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FIRST QUARTER 2004 OPERATIONS AND MAINTENANCE STATUS REPORT FOR AIR SPARGING SYSTEM AT BUILDING 271 NAS CECIL FIELD FL

8/1/2004

CH2MHILL CONSTRUCTORS INC

First Quarter 2004
Operations and Maintenance Status Report

Air Sparging System
Building 271

Former Naval Air Station Cecil Field
Jacksonville, Florida

Contract No. N62467-98-D-0995
Contract Task Order No. 0086

Submitted to:

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Engineering Command
Southern Division

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Acronyms

acfm	actual cubic feet per minute
AS	air sparging
bls	below land surface
BTEX	benzene, toluene, ethylbenzene, xylenes
CH2M HILL	CH2M HILL Constructors, Inc.
cfm	cubic feet per minute
CSR	Confirmatory Sampling Report
CTO	Contract Task Order
DO	dissolved oxygen
EPA	U.S. Environmental Protection Agency
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
GAC	granular activated carbon
GCTLs	groundwater cleanup target levels
HLA	Harding Lawson Associates
LCAR	Limited Closure Assessment Report
LNAPL	Light Non-Aqueous Phase Liquids
mg/L	milligrams per liter
MTBE	methyl tert butyl ether
NADSC	Natural Attenuation Default Source Concentration
NAS	Naval Air Station
NAVFAC EFD SOUTH	Naval Facilities Engineering Command, Southern Division
O&M	Operation and Maintenance
ORP	oxygen-reduction potential
OWS	oil-water separator
PAH	polynuclear aromatic hydrocarbon
psi	pounds per square inch
PVC	polyvinyl chloride

RAP	Remedial Action Plan
RAPA	Remedial Action Plan Addendum
SA	Site Assessment
scfm	standard cubic feet per minute
TRPH	total recoverable pertoleum hydrocarbon
TtNUS	Tetra Tech NUS
UST	underground storage tank
VOC	volatile organic compound

1.0 Introduction

CH2M HILL Constructors, Inc. (CH2M HILL) has been contracted by the Department of the Navy, Naval Facilities Engineering Command Engineering Field Division South (NAVFAC EFD SOUTH), to provide operation and maintenance (O&M) services at Building 271, at the former Naval Air Station (NAS) Cecil Field, Jacksonville, Florida, under Response Action Contract No. N62467-98-D-0995, Contract Task Order (CTO) No. 0086.

An air sparging (AS) system was installed at the Building 271 site to reduce the concentration and volume of petroleum hydrocarbon contaminants in site groundwater. The purpose of this 1st Quarter 2004 Operation and Maintenance Status Report is to provide a summary of activities performed at the site during the period from November 17, 2003, to March 31, 2004.

1.1 Objective

The objective of the remedial action at the Building 271 site is to reduce the concentrations and volume of petroleum contaminants in the groundwater to Florida Department of Environmental Protection (FDEP) Groundwater Cleanup Target Levels (GCTLs), as specified in Table I of Chapter 62-777, Florida Administrative Code (FAC). AS is the technology currently utilized to achieve this objective.

1.2 Site History

Building 271 was a former retail gasoline facility that contained four underground storage tanks (USTs) (designated 271-D, 271-R, 271-UL, and 271-SUL) and two oil/water separators (OWSs). The USTs were grouped in a tank pit located on the west side of Building 271, while the OWSs were located on the east side of the building. USTs 271-UL, 271-R, and 271-SUL each had an approximate capacity of 10,000 gallons and UST 271-D had an approximate capacity of 6,000 gallons (Tetra Tech NUS, Inc. [TtNUS], 2002).

According to UST closure records, UST 271-D was removed on March 5, 1996, and no soil or groundwater contamination was detected. The report also indicates that the UST and associated piping were removed from the site (TtNUS, 2002).

In July 1999, Harding Lawson Associates (HLA) compiled a Confirmatory Sampling Report (CSR) for the USTs and the two OWSs that indicated petroleum-impacted soil was encountered at two locations relative to the USTs. The CSR concluded that soil or groundwater was not impacted as a result of past OWS operations. Based on the CSR finding of soil contamination, a Site Assessment (SA) was recommended for the UST site. A SA Plan for the assessment of soil and groundwater at the UST site was prepared by TtNUS (TtNUS, 2002).

Following completion of the planned investigation in the SA Plan, CH2M HILL removed the remaining three USTs, associated piping, and distribution systems. The UST and

associated soil removals addressed the soil contamination issues; however, groundwater samples collected following UST and soil removal indicated the presence of volatile organic compounds (VOCs) in site groundwater. TtNUS proceeded to plan and execute a second investigation in a SA Plan Addendum (2001) to further define the extent of contamination in the groundwater (TtNUS, 2002).

CH2M HILL also removed both OWSs, and submitted separate Limited Closure Assessment Reports (LCAR) for each OWS site in April 2001 to the FDEP. Both LCARs for the OWSs indicated that no petroleum contamination of the soil or groundwater existed in the immediate areas surrounding the former OWSs. On May 23, 2001, the FDEP issued separate letters agreeing with CH2M HILL's findings (TtNUS, 2002).

An SA report prepared by TtNUS in May 2002 concluded that petroleum constituents had impacted groundwater in the vicinity of the former USTs and that all of the contaminated soil was removed by CH2M HILL during the UST removal. TtNUS recommended the preparation and implementation of a Remedial Action Plan (RAP) to remediate groundwater at the site (TtNUS, 2002).

TtNUS submitted to FDEP for approval a RAP in September 2002 and a RAP Addendum (RAPA) in January 2003 to select the remedial alternative to remediate the contaminated groundwater at the site. AS was selected as the remedial alternative. FDEP approval on the RAP and RAPA was received in February 2003.

CH2M HILL installed an AS system in accordance with the RAP (TtNUS, 2002), RAPA (TtNUS, 2003), and Work Plan Addendum No. 18, Installation of Air Sparging Systems at the Jet Engine Test Cell (JETC) and Building 271 (CH2M HILL, 2003) from September to November 2003. The AS system commenced operation on November 17, 2003. A site plan showing the Building 271 site and the AS system layout is provided as Figure 1-1.

1.3 Remediation System/Technology Description

AS is a physical treatment method of expediting the transfer of VOCs from the soil and groundwater to the sparging air. Atmospheric air is injected into air sparge wells, which are screened within the groundwater contaminant plume. As the injected air passes upward through the VOC laden groundwater and soil, VOCs are partitioned to the passing air and migrate to the vadose zone.

The Building 271 AS system consists of seven AS wells (AS-1 through AS-7), rotary vane air compressor, receiver tank, and associated piping and instrumentation. The AS wells are screened from approximately 24 to 26 feet below land surface (bls). The AS system is designed for each AS well to operate at an airflow rate of 10 cubic feet per minute (cfm) and an injection pressure of 15 pounds per square inch (psi). The locations of the AS wells are shown on Figure 1-1.

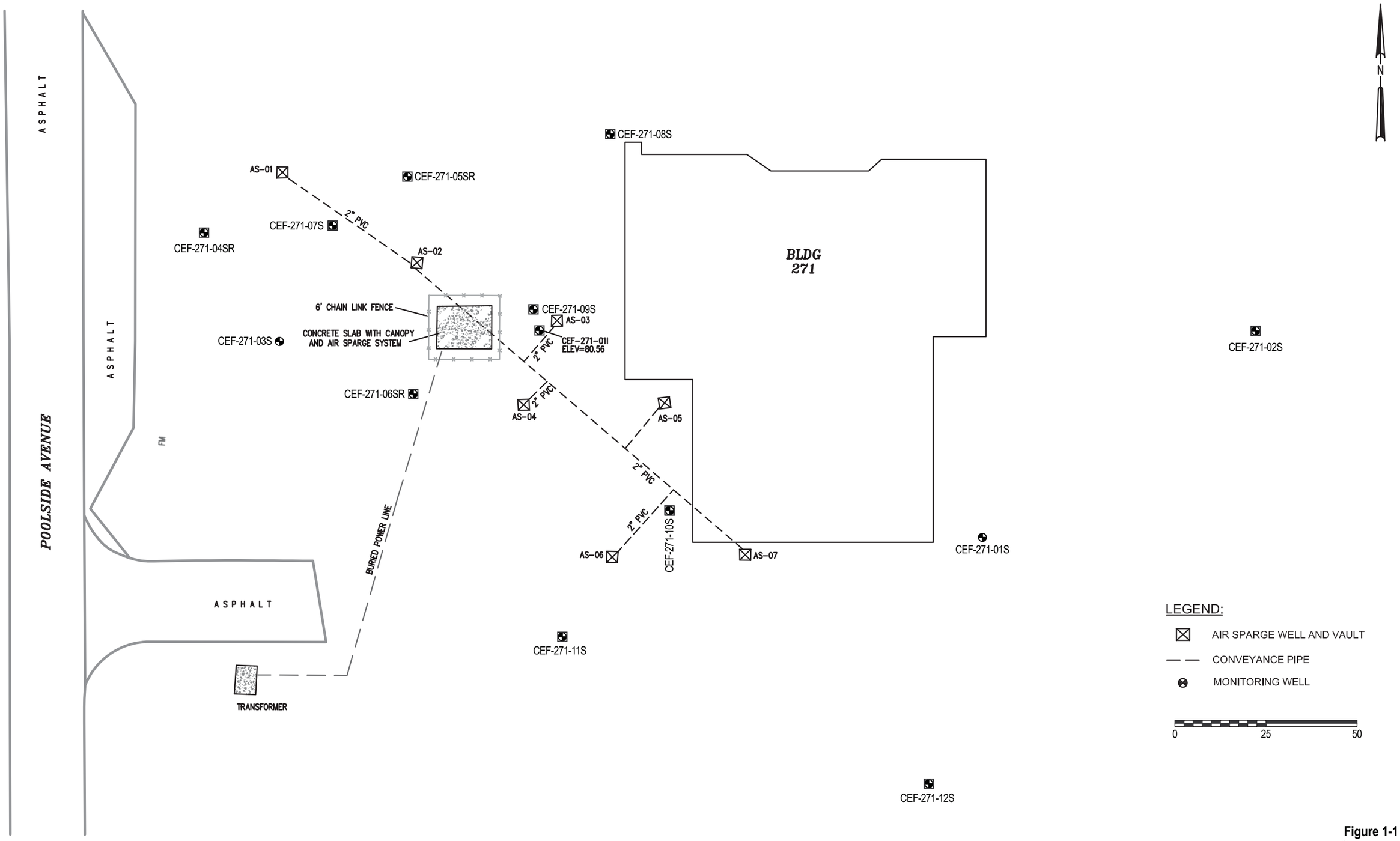

Figure 1-1
Site Layout
Building 271
Former Naval Air Station, Cecil Field
Jacksonville, Florida

CH2MHILL

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2.0 System Performance Monitoring

O&M checks of the system were performed weekly during the monitoring period. During an O&M check, a preventative maintenance checklist (based upon manufacturers' recommendations) is completed, and any required maintenance activity is performed. All meters and gauges at the system are read and recorded during the O&M check. Well vault gauges and meters are read and recorded on a monthly basis.

2.1 Operational Efficiencies

	Period	To Date
Air Sparging System		
Hours of Possible Operation	3252.5	3252.5
Hours of Actual Operation	2919.5	2919.5
Percent Hours of Operation	89.8%	89.8%

2.2 AS System Summary of Maintenance and Downtime

During the period from November 17, 2003 to March 31, 2004, the AS system ran a total of 121.6 days out of a possible 135.5 days, resulting in 333 hours of downtime. The AS system downtime is detailed as follows:

- Manually shut down for a total of 1.9 hours for routine system maintenance.
- Down for a total of 121 hours due to automatic shut-off caused by high level in the condensate holding tank.
- Down for a total of 185.1 hours due to power interruptions. After each occurrence, the panel alarm was reset and the air compressor was restarted.
- Down for a total of 5 hours due to Jacksonville Electric Authority shutting off power in area to perform service. Restarted system after power was restored.
- Manually shut down for a total of 20 hours to replace cracked underground AS piping polyvinyl chloride (PVC) fittings at the edge of the system compound. The fittings were replaced and the system restarted.

2.3 AS System Pressure/Flow Rate Monitoring

During the monitoring period, injection pressure was measured at each AS wellhead weekly for the first month and monthly thereafter. The wellhead pressures for the operating AS wells averaged 10.6 psi, compared to the design pressure of 15 psi. The wellhead flow rates for the operating AS wells averaged 10.1 scfm, compared to the design flow rate of 10 standard cubic feet per minute (scfm). The compressor is operating at maximum capacity and is achieving the specified flow rates but is unable to achieve the specified wellhead pressure. The AS wellhead pressure data is provided in Table 2-1.

TABLE 2-1
Air Sparging Well Measurements
Building 271, 1st Quarter 2004

Air Sparge Well	Date	Wellhead Pressure (psi)	Flow Rate (scfm)
AS-01	11/17/2003	10.5	7
	11/18/2003	10	10
	11/19/2003	9.5	10
	11/20/2003	10	10
	11/21/2003	10	10
	11/24/2003	11	10
	12/01/2003	14	10
	12/09/2003	11	10
	01/20/2004	10.5	10
	02/25/2004	10	10
	03/24/2004	8	10
AS-02	11/17/2003	11	5
	11/18/2003	12	10
	11/19/2003	11	10
	11/20/2003	11	10
	11/21/2003	11	10
	11/24/2003	12	10
	12/01/2003	12	10
	12/09/2003	12	10
	01/20/2004	12	10
	02/25/2004	11	10
	03/24/2004	9	10
AS-03	11/17/2003	11	8
	11/18/2003	10	10
	11/19/2003	10	10
	11/20/2003	10	10
	11/21/2003	10	10
	11/24/2003	10	10
	12/01/2003	11	10
	12/09/2003	10	10
	01/20/2004	11	10
	02/25/2004	11	10
	03/24/2004	8	10
AS-04	11/17/2003	11	9
	11/18/2003	9	10
	11/19/2003	10	10
	11/20/2003	10	10
	11/21/2003	11	10
	11/24/2003	10	10
	12/01/2003	11	10
	12/09/2003	11	10
	01/20/2004	11	10
	02/25/2004	10	10
	03/24/2004	8.5	9
AS-05	11/17/2003	11	7
	11/18/2003	11	10
	11/19/2003	11	10
	11/20/2003	11	10
	11/21/2003	12	10
	11/24/2003	12	10
	12/01/2003	12	10
	12/09/2003	12	10
	01/20/2004	11.5	10
	02/25/2004	11	10
	03/24/2004	9	10

TABLE 2-1
Air Sparging Well Measurements
Building 271, 1st Quarter 2004

Air Sparge Well	Date	Wellhead Pressure (psi)	Flow Rate (scfm)
AS-06	11/17/2003	10	10
	11/18/2003	10	10
	11/19/2003	10	10
	11/20/2003	11	10
	11/21/2003	11	10
	11/24/2003	10	10
	12/01/2003	11	10
	12/09/2003	11	10
	01/20/2004	11	10
	02/25/2004	12	10
	03/24/2004	8.5	10
S-07	11/17/2003	10	9
	11/18/2003	10	10
	11/19/2003	10	10
	11/20/2003	10	10
	11/21/2003	11	10
	11/24/2003	11	10
	12/01/2003	12	10
	12/09/2003	12	10
	01/20/2004	10	10
	02/25/2004	11	10
	03/24/2004	9	9

psi = pounds per square inch
acfm = actual cubic feet per minute

2.4 Water Level Measurements

Depth to groundwater measurements were recorded weekly for the first month, monthly for the next two months, and quarterly thereafter from 13 monitoring wells during the monitoring period. The results from the groundwater level measurement surveys are provided in Table 2-2. Light non-aqueous phase liquid (LNAPL) was not detected in monitoring wells during the monitoring period.

TABLE 2-2
Water Level Measurements
Building 271, 1st Quarter 2004

Monitoring Well	Date	TOC Elevation (feet)	Depth to Water (feet bTOC)	Water Level Elevation (feet NGVD)
CEF-271-01S	10/23/03	81.15	6.93	74.22
	11/12/03		9.98	71.17
	11/24/03		9.32	71.83
	12/01/03		8.88	72.27
	12/08/03		9.00	72.15
	12/15/03		9.45	71.70
	01/20/04		9.76	71.39
	03/29/04		10.65	70.50
CEF-271-02S	10/23/03	80.68	6.21	74.47
	11/12/03		9.55	71.13
	11/24/03		8.90	71.78
	12/01/03		8.20	72.48
	12/08/03		8.29	72.39
	12/15/03		8.58	72.10
	01/20/04		9.10	71.58
	03/29/04		9.79	70.89

TABLE 2-2
Water Level Measurements
Building 271, 1st Quarter 2004

Monitoring Well	Date	TOC Elevation (feet)	Depth to Water (feet bTOC)	Water Level Elevation (feet NGVD)
CEF-271-03S	10/23/03	79.88	5.51	74.37
	11/12/03		8.84	71.04
	11/24/03		7.42	72.46
	12/01/03		7.13	72.75
	12/08/03		7.42	72.46
	12/15/03		8.41	71.47
	01/20/04		8.11	71.77
	03/29/04		9.63	70.25
CEF-271-04SR	10/23/03	79.17	4.85	74.32
	11/12/03		8.53	70.64
	11/24/03		6.69	72.48
	12/01/03		6.35	72.82
	12/08/03		6.78	72.39
	12/15/03		7.65	71.52
	01/20/04		7.34	71.83
	03/29/04		8.85	70.32
CEF-271-05SR	10/23/03	79.85	5.54	74.31
	11/12/03		9.50	70.35
	11/24/03		7.54	72.31
	12/01/03		7.13	72.72
	12/08/03		7.80	72.05
	12/15/03		8.92	70.93
	01/20/04		8.13	71.72
	03/29/04		9.15	70.70
CEF-271-06S	10/23/03	80.50	6.23	74.27
	11/12/03		9.48	71.02
	11/24/03		8.28	72.22
	12/01/03		7.99	72.51
	12/08/03		8.18	72.32
	12/15/03		9.50	71.00
	01/20/04		8.85	71.65
	03/29/04		10.69	69.81
CEF-271-07S	10/23/03	79.99	5.69	74.30
	11/12/03		9.39	70.60
	11/24/03		7.67	72.32
	12/01/03		7.25	72.74
	12/08/03		8.53	71.46
	12/15/03		9.27	70.72
	01/20/04		8.11	71.88
	03/29/04		10.23	69.76
CEF-271-08S	10/23/03	80.89	6.54	74.35
	11/12/03		10.55	70.34
	11/24/03		8.67	72.22
	12/01/03		8.22	72.67
	12/08/03		8.47	72.42
	12/15/03		9.50	71.39
	01/20/04		9.22	71.67
	03/29/04		10.62	70.27
CEF-271-09S	10/23/03	80.51	6.23	74.28
	11/12/03		9.69	70.82
	11/24/03		8.93	71.58
	12/01/03		8.66	71.85
	12/08/03		9.62	70.89
	12/15/03		10.21	70.30
	01/20/04		8.58	71.93
	03/29/04		10.51	70.00

TABLE 2-2
Water Level Measurements
Building 271, 1st Quarter 2004

Monitoring Well	Date	TOC Elevation (feet)	Depth to Water (feet bTOC)	Water Level Elevation (feet NGVD)
CEF-271-10S	10/23/03	81.18	6.95	74.23
	11/12/03		9.91	71.27
	11/24/03		9.16	72.02
	12/01/03		8.86	72.32
	12/08/03		9.03	72.15
	12/15/03		10.28	70.90
	01/20/04		9.55	71.63
	03/29/04		10.86	70.32
CEF-271-11S	10/23/03	80.29	6.06	74.23
	11/12/03		8.78	71.51
	11/24/03		8.38	71.91
	12/01/03		7.96	72.33
	12/08/03		8.14	72.15
	12/15/03		8.95	71.34
	01/20/04		8.75	71.54
	03/29/04		9.05	71.24
CEF-271-12S	10/23/03	80.19	6.30	73.89
	11/12/03		8.66	71.53
	11/24/03		8.20	71.99
	12/01/03		8.08	72.11
	12/08/03		8.18	72.01
	12/15/03		8.58	71.61
	01/20/04		8.92	71.27
	03/29/04		9.36	70.83
CEF-271-1I	10/23/03	80.56	6.10	74.46
	11/12/03		9.70	70.86
	11/24/03		8.48	72.08
	12/01/03		8.12	72.44
	12/08/03		8.28	72.28
	12/15/03		8.96	71.60
	01/20/04		8.95	71.61
	03/29/04		9.11	71.45

Top of Casing Elevations and data prior to 04/27/00 obtained from BEI.
TOC - top of casing
bTOC - Below top of casing
Elevation is referenced to National Geodetic Vertical Datum 1929 (NGVD 1929)
Depth to water measured from top of casing

The potentiometric surface of the groundwater at the site based on January 20, 2004, water levels is depicted on Figure 2-1. In general, the groundwater at the site flows to the southeast, with a component of flow to the north in the northeastern portion of the site.

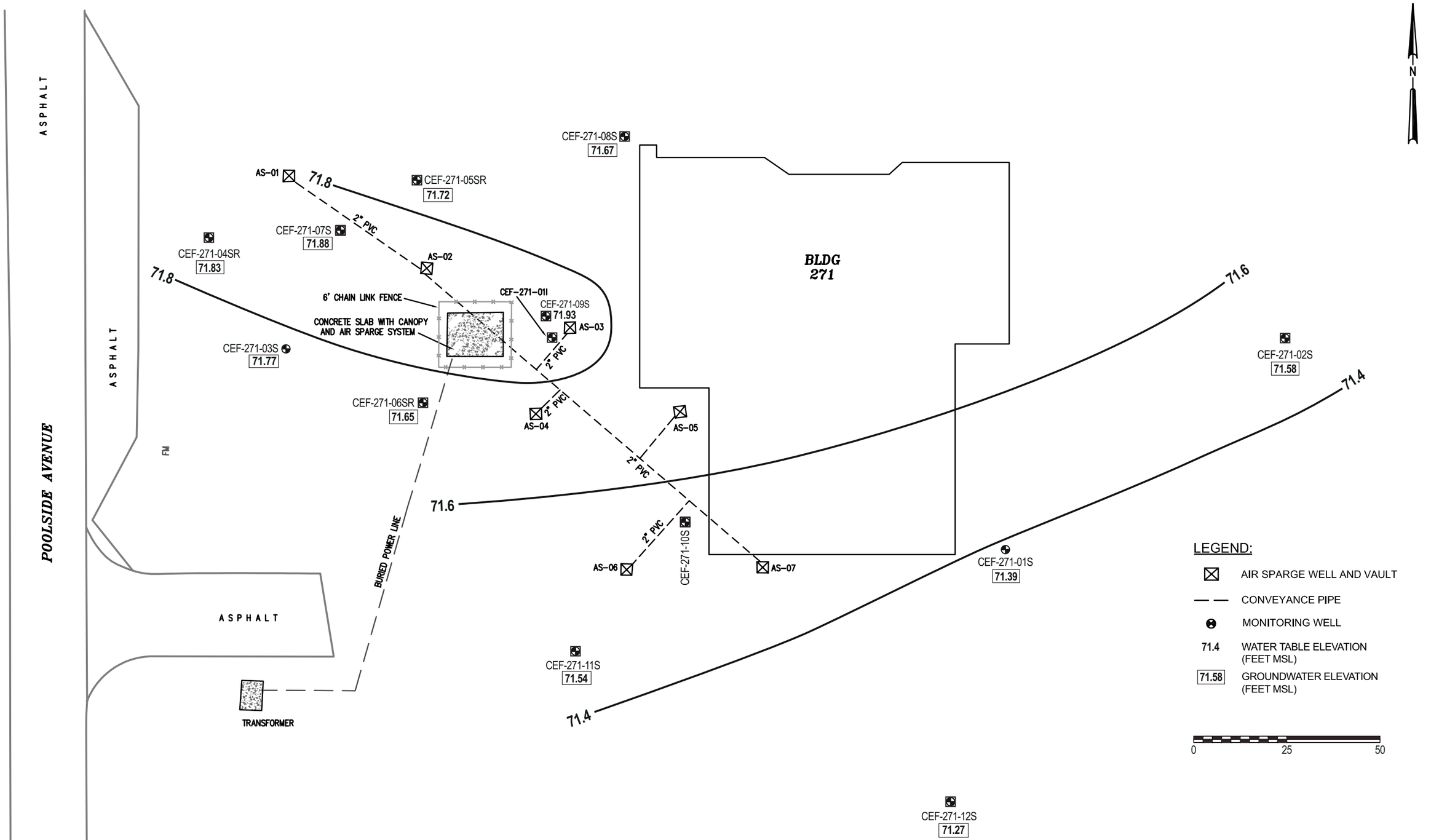

Figure 2-1
Potentiometric Surface Map - January 20, 2004
Building 271
Former Naval Air Station, Cecil Field
Jacksonville, Florida

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3.0 Summary of Sampling and Laboratory Analytical Results

3.1 Vapor Monitoring

Air emissions concentrations were monitored weekly for the first month, monthly for the next 2 months, and quarterly thereafter by collecting air samples from AS well vaults AS-02, AS-03, AS-05, AS-06, and AS-07, and monitoring well manholes CEF-271-7S and CEF-271-10S for analysis by U.S. Environmental Protection Agency (EPA) Method 18, TO-14. Air emissions screening is required to demonstrate that the 13.7 pounds per day Hazardous Air Pollutant threshold is not exceeded and local receptors will not be exposed to hazardous vapor emissions including migration to confined spaces. The air emissions screening locations were selected as representative confined spaces within the AS system radius of influence. Copies of the analytical laboratory reports from the air sampling events are provided in Appendix A, and analytical results are summarized in Table 3-1.

To demonstrate 13.7 pounds per day of VOCs was not exceeded during operation, the potential emissions at the AS well vaults and well manholes were calculated using a worst-case scenario approach. Because a discharge flow rate can not be measured from the vaults and manholes, a very conservative flow rate of 100 actual cubic feet per minute (acfm) [10 times the highest AS injection rate (i.e., 10 acfm) at each well] was used for each sampling location for the calculation. Table 3-2 provides a summary of the daily emission of VOCs. Using the conservative calculation values, the 13.7 pounds per day total VOC emissions was not exceeded at any sampling location during the monitoring period. In addition, the total site emission as calculated by summing all the sampling locations did not exceed 13.7 pounds per day.

3.2 Groundwater Monitoring

CH2M HILL conducted the baseline and 1st Quarter 2004 groundwater monitoring events in October 2003 and April 2004, respectively. The 1st quarter 2004 groundwater monitoring event was not conducted until April 2004 due to scheduling conflict delay. During the baseline groundwater monitoring event, monitoring wells CEF-271-01S, CEF-271-02S, CEF-271-03S, CEF-271-04SR, CEF-271-05SR, CEF-271-06S, CEF-271-07S, CEF-271-08S, CEF-271-09S, CEF-271-10S, CEF-271-11S, CEF-271-12S, and CEF-271-1I were sampled, and during the 1st Quarter 2004 monitoring event, monitoring wells CEF- 271-01S, CEF-271-07S, CEF-271-09S, CEF-271-10S, and CEF-271-12S were sampled. The groundwater samples from each event were laboratory analyzed for benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl tert butyl ether (MTBE) by EPA Method 8260B and the 16-listed polynuclear aromatic hydrocarbons (PAHs) and 1- and 2-methylnapthalene by EPA Method 8310. The laboratory analytical results for the detected parameters from the baseline and 1st Quarter 2004 groundwater monitoring events are summarized in Table 3-3. A site map showing the

locations of the monitoring wells are shown on Figure 1-1. Copies of the analytical laboratory reports from the groundwater monitoring events are provided in Appendix B.

Field parameters consisting of pH, temperature, dissolved oxygen (DO), and specific conductivity were measured during purging of the monitoring wells. The field parameters are summarized in Table 3-4. As expected, the aquifer at the Building 271 site within the treatment area remains highly aerobic with each DO measurement above 1 milligram per liter (mg/L) and oxidation-reduction potential (ORP) measurements greater than 50 millivolts in 8 of the 12 monitoring wells.

