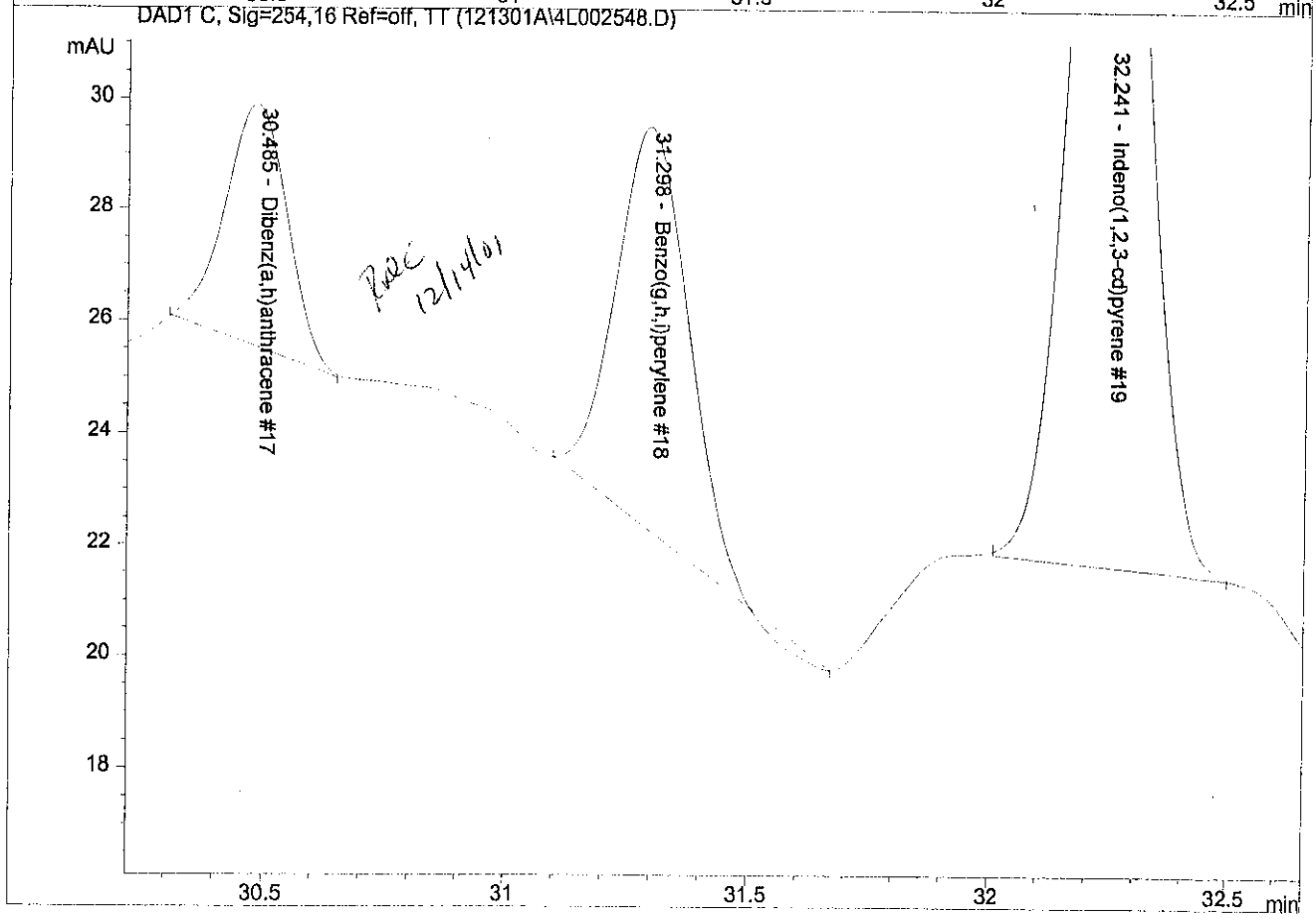




HPLC4 12/14/2001 3:46:15 PM RDC

Current Chromatogram(s)





HPLC4 12/14/2001 3:46:49 PM RDC

RP 12/12/01

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
9.381	BB	884.27124	2.64309e-2	23.37205		Naphthalene #1
11.972	BB	1113.31689	2.30826e-2	25.69820		1-Methylnaphthalene #3
12.550	BB	1445.87219	1.77135e-2	25.61152		2-Methylnaphthalene #4
13.031	BB	2256.99219	1.41307e-2	31.89280		Acenaphthene #5
13.689	BB	5531.01855	6.55799e-3	36.27235		Fluorene #6
15.082	BB	228.36810	1.72114e-1	39.30526		Phenanthrene #7
16.494	BB	125.12361	3.11763e-1	39.00897		Anthracene #8
17.876	BB	163.96869	2.51883e-2	4.13009		Fluoranthene #9
18.883	BB	105.07651	4.52106e-2	4.75057		Pyrene #10
21.224	BB	30.96283	2.98861e-1	9.25359		p-Terphenyl d14 #11*
22.546	BB	504.66980	8.29841e-3	4.18796		Benzo(a)anthracene #12
23.418	BB	104.39067	4.07647e-2	4.25546		Chrysene #13
26.131	BB	209.25616	1.66521e-2	3.48456		Benzo(b)fluoranthene #14
27.550	BB	737.74127	2.77713e-3	2.04881		Benzo(k)fluoranthene #15
28.661	BB	799.53143	5.23910e-3	4.18883		Benzo(a)pyrene #16
30.509	BB	100.12922	4.06442e-2	4.06967		Dibenz(a,h)anthracene #17
31.321	BB	143.99605	3.02212e-2	4.35174		Benzo(g,h,i)perylene #18
32.261	BB	291.10837	1.37336e-2	3.99796		Indeno(1,2,3-cd)pyrene #1

92.5%

Totals : 269.88038

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
9.366	BB	3000.92871	8.11569e-3	24.35459		Naphthalene #1
11.004	BB	1014.21161	2.94003e-2	29.81816		Acenaphthylene #2
11.957	BB	2010.29004	1.26957e-2	25.52202		1-Methylnaphthalene #3
12.534	BB	2325.03394	1.10418e-2	25.67251		2-Methylnaphthalene #4
13.016	BB	1557.17114	1.99953e-2	31.13609		Acenaphthene #5
13.673	BB	2062.29834	1.72604e-2	35.59611		Fluorene #6
15.066	BB	2310.63232	1.70751e-2	39.45424		Phenanthrene #7
16.478	BB	3924.50830	1.03316e-2	40.54635		Anthracene #8
17.860	BB	192.72632	2.13939e-2	4.12317		Fluoranthene #9
18.866	BB	286.05347	1.42346e-2	4.07186		Pyrene #10
21.211	BB	146.19504	6.51566e-2	9.52557		p-Terphenyl d14 #11*
22.529	BB	166.86223	2.19558e-2	3.66359		Benzo(a)anthracene #12
23.407	BB	293.41547	1.48093e-2	4.34529		Chrysene #13
26.115	BB	178.13629	2.03417e-2	3.62360		Benzo(b)fluoranthene #14
27.531	BB	88.85641	2.21503e-2	1.96820		Benzo(k)fluoranthene #15
28.645	BB	168.59581	2.80792e-2	4.73403		Benzo(a)pyrene #16
30.485	MM	38.63486	9.27377e-2	3.58291		Dibenz(a,h)anthracene #17

95.3%

[min]		[mAU*s]		[ug/L]		
31.298	BB	74.61239	5.56826e-2	4.15461		Benzo(g,h,i)perylene #18
32.241	MM	206.06096	2.02125e-2	4.16501		Indeno(1,2,3-cd)pyrene #1

Totals : 300.05791

Results obtained with enhanced integrator!

*** End of Report ***

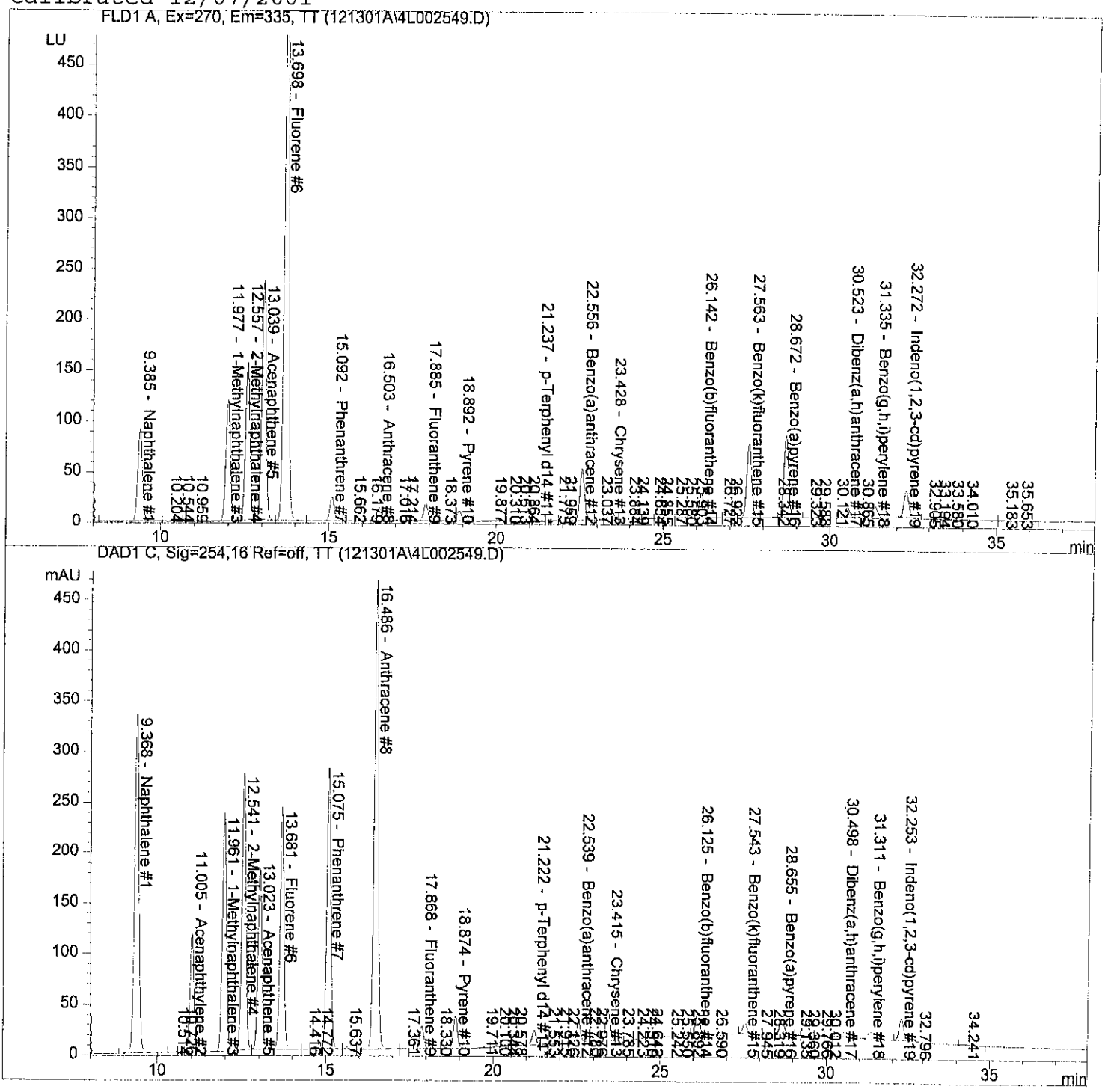
12/20/01

Injection Date : 12/13/2001 10:28:15 PM
Sample Name : WG109660-05 SMSD
Acq. Operator : RDC

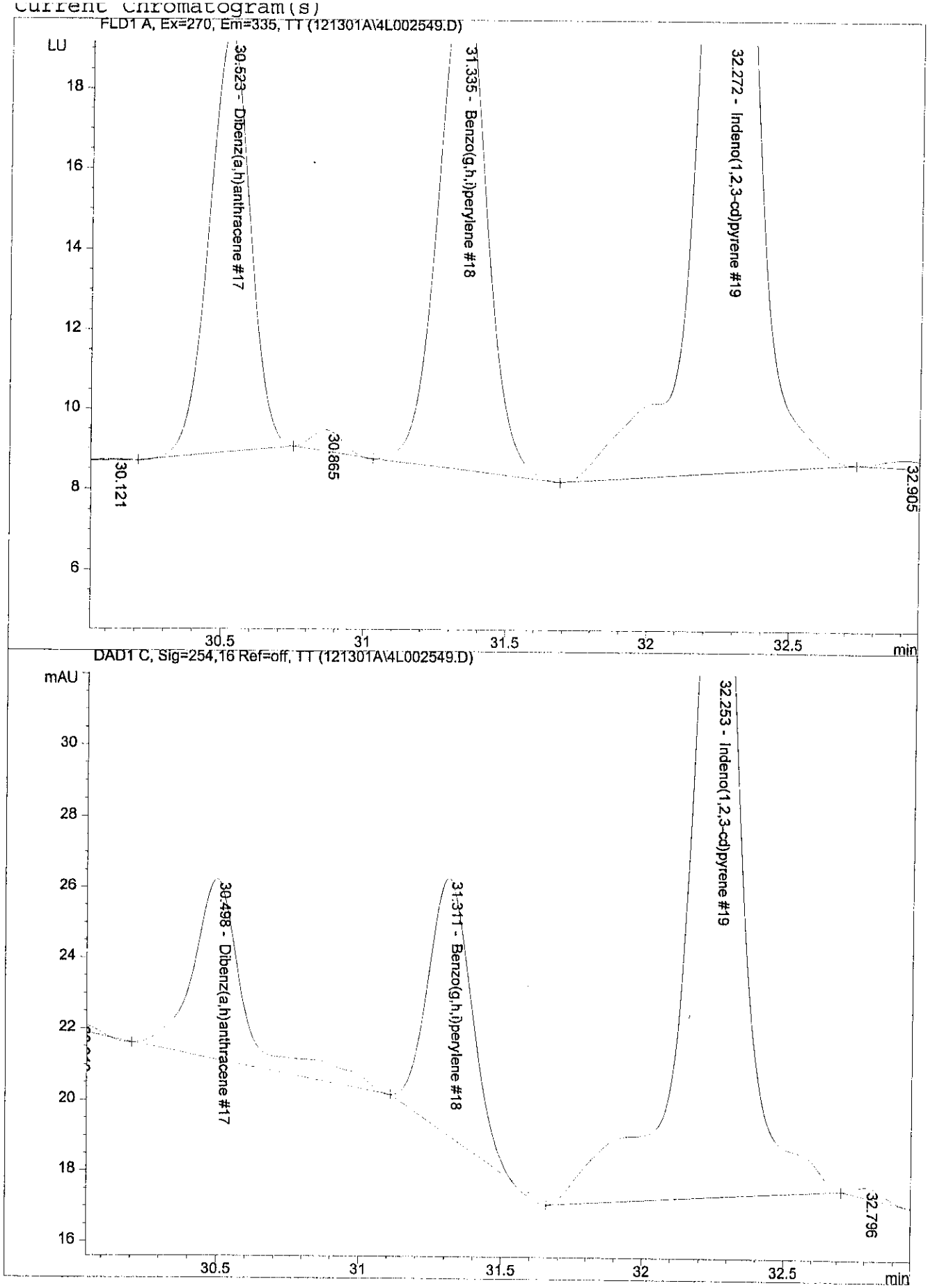
Seq. Line : 7
Vial : 7
Inj : 1
Inj Volume : 8 µl

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 : 12/14/2001 3:47:48 PM by RDC
(modified after loading)

Calibrated 12/07/2001

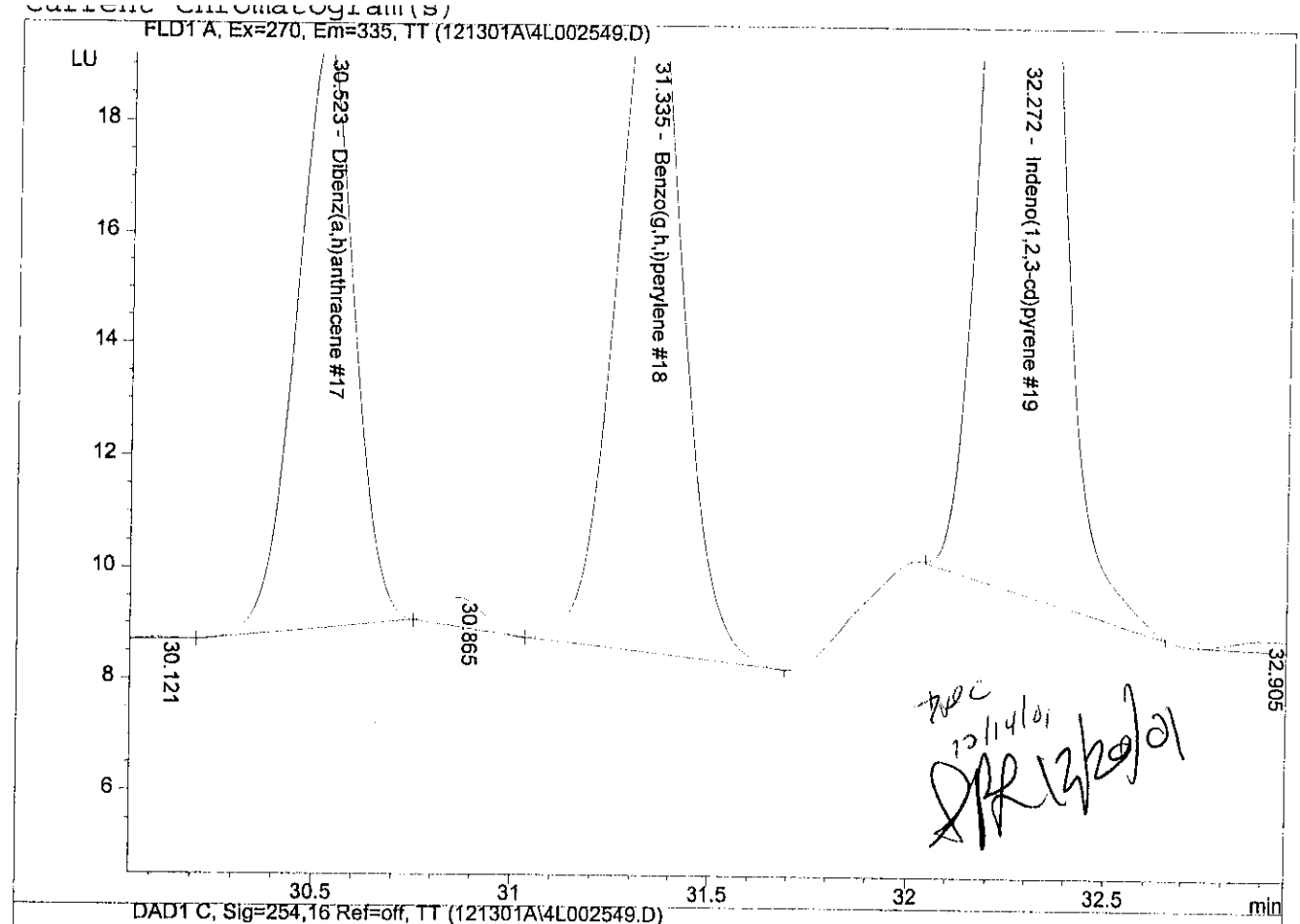


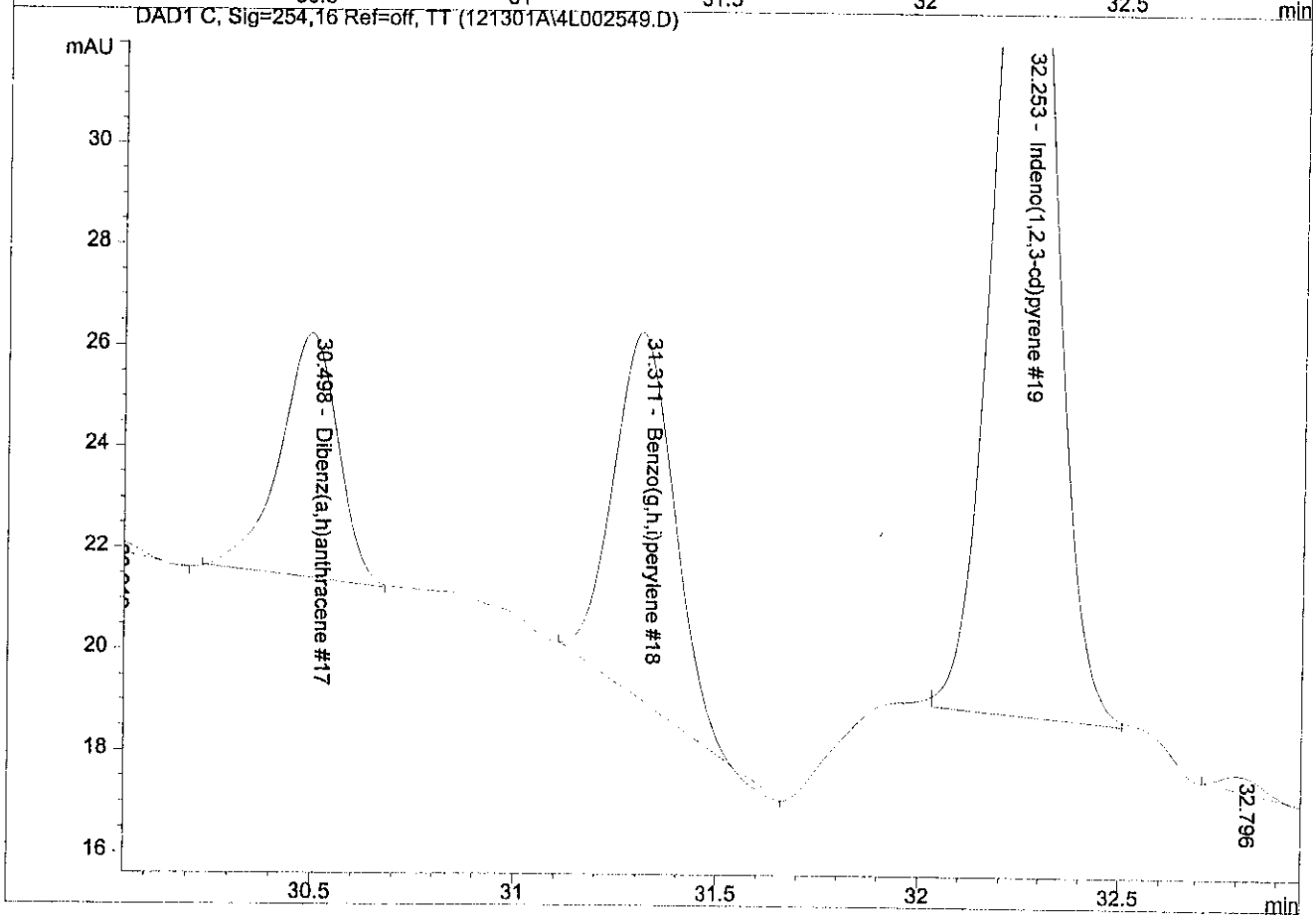
Current Chromatogram(s)



HPLC4 12/14/2001 3:48:02 PM RDC

Page 1 of 1





HPLC4 12/14/2001 3:48:45 PM RDC

Page 1 of 1

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
9.385	BB	890.33044	2.64309e-2	23.53220		Naphthalene #1
11.977	BB	1117.08435	2.30826e-2	25.78516		1-Methylnaphthalene #3
12.557	BB	1452.37939	1.77135e-2	25.72678		2-Methylnaphthalene #4
13.039	BB	2203.22852	1.41307e-2	31.13308		Acenaphthene #5
13.698	BB	5441.86865	6.55799e-3	35.68771		Fluorene #6
15.092	BB	229.03375	1.72114e-1	39.41982		Phenanthrene #7
16.503	BB	127.83878	3.11763e-1	39.85546		Anthracene #8
17.885	BB	174.75591	2.51883e-2	4.40181		Fluoranthene #9
18.892	BB	111.22938	4.52106e-2	5.02874		Pyrene #10
21.237	BB	31.17203	2.98861e-1	9.31611		p-Terphenyl d14 #11*
22.556	BB	513.70428	8.29841e-3	4.26293		Benzo(a)anthracene #12
23.428	BB	106.46787	4.07647e-2	4.34014		Chrysene #13
26.142	BB	223.54227	1.66521e-2	3.72246		Benzo(b)fluoranthene #14
27.563	BB	760.20813	2.77713e-3	2.11120		Benzo(k)fluoranthene #15
28.672	BB	837.54718	5.23910e-3	4.38799		Benzo(a)pyrene #16
30.523	BB	103.90338	4.06442e-2	4.22307		Dibenz(a,h)anthracene #17
31.335	BB	147.06958	3.02212e-2	4.44463		Benzo(g,h,i)perylene #18
32.272	MM	286.82532	1.37336e-2	3.93914		Indeno(1,2,3-cd)pyrene #1

Totals : 271.31843

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
9.368	BB	3025.92773	8.11569e-3	24.55748		Naphthalene #1
11.005	BB	1000.07056	2.94003e-2	29.40241		Acenaphthylene #2
11.961	BB	2025.39001	1.26957e-2	25.71373		1-Methylnaphthalene #3
12.541	BB	2338.06982	1.10418e-2	25.81645		2-Methylnaphthalene #4
13.023	BB	1526.86206	1.99953e-2	30.53005		Acenaphthene #5
13.681	BB	2065.42383	1.72604e-2	35.65006		Fluorene #6
15.075	BB	2338.85327	1.70751e-2	39.93612		Phenanthrene #7
16.486	BB	4016.91138	1.03316e-2	41.50102		Anthracene #8
17.868	BB	196.42232	2.13939e-2	4.20224		Fluoranthene #9
18.874	BB	297.88187	1.42346e-2	4.24023		Pyrene #10
21.222	BB	140.26291	6.51566e-2	9.13905		p-Terphenyl d14 #11*
22.539	BB	178.61003	2.19558e-2	3.92152		Benzo(a)anthracene #12
23.415	BB	299.91302	1.48093e-2	4.44151		Chrysene #13
26.125	BB	190.61513	2.03417e-2	3.87744		Benzo(b)fluoranthene #14
27.543	BB	91.60740	2.21503e-2	2.02913		Benzo(k)fluoranthene #15
28.655	BB	171.53065	2.80792e-2	4.81644		Benzo(a)pyrene #16
30.498	MM	47.45069	9.27377e-2	4.40047		Dibenz(a,h)anthracene #17

RRL 12/20/01

[min]		[mAU*s]		[ug/L]		
31.311	BB	76.67410	5.56826e-2	4.26941		Benzo(g,h,i)perylene #18
32.253	MM	209.98940	2.02125e-2	4.24441		Indeno(1,2,3-cd)pyrene #1

Totals : 302.68917

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		

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	02:01		WG109608-01
No	3	3	8310	4L002493	03:01		WG109608-02
No	4	4	8310	4L002494	04:01	SOS 56-19/56-20	WG109608-03
No	5	5	8310	4L002495	05:01		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 57-27/57-27	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

RQC 12/10/04

EC 12/10/04

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 CDC SOP # HPLC01 Rev. # 3 V 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

344

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	WG109960-01 SREF	8310	1	Sample		
6	6	WG109960-04 SMS	8310	1	Sample		
7	7	WG109960-05 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		

RDC 12/14/01

No	1	1	8310	4L002543	01:01		accn blk
No	2	2	8310	4L002544	02:01	SOS56-19/56-20	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	SOS56-19/56-20	WG109984-02 CC

RDC 12/14/01

EC2 12/18/01

HPLC Laboratory Maintenance Log

Analysis Date/Time Dec 12, 2001 Instrument ID HP4 Column ID Phenyl LC-PAH Data Subdirectory 121301A
Analyst Initials EC 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

LO/122599-02 need conf. of acenaphthylene & a 10x d/l'n.

Reviewed By: EC 12/18/01

347

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		
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		
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		
20	20	L0112348-09 831W	8310	1	Sample		
21	21	L0112349-01 831W	8310	1	Sample		
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		
28	28	L0112259-02 10X	8310	1	Sample		
29	19	WG110267-04 CCV	8310	1	Sample		

Sel	Run	Vial	Method	Datafile	Sequence	Calib.Ar.Ki	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

TBOC
12/20/01
mdl 12/20/01

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KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Dec 17, 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

* [illegible] 207-01 / 4L002555 [illegible] failed high for pyrene & benzo(g,h,i) perylene by FLD, there were no hits to [illegible]

Reviewed By: [illegible] 12/20/01

350

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: AH
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: HV 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	100rl		1ml	T				WG 109960-02
2	LCS					30.06g		500rl		C				WG 109960-03
3	12-359-01	8310				30.00g				O				WG 109960-01
4	01MS					30.03g		500rl		T				WG 109960-04
5	01MSD					30.01g				C				WG 109960-05
6	12-359-01													
7	02					30.03g								
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: Acetonitrile 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 Flowers Date: 12-13-01

Extraction Notes For Volume # 177 Page # 169

General Comments: Nothing to report

Extraction Anomalies: Nothing to report

Concentration Anomalies: Nothing to report

Clean-Up Anomalies: N/A

Review: _____ Date: _____

Parameter: 8310-H_2O SOP #: EXHPLC1 Revision #: 6
Extraction Analyst(s): CSH TV/KD Analyst(s): CSH
Date/Time Extracted: 12/17/01 @ 1040 Date TV/KD: 12/17/01
Spike/Surrogate Analyst: CSH Witness: DP
Surrogate #: ES50039-27 Earliest Hold Date: 12/19/01
Spike #: A = ES50039-22 Spike #: B = —

Extraction Work Group WG 110089
Analytical Work Group WG 110266

Extract Relinquished By: MA
Extract Received By & Date: KDC 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														

12/17/01

Methylene Chloride Lot #: 41109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetonitrile Lot #: V35807
Reagent: Fortified Lot #: ER2002
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: 12/17/01

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 Bill 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

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: [signature] 12/20/01

Supervisor Review: [signature] 12/20/01

√ = Checked & OK

NA = Not Applicable

Run Date: 19-Dec-01

Analyst: RDC

Instrument: HPLC4

(dil'n.)

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	

		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: 12/24/01

Supervisor Review: 1/2/01

√ = 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: L0112258

✓ **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: dlh 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	22.24	19.56		
12-258-01	1.27	~~22.22~~	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	15.55		
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	25.53		
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	23.02	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 L0110464

Prepared for CCI

Work ID: NAS Cecil Field Bldg 9

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

L0110464

CHAIN OF CUSTODY:

The chain of custody number was 149152-173.

SHIPMENT CONDITIONS:

The chain of custody was received sealed in a cooler. The cooler temperatures were 1, 0, 0, 1 and 1 °C.

SAMPLE MANAGEMENT:

All samples were received intact. Air bubbles were present in the trip blanks.

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: 10/24/01

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0110464

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 04.

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: CEN

REVIEWED: [signature] DATE: 10/30/01

Rev. 6/00

4

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No .: L0110464

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: The blank associated with re-extracted work group yielded a positive results and the sample could not be re-extracted second time because of insufficient sample volume.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: Sample fraction -01 was re-extracted within holding time with acceptable surrogate recovery , and results were reported from both the analyses because the blank associated with re-extracted work group yielded a positive result .And this sample could not be re-extracted second time because of insufficient sample volume.
Surrogates: Sample fraction -01 yielded a %recovery for the surrogate that was outside advisory limits. This sample was re-extracted within holding time with acceptable 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: 11/9/01

Rev. 7/14/00

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KEMRON Login No.: L0110464

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 fractions 01, 02, and 08 yielded % recoveries for the surrogate that were below acceptable limits. These samples were re-extracted within holding time. Fraction 02 confirmed sample matrix effects. Both runs have been reported. Sample fractions 01 and 08 yielded surrogate recoveries that were within limits. Only the re-extracts 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: 9/7/09

Rev. 7/14/00

6

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L0110464

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: 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: Steve Lemon DATE: 10/24/01

Rev. 7/14/00

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC 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-CEF9-2S-Q4-01-10	L0110464-01
002-CEF9-5S-Q4-01-10	L0110464-03
002-CEF9-7D-Q4-01-10	L0110464-04
002-CEF9-7D-Q4-01-10 MS	L0110464-05
002-CEF9-7D-Q4-01-10 MSD	L0110464-06
002-9DUP-Q4-01-10	L0110464-08
002-9EQB-Q4-01-10	L0110464-09
002-9TB-Q4-01-10	L0110464-10

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 # : WG107053

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

Field Sample ID: 002-CEF9-2S-Q4-01-10 Lab Sample ID: L0110464-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 03-OCT-2001

Date Received: 23-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 09:08

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.980	1	J
Ethylbenzene	0.500	1.0	7.50	1	
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	0.980	1	J

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	123	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 # : WG107053

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

Field Sample ID: 002-CEF9-5S-Q4-01-10 Lab Sample ID: L0110464-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 03-OCT-2001

Date Received: 23-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 10:13

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.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC 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-CEF9-7D-Q4-01-10 Lab Sample ID: L0110464-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 03-OCT-2001

Date Received: 23-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 10:46

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	97.8	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 # : WG107053

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

Field Sample ID: 002-CEF9-7D-Q4-01-10 MS Lab Sample ID: L0110464-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 03-OCT-2001

Date Received: 23-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 11:18

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	20.0	1	
Ethylbenzene	0.500	1.0	21.0	1	
Methyl tert-butyl ether	0.500	1.0	19.0	1	
Toluene	0.500	1.0	20.0	1	
Xylenes, Total	0.500	1.0	60.0	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.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC 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-CEF9-7D-Q4-01-10 MSD Lab Sample ID: L0110464-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 03-OCT-2001

Date Received: 23-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 11:51

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	19.0	1	
Ethylbenzene	0.500	1.0	20.0	1	
Methyl tert-butyl ether	0.500	1.0	18.0	1	
Toluene	0.500	1.0	19.0	1	
Xylenes, Total	0.500	1.0	58.0	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.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC 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: 002-9DUP-Q4-01-10 Lab Sample ID: L0110464-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 03-OCT-2001

Date Received: 23-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 12:56

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	2.30	1	
Ethylbenzene	0.500	1.0	5.40	1	
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.850	1	J
Xylenes, Total	0.500	1.0	12.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	127	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 # : WG107053

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

Field Sample ID: 002-9EQB-Q4-01-10 Lab Sample ID: L0110464-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 03-OCT-2001

Date Received: 23-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 14:08

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.

KEMRON ENVIRONMENTAL SERVICES
ORGANIC 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: 002-9TB-Q4-01-10 Lab Sample ID: L0110464-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 03-OCT-2001

Date Received: 23-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 14:41

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
ORGANIC ANALYSES DATA PACKAGE

Analytical Method : 8021
AAB # : WG107136
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-CEF9-3S-Q4-01-10	L0110464-02
002-CEF9-9S-Q4-01-10	L0110464-07

Comments:

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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 # : WG107136

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

Field Sample ID: 002-CEF9-3S-Q4-01-10 Lab Sample ID: L0110464-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 03-OCT-2001

Date Received: 23-OCT-01 Date Extracted: Date Analyzed: 26-OCT-01 16:24

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	98.4	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 # : WG107136

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

Field Sample ID: 002-CEF9-9S-Q4-01-10 Lab Sample ID: L0110464-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP12 03-OCT-2001

Date Received: 23-OCT-01 Date Extracted: Date Analyzed: 26-OCT-01 16:56

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	1.90	1	
Ethylbenzene	0.500	1.0	6.00	1	
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.670	1	J
Xylenes, Total	0.500	1.0	13.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	118	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**
AAB # : **WG107347**
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-CEF9-2S-Q4-01-10	L0110464-01

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 : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG107347

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

Field Sample ID: 002-CEF9-2S-Q4-01-10 Lab Sample ID: L0110464-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 26-OCT-2001

Date Received: 23-OCT-01 Date Extracted: 29-OCT-01 Date Analyzed: 30-OCT-01 11:13

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	263	530	940	1.05	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	50.0	49 - 174	

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
AAB # : WG107003
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-CEF9-2S-Q4-01-10	L0110464-01
002-CEF9-3S-Q4-01-10	L0110464-02
002-CEF9-5S-Q4-01-10	L0110464-03
002-CEF9-7D-Q4-01-10	L0110464-04
002-CEF9-7D-Q4-01-10 MS	L0110464-05
002-CEF9-7D-Q4-01-10 MSD	L0110464-06
002-CEF9-9S-Q4-01-10	L0110464-07
002-9DUP-Q4-01-10	L0110464-08
002-9EQB-Q4-01-10	L0110464-09

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG107003

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

Field Sample ID: 002-CEF9-2S-Q4-01-10 Lab Sample ID: L0110464-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 25-OCT-2001

Date Received: 23-OCT-01 Date Extracted: 23-OCT-01 Date Analyzed: 25-OCT-01 15:29

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	250	500	780	1	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	46.3	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

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG107003

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

Field Sample ID: 002-CEF9-3S-Q4-01-10 Lab Sample ID: L0110464-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 25-OCT-2001

Date Received: 23-OCT-01 Date Extracted: 23-OCT-01 Date Analyzed: 25-OCT-01 15:44

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	263	530	780	1.05	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	65.6	49 - 174	

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 : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG107003

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

Field Sample ID: 002-CEF9-5S-Q4-01-10 Lab Sample ID: L0110464-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 25-OCT-2001

Date Received: 23-OCT-01 Date Extracted: 23-OCT-01 Date Analyzed: 25-OCT-01 15:59

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	52.5	49 – 174	

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 : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG107003

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

Field Sample ID: 002-CEF9-7D-Q4-01-10 Lab Sample ID: L0110464-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 25-OCT-2001

Date Received: 23-OCT-01 Date Extracted: 23-OCT-01 Date Analyzed: 25-OCT-01 16:46

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	270	540	290	1.08	J

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	87.2	49 – 174	

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 : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG107003

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

Field Sample ID: 002-CEF9-7D-Q4-01-10 MS Lab Sample ID: L0110464-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 25-OCT-2001

Date Received: 23-OCT-01 Date Extracted: 23-OCT-01 Date Analyzed: 25-OCT-01 17:01

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	275	550	2700	1.1	

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.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG107003

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

Field Sample ID: 002-CEF9-7D-Q4-01-10 MSD Lab Sample ID: L0110464-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 25-OCT-2001

Date Received: 23-OCT-01 Date Extracted: 23-OCT-01 Date Analyzed: 25-OCT-01 17:16

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	265	530	2700	1.06	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	90.4	49 – 174	

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 : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG107003

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

Field Sample ID: 002-CEF9-9S-Q4-01-10 Lab Sample ID: L0110464-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 25-OCT-2001

Date Received: 23-OCT-01 Date Extracted: 23-OCT-01 Date Analyzed: 25-OCT-01 17:31

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	265	530	3100	1.06	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	111	49 – 174	

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 : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG107003

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

Field Sample ID: 002-9DUP-Q4-01-10 Lab Sample ID: L0110464-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 25-OCT-2001

Date Received: 23-OCT-01 Date Extracted: 23-OCT-01 Date Analyzed: 25-OCT-01 17:47

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	265	530	2000	1.06	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	93.3	49 – 174	

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 : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG107003

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

Field Sample ID: 002-9EQB-Q4-01-10 Lab Sample ID: L0110464-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 25-OCT-2001

Date Received: 23-OCT-01 Date Extracted: 23-OCT-01 Date Analyzed: 25-OCT-01 18:03

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	68.3	49 - 174	

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 : **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-CEF9-2S-Q4-01-10	L0110464-01
002-CEF9-3S-Q4-01-10	L0110464-02
002-9DUP-Q4-01-10	L0110464-08

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**

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC 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-CEF9-2S-Q4-01-10 Lab Sample ID: L0110464-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 23-OCT-01 Date Extracted: 29-OCT-01 Date Analyzed: 01-NOV-01 00:23

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.381	1.1	0.700	1	J
2-Methylnaphthalene	0.354	1.1	1.10	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	0.041	1	J
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	2.80	1	
Phenanthrene	0.302	1.1	0.302	1	ND
Pyrene	0.0716	0.21	0.100	1	J

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 # : WG107449

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

Field Sample ID: 002-CEF9-2S-Q4-01-10 Lab Sample ID: L0110464-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 23-OCT-01 Date Extracted: 29-OCT-01 Date Analyzed: 01-NOV-01 00:23

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	57.6	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
ORGANIC 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-CEF9-2S-Q4-01-10 Lab Sample ID: L0110464-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 23-OCT-01 Date Extracted: 29-OCT-01 Date Analyzed: 01-NOV-01 00:23

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.381	1.1	0.520	1	J
2-Methylnaphthalene	0.354	1.1	1.20	1	
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	0.0358	0.21	0.060	1	J
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	0.0842	0.21	0.0842	1	ND
Naphthalene	0.378	1.1	3.20	1	
Phenanthrene	0.302	1.1	0.302	1	ND
Pyrene	0.0716	0.21	0.097	1	J

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 # : WG107449

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

Field Sample ID: 002-CEF9-2S-Q4-01-10 Lab Sample ID: L0110464-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 23-OCT-01 Date Extracted: 29-OCT-01 Date Analyzed: 01-NOV-01 00:23

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	56.5	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 # : WG107449

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

Field Sample ID: 002-9DUP-Q4-01-10 Lab Sample ID: L0110464-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 23-OCT-01 Date Extracted: 29-OCT-01 Date Analyzed: 01-NOV-01 02:17

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	0.770	1	J
2-Methylnaphthalene	0.348	1.0	1.20	1	
Acenaphthene	0.430	1.0	0.430	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.295	1.0	0.295	1	ND
Benzo(a)anthracene	0.0311	0.21	0.0311	1	ND
Benzo(a)pyrene	0.0549	0.21	0.0549	1	ND
Benzo(b)fluoranthene	0.0352	0.21	0.0352	1	ND
Benzo(g,h,i)perylene	0.0518	0.21	0.0518	1	ND
Benzo(k)fluoranthene	0.0746	0.21	0.0746	1	ND
Chrysene	0.0249	0.21	0.0249	1	ND
Dibenzo(a,h)anthracene	0.0798	0.21	0.0798	1	ND
Fluoranthene	0.0518	0.21	0.0518	1	ND
Fluorene	0.579	1.0	0.579	1	ND
Indeno(1,2,3-cd)pyrene	0.0829	0.21	0.0829	1	ND
Naphthalene	0.372	1.0	6.70	1	
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

ORGANIC 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: 002-9DUP-Q4-01-10 Lab Sample ID: L0110464-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 23-OCT-01 Date Extracted: 29-OCT-01 Date Analyzed: 01-NOV-01 02:17

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	48.6	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 # : WG107449

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

Field Sample ID: 002-9DUP-Q4-01-10 Lab Sample ID: L0110464-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 23-OCT-01 Date Extracted: 29-OCT-01 Date Analyzed: 01-NOV-01 02:17

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	0.460	1	J
2-Methylnaphthalene	0.348	1.0	1.80	1	
Acenaphthene	0.430	1.0	0.430	1	ND
Acenaphthylene	0.364	1.0	0.364	1	ND
Anthracene	0.295	1.0	0.295	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	0.0746	0.21	0.0746	1	ND
Chrysene	0.0249	0.21	0.0249	1	ND
Dibenzo(a,h)anthracene	0.077	0.20	0.077	1	ND
Fluoranthene	0.050	0.20	0.050	1	ND
Fluorene	0.579	1.0	0.579	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.372	1.0	7.20	1	
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

ORGANIC 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: 002-9DUP-Q4-01-10 Lab Sample ID: L0110464-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 23-OCT-01 Date Extracted: 29-OCT-01 Date Analyzed: 01-NOV-01 02:17

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	47.9	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 PACKAGE

Analytical Method : 8310 AAB # : WG106998

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-CEF9-3S-Q4-01-10	L0110464-02
002-CEF9-5S-Q4-01-10	L0110464-03
002-CEF9-7D-Q4-01-10	L0110464-04
002-CEF9-7D-Q4-01-10 MS	L0110464-05
002-CEF9-7D-Q4-01-10 MSD	L0110464-06
002-CEF9-9S-Q4-01-10	L0110464-07
002-9EQB-Q4-01-10	L0110464-09

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

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KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG106998

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

Field Sample ID: 002-CEF9-3S-Q4-01-10 Lab Sample ID: L0110464-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 23-OCT-01 Date Extracted: 23-AUG-01 Date Analyzed: 25-OCT-01 21:48

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.381	1.1	1.70	1	
2-Methylnaphthalene	0.354	1.1	2.70	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	8.30	1	
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 # : WG106998

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

Field Sample ID: 002-CEF9-3S-Q4-01-10 Lab Sample ID: L0110464-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 23-OCT-01 Date Extracted: 23-AUG-01 Date Analyzed: 25-OCT-01 21:48

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	38.4	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 # : WG106998

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

Field Sample ID: 002-CEF9-3S-Q4-01-10 Lab Sample ID: L0110464-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 23-OCT-01 Date Extracted: 23-AUG-01 Date Analyzed: 25-OCT-01 21:48

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.381	1.1	1.30	1	
2-Methylnaphthalene	0.354	1.1	3.00	1	
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	0.050	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	9.20	1	
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 # : WG106998

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

Field Sample ID: 002-CEF9-3S-Q4-01-10 Lab Sample ID: L0110464-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 23-OCT-01 Date Extracted: 23-AUG-01 Date Analyzed: 25-OCT-01 21:48

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.

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC 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-CEF9-3S-Q4-01-10 Lab Sample ID: L0110464-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 23-OCT-01 Date Extracted: 29-OCT-01 Date Analyzed: 01-NOV-01 01:20

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	1.60	1	
2-Methylnaphthalene	0.348	1.0	2.50	1	
Acenaphthene	0.430	1.0	0.430	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.295	1.0	0.295	1	ND
Benzo(a)anthracene	0.0311	0.21	0.0311	1	ND
Benzo(a)pyrene	0.0549	0.21	0.0549	1	ND
Benzo(b)fluoranthene	0.0352	0.21	0.0352	1	ND
Benzo(g,h,i)perylene	0.0518	0.21	0.0518	1	ND
Benzo(k)fluoranthene	0.0746	0.21	0.0746	1	ND
Chrysene	0.0249	0.21	0.0249	1	ND
Dibenzo(a,h)anthracene	0.0798	0.21	0.0798	1	ND
Fluoranthene	0.0518	0.21	0.0518	1	ND
Fluorene	0.579	1.0	0.579	1	ND
Indeno(1,2,3-cd)pyrene	0.0829	0.21	0.0829	1	ND
Naphthalene	0.372	1.0	8.20	1	
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

ORGANIC 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-CEF9-3S-Q4-01-10 Lab Sample ID: L0110464-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 23-OCT-01 Date Extracted: 29-OCT-01 Date Analyzed: 01-NOV-01 01:20

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	33.1	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 # : WG107449

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

Field Sample ID: 002-CEF9-3S-Q4-01-10 Lab Sample ID: L0110464-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 23-OCT-01 Date Extracted: 29-OCT-01 Date Analyzed: 01-NOV-01 01:20

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	1.20	1	
2-Methylnaphthalene	0.348	1.0	3.00	1	
Acenaphthene	0.430	1.0	0.430	1	ND
Acenaphthylene	0.364	1.0	0.364	1	ND
Anthracene	0.295	1.0	0.295	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	0.579	1.0	0.579	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.372	1.0	9.30	1	
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

ORGANIC 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-CEF9-3S-Q4-01-10 Lab Sample ID: L0110464-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 23-OCT-01 Date Extracted: 29-OCT-01 Date Analyzed: 01-NOV-01 01:20

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	32.7	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 # : WG106998
Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995
Field Sample ID: 002-CEF9-5S-Q4-01-10 Lab Sample ID: L0110464-03 Matrix: Water
% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001
Date Received: 23-OCT-01 Date Extracted: 23-AUG-01 Date Analyzed: 25-OCT-01 22:45
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	0.415	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	0.030	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 # : WG106998

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

Field Sample ID: 002-CEF9-5S-Q4-01-10 Lab Sample ID: L0110464-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 23-OCT-01 Date Extracted: 23-AUG-01 Date Analyzed: 25-OCT-01 22:45

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	54.8	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 # : WG106998

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

Field Sample ID: 002-CEF9-7D-Q4-01-10 Lab Sample ID: L0110464-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 25-OCT-01

Date Received: 23-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 23:41

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.398	1.1	0.398	1	ND
2-Methylnaphthalene	0.369	1.1	0.369	1	ND
Acenaphthene	0.456	1.1	0.456	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.313	1.1	0.313	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	0.0791	0.22	0.0791	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	0.614	1.1	0.614	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.395	1.1	0.395	1	ND
Phenanthrene	0.315	1.1	0.315	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 # : WG106998

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

Field Sample ID: 002-CEF9-7D-Q4-01-10 Lab Sample ID: L0110464-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 25-OCT-01

Date Received: 23-OCT-01 Date Extracted: Date Analyzed: 25-OCT-01 23:41

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	69.3	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 # : WG106998

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

Field Sample ID: 002-CEF9-7D-Q4-01-10 MS Lab Sample ID: L0110464-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 26-OCT-01

Date Received: 23-OCT-01 Date Extracted: Date Analyzed: 26-OCT-01 00:38

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.402	1.1	28.0	1	
2-Methylnaphthalene	0.373	1.1	28.0	1	
Acenaphthene	0.461	1.1	28.0	1	
Acenaphthylene	0.390	1.1	29.0	1	
Anthracene	0.317	1.1	35.0	1	
Benzo(a)anthracene	0.0333	0.22	3.80	1	
Benzo(a)pyrene	0.0589	0.22	2.90	1	
Benzo(b)fluoranthene	0.0378	0.22	3.10	1	
Benzo(g,h,i)perylene	0.0556	0.22	2.50	1	
Benzo(k)fluoranthene	0.080	0.22	1.50	1	
Chrysene	0.0267	0.22	3.70	1	
Dibenzo(a,h)anthracene	0.0856	0.22	2.50	1	
Fluoranthene	0.0556	0.22	4.20	1	
Fluorene	0.621	1.1	30.0	1	
Indeno(1,2,3-cd)pyrene	0.0889	0.22	2.60	1	
Naphthalene	0.399	1.1	28.0	1	
Phenanthrene	0.319	1.1	33.0	1	
Pyrene	0.0756	0.22	4.00	1	

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 # : WG106998

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

Field Sample ID: 002-CEF9-7D-Q4-01-10 MS Lab Sample ID: L0110464-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 26-OCT-01

Date Received: 23-OCT-01 Date Extracted: Date Analyzed: 26-OCT-01 00:38

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	66.1	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 # : WG106998
Lab Name : Kemron Environmental Services Contract#: N62467-98-D-0995
Field Sample ID: 002-CEF9-7D-Q4-01-10 MSD Lab Sample ID: L0110464-06 Matrix: Water
% Solids: 0 Initial Calibration ID: HPLC4 26-OCT-01
Date Received: 23-OCT-01 Date Extracted: Date Analyzed: 26-OCT-01 01:34
Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.398	1.1	26.0	1	
2-Methylnaphthalene	0.369	1.1	27.0	1	
Acenaphthene	0.456	1.1	27.0	1	
Acenaphthylene	0.386	1.1	27.0	1	
Anthracene	0.313	1.1	34.0	1	
Benzo(a)anthracene	0.033	0.22	3.80	1	
Benzo(a)pyrene	0.0582	0.22	2.70	1	
Benzo(b)fluoranthene	0.0374	0.22	3.00	1	
Benzo(g,h,i)perylene	0.0549	0.22	2.20	1	
Benzo(k)fluoranthene	0.0791	0.22	1.40	1	
Chrysene	0.0264	0.22	3.60	1	
Dibenzo(a,h)anthracene	0.0846	0.22	2.30	1	
Fluoranthene	0.0549	0.22	4.20	1	
Fluorene	0.614	1.1	29.0	1	
Indeno(1,2,3-cd)pyrene	0.0879	0.22	2.40	1	
Naphthalene	0.395	1.1	26.0	1	
Phenanthrene	0.315	1.1	32.0	1	
Pyrene	0.0747	0.22	4.10	1	

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 # : WG106998

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

Field Sample ID: 002-CEF9-7D-Q4-01-10 MSD Lab Sample ID: L0110464-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 26-OCT-01

Date Received: 23-OCT-01 Date Extracted: Date Analyzed: 26-OCT-01 01:34

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	64.6	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 # : WG106998

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

Field Sample ID: 002-CEF9-9S-Q4-01-10 Lab Sample ID: L0110464-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 23-OCT-01 Date Extracted: 23-AUG-01 Date Analyzed: 26-OCT-01 03:28

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	0.850	1	J
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	4.50	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 # : WG106998

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

Field Sample ID: 002-CEF9-9S-Q4-01-10 Lab Sample ID: L0110464-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 23-OCT-01 Date Extracted: 23-AUG-01 Date Analyzed: 26-OCT-01 03:28

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	59.7	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 # : WG106998

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

Field Sample ID: 002-CEF9-9S-Q4-01-10 Lab Sample ID: L0110464-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 23-OCT-01 Date Extracted: 23-AUG-01 Date Analyzed: 26-OCT-01 03:28

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	1.20	1	
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	0.030	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	0.024	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	4.70	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

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG106998

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

Field Sample ID: 002-CEF9-9S-Q4-01-10 Lab Sample ID: L0110464-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 23-OCT-01 Date Extracted: 23-AUG-01 Date Analyzed: 26-OCT-01 03:28

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	58.5	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 # : WG106998

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

Field Sample ID: 002-9EQB-Q4-01-10 Lab Sample ID: L0110464-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 23-OCT-01 Date Extracted: 23-AUG-01 Date Analyzed: 26-OCT-01 05:21

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	0.030	0.20	0.030	1	ND
Benzo(a)pyrene	0.053	0.20	0.053	1	ND
Benzo(b)fluoranthene	0.0366	0.22	0.0366	1	ND
Benzo(g,h,i)perylene	0.0538	0.22	0.0538	1	ND
Benzo(k)fluoranthene	0.0774	0.22	0.0774	1	ND
Chrysene	0.024	0.20	0.024	1	ND
Dibenzo(a,h)anthracene	0.077	0.20	0.077	1	ND
Fluoranthene	0.0538	0.22	0.0538	1	ND
Fluorene	0.601	1.1	0.601	1	ND
Indeno(1,2,3-cd)pyrene	0.080	0.20	0.080	1	ND
Naphthalene	0.386	1.1	0.386	1	ND
Phenanthrene	0.309	1.1	0.309	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 # : WG106998

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

Field Sample ID: 002-9EQB-Q4-01-10 Lab Sample ID: L0110464-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 08-AUG-2001

Date Received: 23-OCT-01 Date Extracted: 23-AUG-01 Date Analyzed: 26-OCT-01 05:21

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	56.0	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 PACKAGE

Analytical Method : **9056**
AAB # : **WG106927**
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-CEF9-2S-Q4-01-10	L0110464-01
002-CEF9-3S-Q4-01-10	L0110464-02
002-CEF9-5S-Q4-01-10	L0110464-03
002-CEF9-7D-Q4-01-10	L0110464-04
002-CEF9-7D-Q4-01-10 MS	L0110464-05
002-CEF9-7D-Q4-01-10 MSD	L0110464-06
002-CEF9-9S-Q4-01-10	L0110464-07
002-9DUP-Q4-01-10	L0110464-08
002-9EQB-Q4-01-10	L0110464-09

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**

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KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG106927

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

Field Sample ID: 002-CEF9-2S-Q4-01-10 Lab Sample ID: L0110464-01 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 05-OCT-2001

Date Received: 23-OCT-01 Date Extracted: Date Analyzed: 23-OCT-01 14:28

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	0.330	1	J

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

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG106927

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

Field Sample ID: 002-CEF9-3S-Q4-01-10 Lab Sample ID: L0110464-02 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 05-OCT-2001

Date Received: 23-OCT-01 Date Extracted: Date Analyzed: 23-OCT-01 14:39

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.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG106927

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

Field Sample ID: 002-CEF9-5S-Q4-01-10 Lab Sample ID: L0110464-03 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 05-OCT-2001

Date Received: 23-OCT-01 Date Extracted: Date Analyzed: 23-OCT-01 14:51

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.200	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.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG106927

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

Field Sample ID: 002-CEF9-7D-Q4-01-10 Lab Sample ID: L0110464-04 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 05-OCT-2001

Date Received: 23-OCT-01 Date Extracted: Date Analyzed: 23-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.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG106927

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

Field Sample ID: 002-CEF9-7D-Q4-01-10 MS Lab Sample ID: L0110464-05 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 05-OCT-2001

Date Received: 23-OCT-01 Date Extracted: Date Analyzed: 23-OCT-01 16:49

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	4.10	1	
Nitrite	0.061	0.40	3.90	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.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG106927

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

Field Sample ID: 002-CEF9-7D-Q4-01-10 MSD Lab Sample ID: L0110464-06 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 05-OCT-2001

Date Received: 23-OCT-01 Date Extracted: Date Analyzed: 23-OCT-01 17:00

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	4.10	1	
Nitrite	0.061	0.40	3.80	1	
Phosphate	0.163	1.0	9.70	1	

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

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG106927

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

Field Sample ID: 002-CEF9-9S-Q4-01-10 Lab Sample ID: L0110464-07 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 05-OCT-2001

Date Received: 23-OCT-01 Date Extracted: Date Analyzed: 23-OCT-01 15:14

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.067	0.60	0.130	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.

KEMRON ENVIRONMENTAL SERVICES

ORGANIC ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG106927

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

Field Sample ID: 002-9DUP-Q4-01-10 Lab Sample ID: L0110464-08 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 05-OCT-2001

Date Received: 23-OCT-01 Date Extracted: Date Analyzed: 23-OCT-01 15:25

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.

KEMRON ENVIRONMENTAL SERVICES
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG106927

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

Field Sample ID: 002-9EQB-Q4-01-10 Lab Sample ID: L0110464-09 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 05-OCT-2001

Date Received: 23-OCT-01 Date Extracted: Date Analyzed: 23-OCT-01 15:37

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.

1.2 Attachments

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)

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 Internal Laboratory Chain of Custody

Work Order: L0110464 **Client:** CCI **# of Samples:** 10 **Due Date:** 10/30 **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	FLA-PRO	EXT	[illegible] 10/23/01 @ 1300	walkin	SAB	Blg	LMT @ 9:00 10/24/01	Crusher	CEB	Disposal
1-9	9056	Analysis	[illegible] 10/23/01 @ 1350	login	SV	Blg	[illegible] 10/24/01 @ 12:00	Archive-1	Blg	Archive
1-9A	8310	EXT	[illegible] 10/23/01 @ 1415	walkin	SAB	Blg	LMT @ 9:00 10/24/01	Crusher	CEB	Disposal
1-10	BTME	ANAL	CBN 10/25/01 @ 0820	V-1	ORG-4	CEB				
02 01,08B	8310	Re-ext	[illegible] 10/29/01 @ 0950	walkin	SAB	Blg	LMT @ 8:30 10/30/01	Crusher	CEB	Disposal
01B	FLA-PRO	Re-ext	[illegible] 10/29/01 @ 0945	walkin	SAB	Blg	LMT @ 8:30 10/30/01	Crusher	CEB	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: **149152-173**

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 9	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 9 / 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 (see codes on back)	DATE COLLECTED	TIME COLLECTED	DATA PKG LEVEL (see codes on back)	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-CEF9-2S-Q4-01-10	CEF-9-2S	W	10/22/01	11:30	III/C	14	2	2	2	1					Grab	Turbid	
2	002-CEF9-3S-Q4-01-10	CEF-9-3S	W	10/22/01	12:05	III/C	14	2	2	2	1					Grab	Turbid	
3	002-CEF9-5S-Q4-01-10	CEF-9-5S	W	10/22/01	15:45	III/C	14	2	2	2	1					Grab	Turbid	
4	002-CEF9-7D-Q4-01-10	CEF-9-7D	W	10/22/01	14:05	III/C	14	6	6	6	3					Grab	(MS/MSD)	
5	002-CEF9-9S-Q4-01-10	CEF-9-9S	W	10/22/01	15:00	III/C	14	2	2	2	1					Grab	Turbid	
6	002-9DUP-Q4-01-10	Duplicate	W	10/22/01	NA	III/C	14	2	2	2	1					Grab		
7	002-9EQB-Q4-01-10	Equipment Blank	W	10/22/01	13:00	III/C	14	2	2	2	1					Grab		
8	002-9TB-Q4-01-10	Trip Blank	W	NA	NA	III/C	14	2					Vials rec'd w/ headspace (big)				Prepared by Lab	
9	NA	Temperature Blank	W	NA	NA	III/C	14					5					Prepared by Lab	
10																		

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:
Randy Dumaop J.A. Jones Environmental Services	Federal Express Track No.790193461169, 790193461272, 792459931007, 791684669080, 790193461467.

C/C sealed Sk intact Cooler temps 1/0/0/1/1 (big)

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature: R. Dumaop [signature]	10/22/01	18:00	Printed Name and Signature: Federal Express	10/22/01	18:00
Printed Name and Signature:			Printed Name and Signature: Brenda Gregory / Brenda Gregory	10/23/01	0957

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

Form CCI001, Rev 02/00

CKF #3

KEMRON Environmental Services	SAMPLES RECEIPT FORM	Marietta Laboratory

CLIENT: CCI (BRG) LMT Other _____	DATE: 10/23/01	SHIPPED BY: (✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

	COOLER ID: KL729	COOLER ID: 99100	COOLER ID: KL952
	INDEX # : 790193461467	INDEX # : 790193461272	INDEX # : 792459931007
	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) 0 °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	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) (✓) 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 NOT FROZEN ( ) YES (✓) NO	SAMPLES NOT FROZEN ( ) YES (✓) NO	SAMPLES NOT FROZEN ( ) YES (✓) NO
	LOG-IN COMMENTS	LOG-IN COMMENTS 1545	LOG-IN COMMENTS VO's
	1130	DUP	1300
	1205		

TSR COMMENTS

CONTACT:	DATE:	TIME:

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

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Revised 10/16/01

CKF #3

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

CLIENT: CCI (BRG / LMT / Other ____)	DATE: 10/23/01	SHIPPED BY: (✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

	COOLER ID: KL844	COOLER ID: KL1042	COOLER ID:
	INDEX #: 7901934611169	INDEX #: 79168466 9080	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	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	LOG-IN COMMENTS	LOG-IN COMMENTS
	1500	1405 (MS/SD)	
	1405 (P)	1405 (MS/SD)	

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: 10/23/01

_____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

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

_____pH out (List sample ID & which container)

_____Insufficient sample volume

V Air bubbles present in Voa vials (List sample ID)
Trip Blanks

_____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 9 LIMS# LO1104/64

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

A. **PRELIMINARY EXAMINATION PHASE:** Date cooler opened: 10/23/01 C-of-C Number: 149152-173
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: 10/22/01 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: BLG (date) 10/23/01

B. **LOG-IN PHASE:** Date samples were logged-in: 10/23/01
by (print) Brenda Gregory (sign) Brenda Gregory

11. Describe type of packing in cooler: Dividers; Wet Ice; baggie; paper towels
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 # Trip ..... 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: L0110464

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 04.

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: 10/30/01

Rev. 6/00

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KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0110464
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-CEF9-2S-Q4-01-10	L0110464-01	12G09951	10/25/01 09:08	01
002-CEF9-5S-Q4-01-10	L0110464-03	12G09953	10/25/01 10:13	01
002-CEF9-7D-Q4-01-10	L0110464-04	12G09954	10/25/01 10:46	01
002-CEF9-7D-Q4-01-10 MS	L0110464-05	12G09955	10/25/01 11:18	01
002-CEF9-7D-Q4-01-10 MSD	L0110464-06	12G09956	10/25/01 11:51	01
002-9DUP-Q4-01-10	L0110464-08	12G09958	10/25/01 12:56	01
002-9EQB-Q4-01-10	L0110464-09	12G09960	10/25/01 14:08	01
002-9TB-Q4-01-10	L0110464-10	12G09961	10/25/01 14:41	01

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KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0110464 Run Date: 10/25/2001 Sample ID: WG107053-01
Instrument ID: HP12 Run Time: 07:57 Method: 8021B
File ID: 12G09949 Analyst: CBN Matrix: Water
Workgroup (AAB#): WG107053 Units: ug/L
Contract #: 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

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KEMRON FORMS - Modified 10/16/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0110464 | 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

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KEMRON FORMS - Modified 10/16/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
MS/MSD REPORT

Loginnum: L0110464 Cal ID: HP12-03-OCT-2001 Worknum: WG107053
Instrument ID: HP12 Contract #: Method: 8021B
Parent ID: L0110464-04 File ID: 12G09954 Matrix: Water
Sample ID: L0110464-05 MS File ID: 12G09955 Units: ug/L
Sample ID: L0110464-06 MSD File ID: 12G09956

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Benzene	0	20.0	20.3	102	20.0	19.2	96.0	5.56	78 - 122	20	
Ethylbenzene	0	20.0	20.6	103	20.0	19.7	98.5	4.46	80 - 129	20	
Methyl tert-butyl ether	0	20.0	18.8	94.0	20.0	17.7	88.5	6.01	56 - 149	20	
Toluene	0	20.0	20.2	101	20.0	19.1	95.5	5.58	78 - 123	20	
Xylenes, Total	0	60.0	60.5	101	60.0	57.8	96.3	4.56	80 - 124	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

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KEMRON FORMS - Modified 10/16/2001
Version 1.0

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-CEF9-2S-Q4-01-10	22-OCT-01	23-OCT-01	25-OCT-01	14	3	25-OCT-01	14	3	
002-CEF9-5S-Q4-01-10	22-OCT-01	23-OCT-01	25-OCT-01	14	3	25-OCT-01	14	3	
002-CEF9-7D-Q4-01-10	22-OCT-01	23-OCT-01	25-OCT-01	14	3	25-OCT-01	14	3	
002-CEF9-7D-Q4-01-10 MS	22-OCT-01	23-OCT-01	25-OCT-01	14	3	25-OCT-01	14	3	
002-CEF9-7D-Q4-01-10 MSD	22-OCT-01	23-OCT-01	25-OCT-01	14	3	25-OCT-01	14	3	
002-9DUP-Q4-01-10	22-OCT-01	23-OCT-01	25-OCT-01	14	3	25-OCT-01	14	3	
002-9EQB-Q4-01-10	22-OCT-01	23-OCT-01	25-OCT-01	14	3	25-OCT-01	14	3	
002-9TB-Q4-01-10	22-OCT-01	23-OCT-01	25-OCT-01	14	3	25-OCT-01	14	3	

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

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SURROGATE STANDARDS

Login Number: L0110464
Instrument Id: HP12
Workgroup (AAB#): WG107053

Method: 8021
Matrix: WATER

Sample Numbe	Dilution	Tag	1
L0110464-01	1.00		123
L0110464-03	1.00		99.1
L0110464-04	1.00		97.8
L0110464-05	1.00		99.4
L0110464-06	1.00		100
L0110464-08	1.00		127
L0110464-09	1.00		100
L0110464-10	1.00		99.2
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

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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		%R
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	3.1
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	3.1
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

Login Number: L0110464
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	

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KEMRON FORMS - Modified 10/17/2001
Version 1.0

Login Number: L0110464
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	

Login Number: L0110464
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	

Login Number: L0110464
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	

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	20	12g09675.d	1.	WG105716-01 8021 STD1 1PPB 5ML DNE	1,1 S-84-(17,38)	3 Oct 2001 07:
2	21	12g09676.d	1.	WG105716-01 8021 STD1 1PPB 5ML ✓	1,1 S-84-(17,38)	3 Oct 2001 07:
3	22	12g09677.d	1.	WG105716-02 8021 STD2 10PPB... ✓	1,1 S-84-(17,38)	3 Oct 2001 08:
4	23	12g09678.d	1.	WG105716-03 8021 STD3 20PPB... ✓	1,1 S-84-(17,38)	3 Oct 2001 09:
5	24	12g09679.d	1.	WG105716-04 8021 STD4 50PPB... ✓	1,1 S-84-(17,38)	3 Oct 2001 09:
6	25	12g09680.d	1.	WG105716-05 8021 STD5 100PP... ✓	1,1 S-84-(17,38)	3 Oct 2001 10:
7	30	12g09681.d	1.	WG105716-06 8021 STD6 200PP... ✓	1,1 S-84-(17,38)	3 Oct 2001 10:
8	31	12g09682.d	1.	WG105716-07 ALT SOURCE 20PP... ✓	1,1 S-(85-01,84-38)	3 Oct 2001 11:
9	2	12g09683.d	100.	WG105767-01 EXT BLANK 10/03... ✓	7,100 S-84-38	3 Oct 2001 12:
10	3	12g09684.d	100.	WG105767-01 EXT LCSK 10/03/... ✓	7,100 S-(85-01,84...	3 Oct 2001 12:
11	20	12g09685.d	125.	L0109340-01 4.02G/10ML 125X ✓	7,125,RE S-84-38	3 Oct 2001 13:
12	21	12g09686.d	1000.	L0109340-02 4.88G/10ML 1000X ✓	7,1000 S-84-38	3 Oct 2001 13:
13	22	12g09687.d	900.	L0109360-04 5.49G/10ML 900X ✓ SSS ONLY	7,900 S-84-38	3 Oct 2001 14:
14	23	12g09688.d	80.	L0109360-05 6.08G/10ML 80X CONF SMI	7,80,RE S-84-38	3 Oct 2001 14:
15	24	12g09689.d	85.	L0109360-06 5.88G/10ML 85X ✓	7,85 S-84-38	3 Oct 2001 15:
16	25	12g09690.d	900.	L0109360-07 5.69G/10ML 900X RE @ 9000	7,900 S-84-38	3 Oct 2001 15:
17	30	12g09691.d	75.	L0109360-08 6.53G/10ML 75X SSS CONF ONLY	7,75 S-84-38	3 Oct 2001 16:
18	31	12g09692.d	90.	L0109360-09 5.68G/10ML 90X HIGH SSS	7,90 S-84-38	3 Oct 2001 16:
19	32	12g09693.d	1.	WG105716-09 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,84-38)	3 Oct 2001 17:
20	15	12g09694.d	75.	L0109360-08 6.53G/10ML 75X HIGH SSS	7,75,RE S-84-38	3 Oct 2001 18:
21	16	12g09695.d	90.	L0109360-09 5.68G/10ML 90X CONF SMI	7,90,RE S-84-38	3 Oct 2001 18:
22	17	12g09696.d	900.	L0109360-07 5.69G/10ML 900X BAD AREA	7,900,RE S-84-38	3 Oct 2001 19:
23	18	12g09697.d	900.	L0109360-04 5.49G/10ML 900X ✓	7,900,RE S-84-38	3 Oct 2001 19:
24	19	12g09698.d	500000.	L0110002-01 1G/10ML 500000X ✓	1,500000 S-84-38	3 Oct 2001 20:
25	20	12g09699.d	500000.	L0110002-01 DUP 1G/10ML 500... ✓	1,500000 S-84-38	3 Oct 2001 20:
26	21	12g09700.d	50000.	L0110002-01 1G/10ML 50000X ✓	1,50000 S-84-38	3 Oct 2001 21:
27	22	12g09701.d	1.	RINSE	1,1 S-84-38	3 Oct 2001 21:
28	23	12g09702.d	1.	WG105716-10 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,84-38)	3 Oct 2001 22:

Directory: C:\HPCHEM\DATA\2001

WG107053

ANALYST: CL

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	12	12g09949.d	1.	WG107053-01 WATER BLANK 5ML ✓	1,1 S-86-08	25 Oct 2001 07
3	13	12g09950.d	1.	WG107053-02 WATER LCS 20PPB... ✓	1,1 S-(85-01,86-08)	25 Oct 2001 08
4	5	12g09951.d	1.	L0110464-01 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 09
5	6	12g09952.d	1.	L0110464-02 A 5ML pH<2 HIGH SSS	1,1 S-86-08	25 Oct 2001 09
6	7	12g09953.d	1.	L0110464-03 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 10
7	8	12g09954.d	1.	WG107053-03 L0110464-04 A 5... ✓	1,1 S-86-08	25 Oct 2001 10
8	11	12g09955.d	1.	WG107053-04 L0110464-05 MS ... ✓	1,1 S-(85-01,86-08)	25 Oct 2001 11
9	12	12g09956.d	1.	WG107053-05 L0110464-06 MSD... ✓	1,1 S-(85-01,86-08)	25 Oct 2001 11
10	13	12g09957.d	1.	L0110464-07 A 5ML pH<2 HIGH SSS	1,1 S-86-08	25 Oct 2001 12
11	14	12g09958.d	1.	L0110464-08 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 12
12	15	12g09959.d	1.	WG107052-02 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,86-08)	25 Oct 2001 13
13	23	12g09960.d	1.	L0110464-09 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 14
14	24	12g09961.d	1.	L0110464-10 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 14
15	11	12g09962.d	1.	L0110485-01 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 15
16	12	12g09963.d	1.	L0110485-02 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 15
17	13	12g09964.d	1.	L0110485-03 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 16
18	14	12g09965.d	1.	WG107053-03 L0110485-04 A 5... ✓	1,1 S-86-08	25 Oct 2001 16
19	15	12g09966.d	1.	WG107053-04 L0110485-05 MS ... ✓	1,1 S-(85-01,86-08)	25 Oct 2001 17
20	16	12g09967.d	1.	WG107053-05 L0110485-06 MSD... ✓	1,1 S-(85-01,86-08)	25 Oct 2001 17
21	30	12g09968.d	1.	L0110485-07 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 18
22	31	12g09969.d	1.	L0110485-08 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 18
23	32	12g09970.d	1.	WG107052-03 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,86-08)	25 Oct 2001 19
24	1	12g09971.d	1.	L0110485-09 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 20
25	2	12g09972.d	1.	L0110485-10 A 5ML pH<2 ✓	1,1 S-86-08	25 Oct 2001 20
26	5	12g09973.d	1.	WG107052-04 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,86-08)	25 Oct 2001 21
27	6	12g09974.d	1.	RINSE 5ML ✓	1,1 S-86-08	25 Oct 2001 21
28	7	12g09975.d	1.	RINSE 5ML ✓	1,1 S-86-08	25 Oct 2001 22

KEMRON ENVIRONMENTAL SERVICES
METHOD BLANK SUMMARY

Login Number: L0110464
Blank File ID: 12G09977
Date Analyzed: 10/26/01
Time Analyzed: 07:36
Analyst: CBN

Work Group: WG107136
Blank Sample ID: WG107136-01
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	WG107136-02	12G09978	10/26/01 08:08	02
002-CEF9-3S-Q4-01-10	L0110464-02	12G09990	10/26/01 16:24	03
002-CEF9-9S-Q4-01-10	L0110464-07	12G09991	10/26/01 16:56	03

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0110464
Instrument ID: HP12
File ID: 12G09977
Workgroup (AAB#): WG107136
Contract #:

Run Date: 10/26/2001
Run Time: 07:36
Analyst: CBN

Sample ID: WG107136-01
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	99.3	70	-	130	PASS

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

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0110464 Run Date: 10/26/2001 Sample ID: WG107136-02
Instrument ID: HP12 Run Time: 08:08 Method: 8021B
File ID: 12G09978 Analyst: CBN Matrix: Water
Workgroup (AAB#): WG107136 Units: ug/L
Contract #: Cal ID: HP12-03-OCT-2001

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	18.3	91.5	56 - 149	
Benzene	20	20.0	100	78 - 122	
Toluene	20	19.8	99.0	78 - 123	
Ethylbenzene	20	20.3	102	80 - 129	
Total xylenes	60	59.4	99.0	80 - 124	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	99.8	70 - 130	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021

AAB#: WG107136

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-CEF9-3S-Q4-01-10	22-OCT-01	23-OCT-01	26-OCT-01	14	4	26-OCT-01	14	4	
002-CEF9-9S-Q4-01-10	22-OCT-01	23-OCT-01	26-OCT-01	14	4	26-OCT-01	14	4	

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

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SURROGATE STANDARDS

Login Number: L0110464
Instrument Id: HP12
Workgroup (AAB#): WG107136

Method: 8021
Matrix: WATER

Sample Numbe	Dilution	Tag	1
L0110464-02	1.00		98.4
L0110464-07	1.00		118
WG107136-01	1.00		99.3
WG107136-02	1.00		99.8

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

Underline = Result out of surrogate limits

DL = surrogate diluted out

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		%R
1)	TM	MTBE	5.501	5.055	5.309	4.819	5.339	5.014	5.173	E4	4.
2)	TM	Benzene	2.434	2.628	2.609	2.515	2.531	2.510	2.538	E5	2.
3)	S	TFT	7.849	8.485	8.473	8.349	8.569	8.620	8.391	E4	3.
4)	TM	Toluene	2.310	2.417	2.431	2.333	2.353	2.313	2.359	E5	2.
5)	TM	Chlorobenzene	2.356	2.481	2.482	2.386	2.516	2.389	2.435	E5	2.
6)	TM	Ethylbenzene	1.965	2.092	2.074	2.006	2.078	1.984	2.033	E5	2.
7)	TM	m-,p-Xylene	2.390	2.520	2.501	2.414	2.372	2.369	2.428	E5	2.
8)	TM	o-Xylene	1.915	2.149	2.147	2.074	2.121	2.049	2.076	E5	4.
9)	S	BFB	2.194	2.022	2.024	2.008	2.053	2.041	2.057	E5	3.
10)	TM	1,3-Dichlorobenzene	1.973	2.213	2.231	2.185	2.174	2.061	2.139	E5	4.
11)	TM	1,4-Dichlorobenzene	1.973	2.213	2.231	2.185	2.174	2.061	2.139	E5	4.
12)	TM	1,2-Dichlorobenzene	2.245	1.764	1.828	1.703	1.784	1.605	1.821	E5	12.
13)	S	BCB	2.770	1.949	1.981	1.983	2.189	1.995	2.145	E5	14.

(#) = Out of Range
8021W.M Wed Oct 03 11:08:59 2001 Page 1

Login Number: L0110464
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: L0110464
File ID: 12G09976
CCV ID: WG107135-01
Units: ug/L

Instrument ID: HP12
Run Date: 10/26/2001
Run Time: 07:03
Analyst: CBN
Cal ID: HP12 - 03-OCT-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	18.8	171000	6.0	
1,4-Dichlorobenzene		20	20.0	214000	0.0	
1,3-Dichlorobenzene		20	20.0	214000	0.0	
o-Xylene		20	19.7	204000	1.5	
m-,p-Xylene		40	40.0	243000	0.0	
Ethylbenzene		20	20.5	208000	2.5	
Chlorobenzene		20	19.4	236000	3.0	
Toluene		20	20.1	237000	0.5	
Benzene		20	20.0	254000	0.0	
MTBE		20	19.0	49100	5.0	

Login Number: L0110464
File ID: 12G09987
CCV ID: WG107135-02
Units: ug/L

Instrument ID: HP12
Run Date: 10/26/2001
Run Time: 13:08
Analyst: CBN
Cal ID: HP12 - 03-OCT-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	19.6	179000	2.0	
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	19.0	224000	5.0	
Benzene		20	19.0	241000	5.0	
MTBE		20	17.2	44500	14.0	

Login Number: L0110464
File ID: 12G09998
CCV ID: WG107135-03
Units: ug/L

Instrument ID: HP12
Run Date: 10/26/2001
Run Time: 20:43
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	19.4	208000	3.0	
1,3-Dichlorobenzene	20	19.4	208000	3.0	
o-Xylene	20	19.4	201000	3.0	
m-,p-Xylene	40	39.1	237000	2.3	
Ethylbenzene	20	19.9	202000	0.5	
Chlorobenzene	20	19.1	233000	4.5	
Toluene	20	19.5	230000	2.5	
Benzene	20	19.5	247000	2.5	
MTBE	20	18.0	46700	10.0	

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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	21	12g09676.d	1.	WG105716-01 8021 STD1 1PPB 5ML ✓	1,1 S-84-(17,38)	3 Oct 2001 07
3	22	12g09677.d	1.	WG105716-02 8021 STD2 10PPB... ✓	1,1 S-84-(17,38)	3 Oct 2001 08
4	23	12g09678.d	1.	WG105716-03 8021 STD3 20PPB... ✓	1,1 S-84-(17,38)	3 Oct 2001 09
5	24	12g09679.d	1.	WG105716-04 8021 STD4 50PPB... ✓	1,1 S-84-(17,38)	3 Oct 2001 09
6	25	12g09680.d	1.	WG105716-05 8021 STD5 100PP... ✓	1,1 S-84-(17,38)	3 Oct 2001 10
7	30	12g09681.d	1.	WG105716-06 8021 STD6 200PP... ✓	1,1 S-84-(17,38)	3 Oct 2001 10
8	31	12g09682.d	1.	WG105716-07 ALT SOURCE 20PP... ✓	1,1 S-(85-01,84-38)	3 Oct 2001 11
9	2	12g09683.d	100.	WG105767-01 EXT BLANK 10/03... ✓	7,100 S-84-38	3 Oct 2001 12
10	3	12g09684.d	100.	WG105767-01 EXT LCSK 10/03/... ✓	7,100 S-(85-01,84...	3 Oct 2001 12
11	20	12g09685.d	125.	L0109340-01 4.02G/10ML 125X ✓	7,125,RE S-84-38	3 Oct 2001 13
12	21	12g09686.d	1000.	L0109340-02 4.88G/10ML 1000X ✓	7,1000 S-84-38	3 Oct 2001 13
13	22	12g09687.d	900.	L0109360-04 5.49G/10ML 900X ✓ SSS only	7,900 S-84-38	3 Oct 2001 14
14	23	12g09688.d	80.	L0109360-05 6.08G/10ML 80X CONF SMI	7,80,RE S-84-38	3 Oct 2001 14
15	24	12g09689.d	85.	L0109360-06 5.88G/10ML 85X ✓	7,85 S-84-38	3 Oct 2001 15
16	25	12g09690.d	900.	L0109360-07 5.69G/10ML 900X EX @ 9000	7,900 S-84-38	3 Oct 2001 15
17	30	12g09691.d	75.	L0109360-08 6.53G/10ML 75X SSS CONF only	7,75 S-84-38	3 Oct 2001 16
18	31	12g09692.d	90.	L0109360-09 5.68G/10ML 90X HIGH SSS ✓	7,90 S-84-38	3 Oct 2001 16
19	32	12g09693.d	1.	WG105716-09 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,84-38)	3 Oct 2001 17
20	15	12g09694.d	75.	L0109360-08 6.53G/10ML 75X HIGH SSS	7,75,RE S-84-38	3 Oct 2001 18
21	16	12g09695.d	90.	L0109360-09 5.68G/10ML 90X CONF SMI	7,90,RE S-84-38	3 Oct 2001 18
22	17	12g09696.d	900.	L0109360-07 5.69G/10ML 900X BAD AIMING	7,900,RE S-84-38	3 Oct 2001 19
23	18	12g09697.d	900.	L0109360-04 5.49G/10ML 900X ✓	7,900,RE S-84-38	3 Oct 2001 19
24	19	12g09698.d	500000.	L0110002-01 1G/10ML 500000X ✓	1,500000 S-84-38	3 Oct 2001 20
25	20	12g09699.d	500000.	L0110002-01 DUP 1G/10ML 500... ✓	1,500000 S-84-38	3 Oct 2001 20
26	21	12g09700.d	50000.	L0110002-01 1G/10ML 50000X ✓	1,50000 S-84-38	3 Oct 2001 21
27	22	12g09701.d	1.	RINSE	1,1 S-84-38	3 Oct 2001 21
28	23	12g09702.d	1.	WG105716-10 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,84-38)	3 Oct 2001 22

Analyst: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	5	12g09976.d	1.	WG107135-01 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,86-08)	26 Oct 2001 07
2	6	12g09977.d	1.	WG107136-01 WATER BLANK 5ML ✓	1,1 S-86-08	26 Oct 2001 07
3	7	12g09978.d	1.	WG107136-02 WATER LCS 20PPB.. ✓	1,1 S-(85-01,86-08)	26 Oct 2001 08
4	5	12g09979.d	10.	L0110453-20 A 500uL pH=5 10X RR5X	1,10 S-86-08	26 Oct 2001 08
5	6	12g09980.d	20.	L0110453-09 A 250uL pH=5 20X ✓ confirms HSS	1,20 S-86-08	26 Oct 2001 09
6	7	12g09981.d	1.	WG107136-03 L0110453-13 A 5.. ✓ HSS	1,1 S-86-08	26 Oct 2001 09
7	8	12g09982.d	1.	L0110453-14 A 5ML pH<2 ✓ confirms HSS	1,1 S-86-08	26 Oct 2001 10
8	11	12g09983.d	20.	L0110453-15 A 250uL pH<2 20X ✓ confirms HSS	1,20 S-86-08	26 Oct 2001 10
9	12	12g09984.d	5.	L0110453-16 A 1ML pH<2 5X ✓ confirms HSS	1,5 S-86-08	26 Oct 2001 11
10	13	12g09985.d	1.	WG107136-04 L0110453-13 MS ✓ HSS	1,1 S-(85-01,86-08)	26 Oct 2001 12
11	14	12g09986.d	1.	WG107136-05 L0110453-13 MSD. ✓ HSS	1,1 S-(85-01,86-08)	26 Oct 2001 12
12	15	12g09987.d	1.	WG107135-02 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,86-08)	26 Oct 2001 13
13	5	12g09988.d	1.	L0110453-17 A 5ML pH<2 ✓ confirms HSS	1,1 S-86-08	26 Oct 2001 15
14	6	12g09989.d	5.	L0110453-20 A 1ML pH<2 5X ✓ confirms HSS	1,5 S-86-08	26 Oct 2001 15
15	7	12g09990.d	1.	L0110464-02 A 5ML pH<2 ✓	1,1 S-86-08	26 Oct 2001 16
16	8	12g09991.d	1.	L0110464-07 A 5ML pH<2 ✓	1,1 S-86-08	26 Oct 2001 16
17	11	12g09992.d	1.	L0110558-01 A 5ML pH<2 RR 1000X	1,1 S-86-08	26 Oct 2001 17
18	12	12g09993.d	1.	L0110510-01 A 5ML pH<2 RR clo	1,1 S-86-08	26 Oct 2001 18
19	13	12g09994.d	1.	L0110510-02 A 5ML pH<2 ✓	1,1 S-86-08	26 Oct 2001 18
20	14	12g09995.d	1.	L0110510-03 A 5ML pH<2 ✓	1,1 S-86-08	26 Oct 2001 19
21	15	12g09996.d	1.	L0110510-04 A 5ML pH<2 ✓	1,1 S-86-08	26 Oct 2001 19
22	16	12g09997.d	1.	L0110510-05 A 5ML pH<2 ✓	1,1 S-86-08	26 Oct 2001 20
23	31	12g09998.d	1.	WG107135-03 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,86-08)	26 Oct 2001 20
24	32	12g09999.d	1.	L0110510-06 A 5ML pH<2 RR5X	1,1 S-86-08	26 Oct 2001 21
25	1	12g10000.d	1.	L0110~~453~~ 510-07 A 5ML pH<2 ✓	1,1 S-86-08	26 Oct 2001 21
26	2	12g10001.d	1.	WG107135-04 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,86-08)	26 Oct 2001 22

BETX-GC DATA (8021)

Login Number: L0110464

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

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: QLS 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

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VOA - GC

Date: 10/26/01 **Analyst:** CBN **Method:** (8021) 8015 602

Instrument: HP12 **Work Group:** WG 107136

	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 10/29/01

Secondary Reviewers Initials & Date Checked: QJS 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: _____

Comments: _____

_____

_____

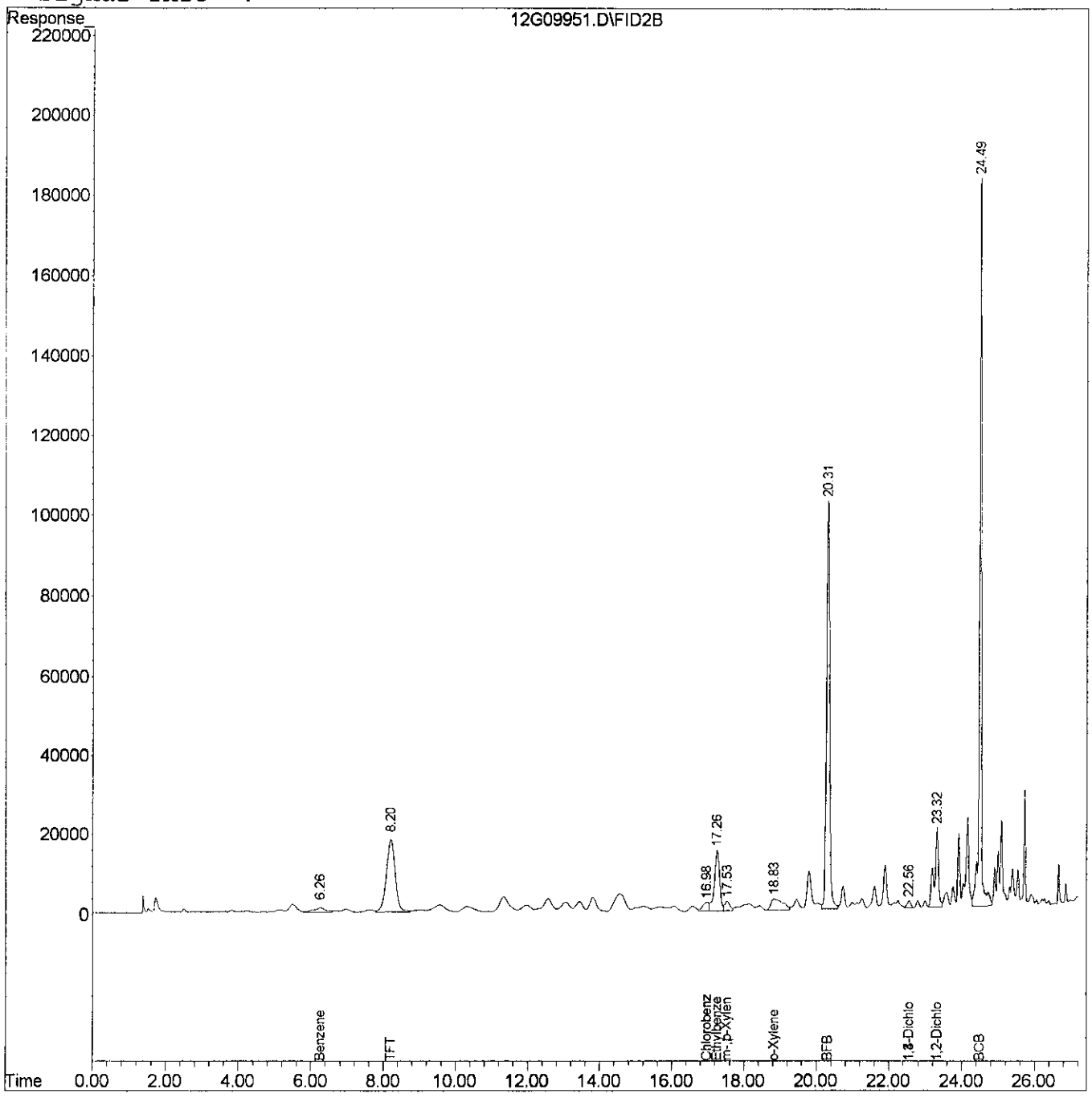
✓ = Checked & OK
NA = Not Applicable

2.1.3.2 Sample Data

Data File : C:\HPCHEM\2\DATA\102501\12G09951.D Vial: 5
Acq On : 25 Oct 2001 9:08 Operator: CBN
Sample : L0110464-01 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 9:35 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\12G09951.D Vial: 5
Acq On : 25 Oct 2001 9:08 Operator: CBN
Sample : L0110464-01 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 9:35 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 :

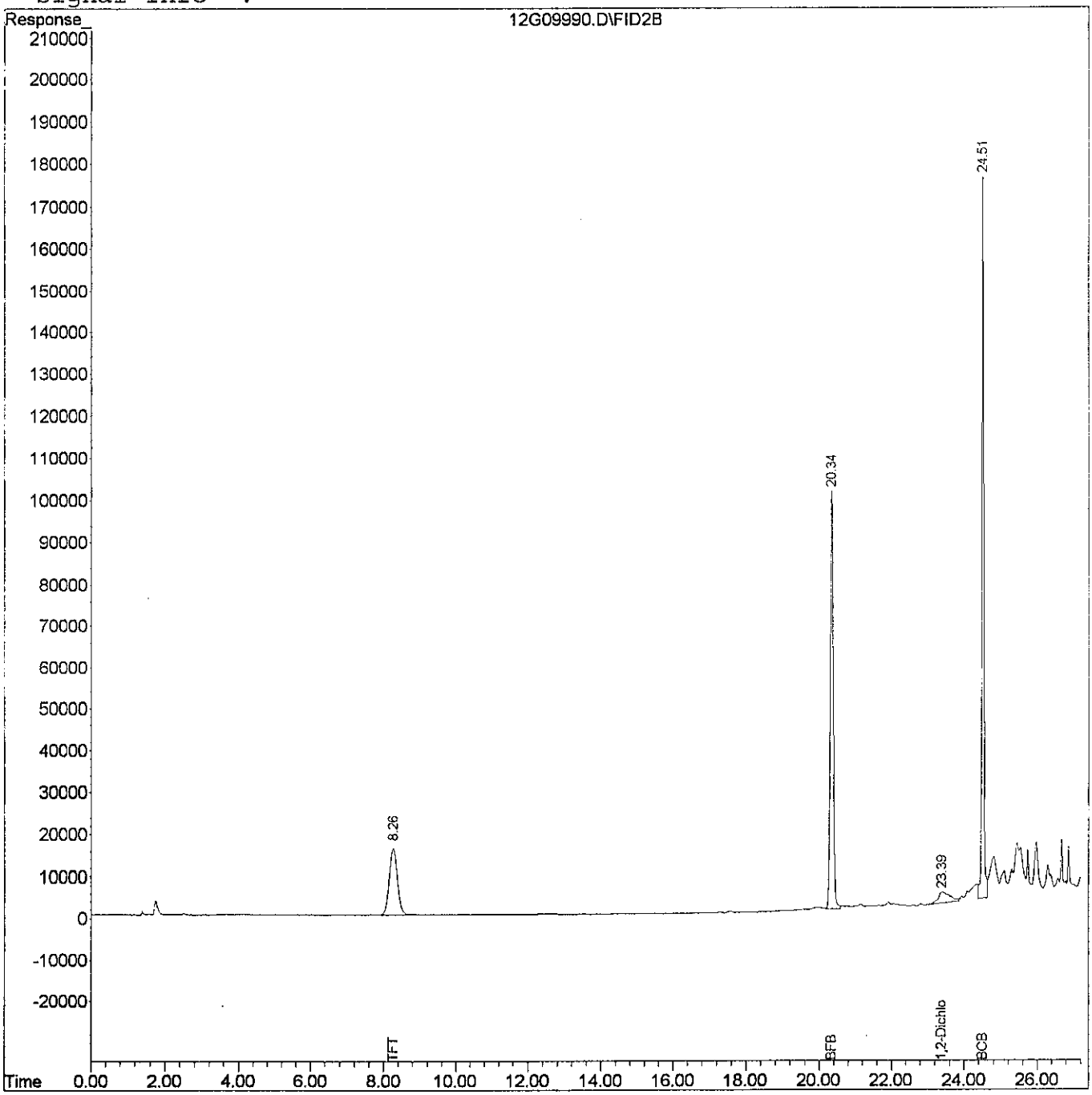
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.20 ✓	3103973	36.993 UG/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	123.31%
9) S BFB	20.31 ✓	6152769	29.913 UG/L
Spiked Amount 30.000		Recovery =	99.71%
13) S BCB	24.49	6972602	32.513 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	108.38%
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/L
2) TM Benzene	6.26	248860	0.981 UG/L F
4) TM Toluene	0.00	0	N.D. UG/L
5) TM Chlorobenzene	16.98	253627	~~1.041 UG/L~~
6) TM Ethylbenzene	17.26 ✓	1530475	7.528 UG/L
7) TM m-,p-Xylene	17.53 ✓	238504	0.982 UG/L F
8) TM o-Xylene	18.83	630693	~~3.038 UG/L~~
10) TM 1,3-Dichlorobenzene	22.56	122372	~~0.572 UG/L~~
11) TM 1,4-Dichlorobenzene	22.56	122372	~~0.572 UG/L~~
12) TM 1,2-Dichlorobenzene	23.32	1535924	~~8.433 UG/L~~

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09951.D 8021W.M Thu Oct 25 09:35:50 2001 Page 1

Acq On : 26 Oct 2001 16:24 Operator: CBN
Sample : L0110464-02 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 26 16:51 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 :



Acq On : 26 Oct 2001 16:24 Operator: CBN
Sample : L0110464-02 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 26 16:51 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	8.26	2477790	29.530 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	98.43%
9) S BFB	20.35	5777353	28.088 UG/L
Spiked Amount 30.000		Recovery =	93.63%
13) S BCB	24.51	5990451	27.934 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	93.11%
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	17.30	15553	<MDL UG/L
7) TM m-,p-Xylene	17.57	24509	<MDL UG/L
8) TM o-Xylene	0.00	0	N.D. UG/L
10) TM 1,3-Dichlorobenzene	22.61	11093	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.61	11093	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.39	585140	3.213 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09990.D 8021W.M Fri Oct 26 16:51:29 2001 Page 1

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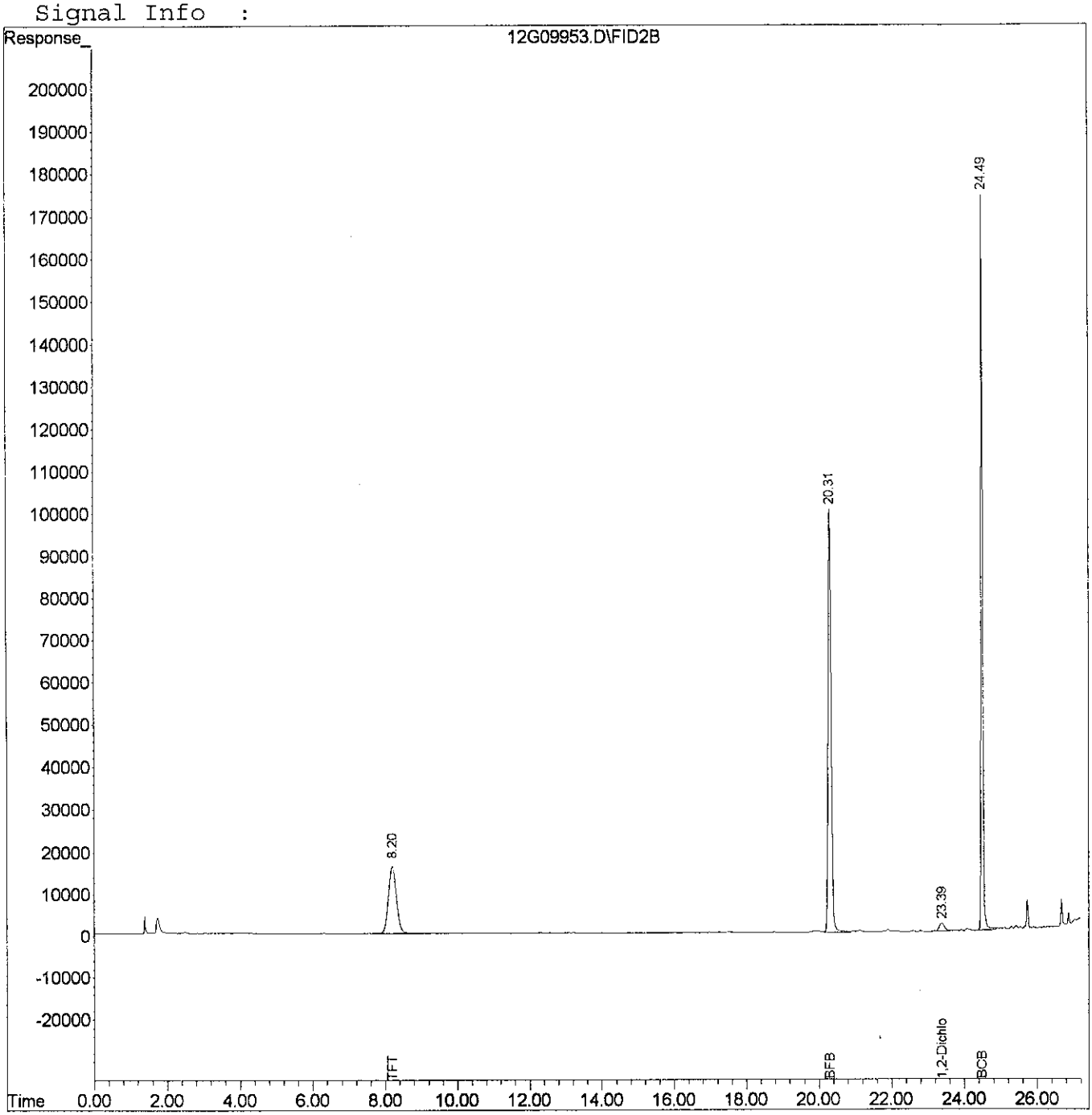
Data File : C:\HPCHEM\2\DATA\102501\12G09953.D Vial: 7
Acq On : 25 Oct 2001 10:13 Operator: CBN
Sample : L0110464-03 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 10:40 2001 Quant Results File: 8021W.RES

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\12G09953.D Vial: 7
Acq On : 25 Oct 2001 10:13 Operator: CBN
Sample : L0110464-03 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 10:40 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 :

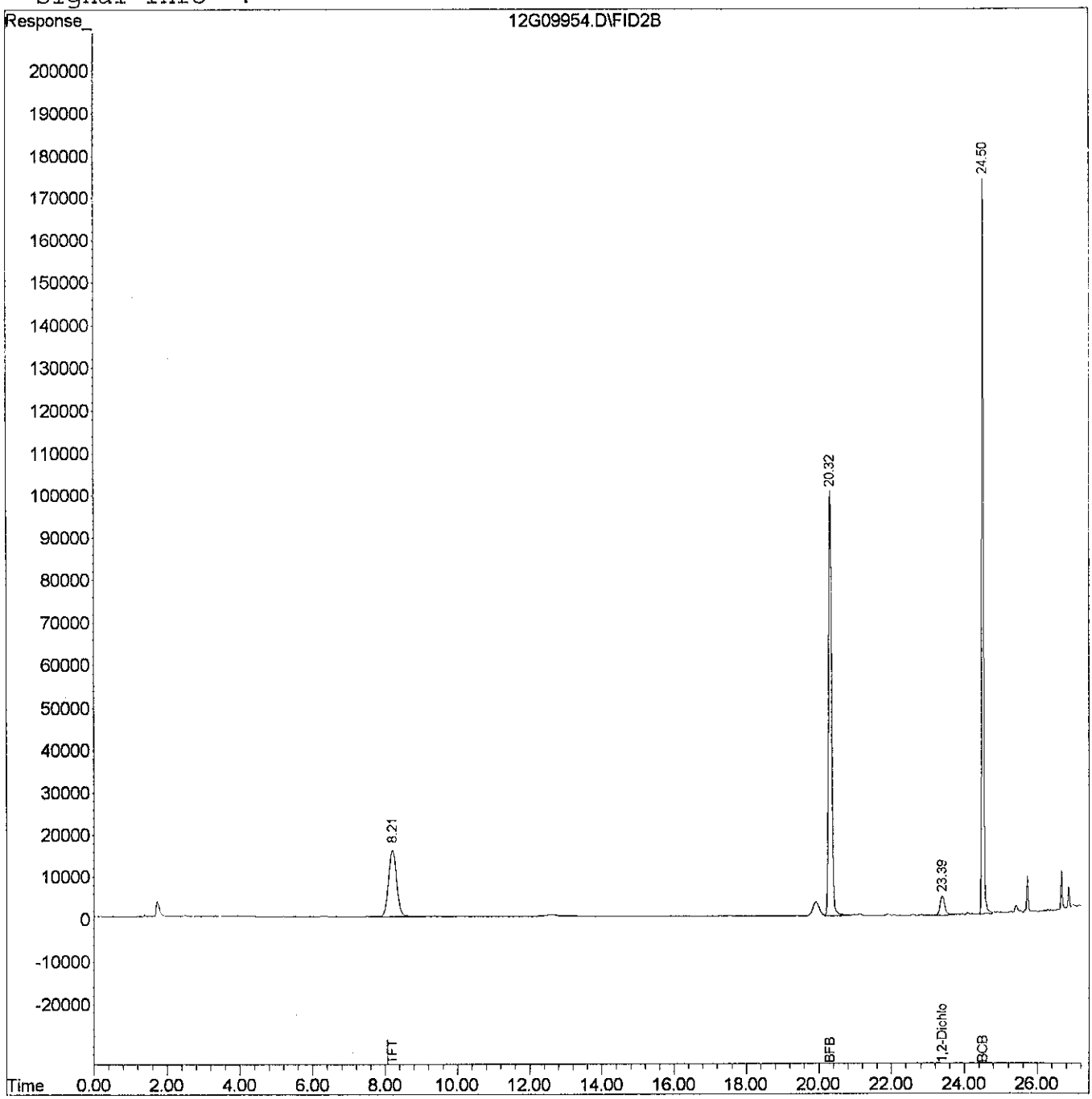
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.20	2493496	29.717 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	99.06%
9) S BFB	20.32	5829436	28.341 UG/L
Spiked Amount 30.000		Recovery =	94.47%
13) S BCB	24.49	5769203	26.902 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	89.67%
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	19161	<MDL UG/L
8) TM o-Xylene	0.00	0	N.D. UG/L
10) TM 1,3-Dichlorobenzene	22.60	14878	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.60	14878	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.39	197093	~~1.082 UG/L~~

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

Data File : C:\HPCHEM\2\DATA\102501\12G09954.D Vial: 8
Acq On : 25 Oct 2001 10:46 Operator: CBN
Sample : WG107053-03 L0110464-04 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 11:13 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\12G09954.D Vial: 8
Acq On : 25 Oct 2001 10:46 Operator: CBN
Sample : WG107053-03 L0110464-04 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 11:13 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 :

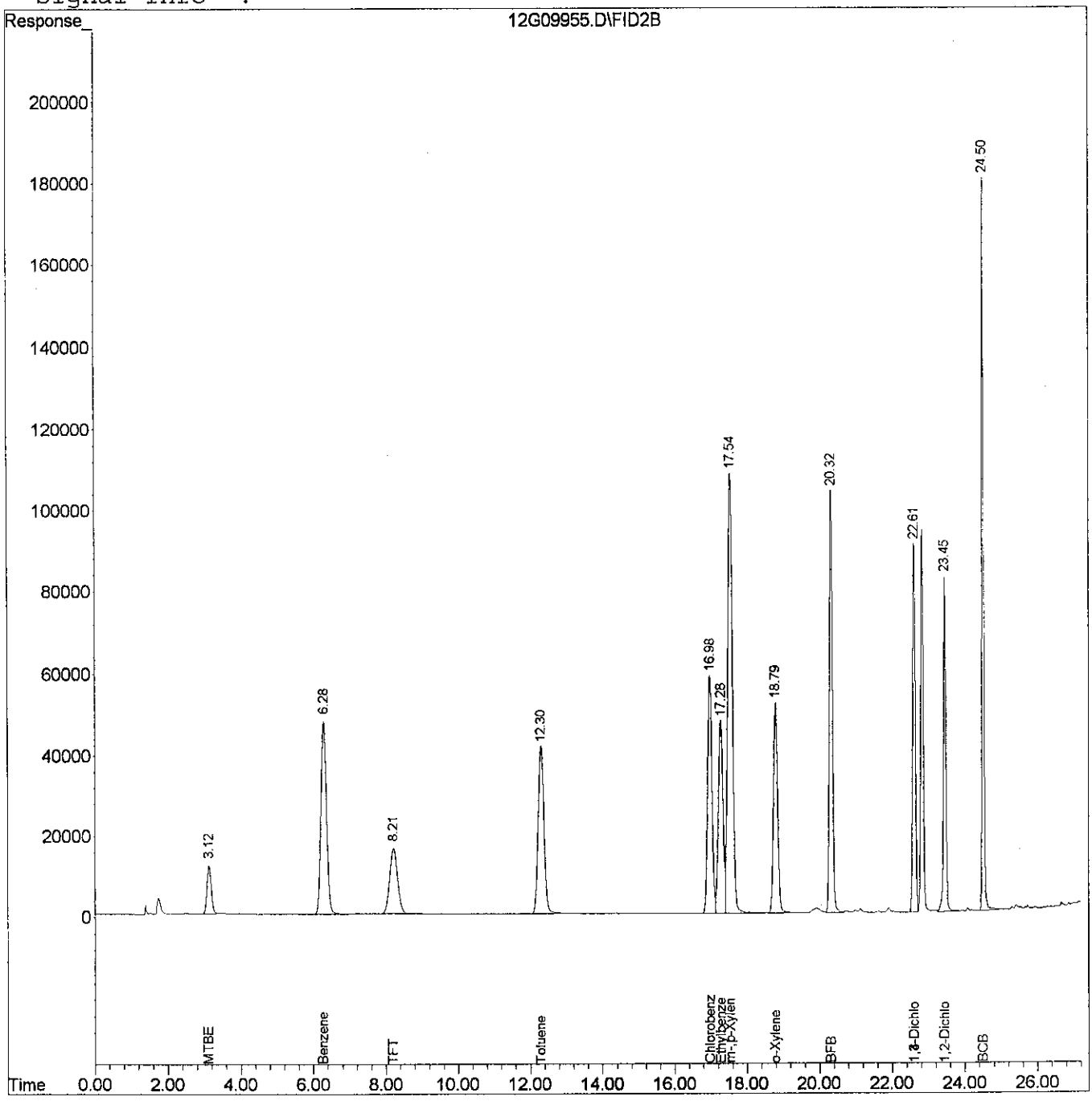
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.20	2461380	29.335 UG/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	97.78%
9) S BFB	20.32	5824577	28.317 UG/L
Spiked Amount 30.000		Recovery =	94.39%
13) S BCB	24.50	5721533	26.680 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	88.93%
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	23.40	436605	~~2.397 UG/L~~

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

Data File : C:\HPCHEM\2\DATA\102501\12G09955.D Vial: 11
Acq On : 25 Oct 2001 11:18 Operator: CBN
Sample : WG107053-04 L0110464-05 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 11:46 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\12G09955.D Vial: 11
Acq On : 25 Oct 2001 11:18 Operator: CBN
Sample : WG107053-04 L0110464-05 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 11:46 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 :

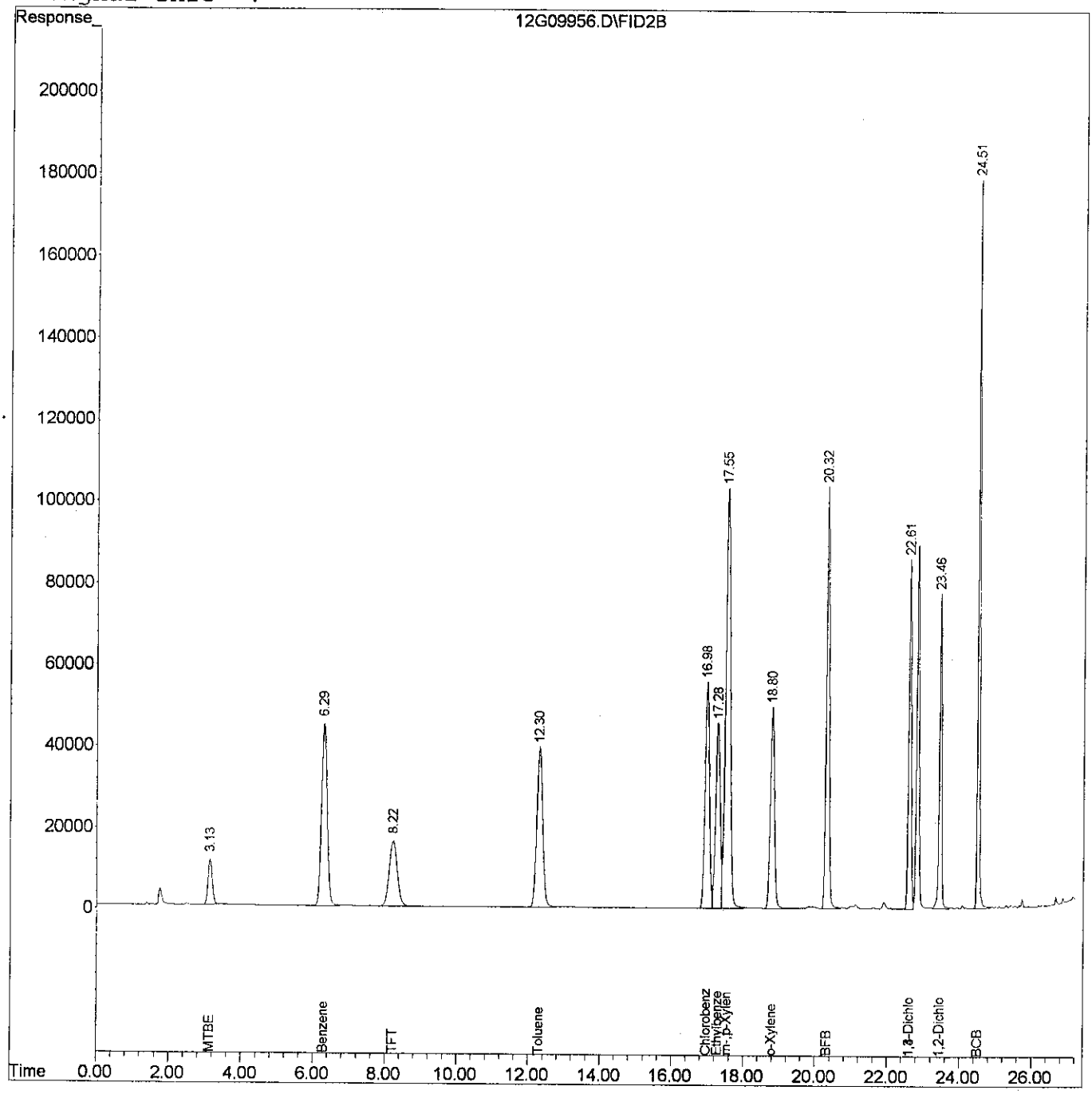
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.21	2502514	29.825 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	99.42%
9) S BFB	20.33	5988171	29.113 UG/L
Spiked Amount 30.000		Recovery =	97.04%
13) S BCB	24.50	5910116	27.559 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	91.86%
Target Compounds			
1) TM MTBE	3.12	971806	18.786 UG/L
2) TM Benzene	6.28	5149070	20.288 UG/L
4) TM Toluene	12.30	4757155	20.162 UG/L
5) TM Chlorobenzene	16.98	4838757	19.869 UG/L
6) TM Ethylbenzene	17.28	4192831	20.622 UG/L
7) TM m-,p-Xylene	17.54	9822536	40.463 UG/L
8) TM o-Xylene	18.79	4157675	20.029 UG/L
10) TM 1,3-Dichlorobenzene	22.61	4403766	20.583 UG/L
11) TM 1,4-Dichlorobenzene	22.61	4403766	20.583 UG/L
12) TM 1,2-Dichlorobenzene	23.46	3755037	20.617 UG/L

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

Data File : C:\HPCHEM\2\DATA\102501\12G09956.D Vial: 12
Acq On : 25 Oct 2001 11:51 Operator: CBN
Sample : WG107053-05 L0110464-06 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 12:18 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\12G09956.D Vial: 12
Acq On : 25 Oct 2001 11:51 Operator: CBN
Sample : WG107053-05 L0110464-06 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 12:18 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 :

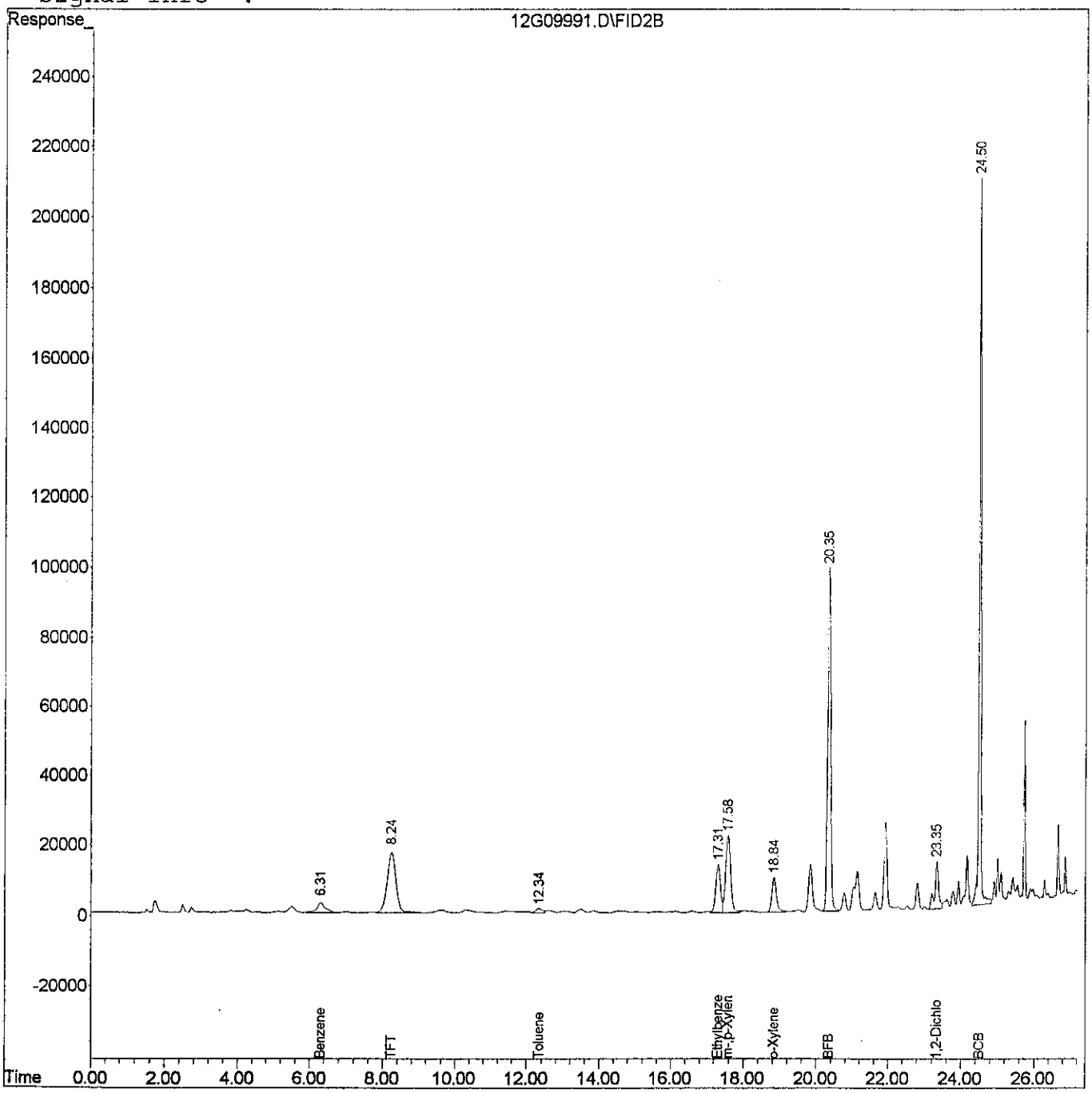
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.22	2525106	30.094 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	100.31%
9) S BFB	20.33	5979908	29.073 UG/L
Spiked Amount 30.000		Recovery =	96.91%
13) S BCB	24.51	5865407	27.351 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	91.17%
Target Compounds			
1) TM MTBE	3.13	916889	17.724 UG/L
2) TM Benzene	6.29	4875501	19.211 UG/L
4) TM Toluene	12.30	4512279	19.124 UG/L
5) TM Chlorobenzene	16.98	4598606	18.883 UG/L
6) TM Ethylbenzene	17.28	3998306	19.665 UG/L
7) TM m-,p-Xylene	17.55	9391848	38.689 UG/L
8) TM o-Xylene	18.80	3971164	19.130 UG/L
10) TM 1,3-Dichlorobenzene	22.61	4181608	19.545 UG/L
11) TM 1,4-Dichlorobenzene	22.61	4181608	19.545 UG/L
12) TM 1,2-Dichlorobenzene	23.46	3507026	19.255 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int
12G09956.D 8021W.M Thu Oct 25 12:18:58 2001 Page 1

Acq On : 26 Oct 2001 16:56 Operator: CBN
Sample : L0110464-07 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 26 17:23 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 :



Acq On : 26 Oct 2001 16:56 Operator: CBN
Sample : L0110464-07 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 26 17:23 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	8.24	2980686	35.524 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	118.41%
9) S BFB	20.35	5774515	28.074 UG/L
Spiked Amount 30.000		Recovery =	93.58%
13) S BCB	24.51	7424768	34.622 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	115.41%
Target Compounds			
1) TM MTBE	0.00	0	N.D. UG/L
2) TM Benzene	6.30	483108	1.904 UG/L
4) TM Toluene	12.33	159103	0.674 UG/L F
5) TM Chlorobenzene	17.01	34926	<MDL UG/L
6) TM Ethylbenzene	17.31	1224306	6.022 UG/L
7) TM m-,p-Xylene	17.59	2067336	8.516 UG/L
8) TM o-Xylene	18.84	880081	4.240 UG/L
10) TM 1,3-Dichlorobenzene	22.53	75219	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.53	75219	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.35	991871	5.446 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09991.D 8021W.M Fri Oct 26 17:23:59 2001 Page 1

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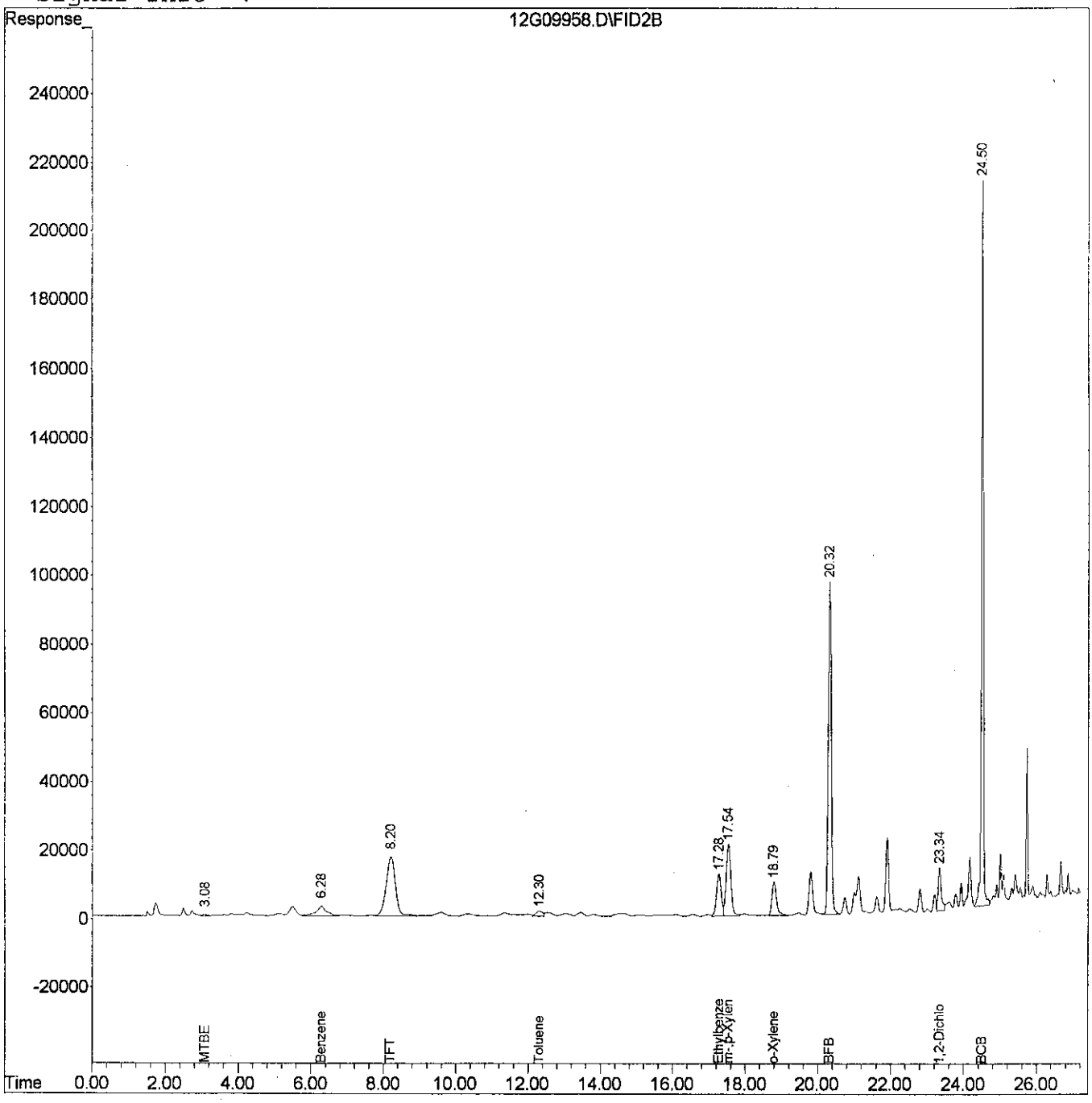
Data File : C:\HPCHEM\2\DATA\102501\12G09958.D Vial: 14
Acq On : 25 Oct 2001 12:56 Operator: CBN
Sample : L0110464-08 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 13:23 2001 Quant Results File: 8021W.RES

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 :



Data File : C:\HPCHEM\2\DATA\102501\12G09958.D Vial: 14
Acq On : 25 Oct 2001 12:56 Operator: CBN
Sample : L0110464-08 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 13:23 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 :

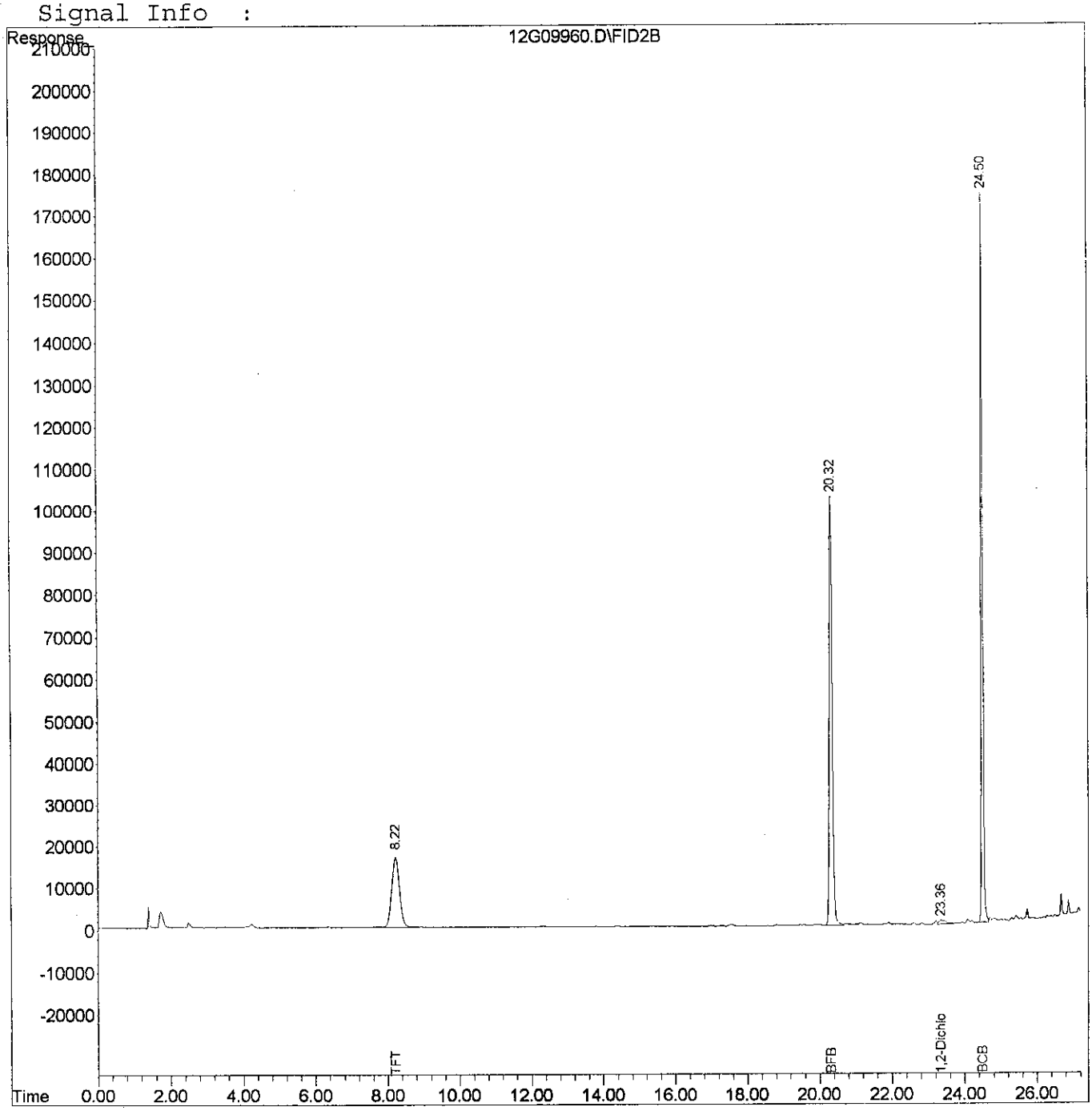
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.20	3199228	38.128 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	127.09%
9) S BFB	20.32	5628780	27.366 UG/L
Spiked Amount 30.000		Recovery =	91.22%
13) S BCB	24.50	7358353	34.312 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	114.37%
Target Compounds			
1) TM MTBE	3.08	34534	0.668 UG/L
2) TM Benzene	6.28	588727	2.320 UG/L
4) TM Toluene	12.31	200061	0.848 UG/L
5) TM Chlorobenzene	16.99	51152	<MDL UG/L
6) TM Ethylbenzene	17.28	1101299	5.417 UG/L
7) TM m-,p-Xylene	17.54	1928262	7.943 UG/L
8) TM o-Xylene	18.80	876984	4.225 UG/L
10) TM 1,3-Dichlorobenzene	22.52	79372	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.52	79372	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.34	754939	4.145 UG/L

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

Data File : C:\HPCHEM\2\DATA\102501\12G09960.D Vial: 23
Acq On : 25 Oct 2001 14:08 Operator: CBN
Sample : L0110464-09 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 14:35 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\12G09960.D Vial: 23
Acq On : 25 Oct 2001 14:08 Operator: CBN
Sample : L0110464-09 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 14:35 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 :

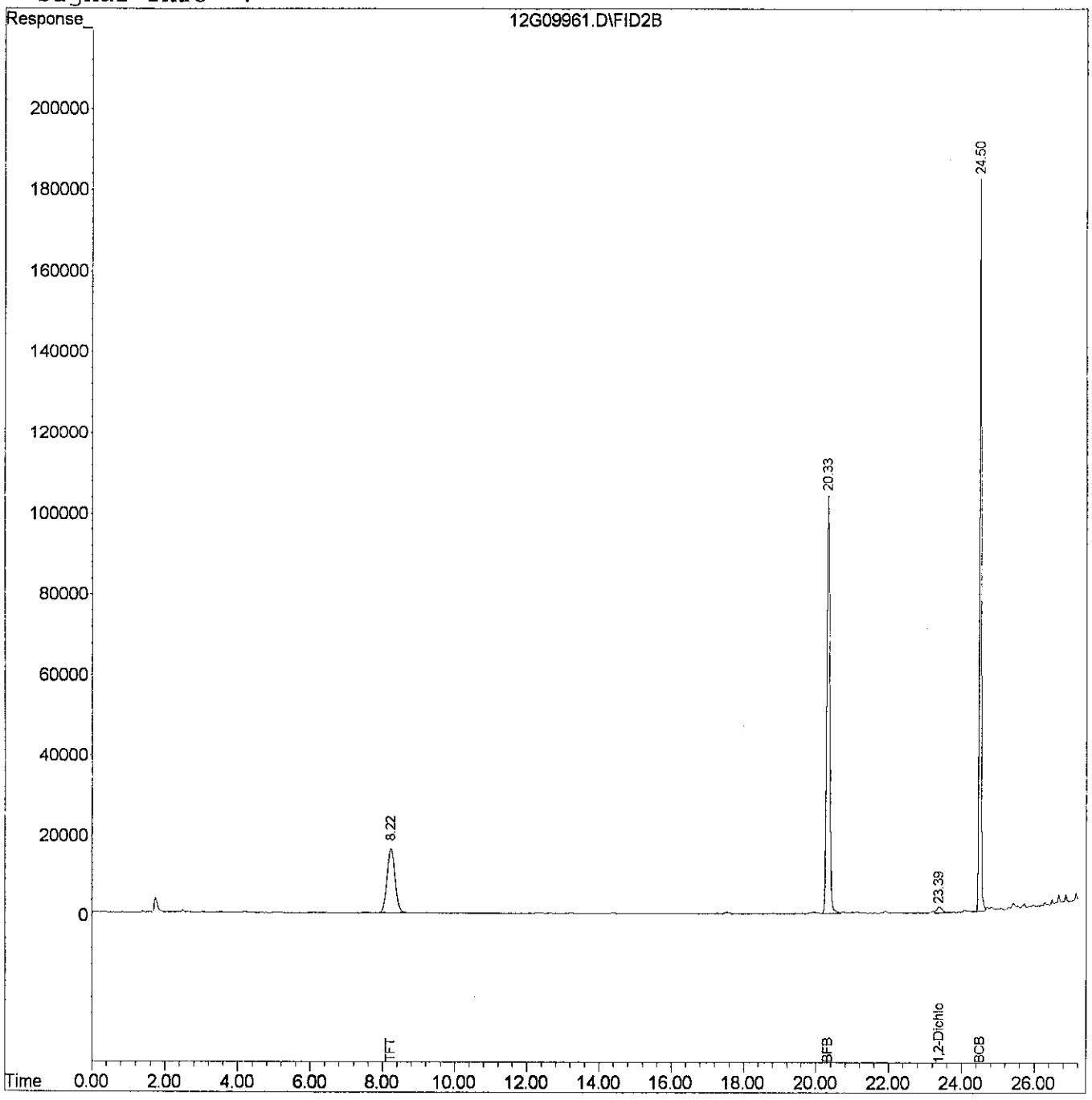
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.22	2527928	30.128 UG/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	100.43%
9) S BFB	20.33	5883114	28.602 UG/L
Spiked Amount 30.000		Recovery =	95.34%
13) S BCB	24.50	5746117	26.794 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	89.31%
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	15168	<MDL UG/L
6) TM Ethylbenzene	0.00	0	N.D. UG/L
7) TM m-,p-Xylene	17.55	33205	<MDL UG/L
8) TM o-Xylene	0.00	0	N.D. UG/L
10) TM 1,3-Dichlorobenzene	22.60	18226	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.60	18226	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.35	124079	~~0.681 UG/L~~

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

Data File : C:\HPCHEM\2\DATA\102501\12G09961.D Vial: 24
Acq On : 25 Oct 2001 14:41 Operator: CBN
Sample : L0110464-10 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 15:08 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 11:08:36 2001
Response via : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\102501\12G09961.D Vial: 24
Acq On : 25 Oct 2001 14:41 Operator: CBN
Sample : L0110464-10 A 5ML pH<2 Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 25 15:08 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 11:08:36 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	2496550	29.754 UG/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	99.18%
9) S BFB	20.33	5966209	29.006 UG/L
Spiked Amount 30.000		Recovery =	96.69%
13) S BCB	24.50	5978721	27.879 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	92.93%
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	17.56	30238	<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	23.39	161911	~~0.889 UG/L~~

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

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

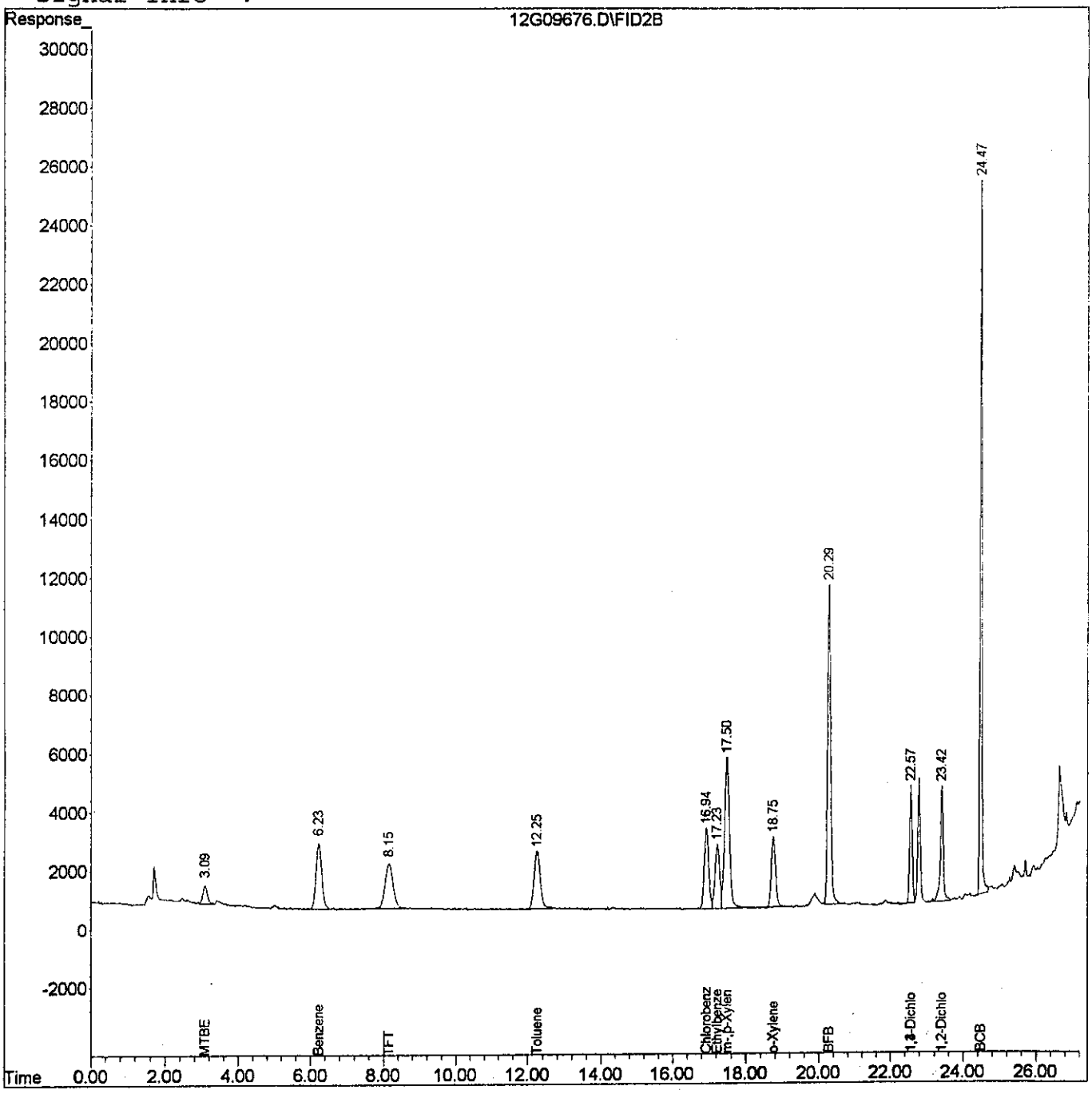
		Compound	1	10	20	50	100	200	Avg		%RS
1)	TM	MTBE	5.501	5.055	5.309	4.819	5.339	5.014	5.173	E4	4.8
2)	TM	Benzene	2.434	2.628	2.609	2.515	2.531	2.510	2.538	E5	2.8
3)	S	TFT	7.849	8.485	8.473	8.349	8.569	8.620	8.391	E4	3.3
4)	TM	Toluene	2.310	2.417	2.431	2.333	2.353	2.313	2.359	E5	2.2
5)	TM	Chlorobenzene	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 :

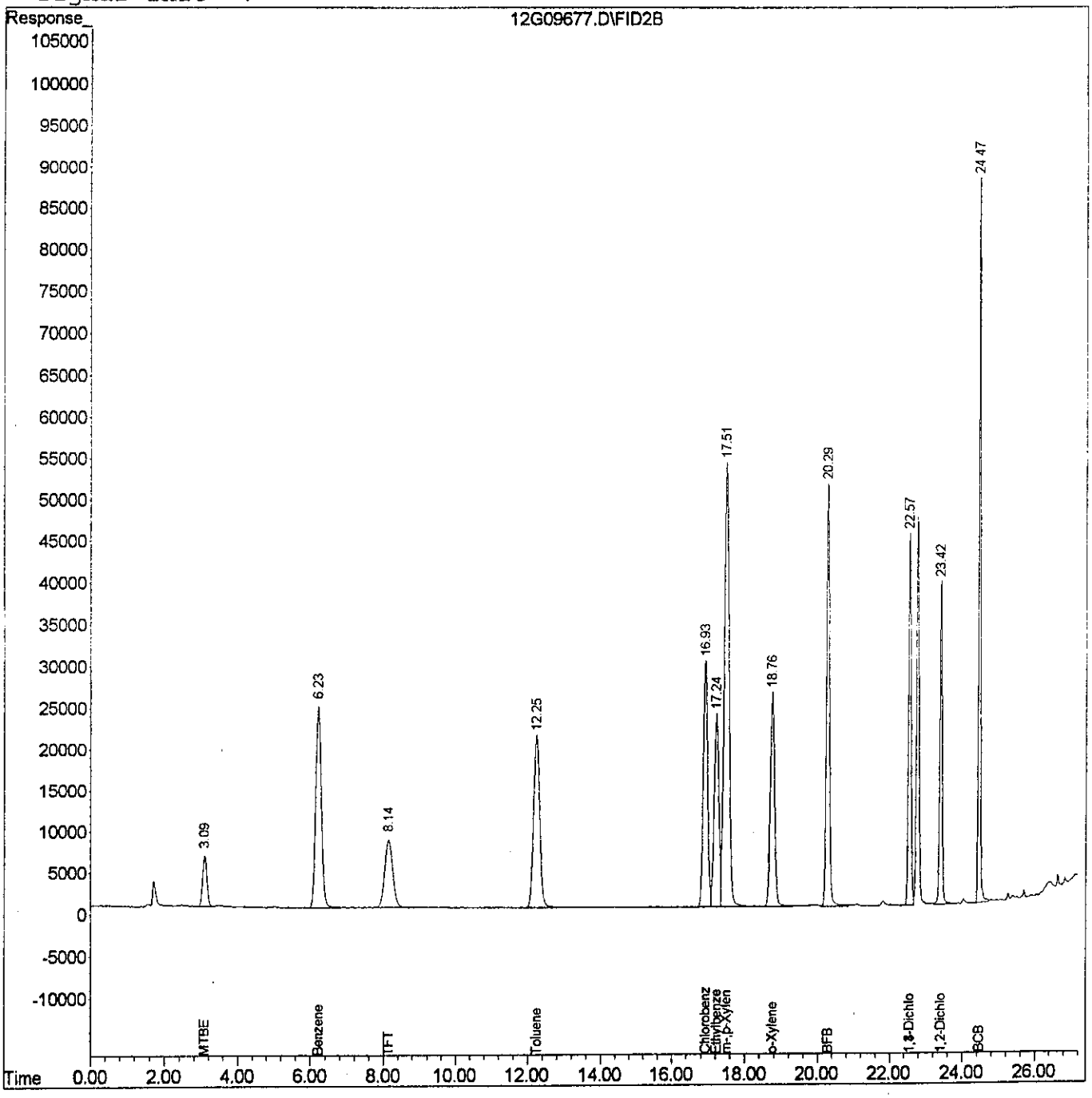
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.15	235472	3.188 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	10.63%#
9) S BFB	20.29	658079	3.582 UG/L
Spiked Amount 30.000		Recovery =	11.94%
13) S BCB	24.47	830956	4.341 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	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.

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 :

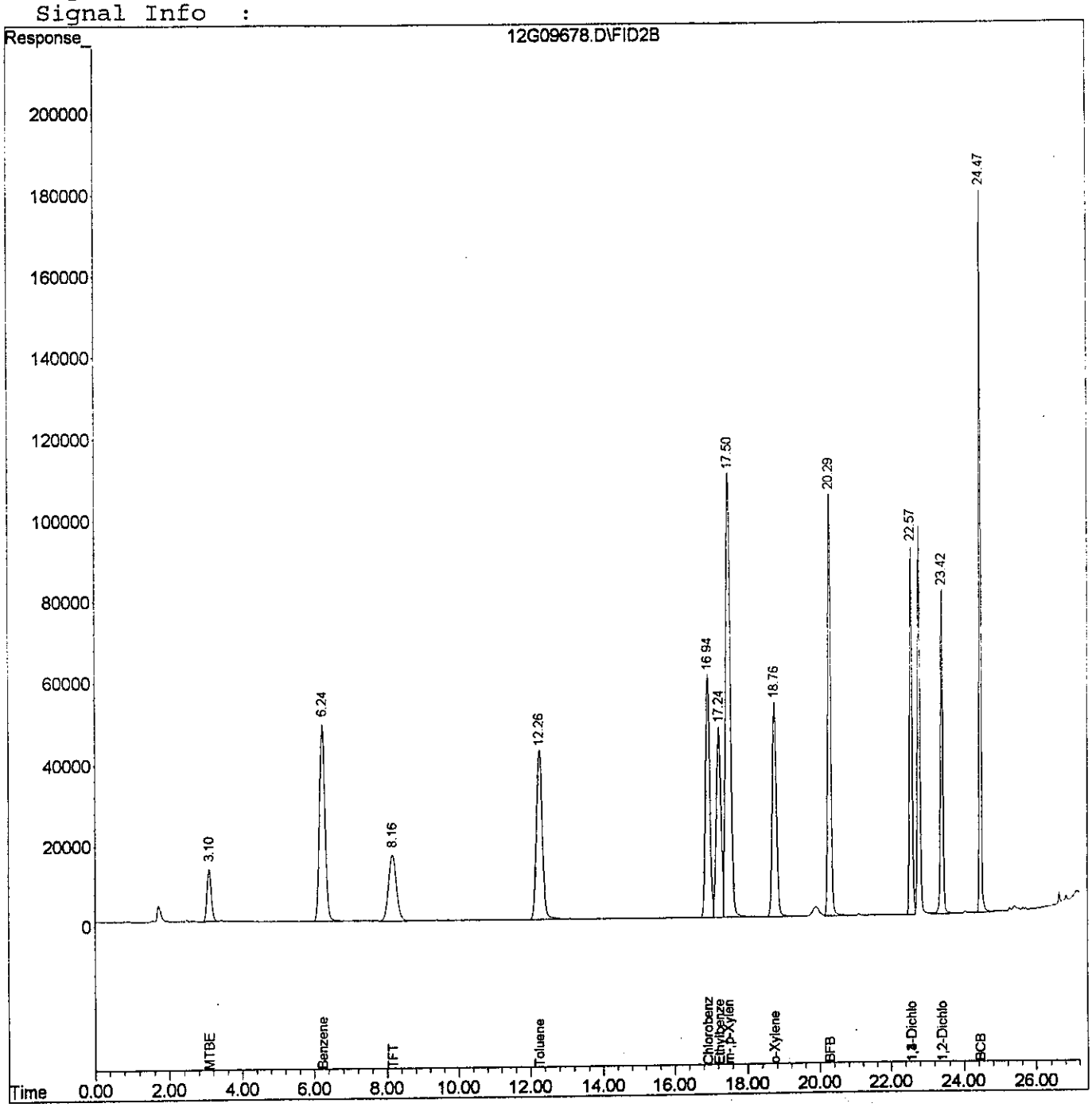
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.15	1272756	15.696 UG/L
Spiked Amount 30.000 Range 70 - 130	Recovery =	52.32%#	
9) S BFB	20.29	3032370	14.548 UG/L
Spiked Amount 30.000	Recovery =	48.49%	
13) S BCB	24.48	2923603	12.902 UG/L
Spiked Amount 30.000 Range 37 - 137	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: 25
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 :

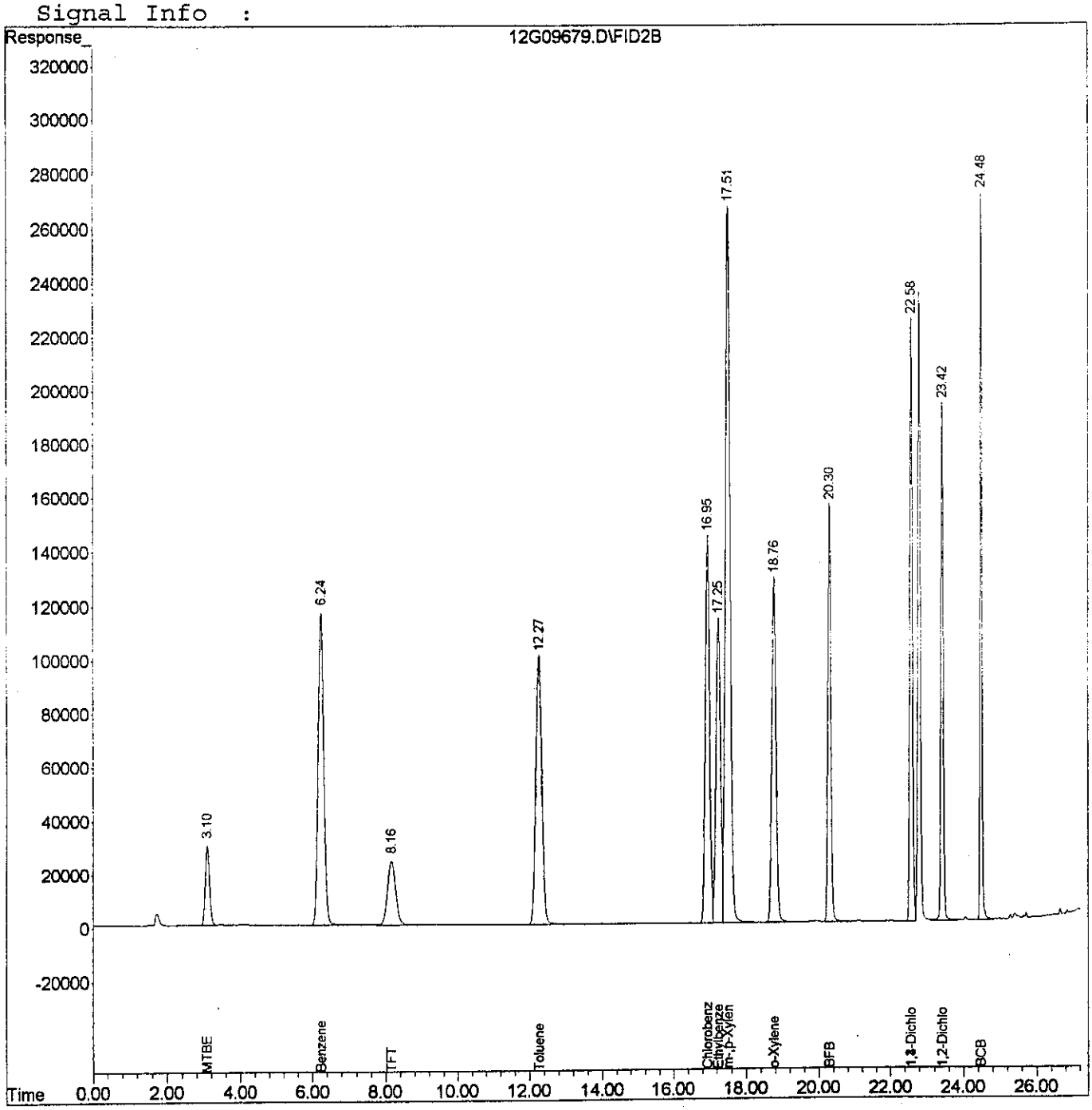
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.16	2541771	30.636 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery = 102.12%	
9) S BFB	20.29	6070676	29.570 UG/L
Spiked Amount 30.000		Recovery = 98.57%	
13) S BCB	24.47	5942809	28.198 UG/L
Spiked Amount 30.000	Range 37 - 137	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 Page 14

Data File : C:\HPCHEM\2\DATA\100301\12G09679.D Vial: 21
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

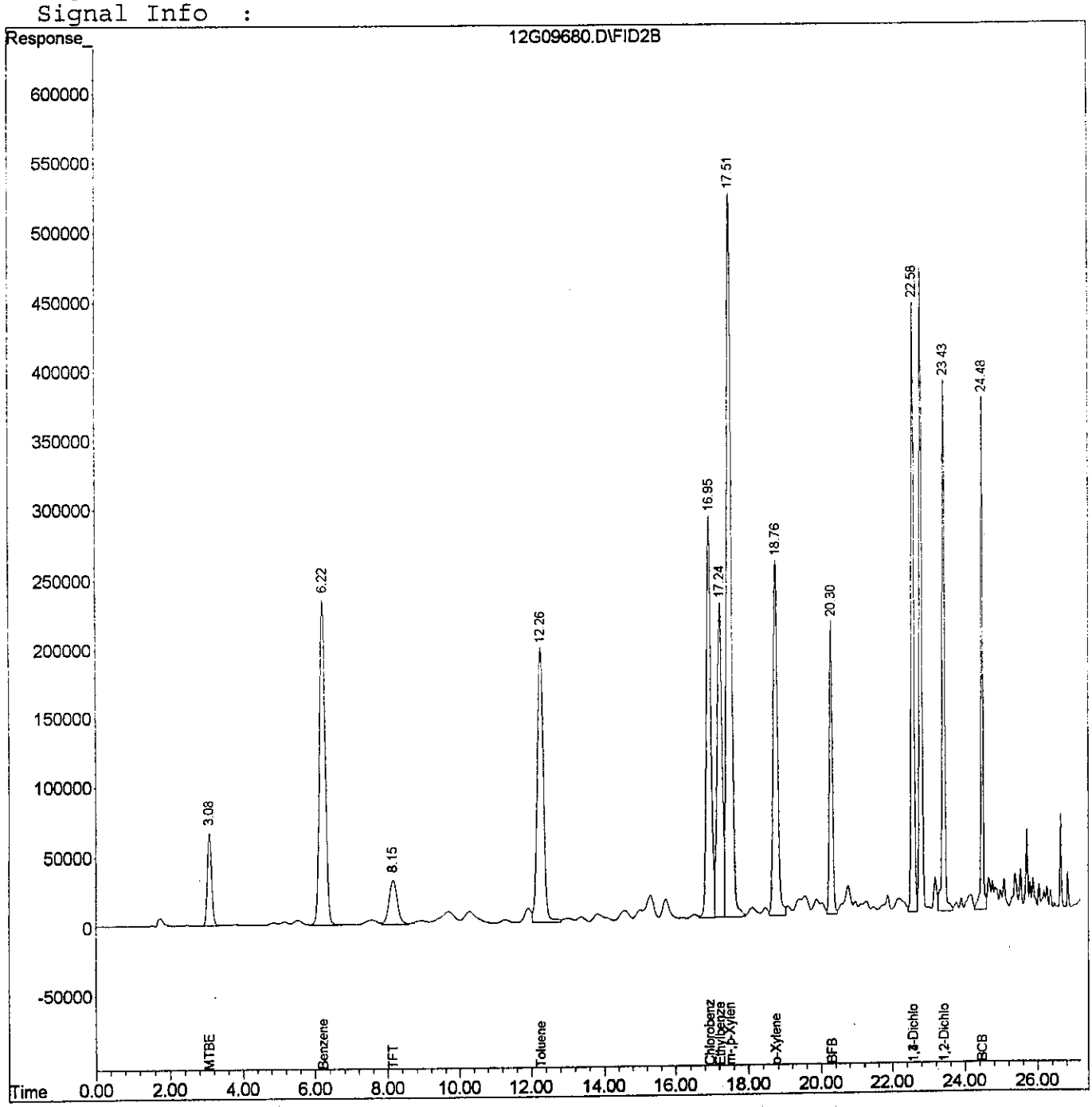
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\100301\12G09680.D
Acq On : 3 Oct 2001 10:07
Sample : WG105716-05 8021 STD5 100PPB 5ML
Misc : 1,1 S-84-(17,38)
IntFile : autoint1.e
Quant Time: Oct 3 11:07 2001 Quant Results File: 8021W.RES

Vial: 25
Operator: CBN
Inst : HP12
Multiplr: 1.00

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 :

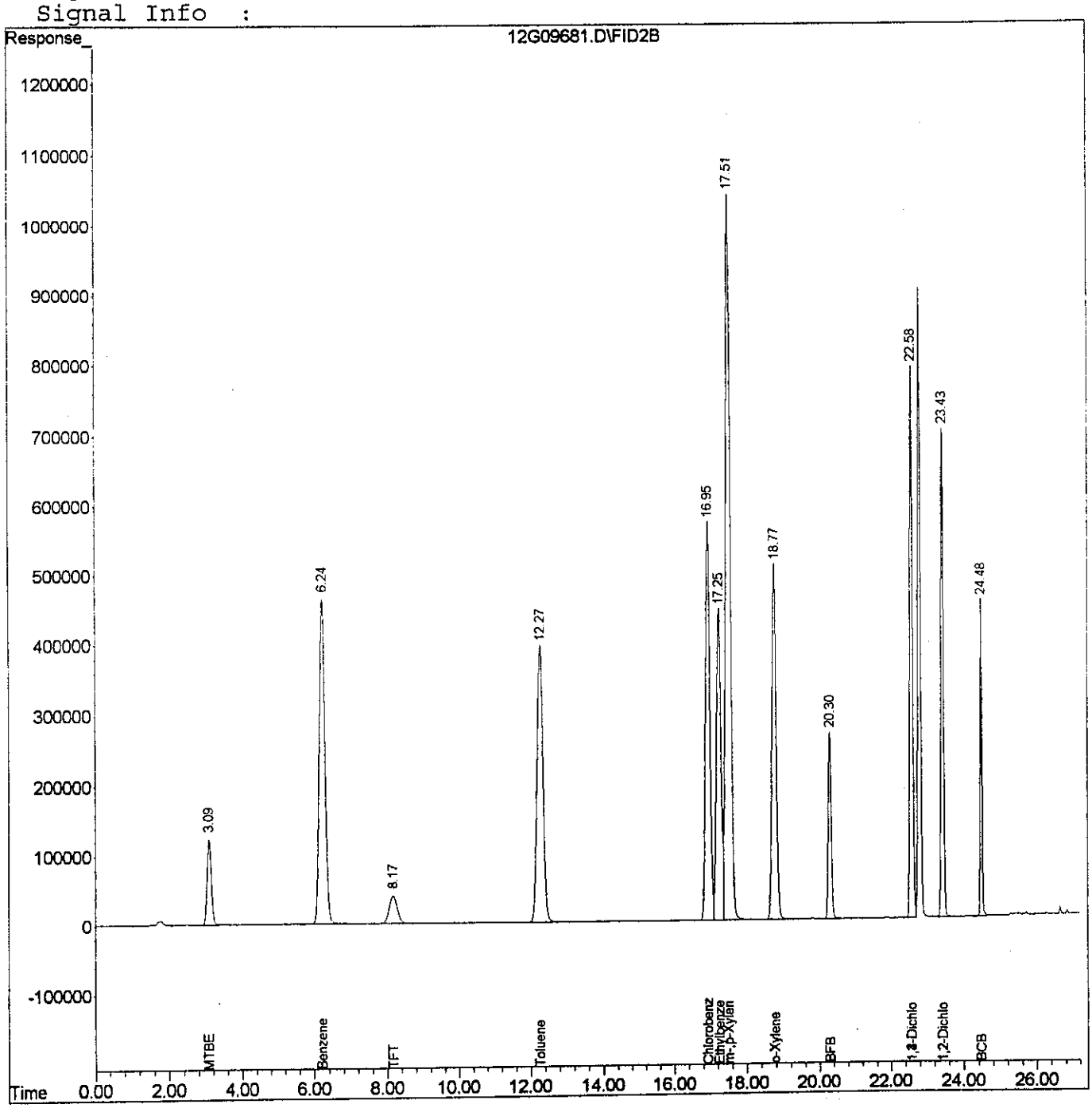
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.15	5141306	61.545 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery = 205.15%#	
9) S BFB	20.30	12316488	60.538 UG/L
Spiked Amount 30.000		Recovery = 201.79%	
13) S BCB	24.48	13132671	64.223 UG/L
Spiked Amount 30.000	Range 37 - 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: 50
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
Acq On : 3 Oct 2001 10:39
Sample : WG105716-06 8021 STD6 200PPB 5ML
Misc : 1,1 S-84-(17,38)
IntFile : autoint1.e
Quant Time: Oct 3 11:08 2001 Quant Results File: 8021W.RES

Vial: 30
Operator: CBN
Inst : HP12
Multiplr: 1.00

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

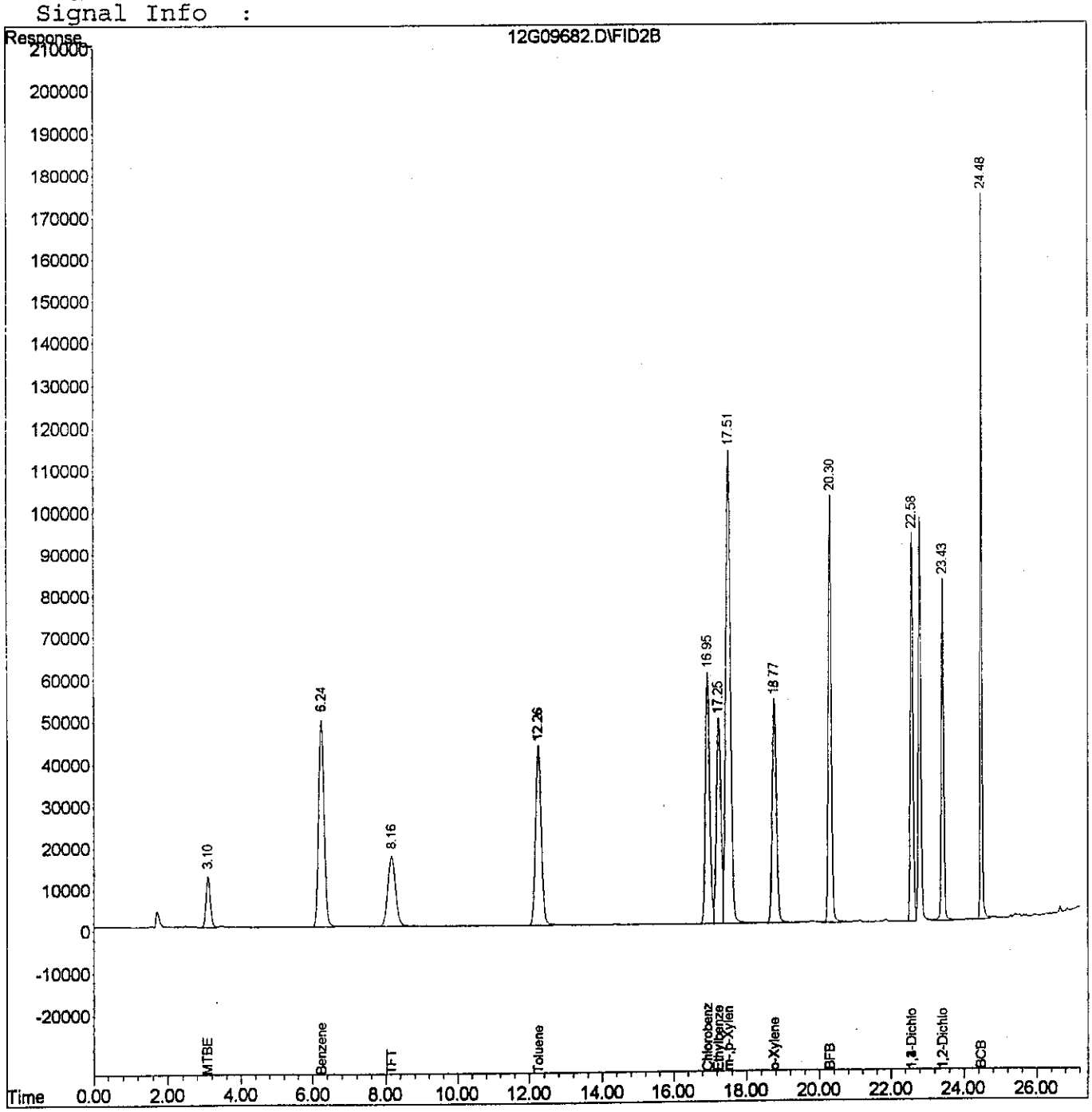
(f)=RT Delta > 1/2 Window
(m)=manual int.

Data File : C:\HPCHEM\2\DATA\100301\12G09682.D
Acq On : 3 Oct 2001 11:20
Sample : WG105716-07 ALT SOURCE 20PPB 5ML
Misc : 1,1 S-(85-01,84-38)
IntFile : autoint1.e
Quant Time: Oct 3 11:53 2001 Quant Results File: 8021W.RES

Vial: 31
Operator: CBN
Inst : HP12
Multiplr: 1.00

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

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(f)=RT Delta > 1/2 Window (m)=manual RT
12G09682.D 8021W.M Wed Oct 03 12:56:57 2001 Page 1

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

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

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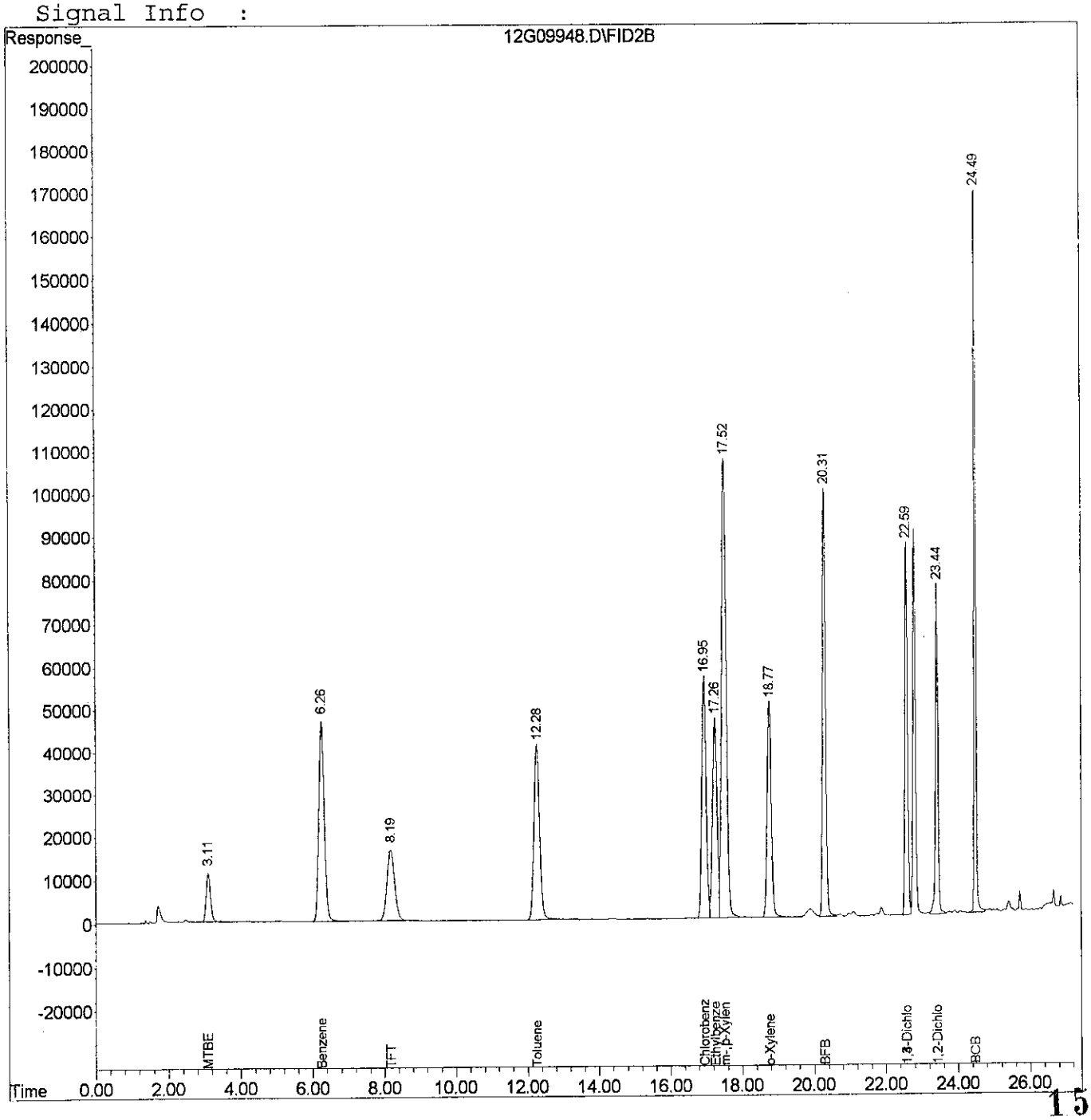
(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09948.D 8021W.M Thu Oct 25 09:31:22 2001 Page 1

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
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
Quant Time: Oct 25 7:51 2001 Quant Results File: 8021W.RES

Vial: 11
Operator: CBN
Inst : HP12
Multiplr: 1.00

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

Data File : C:\HPCHEM\2\DATA\102501\12G09959.D
Acq On : 25 Oct 2001 13:29
Sample : WG107052-02 8021 STD 20PPB 5ML
Misc : 1,1 S-(85-01,86-08)
IntFile : autoint1.e

Vial: 15
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%

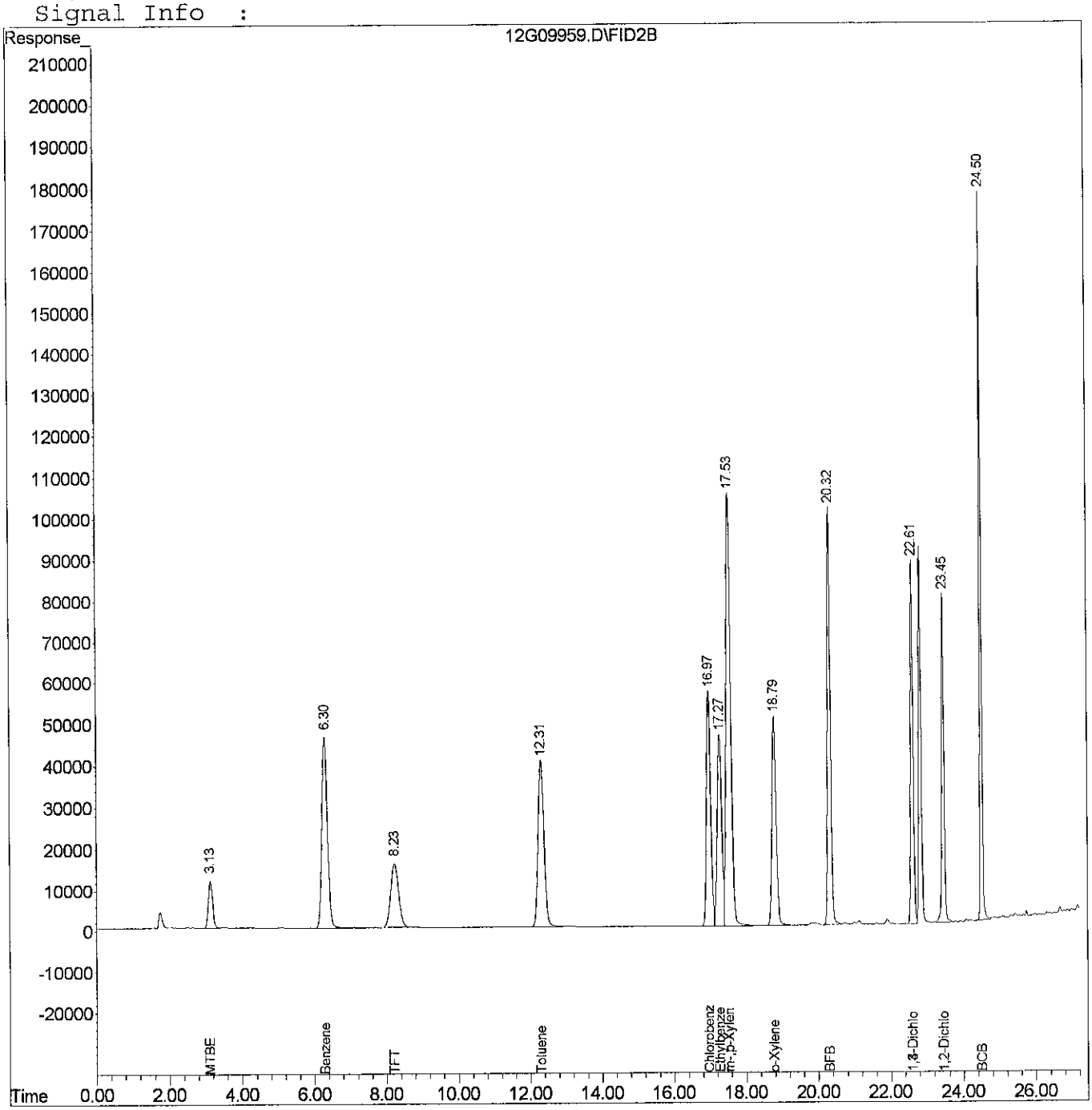
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.488	7.6	90	0.03
2	TM	Benzene	20.000	19.631	1.8	95	0.05
3	S	TFT	30.000	28.835	3.9	95	0.06
4	TM	Toluene	20.000	19.436	2.8	94	0.04
5	TM	Chlorobenzene	20.000	19.202	4.0	94	0.03
6	TM	Ethylbenzene	20.000	19.883	0.6	97	0.03
7	TM	m-,p-Xylene	40.000	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

Data File : C:\HPCHEM\2\DATA\102501\12G09959.D
Acq On : 25 Oct 2001 13:29
Sample : WG107052-02 8021 STD 20PPB 5ML
Misc : 1,1 S-(85-01,86-08)
IntFile : autoint1.e
Quant Time: Oct 25 12:56 2001 Quant Results File: 8021W.RES

Vial: 15
Operator: CBN
Inst : HP12
Multiplr: 1.00

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 12:56 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

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09959.D 8021W.M Tue Oct 30 15:14:52 2001 Page: 1

Data File : C:\HPCHEM\2\DATA\102501\12G09970.D
Acq On : 25 Oct 2001 19:32
Sample : WG107052-03 8021 STD 20PPB 5ML
Misc : 1,1 S-(85-01,86-08)
IntFile : autoint1.e

Vial: 32
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	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

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(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09970.D 8021W.M Fri Oct 26 07:02:10 2001 Page 1

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

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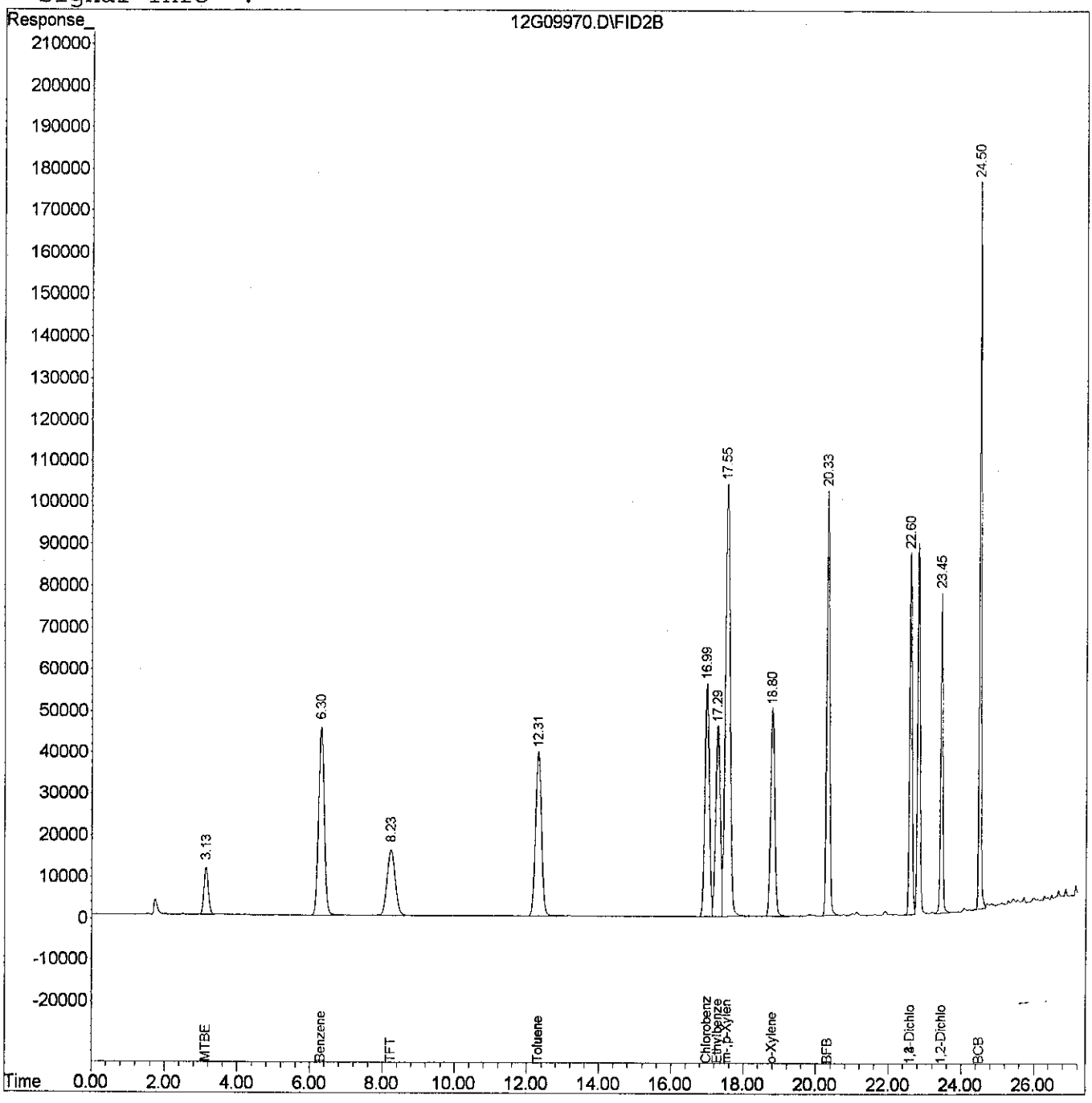
(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09970.D 8021W.M Fri Oct 26 07:02:12 2001 Page 1

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 :



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Data File : C:\HPCHEM\2\DATA\102501\12G09970.D
Acq On : 25 Oct 2001 19:32
Sample : WG107052-03 8021 STD 20PPB 5ML
Misc : 1,1 S-(85-01,86-08)
IntFile : autoint1.e
Quant Time: Oct 25 19:59 2001 Quant Results File: 8021W.RES

Vial: 32
Operator: CBN
Inst : HP12
Multiplr: 1.00

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

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

Acq On : 26 Oct 2001 7:03 Operator: CBN
Sample : WG107135-01 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	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	TM	MTBE	51.731	49.063	E3	5.2	92	0.01
2	TM	Benzene	253.793	254.087	E3	-0.1	97	0.04
3	S	TFT	83.907	84.507	E3	-0.7	100	0.05
4	TM	Toluene	235.945	236.589	E3	-0.3	97	0.03
5	TM	Chlorobenzene	243.529	236.347	E3	2.9	95	0.03
6	TM	Ethylbenzene	203.317	208.166	E3	-2.4	100	0.03
7	TM	m-,p-Xylene	242.754	242.672	E3	0.0	97	0.03
8	TM	o-Xylene	207.586	204.253	E3	1.6	95	0.03
9	S	BFB	205.689	195.097	E3	5.1	96	0.03
10	TM	1,3-Dichlorobenzene	213.949	213.659	E3	0.1	96	0.02
11	TM	1,4-Dichlorobenzene	213.949	213.659	E3	0.1	96	0.02
12	TM	1,2-Dichlorobenzene	182.136	171.381	E3	5.9	94	0.02
13	S	BCB	214.453	189.833	E3	11.5	96	0.02

165

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09976.D 8021W.M Fri Oct 26 09:51:58 2001 Page 1

Acq On : 26 Oct 2001 7:03 Operator: CBN
Sample : WG107135-01 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

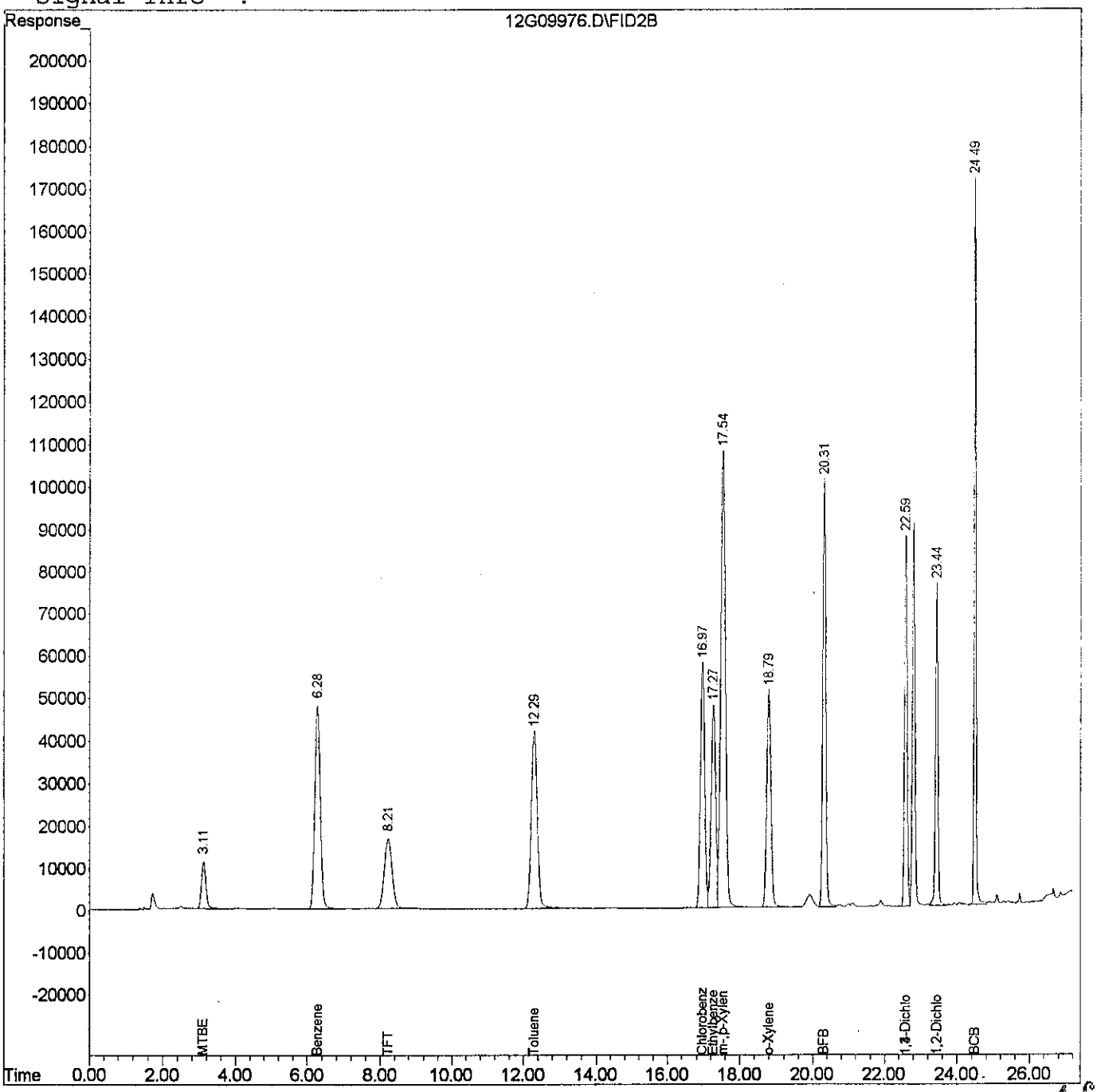
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.969	5.2	92	0.01
2	TM	Benzene	20.000	20.023	-0.1	97	0.04
3	S	TFT	30.000	30.214	-0.7	100	0.05
4	TM	Toluene	20.000	20.055	-0.3	97	0.03
5	TM	Chlorobenzene	20.000	19.410	2.9	95	0.03
6	TM	Ethylbenzene	20.000	20.477	-2.4	100	0.03
7	TM	m-,p-Xylene	40.000	39.987	0.0	97	0.03
8	TM	o-Xylene	20.000	19.679	1.6	95	0.03
9	S	BFB	30.000	28.455	5.2	96	0.03
10	TM	1,3-Dichlorobenzene	20.000	19.973	0.1	96	0.02
11	TM	1,4-Dichlorobenzene	20.000	19.973	0.1	96	0.02
12	TM	1,2-Dichlorobenzene	20.000	18.819	5.9	94	0.02
13	S	BCB	30.000	26.556	11.5	96	0.02

Acq On : 26 Oct 2001 7:03 Operator: CBN
Sample : WG107135-01 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 26 7:31 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 :



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Acq On : 26 Oct 2001 7:03 Operator: CBN
Sample : WG107135-01 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 26 7:31 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	2535204	30.214 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	100.71%
9) S BFB	20.32	5852922	28.455 UG/L
Spiked Amount 30.000		Recovery =	94.85%
13) S BCB	24.49	5694994	26.556 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	88.52%
Target Compounds			
1) TM MTBE	3.11	981262	18.969 UG/L
2) TM Benzene	6.28	5081741	20.023 UG/L
4) TM Toluene	12.30	4731784	20.055 UG/L
5) TM Chlorobenzene	16.97	4726947	19.410 UG/L
6) TM Ethylbenzene	17.27	4163327	20.477 UG/L
7) TM m-,p-Xylene	17.54	9706878	39.987 UG/L
8) TM o-Xylene	18.79	4085055	19.679 UG/L
10) TM 1,3-Dichlorobenzene	22.59	4273182	19.973 UG/L
11) TM 1,4-Dichlorobenzene	22.59	4273182	19.973 UG/L
12) TM 1,2-Dichlorobenzene	23.44	3427624	18.819 UG/L

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(f)=RT Delta > 1/2 Window (m)=manual int.
12G09976.D 8021W.M Fri Oct 26 07:31:15 2001 Page 1

Acq On : 26 Oct 2001 13:08 Operator: CBN
Sample : WG107135-02 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	44.487	E3	14.0	84	0.03
2	TM	Benzene	253.793	241.449	E3	4.9	93	0.05
3	S	TFT	83.907	80.267	E3	4.3	95	0.06
4	TM	Toluene	235.945	224.496	E3	4.9	92	0.04
5	TM	Chlorobenzene	243.529	229.179	E3	5.9	92	0.04
6	TM	Ethylbenzene	203.317	197.671	E3	2.8	95	0.04
7	TM	m-,p-Xylene	242.754	231.873	E3	4.5	93	0.04
8	TM	o-Xylene	207.586	196.131	E3	5.5	91	0.04
9	S	BFB	205.689	192.724	E3	6.3	95	0.04
10	TM	1,3-Dichlorobenzene	213.949	205.428	E3	4.0	92	0.03
11	TM	1,4-Dichlorobenzene	213.949	205.428	E3	4.0	92	0.03
12	TM	1,2-Dichlorobenzene	182.136	178.610	E3	1.9	98	0.03
13	S	BCB	214.453	188.465	E3	12.1	95	0.03

1-6-9

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12G09987.D 8021W.M Fri Oct 26 13:45:46 2001 Page 1

Data File : C:\HPCHEM\2\DATA\102601\12G09987.D Vial: 15
Acq On : 26 Oct 2001 13:08 Operator: CBN
Sample : WG107135-02 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%

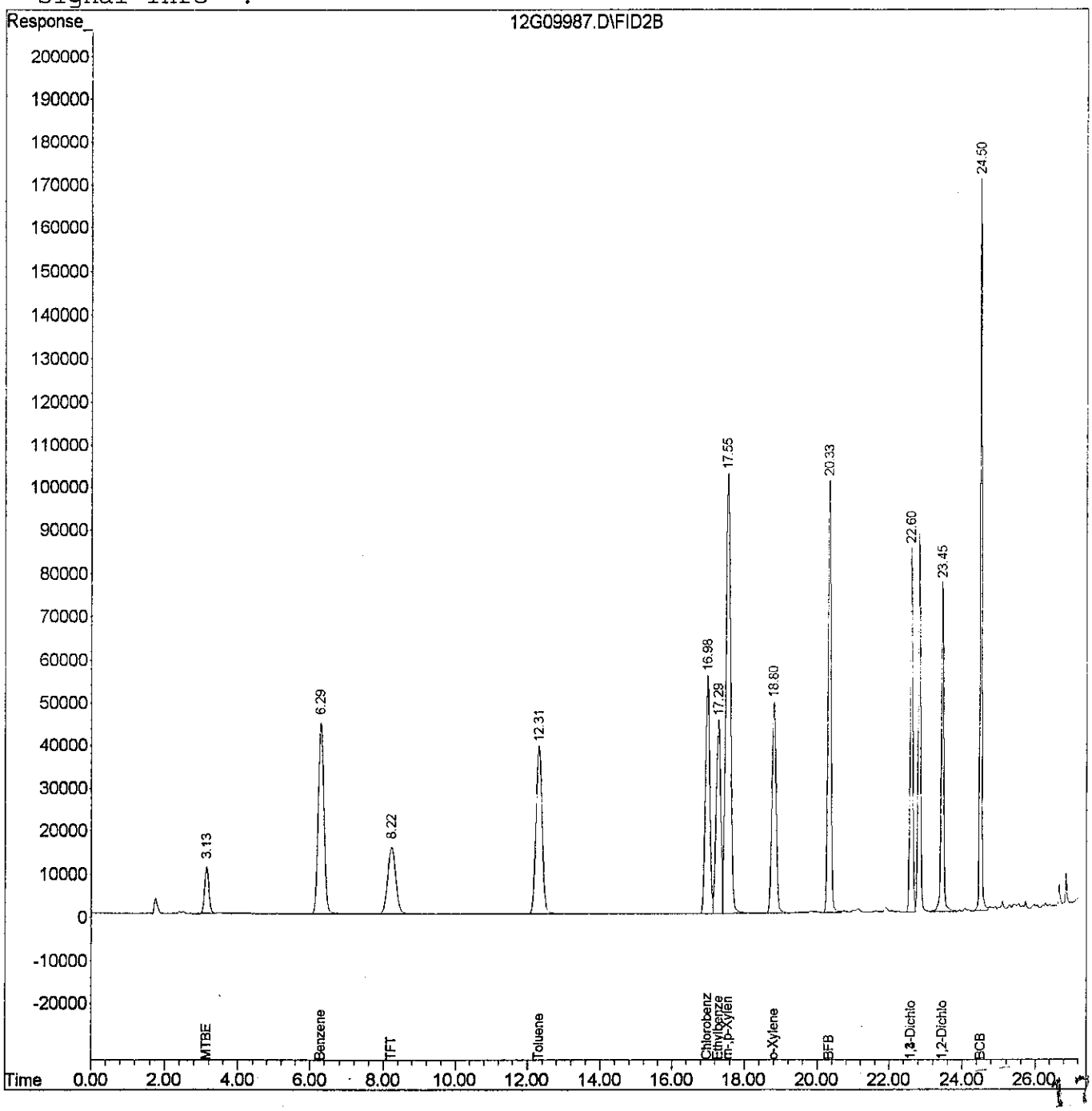
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	17.199	14.0	84	0.03
2	TM	Benzene	20.000	19.027	4.9	93	0.05
3	S	TFT	30.000	28.698	4.3	95	0.06
4	TM	Toluene	20.000	19.029	4.9	92	0.04
5	TM	Chlorobenzene	20.000	18.822	5.9	92	0.04
6	TM	Ethylbenzene	20.000	19.445	2.8	95	0.04
7	TM	m-,p-Xylene	40.000	38.207	4.5	93	0.04
8	TM	o-Xylene	20.000	18.896	5.5	91	0.04
9	S	BFB	30.000	28.109	6.3	95	0.04
10	TM	1,3-Dichlorobenzene	20.000	19.203	4.0	92	0.03
11	TM	1,4-Dichlorobenzene	20.000	19.203	4.0	92	0.03
12	TM	1,2-Dichlorobenzene	20.000	19.613	1.9	98	0.03
13	S	BCB	30.000	26.365	12.1	95	0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0 170
12G09987.D 8021W.M Fri Oct 26 13:45:43 2001 Page 1

Data File : C:\HPCHEM\2\DATA\102601\12G09987.D Vial: 15
Acq On : 26 Oct 2001 13:08 Operator: CBN
Sample : WG107135-02 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 26 13:35 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 :



Acq On : 26 Oct 2001 13:08 Operator: CBN
Sample : WG107135-02 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 26 13:35 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	2407997	28.698 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	95.66%
9) S BFB	20.33	5781727	28.109 UG/L
Spiked Amount 30.000		Recovery =	93.70%
13) S BCB	24.50	5653954	26.365 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	87.88%
Target Compounds			
1) TM MTBE	3.13	889730	17.199 UG/L
2) TM Benzene	6.29	4828980	19.027 UG/L
4) TM Toluene	12.31	4489914	19.029 UG/L
5) TM Chlorobenzene	16.98	4583588	18.822 UG/L
6) TM Ethylbenzene	17.28	3953430	19.445 UG/L
7) TM m-,p-Xylene	17.55	9274939	38.207 UG/L
8) TM o-Xylene	18.80	3922612	18.896 UG/L
10) TM 1,3-Dichlorobenzene	22.60	4108556	19.203 UG/L
11) TM 1,4-Dichlorobenzene	22.60	4108556	19.203 UG/L
12) TM 1,2-Dichlorobenzene	23.45	3572207	19.613 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09987.D 8021W.M Fri Oct 26 13:35:19 2001 Page 1

Acq On : 26 Oct 2001 20:43 Operator: CBN
Sample : WG107135-03 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	46.681	E3	9.8	88	0.03
2	TM	Benzene	253.793	246.997	E3	2.7	95	0.05
3	S	TFT	83.907	83.674	E3	0.3	99	0.07
4	TM	Toluene	235.945	229.707	E3	2.6	94	0.05
5	TM	Chlorobenzene	243.529	232.862	E3	4.4	94	0.05
6	TM	Ethylbenzene	203.317	202.477	E3	0.4	98	0.05
7	TM	m-,p-Xylene	242.754	237.453	E3	2.2	95	0.05
8	TM	o-Xylene	207.586	200.998	E3	3.2	94	0.05
9	S	BFB	205.689	196.179	E3	4.6	97	0.04
10	TM	1,3-Dichlorobenzene	213.949	207.780	E3	2.9	93	0.04
11	TM	1,4-Dichlorobenzene	213.949	207.780	E3	2.9	93	0.04
12	TM	1,2-Dichlorobenzene	182.136	174.065	E3	4.4	95	0.04
13	S	BCB	214.453	189.978	E3	11.4	96	0.03

Acq On : 26 Oct 2001 20:43 Operator: CBN
Sample : WG107135-03 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

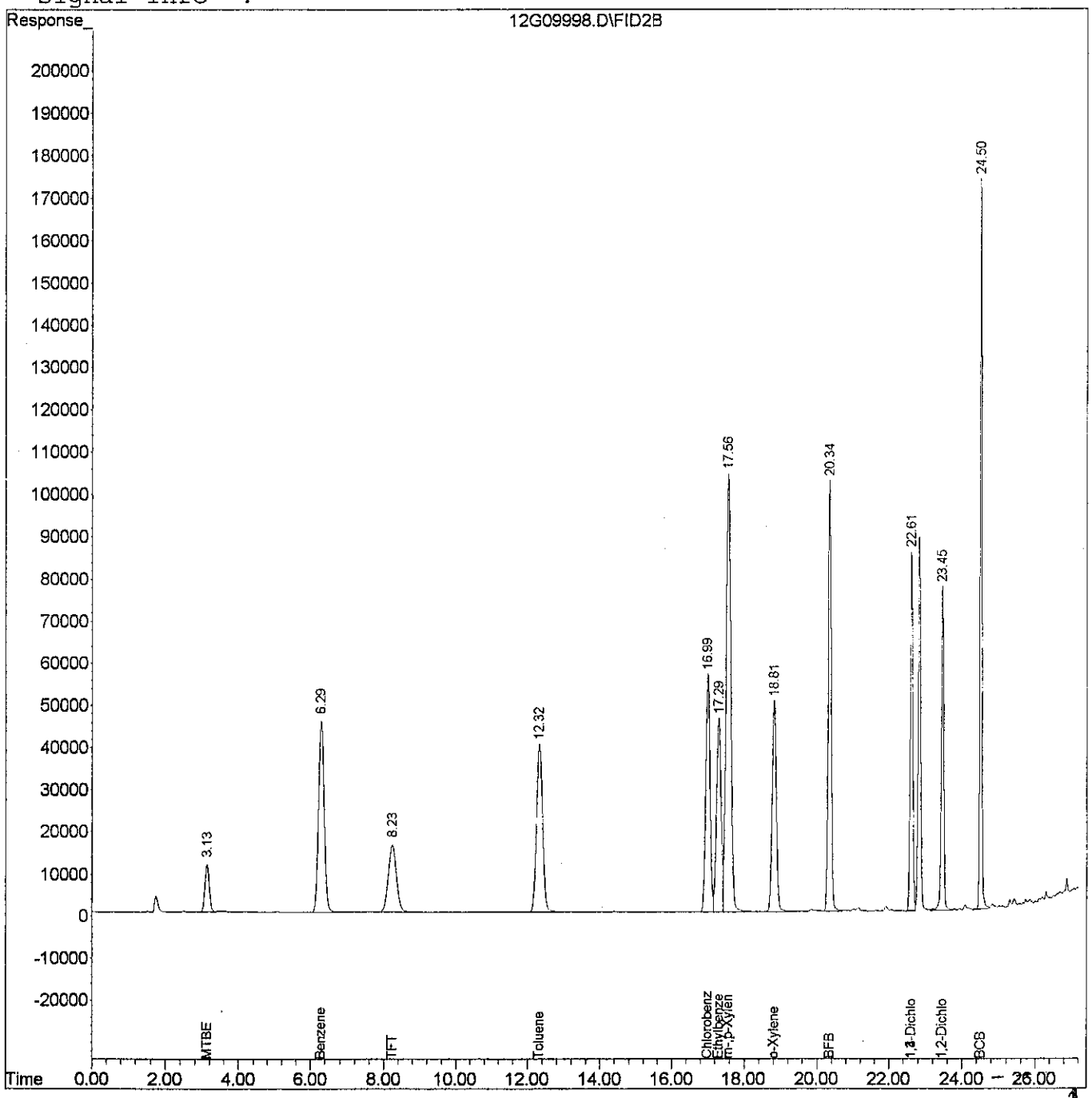
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.047	9.8	88	0.03
2	TM	Benzene	20.000	19.464	2.7	95	0.05
3	S	TFT	30.000	29.917	0.3	99	0.07
4	TM	Toluene	20.000	19.471	2.6	94	0.05
5	TM	Chlorobenzene	20.000	19.124	4.4	94	0.05
6	TM	Ethylbenzene	20.000	19.917	0.4	98	0.05
7	TM	m-,p-Xylene	40.000	39.127	2.2	95	0.05
8	TM	o-Xylene	20.000	19.365	3.2	94	0.05
9	S	BFB	30.000	28.613	4.6	97	0.04
10	TM	1,3-Dichlorobenzene	20.000	19.423	2.9	93	0.04
11	TM	1,4-Dichlorobenzene	20.000	19.423	2.9	93	0.04
12	TM	1,2-Dichlorobenzene	20.000	19.114	4.4	95	0.04
13	S	BCB	30.000	26.576	11.4	96	0.03

Acq On : 26 Oct 2001 20:43 Operator: CBN
Sample : WG107135-03 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 26 21:10 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 :



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12G09998.D 8021W.M Fri Oct 26 21:10:49 2001 Page 2

Acq On : 26 Oct 2001 20:43 Operator: CBN
Sample : WG107135-03 8021 STD 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 26 21:10 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	8.23	2510223	29.917 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	99.72%
9) S BFB	20.34	5885356	28.613 UG/L
Spiked Amount 30.000		Recovery =	95.38%
13) S BCB	24.50	5699353	26.576 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	88.59%
Target Compounds			
1) TM MTBE	3.13	933610	18.047 UG/L
2) TM Benzene	6.29	4939940	19.464 UG/L
4) TM Toluene	12.32	4594133	19.471 UG/L
5) TM Chlorobenzene	17.00	4657241	19.124 UG/L
6) TM Ethylbenzene	17.30	4049542	19.917 UG/L
7) TM m-,p-Xylene	17.56	9498128	39.127 UG/L
8) TM o-Xylene	18.81	4019958	19.365 UG/L
10) TM 1,3-Dichlorobenzene	22.61	4155595	19.423 UG/L
11) TM 1,4-Dichlorobenzene	22.61	4155595	19.423 UG/L
12) TM 1,2-Dichlorobenzene	23.46	3481309	19.114 UG/L

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(f)=RT Delta > 1/2 Window (m)=manual int.
12G09998.D 8021W.M Fri Oct 26 21:10:49 2001 Page 1

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

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WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 26-Oct-01
Filename: 12G09976
Sub Directory: 102601
Instrument: HP12
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	3.114	3.109	3.119
benzene	6.282	6.261	6.303
1,1,1-trifluorotoluene (SS)	8.214	8.184	8.244
toluene	12.297	12.268	12.326
chlorobenzene	16.972	16.955	16.989
ethylbenzene	17.273	17.254	17.292
m+p-xylene	17.536	17.504	17.568
o-xylene	18.786	18.765	18.807
bromofluorobenzene (SS)	20.317	20.303	20.331
1,3-dichlorobenzene	22.595	22.575	22.615
1,4-dichlorobenzene	22.813	22.793	22.833
1,2-dichlorobenzene	23.441	23.423	23.459

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

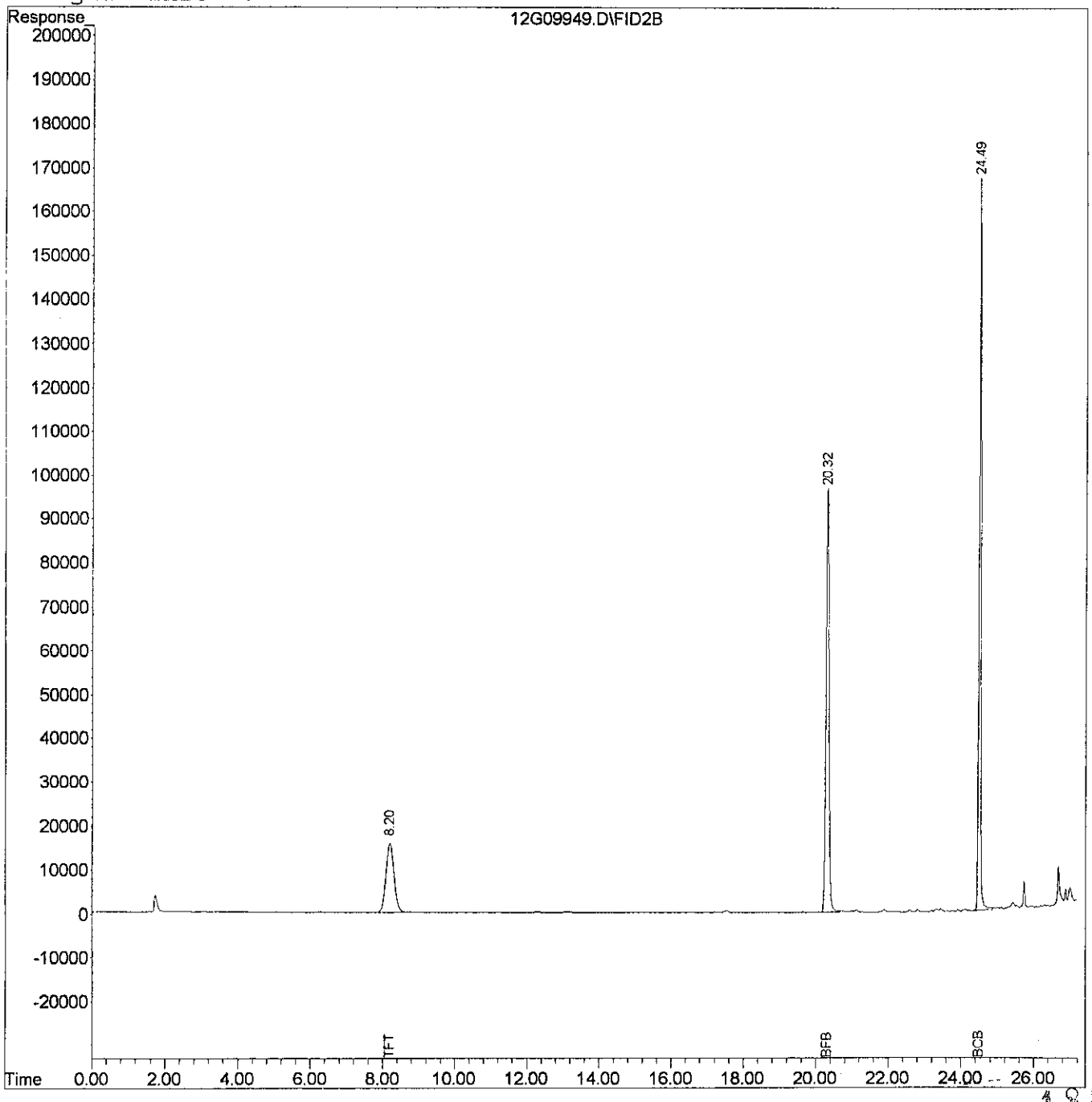
Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	3.063	3.062	3.060	3.062	0.002	0.005
benzene	6.168	6.157	6.155	6.160	0.007	0.021
1,1,1-trifluorotoluene (SS)	8.082	8.078	8.063	8.074	0.010	0.030
toluene	12.178	12.179	12.162	12.173	0.010	0.029
chlorobenzene	16.882	16.874	16.871	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

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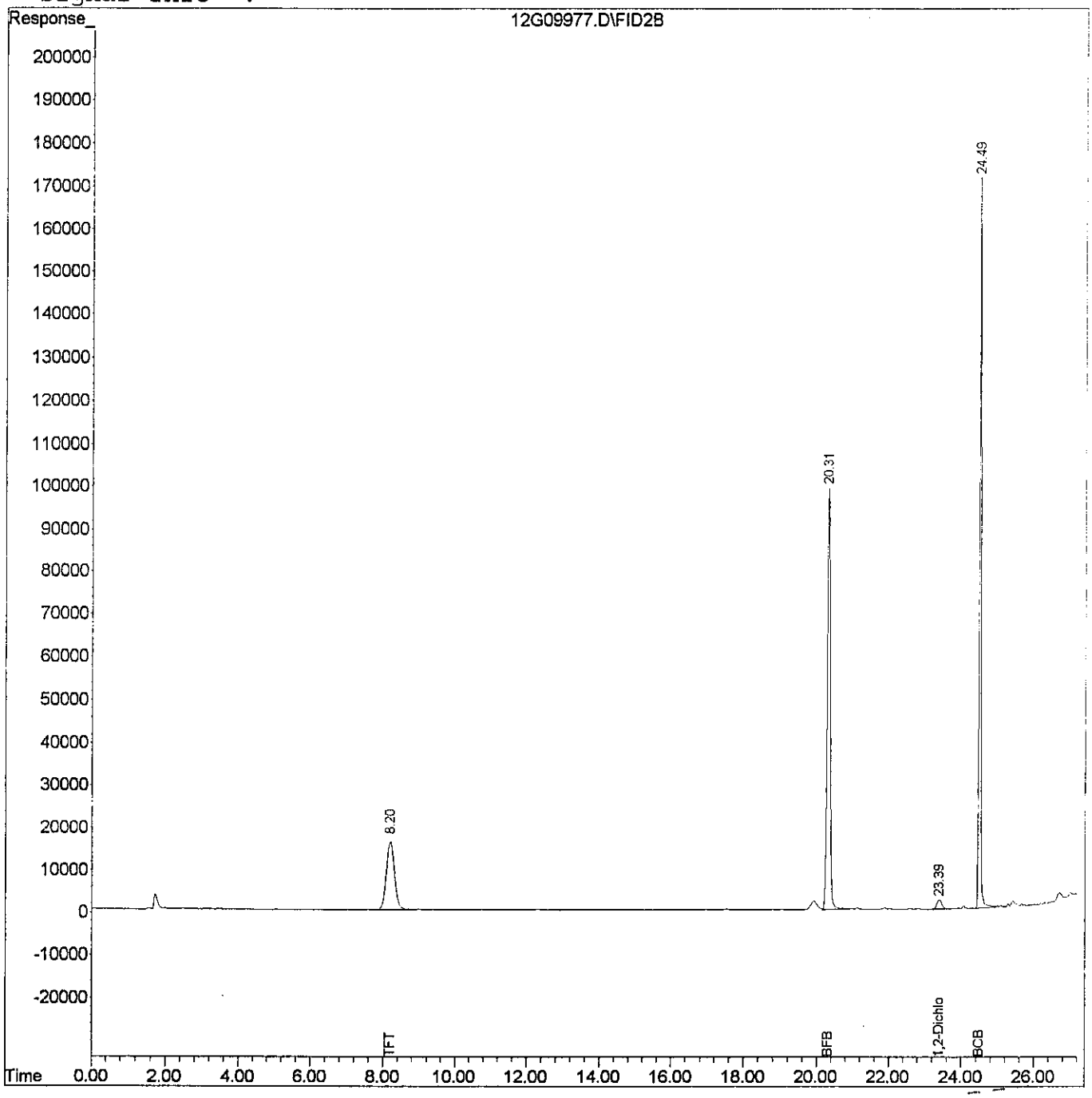
(f)=RT Delta > 1/2 Window (m)=manual int.
12G09949.D 8021W.M Thu Oct 25 08:24:26 2001 Page 1

Acq On : 26 Oct 2001 7:36 Operator: CBN
Sample : WG107136-01 WATER BLANK 5ML Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 26 8:03 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 :



Acq On : 26 Oct 2001 7:36 Operator: CBN
Sample : WG107136-01 WATER BLANK 5ML Inst : HP12
Misc : 1,1 S-86-08 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 26 8:03 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 :

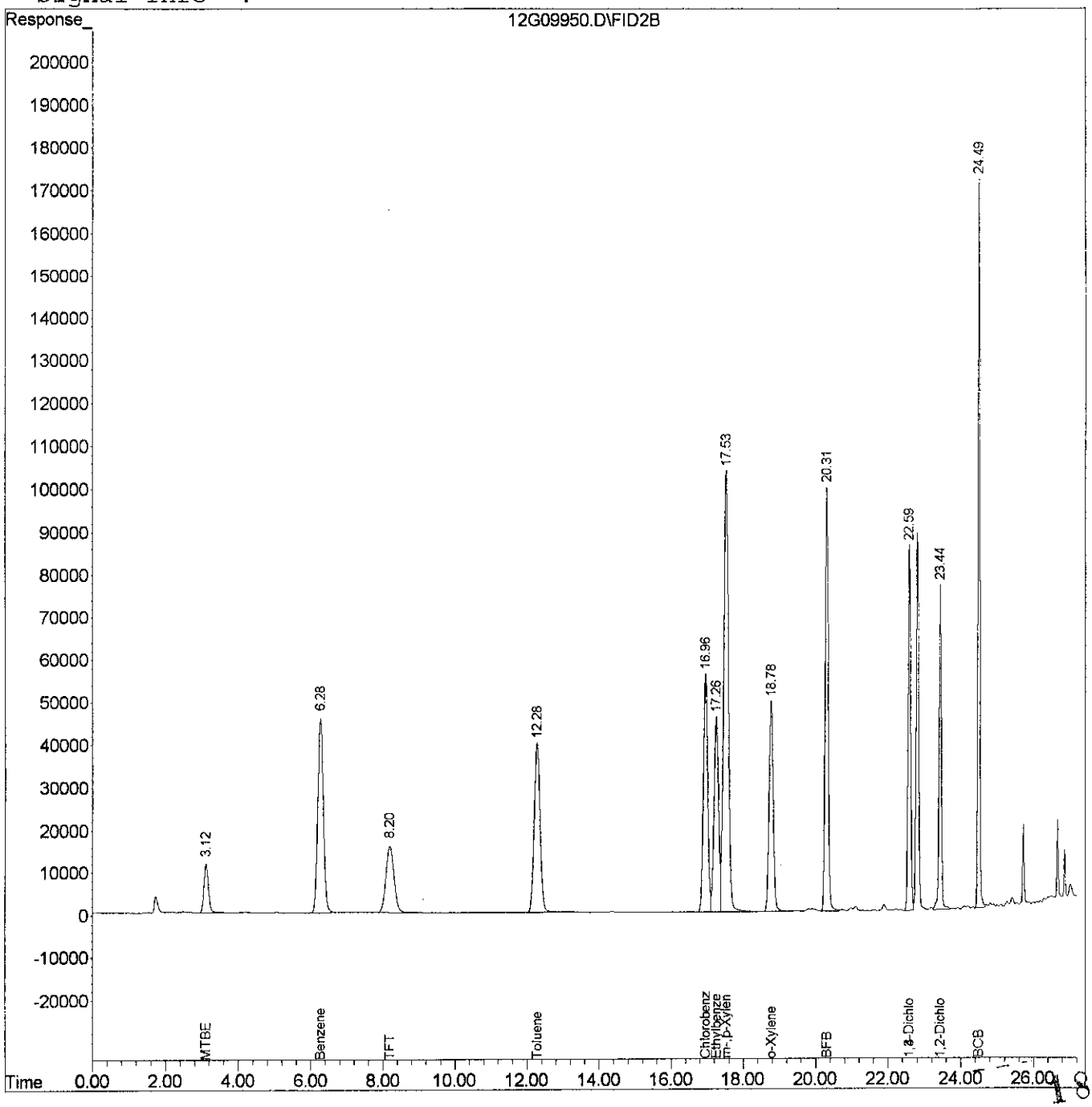
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	8.19	2500165	29.797 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	99.32%
9) S BFB	20.31	5784100	28.121 UG/L
Spiked Amount 30.000		Recovery =	93.74%
13) S BCB	24.49	5707979	26.616 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	88.72%
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	17.54	16824	<MDL UG/L
8) TM o-Xylene	0.00	0	N.D. UG/L
10) TM 1,3-Dichlorobenzene	22.60	13068	<MDL UG/L
11) TM 1,4-Dichlorobenzene	22.60	13068	<MDL UG/L
12) TM 1,2-Dichlorobenzene	23.39	216953	1.191 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int. 183
12G09977.D 8021W.M Fri Oct 26 08:03:31 2001 Page 1

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

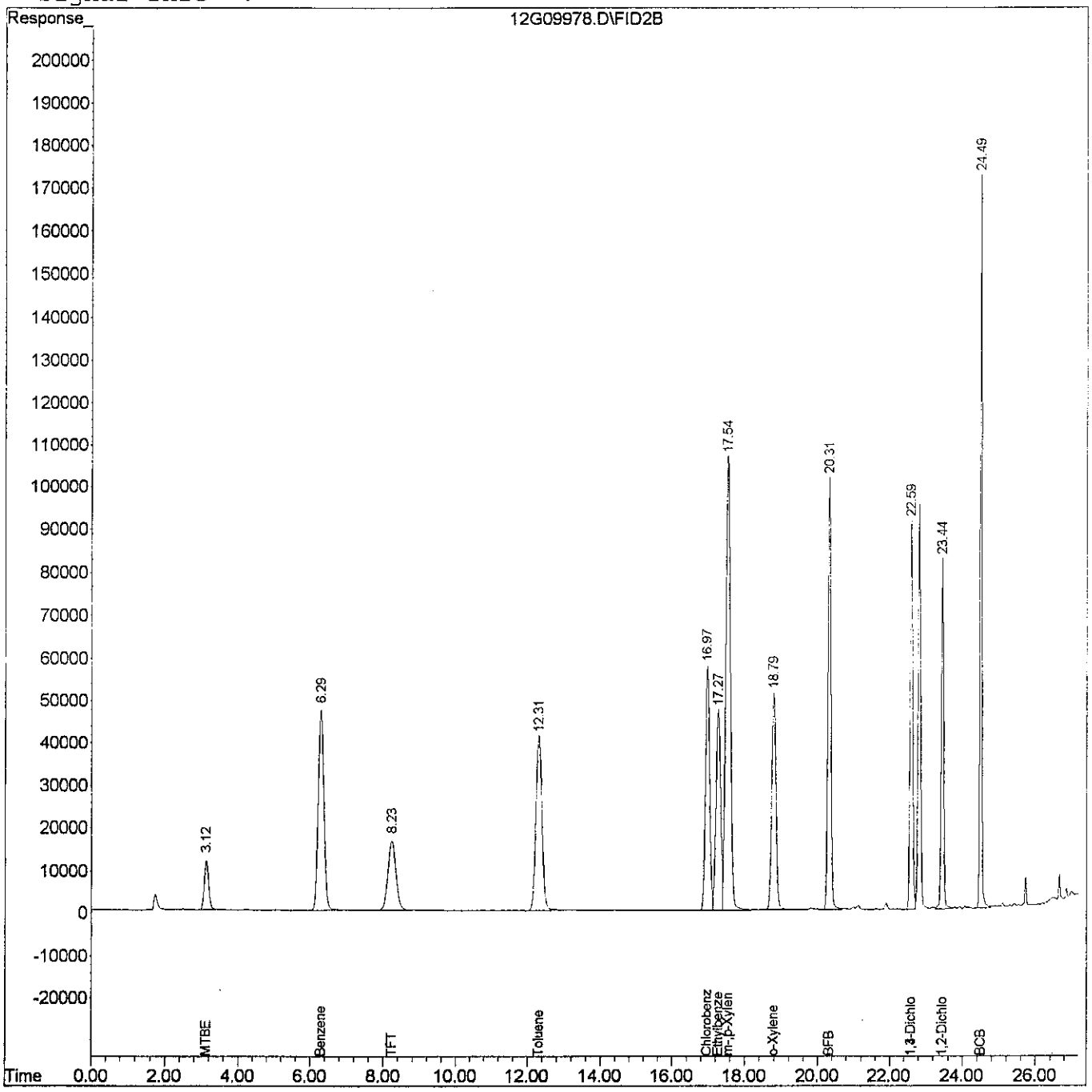
Volume Inj. :
Signal Phase :
Signal Info :

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

Data File : C:\HPCHEM\2\DATA\[illegible]
Acq On : 26 Oct 2001 8:08 Operator: CBN
Sample : WG107136-02 WATER LCS 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 26 8:35 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 :



Acq On : 26 Oct 2001 8:08 Operator: CBN
Sample : WG107136-02 WATER LCS 20PPB 5ML Inst : HP12
Misc : 1,1 S-(85-01,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 26 8:35 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	2511890	29.936 UG/L
Spiked Amount	30.000	Range 70 - 130		Recovery =	99.79%
9) S	BFB		20.32	5849243	28.437 UG/L
Spiked Amount	30.000			Recovery =	94.79%
13) S	BCB		24.49	5690144	26.533 UG/L
Spiked Amount	30.000	Range 37 - 137		Recovery =	88.44%
Target Compounds					
1) TM	MTBE		3.12	949187	18.349 UG/L
2) TM	Benzene		6.29	5074638	19.995 UG/L
4) TM	Toluene		12.31	4667003	19.780 UG/L
5) TM	Chlorobenzene		16.98	4740045	19.464 UG/L
6) TM	Ethylbenzene		17.28	4127785	20.302 UG/L
7) TM	m-,p-Xylene		17.54	9665538	39.816 UG/L
8) TM	o-Xylene		18.79	4071396	19.613 UG/L
10) TM	1,3-Dichlorobenzene		22.60	4423643	20.676 UG/L
11) TM	1,4-Dichlorobenzene		22.60	4423643	20.676 UG/L
12) TM	1,2-Dichlorobenzene		23.44	3628401	19.921 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
12G09978.D 8021W.M Fri Oct 26 08:35:52 2001 Page 1

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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	21	12g09676.d	1.	WG105716-01 8021 STD1 1PPB 5ML ✓	1,1 S-84-(17,38)	3 Oct 2001 07:
3	22	12g09677.d	1.	WG105716-02 8021 STD2 10PPB... ✓	1,1 S-84-(17,38)	3 Oct 2001 08:
4	23	12g09678.d	1.	WG105716-03 8021 STD3 20PPB... ✓	1,1 S-84-(17,38)	3 Oct 2001 09:
5	24	12g09679.d	1.	WG105716-04 8021 STD4 50PPB... ✓	1,1 S-84-(17,38)	3 Oct 2001 09:
6	25	12g09680.d	1.	WG105716-05 8021 STD5 100PP... ✓	1,1 S-84-(17,38)	3 Oct 2001 10:
7	30	12g09681.d	1.	WG105716-06 8021 STD6 200PP... ✓	1,1 S-84-(17,38)	3 Oct 2001 10:
8	31	12g09682.d	1.	WG105716-07 ALT SOURCE 20PP... ✓	1,1 S-(85-01,84-38)	3 Oct 2001 11:
9	2	12g09683.d	100.	WG105767-01 EXT BLANK 10/03... ✓	7,100 S-84-38	3 Oct 2001 12:
10	3	12g09684.d	100.	WG105767-01 EXT LCSK 10/03/... ✓	7,100 S-(85-01,84...	3 Oct 2001 12:
11	20	12g09685.d	125.	L0109340-01 4.02G/10ML 125X ✓	7,125,RE S-84-38	3 Oct 2001 13:
12	21	12g09686.d	1000.	L0109340-02 4.88G/10ML 1000X ✓	7,1000 S-84-38	3 Oct 2001 13:
13	22	12g09687.d	900.	L0109360-04 5.49G/10ML 900X ✓ SSS only	7,900 S-84-38	3 Oct 2001 14:
14	23	12g09688.d	80.	L0109360-05 6.08G/10ML 80X CONF SMI	7,80,RE S-84-38	3 Oct 2001 14:
15	24	12g09689.d	85.	L0109360-06 5.88G/10ML 85X ✓	7,85 S-84-38	3 Oct 2001 15:
16	25	12g09690.d	900.	L0109360-07 5.69G/10ML 900X RE @ 9000	7,900 S-84-38	3 Oct 2001 15:
17	30	12g09691.d	75.	L0109360-08 6.53G/10ML 75X SSS CONF only	7,75 S-84-38	3 Oct 2001 16:
18	31	12g09692.d	90.	L0109360-09 5.68G/10ML 90X HIGH SSS	7,90 S-84-38	3 Oct 2001 16:
19	32	12g09693.d	1.	WG105716-09 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,84-38)	3 Oct 2001 17:
20	15	12g09694.d	75.	L0109360-08 6.53G/10ML 75X HIGH SSS	7,75,RE S-84-38	3 Oct 2001 18:
21	16	12g09695.d	90.	L0109360-09 5.68G/10ML 90X CONF SMI	7,90,RE S-84-38	3 Oct 2001 18:
22	17	12g09696.d	900.	L0109360-07 5.69G/10ML 900X BAD AIRLOCK	7,900,RE S-84-38	3 Oct 2001 19:
23	18	12g09697.d	900.	L0109360-04 5.49G/10ML 900X ✓	7,900,RE S-84-38	3 Oct 2001 19:
24	19	12g09698.d	500000.	L0110002-01 1G/10ML 500000X ✓	1,500000 S-84-38	3 Oct 2001 20:
25	20	12g09699.d	500000.	L0110002-01 DUP 1G/10ML 500... ✓	1,500000 S-84-38	3 Oct 2001 20:
26	21	12g09700.d	50000.	L0110002-01 1G/10ML 50000X ✓	1,50000 S-84-38	3 Oct 2001 21:
27	22	12g09701.d	1.	RINSE	1,1 S-84-38	3 Oct 2001 21:
28	23	12g09702.d	1.	WG105716-10 8021 STD 20PPB 5ML ✓	1,1 S-(85-01,84-38)	3 Oct 2001 22:

Directory: C:\HPCHEM\1\DATA\2001...

WG107055

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

Analyst: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	5	12g09976.d	1.	WG107135-01 8021 STD 20PPB 5ML✓	1,1 S-(85-01,86-08)	26 Oct 2001 07:
2	6	12g09977.d	1.	WG107136-01 WATER BLANK 5ML✓	1,1 S-86-08	26 Oct 2001 07:
3	7	12g09978.d	1.	WG107136-02 WATER LCS 20PPB..✓	1,1 S-(85-01,86-08)	26 Oct 2001 08:
4	5	12g09979.d	10.	L0110453-20 A 500uL pH=5 10X RR5x	1,10 S-86-08	26 Oct 2001 08:
5	6	12g09980.d	20.	L0110453-09 A 250uL pH=5 20X ✓confirmHSS	1,20 S-86-08	26 Oct 2001 09:
6	7	12g09981.d	1.	WG107136-03 L0110453-13 A 5..✓ HSS	1,1 S-86-08	26 Oct 2001 09:
7	8	12g09982.d	1.	L0110453-14 A 5ML pH<2 ✓confirmo HSS	1,1 S-86-08	26 Oct 2001 10:
8	11	12g09983.d	20.	L0110453-15 A 250uL pH<2 20X✓confirmo HSS	1,20 S-86-08	26 Oct 2001 10:
9	12	12g09984.d	5.	L0110453-16 A 1ML pH<2 5X✓confirmo HSS	1,5 S-86-08	26 Oct 2001 11:
10	13	12g09985.d	1.	WG107136-04 L0110453-13 MS ..✓ HSS	1,1 S-(85-01,86-08)	26 Oct 2001 12:
11	14	12g09986.d	1.	WG107136-05 L0110453-13 MSD..✓ HSS	1,1 S-(85-01,86-08)	26 Oct 2001 12:
12	15	12g09987.d	1.	WG107135-02 8021 STD 20PPB 5ML✓	1,1 S-(85-01,86-08)	26 Oct 2001 13:
13	5	12g09988.d	1.	L0110453-17 A 5ML pH<2 ✓confirmo HSS	1,1 S-86-08	26 Oct 2001 15:
14	6	12g09989.d	5.	L0110453-20 A 1ML pH<2 5X✓confirmo HSS	1,5 S-86-08	26 Oct 2001 15:
15	7	12g09990.d	1.	L0110464-02 A 5ML pH<2✓	1,1 S-86-08	26 Oct 2001 16:
16	8	12g09991.d	1.	L0110464-07 A 5ML pH<2✓	1,1 S-86-08	26 Oct 2001 16:
17	11	12g09992.d	1.	L0110558-01 A 5ML pH<2 RR 1000X	1,1 S-86-08	26 Oct 2001 17:
18	12	12g09993.d	1.	L0110510-01 A 5ML pH<2 RRclo	1,1 S-86-08	26 Oct 2001 18:
19	13	12g09994.d	1.	L0110510-02 A 5ML pH<2 ✓	1,1 S-86-08	26 Oct 2001 18:
20	14	12g09995.d	1.	L0110510-03 A 5ML pH<2✓	1,1 S-86-08	26 Oct 2001 19:
21	15	12g09996.d	1.	L0110510-04 A 5ML pH<2 ✓	1,1 S-86-08	26 Oct 2001 19:
22	16	12g09997.d	1.	L0110510-05 A 5ML pH<2 ✓	1,1 S-86-08	26 Oct 2001 20:
23	31	12g09998.d	1.	WG107135-03 8021 STD 20PPB 5ML✓	1,1 S-(85-01,86-08)	26 Oct 2001 20:
24	32	12g09999.d	1.	L0110510-06 A 5ML pH<2 RR5x	1,1 S-86-08	26 Oct 2001 21:
25	1	12g10000.d	1.	L0110~~453~~510-07 A 5ML pH<2 ✓	1,1 S-86-08	26 Oct 2001 21:
26	2	12g10001.d	1.	WG107135-04 8021 STD 20PPB 5ML✓	1,1 S-(85-01,86-08)	26 Oct 2001 22:

2.2 Semivolatiles Data

2.2.5 DRO GC DATA (8015)

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No .: L0110464

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: The blank associated with re-extracted work group yielded a positive results and the sample could not be re-extracted second time because of insufficient sample volume.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: Sample fraction -01 was re-extracted within holding time with acceptable surrogate recovery , and results were reported from both the analyses because the blank associated with re-extracted work group yielded a positive result .And this sample could not be re-extracted second time because of insufficient sample volume.
Surrogates: Sample fraction -01 yielded a %recovery for the surrogate that was outside advisory limits. This sample was re-extracted within holding time with acceptable 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 1/9/01

Rev. 7/14/00

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Date: 10 24 01
Analyst: HV
Method: 8011 PRO water
Instrument: HP5
Work Group: WG 10-7803

10424 - level 3
10404 - 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 10/28/01

Secondary Reviewer Initials & Date Checked ECZ 10/26/01

- 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 PPR 10/26/01

Comments: Sample 404-01 was set for RE due to low surrogate rec.

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

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Date: [illegible]
Analyst: HV
Method: 8010 - FLA - PRO water 10464-01 (RE)
Instrument: HP2
Work Group: WG 107347

	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 SPR 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 SPR 10/31/01

Comments: The method blank associated with this SDG yielded positive results and both the results were reported original and RE analysis were reported

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

195

DRO-GC DATA (8015)

Login Number: L0110464

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)

NR 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: AY Date: 10/31/01

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2.2.5.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP : WG107003 EXT DATE : 10-23-01 RUN DATE : 10-25-01 INSTRUMENT : HP2
METHOD : 8015-PRO EXT BENCH SHEET : V174-P91 SMPL ID : L0110464-04 Analyst: HV
MATRIX : WATER BLK FILENAME : 2G16119 SMPL FLNM : 2G16127
CONCENTRATION UNITS : ug / l LCS FILENAME : 2G16120 MS FLNM : 2G16128
PREP WORK GRP : WG106936 LCS DUP FILENAME : NA MSD FLNM : 2G16129

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	257	3400	2244	NA	285	3740	2744	2675	NA	66.0	NA	55	118	285	65.7	63.9	41	101	NA	3	20
SURROGATE:																						
o-TERPHENYL		19.3	20	16.9	NA	17.4	20	20.6	18.1	96.4	84.6	NA	49	174	87.2	103	90.4	49	174	NA	13	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 : WG107347 EXT DATE : 10-29-01 RUN DATE : 10-30-01 INSTRUMENT : HP2
METHOD : 8015-PRO EXT BENCH SHEET : V174-P143 SMPL ID : NA Analyst: HV
MATRIX : WATER BLK FILENAME : 2G16211 SMPL FLNM : NA
CONCENTRATION UNITS : ug / l LCS FILENAME : 2G16212 MS FLNM : NA
PREP WORK GRP : WG107230 LCS DUP FILENAME : 2G16213 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	3101.0	3400	4192	2384	NA	3400	NA	NA	NA	123	70.1	55	118	NA	NA	NA	41	101	55	NA	20
SURROGATE:																						
o-TERPHENYL		25.6	20	20.2	17.6	NA	20	NA	NA	129	101	87.8	49	174	NA	NA	NA	49	174	14	NA	20

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

2.2.5.2 Sample Data

Acq On : 25 Oct 2001 15:29 Operator: HV
Sample : L0110464-01 PRO water Inst : hp2
Misc : 1,1 V174-P91 Multiplr: 1.03
IntFile : PETRO.E
Quant Time: Oct 26 9:40 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 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	3.80	189065	9.251 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		46.26%#
3) s n-Nonatriacontane	7.57	1445	0.183 ppm
Spiked Amount 20.000	Recovery =		0.92%
Target Compounds			
1) H Petroleum Range	3.59	12334403	777.892 ppb

RE

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16122.D FLASHPRO.M Fri Oct 26 09:40:12 2001 Page 1

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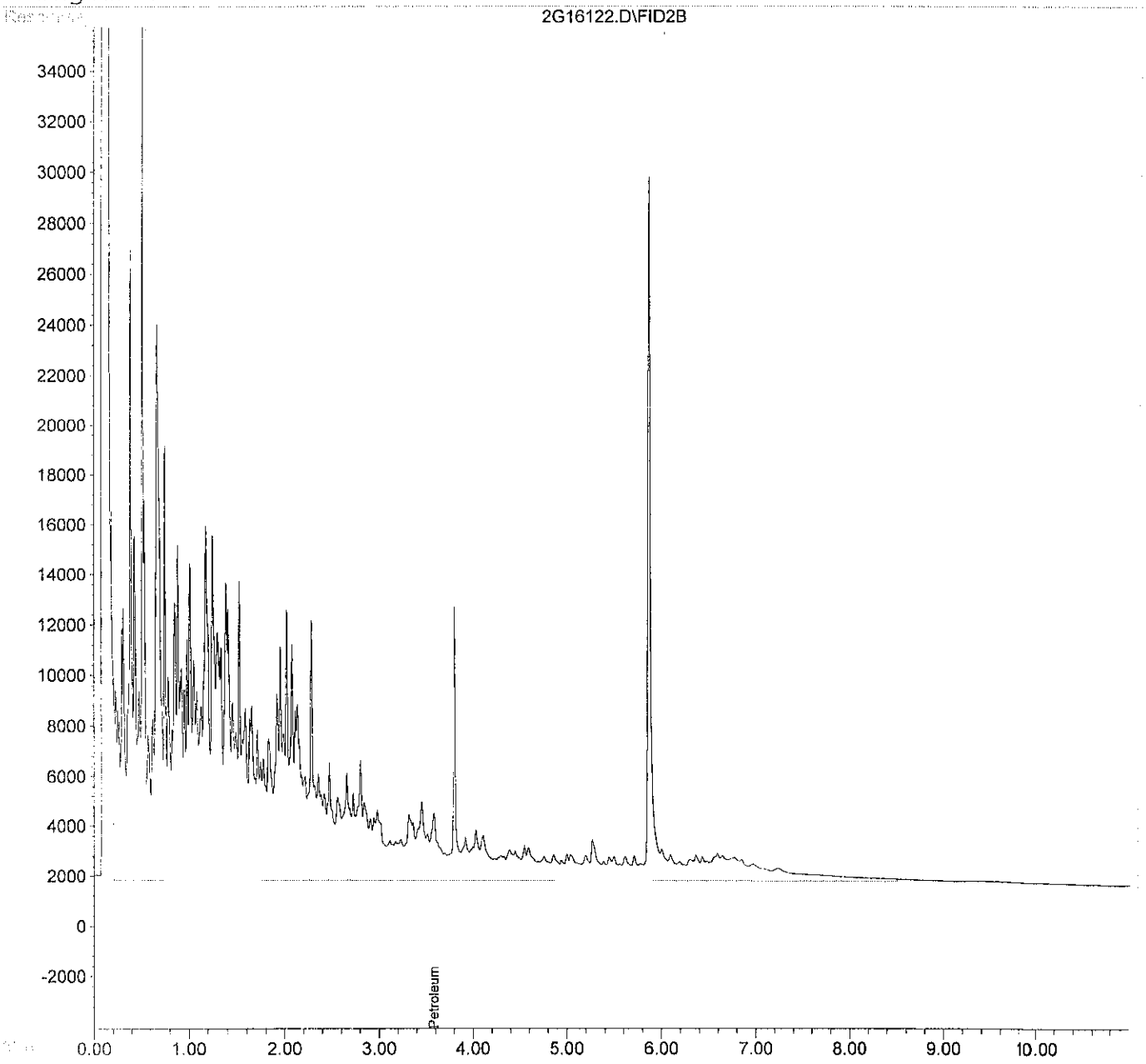
Acq On : 25 Oct 2001 15:29 Operator: HV
Sample : L0110464-01 PRO water Inst : hp2
Misc : 1,1 V174-P91 Multiplr: 1.03
IntFile : PETRO.E
Quant Time: Oct 26 9:40 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri Oct 26 09:10:34 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 : 30 Oct 2001 11:13 Operator: HV
Sample : L0110464-01 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Oct 30 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 : 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	3.86	206365	9.990 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		49.95%
3) s n-Nonatriacontane	7.55	605	0.064 ppm
Spiked Amount 20.000	Recovery =		0.32%
Target Compounds			
1) H Petroleum Range	3.58	15454360	940.073 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16214.D FLASHPRO.M Tue Oct 30 11:25:58 2001 Page 1

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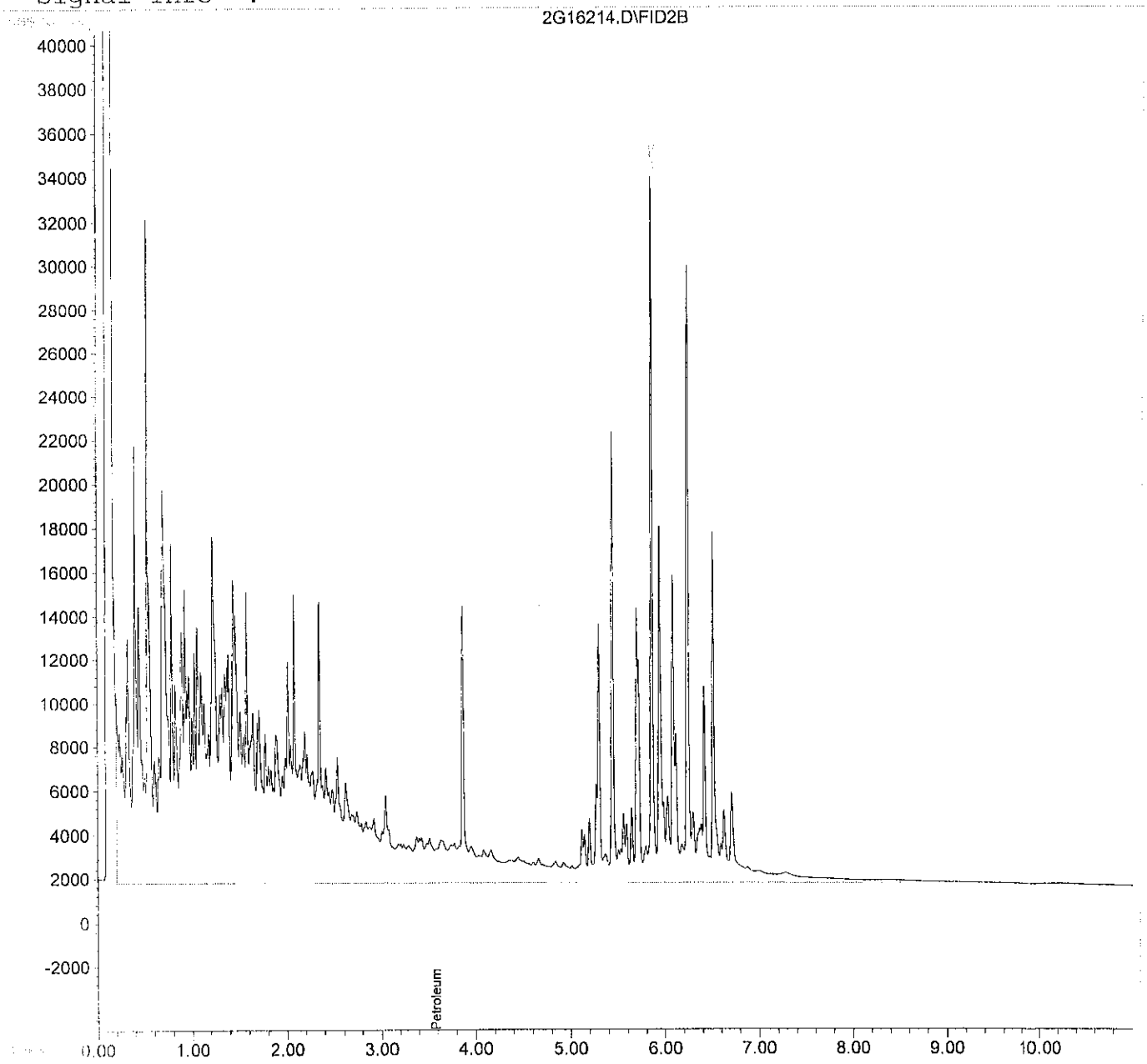
Data File : C:\HPCHEM\1\DATA\2G16214.D

Acq On : 30 Oct 2001 11:13 Operator: HV
Sample : L0110464-01 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Oct 30 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 : Tue Oct 30 11:14:53 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\[illegible] Vial: 15
Acq On : 25 Oct 2001 15:44 Operator: HV
Sample : L0110464-02 PRO water Inst : hp2
Misc : 1,1 V174-P91 Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Oct 26 9:12 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 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	3.80	268161	13.121 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	65.61%
3) s n-Nonatriacontane	7.54	119	0.015 ppm
Spiked Amount 20.000		Recovery =	0.08% NR
Target Compounds			
1) H Petroleum Range	3.59	12122540	779.376 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16123.D FLASHPRO.M Fri Oct 26 09:12:49 2001 Page 1

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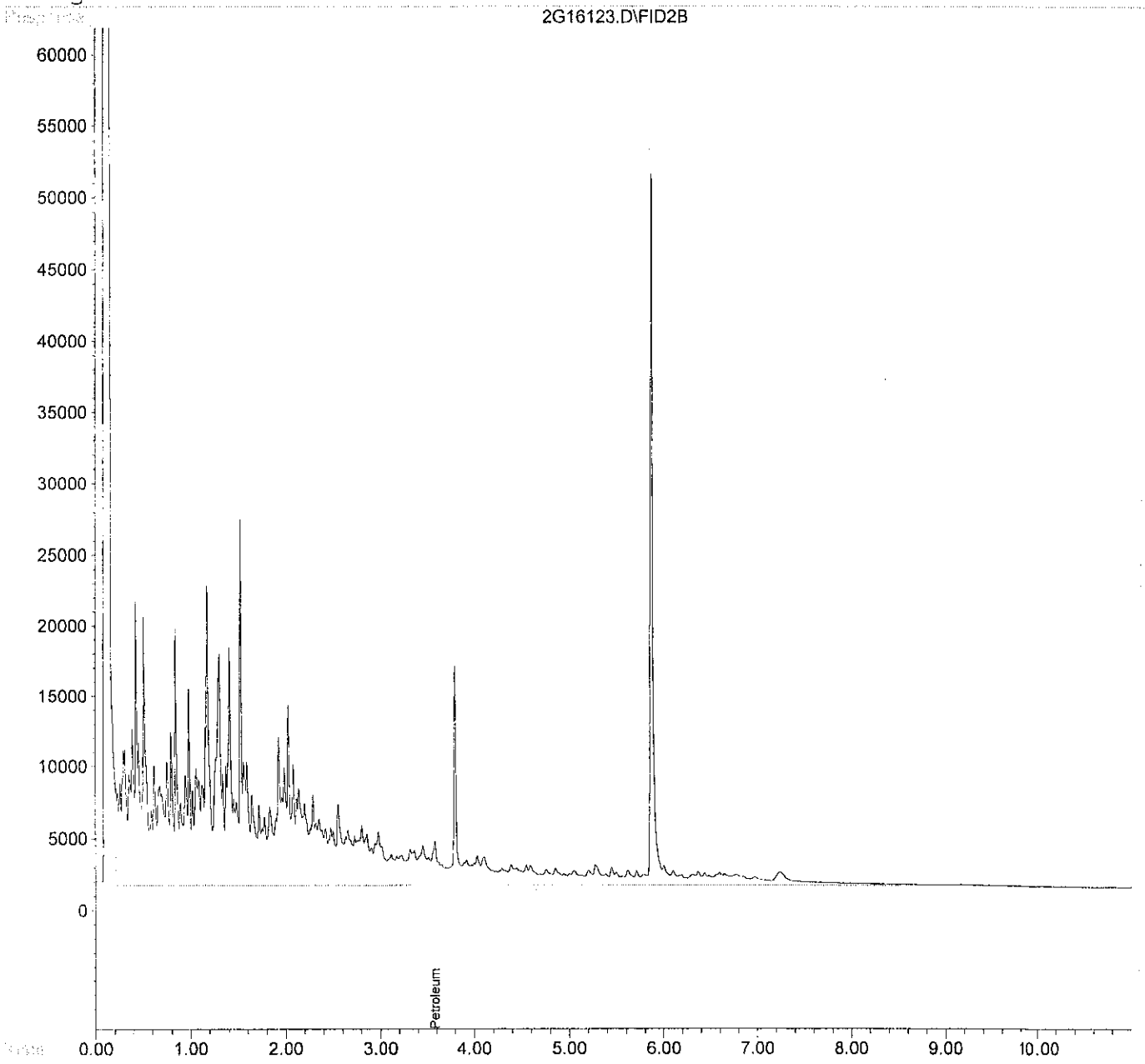
Acq On : 25 Oct 2001 15:44 Operator: HV
Sample : L0110464-02 PRO water Inst : hp2
Misc : 1,1 V174-P91 Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Oct 26 9:12 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri 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\[illegible] Vial: 16
Acq On : 25 Oct 2001 15:59 Operator: HV
Sample : L0110464-03 PRO water Inst : hp2
Misc : 1,1 V174-P91 Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Oct 26 9:12 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 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	3.80	214687	10.505 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	52.53%
3) s n-Nonatriacontane	7.54	1023	0.129 ppm MR
Spiked Amount 20.000		Recovery =	0.65%
Target Compounds			
1) H Petroleum Range	3.59	1687987	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16124.D FLASHPRO.M Fri Oct 26 09:12:53 2001 Page 1

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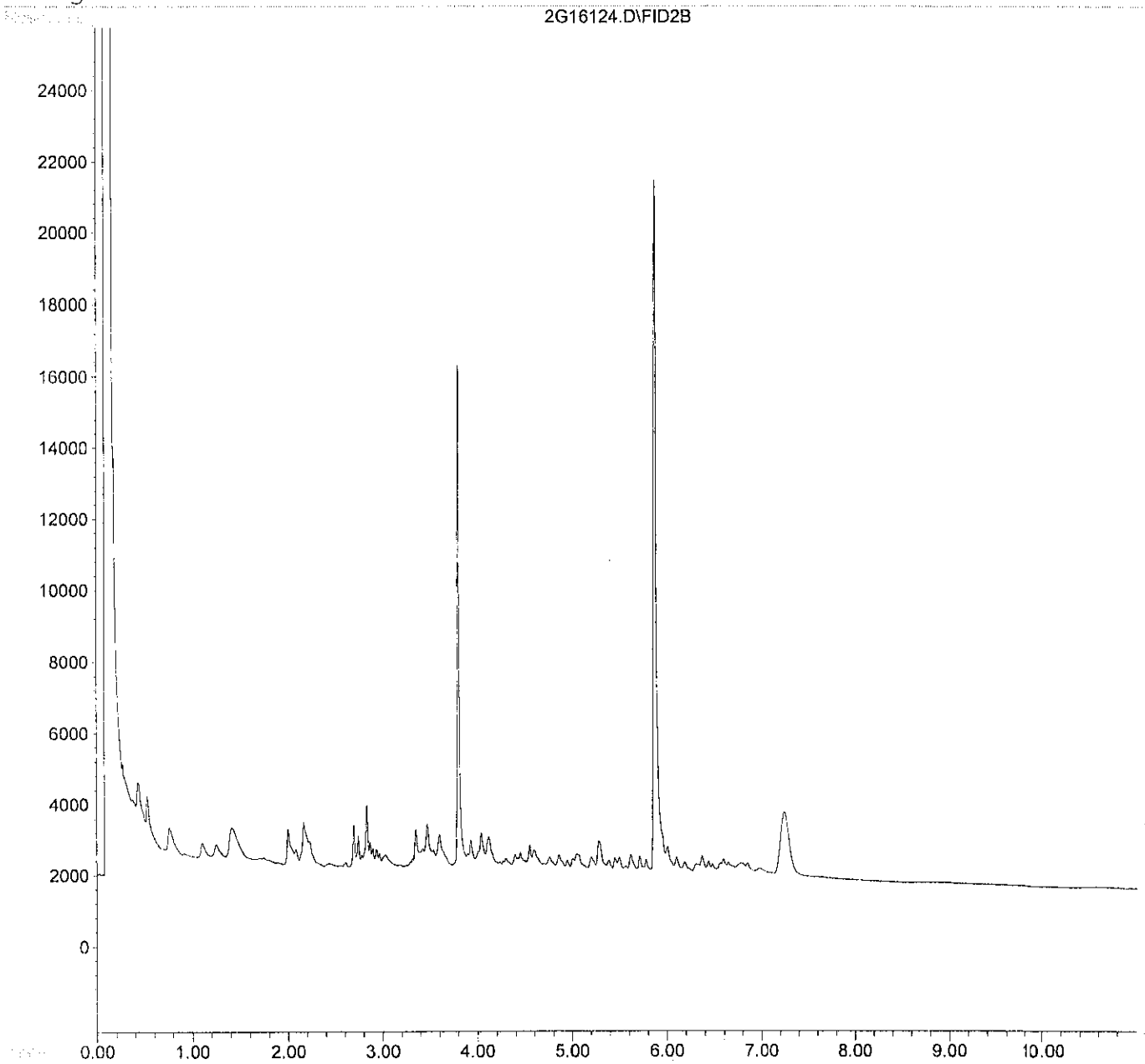
Acq On : 25 Oct 2001 15:59 Operator: HV
Sample : L0110464-03 PRO water Inst : hp2
Misc : 1,1 V174-P91 Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Oct 26 9:12 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri 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\102501A\2G16127.D Vial: 19
Acq On : 25 Oct 2001 16:46 Operator: HV
Sample : WG106936-01 Ref. L0110464-04 PRO water Inst : hp2
Misc : 1,1 V174-P91 Multiplr: 1.08
IntFile : PETRO.E
Quant Time: Oct 26 9:12 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 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	3.79	356376	17.438	ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	87.19%	
3) s n-Nonatriacontane	7.57	974	0.123	ppm
Spiked Amount 20.000		Recovery =	0.62%	
Target Compounds				
1) H Petroleum Range	3.59	4309240	284.963	ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16127.D FLASHPRO.M Mon Nov 05 08:49:22 2001 Page 1

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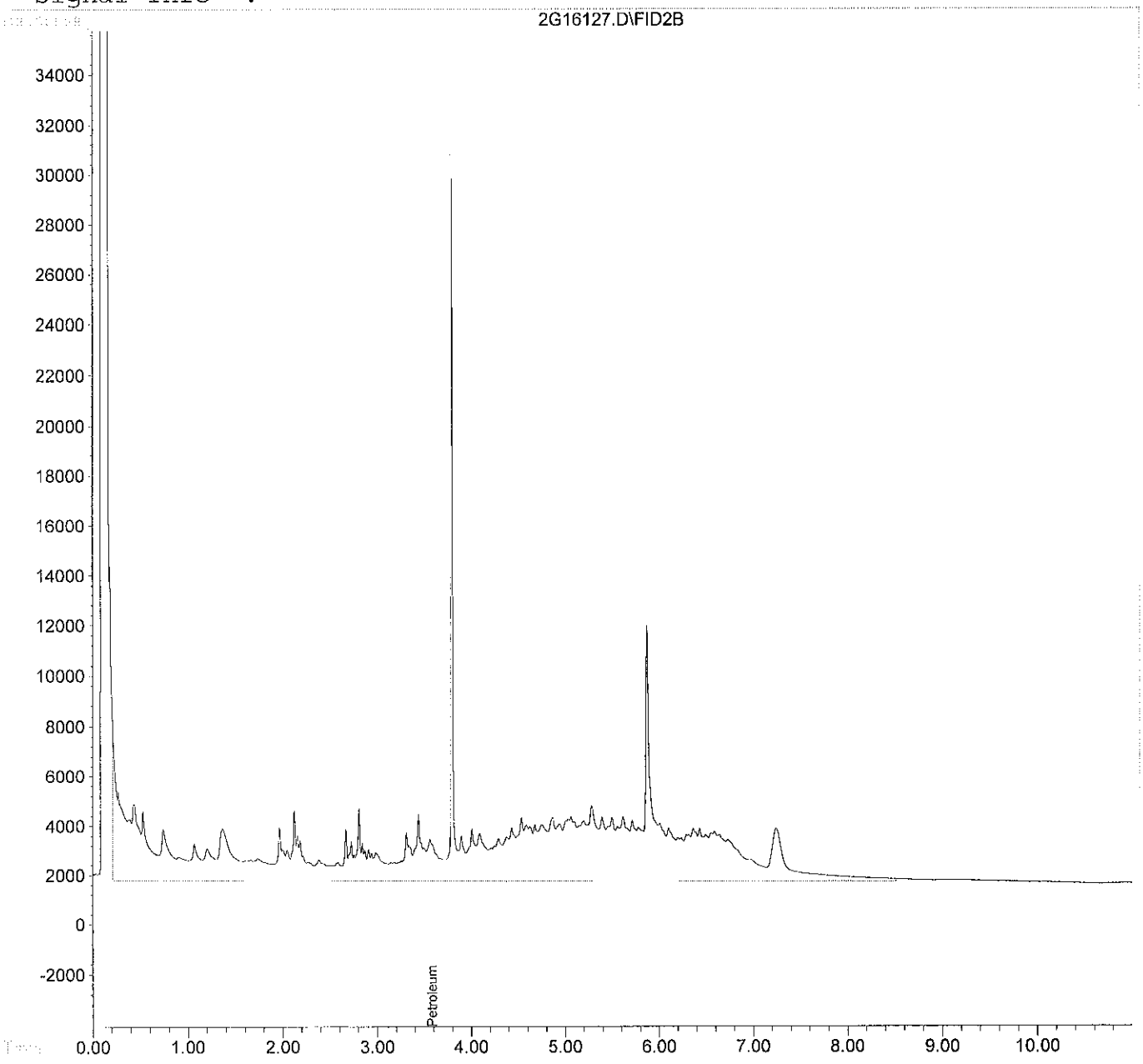
Data File : C:\HPCHEM\1\DATA\102501A\2G16127.D Vial: 19
Acq On : 25 Oct 2001 16:46 Operator: HV
Sample : WG106936-01 Ref. L0110464-04 PRO water Inst : hp2
Misc : 1,1 V174-P91 Multiplr: 1.08
IntFile : PETRO.E
Quant Time: Oct 26 9:12 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri 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\102501A\2G16128.D Vial: 20
Acq On : 25 Oct 2001 17:01 Operator: HV
Sample : WG106936-04 MS L0110464-05 MS PRO water Inst : hp2
Misc : 1,1 V174-P91 Multiplr: 1.10
IntFile : PETRO.E
Quant Time: Oct 26 9:13 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 Sep 28 14:40:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

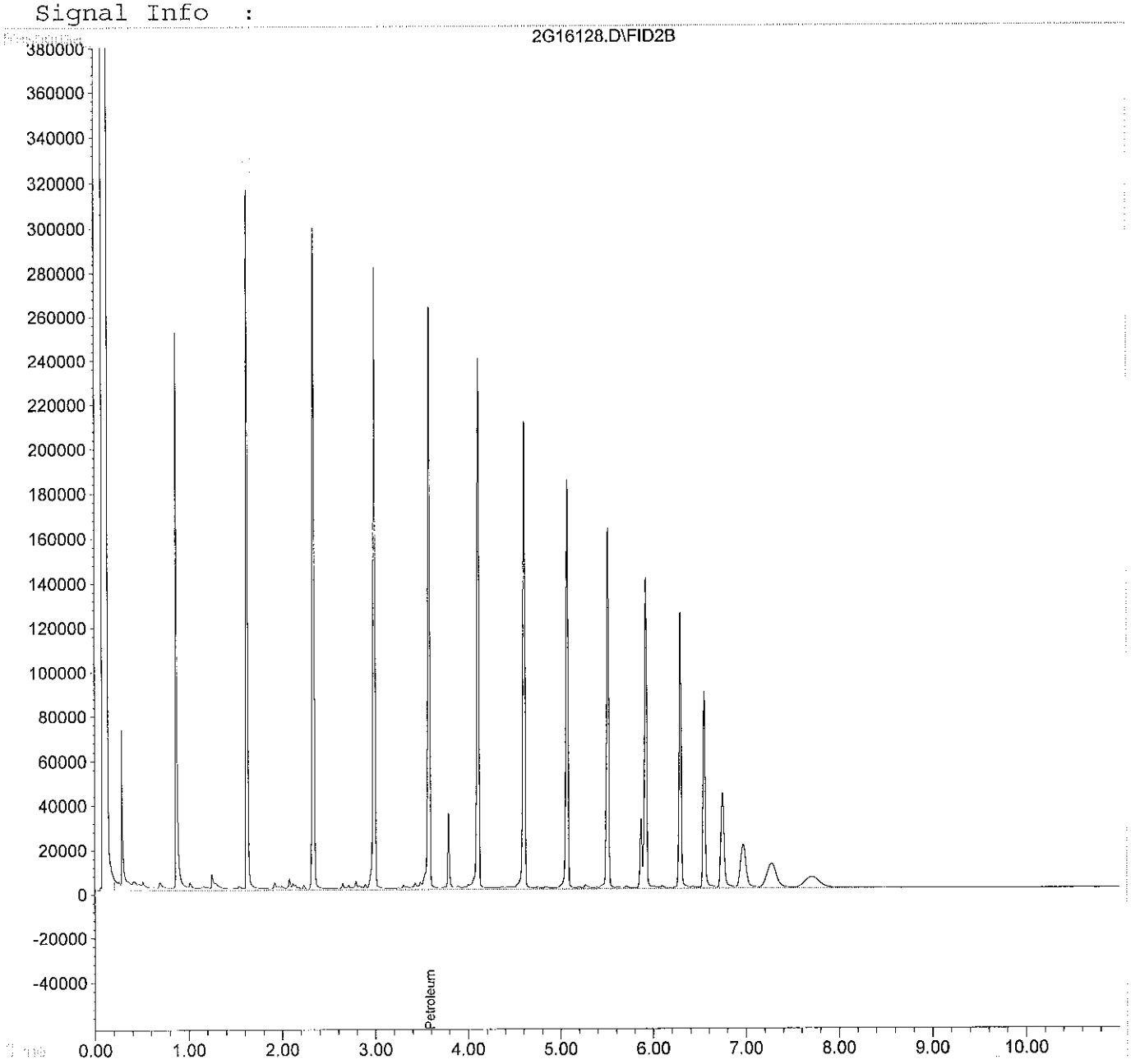
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) s O-Terphenyl	3.79	420879	20.594	ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =	102.97%		
3) s n-Nonatriacontane	0.00	0	N.D.	ppm
Spiked Amount 20.000	Recovery =	0.00%		
Target Compounds				
1) H Petroleum Range	3.59	40739708	2743.941	ppb

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

Data File : C:\HPCHEM\1\DATA\102501A\2G16128.D Vial: 20
Acq On : 25 Oct 2001 17:01 Operator: HV
Sample : WG106936-04 MS L0110464-05 MS PRO water Inst : hp2
Misc : 1,1 V174-P91 Multiplr: 1.10
IntFile : PETRO.E
Quant Time: Oct 26 9:13 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 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\102501A\2G16129.D Vial: 21
Acq On : 25 Oct 2001 17:16 Operator: HV
Sample : WG106936-05 MSD L0110464-06 MSD PRO wat Inst : hp2
Misc : 1,1 V174-P91 Multiplr: 1.06
IntFile : PETRO.E
Quant Time: Oct 26 9:13 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 Sep 28 14:40:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

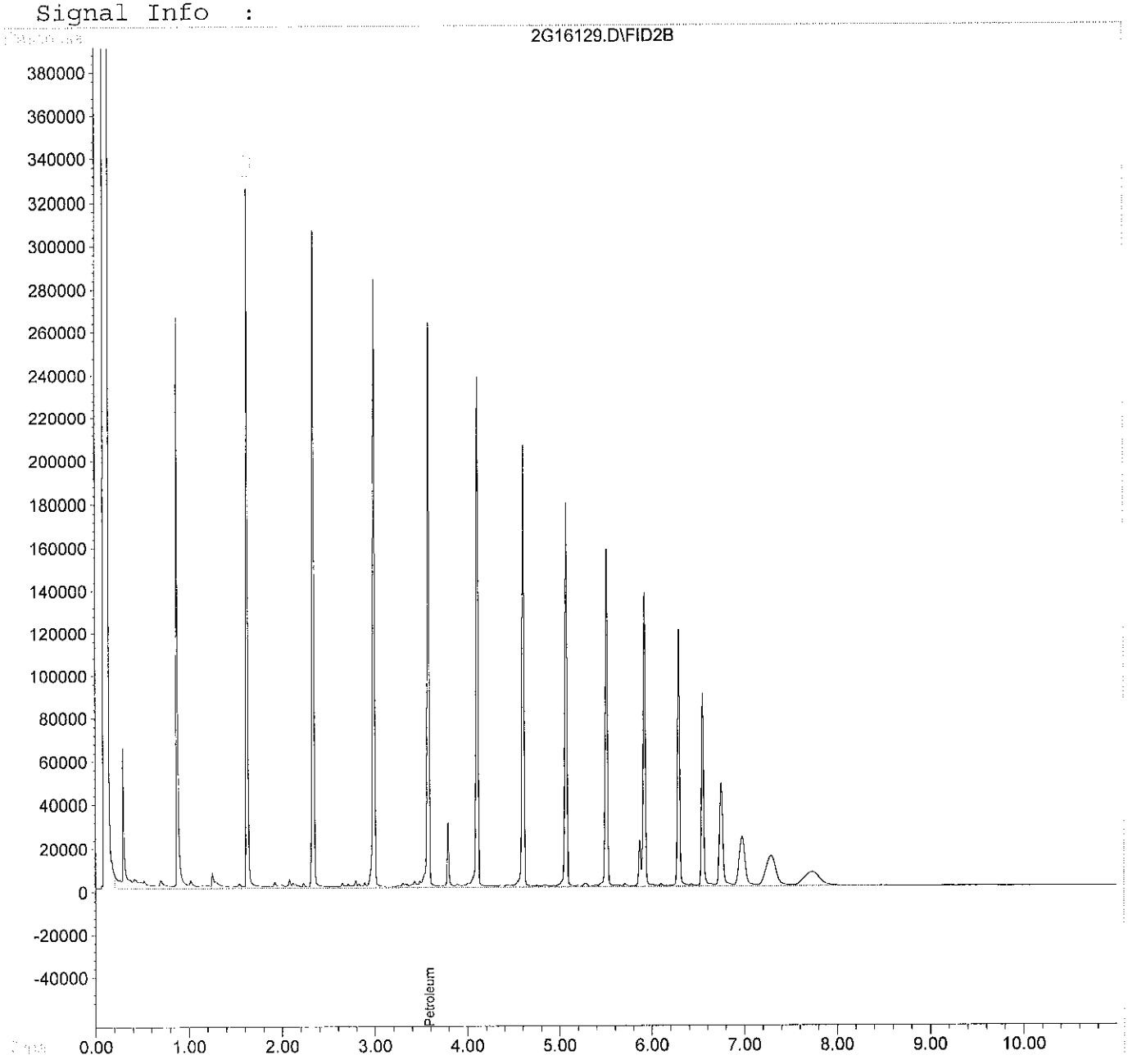
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) s O-Terphenyl	3.79	369445	18.077	ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	90.39%	
3) s n-Nonatriacontane	0.00	0	N.D.	ppm
Spiked Amount 20.000		Recovery =	0.00%	
Target Compounds				
1) H Petroleum Range	3.59	41215067	2675.014	ppb

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

Data File : C:\HPCHEM\1\DATA\102501A\2G16129.D Vial: 21
Acq On : 25 Oct 2001 17:16 Operator: HV
Sample : WG106936-05 MSD L0110464-06 MSD PRO wat Inst : hp2
Misc : 1,1 V174-P91 Multiplr: 1.06
IntFile : PETRO.E
Quant Time: Oct 26 9:13 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 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\[illegible]

Acq On : 25 Oct 2001 17:31 Operator: HV
Sample : L0110464-07 PRO water Inst : hp2
Misc : 1,1 V174-P91 Multiplr: 1.06
IntFile : PETRO.E
Quant Time: Oct 26 9:13 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 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	3.79	452584	22.145	ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 110.73%				
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	47520933	3084.288	ppb

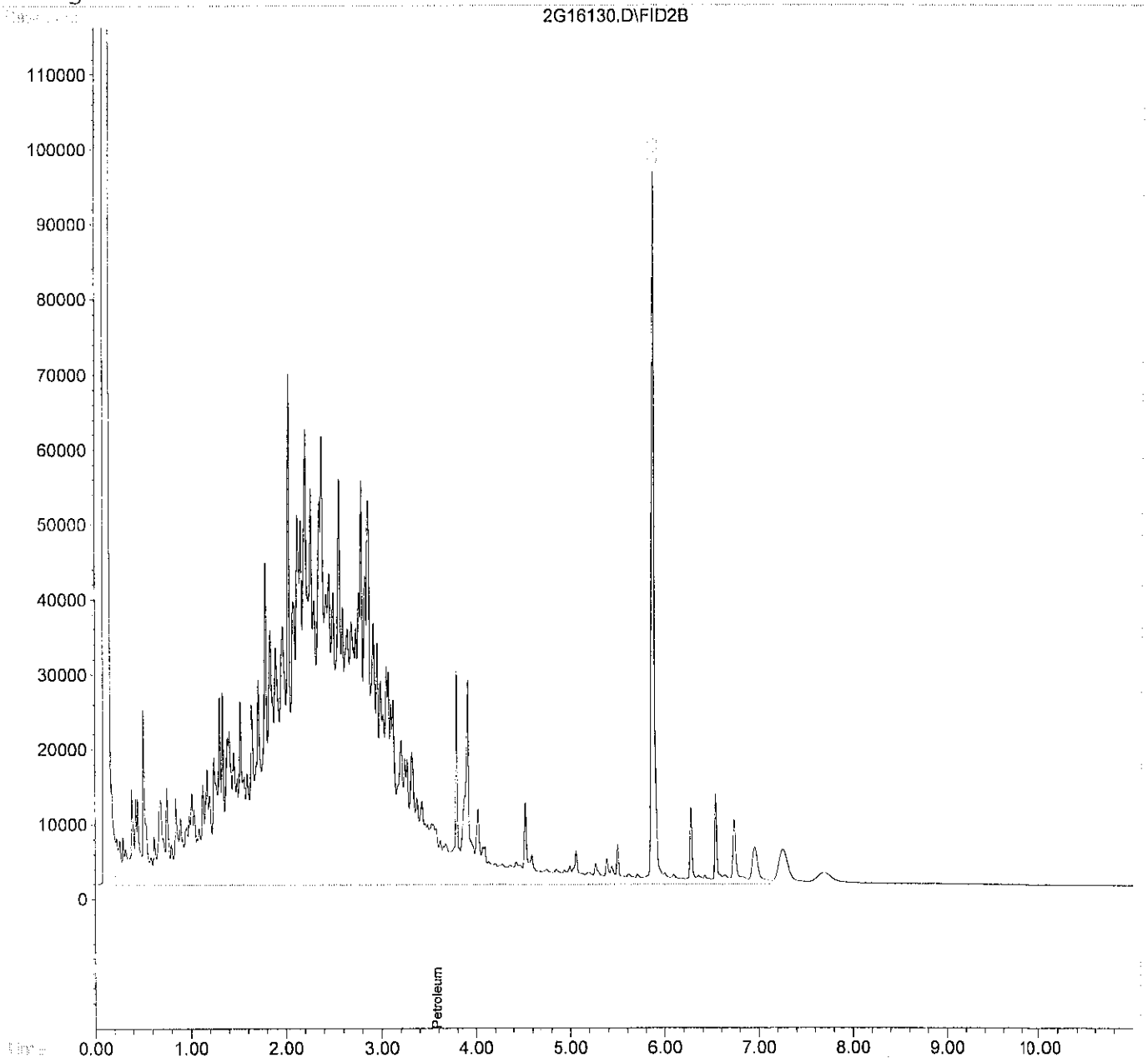
NR

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

Acq On : 25 Oct 2001 17:31 Operator: HV
Sample : L0110464-07 PRO water Inst : hp2
Misc : 1,1 V174-P91 Multiplr: 1.06
IntFile : PETRO.E
Quant Time: Oct 26 9:13 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 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\[illegible] Vial: 25
Acq On : 25 Oct 2001 17:47 Operator: HV
Sample : L0110464-08 PRO water Inst : hp2
Misc : 1,1 V174-P91 Multiplr: 1.06
IntFile : PETRO.E
Quant Time: Oct 26 9:13 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 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	3.79	381380	18.661 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	93.31%
3) s n-Nonatriacontane	7.54	73	0.009 ppm NR
Spiked Amount 20.000		Recovery =	0.05%
Target Compounds			
1) H Petroleum Range	3.59	31172307	2023.201 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16131.D FLASHPRO.M Fri Oct 26 09:13:13 2001 Page 1

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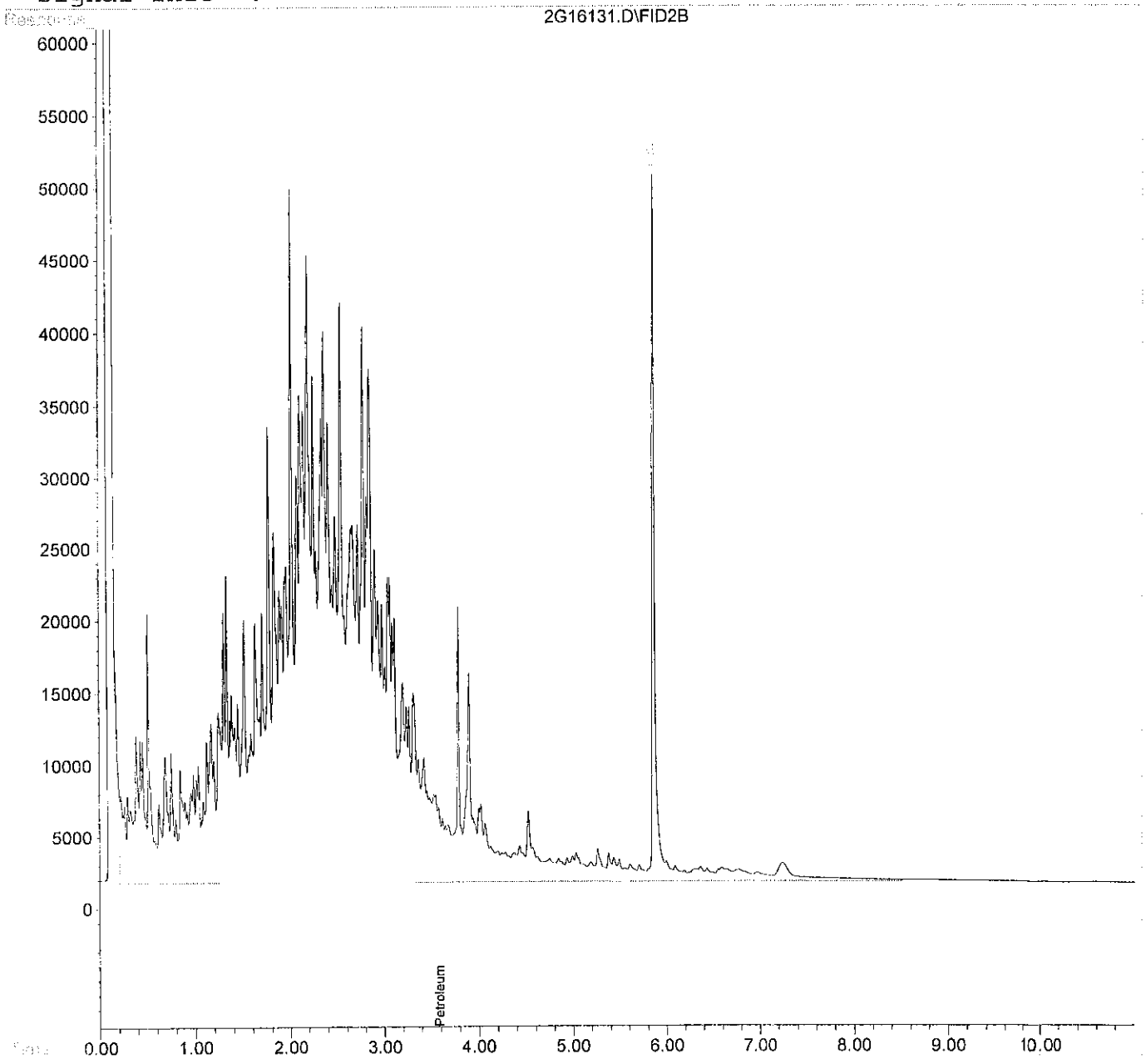
Acq On : 25 Oct 2001 17:47 Operator: HV
Sample : L0110464-08 PRO water Inst : hp2
Misc : 1,1 V174-P91 Multiplr: 1.06
IntFile : PETRO.E
Quant Time: Oct 26 9:13 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri 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\102501A\2G16132.D
Acq On : 25 Oct 2001 18:03
Sample : L0110464-09 PRO water
Misc : 1,1 V174-P91
IntFile : PETRO.E
Quant Time: Oct 26 9:13 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 10/25/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

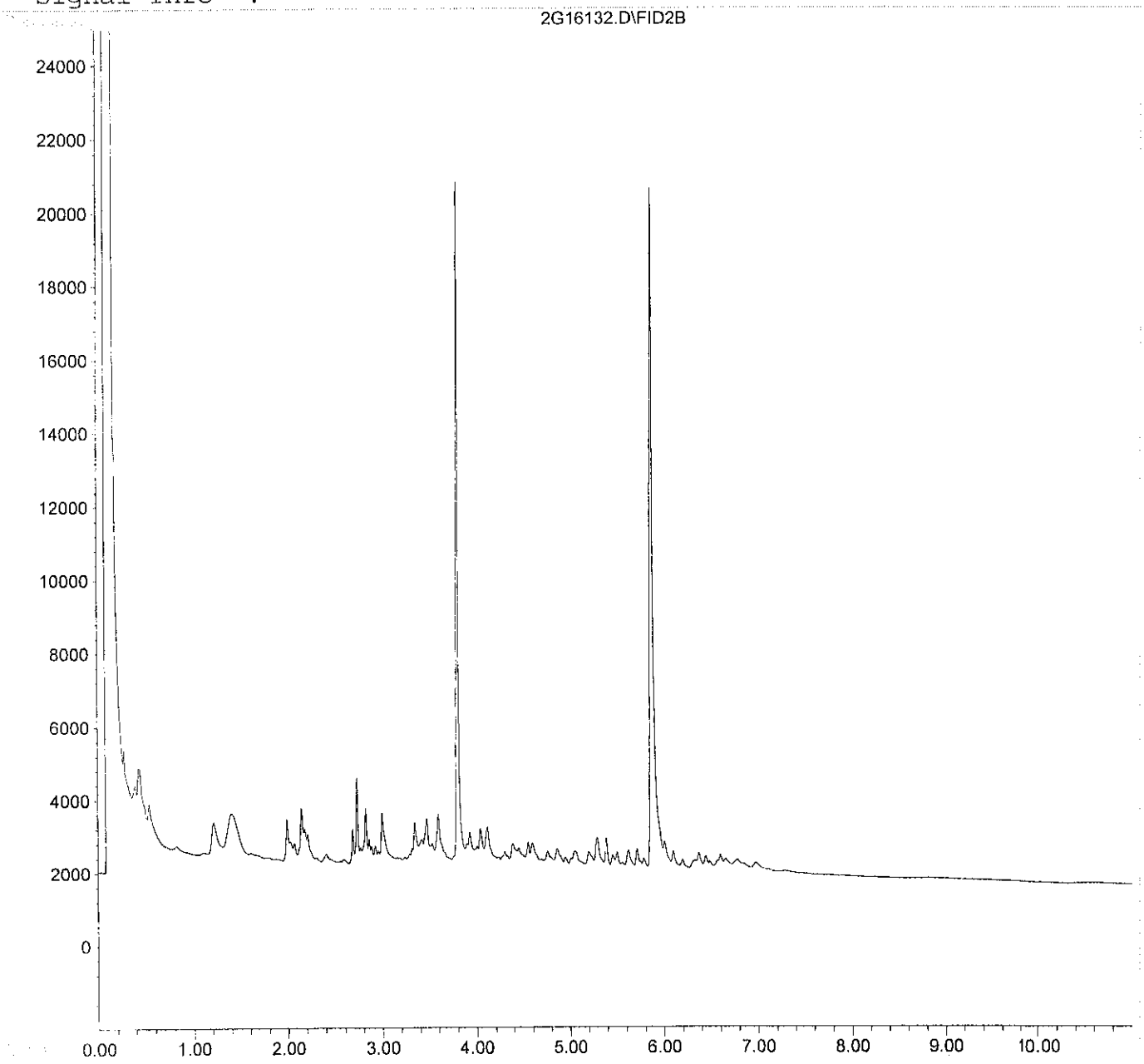
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.80	279074	13.655 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		68.27%
3) s n-Nonatriacontane	7.55	224	0.028 ppm NR
Spiked Amount 20.000	Recovery =		0.14%
Target Compounds			
1) H Petroleum Range	3.59	1782589	<MDL ppb

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

Data File : C:\HPCHEM\1\DATA\[illegible]
Acq On : 25 Oct 2001 18:03 Operator: HV
Sample : L0110464-09 PRO water Inst : hp2
Misc : 1,1 V174-P91 Multiplr: 1.02
IntFile : PETRO.E
Quant Time: Oct 26 9:13 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 Sep 28 14:40:54 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 10/25/01
Last Update : Fri Sep 28 14:40:54 2001

Calibration Files
5 =2G16117.D 50 =2G16116.D 100 =2G16115.D
200 =2G16114.D 400 =2G16113.D 600 =2G16112.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	1.612	1.623	1.566	1.764	1.628	1.607	1.633	E4	4.14
2)	s	O-Terphenyl	2.294	2.117	1.968	2.197	1.931	1.754	2.044	E4	9.64
3)	s	n-Nonatriacontane	7.791	6.993	6.990	9.051	9.259	7.406	7.915	E3	12.73

(#) = Out of Range
FLASHPRO.M Thu Oct 25 14:37:47 2001 Page 1

Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 25 Oct 2001 12:47 Operator: HV
Sample : WG107087-02 PRO STD 600ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 25 13:38 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/09/01
Last Update : Thu Oct 11 10:43:53 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

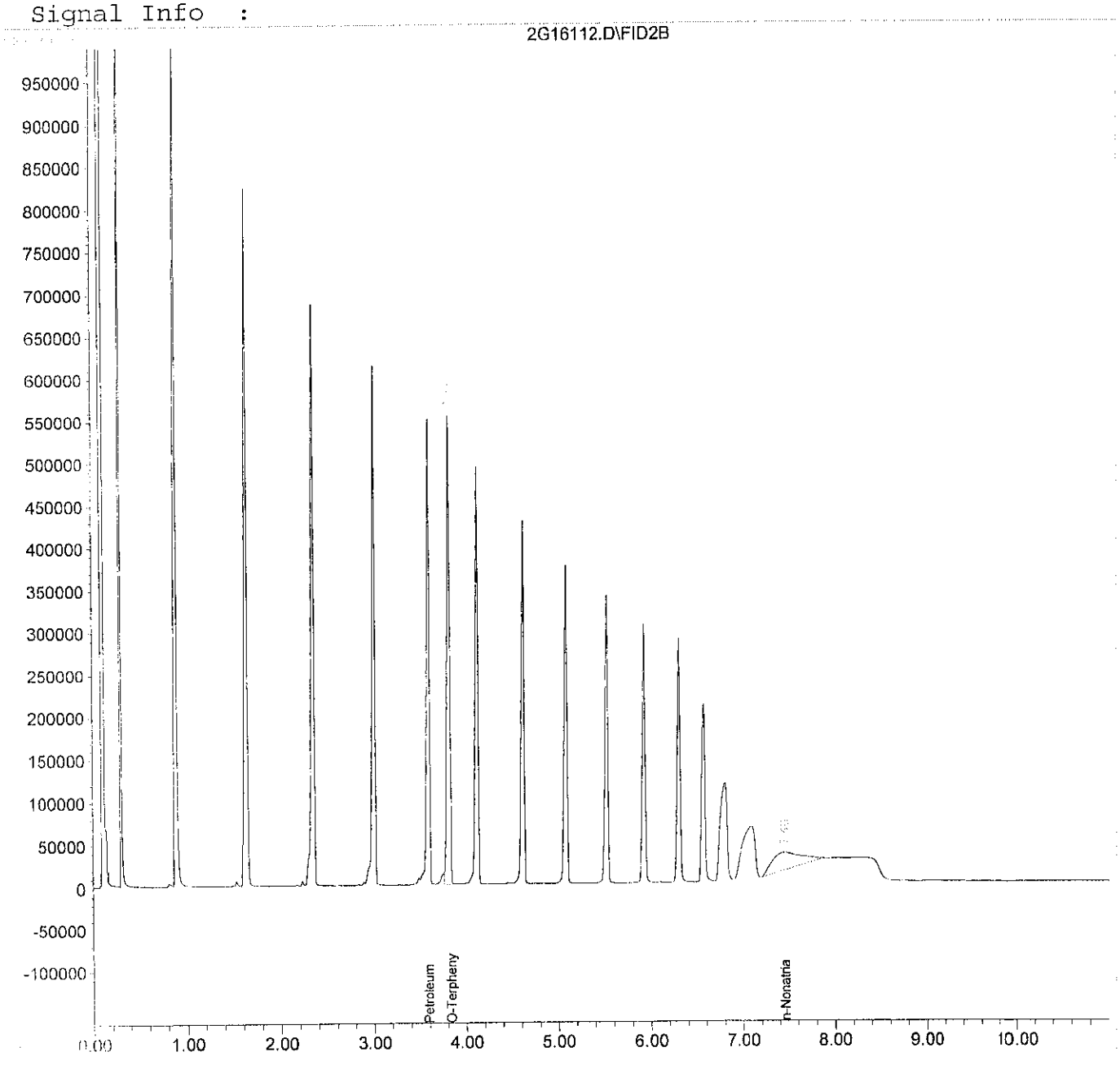
Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
2) s O-Terphenyl	3.83	10524384	605.812	ppb	m
Spiked Amount 20.000 Range 49 - 174 Recovery = 3029.06%#					
3) s n-Nonatriacontane	7.46	4443706	621.792	ppm	m
Spiked Amount 20.000 Recovery = 3108.96%					
Target Compounds					
1) H Petroleum Range	3.58	163883184	11750.039	ppb	

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

Data File : C:\HPCHEM\1\DATA\102501A\2G16112.D Vial: 4
Acq On : 25 Oct 2001 12:47 Operator: HV
Sample : WG107087-02 PRO STD 600ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 25 13:38 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/09/01
Last Update : Thu Oct 11 10:43:53 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

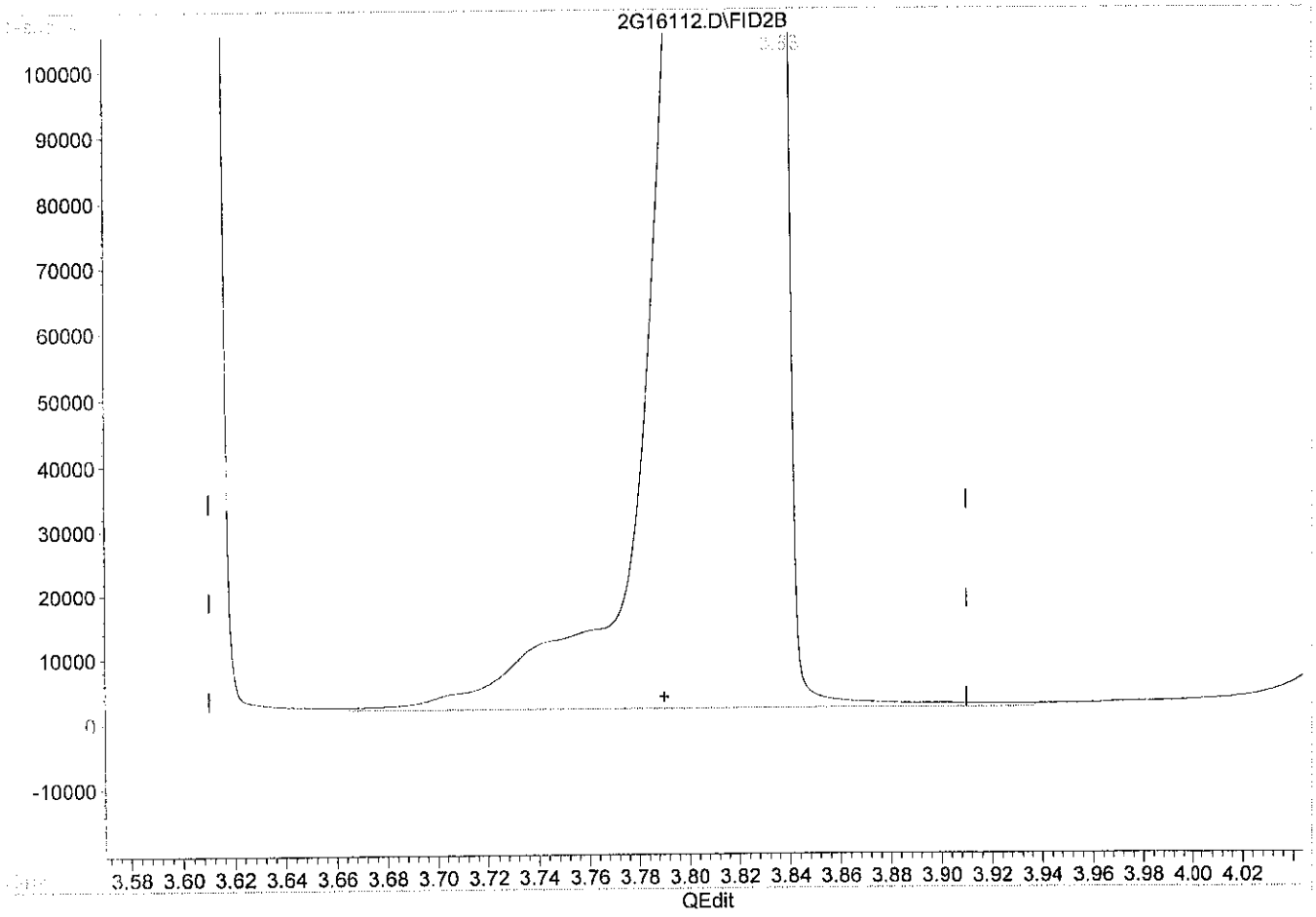
Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\1025OIA\2G16112.D
Acq On : 25 Oct 2001 12:47
Sample : WG107087-02 PRO STD 600ppm
Misc : 1,1 SOS 56-21
IntFile : PETRO.E
Quant Time: Oct 25 13:34 2001 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 10/09/01
Last Update : Thu Oct 11 10:43:53 2001
Response via : Multiple Level Calibration



(2) O-Terphenyl (s)

3.83min 626.010ppb

Response 10875268

(+) = Expected Retention Time

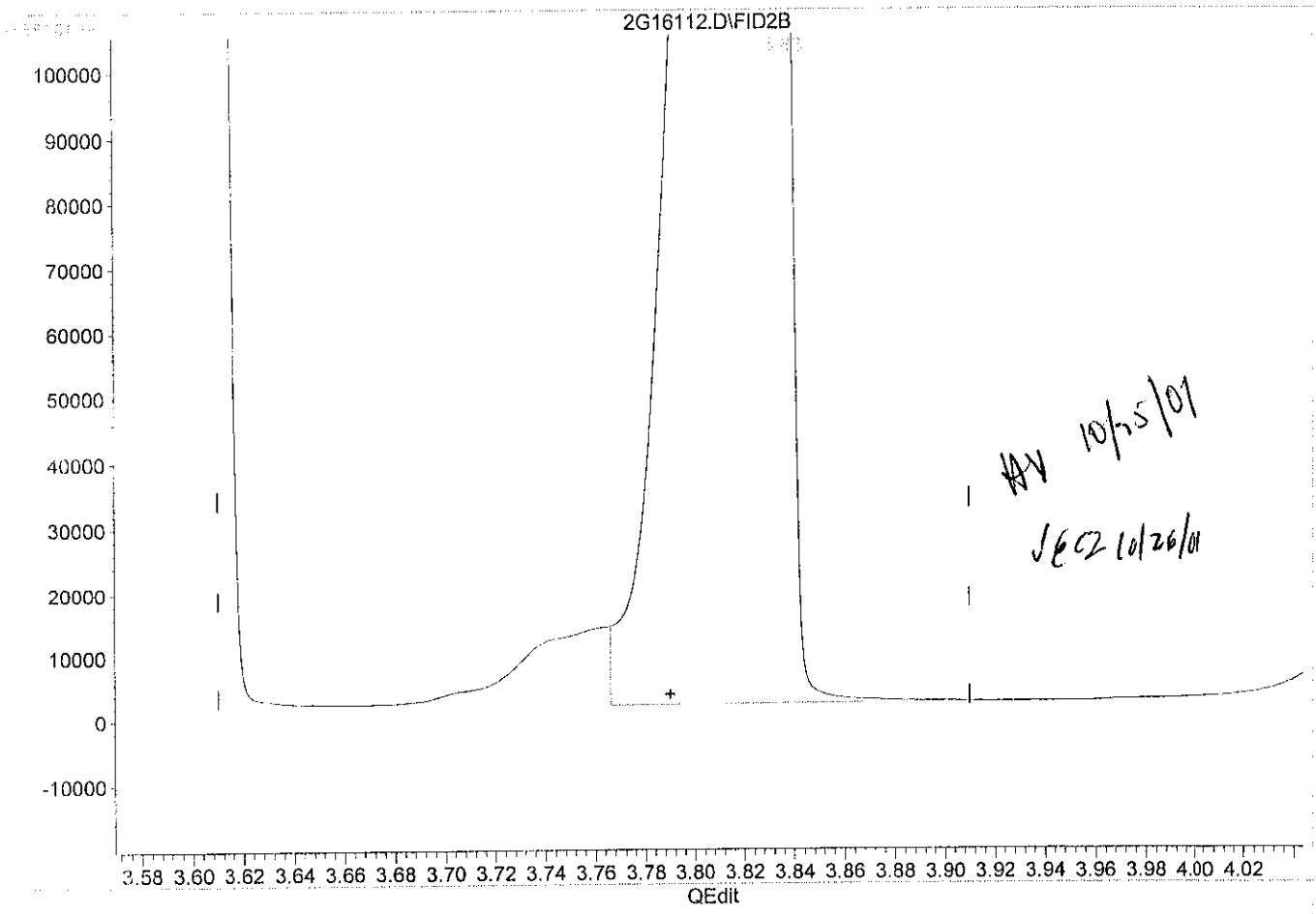
2G16112.D FLASHPRO.M Thu Oct 25 13:37:52 2001

225

Data File : C:\HPCHEM\1\DATA\102501A\2G16112.D
Acq On : 25 Oct 2001 12:47
Sample : WG107087-02 PRO STD 600ppm
Misc : 1,1 SOS 56-21
IntFile : PETRO.E
Quant Time: Oct 25 13:34 2001 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 10/09/01
Last Update : Thu Oct 11 10:43:53 2001
Response via : Multiple Level Calibration



(2) O-Terphenyl (s)

3.83min 605.812ppb m

response 10524384

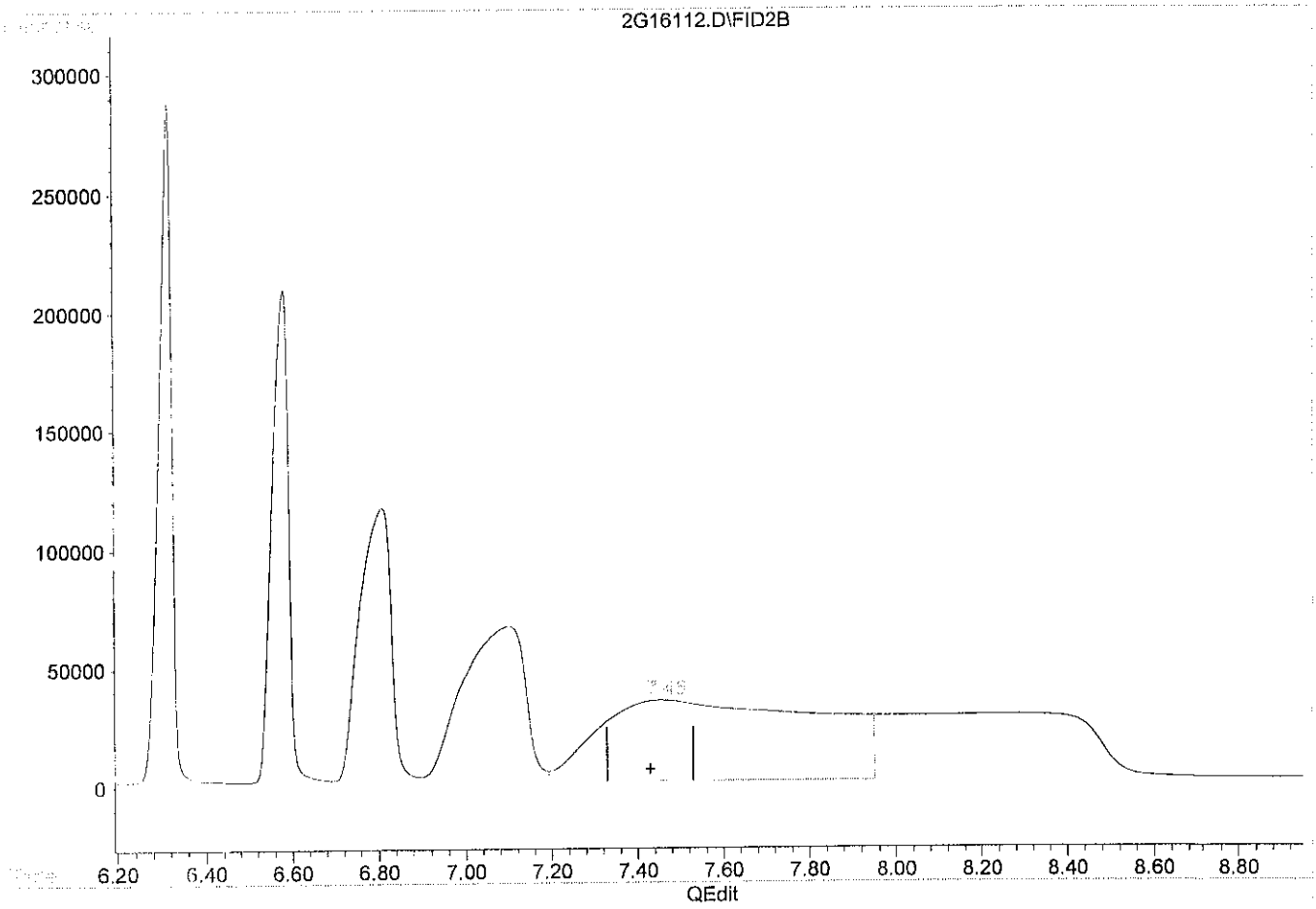
(+) = Expected Retention Time
2G16112.D FLASHPRO.M Thu Oct 25 13:38:01 2001