Groundwater samples collected during the baseline monitoring event indicated monitoring wells CEF-271-01S, CEF-271-07S, and CEF-271-09S contained contaminants which exceeded GCTLs. Those contaminants exceeding the GCTLs included benzene, ethylbenzene, total xylenes, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene, 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene. The benzene, ethylbenzene, toluene, total xylenes, and naphthalene concentrations in well CEF-271-07S also exceeded the Natural Attenuation Default Source Concentrations (NADSC).

Following startup of the AS system on November 17, 2003, the 1st Quarter 2004 contaminant concentrations decreased in the monitoring wells with the exception of select parameters in CEF-271-07S. Contaminant concentrations at monitoring wells CEF-271-01S and CEF-271-09S decreased below GCTLs. Benzene, ethylbenzene, 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene were detected at concentrations above the GCTLs in well CEF-271-07S. The benzene and naphthalene concentrations were also detected above the NADSCs.

TABLE 3-1
Summary of Air Analytical Results
Building 271, 1st Quarter 2004

Parameter	StationID	CEF-271-10S						CEF-271-7S				
	Sample ID	86-10S-A-1125-03	86-271-10S-A-1202-03	86-271-10S-A-1210-03	86-271-10S-A-1215-03	86-271-10S-A-0120-04	86-271-10S-A-0407-04	86-271-7S-A-1202-03	86-271-7S-A-1210-03	86-271-7S-A-1215-03	86-271-7S-A-0120-04	86-271-7S-A-0407-04
	Sample Date	11/25/2003	12/02/2003	12/10/2003	12/15/2003	01/20/2004	04/07/2004	12/02/2003	12/10/2003	12/15/2003	01/20/2004	04/07/2004
Volatile Organic Compounds		milligrams per cubic meter (mg/m3)										
1,2,4-Trimethylbenzene		0.071 U	0.066 U	0.069 U	0.068 U	0.065 U	0.067 U	40	2.2	1.7	0.11	0.098
1,3,5-Trimethylbenzene (Mesitylene)		0.071 U	0.066 U	0.069 U	0.068 U	0.065 U	0.067 U	21	1.7	0.89	0.29	0.056 J
4-ethyltoluene		0.071 U	0.066 U	0.069 U	0.068 U	0.065 U	0.067 U	55	3	2.1	0.24	0.14
Benzene		0.071 U	0.066 U	0.069 U	0.068 U	0.065 U	0.067 U	0.065 U	0.067 U	0.066 U	0.066 U	0.066 U
Carbon disulfide		0.35	0.12 JB	0.069 U	0.068 U	0.065 U	0.067 U	0.065 U	0.067 U	0.066 U	0.066 U	0.066 U
Ethylbenzene		0.071 U	0.066 U	0.069 U	0.068 U	0.065 U	0.067 U	1.9	0.12	0.2	0.066 U	0.066 U
HEXANE		0.071 U	0.066 U	0.069 U	0.068 U	0.065 U	0.067 U	0.4	0.067 U	0.07 B	0.066 U	0.066 U
m,p-Xylene (sum of isomers)		NA	NA	NA	NA	NA	0.13 U	NA	NA	NA	NA	0.26
m-xylene (1,3-dimethylbenzene)		0.14 U	0.13 U	0.14 U	0.14 U	0.13 U	NA	69	1.5	1.5	0.11 J	NA
o-Xylene (1,2-Dimethylbenzene)		0.071 U	0.066 U	0.069 U	0.068 U	0.065 U	0.067 U	40	1.3	0.97	0.28	0.12
Tetrachloroethene (PCE)		0.071 U	0.066 U	0.069 U	0.068 U	0.065 U	0.067 U	0.065 U	0.067 U	0.066 U	0.066 U	0.066 U
Toluene		0.071 U	0.066 U	0.069 U	0.068 U	0.065 U	0.067 U	1.1	0.13	0.16	0.066 U	0.074

Parameter	StationID	Air Sparg 2					Air Sparg 3				
	Sample ID	86-271-AS2-A-1202-03	86-271-AS2-A-1210-03	86-271-AS2-A-1215-03	86-271-AS2-A-0120-04	86-271-AS2-A-0407-04	86-271-AS3-A-1202-03	86-271-AS3-A-1210-03	86-271-AS3-A-1215-03	86-271-AS3-A-0120-04	86-271-AS3-A-0407-04
	Sample Date	12/02/2003	12/10/2003	12/15/2003	01/20/2004	04/07/2004	12/02/2003	12/10/2003	12/15/2003	01/20/2004	04/07/2004
Volatile Organic Compounds		mg/m3									
1,2,4-Trimethylbenzene		9.5	1.7	0.6	0.14	0.067 U	1.3	0.18	0.18	0.065 U	0.067 U
1,3,5-Trimethylbenzene (Mesitylene)		4	2	1	0.28	0.067 U	0.5	0.1	0.061 J	0.065 U	0.067 U
4-ethyltoluene		6.4	1.8	0.72	0.22	0.067 U	0.76	0.15	0.15	0.065 U	0.067 U
Benzene		0.082	0.068 U	0.068 U	0.065 U	0.067 U	0.068 U	0.067 U	0.068 U	0.065 U	0.067 U
Carbon disulfide		0.067 U	0.068 U	0.068 U	0.065 U	0.067 U	0.068 U	0.067 U	0.068 U	0.065 U	0.067 U
Ethylbenzene		0.86	0.056 J	0.068 U	0.065 U	0.067 U	0.068 U	0.067 U	0.068 U	0.065 U	0.067 U
HEXANE		0.24	0.092	0.068 U	0.065 U	0.067 U	0.068 U	0.067 U	0.052 J	0.065 U	0.067 U
m,p-Xylene (sum of isomers)		NA	NA	NA	NA	0.13 U	NA	NA	NA	NA	0.13 U
m-xylene (1,3-dimethylbenzene)		3.3	0.26	0.14 U	0.13 U	NA	0.22	0.087 J	0.14 U	0.13 U	NA
o-Xylene (1,2-Dimethylbenzene)		1.7	0.2	0.07	0.065 U	0.067 U	0.14	0.05 J	0.068 U	0.065 U	0.067 U
Tetrachloroethene (PCE)		0.067 U	0.068 U	0.068 U	0.065 U	0.067 U	0.068 U	0.067 U	0.068 U	0.065 U	0.067 U
Toluene		0.31	0.068 U	0.068 U	0.065 U	0.049 J	0.068 U	0.041 J	0.045 J	0.065 U	0.067 U

Notes
U - The analyte was analyzed for
, but not detected.
J - estimated value
B- Analyte detected in Blank
NA - Not analyzed

TABLE 3-1
Summary of Air Analytical Results
Building 271, 1st Quarter 2004

Parameter	StationID	Air Sparg 5					Air Sparg 6				
	Sample ID	86-271-AS5-A-1202-03	86-271-AS5-A-1210-03	86-271-AS5-A-1215-03	86-271-AS5-A-0120-04	86-271-AS5-A-0407-04	86-271-AS6-A-1202-03	86-271-AS6-A-1210-03	86-271-AS6-A-1215-03	86-271-AS6-A-0120-04	86-271-AS6-A-0407-04
	Sample Date	12/02/2003	12/10/2003	12/15/2003	01/20/2004	04/07/2004	12/02/2003	12/10/2003	12/15/2003	01/20/2004	04/07/2004
Volatile Organic Compounds		mg/m3									
1,2,4-Trimethylbenzene		0.14	0.069 U	0.069 U	0.064 J	0.068 U	0.066 U	0.077	0.068 U	0.067 U	0.067 U
1,3,5-Trimethylbenzene (Mesitylene)		0.065 U	0.069 U	0.069 U	0.068 U	0.068 U	0.066 U	0.068 U	0.068 U	0.067 U	0.067 U
4-ethyltoluene		0.088	0.069 U	0.069 U	0.068 U	0.068 U	0.066 U	0.068 U	0.068 U	0.067 U	0.067 U
Benzene		0.065 U	0.069 U	0.069 U	0.068 U	0.068 U	0.066 U	0.068 U	0.068 U	0.067 U	0.067 U
Carbon disulfide		0.065 U	0.069 U	0.086	0.068 U	0.068 U	0.066 U	0.068 U	0.068 U	0.067 U	0.067 U
Ethylbenzene		0.065 U	0.069 U	0.069 U	0.068 U	0.068 U	0.066 U	0.068 U	0.068 U	0.067 U	0.067 U
HEXANE		0.065 U	0.069 U	0.08 B	0.068 U	0.068 U	0.066 U	0.068 U	0.068 U	0.067 U	0.067 U
m,p-Xylene (sum of isomers)		NA	NA	NA	NA	0.14 U	NA	NA	NA	NA	0.13 U
m-xylene (1,3-dimethylbenzene)		0.13 U	0.14 U	0.14 U	0.14 U	NA	0.13 U	0.14 U	0.14 U	0.13 U	NA
o-Xylene (1,2-Dimethylbenzene)		0.065 U	0.069 U	0.069 U	0.068 U	0.068 U	0.066 U	0.068 U	0.068 U	0.067 U	0.067 U
Tetrachloroethene (PCE)		0.065 U	0.069 U	0.069 U	0.068 U	0.068 U	0.066 U	0.068 U	0.068 U	0.067 U	0.15
Toluene		0.065 U	0.069 U	0.087	0.068 U	0.068 U	0.066 U	0.068 U	0.068 U	0.067 U	0.067 U

Parameter	StationID	Air Sparg 7				
	Sample ID	86-271-AS7-A-1202-03	86-271-AS7-A-1210-03	86-271-AS7-A-1215-03	86-271-AS7-A-0120-04	86-271-AS7-A-0407-04
	Sample Date	12/02/2003	12/10/2003	12/15/2003	01/20/2004	04/07/2004
Volatile Organic Compounds		mg/m3				
1,2,4-Trimethylbenzene		0.16	0.068 U	0.26	0.067 U	0.066 U
1,3,5-Trimethylbenzene (Mesitylene)		0.047 J	0.068 U	0.05 J	0.067 U	0.066 U
4-ethyltoluene		0.084	0.068 U	0.27	0.067 U	0.066 U
Benzene		0.065 U	0.068 U	0.069 U	0.067 U	0.066 U
Carbon disulfide		0.065 U	0.068 U	0.069 U	0.039 J	0.066 U
Ethylbenzene		0.065 U	0.068 U	0.069 U	0.067 U	0.066 U
HEXANE		0.065 U	0.068 U	0.069 U	0.067 U	0.066 U
m,p-Xylene (sum of isomers)		NA	NA	NA	NA	0.13 U
m-xylene (1,3-dimethylbenzene)		0.13 U	0.14 U	0.14 U	0.13 U	NA
o-Xylene (1,2-Dimethylbenzene)		0.065 U	0.068 U	0.05 J	0.067 U	0.066 U
Tetrachloroethene (PCE)		0.065 U	0.068 U	0.069 U	0.067 U	0.066 U
Toluene		0.065 U	0.068 U	0.069 U	0.067 U	0.066 U

Notes
U - The analyte was analyzed for
, but not detected.
J - estimated value
B- Analyte detected in Blank
NA - Not analyzed

TABLE 3-2
Sammary of Mass Loading Calculations
Building 271, 1st Quarter 2004

		Air Concentrations (mg/m3)										Mass Loading Rate (Pounds/Day)										Mass Loading Calculations		
Sample Location	Date	1,2,4 TMB	1,3,5 TMB	4-ethyl toluene	Benzene	Carbon Disulfide	Ethy Benz	Hexane	Xylene (total)	PCE	Toluene	1,2,4 TMB	13,5 TMB	4-ethyl toluene	Benzene	Carbon Disulfide	Ethy Benz	Hexane	Xylene (total)	PCE	Toluene	Flow Rate (acfm)	Days	Pounds of VOCs
CEF-271-10S	11/25/03					0.350										0.0031468						100	1.0	0.003
	12/02/03					0.120										0.0010789						100	1.0	0.001
	12/10/03																					100	1.0	0.000
	12/15/03																					100	1.0	0.000
	01/20/04																					100	1.0	0.000
	04/07/04																					100	1.0	0.000
CEF-271-7S	12/02/03	40.000	21.000	55.000			1.900		109.000		1.100	0.35963446	0.18880809	0.49449738			0.01708264		0.98000389		0.00988995	100	1.0	2.050
	12/10/03	2.200	1.700	3.000			0.120		2.800		0.130	0.0197799	0.01528446	0.02697258			0.0010789		0.02517441		0.00116881	100	1.0	0.089
	12/15/03	1.700	0.890	2.100			0.200		2.470		0.160	0.01528446	0.00800187	0.01888081			0.00179817		0.02220743		0.00143854	100	1.0	0.068
	01/20/04	0.110	0.290	0.240					0.280			0.00098899	0.00260735	0.00215781					0.00251744			100	1.0	0.008
	04/07/04	0.098		0.140					0.380		0.074	0.0008811		0.00125872					0.00341653		0.00066532	100	1.0	0.006
Air Sparge 2	12/02/03	9.500	4.000	6.400	0.082		0.860	0.240	5.000		0.310	0.08541318	0.03596345	0.05754151	0.00073725		0.00773214	0.00215781	0.04495431		0.00278717	100	1.0	0.237
	12/10/03	1.700	2.000	1.800				0.092	0.460			0.01528446	0.01798172	0.01618355				0.00082716	0.0041358			100	1.0	0.054
	12/15/03	0.600	1.000	0.720					0.070			0.00539452	0.00899086	0.00647342					0.00062936			100	1.0	0.021
	01/20/04	0.140	0.280	0.220								0.00125872	0.00251744	0.00197799								100	1.0	0.006
	04/07/04										0.049										0.00044055	100	1.0	0.000
Air Sparge 3	12/02/03	1.300	0.500	0.760					0.360			0.01168812	0.00449543	0.00683305					0.00323671			100	1.0	0.026
	12/10/03	0.180	0.100	0.150					0.920		0.041	0.00161836	0.00089909	0.00134863					0.00827159		0.00036863	100	1.0	0.013
	12/15/03	0.180	0.061	0.150				0.052			0.045	0.00161836	0.00054844	0.00134863				0.00046752			0.00040459	100	1.0	0.004
	01/20/04																					100	1.0	0.000
	04/07/04																					100	1.0	0.000
Air Sparge 5	12/02/03	0.140		0.088								0.00125872		0.0007912								100	1.0	0.002
	12/10/03																					100	1.0	0.000
	12/15/03				0.086						0.087				0.00077321						0.0007822	100	1.0	0.002
	01/20/04	0.064										0.00057542										100	1.0	0.001
	04/07/04																					100	1.0	0.000
Air Sparge 6	12/02/03																					100	1.0	0.000
	12/10/03	0.077										0.0006923										100	1.0	0.001
	12/15/03																					100	1.0	0.000
	01/20/04																					100	1.0	0.000
	04/07/04									0.150										0.00134863		100	1.0	0.001
Air Sparge 7	12/02/03	0.160	0.047	0.084								0.00143854	0.00042257	0.00075523								100	1.0	0.003
	12/10/03																					100	1.0	0.000
	12/15/03	0.260	0.050	0.270					0.050			0.00233762	0.00044954	0.00242753					0.00044954			100	1.0	0.006
	01/20/04																					100	1.0	0.000
	04/07/04																					100	1.0	0.000

mg/m^3 = milligram per cubic meter

TABLE 3-3

Summary of Groundwater Analytical Results

Building 271, 1st Quarter 2004

Parameter	Station ID		CEF-271-1I	CEF-271-1S		CEF-271-3S	CEF-271-4SR	CEF-271-5SR	CEF-271-6S	CEF-271-7S	
	Sample ID		86-CEF271-1I-Q4-03	86-CEF271-1S-Q4-03	86-CEF271-2S-Q4-03	86-CEF271-3S-Q4-03	86-CEF271-4SR-Q4-03	86-CEF271-5SR-Q4-03	86-CEF271-6S-Q4-03	86-CEF271-7S-Q4-03	86-CEF271-7S-Q1-04
	Sample Date		10/27/2003	10/27/2003	10/27/2003	10/27/2003	10/27/2003	10/28/2003	10/28/2003	10/28/2003	04/26/2004
	GCTL[1]	NADSC[1]									
	micrograms per liter (ug/L)										
Volatile organic compounds											
Benzene	1.0	10	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**188**	**324 J**
Ethylbenzene	30	300	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**398**	**133**
Toluene	40	400	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**1180 JB**	16.7 J
Xylenes, total	20	200	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**1690**	17.2 J
Semi-volatile organic compounds											
1-methylnaphthalene	20	200	1 U	1 U	1 U	1 U	1 U	1 U	1 U	**21.1**	**37 J**
2-Methylnaphthalene	20	200	1 U	1 U	1 U	1 U	1 U	1 U	1 U	**58.9**	**74**
Acenaphthene	20	200	1 U	1 U	1 U	1 U	1 U	1 U	1 U	20 U	50 U
Acenaphthylene	210	2100	1 U	1 U	1 U	1 U	1 U	1 U	1 U	117	50 U
Benzo(a)anthracene	0.2	2	0.1 U	**0.216**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2 U	5 U
Benzo(a)pyrene*	0.2	2	0.1 U	**0.256**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2 U	5 U
Benzo(b)fluoranthene	0.2	2	0.1 U	**0.25**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2 U	5 U
Dibenz(a,h)anthracene	0.2	2	0.1 U	**0.553**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2 U	5 U
Indeno(1,2,3-c,d)pyrene*	0.2	2	0.25 U	**0.372**	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	5 U	12.5 U
Naphthalene	20	200	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	**184**	**476**
Phenanthrene	210	2100	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	4.19	7.78

Notes:
GCTL - Groundwater Cleanup Target Level
NADC - Natural Attenuation Default Concentration
1 = Ch 62-777 FAC Groundwater Cleanup Target Levels (GCTLs) reported in µg/L
U - The analyte was analyzed for , but not detected.
J - Result is estimated
B-The analyte was detected in the associated method and/or calibration blank.
Bold indicates concentration exceeds Groundwater Target Cleanup Level
Shade indicates concentration exceeds Natural Attenuation Default Concentration
NA - Not Available at time of rule adoption
* Compound was analyzed using best developed available technology (BDAT), lower reporting or detection limits are not achievable by current technology.

TABLE 3-3
Summary of Groundwater Analytical Results
Building 271 - 1st Quarter 2004

Parameter	Station ID		CEF271-8S	CEF271-9S		CEF-271-10		CEF271-11S	CEF271-12S	
	Sample ID		86-CEF271-8S-Q4-03	86-CEF271-9S-Q4-03	86-CEF271-9S-Q1-04	86-CEF271-10S-Q4-03	86-CEF271-10S-Q1-04	86-CEF271-11S-Q4-03	86-CEF271-12S-Q4-03	86-CEF271-12S-Q1-04
	Sample Date		10/23/2003	10/23/2003	04/26/2004	10/27/2003	04/27/2004	10/23/2003	10/23/2003	04/27/2004
	GCTL[1]	NADSC[1]								
	ug/L									
Volatile organic compounds										
Benzene	1.0	10	0.5 U	**1.93**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	30	300	5 U	25.8	5 U	5 U	5 U	5 U	5 U	5 U
Toluene	40	400	5 U	20.3	5 U	5 U	5 U	5 U	5 U	5 U
Xylenes, total	20	200	10 U	**98.5**	3.06 J	10 U	10 U	10 U	10 U	10 U
Semi-volatile organic compounds										
1-methylnaphthalene	20	200	1 U	0.536 J	1 U	1 U	1 U	1 U	1 U	1 U
2-Methylnaphthalene	20	200	1 U	1.13 J	1 U	1 U	1 U	1 U	1 U	1 U
Acenaphthene	20	200	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Acenaphthylene	210	2100	1 U	3.05 J	1 U	1 U	1 U	1 U	1 U	1 U
Benzo(a)anthracene	0.2	2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)pyrene*	0.2	2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)fluoranthene	0.2	2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenz(a,h)anthracene	0.2	2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Indeno(1,2,3-c,d)pyrene*	0.2	2	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Naphthalene	20	200	0.25 U	5.89 J	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Phenanthrene	210	2100	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

Notes:
GCTL - Groundwater Cleanup Target Level
NADC - Natural Attenuation Default Concentration
1 = Ch 62-777 FAC Groundwater Cleanup Target Levels (GCTLs) reported in µg/L
U - The analyte was analyzed for , but not detected.
J - Result is estimated
B-The analyte was detected in the associated method and/or calibration blank.
Bold indicates concentration exceeds Groundwater Target Cleanup Level
Shade indicates concentration exceeds Natural Attenuation Default Concentration
NA - Not Available at time of rule adoption
* Compound was analyzed using best developed available technology (BDAT), lower reporting or detection limits are not achievable by current technology.

TABLE 3-4
Field Parameter Measurements
Building 271, 1st Quarter 2004

		Groundwater					
Well	**Sample Date**	**pH**	**Conductivity (mS/cm)**	**Turbidity (NTU)**	**Dissolved Oxygen (mg/L)**	**Temperature (^{oC})**	**ORP (mV)**
CEF-271-01S	10/27/2003	6.67	0.569	26	1.19	25.9	-73
	11/12/2003	6.41	0.624	47	1.44	25.2	-132
	11/24/2003	6.18	0.184	153	2.49	24.7	106
	12/01/2003	6.37	0.509	37	1.42	24	103
	12/08/2003	6.39	0.62	25.5	6.13	23.9	157
	12/15/2003	6.39	0.616	16.1	5.06	23.6	171
	01/20/2004	6.24	0.551	7.2	6.18	21	95
	03/29/2004	6.33	0.609	33	4.89	25.8	123
CEF-271-02S	10/27/2003	6.29	0.269	25	0.81	25.7	27
	11/12/2003	6.4	0.232	60	2.7	25	-11
	11/24/2003	6.41	0.542	31	1.17	24.9	33
	12/01/2003	6.21	0.174	84	2.29	24	131
	12/08/2003	6.13	0.2	59	5.58	23.7	177
	12/15/2003	5.96	0.185	87.8	4.17	23.3	182
	01/20/2004	6.15	0.149	18.8	4.55	21.2	152
	03/29/2004	6.08	0.181	39	4.26	25.6	171
CEF-271-03S	10/27/2003	6.66	0.371	205	1.21	25.4	74
	11/12/2003	6.63	0.393	697	3.3	24.9	10
	11/24/2003	6.43	0.391	72	2.11	24.5	47
	12/01/2003	6.46	0.411	205	2.68	24.2	46
	12/08/2003	6.54	0.522	24	5.02	23.7	85
	12/15/2003	6.49	0.524	183	3.3	23.3	93
	01/20/2004	6.47	0.485	92	4.81	21.4	25
	03/29/2004	6.37	0.528	72	4.36	25.9	36
CEF-271-04SR	10/27/2003	6.5	0.293	55	0.96	25.2	105
	11/12/2003	6.75	0.265	700	3.49	24.8	-8
	11/24/2003	6.54	0.223	353	2.47	24.6	22
	12/01/2003	6.5	0.23	999	2.35	24.1	20
	12/08/2003	6.6	0.287	85	6	23.8	39
	12/15/2003	6.45	0.296	72.2	4.21	23.5	65
	01/20/2004	6.59	0.301	261	6.66	21.2	-13
	03/29/2004	6.5	0.286	151	5.19	25.7	41
CEF-271-05SR	10/28/2003	6.12	0.124	0.7	4.34	25.6	156
	11/12/2003	7.83	0.168	999+	1.6	25.1	33
	11/24/2003	6.75	0.125	97	8.37	24.1	100
	12/01/2003	6.4	0.205	258	3.16	24	110
	12/08/2003	6.45	0.213	69	5.59	23.6	177
	12/15/2003	6.36	0.263	20.5	3.81	23.4	129
	01/20/2004	6.29	0.223	247	5.45	21.2	121
	03/29/2004	6.21	0.241	185	4.26	26.1	118
CEF-271-06S	10/28/2003	6.58	0.565	9.2	3.71	26.6	91
	11/12/2003	6.53	0.591	999+	2.05	25.9	32
	11/24/2003	6.45	0.562	0	2.07	25.4	52
	12/01/2003	6.49	0.579	43	2.45	24.7	72
	12/08/2003	6.56	0.724	7	5.2	24.3	120
	12/15/2003	6.42	0.713	50	3.52	23.7	109
	01/20/2004	6.45	0.727	6.1	4.54	21.8	55
	03/29/2004	6.35	0.716	13.1	4.11	25.9	73

TABLE 3-4
Field Parameter Measurements
Building 271, 1st Quarter 2004

		Groundwater					
Well	**Sample Date**	**pH**	**Conductivity (mS/cm)**	**Turbidity (NTU)**	**Dissolved Oxygen (mg/L)**	**Temperature (^{oC})**	**ORP (mV)**
CEF-271-07S	10/28/2003	6.41	0.78	351	15.6	24.9	-75
	11/12/2003	6.54	1.53	663	0.69	24.6	-108
	11/24/2003	6.34	0.928	999	2.4	24.6	-96
	12/01/2003	6.4	0.773	999	1.61	24.6	-125
	12/08/2003	6.43	0.855	0	4.07	24.4	-155
	12/15/2003	6.45	1.22	0	3.5	24	-147
	01/20/2004	6.15	0.899	219	4.33	21.2	-111
	03/29/2004	6.41	0.936	251	3.12	26.3	-135
CEF-271-08S	10/23/2003	6.45	0.379	5	1.07	26.7	96
	11/12/2003	6.29	0.362	716	4.1	25.6	4
	11/24/2003	6.38	0.339	485	5.58	25	103
	12/01/2003	6.52	0.354	238	2.73	24.7	89
	12/08/2003	6.27	0.451	2.5	5.43	24	181
	12/15/2003	6.46	0.458	801	3.36	23.6	62
	01/20/2004	5.98	0.43	43.4	3.33	21.1	125
	03/29/2004	6.15	0.426	71	3.28	25.8	63
CEF-271-09S	10/23/2003	6.72	0.384	2.2	2.31	27.2	-13
	11/12/2003	6.54	0.544	0	3.11	26.1	-162
	11/24/2003	6.72	0.373	999	3.02	25.4	-18
	12/01/2003	7.74	0.385	999	2.21	25	-112
	12/08/2003	7.33	0.405	0	4.7	23.8	-50
	12/15/2003	7.03	0.428	0	2.17	23.2	-55
	01/20/2004	7.24	0.224	224	8.61	21.3	-58
	03/29/2004	7.01	0.319	252	5.14	26.3	-78
CEF-271-10S	10/27/2003	6.8	0.497	7.2	4.28	26.5	157
	11/12/2003	6.74	0.482	999	3.67	25.9	35
	11/24/2003	7.22	4.78	959	3.29	25.5	62
	12/01/2003	6.65	0.479	39	3.95	25.1	80
	12/08/2003	6.77	0.593	0	5.49	24.5	144
	12/15/2003	6.6	0.597	0	6.64	24	187
	01/20/2004	6.1	0.464	347	5.84	21.8	79
	03/29/2004	6.27	0.435	313	5.31	26	104
CEF-271-11S	10/23/2003	6.28	0.311	0	2.35	26.8	134
	11/12/2003	6.54	0.323	55	3.21	25.9	67
	11/24/2003	6.34	0.318	230	2.46	25.1	97
	12/01/2003	6.37	0.324	56	2.38	24.7	96
	12/08/2003	6.32	0.409	425	5.15	23.9	52
	12/15/2003	6.07	0.412	50	6.47	23.4	212
	01/20/2004	5.38	0.395	44	7.51	21.3	180
	03/29/2004	5.97	0.423	36	6.49	26.3	146
CEF-271-12S	10/23/2003	6.68	0.333	25	1.97	23.8	56
	11/12/2003	6.1	0.481	0	2.48	23.8	-99
	11/24/2003	6.15	0.347	999	3.4	23.3	-48
	12/01/2003	5.83	0.348	211	3.62	22.6	177
	12/08/2003	6.29	0.435	9.1	6.04	22.4	189
	12/15/2003	6.84	0.433	94	7.21	22	187
	01/20/2004	5.75	0.353	528	5.45	20.4	13
	03/29/2004	6.15	0.377	117	6.3	26.2	-51

TABLE 3-4
Field Parameter Measurements
Building 271, 1st Quarter 2004

		Groundwater					
Well	**Sample Date**	**pH**	**Conductivity (mS/cm)**	**Turbidity (NTU)**	**Dissolved Oxygen (mg/L)**	**Temperature (^{oC})**	**ORP (mV)**
CEF-271-1I	10/27/2003	6.89	0.275	25	0.11	24.7	-140
	11/12/2003	9.6	0.219	14	4.2	26.1	-197
	11/24/2003	9.67	0.216	52	4.01	25.5	-31
	12/01/2003	9.62	0.216	19.7	4.43	24.4	-20
	12/08/2003	9.81	0.262	9.2	6.19	23.9	64
	12/15/2003	9.2	0.25	0	5.58	23	40
	01/20/2004	6.89	0.316	2.8	5.16	21.8	38
	03/29/2004	7.31	0.268	7.3	5.03	26	56

Note: All measurements taken using direct reading instruments in the field.
% = percent
mS/cm = milliSiemens per centimeter
NTU = nephelometric turbidity units
mg/L = milligrams per liter
^{o}C = degrees Celsius
ORP = oxygen reducing potential
mV = millivolts

4.0 Conclusions and Recommendations

The AS systems operated with minimal downtime during the monitoring period with a resulting operational efficiency of 89.8 percent.

Using conservative calculation values, the 13.7 pounds per day total VOC emission standard was not exceeded at any sampling location during the monitoring period. In addition, the total site emission as calculated by summing all the sampling locations did not exceed 13.7 pounds per day. Because total emissions at the site were well below 13.7 pounds per day during the monitoring period, CH2M HILL recommends the air sampling program at the Building 271 site be discontinued.

The baseline groundwater monitoring event indicated monitoring wells CEF-271-01S, CEF-271-07S, and CEF-271-09S contained contaminants which exceed FDEP GCTLs. Those contaminants exceeding the GCTLs included benzene, ethylbenzene, total xylenes, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene, 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene. The benzene, ethylbenzene, toluene, total xylenes, and naphthalene concentrations in well CEF-271-07S also exceeded the NADSCs.

Following AS system startup on November 17, 2003, the 1st Quarter 2004 groundwater monitoring event showed contaminant concentrations have decreased in the sampled monitoring wells with the exception of select parameters in CEF-271-07S. Contaminant concentrations at monitoring wells CEF-271-01S and CEF-271-09S decreased below GCTLs. Benzene, ethylbenzene, 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene were detected at concentrations above the GCTLs in well CEF-271-07S. The benzene and naphthalene concentrations were also detected above the NADSCs.

Based on contaminant concentrations in the groundwater at the site still exceeding the NADSCs along with the decreasing contaminant trend since AS system start-up, CH2M HILL recommends continuing the operation of the AS system.

5.0 References

CH2M HILL Constructors, Inc. August 2003. Work Plan Addendum No. 18, Work Plan Addendum No. 18 Installation of Air Sparging Systems at the Jet Engine Test Cell and Building 271, Naval Air Station Cecil Field, Jacksonville, Florida.

CH2M HILL Constructors, Inc. April 2001. Limited Closure Assessment Report, Oil/Water Separator Removal. NAS Cecil Field, Jacksonville, Florida.

Tetra Tech NUS, Inc. September 2002. Remedial Action Plan for Building 271 Tanks UL/R/SUL/D at Naval Air Station Cecil Field, Jacksonville, Florida.

Tetra Tech NUS, Inc. January 2003. Remedial Action Plan Addendum for Building 271 Tanks UL/R/SUL/D at Naval Air Station Cecil Field, Jacksonville, Florida.

Appendix A

Laboratory Analytical Reports for Air Samples
(provided on CD)

NAS Cecil Field

PREPARED FOR:	CTO 86/NAS Cecil Field, Building 271 Month 2 Air Monitoring
FINAL REVIEWER/ INITIAL REVIEWER	Camden Robinson/ Associate Project Chemist/CCI
COPIES:	Mike Halil/J.A.Jones Env. Services
DATE:	February 12, 2004
SUBJECT:	Quality Assessment for Samples Collected January 20, 2004

This quality assurance memorandum is based upon a review of analytical data generated for the air samples collected January 20, 2004 at the Naval Air Station Cecil Field in Jacksonville, Florida. The samples were collected as a part of the Building 271 month 2 air monitoring events conducted at the site. Table 1-1 presents a summary of the CCI sample identification numbers, laboratory sample identification numbers, dates of collection, sample matrices, and the analyses performed.

Severn Trent Laboratory (STL) of Pensacola, Florida served as the laboratory for the air samples collected during these sampling events for volatile organic compound (VOC) analysis by modified EPA method TO-14.

Data for the analyses were reviewed for adherence to the specified analytical protocols in accordance with CCI Sampling Analysis Plan. All analysis results have been validated or qualified according to general guidance provided in the Department of Defense (DOD) Quality Systems Manual - Version 2 Final (based on NELAP Voted Version 14 – 29 June 2002).

The findings of this quality assurance report are based upon the comprehensive review of the following results summaries reported according to the CCI Level C (CLP-like data deliverables format): chain of custody documentation, holding times, laboratory method blank analyses, bromofluorobenzene (BFB) mass tuning results, initial and continuing calibration, internal standard area performance summaries, target compound identification, laboratory control sample results, sample results, detection limits/sensitivity, and electronic data deliverables.

The analyses were performed acceptably, but required general qualifying statements; it is recommended that the analytical data be used only with the qualifying statements provided below. Any aspects of the data, which are not discussed in this report, should be considered qualitatively and quantitatively valid as reported, based on the deliverables reviewed. The validated and qualified results are presented in the data summary tables. Attachment A contains a copy of the chain of custody and the validated sample results.

Table 1-1
Summary Sample Data Reviewed
NAS Cecil Field

Sample Number	Laboratory ID	Date Sampled	Matrix	Analysis
86-271-7S-A-0120-04	C401513*1	01/20/2004	Air	[1]
86-271-10S-A-0120-04	C401513*2	01/20/2004	Air	[1]
86-271-AS2-A-0120-04	C401513*3	01/20/2004	Air	[1]
86-271-AS3-A-0120-04	C401513*4	01/20/2004	Air	[1]
86-271-AS5-A-0120-04	C401513*5	01/20/2004	Air	[1]
86-271-AS6-A-0120-04	C401513*6	01/20/2004	Air	[1]
86-271-AS7-A-0120-04	C401513*7	01/20/2004	Air	[1]

ANALYSES PERFORMED CODES:
[1] - Volatile organic compounds (VOC) by EPA method TO-14

General Data Qualifiers

As required by U.S. EPA protocols, all compounds which were qualitatively identified at concentrations below their respective reporting limits (RL) but above the method detection limit (MDL) have been qualified with "J" qualifiers on the data summary reports to indicate that they are quantitative estimates.

Summary

The volatile air analyses were performed acceptably, but required general qualifying statements. This analytical quality assurance report has identified the aspects of the data, which required qualification. These qualifiers are noted on the attached analytical sample summary reports. A support documentation package has been prepared for this quality assurance review and is filed with the NAS Cecil Field/Building 271 Month 2 Air Monitoring project file.

Attachment A

VALID QUALIFIERS

QUALIFIER	
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit
J	The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a "tentative identification."
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.
UR	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.
B	The analyte was detected in the associated method and/or calibration blank.
JB	The analyte detected in the associated field, equipment, and/or trip blank.

QUALIFICATION CODE REFERENCE

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect.
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
MB	Presumed contamination from preparation (method) blank.	Presumed contamination from preparation (method) blank or calibration blank.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
G	Result is over the calibration range. Not other acceptable result was provided.	Result is over the calibration range. Not other acceptable result was provided.
E	Not applicable	Laboratory Duplicate showed poor agreement.
Z	Duplicates RPD showed poor agreement.	Field Duplicates RPD showed poor agreement
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D was not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination from trip blank.	Not applicable.
+	False positive—reported compound was not present.	Not applicable.
-	False negative—compound was present but not reported.	Not applicable.
F	Presumed contamination from FB or ER.	Presumed contamination from FB or ER
$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.
D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Confirmation analysis performance exceeded 40%	Poor Digestion Spike recovery was not within control limits.
T/D	Not applicable	Total metals results reported were less than the dissolved metals result.
SD	Not applicable	Seed correction factor was below the acceptable limit

STL Pensacola 3355 McLemore Drive - Pensacola FL 32514 Telephone:(850) 474-1001 Fax:(850) 478-2671

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
01513-1	86-271-7S-A-0120-04	Air	01/22/04	01/20/04 10:05	
01513-2	86-271-10S-A-0120-04	Air	01/22/04	01/20/04 10:08	
01513-3	86-271-AS2-A-0120-04	Air	01/22/04	01/20/04 10:11	
01513-4	86-271-AS3-A-0120-04	Air	01/22/04	01/20/04 10:14	
01513-5	86-271-AS5-A-0120-04	Air	01/22/04	01/20/04 10:17	

Parameter	Units	Lab Sample IDs 01513-1	01513-2	01513-3	01513-4	01513-5
Volatile Organic Compounds in Air						
Benzene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Bromodichloromethane	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Bromoform	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Bromomethane (Methyl bromide)	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Carbon disulfide	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Carbon tetrachloride	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Chlorobenzene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Chloroethane	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Chloroform	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Chloromethane (Methyl chloride)	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
2-Chlorotoluene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Dibromochloromethane	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
1,2-Dibromoethane (EDB)	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
1,2-Dichlorobenzene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
1,3-Dichlorobenzene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
1,4-Dichlorobenzene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
trans-1,4-Dichloro-2-butene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Dichlorodifluoromethane	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
1,1-Dichloroethane	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
1,2-Dichloroethane	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
1,1-Dichloroethene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
cis-1,2-Dichloroethene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
trans-1,2-Dichloroethene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
1,2-Dichloropropane	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
cis-1,3-Dichloropropene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U

C.P

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
01513-1	86-271-7S-A-0120-04	Air	01/22/04	01/20/04 10:05	
01513-2	86-271-10S-A-0120-04	Air	01/22/04	01/20/04 10:08	
01513-3	86-271-AS2-A-0120-04	Air	01/22/04	01/20/04 10:11	
01513-4	86-271-AS3-A-0120-04	Air	01/22/04	01/20/04 10:14	
01513-5	86-271-AS5-A-0120-04	Air	01/22/04	01/20/04 10:17	

Parameter	Units	Lab Sample IDs 01513-1	01513-2	01513-3	01513-4	01513-5
Volatile Organic Compounds in Air						
trans-1,3-Dichloropropene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Dichlorotetrafluoroethane	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Ethylbenzene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Hexane	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
4-Ethyltoluene	mg/m3	0.24	0.065U	0.22	0.065U	0.068U
Hexachlorobutadiene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Methylene chloride (Dichloromethane)	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Methyl t-butyl ether (MTBE)	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Styrene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
1,1,2,2-Tetrachloroethane	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Tetrachloroethene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Toluene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
1,2,4-Trichlorobenzene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
1,1,1-Trichloroethane	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
1,1,2-Trichloroethane	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Trichloroethene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Trichlorofluoromethane	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
1,2,4-Trimethylbenzene	mg/m3	0.11	0.065U	0.14	0.065U	0.064J
1,3,5-Trimethylbenzene	mg/m3	0.29	0.065U	0.28	0.065U	0.068U
Vinyl chloride	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
o-Xylene	mg/m3	0.28	0.065U	0.065U	0.065U	0.068U
m&p-Xylene	mg/m3	0.11J	0.13U	0.13U	0.13U	0.14U
Surrogate - 1,2-Dichloroethane-d4 *	%	115 %	116 %	114 %	114 %	114 %

C.R

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
01513-1	86-271-7S-A-0120-04	Air	01/22/04	01/20/04 10:05	
01513-2	86-271-10S-A-0120-04	Air	01/22/04	01/20/04 10:08	
01513-3	86-271-AS2-A-0120-04	Air	01/22/04	01/20/04 10:11	
01513-4	86-271-AS3-A-0120-04	Air	01/22/04	01/20/04 10:14	
01513-5	86-271-AS5-A-0120-04	Air	01/22/04	01/20/04 10:17	

Parameter	Units	Lab Sample IDs 01513-1	01513-2	01513-3	01513-4	01513-5
Volatile Organic Compounds in Air						
Surrogate - Toluene-d8 *	%	104 %	105 %	104 %	104 %	103 %
Surrogate - 4-Bromofluorobenzene *	%	109 %	106 %	109 %	108 %	107 %
Dilution Factor		1	1	1	1	1
Prep Date		01/30/04	01/30/04	01/30/04	01/30/04	01/30/04
Prep Time		10:24	11:03	12:43	13:20	13:58
Analysis Date		01/30/04	01/30/04	01/30/04	01/30/04	01/30/04
Analysis Time		10:24	11:03	12:43	13:20	13:58
Batch ID		MAA013	MAA013	MAA013	MAA013	MAA013
Prep Method		MOD-TO14	MOD-TO14	MOD-TO14	MOD-TO14	MOD-TO14
Analyst		DWB	DWB	DWB	DWB	DWB
Quantitation Factor		2.19	2.17	2.17	2.17	2.28

C.N

STL Pensacola 3355 McLemore Drive - Pensacola FL 32514 Telephone:(850) 474-1001 Fax:(850) 478-2671

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
01513-6	86-271-AS6-A-0120-04	Air	01/22/04	01/20/04 10:20	
01513-7	86-271-AS7-A-0120-04	Air	01/22/04	01/20/04 10:23	

Parameter	Units	Lab Sample IDs 01513-6	01513-7
Volatile Organic Compounds in Air			
Benzene	mg/m3	0.067U	0.067U
Bromodichloromethane	mg/m3	0.067U	0.067U
Bromoform	mg/m3	0.067U	0.067U
Bromomethane (Methyl bromide)	mg/m3	0.067U	0.067U
Carbon disulfide	mg/m3	0.067U	0.039J
Carbon tetrachloride	mg/m3	0.067U	0.067U
Chlorobenzene	mg/m3	0.067U	0.067U
Chloroethane	mg/m3	0.067U	0.067U
Chloroform	mg/m3	0.067U	0.067U
Chloromethane (Methyl chloride)	mg/m3	0.067U	0.067U
2-Chlorotoluene	mg/m3	0.067U	0.067U
Dibromochloromethane	mg/m3	0.067U	0.067U
1,2-Dibromoethane (EDB)	mg/m3	0.067U	0.067U
1,2-Dichlorobenzene	mg/m3	0.067U	0.067U
1,3-Dichlorobenzene	mg/m3	0.067U	0.067U
1,4-Dichlorobenzene	mg/m3	0.067U	0.067U
trans-1,4-Dichloro-2-butene	mg/m3	0.067U	0.067U
Dichlorodifluoromethane	mg/m3	0.067U	0.067U
1,1-Dichloroethane	mg/m3	0.067U	0.067U
1,2-Dichloroethane	mg/m3	0.067U	0.067U
1,1-Dichloroethene	mg/m3	0.067U	0.067U
cis-1,2-Dichloroethene	mg/m3	0.067U	0.067U
trans-1,2-Dichloroethene	mg/m3	0.067U	0.067U
1,2-Dichloropropane	mg/m3	0.067U	0.067U
cis-1,3-Dichloropropene	mg/m3	0.067U	0.067U
trans-1,3-Dichloropropene	mg/m3	0.067U	0.067U
Dichlorotetrafluoroethane	mg/m3	0.067U	0.067U
Ethylbenzene	mg/m3	0.067U	0.067U

C. M

STL Pensacola 3355 McLemore Drive - Pensacola FL 32514 Telephone:(850) 474-1001 Fax:(850) 478-2671

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
01513-6	86-271-AS6-A-0120-04	Air	01/22/04	01/20/04 10:20	
01513-7	86-271-AS7-A-0120-04	Air	01/22/04	01/20/04 10:23	

Parameter	Units	Lab Sample IDs 01513-6	01513-7
Volatile Organic Compounds in Air			
Hexane	mg/m3	0.067U	0.067U
4-Ethyltoluene	mg/m3	0.067U	0.067U
Hexachlorobutadiene	mg/m3	0.067U	0.067U
Methylene chloride (Dichloromethane)	mg/m3	0.067U	0.067U
Methyl t-butyl ether (MTBE)	mg/m3	0.067U	0.067U
Styrene	mg/m3	0.067U	0.067U
1,1,2,2-Tetrachloroethane	mg/m3	0.067U	0.067U
Tetrachloroethene	mg/m3	0.067U	0.067U
Toluene	mg/m3	0.067U	0.067U
1,2,4-Trichlorobenzene	mg/m3	0.067U	0.067U
1,1,1-Trichloroethane	mg/m3	0.067U	0.067U
1,1,2-Trichloroethane	mg/m3	0.067U	0.067U
Trichloroethene	mg/m3	0.067U	0.067U
Trichlorofluoromethane	mg/m3	0.067U	0.067U
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/m3	0.067U	0.067U
1,2,4-Trimethylbenzene	mg/m3	0.067U	0.067U
1,3,5-Trimethylbenzene	mg/m3	0.067U	0.067U
Vinyl chloride	mg/m3	0.067U	0.067U
o-Xylene	mg/m3	0.067U	0.067U
m&p-Xylene	mg/m3	0.13U	0.13U
Surrogate - 1,2-Dichloroethane-d4 *	%	119 %	118 %
Surrogate - Toluene-d8 *	%	105 %	106 %
Surrogate - 4-Bromofluorobenzene *	%	108 %	111 %
Dilution Factor		1	1
Prep Date		01/30/04	01/30/04
Prep Time		14:37	15:15
Analysis Date		01/30/04	01/30/04
Analysis Time		14:37	15:15
Batch ID		MAA013	MAA013
Prep Method		MOD-TO14	MOD-TO14
Analyst		DWB	DWB
Quantitation Factor		2.23	2.23

L i m s F i l e r

Printed ... 2/1/04 12:02:11 PM

Order/Sample	Det Code	Dept ID	Inst ID	Version
C401513-1	TO14	VM	MA	v1.0

LIMS Header Info

Analyst	DWB
Prep_Date	01.30.04
Prep_Time	10:24
Analysis_Date	01.30.04
Analysis_Time	10:24
Batch_ID	MAA013
Clock_ID	
Instrument_ID	MARILYN
Prep_Method	
Analytical_Method	
Dilution_Factor	1
Quantitation_Factor	0.00438
Initial_Vol	
Final_Vol	
Units	mg/m3

Initially Loaded - File : 015131.D Method : TO14S.M~W
@ D:\HPCHEM\1\DATA03\M013004\

Total Loaded Files : 1

	All	Selected
Total Results :	51	51
Targets :	48	48
Surrogates :	3	3

LIMS Results Info (All)

	Compound	Final Value Flags	CASNo	File ID	[Conc / Conc	RL Added	RL@Mult Limits	CFV] %Rec)	T S
1	Benzene	0.066U	71-43-2	015131.D	[0.000	15,	0.066	<0.066]	T M
2	Bromodichloromethane	0.066U	75-27-4	015131.D	[0.000	15,	0.066	<0.066]	T M
3	Bromoform	0.066U	75-25-2	015131.D	[0.000	15,	0.066	<0.066]	T M
4	Bromomethane	0.066U	74-83-9	015131.D	[0.000	15,	0.066	<0.066]	T M
5	Carbon disulfide	0.066U	75-15-0	015131.D	[0.000	15,	0.066	<0.066]	T M
6	Carbon tetrachloride	0.066U	56-23-5	015131.D	[0.000	15,	0.066	<0.066]	T M
7	Chlorobenzene	0.066U	108-90-7	015131.D	[0.000	15,	0.066	<0.066]	T M
8	Chloroethane	0.066U	75-00-3	015131.D	[0.000	15,	0.066	<0.066]	T M
9	Chloroform	0.066U	67-66-3	015131.D	[0.000	15,	0.066	<0.066]	T M
10	Chloromethane	0.066U	74-87-3	015131.D	[0.000	15,	0.066	<0.066]	T M
11	2-Chlorotoluene	0.066U	95-49-8	015131.D	[0.000	15,	0.066	<0.066]	T M
12	Dibromochloromethane	0.066U	124-48-1	015131.D	[0.000	15,	0.066	<0.066]	T M
13	1,2-Dibromoethane	0.066U	106-93-4	015131.D	[0.000	15,	0.066	<0.066]	T M
14	1,2-Dichlorobenzene	0.066U	95-50-1	015131.D	[0.000	15,	0.066	<0.066]	T M
15	1,3-Dichlorobenzene	0.066U	541-73-1	015131.D	[0.000	15,	0.066	<0.066]	T M
16	1,4-Dichlorobenzene	0.066U	106-46-7	015131.D	[0.000	15,	0.066	<0.066]	T M
17	1,4-Dichloro-2-butene	0.066U	110-57-6	015131.D	[0.000	15,	0.066	<0.066]	T M
18	Dichlorodifluoromethane	0.066U	75-71-8	015131.D	[0.000	15,	0.066	<0.066]	T M
19	1,1-Dichloroethane	0.066U	75-34-3	015131.D	[0.000	15,	0.066	<0.066]	T M
20	1,2-Dichloroethane	0.066U	107-06-2	015131.D	[0.000	15,	0.066	<0.066]	T M
21	1,1-Dichloroethene	0.066U	75-35-4	015131.D	[0.000	15,	0.066	<0.066]	T M
22	cis-1,2-Dichloroethene	0.066U	156-59-2	015131.D	[0.000	15,	0.066	<0.066]	T M
23	trans-1,2-Dichloroethene	0.066U	156-60-5	015131.D	[0.000	15,	0.066	<0.066]	T M
24	1,2-Dichloropropane	0.066U	78-87-5	015131.D	[0.000	15,	0.066	<0.066]	T M
25	cis-1,3-Dichloropropene	0.066U	10061-01-5	015131.D	[0.000	15,	0.066	<0.066]	T M
26	trans-1,3-Dichloropropene	0.066U	10061-02-6	015131.D	[0.000	15,	0.066	<0.066]	T M
27	Dichlorotetrafluoroethane	0.066U	76-14-2	015131.D	[0.000	15,	0.066	<0.066]	T M
28	Ethylbenzene	0.066U	100-41-4	015131.D	[0.000	15,	0.066	<0.066]	T M
29	n-Hexane	0.066U	110-54-3	015131.D	[0.000	15,	0.066	<0.066]	T M
30	4-Ethyltoluene	0.24	622-96-8	015131.D	[0.242	15,	0.066	0.24]	T
31	Hexachlorobutadiene	0.066U	87-68-3	015131.D	[0.000	15,	0.066	<0.066]	T M
32	Methylene chloride	0.066U	75-09-2	015131.D	[0.000	15,	0.066	<0.066]	T M
33	methyl-Tert-Butyl Ether	0.066U	1634-04-4	015131.D	[0.000	15,	0.066	<0.066]	T M

CR

Order/Sample	Det Code	Dept ID	Inst ID	Version
C401513-1	TO14	VM	MA	v1.0

LIMS Results Info ... Continued ... (All)

	Compound	Final Value Flags	CASNo	File ID	[Conc / { Conc	RL / Added	RL@Mult / Limits	CFV] / %Rec}	T / S
34	Styrene	0.066U	100-42-5	015131.D	[0.000	15,	0.066	<0.066]	T M
35	1,1,2,2-Tetrachloroethane	0.066U	79-34-5	015131.D	[0.000	15,	0.066	<0.066]	T M
36	Tetrachloroethene	0.066U	127-18-4	015131.D	[0.000	15,	0.066	<0.066]	T M
37	Toluene	0.066U	108-88-3	015131.D	[0.000	15,	0.066	<0.066]	T M
38	1,2,4-Trichlorobenzene	0.066U	120-82-1	015131.D	[0.000	15,	0.066	<0.066]	T M
39	1,1,1-Trichloroethane	0.066U	71-55-6	015131.D	[0.000	15,	0.066	<0.066]	T M
40	1,1,2-Trichloroethane	0.066U	79-00-5	015131.D	[0.000	15,	0.066	<0.066]	T M
41	Trichloroethene	0.066U	79-01-6	015131.D	[0.000	15,	0.066	<0.066]	T M
42	Trichlorofluoromethane	0.066U	75-69-4	015131.D	[0.000	15,	0.066	<0.066]	T M
43	1,1,2-Trichlorotrifluoroet	0.066U	76-13-1	015131.D	[0.000	15,	0.066	<0.066]	T M
44	1,2,4-Trimethylbenzene	0.11	95-63-6	015131.D	[0.109<	15,	0.066	0.11]	T
45	1,3,5-Trimethylbenzene	0.29	108-67-8	015131.D	[0.287	15,	0.066	0.29]	T
46	Vinyl chloride	0.066U	75-01-4	015131.D	[0.000	15,	0.066	<0.066]	T M
47	o-Xylene	0.28	95-47-6	015131.D	[0.275	15,	0.066	0.28]	T
48	m,p-Xylene	0.11J	108-38-3	015131.D	[0.107<	30,	0.13	<0.13]	T M
49	1,2-Dichloroethane d4 SURR	115%	17060-07-0	015131.D	{ 287.607	250.000	61-140	115%}	S
50	Toluene-d8 SURR#2	104%	2037-26-5	015131.D	{ 259.512	250.000	90-109	104%}	S
51	4-Bromofluorobenzene SURR#	109%	460-00-4	015131.D	{ 273.022	250.000	87-112	109%}	S

of

L i m s F i l e r

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Order/Sample	Det Code	Dept ID	Inst ID	Version
C401513-2	TO14	VM	MA	v1.0

LIMS Header Info

Analyst	DWB
Prep_Date	01.30.04
Prep_Time	11:03
Analysis_Date	01.30.04
Analysis_Time	11:03
Batch_ID	MAA013
Clock_ID	
Instrument_ID	MARILYN
Prep_Method	
Analytical_Method	
Dilution_Factor	1
Quantitation_Factor	0.00434
Initial_Vol	
Final_Vol	
Units	mg/m3

Initially Loaded - File : 015132.D Method : TO14S.M~W
@ D:\HPCHEM\1\DATA03\M013004\

Total Loaded Files : 1

	All	Selected
Total Results :	51	51
Targets :	48	48
Surrogates :	3	3

LIMS Results Info (All)