226

Data File : C:\HPCHEM\1\DATA\1025011\2G16112.D
Acq On : 25 Oct 2001 12:47
Sample : WG107087-02 PRO STD 600ppm
Misc : 1,1 SOS 56-21
IntFile : PETRO.E
Quant Time: Oct 25 13:34 2001 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 10/09/01
Last Update : Thu Oct 11 10:43:53 2001
Response via : Multiple Level Calibration



(3) n-Nonatriacontane (s)

7.45min 1717.257ppm

response 12272575

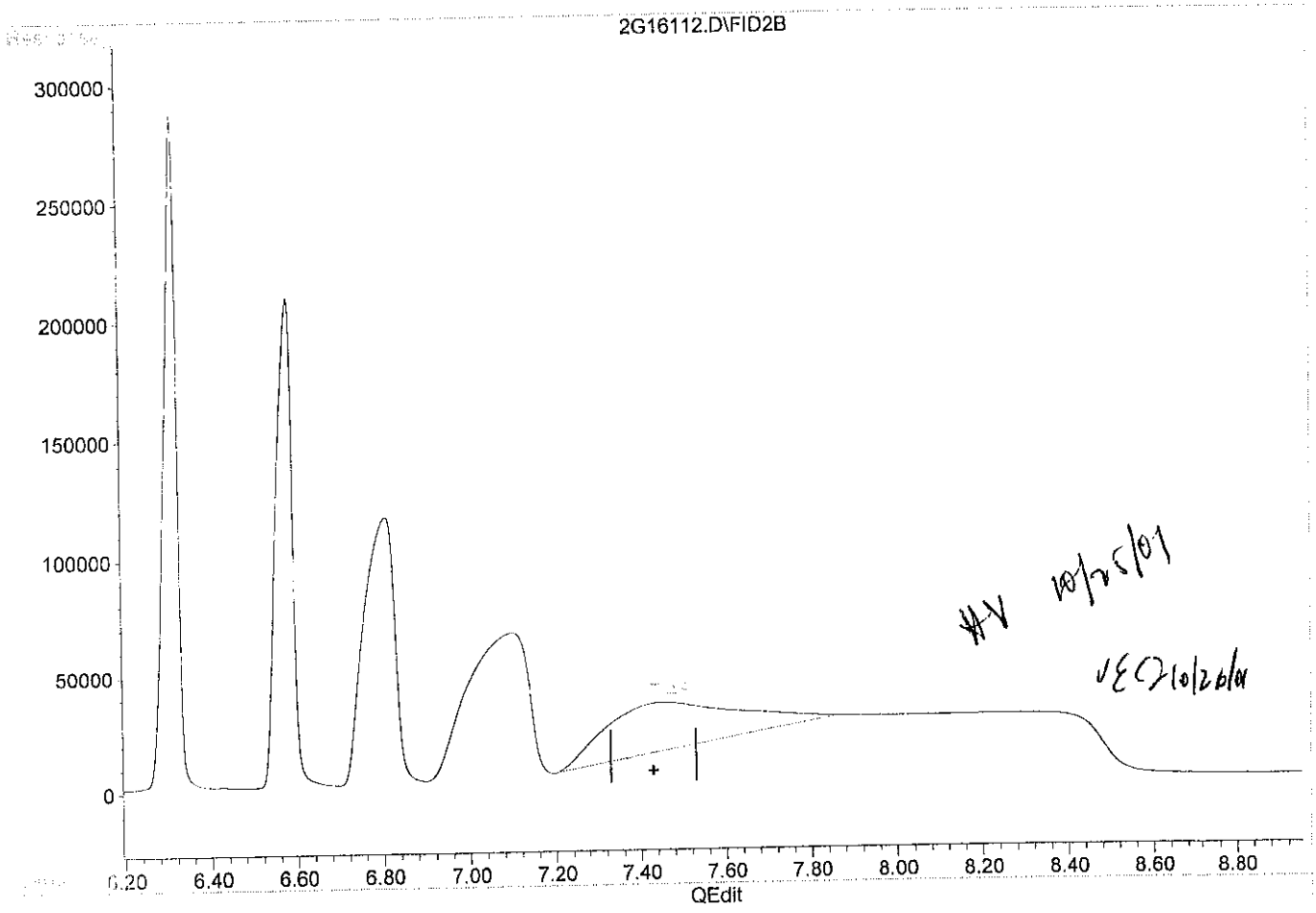
(+) = Expected Retention Time
2G16112.D FLASHPRO.M Thu Oct 25 13:38:07 2001

227

Data File : C:\HPCHEM\1\DATA\102501A\2G16112.D
Acq On : 25 Oct 2001 12:47
Sample : WG107087-02 PRO STD 600ppm
Misc : 1,1 SOS 56-21
IntFile : PETRO.E
Quant Time: Oct 25 13:34 2001 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 10/09/01
Last Update : Thu Oct 11 10:43:53 2001
Response via : Multiple Level Calibration



HV 10/25/01

VEO 10/26/01

(3) n-Nonatriacontane (s)

7.46min 621.792ppm m

response 4443706

(+) = Expected Retention Time
2G16112.D FLASHPRO.M Thu Oct 25 13:38:40 2001

228

Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 25 Oct 2001 13:02 Operator: HV
Sample : WG107087-03 PRO STD 400ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 25 14:32 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/09/01
Last Update : Thu Oct 11 10:43:53 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	3.83	7723563	377.916 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery	= 1889.58%#	
3) s n-Nonatriacontane	7.63f	3703509	514.602 ppm m
Spiked Amount 20.000	Recovery	= 2573.01%	
Target Compounds			
1) H Petroleum Range	3.58	110693171	6760.254 ppb

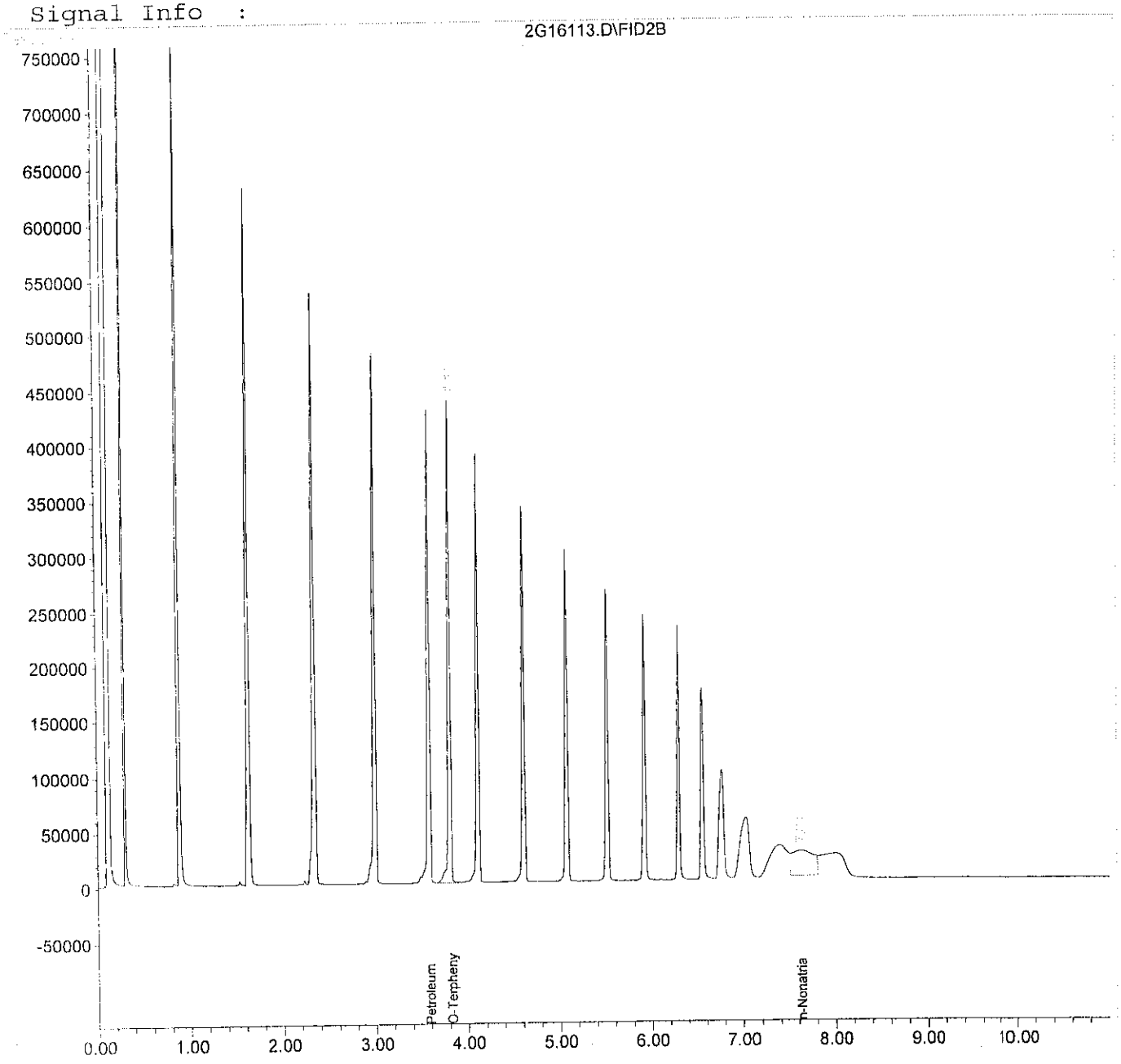
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\[illegible]
Acq On : 25 Oct 2001 13:02
Sample : WG107087-03 PRO STD 400ppm
Misc : 1,1 SOS 56-21
IntFile : PETRO.E
Quant Time: Oct 25 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 10/09/01
Last Update : Thu Oct 11 10:43:53 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

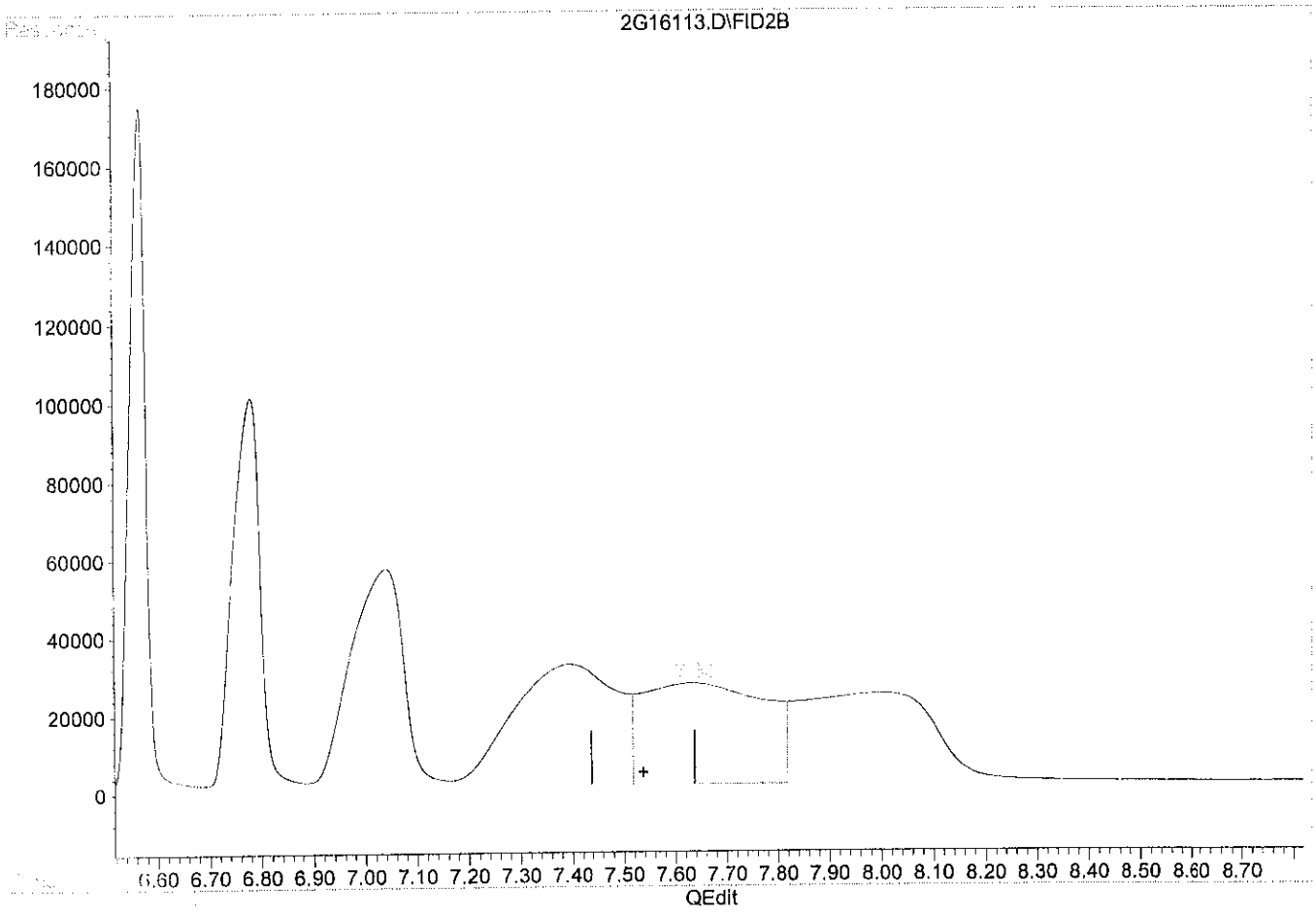
Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\102501A\2G16113.D
Acq On : 25 Oct 2001 13:02
Sample : WG107087-03 PRO STD 400ppm
Misc : 1,1 SOS 56-21
IntFile : PETRO.E
Quant Time: Oct 25 14:28 2001 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 10/09/01
Last Update : Thu Oct 11 10:43:53 2001
Response via : Multiple Level Calibration



(3) n-Nonatriacontane (s)

7.63min 596.791ppm

response 4295011

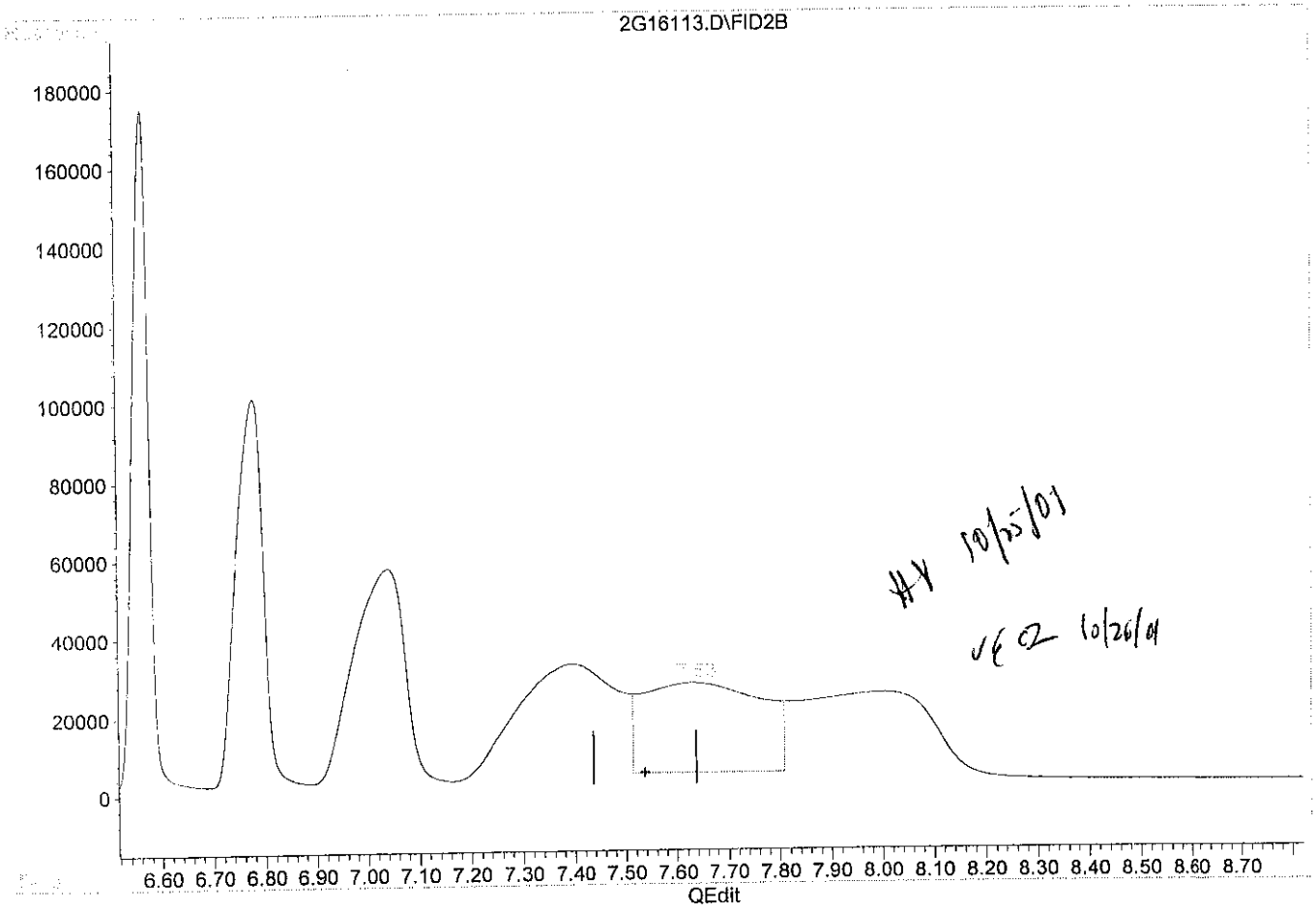
(+) = Expected Retention Time
2G16113.D FLASHPRO.M Thu Oct 25 14:31:44 2001

231

Data File : C:\HPCHEM\1\DATA\102501A\2G16113.D
Acq On : 25 Oct 2001 13:02
Sample : WG107087-03 PRO STD 400ppm
Misc : 1,1 SOS 56-21
IntFile : PETRO.E
Quant Time: Oct 25 14:28 2001 Quant Results File: FLASHPRO.RES

Vial: 3
Operator: HV
Inst : hp2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/09/01
Last Update : Thu Oct 11 10:43:53 2001
Response via : Multiple Level Calibration



(3) n-Nonatriacontane (s)

7.63min 514.602ppm m

Response 3703509

(+) = Expected Retention Time
2G16113.D FLASHPRO.M Thu Oct 25 14:33:01 2001

232

Data File : C:\HPCHEM\1\DATA\102501A\2G16114.D
Acq On : 25 Oct 2001 13:17
Sample : WG107087-01 PRO STD 200ppm
Misc : 1,1 SOS 56-21
IntFile : PETRO.E
Quant Time: Oct 25 13:40 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 10/09/01
Last Update : Thu Oct 11 10:43:53 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	3.82	4394433	252.956 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery	= 1264.78%#	
3) s n-Nonatriacontane	7.54f	1810125	253.284 ppm m
Spiked Amount 20.000	Recovery	= 1266.42%	
Target Compounds			
1) H Petroleum Range	3.58	59963625	4299.251 ppb

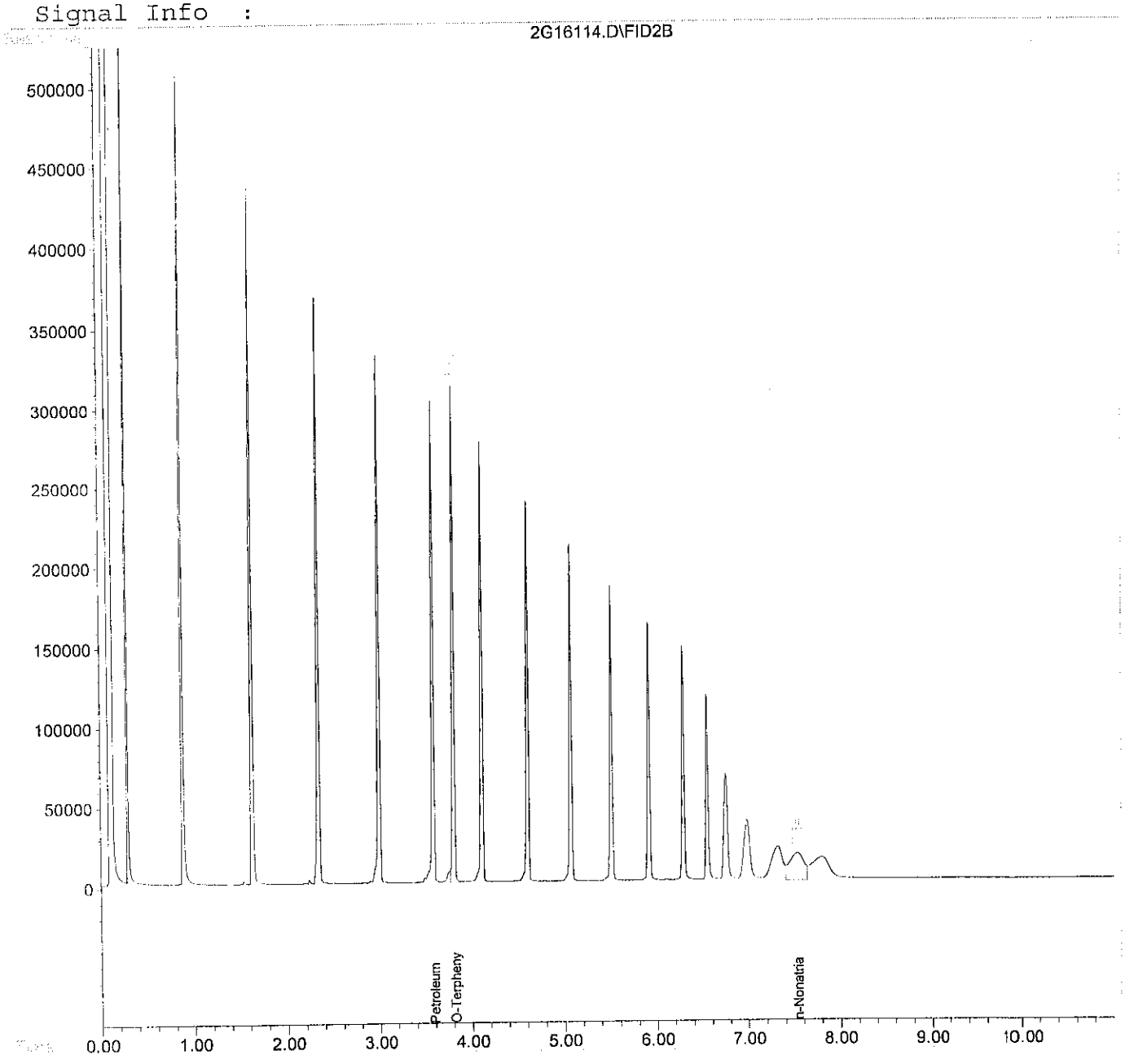
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\102501A\2G16114.D
Acq On : 25 Oct 2001 13:17
Sample : WG107087-01 PRO STD 200ppm
Misc : 1,1 SOS 56-21
IntFile : PETRO.E
Quant Time: Oct 25 13:40 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 10/09/01
Last Update : Thu Oct 11 10:43:53 2001
Responce via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

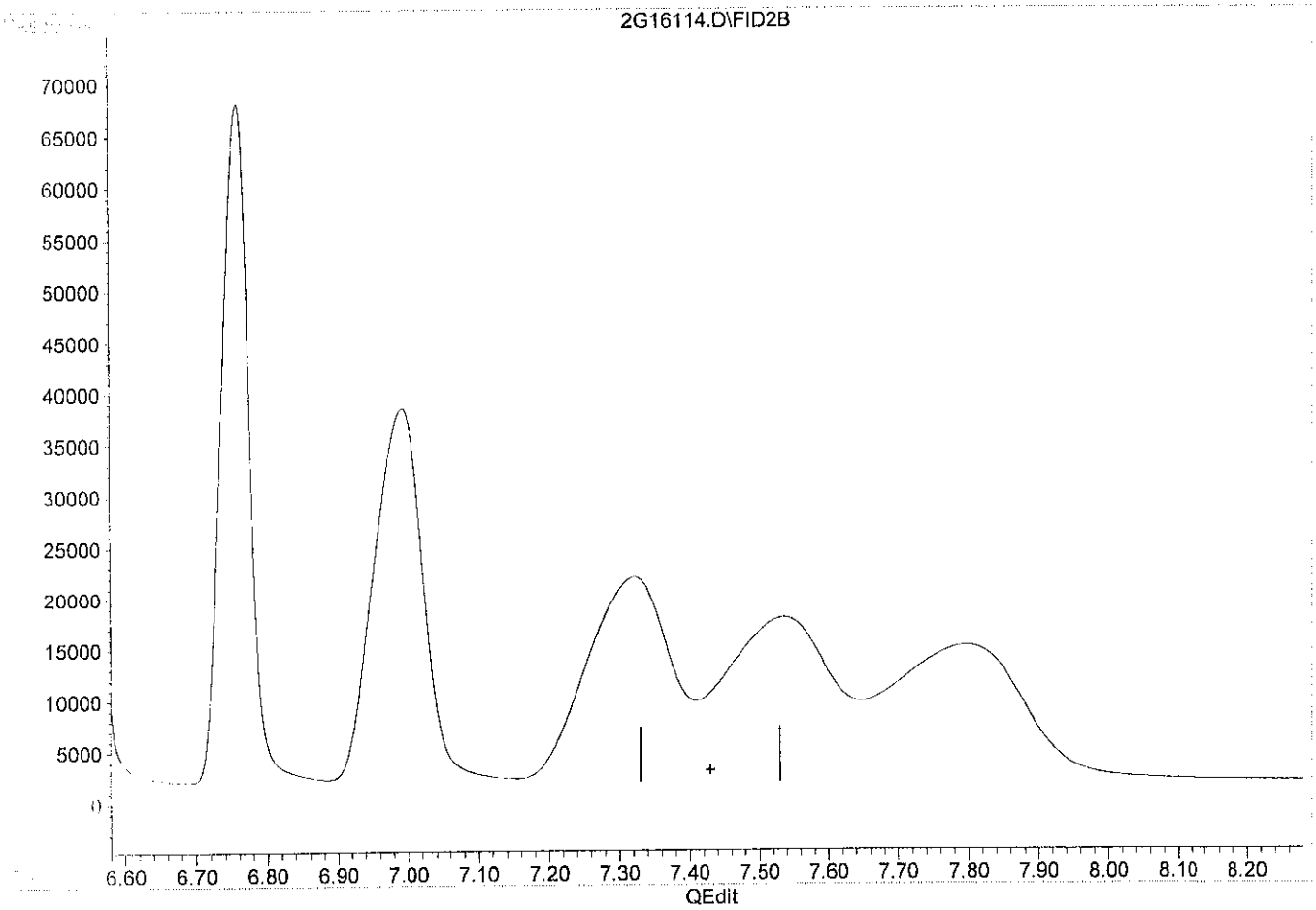
Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\[illegible]
Acq On : 25 Oct 2001 13:17
Sample : WG107087-01 PRO STD 200ppm
Misc : 1,1 SOS 56-21
IntFile : PETRO.E
Quant Time: Oct 25 13:39 2001 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 10/09/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration



(3) n-Nonatriacontane (s)

7.43min 0.000ppm

response 0

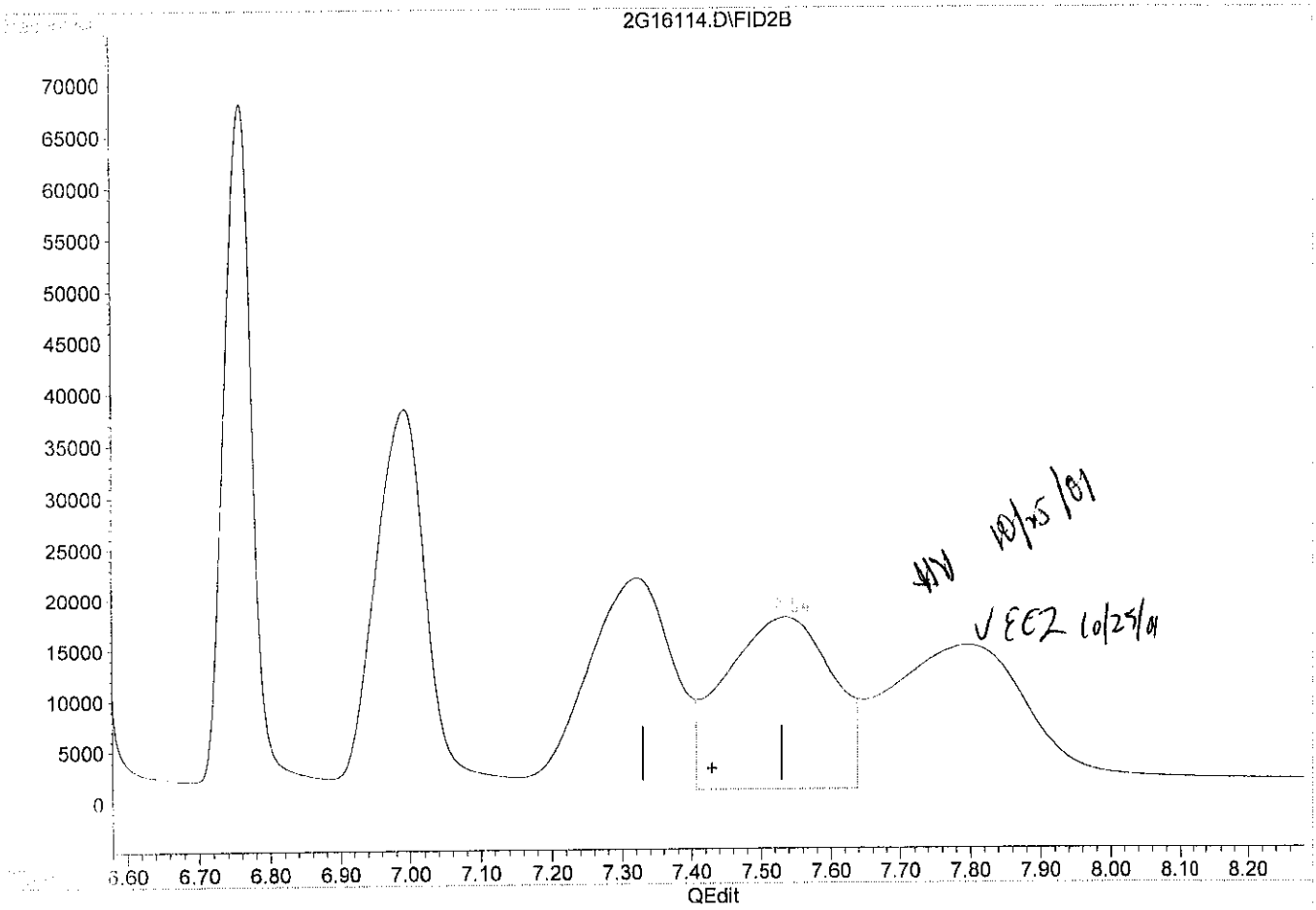
(+) = Expected Retention Time
2G16114.D FLASHPRO.M Thu Oct 25 13:40:16 2001

235

Data File : C:\HPCHEM\1\DATA\[illegible]
Acq On : 25 Oct 2001 13:17
Sample : WG107087-01 PRO STD 200ppm
Misc : 1,1 SOS 56-21
IntFile : PETRO.E
Quant Time: Oct 25 13:39 2001 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 10/09/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration



(3) n-Nonatriacontane (s)

7.54min 253.284ppm m

response 1810125

(+) = Expected Retention Time
2G16114.D FLASHPRO.M Thu Oct 25 13:40:29 2001

236

Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 25 Oct 2001 13:37 Operator: HV
Sample : WG107087-04 PRO STD 100ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 25 14:37 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 : Thu Oct 11 10:43:53 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	3.80	1968412	96.315 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	481.57%#
3) s n-Nonatriacontane	7.48f	699024	88.316 ppm
Spiked Amount 20.000		Recovery =	441.58%
Target Compounds			
1) H Petroleum Range	3.58	26618447	1629.847 ppb

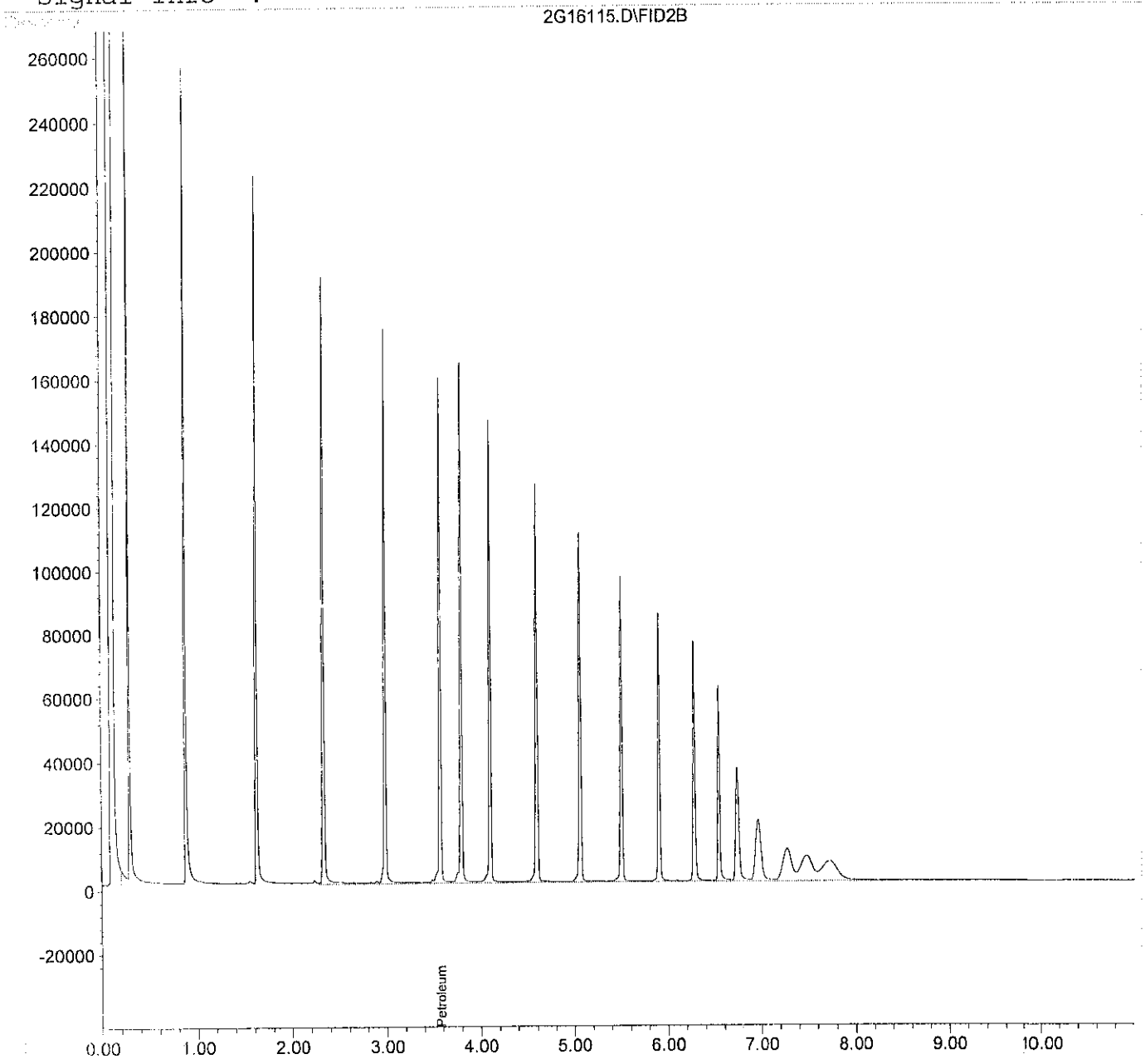
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\2G16115\2G16115.D
Acq On : 25 Oct 2001 13:37
Sample : WG107087-04 PRO STD 100ppm
Misc : 1,1 SOS 56-21
IntFile : PETRO.E
Quant Time: Oct 25 14:37 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 : Thu Oct 11 10:43:53 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 : 25 Oct 2001 13:52 Operator: HV
Sample : WG107087-05 PRO STD 50ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 25 14:24 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/09/01
Last Update : Thu Oct 11 10:43:53 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	3.80	1058744	60.944 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery	=	304.72%#
3) s n-Nonatriacontane	7.46	349672	48.928 ppm
Spiked Amount 20.000	Recovery	=	244.64%
Target Compounds			
1) H Petroleum Range	3.58	13796384	989.168 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16116.D FLASHPRO.M Thu Oct 25 14:38:38 2001 Page 1

239

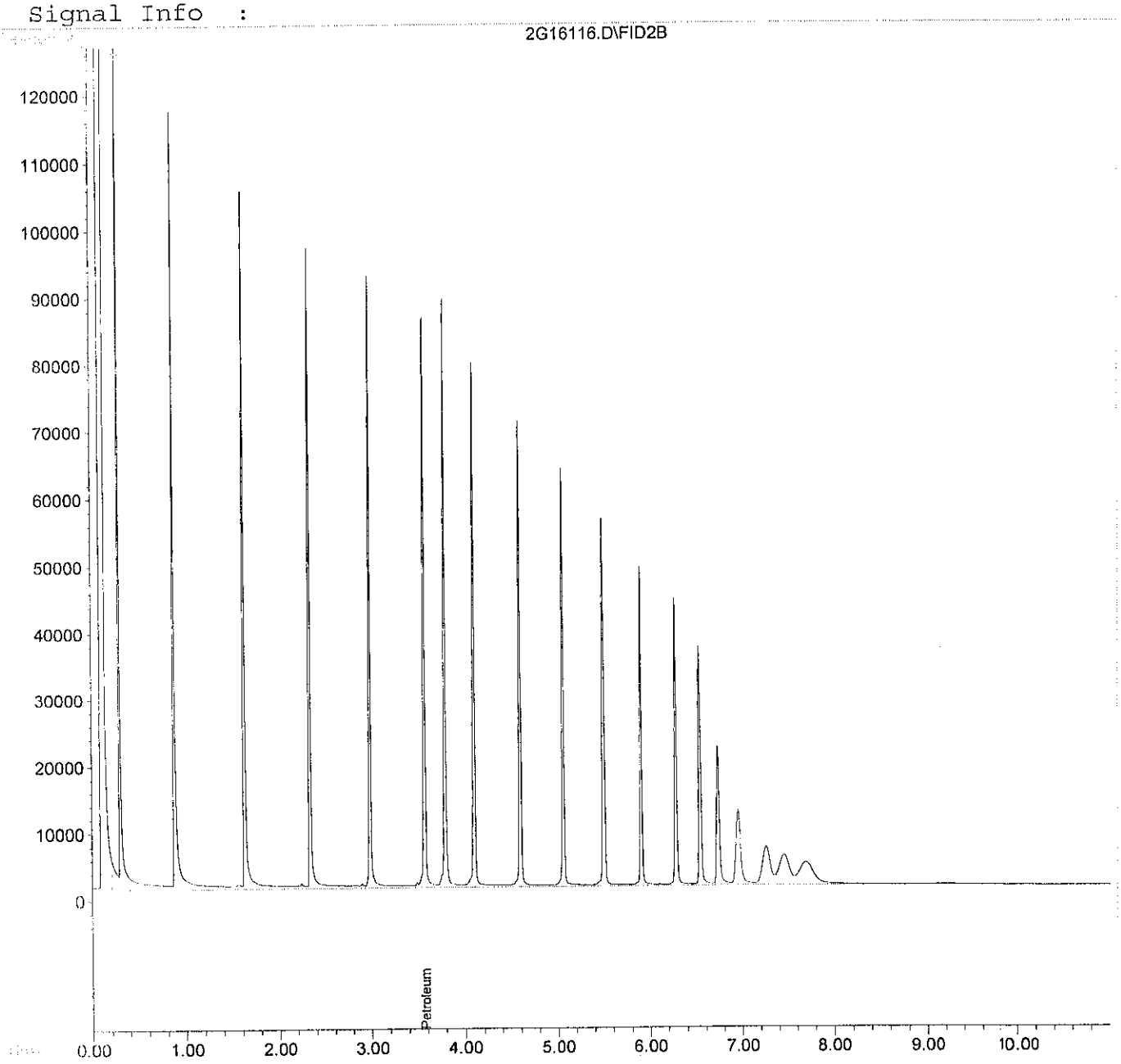
Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 25 Oct 2001 13:52
Sample : WG107087-05 PRO STD 50ppm
Misc : 1,1 SOS 56-21
IntFile : PETRO.E
Quant Time: Oct 25 14:24 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 10/09/01
Last Update : Thu Oct 11 10:43:53 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\[illegible] Vial: 5
Acq On : 25 Oct 2001 14:07 Operator: HV
Sample : WG107087-06 PRO STD 5ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 25 14:24 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/09/01
Last Update : Thu Oct 11 10:43:53 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

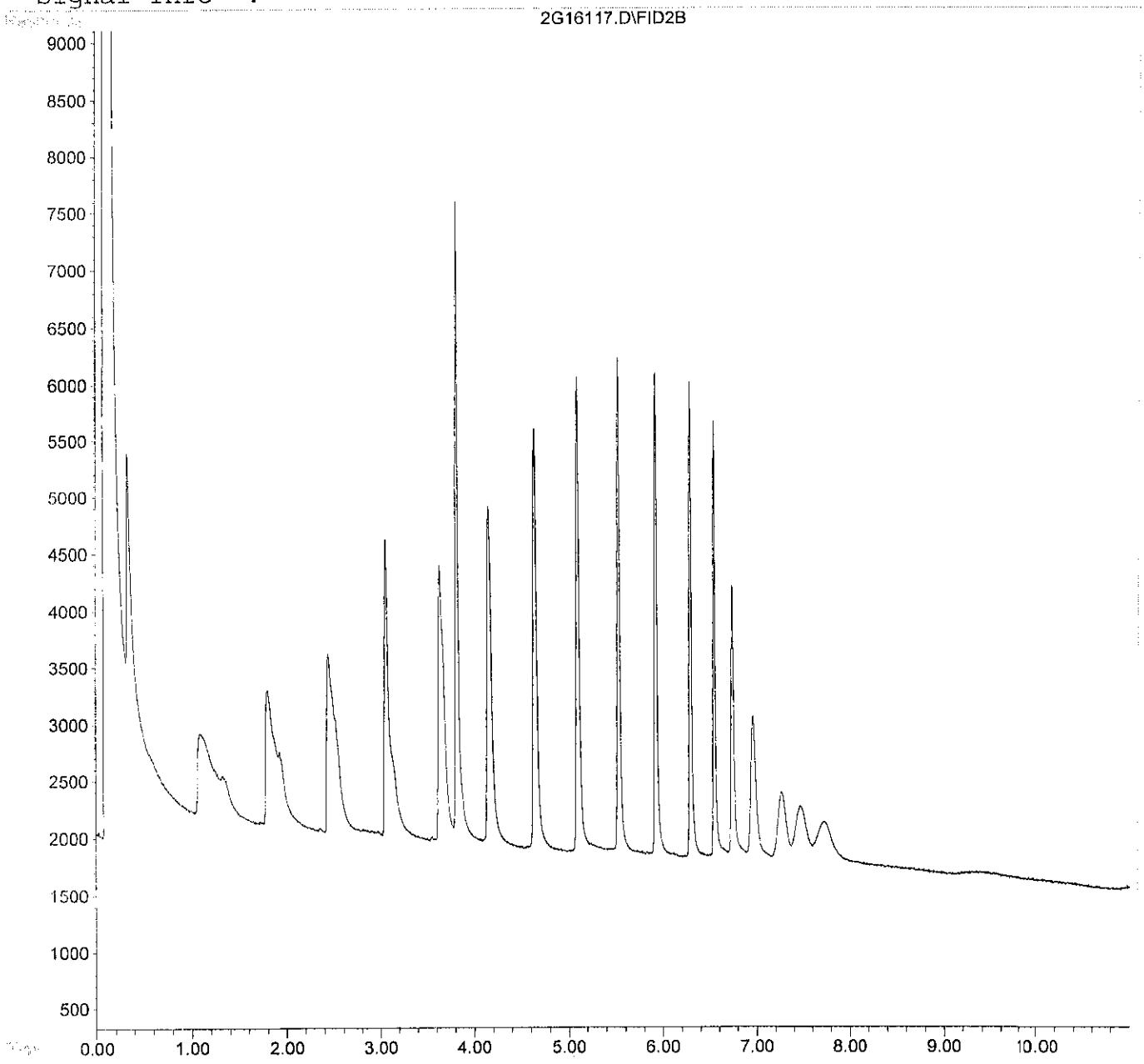
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.82	114713	6.603 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =	33.02%#	
3) s n-Nonatriacontane	7.47	38954	5.451 ppm
Spiked Amount 20.000	Recovery =	27.26%	
Target Compounds			
1) H Petroleum Range	3.58	1370244	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16117.D FLASHPRO.M Thu Oct 25 14:38:46 2001 Page 1

Acq On : 25 Oct 2001 14:07 Operator: HV
Sample : WG107087-06 PRO STD 5ppm Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 25 14:24 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/09/01
Last Update : Thu Oct 11 10:43:53 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 : 25 Oct 2001 14:27
Sample : WG107087-07 ALT PRO @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 10/25/01
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	3113.601	8.4	85	0.00
2	s	O-Terphenyl	200.000	1.116	99.4#	1	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data Path : C:\HPCHEM\1\DATA\2G16118\

Acq On : 25 Oct 2001 14:27 Operator: HV
Sample : WG107087-07 ALT PRO @200ppm Inst : hp2
Misc : 1,1 SOS 56-26 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 25 14:40 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 : Thu Oct 11 10:43:53 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

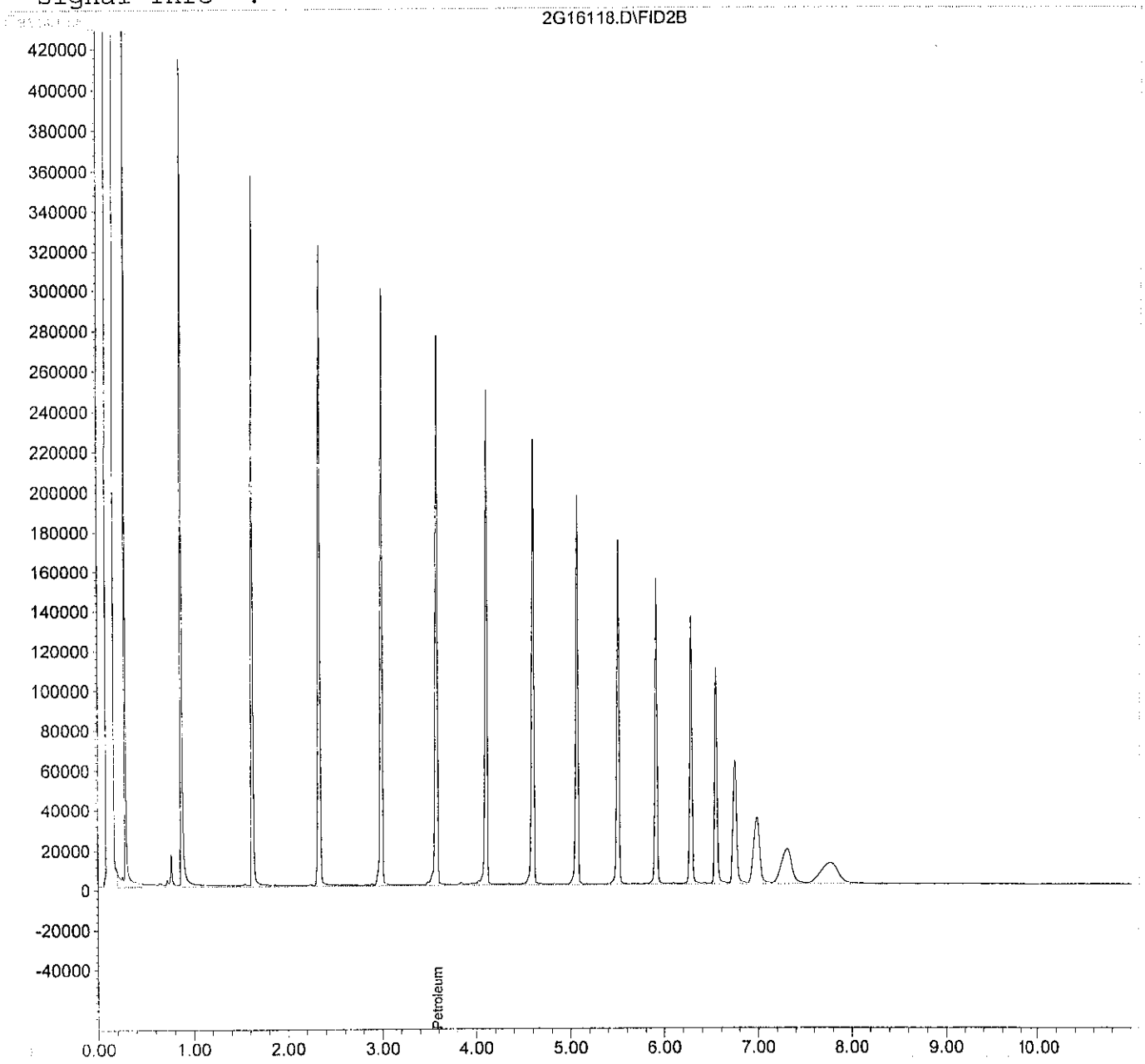
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.84	22807	1.116 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		5.58%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000	Recovery =		0.00%
Target Compounds			
1) H Petroleum Range	3.58	50850918	3113.601 ppb

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

Acq On : 25 Oct 2001 14:27 Operator: HV
Sample : WG107087-07 ALT PRO @200ppm Inst : hp2
Misc : 1,1 SOS 56-26 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 25 14:40 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 : Thu Oct 11 10:43:53 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 25 Oct 2001 16:31 Operator: HV
Sample : WG107087-08 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 10/25/01
Last Update : Thu Oct 11 10:43:53 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	3827.227	-12.6	104	0.00
2	s	O-Terphenyl	200.000	220.340	-10.2	102	0.00
3	s	n-Nonatriacontane	200.000	202.387	-1.2	88	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16126.D FLASHPRO.M Fri Oct 26 08:03:08 2001 Page 1

246

Acq On : 25 Oct 2001 16:31 Operator: HV
Sample : WG107087-08 PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 8:02 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 : Thu Oct 11 10:43:53 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

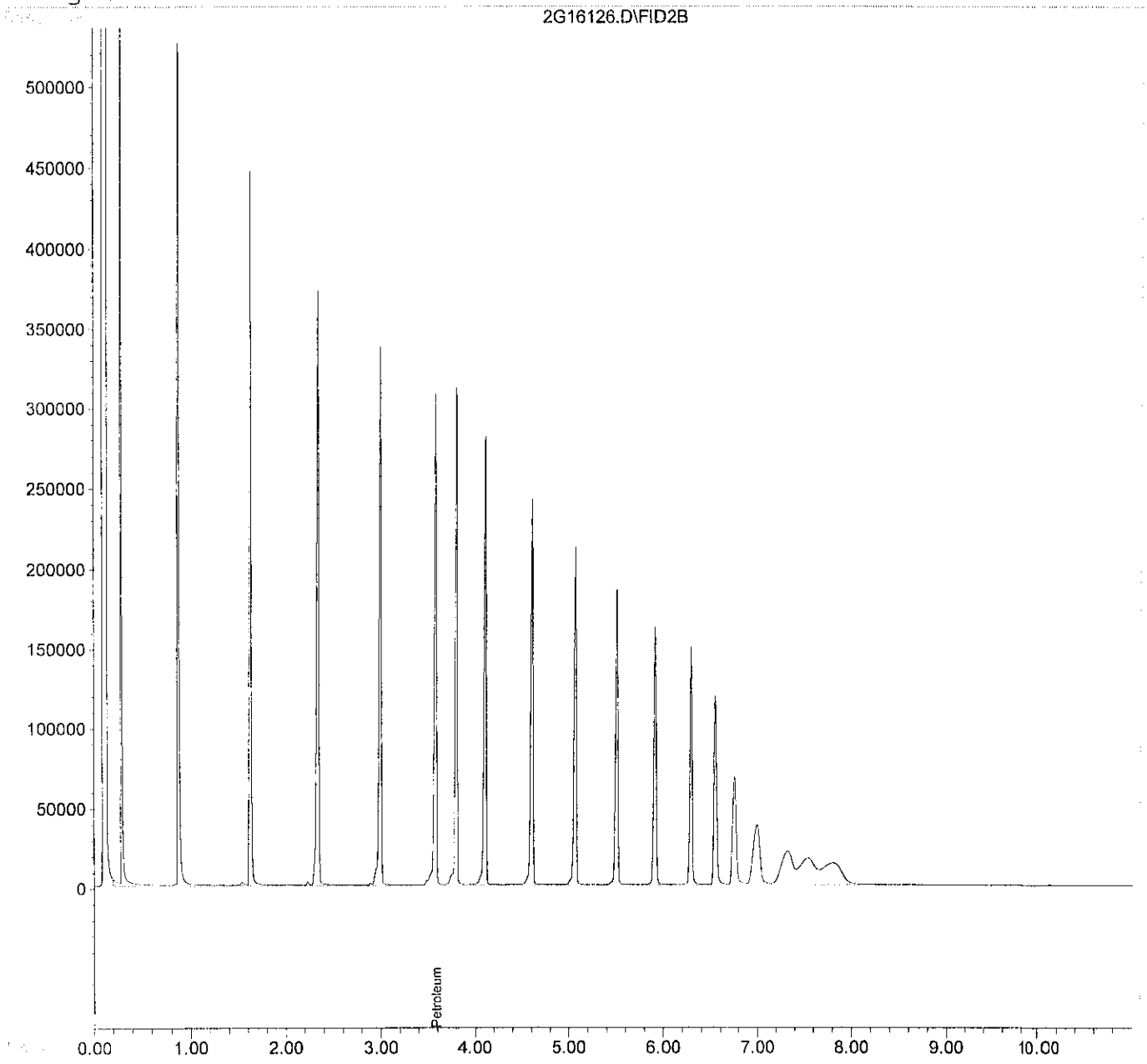
Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
2) s O-Terphenyl	3.81	4503147	220.340	ppb	
Spiked Amount 20.000	Range 49 - 174	Recovery	= 1101.70%#		
3) s n-Nonatriacontane	7.54	1601896	202.387	ppm	m
Spiked Amount 20.000		Recovery	= 1011.94%		
Target Compounds					
1) H Petroleum Range	3.58	62505764	3827.227	ppb	

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

Acq On : 25 Oct 2001 16:31 Operator: HV
Sample : WG107087-08 PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 8:02 2001 Quant Results File: FLASHPRO.RES

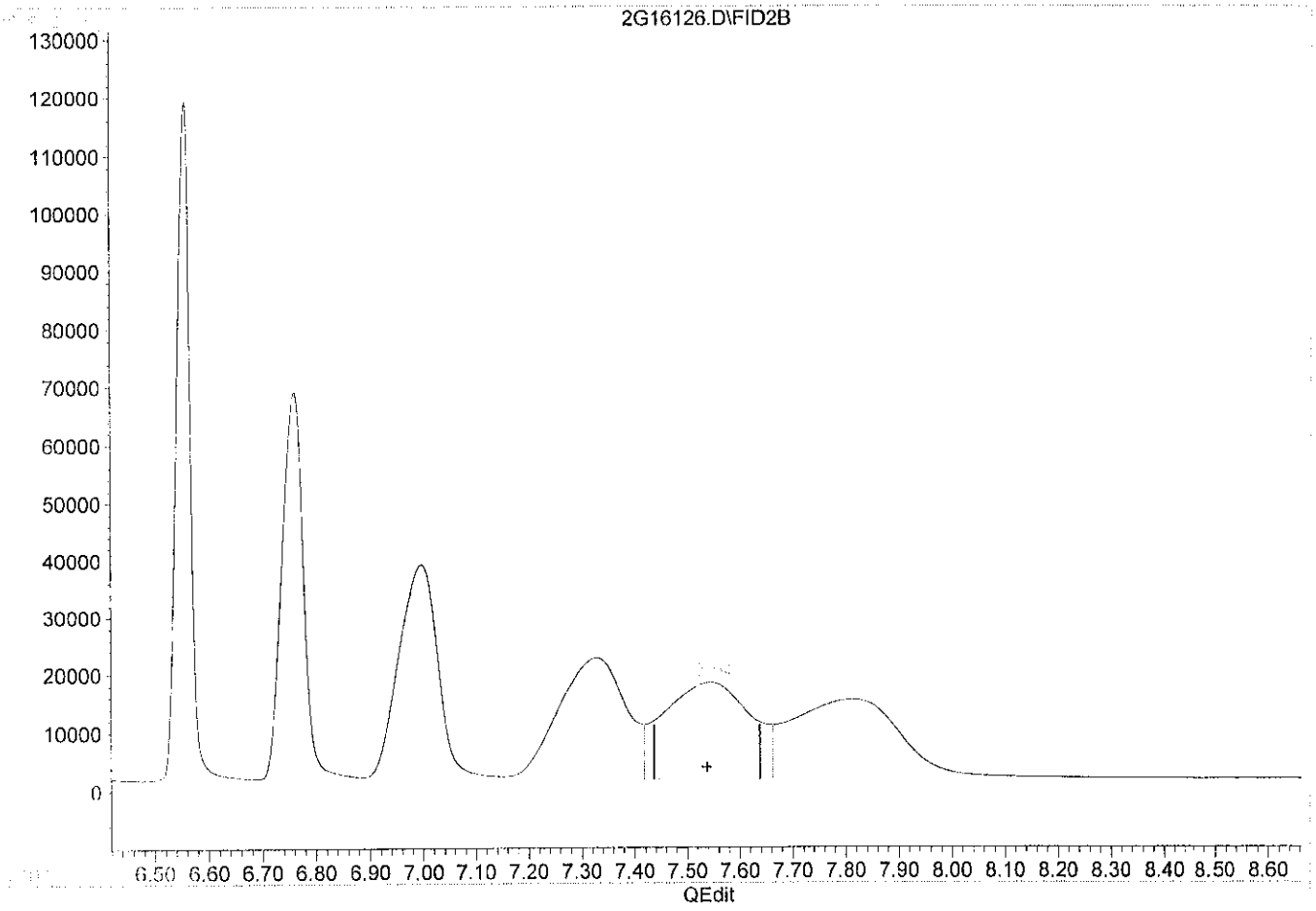
Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Thu Oct 11 10:43:53 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 25 Oct 2001 16:31 Operator: HV
Sample : WG107087-08 PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 8:01 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)

7.54min 241.502ppm

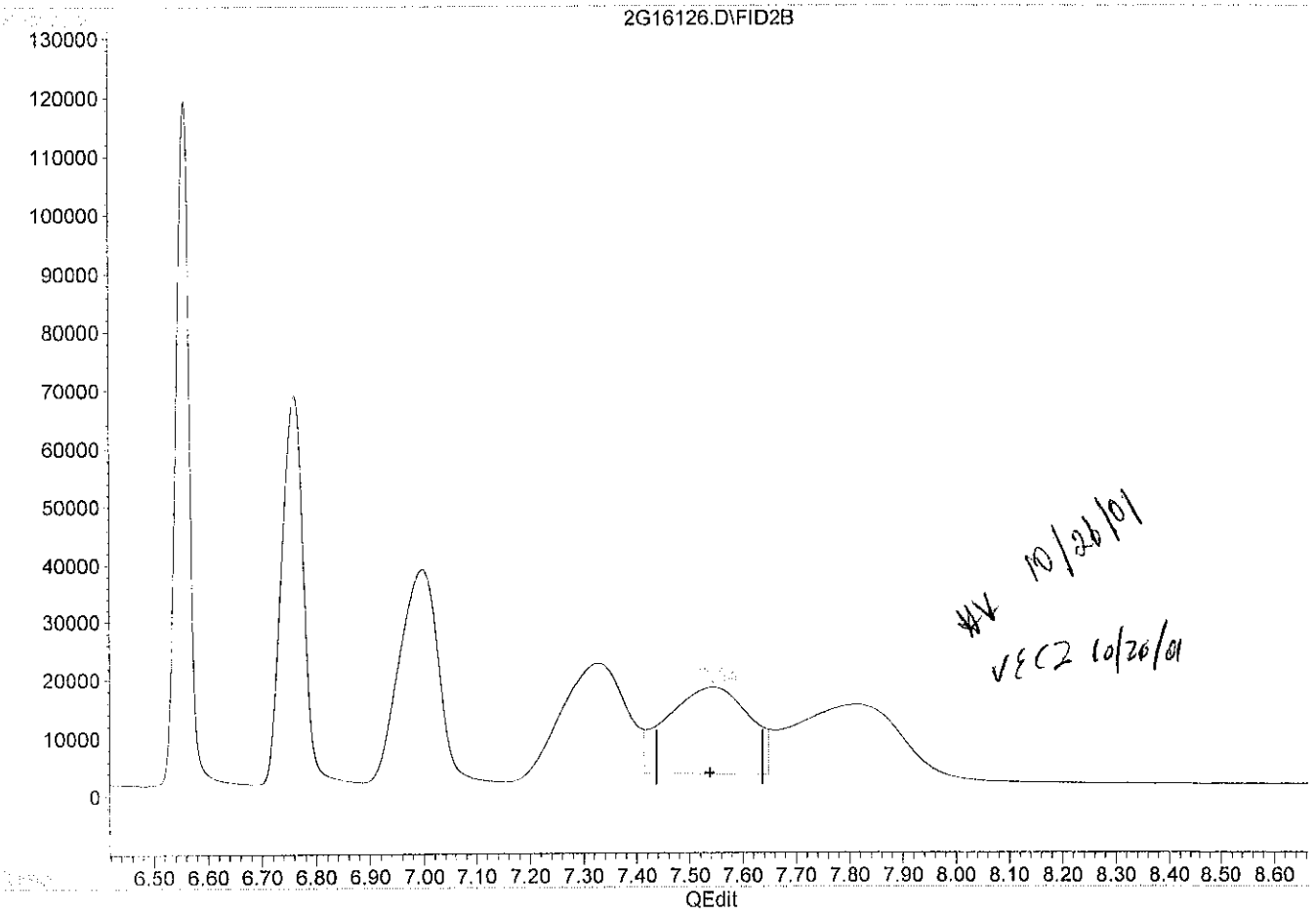
response 1911493

(+) = Expected Retention Time
2G16126.D FLASHPRO.M Fri Oct 26 08:02:26 2001

249

Acq On : 25 Oct 2001 16:31 Operator: HV
Sample : WG107087-08 PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 8:01 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



#4 10/26/01

VEC2 10/26/01

(3) n-Nonatriacontane (s)

7.54min 202.387ppm m

response 1601896

(+) = Expected Retention Time
2G16126.D FLASHPRO.M Fri Oct 26 08:02:41 2001

250

Data File : C:\HPCHEM\1\DATA\[illegible] Vial: 15
Acq On : 25 Oct 2001 18:34 Operator: HV
Sample : WG107087-09 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 10/25/01
Last Update : Thu Oct 11 10:43:53 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	3657.676	-7.6	100	0.00
2	s	O-Terphenyl	200.000	207.957	-4.0	97	0.00
3	s	n-Nonatriacontane	200.000	202.656	-1.3	89	0.00

251

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16134.D FLASHPRO.M Fri Oct 26 08:07:07 2001 Page 1

Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 25 Oct 2001 18:34 Operator: HV
Sample : WG107087-09 PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 8:06 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 : Thu Oct 11 10:43:53 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	3.81	4250056	207.957 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery	= 1039.79%#	
3) s n-Nonatriacontane	7.54	1604026	202.656 ppm m
Spiked Amount 20.000	Recovery	= 1013.28%	
Target Compounds			
1) H Petroleum Range	3.58	59736687	3657.676 ppb

252

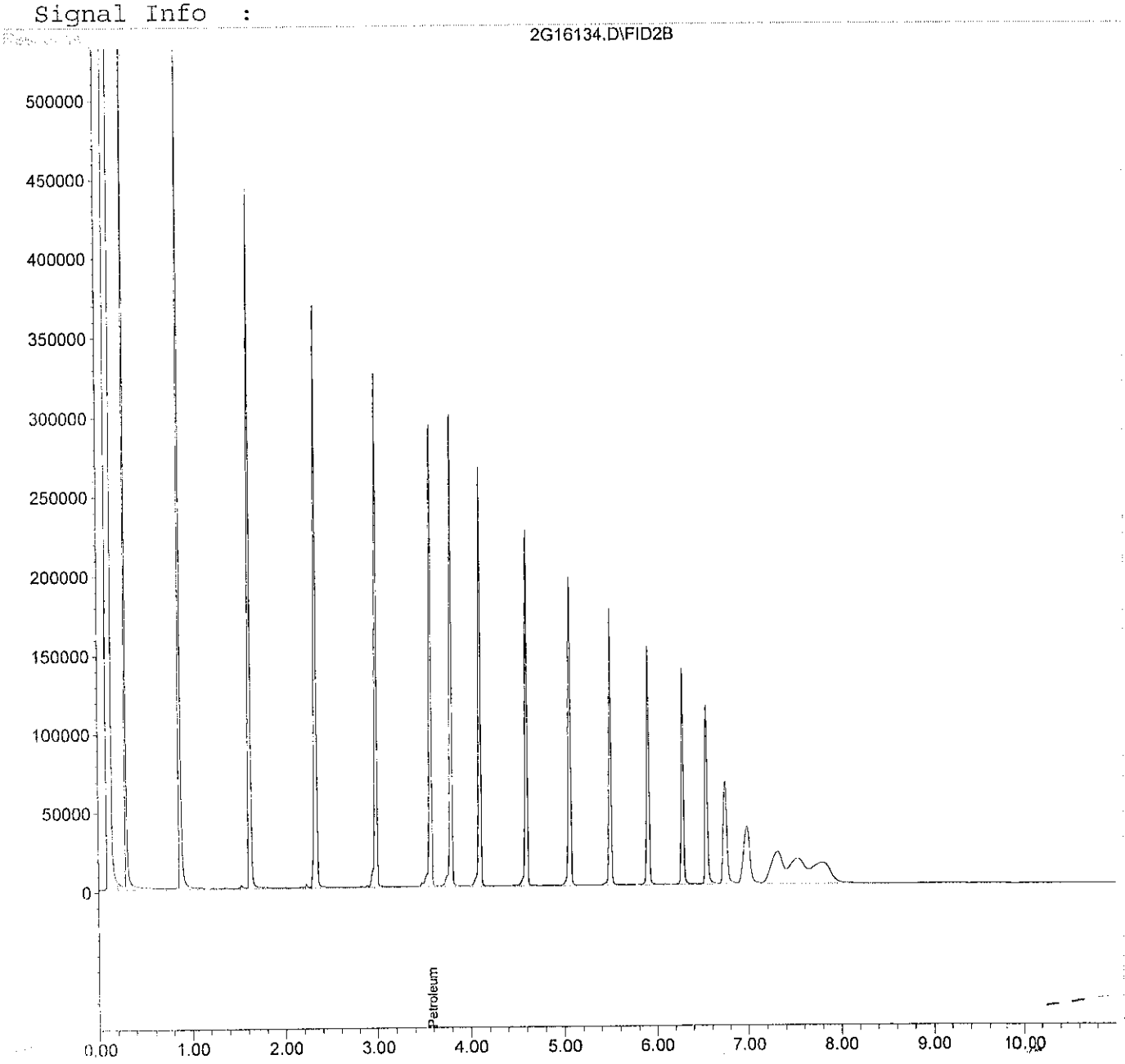
(f)=RT Delta > 1/2 Window (m)=manual int.
2G16134.D FLASHPRO.M Fri Oct 26 08:06:55 2001 Page 1

Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 25 Oct 2001 18:34 Operator: HV
Sample : WG107087-09 PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 8:06 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 : Thu Oct 11 10:43:53 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

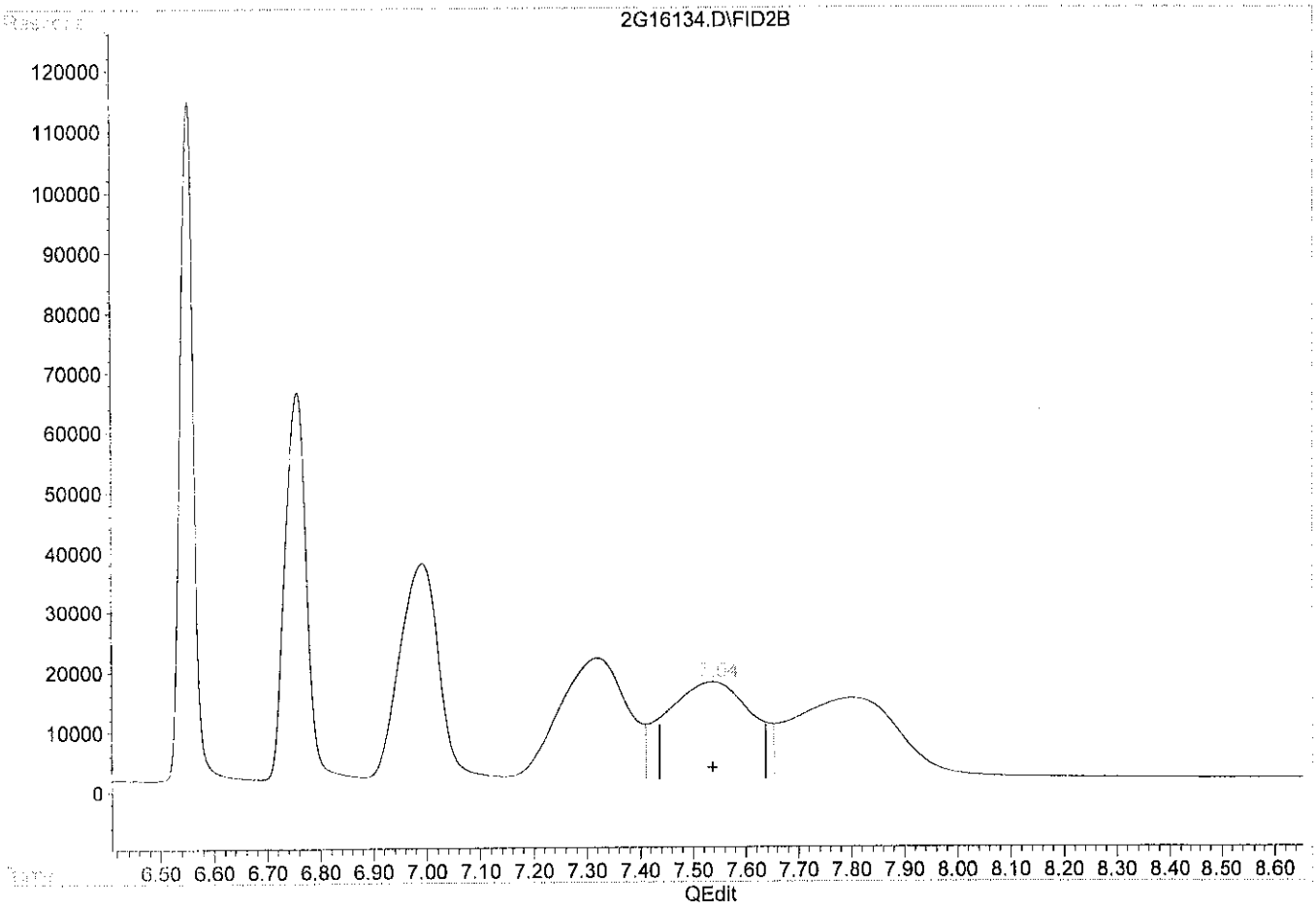
Volume Inj. :
Signal Phase :
Signal Info :



253

Acq On : 25 Oct 2001 18:34 Operator: HV
Sample : WG107087-09 PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 8:03 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)

7.54min 234.356ppm

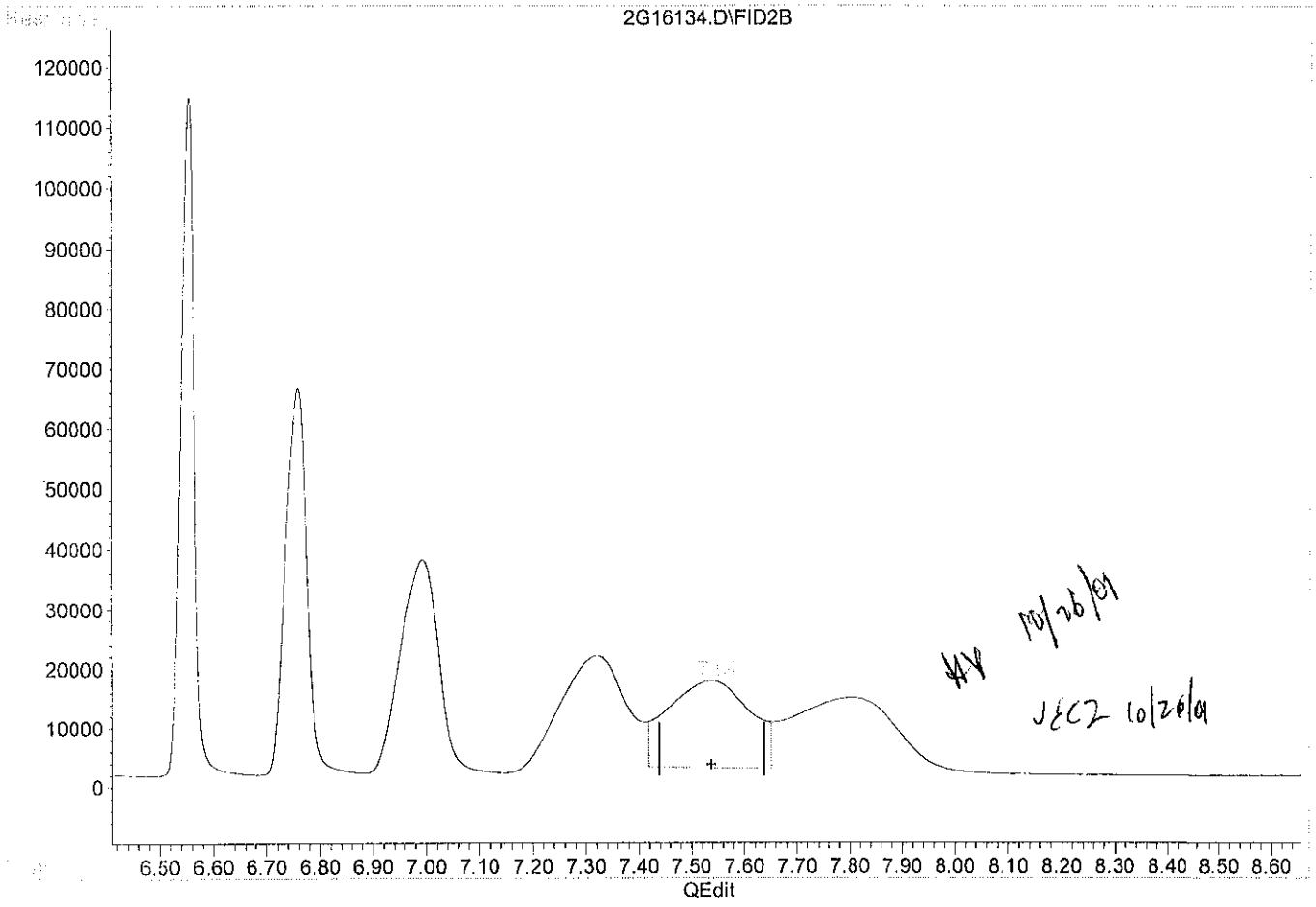
response 1854930

254

(+) = Expected Retention Time
2G16134.D FLASHPRO.M Fri Oct 26 08:06:36 2001

Acq On : 25 Oct 2001 18:34 Operator: HV
Sample : WG107087-09 PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 8:03 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)

7.54min 202.656ppm m

response 1604026

255

(+) = Expected Retention Time
2G16134.D FLASHPRO.M Fri Oct 26 08:06:47 2001

Acq On : 30 Oct 2001 9:53
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	3170.793	6.7	91	0.00
2	s	O-Terphenyl	200.000	198.575	0.7	100	0.00
3	s	n-Dotriacontane	200.000	142.833	28.6#	65	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

256

2G16209.D FLASHPRO.M Tue Oct 30 10:06:53 2001 Page 1

Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 30 Oct 2001 9:53
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)

Data File : C:\HPCHEM\1\DATA\[illegible]
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 [illegible]natriacontane	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

258

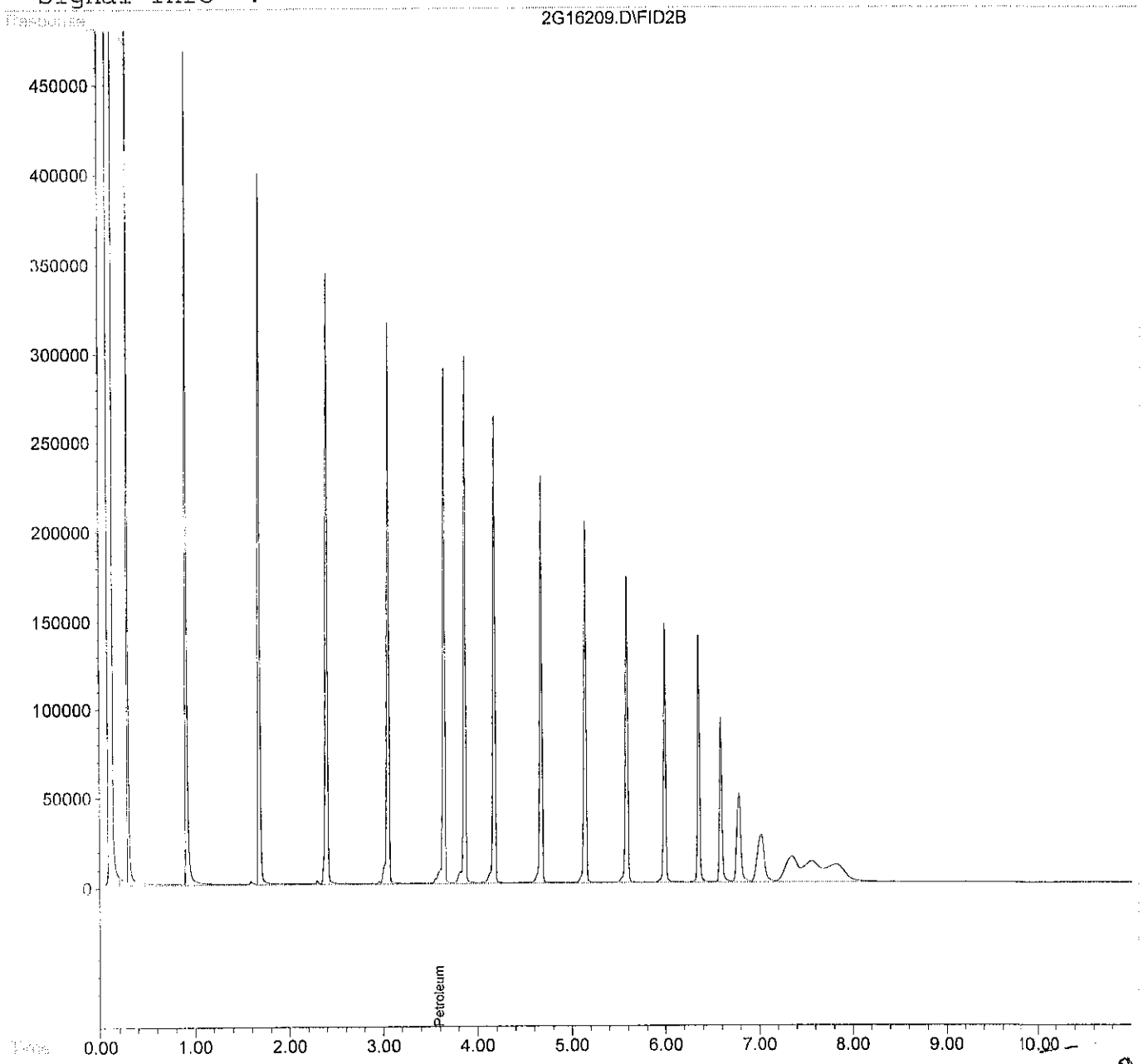
(f)=RT Delta > 1/2 Window (m)=manual int.
2G16209.D FLASHPRO.M Tue Oct 30 10:06:58 2001 Page 1

Data File : C:\HPCHEM\1\DATA\[illegible]
Acq Time : 30 Oct 2001 9:53
Sample : PRO CONT CHK
Misc : 1,1 SOS 56-21
IntFile : PETRO.E
Quant Time: Oct 30 10:06 2001 Quant Results File: FLASHPRO.RES

Vial: [illegible]
Operator: HV
Inst : hp2
Multiplr: 1.00

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
DataAc. Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



259

Data File : [illegible]

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 : 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	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 11:56:39 2001 Page 1

260

Data File : C:\HPCHEM\1\DATA\103001\2G16216.D Vial: 16
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 : 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 : 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

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16216.D FLASHPRO.M Tue Oct 30 11:56:44 2001 Page 1

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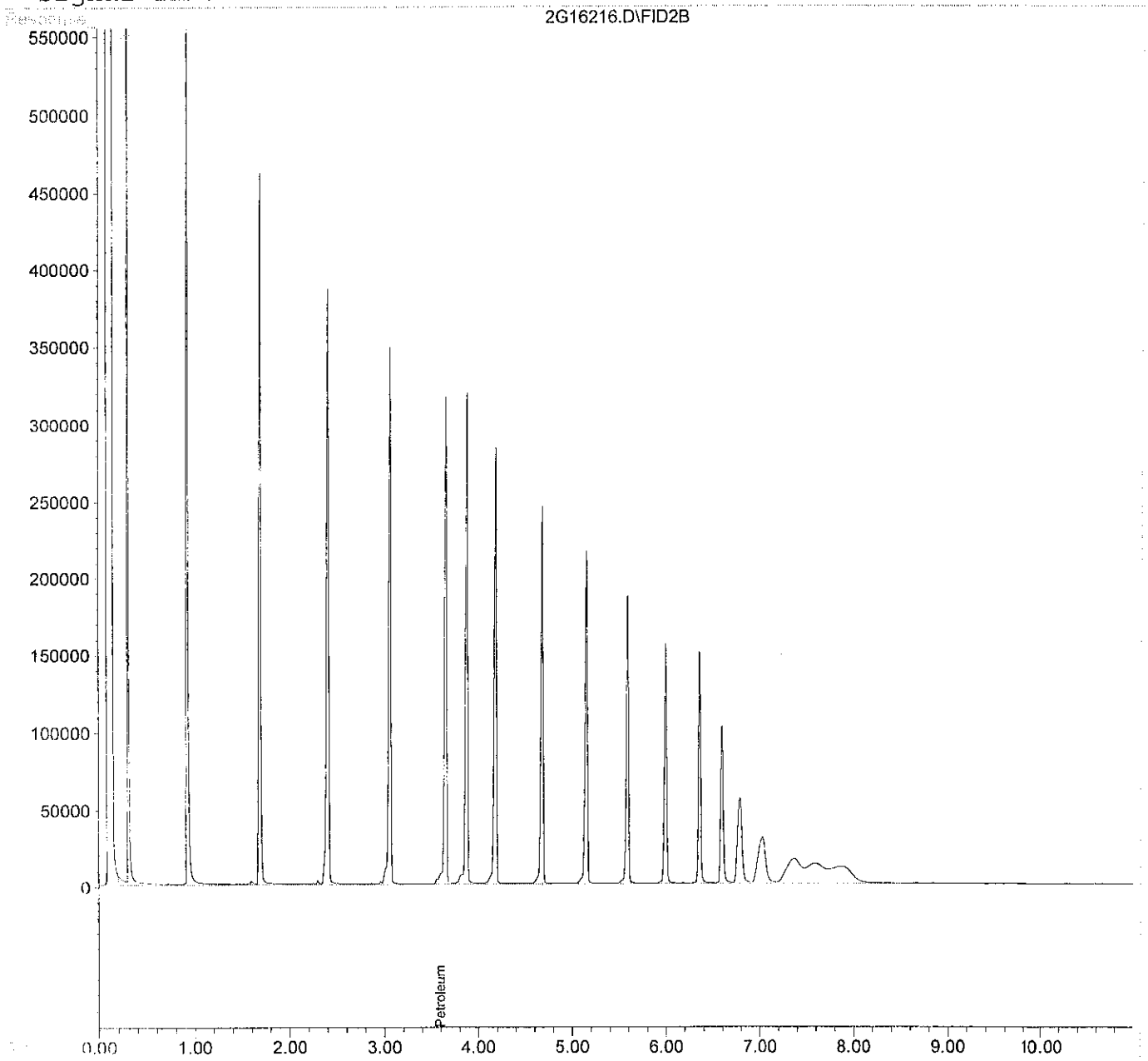
Data File : C:\HPCHEM\1\DATA\2G16216.D
Acq On : 30 Oct 2001 11:44 Operator: HV
Sample : PRO CONT CHK Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 30 11:56 2001 Quant Results File: FLASHPRO.RES

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 :



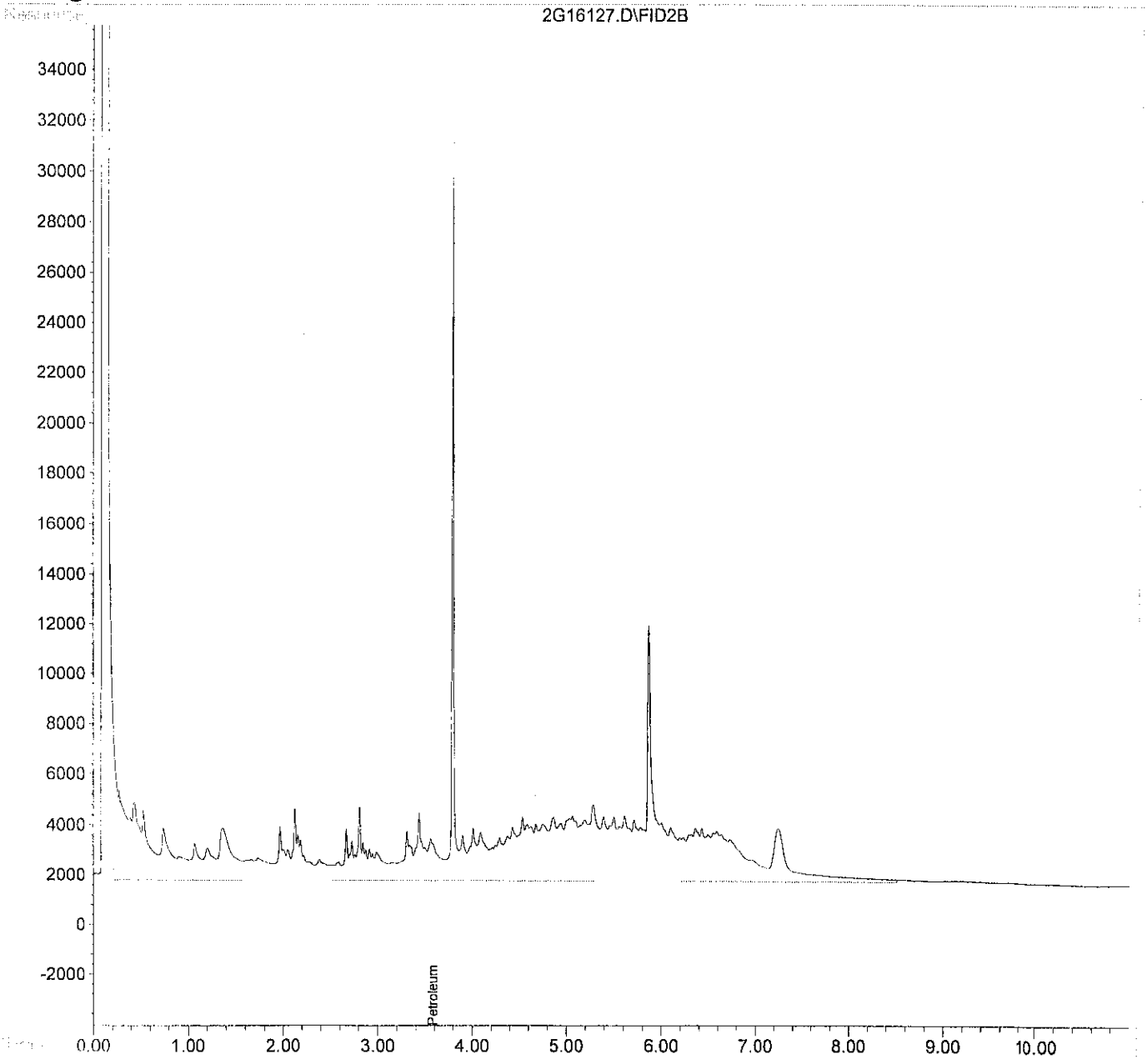
2.2.5.4 Raw QC Data

```
Acq On     : 25 Oct 2001  16:46                          Operator: HV
Sample     : WG106936-01 Ref. PRO water                  Inst    : hp2
Misc       : 1,1  V174-P91                               Multiplr: 1.08
IntFile    : PETRO.E
Quant Time: Oct 26  9:12 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 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                    3.79         356376   17.438 ppb
Spiked Amount     20.000   Range  49 - 174    Recovery    =    87.19%
 3) s   n-Nonatriacontane              7.57            974    0.123 ppm NR
Spiked Amount   20.000                     Recovery       =    0.62%

   Target Compounds
 1) H   Petroleum Range                3.59        4309240  284.963 ppb
```

Acq On : 25 Oct 2001 16:46 Operator: HV
Sample : WG106936-01 Ref. PRO water Inst : hp2
Misc : 1,1 V174-P91 Multiplr: 1.08
IntFile : PETRO.E
Quant Time: Oct 26 9:12 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 Sep 28 14:40:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 25 Oct 2001 14:44 Operator: HV
Sample : WG106936-02 PRO water BLK Inst : hp2
Misc : 1,1 V174-P91 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 8:11 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 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	3.80	393839	19.271 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		96.36%
3) s n-Nonatriacontane	7.56	180	0.023 ppm
Spiked Amount 20.000	Recovery =		0.12%
Target Compounds			
1) H Petroleum Range	3.59	4197277	256.999 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16119.D FLASHPRO.M Fri Oct 26 08:11:22 2001 Page 1

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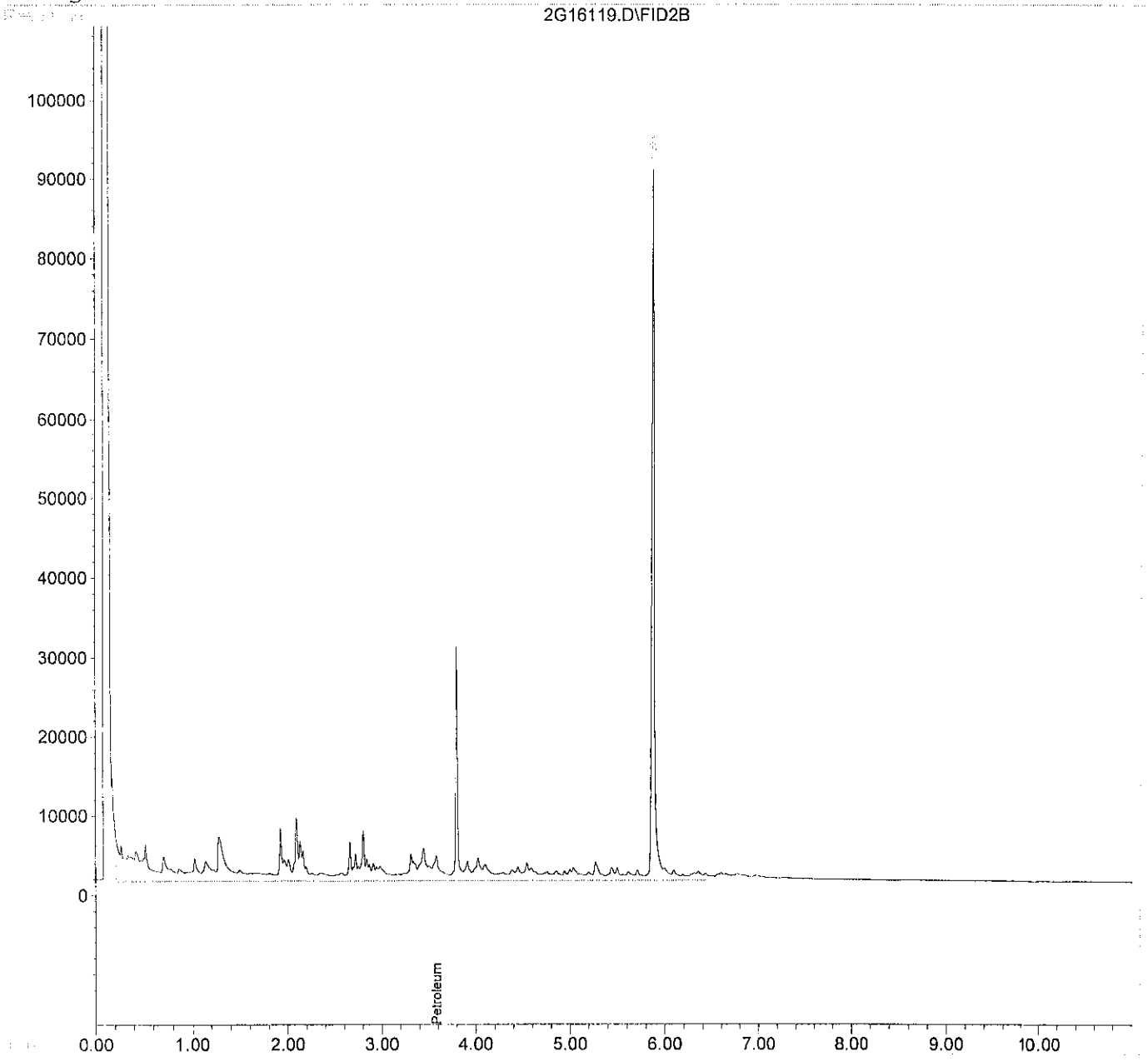
Acq On : 25 Oct 2001 14:44 Operator: HV
Sample : WG106936-02 PRO water BLK Inst : hp2
Misc : 1,1 V174-P91 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 8:11 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/25/01
Last Update : Fri 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\103001\2G16211.D Vial: 5
Acq On : 30 Oct 2001 10:26 Operator: HV
Sample : WG107230-01 PRO water BLK Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 30 11:13 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	3.87	533486	25.825	ppb	m
Spiked Amount 20.000 Range 49 - 174 Recovery = 129.13%					
3) s n-Nonatriacontane	7.60	117	0.012	ppm	
Spiked Amount 20.000 Recovery = 0.06%					
Target Compounds					
1) H Petroleum Range	3.58	53532827	3101.283	ppb	

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16211.D FLASHPRO.M Tue Oct 30 11:13:49 2001 Page 1

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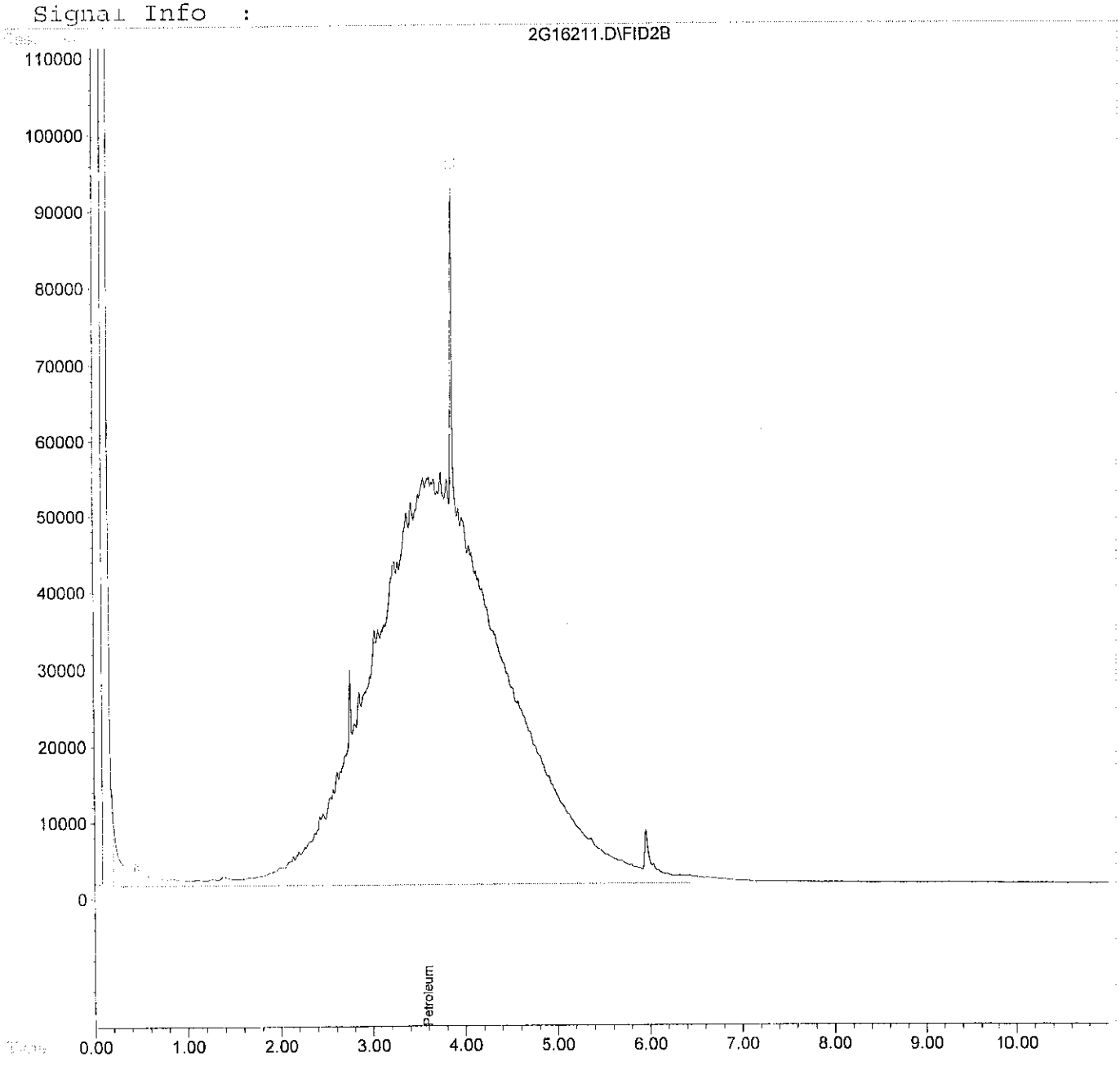
Data File : C:\HPCHEM\1\DATA\103001\2G16211.D Vial: 5
Acq On : 30 Oct 2001 10:26 Operator: HV
Sample : WG107230-01 PRO water BLK Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 30 11:13 2001 Quant Results File: FLASHPRO.RES

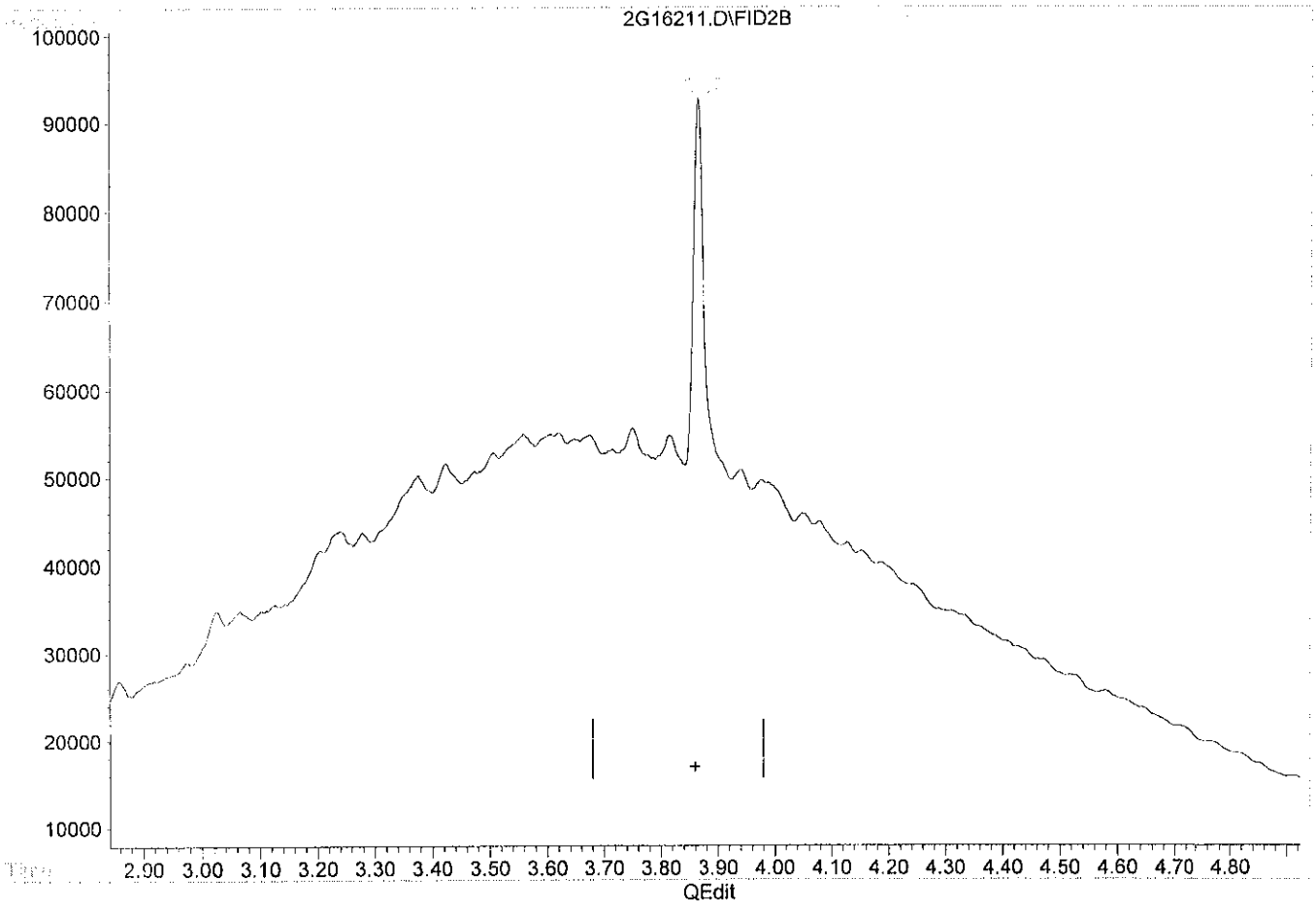
Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 10/26/01
Last Update : Tue Oct 30 11:11:44 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\103001\2G16211.D Vial: 5
Acq On : 30 Oct 2001 10:26 Operator: HV
Sample : WG107230-01 PRO water BLK Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 30 11:12 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



(2) O-Terphenyl (s)

3.87min 139.180ppb

response 2875145

(+) = Expected Retention Time

2G16211.D FLASHPRO.M Tue Oct 30 11:13:34 2001

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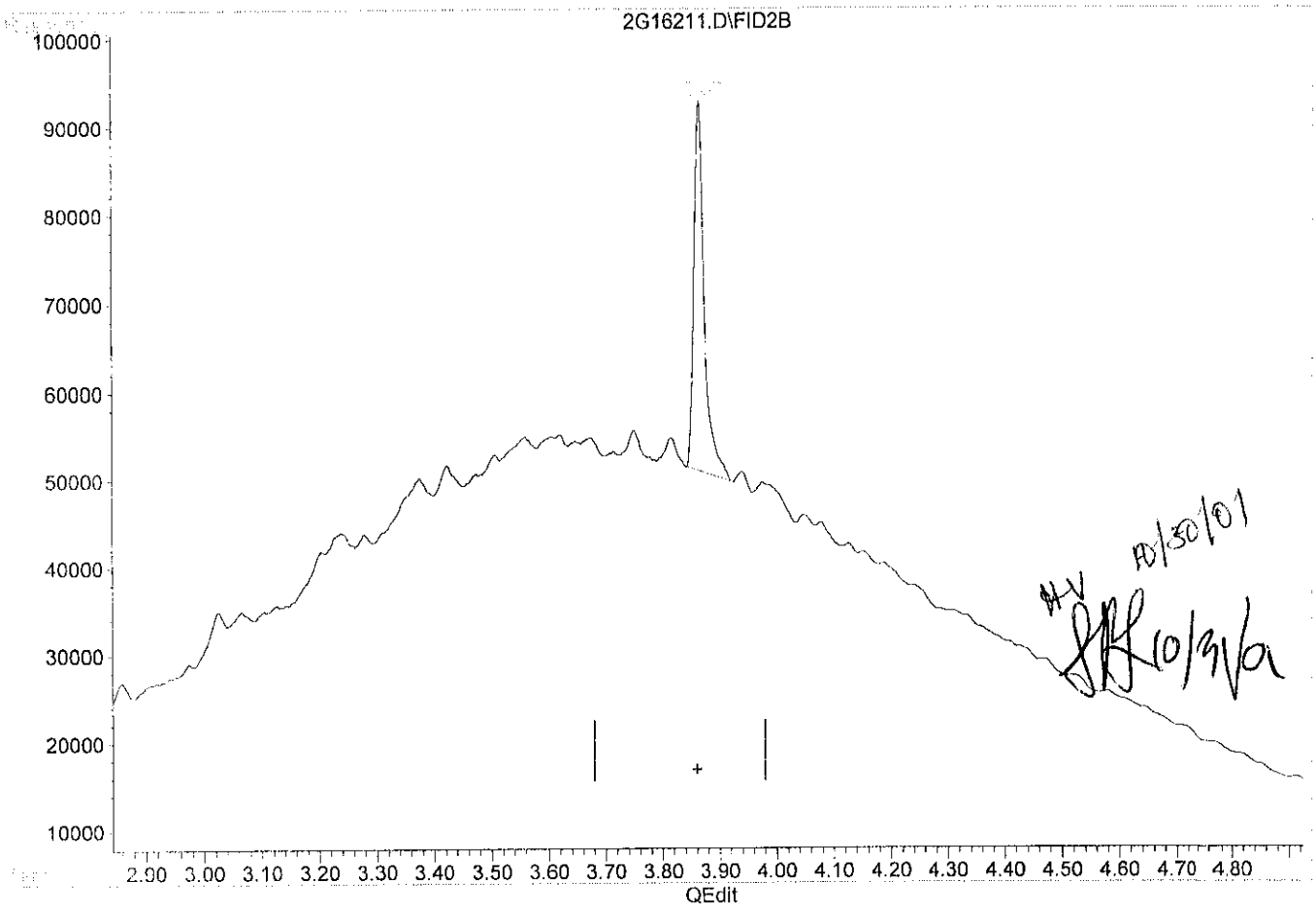
Data File : C:\HPCHEM\1\DATA\103001\2G16211.D Vial: 5
Acq On : 30 Oct 2001 10:26 Operator: HV
Sample : WG107230-01 PRO water BLK Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 30 11:12 2001 Quant Results File: FLASHPRO.RES

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



(2) O-Terphenyl (s)

3.87min 25.825ppb m

response 533486

(+) = Expected Retention Time
2G16211.D FLASHPRO.M Tue Oct 30 11:13:41 2001

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Acq On : 25 Oct 2001 14:59 Operator: HV
Sample : WG106936-03 PRO water LCS Inst : hp2
Misc : 1,1 V174-P91 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 8:11 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 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	3.79	345596	16.910 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		84.55%
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	36652611	2244.239 ppb

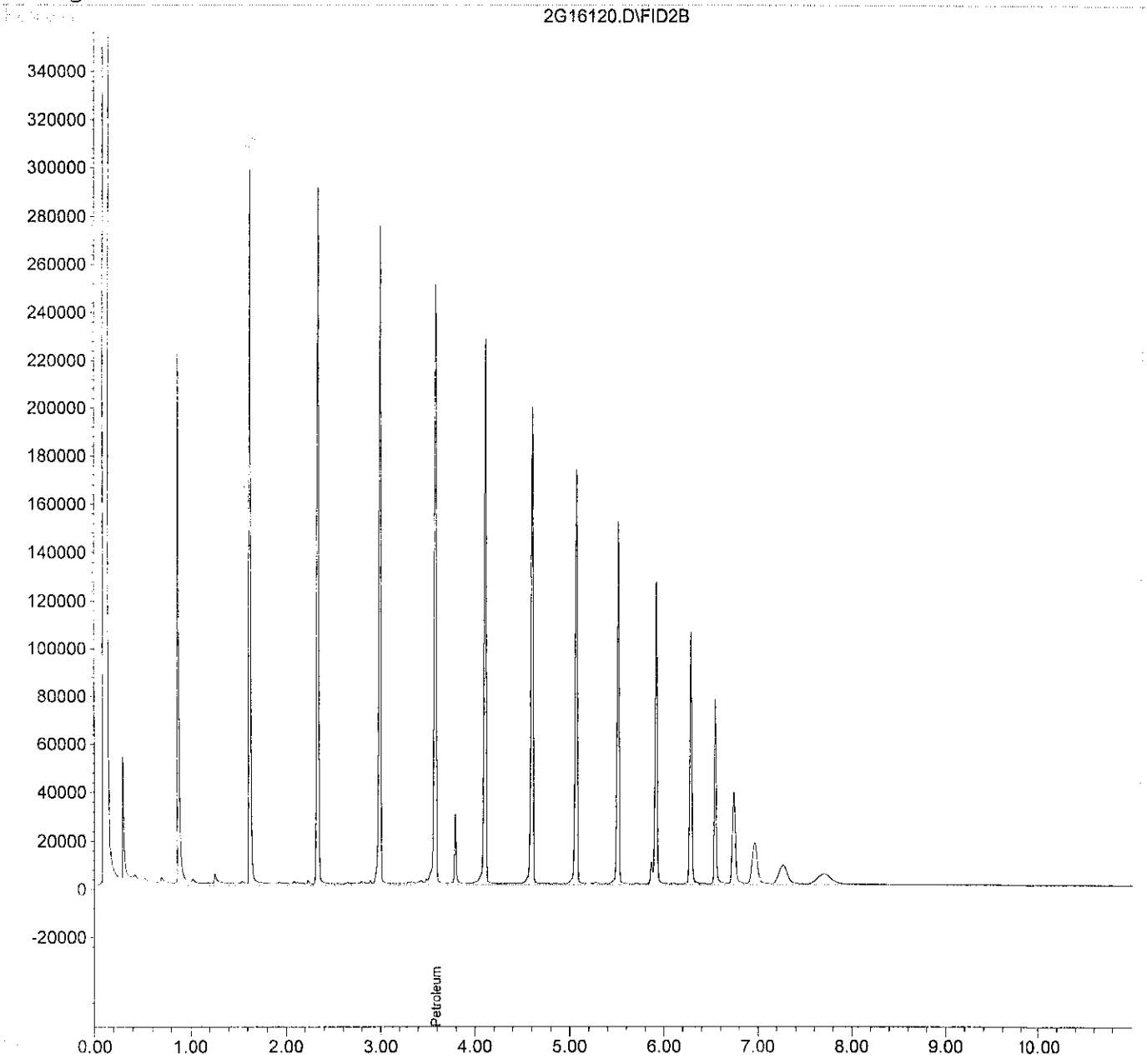
(f)=RT Delta > 1/2 Window (m)=manual int.
2G16120.D FLASHPRO.M Fri Oct 26 08:11:26 2001 Page 13

273

Acq On : 25 Oct 2001 14:59 Operator: HV
Sample : WG106936-03 PRO water LCS Inst : hp2
Misc : 1,1 V174-P91 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 26 8:11 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 Sep 28 14:40:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



274

Data File : C:\HPCHEM\1\DATA\103001\2G16212.D Vial: 6
Acq On : 30 Oct 2001 10:42 Operator: HV
Sample : WG107230-02 PRO water LCS Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 30 11:15 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 :

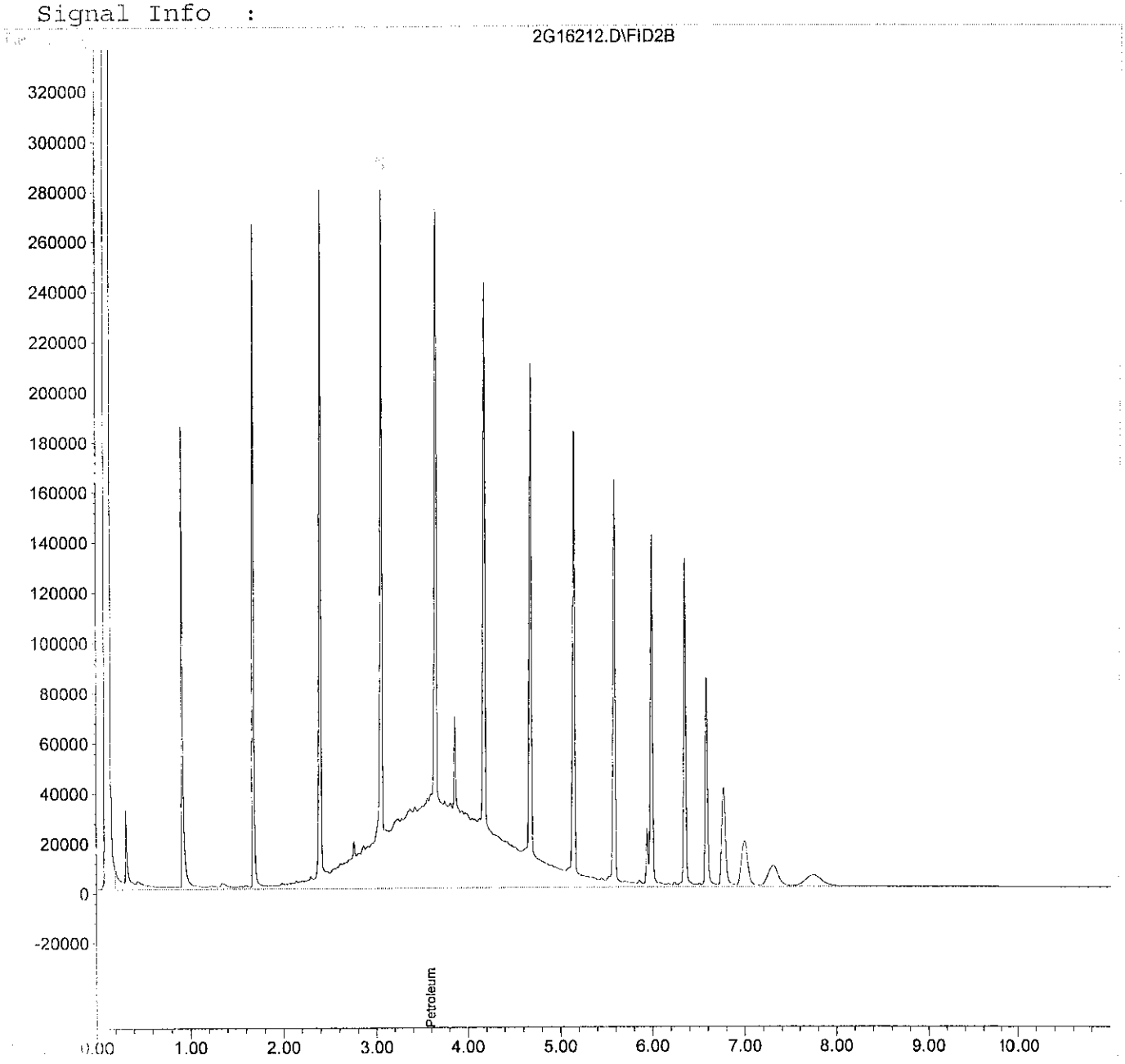
Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
2) s O-Terphenyl	3.86	417793	20.224	ppb	m
Spiked Amount 20.000	Range 49 - 174	Recovery =	101.12%		
3) s n-Nonatriacontane	0.00	0	N.D.	ppm	
Spiked Amount 20.000		Recovery =	0.00%		
Target Compounds					
1) H Petroleum Range	3.58	72360807	4192.032	ppb	

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16212.D FLASHPRO.M Tue Oct 30 11:15:27 2001 Page 1

Data File : C:\HPCHEM\1\DATA\103001\2G16212.D Vial: 3
Acq On : 30 Oct 2001 10:42 Operator: HV
Sample : WG107230-02 PRO water LCS Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 30 11:15 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

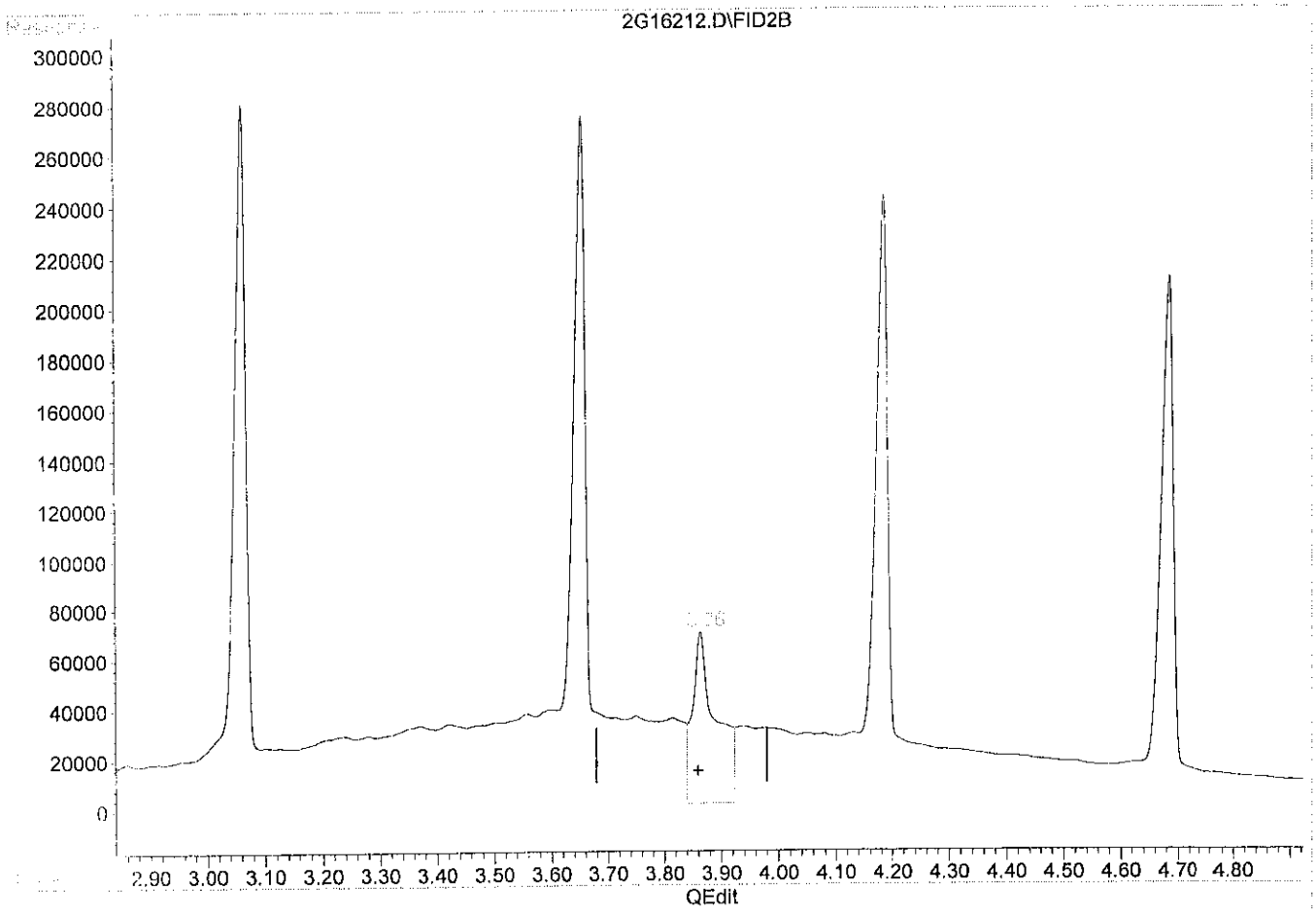
Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\103001\2G16212.D
Acq On : 30 Oct 2001 10:42
Sample : WG107230-02 PRO water LCS
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Oct 30 11:14 2001 Quant Results File: FLASHPRO.RES

Vial: 6
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



(2) O-Terphenyl (s)

3.87min 95.997ppb

response 1983089

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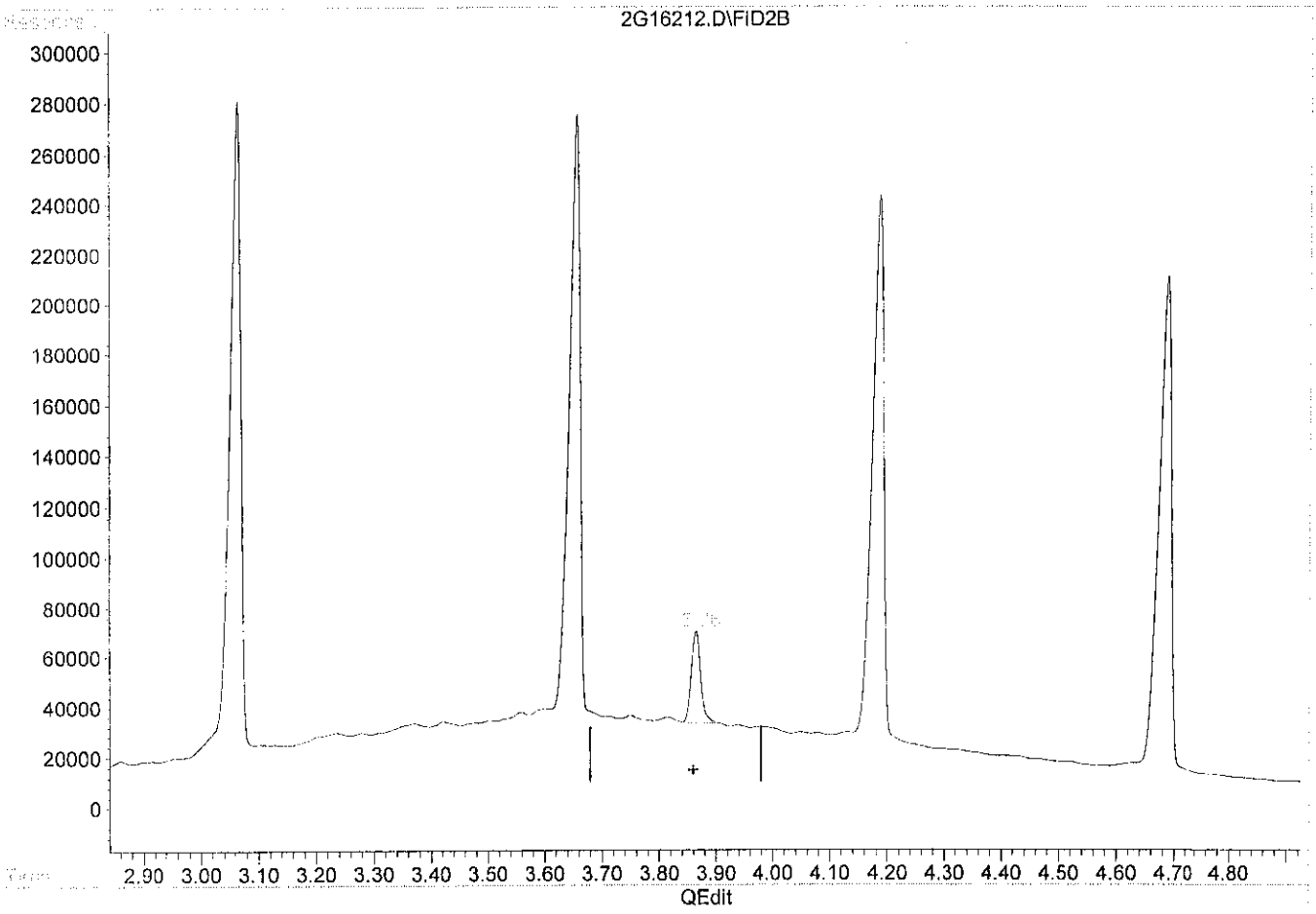
(+) = Expected Retention Time
2G16212.D FLASHPRO.M Tue Oct 30 11:15:11 2001

Data File : C:\HPCHEM\1\DATA\103001\2G16212.D Vial: 3
Acq On : 30 Oct 2001 10:42 Operator: HV
Sample : WG107230-02 PRO water LCS Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 30 11:14 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



(+) O-Terphenyl (s)
3.86min 20.224ppb m
response 417793

HV 10/30/01 10/31/01

(+) = Expected Retention Time
2G16212.D FLASHPRO.M Tue Oct 30 11:15:19 2001

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Data File : C:\HPCHEM\1\DATA\103001\2G16213.D Vial: 7
Acq On : 30 Oct 2001 10:58 Operator: HV
Sample : WG107230-03 PRO water LCS DUP Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 30 11:15 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	3.86	362802	17.562 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =	87.81%	
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000	Recovery =	0.00%	
Target Compounds			
1) H Petroleum Range	3.58	41147963	2383.798 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16213.D FLASHPRO.M Tue Oct 30 11:15:51 2001 Page 1

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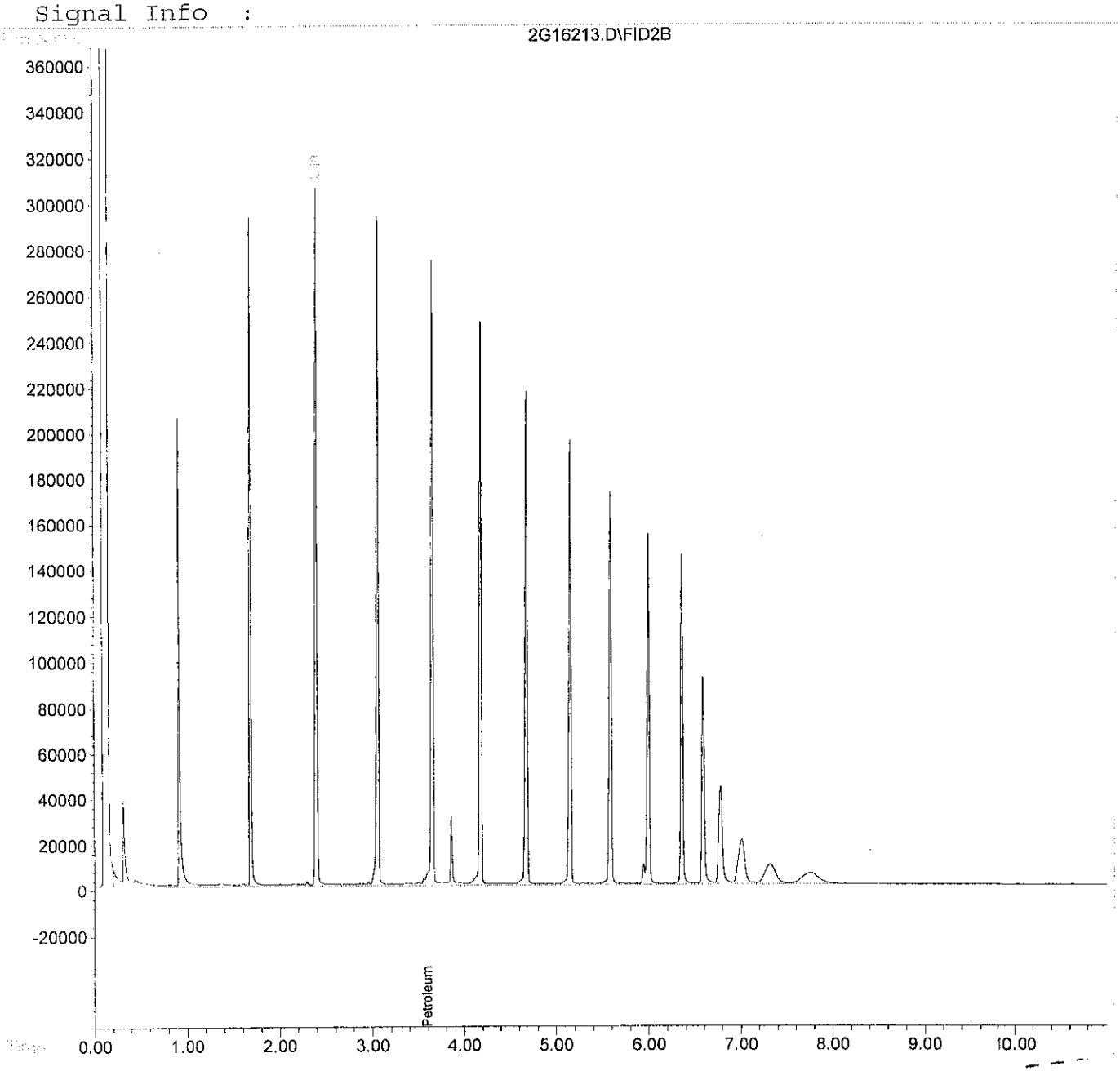
Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 30 Oct 2001 10:58 Operator: HV
Sample : WG107230-03 PRO water LCS DUP Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Oct 30 11:15 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 :



.ine	Vial	FileName	Multiplier		SampleName	Misc Info	Injected
	1	2g16109.d	1.		MECL2	1,1 NS 13-39	25 Oct 101 13::5
2	2	2g16110.d	1.		WIN DEF STD	1,1 NS 13-39	25 Oct 101 13::0
3	3	2g16111.d	1.		WG107087-01 PRO CONT CHK	1,1 SOS 56-21	25 Oct 101 13::2
4	4	2g16112.d	1.		WG107087-02 PRO STD 600ppm	1,1 SOS 56-21	25 Oct 101 13::4
5	5	2g16113.d	1.		WG107087-03 PRO STD 400ppm	1,1 SOS 56-21	25 Oct 101 12::0
6	6	2g16114.d	1.		WG107087-01 PRO STD 200ppm	1,1 SOS 56-21	25 Oct 101 12::1
7	7	2g16115.d	1.		WG107087-04 PRO STD 100ppm	1,1 SOS 56-21	25 Oct 101 12::3
8	8	2g16116.d	1.		WG107087-05 PRO STD 50ppm	1,1 SOS 56-21	25 Oct 101 12::5
9	9	2g16117.d	1.		WG107087-06 PRO STD 5ppm	1,1 SOS 56-21	25 Oct 101 12::0
10	10	2g16118.d	1.		WG107087-07 ALT PRO @200ppm	1,1 SOS 56-26	25 Oct 101 12::2
11	11	2g16119.d	1.		WG106936-02 PRO water BLK	1,1 V174-P91	25 Oct 101 12::4
12	12	2g16120.d	1.		WG106936-03 PRO water LCS	1,1 V174-P91	25 Oct 101 12::5
13	13	2g16121.d	1.19		L0110424-01 PRO water	1,1 V174-P91	25 Oct 101 12::1
14	14	2g16122.d	1.03	RE	L0110464-01 PRO water	1,1 V174-P91	25 Oct 101 12::2
15	15	2g16123.d	1.05	✓	L0110464-02 PRO water	1,1 V174-P91	25 Oct 101 12::4
16	16	2g16124.d	1.05	✓	L0110464-03 PRO water	1,1 V174-P91	25 Oct 101 12::5
17	17	2g16125.d	1.05		mecl2	1,1 SOS 56-21	25 Oct 101 12::1
18	18	2g16126.d	1.	✓	WG107087-08 PRO CONT CHK	1,1 SOS 56-21	25 Oct 101 12::3
19	19	2g16127.d	1.08		WG106936-01 Ref. PRO water	1,1 V174-P91	25 Oct 101 12::4
20	20	2g16128.d	1.1		WG106936-04 MS PRO water	1,1 V174-P91	25 Oct 101 12::0
21	21	2g16129.d	1.06		WG106936-05 MSD PRO water	1,1 V174-P91	25 Oct 101 12::1
22	22	2g16130.d	1.06		L0110464-07 PRO water	1,1 V174-P91	25 Oct 101 12::3
23	23	2g16131.d	1.06		L0110464-08 PRO water	1,1 V174-P91	25 Oct 101 12::4
24	24	2g16132.d	1.02		L0110464-09 PRO water	1,1 V174-P91	25 Oct 101 12::0
25	17	2g16133.d	1.		mecl2	1,1 V174-P91	25 Oct 101 12::1
26	18	2g16134.d	1.	✓	WG107087-09 PRO CONT CHK	1,1 SOS 56-21	25 Oct 101 12::3
27	25	2g16135.d	1.	RR	WG107022-02 PRO water BLK	1,1 V174-P113	25 Oct 101 12::5
28	26	2g16136.d	1.		WG107022-03 PRO water LCS	1,1 V174-P113	25 Oct 101 12::0
29	27	2g16137.d	1.04		L0110485-01 PRO water	1,1 V174-P113	25 Oct 101 12::2
30	28	2g16138.d	1.05		L0110485-02 PRO water	1,1 V174-P113	25 Oct 101 12::3
31	29	2g16139.d	1.07		L0110485-03 PRO water	1,1 V174-P113	25 Oct 101 12::5
32	30	2g16140.d	1.06		WG107022-01 Ref. PRO water	1,1 V174-P113	25 Oct 101 12::0
33	17	2g16141.d	1.		mecl2	1,1 V174-P113	25 Oct 101 12::2
34	18	2g16142.d	1.	CC	WG107087-10 PRO CONT CHK	1,1 SOS 56-21	25 Oct 101 12::3
35	31	2g16143.d	1.04		WG107022-04 MS PRO water	1,1 v174-p113	25 Oct 101 12::5
36	32	2g16144.d	1.05		WG107022-05 MSD PRO water	1,1 v174-p113	25 Oct 101 12::0
37	33	2g16145.d	1.		L0110485-07 PRO water	1,1 v174-p113	25 Oct 101 12::2
38	34	2g16146.d	1.07		L0110485-08 PRO water	1,1 v174-p113	25 Oct 101 12::4
39	35	2g16147.d	1.05		L0110485-09 PRO water	1,1 v174-p113	25 Oct 101 12::5
40	17	2g16148.d	1.		MECL2	1,1 v174-p113	25 Oct 101 13::1
41	18	2g16149.d	1.	CC	WG107087-11 PRO CONT CHK	1,1 SOS 56-21	25 Oct 101 13::2

HV 10/26/01
RJC 10/26/01

Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time 10-25-01 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 102501A

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

2g16122 - "RE" needed for low surrogate -

2g16135 — 2g16147 - samples required to "RR", due to "CC"

Reviewed By: TRC 10/24/01

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Work Group Report (wk02)

25-OCT-01 12:43 PM

Work Group: WG107087 **Created:** 25-OCT-01

Department: 9 Semivolatile - GC **Operator:** HV **Due:**

Sample	Account Name	C	Product	Mat#	Matrix	Status	UA	Workdate	PR	Location
WG107087-01	CCV	S	8015QC	1	Water	DONE	U	25-OCT-01		
WG107087-02	STD	S	8015QC	1	Water	DONE	U	25-OCT-01		
WG107087-03	STD	S	8015QC	1	Water	DONE	U	25-OCT-01		
WG107087-04	STD	S	8015QC	1	Water	DONE	U	25-OCT-01		
WG107087-05	STD	S	8015QC	1	Water	DONE	U	25-OCT-01		
WG107087-06	STD	S	8015QC	1	Water	DONE	U	25-OCT-01		
WG107087-07	SSCV	S	8015QC	1	Water	DONE	U	25-OCT-01		

Comments

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	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
0	10	2g16216.d	1.		PRO CONT CHK	1,1 SOS 56-21	30 Oct 101 13::4
1	1	2g16217.d	1.05		mecl2	1,1 NS 14-25	30 Oct 101 12::2
2	2	2g16218.d	1.05		WIN DEF STD	1,1 NS 13-45	30 Oct 101 13::1
3	3	2g16219.d	1.		DRO CONT CHK	1,1 NS 13-45	30 Oct 101 13::1
4	4	2g16220.d	1.		DRO STD 10000ppm	1,1 NS 14-25	30 Oct 101 13::3
5	5	2g16221.d	1.		DRO STD 5000ppm	1,1 NS 14-25	30 Oct 101 13::4
6	6	2g16222.d	1.		DRO STD 2500ppm	1,1 NS 14-25	30 Oct 101 13::4
7	7	2g16223.d	1.		DRO STD 1000ppm	1,1 NS 14-25	30 Oct 101 13::5
8	8	2g16224.d	1.		DRO STD 500ppm	1,1 NS 14-25	30 Oct 101 12::0
9	9	2g16225.d	1.		DRO STD 100ppm	1,1 NS 14-25	30 Oct 101 12::1
0	10	2g16226.d	1.		ALT DRO @1000ppm	1,1 sos 55-36	30 Oct 101 12::3
1	11	2g16227.d	1.		WG107150-01 DRO water BLK	1,1 v174-p129	30 Oct 101 12::4
2	12	2g16228.d	1.		WG107150-02 DRO water LCS	1,1 v174-p129	30 Oct 101 12::5
3	13	2g16229.d	1.		WG107150-03 DRO water LCS DUP	1,1 v174-p129	30 Oct 101 12::0
4	14	2g16230.d	1.		L0110538-01 DRO water	1,1 v174-p129	30 Oct 101 12::1
5	15	2g16231.d	1.		mecl2	1,1 v174-p129	30 Oct 101 12::2
6	16	2g16232.d	1.		DRO CONT CHK	1,1 NS 14-25	30 Oct 101 12::3
7	17	2g16233.d	1.		WG107318-01 DRO water BLK	1,1 V174-P159	30 Oct 101 12::4
8	18	2g16234.d	1.		WG107318-02 DRO water LCS	1,1 V174-P159	30 Oct 101 12::5
9	19	2g16235.d	1.		WG107318-03 DRO water LCS DUP	1,1 V174-P159	30 Oct 101 12::0
0	20	2g16236.d	1.1		L0110616-01 DRO water	1,1 V174-P159	30 Oct 101 12::1
1	21	2g16237.d	1.		DRO CONT CHK	1,1 NS 14-25	30 Oct 101 12::3
2	22	2g16238.d	1.		mecl2	1,1	30 Oct 101 12::4

HY 10/31/01 11/2/01

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: [signature] 10/31/01

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Parameter: FLA-PRO 11,0 SOP #: CAMRO Revision #: 2
Extraction Analyst(s): RSK, LMT TV/KD Analyst(s): JAQ
Date/Time Extracted: 10/23/01 @ 1340 Date TV/KD: 10/24/01
Spike/Surrogate Analyst: RSK Witness: LMT
Surrogate #: ES50038-48 Earliest Hold Date: 10/24/01
Spike #: A = ES50039-02 Spike #: B = —

Extraction Work Group WG 106936
Analytical Work Group WG 107003

Extract Relinquished By: JAQ
Extract Received By & Date: ESC 10/24/01

	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 106936-02
2	LCS		✓			1		1mL						WG 1 -03
3	10-424-01	FLA-PRO	✓			840mL	1.19	1						
4	10-464-01		✓			970mL				C				
5	-02		✓			950mL								
6	-03		✓			1				T				
7	-04		✓			920mL								WG 106936-01
8	-05MS		✓			900mL								1 -04#
9	-06MSD		✓			940mL								— -05#
10	-07		✓			1								
11	-08		✓			940mL								
12	-09		✓			980mL								
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 #: LR 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: 10/24/01

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Extraction Notes For Volume # 174 Page # 091

General Comments: * MS, MSD of 10-464-04

Extraction Anomalies: Nothing to report

Concentration Anomalies: Nothing to report

Clean-Up Anomalies: nothing to report

Supervisor Review: _____ Date: _____

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Parameter: FLA PRO HW SOP #: EXPRO Revision #: 2
Extraction Analyst(s): JAQ DP TV/KD Analyst(s): JAQ
Date/Time Extracted: 10/29/01 10:00 Date TV/KD: 10/29/01
Spike/Surrogate Analyst: JAQ Witness: [illegible]
Surrogate #: ESS0038-42 Earliest Hold Date: 10/29
Spike #: A = ESS0039-02 Spike #: B = —

Extraction Work Group WG 107230
Analytical Work Group WG 107347

Extract Relinquished By: JAQ
Extract Received By & Date: [illegible] 10/29/01

	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 107230-01
2	LCS		✓					1ml						WG 107230-02
3	LCS DUP		✓											WG 107230-03
4	10-464-01	FLA-PRO	✓			950 ml				C				
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

10/29/01 JAQ

Methylene Chloride Lot #: 4109
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 #: —
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: 10/29/01

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Extraction Notes For Volume # 174 Page # 143

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: _____

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KEMRON Environmental Services
Analytical Corrective Action Report

P91

Date: 10-26-01 Department: SV Employee: HV

Prep WG# 106936 Preparation Date: 10-23-01 Parameter: TLA-PRO water

I. Description of Non-Conformance:

Sample 10464-01 had a low surrogate recovery — (and these are due on 10/30)

Re-extract needed DRE 10/26

II. Action Taken:

Re-extracted within hold & 10/29/01

New wb # 107230

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

2 pb

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**

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2.2.7 PAH HPLC DATA (8310)

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0110464

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 fractions 01, 02, and 08 yielded % recoveries for the surrogate that were below acceptable limits. These samples were re-extracted within holding time. Fraction 02 confirmed sample matrix effects. Both runs have been reported. Sample fractions 01 and 08 yielded surrogate recoveries that were within limits. Only the re-extracts 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: 9/3/04

Rev. 7/14/00

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Semi-Volatile 8310 Checklist

Run Date: 8-Aug-01

Analyst: RDC

Instrument: HPLC4

Workorders: Due Date: Priority:

		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

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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 of L0110465-01 was uploaded by MWILSON. There is no batch upload sheet for these samples. /RDC

Primary Reviewer: RDC 10/31/01 (Submitted 11/2/01 due to upload problems)

Secondary Reviewer: ~~10~~ 11/2/01

Supervisor Review: 11/2/01

√ = Checked & OK

NA = Not Applicable

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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: [signature] 11/2/01

Secondary Reviewer: [signature] 11/2/01

Supervisor Review: [signature] 11/2/01

√ = Checked & OK

NA = Not Applicable

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PAH HPLC DATA (8310)

Login Number: 10-464

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

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2.2.7.1 QC Summary

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, WATERS

ANAL WORK GRP : WG106998	**PREP WORK GRP :** WG106942	**RUN DATE :** 10/25/01	**SAMP ID :** L0110464 -04
METHOD : 8310	**EXT DATE :** 23-Oct-01	**BLK FLNM :** 4L002209	**SMPL FLNM :** 4L002216
INSTRUMENT : HPLC4	**EXT BENCH SHEET :** V174P93	**LCS FLNM :** 4L002210	**MS FLNM :** 4L002217
ANALYST : RDC		**LCS2 FLNM :** NA	**MSD FLNM :** 4L002218

	CONCENTRATION, µg/L									% RECOVERY														
ANALYTE	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	20.7	NA	ND	50.0	24.9	23.5	ND	41.4		25	68	NA	49.7	47.0	25	68	6	50					
ACENAPTHYLENE	1	ND	50	20.9	NA	ND	50.0	25.7	24.9	ND	41.8		25	77	NA	51.4	49.8	25	77	3	50					
1-METHYLNAPHTHALENE	1	ND	50	20.7	NA	ND	50.0	24.8	23.8	ND	41.5		26	71	NA	49.7	47.6	26	71	4	50					
2-METHYLNAPHTHALENE	1	ND	50	21.2	NA	ND	50.0	25.0	24.1	ND	42.4		26	72	NA	50.1	48.2	26	72	4	50					
ACENAPHTHENE	1	ND	50	21.0	NA	ND	50.0	25.4	24.7	ND	42.1		25	78	NA	50.9	49.4	25	78	3	50					
FLUORENE	1	ND	50	22.1	NA	ND	50.0	26.7	26.1	ND	44.1		29	84	NA	53.3	52.2	29	84	2	50					
PHENANTHRENE	1	ND	50	24.6	NA	ND	50.0	29.8	29.6	ND	49.3		39	95	NA	59.5	59.2	39	95	1	50					
ANTHRACENE	1	ND	50	29.3	NA	ND	50.0	31.6	31.3	ND	58.5		47	101	NA	63.2	62.6	47	101	1	50					
FLUORANTHENE	0.2	ND	5	3.31	NA	ND	5.00	3.75	3.78	ND	66.2		55	104	NA	75.0	75.6	55	104	1	50					
PYRENE	0.2	ND	5	3.26	NA	ND	5.00	3.64	3.71	ND	65.2		56	104	NA	72.8	74.2	56	104	2	50					
BENZO[a]ANTHRACENE	0.2	ND	5	3.45	NA	ND	5.00	3.40	3.42	ND	69.0		50	115	NA	67.9	68.4	50	115	1	50					
CHRYSENE	0.2	ND	5	2.95	NA	ND	5.00	3.29	3.30	ND	59.0		39	120	NA	65.8	66.0	39	120	0	50					
BENZO[b]FLUORANTHENE	0.2	ND	5	2.93	NA	ND	5.00	2.79	2.71	ND	58.6		41	110	NA	55.8	54.2	41	110	3	50					
BENZO[k]FLUORANTHENE	0.2	ND	2.5	1.22	NA	ND	2.50	1.39	1.29	ND	48.8		25	107	NA	55.6	51.6	25	107	7	50					
BENZO[a]PYRENE	0.2	ND	5	2.56	NA	ND	5.00	2.57	2.46	ND	51.2		29	113	NA	51.4	49.2	29	113	4	50					
DIBENZO[a,h]ANTHRACENE	0.2	ND	5	1.59	NA	ND	5.00	2.28	2.09	ND	31.8		10	92	NA	45.6	41.8	10	92	9	50					
BENZO[g,h,i]PERYLENE	0.2	ND	5	1.59	NA	ND	5.00	2.23	2.01	ND	31.8		11	84	NA	44.6	40.2	11	84	10	50					
INDENO(1,2,3-cd)PYRENE	0.2	ND	5	1.96	NA	ND	5.00	2.32	2.17	ND	39.2		16	98	NA	46.4	43.4	16	98	7	50					
SURROGATE																										
p-TERPHENYL-d14		7.33	10	4.88	NA	6.93	10.0	6.61	6.46	73.3	49.8		40	132	63.0	66.1	64.6	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 : WG107449	**PREP WORK GRP :** WG107228	**RUN DATE :** 10/31/01	**SAMP ID :** NA
METHOD : 8310	**EXT DATE :** 29-Oct-01	**BLK FLNM :** 4L002284	**SMPL FLNM :** NA
INSTRUMENT : HPLC4	**EXT BENCH SHEET :** V174P141	**LCS FLNM :** 4L002285	**MS FLNM :** NA
ANALYST : RDC		**LCS2 FLNM :** 4L002286	**MSD FLNM :** NA

	CONCENTRATION, µg/L									% RECOVERY															
ANALYTE	**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 :

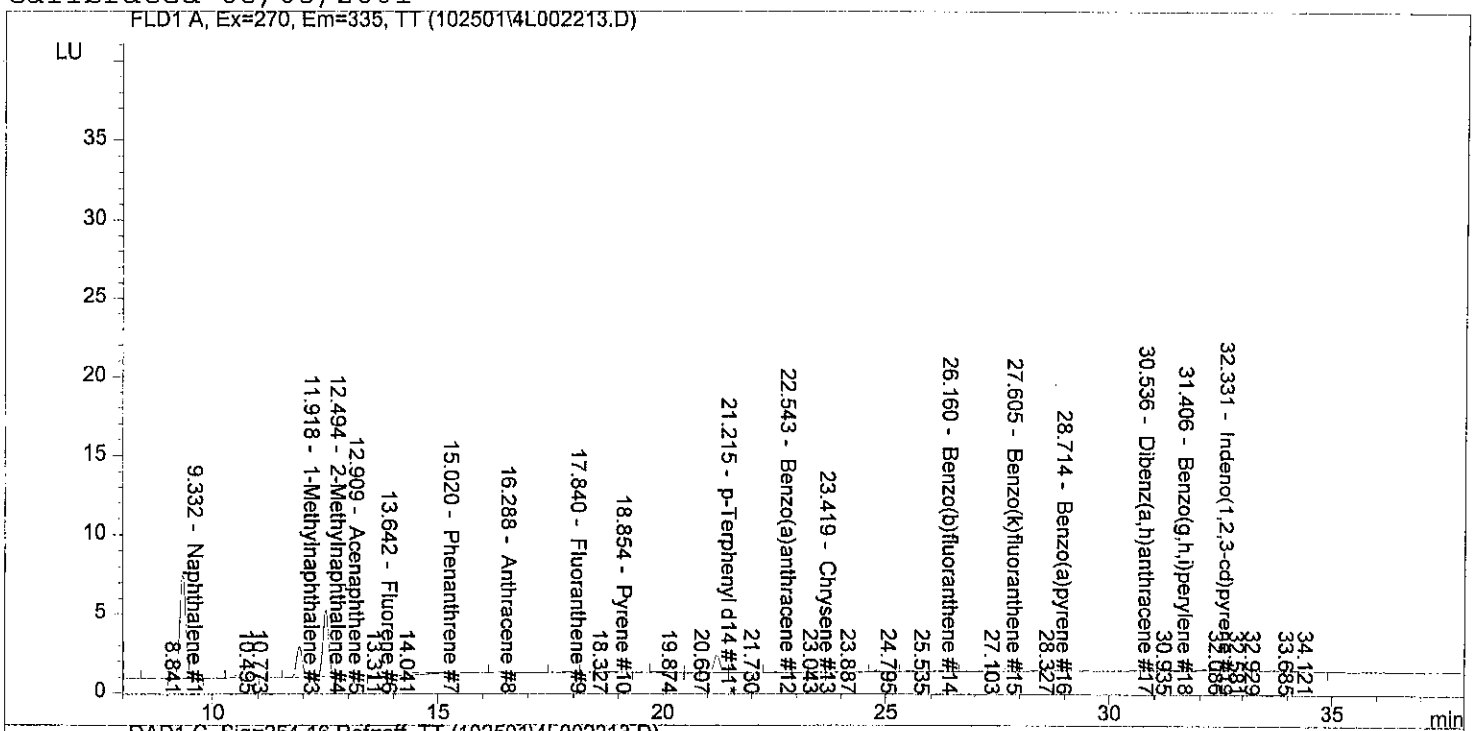
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL = REPORTING DETECTION LIMIT
D = DETECTED, RESULT MUST BE GREATER THAN ZERO
H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

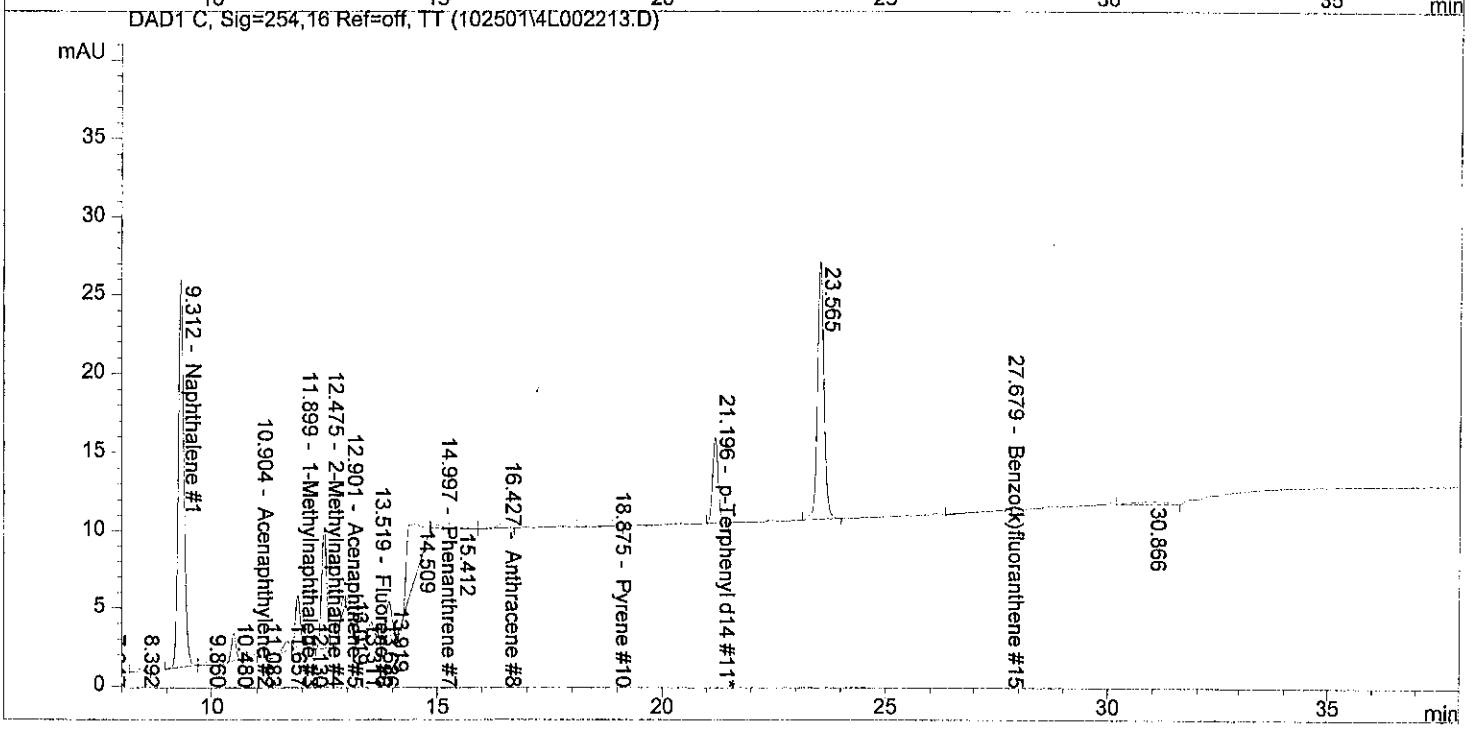
300

2.2.7.2 Sample Data

Injection Date	: 10/25/2001 8:51:48 PM	Seq. Line	: 7
Sample Name	: L0110464-01 831W	Vial	: 7
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





302

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
9.332	BB	63.72882	2.52962e-2	1.61210	C	Naphthalene #1
11.918	BB	18.02147	2.21330e-2	3.98868e-1	F NC	1-Methylnaphthalene #3
12.494	BB	37.10534	1.70635e-2	6.33147e-1	F	2-Methylnaphthalene #4
12.909	BB	1.57853	1.38416e-2	2.18494e-2		Acenaphthene #5
13.642	BB	3.27095	6.62187e-3	2.16598e-2		Fluorene #6
15.020	BB	5.17672	1.63652e-1	8.47182e-1	NC	Phenanthrene #7
16.288	BBA	2.01383e-1	3.10196e-1	6.24683e-2		Anthracene #8
17.840	BBA	7.88788e-1	2.32678e-2	1.83534e-2		Fluoranthene #9
18.854	BB	1.02821	3.86587e-2	3.97492e-2		Pyrene #10
21.215	BB	10.71625	2.97423e-1	3.18726		p-Terphenyl d14 #11*
22.543	BB	1.14865	7.91256e-3	9.08876e-3		Benzo(a)anthracene #12
23.419	BB	4.91665e-1	3.90495e-2	1.91993e-2		Chrysene #13
26.160	PBA	1.08671	1.63222e-2	1.77374e-2		Benzo(b)fluoranthene #14
27.605	BBA	3.00383	2.76572e-3	8.30775e-3		Benzo(k)fluoranthene #15
28.714	BB	3.43634	4.57119e-3	1.57082e-2		Benzo(a)pyrene #16
30.536	BB	2.98543e-1	3.93496e-2	1.17476e-2		Dibenz(a,h)anthracene #17
31.406	BB	7.49919e-1	2.65165e-2	1.98852e-2		Benzo(g,h,i)perylene #18
32.331	BB	3.24534e-1	1.38204e-2	4.48519e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 6.94879

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
9.312	BB	216.55321	8.25405e-3	1.78744		Naphthalene #1
10.904	BB	1.73492	2.96975e-2	5.15228e-2	mDL	Acenaphthylene #2
11.899	BB	23.32804	1.29459e-2	3.02002e-1	mDL	1-Methylnaphthalene #3
12.475	BB	63.22661	1.12393e-2	7.10621e-1	F	2-Methylnaphthalene #4
12.901	BB	1.76967	2.03163e-2	3.59533e-2	mDL	Acenaphthene #5
13.519	BB	5.58665	1.75240e-2	9.79004e-2		Fluorene #6
14.997	BB	2.63835	1.72982e-2	4.56388e-2		Phenanthrene #7
16.427	BB	4.96316	1.04262e-2	5.17468e-2		Anthracene #8
17.777		-	-	-		Fluoranthene #9
18.875	BB	4.26199	1.43052e-2	6.09688e-2	NC	Pyrene #10
21.196	BBA	47.10830	6.56733e-2	3.09376		p-Terphenyl d14 #11*
22.483		-	-	-		Benzo(a)anthracene #12
23.362		-	-	-		Chrysene #13
26.095		-	-	-		Benzo(b)fluoranthene #14
27.679	BB	1.88495	2.25837e-2	4.25691e-2	mDL	Benzo(k)fluoranthene #15
28.644		-	-	-		Benzo(a)pyrene #16
30.513		-	-	-		Dibenz(a,h)anthracene #17

30.9% lost

[min]	[mAU*s]		[ug/L]		
31.318	-	-	-		Benzo(g,h,i)perylene #18
32.265	-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 6.28012

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 RE-EXT WITHIN HOLD

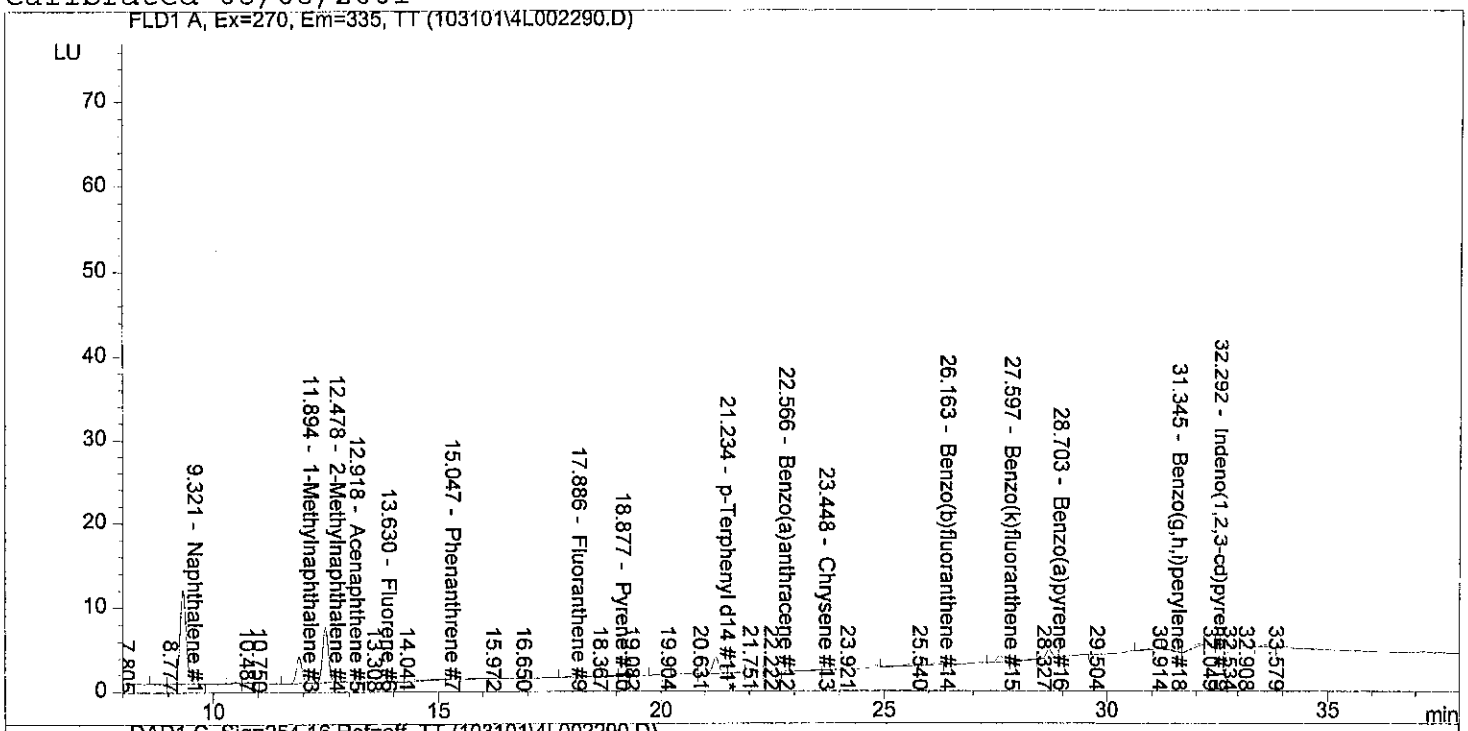
==========

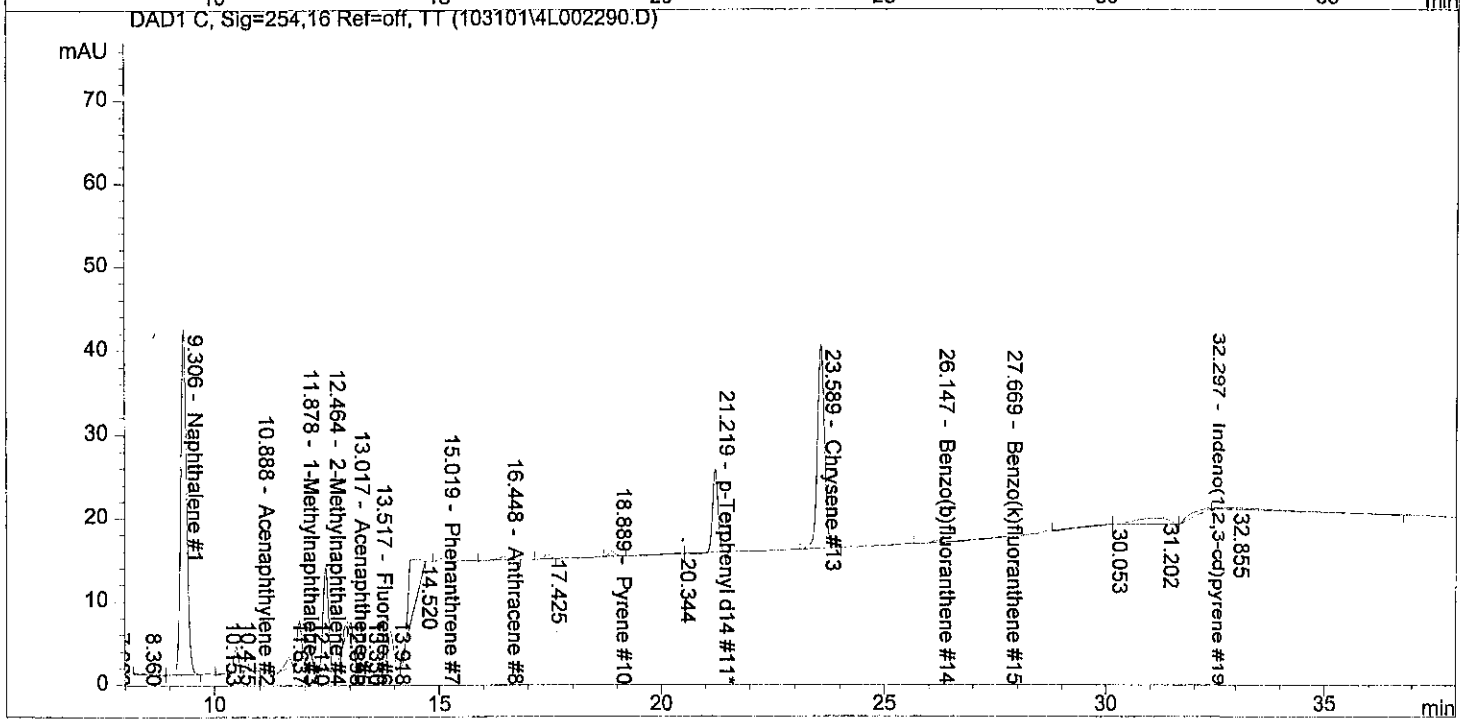
Injection Date : 11/1/2001 12:23:48 AM
Sample Name : L0110464-01 REEX
Acq. Operator : RDC

Seq. Line : 15
Vial : 15
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





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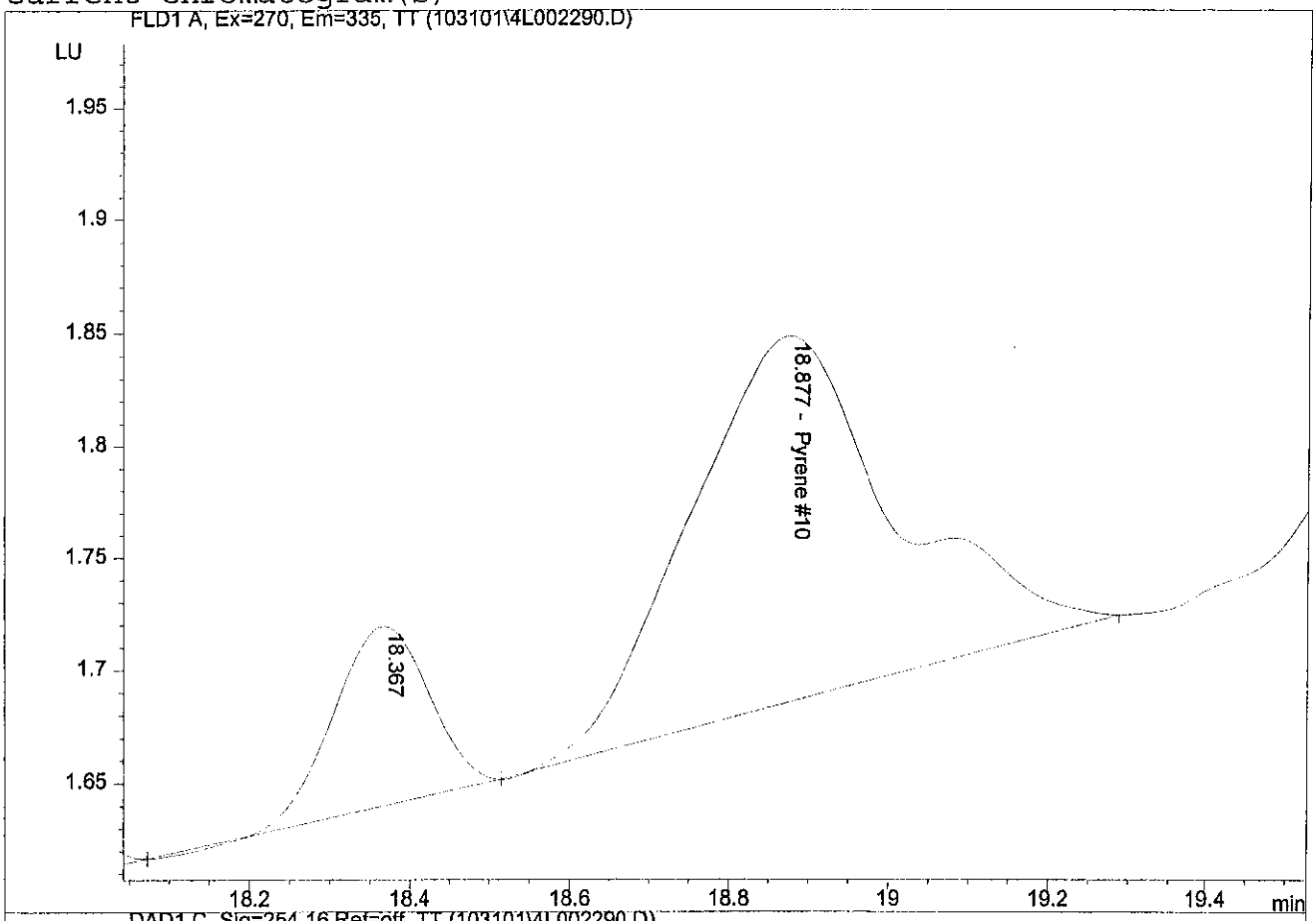
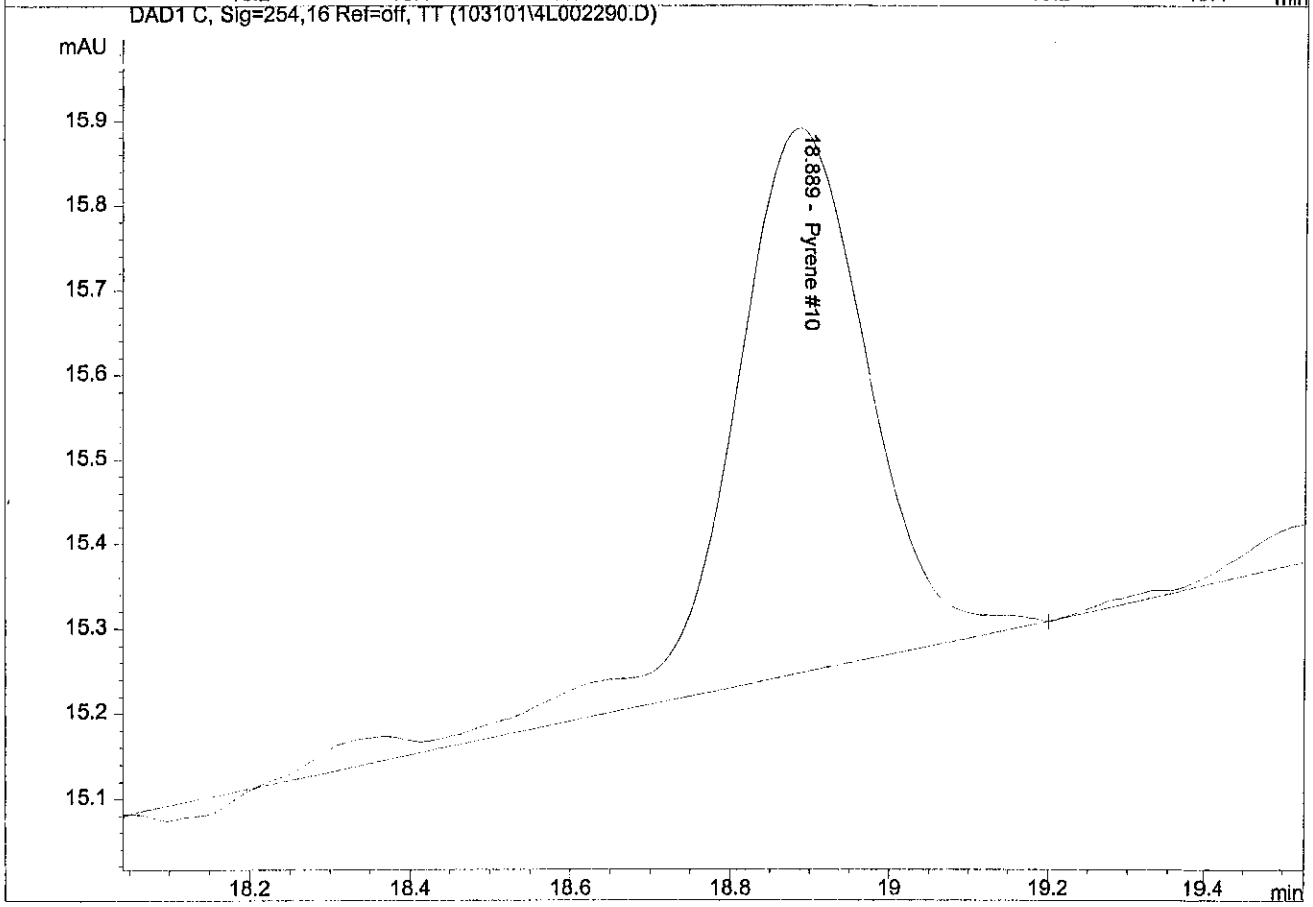
Current Chromatogram(s)





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HPLC4 11/1/2001 11:47:57 AM RDC

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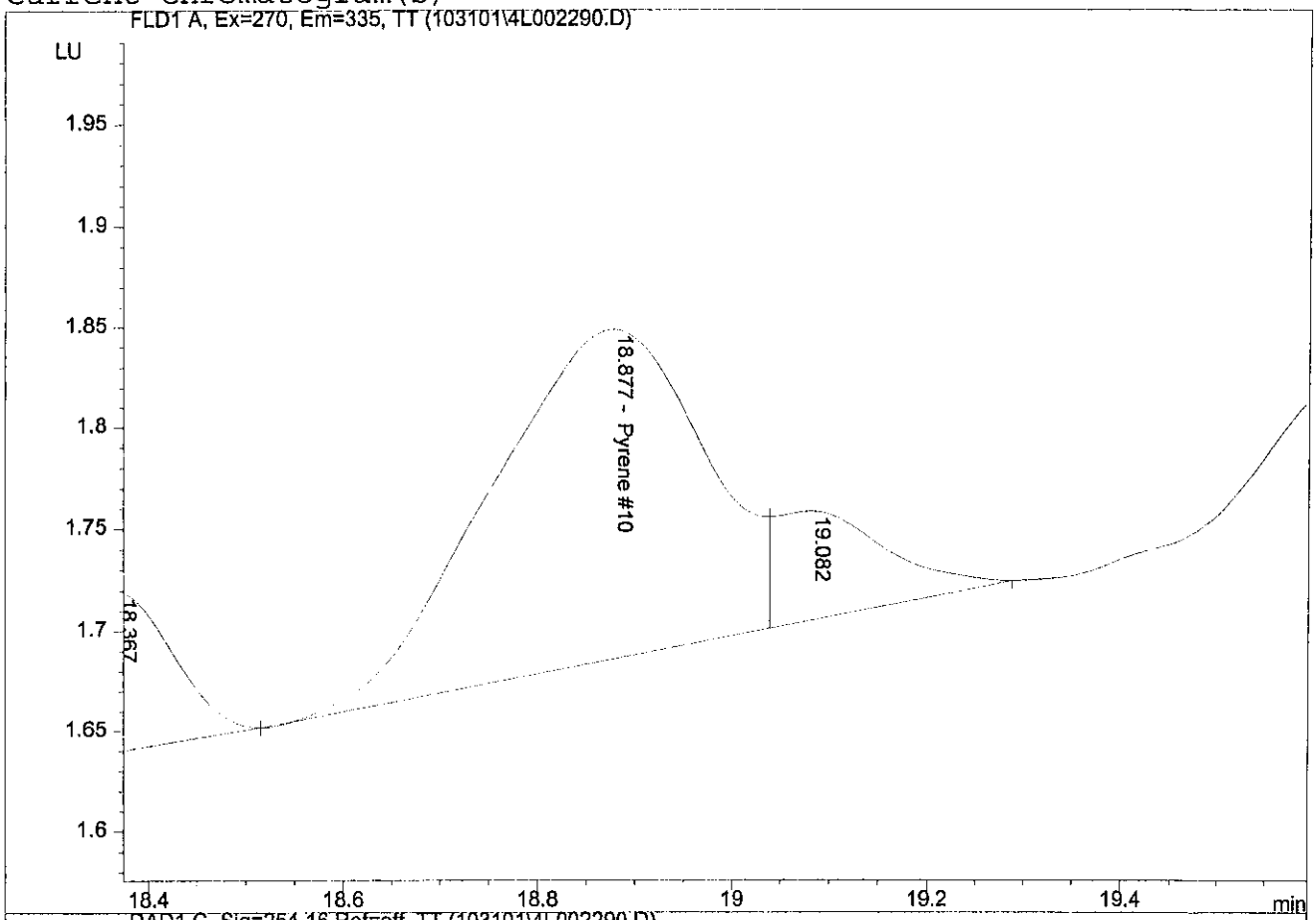
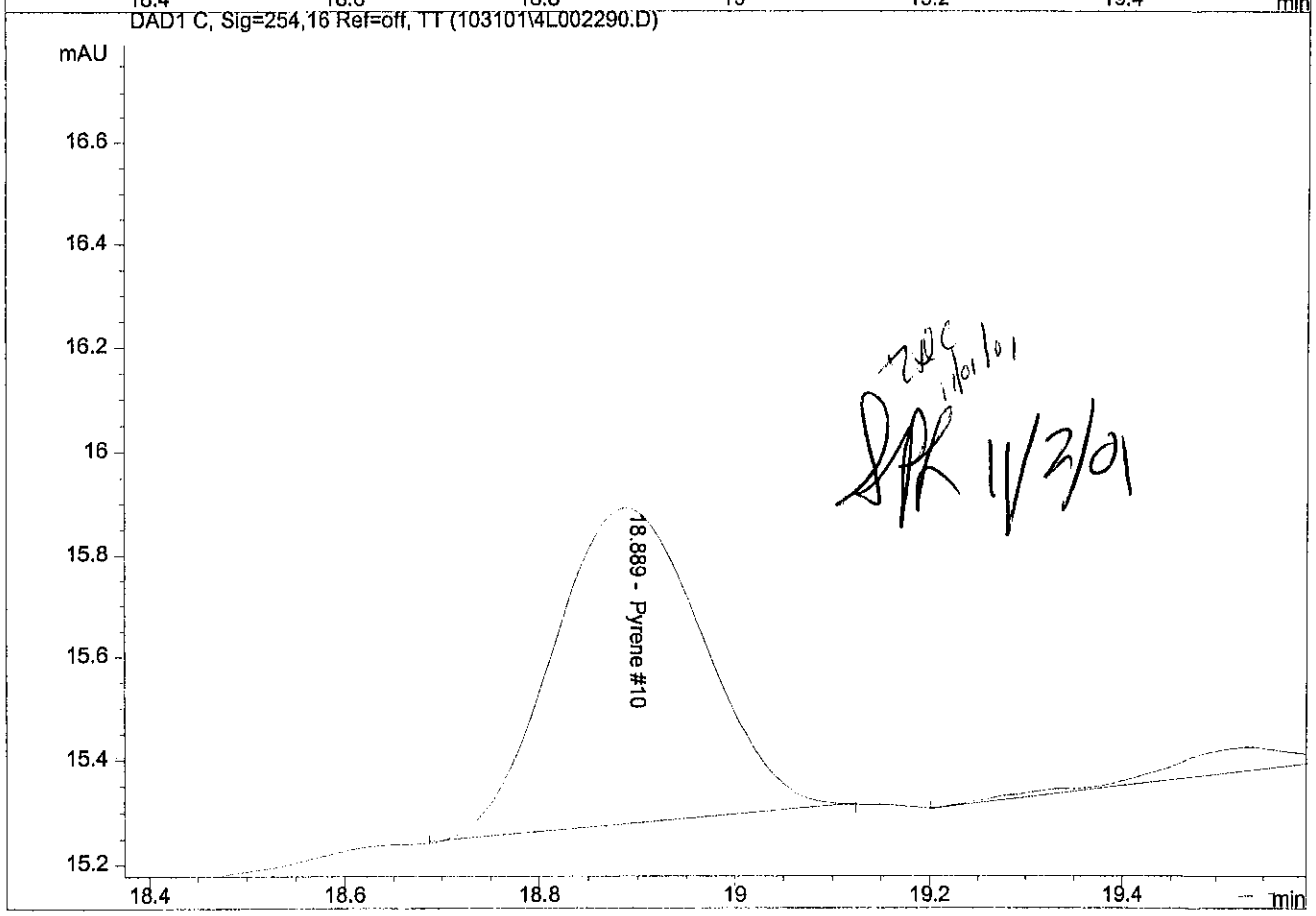
Current Chromatogram(s)





11/2/01

11/2/01

307

HPLC4 11/1/2001 11:50:49 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
9.321	BBA	106.47579	2.52962e-2	2.69343	✓	Naphthalene #1
11.894	BB	29.99610	2.21330e-2	6.63902e-1	F	1-Methylnaphthalene #3
12.478	BB	59.69336	1.70635e-2	1.01858	✓	2-Methylnaphthalene #4
12.918	BB	2.80646	1.38416e-2	3.88458e-2		Acenaphthene #5
13.630	BB	4.90319	6.62187e-3	3.24682e-2		Fluorene #6
15.047	BB	6.33833	1.63652e-1	1.03728		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.886	BB	1.06677	2.32678e-2	2.48214e-2		Fluoranthene #9
18.877	MF	2.48853	3.86587e-2	9.62031e-2	F	Pyrene #10
21.234	BB	19.35803	2.97423e-1	5.75752		p-Terphenyl d14 #11*
22.566	BB	1.81649	7.91256e-3	1.43731e-2		Benzo(a)anthracene #12
23.448	BB	9.75244e-1	3.90495e-2	3.80828e-2		Chrysene #13
26.163	BB	2.39732	1.63222e-2	3.91296e-2	F	Benzo(b)fluoranthene #14
27.597	BB	7.86086	2.76572e-3	2.17409e-2		Benzo(k)fluoranthene #15
28.703	BB	9.95352	4.57119e-3	4.54994e-2		Benzo(a)pyrene #16
30.650		-	-	-		Dibenz(a,h)anthracene #17
31.345	BB	1.75084	2.65165e-2	4.64262e-2		Benzo(g,h,i)perylene #18
32.292	BB	8.65625e-1	1.38204e-2	1.19633e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 11.58027

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	BB	370.78778	8.25405e-3	3.06050	✓	Naphthalene #1
10.888	BB	3.23625	2.96975e-2	9.61085e-2	? MDL	Acenaphthylene #2
11.878	BB	37.84958	1.29459e-2	4.89995e-1	F	1-Methylnaphthalene #3
12.464	BB	103.63901	1.12393e-2	1.16483	✓	2-Methylnaphthalene #4
13.017	BB	10.24488	2.03163e-2	2.08138e-1	? MDL	Acenaphthene #5
13.517	BB	11.26849	1.75240e-2	1.97469e-1		Fluorene #6
15.019	BB	3.44423	1.72982e-2	5.95791e-2		Phenanthrene #7
16.448	BB	6.81717	1.04262e-2	7.10771e-2		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.889	MM	6.44228	1.43052e-2	9.21583e-2	F	Pyrene #10
21.219	BB	86.02119	6.56733e-2	5.64929	56.5	p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.589	BB	256.63138	1.51453e-2	3.88676	R.T.	Chrysene #13
26.147	BB	2.74163	2.07330e-2	5.68422e-2	F	Benzo(b)fluoranthene #14
27.669	BB	5.15363e-1	2.25837e-2	1.16388e-2	? MDL	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
32.297	BB	15.65835	2.05608e-2	3.21948e-1		Indeno(1,2,3-cd)pyrene #1

Totals : 15.36633

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   : 10/25/2001 9:48:22 PM          Seq. Line :   8
Sample Name      : L0110464-02 831W                    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     : 10/26/2001 9:03:32 AM by RDC
Calibrated 08/08/2001
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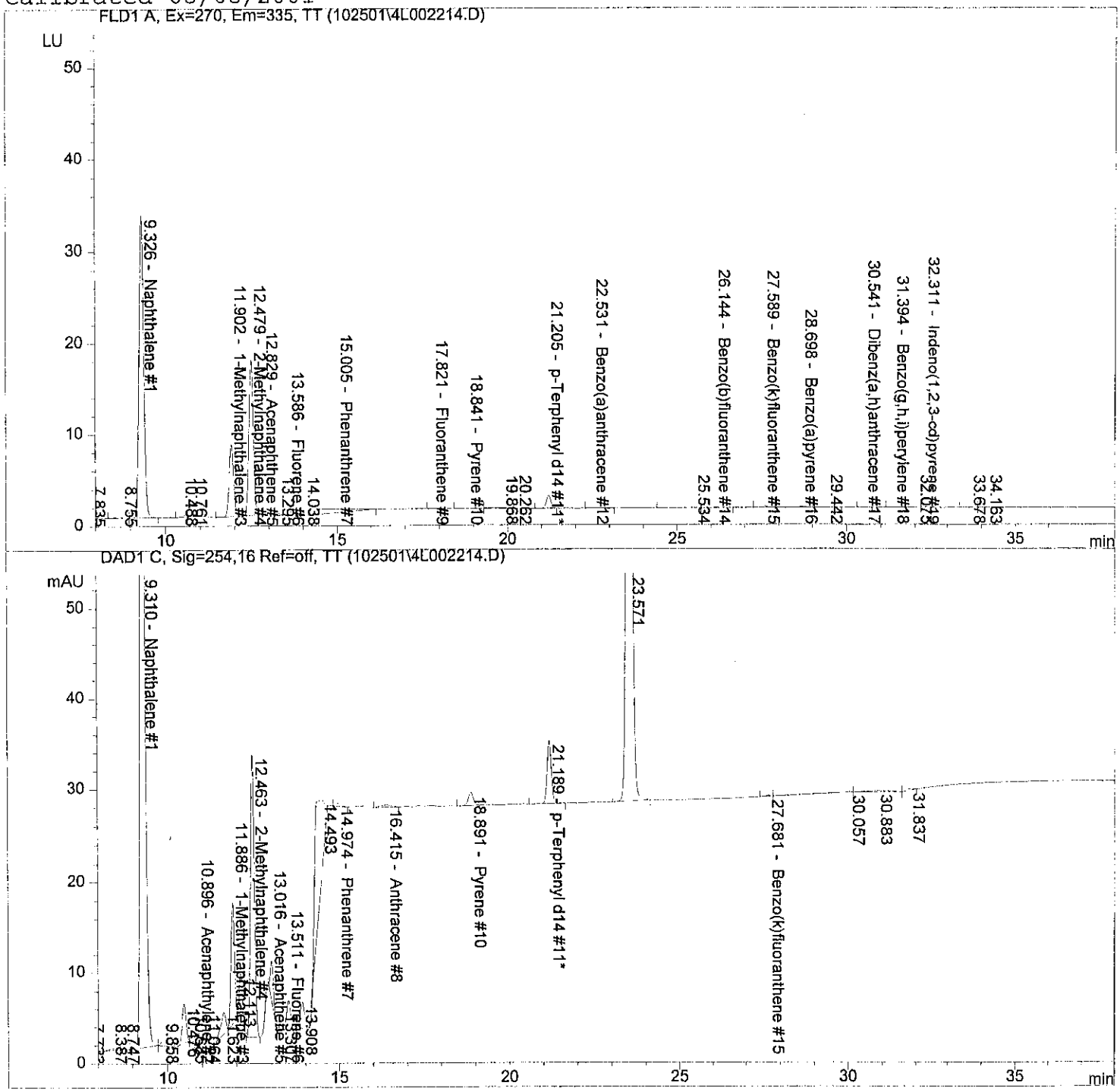


External Standard Report

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
9.326	BBA	312.59473	2.52962e-2	7.90746		Naphthalene #1
11.902	BB	72.63648	2.21330e-2	1.60766		1-Methylnaphthalene #3
12.479	BB	152.67429	1.70635e-2	2.60516		2-Methylnaphthalene #4
12.829	BB	2.29934	1.38416e-2	3.18264e-2		Acenaphthene #5
13.586	BB	5.66382	6.62187e-3	3.75051e-2		Fluorene #6
15.005	BB	33.43183	1.63652e-1	5.47119		Phenanthrene #7
16.407		-	-	-		Anthracene #8
17.821	BB	5.70575e-1	2.32678e-2	1.32761e-2		Fluoranthene #9
18.841	BB	5.10257e-1	3.86587e-2	1.97259e-2		Pyrene #10
21.205	BBA	12.92714	2.97423e-1	3.84483		p-Terphenyl d14 #11*
22.531	BB	7.63049e-1	7.91256e-3	6.03767e-3		Benzo(a)anthracene #12
23.379		-	-	-		Chrysene #13
26.144	BB	4.33602e-1	1.63222e-2	7.07732e-3		Benzo(b)fluoranthene #14
27.589	BB	1.48426	2.76572e-3	4.10505e-3		Benzo(k)fluoranthene #15
28.698	BB	1.22375	4.57119e-3	5.59398e-3		Benzo(a)pyrene #16
30.541	BB	1.61705e-1	3.93496e-2	6.36303e-3		Dibenz(a,h)anthracene #17
31.394	BB	4.07016e-1	2.65165e-2	1.07926e-2		Benzo(g,h,i)perylene #18
32.311	BB	2.19090e-1	1.38204e-2	3.02791e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 21.58162

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
9.310	BB	1062.69983	8.25405e-3	8.77158		Naphthalene #1
10.896	BB	5.21924	2.96975e-2	1.54998e-1	LMDL	Acenaphthylene #2
11.886	BB	95.43935	1.29459e-2	1.23554		1-Methylnaphthalene #3
12.463	BB	255.76918	1.12393e-2	2.87466		2-Methylnaphthalene #4
13.016	BB	26.11292	2.03163e-2	5.30519e-1	NC	Acenaphthene #5
13.511	BB	19.95584	1.75240e-2	3.49706e-1	NC	Fluorene #6
14.974	BB	3.30679	1.72982e-2	5.72016e-2	LMDL	Phenanthrene #7
16.415	BB	5.70312	1.04262e-2	5.94618e-2		Anthracene #8
17.777		-	-	-		Fluoranthene #9
18.891	BB	14.74862	1.43052e-2	2.10983e-1	NC	Pyrene #10
21.189	BB	59.84642	6.56733e-2	3.93031	39.3%	p-Terphenyl d14 #11*
22.483		-	-	-		Benzo(a)anthracene #12
23.362		-	-	-		Chrysene #13
26.095		-	-	-		Benzo(b)fluoranthene #14
27.681	PB	9.62317e-1	2.25837e-2	2.17327e-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 : 18.19669

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 RE-EXT WITHIN HOLD

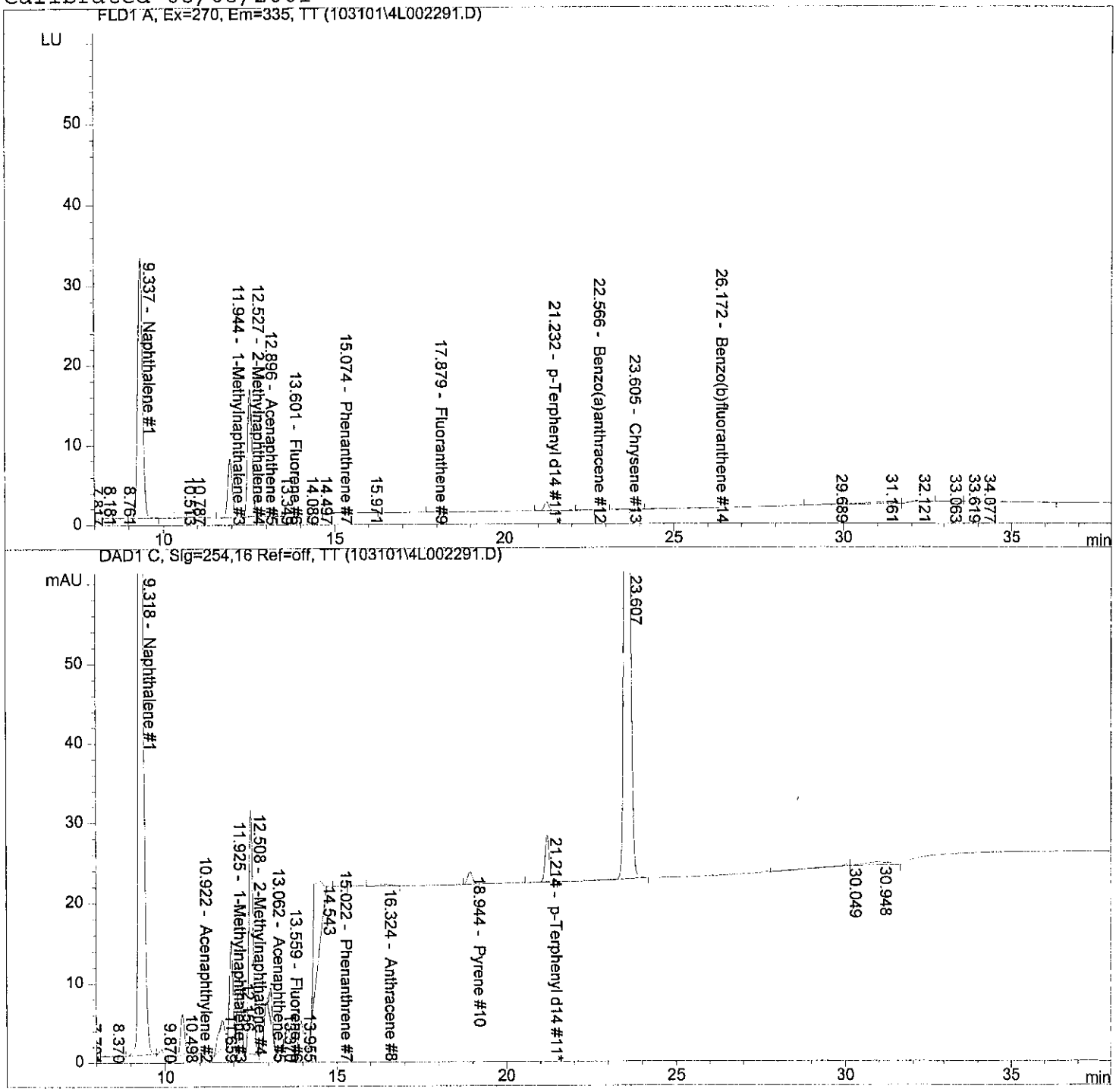
==========

Injection Date : 11/1/2001 1:20:26 AM
Sample Name : L0110464-02 REEX
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 : 11/1/2001 8:37:21 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
9.337	BBA	313.80167	2.52962e-2	7.93799		Naphthalene #1
11.944	BB	69.32590	2.21330e-2	1.53439		1-Methylnaphthalene #3
12.527	BB	144.07959	1.70635e-2	2.45850		2-Methylnaphthalene #4
12.896	BB	2.43494	1.38416e-2	3.37034e-2		Acenaphthene #5
13.601	BB	4.18234	6.62187e-3	2.76949e-2		Fluorene #6
15.074	BB	1.63421e-1	1.63652e-1	2.67443e-2		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.879	BB	2.50809e-1	2.32678e-2	5.83578e-3		Fluoranthene #9
18.890		-	-	-		Pyrene #10
21.232	BB	11.11639	2.97423e-1	3.30627		p-Terphenyl d14 #11*
22.566	BB	2.85171e-1	7.91256e-3	2.25643e-3		Benzo(a)anthracene #12
23.605	BB	2.09902e-1	3.90495e-2	8.19659e-3		Chrysene #13
26.172	BB	5.71342e-1	1.63222e-2	9.32555e-3		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 : 15.35090

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	1093.02661	8.25405e-3	9.02190		Naphthalene #1
10.922	BB	4.97653	2.96975e-2	1.47791e-1		Acenaphthylene #2
11.925	BB	85.88071	1.29459e-2	1.11180		1-Methylnaphthalene #3
12.508	BB	255.08249	1.12393e-2	2.86694		2-Methylnaphthalene #4
13.062	BB	22.75729	2.03163e-2	4.62345e-1		Acenaphthene #5
13.559	BB	23.00035	1.75240e-2	4.03058e-1		Fluorene #6
15.022	BB	2.46401	1.72982e-2	4.26231e-2		Phenanthrene #7
16.324	BB	5.39589	1.04262e-2	5.62585e-2		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.944	BBA	14.82495	1.43052e-2	2.12075e-1		Pyrene #10
21.214	BBA	49.84868	6.56733e-2	3.27373		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]		
31.433		-	-	-		Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 17.59851

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  : 10/25/2001 10:45:00 PM          Seq. Line :   9
Sample Name     : L0110464-03 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    : 10/26/2001 9:03:32 AM by RDC
Calibrated 08/08/2001
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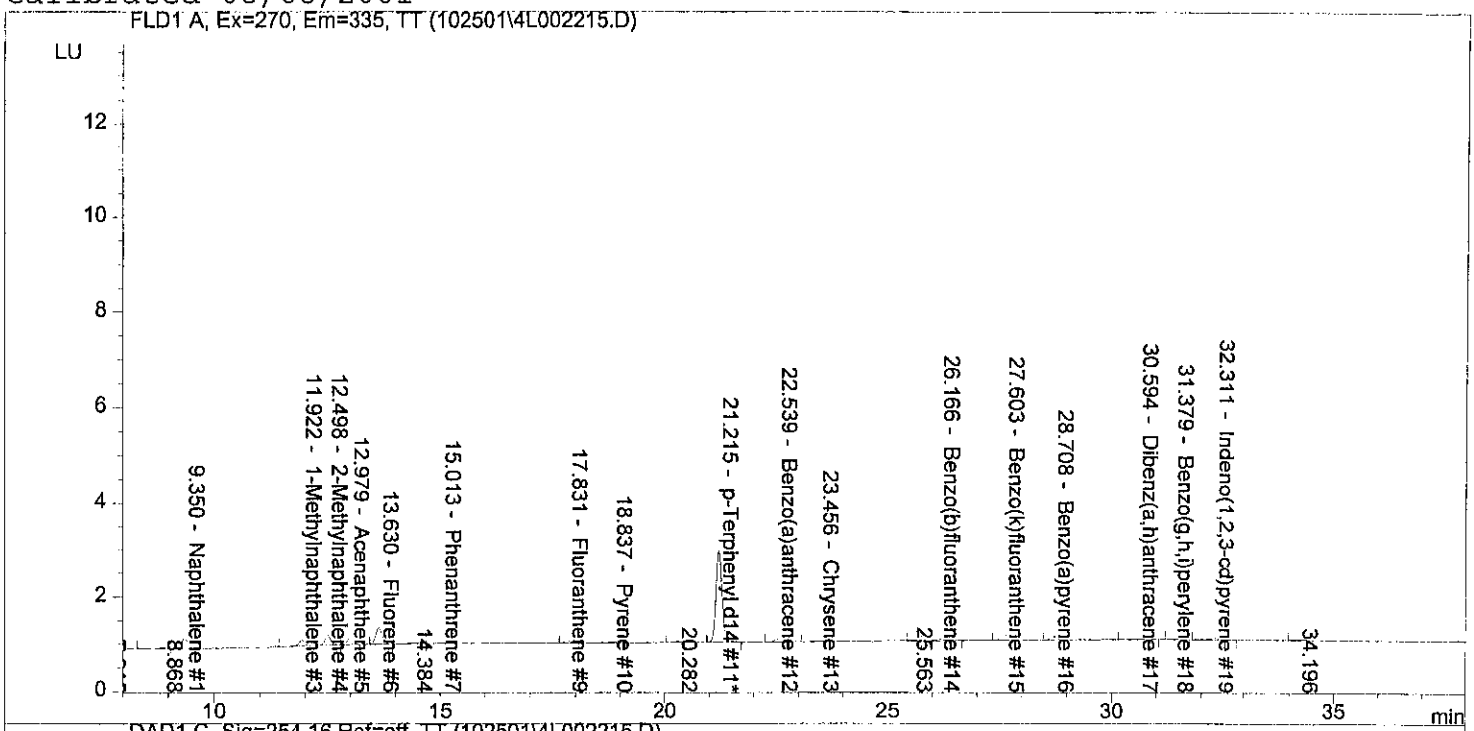

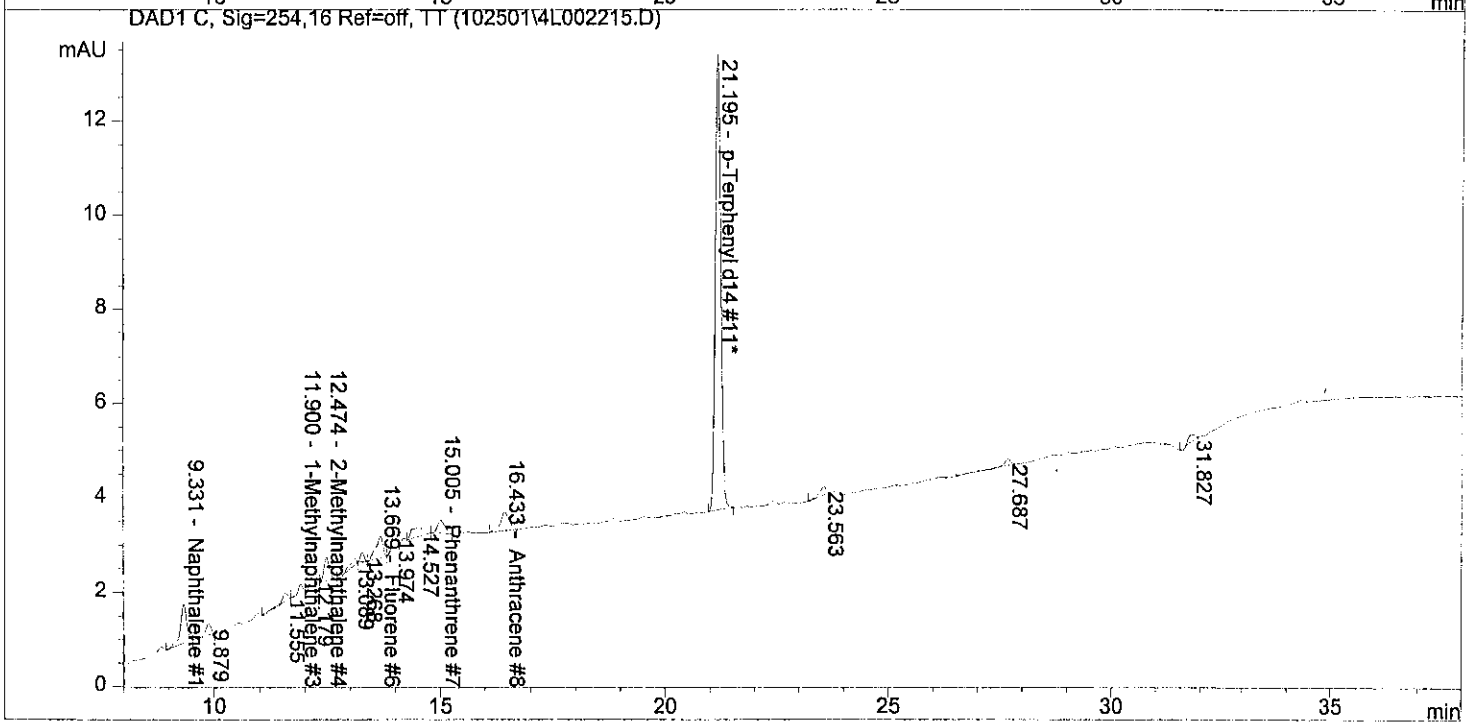

External Standard Report

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	2.07729	2.52962e-2	5.25475e-2		Naphthalene #1
11.922	BBA	1.02252	2.21330e-2	2.26313e-2		1-Methylnaphthalene #3
12.498	BB	1.97762	1.70635e-2	3.37450e-2		2-Methylnaphthalene #4
12.979	BBA	1.24117	1.38416e-2	1.71797e-2		Acenaphthene #5
13.630	BBA	3.58293	6.62187e-3	2.37257e-2		Fluorene #6
15.013	BBA	2.53829e-1	1.63652e-1	4.15397e-2		Phenanthrene #7
16.407		-	-	-		Anthracene #8
17.831	PBA	4.70623e-1	2.32678e-2	1.09504e-2		Fluoranthene #9
18.837	PBA	2.86766e-1	3.86587e-2	1.10860e-2		Pyrene #10
21.215	BB	18.77329	2.97423e-1	5.58360		p-Terphenyl d14 #11*
22.539	BB	7.44525e-1	7.91256e-3	5.89110e-3		Benzo(a)anthracene #12
23.456	BB	3.24593e-1	3.90495e-2	1.26752e-2		Chrysene #13
26.166	BB	5.29127e-1	1.63222e-2	8.63651e-3		Benzo(b)fluoranthene #14
27.603	BBA	1.28733	2.76572e-3	3.56038e-3		Benzo(k)fluoranthene #15
28.708	BBA	7.99150e-1	4.57119e-3	3.65307e-3		Benzo(a)pyrene #16
30.594	BBA	3.51053e-1	3.93496e-2	1.38138e-2		Dibenz(a,h)anthracene #17
31.379	BBA	2.00708e-1	2.65165e-2	5.32207e-3		Benzo(g,h,i)perylene #18
32.311	BBA	7.68567e-1	1.38204e-2	1.06219e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 5.86118

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	8.02243	8.25405e-3	6.62176e-2		Naphthalene #1
10.913		-	-	-		Acenaphthylene #2
11.900	BB	1.34644	1.29459e-2	1.74308e-2		1-Methylnaphthalene #3
12.474	BB	4.19160	1.12393e-2	4.71106e-2		2-Methylnaphthalene #4
12.934		-	-	-		Acenaphthene #5
13.669	BB	5.19037	1.75240e-2	9.09561e-2		Fluorene #6
15.005	BB	3.06384	1.72982e-2	5.29990e-2		Phenanthrene #7
16.433	BBA	5.62578	1.04262e-2	5.86554e-2		Anthracene #8
17.777		-	-	-		Fluoranthene #9
18.789		-	-	-		Pyrene #10
21.195	BBA	83.43575	6.56733e-2	5.47950		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

[min]		[mAU*s]		[ug/L]		
31.318		-	-	-		Benzo(g,h,i)perylene #18
32.265		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 5.81287

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   : 10/25/2001 11:41:39 PM          Seq. Line :   10
Sample Name      : WG106942-01 WREF                     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     : 10/26/2001 9:03:32 AM by RDC
Calibrated 08/08/2001
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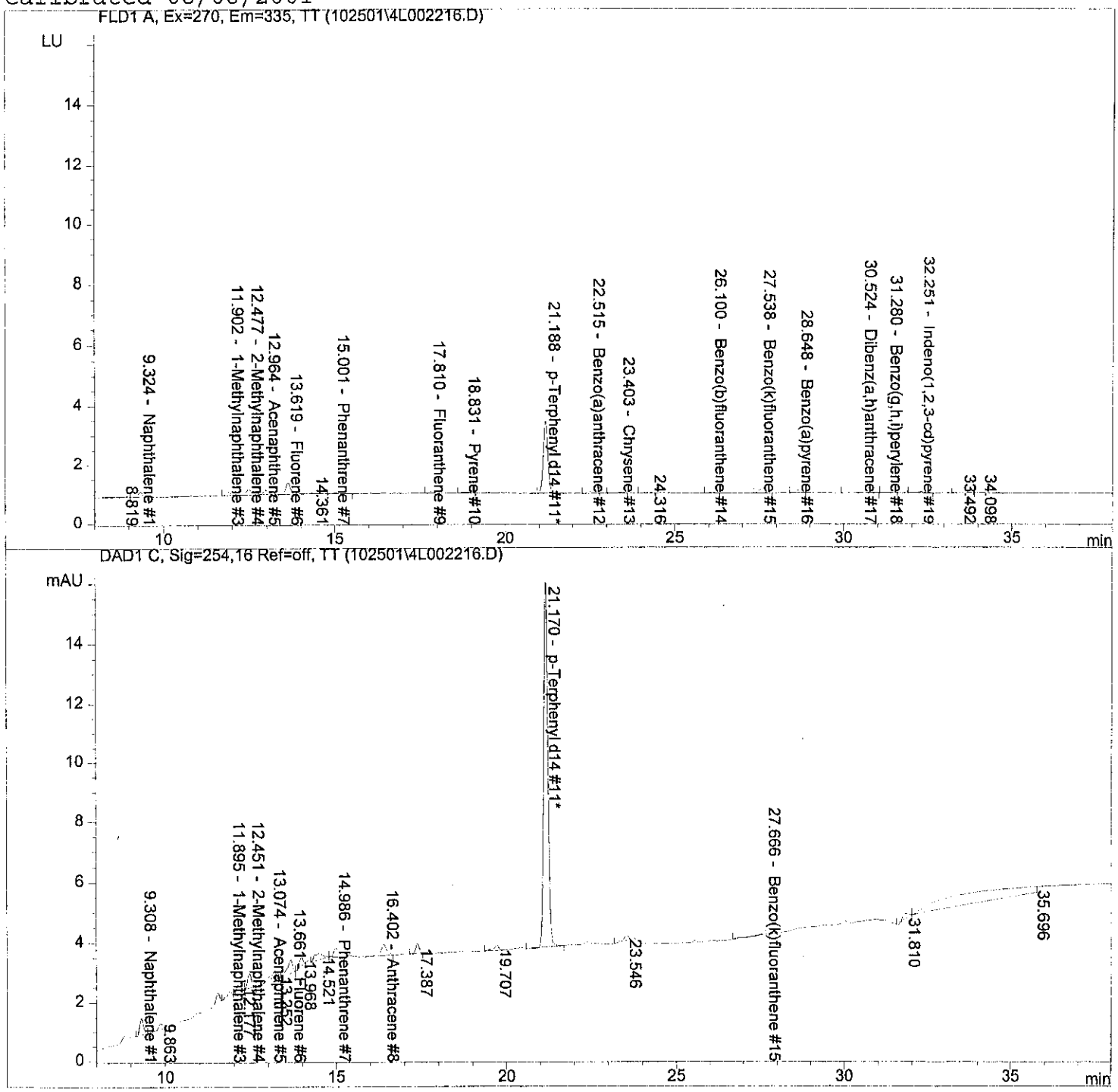

External Standard Report

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
9.324	BB	1.56940	2.52962e-2	3.97000e-2		Naphthalene #1
11.902	BB	1.03753	2.21330e-2	2.29637e-2		1-Methylnaphthalene #3
12.477	BB	2.09823	1.70635e-2	3.58032e-2		2-Methylnaphthalene #4
12.964	BB	1.58537	1.38416e-2	2.19439e-2		Acenaphthene #5
13.619	BB	3.92823	6.62187e-3	2.60122e-2		Fluorene #6
15.001	BBA	2.93566e-1	1.63652e-1	4.80427e-2		Phenanthrene #7
16.407		-	-	-		Anthracene #8
17.810	BBA	5.07485e-1	2.32678e-2	1.18081e-2		Fluoranthene #9
18.831	BBA	3.25623e-1	3.86587e-2	1.25882e-2		Pyrene #10
21.188	BBA	23.57384	2.97423e-1	7.01140		p-Terphenyl d14 #11*
22.515	BB	7.29196e-1	7.91256e-3	5.76981e-3		Benzo(a)anthracene #12
23.403	BB	3.25964e-1	3.90495e-2	1.27287e-2		Chrysene #13
26.100	BBA	2.73806e-1	1.63222e-2	4.46911e-3		Benzo(b)fluoranthene #14
27.538	PBA	1.34659	2.76572e-3	3.72429e-3		Benzo(k)fluoranthene #15
28.648	PBA	9.53941e-1	4.57119e-3	4.36065e-3		Benzo(a)pyrene #16
30.524	PBA	3.71017e-1	3.93496e-2	1.45994e-2		Dibenz(a,h)anthracene #17
31.280	BBA	2.11299e-1	2.65165e-2	5.60291e-3		Benzo(g,h,i)perylene #18
32.251	BB	6.65184e-1	1.38204e-2	9.19311e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 7.29071

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	4.65991	8.25405e-3	3.84632e-2		Naphthalene #1
10.913		-	-	-		Acenaphthylene #2
11.895	BB	1.39935	1.29459e-2	1.81158e-2		1-Methylnaphthalene #3
12.451	BB	3.95080	1.12393e-2	4.44041e-2		2-Methylnaphthalene #4
13.074	BB	8.22952e-1	2.03163e-2	1.67194e-2		Acenaphthene #5
13.661	BB	5.28328	1.75240e-2	9.25842e-2		Fluorene #6
14.986	BB	3.20832	1.72982e-2	5.54983e-2		Phenanthrene #7
16.402	BB	4.54737	1.04262e-2	4.74118e-2		Anthracene #8
17.777		-	-	-		Fluoranthene #9
18.789		-	-	-		Pyrene #10
21.170	BBA	105.48372	6.56733e-2	6.92746		p-Terphenyl d14 #11*
22.483		-	-	-		Benzo(a)anthracene #12
23.362		-	-	-		Chrysene #13
26.095		-	-	-		Benzo(b)fluoranthene #14
27.666	PB	1.31696	2.25837e-2	2.97419e-2		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 : 7.27040

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  : 10/26/2001 12:38:18 AM          Seq. Line :  11
Sample Name     : WG106942-04 WMS                     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    : 10/26/2001 9:03:32 AM by RDC
Calibrated 08/08/2001
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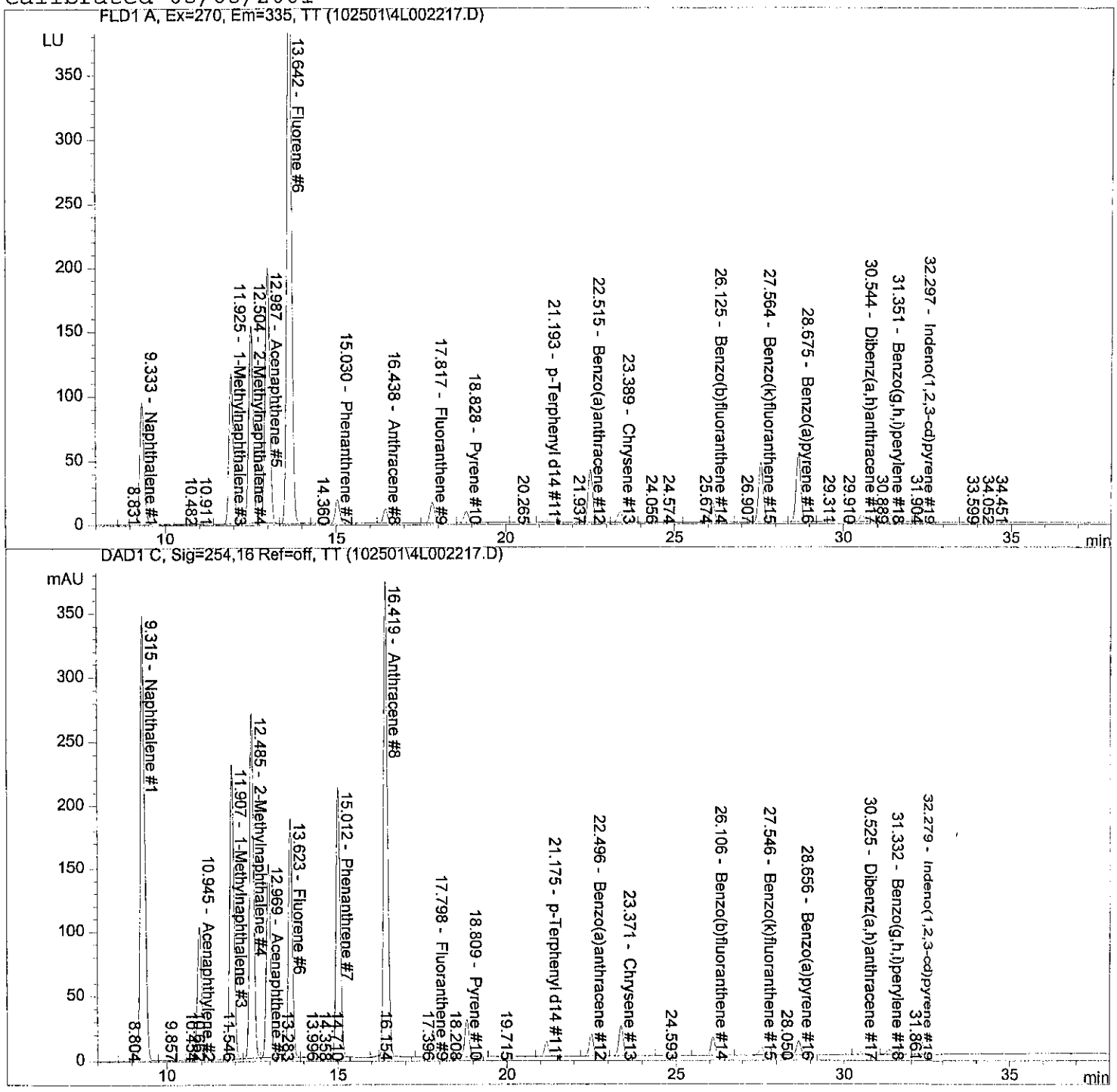

External Standard Report

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
9.333	BBA	894.08954	2.52962e-2	22.61706		Naphthalene #1
11.925	BB	1065.67017	2.21330e-2	23.58643		1-Methylnaphthalene #3
12.504	BB	1392.38745	1.70635e-2	23.75899		2-Methylnaphthalene #4
12.987	BB	1811.30847	1.38416e-2	25.07134		Acenaphthene #5
13.642	BB	4177.74658	6.62187e-3	27.66448		Fluorene #6
15.030	BBA	169.38875	1.63652e-1	27.72085		Phenanthrene #7
16.438	BB	99.78779	3.10196e-1	30.95381		Anthracene #8
17.817	BB	156.39394	2.32678e-2	3.63895		Fluoranthene #9
18.828	BBA	85.99815	3.86587e-2	3.32458		Pyrene #10
21.193	PB	22.08778	2.97423e-1	6.56941		p-Terphenyl d14 #11*
22.515	BB	406.02222	7.91256e-3	3.21268		Benzo(a)anthracene #12
23.389	BB	80.65165	3.90495e-2	3.14941		Chrysene #13
26.125	BB	166.25635	1.63222e-2	2.71367		Benzo(b)fluoranthene #14
27.564	BB	480.29358	2.76572e-3	1.32836		Benzo(k)fluoranthene #15
28.675	BB	534.44702	4.57119e-3	2.44306		Benzo(a)pyrene #16
30.544	BB	54.70845	3.93496e-2	2.15275		Dibenz(a,h)anthracene #17
31.351	BB	74.72260	2.65165e-2	1.98138		Benzo(g,h,i)perylene #18
32.297	BB	167.58792	1.38204e-2	2.31613		Indeno(1,2,3-cd)pyrene #1

Totals : 214.20334

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
9.315	BB	3010.47095	8.25405e-3	24.84858		Naphthalene #1
10.945	BB	864.61792	2.96975e-2	25.67700		Acenaphthylene #2
11.907	BB	1918.21033	1.29459e-2	24.83288		1-Methylnaphthalene #3
12.485	BB	2227.71265	1.12393e-2	25.03788		2-Methylnaphthalene #4
12.969	BB	1251.52734	2.03163e-2	25.42646		Acenaphthene #5
13.623	BB	1521.20984	1.75240e-2	26.65769		Fluorene #6
15.012	BB	1719.74780	1.72982e-2	29.74861		Phenanthrene #7
16.419	BBA	3033.08569	1.04262e-2	31.62351		Anthracene #8
17.798	BB	172.83519	2.17006e-2	3.75063		Fluoranthene #9
18.809	BBA	254.44566	1.43052e-2	3.63991		Pyrene #10
21.175	PBA	100.59298	6.56733e-2	6.60627		p-Terphenyl d14 #11*
22.496	BBA	152.52446	2.22694e-2	3.39663		Benzo(a)anthracene #12
23.371	PBA	216.91493	1.51453e-2	3.28524		Chrysene #13
26.106	PBA	134.45216	2.07330e-2	2.78759		Benzo(b)fluoranthene #14
27.546	BB	61.42606	2.25837e-2	1.38723		Benzo(k)fluoranthene #15
28.656	BB	98.36232	2.61680e-2	2.57395		Benzo(a)pyrene #16
30.525	BB	24.21252	9.41116e-2	2.27868		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.332	BB	39.74272	5.60829e-2	2.22889		Benzo(g,h,i)perylene #18
32.279	BB	113.04057	2.05608e-2	2.32420		Indeno(1,2,3-cd)pyrene #1

Totals : 248.11182

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 ***

```
Injection Date  : 10/26/2001 1:34:57 AM          Seq. Line :  12
Sample Name     : WG106942-05 WMSD                   Vial :  12
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
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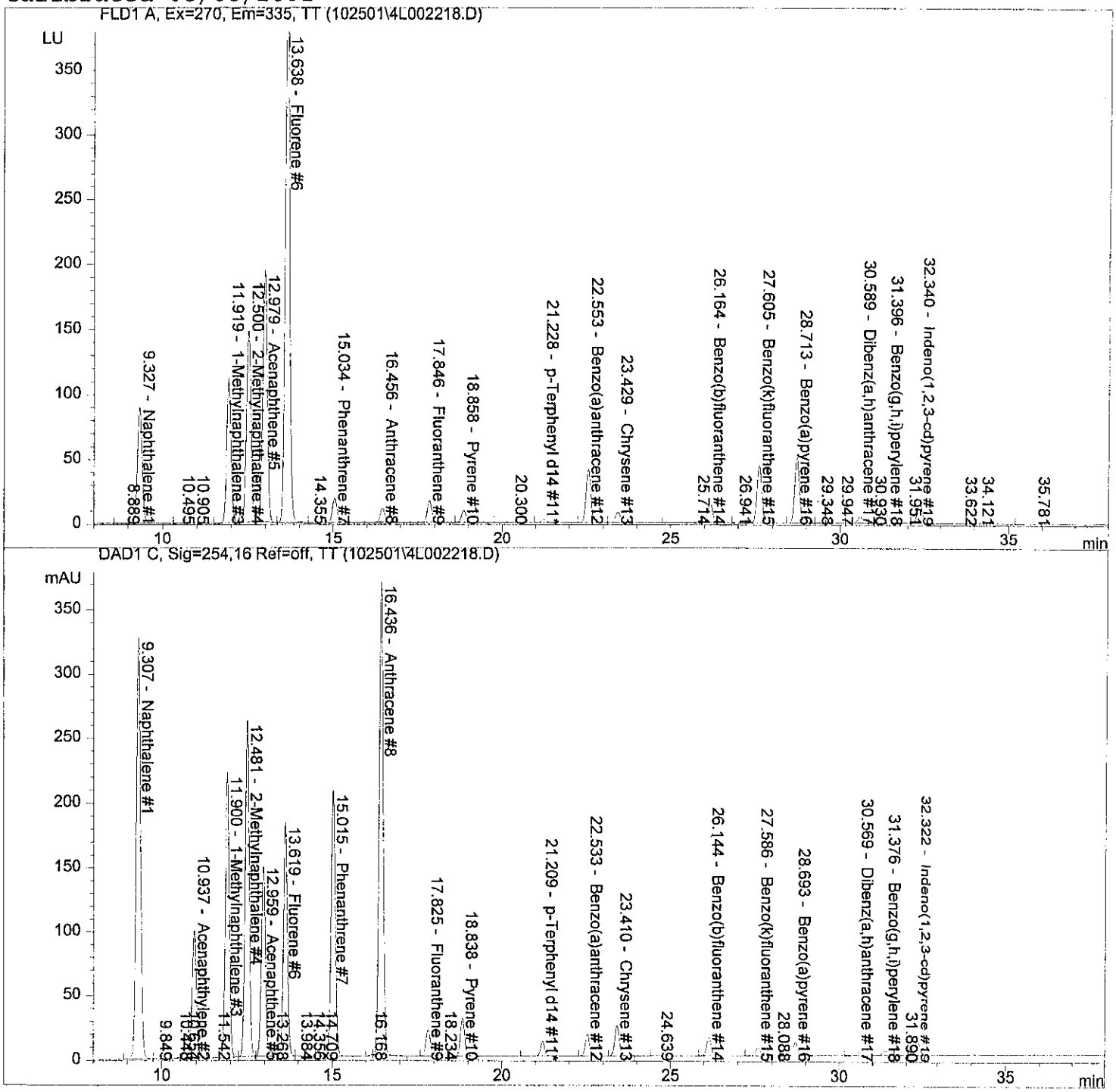

External Standard Report

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
9.327	BB	843.60193	2.52962e-2	21.33992		Naphthalene #1
11.919	BB	1023.48035	2.21330e-2	22.65264		1-Methylnaphthalene #3
12.500	BB	1339.63782	1.70635e-2	22.85890		2-Methylnaphthalene #4
12.979	BB	1762.15723	1.38416e-2	24.39101		Acenaphthene #5
13.638	BB	4084.13672	6.62187e-3	27.04461		Fluorene #6
15.034	BBA	168.85434	1.63652e-1	27.63339		Phenanthrene #7
16.456	BBA	99.82072	3.10196e-1	30.96402		Anthracene #8
17.846	PBA	157.94437	2.32678e-2	3.67503		Fluoranthene #9
18.858	BBA	87.37012	3.86587e-2	3.37761		Pyrene #10
21.228	PB	21.81328	2.97423e-1	6.48777		p-Terphenyl d14 #11*
22.553	BB	409.27902	7.91256e-3	3.23845		Benzo(a)anthracene #12
23.429	BBA	80.01457	3.90495e-2	3.12453		Chrysene #13
26.164	BB	161.95222	1.63222e-2	2.64341		Benzo(b)fluoranthene #14
27.605	BB	453.66080	2.76572e-3	1.25470		Benzo(k)fluoranthene #15
28.713	BB	511.81586	4.57119e-3	2.33961		Benzo(a)pyrene #16
30.589	BB	49.79699	3.93496e-2	1.95949		Dibenz(a,h)anthracene #17
31.396	BB	69.05634	2.65165e-2	1.83113		Benzo(g,h,i)perylene #18
32.340	BB	155.06178	1.38204e-2	2.14302		Indeno(1,2,3-cd)pyrene #1
Totals :				208.95924		

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	2846.59521	8.25405e-3	23.49594		Naphthalene #1
10.937	BB	836.91656	2.96975e-2	24.85434		Acenaphthylene #2
11.900	BB	1840.30603	1.29459e-2	23.82434		1-Methylnaphthalene #3
12.481	BB	2147.22803	1.12393e-2	24.13329		2-Methylnaphthalene #4
12.959	BB	1218.00928	2.03163e-2	24.74550		Acenaphthene #5
13.619	BB	1487.74109	1.75240e-2	26.07118		Fluorene #6
15.015	BBA	1708.89343	1.72982e-2	29.56085		Phenanthrene #7
16.436	BBA	3005.40112	1.04262e-2	31.33487		Anthracene #8
17.825	PB	174.20491	2.17006e-2	3.78035		Fluoranthene #9
18.838	BBA	259.07523	1.43052e-2	3.70613		Pyrene #10
21.209	BBA	98.37531	6.56733e-2	6.46063		p-Terphenyl d14 #11*
22.533	PBA	153.59860	2.22694e-2	3.42055		Benzo(a)anthracene #12
23.410	BBA	217.86429	1.51453e-2	3.29962		Chrysene #13
26.144	PBA	130.80559	2.07330e-2	2.71199		Benzo(b)fluoranthene #14
27.586	BB	57.18422	2.25837e-2	1.29143		Benzo(k)fluoranthene #15
28.693	BBA	94.17558	2.61680e-2	2.46439		Benzo(a)pyrene #16
30.569	BB	22.16527	9.41116e-2	2.08601		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.376	BB	35.89831	5.60829e-2	2.01328		Benzo(g,h,i)perylene #18
32.322	BBA	105.54162	2.05608e-2	2.17002		Indeno(1,2,3-cd)pyrene #1

Totals : 241.42471

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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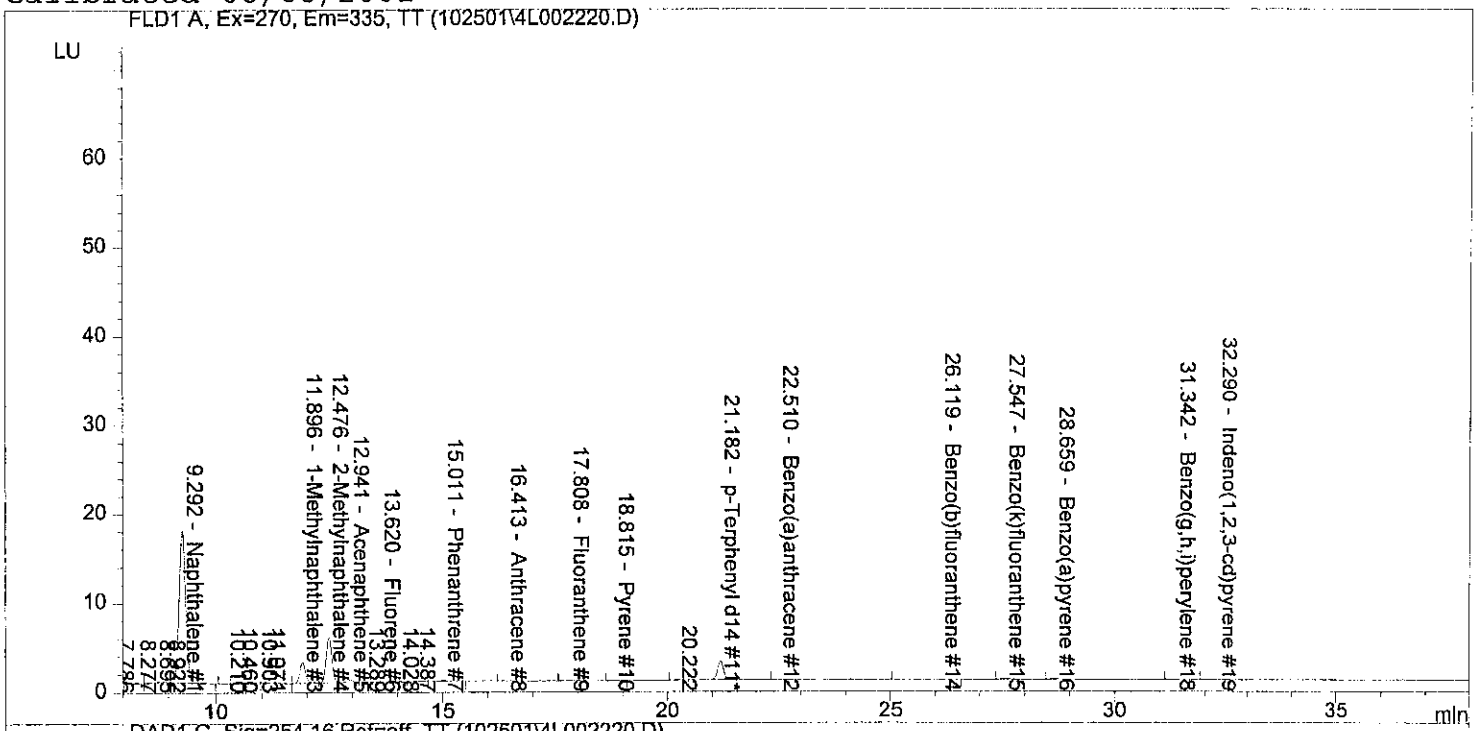
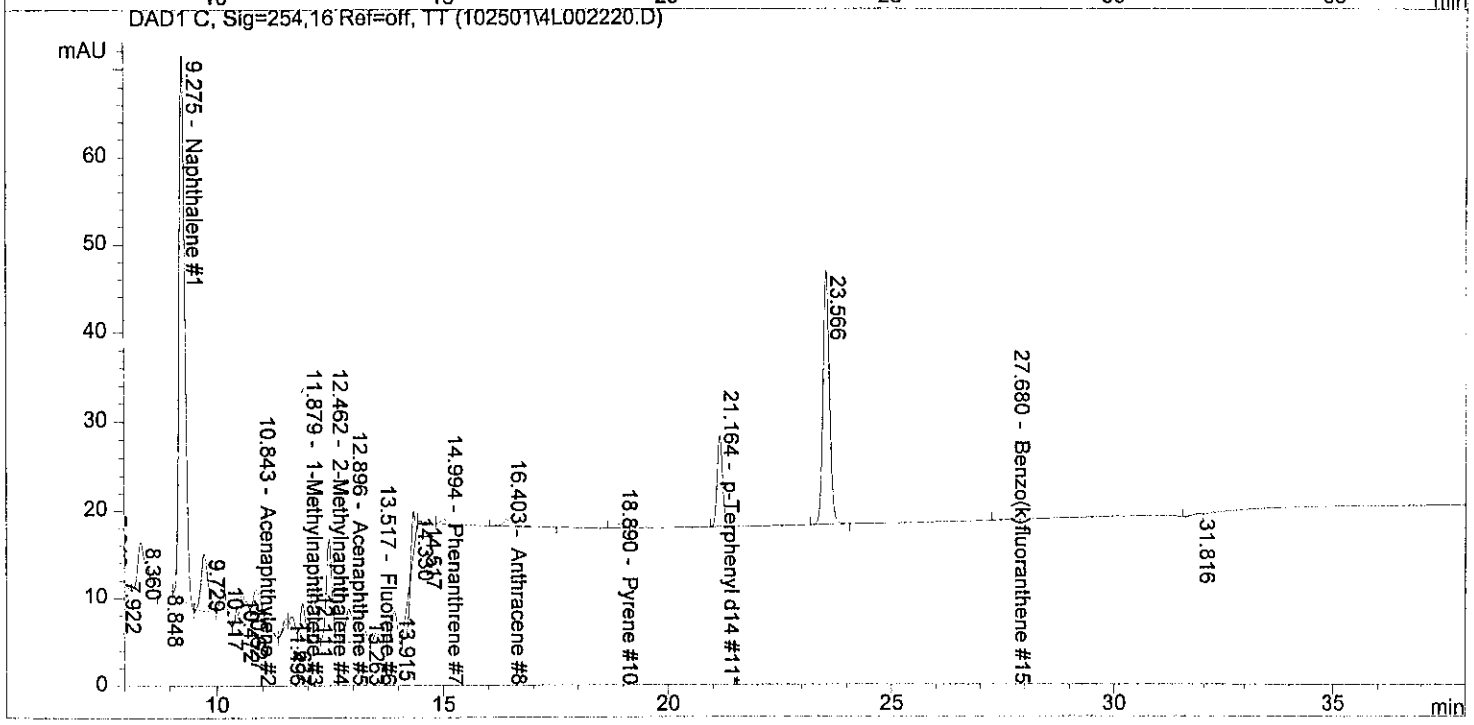
*** End of Report ***

Injection Date : 10/26/2001 3:28:10 AM Seq. Line : 14
Sample Name : L0110464-07 831W Vial : 14
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

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
9.292	BBA	163.11903	2.52962e-2	4.12629		Naphthalene #1
11.896	BB	22.13297	2.21330e-2	4.89868e-1		1-Methylnaphthalene #3
12.476	BB	45.57488	1.70635e-2	7.77667e-1	C	2-Methylnaphthalene #4
12.941	BB	3.11988	1.38416e-2	4.31840e-2		Acenaphthene #5
13.620	BB	9.48970	6.62187e-3	6.28395e-2		Fluorene #6
15.011	BBA	5.08750e-1	1.63652e-1	8.32580e-2		Phenanthrene #7
16.413	BBA	2.08366e-1	3.10196e-1	6.46345e-2		Anthracene #8
17.808	BBA	6.24414e-1	2.32678e-2	1.45288e-2		Fluoranthene #9
18.815	BBA	2.74278e-1	3.86587e-2	1.06032e-2		Pyrene #10
21.182	BB	20.06838	2.97423e-1	5.96879		p-Terphenyl d14 #11*
22.510	BBA	4.18445e-1	7.91256e-3	3.31097e-3		Benzo(a)anthracene #12
23.379		-	-	-		Chrysene #13
26.119	BBA	1.05405	1.63222e-2	1.72045e-2		Benzo(b)fluoranthene #14
27.547	BBA	1.39173	2.76572e-3	3.84914e-3		Benzo(k)fluoranthene #15
28.659	BBA	8.55360e-1	4.57119e-3	3.91001e-3		Benzo(a)pyrene #16
30.529		-	-	-		Dibenz(a,h)anthracene #17
31.342	PBA	1.78225e-1	2.65165e-2	4.72590e-3		Benzo(g,h,i)perylene #18
32.290	BBA	7.14528e-1	1.38204e-2	9.87507e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 11.68454

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
9.275	BB	528.92584	8.25405e-3	4.36578		Naphthalene #1
10.843	BB	35.80956	2.96975e-2	1.06345		Acenaphthylene #2
11.879	BB	21.29641	1.29459e-2	2.75700e-1		1-Methylnaphthalene #3
12.462	BB	100.45105	1.12393e-2	1.12900		2-Methylnaphthalene #4
12.896	BB	46.96533	2.03163e-2	9.54164e-1		Acenaphthene #5
13.517	BB	10.15861	1.75240e-2	1.78019e-1		Fluorene #6
14.994	BB	5.64383	1.72982e-2	9.76283e-2		Phenanthrene #7
16.403	BB	10.56104	1.04262e-2	1.10111e-1		Anthracene #8
17.777		-	-	-		Fluoranthene #9
18.890	BBA	4.84035	1.43052e-2	6.92424e-2		Pyrene #10
21.164	BBA	89.07944	6.56733e-2	5.85014		p-Terphenyl d14 #11*
22.483		-	-	-		Benzo(a)anthracene #12
23.362		-	-	-		Chrysene #13
26.095		-	-	-		Benzo(b)fluoranthene #14
27.680	PB	1.32584	2.25837e-2	2.99424e-2		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 : 14.12318

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 00:11 Operator: mdc
Sample : L0110464-07 8310W CONF. Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 31 07:53:47 2001 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	6.61	136	256695	1.00 ug/ml	0.00
6) Acenaphthene-d10	8.41	164	915418	1.00 ug/ml	0.01
11) Phenanthrene-d10	9.94	188	477961	1.00 ug/ml	0.00
15) Chrysene-d12	12.78	240	551130	1.00 ug/ml	0.00
20) Perylene-d12	15.34	264	326739	1.00 ug/ml	0.00
System Monitoring Compounds					
2) Nitrobenzene-d5	5.93	82	80990	0.8623 ug/ml	0.02
Spiked Amount 2.500	Range 35 - 114		Recovery = 34.40%#		
7) 2-Fluorobiphenyl	7.66	172	3057	0.0025 ug/ml	0.00
Spiked Amount 2.500	Range 43 - 116		Recovery = 0.00%#		
17) p-Terphenyl-d14	11.51	244	2160509	5.2966 ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery = 212.00%#		
Target Compounds					Qvalue
3) Naphthalene	6.63	128	833833	< 3.0611 ug/ml#	90
4) 2-Methylnaphthalene	7.32	142	142085	< 0.8325 ug/ml	87
5) 1-Methylnaphthalene	7.42	142	89646	0.5187 ug/ml#	1
12) Phenanthrene	9.95	178	258150	0.5059 ug/ml#	21
13) Anthracene	10.07	178	540832	< 1.0476 ug/ml#	85

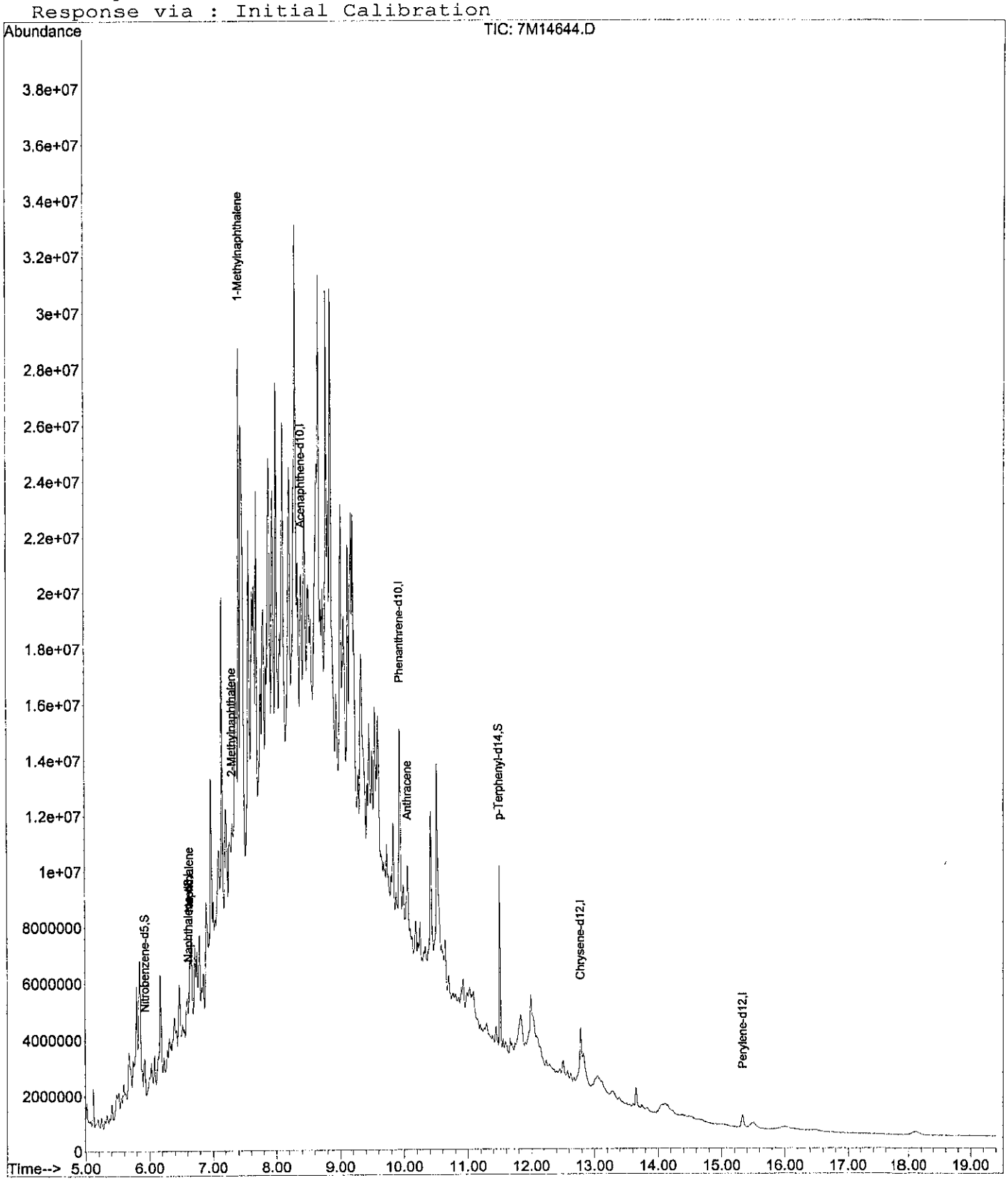
(#) = qualifier out of range (m) = manual integration
7M14644.D PAHLOW.M Wed Oct 31 07:54:01 2001 HPMS7 Page 331

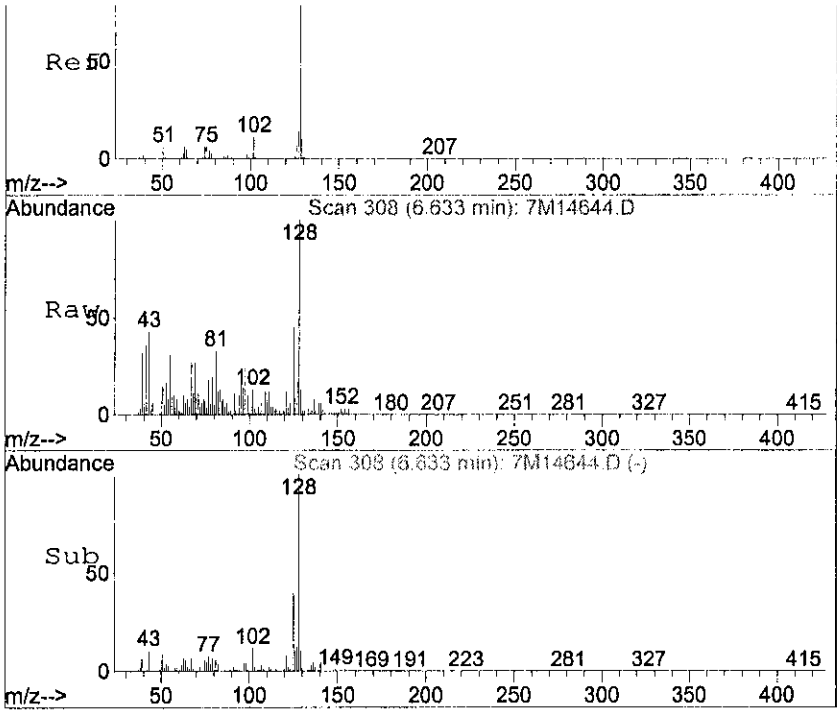
Acq On : 31 Oct 2001 00:11
Sample : L0110464-07 8310W CONF.
Misc : 1,1
MS Integration Params: RTEINT.P
Quant Time: Oct 31 7:53 2001

Operator: mdc
Inst : HPMS7
Multiplr: 1.00

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

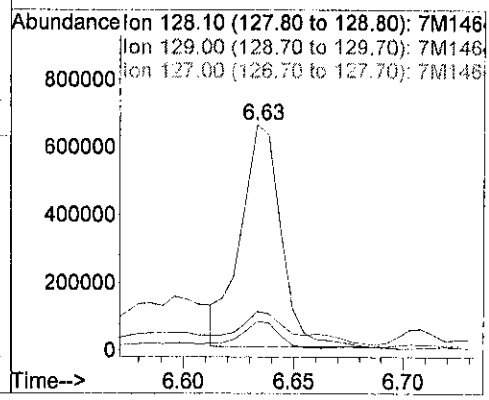


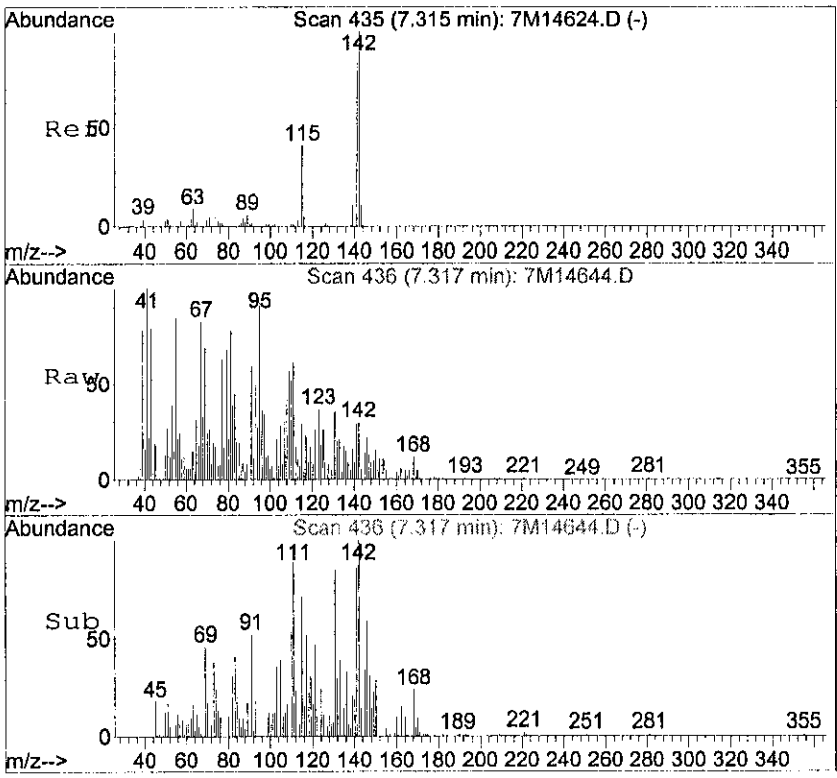


Concen: 3.06 ug/ml
RT: 6.63 min Scan# 308
Delta R.T. -0.00 min
Lab File: 7M14644.D
Acq: 31 Oct 2001 00:11

Tgt Ion:128 Resp: 833833

Ion	Ratio	Lower	Upper
128	100		
129	11.7	8.7	13.1
127	20.2	11.1	16.7#

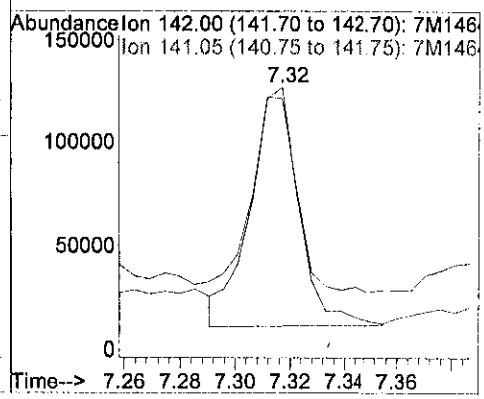


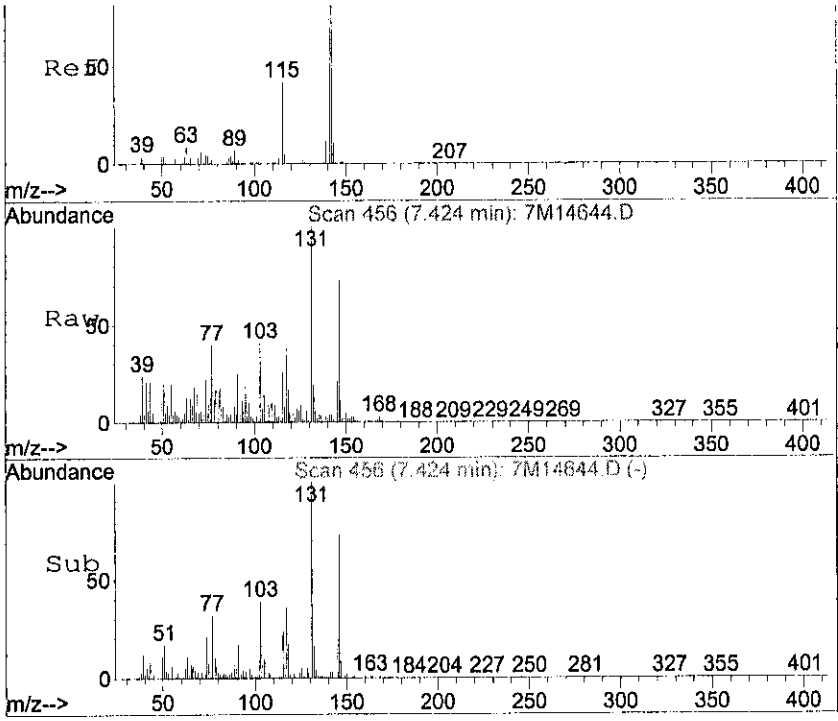


#4
2-Methylnaphthalene
Concen: 0.83 ug/ml
RT: 7.32 min Scan# 436
Delta R.T. 0.00 min
Lab File: 7M14644.D
Acq: 31 Oct 2001 00:11

Tgt Ion:142 Resp: 142085

Ion	Ratio	Lower	Upper
142	100		
141	72.8	67.7	101.5

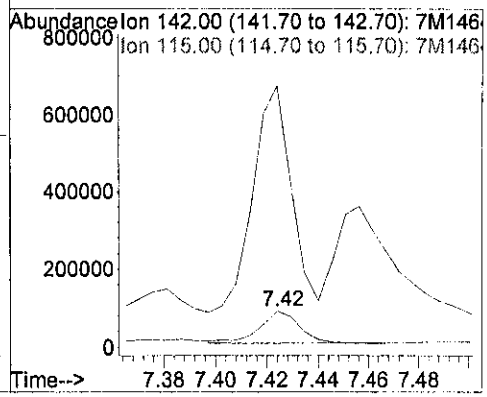


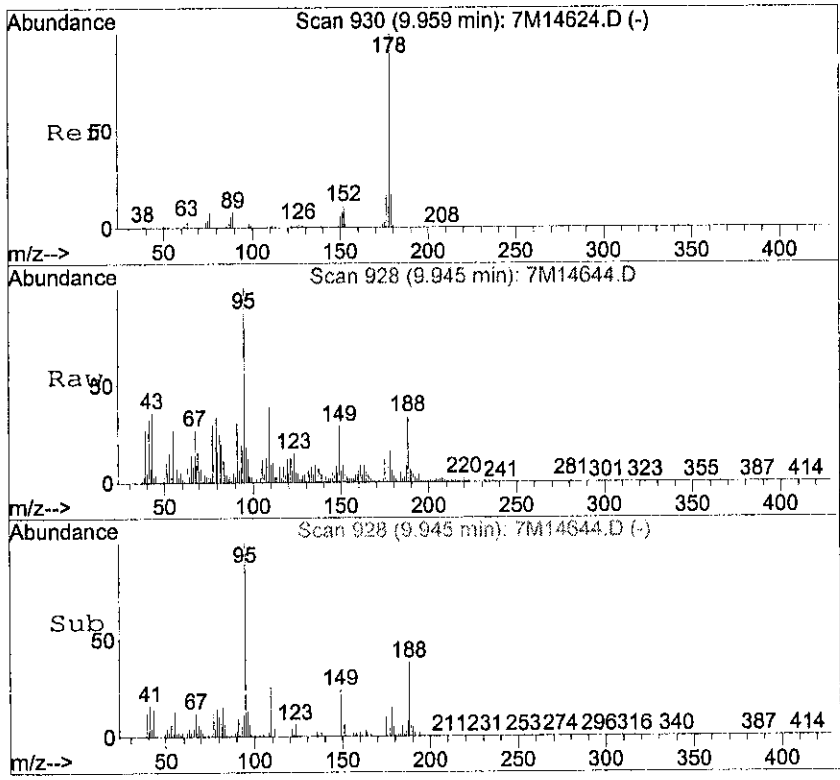


Concen: 0.52 ug/ml
RT: 7.42 min Scan# 456
Delta R.T. -0.00 min
Lab File: 7M14644.D
Acq: 31 Oct 2001 00:11

Tgt Ion:142 Resp: 89646

Ion	Ratio	Lower	Upper
142	100		
115	716.6	32.1	48.1#

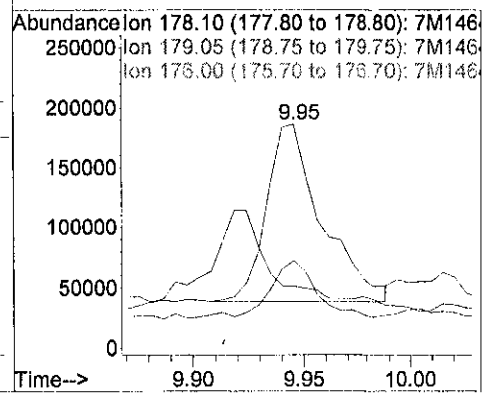


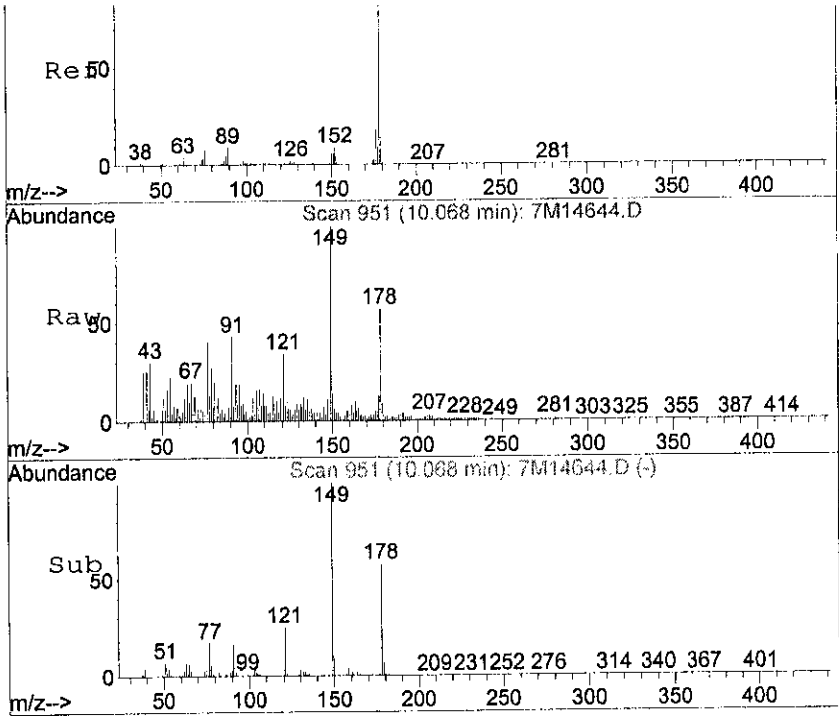


#12
Phenanthrene
Concen: 0.51 ug/ml
RT: 9.95 min Scan# 928
Delta R.T. -0.01 min
Lab File: 7M14644.D
Acq: 31 Oct 2001 00:11

Tgt Ion:178 Resp: 258150

Ion	Ratio	Lower	Upper
178	100		
179	28.1	12.7	19.1#
176	73.3	14.7	22.1#

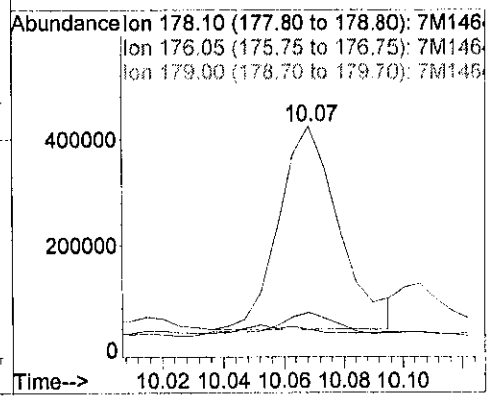




Concen: 1.05 ug/ml
RT: 10.07 min Scan# 951
Delta R.T. 0.06 min
Lab File: 7M14644.D
Acq: 31 Oct 2001 00:11

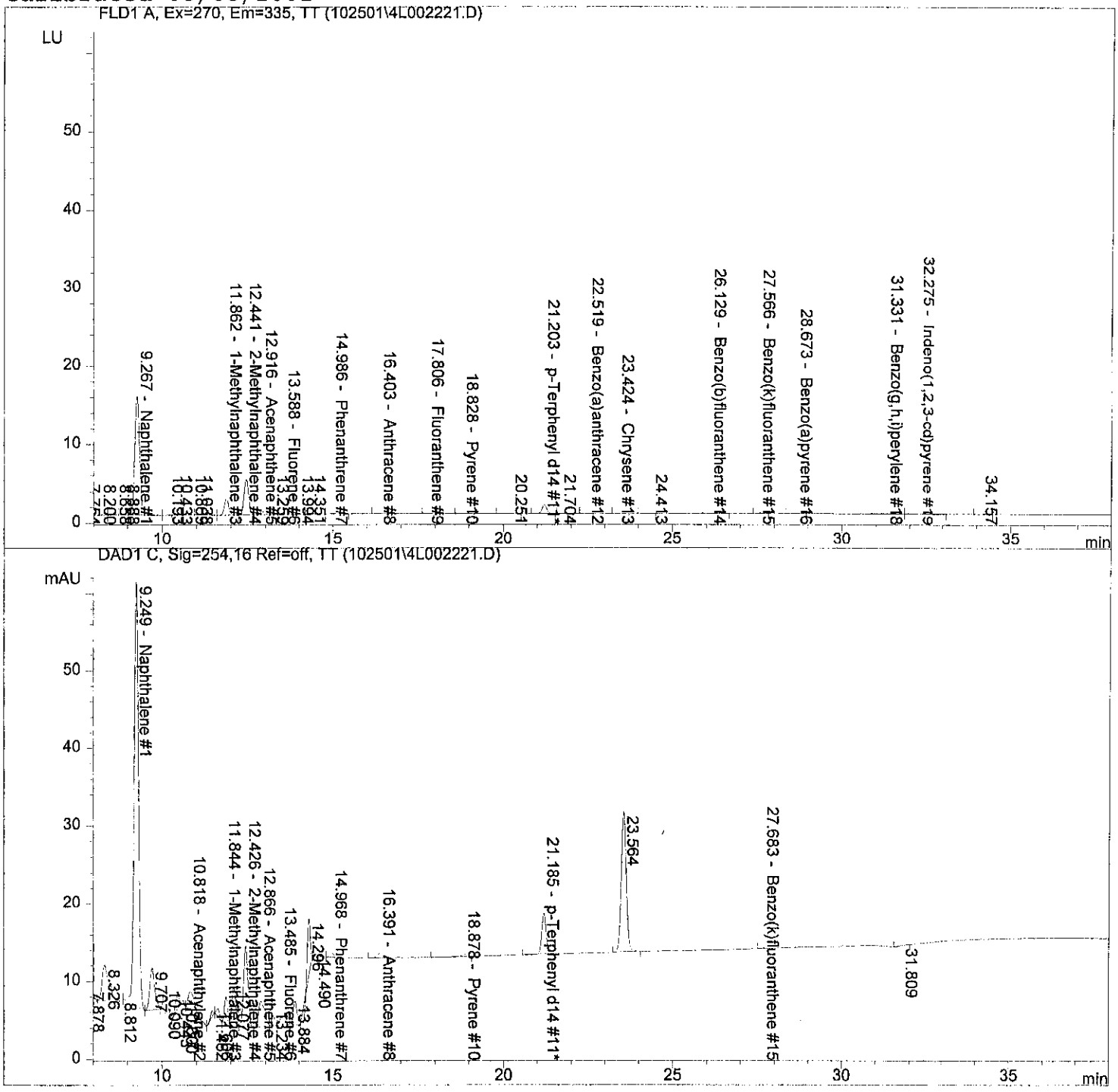
Tgt Ion:178 Resp: 540832

Ion	Ratio	Lower	Upper
178	100		
176	6.1	14.5	21.7#
179	15.5	12.7	19.1



Injection Date : 10/26/2001 4:24:48 AM Seq. Line : 15
Sample Name : L0110464-08 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 : 10/26/2001 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
9.267	BB	145.50226	2.52962e-2	3.68065		Naphthalene #1
11.862	BB	20.27872	2.21330e-2	4.48828e-1		1-Methylnaphthalene #3
12.441	BB	40.67777	1.70635e-2	6.94105e-1		2-Methylnaphthalene #4
12.916	BB	3.92737	1.38416e-2	5.43610e-2		Acenaphthene #5
13.588	BB	9.44580	6.62187e-3	6.25488e-2		Fluorene #6
14.986	BB	4.39214e-1	1.63652e-1	7.18783e-2		Phenanthrene #7
16.403	BBA	2.26607e-1	3.10196e-1	7.02927e-2		Anthracene #8
17.806	PBA	4.27800e-1	2.32678e-2	9.95398e-3		Fluoranthene #9
18.828	BB	3.41043e-1	3.86587e-2	1.31843e-2		Pyrene #10
21.203	BBA	10.11521	2.97423e-1	3.00849		p-Terphenyl d14 #11*
22.519	BB	4.92944e-1	7.91256e-3	3.90045e-3		Benzo(a)anthracene #12
23.424	BB	3.86443e-1	3.90495e-2	1.50904e-2		Chrysene #13
26.129	BBA	4.61257e-1	1.63222e-2	7.52872e-3		Benzo(b)fluoranthene #14
27.566	BBA	1.14352	2.76572e-3	3.16266e-3		Benzo(k)fluoranthene #15
28.673	BBA	7.47504e-1	4.57119e-3	3.41698e-3		Benzo(a)pyrene #16
30.529		-	-	-		Dibenz(a,h)anthracene #17
31.331	BB	2.83716e-1	2.65165e-2	7.52315e-3		Benzo(g,h,i)perylene #18
32.275	BBA	6.31950e-1	1.38204e-2	8.73381e-3		Indeno(1,2,3-cd)pyrene #1
Totals :				8.16365		

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
9.249	BB	481.49515	8.25405e-3	3.97428		Naphthalene #1
10.818	BB	30.68449	2.96975e-2	9.11253e-1		Acenaphthylene #2
11.844	BB	20.09467	1.29459e-2	2.60143e-1		1-Methylnaphthalene #3
12.426	BB	90.28772	1.12393e-2	1.01477		2-Methylnaphthalene #4
12.866	BB	41.99968	2.03163e-2	8.53280e-1		Acenaphthene #5
13.485	BB	9.95548	1.75240e-2	1.74460e-1		Fluorene #6
14.968	BB	4.51840	1.72982e-2	7.81604e-2		Phenanthrene #7
16.391	BBA	7.25608	1.04262e-2	7.56532e-2		Anthracene #8
17.777		-	-	-		Fluoranthene #9
18.878	BB	3.28035	1.43052e-2	4.69262e-2		Pyrene #10
21.185	BBA	45.26827	6.56733e-2	2.97291		p-Terphenyl d14 #11*
22.483		-	-	-		Benzo(a)anthracene #12
23.362		-	-	-		Chrysene #13
26.095		-	-	-		Benzo(b)fluoranthene #14
27.683	BBA	9.67966e-1	2.25837e-2	2.18602e-2		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 : 10.38370

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 00:56 Operator: MAC
Sample : L0110464-08 8310W CONF. Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 31 07:54:15 2001 Quant Results File: PAHLOW.RES

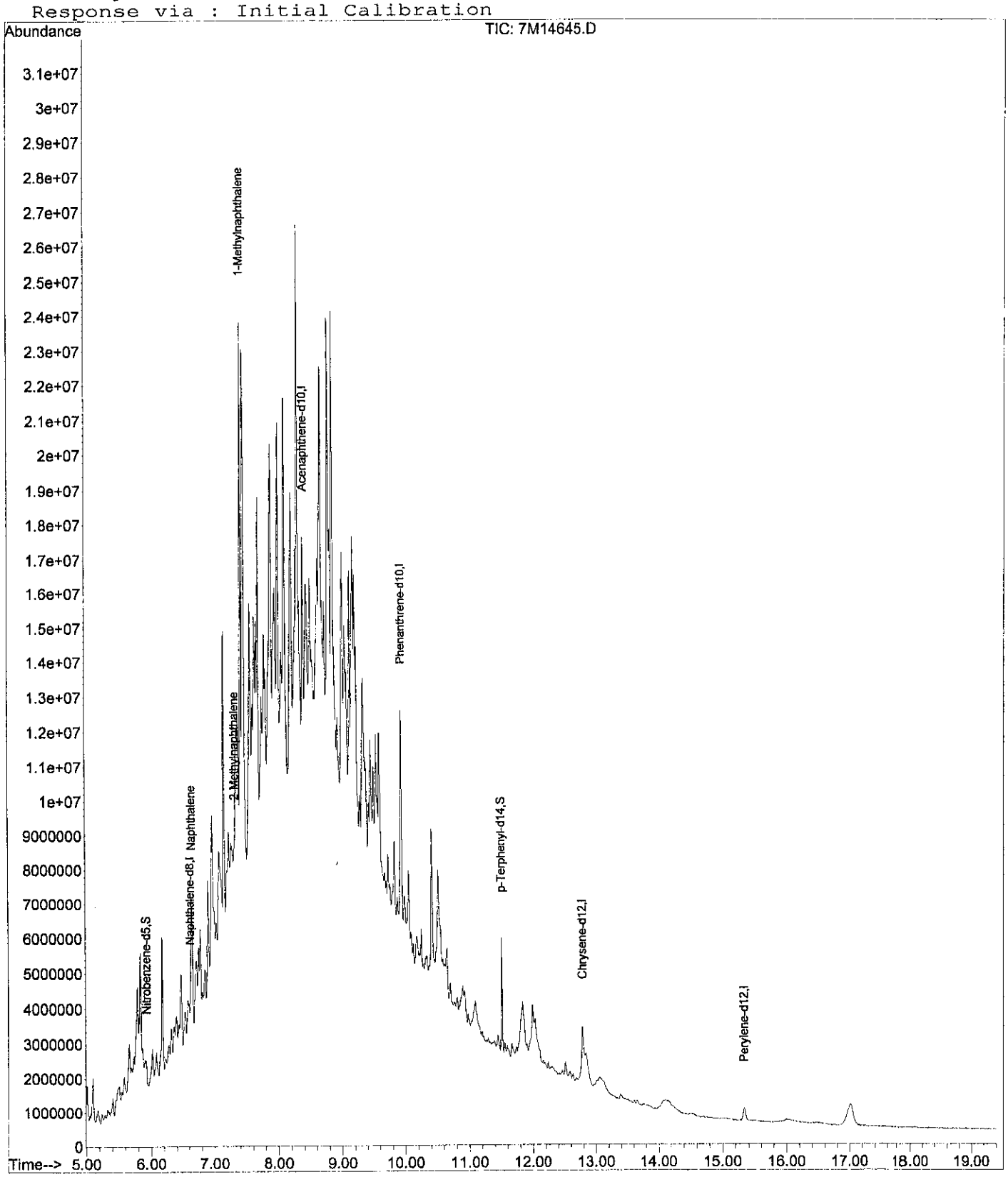
Quant Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 10/30/01
Last Update : Tue Oct 30 17:01:28 2001
Response via : Initial Calibration
DataAcq Meth : PAHL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	6.61	136	235191	1.00	ug/ml	0.00
6) Acenaphthene-d10	8.40	164	534258	1.00	ug/ml	0.00
11) Phenanthrene-d10	9.94	188	448418	1.00	ug/ml	0.00
15) Chrysene-d12	12.78	240	526196	1.00	ug/ml	0.00
20) Perylene-d12	15.33	264	293459	1.00	ug/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.93	82	24391	0.2834	ug/ml	0.01
Spiked Amount 2.500	Range 35 - 114		Recovery = 11.20%#			
7) 2-Fluorobiphenyl	7.66	172	2123	0.0030	ug/ml	0.00
Spiked Amount 2.500	Range 43 - 116		Recovery = 0.00%#			
17) p-Terphenyl-d14	11.51	244	1093511	2.8079	ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery = 112.40%			
Target Compounds						Qvalue
3) Naphthalene	6.64	128	664946	2.6643	ug/ml#	88
4) 2-Methylnaphthalene	7.32	142	104438	0.6678	ug/ml	96
5) 1-Methylnaphthalene	7.42	142	68152	0.4304	ug/ml#	1
12) Phenanthrene	9.94	178	215225	0.4496	ug/ml#	44

(#) = qualifier out of range (m) = manual integration
7M14645.D PAHLOW.M Wed Oct 31 07:54:37 2001 HPMS7 Page 1

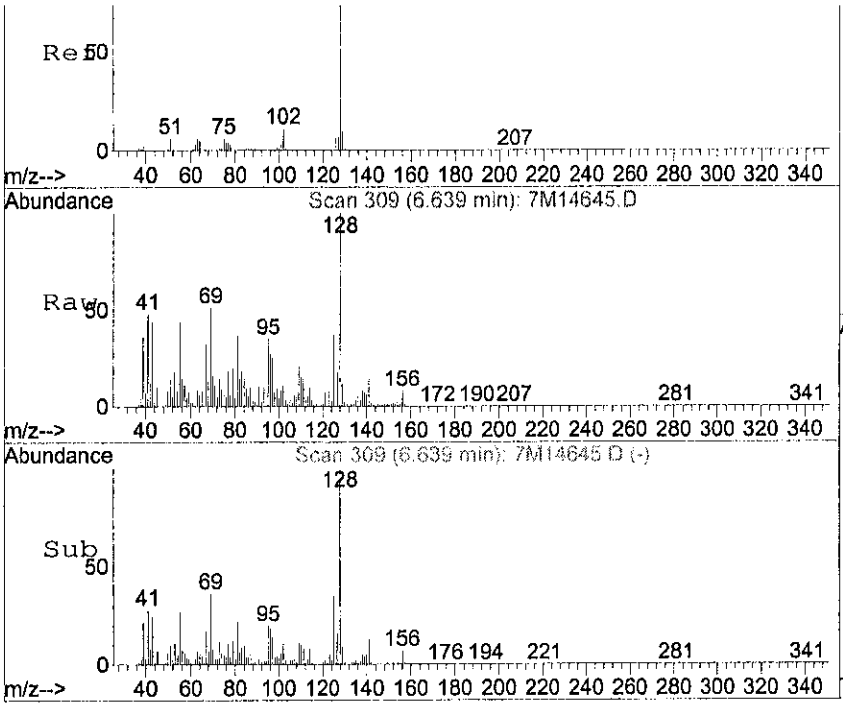
Acq On : 31 Oct 2001 00:00
Sample : L0110464-08 8310W CONF.
Misc : 1,1
Inst : HPMS7
Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 31 7:54 2001
Quant Results File: PAHLOW.RES

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



7M14645.D PAHLOW.M Wed Oct 31 07:54:38 2001 HPMS7 Page 2

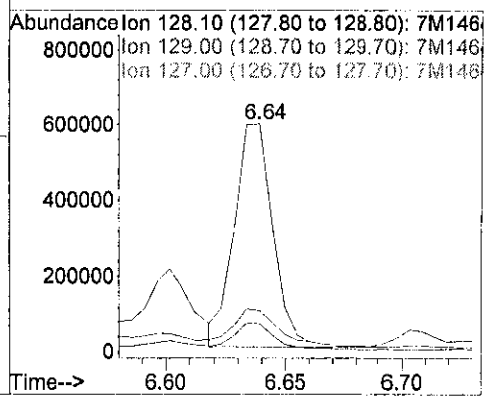
340

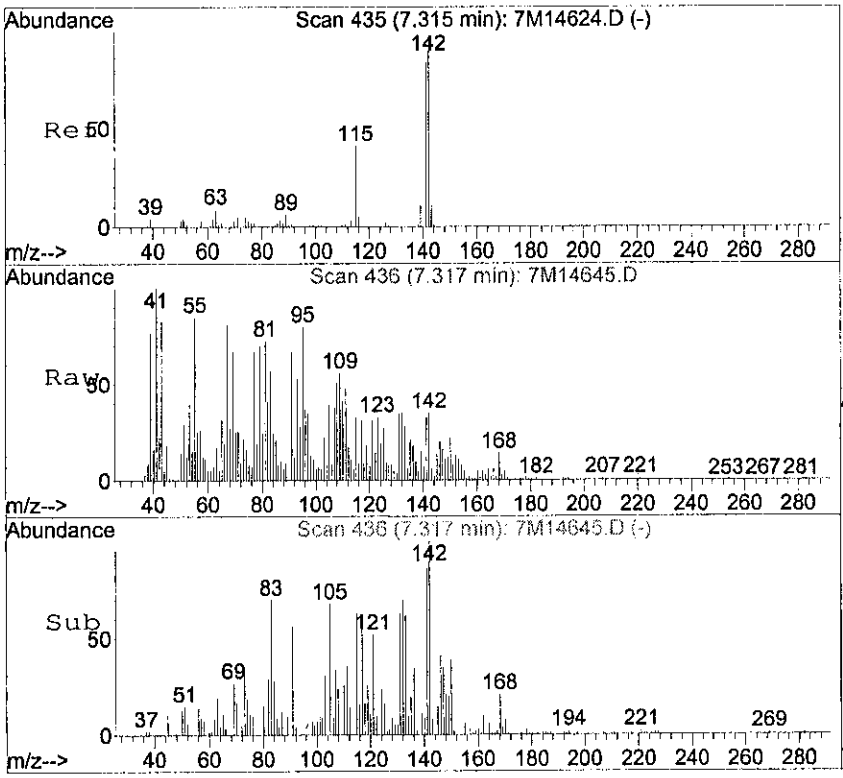


RT: 6.64 min Scan# 309
Delta R.T. 0.00 min
Lab File: 7M14645.D
Acq: 31 Oct 2001 00:38

Tgt Ion:128 Resp: 664946

Ion	Ratio	Lower	Upper
128	100		
129	12.5	8.7	13.1
127	21.3	11.1	16.7#

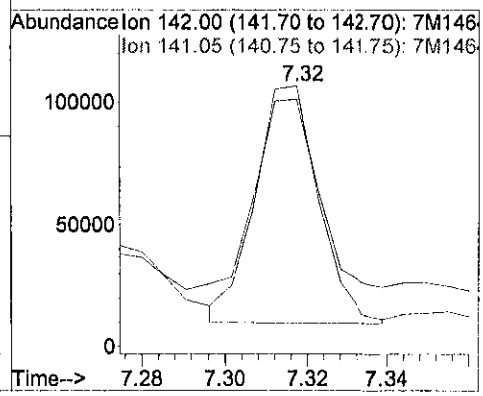


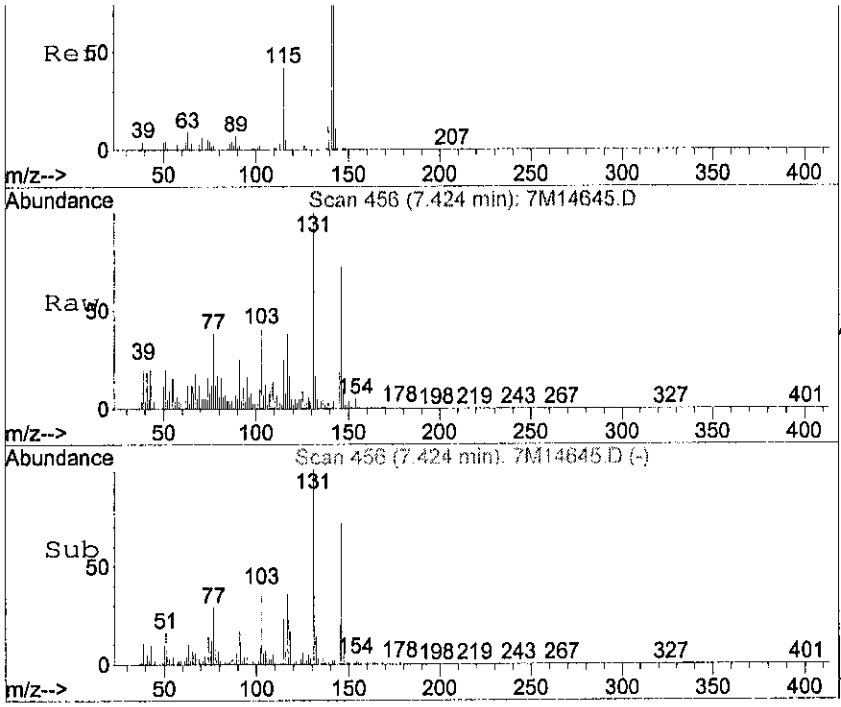


#4
2-Methylnaphthalene
Concen: 0.67 ug/ml
RT: 7.32 min Scan# 436
Delta R.T. 0.00 min
Lab File: 7M14645.D
Acq: 31 Oct 2001 00:38

Tgt Ion:142 Resp: 104438

Ion	Ratio	Lower	Upper
142	100		
141	80.8	67.7	101.5

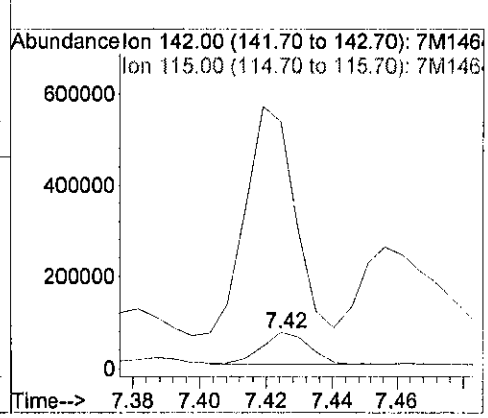


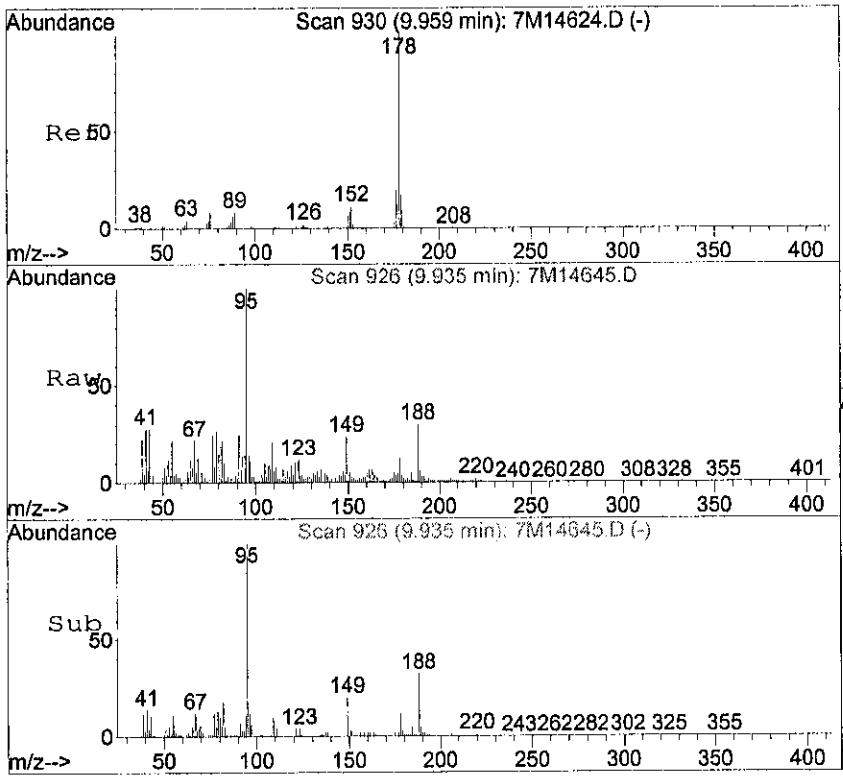


RT: 7.42 min Scan# 456
Delta R.T. -0.00 min
Lab File: 7M14645.D
Acq: 31 Oct 2001 00:38

Tgt Ion:142 Resp: 68152

Ion	Ratio	Lower	Upper
142	100		
115	760.1	32.1	48.1#

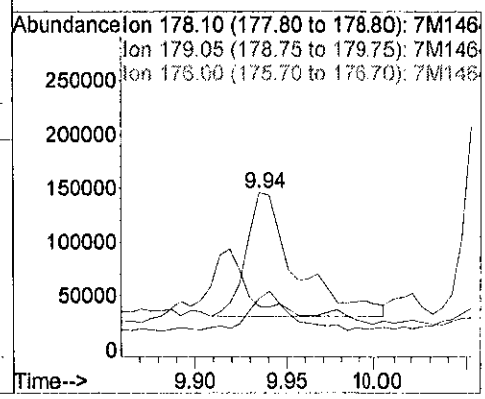




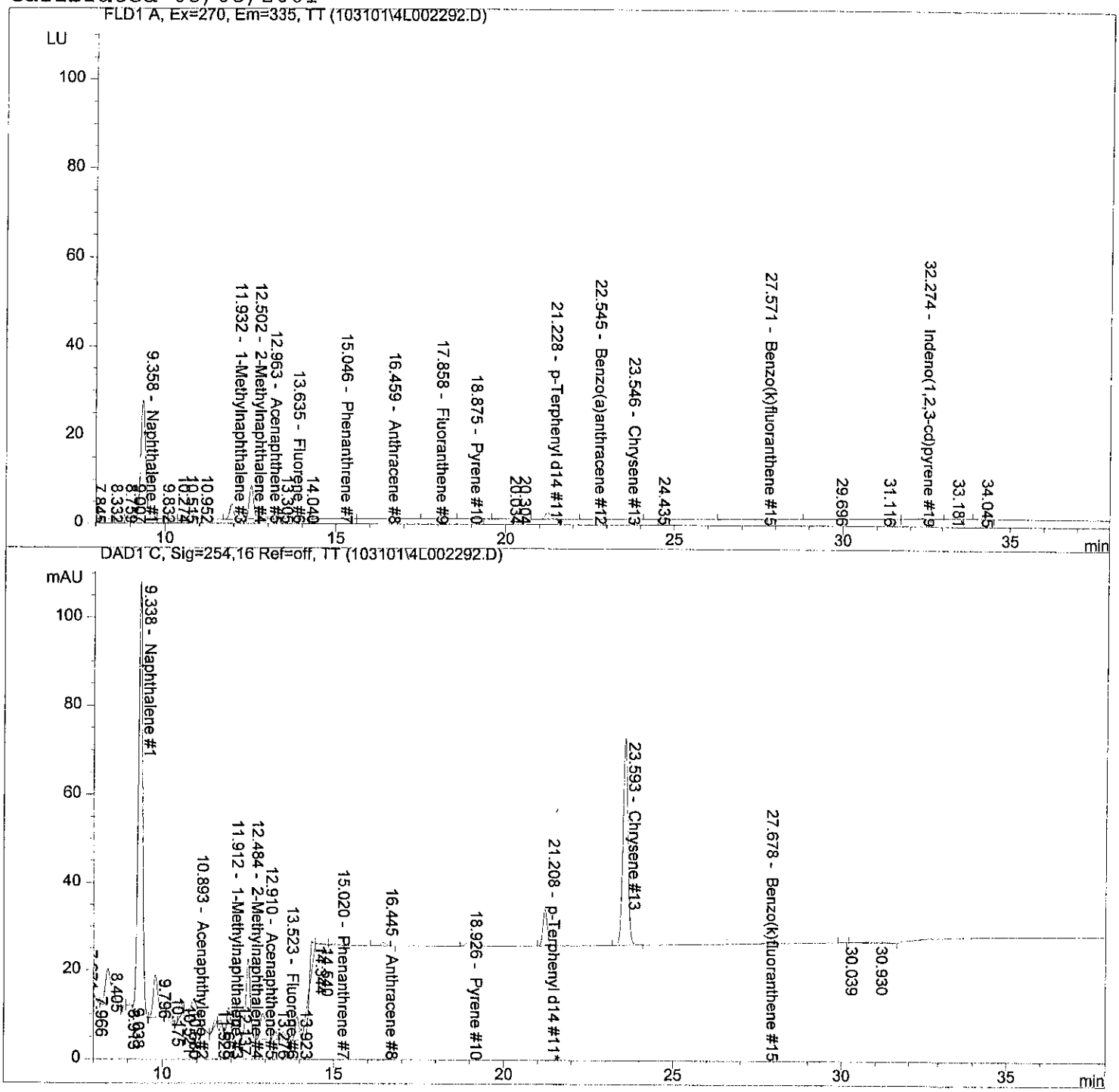
#12
Phenanthrene
Concen: 0.45 ug/ml
RT: 9.94 min Scan# 926
Delta R.T. -0.02 min
Lab File: 7M14645.D
Acq: 31 Oct 2001 00:38

Tgt Ion:178 Resp: 215225

Ion	Ratio	Lower	Upper
178	100		
179	23.7	12.7	19.1#
176	57.9	14.7	22.1#



```
Injection Date   : 11/1/2001 2:17:04 AM          Seq. Line :  17
Sample Name      : L0110464-08 REEX                    Vial :  17
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 8:37:21 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
9.358	BB	256.38666	2.52962e-2	6.48561	✓	Naphthalene #1
11.932	BB	33.74412	2.21330e-2	7.46857e-1	F	1-Methylnaphthalene #3
12.502	BB	69.30115	1.70635e-2	1.18252	✓	2-Methylnaphthalene #4
12.963	BB	4.52293	1.38416e-2	6.26044e-2		Acenaphthene #5
13.635	BB	11.94896	6.62187e-3	7.91244e-2		Fluorene #6
15.046	BB	7.75557	1.63652e-1	1.26922		Phenanthrene #7
16.459	BB	3.50248e-1	3.10196e-1	1.08646e-1		Anthracene #8
17.858	BB	4.54993e-1	2.32678e-2	1.05867e-2		Fluoranthene #9
18.875	BBA	3.77775e-1	3.86587e-2	1.46043e-2		Pyrene #10
21.228	BB	16.33433	2.97423e-1	4.85820		p-Terphenyl d14 #11*
22.545	BB	6.33932e-1	7.91256e-3	5.01603e-3		Benzo(a)anthracene #12
23.546	BB	3.52970e-1	3.90495e-2	1.37833e-2		Chrysene #13
26.210		-	-	-		Benzo(b)fluoranthene #14
27.571	BB	1.84445e-1	2.76572e-3	5.10123e-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
32.274	BB	3.65546	1.38204e-2	5.05199e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 14.88780

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
9.338	BB	843.45734	8.25405e-3	6.96194	✓	Naphthalene #1
10.893	BB	47.63068	2.96975e-2	1.41451	NC	Acenaphthylene #2
11.912	BB	34.22466	1.29459e-2	4.43068e-1	F	1-Methylnaphthalene #3
12.484	BB	150.73293	1.12393e-2	1.69413	✓	2-Methylnaphthalene #4
12.910	BB	71.84895	2.03163e-2	1.45971	NC	Acenaphthene #5
13.523	BB	14.03765	1.75240e-2	2.45996e-1	MDL	Fluorene #6
15.020	BB	4.65447	1.72982e-2	8.05141e-2		Phenanthrene #7
16.445	BB	10.12005	1.04262e-2	1.05514e-1		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.926	BBA	6.96472	1.43052e-2	9.96321e-2	NC	Pyrene #10
21.208	BBA	72.86427	6.56733e-2	4.78523	47.9%	p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.593	PBA	485.70663	1.51453e-2	7.35617	NC	Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.678	PB	1.65828	2.25837e-2	3.74502e-2	NC	Benzo(k)fluoranthene #15
28.749		-	-	-		Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Width/Area	Amount [ug/L]		
31.433		-	-	-		Benzo(g,h,i)perylene #18
32.391		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 24.68387

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   : 10/26/2001 5:21:25 AM          Seq. Line :  16
Sample Name      : L0110464-09 831W                    Vial :  16
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
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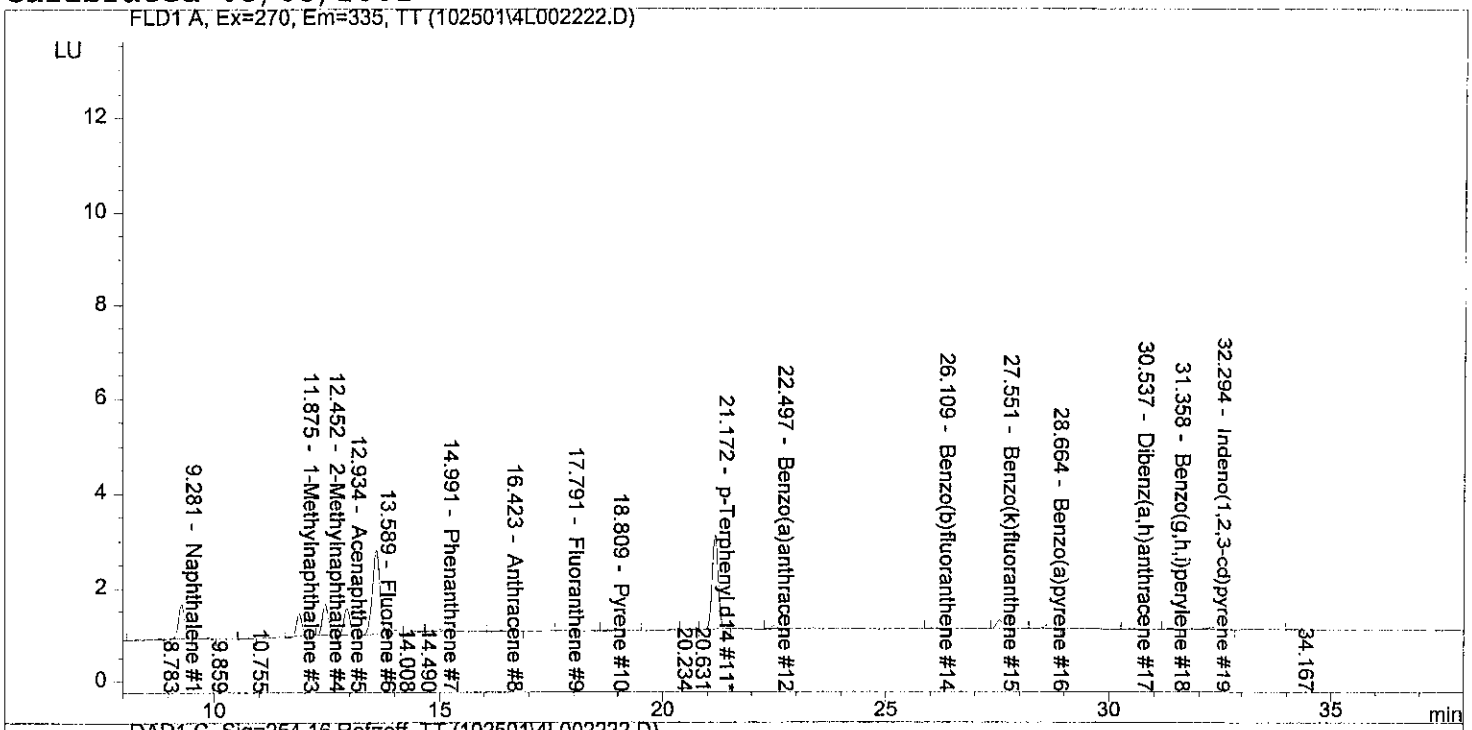
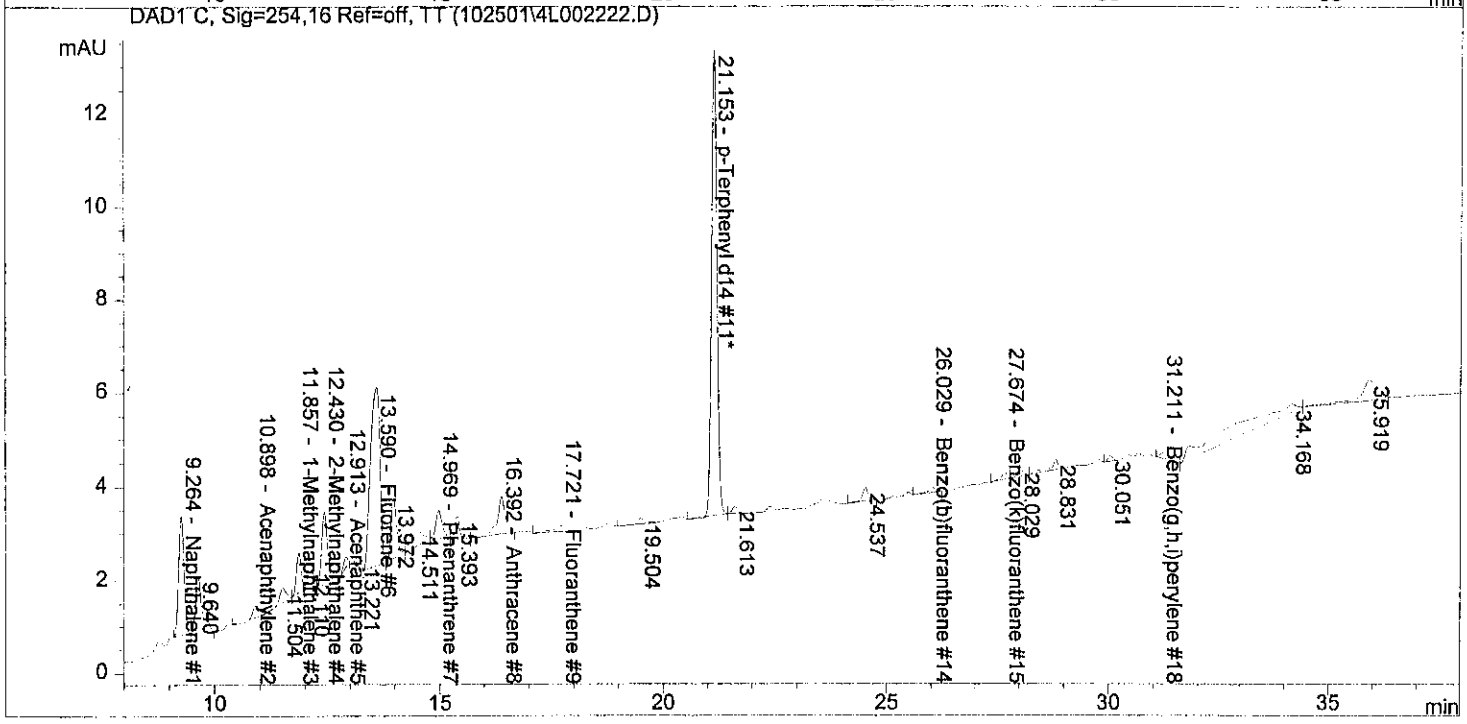




Sorted By : Signal
Calib. Data Modified : 10/26/2001 8:59:27 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.281	BB	7.08697	2.52962e-2	1.79273e-1		Naphthalene #1
11.875	BB	3.96265	2.21330e-2	8.77053e-2		1-Methylnaphthalene #3
12.452	BB	6.42077	1.70635e-2	1.09561e-1		2-Methylnaphthalene #4
12.934	BB	5.24276	1.38416e-2	7.25680e-2		Acenaphthene #5
13.589	BB	20.37340	6.62187e-3	1.34910e-1		Fluorene #6
14.991	BB	4.55448e-1	1.63652e-1	7.45351e-2		Phenanthrene #7
16.423	PBA	2.63997e-1	3.10196e-1	8.18908e-2		Anthracene #8
17.791	BBA	7.36980e-1	2.32678e-2	1.71479e-2		Fluoranthene #9
18.809	BBA	4.12432e-1	3.86587e-2	1.59441e-2		Pyrene #10
21.172	BBA	19.21302	2.97423e-1	5.71439		p-Terphenyl d14 #11*
22.497	PB	5.81006e-1	7.91256e-3	4.59725e-3		Benzo(a)anthracene #12
23.379		-	-	-		Chrysene #13
26.109	PBA	4.26711e-1	1.63222e-2	6.96485e-3		Benzo(b)fluoranthene #14
27.551	BBA	1.70880	2.76572e-3	4.72607e-3		Benzo(k)fluoranthene #15
28.664	BBA	1.07755	4.57119e-3	4.92570e-3		Benzo(a)pyrene #16
30.537	BB	2.26888e-1	3.93496e-2	8.92792e-3		Dibenz(a,h)anthracene #17
31.358	BBA	2.09413e-1	2.65165e-2	5.55291e-3		Benzo(g,h,i)perylene #18
32.294	BBA	7.90567e-1	1.38204e-2	1.09260e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 6.53455

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	21.19036	8.25405e-3	1.74906e-1		Naphthalene #1
10.898	BB	1.37859	2.96975e-2	4.09408e-2		Acenaphthylene #2
11.857	BB	6.06989	1.29459e-2	7.85799e-2		1-Methylnaphthalene #3
12.430	BB	13.79407	1.12393e-2	1.55035e-1		2-Methylnaphthalene #4
12.913	BB	1.18230	2.03163e-2	2.40199e-2		Acenaphthene #5
13.590	BB	54.78851	1.75240e-2	9.60114e-1		Fluorene #6
14.969	BB	5.79277	1.72982e-2	1.00205e-1		Phenanthrene #7
16.392	BB	10.45115	1.04262e-2	1.08966e-1		Anthracene #8
17.721	PB	2.58403	2.17006e-2	5.60750e-2		Fluoranthene #9
18.789		-	-	-		Pyrene #10
21.153	BB	85.30139	6.56733e-2	5.60202		p-Terphenyl d14 #11*
22.483		-	-	-		Benzo(a)anthracene #12
23.362		-	-	-		Chrysene #13
26.029	BB	1.34974	2.07330e-2	2.79841e-2		Benzo(b)fluoranthene #14
27.674	PB	1.20258	2.25837e-2	2.71586e-2		Benzo(k)fluoranthene #15
28.644		-	-	-		Benzo(a)pyrene #16
30.513		-	-	-		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.211	BB	1.77701	5.60829e-2	9.96601e-2	NC	Benzo(g,h,i)perylene #18
32.265		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 7.45566

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

350

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			

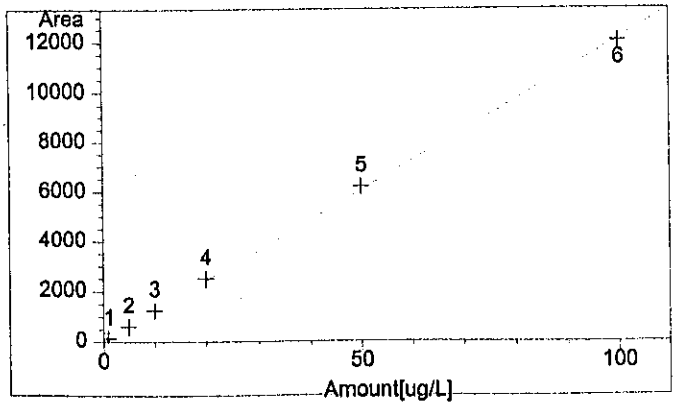
RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Rel	Grp	Name
22.644	1	1	1.00000e-1	11.54687	8.66035e-3			Benzo(a)anthracene #12
		2	5.00000e-1	56.84493	8.79586e-3			
		3	1.00000	119.82957	8.34519e-3			
		4	2.00000	242.58244	8.24462e-3			
		5	5.00000	616.44403	8.11104e-3			
		6	10.00000	1274.56396	7.84582e-3			
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]	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

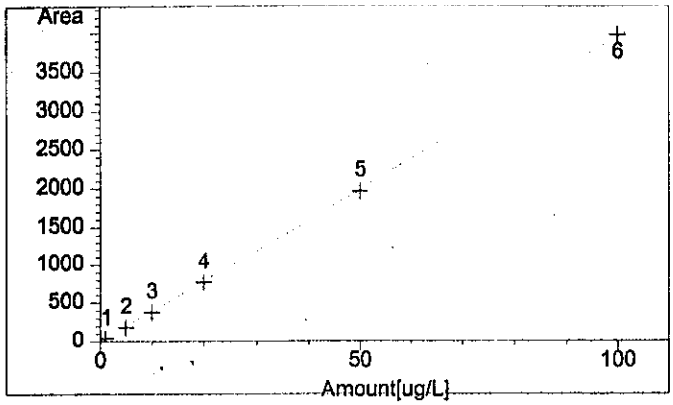
No Entries in table

Calibration Curves

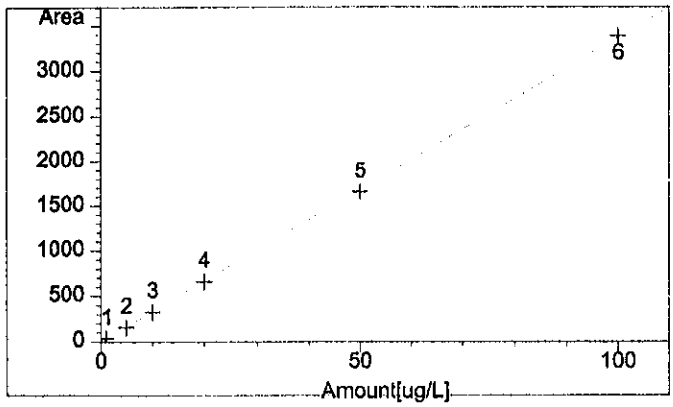


Naphthalene #1 at exp. RT: 9.446
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 85.37927
Formula: y = mx
m: 121.15265
x: Amount [ug/L]
y: Area

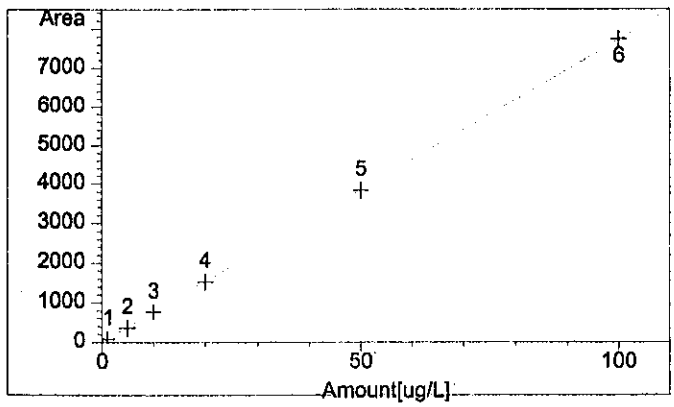
354



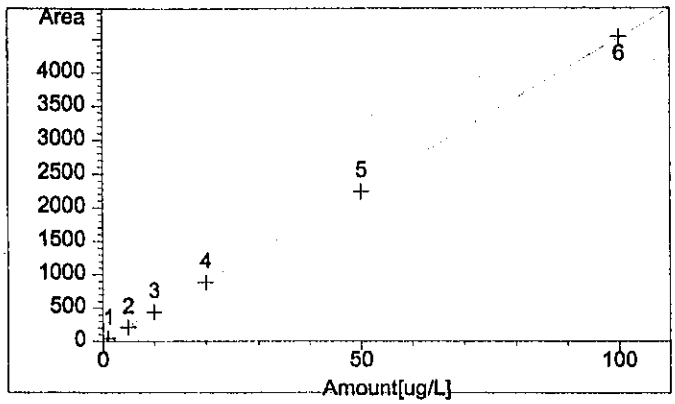
Naphthalene #1 at exp. RT: 9.462
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 20.31169
Formula: y = mx
m: 39.53164
x: Amount [ug/L]
y: Area



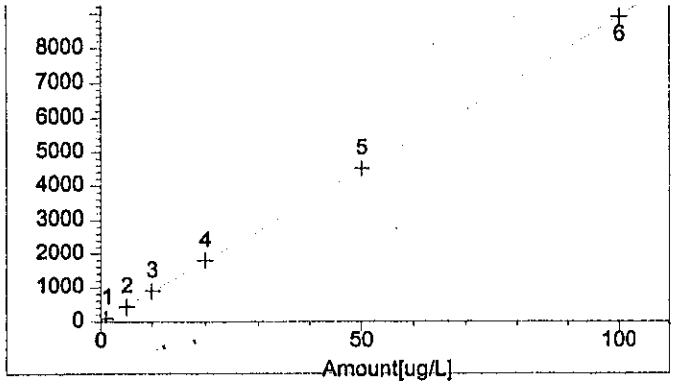
Acenaphthylene #2 at exp. RT: 11.077
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 16.38572
Formula: y = mx
m: 33.67285
x: Amount [ug/L]
y: Area



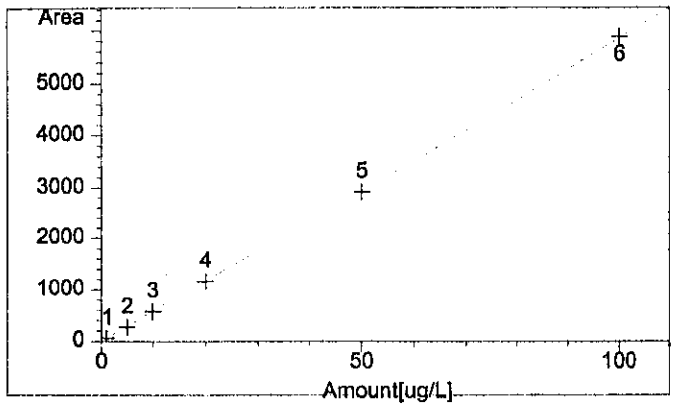
1-Methylnaphthalene #3 at exp. RT: 12.023
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 16.92039
Formula: y = mx
m: 77.24479
x: Amount [ug/L]
y: Area



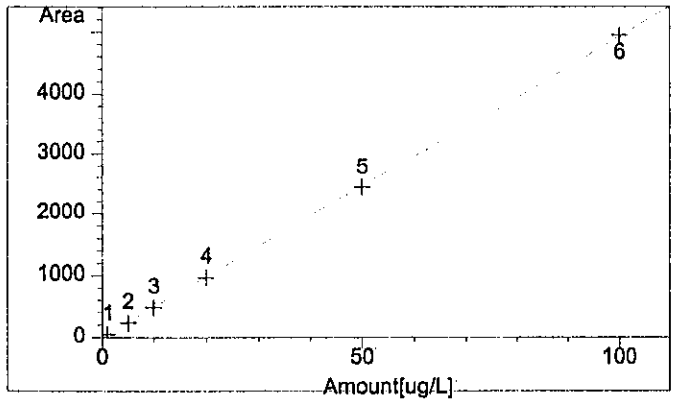
1-Methylnaphthalene #3 at exp. RT: 12.040
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 17.68985
Formula: y = mx
m: 45.18150
x: Amount [ug/L]
y: Area



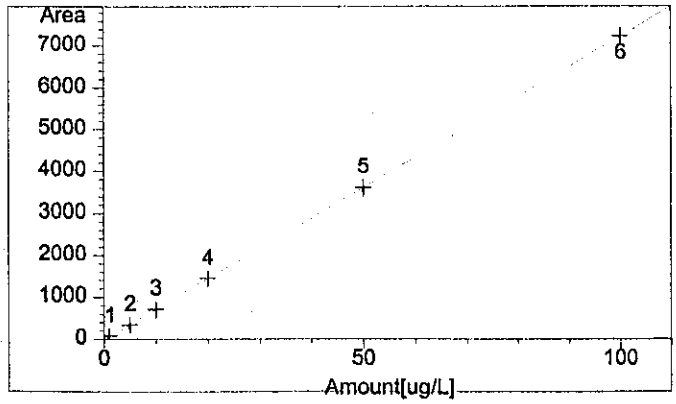
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 15.01321
Formula: y = mx
m: 88.97369
x: Amount [ug/L]
y: Area



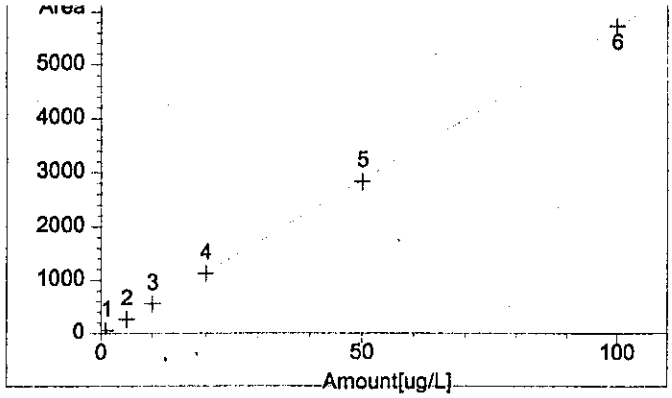
2-Methylnaphthalene #4 at exp. RT: 12.617
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 15.66561
Formula: y = mx
m: 58.60464
x: Amount [ug/L]
y: Area



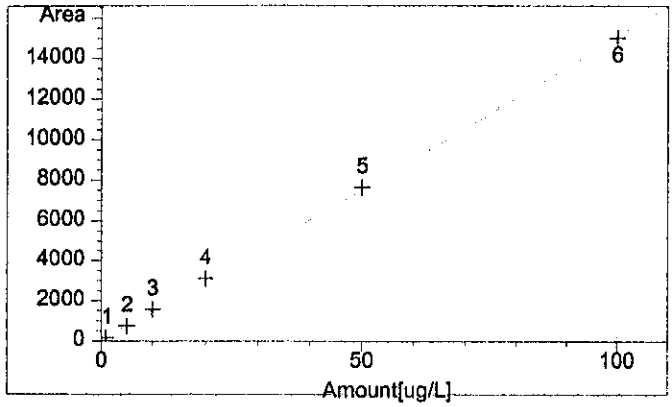
Acenaphthene #5 at exp. RT: 13.080
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 17.61841
Formula: y = mx
m: 49.22146
x: Amount [ug/L]
y: Area



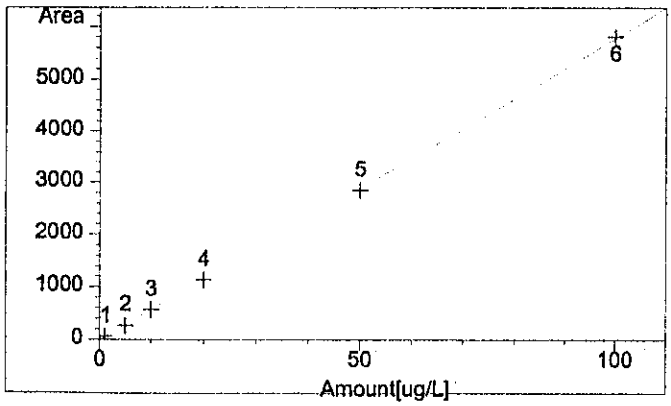
Acenaphthene #5 at exp. RT: 13.096
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 9.22337
Formula: y = mx
m: 72.24617
x: Amount [ug/L]
y: Area



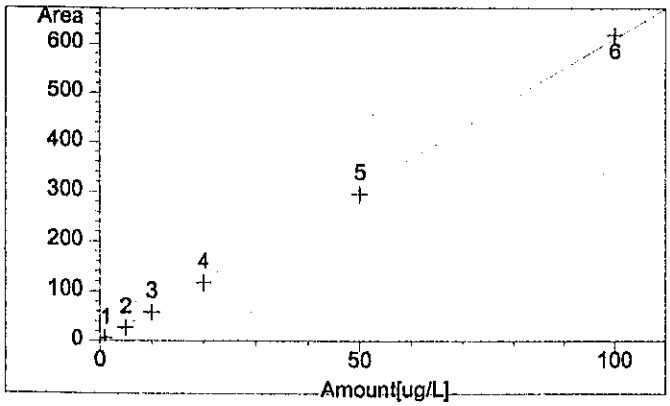
Fluorene #6 at exp. RT: 13.740
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 24.07063
Formula: y = mx
m: 57.06458
x: Amount[ug/L]
y: Area



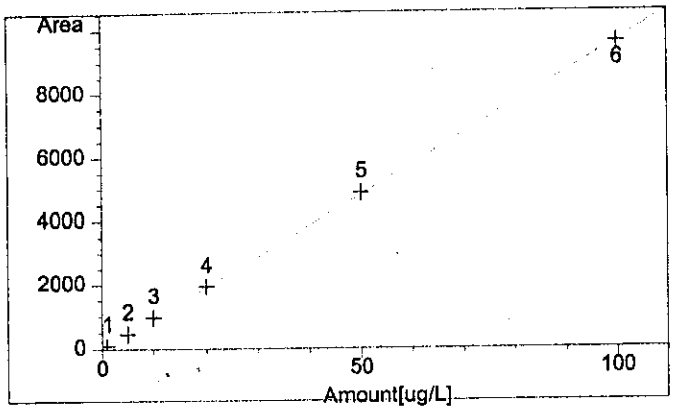
Fluorene #6 at exp. RT: 13.757
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 74.80461
Formula: y = mx
m: 151.01482
x: Amount[ug/L]
y: Area



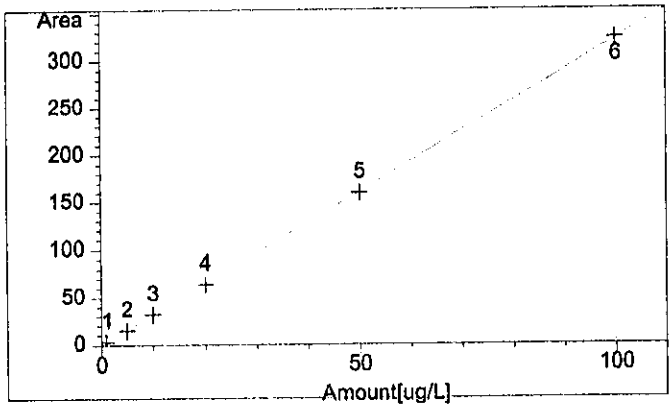
Phenanthrene #7 at exp. RT: 15.136
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 24.37539
Formula: y = mx
m: 57.80934
x: Amount[ug/L]
y: Area



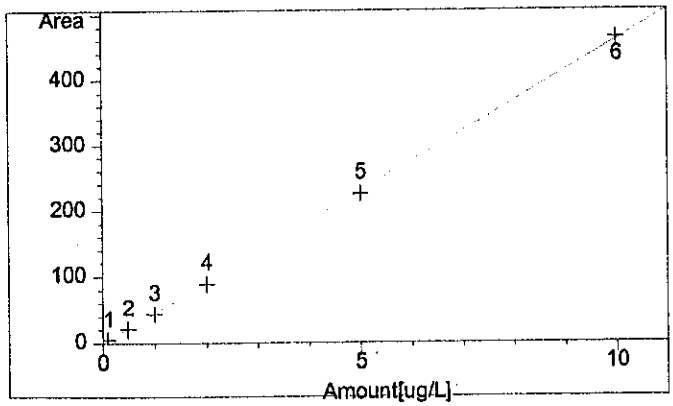
Phenanthrene #7 at exp. RT: 15.153
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99980
Residual Std. Dev.: 6.29133
Formula: y = mx
m: 6.11052
x: Amount[ug/L]
y: Area



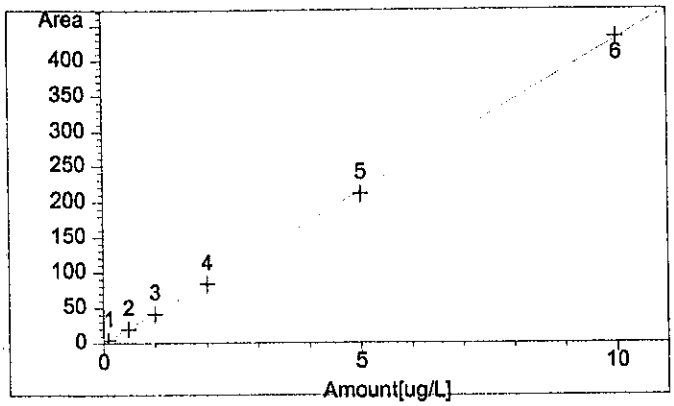
Anthracene #8 at exp. RT: 16.549
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 37.64962
Formula: y = mx
m: 95.91237
x: Amount [ug/L]
y: Area



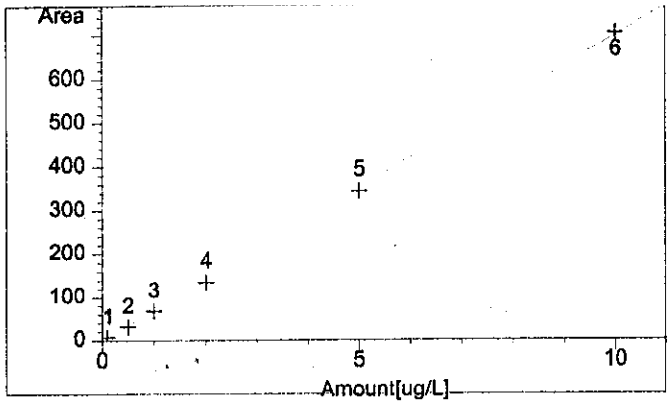
Anthracene #8 at exp. RT: 16.566
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 0.77764
Formula: y = mx
m: 3.22376
x: Amount [ug/L]
y: Area



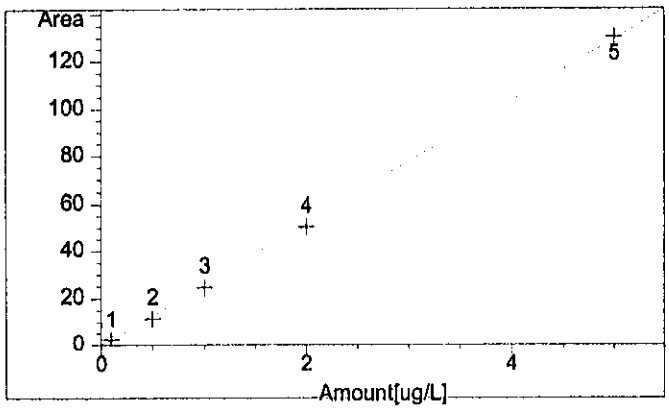
Fluoranthene #9 at exp. RT: 17.931
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 2.76207
Formula: y = mx
m: 46.08169
x: Amount [ug/L]
y: Area



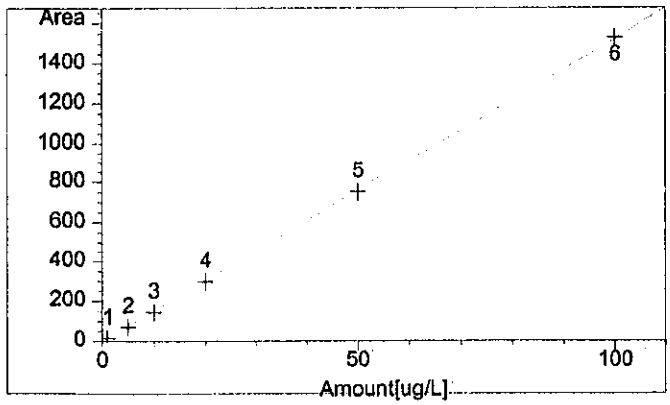
Fluoranthene #9 at exp. RT: 17.948
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 2.91025
Formula: y = mx
m: 42.97776
x: Amount [ug/L]
y: Area



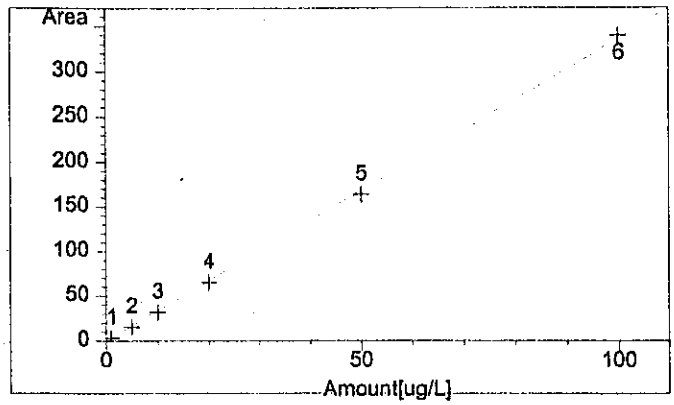
Pyrene #10 at exp. RT: 18.944
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99991
Residual Std. Dev.: 4.77268
Formula: y = mx
m: 69.90443
x: Amount [ug/L]
y: Area



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

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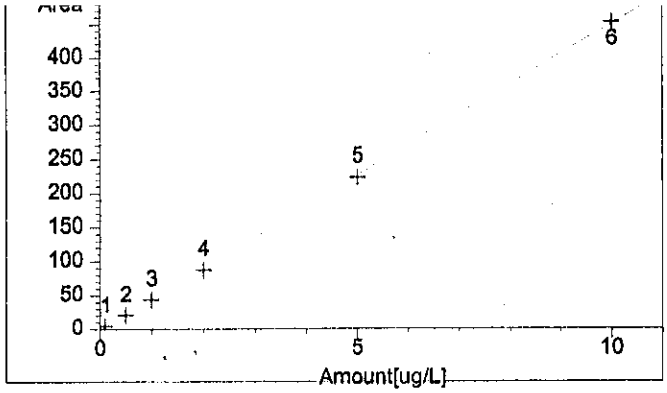
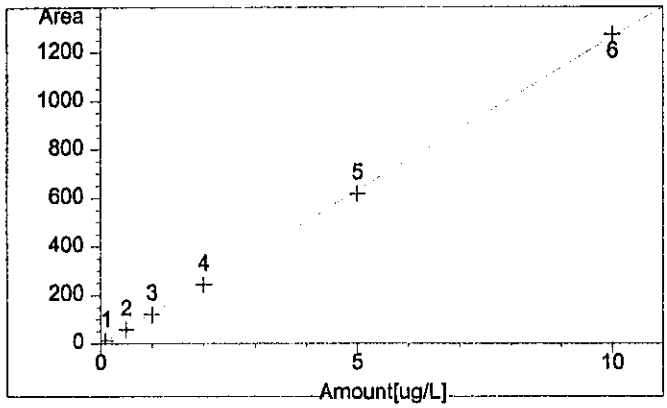
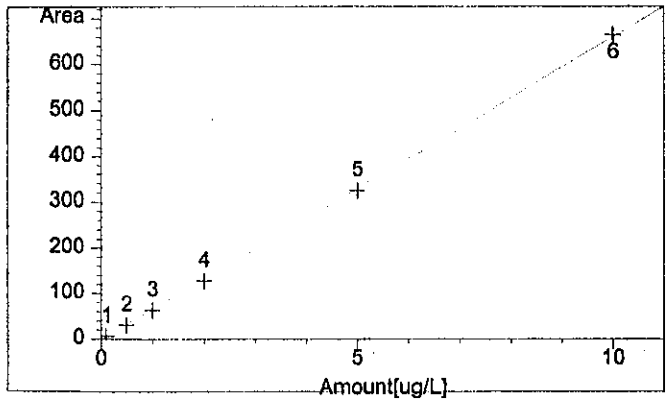


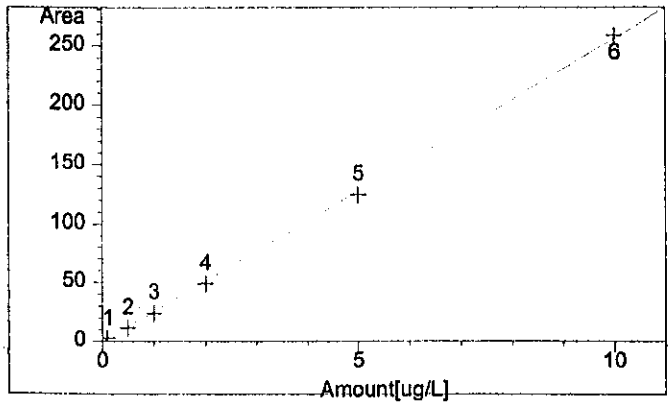
Benzo(a)anthracene #12 at exp. RT: 22.628
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.50958
Formula: y = mx
m: 44.90461
x: Amount [ug/L]
y: Area



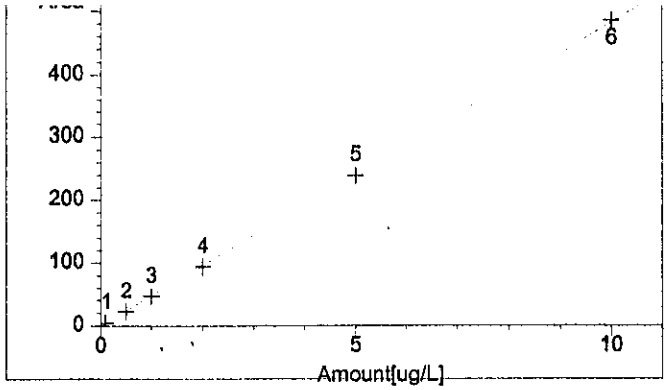
Benzo(a)anthracene #12 at exp. RT: 22.644
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99987
Residual Std. Dev.: 10.41817
Formula: y = mx
m: 126.38133
x: Amount [ug/L]
y: Area



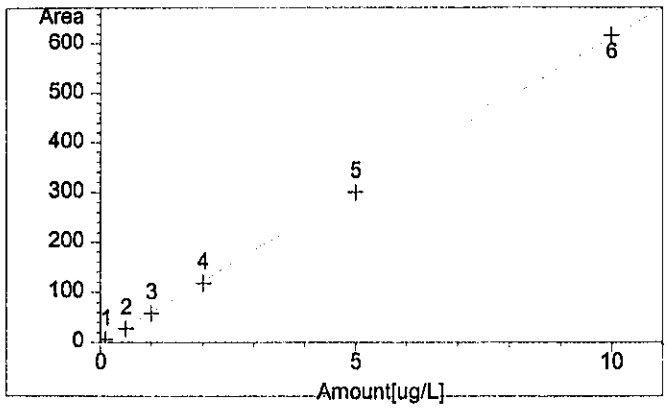
Chrysene #13 at exp. RT: 23.513
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 3.93530
Formula: y = mx
m: 66.02710
x: Amount [ug/L]
y: Area



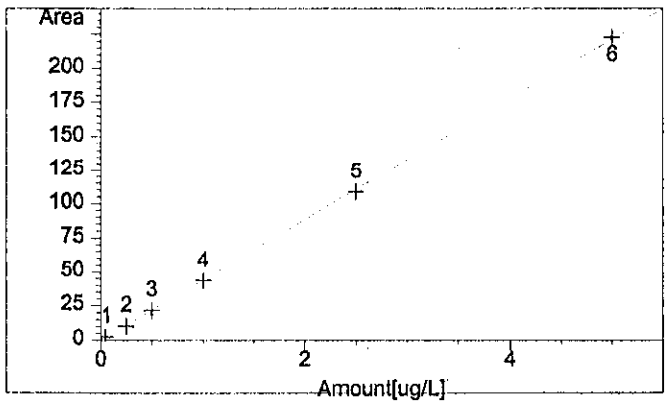
Chrysene #13 at exp. RT: 23.528
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99983
Residual Std. Dev.: 2.41557
Formula: y = mx
m: 25.60849
x: Amount [ug/L]
y: Area



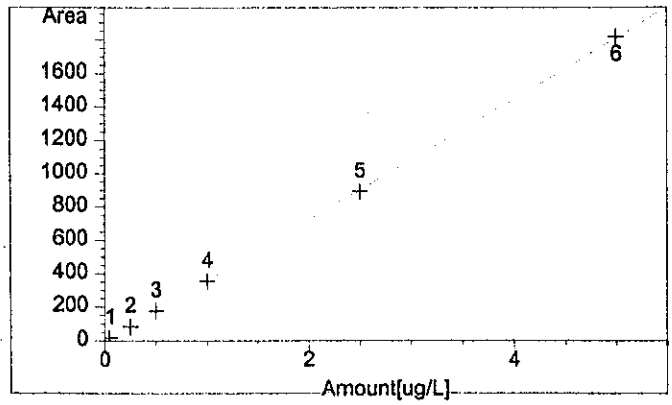
Benzo(b)fluoranthene #14 at exp. RT: 26.2
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.80032
Formula: y = mx
m: 48.23233
x: Amount[ug/L]
y: Area



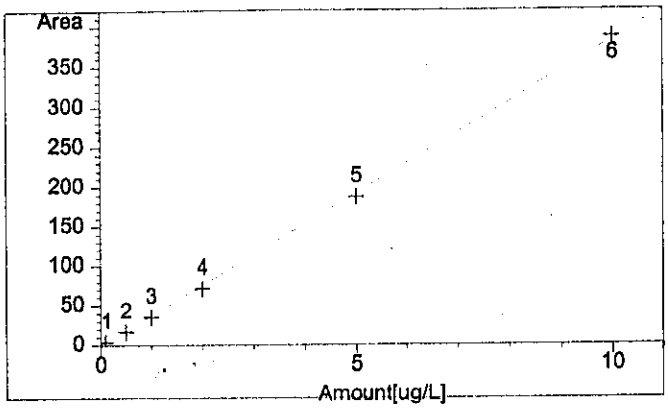
Benzo(b)fluoranthene #14 at exp. RT: 26.2
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 4.39762
Formula: y = mx
m: 61.26633
x: Amount[ug/L]
y: Area



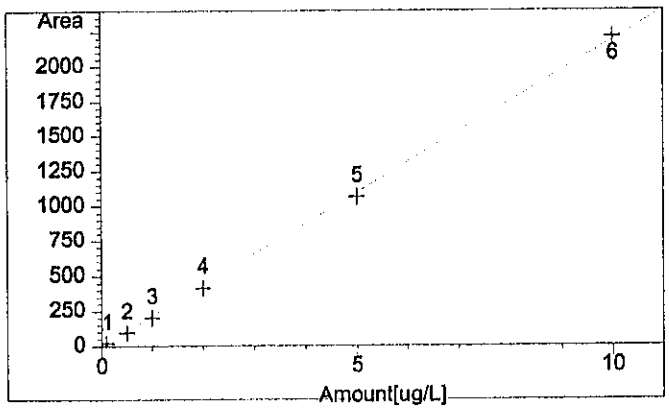
Benzo(k)fluoranthene #15 at exp. RT: 27.6
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 1.11632
Formula: y = mx
m: 44.27975
x: Amount[ug/L]
y: Area



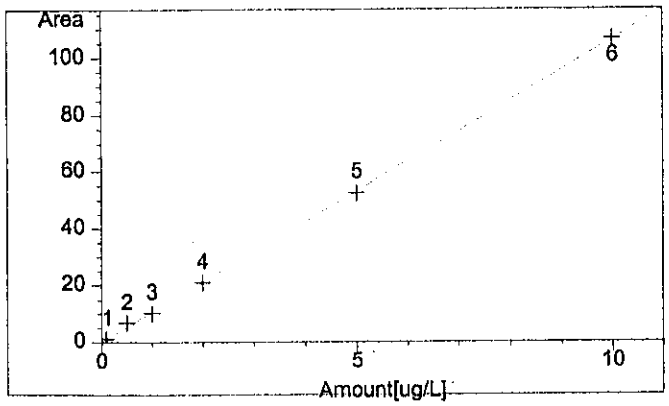
Benzo(k)fluoranthene #15 at exp. RT: 27.7
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 7.24438
Formula: y = mx
m: 361.57005
x: Amount[ug/L]
y: Area



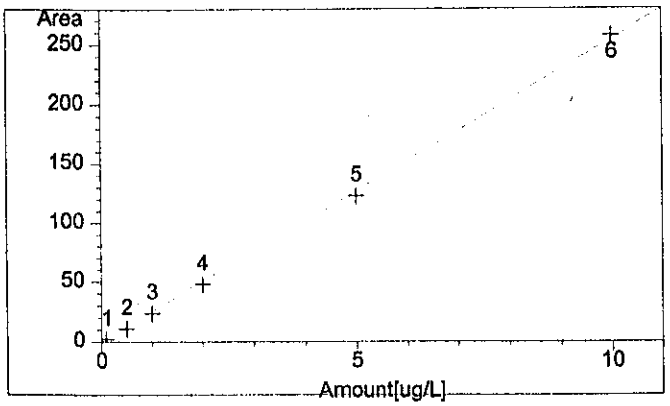
Benzo(a)pyrene #16 at exp. RT: 28.826
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 3.72397
Formula: y = mx
m: 38.21458
x: Amount [ug/L]
y: Area



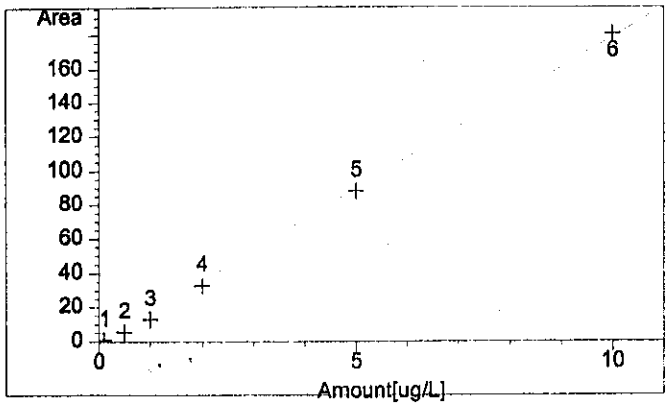
Benzo(a)pyrene #16 at exp. RT: 28.843
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99981
Residual Std. Dev.: 21.63108
Formula: y = mx
m: 218.76141
x: Amount [ug/L]
y: Area



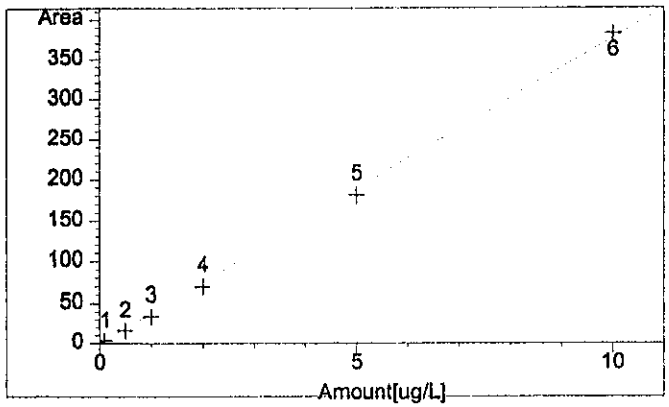
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 0.75986
Formula: y = mx
m: 10.62568
x: Amount [ug/L]
y: Area



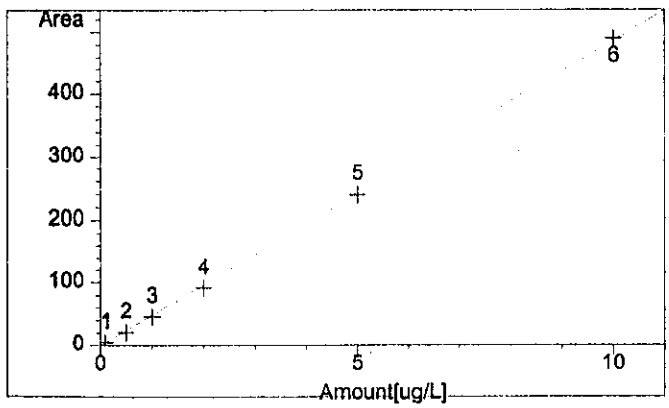
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99975
Residual Std. Dev.: 2.88961
Formula: y = mx
m: 25.41325
x: Amount [ug/L]
y: Area



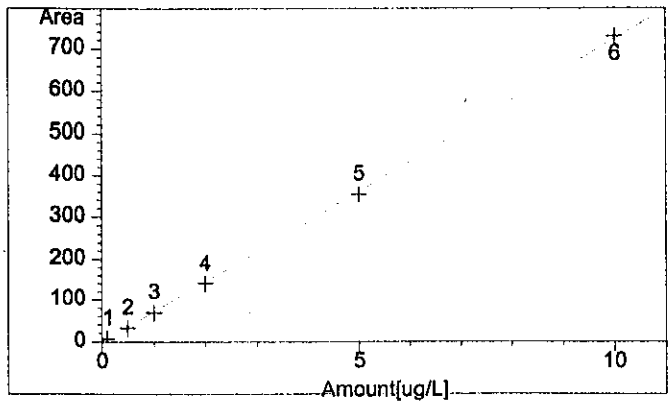
Benzo(g,h,i)perylene #18 at exp. RT: 31.5
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99945
Residual Std. Dev.: 3.03261
Formula: y = mx
m: 17.83074
x: Amount [ug/L]
y: Area



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          Seq. Line :   8
Sample Name      : 8310surr6/54-35                   Vial :   5
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 12:12:11 PM by RDC
                   (modified after loading)
Calibrated 03/29/2001
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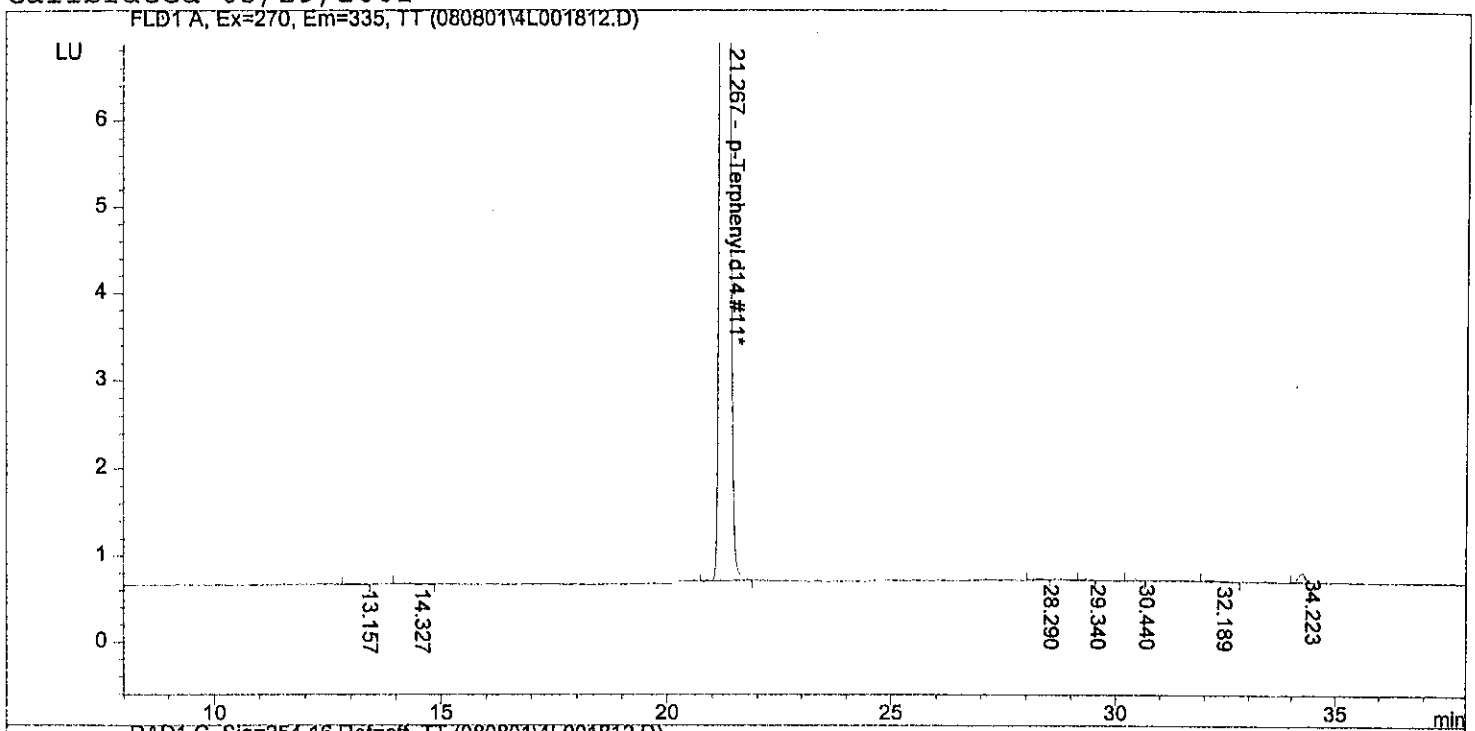

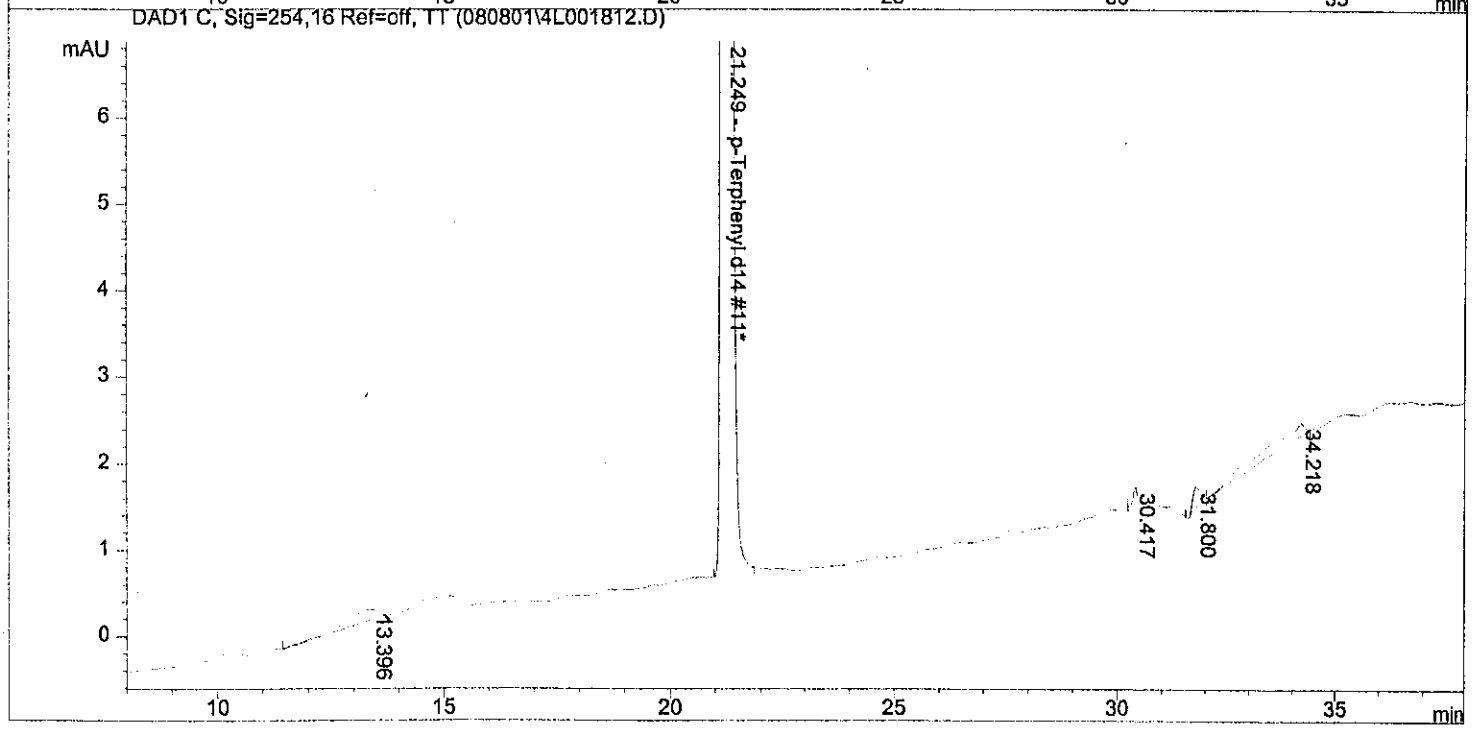

External Standard Report

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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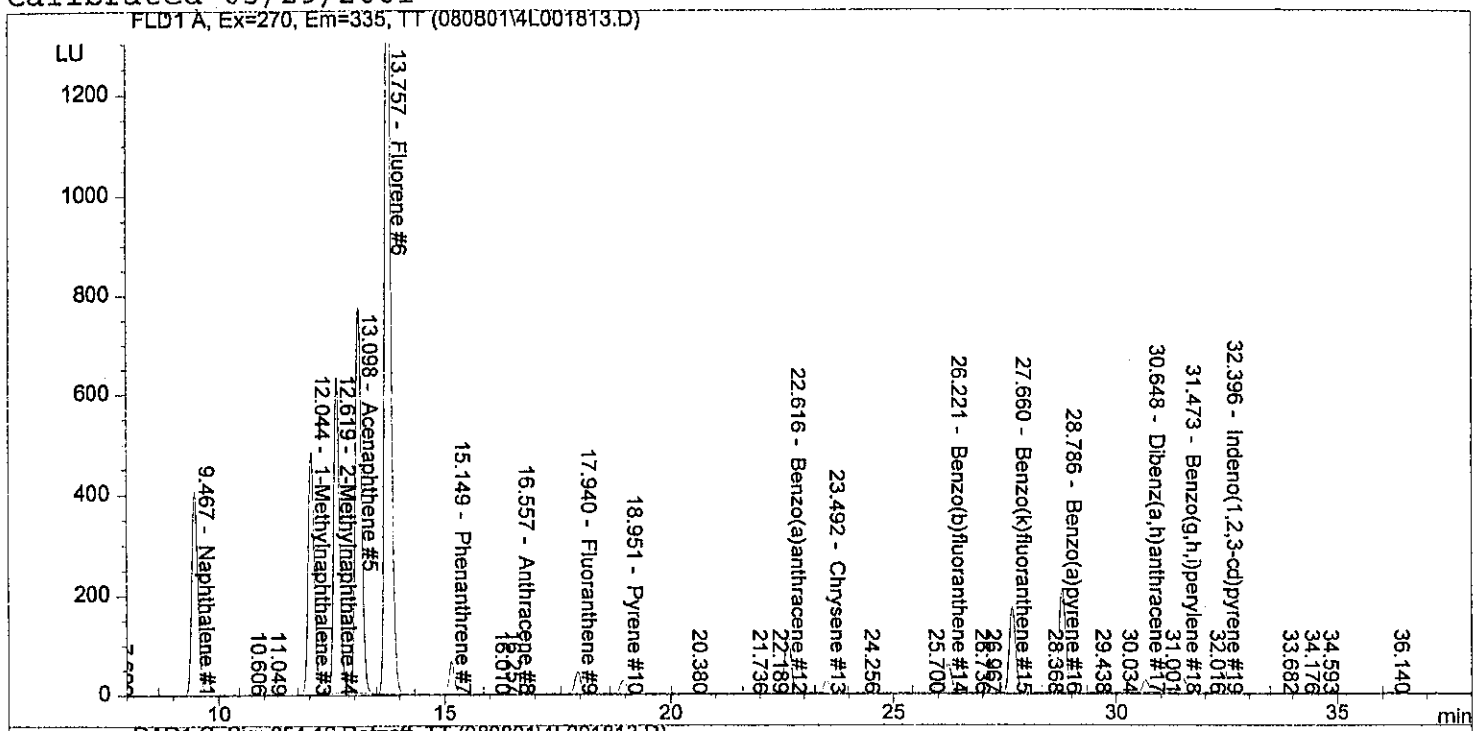
*** End of Report ***

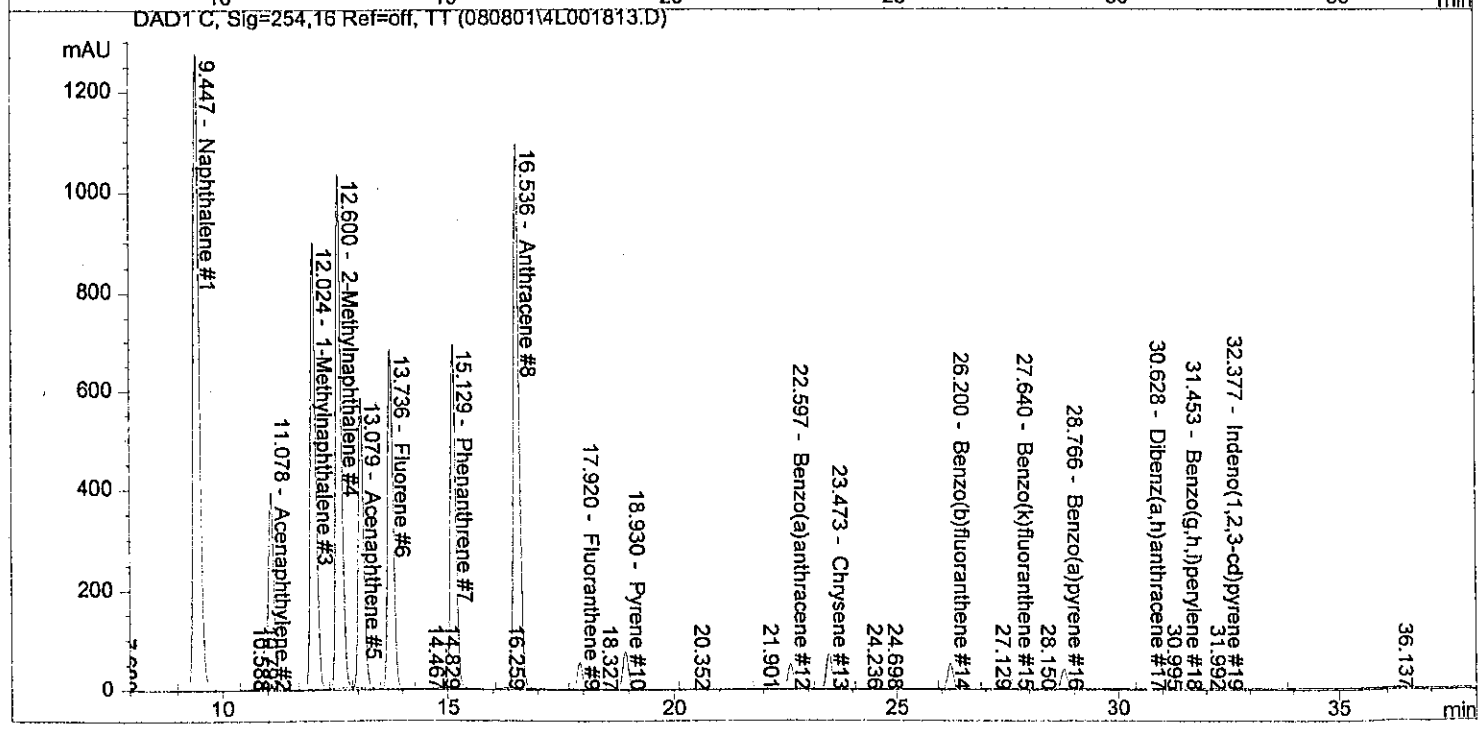
Injection Date : 8/8/2001 10:44:56 PM
Sample Name : 8310 std 6/53-25
Acq. Operator : RDC

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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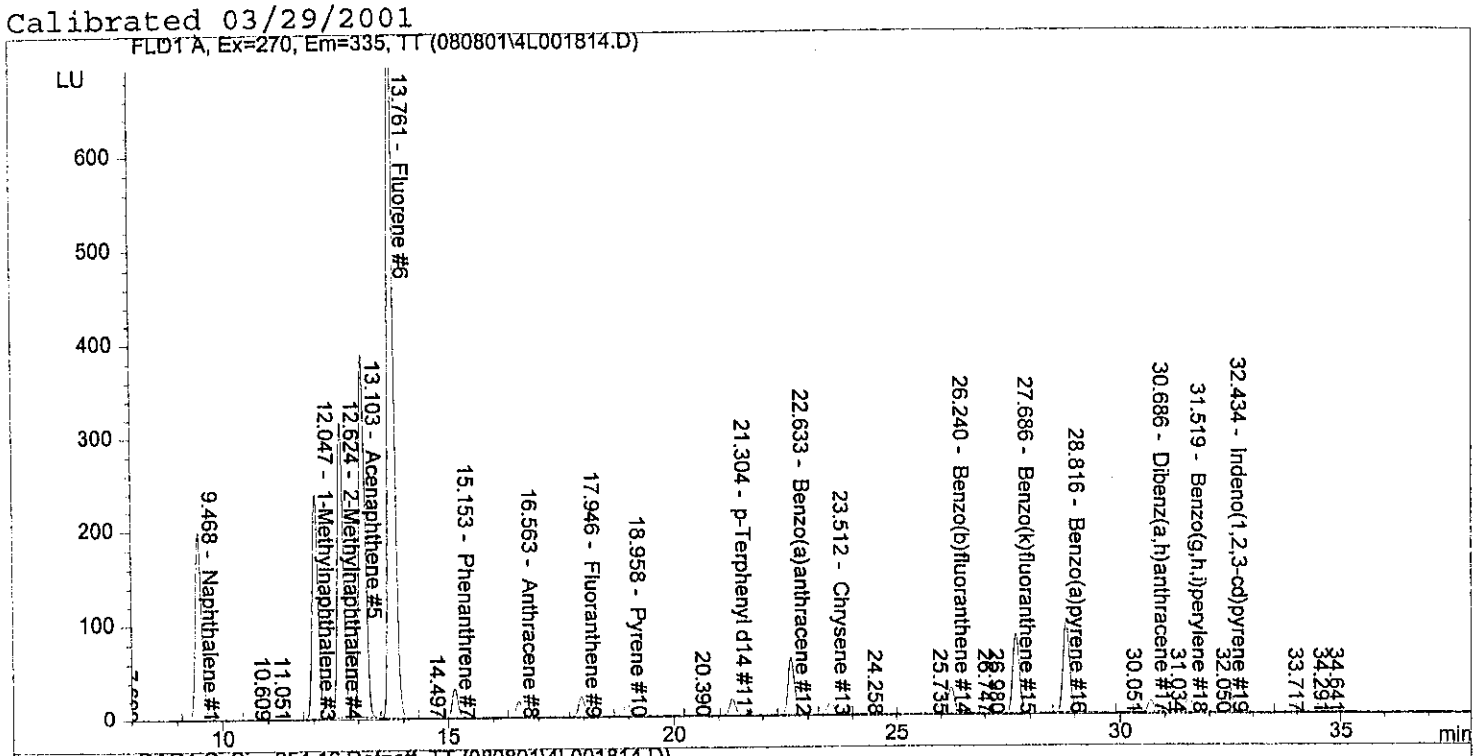
*** End of Report ***

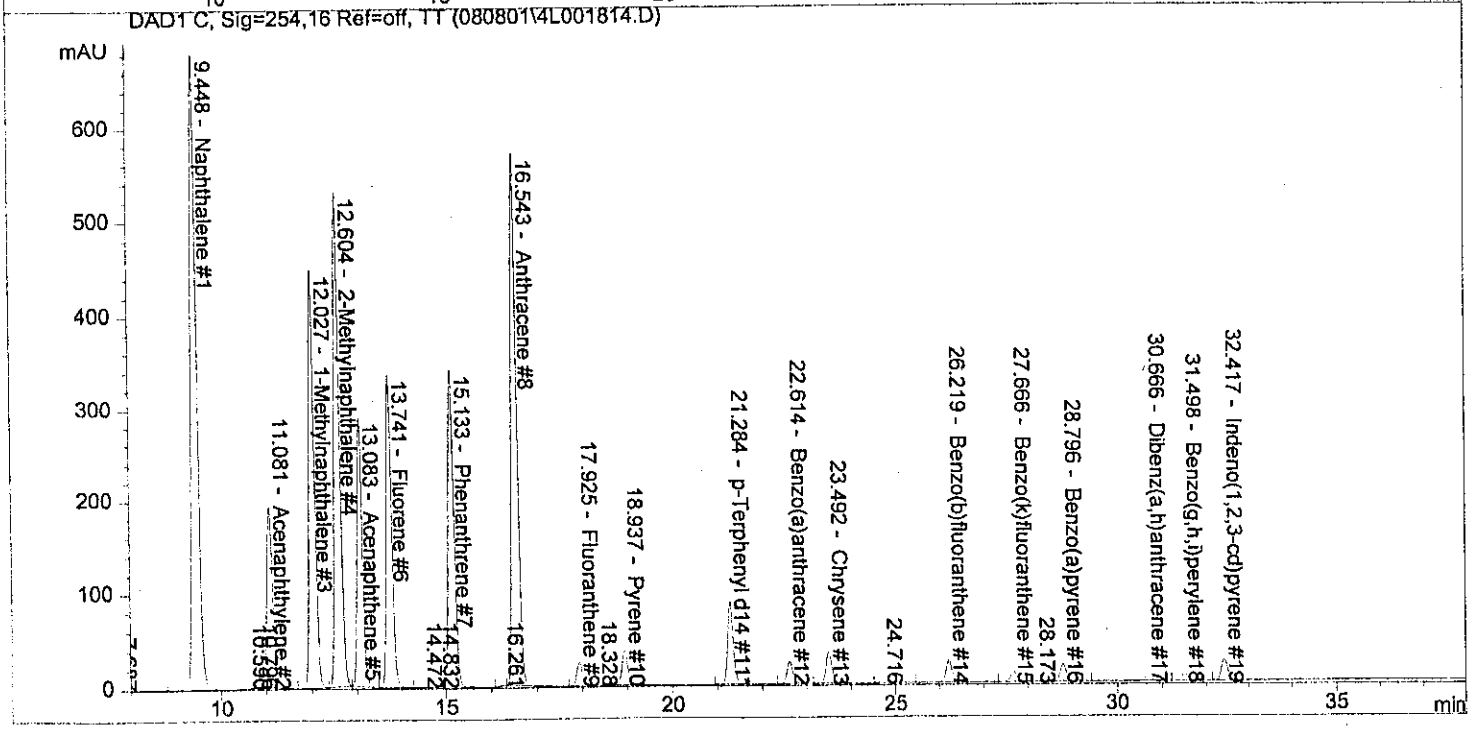
Injection Date : 8/8/2001 11:41:36 PM
Sample Name : 8310 std 5/53-25
Acq. Operator : RDC

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!

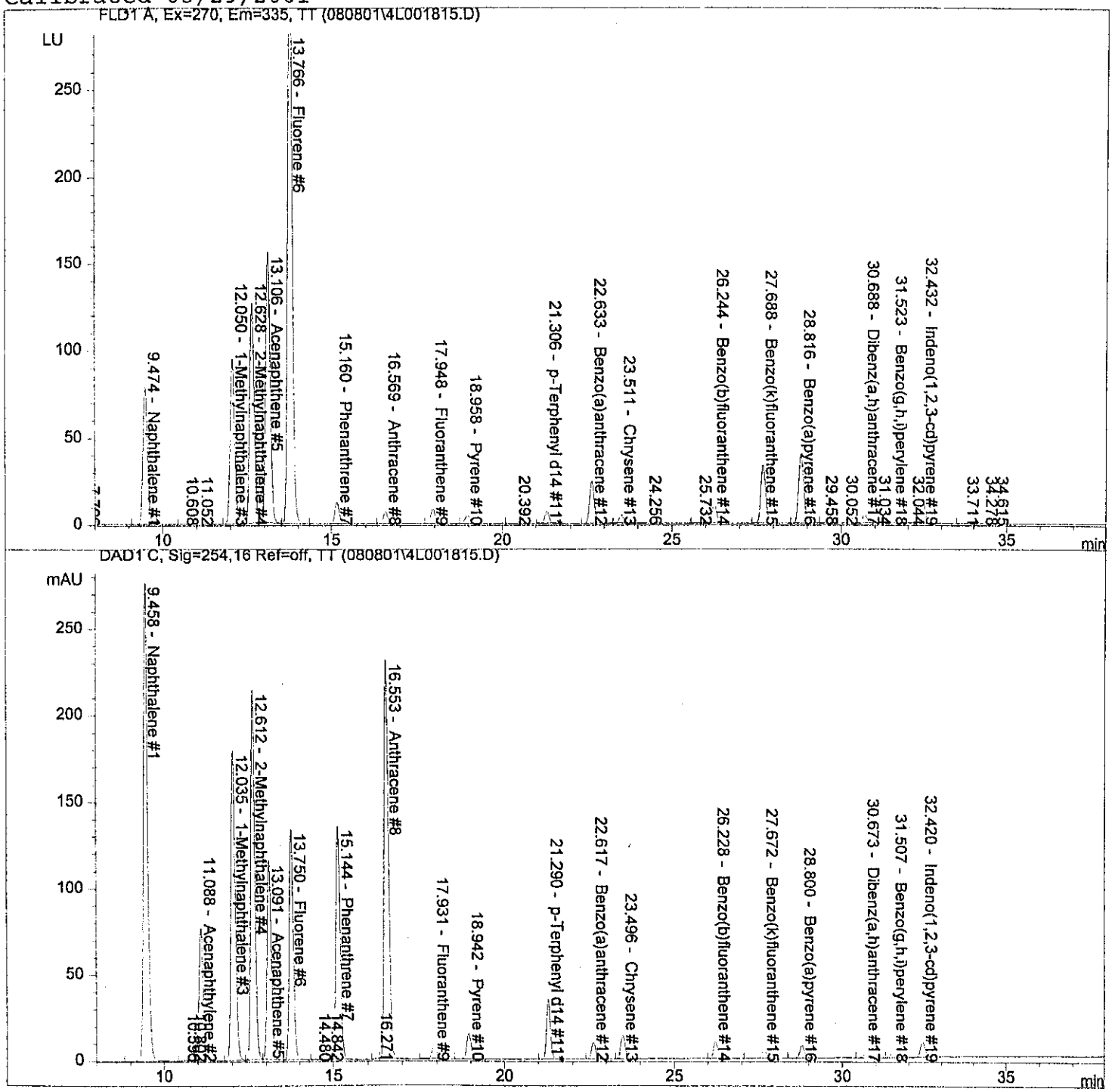
*** End of Report ***

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!

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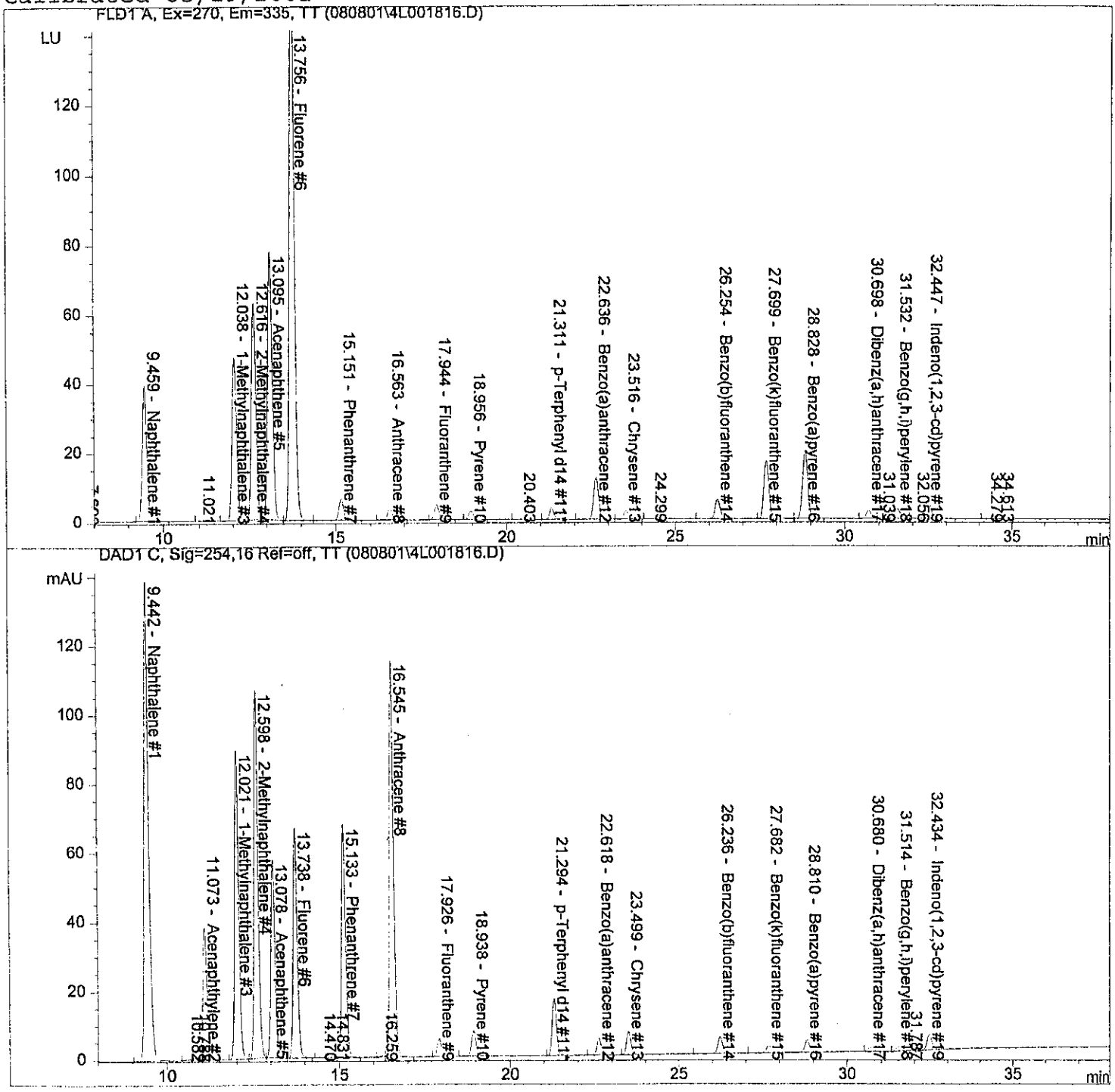
*** End of Report ***

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

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!

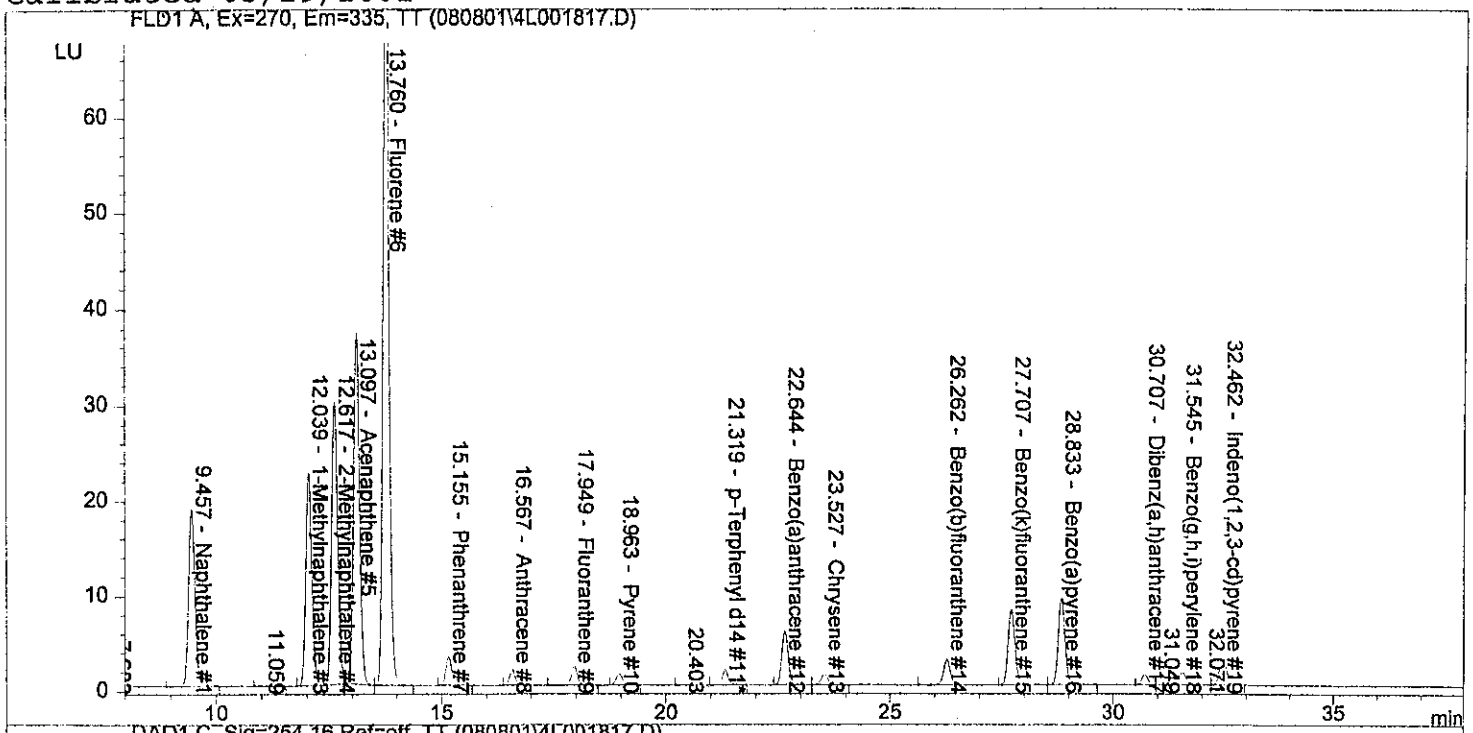
*** End of Report ***

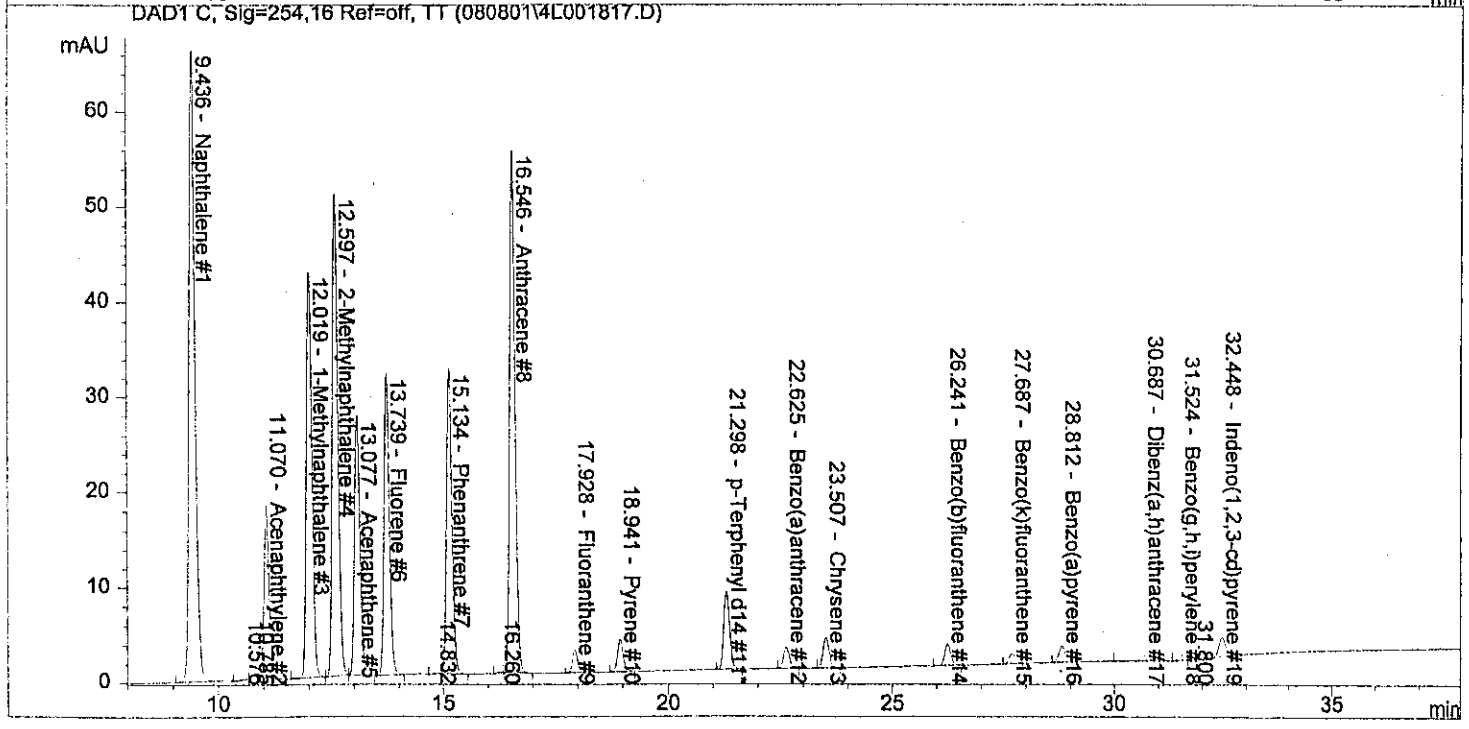
Injection Date : 8/9/2001 2:31:25 AM
Sample Name : 8310 std 2/53-25
Acq. Operator : RDC

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





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

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!

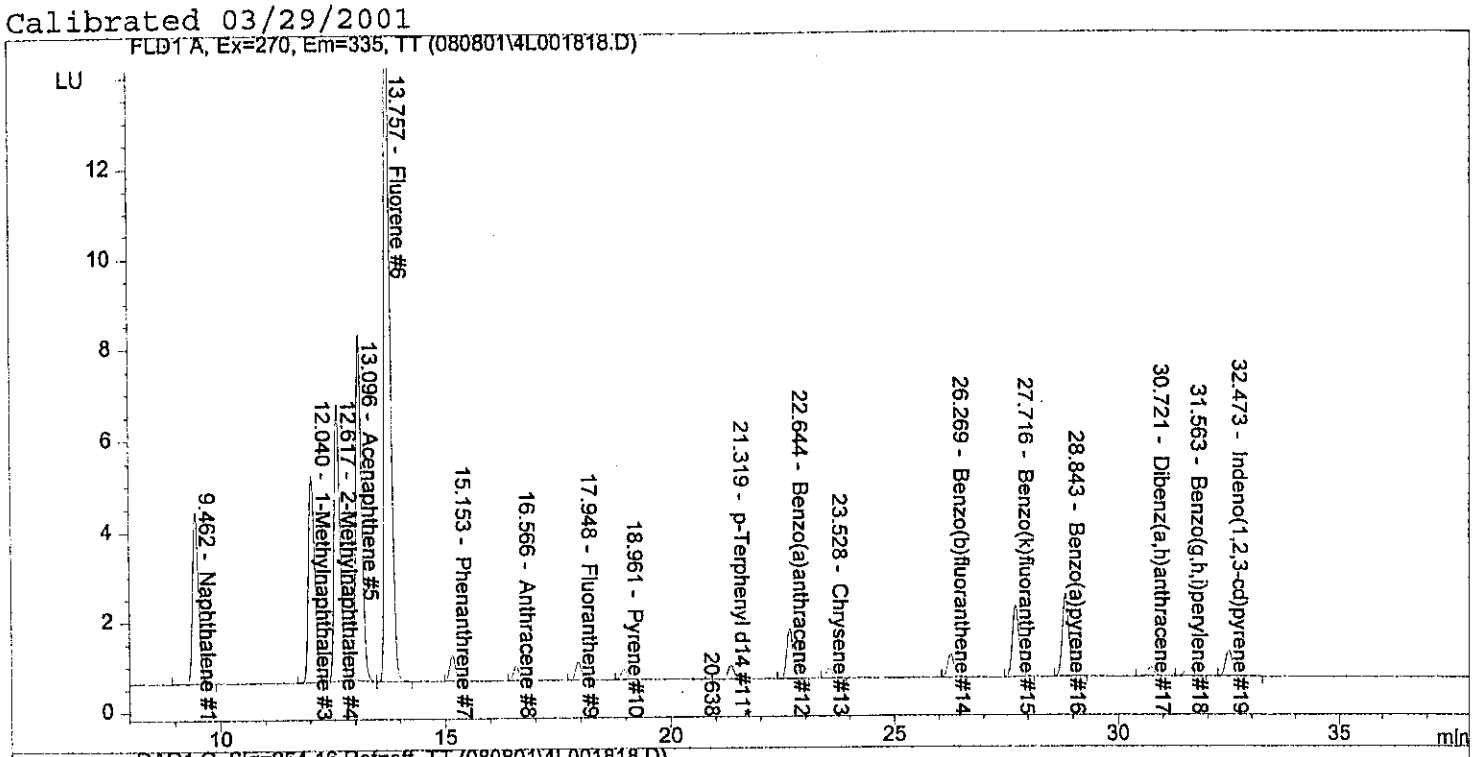
*** End of Report ***

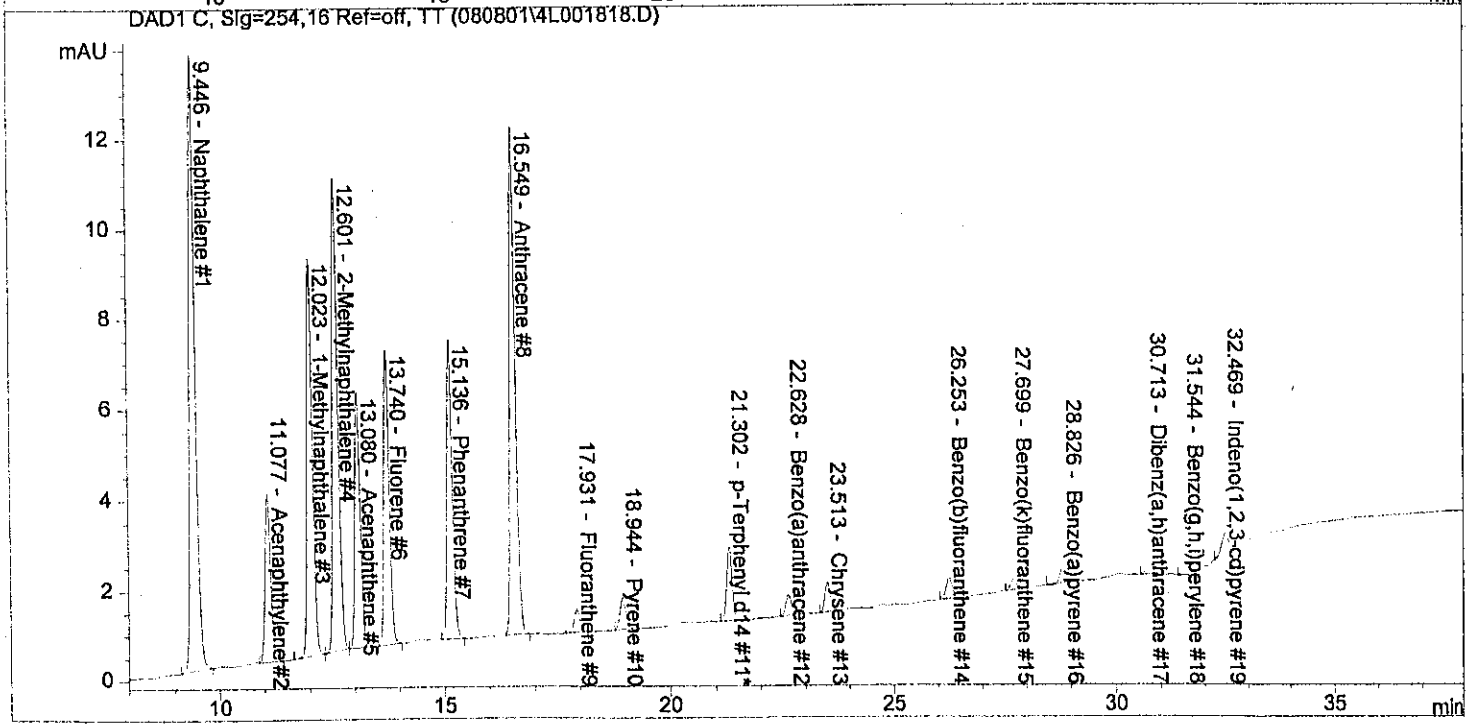
Injection Date : 8/9/2001 3:28:00 AM
Sample Name : 8310 std 1/53-25
Acq. Operator : RDC

Seq. Line : 14
Vial : 11
Inj : 1
Inj Volume : 8 µl

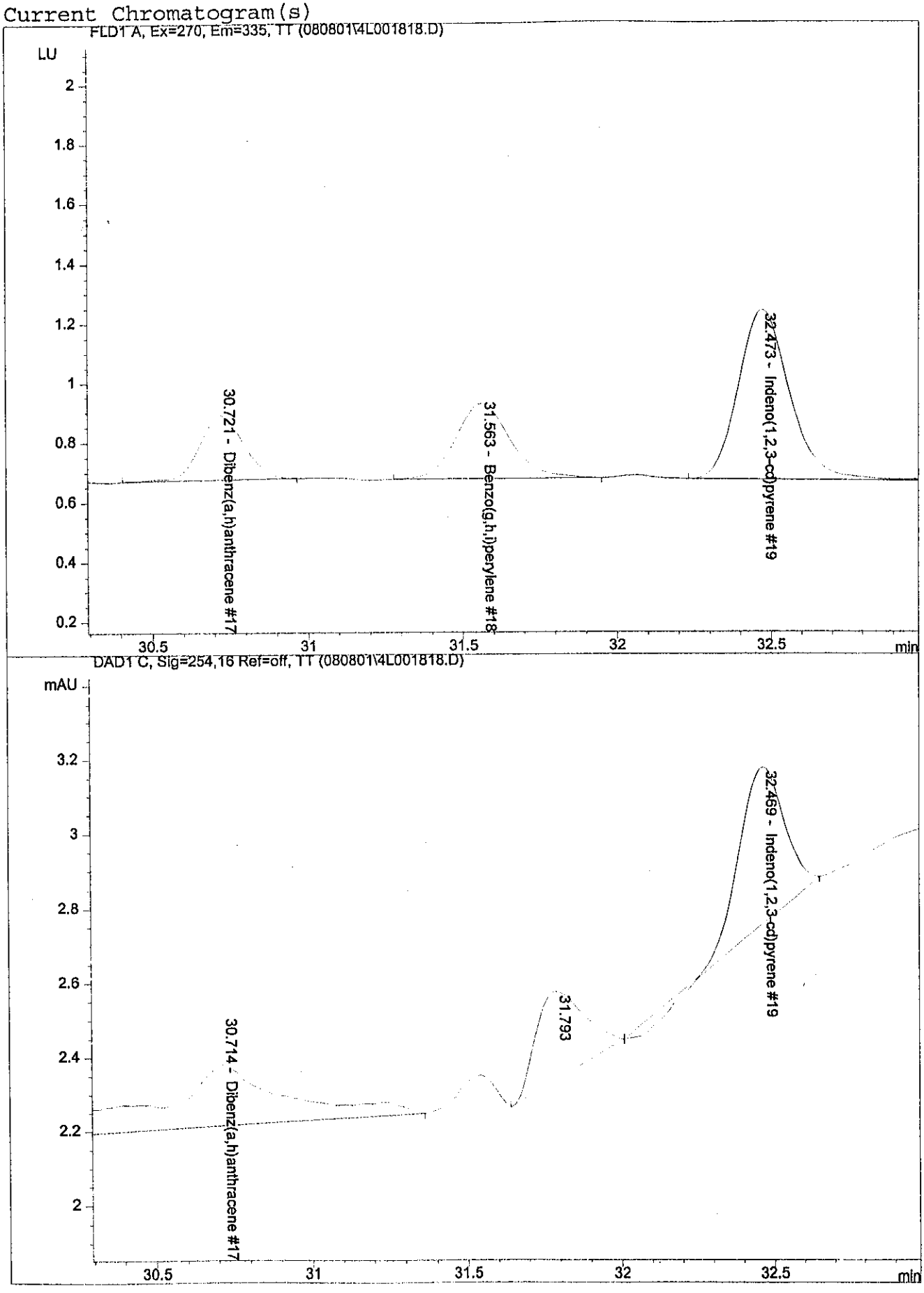
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 1:57:07 PM by RDC
(modified after loading)

Calibrated 03/29/2001

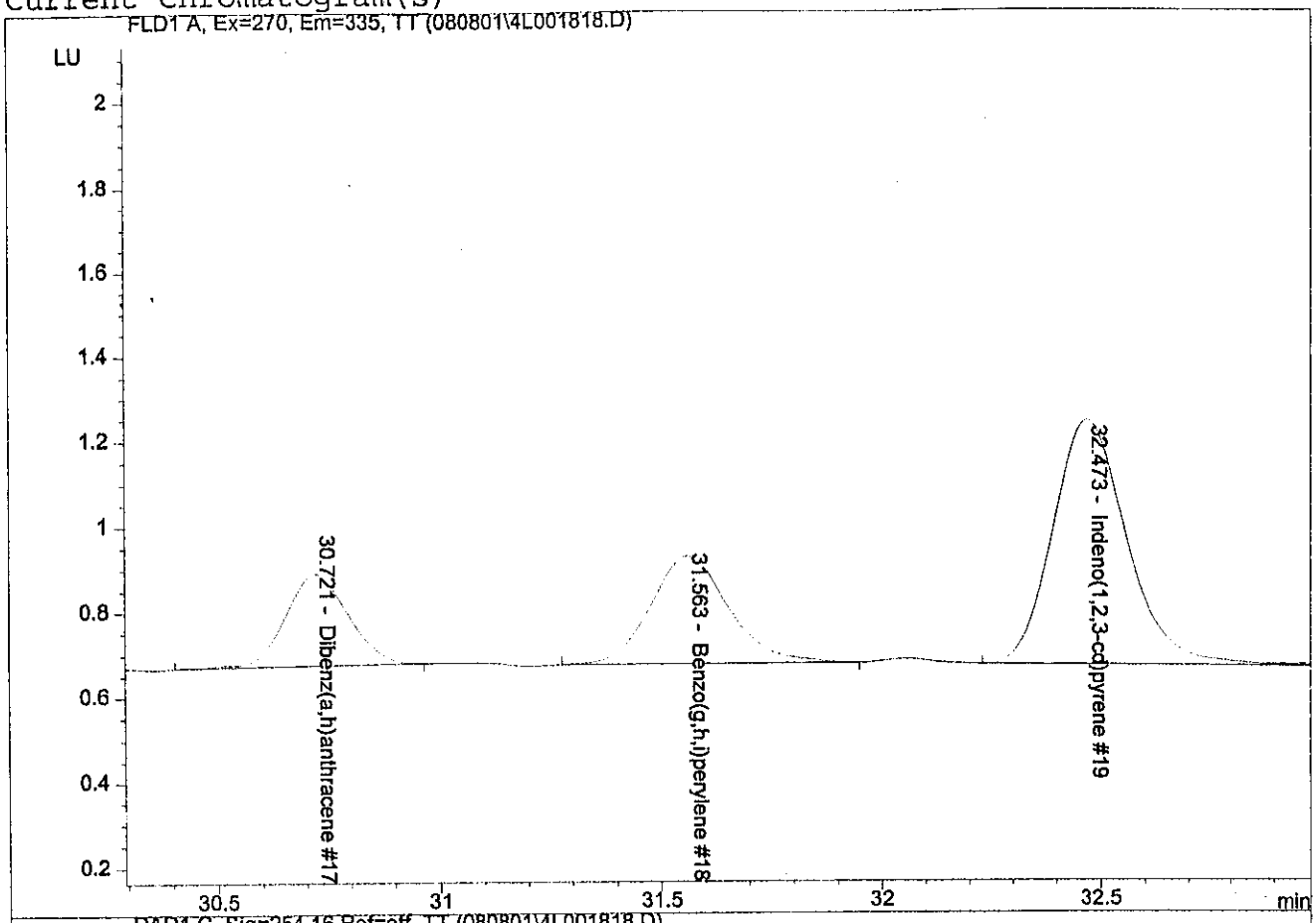


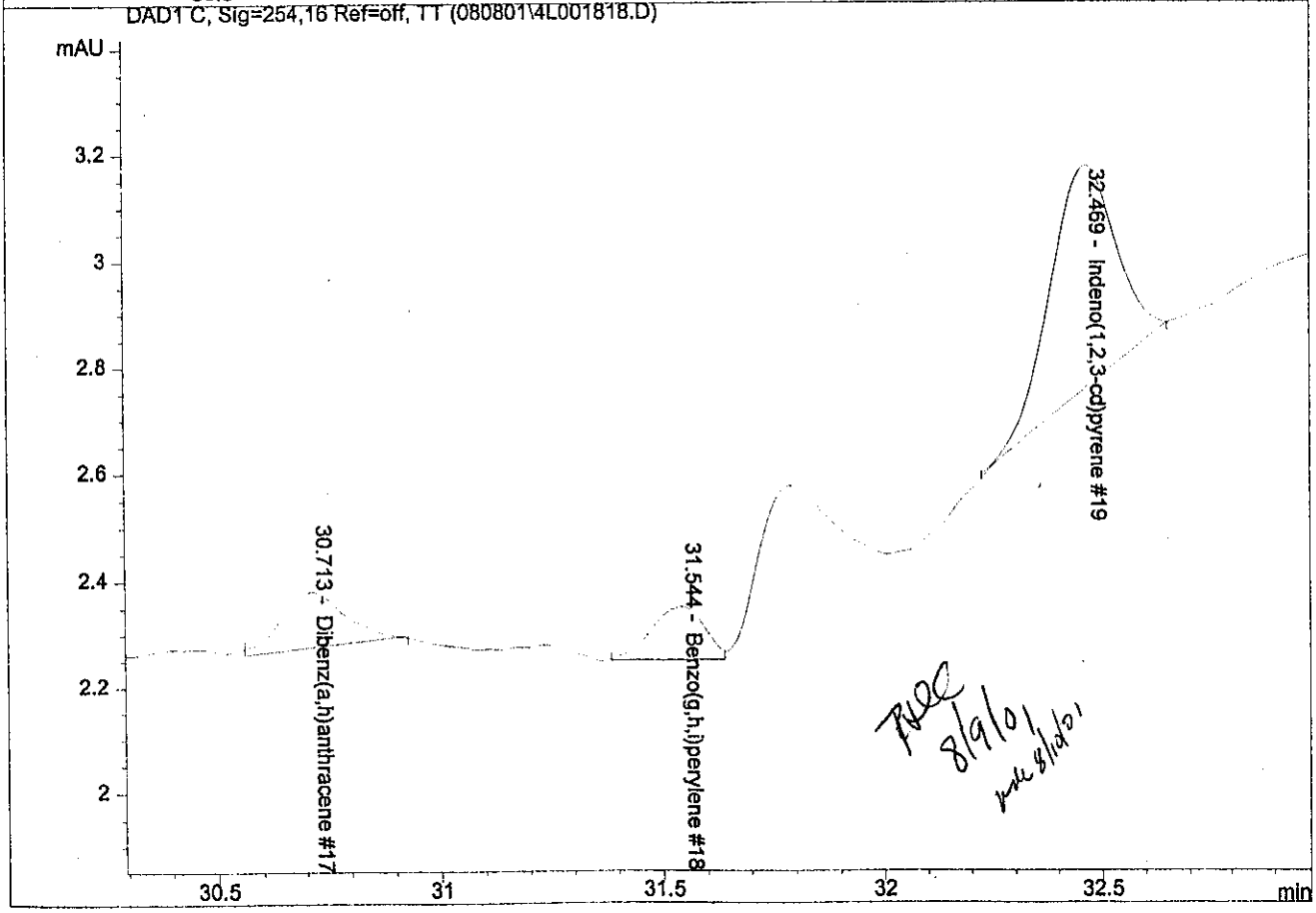


Current Chromatogram(s)



Current Chromatogram(s)





RDC 8/9/01

RDC 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

ata File C:\HPCHEM\2\DATA\080801\4L001819.D Sample Name: 8310alt5327/5529
PLC4 8/9/2001 2:40:05 PM RDC

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

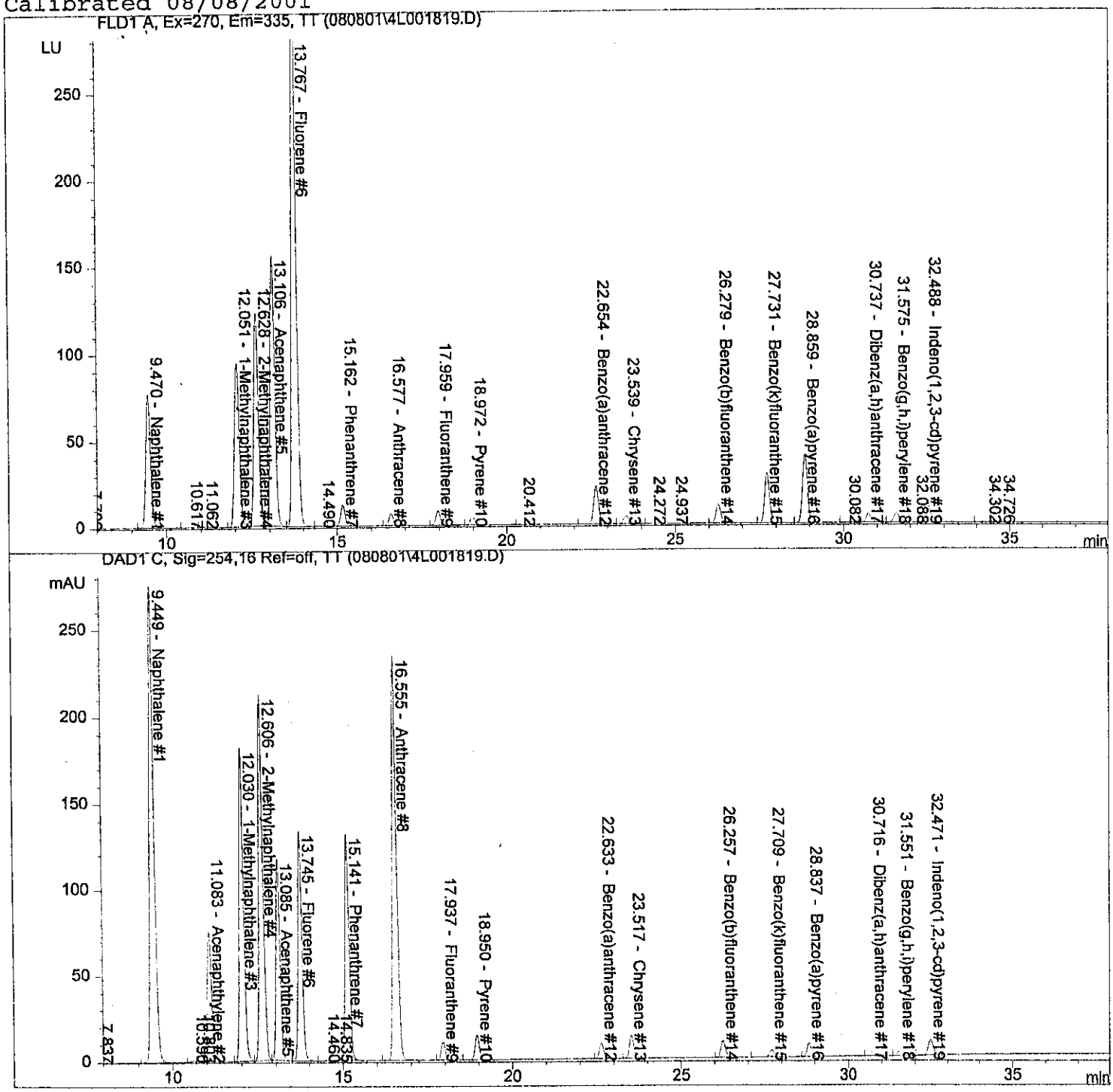
= Failed 15.0% Criteria

387

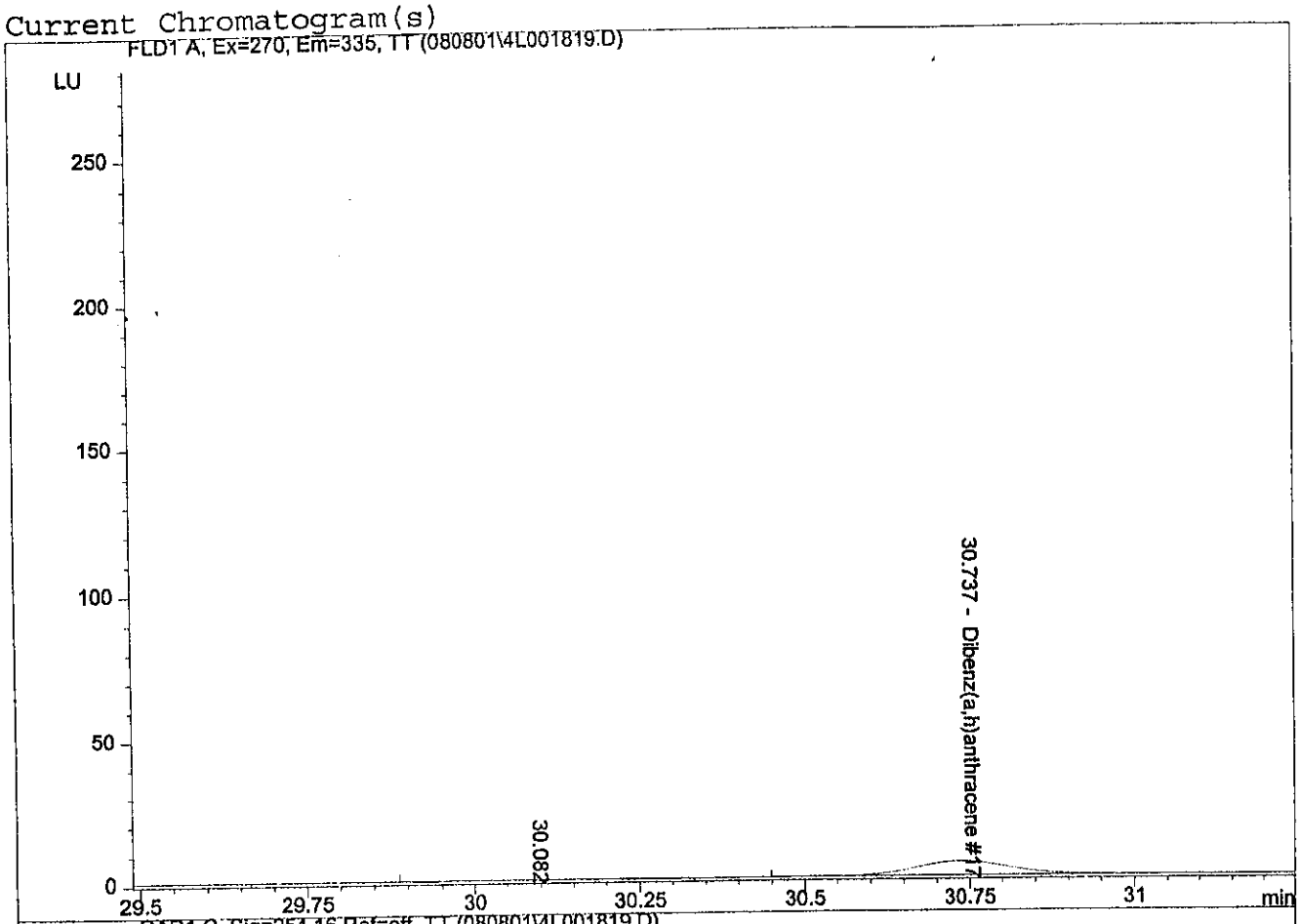
Injection Date : 8/9/2001 4:24:36 AM
Sample Name : 8310alt5327/5529
Acq. Operator : RDC

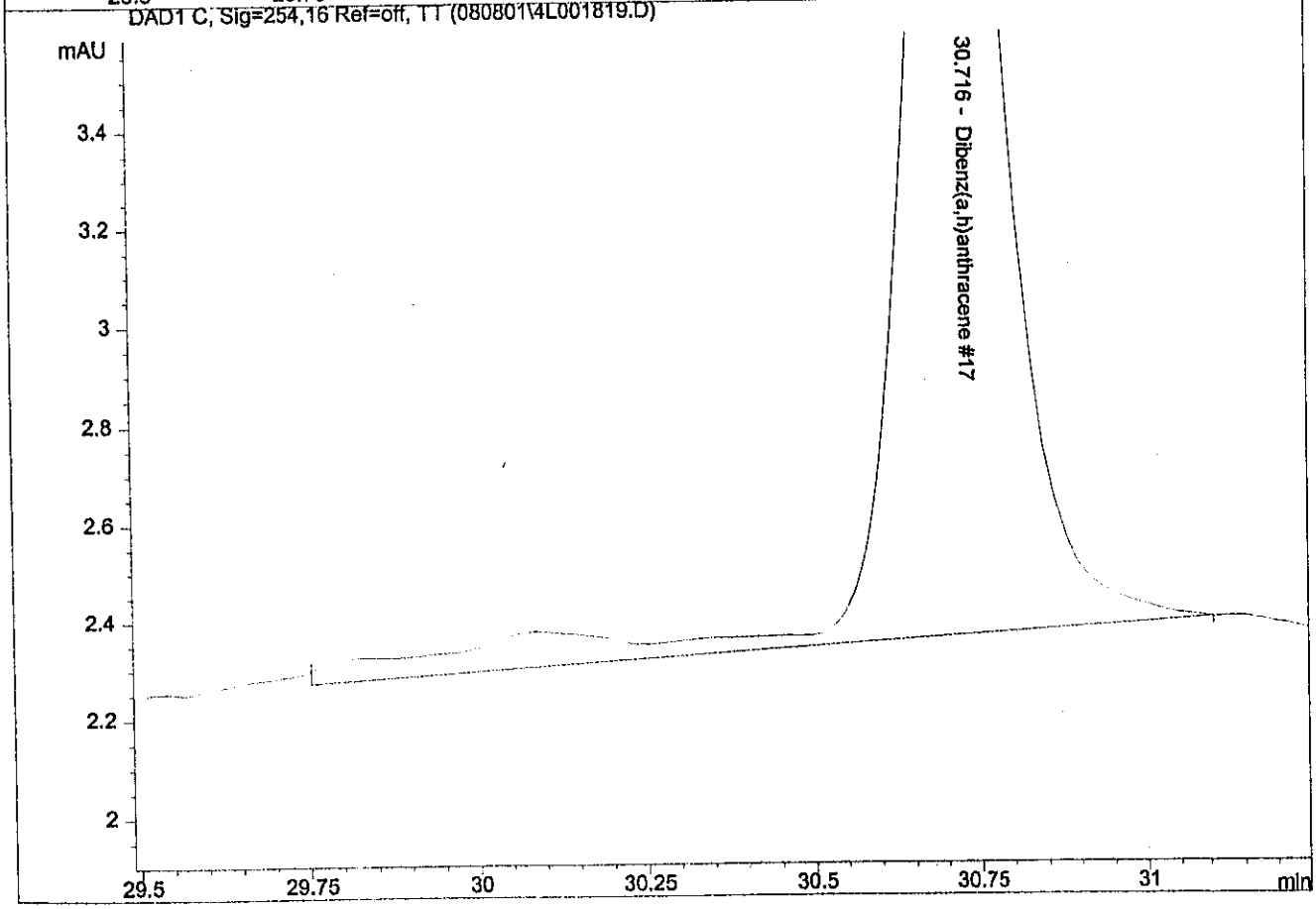
Seq. Line : 15
Vial : 12
Inj : 1
Inj Volume : 8 µl

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

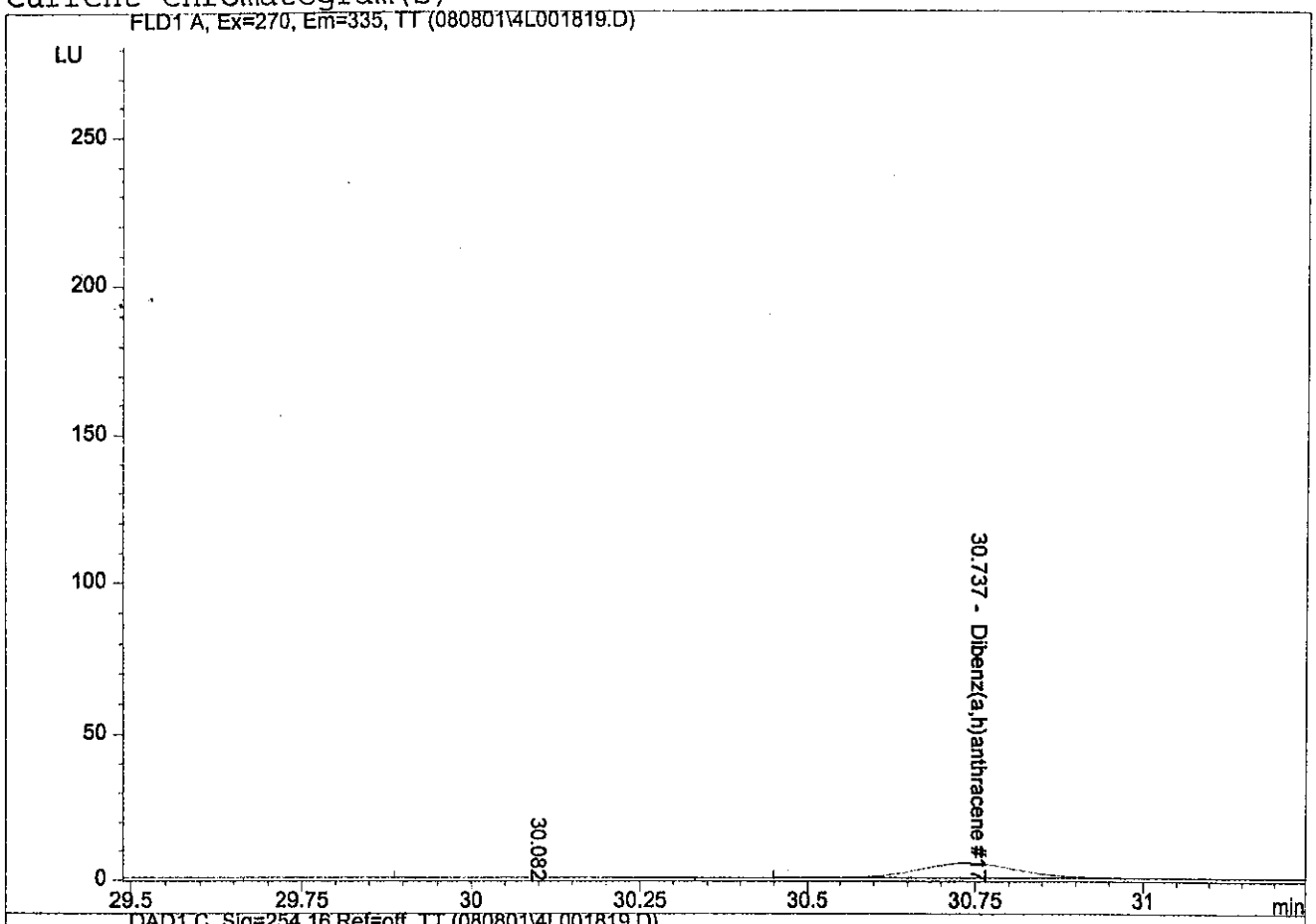


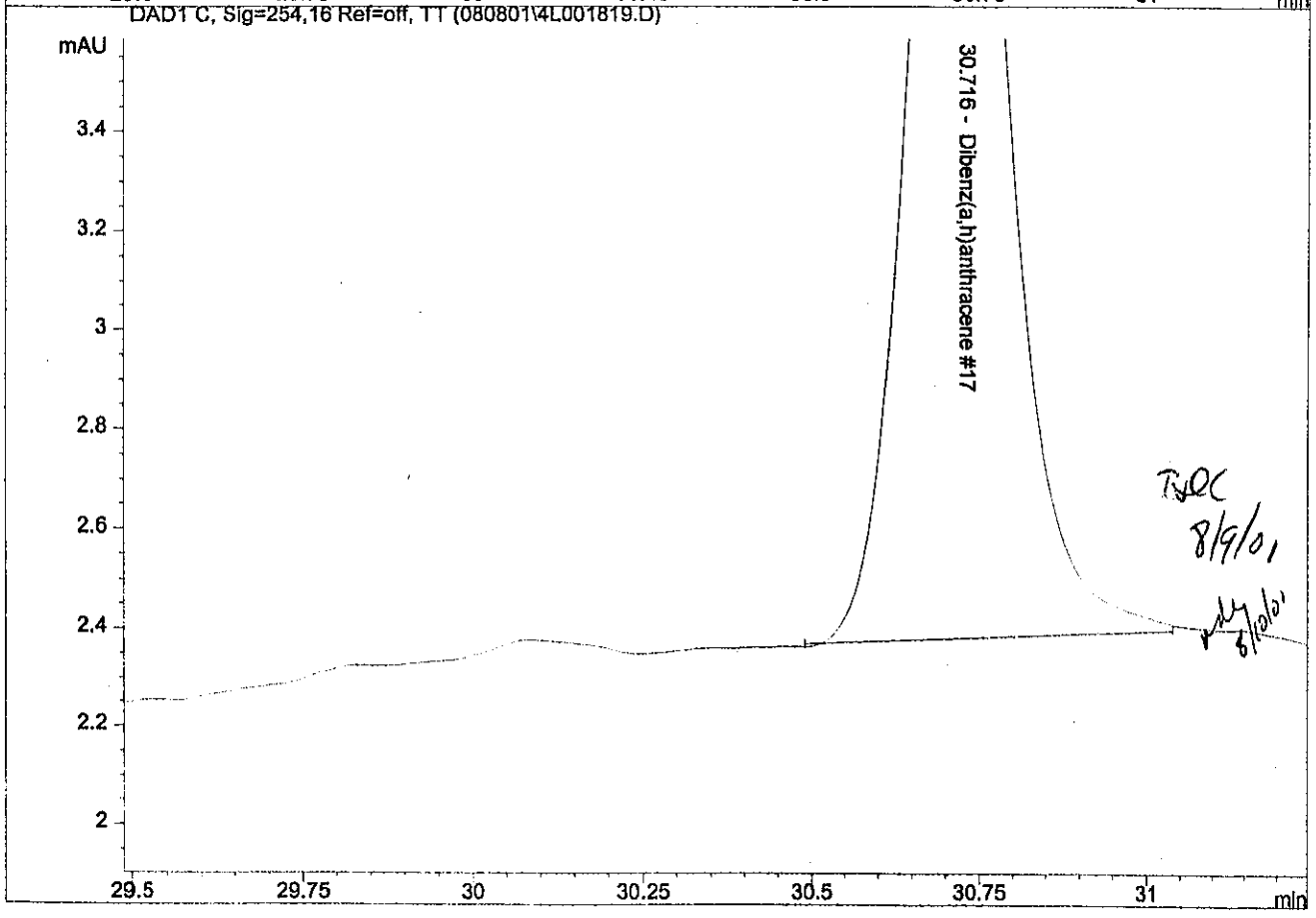
Current Chromatogram(s)





Current Chromatogram(s)





TJQC 8/9/01

8/10/01

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

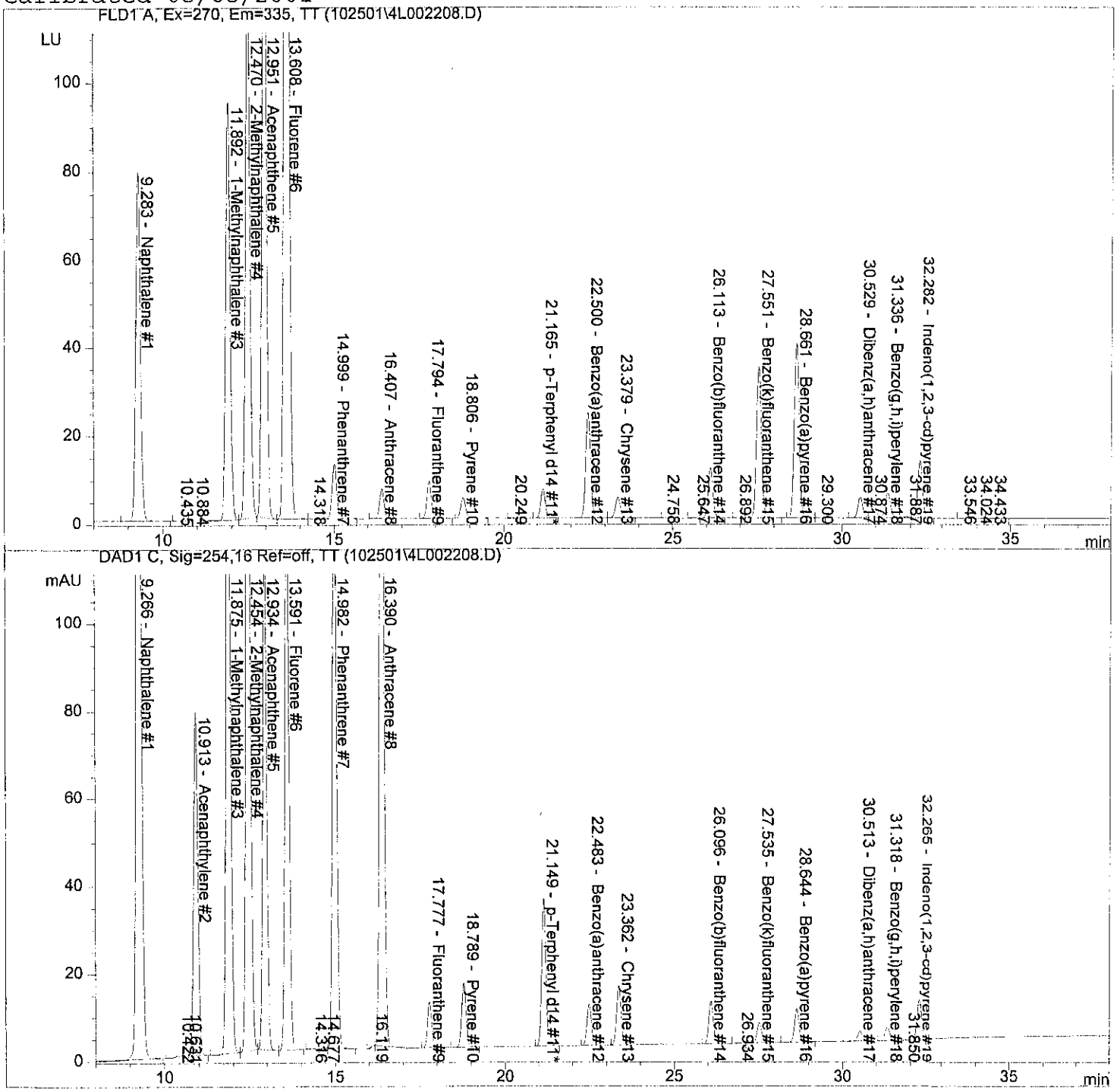
= Failed 15.0% Criteria

393

Injection Date : 10/25/2001 4:07:47 PM Seq. Line : 2
Sample Name : WG107115-01 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 : 10/26/2001 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

397

```
Injection Date  : 10/26/2001 2:31:32 AM          Seq. Line :  13
Sample Name     : WG107115-02 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    : 10/26/2001 9:00:17 AM by RDC
                  (modified after loading)
Calibrated 08/08/2001
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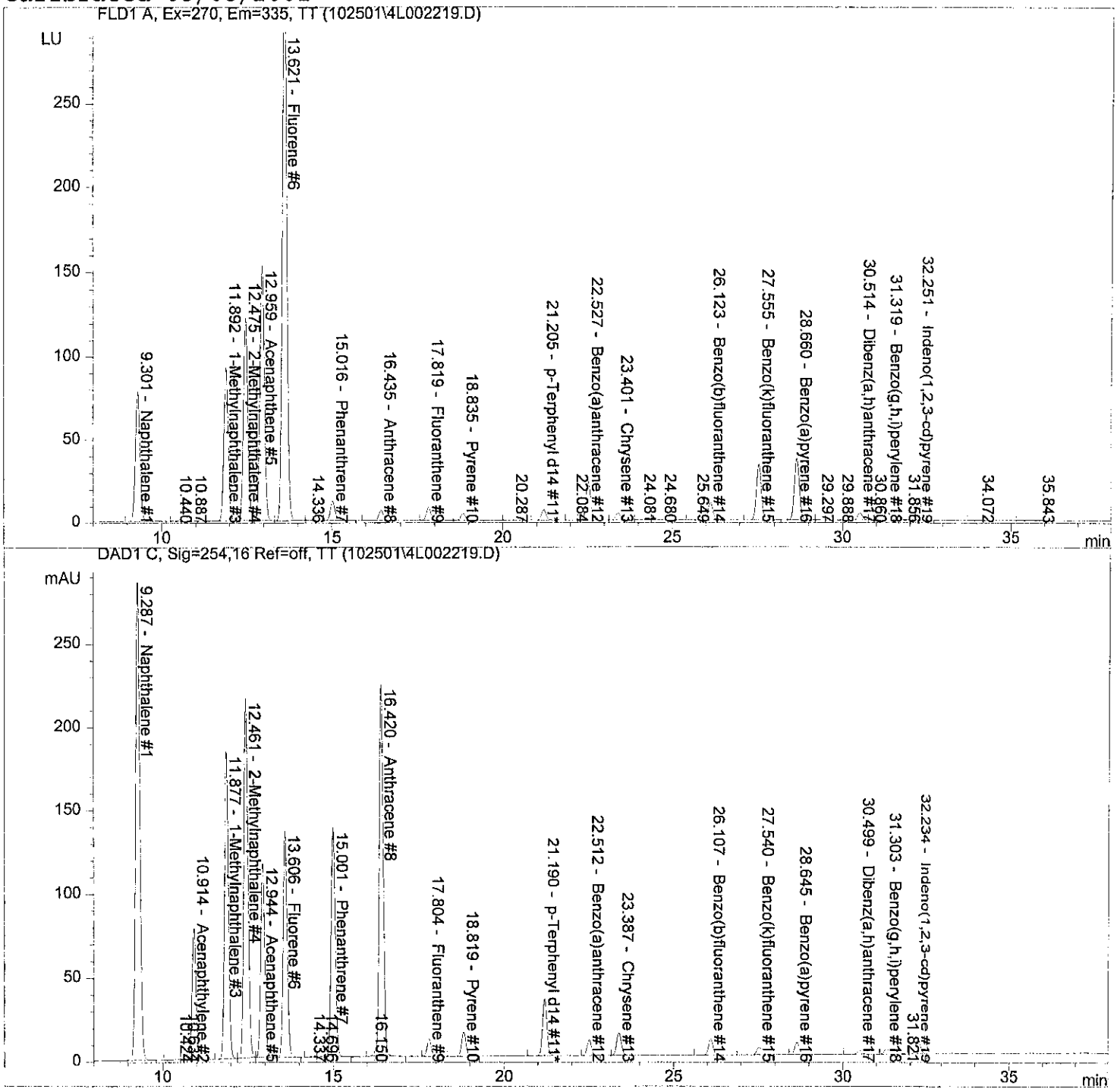

External Standard Report

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
9.301	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          Seq. Line :  24
Sample Name     : WG107115-03 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    : 10/26/2001 9:03:32 AM by RDC
Calibrated 08/08/2001
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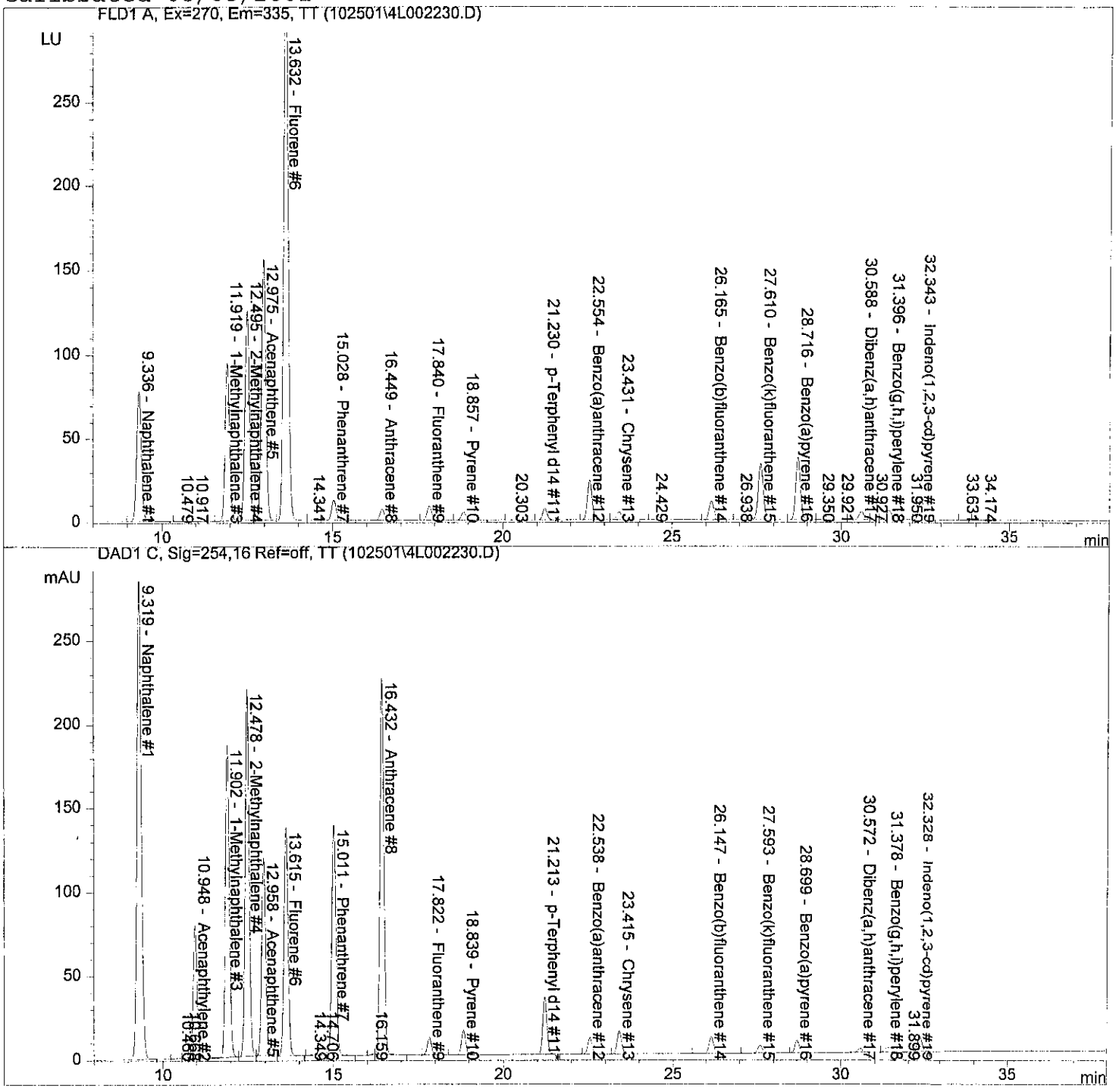

External Standard Report

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
9.336	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 ***

Check Standard Report

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

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

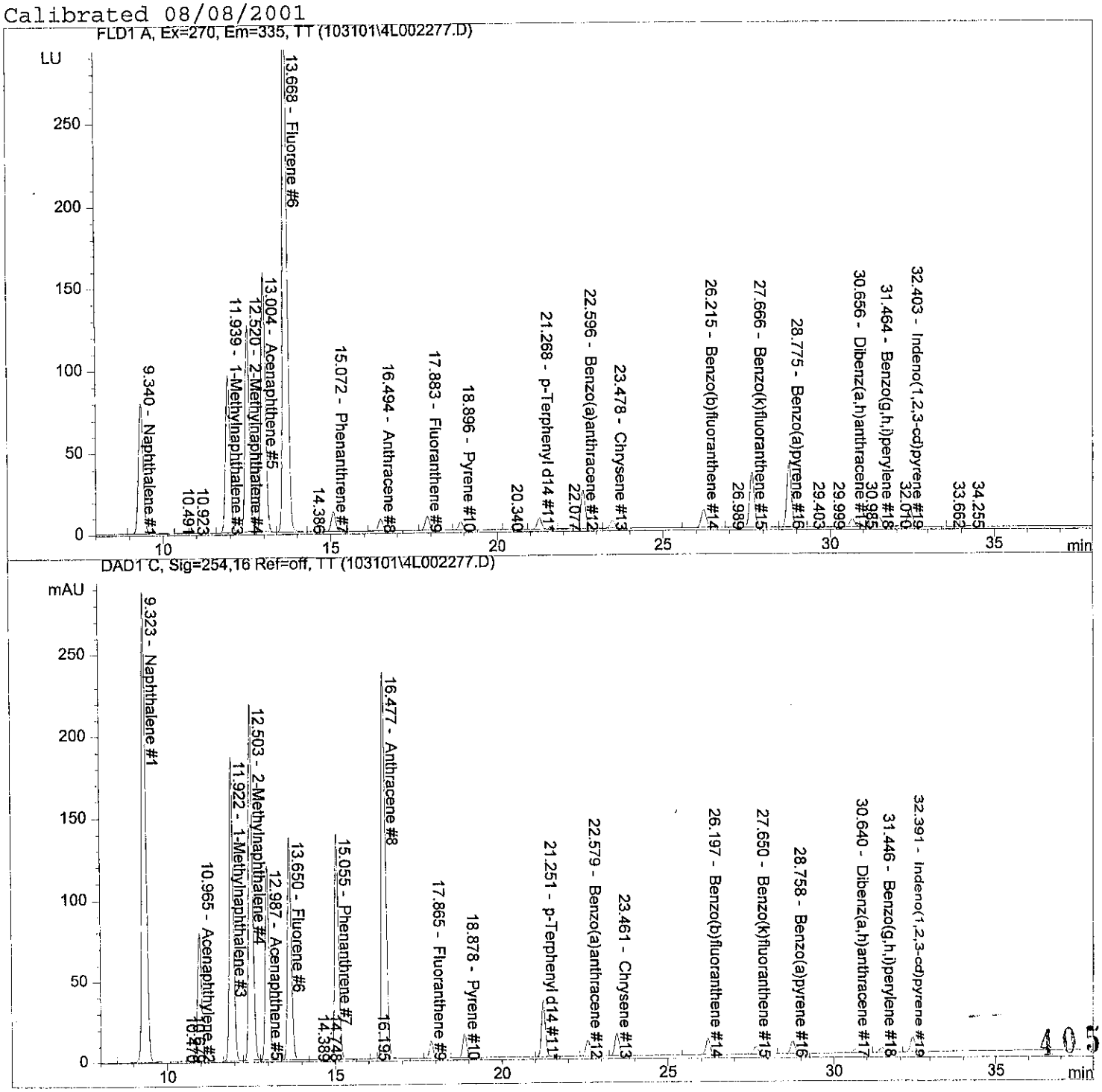
= Failed 15.0% Criteria

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

[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 ***

407

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

408

```
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
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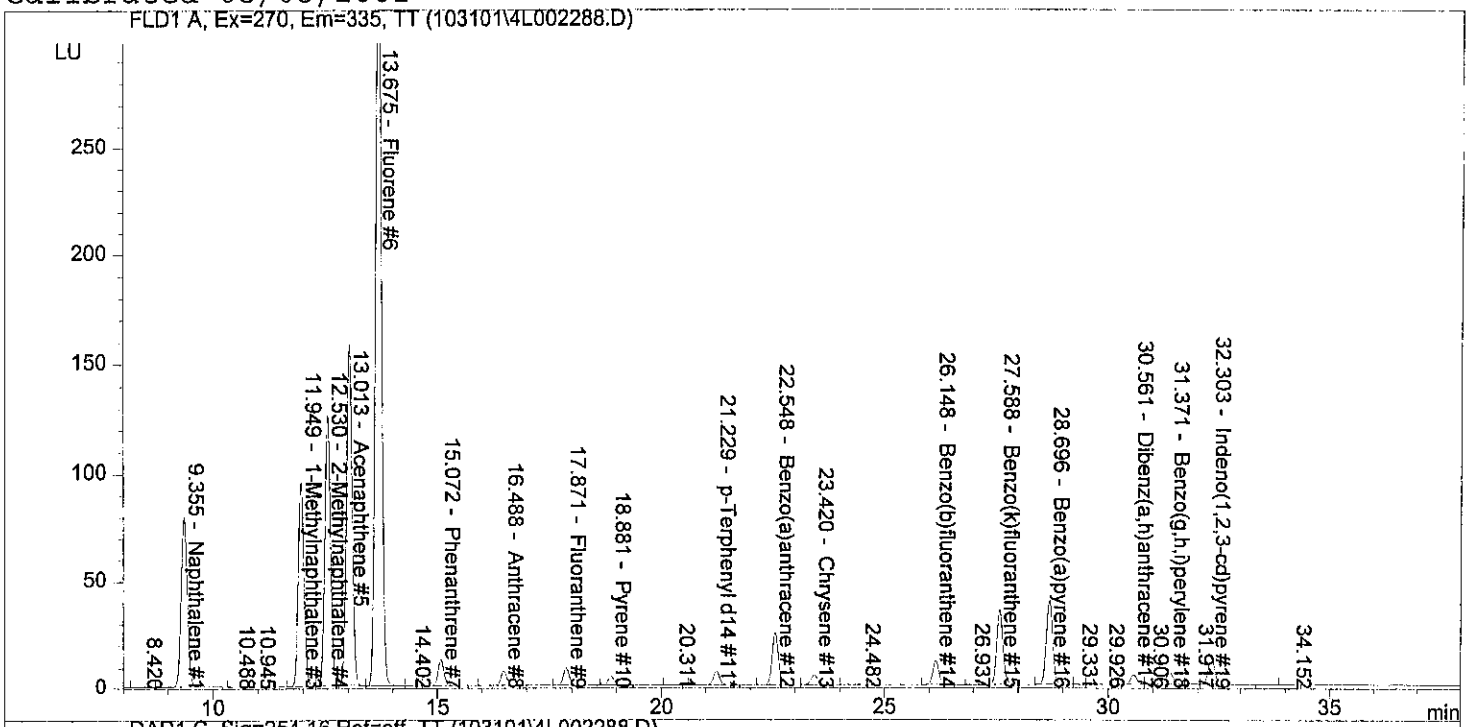
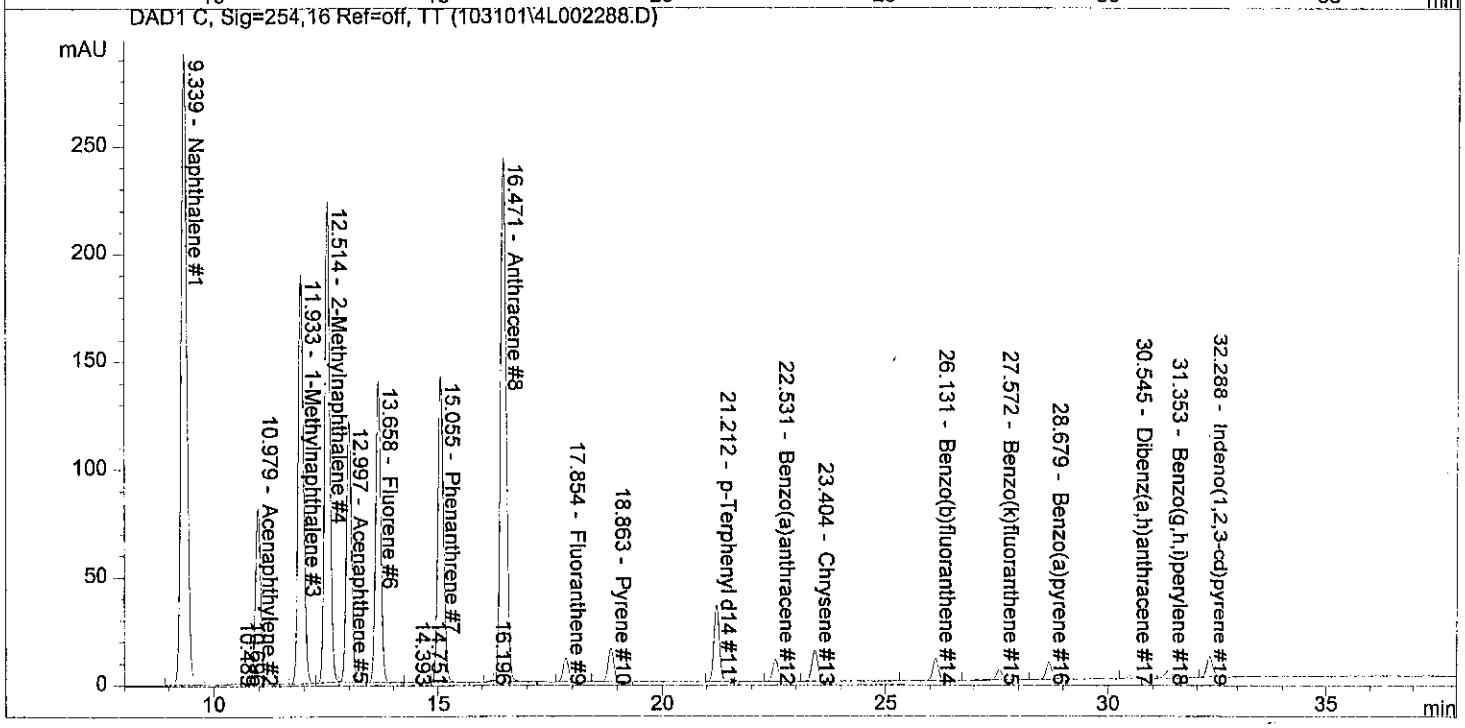
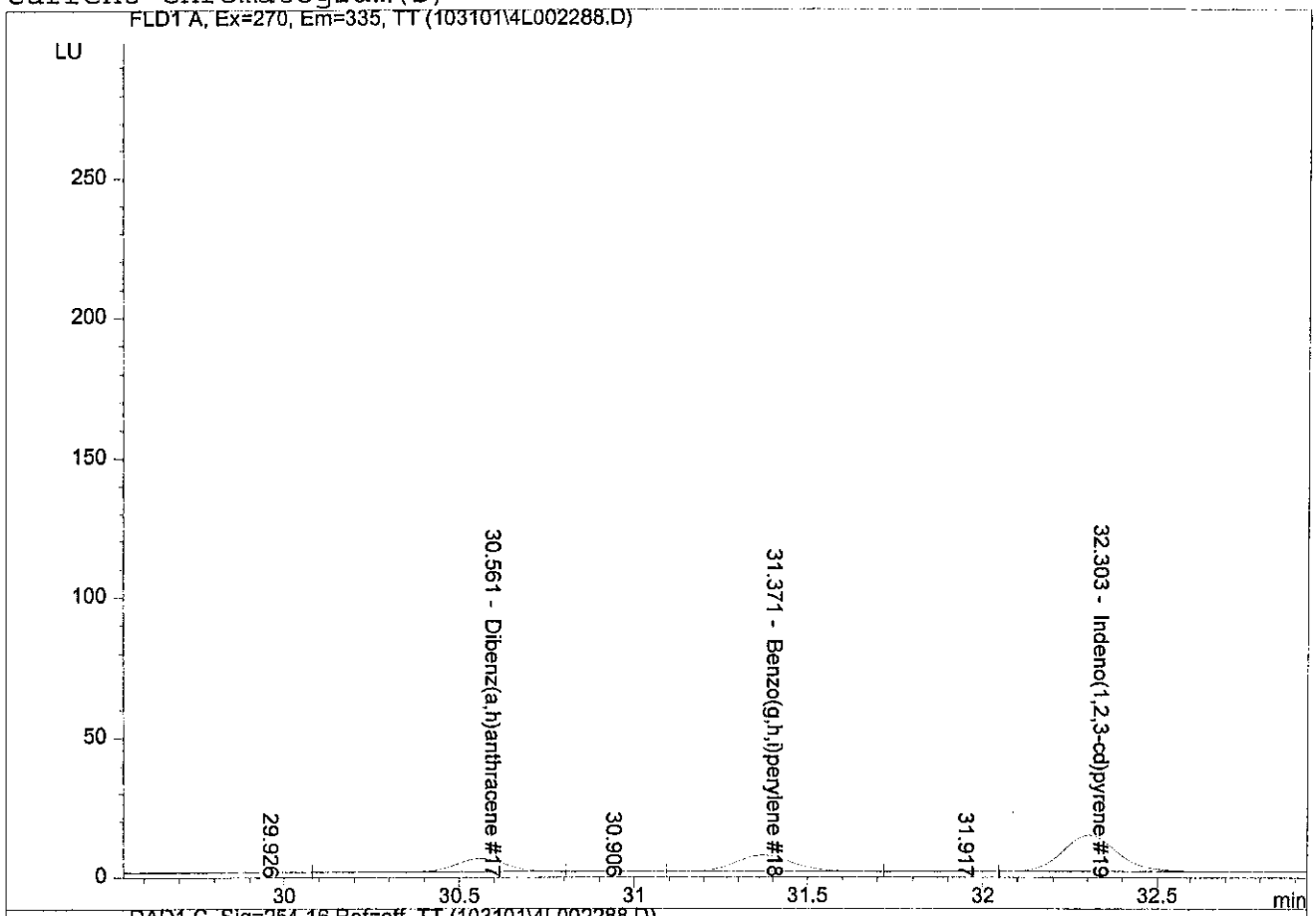
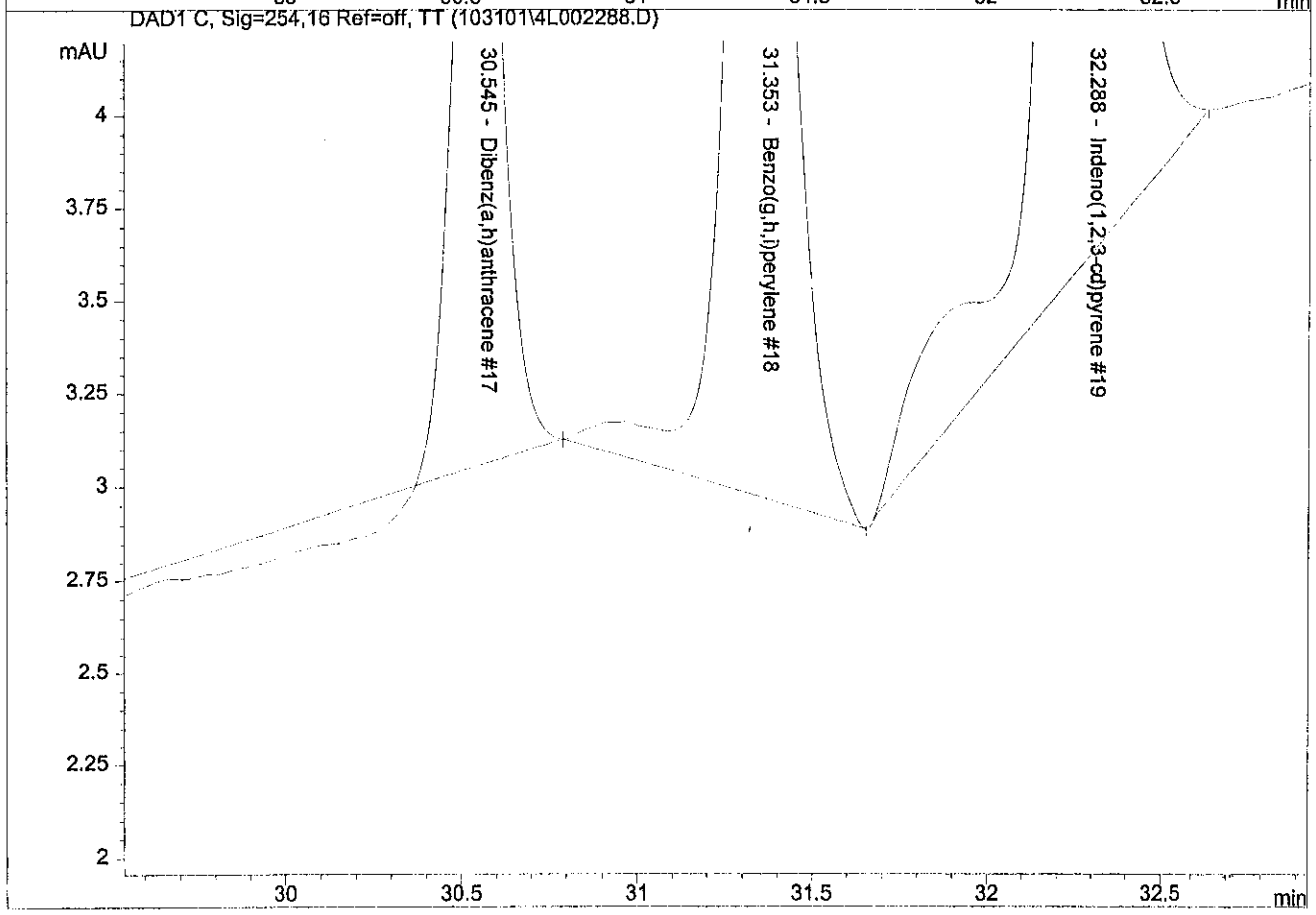




Current Chromatogram(s)

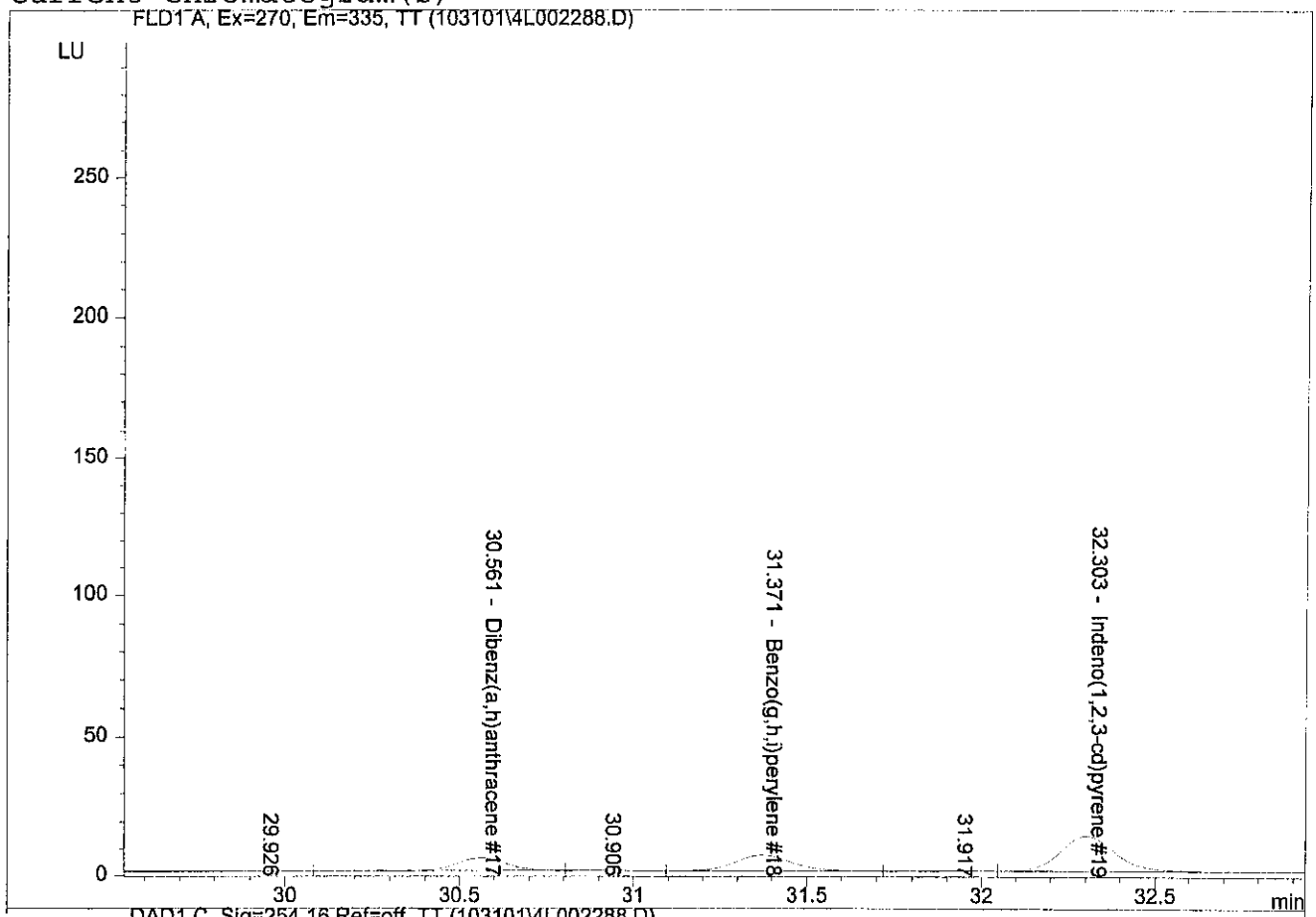


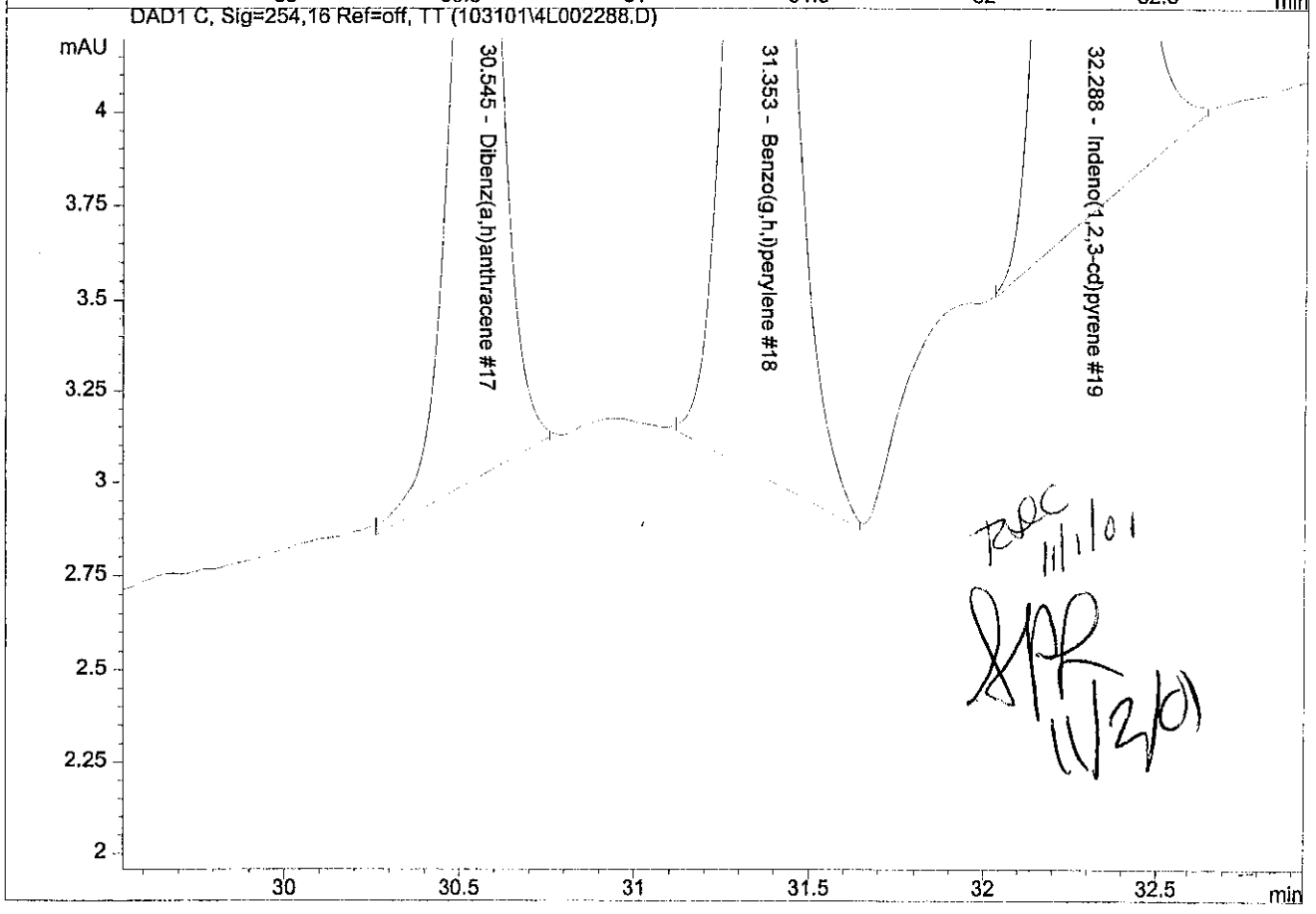


HPLC4 11/1/2001 8:33:14 AM RDC

Page 1 of 1

Current Chromatogram(s)





RDC 11/1/01

11/2/01

411

HPLC4 11/1/2001 8:33:36 AM RDC

Page 1 of 1

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 ***

413

Check Standard Report

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

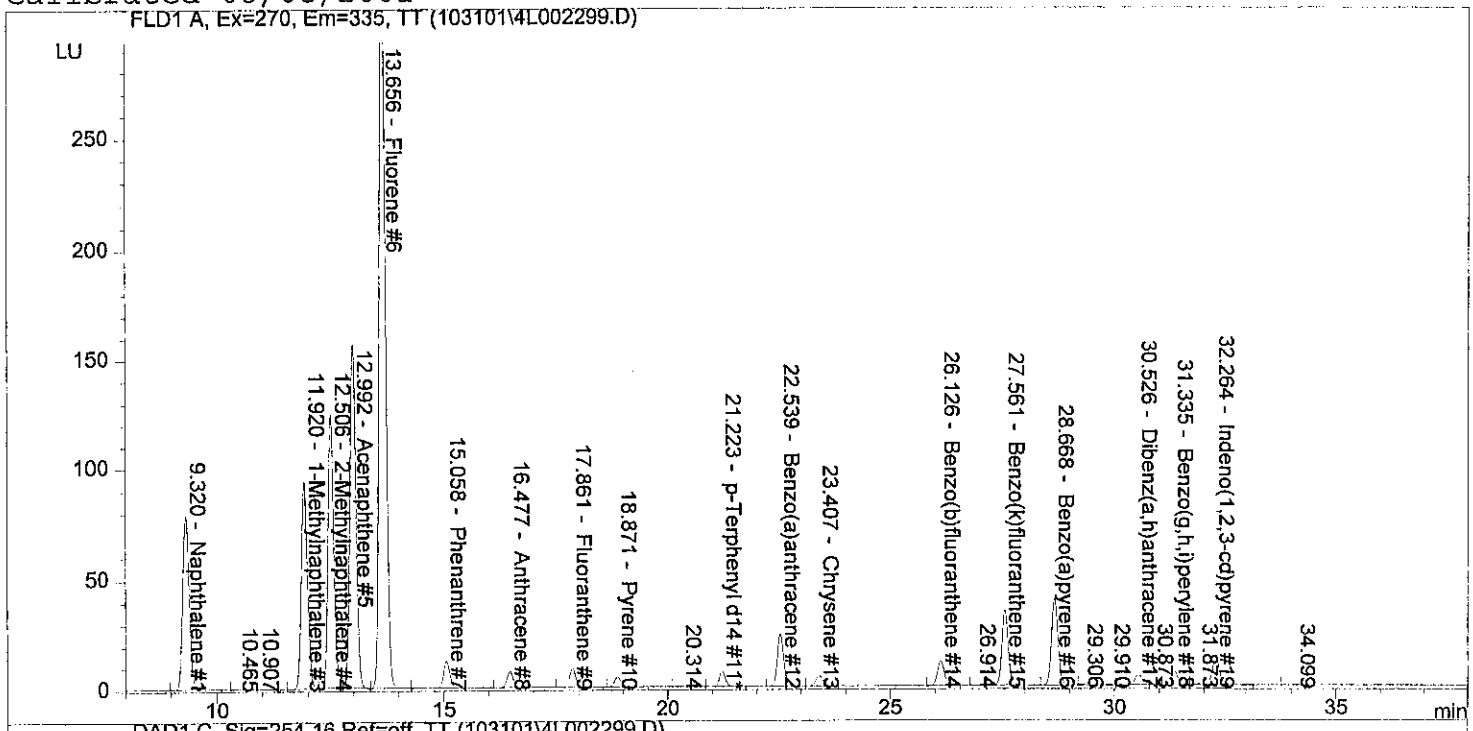
414

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



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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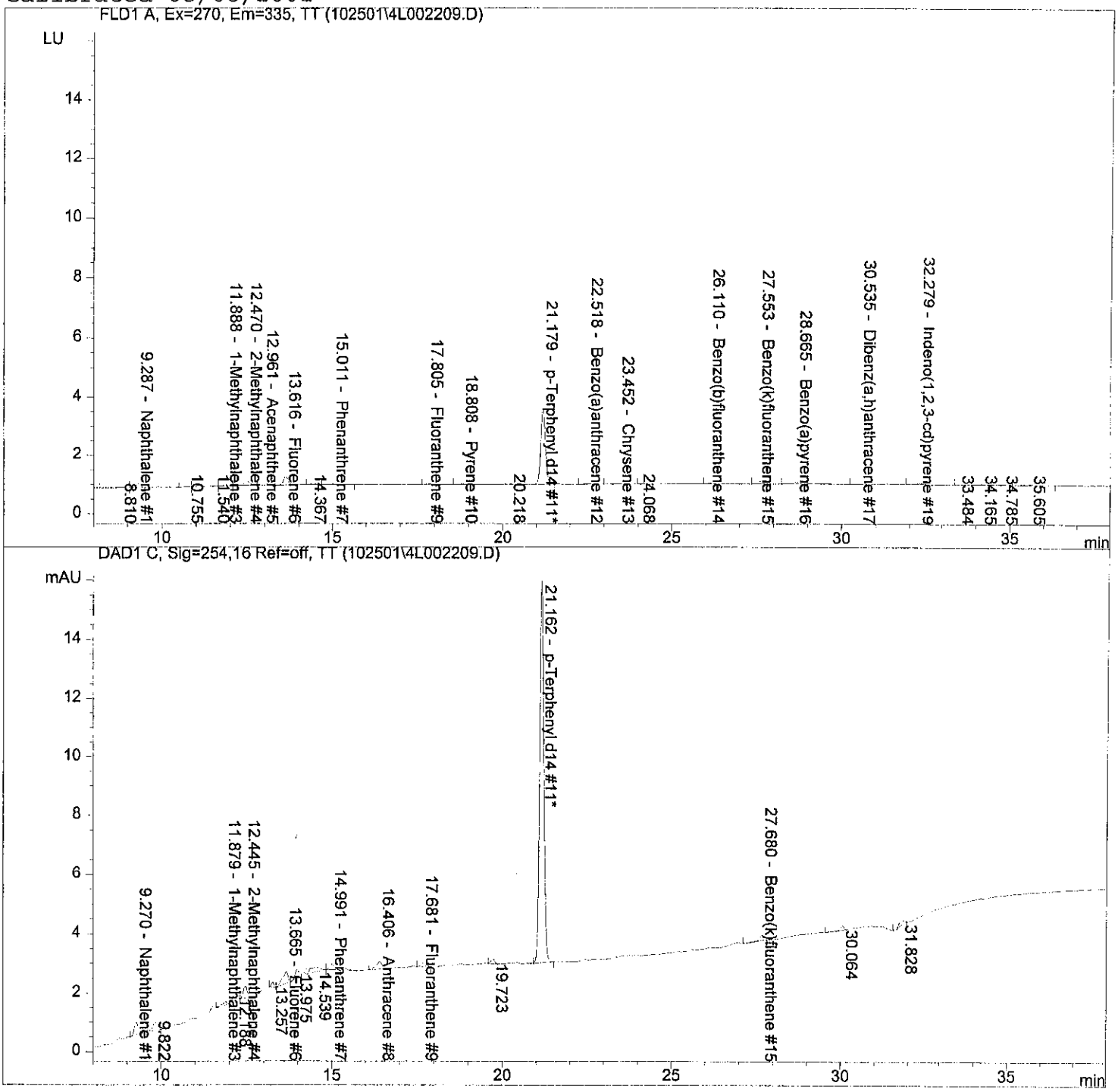
*** End of Report ***

2.2.7.4 Raw QC Data

Injection Date	: 10/25/2001 5:05:18 PM	Seq. Line	: 3
Sample Name	: WG106942-02 WBLK	Vial	: 3
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



419

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
9.287	BB	1.25673	2.52962e-2	3.17906e-2		Naphthalene #1
11.888	BB	9.41147e-1	2.21330e-2	2.08304e-2		1-Methylnaphthalene #3
12.470	BB	1.62651	1.70635e-2	2.77540e-2		2-Methylnaphthalene #4
12.961	BB	1.20484	1.38416e-2	1.66769e-2		Acenaphthene #5
13.616	BB	2.89342	6.62187e-3	1.91599e-2		Fluorene #6
15.011	BBA	2.58608e-1	1.63652e-1	4.23217e-2		Phenanthrene #7
16.407		-	-	-		Anthracene #8
17.805	PBA	3.56213e-1	2.32678e-2	8.28831e-3		Fluoranthene #9
18.808	BBA	2.65114e-1	3.86587e-2	1.02490e-2		Pyrene #10
21.179	BB	25.01243	2.97423e-1	7.43927		p-Terphenyl d14 #11*
22.518	BB	3.27228e-1	7.91256e-3	2.58921e-3		Benzo(a)anthracene #12
23.452	BB	2.97446e-1	3.90495e-2	1.16151e-2		Chrysene #13
26.110	BBA	1.76737e-1	1.63222e-2	2.88474e-3		Benzo(b)fluoranthene #14
27.553	BBA	1.01729	2.76572e-3	2.81354e-3		Benzo(k)fluoranthene #15
28.665	BBA	7.48200e-1	4.57119e-3	3.42017e-3		Benzo(a)pyrene #16
30.535	PBA	1.51269e-1	3.93496e-2	5.95238e-3		Dibenz(a,h)anthracene #17
31.336		-	-	-		Benzo(g,h,i)perylene #18
32.279	BB	6.15222e-1	1.38204e-2	8.50261e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 7.65411

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	3.44336	8.25405e-3	2.84217e-2		Naphthalene #1
10.913		-	-	-		Acenaphthylene #2
11.879	BB	1.32977	1.29459e-2	1.72150e-2		1-Methylnaphthalene #3
12.445	BB	3.41273	1.12393e-2	3.83566e-2		2-Methylnaphthalene #4
12.934		-	-	-		Acenaphthene #5
13.665	BB	4.59681	1.75240e-2	8.05544e-2		Fluorene #6
14.991	BB	2.14049	1.72982e-2	3.70267e-2		Phenanthrene #7
16.406	BB	3.52968	1.04262e-2	3.68011e-2		Anthracene #8
17.681	BB	1.14970	2.17006e-2	2.49491e-2		Fluoranthene #9
18.789		-	-	-		Pyrene #10
21.162	PBA	111.67193	6.56733e-2	7.33386		p-Terphenyl d14 #11*
22.483		-	-	-		Benzo(a)anthracene #12
23.362		-	-	-		Chrysene #13
26.095		-	-	-		Benzo(b)fluoranthene #14
27.680	BB	1.28157	2.25837e-2	2.89425e-2		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 : 7.62613

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 ***

421

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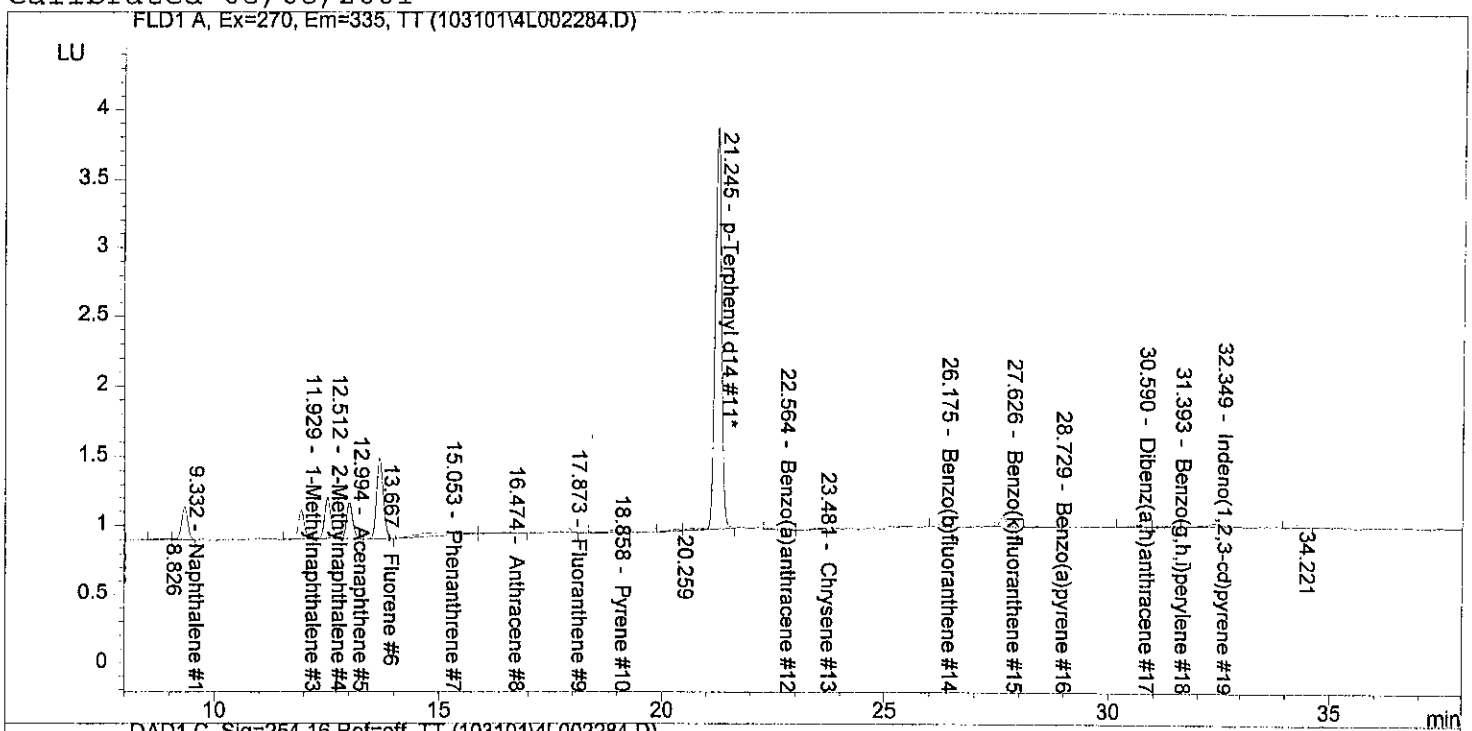
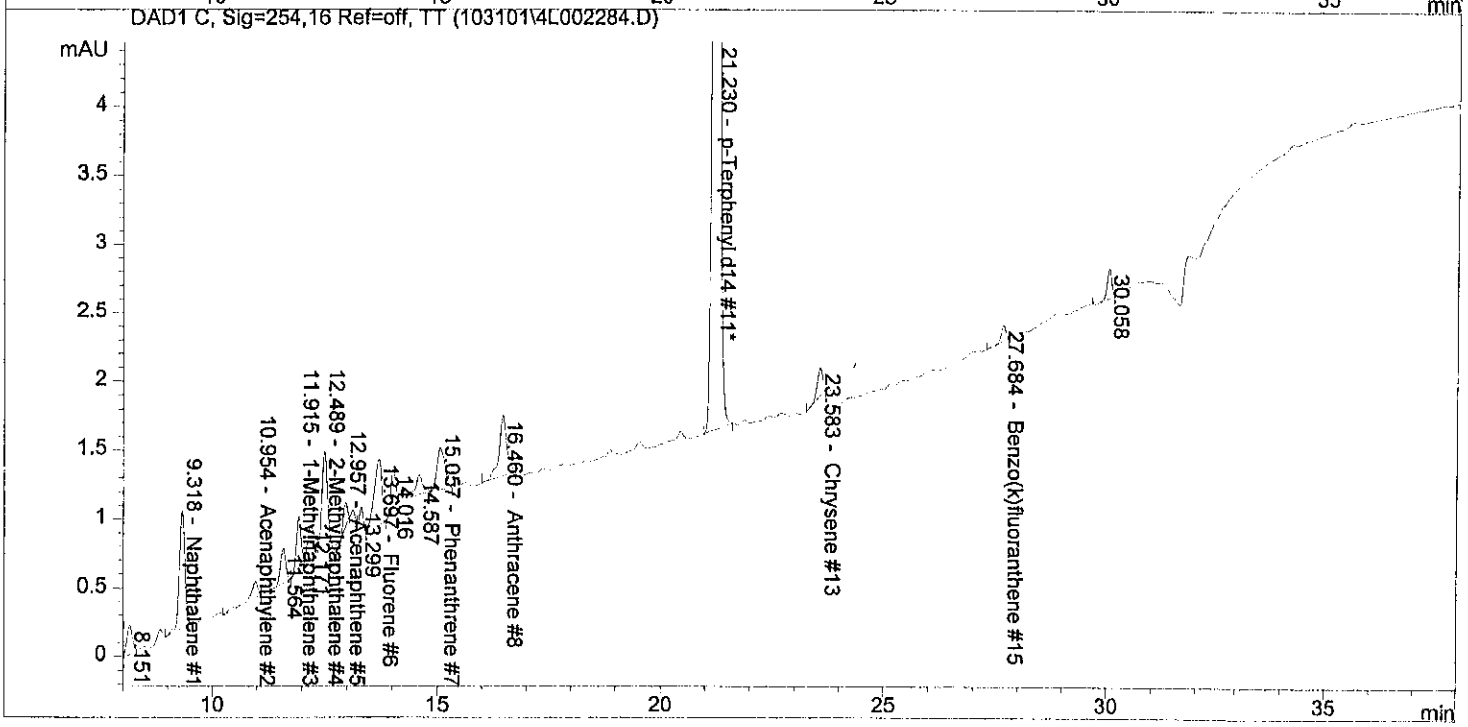
Injection Date	: 10/31/2001 6:43:58 PM	Seq. Line	: 9
Sample Name	: WG107228-01 WBLK	Vial	: 9
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

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 : 10/31/2001 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
9.332	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		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		-	-	-		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		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 ***

```
Injection Date  : 10/25/2001 6:01:58 PM          Seq. Line :   4
Sample Name     : WG106942-03 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    : 10/26/2001 9:03:32 AM by RDC
Calibrated 08/08/2001
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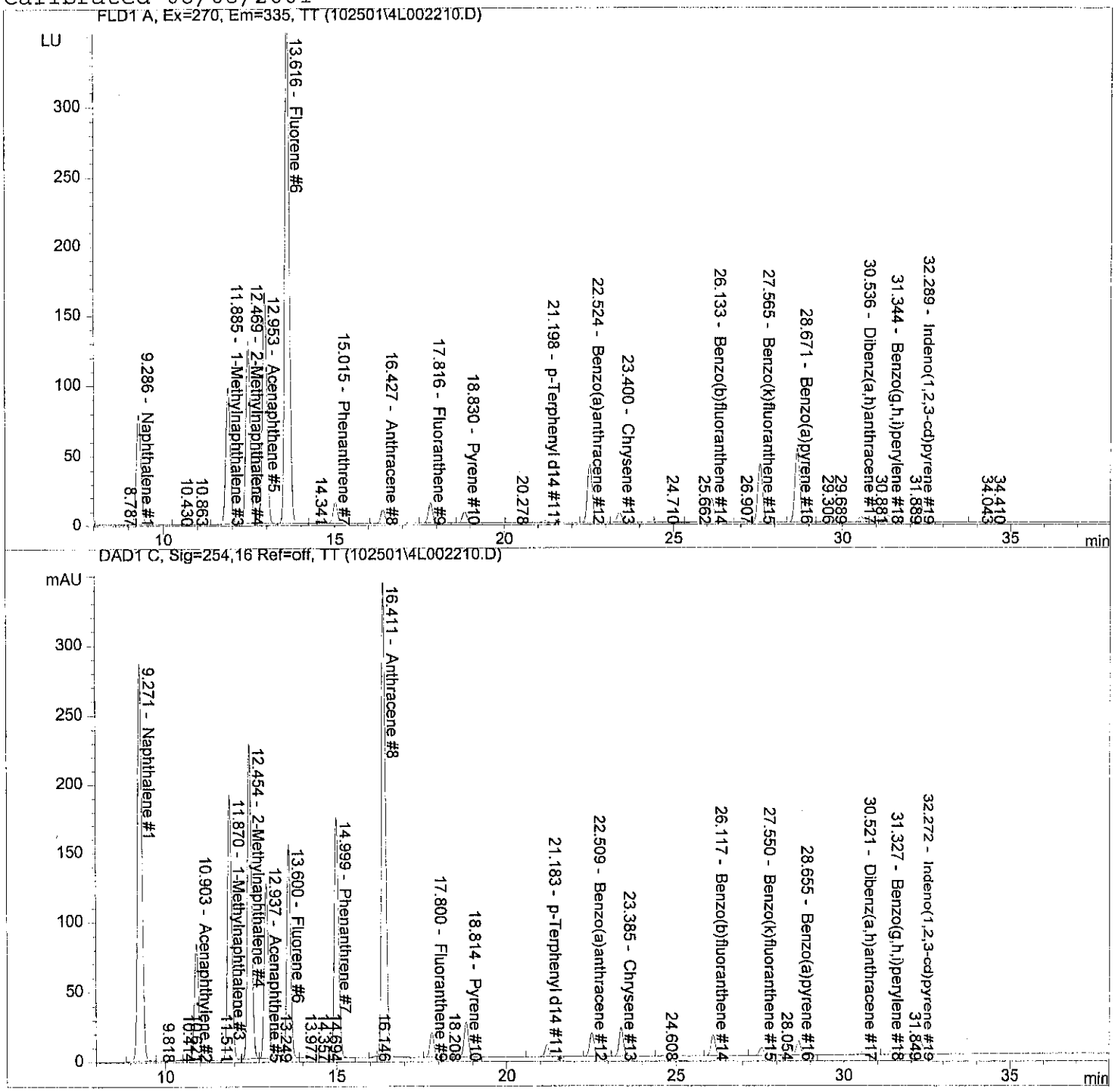

425

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
9.286	BBA	751.95831	2.52962e-2	19.02168		Naphthalene #1
11.885	BB	899.84064	2.21330e-2	19.91613		1-Methylnaphthalene #3
12.469	BB	1188.13623	1.70635e-2	20.27376		2-Methylnaphthalene #4
12.953	BB	1512.06067	1.38416e-2	20.92928		Acenaphthene #5
13.616	BB	3472.58472	6.62187e-3	22.99499		Fluorene #6
15.015	BBA	141.75247	1.63652e-1	23.19811		Phenanthrene #7
16.427	BB	92.50736	3.10196e-1	28.69545		Anthracene #8
17.816	BBA	137.40063	2.32678e-2	3.19702		Fluoranthene #9
18.830	BBA	79.03046	3.86587e-2	3.05521		Pyrene #10
21.198	BBA	16.41924	2.97423e-1	4.88346		p-Terphenyl d14 #11*
22.524	BB	416.73160	7.91256e-3	3.29741		Benzo(a)anthracene #12
23.400	BBA	73.39057	3.90495e-2	2.86587		Chrysene #13
26.133	BB	175.53819	1.63222e-2	2.86517		Benzo(b)fluoranthene #14
27.565	PB	433.50888	2.76572e-3	1.19896		Benzo(k)fluoranthene #15
28.671	BB	538.03223	4.57119e-3	2.45945		Benzo(a)pyrene #16
30.536	BB	38.13708	3.93496e-2	1.50068		Dibenz(a,h)anthracene #17
31.344	BB	52.43598	2.65165e-2	1.39042		Benzo(g,h,i)perylene #18
32.289	BB	139.83038	1.38204e-2	1.93251		Indeno(1,2,3-cd)pyrene #1
Totals :				183.67556		

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
9.271	BB	2506.66577	8.25405e-3	20.69014		Naphthalene #1
10.903	BBA	704.48615	2.96975e-2	20.92149		Acenaphthylene #2
11.870	BB	1601.37524	1.29459e-2	20.73117		1-Methylnaphthalene #3
12.454	BB	1884.91199	1.12393e-2	21.18505		2-Methylnaphthalene #4
12.937	BB	1035.06946	2.03163e-2	21.02883		Acenaphthene #5
13.600	BB	1258.93140	1.75240e-2	22.06152		Fluorene #6
14.999	BBA	1424.17786	1.72982e-2	24.63577		Phenanthrene #7
16.411	BBA	2806.18774	1.04262e-2	29.25783		Anthracene #8
17.800	BB	152.60165	2.17006e-2	3.31155		Fluoranthene #9
18.814	BBA	228.16458	1.43052e-2	3.26395		Pyrene #10
21.183	BBA	75.86461	6.56733e-2	4.98228		p-Terphenyl d14 #11*
22.509	PBA	155.13335	2.22694e-2	3.45473		Benzo(a)anthracene #12
23.385	BB	195.09613	1.51453e-2	2.95479		Chrysene #13
26.117	BBA	141.39262	2.07330e-2	2.93149		Benzo(b)fluoranthene #14
27.550	BB	54.22557	2.25837e-2	1.22461		Benzo(k)fluoranthene #15
28.655	BBA	97.89017	2.61680e-2	2.56159		Benzo(a)pyrene #16
30.521	BB	16.85076	9.41116e-2	1.58585		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.327	BB	28.39966	5.60829e-2	1.59274		Benzo(g,h,i)perylene #18
32.272	BB	95.32242	2.05608e-2	1.95990		Indeno(1,2,3-cd)pyrene #1

Totals : 210.33528

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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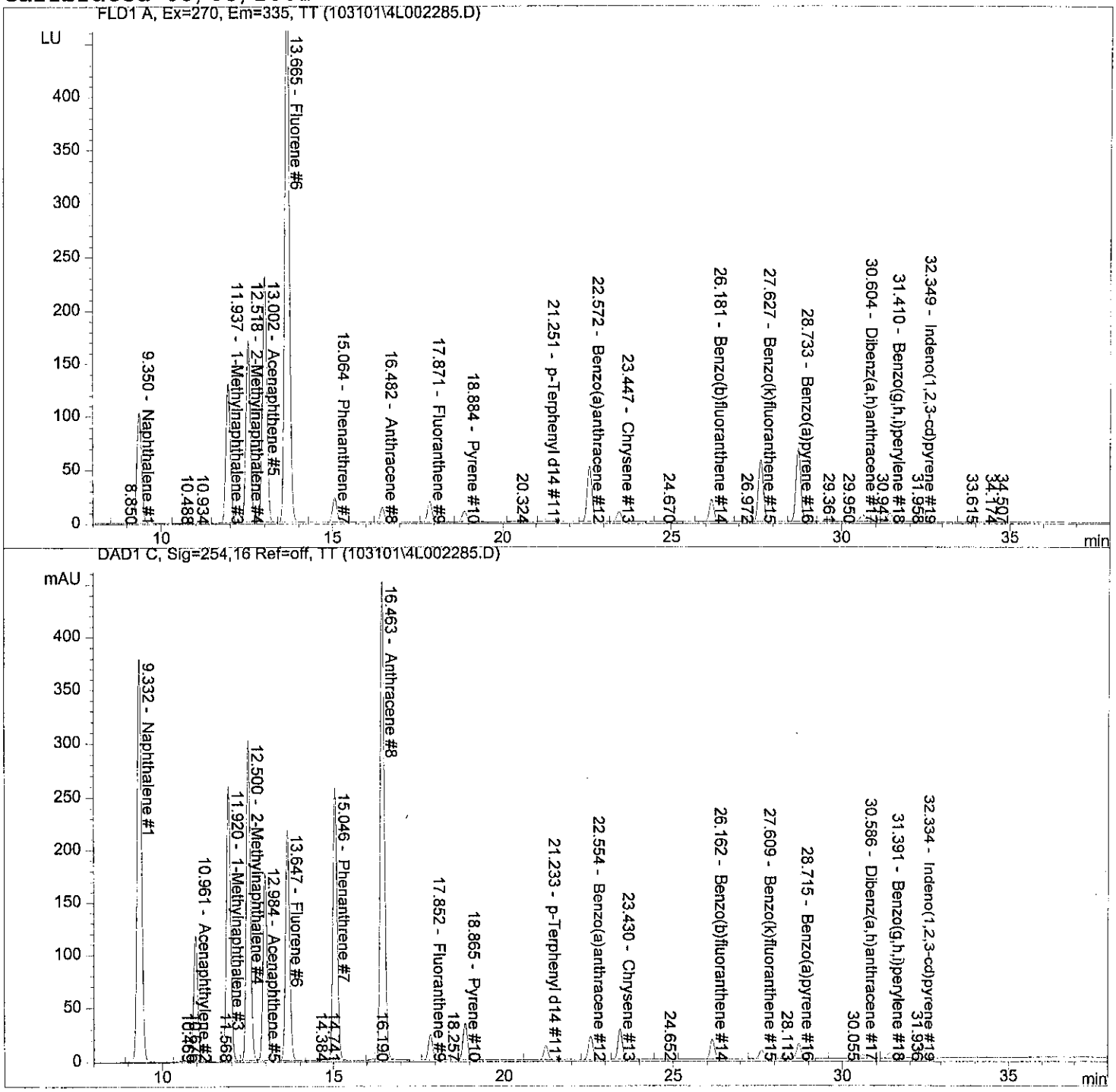
*** End of Report ***

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



428

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		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 ***

```
Injection Date   : 10/31/2001 8:37:17 PM          Seq. Line :  11
Sample Name      : WG107228-03 WLCS                    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     : 10/31/2001 9:15:44 AM by RDC
                   (modified after loading)
Calibrated 08/08/2001
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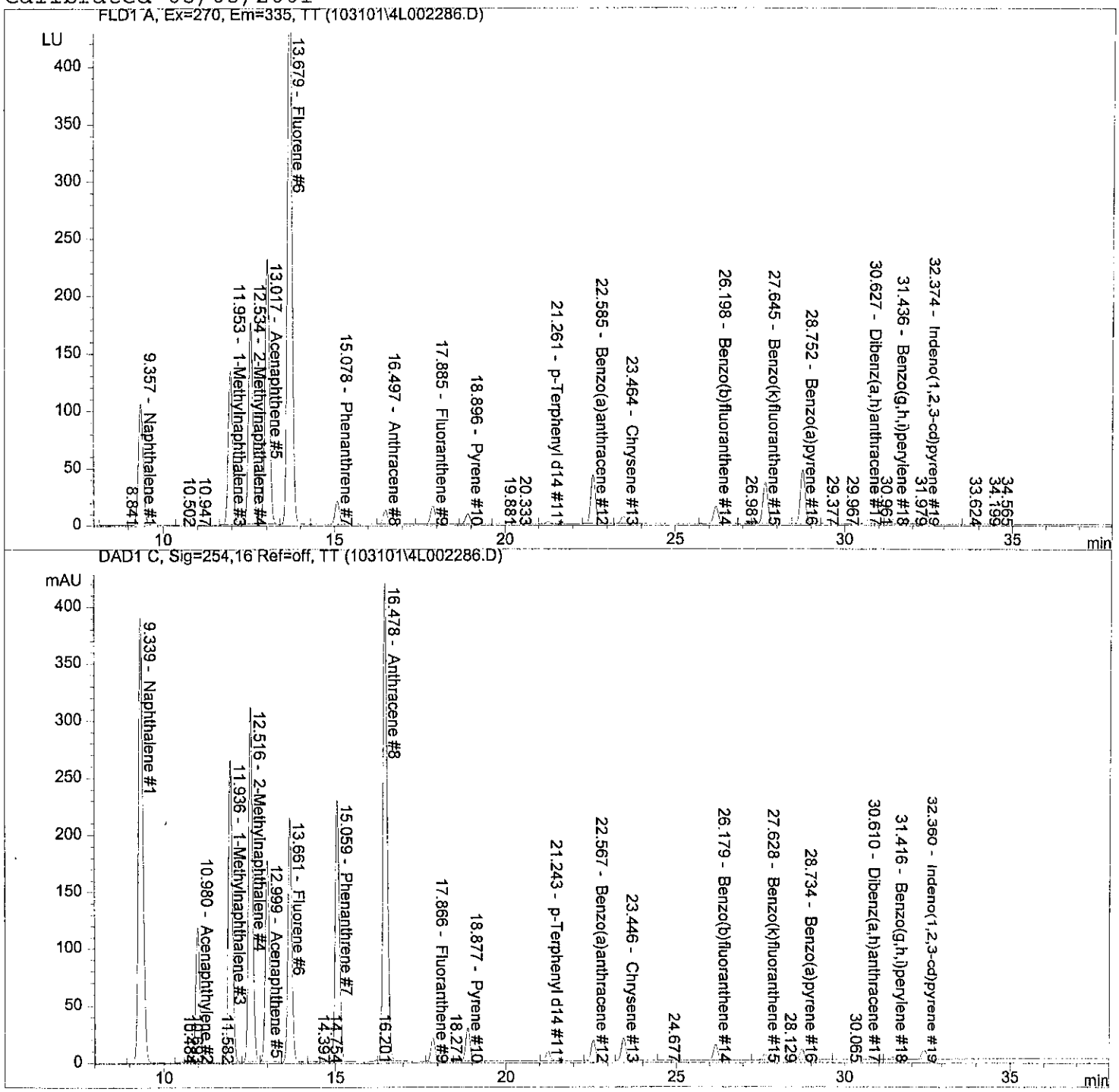

Sorted By : Signal
Calib. Data Modified : Wednesday, October 31, 2001 9:15:43 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.357	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
4L001805	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	↓ re-make		↓		CC
11	ESS 38-23 elab spike				✓
12	8310 SURR 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: [signature] 8/10/01

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

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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: _____ 8/6/01

435

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	30556-19/56-20	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	50556-19/56-20	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	30556-19/56-20	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	50556-19/56-20	WG107115-04 CC

RWC 10/29/01
M. 10/29/01

437

Analysis Date/Time Oct. 25, 2001 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 102501
Analyst Initials PLC SOP # HPLC01 Rev. # 02 ✓ 8310 SOP # HPLC02 Rev. # ___ ___ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 10.5 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 { 4L002219, 4L002230, 4L002234 } %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

Y1748115 LCS recovered high for 5 analytes - samples had no hits

Reviewed By: [signature] 10/29/01

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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

RHQC 11/07/01
made 11/21/01

440

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
-08 Surr. Acceptable
L0110485-07
-08 low surr.
L0110522-01
L0110567-03
-06 acceptable surr.
-07

L0110614-01 QNS for re-ext.

Reviewed By: [illegible] 1/2/01

441

Parameter: 8310-HP SOP #: EXHPLC1 Revision #: 6
Extraction Analyst(s): LMT/DP TV/KD Analyst(s): JAQ
Date/Time Extracted: 10/23/01 @ ~~8:30~~ 14:45 LMT 10/24/01 Date TV/KD: 10/24/01
Spike/Surrogate Analyst: DP Witness: LMT
Surrogate #: ES5063-39 Earliest Hold Date: 10/24/01
Spike #: A = ES5063-39.01 Spike #: B = —

Extraction Work Group WG 106942
Analytical Work Group WG 106998
Extract Relinquished By: JAQ
Extract Received By & Date: FedEx 10/24/01

	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 ul		1 ml	T			—	WG 106942-02
2	LCS			✓		1		500 ul		C				WG 106942-03
3	10-464-01	8310		✓		930 ml				1				
4	-02			✓		950				1				
5	-03			✓		920				T				
6	-04			✓		910				1				WG106942-01
7	-05MS			✓		900		500 ul		C				1 -04*
8	-06MSD			✓		910		1						1 -05*
9	-07			✓		920								
10	-08			✓		890				1				
11	-09			✓		930				T				
12	10-465-01			✓		980	1		1	C				
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 #: V13301
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 1339

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: 10/24/01

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Extraction Notes For Volume # 174 Page # 093

General Comments: # ms and msd of 10-464-04

Extraction Anomalies: nothing to report

Concentration Anomalies: nothing to report

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

443

Parameter: 8310-H2O SOP #: EXHPLC1 Revision #: 6
Extraction Analyst(s): JAQ DP TV/KD Analyst(s): JAQ
Date/Time Extracted: 10/29/01 10:00 Date TV/KD: 10/29/01
Spike/Surrogate Analyst: JAQ Witness: DP
Surrogate #: ESS0038-39 Earliest Hold Date: 10/29
Spike #: A = ESS0039-01 Spike #: B = —

Extraction Work Group WG 107228
Analytical Work Group WG 107449

Extract Relinquished By: JAQ
Extract Received By & Date: TRC 10/29/01

	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 107228-01
2	LCS			✓				500ml		C				WG 107228-02
3	LCS DUP			✓										WG 107228-03
4	10-464-01	8310		✓		950ml								
5	08			✓		965ml								
6	10-485-07			✓		940ml				T				
7	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 JAQ

Methylene Chloride Lot #: 41109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetonitrile Lot #: V18301
Reagent: Fortified Lot #: ER 1965
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: [signature] Date: 10/29/01

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Extraction Notes For Volume # 174 Page # 141

General Comments: Re ext w/ no hold

Extraction Anomalies: nothing to report

Concentration Anomalies: nothing to report

Clean-Up Anomalies: N/A

Supervisor Review: _____ Date: _____

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2.4 General Chemistry Data

2.4.5 Anions (9056)

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L0110464

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: 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: 9/29/01

Rev. 7/14/00

448

Run Date: 10/23/2001

Analyst: RDC

Instrument: IC2

Workorders:	Due Date:	Priority:
WG106927 10-464	10/30/2001	PFF

		Analyst
System Performance Check:	ELUENT CHK	√
Initial Calibration:	Average RF	
	Linear	
	Alt Source Check	
Continuing Calibration:	Continuing Calibration	√
	Client Specific Requirements	√
	Special Standards	NA
Blanks:	Quant Report/Chromatogram	√
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Correct Factors	√
	Check Sample Histories	NA
Data Package:	Level 2	
	Level 3	
	Level 4	✓

	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:	

Π = Checked & OK

NA = Not Applicable

Comments:

R201939

- Needs checklist added to lvl 4.

Primary Reviewer: RDC 10/24/01

Secondary Reviewer: CSC 10/24/01

Supervisor Review: DRR 10/24/01

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Anions (9056)

Login Number: L0110464

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

NA Extraction bench sheets

Checked By: RJL Date: 10/24/01

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2.4.5.1 QC Summary

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, Water

Analytical Work Group:	WG106927	**Prep Work Group:**	NA	**Blank Filename:**	IC2_013	**Sample Number:**	L0110464-04
Method:	9056	**Ext Date:**	NA	**LCS Filename:**	IC2_014	**Sample Filename:**	IC2_018
Instrument:	IC2	**Ext Bench Sheet:**	NA	**Sample Number:**	L0110464-07	**MS Filename:**	IC2_026
Analyst:	RDC	**Run Date:**	23-Oct-01	**Sample Filename:**	IC2_019	**MSD Filename:**	IC2_027
				Duplicate Filename:	IC2_022		

	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	3.67	ND	ND	ND	3.66	3.86	3.77	ND	100	90	110	105	103	80	120	NA	2	20			
NITRATE-N	0.6	ND	4.06	3.99	0.126	ND	ND	4.06	4.12	4.06	ND	98.4	90	110	102	100	80	120	NA	1	20			
PHOSPHATE-P	1	ND	9.78	9.61	ND	ND	ND	9.78	9.93	9.71	ND	98.2	90	110	102	99.2	80	120	NA	2	20			

NOTES & DEFINITIONS :

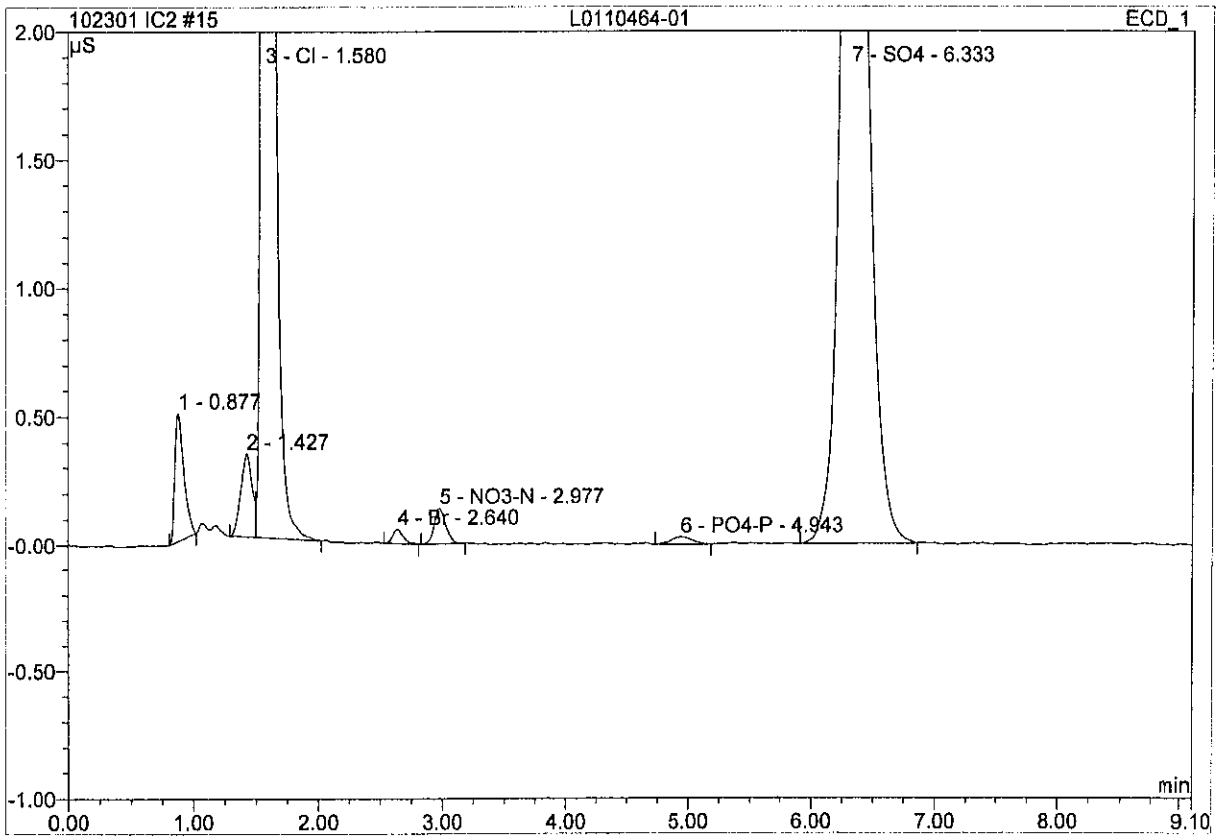
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL = REPORTING DETECTION LIMIT
D = DETECTED, RESULT MUST BE GREATER THAN ZERO
H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

2.4.5.2 Sample Data

15 L0110464-01

1,1 RDC

Sample Name:	**L0110464-01**	*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:	**10/23/2001 14:28**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

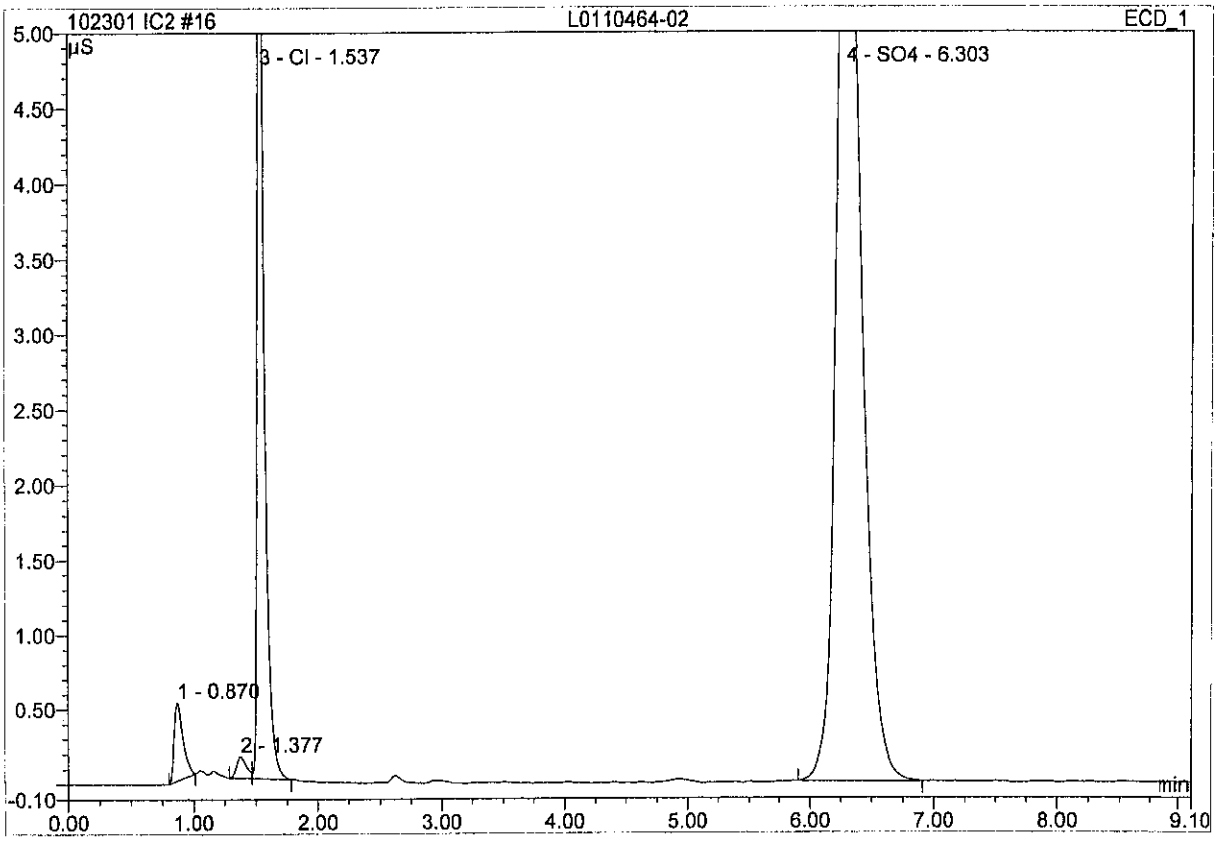


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.498	0.042	1.29	n.a.	BMB
2	1.43	n.a.	0.325	0.034	1.04	n.a.	BM
3	1.58	Cl	35.177	2.068	64.16	21.426	MB
4	2.64	Br	0.055	0.005	0.16	0.168	BMB
5	2.98	NO3-N	0.138	0.015	0.46	0.155	BMB
6	4.94	PO4-P	0.028	0.005	0.17	0.329	BMB
7	6.33	SO4	4.684	1.054	32.71	15.392	BMB
Total:			40.905	3.223	100.00	37.471	

16 L0110464-02

1,1 RDC

Sample Name:	**L0110464-02**	*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:	**10/23/2001 14:39**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

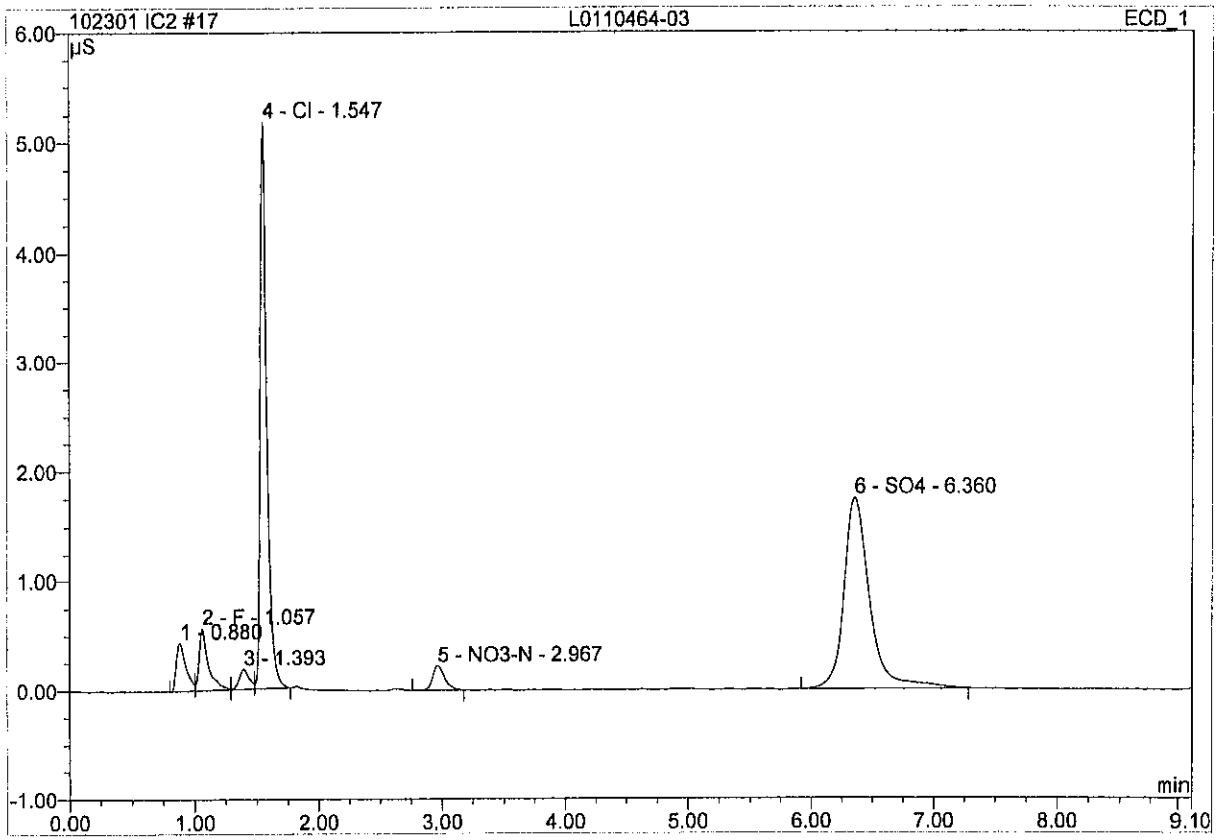


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.525	0.043	2.09	n.a.	BMB
2	1.38	n.a.	0.143	0.013	0.64	n.a.	BM
3	1.54	Cl	6.949	0.428	20.76	4.512	MB
4	6.30	SO4	7.011	1.577	76.51	22.608	BMB
Total:			14.628	2.061	100.00	27.120	

17 L0110464-03

1,1 RDC

Sample Name:	**L0110464-03**	*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:	**10/23/2001 14:51**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

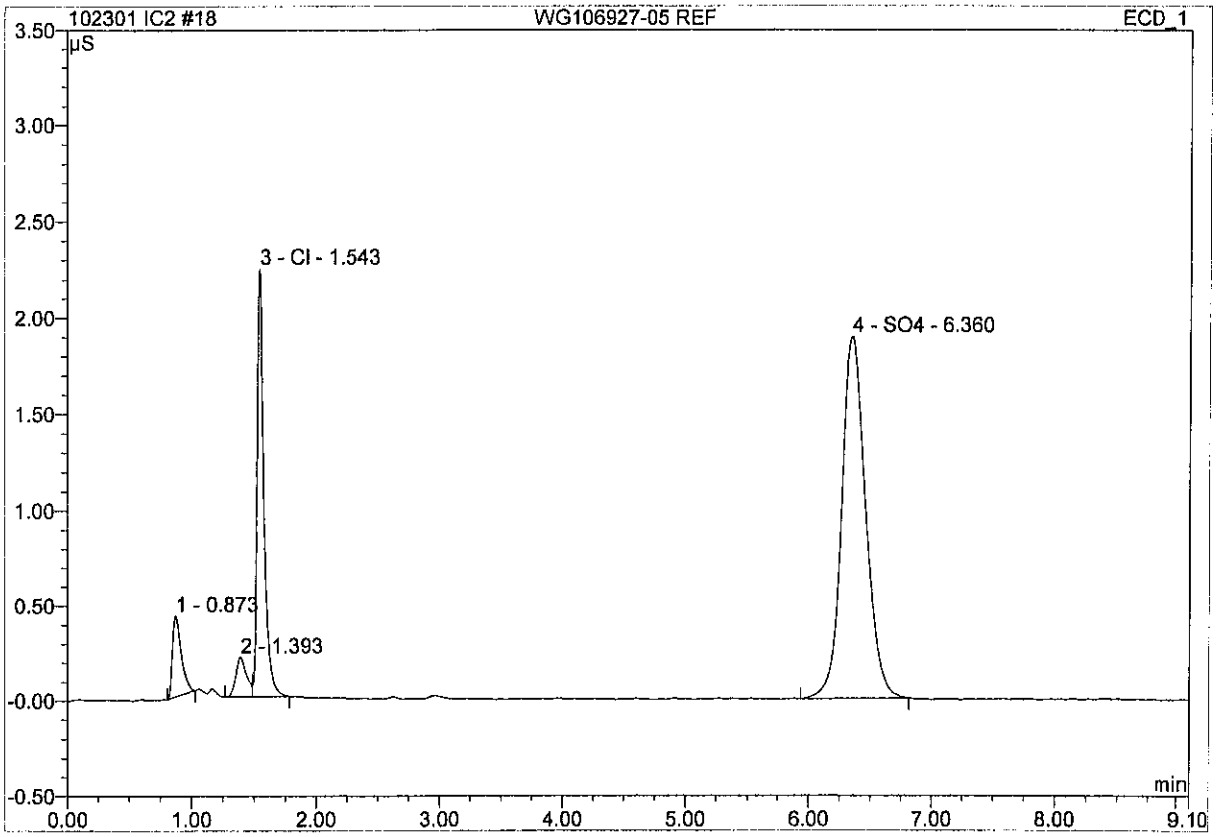


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.440	0.039	4.52	n.a.	BM
2	1.06	F	0.565	0.048	5.51	0.494	M
3	1.39	n.a.	0.181	0.017	1.99	n.a.	M
4	1.55	Cl	5.164	0.316	36.19	3.359	MB
5	2.97	NO3-N	0.222	0.025	2.82	0.196	BMB
6	6.36	SO4	1.740	0.428	48.97	6.739	BMB
Total:			8.312	0.873	100.00	10.788	

18 WG106927-05 REF

1,1 RDC L0110464-04 REF

Sample Name:	**WG106927-05 REF**	*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:	**10/23/2001 15:02**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

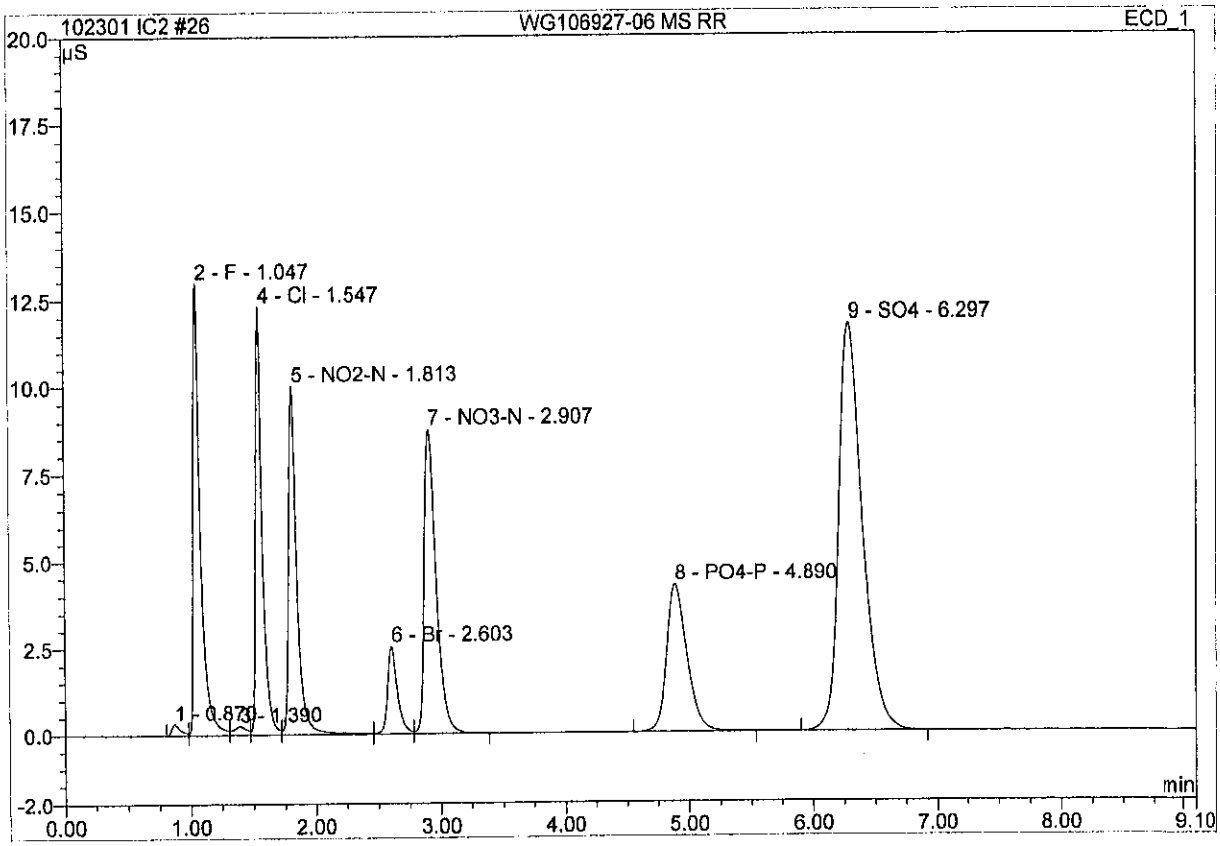


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.424	0.035	5.61	n.a.	BMB
2	1.39	n.a.	0.210	0.021	3.31	n.a.	BM
3	1.54	Cl	2.232	0.141	22.32	1.550	MB
4	6.36	SO4	1.893	0.433	68.77	6.817	BMB
Total:			4.760	0.630	100.00	8.367	

26 WG106927-06 MS RR

1,1 RDC L0110464-05 MS SOS0056-10

Sample Name:	**WG106927-06 MS 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:	**10/23/2001 16:49**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

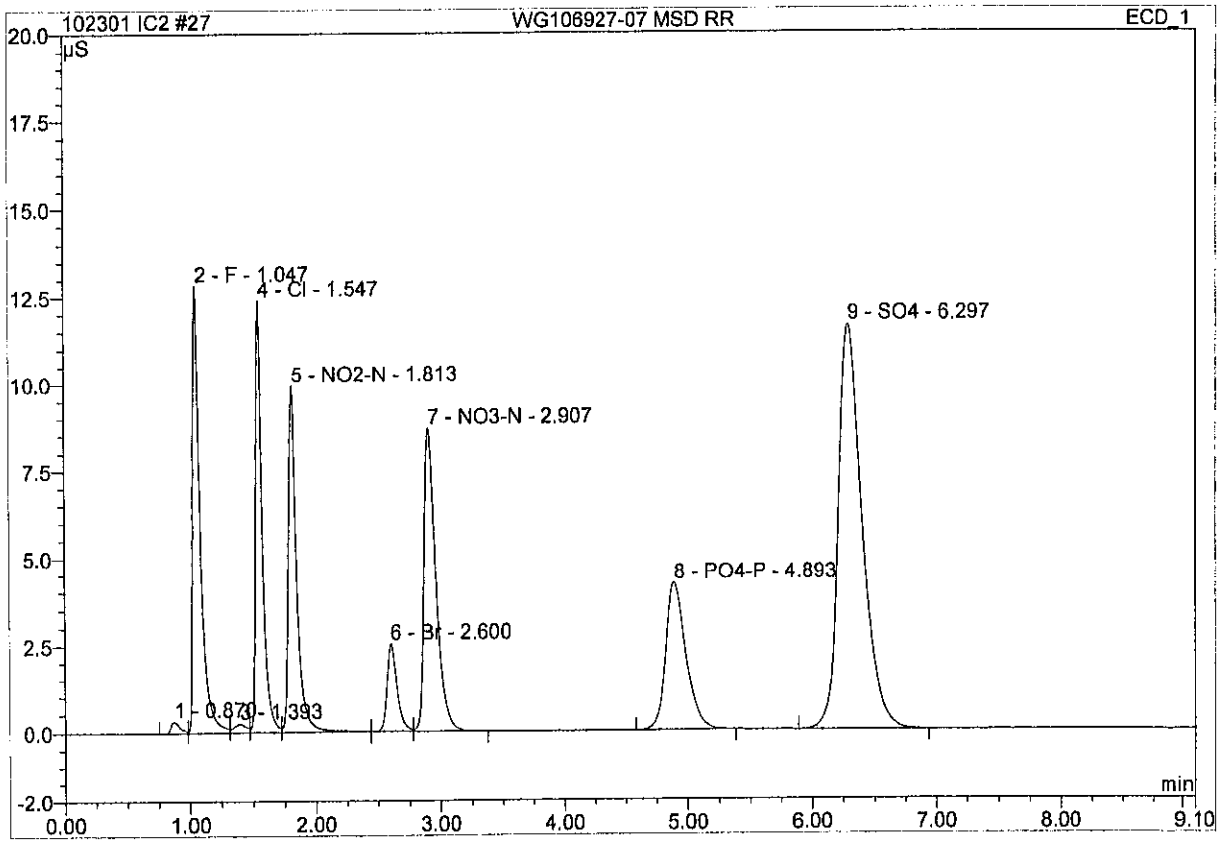


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.324	0.027	0.38	n.a.	BM
2	1.05	F	12.980	0.869	12.24	6.091	M
3	1.39	n.a.	0.254	0.031	0.43	n.a.	M
4	1.55	Cl	12.304	0.743	10.47	7.761	M
5	1.81	NO2-N	10.022	0.779	10.97	3.856	M
6	2.60	Br	2.542	0.242	3.41	6.509	M
7	2.91	NO3-N	8.768	0.970	13.66	4.121	MB
8	4.89	PO4-P	4.247	0.815	11.48	9.932	BMB
9	6.30	SO4	11.727	2.623	36.96	37.053	BMB
Total:			63.168	7.097	100.00	75.324	

27 WG106927-07 MSD RR

1,1 RDC L0110464-06 MSD SOS0056-10

Sample Name:	**WG106927-07 MSD 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:	**10/23/2001 17:00**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

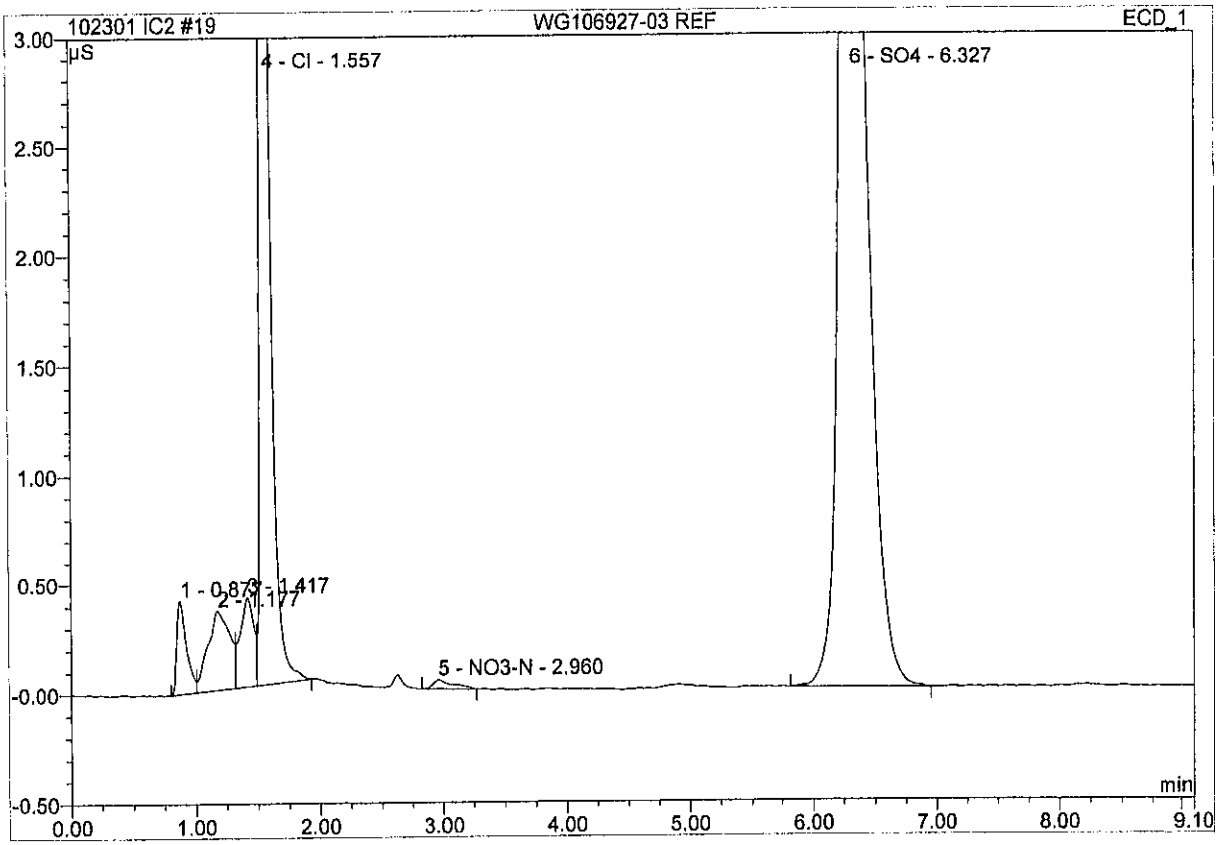


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.314	0.027	0.39	n.a.	BM
2	1.05	F	12.838	0.860	12.25	6.030	M
3	1.39	n.a.	0.251	0.029	0.42	n.a.	M
4	1.55	Cl	12.396	0.747	10.65	7.803	M
5	1.81	NO2-N	9.934	0.761	10.85	3.773	MB
6	2.60	Br	2.505	0.234	3.34	6.301	bM
7	2.91	NO3-N	8.676	0.956	13.62	4.063	MB
8	4.89	PO4-P	4.191	0.796	11.34	9.705	BMB
9	6.30	SO4	11.633	2.606	37.14	36.818	BMB
Total:			62.739	7.016	100.00	74.493	

19 WG106927-03 REF

1,1 RDC L0110464-07 REF

Sample Name:	**WG106927-03 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:	**10/23/2001 15:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

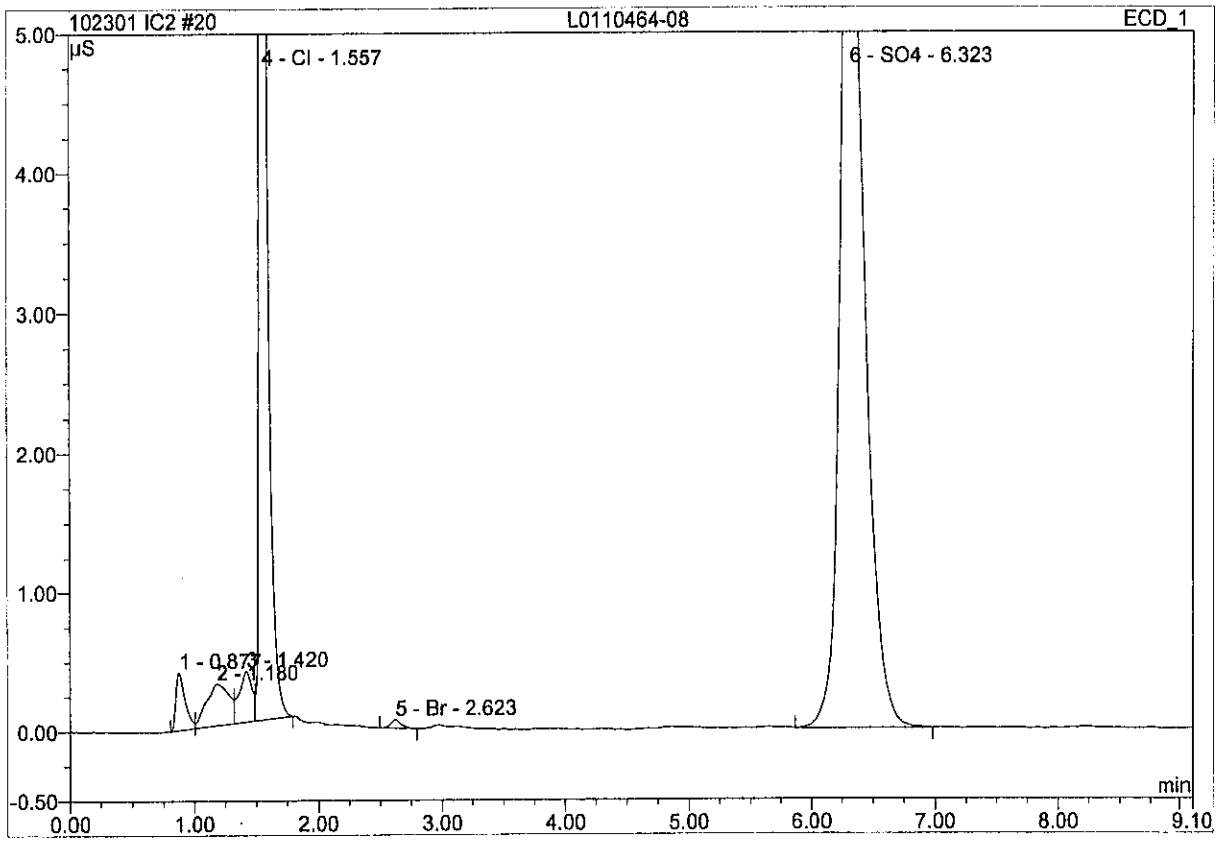


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.424	0.038	1.58	n.a.	BM
2	1.18	n.a.	0.360	0.074	3.10	n.a.	M
3	1.42	n.a.	0.405	0.051	2.14	n.a.	M
4	1.56	Cl	13.401	0.793	33.21	8.282	MB
5	2.96	NO3-N	0.041	0.008	0.32	0.126	BMB
6	6.33	SO4	6.339	1.425	59.65	20.513	BMB
Total:			20.970	2.389	100.00	28.920	

20 L0110464-08

1,1 RDC

Sample Name:	**L0110464-08**	*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:	**10/23/2001 15:25**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

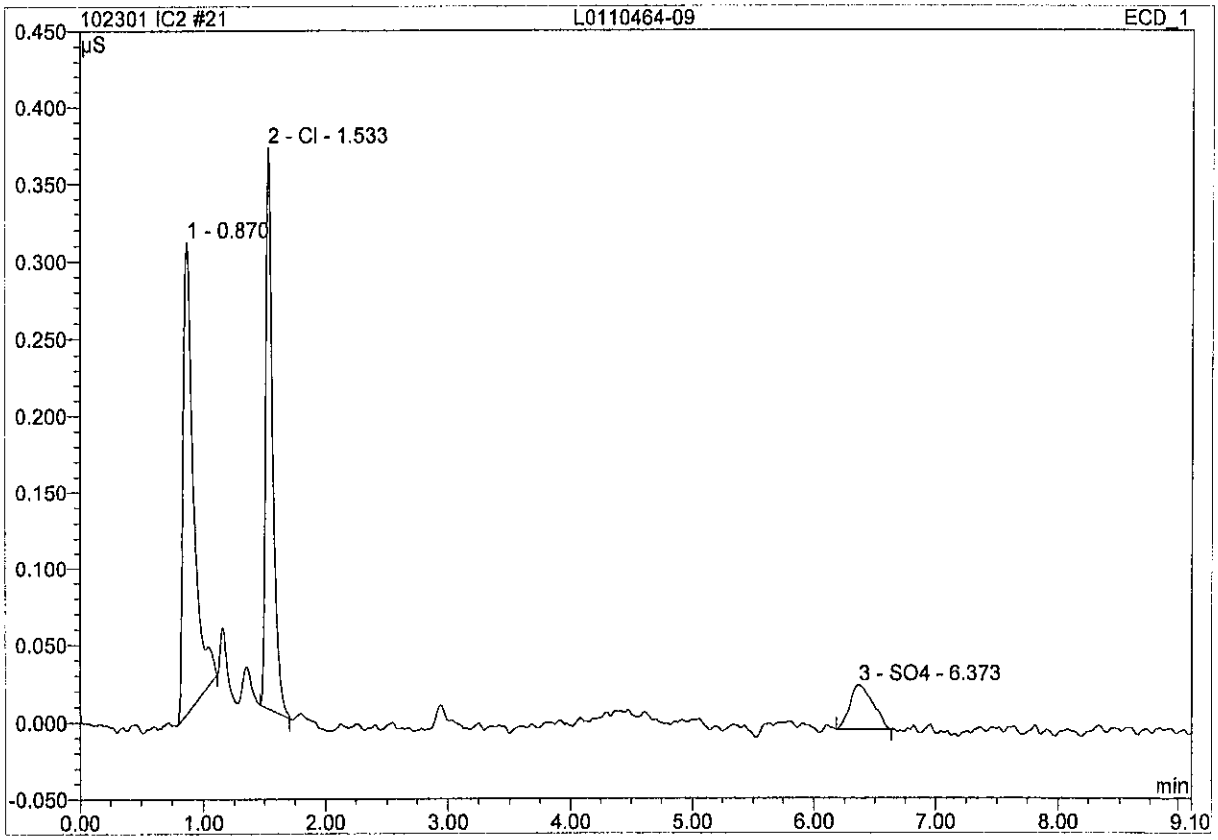


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.418	0.036	1.50	n.a.	BM
2	1.18	n.a.	0.300	0.064	2.67	n.a.	M
3	1.42	n.a.	0.368	0.044	1.83	n.a.	M
4	1.56	Cl	13.607	0.791	32.76	8.254	MB
5	2.62	Br	0.059	0.006	0.24	0.178	BMB
6	6.32	SO4	6.547	1.472	61.00	21.163	BMB
Total:			21.300	2.413	100.00	29.594	

21 L0110464-09

1,1 RDC

Sample Name:	**L0110464-09**	*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:	**10/23/2001 15:37**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

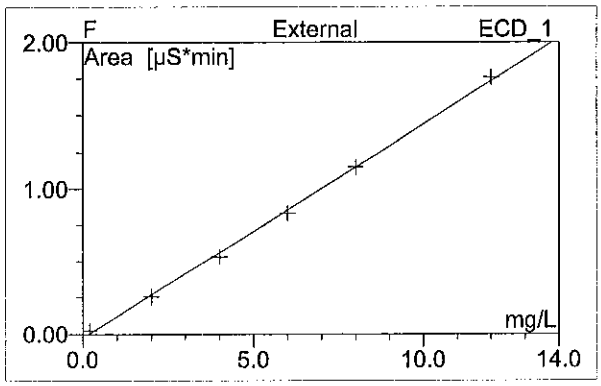


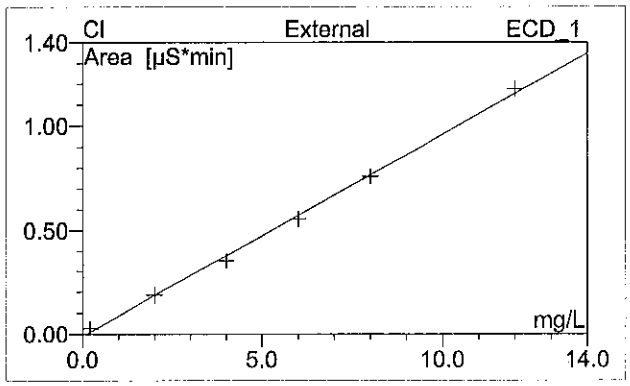
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.307	0.029	48.79	n.a.	BMB
2	1.53	Cl	0.365	0.024	40.88	0.352	BMB
3	6.37	SO4	0.028	0.006	10.33	0.920	BMB
Total:			0.700	0.060	100.00	1.272	

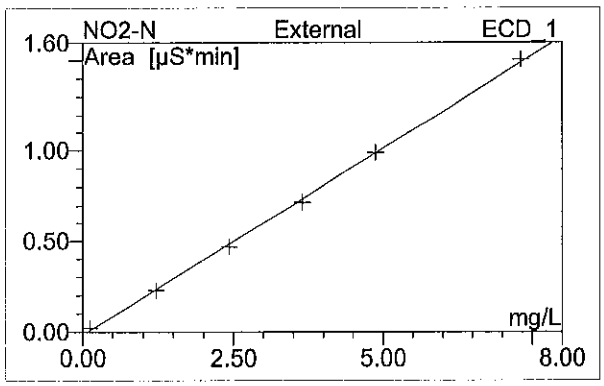
2.4.5.3 Standards Data

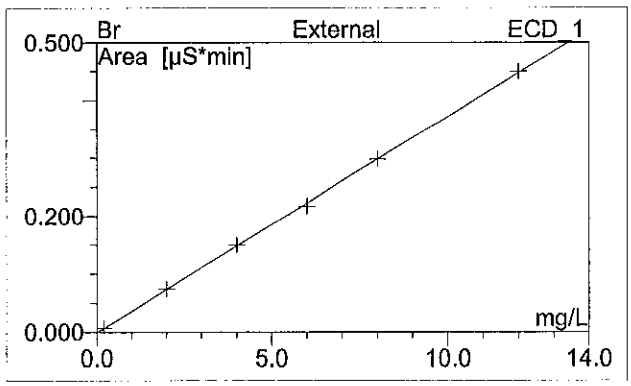
1 ANION LVL #1

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**





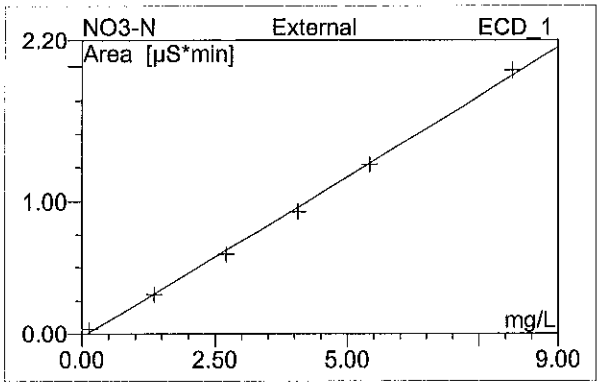


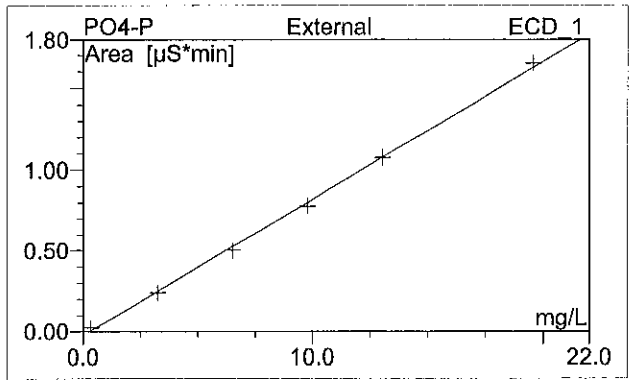


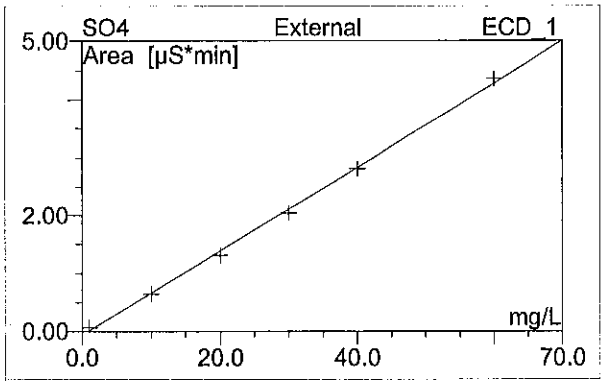
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.87	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.05	F	0LOff	6	99.9418	-0.0244	0.1466	0.0000
3	1.56	Cl	0LOff	6	99.8993	-0.0097	0.0970	0.0000
4	1.85	NO2-N	0LOff	6	99.9659	-0.0151	0.2058	0.0000
5	2.66	Br	0LOff	6	99.9846	-0.0010	0.0374	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**



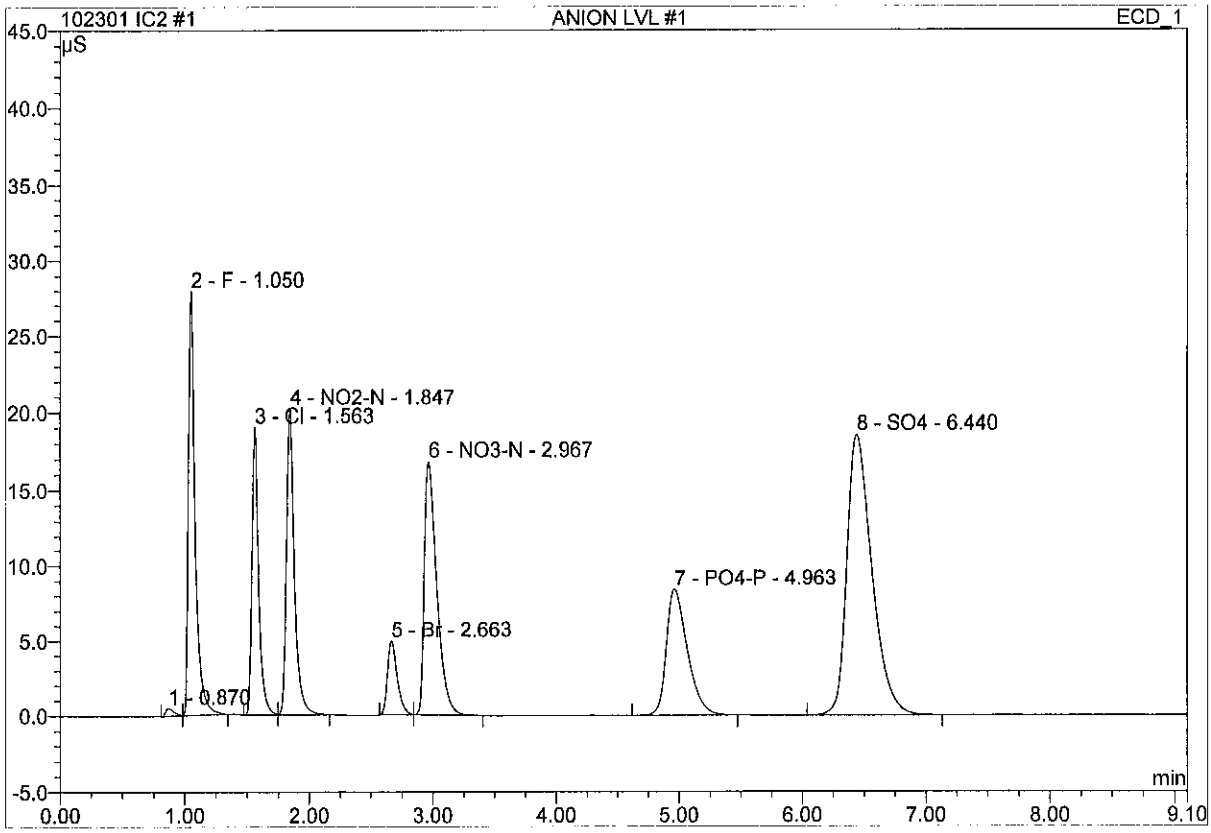




No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.87	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.05	F	0LOff	6	99.9418	-0.0244	0.1466	0.0000
3	1.56	Cl	0LOff	6	99.8993	-0.0097	0.0970	0.0000
4	1.85	NO2-N	0LOff	6	99.9659	-0.0151	0.2058	0.0000
5	2.66	Br	0LOff	6	99.9846	-0.0010	0.0374	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

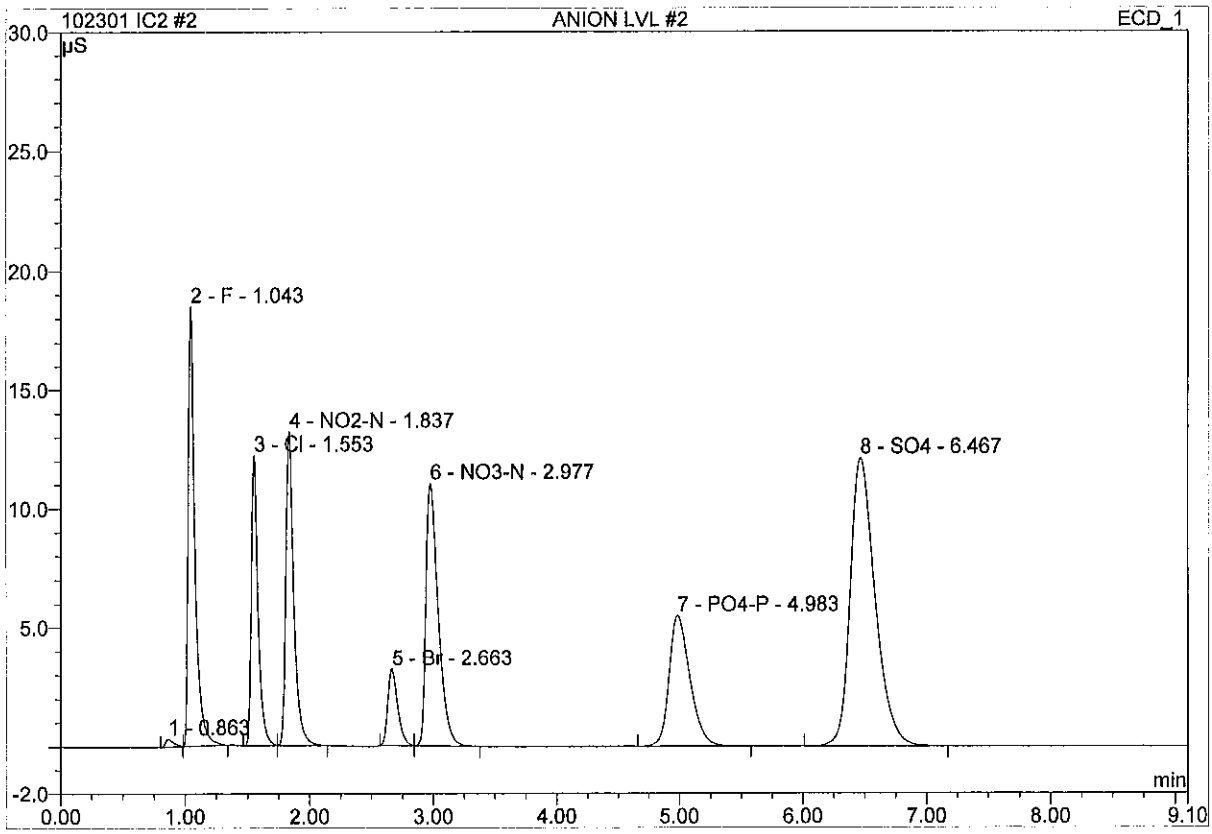
Sample Name:	**ANION LVL #1**	*Injection Volume:*	**25.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/5/2001 11:34**	*Sample Weight:*	**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

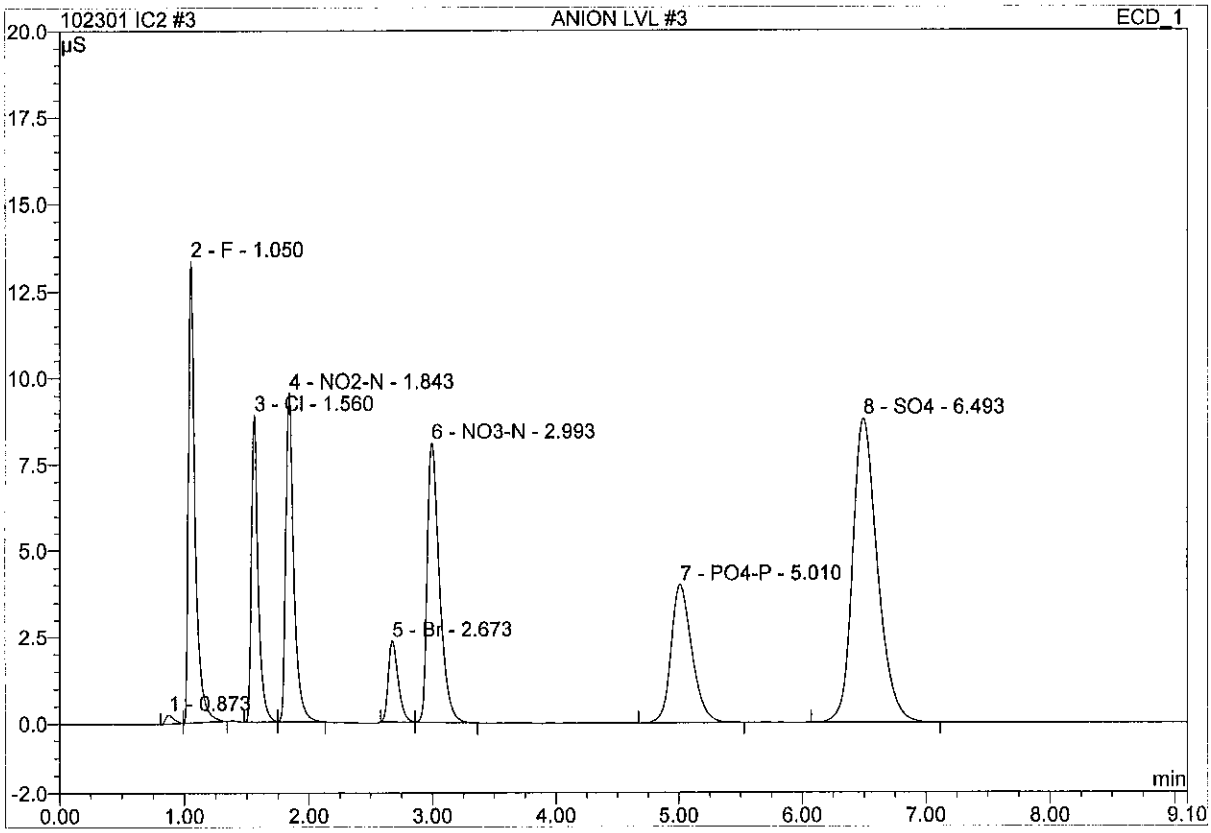
Sample Name:	**ANION LVL #2**	*Injection Volume:*	**25.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/5/2001 11:46**	*Sample Weight:*	**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

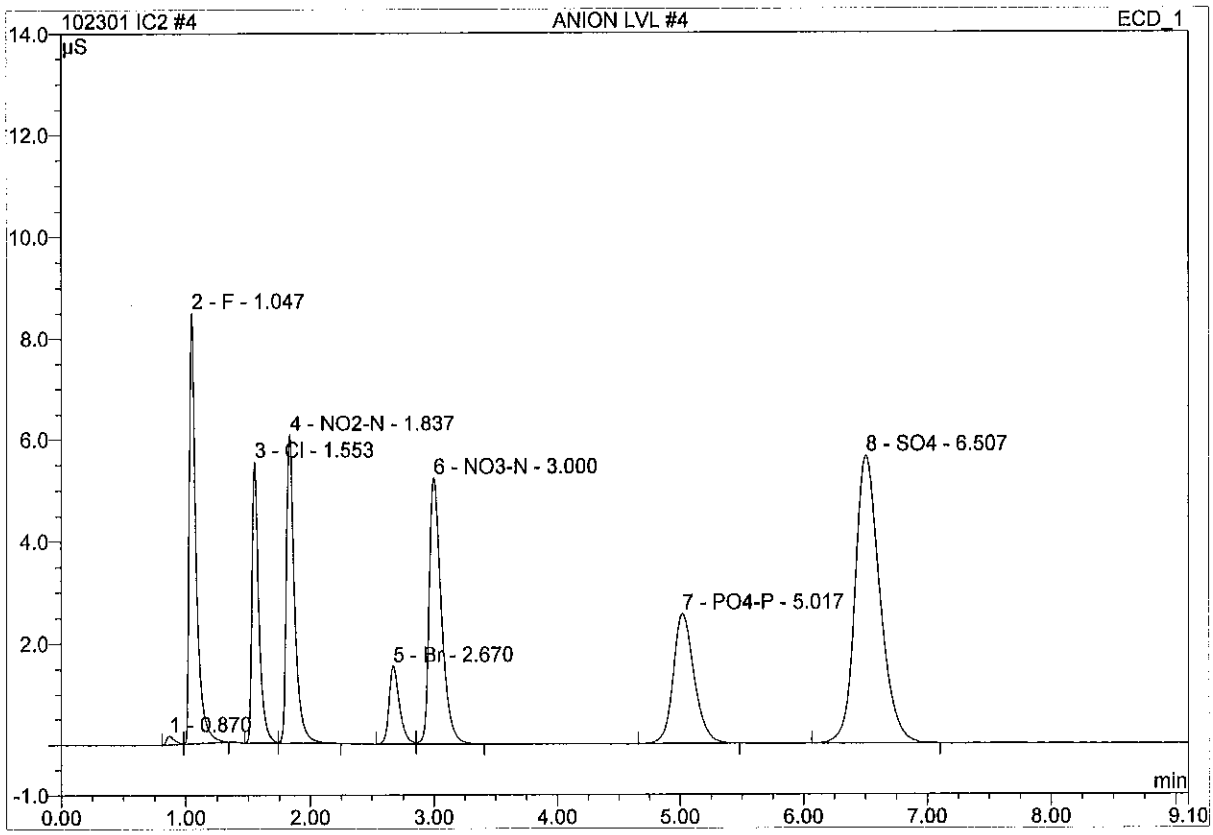
Sample Name:	**ANION LVL #3**	*Injection Volume:*	**25.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/5/2001 11:57**	*Sample Weight:*	**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

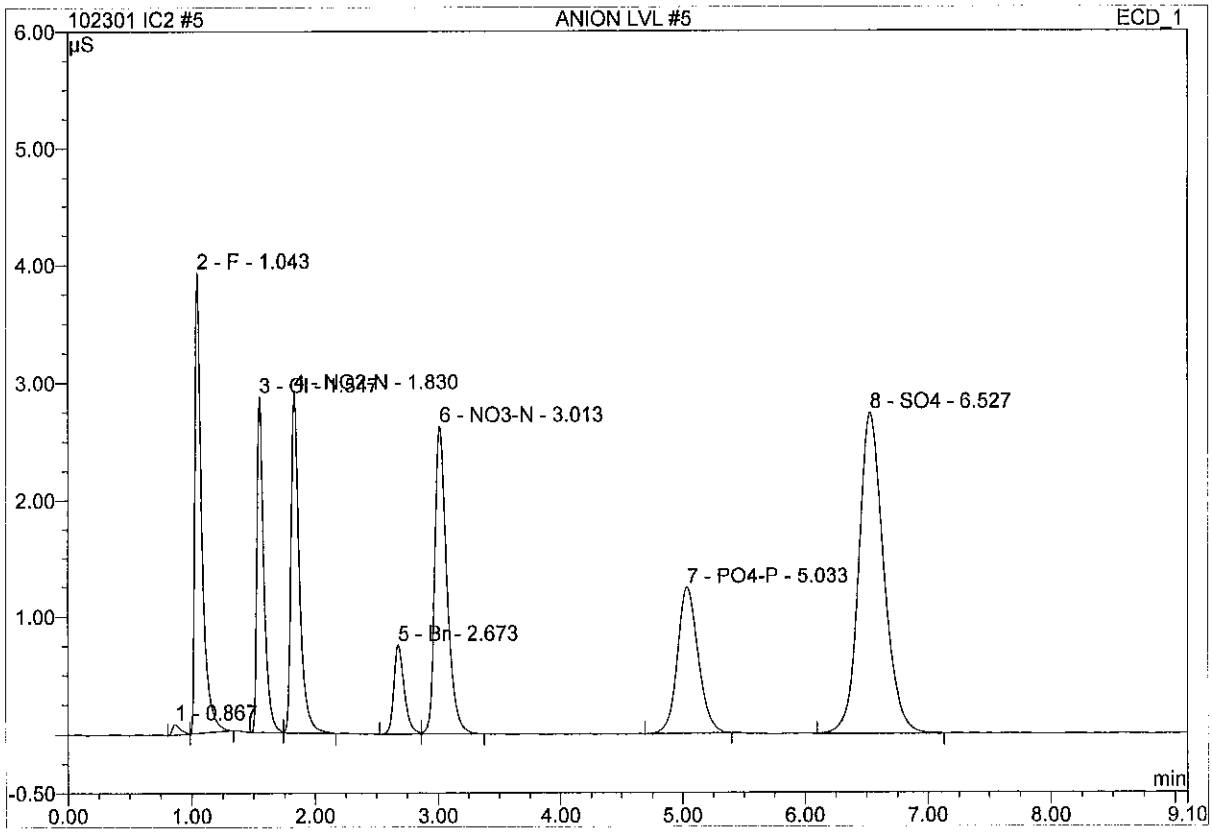
Sample Name:	**ANION LVL #4**	*Injection Volume:*	**25.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/5/2001 12:09**	*Sample Weight:*	**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

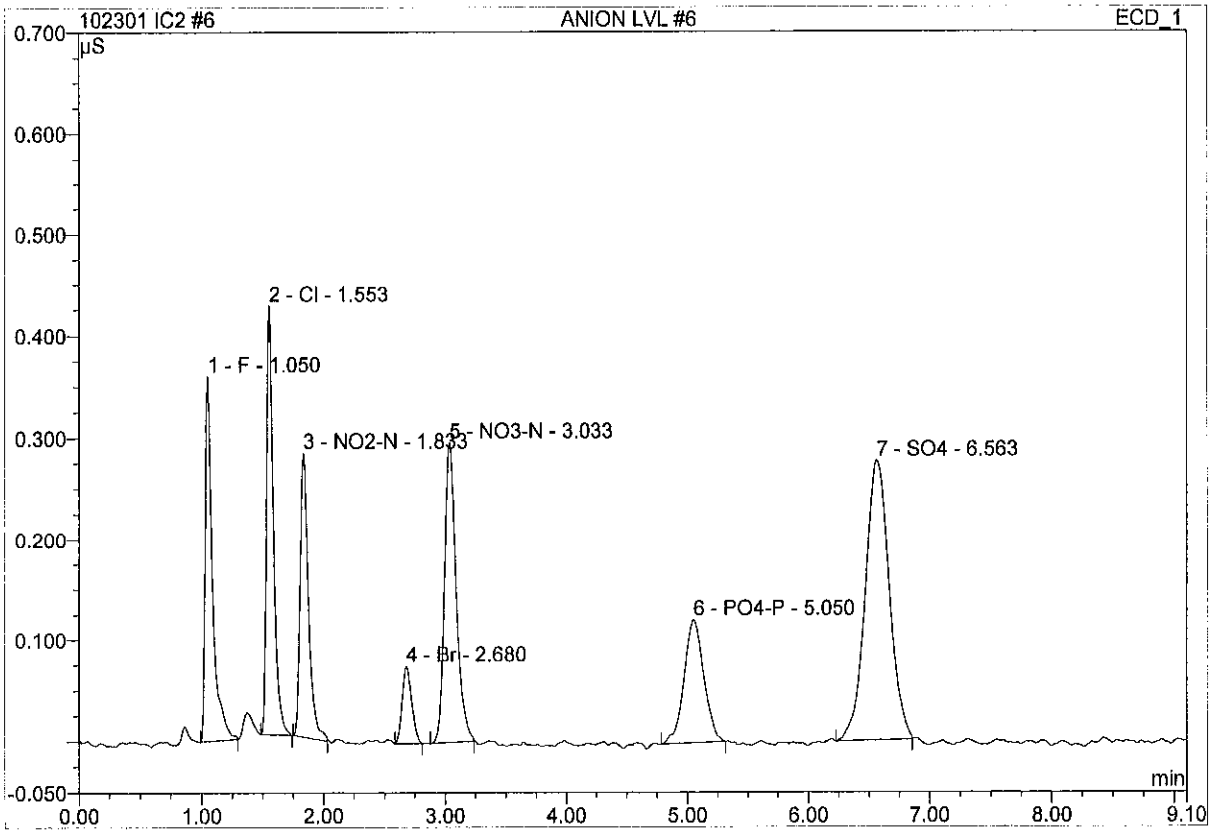
Sample Name:	**ANION LVL #5**	*Injection Volume:*	**25.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/5/2001 12:20**	*Sample Weight:*	**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

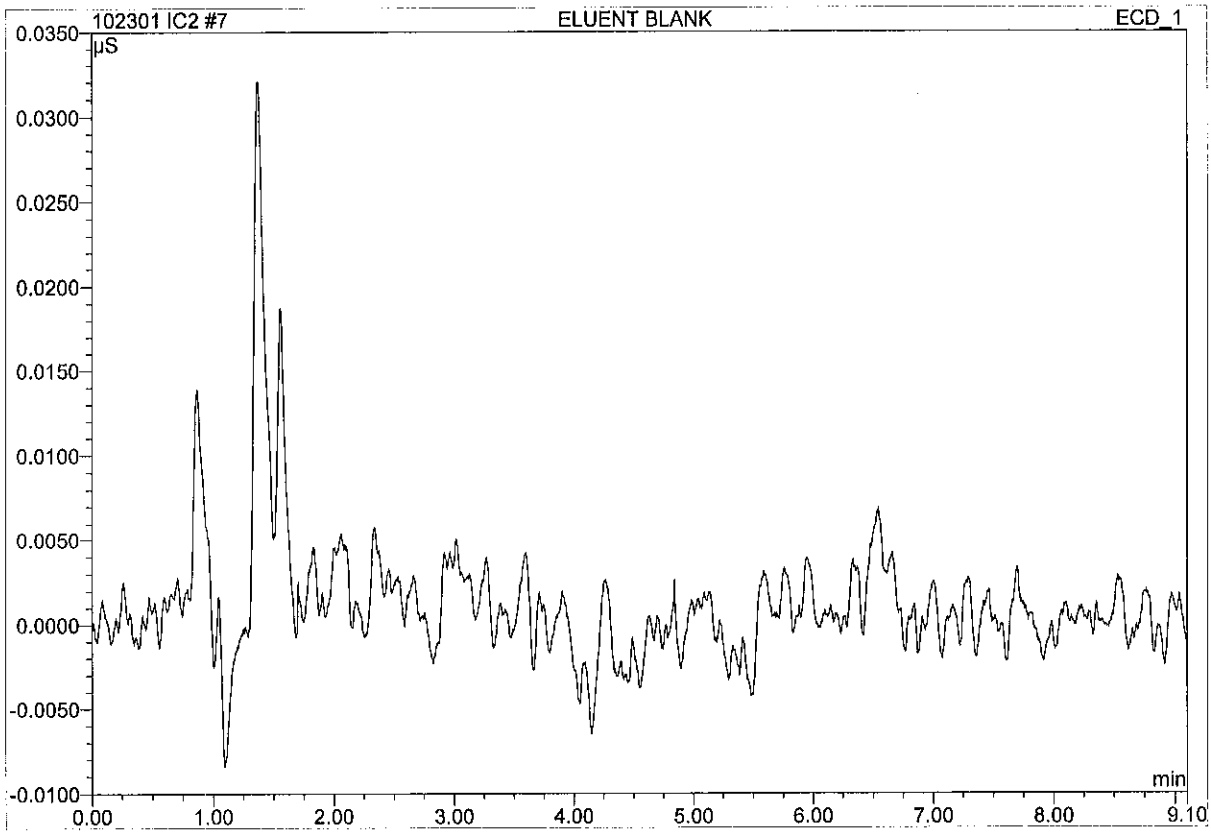
Sample Name:	**ANION LVL #6**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/5/2001 12:32**	*Sample Weight:*	**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	

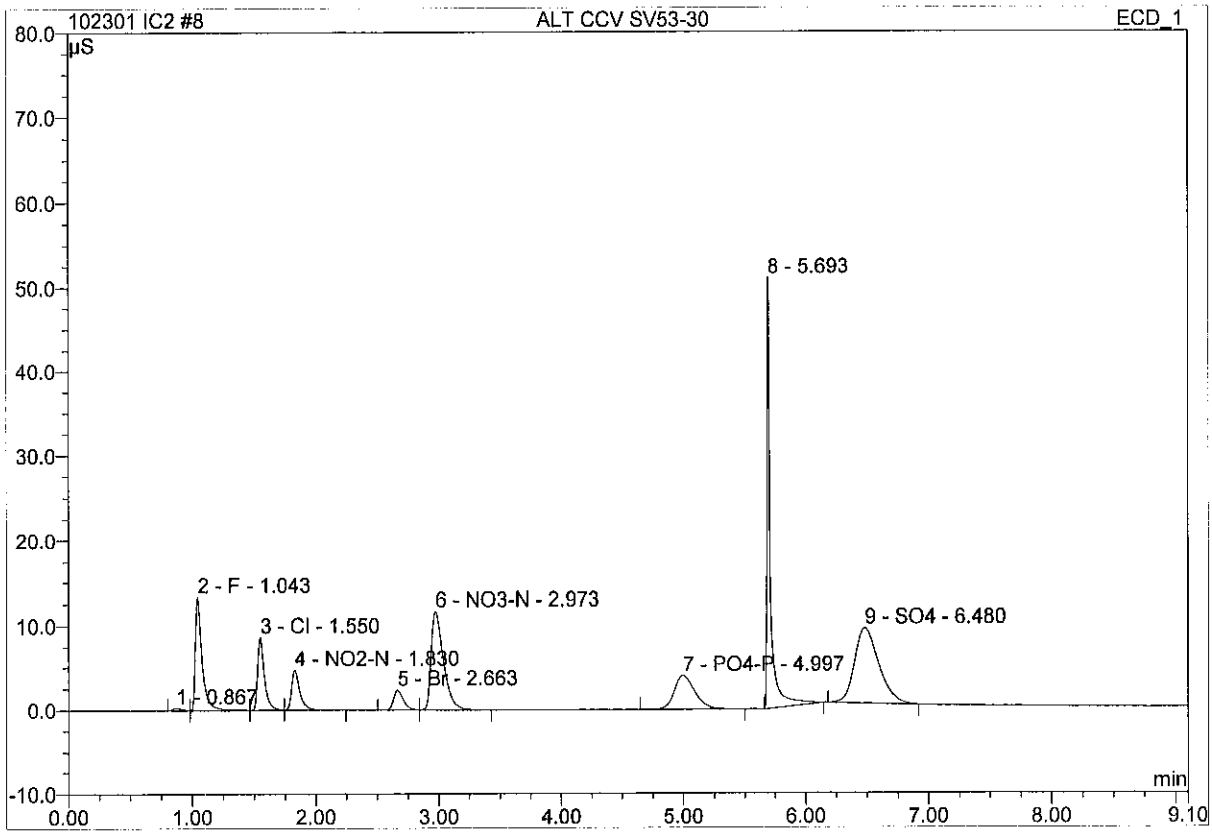
8 ALT CCV SV53-30

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	n.a.	#VALUE!	#VALUE!
Br	6	6.0844	1.41	PASS
NO3-N	4.07	n.a.	#VALUE!	#VALUE!
PO4-P	9.78	9.5120	-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	

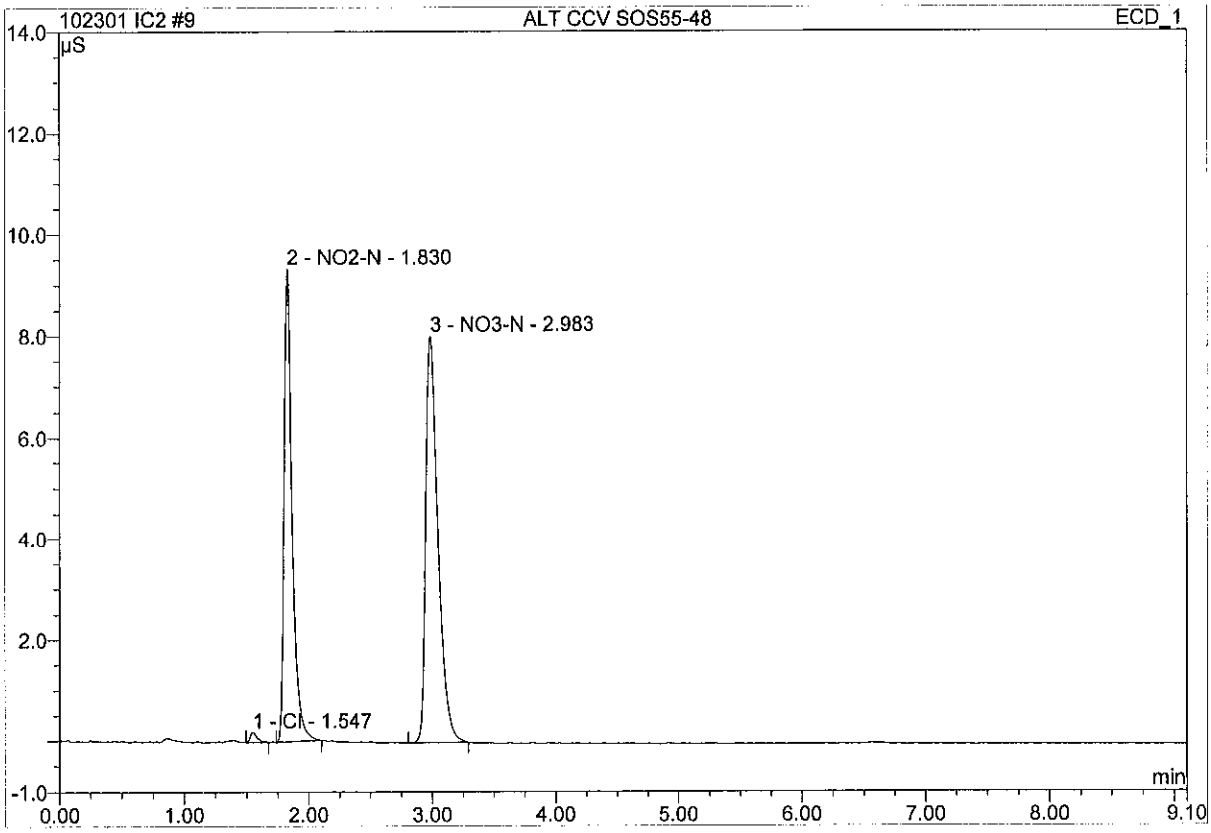
9 ALT CCV SOS55-48

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	n.a.	#VALUE!	#VALUE!
Cl	6	n.a.	#VALUE!	#VALUE!
NO2-N	3.65	3.5063	-3.94	PASS
n.a.	6	n.a.	#VALUE!	#VALUE!
NO3-N	4.07	3.9172	-3.75	PASS
n.a.	9.78	n.a.	#VALUE!	#VALUE!
n.a.	30	n.a.	#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	

12 WG106926-01 CCV

1,1 RDC ANION CCV SOS0056-10 102301

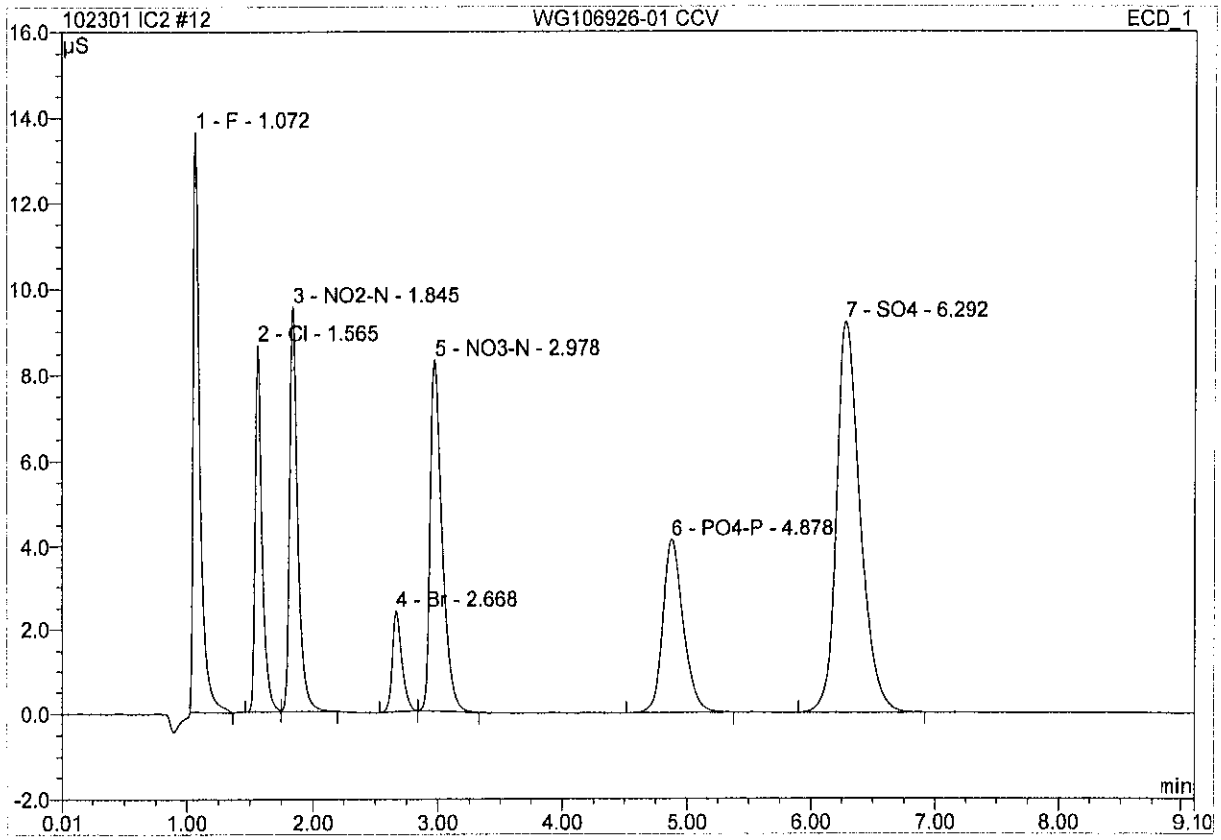
Sample Name:	**WG106926-01 CCV**
Vial Number:	**13**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**10/23/2001 12:35**
Run Time (min):	**9.09**

WG106926-01 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.7499	-4.17	PASS
Cl	6	5.8178	-3.04	PASS
NO2-N	3.65	3.5756	-2.04	PASS
Br	6	5.9184	-1.36	PASS
NO3-N	4.07	3.9165	-3.77	PASS
SO4	9.78	9.5951	-1.89	PASS
SO4	30	29.2808	-2.40	PASS

12 WG106926-01 CCV

1,1 RDC ANION CCV SOS0056-10 102301

Sample Name:	**WG106926-01 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:	**10/23/2001 12:35**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.09**	*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	13.634	0.819	13.46	5.750	BMB
2	1.57	Cl	8.637	0.554	9.12	5.818	BM
3	1.85	NO2-N	9.529	0.721	11.85	3.576	MB
4	2.67	Br	2.386	0.220	3.62	5.918	BMB
5	2.98	NO3-N	8.296	0.920	15.13	3.917	BMB
6	4.88	PO4-P	4.128	0.787	12.93	9.595	BMB
7	6.29	SO4	9.212	2.060	33.88	29.281	BMB
Total:			55.823	6.081	100.00	63.854	

23 WG106926-02 CCV

1,1 RDC ANION CCV SOS0056-10 102301

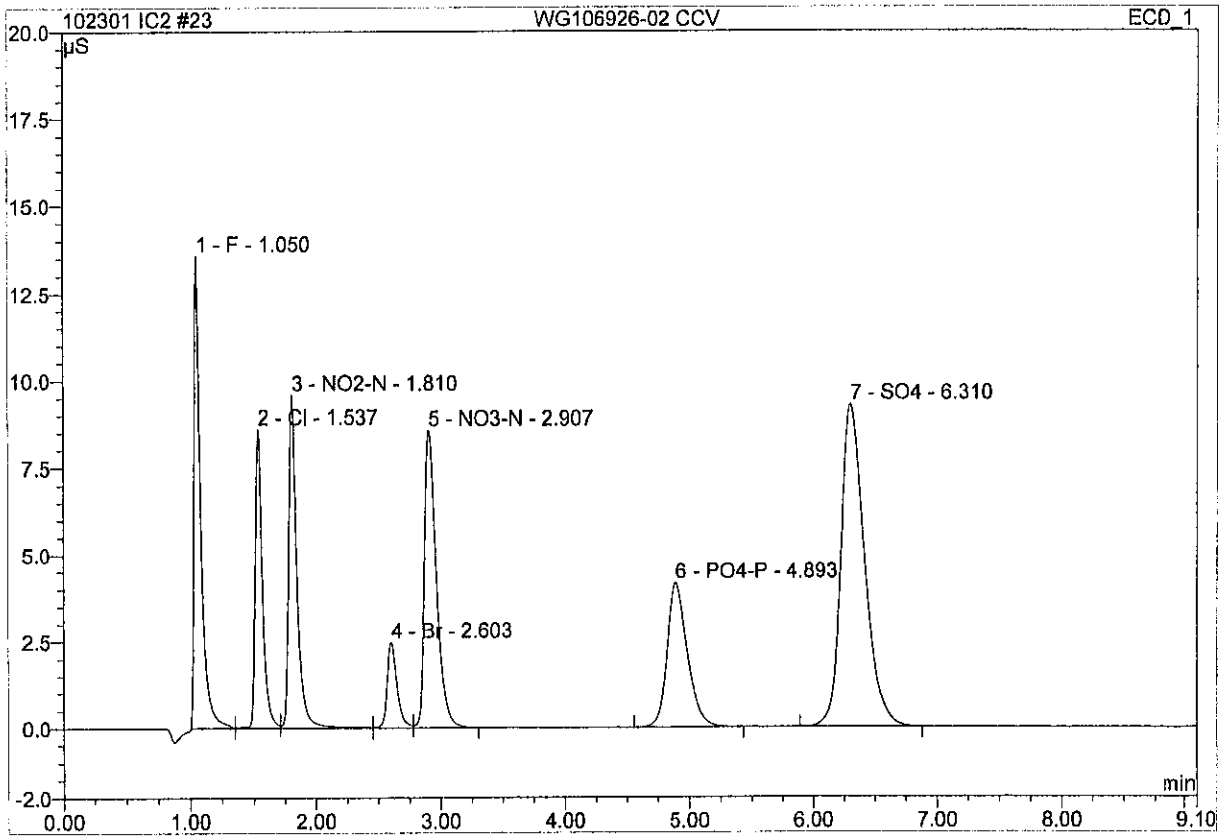
Sample Name:	**WG106926-02 CCV**
Vial Number:	**24**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**10/23/2001 16:00**
Run Time (min):	**9.10**

WG106926-02 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8650	-2.25	PASS
Cl	6	5.9561	-0.73	PASS
NO2-N	3.65	3.7024	1.44	PASS
Br	6	6.2891	4.82	PASS
NO3-N	4.07	4.0174	-1.29	PASS
SO4	9.78	9.6226	-1.61	PASS
SO4	30	29.5188	-1.60	PASS

23 WG106926-02 CCV

1,1 RDC ANION CCV SOS0056-10 102301

Sample Name:	**WG106926-02 CCV**	*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:	**10/23/2001 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	1.05	F	13.570	0.836	13.49	5.865	BM
2	1.54	Cl	8.607	0.568	9.17	5.956	M
3	1.81	NO2-N	9.579	0.747	12.06	3.702	M
4	2.60	Br	2.473	0.234	3.78	6.289	M
5	2.91	NO3-N	8.557	0.945	15.25	4.017	MB
6	4.89	PO4-P	4.143	0.789	12.73	9.623	BMB
7	6.31	SO4	9.280	2.077	33.53	29.519	BMB
Total:			56.209	6.195	100.00	64.971	

28 WG106926-03 CCV

1,1 RDC ANION CCV SOS0056-10 102301

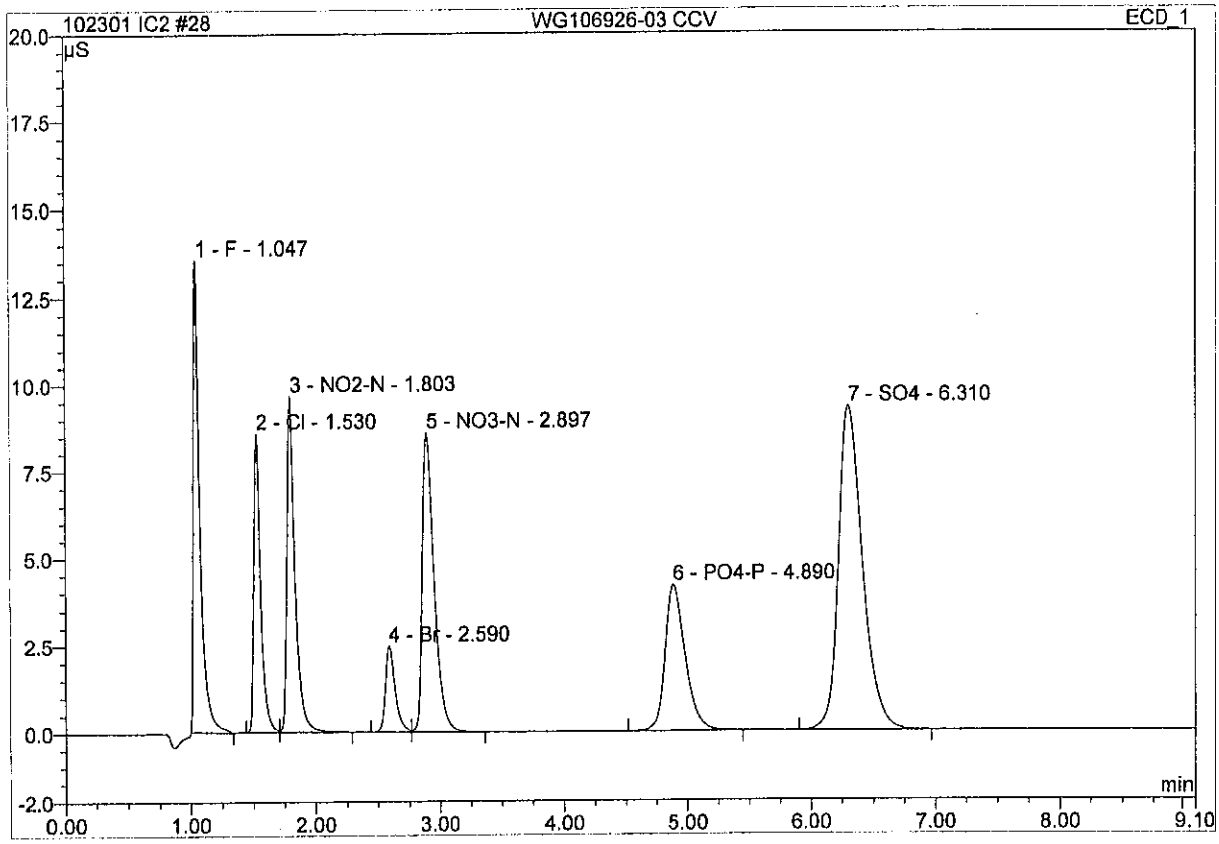
Sample Name:	**WG106926-03 CCV**
Vial Number:	**28**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**10/23/2001 17:12**
Run Time (min):	**9.10**

WG106926-03 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8101	-3.16	PASS
Cl	6	5.8429	-2.62	PASS
NO2-N	3.65	3.6531	0.08	PASS
Br	6	6.2038	3.40	PASS
NO3-N	4.07	4.0319	-0.94	PASS
PO4	9.78	9.6883	-0.94	PASS
SO4	30	29.6560	-1.15	PASS

28 WG106926-03 CCV

1,1 RDC ANION CCV SOS0056-10 102301

Sample Name:	**WG106926-03 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:	**10/23/2001 17:12**	*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	1.05	F	13.529	0.828	13.39	5.810	BMB
2	1.53	Cl	8.575	0.557	9.01	5.843	BM
3	1.80	NO2-N	9.649	0.737	11.92	3.653	MB
4	2.59	Br	2.464	0.231	3.73	6.204	BM
5	2.90	NO3-N	8.600	0.948	15.34	4.032	MB
6	4.89	PO4-P	4.165	0.794	12.85	9.688	BMB
7	6.31	SO4	9.312	2.087	33.77	29.656	BMB
Total:			56.294	6.182	100.00	64.886	

IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

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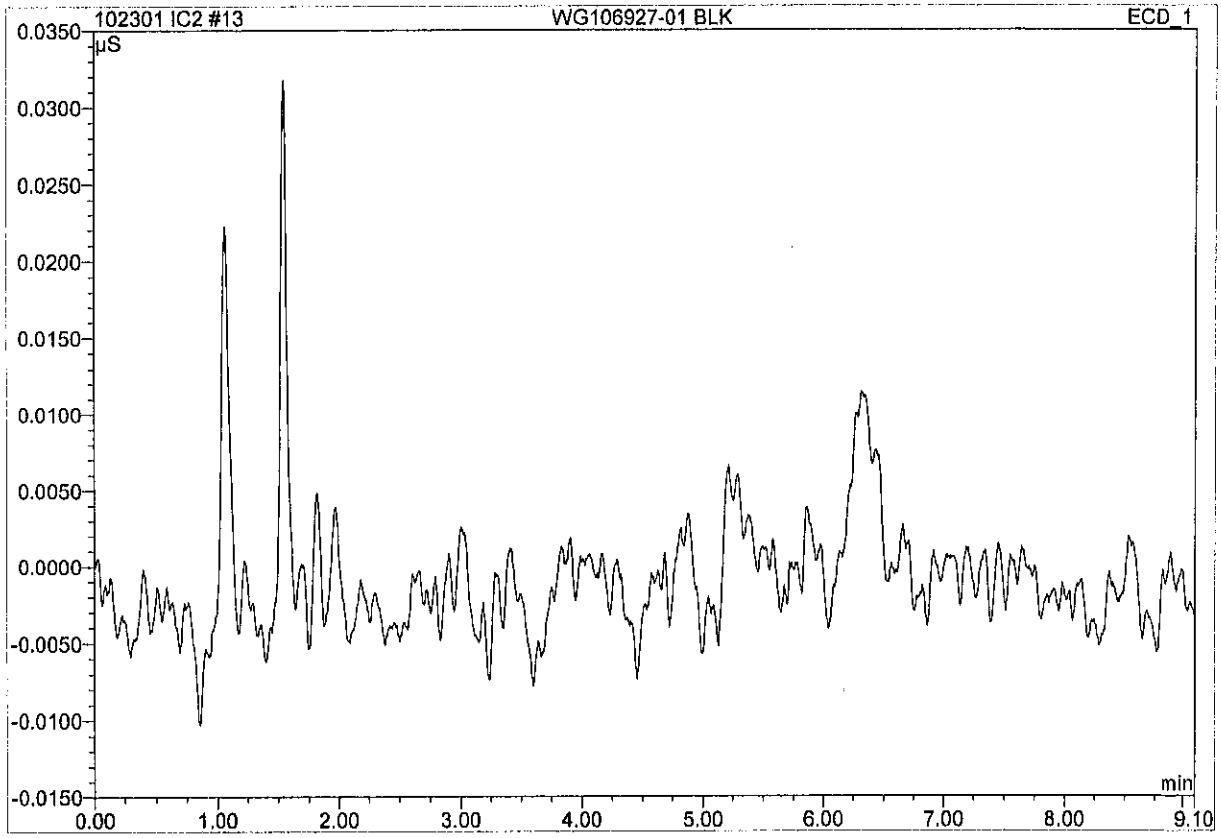
2.4.5.4 Raw QC Data

13 WG106927-01 BLK

1,1 RDC ANION BLANK

Sample Name:	**WG106927-01 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:	**10/23/2001 12:46**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

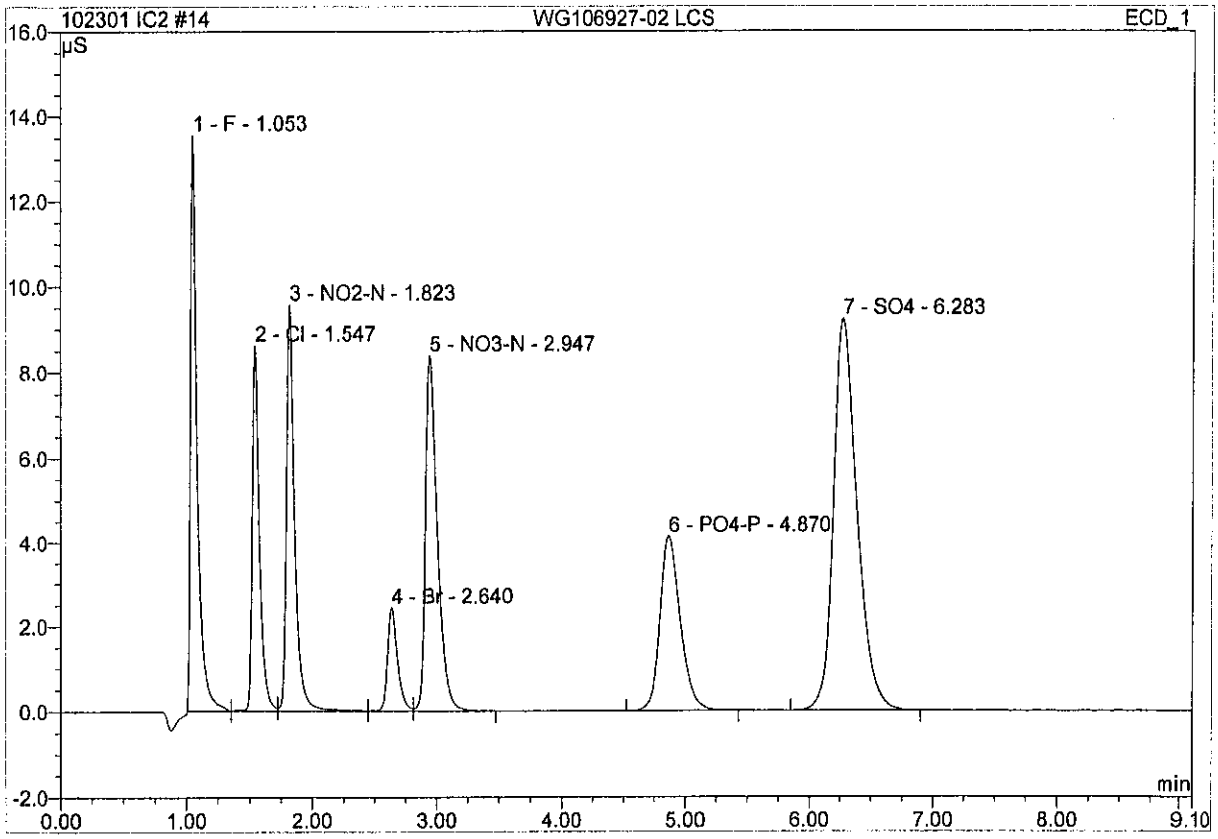


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

14 WG106927-02 LCS

1,1 RDC ANION LCS

Sample Name:	**WG106927-02 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:	**10/23/2001 12:58**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

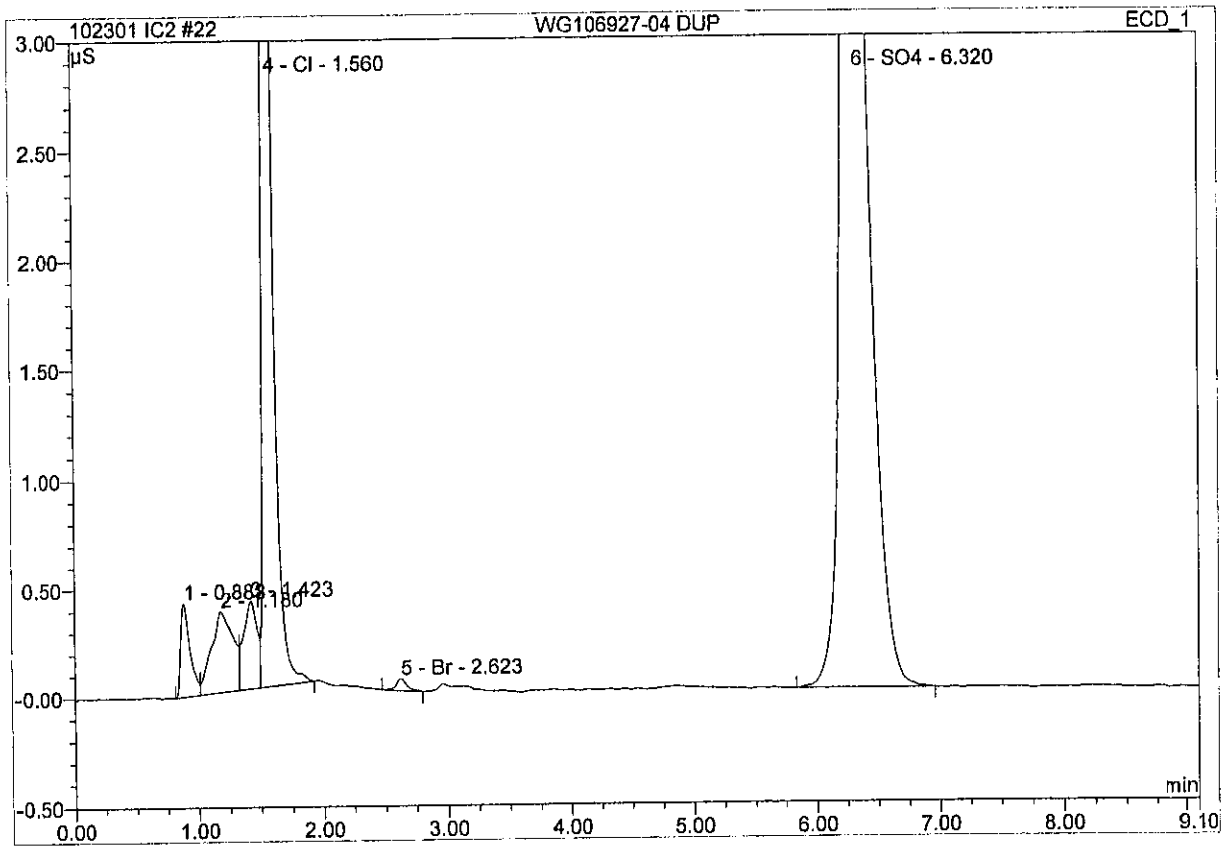


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.05	F	13.548	0.822	13.37	5.770	BM
2	1.55	Cl	8.611	0.561	9.13	5.886	M
3	1.82	NO2-N	9.562	0.740	12.04	3.667	M
4	2.64	Br	2.429	0.232	3.78	6.236	M
5	2.95	NO3-N	8.380	0.939	15.29	3.994	MB
6	4.87	PO4-P	4.136	0.787	12.82	9.605	BMB
7	6.28	SO4	9.222	2.063	33.58	29.317	BMB
Total:			55.888	6.143	100.00	64.476	

22 WG106927-04 DUP

1,1 RDC L0110464-07 DUP

Sample Name:	**WG106927-04 DUP**	*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:	**10/23/2001 15:48**	*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	0.88	n.a.	0.430	0.039	1.62	n.a.	BM
2	1.18	n.a.	0.373	0.076	3.18	n.a.	M
3	1.42	n.a.	0.405	0.051	2.12	n.a.	M
4	1.56	Cl	13.408	0.792	33.24	8.272	MB
5	2.62	Br	0.054	0.006	0.23	0.176	BMB
6	6.32	SO4	6.313	1.421	59.61	20.456	BMB
Total:			20.983	2.384	100.00	28.905	

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 29

Created: 10/23/2001 11:44:15 AM by gsg
Last Update: 10/23/2001 4:57:06 PM by gsg

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	10/23/2001 12:12:27 PM
11	ELUENT BLANK	Unknown	13	25.0	9056	9056	Finished	10/23/2001 12:23:58 PM
12	WG106926-01 CCV	Unknown	13	25.0	9056	9056	Finished	10/23/2001 12:35:28 PM
13	WG106927-01 BLK	Unknown	14	25.0	9056	9056	Finished	10/23/2001 12:46:58 PM
14	WG106927-02 LCS	Unknown	15	25.0	9056	9056	Finished	10/23/2001 12:58:28 PM
15	L0110464-01	Unknown	16	25.0	9056	9056	Finished	10/23/2001 2:28:16 PM
16	L0110464-02	Unknown	17	25.0	9056	9056	Finished	10/23/2001 2:39:46 PM
17	L0110464-03	Unknown	18	25.0	9056	9056	Finished	10/23/2001 2:51:16 PM
18	WG106927-05 REF	Unknown	19	25.0	9056	9056	Finished	10/23/2001 3:02:46 PM
19	WG106927-03 REF	Unknown	20	25.0	9056	9056	Finished	10/23/2001 3:14:16 PM
20	L0110464-08	Unknown	21	25.0	9056	9056	Finished	10/23/2001 3:25:46 PM
21	L0110464-09	Unknown	22	25.0	9056	9056	Finished	10/23/2001 3:37:16 PM
22	WG106927-04 DUP	Unknown	23	25.0	9056	9056	Finished	10/23/2001 3:48:46 PM
23	WG106926-02 CCV	Unknown	24	25.0	9056	9056	Finished	10/23/2001 4:00:16 PM
24	WG106927-06 MS	Unknown	25	25.0	9056	9056	Finished	10/23/2001 4:11:47 PM
25	WG106927-07 MSD	Unknown	26	25.0	9056	9056	Finished	10/23/2001 4:23:16 PM
26	WG106927-06 MS RR	Unknown	25	25.0	9056	9056	Finished	10/23/2001 4:49:01 PM
27	WG106927-07 MSD RR	Unknown	26	25.0	9056	9056	Finished	10/23/2001 5:00:32 PM
28	WG106926-03 CCV	Unknown	28	25.0	9056	9056	Finished	10/23/2001 5:12:02 PM
29	ENDING	Unknown	29	25.0	DX-320 OFF	9056	Finished	10/23/2001 5:23:33 PM

PeakNet © Dionex Corporation, Version 6.30 SP1 Build 587

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Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 29

Created: 10/23/2001 11:44:15 AM by gsg
Last Update: 10/23/2001 4:57:06 PM by gsg

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	WG106926-01 CCV	1.0000		1,1 RDC ANION CCV SOS0056-10 102301
13	WG106927-01 BLK	1.0000		1,1 RDC ANION BLANK
14	WG106927-02 LCS	1.0000		1,1 RDC ANION LCS SOS0056-10
15	L0110464-01	1.0000		1,1 RDC
16	L0110464-02	1.0000		1,1 RDC
17	L0110464-03	1.0000		1,1 RDC
18	WG106927-05 REF	1.0000		1,1 RDC L0110464-04 REF
19	WG106927-03 REF	1.0000		1,1 RDC L0110464-07 REF
20	L0110464-08	1.0000		1,1 RDC
21	L0110464-09	1.0000		1,1 RDC
22	WG106927-04 DUP	1.0000		1,1 RDC L0110464-07 DUP
23	WG106926-02 CCV	1.0000		1,1 RDC ANION CCV SOS0056-10 102301
24	WG106927-06 MS	1.0000		1,1 RDC L0110464-05 MS SOS0056-10
25	WG106927-07 MSD	1.0000		1,1 RDC L0110464-06 MSD SOS0056-10
26	WG106927-06 MS RR	1.0000		1,1 RDC L0110464-05 MS SOS0056-10
27	WG106927-07 MSD RR	1.0000		1,1 RDC L0110464-06 MSD SOS0056-10
28	WG106926-03 CCV	1.0000		1,1 RDC ANION CCV SOS0056-10 102301
29	ENDING	1.0000		

OK ✓ RR RR ✓

RDC 10/23/01
GSG 10/24/01
PR 10/24/01

PeakNet © Dionex Corporation, Version 6.30 SP1 Build 587

Analysis Date/Time 10/23/01 1102 Instrument ID IC2 Column ID IG4A-SC / CS4A-SC Data Subdirectory 0230 1
Analyst Initials RDC SOP # IC01 Rev. # ✓ 9056 SOP # IC02 Rev. # 314.0

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 1218 PSI.
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

Action Taken: _____

Comments

Reviewed By: CSC 10/24/01 10/24/01

KEMRON Report L0111253

Prepared for CCI

Work ID: NAS Cecil Field Building 9

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1.0 Summary Report

1.1 Laboratory Report

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KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

L0111253

CHAIN OF CUSTODY:

The chain of custody number was 149152-176 .

SHIPMENT CONDITIONS:

The chain of custody form was received sealed in a cooler. The cooler temperatures were 0, 0, 0, 0 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 Lepse DATE: 11/15/01

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0111253

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: Samples 01, 02, 07and 08 yielded recovery results above the upper control limits. Reanalysis confirmed the surrogate outliers. All other 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: 11/26/01

Rev. 6/00

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0111253

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: 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: 1/22/01

Rev. 7/14/00

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0111253

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 percent difference between the MS and MSD exceeded the advisory limit for dibenz(a,h)anthracene, benzo(g,h,i)perylene, and indeno(1,2,3-cd)pyrene.

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: 11/27/01

Rev. 7/14/00

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REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L0111253

METHOD

Analysis: SW-846 9056

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: Re-analyses of reference sample and MSD were made after samples were out of hold.

PREPARATION: All acceptance criteria were met.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : Continuing calibration for PO4-P failed high for the mid and end run check standards. PO4-P had not been detected in any of the samples analyzed before the failing mid-run standard and, therefore, they were not re-analyzed. The duplicate, the MS, and the MSD required re-analysis. The instrument was re-calibrated and a new sample batch was analyzed, including blank, LCS, reference and duplicate, and reference and MS/MSD. The re-analysis of the reference and its MSD were done out of holding time.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The reference and its MSD were re-analyzed out of holding time due to continuing calibration problems with PO4-P which required re-calibration. All other 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: 1/28/1

Rev. 7/14/00

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : 8021

AAB # : WG108255

Lab Name : Kemron Environmental Services

Contract # : N62467-98-D-0995

Base/Command : bldgs 9 and 46

Prime Contractor : CCI

Field sample ID	Lab Sample ID
002-CEF9-2S-Q4-01-11	L0111253-01
002-CEF9-3S-Q4-01-11	L0111253-02
002-CEF9-5S-Q4-01-11	L0111253-03
002-CEF9-7D-Q4-01-11	L0111253-04
002-CEF9-7D-Q4-01-11	L0111253-05
002-CEF9-7D-Q4-01-11	L0111253-06
002-CEF9-9S-Q4-01-11	L0111253-07
002-9DUP-Q4-01-1	L0111253-08
002-9EQB-Q4-01-1	L0111253-09
002-9TB-Q4-01-1	L0111253-10

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: _____ Name: David L. Bumgarner

Date: 21-NOV-01 Title: Laboratory Director

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG108255

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

Field Sample ID: 002-CEF9-2S-Q4-01-11 Lab Sample ID: L0111253-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 09-NOV-2001

Date Received: 14-NOV-01 Date Extracted: Date Analyzed: 15-NOV-01 09:48

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	2.40	1	
Ethylbenzene	0.500	1.0	14.0	1	
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	2.70	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	225	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 # : WG108255

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

Field Sample ID: 002-CEF9-2S-Q4-01-11 Lab Sample ID: L0111253-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 09-NOV-2001

Date Received: 14-NOV-01 Date Extracted: Date Analyzed: 15-NOV-01 15:55

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	1.80	1	
Ethylbenzene	0.500	1.0	12.0	1	
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	0.720	1	J
Xylenes, Total	0.500	1.0	5.70	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	194	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 # : WG108255

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

Field Sample ID: 002-CEF9-3S-Q4-01-11 Lab Sample ID: L0111253-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 09-NOV-2001

Date Received: 14-NOV-01 Date Extracted: Date Analyzed: 15-NOV-01 10:21

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	15.0	1	
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	5.90	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.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG108255

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

Field Sample ID: 002-CEF9-3S-Q4-01-11 Lab Sample ID: L0111253-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 09-NOV-2001

Date Received: 14-NOV-01 Date Extracted: Date Analyzed: 15-NOV-01 16:28

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	12.0	1	
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	5.20	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	142	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 # : WG108255

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

Field Sample ID: 002-CEF9-5S-Q4-01-11 Lab Sample ID: L0111253-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 09-NOV-2001

Date Received: 14-NOV-01 Date Extracted: Date Analyzed: 15-NOV-01 10:53

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

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG108255

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

Field Sample ID: 002-CEF9-7D-Q4-01-11 Lab Sample ID: L0111253-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 09-NOV-2001

Date Received: 14-NOV-01 Date Extracted: Date Analyzed: 15-NOV-01 11:26

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	103	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 # : WG108255

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

Field Sample ID: 002-CEF9-7D-Q4-01-11 Lab Sample ID: L0111253-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 09-NOV-2001

Date Received: 14-NOV-01 Date Extracted: Date Analyzed: 15-NOV-01 11:59

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	19.0	1	
Ethylbenzene	0.500	1.0	19.0	1	
Methyl tert-butyl ether	0.500	1.0	20.0	1	
Toluene	0.500	1.0	19.0	1	
Xylenes, Total	0.500	1.0	56.0	1	

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.