	Compound	Final Value Flags	CASNo	File ID	[Conc	RL Added	RL@Mult Limits	CFV] %Rec	T S
1	Benzene	0.065U	71-43-2	015132.D	[0.000	15,	0.065	<0.065]	T M
2	Bromodichloromethane	0.065U	75-27-4	015132.D	[0.000	15,	0.065	<0.065]	T M
3	Bromoform	0.065U	75-25-2	015132.D	[0.000	15,	0.065	<0.065]	T M
4	Bromomethane	0.065U	74-83-9	015132.D	[0.000	15,	0.065	<0.065]	T M
5	Carbon disulfide	0.065U	75-15-0	015132.D	[0.000	15,	0.065	<0.065]	T M
6	Carbon tetrachloride	0.065U	56-23-5	015132.D	[0.000	15,	0.065	<0.065]	T M
7	Chlorobenzene	0.065U	108-90-7	015132.D	[0.000	15,	0.065	<0.065]	T M
8	Chloroethane	0.065U	75-00-3	015132.D	[0.000	15,	0.065	<0.065]	T M
9	Chloroform	0.065U	67-66-3	015132.D	[0.000	15,	0.065	<0.065]	T M
10	Chloromethane	0.065U	74-87-3	015132.D	[0.000	15,	0.065	<0.065]	T M
11	2-Chlorotoluene	0.065U	95-49-8	015132.D	[0.000	15,	0.065	<0.065]	T M
12	Dibromochloromethane	0.065U	124-48-1	015132.D	[0.000	15,	0.065	<0.065]	T M
13	1,2-Dibromoethane	0.065U	106-93-4	015132.D	[0.000	15,	0.065	<0.065]	T M
14	1,2-Dichlorobenzene	0.065U	95-50-1	015132.D	[0.000	15,	0.065	<0.065]	T M
15	1,3-Dichlorobenzene	0.065U	541-73-1	015132.D	[0.000	15,	0.065	<0.065]	T M
16	1,4-Dichlorobenzene	0.065U	106-46-7	015132.D	[0.000	15,	0.065	<0.065]	T M
17	1,4-Dichloro-2-butene	0.065U	110-57-6	015132.D	[0.000	15,	0.065	<0.065]	T M
18	Dichlorodifluoromethane	0.065U	75-71-8	015132.D	[0.000	15,	0.065	<0.065]	T M
19	1,1-Dichloroethane	0.065U	75-34-3	015132.D	[0.000	15,	0.065	<0.065]	T M
20	1,2-Dichloroethane	0.065U	107-06-2	015132.D	[0.000	15,	0.065	<0.065]	T M
21	1,1-Dichloroethene	0.065U	75-35-4	015132.D	[0.000	15,	0.065	<0.065]	T M
22	cis-1,2-Dichloroethene	0.065U	156-59-2	015132.D	[0.000	15,	0.065	<0.065]	T M
23	trans-1,2-Dichloroethene	0.065U	156-60-5	015132.D	[0.000	15,	0.065	<0.065]	T M
24	1,2-Dichloropropane	0.065U	78-87-5	015132.D	[0.000	15,	0.065	<0.065]	T M
25	cis-1,3-Dichloropropene	0.065U	10061-01-5	015132.D	[0.000	15,	0.065	<0.065]	T M
26	trans-1,3-Dichloropropene	0.065U	10061-02-6	015132.D	[0.000	15,	0.065	<0.065]	T M
27	Dichlorotetrafluoroethane	0.065U	76-14-2	015132.D	[0.000	15,	0.065	<0.065]	T M
28	Ethylbenzene	0.065U	100-41-4	015132.D	[0.000	15,	0.065	<0.065]	T M
29	n-Hexane	0.065U	110-54-3	015132.D	[0.000	15,	0.065	<0.065]	T M
30	4-Ethyltoluene	0.065U	622-96-8	015132.D	[0.000	15,	0.065	<0.065]	T M
31	Hexachlorobutadiene	0.065U	87-68-3	015132.D	[0.000	15,	0.065	<0.065]	T M
32	Methylene chloride	0.065U	75-09-2	015132.D	[0.000	15,	0.065	<0.065]	T M
33	methyl-Tert-Butyl Ether	0.065U	1634-04-4	015132.D	[0.000	15,	0.065	<0.065]	T M

@ **LimsFiler:** L:\LimsFiler\VM\C401513\02~TO14

C.L

Order/Sample	Det Code	Dept ID	Inst ID	Version
C401513-2	TO14	VM	MA	v1.0

LIMS Results Info ... Continued ... (All)

	Compound	Final Value Flags	CASNo	File ID	[Conc / (Conc	RL / Added	RL@Mult / Limits	CFV] / %Rec)	T / S	
34	Styrene	0.065U	100-42-5	015132.D	[0.000	15,	0.065	<0.065]	T	M
35	1,1,2,2-Tetrachloroethane	0.065U	79-34-5	015132.D	[0.000	15,	0.065	<0.065]	T	M
36	Tetrachloroethene	0.065U	127-18-4	015132.D	[0.000	15,	0.065	<0.065]	T	M
37	Toluene	0.065U	108-88-3	015132.D	[0.000	15,	0.065	<0.065]	T	M
38	1,2,4-Trichlorobenzene	0.065U	120-82-1	015132.D	[0.000	15,	0.065	<0.065]	T	M
39	1,1,1-Trichloroethane	0.065U	71-55-6	015132.D	[0.000	15,	0.065	<0.065]	T	M
40	1,1,2-Trichloroethane	0.065U	79-00-5	015132.D	[0.000	15,	0.065	<0.065]	T	M
41	Trichloroethene	0.065U	79-01-6	015132.D	[0.000	15,	0.065	<0.065]	T	M
42	Trichlorofluoromethane	0.065U	75-69-4	015132.D	[0.000	15,	0.065	<0.065]	T	M
43	1,1,2-Trichlorotrifluoroet	0.065U	76-13-1	015132.D	[0.000	15,	0.065	<0.065]	T	M
44	1,2,4-Trimethylbenzene	0.065U	95-63-6	015132.D	[0.000	15,	0.065	<0.065]	T	M
45	1,3,5-Trimethylbenzene	0.065U	108-67-8	015132.D	[0.000	15,	0.065	<0.065]	T	M
46	Vinyl chloride	0.065U	75-01-4	015132.D	[0.000	15,	0.065	<0.065]	T	M
47	o-Xylene	0.065U	95-47-6	015132.D	[0.000	15,	0.065	<0.065]	T	M
48	m,p-Xylene	0.13U	108-38-3	015132.D	[0.000	30,	0.13	<0.13]	T	M
49	1,2-Dichloroethane d4 SURR	116%	17060-07-0	015132.D	(291.070	250.000	61-140	116%)	S	
50	Toluene-d8 SURR#2	105%	2037-26-5	015132.D	(263.579	250.000	90-109	105%)	S	
51	4-Bromofluorobenzene SURR#	106%	460-00-4	015132.D	(263.998	250.000	87-112	106%)	S	

c. P

L i m s F i l e r

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Order/Sample	Det Code	Dept ID	Inst ID	Version
C401513-3	TO14	VM	MA	v1.0

LIMS Header Info

Analyst	DWB
Prep_Date	01.30.04
Prep_Time	12:43
Analysis_Date	01.30.04
Analysis_Time	12:43
Batch_ID	MAA013
Clock_ID	
Instrument_ID	MARILYN
Prep_Method	
Analytical_Method	
Dilution_Factor	1
Quantitation_Factor	0.00434
Initial_Vol	
Final_Vol	
Units	mg/m3

Initially Loaded - File : 015133.D Method : TO14S.M~W
@ D:\HPCHEM\1\DATA03\M013004\

Total Loaded Files : 1

	All	Selected
Total Results :	51	51
Targets :	48	48
Surrogates :	3	3

LIMS Results Info (All)

	Compound	Final Value Flags	CASNo	File ID	[Conc	RL Added	RL@Mult Limits	CFV] %Rec	T S
1	Benzene	0.065U	71-43-2	015133.D	0.000	15,	0.065	<0.065]	T M
2	Bromodichloromethane	0.065U	75-27-4	015133.D	0.000	15,	0.065	<0.065]	T M
3	Bromoform	0.065U	75-25-2	015133.D	0.000	15,	0.065	<0.065]	T M
4	Bromomethane	0.065U	74-83-9	015133.D	0.000	15,	0.065	<0.065]	T M
5	Carbon disulfide	0.065U	75-15-0	015133.D	0.000	15,	0.065	<0.065]	T M
6	Carbon tetrachloride	0.065U	56-23-5	015133.D	0.000	15,	0.065	<0.065]	T M
7	Chlorobenzene	0.065U	108-90-7	015133.D	0.000	15,	0.065	<0.065]	T M
8	Chloroethane	0.065U	75-00-3	015133.D	0.000	15,	0.065	<0.065]	T M
9	Chloroform	0.065U	67-66-3	015133.D	0.000	15,	0.065	<0.065]	T M
10	Chloromethane	0.065U	74-87-3	015133.D	0.000	15,	0.065	<0.065]	T M
11	2-Chlorotoluene	0.065U	95-49-8	015133.D	0.000	15,	0.065	<0.065]	T M
12	Dibromochloromethane	0.065U	124-48-1	015133.D	0.000	15,	0.065	<0.065]	T M
13	1,2-Dibromoethane	0.065U	106-93-4	015133.D	0.000	15,	0.065	<0.065]	T M
14	1,2-Dichlorobenzene	0.065U	95-50-1	015133.D	0.000	15,	0.065	<0.065]	T M
15	1,3-Dichlorobenzene	0.065U	541-73-1	015133.D	0.000	15,	0.065	<0.065]	T M
16	1,4-Dichlorobenzene	0.065U	106-46-7	015133.D	0.000	15,	0.065	<0.065]	T M
17	1,4-Dichloro-2-butene	0.065U	110-57-6	015133.D	0.000	15,	0.065	<0.065]	T M
18	Dichlorodifluoromethane	0.065U	75-71-8	015133.D	0.000	15,	0.065	<0.065]	T M
19	1,1-Dichloroethane	0.065U	75-34-3	015133.D	0.000	15,	0.065	<0.065]	T M
20	1,2-Dichloroethane	0.065U	107-06-2	015133.D	0.000	15,	0.065	<0.065]	T M
21	1,1-Dichloroethene	0.065U	75-35-4	015133.D	0.000	15,	0.065	<0.065]	T M
22	cis-1,2-Dichloroethene	0.065U	156-59-2	015133.D	0.000	15,	0.065	<0.065]	T M
23	trans-1,2-Dichloroethene	0.065U	156-60-5	015133.D	0.000	15,	0.065	<0.065]	T M
24	1,2-Dichloropropane	0.065U	78-87-5	015133.D	0.000	15,	0.065	<0.065]	T M
25	cis-1,3-Dichloropropene	0.065U	10061-01-5	015133.D	0.000	15,	0.065	<0.065]	T M
26	trans-1,3-Dichloropropene	0.065U	10061-02-6	015133.D	0.000	15,	0.065	<0.065]	T M
27	Dichlorotetrafluoroethane	0.065U	76-14-2	015133.D	0.000	15,	0.065	<0.065]	T M
28	Ethylbenzene	0.065U	100-41-4	015133.D	0.000	15,	0.065	<0.065]	T M
29	n-Hexane	0.065U	110-54-3	015133.D	0.000	15,	0.065	<0.065]	T M
30	4-Ethyltoluene	0.22	622-96-8	015133.D	0.216	15,	0.065	0.22]	T
31	Hexachlorobutadiene	0.065U	87-68-3	015133.D	0.000	15,	0.065	<0.065]	T M
32	Methylene chloride	0.065U	75-09-2	015133.D	0.000	15,	0.065	<0.065]	T M
33	methyl-Tert-Butyl Ether	0.065U	1634-04-4	015133.D	0.000	15,	0.065	<0.065]	T M

C.R

Order/Sample	Det Code	Dept ID	Inst ID	Version
C401513-3	TO14	VM	MA	v1.0

LIMS Results Info ... Continued ... (All)

	Compound	Final Value Flags	CASNo	File ID	[Conc / (Conc	RL / Added	RL@Mult / Limits	CFV] / %Rec)	T / S
34	Styrene	0.065U	100-42-5	015133.D	[0.000	15,	0.065	<0.065]	T M
35	1,1,2,2-Tetrachloroethane	0.065U	79-34-5	015133.D	[0.000	15,	0.065	<0.065]	T M
36	Tetrachloroethene	0.065U	127-18-4	015133.D	[0.000	15,	0.065	<0.065]	T M
37	Toluene	0.065U	108-88-3	015133.D	[0.000	15,	0.065	<0.065]	T M
38	1,2,4-Trichlorobenzene	0.065U	120-82-1	015133.D	[0.000	15,	0.065	<0.065]	T M
39	1,1,1-Trichloroethane	0.065U	71-55-6	015133.D	[0.000	15,	0.065	<0.065]	T M
40	1,1,2-Trichloroethane	0.065U	79-00-5	015133.D	[0.000	15,	0.065	<0.065]	T M
41	Trichloroethene	0.065U	79-01-6	015133.D	[0.000	15,	0.065	<0.065]	T M
42	Trichlorofluoromethane	0.065U	75-69-4	015133.D	[0.000	15,	0.065	<0.065]	T M
43	1,1,2-Trichlorotrifluoroet	0.065U	76-13-1	015133.D	[0.000	15,	0.065	<0.065]	T M
44	1,2,4-Trimethylbenzene	0.14	95-63-6	015133.D	[0.145	15,	0.065	0.14]	T
45	1,3,5-Trimethylbenzene	0.28	108-67-8	015133.D	[0.285	15,	0.065	0.28]	T
46	Vinyl chloride	0.065U	75-01-4	015133.D	[0.000	15,	0.065	<0.065]	T M
47	o-Xylene	0.065U	95-47-6	015133.D	[0.000	15,	0.065	<0.065]	T M
48	m,p-Xylene	0.13U	108-38-3	015133.D	[0.000	30,	0.13	<0.13]	T M
49	1,2-Dichloroethane d4 SURR	114%	17060-07-0	015133.D	(285.061	250.000	61-140	114%)	S
50	Toluene-d8 SURR#2	104%	2037-26-5	015133.D	(259.866	250.000	90-109	104%)	S
51	4-Bromofluorobenzene SURR#	109%	460-00-4	015133.D	(272.337	250.000	87-112	109%)	S

C.R

L i m s F i l e r

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Order/Sample	Det Code	Dept ID	Inst ID	Version
C401513-4	TO14	VM	MA	v1.0

LIMS Header Info

Analyst	DWB
Prep_Date	01.30.04
Prep_Time	13:20
Analysis_Date	01.30.04
Analysis_Time	13:20
Batch_ID	MAA013
Clock_ID	
Instrument_ID	MARILYN
Prep_Method	
Analytical_Method	
Dilution_Factor	1
Quantitation_Factor	0.00434
Initial_Vol	
Final_Vol	
Units	mg/m3

Initially Loaded - File : 015134.D Method : TO14S.M~W
@ D:\HPCHEM\1\DATA03\M013004\

Total Loaded Files : 1

	All	Selected
Total Results :	51	51
Targets :	48	48
Surrogates :	3	3

LIMS Results Info (All)

	Compound	Final Value Flags	CASNo	File ID	[Conc	RL Added	RL@Mult Limits	CFV] %Rec	T S
1	Benzene	0.065U	71-43-2	015134.D	[0.000	15,	0.065	<0.065]	T M
2	Bromodichloromethane	0.065U	75-27-4	015134.D	[0.000	15,	0.065	<0.065]	T M
3	Bromoform	0.065U	75-25-2	015134.D	[0.000	15,	0.065	<0.065]	T M
4	Bromomethane	0.065U	74-83-9	015134.D	[0.000	15,	0.065	<0.065]	T M
5	Carbon disulfide	0.065U	75-15-0	015134.D	[0.000	15,	0.065	<0.065]	T M
6	Carbon tetrachloride	0.065U	56-23-5	015134.D	[0.000	15,	0.065	<0.065]	T M
7	Chlorobenzene	0.065U	108-90-7	015134.D	[0.000	15,	0.065	<0.065]	T M
8	Chloroethane	0.065U	75-00-3	015134.D	[0.000	15,	0.065	<0.065]	T M
9	Chloroform	0.065U	67-66-3	015134.D	[0.000	15,	0.065	<0.065]	T M
10	Chloromethane	0.065U	74-87-3	015134.D	[0.000	15,	0.065	<0.065]	T M
11	2-Chlorotoluene	0.065U	95-49-8	015134.D	[0.000	15,	0.065	<0.065]	T M
12	Dibromochloromethane	0.065U	124-48-1	015134.D	[0.000	15,	0.065	<0.065]	T M
13	1,2-Dibromoethane	0.065U	106-93-4	015134.D	[0.000	15,	0.065	<0.065]	T M
14	1,2-Dichlorobenzene	0.065U	95-50-1	015134.D	[0.000	15,	0.065	<0.065]	T M
15	1,3-Dichlorobenzene	0.065U	541-73-1	015134.D	[0.000	15,	0.065	<0.065]	T M
16	1,4-Dichlorobenzene	0.065U	106-46-7	015134.D	[0.000	15,	0.065	<0.065]	T M
17	1,4-Dichloro-2-butene	0.065U	110-57-6	015134.D	[0.000	15,	0.065	<0.065]	T M
18	Dichlorodifluoromethane	0.065U	75-71-8	015134.D	[0.000	15,	0.065	<0.065]	T M
19	1,1-Dichloroethane	0.065U	75-34-3	015134.D	[0.000	15,	0.065	<0.065]	T M
20	1,2-Dichloroethane	0.065U	107-06-2	015134.D	[0.000	15,	0.065	<0.065]	T M
21	1,1-Dichloroethene	0.065U	75-35-4	015134.D	[0.000	15,	0.065	<0.065]	T M
22	cis-1,2-Dichloroethene	0.065U	156-59-2	015134.D	[0.000	15,	0.065	<0.065]	T M
23	trans-1,2-Dichloroethene	0.065U	156-60-5	015134.D	[0.000	15,	0.065	<0.065]	T M
24	1,2-Dichloropropane	0.065U	78-87-5	015134.D	[0.000	15,	0.065	<0.065]	T M
25	cis-1,3-Dichloropropene	0.065U	10061-01-5	015134.D	[0.000	15,	0.065	<0.065]	T M
26	trans-1,3-Dichloropropene	0.065U	10061-02-6	015134.D	[0.000	15,	0.065	<0.065]	T M
27	Dichlorotetrafluoroethane	0.065U	76-14-2	015134.D	[0.000	15,	0.065	<0.065]	T M
28	Ethylbenzene	0.065U	100-41-4	015134.D	[0.000	15,	0.065	<0.065]	T M
29	n-Hexane	0.065U	110-54-3	015134.D	[0.000	15,	0.065	<0.065]	T M
30	4-Ethyltoluene	0.065U	622-96-8	015134.D	[0.000	15,	0.065	<0.065]	T M
31	Hexachlorobutadiene	0.065U	87-68-3	015134.D	[0.000	15,	0.065	<0.065]	T M
32	Methylene chloride	0.065U	75-09-2	015134.D	[0.000	15,	0.065	<0.065]	T M
33	methyl-Tert-Butyl Ether	0.065U	1634-04-4	015134.D	[0.000	15,	0.065	<0.065]	T M

@ **LimsFiler:** L:\LimsFiler\VM\C401513\04~TO14

Order/Sample	Det Code	Dept ID	Inst ID	Version
C401513-4	TO14	VM	MA	v1.0

LIMS Results Info ... Continued ... (All)

	Compound	Final Value Flags	CASNo	File ID	[Conc	RL Added	RL@Mult Limits	CFV]	T S
34	Styrene	0.065U	100-42-5	015134.D	[0.000	15,	0.065	<0.065]	T M
35	1,1,2,2-Tetrachloroethane	0.065U	79-34-5	015134.D	[0.000	15,	0.065	<0.065]	T M
36	Tetrachloroethene	0.065U	127-18-4	015134.D	[0.000	15,	0.065	<0.065]	T M
37	Toluene	0.065U	108-88-3	015134.D	[0.000	15,	0.065	<0.065]	T M
38	1,2,4-Trichlorobenzene	0.065U	120-82-1	015134.D	[0.000	15,	0.065	<0.065]	T M
39	1,1,1-Trichloroethane	0.065U	71-55-6	015134.D	[0.000	15,	0.065	<0.065]	T M
40	1,1,2-Trichloroethane	0.065U	79-00-5	015134.D	[0.000	15,	0.065	<0.065]	T M
41	Trichloroethene	0.065U	79-01-6	015134.D	[0.000	15,	0.065	<0.065]	T M
42	Trichlorofluoromethane	0.065U	75-69-4	015134.D	[0.000	15,	0.065	<0.065]	T M
43	1,1,2-Trichlorotrifluoroet	0.065U	76-13-1	015134.D	[0.000	15,	0.065	<0.065]	T M
44	1,2,4-Trimethylbenzene	0.065U	95-63-6	015134.D	[0.000	15,	0.065	<0.065]	T M
45	1,3,5-Trimethylbenzene	0.065U	108-67-8	015134.D	[0.000	15,	0.065	<0.065]	T M
46	Vinyl chloride	0.065U	75-01-4	015134.D	[0.000	15,	0.065	<0.065]	T M
47	o-Xylene	0.065U	95-47-6	015134.D	[0.000	15,	0.065	<0.065]	T M
48	m,p-Xylene	0.13U	108-38-3	015134.D	[0.000	30,	0.13	<0.13]	T M
49	1,2-Dichloroethane d4 SURR	114%	17060-07-0	015134.D	(285.116	250.000	61-140	114%)	S
50	Toluene-d8 SURR#2	104%	2037-26-5	015134.D	(259.434	250.000	90-109	104%)	S
51	4-Bromofluorobenzene SURR#	108%	460-00-4	015134.D	(269.319	250.000	87-112	108%)	S

C.A

L i m s F i l e r

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Order/Sample	Det Code	Dept ID	Inst ID	Version
C401513-5	TO14	VM	MA	v1.0

LIMS Header Info

Analyst	DWB
Prep_Date	01.30.04
Prep_Time	13:58
Analysis_Date	01.30.04
Analysis_Time	13:58
Batch_ID	MAA013
Clock_ID	
Instrument_ID	MARILYN
Prep_Method	
Analytical_Method	
Dilution_Factor	1
Quantitation_Factor	0.00456
Initial_Vol	
Final_Vol	
Units	mg/m3

Initially Loaded - File : 015135.D Method : TO14S.M~W
@ D:\HPCHEM\1\DATA03\M013004\

Total Loaded Files : 1

	All	Selected
Total Results :	51	51
Targets :	48	48
Surrogates :	3	3

LIMS Results Info (All)

	Compound	Final Value Flags	CASNo	File ID	[Conc / Conc	RL / Added	RL@Mult / Limits	CFV] / %Rec)	T / S
1	Benzene	0.068U	71-43-2	015135.D	[0.000	15,	0.068	<0.068]	T M
2	Bromodichloromethane	0.068U	75-27-4	015135.D	[0.000	15,	0.068	<0.068]	T M
3	Bromoform	0.068U	75-25-2	015135.D	[0.000	15,	0.068	<0.068]	T M
4	Bromomethane	0.068U	74-83-9	015135.D	[0.000	15,	0.068	<0.068]	T M
5	Carbon disulfide	0.068U	75-15-0	015135.D	[0.000	15,	0.068	<0.068]	T M
6	Carbon tetrachloride	0.068U	56-23-5	015135.D	[0.000	15,	0.068	<0.068]	T M
7	Chlorobenzene	0.068U	108-90-7	015135.D	[0.000	15,	0.068	<0.068]	T M
8	Chloroethane	0.068U	75-00-3	015135.D	[0.000	15,	0.068	<0.068]	T M
9	Chloroform	0.068U	67-66-3	015135.D	[0.000	15,	0.068	<0.068]	T M
10	Chloromethane	0.068U	74-87-3	015135.D	[0.000	15,	0.068	<0.068]	T M
11	2-Chlorotoluene	0.068U	95-49-8	015135.D	[0.000	15,	0.068	<0.068]	T M
12	Dibromochloromethane	0.068U	124-48-1	015135.D	[0.000	15,	0.068	<0.068]	T M
13	1,2-Dibromoethane	0.068U	106-93-4	015135.D	[0.000	15,	0.068	<0.068]	T M
14	1,2-Dichlorobenzene	0.068U	95-50-1	015135.D	[0.000	15,	0.068	<0.068]	T M
15	1,3-Dichlorobenzene	0.068U	541-73-1	015135.D	[0.000	15,	0.068	<0.068]	T M
16	1,4-Dichlorobenzene	0.068U	106-46-7	015135.D	[0.000	15,	0.068	<0.068]	T M
17	1,4-Dichloro-2-butene	0.068U	110-57-6	015135.D	[0.000	15,	0.068	<0.068]	T M
18	Dichlorodifluoromethane	0.068U	75-71-8	015135.D	[0.000	15,	0.068	<0.068]	T M
19	1,1-Dichloroethane	0.068U	75-34-3	015135.D	[0.000	15,	0.068	<0.068]	T M
20	1,2-Dichloroethane	0.068U	107-06-2	015135.D	[0.000	15,	0.068	<0.068]	T M
21	1,1-Dichloroethene	0.068U	75-35-4	015135.D	[0.000	15,	0.068	<0.068]	T M
22	cis-1,2-Dichloroethene	0.068U	156-59-2	015135.D	[0.000	15,	0.068	<0.068]	T M
23	trans-1,2-Dichloroethene	0.068U	156-60-5	015135.D	[0.000	15,	0.068	<0.068]	T M
24	1,2-Dichloropropane	0.068U	78-87-5	015135.D	[0.000	15,	0.068	<0.068]	T M
25	cis-1,3-Dichloropropene	0.068U	10061-01-5	015135.D	[0.000	15,	0.068	<0.068]	T M
26	trans-1,3-Dichloropropene	0.068U	10061-02-6	015135.D	[0.000	15,	0.068	<0.068]	T M
27	Dichlorotetrafluoroethane	0.068U	76-14-2	015135.D	[0.000	15,	0.068	<0.068]	T M
28	Ethylbenzene	0.068U	100-41-4	015135.D	[0.000	15,	0.068	<0.068]	T M
29	n-Hexane	0.068U	110-54-3	015135.D	[0.000	15,	0.068	<0.068]	T M
30	4-Ethyltoluene	0.068U	622-96-8	015135.D	[0.000	15,	0.068	<0.068]	T M
31	Hexachlorobutadiene	0.068U	87-68-3	015135.D	[0.000	15,	0.068	<0.068]	T M
32	Methylene chloride	0.068U	75-09-2	015135.D	[0.000	15,	0.068	<0.068]	T M
33	methyl-Tert-Butyl Ether	0.068U	1634-04-4	015135.D	[0.000	15,	0.068	<0.068]	T M

@ **LimsFiler:** L:\LimsFiler\VM\C401513\05~TO14

C.K

Order/Sample	Det Code	Dept ID	Inst ID	Version
C401513-5	TO14	VM	MA	v1.0

LIMS Results Info ... Continued ... (All)

	Compound	Final Value Flags	CASNo	File ID	[Conc / (Conc	RL Added	RL@Mult Limits	CFV] %Rec)	T S
34	Styrene	0.068U	100-42-5	015135.D	[0.000	15,	0.068	<0.068]	T M
35	1,1,2,2-Tetrachloroethane	0.068U	79-34-5	015135.D	[0.000	15,	0.068	<0.068]	T M
36	Tetrachloroethene	0.068U	127-18-4	015135.D	[0.000	15,	0.068	<0.068]	T M
37	Toluene	0.068U	108-88-3	015135.D	[0.000	15,	0.068	<0.068]	T M
38	1,2,4-Trichlorobenzene	0.068U	120-82-1	015135.D	[0.000	15,	0.068	<0.068]	T M
39	1,1,1-Trichloroethane	0.068U	71-55-6	015135.D	[0.000	15,	0.068	<0.068]	T M
40	1,1,2-Trichloroethane	0.068U	79-00-5	015135.D	[0.000	15,	0.068	<0.068]	T M
41	Trichloroethene	0.068U	79-01-6	015135.D	[0.000	15,	0.068	<0.068]	T M
42	Trichlorofluoromethane	0.068U	75-69-4	015135.D	[0.000	15,	0.068	<0.068]	T M
43	1,1,2-Trichlorotrifluoroet	0.068U	76-13-1	015135.D	[0.000	15,	0.068	<0.068]	T M
44	1,2,4-Trimethylbenzene	0.064J	95-63-6	015135.D	[0.064<	15,	0.068	<0.068]	T M
45	1,3,5-Trimethylbenzene	0.068U	108-67-8	015135.D	[0.000	15,	0.068	<0.068]	T M
46	Vinyl chloride	0.068U	75-01-4	015135.D	[0.000	15,	0.068	<0.068]	T M
47	o-Xylene	0.068U	95-47-6	015135.D	[0.000	15,	0.068	<0.068]	T M
48	m,p-Xylene	0.14U	108-38-3	015135.D	[0.000	30,	0.14	<0.14]	T M
49	1,2-Dichloroethane d4 SURR	114%	17060-07-0	015135.D	(285.666	250.000	61-140	114%)	S
50	Toluene-d8 SURR#2	103%	2037-26-5	015135.D	(258.420	250.000	90-109	103%)	S
51	4-Bromofluorobenzene SURR#	107%	460-00-4	015135.D	(267.624	250.000	87-112	107%)	S

ok

L i m s F i l e r

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Order/Sample	Det Code	Dept ID	Inst ID	Version
C401513-6	TO14	VM	MA	v1.0

LIMS Header Info

Analyst	DWB
Prep_Date	01.30.04
Prep_Time	14:37
Analysis_Date	01.30.04
Analysis_Time	14:37
Batch_ID	MAA013
Clock_ID	
Instrument_ID	MARILYN
Prep_Method	
Analytical_Method	
Dilution_Factor	1
Quantitation_Factor	0.00446
Initial_Vol	
Final_Vol	
Units	mg/m3