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG108255

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

Field Sample ID: 002-CEF9-7D-Q4-01-11 Lab Sample ID: L0111253-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 09-NOV-2001

Date Received: 14-NOV-01 Date Extracted: Date Analyzed: 15-NOV-01 12:32

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	19.0	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	19.0	1	
Xylenes, Total	0.500	1.0	56.0	1	

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 # : WG108255

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

Field Sample ID: 002-CEF9-9S-04-01-11 Lab Sample ID: L0111253-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 09-NOV-2001

Date Received: 14-NOV-01 Date Extracted: Date Analyzed: 15-NOV-01 13:04

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	6.80	1	
Ethylbenzene	0.500	1.0	54.0	1	
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	2.80	1	
Xylenes, Total	0.500	1.0	44.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	205	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 # : WG108255

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

Field Sample ID: 002-9DUP-Q4-01-1 Lab Sample ID: L0111253-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 09-NOV-2001

Date Received: 14-NOV-01 Date Extracted: Date Analyzed: 15-NOV-01 14:18

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	7.20	1	
Ethylbenzene	0.500	1.0	60.0	1	
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	3.20	1	
Xylenes, Total	0.500	1.0	53.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	204	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 # : WG108255

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

Field Sample ID: 002-9EQB-Q4-01-1 Lab Sample ID: L0111253-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 09-NOV-2001

Date Received: 14-NOV-01 Date Extracted: Date Analyzed: 15-NOV-01 14:50

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	100	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 # : WG108255

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

Field Sample ID: 002-9TB-Q4-01-1 Lab Sample ID: L0111253-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 09-NOV-2001

Date Received: 14-NOV-01 Date Extracted: Date Analyzed: 15-NOV-01 15:23

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.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **8021**

AAB # : **WG108360**

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-CEF9-9S-Q4-01-11	L0111253-07
002-9DUP-Q4-01-1	L0111253-08

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: **21-NOV-01**

Title: **Laboratory Director**

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8021 Preparatory Method: 8021B AAB # : WG108360

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

Field Sample ID: 002-CEF9-9S-Q4-01-11 Lab Sample ID: L0111253-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 09-NOV-2001

Date Received: 14-NOV-01 Date Extracted: Date Analyzed: 16-NOV-01 11:31

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	6.30	1	
Ethylbenzene	0.500	1.0	53.0	1	
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	2.50	1	
Xylenes, Total	0.500	1.0	39.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	189	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 # : WG108360

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

Field Sample ID: 002-9DUP-Q4-01-1 Lab Sample ID: L0111253-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HP11 09-NOV-2001

Date Received: 14-NOV-01 Date Extracted: Date Analyzed: 16-NOV-01 12:04

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	6.70	1	
Ethylbenzene	0.500	1.0	53.0	1	
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	2.80	1	
Xylenes, Total	0.500	1.0	45.0	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	205	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 # : WG108263

Contract # : N62467-98-D-0995

Prime Contractor : CCI

Field sample ID	Lab Sample ID
002-CEF9-2S-Q4-01-11	L0111253-01
002-CEF9-3S-Q4-01-11	L0111253-02
002-CEF9-5S-Q4-01-11	L0111253-03
002-CEF9-7D-Q4-01-11	L0111253-04
002-CEF9-7D-Q4-01-11	L0111253-05
002-CEF9-7D-Q4-01-11	L0111253-06
002-CEF9-9S-Q4-01-11	L0111253-07
002-9DUP-Q4-01-1	L0111253-08
002-9EQB-Q4-01-1	L0111253-09

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: 21-NOV-01

Title: Laboratory Director

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG108263

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

Field Sample ID: 002-CEF9-28-Q4-01-11 Lab Sample ID: L0111253-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 16-NOV-2001

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 16-NOV-01 17:30

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	64.3	49 - 174	

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\3510C AAB # : WG108263

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

Field Sample ID: 002-CEF9-3S-04-01-11 Lab Sample ID: L0111253-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 16-NOV-2001

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 16-NOV-01 17:45

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	263	530	500	1.05	J

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	81.2	49 - 174	

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\3510C AAB # : WG108263

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

Field Sample ID: 002-CEF9-5S-Q4-01-11 Lab Sample ID: L0111253-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 16-NOV-2001

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 16-NOV-01 18:01

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	56.7	49 – 174	

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\3510C AAB # : WG108263

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

Field Sample ID: 002-CEF9-7D-04-01-11 Lab Sample ID: L0111253-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 16-NOV-2001

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 16-NOV-01 18:17

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	86.7	49 - 174	

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\3510C AAB # : WG108263

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

Field Sample ID: 002-CEF9-7D-Q4-01-11 Lab Sample ID: L0111253-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 16-NOV-2001

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 16-NOV-01 18:32

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	90.1	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 # : WG108263

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

Field Sample ID: 002-CEF9-7D-Q4-01-11 Lab Sample ID: L0111253-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 16-NOV-2001

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 16-NOV-01 18:48

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	265	530	2500	1.06	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	86.3	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 # : WG108263

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

Field Sample ID: 002-CEF9-9S-Q4-01-11 Lab Sample ID: L0111253-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 19-NOV-2001

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 20-NOV-01 10:25

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	263	530	1700	1.05	

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.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG108263

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

Field Sample ID: 002-9DUP-Q4-01-1 Lab Sample ID: L0111253-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 19-NOV-2001

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 20-NOV-01 10:40

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	265	530	1900	1.06	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	114	49 - 174	

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\3510C AAB # : WG108263

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

Field Sample ID: 002-9EQB-Q4-01-1 Lab Sample ID: L0111253-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 16-NOV-2001

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 16-NOV-01 20:05

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	285	570	285	1.14	ND

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	86.1	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 # : **WG108266**

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

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF9-2S-Q4-01-11	L0111253-01
002-CEF9-3S-Q4-01-11	L0111253-02
002-CEF9-5S-Q4-01-11	L0111253-03
002-CEF9-7D-Q4-01-11	L0111253-04
002-CEF9-7D-Q4-01-11	L0111253-05
002-CEF9-7D-Q4-01-11	L0111253-06
002-CEF9-9S-Q4-01-11	L0111253-07
002-9DUP-Q4-01-1	L0111253-08
002-9EQB-Q4-01-1	L0111253-09

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: **21-NOV-01**

Title: **Laboratory Director**

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KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108266

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

Field Sample ID: 002-CEF9-2S-Q4-01-11 Lab Sample ID: L0111253-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 15-NOV-01

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 15-NOV-01 15:08

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	1.30	1	
2-Methylnaphthalene	0.348	1.0	2.20	1	
Acenaphthene	0.430	1.0	0.430	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.295	1.0	0.295	1	ND
Benzo(a)anthracene	0.0311	0.21	0.0311	1	ND
Benzo(a)pyrene	0.0549	0.21	0.0549	1	ND
Benzo(b)fluoranthene	0.0352	0.21	0.0352	1	ND
Benzo(g,h,i)perylene	0.0518	0.21	0.0518	1	ND
Benzo(k)fluoranthene	0.0746	0.21	0.0746	1	ND
Chrysene	0.0249	0.21	0.0249	1	ND
Dibenzo(a,h)anthracene	0.0798	0.21	0.0798	1	ND
Fluoranthene	0.0518	0.21	0.0518	1	ND
Fluorene	0.579	1.0	0.579	1	ND
Indeno(1,2,3-cd)pyrene	0.0829	0.21	0.0829	1	ND
Naphthalene	0.372	1.0	4.70	1	
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 # : WG108266

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

Field Sample ID: 002-CEF9-2S-Q4-01-11 Lab Sample ID: L0111253-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 15-NOV-01

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 15-NOV-01 15:08

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	72.5	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 # : WG108266

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

Field Sample ID: 002-CEF9-2S-Q4-01-11 Lab Sample ID: L0111253-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 15-NOV-01

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 15-NOV-01 15:08

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	0.890	1	J
2-Methylnaphthalene	0.348	1.0	2.50	1	
Acenaphthene	0.430	1.0	0.430	1	ND
Acenaphthylene	0.364	1.0	0.364	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	5.30	1	
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 # : WG108266

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

Field Sample ID: 002-CEF9-2S-Q4-01-11 Lab Sample ID: L0111253-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 15-NOV-01

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 15-NOV-01 15:08

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	72.4	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 # : WG108266

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

Field Sample ID: 002-CEF9-3S-Q4-01-11 Lab Sample ID: L0111253-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 15-NOV-01

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 15-NOV-01 16:05

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	1.60	1	
2-Methylnaphthalene	0.348	1.0	2.60	1	
Acenaphthene	0.430	1.0	0.430	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.295	1.0	0.295	1	ND
Benzo(a)anthracene	0.0311	0.21	0.0311	1	ND
Benzo(a)pyrene	0.0549	0.21	0.0549	1	ND
Benzo(b)fluoranthene	0.0352	0.21	0.0352	1	ND
Benzo(g,h,i)perylene	0.0518	0.21	0.0518	1	ND
Benzo(k)fluoranthene	0.0746	0.21	0.0746	1	ND
Chrysene	0.0249	0.21	0.0249	1	ND
Dibenzo(a,h)anthracene	0.0798	0.21	0.0798	1	ND
Fluoranthene	0.0518	0.21	0.0518	1	ND
Fluorene	0.579	1.0	0.579	1	ND
Indeno(1,2,3-cd)pyrene	0.0829	0.21	0.0829	1	ND
Naphthalene	0.372	1.0	6.80	1	
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 # : WG108266

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

Field Sample ID: 002-CEF9-3S-Q4-01-11 Lab Sample ID: L0111253-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 15-NOV-01

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 15-NOV-01 16:05

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	46.1	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 # : WG108266

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

Field Sample ID: 002-CEF9-3S-Q4-01-11 Lab Sample ID: L0111253-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 15-NOV-01

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 15-NOV-01 16:05

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.375	1.0	1.20	1	
2-Methylnaphthalene	0.348	1.0	3.00	1	
Acenaphthene	0.430	1.0	0.430	1	ND
Acenaphthylene	0.364	1.0	0.364	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	7.60	1	
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 # : WG108266

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

Field Sample ID: 002-CEF9-3S-Q4-01-11 Lab Sample ID: L0111253-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 15-NOV-01

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 15-NOV-01 16:05

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	46.1	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 # : WG108266

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

Field Sample ID: 002-CEF9-5S-Q4-01-11 Lab Sample ID: L0111253-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 15-NOV-01

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 15-NOV-01 17:01

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	0.430	1.0	0.430	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	0.359	1.0	0.359	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 # : WG108266

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

Field Sample ID: 002-CEF9-5S-04-01-11 Lab Sample ID: L0111253-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 15-NOV-01

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 15-NOV-01 17:01

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	78.5	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 # : WG108266

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

Field Sample ID: 002-CEF9-7D-Q4-01-11 Lab Sample ID: L0111253-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 15-NOV-01

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 15-NOV-01 17:58

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.381	1.1	0.381	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	0.0300	0.20	0.0300	1	ND
Benzo(a)pyrene	0.0558	0.21	0.0558	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	0.588	1.1	0.588	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	0.302	1.1	0.302	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 # : WG108266

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

Field Sample ID: 002-CEF9-7D-Q4-01-11 Lab Sample ID: L0111253-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 15-NOV-01

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 15-NOV-01 17:58

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	92.8	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 # : WG108266

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

Field Sample ID: 002-CEF9-7D-Q4-01-11 Lab Sample ID: L0111253-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 15-NOV-01

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 15-NOV-01 18:54

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.381	1.1	25.0	1	
2-Methylnaphthalene	0.354	1.1	25.0	1	
Acenaphthene	0.437	1.1	26.0	1	
Acenaphthylene	0.369	1.1	26.0	1	
Anthracene	0.300	1.1	38.0	1	
Benzo(a)anthracene	0.0316	0.21	3.80	1	
Benzo(a)pyrene	0.0558	0.21	2.70	1	
Benzo(b)fluoranthene	0.0358	0.21	3.10	1	
Benzo(g,h,i)perylene	0.0526	0.21	1.40	1	
Benzo(k)fluoranthene	0.0758	0.21	1.20	1	
Chrysene	0.0253	0.21	3.50	1	
Dibenzo(a,h)anthracene	0.0811	0.21	1.20	1	
Fluoranthene	0.0526	0.21	4.10	1	
Fluorene	0.588	1.1	28.0	1	
Indeno(1,2,3-cd)pyrene	0.0842	0.21	1.70	1	
Naphthalene	0.378	1.1	25.0	1	
Phenanthrene	0.302	1.1	34.0	1	
Pyrene	0.0716	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 # : WG108266

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

Field Sample ID: 002-CEF9-7D-Q4-01-11 Lab Sample ID: L0111253-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 15-NOV-01

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 15-NOV-01 18:54

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	50.7	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 # : WG108266

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

Field Sample ID: 002-CEF9-7D-Q4-01-11 Lab Sample ID: L0111253-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 15-NOV-01

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 15-NOV-01 19:51

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.381	1.1	24.0	1	
2-Methylnaphthalene	0.354	1.1	24.0	1	
Acenaphthene	0.437	1.1	25.0	1	
Acenaphthylene	0.369	1.1	26.0	1	
Anthracene	0.300	1.1	41.0	1	
Benzo(a)anthracene	0.0316	0.21	4.70	1	
Benzo(a)pyrene	0.0558	0.21	3.80	1	
Benzo(b)fluoranthene	0.0358	0.21	4.00	1	
Benzo(g,h,i)perylene	0.0526	0.21	2.50	1	
Benzo(k)fluoranthene	0.0758	0.21	1.80	1	
Chrysene	0.0253	0.21	4.50	1	
Dibenzo(a,h)anthracene	0.0811	0.21	2.00	1	
Fluoranthene	0.0526	0.21	4.50	1	
Fluorene	0.588	1.1	28.0	1	
Indeno(1,2,3-cd)pyrene	0.0842	0.21	2.70	1	
Naphthalene	0.378	1.1	25.0	1	
Phenanthrene	0.302	1.1	35.0	1	
Pyrene	0.0716	0.21	4.40	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 # : WG108266

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

Field Sample ID: 002-CEF9-7D-Q4-01-11 Lab Sample ID: L0111253-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 15-NOV-01

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 15-NOV-01 19:51

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	74.0	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 # : WG108266

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

Field Sample ID: 002-CEF9-9S-Q4-01-11 Lab Sample ID: L0111253-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 15-NOV-01

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 15-NOV-01 20:48

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.385	1.1	2.10	1	
2-Methylnaphthalene	0.357	1.1	3.50	1	
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	21.0	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 # : WG108266

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

Field Sample ID: 002-CEF9-9S-Q4-01-11 Lab Sample ID: L0111253-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 15-NOV-01

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 15-NOV-01 20:48

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	58.1	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 # : WG108266

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

Field Sample ID: 002-CEF9-9S-Q4-01-11 Lab Sample ID: L0111253-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 15-NOV-01

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 15-NOV-01 20:48

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.385	1.1	2.00	1	
2-Methylnaphthalene	0.357	1.1	4.90	1	
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	0.0564	0.21	0.0564	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	24.0	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 # : WG108266

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

Field Sample ID: 002-CEF9-9S-Q4-01-11 Lab Sample ID: L0111253-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 15-NOV-01

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 15-NOV-01 20:48

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.

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108266

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

Field Sample ID: 002-9DUP-Q4-01-1 Lab Sample ID: L0111253-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 15-NOV-01

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 15-NOV-01 21:44

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.381	1.1	2.30	1	
2-Methylnaphthalene	0.354	1.1	3.90	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	25.0	1	
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

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108266

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

Field Sample ID: 002-9DUP-Q4-01-1 Lab Sample ID: L0111253-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 15-NOV-01

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 15-NOV-01 21:44

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	67.0	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 # : WG108266

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

Field Sample ID: 002-9DUP-Q4-01-1 Lab Sample ID: L0111253-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 15-NOV-01

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 15-NOV-01 21:44

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.381	1.1	2.00	1	
2-Methylnaphthalene	0.354	1.1	5.60	1	
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	0.0300	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	0.0253	0.21	0.0253	1	ND
Dibenzo(a,h)anthracene	0.0770	0.20	0.0770	1	ND
Fluoranthene	0.0500	0.20	0.0500	1	ND
Fluorene	0.588	1.1	0.588	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.378	1.1	29.0	1	
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

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 8310 Preparatory Method: 8310\3510C AAB # : WG108266

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

Field Sample ID: 002-9DUP-Q4-01-1 Lab Sample ID: L0111253-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 15-NOV-01

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 15-NOV-01 21:44

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	66.0	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 # : WG108266

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

Field Sample ID: 002-9EQB-Q4-01-1 Lab Sample ID: L0111253-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 15-NOV-01

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 15-NOV-01 23:38

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	0.399	1.1	0.399	1	ND
Anthracene	0.324	1.1	0.324	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	0.635	1.1	0.635	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.408	1.1	0.408	1	ND
Phenanthrene	0.326	1.1	0.326	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 # : WG108266

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

Field Sample ID: 002-9EQB-Q4-01-1 Lab Sample ID: L0111253-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HPLC4 15-NOV-01

Date Received: 14-NOV-01 Date Extracted: 14-NOV-01 Date Analyzed: 15-NOV-01 23:38

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	93.7	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA PACKAGE

Analytical Method : **9056**

AAB # : **WG108294**

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-CEF9-7D-Q4-01-11	L0111253-05
002-CEF9-7D-Q4-01-11	L0111253-06

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: **21-NOV-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG108294

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

Field Sample ID: 002-CEF9-7D-Q4-01-11 Lab Sample ID: L0111253-05 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 15-NOV-2001

Date Received: 14-NOV-01 Date Extracted: Date Analyzed: 15-NOV-01 14:46

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	3.90	1	
Nitrite	0.0610	0.40	3.60	1	
Phosphate	0.163	1.0	9.30	1	

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 # : WG108294

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

Field Sample ID: 002-CEF9-7D-Q4-01-11 Lab Sample ID: L0111253-06 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 15-NOV-2001

Date Received: 14-NOV-01 Date Extracted: Date Analyzed: 15-NOV-01 14:58

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	3.90	1	
Nitrite	0.0610	0.40	3.60	1	
Phosphate	0.163	1.0	9.20	1	

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 PACKAGE

Analytical Method : **9056**

Lab Name : **Kemron Environmental Services**

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

AAB # : **WG108195**

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

Prime Contractor : **CCI**

Field sample ID	Lab Sample ID
002-CEF9-2S-Q4-01-11	L0111253-01
002-CEF9-3S-Q4-01-11	L0111253-02
002-CEF9-5S-Q4-01-11	L0111253-03
002-CEF9-7D-Q4-01-11	L0111253-04
002-CEF9-9S-Q4-01-11	L0111253-07
002-9DUP-Q4-01-1	L0111253-08
002-9EQB-Q4-01-1	L0111253-09

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: _____

Name: **David L. Bumgarner**

Date: **21-NOV-01**

Title: **Laboratory Director**

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA SHEET 2

RESULTS

Analytical Method : 9056 Preparatory Method: 9056\METHOD AAB # : WG108195

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

Field Sample ID: 002-CEF9-2S-Q4-01-11 Lab Sample ID: L0111253-01 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 31-OCT-2001

Date Received: 14-NOV-01 Date Extracted: Date Analyzed: 14-NOV-01 12:32

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.150	1	J
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 # : WG108195

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

Field Sample ID: 002-CEF9-3S-Q4-01-11 Lab Sample ID: L0111253-02 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 31-OCT-2001

Date Received: 14-NOV-01 Date Extracted: Date Analyzed: 14-NOV-01 12:44

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 # : WG108195

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

Field Sample ID: 002-CEF9-5S-Q4-01-11 Lab Sample ID: L0111253-03 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 31-OCT-2001

Date Received: 14-NOV-01 Date Extracted: Date Analyzed: 14-NOV-01 12:55

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.200	1	J
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 # : WG108195

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

Field Sample ID: 002-CEF9-7D-04-01-11 Lab Sample ID: L0111253-04 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 31-OCT-2001

Date Received: 14-NOV-01 Date Extracted: Date Analyzed: 14-NOV-01 13:07

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 # : WG108195

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

Field Sample ID: 002-CEF9-9S-Q4-01-11 Lab Sample ID: L0111253-07 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 31-OCT-2001

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

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 # : WG108195

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

Field Sample ID: 002-9DUP-Q4-01-1 Lab Sample ID: L0111253-08 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 31-OCT-2001

Date Received: 14-NOV-01 Date Extracted: Date Analyzed: 14-NOV-01 13:30

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 # : WG108195

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

Field Sample ID: 002-9EQB-Q4-01-1 Lab Sample ID: L0111253-09 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 31-OCT-2001

Date Received: 14-NOV-01 Date Extracted: Date Analyzed: 14-NOV-01 13:41

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.

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)

KEMRON Internal Laboratory Chain of Custody

Work Order: L0111253 **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	ANALYSIS	Rec'd 11/14/01 @ 1210	LOGIN	SV	BLG	11/20/01 @ 1140 BREC	Archive	BLG	Archive
1-9A	FLA-PRO	EXT	11/14/01 @ 1420	WORKER	SLAB	JKW	11/15/01 @ 0830	Crusher	DSL	Disposal
1-9A	8310	EXT	11/14/01 @ 1420	WORKER	SLAB	JKW	1	1	DSL	1
1-10	BTEX	ANALYSIS	CAN 11/15/01 @ 0830	V-1	ORG-3	JKW				
1-9										

Rec'd 11/20/01

Report Sent to Client 11-30-01

(4) Sb released to the lab prior to logging due to short hold times BLG

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

CLIENT: CH2M BRG (LMT) Other _____	DATE: 11/14/01	SHIPPED BY: (✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

	COOLER ID: IL-816	COOLER ID: KL270	COOLER ID: KL588
INDEX # :	7902 1558 1850	7924 6577 4444	7924 6577 4180
SEALED	(✓) YES ( ) NO	(✓) YES ( ) NO	(✓) YES ( ) NO
CUSTODY	(✓) YES ( ) NO	(✓) YES ( ) NO	(✓) YES ( ) NO
TEMP :	(C) (D) 0 °C	(C) (D) 0 °C	(C) (D) 0 °C
TEMP IN RANGE (4°C ± 2°)	(✓) YES (✓) NO	( ) YES (✓) NO	(✓) YES ( ) NO
WET ICE	(✓) BLUE ICE ( )	(✓) BLUE ICE ( )	(✓) BLUE ICE ( )
ICE	FROZEN (✓) MELTED ( )	FROZEN (✓) MELTED ( )	FROZEN (✓) MELTED ( )
RADIATION CHECKED	(✓) YES ( ) NO	(✓) YES ( ) NO	(✓) YES ( ) NO
SAMPLE INTACT	(✓) YES ( ) NO	(✓) YES ( ) NO	(✓) YES ( ) NO
SALVAGEBLE	( ) YES ( ) NO	( ) YES ( ) NO	( ) YES ( ) NO
SAMPLE TYPE:	WATER (✓) SOIL ( ) OTHER ( )	WATER (✓) SOIL ( ) OTHER ( )	WATER (✓) SOIL ( ) OTHER ( )
LABELS: INTACT	(✓) YES ( ) NO	(✓) YES ( ) NO	(✓) YES ( ) NO
LEGIBLE	(✓) YES ( ) NO	(✓) YES ( ) NO	(✓) YES ( ) NO
MATCH COC	(✓) YES ( ) NO	(✓) YES ( ) NO	(✓) YES ( ) NO
pH IN RANGE (2 - >9 - >12) AS APPROPRIATE	(✓) YES ( ) NO	(✓) YES ( ) NO	(✓) YES ( ) NO
SAMPLES FROZEN?	( ) YES (✓) NO	( ) YES (✓) NO	( ) YES (✓) NO
LOG-IN COMMENTS	1620 YOS	1405 1420	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: CH2m BRG · (LMT) Other _____	DATE: 11/14/01	SHIPPED BY: (✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT

COOLER ID: KL952	COOLER ID: KL838	COOLER ID:
INDEX # : 7917 0409 5156	INDEX # : 7917 0409 4860	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) 1 °C	TEMP : °C (C) (D)
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) (✓) 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	LOG-IN COMMENTS	LOG-IN COMMENTS
1450	1550	
1500	DUP	

TSR COMMENTS

CONTACT:	DATE:	TIME:

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

Revised 10/16/01

COOLER RECEIPT FORM

Contractor Cooler _____
MRD Cooler # _____
Number of Coolers 5

PROJECT: NAS Cecil Field/BIDG 9 LIMS# L011253

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

A. **PRELIMINARY EXAMINATION PHASE:** Date cooler opened: 11/14/01 C-of-C Number: 149152-176
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: 11/13/01 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) 11/14/01

B. **LOG-IN PHASE:** Date samples were logged-in: 11-14-01
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.)? ..... *See CRF #4 (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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CRF#4

Sample Receipt Form #2

Client: CCI Project:_____
Date Received: 11/14/01

_____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 C/C 002-9TB-Q4-01-11 ~ vials "Trip Blank"
② Not all labels had 002-CEF9 (only middle + end of Id's)

_____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.

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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

CHAIN-OF-CUSTODY RECORD

COC NUMBER: **149152-176**

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 9	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 9 / 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 (see codes on back)	DATE COLLECTED	TIME COLLECTED	DATA PKG LEVEL (see codes on back)	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-CEF9-2S-Q4-01-11	CEF-9-2S	W	11/13/01	14:05	III/C	14	2	2	2	1					Grab		
2	002-CEF9-3S-Q4-01-11	CEF-9-3S	W	11/13/01	14:20	III/C	14	2	2	2	1					Grab		
3	002-CEF9-5S-Q4-01-11	CEF-9-5S	W	11/13/01	16:20	III/C	14	2	2	2	1					Grab		
4	002-CEF9-7D-Q4-01-11	CEF-9-7D	W	11/13/01	14:50	III/C	14	6	6	6	3					Grab	(MS/MSD)	
5	002-CEF9-9S-Q4-01-11	CEF-9-9S	W	11/13/01	15:50	III/C	14	2	2	2	1					Grab		
6	002-9DUP-Q4-01-1	Duplicate	W	11/13/01	NA	III/C	14	2	2	2	1					Grab		
7	002-9EQB-Q4-01-11	Equipment Blank	W	11/13/01	15:00	III/C	14	2	2	2	1					Grab		
8	002-9TB-Q4-01-11	Trip Blank	W	NA	NA	III/C	14	2									Prepared by Lab	
9	NA	Temperature Blank	W	NA	NA	III/C	14					5					Prepared by Lab	
10																		

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:
Randy Dumaop / Anthony Cain J.A. Jones Environmental Services	Federal Express Track No's.790215581850, 792465774180, 792465774444, 791704095156, 791704094860. (5 Coolers)

C/C sealed
Sb intact
Cooler temps 0/0/0
0/1

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop [signature]	11/13/01	18:00	Federal Express	11/13/01	18:00
Printed Name and Signature:			Printed Name and Signature:		
[signature]			Brenda Gregory / Brenda Gregory	11/14/01	0937

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

Form CCI001, Rev 02/00

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: L0111253

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: Samples 01, 02, 07and 08 yielded recovery results above the upper control limits. Reanalysis confirmed the surrogate outliers. All other 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: 11/26/01

Rev. 6/00

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METHOD BLANK SUMMARY

Login Number: L0111253
Blank File ID: 11G12296
Date Analyzed: 11/15/01
Time Analyzed: 08:01
Analyst: CBN

Work Group: WG108255
Blank Sample ID: WG108255-01
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	WG108255-02	11G12297	11/15/01 08:34	
002-CEF9-2S-Q4-01-11	L0111253-01	11G12299	11/15/01 09:48	
002-CEF9-3S-Q4-01-11	L0111253-02	11G12300	11/15/01 10:21	
002-CEF9-5S-Q4-01-11	L0111253-03	11G12301	11/15/01 10:53	
002-CEF9-7D-Q4-01-11	L0111253-04	11G12302	11/15/01 11:26	
002-CEF9-7D-Q4-01-11	L0111253-05	11G12303	11/15/01 11:59	
002-CEF9-7D-Q4-01-11	L0111253-06	11G12304	11/15/01 12:32	
002-CEF9-9S-Q4-01-11	L0111253-07	11G12305	11/15/01 13:04	
002-9DUP-Q4-01-1	L0111253-08	11G12307	11/15/01 14:18	
002-9EQB-Q4-01-1	L0111253-09	11G12308	11/15/01 14:50	
002-9TB-Q4-01-1	L0111253-10	11G12309	11/15/01 15:23	
002-CEF9-2S-Q4-01-11	L0111253-01	11G12310	11/15/01 15:55	A1
002-CEF9-3S-Q4-01-11	L0111253-02	11G12311	11/15/01 16:28	A1

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KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0111253 Run Date: 11/15/2001 Sample ID: WG108255-01
Instrument ID: HP11 Run Time: 08:01 Method: 8021B
File ID: 11G12296 Analyst: CBN Matrix: Water
Workgroup (AAB#): WG108255 Units: ug/L
Contract #: 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	105	70 - 130	PASS

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

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KEMRON FORMS - Modified 10/16/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0111253 Run Date: 11/15/2001 Sample ID: WG108255-02
Instrument ID: HP11 Run Time: 08:34 Method: 8021B
File ID: 11G12297 Analyst: CBN Matrix: Water
Workgroup (AAB#): WG108255 Units: ug/L
Contract #: Cal ID: HP11-09-NOV-2001

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	18.9	94.5	56 - 149	
Benzene	20	19.6	98.0	78 - 122	
Toluene	20	19.0	95.0	78 - 123	
Ethylbenzene	20	19.6	98.0	80 - 129	
Total xylenes	60	56.9	94.8	80 - 124	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	106	70 - 130	PASS

* Analyte outside control limits

NS Analyte not spiked

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KEMRON FORMS - Modified 10/16/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
MS/MSD REPORT

Loginnum: L0111253 Cal ID: HP11-09-NOV-2001 Worknum: WG108255
Instrument ID: HP11 Contract #: Method: 8021B
Parent ID: L0111253-04 File ID: 11G12302 Matrix: Water
Sample ID: L0111253-05 MS File ID: 11G12303 Units: ug/L
Sample ID: L0111253-06 MSD File ID: 11G12304

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Benzene	0	20.0	19.1	95.5	20.0	19.1	95.5	0	78 - 122	20	
Ethylbenzene	0	20.0	19.3	96.5	20.0	19.3	96.5	0	80 - 129	20	
Methyl tert-butyl ether	0	20.0	20.1	101	20.0	19.2	96.0	4.57	56 - 149	20	
Toluene	0	20.0	18.7	93.5	20.0	18.8	94.0	0.532	78 - 123	20	
Xylenes, Total	0	60.0	56.5	94.2	60.0	56.4	94.0	0.177	80 - 124	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

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KEMRON FORMS - Modified 10/16/2001
Version 1.0

KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021 AAB#: WG108255

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-CEF9-2S-Q4-01-11	13-NOV-01	14-NOV-01	15-NOV-01	14	2	15-NOV-01	14	2	
002-CEF9-3S-Q4-01-11	13-NOV-01	14-NOV-01	15-NOV-01	14	2	15-NOV-01	14	2	
002-CEF9-5S-Q4-01-11	13-NOV-01	14-NOV-01	15-NOV-01	14	2	15-NOV-01	14	2	
002-CEF9-7D-Q4-01-11	13-NOV-01	14-NOV-01	15-NOV-01	14	2	15-NOV-01	14	2	
002-CEF9-7D-Q4-01-11	13-NOV-01	14-NOV-01	15-NOV-01	14	2	15-NOV-01	14	2	
002-CEF9-7D-Q4-01-11	13-NOV-01	14-NOV-01	15-NOV-01	14	2	15-NOV-01	14	2	
002-CEF9-9S-Q4-01-11	13-NOV-01	14-NOV-01	15-NOV-01	14	2	15-NOV-01	14	2	
002-9DUP-Q4-01-1	13-NOV-01	14-NOV-01	15-NOV-01	14	2	15-NOV-01	14	2	
002-9EQB-Q4-01-1	13-NOV-01	14-NOV-01	15-NOV-01	14	2	15-NOV-01	14	2	
002-9TB-Q4-01-1	13-NOV-01	14-NOV-01	15-NOV-01	14	2	15-NOV-01	14	2	
002-CEF9-2S-Q4-01-11	13-NOV-01	14-NOV-01	15-NOV-01	14	2	15-NOV-01	14	2	
002-CEF9-3S-Q4-01-11	13-NOV-01	14-NOV-01	15-NOV-01	14	2	15-NOV-01	14	2	

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

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SURROGATE STANDARDS

Login Number: L0111253
Instrument Id: HP11
Workgroup (AAB#): WG108255

Method: 8021
Matrix: WATER

Sample Numbe	Dilution	Tag	1
L0111253-01	1.00	A1	194
L0111253-01	1.00		225
L0111253-02	1.00	A1	142
L0111253-02	1.00		165
L0111253-03	1.00		104
L0111253-04	1.00		103
L0111253-05	1.00		107
L0111253-06	1.00		107
L0111253-07	1.00		205
L0111253-08	1.00		204
L0111253-09	1.00		100
L0111253-10	1.00		108
WG108255-01	1.00		105
WG108255-02	1.00		106

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

Underline = Result out of surrogate limits

DL = surrogate diluted out

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	5.536
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	2.410
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

Login Number: L0111253
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	

Login Number: L0111253
File ID: 11G12295
CCV ID: WG108254-01
Units: ug/L

Instrument ID: HP11
Run Date: 11/15/2001
Run Time: 07:18
Analyst: CBN
Cal ID: HP11 - 09-NOV-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	21.9	157000	9.5	
1,4-Dichlorobenzene		20	19.1	160000	4.5	
1,3-Dichlorobenzene		20	18.9	150000	5.5	
o-Xylene		20	18.8	155000	6.0	
m-,p-Xylene		40	39.2	183000	2.0	
Ethylbenzene		20	20.2	154000	1.0	
Chlorobenzene		20	19.1	170000	4.5	
Toluene		20	19.5	173000	2.5	
Benzene		20	19.5	179000	2.5	
MTBE		20	18.0	66400	10.0	

Login Number: L0111253
File ID: 11G12306
CCV ID: WG108254-02
Units: ug/L

Instrument ID: HP11
Run Date: 11/15/2001
Run Time: 13:37
Analyst: CBN
Cal ID: HP11 - 09-NOV-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	18.7	135000	6.5	
1,4-Dichlorobenzene		20	18.0	151000	10.0	
1,3-Dichlorobenzene		20	18.5	146000	7.5	
o-Xylene		20	18.3	151000	8.5	
m-,p-Xylene		40	37.9	176000	5.3	
Ethylbenzene		20	19.5	149000	2.5	
Chlorobenzene		20	18.8	167000	6.0	
Toluene		20	18.6	165000	7.0	
Benzene		20	19.3	176000	3.5	
MTBE		20	19.4	71600	3.0	

Login Number: L0111253
File ID: 11G12317
CCV ID: WG108254-03
Units: ug/L

Instrument ID: HP11
Run Date: 11/15/2001
Run Time: 19:44
Analyst: CBN
Cal ID: HP11 - 09-NOV-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	18.4	132000	8.0	
1,4-Dichlorobenzene		20	17.9	150000	10.5	
1,3-Dichlorobenzene		20	18.3	145000	8.5	
o-Xylene		20	18.2	151000	9.0	
m-,p-Xylene		40	38.4	179000	4.0	
Ethylbenzene		20	19.6	150000	2.0	
Chlorobenzene		20	18.7	166000	6.5	
Toluene		20	18.6	165000	7.0	
Benzene		20	19.1	175000	4.5	
MTBE		20	18.5	68200	7.5	

Injection Log

Directory: C:\HPCHEM\1\DATA\110901

WG107912

ANALYST:

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g12231.d	1.	WG107895-01 8021 STD 20PPB 5ML ccl4	1,1 S-86-(13,08)	9 Nov 2001 (
2	2	11g12232.d	1.	WG107895-01 8021 STD 20PPB 5ML ⊥	1,1 S-86-(13,08)	9 Nov 2001 (
3	1	11g12233.d	1.	WG107912-01 8021 STD1 1PPB 5ML BMR	1,1 S-(85-35,86-08)	9 Nov 2001 (
4	2	11g12234.d	1.	WG107912-01 8021 STD1 1PPB 5ML ✓	1,1 S-(85-35,86-08)	9 Nov 2001 (
5	3	11g12235.d	1.	WG107912-02 8021 STD2 10PPB... ✓	1,1 S-(85-35,86-08)	9 Nov 2001 (
6	4	11g12236.d	1.	WG107912-03 8021 STD3 20PPB... ✓	1,1 S-(85-35,86-08)	9 Nov 2001 (
7	5	11g12237.d	1.	WG107912-04 8021 STD4 50PPB... ✓	1,1 S-(85-35,86-08)	9 Nov 2001 (
8	6	11g12238.d	1.	WG107912-05 8021 STD5 100PP... ✓	1,1 S-(85-35,86-08)	9 Nov 2001 (
9	7	11g12239.d	1.	WG107912-06 8021 STD6 200PP... ✓	1,1 S-(85-35,86-08)	9 Nov 2001 (
10	8	11g12240.d	1.	WG107912-07 8021 STD7 300PP... ✓	1,1 S-(85-35,86-08)	9 Nov 2001 (
11	9	11g12241.d	1.	RINSE 5ML ✓	1,1 S-86-08	9 Nov 2001 (
12	10	11g12242.d	1.	WG107912-08 ALT SOURCE 5ML ✓	1,1 S-86-(13,08)	9 Nov 2001 (

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Injection Log

Directory: C:\HPCHEM\1\DATA\111501

Analyst: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g12295.d	1.	WG108254-01 8021 STD 20PPB 5ML✓	1,1 S-86-(13,09)	15 Nov 2001 07:
2	2	11g12296.d	1.	WG108255-01 WATER BLANK 5ML✓	1,1 S-86-09	15 Nov 2001 08:
3	3	11g12297.d	1.	WG108255-02 WATER LCS 20PPB.✓	1,1 S-86-(13,09)	15 Nov 2001 08:
4	1	11g12298.d	1.	L0111257-01 A 5ML pH=5✓	1,1 S-86-(13,09)	15 Nov 2001 09:
5	2	11g12299.d	1.	L0111253-01 A 5ML pH<2 RR high SS	1,1 S-86-09	15 Nov 2001 09:
6	3	11g12300.d	1.	L0111253-02 A 5ML pH<2 RR high SS	1,1 S-86-09	15 Nov 2001 10:
7	4	11g12301.d	1.	L0111253-03 A 5ML pH<2 ✓	1,1 S-86-09	15 Nov 2001 10:
8	5	11g12302.d	1.	WG108255-03 L0111253-04 A 5..✓	1,1 S-86-09	15 Nov 2001 11:
9	6	11g12303.d	1.	WG108255-04 L0111253-05 MS ..✓	1,1 S-86-(13,09)	15 Nov 2001 11:
10	7	11g12304.d	1.	WG108255-05 L0111253-06 MSD.✓	1,1 S-86-(13,09)	15 Nov 2001 12:
11	8	11g12305.d	1.	L0111253-07 A 5ML pH<2 RR high SS	1,1 S-86-09	15 Nov 2001 13:
12	9	11g12306.d	1.	WG108254-02 8021 STD 20PPB 5ML✓	1,1 S-86-(13,09)	15 Nov 2001 13:
13	10	11g12307.d	1.	L0111253-08 A 5ML pH<2 RR high SS	1,1 S-86-09	15 Nov 2001 14:
14	11	11g12308.d	1.	L0111253-09 A 5ML pH<2 ✓	1,1 S-86-09	15 Nov 2001 14:
15	12	11g12309.d	1.	L0111253-10 A 5ML pH<2 ✓	1,1 S-86-09	15 Nov 2001 15:
16	13	11g12310.d	1.	L0111253-01 A 5ML pH<2 ✓ confirms SS	1,1,RE S-86-09	15 Nov 2001 15:
17	14	11g12311.d	1.	L0111253-02 A 5ML pH<2 ✓ confirms SS	1,1,RE S-86-09	15 Nov 2001 16:
18	15	11g12312.d	1.	L0111254-01 A 5ML pH<2 ✓	1,1 S-86-09	15 Nov 2001 17:
19	16	11g12313.d	1.	L0111254-02 A 5ML pH<2 ✓	1,1 S-86-09	15 Nov 2001 17:
20	17	11g12314.d	1.	L0111254-03 A 5ML pH<2 ✓	1,1 S-86-09	15 Nov 2001 18:
21	18	11g12315.d	1.	L0111254-04 A 5ML pH<2 RR 10X, high SS	1,1 S-86-09	15 Nov 2001 18:
22	19	11g12316.d	1.	L0111254-05 A 5ML pH<2 RR clo	1,1 S-86-09	15 Nov 2001 19:
23	20	11g12317.d	1.	WG108254-03 8021 STD 20PPB 5ML✓	1,1 S-86-(13,09)	15 Nov 2001 19:
24	21	11g12318.d	1.	L0111254-06 A 5ML pH<2 RR cc low	1,1 S-86-09	15 Nov 2001 20:
25	22	11g12319.d	1.	L0111253-07 A 5ML pH<2 ⊥ ⊥	1,1,RE S-86-09	15 Nov 2001 20:
26	23	11g12320.d	1.	WG108254-04 8021 STD 20PPB 5ML cc low	1,1 S-86-(13,09)	15 Nov 2001 21:

Reanalysis

L0111254-04
05
06
07

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METHOD BLANK SUMMARY

Login Number: L0111253
Blank File ID: 11G12324
Date Analyzed: 11/16/01
Time Analyzed: 10:16
Analyst: JLS

Work Group: WG108360
Blank Sample ID: WG108360-01
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	WG108360-02	11G12325	11/16/01 10:49	
002-CEF9-9S-Q4-01-11	L0111253-07	11G12326	11/16/01 11:31	A1
002-9DUP-Q4-01-1	L0111253-08	11G12327	11/16/01 12:04	A1

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0111253 Run Date: 11/16/2001 Sample ID: WG108360-01
Instrument ID: HP11 Run Time: 10:16 Method: 8021B
File ID: 11G12324 Analyst: JLS Matrix: Water
Workgroup (AAB#): WG108360 Units: ug/L
Contract #: 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	92.6	70 - 130	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: L0111253 Run Date: 11/16/2001 Sample ID: WG108360-02
Instrument ID: HP11 Run Time: 10:49 Method: 8021B
File ID: 11G12325 Analyst: JLS Matrix: Water
Workgroup (AAB#): WG108360 Units: ug/L
Contract #: Cal ID: HP11-09-NOV-2001

Analytes	Expected	Found	% Rec	LCS Limits	Q
MTBE	20	18.5	92.5	56 - 149	
Benzene	20	19.0	95.0	78 - 122	
Toluene	20	18.4	92.0	78 - 123	
Ethylbenzene	20	19.3	96.5	80 - 129	
Total xylenes	60	56.5	94.2	80 - 124	

Surrogates	% Recovery	Surrogate Limits	Qualifier
TFT	98.1	70 - 130	PASS

* Analyte outside control limits

NS Analyte not spiked

KEMRON FORMS - Modified 10/16/2001
Version 1.0

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KEMRON ENVIRONMENTAL SERVICES
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8021 AAB#: WG108360

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-CEF9-9S-Q4-01-11	13-NOV-01	14-NOV-01	16-NOV-01	14	3	16-NOV-01	14	3	
002-9DUP-Q4-01-1	13-NOV-01	14-NOV-01	16-NOV-01	14	3	16-NOV-01	14	3	

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

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SURROGATE STANDARDS

Login Number: L0111253
Instrument Id: HP11
Workgroup (AAB#): WG108360

Method: 8021
Matrix: WATER

Sample Numbe	Dilution	Tag	1
L0111253-07	1.00	A1	189
L0111253-08	1.00	A1	205
WG108360-01	1.00		92.6
WG108360-02	1.00		98.1

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

Underline = Result out of surrogate limits

DL = surrogate diluted out

Calibration Table Report
Method: 8021W.M
Title: Method 8021B- WATER 11/09/01
Last Calibration: Fri Nov 09 13:33:23 2001

Calibration Files

	1	10	20	50	100	200	300		
	11G12234.D	11G12235.D	11G12236.D	11G12237.D	11G12238.D	11G12239.D	11G12240.D		
Compound								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	5.536
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	2.410
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

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Login Number: L0111253
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	

Login Number: L0111253
File ID: 11G12323
CCV ID: WG108359-01
Units: ug/L

Instrument ID: HP11
Run Date: 11/16/2001
Run Time: 09:32
Analyst: JLS
Cal ID: HP11 - 09-NOV-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	19.5	140000	2.5	
1,4-Dichlorobenzene		20	18.8	158000	6.0	
1,3-Dichlorobenzene		20	18.4	145000	8.0	
o-Xylene		20	18.6	154000	7.0	
m-,p-Xylene		40	38.3	178000	4.3	
Ethylbenzene		20	19.6	150000	2.0	
Chlorobenzene		20	18.8	167000	6.0	
Toluene		20	18.9	168000	5.5	
Benzene		20	19.4	178000	3.0	
MTBE		20	18.8	69500	6.0	

Login Number: L0111253
File ID: 11G12334
CCV ID: WG108359-02
Units: ug/L

Instrument ID: HP11
Run Date: 11/16/2001
Run Time: 15:51
Analyst: JLS
Cal ID: HP11 - 09-NOV-01

Analyte		Expected	Found	RF	%D	Q
1,2-Dichlorobenzene		20	19.5	141000	2.5	
1,4-Dichlorobenzene		20	19.0	160000	5.0	
1,3-Dichlorobenzene		20	18.6	147000	7.0	
o-Xylene		20	19.1	157000	4.5	
m-,p-Xylene		40	39.4	183000	1.5	
Ethylbenzene		20	20.1	153000	0.5	
Chlorobenzene		20	19.3	172000	3.5	
Toluene		20	19.5	173000	2.5	
Benzene		20	19.8	182000	1.0	
MTBE		20	18.4	67900	8.0	

Injection Log

Directory: C:\HPCHEM\1\DATA\110901

WG107912

ANALYST:

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g12231.d	1.	WG107895-01 8021 STD 20PPB 5ML second	1,1 S-86-(13,08)	9 Nov 2001 0
2	2	11g12232.d	1.	WG107895-01 8021 STD 20PPB 5ML ⊥	1,1 S-86-(13,08)	9 Nov 2001 0
3	1	11g12233.d	1.	WG107912-01 8021 STD1 1PPB 5ML DMR	1,1 S-(85-35,86-08)	9 Nov 2001 0
4	2	11g12234.d	1.	WG107912-01 8021 STD1 1PPB 5ML ✓	1,1 S-(85-35,86-08)	9 Nov 2001 0
5	3	11g12235.d	1.	WG107912-02 8021 STD2 10PPB... ✓	1,1 S-(85-35,86-08)	9 Nov 2001 1
6	4	11g12236.d	1.	WG107912-03 8021 STD3 20PPB... ✓	1,1 S-(85-35,86-08)	9 Nov 2001 1
7	5	11g12237.d	1.	WG107912-04 8021 STD4 50PPB... ✓	1,1 S-(85-35,86-08)	9 Nov 2001 1
8	6	11g12238.d	1.	WG107912-05 8021 STD5 100PP... ✓	1,1 S-(85-35,86-08)	9 Nov 2001 1
9	7	11g12239.d	1.	WG107912-06 8021 STD6 200PP... ✓	1,1 S-(85-35,86-08)	9 Nov 2001 1
10	8	11g12240.d	1.	WG107912-07 8021 STD7 300PP... ✓	1,1 S-(85-35,86-08)	9 Nov 2001 1
11	9	11g12241.d	1.	RINSE 5ML ✓	1,1 S-86-08	9 Nov 2001 1
12	10	11g12242.d	1.	WG107912-08 ALT SOURCE 5ML ✓	1,1 S-86-(13,08)	9 Nov 2001 1

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Injection Log

Directory: C:\HPCHEM\1\DATA\111601

Analyst: gls

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g12321.d	1.	WG108359-01 8021 STD 20PPB 5ML RR	1,1 S-86-(13,09)	16 Nov 2001
2	2	11g12322.d	1.	WG108360-01 WATER BLANK 5ML	1,1 S-86-09	16 Nov 2001
3	3	11g12323.d	1.	WG108359-01 8021 STD 20PPB 5ML ✓	1,1 S-86-(13,09)	16 Nov 2001
4	1	11g12324.d	1.	WG108360-01 WATER BLANK 5ML ✓	1,1 S-86-09	16 Nov 2001
5	2	11g12325.d	1.	WG108360-02 WATER LCS 20PPB.. ✓	1,1 S-86-(13,09)	16 Nov 2001
6	1	11g12326.d	1.	L0111253-07 B 5ML pH<2 ✓ confirms SS	1,1 S-86-09	16 Nov 2001
7	2	11g12327.d	1.	L0111253-08 B 5ML pH<2 ✓ confirms SS	1,1 S-86-09	16 Nov 2001
8	3	11g12328.d	10.	WG108360-03 L0111254-04 B 1.. ✓ confirms SS	1,10 S-86-09	16 Nov 2001
9	4	11g12329.d	10.	WG108360-04 L0111254-04 B M. ✓	1,10 S-86-(13,09)	16 Nov 2001
10	5	11g12330.d	10.	WG108360-05 L0111254-04 B M. ✓	1,10 S-86-(13,09)	16 Nov 2001
11	6	11g12331.d	1.	L0111254-05 B 5ML pH<2 ✓	1,1 S-86-09	16 Nov 2001
12	7	11g12332.d	1.	L0111254-06 B 5ML pH<2 ✓	1,1 S-86-09	16 Nov 2001
13	8	11g12333.d	1.	L0111282-02A 5ML pH<2 ✓	1,1 S-86-09	16 Nov 2001
14	9	11g12334.d	1.	WG108359-02 8021 STD 20PPB 5ML ✓	1,1 S-86-(13,09)	16 Nov 2001
15	10	11g12335.d	1.	L0111283-01 A 5ML pH<2 RR 20X DNR	1,1 S-86-09	16 Nov 2001
16	2	11g12336.d	1.	L0111283-02 A 5ML pH<2 RR 10X DNR	1,1 S-86-09	16 Nov 2001
17	3	11g12337.d	1.	L0111283-03 A 5ML pH<2 RR clo?	1,1 S-86-09	16 Nov 2001
18	4	11g12338.d	1.	L0111283-04 A 5ML pH<2 RR clo?	1,1 S-86-09	16 Nov 2001
19	5	11g12339.d	1.	L0111283-05 A 5ML pH<2 RR 10X DNR	1,1 S-86-09	16 Nov 2001
20	6	11g12340.d	1.	L0111283-06 A 5ML pH<2 RR clo?	1,1 S-86-09	16 Nov 2001
21	7	11g12341.d	1.	L0111283-07 A 5ML pH<2 RR 10X DNR	1,1 S-86-09	16 Nov 2001
22	8	11g12342.d	1.	L0111283-08 A 5ML pH<2 RR clo?	1,1 S-86-09	16 Nov 2001
23	9	11g12343.d	1.	L0111283-09 A 5ML pH<2 RR clo?	1,1 S-86-09	16 Nov 2001
24	10	11g12344.d	1.	L0111287-01 A 5ML pH<2 ✓	1,1 S-86-09	16 Nov 2001
25	11	11g12345.d	1.	WG108359-03 8021 STD 20PPB 5ML ✓	1,1 S-86-(13,09)	16 Nov 2001
26	12	11g12346.d	1.	L0111287-02 A 5ML pH<2 RR High SS	1,1 S-86-09	16 Nov 2001
27	13	11g12347.d	1.	L0111287-03 A 5ML pH<2 RR 5X, high SS	1,1 S-86-09	16 Nov 2001
28	14	11g12348.d	1.	L0111287-04 A 5ML pH<2 RR clo?	1,1 S-86-09	16 Nov 2001
29	15	11g12349.d	1.	L0111321-01 A 5ML pH<2 ✓	1,1 S-86-09	16 Nov 2001
30	16	11g12350.d	1.	RINSE 5ML ✓	1,1 S-86-09	17 Nov 2001
31	17	11g12351.d	1.	RINSE 5ML ✓	1,1 S-86-09	17 Nov 2001
32	18	11g12352.d	1.	WG108359-04 8021 STD 20PPB 5ML ✓	1,1 S-86-(13,09)	17 Nov 2001
33	19	11g12353.d	1.	WG108417-01 WATER BLANK 5ML RR	1,1 S-86-09	17 Nov 2001
34	20	11g12354.d	1.	WG108417-02 WATER LCS 20PPB...	1,1 S-86-(13,09)	17 Nov 2001
35	21	11g12355.d	1.	L0111280-01 A 5ML pH<2	1,1 S-86-09	17 Nov 2001
36	22	11g12356.d	1.	L0111280-02 A 5ML pH<2	1,1 S-86-09	17 Nov 2001
37	23	11g12357.d	1.	L0111280-03 A 5ML pH<2	1,1 S-86-09	17 Nov 2001
38	24	11g12358.d	1.	L0111287-05 A 5ML pH<2	1,1 S-86-09	17 Nov 2001
39	25	11g12359.d	1.	L0111287-06 A 5ML pH<2	1,1 S-86-09	17 Nov 2001
40	26	11g12360.d	1.	WG108417-03 L0111287-07 A 5ML	1,1 S-86-09	17 Nov 2001
41	27	11g12361.d	1.	WG108417-04 L0111280-07 A M...	1,1 S-86-(13,09)	17 Nov 2001
42	28	11g12362.d	1.	WG108417-05 L0111280-07 A M...	1,1 S-86-(13,09)	17 Nov 2001
43	29	11g12363.d	1.	WG108359-05 8021 STD 20PPB 5ML	1,1 S-86-(13,09)	17 Nov 2001
44	30	11g12364.d	1.	L0111287-08 A 5ML pH<2	1,1 S-86-09	17 Nov 2001
45	31	11g12365.d	1.	L0111287-09 A 5ML pH<2	1,1 S-86-09	17 Nov 2001
46	32	11g12366.d	1.	L0111287-10 A 5ML pH<2	1,1 S-86-09	17 Nov 2001
47	33	11g12367.d	1.	L0111287-11 A 5ML pH<2	1,1 S-86-09	17 Nov 2001
48	34	11g12368.d	1.	L0111287-12 A 5ML pH<2	1,1 S-86-09	17 Nov 2001
49	35	11g12369.d	1.	L0111287-13 A 5ML pH<2	1,1 S-86-09	17 Nov 2001
50	36	11g12370.d	1.	L0111287-14 A 5ML pH<2	1,1 S-86-09	17 Nov 2001
51	37	11g12371.d	1.	L0111287-15 A 5ML pH<2	1,1 S-86-09	17 Nov 2001
52	38	11g12372.d	1.	L0111287-16 A 5ML pH<2	1,1 S-86-09	17 Nov 2001
53	39	11g12373.d	1.	L0111287-17 A 5ML pH<2	1,1 S-86-09	17 Nov 2001

BETX-GC DATA (8021)

Login Number: L01112453

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:** 11/26/01

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2.1.3.1 QC Summary

VOA - GC

Date: 11/15/01 **Analyst:** CBN **Method:** (8021) 8015 602

Instrument: HP11 **Work Group:** WG 108255

	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	✓
Results Reporting / Data Qualifiers	✓
Client Data Package Assembly	✓
Check for Completeness	✓

Primary Reviewers Initials & Date Checked: CSH 11/19/01

Secondary Reviewers Initials & Date Checked: QJS 11/20/01

- ✓ • 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: [illegible] 11/20/01

Comments: _____

✓ = Checked & OK
NA = Not Applicable

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VOA - GC

Date: 11/16/01 **Analyst:** JLS **Method:** (8021) 8015 602

Instrument: HP11 **Work Group:** WG 108360

	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 11/19/01

Secondary Reviewers Initials & Date Checked: QJS 11/19/01

✓ • 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: 11/19/01

Comments: _____

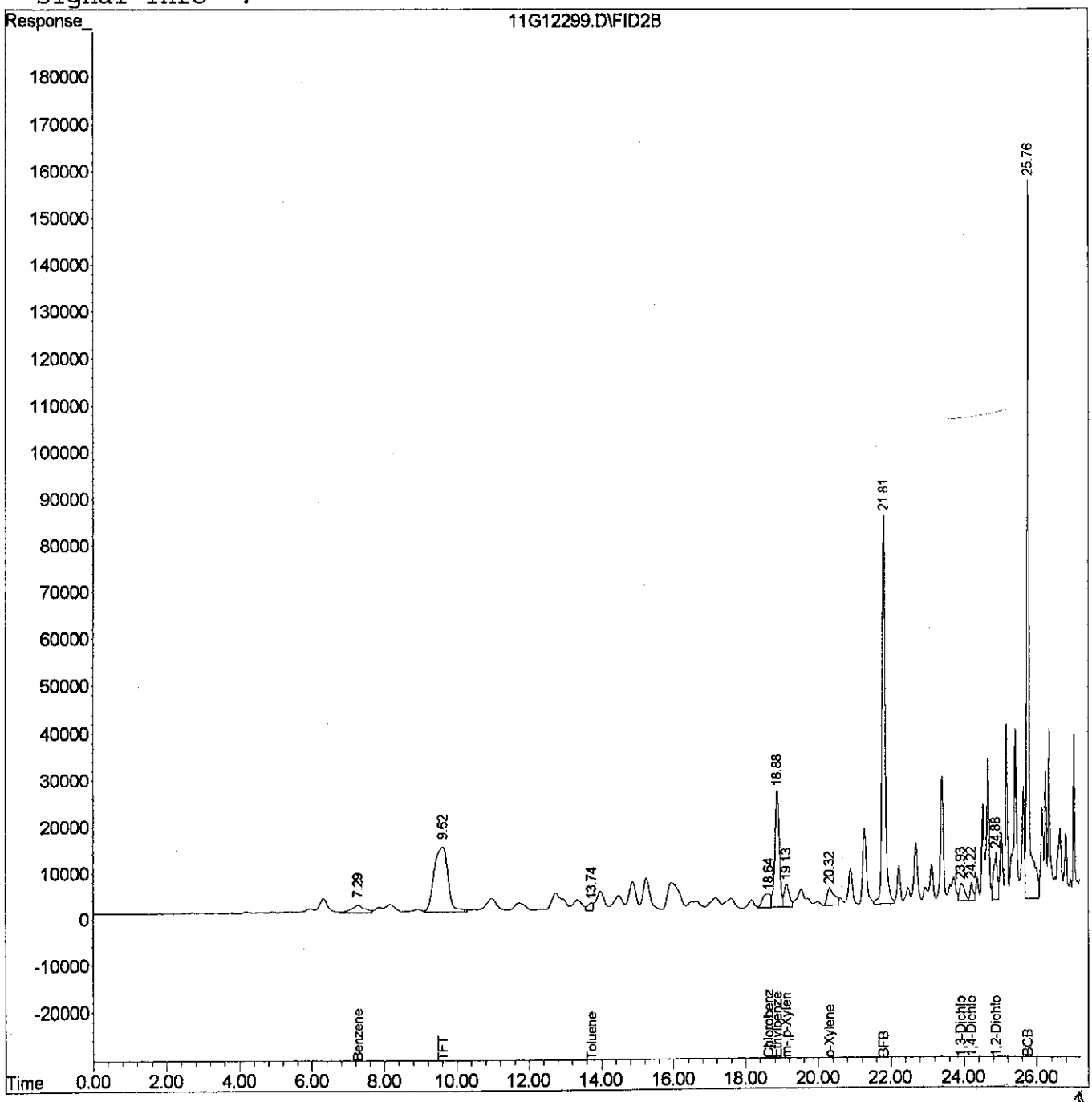
✓ = Checked & OK
NA = Not Applicable

2.1.3.2 Sample Data

Data File : C:\HPCHEM\1\DATA\111501\11G12299.D Vial: 2
Acq On : 15 Nov 2001 9:48 Operator: CBN
Sample : L0111253-01 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-86-09 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 10:15 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 :



Data File : C:\HPCHEM\1\DATA\111501\11G12299.D Vial: 2
Acq On : 15 Nov 2001 9:48 Operator: CBN
Sample : L0111253-01 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-86-09 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 10:15 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 :

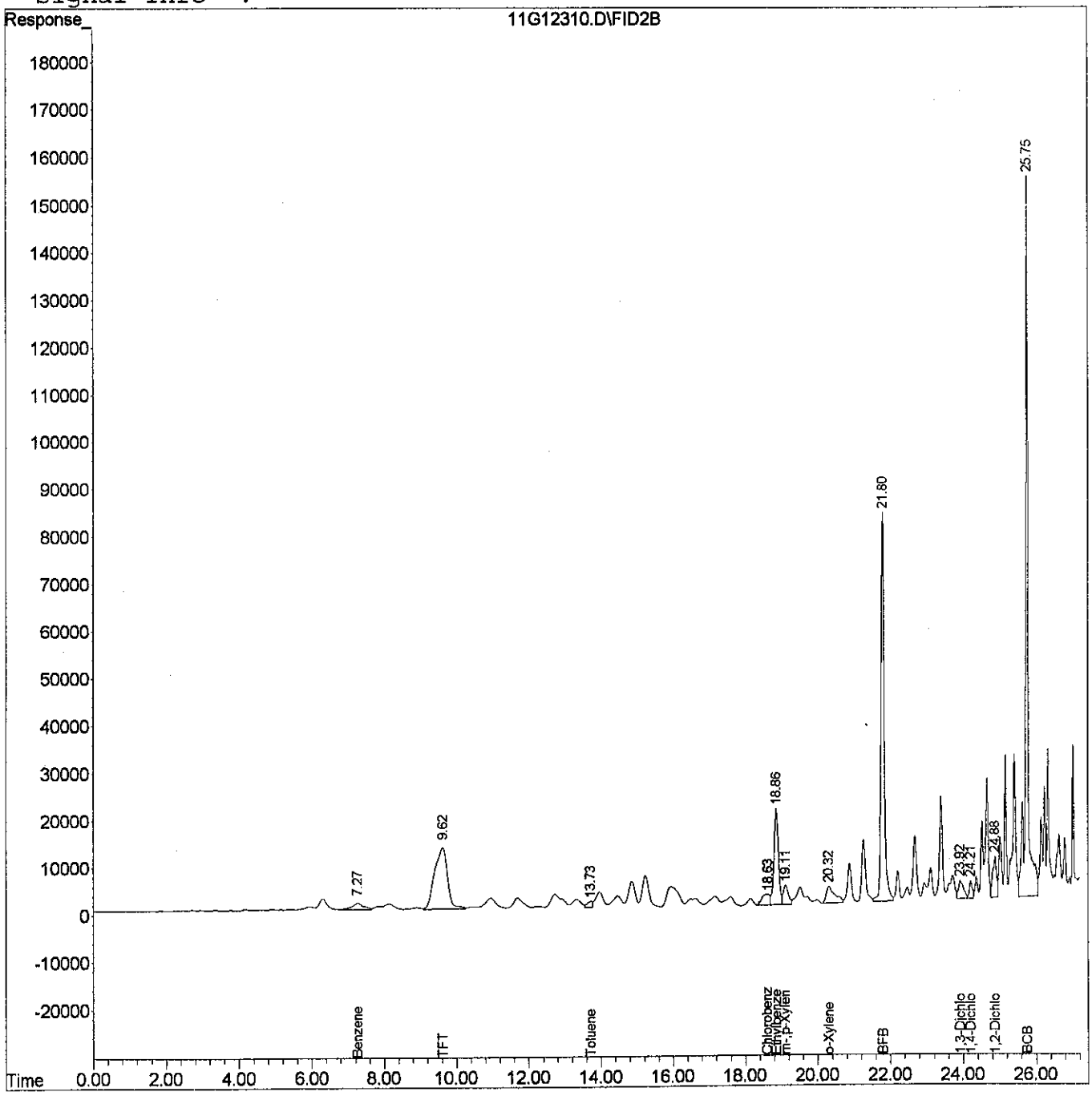
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.62 ✓	3782299	67.629 UG/L *
Spiked Amount	30.000	Range	70 - 130	Recovery =	225.43%#
9) S BFB			21.81 ✓	5129635	31.841 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	106.14%
13) S BCB			25.76	6508040	40.998 UG/L
Spiked Amount	30.000	Range	37 - 137	Recovery =	136.66%
Target Compounds					
1) TM MTBE			3.49	2947	<MDL UG/L ✓
2) TM Benzene			7.29 ✓	434194	2.368 UG/L
4) TM Toluene			13.74	164249	~~0.926 UG/L~~
5) TM Chlorobenzene			18.64	473469	~~2.660 UG/L~~ ✓
6) TM Ethylbenzene			18.87 ✓	2176230	14.251 UG/L
7) TM m-,p-Xylene			19.13 ✓	500811	2.687 UG/L ✓
8) TM o-Xylene			20.32	553697	~~3.353 UG/L~~
10) T 1,3-Dichlorobenzene			23.93	383358	~~2.424 UG/L~~
11) T 1,4-Dichlorobenzene			24.22	224772	~~1.339 UG/L~~
12) T 1,2-Dichlorobenzene			24.88	729251	~~5.071 UG/L~~

(f)=RT Delta > 1/2 Window (m)=manual int. 115

Data File : C:\HPCHEM\1\DATA\111501\11G12310.D Vial: 13
Acq On : 15 Nov 2001 15:55 Operator: CBN
Sample : L0111253-01 A 5ML pH<2 Inst : HP11
Misc : 1,1,RE S-86-09 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 16:22 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\111501\11G12310.D Vial: 13
Acq On : 15 Nov 2001 15:55 Operator: CBN
Sample : L0111253-01 A 5ML pH<2 Inst : HP11
Misc : 1,1,RE S-86-09 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 16:22 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 :

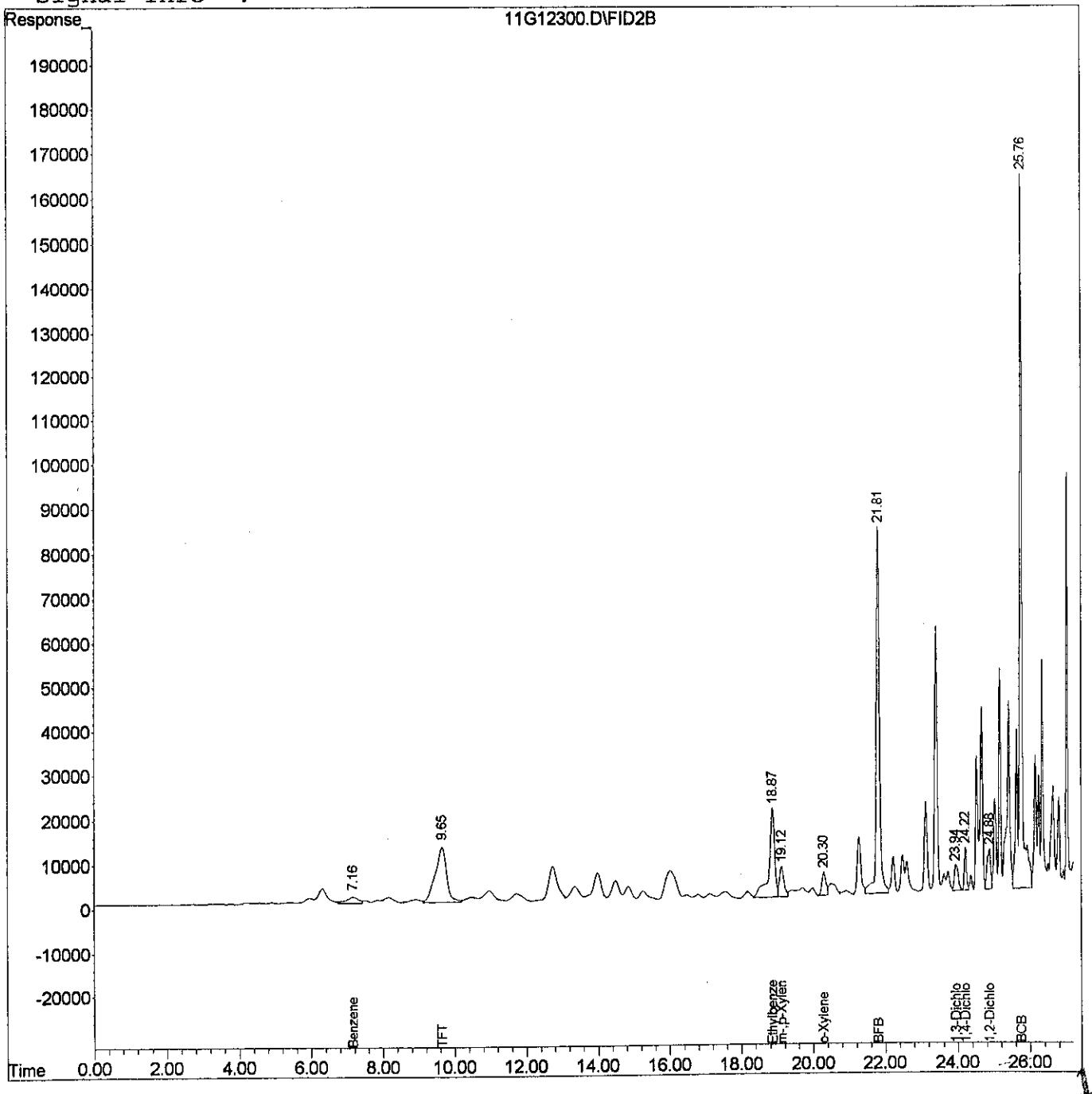
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.62	3253263	58.170 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	193.90%#
9) S BFB			21.80	5057981	31.396 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	104.65%
13) S BCB			25.75	7222959	45.502 UG/L
Spiked Amount	30.000	Range	37 - 137	Recovery =	151.67%#
Target Compounds					
1) TM MTBE			3.35	6252	<MDL UG/L
2) TM Benzene			7.27	330418	1.802 UG/L
4) TM Toluene			13.72	128527	0.725 UG/L
5) TM Chlorobenzene			18.61	340602	1.914 UG/L
6) TM Ethylbenzene			18.86	1781526	11.666 UG/L
7) TM m-,p-Xylene			19.12	406810	2.182 UG/L
8) TM o-Xylene			20.32	580544	~~3.516 UG/L~~
10) T 1,3-Dichlorobenzene			23.93	375219	~~2.373 UG/L~~
11) T 1,4-Dichlorobenzene			24.21	216056	~~1.287 UG/L~~
12) T 1,2-Dichlorobenzene			24.87	641349	~~4.460 UG~~/L

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

Data File : C:\HPCHEM\1\DATA\111501\11G12300.D Vial: 3
Acq On : 15 Nov 2001 10:21 Operator: CBN
Sample : L0111253-02 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-86-09 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 10:48 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\111501\11G12300.D Vial: 3
Acq On : 15 Nov 2001 10:21 Operator: CBN
Sample : L0111253-02 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-86-09 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 10:48 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			9.65	2763519	49.413 UG/L *
Spiked Amount	30.000	Range	70 - 130	Recovery =	164.71%#
9) S BFB			21.81	5234991	32.495 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	108.32%
13) S BCB			25.76	8580067	54.051 UG/L
Spiked Amount	30.000	Range	37 - 137	Recovery =	180.17%#
Target Compounds					
1) TM MTBE			3.50	11776	<MDL UG/L
2) TM Benzene			7.16	320233	~~1.747 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			18.87 ✓	2254864	14.766 UG/L ✓
7) TM m-,p-Xylene			19.12 ✓	629737	3.378 UG/L ✓
8) TM o-Xylene			20.30 ✓	422435	2.558 UG/L
10) T 1,3-Dichlorobenzene			23.96	453833	~~2.870 UG/L~~
11) T 1,4-Dichlorobenzene			24.22	401309	~~2.390 UG/L~~
12) T 1,2-Dichlorobenzene			24.87	620680	~~4.316 UG/L~~

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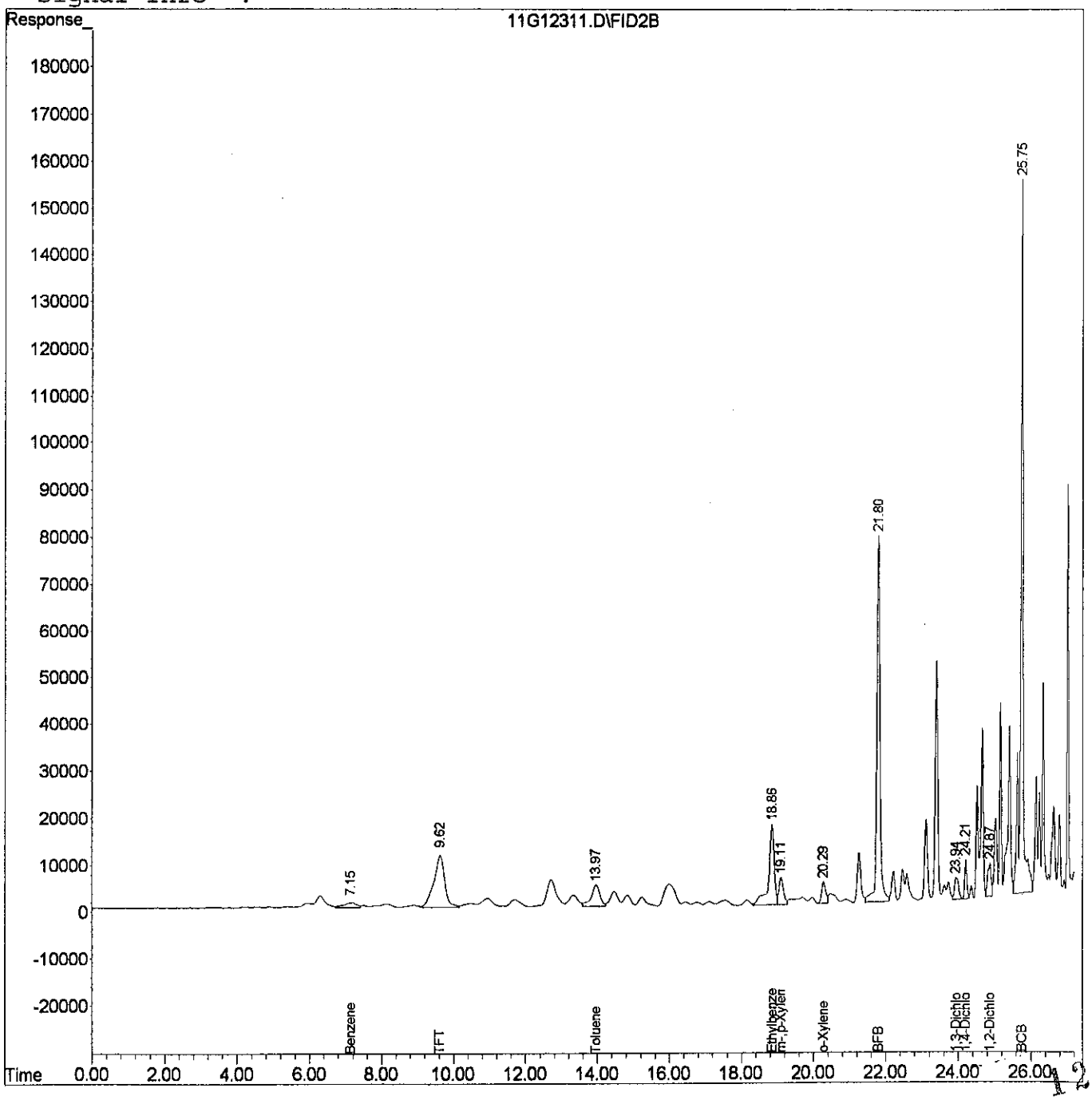
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\111501\11G12311.D Vial: 14
Acq On : 15 Nov 2001 16:28 Operator: CBN
Sample : L0111253-02 A 5ML pH<2 Inst : HP11
Misc : 1,1,RE S-86-09 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 16:55 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\111501\11G12311.D Vial: 14
Acq On : 15 Nov 2001 16:28 Operator: CBN
Sample : L0111253-02 A 5ML pH<2 Inst : HP11
Misc : 1,1,RE S-86-09 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 16:55 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 :

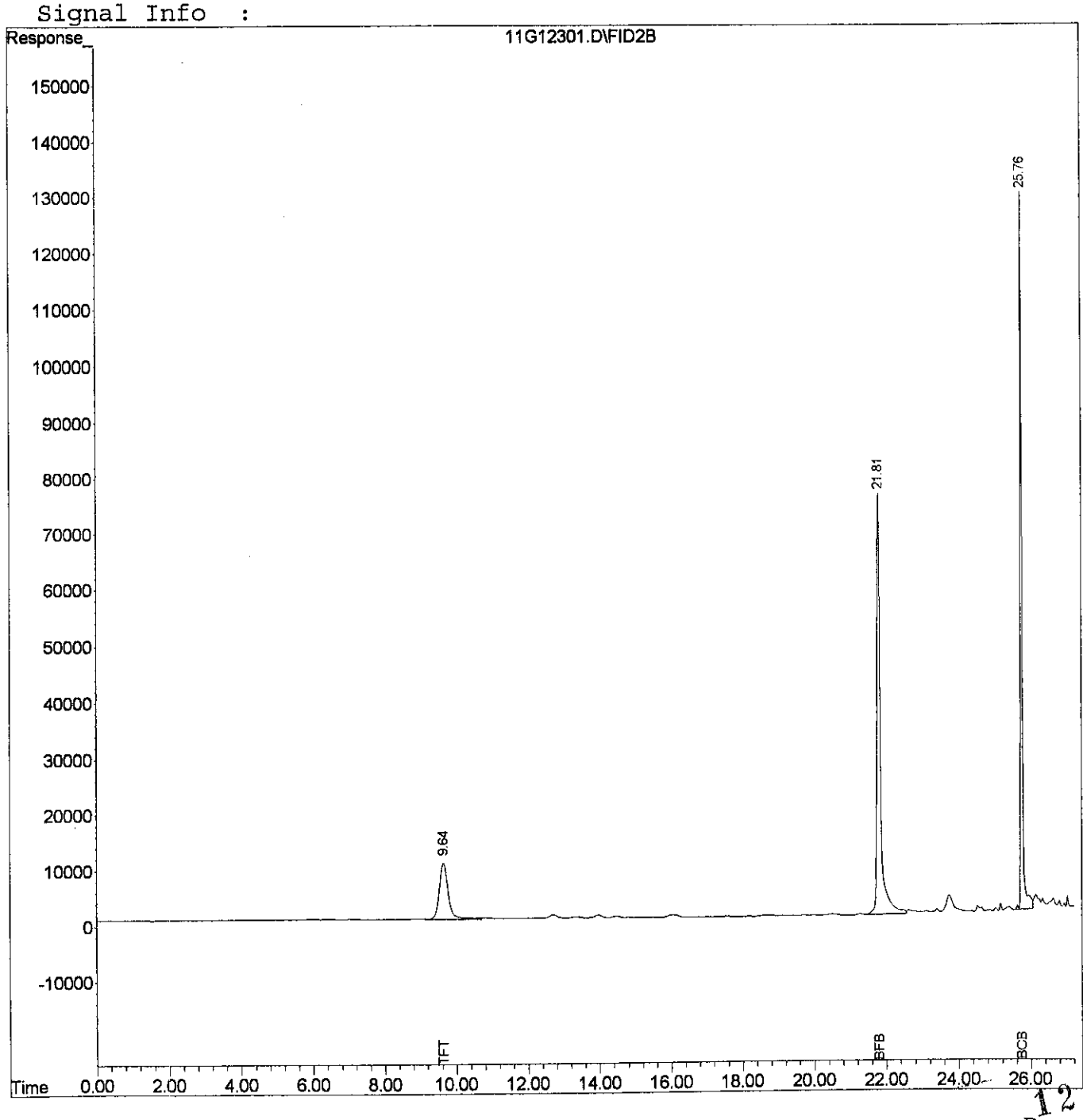
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.63	2381142	42.576 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	141.92%# *
9) S BFB			21.80	4874278	30.256 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	100.85%
13) S BCB			25.75	7508729	47.302 UG/L
Spiked Amount	30.000	Range	37 - 137	Recovery =	157.67%#
Target Compounds					
1) TM MTBE			3.50	11752	<MDL UG/L
2) TM Benzene			7.18	257014	~~1.402 UG/L~~
4) TM Toluene			13.97	780928	~~4.403 UG/L~~
5) TM Chlorobenzene			0.00	0	N.D. UG/L
6) TM Ethylbenzene			18.86 ✓	1836133	12.024 UG/L
7) TM m-,p-Xylene			19.11 ✓	528638	2.836 UG/L
8) TM o-Xylene			20.29 ✓	384913	2.331 UG/L
10) T 1,3-Dichlorobenzene			23.96	375708	~~2.376 UG/L~~
11) T 1,4-Dichlorobenzene			24.21	351819	~~2.095 UG/L~~
12) T 1,2-Dichlorobenzene			24.86	493498	~~3.432 UG/L~~

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

Data File : C:\HPCHEM\1\DATA\111501\11G12301.D Vial: 4
Acq On : 15 Nov 2001 10:53 Operator: CBN
Sample : L0111253-03 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-86-09 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 11:21 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\111501\11G12301.D Vial: 4
Acq On : 15 Nov 2001 10:53 Operator: CBN
Sample : L0111253-03 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-86-09 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 11:21 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 :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.64	1747758	31.251 UG/L ✓
Spiked Amount	30.000	Range	70 - 130	Recovery =	104.17%
9) S BFB			21.81	5135067	31.875 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	106.25%
13) S BCB			25.76	4266339	26.876 UG/L
Spiked Amount	30.000	Range	37 - 137	Recovery =	89.59%
Target Compounds					
1) TM MTBE			0.00	0	N.D. UG/L
2) TM Benzene			7.16	2806	<MDL UG/L
4) TM Toluene			13.98	85514	<MDL UG/L
5) TM Chlorobenzene			18.71	49829	<MDL UG/L
6) TM Ethylbenzene			18.71	49829	<MDL UG/L
7) TM m-,p-Xylene			19.12	9963	<MDL UG/L
8) TM o-Xylene			20.50	48042	<MDL UG/L
10) T 1,3-Dichlorobenzene			24.22	11520	<MDL UG/L
11) T 1,4-Dichlorobenzene			24.22	11520	<MDL UG/L
12) T 1,2-Dichlorobenzene			24.87	16127	<MDL UG/L

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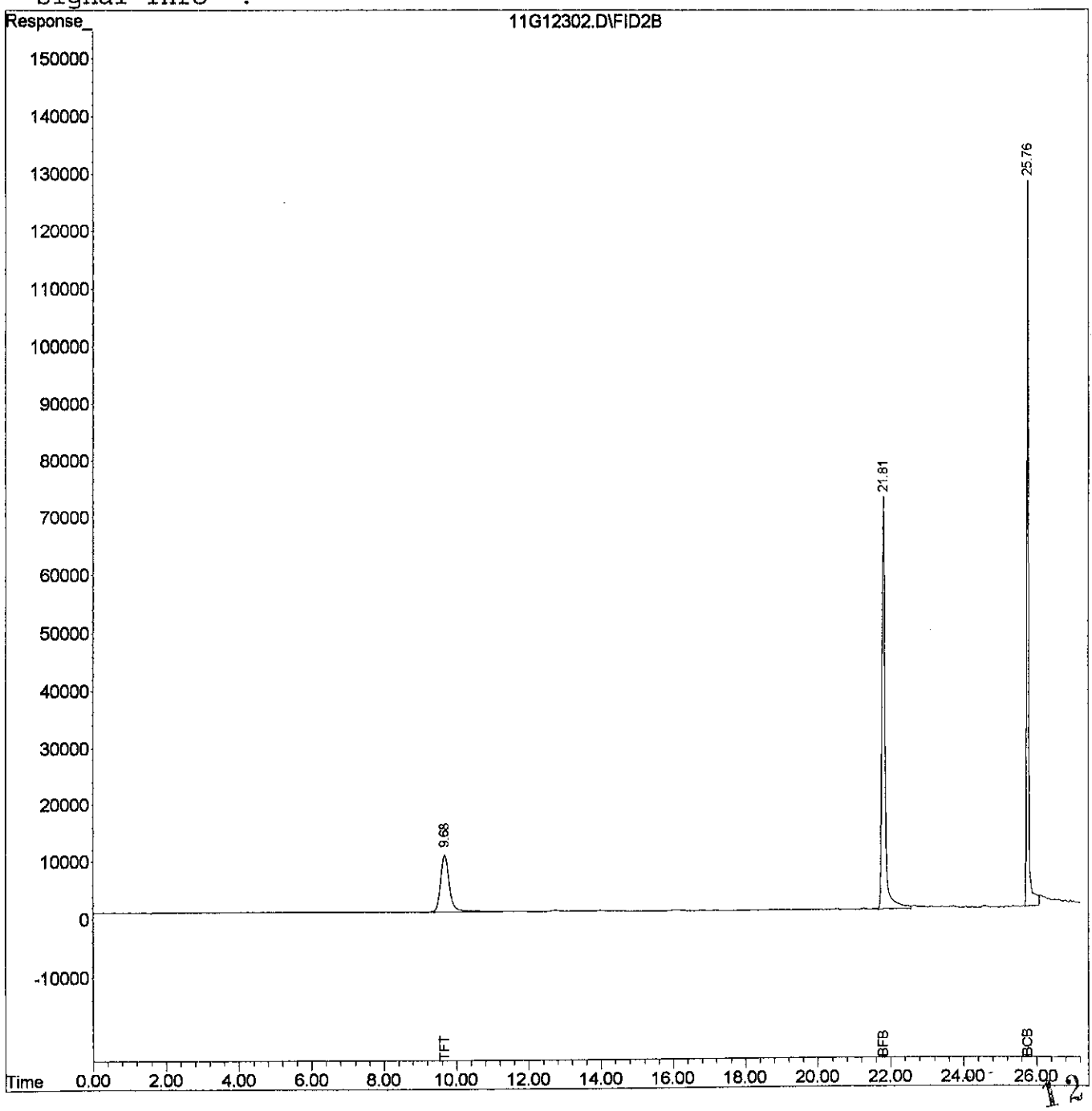
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\111501\11G12302.D Vial: 5
Acq On : 15 Nov 2001 11:26 Operator: CBN
Sample : WG108255-03 L0111253-04 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-86-09 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 11:54 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\111501\11G12302.D Vial: 5
Acq On : 15 Nov 2001 11:26 Operator: CBN
Sample : WG108255-03 L0111253-04 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-86-09 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 11:54 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 :

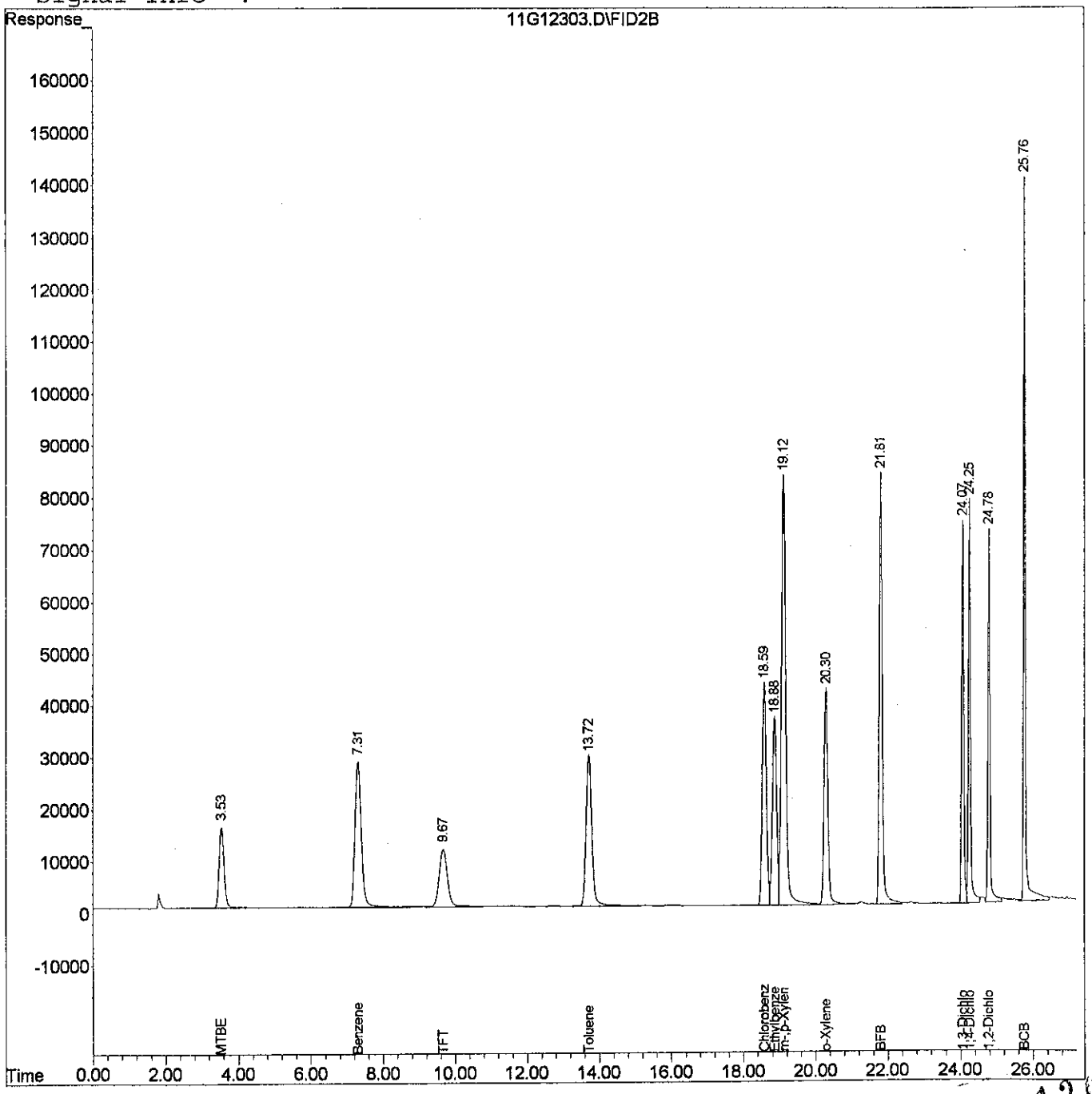
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	9.68	1729191	30.919 UG/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	103.06%
9) S BFB	21.81	4435211	27.531 UG/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	91.77%
13) S BCB	25.76	4146020	26.118 UG/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	87.06%
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	18.75	22859	<MDL UG/L
6) TM Ethylbenzene	18.75	22859	<MDL UG/L
7) TM m-,p-Xylene	19.13	6176	<MDL UG/L
8) TM o-Xylene	20.27	3505	<MDL UG/L
10) T 1,3-Dichlorobenzene	24.07	11904	<MDL UG/L
11) T 1,4-Dichlorobenzene	24.25	6458	<MDL UG/L
12) T 1,2-Dichlorobenzene	24.79	3870	<MDL UG/L

(f)=RT Delta > 1/2 Window (m)=manual_int.
125

Data File : C:\HPCHEM\1\DATA\111501\11G12303.D Vial: 6
Acq On : 15 Nov 2001 11:59 Operator: CBN
Sample : WG108255-04 L0111253-05 MS A 5ML pH<2 Inst : HP11
Misc : 1,1 S-86-(13,09) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 12:26 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\111501\11G12303.D Vial: 6
Acq On : 15 Nov 2001 11:59 Operator: CBN
Sample : WG108255-04 L0111253-05 MS A 5ML pH<2 Inst : HP11
Misc : 1,1 S-86-(13,09) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 12:26 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 :

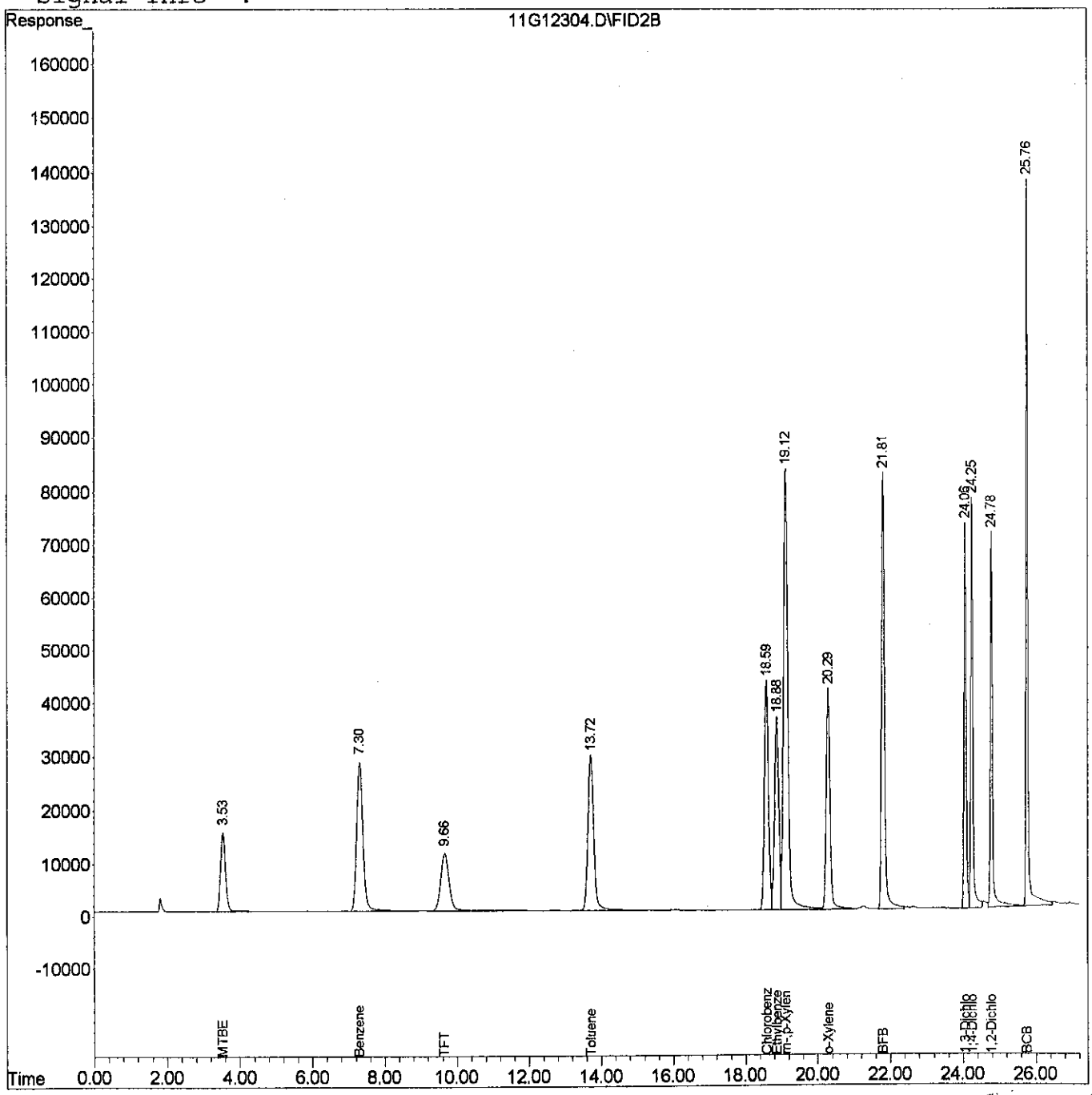
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.67	1801930	32.219 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	107.40%
9) S BFB			21.81	4794876	29.763 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	99.21%
13) S BCB			25.76	4761377	29.995 UG/L
Spiked Amount	30.000	Range	37 - 137	Recovery =	99.98%
Target Compounds					
1) TM MTBE			3.53	1487858	20.129 UG/L
2) TM Benzene			7.31	3492734	19.052 UG/L
4) TM Toluene			13.72	3323413	18.738 UG/L
5) TM Chlorobenzene			18.59	3378270	18.982 UG/L
6) TM Ethylbenzene			18.88	2950136	19.319 UG/L
7) TM m-,p-Xylene			19.13	7041434	37.773 UG/L
8) TM o-Xylene			20.30	3085010	18.681 UG/L
10) T 1,3-Dichlorobenzene			24.07	2950831	18.660 UG/L
11) T 1,4-Dichlorobenzene			24.25	3123820	18.603 UG/L
12) T 1,2-Dichlorobenzene			24.78	2788545	19.392 UG/L

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

Data File : C:\HPCHEM\1\DATA\111501\11G12304.D Vial: 7
Acq On : 15 Nov 2001 12:32 Operator: CBN
Sample : WG108255-05 L0111253-06 MSD A 5ML pH<2 Inst : HP11
Misc : 1,1 S-86-(13,09) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 12:59 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\111501\11G12304.D Vial: 7
Acq On : 15 Nov 2001 12:32 Operator: CBN
Sample : WG108255-05 L0111253-06 MSD A 5ML pH<2 Inst : HP11
Misc : 1,1 S-86-(13,09) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 12:59 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 :

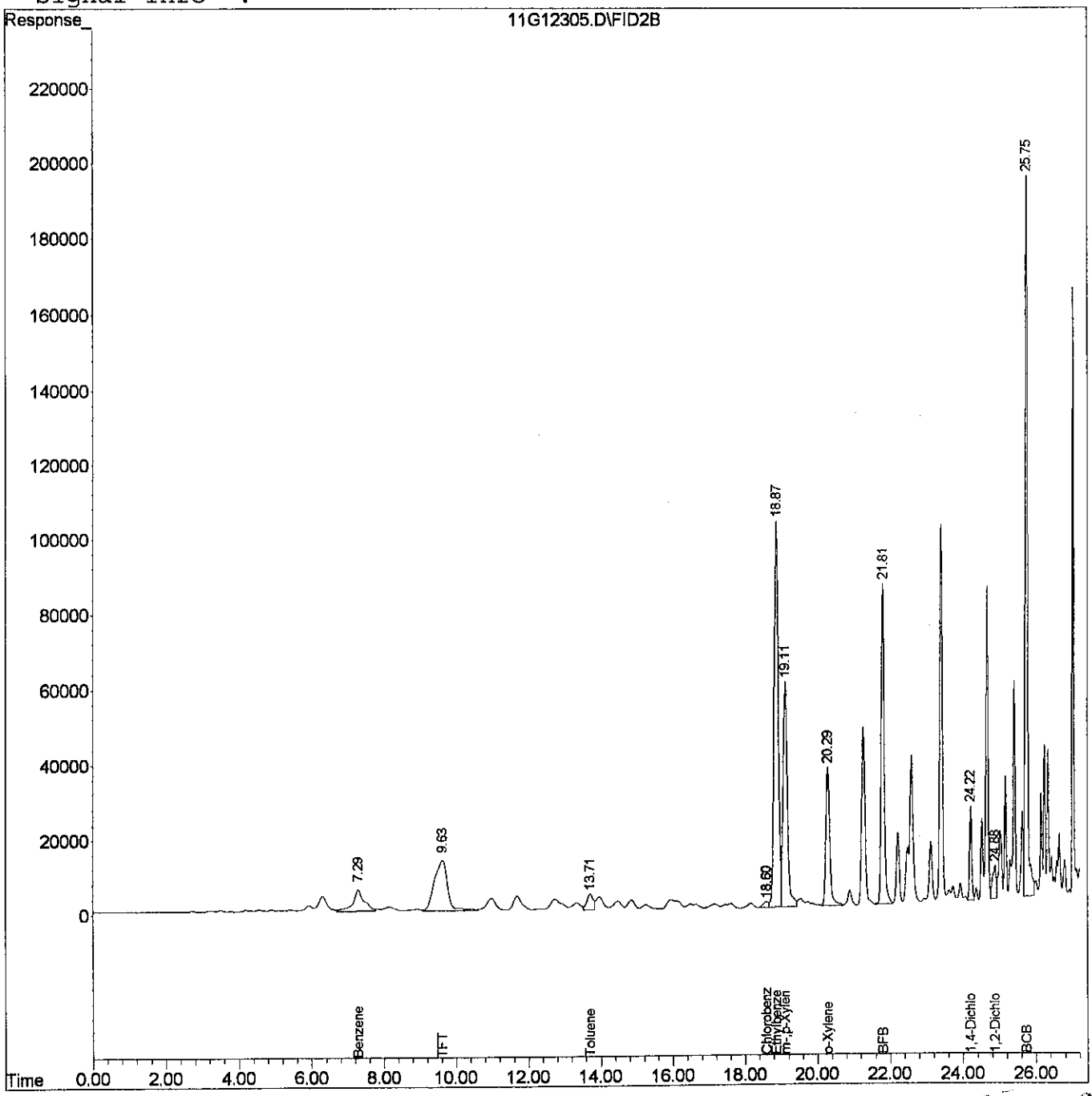
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.66	1788106	31.972 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	106.57%
9) S BFB			21.81	4741793	29.434 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	98.11%
13) S BCB			25.76	4633522	29.189 UG/L
Spiked Amount	30.000	Range	37 - 137	Recovery =	97.30%
Target Compounds					
1) TM MTBE			3.53	1418131	19.186 UG/L
2) TM Benzene			7.30	3507589	19.133 UG/L
4) TM Toluene			13.72	3334925	18.803 UG/L
5) TM Chlorobenzene			18.59	3362052	18.891 UG/L
6) TM Ethylbenzene			18.88	2946897	19.297 UG/L
7) TM m-,p-Xylene			19.12	7039989	37.765 UG/L
8) TM o-Xylene			20.30	3073501	18.612 UG/L
10) T 1,3-Dichlorobenzene			24.07	2901171	18.346 UG/L
11) T 1,4-Dichlorobenzene			24.25	3078631	18.334 UG/L
12) T 1,2-Dichlorobenzene			24.78	2822138	19.625 UG/L

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

Data File : C:\HPCHEM\1\DATA\111501\11G12305.D Vial: 8
Acq On : 15 Nov 2001 13:04 Operator: CBN
Sample : L0111253-07 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-86-09 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 13:31 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 :



Data File : C:\HPCHEM\1\DATA\111501\11G12305.D Vial: 8
Acq On : 15 Nov 2001 13:04 Operator: CBN
Sample : L0111253-07 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-86-09 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 13:31 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 :

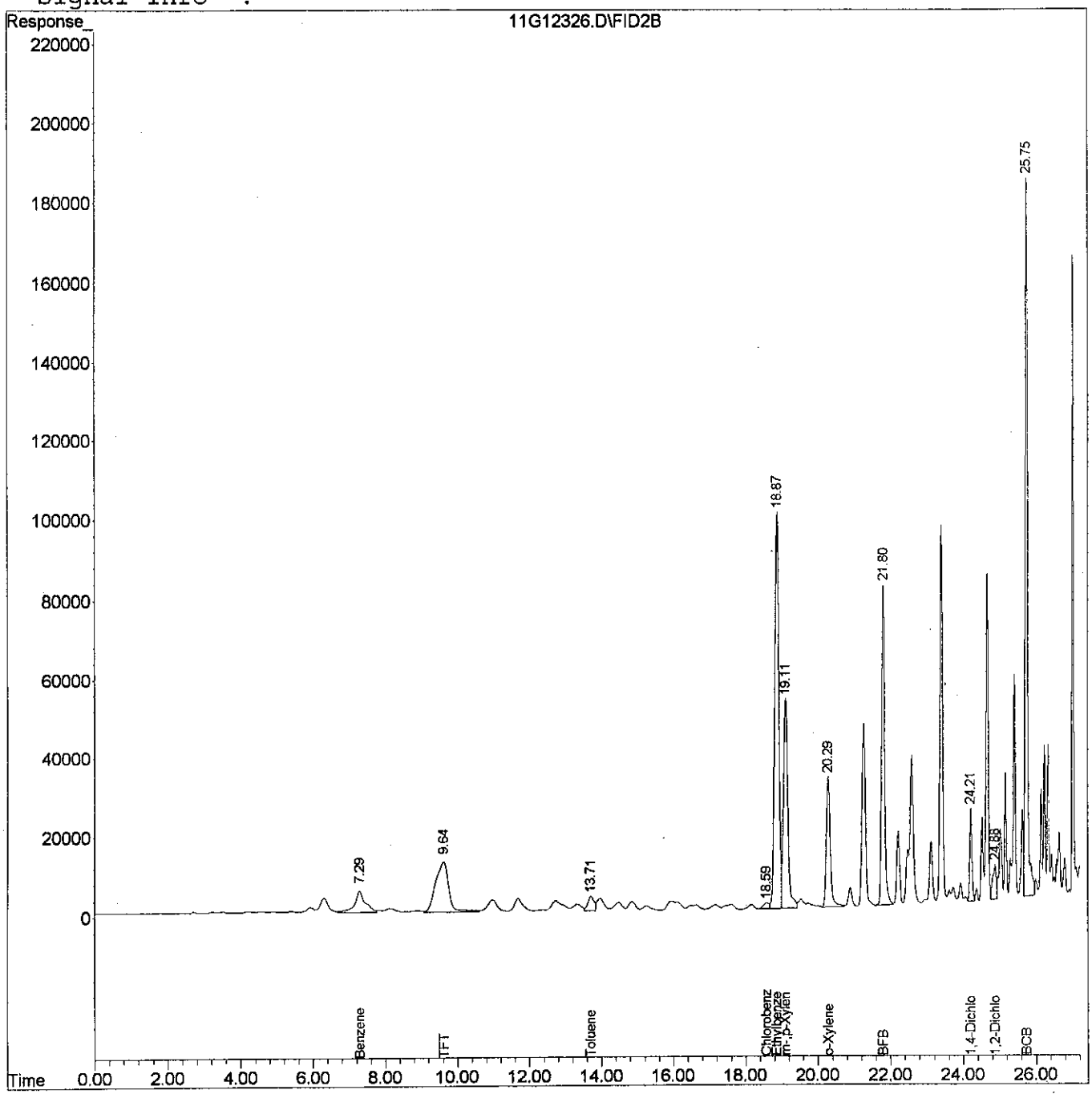
	Compound			R.T.	Response	Conc Units
	System Monitoring Compounds					
3)	S TFT			9.63	3432075	61.367 UG/L
Spiked Amount		30.000	Range	70 - 130	Recovery =	204.56%#
9)	S BFB			21.81	4871183	30.237 UG/L
Spiked Amount		30.000	Range	70 - 130	Recovery =	100.79%
13)	S BCB			25.75	8602999	54.196 UG/L
Spiked Amount		30.000	Range	37 - 137	Recovery =	180.65%#
	Target Compounds					
1)	TM MTBE			3.51	32408	<MDL UG/L
2)	TM Benzene			7.29	1242688	6.779 UG/L
4)	TM Toluene			13.71	505011	2.847 UG/L
5)	TM Chlorobenzene			18.60	157258	0.884 UG/L
6)	TM Ethylbenzene			18.87	8266859	54.134 UG/L
7)	TM m-,p-Xylene			19.12	5034499	27.007 UG/L
8)	TM o-Xylene			20.29	2795754	16.930 UG/L
10)	T 1,3-Dichlorobenzene			24.07	51464	<MDL UG/L
11)	T 1,4-Dichlorobenzene			24.22	1044215	6.219 UG/L
12)	T 1,2-Dichlorobenzene			24.88	592436	4.120 UG/L

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

Data File : C:\HPCHEM\1\DATA\111601\11G12326.D Vial: 1
Acq On : 16 Nov 2001 11:31 Operator: JLS
Sample : L0111253-07 B 5ML pH<2 Inst : HP11
Misc : 1,1 S-86-09 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 16 11:59 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\111601\11G12326.D Vial: 1
Acq On : 16 Nov 2001 11:31 Operator: JLS
Sample : L0111253-07 B 5ML pH<2 Inst : HP11
Misc : 1,1 S-86-09 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 16 11:59 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 :

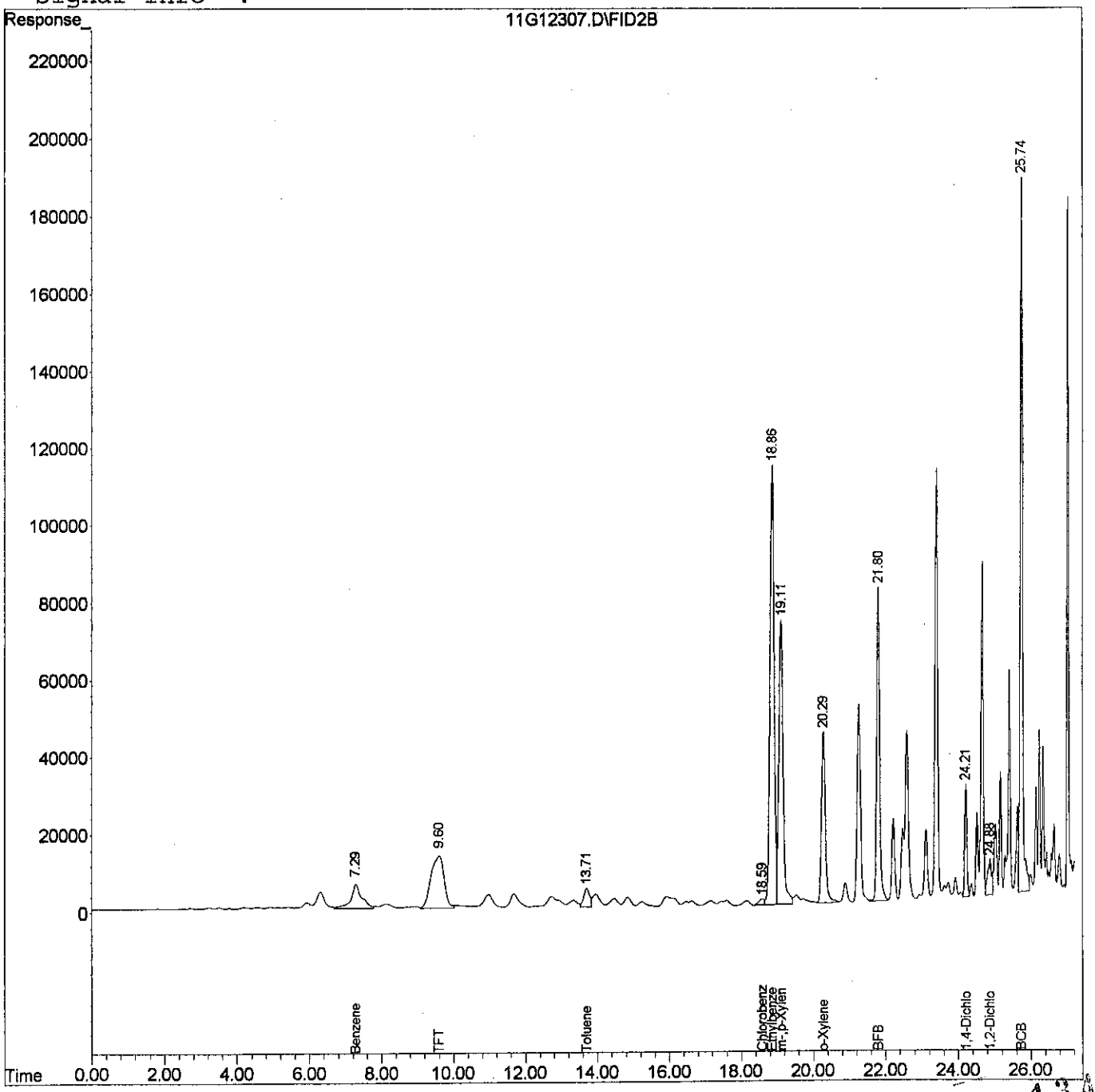
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.63	3166486	56.618 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	188.73%# *
9) S BFB			21.81	4629489	28.737 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	95.79%
13) S BCB			25.75	8151955	51.354 UG/L
Spiked Amount	30.000	Range	37 - 137	Recovery =	171.18%#
Target Compounds					
1) TM MTBE			3.51	27491	<MDL UG/L
2) TM Benzene			7.29	1155529	6.303 UG/L
4) TM Toluene			13.71	439968	2.481 UG/L
5) TM Chlorobenzene			18.59	158680	~~0.892~~ UG/L
6) TM Ethylbenzene			18.87	8025265	52.552 UG/L
7) TM m-,p-Xylene			19.11	4443163	23.835 UG/L
8) TM o-Xylene			20.29	2469549	14.955 UG/L
10) T 1,3-Dichlorobenzene			24.07	57508	<MDL UG/L
11) T 1,4-Dichlorobenzene			24.22	974282	~~5.802~~ UG/L
12) T 1,2-Dichlorobenzene			24.88	573707	~~3.990~~ UG/L

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

Data File : C:\HPCHEM\1\DATA\111501\11G12307.D Vial: 10
Acq On : 15 Nov 2001 14:18 Operator: CBN
Sample : L0111253-08 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-86-09 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 14:45 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\111501\11G12307.D Vial: 10
Acq On : 15 Nov 2001 14:18 Operator: CBN
Sample : L0111253-08 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-86-09 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 14:45 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 :

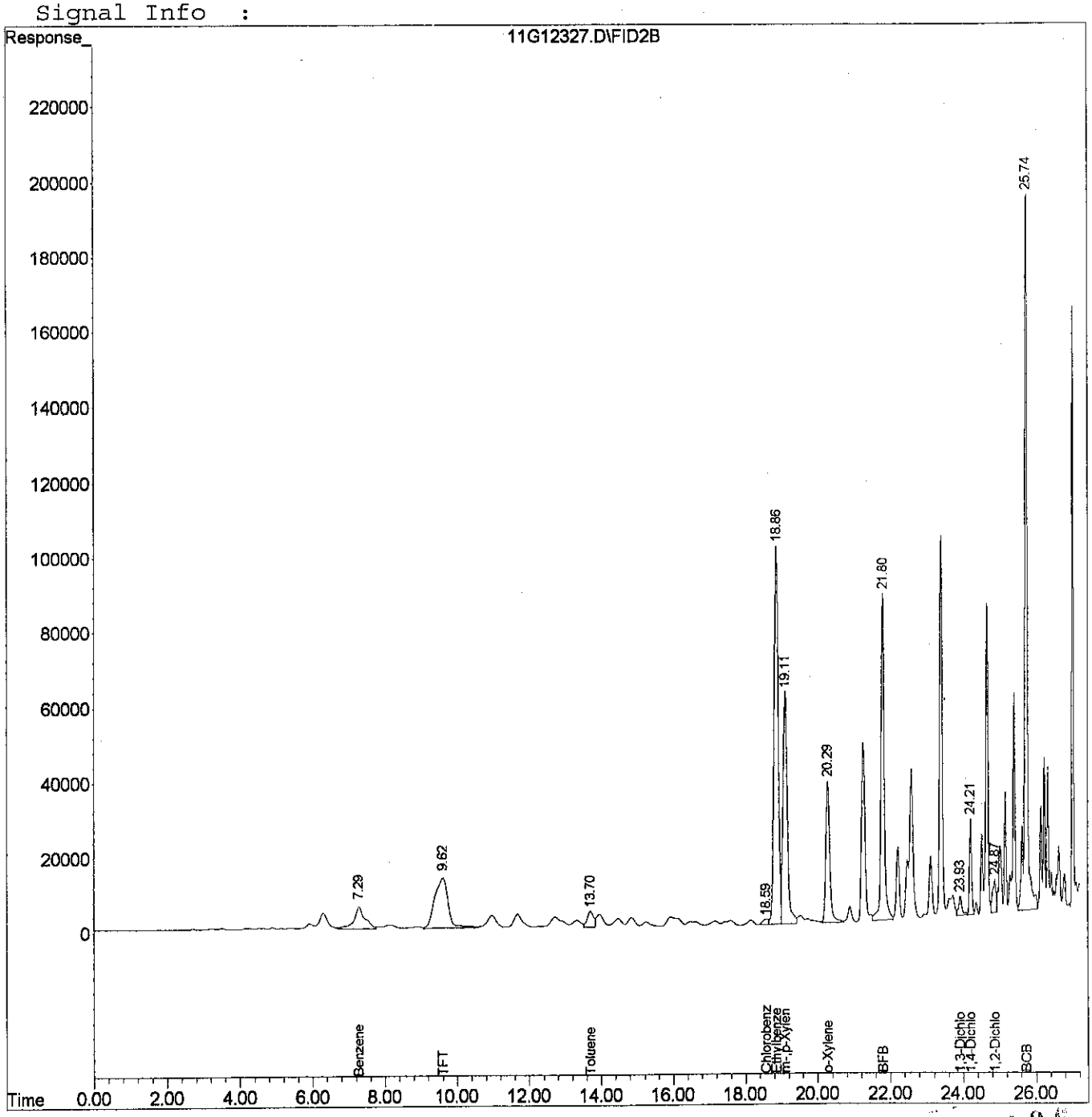
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.61	3415983	61.079 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	203.60%#
9) S BFB			21.80	4656706	28.906 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	96.35%
13) S BCB			25.74	8469141	53.352 UG/L
Spiked Amount	30.000	Range	37 - 137	Recovery =	177.84%#
Target Compounds					
1) TM MTBE			3.50	29811	<MDL UG/L
2) TM Benzene			7.29	1325017	7.228 UG/L
4) TM Toluene			13.71	570899	3.219 UG/L
5) TM Chlorobenzene			18.59	161091	0.905 UG/L
6) TM Ethylbenzene			18.87	9096214	59.565 UG/L
7) TM m-,p-Xylene			19.11	6097935	32.711 UG/L
8) TM o-Xylene			20.29	3290162	19.924 UG/L
10) T 1,3-Dichlorobenzene			24.07	52880	<MDL UG/L
11) T 1,4-Dichlorobenzene			24.21	1202048	7.158 UG/L
12) T 1,2-Dichlorobenzene			24.88	713866	4.964 UG/L

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

Data File : C:\HPCHEM\1\DATA\111601\11G12327.D Vial: 2
Acq On : 16 Nov 2001 12:04 Operator: JLS
Sample : L0111253-08 B 5ML pH<2 Inst : HP11
Misc : 1,1 S-86-09 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 16 12:31 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 :



Data File : C:\HPCHEM\1\DATA\111601\11G12327.D Vial: 2
Acq On : 16 Nov 2001 12:04 Operator: JLS
Sample : L0111253-08 B 5ML pH<2 Inst : HP11
Misc : 1,1 S-86-09 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 16 12:31 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			9.62	3444275	61.585 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	205.28%#
9) S BFB			21.80	5400635	33.523 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	111.74%
13) S BCB			25.74	9850455	62.054 UG/L
Spiked Amount	30.000	Range	37 - 137	Recovery =	206.85%#
Target Compounds					
1) TM MTBE			3.50	31731	<MDL UG/L
2) TM Benzene			7.29	1234164	6.732 UG/L
4) TM Toluene			13.71	494279	2.787 UG/L
5) TM Chlorobenzene			18.59	138121	~~0.776 UG/L~~
6) TM Ethylbenzene			18.86	8158642	53.426 UG/L
7) TM m-,p-Xylene			19.11	5181213	27.794 UG/L
8) TM o-Xylene			20.29	2842213	17.211 UG/L
10) T 1,3-Dichlorobenzene			23.93	323807	~~2.048 UG/L~~
11) T 1,4-Dichlorobenzene			24.21	1051858	~~6.264 UG/L~~
12) T 1,2-Dichlorobenzene			24.87	613199	~~4.264 UG/L~~

(f)=RT Delta > 1/2 Window (m)=manual int
11G12327.D 8021W.M Fri Nov 16 12:31:47 2001 Page 1
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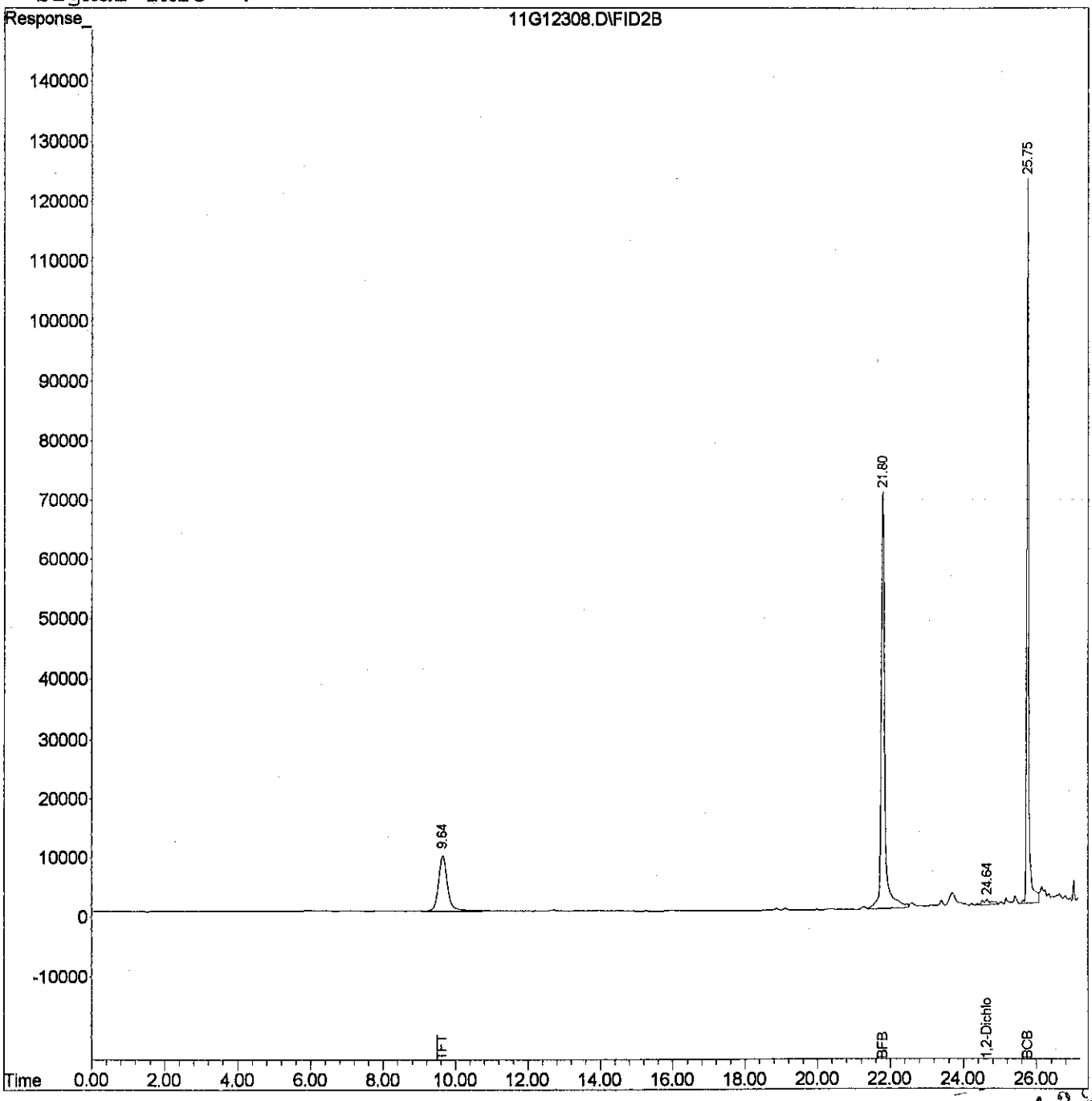
Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\111501\11G12308.D Vial: 11
Acq On : 15 Nov 2001 14:50 Operator: CBN
Sample : L0111253-09 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-86-09 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 15:18 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\111501\11G12308.D Vial: 11
Acq On : 15 Nov 2001 14:50 Operator: CBN
Sample : L0111253-09 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-86-09 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 15:18 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

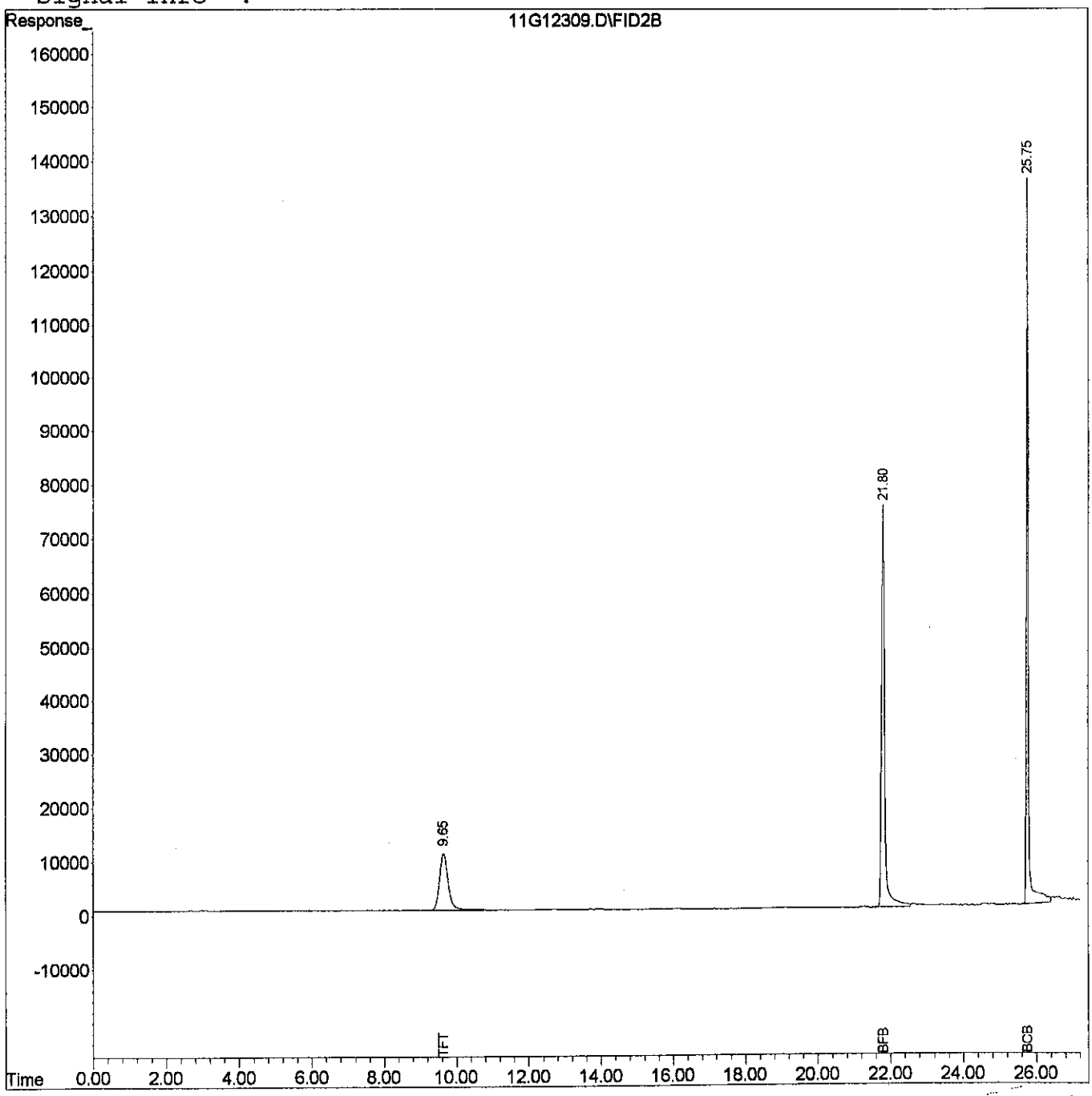
Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.65	1678428	30.011 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	100.04%
9) S BFB			21.80	4728747	29.353 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	97.84%
13) S BCB			25.76	4174420	26.297 UG/L
Spiked Amount	30.000	Range	37 - 137	Recovery =	87.66%
Target Compounds					
1) TM MTBE			0.00	0	N.D. UG/L
2) TM Benzene			7.18	33521	<MDL UG/L
4) TM Toluene			13.96	37820	<MDL UG/L
5) TM Chlorobenzene			18.58	11144	<MDL UG/L
6) TM Ethylbenzene			18.86	25727	<MDL UG/L
7) TM m-,p-Xylene			19.11	28000	<MDL UG/L
8) TM o-Xylene			20.31	25595	<MDL UG/L
10) T 1,3-Dichlorobenzene			24.23	15057	<MDL UG/L
11) T 1,4-Dichlorobenzene			24.23	15057	<MDL UG/L
12) T 1,2-Dichlorobenzene			24.65	169909	~~1.182 UG/L~~

Data File : C:\HPCHEM\1\DATA\111501\11G12309.D Vial: 12
Acq On : 15 Nov 2001 15:23 Operator: CBN
Sample : L0111253-10 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-86-09 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 15:50 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 :



Data File : C:\HPCHEM\1\DATA\111501\11G12309.D Vial: 12
Acq On : 15 Nov 2001 15:23 Operator: CBN
Sample : L0111253-10 A 5ML pH<2 Inst : HP11
Misc : 1,1 S-86-09 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 15:50 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			9.65	1815668	32.465 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	108.22%
9) S BFB			21.80	4570199	28.369 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	94.56%
13) S BCB			25.76	4734128	29.823 UG/L
Spiked Amount	30.000	Range	37 - 137	Recovery =	99.41%
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			13.72	5631	<MDL UG/L
5) TM Chlorobenzene			18.59	5651	<MDL UG/L
6) TM Ethylbenzene			18.87	8604	<MDL UG/L
7) TM m-,p-Xylene			19.11	12236	<MDL UG/L
8) TM o-Xylene			20.40	9551	<MDL UG/L
10) T 1,3-Dichlorobenzene			24.06	11955	<MDL UG/L
11) T 1,4-Dichlorobenzene			24.24	9084	<MDL UG/L
12) T 1,2-Dichlorobenzene			24.78	22640	<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 11/09/01
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	5.536
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	2.410
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

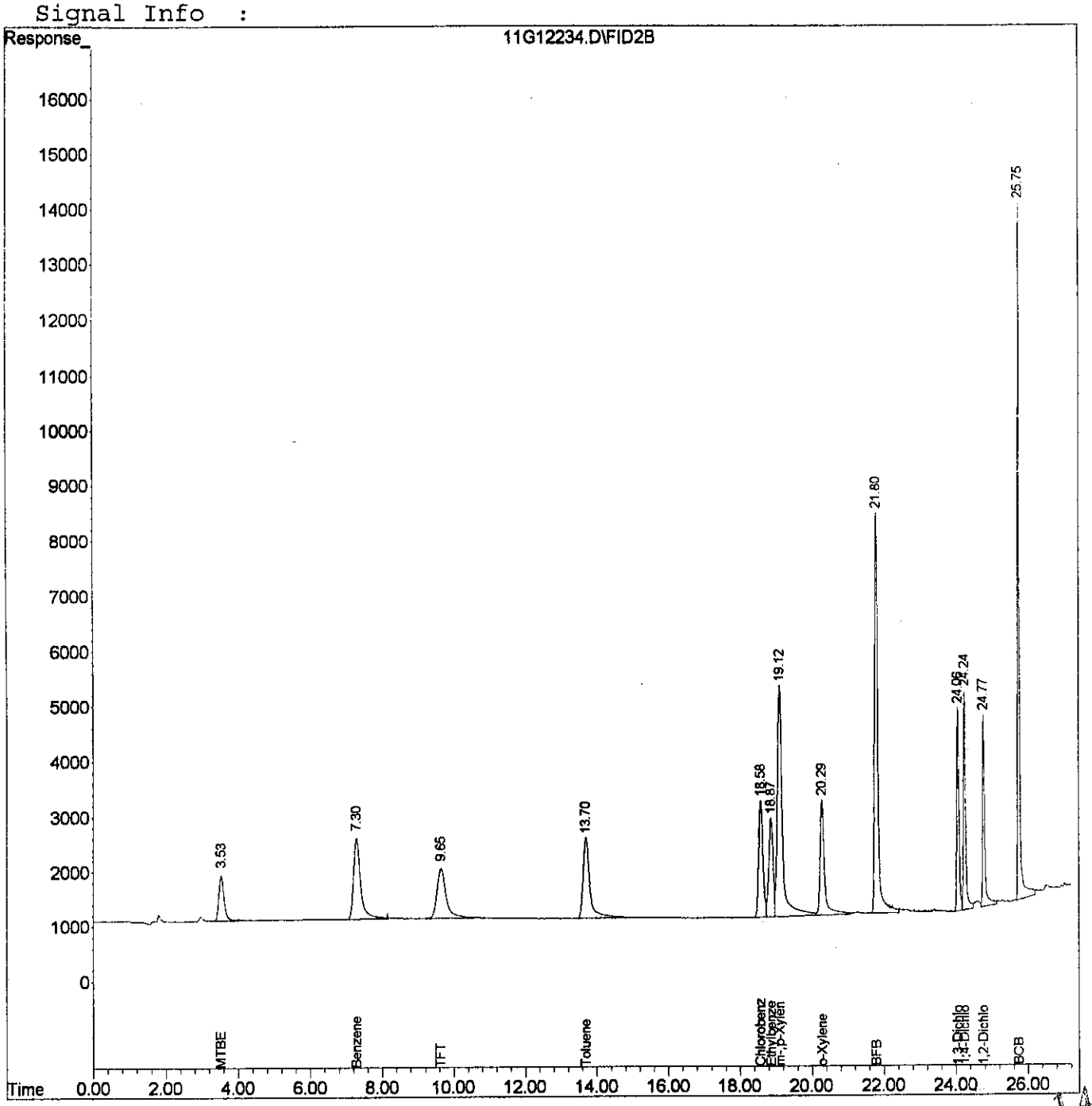
Fri Nov 09 13:35:28 2001

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 :

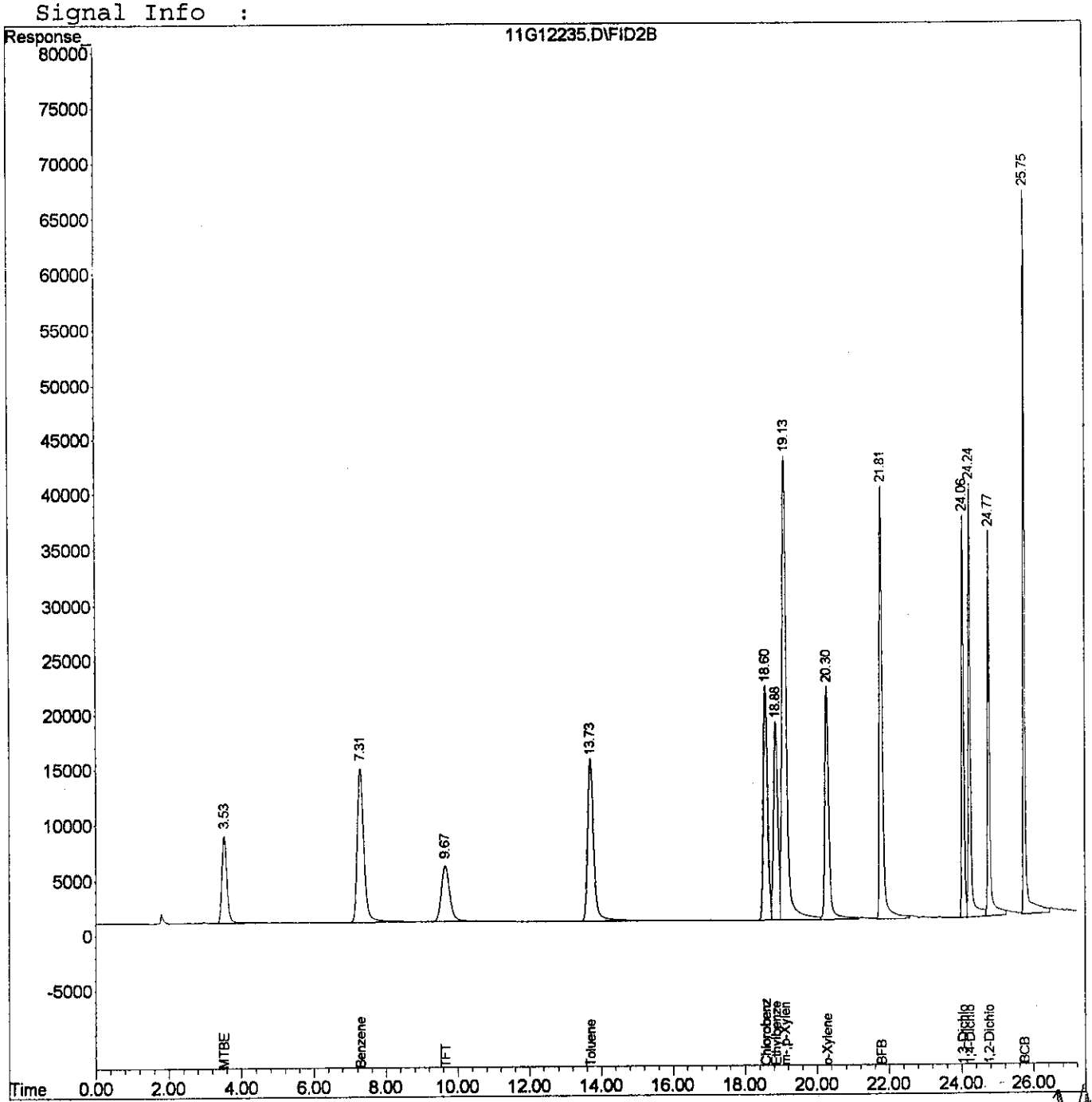
Compound			R.T.	Response		Conc Units
System Monitoring Compounds						
3) S TFT			9.65	161955		2.510 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery	=	8.37%#
9) S BFB			21.81	443662		2.320 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery	=	7.73%#
13) S BCB			25.75	427975		2.221 UG/L
Spiked Amount	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 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 : 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 :

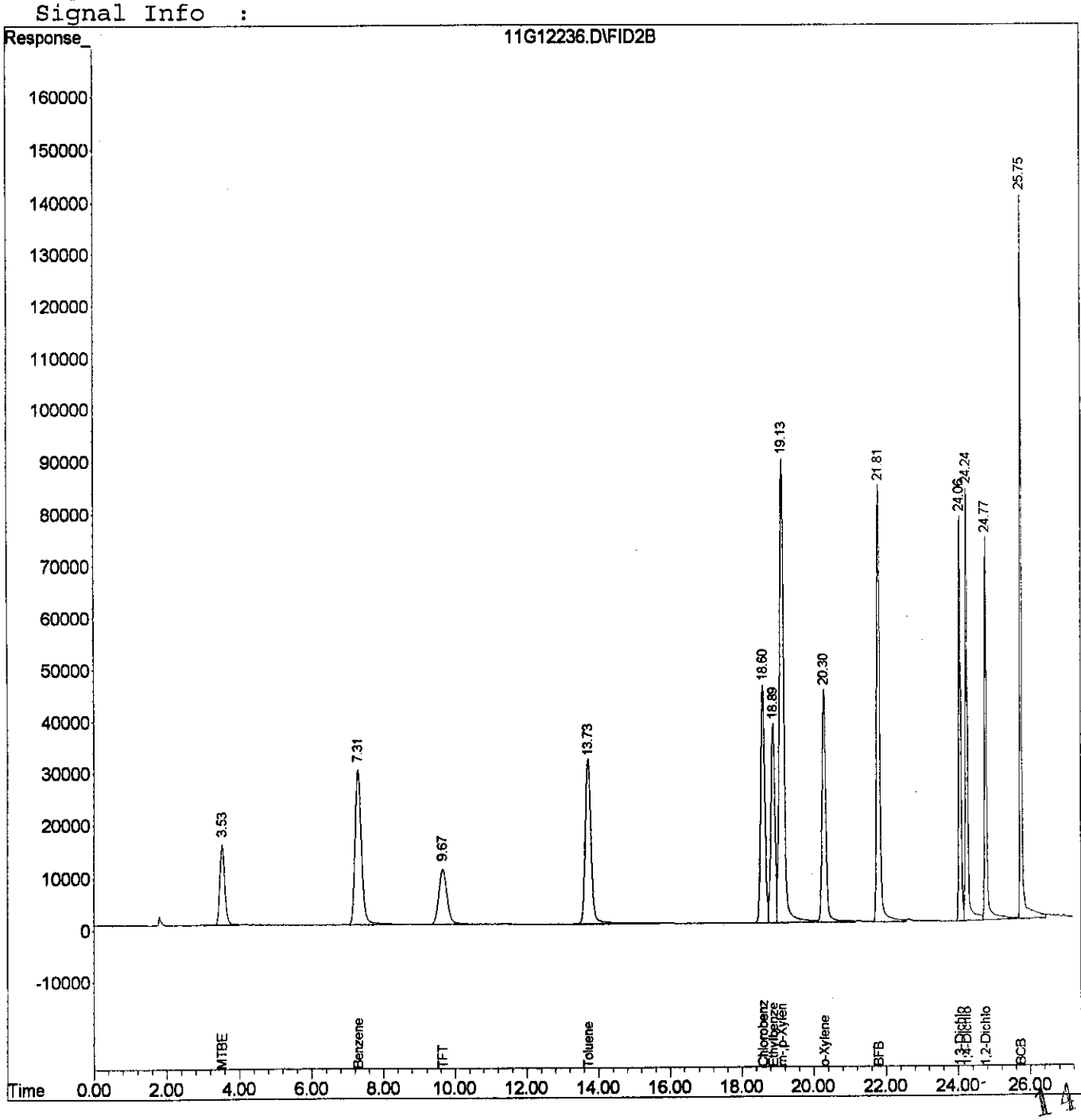
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.67	838666	12.999 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	43.33%#
9) S BFB			21.81	2356371	12.322 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	41.07%#
13) S BCB			25.75	2291010	11.889 UG/L
Spiked Amount	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 Vial: 4
Acq On : 9 Nov 2001 10:54 Operator: CBN
Sample : WG107912-03 8021 STD3 20PPB 5ML Inst : HP11
Misc : 1,1 S-(85-35,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 9 11:22 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\11G12236.D Vial: 4
Acq On : 9 Nov 2001 10:54 Operator: CBN
Sample : WG107912-03 8021 STD3 20PPB 5ML Inst : HP11
Misc : 1,1 S-(85-35,86-08) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 9 11:22 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	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

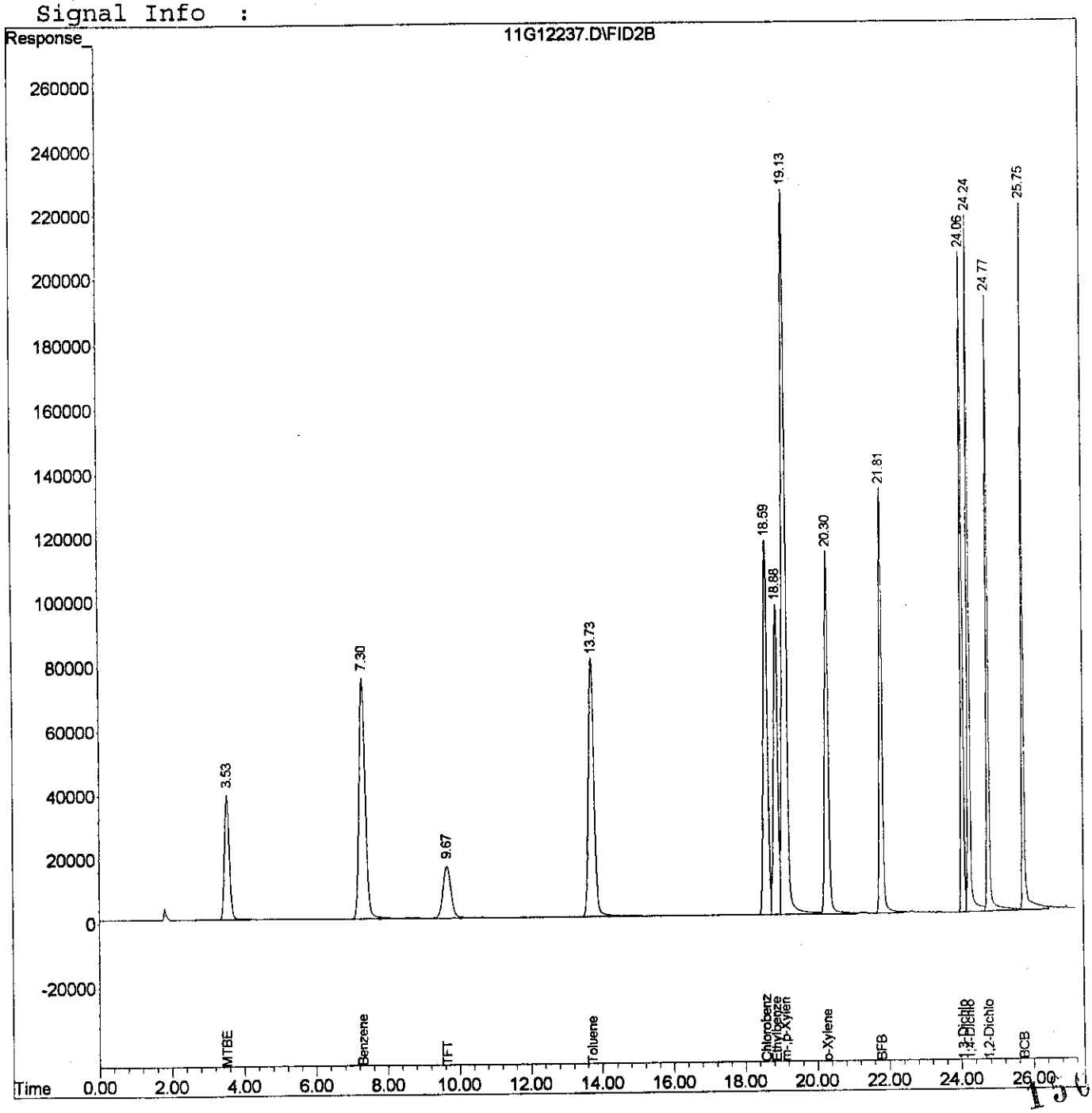
(f)=RT Delta > 1/2 Window (m)=manual int.

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 : 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 :

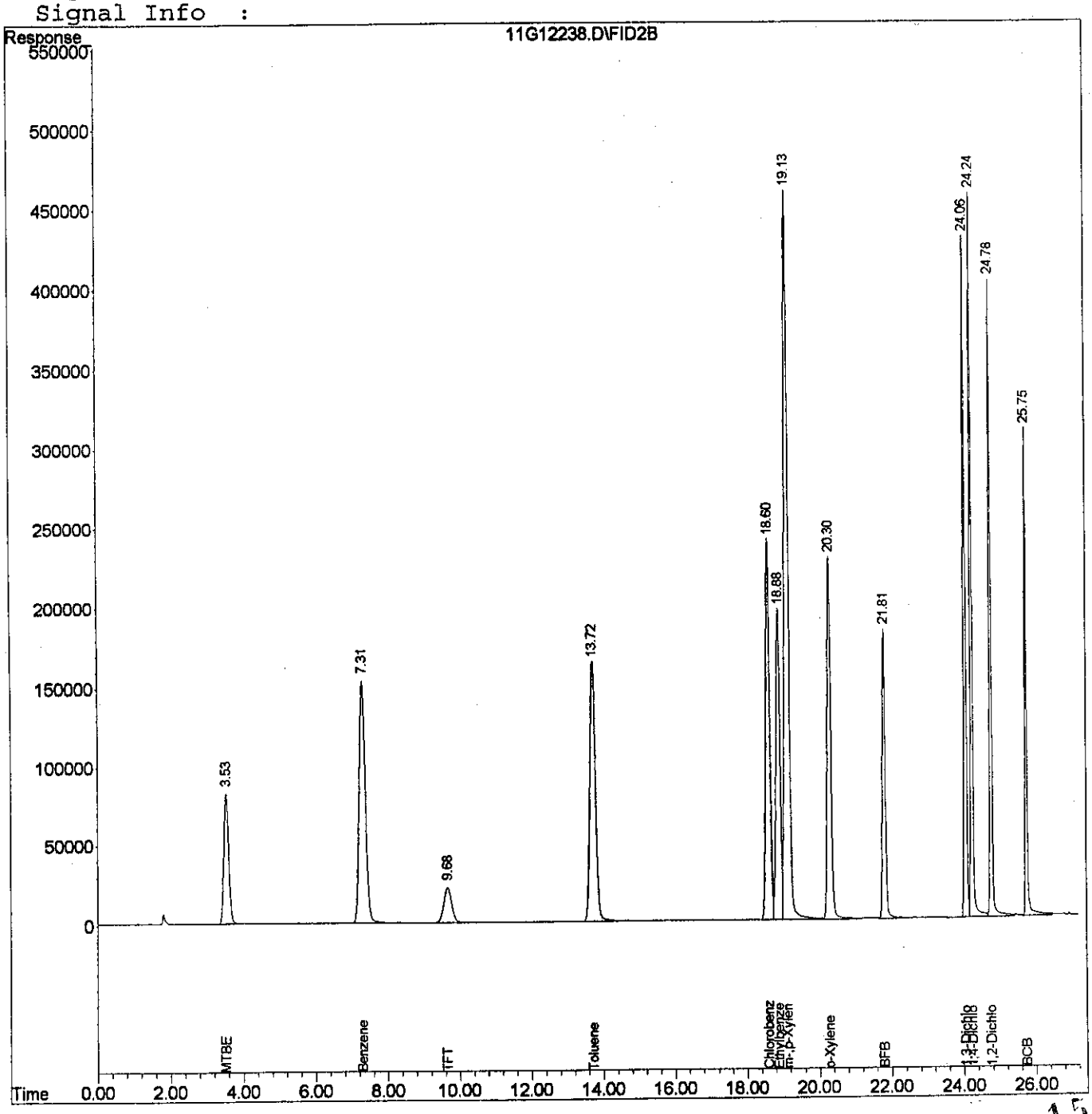
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.67	2550567	39.532 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	131.77%#
9) S BFB			21.81	7374899	38.566 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	128.55%
13) S BCB			25.75	7290473	37.832 UG/L
Spiked Amount	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

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 : 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

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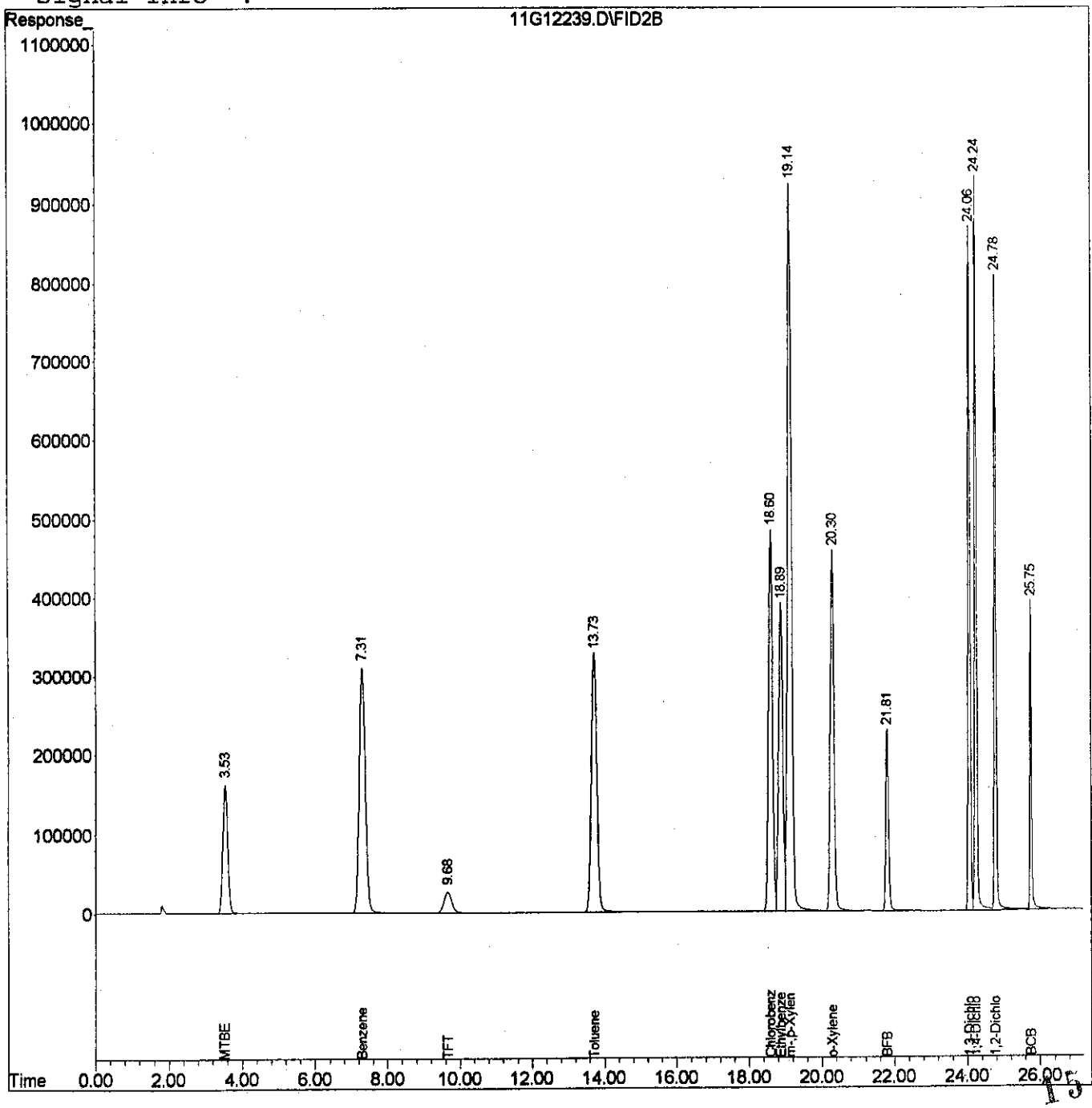
Quantitation Report (Not Reviewed)

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 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 : Initial Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :

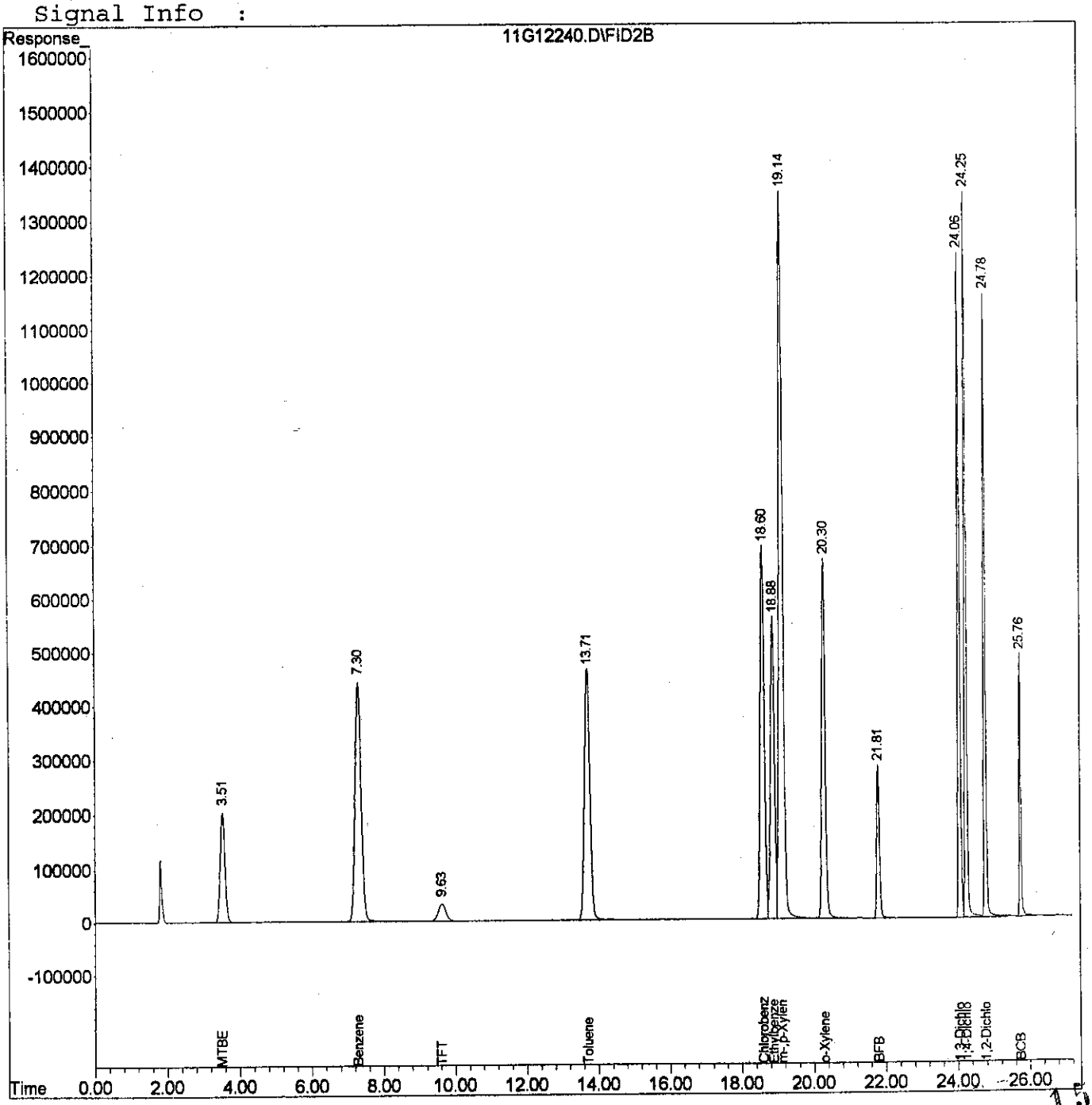
Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			9.67	4193802	65.000 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery	= 216.67%#
9) S BFB			21.81	12364507	64.659 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery	= 215.53%#
13) S BCB			25.76	12311990	63.890 UG/L
Spiked 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 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 : 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

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

Evaluate Continuing Calibration Report

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

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%

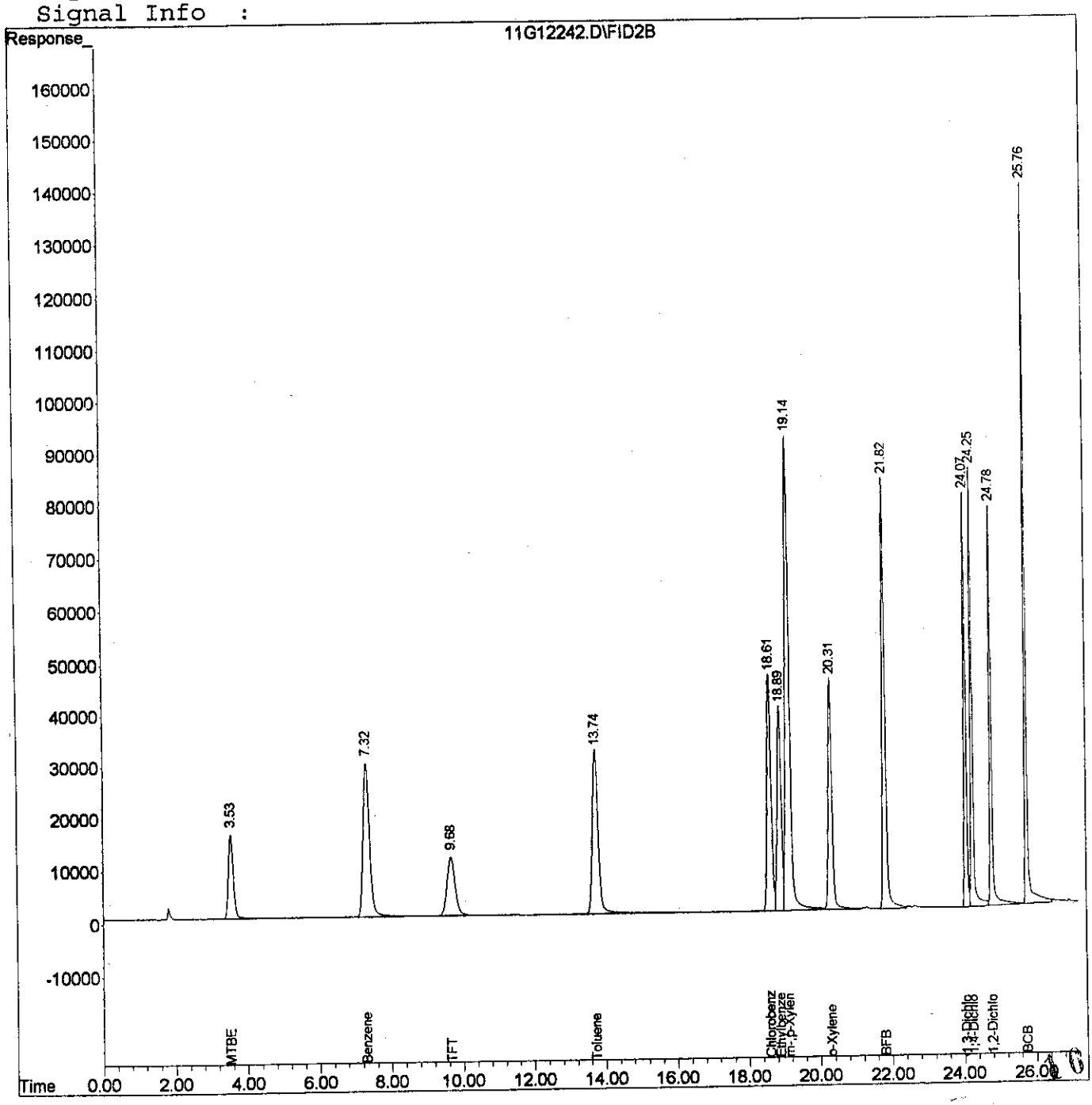
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	20.417	-2.1	104	0.00
2	TM	Benzene	20.000	19.889	0.6	100	0.00
3	S	TFT	30.000	31.840	-6.1	105	0.02
4	TM	Toluene	20.000	20.013	-0.1	100	0.00
5	TM	Chlorobenzene	20.000	19.985	0.1	100	0.00
6	TM	Ethylbenzene	20.000	20.838	-4.2	103	0.00
7	TM	m-,p-Xylene	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

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
Quant Time: Nov 9 14:38 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\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

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Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\111501\11G12295.D Vial: 1
Acq On : 15 Nov 2001 7:18 Operator: CBN
Sample : WG108254-01 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-(13,09) 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	66.449 E3	10.1	91	-0.01
2	TM	Benzene	183.323	178.544 E3	2.6	98	-0.03
3	S	TFT	55.927	56.023 E3	-0.2	99	-0.04
4	TM	Toluene	177.364	172.970 E3	2.5	97	-0.04
5	TM	Chlorobenzene	177.968	169.677 E3	4.7	95	-0.04
6	TM	Ethylbenzene	152.710	154.383 E3	-1.1	100	-0.03
7	TM	m-,p-Xylene	186.417	182.816 E3	1.9	97	-0.03
8	TM	o-Xylene	165.138	155.234 E3	6.0	94	-0.03
9	S	BFB	161.101	149.246 E3	7.4	92	-0.02
10	T	1,3-Dichlorobenzene	158.140	149.729 E3	5.3	97	0.00
11	T	1,4-Dichlorobenzene	167.920	160.351 E3	4.5	94	0.00
12	T	1,2-Dichlorobenzene	143.802	157.181 E3	-9.3	106	0.00
13	S	BCB	158.740	147.376 E3	7.2	94	0.00

Data File : C:\HPCHEM\1\DATA\111501\11G12295.D Vial: 1
Acq On : 15 Nov 2001 7:18 Operator: CBN
Sample : WG108254-01 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-(13,09) 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

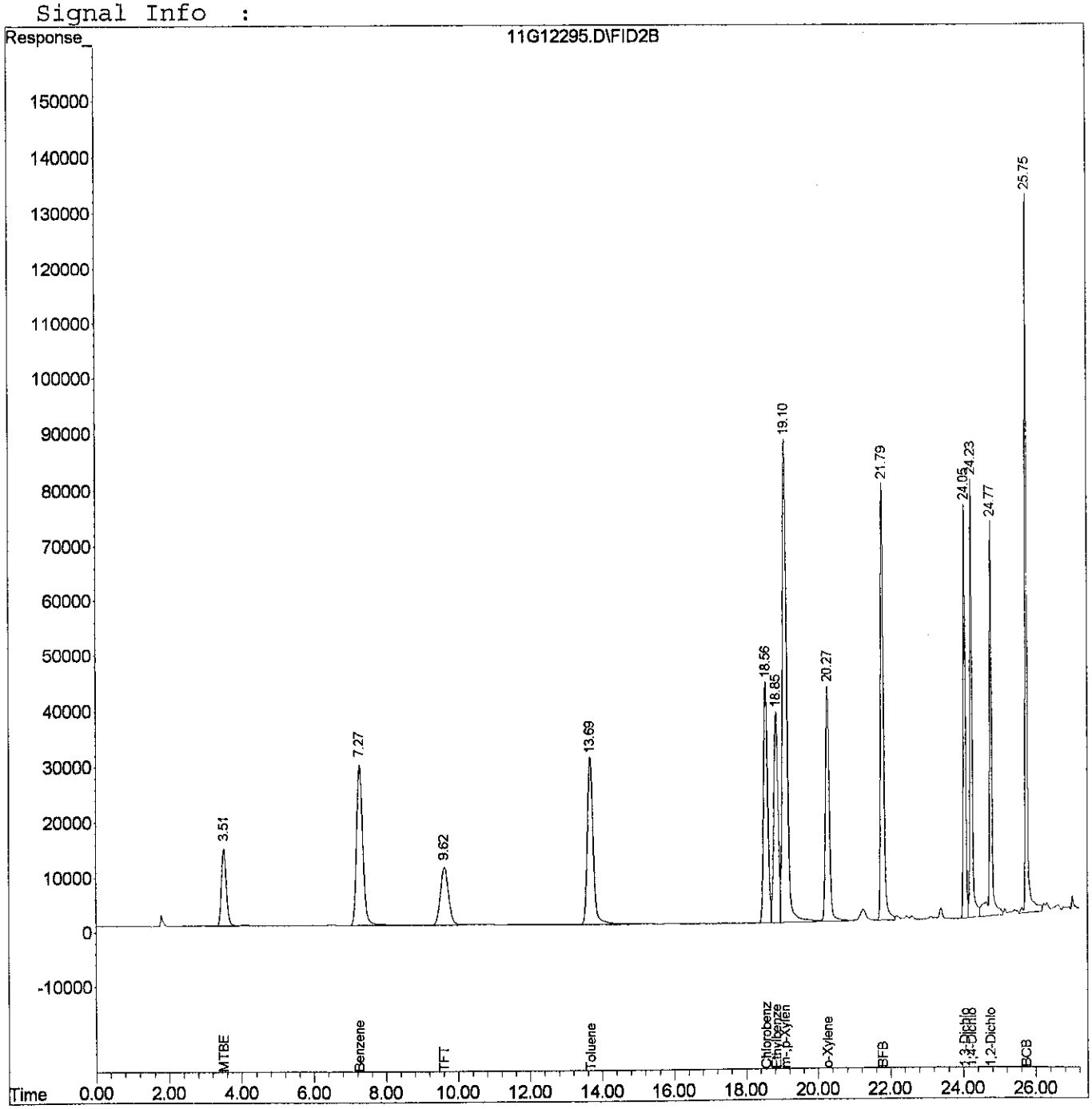
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	17.980	10.1	91	-0.01
2	TM	Benzene	20.000	19.479	2.6	98	-0.03
3	S	TFT	30.000	30.051	-0.2	99	-0.04
4	TM	Toluene	20.000	19.504	2.5	97	-0.04
5	TM	Chlorobenzene	20.000	19.068	4.7	95	-0.04
6	TM	Ethylbenzene	20.000	20.219	-1.1	100	-0.03
7	TM	m-,p-Xylene	40.000	39.227	1.9	97	-0.03
8	TM	o-Xylene	20.000	18.801	6.0	94	-0.03
9	S	BFB	30.000	27.792	7.4	92	-0.02
10	T	1,3-Dichlorobenzene	20.000	18.936	5.3	97	0.00
11	T	1,4-Dichlorobenzene	20.000	19.099	4.5	94	0.00
12	T	1,2-Dichlorobenzene	20.000	21.861	-9.3	106	0.00
13	S	BCB	30.000	27.852	7.2	94	0.00

Data File : C:\HPCHEM\1\DATA\111501\11G12295.D Vial: 1
Acq On : 15 Nov 2001 7:18 Operator: CBN
Sample : WG108254-01 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-(13,09) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 7:46 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\111501\11G12295.D Vial: 1
Acq On : 15 Nov 2001 7:18 Operator: CBN
Sample : WG108254-01 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-(13,09) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 7:46 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			9.63	1680688	30.051 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	100.17%
9) S BFB			21.79	4477368	27.792 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	92.64%
13) S BCB			25.75	4421286	27.852 UG/L
Spiked Amount	30.000	Range	37 - 137	Recovery =	92.84%
Target Compounds					
1) TM MTBE			3.52	1328977	17.980 UG/L
2) TM Benzene			7.27	3570881	19.479 UG/L
4) TM Toluene			13.69	3459392	19.504 UG/L
5) TM Chlorobenzene			18.56	3393536	19.068 UG/L
6) TM Ethylbenzene			18.85	3087668	20.219 UG/L
7) TM m-,p-Xylene			19.10	7312635	39.227 UG/L
8) TM o-Xylene			20.27	3104675	18.801 UG/L
10) T 1,3-Dichlorobenzene			24.05	2994576	18.936 UG/L
11) T 1,4-Dichlorobenzene			24.24	3207020	19.099 UG/L
12) T 1,2-Dichlorobenzene			24.77	3143611	21.861 UG/L

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

Data File : C:\HPCHEM\1\DATA\111501\11G12306.D Vial: 9
Acq On : 15 Nov 2001 13:37 Operator: CBN
Sample : WG108254-02 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-(13,09) 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	71.599	E3	3.1	98	0.00
2	TM	Benzene	183.323	176.450	E3	3.7	97	0.00
3	S	TFT	55.927	57.888	E3	-3.5	102	-0.01
4	TM	Toluene	177.364	164.575	E3	7.2	92	-0.01
5	TM	Chlorobenzene	177.968	167.324	E3	6.0	94	-0.01
6	TM	Ethylbenzene	152.710	148.900	E3	2.5	96	-0.01
7	TM	m-,p-Xylene	186.417	176.496	E3	5.3	94	-0.01
8	TM	o-Xylene	165.138	151.051	E3	8.5	91	0.00
9	S	BFB	161.101	171.263	E3	-6.3	106	0.00
10	T	1,3-Dichlorobenzene	158.140	146.171	E3	7.6	94	0.00
11	T	1,4-Dichlorobenzene	167.920	151.290	E3	9.9	89	0.00
12	T	1,2-Dichlorobenzene	143.802	134.608	E3	6.4	91	0.00
13	S	BCB	158.740	150.651	E3	5.1	96	0.00

Data File : C:\HPCHEM\1\DATA\111501\11G12306.D Vial: 9
Acq On : 15 Nov 2001 13:37 Operator: CBN
Sample : WG108254-02 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-(13,09) 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

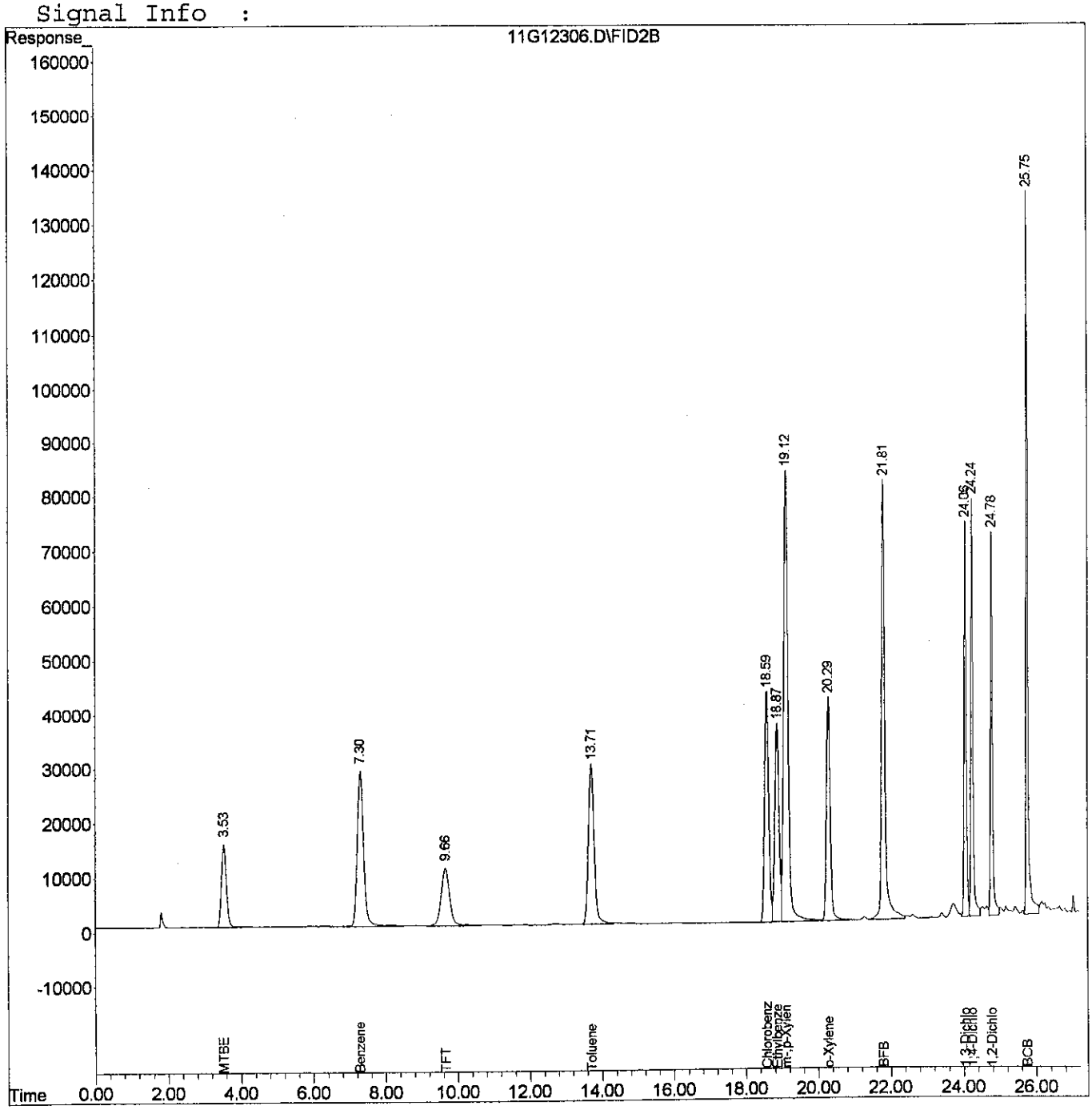
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	19.373	3.1	98	0.00
2	TM	Benzene	20.000	19.250	3.8	97	0.00
3	S	TFT	30.000	31.052	-3.5	102	-0.01
4	TM	Toluene	20.000	18.558	7.2	92	-0.01
5	TM	Chlorobenzene	20.000	18.804	6.0	94	-0.01
6	TM	Ethylbenzene	20.000	19.501	2.5	96	-0.01
7	TM	m-,p-Xylene	40.000	37.871	5.3	94	-0.01
8	TM	o-Xylene	20.000	18.294	8.5	91	0.00
9	S	BFB	30.000	31.892	-6.3	106	0.00
10	T	1,3-Dichlorobenzene	20.000	18.486	7.6	94	0.00
11	T	1,4-Dichlorobenzene	20.000	18.019	9.9	89	0.00
12	T	1,2-Dichlorobenzene	20.000	18.721	6.4	91	0.00
13	S	BCB	30.000	28.471	5.1	96	0.00

Data File : C:\HPCHEM\1\DATA\111501\11G12306.D Vial: 9
Acq On : 15 Nov 2001 13:37 Operator: CBN
Sample : WG108254-02 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-(13,09) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 14:04 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\111501\11G12306.D Vial: 9
Acq On : 15 Nov 2001 13:37 Operator: CBN
Sample : WG108254-02 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-(13,09) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 14:04 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	1736633	31.052 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	103.51%
9) S BFB			21.81	5137881	31.892 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	106.31%
13) S BCB			25.76	4519537	28.471 UG/L
Spiked Amount	30.000	Range	37 - 137	Recovery =	94.90%
Target Compounds					
1) TM MTBE			3.53	1431978	19.373 UG/L
2) TM Benzene			7.30	3529001	19.250 UG/L
4) TM Toluene			13.71	3291507	18.558 UG/L
5) TM Chlorobenzene			18.59	3346471	18.804 UG/L
6) TM Ethylbenzene			18.87	2978004	19.501 UG/L
7) TM m-,p-Xylene			19.12	7059859	37.871 UG/L
8) TM o-Xylene			20.29	3021030	18.294 UG/L
10) T 1,3-Dichlorobenzene			24.06	2923412	18.486 UG/L
11) T 1,4-Dichlorobenzene			24.25	3025800	18.019 UG/L
12) T 1,2-Dichlorobenzene			24.78	2692161	18.721 UG/L

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

Data File : C:\HPCHEM\1\DATA\111501\11G12317.D Vial: 20
Acq On : 15 Nov 2001 19:44 Operator: CBN
Sample : WG108254-03 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-(13,09) 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	68.230	E3	7.7	94	0.00
2	TM	Benzene	183.323	175.264	E3	4.4	96	0.00
3	S	TFT	55.927	55.234	E3	1.2	97	0.00
4	TM	Toluene	177.364	164.772	E3	7.1	92	0.00
5	TM	Chlorobenzene	177.968	166.440	E3	6.5	93	0.00
6	TM	Ethylbenzene	152.710	150.015	E3	1.8	97	0.00
7	TM	m-,p-Xylene	186.417	179.101	E3	3.9	95	0.00
8	TM	o-Xylene	165.138	150.623	E3	8.8	91	0.00
9	S	BFB	161.101	153.643	E3	4.6	95	0.00
10	T	1,3-Dichlorobenzene	158.140	145.089	E3	8.3	94	0.00
11	T	1,4-Dichlorobenzene	167.920	149.916	E3	10.7	88	0.00
12	T	1,2-Dichlorobenzene	143.802	132.434	E3	7.9	90	0.00
13	S	BCB	158.740	146.010	E3	8.0	93	0.00

Data File : C:\HPCHEM\1\DATA\111501\11G12317.D Vial: 20
Acq On : 15 Nov 2001 19:44 Operator: CBN
Sample : WG108254-03 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-(13,09) 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

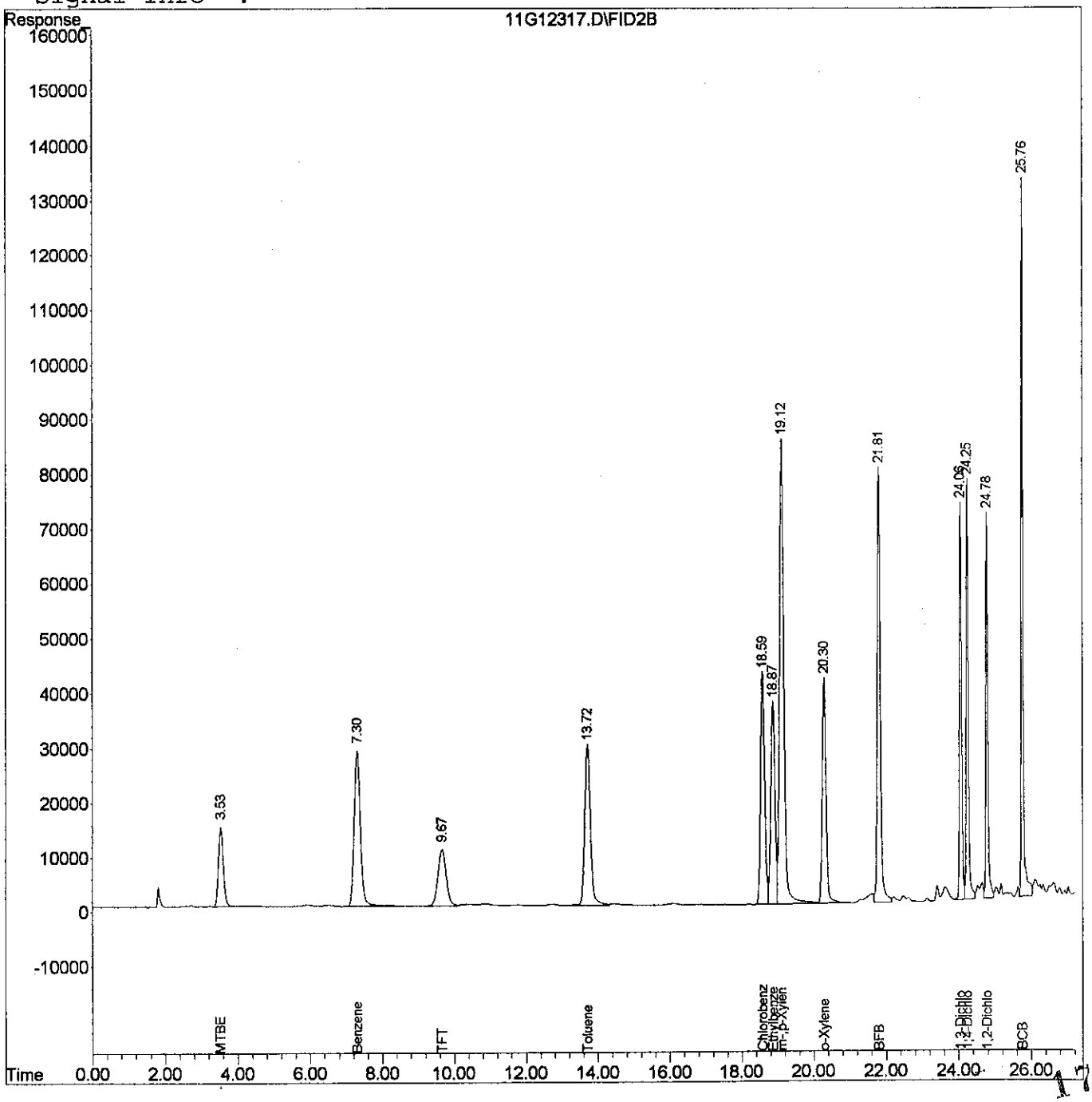
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.461	7.7	94	0.00
2	TM	Benzene	20.000	19.121	4.4	96	0.00
3	S	TFT	30.000	29.628	1.2	97	0.00
4	TM	Toluene	20.000	18.580	7.1	92	0.00
5	TM	Chlorobenzene	20.000	18.705	6.5	93	0.00
6	TM	Ethylbenzene	20.000	19.647	1.8	97	0.00
7	TM	m-,p-Xylene	40.000	38.430	3.9	95	0.00
8	TM	o-Xylene	20.000	18.242	8.8	91	0.00
9	S	BFB	30.000	28.611	4.6	95	0.00
10	T	1,3-Dichlorobenzene	20.000	18.349	8.3	94	0.00
11	T	1,4-Dichlorobenzene	20.000	17.856	10.7	88	0.00
12	T	1,2-Dichlorobenzene	20.000	18.419	7.9	90	0.00
13	S	BCB	30.000	27.594	8.0	93	0.00

Data File : C:\HPCHEM\1\DATA\111501\11G12317.D Vial: 20
Acq On : 15 Nov 2001 19:44 Operator: CBN
Sample : WG108254-03 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-(13,09) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 20:11 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\111501\11G12317.D Vial: 20
Acq On : 15 Nov 2001 19:44 Operator: CBN
Sample : WG108254-03 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-(13,09) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 20:11 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	1657008	29.628 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	98.76%
9) S BFB			21.81	4609301	28.611 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	95.37%
13) S BCB			25.76	4380302	27.594 UG/L
Spiked Amount	30.000	Range	37 - 137	Recovery =	91.98%
Target Compounds					
1) TM MTBE			3.53	1364594	18.461 UG/L
2) TM Benzene			7.30	3505272	19.121 UG/L
4) TM Toluene			13.72	3295450	18.580 UG/L
5) TM Chlorobenzene			18.59	3328802	18.705 UG/L
6) TM Ethylbenzene			18.87	3000293	19.647 UG/L
7) TM m-,p-Xylene			19.12	7164035	38.430 UG/L
8) TM o-Xylene			20.30	3012454	18.242 UG/L
10) T 1,3-Dichlorobenzene			24.07	2901774	18.349 UG/L
11) T 1,4-Dichlorobenzene			24.25	2998325	17.856 UG/L
12) T 1,2-Dichlorobenzene			24.78	2648681	18.419 UG/L

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\111601\11G12323.D Vial: 3
Acq On : 16 Nov 2001 9:32 Operator: JLS
Sample : WG108359-01 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-(13,09) 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	69.545 E3	5.9	96	0.00
2	TM	Benzene	183.323	178.249 E3	2.8	98	-0.01
3	S	TFT	55.927	58.273 E3	-4.2	103	-0.02
4	TM	Toluene	177.364	167.546 E3	5.5	94	-0.02
5	TM	Chlorobenzene	177.968	167.344 E3	6.0	94	-0.02
6	TM	Ethylbenzene	152.710	149.542 E3	2.1	97	-0.02
7	TM	m-,p-Xylene	186.417	178.436 E3	4.3	95	-0.02
8	TM	o-Xylene	165.138	153.597 E3	7.0	93	-0.01
9	S	BFB	161.101	156.393 E3	2.9	97	0.00
10	T	1,3-Dichlorobenzene	158.140	145.500 E3	8.0	94	0.00
11	T	1,4-Dichlorobenzene	167.920	157.995 E3	5.9	93	0.00
12	T	1,2-Dichlorobenzene	143.802	140.322 E3	2.4	95	0.00
13	S	BCB	158.740	154.243 E3	2.8	98	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
11G12323.D 8021W.M Fri Nov 16 10:02:33 2001 Page 1

Data File : C:\HPCHEM\1\DATA\111601\11G12323.D Vial: 3
Acq On : 16 Nov 2001 9:32 Operator: JLS
Sample : WG108359-01 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-(13,09) 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

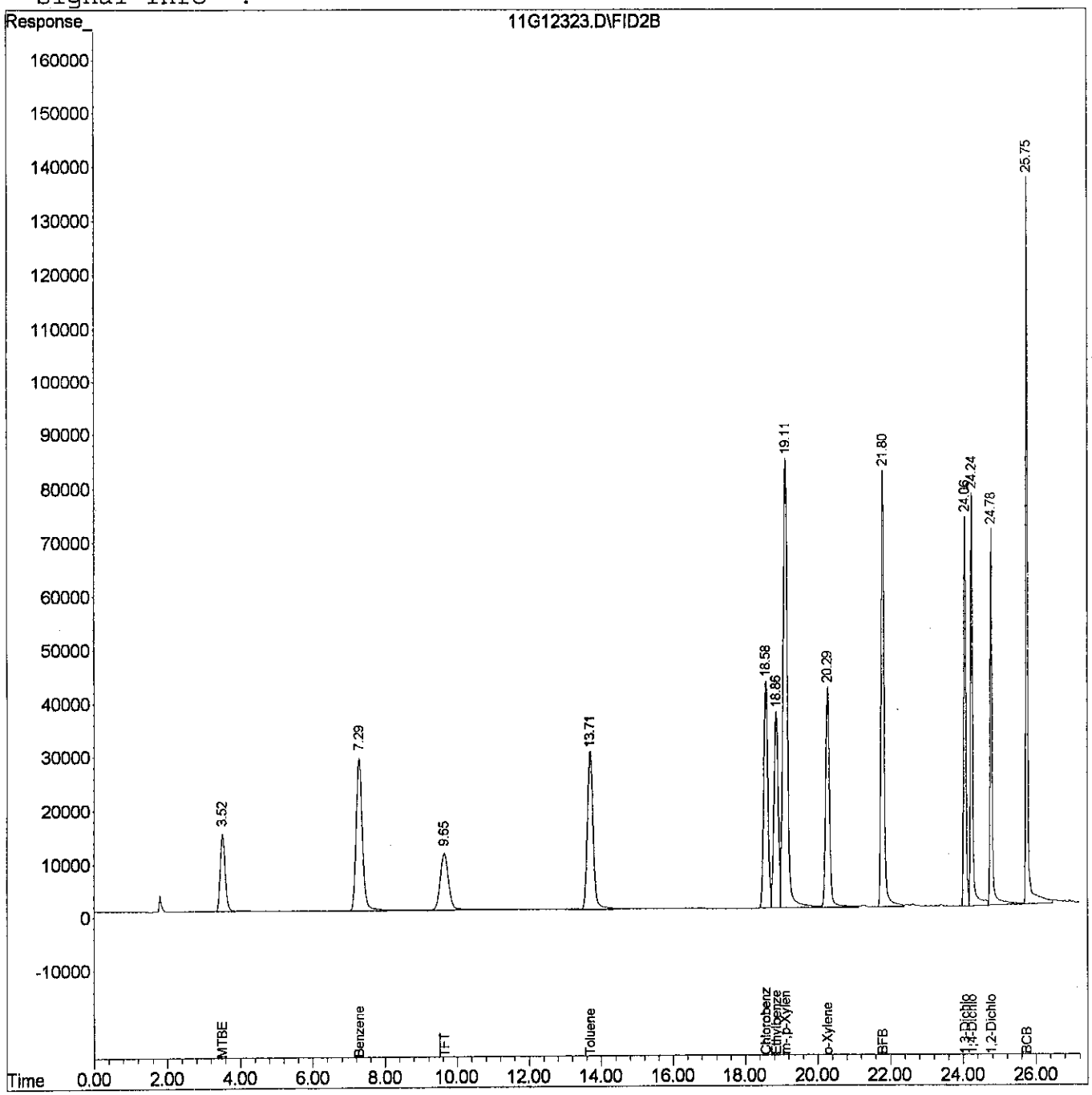
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.817	5.9	96	0.00
2	TM	Benzene	20.000	19.446	2.8	98	-0.01
3	S	TFT	30.000	31.259	-4.2	103	-0.02
4	TM	Toluene	20.000	18.893	5.5	94	-0.02
5	TM	Chlorobenzene	20.000	18.806	6.0	94	-0.02
6	TM	Ethylbenzene	20.000	19.585	2.1	97	-0.02
7	TM	m-,p-Xylene	40.000	38.288	4.3	95	-0.02
8	TM	o-Xylene	20.000	18.602	7.0	93	-0.01
9	S	BFB	30.000	29.123	2.9	97	0.00
10	T	1,3-Dichlorobenzene	20.000	18.401	8.0	94	0.00
11	T	1,4-Dichlorobenzene	20.000	18.818	5.9	93	0.00
12	T	1,2-Dichlorobenzene	20.000	19.516	2.4	95	0.00
13	S	BCB	30.000	29.150	2.8	98	0.00

Data File : C:\HPCHEM\1\DATA\111601\11G12323.D Vial: 3
Acq On : 16 Nov 2001 9:32 Operator: JLS
Sample : WG108359-01 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-(13,09) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 16 9:58 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\111601\11G12323.D Vial: 3
Acq On : 16 Nov 2001 9:32 Operator: JLS
Sample : WG108359-01 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-(13,09) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 16 9:58 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			9.65	1748198	31.259 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	104.20%
9) S BFB			21.80	4691796	29.123 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	97.08%
13) S BCB			25.76	4627290	29.150 UG/L
Spiked Amount	30.000	Range	37 - 137	Recovery =	97.17%
Target Compounds					
1) TM MTBE			3.53	1390901	18.817 UG/L
2) TM Benzene			7.29	3564989	19.446 UG/L
4) TM Toluene			13.71	3350920	18.893 UG/L
5) TM Chlorobenzene			18.58	3346888	18.806 UG/L
6) TM Ethylbenzene			18.86	2990840	19.585 UG/L
7) TM m-,p-Xylene			19.11	7137456	38.288 UG/L
8) TM o-Xylene			20.29	3071944	18.602 UG/L
10) T 1,3-Dichlorobenzene			24.06	2909990	18.401 UG/L
11) T 1,4-Dichlorobenzene			24.24	3159899	18.818 UG/L
12) T 1,2-Dichlorobenzene			24.78	2806440	19.516 UG/L

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

Data File : C:\HPCHEM\1\DATA\111601\11G12334.D Vial: 9
Acq On : 16 Nov 2001 15:51 Operator: JLS
Sample : WG108359-02 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-(13,09) 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	67.879 E3	8.2	93	0.00
2	TM	Benzene	183.323	181.663 E3	0.9	100	-0.02
3	S	TFT	55.927	58.701 E3	-5.0	104	-0.02
4	TM	Toluene	177.364	172.589 E3	2.7	97	-0.03
5	TM	Chlorobenzene	177.968	171.712 E3	3.5	96	-0.03
6	TM	Ethylbenzene	152.710	153.246 E3	-0.4	99	-0.03
7	TM	m-,p-Xylene	186.417	183.477 E3	1.6	97	-0.02
8	TM	o-Xylene	165.138	157.343 E3	4.7	95	-0.02
9	S	BFB	161.101	158.135 E3	1.8	98	-0.01
10	T	1,3-Dichlorobenzene	158.140	146.780 E3	7.2	95	0.00
11	T	1,4-Dichlorobenzene	167.920	159.889 E3	4.8	94	0.00
12	T	1,2-Dichlorobenzene	143.802	140.530 E3	2.3	95	0.00
13	S	BCB	158.740	155.860 E3	1.8	99	0.00

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\111601\11G12334.D Vial: 9
Acq On : 16 Nov 2001 15:51 Operator: JLS
Sample : WG108359-02 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-(13,09) 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

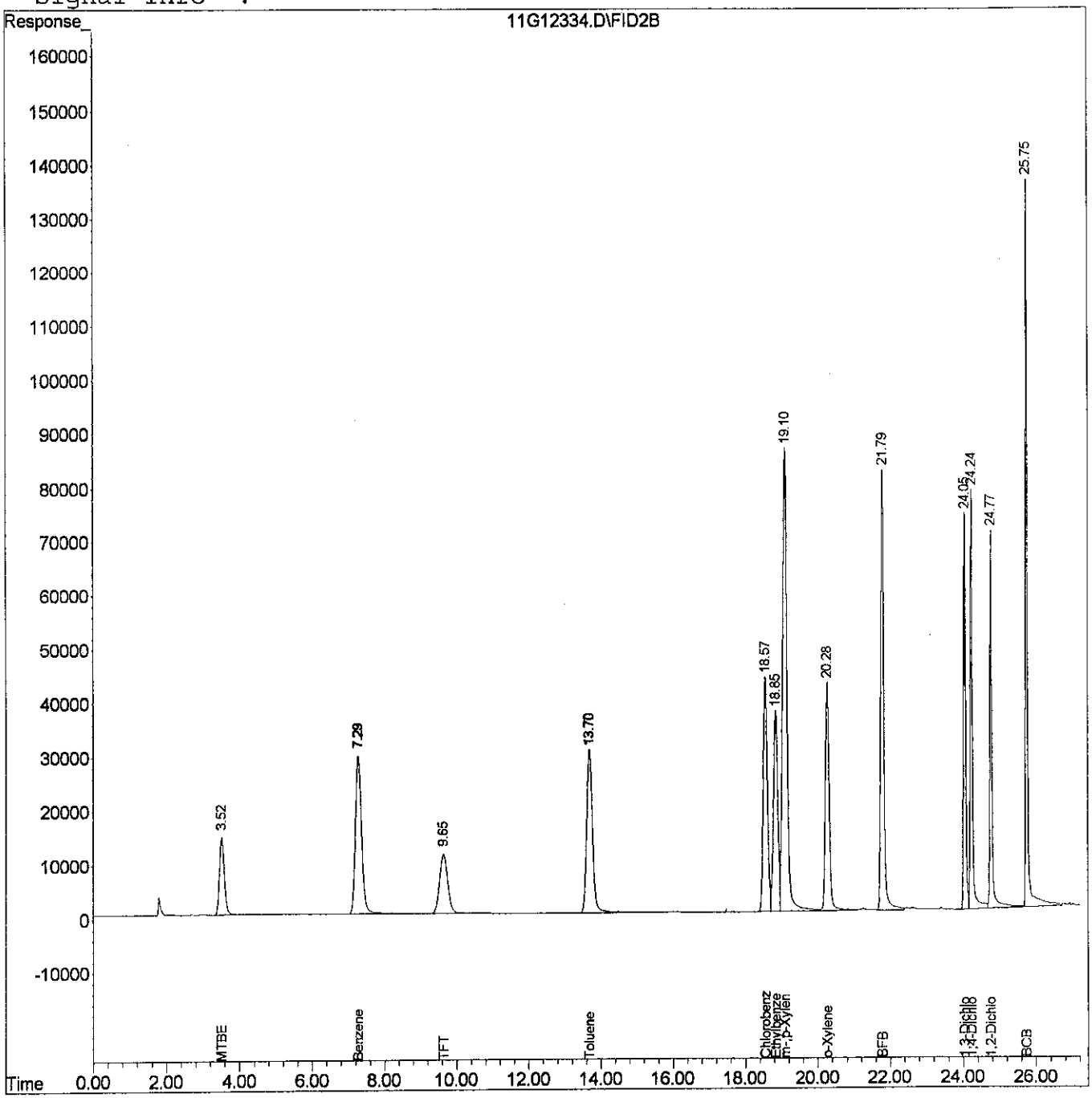
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	18.366	8.2	93	0.00
2	TM	Benzene	20.000	19.819	0.9	100	-0.02
3	S	TFT	30.000	31.488	-5.0	104	-0.02
4	TM	Toluene	20.000	19.461	2.7	97	-0.03
5	TM	Chlorobenzene	20.000	19.297	3.5	96	-0.03
6	TM	Ethylbenzene	20.000	20.070	-0.4	99	-0.03
7	TM	m-,p-Xylene	40.000	39.369	1.6	97	-0.02
8	TM	o-Xylene	20.000	19.056	4.7	95	-0.02
9	S	BFB	30.000	29.448	1.8	98	-0.01
10	T	1,3-Dichlorobenzene	20.000	18.563	7.2	95	0.00
11	T	1,4-Dichlorobenzene	20.000	19.043	4.8	94	0.00
12	T	1,2-Dichlorobenzene	20.000	19.545	2.3	95	0.00
13	S	BCB	30.000	29.456	1.8	99	0.00

Data File : C:\HPCHEM\1\DATA\111601\11G12334.D Vial: 9
Acq On : 16 Nov 2001 15:51 Operator: JLS
Sample : WG108359-02 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-(13,09) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 16 16:19 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\111601\11G12334.D Vial: 9
Acq On : 16 Nov 2001 15:51 Operator: JLS
Sample : WG108359-02 8021 STD 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-(13,09) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 16 16:19 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			9.65	1761023	31.488 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	104.96%
9) S BFB			21.80	4744057	29.448 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	98.16%
13) S BCB			25.75	4675788	29.456 UG/L
Spiked Amount	30.000	Range	37 - 137	Recovery =	98.19%
Target Compounds					
1) TM MTBE			3.52	1357578	18.366 UG/L
2) TM Benzene			7.29	3633254	19.819 UG/L
4) TM Toluene			13.70	3451778	19.461 UG/L
5) TM Chlorobenzene			18.57	3434243	19.297 UG/L
6) TM Ethylbenzene			18.86	3064913	20.070 UG/L
7) TM m-,p-Xylene			19.11	7339073	39.369 UG/L
8) TM o-Xylene			20.28	3146860	19.056 UG/L
10) T 1,3-Dichlorobenzene			24.05	2935610	18.563 UG/L
11) T 1,4-Dichlorobenzene			24.24	3197770	19.043 UG/L
12) T 1,2-Dichlorobenzene			24.77	2810597	19.545 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
11G12334.D 8021W.M Fri Nov 16 16:19:13 2001 Page 1

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DAILY RETENTION TIME
WINDOW DETERMINATION
GC VOLATILES

Date of Analysis: 15-Nov-01
Filename: 11G12295
Sub Directory: 111501
Instrument: HP11
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	3.515	3.502	3.528
benzene	7.275	7.242	7.308
1,1,1-trifluorotoluene (SS)	9.626	9.581	9.671
toluene	13.685	13.641	13.729
chlorobenzene	18.564	18.523	18.605
ethylbenzene	18.850	18.811	18.889
m+p-xylene	19.098	19.060	19.136
o-xylene	20.275	20.240	20.310
bromofluorobenzene (SS)	21.792	21.762	21.822
1,3-dichlorobenzene	24.053	24.029	24.077
1,4-dichlorobenzene	24.236	24.213	24.259
1,2-dichlorobenzene	24.771	24.750	24.792
bromochlorobenzene (SS)	25.750	25.730	25.770

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: 16-Nov-01
Filename: 11G12323
Sub Directory: 111601
Instrument: HP11
Matrix: WATER

Analyte Name	STD RT	From RT	To RT
methyl-tert-butyl-ether	3.525	3.512	3.538
benzene	7.294	7.261	7.327
1,1,1-trifluorotoluene (SS)	9.655	9.610	9.700
toluene	13.709	13.665	13.753
chlorobenzene	18.580	18.539	18.621
ethylbenzene	18.865	18.826	18.904
m+p-xylene	19.113	19.075	19.151
o-xylene	20.287	20.252	20.322
bromofluorobenzene (SS)	21.803	21.773	21.833
1,3-dichlorobenzene	24.062	24.038	24.086
1,4-dichlorobenzene	24.244	24.221	24.267
1,2-dichlorobenzene	24.778	24.757	24.799
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

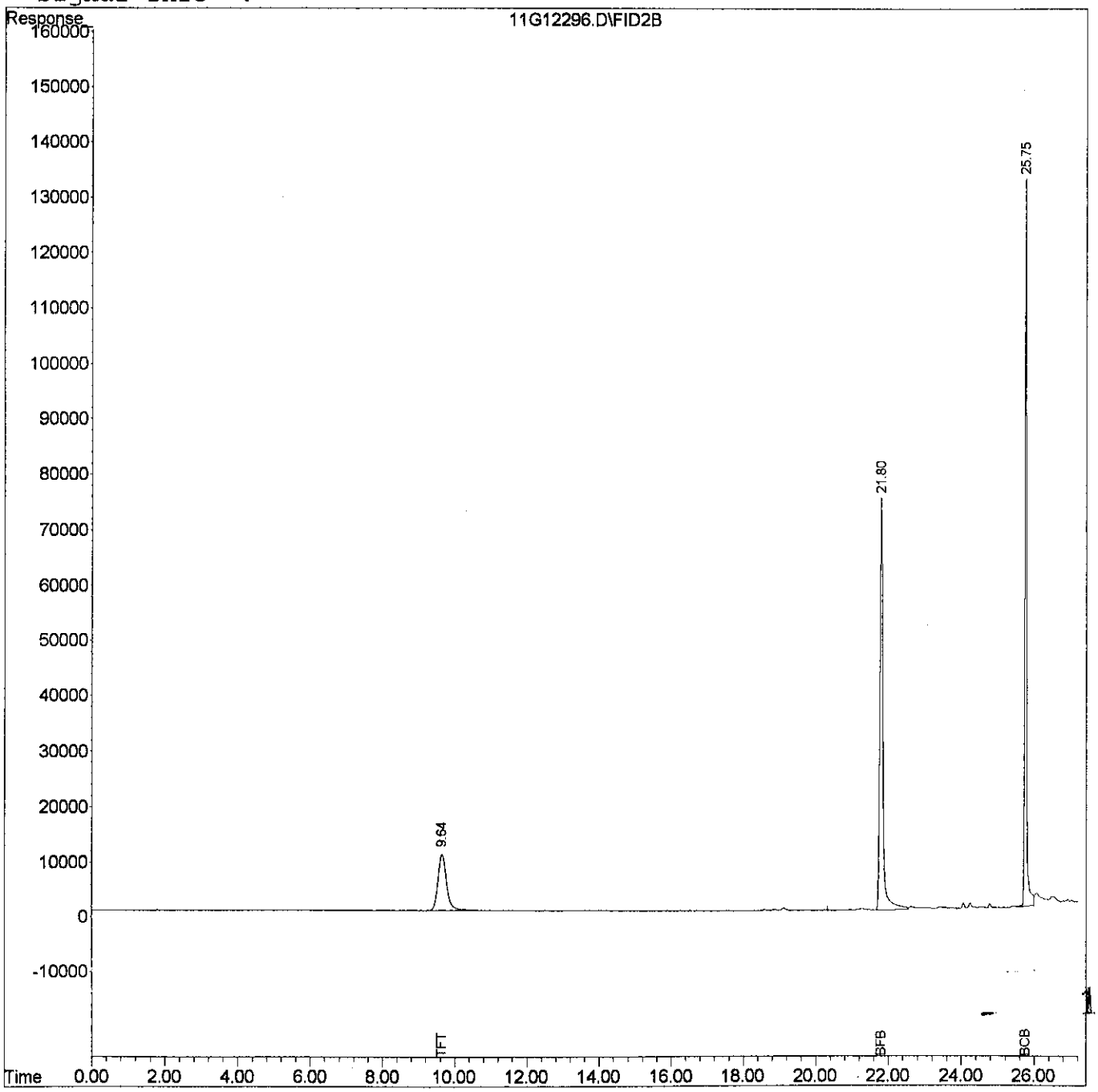
Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	3.550	3.549	3.542	3.547	0.004	0.013
benzene	7.315	7.310	7.294	7.306	0.011	0.033
1,1,1-trifluorotoluene (SS)	9.664	9.656	9.635	9.652	0.015	0.045
toluene	13.716	13.709	13.688	13.704	0.015	0.044
chlorobenzene	18.589	18.579	18.562	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

2.1.3.4 Raw Data

Data File : C:\HPCHEM\1\DATA\111501\11G12296.D Vial: 2
Acq On : 15 Nov 2001 8:01 Operator: CBN
Sample : WG108255-01 WATER BLANK 5ML Inst : HP11
Misc : 1,1 S-86-09 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 8:29 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 :



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Data File : C:\HPCHEM\1\DATA\111501\11G12296.D Vial: 2
Acq On : 15 Nov 2001 8:01 Operator: CBN
Sample : WG108255-01 WATER BLANK 5ML Inst : HP11
Misc : 1,1 S-86-09 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 8:29 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			9.65	1766309	31.582 UG/L ✓
Spiked Amount	30.000	Range	70 - 130	Recovery =	105.27%
9) S BFB			21.80	4508904	27.988 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	93.29%
13) S BCB			25.75	4243605	26.733 UG/L
Spiked Amount	30.000	Range	37 - 137	Recovery =	89.11%
Target Compounds					
1) TM MTBE			3.54	3219	<MDL UG/L
2) TM Benzene			7.28	5880	<MDL UG/L
4) TM Toluene			13.70	13350	<MDL UG/L
5) TM Chlorobenzene			18.58	11180	<MDL UG/L
6) TM Ethylbenzene			18.86	16746	<MDL UG/L
7) TM m-,p-Xylene			19.11	40602	<MDL UG/L
8) TM o-Xylene			20.32	11331	<MDL UG/L
10) T 1,3-Dichlorobenzene			24.06	45648	<MDL UG/L
11) T 1,4-Dichlorobenzene			24.24	67767	<MDL UG/L
12) T 1,2-Dichlorobenzene			24.77	36597	<MDL UG/L

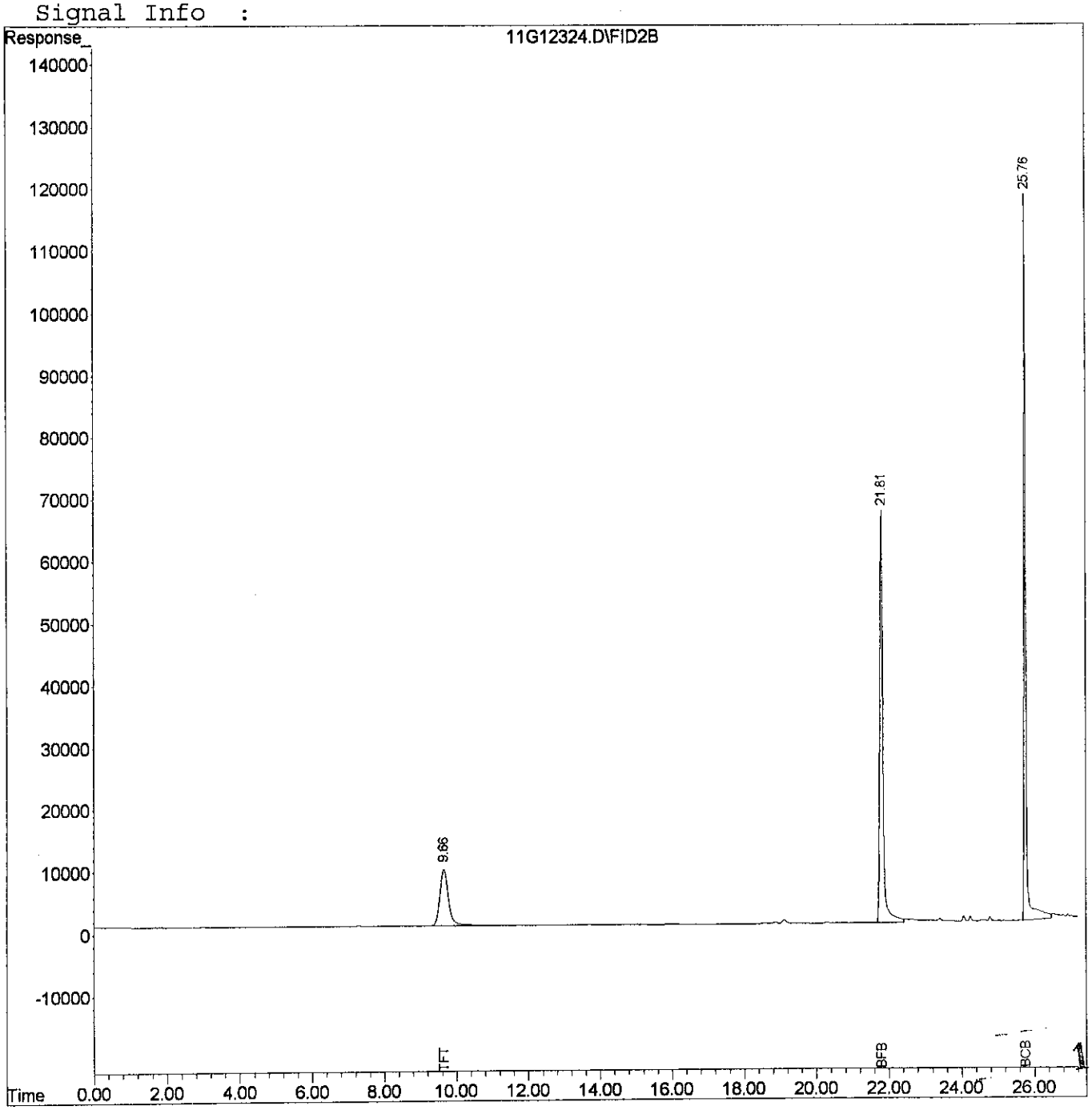
186

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

Data File : C:\HPCHEM\1\DATA\111601\11G12324.D Vial: 1
Acq On : 16 Nov 2001 10:16 Operator: JLS
Sample : WG108360-01 WATER BLANK 5ML Inst : HP11
Misc : 1,1 S-86-09 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 16 10:43 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 :



187

Data File : C:\HPCHEM\1\DATA\111601\11G12324.D Vial: 1
Acq On : 16 Nov 2001 10:16 Operator: JLS
Sample : WG108360-01 WATER BLANK 5ML Inst : HP11
Misc : 1,1 S-86-09 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 16 10:43 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	1554472	27.795	UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	92.65%	
9) S BFB			21.81	4036582	25.056	UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	83.52%	
13) S BCB			25.76	4114574	25.920	UG/L
Spiked Amount	30.000	Range	37 - 137	Recovery =	86.40%	
Target Compounds						
1) TM MTBE			0.00	0	N.D.	UG/L
2) TM Benzene			7.29	7341	<MDL	UG/L
4) TM Toluene			13.73	8654	<MDL	UG/L
5) TM Chlorobenzene			18.59	12367	<MDL	UG/L
6) TM Ethylbenzene			18.88	21055	<MDL	UG/L
7) TM m-,p-Xylene			19.12	59202	<MDL	UG/L
8) TM o-Xylene			20.30	13600	<MDL	UG/L
10) T 1,3-Dichlorobenzene			24.07	43505	<MDL	UG/L
11) T 1,4-Dichlorobenzene			24.25	46895	<MDL	UG/L
12) T 1,2-Dichlorobenzene			24.78	30716	<MDL	UG/L

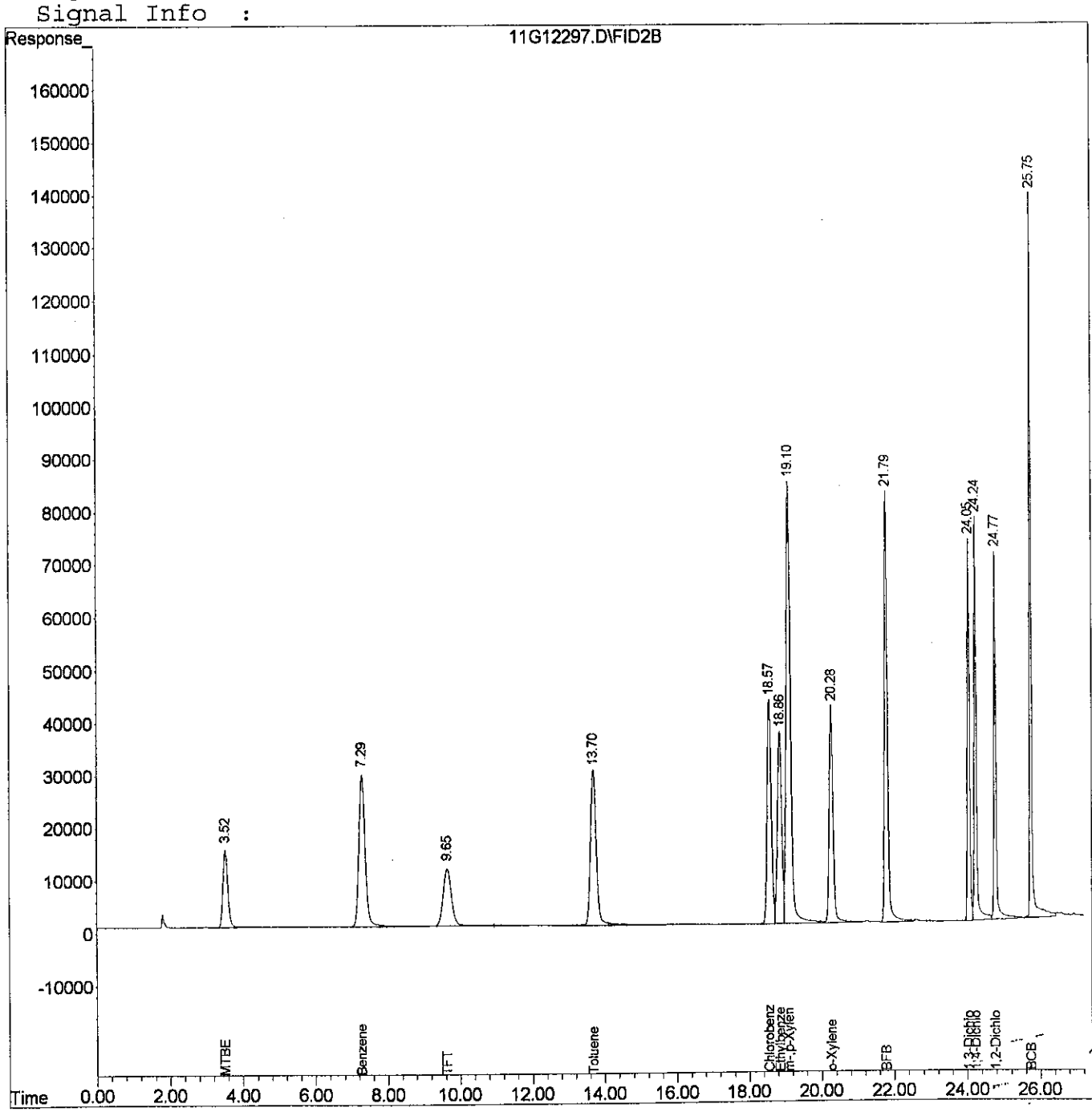
188

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

Data File : C:\HPCHEM\1\DATA\111501\11G12297.D Vial: 3
Acq On : 15 Nov 2001 8:34 Operator: CBN
Sample : WG108255-02 WATER LCS 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-(13,09) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 9:01 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\111501\11G12297.D Vial: 3
Acq On : 15 Nov 2001 8:34 Operator: CBN
Sample : WG108255-02 WATER LCS 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-(13,09) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 15 9:01 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			9.65	1784778	31.913 UG/L ✓
Spiked Amount	30.000	Range	70 - 130	Recovery =	106.38%
9) S BFB			21.80	4716538	29.277 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	97.59%
13) S BCB			25.75	4692996	29.564 UG/L
Spiked Amount	30.000	Range	37 - 137	Recovery =	98.55%
Target Compounds					
1) TM MTBE			3.52	1396677	18.895 UG/L
2) TM Benzene			7.29	3584503	19.553 UG/L
4) TM Toluene			13.70	3366838	18.983 UG/L
5) TM Chlorobenzene			18.57	3366049	18.914 UG/L
6) TM Ethylbenzene			18.86	2994800	19.611 UG/L
7) TM m-,p-Xylene			19.11	7143421	38.320 UG/L
8) TM o-Xylene			20.28	3068757	18.583 UG/L
10) T 1,3-Dichlorobenzene			24.05	2905306	18.372 UG/L
11) T 1,4-Dichlorobenzene			24.24	3153201	18.778 UG/L
12) T 1,2-Dichlorobenzene			24.77	2785858	19.373 UG/L

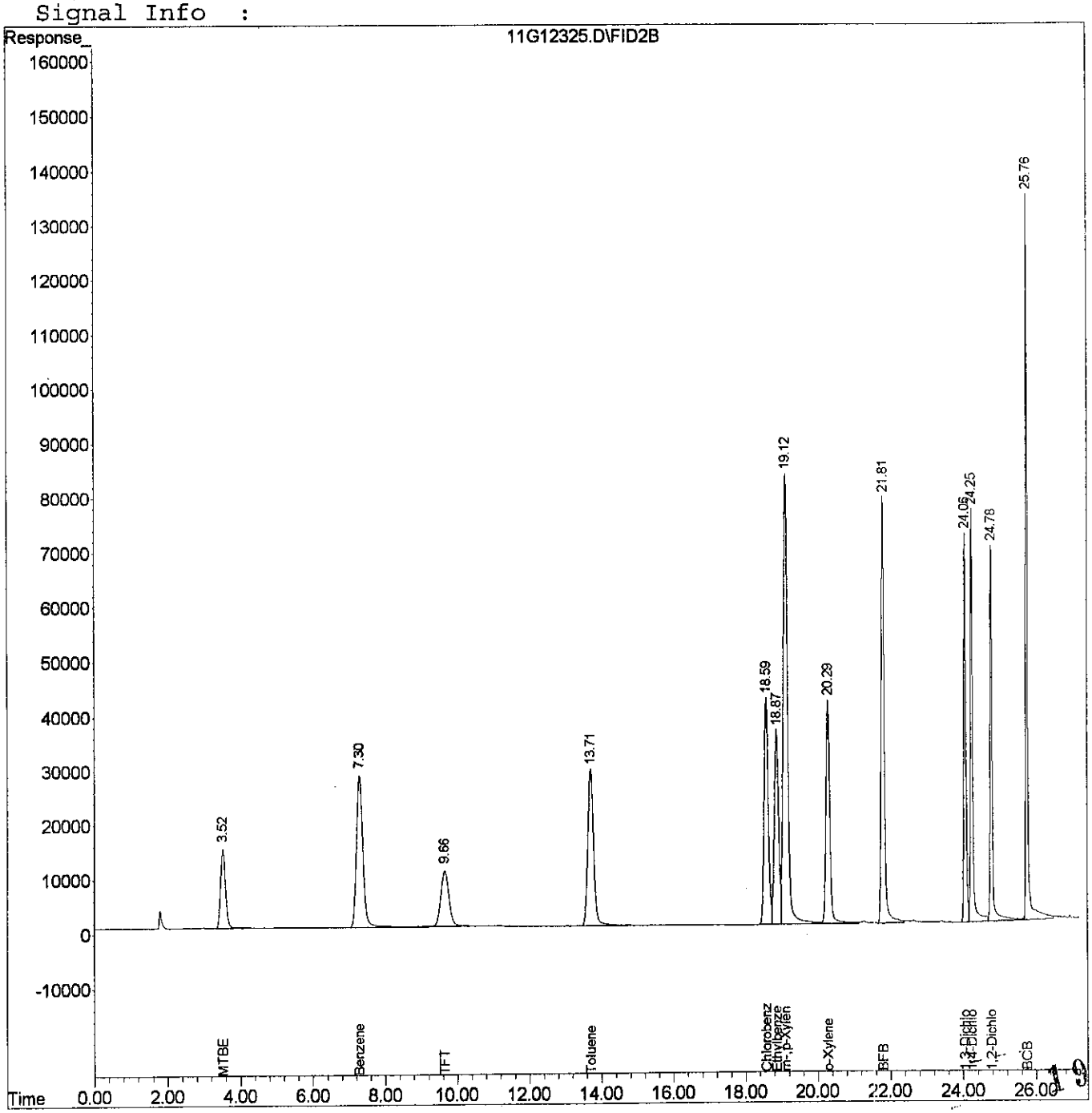
196

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

Data File : C:\HPCHEM\1\DATA\111601\11G12325.D Vial: 2
Acq On : 16 Nov 2001 10:49 Operator: JLS
Sample : WG108360-02 WATER LCS 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-(13,09) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 16 11;16 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\111601\11G12325.D Vial: 2
Acq On : 16 Nov 2001 10:49 Operator: JLS
Sample : WG108360-02 WATER LCS 20PPB 5ML Inst : HP11
Misc : 1,1 S-86-(13,09) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 16 11:16 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	1646713	29.444 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	98.15%
9) S BFB			21.81	4550927	28.249 UG/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	94.16%
13) S BCB			25.76	4547753	28.649 UG/L
Spiked Amount	30.000	Range	37 - 137	Recovery =	95.50%
Target Compounds					
1) TM MTBE			3.53	1369329	18.525 UG/L
2) TM Benzene			7.30	3484458	19.007 UG/L
4) TM Toluene			13.71	3268849	18.430 UG/L
5) TM Chlorobenzene			18.59	3294262	18.510 UG/L
6) TM Ethylbenzene			18.87	2948962	19.311 UG/L
7) TM m-,p-Xylene			19.12	7049893	37.818 UG/L
8) TM o-Xylene			20.29	3077405	18.635 UG/L
10) T 1,3-Dichlorobenzene			24.06	2859366	18.081 UG/L
11) T 1,4-Dichlorobenzene			24.25	3124858	18.609 UG/L
12) T 1,2-Dichlorobenzene			24.78	2778074	19.319 UG/L

192

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

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 ccl4	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

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Injection Log

Directory: C:\HPCHEM\1\DATA\111501

Analyst: CBN

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g12295.d	1.	WG108254-01 8021 STD 20PPB 5ML ✓	1,1 S-86-(13,09)	15 Nov 2001 07:18
2	2	11g12296.d	1.	WG108255-01 WATER BLANK 5ML ✓	1,1 S-86-09	15 Nov 2001 08:01
3	3	11g12297.d	1.	WG108255-02 WATER LCS 20PPB. ✓	1,1 S-86-(13,09)	15 Nov 2001 08:34
4	1	11g12298.d	1.	L0111257-01 A 5ML pH=5 ✓	1,1 S-86-(13,09)	15 Nov 2001 09:15
5	2	11g12299.d	1.	L0111253-01 A 5ML pH<2 RR high SS	1,1 S-86-09	15 Nov 2001 09:48
6	3	11g12300.d	1.	L0111253-02 A 5ML pH<2 RR high SS	1,1 S-86-09	15 Nov 2001 10:21
7	4	11g12301.d	1.	L0111253-03 A 5ML pH<2 ✓	1,1 S-86-09	15 Nov 2001 10:53
8	5	11g12302.d	1.	WG108255-03 L0111253-04 A 5.. ✓	1,1 S-86-09	15 Nov 2001 11:26
9	6	11g12303.d	1.	WG108255-04 L0111253-05 MS ... ✓	1,1 S-86-(13,09)	15 Nov 2001 11:59
10	7	11g12304.d	1.	WG108255-05 L0111253-06 MSD. ✓	1,1 S-86-(13,09)	15 Nov 2001 12:32
11	8	11g12305.d	1.	L0111253-07 A 5ML pH<2 RR high SS	1,1 S-86-09	15 Nov 2001 13:04
12	9	11g12306.d	1.	WG108254-02 8021 STD 20PPB 5ML ✓	1,1 S-86-(13,09)	15 Nov 2001 13:37
13	10	11g12307.d	1.	L0111253-08 A 5ML pH<2 RR high SS	1,1 S-86-09	15 Nov 2001 14:18
14	11	11g12308.d	1.	L0111253-09 A 5ML pH<2 ✓	1,1 S-86-09	15 Nov 2001 14:50
15	12	11g12309.d	1.	L0111253-10 A 5ML pH<2 ✓	1,1 S-86-09	15 Nov 2001 15:23
16	13	11g12310.d	1.	L0111253-01 A 5ML pH<2 ✓ confirms SS	1,1,RE S-86-09	15 Nov 2001 15:55
17	14	11g12311.d	1.	L0111253-02 A 5ML pH<2 ✓ confirms SS	1,1,RE S-86-09	15 Nov 2001 16:28
18	15	11g12312.d	1.	L0111254-01 A 5ML pH<2 ✓	1,1 S-86-09	15 Nov 2001 17:00
19	16	11g12313.d	1.	L0111254-02 A 5ML pH<2 ✓	1,1 S-86-09	15 Nov 2001 17:33
20	17	11g12314.d	1.	L0111254-03 A 5ML pH<2 ✓	1,1 S-86-09	15 Nov 2001 18:05
21	18	11g12315.d	1.	L0111254-04 A 5ML pH<2 RR 10X, high SS	1,1 S-86-09	15 Nov 2001 18:38
22	19	11g12316.d	1.	L0111254-05 A 5ML pH<2 RR clo	1,1 S-86-09	15 Nov 2001 19:11
23	20	11g12317.d	1.	WG108254-03 8021 STD 20PPB 5ML ✓	1,1 S-86-(13,09)	15 Nov 2001 19:44
24	21	11g12318.d	1.	L0111254-06 A 5ML pH<2 RR cclow	1,1 S-86-09	15 Nov 2001 20:16
25	22	11g12319.d	1.	L0111253-07 A 5ML pH<2 ⊥ ⊥	1,1,RE S-86-09	15 Nov 2001 20:49
26	23	11g12320.d	1.	WG108254-04 8021 STD 20PPB 5ML cclow	1,1 S-86-(13,09)	15 Nov 2001 21:22

Reanalysis

L0111254-04
- 05
- 06
- 07

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Injection Log

Directory: C:\HPCHEM\1\DATA\111601

Analyst: QS

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11g12321.d	1.	WG108359-01 8021 STD 20PPB 5ML RR	1,1 S-86-(13,09)	16 Nov 2001 08
2	2	11g12322.d	1.	WG108360-01 WATER BLANK 5ML I	1,1 S-86-09	16 Nov 2001 08
3	3	11g12323.d	1.	WG108359-01 8021 STD 20PPB 5ML ✓	1,1 S-86-(13,09)	16 Nov 2001 09
4	1	11g12324.d	1.	WG108360-01 WATER BLANK 5ML ✓	1,1 S-86-09	16 Nov 2001 10
5	2	11g12325.d	1.	WG108360-02 WATER LCS 20PPB.. ✓	1,1 S-86-(13,09)	16 Nov 2001 10
6	1	11g12326.d	1.	L0111253-07 B 5ML pH<2 ✓ confirms SS	1,1 S-86-09	16 Nov 2001 11
7	2	11g12327.d	1.	L0111253-08 B 5ML pH<2 ✓ confirms SS	1,1 S-86-09	16 Nov 2001 12
8	3	11g12328.d	10.	WG108360-03 L0111254-04 B 1.. ✓ confirms SS	1,10 S-86-09	16 Nov 2001 12
9	4	11g12329.d	10.	WG108360-04 L0111254-04 B M. ✓	1,10 S-86-(13,09)	16 Nov 2001 13
10	5	11g12330.d	10.	WG108360-05 L0111254-04 B M. ✓	1,10 S-86-(13,09)	16 Nov 2001 13
11	6	11g12331.d	1.	L0111254-05 B 5ML pH<2 ✓	1,1 S-86-09	16 Nov 2001 14
12	7	11g12332.d	1.	L0111254-06 B 5ML pH<2 ✓	1,1 S-86-09	16 Nov 2001 14
13	8	11g12333.d	1.	L0111282-01A 5ML pH<2 ✓	1,1 S-86-09	16 Nov 2001 15
14	9	11g12334.d	1.	WG108359-02 8021 STD 20PPB 5ML ✓	1,1 S-86-(13,09)	16 Nov 2001 15
15	10	11g12335.d	1.	L0111283-01 A 5ML pH<2 RR 20X DNR	1,1 S-86-09	16 Nov 2001 16
16	2	11g12336.d	1.	L0111283-02 A 5ML pH<2 RR 10X DNR	1,1 S-86-09	16 Nov 2001 17
17	3	11g12337.d	1.	L0111283-03 A 5ML pH<2 RR clo?	1,1 S-86-09	16 Nov 2001 17
18	4	11g12338.d	1.	L0111283-04 A 5ML pH<2 RR clo?	1,1 S-86-09	16 Nov 2001 18
19	5	11g12339.d	1.	L0111283-05 A 5ML pH<2 RR 10X DNR	1,1 S-86-09	16 Nov 2001 18
20	6	11g12340.d	1.	L0111283-06 A 5ML pH<2 RR clo?	1,1 S-86-09	16 Nov 2001 19
21	7	11g12341.d	1.	L0111283-07 A 5ML pH<2 RR 10X DNR	1,1 S-86-09	16 Nov 2001 19
22	8	11g12342.d	1.	L0111283-08 A 5ML pH<2 RR clo?	1,1 S-86-09	16 Nov 2001 20
23	9	11g12343.d	1.	L0111283-09 A 5ML pH<2 RR clo?	1,1 S-86-09	16 Nov 2001 20
24	10	11g12344.d	1.	L0111287-01 A 5ML pH<2 ✓	1,1 S-86-09	16 Nov 2001 21
25	11	11g12345.d	1.	WG108359-03 8021 STD 20PPB 5ML ✓	1,1 S-86-(13,09)	16 Nov 2001 22
26	12	11g12346.d	1.	L0111287-02 A 5ML pH<2 RR High SSS	1,1 S-86-09	16 Nov 2001 22
27	13	11g12347.d	1.	L0111287-03 A 5ML pH<2 RR 5X highSS	1,1 S-86-09	16 Nov 2001 23
28	14	11g12348.d	1.	L0111287-04 A 5ML pH<2 RR clo?	1,1 S-86-09	16 Nov 2001 23
29	15	11g12349.d	1.	L0111321-01 A 5ML pH<2 ✓	1,1 S-86-09	17 Nov 2001 00
30	16	11g12350.d	1.	RINSE 5ML ✓	1,1 S-86-09	17 Nov 2001 00
31	17	11g12351.d	1.	RINSE 5ML ✓	1,1 S-86-09	17 Nov 2001 01
32	18	11g12352.d	1.	WG108359-04 8021 STD 20PPB 5ML ✓	1,1 S-86-(13,09)	17 Nov 2001 01
33	19	11g12353.d	1.	WG108417-01 WATER BLANK 5ML RR	1,1 S-86-09	17 Nov 2001 02
34	20	11g12354.d	1.	WG108417-02 WATER LCS 20PPB...	1,1 S-86-(13,09)	17 Nov 2001 02
35	21	11g12355.d	1.	L0111280-01 A 5ML pH<2	1,1 S-86-09	17 Nov 2001 03
36	22	11g12356.d	1.	L0111280-02 A 5ML pH<2	1,1 S-86-09	17 Nov 2001 03
37	23	11g12357.d	1.	L0111280-03 A 5ML pH<2	1,1 S-86-09	17 Nov 2001 04
38	24	11g12358.d	1.	L0111287-05 A 5ML pH<2	1,1 S-86-09	17 Nov 2001 05
39	25	11g12359.d	1.	L0111287-06 A 5ML pH<2	1,1 S-86-09	17 Nov 2001 05
40	26	11g12360.d	1.	WG108417-03 L0111287-07 A 5ML	1,1 S-86-09	17 Nov 2001 06
41	27	11g12361.d	1.	WG108417-04 L0111280-07 A M...	1,1 S-86-(13,09)	17 Nov 2001 06
42	28	11g12362.d	1.	WG108417-05 L0111280-07 A M...	1,1 S-86-(13,09)	17 Nov 2001 07
43	29	11g12363.d	1.	WG108359-05 8021 STD 20PPB 5ML	1,1 S-86-(13,09)	17 Nov 2001 07
44	30	11g12364.d	1.	L0111287-08 A 5ML pH<2	1,1 S-86-09	17 Nov 2001 08
45	31	11g12365.d	1.	L0111287-09 A 5ML pH<2	1,1 S-86-09	17 Nov 2001 08
46	32	11g12366.d	1.	L0111287-10 A 5ML pH<2	1,1 S-86-09	17 Nov 2001 09
47	33	11g12367.d	1.	L0111287-11 A 5ML pH<2	1,1 S-86-09	17 Nov 2001 09
48	34	11g12368.d	1.	L0111287-12 A 5ML pH<2	1,1 S-86-09	17 Nov 2001 10
49	35	11g12369.d	1.	L0111287-13 A 5ML pH<2	1,1 S-86-09	17 Nov 2001 10
50	36	11g12370.d	1.	L0111287-14 A 5ML pH<2	1,1 S-86-09	17 Nov 2001 11
51	37	11g12371.d	1.	L0111287-15 A 5ML pH<2	1,1 S-86-09	17 Nov 2001 12
52	38	11g12372.d	1.	L0111287-16 A 5ML pH<2	1,1 S-86-09	17 Nov 2001 12
53	39	11g12373.d	1.	L0111287-17 A 5ML pH<2	1,1 S-86-09	17 Nov 2001 13

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2.2 Semivolatiles Data

2.2.5 DRO GC DATA (8015)

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0111253

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: 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: 4/27/01

Rev. 7/14/00

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Date: 11-10-01 / 11-20-01
Analyst: HV
Method: 8015-HL-PRO water 11253 (1-9) level 4
Instrument: HP2
Work Group: WG 108263

	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 11/20/01

Secondary Reviewer Initials & Date Checked [illegible] 11/29/01

- 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 [illegible] 11/29/01

Comments: _____

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

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DRO-GC DATA (8015)

Login Number: L0111253

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: HY Date: 11/27/01

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2.2.5.1 QC Summary

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP : WG108263 EXT DATE : 11-14-01 RUN DATE : 11-16-01 INSTRUMENT : HP2
METHOD : 8015-PRO EXT BENCH SHEET : V175-P121 SMPL ID : L0111253-04 Analyst: HV
MATRIX : WATER BLK FILENAME : 2G16556 SMPL FLNM : 2G16561
CONCENTRATION UNITS : ug / l LCS FILENAME : 2G16557 MS FLNM : 2G16562
PREP WORK GRP : WG108212 LCS DUP FILENAME : NA MSD FLNM : 2G16563

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 UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL
PRO (C8 - C40)	500	ND	3400	2527	NA	ND	3604	2500	2460	NA	74.3	NA	55	118	ND	69.4	68.3	41	101	NA	2	20
SURROGATE																						
o-TERPHENYL		13.9	20	17.1	NA	17.3	20	18.0	17.3	69.7	85.3	NA	49	174	86.7	90.1	86.3	49	174	NA	4	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\111601\2G16558.D Vial: 13
Acq On : 16 Nov 2001 17:30 Operator: HV
Sample : L0111253-01 FLA PRO water Inst : hp2
Misc : 1,1 V175-P121 Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Nov 19 9:22 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 08:54:12 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	3.82	370478	12.870 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	64.35%
3) s n-Nonatriacontane	7.39	1068	0.057 ppm
Spiked Amount 20.000		Recovery =	0.29%
Target Compounds			
1) H Petroleum Range	3.62	17530077	718.023 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16558.D FLASHPRO.M Mon Nov 19 09:22:31 2001 Page 1

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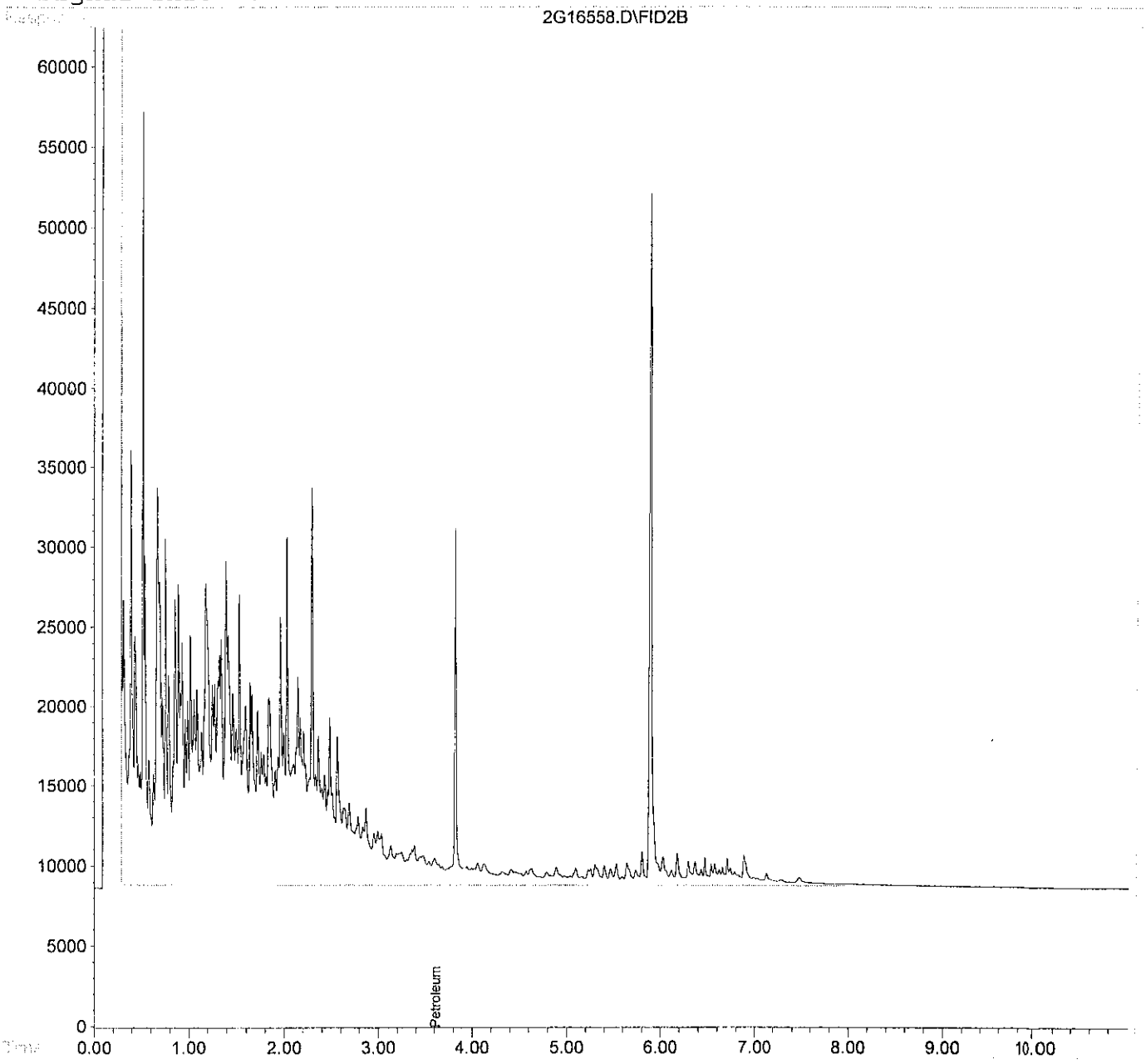
Data File : C:\HPCHEM\1\DATA\111601\2G16558.D Vial: 13
Acq On : 16 Nov 2001 17:30 Operator: HV
Sample : L0111253-01 FLA PRO water Inst : hp2
Misc : 1,1 V175-P121 Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Nov 19 9:22 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/16/01
Last Update : Mon Nov 19 08:54:12 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



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Data Path : C:\HPCHEM\1\DATA\2G16559\ Vial: 11

Acq On : 16 Nov 2001 17:45 Operator: HV
Sample : L0111253-02 FLA PRO water Inst : hp2
Misc : 1,1 V175-P121 Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Nov 19 9:22 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 08:54:12 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

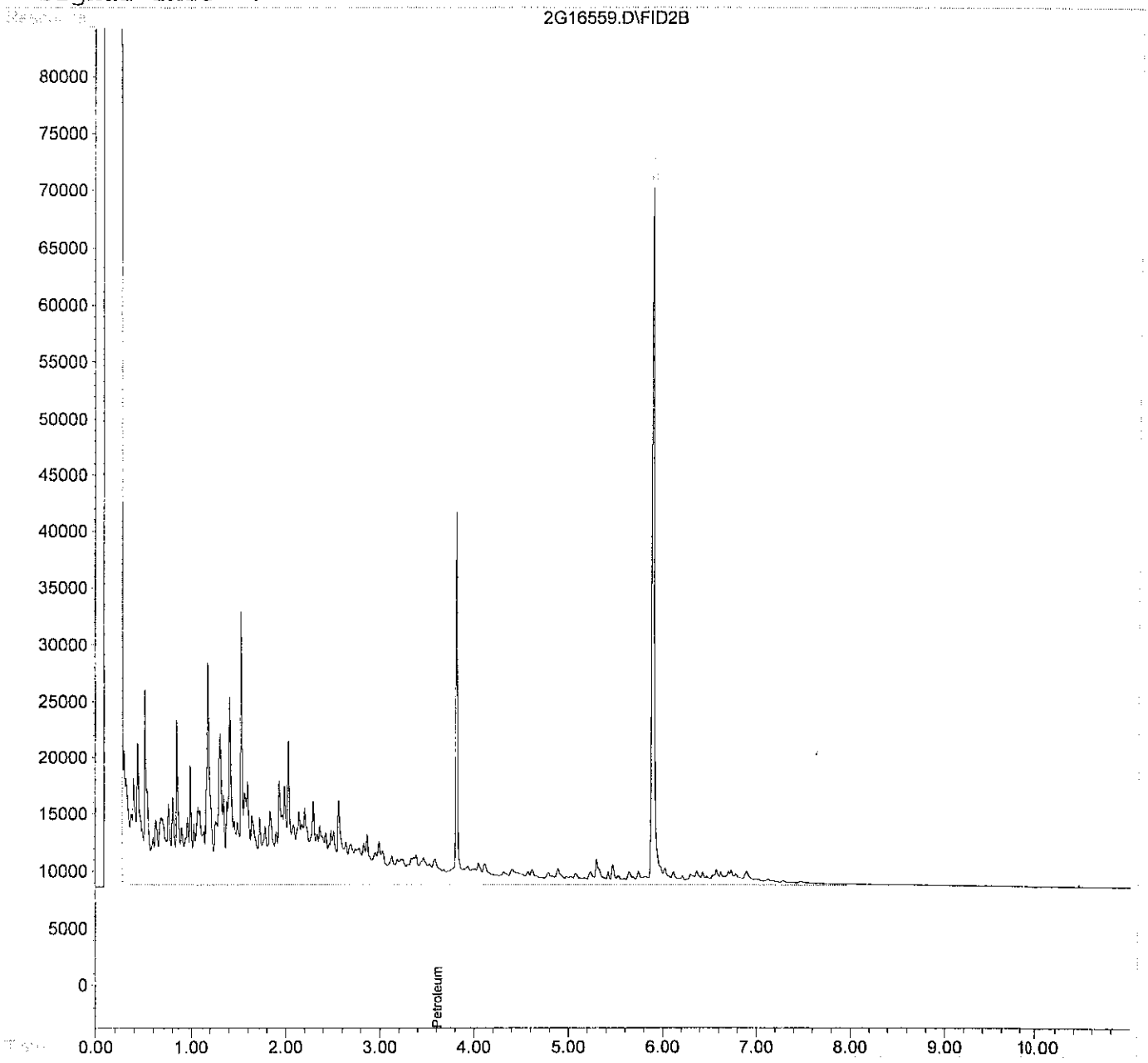
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.82	467335	16.234 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	81.17%
3) s n-Nonatriacontane	7.39	192	0.010 ppm
Spiked Amount 20.000		Recovery =	0.05%
Target Compounds			
1) H Petroleum Range	3.62	12243316	501.480 ppb

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

Acq On : 16 Nov 2001 17:45 Operator: HV
Sample : L0111253-02 FLA PRO water Inst : hp2
Misc : 1,1 V175-P121 Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Nov 19 9:22 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 08:54:12 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



2G16559.D FLASHPRO.M Mon Nov 19 09:22:55 2001 Page 207

Data File : C:\HPCHEM\1\DATA\[illegible]\2G16560.D Vial: 13
Acq On : 16 Nov 2001 18:01 Operator: HV
Sample : L0111253-03 FLA PRO water Inst : hp2
Misc : 1,1 V175-P121 Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Nov 19 9:23 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 08:54:12 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	3.82	326680	11.348 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	56.74%
3) s n-Nonatriacontane	7.36	128	0.007 ppm
Spiked Amount 20.000		Recovery =	0.04%
Target Compounds			
1) H Petroleum Range	3.62	1673345	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16560.D FLASHPRO.M Mon Nov 19 09:23:41 2001 Page 1

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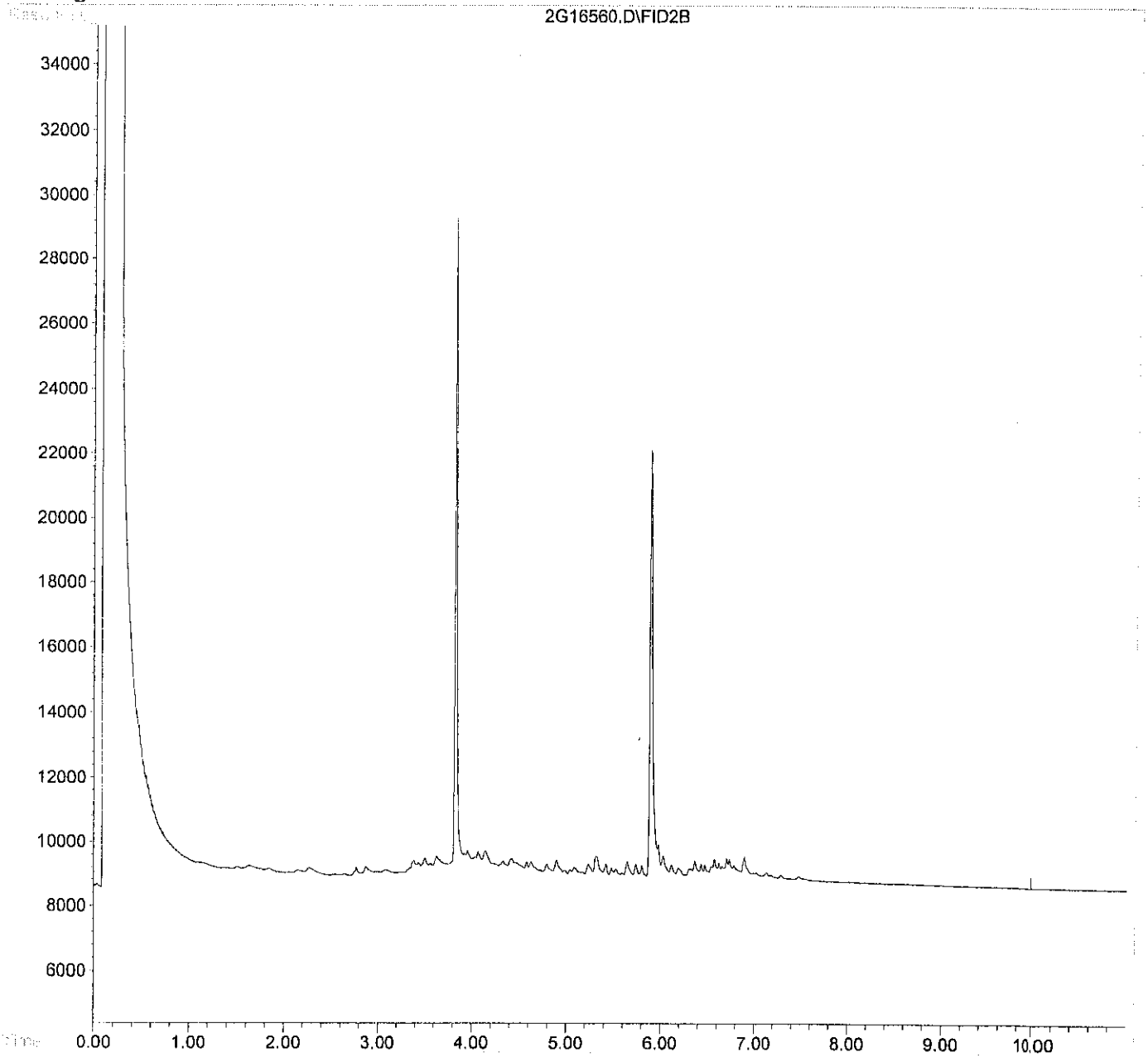
Data File : C:\HPCHEM\1\DATA\111601\2G16560.D Vial: 15
Acq On : 16 Nov 2001 18:01 Operator: HV
Sample : L0111253-03 FLA PRO water Inst : hp2
Misc : 1,1 V175-P121 Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Nov 19 9:23 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/16/01
Last Update : Mon Nov 19 08:54:12 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\111601\2G16561.D Vial: 16
Acq On : 16 Nov 2001 18:17 Operator: HV
Sample : WG108212-01 REF PRO water Inst : hp2
Misc : 1,1 L0111253-04 Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Nov 19 9:26 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 08:54:12 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

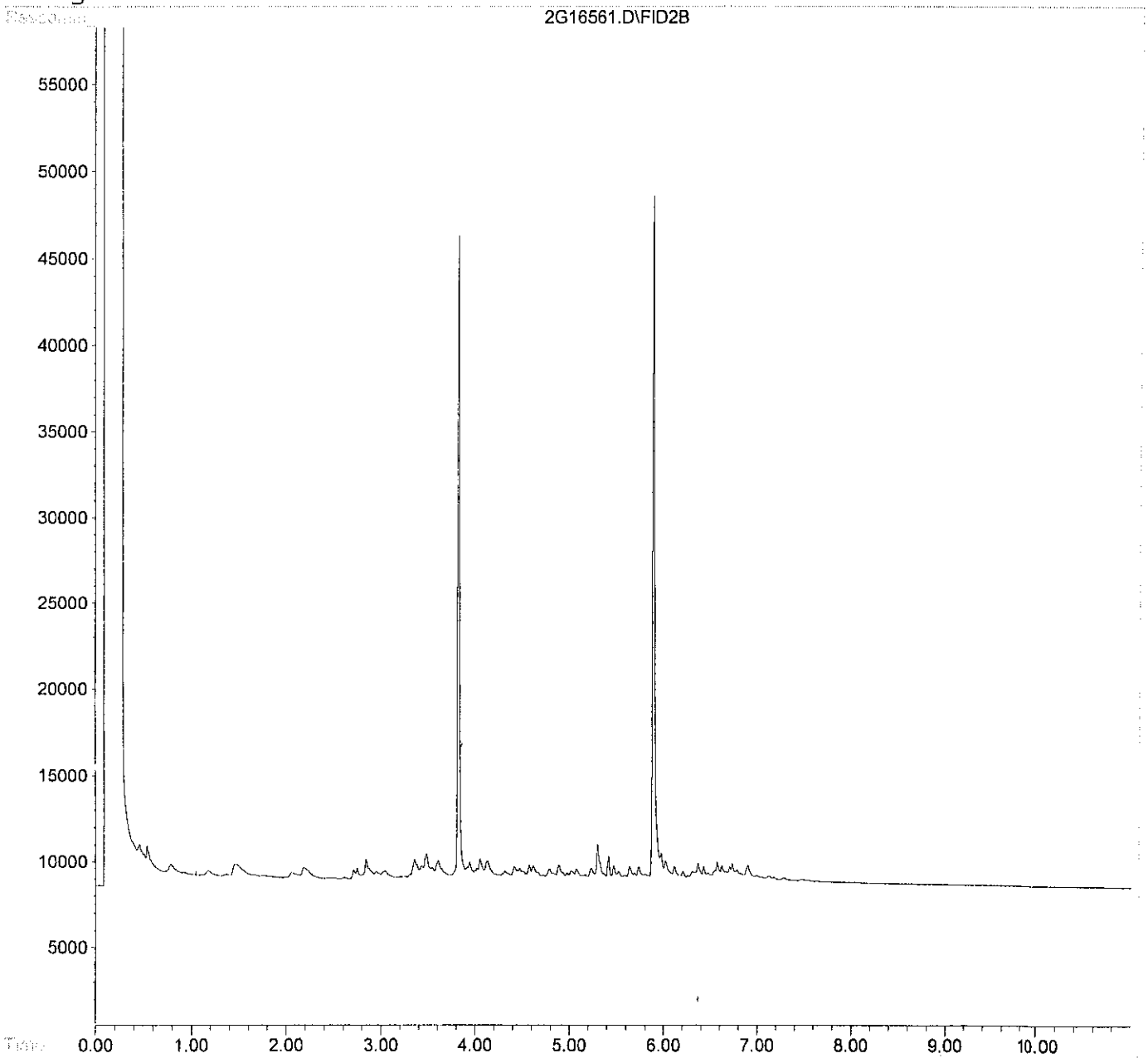
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.82	499066	17.337 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	86.69%
3) s n-Nonatriacontane	7.35	1643	0.087 ppm
Spiked Amount 20.000		Recovery =	0.43%
Target Compounds			
1) H Petroleum Range	3.62	2309585	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16561.D FLASHPRO.M Mon Nov 19 09:26:52 2001 Page 10

Data File : C:\HPCHEM\1\DATA\111601\2G16561.D Vial: 16
Acq On : 16 Nov 2001 18:17 Operator: HV
Sample : WG108212-01 REF PRO water Inst : hp2
Misc : 1,1 L0111253-04 Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Nov 19 9:26 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 08:54:12 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\111601\2G16562.D Vial: 17
Acq On : 16 Nov 2001 18:32 Operator: HV
Sample : WG108212-04 MS PRO water Inst : hp2
Misc : 1,1 L0111253-05 MS Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Nov 19 9:27 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 08:54:12 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

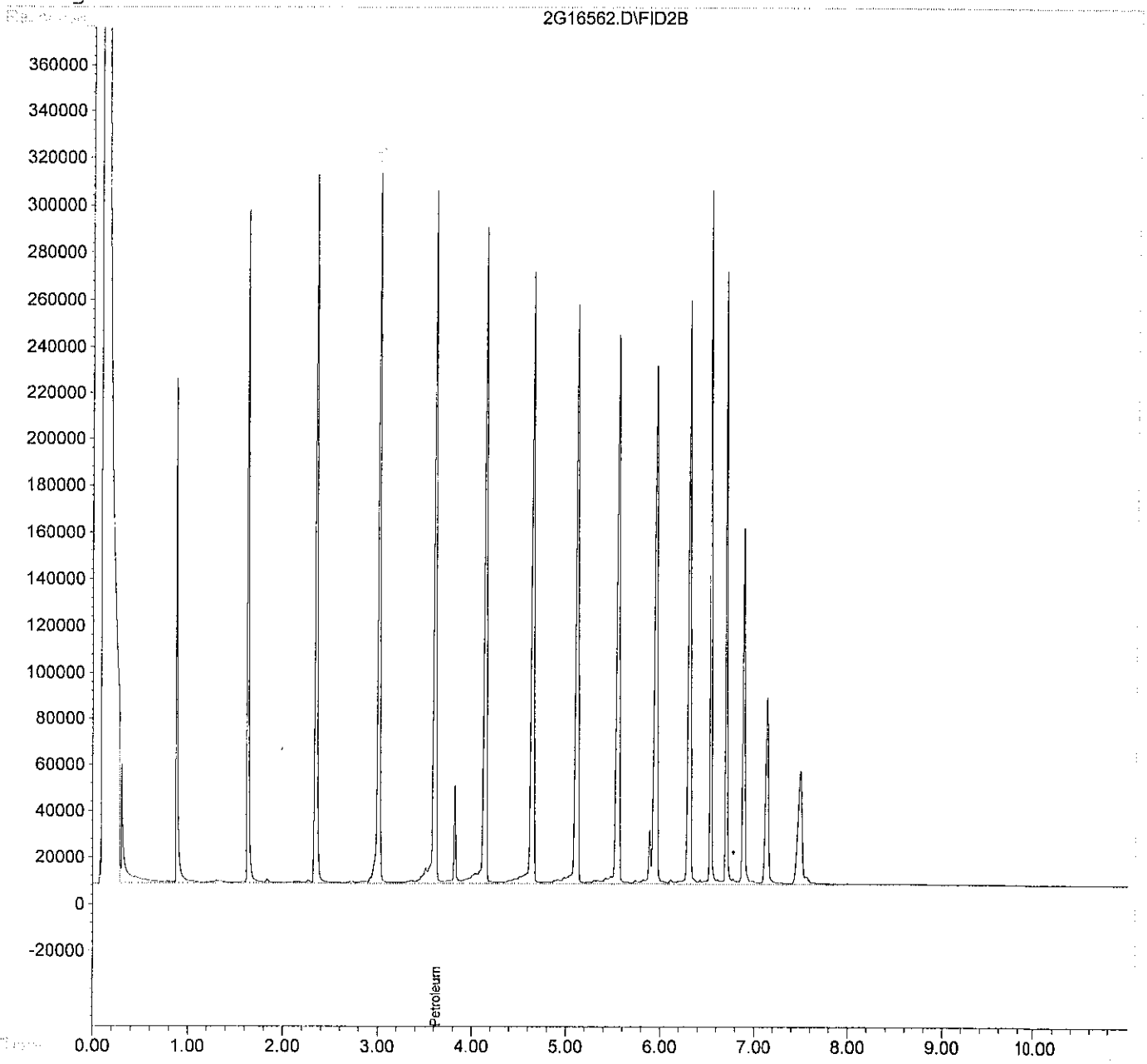
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.82	518632	18.016 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	90.08%
3) s n-Nonatriacontane	7.27f	33976	1.809 ppm
Spiked Amount 20.000		Recovery =	9.05%
Target Compounds			
1) H Petroleum Range	3.62	61041455	2500.227 ppb

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

Acq On : 16 Nov 2001 18:32 Operator: HV
Sample : WG108212-04 MS PRO water Inst : hp2
Misc : 1,1 L0111253-05 MS Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Nov 19 9:27 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 08:54:12 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\111601\2G16563.D Vial: 18
Acq On : 16 Nov 2001 18:48 Operator: HV
Sample : WG108212-05 MSD PRO water Inst : hp2
Misc : 1,1 L0111253-06 MSD Multiplr: 1.06
IntFile : PETRO.E
Quant Time: Nov 19 9:27 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 08:54:12 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	3.82	497075	17.267 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	86.33%
3) s n-Nonatriacontane	7.27f	34310	1.827 ppm
Spiked Amount 20.000		Recovery =	9.14%
Target Compounds			
1) H Petroleum Range	3.62	59496315	2460.147 ppb

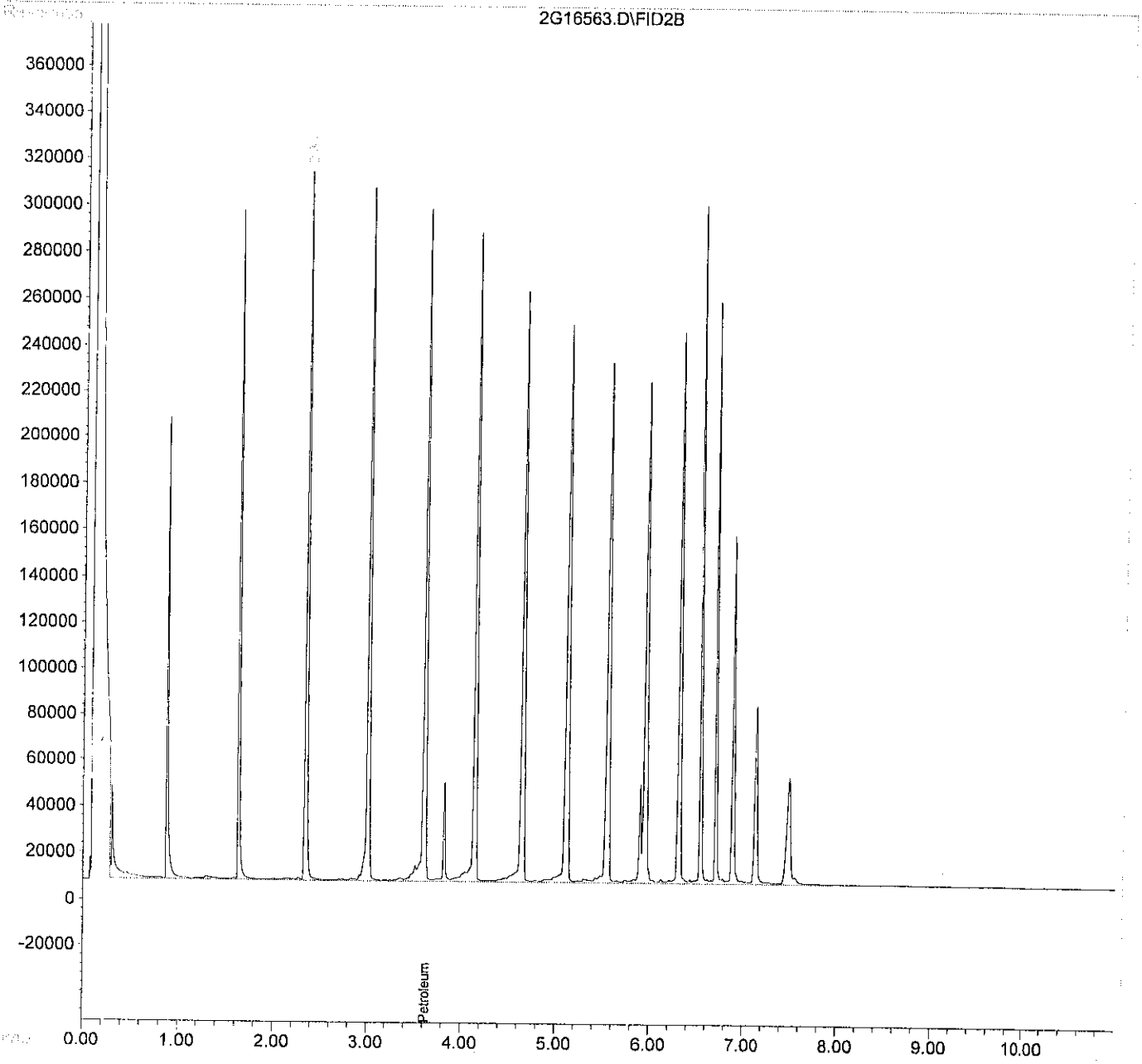
(f)=RT Delta > 1/2 Window (m)=manual int.
2G16563.D FLASHPRO.M Mon Nov 19 09:27:27 2001 Page 214

Data File : C:\HPCHEM\1\DATA\111601\2G16563.D
Acq On : 16 Nov 2001 18:48
Sample : WG108212-05 MSD PRO water
Misc : 1,1 L0111253-06 MSD
IntFile : PETRO.E
Quant Time: Nov 19 9:27 2001 Quant Results File: FLASHPRO.RES

Vial: 18
Operator: HV
Inst : hp2
Multiplr: 1.06

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/16/01
Last Update : Mon Nov 19 08:54:12 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 20 Nov 2001 10:25 Operator: HV
Sample : L0111253-07 RR PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Nov 20 10:50 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 :

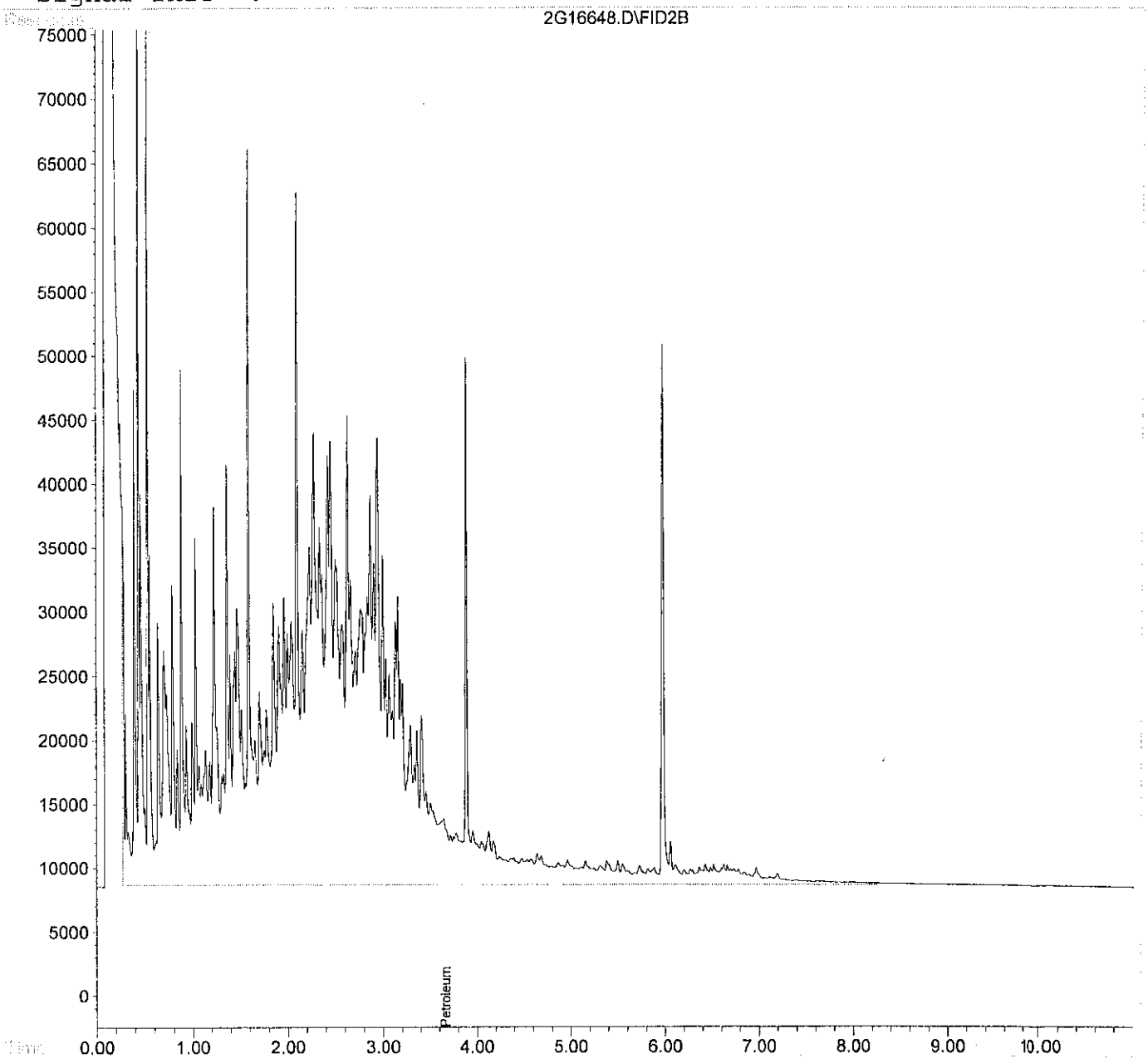
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.89	551264	23.058 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	115.29%
3) s n-Nonatriacontane	7.48	2094	0.143 ppm
Spiked Amount 20.000		Recovery =	0.72%
Target Compounds			
1) H Petroleum Range	3.67	33863315	1732.016 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16648.D FLASHPRO.M Tue Nov 20 11:55:09 2001 Page 216

Acq On : 20 Nov 2001 10:25 Operator: HV
Sample : L0111253-07 RR PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.05
IntFile : PETRO.E
Quant Time: Nov 20 10:50 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 :



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Acq On : 20 Nov 2001 10:40 Operator: HV
Sample : L0111253-08 RR PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.06
IntFile : PETRO.E
Quant Time: Nov 20 11:32 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 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	544671	22.783 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	113.92%
3) s n-Nonatriacontane	7.40	5541	0.378 ppm
Spiked Amount 20.000		Recovery =	1.89%
Target Compounds			
1) H Petroleum Range	3.67	36964050	1908.616 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16649.D FLASHPRO.M Tue Nov 20 11:55:37 2001 Page 1

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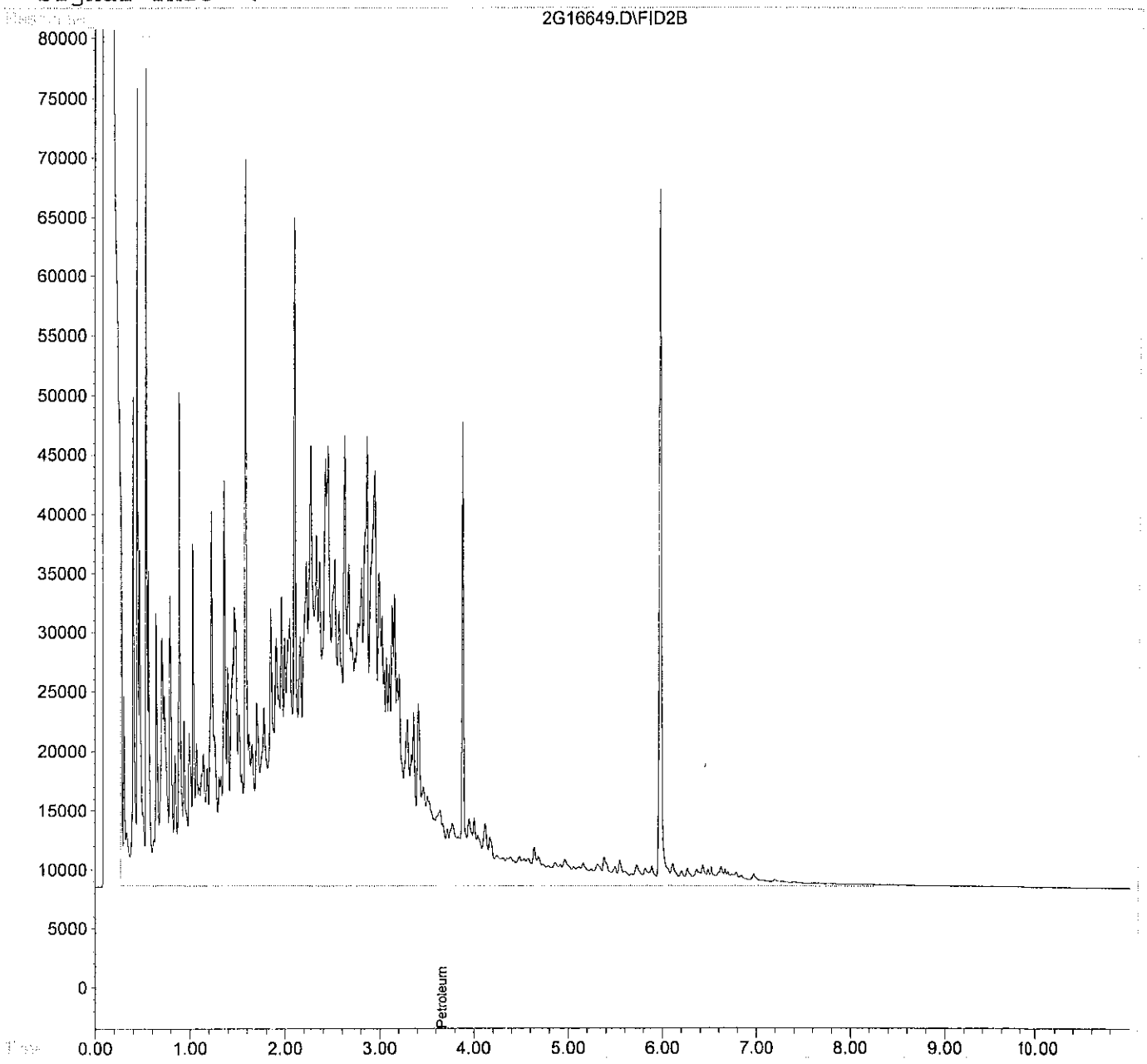
Acq On : 20 Nov 2001 10:40 Operator: HV
Sample : L0111253-08 RR PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.06
IntFile : PETRO.E
Quant Time: Nov 20 11:32 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/19/01
Last Update : Mon Nov 19 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\2G16568.D

Acq On : 16 Nov 2001 20:05 Operator: HV
Sample : L0111253-09 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.14
IntFile : PETRO.E
Quant Time: Nov 19 9:28 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 09:28:25 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

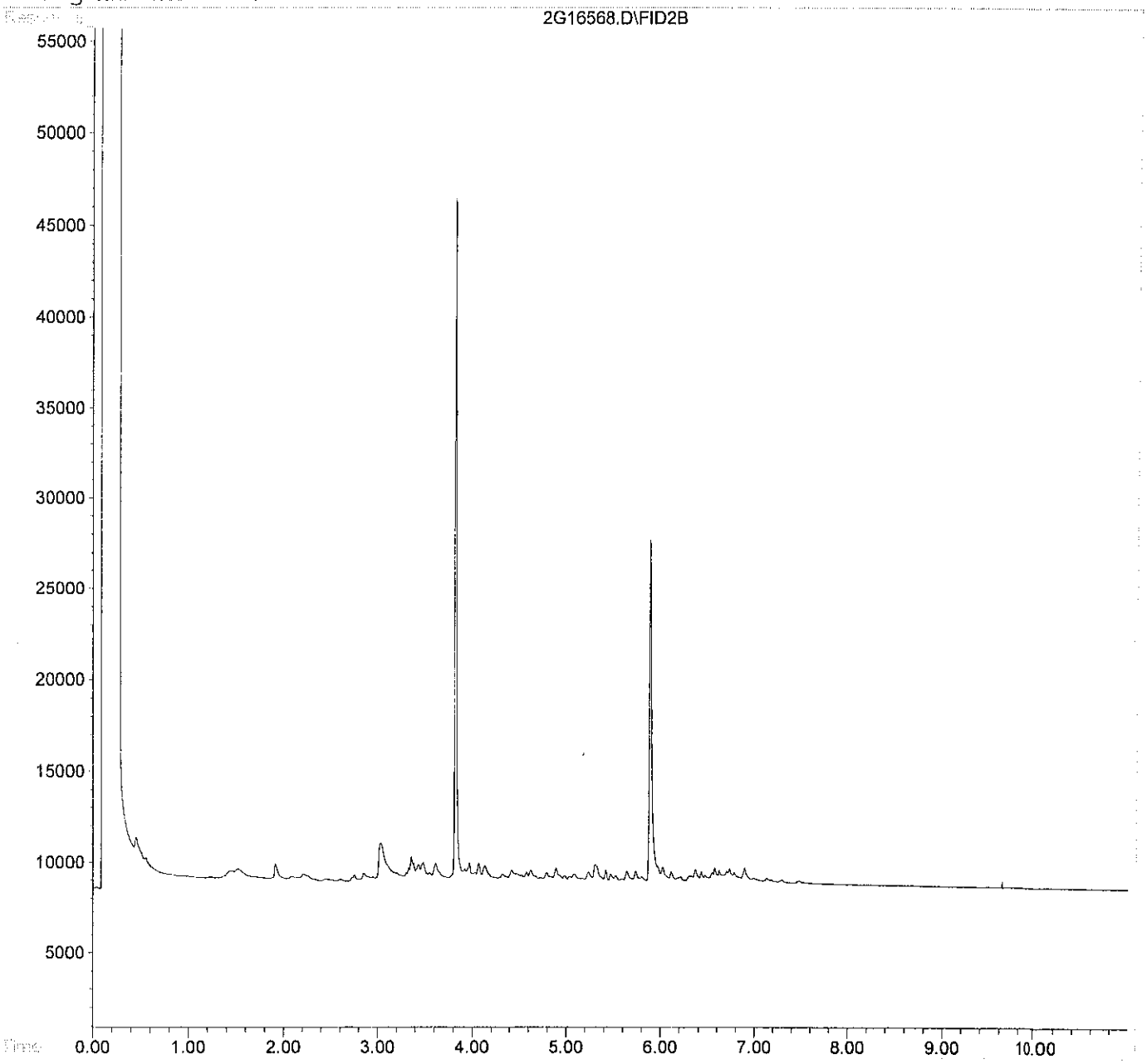
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.82	495523	17.214 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	86.07%
3) s n-Nonatriacontane	7.29f	6940	0.369 ppm
Spiked Amount 20.000		Recovery =	1.85%
Target Compounds			
1) H Petroleum Range	3.62	1416507	<MDL ppb

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

Acq On : 16 Nov 2001 20:05 Operator: HV
Sample : L0111253-09 PRO water Inst : hp2
Misc : 1,1 water Multiplr: 1.14
IntFile : PETRO.E
Quant Time: Nov 19 9:28 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 09:28:25 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 11/16/01
Last Update : Fri Sep 28 14:40:54 2001

Calibration Files
5 =2G16553.D 50 =2G16552.D 100 =2G16550.D
200 =2G16551.D 400 =2G16549.D 600 =2G16548.D

		Compound	5	50	100	200	400	600	Avg		%RSD
1)	H	Petroleum Range	2.480	2.532	2.622	2.806	2.751	2.190	2.564	E4	8.64
2)	s	O-Terphenyl	2.784	2.790	2.899	3.135	3.016	2.648	2.879	E4	6.11
3)	s	n-Nonatriacontane	2.137	1.704	1.865	2.111	2.005	1.448	1.878	E4	14.14

(#) = Out of Range
FLASHPRO.M Fri Nov 16 15:40:30 2001 Page 1

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Data File : C:\HPCHEM\1\DATA\111601\2G16548.D Vial: 5
Acq On : 16 Nov 2001 14:09 Operator: HV
Sample : WG108391-06 PRO @600ppm Inst : hp2
Misc : 1,1 sos 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 16 15:10 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 Nov 16 15:10:34 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

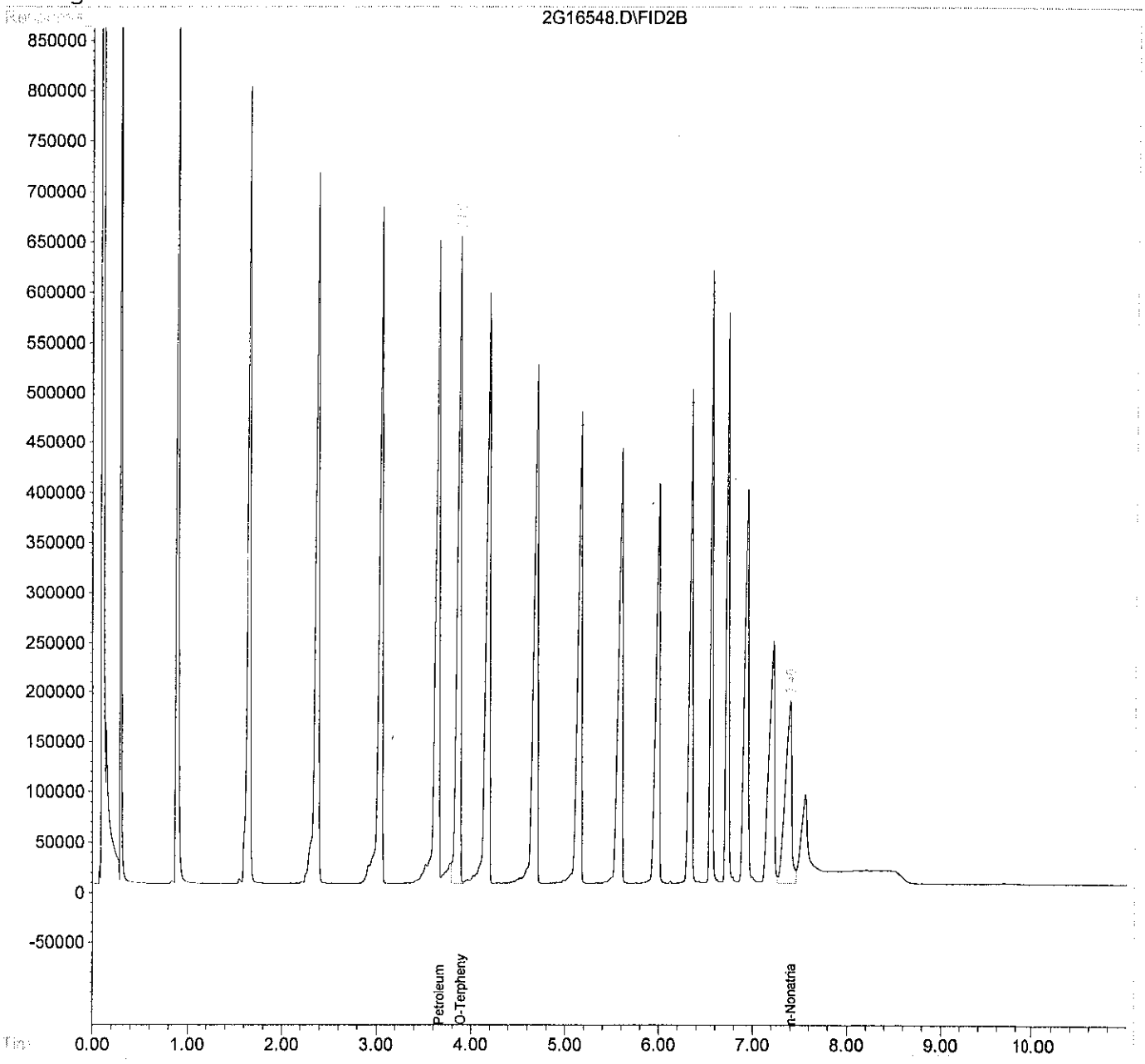
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.89	15887317	769.073 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 3845.37%#
3) s n-Nonatriacontane	7.40	8687562	915.203 ppm
Spiked Amount 20.000		Recovery	= 4576.01%
Target Compounds			
1) H Petroleum Range	3.66	223366044	12940.121 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16548.D FLASHPRO.M Fri Nov 16 15:41:24 2001 Page 1 224

Data File : C:\HPCHEM\1\DATA\111601\2G16548.D Vial: 3
Acq On : 16 Nov 2001 14:09 Operator: HV
Sample : WG108391-06 PRO @600ppm Inst : hp2
Misc : 1,1 sos 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 16 15:10 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 Nov 16 15:10:34 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\111601\2G16549.D Vial: 4
Acq On : 16 Nov 2001 14:24 Operator: HV
Sample : WG108391-05 PRO @400ppm Inst : hp2
Misc : 1,1 sos 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 16 15:11 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 Nov 16 15:10:34 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

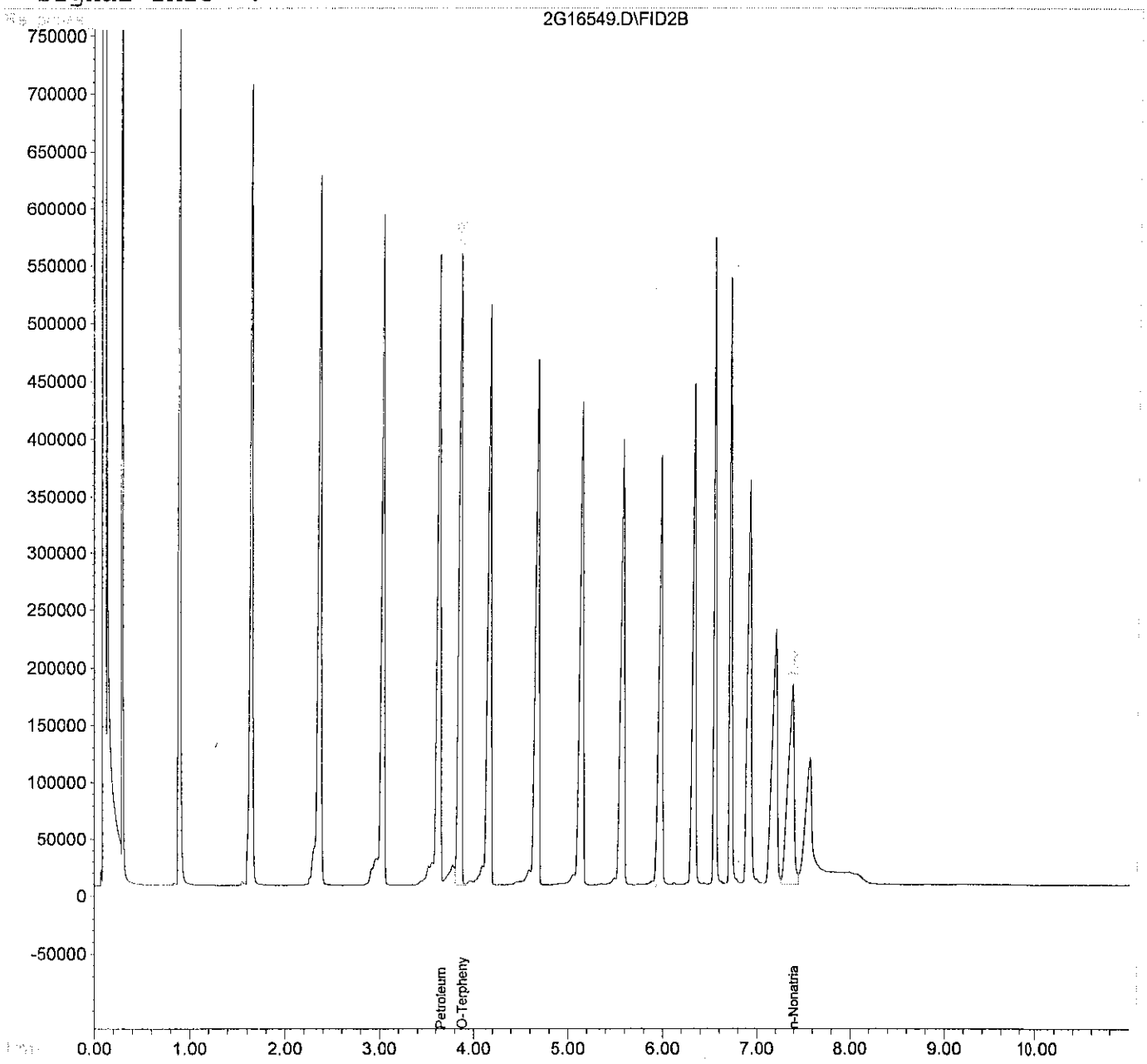
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.88	12062863	583.939 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 2919.70%#
3) s n-Nonatriacontane	7.40	8020175	844.896 ppm
Spiked Amount 20.000		Recovery	= 4224.48%
Target Compounds			
1) H Petroleum Range	3.66	187099239	10839.100 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16549.D FLASHPRO.M Fri Nov 16 15:41:16 2001 Page 226

Data File : C:\HPCHEM\1\DATA\111601\2G16549.D Vial: 4
Acq On : 16 Nov 2001 14:24 Operator: HV
Sample : WG108391-05 PRO @400ppm Inst : hp2
Misc : 1,1 sos 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 16 15:11 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 Nov 16 15:10:34 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\111601\2G16550.D Vial: 5
Acq On : 16 Nov 2001 14:39 Operator: HV
Sample : WG108391-03 PRO @100ppm Inst : hp2
Misc : 1,1 sos 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 16 15:15 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 Nov 16 15:12:34 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

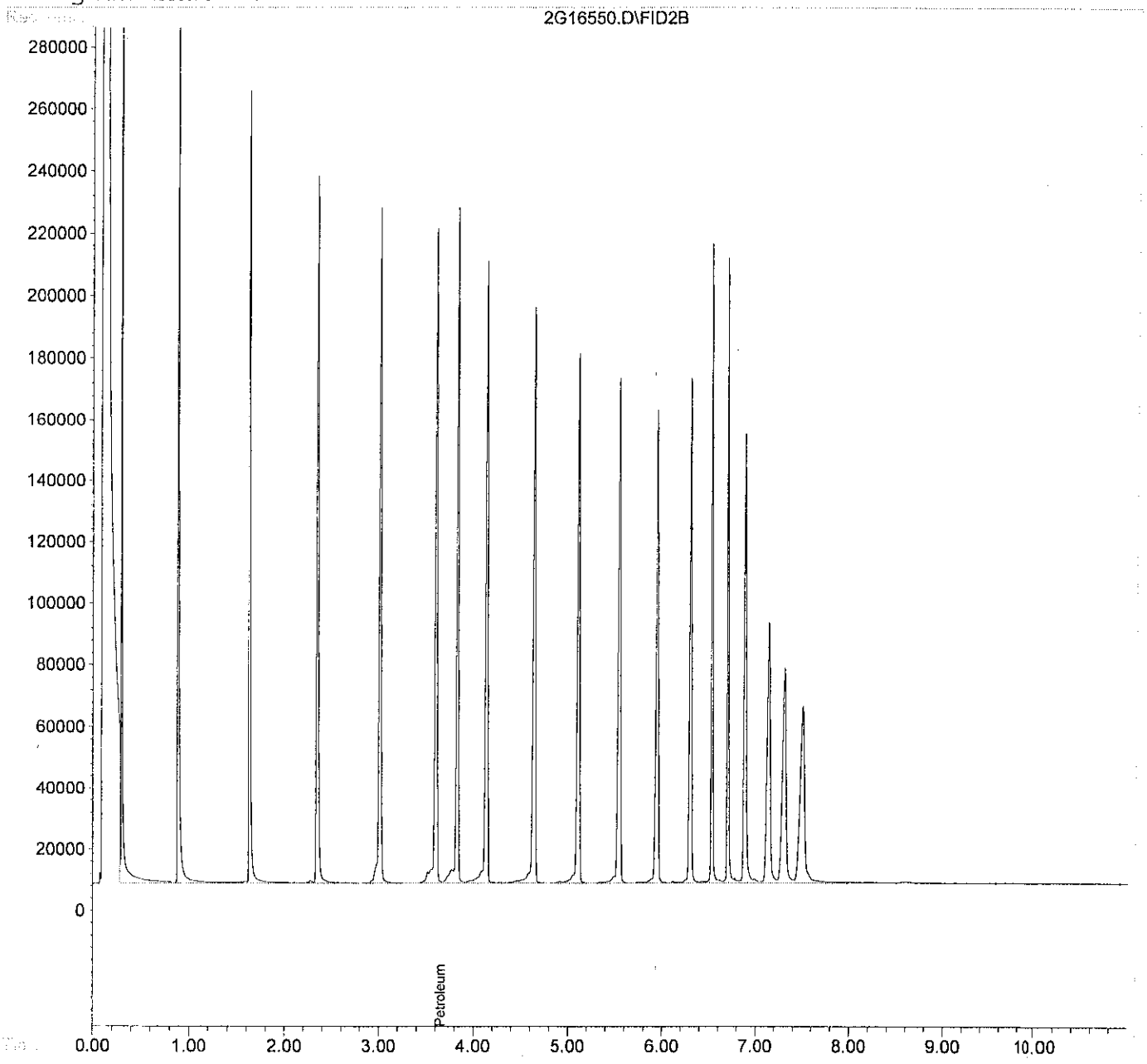
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.84	2899072	140.338 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	701.69%#
3) s n-Nonatriacontane	7.32	1864884	196.459 ppm
Spiked Amount 20.000		Recovery =	982.30%
Target Compounds			
1) H Petroleum Range	3.66	44572194	2582.172 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16550.D FLASHPRO.M Fri Nov 16 15:40:58 2001 Page 228

Data File : C:\HPCHEM\1\DATA\111601\2G16550.D Vial: 5
Acq On : 16 Nov 2001 14:39 Operator: HV
Sample : WG108391-03 PRO @100ppm Inst : hp2
Misc : 1,1 sos 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 16 15:15 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 Nov 16 15:12:34 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\111601\2G16551.D Vial: 6
Acq On : 16 Nov 2001 14:55 Operator: HV
Sample : WG108391-04 PRO @200ppm Inst : hp2
Misc : 1,1 sos 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 16 15:15 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 Nov 16 15:12:34 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

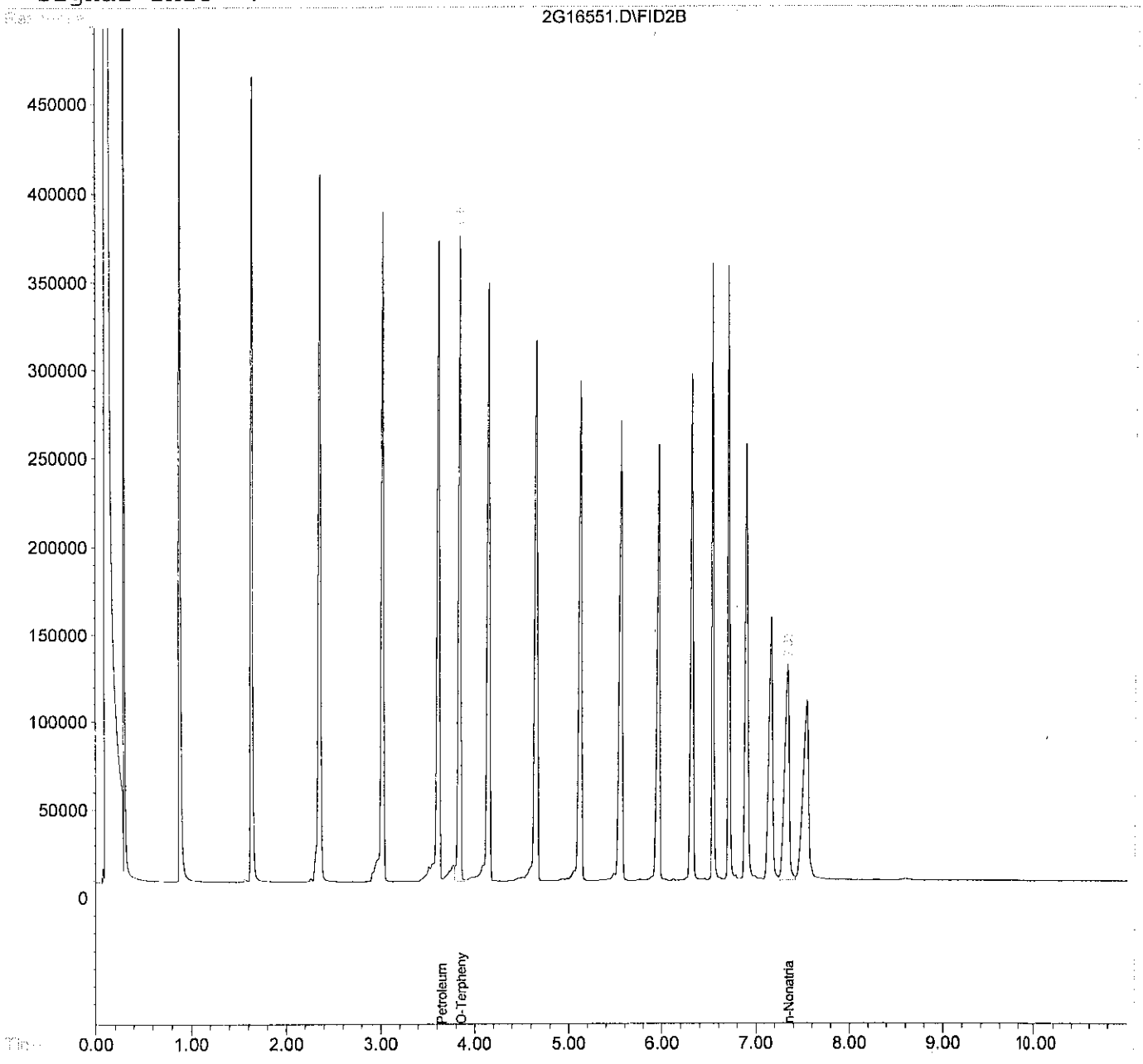
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.86	6269870	303.512 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1517.56%#
3) s n-Nonatriacontane	7.35	4222247	444.798 ppm
Spiked Amount 20.000		Recovery	= 2223.99%
Target Compounds			
1) H Petroleum Range	3.66	95402079	5526.867 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16551.D FLASHPRO.M Fri Nov 16 15:41:07 2001 Page 230

Data File : C:\HPCHEM\1\DATA\111601\2G16551.D Vial: 6
Acq On : 16 Nov 2001 14:55 Operator: HV
Sample : WG108391-04 PRO @200ppm Inst : hp2
Misc : 1,1 sos 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 16 15:15 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 Nov 16 15:12:34 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



231

Data File : C:\HPCHEM\1\DATA\111601\2G16552.D Vial: 7
Acq On : 16 Nov 2001 15:10 Operator: HV
Sample : WG108391-02 PRO @50ppm Inst : hp2
Misc : 1,1 sos 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 16 15:25 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 : Fri Nov 16 15:25:48 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

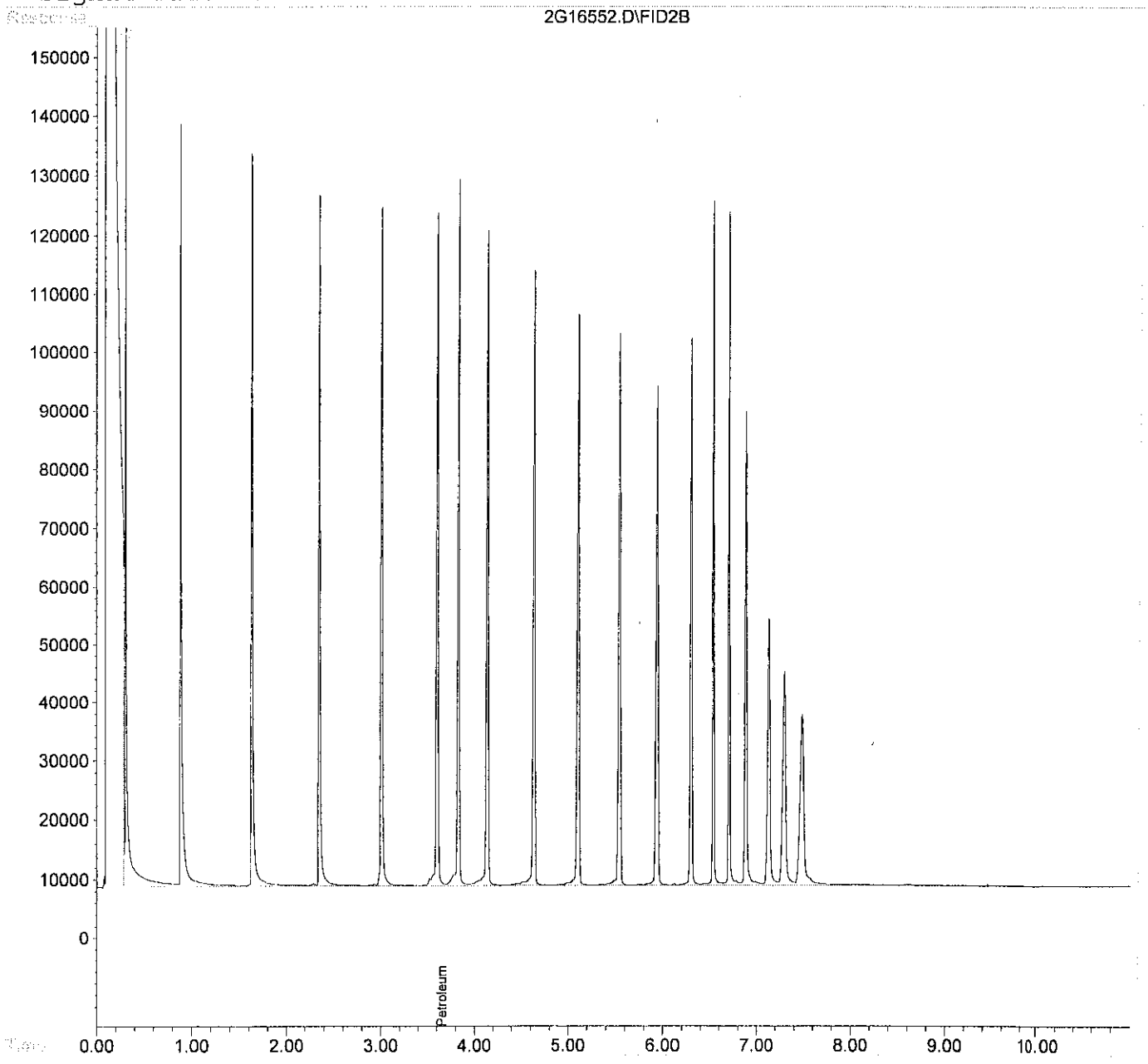
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	1395177	67.538 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	337.69%#
3) s n-Nonatriacontane	7.30	851931	89.748 ppm
Spiked Amount 20.000		Recovery =	448.74%
Target Compounds			
1) H Petroleum Range	3.66	21522539	1246.851 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16552.D FLASHPRO.M Fri Nov 16 15:40:48 2001 Page 232

Data File : C:\HPCHEM\1\DATA\111601\2G16552.D Vial: 7
Acq On : 16 Nov 2001 15:10 Operator: HV
Sample : WG108391-02 PRO @50ppm Inst : hp2
Misc : 1,1 sos 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 16 15:25 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 : Fri Nov 16 15:25:48 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\111601\2G16553.D Vial: 8
Acq On : 16 Nov 2001 15:25 Operator: HV
Sample : WG108391-01 PRO @5ppm Inst : hp2
Misc : 1,1 sos 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 16 15:40 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 : Fri Nov 16 15:25:48 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	139205	4.836 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	24.18%#
3) s n-Nonatriacontane	7.29f	106829	5.688 ppm
Spiked Amount 20.000		Recovery =	28.44%
Target Compounds			
1) H Petroleum Range	3.66	2107854	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16553.D FLASHPRO.M Fri Nov 16 15:40:37 2001 Page 1

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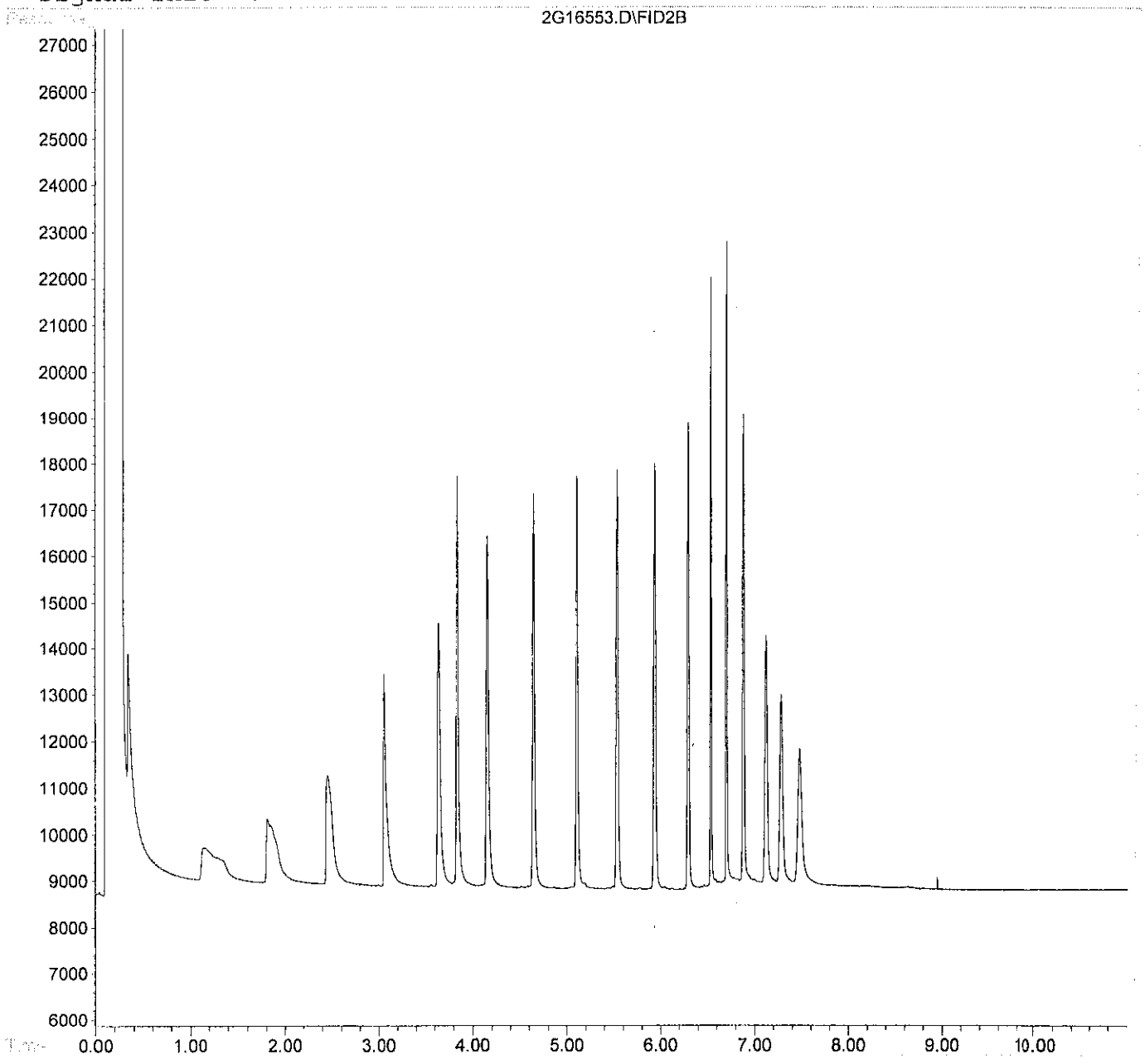
Data File : C:\HPCHEM\1\DATA\111601\2G16553.D Vial: 8
Acq On : 16 Nov 2001 15:25 Operator: HV
Sample : WG108391-01 PRO @5ppm Inst : hp2
Misc : 1,1 sos 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 16 15:40 2001 Quant Results File: FLASHPRO.RES

Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/16/01
Last Update : Fri Nov 16 15:25:48 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 16 Nov 2001 16:28 Operator: HV
Sample : WG108391-07 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 11/16/01
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	2917.210	14.2	78	0.00
2	s	O-Terphenyl	200.000	0.987	99.5#	0	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16555.D FLASHPRO.M Fri Nov 16 16:41:56 2001 Page 1

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Data File : C:\HPCHEM\1\DATA\2G16555.D Vial: 15
Acq On : 16 Nov 2001 16:28 Operator: HV
Sample : WG108391-07 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 11/16/01
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	-7.35#

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16555.D FLASHPRO.M Fri Nov 16 16:41:56 2001 Page 2

Data File : C:\HPCHEM\1\DATA\111601\2G16555.D Vial: 10
Acq On : 16 Nov 2001 16:28 Operator: HV
Sample : WG108391-07 ALT @200ppm Inst : hp2
Misc : 1,1 sos 56-26 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 16 16:40 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 : Fri Nov 16 16:40:41 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

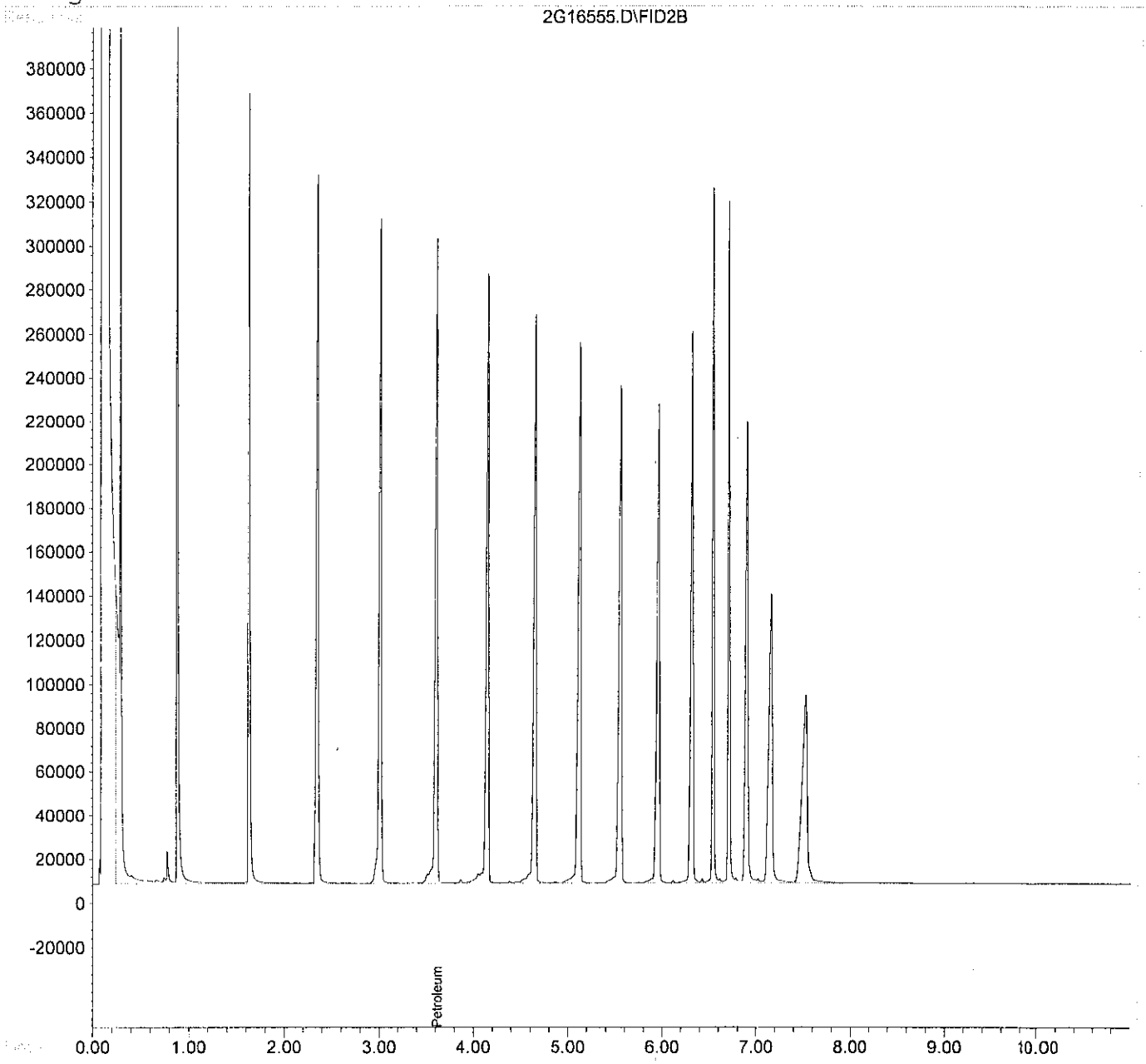
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.87	28422	0.987 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	4.94%#
3) s n-Nonatriacontane	0.00	0	N.D. ppm
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Petroleum Range	3.62	74782922	2917.210 ppb

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

Data File : C:\HPCHEM\1\DATA\[illegible] Vial: 10
Acq On : 16 Nov 2001 16:28 Operator: HV
Sample : WG108391-07 ALT @200ppm Inst : hp2
Misc : 1,1 sos 56-26 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 16 16:40 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 : Fri Nov 16 16:40:41 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



235

Acq On : 16 Nov 2001 19:19 Operator: HV
Sample : WG108391-08 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 11/16/01
Last Update : Mon Nov 19 08:54:12 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	3895.024	-14.6	105	0.00
2	s	O-Terphenyl	200.000	218.964	-9.5	101	0.00
3	s	n-Nonatriacontane	200.000	240.903	-20.5#	107	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16565.D FLASHPRO.M Mon Nov 19 08:55:43 2001 Page 1

Data File : C:\HPCHEM\1\DATA\111601\2G16565.D Vial: 20
Acq On : 16 Nov 2001 19:19 Operator: HV
Sample : WG108391-08 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 11/16/01
Last Update : Mon Nov 19 08:54:12 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
2G16565.D FLASHPRO.M Mon Nov 19 08:55:43 2001 Page 2

241

Data File : C:\HPCHEM\1\DATA\111601\2G16565.D Vial: 20
Acq On : 16 Nov 2001 19:19 Operator: HV
Sample : WG108391-08 PRO CCV Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 8:55 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 08:54:12 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	3.85	6303274	218.964 ppb m
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1094.82%#
3) s n-Nonatriacontane	7.35	4524739	240.903 ppm
Spiked Amount 20.000		Recovery	= 1204.52%
Target Compounds			
1) H Petroleum Range	3.62	99849266	3895.024 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16565.D FLASHPRO.M Mon Nov 19 08:55:24 2001 Page 1

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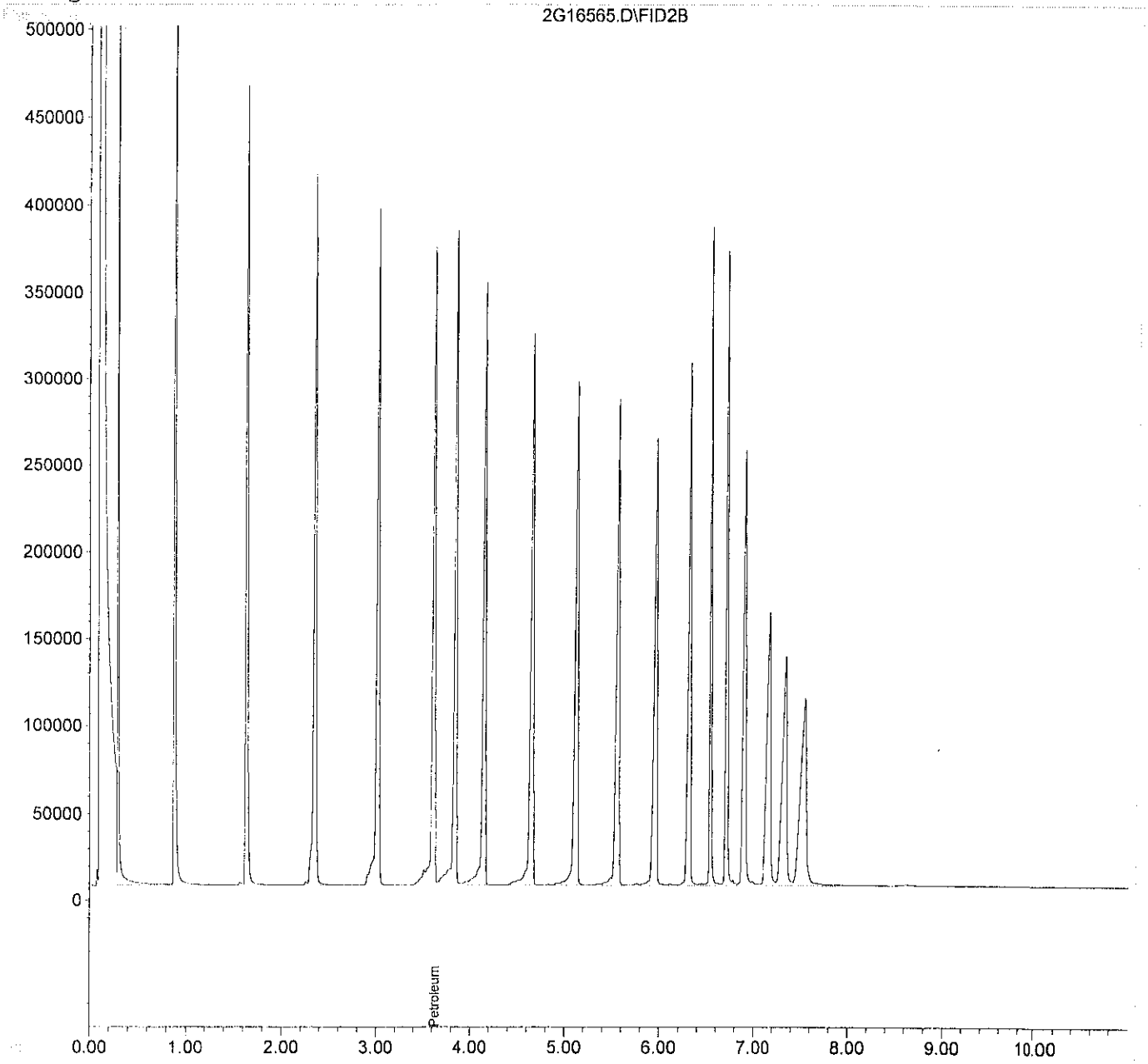
Acq On : 16 Nov 2001 19:19 Operator: HV
Sample : WG108391-08 PRO CCV Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 8:55 2001 Quant Results File: FLASHPRO.RES

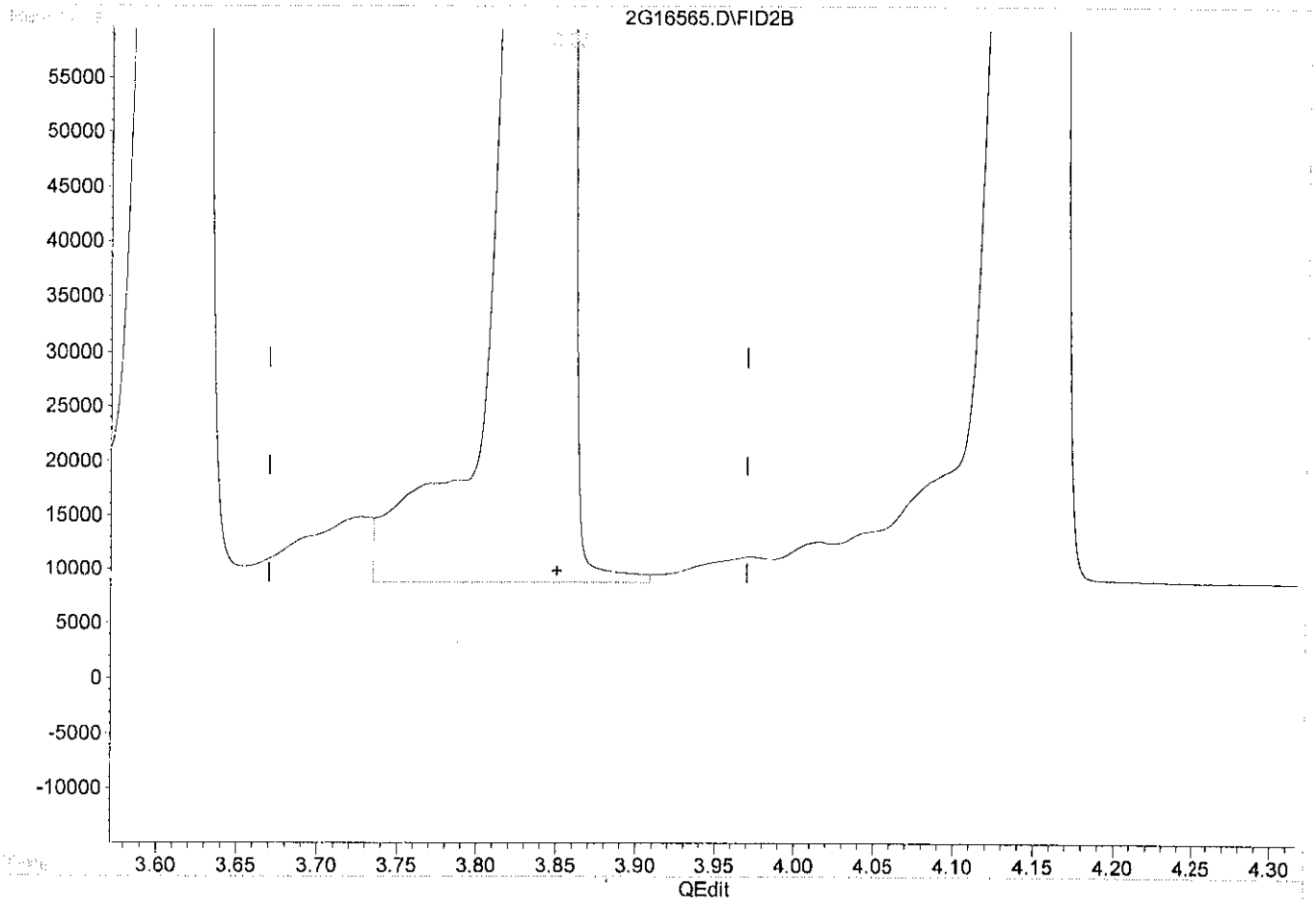
Quant Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/16/01
Last Update : Mon Nov 19 08:54:12 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Acq On : 16 Nov 2001 19:19 Operator: HV
Sample : WG108391-08 PRO CCV Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 8:54 2001 Quant Results File: FLASHPRO.RES

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/16/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration



(2) O-Terphenyl (s)

3.85min 231.476ppb

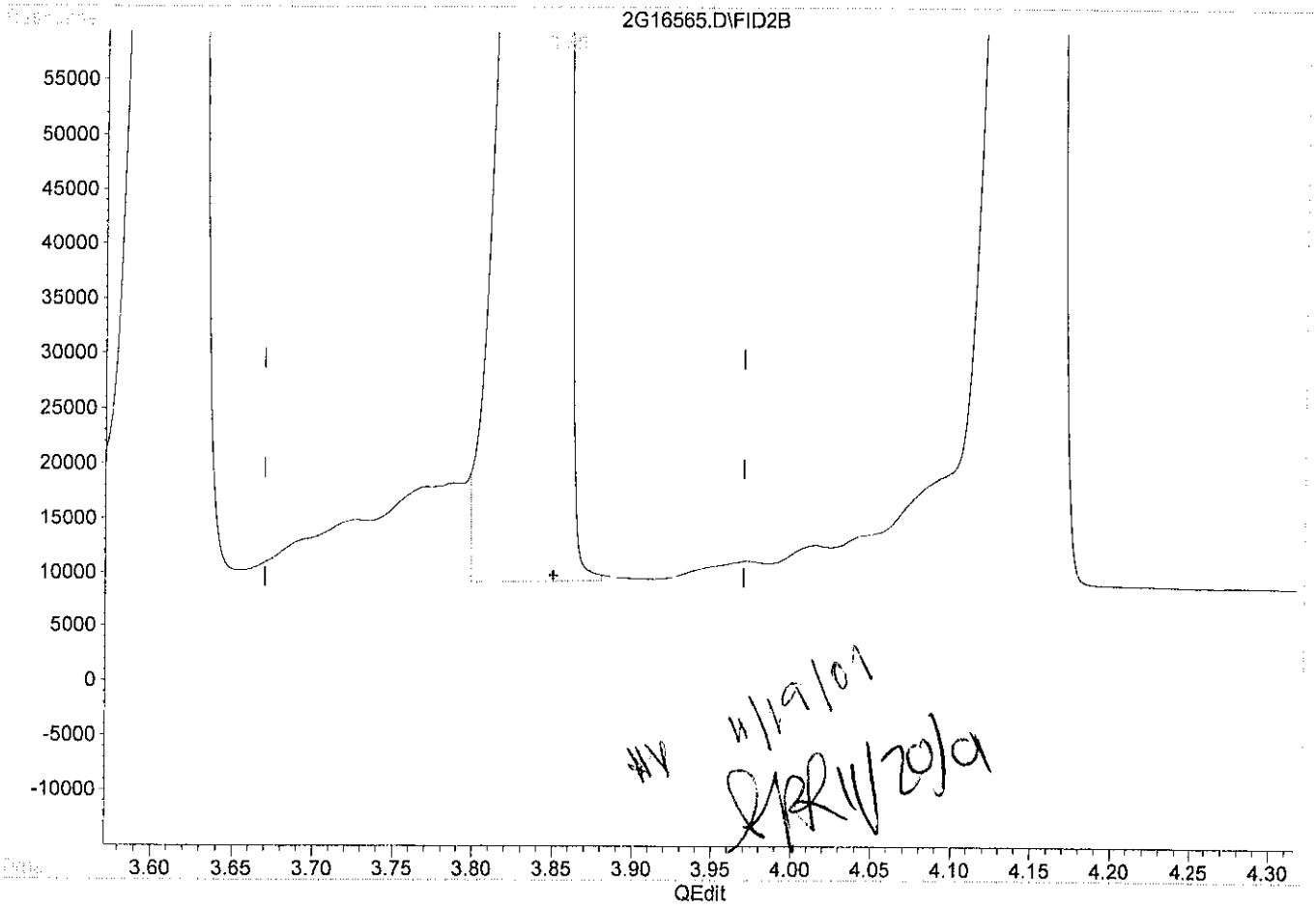
response 6663454

(+) = Expected Retention Time
2G16565.D FLASHPRO.M Mon Nov 19 08:55:02 2001

244

Acq On : 16 Nov 2001 19:19 Operator: HV
Sample : WG108391-08 PRO CCV Inst : hp2
Misc : 1,1 SOS 56-21 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 8:54 2001 Quant Results File: FLASHPRO.RES

Method : C:\HPCHEM\1\METHODS\FLASHPRO.M (Chemstation Integrator)
Title : PETROLEUM RANGE ORGANICS 11/16/01
Last Update : Fri Sep 28 14:40:54 2001
Response via : Multiple Level Calibration



(2) O-Terphenyl (s)

3.85min 218.964ppb m

response 6303274

(+) = Expected Retention Time
2G16565.D FLASHPRO.M Mon Nov 19 08:55:15 2001

245

Acq On : 16 Nov 2001 20:36 Operator: HV
Sample : WG108391-09 PRO CCV 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 11/16/01
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	4108.166	-20.8#	110	0.00
2	s	O-Terphenyl	200.000	226.142	-13.1	104	0.03
3	s	n-Nonatriacontane	200.000	259.877	-29.9#	116	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16570.D FLASHPRO.M Mon Nov 19 09:37:25 2001 Page 1

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Acq On : 16 Nov 2001 20:36 Operator: HV
Sample : WG108391-09 PRO CCV 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 11/16/01
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 : 16 Nov 2001 20:36 Operator: HV
Sample : WG108391-09 PRO CCV Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 9:37 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 09:28:25 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

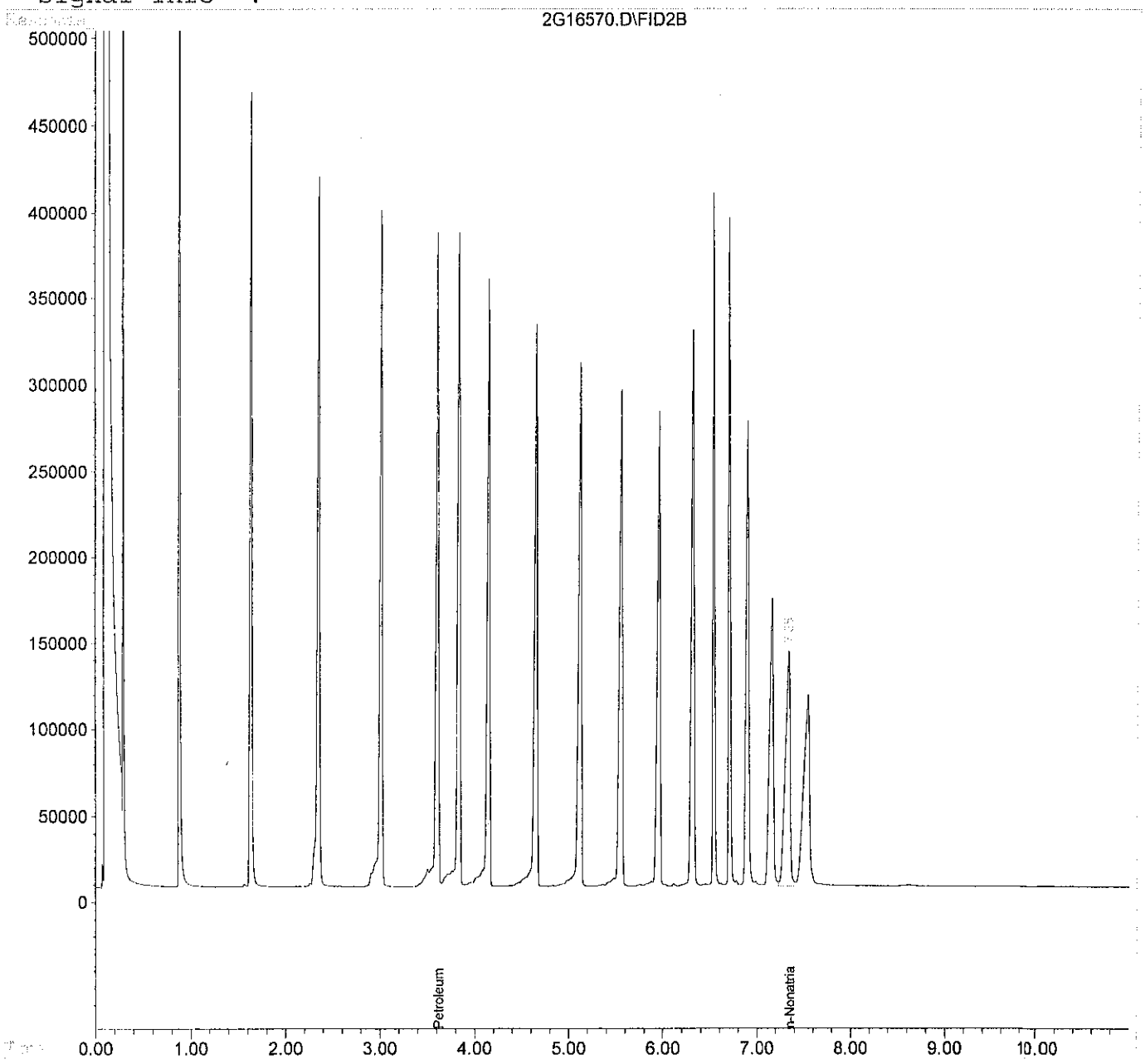
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.85	6509897	226.142 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1130.71%#
3) s n-Nonatriacontane	7.35	4881099	259.877 ppm
Spiked Amount 20.000		Recovery	= 1299.39%
Target Compounds			
1) H Petroleum Range	3.62	105313202	4108.166 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16570.D FLASHPRO.M Mon Nov 19 09:37:30 2001 Page 248

Acq On : 16 Nov 2001 20:36 Operator: HV
Sample : WG108391-09 PRO CCV Inst : hp2
Misc : 1,1 water Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 9:37 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 09:28:25 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



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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

Data File : C:\HPCHEM\1\DATA\111901\2G16583.D Vial: 4
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 :

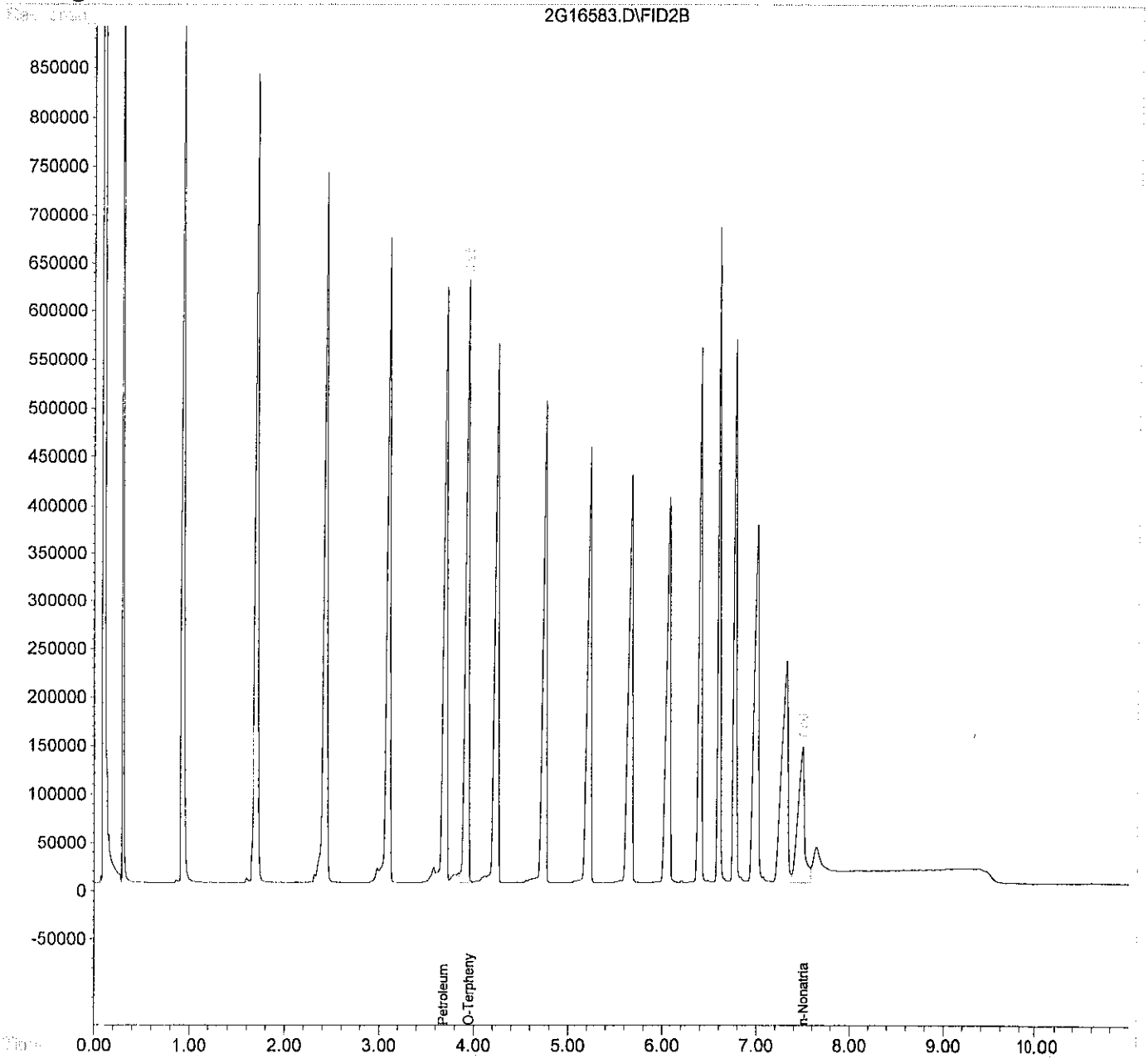
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.95	14576336	609.703 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 3048.52%#
3) s n-Nonatriacontane	7.50f	7004397	478.333 ppm
Spiked Amount 20.000		Recovery	= 2391.67%
Target Compounds			
1) H Petroleum Range	3.67	222974159	10861.447 ppb

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

Data File : C:\HPCHEM\1\DATA\111901\2G16583.D Vial: 4
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 :



Data File : C:\HPCHEM\1\DATA\111901\2G16584.D Vial: 5
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 :

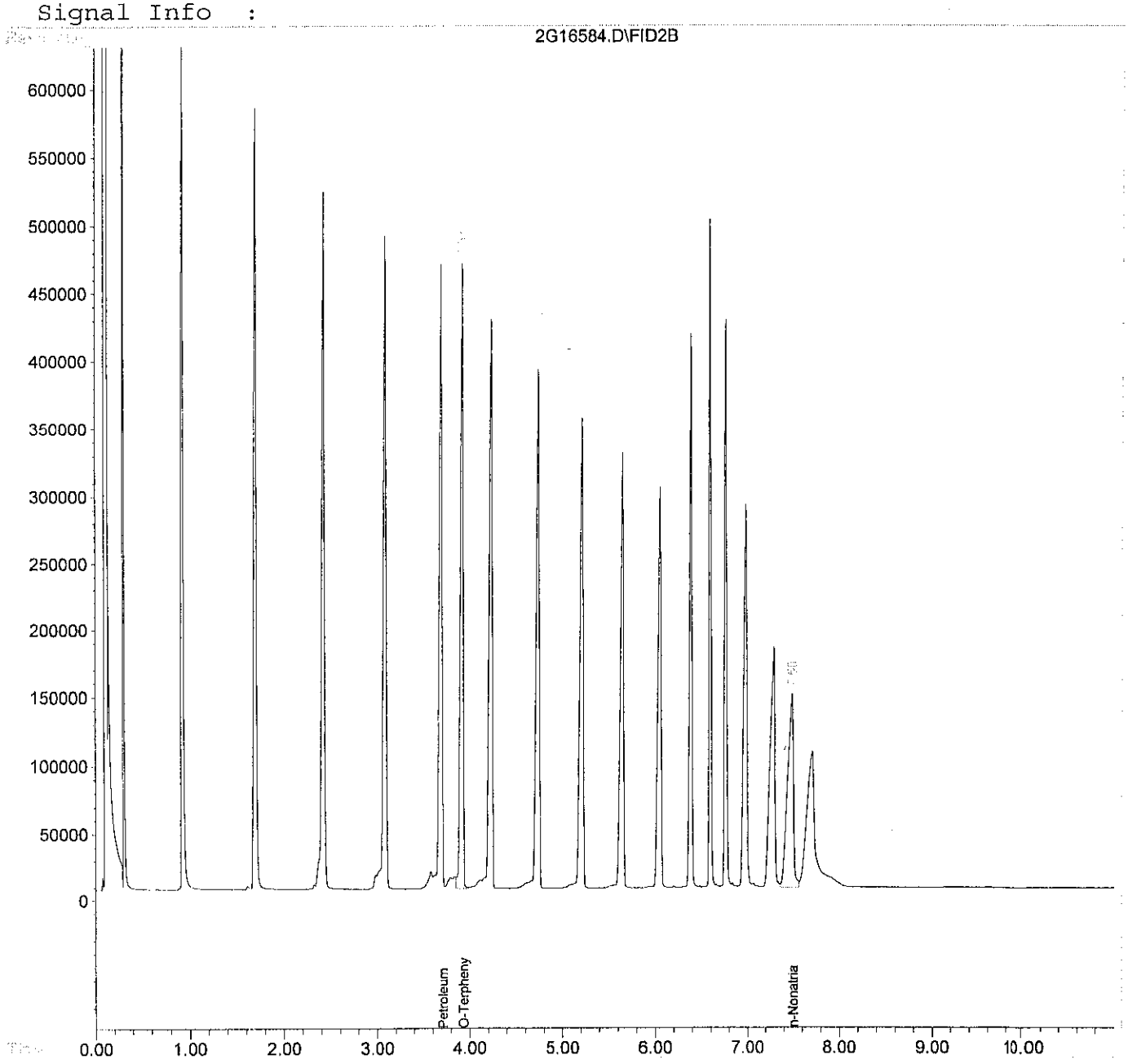
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.93	8923577	309.989 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery	= 1549.95%#
3) s n-Nonatriacontane	7.50	6403055	340.908 ppm
Spiked Amount 20.000		Recovery	= 1704.54%
Target Compounds			
1) H Petroleum Range	3.72	136951680	5342.353 ppb

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

Data File : C:\HPCHEM\1\DATA\111901\2G16584.D Vial: 5
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 :



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Data File : C:\HPCHEM\1\DATA\111901\2G16585.D Vial: 6
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 :

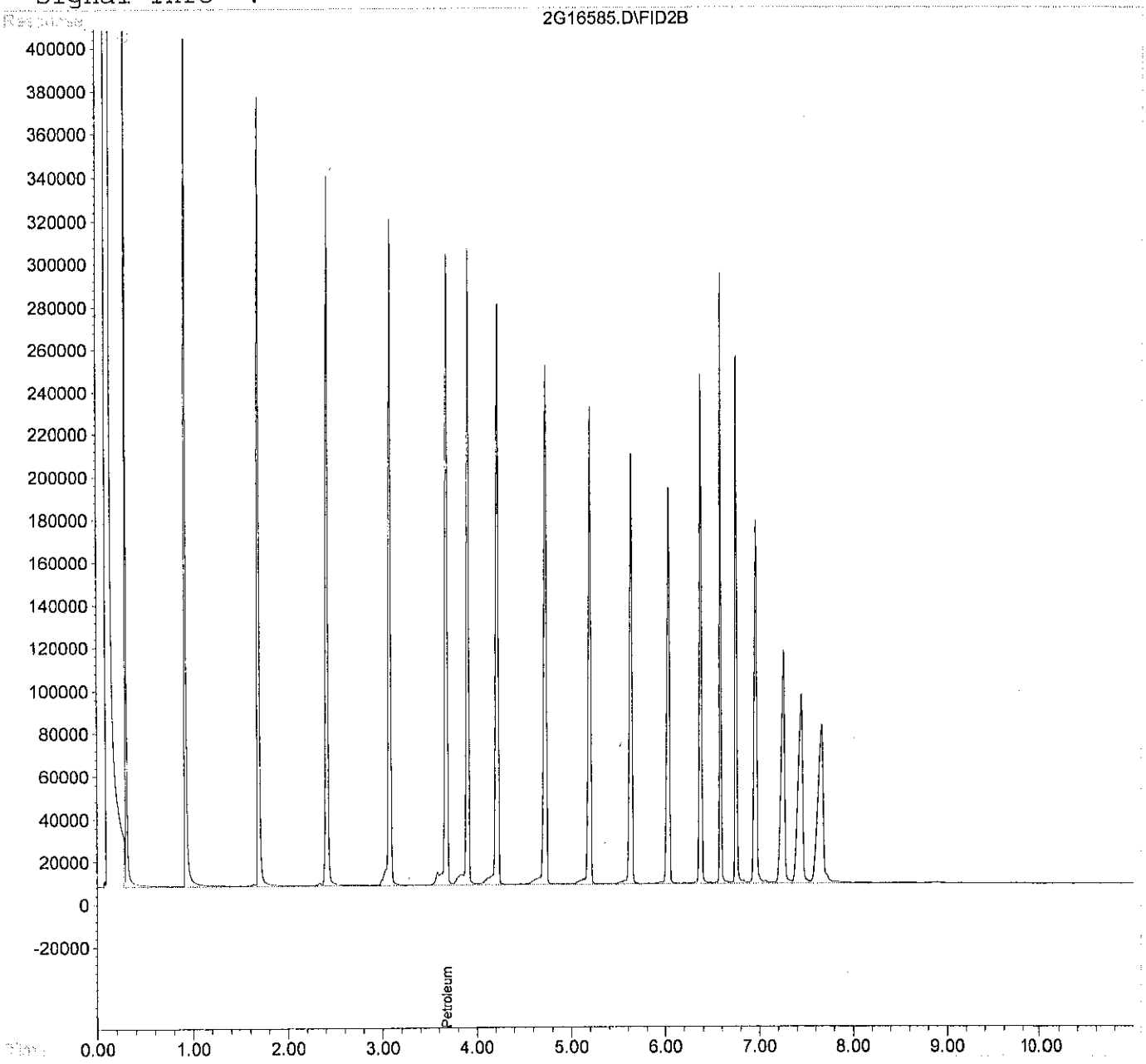
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.92	4472326	155.361 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery = 776.80%#		
3) s n-Nonatriacontane	7.45	2908197	154.836 ppm
Spiked Amount 20.000	Recovery = 774.18%		
Target Compounds			
1) H Petroleum Range	3.67	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 5 of 6

Data File : C:\HPCHEM\1\DATA\111901\2G16585.D Vial: 6
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 :



Data File : C:\HPCHEM\1\DATA\111901\2G16586.D Vial: 7
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

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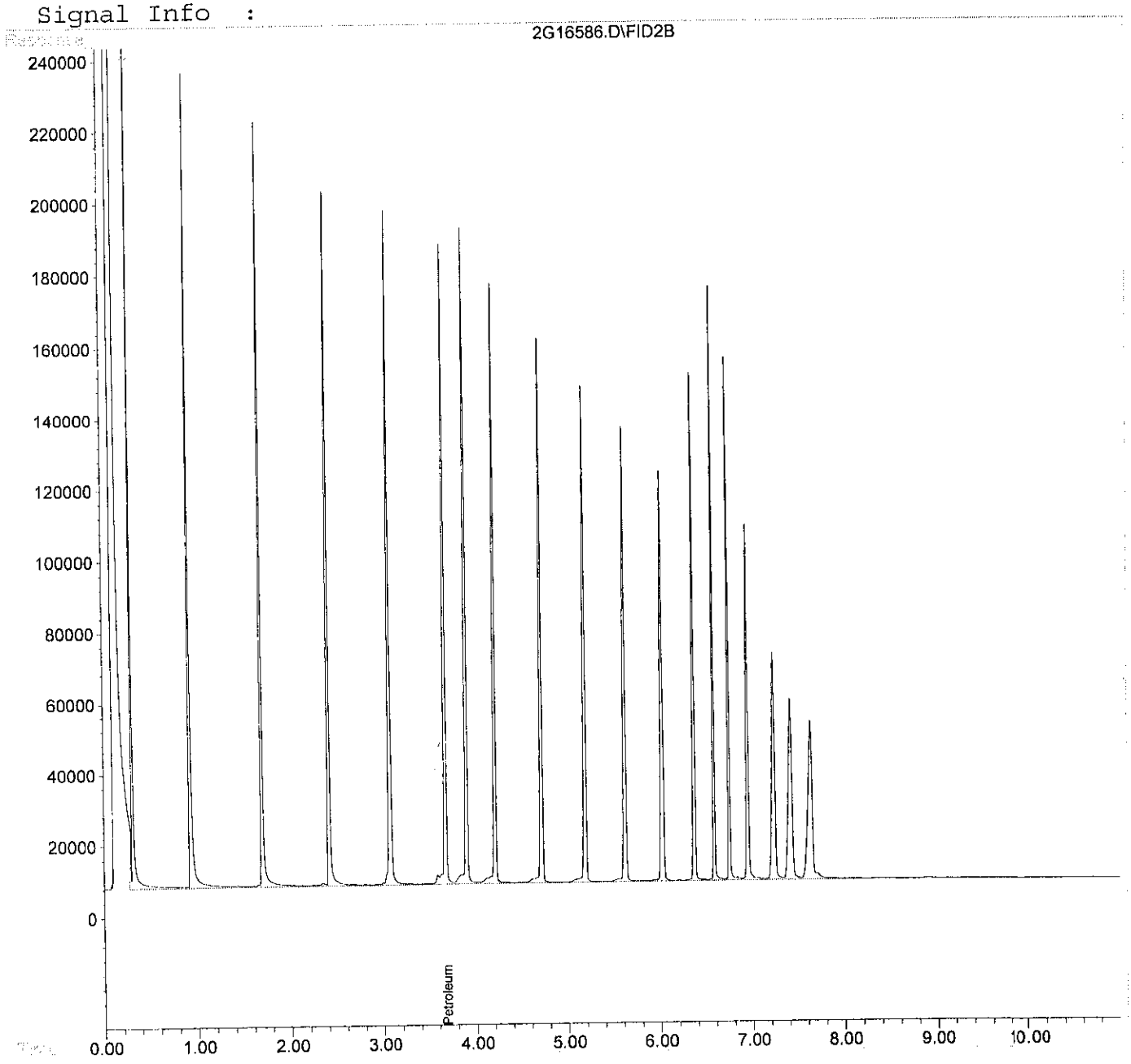
Data File : C:\HPCHEM\1\DATA\111901\2G16586.D
Acq On : 19 Nov 2001 11:05
Sample : wg108466-03 PRO @100ppm
Misc : 1,1 SOS 56-21
IntFile : PETRO.E
Quant Time: Nov 19 11:57 2001 Quant Results File: FLASHPRO.RES

Vial: 7
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 :



Data File : C:\HPCHEM\1\DATA\111901\2G16587.D Vial: 8
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 :

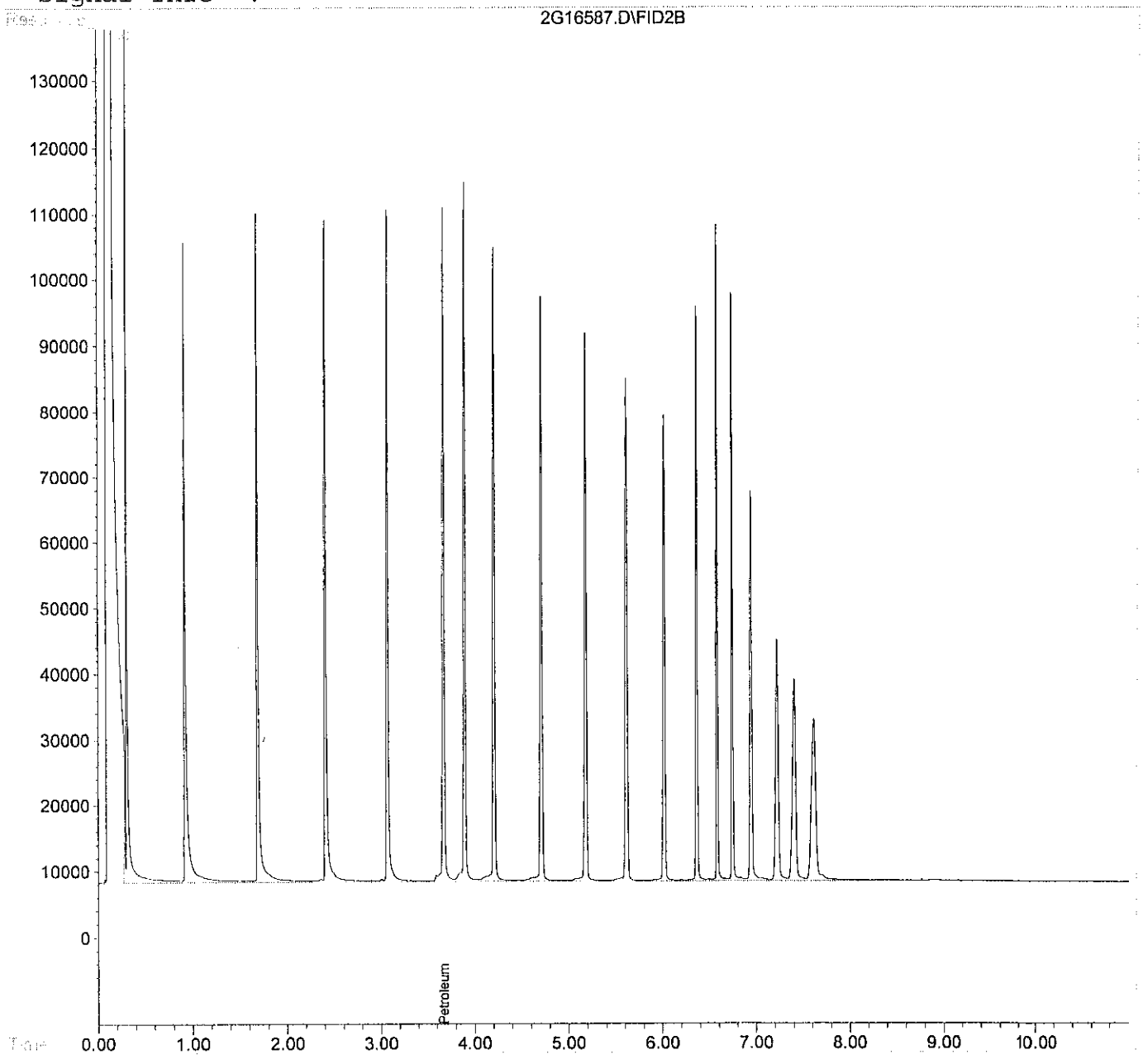
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.89	1231516	42.781 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	213.91%#
3) s n-Nonatriacontane	7.41	752921	40.087 ppm
Spiked Amount 20.000		Recovery =	200.44%
Target Compounds			
1) H Petroleum Range	3.67	17938600	699.767 ppb

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

Data File : C:\HPCHEM\1\DATA\111901\2G16587.D Vial: 8
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 :



Data File : C:\HPCHEM\1\DATA\111901\2G16588.D Vial: 9
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 :

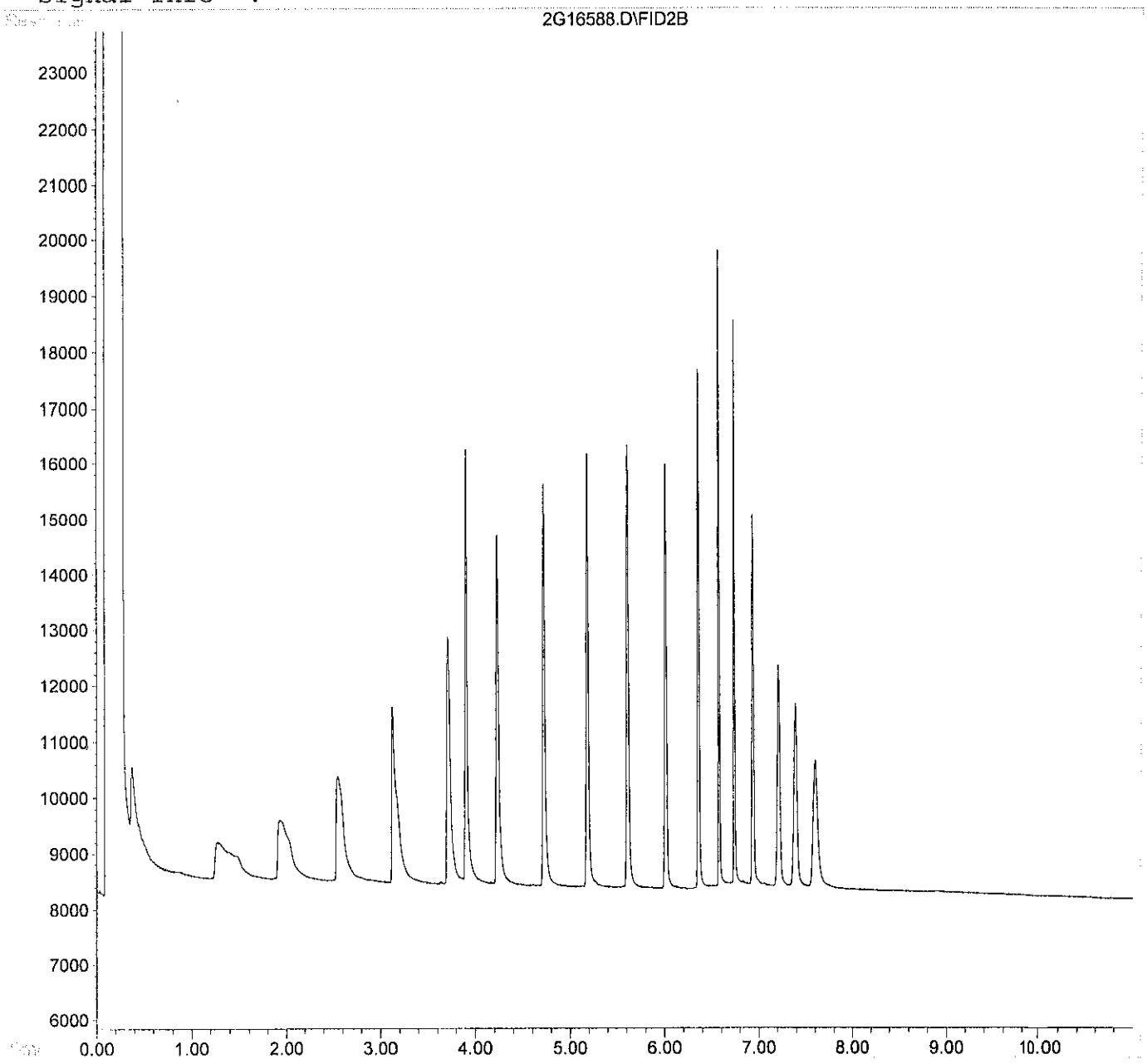
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.91	132312	5.534 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		27.67%#
3) s n-Nonatriacontane	7.39f	82963	5.666 ppm
Spiked Amount 20.000	Recovery =		28.33%
Target Compounds			
1) H Petroleum Range	3.67	1784345	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16588.D FLASHPRO.M Mon Nov 19 12:10:09 2001 Page 201

Data File : C:\HPCHEM\1\DATA\111901\2G16588.D Vial: 9
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 :



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Data File : C:\HPCHEM\1\DATA\111901\2G16589.D Vial: 10
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)
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

Data File : C:\HPCHEM\1\DATA\111901\2G16589.D Vial: 10
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

Data File : C:\HPCHEM\1\DATA\111901\2G16589.D Vial: 10
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 :

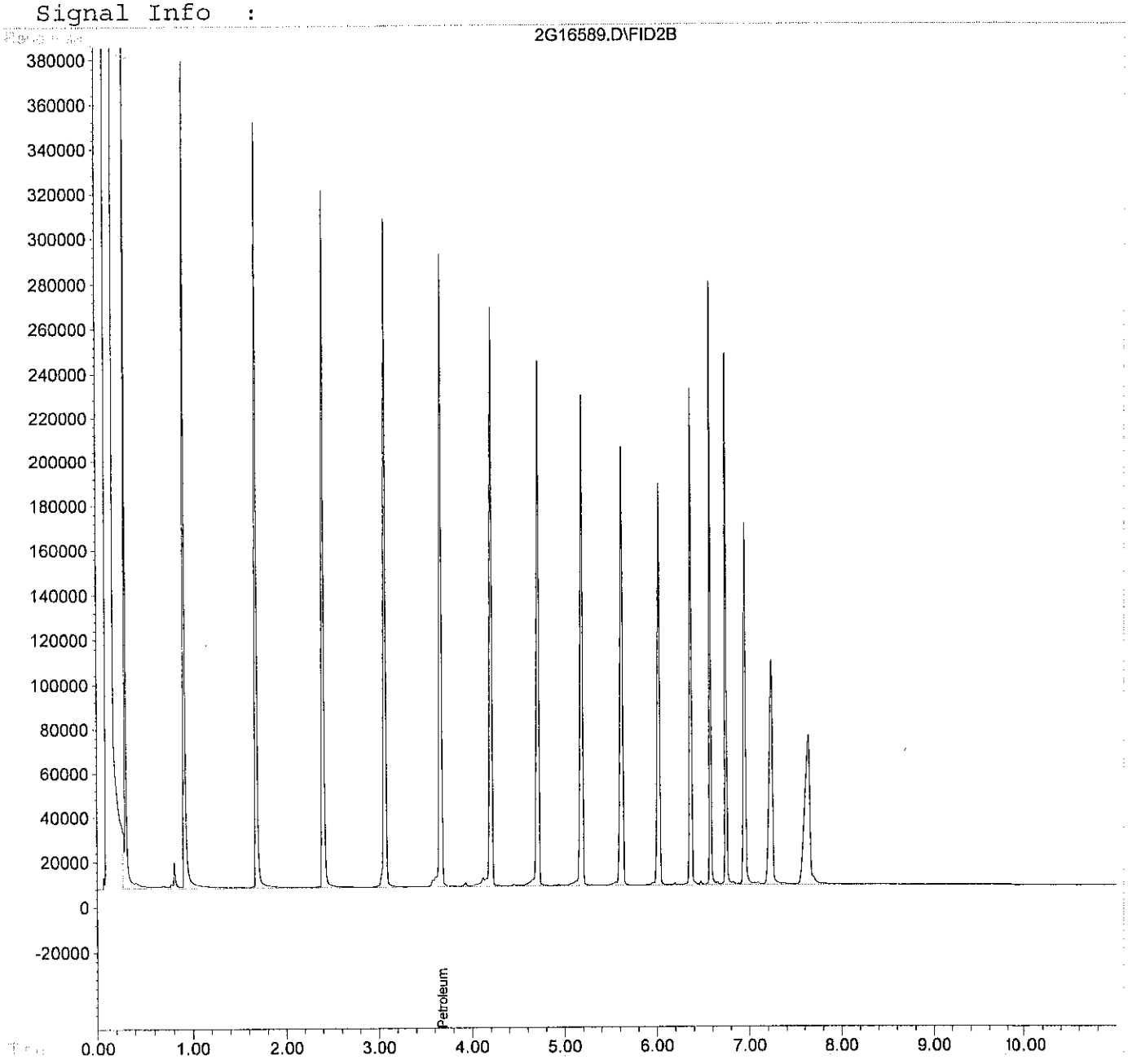
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.93	26376	1.103 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		5.52%#
3) s n-Nonatriacontane	7.50	1180	0.081 ppm
Spiked Amount 20.000	Recovery =		0.41%
Target Compounds			
1) H Petroleum Range	3.67	61293686	2985.719 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16589.D FLASHPRO.M Mon Nov 19 14:31:09 2001 Page 1

Data File : C:\HPCHEM\1\DATA\111901\2G16589.D Vial: 10
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 :



Acq On : 20 Nov 2001 9:35 Operator: HV
Sample : WG108569-01 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	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

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(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16645.D FLASHPRO.M Tue Nov 20 11:53:07 2001 Page 1

Acq On : 20 Nov 2001 9:35 Operator: HV
Sample : WG108569-01 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)

268

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G16645.D FLASHPRO.M Tue Nov 20 11:53:07 2001 Page 2

Acq On : 20 Nov 2001 9:35 Operator: HV
Sample : WG108569-01 PRO CCV Inst : hp2
Misc : 1,1 SOS 56-26 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 20 9:48 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 :

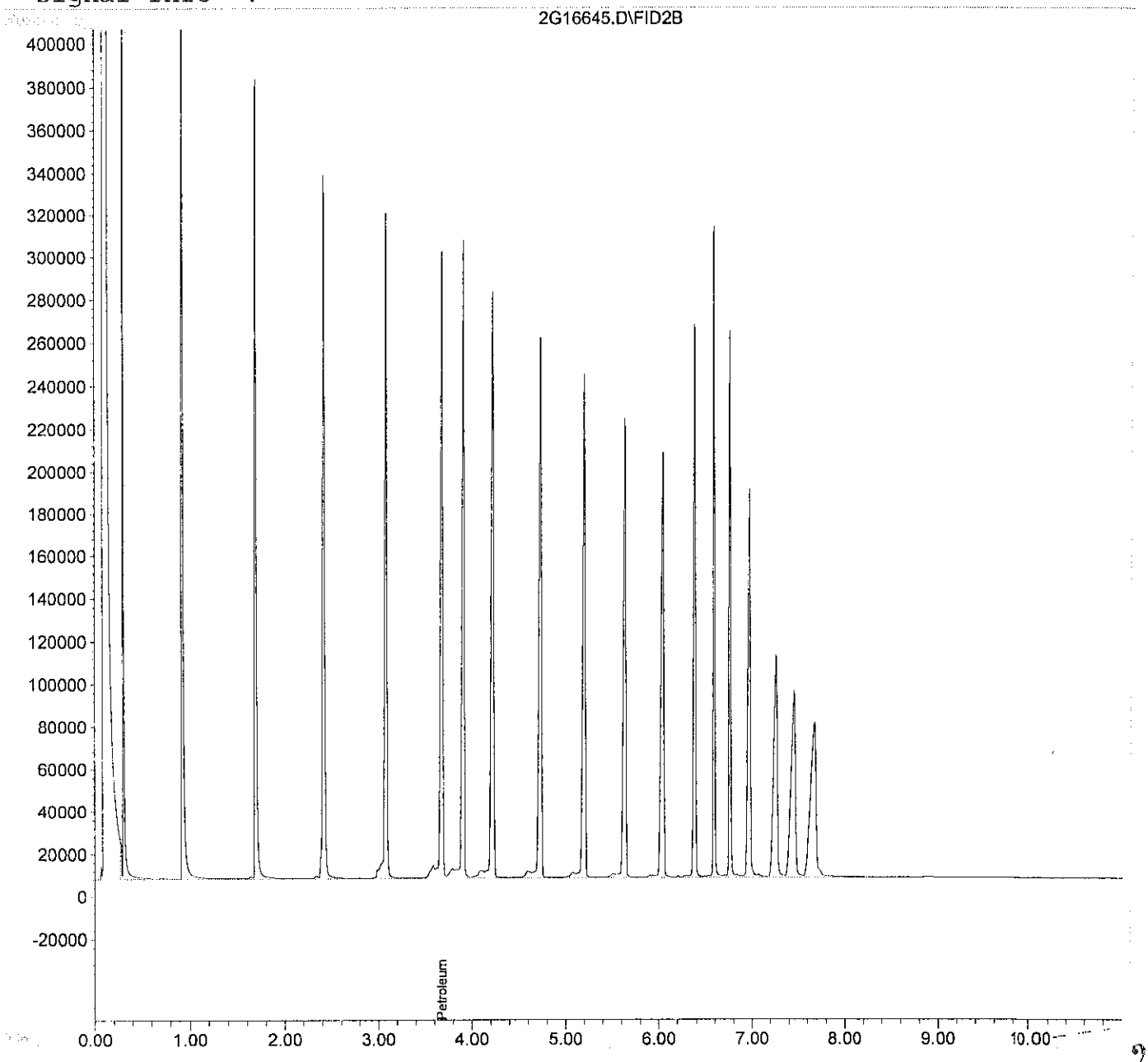
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.92	4519668	189.050 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	945.25%#
3) s n-Nonatriacontane	7.46	2867280	195.808 ppm
Spiked Amount 20.000		Recovery =	979.04%
Target Compounds			
1) H Petroleum Range	3.67	68983295	3360.292 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16645.D FLASHPRO.M Tue Nov 20 11:53:11 2001 Page 1

Acq On : 20 Nov 2001 9:35 Operator: HV
Sample : WG108569-01 PRO CCV Inst : hp2
Misc : 1,1 SOS 56-26 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 20 9:48 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 :



270

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

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 = 0 271
2G16652.D FLASHPRO.M Tue Nov 20 11:54:17 2001 Page 1

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

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
2G16652.D FLASHPRO.M Tue Nov 20 11:54:17 2001 Page 2

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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 :

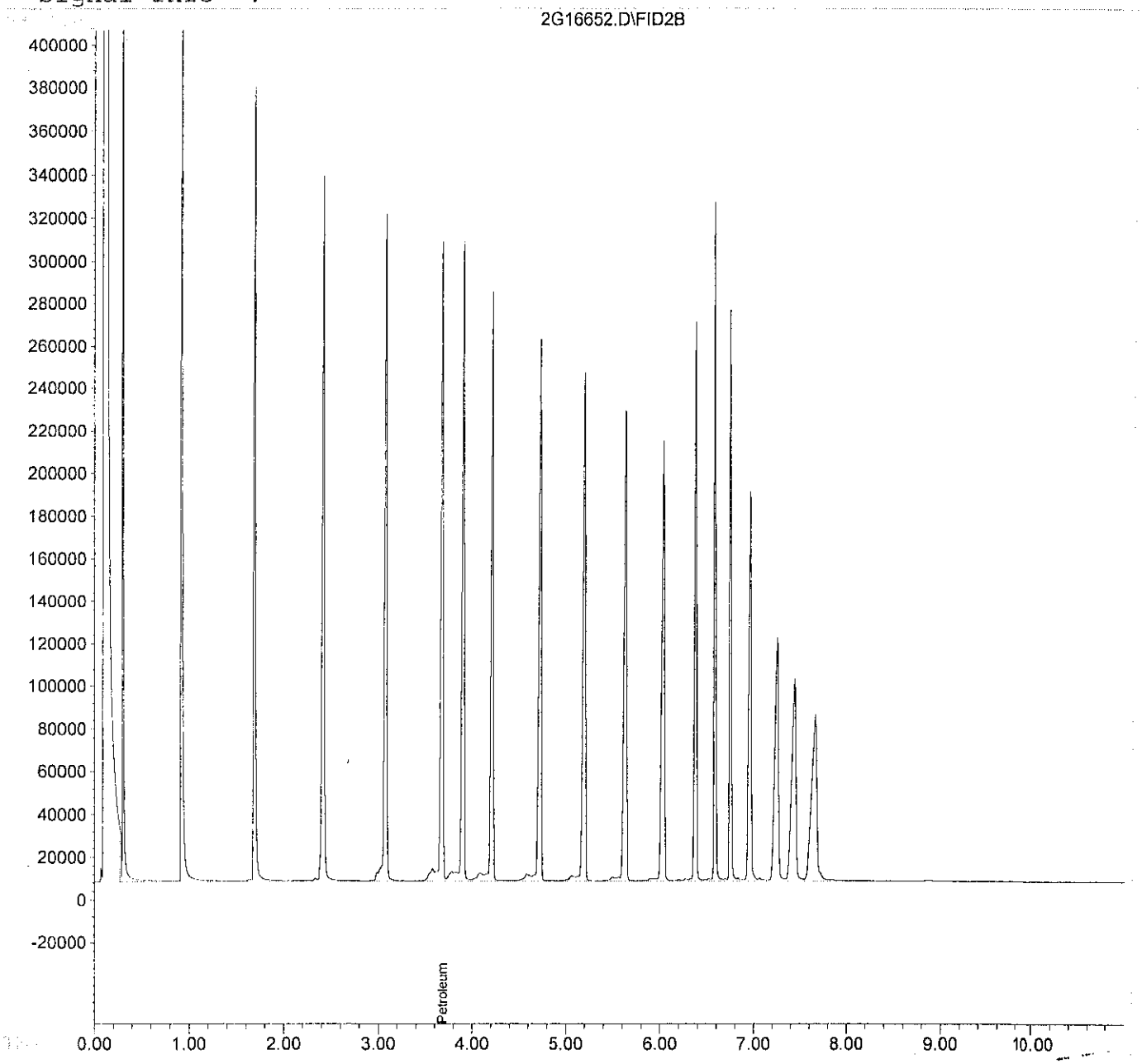
	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
2) s	O-Terphenyl	3.91	4591951	192.073 ppb
Spiked Amount	20.000 Range 49 - 174	Recovery =	960.37%#	
3) s	n-Nonatriacontane	7.45	3096947	211.492 ppm
Spiked Amount	20.000	Recovery =	1057.46%	
	Target Compounds			
1) H	Petroleum Range	3.67	70675419	3442.719 ppb

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

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 : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



274

2.2.5.4 Raw QC Data

Data File : C:\HPCHEM\1\DATA\111601\2G16556.D Vial: 11
Acq On : 16 Nov 2001 16:59 Operator: HV
Sample : WG108212-02 PRO water BLK Inst : hp2
Misc : 1,1 V175-P121 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 9:21 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 08:54:12 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

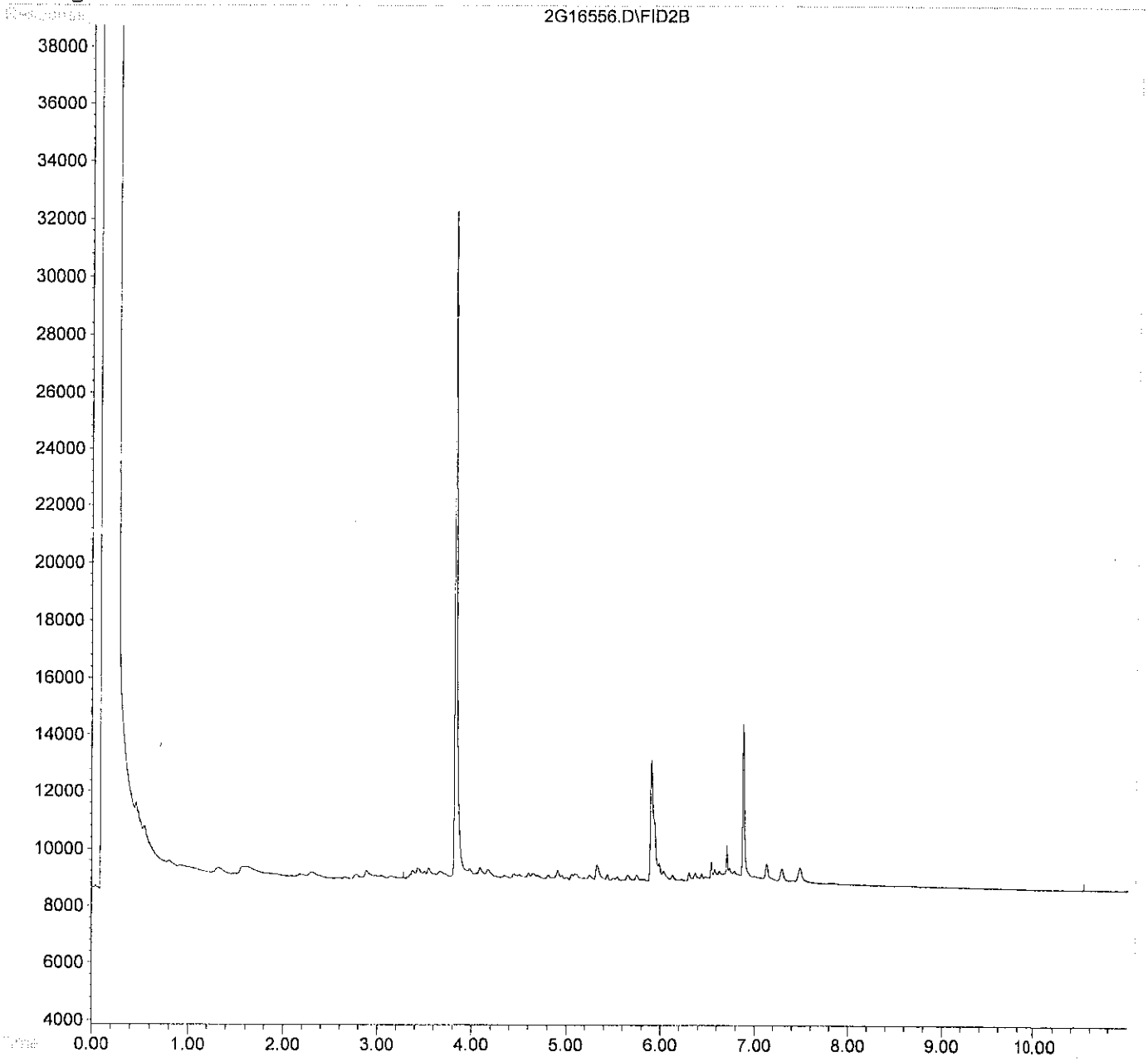
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.83	401106	13.934 ppb
Spiked Amount 20.000 Range 49 - 174 Recovery = 69.67%			
3) s n-Nonatriacontane	7.37	718	0.038 ppm
Spiked Amount 20.000 Recovery = 0.19%			
Target Compounds			
1) H Petroleum Range	3.62	983005	<MDL ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16556.D FLASHPRO.M Mon Nov 19 09:21:42 2001 Page 1

Data File : C:\HPCHEM\1\DATA\111601\2G16556.D Vial: 11
Acq On : 16 Nov 2001 16:59 Operator: HV
Sample : WG108212-02 PRO water BLK Inst : hp2
Misc : 1,1 V175-P121 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 9:21 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 08:54:12 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\111601\2G16557.D Vial: 12
Acq On : 16 Nov 2001 17:15 Operator: HV
Sample : WG108212-03 PRO water LCS Inst : hp2
Misc : 1,1 V175-P121 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 9:22 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 08:54:12 2001
Response via : Initial Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :

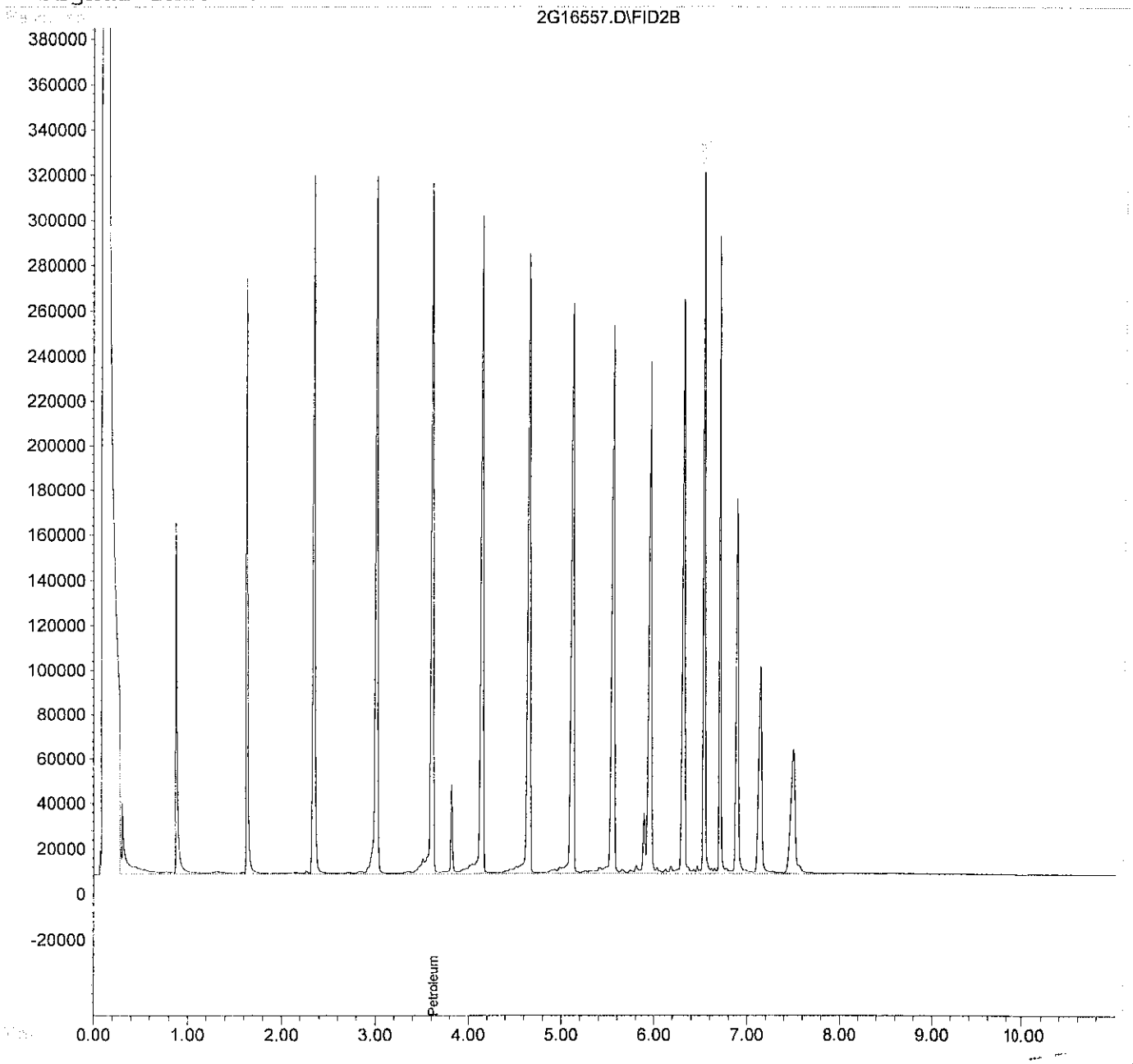
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) s O-Terphenyl	3.82	490935	17.054 ppb
Spiked Amount 20.000 Range 49 - 174		Recovery =	85.27%
3) s n-Nonatriacontane	7.28f	51016	2.716 ppm
Spiked Amount 20.000		Recovery =	13.58%
Target Compounds			
1) H Petroleum Range	3.62	64780270	2527.016 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G16557.D FLASHPRO.M Mon Nov 19 09:22:07 2001 Page 1

Data File : C:\HPCHEM\1\DATA\111601\2G16557.D Vial: 12
Acq On : 16 Nov 2001 17:15 Operator: HV
Sample : WG108212-03 PRO water LCS Inst : hp2
Misc : 1,1 V175-P121 Multiplr: 1.00
IntFile : PETRO.E
Quant Time: Nov 19 9:22 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 08:54:12 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



.ine	Vial	FileName	Multiplier		SampleName	Misc Info	Injected
1	1	2g16546.d	1.		WIN DEF STD	1,1 NS 13-45	16 Nov 101 12::2
2	2	2g16547.d	1.		WIN DEF STD	1,1 NS 13-45	16 Nov 101 12::5
3	3	2g16548.d	1.	✓	WG108391-06 PRO @600ppm	1,1 sos 56-21	16 Nov 101 12::0
4	4	2g16549.d	1.		WG108391-05 PRO @400ppm	1,1 sos 56-21	16 Nov 101 12::2
5	5	2g16550.d	1.		WG108391-03 PRO @100ppm	1,1 sos 56-21	16 Nov 101 12::3
6	6	2g16551.d	1.		WG108391-04 PRO @200ppm	1,1 sos 56-21	16 Nov 101 12::5
7	7	2g16552.d	1.		WG108391-02 PRO @50ppm	1,1 sos 56-21	16 Nov 101 12::1
8	8	2g16553.d	1.		WG108391-01 PRO @5ppm	1,1 sos 56-21	16 Nov 101 12::2
9	9	2g16554.d	1.		WG108391-07 ALT PRO @200ppm	1,1 sos 56-21	16 Nov 101 12::1
10	10	2g16555.d	1.		WG108391-07 ALT @200ppm	1,1 sos 56-26	16 Nov 101 12::2
11	11	2g16556.d	1.		WG108212-02 PRO water BLK	1,1 V175-P121	16 Nov 101 12::5
12	12	2g16557.d	1.		WG108212-03 PRO water LCS	1,1 V175-P121	16 Nov 101 12::1
13	13	2g16558.d	1.05		L0111253-01 FLA PRO water	1,1 V175-P121	16 Nov 101 12::3
14	14	2g16559.d	1.05		L0111253-02 FLA PRO water	1,1 V175-P121	16 Nov 101 12::4
15	15	2g16560.d	1.05		L0111253-03 FLA PRO water	1,1 V175-P121	16 Nov 101 12::0
16	16	2g16561.d	1.05		WG108212-01 REF PRO water	1,1 L0111253-04	16 Nov 101 12::1
17	17	2g16562.d	1.05		WG108212-04 MS PRO water	1,1 L0111253-05 MS	16 Nov 101 12::3
18	18	2g16563.d	1.06		WG108212-05 MSD PRO water	1,1 L0111253-06 MSD	16 Nov 101 12::4
19	19	2g16564.d	1.		MECL2	1,1	16 Nov 101 12::0
20	20	2g16565.d	1.		WG108391-08 PRO CCV	1,1 SOS 56-21	16 Nov 101 12::1
21	21	2g16566.d	1.05	RR	L0111253-07 PRO water	1,1 water	16 Nov 101 12::3
22	22	2g16567.d	1.06		L0111253-08 PRO water	1,1 water	16 Nov 101 12::5
23	23	2g16568.d	1.14	✓	L0111253-09 PRO water ND	1,1 water	16 Nov 101 12::0
24	19	2g16569.d	1.		mecl2	1,1 water	16 Nov 101 12::2
25	20	2g16570.d	1.	cc	WG108391-09 PRO CCV	1,1 water	16 Nov 101 12::3
26	24	2g16571.d	40.	RR	WG108325-02 PRO soil BLK	1,1 v175-p149	16 Nov 101 12::5
27	25	2g16572.d	40.		WG108325-03 PRO soil LCS	1,1 v175-p149	16 Nov 101 12::0
28	26	2g16573.d	40.		WG108325-01 REF PRO soil	1,1 L0111282-01 REF	16 Nov 101 12::2
29	27	2g16574.d	40.		WG108325-04 MS PRO soil	1,1 L0111282-01 MS	16 Nov 101 12::3
30	28	2g16575.d	40.		WG108325-05 MSD PRO soil	1,1 L0111282-01 MSD	16 Nov 101 12::5
31	29	2g16576.d	40.		L0111282-03 PRO soil	1,1 soil	16 Nov 101 13::0
32	30	2g16577.d	40.		L0111282-04 PRO soil	1,1 soil	16 Nov 101 13::2
33	19	2g16578.d	1.		mecl2	1,1	16 Nov 101 13::3
34	20	2g16579.d	1.		WG108391-10 PRO CCV	1,1 SOS 56-21	16 Nov 101 13::5

HY 11/19/01

mcl 11/19/01

Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time NOV.16 01 Instrument ID HP2 Column ID RTX-5 Data Subdirectory 111601
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

20- 2g 16570 - ccv- failed high.

Reviewed By: _____

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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

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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

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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 166 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: [signature] 11/20/01

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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

11/21/01

Semivolatile GC Laboratory Maintenance Log

Analysis Date/Time NOV.20 01 Instrument ID HP2 Column ID RTX-5 Data Subdirectory H1201
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: _____

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Parameter: FLA-PRO H_2O SOP #: EXPRO 7 Revision #: 2
Extraction Analyst(s): JAQ D.° TV/KD Analyst(s): JAQ
Date/Time Extracted: 11/7/01 15:00 Date TV/KD: 11/14/01
Spike/Surrogate Analyst: JAQ Witness:
Surrogate #: ESSO 33-48 Earliest Hold Date: 11/20
Spike #: A = ESSO 34-21 Spike #: B = —

Extraction Work Group WG 108212
Analytical Work Group WG 108263
Extract Relinquished By:
Extract Received By & Date: FC 11/15/01

	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				WG108212-02
2	LCS		✓			1L		1ml						WG108212-03
3	11-253-01	FLA-PRO	✓			950ml								
4	02		✓											
5	03		✓											
6	04		✓			1L								WG108212-01
7	05MS		✓			950ml		1ml						WG108212-04 BS
8	06MSD		✓			940ml		1L						WG108212-05 BSD
9	07		✓			950ml								
10	08		✓			940ml								
11	09		✓			880ml								
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

11/14/01 JAQ

Methylene Chloride Lot #: 41109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — Lot #: —
Acid: 1:1 HCl Lot #: ER 1915
Florisil Lot #: — (N/A)
Silica Gel Lot #: ~~V32555~~ 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: Date: 11/15/01

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Extraction Notes For Volume # 175 Page # 121

General Comments: ¥ MS and MSD of 11-253-04.

Extraction Anomalies: Nothing to report

Concentration Anomalies: Nothing to report

Clean-Up Anomalies: Nothing to report

Supervisor Review: _____ Date: _____

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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.: L0111253

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 percent difference between the MS and MSD exceeded the advisory limit for dibenz(a,h)anthracene, benzo(g,h,i)perylene, and indeno(1,2,3-cd)pyrene.

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: 11/27/01

Rev. 7/14/00

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Semi-Volatile 8310 Checklist

Run Date: 8-Aug-01

Analyst: RDC

Instrument: HPLC4

Workorders: Due Date: Priority:

		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

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Semi-Volatile 8310 Checklist

Workorders:	Due Date:	Priority:
WG108266 11-253	11/21/2001	PFF

Run Date: 15-Nov-01

Analyst: RDC

Instrument: HPLC4

		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:
...no technical difficulties

Primary Reviewer: RDC 11/21/01

Secondary Reviewer: 11/21/01

Supervisor Review: 11/24/01

√ = Checked & OK

NA = Not Applicable

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PAH HPLC DATA (8310)

Login Number: L011253

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: RLC Date: 1/27/01

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2.2.7.1 QC Summary

METHOD BLANK SUMMARY

Login Number: L0111253
Blank File ID: 4L002336.R
Date Analyzed: 11/15/01
Time Analyzed: 13:15
Analyst: RDC

Work Group: WG108266
Blank Sample ID: WG108213-02
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	WG108213-03	4L002337.R	11/15/01 14:11	01
002-CEF9-2S-Q4-01-11	L0111253-01	4L002338.F	11/15/01 15:08	CF
002-CEF9-2S-Q4-01-11	L0111253-01	4L002338.R	11/15/01 15:08	01
002-CEF9-3S-Q4-01-11	L0111253-02	4L002339.F	11/15/01 16:05	CF
002-CEF9-3S-Q4-01-11	L0111253-02	4L002339.R	11/15/01 16:05	01
002-CEF9-5S-Q4-01-11	L0111253-03	4L002340.R	11/15/01 17:01	01
002-CEF9-7D-Q4-01-11	L0111253-04	4L002341.R	11/15/01 17:58	01
002-CEF9-7D-Q4-01-11	L0111253-05	4L002342.R	11/15/01 18:54	01
002-CEF9-7D-Q4-01-11	L0111253-06	4L002343.R	11/15/01 19:51	01
002-CEF9-9S-Q4-01-11	L0111253-07	4L002344.F	11/15/01 20:48	CF
002-CEF9-9S-Q4-01-11	L0111253-07	4L002344.R	11/15/01 20:48	01
002-9DUP-Q4-01-1	L0111253-08	4L002345.F	11/15/01 21:44	CF
002-9DUP-Q4-01-1	L0111253-08	4L002345.R	11/15/01 21:44	01
002-9EQB-Q4-01-1	L0111253-09	4L002347.R	11/15/01 23:38	01

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0111253 Run Date: 11/15/2001 Sample ID: WG108213-02
Instrument ID: HPLC4 Run Time: 13:15 Method: 8310
File ID: 4L002336.R Analyst: RDC Matrix: Water
Workgroup (AAB#): WG108266 Units: ug/L
Contract #: 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	90.4	40	-	132	PASS

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

ND Not detected at or above the reporting limit

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KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0111253 Run Date: 11/15/2001 Sample ID: WG108213-03
Instrument ID: HPLC4 Run Time: 14:11 Method: 8310
File ID: 4L002337.R Analyst: RDC Matrix: Water
Workgroup (AAB#): WG108266 Units: ug/L
Contract #: Cal ID: HPLC4 -

Analytes	Expected	Found	% Rec	LCS Limits	Q
Acenaphthene	50	21.8	43.6	25 - 78	
Acenaphthylene	50	21.4	42.8	25 - 77	
Anthracene	50	34.8	69.6	47 - 101	
Benzo(a)anthracene	5	3.67	73.4	50 - 115	
Benzo[a]pyrene	5	2.49	49.8	29 - 113	
Benzo(b)Fluoranthene	5	2.89	57.8	41 - 110	
Benzo[ghi]perylene	5	1.29	25.8	11 - 84	
Benzo[k]fluoranthene	2.5	1.05	42.0	25 - 107	
Chrysene	5	2.85	57.0	39 - 120	
Dibenz(a,h)Anthracene	5	1.45	29.0	10 - 92	
Fluoranthene	5	3.63	72.6	55 - 104	
Fluorene	50	23.6	47.2	29 - 84	
Indeno(1,2,3-cd)pyrene	5	1.69	33.8	16 - 98	
Naphthalene	50	20.8	41.6	25 - 68	
2-Methylnaphthalene	50	21.0	42.0	26 - 72	
1-Methylnaphthalene	50	20.7	41.4	26 - 71	
Phenanthrene	50	27.1	54.2	39 - 95	
Pyrene	5	3.65	73.0	56 - 104	

Surrogates	% Recovery	Surrogate Limits	Qualifier
p-terphenyl-d14	48.5	40 - 132	PASS

* Analyte outside control limits

NS Analyte not spiked

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KEMRON ENVIRONMENTAL SERVICES
MS/MSD REPORT

Loginnum: L0111253 Cal ID: HPLC4- Worknum: WG108266
Instrument ID: HPLC4 Contract #: Method: 8310
Parent ID: L0111253-04 File ID: 4L002341.R Matrix: Water
Sample ID: L0111253-05 MS File ID: 4L002342.R Units: ug/L
Sample ID: L0111253-06 MSD File ID: 4L002343.R

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Naphthalene	0	52.6	24.8	47.1	52.6	24.5	46.6	1.21	25 - 68	40	
1-Methylnaphthalene	0	52.6	24.9	47.3	52.6	24.1	45.8	3.27	26 - 71	40	
2-Methylnaphthalene	0	52.6	25.3	48.1	52.6	24.4	46.4	3.61	26 - 72	40	
Acenaphthylene	0	52.6	26	49.4	52.6	25.5	48.5	1.94	25 - 77	40	
Acenaphthene	0	52.6	26.4	50.2	52.6	25.5	48.5	3.46	25 - 78	40	
Fluorene	0	52.6	28.5	54.2	52.6	28.4	54.0	0.351	29 - 84	40	
Phenanthrene	0	52.6	33.9	64.4	52.6	35.3	67.1	4.05	39 - 95	40	
Anthracene	0	52.6	38.3	72.8	52.6	41.4	78.7	7.77	47 - 101	40	
Fluoranthene	0	5.26	4.06	77.2	5.26	4.46	84.8	9.39	55 - 104	40	
Pyrene	0	5.26	4.03	76.6	5.26	4.44	84.4	9.67	56 - 104	40	
Benzo(a)anthracene	0	5.26	3.83	72.8	5.26	4.66	88.6	19.5	50 - 115	40	
Chrysene	0	5.26	3.46	65.8	5.26	4.52	85.9	26.6	39 - 120	40	
Benzo(b)fluoranthene	0	5.26	3.09	58.7	5.26	4.05	77.0	26.9	41 - 110	40	
Benzo(k)fluoranthene	0	2.63	1.24	47.1	2.63	1.77	67.3	35.1	25 - 107	40	
Benzo(a)pyrene	0	5.26	2.73	51.9	5.26	3.77	71.7	32.0	29 - 113	40	
Indeno(1,2,3-cd)pyrene	0	5.26	1.71	32.5	5.26	2.67	50.8	43.8	16 - 98	40	#
Dibenzo(a,h)anthracene	0	5.26	1.22	23.2	5.26	2.04	38.8	50.3	10 - 92	40	#
Benzo(g,h,i)perylene	0	5.26	1.37	26.0	5.26	2.46	46.8	56.8	11 - 84	40	#

* FAILS %REC LIMIT

FAILS RPD LIMIT

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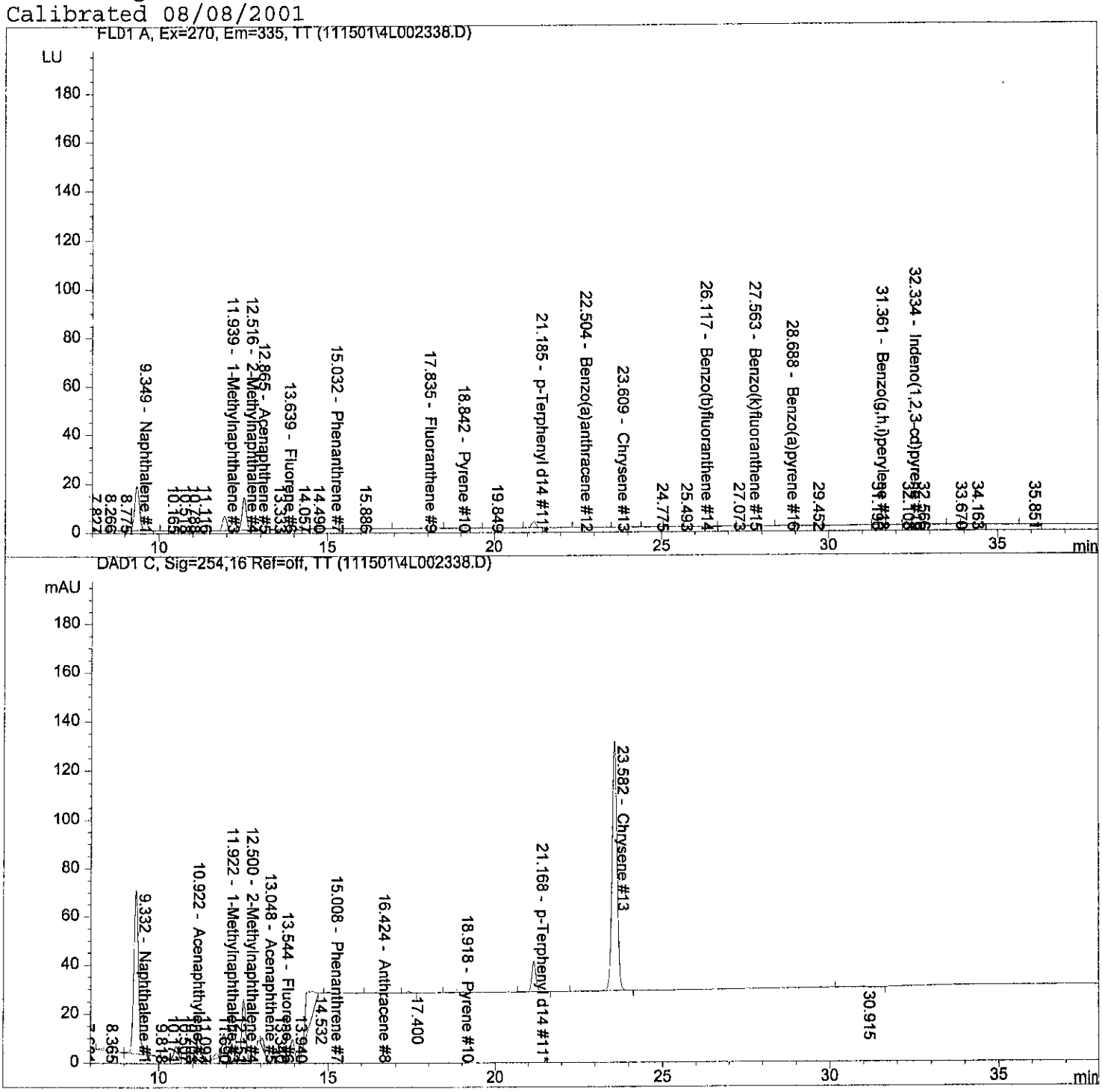
2.2.7.2 Sample Data

Injection Date : 11/15/2001 3:08:29 PM
Sample Name : L0111253-01 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 : 11/1/2001 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
9.349	BB	177.62579	2.52962e-2	4.49326	C	Naphthalene #1
11.939	BB	56.64467	2.21330e-2	1.25371	✓	1-Methylnaphthalene #3
12.516	BB	121.60412	1.70635e-2	2.07499	C	2-Methylnaphthalene #4
12.865	BB	3.71711	1.38416e-2	5.14506e-2		Acenaphthene #5
13.639	BB	6.09623	6.62187e-3	4.03684e-2		Fluorene #6
15.032	BB	2.63807e-1	1.63652e-1	4.31726e-2		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.835	BB	8.45734e-1	2.32678e-2	1.96784e-2		Fluoranthene #9
18.842	BBA	7.69955e-1	3.86587e-2	2.97654e-2		Pyrene #10
21.185	BB	24.39195	2.97423e-1	7.25472	72.5%	p-Terphenyl d14 #11*
22.504	BB	6.23581e-1	7.91256e-3	4.93413e-3		Benzo(a)anthracene #12
23.609	BB	1.50769e-1	3.90495e-2	5.88746e-3		Chrysene #13
26.117	BB	9.39095e-1	1.63222e-2	1.53281e-2		Benzo(b)fluoranthene #14
27.563	BBA	2.44849	2.76572e-3	6.77182e-3		Benzo(k)fluoranthene #15
28.688	BB	2.34966	4.57119e-3	1.07407e-2		Benzo(a)pyrene #16
30.650		-	-	-		Dibenz(a,h)anthracene #17
31.361	BB	3.04494e-1	2.65165e-2	8.07412e-3		Benzo(g,h,i)perylene #18
32.334	BB	2.97237e-1	1.38204e-2	4.10794e-3		Indeno(1,2,3-cd)pyrene #1

Totals : 15.31696

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	BB	622.18756	8.25405e-3	5.13557	✓	Naphthalene #1
10.922	BB	3.39053	2.96975e-2	1.00690e-1	<MDL	Acenaphthylene #2
11.922	BB	66.00591	1.29459e-2	8.54503e-1	F	1-Methylnaphthalene #3
12.500	BB	212.88383	1.12393e-2	2.39266	✓	2-Methylnaphthalene #4
13.048	BB	20.15018	2.03163e-2	4.09378e-1	<MDL	Acenaphthene #5
13.544	BB	22.57907	1.75240e-2	3.95676e-1	↓	Fluorene #6
15.008	BB	3.40895	1.72982e-2	5.89688e-2		Phenanthrene #7
16.424	BB	2.33321	1.04262e-2	2.43265e-2		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.918	BB	15.73371	1.43052e-2	2.25075e-1	NC	Pyrene #10
21.168	BBA	110.21356	6.56733e-2	7.23808	72.4%	p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.582	BBA	1061.93848	1.51453e-2	16.08337	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 : 32.91830

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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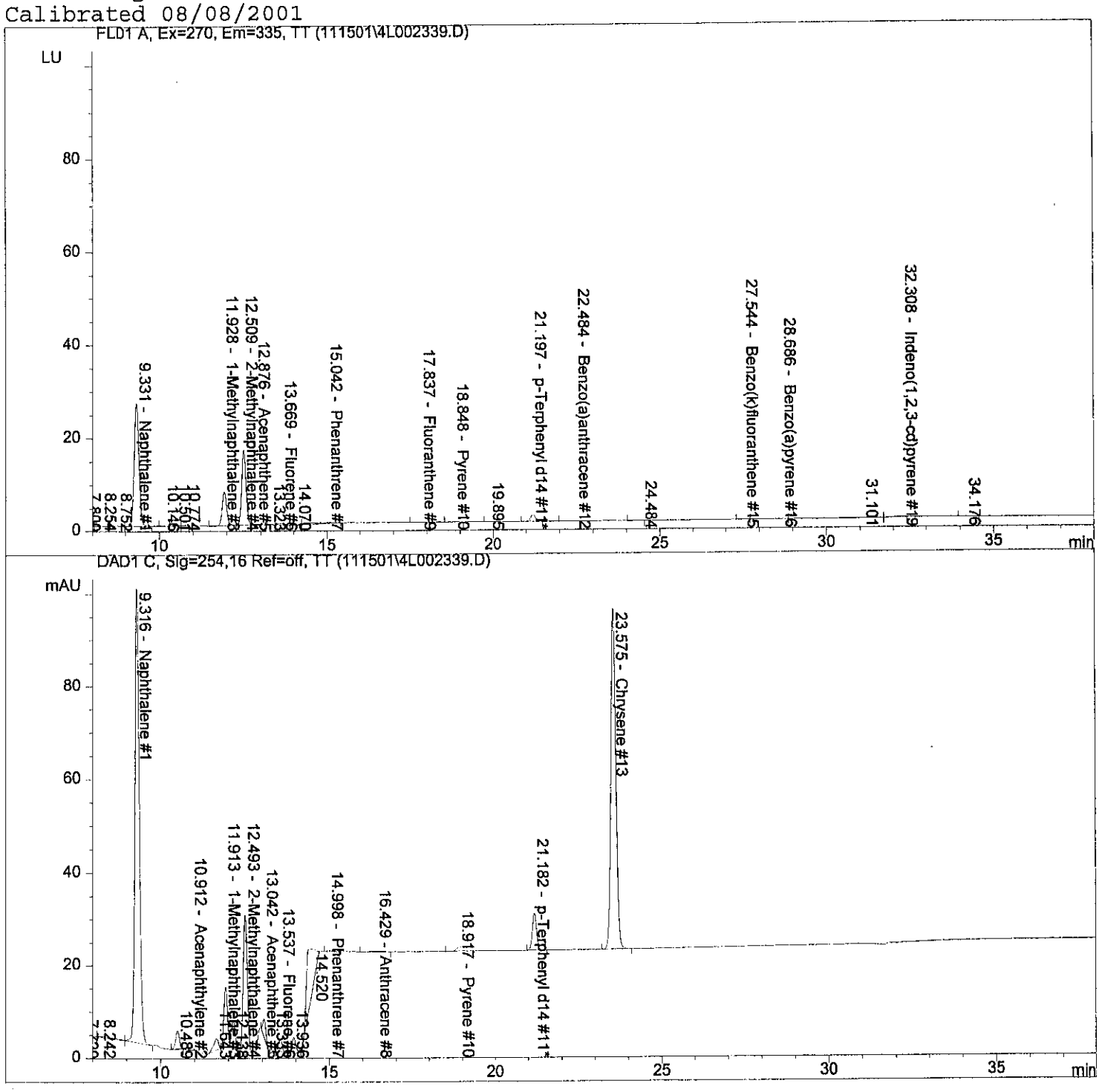
*** End of Report ***

Injection Date : 11/15/2001 4:05:03 PM
Sample Name : L0111253-02 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 : 8/17/2001 9:40:38 AM by HV
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
9.331	BBA	259.18146	2.52962e-2	6.55630	C	Naphthalene #1
11.928	BB	70.52966	2.21330e-2	1.56103	C	1-Methylnaphthalene #3
12.509	BB	149.04187	1.70635e-2	2.54318	C	2-Methylnaphthalene #4
12.876	BB	2.09316	1.38416e-2	2.89726e-2		Acenaphthene #5
13.669	BB	5.52860	6.62187e-3	3.66096e-2		Fluorene #6
15.042	BB	14.84092	1.63652e-1	2.42875		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.837	BBA	5.93502e-1	2.32678e-2	1.38095e-2		Fluoranthene #9
18.848	PBA	2.18043e-1	3.86587e-2	8.42926e-3		Pyrene #10
21.197	BB	15.49129	2.97423e-1	4.60746		p-Terphenyl d14 #11*
22.484	BB	3.11756e-1	7.91256e-3	2.46679e-3		Benzo(a)anthracene #12
23.473		-	-	-		Chrysene #13
26.210		-	-	-		Benzo(b)fluoranthene #14
27.544	PB	3.22651e-1	2.76572e-3	8.92361e-4		Benzo(k)fluoranthene #15
28.686	BB	1.92189e-1	4.57119e-3	8.78532e-4		Benzo(a)pyrene #16
30.650		-	-	-		Dibenz(a,h)anthracene #17
31.455		-	-	-		Benzo(g,h,i)perylene #18
32.308	BB	1.89223	1.38204e-2	2.61513e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 17.81493

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
9.316	BB	889.92822	8.25405e-3	7.34551		Naphthalene #1
10.912	BB	3.93514	2.96975e-2	1.16864e-1		Acenaphthylene #2
11.913	BB	89.13475	1.29459e-2	1.15393		1-Methylnaphthalene #3
12.493	BB	253.46135	1.12393e-2	2.84872		2-Methylnaphthalene #4
13.042	BB	22.87368	2.03163e-2	4.64710e-1		Acenaphthene #5
13.537	BB	19.08742	1.75240e-2	3.34488e-1		Fluorene #6
14.998	BB	3.11970	1.72982e-2	5.39654e-2		Phenanthrene #7
16.429	BB	4.84848	1.04262e-2	5.05511e-2		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.917	BB	10.83218	1.43052e-2	1.54957e-1		Pyrene #10
21.182	BBA	70.24903	6.56733e-2	4.61348		p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.575	BBA	756.38672	1.51453e-2	11.45570		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 : 28.59288

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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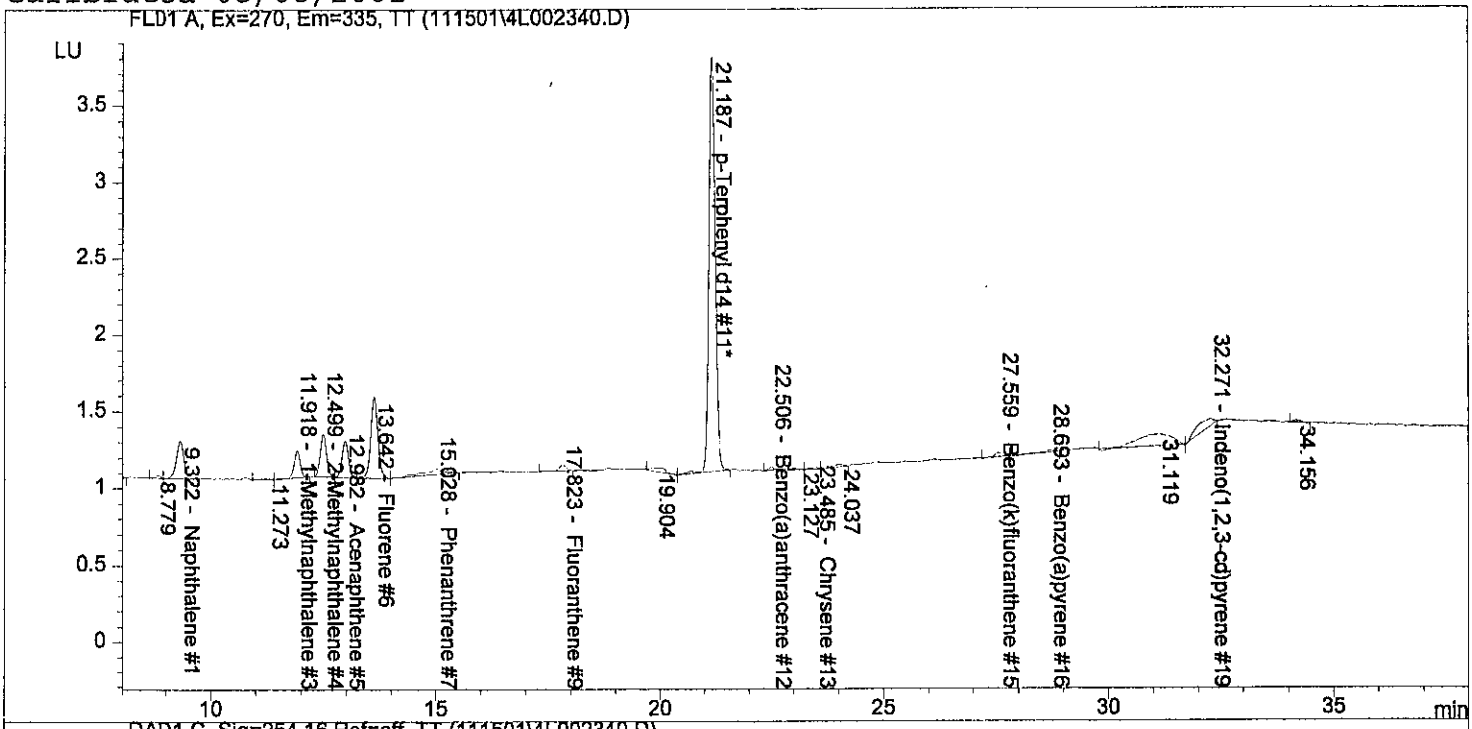
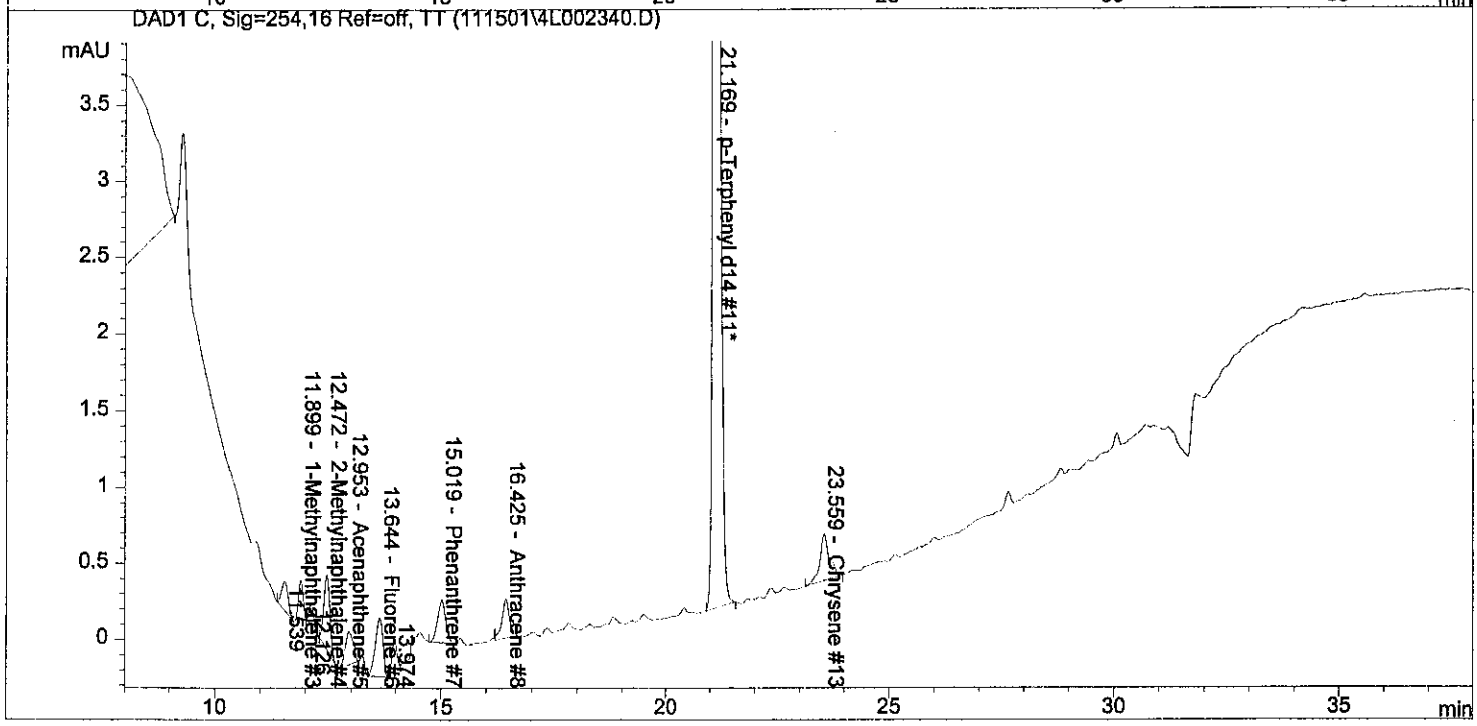
*** End of Report ***

1,1

Injection Date	: 11/15/2001 5:01:39 PM	Seq. Line	: 7
Sample Name	: L0111253-03 831W	Vial	: 7
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 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
9.322	BBA	2.81108	2.52962e-2	7.11096e-2		Naphthalene #1
11.918	BBA	1.86541	2.21330e-2	4.12869e-2		1-Methylnaphthalene #3
12.499	BB	2.85825	1.70635e-2	4.87717e-2		2-Methylnaphthalene #4
12.982	BB	2.42128	1.38416e-2	3.35143e-2		Acenaphthene #5
13.642	BB	6.06500	6.62187e-3	4.01616e-2		Fluorene #6
15.028	BB	1.26820	1.63652e-1	2.07544e-1		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.823	BBA	4.90562e-1	2.32678e-2	1.14143e-2		Fluoranthene #9
18.890		-	-	-		Pyrene #10
21.187	BB	26.87896	2.97423e-1	7.99441		p-Terphenyl d14 #11*
22.506	BB	1.57661e-1	7.91256e-3	1.24751e-3		Benzo(a)anthracene #12
23.485	BB	1.63165e-1	3.90495e-2	6.37152e-3		Chrysene #13
26.210		-	-	-		Benzo(b)fluoranthene #14
27.559	PB	3.01745e-1	2.76572e-3	8.34542e-4		Benzo(k)fluoranthene #15
28.693	BB	1.80621e-1	4.57119e-3	8.25655e-4		Benzo(a)pyrene #16
30.650		-	-	-		Dibenz(a,h)anthracene #17
31.455		-	-	-		Benzo(g,h,i)perylene #18
32.271	BB	1.71255	1.38204e-2	2.36682e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 8.48116

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
11.899	BB	2.07010	1.29459e-2	2.67992e-2		1-Methylnaphthalene #3
12.472	BB	4.67356	1.12393e-2	5.25274e-2		2-Methylnaphthalene #4
12.953	BB	2.77085	2.03163e-2	5.62935e-2		Acenaphthene #5
13.644	BB	4.43784	1.75240e-2	7.77687e-2		Fluorene #6
15.019	BB	3.47104	1.72982e-2	6.00430e-2		Phenanthrene #7
16.425	BBA	3.03481	1.04262e-2	3.16415e-2		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.899		-	-	-		Pyrene #10
21.169	BBA	119.59065	6.56733e-2	7.85391		p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.559	PB	4.52003	1.51453e-2	6.84571e-2		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 : 8.22744

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 ***

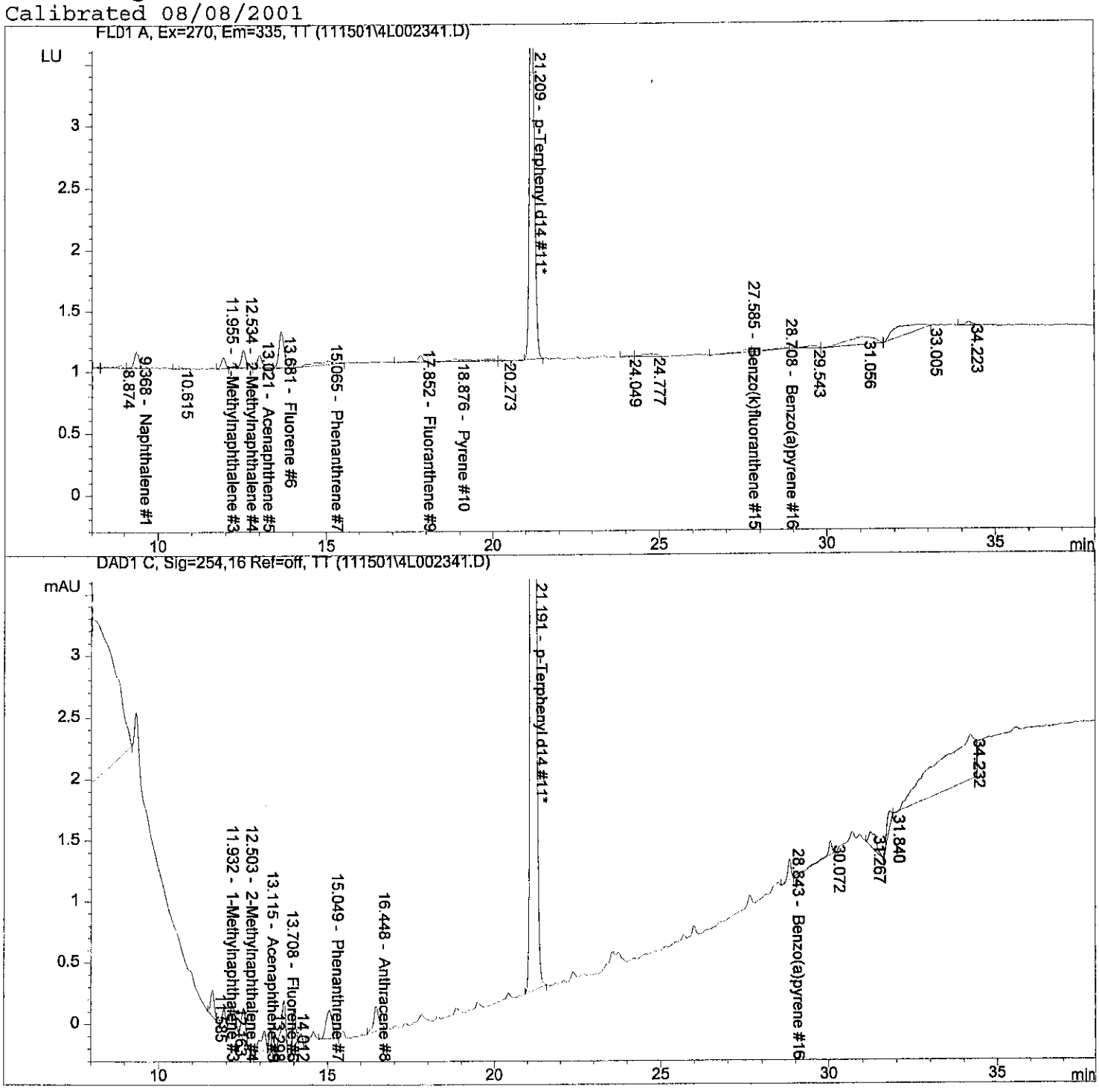
1,1 L0111253-04 REF

==========

Injection Date : 11/15/2001 5:58:17 PM
Sample Name : WG108213-01 REF
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 : 11/1/2001 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
9.368	BBA	1.44237	2.52962e-2	3.64865e-2		Naphthalene #1
11.955	BB	8.20212e-1	2.21330e-2	1.81537e-2		1-Methylnaphthalene #3
12.534	BB	1.52264	1.70635e-2	2.59816e-2		2-Methylnaphthalene #4
13.021	BB	1.10462	1.38416e-2	1.52897e-2		Acenaphthene #5
13.681	BB	3.34480	6.62187e-3	2.21488e-2		Fluorene #6
15.065	BB	1.38029	1.63652e-1	2.25888e-1		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.852	BB	7.26979e-1	2.32678e-2	1.69152e-2		Fluoranthene #9
18.876	BB	1.27040	3.86587e-2	4.91119e-2		Pyrene #10
21.209	BB	31.12930	2.97423e-1	9.25856		p-Terphenyl d14 #11*
22.587		-	-	-		Benzo(a)anthracene #12
23.473		-	-	-		Chrysene #13
26.210		-	-	-		Benzo(b)fluoranthene #14
27.585	PB	3.84198e-1	2.76572e-3	1.06258e-3		Benzo(k)fluoranthene #15
28.708	BB	3.48128e-1	4.57119e-3	1.59136e-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

92.6%

Totals : 9.67119

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
11.932	BB	8.04570e-1	1.29459e-2	1.04158e-2		1-Methylnaphthalene #3
12.503	BBA	2.25674	1.12393e-2	2.53641e-2		2-Methylnaphthalene #4
13.115	BB	1.91573	2.03163e-2	3.89206e-2		Acenaphthene #5
13.708	BB	5.26304	1.75240e-2	9.22296e-2		Fluorene #6
15.049	BB	3.15974	1.72982e-2	5.46579e-2		Phenanthrene #7
16.448	BBA	2.43388	1.04262e-2	2.53761e-2		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.899		-	-	-		Pyrene #10
21.191	BBA	141.30490	6.56733e-2	9.27995		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
28.843	BB	1.09042	2.61680e-2	2.85342e-2		Benzo(a)pyrene #16
30.630		-	-	-		Dibenz(a,h)anthracene #17

92.8%

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 : 9.55545

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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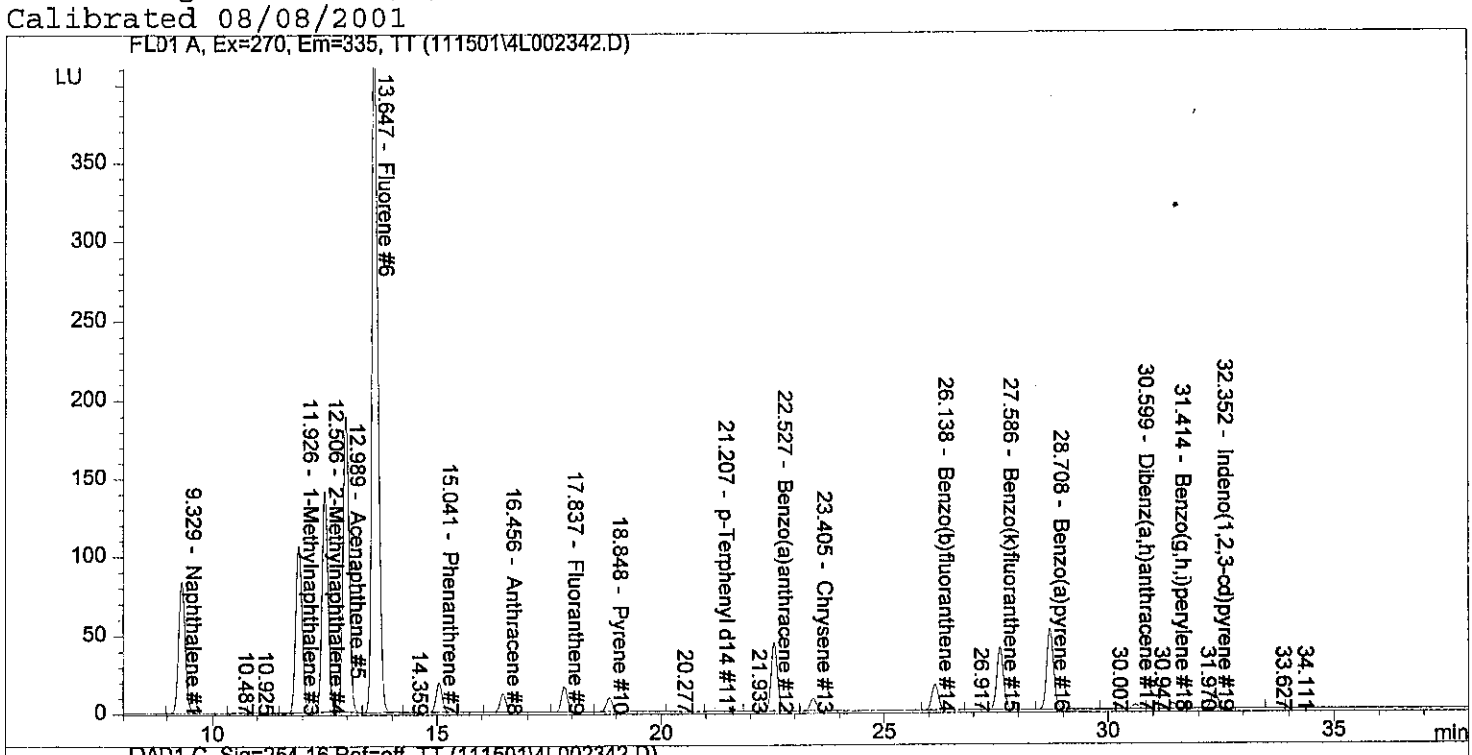
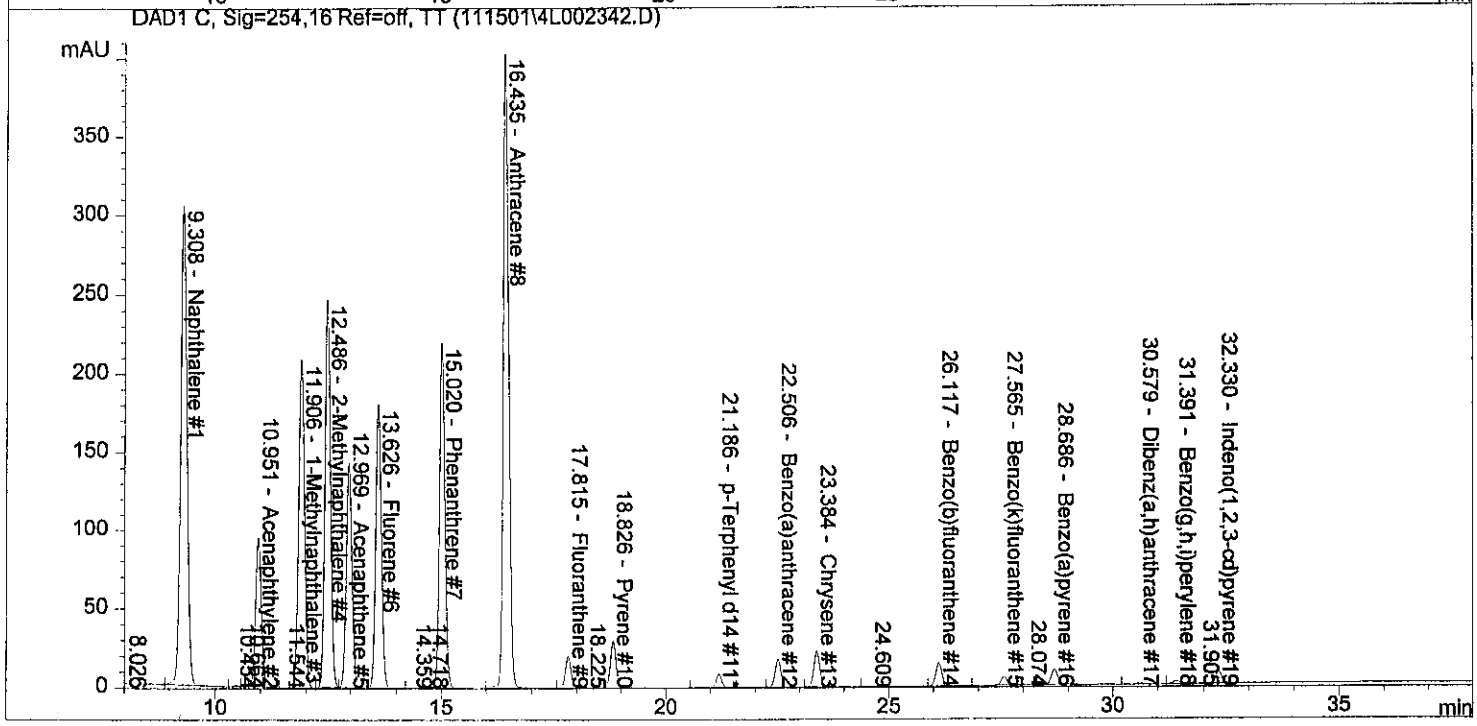
*** End of Report ***

Injection Date : 11/15/2001 6:54:56 PM
Sample Name : WG108213-04 MS
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 : 11/1/2001 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
9.329	BBA	840.26184	2.52962e-2	21.25543		Naphthalene #1
11.926	BB	1009.97821	2.21330e-2	22.35380		1-Methylnaphthalene #3
12.506	BB	1324.54114	1.70635e-2	22.60130		2-Methylnaphthalene #4
12.989	BB	1777.87354	1.38416e-2	24.60855		Acenaphthene #5
13.647	BB	4216.68994	6.62187e-3	27.92236		Fluorene #6
15.041	BBA	183.88156	1.63652e-1	30.09263		Phenanthrene #7
16.456	PB	113.70776	3.10196e-1	35.27173		Anthracene #8
17.837	BB	159.94853	2.32678e-2	3.72166		Fluoranthene #9
18.848	BBA	89.25119	3.86587e-2	3.45033		Pyrene #10
21.207	BB	16.89646	2.97423e-1	5.02539	50.3%	p-Terphenyl d14 #11*
22.527	BB	436.66284	7.91256e-3	3.45512		Benzo(a)anthracene #12
23.405	BBA	79.98756	3.90495e-2	3.12348		Chrysene #13
26.138	BB	174.94101	1.63222e-2	2.85542		Benzo(b)fluoranthene #14
27.586	BB	419.68967	2.76572e-3	1.16074		Benzo(k)fluoranthene #15
28.708	BB	538.49890	4.57119e-3	2.46158		Benzo(a)pyrene #16
30.599	BB	27.84843	3.93496e-2	1.09582		Dibenz(a,h)anthracene #17
31.414	BB	43.46211	2.65165e-2	1.15246		Benzo(g,h,i)perylene #18
32.352	BB	116.88961	1.38204e-2	1.61546		Indeno(1,2,3-cd)pyrene #1
Totals :				213.22327		

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	2856.07007	8.25405e-3	23.57414		Naphthalene #1
10.951	BB	830.83264	2.96975e-2	24.67367		Acenaphthylene #2
11.906	BB	1826.12537	1.29459e-2	23.64076		1-Methylnaphthalene #3
12.486	BB	2134.96802	1.12393e-2	23.99550		2-Methylnaphthalene #4
12.969	BB	1235.92114	2.03163e-2	25.10940		Acenaphthene #5
13.626	BBA	1543.28125	1.75240e-2	27.04447		Fluorene #6
15.020	BBA	1864.45142	1.72982e-2	32.25173		Phenanthrene #7
16.435	PBA	3490.70117	1.04262e-2	36.39469		Anthracene #8
17.815	BB	177.58923	2.17006e-2	3.85379		Fluoranthene #9
18.826	BBA	267.66214	1.43052e-2	3.82897		Pyrene #10
21.186	BBA	77.22190	6.56733e-2	5.07141	50.7%	p-Terphenyl d14 #11*
22.506	BBA	163.17220	2.22694e-2	3.63375		Benzo(a)anthracene #12
23.384	BBA	217.15408	1.51453e-2	3.28886		Chrysene #13
26.117	BBA	141.36487	2.07330e-2	2.93092		Benzo(b)fluoranthene #14
27.565	PB	52.33025	2.25837e-2	1.18181		Benzo(k)fluoranthene #15
28.686	BBA	99.07095	2.61680e-2	2.59249		Benzo(a)pyrene #16
30.579	BBA	12.34613	9.41116e-2	1.16191		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.391	BB	23.26871	5.60829e-2	1.30498		Benzo(g,h,i)perylene #18
32.330	BB	79.07491	2.05608e-2	1.62584		Indeno(1,2,3-cd)pyrene #1

Totals : 247.15910

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Elution order of calibrated compounds may have changed

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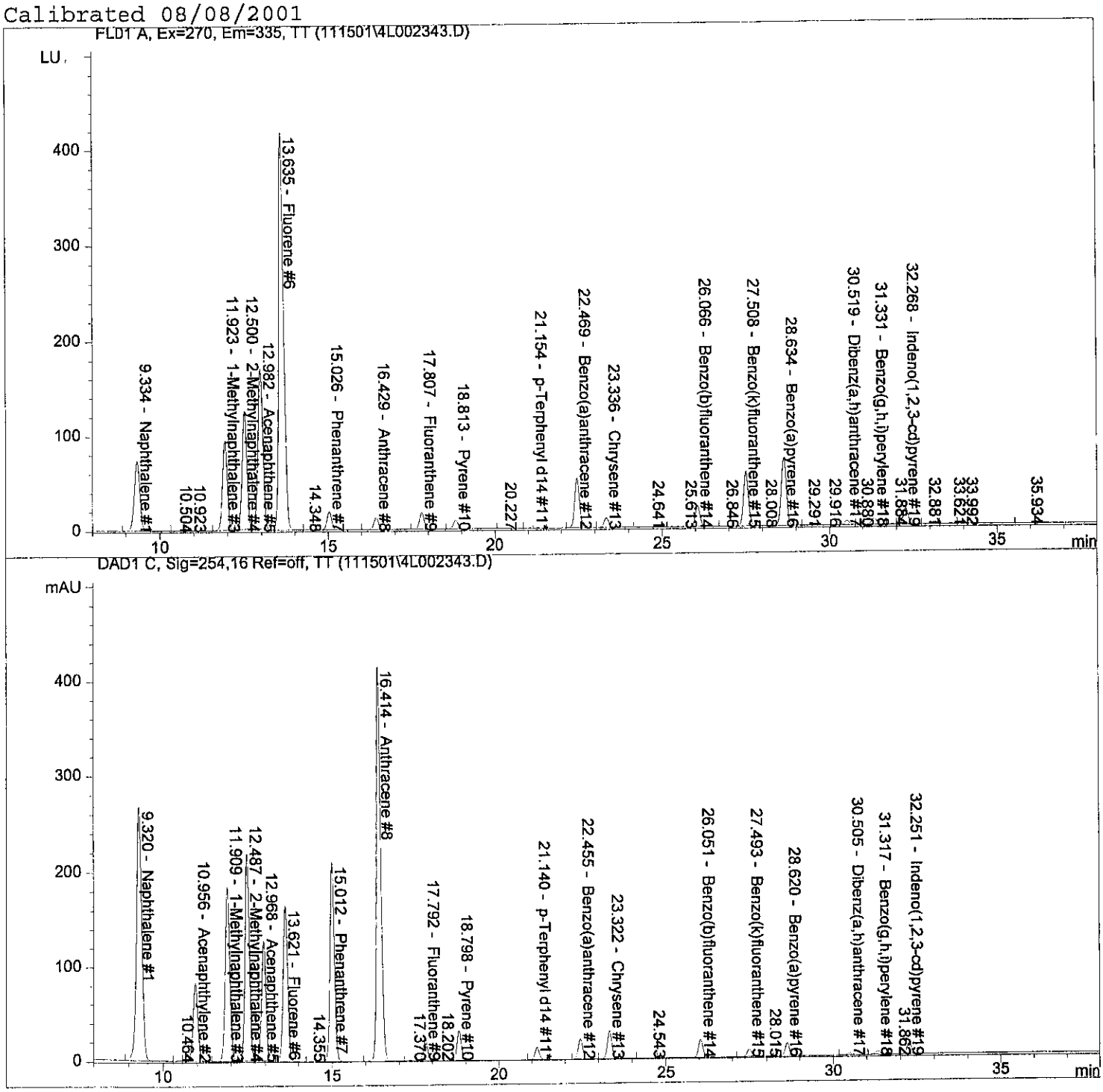
*** End of Report ***

Injection Date : 11/15/2001 7:51:37 PM
Sample Name : WG108213-05 MSD
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 : 11/16/2001 1:04:13 PM by RDC
(modified after loading)

Calibrated 08/08/2001



External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, November 16, 2001 1:04:13 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
9.334	BB	821.56769	2.52962e-2	20.78254		Naphthalene #1
11.923	PB	973.36035	2.21330e-2	21.54334		1-Methylnaphthalene #3
12.500	BB	1260.86877	1.70635e-2	21.51483		2-Methylnaphthalene #4
12.982	BB	1713.90137	1.38416e-2	23.72307		Acenaphthene #5
13.635	BB	4222.54102	6.62187e-3	27.96110		Fluorene #6
15.026	BBA	187.51270	1.63652e-1	30.68687		Phenanthrene #7
16.429	PBA	123.16483	3.10196e-1	38.20528		Anthracene #8
17.807	BBA	176.33182	2.32678e-2	4.10286		Fluoranthene #9
18.813	BBA	98.12848	3.86587e-2	3.79352		Pyrene #10
21.154	PB	24.89801	2.97423e-1	7.40524		p-Terphenyl d14 #11*
22.469	BB	530.42432	7.91256e-3	4.19701		Benzo(a)anthracene #12
23.336	BBA	104.31815	3.90495e-2	4.07358		Chrysene #13
26.066	BB	228.09610	1.63222e-2	3.72303		Benzo(b)fluoranthene #14
27.508	BB	602.05164	2.76572e-3	1.66510		Benzo(k)fluoranthene #15
28.634	BB	740.48737	4.57119e-3	3.38491		Benzo(a)pyrene #16
30.519	BB	46.38857	3.93496e-2	1.82537		Dibenz(a,h)anthracene #17
31.331	BB	72.98150	2.65165e-2	1.93521		Benzo(g,h,i)perylene #18
32.268	BB	180.91316	1.38204e-2	2.50029		Indeno(1,2,3-cd)pyrene #1

Totals : 223.02315

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	BB	2823.63843	8.25405e-3	23.30645		Naphthalene #1
10.956	BB	817.00696	2.96975e-2	24.26308		Acenaphthylene #2
11.909	BB	1770.38953	1.29459e-2	22.91921		1-Methylnaphthalene #3
12.487	BB	2058.88452	1.12393e-2	23.14037		2-Methylnaphthalene #4
12.968	BB	1191.08545	2.03163e-2	24.19850		Acenaphthene #5
13.621	BBA	1538.72583	1.75240e-2	26.96464		Fluorene #6
15.012	BBA	1937.56982	1.72982e-2	33.51655		Phenanthrene #7
16.414	PB	3776.38135	1.04262e-2	39.37325		Anthracene #8
17.792	BB	195.12442	2.17006e-2	4.23432		Fluoranthene #9
18.798	BBA	294.88477	1.43052e-2	4.21840		Pyrene #10
21.140	BBA	112.64175	6.56733e-2	7.39755		p-Terphenyl d14 #11*
22.455	PBA	198.92349	2.22694e-2	4.42991		Benzo(a)anthracene #12
23.322	BBA	283.75369	1.51453e-2	4.29753		Chrysene #13
26.051	BBA	185.35966	2.07330e-2	3.84306		Benzo(b)fluoranthene #14
27.493	BB	74.33389	2.25837e-2	1.67873		Benzo(k)fluoranthene #15
28.620	BBA	136.91194	2.61680e-2	3.58271		Benzo(a)pyrene #16
30.505	BB	20.61919	9.41116e-2	1.94051		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.317	BB	41.58721	5.60829e-2	2.33233		Benzo(g,h,i)perylene #18
32.251	BBA	123.15471	2.05608e-2	2.53216		Indeno(1,2,3-cd)pyrene #1

Totals : 258.16926

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 ***

1,1

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================================================================================
Injection Date  : 11/15/2001 8:48:18 PM          Seq. Line :  11
Sample Name     : L0111253-07 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    : 11/16/2001 1:04:13 PM by RDC
                  (modified after loading)
Calibrated 08/08/2001
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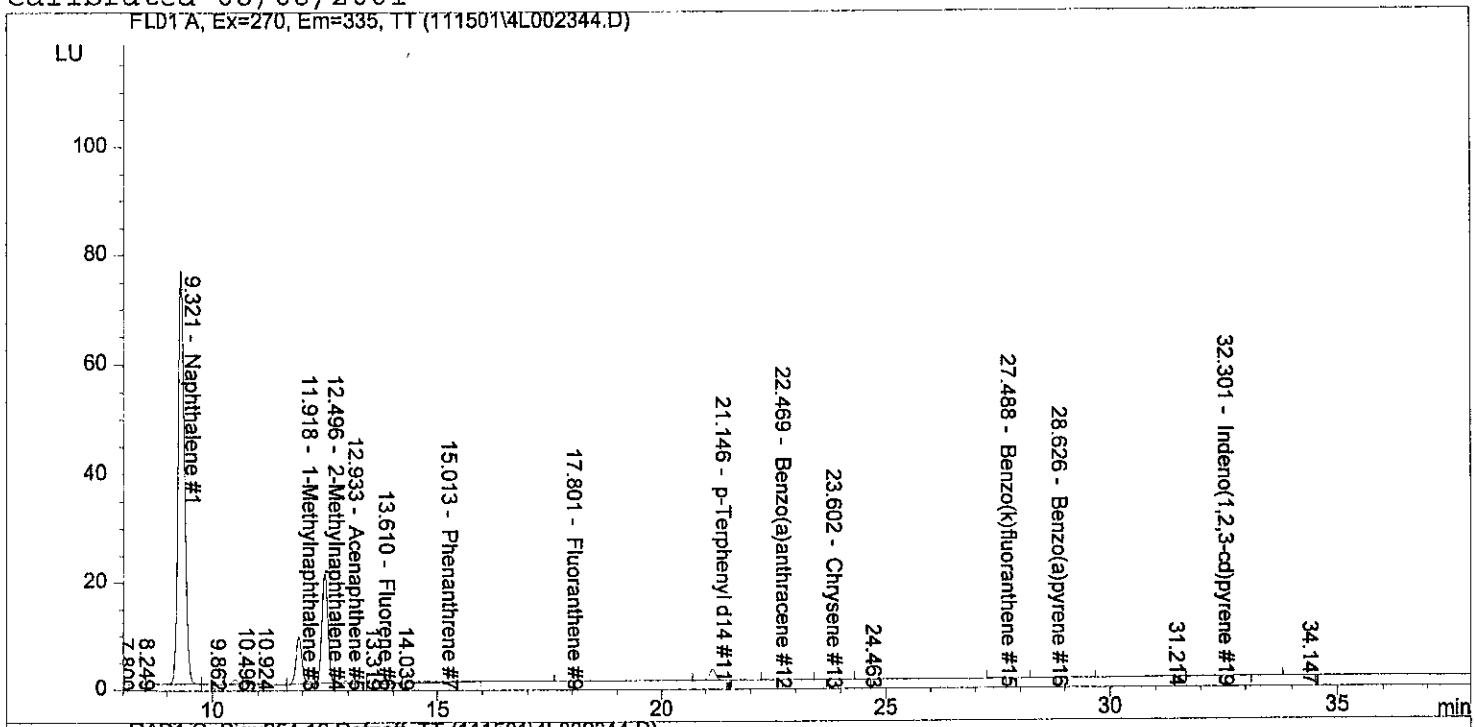
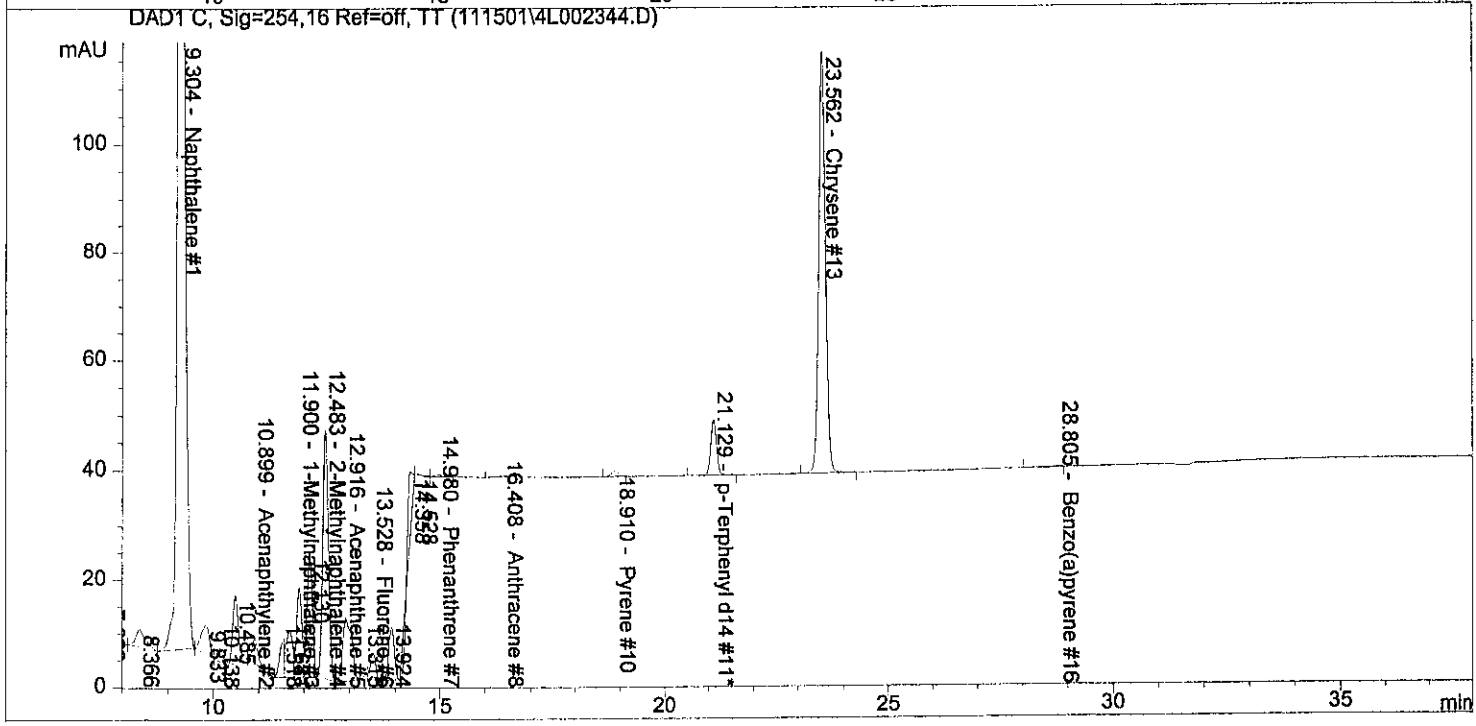
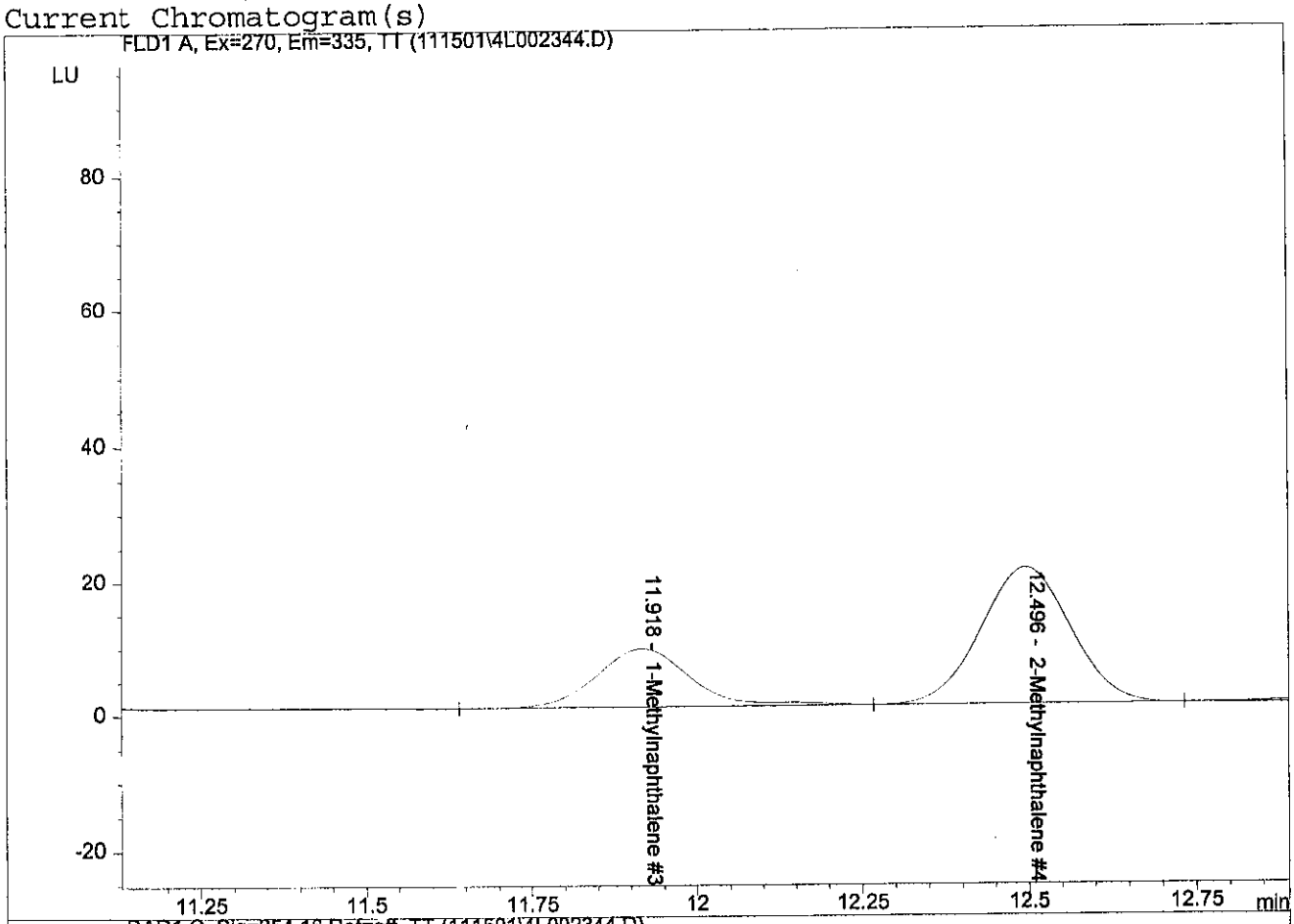
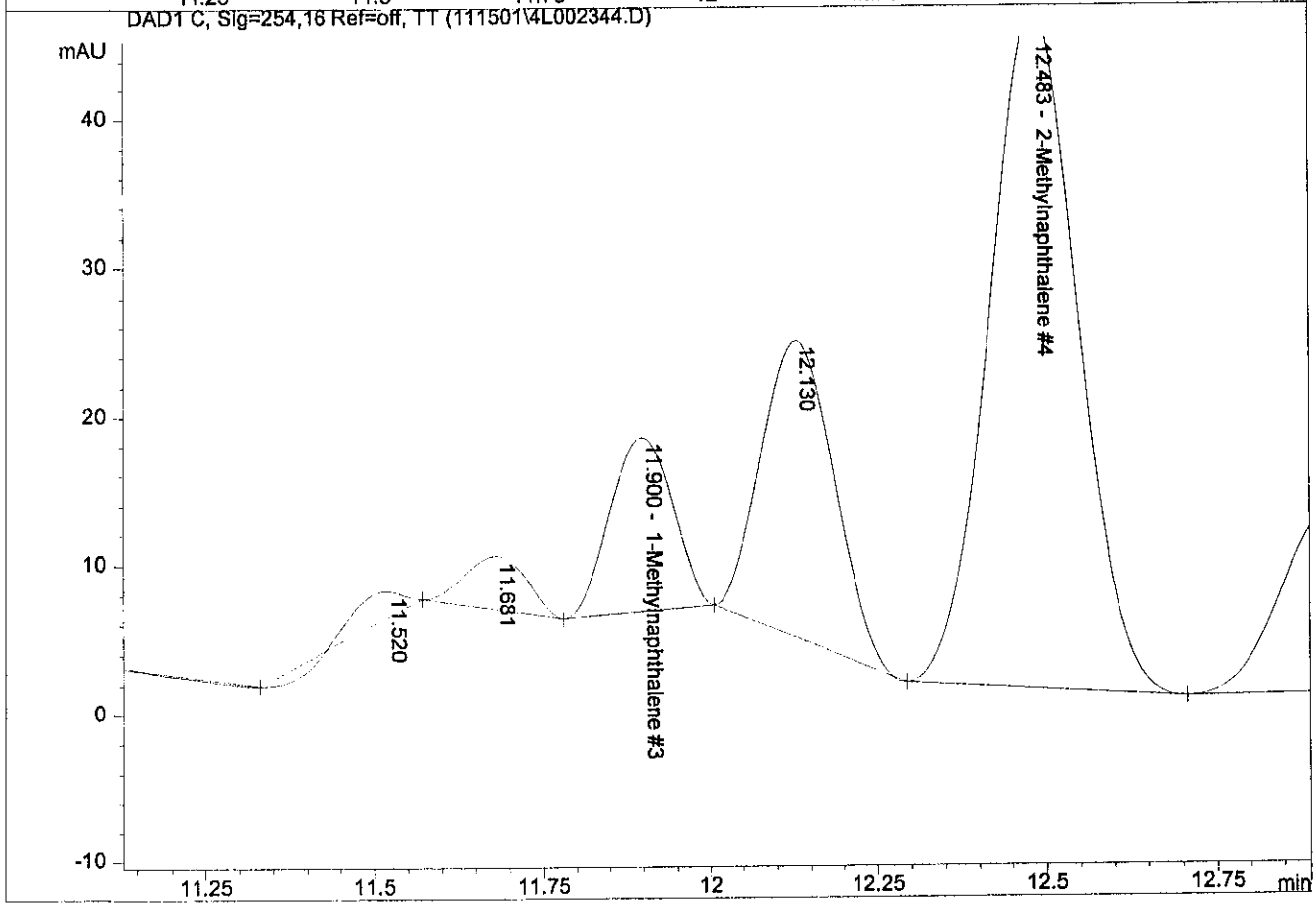


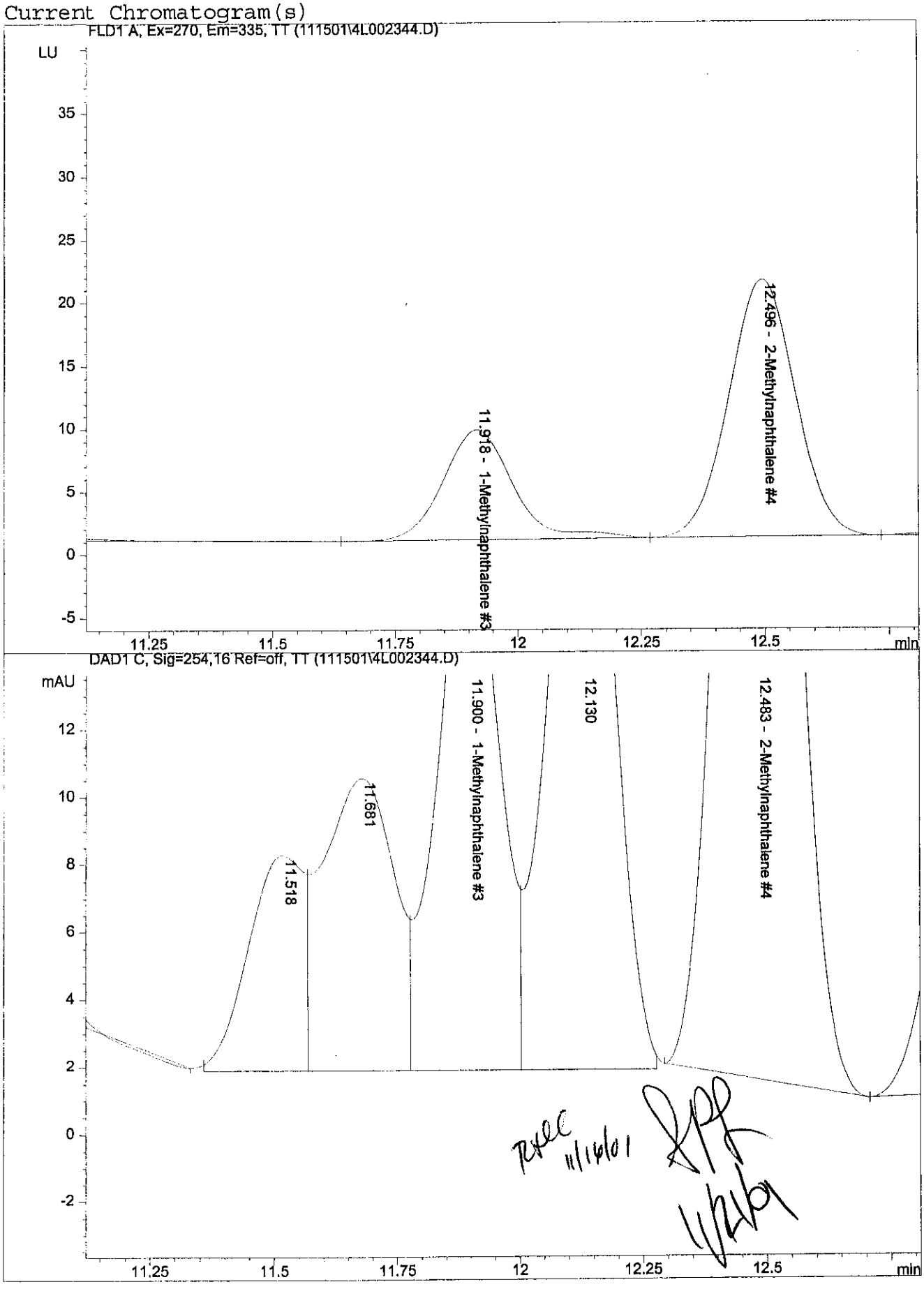


Current Chromatogram(s)





Current Chromatogram(s)



RDC 11/16/01

11/26/01

External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, November 16, 2001 1:04:13 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
9.321	BB	776.34717	2.52962e-2	19.63863	C	Naphthalene #1
11.918	BB	87.42979	2.21330e-2	1.93508	C	1-Methylnaphthalene #3
12.496	BB	192.16228	1.70635e-2	3.27896	C	2-Methylnaphthalene #4
12.933	BB	5.45137	1.38416e-2	7.54555e-2	CMDL	Acenaphthene #5
13.610	BB	10.45949	6.62187e-3	6.92613e-2		Fluorene #6
15.013	BB	20.48480	1.63652e-1	3.35238		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.801	BBA	4.49060e-1	2.32678e-2	1.04487e-2		Fluoranthene #9
18.890		-	-	-	58%	Pyrene #10
21.146	BBA	19.53664	2.97423e-1	5.81064		p-Terphenyl d14 #11*
22.469	BB	2.62831e-1	7.91256e-3	2.07967e-3		Benzo(a)anthracene #12
23.602	BB	2.11465e-1	3.90495e-2	8.25762e-3		Chrysene #13
26.210		-	-	-		Benzo(b)fluoranthene #14
27.488	PBA	2.48304e-1	2.76572e-3	6.86738e-4		Benzo(k)fluoranthene #15
28.626	BBA	2.31978e-1	4.57119e-3	1.06042e-3		Benzo(a)pyrene #16
30.650		-	-	-		Dibenz(a,h)anthracene #17
31.455		-	-	-		Benzo(g,h,i)perylene #18
32.301	BB	3.73145	1.38204e-2	5.15702e-2		Indeno(1,2,3-cd)pyrene #1
Totals :				34.23451		

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
9.304	BB	2747.87793	8.25405e-3	22.68112	✓	Naphthalene #1
10.899	BB	44.96041	2.96975e-2	1.33521	NC	Acenaphthylene #2
11.900	VV	142.56586	1.29459e-2	1.84564	✓	1-Methylnaphthalene #3
12.483	BB	411.31870	1.12393e-2	4.62292	✓	2-Methylnaphthalene #4
12.916	BB	166.47295	2.03163e-2	3.38212	NC	Acenaphthene #5
13.528	BB	32.87423	1.75240e-2	5.76088e-1	NC	Fluorene #6
14.980	BB	3.89981	1.72982e-2	6.74598e-2	CMDL	Phenanthrene #7
16.408	BB	3.00487	1.04262e-2	3.13294e-2	↓	Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.910	PB	10.85873	1.43052e-2	1.55337e-1	NC	Pyrene #10
21.129	BB	88.27057	6.56733e-2	5.79702		p-Terphenyl d14 #11*
22.568		-	-	-	58.1%	Benzo(a)anthracene #12
23.562	PBA	809.16217	1.51453e-2	12.25500	NC	Chrysene #13
26.190		-	-	-		Benzo(b)fluoranthene #14
27.642		-	-	-		Benzo(k)fluoranthene #15
28.805	BBA	1.76029	2.61680e-2	4.60634e-2	CMDL	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 : 52.79531

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:\MSDCHEM\1\DATA\111901\7M14686.D Vial: 12
Acq On : 20 Nov 2001 9:27 Operator: mdc
Sample : L0111253-07 8310W confirmation Inst : HPMS7
Misc : 1,1 WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 20 15:40:07 2001 Quant Results File: PAHLOW.RES

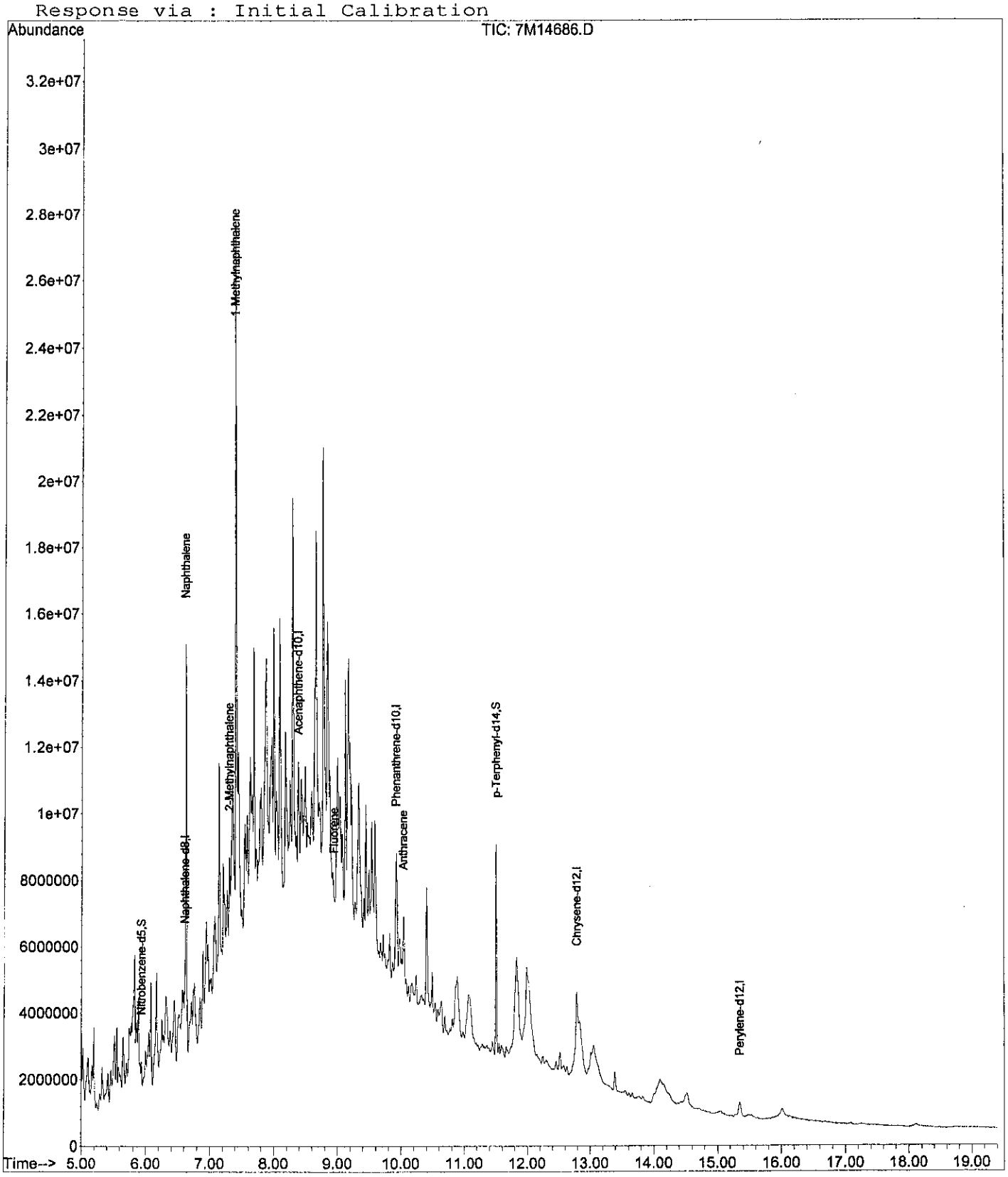
Quant Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 11/05/01
Last Update : Tue Nov 20 07:31:23 2001
Response via : Initial Calibration
DataAcq Meth : PAHL

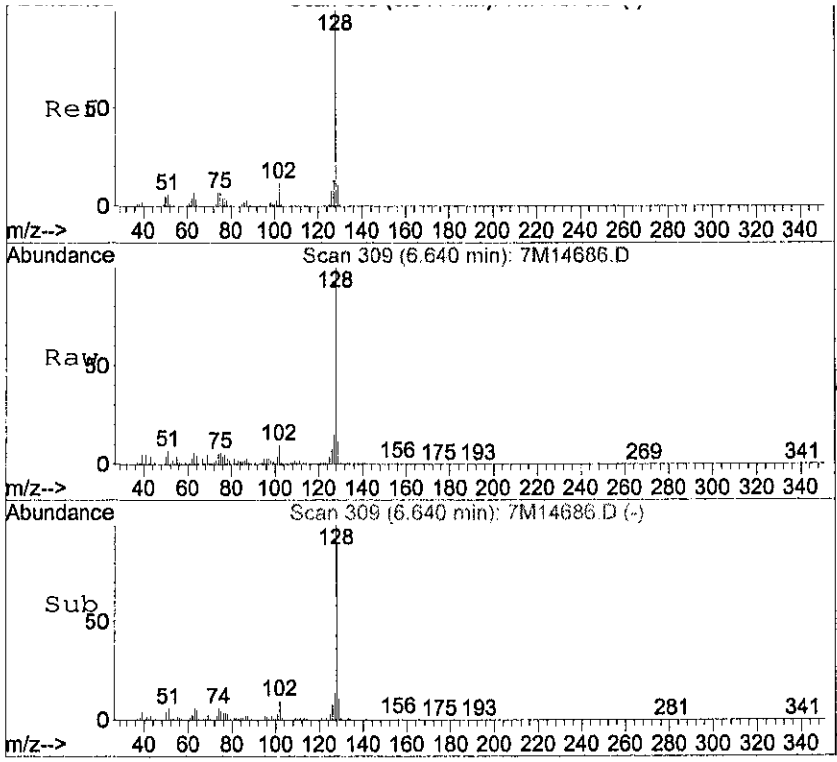
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	6.61	136	313008	1.00	ug/ml	0.00
6) Acenaphthene-d10	8.40	164	259257	1.00	ug/ml	0.00
11) Phenanthrene-d10	9.94	188	446007	1.00	ug/ml	0.00
15) Chrysene-d12	12.79	240	530014	1.00	ug/ml	0.00
20) Perylene-d12	15.35	264	324164	1.00	ug/ml	0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	5.93	82	14413	0.1538	ug/ml	0.02
Spiked Amount 2.500	Range 35 - 114		Recovery = 6.00%#			
7) 2-Fluorobiphenyl	7.64	172	2683	0.0096	ug/ml	-0.02
Spiked Amount 2.500	Range 43 - 116		Recovery = 0.40%#			
17) p-Terphenyl-d14	11.51	244	2150345	5.7047	ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery = 228.00%#			
Target Compounds						Qvalue
3) Naphthalene	6.64	128	5131008	18.8491	ug/ml	97
4) 2-Methylnaphthalene	7.31	142	642735	4.0413	ug/ml	95
5) 1-Methylnaphthalene	7.42	142	409855	2.4194	ug/ml#	1
10) Fluorene	8.96	166	32116	0.1099	ug/ml#	50
12) Phenanthrene	9.93	178	176003	0.4590	ug/ml#	46
13) Anthracene	10.05	178	339611	0.9050	ug/ml#	80

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\111901\7M14686.D Vial: 12
Acq On : 20 Nov 2001 9:27 Operator: mdc
Sample : L0111253-07 8310W confirmation Inst : HPMS7
Misc : 1,1 WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 20 15:40 2001 Quant Results File: PAHLOW.RES

Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 11/05/01
Last Update : Tue Nov 20 07:31:23 2001
Response via : Initial Calibration

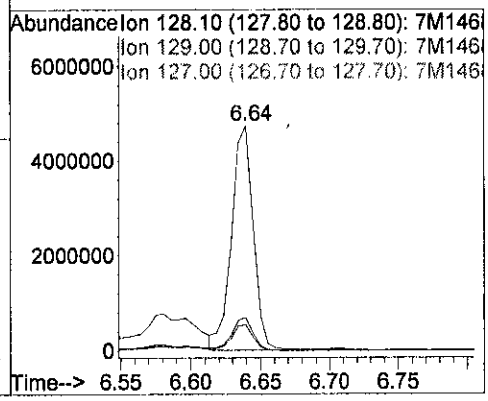


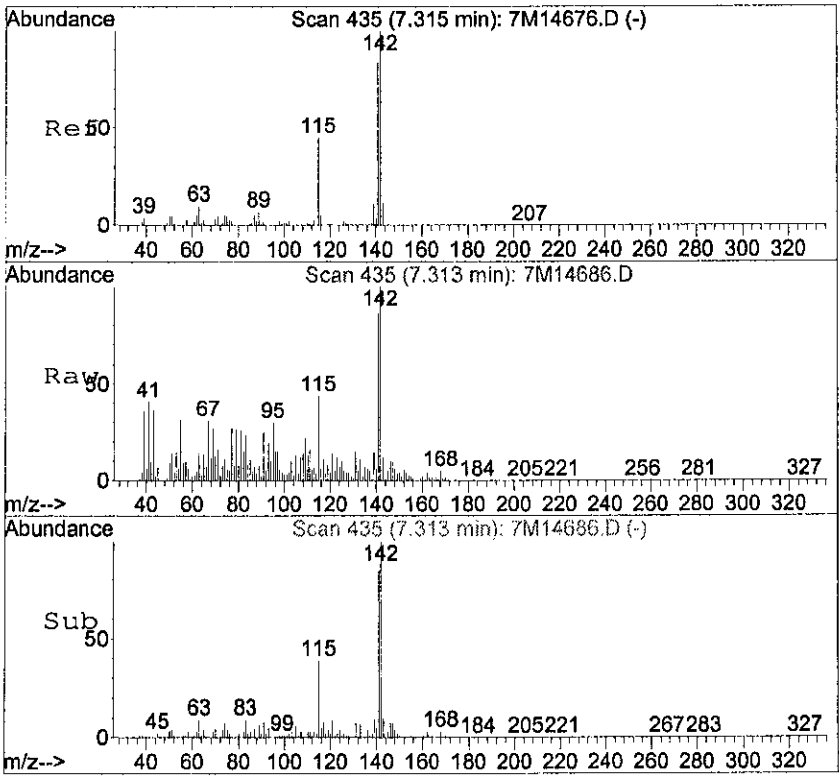


Naphthalene
Concen: 18.85 ug/ml
RT: 6.64 min Scan# 309
Delta R.T. 0.00 min
Lab File: 7M14686.D
Acq: 20 Nov 2001 9:27

Tgt Ion:128 Resp: 5131008

Ion	Ratio	Lower	Upper
128	100		
129	11.5	8.6	13.0
127	14.2	10.4	15.6

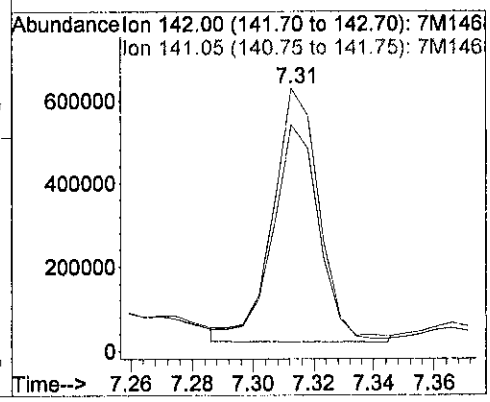


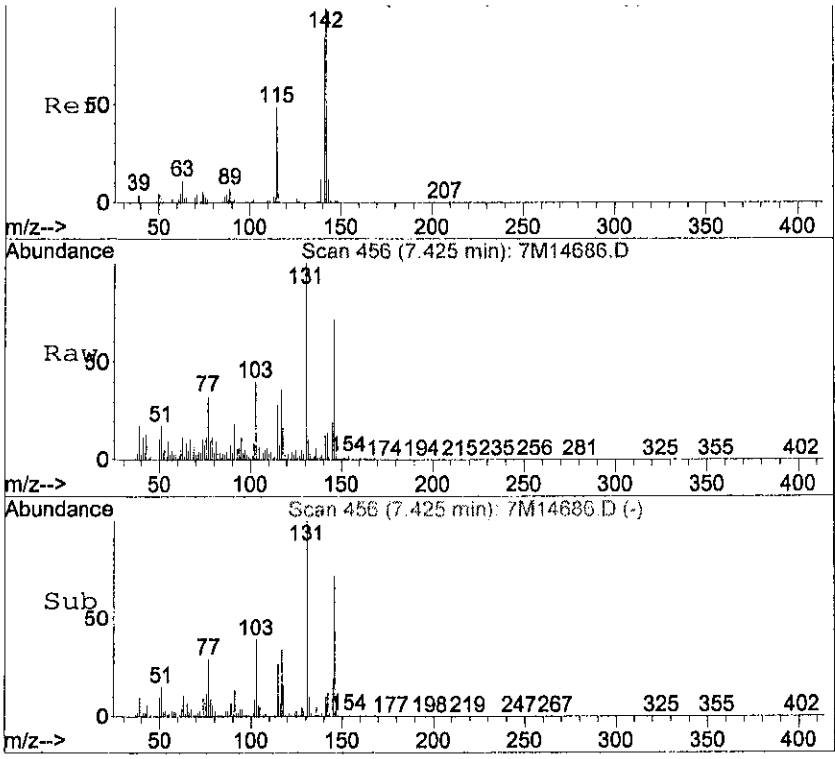


#4
2-Methylnaphthalene
Concen: 4.04 ug/ml
RT: 7.31 min Scan# 435
Delta R.T. -0.00 min
Lab File: 7M14686.D
Acq: 20 Nov 2001 9:27

Tgt Ion:142 Resp: 642735

Ion	Ratio	Lower	Upper
142	100		
141	80.5	68.2	102.2

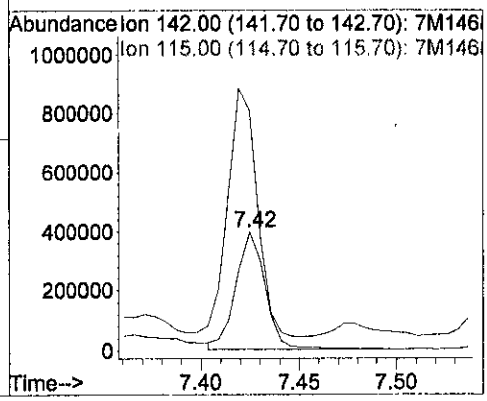


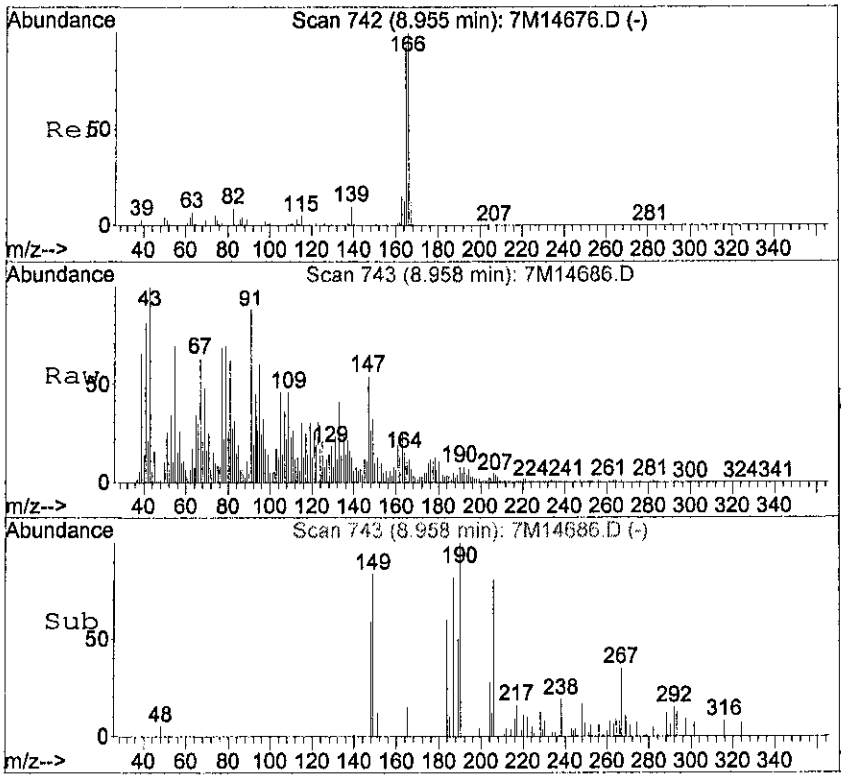


1-Methylnaphthalene
Concen: 2.42 ug/ml
RT: 7.42 min Scan# 456
Delta R.T. 0.00 min
Lab File: 7M14686.D
Acq: 20 Nov 2001 9:27

Tgt Ion:142 Resp: 409855

Ion	Ratio	Lower	Upper
142	100		
115	213.3	34.6	52.0#

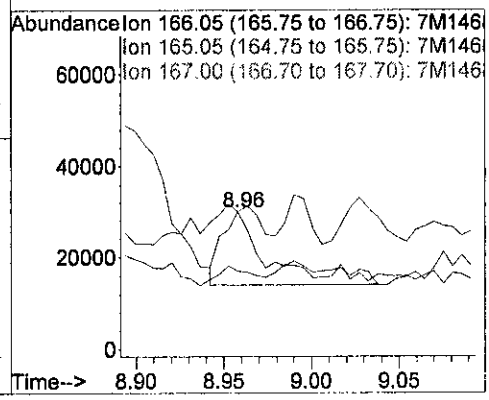


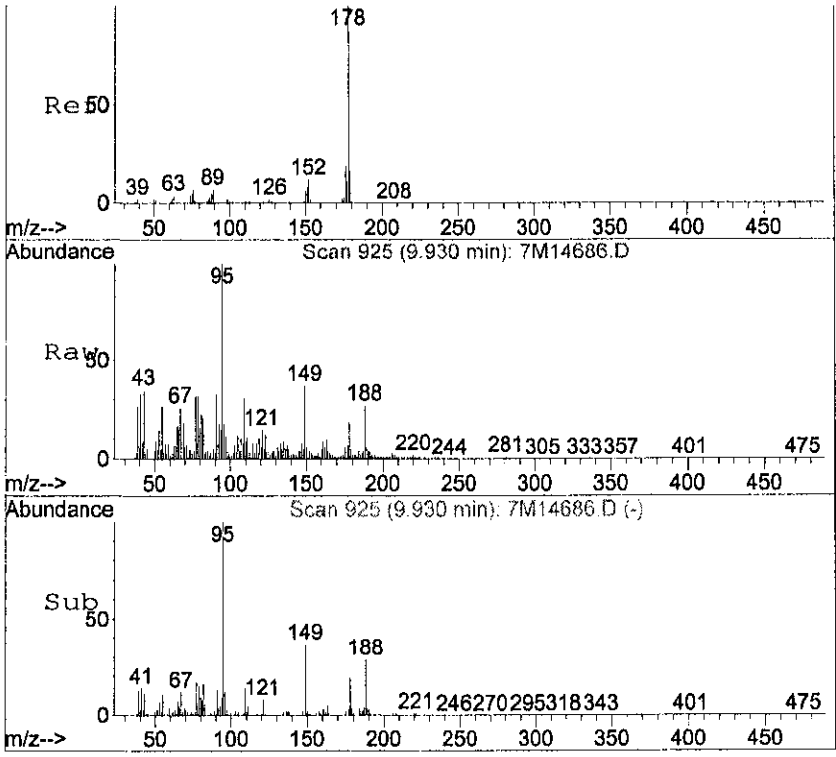


#10
Fluorene
Concen: 0.11 ug/ml
RT: 8.96 min Scan# 743
Delta R.T. 0.00 min
Lab File: 7M14686.D
Acq: 20 Nov 2001 9:27

Tgt Ion:166 Resp: 32116

Ion	Ratio	Lower	Upper
166	100		
165	38.4	72.6	109.0#
167	18.2	11.0	16.4#

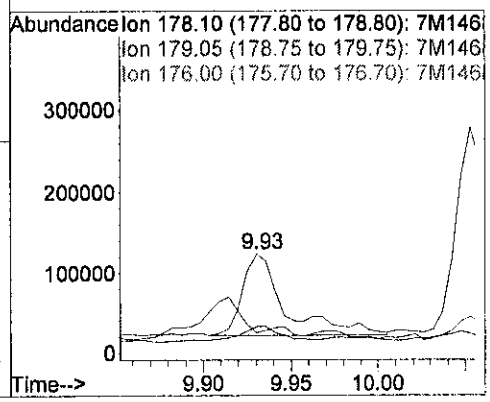


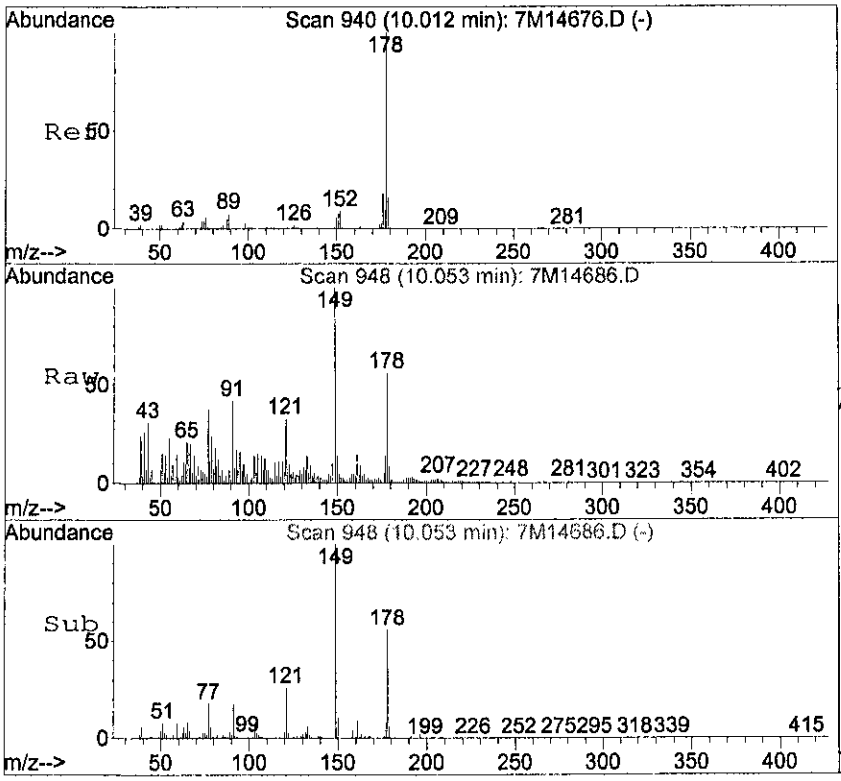


Phenanthrene
Concen: 0.46 ug/ml
RT: 9.93 min Scan# 925
Delta R.T. -0.03 min
Lab File: 7M14686.D
Acq: 20 Nov 2001 9:27

Tgt Ion:178 Resp: 176003

Ion	Ratio	Lower	Upper
178	100		
179	20.0	12.7	19.1#
176	59.9	15.0	22.6#

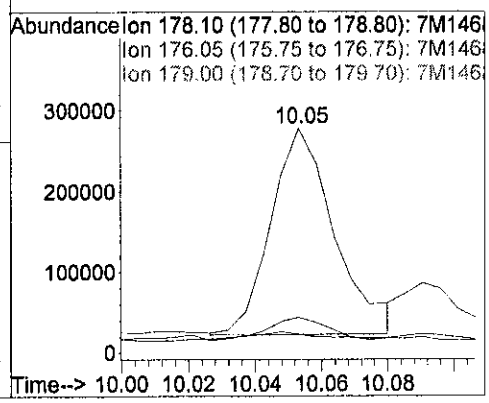




#13
Anthracene
Concen: 0.90 ug/ml
RT: 10.05 min Scan# 948
Delta R.T. 0.04 min
Lab File: 7M14686.D
Acq: 20 Nov 2001 9:27

Tgt Ion:178 Resp: 339611

Ion	Ratio	Lower	Upper
178	100		
176	4.7	14.8	22.2#
179	12.7	12.8	19.2#



328

1,1

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Injection Date  : 11/15/2001 9:44:50 PM          Seq. Line :  12
Sample Name     : L0111253-08 831W                    Vial :  12
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    : 11/16/2001 1:04:13 PM by RDC
                  (modified after loading)
Calibrated 08/08/2001
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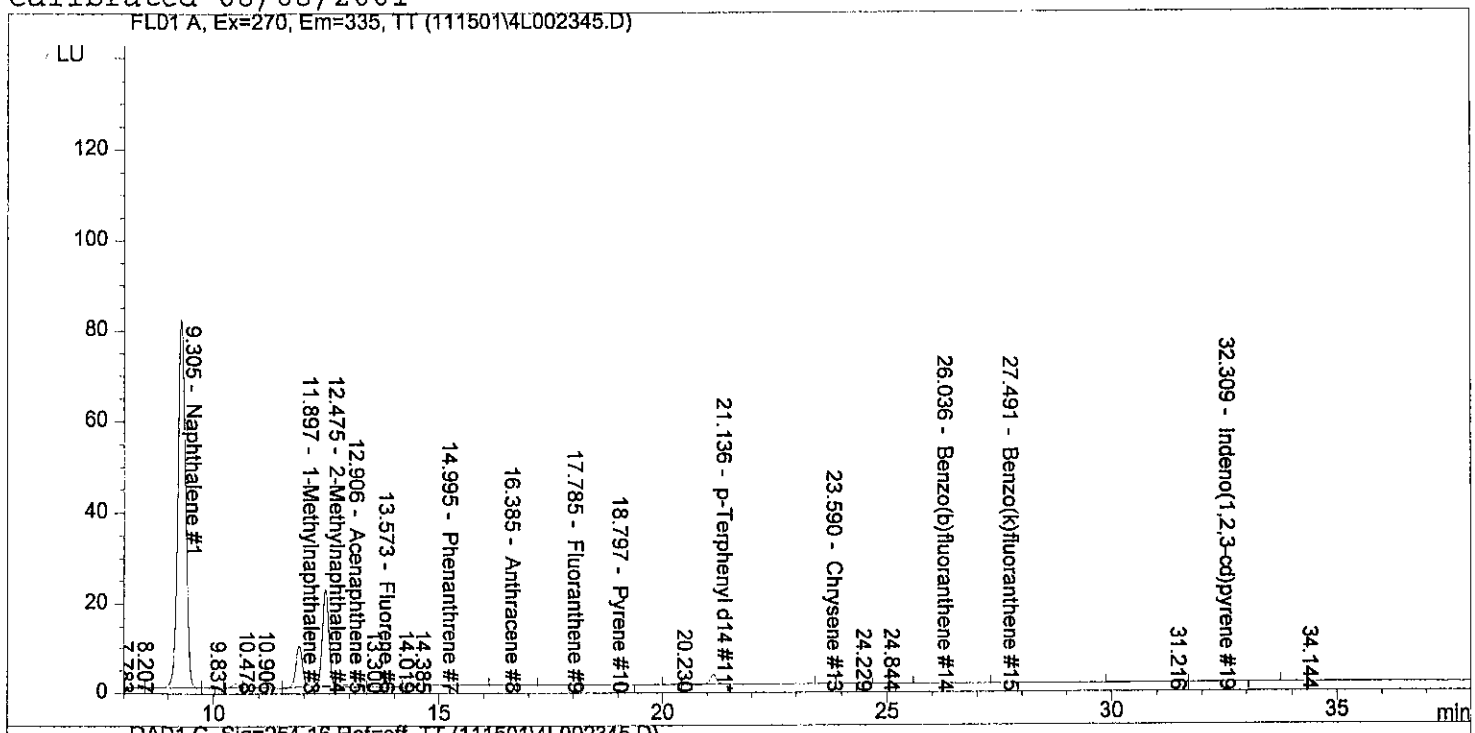
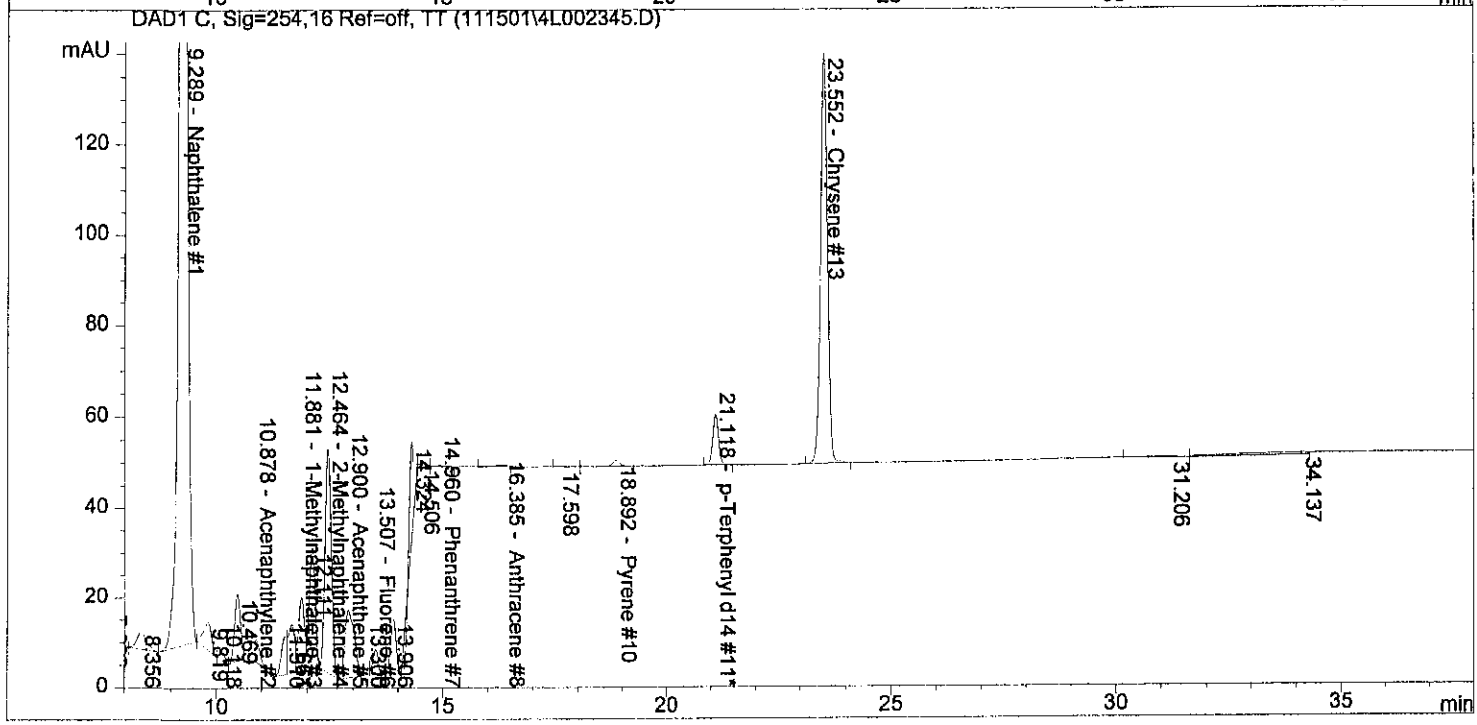
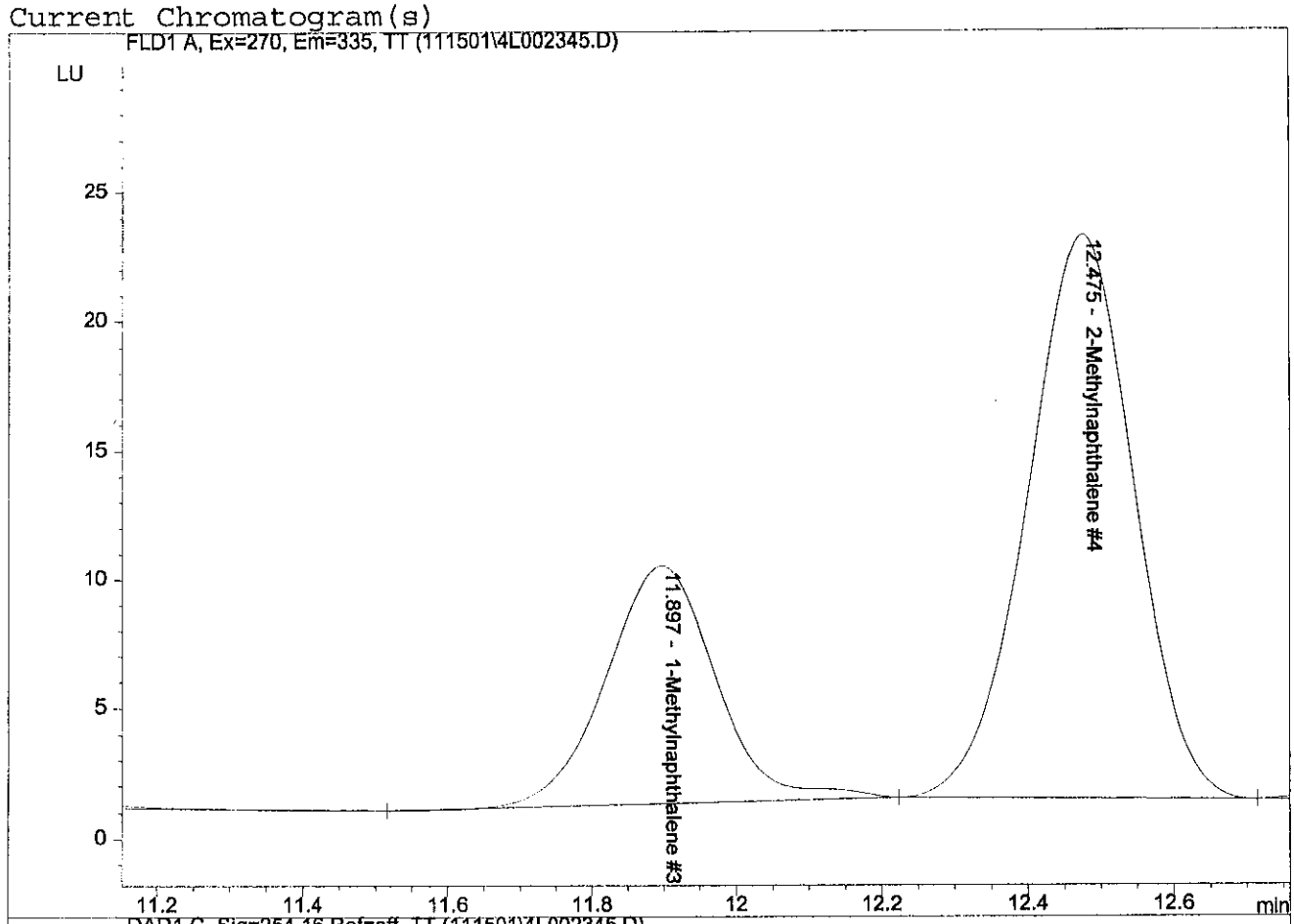
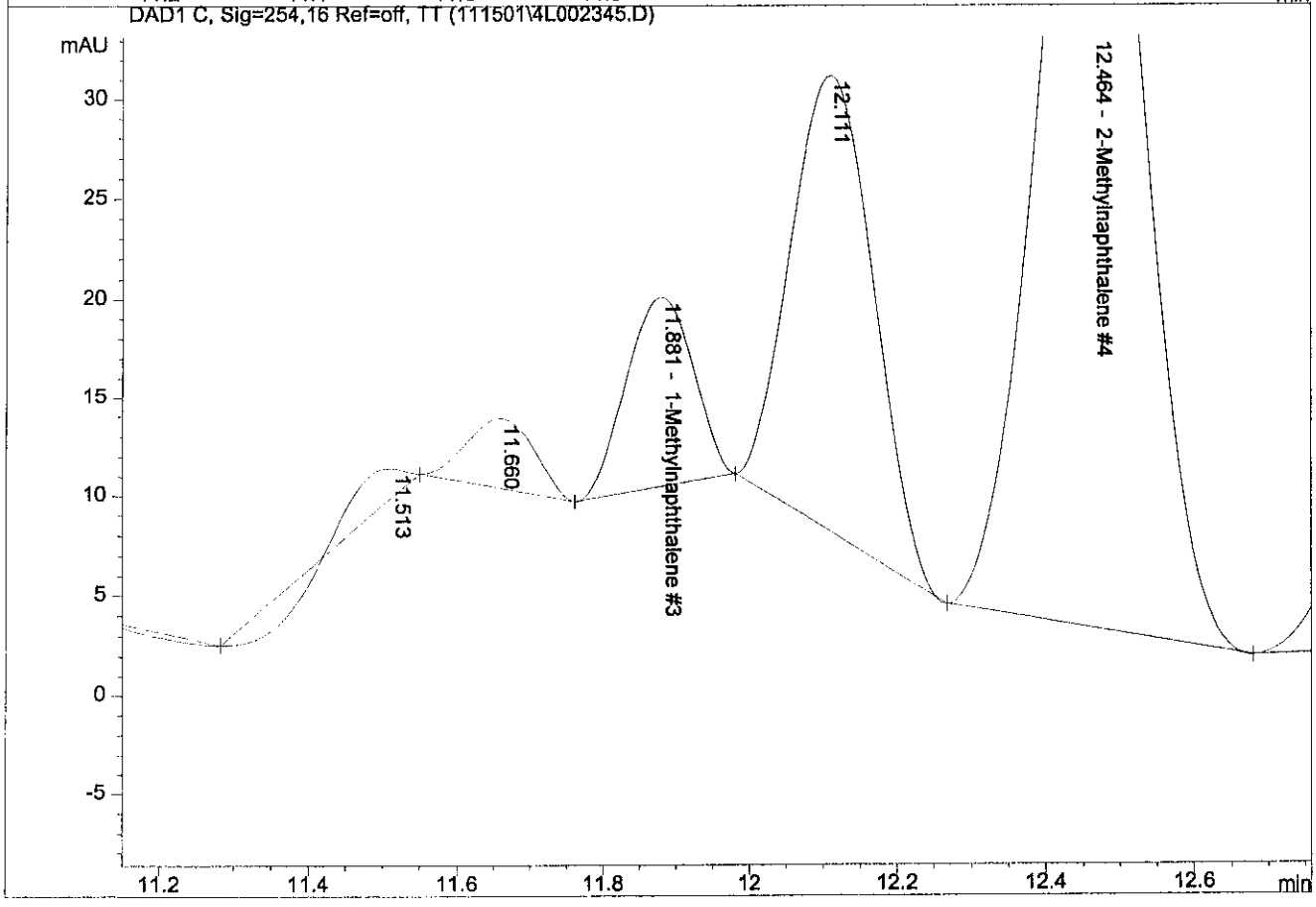




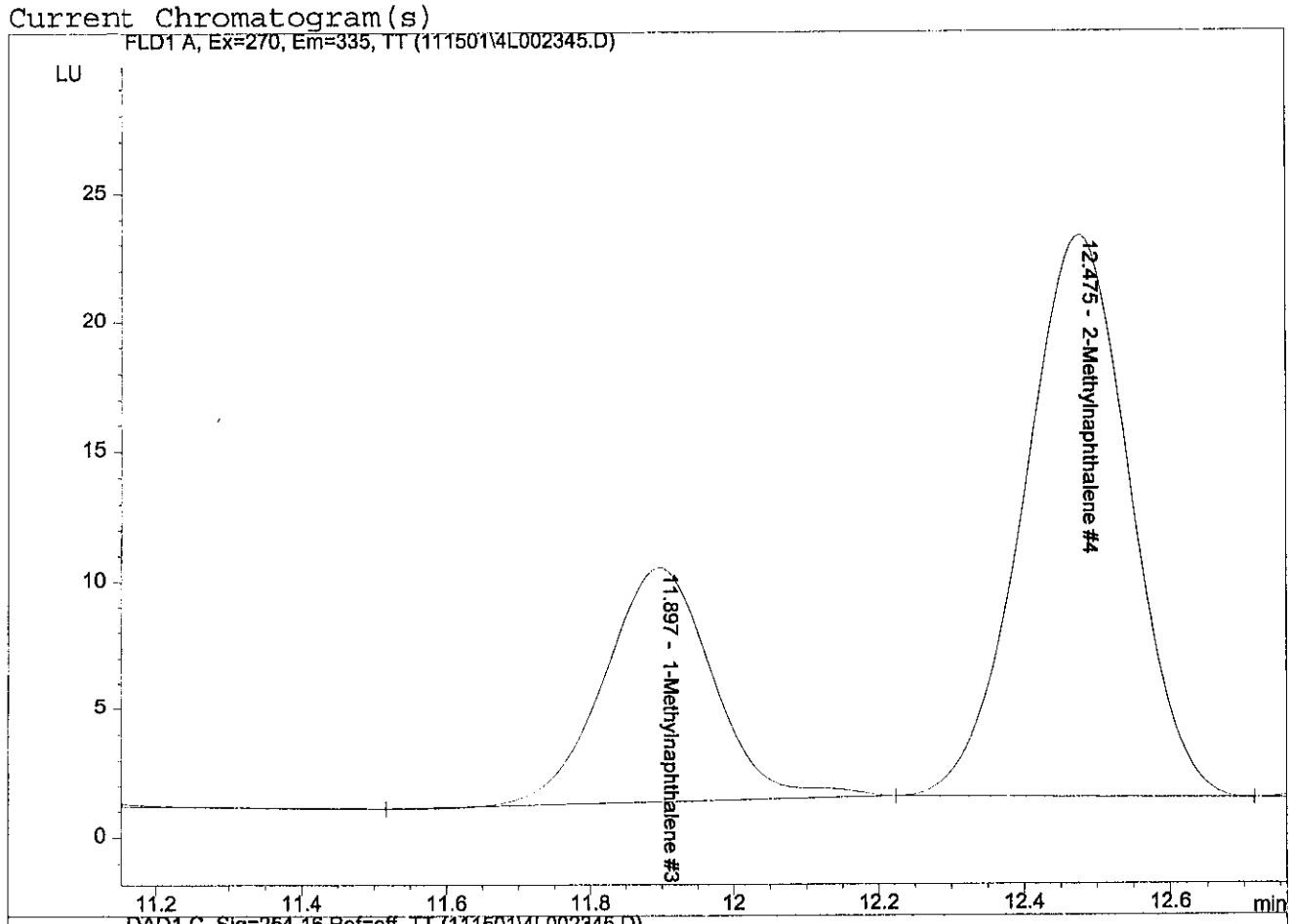
325

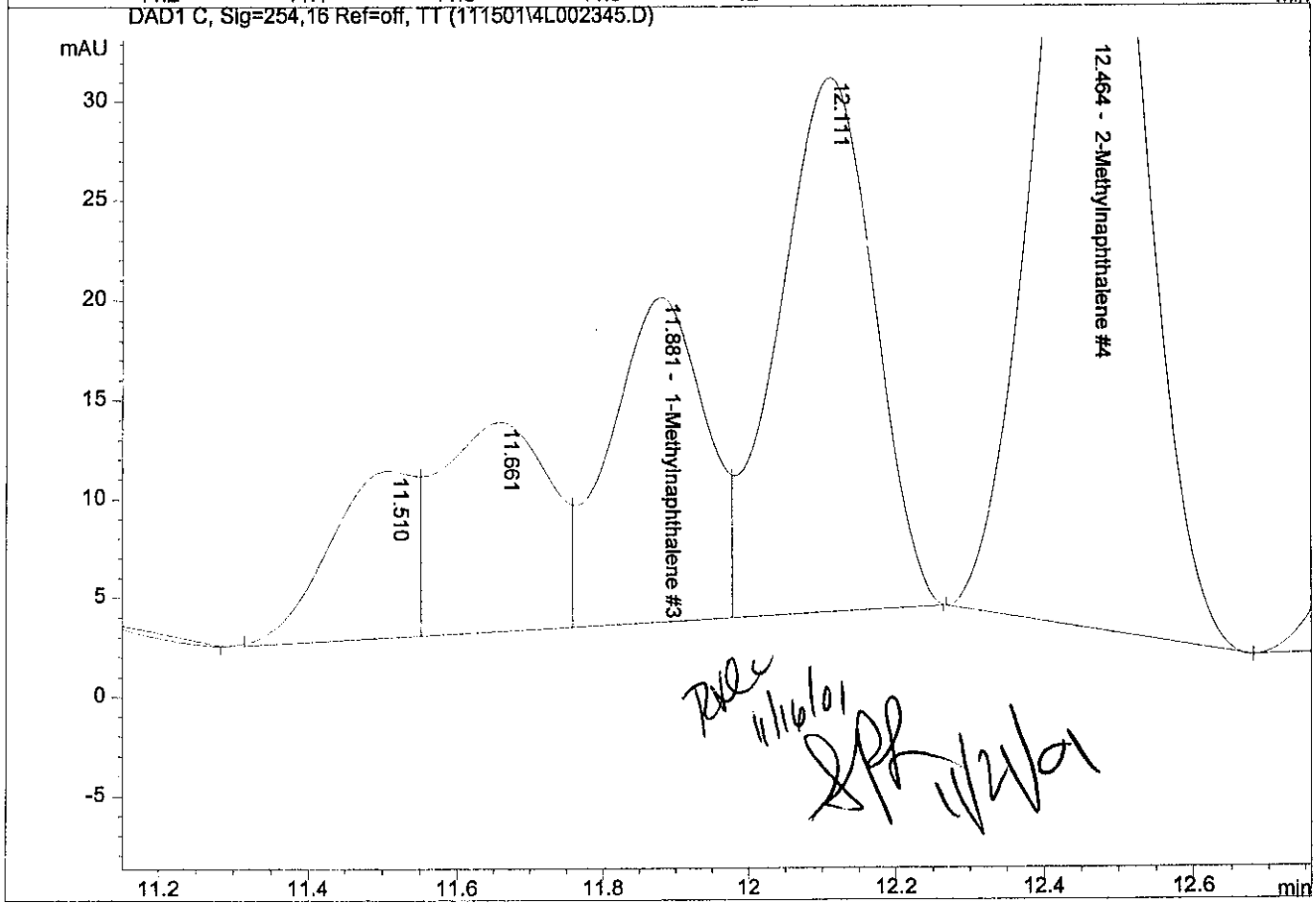
Current Chromatogram(s)





Current Chromatogram(s)





External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, November 16, 2001 1:04:13 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	931.44434	2.52962e-2	23.56200	C	Naphthalene #1
11.897	BB	96.63542	2.21330e-2	2.13883	C	1-Methylnaphthalene #3
12.475	BB	219.37564	1.70635e-2	3.74331	C	2-Methylnaphthalene #4
12.906	BB	6.29420	1.38416e-2	8.71216e-2	C	Acenaphthene #5
13.573	BB	10.71338	6.62187e-3	7.09426e-2	C	Fluorene #6
14.995	BBA	3.45005e-1	1.63652e-1	5.64609e-2		Phenanthrene #7
16.385	PB	1.69271e-1	3.10196e-1	5.25072e-2		Anthracene #8
17.785	BB	6.04106e-1	2.32678e-2	1.40562e-2		Fluoranthene #9
18.797	BB	4.62386e-1	3.86587e-2	1.78752e-2		Pyrene #10
21.136	BB	22.53325	2.97423e-1	6.70190		p-Terphenyl d14 #11*
22.587		-	-	-		Benzo(a)anthracene #12
23.590	BB	3.59119e-1	3.90495e-2	1.40234e-2		Chrysene #13
26.036	BB	2.21198e-1	1.63222e-2	3.61043e-3		Benzo(b)fluoranthene #14
27.491	BB	2.42466e-1	2.76572e-3	6.70591e-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
32.309	BB	2.60952	1.38204e-2	3.60646e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 36.49937

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	3303.04858	8.25405e-3	27.26353		Naphthalene #1
10.878	BB	48.96238	2.96975e-2	1.45406	NC	Acenaphthylene #2
11.881	VV	149.38390	1.29459e-2	1.93390		1-Methylnaphthalene #3
12.464	BB	474.64029	1.12393e-2	5.33461		2-Methylnaphthalene #4
12.900	BB	215.23274	2.03163e-2	4.37274	NC	Acenaphthene #5
13.507	BB	40.04001	1.75240e-2	7.01661e-1	NC	Fluorene #6
14.960	BB	3.14970	1.72982e-2	5.44843e-2		Phenanthrene #7
16.385	BB	2.80591	1.04262e-2	2.92550e-2		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.892	BB	13.88561	1.43052e-2	1.98637e-1	NC	Pyrene #10
21.118	BBA	100.44933	6.56733e-2	6.59683		p-Terphenyl d14 #11*
22.568		-	-	-		Benzo(a)anthracene #12
23.552	BBA	975.18030	1.51453e-2	14.76939		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 : 62.70911

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\111901\7M14687.D Vial: 13
Acq On : 20 Nov 2001 9:54 Operator: mdc
Sample : L0111253-08 8310W confirmation Inst : HPMS7
Misc : 1,1 WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 20 15:40:57 2001 Quant Results File: PAHLOW.RES

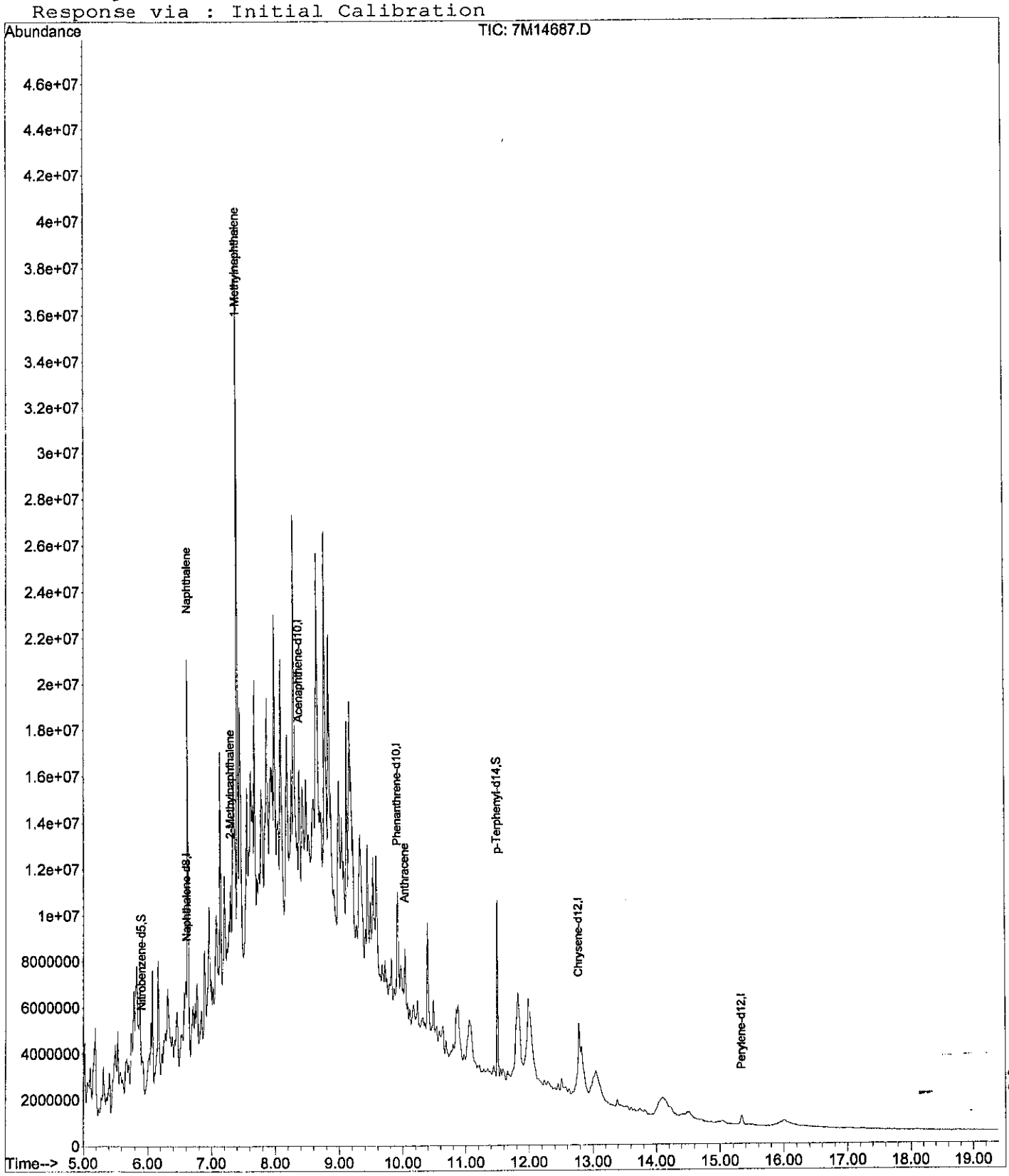
Quant Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 11/05/01
Last Update : Tue Nov 20 07:31:23 2001
Response via : Initial Calibration
DataAcq Meth : PAHL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	6.62	136	348936	1.00	ug/ml	0.00
6) Acenaphthene-d10	8.40	164	349406	1.00	ug/ml	0.00
11) Phenanthrene-d10	9.94	188	496257	1.00	ug/ml	0.00
15) Chrysene-d12	12.79	240	568789	1.00	ug/ml	0.00
20) Perylene-d12	15.34	264	295428	1.00	ug/ml	0.01
System Monitoring Compounds						
2) Nitrobenzene-d5	5.90	82	25924	0.2482	ug/ml	-0.01
Spiked Amount 2.500	Range 35 - 114		Recovery = 10.00%#			
7) 2-Fluorobiphenyl	7.65	172	3138	0.0083	ug/ml	-0.01
Spiked Amount 2.500	Range 43 - 116		Recovery = 0.40%#			
17) p-Terphenyl-d14	11.51	244	2611370	6.4555	ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery = 258.40%#			
Target Compounds						Qvalue
3) Naphthalene	6.64	128	6509391	21.4506	ug/ml	95
4) 2-Methylnaphthalene	7.32	142	835013	4.7097	ug/ml	96
5) 1-Methylnaphthalene	7.43	142	539790	2.8583	ug/ml#	1
12) Phenanthrene	9.93	178	237581	0.5568	ug/ml#	52
13) Anthracene	10.06	178	451367	1.0810	ug/ml#	82

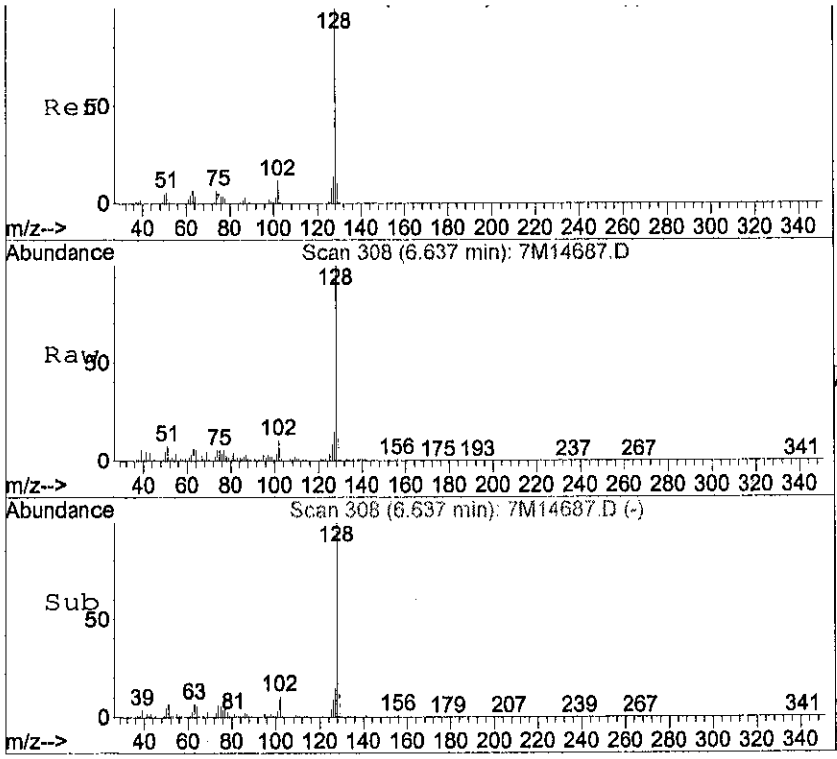
(#) = qualifier out of range (m) = manual integration
7M14687.D PAHLOW.M Tue Nov 20 15:41:13 2001 HPMS7 Page 1

Data File : C:\MSDCHEM\1\DATA\111901\7M14687.D Vial: 13
Acq On : 20 Nov 2001 9:54 Operator: mdc
Sample : L0111253-08 8310W confirmation Inst : HPMS7
Misc : 1,1 WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 20 15:40 2001 Quant Results File: PAHLOW.RES

Method : C:\MSDCHEM\1\METHODS\PAHLOW.M (RTE Integrator)
Title : PAHL/INITIAL CALIBRATION 11/05/01
Last Update : Tue Nov 20 07:31:23 2001
Response via : Initial Calibration



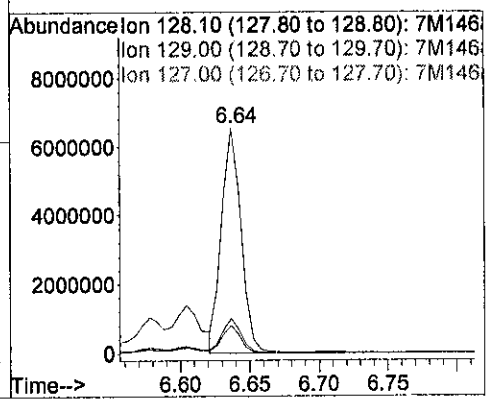
335

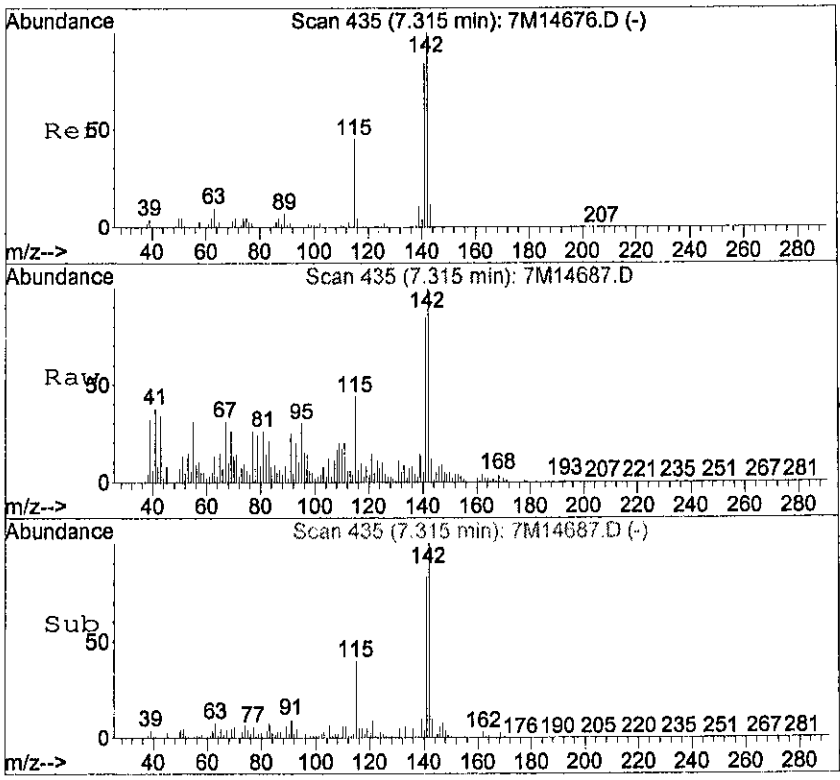


Naphthalene
Concen: 21.45 ug/ml
RT: 6.64 min Scan# 308
Delta R.T. -0.00 min
Lab File: 7M14687.D
Acq: 20 Nov 2001 9:54

Tgt Ion:128 Resp: 6509391

Ion	Ratio	Lower	Upper
128	100		
129	12.4	8.6	13.0
127	15.2	10.4	15.6

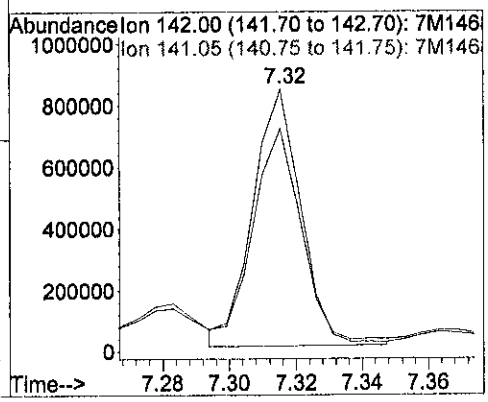




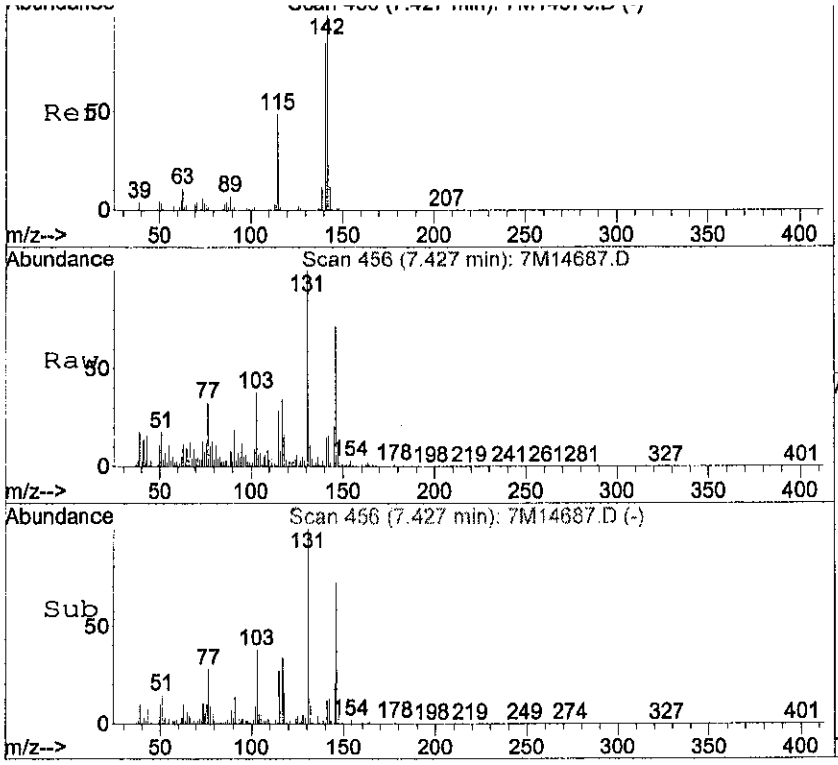
#4
2-Methylnaphthalene
Concen: 4.71 ug/ml
RT: 7.32 min Scan# 435
Delta R.T. -0.00 min
Lab File: 7M14687.D
Acq: 20 Nov 2001 9:54

Tgt Ion:142 Resp: 835013

Ion	Ratio	Lower	Upper
142	100		
141	81.8	68.2	102.2



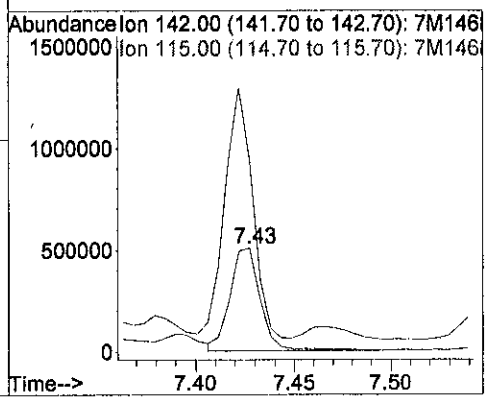
336

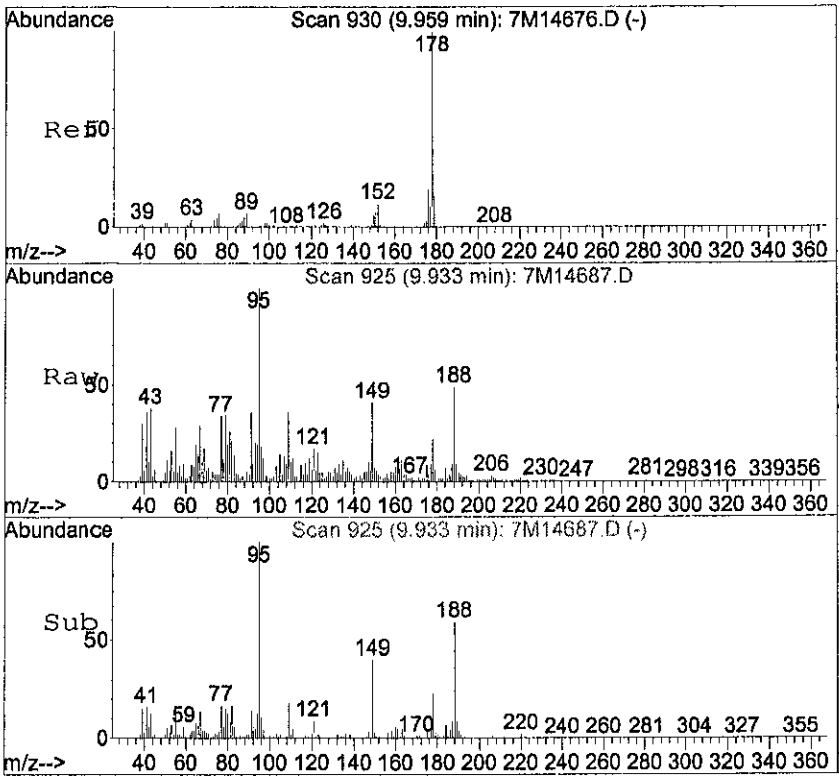


#8
1-Methylnaphthalene
Concen: 2.86 ug/ml
RT: 7.43 min Scan# 456
Delta R.T. 0.01 min
Lab File: 7M14687.D
Acq: 20 Nov 2001 9:54

Tgt Ion:142 Resp: 539790

Ion	Ratio	Lower	Upper
142	100		
115	223.3	34.6	52.0#

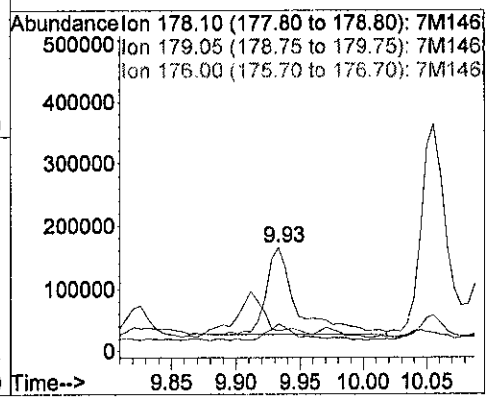




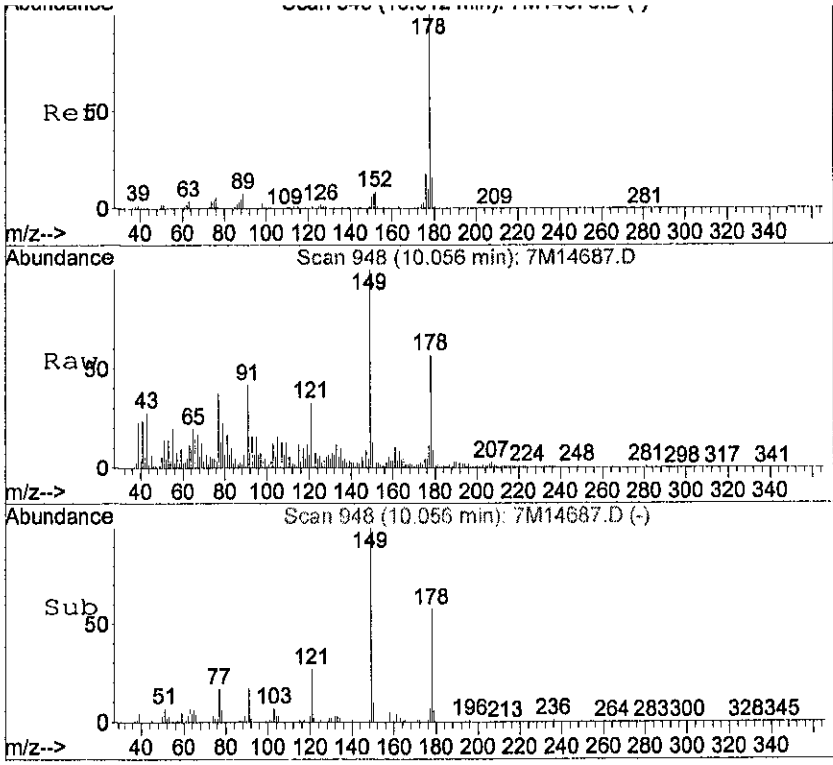
#12
Phenanthrene
Concen: 0.56 ug/ml
RT: 9.93 min Scan# 925
Delta R.T. -0.03 min
Lab File: 7M14687.D
Acq: 20 Nov 2001 9:54

Tgt Ion:178 Resp: 237581

Ion	Ratio	Lower	Upper
178	100		
179	20.0	12.7	19.1#
176	55.0	15.0	22.6#



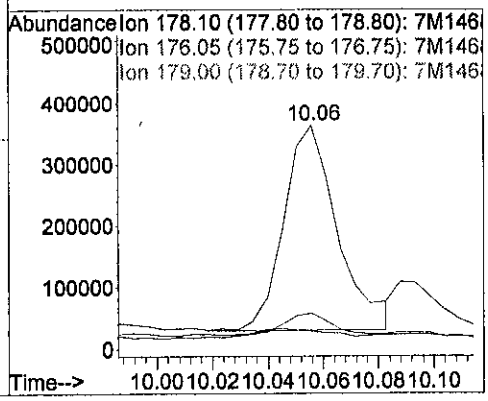
337



Anthracene
Concen: 1.08 ug/ml
RT: 10.06 min Scan# 948
Delta R.T. 0.04 min
Lab File: 7M14687.D
Acq: 20 Nov 2001 9:54