Initially Loaded - File : 015136.D Method : TO14S.M~W
@ D:\HPCHEM\1\DATA03\M013004\

Total Loaded Files : 1

	All	Selected
Total Results :	51	51
Targets :	48	48
Surrogates :	3	3

LIMS Results Info (All)

	Compound	Final Value Flags	CASNo	File ID	[Conc	RL Added	RL@Mult Limits	CFV] %Rec]	T S
1	Benzene	0.067U	71-43-2	015136.D	0.000	15,	0.067	<0.067]	T M
2	Bromodichloromethane	0.067U	75-27-4	015136.D	0.000	15,	0.067	<0.067]	T M
3	Bromoform	0.067U	75-25-2	015136.D	0.000	15,	0.067	<0.067]	T M
4	Bromomethane	0.067U	74-83-9	015136.D	0.000	15,	0.067	<0.067]	T M
5	Carbon disulfide	0.067U	75-15-0	015136.D	0.000	15,	0.067	<0.067]	T M
6	Carbon tetrachloride	0.067U	56-23-5	015136.D	0.000	15,	0.067	<0.067]	T M
7	Chlorobenzene	0.067U	108-90-7	015136.D	0.000	15,	0.067	<0.067]	T M
8	Chloroethane	0.067U	75-00-3	015136.D	0.000	15,	0.067	<0.067]	T M
9	Chloroform	0.067U	67-66-3	015136.D	0.000	15,	0.067	<0.067]	T M
10	Chloromethane	0.067U	74-87-3	015136.D	0.000	15,	0.067	<0.067]	T M
11	2-Chlorotoluene	0.067U	95-49-8	015136.D	0.000	15,	0.067	<0.067]	T M
12	Dibromochloromethane	0.067U	124-48-1	015136.D	0.000	15,	0.067	<0.067]	T M
13	1,2-Dibromoethane	0.067U	106-93-4	015136.D	0.000	15,	0.067	<0.067]	T M
14	1,2-Dichlorobenzene	0.067U	95-50-1	015136.D	0.000	15,	0.067	<0.067]	T M
15	1,3-Dichlorobenzene	0.067U	541-73-1	015136.D	0.000	15,	0.067	<0.067]	T M
16	1,4-Dichlorobenzene	0.067U	106-46-7	015136.D	0.000	15,	0.067	<0.067]	T M
17	1,4-Dichloro-2-butene	0.067U	110-57-6	015136.D	0.000	15,	0.067	<0.067]	T M
18	Dichlorodifluoromethane	0.067U	75-71-8	015136.D	0.000	15,	0.067	<0.067]	T M
19	1,1-Dichloroethane	0.067U	75-34-3	015136.D	0.000	15,	0.067	<0.067]	T M
20	1,2-Dichloroethane	0.067U	107-06-2	015136.D	0.000	15,	0.067	<0.067]	T M
21	1,1-Dichloroethene	0.067U	75-35-4	015136.D	0.000	15,	0.067	<0.067]	T M
22	cis-1,2-Dichloroethene	0.067U	156-59-2	015136.D	0.000	15,	0.067	<0.067]	T M
23	trans-1,2-Dichloroethene	0.067U	156-60-5	015136.D	0.000	15,	0.067	<0.067]	T M
24	1,2-Dichloropropane	0.067U	78-87-5	015136.D	0.000	15,	0.067	<0.067]	T M
25	cis-1,3-Dichloropropene	0.067U	10061-01-5	015136.D	0.000	15,	0.067	<0.067]	T M
26	trans-1,3-Dichloropropene	0.067U	10061-02-6	015136.D	0.000	15,	0.067	<0.067]	T M
27	Dichlorotetrafluoroethane	0.067U	76-14-2	015136.D	0.000	15,	0.067	<0.067]	T M
28	Ethylbenzene	0.067U	100-41-4	015136.D	0.000	15,	0.067	<0.067]	T M
29	n-Hexane	0.067U	110-54-3	015136.D	0.000	15,	0.067	<0.067]	T M
30	4-Ethyltoluene	0.067U	622-96-8	015136.D	0.000	15,	0.067	<0.067]	T M
31	Hexachlorobutadiene	0.067U	87-68-3	015136.D	0.000	15,	0.067	<0.067]	T M
32	Methylene chloride	0.067U	75-09-2	015136.D	0.000	15,	0.067	<0.067]	T M
33	methyl-Tert-Butyl Ether	0.067U	1634-04-4	015136.D	0.000	15,	0.067	<0.067]	T M

Order/Sample	Det Code	Dept ID	Inst ID	Version
C401513-6	TO14	VM	MA	v1.0

LIMS Results Info ... Continued ... (All)

	Compound	Final Value Flags	CASNo	File ID	[Conc / (Conc	RL / Added	RL@Mult / Limits	CFV] / %Rec)	T / S
34	Styrene	0.067U	100-42-5	015136.D	[0.000	15,	0.067	<0.067]	T M
35	1,1,2,2-Tetrachloroethane	0.067U	79-34-5	015136.D	[0.000	15,	0.067	<0.067]	T M
36	Tetrachloroethene	0.067U	127-18-4	015136.D	[0.000	15,	0.067	<0.067]	T M
37	Toluene	0.067U	108-88-3	015136.D	[0.000	15,	0.067	<0.067]	T M
38	1,2,4-Trichlorobenzene	0.067U	120-82-1	015136.D	[0.000	15,	0.067	<0.067]	T M
39	1,1,1-Trichloroethane	0.067U	71-55-6	015136.D	[0.000	15,	0.067	<0.067]	T M
40	1,1,2-Trichloroethane	0.067U	79-00-5	015136.D	[0.000	15,	0.067	<0.067]	T M
41	Trichloroethene	0.067U	79-01-6	015136.D	[0.000	15,	0.067	<0.067]	T M
42	Trichlorofluoromethane	0.067U	75-69-4	015136.D	[0.000	15,	0.067	<0.067]	T M
43	1,1,2-Trichlorotrifluoroet	0.067U	76-13-1	015136.D	[0.000	15,	0.067	<0.067]	T M
44	1,2,4-Trimethylbenzene	0.067U	95-63-6	015136.D	[0.000	15,	0.067	<0.067]	T M
45	1,3,5-Trimethylbenzene	0.067U	108-67-8	015136.D	[0.000	15,	0.067	<0.067]	T M
46	Vinyl chloride	0.067U	75-01-4	015136.D	[0.000	15,	0.067	<0.067]	T M
47	o-Xylene	0.067U	95-47-6	015136.D	[0.000	15,	0.067	<0.067]	T M
48	m,p-Xylene	0.13U	108-38-3	015136.D	[0.000	30,	0.13	<0.13]	T M
49	1,2-Dichloroethane d4 SURR	119%	17060-07-0	015136.D	(297.288	250.000	61-140	119%)	S
50	Toluene-d8 SURR#2	105%	2037-26-5	015136.D	(262.909	250.000	90-109	105%)	S
51	4-Bromofluorobenzene SURR#	108%	460-00-4	015136.D	(269.291	250.000	87-112	108%)	S

C.R

L i m s F i l e r

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Order/Sample	Det Code	Dept ID	Inst ID	Version
C401513-7	TO14	VM	MA	v1.0

LIMS Header Info

Analyst	DWB
Prep_Date	01.30.04
Prep_Time	15:15
Analysis_Date	01.30.04
Analysis_Time	15:15
Batch_ID	MAA013
Clock_ID	
Instrument_ID	MARILYN
Prep_Method	
Analytical_Method	
Dilution_Factor	1
Quantitation_Factor	0.00446
Initial_Vol	
Final_Vol	
Units	mg/m3

Initially Loaded - File : 015137.D Method : TO14S.M~W
@ D:\HPCHEM\1\DATA03\M013004\

Total Loaded Files : 1

	All	Selected
Total Results :	51	51
Targets :	48	48
Surrogates :	3	3

LIMS Results Info (All)

	Compound	Final Value Flags	CASNo	File ID	[(	Conc Conc	RL Added	RL@Mult Limits	CFV] %Rec)	T S
1	Benzene	0.067U	71-43-2	015137.D	[	0.000	15,	0.067	<0.067]	T M
2	Bromodichloromethane	0.067U	75-27-4	015137.D	[	0.000	15,	0.067	<0.067]	T M
3	Bromoform	0.067U	75-25-2	015137.D	[	0.000	15,	0.067	<0.067]	T M
4	Bromomethane	0.067U	74-83-9	015137.D	[	0.000	15,	0.067	<0.067]	T M
5	Carbon disulfide	0.039J	75-15-0	015137.D	[	0.039<	15,	0.067	<0.067]	T M
6	Carbon tetrachloride	0.067U	56-23-5	015137.D	[	0.000	15,	0.067	<0.067]	T M
7	Chlorobenzene	0.067U	108-90-7	015137.D	[	0.000	15,	0.067	<0.067]	T M
8	Chloroethane	0.067U	75-00-3	015137.D	[	0.000	15,	0.067	<0.067]	T M
9	Chloroform	0.067U	67-66-3	015137.D	[	0.000	15,	0.067	<0.067]	T M
10	Chloromethane	0.067U	74-87-3	015137.D	[	0.000	15,	0.067	<0.067]	T M
11	2-Chlorotoluene	0.067U	95-49-8	015137.D	[	0.000	15,	0.067	<0.067]	T M
12	Dibromochloromethane	0.067U	124-48-1	015137.D	[	0.000	15,	0.067	<0.067]	T M
13	1,2-Dibromoethane	0.067U	106-93-4	015137.D	[	0.000	15,	0.067	<0.067]	T M
14	1,2-Dichlorobenzene	0.067U	95-50-1	015137.D	[	0.000	15,	0.067	<0.067]	T M
15	1,3-Dichlorobenzene	0.067U	541-73-1	015137.D	[	0.000	15,	0.067	<0.067]	T M
16	1,4-Dichlorobenzene	0.067U	106-46-7	015137.D	[	0.000	15,	0.067	<0.067]	T M
17	1,4-Dichloro-2-butene	0.067U	110-57-6	015137.D	[	0.000	15,	0.067	<0.067]	T M
18	Dichlorodifluoromethane	0.067U	75-71-8	015137.D	[	0.000	15,	0.067	<0.067]	T M
19	1,1-Dichloroethane	0.067U	75-34-3	015137.D	[	0.000	15,	0.067	<0.067]	T M
20	1,2-Dichloroethane	0.067U	107-06-2	015137.D	[	0.000	15,	0.067	<0.067]	T M
21	1,1-Dichloroethene	0.067U	75-35-4	015137.D	[	0.000	15,	0.067	<0.067]	T M
22	cis-1,2-Dichloroethene	0.067U	156-59-2	015137.D	[	0.000	15,	0.067	<0.067]	T M
23	trans-1,2-Dichloroethene	0.067U	156-60-5	015137.D	[	0.000	15,	0.067	<0.067]	T M
24	1,2-Dichloropropane	0.067U	78-87-5	015137.D	[	0.000	15,	0.067	<0.067]	T M
25	cis-1,3-Dichloropropene	0.067U	10061-01-5	015137.D	[	0.000	15,	0.067	<0.067]	T M
26	trans-1,3-Dichloropropene	0.067U	10061-02-6	015137.D	[	0.000	15,	0.067	<0.067]	T M
27	Dichlorotetrafluoroethane	0.067U	76-14-2	015137.D	[	0.000	15,	0.067	<0.067]	T M
28	Ethylbenzene	0.067U	100-41-4	015137.D	[	0.000	15,	0.067	<0.067]	T M
29	n-Hexane	0.067U	110-54-3	015137.D	[	0.000	15,	0.067	<0.067]	T M
30	4-Ethyltoluene	0.067U	622-96-8	015137.D	[	0.000	15,	0.067	<0.067]	T M
31	Hexachlorobutadiene	0.067U	87-68-3	015137.D	[	0.000	15,	0.067	<0.067]	T M
32	Methylene chloride	0.067U	75-09-2	015137.D	[	0.000	15,	0.067	<0.067]	T M
33	methyl-Tert-Butyl Ether	0.067U	1634-04-4	015137.D	[	0.000	15,	0.067	<0.067]	T M

Order/Sample	Det Code	Dept ID	Inst ID	Version
C401513-7	TO14	VM	MA	v1.0

LIMS Results Info ... Continued ... (All)

	Compound	Final Value Flags	CASNo	File ID	[(	Conc Conc	RL Added	RL@Mult Limits	CFV] %Rec)	T S
34	Styrene	0.067U	100-42-5	015137.D	[	0.000	15,	0.067	<0.067]	T M
35	1,1,2,2-Tetrachloroethane	0.067U	79-34-5	015137.D	[	0.000	15,	0.067	<0.067]	T M
36	Tetrachloroethene	0.067U	127-18-4	015137.D	[	0.000	15,	0.067	<0.067]	T M
37	Toluene	0.067U	108-88-3	015137.D	[	0.000	15,	0.067	<0.067]	T M
38	1,2,4-Trichlorobenzene	0.067U	120-82-1	015137.D	[	0.000	15,	0.067	<0.067]	T M
39	1,1,1-Trichloroethane	0.067U	71-55-6	015137.D	[	0.000	15,	0.067	<0.067]	T M
40	1,1,2-Trichloroethane	0.067U	79-00-5	015137.D	[	0.000	15,	0.067	<0.067]	T M
41	Trichloroethene	0.067U	79-01-6	015137.D	[	0.000	15,	0.067	<0.067]	T M
42	Trichlorofluoromethane	0.067U	75-69-4	015137.D	[	0.000	15,	0.067	<0.067]	T M
43	1,1,2-Trichlorotrifluoroet	0.067U	76-13-1	015137.D	[	0.000	15,	0.067	<0.067]	T M
44	1,2,4-Trimethylbenzene	0.067U	95-63-6	015137.D	[	0.000	15,	0.067	<0.067]	T M
45	1,3,5-Trimethylbenzene	0.067U	108-67-8	015137.D	[	0.000	15,	0.067	<0.067]	T M
46	Vinyl chloride	0.067U	75-01-4	015137.D	[	0.000	15,	0.067	<0.067]	T M
47	o-Xylene	0.067U	95-47-6	015137.D	[	0.000	15,	0.067	<0.067]	T M
48	m,p-Xylene	0.13U	108-38-3	015137.D	[	0.000	30,	0.13	<0.13]	T M
49	1,2-Dichloroethane d4 SURR	118%	17060-07-0	015137.D	(	295.997	250.000	61-140	118%)	S
50	Toluene-d8 SURR#2	106%	2037-26-5	015137.D	(	266.188	250.000	90-109	106%)	S
51	4-Bromofluorobenzene SURR#	111%	460-00-4	015137.D	(	276.292	250.000	87-112	111%)	S

C.R

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

C401513

CHAIN-OF-CUSTODY RECORD

COC NUMBER
171591-020 page 1 of 1

PROJECT NAME:	PROJECT NUMBER:	LAB NAME AND CONTACT:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	RECIPIENT 1 (Address, Tel No. , and Fax No.):
Former NAS Cecil Field	171591	STL - Pensacola Stephanie Akers	Jeff Marks J.A Jones Env. Services	6219 Authority Ave. Building 1 Jacksonville, FL 32221 (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 271 Month 2 Air Sampling Event	0086	6696	Bonnie Hogue 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.):
Jeff Marks	Ph:(904)777-4812 Fax:(904) 777-4262	Ph:(850) 474-1001 Fax: (850) 478-2671		

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)	Volatiles by 18/TO 14										SAMPLE TYPE (see codes on back)	COMMENTS/ SCREENING READINGS	LAB ID
1	86-271-7S-A-0120-04	CEF-271-7S	Air	01/20/04	1005	III/C	14	1										Grab	Summa Canister	265
2	86-271-10S-A-0120-04	CEF-271-10S	Air	01/20/04	1008	III/C	14	1										Grab	Summa Canister	070
3	86-271-AS2-A-0120-04	Air Sparge - 2	Air	01/20/04	1011	III/C	14	1										Grab	Summa Canister	068
4	86-271-AS3-A-0120-04	Air Sparge - 3	Air	01/20/04	1014	III/C	14	1										Grab	Summa Canister	074
5	86-271-AS5-A-0120-04	Air Sparge - 5	Air	01/20/04	1017	III/C	14	1										Grab	Summa Canister	082
6	86-271-AS6-A-0120-04	Air Sparge - 6	Air	01/20/04	1020	III/C	14	1										Grab	Summa Canister	093
7	86-271-AS7-A-0120-04	Air Sparge - 7	Air	01/20/04	1023	III/C	14	1										Grab	Summa Canister	084
8																				
9																				
10																				

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:	SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT:
Randy Dumaop / Sean Smith J.A. Jones Environmental Services	Federal Express Shipping Numbers: 7905 2448 7402, 7905 2448 7435, 7905 2448 7490.	

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	1/21/2004	11:00	Federal Express Shipping Numbers: 7905 2448 7402, 7905 2448 7435, 7905 2448 7490.	1/20/2004	11:00
Printed Name and Signature:			Printed Name and Signature:		
			Karen Hedrick	01/22/04	930
Printed Name and Signature:			Printed Name and Signature:		

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

Form CCI001, Rev 02/00

STL Pensacola

C401513 CTO86 Bld271 Mth2 Air Cecil

STL Pensacola 3355 McLemore Drive - Pensacola FL 32514 Telephone:(850) 474-1001 Fax:(850) 478-2671

Analytical Report

For: Mrs. Melissa Osborne
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346
CC:

Order Number:	C311791
SDG Number:	
Client Project ID:	171591, CTO-0086
Project:	BLDG.271 WEEKLY AIR, FORMER NAS CECIL FIELD
Report Date:	12/08/2003
Sampled By:	Client
Sample Received Date:	11/26/2003
Requisition Number:	
Purchase Order:	6696

SCAkers

Stephanie Akers, Project Manager
SAkers@stl-inc.com
06/30/2004

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Sample Summary

Order: C311791
Date Received: 11/26/2003

Client: CH2M Hill Constructors, Inc. (CCI)
Project: BLDG.271 WEEKLY AIR, FORMER NAS CECIL FIELD

Client Sample ID	Lab Sample ID	Matrix	Date Sampled
86-10S-A-1125-03	C311791*1	Air	11/25/2003 15:45
86-AS2-A-1125-03	C311791*2	Air	11/25/2003 15:20
86-AS3-A-1125-03	C311791*3	Air	11/25/2003 15:25
86-AS3-A-1125-03	C311791*3-DL	Air	11/25/2003 15:25
86-AS5-A-1125-03	C311791*4	Air	11/25/2003 15:30
86-AS6-A-1125-03	C311791*5	Air	11/25/2003 15:35
86-AS7-A-1125-03	C311791*6	Air	11/25/2003 15:40

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
11791-1	86-10S-A-1125-03	Air	11/26/03	11/25/03 15:45	
11791-2	86-AS2-A-1125-03	Air	11/26/03	11/25/03 15:20	
11791-3	86-AS3-A-1125-03	Air	11/26/03	11/25/03 15:25	
11791-3-DL	86-AS3-A-1125-03	Air	11/26/03	11/25/03 15:25	
11791-4	86-AS5-A-1125-03	Air	11/26/03	11/25/03 15:30	

		Lab Sample IDs				
Parameter	**Units**	**11791-1**	**11791-2**	**11791-3**	**11791-3-DL**	**11791-4**
Volatile Organic Compounds in Air						
Benzene	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
Bromodichloromethane	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
Bromoform	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
Bromomethane (Methyl bromide)	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
Carbon disulfide	mg/m3	0.35	0.068U	0.69U	1.4U	0.074U
Carbon tetrachloride	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
Chlorobenzene	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
Chloroethane	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
Chloroform	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
Chloromethane (Methyl chloride)	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
2-Chlorotoluene	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
Dibromochloromethane	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
1,2-Dibromoethane (EDB)	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
1,2-Dichlorobenzene	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
1,3-Dichlorobenzene	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
1,4-Dichlorobenzene	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
trans-1,4-Dichloro-2-butene	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
Dichlorodifluoromethane	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
1,1-Dichloroethane	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
1,2-Dichloroethane	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
1,1-Dichloroethene	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
cis-1,2-Dichloroethene	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
trans-1,2-Dichloroethene	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
1,2-Dichloropropane	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
cis-1,3-Dichloropropene	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
11791-1	86-10S-A-1125-03	Air	11/26/03	11/25/03 15:45	
11791-2	86-AS2-A-1125-03	Air	11/26/03	11/25/03 15:20	
11791-3	86-AS3-A-1125-03	Air	11/26/03	11/25/03 15:25	
11791-3-DL	86-AS3-A-1125-03	Air	11/26/03	11/25/03 15:25	
11791-4	86-AS5-A-1125-03	Air	11/26/03	11/25/03 15:30	

		Lab Sample IDs				
Parameter	**Units**	**11791-1**	**11791-2**	**11791-3**	**11791-3-DL**	**11791-4**
Volatile Organic Compounds in Air						
trans-1,3-Dichloropropene	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
Dichlorotetrafluoroethane	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
Ethylbenzene	mg/m3	0.071U	0.38	4.7	5.5	0.074U
Hexane	mg/m3	0.071U	0.41	1.5	1.8	0.074U
4-Ethyltoluene	mg/m3	0.071U	4.1	64	75	0.070J
Hexachlorobutadiene	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
Methylene chloride (Dichloromethane)	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
Methyl t-butyl ether (MTBE)	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
Styrene	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
1,1,2,2-Tetrachloroethane	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
Tetrachloroethene	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
Toluene	mg/m3	0.071U	0.077	5.5	6.5	0.074U
1,2,4-Trichlorobenzene	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
1,1,1-Trichloroethane	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
1,1,2-Trichloroethane	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
Trichloroethene	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
Trichlorofluoromethane	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
1,1,2-Trichloro-1,2,2-trifluor oethane	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
1,2,4-Trimethylbenzene	mg/m3	0.071U	1.0	71E	84	0.12
1,3,5-Trimethylbenzene	mg/m3	0.071U	5.2	26	31	0.074U
Vinyl chloride	mg/m3	0.071U	0.068U	0.69U	1.4U	0.074U
o-Xylene	mg/m3	0.071U	1.4	18	21	0.074U
m&p-Xylene	mg/m3	0.14U	0.80	27	32	0.15U
Surrogate - 1,2-Dichloroethane-d4 *	%	102 %	110 %	104 %	101 %	107 %

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
11791-1	86-10S-A-1125-03	Air	11/26/03	11/25/03 15:45	
11791-2	86-AS2-A-1125-03	Air	11/26/03	11/25/03 15:20	
11791-3	86-AS3-A-1125-03	Air	11/26/03	11/25/03 15:25	
11791-3-DL	86-AS3-A-1125-03	Air	11/26/03	11/25/03 15:25	
11791-4	86-AS5-A-1125-03	Air	11/26/03	11/25/03 15:30	

Volatile Organic Compounds in Air

Parameter	Units	Lab Sample IDs 11791-1	11791-2	11791-3	11791-3-DL	11791-4
Surrogate - Toluene-d8 *	%	105 %	102 %	101 %	100 %	102 %
Surrogate - 4-Bromofluorobenzene *	%	104 %	111 %	104 %	103 %	105 %
Dilution Factor		1	1	10	20	1
Prep Date		12/04/03	12/04/03	12/04/03	12/04/03	12/04/03
Prep Time		10:07	10:46	11:24	13:41	13:02
Analysis Date		12/04/03	12/04/03	12/04/03	12/04/03	12/04/03
Analysis Time		10:07	10:46	11:24	13:41	13:02
Batch ID		MAA101	MAA101	MAA101	MAA101	MAA101
Prep Method		TO14	TO14	TO14	TO14	TO14
Analyst		DWB	DWB	DWB	DWB	DWB
Quantitation Factor		2.36	2.26	22.9	45.8	2.47

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
11791-5	86-AS6-A-1125-03	Air	11/26/03	11/25/03 15:35	
11791-6	86-AS7-A-1125-03	Air	11/26/03	11/25/03 15:40	

Parameter	Units	Lab Sample IDs 11791-5	11791-6
Volatile Organic Compounds in Air			
Benzene	mg/m3	0.068	0.067U
Bromodichloromethane	mg/m3	0.067U	0.067U
Bromoform	mg/m3	0.067U	0.067U
Bromomethane (Methyl bromide)	mg/m3	0.067U	0.067U
Carbon disulfide	mg/m3	0.067U	0.067U
Carbon tetrachloride	mg/m3	0.067U	0.067U
Chlorobenzene	mg/m3	0.067U	0.067U
Chloroethane	mg/m3	0.067U	0.067U
Chloroform	mg/m3	0.067U	0.067U
Chloromethane (Methyl chloride)	mg/m3	0.067U	0.067U
2-Chlorotoluene	mg/m3	0.067U	0.067U
Dibromochloromethane	mg/m3	0.067U	0.067U
1,2-Dibromoethane (EDB)	mg/m3	0.067U	0.067U
1,2-Dichlorobenzene	mg/m3	0.067U	0.067U
1,3-Dichlorobenzene	mg/m3	0.067U	0.067U
1,4-Dichlorobenzene	mg/m3	0.067U	0.067U
trans-1,4-Dichloro-2-butene	mg/m3	0.067U	0.067U
Dichlorodifluoromethane	mg/m3	0.067U	0.067U
1,1-Dichloroethane	mg/m3	0.067U	0.067U
1,2-Dichloroethane	mg/m3	0.067U	0.067U
1,1-Dichloroethene	mg/m3	0.067U	0.067U
cis-1,2-Dichloroethene	mg/m3	0.067U	0.067U
trans-1,2-Dichloroethene	mg/m3	0.067U	0.067U
1,2-Dichloropropane	mg/m3	0.067U	0.067U
cis-1,3-Dichloropropene	mg/m3	0.067U	0.067U
trans-1,3-Dichloropropene	mg/m3	0.067U	0.067U
Dichlorotetrafluoroethane	mg/m3	0.067U	0.067U
Ethylbenzene	mg/m3	0.58	0.067U

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
11791-5	86-AS6-A-1125-03	Air	11/26/03	11/25/03 15:35	
11791-6	86-AS7-A-1125-03	Air	11/26/03	11/25/03 15:40	

Parameter	Units	Lab Sample IDs 11791-5	11791-6
Volatile Organic Compounds in Air			
Hexane	mg/m3	0.16	0.067U
4-Ethyltoluene	mg/m3	2.7	0.067U
Hexachlorobutadiene	mg/m3	0.067U	0.067U
Methylene chloride (Dichloromethane)	mg/m3	0.067U	0.067U
Methyl t-butyl ether (MTBE)	mg/m3	0.067U	0.067U
Styrene	mg/m3	0.067U	0.067U
1,1,2,2-Tetrachloroethane	mg/m3	0.067U	0.067U
Tetrachloroethene	mg/m3	0.067U	0.067U
Toluene	mg/m3	0.44	0.067U
1,2,4-Trichlorobenzene	mg/m3	0.067U	0.067U
1,1,1-Trichloroethane	mg/m3	0.067U	0.067U
1,1,2-Trichloroethane	mg/m3	0.067U	0.067U
Trichloroethene	mg/m3	0.067U	0.067U
Trichlorofluoromethane	mg/m3	0.067U	0.067U
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/m3	0.067U	0.067U
1,2,4-Trimethylbenzene	mg/m3	3.1	0.067U
1,3,5-Trimethylbenzene	mg/m3	0.94	0.067U
Vinyl chloride	mg/m3	0.067U	0.067U
o-Xylene	mg/m3	1.2	0.067U
m&p-Xylene	mg/m3	2.5	0.13U
Surrogate - 1,2-Dichloroethane-d4 *	%	104 %	107 %
Surrogate - Toluene-d8 *	%	103 %	105 %
Surrogate - 4-Bromofluorobenzene *	%	105 %	103 %
Dilution Factor		1	1
Prep Date		12/04/03	12/04/03
Prep Time		14:19	14:57
Analysis Date		12/04/03	12/04/03
Analysis Time		14:19	14:57
Batch ID		MAA101	MAA101
Prep Method		TO14	TO14
Analyst		DWB	DWB
Quantitation Factor		2.24	2.22