Tgt Ion:178 Resp: 451367

Ion	Ratio	Lower	Upper
178	100		
176	4.2	14.8	22.2#
179	14.8	12.8	19.2



1,1

```
==========================================================================
Injection Date  : 11/15/2001 11:38:02 PM          Seq. Line :  14
Sample Name     : L0111253-09 831W                    Vial :  14
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    : 11/16/2001 1:04:13 PM by RDC
                  (modified after loading)
Calibrated 08/08/2001
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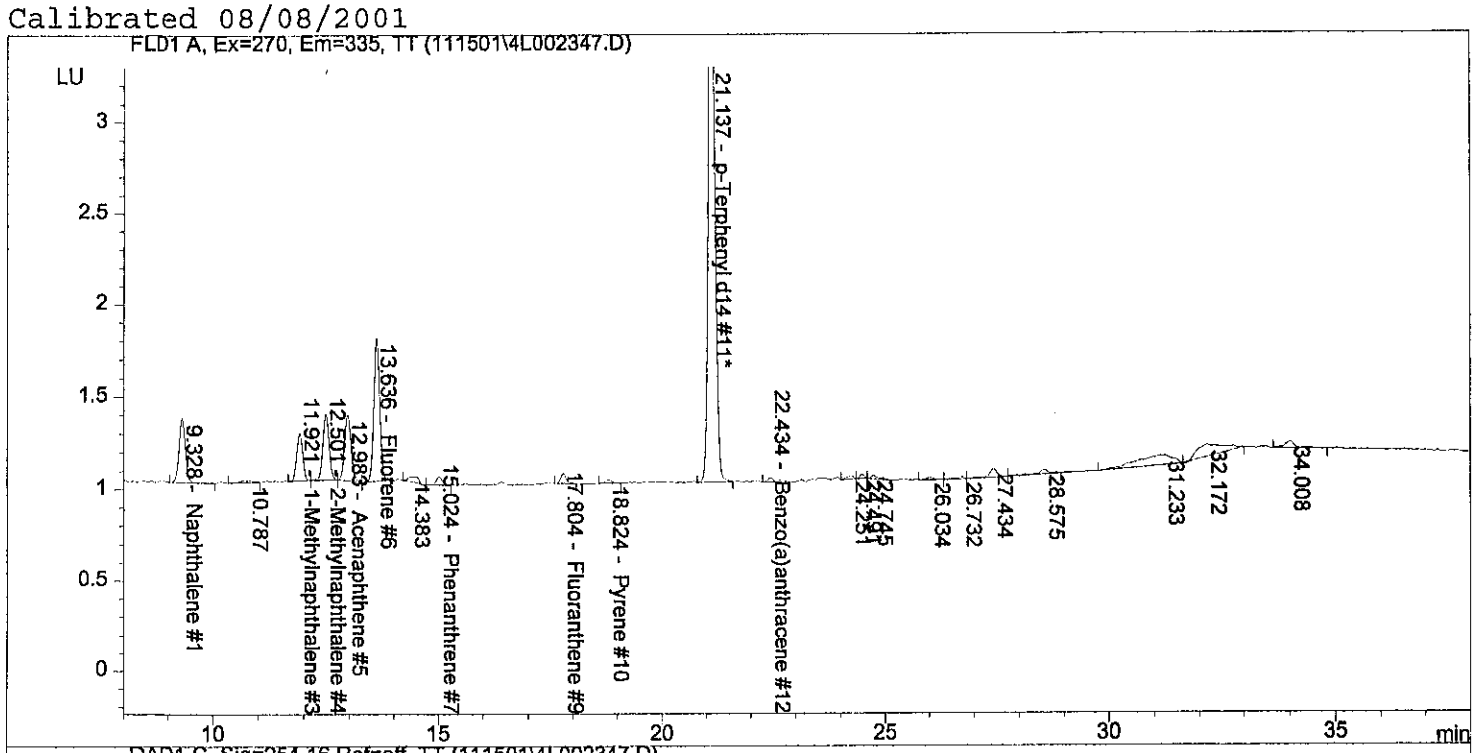

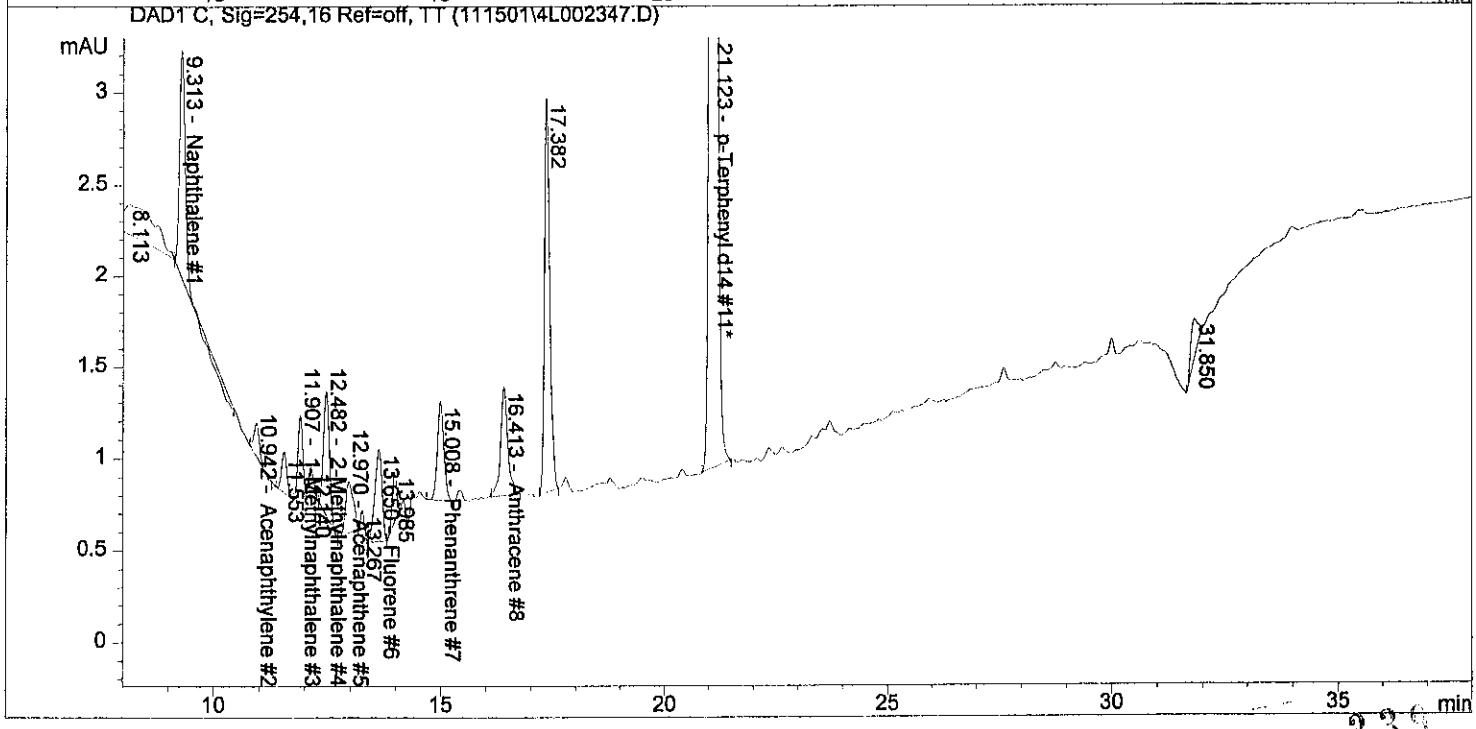

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External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, November 16, 2001 1:04:13 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
9.328	BB	3.44564	2.52962e-2	8.71615e-2		Naphthalene #1
11.921	BB	2.31807	2.21330e-2	5.13057e-2		1-Methylnaphthalene #3
12.501	BB	3.44233	1.70635e-2	5.87382e-2		2-Methylnaphthalene #4
12.983	BB	3.54096	1.38416e-2	4.90124e-2		Acenaphthene #5
13.636	BBA	7.44370	6.62187e-3	4.92912e-2		Fluorene #6
15.024	BBA	4.72716e-1	1.63652e-1	7.73611e-2		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.804	BBA	5.13208e-1	2.32678e-2	1.19412e-2		Fluoranthene #9
18.824	BBA	2.21247e-1	3.86587e-2	8.55312e-3		Pyrene #10
21.137	BBA	31.88952	2.97423e-1	9.48467		p-Terphenyl d14 #11*
22.434	BB	1.87865e-1	7.91256e-3	1.48649e-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 : 9.87952

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
9.313	BBA	9.27131	8.25405e-3	7.65259e-2		Naphthalene #1
10.942	BBA	1.37997	2.96975e-2	4.09816e-2		Acenaphthylene #2
11.907	BB	3.17138	1.29459e-2	4.10562e-2		1-Methylnaphthalene #3
12.482	BB	6.06979	1.12393e-2	6.82201e-2		2-Methylnaphthalene #4
12.970	BB	3.28233	2.03163e-2	6.66850e-2		Acenaphthene #5
13.650	BB	5.76974	1.75240e-2	1.01109e-1		Fluorene #6
15.008	BB	5.40158	1.72982e-2	9.34379e-2		Phenanthrene #7
16.413	BBA	6.37371	1.04262e-2	6.64535e-2		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.899		-	-	-		Pyrene #10
21.123	BBA	142.74904	6.56733e-2	9.37479		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 : 9.92926

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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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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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			

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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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Method C:\HPCHEM\2\METHODS\8310DATA.M

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			

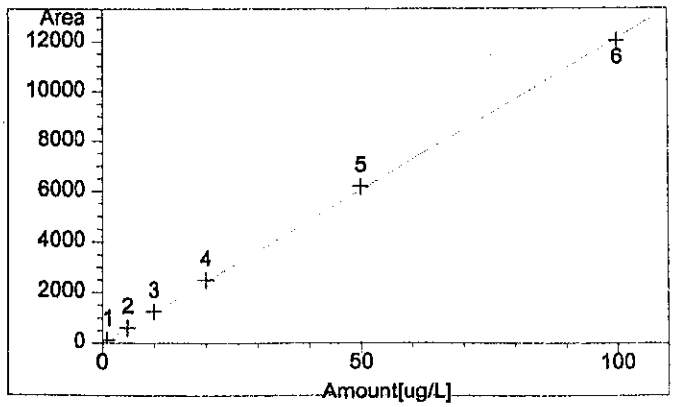
Method C:\HPCHEM\2\METHODS\8310DATA.M

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

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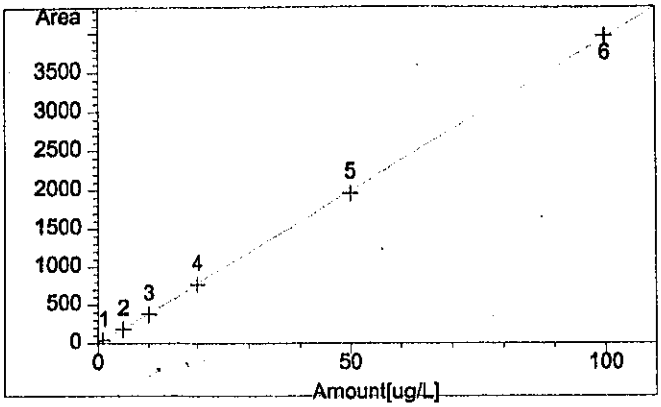
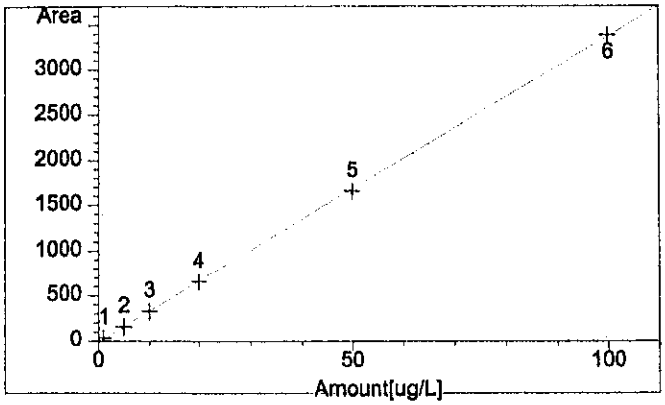
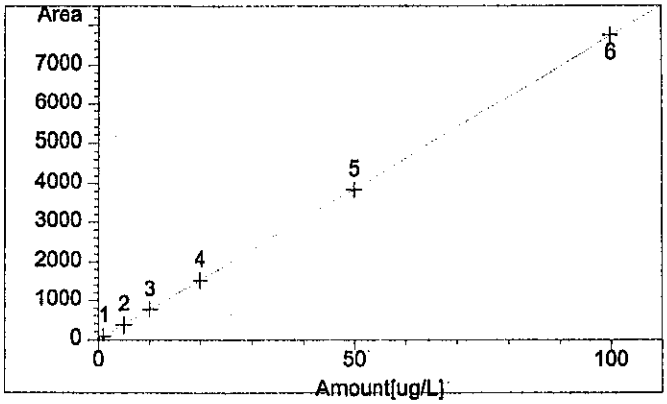


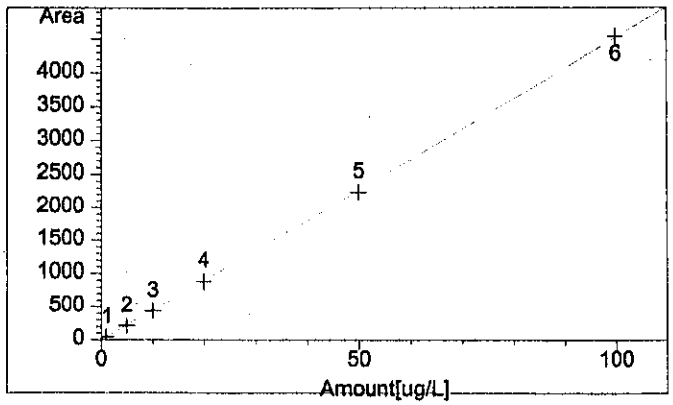
Naphthalene #1 at exp. RT: 9.462
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 20.31169
Formula: y = mx
m: 39.53164
x: Amount [ug/L]
y: Area



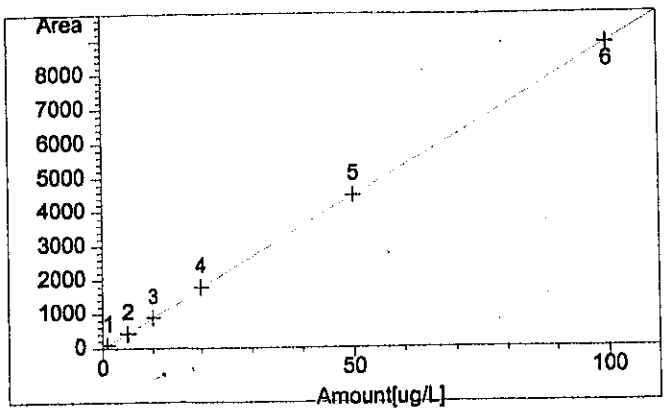
Acenaphthylene #2 at exp. RT: 11.077
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 16.38572
Formula: y = mx
m: 33.67285
x: Amount [ug/L]
y: Area



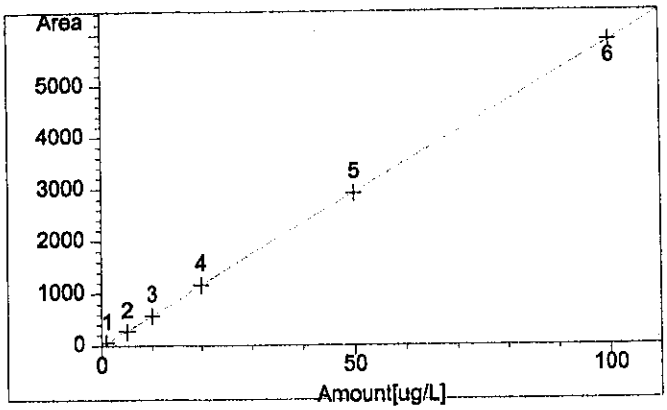
1-Methylnaphthalene #3 at exp. RT: 12.023
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 16.92039
Formula: y = mx
m: 77.24479
x: Amount [ug/L]
y: Area



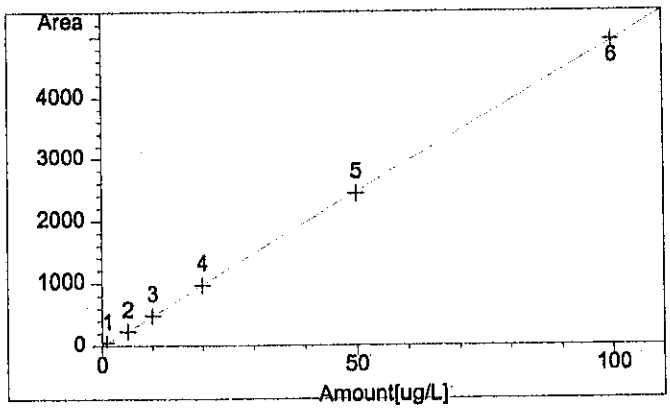
1-Methylnaphthalene #3 at exp. RT: 12.040
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 17.68985
Formula: y = mx
m: 45.18150
x: Amount [ug/L]
y: Area



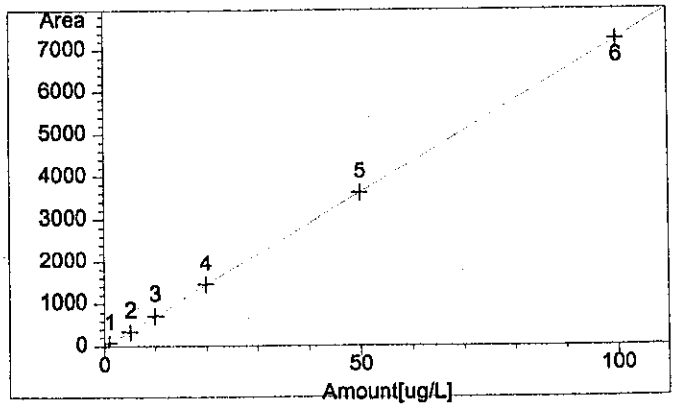
2-Methylnaphthalene #4 at exp. RT: 12.601
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99999
Residual Std. Dev.: 15.01321
Formula: y = mx
m: 88.97369
x: Amount [ug/L]
y: Area



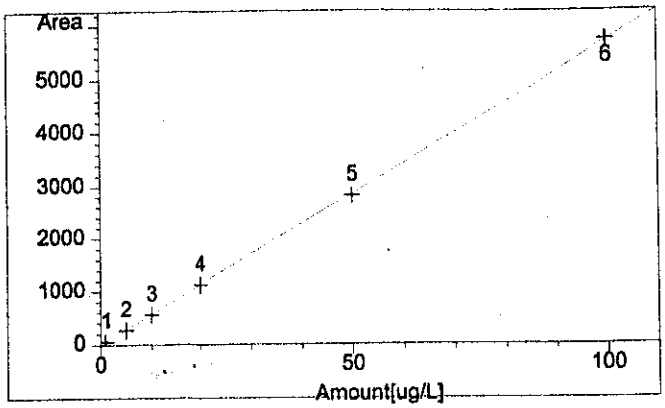
2-Methylnaphthalene #4 at exp. RT: 12.617
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 15.66561
Formula: y = mx
m: 58.60464
x: Amount [ug/L]
y: Area



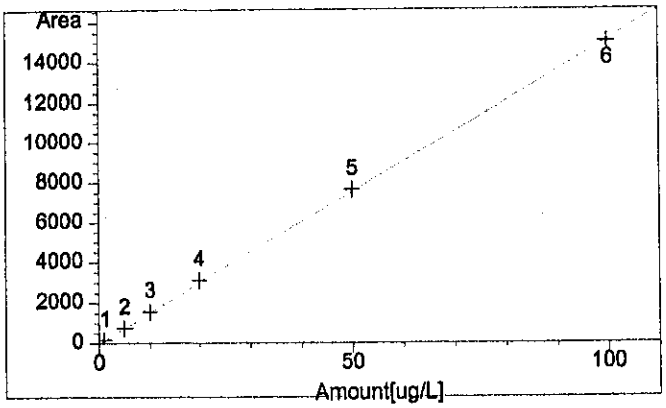
Acenaphthene #5 at exp. RT: 13.080
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 17.61841
Formula: y = mx
m: 49.22146
x: Amount [ug/L]
y: Area



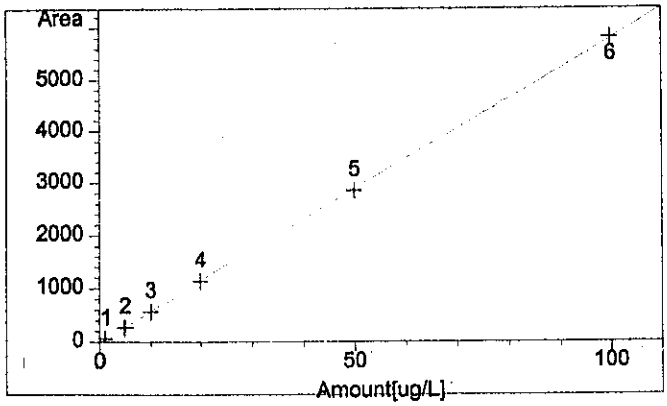
Acenaphthene #5 at exp. RT: 13.096
FLD1 A, Ex=270, Em=335, TT
Correlation: 1.00000
Residual Std. Dev.: 9.22337
Formula: y = mx
m: 72.24617
x: Amount [ug/L]
y: Area



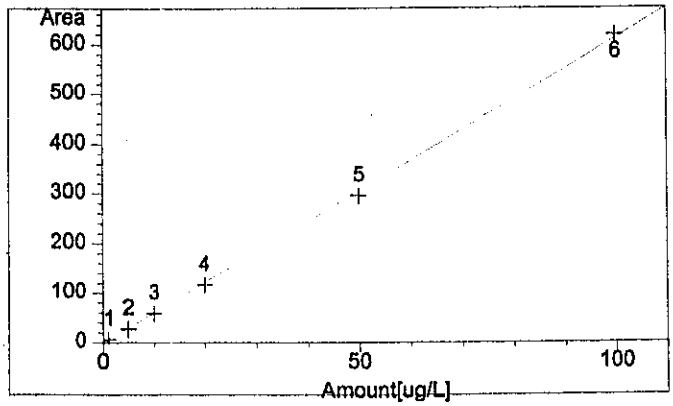
Fluorene #6 at exp. RT: 13.740
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 24.07063
Formula: y = mx
m: 57.06458
x: Amount [ug/L]
y: Area



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

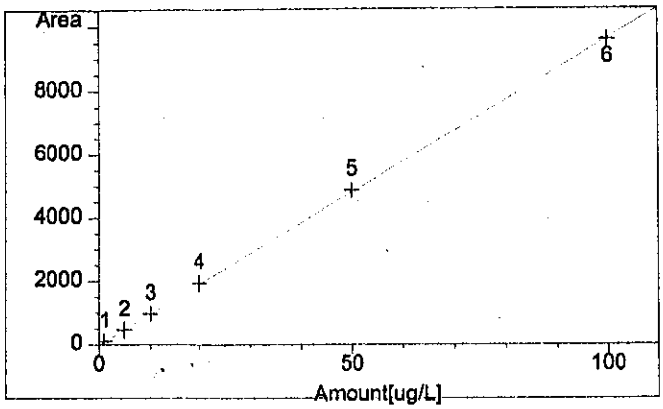


Phenanthrene #7 at exp. RT: 15.136
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 24.37539
Formula: y = mx
m: 57.80934
x: Amount [ug/L]
y: Area

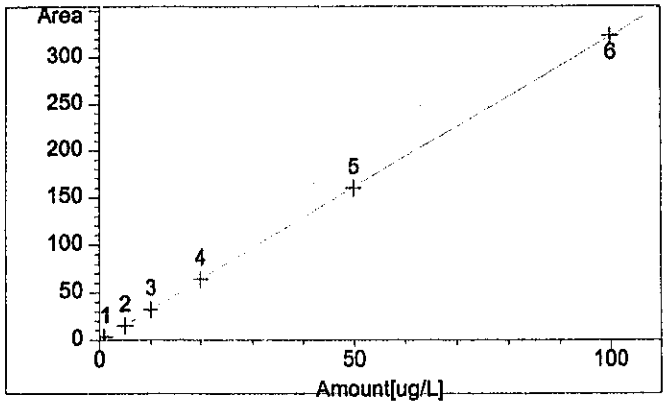


Phenanthrene #7 at exp. RT: 15.153
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99980
Residual Std. Dev.: 6.29133
Formula: y = mx
m: 6.11052
x: Amount [ug/L]
y: Area

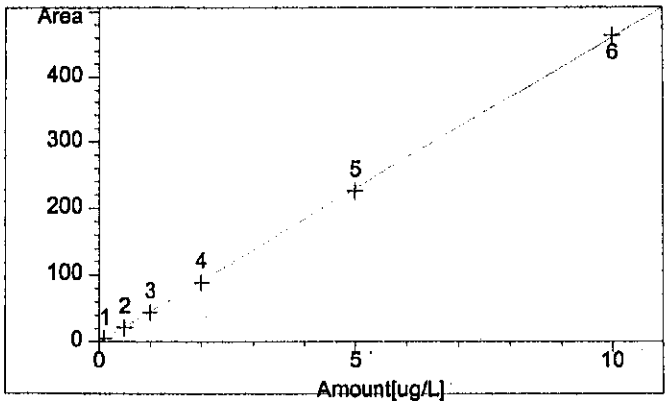
350



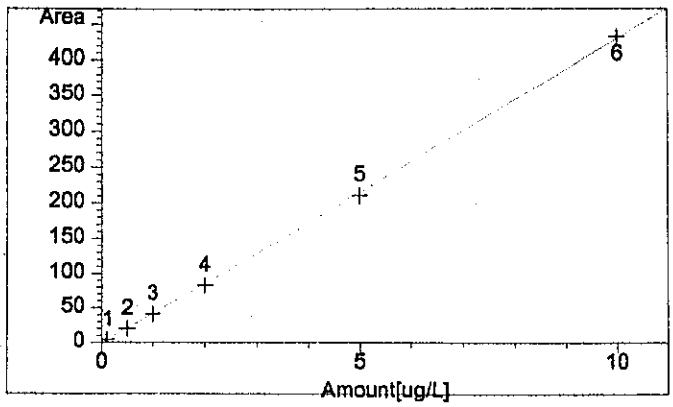
Anthracene #8 at exp. RT: 16.549
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 37.64962
Formula: y = mx
m: 95.91237
x: Amount [ug/L]
y: Area



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

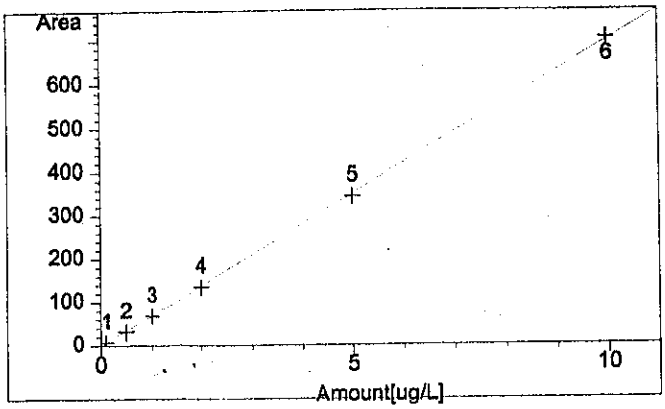


Fluoranthene #9 at exp. RT: 17.931
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 2.76207
Formula: y = mx
m: 46.08169
x: Amount [ug/L]
y: Area

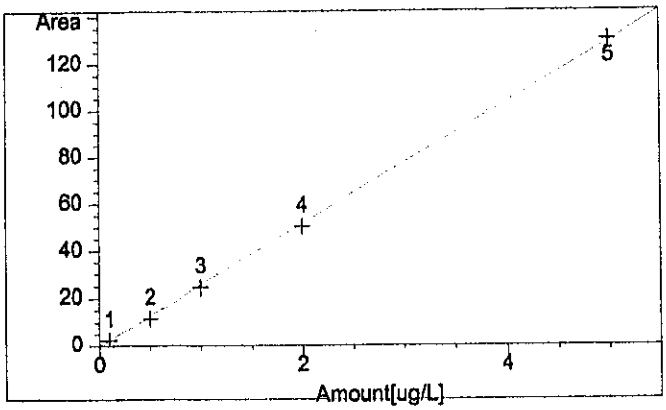


Fluoranthene #9 at exp. RT: 17.948
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 2.91025
Formula: y = mx
m: 42.97776
x: Amount [ug/L]
y: Area

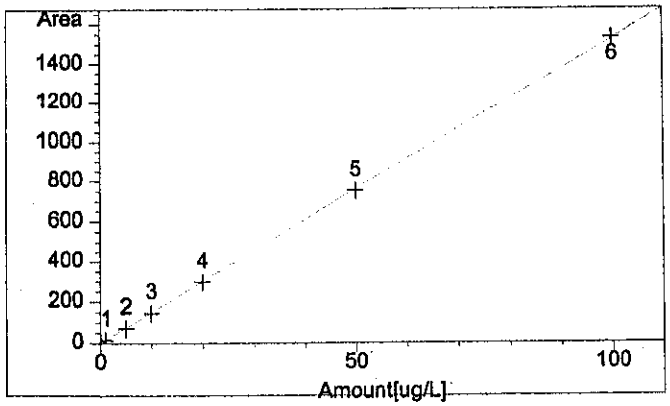
351



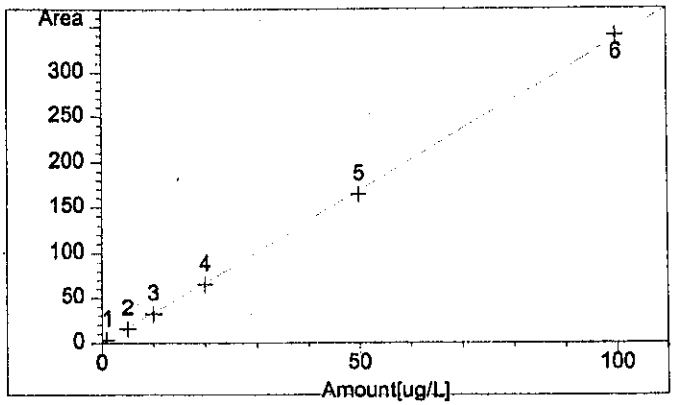
Pyrene #10 at exp. RT: 18.944
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99991
Residual Std. Dev.: 4.77268
Formula: y = mx
m: 69.90443
x: Amount [ug/L]
y: Area



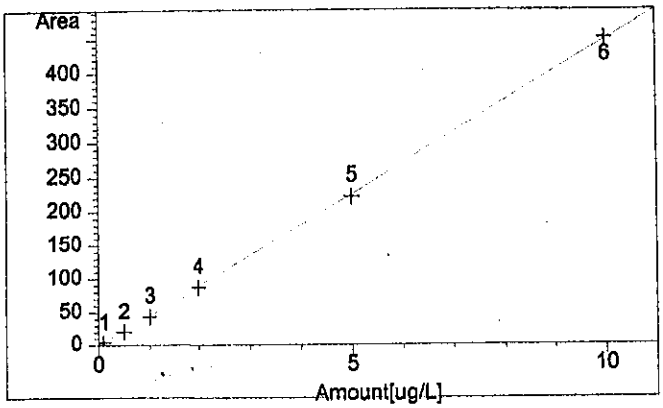
Pyrene #10 at exp. RT: 18.961
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99984
Residual Std. Dev.: 1.27317
Formula: y = mx
m: 25.86740
x: Amount [ug/L]
y: Area



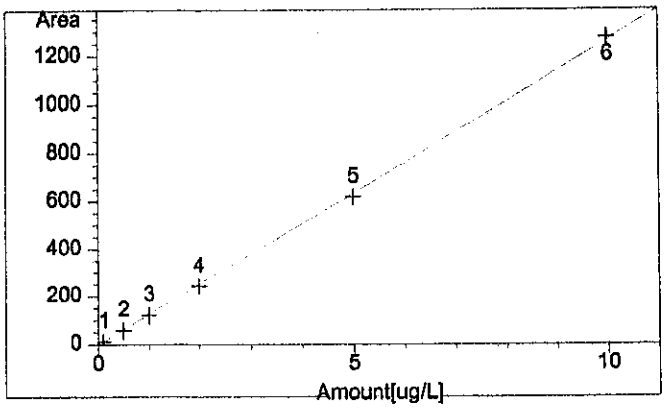
p-Terphenyl d14 #11* at exp. RT: 21.302
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99996
Residual Std. Dev.: 6.86516
Formula: y = mx
m: 15.22690
x: Amount [ug/L]
y: Area



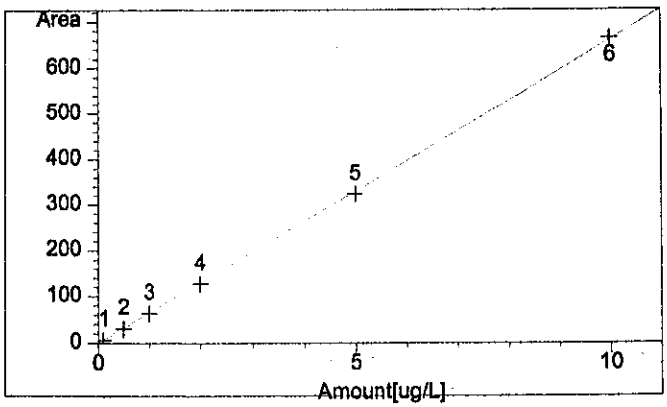
p-Terphenyl d14 #11* at exp. RT: 21.319
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99986
Residual Std. Dev.: 2.82593
Formula: y = mx
m: 3.36222
x: Amount [ug/L]
y: Area



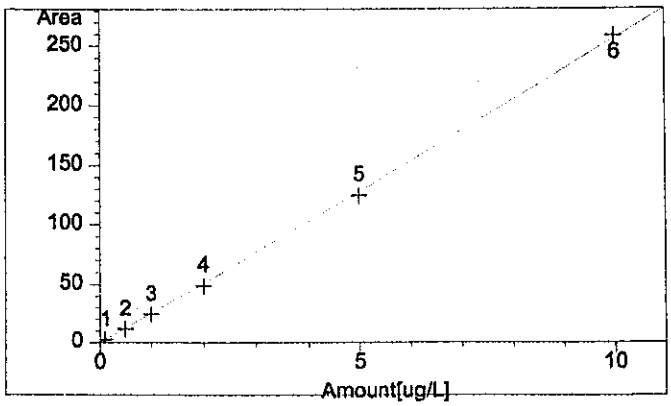
Benzo(a)anthracene #12 at exp. RT: 22.628
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.50958
Formula: y = mx
m: 44.90461
x: Amount[ug/L]
y: Area



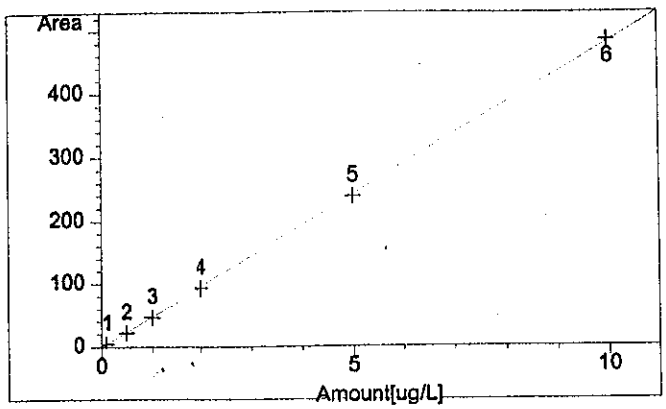
Benzo(a)anthracene #12 at exp. RT: 22.644
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99987
Residual Std. Dev.: 10.41817
Formula: y = mx
m: 126.38133
x: Amount[ug/L]
y: Area



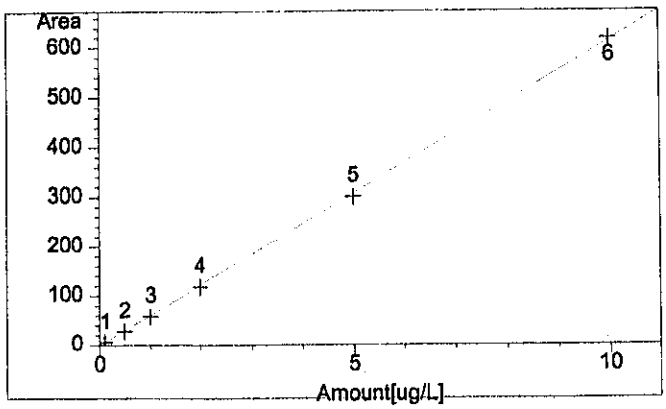
Chrysene #13 at exp. RT: 23.513
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 3.93530
Formula: y = mx
m: 66.02710
x: Amount[ug/L]
y: Area



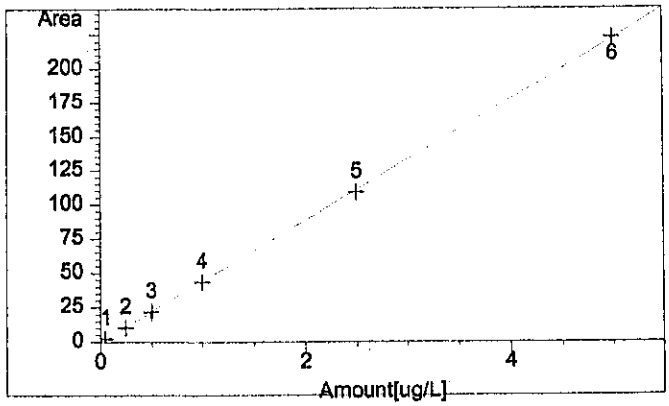
Chrysene #13 at exp. RT: 23.528
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99983
Residual Std. Dev.: 2.41557
Formula: y = mx
m: 25.60849
x: Amount[ug/L]
y: Area



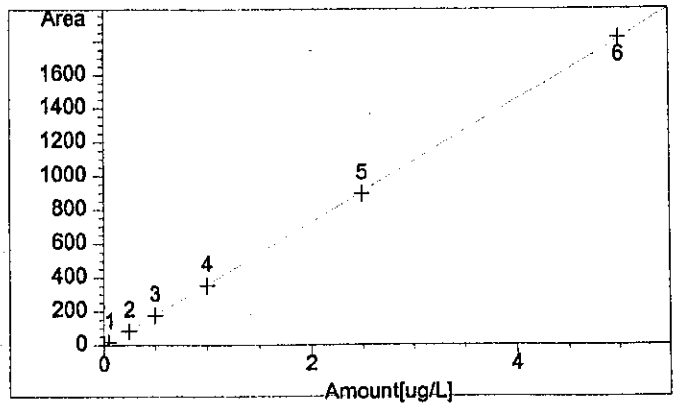
Benzo(b)fluoranthene #14 at exp. RT: 26.2
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99994
Residual Std. Dev.: 2.80032
Formula: y = mx
m: 48.23233
x: Amount[ug/L]
y: Area



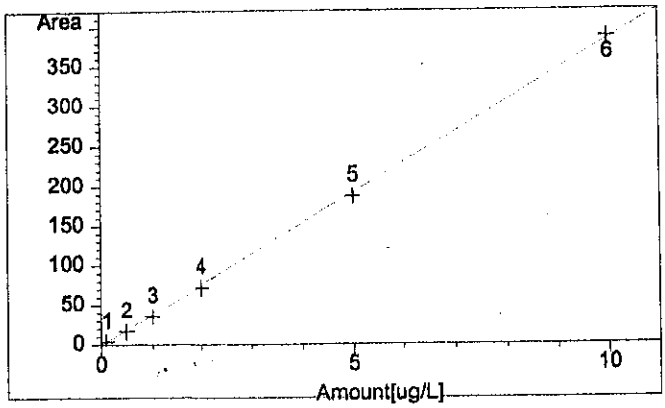
Benzo(b)fluoranthene #14 at exp. RT: 26.2
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 4.39762
Formula: y = mx
m: 61.26633
x: Amount[ug/L]
y: Area



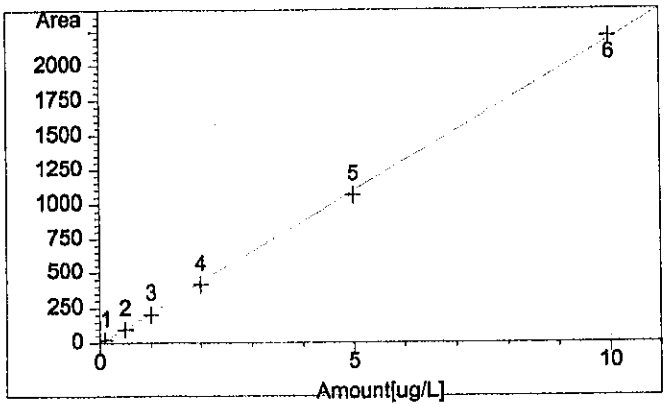
Benzo(k)fluoranthene #15 at exp. RT: 27.6
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99995
Residual Std. Dev.: 1.11632
Formula: y = mx
m: 44.27975
x: Amount[ug/L]
y: Area



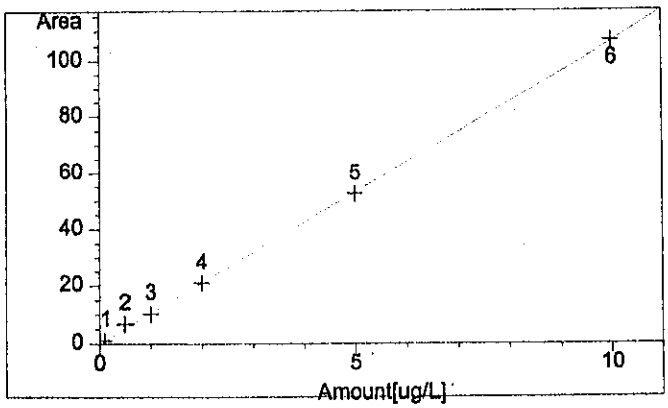
Benzo(k)fluoranthene #15 at exp. RT: 27.7
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 7.24438
Formula: y = mx
m: 361.57005
x: Amount[ug/L]
y: Area



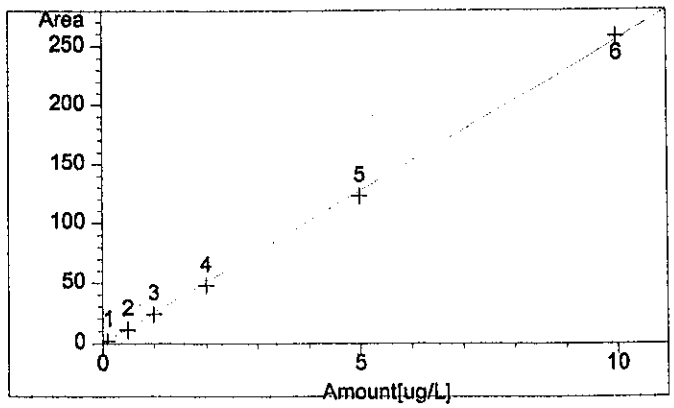
Benzo(a)pyrene #16 at exp. RT: 28.826
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 3.72397
Formula: y = mx
m: 38.21458
x: Amount[ug/L]
y: Area



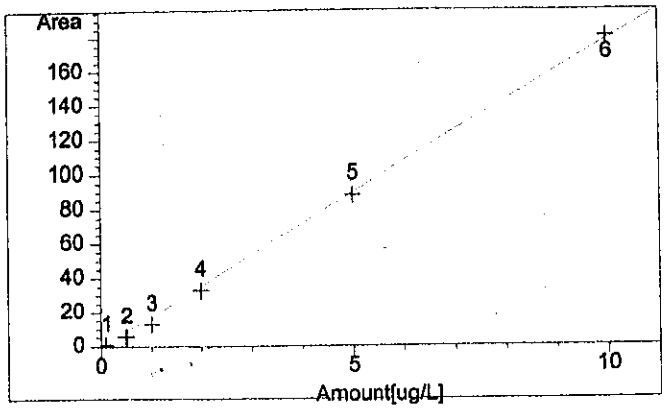
Benzo(a)pyrene #16 at exp. RT: 28.843
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99981
Residual Std. Dev.: 21.63108
Formula: y = mx
m: 218.76141
x: Amount[ug/L]
y: Area



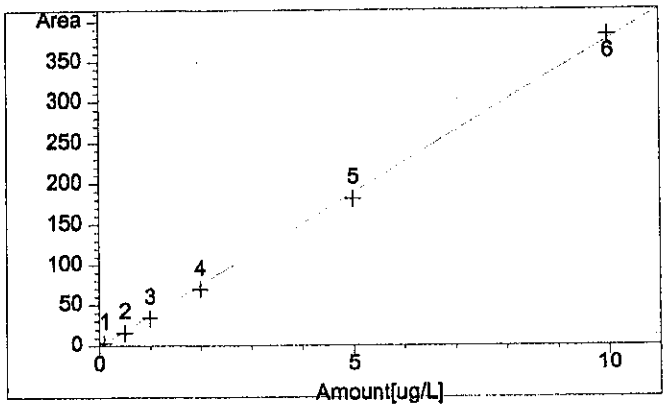
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99990
Residual Std. Dev.: 0.75986
Formula: y = mx
m: 10.62568
x: Amount[ug/L]
y: Area



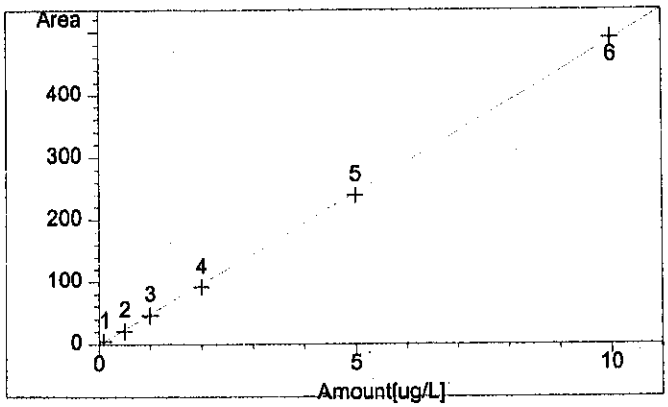
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99975
Residual Std. Dev.: 2.88961
Formula: y = mx
m: 25.41325
x: Amount[ug/L]
y: Area



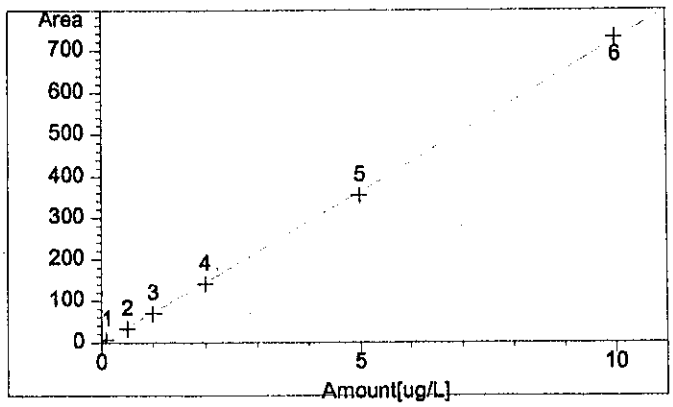
Benzo(g,h,i)perylene #18 at exp. RT: 31.5
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99945
Residual Std. Dev.: 3.03261
Formula: y = mx
m: 17.83074
x: Amount[ug/L]
y: Area



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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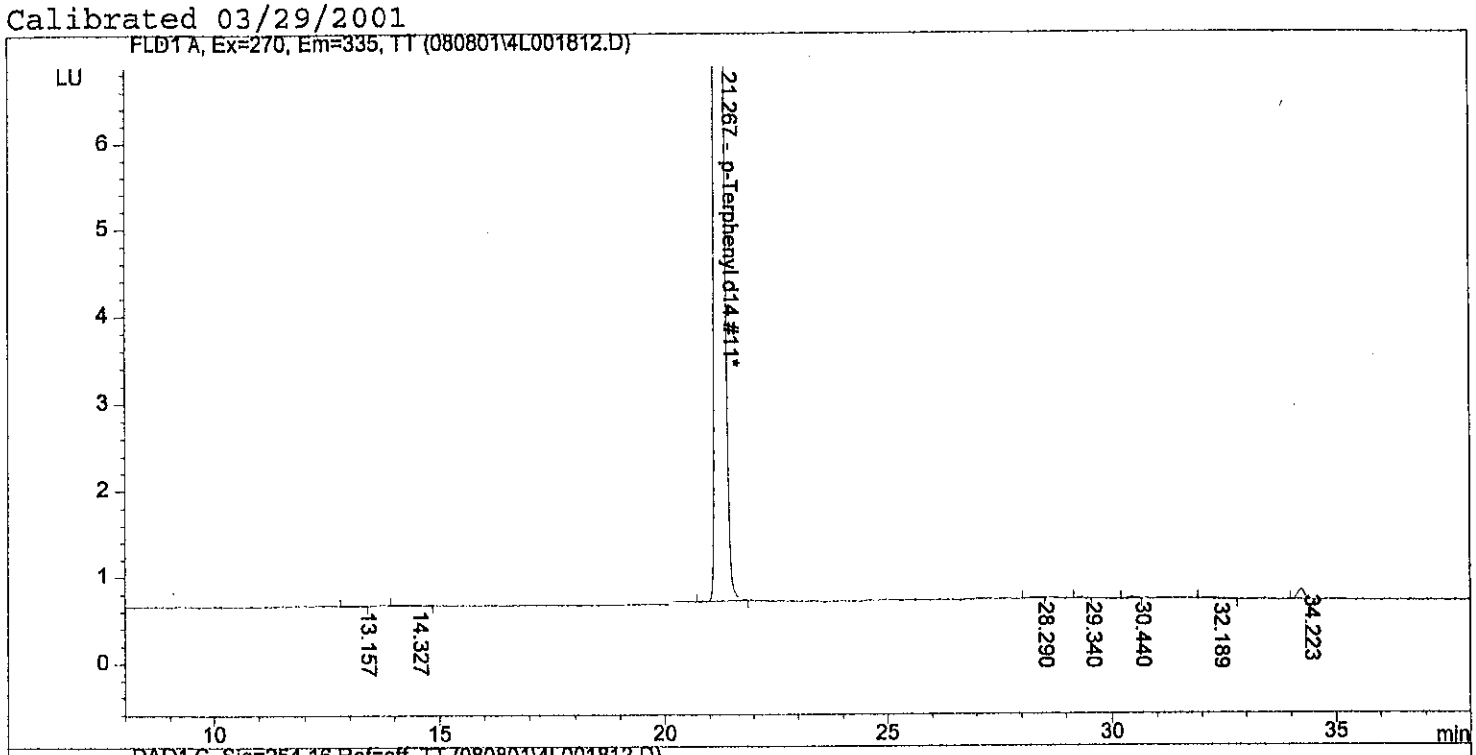
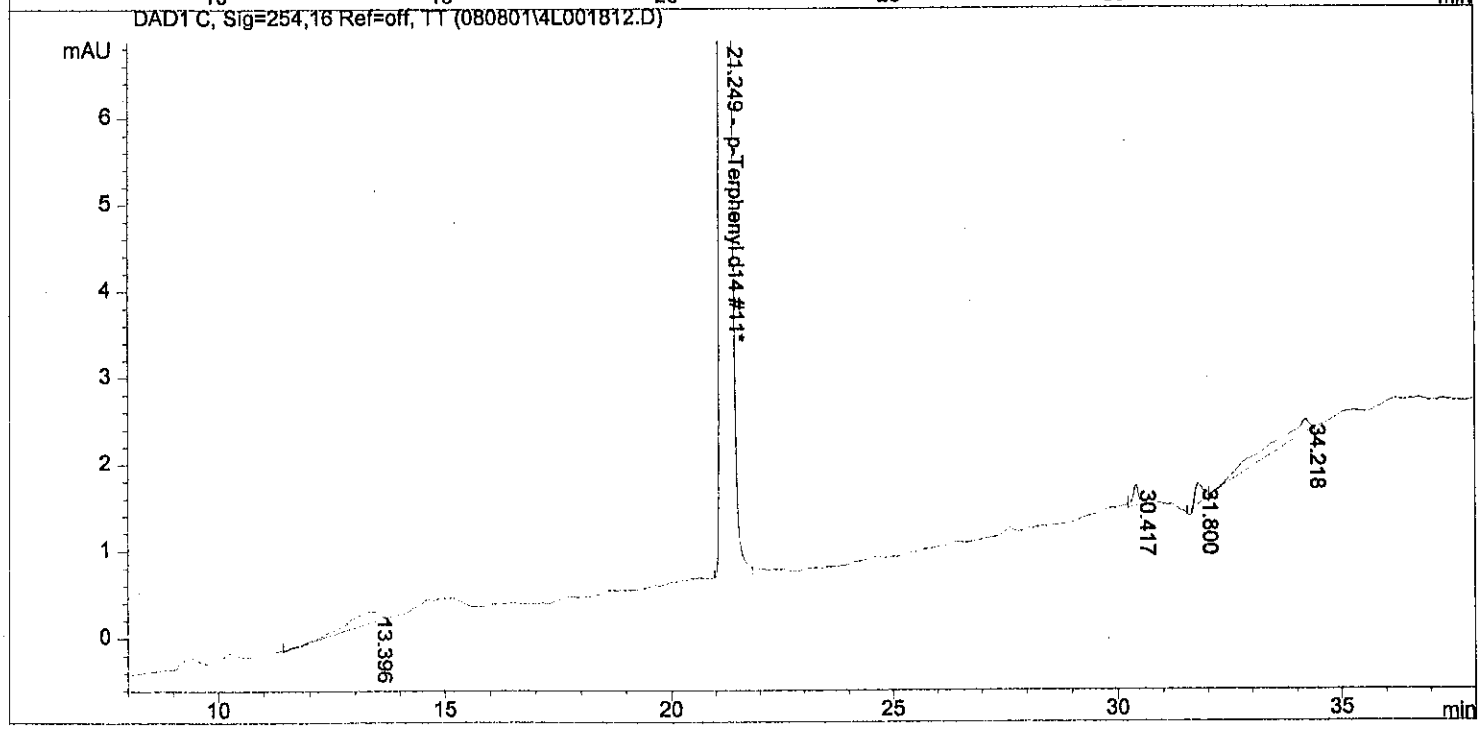
Injection Date	: 8/8/2001 9:48:17 PM	Seq. Line	: 8
Sample Name	: 8310surr6/54-35	Vial	: 5
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl
Acq. Method	: C:\HPCHEM\2\METHODS\8310.M		
Last changed	: 3/29/2001 3:04:50 PM by RDC		
Analysis Method	: C:\HPCHEM\2\METHODS\8310DATA.M		
Last changed	: 8/9/2001 12:12:11 PM by RDC (modified after loading)		

Calibrated 03/29/2001





Data File C:\HPCHEM\2\DATA\080801\4L001812.D Sample Name: 8310Sul16/54-55

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External Standard Report

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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 Sample Name: 8310Bu116/54-55

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
				-		Benzo(g,h,i)perylene #18
31.579		-	-	-		Indeno(1,2,3-cd)pyrene #1
32.492		-	-	-		
Totals :				97.40433		

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibrated compound(s) not found

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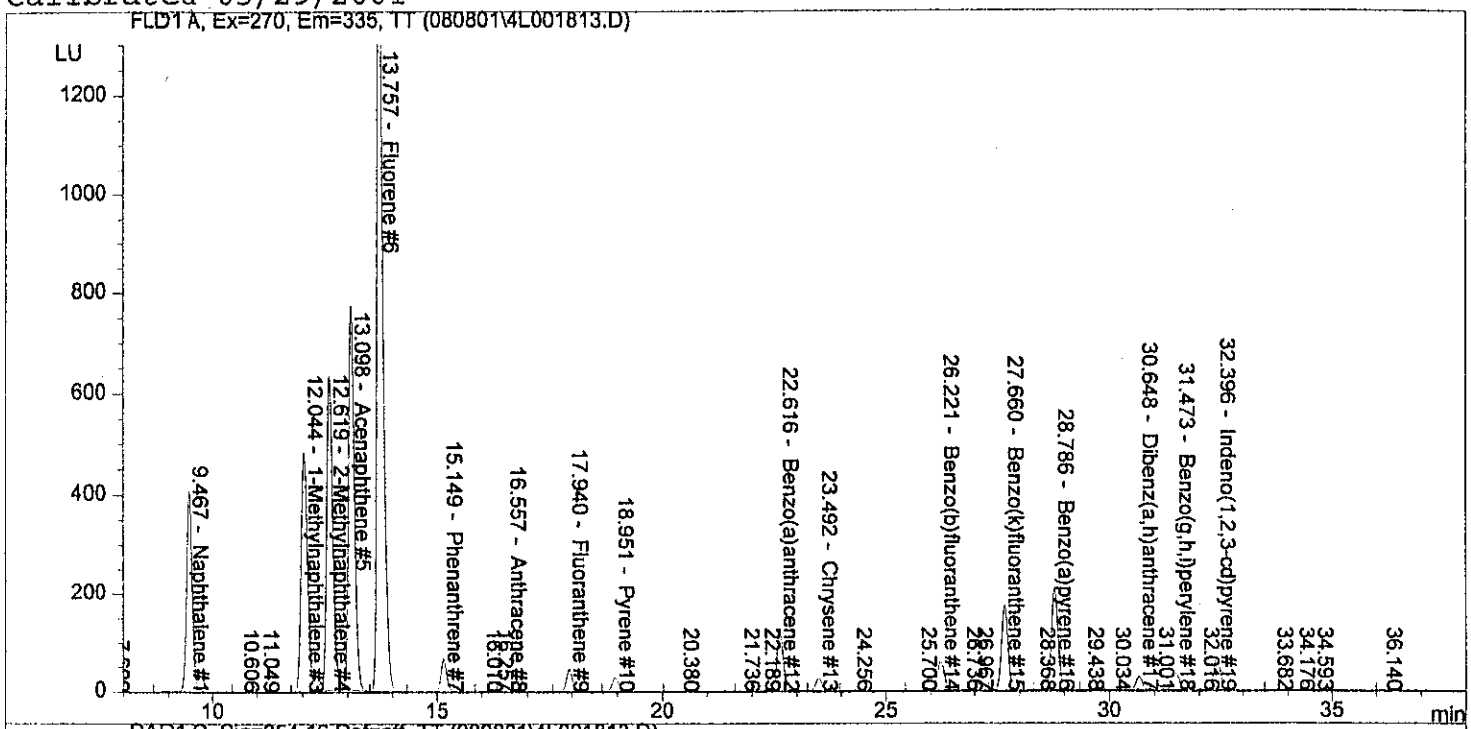
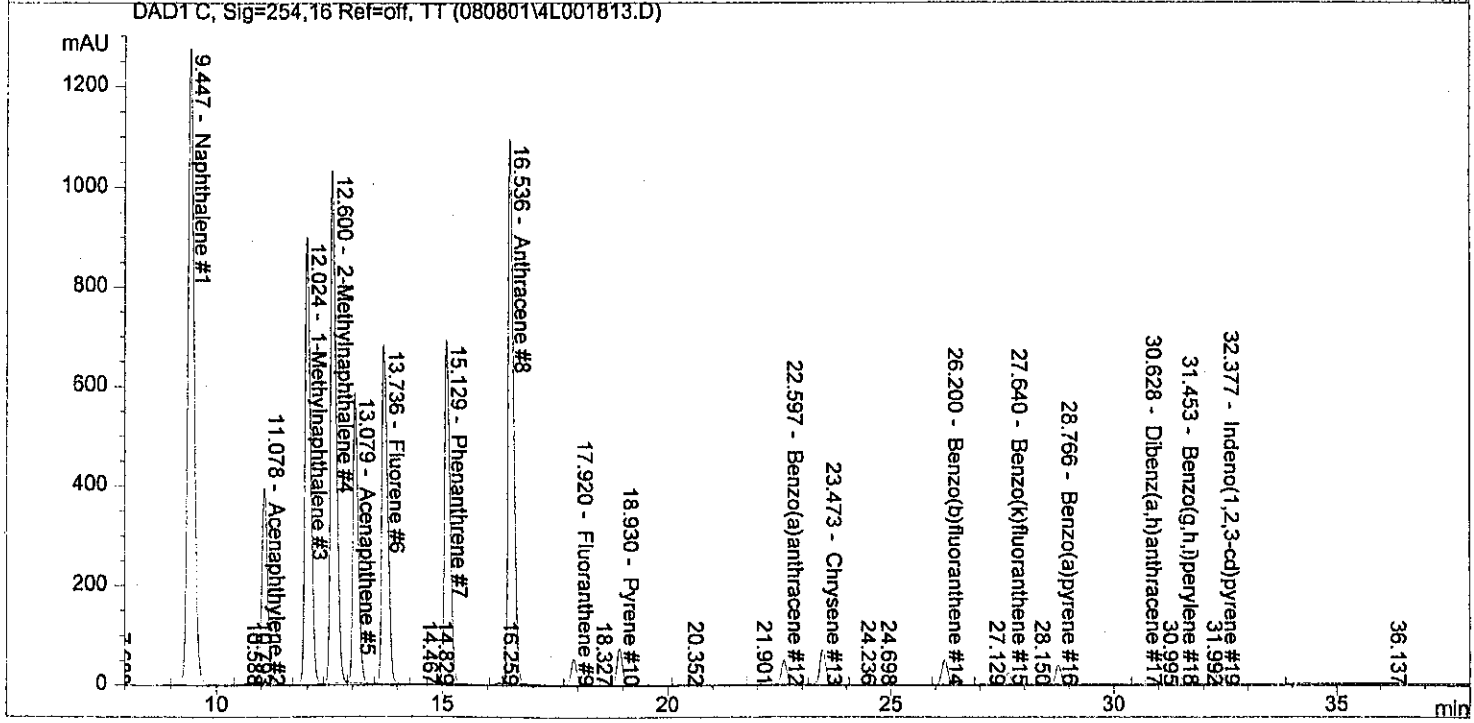
*** End of Report ***

Injection Date	: 8/8/2001 10:44:56 PM	Seq. Line	: 9
Sample Name	: 8310 std 6/53-25	Vial	: 6
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 12:22:54 PM by RDC (modified after loading)		

Calibrated 03/29/2001





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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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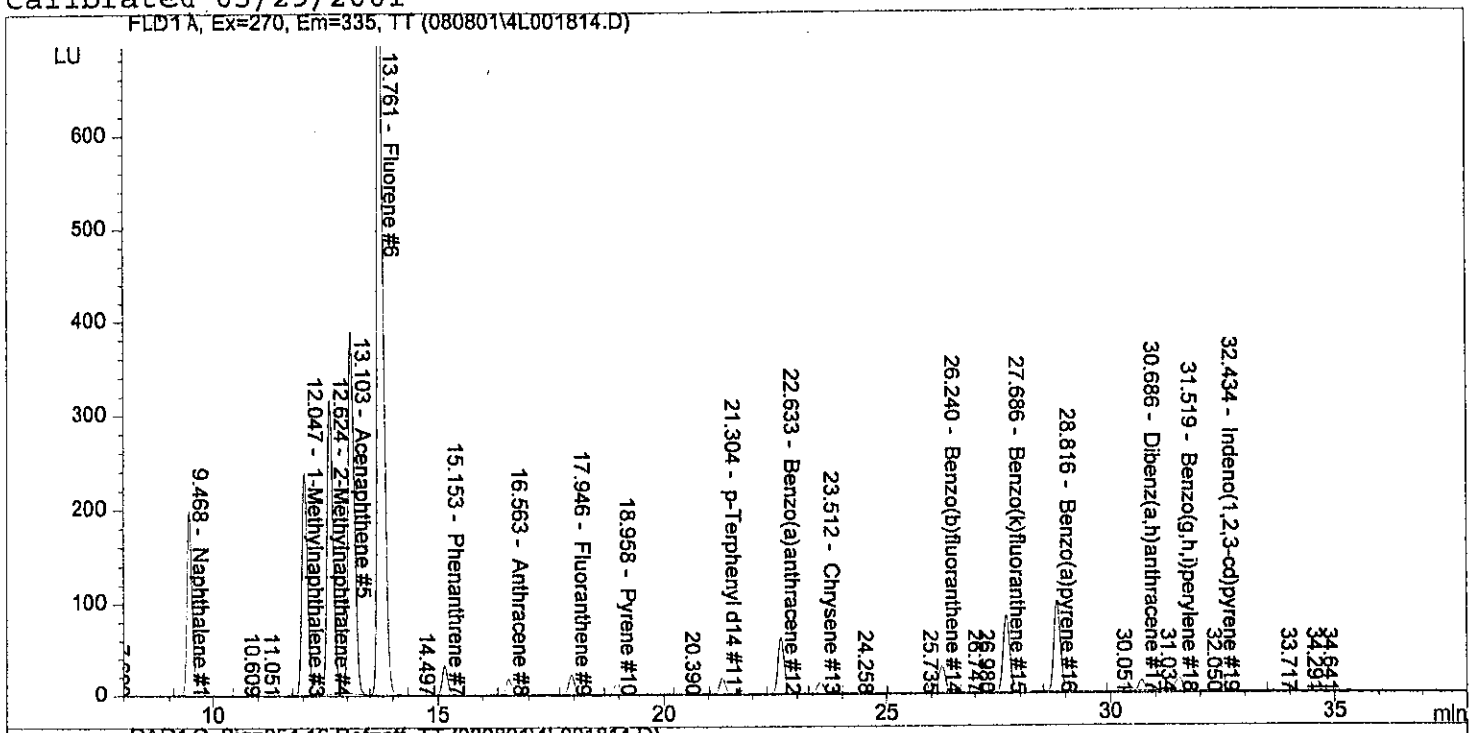
*** End of Report ***

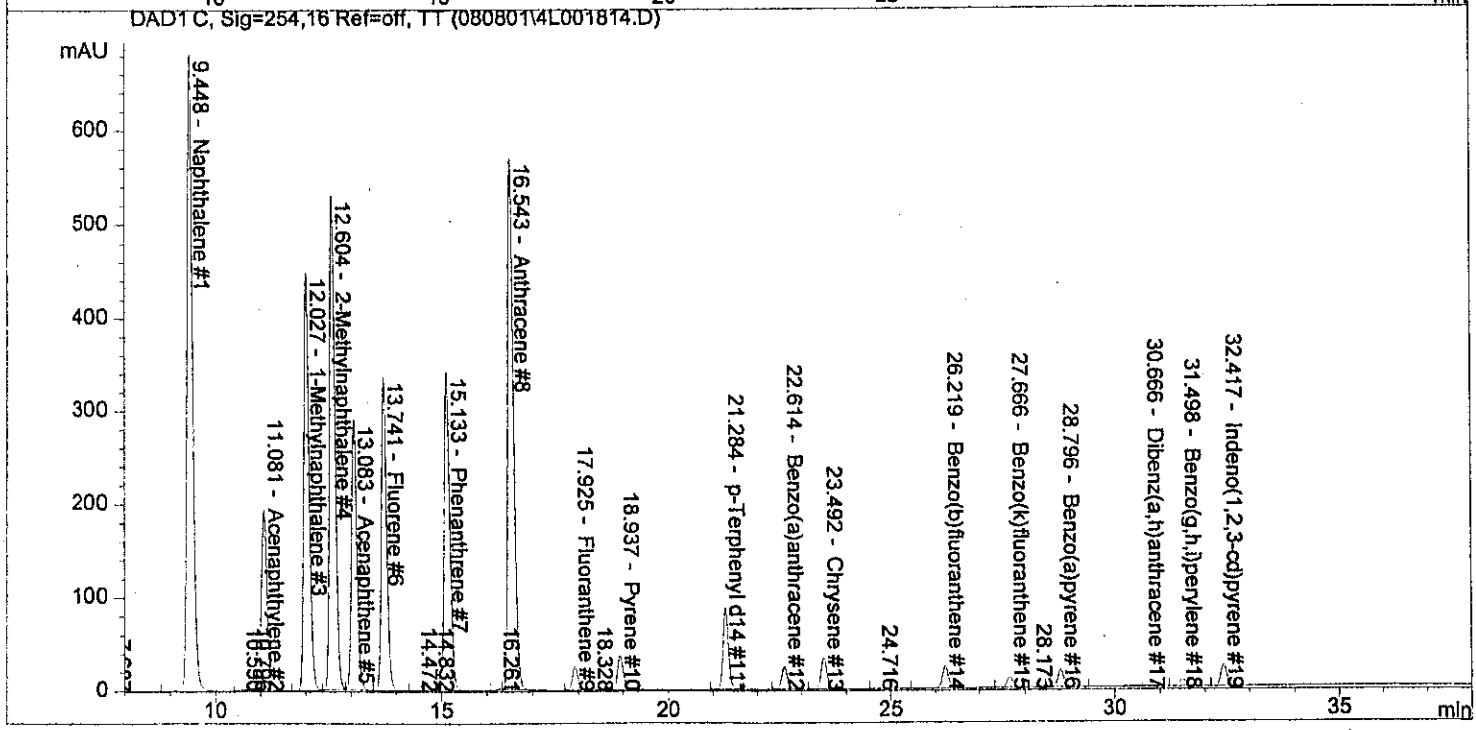
Injection Date : 8/8/2001 11:41:36 PM
Sample Name : 8310 std 5/53-25
Acq. Operator : RDC

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





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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]

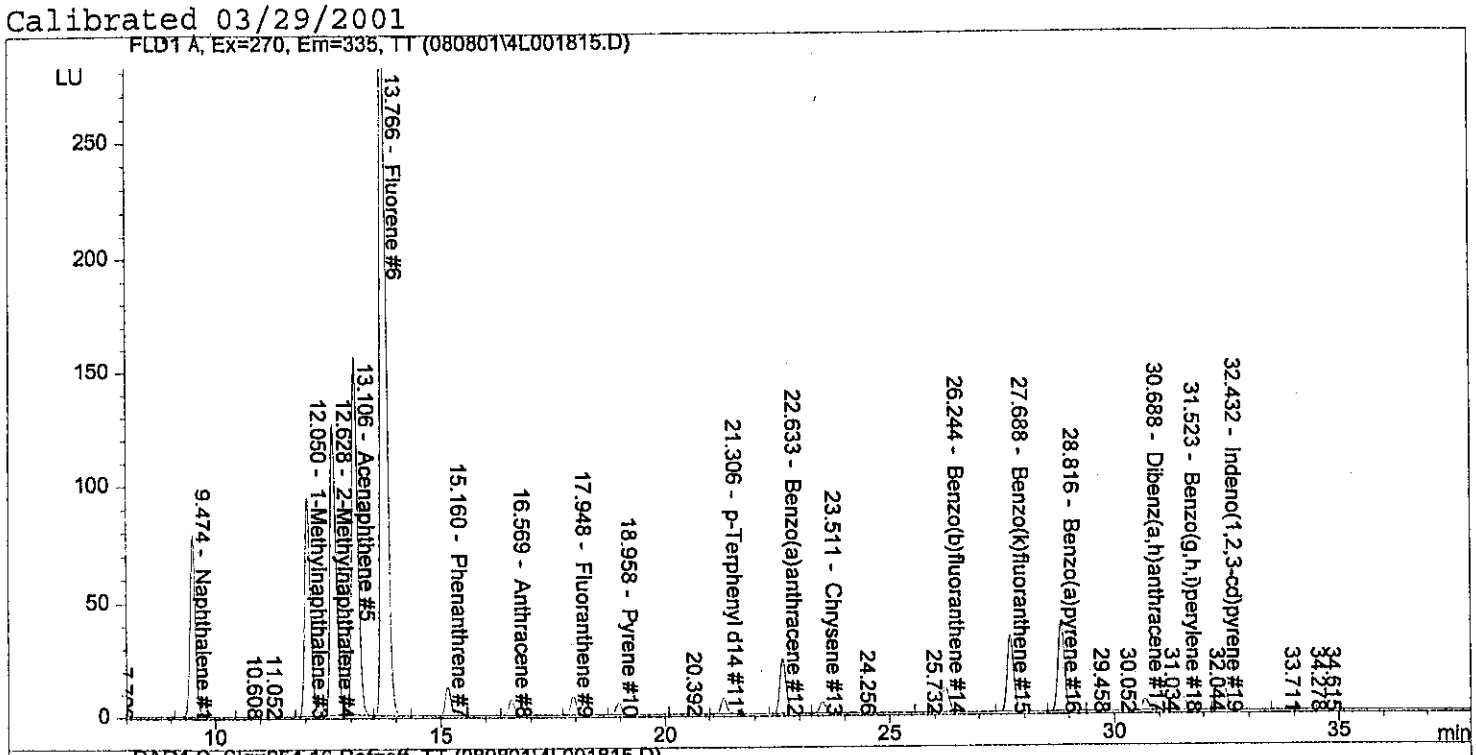
RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.498	BB	87.58637	5.62695e-2	4.92844		Benzo(g,h,i)perylene #18
32.417	BBA	239.26749	2.05571e-2	4.91865		Indeno(1,2,3-cd)pyrene #1
Totals :				495.27231		

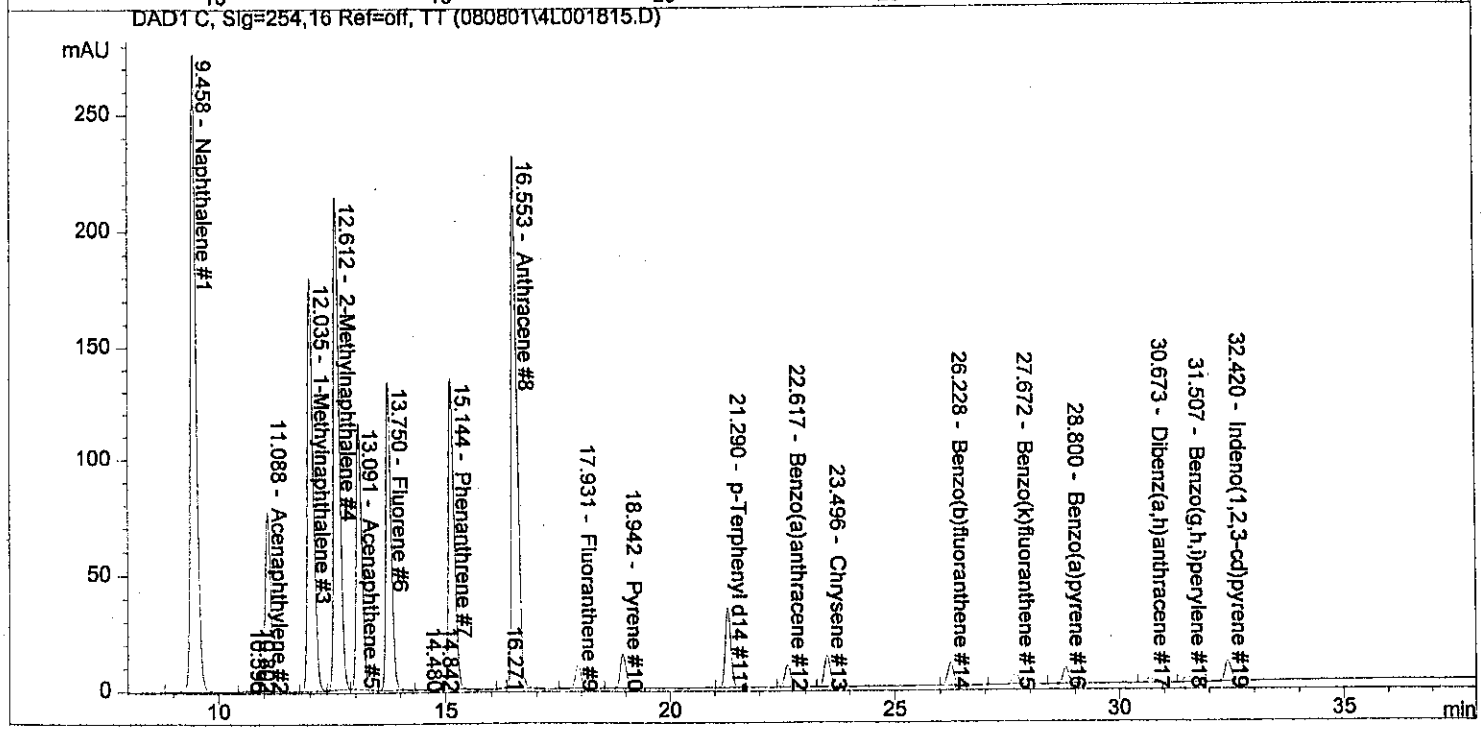
Results obtained with enhanced integrator!

*** End of Report ***

Injection Date	: 8/9/2001 12:38:12 AM	Seq. Line	: 11
Sample Name	: 8310 std 4/53-25	Vial	: 8
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 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 Sample Name: [illegible]

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!

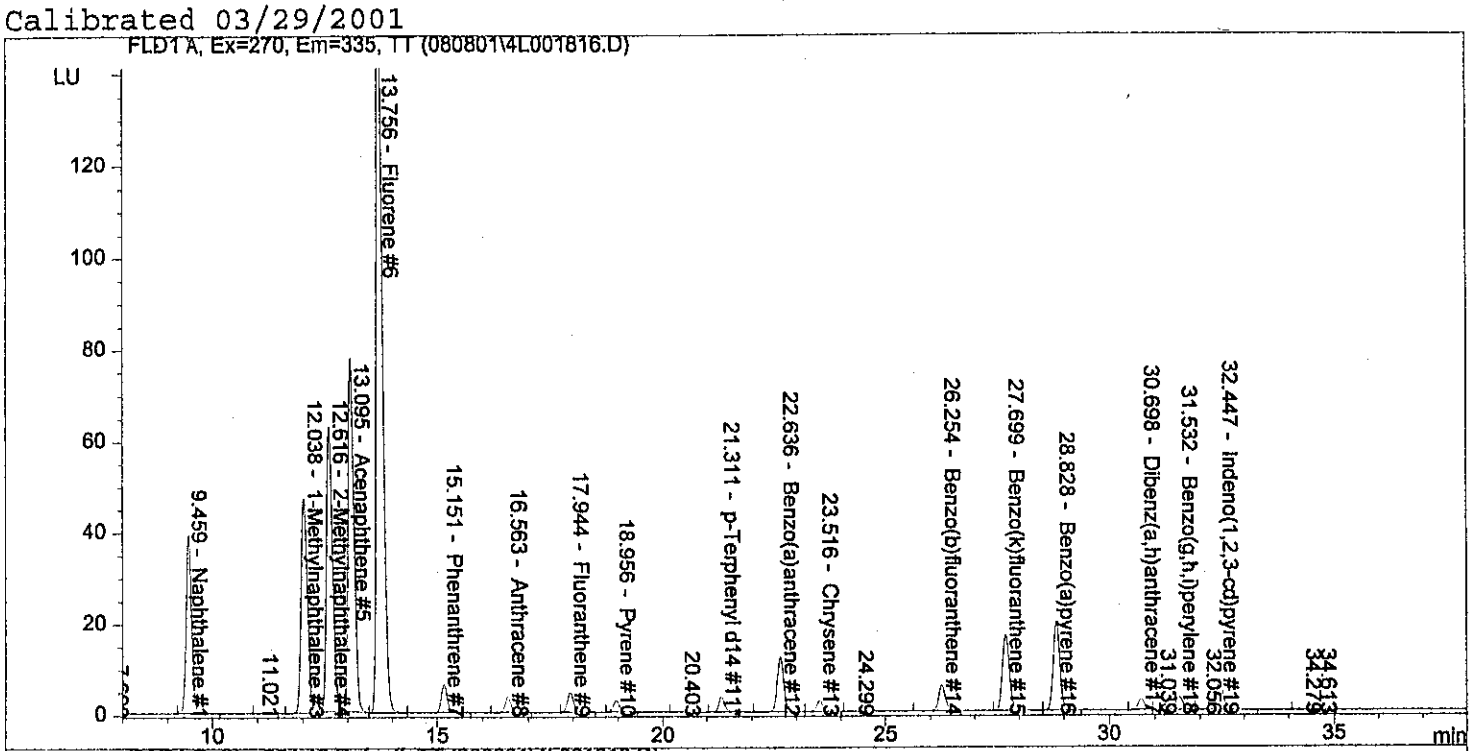
*** End of Report ***

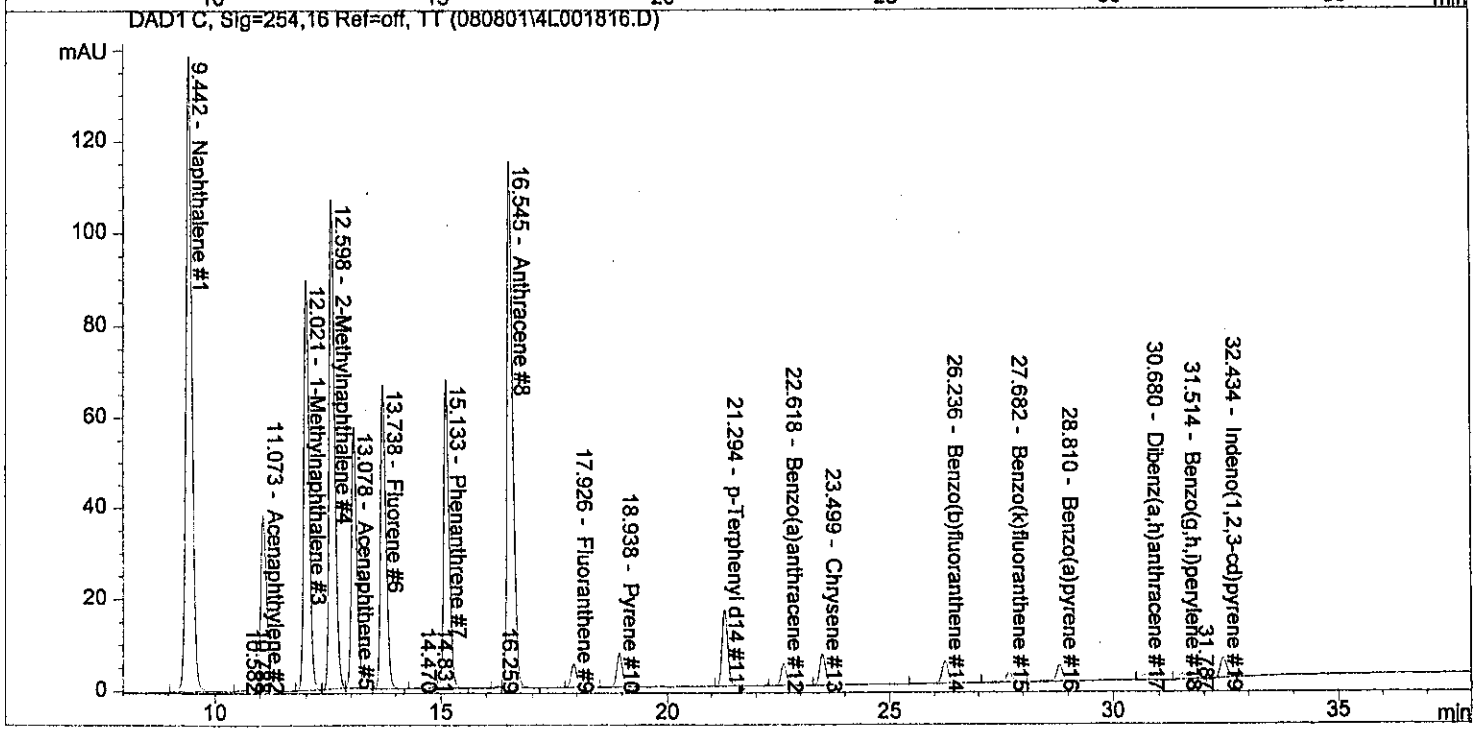
Injection Date : 8/9/2001 1:34:48 AM
Sample Name : 8310 std 3/53-25
Acq. Operator : RDC

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





Data File C:\HPCHEM\2\DATA\080801\4L001816.D Sample Name: 8310 Std 5/55-25

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External Standard Report

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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\DATA\080801\4B0[illegible].D

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!

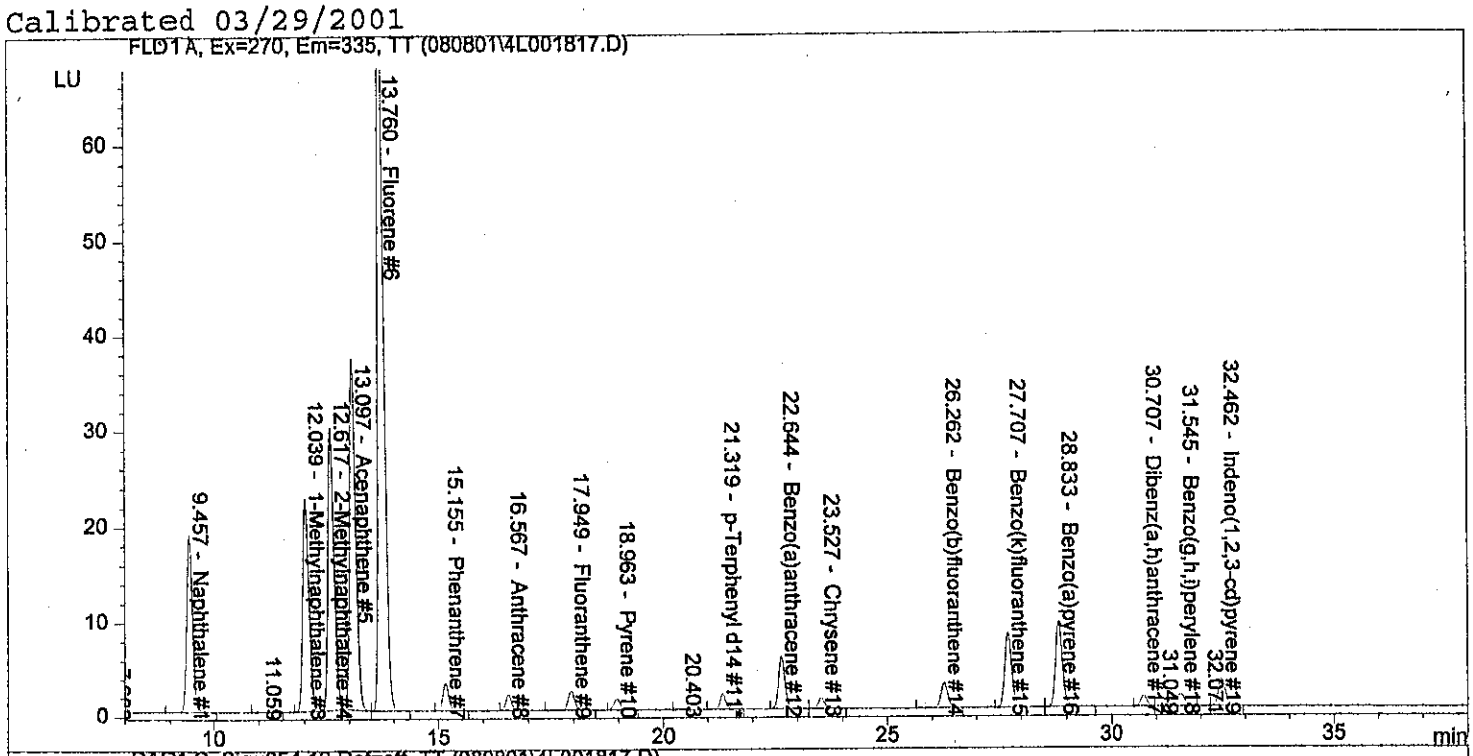
*** End of Report ***

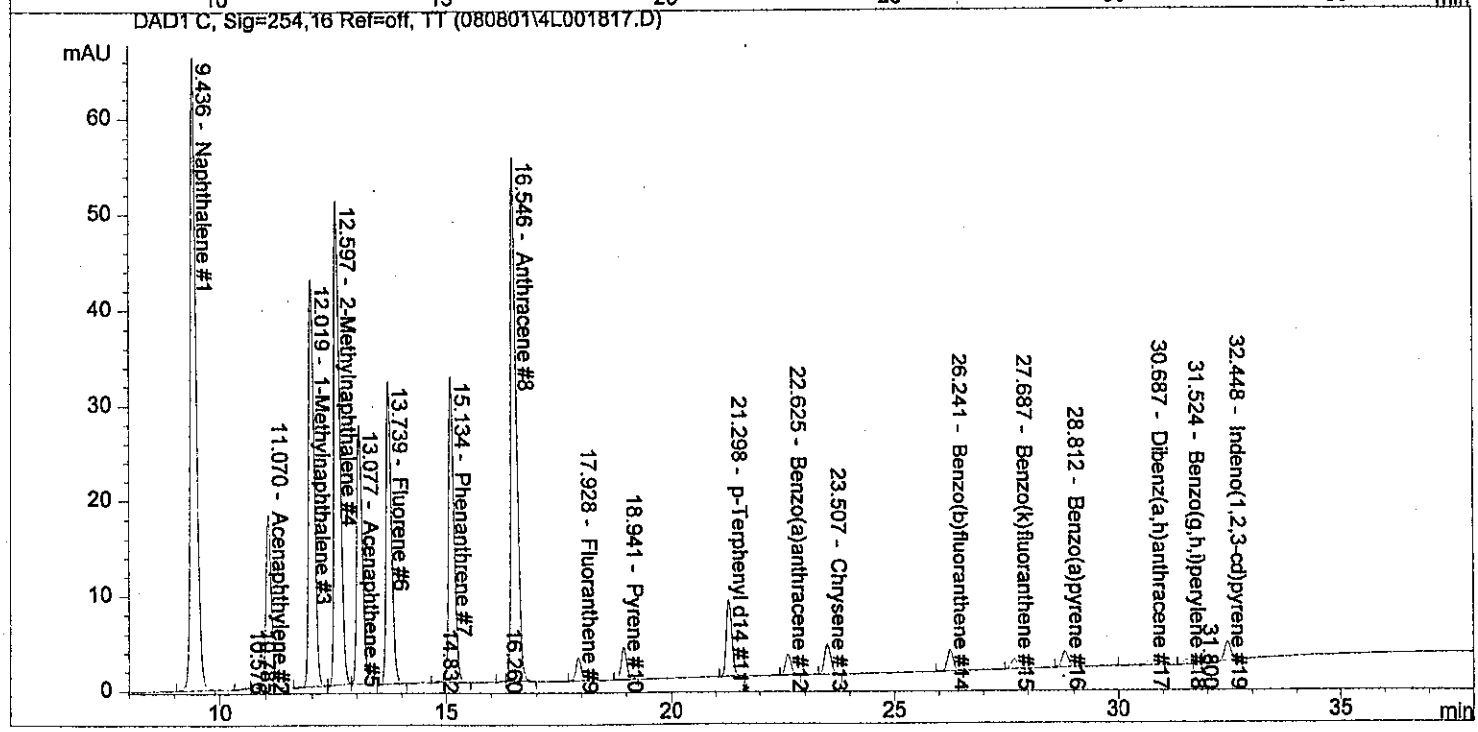
Injection Date : 8/9/2001 2:31:25 AM
Sample Name : 8310 std 2/53-25
Acq. Operator : RDC

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

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 Sample Name: [illegible]

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!

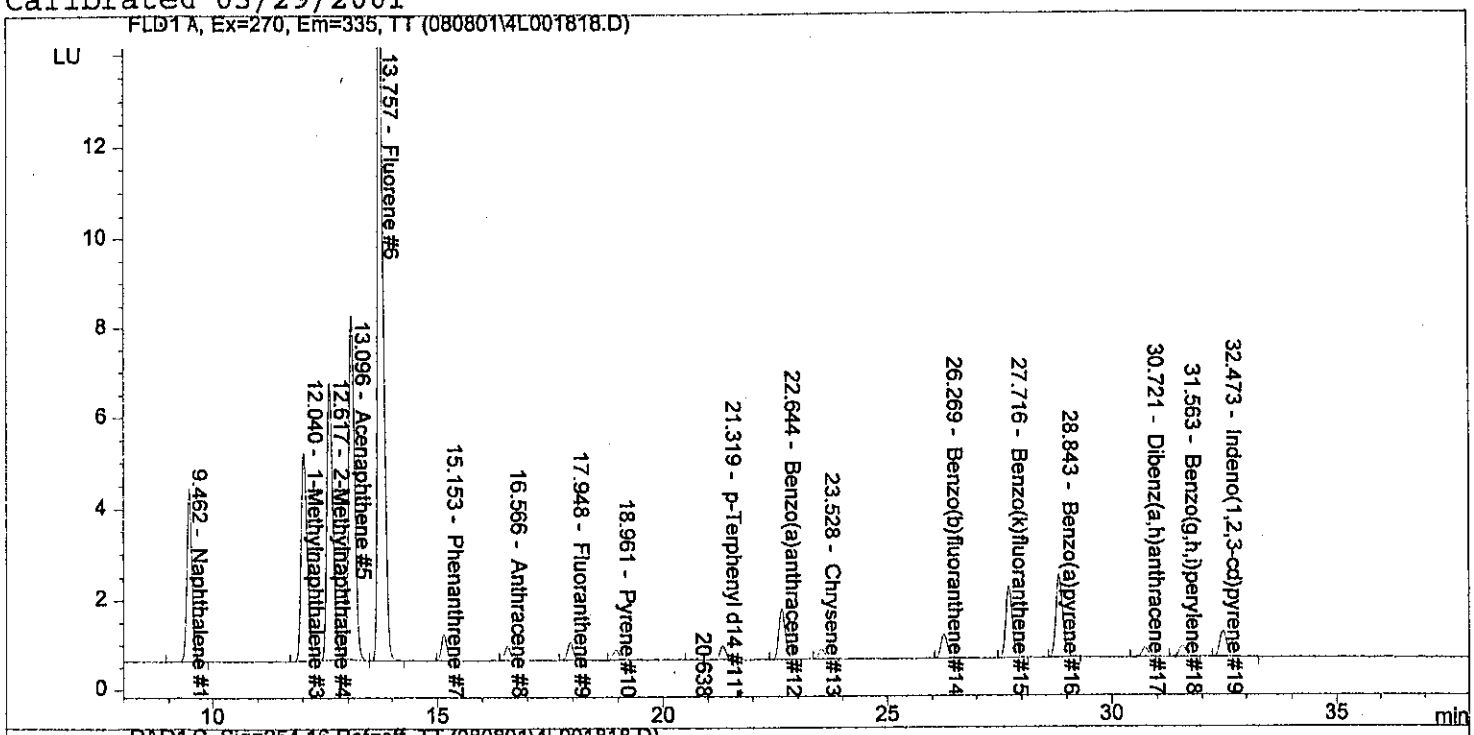
*** End of Report ***

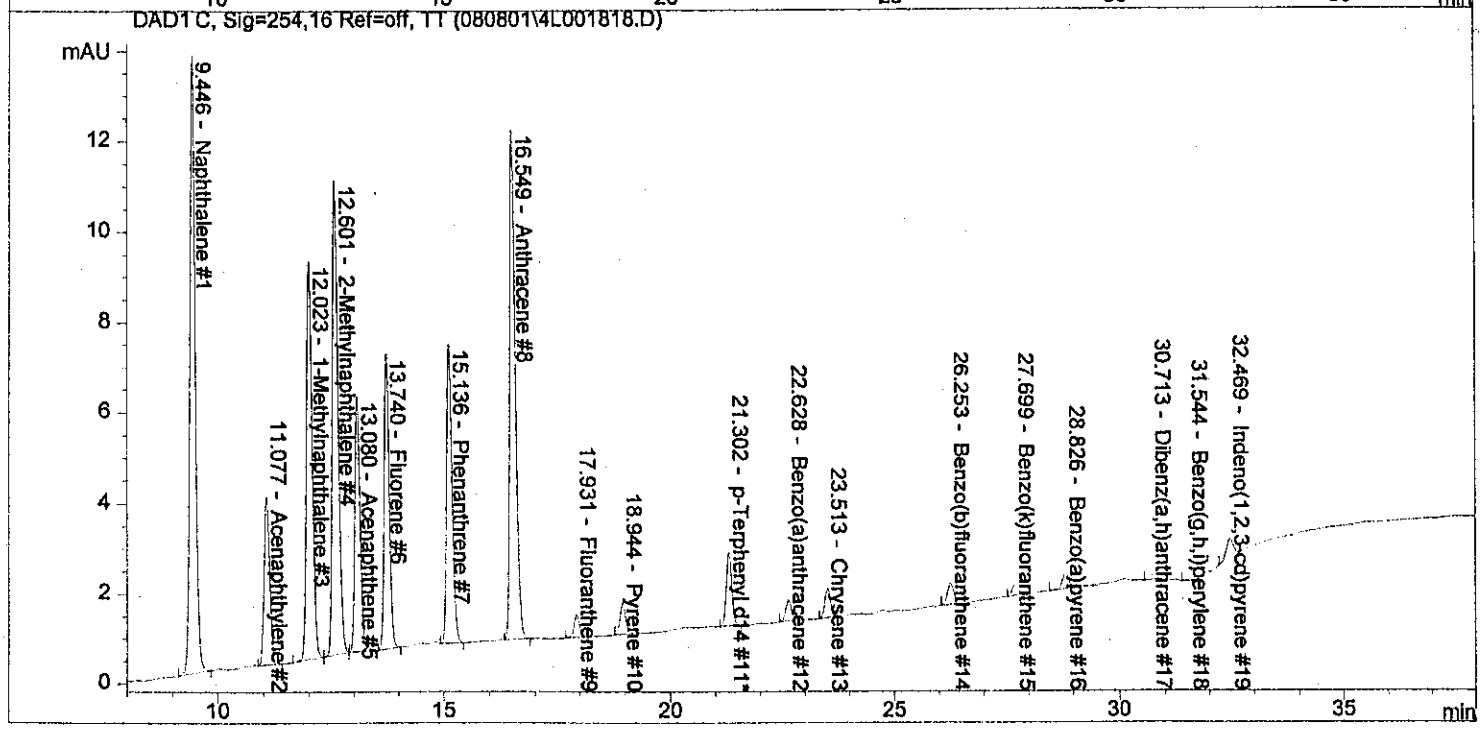
Injection Date : 8/9/2001 3:28:00 AM
Sample Name : 8310 std 1/53-25
Acq. Operator : RDC

Seq. Line : 14
Vial : 11
Inj : 1
Inj Volume : 8 µl

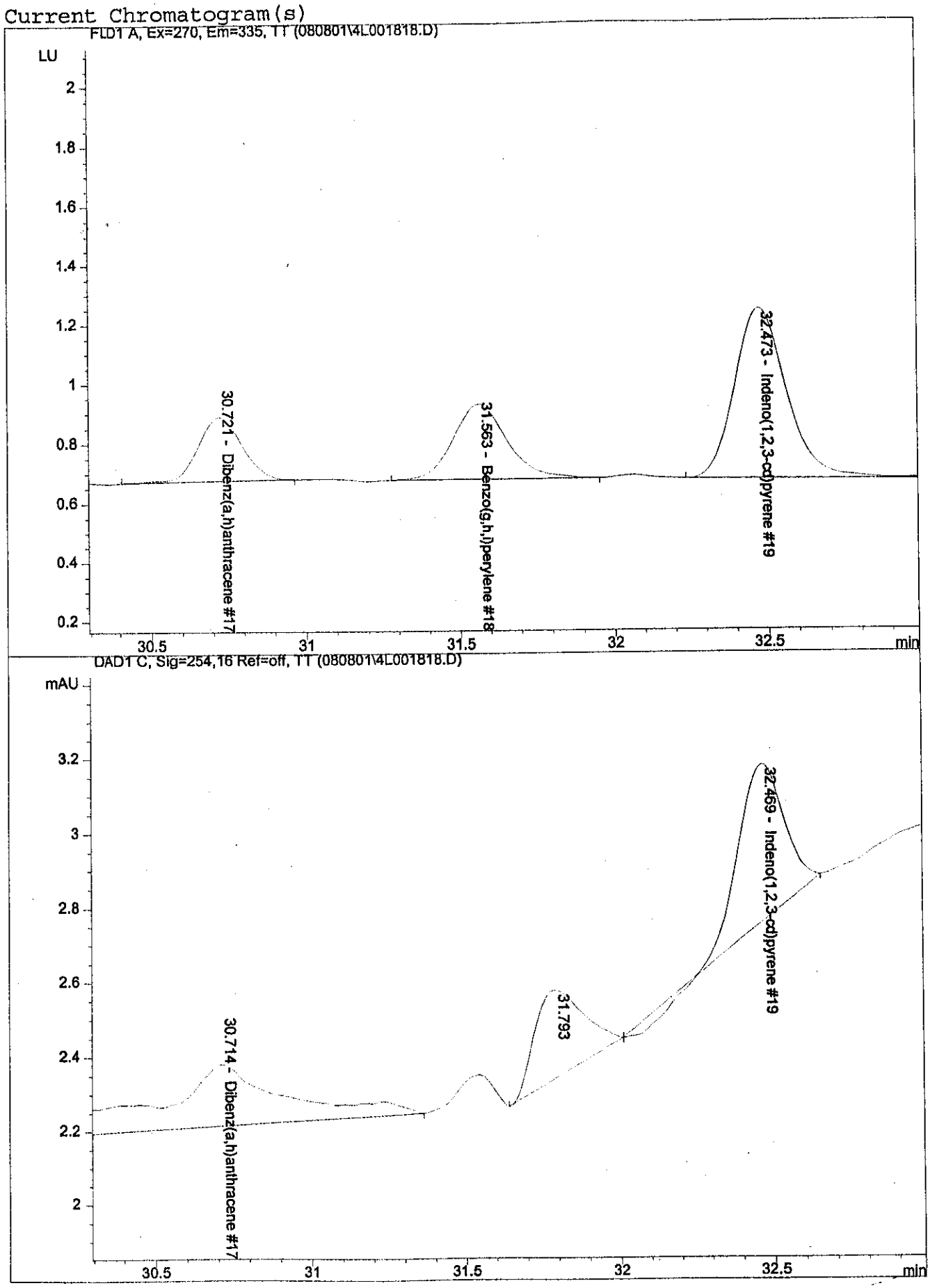
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 3/29/2001 3:04:50 PM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 8/9/2001 1:57:07 PM by RDC
(modified after loading)

Calibrated 03/29/2001

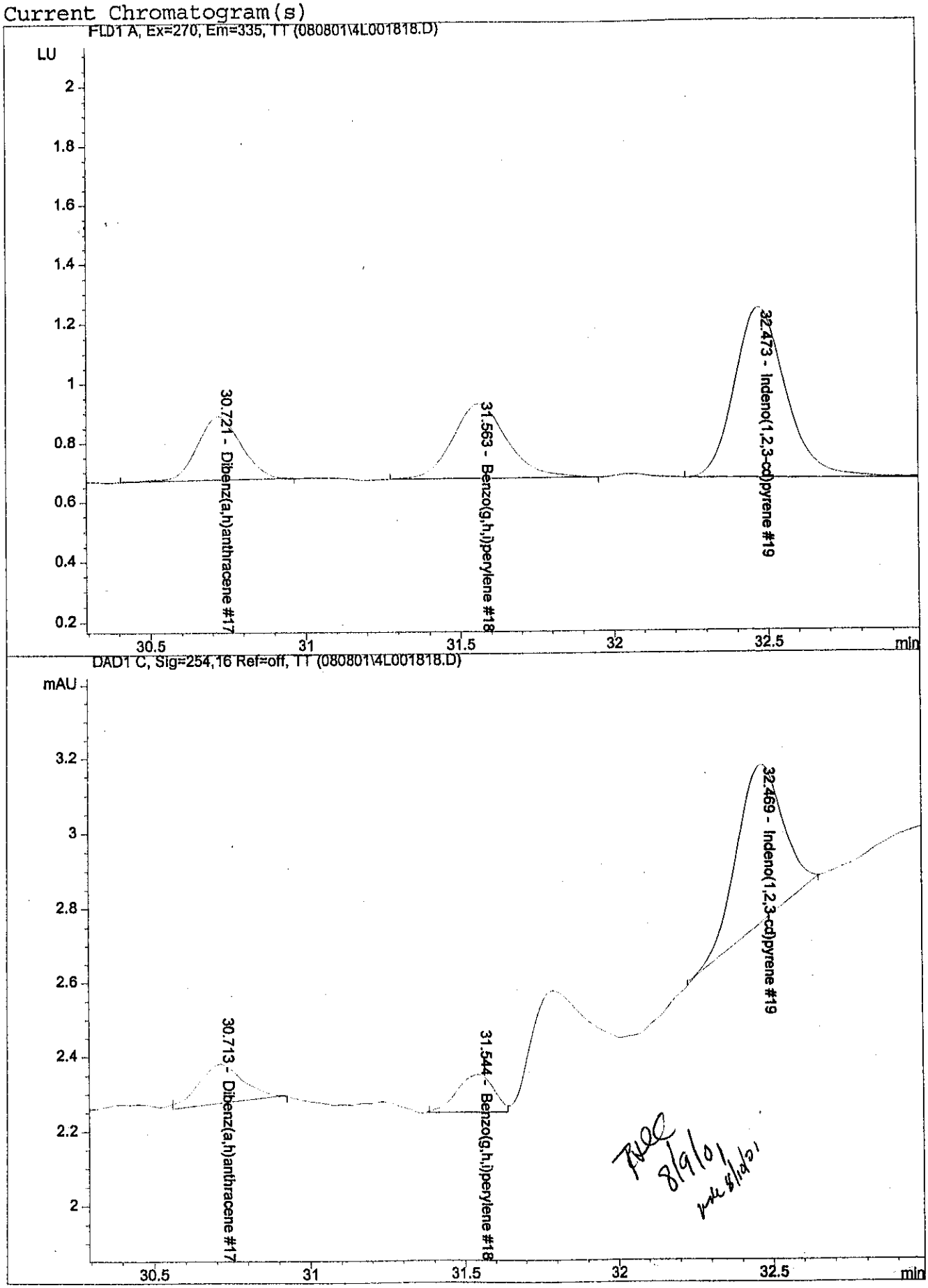




Current Chromatogram(s)



Current Chromatogram(s)



RDC 8/9/01
RDC 8/10/01

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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 Sample Name: [illegible]

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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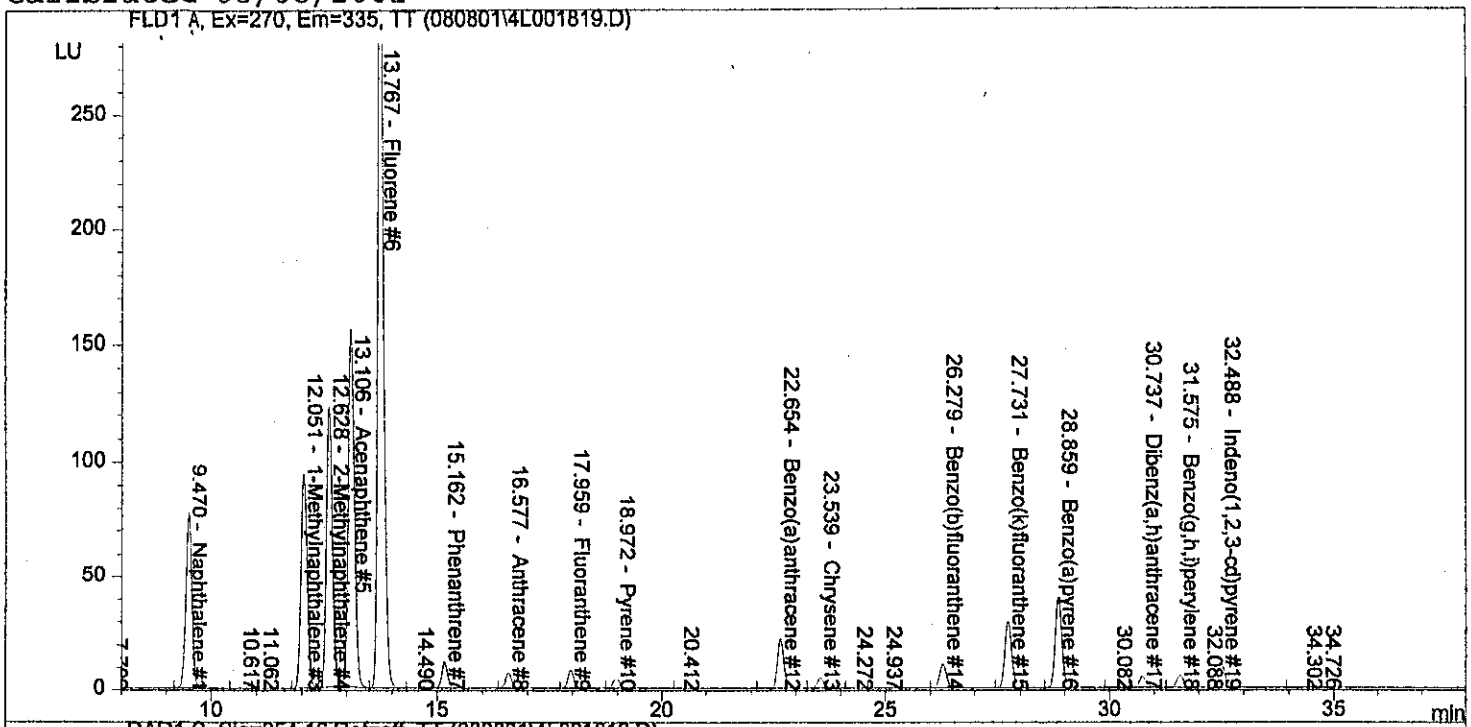
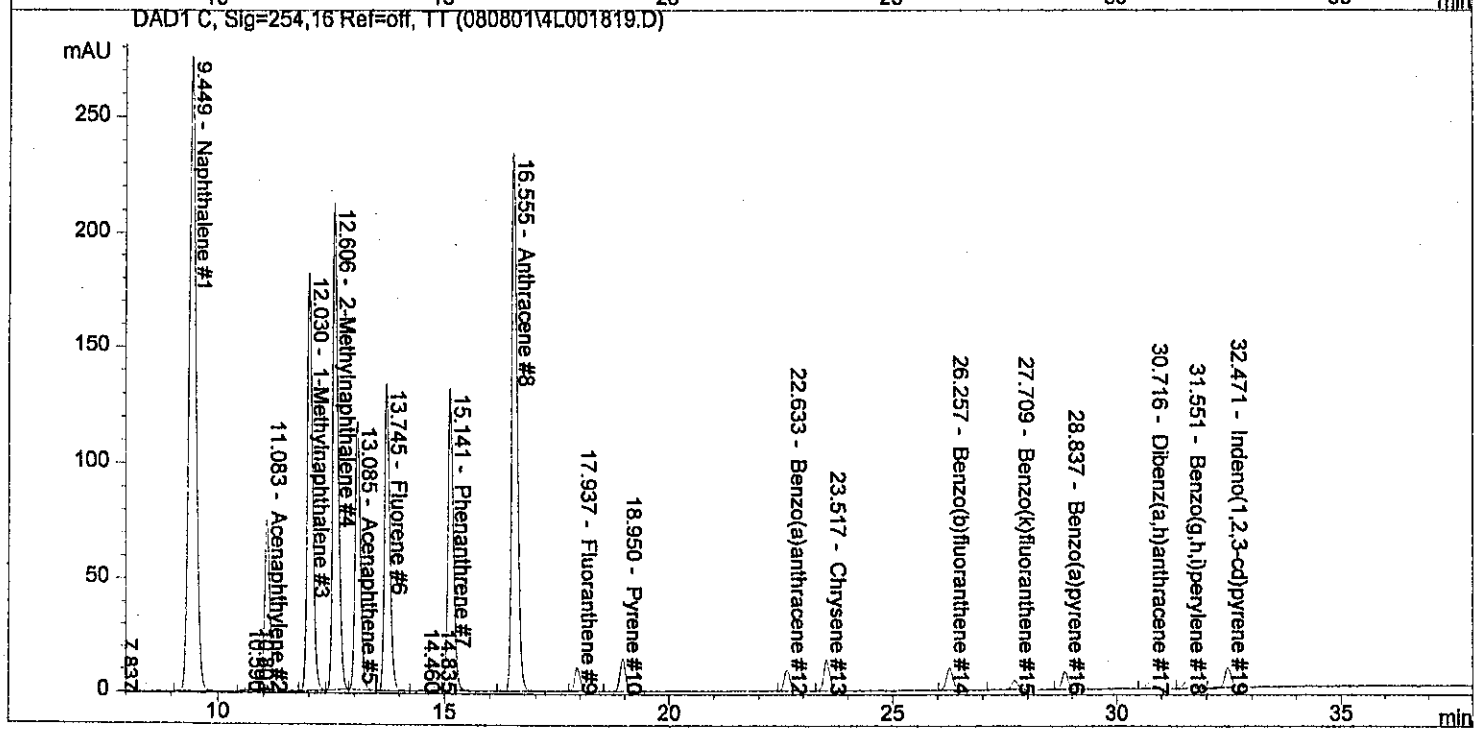
Data File C:\HPCHEM\2\DATA\080801\4L001819.D Sample Name: 8310alt5327/5529

Injection Date	: 8/9/2001 4:24:36 AM	Seq. Line	: 15
Sample Name	: 8310alt5327/5529	Vial	: 12
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 2:38:26 PM by RDC		

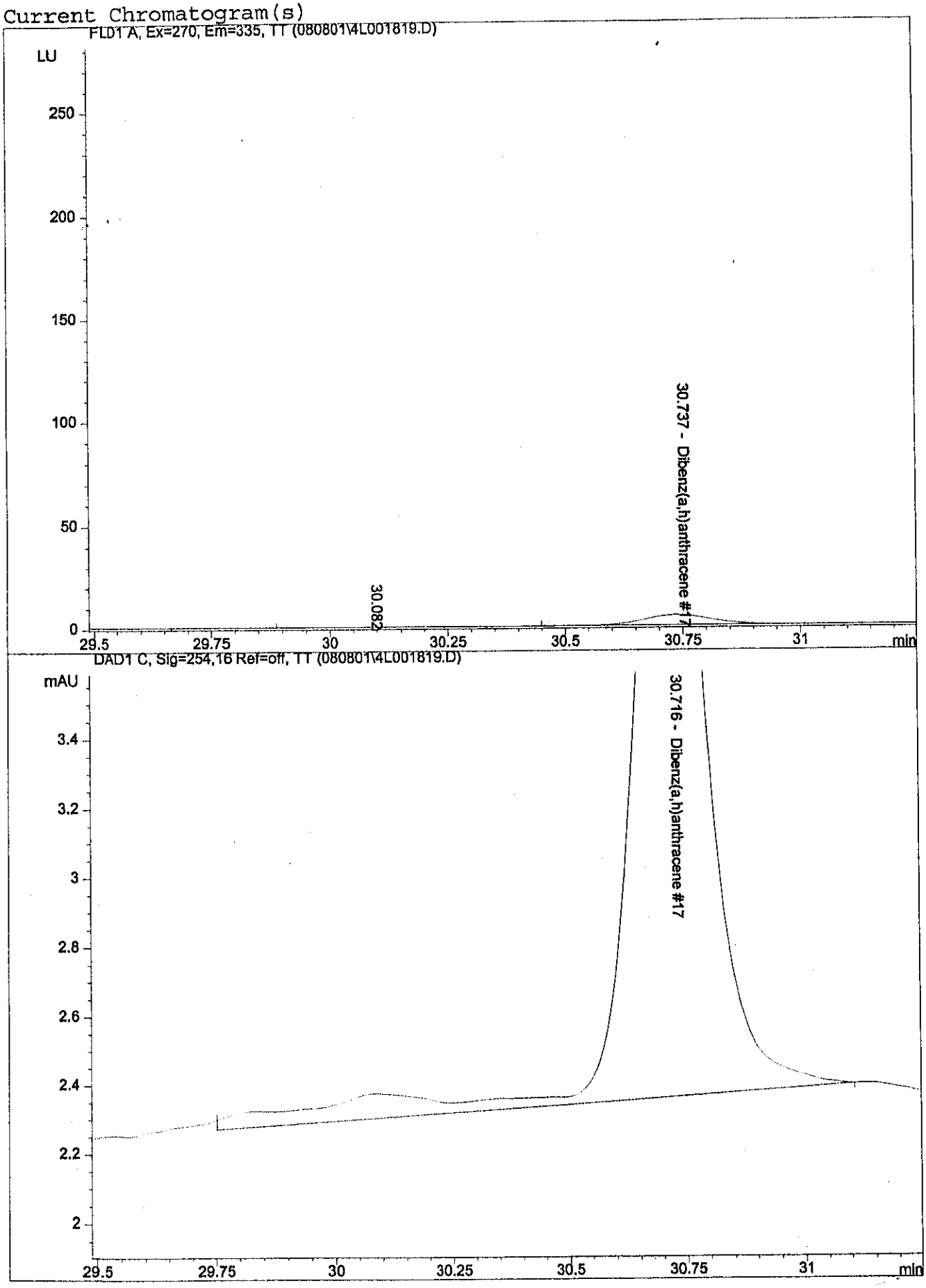
Calibrated 08/08/2001





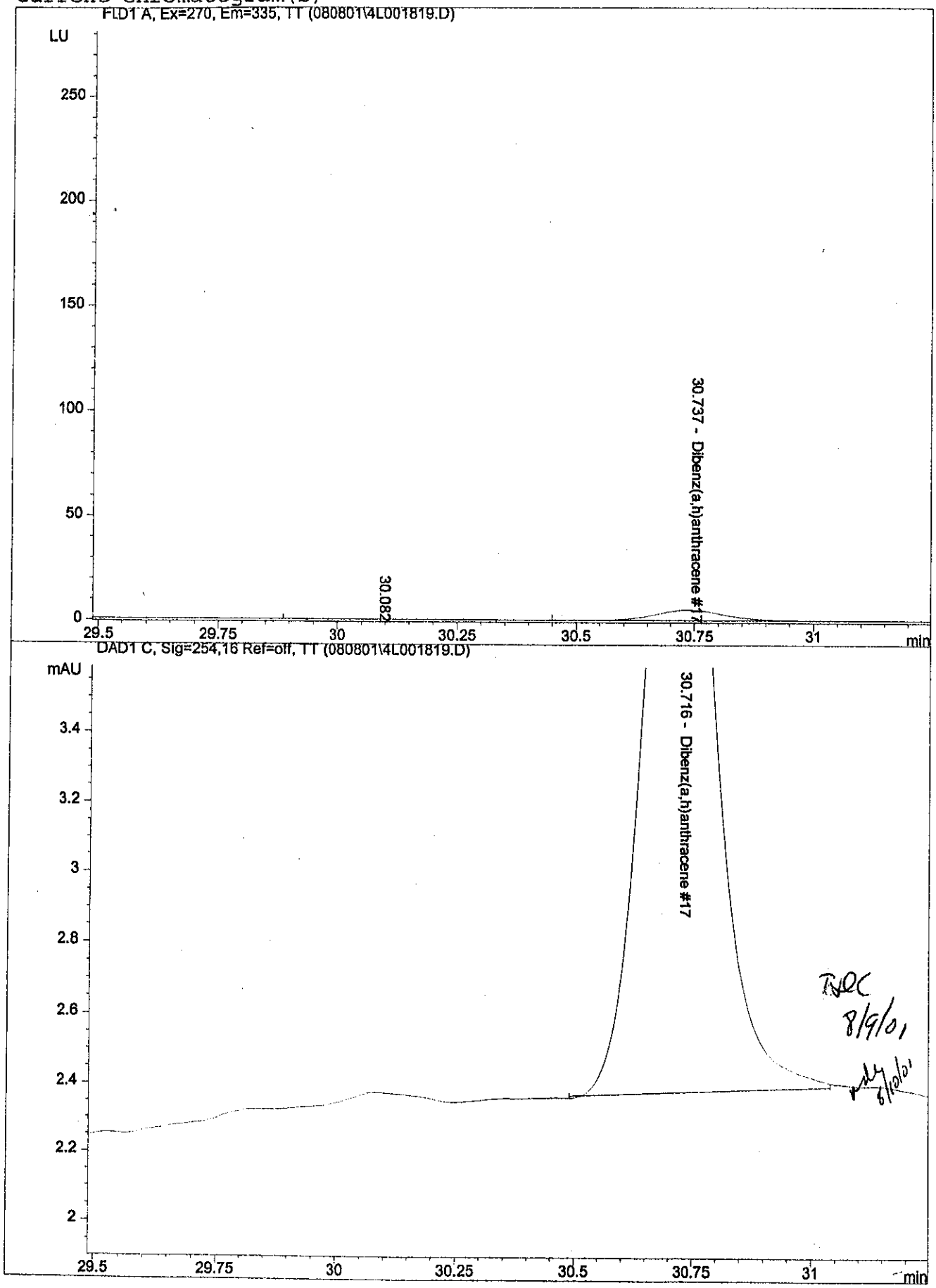
Print of window 38: Current Chromatogram(s)

Current Chromatogram(s)



Print of window 38: Current Chromatogram(s)

Current Chromatogram(s)



Data File C:\HPCHEM\2\DATA\080801\4L001819.D Sample Name: 8310alt5327/5529

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

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 ***

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Check Standard Report

Data File C:\HPCHEM\2\DATA\111501\4L002335.D Sample Name: WG108288-01 CCV
HPLC4 11/15/2001 1:15:47 PM RDC

1,1 SOS56-19/56-20

Injection Date : 11/15/2001 12:18:37 PM Seq. Line : 2

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.393	20.0	19.473	-2.6
1-Methylnaphthalene #3	11.977	20.0	19.618	-1.9
2-Methylnaphthalene #4	12.555	20.0	19.852	-0.7
Acenaphthene #5	13.035	20.0	20.154	0.8
Fluorene #6	13.694	20.0	20.728	3.6
Phenanthrene #7	15.089	20.0	18.808	-6.0
Anthracene #8	16.504	20.0	20.596	3.0
Fluoranthene #9	17.884	2.0	1.881	-6.0
Pyrene #10	18.894	2.0	1.853	-7.3
p-Terphenyl d14 #11*	21.254	20.0	19.613	-1.9
Benzo(a)anthracene #12	22.587	2.0	1.924	-3.8
Chrysene #13	23.472	2.0	1.926	-3.7
Benzo(b)fluoranthene #14	26.222	2.0	1.940	-3.0
Benzo(k)fluoranthene #15	27.679	1.0	0.989	-1.1
Benzo(a)pyrene #16	28.796	2.0	1.968	-1.6
Dibenz(a,h)anthracene #1	30.690	2.0	1.883	-5.8
Benzo(g,h,i)perylene #18	31.512	2.0	1.814	-9.3
Indeno(1,2,3-cd)pyrene #	32.454	2.0	1.996	-0.2

Signal 2: DAD1 C, Sig=254,16 Ref=off, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.373	20.0	20.877	4.4
Acenaphthylene #2	11.005	20.0	19.635	-1.8
1-Methylnaphthalene #3	11.957	20.0	20.195	1.0
2-Methylnaphthalene #4	12.534	20.0	20.503	2.5
Acenaphthene #5	13.015	20.0	20.094	0.5
Fluorene #6	13.673	20.0	19.763	-1.2
Phenanthrene #7	15.068	20.0	19.892	-0.5
Anthracene #8	16.483	20.0	20.821	4.1
Fluoranthene #9	17.862	2.0	1.968	-1.6
Pyrene #10	18.872	2.0	1.939	-3.1
p-Terphenyl d14 #11*	21.234	20.0	19.540	-2.3
Benzo(a)anthracene #12	22.566	2.0	1.971	-1.4
Chrysene #13	23.452	2.0	1.961	-2.0
Benzo(b)fluoranthene #14	26.201	2.0	1.966	-1.7
Benzo(k)fluoranthene #15	27.658	1.0	0.983	-1.7
Benzo(a)pyrene #16	28.774	2.0	2.011	0.5
Dibenz(a,h)anthracene #1	30.669	2.0	2.007	0.4
Benzo(g,h,i)perylene #18	31.490	2.0	1.817	-9.1
Indeno(1,2,3-cd)pyrene #	32.437	2.0	1.962	-1.9

= Failed 15.0% Criteria

386

1,1 SOS56-19/56-20

```
Injection Date   : 11/15/2001 12:18:37 PM          Seq. Line :   2
Sample Name      : WG108288-01 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     : 11/1/2001 3:33:11 PM by RDC
Calibrated 08/08/2001
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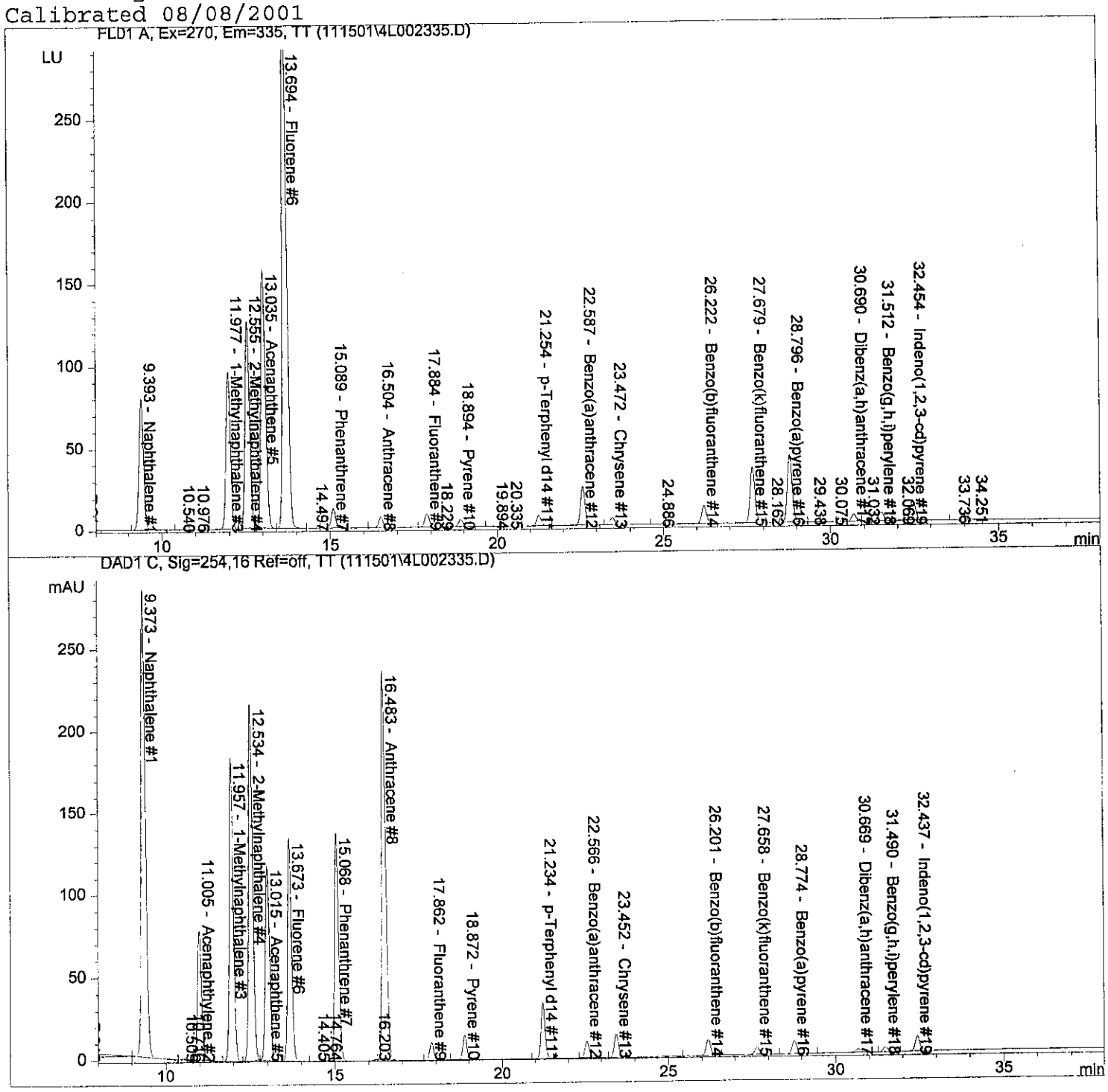

External Standard Report

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
9.393	PBA	769.78040	2.52962e-2	19.47252		Naphthalene #1
11.977	BB	886.37628	2.21330e-2	19.61813		1-Methylnaphthalene #3
12.555	BB	1163.40771	1.70635e-2	19.85180		2-Methylnaphthalene #4
13.035	BB	1456.05420	1.38416e-2	20.15407		Acenaphthene #5
13.694	BB	3130.19043	6.62187e-3	20.72770		Fluorene #6
15.089	BBA	114.92605	1.63652e-1	18.80791		Phenanthrene #7
16.504	PBA	66.39675	3.10196e-1	20.59603		Anthracene #8
17.884	PB	80.83347	2.32678e-2	1.88082		Fluoranthene #9
18.894	BBA	47.94117	3.86587e-2	1.85334		Pyrene #10
21.254	BB	65.94317	2.97423e-1	19.61300		p-Terphenyl d14 #11*
22.587	BBA	243.11343	7.91256e-3	1.92365		Benzo(a)anthracene #12
23.472	BB	49.32970	3.90495e-2	1.92630		Chrysene #13
26.222	BB	118.87633	1.63222e-2	1.94032		Benzo(b)fluoranthene #14
27.679	BB	357.50583	2.76572e-3	9.88760e-1		Benzo(k)fluoranthene #15
28.796	BB	430.60507	4.57119e-3	1.96838		Benzo(a)pyrene #16
30.690	BB	47.85940	3.93496e-2	1.88325		Dibenz(a,h)anthracene #17
31.512	BB	68.41982	2.65165e-2	1.81425		Benzo(g,h,i)perylene #18
32.454	BB	144.41772	1.38204e-2	1.99591		Indeno(1,2,3-cd)pyrene #1

Totals : 177.01613

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
9.373	BB	2529.34106	8.25405e-3	20.87731		Naphthalene #1
11.005	BB	661.15320	2.96975e-2	19.63461		Acenaphthylene #2
11.957	BB	1559.92896	1.29459e-2	20.19462		1-Methylnaphthalene #3
12.534	BB	1824.22534	1.12393e-2	20.50297		2-Methylnaphthalene #4
13.015	BB	989.03448	2.03163e-2	20.09356		Acenaphthene #5
13.673	BB	1127.79260	1.75240e-2	19.76344		Fluorene #6
15.068	BBA	1149.94617	1.72982e-2	19.89205		Phenanthrene #7
16.483	BBA	1996.95190	1.04262e-2	20.82059		Anthracene #8
17.862	PB	90.70647	2.17006e-2	1.96838		Fluoranthene #9
18.872	BBA	135.52090	1.43052e-2	1.93866		Pyrene #10
21.234	PBA	297.53903	6.56733e-2	19.54036		p-Terphenyl d14 #11*
22.566	PBA	88.51988	2.22694e-2	1.97129		Benzo(a)anthracene #12
23.452	BBA	129.46938	1.51453e-2	1.96085		Chrysene #13
26.201	PBA	94.80675	2.07330e-2	1.96563		Benzo(b)fluoranthene #14
27.658	BB	43.52803	2.25837e-2	9.83024e-1		Benzo(k)fluoranthene #15
28.774	BBA	76.84160	2.61680e-2	2.01079		Benzo(a)pyrene #16
30.669	BBA	21.32615	9.41116e-2	2.00704		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.490	PB	32.39989	5.60829e-2	1.81708		Benzo(g,h,i)perylene #18
32.437	BBA	95.40527	2.05608e-2	1.96161		Indeno(1,2,3-cd)pyrene #1

Totals : 199.90386

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\111501\4L002346.D Sample Name: WG108288-02 CCV
HPLC4 11/16/2001 1:09:27 PM RDC

1,1 SOS56-19/56-20

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Injection Date : 11/15/2001 10:41:27 PM Seq. Line : 13

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.324	20.0	18.625	-6.9
1-Methylnaphthalene #3	11.915	20.0	18.824	-5.9
2-Methylnaphthalene #4	12.493	20.0	19.027	-4.9
Acenaphthene #5	12.975	20.0	19.547	-2.3
Fluorene #6	13.628	20.0	20.403	2.0
Phenanthrene #7	15.018	20.0	18.276	-8.6
Anthracene #8	16.422	20.0	20.228	1.1
Fluoranthene #9	17.799	2.0	1.891	-5.5
Pyrene #10	18.810	2.0	1.736	-13.2
p-Terphenyl d14 #11*	21.156	20.0	19.421	-2.9
Benzo(a)anthracene #12	22.475	2.0	1.870	-6.5
Chrysene #13	23.346	2.0	1.876	-6.2
Benzo(b)fluoranthene #14	26.078	2.0	1.894	-5.3
Benzo(k)fluoranthene #15	27.520	1.0	0.971	-2.9
Benzo(a)pyrene #16	28.644	2.0	1.863	-6.9
Dibenz(a,h)anthracene #1	30.519	2.0	1.858	-7.1
Benzo(g,h,i)perylene #18	31.335	2.0	1.803	-9.8
Indeno(1,2,3-cd)pyrene #	32.268	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	9.308	20.0	20.850	4.2
Acenaphthylene #2	10.943	20.0	19.560	-2.2
1-Methylnaphthalene #3	11.899	20.0	20.100	0.5
2-Methylnaphthalene #4	12.477	20.0	20.408	2.0
Acenaphthene #5	12.959	20.0	20.003	0.0
Fluorene #6	13.611	20.0	19.753	-1.2
Phenanthrene #7	15.001	20.0	19.765	-1.2
Anthracene #8	16.405	20.0	20.992	5.0
Fluoranthene #9	17.782	2.0	1.963	-1.9
Pyrene #10	18.792	2.0	1.925	-3.8
p-Terphenyl d14 #11*	21.140	20.0	19.460	-2.7
Benzo(a)anthracene #12	22.459	2.0	1.966	-1.7
Chrysene #13	23.329	2.0	1.959	-2.1
Benzo(b)fluoranthene #14	26.060	2.0	1.960	-2.0
Benzo(k)fluoranthene #15	27.503	1.0	0.987	-1.3
Benzo(a)pyrene #16	28.627	2.0	1.977	-1.2
Dibenz(a,h)anthracene #1	30.502	2.0	2.031	1.6
Benzo(g,h,i)perylene #18	31.318	2.0	2.115	5.8
Indeno(1,2,3-cd)pyrene #	32.247	2.0	1.953	-2.4

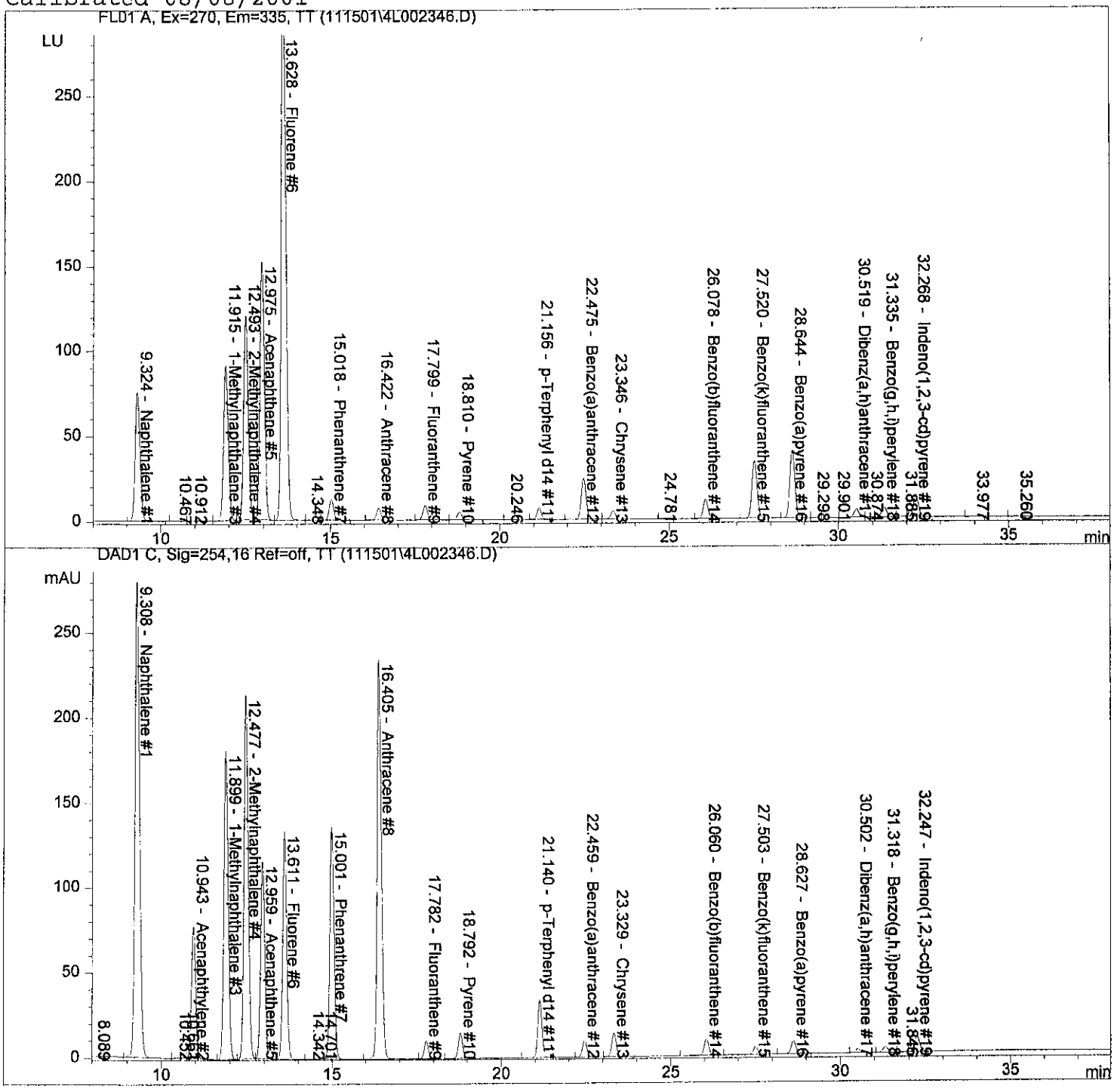
= Failed 15.0% Criteria

390

1,1 SOS56-19/56-20

Injection Date	: 11/15/2001 10:41:27 PM	Seq. Line	: 13
Sample Name	: WG108288-02 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	: 11/16/2001 1:04:13 PM by RDC (modified after loading)		

Calibrated 08/08/2001



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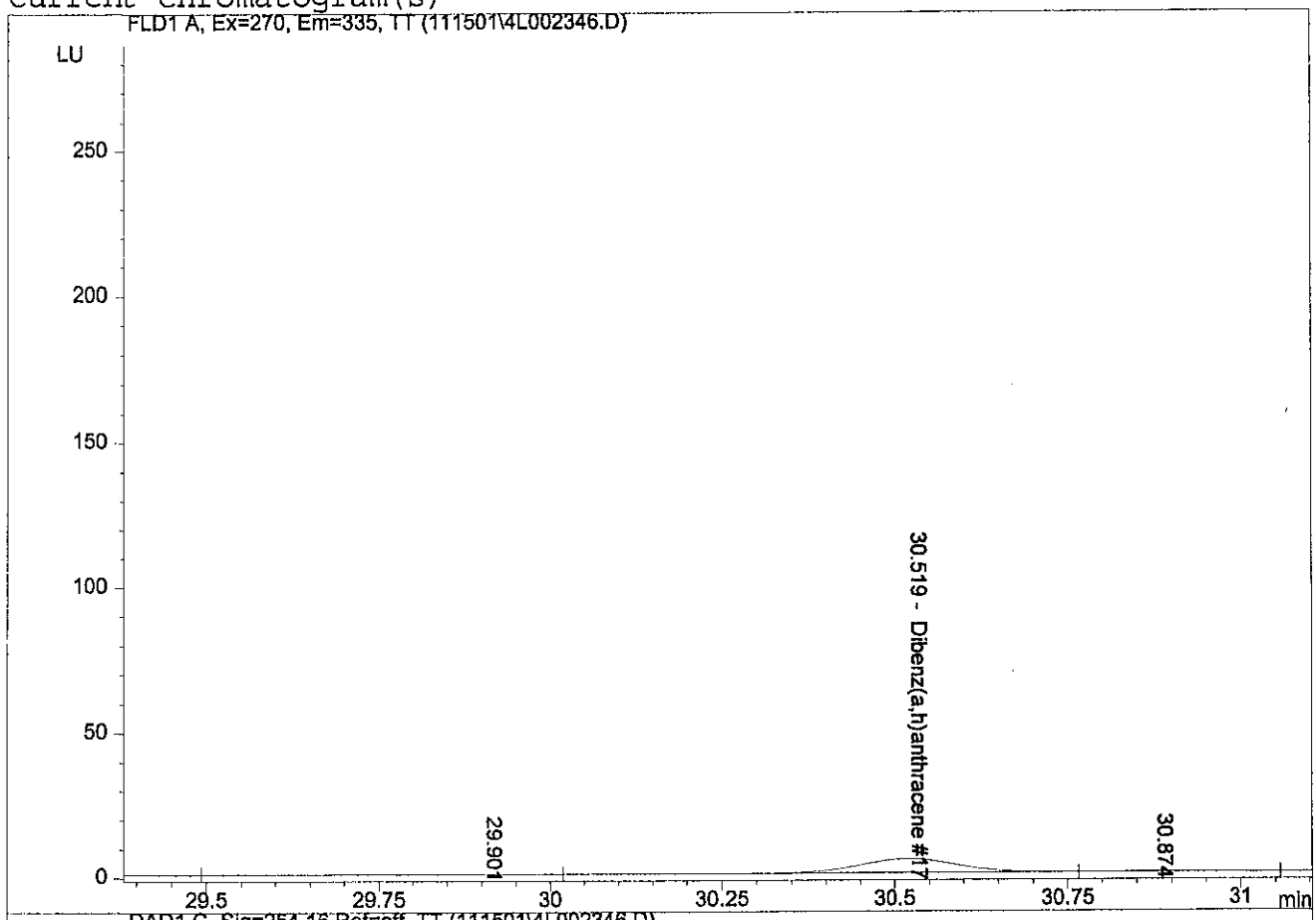
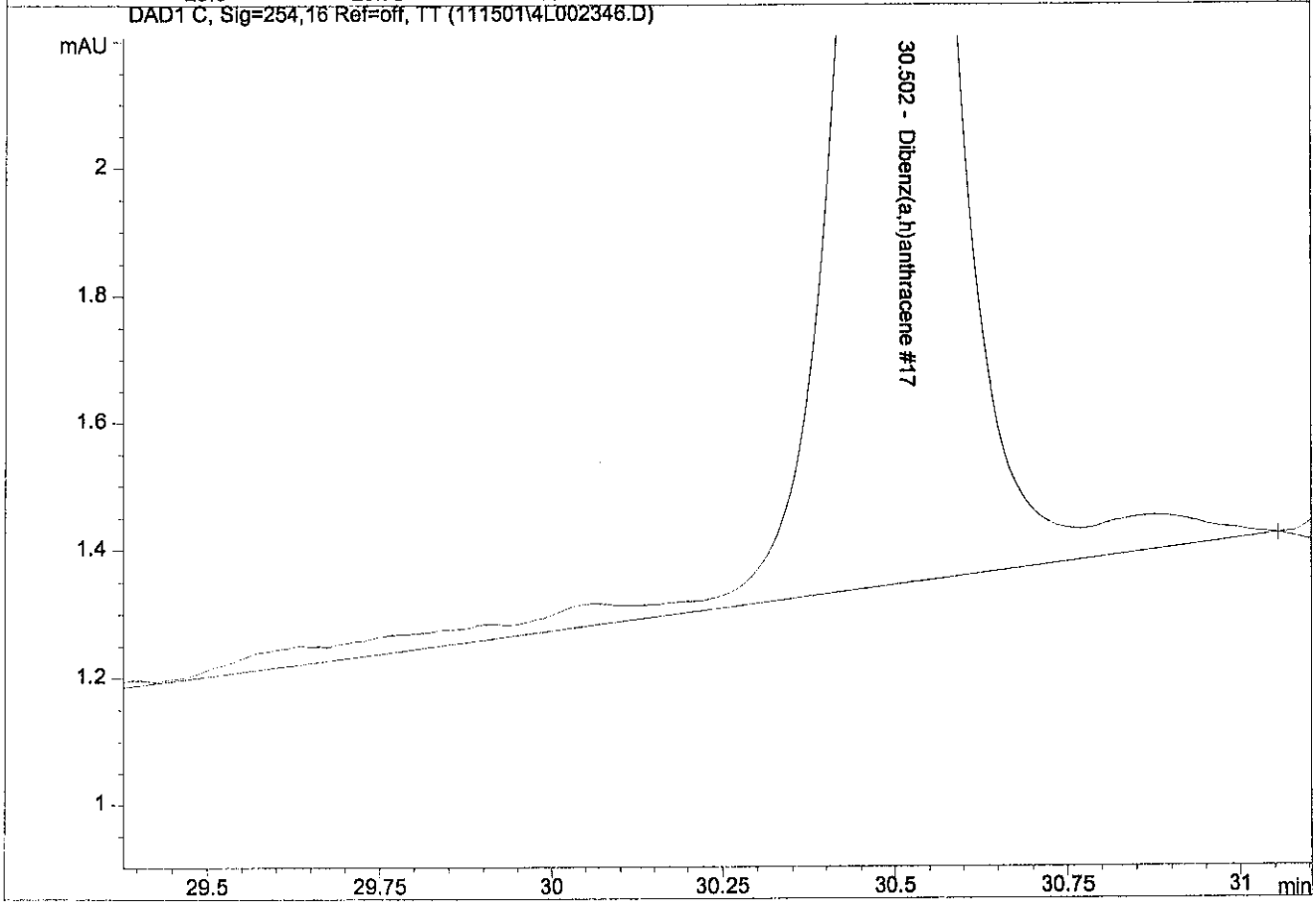
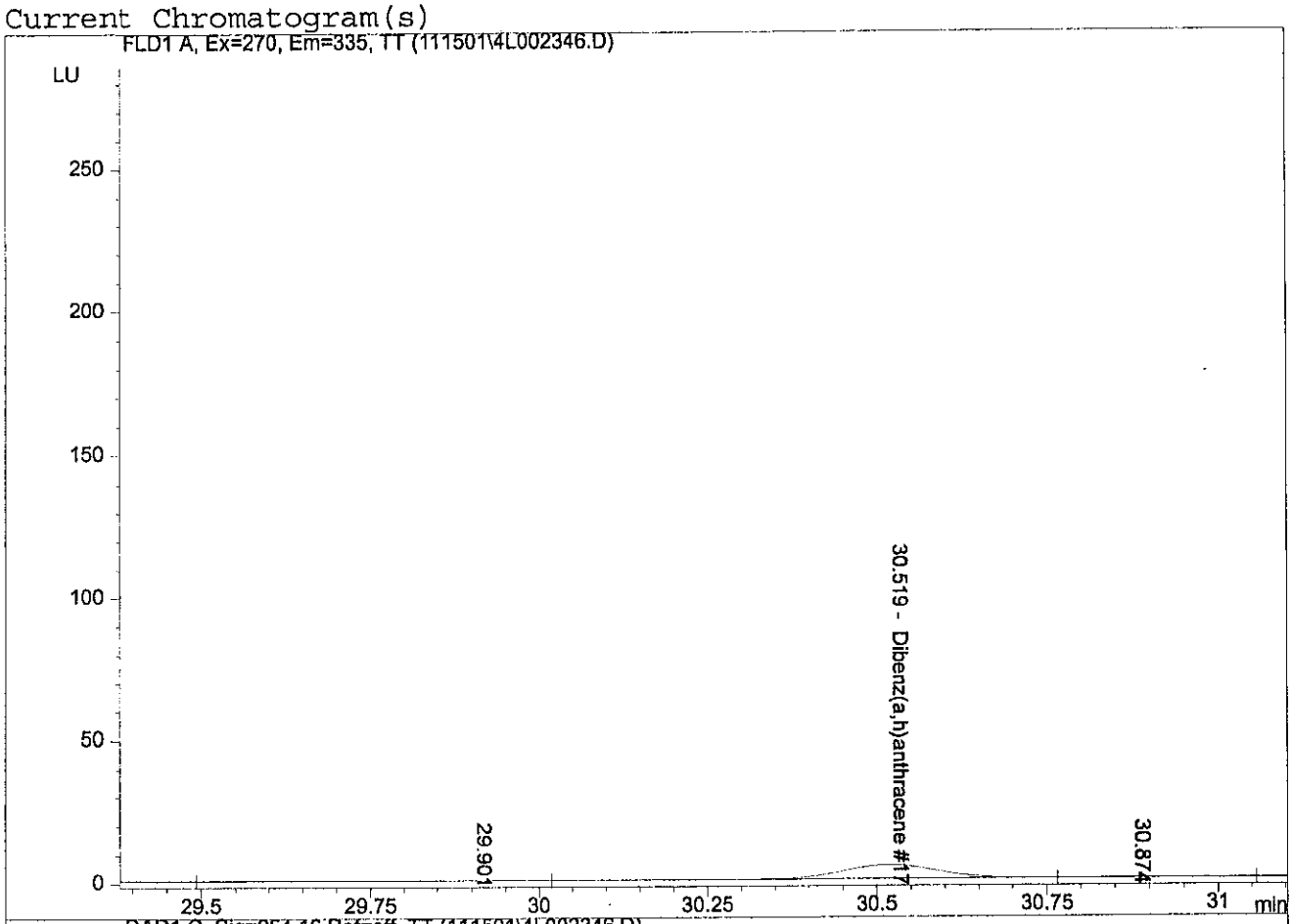
Current Chromatogram(s)

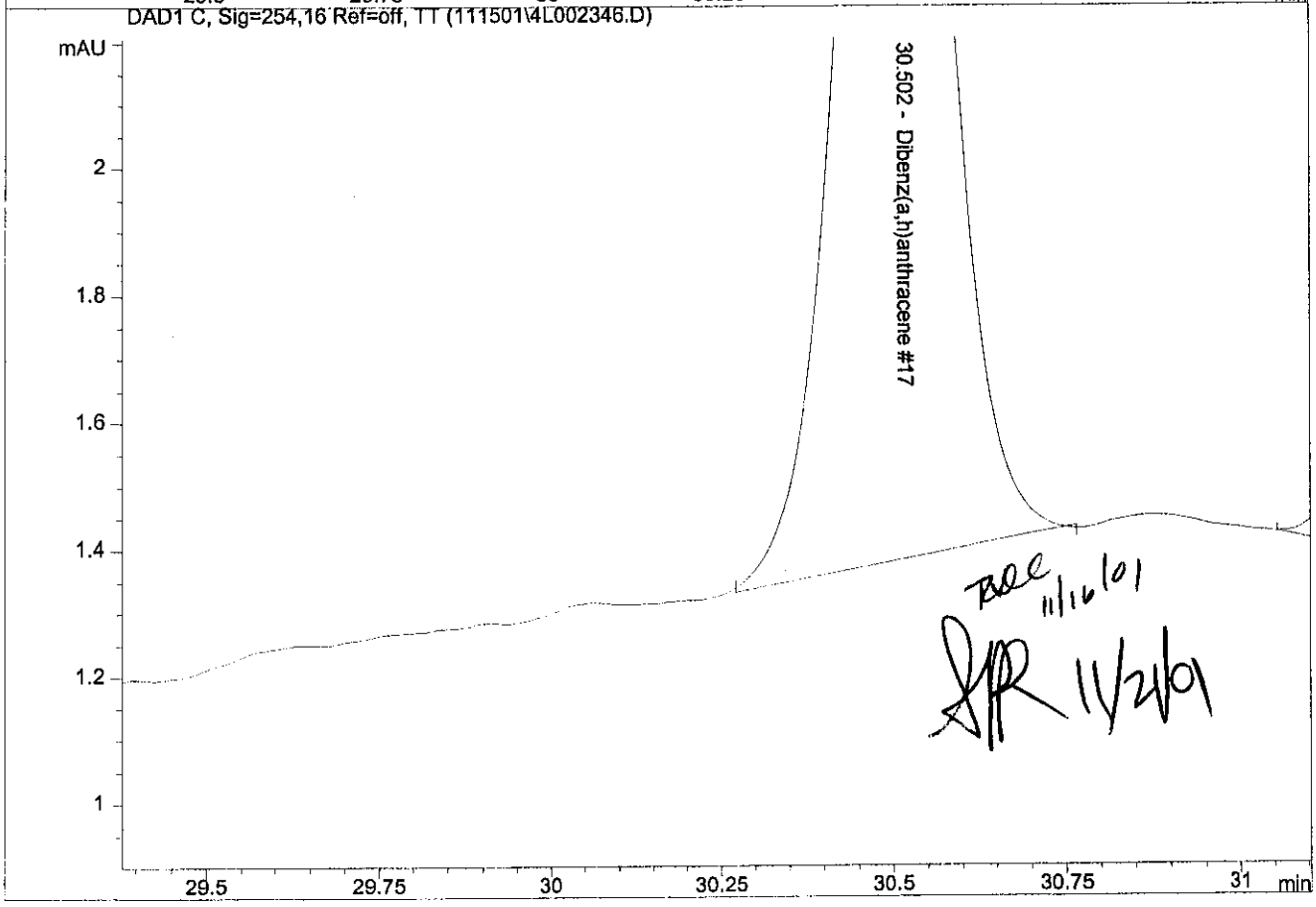




392

Current Chromatogram(s)





RDC 11/16/01

11/26/01

External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, November 16, 2001 1:04:13 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
9.324	PBA	736.27551	2.52962e-2	18.62497		Naphthalene #1
11.915	BB	850.50299	2.21330e-2	18.82414		1-Methylnaphthalene #3
12.493	BB	1115.09607	1.70635e-2	19.02744		2-Methylnaphthalene #4
12.975	BB	1412.16638	1.38416e-2	19.54659		Acenaphthene #5
13.628	BB	3081.20166	6.62187e-3	20.40331		Fluorene #6
15.018	BBA	111.67793	1.63652e-1	18.27634		Phenanthrene #7
16.422	BBA	65.20995	3.10196e-1	20.22789		Anthracene #8
17.799	BB	81.26523	2.32678e-2	1.89087		Fluoranthene #9
18.810	BBA	44.89872	3.86587e-2	1.73573		Pyrene #10
21.156	BB	65.29810	2.97423e-1	19.42114		p-Terphenyl d14 #11*
22.475	BB	236.36235	7.91256e-3	1.87023		Benzo(a)anthracene #12
23.346	BB	48.03540	3.90495e-2	1.87576		Chrysene #13
26.078	BBA	116.06235	1.63222e-2	1.89439		Benzo(b)fluoranthene #14
27.520	BB	351.15002	2.76572e-3	9.71181e-1		Benzo(k)fluoranthene #15
28.644	BB	407.54193	4.57119e-3	1.86295		Benzo(a)pyrene #16
30.519	BB	47.22633	3.93496e-2	1.85834		Dibenz(a,h)anthracene #17
31.335	BB	67.99957	2.65165e-2	1.80311		Benzo(g,h,i)perylene #18
32.268	BB	140.39671	1.38204e-2	1.94034		Indeno(1,2,3-cd)pyrene #1
Totals :				172.05471		

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	2526.00952	8.25405e-3	20.84981		Naphthalene #1
10.943	BBA	658.62836	2.96975e-2	19.55963		Acenaphthylene #2
11.899	BB	1552.63086	1.29459e-2	20.10014		1-Methylnaphthalene #3
12.477	BB	1815.77576	1.12393e-2	20.40801		2-Methylnaphthalene #4
12.959	BB	984.57898	2.03163e-2	20.00304		Acenaphthene #5
13.611	BBA	1127.19177	1.75240e-2	19.75291		Fluorene #6
15.001	BBA	1142.59839	1.72982e-2	19.76494		Phenanthrene #7
16.405	PBA	2013.38159	1.04262e-2	20.99189		Anthracene #8
17.782	PB	90.45434	2.17006e-2	1.96291		Fluoranthene #9
18.792	BBA	134.56097	1.43052e-2	1.92493		Pyrene #10
21.140	PBA	296.31168	6.56733e-2	19.45975		p-Terphenyl d14 #11*
22.459	PBA	88.26894	2.22694e-2	1.96570		Benzo(a)anthracene #12
23.329	PBA	129.31557	1.51453e-2	1.95852		Chrysene #13
26.060	PBA	94.52048	2.07330e-2	1.95969		Benzo(b)fluoranthene #14
27.503	PB	43.70696	2.25837e-2	9.87064e-1		Benzo(k)fluoranthene #15
28.627	BB	75.53207	2.61680e-2	1.97652		Benzo(a)pyrene #16
30.502	MM	21.58257	9.41116e-2	2.03117		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.318	BB	37.71480	5.60829e-2	2.11516		Benzo(g,h,i)perylene #18
32.247	BB	94.98495	2.05608e-2	1.95296		Indeno(1,2,3-cd)pyrene #1

Totals : 199.72475

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\111501\4L002348.D Sample Name: WG108288-03 CCV
HPLC4 11/16/2001 1:12:59 PM RDC

1,1 SOS56-19/56-20

Injection Date : 11/16/2001 12:34:41 AM Seq. Line : 15

Signal 1: FLD1 A, Ex=270, Em=335, TT

Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.326	20.0	18.541	-7.3
1-Methylnaphthalene #3	11.917	20.0	18.697	-6.5
2-Methylnaphthalene #4	12.495	20.0	18.890	-5.6
Acenaphthene #5	12.977	20.0	19.455	-2.7
Fluorene #6	13.627	20.0	20.415	2.1
Phenanthrene #7	15.013	20.0	18.231	-8.8
Anthracene #8	16.409	20.0	20.175	0.9
Fluoranthene #9	17.782	2.0	1.885	-5.8
Pyrene #10	18.786	2.0	1.722	-13.9
p-Terphenyl d14 #11*	21.105	20.0	19.529	-2.4
Benzo(a)anthracene #12	22.411	2.0	1.866	-6.7
Chrysene #13	23.266	2.0	1.883	-5.9
Benzo(b)fluoranthene #14	25.981	2.0	1.894	-5.3
Benzo(k)fluoranthene #15	27.405	1.0	0.972	-2.8
Benzo(a)pyrene #16	28.534	2.0	1.868	-6.6
Dibenz(a,h)anthracene #1	30.406	2.0	1.904	-4.8
Benzo(g,h,i)perylene #18	31.224	2.0	1.823	-8.9
Indeno(1,2,3-cd)pyrene #	32.162	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	9.311	20.0	20.877	4.4
Acenaphthylene #2	10.951	20.0	19.605	-2.0
1-Methylnaphthalene #3	11.903	20.0	20.097	0.5
2-Methylnaphthalene #4	12.480	20.0	20.412	2.1
Acenaphthene #5	12.963	20.0	20.003	0.0
Fluorene #6	13.612	20.0	19.770	-1.2
Phenanthrene #7	14.998	20.0	19.746	-1.3
Anthracene #8	16.394	20.0	20.996	5.0
Fluoranthene #9	17.766	2.0	1.957	-2.1
Pyrene #10	18.770	2.0	1.937	-3.2
p-Terphenyl d14 #11*	21.091	20.0	19.448	-2.8
Benzo(a)anthracene #12	22.397	2.0	1.960	-2.0
Chrysene #13	23.252	2.0	1.959	-2.1
Benzo(b)fluoranthene #14	25.965	2.0	1.954	-2.3
Benzo(k)fluoranthene #15	27.390	1.0	0.991	-0.9
Benzo(a)pyrene #16	28.519	2.0	1.860	-7.0
Dibenz(a,h)anthracene #1	30.391	2.0	1.964	-1.8
Benzo(g,h,i)perylene #18	31.209	2.0	2.232	11.6
Indeno(1,2,3-cd)pyrene #	32.143	2.0	2.078	3.9

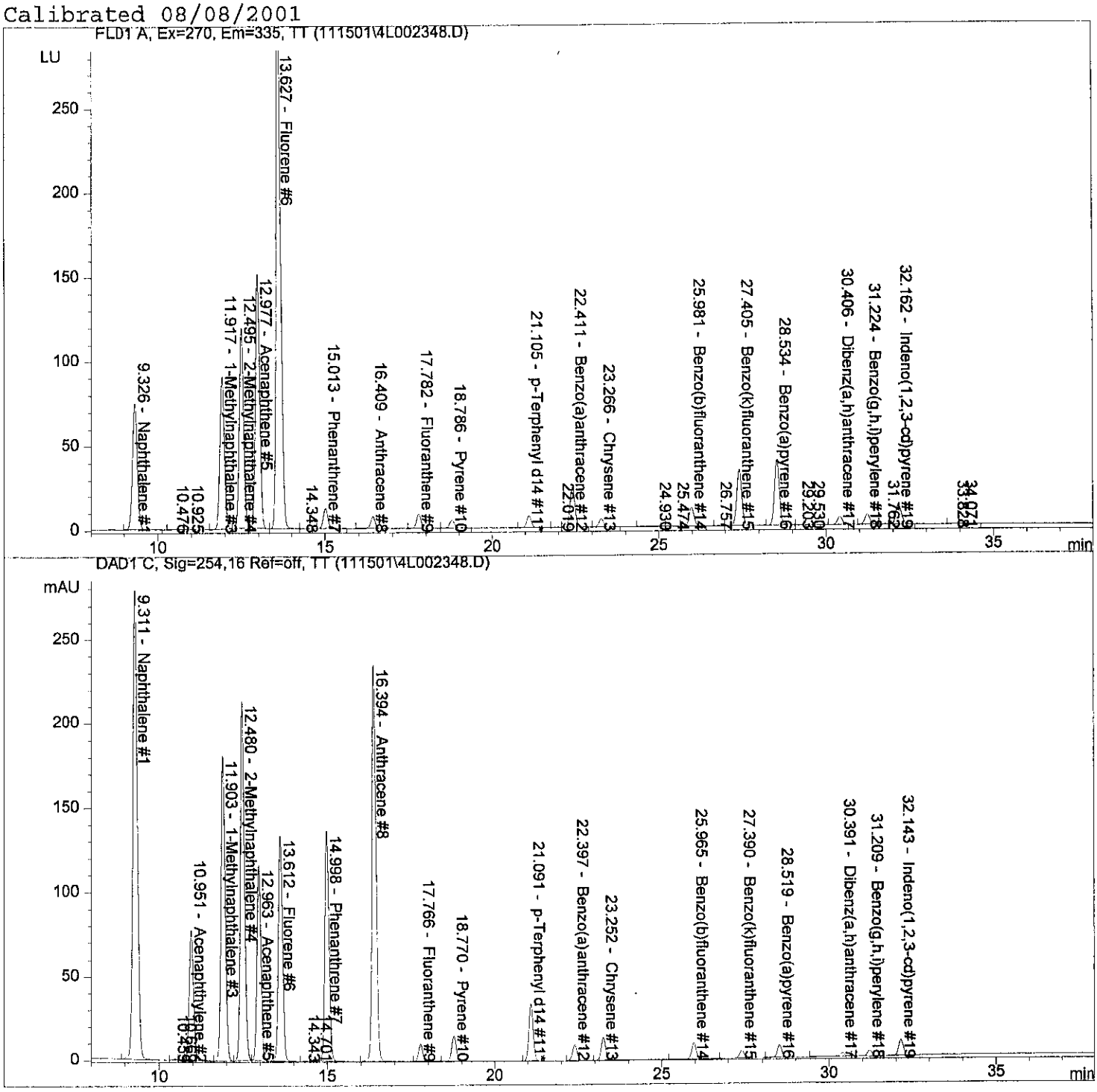
= Failed 15.0% Criteria

396

1,1 SOS56-19/56-20

Injection Date	: 11/16/2001 12:34:41 AM	Seq. Line	: 15
Sample Name	: WG108288-03 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	: 11/16/2001 1:12:53 PM by RDC (modified after loading)		

Calibrated 08/08/2001



397

External Standard Report

Sorted By : Signal
Calib. Data Modified : Friday, November 16, 2001 1:12:22 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
9.326	BBA	732.94904	2.52962e-2	18.54082		Naphthalene #1
11.917	PB	844.77533	2.21330e-2	18.69737		1-Methylnaphthalene #3
12.495	BB	1107.03418	1.70635e-2	18.88987		2-Methylnaphthalene #4
12.977	BB	1405.51721	1.38416e-2	19.45456		Acenaphthene #5
13.627	BB	3082.97144	6.62187e-3	20.41503		Fluorene #6
15.013	BB	111.40357	1.63652e-1	18.23144		Phenanthrene #7
16.409	BBA	65.03940	3.10196e-1	20.17498		Anthracene #8
17.782	PB	80.99400	2.32678e-2	1.88456		Fluoranthene #9
18.786	BBA	44.53854	3.86587e-2	1.72180		Pyrene #10
21.105	BB	65.66027	2.97423e-1	19.52886		p-Terphenyl d14 #11*
22.411	BBA	235.87416	7.91256e-3	1.86637		Benzo(a)anthracene #12
23.266	BB	48.21955	3.90495e-2	1.88295		Chrysene #13
25.981	BBA	116.01828	1.63222e-2	1.89367		Benzo(b)fluoranthene #14
27.405	BB	351.42349	2.76572e-3	9.71938e-1		Benzo(k)fluoranthene #15
28.534	BB	408.74408	4.57119e-3	1.86845		Benzo(a)pyrene #16
30.406	PB	48.39856	3.93496e-2	1.90446		Dibenz(a,h)anthracene #17
31.224	BB	68.74284	2.65165e-2	1.82282		Benzo(g,h,i)perylene #18
32.162	BBA	140.80769	1.38204e-2	1.94602		Indeno(1,2,3-cd)pyrene #1

Totals : 171.69597

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
9.311	BB	2529.24854	8.25405e-3	20.87654		Naphthalene #1
10.951	BB	660.16199	2.96975e-2	19.60517		Acenaphthylene #2
11.903	BB	1552.36047	1.29459e-2	20.09664		1-Methylnaphthalene #3
12.480	BB	1816.13379	1.12393e-2	20.41203		2-Methylnaphthalene #4
12.963	BB	984.59155	2.03163e-2	20.00330		Acenaphthene #5
13.612	BBA	1128.15735	1.75240e-2	19.76983		Fluorene #6
14.998	BBA	1141.51086	1.72982e-2	19.74613		Phenanthrene #7
16.394	PBA	2013.73096	1.04262e-2	20.99553		Anthracene #8
17.766	BB	90.18267	2.17006e-2	1.95702		Fluoranthene #9
18.770	BBA	135.37752	1.43052e-2	1.93661		Pyrene #10
21.091	PBA	296.13226	6.56733e-2	19.44797		p-Terphenyl d14 #11*
22.397	BBA	88.02828	2.22694e-2	1.96034		Benzo(a)anthracene #12
23.252	BBA	129.32506	1.51453e-2	1.95867		Chrysene #13
25.965	BBA	94.26007	2.07330e-2	1.95429		Benzo(b)fluoranthene #14
27.390	PB	43.90273	2.25837e-2	9.91486e-1		Benzo(k)fluoranthene #15
28.519	BB	71.08863	2.61680e-2	1.86025		Benzo(a)pyrene #16
30.391	PB	20.86446	9.41116e-2	1.96359		Dibenz(a,h)anthracene #17

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.209	BB	39.79432	5.60829e-2	2.23178		Benzo(g,h,i)perylene #18
32.143	BB	101.06866	2.05608e-2	2.07805		Indeno(1,2,3-cd)pyrene #1

Totals : 199.84522

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

==========

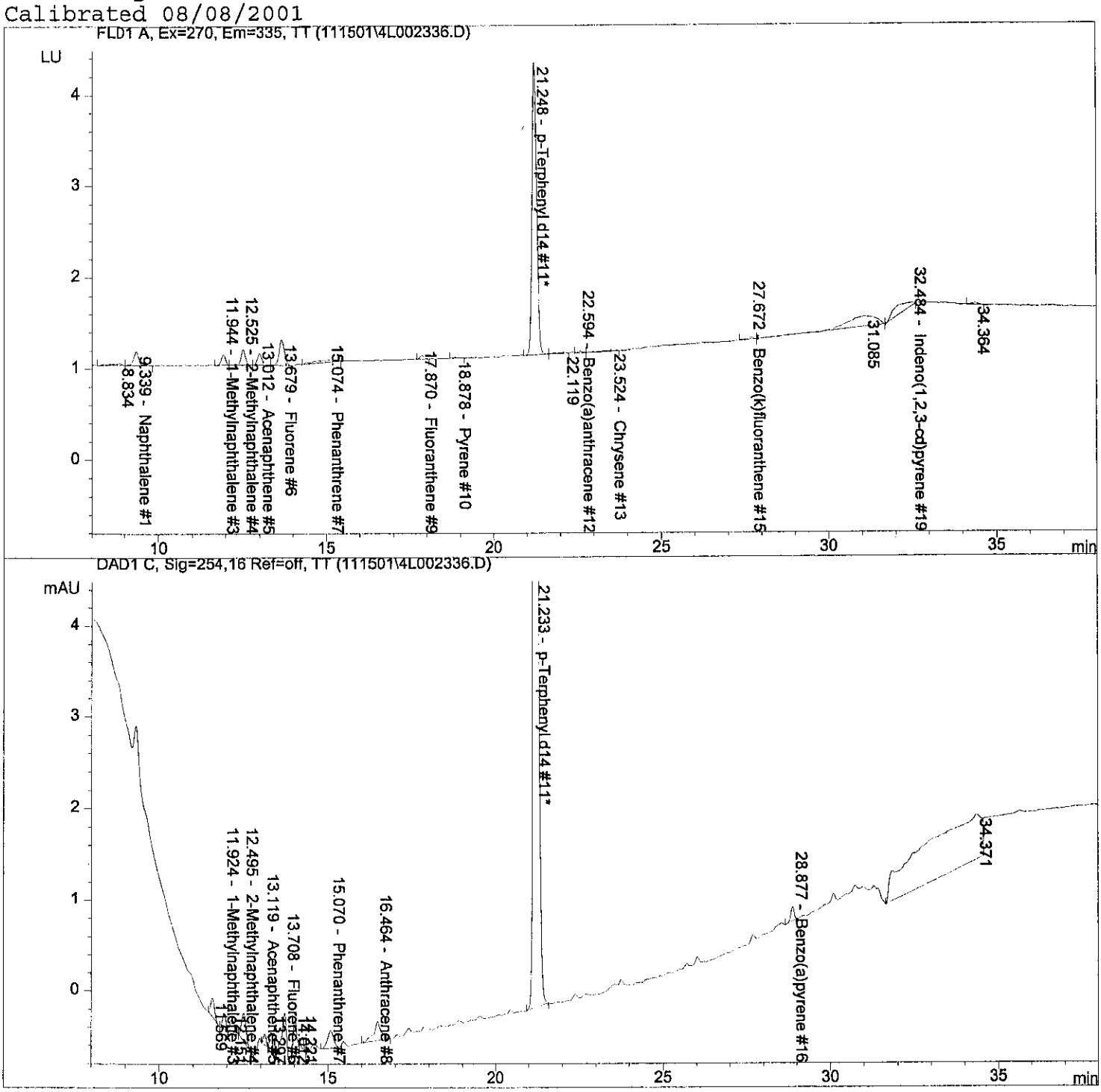
*** End of Report ***

2.2.7.4 Raw QC Data

Injection Date : 11/15/2001 1:15:13 PM
Sample Name : WG108213-02 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 : 8/17/2001 9:40:38 AM by HV
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
9.339	BB	1.67257	2.52962e-2	4.23097e-2		Naphthalene #1
11.944	BB	1.01175	2.21330e-2	2.23930e-2		1-Methylnaphthalene #3
12.525	BB	1.77497	1.70635e-2	3.02872e-2		2-Methylnaphthalene #4
13.012	BB	1.30082	1.38416e-2	1.80054e-2		Acenaphthene #5
13.679	BB	3.17266	6.62187e-3	2.10089e-2		Fluorene #6
15.074	BB	1.10014	1.63652e-1	1.80040e-1		Phenanthrene #7
16.491		-	-	-		Anthracene #8
17.870	BBA	3.63654e-1	2.32678e-2	8.46144e-3		Fluoranthene #9
18.878	BBA	1.54225e-1	3.86587e-2	5.96215e-3		Pyrene #10
21.248	BB	30.53106	2.97423e-1	9.08063		p-Terphenyl d14 #11*
22.594	BB	1.97519e-1	7.91256e-3	1.56288e-3		Benzo(a)anthracene #12
23.524	BB	3.47555e-1	3.90495e-2	1.35719e-2		Chrysene #13
26.210		-	-	-		Benzo(b)fluoranthene #14
27.672	BB	2.94811e-1	2.76572e-3	8.15363e-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
32.484	BB	3.40518	1.38204e-2	4.70610e-2		Indeno(1,2,3-cd)pyrene #1

Totals : 9.47211

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
11.924	BB	1.11814	1.29459e-2	1.44753e-2		1-Methylnaphthalene #3
12.495	BB	2.80497	1.12393e-2	3.15258e-2		2-Methylnaphthalene #4
13.119	BB	6.24150e-1	2.03163e-2	1.26805e-2		Acenaphthene #5
13.708	BB	5.75468	1.75240e-2	1.00845e-1		Fluorene #6
15.070	BB	2.44148	1.72982e-2	4.22333e-2		Phenanthrene #7
16.464	BBA	3.21616	1.04262e-2	3.35322e-2		Anthracene #8
17.859		-	-	-		Fluoranthene #9
18.899		-	-	-		Pyrene #10
21.233	PBA	137.61758	6.56733e-2	9.03779		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
28.877	BB	1.09285	2.61680e-2	2.85976e-2		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 : 9.30168

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

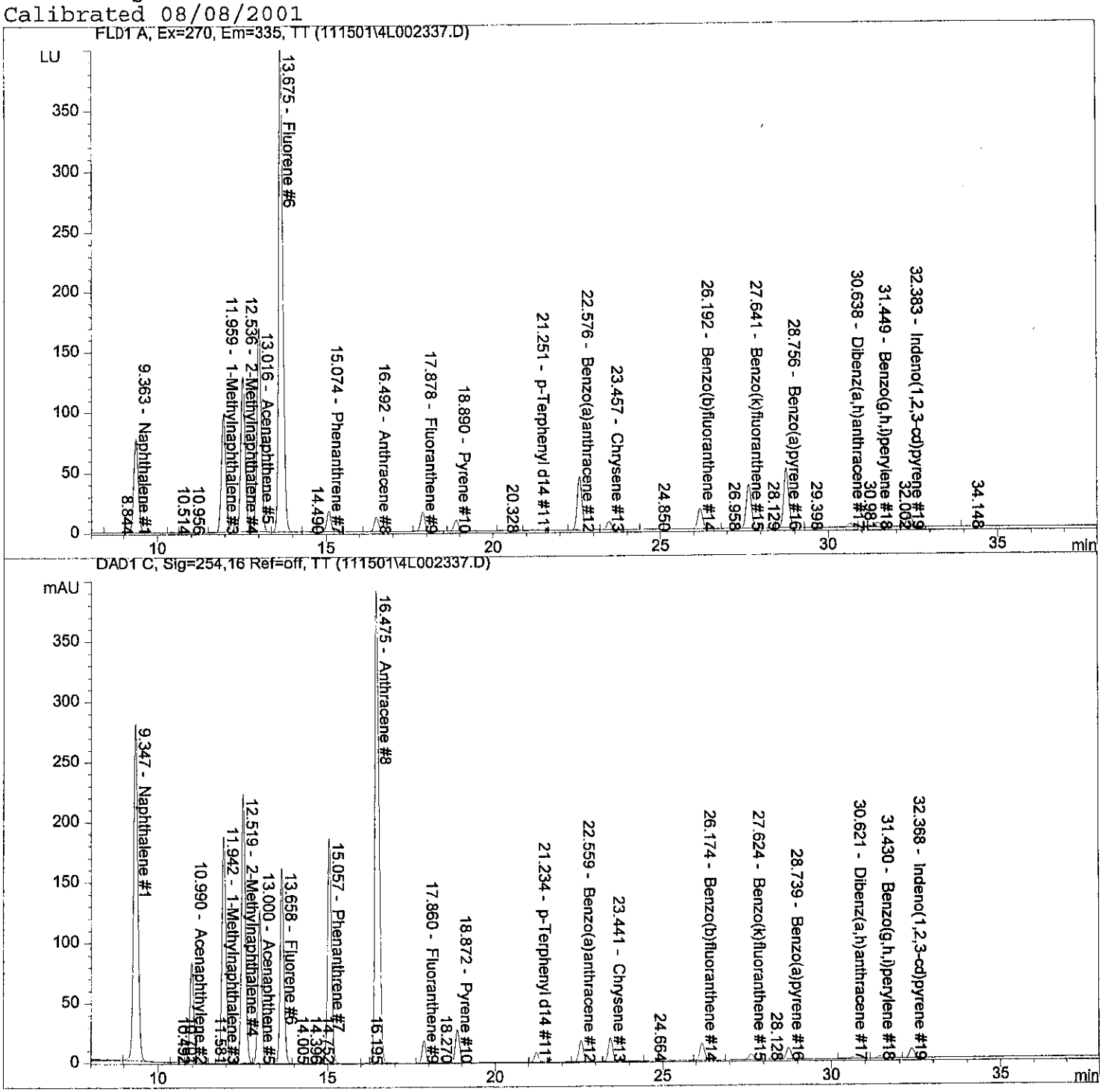
==========

*** End of Report ***

Injection Date : 11/15/2001 2:11:51 PM
Sample Name : WG108213-03 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 : 8/17/2001 9:40:38 AM by HV
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 11/1/2001 3:33:11 PM by RDC
Calibrated 08/08/2001



404

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
9.363	BB	757.91138	2.52962e-2	19.17227		Naphthalene #1
11.959	PB	899.21472	2.21330e-2	19.90228		1-Methylnaphthalene #3
12.536	BB	1181.86157	1.70635e-2	20.16669		2-Methylnaphthalene #4
13.016	BB	1561.09937	1.38416e-2	21.60806		Acenaphthene #5
13.675	BB	3735.78564	6.62187e-3	24.73787		Fluorene #6
15.074	BB	154.50119	1.63652e-1	25.28447		Phenanthrene #7
16.492	PB	110.79771	3.10196e-1	34.36905		Anthracene #8
17.878	BBA	151.45059	2.32678e-2	3.52393		Fluoranthene #9
18.890	BBA	87.66399	3.86587e-2	3.38898		Pyrene #10
21.251	BB	16.58476	2.97423e-1	4.93269	49.3%	p-Terphenyl d14 #11*
22.576	BB	444.85562	7.91256e-3	3.51995		Benzo(a)anthracene #12
23.457	BBA	69.58009	3.90495e-2	2.71707		Chrysene #13
26.192	BB	173.78506	1.63222e-2	2.83655		Benzo(b)fluoranthene #14
27.641	BB	380.03757	2.76572e-3	1.05108		Benzo(k)fluoranthene #15
28.756	BB	519.83502	4.57119e-3	2.37626		Benzo(a)pyrene #16
30.638	BB	28.78094	3.93496e-2	1.13252		Dibenz(a,h)anthracene #17
31.449	BB	43.67506	2.65165e-2	1.15811		Benzo(g,h,i)perylene #18
32.383	BB	120.37929	1.38204e-2	1.66369		Indeno(1,2,3-cd)pyrene #1

Totals : 193.54150

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	BB	2523.19409	8.25405e-3	20.82657		Naphthalene #1
10.990	BB	719.61334	2.96975e-2	21.37073		Acenaphthylene #2
11.942	BB	1595.91052	1.29459e-2	20.66043		1-Methylnaphthalene #3
12.519	BB	1871.66797	1.12393e-2	21.03619		2-Methylnaphthalene #4
13.000	BB	1072.78442	2.03163e-2	21.79506		Acenaphthene #5
13.658	BB	1347.23560	1.75240e-2	23.60896		Fluorene #6
15.057	BBA	1566.23511	1.72982e-2	27.09311		Phenanthrene #7
16.475	BBA	3336.65210	1.04262e-2	34.78855		Anthracene #8
17.860	PB	167.16650	2.17006e-2	3.62761		Fluoranthene #9
18.872	BBA	255.03252	1.43052e-2	3.64830		Pyrene #10
21.234	BBA	73.81119	6.56733e-2	4.84742	48.5%	p-Terphenyl d14 #11*
22.559	BBA	164.90468	2.22694e-2	3.67233		Benzo(a)anthracene #12
23.441	BBA	187.90706	1.51453e-2	2.84591		Chrysene #13
26.174	PBA	139.30443	2.07330e-2	2.88820		Benzo(b)fluoranthene #14
27.624	BBA	46.70740	2.25837e-2	1.05483		Benzo(k)fluoranthene #15
28.739	BBA	95.31969	2.61680e-2	2.49433		Benzo(a)pyrene #16
30.621	BB	15.43227	9.41116e-2	1.45236		Dibenz(a,h)anthracene #17

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RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
31.430	BB	22.99819	5.60829e-2	1.28981		Benzo(g,h,i)perylene #18
32.368	BB	82.09016	2.05608e-2	1.68784		Indeno(1,2,3-cd)pyrene #1

Totals : 220.68853

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
4L001805	ACCN Blank	NA			✓
06	8310 CCV		SV53-25/54-35		RR
07	V169P95 Blk				RR
08	↓ LCS				RR
09	8310 CCV		SV53-25/54-35		CC
10	↓ re-make		↓		CC
11	ESS38-23 elab spike				✓
12	8310 SURR 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: [signature] 8/10/01

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 8/10/01

Sequence Table:

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	accn blk	8310	1	Sample		
2	2	WG108288-01 CCV	8310	1	Sample		
3	3	WG108213-02 BLK	8310	1	Sample		
4	4	WG108213-03 LCS	8310	1	Sample		
5	5	L0111253-01 831W	8310	1	Sample		
6	6	L0111253-02 831W	8310	1	Sample		
7	7	L0111253-03 831W	8310	1	Sample		
8	8	WG108213-01 REF	8310	1	Sample		
9	9	WG108213-04 MS	8310	1	Sample		
10	10	WG108213-05 MSD	8310	1	Sample		
11	11	L0111253-07 831W	8310	1	Sample		
12	12	L0111253-08 831W	8310	1	Sample		
13	13	WG108288-02 CCV	8310	1	Sample		
14	14	L0111253-09 831W	8310	1	Sample		
15	13	WG108288-03 CCV	8310	1	Sample		

Partial Sequence: C:\HPCHEM\2\SEQUENCE\NOV01-1

Sel	Run	Vial	Method	Datafile	SeqTable	Calib:RF:RT	Sample Name
No	1	1	8310	4L002334	01:01		accn blk
No	2	2	8310	4L002335	✓ 02:01	SOS 56-19/56-20	WG108288-01 CC
No	3	3	8310	4L002336	✓ 03:01		WG108213-02 BL
No	4	4	8310	4L002337	✓ 04:01		WG108213-03 LC
No	5	5	8310	4L002338	✓ 05:01		L0111253-01 83
No	6	6	8310	4L002339	✓ 06:01		L0111253-02 83
No	7	7	8310	4L002340	✓ 07:01		L0111253-03 83
No	8	8	8310	4L002341	✓ 08:01		WG108213-01 RE
No	9	9	8310	4L002342	✓ 09:01		WG108213-04 MS
No	10	10	8310	4L002343	✓ 10:01		WG108213-05 MS
No	11	11	8310	4L002344	RR 11:01	RR to confirm Acenaphthylene	L0111253-07 83
No	12	12	8310	4L002345	RR 12:01		L0111253-08 83
No	13	13	8310	4L002346	✓ 13:01	SOS 56-19/56-20	WG108288-02 CC
No	14	14	8310	4L002347	✓ 14:01		L0111253-09 83
No	15	13	8310	4L002348	✓ 15:01	SOS 56-19/56-20	WG108288-03 CC

JMC 11/21/01

ECZ 11/21/01

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Nov. 15, 2001 Instrument ID HPLC4 Column ID LC-PAH Data Subdirectory 111501
Analyst Initials DDC SOP # HPLC01 Rev. # 2 K 8310 SOP # HPLC02 Rev. # ____ 8330

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 117 bar
- ☑ Waste container

Returned to Control?
Yes ____ No ____

Additional Maintenance
Problem: _____

_____

_____

Action Taken: _____

_____

_____

Comments

Reviewed By: EZ 11/21/01

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Volume 175
Page 123

Parameter: 8310 H_2O SOP #: EXHPLC1 Revision #: 6
Extraction Analyst(s): JAR, DP TV/KD Analyst(s): DP JAR
Date/Time Extracted: 11/14/01 @ 14:30 Date TV/KD: 11/14/01
Spike/Surrogate Analyst: DP Witness: JAR
Surrogate #: ES5003 8-39 Earliest Hold Date: 11/20
Spike #: A = ES5003 9-22 Spike #: B = —

Extraction Work Group WG 108213
Analytical Work Group WG 108266

Extract Relinquished By: DP
Extract Received By & Date: EC2 11/15/01

	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 108213-02
2	LCS					1		500ml		C				WG 108213-03
3	11-253-01	8310				965ml				1				
4	-02					1				1				
5	-03					1				T				
6	-04					950ml				1				WG108213-01
7	-05MS					1		500ml		C				WG108213-04
8	-06MSD					1		1		1				WG108213-05
9	-07					940ml				1				
10	-08					950ml				1				
11	-09					880ml				T				
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

11/14/01 T JP

Methylene Chloride Lot #: 41109
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetonitrile Lot #: √18801
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

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: 11/15/01

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Extraction Notes For Volume # 175 Page # 123

General Comments:	≠ MS and MSD of 11-253-04

Extraction Anomalies:	nothing to report

Concentration Anomalies:	nothing to report

Clean-Up Anomalies:	N/A

Supervisor Review: _____ Date: _____

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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.: L0111253

METHOD

Analysis: SW-846 9056

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: Re-analyses of reference sample and MSD were made after samples were out of hold.

PREPARATION: All acceptance criteria were met.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : Continuing calibration for PO4-P failed high for the mid and end run check standards. PO4-P had not been detected in any of the samples analyzed before the failing mid-run standard and, therefore, they were not re-analyzed. The duplicate, the MS, and the MSD required re-analysis. The instrument was re-calibrated and a new sample batch was analyzed, including blank, LCS, reference and duplicate, and reference and MS/MSD. The re-analysis of the reference and its MSD were done out of holding time.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The reference and its MSD were re-analyzed out of holding time due to continuing calibration problems with PO4-P which required re-calibration. All other 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: 4/28/09

Rev. 7/14/00

Run Date: 11/14/2001 A

Analyst: RDC

Instrument: IC2

Workorders:	Due Date:	Priority:
WG108195 11-253	11/21/2001	PFF

		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	NA
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	NA
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Surrogates	NA
	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:
...NO2-N, NO3-N and PO4-P only

Mid and ending CCV high for PO4-P, therefore, the Duplicate, MS, and MSD will need to be re-analyzed.

Level 4 pkg. needed.

Primary Reviewer: RDC 11/16/01

Secondary Reviewer: 11/20/01

Supervisor Review: 11/20/01

√ = Checked & OK

NA = Not Applicable

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Run Date: 11/15/2001 A

Analyst: RDC

Instrument: IC2

Workorders:	Due Date:	Priority:
WG108294 11-253	11/21/2001	PFF

		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	NA
Laboratory Control Sample:	Quant Report/Chromatogram	√
	Surrogates	NA
	Spike Compounds	√
	MS/MSD	√
	Excel Spreadsheet	√
Samples:	TCL Hits	√
	Surrogates	NA
	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:

...NO2-N, NO3-N and PO4-P only

REF, DUP, REF, MS/MSD reanalyzed due to CCV failure for PO4-P on previous run.

Re-calibration due to high PO4-P for CCV.

All runs within holding time except the re-analysis of the reference L0111253-04 and the MSD L0111253-06.

L0111253-05 & 06 are reported from this workgroup.

Level 4 pkg. needed.

Runlog needs approval and signature.

Primary Reviewer: RDC 11/16/01

Secondary Reviewer: 11/20/01

Supervisor Review: 11/20/01

√ = Checked & OK

NA = Not Applicable

Anions (9056)

Login Number: 6011253

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: 11/27/01

2.4.5.1 QC Summary

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, Water

Analytical Work Group:	WG108195	**Prep Work Group:**	NA	**Blank Filename:**	IC2_015	**Sample Number:**	L0111253-04
Method:	9056	**Ext Date:**	NA	**LCS Filename:**	IC2_016	**Sample Filename:**	IC2_020
Instrument:	IC2	**Ext Bench Sheet:**	NA	**Sample Number:**	L0111253-03	**MS Filename:**	IC2_026
Analyst:	RDC	**Run Date:**	14-Nov-01	**Sample Filename:**	IC2_019	**MSD Filename:**	IC2_027
				Duplicate Filename:	IC2_025		

	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	3.51	ND	ND	ND	3.66	3.91	3.79	ND	95.9	90	110	107	104	80	120	NA	3	20			
NITRATE-N	0.6	ND	4.06	3.85	0.205	0.196	ND	4.06	4.30	4.22	ND	97.3	90	110	106	104	80	120	4.49	2	20			
PHOSPHATE-P	1	ND	9.78	10.52	ND	ND	ND	9.78	12.10	11.61	ND	108	90	110	124	119	80	120	NA	4	20		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

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Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, Water

Analytical Work Group:	WG108294	**Prep Work Group:**	NA	**Blank Filename:**	IC2_015	**Sample Number:**	L0111253-04
Method:	9056	**Ext Date:**	NA	**LCS Filename:**	IC2_016	**Sample Filename:**	IC2_012 (out of holding time)
Instrument:	IC2	**Ext Bench Sheet:**	NA	**Sample Number:**	L0111253-03	**MS Filename:**	IC2_010
Analyst:	RDC	**Run Date:**	15-Nov-01	**Sample Filename:**	IC2_013	**MSD Filename:**	IC2_011 (out of holding time)
				Duplicate Filename:	IC2_014		

	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	3.60	ND	ND	ND	3.66	3.56	3.58	ND	98.3	90	110	97.1	97.7	80	120	NA	1	20			
NITRATE-N	0.6	ND	4.06	4.01	0.165	0.165	ND	4.06	3.87	3.93	ND	98.8	90	110	95.3	96.8	80	120	0.00	2	20			
PHOSPHATE-P	1	ND	9.78	9.17	ND	ND	ND	9.78	9.30	9.24	ND	93.8	90	110	95.1	94.5	80	120	NA	1	20			

NOTES & DEFINITIONS :

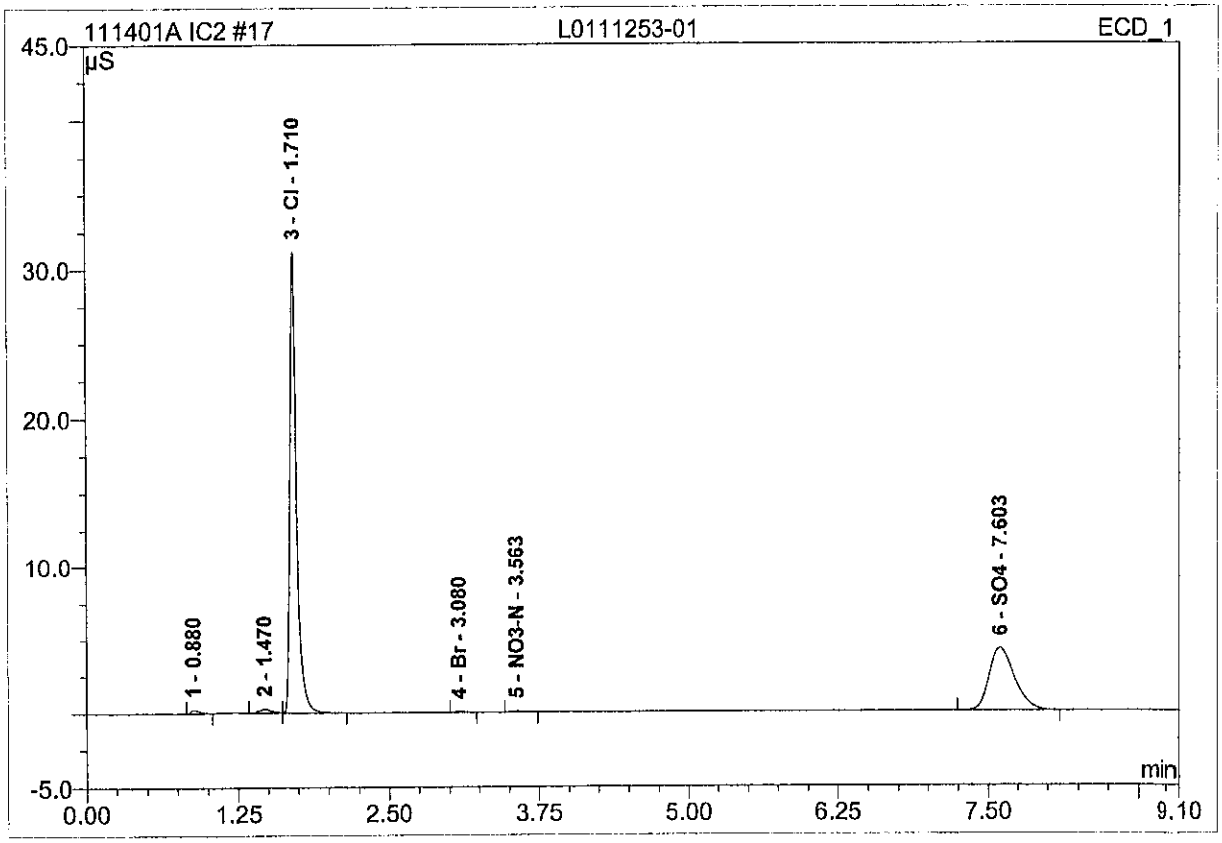
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL = REPORTING DETECTION LIMIT
D = DETECTED, RESULT MUST BE GREATER THAN ZERO
H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

2.4.5.2 Sample Data

17 L0111253-01

1,1 GSG CCI REC'D 111401 002-CEF9-2S-Q4-01-11

Sample Name:	**L0111253-01**	*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:*	**1.0100**
Recording Time:	**11/14/2001 12:32**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

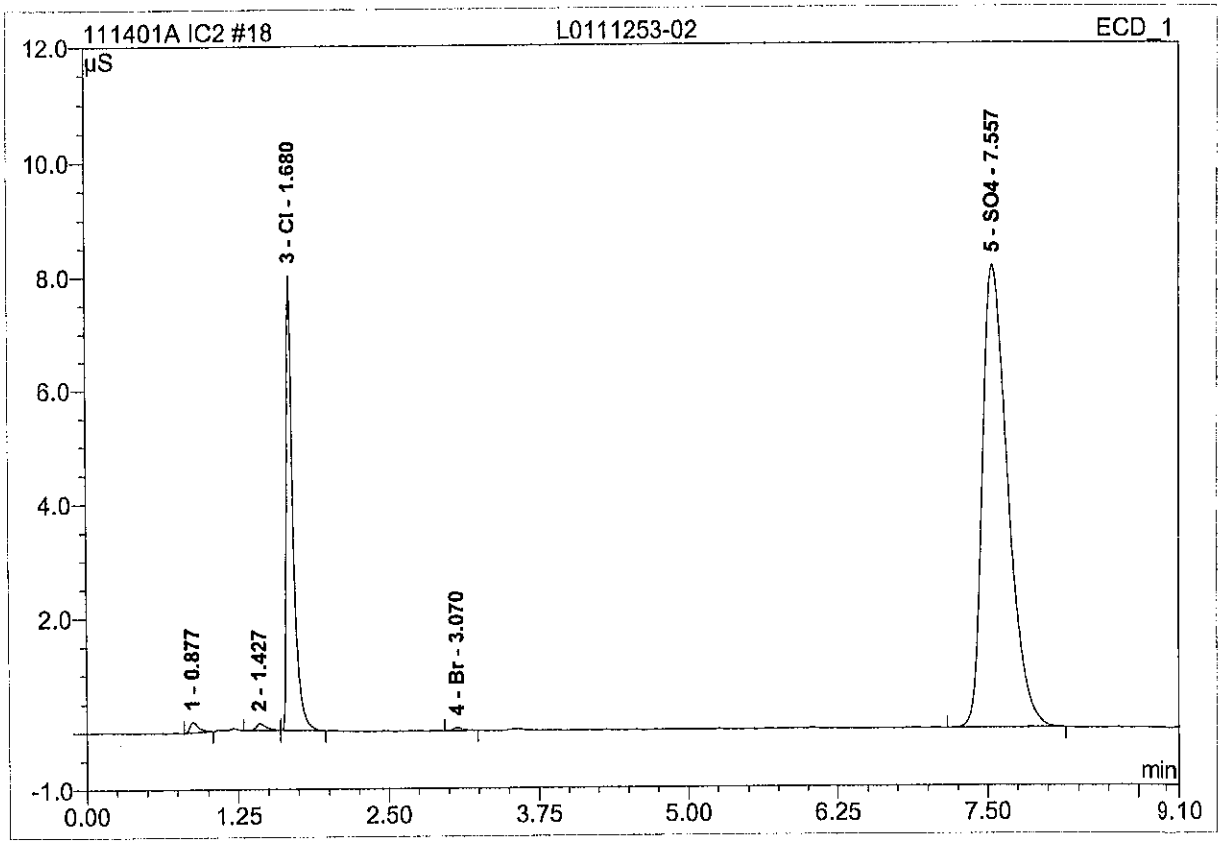


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.237	0.020	0.64	n.a.	BMB
2	1.47	n.a.	0.274	0.033	1.06	n.a.	BM
3	1.71	Cl	31.157	1.983	64.34	19.742	MB
4	3.08	Br	0.065	0.006	0.19	0.208	BMB
5	3.56	NO3-N	0.088	0.010	0.32	0.146 ✓	BMB
6	7.60	SO4	4.233	1.031	33.46	14.571	BMB
Total:			36.054	3.083	100.00	34.667	

18 L0111253-02

1,1 GSG CCI REC'D 111401 002-CEF9-3S-Q4-01-11

Sample Name:	**L0111253-02**	*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:*	**1.0100**
Recording Time:	**11/14/2001 12:44**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

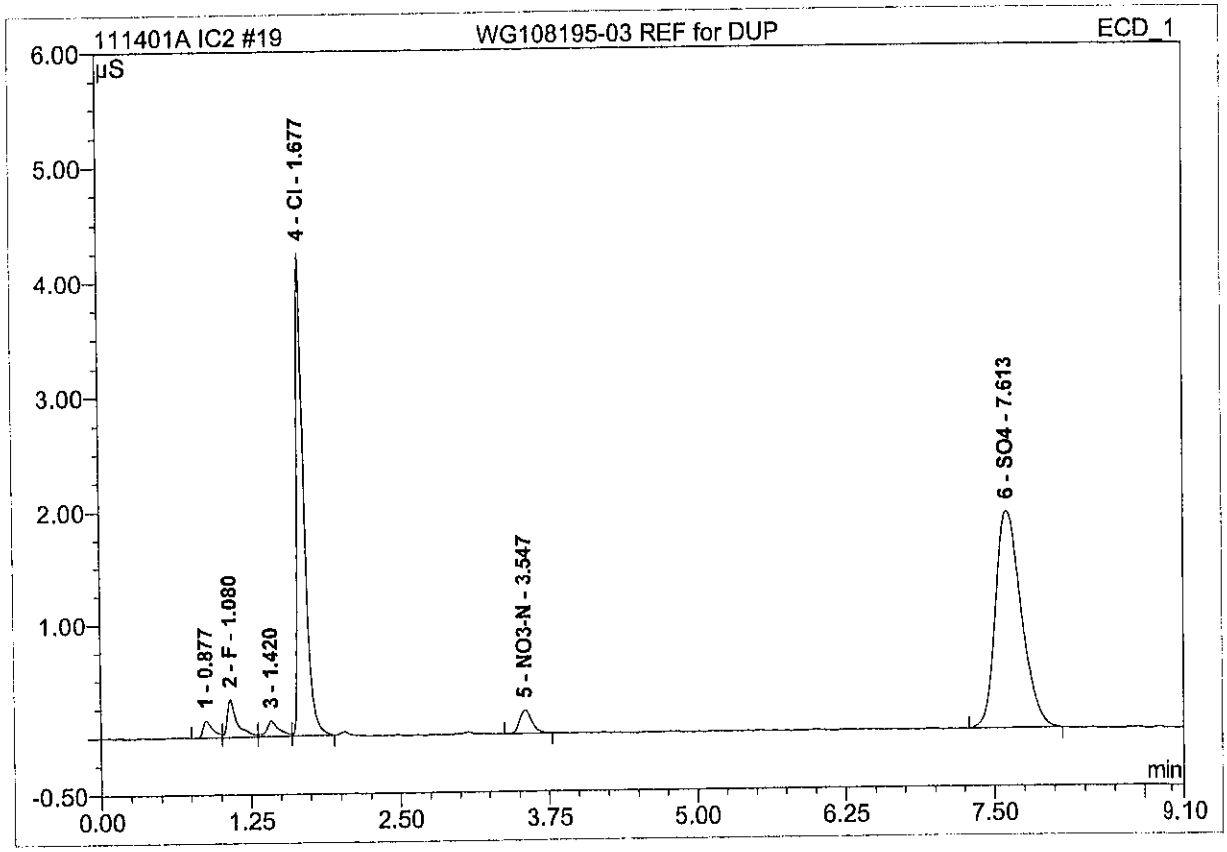


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.180	0.015	0.59	n.a.	BMB
2	1.43	n.a.	0.114	0.011	0.44	n.a.	BM
3	1.68	Cl	7.991	0.526	20.69	5.384	MB
4	3.07	Br	0.055	0.006	0.22	0.206	BMB
5	7.56	SO4	8.120	1.984	78.06	27.186	BMB
Total:			16.462	2.541	100.00	32.776	

19 WG108195-03 REF for DUP

1,1 GSG L0111253-03 REF for DUP

Sample Name:	**WG108195-03 REF for 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:*	**1.0100**
Recording Time:	**11/14/2001 12:55**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

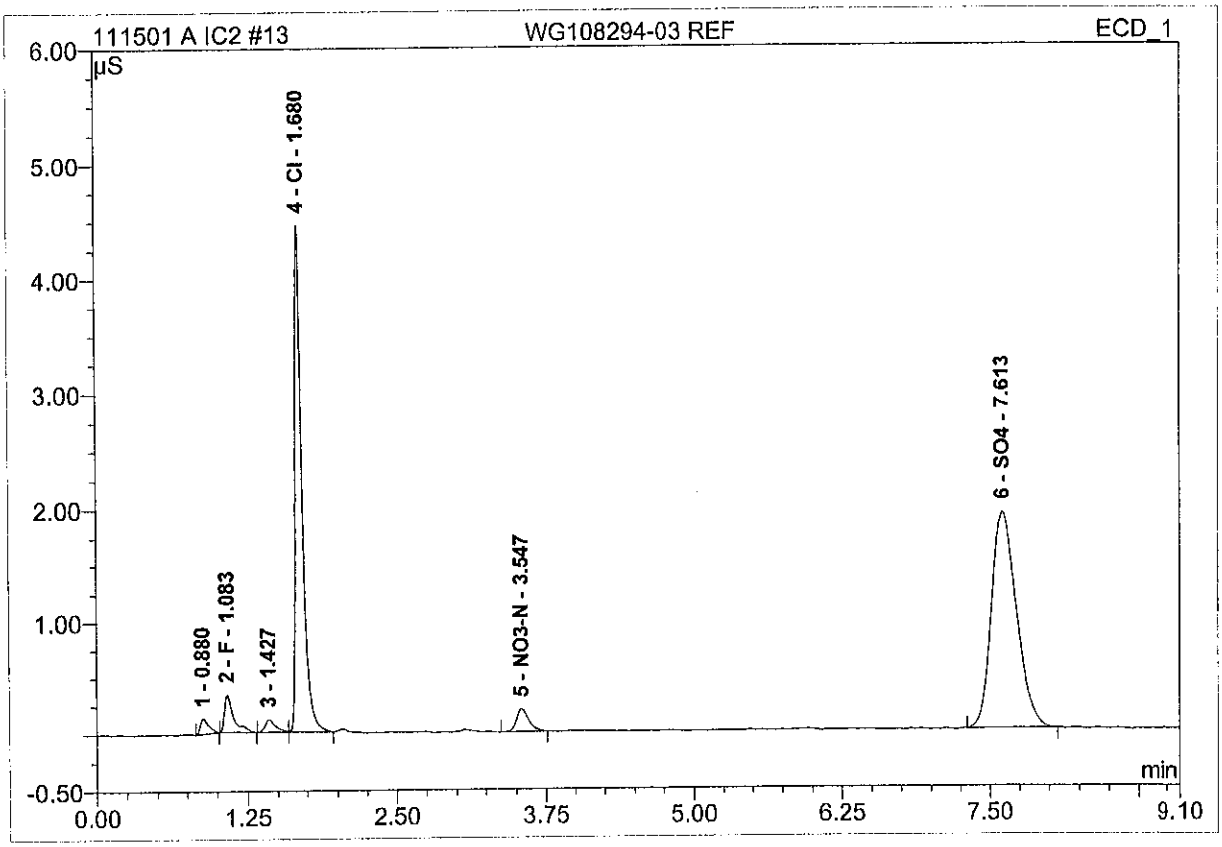


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.147	0.014	1.69	n.a.	BM
2	1.08	F	0.325	0.032	3.79	0.427	M
3	1.42	n.a.	0.134	0.016	1.92	n.a.	M
4	1.68	Cl	4.239	0.287	33.73	3.034	MB
5	3.55	NO3-N	0.200	0.024	2.85	0.205 ✓	BMB
6	7.61	SO4	1.914	0.477	56.04	7.230	BMB
Total:			6.958	0.852	100.00	10.897	

13 WG108294-03 REF

1,1 RDC L0111253-03 REF for DUP

Sample Name:	**WG108294-03 REF**	*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:*	**1.0100**
Recording Time:	**11/15/2001 15:28**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

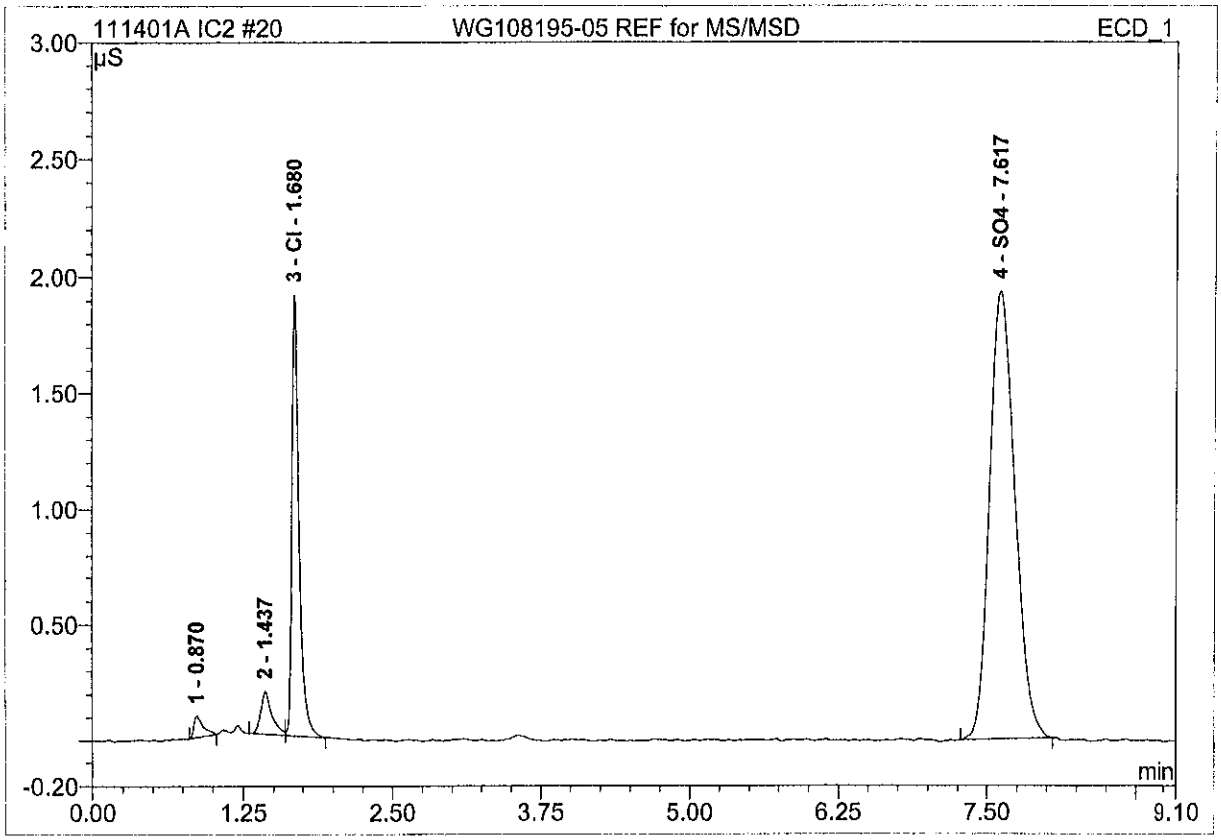


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.134	0.011	1.32	n.a.	BMB
2	1.08	F	0.335	0.029	3.44	0.305	BMB
3	1.43	n.a.	0.114	0.012	1.36	n.a.	BM
4	1.68	Cl	4.454	0.303	35.47	3.118	MB
5	3.55	NO3-N	0.200	0.024	2.80	0.165	BMB
6	7.61	SO4	1.919	0.474	55.61	7.023	BMB
Total:			7.156	0.853	100.00	10.612	

20 WG108195-05 REF for MS/MSD

1,1 GSG L0111253-04 REF

Sample Name:	**WG108195-05 REF for MS/MSD**	*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:*	**1.0100**
Recording Time:	**11/14/2001 13:07**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



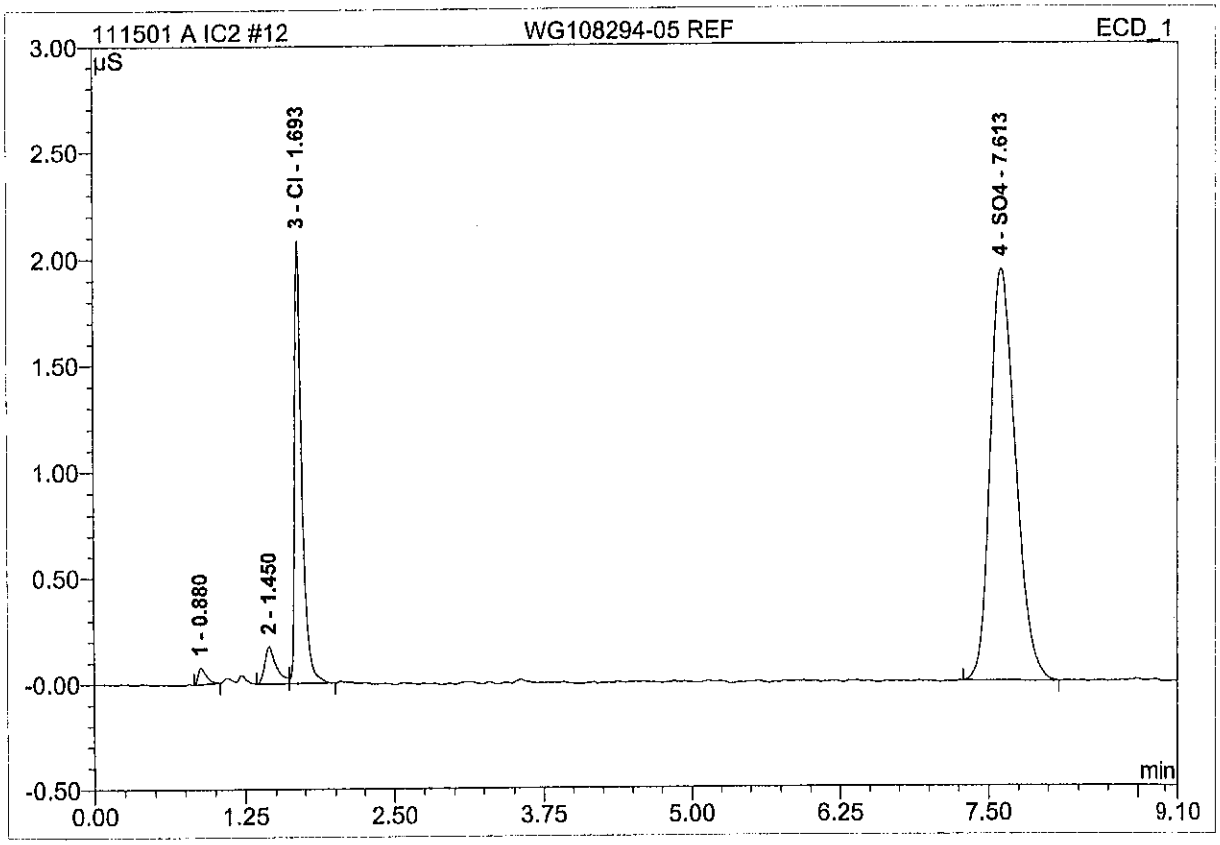
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.092	0.008	1.28	n.a.	BMB
2	1.44	n.a.	0.184	0.020	3.15	n.a.	BM
3	1.68	Cl	1.904	0.129	20.37	1.475	MB
4	7.62	SO4	1.932	0.476	75.19	7.214	BMB
Total:			4.113	0.633	100.00	8.689	

12 WG108294-05 REF

1,1 RDC L0111253-04 REF for MS/MSD

Sample Name:	**WG108294-05 REF**	*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:*	**1.0100**
Recording Time:	**11/15/2001 15:09**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

out of holding time

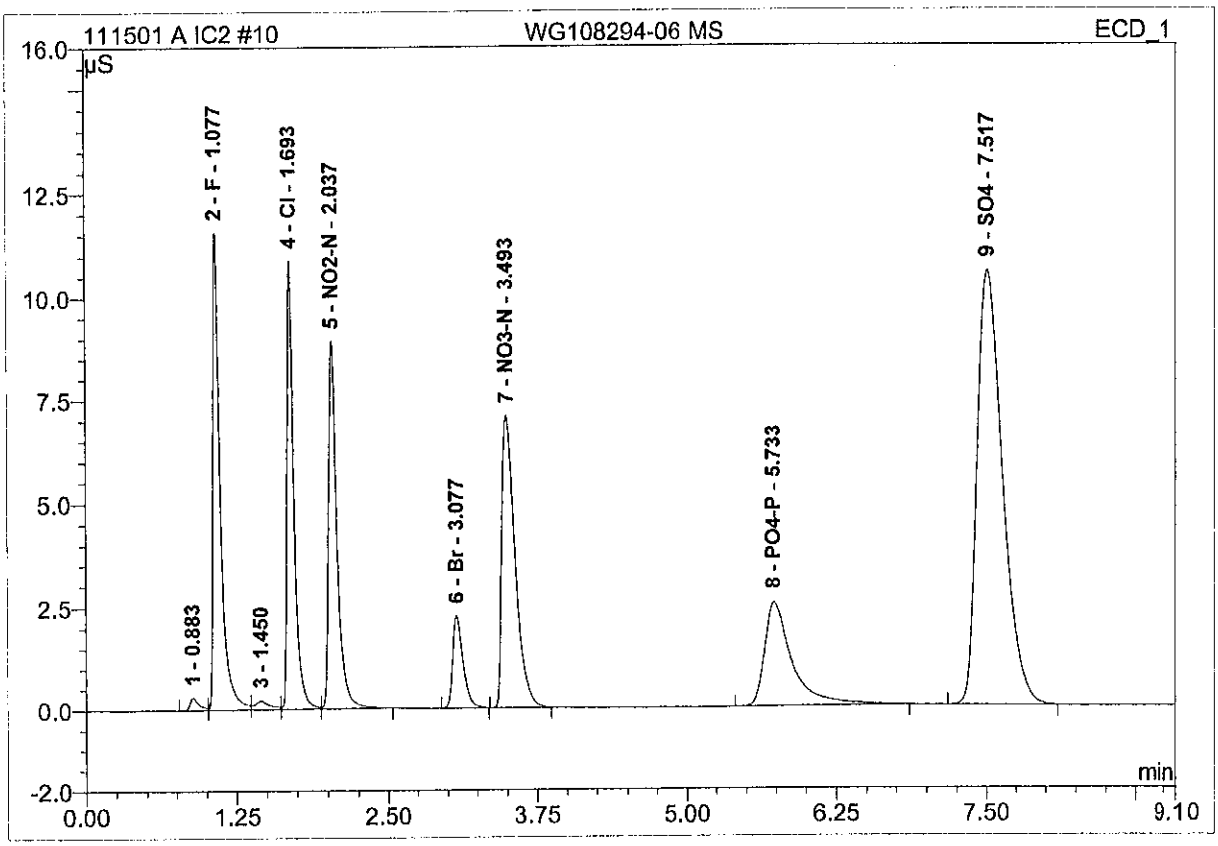


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.078	0.006	0.96	n.a.	BMB
2	1.45	n.a.	0.176	0.020	3.06	n.a.	BM
3	1.69	Cl	2.079	0.144	22.15	1.500	MB
4	7.61	SO4	1.937	0.479	73.82	7.089	BMB
Total:			4.271	0.649	100.00	8.589	

10 WG108294-06 MS

1,1 RDC L0111253-05 MS /SOS0056-35

Sample Name:	**WG108294-06 MS**	*Injection Volume:*	**25.0**
Vial Number:	**10**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056**	*Dilution Factor:*	**1.0100**
Recording Time:	**11/15/2001 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	0.88	n.a.	0.316	0.028	0.41	n.a.	BM
2	1.08	F	11.571	0.834	12.32	5.866	M
3	1.45	n.a.	0.224	0.031	0.46	n.a.	M
4	1.69	Cl	10.879	0.730	10.79	7.470	M
5	2.04	NO2-N	8.921	0.734	10.84	3.555	MB
6	3.08	Br	2.259	0.231	3.41	5.826	BMB
7	3.49	NO3-N	7.079	0.919	13.58	3.869	BMB
8	5.73	PO4-P	2.538	0.684	10.11	9.296	BMB
9	7.52	SO4	10.556	2.576	38.07	35.542	BMB
Total:			54.343	6.766	100.00	71.422	

IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

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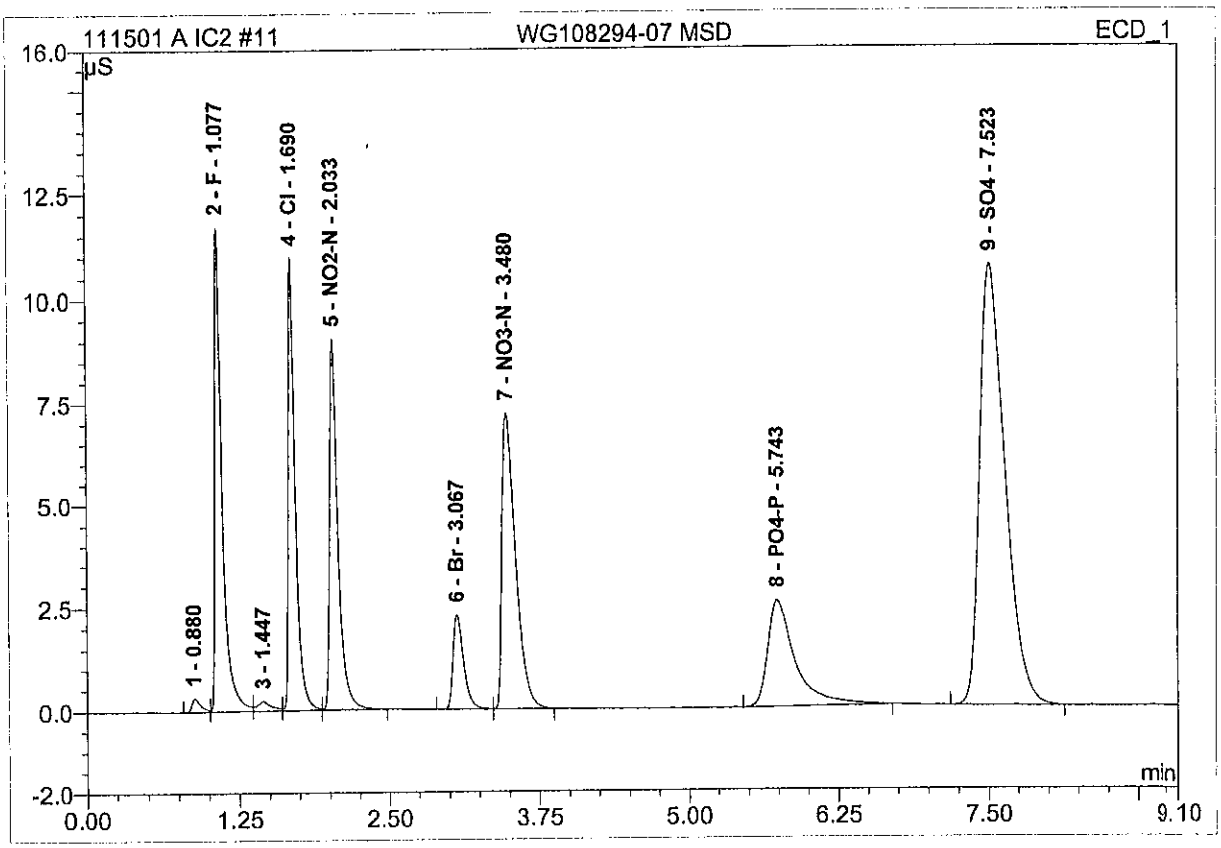
11 WG108294-07 MSD

1,1 RDC L0111253-06 MSD /SOS0056-35

Sample Name:	**WG108294-07 MSD**	*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:*	**1.0100**
Recording Time:	**11/15/2001 14:58**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

Out of holding time

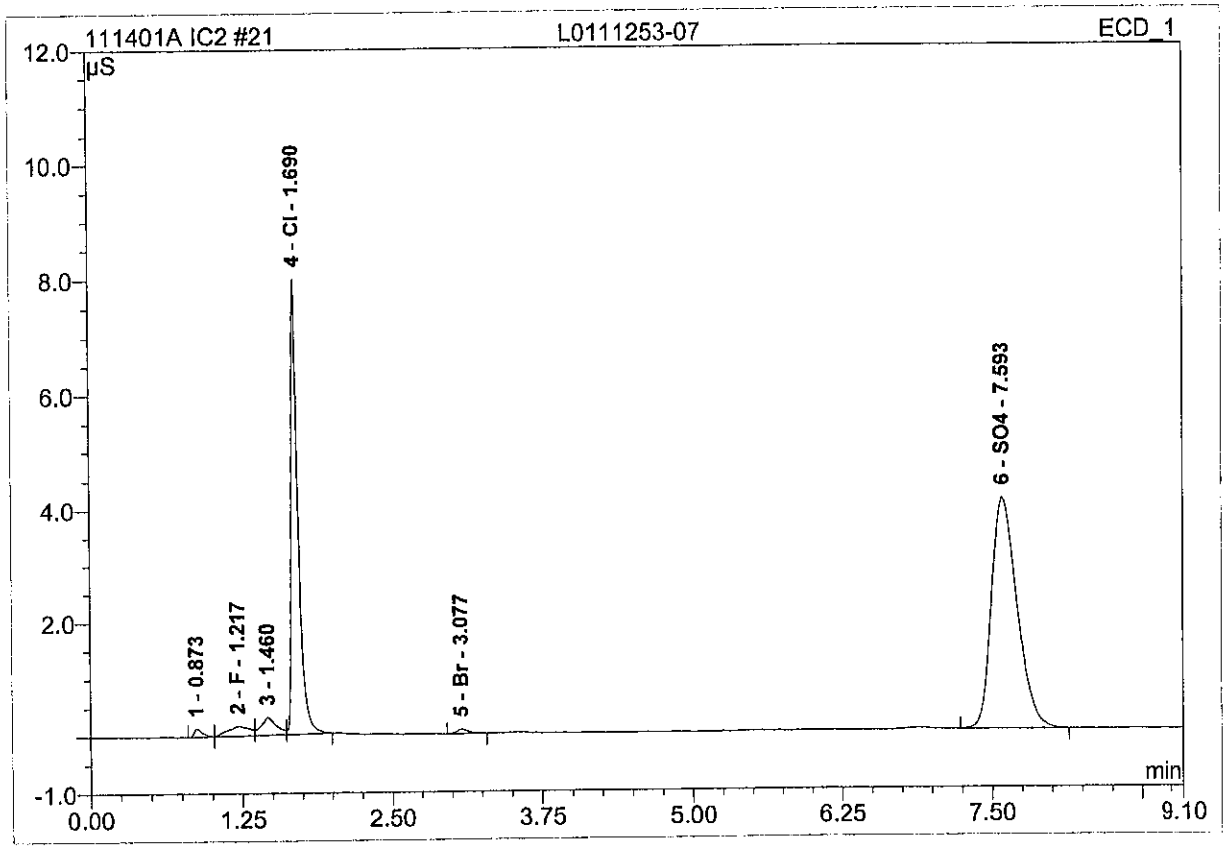


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.323	0.029	0.42	n.a.	BM
2	1.08	F	11.707	0.841	12.31	5.918	M
3	1.45	n.a.	0.231	0.032	0.47	n.a.	M
4	1.69	Cl	10.970	0.734	10.75	7.516	M
5	2.03	NO2-N	9.021	0.738	10.81	3.577	MB
6	3.07	Br	2.276	0.233	3.41	5.890	BM
7	3.48	NO3-N	7.209	0.933	13.66	3.929	MB
8	5.74	PO4-P	2.561	0.680	9.95	9.241	BMB
9	7.52	SO4	10.683	2.611	38.22	36.025	BMB
Total:			54.982	6.833	100.00	72.096	

21 L0111253-07

1,1 GSG CCI REC'D 111401 002-CEF9-9S-Q4-01-11

Sample Name:	**L0111253-07**	*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:*	**1.0100**
Recording Time:	**11/14/2001 13:18**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

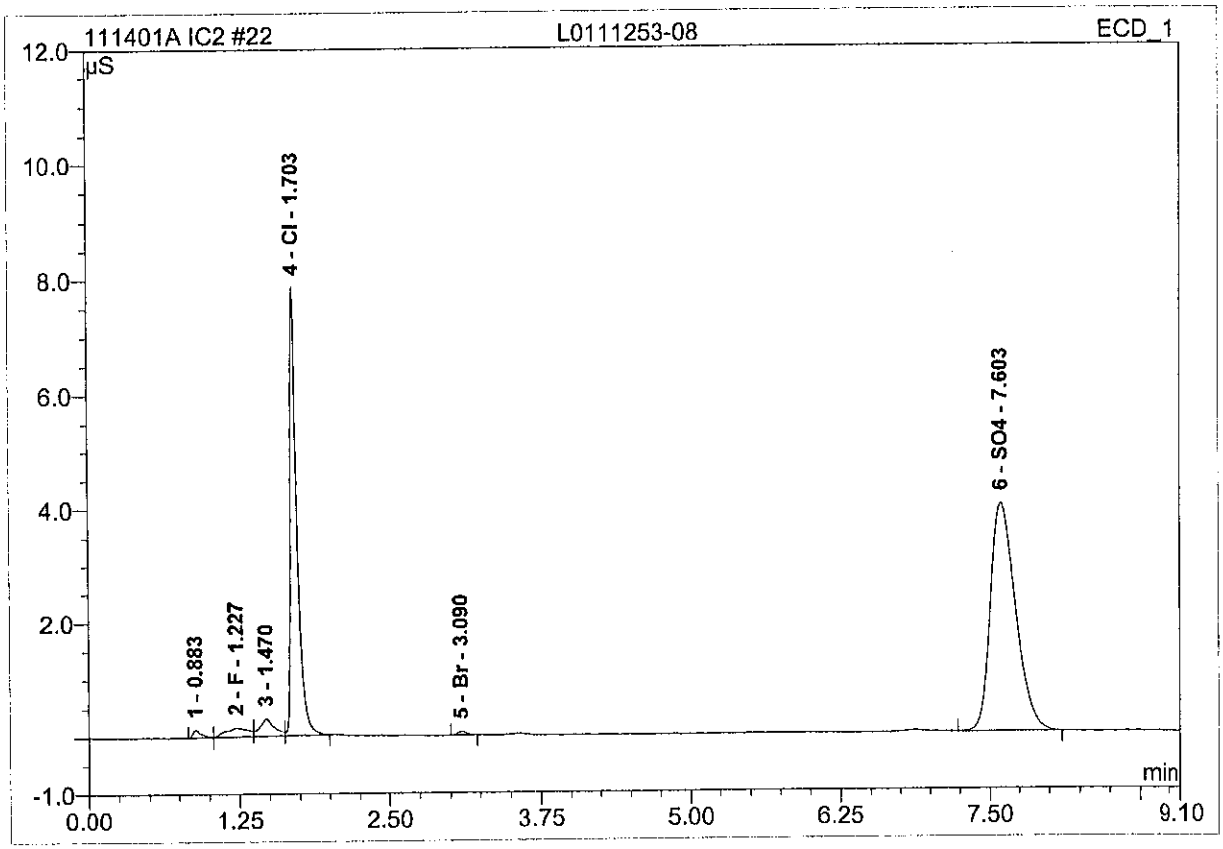


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.141	0.012	0.71	n.a.	BM
2	1.22	F	0.167	0.035	2.17	0.446	M
3	1.46	n.a.	0.311	0.045	2.79	n.a.	M
4	1.69	Cl	7.969	0.516	31.90	5.286	MB
5	3.08	Br	0.076	0.009	0.55	0.287	BMB
6	7.59	SO4	4.080	1.001	61.88	14.161	BMB
Total:			12.744	1.617	100.00	20.181	

22 L0111253-08

1,1 GSG CCI REC'D 111401 002-9DUP-Q4-01-1

Sample Name:	**L0111253-08**	*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:*	**1.0100**
Recording Time:	**11/14/2001 13:30**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

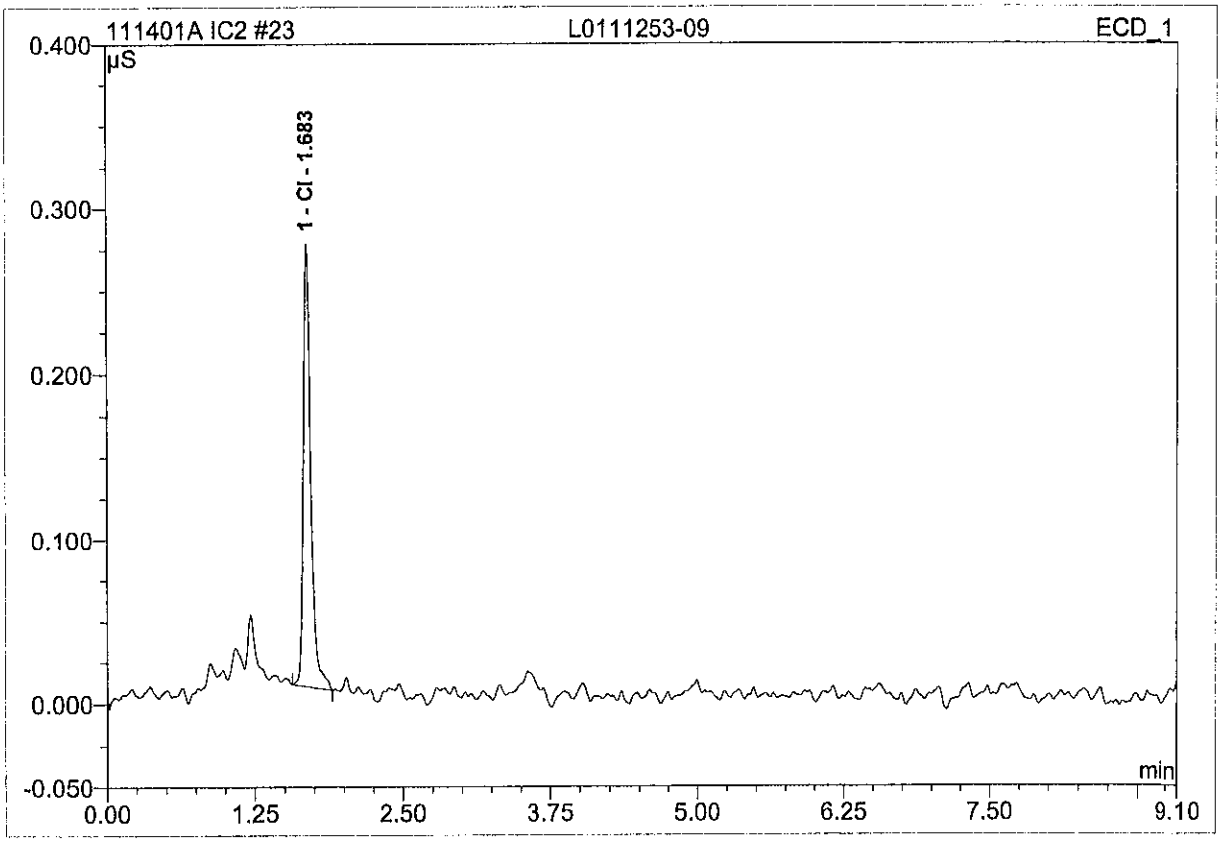


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.136	0.011	0.71	n.a.	BM
2	1.23	F	0.163	0.036	2.25	0.449	M
3	1.47	n.a.	0.304	0.043	2.74	n.a.	M
4	1.70	Cl	7.835	0.509	32.14	5.217	MB
5	3.09	Br	0.063	0.006	0.35	0.206	BMB
6	7.60	SO4	3.995	0.978	61.81	13.868	BMB
Total:			12.495	1.583	100.00	19.741	

23 L0111253-09

1,1 GSG CCI REC'D 111401 002-9EQB-Q4-01-11

Sample Name:	**L0111253-09**	*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:*	**1.0100**
Recording Time:	**11/14/2001 13:41**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



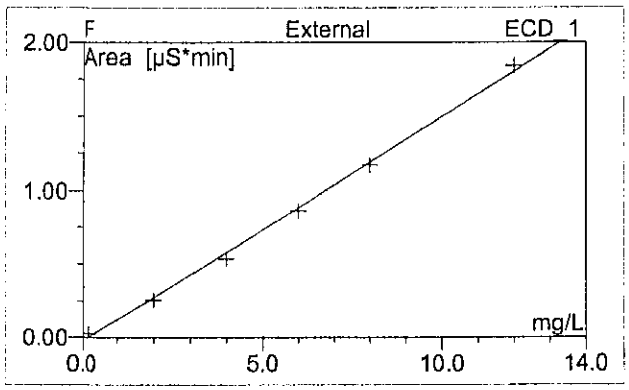
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.68	Cl	0.268	0.019	100.00	0.395	BMB
Total:			0.268	0.019	100.00	0.395	

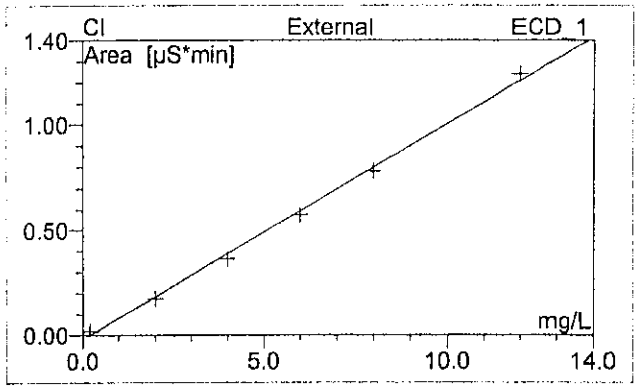
2.4.5.3 Standards Data

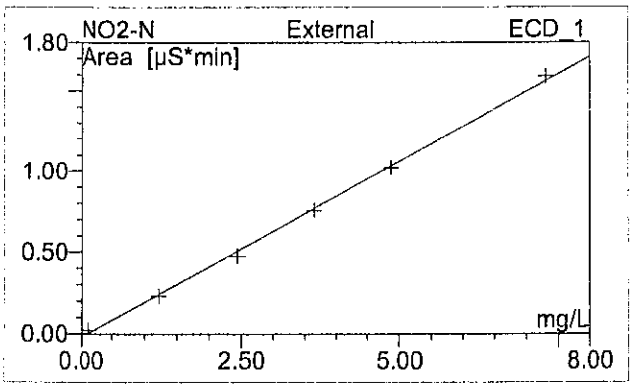
8 ANION LVL #1

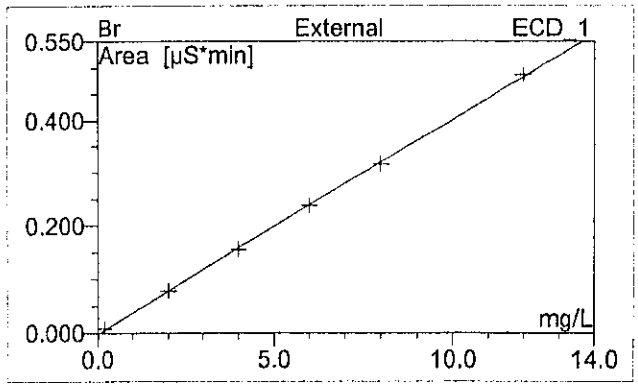
1,1 GSG ANION LVL #1 SOS0056-10

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:	**10/31/2001 12:27**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**







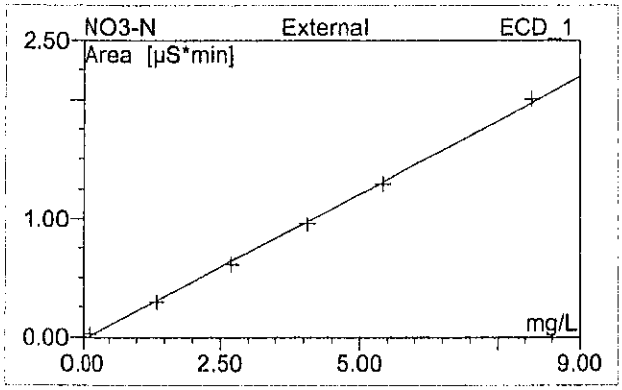


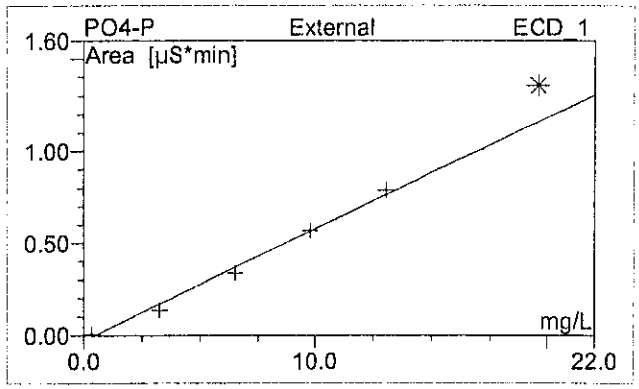
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	1.08	F	0LOff	6	99.8922	-0.0325	0.1530	0.0000
2	1.69	Cl	0LOff	6	99.8738	-0.0207	0.1025	0.0000
3	2.05	NO2-N	0LOff	6	99.9309	-0.0221	0.2169	0.0000
4	3.14	Br	0LOff	6	99.9812	-0.0026	0.0404	0.0000
5	3.63	NO3-N	0LOff	6	99.9448	-0.0257	0.2466	0.0000
6	6.13	PO4-P	0LOff	5	99.6515	-0.0288	0.0608	0.0000
7	7.69	SO4	0LOff	6	99.9300	-0.0685	0.0762	0.0000
Average:					99.8864	-0.0287	0.1281	0.0000

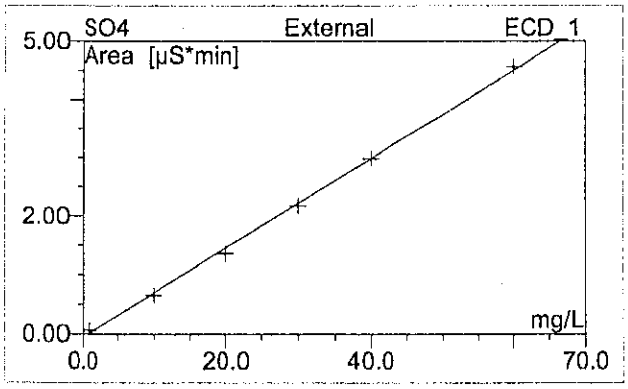
8 ANION LVL #1

1,1 GSG ANION LVL #1 SOS0056-10

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:	**10/31/2001 12:27**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**





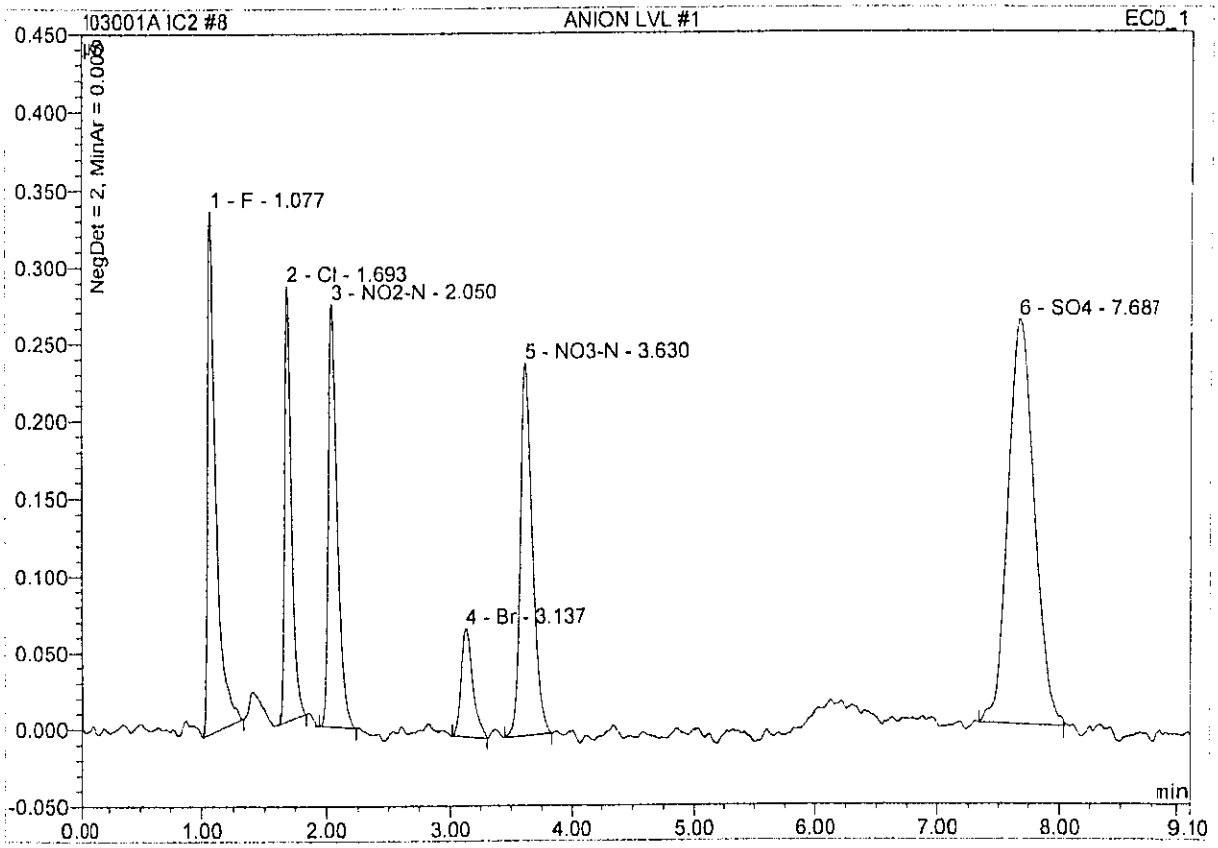


No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	1.08	F	0LOff	6	99.8922	-0.0325	0.1530	0.0000
2	1.69	Cl	0LOff	6	99.8738	-0.0207	0.1025	0.0000
3	2.05	NO2-N	0LOff	6	99.9309	-0.0221	0.2169	0.0000
4	3.14	Br	0LOff	6	99.9812	-0.0026	0.0404	0.0000
5	3.63	NO3-N	0LOff	6	99.9448	-0.0257	0.2466	0.0000
6	6.13	PO4-P	0LOff	5	99.6515	-0.0288	0.0608	0.0000
7	7.69	SO4	0LOff	6	99.9300	-0.0685	0.0762	0.0000
Average:					99.8864	-0.0287	0.1281	0.0000

8 ANION LVL #1

1,1 GSG ANION LVL #1 SOS0056-10

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:	**10/31/2001 12:27**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

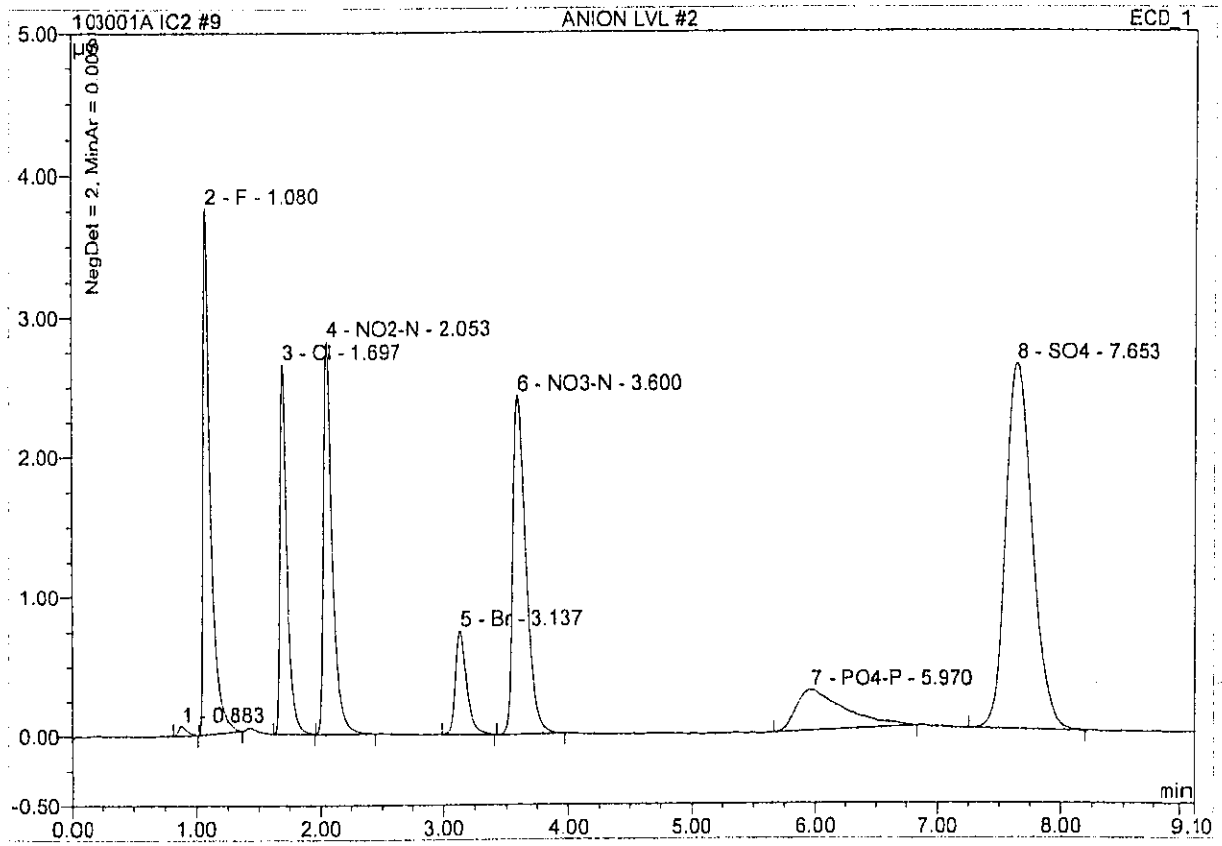


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.08	F	0.339	0.026	15.33	0.381	BMB
2	1.69	Cl	0.282	0.018	10.81	0.379	BMB
3	2.05	NO2-N	0.274	0.023	13.49	0.206	BMB
4	3.14	Br	0.071	0.008	4.72	0.261	BMB
5	3.63	NO3-N	0.241	0.028	16.81	0.219	BMB
6	7.69	SO4	0.262	0.065	38.84	1.753	BMB
Total:			1.470	0.168	100.00	3.198	

9 ANION LVL #2

1,1 GSG 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.**
Quantit. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/31/2001 12:39**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

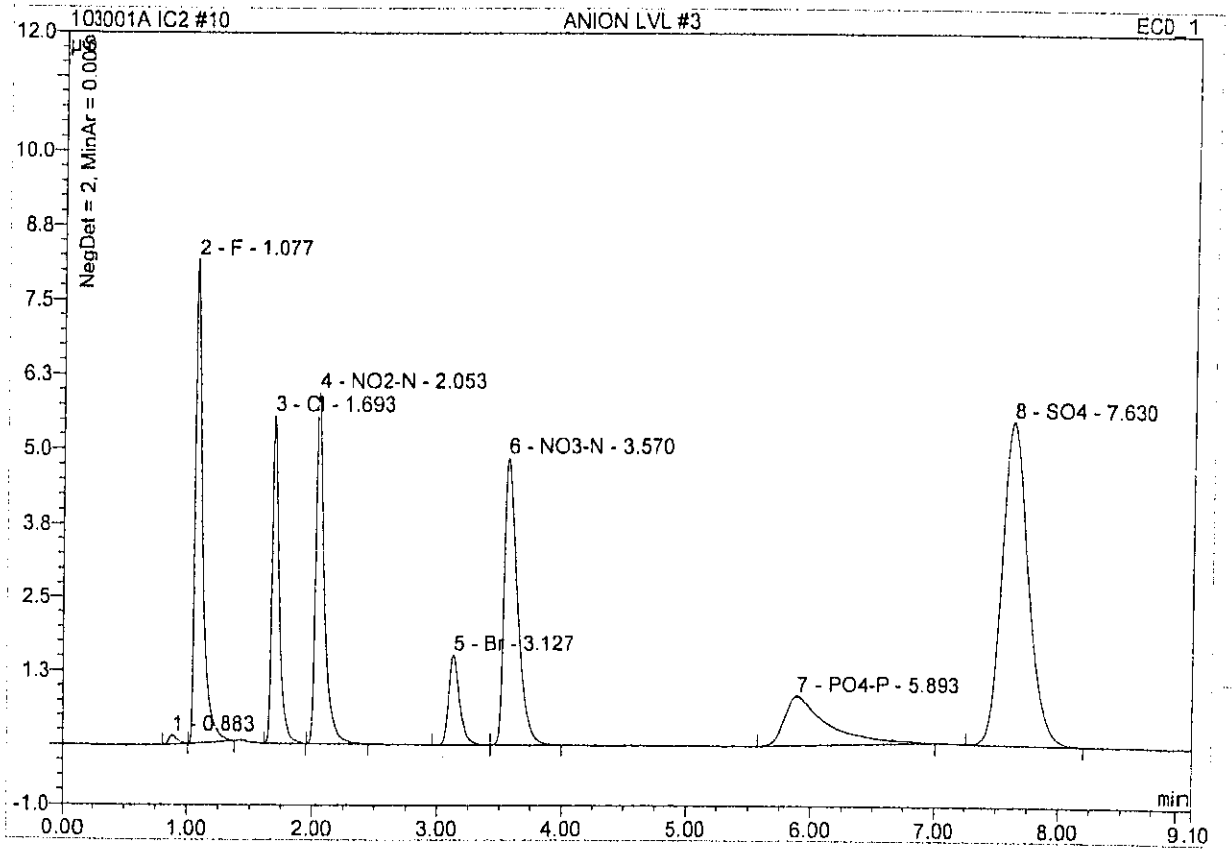


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.067	0.005	0.28	n.a.	BMB
2	1.08	F	3.758	0.256	14.01	1.887	BMB
3	1.70	Cl	2.648	0.177	9.67	1.927	BMB
4	2.05	NO2-N	2.818	0.232	12.69	1.171	BMB
5	3.14	Br	0.751	0.078	4.25	1.990	BMB
6	3.60	NO3-N	2.428	0.296	16.18	1.304	BMB
7	5.97	PO4-P	0.294	0.133	7.26	3.013	BMB
8	7.65	SO4	2.618	0.652	35.65	9.449	BMB
Total:			15.381	1.829	100.00	20.741	

10 ANION LVL #3

1,1 GSG 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:	**10/31/2001 12:50**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

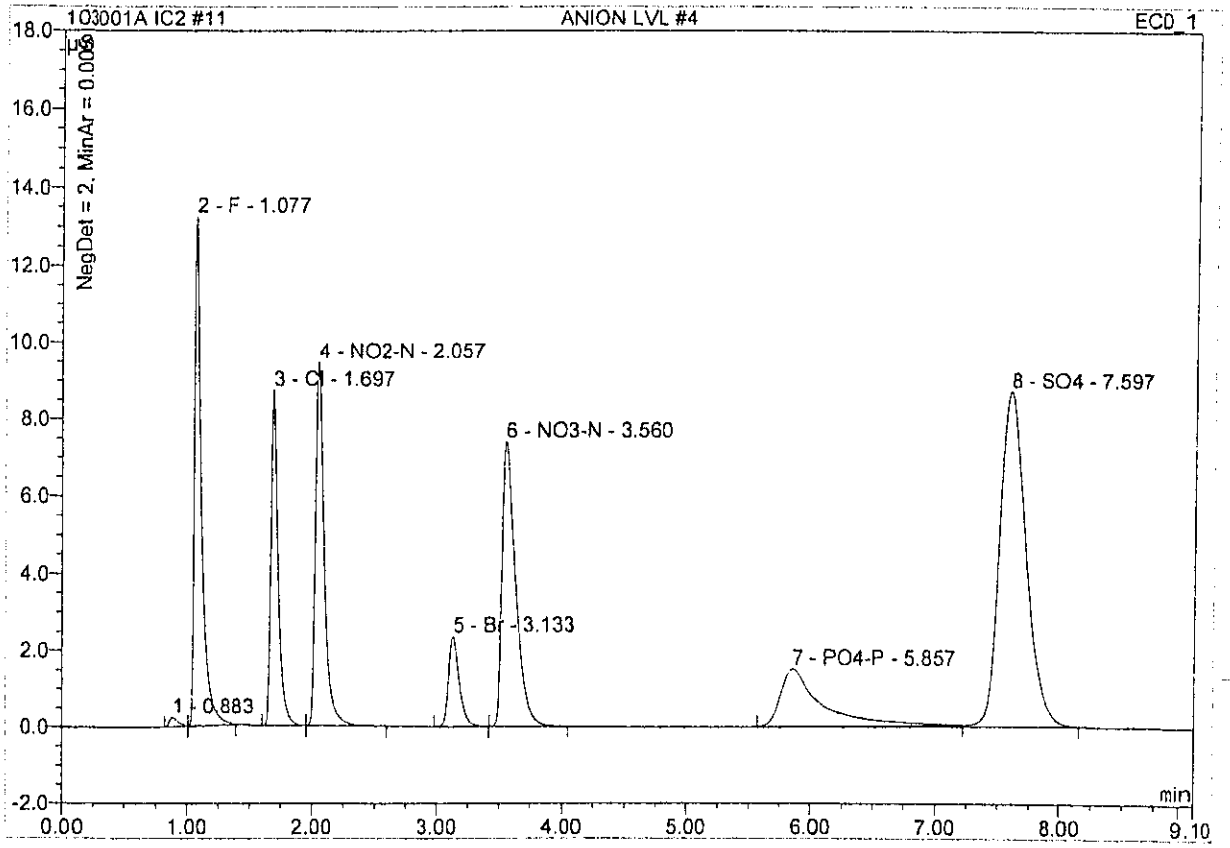


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.150	0.011	0.30	n.a.	BMB
2	1.08	F	8.154	0.536	13.96	3.719	BMB
3	1.69	Cl	5.548	0.365	9.49	3.758	BMB
4	2.05	NO2-N	5.937	0.477	12.40	2.299	BMB
5	3.13	Br	1.520	0.155	4.04	3.907	BM
6	3.57	NO3-N	4.859	0.610	15.88	2.579	MB
7	5.89	PO4-P	0.838	0.334	8.70	5.896	BMB
8	7.63	SO4	5.478	1.354	35.23	18.656	BMB
Total:			32.484	3.843	100.00	40.813	

11 ANION LVL #4

1,1 GSG 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.**
Quantit. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/31/2001 13:20**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

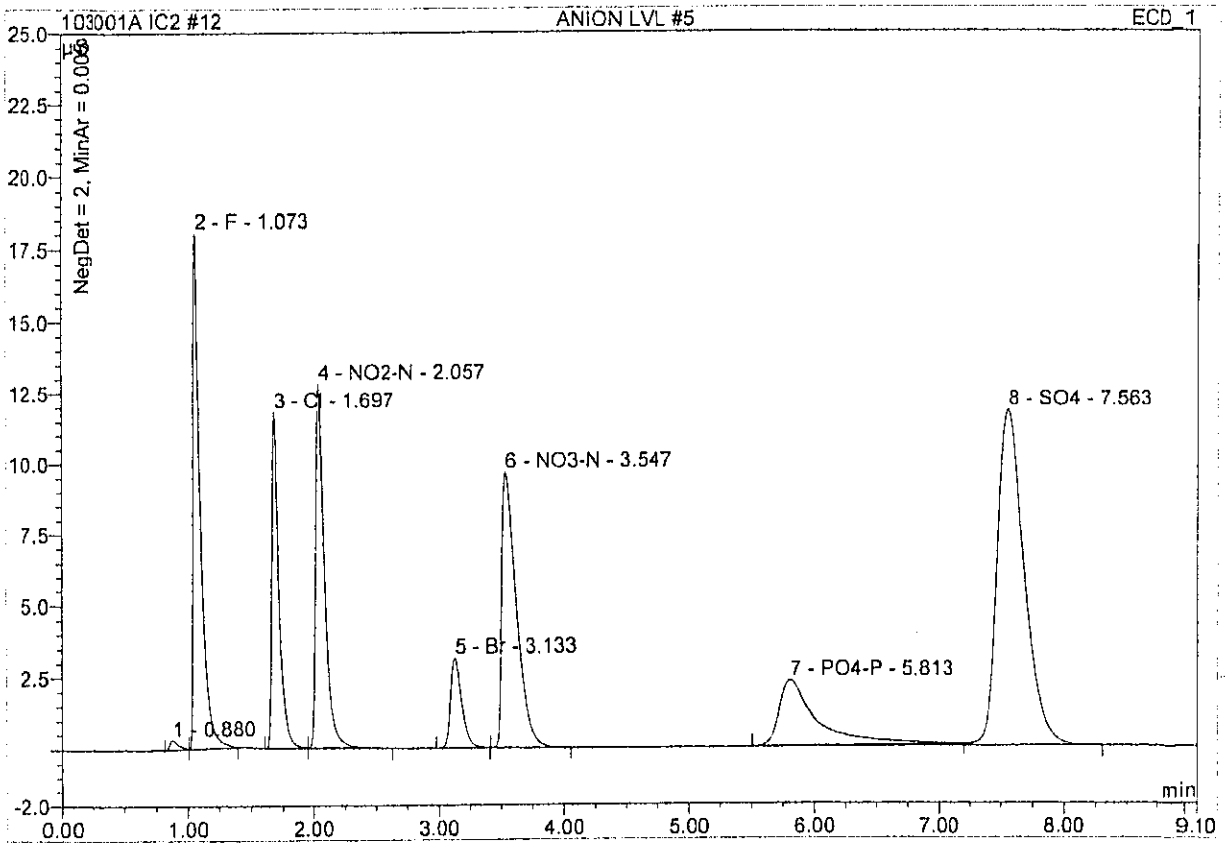


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.239	0.019	0.31	n.a.	BM
2	1.08	F	13.217	0.864	14.04	5.862	MB
3	1.70	Cl	8.715	0.575	9.33	5.806	BM
4	2.06	NO2-N	9.441	0.756	12.28	3.586	MB
5	3.13	Br	2.352	0.238	3.86	5.951	BMB
6	3.56	NO3-N	7.385	0.961	15.60	4.000	BMB
7	5.86	PO4-P	1.509	0.568	9.22	9.237	Ru
8	7.60	SO4	8.689	2.176	35.35	29.441	BMB
Total:			51.547	6.157	100.00	63.884	

12 ANION LVL #5

1,1 GSG 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:	**10/31/2001 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	0.88	n.a.	0.315	0.026	0.32	n.a.	BM
2	1.07	F	18.014	1.173	14.00	7.882	MB
3	1.70	Cl	11.783	0.781	9.32	7.825	BM
4	2.06	NO2-N	12.785	1.021	12.18	4.808	MB
5	3.13	Br	3.132	0.317	3.78	7.910	BMB
6	3.55	NO3-N	9.632	1.295	15.44	5.354	BMB
7	5.81	PO4-P	2.282	0.789	9.41	12.398	Ru
8	7.56	SO4	11.756	2.980	35.55	39.987	BMB
Total:			69.700	8.383	100.00	86.165	

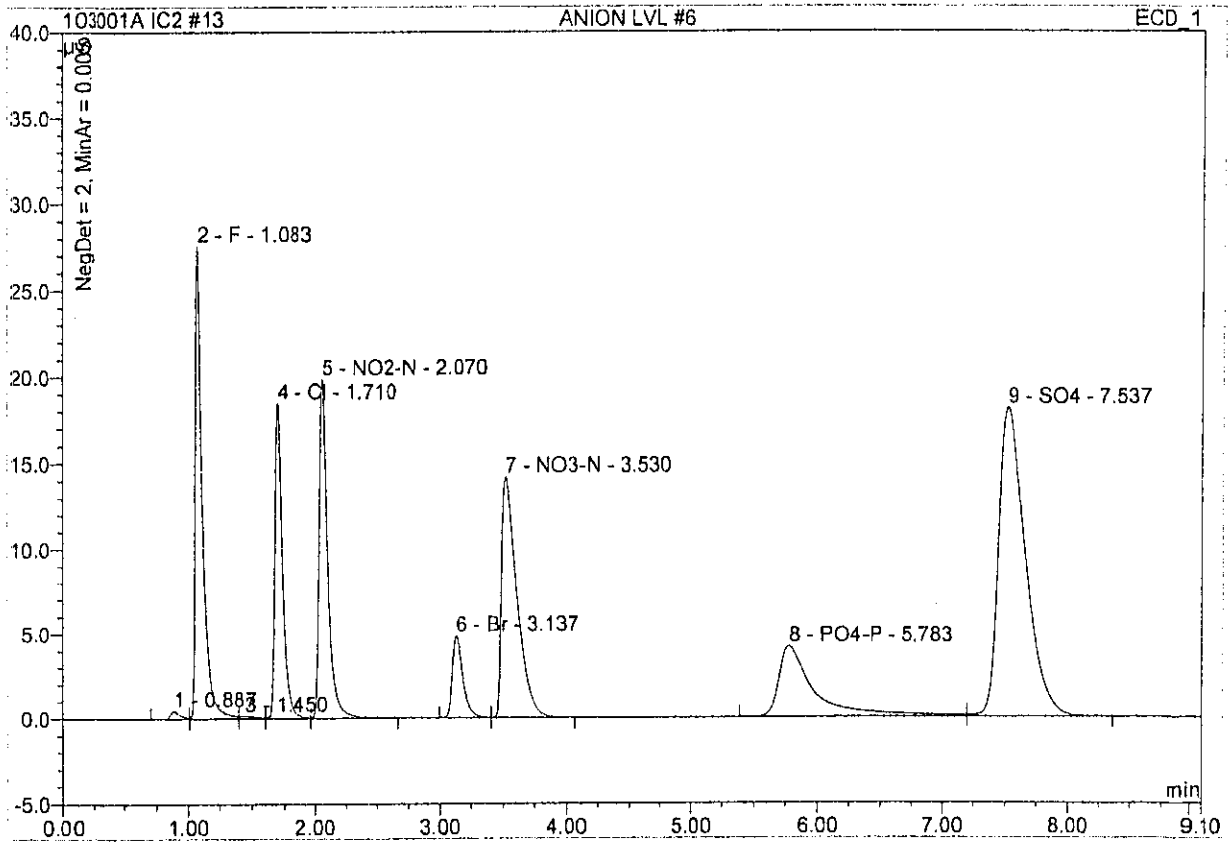
IC/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.30 SP1 Build 587

13 ANION LVL #6

1,1 GSG 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.**
Quantit. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/31/2001 14:58**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

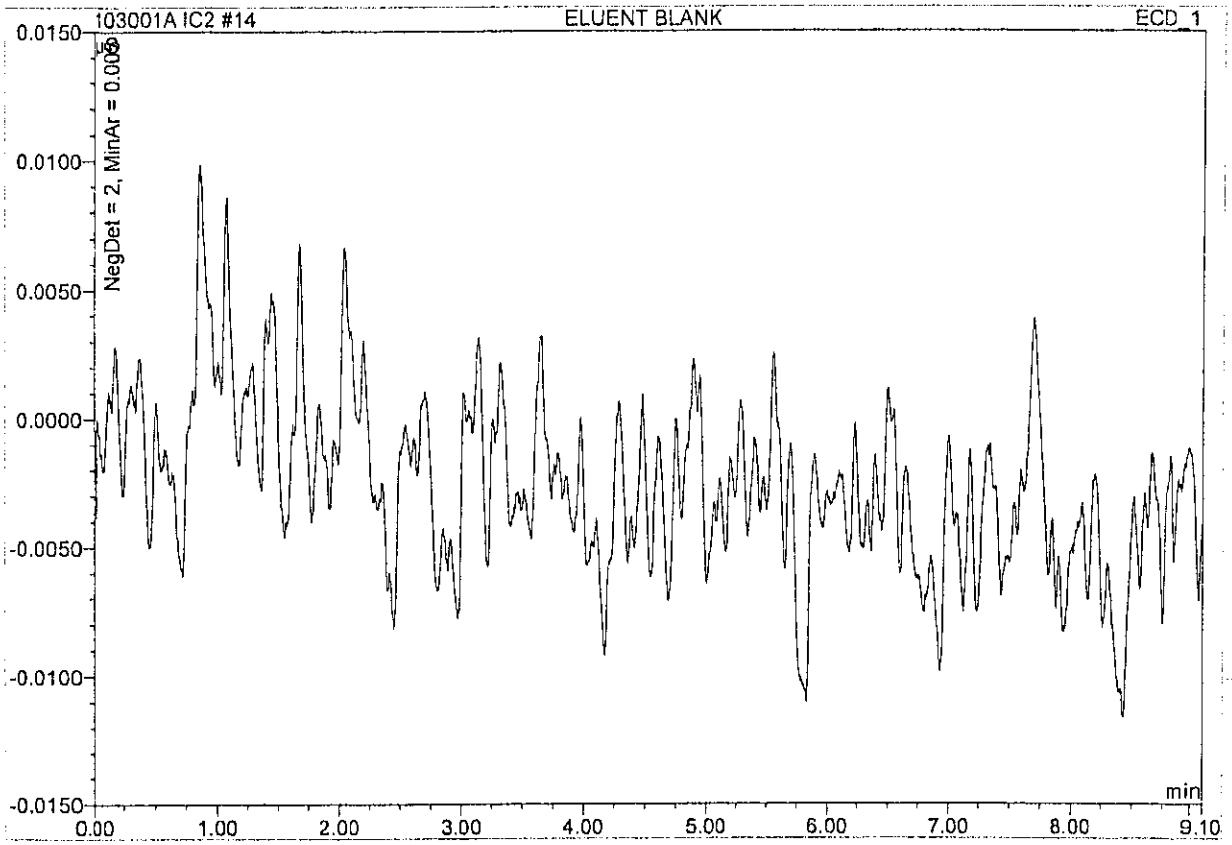


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.469	0.042	0.32	n.a.	BM
2	1.08	F	27.567	1.843	14.00	12.257	M
3	1.45	n.a.	0.154	0.023	0.17	n.a.	M
4	1.71	Cl	18.477	1.241	9.43	12.303	M
5	2.07	NO2-N	19.852	1.591	12.08	7.435	MB
6	3.14	Br	4.833	0.487	3.70	12.116	BM
7	3.53	NO3-N	14.153	2.011	15.28	8.261	MB
8	5.78	PO4-P	4.174	1.357	10.31	20.524	BM
9	7.54	SO4	18.108	4.568	34.71	60.815	MB
Total:			107.785	13.162	100.00	133.712	

14 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:	**10/31/2001 13:02**	*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
Total:			0.000	0.000	0.00	0.000	

15 ALT CCV SV53-30

1,1 ANION ALT CCV SV0053-30

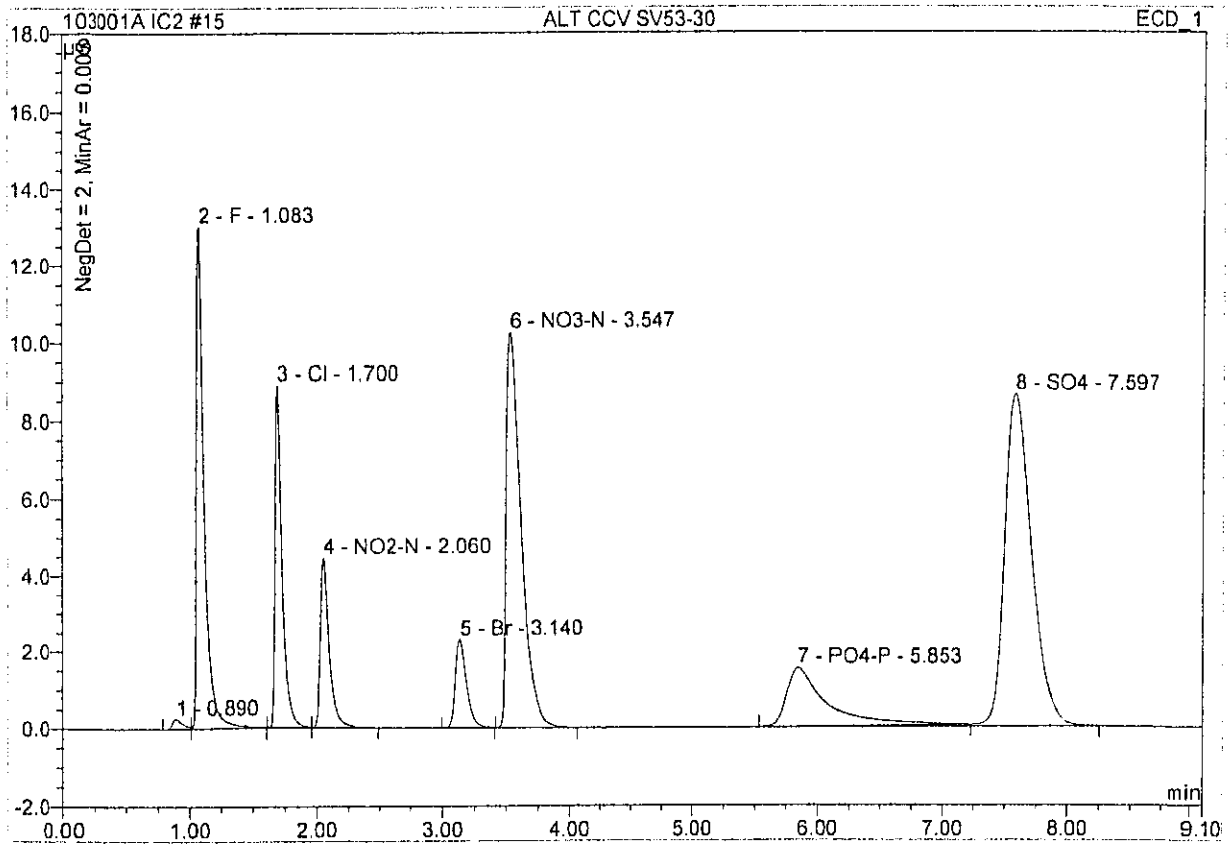
Sample Name:	**ALT CCV SV53-30**
Vial Number:	**8**
Sample Type:	**unknown**
Control Program:	**9056**
Quantit. Method:	**9056**
Recording Time:	**10/31/2001 15:09**
Run Time (min):	**9.10**

ALT CCV SV53-30	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.9730	-0.45	PASS
Cl	6	5.8603	-2.33	PASS
NO2-N	3.65	NA	#VALUE!	#VALUE!
Br	6	5.8133	-3.11	PASS
NO3-N	4.07	NA	#VALUE!	#VALUE!
PO4-P	9.78	9.1949	-5.98	FAIL Acceptable
SO4	30	29.5870	-1.38	PASS

15 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.**
Quantit. Method:	**9056**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/31/2001 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	0.89	n.a.	0.263	0.024	0.39	n.a.	BM
2	1.08	F	13.020	0.881	14.15	5.973	MB
3	1.70	Cl	8.877	0.580	9.31	5.860	BM
4	2.06	NO2-N	4.446	0.366	5.88	1.789	MB
5	3.14	Br	2.298	0.232	3.73	5.813	BMB
6	3.55	NO3-N	10.255	1.394	22.37	5.756	BMB
7	5.85	PO4-P	1.518	0.565	9.07	9.195	Ru
8	7.60	SO4	8.617	2.187	35.11	29.587	BMB
Total:			49.293	6.230	100.00	63.974	

16 ALT CCV SOS55-48

1,1 GSG ANION ALT NO2/NO3 SV0052-48

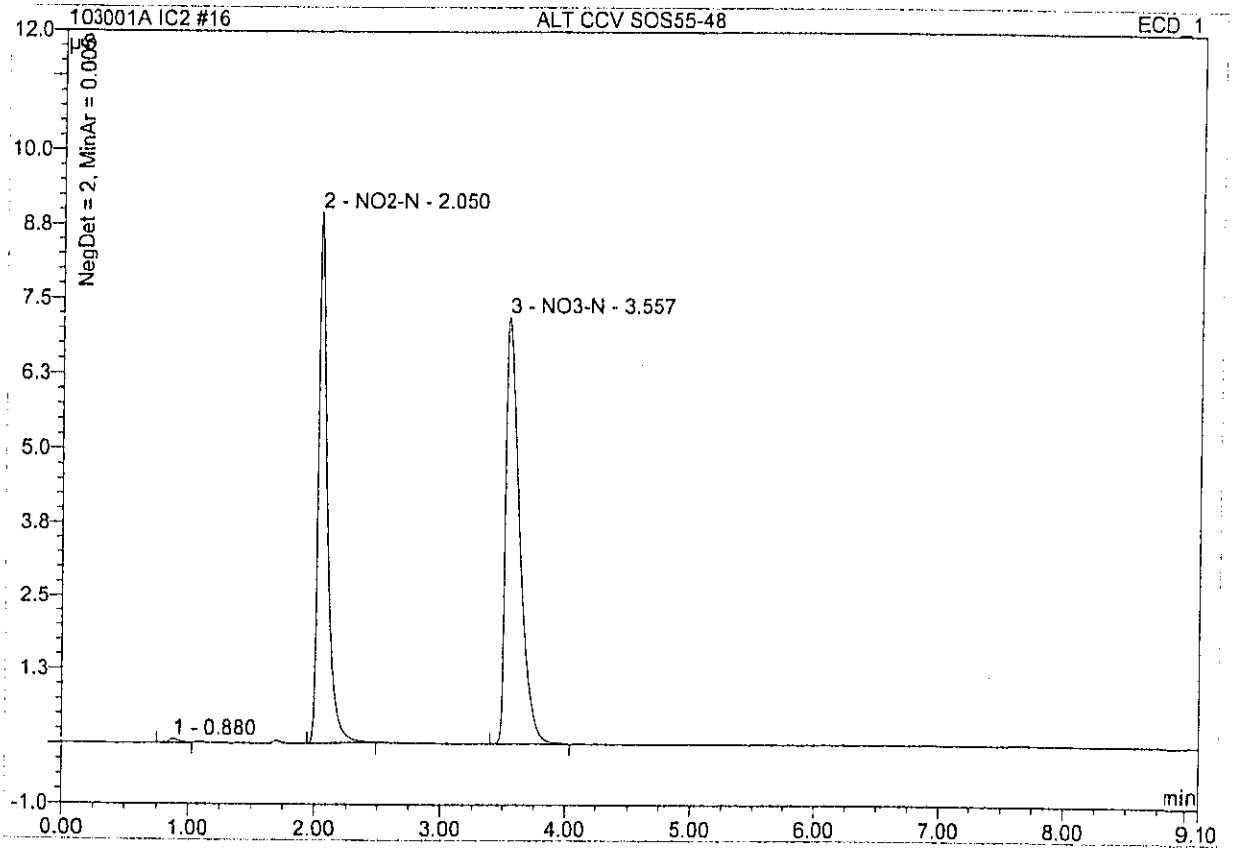
Sample Name:	**ALT CCV SOS55-48**
Vial Number:	**9**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**10/31/2001 15:21**
Run Time (min):	**9.10**

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	3.4373	-5.83	FAIL L 10% dif α
n.a.	6	n.a.	#VALUE!	#VALUE!
NO3-N	4.07	3.9160	-3.78	PASS
n.a.	9.78	n.a.	#VALUE!	#VALUE!
n.a.	30	n.a.	#VALUE!	#VALUE!

16 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:	**10/31/2001 15:21**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

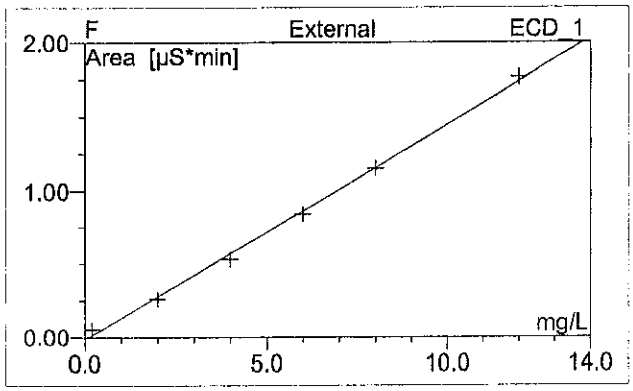


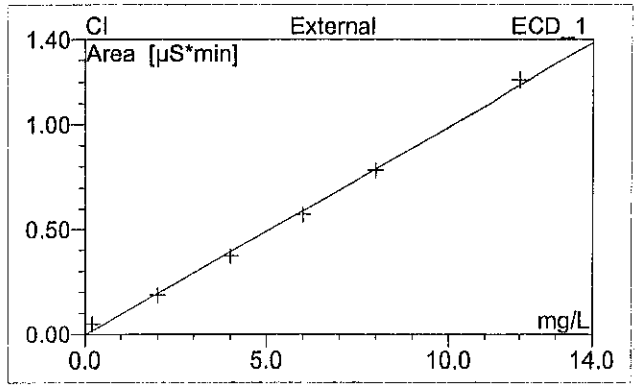
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.065	0.006	0.37	n.a.	BMB
2	2.05	NO2-N	8.965	0.724	43.34	3.437	BMB
3	3.56	NO3-N	7.198	0.940	56.30	3.916	BMB
Total:			16.228	1.670	100.00	7.353	

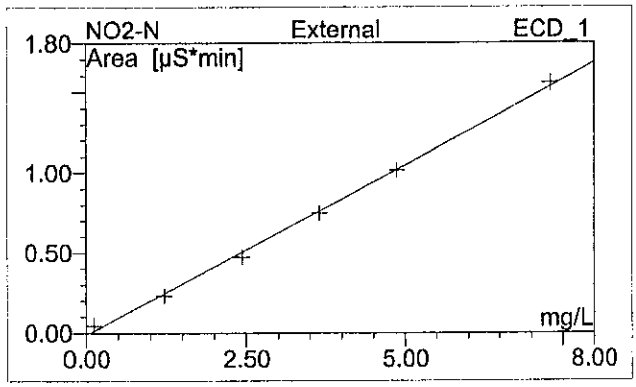
6 ANION LVL #6

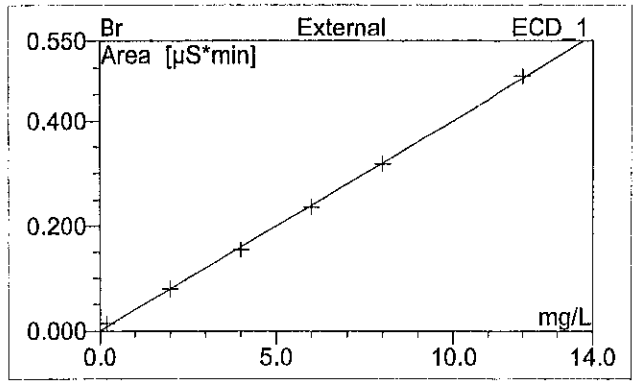
1,1 RDC ANION LVL #6 SOS0056-35

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**







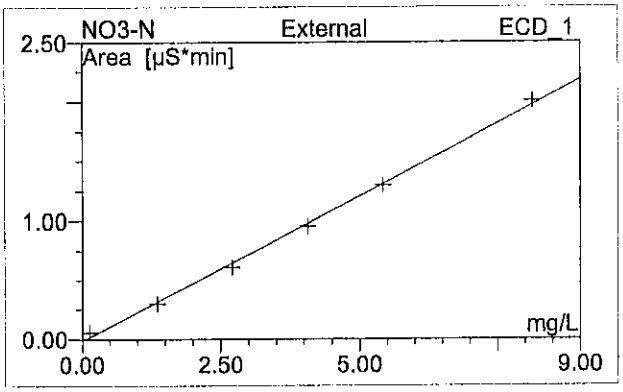


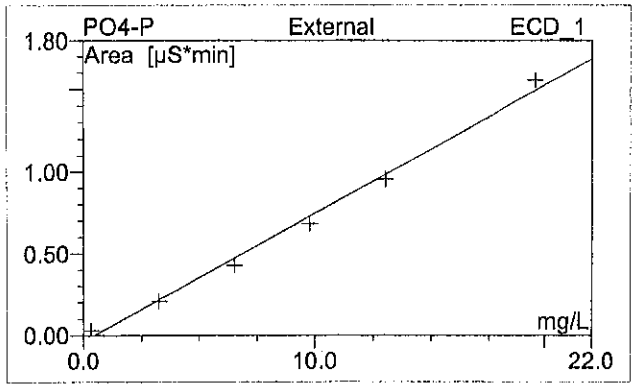
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	0.88	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.07	F	0LOff	6	99.8875	-0.0148	0.1461	0.0000
3	1.68	Cl	0LOff	6	99.8632	-0.0035	0.0991	0.0000
4	2.03	NO2-N	0LOff	6	99.9137	-0.0110	0.2116	0.0000
5	3.06	Br	0LOff	6	99.9671	0.0001	0.0400	0.0000
6	3.44	NO3-N	0LOff	6	99.9049	-0.0161	0.2441	0.0000
7	5.67	PO4-P	0LOff	6	99.6810	-0.0360	0.0782	0.0000
8	7.45	SO4	0LOff	6	99.8717	-0.0432	0.0744	0.0000
Average:					99.8699	-0.0178	0.1277	0.0000

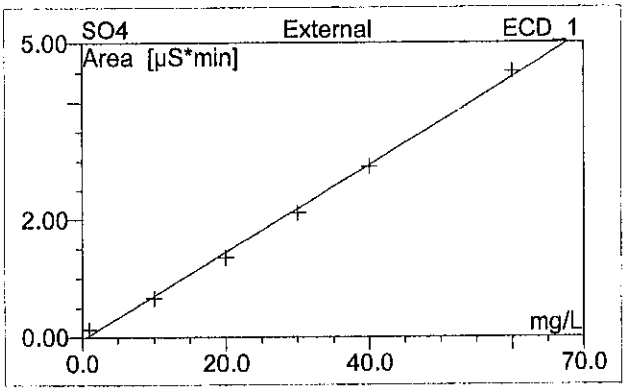
6 ANION LVL #6

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	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	99.8875	-0.0148	0.1461	0.0000
3	1.68	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	3.06	Br	0LOff	6	99.9671	0.0001	0.0400	0.0000
6	3.44	NO3-N	0LOff	6	99.9049	-0.0161	0.2441	0.0000
7	5.67	PO4-P	0LOff	6	99.6810	-0.0360	0.0782	0.0000
8	7.45	SO4	0LOff	6	99.8717	-0.0432	0.0744	0.0000
Average:					99.8699	-0.0178	0.1277	0.0000

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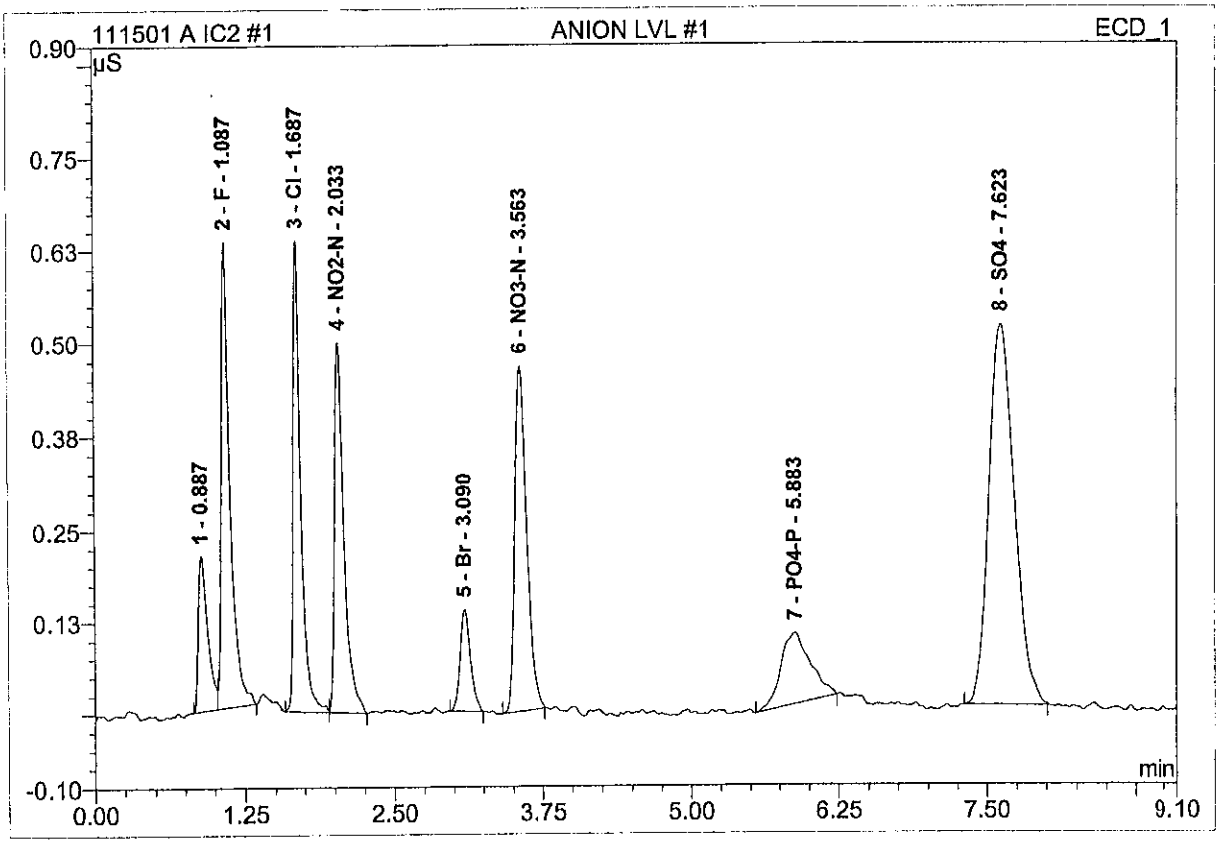
1 ANION LVL #1

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**

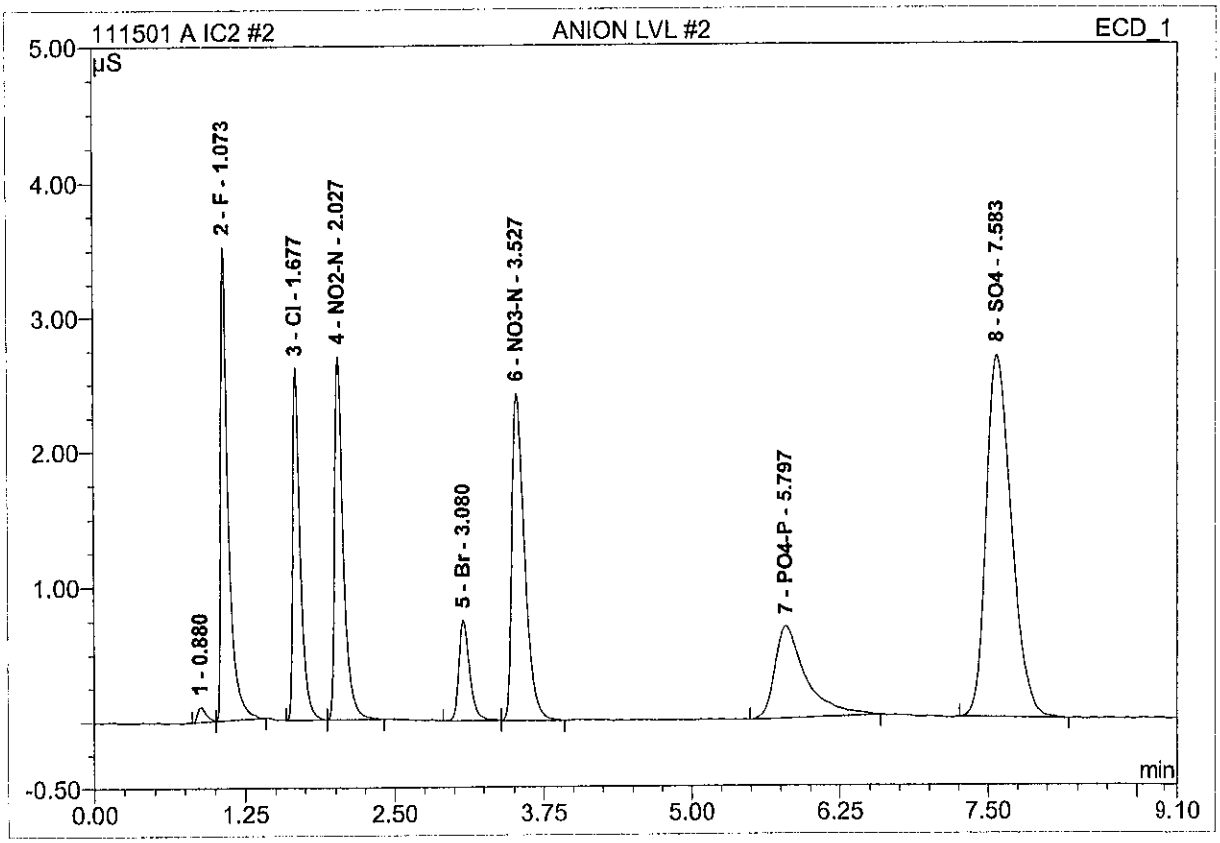


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.212	0.020	5.01	n.a.	BM
2	1.09	F	0.628	0.053	13.56	0.463	MB
3	1.69	Cl	0.634	0.047	12.18	0.514	BM
4	2.03	NO2-N	0.499	0.045	11.53	0.264	MB
5	3.09	Br	0.138	0.014	3.63	0.351	BMB
6	3.56	NO3-N	0.465	0.055	14.05	0.290	BMB
7	5.88	PO4-P	0.096	0.028	7.21	0.820	BMB
8	7.62	SO4	0.512	0.128	32.83	2.299	BMB
Total:			3.184	0.390	100.00	5.002	

2 ANION LVL #2

1,1 GSG 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**

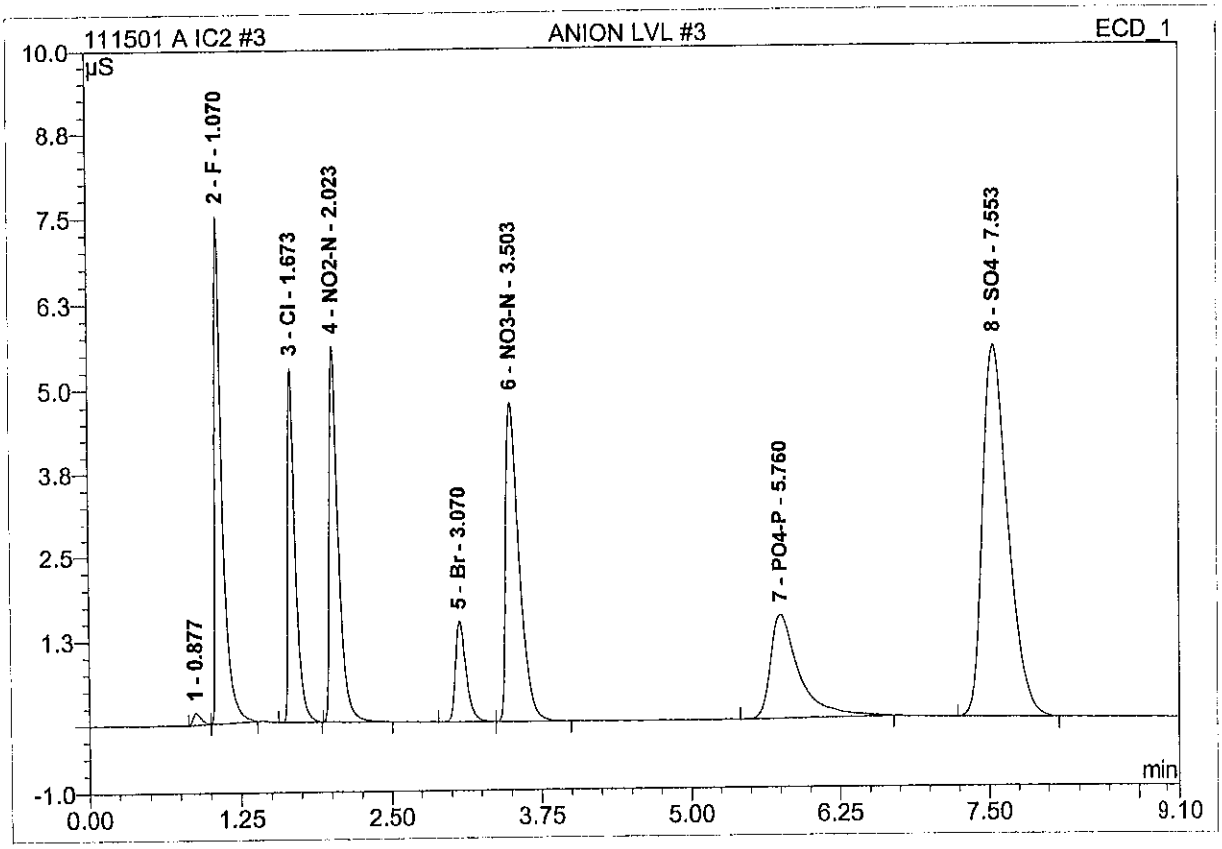


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.111	0.009	0.48	n.a.	BM
2	1.07	F	3.515	0.259	13.38	1.875	MB
3	1.68	Cl	2.607	0.186	9.60	1.912	BM
4	2.03	NO2-N	2.691	0.232	11.96	1.147	MB
5	3.08	Br	0.744	0.080	4.12	1.994	BM
6	3.53	NO3-N	2.418	0.300	15.49	1.295	MB
7	5.80	PO4-P	0.680	0.207	10.66	3.101	BMB
8	7.58	SO4	2.681	0.665	34.30	9.509	BMB
Total:			15.446	1.937	100.00	20.833	

3 ANION LVL #3

1,1 GSG 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	5.950	BMB
8	7.55	SO4	5.517	1.354	34.40	18.772	BMB
Total:			31.810	3.936	100.00	40.949	

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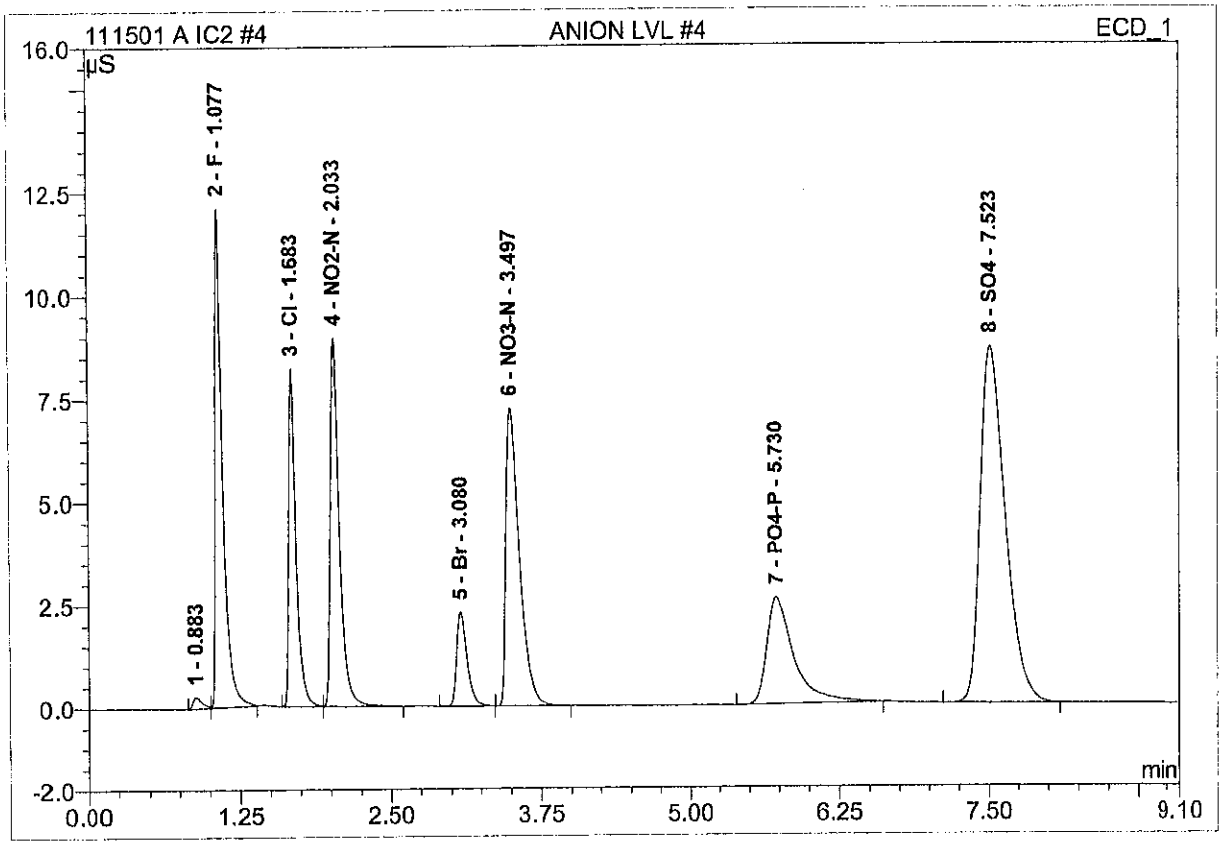
4 ANION LVL #4

1,1 GSG 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**

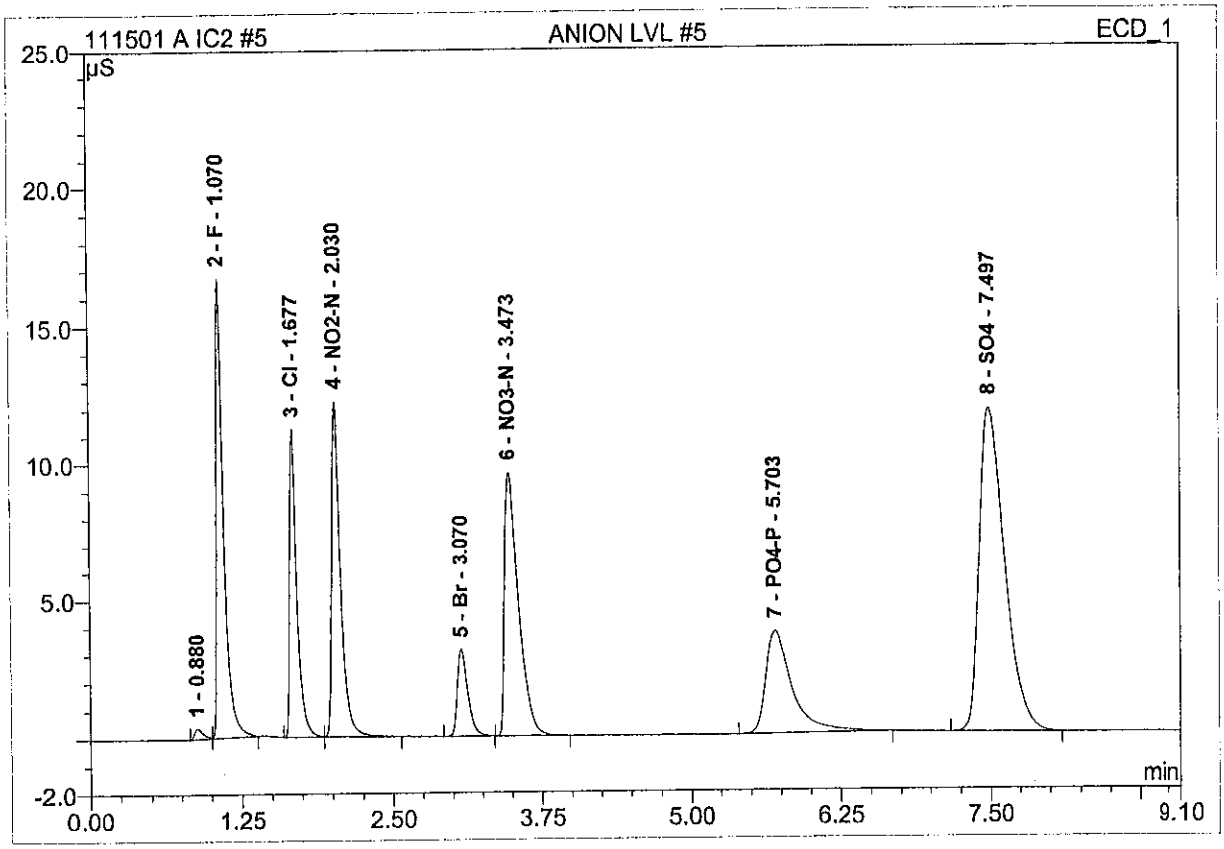


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.282	0.024	0.39	n.a.	BM
2	1.08	F	12.100	0.841	13.62	5.857	MB
3	1.68	Cl	8.206	0.573	9.27	5.811	BM
4	2.03	NO2-N	8.942	0.749	12.13	3.592	MB
5	3.08	Br	2.288	0.237	3.83	5.917	BMB
6	3.50	NO3-N	7.233	0.952	15.42	3.966	BMB
7	5.73	PO4-P	2.605	0.683	11.06	9.190	BMB
8	7.52	SO4	8.658	2.117	34.28	29.022	BMB
Total:			50.315	6.175	100.00	63.355	

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**

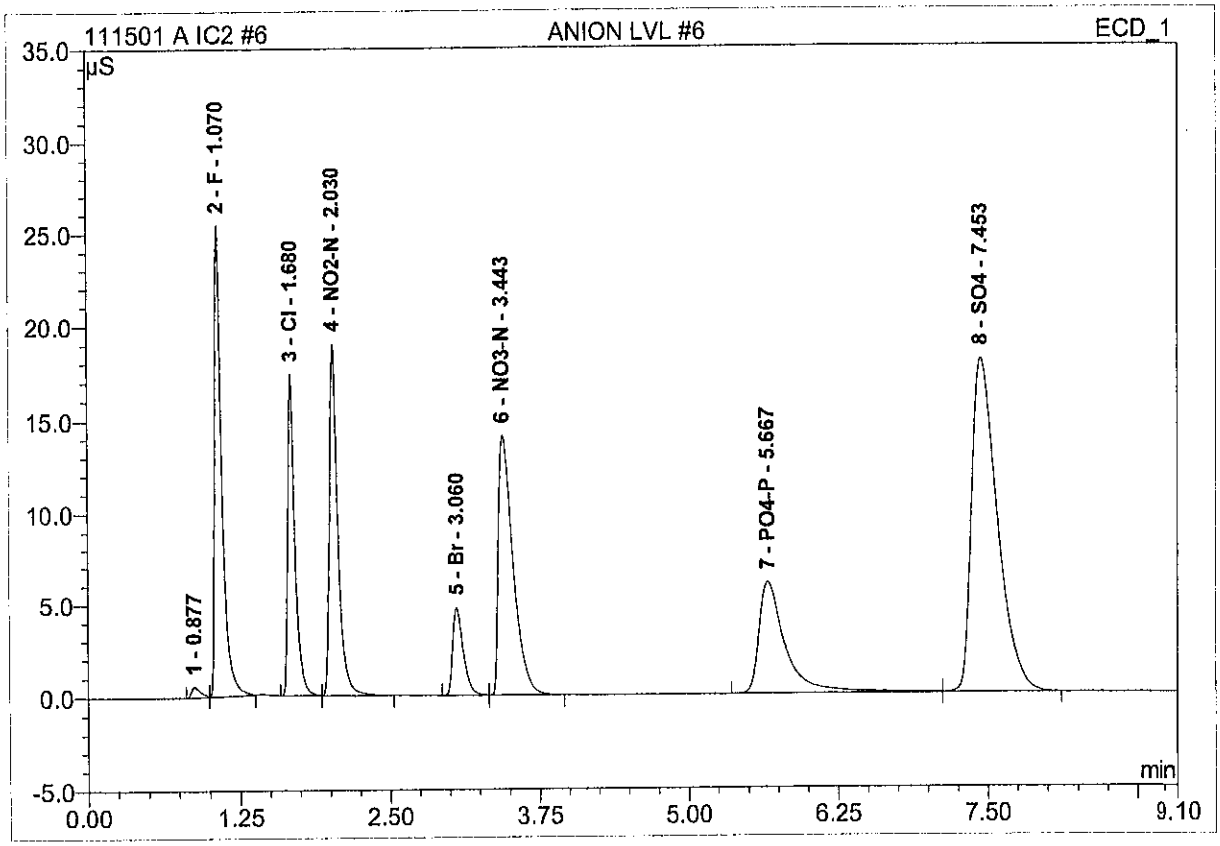


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.369	0.031	0.37	n.a.	BM
2	1.07	F	16.671	1.151	13.62	7.977	MB
3	1.68	Cl	11.219	0.782	9.25	7.921	BM
4	2.03	NO2-N	12.223	1.016	12.03	4.855	MB
5	3.07	Br	3.114	0.319	3.77	7.964	BMB
6	3.47	NO3-N	9.579	1.296	15.34	5.375	BMB
7	5.70	PO4-P	3.706	0.953	11.28	12.646	BMB
8	7.50	SO4	11.790	2.903	34.35	39.581	BMB
Total:			68.671	8.450	100.00	86.317	

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**

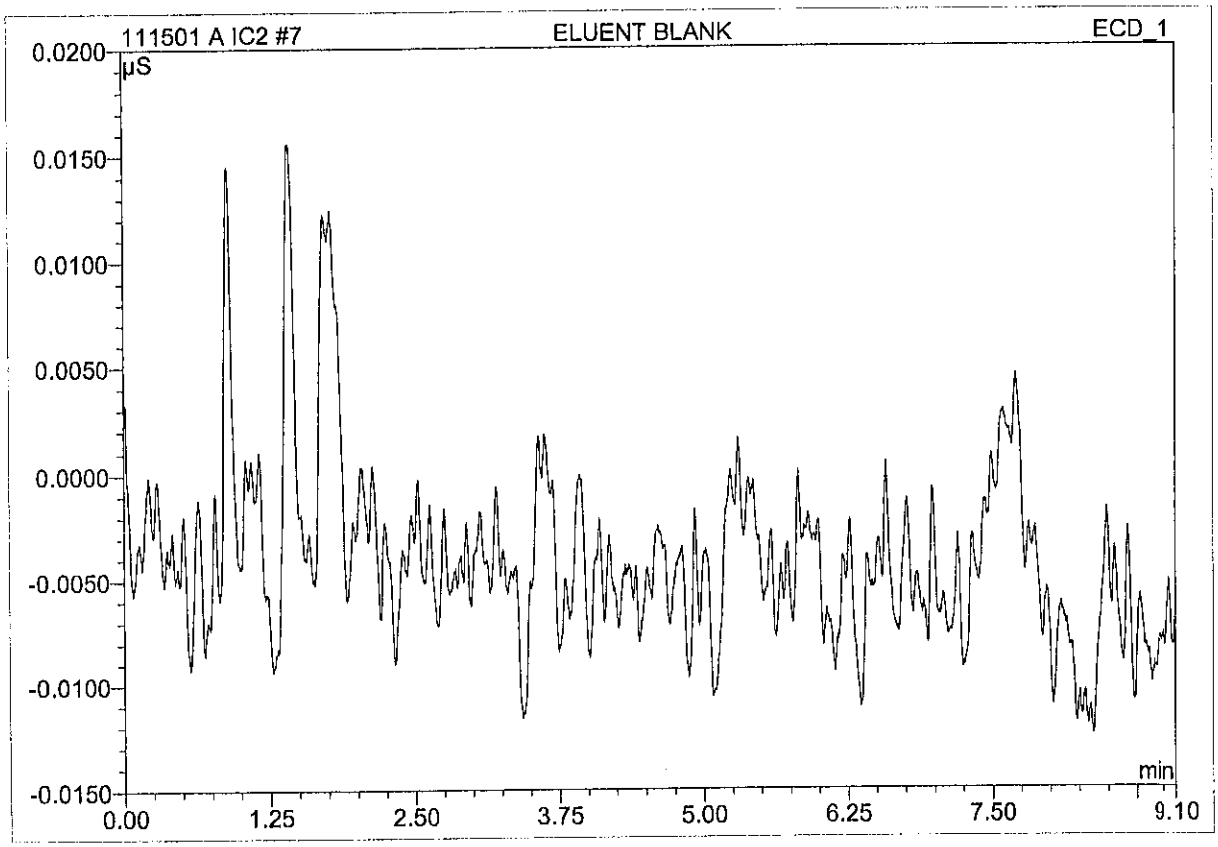


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.559	0.047	0.36	n.a.	BM
2	1.07	F	25.405	1.766	13.45	12.192	MB
3	1.68	Cl	17.356	1.209	9.20	12.231	BM
4	2.03	NO2-N	18.952	1.556	11.85	7.407	MB
5	3.06	Br	4.746	0.484	3.69	12.108	BM
6	3.44	NO3-N	14.100	2.003	15.25	8.272	MB
7	5.67	PO4-P	6.024	1.555	11.84	20.342	BM
8	7.45	SO4	18.014	4.515	34.37	61.238	MB
Total:			105.155	13.136	100.00	133.790	

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	

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8 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:	**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 ✓ o/c ±10%
NO2-N	3.65	NA	#VALUE!	#VALUE!
Br	6	5.7533	-4.11	PASS
NO3-N	4.07	NA	#VALUE!	#VALUE!
PO4	9.78	8.8300	-9.71	FAIL ✓ o/c ±10%
SO4	30	28.7595	-4.14	PASS

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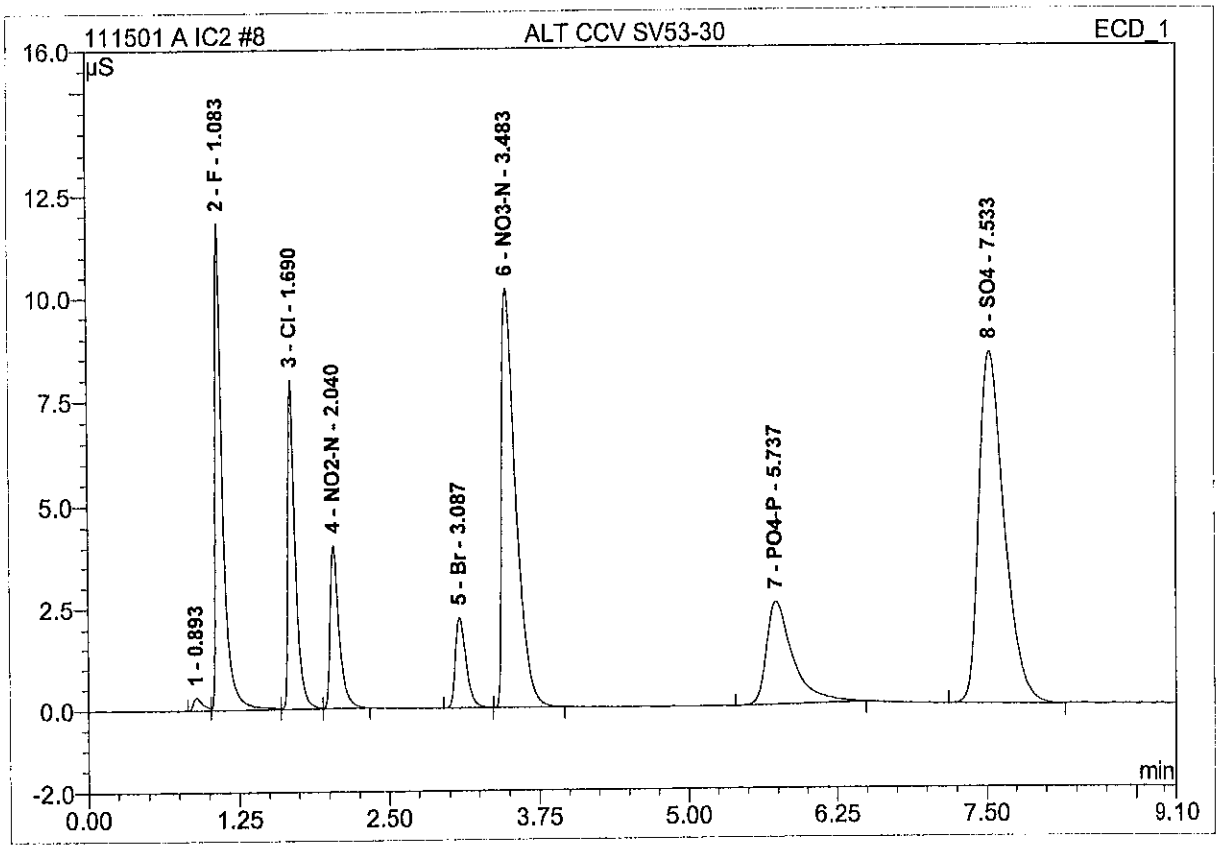
8 ALT CCV SV53-30

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:	**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	8.830	BMB
8	7.53	SO4	8.527	2.097	34.10	28.759	BMB
Total:			47.575	6.150	100.00	62.364	

9 ALT CCV SOS55-48

1,1 RDC ANION ALT NO2/NO3 SV0056-28

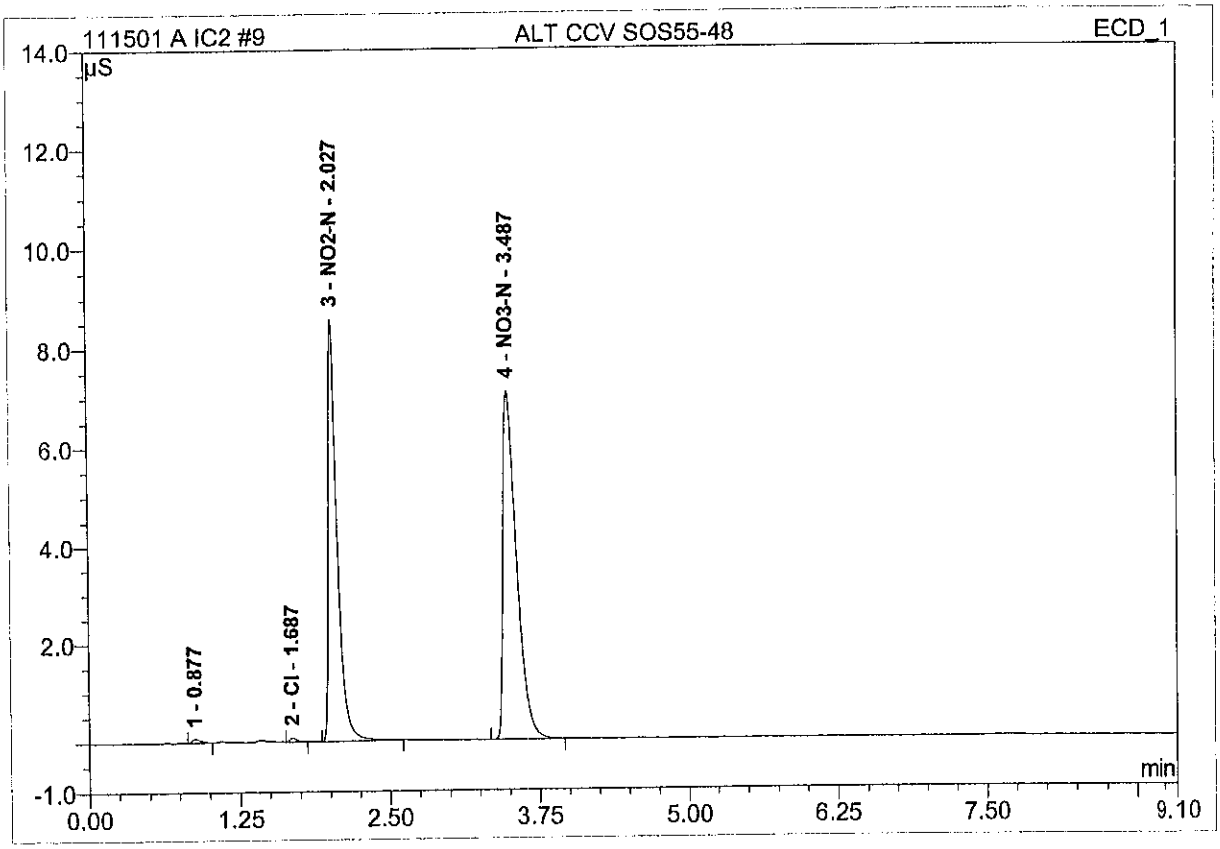
Sample Name:	**ALT CCV SOS55-48**
Vial Number:	**9**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**11/15/2001 14:35**
Run Time (min):	**9.10**

ALT CCV SOS55-4	Actual mg/L	Recoved mg/L	%Difference	
n.a.	6.00	n.a.	#VALUE!	#VALUE!
Cl	6	0.0901	-98.50	~~FAIL~~ NA
NO2-N	3.65	3.4640	-5.10	✓FAIL ok ≤10%
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	

12 WG108194-01 CCV

1,1 GSG ANION CCV SOS0056-35 111401

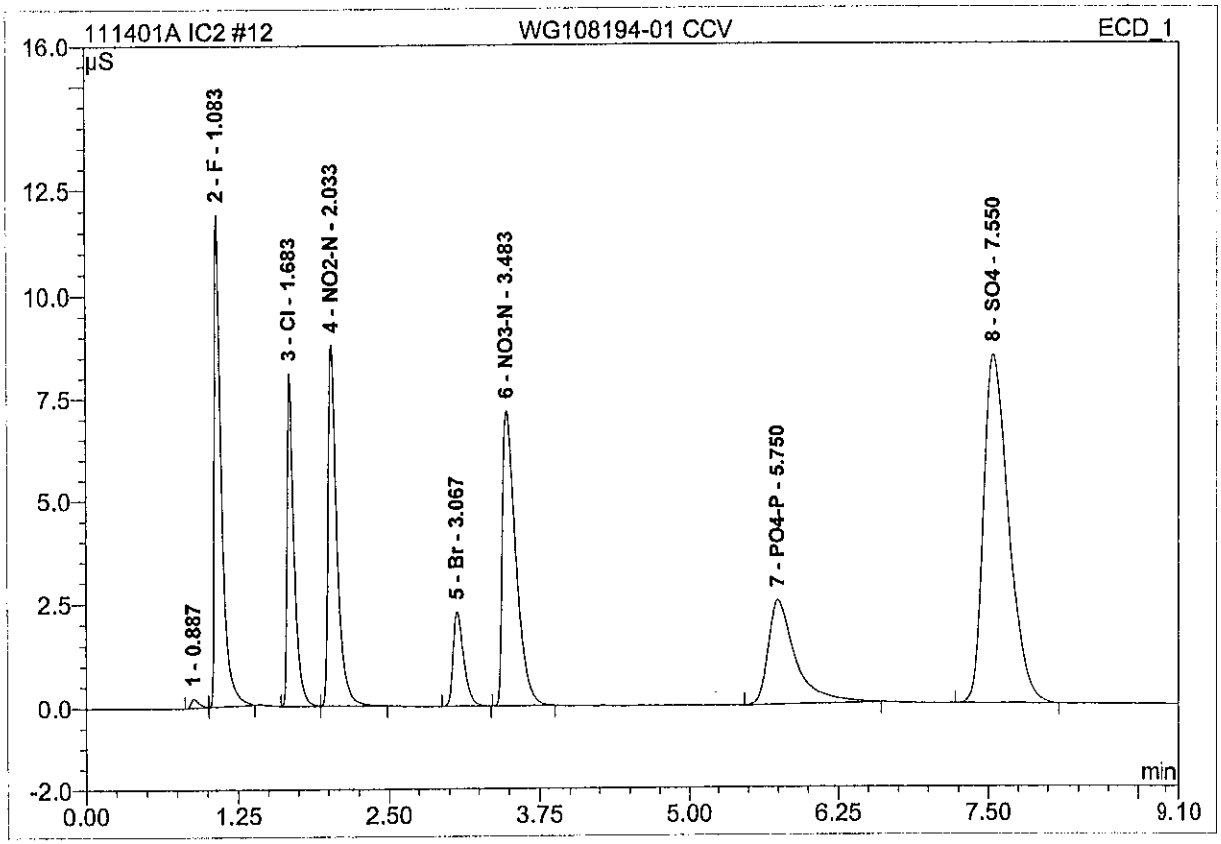
Sample Name:	**WG108194-01 CCV**
Vial Number:	**14**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**11/14/2001 10:59**
Run Time (min):	**9.10**

WG108194-01 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.4852	-8.58	FAIL NR
Cl	6	5.6202	-6.33	FAIL ↓
NO2-N	3.65	3.4268	-6.11	✓FAIL OK <10%
Br	6	5.7906	-3.49	PASS NR
NO3-N	4.07	3.8758	-4.77	PASS ✓
PO4	9.78	10.6170	8.56	FAIL ✓ OK <10%
SO4	30	27.8962	-7.01	FAIL NR

12 WG108194-01 CCV

1,1 GSG ANION CCV SOS0056-35 111401

Sample Name:	**WG108194-01 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:	**11/14/2001 10:59**	*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	0.89	n.a.	0.219	0.017	0.28	n.a.	BM
2	1.08	F	11.879	0.807	13.48	5.485	MB
3	1.68	Cl	8.086	0.555	9.28	5.620	BM
4	2.03	NO2-N	8.769	0.721	12.05	3.427	MB
5	3.07	Br	2.260	0.231	3.87	5.791	BMB
6	3.48	NO3-N	7.163	0.930	15.54	3.876	BMB
7	5.75	PO4-P	2.502	0.664	11.10	10.617	BMB
8	7.55	SO4	8.463	2.058	34.40	27.896	BMB
Total:			49.341	5.984	100.00	62.712	

24 WG108194-02 CCV

1,1 GSG ANION CCV SOS0056-35 111401

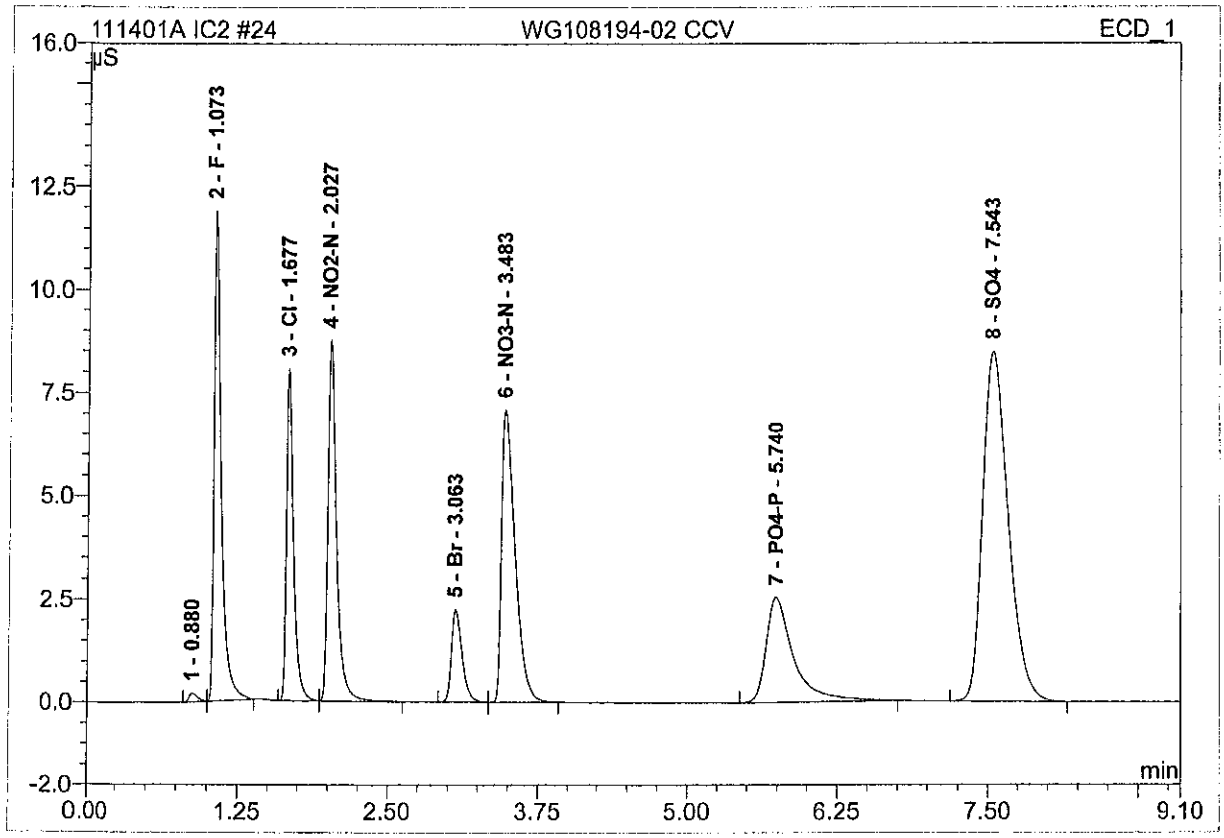
Sample Name:	**WG108194-02 CCV**
Vial Number:	**14**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**11/14/2001 13:53**
Run Time (min):	**9.10**

WG108194-02 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.5652	-7.25	FAIL NR
Cl	6	5.6419	-5.97	FAIL ↓
NO2-N	3.65	3.4722	-4.87	PASS ✓
Br	6	5.7779	-3.70	PASS NR
NO3-N	4.07	3.8755	-4.78	PASS ✓
PO4	9.78	10.9010	11.46	FAIL
SO4	30	28.1799	-6.07	FAIL NR

24 WG108194-02 CCV

1,1 GSG ANION CCV SOS0056-35 111401

Sample Name:	**WG108194-02 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:	**11/14/2001 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	0.88	n.a.	0.213	0.017	0.28	n.a.	BM
2	1.07	F	11.875	0.819	13.53	5.565	MB
3	1.68	Cl	8.030	0.558	9.22	5.642	BM
4	2.03	NO2-N	8.734	0.731	12.08	3.472	MB
5	3.06	Br	2.242	0.231	3.81	5.778	BM
6	3.48	NO3-N	7.090	0.930	15.37	3.875	MB
7	5.74	PO4-P	2.545	0.684	11.31	10.901	BMB
8	7.54	SO4	8.463	2.080	34.38	28.180	BMB
Total:			49.191	6.050	100.00	63.413	

17 WG108271-03 CCV

1,1 RDC /SOS0056-35

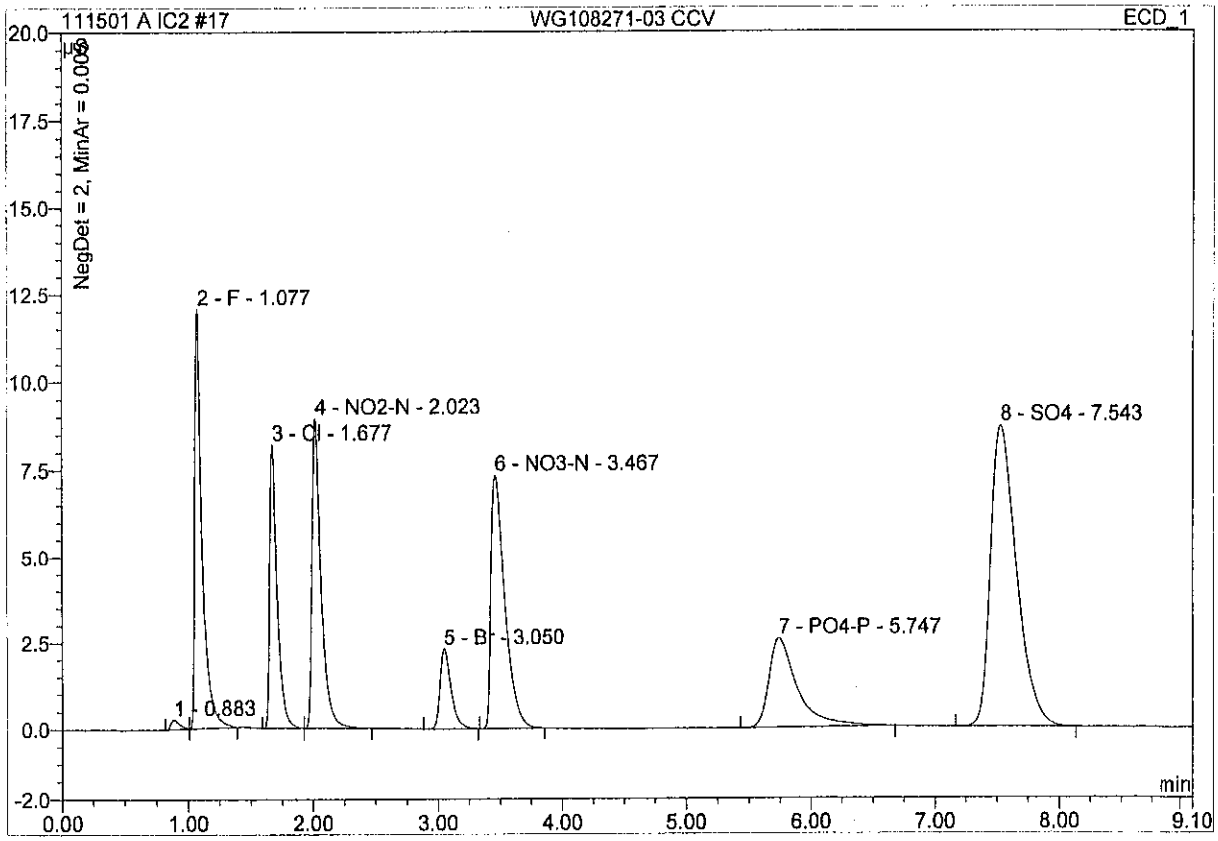
Sample Name:	**WG108271-03 CCV**
Vial Number:	**17**
Sample Type:	**unknown**
Control Program:	**9056**
Quantif. Method:	**9056**
Recording Time:	**11/15/2001 16:14**
Run Time (min):	**9.10**

WG108271-03 CCV	Actual mg/L	Recoved mg/L	%Difference	
F	6.00	5.8287	-2.86	PASS
Cl	6	5.7978	-3.37	PASS
NO2-N	3.65	3.5773	-1.99	PASS
Br	6	5.9370	-1.05	PASS
NO3-N	4.07	3.9606	-2.69	PASS
PO4	9.78	9.2025	-5.90	FAIL ✓ OK <10% diff.
SO4	30	29.1159	-2.95	PASS

17 WG108271-03 CCV

1,1 RDC /SOS0056-35

Sample Name:	**WG108271-03 CCV**	*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:	**11/15/2001 16:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



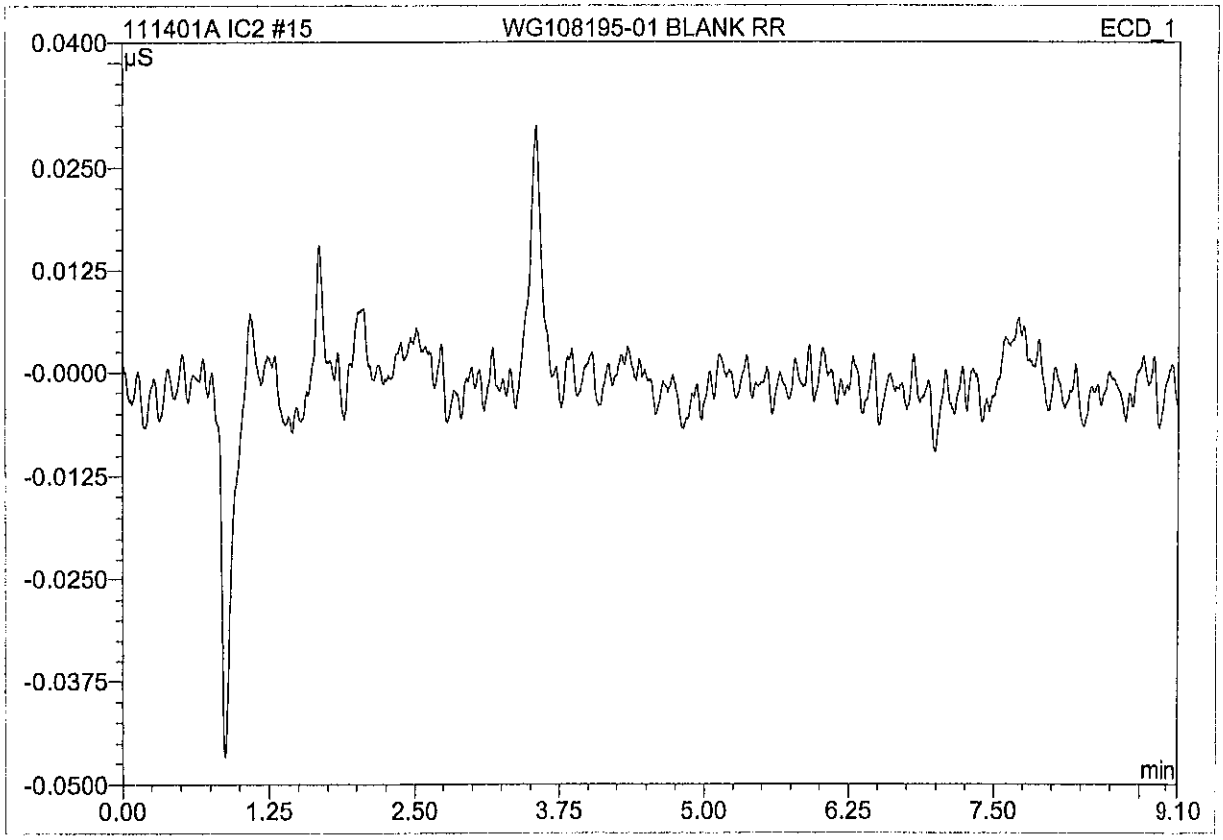
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.273	0.023	0.37	n.a.	BM
2	1.08	F	12.047	0.837	13.56	5.829	MB
3	1.68	Cl	8.198	0.571	9.26	5.798	BM
4	2.02	NO2-N	8.922	0.746	12.08	3.577	MB
5	3.05	Br	2.307	0.238	3.85	5.937	BMB
6	3.47	NO3-N	7.325	0.951	15.40	3.961	BMB
7	5.75	PO4-P	2.573	0.684	11.08	9.202	BMB
8	7.54	SO4	8.677	2.124	34.41	29.116	BMB
Total:			50.321	6.173	100.00	63.420	

2.4.5.4 Raw QC Data

15 WG108195-01 BLANK RR

1,1 GSG ANION BLANK 111401

Sample Name:	**WG108195-01 BLANK RR**	*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:	**11/14/2001 11:37**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

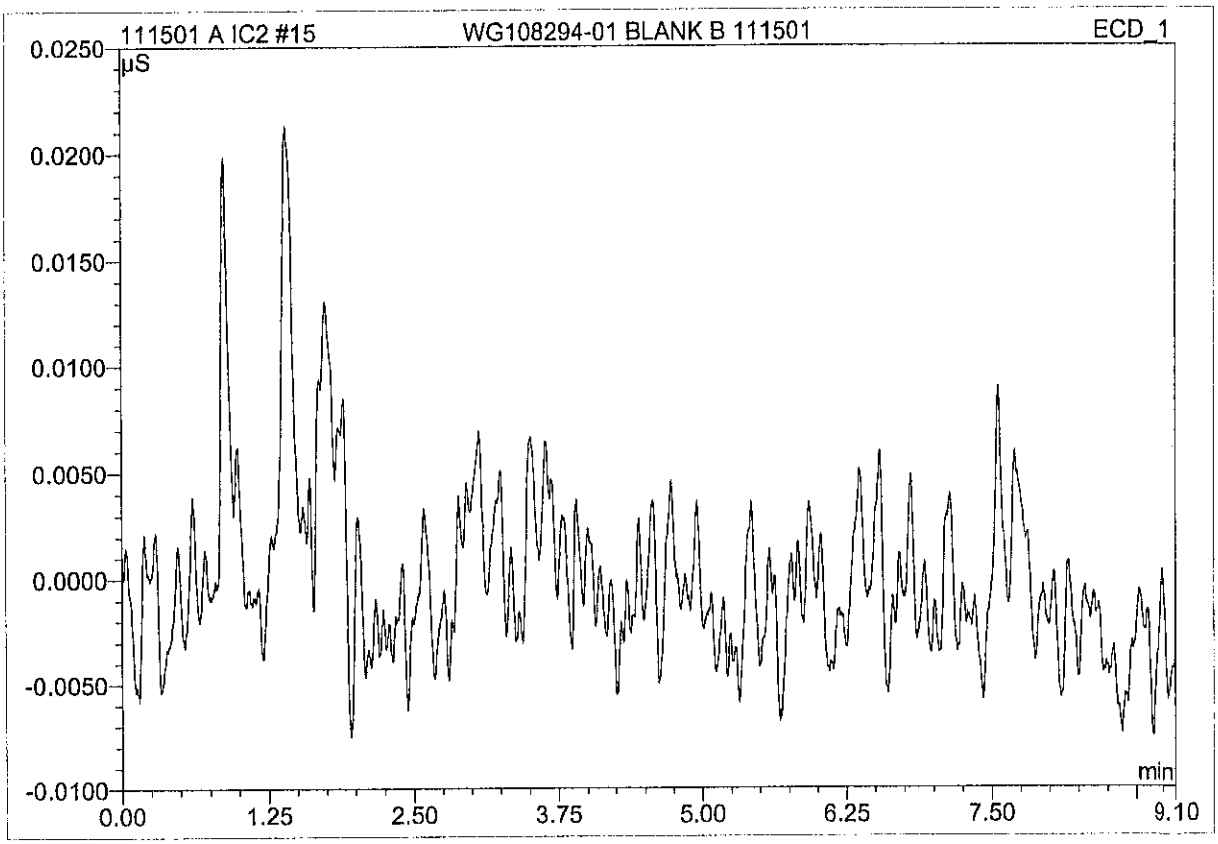


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

15 WG108294-01 BLANK B 111501

1,1 RDC

Sample Name:	**WG108294-01 BLANK B 111501**	*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:*	**1.0100**
Recording Time:	**11/15/2001 15:51**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

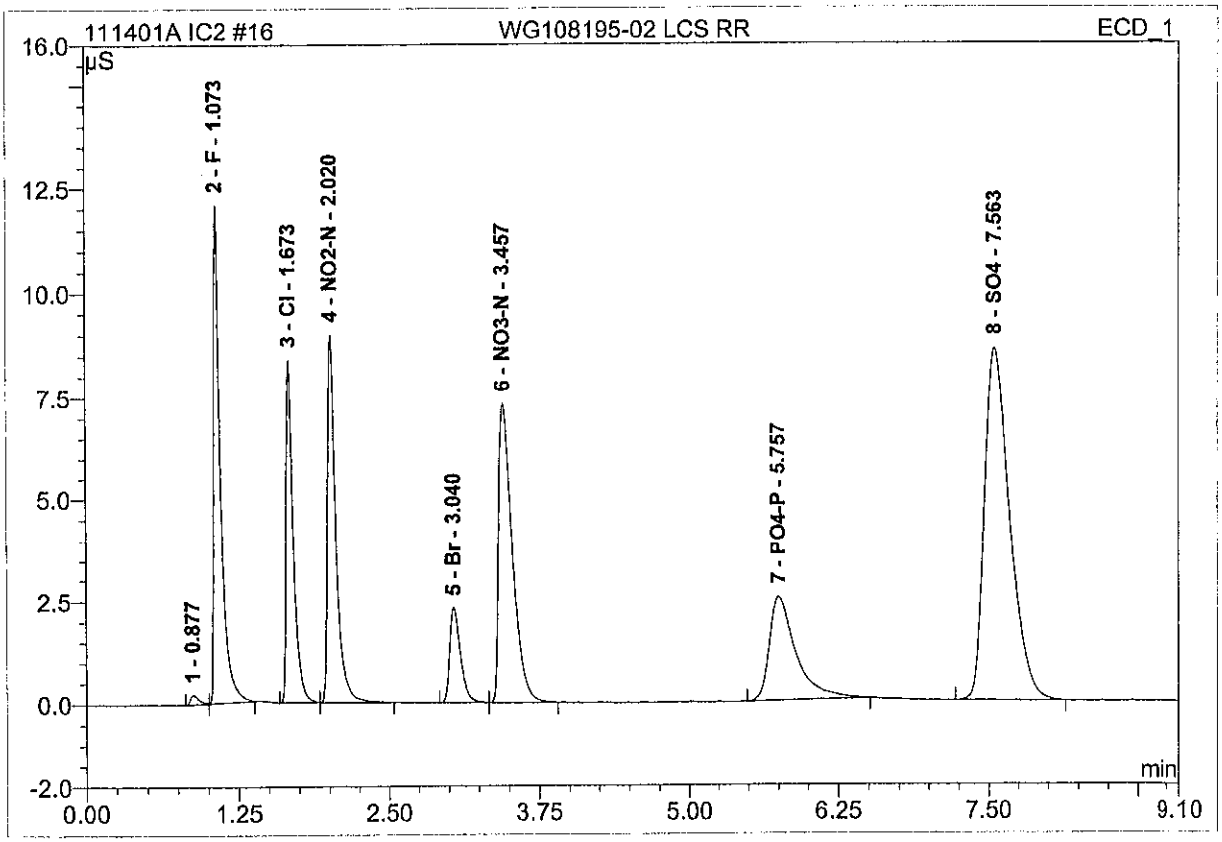


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

16 WG108195-02 LCS RR

1,1 GSG ANION LCS SOS0056-35 111401

Sample Name:	**WG108195-02 LCS RR**	*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:	**11/14/2001 11:49**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

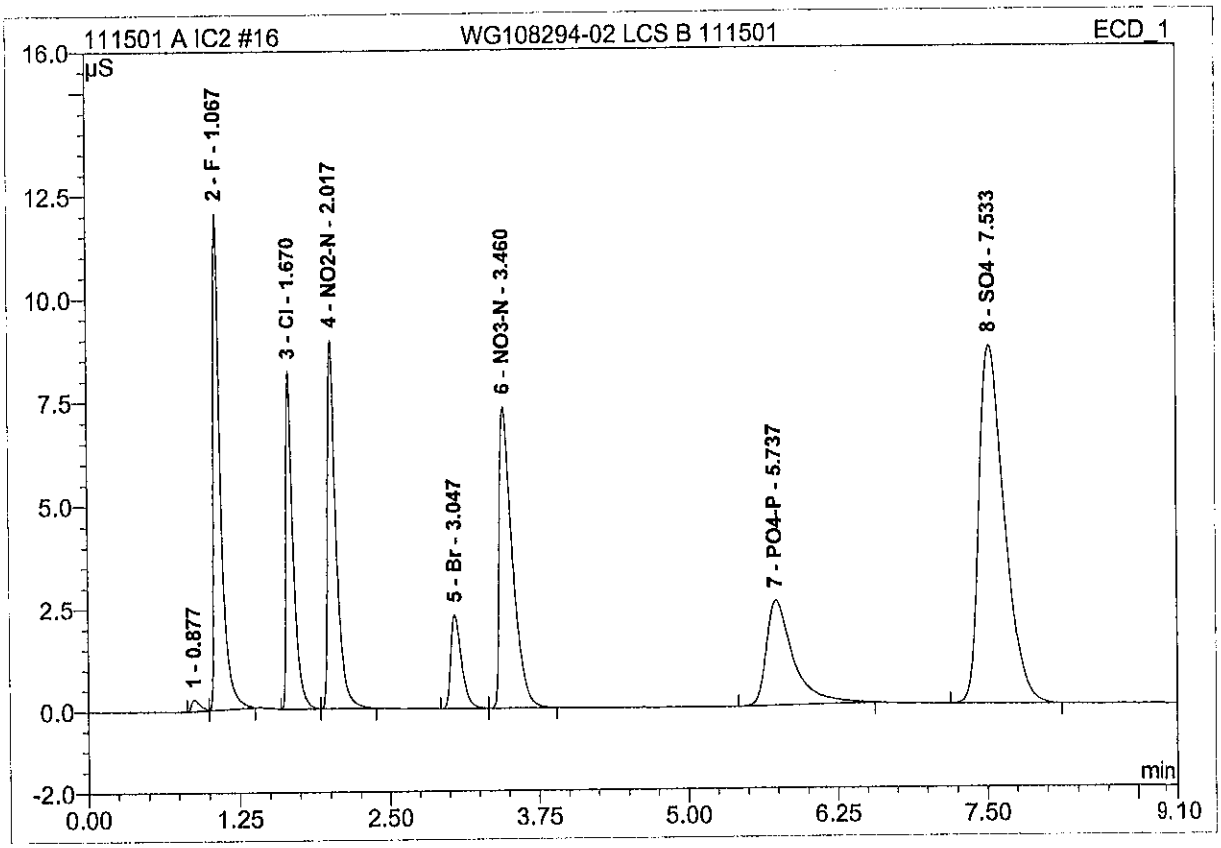


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.233	0.019	0.30	n.a.	BM
2	1.07	F	12.070	0.830	13.58	5.636	MB
3	1.67	Cl	8.374	0.575	9.42	5.815	BM
4	2.02	NO2-N	8.967	0.739	12.10	3.509	MB
5	3.04	Br	2.304	0.236	3.86	5.895	BM
6	3.46	NO3-N	7.321	0.949	15.53	3.952	MB
7	5.76	PO4-P	2.524	0.658	10.77	10.522	BMB
8	7.56	SO4	8.600	2.104	34.44	28.491	BMB
Total:			50.393	6.109	100.00	63.820	

16 WG108294-02 LCS B 111501

1,1 RDC /SOS0056-35

Sample Name:	**WG108294-02 LCS B 111501**	*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:*	**1.0100**
Recording Time:	**11/15/2001 16:03**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

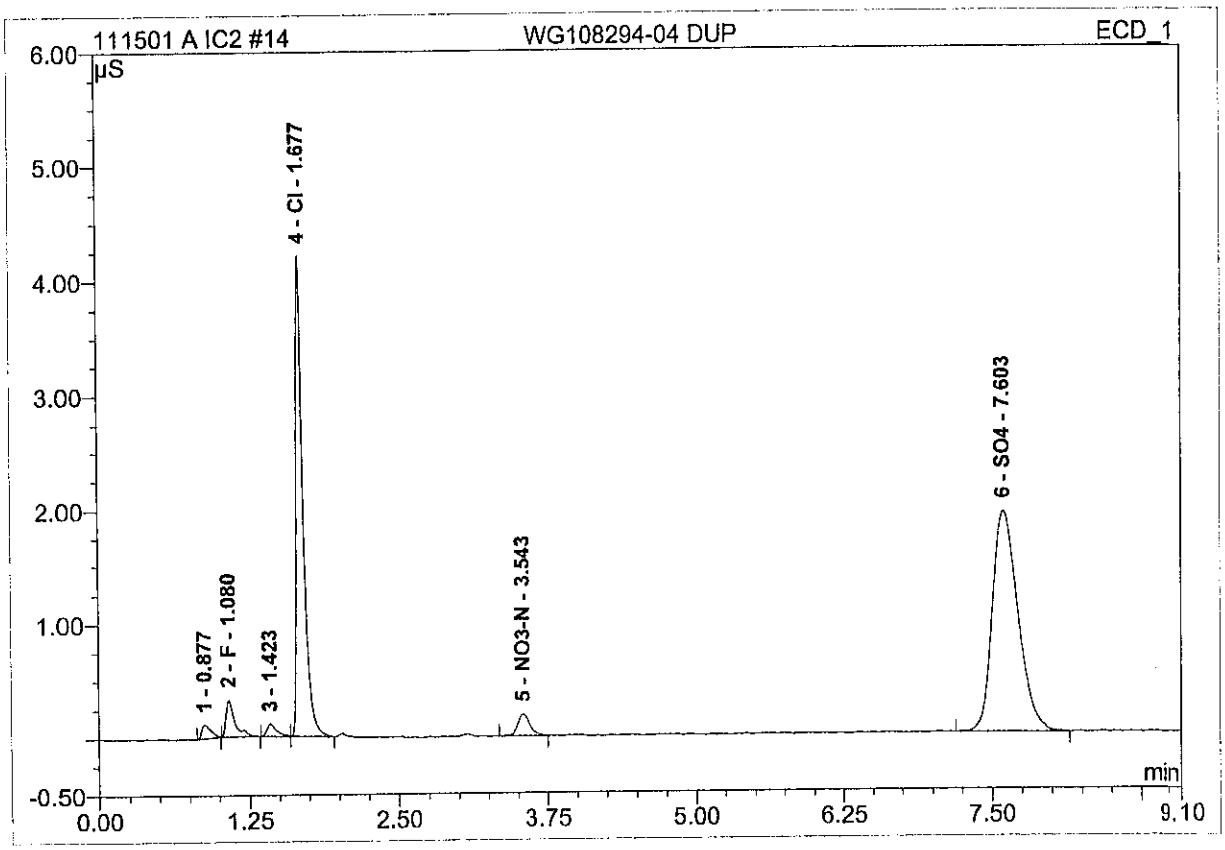


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.278	0.023	0.38	n.a.	BM
2	1.07	F	12.040	0.836	13.56	5.883	MB
3	1.67	Cl	8.191	0.571	9.26	5.852	BM
4	2.02	NO2-N	8.938	0.743	12.05	3.599	MB
5	3.05	Br	2.303	0.238	3.85	5.998	BM
6	3.46	NO3-N	7.317	0.953	15.46	4.010	MB
7	5.74	PO4-P	2.571	0.674	10.94	9.169	BMB
8	7.53	SO4	8.679	2.127	34.50	29.449	BMB
Total:			50.316	6.165	100.00	63.959	

14 WG108294-04 DUP

1,1 RDC non-client DUP of L0111253-03

Sample Name:	**WG108294-04 DUP**	*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:*	**1.0100**
Recording Time:	**11/15/2001 15:40**	*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.	0.124	0.011	1.30	n.a.	BMB
2	1.08	F	0.325	0.028	3.30	0.294	BMB
3	1.42	n.a.	0.108	0.010	1.23	n.a.	BM
4	1.68	Cl	4.205	0.286	34.02	2.951	MB
5	3.54	NO3-N	0.192	0.024	2.81	0.165	BMB
6	7.60	SO4	1.933	0.482	57.34	7.132	BMB
Total:			6.888	0.841	100.00	10.542	

Operator: gsg

Printed: 11/15/2001 5:42:13 PM

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 28

Created: 11/14/2001 12:24:21 PM by gsg
Last Update: 11/15/2001 5:20:07 PM by gsg

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status
1	ANION LVL #1	Standard	3	25.0	9056	9056	Finished
2	ANION LVL #2	Standard	2	25.0	9056	9056	Finished
3	ANION LVL #3	Standard	3	25.0	9056	9056	Finished
4	ANION LVL #4	Standard	4	25.0	9056	9056	Finished
5	ANION LVL #5	Standard	5	25.0	9056	9056	Finished
6	ANION LVL #6	Standard	6	25.0	9056	9056	Finished
7	ELUENT BLANK	Unknown	7	25.0	9056	9056	Finished
8	ALT CCV SV53-30	Unknown	8	25.0	9056	9056	Finished
9	ALT CCV SOS55-48	Unknown	9	25.0	9056	9056	Finished
10	DI H2O BLANK	Unknown	12	25.0	9056	9056	Finished
11	ELUENT BLANK	Unknown	13	25.0	9056	9056	Finished
12	WG108194-01 CCV	Unknown	14	25.0	9056	9056	Finished
13	ANION BLANK 110901	Unknown	15	25.0	9056	9056	Finished
14	ANION LCS 110901	Unknown	16	25.0	9056	9056	Finished
15	WG108195-01 BLANK RR	Unknown	15	25.0	9056	9056	Finished
16	WG108195-02 LCS RR	Unknown	16	25.0	9056	9056	Finished
17	L0111253-01	Unknown	17	25.0	9056	9056	Finished
18	L0111253-02	Unknown	17	25.0	9056	9056	Finished
19	WG108195-03 REF for DUP	Unknown	18	25.0	9056	9056	Finished
20	WG108195-05 REF for MS/MSD	Unknown	17	25.0	9056	9056	Finished
21	L0111253-07	Unknown	18	25.0	9056	9056	Finished
22	L0111253-08	Unknown	19	25.0	9056	9056	Finished
23	L0111253-09	Unknown	20	25.0	9056	9056	Finished
24	WG108194-02 CCV	Unknown	14	25.0	9056	9056	Finished
25	WG108195-04 DUP	Unknown	18	25.0	9056	9056	Finished
26	WG108195-06 MS	Unknown	17	25.0	9056	9056	Finished
27	WG108195-07 MSD	Unknown	18	25.0	9056	9056	Finished
28	WG108194-03 CCV	Unknown	14	25.0	9056	9056	Finished

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Operator: gsg Printed: 11/15/2001 5:42:13 PM

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320 Created: 11/14/2001 12:24:21 PM by gsg
#Samples: 28 Last Update: 11/15/2001 5:20:07 PM by gsg

No.	Name	Inj. Date/Time	Dil. Factor	Sample ID
1	ANION LVL #1	10/31/2001 12:27:31 PM	1.0000	
2	ANION LVL #2	10/31/2001 12:39:02 PM	1.0000	
3	ANION LVL #3	10/31/2001 12:50:31 PM	1.0000	
4	ANION LVL #4	10/31/2001 1:20:40 PM	1.0000	
5	ANION LVL #5	10/31/2001 2:46:55 PM	1.0000	
6	ANION LVL #6	10/31/2001 2:58:25 PM	1.0000	
7	ELUENT BLANK	10/31/2001 1:02:01 PM	1.0000	
8	ALT CCV SV53-30	10/31/2001 3:09:54 PM	1.0000	
9	ALT CCV SOS55-48	10/31/2001 3:21:25 PM	1.0000	
10	DI H2O BLANK	11/14/2001 10:36:51 AM	1.0000	
11	ELUENT BLANK	11/14/2001 10:48:21 AM	1.0000	
12	WG108194-01 CCV	11/14/2001 10:59:51 AM	1.0000	
13	ANION BLANK 110901	11/14/2001 11:11:21 AM	1.0000	
14	ANION LCS 110901	11/14/2001 11:22:51 AM	1.0000	
15	WG108195-01 BLANK RR	11/14/2001 11:37:45 AM	1.0000	
16	WG108195-02 LCS RR	11/14/2001 11:49:15 AM	1.0000	
17	L0111253-01	11/14/2001 12:32:29 PM	1.0100	
18	L0111253-02	11/14/2001 12:44:00 PM	1.0100	
19	WG108195-03 REF for DUP	11/14/2001 12:55:30 PM	1.0100	
20	WG108195-05 REF for MS/MSD	11/14/2001 1:07:00 PM	1.0100	
21	L0111253-07	11/14/2001 1:18:30 PM	1.0100	
22	L0111253-08	11/14/2001 1:30:01 PM	1.0100	
23	L0111253-09	11/14/2001 1:41:31 PM	1.0100	
24	WG108194-02 CCV	11/14/2001 1:53:01 PM	1.0000	
25	WG108195-04 DUP	11/14/2001 2:04:31 PM	1.0100	
26	WG108195-06 MS	11/14/2001 2:16:01 PM	1.0100	
27	WG108195-07 MSD	11/14/2001 2:27:31 PM	1.0100	
28	WG108194-03 CCV	11/14/2001 2:39:02 PM	1.0000	

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 28

Created: 11/14/2001 12:24:21 PM by gsg
Last Update: 11/15/2001 5:20:07 PM by gsg

No.	Name	Comment
1	ANION LVL #1	1,1 GSG ANION LVL #1 SOS0056-10
2	ANION LVL #2	1,1 GSG ANION LVL #2 SOS0056-35
3	ANION LVL #3	1,1 GSG ANION LVL #3 SOS0056-35
4	ANION LVL #4	1,1 GSG ANION LVL #4 SOS0056-35
5	ANION LVL #5	1,1 GSG ANION LVL #5 SOS0056-35
6	ANION LVL #6	1,1 GSG ANION LVL #6 SOS0056-35
7	ELUENT BLANK	1,1 GSG ELUENT BLANK
8	ALT CCV SV53-30	1,1 ANION ALT CCV SV0053-30
9	ALT CCV SOS55-48	1,1 GSG ANION ALT NO2/NO3 SV0052-48
10	DI H2O BLANK	1,1 GSG
11	ELUENT BLANK	1,1 GSG
12	WG108194-01 CCV ✓	1,1 GSG ANION CCV SOS0056-35 111401
13	ANION BLANK 110901 RR	1,1 GSG
14	ANION LCS 110901 RR	1,1 GSG ANION LCS SOS0056-35 111401
15	WG108195-01 BLANK RR ✓	1,1 GSG ANION BLANK 111401
16	WG108195-02 LCS RR ✓	1,1 GSG ANION LCS SOS0056-35 111401
17	L0111253-01 ✓	1,1 GSG CCI REC'D 111401 002-CEF9-2S-Q4-01-11
18	L0111253-02 ✓	1,1 GSG CCI REC'D 111401 002-CEF9-3S-Q4-01-11
19	WG108195-03 REF for DUP ✓	1,1 GSG L0111253-03 REF for DUP
20	WG108195-05 REF for MS/MSD ✓	1,1 GSG L0111253-04 REF
21	L0111253-07 ✓	1,1 GSG CCI REC'D 111401 002-CEF9-9S-Q4-01-11
22	L0111253-08 ✓	1,1 GSG CCI REC'D 111401 002-9DUP-Q4-01-1
23	L0111253-09 ✓	1,1 GSG CCI REC'D 111401 002-9EQB-Q4-01-11
24	WG108194-02 CCV CC	1,1 GSG ANION CCV SOS0056-35 111401
25	WG108195-04 DUP RR	1,1 GSG non client requested DUP of L0111253-03
26	WG108195-06 MS ↓	1,1 GSG L0111253-05 MS
27	WG108195-07 MSD ↓	1,1 GSG L0111253-06 MSD
28	WG108194-03 CCV CC	1,1 GSG ANION CCV SOS0056-35 111401

RRC 11/16/01

EC2 11/16/01

KEMRON ENVIRONMENTAL SERVICES

IC Laboratory Maintenance Log

Analysis Date/Time NOV.14,2001 Instrument ID IC2 Column ID AG4A/SC (AS4A/SC) Data Subdirectory 111401A

Analyst Initials RDC SOP # IC01 Rev. # 2 ✓ 9056 SOP # IC02 Rev. # ___ 314.0

Daily Check

- ☑ Mobile phase reservoir
- ☑ System pressure 1384 psi
- ☑ Waste container

Returned to Control?

Yes ____ No ____

Additional Maintenance

Problem: _____

_____

_____

Action Taken: _____

_____

_____

Comments

IC2-024 failed high for PO_4-P ①, samples run before this ccv detected no PO_4-P and will not be analyzed ② samples run after this ccv will be re-analyzed . . . . this includes L0111253-03 DUP, L0111253-05 MS, & L0111253-06 MSD

IC2-028 ccv failed high for PO_4-P

Reviewed By: ECZ 11/16/01

Operator: gsg Printed: 11/15/2001 6:17:37 PM

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320 Created: 11/15/2001 12:57:08 PM by gsg
#Samples: 17 Last Update: 11/15/2001 6:17:29 PM by gsg

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status
1	ANION LVL #1	Standard	3	25.0	9056	9056	Finished
2	ANION LVL #2	Standard	2	25.0	9056	9056	Finished
3	ANION LVL #3	Standard	3	25.0	9056	9056	Finished
4	ANION LVL #4	Standard	4	25.0	9056	9056	Finished
5	ANION LVL #5	Standard	5	25.0	9056	9056	Finished
6	ANION LVL #6	Standard	6	25.0	9056	9056	Finished
7	ELUENT BLANK	Unknown	7	25.0	9056	9056	Finished
8	ALT CCV SV53-30	Unknown	8	25.0	9056	9056	Finished
9	ALT CCV SOS55-48	Unknown	9	25.0	9056	9056	Finished
10	WG108294-06 MS	Unknown	10	25.0	9056	9056	Finished
11	WG108294-07 MSD	Unknown	11	25.0	9056	9056	Finished
12	WG108294-05 REF	Unknown	12	25.0	9056	9056	Finished
13	WG108294-03 REF	Unknown	13	25.0	9056	9056	Finished
14	WG108294-04 DUP	Unknown	14	25.0	9056	9056	Finished
15	WG108294-01 BLANK B 111501	Unknown	15	25.0	9056	9056	Finished
16	WG108294-02 LCS B 111501	Unknown	16	25.0	9056	9056	Finished
17	WG108271-03 CCV	Unknown	17	25.0	9056	9056	Finished

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Operator: gsg

Printed: 11/15/2001 6:17:37 PM

Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 17

Created: 11/15/2001 12:57:08 PM by gsg
Last Update: 11/15/2001 6:17:29 PM by gsg

No.	Name	Inj. Date/Time	Dil. Factor	Sample ID
1	ANION LVL #1	11/15/2001 12:58:12 PM	1.0000	
2	ANION LVL #2	11/15/2001 1:09:42 PM	1.0000	
3	ANION LVL #3	11/15/2001 1:21:11 PM	1.0000	
4	ANION LVL #4	11/15/2001 1:37:36 PM	1.0000	
5	ANION LVL #5	11/15/2001 1:49:06 PM	1.0000	
6	ANION LVL #6	11/15/2001 2:00:36 PM	1.0000	
7	ELUENT BLANK	11/15/2001 2:12:06 PM	1.0000	
8	ALT CCV SV53-30	11/15/2001 2:23:36 PM	1.0000	
9	ALT CCV SOS55-48	11/15/2001 2:35:05 PM	1.0000	
10	WG108294-06 MS	11/15/2001 2:46:36 PM	1.0100	
11	WG108294-07 MSD	11/15/2001 2:58:05 PM	1.0100	
12	WG108294-05 REF	11/15/2001 3:09:35 PM	1.0100	
13	WG108294-03 REF	11/15/2001 3:28:33 PM	1.0100	
14	WG108294-04 DUP	11/15/2001 3:40:03 PM	1.0100	
15	WG108294-01 BLANK B 111501	11/15/2001 3:51:33 PM	1.0100	
16	WG108294-02 LCS B 111501	11/15/2001 4:03:03 PM	1.0100	
17	WG108271-03 CCV	11/15/2001 4:14:33 PM	1.0000	

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Title:
Datasource: IC DELL_local
Location: DX-320\DX-320 Sequence Files
Timebase: DX-320
#Samples: 17

Created: 11/15/2001 12:57:08 PM by gsg
Last Update: 11/15/2001 6:17:29 PM by gsg

No.	Name	Comment
1	ANION LVL #1	1,1 RDC ANION LVL #1 SOS0056-35
2	ANION LVL #2	1,1 GSG ANION LVL #2 SOS0056-35
3	ANION LVL #3	1,1 GSG ANION LVL #3 SOS0056-35
4	ANION LVL #4	1,1 GSG ANION LVL #4 SOS0056-35
5	ANION LVL #5	1,1 RDC ANION LVL #5 SOS0056-35
6	ANION LVL #6	1,1 RDC ANION LVL #6 SOS0056-35
7	ELUENT BLANK	1,1 RDC ELUENT BLANK
8	ALT CCV SV53-30	1,1 ANION ALT CCV SV0053-30
9	ALT CCV SOS55-48	1,1 RDC ANION ALT NO2/NO3 SV0056-28
10	WG108294-06 MS	1,1 RDC L0111253-05 MS /SOS0056-35
11	WG108294-07 MSD	1,1 RDC L0111253-06 MSD /SOS0056-35
12	WG108294-05 REF	1,1 RDC L0111253-04 REF for MS/MSD
13	WG108294-03 REF	1,1 RDC L0111253-03 REF for DUP
14	WG108294-04 DUP	1,1 RDC non-client DUP of L0111253-03
15	WG108294-01 BLANK B 111501	1,1 RDC
16	WG108294-02 LCS B 111501	1,1 RDC /SOS0056-35
17	WG108271-03 CCV	1,1 RDC /SOS0056-35

ran out of hold

RDC 11/16/01
wdc 4/2/02

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IC Laboratory Maintenance Log

Analysis Date/Time Nov. 15, 2001 Instrument ID IC2 Column ID AG4A/SC AS4A-SC Data Subdirectory 111501A
Analyst Initials RDC SOP # IC01 Rev. # 2 ✓ 9056 SOP # IC02 Rev. # ____ 314.0

Daily Check
- ☑ Mobile phase reservoir
- ☑ System pressure 1371 psi
- ☑ Waste container

Returned to Control?
Yes ✓ No ____

Additional Maintenance
Problem: PO_4 recovering high on CCVs

Action Taken: recalibrated

Comments

L0111253-04 Ref & L0111253-~~07~~ 06 MSD are RR out of holding time RDC 11/16/01

Reviewed By: [illegible] 11/27/01

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KEMRON REPORT L0112348

Prepared for CCI / ATL

Work ID : BLG. 9 / MONTHLY GW SAMPLING

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1.0 Summary Report

1.1 Laboratory Report

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Laboratory Results

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

L0112348

CHAIN OF CUSTODY:

The chain of custody number was 149152-182 .

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 R Lopez DATE: _____

REPORT NARRATIVE
GC VOLATILE ORGANICS - BETX

KEMRON Login No: L0112348

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 analyzed 12/19/01 on HP-5 yielded % recoveries for benzene, toluene, ethylbenzene, and xylenes below the lower advisory limits.

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: Janice L. Schimmel DATE: 12/21/01

Rev. 6/00

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0112348

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: 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: RDC

REVIEWED: _____ DATE: 3/28/01

Rev. 7/14/00

REPORT NARRATIVE
PAH HPLC

KEMRON Login No.: L0112348

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 yielded percent recoveries for two analytes which were above the advisory limit for percent reproducibility.

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: 12/28/01

Rev. 7/14/00

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L0112348

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. The MS/MSD yielded % recoveries that were above advisory limits. The MS/MSD outliers were found to be acceptable in the associated LCS. 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: 3/2/01

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-CEF9-2S-Q4-01-12		L0112348-01
002-CEF9-3S-Q4-01-12		L0112348-02
002-CEF9-5S-Q4-01-12		L0112348-03
002-CEF9-7D-Q4-01-12	RS01	L0112348-04
002-CEF9-7D-Q4-01-12	MS01	L0112348-05
002-CEF9-7D-Q4-01-12	SD01	L0112348-06
002-CEF9-9S-Q4-01-12		L0112348-07
002-9DUP-Q4-01-12		L0112348-08
002-9EQB-Q4-01-12		L0112348-09
002-9TB-Q4-01-12		L0112348-10

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: 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-CEF9-2S-Q4-01-12 Lab Sample ID: L0112348-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 18-DEC-01 Date Extracted: Date Analyzed: 19-DEC-01 09:41

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	1.10	1	
Ethylbenzene	0.500	1.0	21.0	1	
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	2.10	1	
Xylenes, Total	0.500	1.0	5.60	1	

Surrogate	Recovery	Control Limits	Qualifier
a,a,a-Trifluorotoluene	127	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 # : WG110252

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

Field Sample ID: 002-CEF9-3S-Q4-01-12 Lab Sample ID: L0112348-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 18-DEC-01 Date Extracted: Date Analyzed: 19-DEC-01 10:13

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	0.500	1	ND
Ethylbenzene	0.500	1.0	11.0	1	
Methyl tert-butyl ether	0.500	1.0	0.500	1	ND
Toluene	0.500	1.0	1.10	1	
Xylenes, Total	0.500	1.0	3.10	1	

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.

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-CEF9-5S-Q4-01-12 Lab Sample ID: L0112348-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 18-DEC-01 Date Extracted: Date Analyzed: 19-DEC-01 10:45

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	100	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 # : WG110252

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

Field Sample ID: 002-CEF9-7D-Q4-01-12 Lab Sample ID: L0112348-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 18-DEC-01 Date Extracted: Date Analyzed: 19-DEC-01 11:18

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.

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-CEF9-7D-Q4-01-12 Lab Sample ID: L0112348-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 18-DEC-01 Date Extracted: Date Analyzed: 19-DEC-01 11:50

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	15.0	1	
Ethylbenzene	0.500	1.0	15.0	1	
Methyl tert-butyl ether	0.500	1.0	14.0	1	
Toluene	0.500	1.0	14.0	1	
Xylenes, Total	0.500	1.0	43.0	1	

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.

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-CEF9-7D-Q4-01-12 Lab Sample ID: L0112348-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 18-DEC-01 Date Extracted: Date Analyzed: 19-DEC-01 12:23

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	15.0	1	
Ethylbenzene	0.500	1.0	15.0	1	
Methyl tert-butyl ether	0.500	1.0	15.0	1	
Toluene	0.500	1.0	15.0	1	
Xylenes, Total	0.500	1.0	43.0	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.

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-CEF9-9S-Q4-01-12 Lab Sample ID: L0112348-07 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 18-DEC-01 Date Extracted: Date Analyzed: 19-DEC-01 12:56

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	1.80	1	
Ethylbenzene	0.500	1.0	43.0	1	
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	36.0	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.

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: 002-9DUP-Q4-01-12 Lab Sample ID: L0112348-08 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 18-DEC-01 Date Extracted: Date Analyzed: 19-DEC-01 14:10

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Benzene	0.500	1.0	2.00	1	
Ethylbenzene	0.500	1.0	45.0	1	
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	31.0	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.

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: 002-9EQB-Q4-01-12 Lab Sample ID: L0112348-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 18-DEC-01 Date Extracted: Date Analyzed: 19-DEC-01 14:43

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	0.500	1	ND

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.

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: 002-9TB-Q4-01-12 Lab Sample ID: L0112348-10 Matrix: Water

% Solids: 0 Initial Calibration ID: HP5 19-NOV-2001

Date Received: 18-DEC-01 Date Extracted: Date Analyzed: 19-DEC-01 15:17

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	103	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 # : **WG110316**

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

Prime Contractor : **CCI**

Field sample ID		Lab Sample ID
002-CEF9-2S-Q4-01-12		L0112348-01
002-CEF9-3S-Q4-01-12		L0112348-02
002-CEF9-5S-Q4-01-12		L0112348-03
002-CEF9-7D-Q4-01-12	RS01	L0112348-04
002-CEF9-7D-Q4-01-12	MS01	L0112348-05
002-CEF9-7D-Q4-01-12	SD01	L0112348-06
002-CEF9-9S-Q4-01-12		L0112348-07
002-9DUP-Q4-01-12		L0112348-08
002-9EQB-Q4-01-12		L0112348-09

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 : 8015 Preparatory Method: 8015 MOD\3510C AAB # : WG110316

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

Field Sample ID: 002-CEF9-28-Q4-01-12 Lab Sample ID: L0112348-01 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 20-DEC-2001

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 17:00

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	275	550	2000	1.1	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	117	49 - 174	

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\3510C AAB # : WG110316

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

Field Sample ID: 002-CEF9-3S-Q4-01-12 Lab Sample ID: L0112348-02 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 20-DEC-2001

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 17:15

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	265	530	440	1.06	J

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	68.1	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 # : WG110316

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

Field Sample ID: 002-CEF9-5S-Q4-01-12 Lab Sample ID: L0112348-03 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 20-DEC-2001

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 17:31

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	75.6	49 – 174	

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\3510C AAB # : WG110316

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

Field Sample ID: 002-CEF9-7D-Q4-01-12 Lab Sample ID: L0112348-04 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 20-DEC-2001

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 17:46

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	64.2	49 – 174	

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\3510C AAB # : WG110316

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

Field Sample ID: 002-CEF9-7D-Q4-01-12 Lab Sample ID: L0112348-05 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 20-DEC-2001

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 18:02

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	263	530	2700	1.05	

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
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-CEF9-7D-Q4-01-12 Lab Sample ID: L0112348-06 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 20-DEC-2001

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 18:17

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	265	530	2600	1.06	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	88.9	49 – 174	

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\3510C AAB # : WG110316

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

Field Sample ID: 002-CEF9-9S-Q4-01-12 Lab Sample ID: L0112348-07 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 13:54

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	265	530	1400	1.06	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	89.2	49 - 174	

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\3510C AAB # : WG110316

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

Field Sample ID: 002-9DUP-Q4-01-12 Lab Sample ID: L0112348-08 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 14:09

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
TRPH-Florida PRO	263	530	1200	1.05	

Surrogate	Recovery	Control Limits	Qualifier
o-Terphenyl	76.9	49 - 174	

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\3510C AAB # : WG110316

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

Field Sample ID: 002-9EQB-Q4-01-12 Lab Sample ID: L0112348-09 Matrix: Water

% Solids: 0 Initial Calibration ID: HP2 20-DEC-2001

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 20-DEC-01 19:34

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	93.6	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 # : **WG110293**

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

Prime Contractor : **CCI**

Field sample ID		Lab Sample ID
002-CEF9-2S-Q4-01-12		L0112348-01
002-CEF9-3S-Q4-01-12		L0112348-02
002-CEF9-5S-Q4-01-12		L0112348-03
002-CEF9-7D-Q4-01-12	RS01	L0112348-04
002-CEF9-7D-Q4-01-12	MS01	L0112348-05
002-CEF9-7D-Q4-01-12	SD01	L0112348-06
002-CEF9-9S-Q4-01-12		L0112348-07
002-9DUP-Q4-01-12		L0112348-08
002-9EQB-Q4-01-12		L0112348-09

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-CEF9-2S-Q4-01-12 Lab Sample ID: L0112348-01 Matrix: Water

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

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 19-DEC-01 18:13

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.393	1.1	0.890	1	J,P
2-Methylnaphthalene	0.365	1.1	1.50	1	
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	3.00	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 # : WG110293

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

Field Sample ID: 002-CEF9-2S-Q4-01-12 Lab Sample ID: L0112348-01 Matrix: Water

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

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 19-DEC-01 18:13

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	83.0	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 # : WG110293

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

Field Sample ID: 002-CEF9-2S-Q4-01-12 Lab Sample ID: L0112348-01 Matrix: Water

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

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 19-DEC-01 18:13

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.393	1.1	0.540	1	J,P
2-Methylnaphthalene	0.365	1.1	1.50	1	
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	0.0240	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	0.390	1.1	3.30	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 # : WG110293

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

Field Sample ID: 002-CEF9-2S-Q4-01-12 Lab Sample ID: L0112348-01 Matrix: Water

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

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 19-DEC-01 18:13

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	81.6	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 # : WG110293

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

Field Sample ID: 002-CEF9-3S-Q4-01-12 Lab Sample ID: L0112348-02 Matrix: Water

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

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 19-DEC-01 19:10

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.398	1.1	1.30	1	
2-Methylnaphthalene	0.369	1.1	2.20	1	
Acenaphthene	0.456	1.1	0.456	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.313	1.1	0.313	1	ND
Benzo(a)anthracene	0.0330	0.22	0.0330	1	ND
Benzo(a)pyrene	0.0582	0.22	0.0582	1	ND
Benzo(b)fluoranthene	0.0374	0.22	0.0374	1	ND
Benzo(g,h,i)perylene	0.0549	0.22	0.0549	1	ND
Benzo(k)fluoranthene	0.0791	0.22	0.0791	1	ND
Chrysene	0.0264	0.22	0.0264	1	ND
Dibenzo(a,h)anthracene	0.0846	0.22	0.0846	1	ND
Fluoranthene	0.0549	0.22	0.0549	1	ND
Fluorene	0.614	1.1	0.614	1	ND
Indeno(1,2,3-cd)pyrene	0.0879	0.22	0.0879	1	ND
Naphthalene	0.395	1.1	4.70	1	
Phenanthrene	0.315	1.1	0.315	1	ND
Pyrene	0.0747	0.22	0.0747	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-CEF9-3S-Q4-01-12 Lab Sample ID: L0112348-02 Matrix: Water

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

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 19-DEC-01 19:10

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	78.7	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 # : WG110293

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

Field Sample ID: 002-CEF9-3S-Q4-01-12 Lab Sample ID: L0112348-02 Matrix: Water

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

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 19-DEC-01 19:10

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.398	1.1	0.990	1	J
2-Methylnaphthalene	0.369	1.1	2.20	1	
Acenaphthene	0.456	1.1	0.456	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	0.559	1.0	0.559	1	ND
Indeno(1,2,3-cd)pyrene	0.0800	0.20	0.0800	1	ND
Naphthalene	0.395	1.1	4.90	1	
Phenanthrene	0.315	1.1	0.315	1	ND
Pyrene	0.0747	0.22	0.0747	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-CEF9-3S-Q4-01-12 Lab Sample ID: L0112348-02 Matrix: Water

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

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 19-DEC-01 19:10

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	78.4	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 # : WG110293

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

Field Sample ID: 002-CEF9-5S-Q4-01-12 Lab Sample ID: L0112348-03 Matrix: Water

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

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 19-DEC-01 20:06

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	0.415	1.0	0.415	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	0.559	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	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 # : WG110293

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

Field Sample ID: 002-CEF9-5S-Q4-01-12 Lab Sample ID: L0112348-03 Matrix: Water

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

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 19-DEC-01 20:06

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	81.8	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 # : WG110293

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

Field Sample ID: 002-CEF9-7D-Q4-01-12 Lab Sample ID: L0112348-04 Matrix: Water

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

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 19-DEC-01 21:03

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	0.415	1.0	0.415	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	0.559	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	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 # : WG110293

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

Field Sample ID: 002-CEF9-7D-Q4-01-12 Lab Sample ID: L0112348-04 Matrix: Water

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

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 19-DEC-01 21:03

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	81.2	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 # : WG110293

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

Field Sample ID: 002-CEF9-7D-Q4-01-12 Lab Sample ID: L0112348-05 Matrix: Water

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

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 19-DEC-01 22:00

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.381	1.1	30.0	1	
2-Methylnaphthalene	0.354	1.1	31.0	1	
Acenaphthene	0.437	1.1	31.0	1	
Acenaphthylene	0.369	1.1	31.0	1	
Anthracene	0.300	1.1	45.0	1	
Benzo(a)anthracene	0.0316	0.21	4.80	1	
Benzo(a)pyrene	0.0558	0.21	4.40	1	
Benzo(b)fluoranthene	0.0358	0.21	4.30	1	
Benzo(g,h,i)perylene	0.0526	0.21	3.30	1	
Benzo(k)fluoranthene	0.0758	0.21	2.00	1	
Chrysene	0.0253	0.21	4.70	1	
Dibenzo(a,h)anthracene	0.0811	0.21	3.00	1	
Fluoranthene	0.0526	0.21	4.60	1	
Fluorene	0.588	1.1	35.0	1	
Indeno(1,2,3-cd)pyrene	0.0842	0.21	3.30	1	
Naphthalene	0.378	1.1	30.0	1	
Phenanthrene	0.302	1.1	39.0	1	
Pyrene	0.0716	0.21	4.70	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 # : WG110293

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

Field Sample ID: 002-CEF9-7D-Q4-01-12 Lab Sample ID: L0112348-05 Matrix: Water

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

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 19-DEC-01 22:00

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	82.2	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 # : WG110293

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

Field Sample ID: 002-CEF9-7D-Q4-01-12 Lab Sample ID: L0112348-06 Matrix: Water

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

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 19-DEC-01 22:56

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.389	1.1	19.0	1	
2-Methylnaphthalene	0.361	1.1	20.0	1	
Acenaphthene	0.446	1.1	19.0	1	
Acenaphthylene	0.377	1.1	19.0	1	
Anthracene	0.306	1.1	43.0	1	
Benzo(a)anthracene	0.0323	0.22	4.90	1	
Benzo(a)pyrene	0.0570	0.22	4.60	1	
Benzo(b)fluoranthene	0.0366	0.22	4.50	1	
Benzo(g,h,i)perylene	0.0538	0.22	3.40	1	
Benzo(k)fluoranthene	0.0774	0.22	2.10	1	
Chrysene	0.0258	0.22	4.80	1	
Dibenzo(a,h)anthracene	0.0828	0.22	3.20	1	
Fluoranthene	0.0538	0.22	4.50	1	
Fluorene	0.601	1.1	25.0	1	
Indeno(1,2,3-cd)pyrene	0.0860	0.22	3.70	1	
Naphthalene	0.386	1.1	20.0	1	
Phenanthrene	0.309	1.1	32.0	1	
Pyrene	0.0731	0.22	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 # : WG110293

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

Field Sample ID: Q02-CEF9-7D-Q4-01-12 Lab Sample ID: L0112348-06 Matrix: Water

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

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 19-DEC-01 22:56

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	84.4	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 # : WG110293

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

Field Sample ID: 002-CEF9-9S-Q4-01-12 Lab Sample ID: L0112348-07 Matrix: Water

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

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 19-DEC-01 23:53

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	5.10	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	0.0800	0.22	0.0800	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	0.621	1	ND
Indeno(1,2,3-cd)pyrene	0.0889	0.22	0.0889	1	ND
Naphthalene	0.399	1.1	29.0	1	
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 # : WG110293

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

Field Sample ID: 002-CEF9-9S-Q4-01-12 Lab Sample ID: L0112348-07 Matrix: Water

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

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 19-DEC-01 23:53

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	79.7	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 # : WG110293

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

Field Sample ID: 002-CEF9-9S-Q4-01-12 Lab Sample ID: L0112348-07 Matrix: Water

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

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 19-DEC-01 23:53

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	6.90	1	
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	0.0300	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	0.399	1.1	32.0	1	
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 # : WG110293

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

Field Sample ID: 002-CEF9-9S-Q4-01-12 Lab Sample ID: L0112348-07 Matrix: Water

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

Date Received: 18-DEC-01 Date Extracted: 19-DEC-01 Date Analyzed: 19-DEC-01 23:53

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	78.1	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 # : WG110293

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

Field Sample ID: 002-9DUP-Q4-01-12 Lab Sample ID: L0112348-08 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 00:49

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.398	1.1	4.00	1	
2-Methylnaphthalene	0.369	1.1	7.10	1	
Acenaphthene	0.456	1.1	0.456	1	ND
Acenaphthylene	0.351	1.0	0.351	1	ND
Anthracene	0.313	1.1	0.313	1	ND
Benzo(a)anthracene	0.0330	0.22	0.0330	1	ND
Benzo(a)pyrene	0.0582	0.22	0.0582	1	ND
Benzo(b)fluoranthene	0.0374	0.22	0.0374	1	ND
Benzo(g,h,i)perylene	0.0549	0.22	0.0549	1	ND
Benzo(k)fluoranthene	0.0791	0.22	0.0791	1	ND
Chrysene	0.0264	0.22	0.0264	1	ND
Dibenzo(a,h)anthracene	0.0846	0.22	0.0846	1	ND
Fluoranthene	0.0549	0.22	0.0549	1	ND
Fluorene	0.614	1.1	0.614	1	ND
Indeno(1,2,3-cd)pyrene	0.0879	0.22	0.0879	1	ND
Naphthalene	0.395	1.1	0.395	1	ND
Phenanthrene	0.315	1.1	0.315	1	ND
Pyrene	0.0747	0.22	0.0747	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: 002-9DUP-Q4-01-12 Lab Sample ID: L0112348-08 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 00:49

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	77.2	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 # : WG110293

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

Field Sample ID: 002-9DUP-Q4-01-12 Lab Sample ID: L0112348-08 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 00:49

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.398	1.1	3.30	1	
2-Methylnaphthalene	0.369	1.1	8.90	1	
Acenaphthene	0.456	1.1	0.456	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	0.559	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	0.315	1.1	0.315	1	ND
Pyrene	0.0747	0.22	0.0747	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: 002-9DUP-Q4-01-12 Lab Sample ID: L0112348-08 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 00:49

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	75.9	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: 002-9EQB-Q4-01-12 Lab Sample ID: L0112348-09 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 02:43

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
1-Methylnaphthalene	0.398	1.1	0.398	1	ND
2-Methylnaphthalene	0.369	1.1	0.369	1	ND
Acenaphthene	0.456	1.1	0.456	1	ND
Acenaphthylene	0.386	1.1	0.386	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	0.0549	0.22	0.0549	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	0.395	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 # : WG110293

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

Field Sample ID: 002-9EQB-Q4-01-12 Lab Sample ID: L0112348-09 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 02:43

Concentration Units: % Recovery

Analyte	MDL	RL	Concentration	Dilution	Qualifier

Surrogate	Recovery	Control Limits	Qualifier
p-terphenyl-d14	67.9	40 - 132	

Internal Std	Qualifier

Comments:

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

KEMRON ENVIRONMENTAL SERVICES

ANALYSES DATA 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-CEF9-2S-Q4-01-12		L0112348-01
002-CEF9-3S-Q4-01-12		L0112348-02
002-CEF9-5S-Q4-01-12		L0112348-03
002-CEF9-7D-Q4-01-12	RS01	L0112348-04
002-CEF9-7D-Q4-01-12	MS01	L0112348-05
002-CEF9-7D-Q4-01-12	SD01	L0112348-06
002-CEF9-9S-Q4-01-12		L0112348-07
002-9DUP-Q4-01-12		L0112348-08
002-9EQB-Q4-01-12		L0112348-09

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-CEF9-2S-Q4-01-12 Lab Sample ID: L0112348-01 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 13-DEC-2001

Date Received: 18-DEC-01 Date Extracted: Date Analyzed: 18-DEC-01 13:53

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.

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-CEF9-3S-Q4-01-12 Lab Sample ID: L0112348-02 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 13-DEC-2001

Date Received: 18-DEC-01 Date Extracted: Date Analyzed: 18-DEC-01 14:16

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.

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-CEF9-5S-Q4-01-12 Lab Sample ID: L0112348-03 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 13-DEC-2001

Date Received: 18-DEC-01 Date Extracted: Date Analyzed: 18-DEC-01 14:28

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	0.360	1	J
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.

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-CEF9-7D-Q4-01-12 Lab Sample ID: L0112348-04 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 13-DEC-2001

Date Received: 18-DEC-01 Date Extracted: Date Analyzed: 18-DEC-01 14:39

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.

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-CEF9-7D-Q4-01-12 Lab Sample ID: L0112348-05 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 13-DEC-2001

Date Received: 18-DEC-01 Date Extracted: Date Analyzed: 18-DEC-01 14:51

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	5.30	1	
Nitrite	0.0610	0.40	4.90	1	
Phosphate	0.160	1.0	12.0	1	

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 # : WG110193

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

Field Sample ID: 002-CEF9-7D-Q4-01-12 Lab Sample ID: L0112348-06 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 13-DEC-2001

Date Received: 18-DEC-01 Date Extracted: Date Analyzed: 18-DEC-01 15:02

Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Nitrate	0.0670	0.60	5.20	1	
Nitrite	0.0610	0.40	4.80	1	
Phosphate	0.160	1.0	12.0	1	

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 # : WG110193

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

Field Sample ID: 002-CEF9-9S-Q4-01-12 Lab Sample ID: L0112348-07 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 13-DEC-2001

Date Received: 18-DEC-01 Date Extracted: Date Analyzed: 18-DEC-01 15:25

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.

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: 002-9DUP-Q4-01-12 Lab Sample ID: L0112348-08 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 13-DEC-2001

Date Received: 18-DEC-01 Date Extracted: Date Analyzed: 18-DEC-01 15:37

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.

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: 002-9EQB-Q4-01-12 Lab Sample ID: L0112348-09 Matrix: Water

% Solids: 0 Initial Calibration ID: IC2 13-DEC-2001

Date Received: 18-DEC-01 Date Extracted: Date Analyzed: 18-DEC-01 15:48

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.

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
149152-182

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 9	**149152**	**Debbie Tornes 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 9 / 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**		

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)	ANALYSES REQUIRED (Include Method Numbers) 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-CEF9-2S-Q4-01-12	CEF-9-2S	W	12/17/01	11:00	III/C	14	2	2	2	1					Grab		
2	002-CEF9-3S-Q4-01-12	CEF-9-3S	W	12/17/01	11:25	III/C	14	2	2	2	1					Grab		
3	002-CEF9-5S-Q4-01-12	CEF-9-5S	W	12/17/01	14:00	III/C	14	2	2	2	1					Grab		
4	002-CEF9-7D-Q4-01-12	CEF-9-7D	W	12/17/01	12:00	III/C	14	6	6	6	3					Grab	(MS/MSD)	
5	002-CEF9-9S-Q4-01-12	CEF-9-9S	W	12/17/01	13:25	III/C	14	2	2	2	1					Grab		
6	002-9DUP-Q4-01-12	Duplicate	W	12/17/01	NA	III/C	14	2	2	2	1					Grab		
7	002-9EQB-Q4-01-12	Equipment Blank	W	12/17/01	12:10	III/C	14	2	2	2	1					Grab		
8	002-9TB-Q4-01-12	Trip Blank	W	NA	NA	III/C	14	2									Prepared by Lab	
9	NA	Temperature Blank	W	NA	NA	III/C	14					5					Prepared by Lab	
10																		

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:
Randy Dumaop / Sean Smith J.A. Jones Environmental Services	**Federal Express Track No's.791165151876, 790248793416, 790248793184, 790979566595, 790248793221.**

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	12/17/01	18:00
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 Temps: 1, 1, 2, 1, 1, 1

KEMRON Internal Laboratory Chain of Custody

Work Order: L0112348 **Client:** CCI **# of Samples:** 10 **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
1-9A	9056	Anal	12/18/01 @ 13:10	login	SV	LMT	12/19/01 @ 12:10	Archive ~~LMT~~ 12/19/01	LMT	Archive
1-9A	8310	Ext	12/19/01 @ 0710	walkin	[illegible]	CEB	JEA 12/20/01 0900	dumpster	DP	disposal
1-9A	PRO	Ext	12/19/01 @ 0710	walkin	[illegible]	CEB	JEA 12/20/01 0900	dumpster	DP	disposal
1-10	8021	ANAL	CBN 12/19/01 @ 0825	V-1	ORG-3	[illegible]				

report sent to client 1/2 MRR

CRF #3

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: KL462	COOLER ID: KL942	COOLER ID: KL993
	INDEX #: 79097956595	INDEX #: 79116515 1876	INDEX #: 79024879318 4
SEALED	(+) YES ( ) NO	(+) YES ( ) NO	(+) YES ( ) NO
CUSTODY	(+) YES ( ) NO	(+) YES ( ) NO	(+) YES ( ) NO
TEMP :	(C) (D) 1 °C	(C) (D) 1 °C	(C) (D) 2 °C
TEMP IN RANGE (4°C ± 2°)	( ) YES (+) NO	( ) YES (+) NO	(+) YES ( ) NO
WET ICE / BLUE ICE	(+) / ( )	(+) / ( )	(+) / ( )
ICE FROZEN / MELTED	(+) / ( )	(+) / ( )	(+) / ( )
RADIATION CHECKED	(+) YES ( ) NO	(+) YES ( ) NO	(+) YES ( ) NO
SAMPLE INTACT	(+) YES ( ) NO	(+) YES ( ) NO	(+) YES ( ) NO
SALVAGEBLE	( ) YES ( ) NO	( ) YES ( ) NO	( ) YES ( ) NO
SAMPLE TYPE: WATER / SOIL / OTHER	(+) / ( ) / ( )	(+) / ( ) / ( )	(+) / ( ) / ( )
LABELS: INTACT	(+) YES ( ) NO	(+) YES ( ) NO	(+) YES ( ) NO
LEGIBLE	(+) YES ( ) NO	(+) YES ( ) NO	(+) YES ( ) NO
MATCH COC	(+) YES ( ) NO	(+) YES ( ) NO	(+) YES ( ) NO
pH IN RANGE (2 - >9 - >12) AS APPROPRIATE	(+) YES ( ) NO	(+) YES ( ) NO	(+) YES ( ) NO
SAMPLES FROZEN?	( ) YES (+) NO	( ) YES (+) NO	( ) YES ( ) NO
LOG-IN COMMENTS	1325 DUP	1200 MS/MSD 1200	1400 VO's

TSR COMMENTS

CONTACT:	DATE:	TIME:

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

Revised 10/16/01

CKF #3

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: KL1059	COOLER ID: KL599	COOLER ID: KL581
	INDEX #: 790249309124	INDEX #: 790248793221	INDEX #: 790248793416
SEALED	(✓) YES ( ) NO	(✓) YES ( ) NO	(✓) YES ( ) NO
CUSTODY	(✓) YES ( ) NO	(✓) YES ( ) NO	(✓) YES ( ) NO
TEMP :	(C) (D) 1 °C	(C) (D) 1 °C	(C) (D) 1 °C
TEMP IN RANGE (4°C ± 2°)	( ) YES (✓) NO	( ) YES (✓) NO	( ) YES (✓) NO
WET ICE / BLUE ICE	(✓) / ( )	(✓) / ( )	(✓) / ( )
ICE	FROZEN (✓) MELTED ( )	FROZEN (✓) MELTED ( )	FROZEN (✓) MELTED ( )
RADIATION CHECKED	(✓) YES ( ) NO	(✓) YES ( ) NO	(✓) YES ( ) NO
SAMPLE INTACT	(✓) YES ( ) NO	(✓) YES ( ) NO	(✓) YES ( ) NO
SALVAGEBLE	( ) YES ( ) NO	( ) YES ( ) NO	( ) YES ( ) NO
SAMPLE TYPE:	WATER (✓) SOIL ( ) OTHER ( )	WATER (✓) SOIL ( ) OTHER ( )	WATER (✓) SOIL ( ) OTHER ( )
LABELS: INTACT	(✓) YES ( ) NO	(✓) YES ( ) NO	(✓) YES ( ) NO
LEGIBLE	(✓) YES ( ) NO	(✓) YES ( ) NO	(✓) YES ( ) NO
MATCH COC	(✓) YES ( ) NO	(✓) YES ( ) NO	(✓) YES ( ) NO
pH IN RANGE (2 - >9 - >12) AS APPROPRIATE	(✓) YES ( ) NO	(✓) YES ( ) NO	(✓) YES ( ) NO
SAMPLES FROZEN?	( ) YES (✓) NO	( ) YES (✓) NO	( ) YES (✓) NO
LOG-IN COMMENTS	1540 1605	1100 1125	1200 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# L0112348

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 COC #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: 12/18/01
by (print) Lucinda M. Tilton (sign) Lucinda M. Tilton

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: L0112348

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 analyzed 12/19/01 on HP-5 yielded % recoveries for benzene, toluene, ethylbenzene, and xylenes below the lower advisory limits.

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: Janice L Schimmel DATE: 12/27/4

Rev. 6/00

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BETX-GC DATA (8021)

Login Number: LO112348

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: L0112348
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-CEF9-2S-Q4-01-12	L0112348-01	5G11408	12/19/01 09:41	
002-CEF9-3S-Q4-01-12	L0112348-02	5G11409	12/19/01 10:13	
002-CEF9-5S-Q4-01-12	L0112348-03	5G11410	12/19/01 10:45	
002-CEF9-7D-Q4-01-12	L0112348-04	5G11411	12/19/01 11:18	
002-CEF9-7D-Q4-01-12	L0112348-05	5G11412	12/19/01 11:50	
002-CEF9-7D-Q4-01-12	L0112348-06	5G11413	12/19/01 12:23	
002-CEF9-9S-Q4-01-12	L0112348-07	5G11414	12/19/01 12:56	
002-9DUP-Q4-01-12	L0112348-08	5G11416	12/19/01 14:10	
002-9EQB-Q4-01-12	L0112348-09	5G11417	12/19/01 14:43	
002-9TB-Q4-01-12	L0112348-10	5G11418	12/19/01 15:17	

KEMRON ENVIRONMENTAL SERVICES
BLANK REPORT

Login Number: L0112348
Instrument ID: HP5
File ID: 5G11405
Workgroup (AAB#): WG110252
Contract #:

Run Date: 12/19/2001
Run Time: 07:54
Analyst: CBN

Sample ID: WG110252-01
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	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 15:11

KEMRON ENVIRONMENTAL SERVICES
LABORATORY CONTROL SAMPLE

Login Number: L0112348
Instrument ID: HP5
File ID: 5G11406
Workgroup (AAB#): WG110252
Contract #:

Run Date: 12/19/2001
Run Time: 08:27
Analyst: CBN

Sample ID: WG110252-02
Method: 8021B
Matrix: Water
Units: ug/L
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 15:11

KEMRON ENVIRONMENTAL SERVICES
MS/MSD REPORT

Loginnum: L0112348 Cal ID: HP5-19-NOV-2001 Worknum: WG110252
Instrument ID: HP5 Contract #: Method: 8021B
Parent ID: L0112348-04 File ID: 5G11411 Dil: 1 Matrix: Water
Sample ID: L0112348-05 MS File ID: 5G11412 Dil: 1 Units: ug/L
Sample ID: L0112348-06 MSD File ID: 5G11413 Dil: 1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Benzene	0	20.0	14.6	73.0	20.0	14.6	73.0	0	79 - 120	29	*
Ethylbenzene	0	20.0	14.7	73.5	20.0	14.8	74.0	0.676	80 - 120	25	*
Methyl tert-butyl ether	0	20.0	14.1	70.5	20.0	14.6	73.0	3.47	34 - 150	75	
Toluene	0	20.0	14.4	72.0	20.0	14.5	72.5	0.690	80 - 120	24	*
Xylenes, Total	0	60.0	43.0	71.7	60.0	43.2	72.0	0.464	78 - 120	24	*

* FAILS %REC LIMIT

FAILS RPD LIMIT

KEMRON FORMS - Modified 12/13/2001
Version 1.2
Report generated 12/21/2001 15:11

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-CEF9-2S-Q4-01-12	17-DEC-01	18-DEC-01	19-DEC-01	14	2	19-DEC-01	14	2	
002-CEF9-3S-Q4-01-12	17-DEC-01	18-DEC-01	19-DEC-01	14	2	19-DEC-01	14	2	
002-CEF9-5S-Q4-01-12	17-DEC-01	18-DEC-01	19-DEC-01	14	2	19-DEC-01	14	2	
002-CEF9-7D-Q4-01-12	17-DEC-01	18-DEC-01	19-DEC-01	14	2	19-DEC-01	14	2	
002-CEF9-7D-Q4-01-12	17-DEC-01	18-DEC-01	19-DEC-01	14	2	19-DEC-01	14	2	
002-CEF9-7D-Q4-01-12	17-DEC-01	18-DEC-01	19-DEC-01	14	2	19-DEC-01	14	2	
002-CEF9-9S-Q4-01-12	17-DEC-01	18-DEC-01	19-DEC-01	14	2	19-DEC-01	14	2	
002-9DUP-Q4-01-12	17-DEC-01	18-DEC-01	19-DEC-01	14	2	19-DEC-01	14	2	
002-9EQB-Q4-01-12	17-DEC-01	18-DEC-01	19-DEC-01	14	2	19-DEC-01	14	2	
002-9TB-Q4-01-12	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

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: L0112348
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	

Login Number: L0112348
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: L0112348
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	

Login Number: L0112348
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

SURROGATE STANDARDS

Login Number: L0112348
Instrument Id: HP5
Workgroup (AAB#): WG110252

Method: 8021
Matrix: WATER

Sample Numbe	Dilution	Tag	1
L0112348-01	1.00		127
L0112348-02	1.00		108
L0112348-03	1.00		100
L0112348-04	1.00		100
L0112348-05	1.00		102
L0112348-06	1.00		101
L0112348-07	1.00		111
L0112348-08	1.00		111
L0112348-09	1.00		101
L0112348-10	1.00		103

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 15:11

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\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 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 RE 100X	1,1 S-87-26	19 Dec 101 1
17	5	5g11420.d	1.	L0112349-02 A 5ML RE clo	1,1 S-87-26	19 Dec 101 1
18	6	5g11421.d	1.	L0112349-03 A 5ML RE 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 1

VOA - GC

Date: 12/19/01 **Analyst:** CBN **Method:** (8021) 8015 602

Instrument: HP5 **Work Group:** WG/10252

	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: mcf 12-20-01

Secondary Reviewers Initials & Date Checked: gds 12/20/01

CBN 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: CBN 12/20/01

Comments: _____

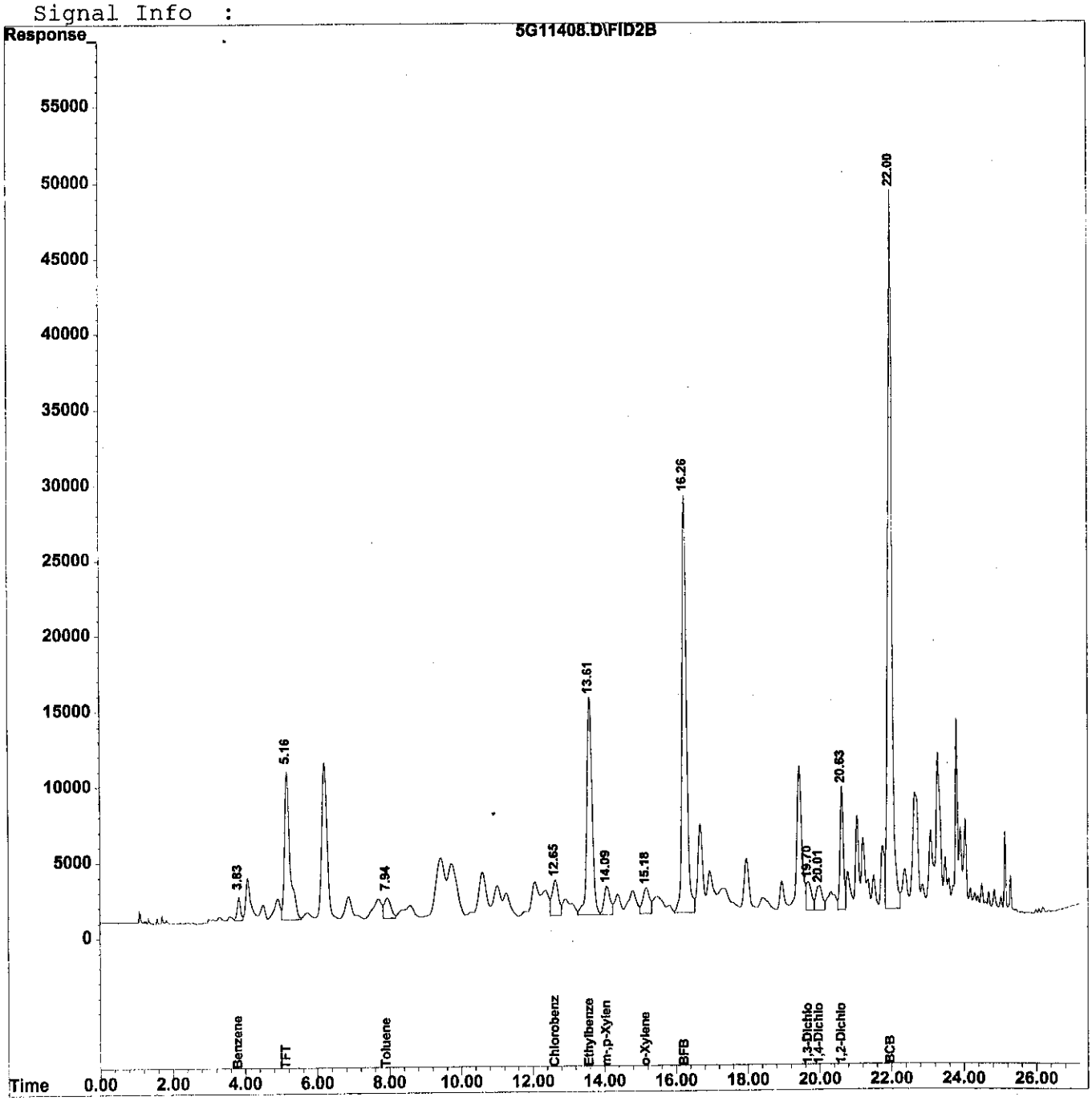
✓ = Checked & OK
NA = Not Applicable

2.1.3.2 Sample Data

Data File : C:\HPCHEM\2\DATA\121901\5G11408.D Vial: 2
Acq On : 19 Dec 2001 9:41 Operator: CBN
Sample : L0112348-01 A 5ML Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 19 10:08 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 :



Data File : C:\HPCHEM\2\DATA\121901\5G11408.D Vial: 2
Acq On : 19 Dec 2001 9:41 Operator: CBN
Sample : L0112348-01 A 5ML Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 19 10:08 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

@12/20

Volume Inj. :
Signal Phase :
Signal Info :

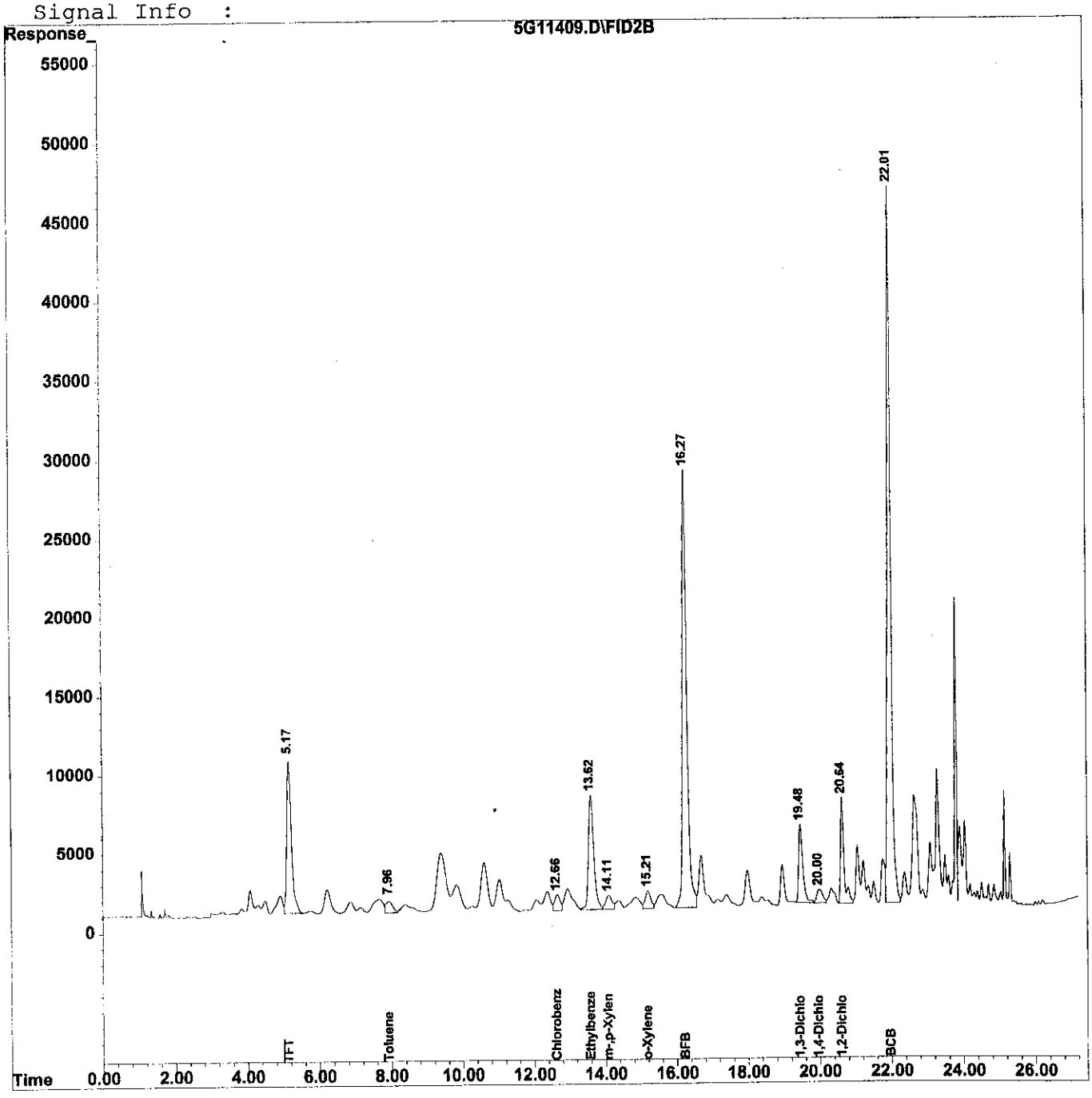
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.17	1023380	37.9653 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	126.55%
9) S BFB	16.27	2405672	32.7565 ug/L
Spiked Amount 30.000		Recovery =	109.19%
13) S BCB	22.00	3649961	52.7970 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	175.99%#
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	3.83✓	95500	1.0544 ug/L
4) TM Toluene	7.95✓	174289	2.0883 ug/L
5) TM Chlorobenzene	12.65	291200	~~2.6968 ug/L~~
6) TM Ethylbenzene	13.61✓	1474812	20.5658 ug/L
7) TM m-,p-Xylene	14.09✓	217197	2.5716 ug/L
8) TM o-Xylene	15.19✓	224497	3.0496 ug/L
10) TM 1,3-Dichlorobenzene	19.70	198266	~~2.7096 ug/L~~
11) TM 1,4-Dichlorobenzene	20.01	203653	~~2.6363 ug/L~~
12) TM 1,2-Dichlorobenzene	20.63	524942	~~8.4564 ug/L~~

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

Data File : C:\HPCHEM\2\DATA\121901\5G11409.D Vial: 3
Acq On : 19 Dec 2001 10:13 Operator: CBN
Sample : L0112348-02 A 5ML Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 19 10:40 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 : Multiple Level Calibration
DataAcq Meth : 8021W.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\2\DATA\121901\5G11409.D Vial: 3
Acq On : 19 Dec 2001 10:13 Operator: CBN
Sample : L0112348-02 A 5ML Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 19 10:40 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

@12/20

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.17	875913	32.4946 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery =	108.32%
9) S BFB	16.28 ✓	2426152	33.0354 ug/L
Spiked Amount 30.000		Recovery =	110.12%
13) S BCB	22.01 ✓	3122946	45.1737 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	150.58%#
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	3.84 ✓	8886	<MDL ug/L
4) TM Toluene	7.95 ✓	94939	1.1375 ug/L
5) TM Chlorobenzene	12.66	108621	~~0.5598 ug/L~~
6) TM Ethylbenzene	13.62 ✓	760502	10.6049 ug/L
7) TM m-,p-Xylene	14.11 ✓	115350	1.3657 ~~ug/L~~
8) TM o-Xylene	15.21	126736	1.7216 ~~ug/L~~
10) TM 1,3-Dichlorobenzene	19.48	406404	~~5.5540 ug/L~~
11) TM 1,4-Dichlorobenzene	20.01	103659	~~1.3419 ug/L~~
12) TM 1,2-Dichlorobenzene	20.64	451566	~~7.2743 ug/L~~

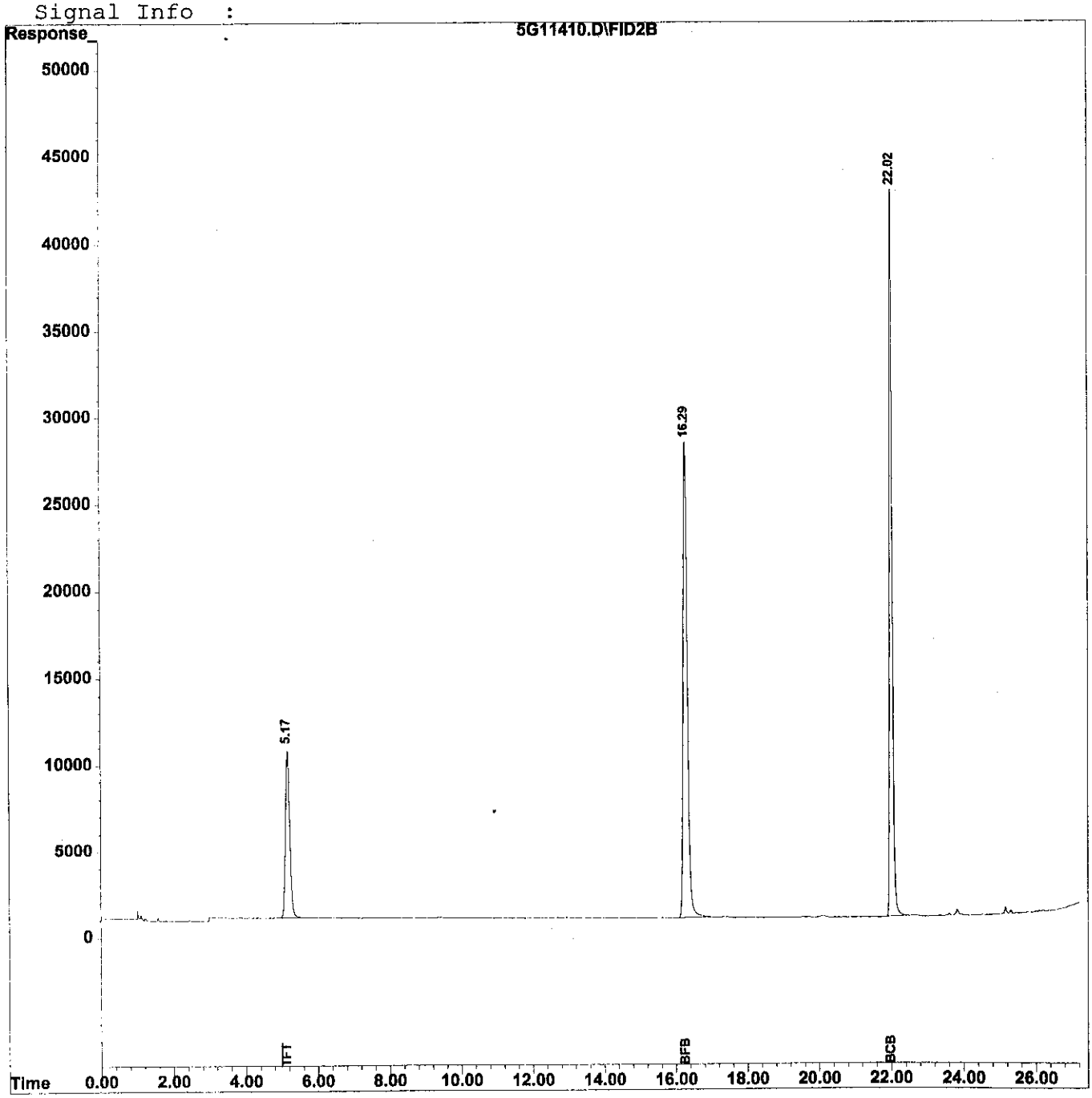
Report 12/20/01

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

Data File : C:\HPCHEM\2\DATA\121901\5G11410.D Vial: 4
Acq On : 19 Dec 2001 10:45 Operator: CBN
Sample : L0112348-03 A 5ML Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 19 11:13 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\5G11410.D
Acq On : 19 Dec 2001 10:45
Sample : L0112348-03 A 5ML
Misc : 1,1 S-87-26
IntFile : autoint1.e
Quant Time: Dec 19 11:13 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

@12/20

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.17	810736	30.0767 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery = 100.26%	
9) S BFB	16.29	2259537	30.7667 ug/L
Spiked Amount 30.000		Recovery = 102.56%	
13) S BCB	22.02	2204461	31.8877 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 106.29%	
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

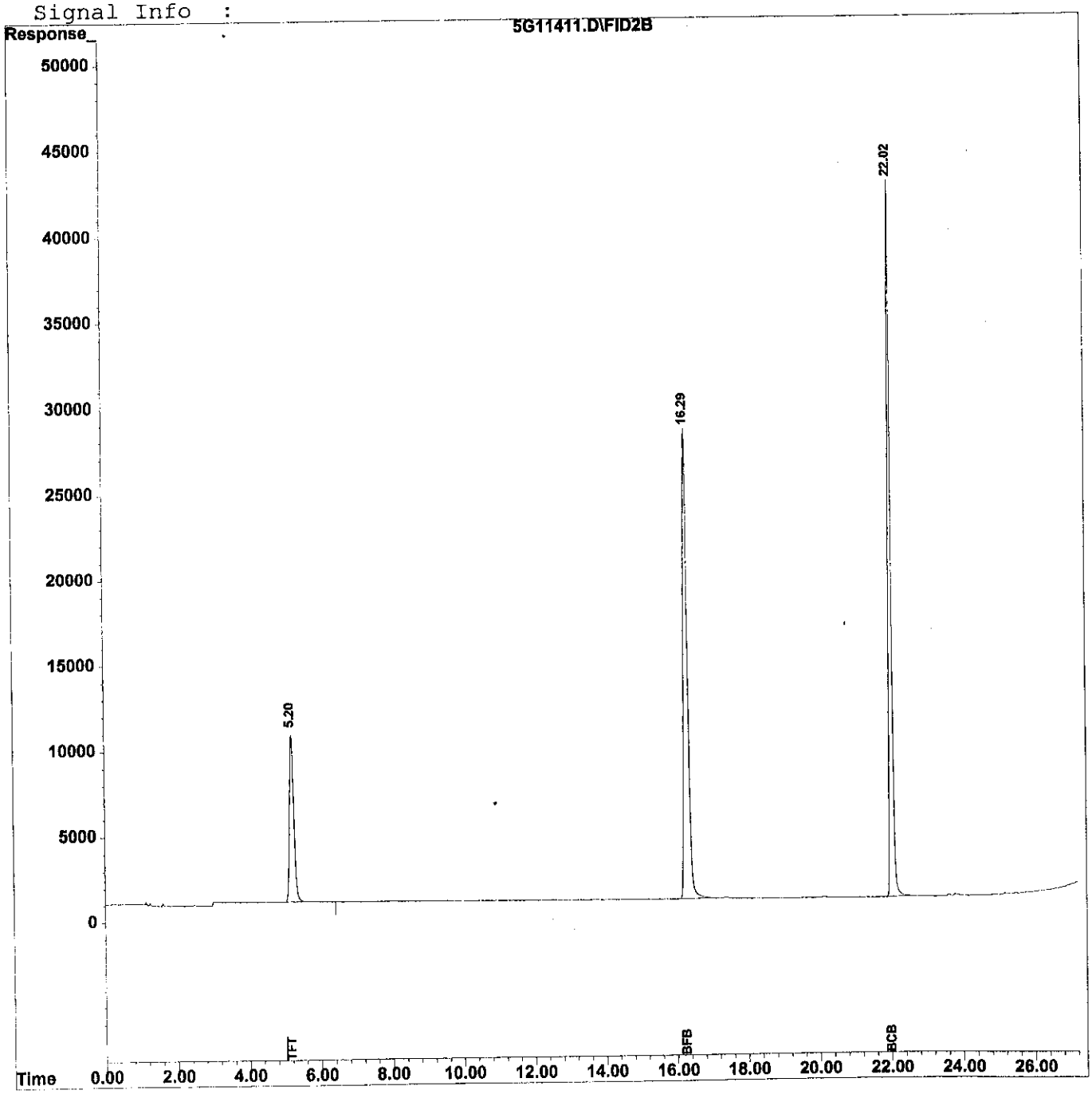
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\121901\5G11411.D
Acq On : 19 Dec 2001 11:18
Sample : WG110252-03 L0112348-04 A 5ML
Misc : 1,1 S-87-26
IntFile : autoint1.e
Quant Time: Dec 19 11:45 2001 Quant Results File: 8021W.RES

Vial: 5
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 :



Data File : C:\HPCHEM\2\DATA\121901\5G11411.D
Acq On : 19 Dec 2001 11:18
Sample : WG110252-03 L0112348-04 A 5ML
Misc : 1,1 S-87-26
IntFile : autoint1.e
Quant Time: Dec 19 11:45 2001 Quant Results File: 8021W.RES

Vial: 5
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

@1320

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.20	812068	30.1261 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery = 100.42%	
9) S BFB	16.29	2259336	30.7639 ug/L
Spiked Amount 30.000		Recovery = 102.55%	
13) S BCB	22.03	2190521	31.6861 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 105.62%	
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

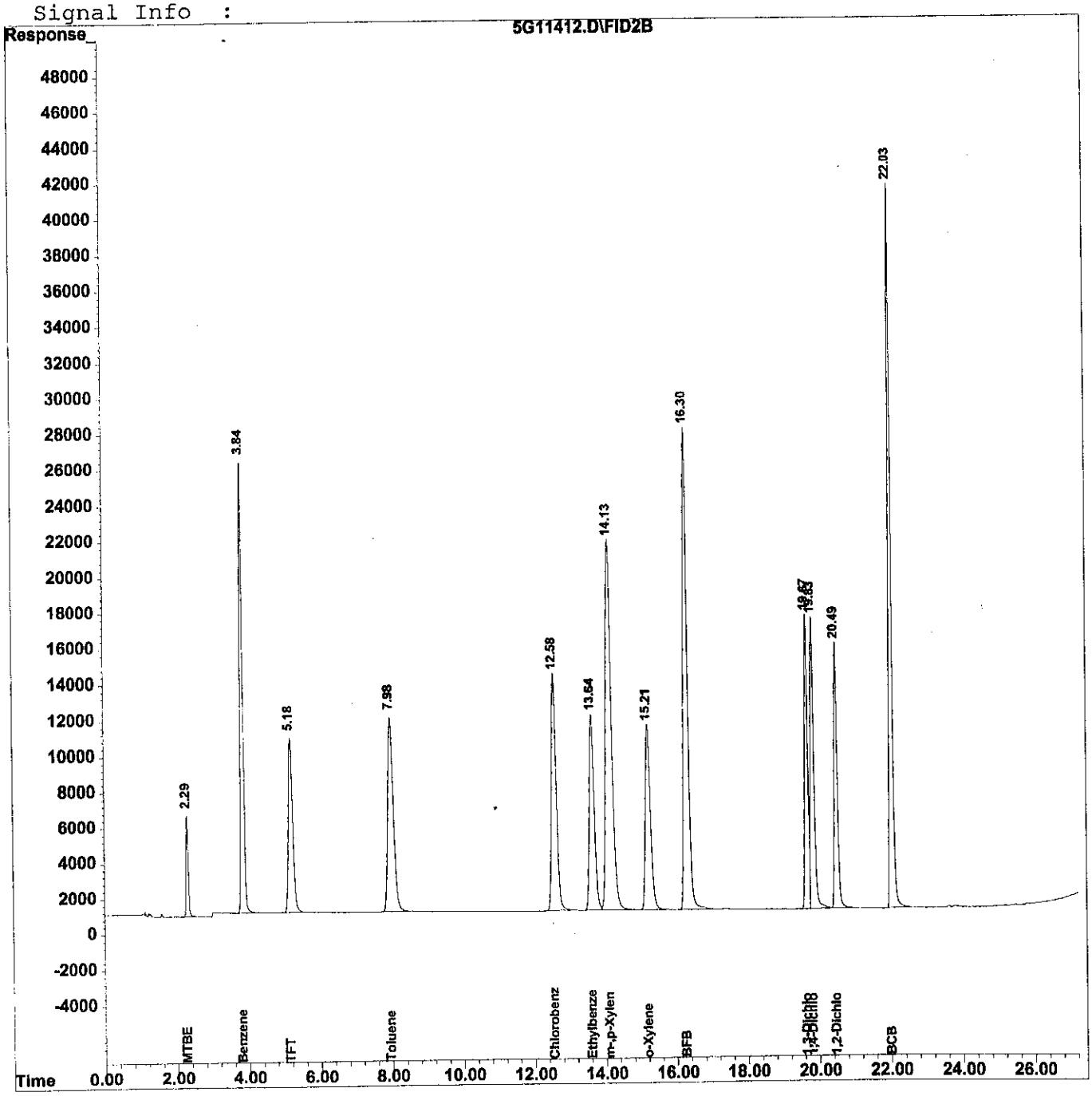
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\121901\5G11412.D
Acq On : 19 Dec 2001 11:50
Sample : WG110252-04 L0112348-05 MS A 5ML
Misc : 1,1 S-(88-04,87-26)
IntFile : autoint1.e
Quant Time: Dec 19 12:18 2001 Quant Results File: 8021W.RES

Vial: 6
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 :



Data File : C:\HPCHEM\2\DATA\121901\5G11412.D Vial: 6
Acq On : 19 Dec 2001 11:50 Operator: CBN
Sample : WG110252-04 L0112348-05 MS A 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 19 12:18 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

@1250

Volume Inj. :
Signal Phase :
Signal Info :

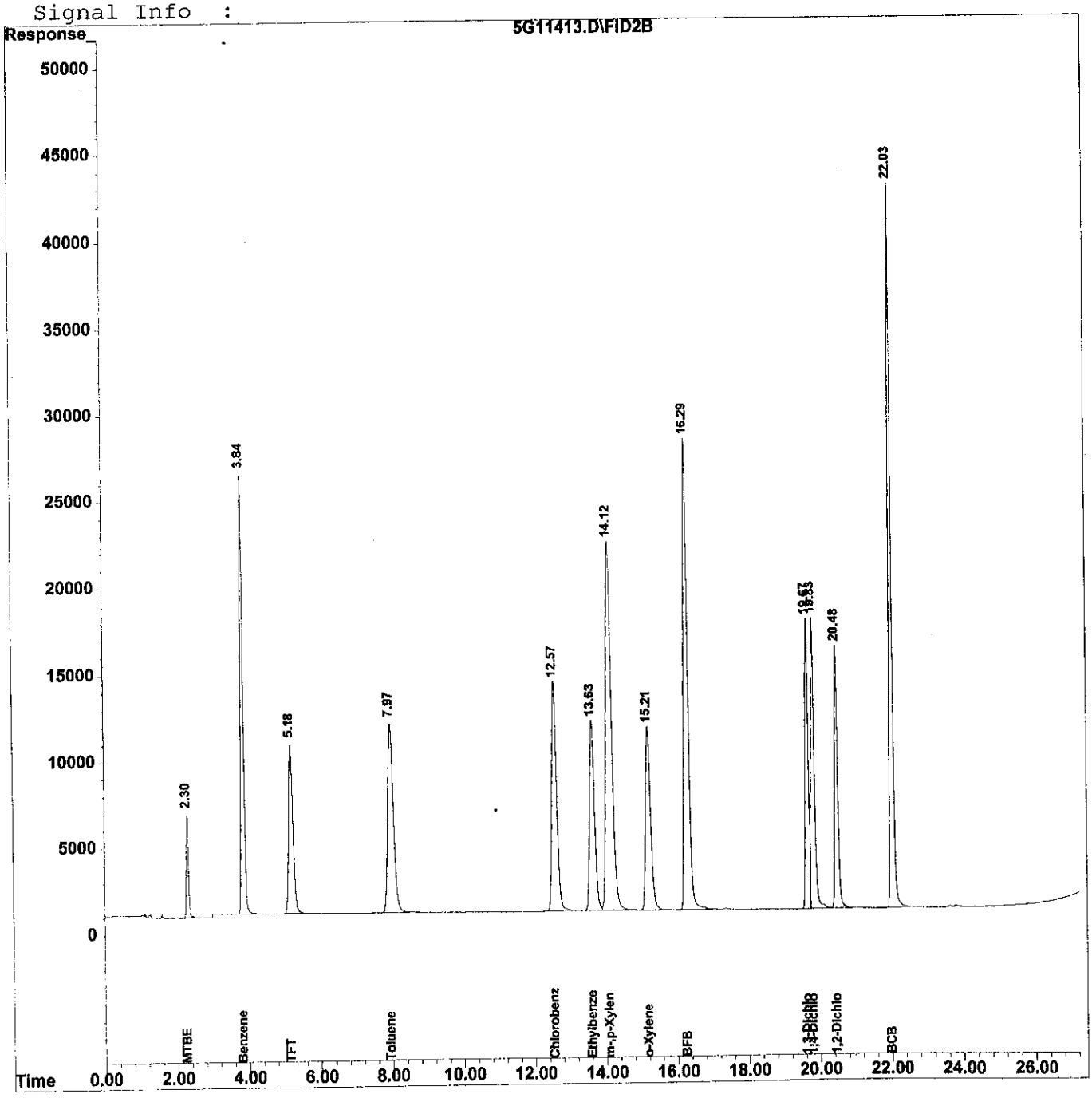
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.18	822030	30.4957 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery = 101.65%	✓
9) S BFB	16.30	2267552	30.8758 ug/L
Spiked Amount 30.000		Recovery = 102.92%	
13) S BCB	22.03	2192824	31.7194 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 105.73%	
Target Compounds			
1) TM MTBE	2.29	228821	14.1449 ug/L
2) TM Benzene	3.84	1318242	14.5551 ug/L
4) TM Toluene	7.98	1198775	14.3634 ug/L
5) TM Chlorobenzene	12.58	1249535	13.9136 ug/L
6) TM Ethylbenzene	13.64	1052628	14.6785 ug/L
7) TM m-,p-Xylene	14.13	2432756	28.8036 ug/L
8) TM o-Xylene	15.21	1045674	14.2045 ug/L
10) TM 1,3-Dichlorobenzene	19.67	1035727	14.1546 ug/L
11) TM 1,4-Dichlorobenzene	19.84	1123070	14.5380 ug/L
12) TM 1,2-Dichlorobenzene	20.49	904789	14.5753 ug/L

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

Data File : C:\HPCHEM\2\DATA\121901\5G11413.D Vial: 7
Acq On : 19 Dec 2001 12:23 Operator: CBN
Sample : WG110252-05 L0112348-06 MSD A 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 19 12:50 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\5G11413.D
Acq On : 19 Dec 2001 12:23
Sample : WG110252-05 L0112348-06 MSD A 5ML
Misc : 1,1 S-(88-04,87-26)
IntFile : autoint1.e
Quant Time: Dec 19 12:50 2001 Quant Results File: 8021W.RES

Vial: 7
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

@12/20

Volume Inj. :
Signal Phase :
Signal Info :

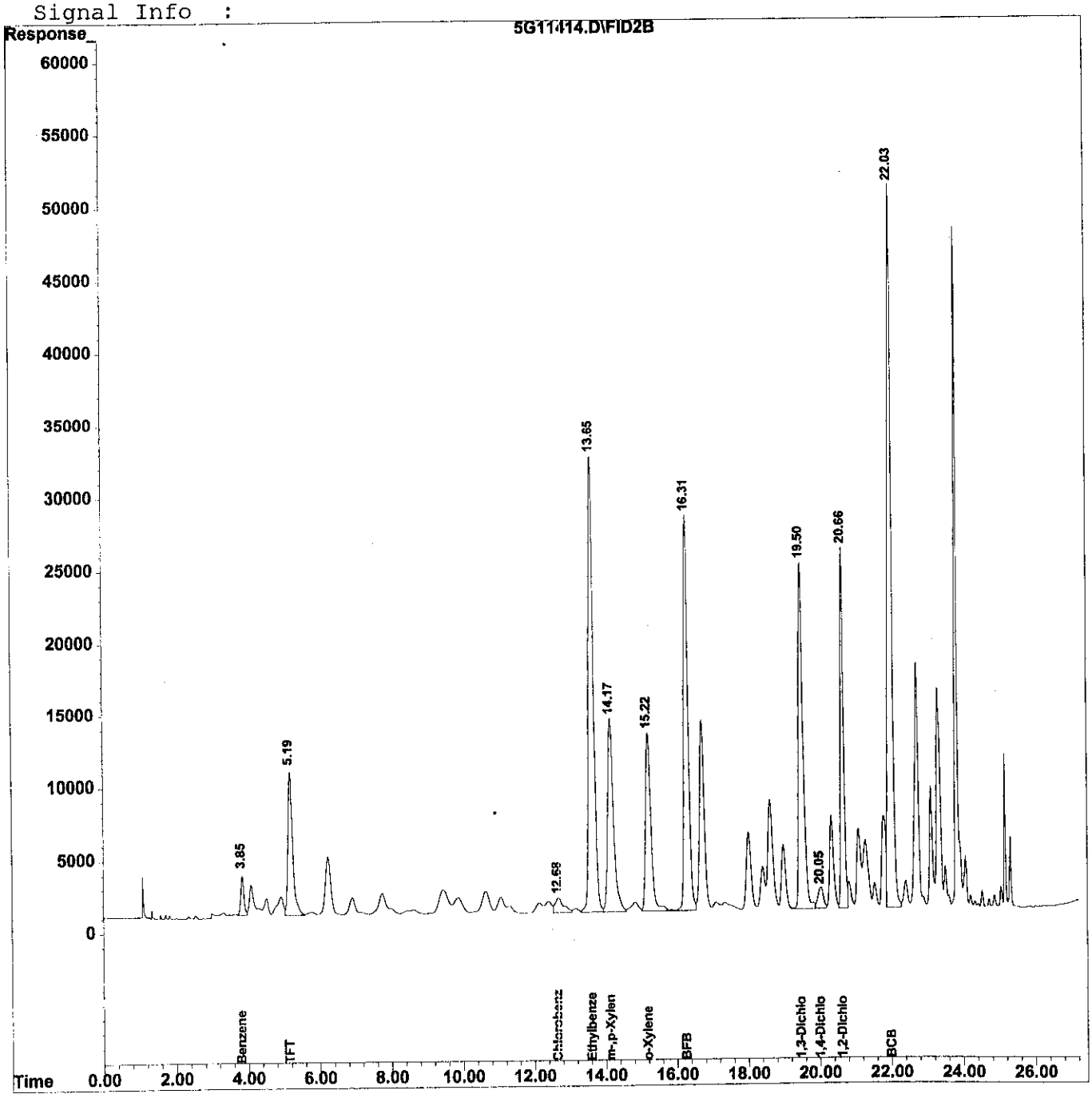
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.18	816333	30.2843 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery = 100.95%	✓
9) S BFB	16.30	2272083	30.9375 ug/L
Spiked Amount 30.000		Recovery = 103.13%	
13) S BCB	22.03	2228047	32.2289 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 107.43%	
Target Compounds			
1) TM MTBE	2.30	236536	14.6218 ug/L
2) TM Benzene	3.85	1321833	14.5948 ug/L
4) TM Toluene	7.97	1211009	14.5100 ug/L
5) TM Chlorobenzene	12.57	1256766	13.9982 ug/L
6) TM Ethylbenzene	13.64	1060291	14.7854 ug/L
7) TM m-,p-Xylene	14.12	2446141	28.9621 ug/L
8) TM o-Xylene	15.21	1050015	14.2634 ug/L
10) TM 1,3-Dichlorobenzene	19.67	1034657	14.1400 ug/L
11) TM 1,4-Dichlorobenzene	19.83	1123762	14.5470 ug/L
12) TM 1,2-Dichlorobenzene	20.48	910387	14.6655 ug/L

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

Data File : C:\HPCHEM\2\DATA\121901\5G11414.D Vial: 8
Acq On : 19 Dec 2001 12:56 Operator: CBN
Sample : L0112348-07 A 5ML Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 19 13:23 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\5G11414.D
Acq On : 19 Dec 2001 12:56
Sample : L0112348-07 A 5ML
Misc : 1,1 S-87-26
IntFile : autoint1.e
Quant Time: Dec 19 13:23 2001 Quant Results File: 8021W.RES

Vial: 8
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

@12/20

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.19 ✓	896715	33.2663 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery = 110.89%	
9) S BFB	16.31 *	2291573	31.2029 ug/L
Spiked Amount 30.000		Recovery = 104.01%	
13) S BCB	22.03 *	3915095	56.6322 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 188.77%#	
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	3.85 ✓	165406	1.8263 ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	12.68	175096	~~1.3378 ug/L~~
6) TM Ethylbenzene	13.65 ✓	3071567	42.8319 ug/L
7) TM m-,p-Xylene	14.17	1548190	18.3304 ug/L
8) TM o-Xylene	15.22	1301643	17.6816 ug/L
10) TM 1,3-Dichlorobenzene	19.50	2091657	~~28.5852 ug/L~~
11) TM 1,4-Dichlorobenzene	20.05	157740	~~2.0419 ug/L~~
12) TM 1,2-Dichlorobenzene	20.67	1482038	~~23.8743 ug/L~~

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

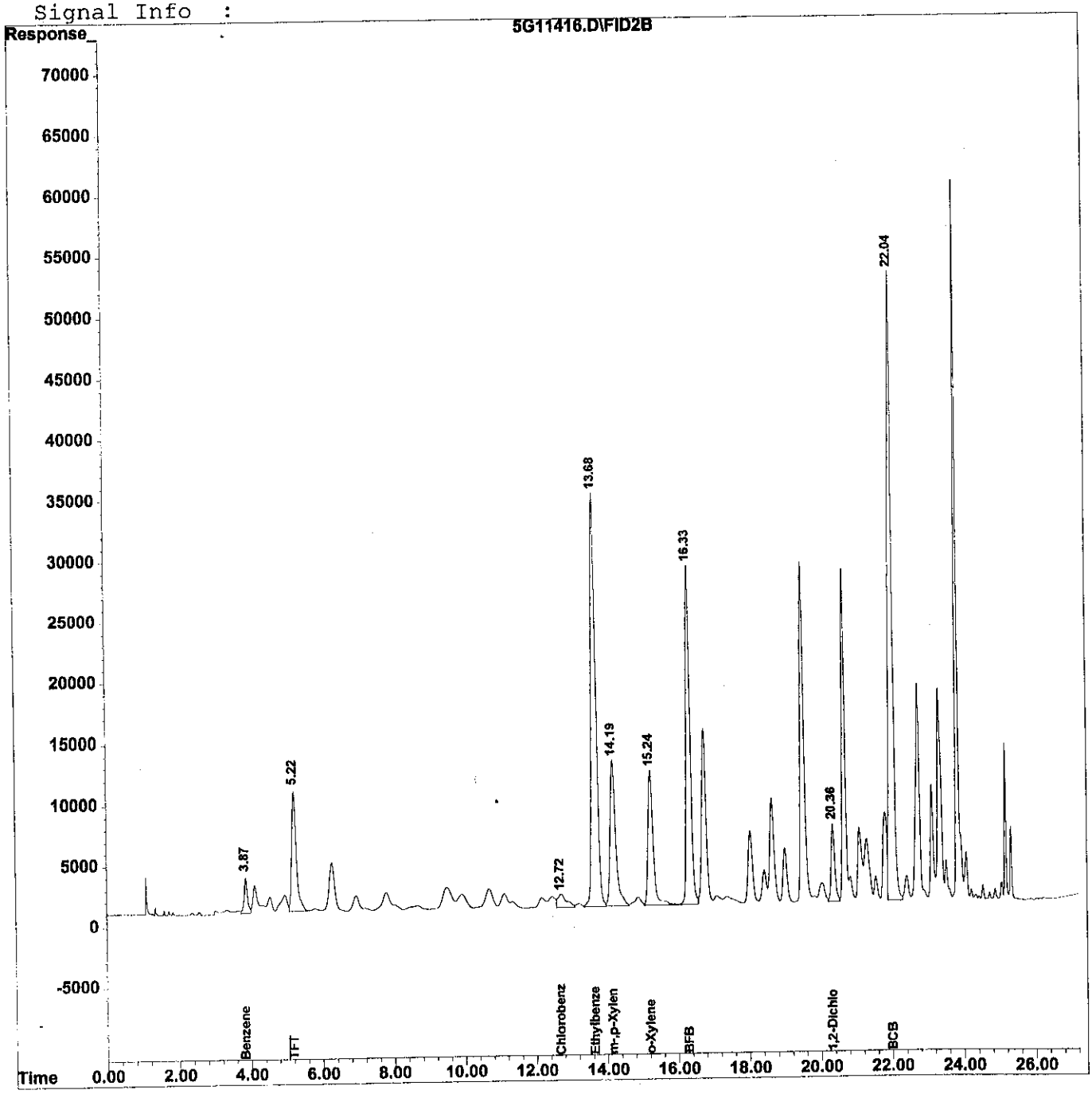
Quantitation Report

Data File : C:\HPCHEM\2\DATA\121901\5G11416.D
Acq On : 19 Dec 2001 14:10
Sample : L0112348-08 A 5ML
Misc : 1,1 S-87-26
IntFile : autoint1.e
Quant Time: Dec 19 14:37 2001 Quant Results File: 8021W.RES

Vial: 1
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 (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\121901\5G11416.D
Acq On : 19 Dec 2001 14:10
Sample : L0112348-08 A 5ML
Misc : 1,1 S-87-26
IntFile : autoint1.e
Quant Time: Dec 19 14:37 2001 Quant Results File: 8021W.RES

Vial: 1
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

@12/20

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.22	894112	33.1698 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	110.57%
9) S BFB	16.33 *	2284602	31.1080 ug/L
Spiked Amount 30.000		Recovery =	103.69%
13) S BCB	22.04 *	4063560	58.7797 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery =	195.93%#
Target Compounds			
1) TM MTBE	0.00	0	N.D. ug/L
2) TM Benzene	3.87	185074	2.0435 ug/L
4) TM Toluene	0.00	0	N.D. ug/L
5) TM Chlorobenzene	12.72	188513	1.4949 ug/L
6) TM Ethylbenzene	13.68	3259994	45.4595 ug/L
7) TM m-,p-Xylene	14.19	1314300	15.5612 ug/L
8) TM o-Xylene	15.25	1131868	15.3753 ug/L
10) TM 1,3-Dichlorobenzene	19.84	32763	<MDL ug/L
11) TM 1,4-Dichlorobenzene	19.84	32763	<MDL ug/L
12) TM 1,2-Dichlorobenzene	20.36	454465	7.3210 ug/L

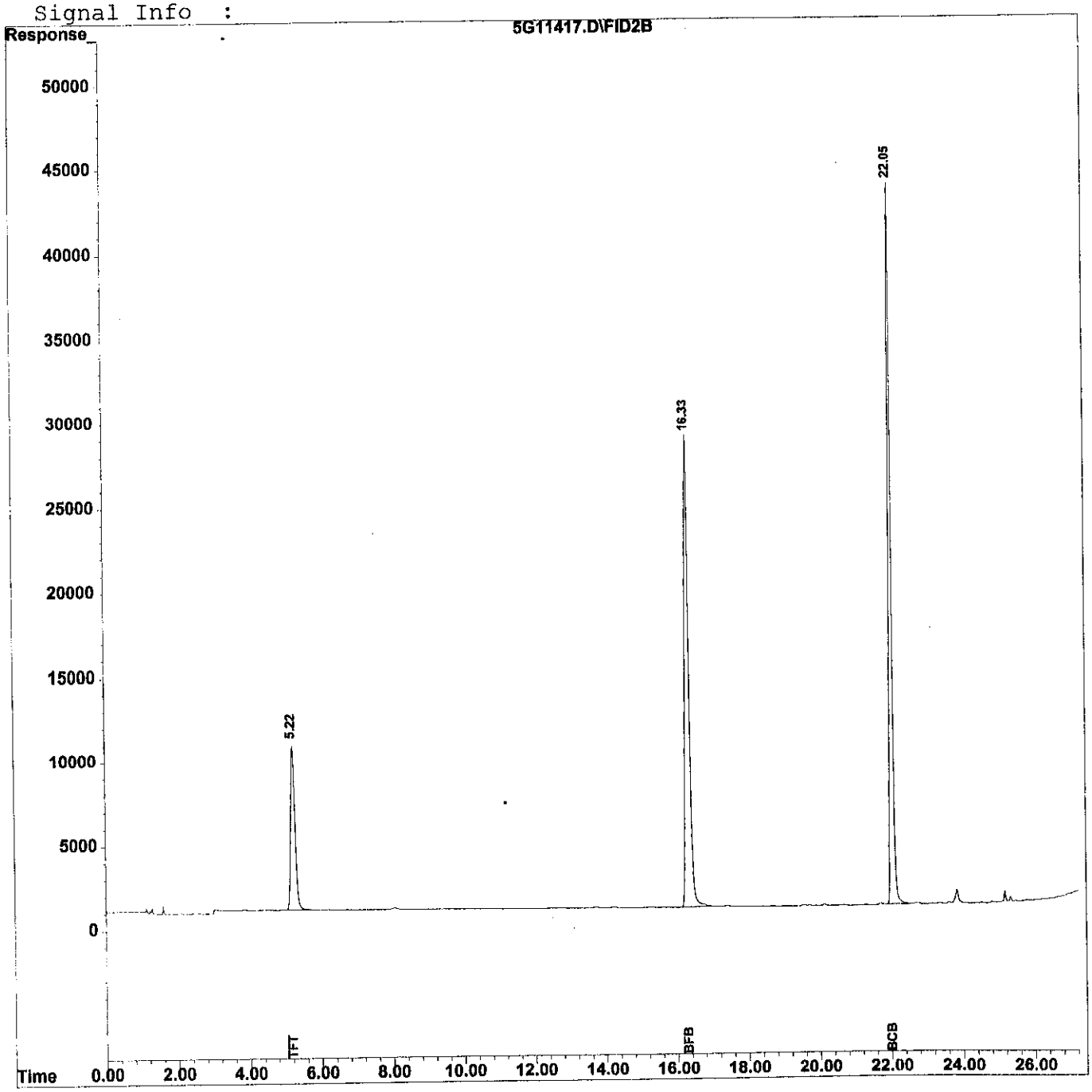
(f)=RT Delta > 1/2 Window
(m)=manual int.

Data File : C:\HPCHEM\2\DATA\121901\5G11417.D
Acq On : 19 Dec 2001 14:43
Sample : L0112348-09 A 5ML
Misc : 1,1 S-87-26
IntFile : autoint1.e
Quant Time: Dec 19 15:11 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 (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\121901\5G11417.D
Acq On : 19 Dec 2001 14:43
Sample : L0112348-09 A 5ML
Misc : 1,1 S-87-26
IntFile : autoint1.e
Quant Time: Dec 19 15:11 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

@12/20

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.22	818616	30.3690 ug/L ✓
Spiked Amount 30.000	Range 70 - 130	Recovery = 101.23%	
9) S BFB	16.33	2278693	31.0275 ug/L
Spiked Amount 30.000		Recovery = 103.43%	
13) S BCB	22.05	2231396	32.2773 ug/L
Spiked Amount 30.000	Range 37 - 137	Recovery = 107.59%	
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

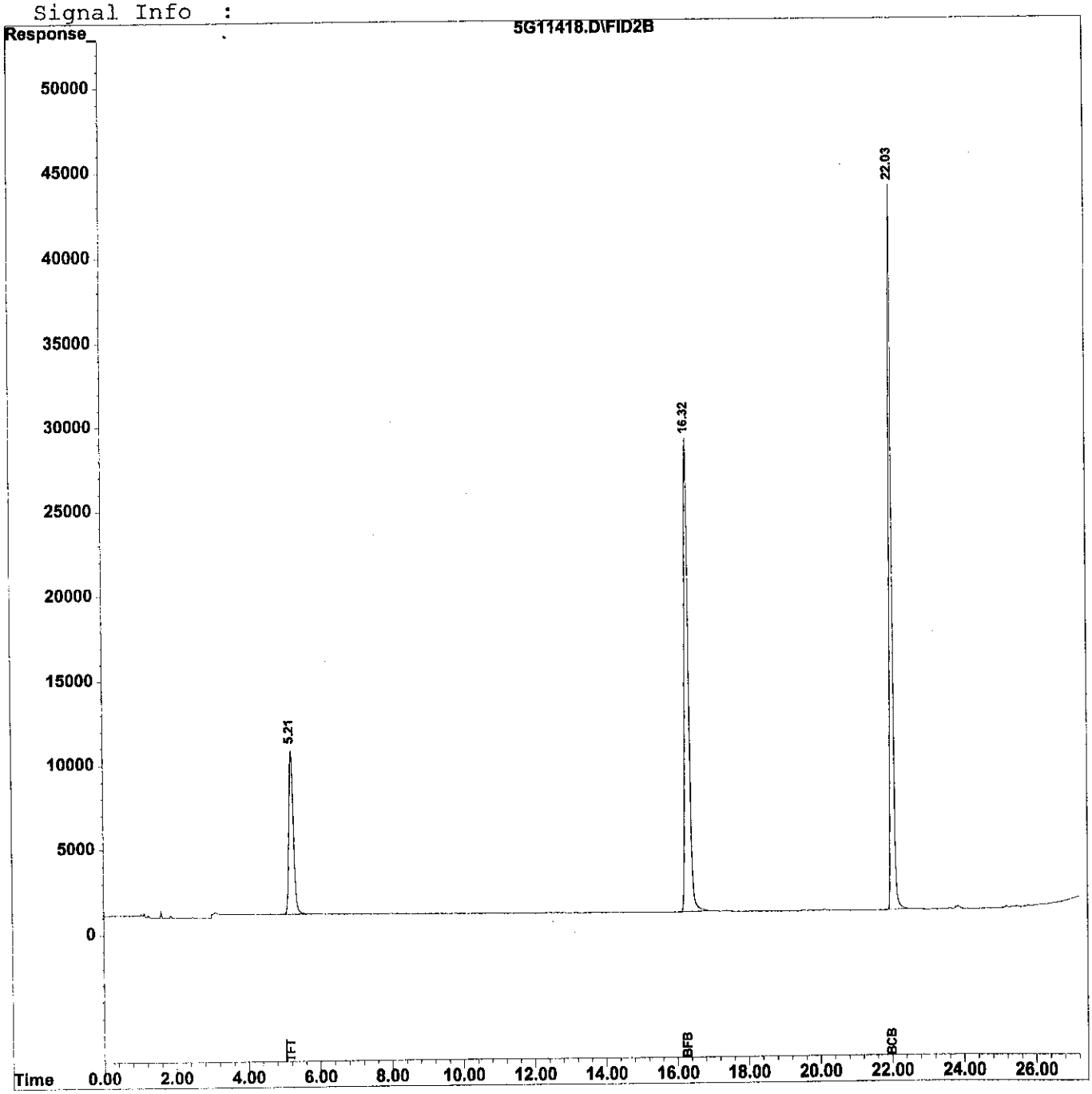
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\2\DATA\121901\5G11418.D
Acq On : 19 Dec 2001 15:17
Sample : L0112348-10 A 5ML
Misc : 1,1 S-87-26
IntFile : autoint1.e
Quant Time: Dec 19 15:45 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 (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\121901\5G11418.D Vial: 3
Acq On : 19 Dec 2001 15:17 Operator: CBN
Sample : L0112348-10 A 5ML Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 19 15:45 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 : Initial Calibration
DataAcq Meth : 8021W.M

@ 1320

Volume Inj. :
Signal Phase :
Signal Info :

Compound			R.T.	Response	Conc Units
System Monitoring Compounds					
3) S TFT			5.22	829650	30.7783 ug/L
Spiked Amount	30.000	Range	70 - 130	Recovery =	102.59%
9) S BFB			16.32	2284567	31.1075 ug/L
Spiked Amount	30.000			Recovery =	103.69%
13) S BCB			22.03	2230667	32.2668 ug/L
Spiked Amount	30.000	Range	37 - 137	Recovery =	107.56%
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.

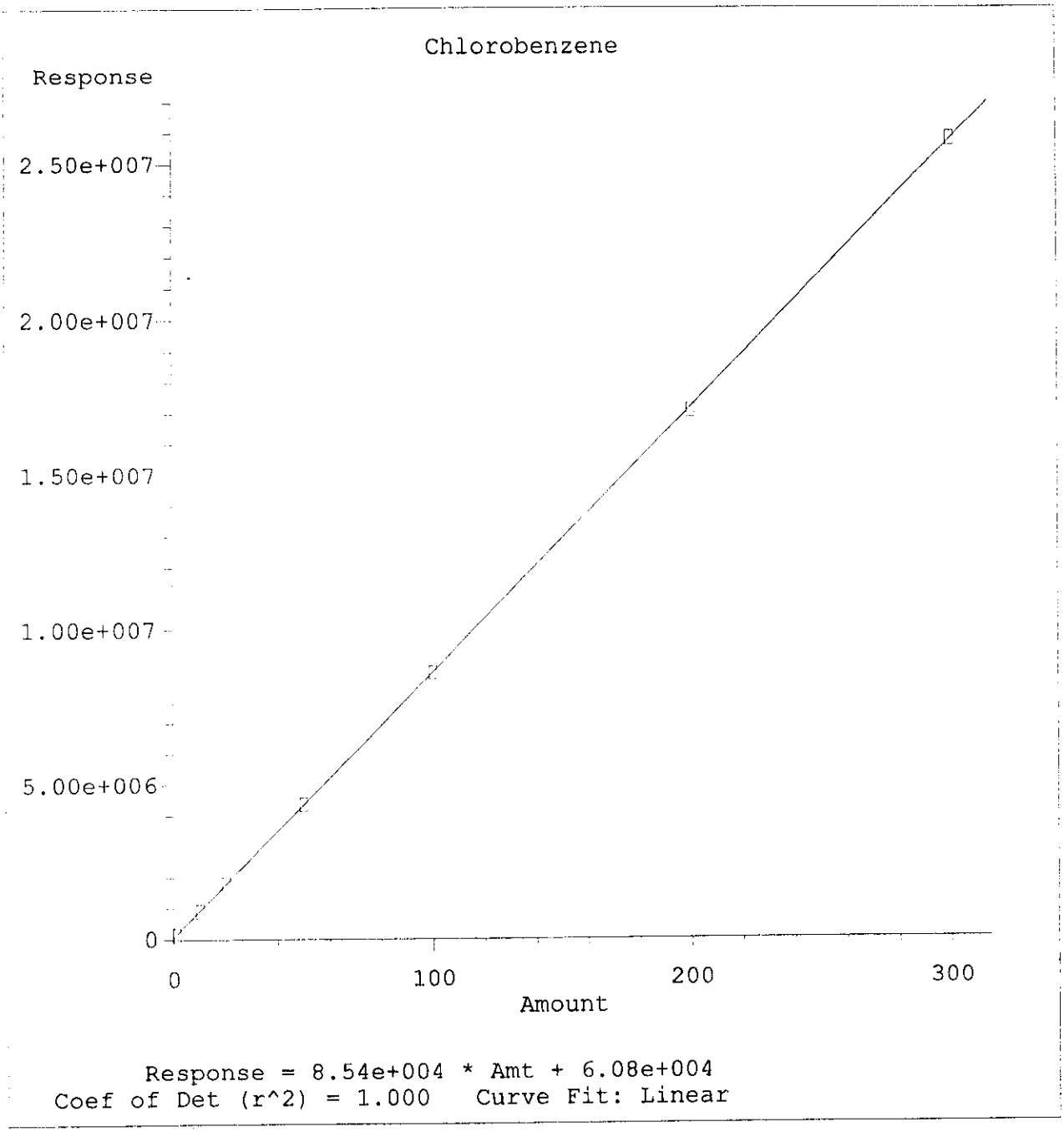
2.1.3.3 Standards Data

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



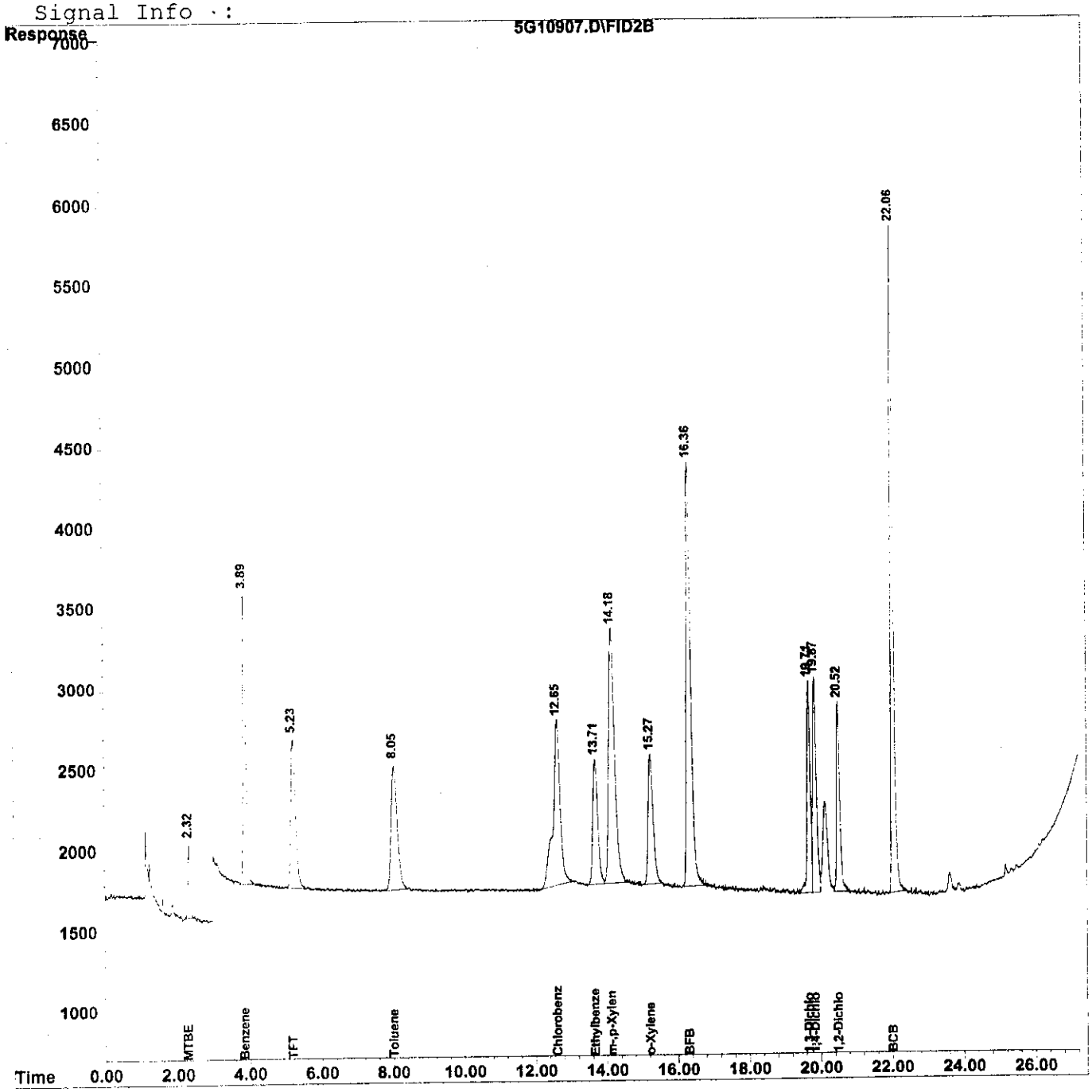
Method Name: C:\HPCHEM\2\METHODS\8021W.M
Calibration Table Last Updated: Mon Nov 19 14:59:08 2001

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

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

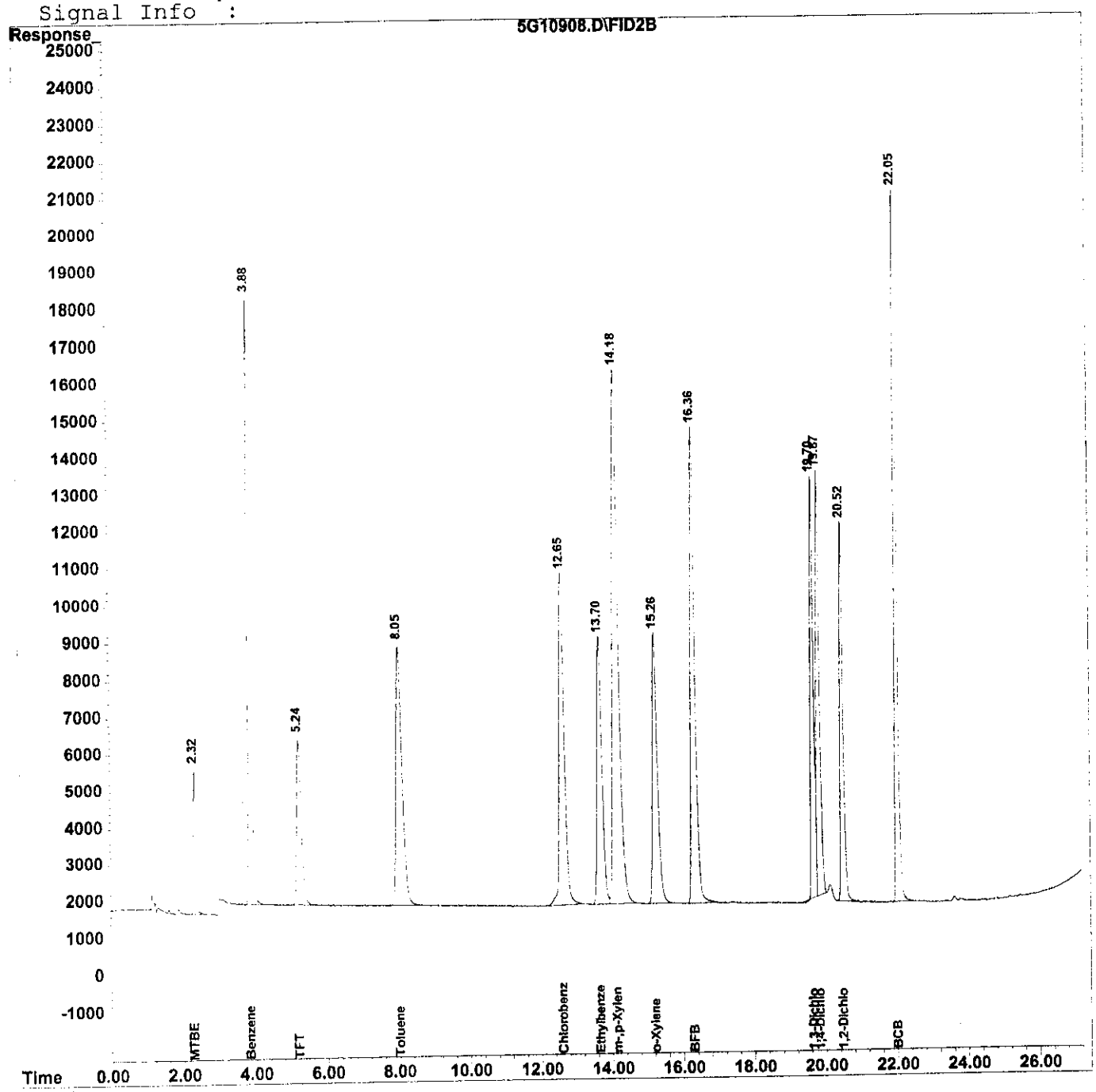
Quantitation Report

Data File : C:\HPCHEM\2\DATA\111901\5G10908.D
Acq On : 19 Nov 2001 11:46
Sample : WG108448-02 8021 STD2 10PPB 5ML
Misc : 1,1 S-87-21,86-08
IntFile : autoint1.e
Quant Time: Nov 19 12:13 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 - 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.

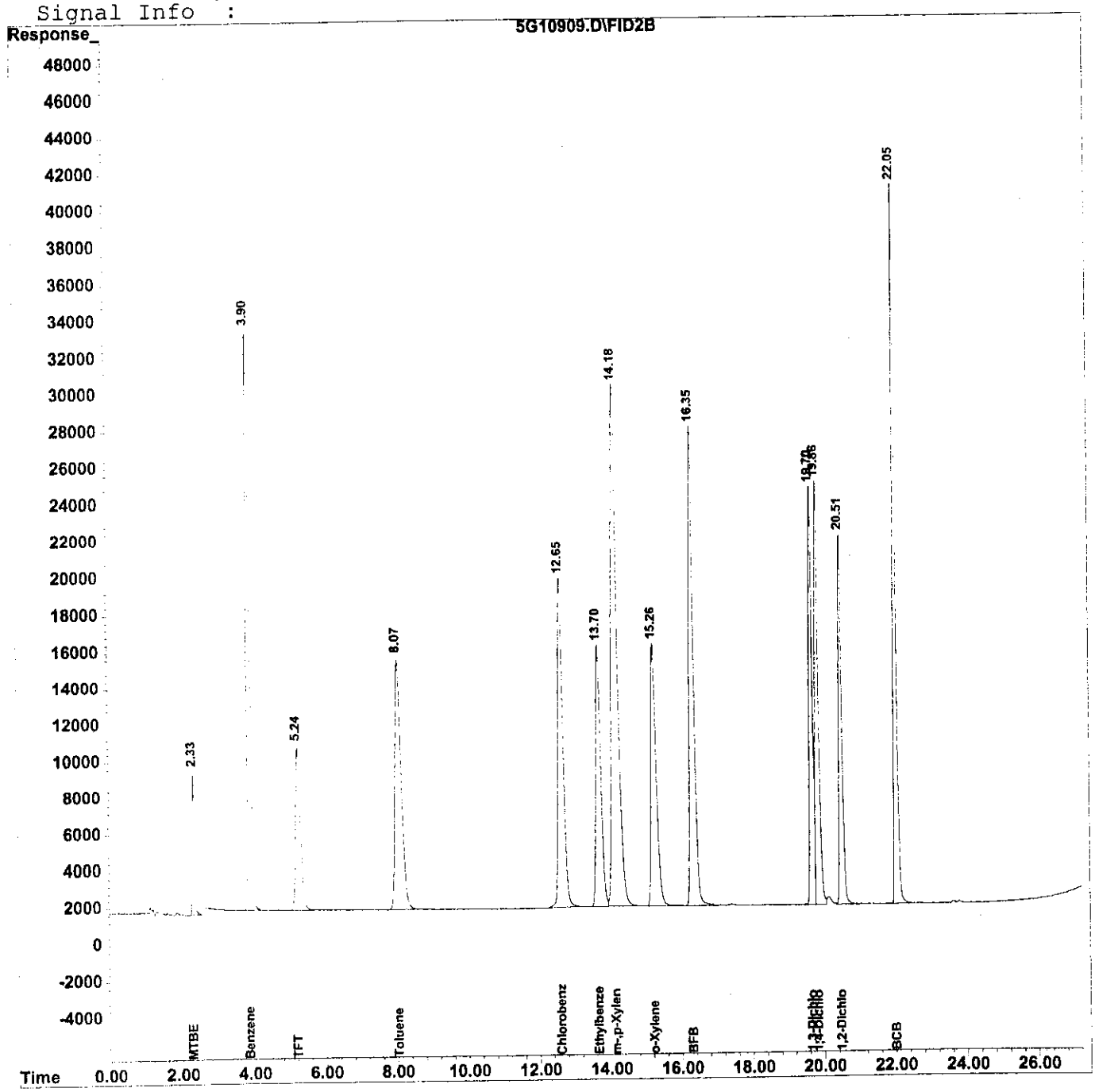
Quantitation Report

Data File : C:\HPCHEM\2\DATA\111901\5G10909.D
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 : 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 :

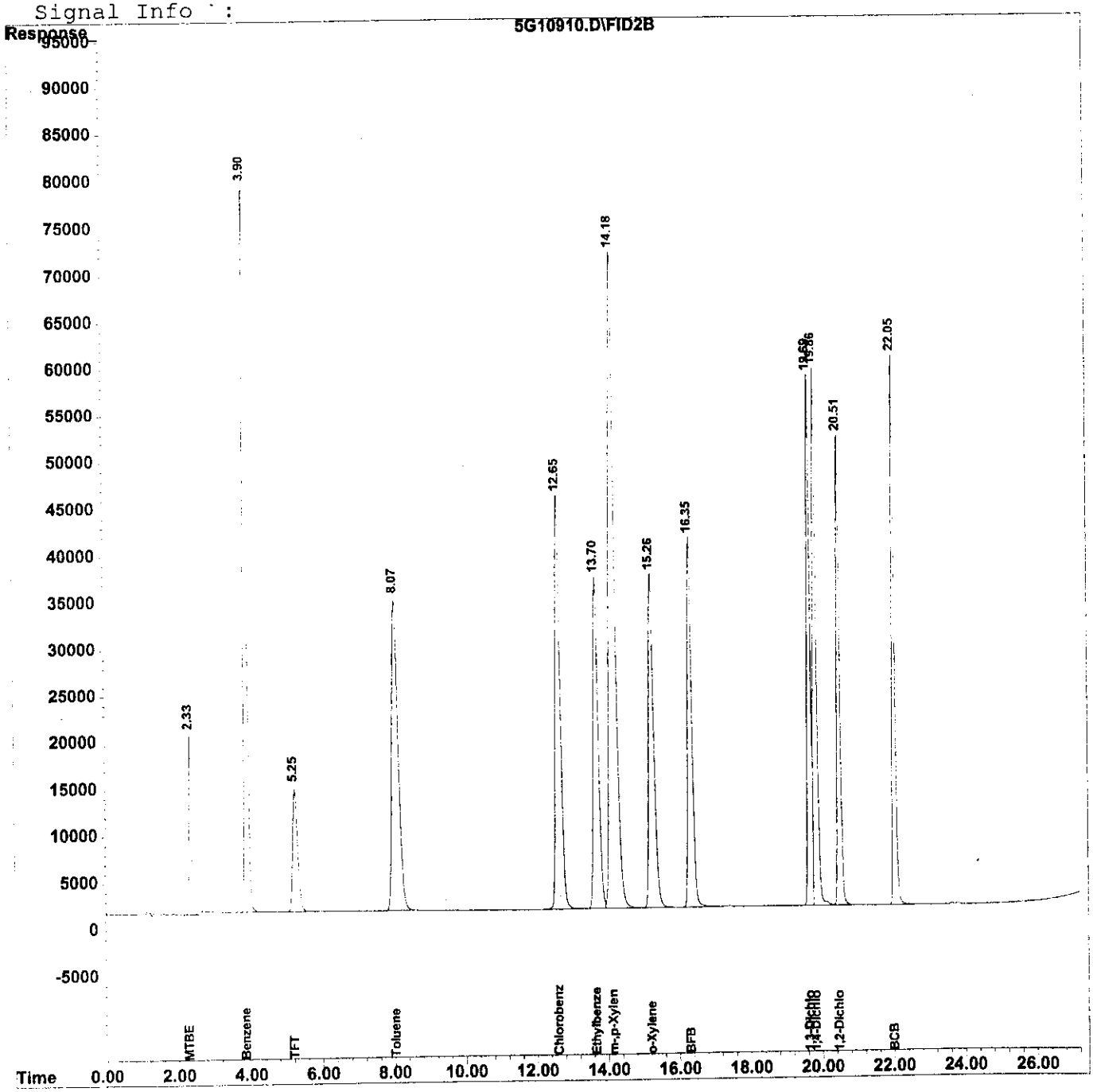
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S TFT	5.25	832216	24.9056 ug/L
Spiked Amount 30.000	Range 70 - 130	Recovery =	83.02%
9) S BFB	16.35	2245103	25.0073 ug/L
Spiked Amount 30.000		Recovery =	83.36%
13) S BCB	22.05	2082306	24.1168 ug/L
Spiked Amount 30.000	Range 37 - 137	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

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

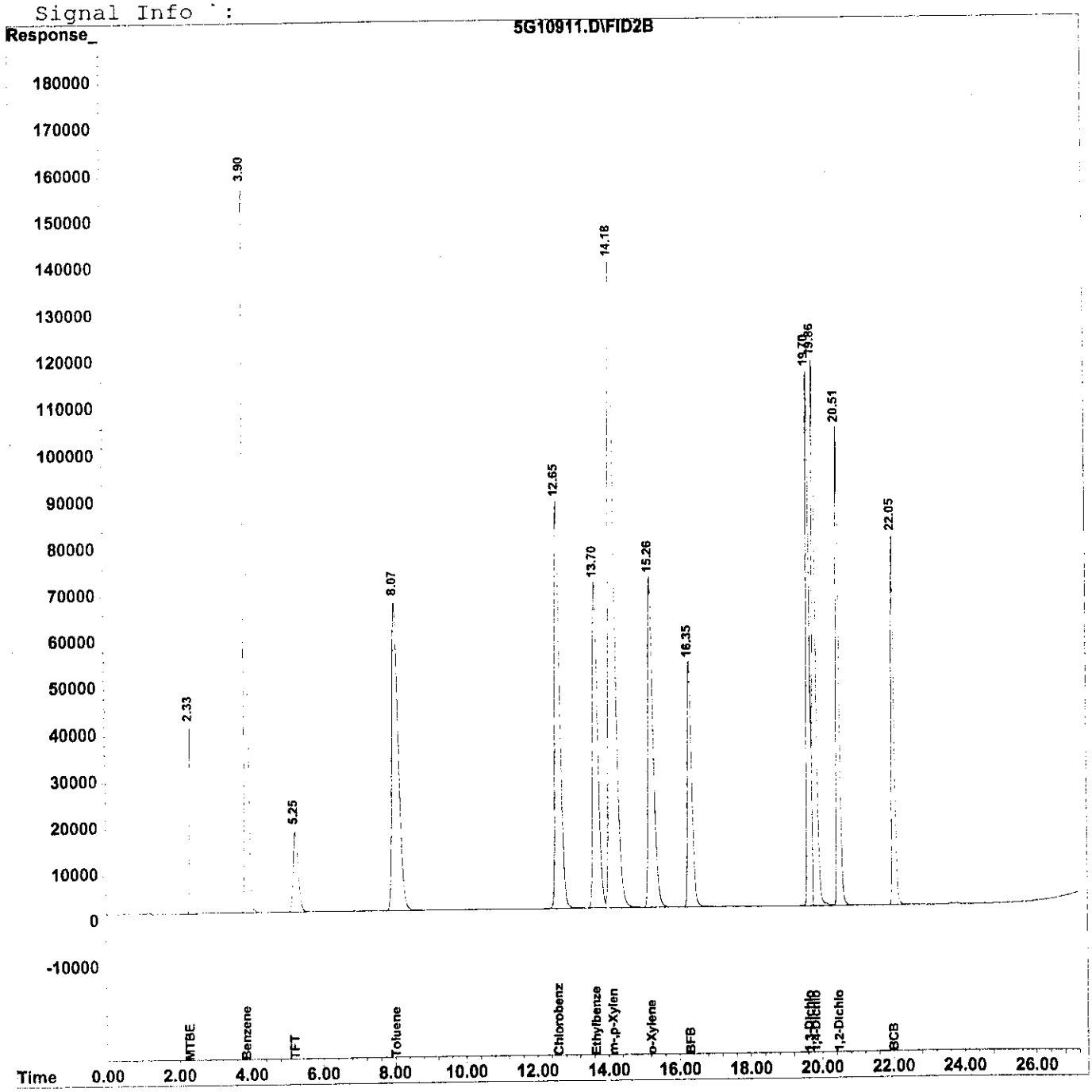
(f)=RT Delta > 1/2 Window (m)=manual int.

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 : autointl.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.

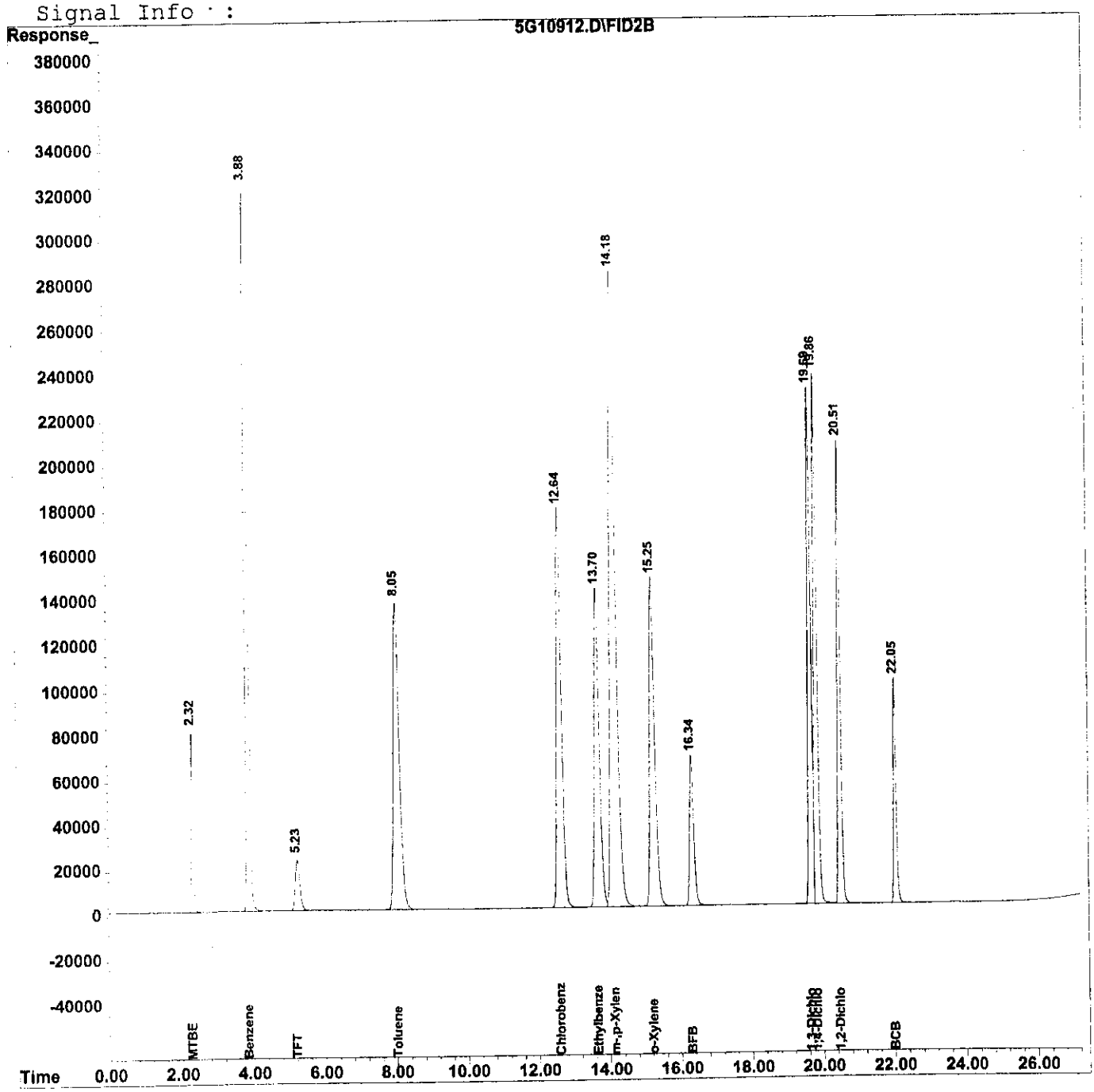
Quantitation Report

Data File : C:\HPCHEM\2\DATA\111901\5G10912.D
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

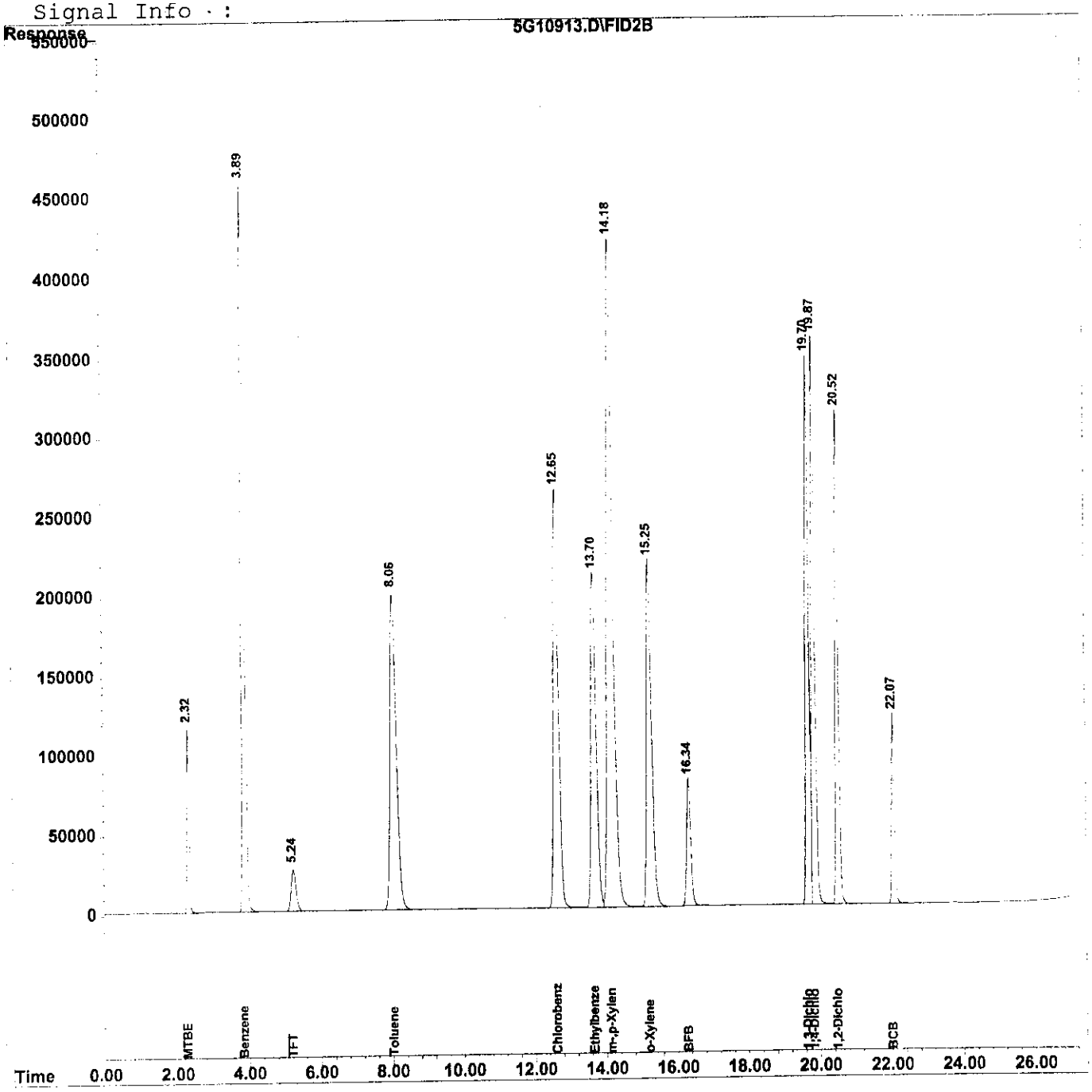
(f)=RT Delta > 1/2 Window (m)=manual int.

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
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

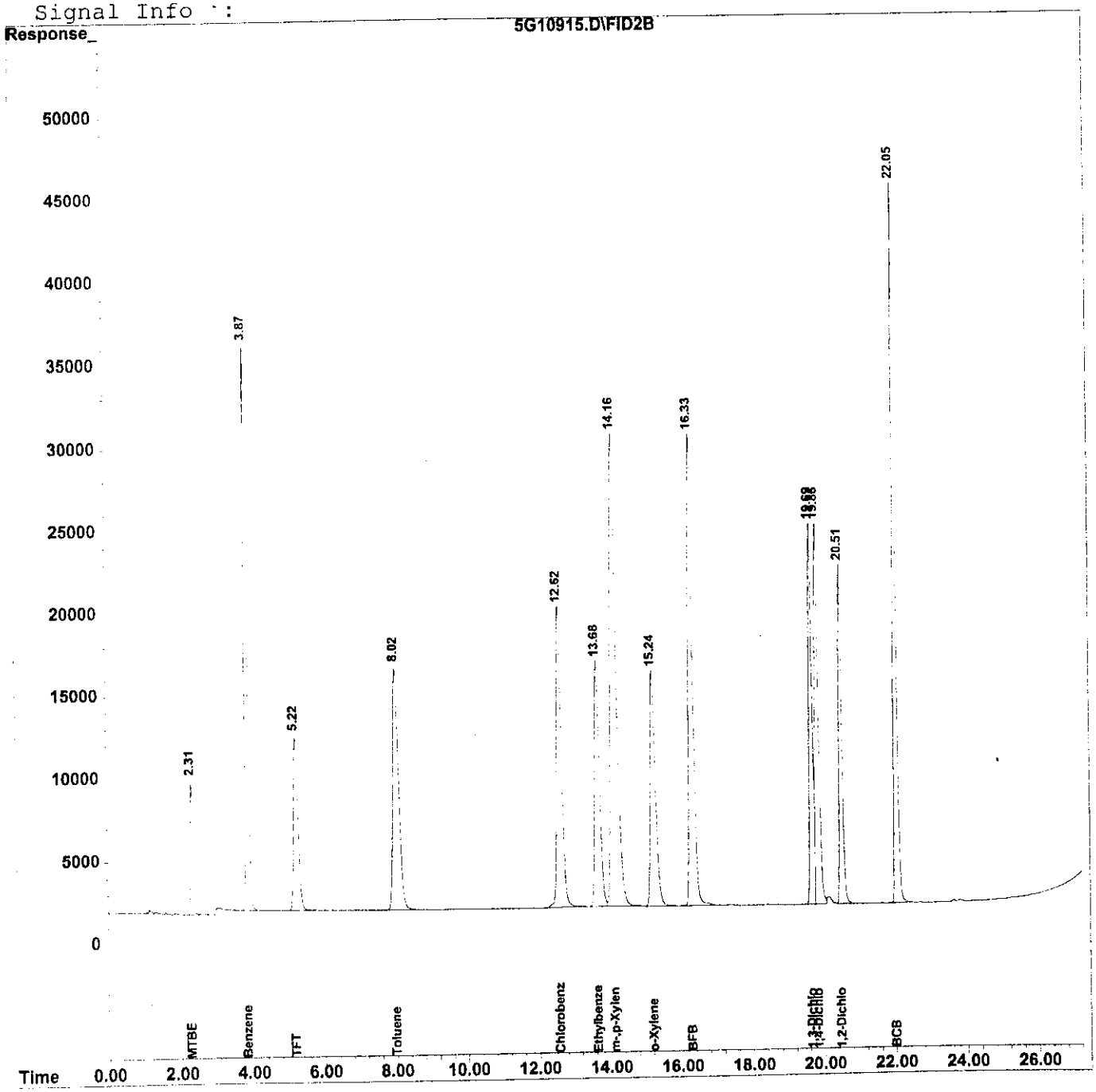
Quantitation Report

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
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 : 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

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

Data File : C:\HPCHEM\2\DATA\121901\5G11404.D
Acq On : 19 Dec 2001 7:12
Sample : WG110251-01 8021 STD 20PPB 5ML
Misc : 1,1 S-(88-04,87-26)
IntFile : autoint1.e

Vial: 1
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	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

Data File : C:\HPCHEM\2\DATA\121901\5G11404.D
Acq On : 19 Dec 2001 7:12
Sample : WG110251-01 8021 STD 20PPB 5ML
Misc : 1,1 S-(88-04,87-26)
IntFile : autoint1.e

Vial: 1
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	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

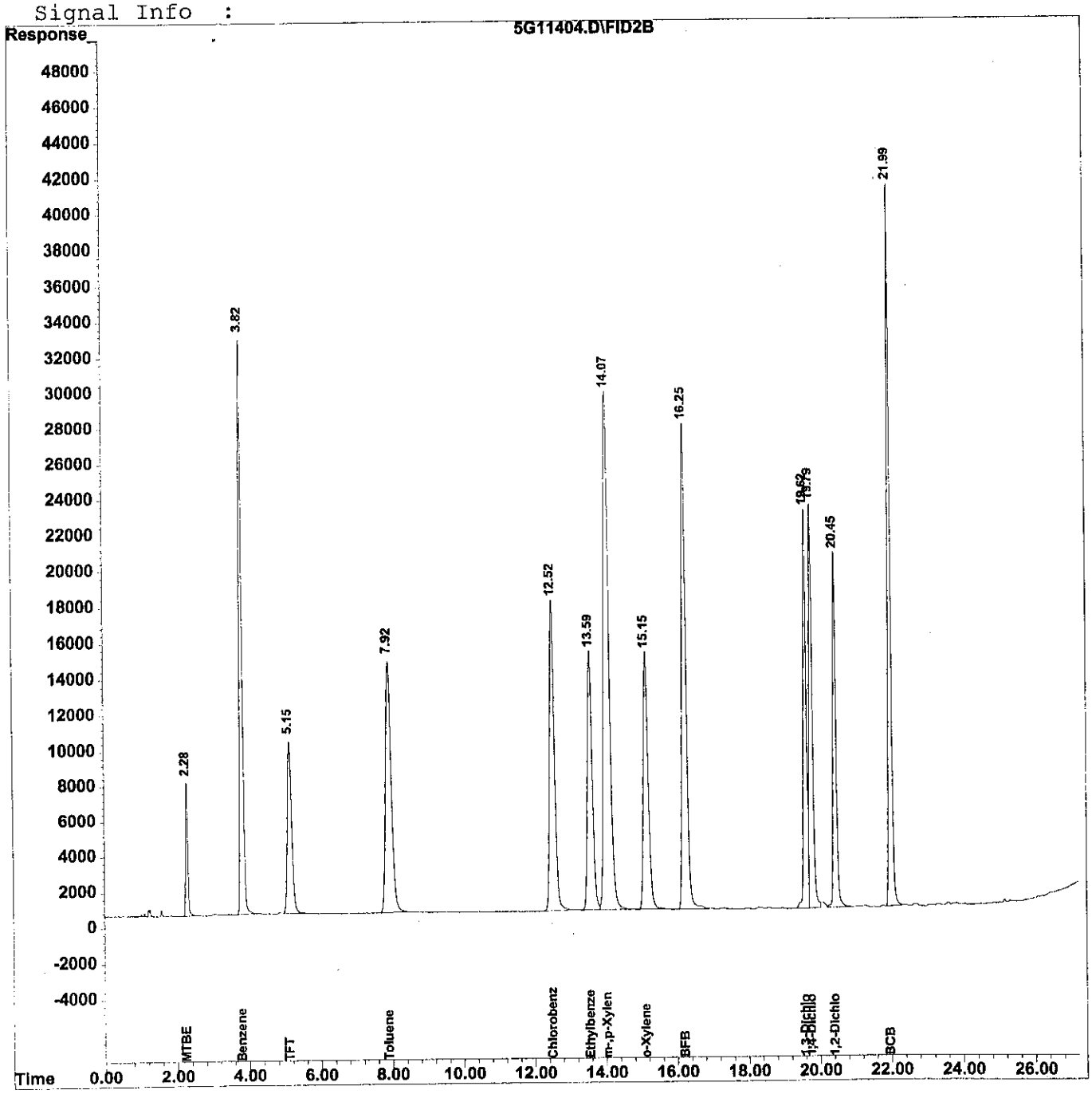
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : C:\HPCHEM\2\DATA\121901\5G11404.D
Acq On : 19 Dec 2001 7:12
Sample : WG110251-01 8021 STD 20PPB 5ML
Misc : 1,1 S-(88-04,87-26)
IntFile : autoint1.e
Quant Time: Dec 19 7:39 2001 Quant Results File: 8021W.RES

Vial: 1
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 :



Data File : C:\HPCHEM\2\DATA\121901\5G11404.D
Acq On : 19 Dec 2001 7:12
Sample : WG110251-01 8021 STD 20PPB 5ML
Misc : 1,1 S-(88-04,87-26)
IntFile : autoint1.e
Quant Time: Dec 19 7:39 2001 Quant Results File: 8021W.RES

Vial: 1
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	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.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\121901\5G11415.D
Acq On : 19 Dec 2001 13:28
Sample : WG110251-02 8021 STD 20PPB 5ML
Misc : 1,1 S-(88-04,87-26)
IntFile : autoint1.e

Vial: 9
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	14.365 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

Data File : C:\HPCHEM\2\DATA\121901\5G11415.D
Acq On : 19 Dec 2001 13:28
Sample : WG110251-02 8021 STD 20PPB 5ML
Misc : 1,1 S-(88-04,87-26)
IntFile : autoint1.e

Vial: 9
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%

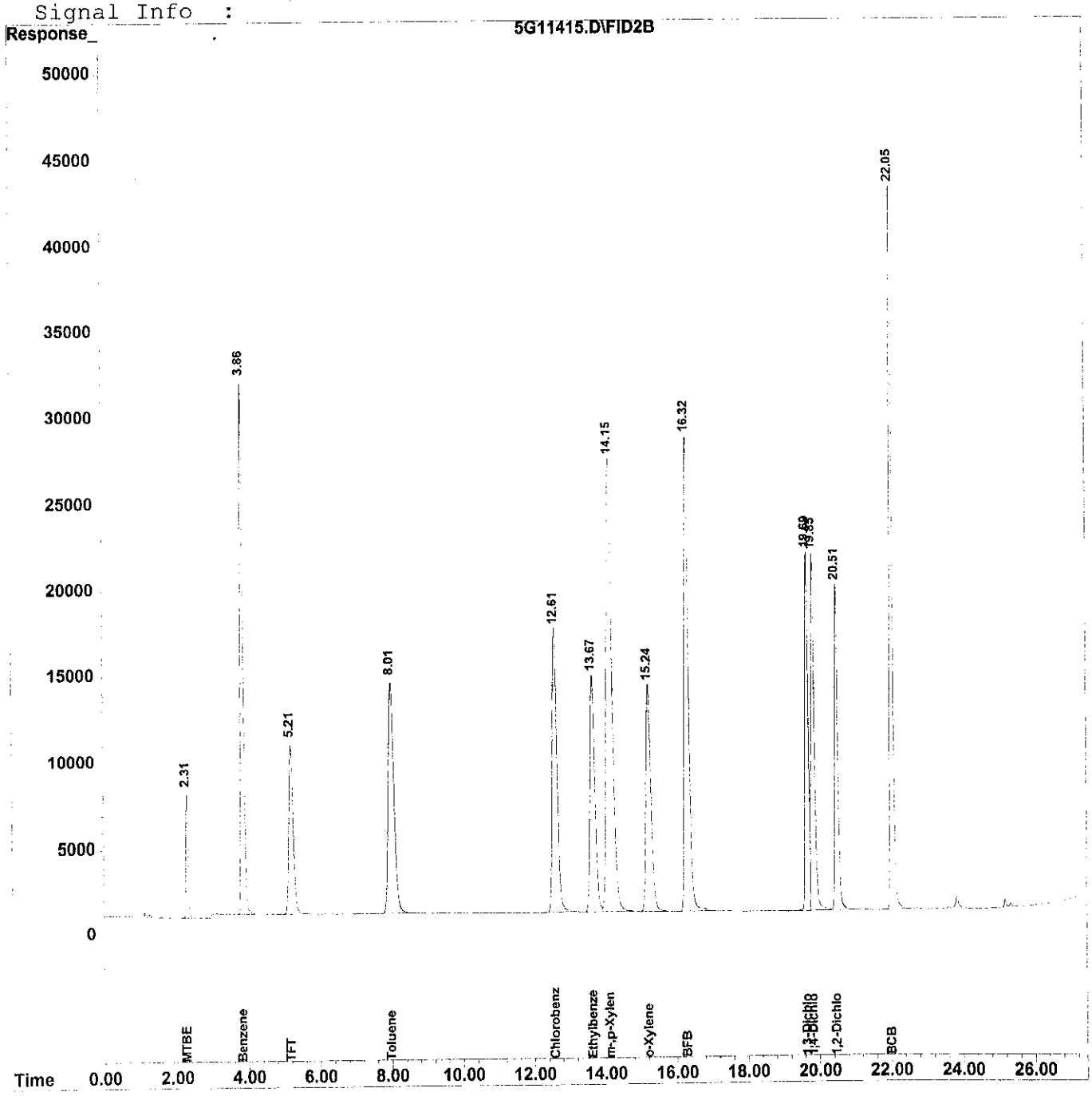
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	TM	MTBE	20.000	17.760	11.2	90	-0.02
2	TM	Benzene	20.000	17.818	10.9	89	-0.04
3	S	TFT	30.000	30.694	-2.3	99	-0.04
4	TM	Toluene	20.000	17.784	11.1	89	-0.06
5	TM	Chlorobenzene	20.000	17.362	13.2	87	-0.04
6	TM	Ethylbenzene	20.000	18.229	8.9	91	-0.04
7	TM	m-,p-Xylene	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

Data File : C:\HPCHEM\2\DATA\121901\5G11415.D
Acq On : 19 Dec 2001 13:28
Sample : WG110251-02 8021 STD 20PPB 5ML
Misc : 1,1 S-(88-04,87-26)
IntFile : autoint1.e
Quant Time: Dec 19 13:56 2001 Quant Results File: 8021W.RES

Vial: 9
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 :



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.

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

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	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%

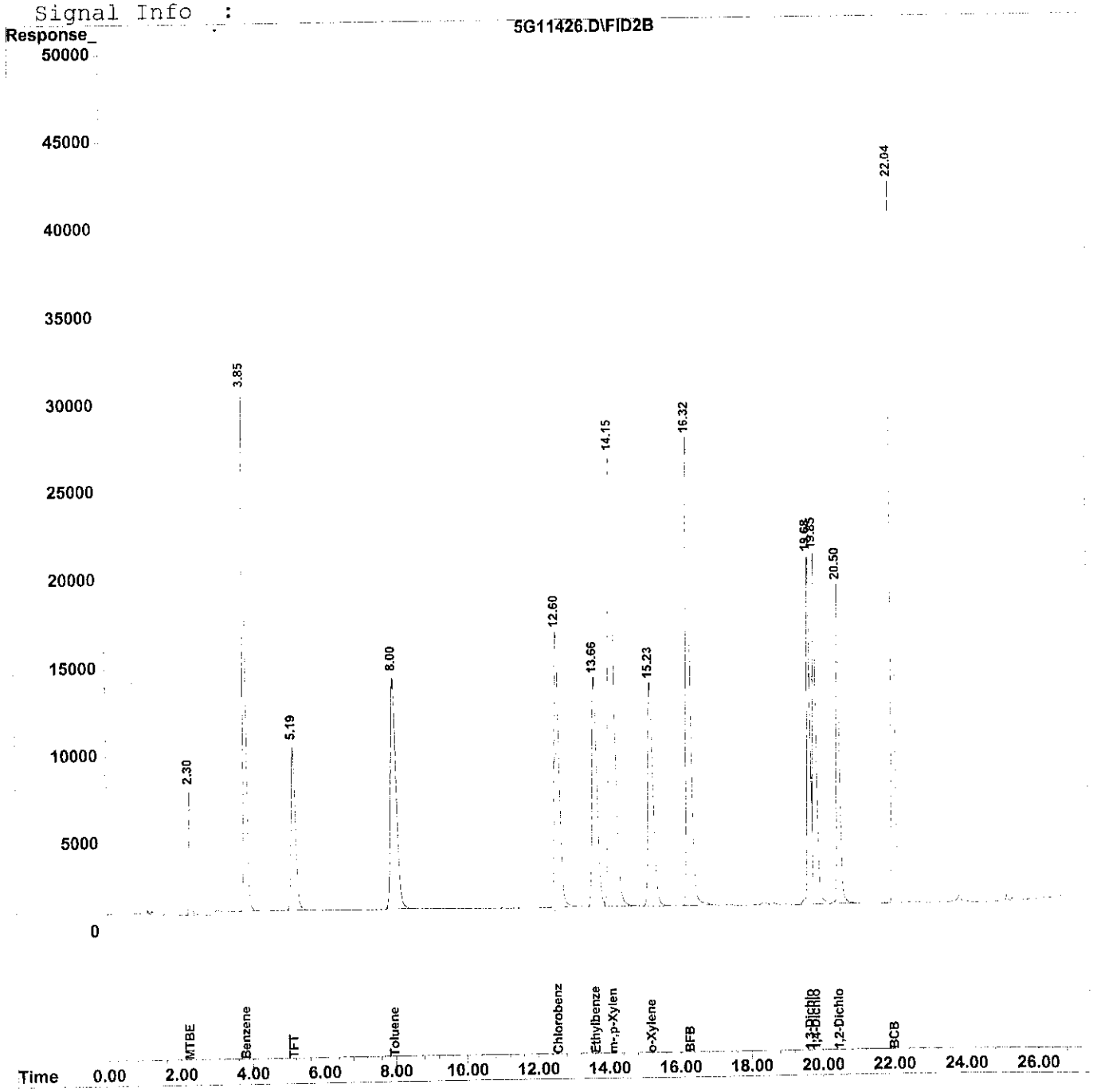
(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G11426.D 8021W.M Thu Dec 20 07:58:14 2001 Page 1

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
Quant Time: Dec 19 20:09 2001 Quant Results File: 8021W.RES

Vial: 11
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 :



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
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
5G11431.D 8021W.M Thu Dec 20 07:58:24 2001 Page 1

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

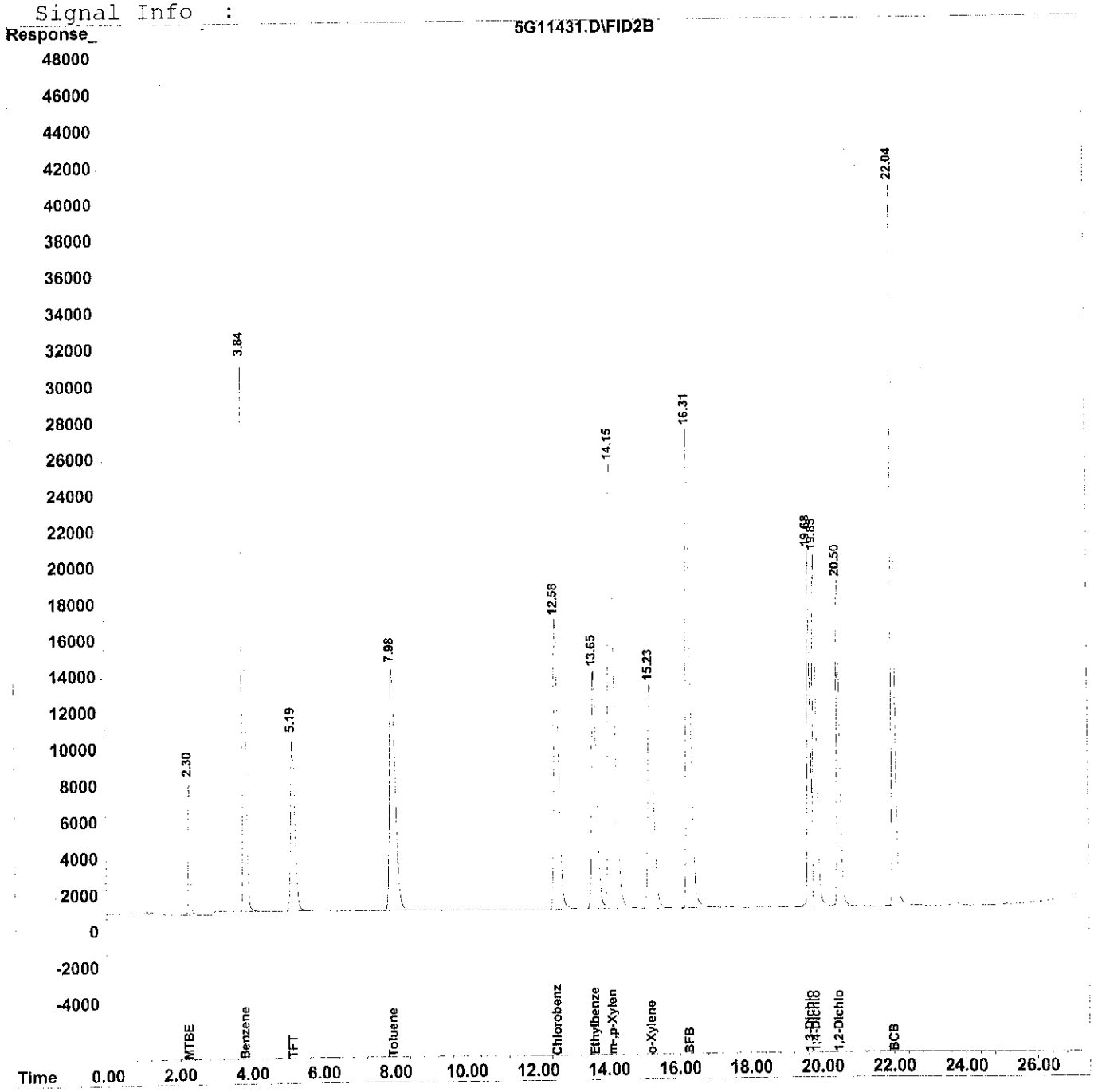
(#) = Out of Range SPCC's out = 0 CCC's out = 0

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
Quant Time: Dec 19 22:53 2001 Quant Results File: 8021W.RES

Vial: 16
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 :



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.

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

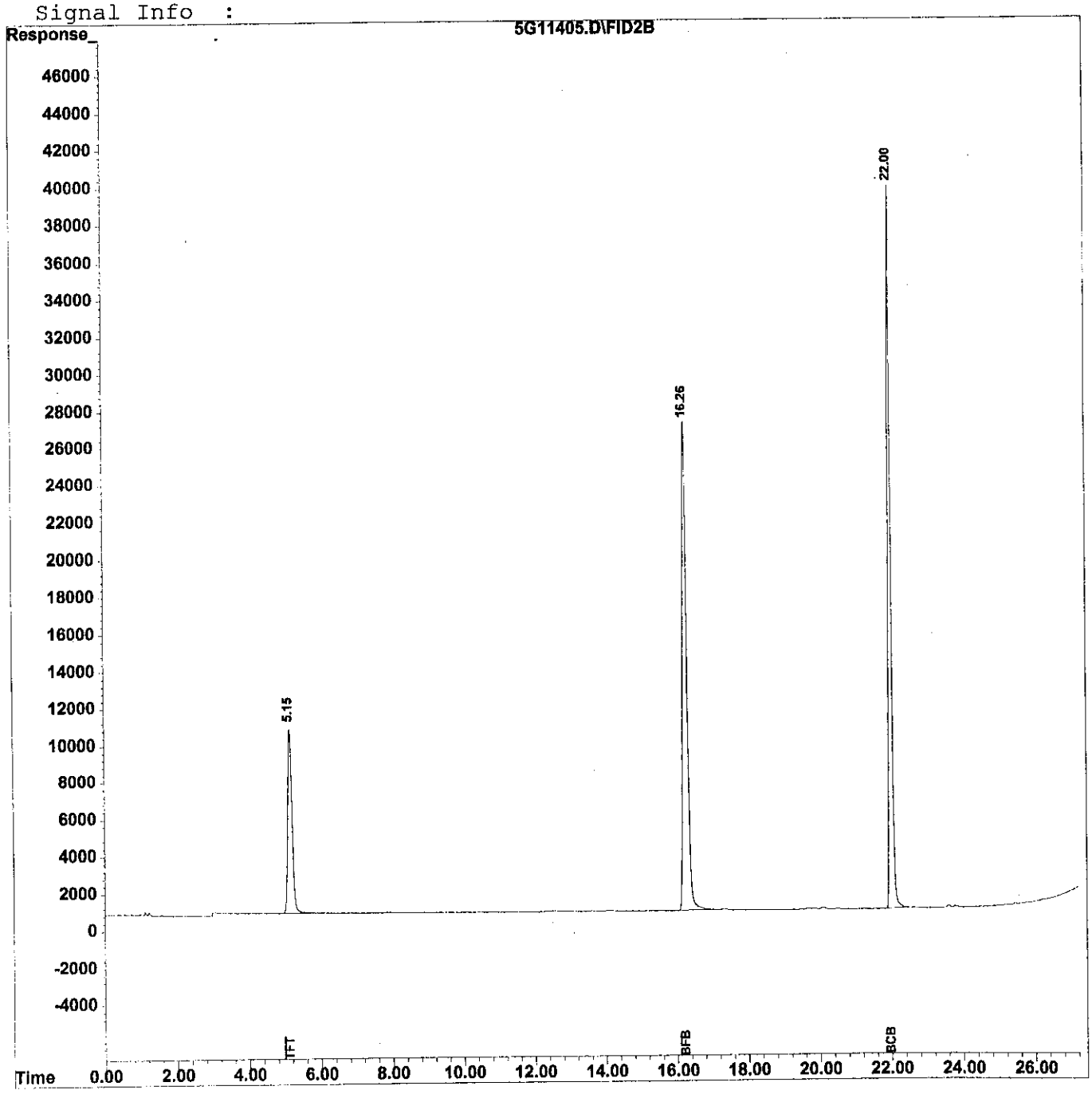
Analyte Name	RT #1	RT #2	RT #3	Mean	STD DEV	RT Window
methyl-tert-butyl-ether	2.348	2.321	2.321	2.330	0.016	**0.047**
benzene	3.933	3.894	3.892	3.906	0.023	**0.069**
1,1,1-trifluorotoluene (SS)	5.300	5.245	5.255	5.267	0.029	**0.088**
toluene	8.129	8.062	8.093	8.095	0.034	**0.101**
chlorobenzene	12.696	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**

2.1.3.4 Raw Data

Data File : C:\HPCHEM\2\DATA\121901\5G11405.D Vial: 2
Acq On : 19 Dec 2001 7:54 Operator: CBN
Sample : WG110252-01 WATER BLANK 5ML Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 19 8:22 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\121901\5G11405.D Vial: 2
Acq On : 19 Dec 2001 7:54 Operator: CBN
Sample : WG110252-01 WATER BLANK 5ML Inst : HP5
Misc : 1,1 S-87-26 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 19 8:22 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			5.15	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

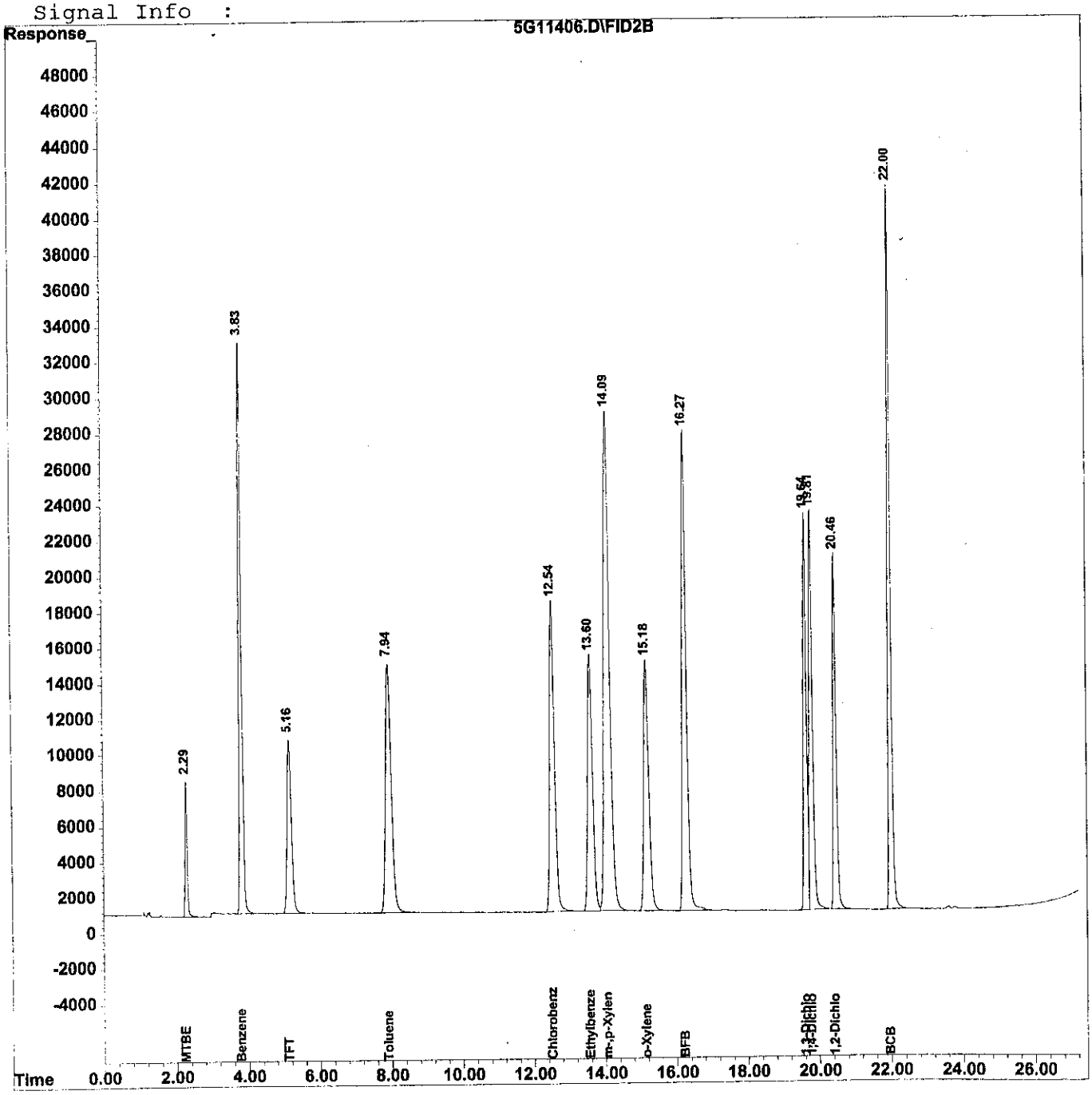
(f)=RT Delta > 1/2 Window (m)=manual int.

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 :



Data File : C:\HPCHEM\2\DATA\121901\5G11406.D Vial: 3
Acq On : 19 Dec 2001 8:27 Operator: CBN
Sample : WG110252-02 WATER LCS 20PPB 5ML Inst : HP5
Misc : 1,1 S-(88-04,87-26) Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 19 8:54 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 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

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::
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\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 RR clo	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:

2.2 Semivolatiles Data

2.2.5 DRO GC DATA (8015)

REPORT NARRATIVE
GC PETROLEUM RANGE ORGANICS

KEMRON Report No.: L0112348

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: 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: RDC

REVIEWED: _____ DATE: 12/29/04

Rev. 7/14/00

DRO-GC DATA (8015)

Login Number: L0112348

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: RLC 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 UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL
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

Data File : C:\HPCHEM\1\DATA\2G17381.D

Acq On : 20 Dec 2001 17:00 Operator: HV
Sample : L0112348-01 PRO water Inst : hp2
Misc : 1,1 v177-p181 Multiplr: 1.10
IntFile : PETRO.E
Quant Time: Dec 21 10:09 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	3.80	455719	23.378	ppb
Spiked Amount 20.000	Range 49 - 174	Recovery = 116.89%		
3) s n-Nonatriacontane	7.47	3546	0.442	ppm
Spiked Amount 20.000		Recovery = 2.21%		
Target Compounds				
1) H Petroleum Range	3.64	28001915	2008.217	ppb

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

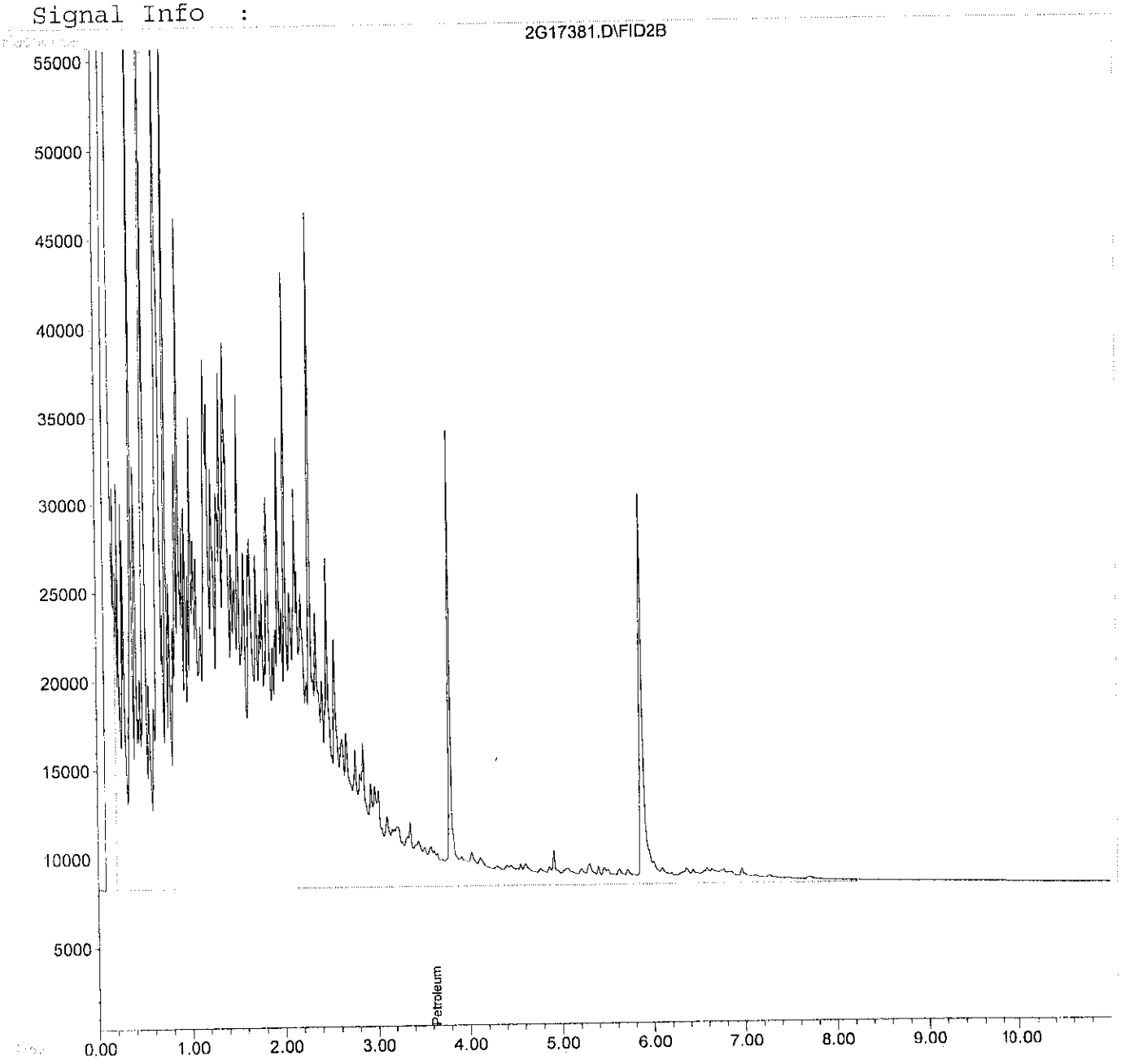
Data File : C:\HPCHEM\1\[illegible]

Acq On : 20 Dec 2001 17:00
Sample : L0112348-01 PRO water
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: 1.10

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\2G17382.D

Acq On : 20 Dec 2001 17:15
Sample : L0112348-02 PRO water
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: 1.06

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	265428	13.616	ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	68.08%	
3) s n-Nonatriacontane	7.45	1117	0.139	ppm
Spiked Amount 20.000		Recovery =	0.70%	
Target Compounds				
1) H Petroleum Range	3.64	6297625	435.224	ppb

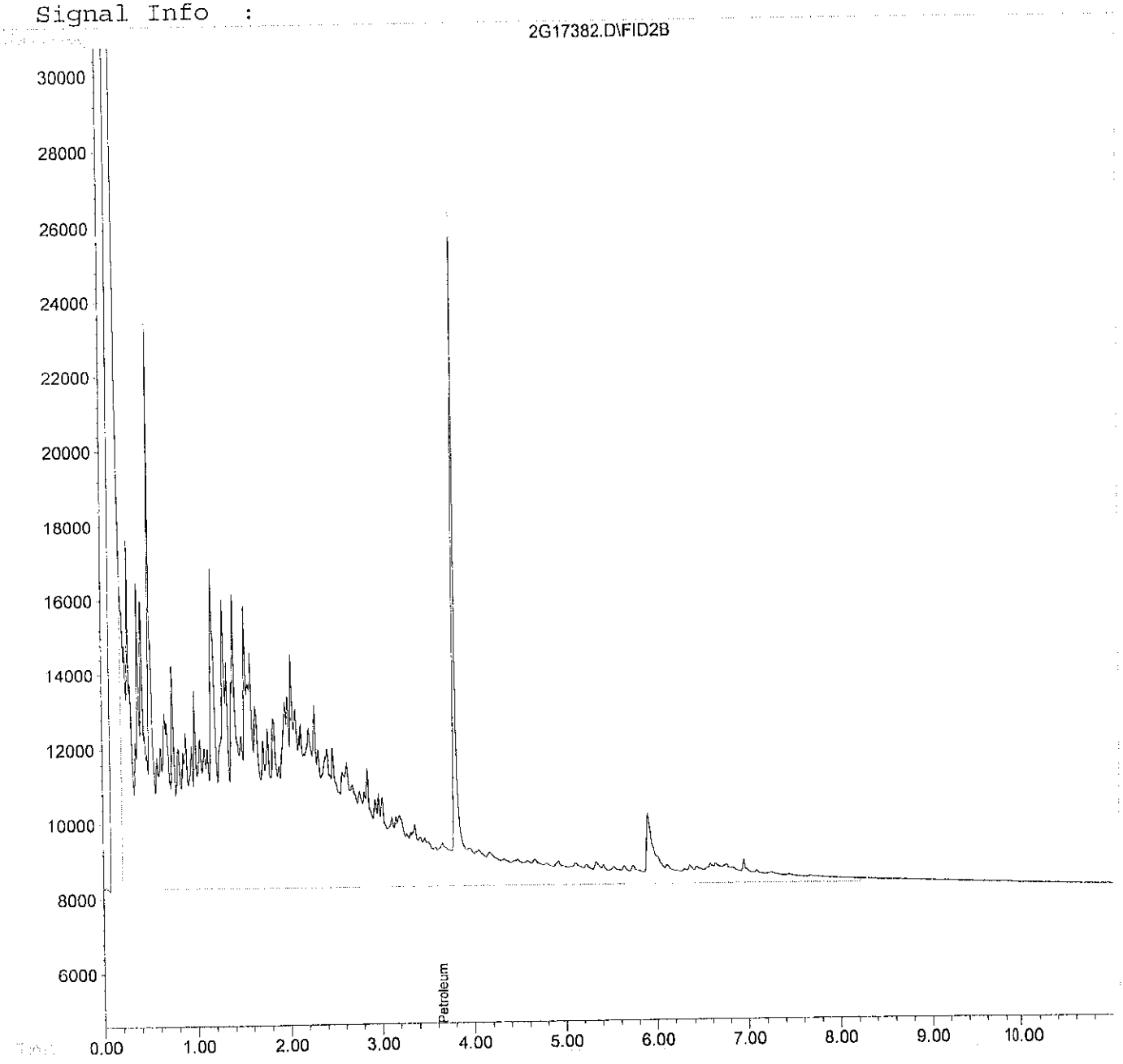
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\122001\2G17382.D
Acq On : 20 Dec 2001 17:15
Sample : L0112348-02 PRO water
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: 1.06

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\122001\2G17383.D
Acq On : 20 Dec 2001 17:31 Operator: HV
Sample : L0112348-03 PRO water Inst : hp2
Misc : 1,1 v177-p181 Multiplr: 1.07
IntFile : PETRO.E
Quant Time: Dec 21 10:09 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	294653	15.116	ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =	75.58%		
3) s n-Nonatriacontane	7.48	4314	0.538	ppm
Spiked Amount 20.000	Recovery =	2.69%		
Target Compounds				
1) H Petroleum Range	3.64	926784	<MDL	ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17383.D FLASHPRO.M Fri Dec 21 10:09:57 2001 Page

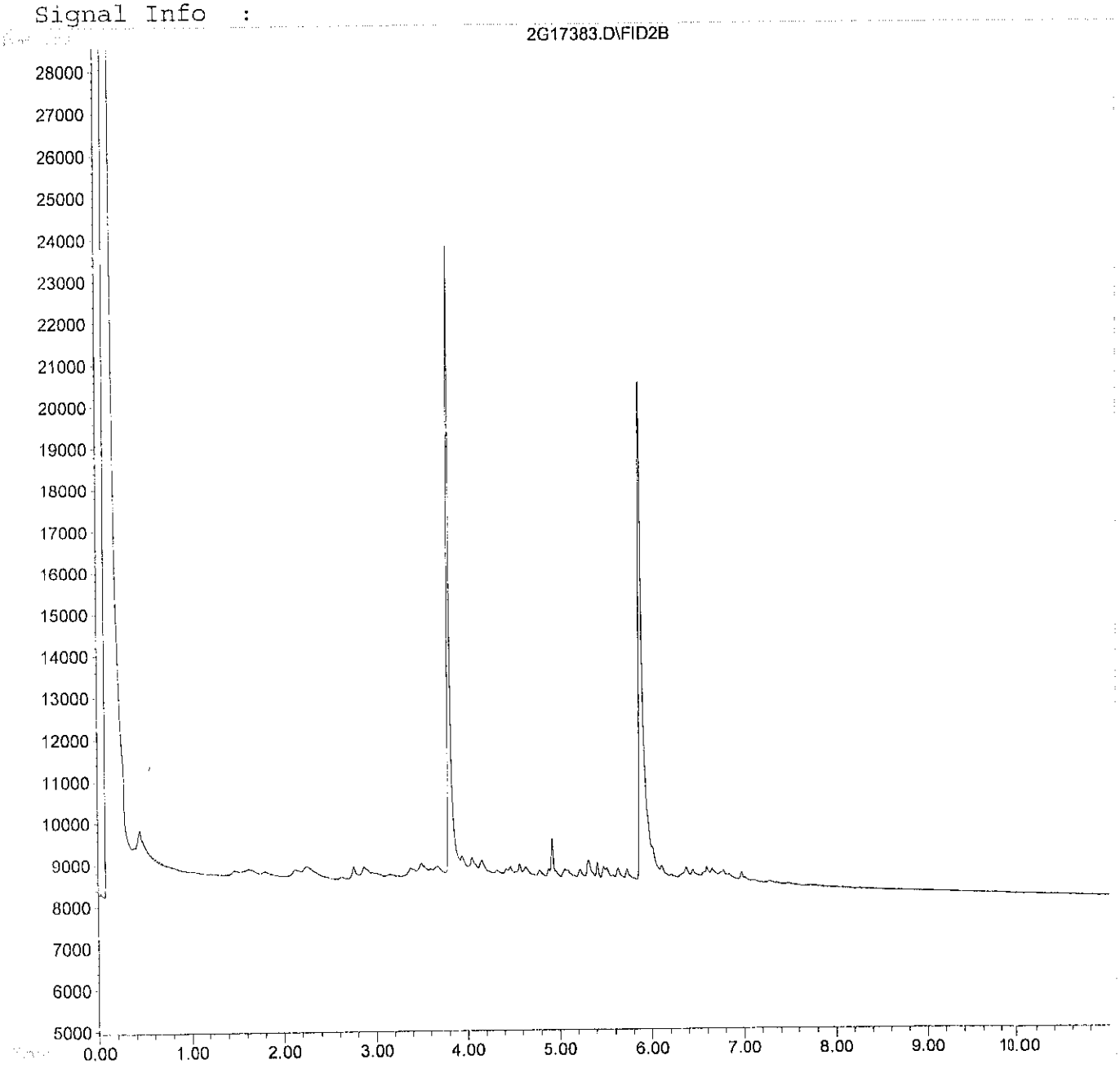
Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 20 Dec 2001 17:31
Sample : L0112348-03 PRO water
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: 1.07

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 : 20 Dec 2001 17:46
Sample : WG110258-01 Ref PRO water
Misc : 1,1 L0112348-04 REF
IntFile : PETRO.E
Quant Time: Dec 21 10:10 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 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	250418	12.846	ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		64.23%	
3) s n-Nonatriacontane	7.45	85	0.011	ppm
Spiked Amount 20.000	Recovery =		0.05%	
Target Compounds				
1) H Petroleum Range	3.64	524723	<MDL	ppb

(f)=RT Delta > 1/2 Window
(m)=manual int.
2G17384.D FLASHPRO.M Fri Dec 21 10:10:02 2001 Page 1

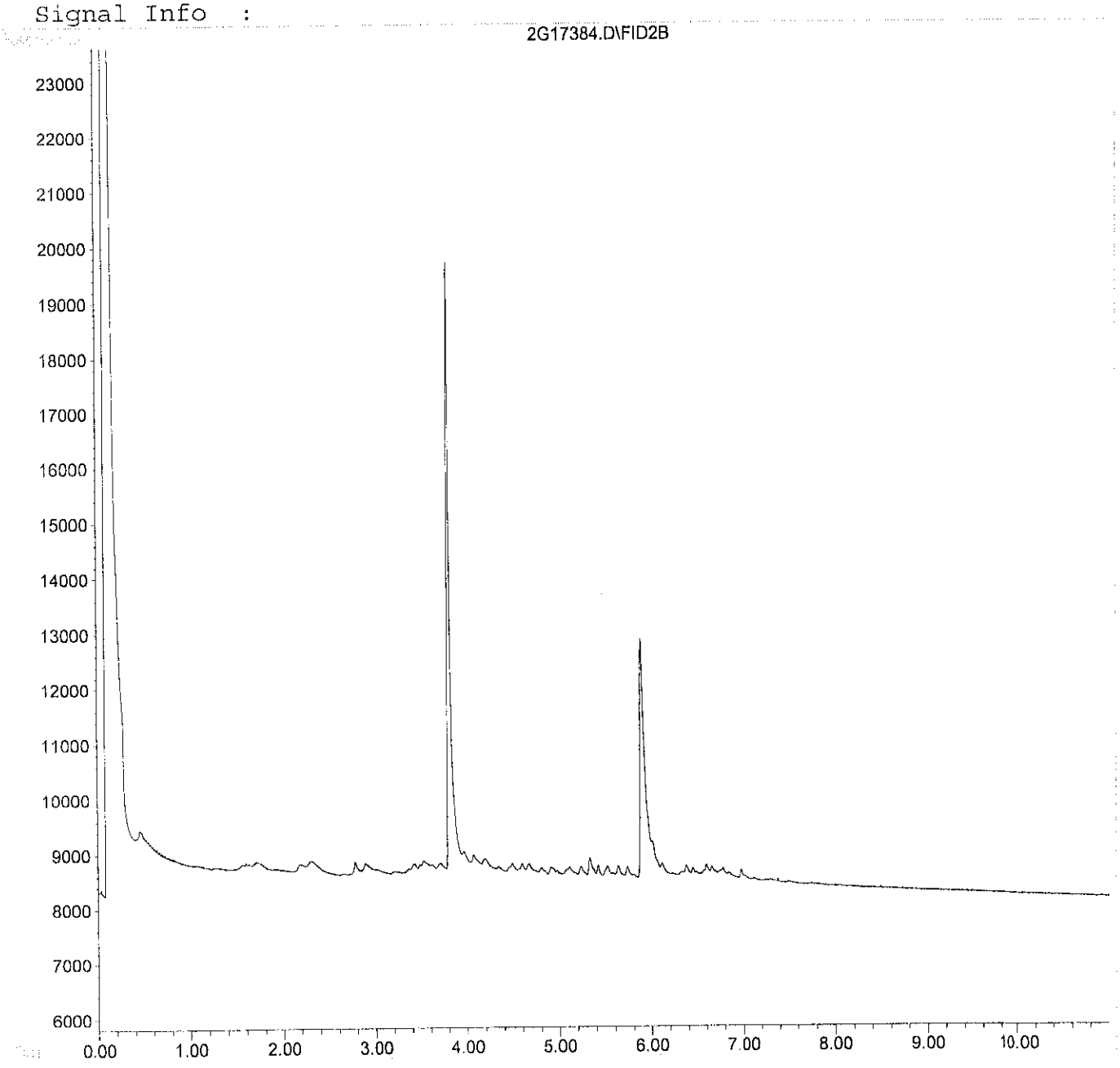
Data File : C:\HPCHEM\1\DATA\2G17384\

Acq On : 20 Dec 2001 17:46
Sample : WG110258-01 Ref PRO water
Misc : 1,1 L0112348-04 REF
IntFile : PETRO.E
Quant Time: Dec 21 10:10 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 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\2G17385.D

Acq On : 20 Dec 2001 18:02 Operator: HV
Sample : WG110258-04 MS PRO water Inst : hp2
Misc : 1,1 L0112348-05 MS 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	3.81	361181	18.528	ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	92.64%	
3) s n-Nonatriacontane	7.45	11483	1.431	ppm
Spiked Amount 20.000		Recovery =	7.16%	
Target Compounds				
1) H Petroleum Range	3.64	38930791	2665.096	ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
2G17385.D FLASHPRO.M Fri Dec 21 10:10:06 2001 Page 1

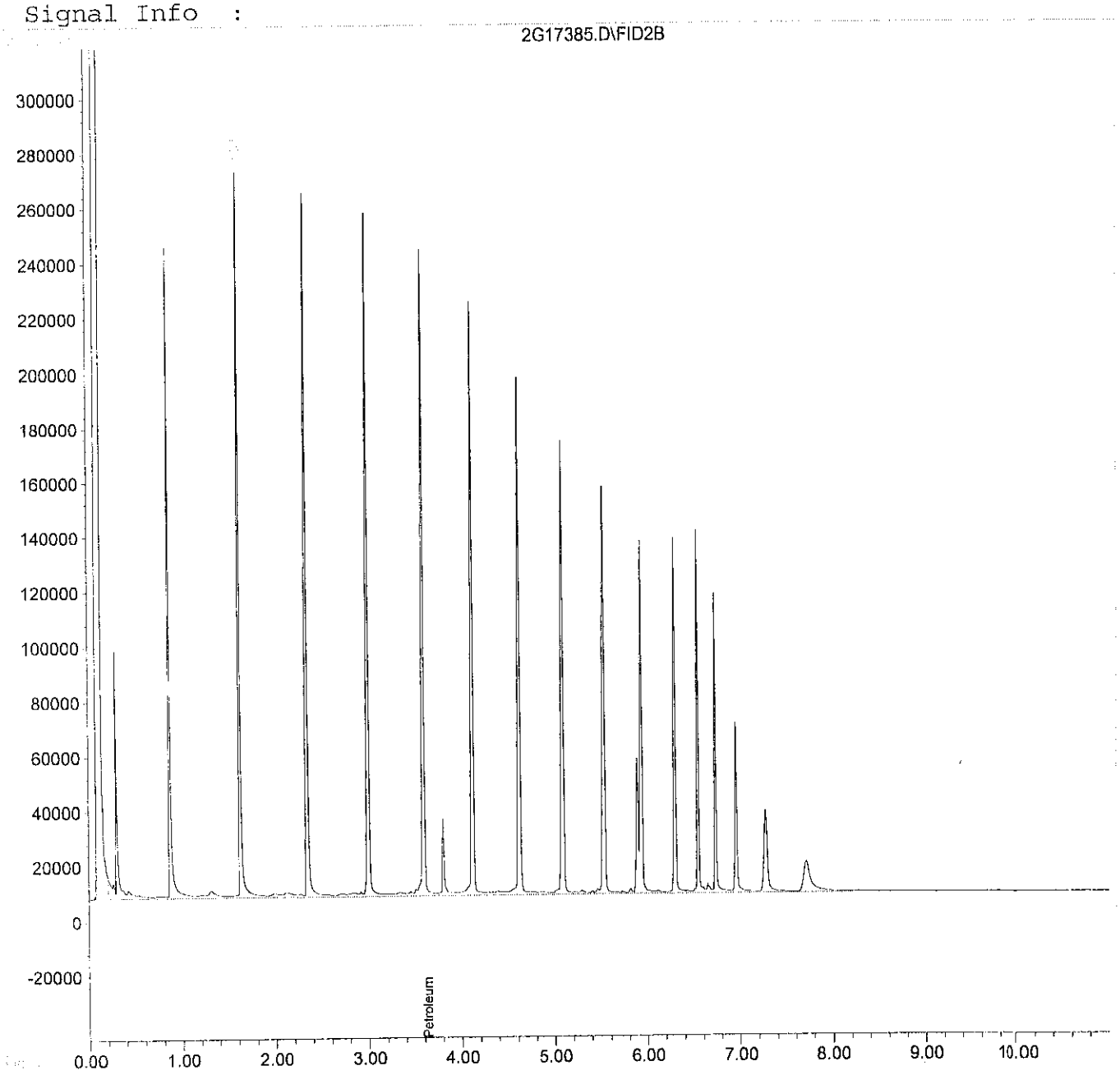
Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 20 Dec 2001 18:02
Sample : WG110258-04 MS PRO water
Misc : 1,1 L0112348-05 MS
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 :



Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 20 Dec 2001 18:17 Operator: HV
Sample : WG110258-05 MSD PRO water Inst : hp2
Misc : 1,1 L0112348-06 MSD Multiplr: 1.06
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	3.80	346520	17.776	ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =	88.88%		
3) s n-Nonatriacontane	7.44	9800	1.221	ppm
Spiked Amount 20.000	Recovery =	6.11%		
Target Compounds				
1) H Petroleum Range	3.64	38016272	2627.276	ppb

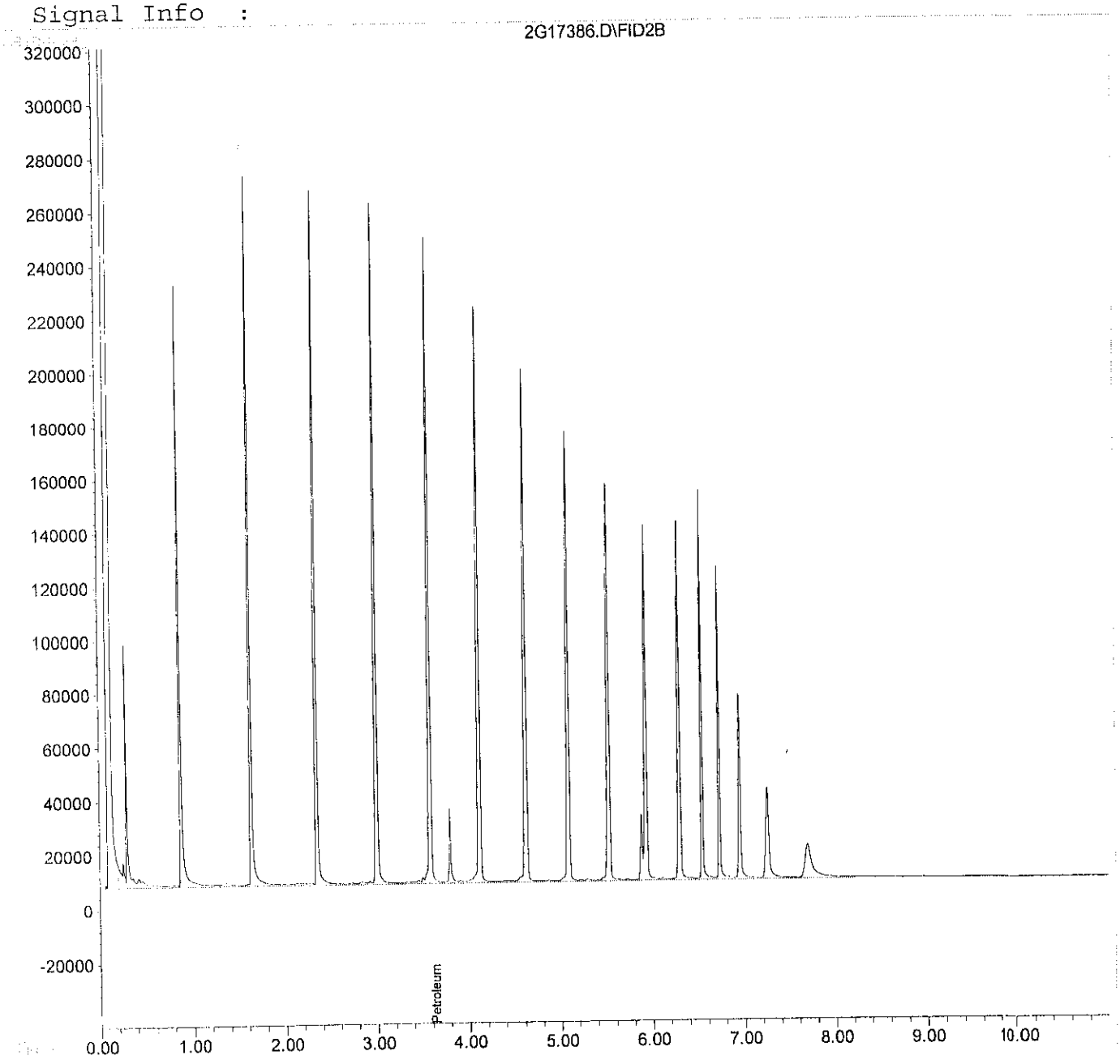
(f)=RT Delta > 1/2 Window (m)=manual int.
2G17386.D FLASHPRO.M Fri Dec 21 10:10:13 2001 Page

Data File : C:\HPCHEM\1\DATA\122001\2G17386.D
Acq On : 20 Dec 2001 18:17
Sample : WG110258-05 MSD PRO water
Misc : 1,1 L0112348-06 MSD
IntFile : PETRO.E
Quant Time: Dec 21 10:10 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 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\122101\2G17428.D
Acq On : 21 Dec 2001 13:54
Sample : L0112348-07 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Dec 21 14:33 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 12/21/01
Last Update : Fri Dec 21 14:33:41 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	3.69	279492	17.832 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	89.16%
3) s n-Nonatriacontane	7.46	7470	0.940 ppm
Spiked Amount 20.000		Recovery =	4.70%
Target Compounds			
1) H Petroleum Range	3.65	16919942	1349.350 ppb

(f)=RT Delta > 1/2 Window
(m)=manual int.
2G17428.D FLASHPRO.M Fri Dec 21 15:00:16 2001 Page

Data File : C:\HPCHEM\1\DATA\[illegible]

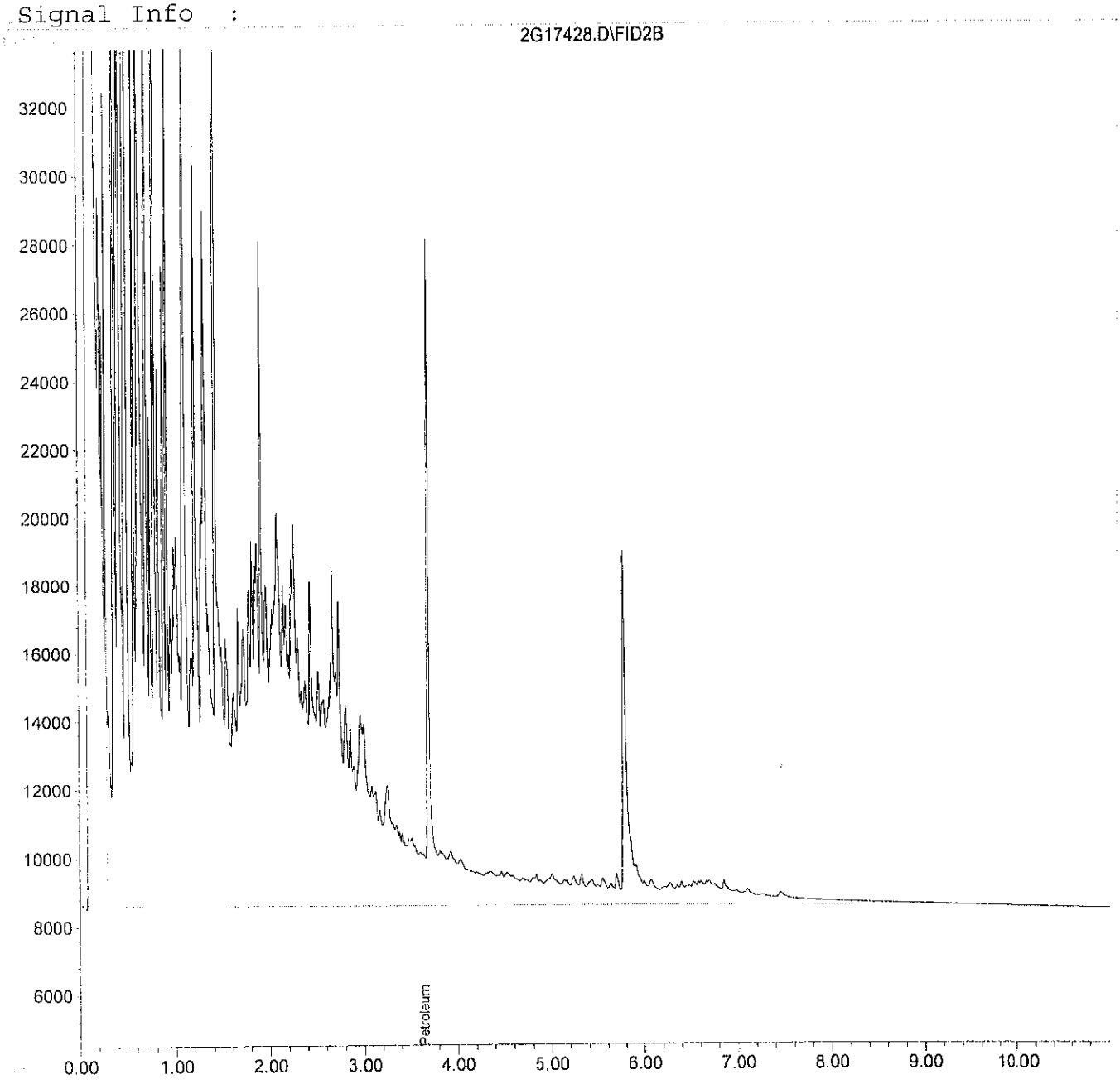
Acq On : 21 Dec 2001 13:54
Sample : L0112348-07 PRO water
Misc : 1,1 water
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.06

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 14:33:41 2001
Response via : Multiple Level Calibration
DataAcq Meth : FLASHPRO.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\122101\2G17429.D
Acq On : 21 Dec 2001 14:09
Sample : L0112348-08 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Dec 21 14:34 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 12/21/01
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	3.72	241174	15.387 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery =	76.94%
3) s n-Nonatriacontane	7.53	494	0.062 ppm
Spiked Amount 20.000		Recovery =	0.31%
Target Compounds			
1) H Petroleum Range	3.65	14781437	1167.685 ppb

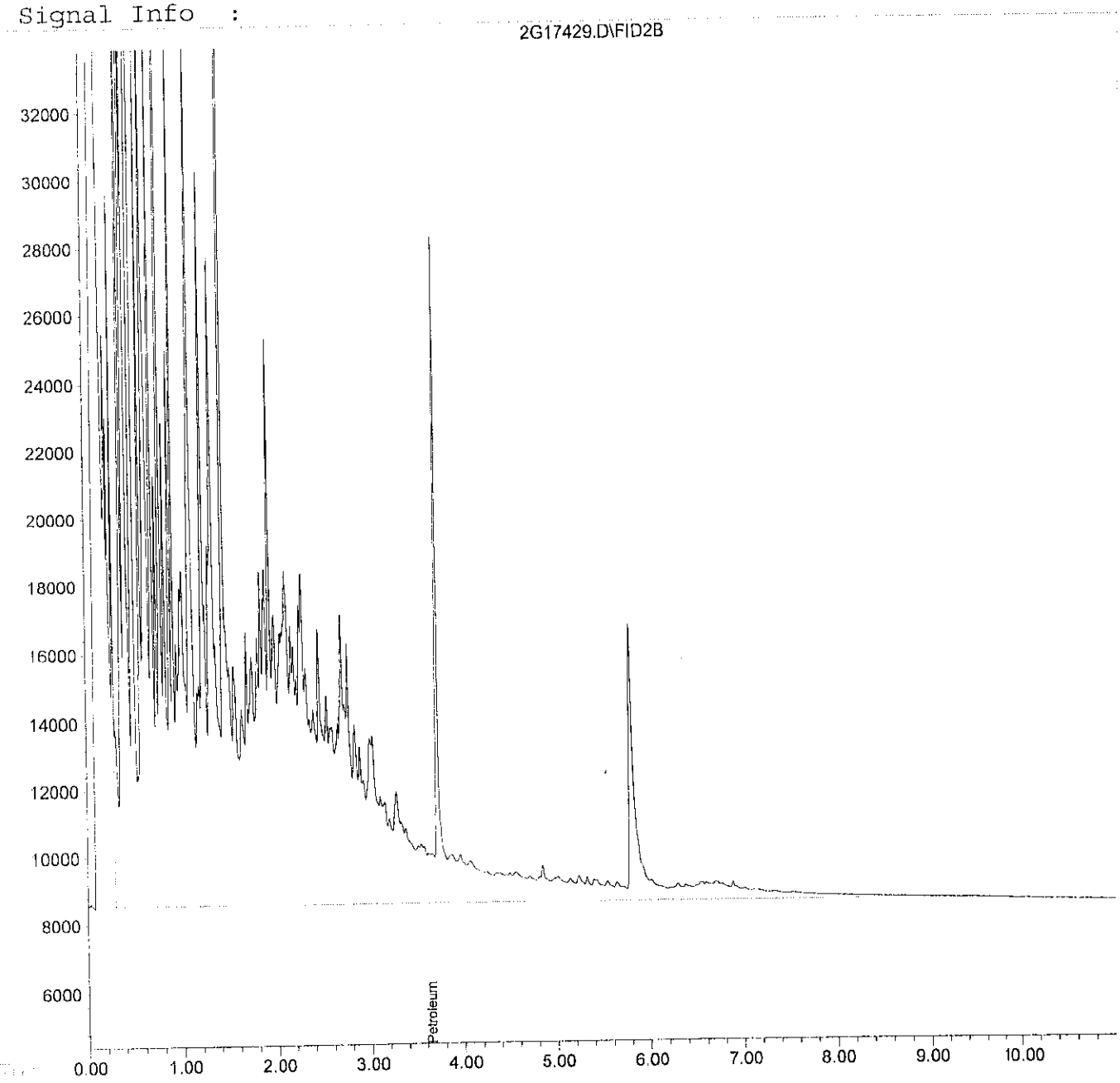
(f)=RT Delta > 1/2 Window
(m)=manual int.

Data File : C:\HPCHEM\1\[illegible]
Acq On : 21 Dec 2001 14:09
Sample : L0112348-08 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Dec 21 14:34 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 12/21/01
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 : 20 Dec 2001 19:34
Sample : L0112348-09 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Dec 21 11:41 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 : 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	364891	18.719 ppb
Spiked Amount 20.000 Range 49 - 174	Recovery =		93.60%
3) s n-Nonatriacontane	7.51	3901	0.486 ppm
Spiked Amount 20.000	Recovery =		2.43%
Target Compounds			
1) H Petroleum Range	3.64	1339769	<MDL ppb ✓

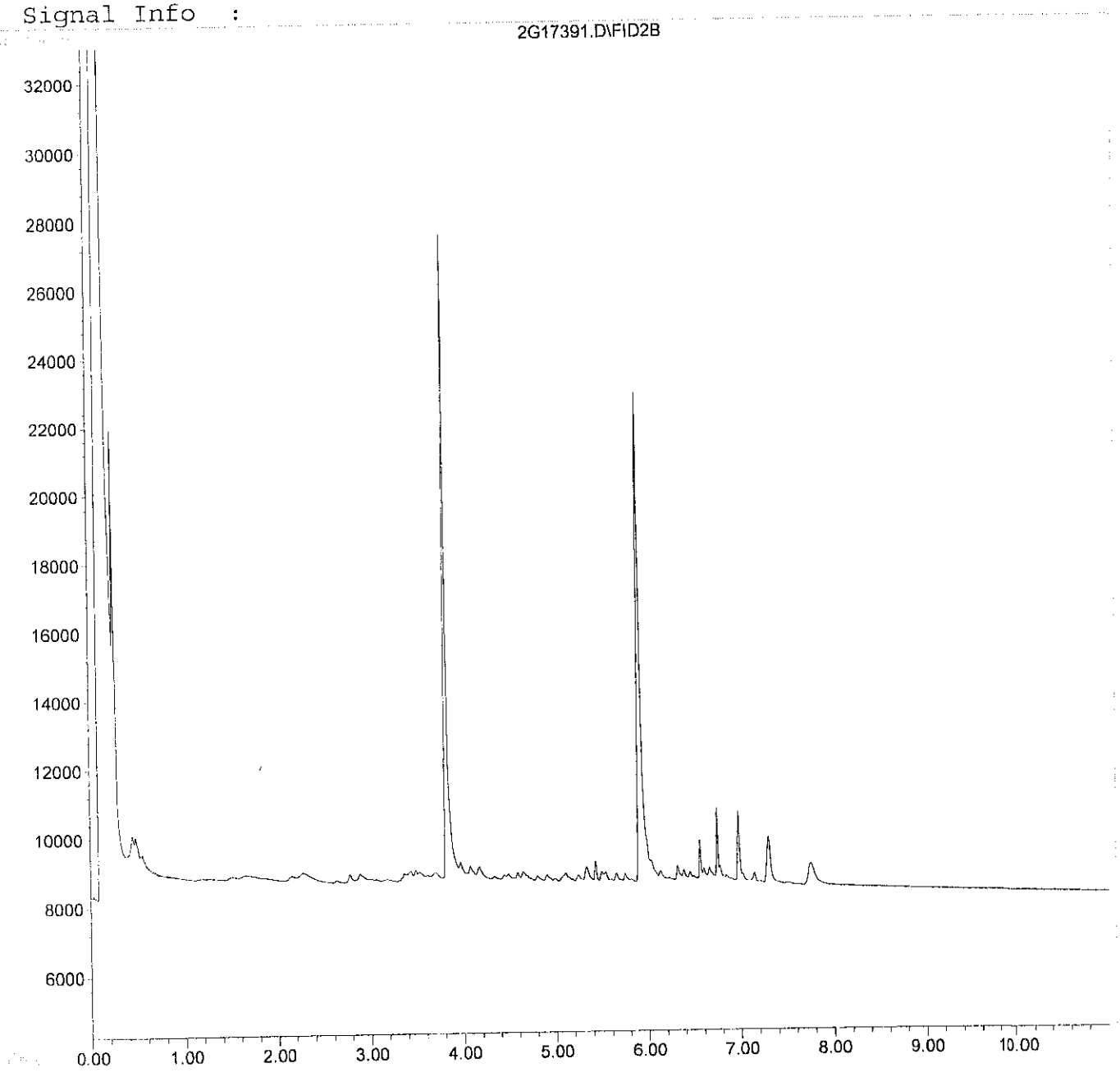
(f)=RT Delta > 1/2 Window
(m)=manual int.
2G17391.D FLASHPRO.M Fri Dec 21 11:41:05 2001 Page 1

Data File : C:\HPCHEM\1\DATA\[illegible]
Acq On : 20 Dec 2001 19:34
Sample : L0112348-09 PRO water
Misc : 1,1 water
IntFile : PETRO.E
Quant Time: Dec 21 11:41 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 : Thu Dec 20 16:03:38 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
FLASHPRO.M Fri Dec 21 11:33:01 2001 Page 1

Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 20 Dec 2001 14:30
Sample : WG110451-06 PRO @600ppm
Misc : 1,1 SOS56-21
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 : 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

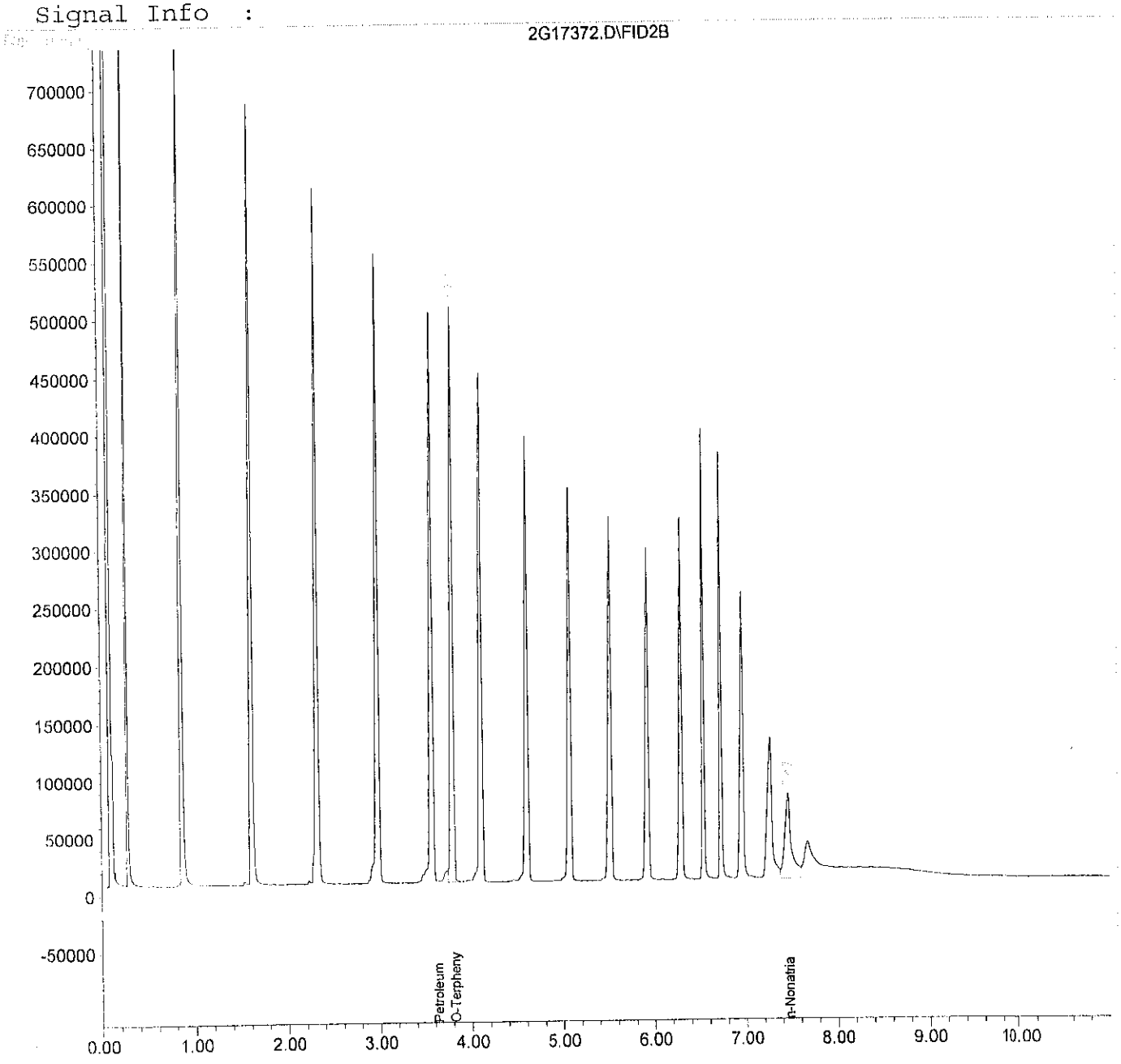
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\[illegible]
Acq On : 20 Dec 2001 14:30
Sample : WG110451-06 PRO @600ppm
Misc : 1,1 SOS56-21
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 :



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

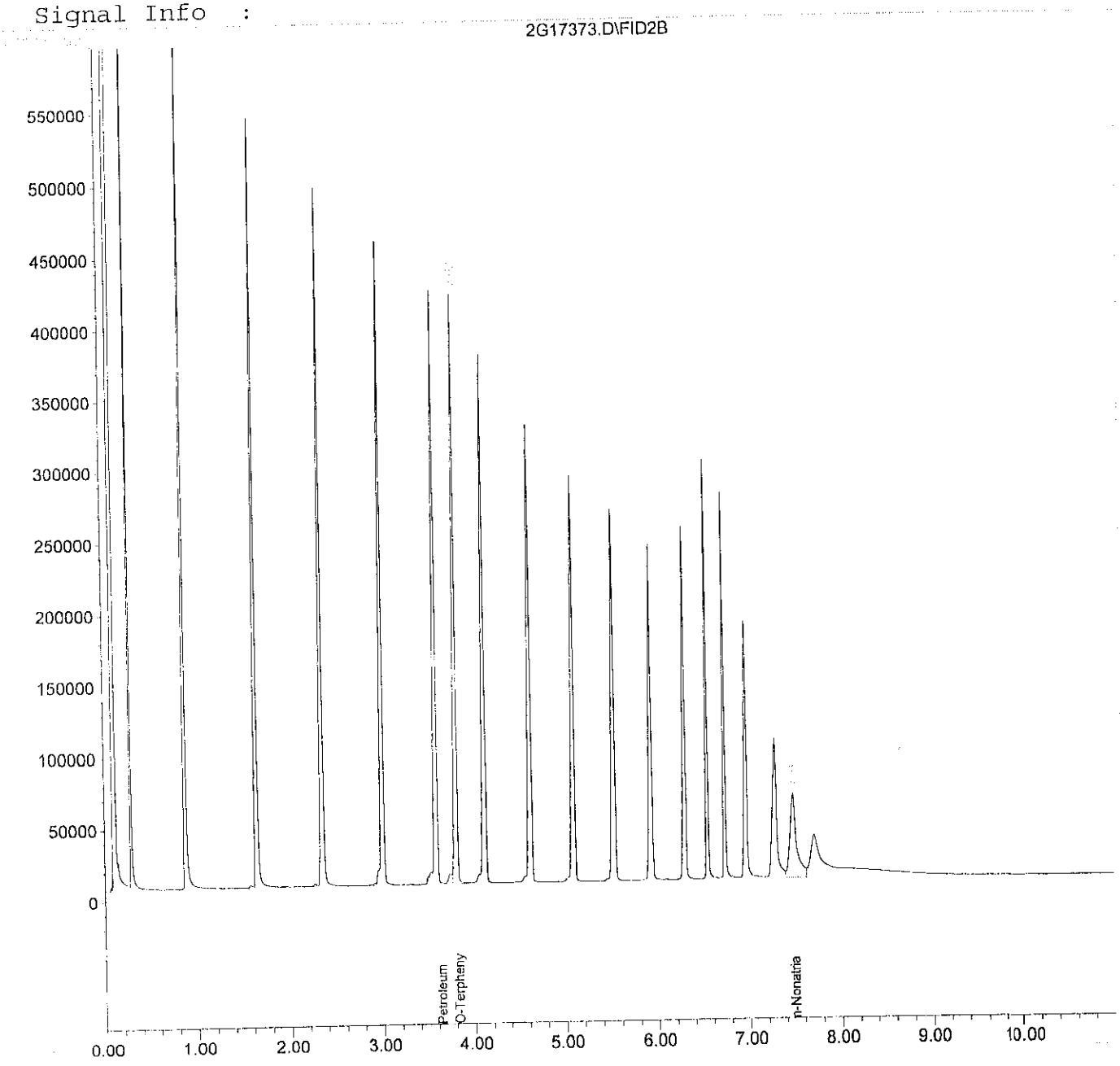
(f)=RT Delta > 1/2 Window (m)=manual int.
2G17373.D FLASHPRO.M Fri Dec 21 11:05:09 2001 Page 1

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 :



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 : 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

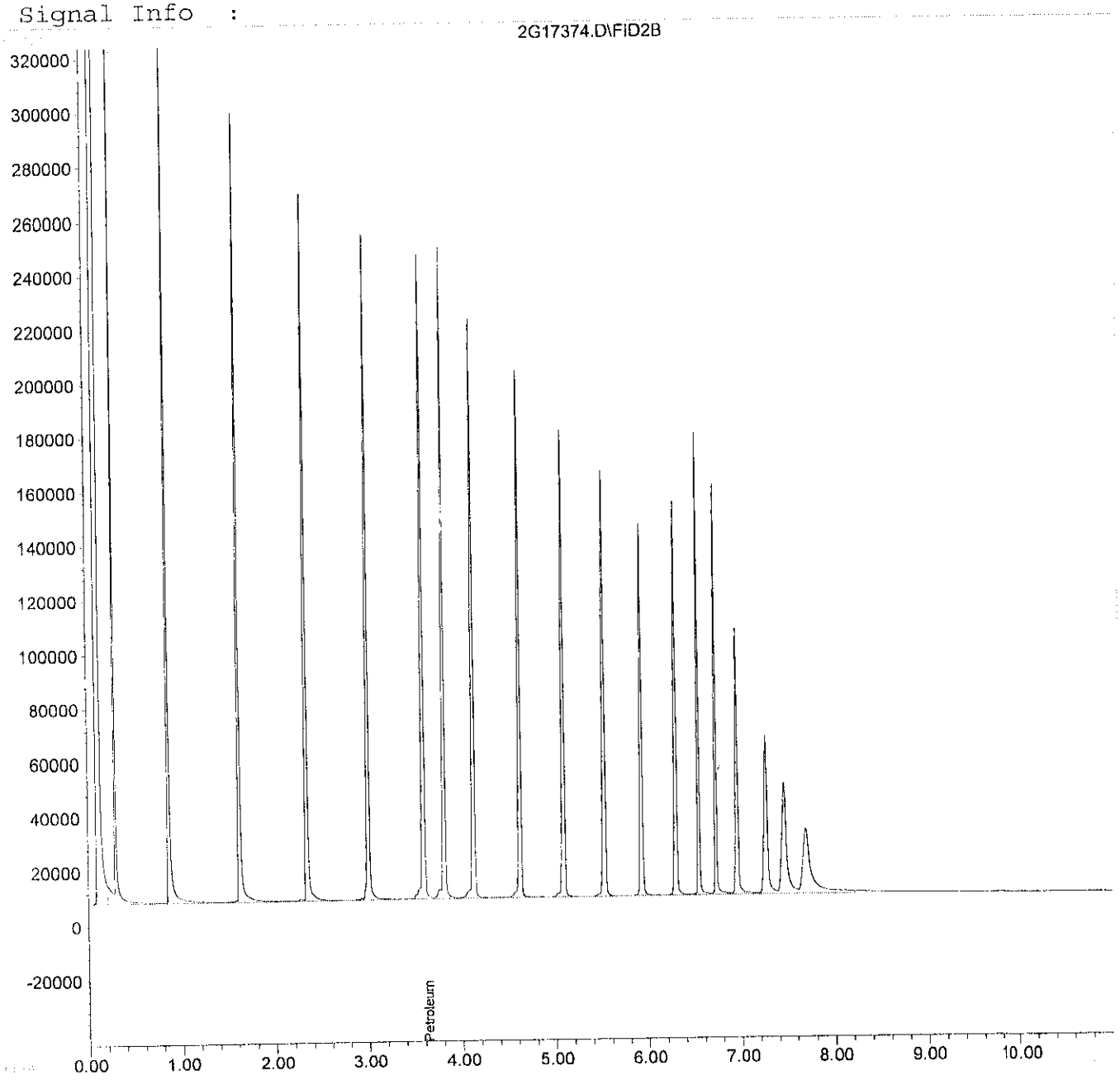
(f)=RT Delta > 1/2 Window (m)=manual int.

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 :



Data File : C:\HPCHEM\1\DATA\...

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.

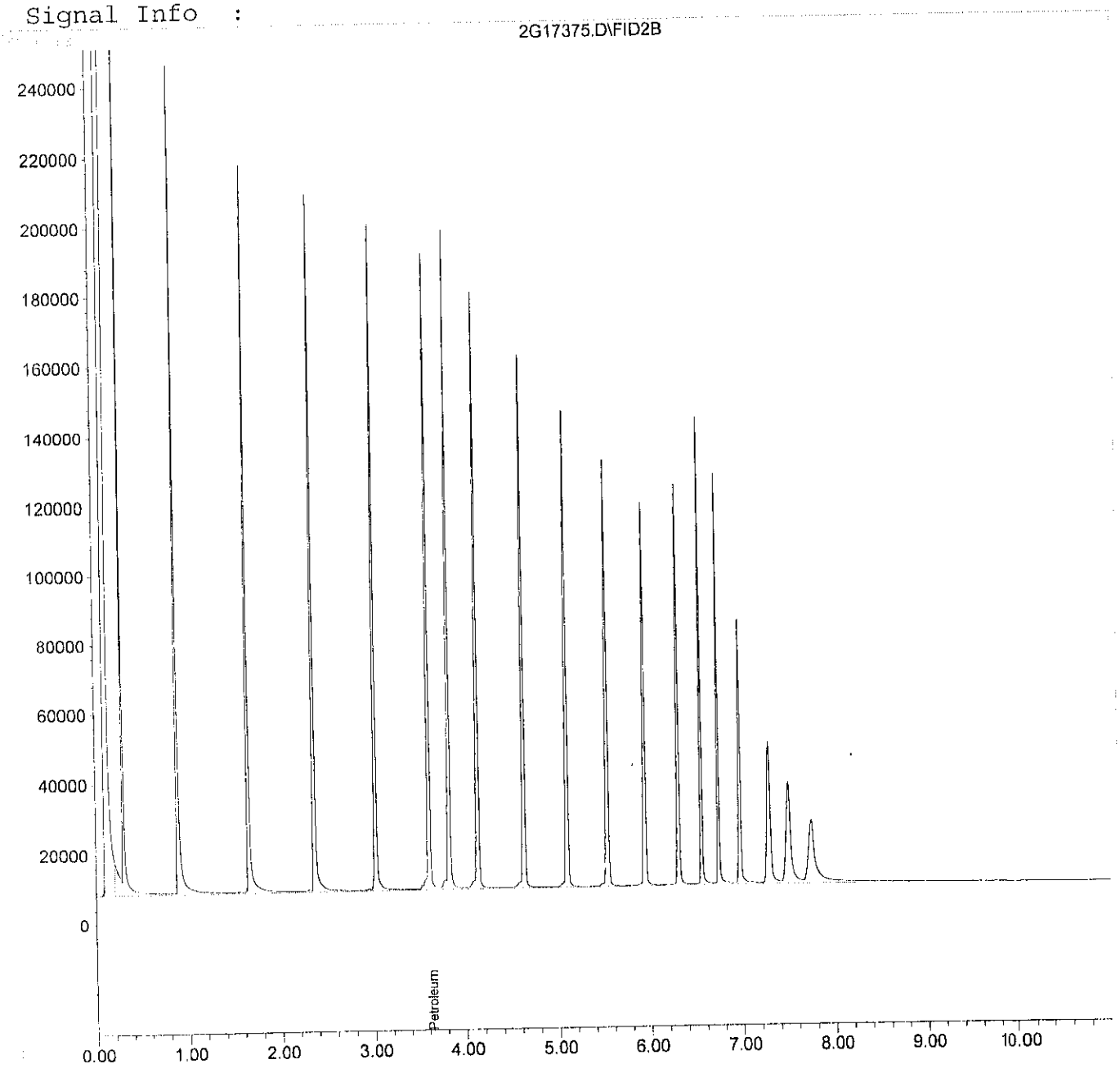
Data File : C:\HPCHEM\1\DATA\2G17375.D

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\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 : 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.

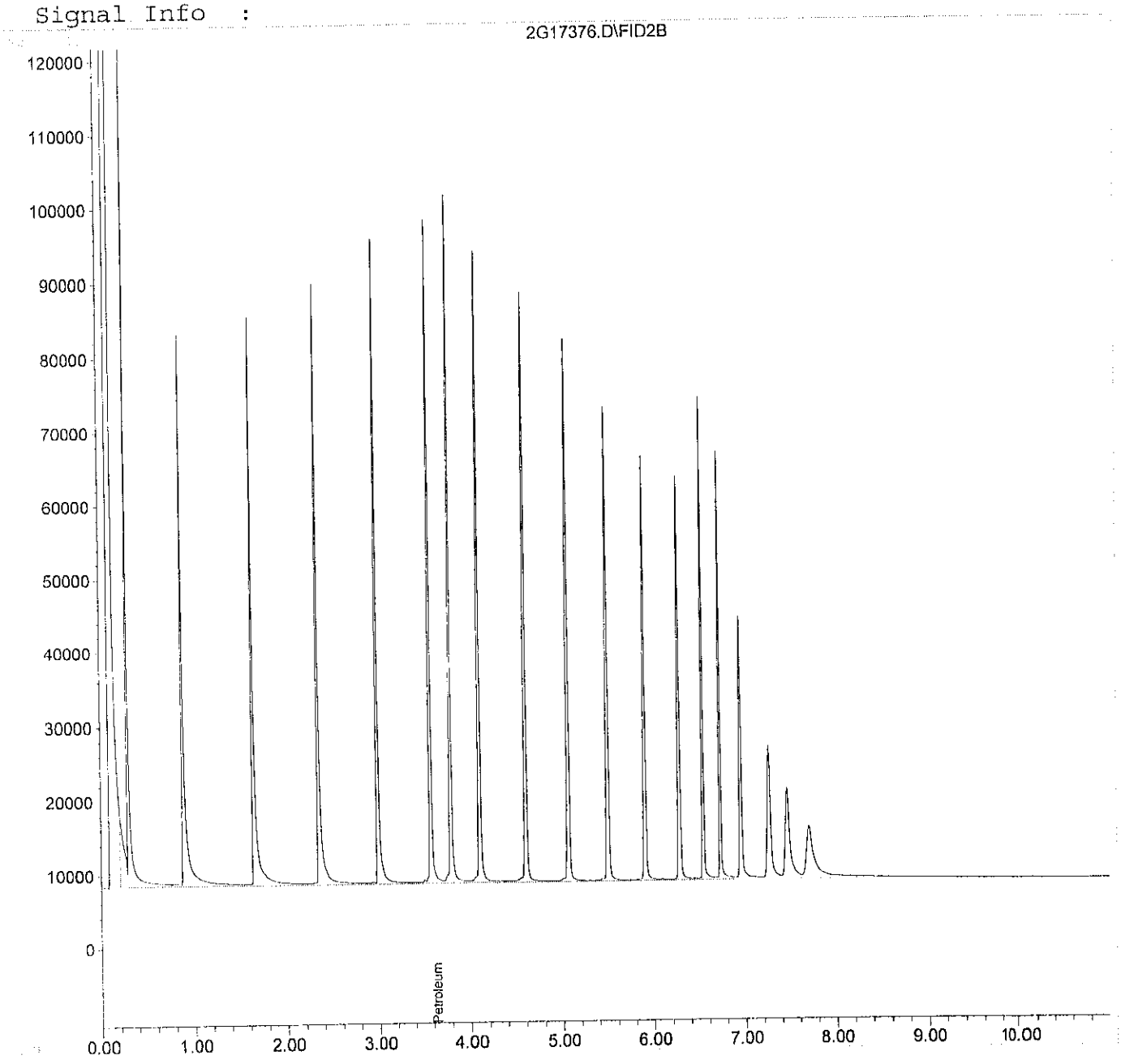
Data File : C:\HPCHEM\1\DATA\2G17376.D

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

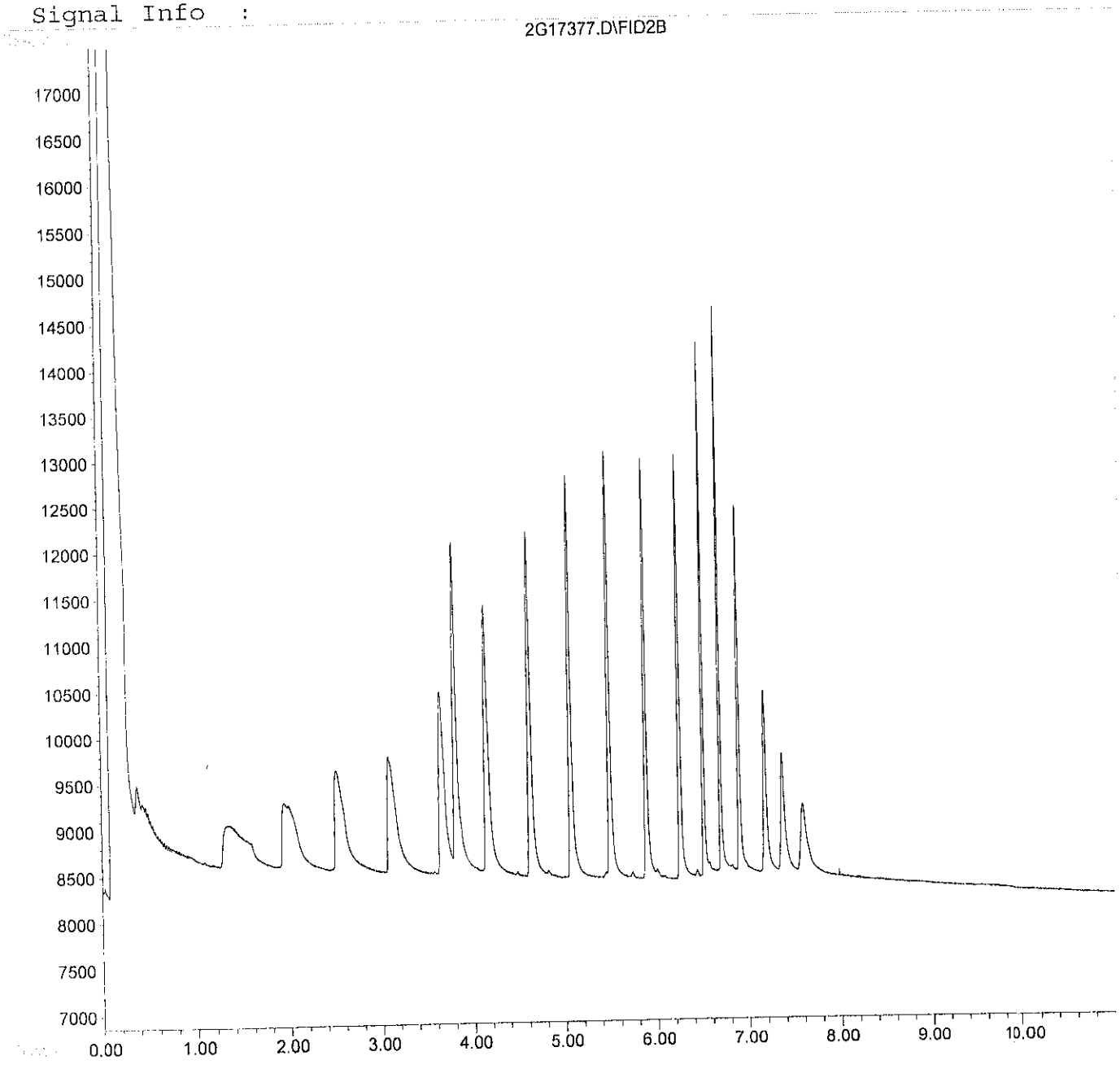
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\[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 :



Data File : C:\HPCHEM\1\DATA\[illegible]

Acq On : 20 Dec 2001 16:13
Sample : WG110451-07 ALT PRO @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 12/13/01
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

Data File : C:\...

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 : 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

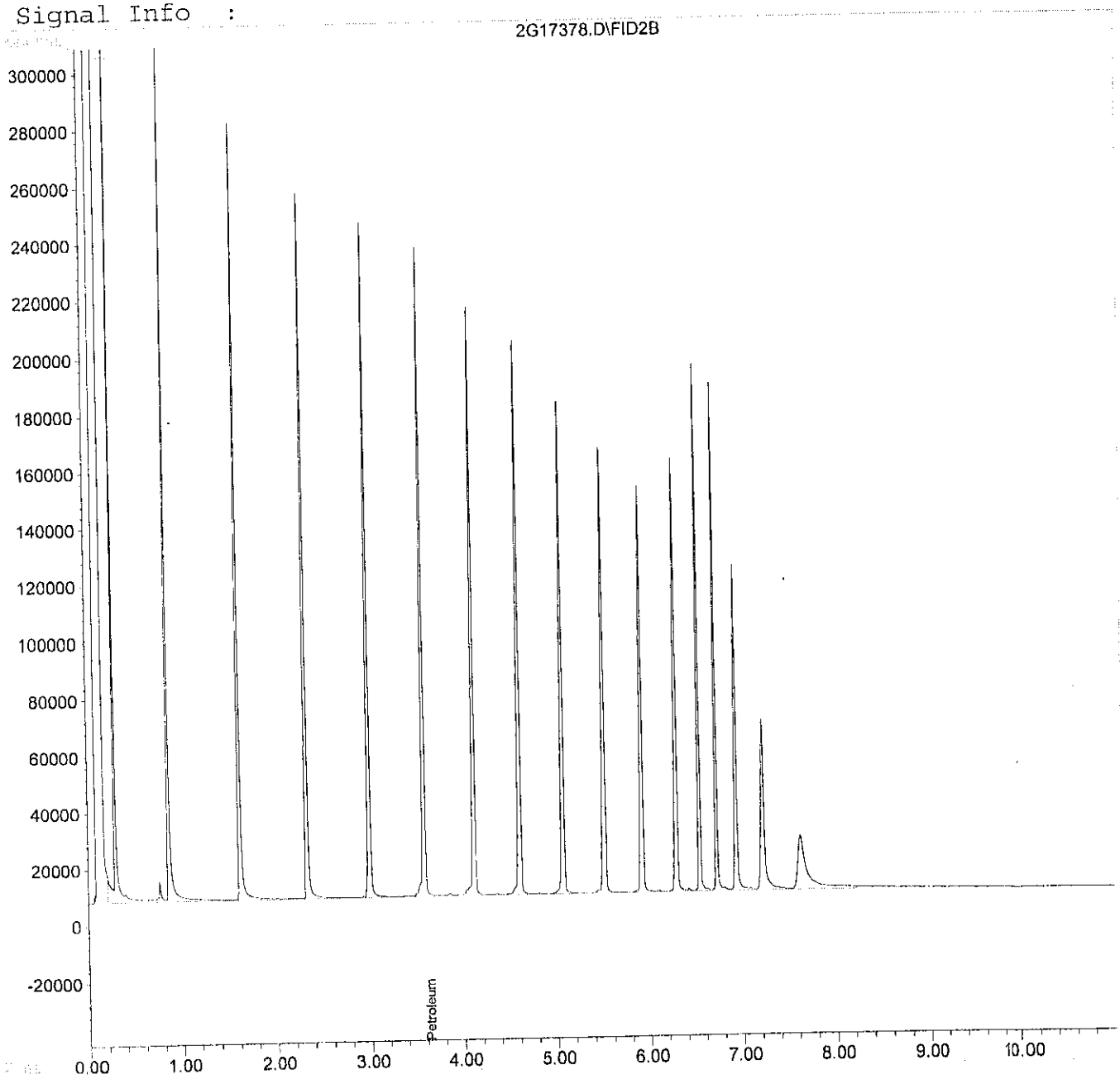
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\[illegible]
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
FLASHPRO.M Fri Dec 21 14:58:50 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

Vial: 5
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

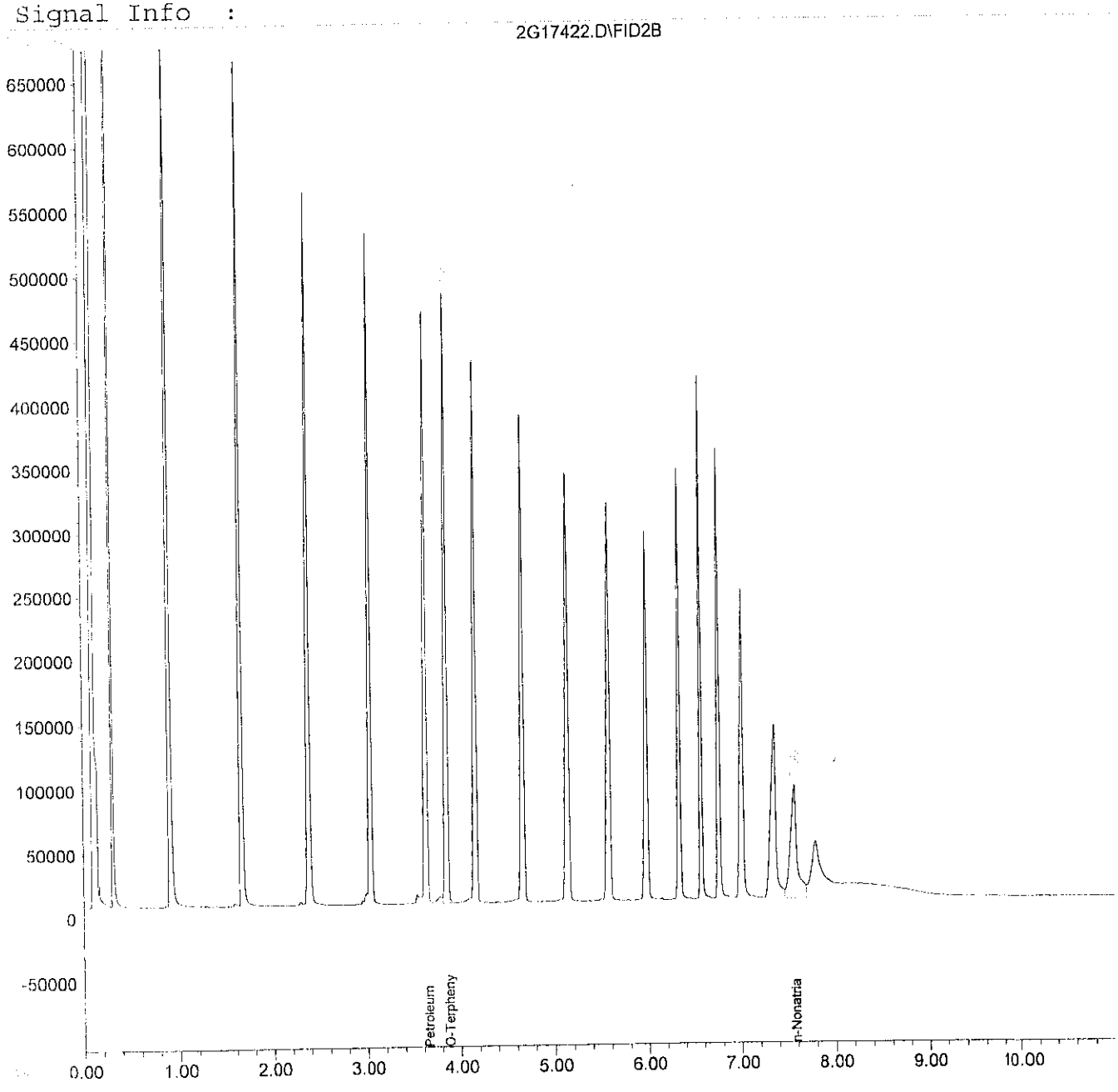
(f)=RT Delta > 1/2 Window (m)=manual int.

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

Vial: 3
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
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

Vial: 3
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	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

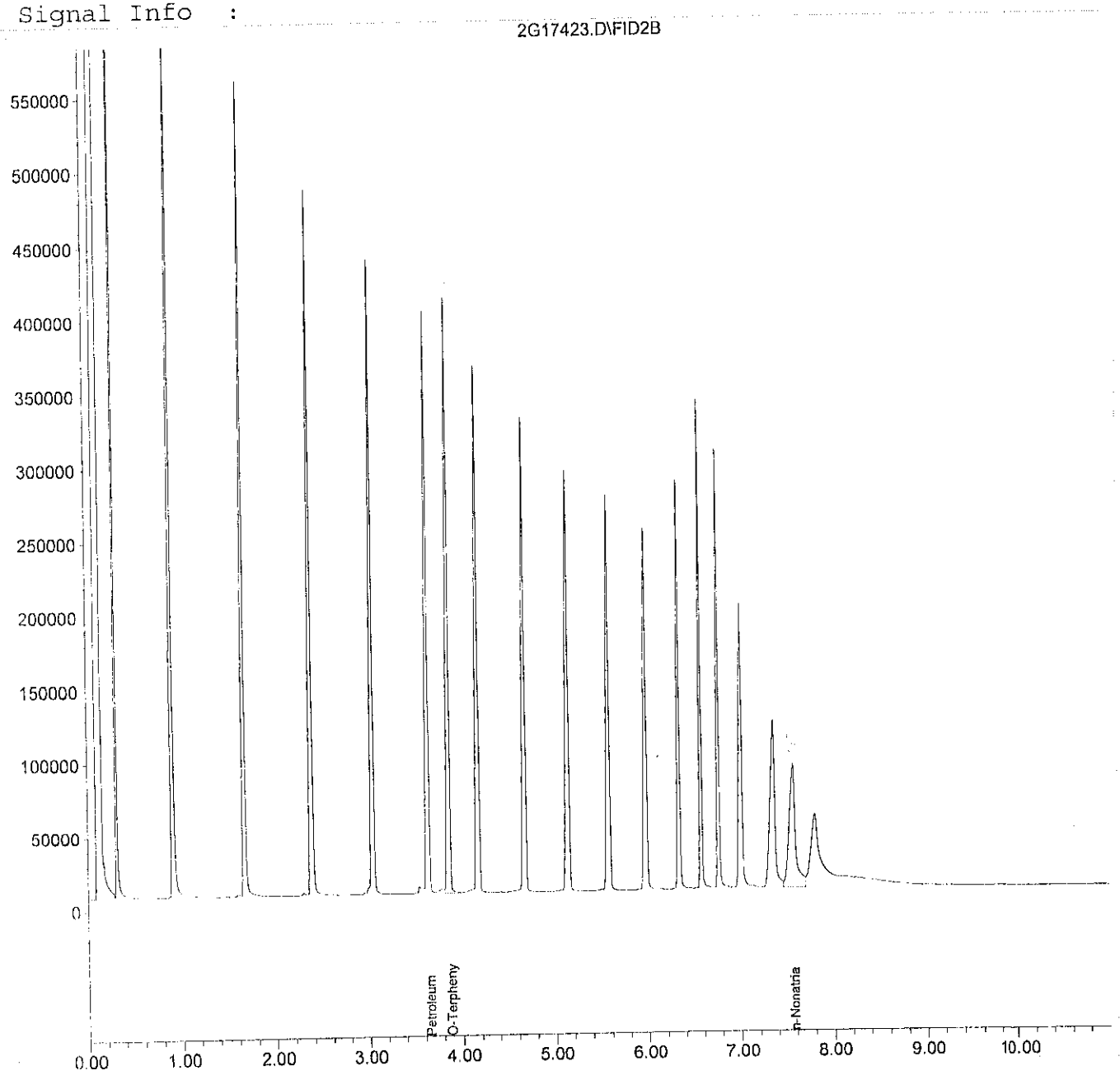
(f)=RT Delta > 1/2 Window
(m)=manual int.
2G17423.D FLASHPRO.M Fri Dec 21 14:59:12 2001 Page 1

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\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 : 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

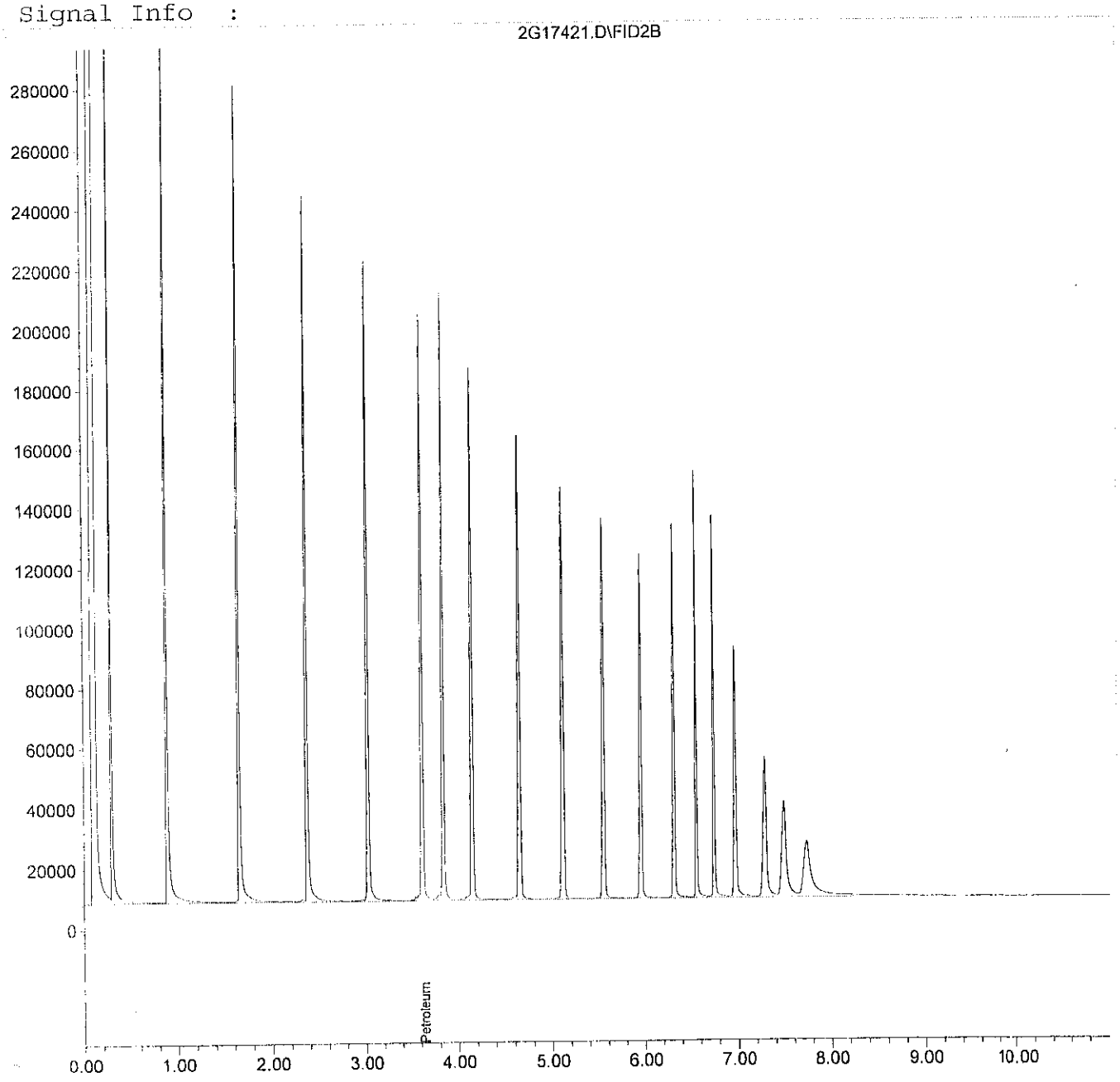
(f)=RT Delta > 1/2 Window (m)=manual int.

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\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 : 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

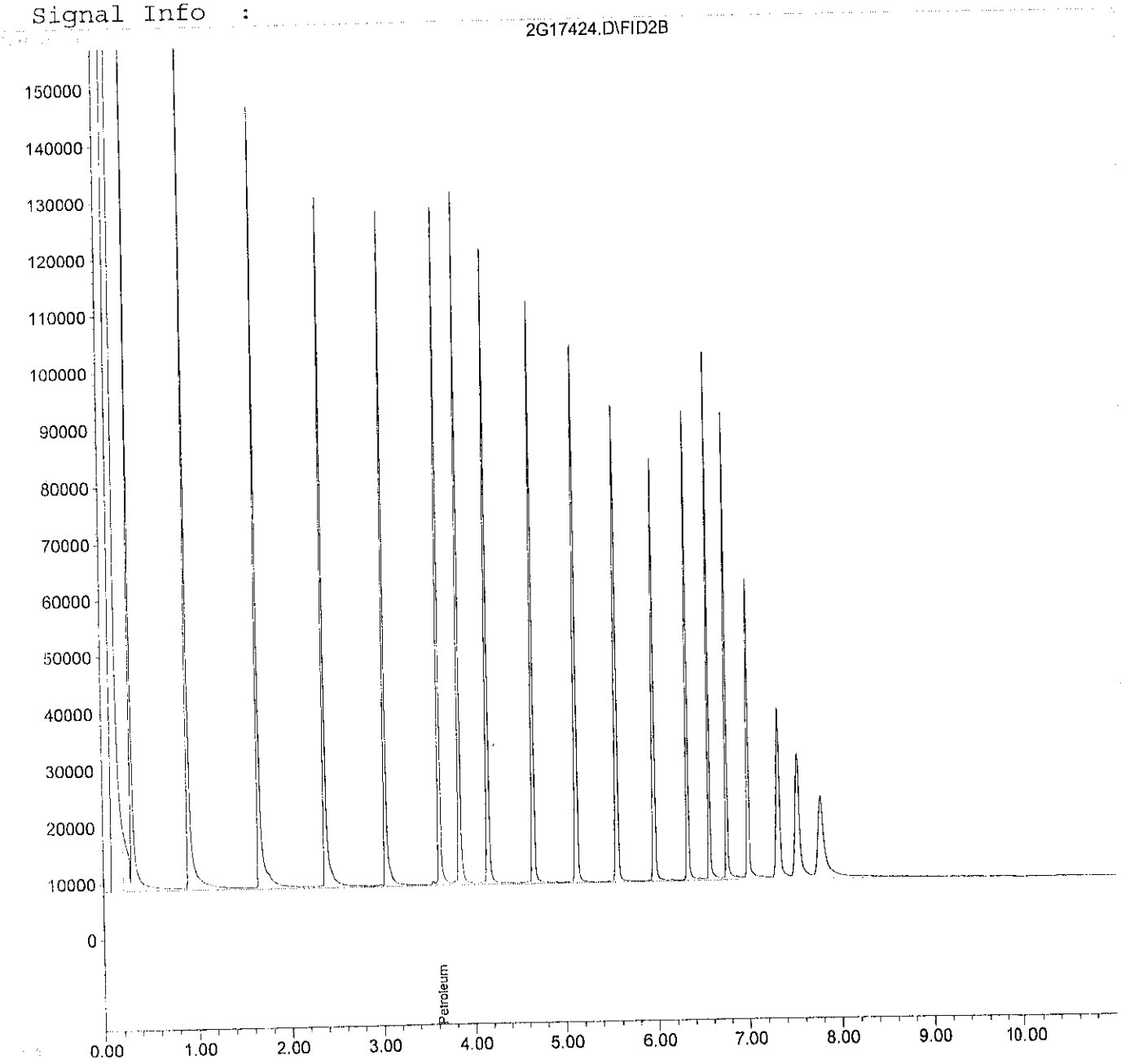
(f)=RT Delta > 1/2 Window
(m)=manual int.

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: 8
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

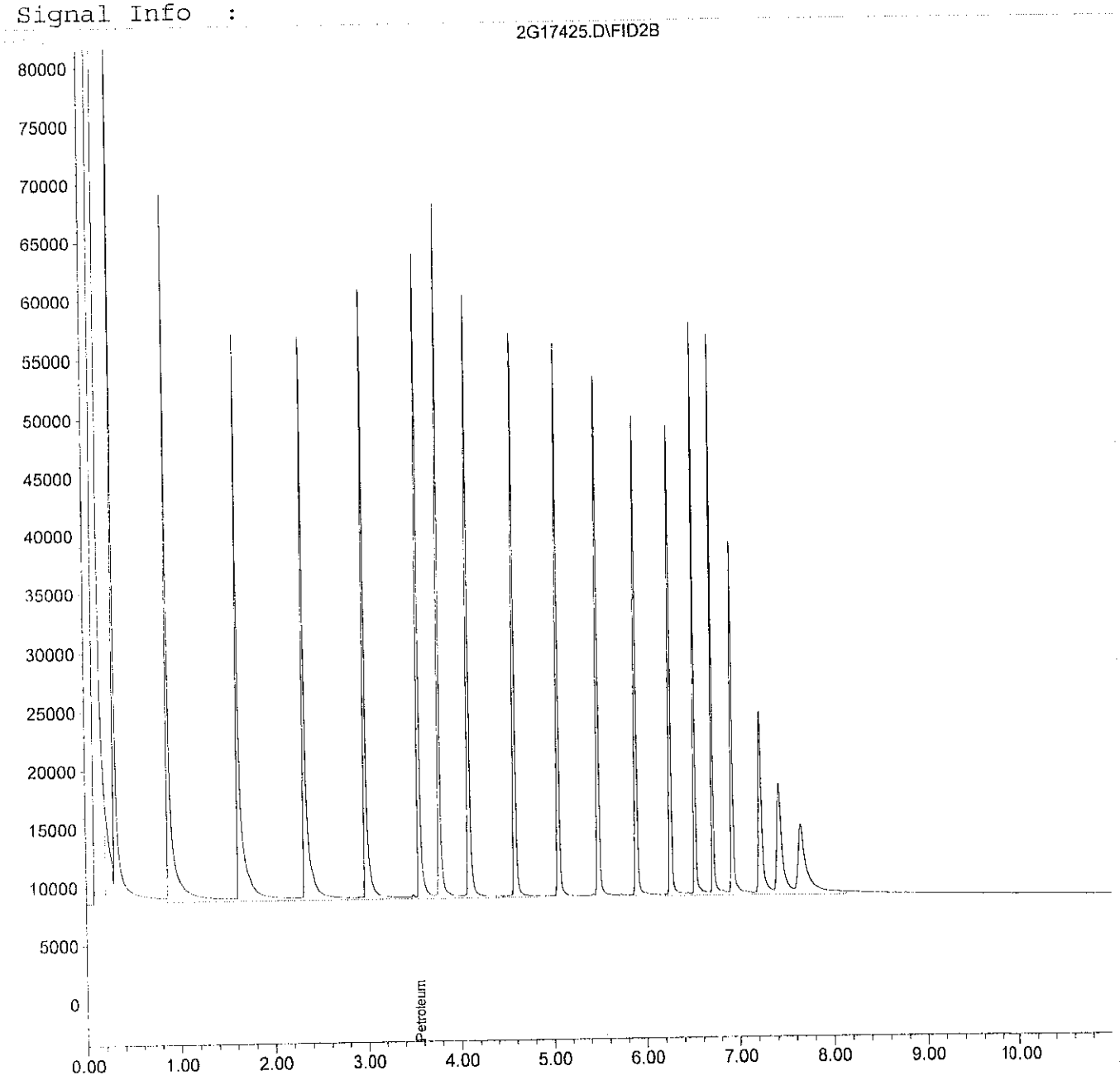
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\[illegible]
Acq On : 21 Dec 2001 13:05
Sample : WG110458-02 PRO @50ppm
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 :



Data File : C:\HPCHEM\1\DATA\122101\2G17426.D
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

Vial: 5
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 : 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.

Data File : C:\...

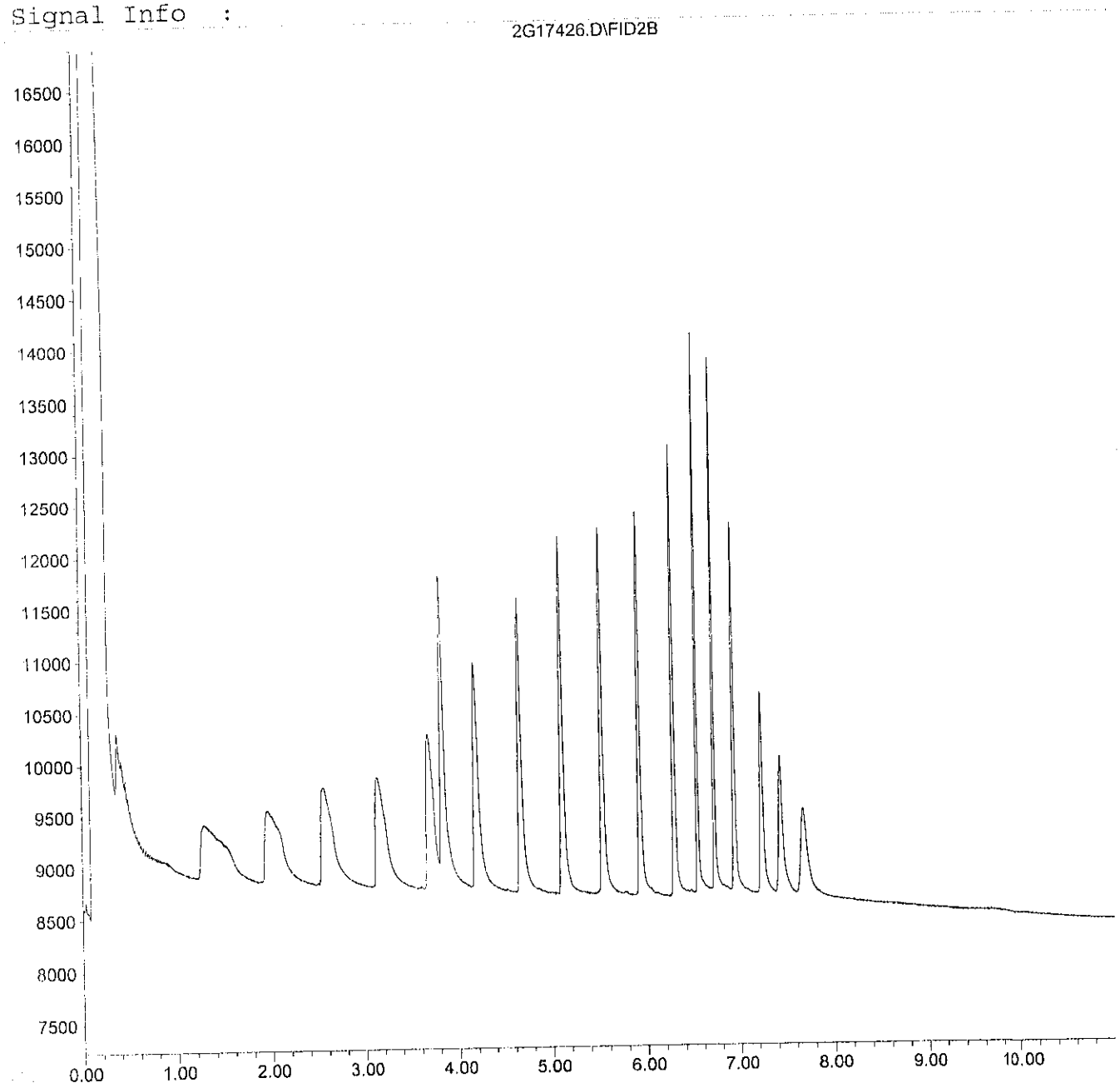
Acq On : 21 Dec 2001 13:20
Sample : WG110458-01 PRO @5ppm
Misc : 1,1 SOS56-21
IntFile : PETRO.E

Operator: HV
Inst : hp2
Multiplr: 1.00

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: 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

Data File : C:\HPCHEM\1\DATA\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 : 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

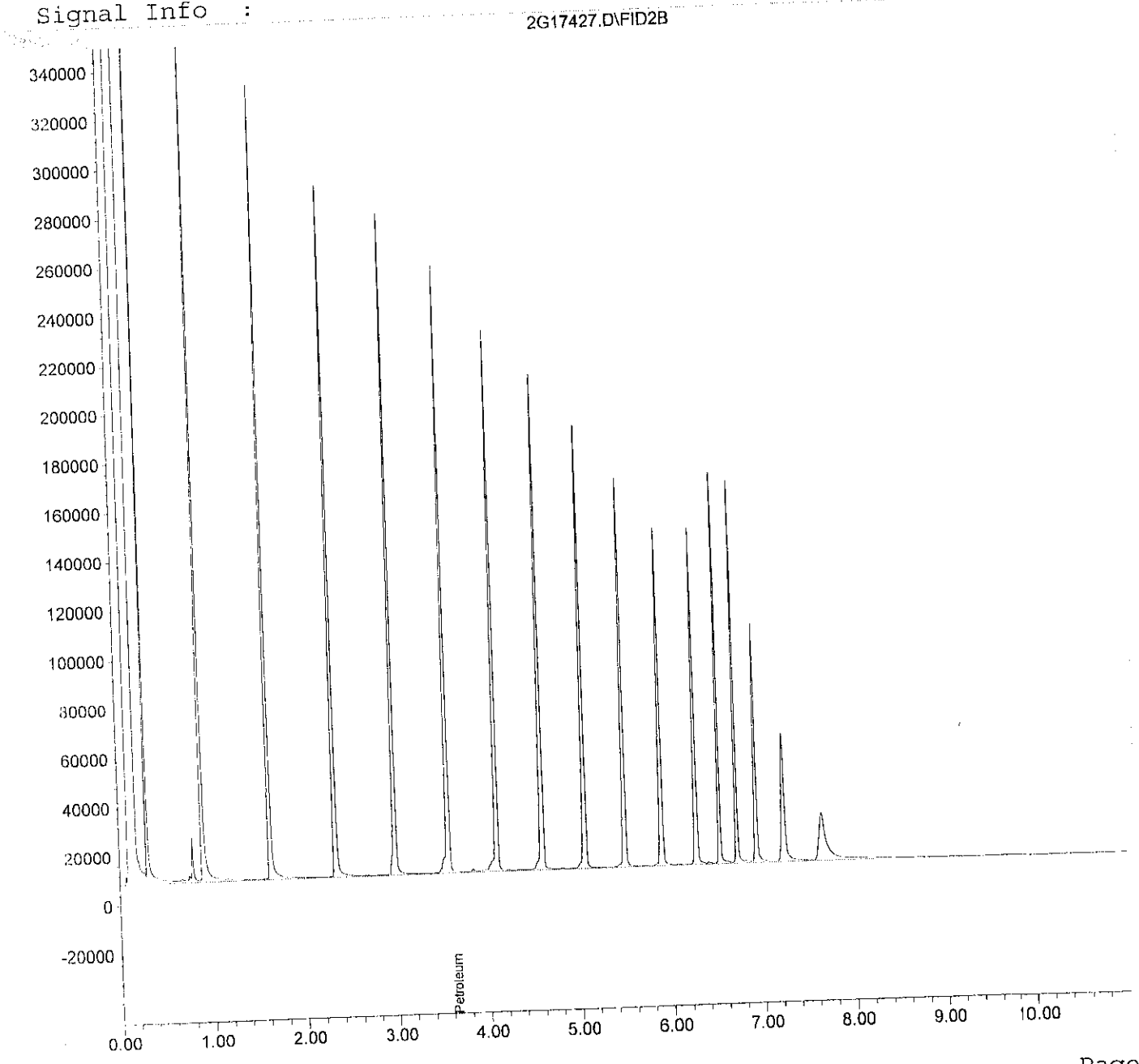
(f) =RT Delta > 1/2 Window (m) =manual int.
2G17427.D FLASHPRO.M Fri Dec 21 14:59:53 2001 Page 1

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\122001\2G17388.D
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

21

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 : 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.
2G17388.D FLASHPRO.M Fri Dec 21 11:10:55 2001 Page 1

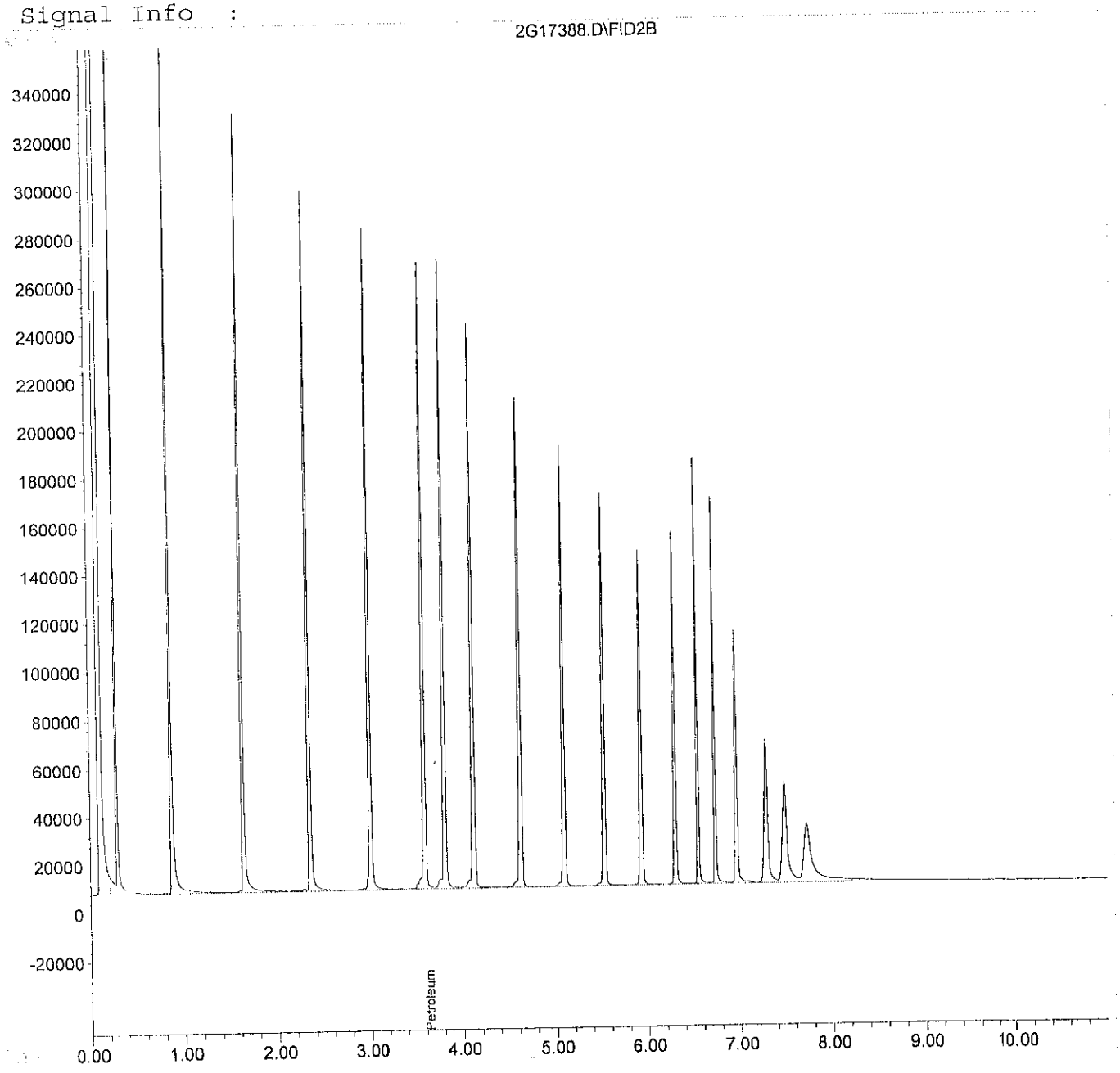
Data File : C:\HPCHEM\1\DATA\[illegible]

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\122001\2G17395.D
Acq On : 20 Dec 2001 20:35
Sample : WG110451-09 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 12/13/01
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	3910.126	-15.0#	132	0.00
2	s	O-Terphenyl	200.000	233.637	-16.8#	138	0.01
3	s	n-Nonatriacontane	200.000	238.096	-19.0#	134	-0.09

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G17395.D FLASHPRO.M Fri Dec 21 11:11:55 2001 Page 1

Data File : C:\HPCHEM\1\DATA\122001\2G17395.D
Acq On : 20 Dec 2001 20:35
Sample : WG110451-09 PRO CCV
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 21 10:10 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 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	4554361	233.637 ppb
Spiked Amount 20.000	Range 49 - 174	Recovery	= 1168.19%#
3) s n-Nonatriacontane	7.38f	1910590	238.096 ppm
Spiked Amount 20.000		Recovery	= 1190.48%
Target Compounds			
1) H Petroleum Range	3.64	59973637	3910.126 ppb

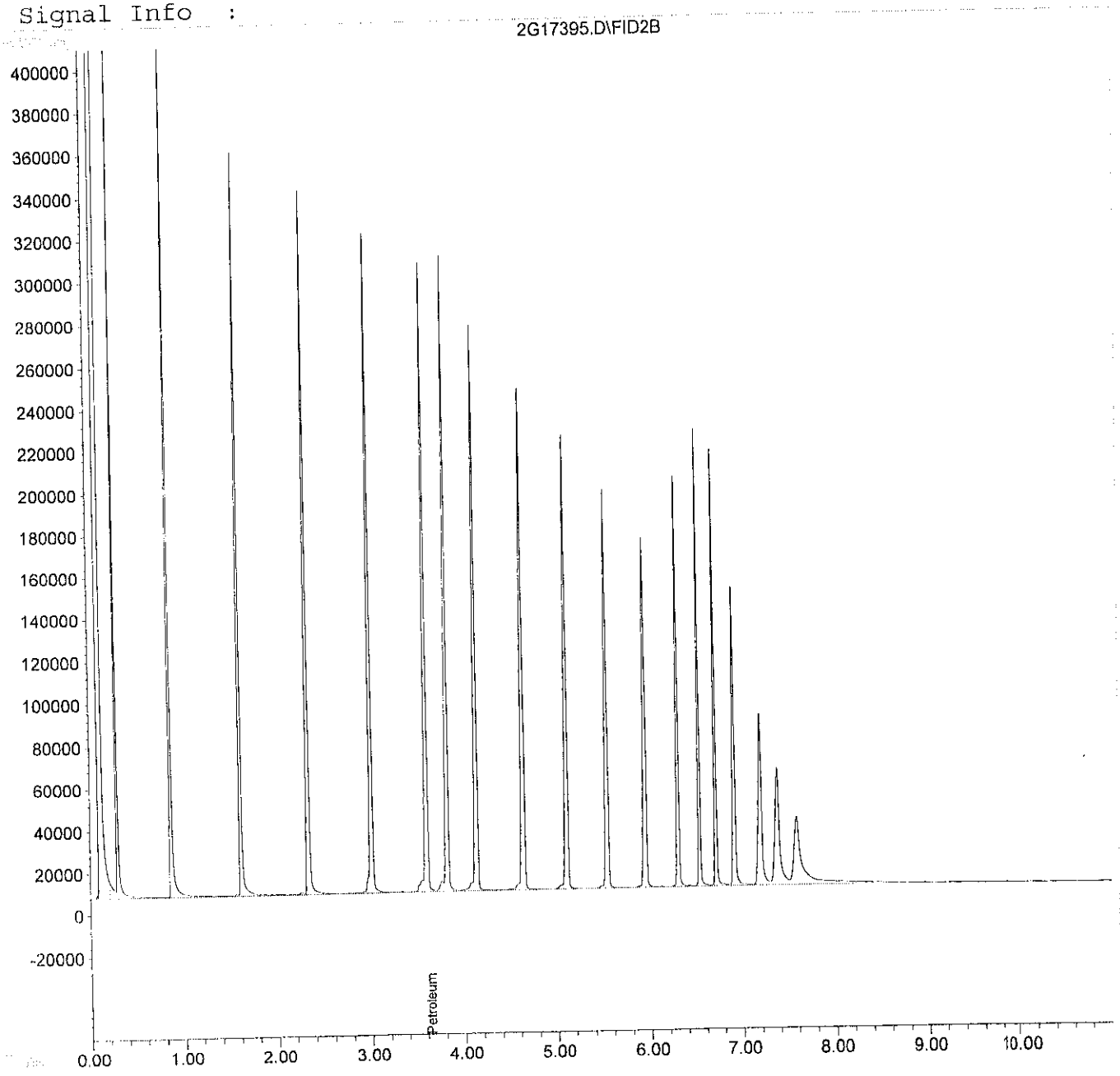
(f)=RT Delta > 1/2 Window
(m)=manual int.
2G17395.D FLASHPRO.M Fri Dec 21 11:11:59 2001 Page

Data File : C:\HPCHEM\1\DATA\[illegible]
Acq On : 20 Dec 2001 20:35
Sample : WG110451-09 PRO CCV
Misc : 1,1 SOS56-21
IntFile : PETRO.E
Quant Time: Dec 21 10:10 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 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 : 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

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)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G17433.D FLASHPRO.M Fri Dec 21 15:37:09 2001 Page

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
Quant Time: Dec 21 15:23 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 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

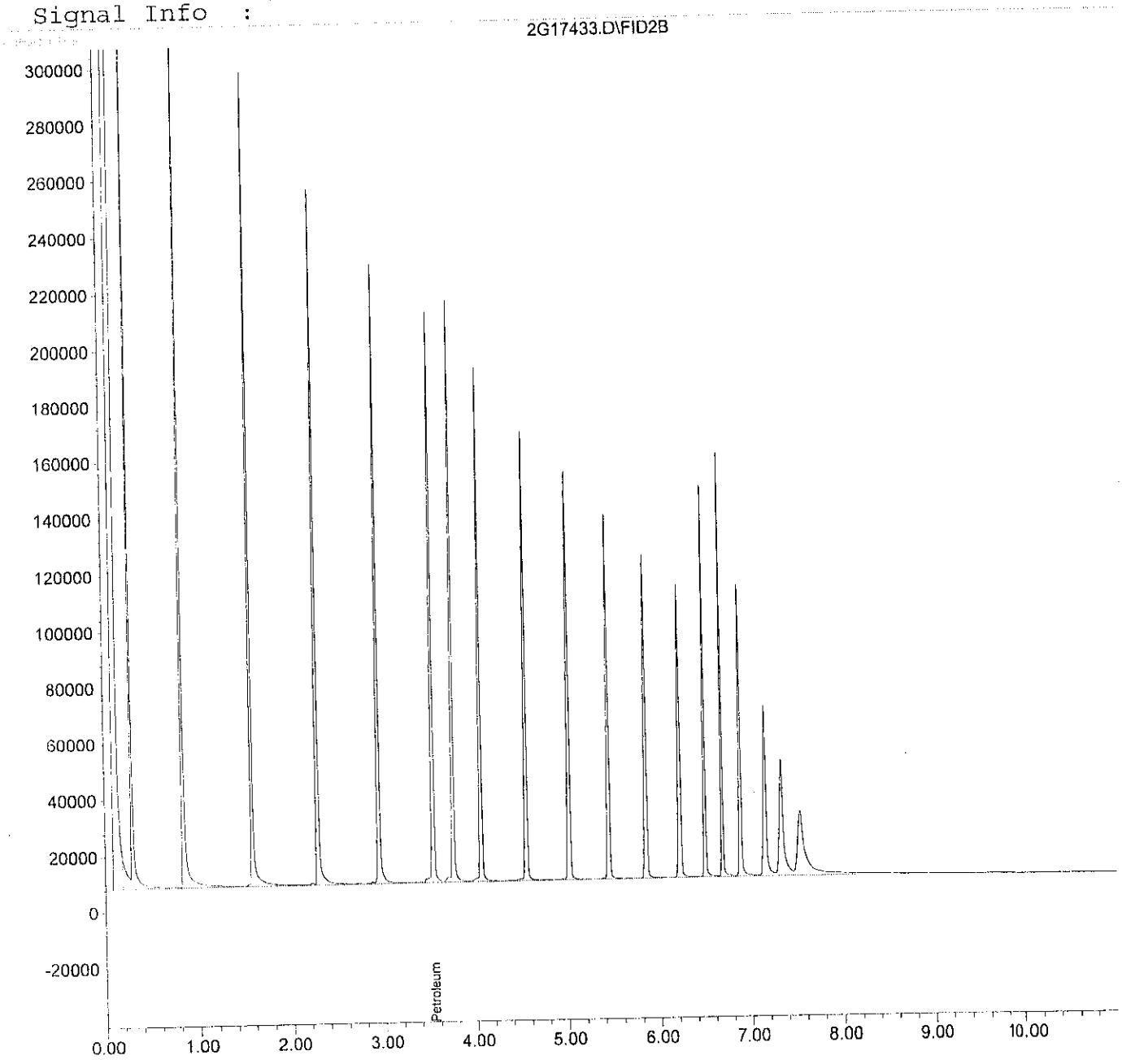
(f)=RT Delta > 1/2 Window
(m)=manual int.

Data File : C:\HPCHEM\1\DATA\2G17433.D
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 : D:\...

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

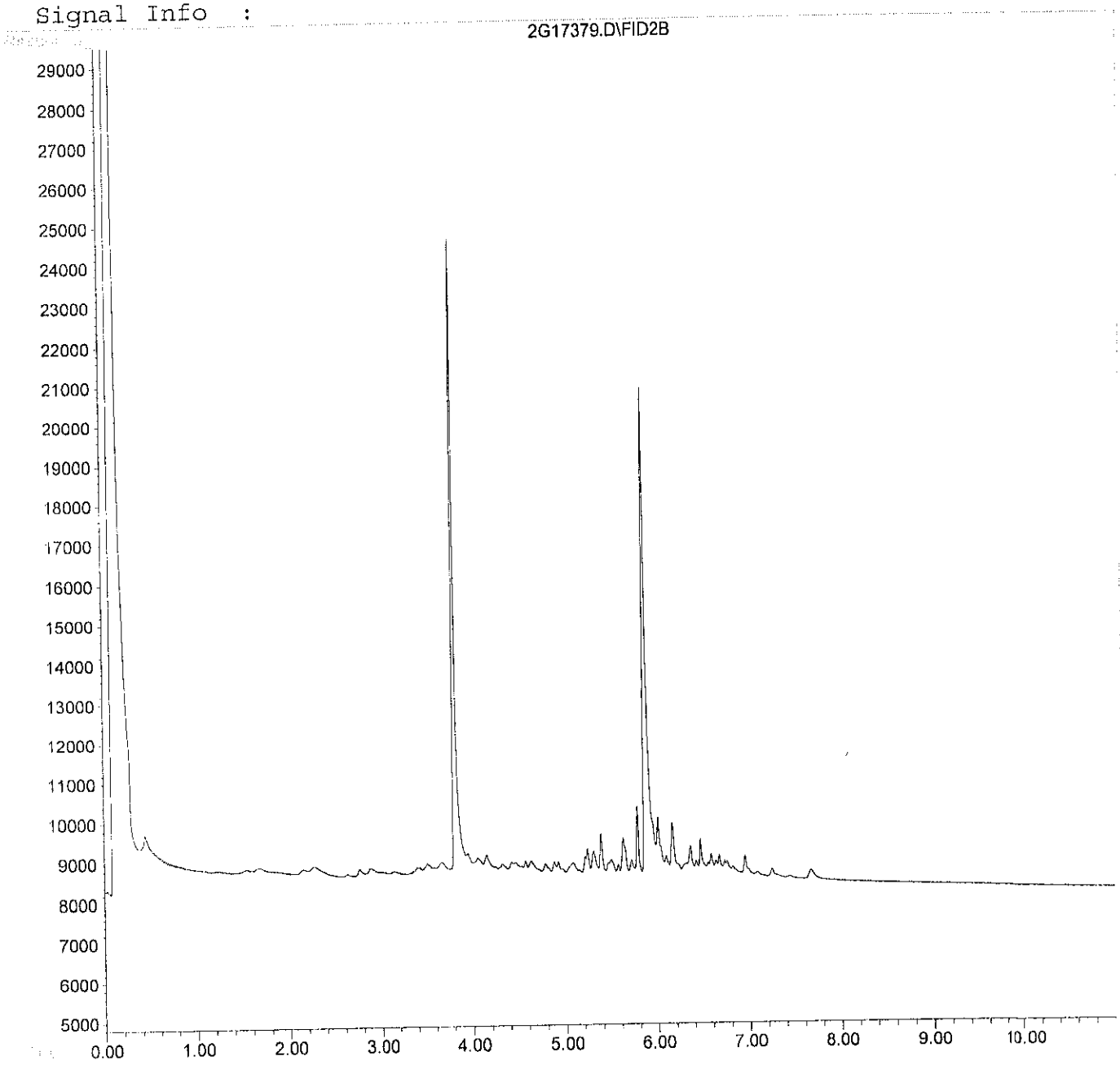
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\[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\DATA\2G17380.D

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

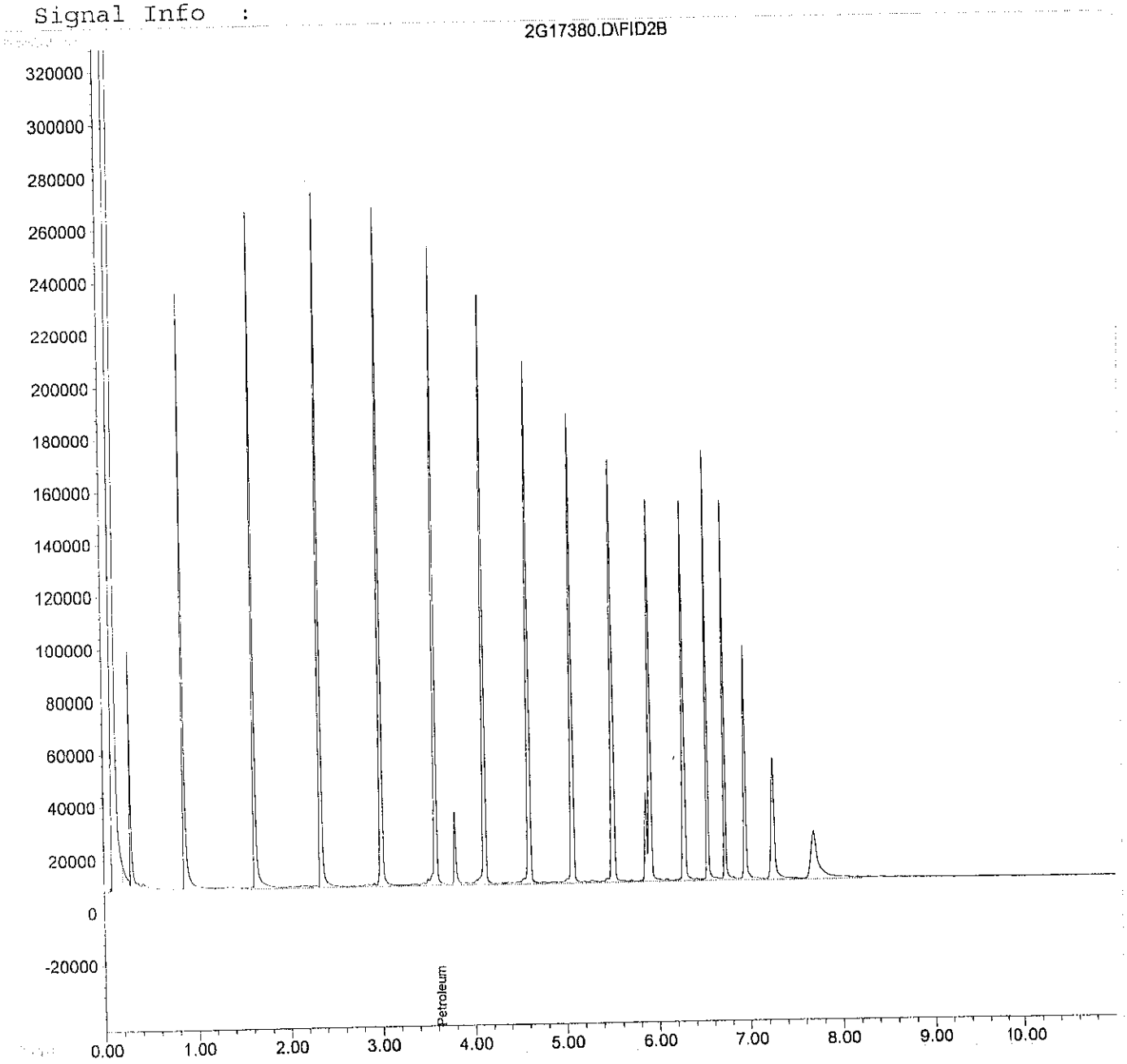
(f)=RT Delta > 1/2 Window (m)=manual int.

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 :



2G17380.D FLASHPRO.M Fri Dec 21 10:09:40 2001 Page

ine	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 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 12::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 [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 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
36	38	2g17409.d	1.1	L0112366-10 PRO water	1,1 water	21 Dec 101 13::1
37	39	2g17410.d	1.05	L0112366-11 PRO water	1,1 water	21 Dec 101 13::2
38	40	2g17411.d	1.	L0112366-12 PRO water	1,1 water	21 Dec 101 13::4
39	41	2g17412.d	1.08	L0112366-13 PRO water	1,1 water	21 Dec 101 [illegible]
30	42	2g17413.d	1.08	L0112366-14 PRO water	1,1 water	21 Dec 101 [illegible]
31	43	2g17414.d	1.07	L0112366-15 PRO water	1,1 water	21 Dec 101 [illegible]
32	44	2g17415.d	1.08	L0112366-16 PRO water	1,1 water	21 Dec 101 12::4
33	2	2g17416.d	1.	mecl2	1,1 water	21 Dec 101 12::5
34	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 15200l
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

2q17395 - PNO CCV - failed high

Reviewed By: md 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	[illegible]	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 [illegible]
10	10	2g17427.d	1.		WG110458-07 ALT @200ppm	1,1 SOS56-26	21 Dec 101 [illegible]
11	1	2g17428.d	1.06		L0112348-07 PRO water	1,1 water	21 Dec 101 1 ::5
12	2	2g17429.d	1.05		L0112348-08 PRO water	1,1 water	21 Dec 101 1::0
13	3	2g17430.d	1.		L0112348-09 PRO water	1,1 water	21 Dec 101 1 ::2
14	4	2g17431.d	1.08		L0112349-02 PRO water	1,1 water	21 Dec 101 1 ::4
15	5	2g17432.d	10.7		L0112349-01 10x PRO water	1,1 water	21 Dec 101 1::0
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 1[illegible]
22	12	2g17439.d	1.08		L0112366-02 PRO water	1,1 water	21 Dec 101 1::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 12::7

HV 12/26/01
mecl 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 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 17444 - RE - low in surrogate rec.

Reviewed By: [signature] 12/26/01

Sample Extract Log Sheet

Volume 177
Page 181

Parameter: FLAPRO thg SOP #: EXPRO Revision #: 2
Extraction Analyst(s): CSH REK TV/KD Analyst(s): CSH
Date/Time Extracted: 12/19/01 11:15 Date TV/KD: 12/19/01
Spike/Surrogate Analyst: CSH Witness: JDS
Surrogate #: E5500 39-37 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: 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	1ml		1ml	T				WG 110258-02
2	LCS		✓			1L		1ml						WG 110258-03
3	12-349-01	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		1L					1	WG 110258-05
9	07		✓			1L								
10	08		✓			950ml								
11	09		✓			1L								
12	12-349-01		✓			930ml								
13	1 02		✓			920ml	1		1	1				
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: _____ Date: 12/19/01

Extraction Notes For Volume # 177 Page # 191

General Comments: * MS of 12-349-04
MSD of ↓

Extraction Anomalies: nothing to report

Concentration Anomalies: NONE

Clean-Up Anomalies: NONE

Supervisor Review: _____ Date: _____

Analyst: [illegible]
Method: 8016 - PRO walk (12348 (1-9) [illegible]
Instrument: HP2
Work Group: WG 110316 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 [illegible] 12/21/01

Secondary Reviewer 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 [illegible] 12/21/01

Comments: sample 12349-01 fraction required dilution analysis

✓ - Checked & OK
NA - Not Applicable
DL - Diluted Out

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)]

		Example:
Where: 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)]

		Example:
Ax = Area of the compound being measured		10000
Vf = Final volume of sample extract (mL).		1
Where: 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.: L0112348

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 yielded percent recoveries for two analytes which were above the advisory limit for percent reproducibility.