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
11791-7	Method Blank	QC-A	11/26/03		
11791-8	LCS True Value	QC-A	11/26/03		
11791-9	Lab Control Standard Result	QC-A	11/26/03		
11791-10	Lab Control Standard % Recovery	QC-A	11/26/03		
11791-11	LCS Accuracy Control Limit (%R)	QC-A	11/26/03		

		Lab Sample IDs				
Parameter	**Units**	**11791-7**	**11791-8**	**11791-9**	**11791-10**	**11791-11**
Volatile Organic Compounds in Air						
Benzene	mg/m3	0.030U	0.5000	0.5081	102 %	87-116
Bromodichloromethane	mg/m3	0.030U				
Bromoform	mg/m3	0.030U				
Bromomethane (Methyl bromide)	mg/m3	0.030U				
Carbon disulfide	mg/m3	0.030U				
Carbon tetrachloride	mg/m3	0.030U				
Chlorobenzene	mg/m3	0.030U	0.5000	0.5178	104 %	88-111
Chloroethane	mg/m3	0.030U				
Chloroform	mg/m3	0.030U				
Chloromethane (Methyl chloride)	mg/m3	0.030U				
2-Chlorotoluene	mg/m3	0.030U				
Dibromochloromethane	mg/m3	0.030U				
1,2-Dibromoethane (EDB)	mg/m3	0.030U				
1,2-Dichlorobenzene	mg/m3	0.030U				
1,3-Dichlorobenzene	mg/m3	0.030U				
1,4-Dichlorobenzene	mg/m3	0.030U				
trans-1,4-Dichloro-2-butene	mg/m3	0.030U				
Dichlorodifluoromethane	mg/m3	0.030U				
1,1-Dichloroethane	mg/m3	0.030U				
1,2-Dichloroethane	mg/m3	0.030U				
1,1-Dichloroethene	mg/m3	0.030U	0.5000	0.5085	102 %	58-138
cis-1,2-Dichloroethene	mg/m3	0.030U				
trans-1,2-Dichloroethene	mg/m3	0.030U				
1,2-Dichloropropane	mg/m3	0.030U				
cis-1,3-Dichloropropene	mg/m3	0.030U				

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
11791-7	Method Blank	QC-A	11/26/03		
11791-8	LCS True Value	QC-A	11/26/03		
11791-9	Lab Control Standard Result	QC-A	11/26/03		
11791-10	Lab Control Standard % Recovery	QC-A	11/26/03		
11791-11	LCS Accuracy Control Limit (%R)	QC-A	11/26/03		

Parameter	Units	Lab Sample IDs 11791-7	11791-8	11791-9	11791-10	11791-11
Volatile Organic Compounds in Air						
trans-1,3-Dichloropropene	mg/m3	0.030U				
Dichlorotetrafluoroethane	mg/m3	0.030U				
Ethylbenzene	mg/m3	0.030U				
Hexane	mg/m3	0.030U				
4-Ethyltoluene	mg/m3	0.030U				
Hexachlorobutadiene	mg/m3	0.030U				
Methylene chloride (Dichloromethane)	mg/m3	0.030U				
Methyl t-butyl ether (MTBE)	mg/m3	0.030U				
Styrene	mg/m3	0.030U				
1,1,2,2-Tetrachloroethane	mg/m3	0.030U				
Tetrachloroethene	mg/m3	0.030U				
Toluene	mg/m3	0.030U	0.5000	0.5214	104 %	86-113
1,2,4-Trichlorobenzene	mg/m3	0.030U				
1,1,1-Trichloroethane	mg/m3	0.030U				
1,1,2-Trichloroethane	mg/m3	0.030U				
Trichloroethene	mg/m3	0.030U	0.5000	0.5135	103 %	85-116
Trichlorofluoromethane	mg/m3	0.030U				
1,1,2-Trichloro-1,2,2-trifluor oethane	mg/m3	0.030U				
1,2,4-Trimethylbenzene	mg/m3	0.030U				
1,3,5-Trimethylbenzene	mg/m3	0.030U				
Vinyl chloride	mg/m3	0.030U				
o-Xylene	mg/m3	0.030U				
m&p-Xylene	mg/m3	0.060U				
Surrogate - 1,2-Dichloroethane-d4 *	%	98 %	0.5000	0.4851	97 %	61-140

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
11791-7	Method Blank	QC-A	11/26/03		
11791-8	LCS True Value	QC-A	11/26/03		
11791-9	Lab Control Standard Result	QC-A	11/26/03		
11791-10	Lab Control Standard % Recovery	QC-A	11/26/03		
11791-11	LCS Accuracy Control Limit (%R)	QC-A	11/26/03		

Parameter	Units	Lab Sample IDs 11791-7	11791-8	11791-9	11791-10	11791-11
Volatile Organic Compounds in Air						
Surrogate - Toluene-d8 *	%	101 %	0.5000	0.5084	102 %	90-109
Surrogate - 4-Bromofluorobenzene *	%	100 %	0.5000	0.5087	102 %	87-112
Dilution Factor		1		1		
Prep Date		12/04/03		12/04/03		
Prep Time		08:51		09:29		
Analysis Date		12/04/03		12/04/03		
Analysis Time		08:51		09:29		
Batch ID		MAA101	MAA101	MAA101	MAA101	
Prep Method		TO14		TO14		
Analyst		DWB		DWB		
Quantitation Factor		1		1		

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
11791-12	Method Detection Limit (MDL)	QC-A	11/26/03		
11791-13	Reporting Limit (RL)	QC-A	11/26/03		

Parameter	Units	Lab Sample IDs 11791-12	11791-13
Volatile Organic Compounds in Air			
Benzene	mg/m3	0.018	0.030
Bromodichloromethane	mg/m3	0.017	0.030
Bromoform	mg/m3	0.018	0.030
Bromomethane (Methyl bromide)	mg/m3	0.021	0.030
Carbon disulfide	mg/m3	0.017	0.030
Carbon tetrachloride	mg/m3	0.017	0.030
Chlorobenzene	mg/m3	0.018	0.030
Chloroethane	mg/m3	0.02	0.030
Chloroform	mg/m3	0.017	0.030
Chloromethane (Methyl chloride)	mg/m3	0.026	0.030
2-Chlorotoluene	mg/m3	0.022	0.030
Dibromochloromethane	mg/m3	0.017	0.030
1,2-Dibromoethane (EDB)	mg/m3	0.015	0.030
1,2-Dichlorobenzene	mg/m3	0.018	0.030
1,3-Dichlorobenzene	mg/m3	0.018	0.030
1,4-Dichlorobenzene	mg/m3	0.017	0.030
trans-1,4-Dichloro-2-butene	mg/m3	0.015	0.030
Dichlorodifluoromethane	mg/m3	0.013	0.030
1,1-Dichloroethane	mg/m3	0.017	0.030
1,2-Dichloroethane	mg/m3	0.016	0.030
1,1-Dichloroethene	mg/m3	0.023	0.030
cis-1,2-Dichloroethene	mg/m3	0.017	0.030
trans-1,2-Dichloroethene	mg/m3	0.018	0.030
1,2-Dichloropropane	mg/m3	0.019	0.030
cis-1,3-Dichloropropene	mg/m3	0.016	0.030
trans-1,3-Dichloropropene	mg/m3	0.015	0.030
Dichlorotetrafluoroethane	mg/m3	0.019	0.030
Ethylbenzene	mg/m3	0.021	0.030

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
11791-12	Method Detection Limit (MDL)	QC-A	11/26/03		
11791-13	Reporting Limit (RL)	QC-A	11/26/03		

Parameter	Units	Lab Sample IDs 11791-12	11791-13
Volatile Organic Compounds in Air			
Hexane	mg/m3	0.018	0.030
4-Ethyltoluene	mg/m3	0.021	0.030
Hexachlorobutadiene	mg/m3	0.021	0.030
Methylene chloride (Dichloromethane)	mg/m3	0.026	0.030
Methyl t-butyl ether (MTBE)	mg/m3	0.022	0.030
Styrene	mg/m3	0.02	0.030
1,1,2,2-Tetrachloroethane	mg/m3	0.019	0.030
Tetrachloroethene	mg/m3	0.019	0.030
Toluene	mg/m3	0.018	0.030
1,2,4-Trichlorobenzene	mg/m3	0.022	0.030
1,1,1-Trichloroethane	mg/m3	0.016	0.030
1,1,2-Trichloroethane	mg/m3	0.015	0.030
Trichloroethene	mg/m3	0.018	0.030
Trichlorofluoromethane	mg/m3	0.017	0.030
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/m3	0.016	0.030
1,2,4-Trimethylbenzene	mg/m3	0.02	0.030
1,3,5-Trimethylbenzene	mg/m3	0.02	0.030
Vinyl chloride	mg/m3	0.019	0.030
o-Xylene	mg/m3	0.019	0.030
m&p-Xylene	mg/m3	0.035	0.060

Order Number: C311791

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

STL Pensacola 3355 McLemore Drive - Pensacola FL 32514 Telephone:(850) 474-1001 Fax:(850) 478-2671

Analytical Report

For: Mrs. Melissa Osborne
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346
CC:

Order Number:	C312117
SDG Number:	
Client Project ID:	171591, CTO-0086
Project:	BLDG.271 WEEKLY AIR, FORMER NAS CECIL FIELD
Report Date:	12/15/2003
Sampled By:	Client
Sample Received Date:	12/04/2003
Requisition Number:	
Purchase Order:	6696

SCAkers

Stephanie Akers, Project Manager
SAkers@stl-inc.com
06/30/2004

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Sample Summary

Order: C312117
Date Received: 12/04/2003

Client: CH2M Hill Constructors, Inc. (CCI)
Project: BLDG.271 WEEKLY AIR, FORMER NAS CECIL FIELD

Client Sample ID	Lab Sample ID	Matrix	Date Sampled
86-271-7S-A-1202-03	C312117*1	Air	12/02/2003 11:15
86-271-7S-A-1202-03	C312117*1-DL	Air	12/02/2003 11:15
86-271-10S-A-1202-03	C312117*2	Air	12/02/2003 11:18
86-271-AS2-A-1202-03	C312117*3	Air	12/02/2003 11:21
86-271-AS2-A-1202-03	C312117*3-DL	Air	12/02/2003 11:21
86-271-AS3-A-1202-03	C312117*4	Air	12/02/2003 11:24
86-271-AS5-A-1202-03	C312117*5	Air	12/02/2003 11:27
86-271-AS6-A-1202-03	C312117*6	Air	12/02/2003 11:30
86-271-AS7-A-1202-03	C312117*7	Air	12/02/2003 11:33

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12117-1	86-271-7S-A-1202-03	Air	12/04/03	12/02/03 11:15	
12117-1-DL	86-271-7S-A-1202-03	Air	12/04/03	12/02/03 11:15	
12117-2	86-271-10S-A-1202-03	Air	12/04/03	12/02/03 11:18	
12117-3	86-271-AS2-A-1202-03	Air	12/04/03	12/02/03 11:21	
12117-3-DL	86-271-AS2-A-1202-03	Air	12/04/03	12/02/03 11:21	

		Lab Sample IDs				
Parameter	**Units**	**12117-1**	**12117-1-DL**	**12117-2**	**12117-3**	**12117-3-DL**
Volatile Organic Compounds in Air						
Benzene	mg/m3	0.065U	0.65U	0.066U	0.082	0.097J
Bromodichloromethane	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
Bromoform	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
Bromomethane (Methyl bromide)	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
Carbon disulfide	mg/m3	0.065U	0.65U	0.12	0.067U	0.13U
Carbon tetrachloride	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
Chlorobenzene	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
Chloroethane	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
Chloroform	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
Chloromethane (Methyl chloride)	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
2-Chlorotoluene	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
Dibromochloromethane	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
1,2-Dibromoethane (EDB)	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
1,2-Dichlorobenzene	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
1,3-Dichlorobenzene	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
1,4-Dichlorobenzene	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
trans-1,4-Dichloro-2-butene	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
Dichlorodifluoromethane	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
1,1-Dichloroethane	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
1,2-Dichloroethane	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
1,1-Dichloroethene	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
cis-1,2-Dichloroethene	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
trans-1,2-Dichloroethene	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
1,2-Dichloropropane	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
cis-1,3-Dichloropropene	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12117-1	86-271-7S-A-1202-03	Air	12/04/03	12/02/03 11:15	
12117-1-DL	86-271-7S-A-1202-03	Air	12/04/03	12/02/03 11:15	
12117-2	86-271-10S-A-1202-03	Air	12/04/03	12/02/03 11:18	
12117-3	86-271-AS2-A-1202-03	Air	12/04/03	12/02/03 11:21	
12117-3-DL	86-271-AS2-A-1202-03	Air	12/04/03	12/02/03 11:21	

		Lab Sample IDs				
Parameter	**Units**	**12117-1**	**12117-1-DL**	**12117-2**	**12117-3**	**12117-3-DL**
Volatile Organic Compounds in Air						
trans-1,3-Dichloropropene	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
Dichlorotetrafluoroethane	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
Ethylbenzene	mg/m3	1.9	3.7	0.066U	0.86	1.0
Hexane	mg/m3	0.40	0.75	0.066U	0.24	0.29
4-Ethyltoluene	mg/m3	25E	55	0.066U	6.4	8.0
Hexachlorobutadiene	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
Methylene chloride (Dichloromethane)	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
Methyl t-butyl ether (MTBE)	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
Styrene	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
1,1,2,2-Tetrachloroethane	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
Tetrachloroethene	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
Toluene	mg/m3	1.1	2.3	0.066U	0.31	0.38
1,2,4-Trichlorobenzene	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
1,1,1-Trichloroethane	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
1,1,2-Trichloroethane	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
Trichloroethene	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
Trichlorofluoromethane	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
1,2,4-Trimethylbenzene	mg/m3	17E	40	0.066U	7.5E	9.5
1,3,5-Trimethylbenzene	mg/m3	10E	21	0.066U	4.0	5.1
Vinyl chloride	mg/m3	0.065U	0.65U	0.066U	0.067U	0.13U
o-Xylene	mg/m3	18E	40	0.066U	1.7	1.9
m&p-Xylene	mg/m3	31E	69	0.13U	3.3	3.9
Surrogate - 1,2-Dichloroethane-d4 *	%	97 %	105 %	108 %	108 %	106 %

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12117-1	86-271-7S-A-1202-03	Air	12/04/03	12/02/03 11:15	
12117-1-DL	86-271-7S-A-1202-03	Air	12/04/03	12/02/03 11:15	
12117-2	86-271-10S-A-1202-03	Air	12/04/03	12/02/03 11:18	
12117-3	86-271-AS2-A-1202-03	Air	12/04/03	12/02/03 11:21	
12117-3-DL	86-271-AS2-A-1202-03	Air	12/04/03	12/02/03 11:21	

Volatile Organic Compounds in Air

Parameter	Units	Lab Sample IDs 12117-1	12117-1-DL	12117-2	12117-3	12117-3-DL
Surrogate - Toluene-d8 *	%	101 %	102 %	104 %	101 %	102 %
Surrogate - 4-Bromofluorobenzene *	%	108 %	104 %	102 %	107 %	106 %
Dilution Factor		1	10	1	1	2
Prep Date		12/08/03	12/08/03	12/08/03	12/08/03	12/08/03
Prep Time		10:23	11:39	13:10	13:48	15:05
Analysis Date		12/08/03	12/08/03	12/08/03	12/08/03	12/08/03
Analysis Time		10:23	11:39	13:10	13:48	15:05
Batch ID		MAA103	MAA103	MAA103	MAA103	MAA103
Prep Method		MOD-TO14	MOD-TO14	MOD-TO14	MOD-TO14	MOD-TO14
Analyst		DWB	DWB	DWB	DWB	DWB
Quantitation Factor		2.18	21.8	2.21	2.23	4.46

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12117-4	86-271-AS3-A-1202-03	Air	12/04/03	12/02/03 11:24	
12117-5	86-271-AS5-A-1202-03	Air	12/04/03	12/02/03 11:27	
12117-6	86-271-AS6-A-1202-03	Air	12/04/03	12/02/03 11:30	
12117-7	86-271-AS7-A-1202-03	Air	12/04/03	12/02/03 11:33	

		Lab Sample IDs			
Parameter	**Units**	**12117-4**	**12117-5**	**12117-6**	**12117-7**
Volatile Organic Compounds in Air					
Benzene	mg/m3	0.068U	0.065U	0.066U	0.065U
Bromodichloromethane	mg/m3	0.068U	0.065U	0.066U	0.065U
Bromoform	mg/m3	0.068U	0.065U	0.066U	0.065U
Bromomethane (Methyl bromide)	mg/m3	0.068U	0.065U	0.066U	0.065U
Carbon disulfide	mg/m3	0.068U	0.065U	0.066U	0.065U
Carbon tetrachloride	mg/m3	0.068U	0.065U	0.066U	0.065U
Chlorobenzene	mg/m3	0.068U	0.065U	0.066U	0.065U
Chloroethane	mg/m3	0.068U	0.065U	0.066U	0.065U
Chloroform	mg/m3	0.068U	0.065U	0.066U	0.065U
Chloromethane (Methyl chloride)	mg/m3	0.068U	0.065U	0.066U	0.065U
2-Chlorotoluene	mg/m3	0.068U	0.065U	0.066U	0.065U
Dibromochloromethane	mg/m3	0.068U	0.065U	0.066U	0.065U
1,2-Dibromoethane (EDB)	mg/m3	0.068U	0.065U	0.066U	0.065U
1,2-Dichlorobenzene	mg/m3	0.068U	0.065U	0.066U	0.065U
1,3-Dichlorobenzene	mg/m3	0.068U	0.065U	0.066U	0.065U
1,4-Dichlorobenzene	mg/m3	0.068U	0.065U	0.066U	0.065U
trans-1,4-Dichloro-2-butene	mg/m3	0.068U	0.065U	0.066U	0.065U
Dichlorodifluoromethane	mg/m3	0.068U	0.065U	0.066U	0.065U
1,1-Dichloroethane	mg/m3	0.068U	0.065U	0.066U	0.065U
1,2-Dichloroethane	mg/m3	0.068U	0.065U	0.066U	0.065U
1,1-Dichloroethene	mg/m3	0.068U	0.065U	0.066U	0.065U
cis-1,2-Dichloroethene	mg/m3	0.068U	0.065U	0.066U	0.065U
trans-1,2-Dichloroethene	mg/m3	0.068U	0.065U	0.066U	0.065U
1,2-Dichloropropane	mg/m3	0.068U	0.065U	0.066U	0.065U
cis-1,3-Dichloropropene	mg/m3	0.068U	0.065U	0.066U	0.065U
trans-1,3-Dichloropropene	mg/m3	0.068U	0.065U	0.066U	0.065U

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12117-4	86-271-AS3-A-1202-03	Air	12/04/03	12/02/03 11:24	
12117-5	86-271-AS5-A-1202-03	Air	12/04/03	12/02/03 11:27	
12117-6	86-271-AS6-A-1202-03	Air	12/04/03	12/02/03 11:30	
12117-7	86-271-AS7-A-1202-03	Air	12/04/03	12/02/03 11:33	

		Lab Sample IDs			
Parameter	**Units**	**12117-4**	**12117-5**	**12117-6**	**12117-7**
Volatile Organic Compounds in Air					
Dichlorotetrafluoroethane	mg/m3	0.068U	0.065U	0.066U	0.065U
Ethylbenzene	mg/m3	0.068U	0.065U	0.066U	0.065U
Hexane	mg/m3	0.068U	0.065U	0.066U	0.065U
4-Ethyltoluene	mg/m3	0.76	0.088	0.066U	0.084
Hexachlorobutadiene	mg/m3	0.068U	0.065U	0.066U	0.065U
Methylene chloride (Dichloromethane)	mg/m3	0.068U	0.065U	0.066U	0.065U
Methyl t-butyl ether (MTBE)	mg/m3	0.068U	0.065U	0.066U	0.065U
Styrene	mg/m3	0.068U	0.065U	0.066U	0.065U
1,1,2,2-Tetrachloroethane	mg/m3	0.068U	0.065U	0.066U	0.065U
Tetrachloroethene	mg/m3	0.068U	0.065U	0.066U	0.065U
Toluene	mg/m3	0.068U	0.065U	0.066U	0.065U
1,2,4-Trichlorobenzene	mg/m3	0.068U	0.065U	0.066U	0.065U
1,1,1-Trichloroethane	mg/m3	0.068U	0.065U	0.066U	0.065U
1,1,2-Trichloroethane	mg/m3	0.068U	0.065U	0.066U	0.065U
Trichloroethene	mg/m3	0.068U	0.065U	0.066U	0.065U
Trichlorofluoromethane	mg/m3	0.068U	0.065U	0.066U	0.065U
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/m3	0.068U	0.065U	0.066U	0.065U
1,2,4-Trimethylbenzene	mg/m3	1.3	0.14	0.066U	0.16
1,3,5-Trimethylbenzene	mg/m3	0.50	0.065U	0.066U	0.047J
Vinyl chloride	mg/m3	0.068U	0.065U	0.066U	0.065U
o-Xylene	mg/m3	0.14	0.065U	0.066U	0.065U
m&p-Xylene	mg/m3	0.22	0.13U	0.13U	0.13U
Surrogate - 1,2-Dichloroethane-d4 *	%	108 %	109 %	105 %	103 %
Surrogate - Toluene-d8 *	%	105 %	104 %	104 %	103 %

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12117-4	86-271-AS3-A-1202-03	Air	12/04/03	12/02/03 11:24	
12117-5	86-271-AS5-A-1202-03	Air	12/04/03	12/02/03 11:27	
12117-6	86-271-AS6-A-1202-03	Air	12/04/03	12/02/03 11:30	
12117-7	86-271-AS7-A-1202-03	Air	12/04/03	12/02/03 11:33	

		Lab Sample IDs			
Parameter	**Units**	**12117-4**	**12117-5**	**12117-6**	**12117-7**
Volatile Organic Compounds in Air					
Surrogate -					
4-Bromofluorobenzene *	%	105 %	105 %	104 %	104 %
Dilution Factor		1	1	1	1
Prep Date		12/08/03	12/08/03	12/08/03	12/09/03
Prep Time		14:26	15:43	16:22	10:13
Analysis Date		12/08/03	12/08/03	12/08/03	12/09/03
Analysis Time		14:26	15:43	16:22	10:13
Batch ID		MAA103	MAA103	MAA103	MAA104
Prep Method		MOD-TO14	MOD-TO14	MOD-TO14	MOD-TO14
Analyst		DWB	DWB	DWB	DWB
Quantitation Factor		2.27	2.17	2.19	2.16

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12117-8	Method Blank	QC-A	12/04/03		
12117-9	LCS True Value	QC-A	12/04/03		
12117-10	Lab Control Standard Result	QC-A	12/04/03		
12117-11	Lab Control Standard % Recovery	QC-A	12/04/03		
12117-12	LCS Accuracy Control Limit (%R)	QC-A	12/04/03		

Parameter	Units	Lab Sample IDs 12117-8	12117-9	12117-10	12117-11	12117-12
Volatile Organic Compounds in Air						
Benzene	mg/m3	0.030U	0.5000	0.5317	106 %	87-116
Bromodichloromethane	mg/m3	0.030U				
Bromoform	mg/m3	0.030U				
Bromomethane (Methyl bromide)	mg/m3	0.030U				
Carbon disulfide	mg/m3	0.030U				
Carbon tetrachloride	mg/m3	0.030U				
Chlorobenzene	mg/m3	0.030U	0.5000	0.5248	105 %	88-111
Chloroethane	mg/m3	0.030U				
Chloroform	mg/m3	0.030U				
Chloromethane (Methyl chloride)	mg/m3	0.030U				
2-Chlorotoluene	mg/m3	0.030U				
Dibromochloromethane	mg/m3	0.030U				
1,2-Dibromoethane (EDB)	mg/m3	0.030U				
1,2-Dichlorobenzene	mg/m3	0.030U				
1,3-Dichlorobenzene	mg/m3	0.030U				
1,4-Dichlorobenzene	mg/m3	0.030U				
trans-1,4-Dichloro-2-butene	mg/m3	0.030U				
Dichlorodifluoromethane	mg/m3	0.030U				
1,1-Dichloroethane	mg/m3	0.030U				
1,2-Dichloroethane	mg/m3	0.030U				
1,1-Dichloroethene	mg/m3	0.030U	0.5000	0.4905	98 %	58-138
cis-1,2-Dichloroethene	mg/m3	0.030U				
trans-1,2-Dichloroethene	mg/m3	0.030U				
1,2-Dichloropropane	mg/m3	0.030U				
cis-1,3-Dichloropropene	mg/m3	0.030U				

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12117-8	Method Blank	QC-A	12/04/03		
12117-9	LCS True Value	QC-A	12/04/03		
12117-10	Lab Control Standard Result	QC-A	12/04/03		
12117-11	Lab Control Standard % Recovery	QC-A	12/04/03		
12117-12	LCS Accuracy Control Limit (%R)	QC-A	12/04/03		

		Lab Sample IDs				
Parameter	**Units**	**12117-8**	**12117-9**	**12117-10**	**12117-11**	**12117-12**
Volatile Organic Compounds in Air						
trans-1,3-Dichloropropene	mg/m3	0.030U				
Dichlorotetrafluoroethane	mg/m3	0.030U				
Ethylbenzene	mg/m3	0.030U				
Hexane	mg/m3	0.030U				
4-Ethyltoluene	mg/m3	0.030U				
Hexachlorobutadiene	mg/m3	0.030U				
Methylene chloride (Dichloromethane)	mg/m3	0.030U				
Methyl t-butyl ether (MTBE)	mg/m3	0.030U				
Styrene	mg/m3	0.030U				
1,1,2,2-Tetrachloroethane	mg/m3	0.030U				
Tetrachloroethene	mg/m3	0.030U				
Toluene	mg/m3	0.030U	0.5000	0.5349	107 %	86-113
1,2,4-Trichlorobenzene	mg/m3	0.030U				
1,1,1-Trichloroethane	mg/m3	0.030U				
1,1,2-Trichloroethane	mg/m3	0.030U				
Trichloroethene	mg/m3	0.030U	0.5000	0.5050	101 %	85-116
Trichlorofluoromethane	mg/m3	0.030U				
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/m3	0.030U				
1,2,4-Trimethylbenzene	mg/m3	0.030U				
1,3,5-Trimethylbenzene	mg/m3	0.030U				
Vinyl chloride	mg/m3	0.030U				
o-Xylene	mg/m3	0.030U				
m&p-Xylene	mg/m3	0.060U				
Surrogate - 1,2-Dichloroethane-d4 *	%	95 %	0.5000	0.4680	94 %	61-140

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12117-8	Method Blank	QC-A	12/04/03		
12117-9	LCS True Value	QC-A	12/04/03		
12117-10	Lab Control Standard Result	QC-A	12/04/03		
12117-11	Lab Control Standard % Recovery	QC-A	12/04/03		
12117-12	LCS Accuracy Control Limit (%R)	QC-A	12/04/03		

Parameter	Units	Lab Sample IDs 12117-8	12117-9	12117-10	12117-11	12117-12
Volatile Organic Compounds in Air						
Surrogate - Toluene-d8 *	%	101 %	0.5000	0.5139	103 %	90-109
Surrogate - 4-Bromofluorobenzene *	%	101 %	0.5000	0.5218	104 %	87-112
Dilution Factor		1		1		
Prep Date		12/08/03		12/08/03		
Prep Time		09:06		09:44		
Analysis Date		12/08/03		12/08/03		
Analysis Time		09:06		09:44		
Batch ID		MAA103	MAW103	MAA103	MAA103	
Prep Method		MOD-TO14		MOD-TO14		
Analyst		DWB		DWB		
Quantitation Factor		1		1		

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12117-13	Method Blank 2	QC-A	12/04/03		
12117-14	LCS True Value 2	QC-A	12/04/03		
12117-15	Lab Control Standard Result 2	QC-A	12/04/03		
12117-16	Lab Control Standard % Recovery 2	QC-A	12/04/03		
12117-17	LCS Accuracy Control Limit (%R) 2	QC-A	12/04/03		

		Lab Sample IDs				
Parameter	**Units**	**12117-13**	**12117-14**	**12117-15**	**12117-16**	**12117-17**
Volatile Organic Compounds in Air						
Benzene	mg/m3	0.030U	0.5000	0.5170	103 %	87-116
Bromodichloromethane	mg/m3	0.030U				
Bromoform	mg/m3	0.030U				
Bromomethane (Methyl bromide)	mg/m3	0.030U				
Carbon disulfide	mg/m3	0.030U				
Carbon tetrachloride	mg/m3	0.030U				
Chlorobenzene	mg/m3	0.030U	0.5000	0.5249	105 %	88-111
Chloroethane	mg/m3	0.030U				
Chloroform	mg/m3	0.030U				
Chloromethane (Methyl chloride)	mg/m3	0.030U				
2-Chlorotoluene	mg/m3	0.030U				
Dibromochloromethane	mg/m3	0.030U				
1,2-Dibromoethane (EDB)	mg/m3	0.030U				
1,2-Dichlorobenzene	mg/m3	0.030U				
1,3-Dichlorobenzene	mg/m3	0.030U				
1,4-Dichlorobenzene	mg/m3	0.030U				
trans-1,4-Dichloro-2-butene	mg/m3	0.030U				
Dichlorodifluoromethane	mg/m3	0.030U				
1,1-Dichloroethane	mg/m3	0.030U				
1,2-Dichloroethane	mg/m3	0.030U				
1,1-Dichloroethene	mg/m3	0.030U	0.5000	0.5070	101 %	58-138
cis-1,2-Dichloroethene	mg/m3	0.030U				
trans-1,2-Dichloroethene	mg/m3	0.030U				
1,2-Dichloropropane	mg/m3	0.030U				
cis-1,3-Dichloropropene	mg/m3	0.030U				

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12117-13	Method Blank 2	QC-A	12/04/03		
12117-14	LCS True Value 2	QC-A	12/04/03		
12117-15	Lab Control Standard Result 2	QC-A	12/04/03		
12117-16	Lab Control Standard % Recovery 2	QC-A	12/04/03		
12117-17	LCS Accuracy Control Limit (%R) 2	QC-A	12/04/03		

		Lab Sample IDs				
Parameter	**Units**	**12117-13**	**12117-14**	**12117-15**	**12117-16**	**12117-17**
Volatile Organic Compounds in Air						
trans-1,3-Dichloropropene	mg/m3	0.030U				
Dichlorotetrafluoroethane	mg/m3	0.030U				
Ethylbenzene	mg/m3	0.030U				
Hexane	mg/m3	0.030U				
4-Ethyltoluene	mg/m3	0.030U				
Hexachlorobutadiene	mg/m3	0.030U				
Methylene chloride (Dichloromethane)	mg/m3	0.030U				
Methyl t-butyl ether (MTBE)	mg/m3	0.030U				
Styrene	mg/m3	0.030U				
1,1,2,2-Tetrachloroethane	mg/m3	0.030U				
Tetrachloroethene	mg/m3	0.030U				
Toluene	mg/m3	0.030U	0.5000	0.5387	108 %	86-113
1,2,4-Trichlorobenzene	mg/m3	0.030U				
1,1,1-Trichloroethane	mg/m3	0.030U				
1,1,2-Trichloroethane	mg/m3	0.030U				
Trichloroethene	mg/m3	0.030U	0.5000	0.5169	103 %	85-116
Trichlorofluoromethane	mg/m3	0.030U				
1,1,2-Trichloro-1,2,2-trifluor oethane	mg/m3	0.030U				
1,2,4-Trimethylbenzene	mg/m3	0.030U				
1,3,5-Trimethylbenzene	mg/m3	0.030U				
Vinyl chloride	mg/m3	0.030U				
o-Xylene	mg/m3	0.030U				
m&p-Xylene	mg/m3	0.060U				
Surrogate - 1,2-Dichloroethane-d4 *	%	97 %	0.5000	0.4981	100 %	61-140

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12117-13	Method Blank 2	QC-A	12/04/03		
12117-14	LCS True Value 2	QC-A	12/04/03		
12117-15	Lab Control Standard Result 2	QC-A	12/04/03		
12117-16	Lab Control Standard % Recovery 2	QC-A	12/04/03		
12117-17	LCS Accuracy Control Limit (%R) 2	QC-A	12/04/03		

Parameter	Units	Lab Sample IDs 12117-13	12117-14	12117-15	12117-16	12117-17
Volatile Organic Compounds in Air						
Surrogate - Toluene-d8 *	%	101 %	0.5000	0.5144	103 %	90-109
Surrogate - 4-Bromofluorobenzene *	%	100 %	0.5000	0.5046	101 %	87-112
Dilution Factor		1		1		
Prep Date		12/09/03		12/09/03		
Prep Time		08:56		09:35		
Analysis Date		12/09/03		12/09/03		
Analysis Time		08:56		09:35		
Batch ID		MAA104	MAW104	MAA104	MAW104	
Prep Method		MOD-TO14		MOD-TO14		
Analyst		DWB		DWB		
Quantitation Factor		1		1		

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12117-18	Method Detection Limit (MDL)	QC-A	12/04/03		
12117-19	Reporting Limit (RL)	QC-A	12/04/03		

Parameter	Units	Lab Sample IDs 12117-18	12117-19
Volatile Organic Compounds in Air			
Benzene	mg/m3	0.018	0.030
Bromodichloromethane	mg/m3	0.017	0.030
Bromoform	mg/m3	0.018	0.030
Bromomethane (Methyl bromide)	mg/m3	0.021	0.030
Carbon disulfide	mg/m3	0.017	0.030
Carbon tetrachloride	mg/m3	0.017	0.030
Chlorobenzene	mg/m3	0.018	0.030
Chloroethane	mg/m3	0.020	0.030
Chloroform	mg/m3	0.017	0.030
Chloromethane (Methyl chloride)	mg/m3	0.026	0.030
2-Chlorotoluene	mg/m3	0.022	0.030
Dibromochloromethane	mg/m3	0.017	0.030
1,2-Dibromoethane (EDB)	mg/m3	0.015	0.030
1,2-Dichlorobenzene	mg/m3	0.018	0.030
1,3-Dichlorobenzene	mg/m3	0.018	0.030
1,4-Dichlorobenzene	mg/m3	0.017	0.030
trans-1,4-Dichloro-2-butene	mg/m3	0.015	0.030
Dichlorodifluoromethane	mg/m3	0.013	0.030
1,1-Dichloroethane	mg/m3	0.017	0.030
1,2-Dichloroethane	mg/m3	0.016	0.030
1,1-Dichloroethene	mg/m3	0.023	0.030
cis-1,2-Dichloroethene	mg/m3	0.017	0.030
trans-1,2-Dichloroethene	mg/m3	0.018	0.030
1,2-Dichloropropane	mg/m3	0.019	0.030
cis-1,3-Dichloropropene	mg/m3	0.016	0.030
trans-1,3-Dichloropropene	mg/m3	0.015	0.030
Dichlorotetrafluoroethane	mg/m3	0.019	0.030
Ethylbenzene	mg/m3	0.021	0.030

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12117-18	Method Detection Limit (MDL)	QC-A	12/04/03		
12117-19	Reporting Limit (RL)	QC-A	12/04/03		

Parameter	Units	Lab Sample IDs 12117-18	12117-19
Volatile Organic Compounds in Air			
Hexane	mg/m3	0.018	0.030
4-Ethyltoluene	mg/m3	0.021	0.030
Hexachlorobutadiene	mg/m3	0.021	0.030
Methylene chloride (Dichloromethane)	mg/m3	0.026	0.030
Methyl t-butyl ether (MTBE)	mg/m3	0.022	0.030
Styrene	mg/m3	0.020	0.030
1,1,2,2-Tetrachloroethane	mg/m3	0.019	0.030
Tetrachloroethene	mg/m3	0.019	0.030
Toluene	mg/m3	0.018	0.030
1,2,4-Trichlorobenzene	mg/m3	0.022	0.030
1,1,1-Trichloroethane	mg/m3	0.016	0.030
1,1,2-Trichloroethane	mg/m3	0.015	0.030
Trichloroethene	mg/m3	0.018	0.030
Trichlorofluoromethane	mg/m3	0.017	0.030
1,1,2-Trichloro-1,2,2-trifluor oethane	mg/m3	0.016	0.030
1,2,4-Trimethylbenzene	mg/m3	0.020	0.030
1,3,5-Trimethylbenzene	mg/m3	0.020	0.030
Vinyl chloride	mg/m3	0.019	0.030
o-Xylene	mg/m3	0.019	0.030
m&p-Xylene	mg/m3	0.035	0.060

STL Pensacola 3355 McLemore Drive - Pensacola FL 32514 Telephone:(850) 474-1001 Fax:(850) 478-2671

Analytical Report

For: Mrs. Melissa Osborne
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346
CC:

Order Number:	C312384
SDG Number:	
Client Project ID:	171591, CTO-0086
Project:	BLD.271 WK3AIR SMPLING,FORMER NAS CECILFIELD
Report Date:	12/30/2003
Sampled By:	Client
Sample Received Date:	12/12/2003
Requisition Number:	
Purchase Order:	6696

SCAkers

Stephanie Akers, Project Manager
SAkers@stl-inc.com
06/30/2004

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Sample Summary

Order: C312384
Date Received: 12/12/2003

Client: CH2M Hill Constructors, Inc. (CCI)
Project: BLD.271 WK3AIR SMPLING,FORMER NAS CECILFIELD

Client Sample ID	Lab Sample ID	Matrix	Date Sampled
86-271-7S-A-1210-03	C312384*1	Air	12/10/2003 14:15
86-271-10S-A-1210-03	C312384*2	Air	12/10/2003 14:18
86-271-AS2-A-1210-03	C312384*3	Air	12/10/2003 14:21
86-271-AS3-A-1210-03	C312384*4	Air	12/10/2003 14:24
86-271-AS5-A-1210-03	C312384*5	Air	12/10/2003 14:27
86-271-AS6-A-1210-03	C312384*6	Air	12/10/2003 14:30
86-271-AS7-A-1210-03	C312384*7	Air	12/10/2003 14:33

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12384-1	86-271-7S-A-1210-03	Air	12/12/03	12/10/03 14:15	
12384-2	86-271-10S-A-1210-03	Air	12/12/03	12/10/03 14:18	
12384-3	86-271-AS2-A-1210-03	Air	12/12/03	12/10/03 14:21	
12384-4	86-271-AS3-A-1210-03	Air	12/12/03	12/10/03 14:24	
12384-5	86-271-AS5-A-1210-03	Air	12/12/03	12/10/03 14:27	

		Lab Sample IDs				
Parameter	**Units**	**12384-1**	**12384-2**	**12384-3**	**12384-4**	**12384-5**
Volatile Organic Compounds in Air						
Benzene	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
Bromodichloromethane	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
Bromoform	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
Bromomethane (Methyl bromide)	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
Carbon disulfide	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
Carbon tetrachloride	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
Chlorobenzene	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
Chloroethane	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
Chloroform	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
Chloromethane (Methyl chloride)	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
2-Chlorotoluene	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
Dibromochloromethane	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
1,2-Dibromoethane (EDB)	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
1,2-Dichlorobenzene	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
1,3-Dichlorobenzene	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
1,4-Dichlorobenzene	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
trans-1,4-Dichloro-2-butene	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
Dichlorodifluoromethane	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
1,1-Dichloroethane	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
1,2-Dichloroethane	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
1,1-Dichloroethene	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
cis-1,2-Dichloroethene	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
trans-1,2-Dichloroethene	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
1,2-Dichloropropane	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
cis-1,3-Dichloropropene	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12384-1	86-271-7S-A-1210-03	Air	12/12/03	12/10/03 14:15	
12384-2	86-271-10S-A-1210-03	Air	12/12/03	12/10/03 14:18	
12384-3	86-271-AS2-A-1210-03	Air	12/12/03	12/10/03 14:21	
12384-4	86-271-AS3-A-1210-03	Air	12/12/03	12/10/03 14:24	
12384-5	86-271-AS5-A-1210-03	Air	12/12/03	12/10/03 14:27	

		Lab Sample IDs				
Parameter	**Units**	**12384-1**	**12384-2**	**12384-3**	**12384-4**	**12384-5**
Volatile Organic Compounds in Air						
trans-1,3-Dichloropropene	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
Dichlorotetrafluoroethane	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
Ethylbenzene	mg/m3	0.12	0.069U	0.056J	0.067U	0.069U
Hexane	mg/m3	0.067U	0.069U	0.092	0.067U	0.069U
4-Ethyltoluene	mg/m3	3.0	0.069U	1.8	0.15	0.069U
Hexachlorobutadiene	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
Methylene chloride (Dichloromethane)	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
Methyl t-butyl ether (MTBE)	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
Styrene	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
1,1,2,2-Tetrachloroethane	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
Tetrachloroethene	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
Toluene	mg/m3	0.13	0.069U	0.068U	0.041J	0.069U
1,2,4-Trichlorobenzene	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
1,1,1-Trichloroethane	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
1,1,2-Trichloroethane	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
Trichloroethene	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
Trichlorofluoromethane	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
1,2,4-Trimethylbenzene	mg/m3	2.2	0.069U	1.7	0.18	0.069U
1,3,5-Trimethylbenzene	mg/m3	1.7	0.069U	2.0	0.10	0.069U
Vinyl chloride	mg/m3	0.067U	0.069U	0.068U	0.067U	0.069U
o-Xylene	mg/m3	1.3	0.069U	0.20	0.050J	0.069U
m&p-Xylene	mg/m3	1.5	0.14U	0.26	0.087J	0.14U
Surrogate - 1,2-Dichloroethane-d4 *	%	106 %	107 %	108 %	106 %	111 %

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12384-1	86-271-7S-A-1210-03	Air	12/12/03	12/10/03 14:15	
12384-2	86-271-10S-A-1210-03	Air	12/12/03	12/10/03 14:18	
12384-3	86-271-AS2-A-1210-03	Air	12/12/03	12/10/03 14:21	
12384-4	86-271-AS3-A-1210-03	Air	12/12/03	12/10/03 14:24	
12384-5	86-271-AS5-A-1210-03	Air	12/12/03	12/10/03 14:27	

		Lab Sample IDs				
Parameter	**Units**	**12384-1**	**12384-2**	**12384-3**	**12384-4**	**12384-5**
Volatile Organic Compounds in Air						
Surrogate - Toluene-d8 *	%	103 %	102 %	103 %	101 %	104 %
Surrogate - 4-Bromofluorobenzene *	%	107 %	104 %	109 %	107 %	106 %
Dilution Factor		1	1	1	1	1
Prep Date		12/19/03	12/19/03	12/19/03	12/19/03	12/19/03
Prep Time		10:04	10:42	11:20	13:00	13:38
Analysis Date		12/19/03	12/19/03	12/19/03	12/19/03	12/19/03
Analysis Time		10:04	10:42	11:20	13:00	13:38
Batch ID		MAA108	MAA108	MAA108	MAA108	MAA108
Prep Method		TO14	TO14	TO14	TO14	TO14
Analyst		DWB	DWB	DWB	DWB	DWB
Quantitation Factor		2.24	2.29	2.27	2.24	2.29

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12384-6	86-271-AS6-A-1210-03	Air	12/12/03	12/10/03 14:30	
12384-7	86-271-AS7-A-1210-03	Air	12/12/03	12/10/03 14:33	

Parameter	Units	Lab Sample IDs 12384-6	12384-7
Volatile Organic Compounds in Air			
Benzene	mg/m3	0.068U	0.068U
Bromodichloromethane	mg/m3	0.068U	0.068U
Bromoform	mg/m3	0.068U	0.068U
Bromomethane (Methyl bromide)	mg/m3	0.068U	0.068U
Carbon disulfide	mg/m3	0.068U	0.068U
Carbon tetrachloride	mg/m3	0.068U	0.068U
Chlorobenzene	mg/m3	0.068U	0.068U
Chloroethane	mg/m3	0.068U	0.068U
Chloroform	mg/m3	0.068U	0.068U
Chloromethane (Methyl chloride)	mg/m3	0.068U	0.068U
2-Chlorotoluene	mg/m3	0.068U	0.068U
Dibromochloromethane	mg/m3	0.068U	0.068U
1,2-Dibromoethane (EDB)	mg/m3	0.068U	0.068U
1,2-Dichlorobenzene	mg/m3	0.068U	0.068U
1,3-Dichlorobenzene	mg/m3	0.068U	0.068U
1,4-Dichlorobenzene	mg/m3	0.068U	0.068U
trans-1,4-Dichloro-2-butene	mg/m3	0.068U	0.068U
Dichlorodifluoromethane	mg/m3	0.068U	0.068U
1,1-Dichloroethane	mg/m3	0.068U	0.068U
1,2-Dichloroethane	mg/m3	0.068U	0.068U
1,1-Dichloroethene	mg/m3	0.068U	0.068U
cis-1,2-Dichloroethene	mg/m3	0.068U	0.068U
trans-1,2-Dichloroethene	mg/m3	0.068U	0.068U
1,2-Dichloropropane	mg/m3	0.068U	0.068U
cis-1,3-Dichloropropene	mg/m3	0.068U	0.068U
trans-1,3-Dichloropropene	mg/m3	0.068U	0.068U
Dichlorotetrafluoroethane	mg/m3	0.068U	0.068U
Ethylbenzene	mg/m3	0.068U	0.068U

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12384-6	86-271-AS6-A-1210-03	Air	12/12/03	12/10/03 14:30	
12384-7	86-271-AS7-A-1210-03	Air	12/12/03	12/10/03 14:33	

Parameter	Units	Lab Sample IDs 12384-6	12384-7
Volatile Organic Compounds in Air			
Hexane	mg/m3	0.068U	0.068U
4-Ethyltoluene	mg/m3	0.068U	0.068U
Hexachlorobutadiene	mg/m3	0.068U	0.068U
Methylene chloride (Dichloromethane)	mg/m3	0.068U	0.068U
Methyl t-butyl ether (MTBE)	mg/m3	0.068U	0.068U
Styrene	mg/m3	0.068U	0.068U
1,1,2,2-Tetrachloroethane	mg/m3	0.068U	0.068U
Tetrachloroethene	mg/m3	0.068U	0.068U
Toluene	mg/m3	0.068U	0.068U
1,2,4-Trichlorobenzene	mg/m3	0.068U	0.068U
1,1,1-Trichloroethane	mg/m3	0.068U	0.068U
1,1,2-Trichloroethane	mg/m3	0.068U	0.068U
Trichloroethene	mg/m3	0.068U	0.068U
Trichlorofluoromethane	mg/m3	0.068U	0.068U
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/m3	0.068U	0.068U
1,2,4-Trimethylbenzene	mg/m3	0.077	0.068U
1,3,5-Trimethylbenzene	mg/m3	0.068U	0.068U
Vinyl chloride	mg/m3	0.068U	0.068U
o-Xylene	mg/m3	0.068U	0.068U
m&p-Xylene	mg/m3	0.14U	0.14U
Surrogate - 1,2-Dichloroethane-d4 *	%	112 %	107 %
Surrogate - Toluene-d8 *	%	104 %	102 %
Surrogate - 4-Bromofluorobenzene *	%	103 %	103 %
Dilution Factor		1	1
Prep Date		12/19/03	12/19/03
Prep Time		14:17	15:02
Analysis Date		12/19/03	12/19/03
Analysis Time		14:17	15:02
Batch ID		MAA108	MAA108
Prep Method		TO14	TO14
Analyst		DWB	DWB
Quantitation Factor		2.28	2.25

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12384-8	Method Blank	QC-A	12/12/03		
12384-9	LCS True Value	QC-A	12/12/03		
12384-10	Lab Control Standard Result	QC-A	12/12/03		
12384-11	Lab Control Standard % Recovery	QC-A	12/12/03		
12384-12	LCS Accuracy Control Limit (%R)	QC-A	12/12/03		

Parameter	Units	Lab Sample IDs 12384-8	12384-9	12384-10	12384-11	12384-12
Volatile Organic Compounds in Air						
Benzene	mg/m3	0.030U	0.5000	0.5087	102 %	87-116
Bromodichloromethane	mg/m3	0.030U				
Bromoform	mg/m3	0.030U				
Bromomethane (Methyl bromide)	mg/m3	0.030U				
Carbon disulfide	mg/m3	0.030U				
Carbon tetrachloride	mg/m3	0.030U				
Chlorobenzene	mg/m3	0.030U	0.5000	0.5210	104 %	88-111
Chloroethane	mg/m3	0.030U				
Chloroform	mg/m3	0.030U				
Chloromethane (Methyl chloride)	mg/m3	0.030U				
2-Chlorotoluene	mg/m3	0.030U				
Dibromochloromethane	mg/m3	0.030U				
1,2-Dibromoethane (EDB)	mg/m3	0.030U				
1,2-Dichlorobenzene	mg/m3	0.030U				
1,3-Dichlorobenzene	mg/m3	0.030U				
1,4-Dichlorobenzene	mg/m3	0.030U				
trans-1,4-Dichloro-2-butene	mg/m3	0.030U				
Dichlorodifluoromethane	mg/m3	0.030U				
1,1-Dichloroethane	mg/m3	0.030U				
1,2-Dichloroethane	mg/m3	0.030U				
1,1-Dichloroethene	mg/m3	0.030U	0.5000	0.4798	96 %	58-138
cis-1,2-Dichloroethene	mg/m3	0.030U				
trans-1,2-Dichloroethene	mg/m3	0.030U				
1,2-Dichloropropane	mg/m3	0.030U				
cis-1,3-Dichloropropene	mg/m3	0.030U				

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12384-8	Method Blank	QC-A	12/12/03		
12384-9	LCS True Value	QC-A	12/12/03		
12384-10	Lab Control Standard Result	QC-A	12/12/03		
12384-11	Lab Control Standard % Recovery	QC-A	12/12/03		
12384-12	LCS Accuracy Control Limit (%R)	QC-A	12/12/03		

		Lab Sample IDs				
Parameter	**Units**	**12384-8**	**12384-9**	**12384-10**	**12384-11**	**12384-12**
Volatile Organic Compounds in Air						
trans-1,3-Dichloropropene	mg/m3	0.030U				
Dichlorotetrafluoroethane	mg/m3	0.030U				
Ethylbenzene	mg/m3	0.030U				
Hexane	mg/m3	0.030U				
4-Ethyltoluene	mg/m3	0.030U				
Hexachlorobutadiene	mg/m3	0.030U				
Methylene chloride (Dichloromethane)	mg/m3	0.030U				
Methyl t-butyl ether (MTBE)	mg/m3	0.030U				
Styrene	mg/m3	0.030U				
1,1,2,2-Tetrachloroethane	mg/m3	0.030U				
Tetrachloroethene	mg/m3	0.030U				
Toluene	mg/m3	0.030U	0.5000	0.5223	104 %	86-113
1,2,4-Trichlorobenzene	mg/m3	0.030U				
1,1,1-Trichloroethane	mg/m3	0.030U				
1,1,2-Trichloroethane	mg/m3	0.030U				
Trichloroethene	mg/m3	0.030U	0.5000	0.5156	103 %	85-116
Trichlorofluoromethane	mg/m3	0.030U				
1,1,2-Trichloro-1,2,2-trifluor oethane	mg/m3	0.030U				
1,2,4-Trimethylbenzene	mg/m3	0.030U				
1,3,5-Trimethylbenzene	mg/m3	0.030U				
Vinyl chloride	mg/m3	0.030U				
o-Xylene	mg/m3	0.030U				
m&p-Xylene	mg/m3	0.060U				
Surrogate - 1,2-Dichloroethane-d4 *	%	100 %	0.5000	0.5156	103 %	61-140

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12384-8	Method Blank	QC-A	12/12/03		
12384-9	LCS True Value	QC-A	12/12/03		
12384-10	Lab Control Standard Result	QC-A	12/12/03		
12384-11	Lab Control Standard % Recovery	QC-A	12/12/03		
12384-12	LCS Accuracy Control Limit (%R)	QC-A	12/12/03		

Parameter	Units	Lab Sample IDs 12384-8	12384-9	12384-10	12384-11	12384-12
Volatile Organic Compounds in Air						
Surrogate - Toluene-d8 *	%	102 %	0.5000	0.5040	101 %	90-109
Surrogate - 4-Bromofluorobenzene *	%	102 %	0.5000	0.5108	102 %	87-112
Dilution Factor		1		1		
Prep Date		12/19/03		12/19/03		
Prep Time		08:47		09:26		
Analysis Date		12/19/03		12/19/03		
Analysis Time		08:47		09:26		
Batch ID		MAA108	MAA108	MAA108	MAA108	
Prep Method		TO14		TO14		
Analyst		DWB		DWB		
Quantitation Factor		1		1		

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12384-13	Method Detection Limit (MDL)	QC-A	12/12/03		
12384-14	Reporting Limit (RL)	QC-A	12/12/03		

Parameter	Units	Lab Sample IDs 12384-13	12384-14
Volatile Organic Compounds in Air			
Benzene	mg/m3	0.018	0.030
Bromodichloromethane	mg/m3	0.017	0.030
Bromoform	mg/m3	0.018	0.030
Bromomethane (Methyl bromide)	mg/m3	0.021	0.030
Carbon disulfide	mg/m3	0.017	0.030
Carbon tetrachloride	mg/m3	0.017	0.030
Chlorobenzene	mg/m3	0.018	0.030
Chloroethane	mg/m3	0.020	0.030
Chloroform	mg/m3	0.017	0.030
Chloromethane (Methyl chloride)	mg/m3	0.026	0.030
2-Chlorotoluene	mg/m3	0.022	0.030
Dibromochloromethane	mg/m3	0.017	0.030
1,2-Dibromoethane (EDB)	mg/m3	0.015	0.030
1,2-Dichlorobenzene	mg/m3	0.018	0.030
1,3-Dichlorobenzene	mg/m3	0.018	0.030
1,4-Dichlorobenzene	mg/m3	0.017	0.030
trans-1,4-Dichloro-2-butene	mg/m3	0.015	0.030
Dichlorodifluoromethane	mg/m3	0.013	0.030
1,1-Dichloroethane	mg/m3	0.017	0.030
1,2-Dichloroethane	mg/m3	0.016	0.030
1,1-Dichloroethene	mg/m3	0.023	0.030
cis-1,2-Dichloroethene	mg/m3	0.017	0.030
trans-1,2-Dichloroethene	mg/m3	0.018	0.030
1,2-Dichloropropane	mg/m3	0.019	0.030
cis-1,3-Dichloropropene	mg/m3	0.016	0.030
trans-1,3-Dichloropropene	mg/m3	0.015	0.030
Dichlorotetrafluoroethane	mg/m3	0.019	0.030
Ethylbenzene	mg/m3	0.021	0.030

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12384-13	Method Detection Limit (MDL)	QC-A	12/12/03		
12384-14	Reporting Limit (RL)	QC-A	12/12/03		

Parameter	Units	Lab Sample IDs 12384-13	12384-14
Volatile Organic Compounds in Air			
Hexane	mg/m3	0.018	0.030
4-Ethyltoluene	mg/m3	0.021	0.030
Hexachlorobutadiene	mg/m3	0.021	0.030
Methylene chloride (Dichloromethane)	mg/m3	0.026	0.030
Methyl t-butyl ether (MTBE)	mg/m3	0.022	0.030
Styrene	mg/m3	0.020	0.030
1,1,2,2-Tetrachloroethane	mg/m3	0.019	0.030
Tetrachloroethene	mg/m3	0.019	0.030
Toluene	mg/m3	0.018	0.030
1,2,4-Trichlorobenzene	mg/m3	0.022	0.030
1,1,1-Trichloroethane	mg/m3	0.016	0.030
1,1,2-Trichloroethane	mg/m3	0.015	0.030
Trichloroethene	mg/m3	0.018	0.030
Trichlorofluoromethane	mg/m3	0.017	0.030
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/m3	0.016	0.030
1,2,4-Trimethylbenzene	mg/m3	0.020	0.030
1,3,5-Trimethylbenzene	mg/m3	0.020	0.030
Vinyl chloride	mg/m3	0.019	0.030
o-Xylene	mg/m3	0.019	0.030
m&p-Xylene	mg/m3	0.035	0.060

Order Number: C312384

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

STL Pensacola 3355 McLemore Drive - Pensacola FL 32514 Telephone:(850) 474-1001 Fax:(850) 478-2671