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: 12/28/01

Rev. 7/14/00

PAH HPLC DATA (8310)

Login Number: L0112348

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: RDC 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											BLK	LCS	LCS2	MS	MSD
	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					
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	75.2		10	92	NA	57.0	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

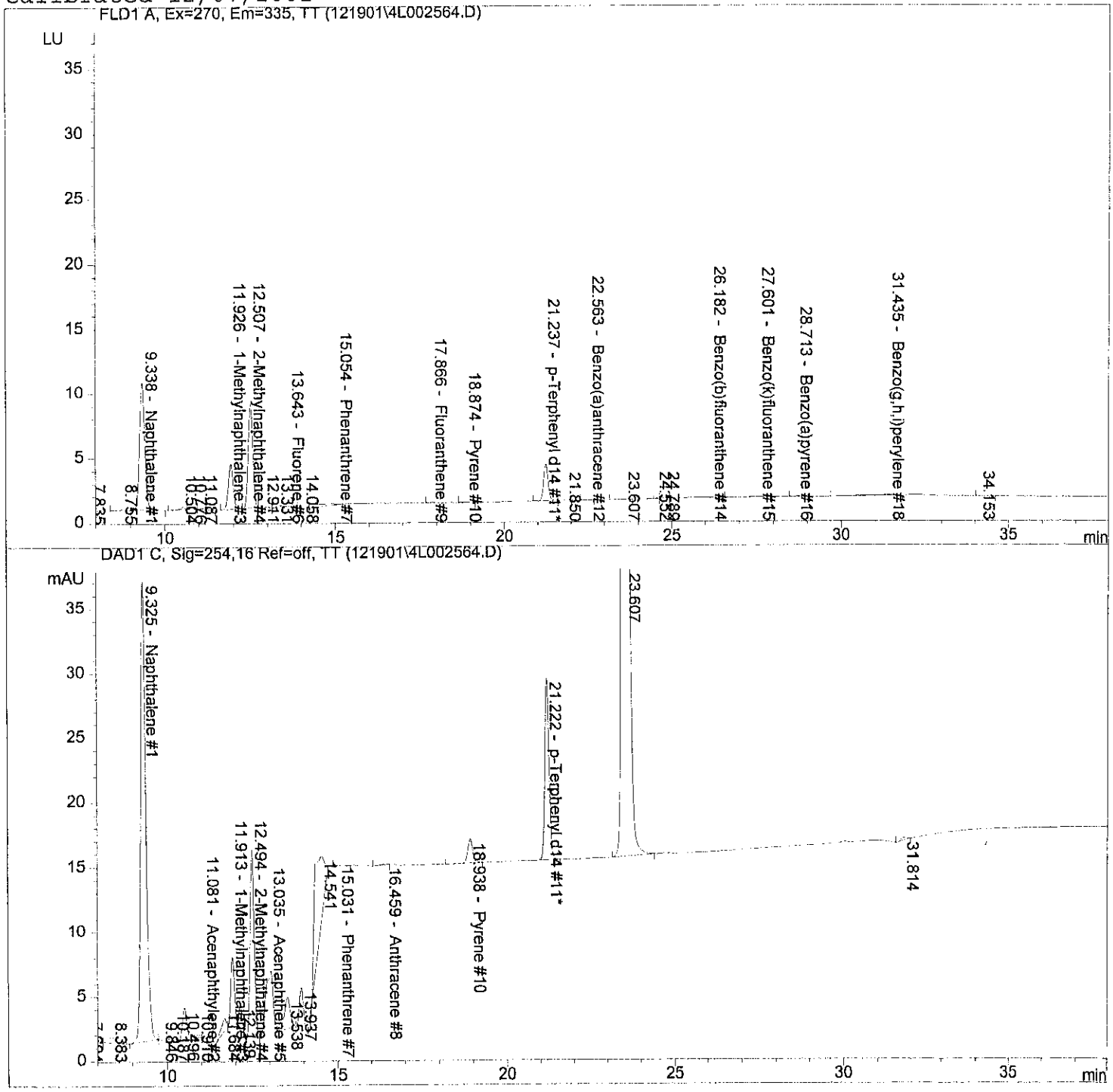
H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

2.2.7.2 Sample Data

Injection Date : 12/19/2001 6:13:34 PM
Sample Name : L0112348-01 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 : 11/26/2001 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
9.338	BBA	103.87308	2.64309e-2	2.74545	C	Naphthalene #1
11.926	BB	35.32168	2.30826e-2	8.15315e-1	F	1-Methylnaphthalene #3
12.507	BB	76.74249	1.77135e-2	1.35938		2-Methylnaphthalene #4
13.080		-	-	-		Acenaphthene #5
13.643	BB	5.52176	6.55799e-3	3.62116e-2		Fluorene #6
15.054	BB	7.05435	1.72114e-1	1.21415		Phenanthrene #7
16.532		-	-	-		Anthracene #8
17.866	PBA	3.19869e-1	2.51883e-2	8.05695e-3		Fluoranthene #9
18.874	BBA	2.17851e-1	4.52106e-2	9.84917e-3		Pyrene #10
21.237	BB	27.76685	2.98861e-1	8.29844		p-Terphenyl d14 #11*
22.563	BB	3.01321e-1	8.29841e-3	2.50048e-3		Benzo(a)anthracene #12
23.431		-	-	-		Chrysene #13
26.182	BB	1.14165	1.66521e-2	1.90110e-2		Benzo(b)fluoranthene #14
27.601	BB	7.09907e-1	2.77713e-3	1.97151e-3		Benzo(k)fluoranthene #15
28.713	BBA	5.47077e-1	5.23910e-3	2.86619e-3		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.435	PB	3.93043	3.02212e-2	1.18782e-1		Benzo(g,h,i)perylene #18
32.273		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 14.63199

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	BB	368.49731	8.11569e-3	2.99061		Naphthalene #1
11.081	BB	8.78415e-1	2.94003e-2	2.58257e-2		Acenaphthylene #2
11.913	BB	39.16051	1.26957e-2	4.97170e-1	F	1-Methylnaphthalene #3
12.494	BB	128.59416	1.10418e-2	1.41991		2-Methylnaphthalene #4
13.035	BB	71.93050	1.99953e-2	1.43827		Acenaphthene #5
13.719		-	-	-		Fluorene #6
15.031	BB	3.54657	1.70751e-2	6.05581e-2		Phenanthrene #7
16.459	BB	1.23378	1.03316e-2	1.27469e-2		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.938	PBA	19.38229	1.42346e-2	2.75899e-1		Pyrene #10
21.222	BBA	125.23199	6.51566e-2	8.15969		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 : 14.88068

Results obtained with enhanced integrator!
2 Warnings or Errors :

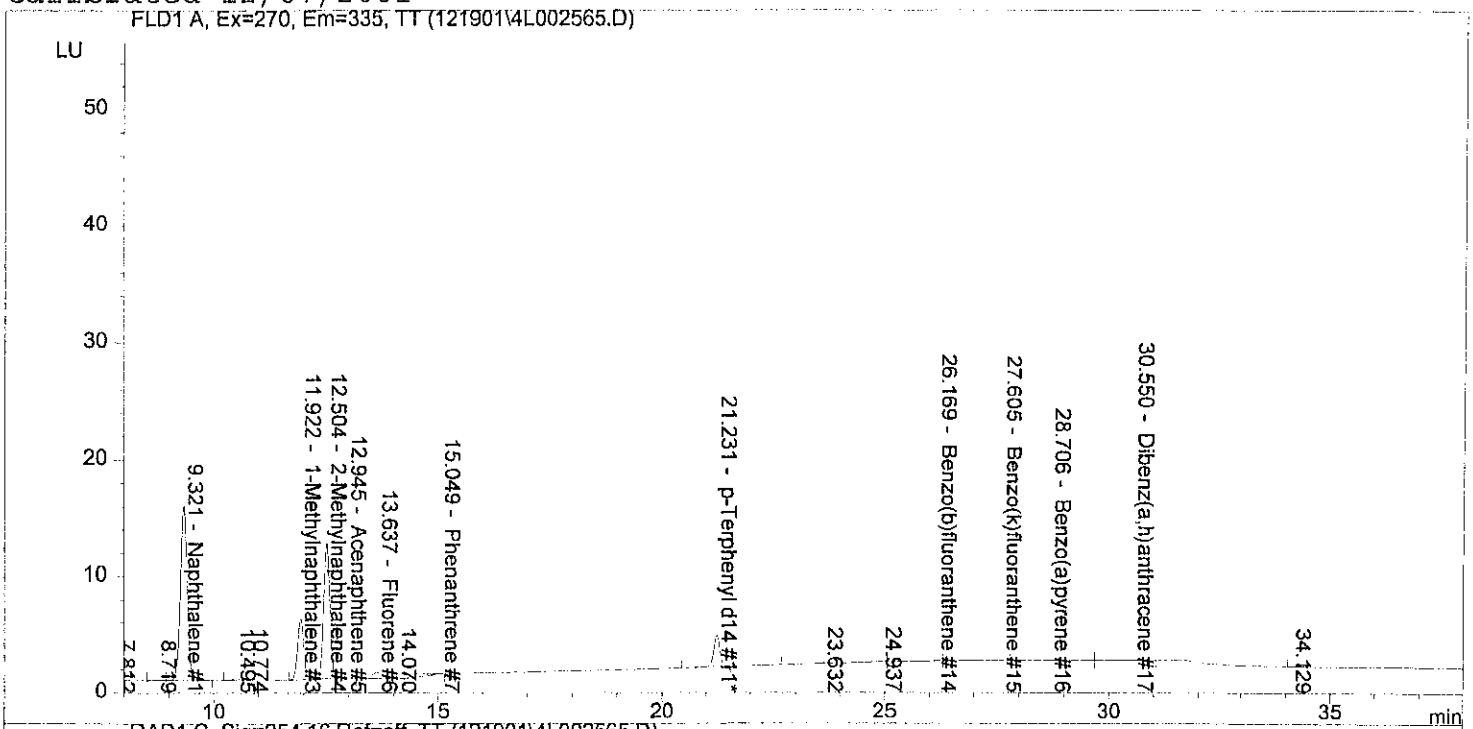
Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

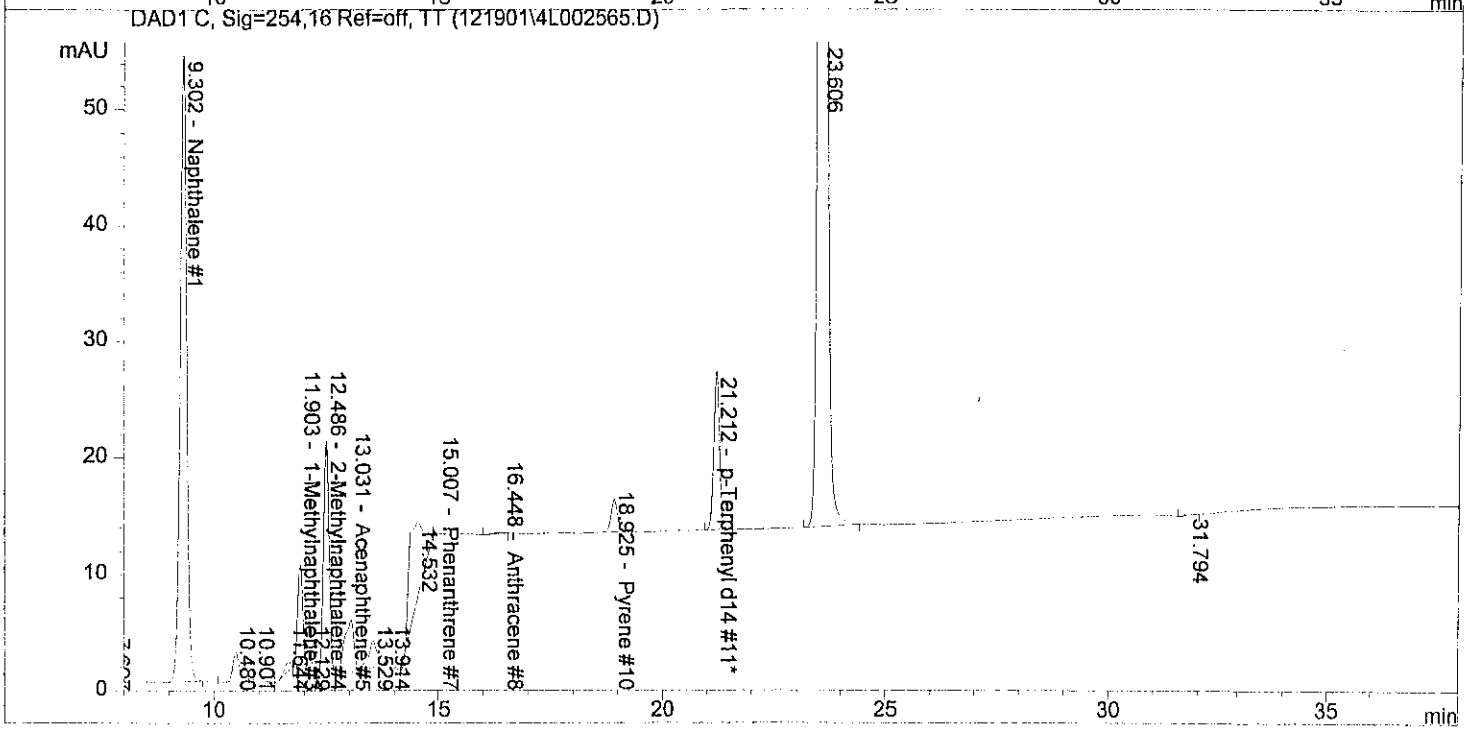
==========

*** End of Report ***

Injection Date : 12/19/2001 7:10:11 PM Seq. Line : 12
Sample Name : L0112348-02 831W Vial : 12
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
9.321	BBA	161.48912	2.64309e-2	4.26830	C	Naphthalene #1
11.922	BB	52.57372	2.30826e-2	1.21354	C	1-Methylnaphthalene #3
12.504	BB	111.79813	1.77135e-2	1.98034	C	2-Methylnaphthalene #4
12.945	BB	1.16055	1.41307e-2	1.63993e-2		Acenaphthene #5
13.637	BB	9.62990	6.55799e-3	6.31528e-2		Fluorene #6
15.049	BB	7.77686	1.72114e-1	1.33850		Phenanthrene #7
16.532		-	-	-		Anthracene #8
17.907		-	-	-		Fluoranthene #9
18.912		-	-	-		Pyrene #10
21.231	BB	26.34203	2.98861e-1	7.87261		p-Terphenyl d14 #11*
22.562		-	-	-		Benzo(a)anthracene #12
23.431		-	-	-		Chrysene #13
26.169	BB	2.94076e-1	1.66521e-2	4.89700e-3		Benzo(b)fluoranthene #14
27.605	BB	5.40889e-1	2.77713e-3	1.50212e-3		Benzo(k)fluoranthene #15
28.706	BB	1.71016	5.23910e-3	8.95972e-3		Benzo(a)pyrene #16
30.550	BB	2.40247	4.06442e-2	9.76466e-2		Dibenz(a,h)anthracene #17
31.334		-	-	-		Benzo(g,h,i)perylene #18
32.273		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 16.86585

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
9.302	BBA	547.05341	8.11569e-3	4.43971		Naphthalene #1
11.059		-	-	-		Acenaphthylene #2
11.903	BB	70.76947	1.26957e-2	8.98467e-1	F	1-Methylnaphthalene #3
12.486	BB	180.40497	1.10418e-2	1.99199		2-Methylnaphthalene #4
13.031	BB	63.54881	1.99953e-2	1.27068	NC	Acenaphthene #5
13.719		-	-	-		Fluorene #6
15.007	BB	2.26254	1.70751e-2	3.86331e-2	MDL	Phenanthrene #7
16.448	BB	1.30213	1.03316e-2	1.34531e-2		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.925	BBA	29.40895	1.42346e-2	4.18625e-1	NC	Pyrene #10
21.212	PBA	120.28055	6.51566e-2	7.83707		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 : 16.90863

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

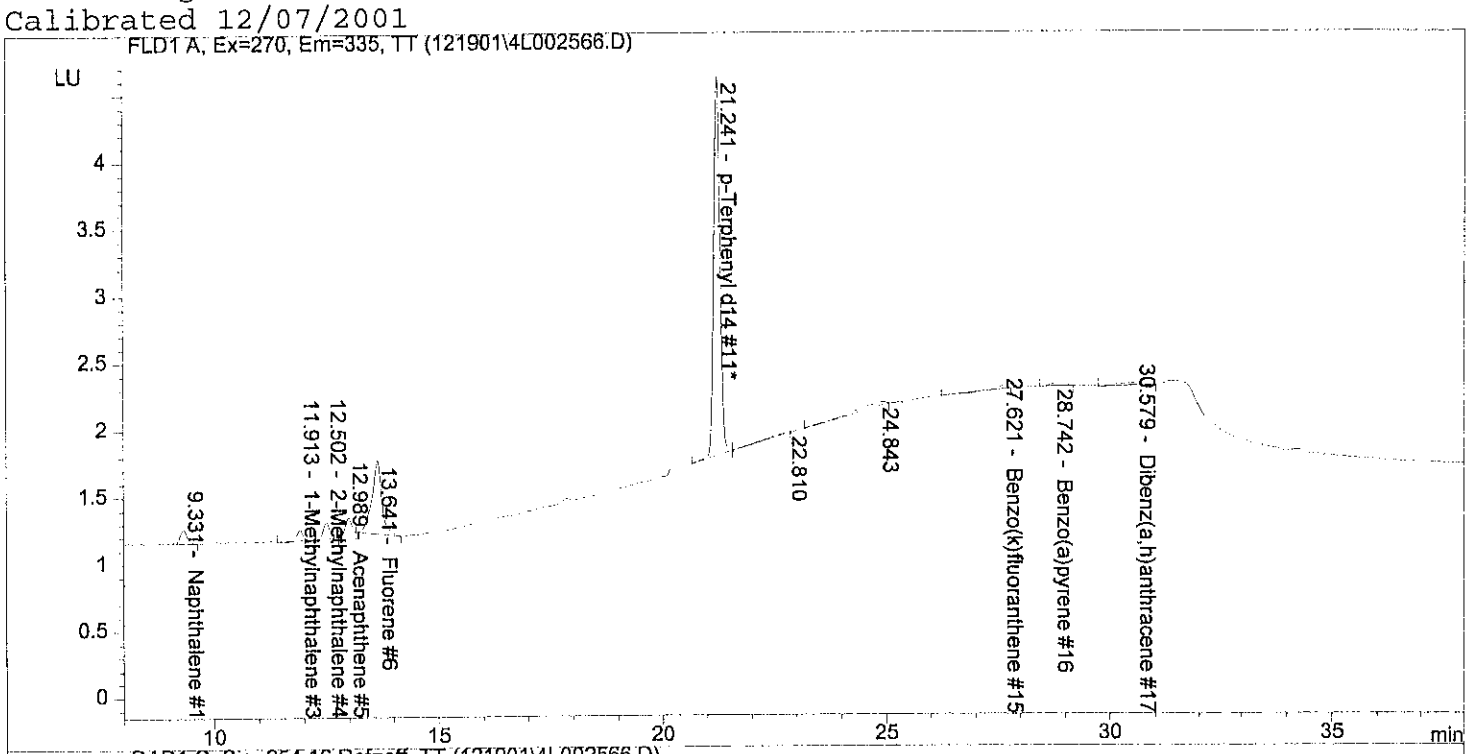
==========

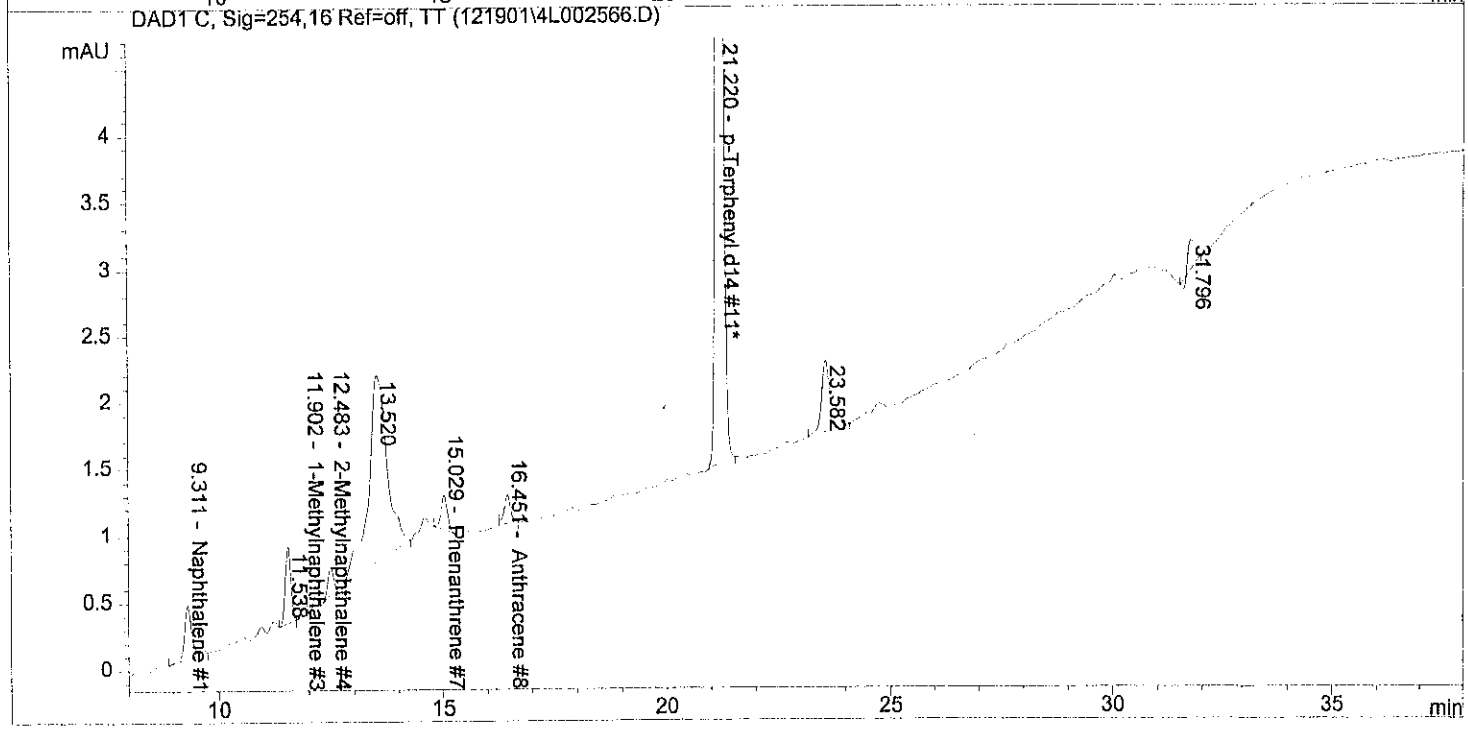
*** End of Report ***

Injection Date : 12/19/2001 8:06:47 PM
Sample Name : L0112348-03 831W
Acq. Operator : RDC

Seq. Line : 13
Vial : 13
Inj : 1
Inj Volume : 8 µl

Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 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





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
9.331	BBA	1.21623	2.64309e-2	3.21460e-2		Naphthalene #1
11.913	BB	7.66201e-1	2.30826e-2	1.76859e-2		1-Methylnaphthalene #3
12.502	BB	1.30368	1.77135e-2	2.30927e-2		2-Methylnaphthalene #4
12.989	BB	1.17926	1.41307e-2	1.66637e-2		Acenaphthene #5
13.641	BB	8.61432	6.55799e-3	5.64926e-2		Fluorene #6
15.126		-	-	-		Phenanthrene #7
16.532		-	-	-		Anthracene #8
17.907		-	-	-		Fluoranthene #9
18.912		-	-	-		Pyrene #10
21.241	BB	27.71379	2.98861e-1	8.28258		p-Terphenyl d14 #11*
22.562		-	-	-		Benzo(a)anthracene #12
23.431		-	-	-		Chrysene #13
26.140		-	-	-		Benzo(b)fluoranthene #14
27.621	BB	2.20075e-1	2.77713e-3	6.11179e-4		Benzo(k)fluoranthene #15
28.742	BB	2.80492e-1	5.23910e-3	1.46953e-3		Benzo(a)pyrene #16
30.579	BB	7.11161e-1	4.06442e-2	2.89046e-2		Dibenz(a,h)anthracene #17
31.334		-	-	-		Benzo(g,h,i)perylene #18
32.273		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.45964

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
9.311	PB	4.61451	8.11569e-3	3.74499e-2		Naphthalene #1
11.059		-	-	-		Acenaphthylene #2
11.902	BB	1.00853	1.26957e-2	1.28040e-2		1-Methylnaphthalene #3
12.483	BB	1.69298	1.10418e-2	1.86935e-2		2-Methylnaphthalene #4
13.062		-	-	-		Acenaphthene #5
13.719		-	-	-		Fluorene #6
15.029	BB	2.44045	1.70751e-2	4.16709e-2		Phenanthrene #7
16.451	BBA	2.14060	1.03316e-2	2.21157e-2		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.891		-	-	-		Pyrene #10
21.220	BBA	125.47797	6.51566e-2	8.17571		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 : 8.30845

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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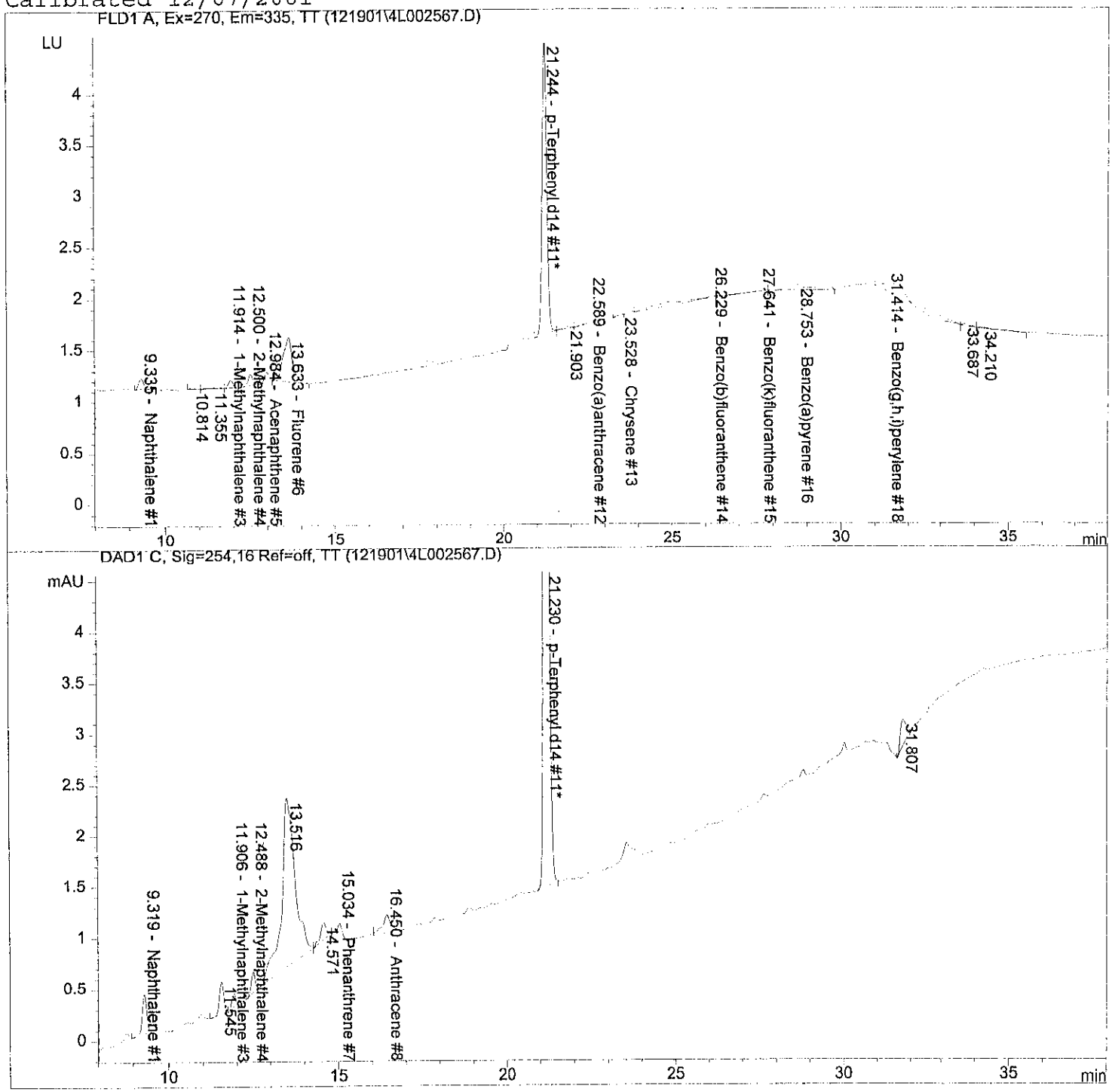
*** End of Report ***

Injection Date : 12/19/2001 9:03:26 PM
Sample Name : WG110257-01 WREF
Acq. Operator : RDC

Seq. Line : 14
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 : 12/10/2001 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
9.335	BB	1.12169	2.64309e-2	2.96472e-2		Naphthalene #1
11.914	BB	8.02836e-1	2.30826e-2	1.85315e-2		1-Methylnaphthalene #3
12.500	BBA	1.11381	1.77135e-2	1.97295e-2		2-Methylnaphthalene #4
12.984	PB	8.89896e-1	1.41307e-2	1.25748e-2		Acenaphthene #5
13.633	BB	8.30590	6.55799e-3	5.44700e-2		Fluorene #6
15.126		-	-	-		Phenanthrene #7
16.532		-	-	-		Anthracene #8
17.907		-	-	-		Fluoranthene #9
18.912		-	-	-		Pyrene #10
21.244	BB	27.55216	2.98861e-1	8.23427		p-Terphenyl d14 #11*
22.589	BB	3.87899e-1	8.29841e-3	3.21894e-3		Benzo(a)anthracene #12
23.528	BB	1.86622e-1	4.07647e-2	7.60758e-3		Chrysene #13
26.229	BB	2.64005	1.66521e-2	4.39625e-2		Benzo(b)fluoranthene #14
27.641	BB	4.59694e-1	2.77713e-3	1.27663e-3		Benzo(k)fluoranthene #15
28.753	BB	2.37482	5.23910e-3	1.24419e-2		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.414	BB	1.20787	3.02212e-2	3.65033e-2		Benzo(g,h,i)perylene #18
32.273		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 8.47424

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	3.45824	8.11569e-3	2.80660e-2		Naphthalene #1
11.059		-	-	-		Acenaphthylene #2
11.906	BB	9.31377e-1	1.26957e-2	1.18245e-2		1-Methylnaphthalene #3
12.488	BB	1.63209	1.10418e-2	1.80211e-2		2-Methylnaphthalene #4
13.062		-	-	-		Acenaphthene #5
13.719		-	-	-		Fluorene #6
15.034	BB	1.23089	1.70751e-2	2.10175e-2		Phenanthrene #7
16.450	BB	3.02546	1.03316e-2	3.12578e-2		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.891		-	-	-		Pyrene #10
21.230	PBA	124.62864	6.51566e-2	8.12038		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 : 8.23056

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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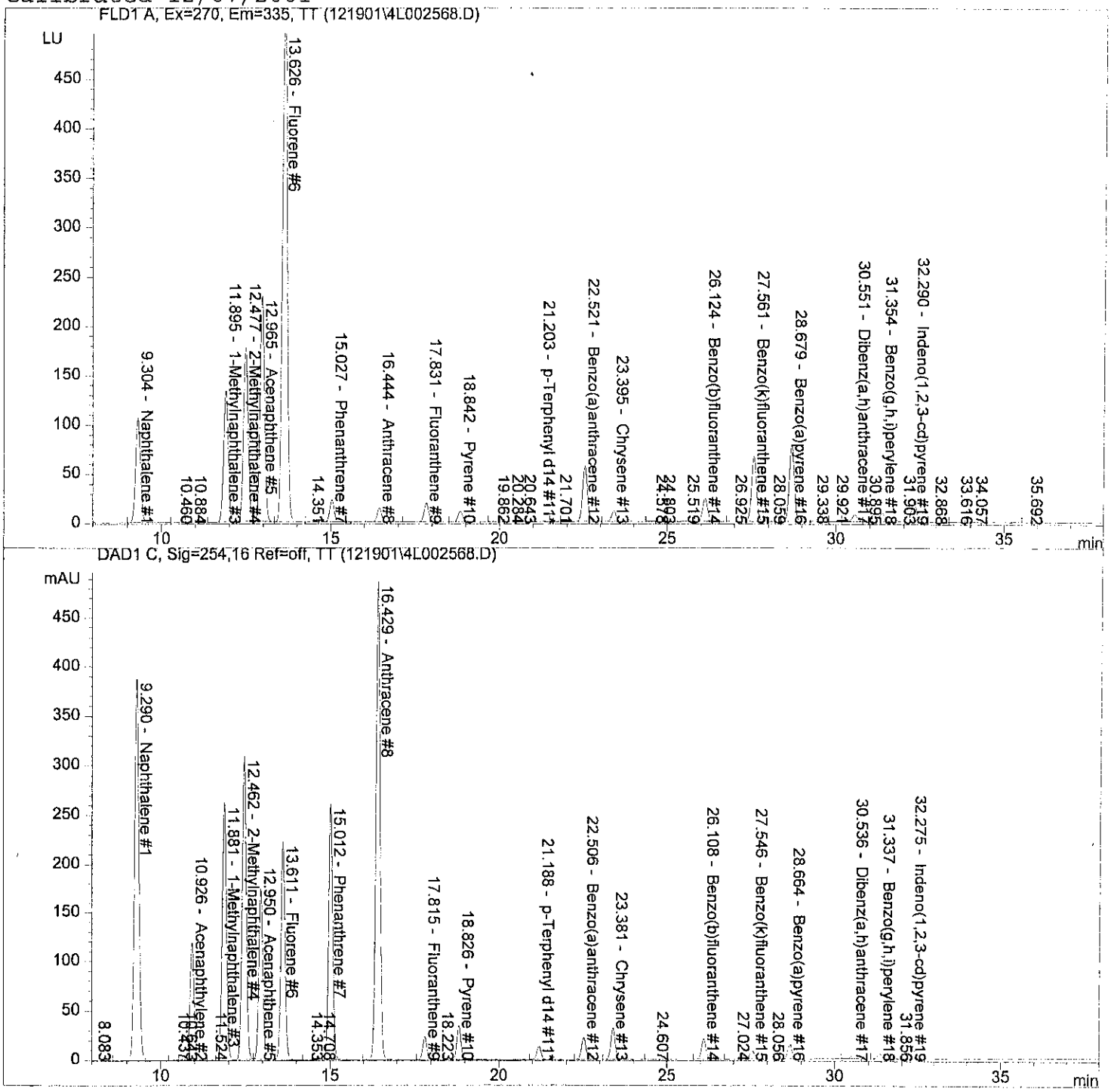
*** End of Report ***

Injection Date : 12/19/2001 10:00:04 PM Seq. Line : 15
Sample Name : WG110257-04 WMS Vial : 15
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
9.304	BB	1040.68518	2.64309e-2	27.50620		Naphthalene #1
11.895	BB	1249.85339	2.30826e-2	28.84981		1-Methylnaphthalene #3
12.477	BB	1654.06836	1.77135e-2	29.29941		2-Methylnaphthalene #4
12.965	BB	2146.97925	1.41307e-2	30.33824		Acenaphthene #5
13.626	BB	5113.87354	6.55799e-3	33.53672		Fluorene #6
15.027	BBA	216.59740	1.72114e-1	37.27936		Phenanthrene #7
16.444	BB	137.02783	3.11763e-1	42.72027		Anthracene #8
17.831	BB	187.06244	2.51883e-2	4.71179		Fluoranthene #9
18.842	BB	106.09272	4.52106e-2	4.79651		Pyrene #10
21.203	BB	28.24035	2.98861e-1	8.43995		p-Terphenyl d14 #11*
22.521	BB	556.85730	8.29841e-3	4.62103		Benzo(a)anthracene #12
23.395	BB	110.42200	4.07647e-2	4.50132		Chrysene #13
26.124	BB	250.72308	1.66521e-2	4.17508		Benzo(b)fluoranthene #14
27.561	BB	683.65186	2.77713e-3	1.89859		Benzo(k)fluoranthene #15
28.679	BB	810.57904	5.23910e-3	4.24671		Benzo(a)pyrene #16
30.551	BB	69.12997	4.06442e-2	2.80973		Dibenz(a,h)anthracene #17
31.354	BB	100.49996	3.02212e-2	3.03723		Benzo(g,h,i)perylene #18
32.290	BB	228.96988	1.37336e-2	3.14458		Indeno(1,2,3-cd)pyrene #1

94.4%

Totals : 275.91253

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	BB	3534.11499	8.11569e-3	28.68177		Naphthalene #1
10.926	BB	1014.83319	2.94003e-2	29.83644		Acenaphthylene #2
11.881	BB	2252.98047	1.26957e-2	28.60315		1-Methylnaphthalene #3
12.462	BB	2652.22021	1.10418e-2	29.28523		2-Methylnaphthalene #4
12.950	BB	1480.92566	1.99953e-2	29.61154		Acenaphthene #5
13.611	BB	1899.97888	1.72604e-2	32.79441		Fluorene #6
15.012	BBA	2190.34985	1.70751e-2	37.40041		Phenanthrene #7
16.429	PBA	4183.20215	1.03316e-2	43.21907		Anthracene #8
17.815	PB	206.32437	2.13939e-2	4.41409		Fluoranthene #9
18.826	BBA	312.48862	1.42346e-2	4.44815		Pyrene #10
21.188	BBA	126.15505	6.51566e-2	8.21983		p-Terphenyl d14 #11*
22.506	PBA	207.65628	2.19558e-2	4.55925		Benzo(a)anthracene #12
23.381	BBA	302.23715	1.48093e-2	4.47593		Chrysene #13
26.108	BBA	203.09769	2.03417e-2	4.13136		Benzo(b)fluoranthene #14
27.546	BB	84.36713	2.21503e-2	1.86876		Benzo(k)fluoranthene #15
28.664	BBA	149.71796	2.80792e-2	4.20396		Benzo(a)pyrene #16
30.536	BB	30.70554	9.27377e-2	2.84756		Dibenz(a,h)anthracene #17

97.2%

[min]		[mAU*s]		[ug/L]		
31.337	BB	56.60865	5.56826e-2	3.15212		Benzo(g,h,i)perylene #18
32.275	BBA	157.14301	2.02125e-2	3.17625		Indeno(1,2,3-cd)pyrene #1

Totals : 304.92926

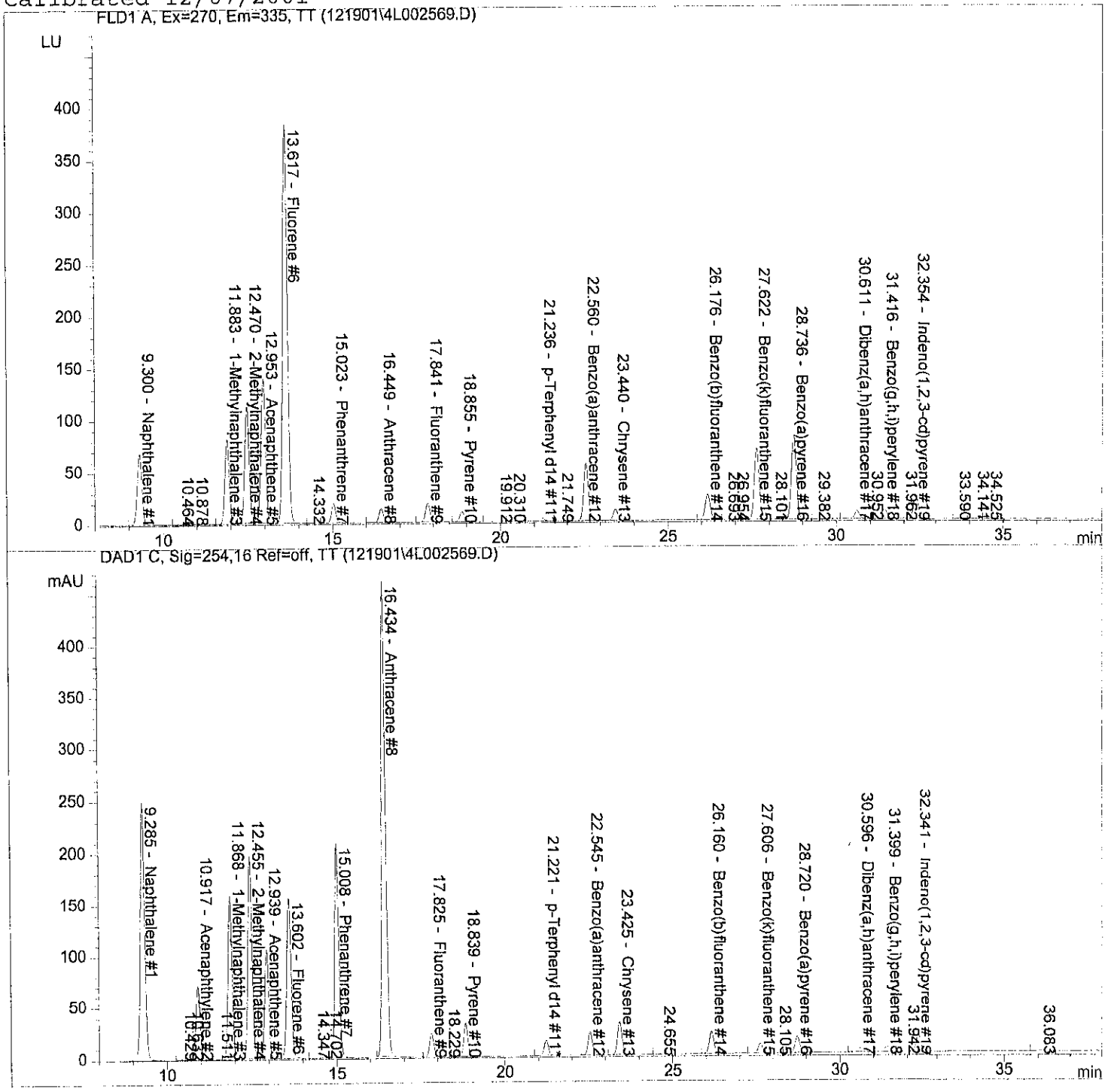
Results obtained with enhanced integrator!

*** End of Report ***

Injection Date : 12/19/2001 10:56:39 PM
Sample Name : WG110257-05 WMSD
Acq. Operator : RDC

Seq. Line : 16
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 : 12/10/2001 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
9.300	BB	664.04749	2.64309e-2	17.55135		Naphthalene #1
11.883	BB	761.11426	2.30826e-2	17.56846		1-Methylnaphthalene #3
12.470	BB	1045.76709	1.77135e-2	18.52424		2-Methylnaphthalene #4
12.953	BB	1284.23499	1.41307e-2	18.14709		Acenaphthene #5
13.617	BB	3552.27515	6.55799e-3	23.29578		Fluorene #6
15.023	BB	169.96104	1.72114e-1	29.25261		Phenanthrene #7
16.449	BB	128.90041	3.11763e-1	40.18643		Anthracene #8
17.841	PBA	174.42210	2.51883e-2	4.39340		Fluoranthene #9
18.855	BBA	99.23349	4.52106e-2	4.48640		Pyrene #10
21.236	BB	28.61153	2.98861e-1	8.55088		p-Terphenyl d14 #11*
22.560	BB	550.25421	8.29841e-3	4.56623		Benzo(a)anthracene #12
23.440	BBA	110.47572	4.07647e-2	4.50351		Chrysene #13
26.176	BB	254.55659	1.66521e-2	4.23891		Benzo(b)fluoranthene #14
27.622	BB	708.84601	2.77713e-3	1.96856		Benzo(k)fluoranthene #15
28.736	BB	830.78247	5.23910e-3	4.35255		Benzo(a)pyrene #16
30.611	BB	74.04343	4.06442e-2	3.00944		Dibenz(a,h)anthracene #17
31.416	BB	107.43631	3.02212e-2	3.24686		Benzo(g,h,i)perylene #18
32.354	BB	246.50865	1.37336e-2	3.38545		Indeno(1,2,3-cd)pyrene #1

Totals : 211.22816

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	PB	2256.80762	8.11569e-3	18.31554		Naphthalene #1
10.917	BB	605.82965	2.94003e-2	17.81159		Acenaphthylene #2
11.868	BB	1365.77808	1.26957e-2	17.33950		1-Methylnaphthalene #3
12.455	BB	1676.09436	1.10418e-2	18.50706		2-Methylnaphthalene #4
12.939	BB	884.05682	1.99953e-2	17.67697		Acenaphthene #5
13.602	BB	1326.81909	1.72604e-2	22.90144		Fluorene #6
15.008	BBA	1740.71790	1.70751e-2	29.72290		Phenanthrene #7
16.434	BBA	3904.34253	1.03316e-2	40.33801		Anthracene #8
17.825	PB	193.46564	2.13939e-2	4.13899		Fluoranthene #9
18.839	BBA	294.98483	1.42346e-2	4.19899		Pyrene #10
21.221	PB	129.54875	6.51566e-2	8.44095		p-Terphenyl d14 #11*
22.545	PBA	205.58890	2.19558e-2	4.51386		Benzo(a)anthracene #12
23.425	PBA	302.36664	1.48093e-2	4.47785		Chrysene #13
26.160	PBA	205.49525	2.03417e-2	4.18013		Benzo(b)fluoranthene #14
27.606	BB	87.50475	2.21503e-2	1.93826		Benzo(k)fluoranthene #15
28.720	BBA	152.12701	2.80792e-2	4.27160		Benzo(a)pyrene #16
30.596	BB	32.42999	9.27377e-2	3.00748		Dibenz(a,h)anthracene #17

[min]		[mAU*s]		[ug/L]		
31.399	BB	56.36300	5.56826e-2	3.13844		Benzo(g,h,i)perylene #18
32.341	BB	168.05809	2.02125e-2	3.39688		Indeno(1,2,3-cd)pyrene #1

Totals : 228.31644

Results obtained with enhanced integrator!

*** End of Report ***

```
Injection Date  : 12/19/2001 11:53:18 PM          Seq. Line :  17
Sample Name     : L0112348-07 831W                     Vial :  17
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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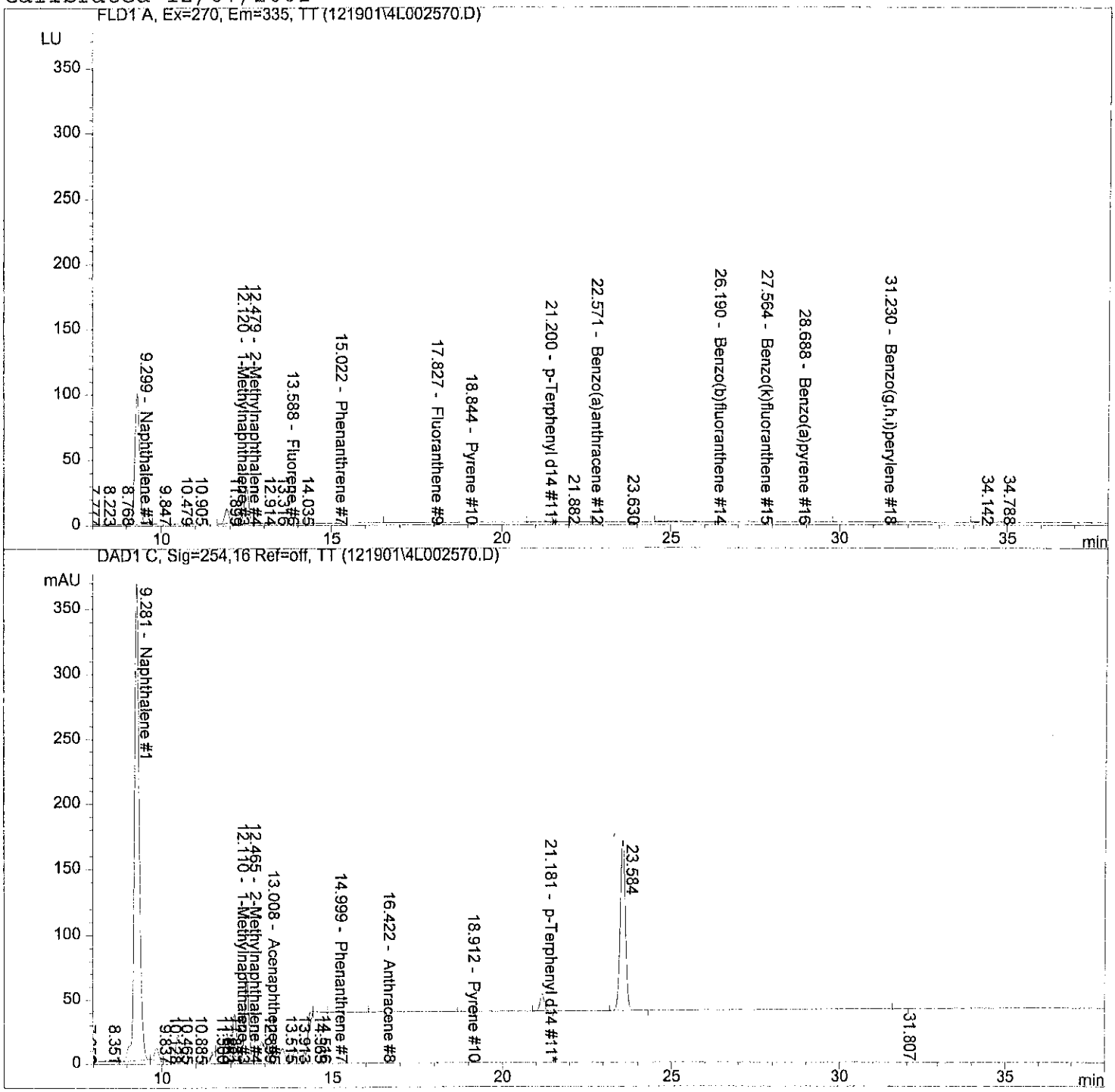


Sorted By : Signal
Calib. Data Modified : Monday, December 10, 2001 11:34:24 AM
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: FLD1 A, Ex=270, Em=335, TT

RetTime [min]	Type	Area LU *s	Amt/Area	Amount [ug/L]	Grp	Name
9.299	BB	977.41217	2.64309e-2	25.83384	C	Naphthalene #1
12.120	BB	1.34036	2.30826e-2	3.09390e-2	C mAL	1-Methylnaphthalene #3
12.479	BB	259.65753	1.77135e-2	4.59945	C	2-Methylnaphthalene #4
13.080		-	-	-		Acenaphthene #5
13.588	BB	16.65805	6.55799e-3	1.09243e-1		Fluorene #6
15.022	BB	14.65160	1.72114e-1	2.52174		Phenanthrene #7
16.532		-	-	-		Anthracene #8
17.827	BB	4.64547e-1	2.51883e-2	1.17012e-2		Fluoranthene #9
18.844	BB	2.74298e-1	4.52106e-2	1.24012e-2		Pyrene #10
21.200	BB	26.67673	2.98861e-1	7.97264	71%	p-Terphenyl d14 #11*
22.571	BB	1.95371e-1	8.29841e-3	1.62127e-3		Benzo(a)anthracene #12
23.431		-	-	-		Chrysene #13
26.190	BB	9.54764e-1	1.66521e-2	1.58989e-2		Benzo(b)fluoranthene #14
27.564	BB	4.97168e-1	2.77713e-3	1.38070e-3		Benzo(k)fluoranthene #15
28.688	BB	1.97197e-1	5.23910e-3	1.03314e-3		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.230	PB	3.79371	3.02212e-2	1.14651e-1		Benzo(g,h,i)perylene #18
32.273		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 41.22655

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	3540.02661	8.11569e-3	28.72974	✓	Naphthalene #1
11.059		-	-	-		Acenaphthylene #2
12.110	BB	244.39964	1.26957e-2	3.10282	NC	1-Methylnaphthalene #3
12.465	BB	566.06750	1.10418e-2	6.25039	✓	2-Methylnaphthalene #4
13.008	BB	14.28817	1.99953e-2	2.85696e-1	NC	Acenaphthene #5
13.719		-	-	-		Fluorene #6
14.999	BB	3.89009	1.70751e-2	6.64235e-2	mAL	Phenanthrene #7
16.422	BB	2.82094	1.03316e-2	2.91447e-2	✓	Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.912	BBA	18.08805	1.42346e-2	2.57476e-1	NC	Pyrene #10
21.181	PBA	119.80152	6.51566e-2	7.80586		p-Terphenyl d14 #11*
22.544		-	-	-	79.1%	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

[min]	[mAU*s]		[ug/L]		
31.312	-	-	-		Benzo(g,h,i)perylene #18
32.264	-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 46.52756

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

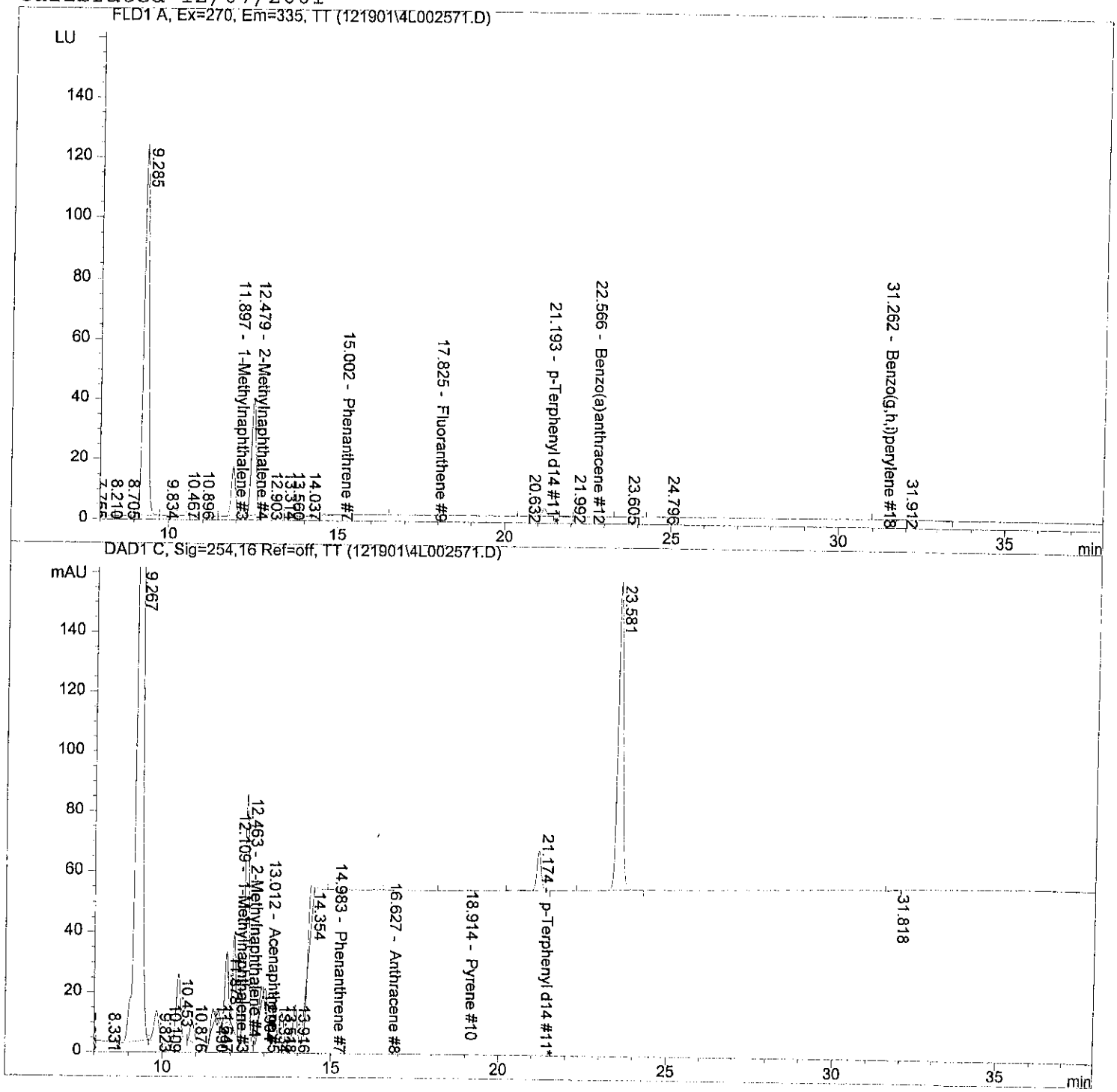
==========

*** End of Report ***

Injection Date : 12/20/2001 12:49:55 AM
Sample Name : L0112348-08 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 : 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 1:23:56 PM RDC

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
9.445		-	-	-		Naphthalene #1
11.897	BB	159.25473	2.30826e-2	3.67601	C	1-Methylnaphthalene #3
12.479	BB	363.26337	1.77135e-2	6.43468	C	2-Methylnaphthalene #4
13.080		-	-	-		Acenaphthene #5
13.738		-	-	-		Fluorene #6
15.002	BB	15.62666	1.72114e-1	2.68956		Phenanthrene #7
16.532		-	-	-		Anthracene #8
17.825	BB	3.28754e-1	2.51883e-2	8.28075e-3		Fluoranthene #9
18.912		-	-	-		Pyrene #10
21.193	BB	25.82439	2.98861e-1	7.71791		p-Terphenyl d14 #11* 77.2%
22.566	BB	2.88983e-1	8.29841e-3	2.39810e-3		Benzo(a)anthracene #12
23.431		-	-	-		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
31.262	BB	8.86932e-1	3.02212e-2	2.68042e-2		Benzo(g,h,i)perylene #18
32.273		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 20.55564

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		-	-	-		Naphthalene #1
11.059		-	-	-		Acenaphthylene #2
12.109	BB	233.74895	1.26957e-2	2.96760	✓	1-Methylnaphthalene #3
12.463	BB	734.08124	1.10418e-2	8.10556	✓	2-Methylnaphthalene #4
13.012	BB	26.23145	1.99953e-2	5.24505e-1	NC	Acenaphthene #5
13.719		-	-	-		Fluorene #6
14.983	BB	1.69634	1.70751e-2	2.89652e-2	UNDL	Phenanthrene #7
16.627	BB	8.88707e-1	1.03316e-2	9.18175e-3	↓	Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.914	PBA	15.08377	1.42346e-2	2.14712e-1	NC	Pyrene #10
21.174	PBA	116.54176	6.51566e-2	7.59346		p-Terphenyl d14 #11*
22.544		-	-	-		Benzo(a)anthracene #12
23.412		-	-	-	75.9%	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

[min]		[mAU*s]		[ug/L]		
31.312		-	-	-		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 19.44399

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibrated compound(s) not found
Warning : Elution order of calibrated compounds may have changed

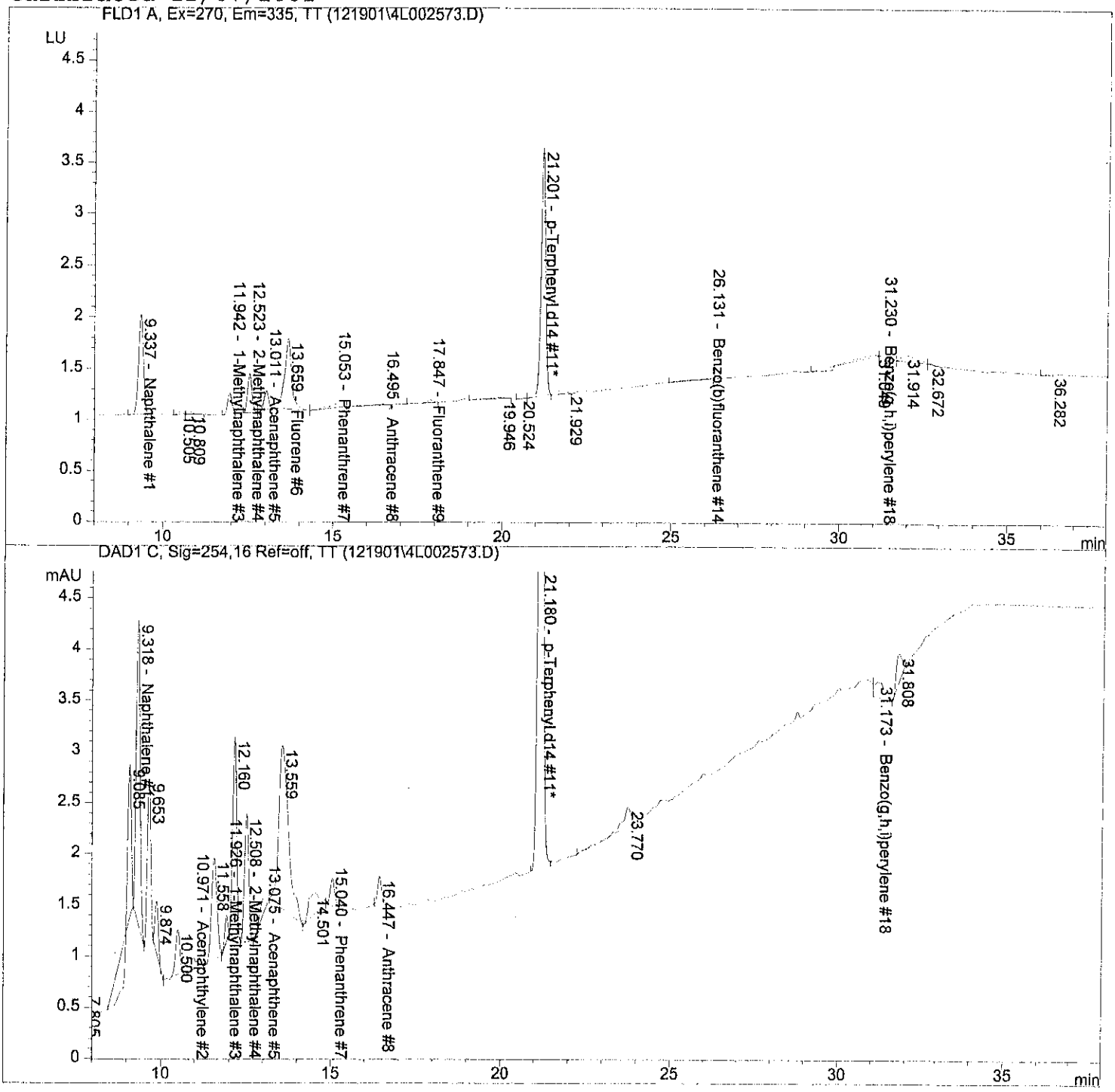
==========

*** End of Report ***

Injection Date : 12/20/2001 2:43:17 AM
Sample Name : L0112348-09 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 : 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
9.337	BBA	9.65145	2.64309e-2	2.55096e-1		Naphthalene #1
11.942	BB	1.70956	2.30826e-2	3.94609e-2		1-Methylnaphthalene #3
12.523	BB	3.51585	1.77135e-2	6.22782e-2		2-Methylnaphthalene #4
13.011	BB	1.71351	1.41307e-2	2.42131e-2		Acenaphthene #5
13.659	BB	10.23158	6.55799e-3	6.70986e-2		Fluorene #6
15.053	BB	9.72075e-1	1.72114e-1	1.67307e-1		Phenanthrene #7
16.495	BB	3.40483e-1	3.11763e-1	1.06150e-1		Anthracene #8
17.847	PB	3.51368e-1	2.51883e-2	8.85036e-3		Fluoranthene #9
18.912		-	-	-		Pyrene #10
21.201	BBA	23.15174	2.98861e-1	6.91916		p-Terphenyl d14 #11*
22.562		-	-	-		Benzo(a)anthracene #12
23.431		-	-	-		Chrysene #13
26.131	BB	4.68218e-1	1.66521e-2	7.79683e-3		Benzo(b)fluoranthene #14
27.562		-	-	-		Benzo(k)fluoranthene #15
28.676		-	-	-		Benzo(a)pyrene #16
30.526		-	-	-		Dibenz(a,h)anthracene #17
31.230	BB	2.85356e-1	3.02212e-2	8.62382e-3		Benzo(g,h,i)perylene #18
32.273		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 7.66603

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	23.12728	8.11569e-3	1.87694e-1		Naphthalene #1
10.971	BB	1.31359	2.94003e-2	3.86200e-2		Acenaphthylene #2
11.926	BB	1.54483	1.26957e-2	1.96127e-2		1-Methylnaphthalene #3
12.508	BB	11.15094	1.10418e-2	1.23126e-1		2-Methylnaphthalene #4
13.075	BB	2.17096	1.99953e-2	4.34090e-2		Acenaphthene #5
13.719		-	-	-		Fluorene #6
15.040	BBA	2.43669	1.70751e-2	4.16067e-2		Phenanthrene #7
16.447	BBA	2.48417	1.03316e-2	2.56654e-2		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.891		-	-	-		Pyrene #10
21.180	PBA	104.26969	6.51566e-2	6.79386		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]		
31.173	BB	3.41055	5.56826e-2	1.89908e-1		Benzo(g,h,i)perylene #18
32.264		-	-	-		Indeno(1,2,3-cd)pyrene #1

Totals : 7.46350

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 : 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			

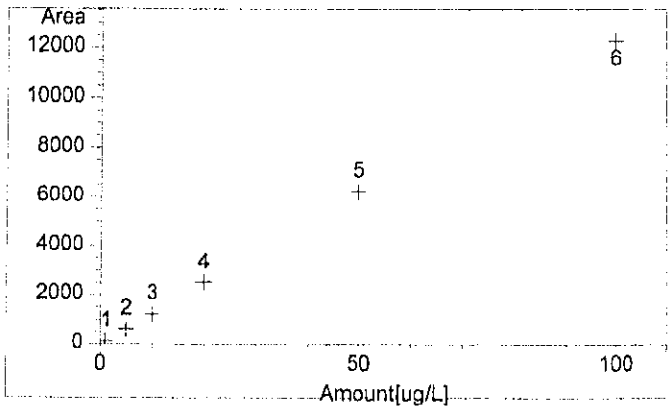
RetTime [min]	Sig	Lvl	Amount [ug/L]	Area	Amt/Area	Ref	Grp	Name
22.562	1	1	1.00000e-1	10.98394	9.10420e-3			Benzo(a)anthracene #12
		2	5.00000e-1	55.03781	9.08466e-3			
		3	1.00000	111.32906	8.98238e-3			
		4	2.00000	231.59561	8.63574e-3			
		5	5.00000	583.97321	8.56204e-3			
		6	10.00000	1217.39807	8.21424e-3			
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

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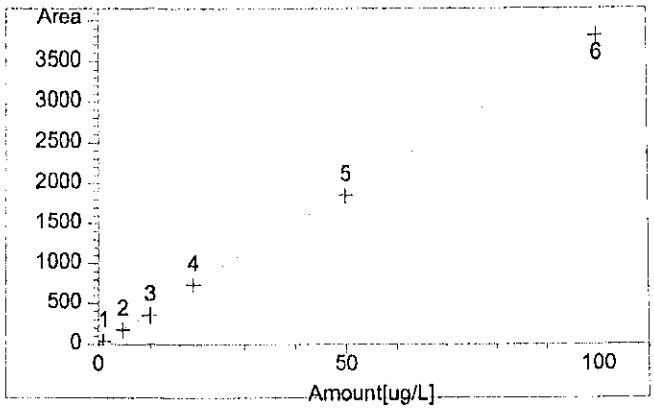
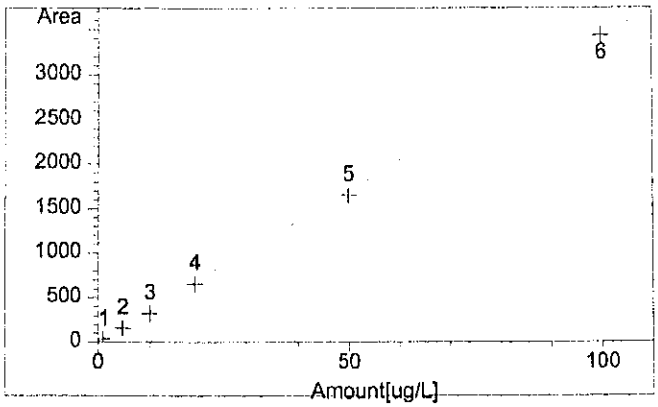
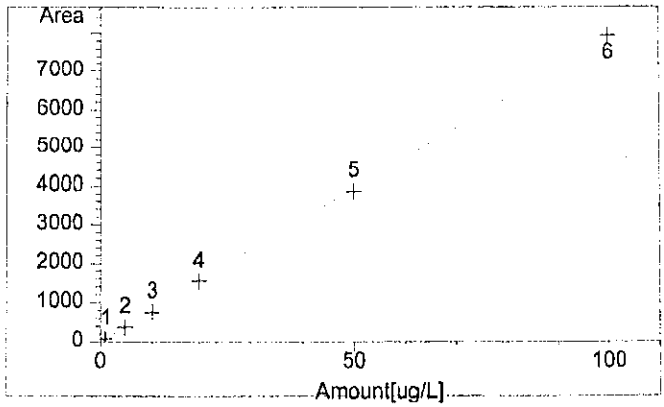


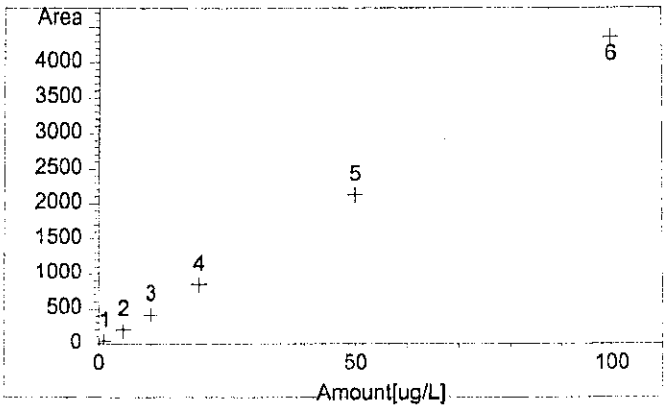
Naphthalene #1 at exp. RT: 9.445
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99991
Residual Std. Dev.: 26.08217
Formula: y = mx
m: 37.83456
x: Amount [ug/L]
y: Area



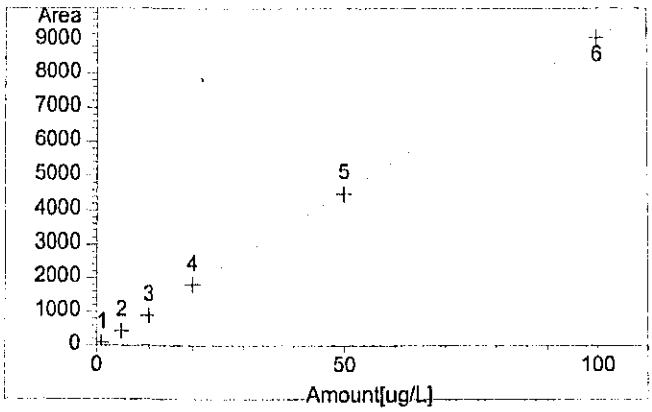
Acenaphthylene #2 at exp. RT: 11.059
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99985
Residual Std. Dev.: 30.12049
Formula: y = mx
m: 34.01322
x: Amount [ug/L]
y: Area



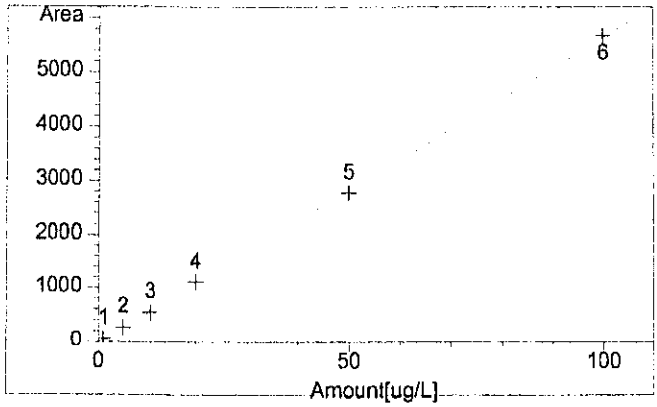
1-Methylnaphthalene #3 at exp. RT: 12.007
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99993
Residual Std. Dev.: 48.47901
Formula: y = mx
m: 78.76687
x: Amount [ug/L]
y: Area



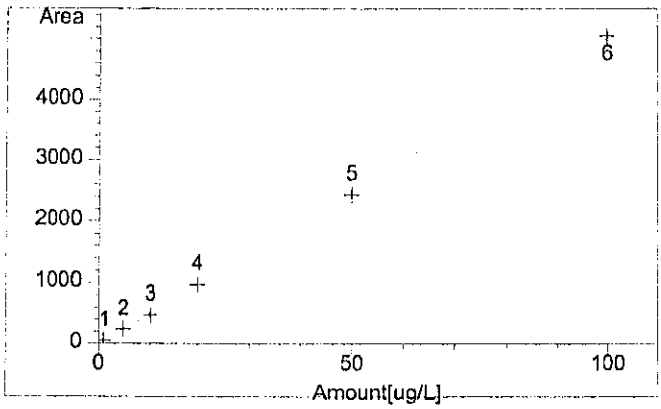
1-Methylnaphthalene #3 at exp. RT: 12.025
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99993
Residual Std. Dev.: 26.33210
Formula: y = mx
m: 43.32276
x: Amount [ug/L]
y: Area



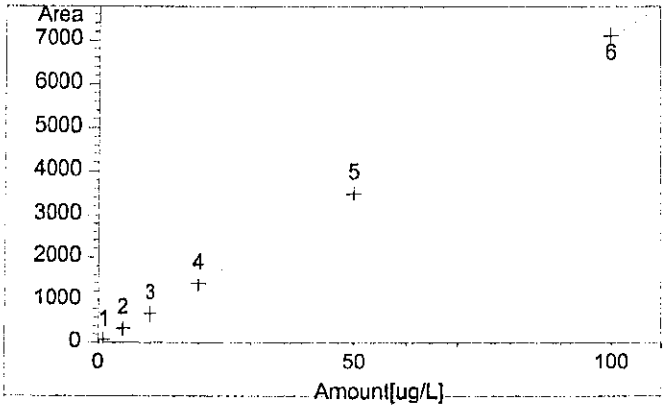
2-Methylnaphthalene #4 at exp. RT: 12.583
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 26.29692
Formula: y = mx
m: 90.56511
x: Amount [ug/L]
y: Area



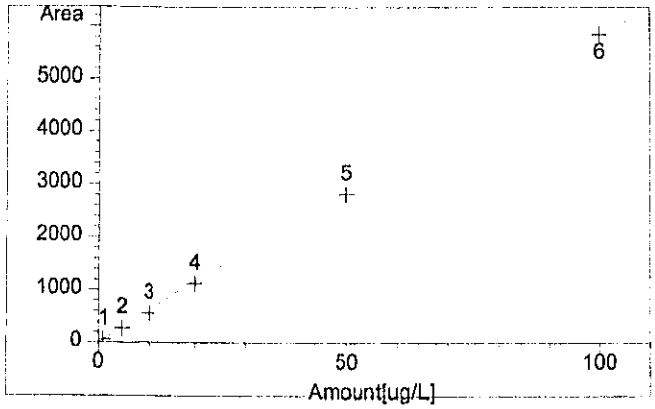
2-Methylnaphthalene #4 at exp. RT: 12.602
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99995
Residual Std. Dev.: 29.05354
Formula: y = mx
m: 56.45399
x: Amount [ug/L]
y: Area



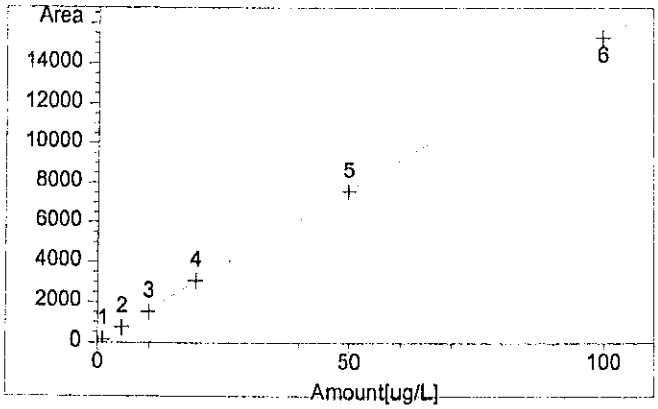
Acenaphthene #5 at exp. RT: 13.062
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99988
Residual Std. Dev.: 38.92105
Formula: y = mx
m: 50.01178
x: Amount [ug/L]
y: Area



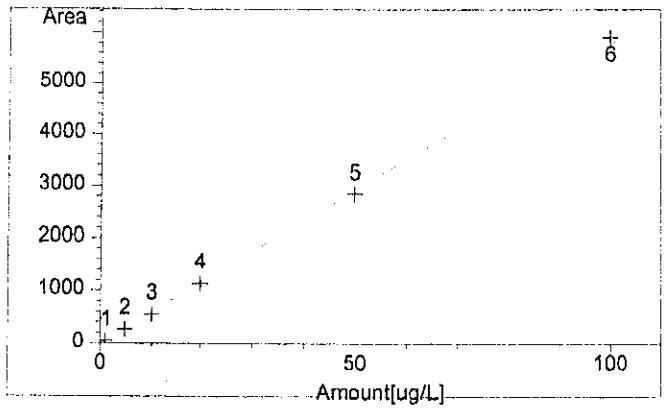
Acenaphthene #5 at exp. RT: 13.080
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99996
Residual Std. Dev.: 30.34274
Formula: y = mx
m: 70.76808
x: Amount [ug/L]
y: Area



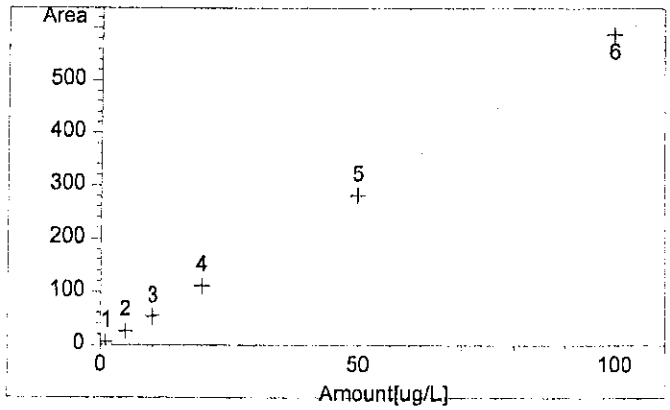
Fluorene #6 at exp. RT: 13.719
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99986
Residual Std. Dev.: 48.89890
Formula: y = mx
m: 57.93606
x: Amount [ug/L]
y: Area



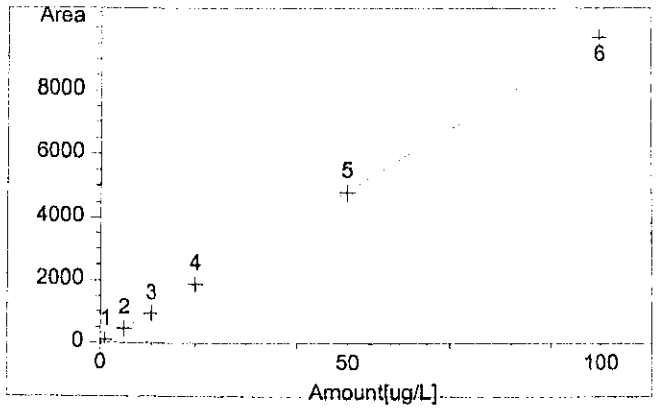
Fluorene #6 at exp. RT: 13.738
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99999
Residual Std. Dev.: 28.20492
Formula: y = mx
m: 152.48579
x: Amount [ug/L]
y: Area



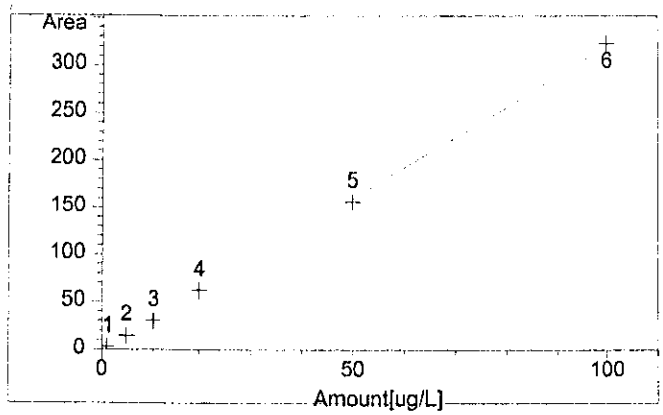
Phenanthrene #7 at exp. RT: 15.107
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99988
Residual Std. Dev.: 45.98374
Formula: y = mx
m: 58.56486
x: Amount [ug/L]
y: Area



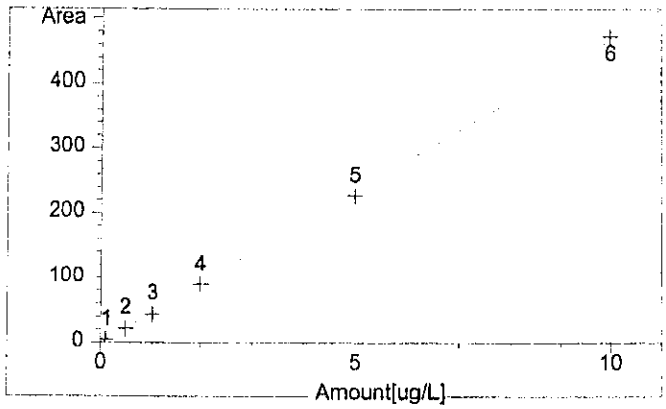
Phenanthrene #7 at exp. RT: 15.126
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99978
Residual Std. Dev.: 6.21393
Formula: y = mx
m: 5.81012
x: Amount [ug/L]
y: Area



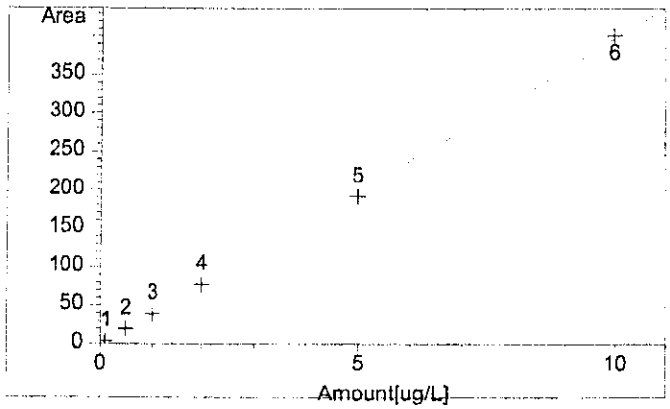
Anthracene #8 at exp. RT: 16.513
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99997
Residual Std. Dev.: 37.00703
Formula: y = mx
m: 96.79066
x: Amount [ug/L]
y: Area



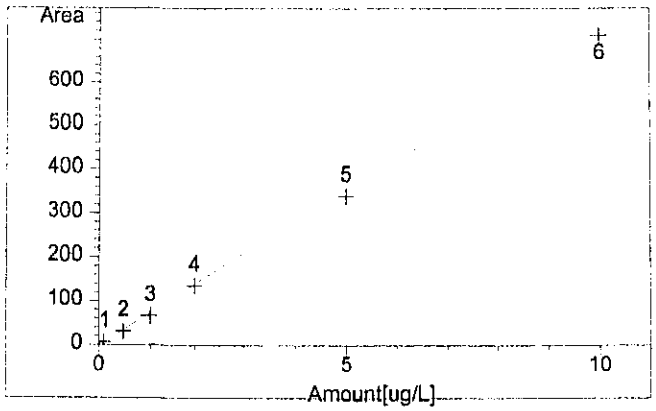
Anthracene #8 at exp. RT: 16.532
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99990
Residual Std. Dev.: 2.36476
Formula: y = mx
m: 3.20756
x: Amount [ug/L]
y: Area



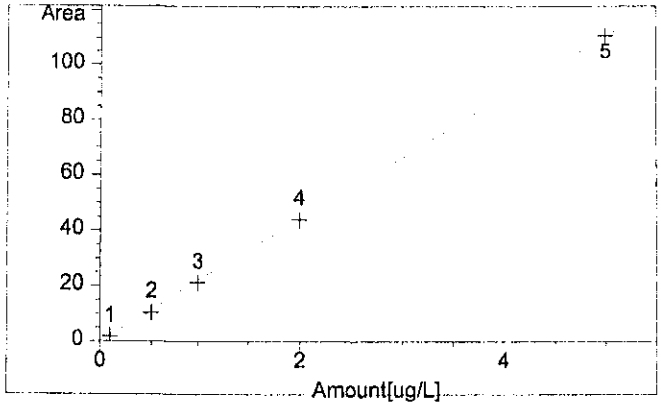
Fluoranthene #9 at exp. RT: 17.887
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99983
Residual Std. Dev.: 4.46228
Formula: y = mx
m: 46.74227
x: Amount [ug/L]
y: Area



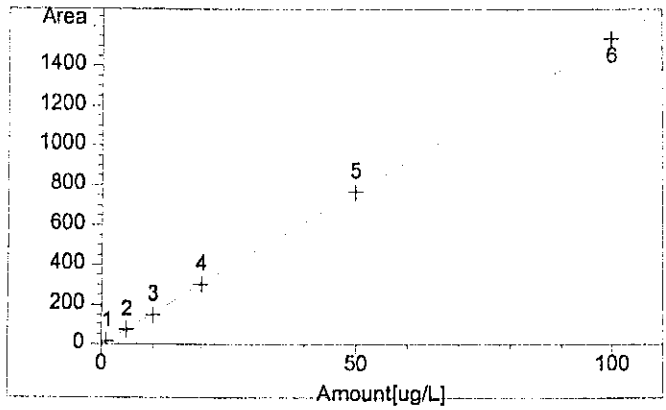
Fluoranthene #9 at exp. RT: 17.907
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99984
Residual Std. Dev.: 3.58907
Formula: y = mx
m: 39.70096
x: Amount [ug/L]
y: Area



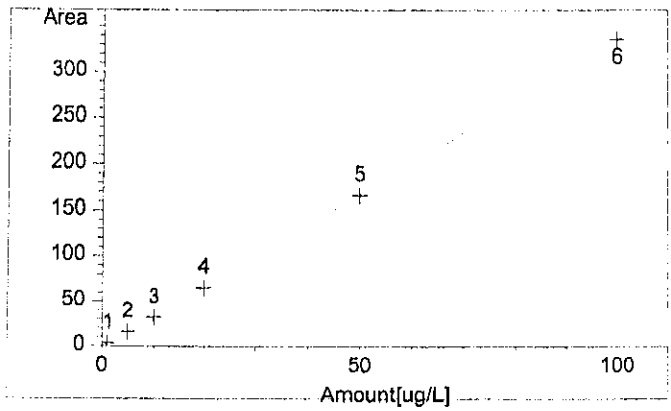
Pyrene #10 at exp. RT: 18.891
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 6.85701
Formula: y = mx
m: 70.25134
x: Amount [ug/L]
y: Area



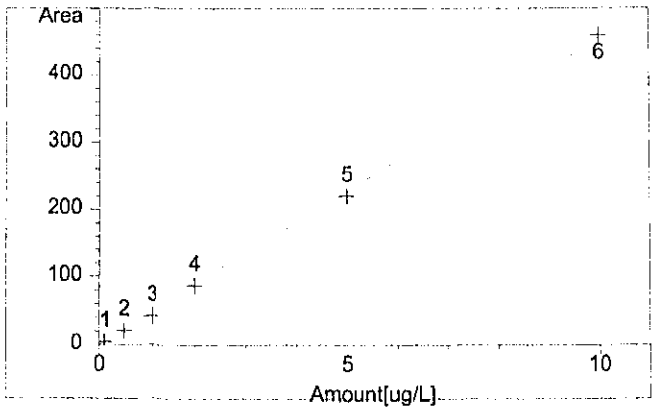
Pyrene #10 at exp. RT: 18.912
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99994
Residual Std. Dev.: 0.64524
Formula: y = mx
m: 22.11873
x: Amount [ug/L]
y: Area



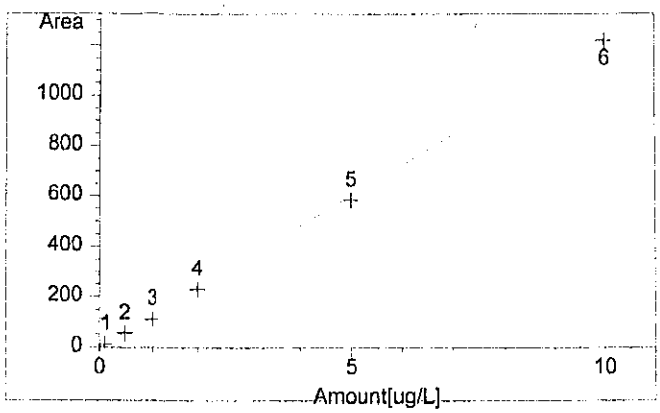
p-Terphenyl d14 #11* at exp. RT: 21.231
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99998
Residual Std. Dev.: 4.40544
Formula: y = mx
m: 15.34764
x: Amount [ug/L]
y: Area



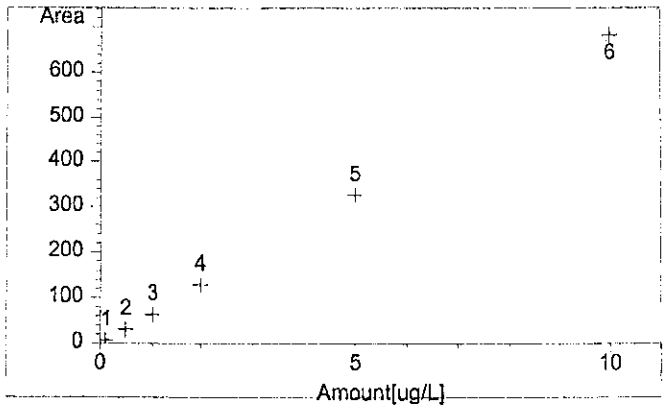
p-Terphenyl d14 #11* at exp. RT: 21.248
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99997
Residual Std. Dev.: 1.28536
Formula: y = mx
m: 3.34603
x: Amount [ug/L]
y: Area



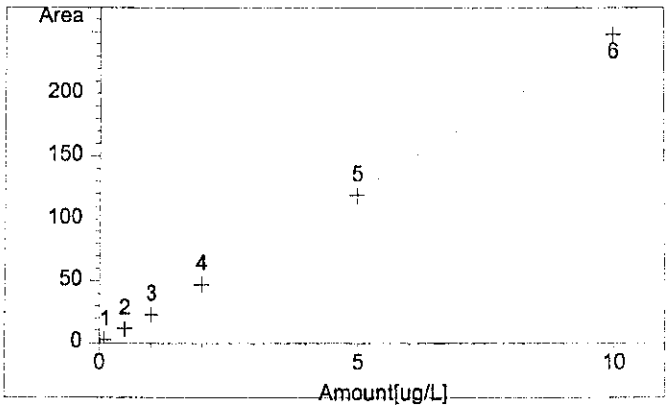
Benzo(a)anthracene #12 at exp. RT: 22.544
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99981
Residual Std. Dev.: 4.58073
Formula: y = mx
m: 45.54614
x: Amount[ug/L]
y: Area



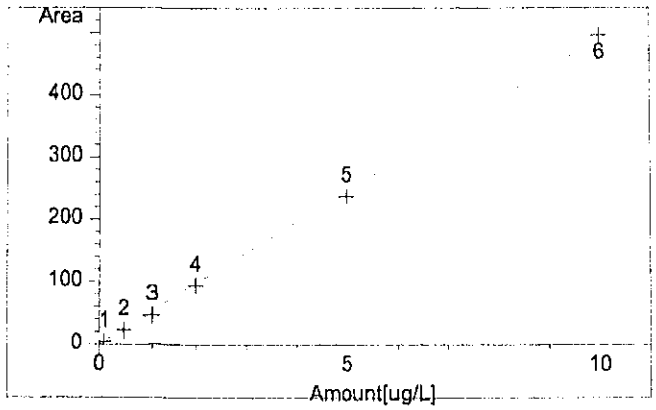
Benzo(a)anthracene #12 at exp. RT: 22.562
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99982
Residual Std. Dev.: 11.81358
Formula: y = mx
m: 120.50502
x: Amount[ug/L]
y: Area



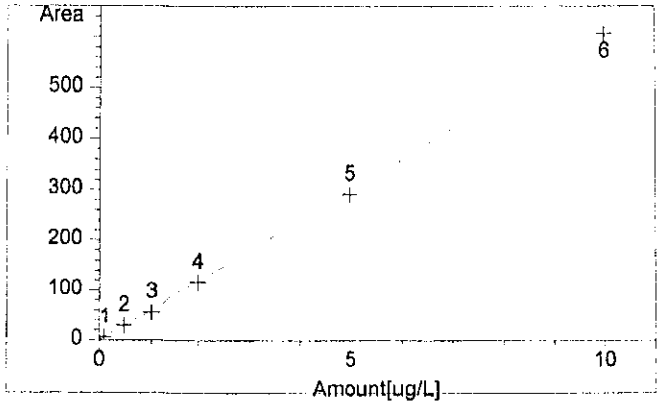
Chrysene #13 at exp. RT: 23.412
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99979
Residual Std. Dev.: 6.98685
Formula: y = mx
m: 67.52498
x: Amount[ug/L]
y: Area



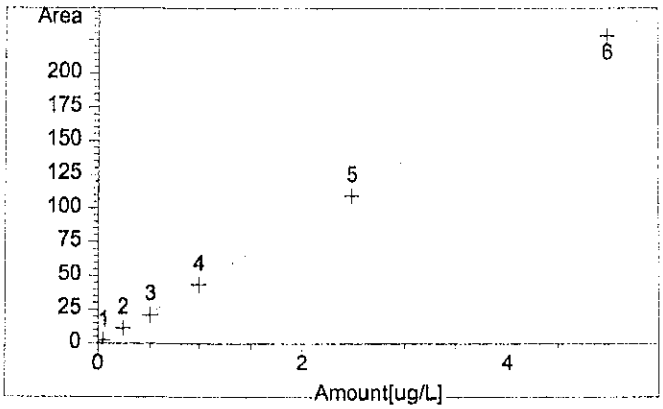
Chrysene #13 at exp. RT: 23.431
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99982
Residual Std. Dev.: 2.40411
Formula: y = mx
m: 24.53100
x: Amount[ug/L]
y: Area



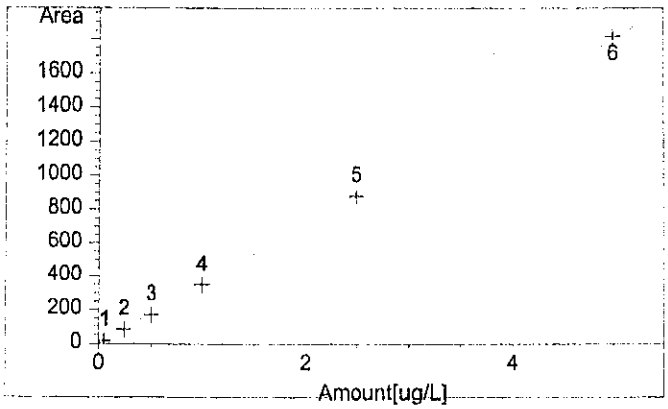
Benzo(b)fluoranthene #14 at exp. RT: 26.1
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99982
Residual Std. Dev.: 4.71295
Formula: y = mx
m: 49.16002
x: Amount [ug/L]
y: Area



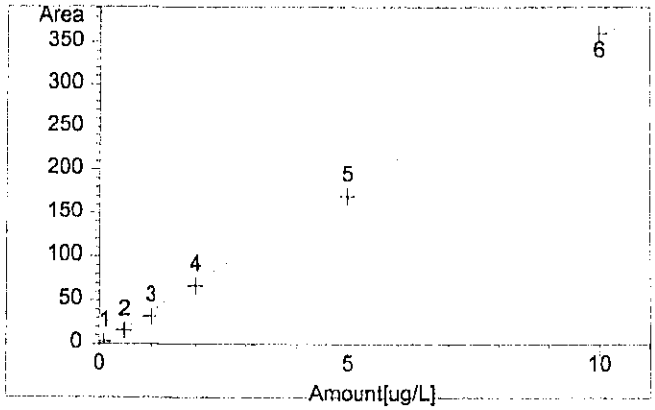
Benzo(b)fluoranthene #14 at exp. RT: 26.1
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99984
Residual Std. Dev.: 5.42310
Formula: y = mx
m: 60.05231
x: Amount [ug/L]
y: Area



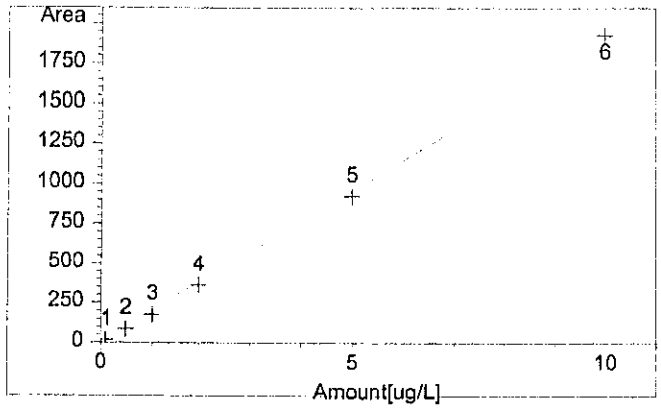
Benzo(k)fluoranthene #15 at exp. RT: 27.5
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99984
Residual Std. Dev.: 2.04948
Formula: y = mx
m: 45.14609
x: Amount [ug/L]
y: Area



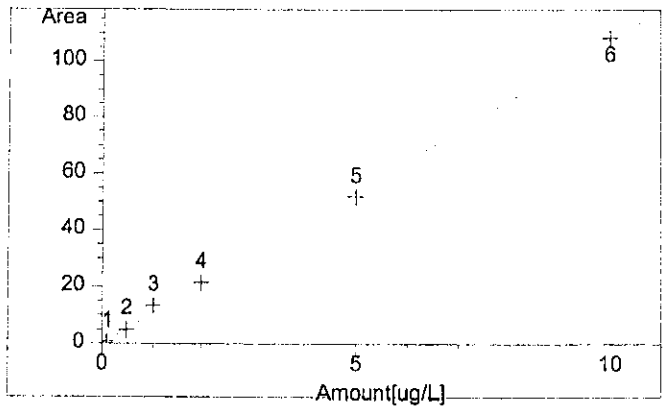
Benzo(k)fluoranthene #15 at exp. RT: 27.5
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99989
Residual Std. Dev.: 13.90903
Formula: y = mx
m: 360.08348
x: Amount [ug/L]
y: Area



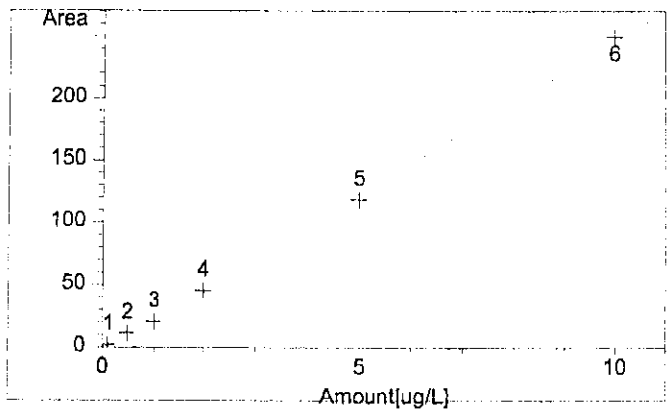
Benzo(a)pyrene #16 at exp. RT: 28.658
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99962
Residual Std. Dev.: 5.03525
Formula: y = mx
m: 35.61357
x: Amount[ug/L]
y: Area



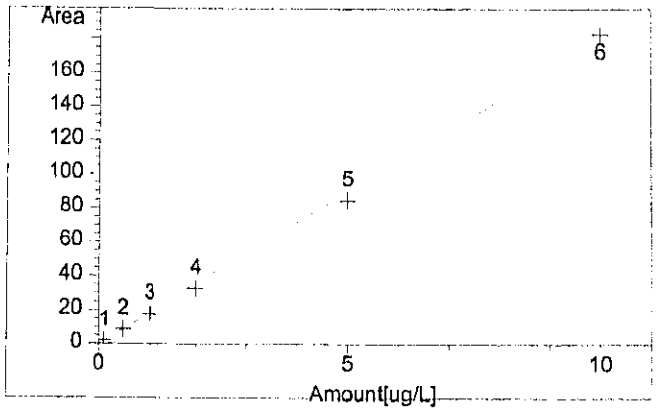
Benzo(a)pyrene #16 at exp. RT: 28.676
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99980
Residual Std. Dev.: 19.54253
Formula: y = mx
m: 190.87241
x: Amount[ug/L]
y: Area



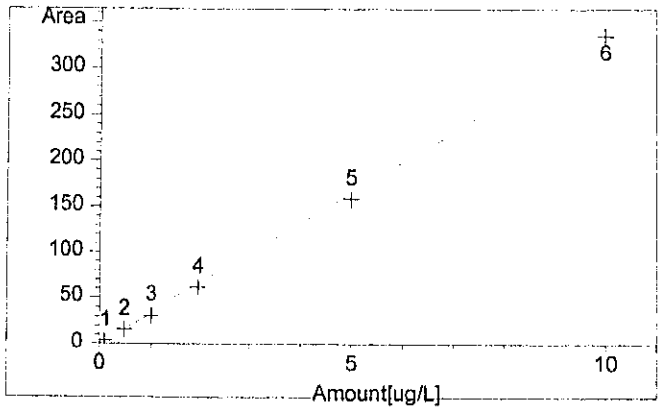
Dibenz(a,h)anthracene #17 at exp. RT: 30.
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99963
Residual Std. Dev.: 1.50220
Formula: y = mx
m: 10.78310
x: Amount[ug/L]
y: Area



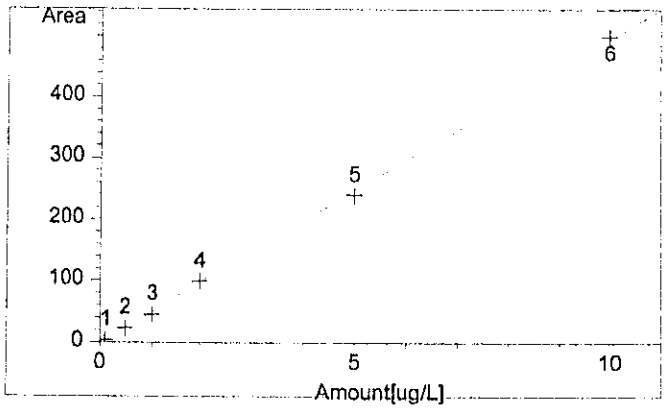
Dibenz(a,h)anthracene #17 at exp. RT: 30.
FLD1 A, Ex=270, Em=335, TT
Correlation: 0.99958
Residual Std. Dev.: 3.66148
Formula: y = mx
m: 24.60375
x: Amount[ug/L]
y: Area



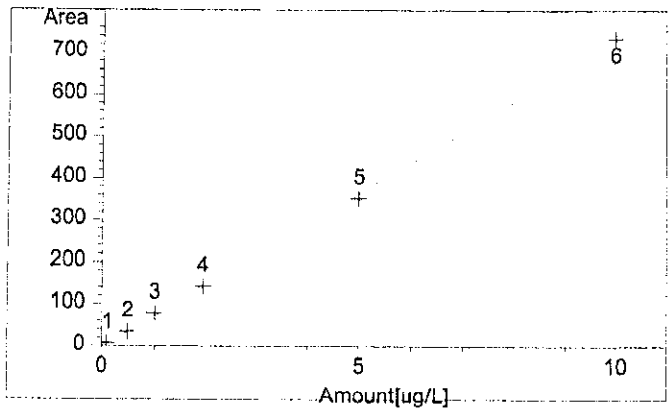
Benzo(g,h,i)perylene #18 at exp. RT: 31.3
DAD1 C, Sig=254,16 Ref=off, TT
Correlation: 0.99945
Residual Std. Dev.: 3.05047
Formula: y = mx
m: 17.95894
x: Amount[ug/L]
y: Area



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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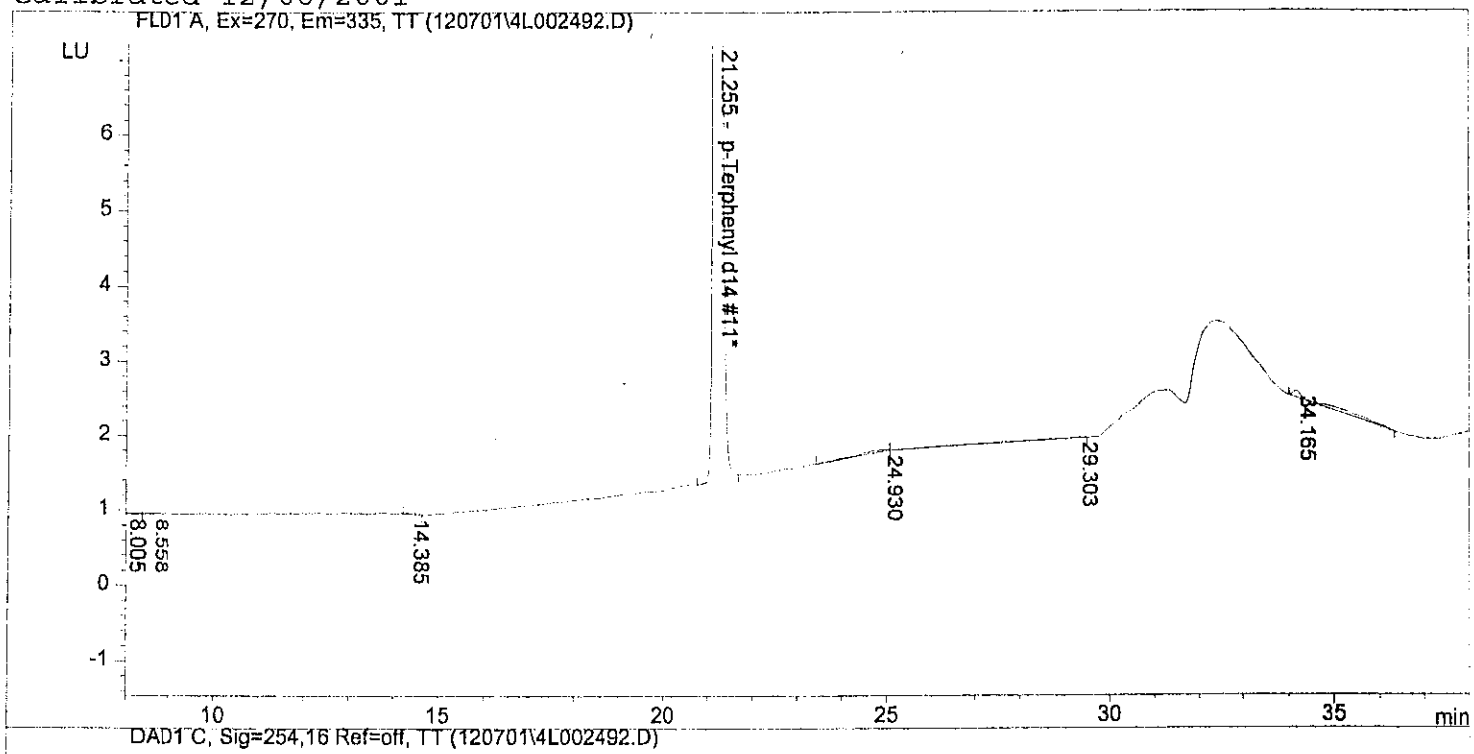
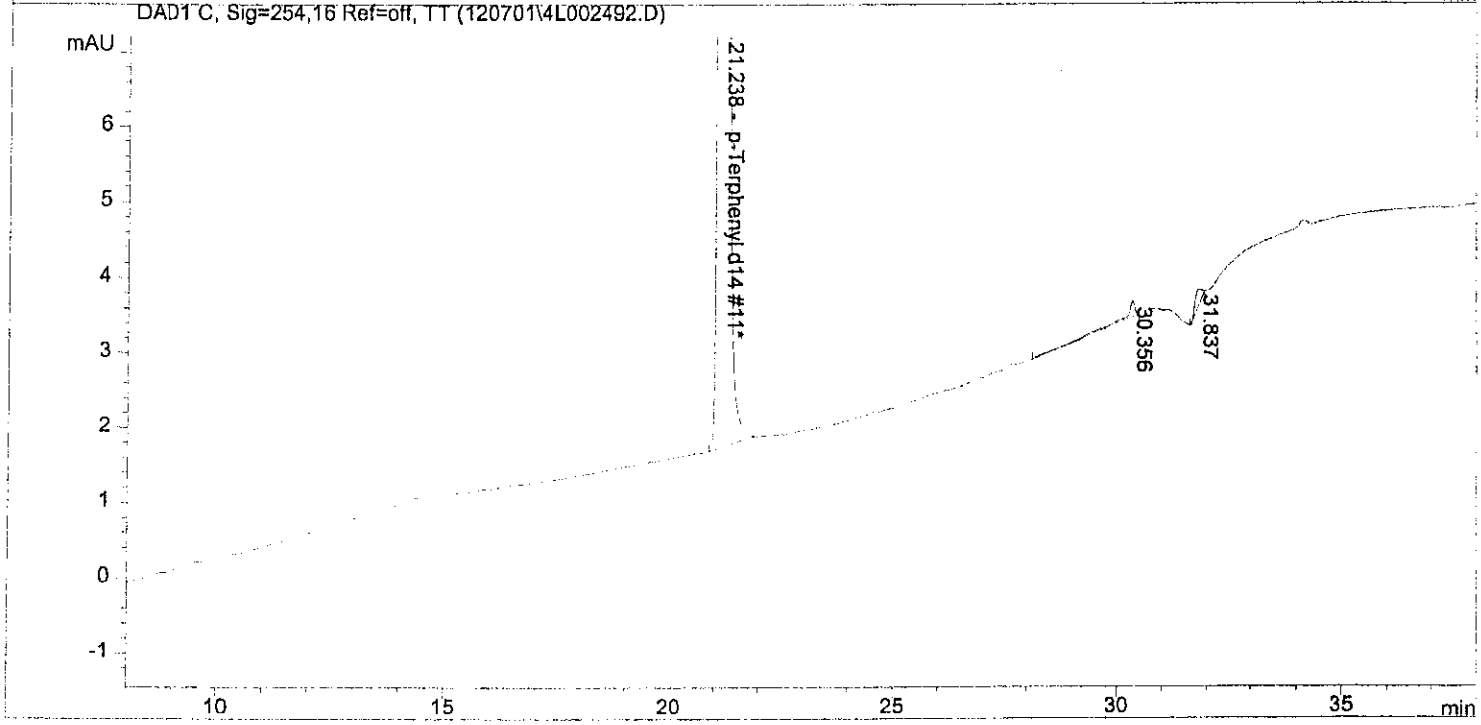
Injection Date	: 12/7/2001 5:41:55 PM	Seq. Line	: 2
Sample Name	: WG109608-01	Vial	: 2
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

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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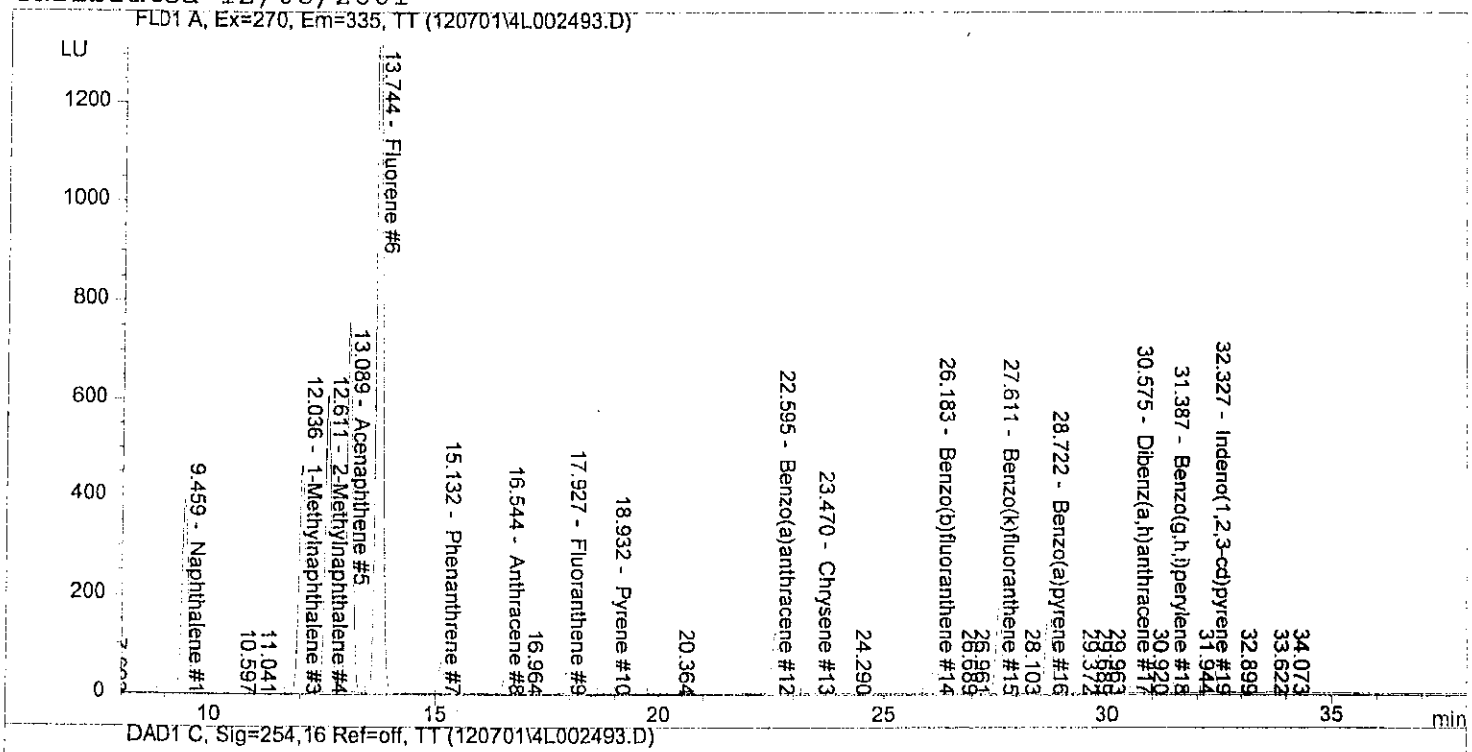
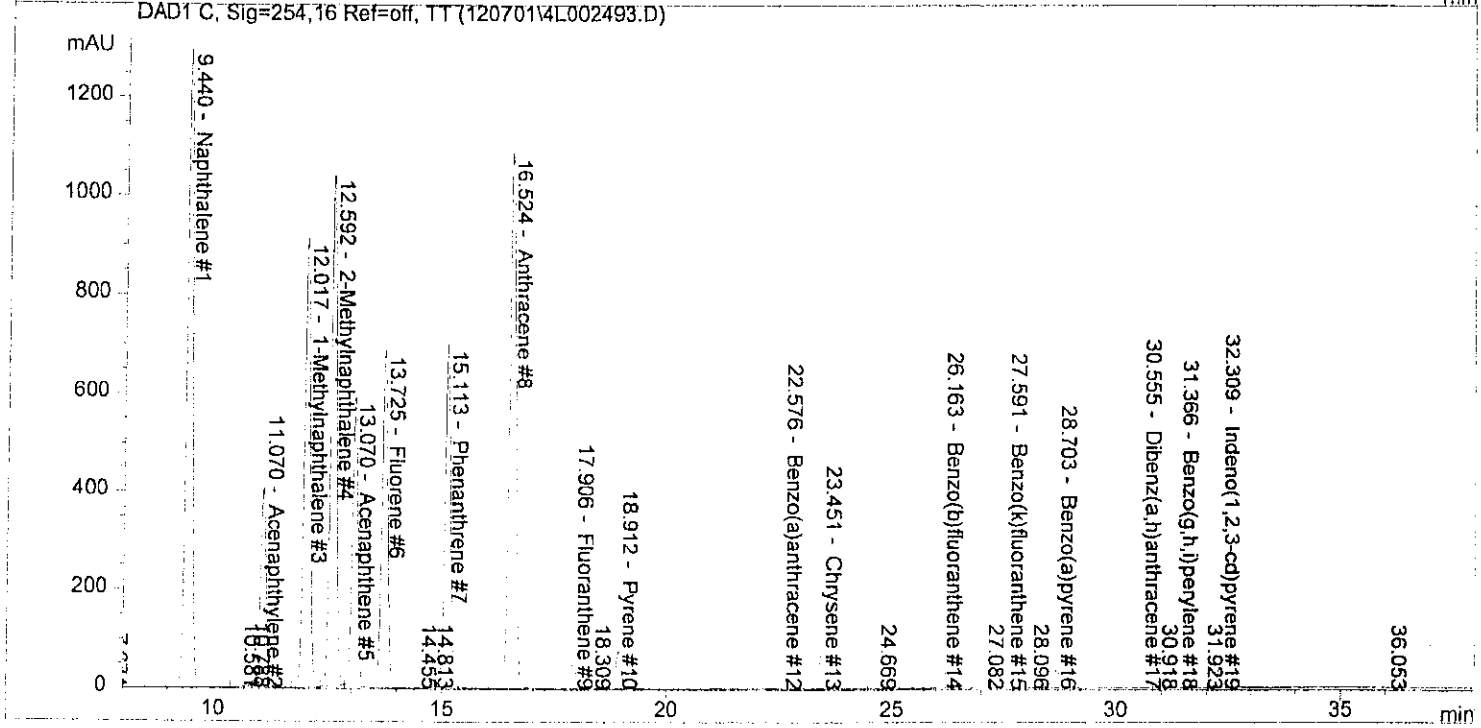
*** End of Report ***

1,1 SOS56-20 level 6 std. 100/10/5 ppm

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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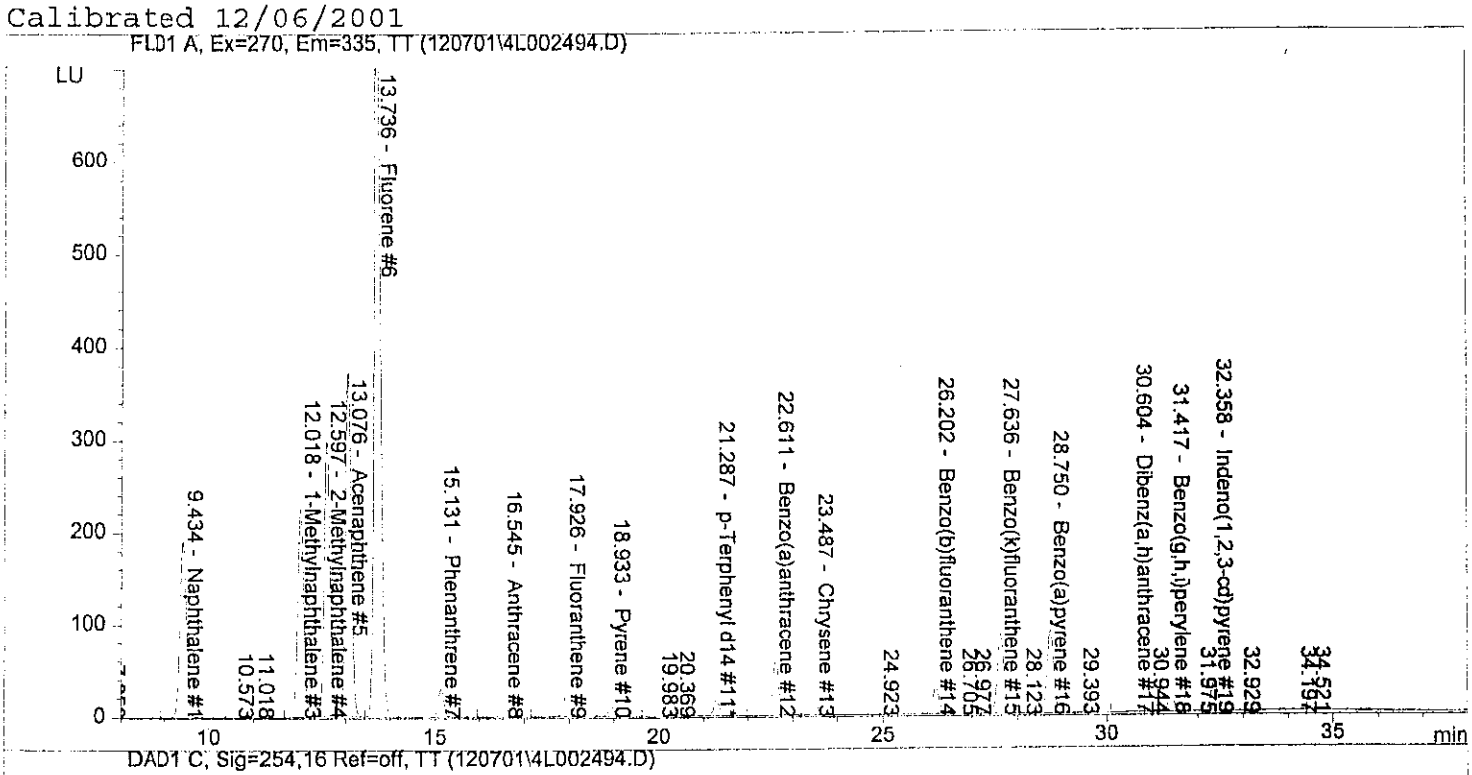
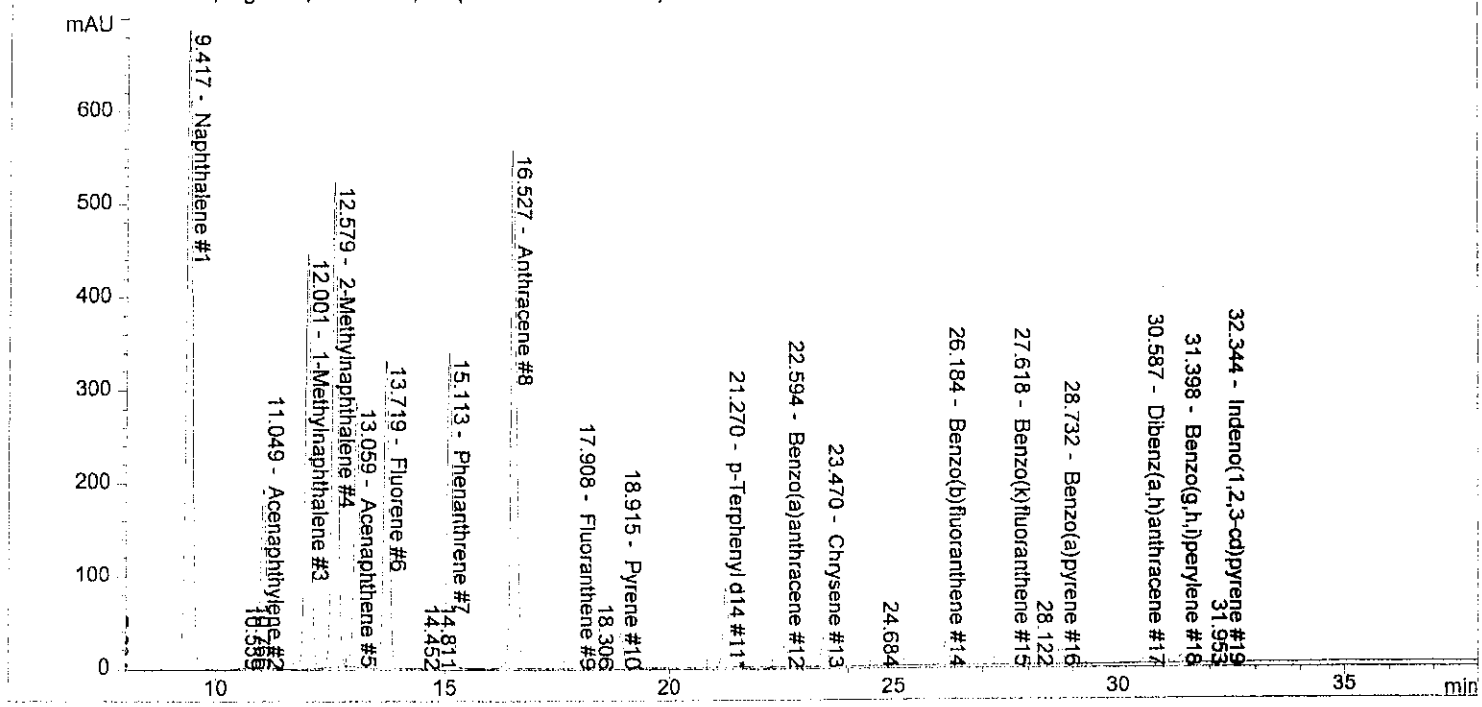
*** End of Report ***

1,1 SOS56-19/56-20 level 5 std. 50/5/2.5 ppm

Injection Date	: 12/7/2001 7:35:10 PM	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

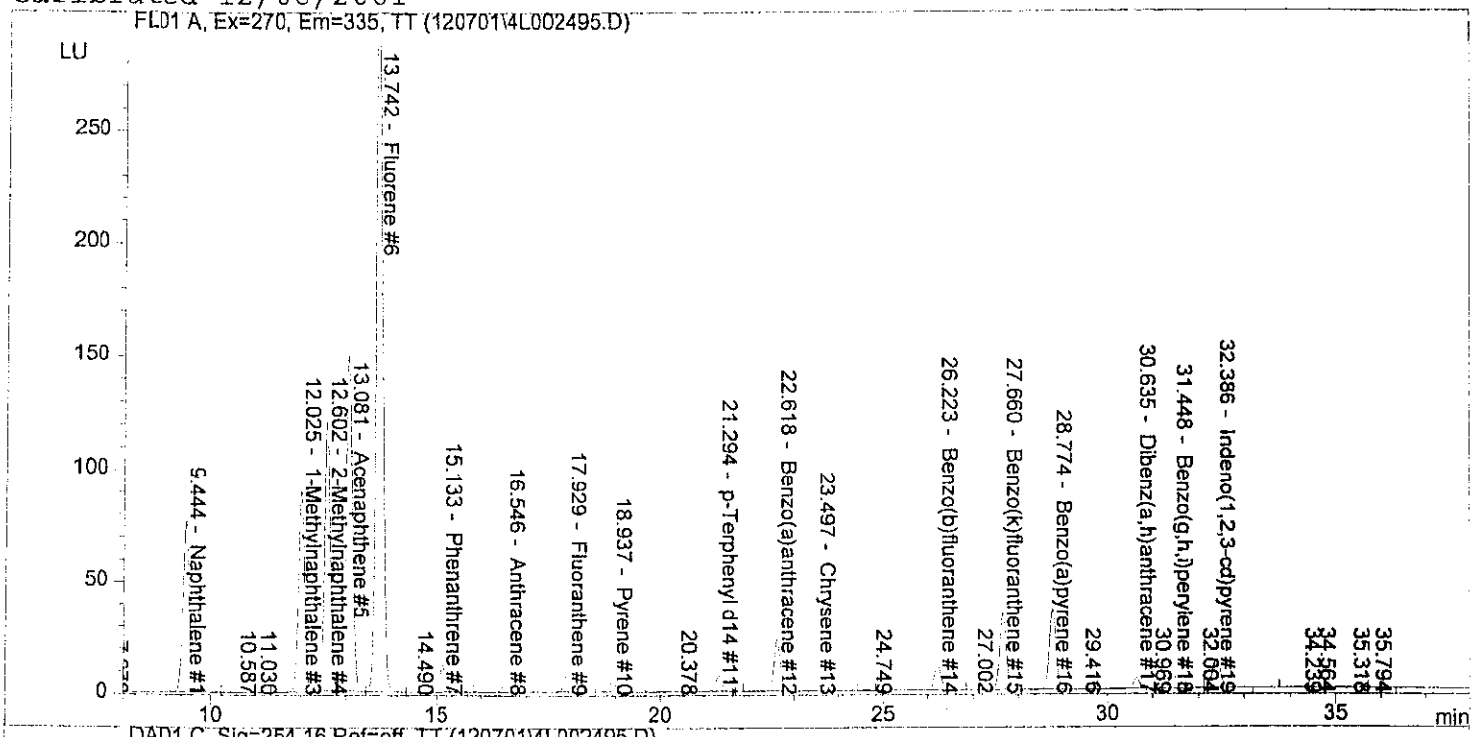
Results obtained with enhanced integrator!

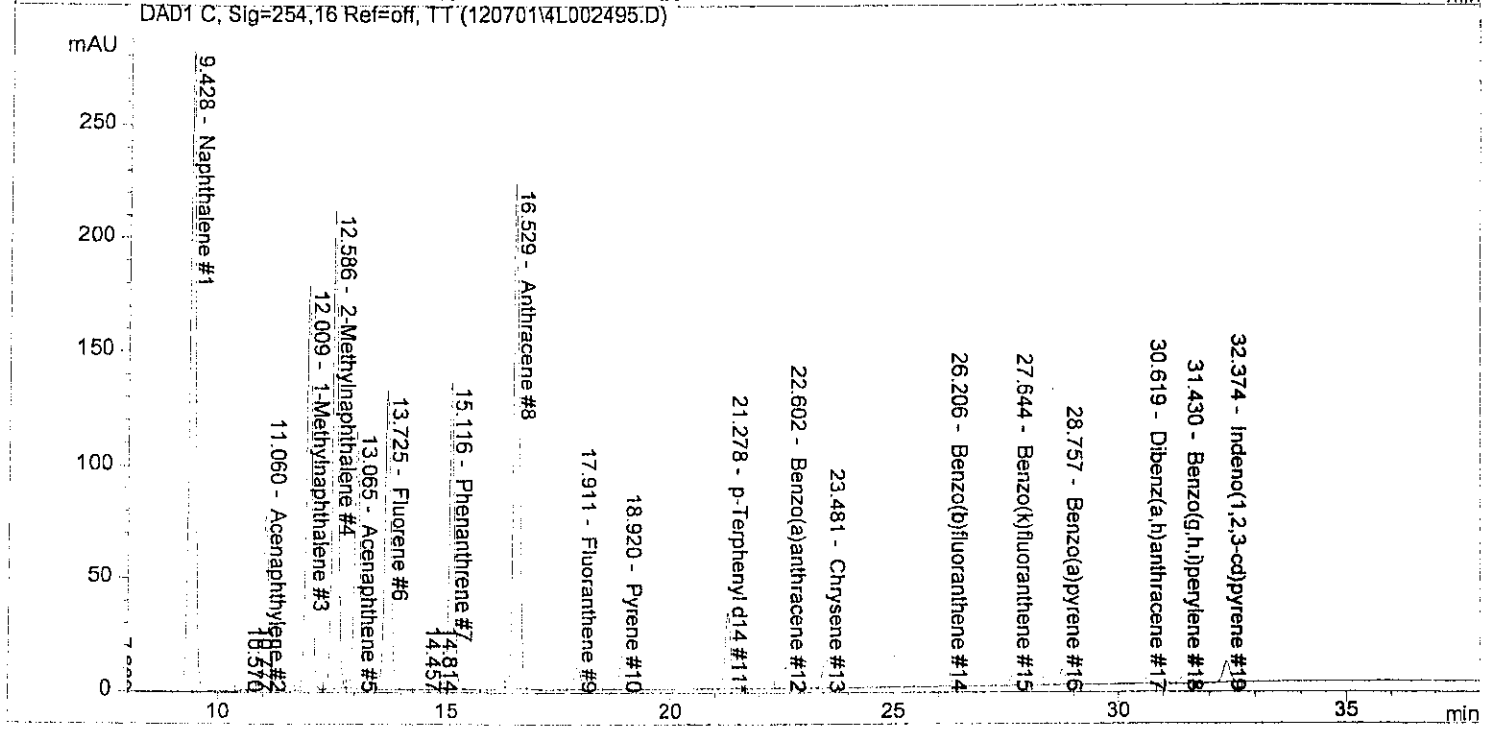
*** End of Report ***

1,1 SOS56-19/56-20 level 4 std. 20/2/1 ppm

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

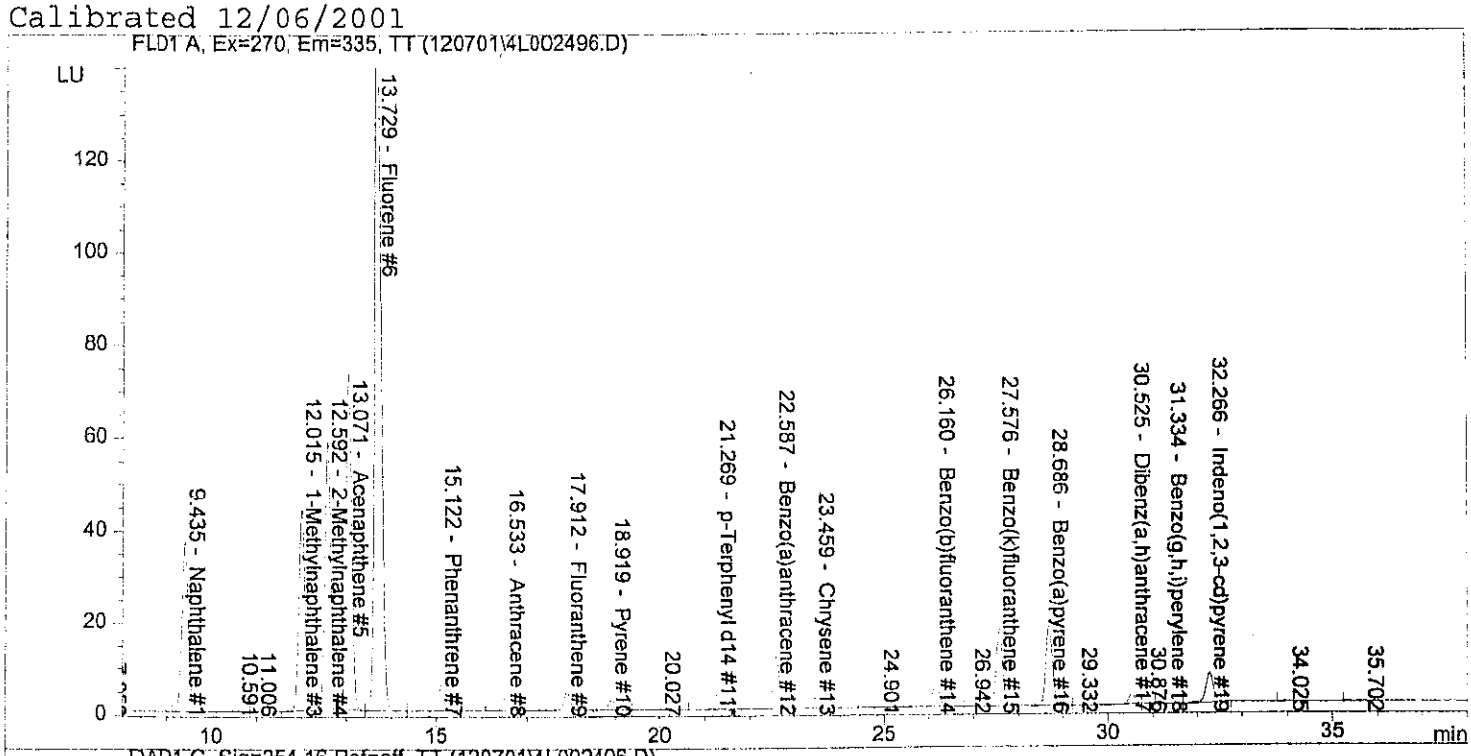
Results obtained with enhanced integrator!

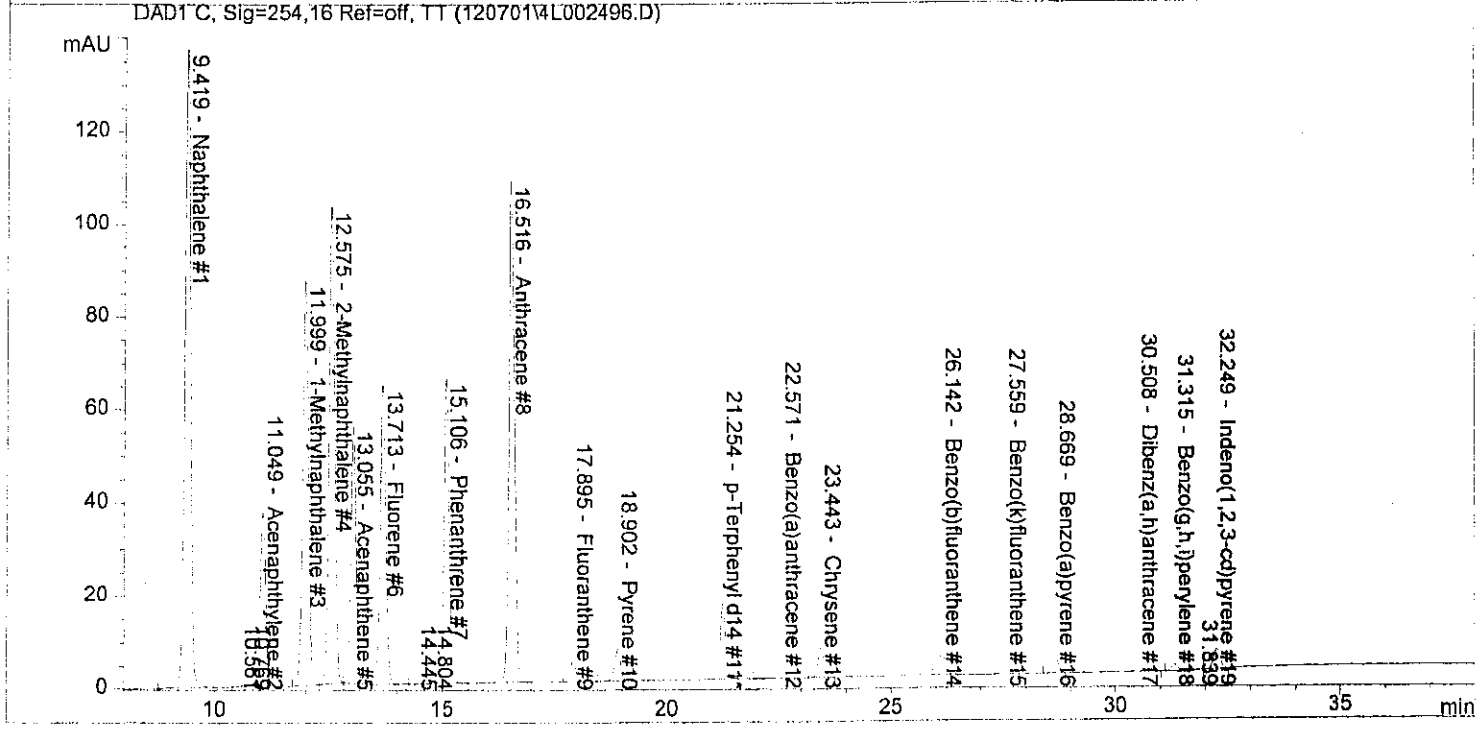
*** End of Report ***

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!

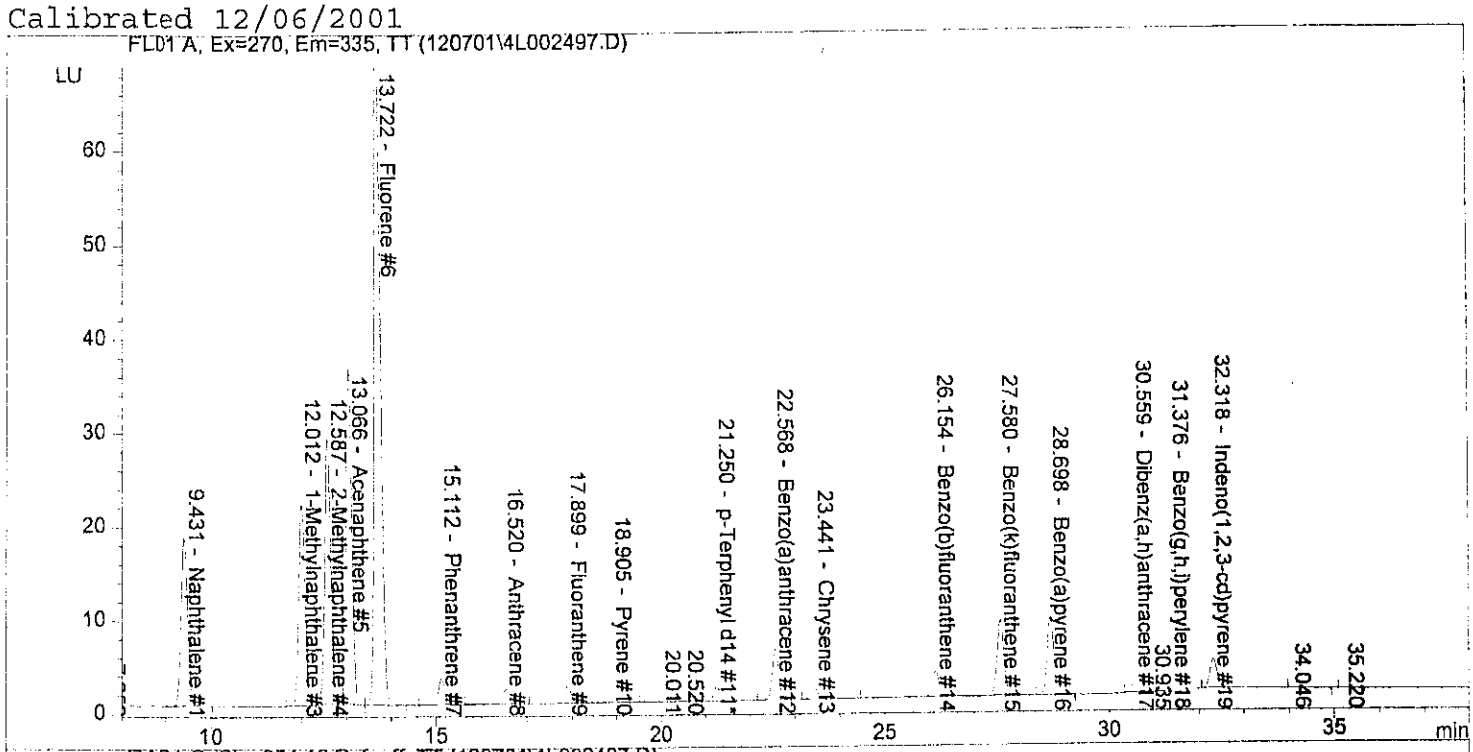
*** End of Report ***

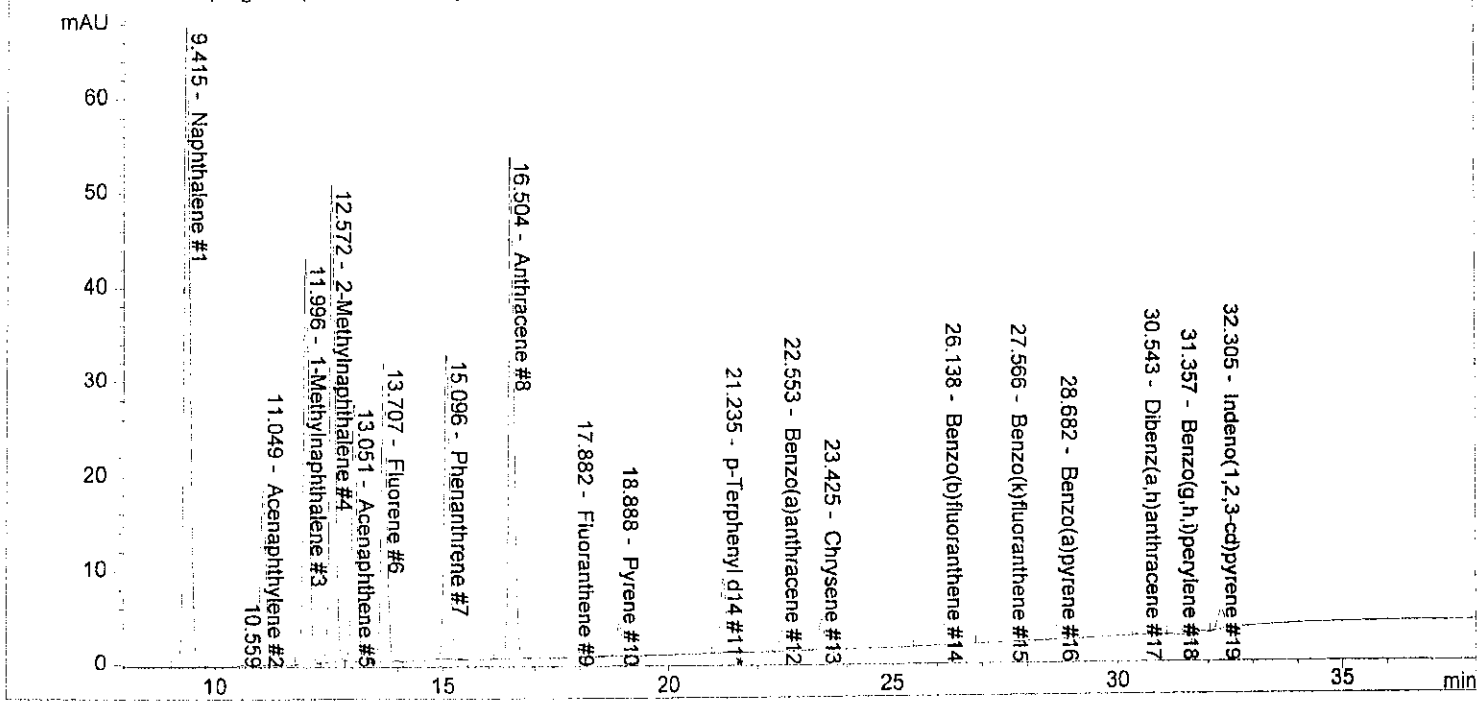
1,1 SOS56-19/56-20 level 2 std. 5/.5/.25 ppm

Injection Date	: 12/7/2001 10:25:05 PM	Seq. Line	: 7
Sample Name	: WG109608-06	Vial	: 7
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl

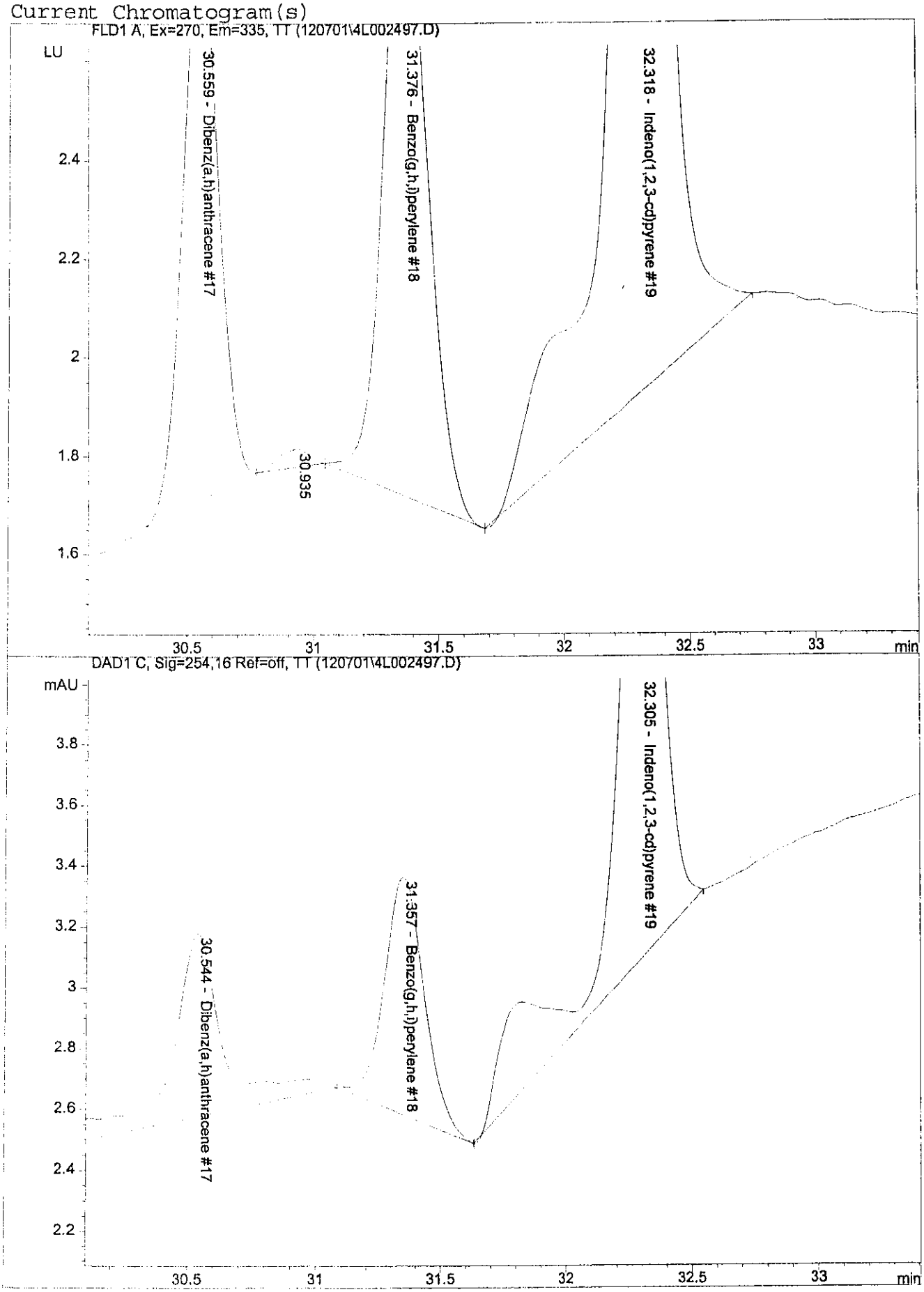
Acq. Method : C:\HPCHEM\2\METHODS\8310.M
Last changed : 11/26/2001 11:42:54 AM by RDC
Analysis Method : C:\HPCHEM\2\METHODS\8310DATA.M
Last changed : 12/10/2001 11:25:39 AM by RDC
(modified after loading)

Calibrated 12/06/2001

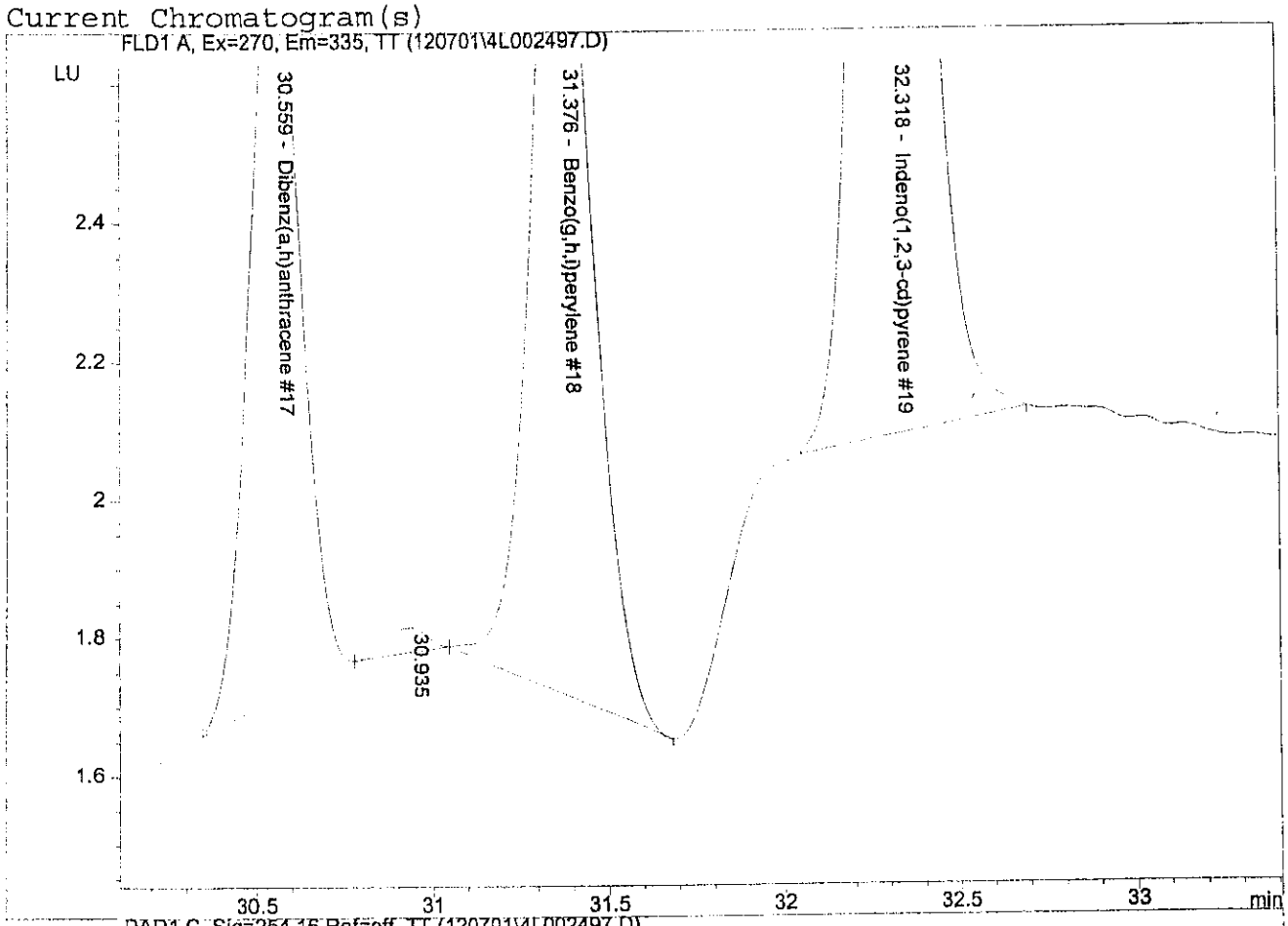


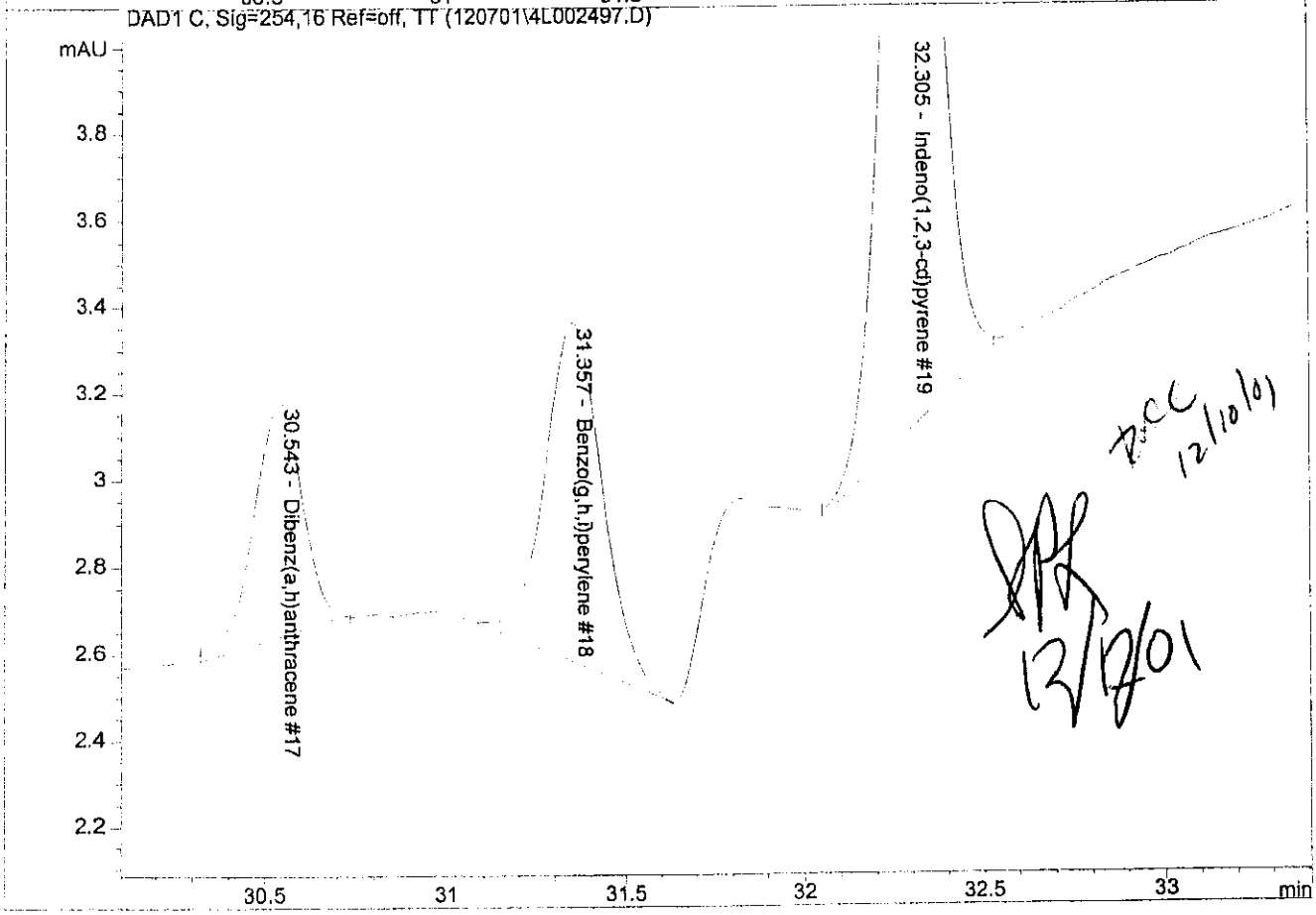


Current Chromatogram(s)



Current Chromatogram(s)





RCC 12/10/01

12/18/01

308

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

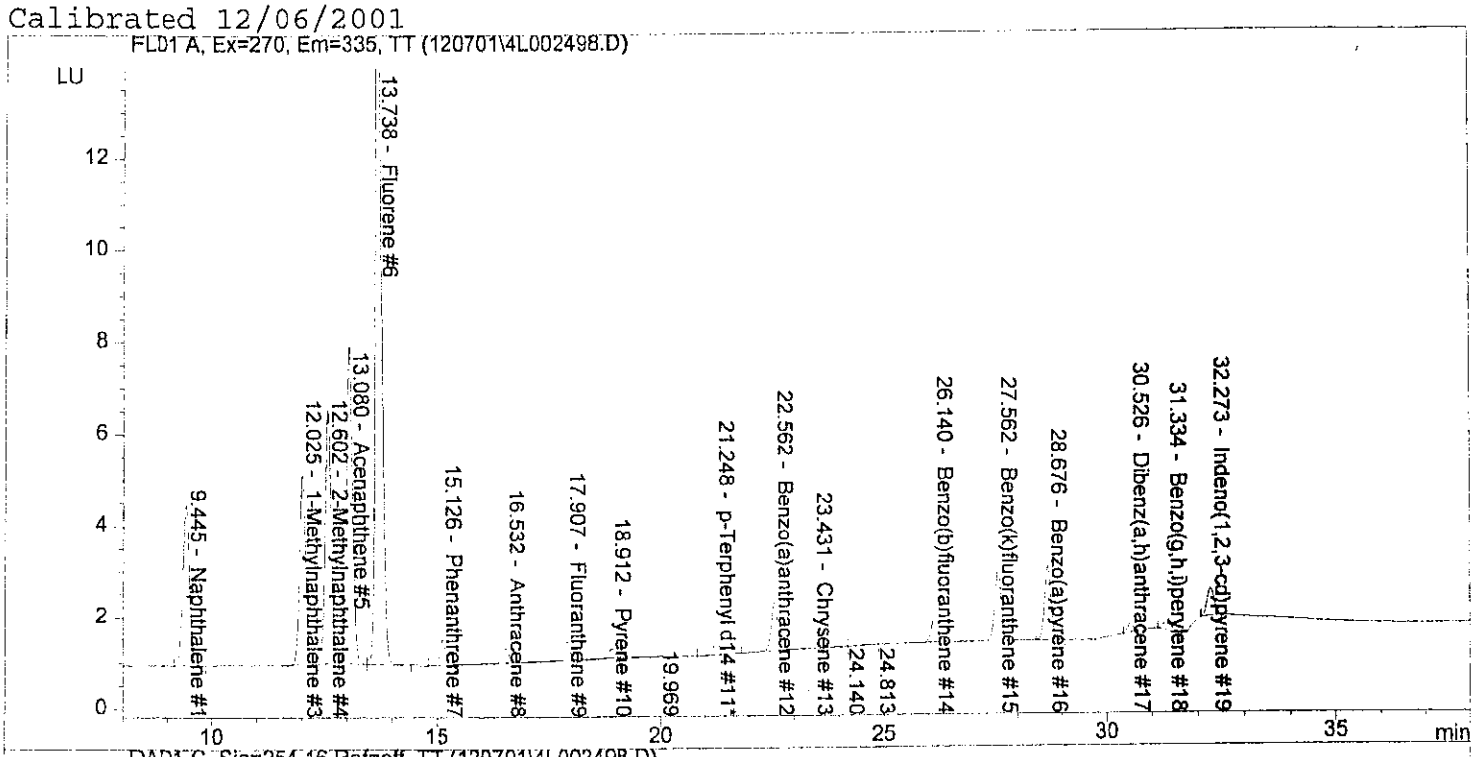
Results obtained with enhanced integrator!

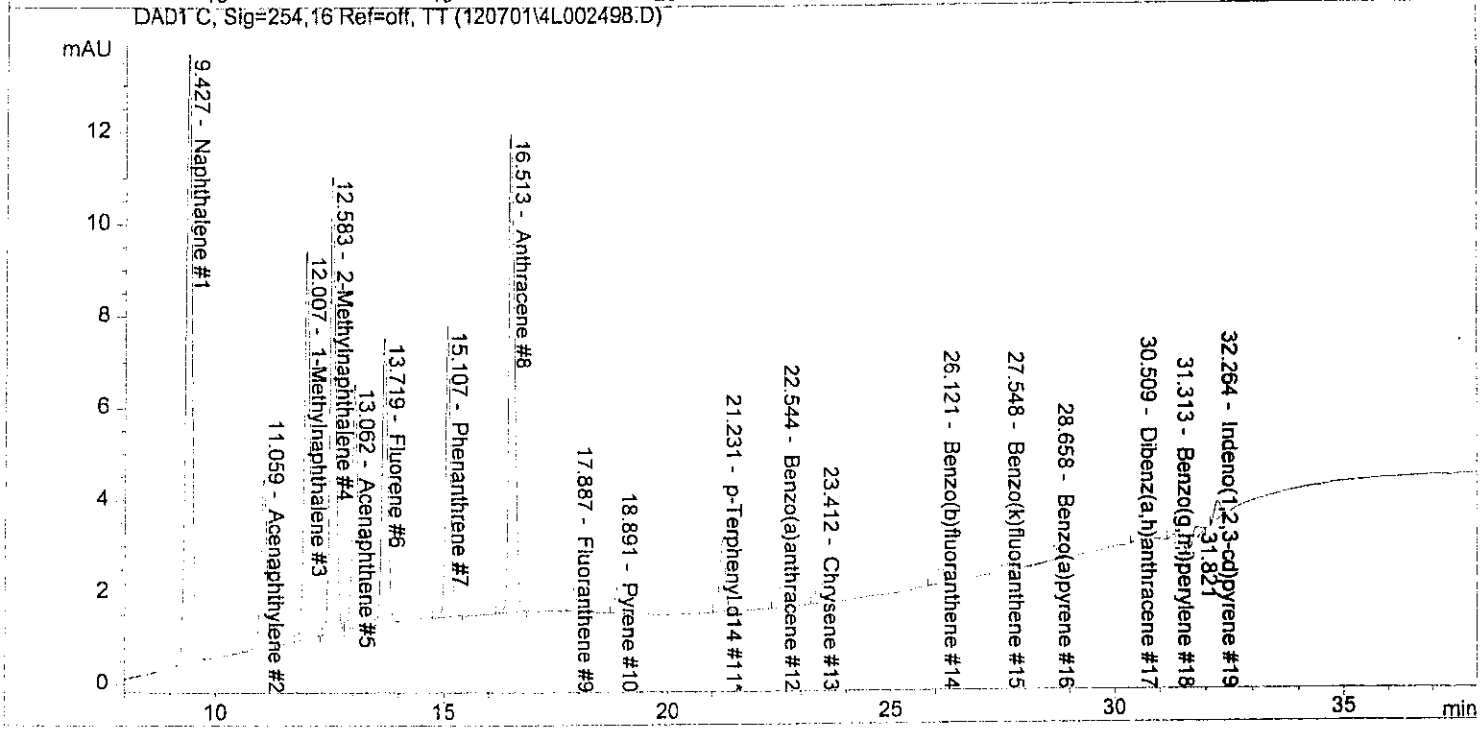
*** End of Report ***

1,1 SOS56-19/56-20 level 1 std. 1/.1/.05 ppm

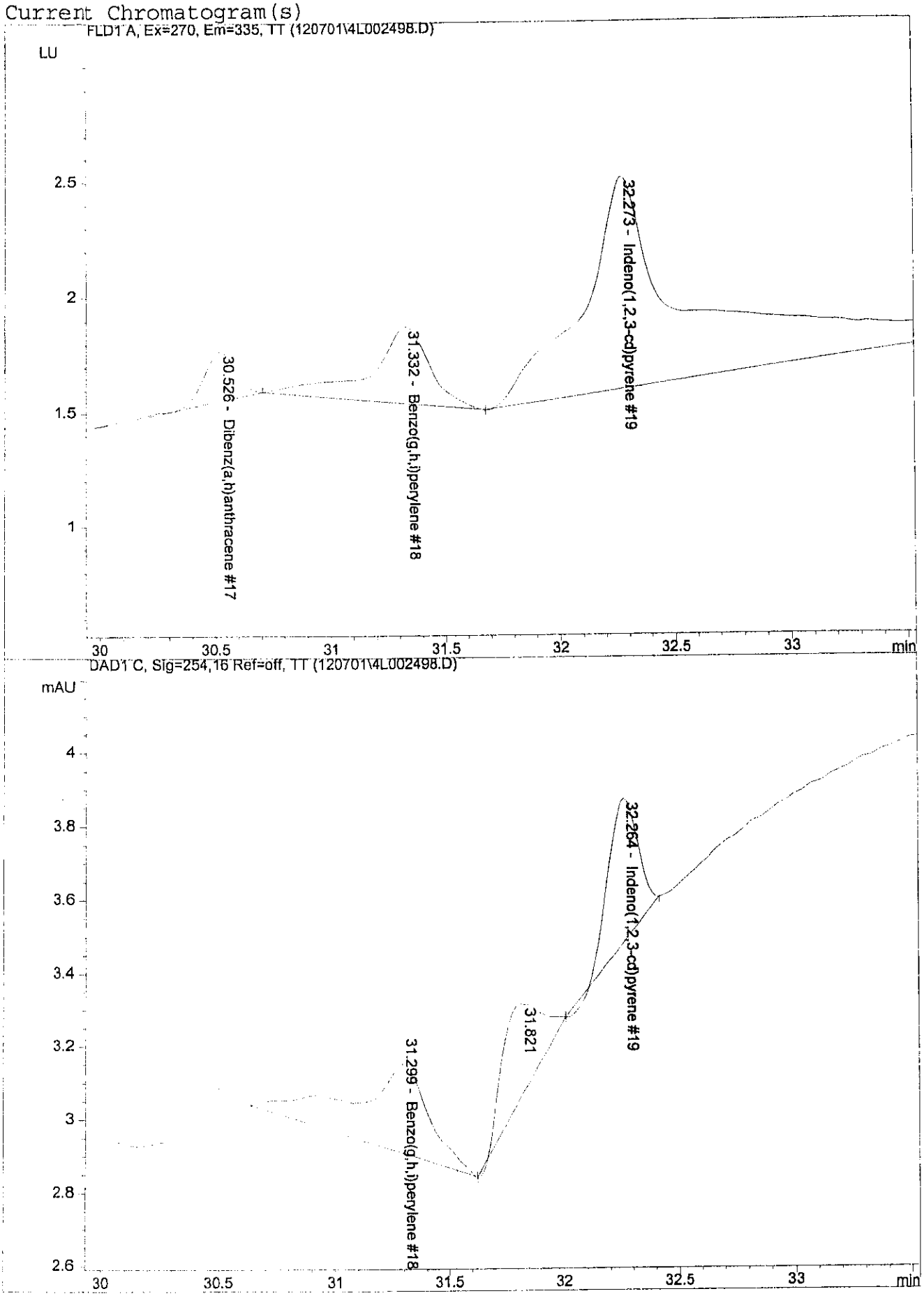
Injection Date	: 12/7/2001 11:21:43 PM	Seq. Line	: 8
Sample Name	: WG109608-07	Vial	: 8
Acq. Operator	: RDC	Inj	: 1
		Inj Volume	: 8 µl
Acq. Method	: C:\HPCHEM\2\METHODS\8310.M		
Last changed	: 11/26/2001 11:42:54 AM by RDC		
Analysis Method	: C:\HPCHEM\2\METHODS\8310DATA.M		
Last changed	: 12/10/2001 11:28:14 AM by RDC (modified after loading)		

Calibrated 12/06/2001

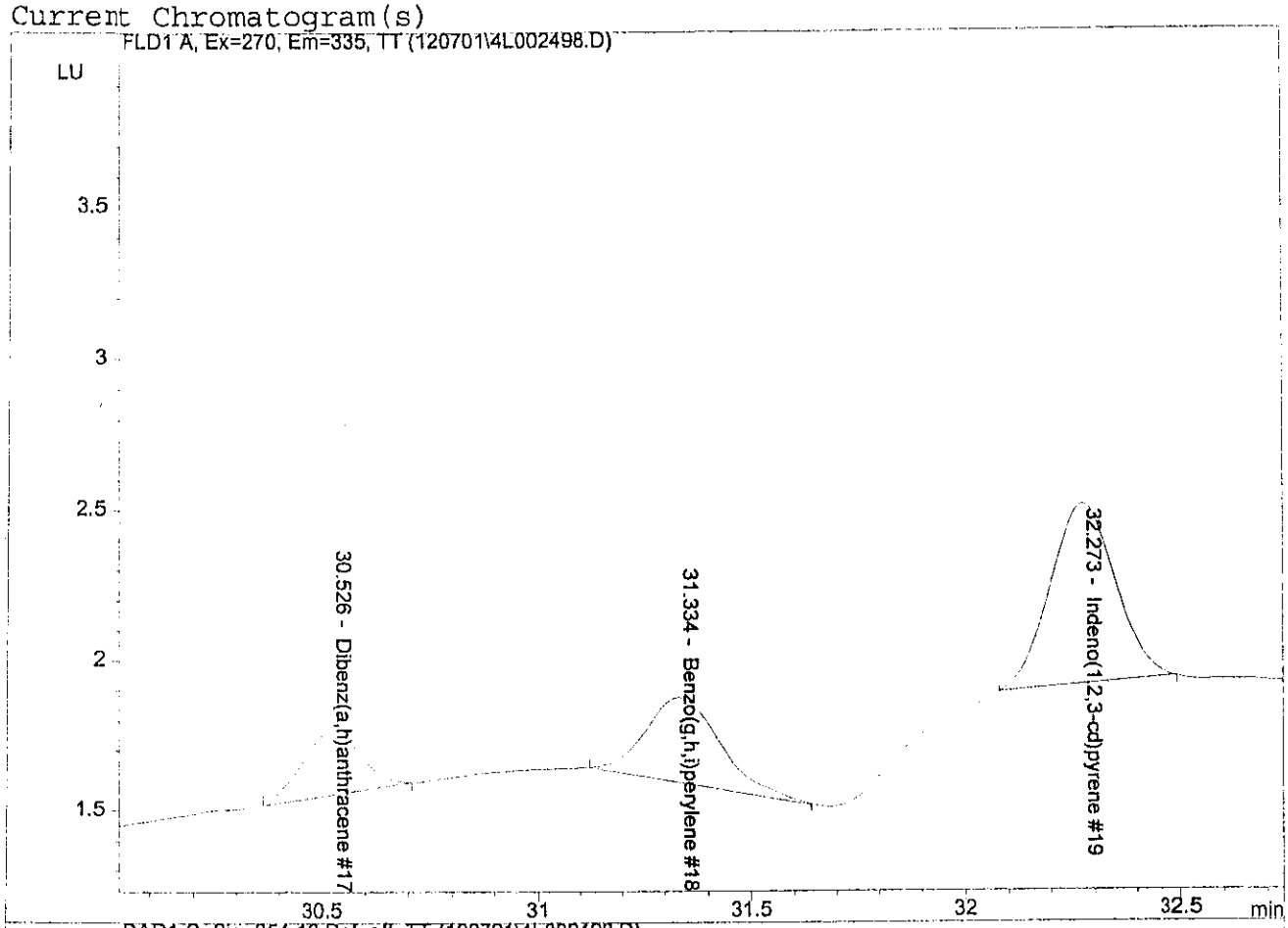


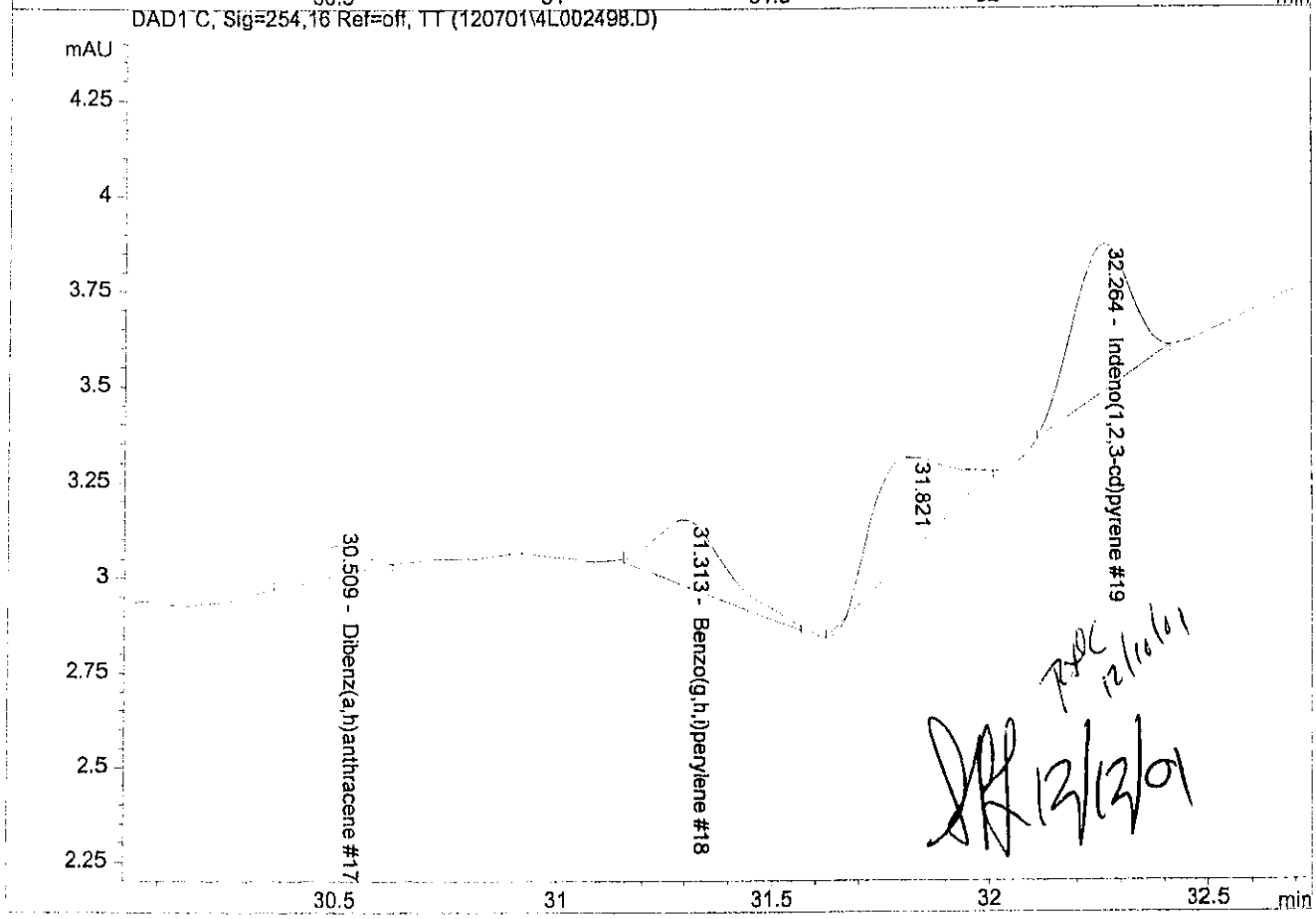


Current Chromatogram(s)



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

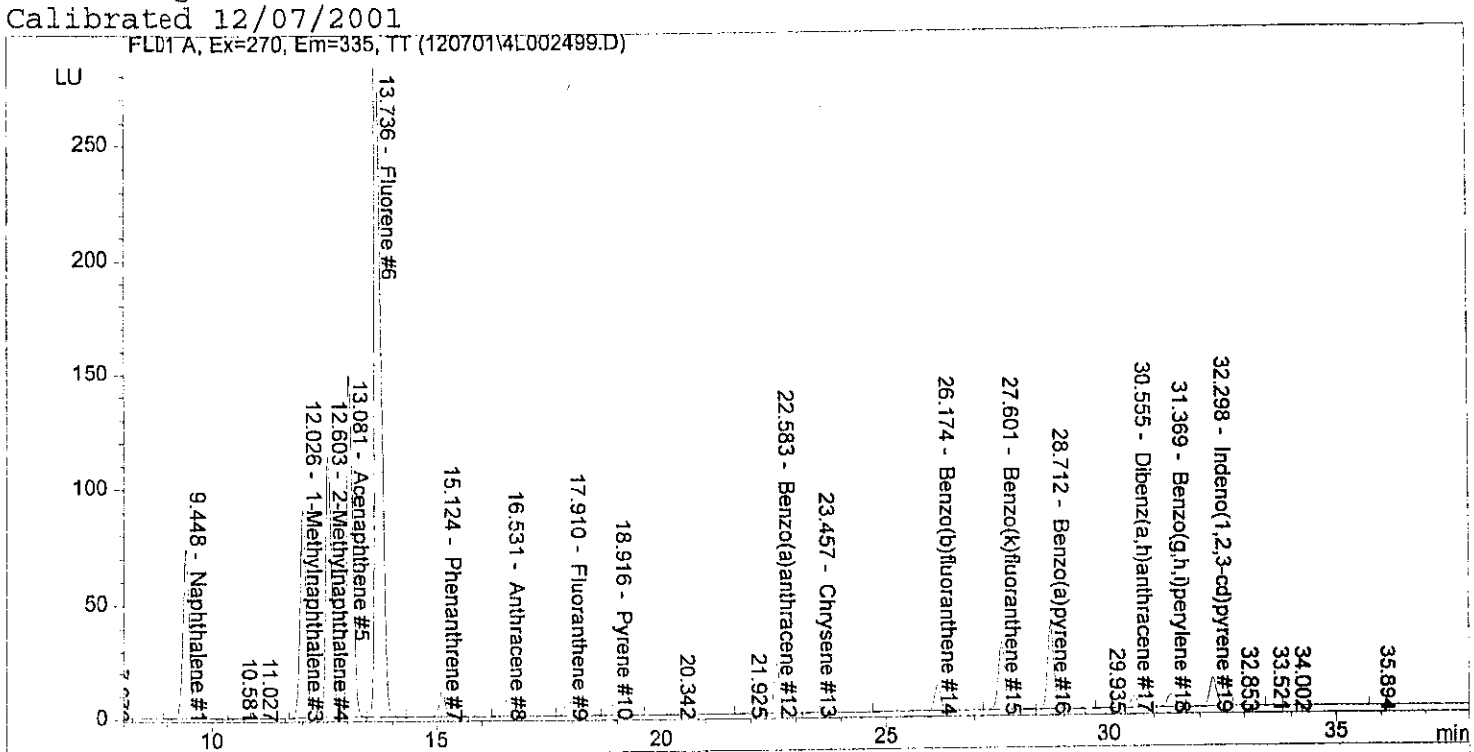
Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.431	20.0	20.166	0.8
Acenaphthylene #2	11.061	20.0	18.484	-7.6
1-Methylnaphthalene #3	12.010	20.0	19.908	-0.5
2-Methylnaphthalene #4	12.587	20.0	19.127	-4.4
Acenaphthene #5	13.065	20.0	19.623	-1.9
Fluorene #6	13.719	20.0	19.343	-3.3
Phenanthrene #7	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

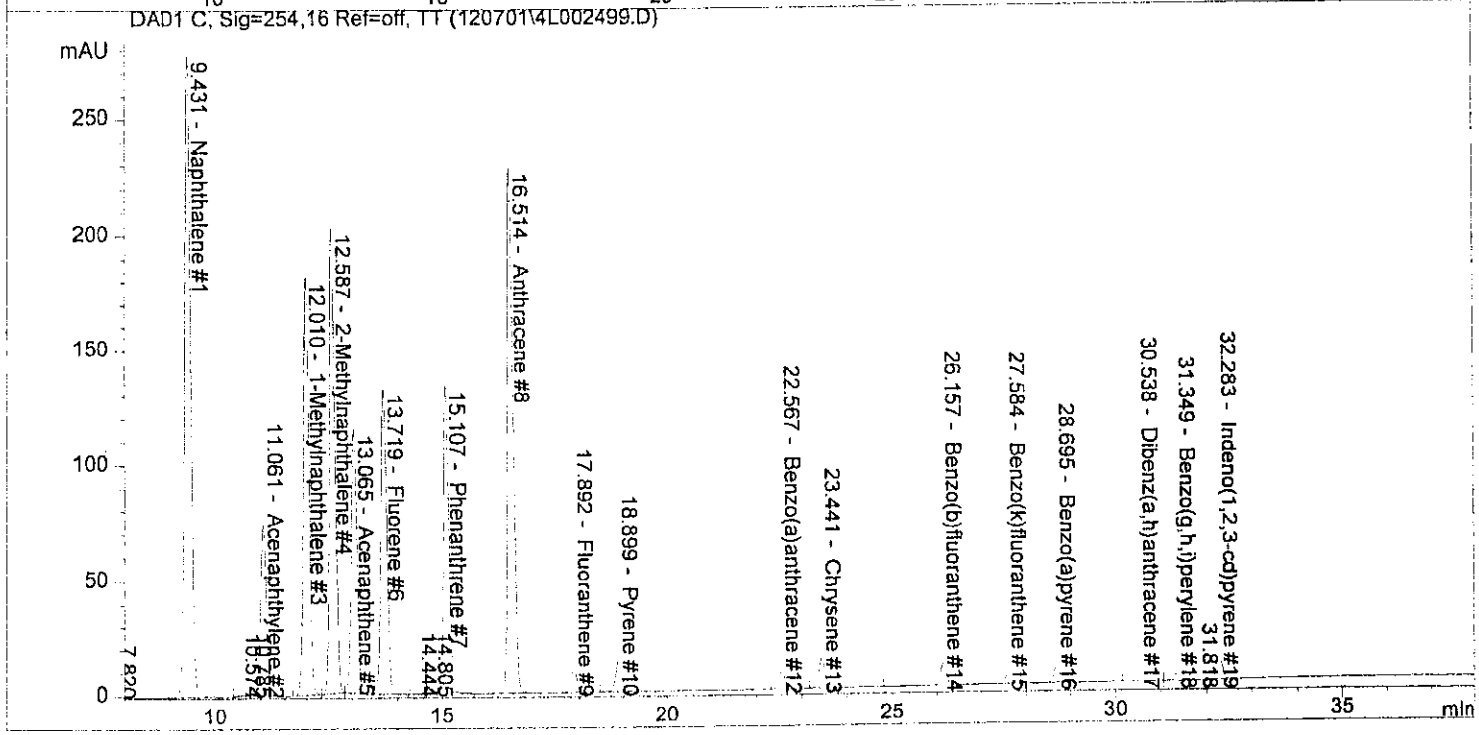
= Failed 15.0% Criteria

1,1 SOS57-27/57-28 alt level 4 std. 20/2/1 ppm

Injection Date	: 12/8/2001 12:18:21 AM	Seq. Line	: 9
Sample Name	: WG109608-08	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 11:34:24 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

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

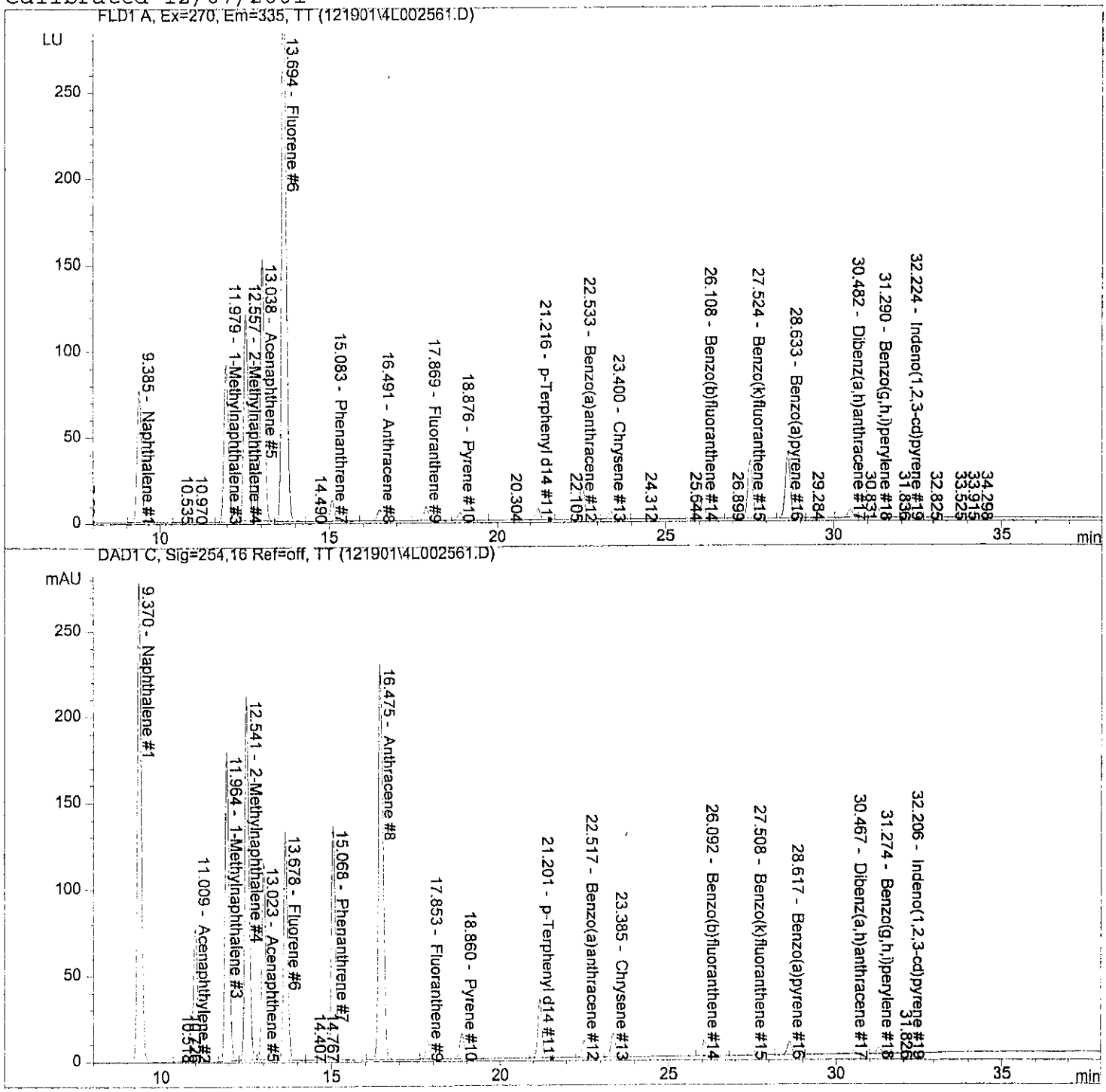
Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.370	20.0	20.228	1.1
Acenaphthylene #2	11.009	20.0	19.211	-3.9
1-Methylnaphthalene #3	11.964	20.0	19.402	-3.0
2-Methylnaphthalene #4	12.541	20.0	19.713	-1.4
Acenaphthene #5	13.023	20.0	19.278	-3.6
Fluorene #6	13.678	20.0	19.219	-3.9
Phenanthrene #7	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

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

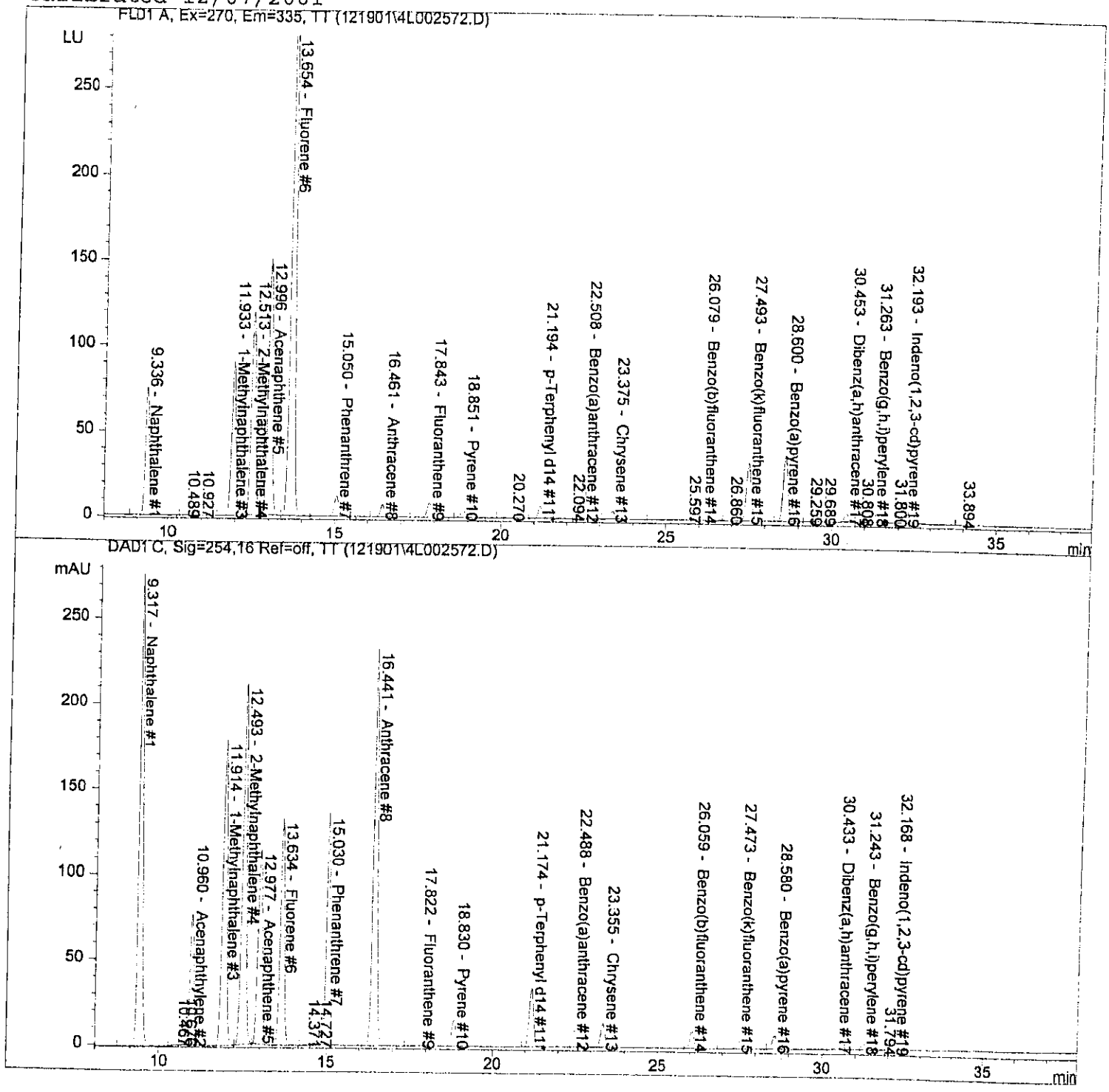
Compound	RT	Known Conc.	Cal. Conc.	%D
Naphthalene #1	9.317	20.0	20.296	1.5
Acenaphthylene #2	10.960	20.0	19.276	-3.6
1-Methylnaphthalene #3	11.914	20.0	19.441	-2.8
2-Methylnaphthalene #4	12.493	20.0	19.756	-1.2
Acenaphthene #5	12.977	20.0	19.366	-3.2
Fluorene #6	13.634	20.0	19.286	-3.6
Phenanthrene #7	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

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

[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

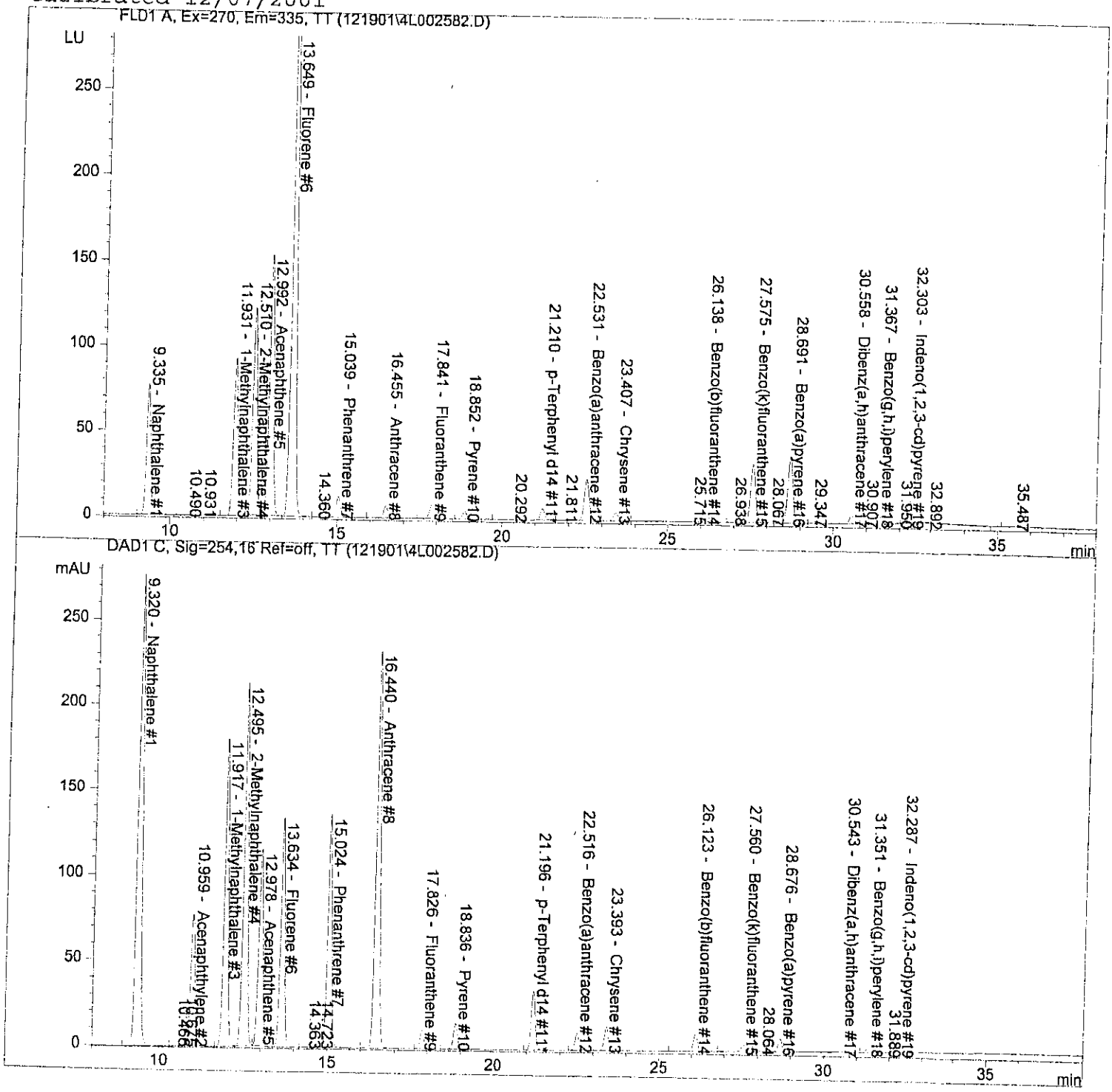
= Failed 15.0% Criteria

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



HPLC4 12/20/2001 1:39:51 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
9.335	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]		[mAU*s]		[ug/L]		
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!

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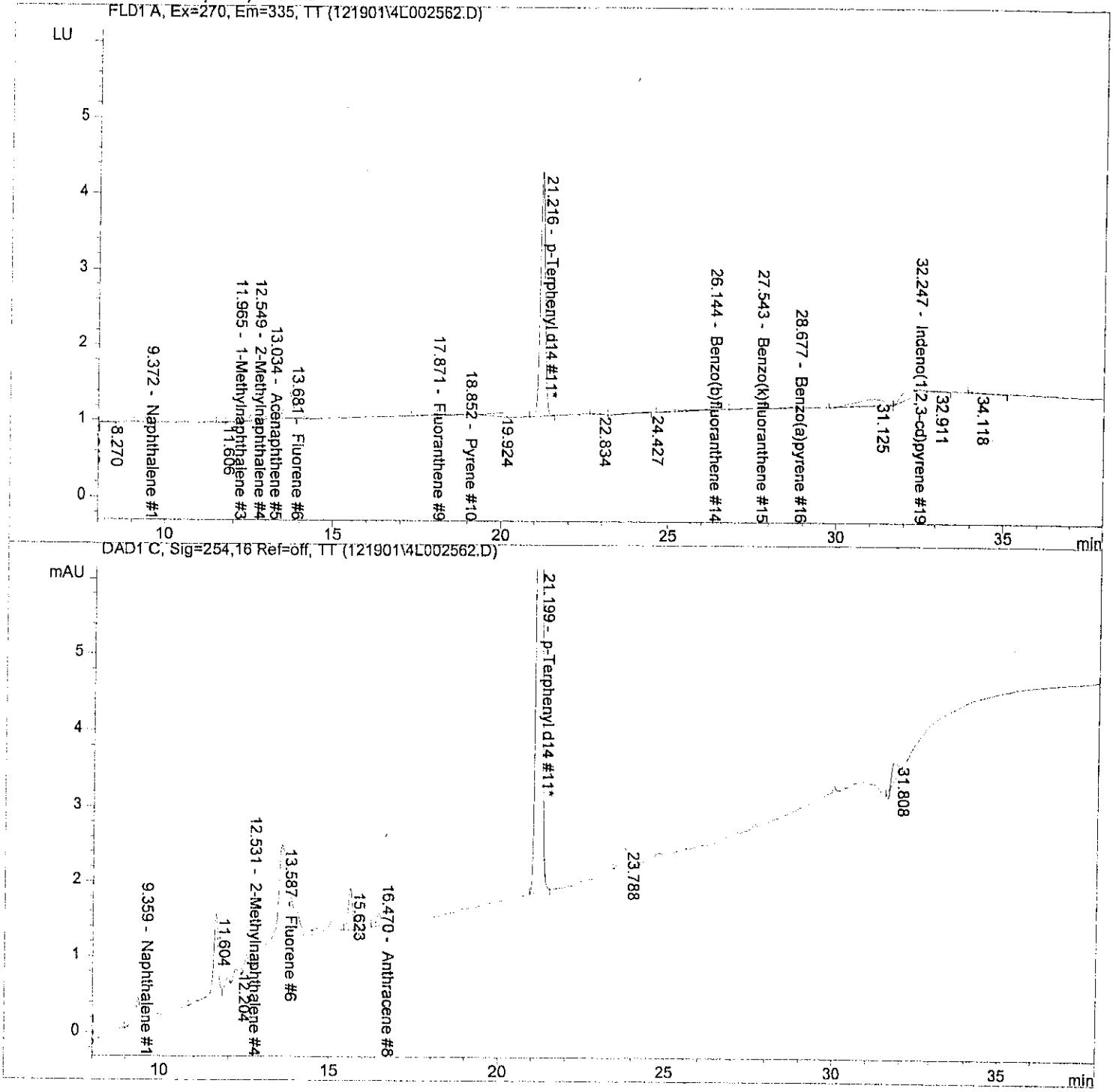
*** End of Report ***

2.2.7.4 Raw QC Data

Injection Date : 12/19/2001 4:20:18 PM
Sample Name : WG110257-02 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 : 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
9.372	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		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		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		Fluorene #6
15.107		-	-	-		Phenanthrene #7
16.470	BBA	1.86192	1.03316e-2	1.92366e-2		Anthracene #8
17.887		-	-	-		Fluoranthene #9
18.891		-	-	-		Pyrene #10
21.199	BBA	140.71674	6.51566e-2	9.16862		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]	Type	[mAU*s]	Amt/Area	[ug/L]	Grp	Name
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

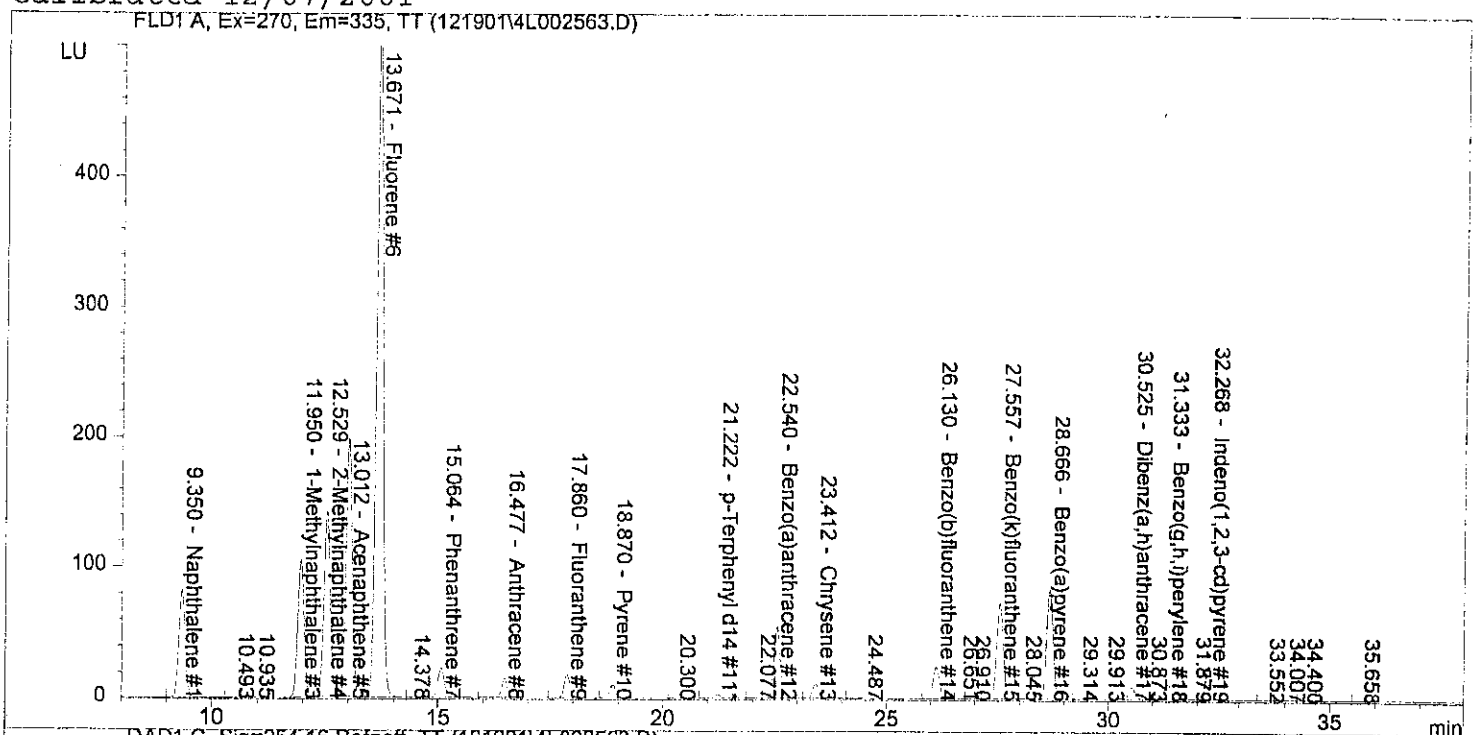
==========

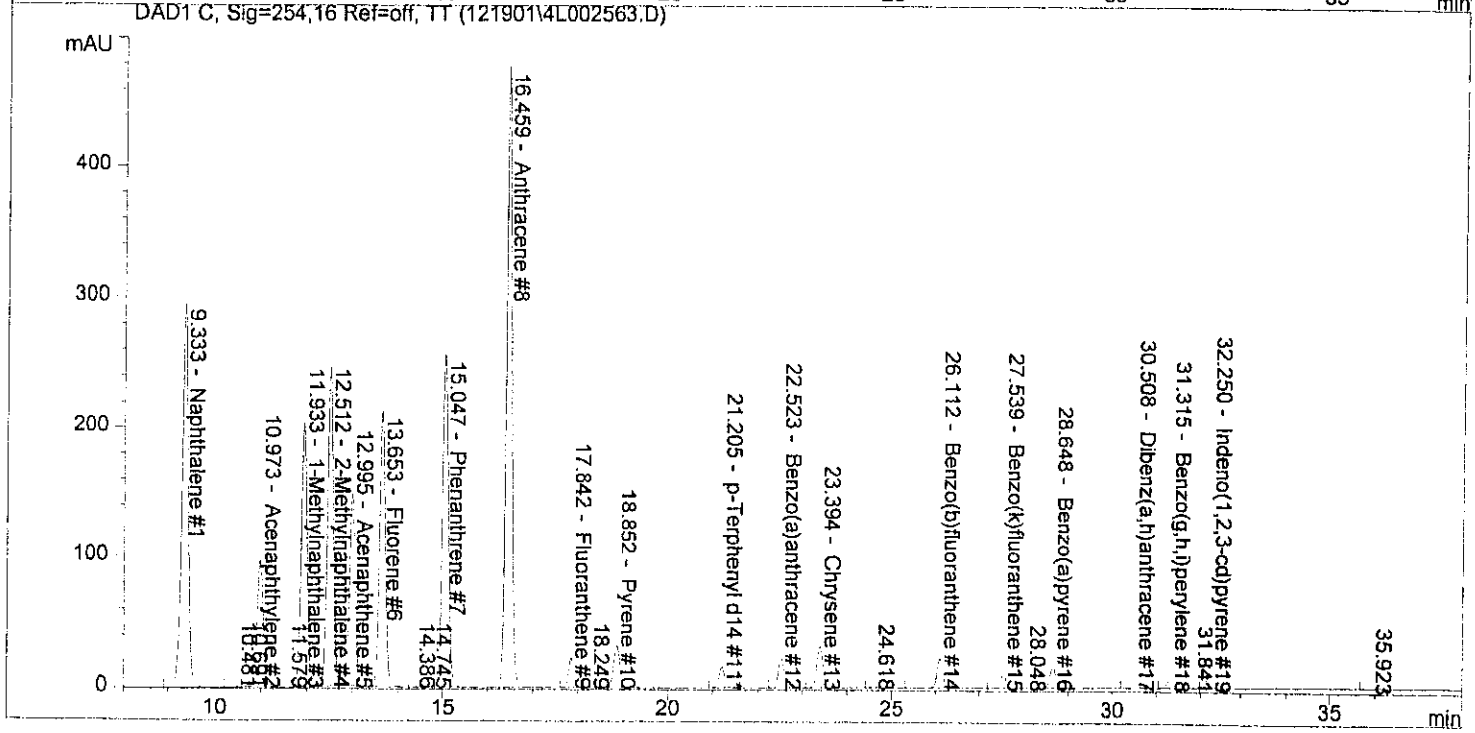
*** End of Report ***

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

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		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		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

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
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		

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	02:01		WG109608-01
No	3	3	8310	4L002493	03:01		WG109608-02
No	4	4	8310	4L002494	04:01	SOS 56-19/56-20	WG109608-03
No	5	5	8310	4L002495	05:01		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 57-27/57-27	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

RRC 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 V 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

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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		
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		
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		
20	20	L0112348-09 831W	8310	1	Sample		
21	21	L0112349-01 831W	8310	1	Sample		
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		
28	28	L0112259-02 10X	8310	1	Sample		
29	19	WG110267-04 CCV	8310	1	Sample		

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

TSOC
12/20/01
mdl 12/20/01

KEMRON ENVIRONMENTAL SERVICES
HPLC Laboratory Maintenance Log

Analysis Date/Time Dec 19, 2001 Instrument ID #2LC4 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

* [illegible] 267-01 / [illegible] 555 [illegible] failed high for pyrene & benzo(g,h,i) perylene by FLD, there were no hits to [illegible]

Reviewed By: [illegible] 12/20/01

Parameter: 8310 - H_2O SOP #: CWHCLC1 Revision #: 6
Extraction Analyst(s): REK, CSH TV/KD Analyst(s): CSH, DP
Date/Time Extracted: 12/14/01 @ 0830 Date TV/KD: 12/19/01
Spike Surrogate Analyst: REK Witness: DP
Surrogate #: ESS 0034-27 Earliest Hold Date: 12/24/01
Spike #: A = ESS 0039-22 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			✓		1		500 µL		C				WG 1 -03
3	12-349-01	8310		✓		920 mL				T				
4	-02			✓		910 mL								
5	-03			✓		940 mL								
6	04			✓		940 mL				1				WG 110257-01
7	-05 MS			✓		950 mL		500 µL		C				1 -04
8	-06 MSD			✓		930 mL		1		I				-05
9	-07			✓		900 mL				T				
10	-08			✓		910 mL				I				
11	-09			✓		910 mL								
12	12-349-01			✓		915 mL				C				
13	1 -02	—		✓		940 mL	1		1	T				
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

CSH 12/19/01

Methylene Chloride Lot #: 411C5
Hexane Lot #: —
Ether Lot #: —
Methanol Lot #: —
Solvent: Acetonitrile Lot #: 41264
Reagent: — Lot #: —
Reagent: — Lot #: —
Reagent: — 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
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 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: 12/12/01

Secondary Reviewer: 12/12/01

Supervisor Review: 12/12/01

√ = Checked & OK

NA = Not Applicable

Run Date: 19-Dec-01 (dil'n.)

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	

		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: 12/26/01

√ = Checked & OK

NA = Not Applicable

2.4 General Chemistry Data

2.4.5 Anions (9056)

REPORT NARRATIVE
COMMON ANIONS

KEMRON Report No.: L0112348

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. The MS/MSD yielded % recoveries that were above advisory limits. The MS/MSD outliers were found to be acceptable in the associated LCS. 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: 3/2/01

Rev. 7/14/00

Anions (9056)

Login Number: 10112348

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: ASG Date: 12/20/01

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2.4.5.1 QC Summary

Kemron Environmental Services, OVL
Marietta, OH
Semi-Volatiles Quality Control Summary, Water

Analytical Work Group: WG110193
Method: 9056
Instrument: IC2
Analyst: GSG

Prep Work Group: NA
Ext Date: NA
Ext Bench Sheet: NA
Run Date: 18-Dec-01

Blank Filename: IC2_016
LCS Filename: IC2_017
Sample Number: L0112348-01
Sample Filename: IC2_018
Duplicate Filename: IC2_019

Sample Number: L0112348-04
Sample Filename: IC2_022
MS Filename: IC2_023
MSD Filename: IC2_024

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	3.95	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

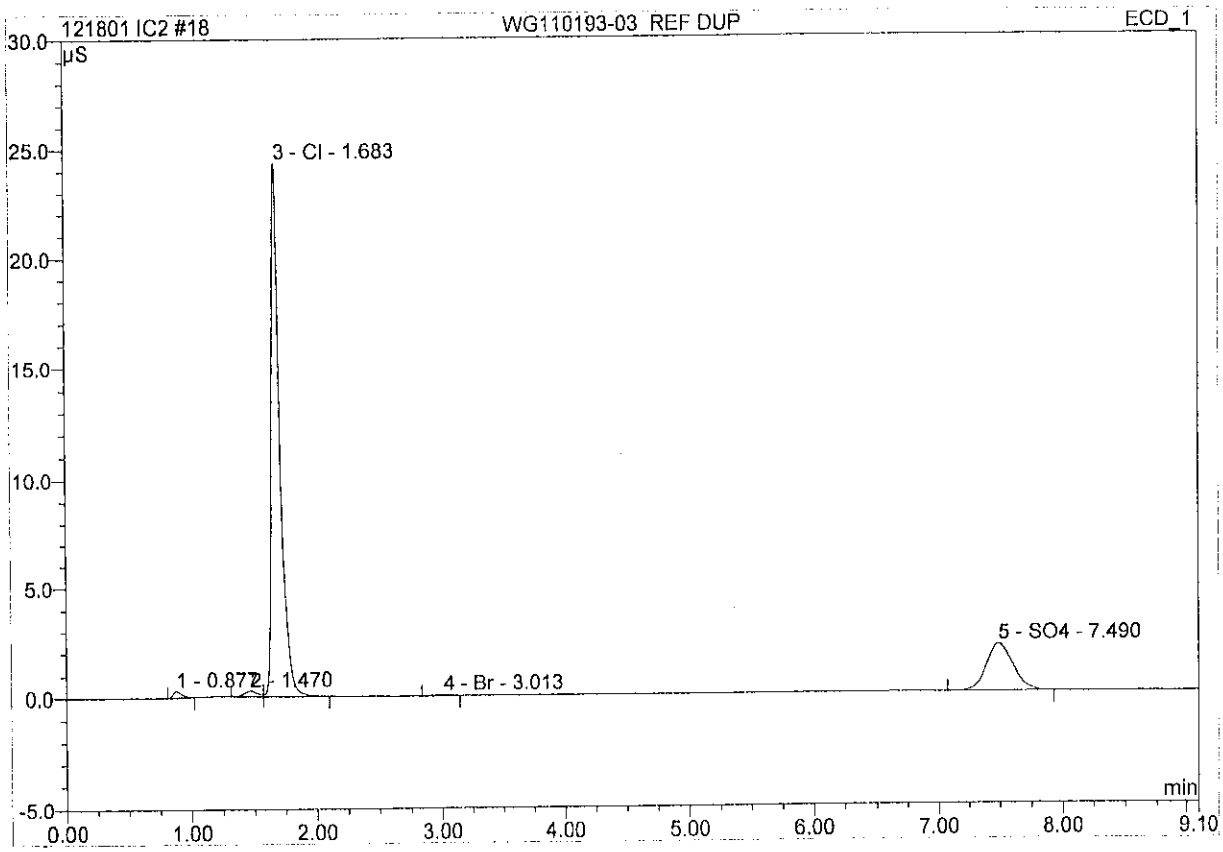
H = ABOVE CONTROL LIMIT
L = BELOW CONTROL LIMIT

2.4.5.2 Sample Data

18 WG110193-03 REF DUP

1,1 GSG L0112348-01 REF DUP

Sample Name:	**WG110193-03 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:	**12/18/2001 13:53**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

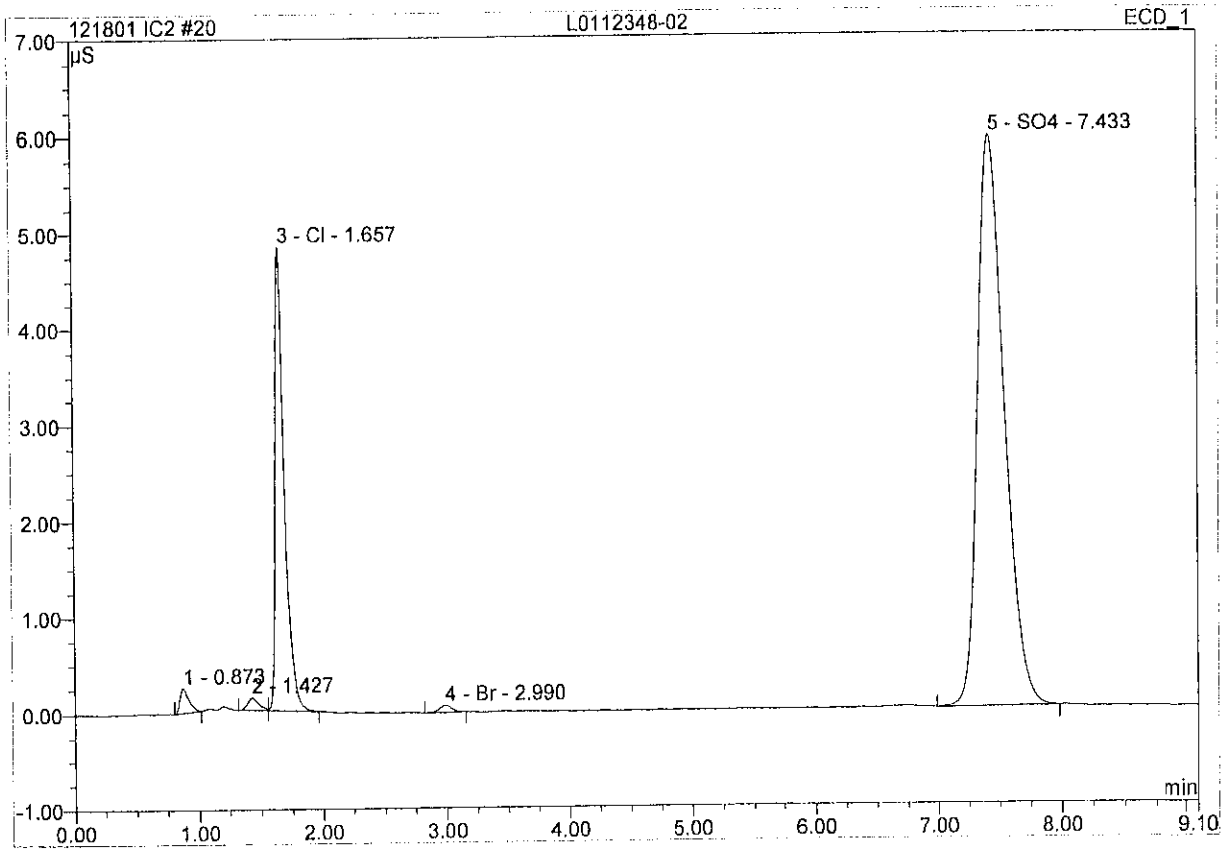


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.298	0.023	0.92	n.a.	BMB
2	1.47	n.a.	0.260	0.030	1.17	n.a.	BM
3	1.68	Cl	24.324	1.937	76.41	21.715	MB
4	3.01	Br	0.055	0.007	0.26	0.154	BMB
5	7.49	SO4	2.138	0.538	21.24	8.536	BMB
Total:			27.074	2.535	100.00	30.404	

20 L0112348-02

1,1 GSG

Sample Name:	**L0112348-02**	*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:	**12/18/2001 14:16**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

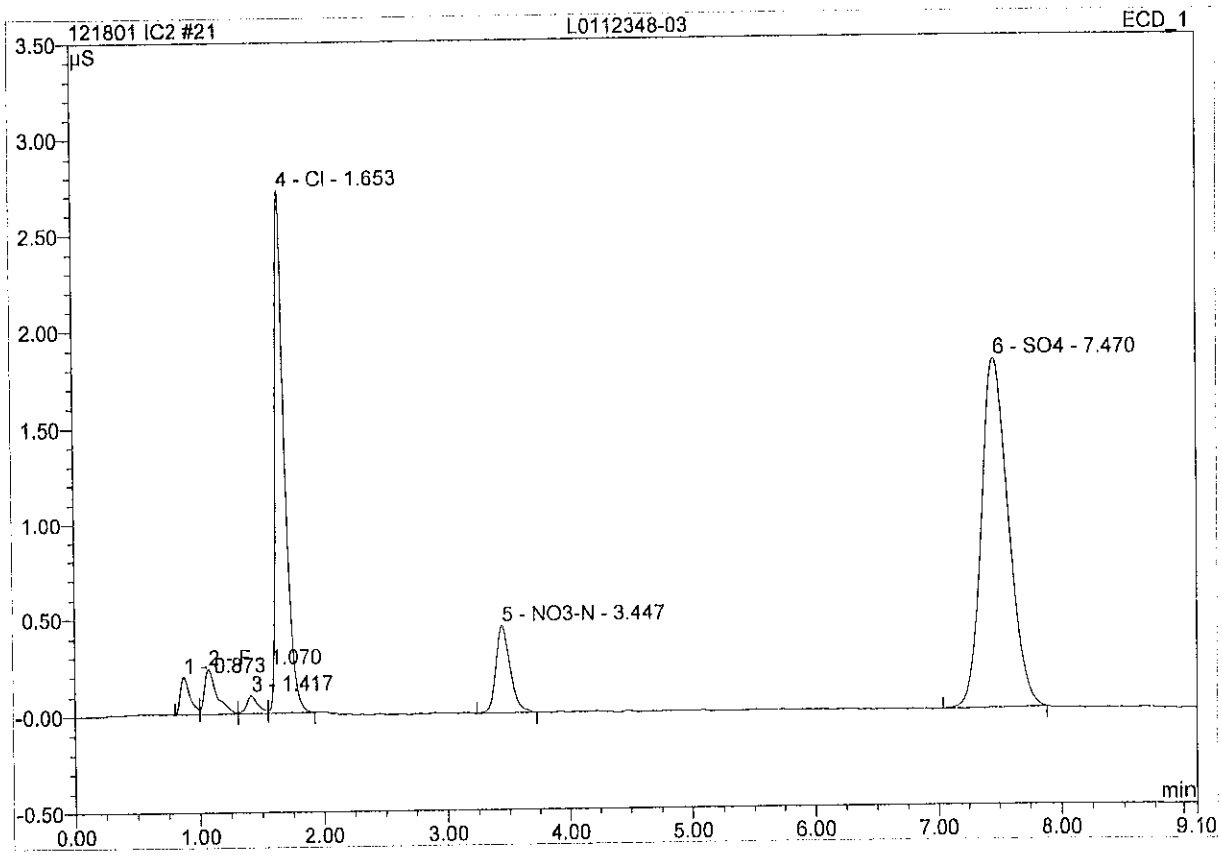


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.251	0.021	1.08	n.a.	BMB
2	1.43	n.a.	0.126	0.013	0.69	n.a.	BM
3	1.66	Cl	4.829	0.413	21.35	4.708	MB
4	2.99	Br	0.067	0.008	0.41	0.195	BMB
5	7.43	SO4	5.942	1.478	76.46	22.087	BMB
Total:			11.215	1.932	100.00	26.989	

21 L0112348-03

1,1 GSG

Sample Name:	**L0112348-03**	*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:	**12/18/2001 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.	0.193	0.017	2.13	n.a.	BM
2	1.07	F	0.231	0.027	3.32	0.353	M
3	1.42	n.a.	0.092	0.010	1.27	n.a.	M
4	1.65	Cl	2.719	0.238	29.36	2.764	MB
5	3.45	NO3-N	0.451	0.062	7.58	0.358	BMB
6	7.47	SO4	1.816	0.457	56.34	7.368	BMB
Total:			5.501	0.812	100.00	10.843	

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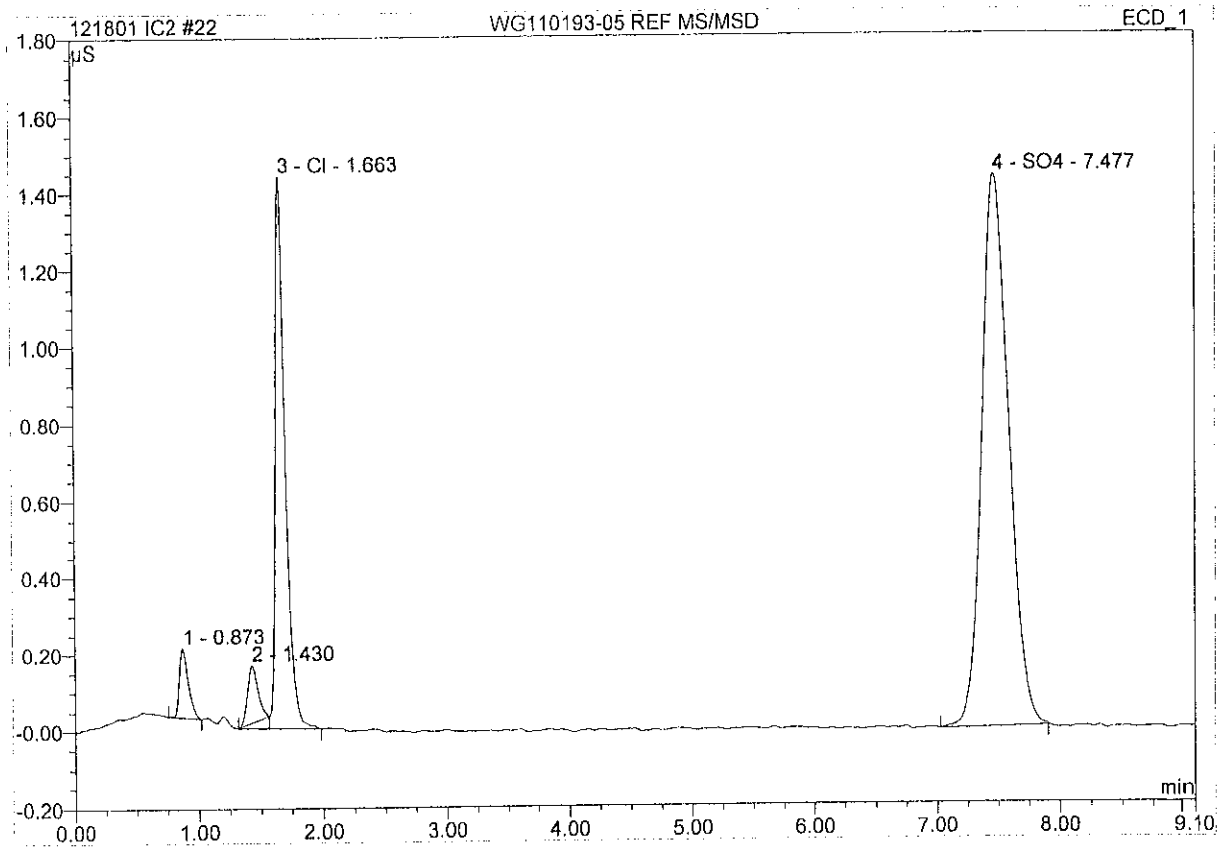
22 WG110193-05 REF MS/MSD

1,1 GSG L0112348-04 REF MS/MSD

Sample Name:	**WG110193-05 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:	**12/18/2001 14:39**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

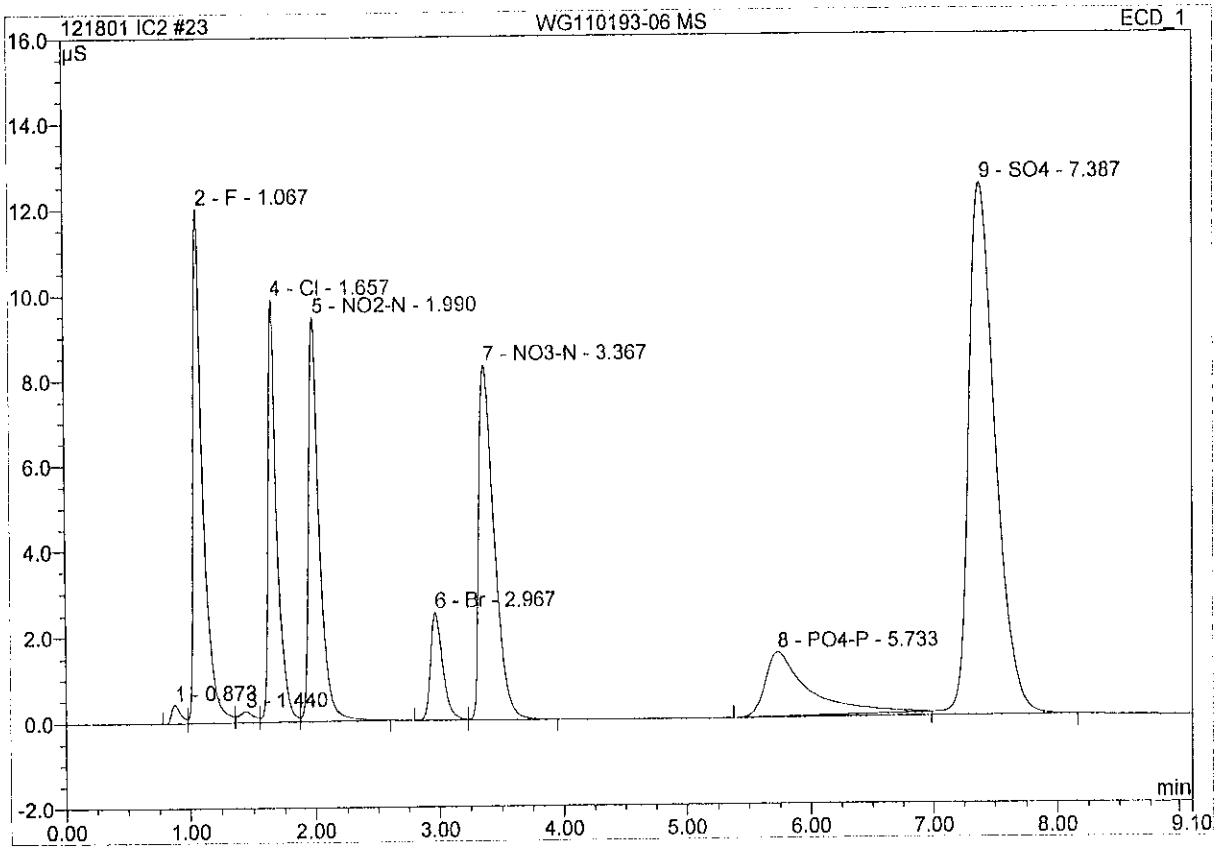


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.180	0.014	2.70	n.a.	BMB
2	1.43	n.a.	0.150	0.015	2.79	n.a.	Ru
3	1.66	Cl	1.439	0.136	25.51	1.622	BMB
4	7.48	SO4	1.439	0.368	68.99	6.077	BMB
Total:			3.207	0.533	100.00	7.699	

23 WG110193-06 MS

1,1 GSG L0112348-05 MS

Sample Name:	**WG110193-06 MS**	*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:	**12/18/2001 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.	0.436	0.038	0.47	n.a.	BM
2	1.07	F	12.017	1.053	12.96	7.953	M
3	1.44	n.a.	0.250	0.034	0.41	n.a.	M
4	1.66	Cl	9.878	0.843	10.37	9.505	M
5	1.99	NO2-N	9.455	0.926	11.40	4.871	MB
6	2.97	Br	2.514	0.287	3.53	8.059	BM
7	3.37	NO3-N	8.288	1.162	14.30	5.286	MB
8	5.73	PO4-P	1.495	0.607	7.47	11.742	Ru
9	7.39	SO4	12.421	3.174	39.07	46.565	BMB
Total:			56.753	8.124	100.00	93.981	

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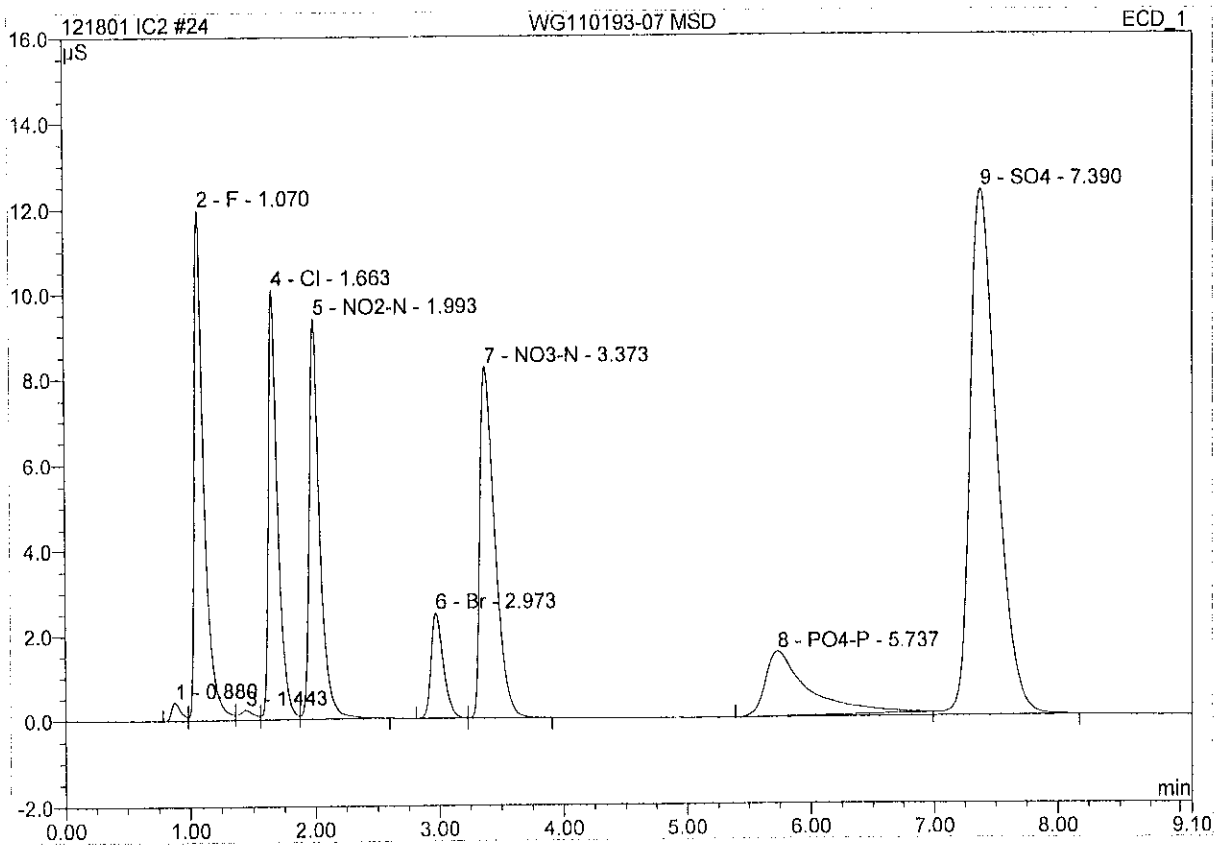
24 WG110193-07 MSD

1,1 GSG L0112348-06 MSD

Sample Name:	**WG110193-07 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:	**12/18/2001 15:02**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

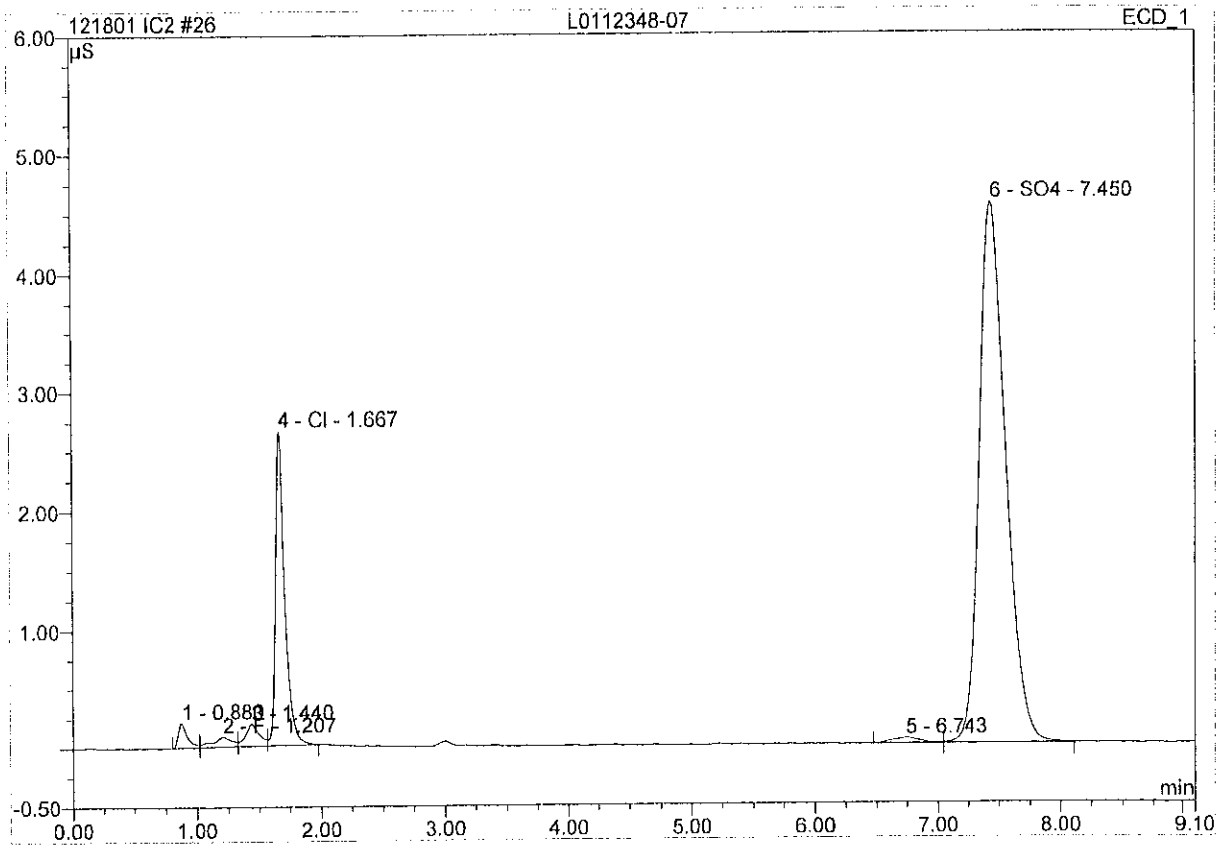


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.433	0.038	0.47	n.a.	BM
2	1.07	F	11.977	1.049	12.94	7.922	M
3	1.44	n.a.	0.241	0.033	0.41	n.a.	M
4	1.66	Cl	10.086	0.856	10.56	9.654	M
5	1.99	NO2-N	9.400	0.919	11.35	4.837	MB
6	2.97	Br	2.493	0.283	3.50	7.952	BM
7	3.37	NO3-N	8.233	1.153	14.23	5.246	MB
8	5.74	PO4-P	1.517	0.612	7.55	11.839	Ru
9	7.39	SO4	12.326	3.159	38.99	46.354	BMB
Total:			56.706	8.103	100.00	93.805	

26 L0112348-07

1,1 GSG

Sample Name:	**L0112348-07**	*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:	**12/18/2001 15:25**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

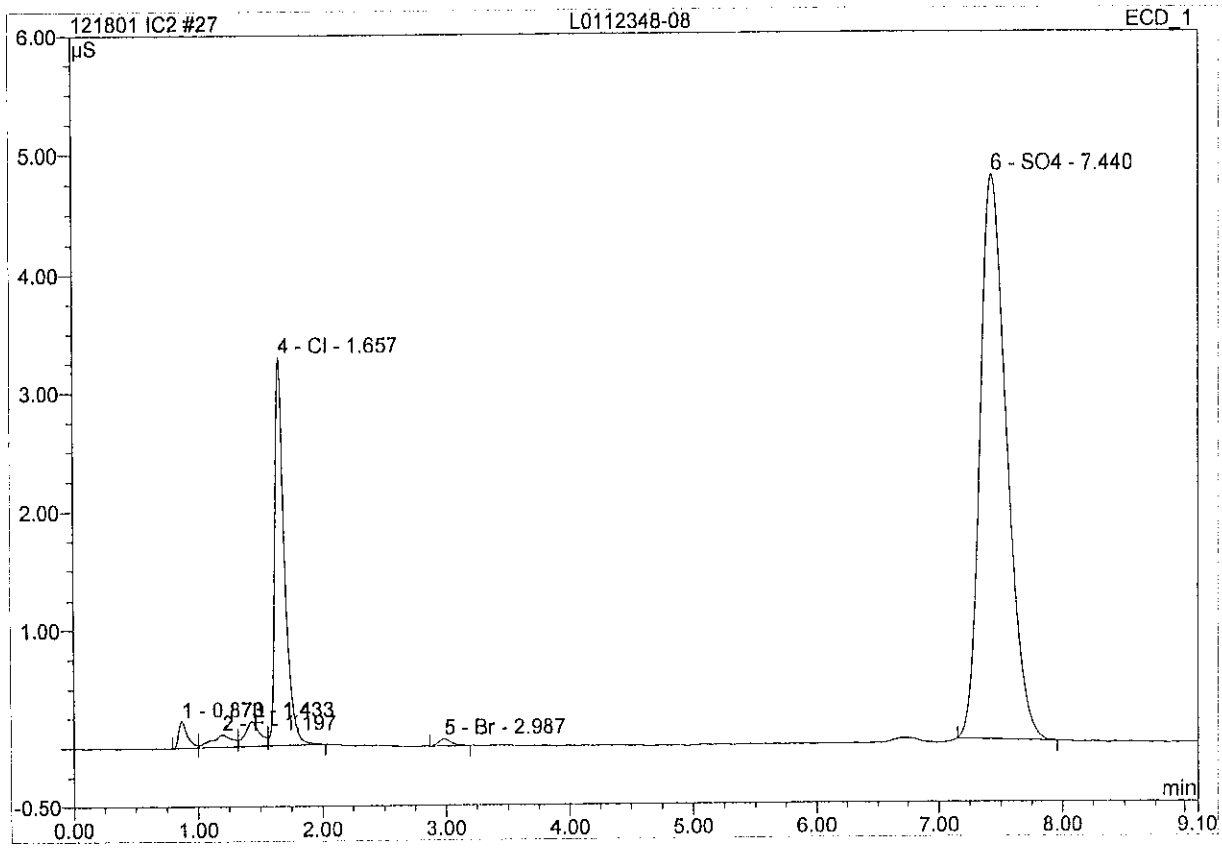


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.209	0.018	1.23	n.a.	BM
2	1.21	F	0.085	0.015	1.04	0.265	M
3	1.44	n.a.	0.189	0.025	1.70	n.a.	M
4	1.67	Cl	2.649	0.236	16.31	2.736	MB
5	6.74	n.a.	0.046	0.012	0.85	n.a.	BM
6	7.45	SO4	4.569	1.141	78.87	17.226	MB
Total:			7.747	1.446	100.00	20.227	

27 L0112348-08

1,1 GSG

Sample Name:	**L0112348-08**	*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:	**12/18/2001 15:37**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**

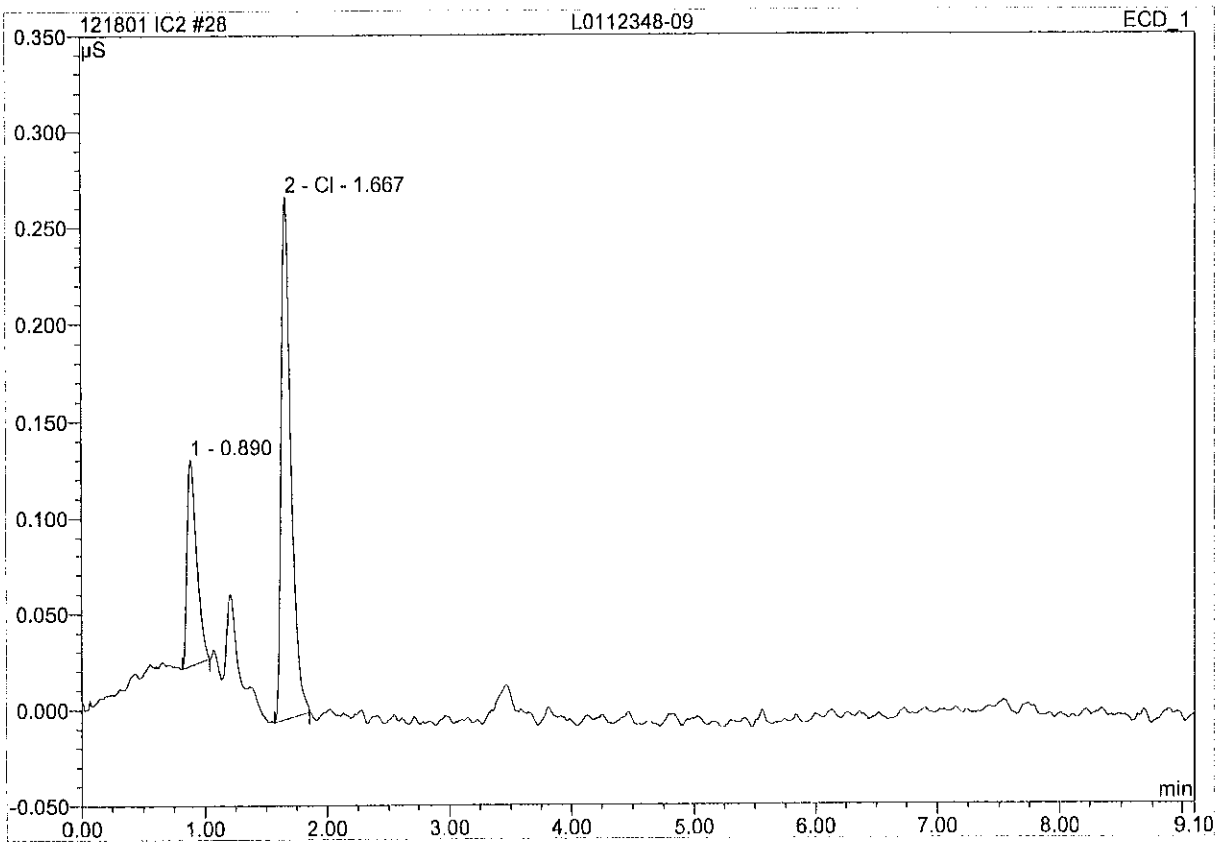


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.87	n.a.	0.226	0.019	1.24	n.a.	BM
2	1.20	F	0.103	0.020	1.33	0.305	M
3	1.43	n.a.	0.209	0.029	1.85	n.a.	M
4	1.66	Cl	3.283	0.291	18.86	3.352	MB
5	2.99	Br	0.060	0.007	0.47	0.174	BMB
6	7.44	SO4	4.769	1.177	76.25	17.744	BMB
Total:			8.650	1.543	100.00	21.574	

28 L0112348-09

1,1 GSG

Sample Name:	**L0112348-09**	*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:	**12/18/2001 15:48**	*Sample Weight:*	**1.0000**
Run Time (min):	**9.10**	*Sample Amount:*	**1.0000**



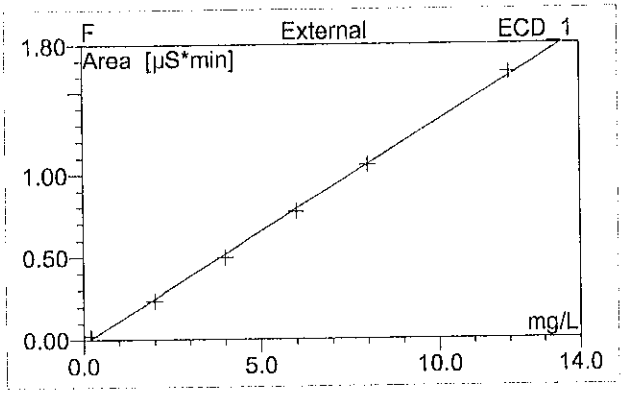
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.108	0.010	27.46	n.a.	BMB
2	1.67	Cl	0.271	0.026	72.54	0.389	BMB
Total:			0.379	0.035	100.00	0.389	

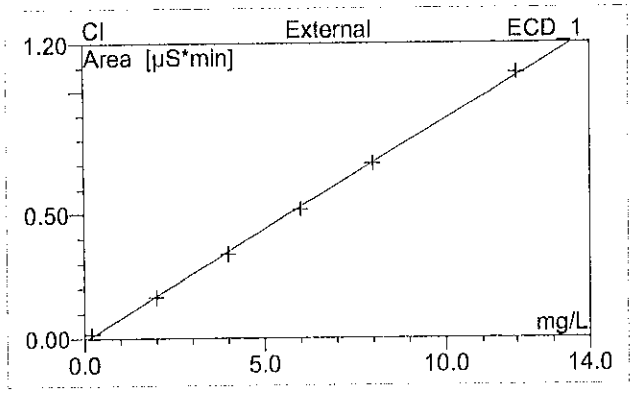
2.4.5.3 Standards Data

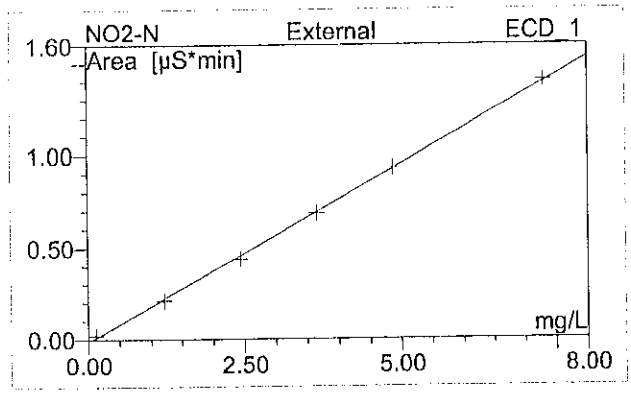
1 ANION STD #1

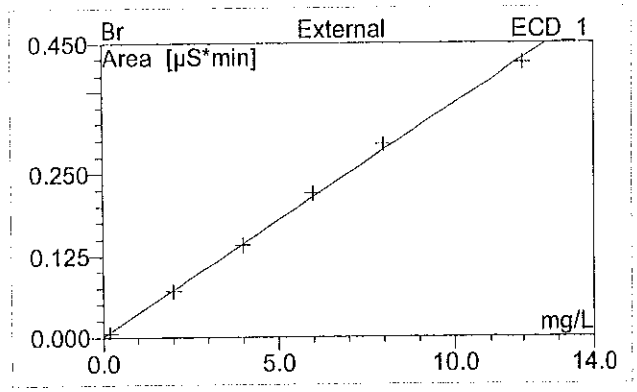
1,1 GSG ANION STD SOS0057-03 121301

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**







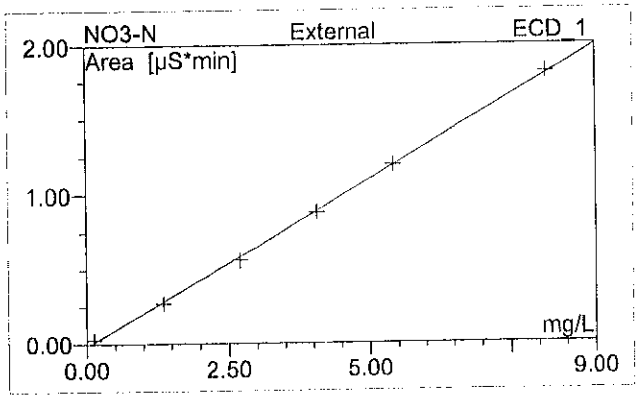


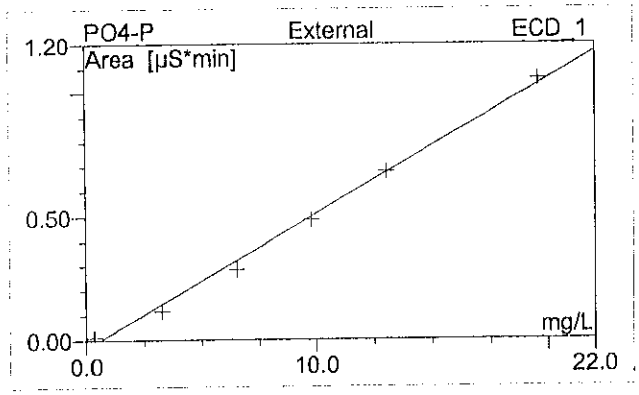
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	1.09	F	0LOff	6	99.9527	-0.0206	0.1350	0.0000
2	1.68	Cl	0LOff	6	99.9691	-0.0093	0.0896	0.0000
3	2.01	NO2-N	0LOff	6	99.9763	-0.0126	0.1927	0.0000
4	3.02	Br	0LOff	6	99.9225	0.0011	0.0355	0.0000
5	3.49	NO3-N	0LOff	6	99.9706	-0.0183	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

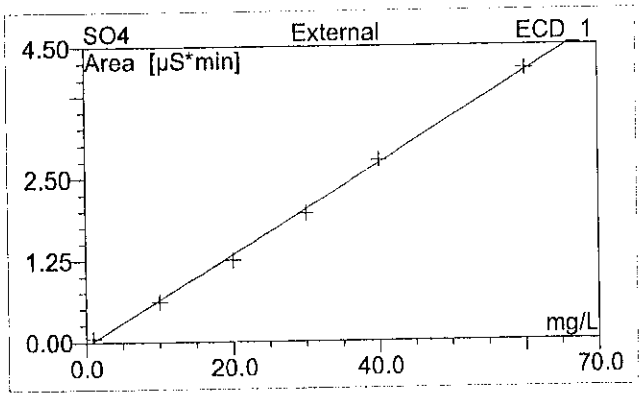
1 ANION STD #1

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**





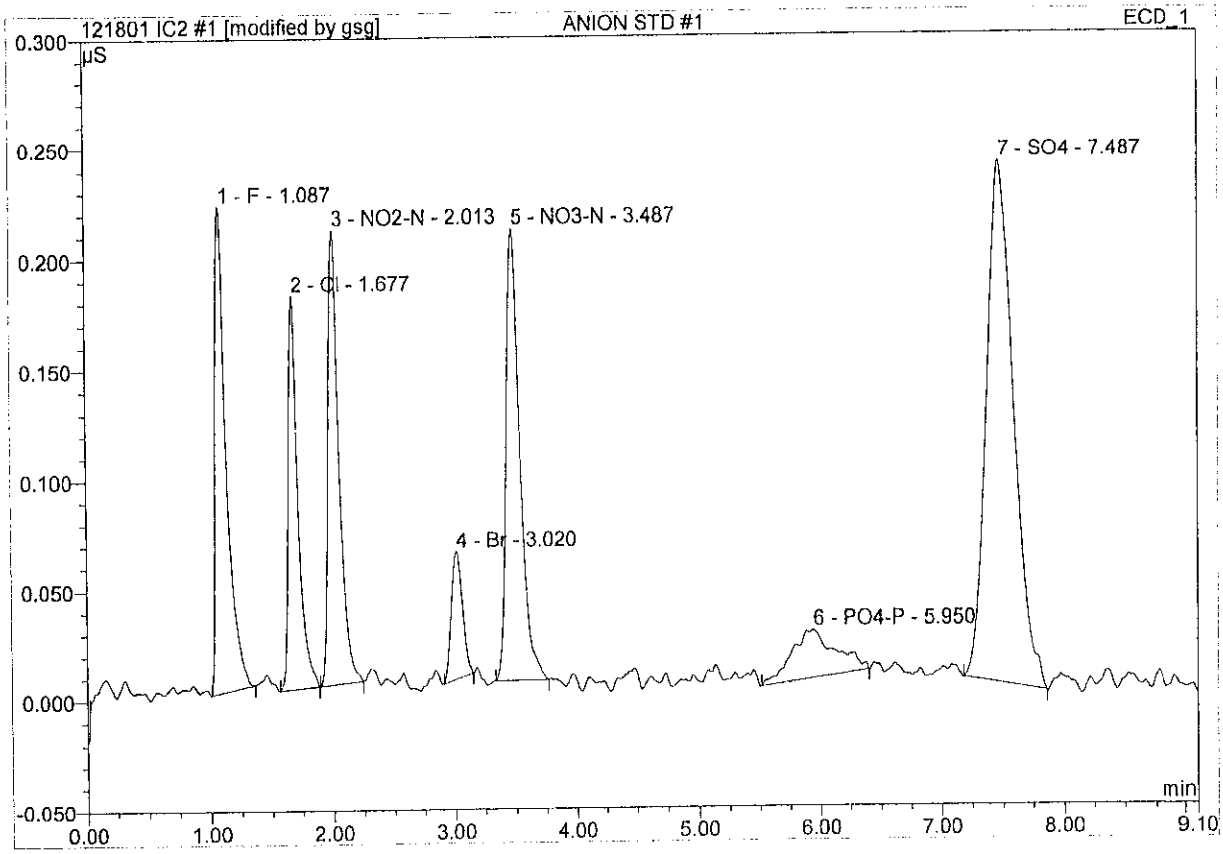


No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	1.09	F	0LOff	6	99.9527	-0.0206	0.1350	0.0000
2	1.68	Cl	0LOff	6	99.9691	-0.0093	0.0896	0.0000
3	2.01	NO2-N	0LOff	6	99.9763	-0.0126	0.1927	0.0000
4	3.02	Br	0LOff	6	99.9225	0.0011	0.0355	0.0000
5	3.49	NO3-N	0LOff	6	99.9706	-0.0183	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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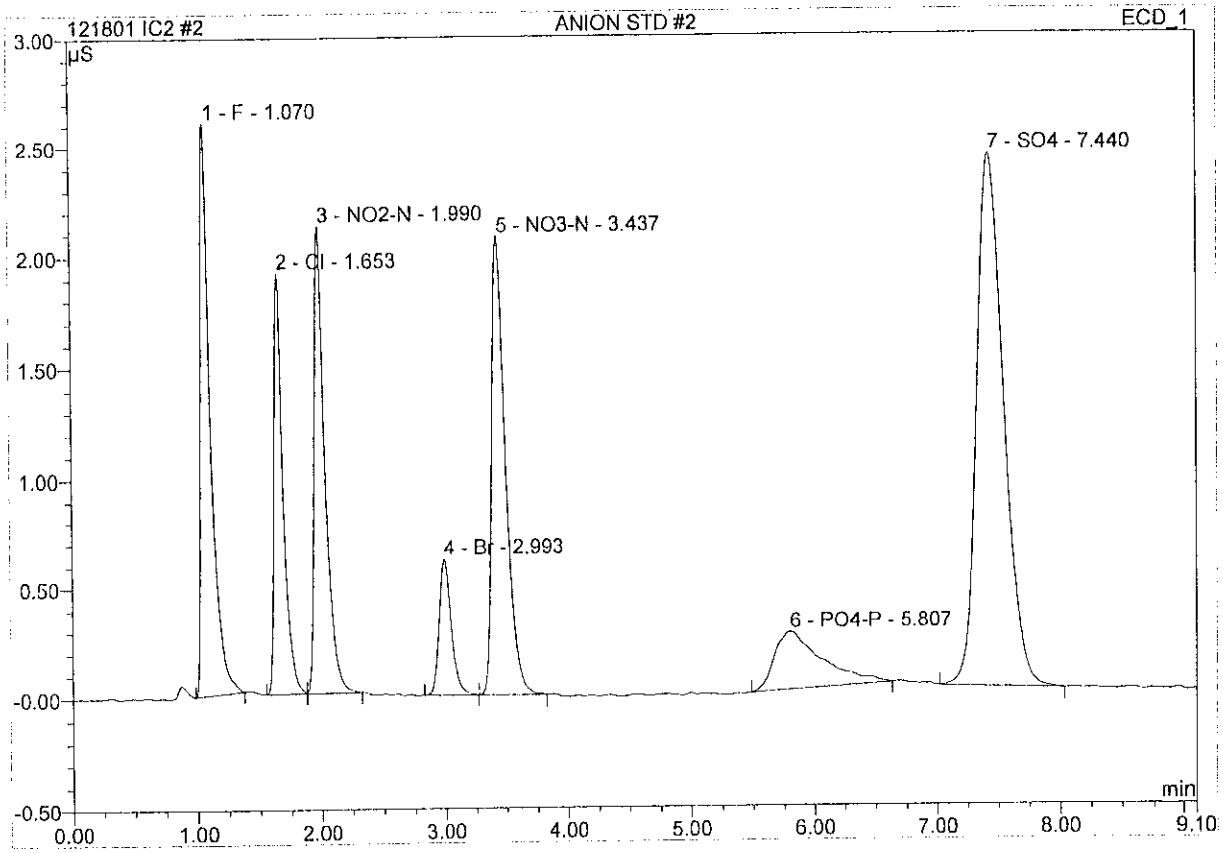
2 ANION STD #2

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**

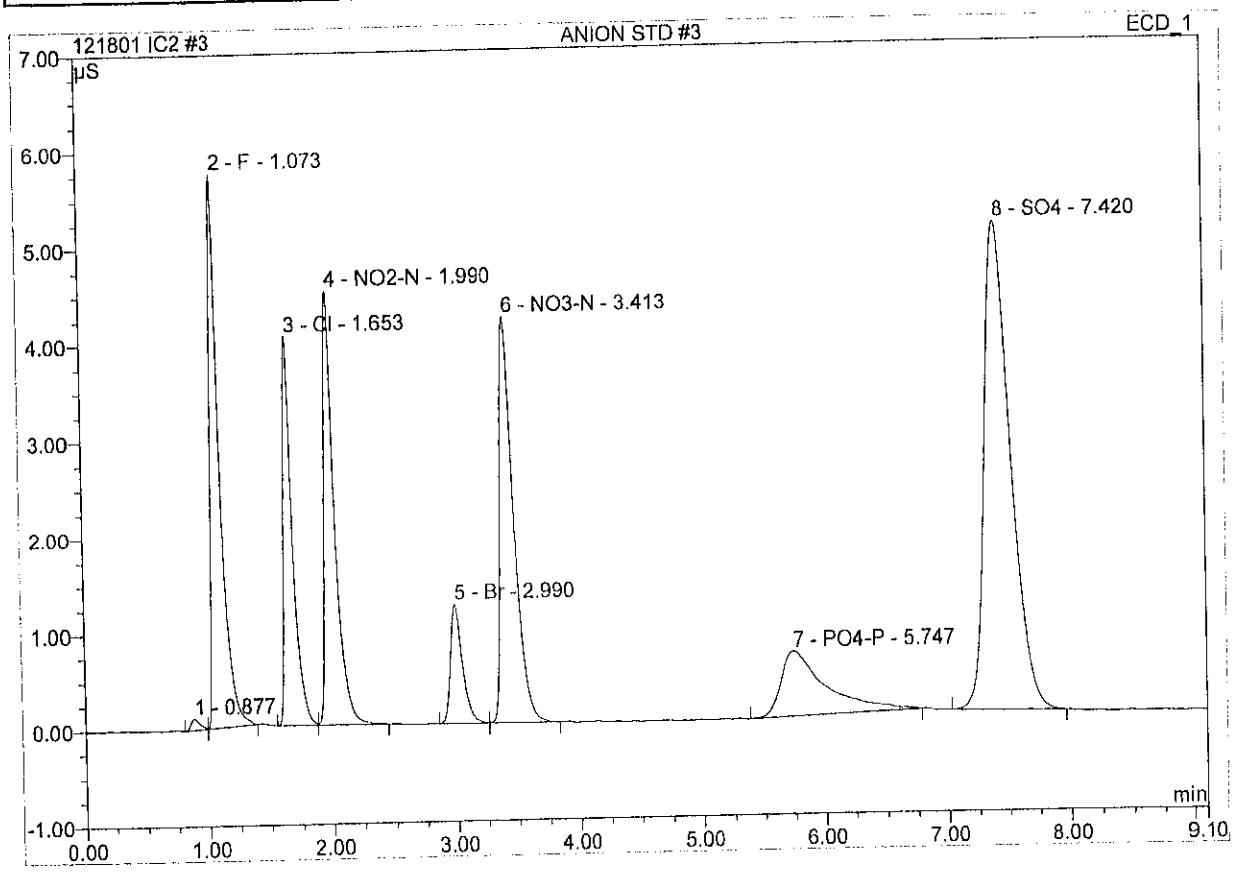


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	1.07	F	2.600	0.236	14.08	1.904	BMB
2	1.65	Cl	1.906	0.165	9.84	1.947	BM
3	1.99	NO2-N	2.114	0.210	12.53	1.156	MB
4	2.99	Br	0.617	0.070	4.17	1.941	BMB
5	3.44	NO3-N	2.075	0.272	16.20	1.300	BMB
6	5.81	PO4-P	0.259	0.116	6.94	2.730	BMB
7	7.44	SO4	2.419	0.608	36.24	9.542	BMB
Total:			11.991	1.678	100.00	20.520	

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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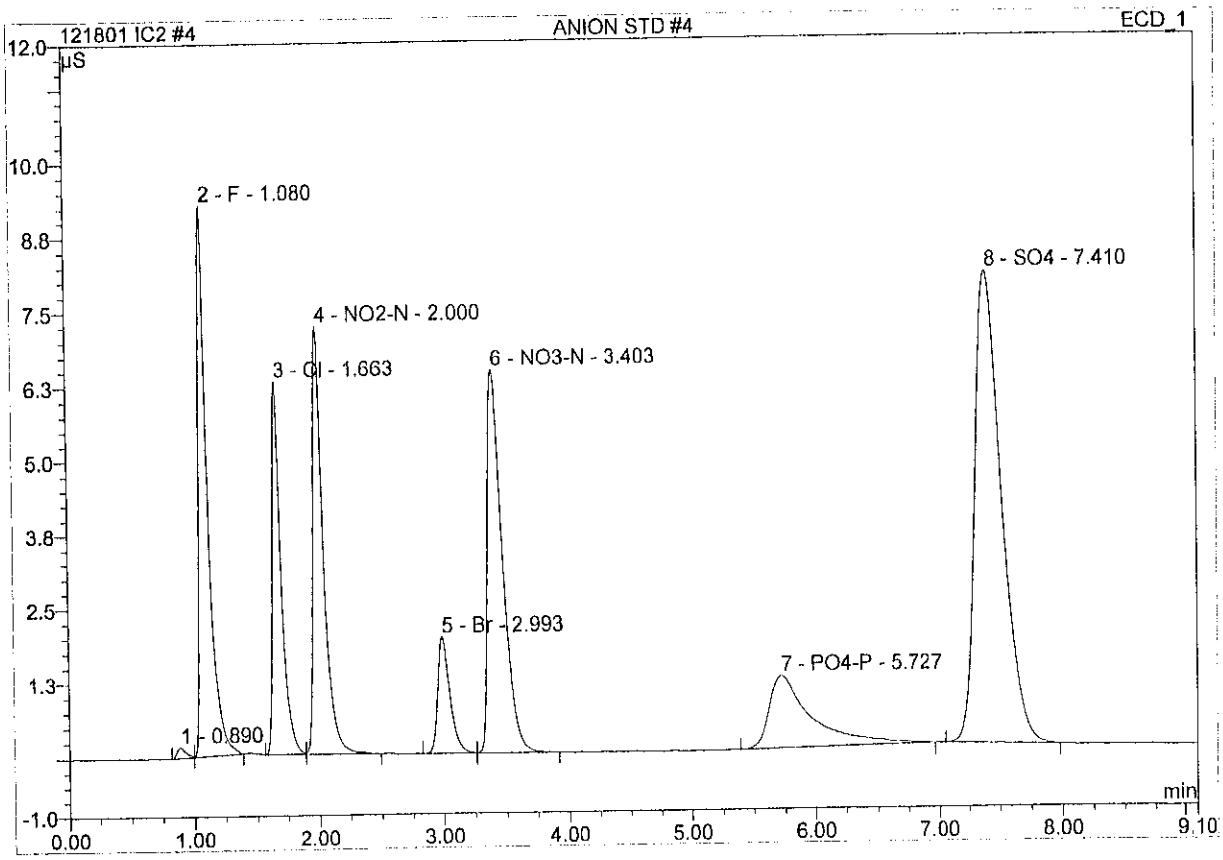
4 ANION STD #4

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**

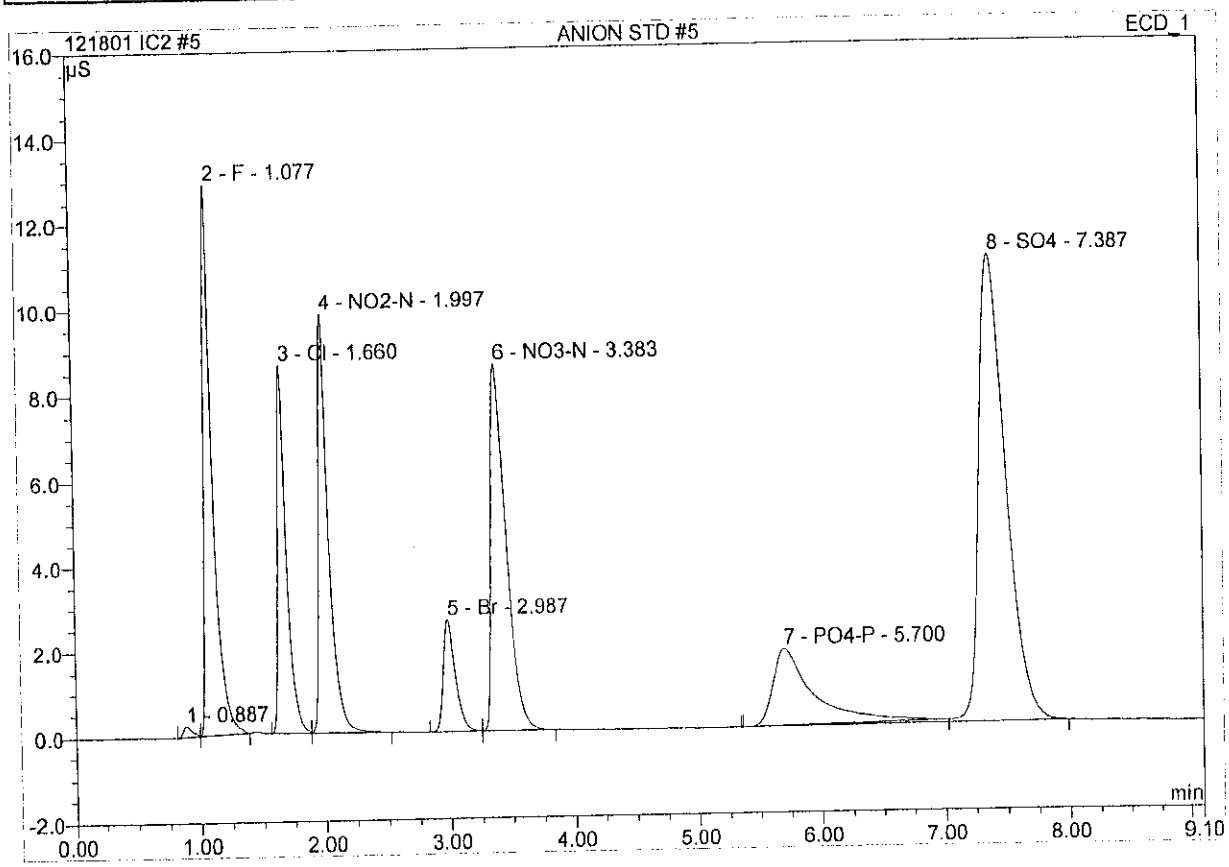


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.176	0.014	0.26	n.a.	BM
2	1.08	F	9.272	0.772	13.94	5.869	MB
3	1.66	Cl	6.284	0.517	9.34	5.871	BM
4	2.00	NO2-N	7.210	0.686	12.39	3.625	MB
5	2.99	Br	1.951	0.220	3.97	6.156	BM
6	3.40	NO3-N	6.460	0.879	15.88	4.021	MB
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	

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**

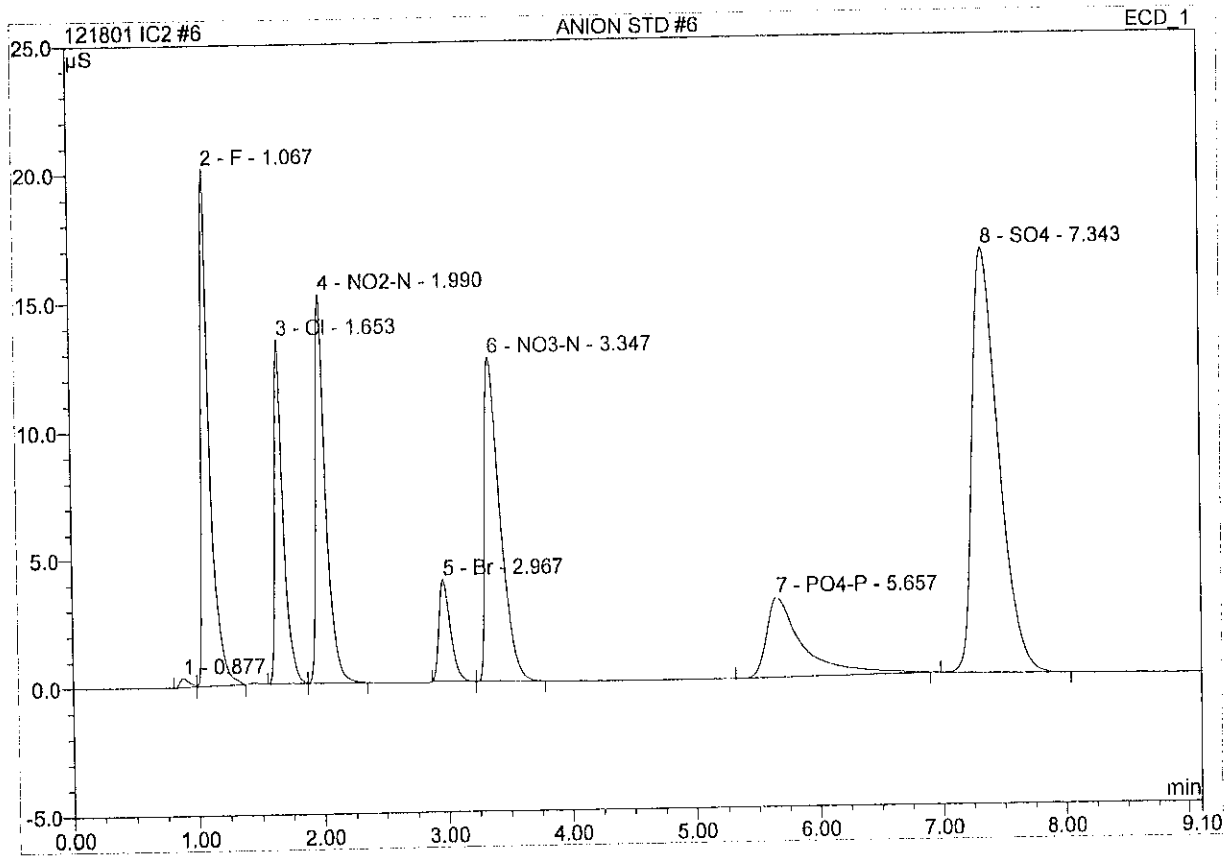


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.89	n.a.	0.240	0.020	0.26	n.a.	BM
2	1.08	F	12.911	1.053	13.79	7.955	MB
3	1.66	Cl	8.625	0.703	9.21	7.951	BM
4	2.00	NO2-N	9.825	0.930	12.18	4.893	MB
5	2.99	Br	2.642	0.294	3.85	8.248	BM
6	3.38	NO3-N	8.606	1.193	15.61	5.424	MB
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	19.983	BMB
8	7.34	SO4	16.561	4.137	35.79	60.464	BMB
Total:			85.426	11.560	100.00	132.083	

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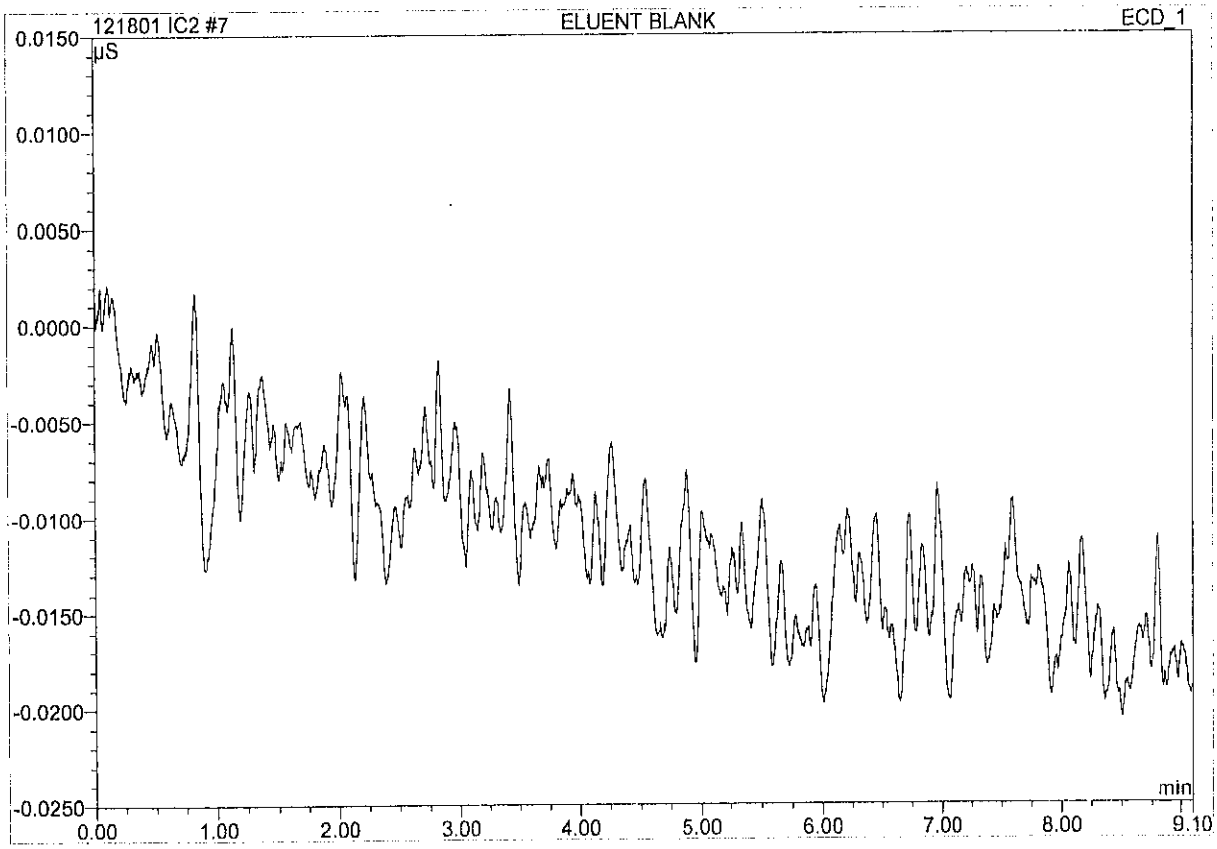
7 ELUENT BLANK

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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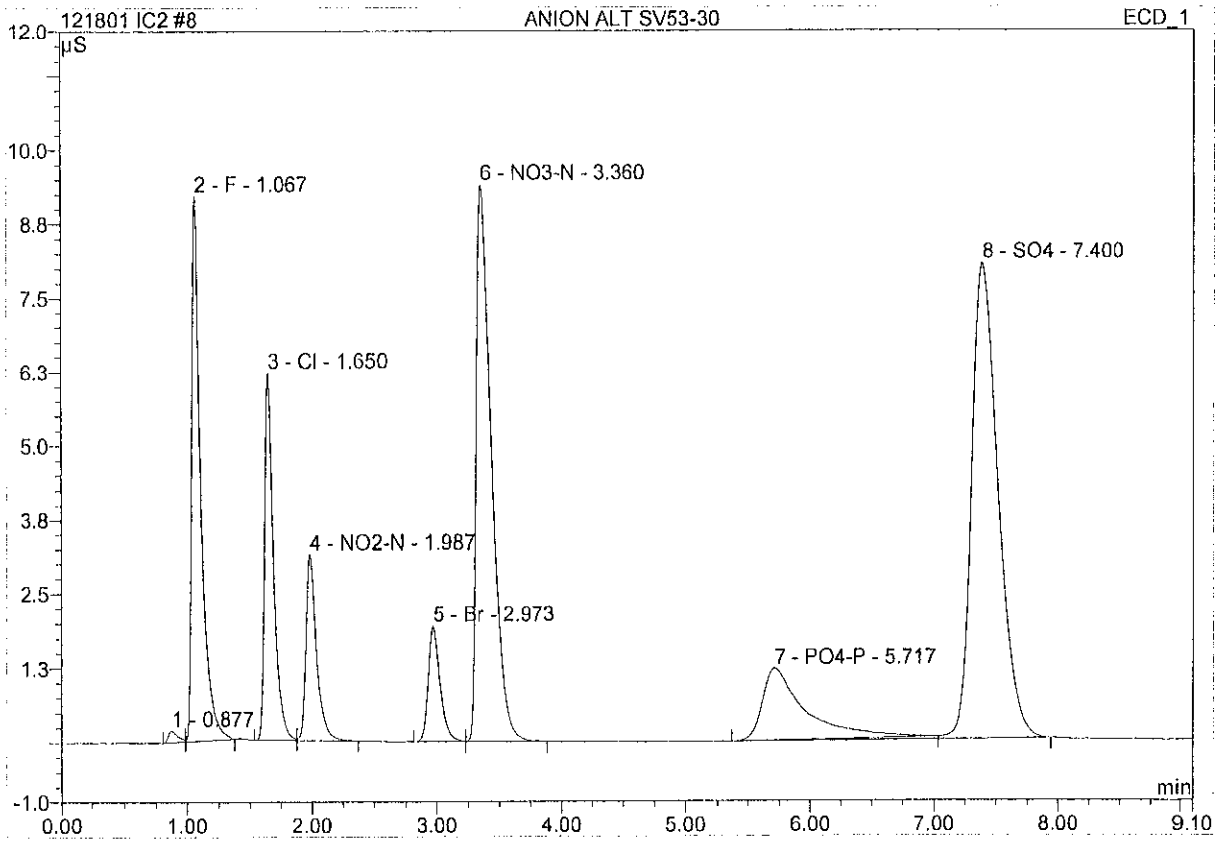
8 ANION ALT SV53-30

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

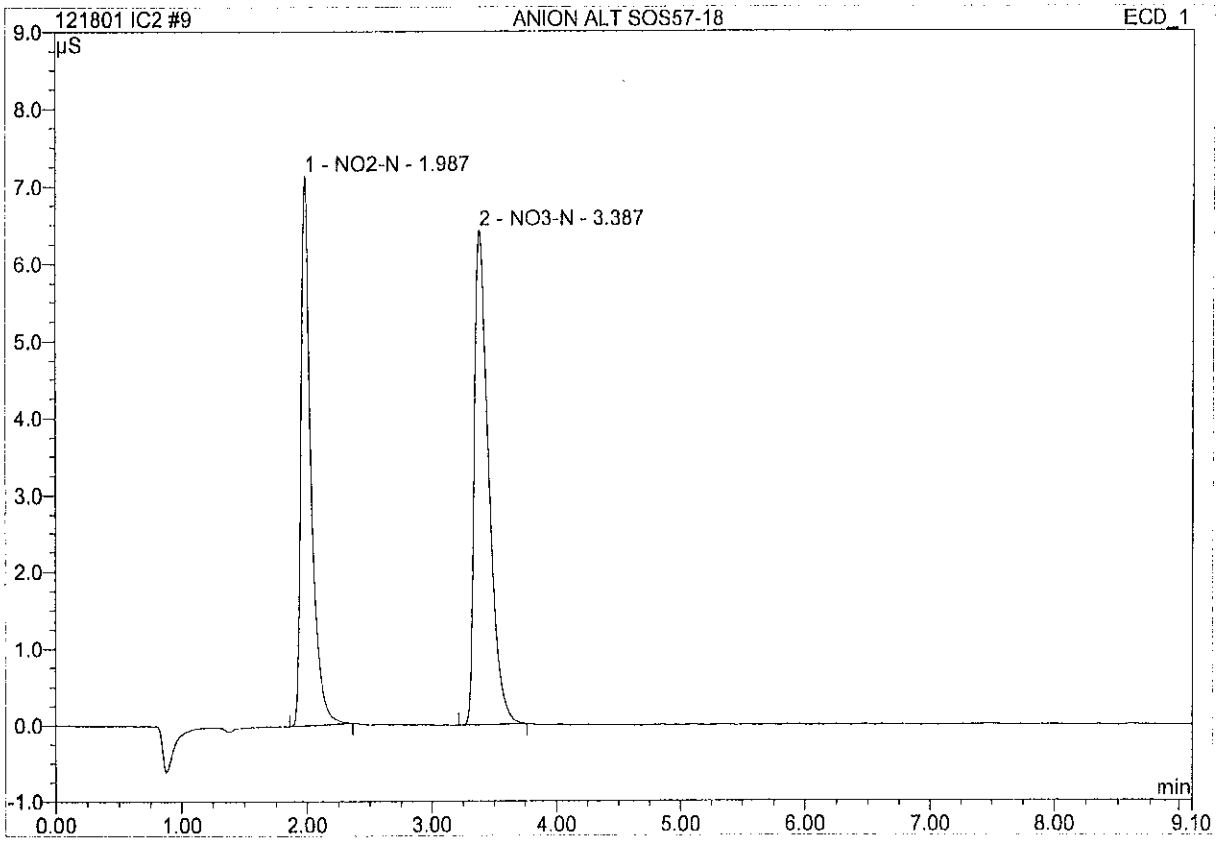
Sample Name:	**ANION ALT SOS57-18**	*Injection Volume:*
Vial Number:	**37**	*Channel:*
Sample Type:	**unknown**	*Wavelength:*
Control Program:	**9056**	*Bandwidth:*
Quantif. Method:	**9056**	*Dilution Factor:*
Recording Time:	**12/13/2001 14:13**	*Sample Weight:*
Run Time (min):	**9.10**	*Sample Amount:*

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

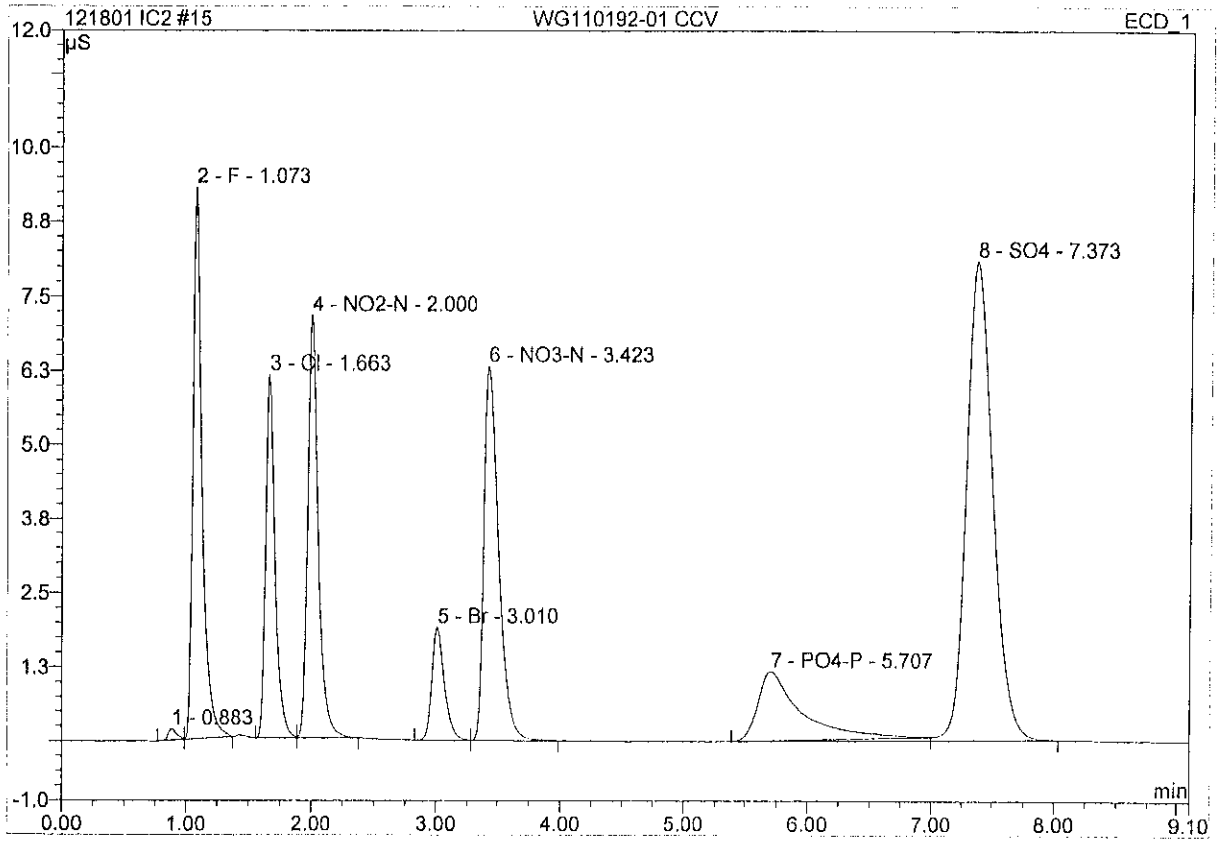
Sample Name:	**WG110192-01 CCV**	*Injection Volume:*
Vial Number:	**43**	*Channel:*
Sample Type:	**unknown**	*Wavelength:*
Control Program:	**9056**	*Bandwidth:*
Quantif. Method:	**9056**	*Dilution Factor:*
Recording Time:	**12/18/2001 8:38**	*Sample Weight:*
Run Time (min):	**9.10**	*Sample Amount:*

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

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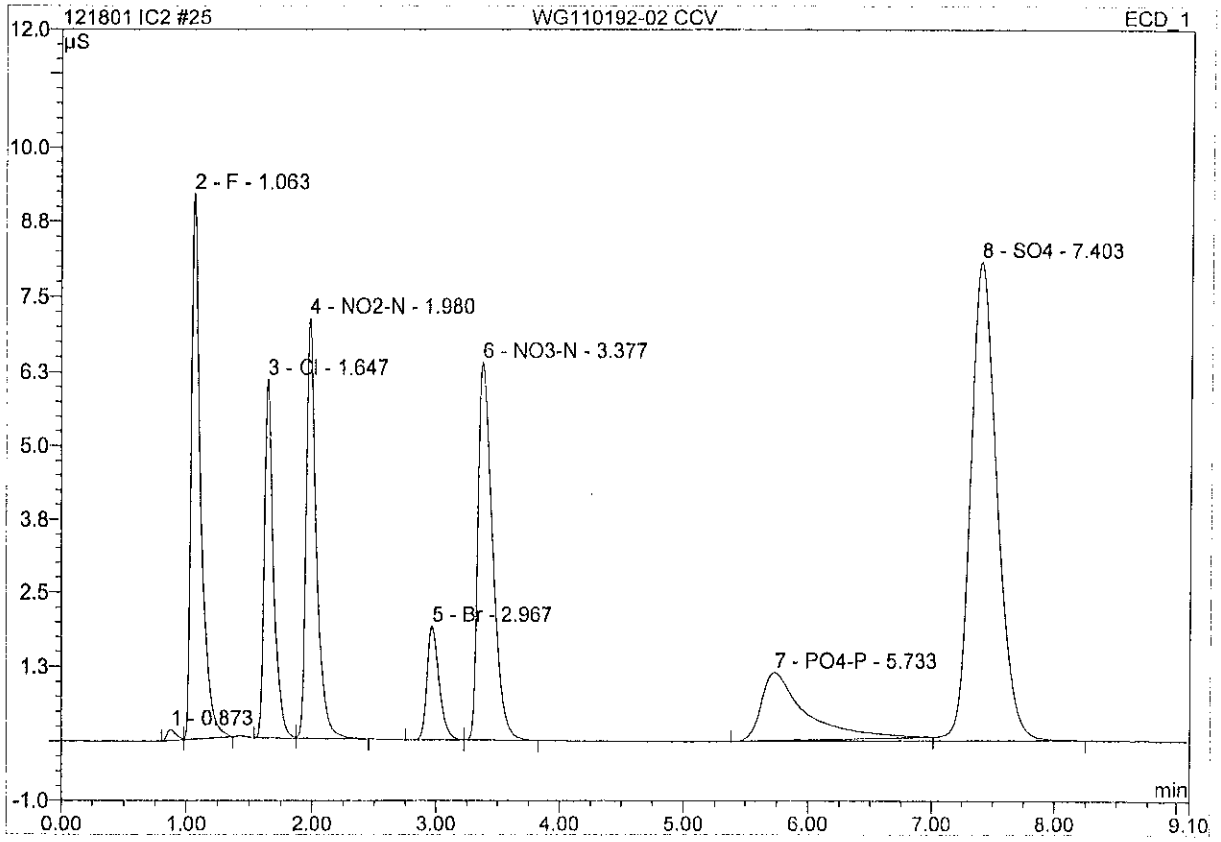
25 WG110192-02 CCV

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	

31 WG110192-03 CCV

1,1 GSG ANION CCV SOS0057-03 121801

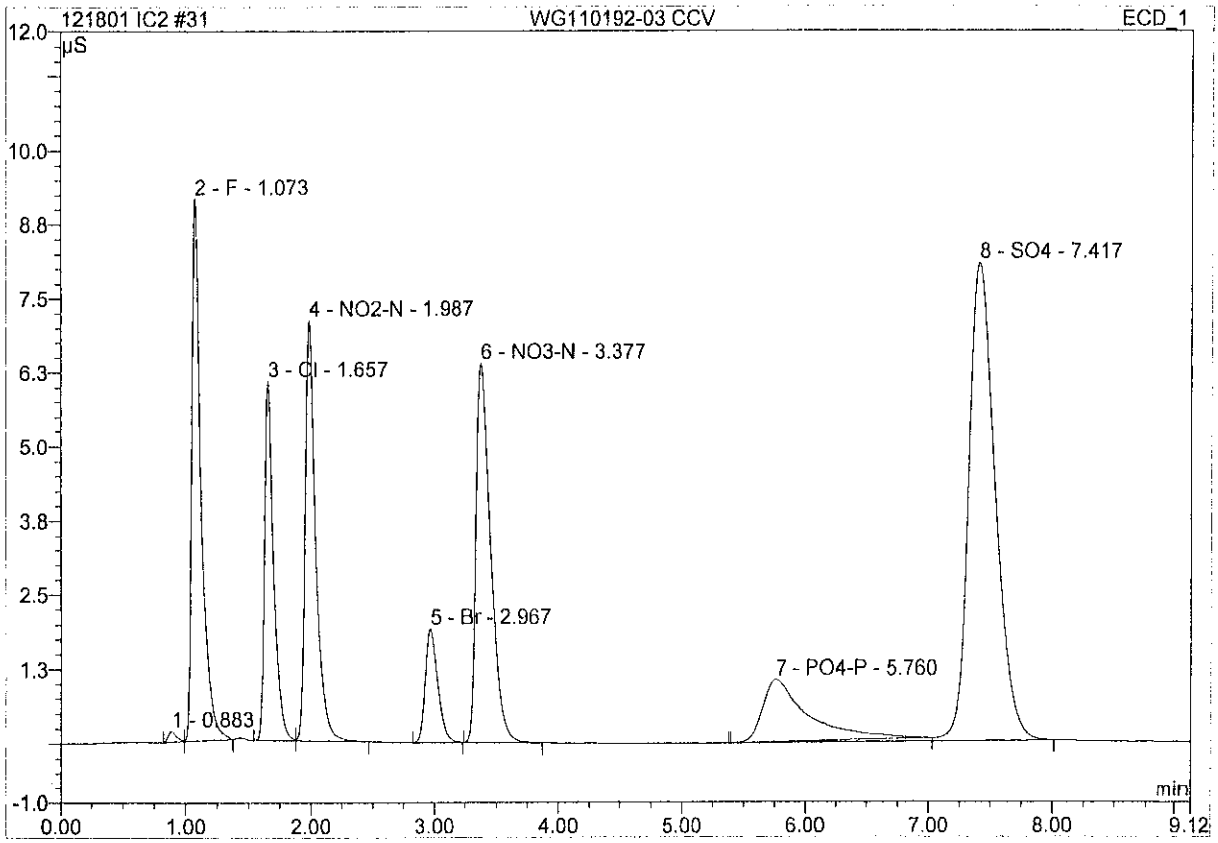
Sample Name:	**WG110192-03 CCV**	*Injection Volume:*	
Vial Number:	**56**	*Channel:*	
Sample Type:	**unknown**	*Wavelength:*	
Control Program:	**9056**	*Bandwidth:*	
Quantif. Method:	**9056**	*Dilution Factor:*	
Recording Time:	**12/18/2001 16:23**	*Sample Weight:*	
Run Time (min):	**9.12**	*Sample Amount:*	

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**



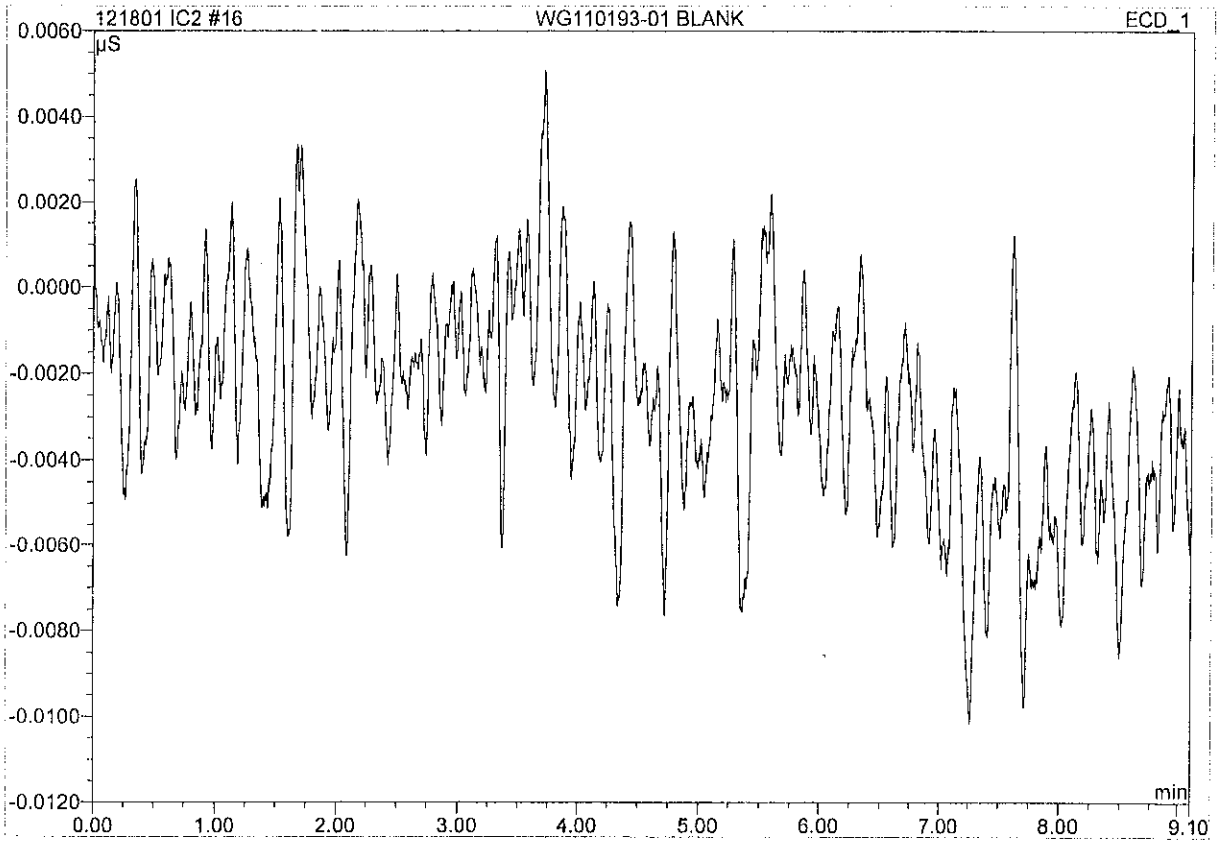
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	0.88	n.a.	0.183	0.015	0.26	n.a.	BM
2	1.07	F	9.145	0.781	13.88	5.940	MB
3	1.66	Cl	6.058	0.519	9.22	5.893	BM
4	1.99	NO2-N	7.095	0.696	12.38	3.679	MB
5	2.97	Br	1.909	0.219	3.89	6.137	BMB
6	3.38	NO3-N	6.392	0.883	15.69	4.037	BMB
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**

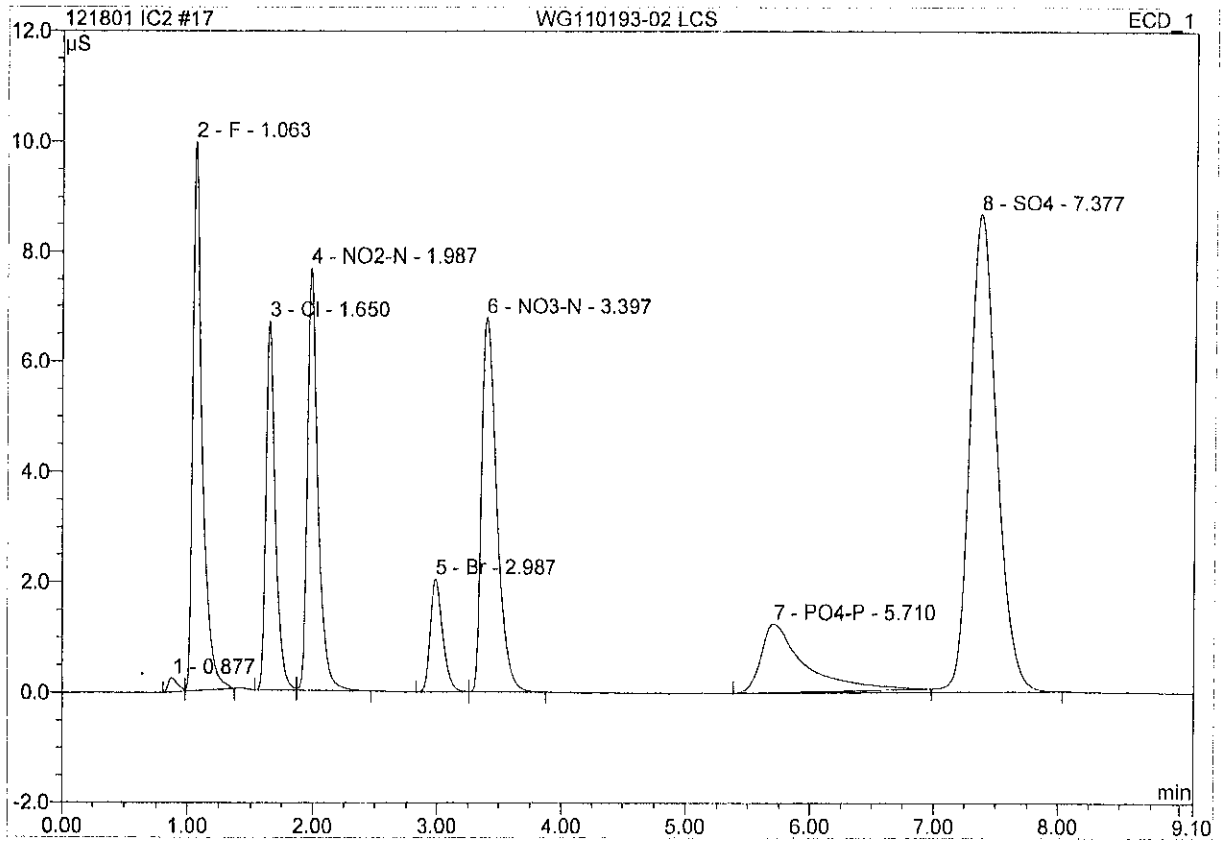


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

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	

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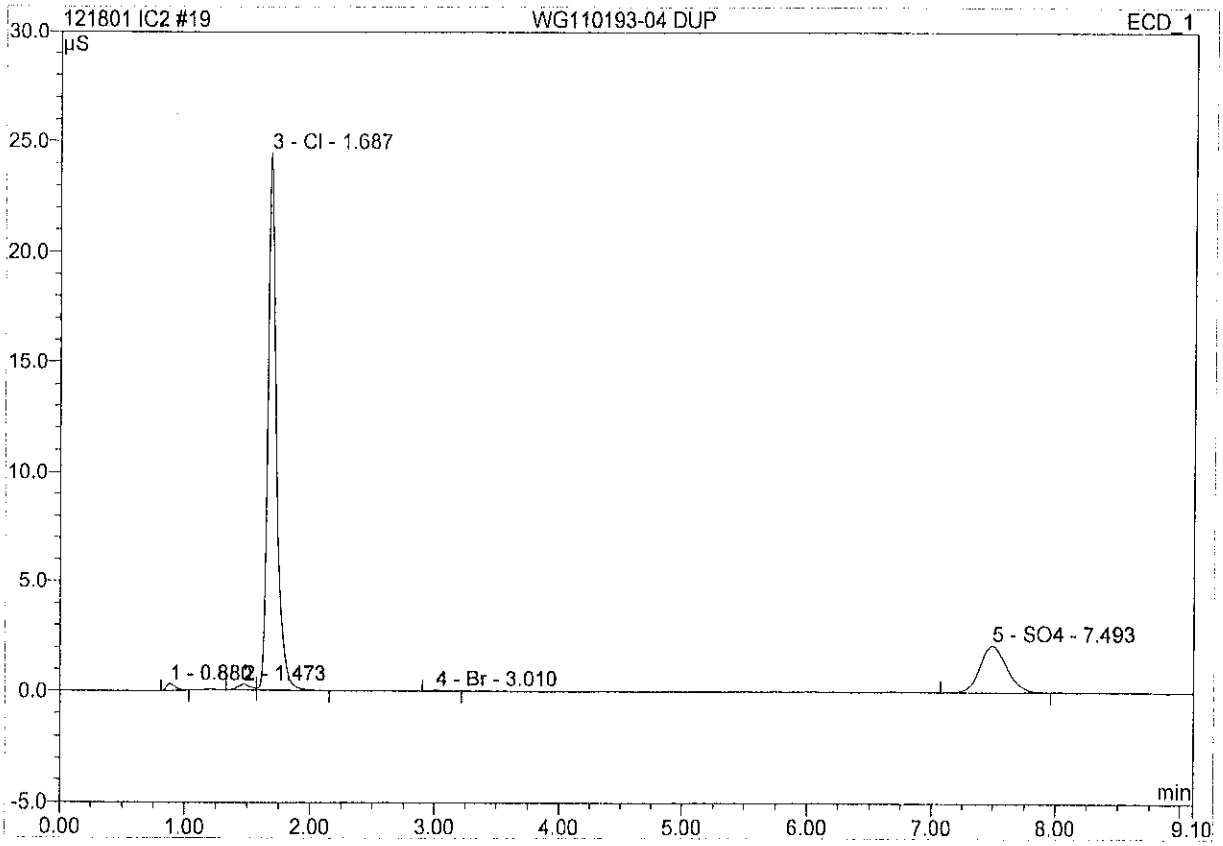
Version 6.30 SP1 Build 587

19 WG110193-04 DUP

1,1 GSG L0112348-01 DUP

Sample Name:	**WG110193-04 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:	**12/18/2001 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	0.88	n.a.	0.319	0.025	0.99	n.a.	BMB
2	1.47	n.a.	0.268	0.031	1.21	n.a.	BM
3	1.69	Cl	24.447	1.958	76.47	21.946	MB
4	3.01	Br	0.056	0.007	0.25	0.154	BMB
5	7.49	SO4	2.132	0.540	21.08	8.555	BMB
Total:			27.223	2.560	100.00	30.655	

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	12/18/2001 7:56:16 AM	1.0000		1,1 GSG ANION CCV SOS0057-03 121801
~~13~~	ANION BLANK	12/18/2001 8:07:46 AM	1.0000		1,1 GSG
~~14~~	ANION LCS	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

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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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IC Laboratory Maintenance Log

Analysis Date/Time 12/5/01 Instrument ID IC2 Column ID AG9-SC / AS9-SC Data Subdirectory 12Dec01
Analyst Initials ESC 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: ESC 12/19/01

UPLOAD BATCH EXTRACTION INFORMATION

Batch #: B10362

	Initial Amount		Nominal Amount		Spike Amount		Final Amount		Final Nominal Amount
L0112348-01	10	mL	10	mL	0	mL	10	mL	
L0112348-02	10	mL	10	mL	0	mL	10	mL	
L0112348-03	10	mL	10	mL	0	mL	10	mL	
L0112348-04	10	mL	10	mL	0	mL	10	mL	
L0112348-05	10	mL	10	mL	.6	mL	10	mL	
L0112348-06	10	mL	10	mL	.6	mL	10	mL	
L0112348-07	10	mL	10	mL	0	mL	10	mL	
L0112348-08	10	mL	10	mL	0	mL	10	mL	
L0112348-09	10	mL	10	mL	0	mL	10	mL	
L0112349-01	10	mL	10	mL	0	mL	10	mL	
L0112349-02	10	mL	10	mL	0	mL	10	mL	
WG110193-01	10	mL	10	mL	0	mL	10	mL	
WG110193-02	10	mL	10	mL	.6	mL	10	mL	
WG110193-03	10	mL	10	mL	0	mL	10	mL	
WG110193-04	10	mL	10	mL	0	mL	10	mL	
WG110193-05	10	mL	10	mL	0	mL	10	mL	
WG110193-06	10	mL	10	mL	.6	mL	10	mL	
WG110193-07	10	mL	10	mL	.6	mL	10	mL	

Figure 1
IC

Date: 12/18/01
Analyst: GSC
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
GSC 12/18/01

Secondary Reviewer Initials & Date Checked
GSC 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 JAR 12/19/01

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 9
Location NAS Cecil Field, Jacksonville, Florida
RAP Approval Date / /
Media Contaminated: ☑ Groundwater ☑ Soil

FDEP Facility ID No. _____
Applicable Dates 1/9/1 **to** 12/31/1
System Startup Date 1/9/1

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-2S	29.8 ppb	8.6 ppb
• MW-3S	15.2 ppb	326.9 ppb
• MW-5S	<4.0 ppb	0.52 ppb
• MW-9S	80.8 ppb	973 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: 618 (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 10.5 (days)
- No. of unscheduled O & M visits _____

Description of O & M Problems: _____

Short Description of Effectiveness of Cleanup: soil COC concentrations have decreased below baseline concentrations but still exceed SCTLs for TRPH in one location. two monitoring wells presently exceed GCTLs

Recommendations and Proposed Modifications: _____