Analytical Report

For: Mrs. Melissa Osborne
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346
CC:

Order Number:	C312516
SDG Number:	
Client Project ID:	171591, CTO-0086
Project:	BLDG.271 WEEK4 AIR, FORMER NAS CECIL FIELD
Report Date:	01/06/2004
Sampled By:	Client
Sample Received Date:	12/19/2003
Requisition Number:	
Purchase Order:	6696

SCAkers

Stephanie Akers, Project Manager
SAkers@stl-inc.com
06/30/2004

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Sample Summary

Order: C312516
Date Received: 12/19/2003

Client: CH2M Hill Constructors, Inc. (CCI)
Project: BLDG.271 WEEK4 AIR, FORMER NAS CECIL FIELD

Client Sample ID	Lab Sample ID	Matrix	Date Sampled
86-271-7S-A-1215-03	C312516*1	Air	12/15/2003 15:50
86-271-10S-A-1215-03	C312516*2	Air	12/15/2003 15:53
86-271-AS2-A-1215-03	C312516*3	Air	12/15/2003 15:56
86-271-AS3-A-1215-03	C312516*4	Air	12/15/2003 15:59
86-271-AS5-A-1215-03	C312516*5	Air	12/15/2003 16:02
86-271-AS6-A-1215-03	C312516*6	Air	12/15/2003 16:05
86-271-AS7-A-1215-03	C312516*7	Air	12/15/2003 16:08

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12516-1	86-271-7S-A-1215-03	Air	12/19/03	12/15/03 15:50	
12516-2	86-271-10S-A-1215-03	Air	12/19/03	12/15/03 15:53	
12516-3	86-271-AS2-A-1215-03	Air	12/19/03	12/15/03 15:56	
12516-4	86-271-AS3-A-1215-03	Air	12/19/03	12/15/03 15:59	
12516-5	86-271-AS5-A-1215-03	Air	12/19/03	12/15/03 16:02	

		Lab Sample IDs				
Parameter	**Units**	**12516-1**	**12516-2**	**12516-3**	**12516-4**	**12516-5**
Volatile Organic Compounds in Air						
Benzene	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
Bromodichloromethane	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
Bromoform	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
Bromomethane (Methyl bromide)	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
Carbon disulfide	mg/m3	0.066U	0.068U	0.068U	0.068U	0.086
Carbon tetrachloride	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
Chlorobenzene	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
Chloroethane	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
Chloroform	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
Chloromethane (Methyl chloride)	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
2-Chlorotoluene	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
Dibromochloromethane	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
1,2-Dibromoethane (EDB)	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
1,2-Dichlorobenzene	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
1,3-Dichlorobenzene	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
1,4-Dichlorobenzene	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
trans-1,4-Dichloro-2-butene	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
Dichlorodifluoromethane	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
1,1-Dichloroethane	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
1,2-Dichloroethane	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
1,1-Dichloroethene	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
cis-1,2-Dichloroethene	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
trans-1,2-Dichloroethene	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
1,2-Dichloropropane	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
cis-1,3-Dichloropropene	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12516-1	86-271-7S-A-1215-03	Air	12/19/03	12/15/03 15:50	
12516-2	86-271-10S-A-1215-03	Air	12/19/03	12/15/03 15:53	
12516-3	86-271-AS2-A-1215-03	Air	12/19/03	12/15/03 15:56	
12516-4	86-271-AS3-A-1215-03	Air	12/19/03	12/15/03 15:59	
12516-5	86-271-AS5-A-1215-03	Air	12/19/03	12/15/03 16:02	

		Lab Sample IDs				
Parameter	**Units**	**12516-1**	**12516-2**	**12516-3**	**12516-4**	**12516-5**
Volatile Organic Compounds in Air						
trans-1,3-Dichloropropene	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
Dichlorotetrafluoroethane	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
Ethylbenzene	mg/m3	0.20	0.068U	0.068U	0.068U	0.069U
Hexane	mg/m3	0.070B	0.068U	0.068U	0.052BJ	0.080B
4-Ethyltoluene	mg/m3	2.1	0.068U	0.72	0.15	0.069U
Hexachlorobutadiene	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
Methylene chloride (Dichloromethane)	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
Methyl t-butyl ether (MTBE)	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
Styrene	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
1,1,2,2-Tetrachloroethane	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
Tetrachloroethene	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
Toluene	mg/m3	0.16	0.068U	0.068U	0.045J	0.087
1,2,4-Trichlorobenzene	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
1,1,1-Trichloroethane	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
1,1,2-Trichloroethane	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
Trichloroethene	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
Trichlorofluoromethane	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
1,2,4-Trimethylbenzene	mg/m3	1.7	0.068U	0.60	0.18	0.069U
1,3,5-Trimethylbenzene	mg/m3	0.89	0.068U	1.0	0.061J	0.069U
Vinyl chloride	mg/m3	0.066U	0.068U	0.068U	0.068U	0.069U
o-Xylene	mg/m3	0.97	0.068U	0.070	0.068U	0.069U
m&p-Xylene	mg/m3	1.5	0.14U	0.14U	0.14U	0.14U
Surrogate - 1,2-Dichloroethane-d4 *	%	108 %	108 %	105 %	111 %	113 %

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12516-1	86-271-7S-A-1215-03	Air	12/19/03	12/15/03 15:50	
12516-2	86-271-10S-A-1215-03	Air	12/19/03	12/15/03 15:53	
12516-3	86-271-AS2-A-1215-03	Air	12/19/03	12/15/03 15:56	
12516-4	86-271-AS3-A-1215-03	Air	12/19/03	12/15/03 15:59	
12516-5	86-271-AS5-A-1215-03	Air	12/19/03	12/15/03 16:02	

		Lab Sample IDs				
Parameter	**Units**	**12516-1**	**12516-2**	**12516-3**	**12516-4**	**12516-5**
Volatile Organic Compounds in Air						
Surrogate - Toluene-d8 *	%	104 %	103 %	102 %	103 %	101 %
Surrogate - 4-Bromofluorobenzene *	%	109 %	106 %	109 %	108 %	107 %
Dilution Factor		1	1	1	1	1
Prep Date		12/26/03	12/26/03	12/26/03	12/26/03	12/26/03
Prep Time		10:11	10:49	12:52	13:31	14:09
Analysis Date		12/26/03	12/26/03	12/26/03	12/26/03	12/26/03
Analysis Time		10:11	10:49	12:52	13:31	14:09
Batch ID		MAA111	MAA111	MAA111	MAA111	MAA111
Prep Method		MOD-TO14	MOD-TO14	MOD-TO14	MOD-TO14	MOD-TO14
Analyst		DWB	DWB	DWB	DWB	DWB
Quantitation Factor		2.21	2.25	2.27	2.26	2.29

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12516-6	86-271-AS6-A-1215-03	Air	12/19/03	12/15/03 16:05	
12516-7	86-271-AS7-A-1215-03	Air	12/19/03	12/15/03 16:08	

Parameter	Units	Lab Sample IDs 12516-6	12516-7
Volatile Organic Compounds in Air			
Benzene	mg/m3	0.068U	0.069U
Bromodichloromethane	mg/m3	0.068U	0.069U
Bromoform	mg/m3	0.068U	0.069U
Bromomethane (Methyl bromide)	mg/m3	0.068U	0.069U
Carbon disulfide	mg/m3	0.068U	0.069U
Carbon tetrachloride	mg/m3	0.068U	0.069U
Chlorobenzene	mg/m3	0.068U	0.069U
Chloroethane	mg/m3	0.068U	0.069U
Chloroform	mg/m3	0.068U	0.069U
Chloromethane (Methyl chloride)	mg/m3	0.068U	0.069U
2-Chlorotoluene	mg/m3	0.068U	0.069U
Dibromochloromethane	mg/m3	0.068U	0.069U
1,2-Dibromoethane (EDB)	mg/m3	0.068U	0.069U
1,2-Dichlorobenzene	mg/m3	0.068U	0.069U
1,3-Dichlorobenzene	mg/m3	0.068U	0.069U
1,4-Dichlorobenzene	mg/m3	0.068U	0.069U
trans-1,4-Dichloro-2-butene	mg/m3	0.068U	0.069U
Dichlorodifluoromethane	mg/m3	0.068U	0.069U
1,1-Dichloroethane	mg/m3	0.068U	0.069U
1,2-Dichloroethane	mg/m3	0.068U	0.069U
1,1-Dichloroethene	mg/m3	0.068U	0.069U
cis-1,2-Dichloroethene	mg/m3	0.068U	0.069U
trans-1,2-Dichloroethene	mg/m3	0.068U	0.069U
1,2-Dichloropropane	mg/m3	0.068U	0.069U
cis-1,3-Dichloropropene	mg/m3	0.068U	0.069U
trans-1,3-Dichloropropene	mg/m3	0.068U	0.069U
Dichlorotetrafluoroethane	mg/m3	0.068U	0.069U
Ethylbenzene	mg/m3	0.068U	0.069U

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12516-6	86-271-AS6-A-1215-03	Air	12/19/03	12/15/03 16:05	
12516-7	86-271-AS7-A-1215-03	Air	12/19/03	12/15/03 16:08	

Parameter	Units	Lab Sample IDs 12516-6	12516-7
Volatile Organic Compounds in Air			
Hexane	mg/m3	0.068U	0.069U
4-Ethyltoluene	mg/m3	0.068U	0.27
Hexachlorobutadiene	mg/m3	0.068U	0.069U
Methylene chloride (Dichloromethane)	mg/m3	0.068U	0.069U
Methyl t-butyl ether (MTBE)	mg/m3	0.068U	0.069U
Styrene	mg/m3	0.068U	0.069U
1,1,2,2-Tetrachloroethane	mg/m3	0.068U	0.069U
Tetrachloroethene	mg/m3	0.068U	0.069U
Toluene	mg/m3	0.068U	0.069U
1,2,4-Trichlorobenzene	mg/m3	0.068U	0.069U
1,1,1-Trichloroethane	mg/m3	0.068U	0.069U
1,1,2-Trichloroethane	mg/m3	0.068U	0.069U
Trichloroethene	mg/m3	0.068U	0.069U
Trichlorofluoromethane	mg/m3	0.068U	0.069U
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/m3	0.068U	0.069U
1,2,4-Trimethylbenzene	mg/m3	0.068U	0.26
1,3,5-Trimethylbenzene	mg/m3	0.068U	0.050J
Vinyl chloride	mg/m3	0.068U	0.069U
o-Xylene	mg/m3	0.068U	0.050J
m&p-Xylene	mg/m3	0.14U	0.14U
Surrogate - 1,2-Dichloroethane-d4 *	%	110 %	110 %
Surrogate - Toluene-d8 *	%	102 %	103 %
Surrogate - 4-Bromofluorobenzene *	%	104 %	106 %
Dilution Factor		1	1
Prep Date		12/26/03	12/26/03
Prep Time		14:47	15:25
Analysis Date		12/26/03	12/26/03
Analysis Time		14:47	15:25
Batch ID		MAA111	MAA111
Prep Method		MOD-TO14	MOD-TO14
Analyst		DWB	DWB
Quantitation Factor		2.28	2.30

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12516-8	Method Blank	QC-A	12/19/03		
12516-9	LCS True Value	QC-A	12/19/03		
12516-10	Lab Control Standard Result	QC-A	12/19/03		
12516-11	Lab Control Standard % Recovery	QC-A	12/19/03		
12516-12	LCS Accuracy Control Limit (%R)	QC-A	12/19/03		

Parameter	Units	Lab Sample IDs 12516-8	12516-9	12516-10	12516-11	12516-12
Volatile Organic Compounds in Air						
Benzene	mg/m3	0.030U	0.5000	0.5060	101 %	87-116
Bromodichloromethane	mg/m3	0.030U				
Bromoform	mg/m3	0.030U				
Bromomethane (Methyl bromide)	mg/m3	0.030U				
Carbon disulfide	mg/m3	0.030U				
Carbon tetrachloride	mg/m3	0.030U				
Chlorobenzene	mg/m3	0.030U	0.5000	0.5250	105 %	88-111
Chloroethane	mg/m3	0.030U				
Chloroform	mg/m3	0.030U				
Chloromethane (Methyl chloride)	mg/m3	0.030U				
2-Chlorotoluene	mg/m3	0.030U				
Dibromochloromethane	mg/m3	0.030U				
1,2-Dibromoethane (EDB)	mg/m3	0.030U				
1,2-Dichlorobenzene	mg/m3	0.030U				
1,3-Dichlorobenzene	mg/m3	0.030U				
1,4-Dichlorobenzene	mg/m3	0.030U				
trans-1,4-Dichloro-2-butene	mg/m3	0.030U				
Dichlorodifluoromethane	mg/m3	0.030U				
1,1-Dichloroethane	mg/m3	0.030U				
1,2-Dichloroethane	mg/m3	0.030U				
1,1-Dichloroethene	mg/m3	0.030U	0.5000	0.4817	96 %	58-138
cis-1,2-Dichloroethene	mg/m3	0.030U				
trans-1,2-Dichloroethene	mg/m3	0.030U				
1,2-Dichloropropane	mg/m3	0.030U				
cis-1,3-Dichloropropene	mg/m3	0.030U				

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12516-8	Method Blank	QC-A	12/19/03		
12516-9	LCS True Value	QC-A	12/19/03		
12516-10	Lab Control Standard Result	QC-A	12/19/03		
12516-11	Lab Control Standard % Recovery	QC-A	12/19/03		
12516-12	LCS Accuracy Control Limit (%R)	QC-A	12/19/03		

Parameter	Units	Lab Sample IDs 12516-8	12516-9	12516-10	12516-11	12516-12
Volatile Organic Compounds in Air						
trans-1,3-Dichloropropene	mg/m3	0.030U				
Dichlorotetrafluoroethane	mg/m3	0.030U				
Ethylbenzene	mg/m3	0.030U				
Hexane	mg/m3	0.022J				
4-Ethyltoluene	mg/m3	0.030U				
Hexachlorobutadiene	mg/m3	0.030U				
Methylene chloride (Dichloromethane)	mg/m3	0.030U				
Methyl t-butyl ether (MTBE)	mg/m3	0.030U				
Styrene	mg/m3	0.030U				
1,1,2,2-Tetrachloroethane	mg/m3	0.030U				
Tetrachloroethene	mg/m3	0.030U				
Toluene	mg/m3	0.030U	0.5000	0.5327	107 %	86-113
1,2,4-Trichlorobenzene	mg/m3	0.030U				
1,1,1-Trichloroethane	mg/m3	0.030U				
1,1,2-Trichloroethane	mg/m3	0.030U				
Trichloroethene	mg/m3	0.030U	0.5000	0.5406	108 %	85-116
Trichlorofluoromethane	mg/m3	0.030U				
1,1,2-Trichloro-1,2,2-trifluor oethane	mg/m3	0.030U				
1,2,4-Trimethylbenzene	mg/m3	0.030U				
1,3,5-Trimethylbenzene	mg/m3	0.030U				
Vinyl chloride	mg/m3	0.030U				
o-Xylene	mg/m3	0.030U				
m&p-Xylene	mg/m3	0.060U				
Surrogate - 1,2-Dichloroethane-d4 *	%	101 %	0.5000	0.5311	106 %	61-140

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12516-8	Method Blank	QC-A	12/19/03		
12516-9	LCS True Value	QC-A	12/19/03		
12516-10	Lab Control Standard Result	QC-A	12/19/03		
12516-11	Lab Control Standard % Recovery	QC-A	12/19/03		
12516-12	LCS Accuracy Control Limit (%R)	QC-A	12/19/03		

Parameter	Units	Lab Sample IDs 12516-8	12516-9	12516-10	12516-11	12516-12
Volatile Organic Compounds in Air						
Surrogate - Toluene-d8 *	%	101 %	0.5000	0.5029	101 %	90-109
Surrogate - 4-Bromofluorobenzene *	%	103 %	0.5000	0.5234	105 %	87-112
Dilution Factor		1		1		
Prep Date		12/26/03		12/26/03		
Prep Time		08:55		09:33		
Analysis Date		12/26/03		12/26/03		
Analysis Time		08:55		09:33		
Batch ID		MAA111	MAA111	MAA111	MAA111	
Prep Method		MOD-TO14		MOD-TO14		
Analyst		DWB		DWB		
Quantitation Factor		1.00		1.00		

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12516-13	Method Detection Limit (MDL)	QC-A	12/19/03		
12516-14	Reporting Limit (RL)	QC-A	12/19/03		

Parameter	Units	Lab Sample IDs 12516-13	12516-14
Volatile Organic Compounds in Air			
Benzene	mg/m3	0.018	0.030
Bromodichloromethane	mg/m3	0.017	0.030
Bromoform	mg/m3	0.018	0.030
Bromomethane (Methyl bromide)	mg/m3	0.021	0.030
Carbon disulfide	mg/m3	0.017	0.030
Carbon tetrachloride	mg/m3	0.017	0.030
Chlorobenzene	mg/m3	0.018	0.030
Chloroethane	mg/m3	0.020	0.030
Chloroform	mg/m3	0.017	0.030
Chloromethane (Methyl chloride)	mg/m3	0.026	0.030
2-Chlorotoluene	mg/m3	0.022	0.030
Dibromochloromethane	mg/m3	0.017	0.030
1,2-Dibromoethane (EDB)	mg/m3	0.015	0.030
1,2-Dichlorobenzene	mg/m3	0.018	0.030
1,3-Dichlorobenzene	mg/m3	0.018	0.030
1,4-Dichlorobenzene	mg/m3	0.017	0.030
trans-1,4-Dichloro-2-butene	mg/m3	0.015	0.030
Dichlorodifluoromethane	mg/m3	0.013	0.030
1,1-Dichloroethane	mg/m3	0.017	0.030
1,2-Dichloroethane	mg/m3	0.016	0.030
1,1-Dichloroethene	mg/m3	0.023	0.030
cis-1,2-Dichloroethene	mg/m3	0.017	0.030
trans-1,2-Dichloroethene	mg/m3	0.018	0.030
1,2-Dichloropropane	mg/m3	0.019	0.030
cis-1,3-Dichloropropene	mg/m3	0.016	0.030
trans-1,3-Dichloropropene	mg/m3	0.015	0.030
Dichlorotetrafluoroethane	mg/m3	0.019	0.030
Ethylbenzene	mg/m3	0.021	0.030

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
12516-13	Method Detection Limit (MDL)	QC-A	12/19/03		
12516-14	Reporting Limit (RL)	QC-A	12/19/03		

Parameter	Units	Lab Sample IDs 12516-13	12516-14
Volatile Organic Compounds in Air			
Hexane	mg/m3	0.018	0.030
4-Ethyltoluene	mg/m3	0.021	0.030
Hexachlorobutadiene	mg/m3	0.021	0.030
Methylene chloride (Dichloromethane)	mg/m3	0.026	0.030
Methyl t-butyl ether (MTBE)	mg/m3	0.022	0.030
Styrene	mg/m3	0.020	0.030
1,1,2,2-Tetrachloroethane	mg/m3	0.019	0.030
Tetrachloroethene	mg/m3	0.019	0.030
Toluene	mg/m3	0.018	0.030
1,2,4-Trichlorobenzene	mg/m3	0.022	0.030
1,1,1-Trichloroethane	mg/m3	0.016	0.030
1,1,2-Trichloroethane	mg/m3	0.015	0.030
Trichloroethene	mg/m3	0.018	0.030
Trichlorofluoromethane	mg/m3	0.017	0.030
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/m3	0.016	0.030
1,2,4-Trimethylbenzene	mg/m3	0.020	0.030
1,3,5-Trimethylbenzene	mg/m3	0.020	0.030
Vinyl chloride	mg/m3	0.019	0.030
o-Xylene	mg/m3	0.019	0.030
m&p-Xylene	mg/m3	0.035	0.060

Order Number: C312516

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

STL Pensacola 3355 McLemore Drive - Pensacola FL 32514 Telephone:(850) 474-1001 Fax:(850) 478-2671

Analytical Report

For: Mrs. Melissa Osborne
CH2M Hill Constructors, Inc. (CCI)
115 Perimeter Center Place, NE Suite 700
Atlanta, GA 30346
CC:

Order Number:	C401513
SDG Number:	
Client Project ID:	171591, CTO-0086
Project:	BLDG.271 MTH 2 AIR, FORMER NAS CECIL FIELD
Report Date:	02/03/2004
Sampled By:	Client
Sample Received Date:	01/22/2004
Requisition Number:	
Purchase Order:	6696

SCAkers

Stephanie Akers, Project Manager
SAkers@stl-inc.com
06/30/2004

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Sample Summary

Order: C401513
Date Received: 01/22/2004

Client: CH2M Hill Constructors, Inc. (CCI)
Project: BLDG.271 MTH 2 AIR, FORMER NAS CECIL FIELD

Client Sample ID	Lab Sample ID	Matrix	Date Sampled
86-271-7S-A-0120-04	C401513*1	Air	01/20/2004 10:05
86-271-10S-A-0120-04	C401513*2	Air	01/20/2004 10:08
86-271-AS2-A-0120-04	C401513*3	Air	01/20/2004 10:11
86-271-AS3-A-0120-04	C401513*4	Air	01/20/2004 10:14
86-271-AS5-A-0120-04	C401513*5	Air	01/20/2004 10:17
86-271-AS6-A-0120-04	C401513*6	Air	01/20/2004 10:20
86-271-AS7-A-0120-04	C401513*7	Air	01/20/2004 10:23

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
01513-1	86-271-7S-A-0120-04	Air	01/22/04	01/20/04 10:05	
01513-2	86-271-10S-A-0120-04	Air	01/22/04	01/20/04 10:08	
01513-3	86-271-AS2-A-0120-04	Air	01/22/04	01/20/04 10:11	
01513-4	86-271-AS3-A-0120-04	Air	01/22/04	01/20/04 10:14	
01513-5	86-271-AS5-A-0120-04	Air	01/22/04	01/20/04 10:17	

		Lab Sample IDs				
Parameter	**Units**	**01513-1**	**01513-2**	**01513-3**	**01513-4**	**01513-5**
Volatile Organic Compounds in Air						
Benzene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Bromodichloromethane	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Bromoform	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Bromomethane (Methyl bromide)	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Carbon disulfide	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Carbon tetrachloride	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Chlorobenzene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Chloroethane	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Chloroform	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Chloromethane (Methyl chloride)	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
2-Chlorotoluene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Dibromochloromethane	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
1,2-Dibromoethane (EDB)	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
1,2-Dichlorobenzene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
1,3-Dichlorobenzene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
1,4-Dichlorobenzene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
trans-1,4-Dichloro-2-butene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Dichlorodifluoromethane	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
1,1-Dichloroethane	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
1,2-Dichloroethane	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
1,1-Dichloroethene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
cis-1,2-Dichloroethene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
trans-1,2-Dichloroethene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
1,2-Dichloropropane	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
cis-1,3-Dichloropropene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
01513-1	86-271-7S-A-0120-04	Air	01/22/04	01/20/04 10:05	
01513-2	86-271-10S-A-0120-04	Air	01/22/04	01/20/04 10:08	
01513-3	86-271-AS2-A-0120-04	Air	01/22/04	01/20/04 10:11	
01513-4	86-271-AS3-A-0120-04	Air	01/22/04	01/20/04 10:14	
01513-5	86-271-AS5-A-0120-04	Air	01/22/04	01/20/04 10:17	

		Lab Sample IDs				
Parameter	**Units**	**01513-1**	**01513-2**	**01513-3**	**01513-4**	**01513-5**
Volatile Organic Compounds in Air						
trans-1,3-Dichloropropene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Dichlorotetrafluoroethane	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Ethylbenzene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Hexane	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
4-Ethyltoluene	mg/m3	0.24	0.065U	0.22	0.065U	0.068U
Hexachlorobutadiene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Methylene chloride (Dichloromethane)	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Methyl t-butyl ether (MTBE)	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Styrene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
1,1,2,2-Tetrachloroethane	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Tetrachloroethene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Toluene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
1,2,4-Trichlorobenzene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
1,1,1-Trichloroethane	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
1,1,2-Trichloroethane	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Trichloroethene	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
Trichlorofluoromethane	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
1,1,2-Trichloro-1,2,2-trifluor oethane	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
1,2,4-Trimethylbenzene	mg/m3	0.11	0.065U	0.14	0.065U	0.064J
1,3,5-Trimethylbenzene	mg/m3	0.29	0.065U	0.28	0.065U	0.068U
Vinyl chloride	mg/m3	0.066U	0.065U	0.065U	0.065U	0.068U
o-Xylene	mg/m3	0.28	0.065U	0.065U	0.065U	0.068U
m&p-Xylene	mg/m3	0.11J	0.13U	0.13U	0.13U	0.14U
Surrogate - 1,2-Dichloroethane-d4 *	%	115 %	116 %	114 %	114 %	114 %

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
01513-1	86-271-7S-A-0120-04	Air	01/22/04	01/20/04 10:05	
01513-2	86-271-10S-A-0120-04	Air	01/22/04	01/20/04 10:08	
01513-3	86-271-AS2-A-0120-04	Air	01/22/04	01/20/04 10:11	
01513-4	86-271-AS3-A-0120-04	Air	01/22/04	01/20/04 10:14	
01513-5	86-271-AS5-A-0120-04	Air	01/22/04	01/20/04 10:17	

		Lab Sample IDs				
Parameter	**Units**	**01513-1**	**01513-2**	**01513-3**	**01513-4**	**01513-5**
Volatile Organic Compounds in Air						
Surrogate - Toluene-d8 *	%	104 %	105 %	104 %	104 %	103 %
Surrogate - 4-Bromofluorobenzene *	%	109 %	106 %	109 %	108 %	107 %
Dilution Factor		1	1	1	1	1
Prep Date		01/30/04	01/30/04	01/30/04	01/30/04	01/30/04
Prep Time		10:24	11:03	12:43	13:20	13:58
Analysis Date		01/30/04	01/30/04	01/30/04	01/30/04	01/30/04
Analysis Time		10:24	11:03	12:43	13:20	13:58
Batch ID		MAA013	MAA013	MAA013	MAA013	MAA013
Prep Method		MOD-TO14	MOD-TO14	MOD-TO14	MOD-TO14	MOD-TO14
Analyst		DWB	DWB	DWB	DWB	DWB
Quantitation Factor		2.19	2.17	2.17	2.17	2.28

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
01513-6	86-271-AS6-A-0120-04	Air	01/22/04	01/20/04 10:20	
01513-7	86-271-AS7-A-0120-04	Air	01/22/04	01/20/04 10:23	

Parameter	Units	Lab Sample IDs 01513-6	01513-7
Volatile Organic Compounds in Air			
Benzene	mg/m3	0.067U	0.067U
Bromodichloromethane	mg/m3	0.067U	0.067U
Bromoform	mg/m3	0.067U	0.067U
Bromomethane (Methyl bromide)	mg/m3	0.067U	0.067U
Carbon disulfide	mg/m3	0.067U	0.039J
Carbon tetrachloride	mg/m3	0.067U	0.067U
Chlorobenzene	mg/m3	0.067U	0.067U
Chloroethane	mg/m3	0.067U	0.067U
Chloroform	mg/m3	0.067U	0.067U
Chloromethane (Methyl chloride)	mg/m3	0.067U	0.067U
2-Chlorotoluene	mg/m3	0.067U	0.067U
Dibromochloromethane	mg/m3	0.067U	0.067U
1,2-Dibromoethane (EDB)	mg/m3	0.067U	0.067U
1,2-Dichlorobenzene	mg/m3	0.067U	0.067U
1,3-Dichlorobenzene	mg/m3	0.067U	0.067U
1,4-Dichlorobenzene	mg/m3	0.067U	0.067U
trans-1,4-Dichloro-2-butene	mg/m3	0.067U	0.067U
Dichlorodifluoromethane	mg/m3	0.067U	0.067U
1,1-Dichloroethane	mg/m3	0.067U	0.067U
1,2-Dichloroethane	mg/m3	0.067U	0.067U
1,1-Dichloroethene	mg/m3	0.067U	0.067U
cis-1,2-Dichloroethene	mg/m3	0.067U	0.067U
trans-1,2-Dichloroethene	mg/m3	0.067U	0.067U
1,2-Dichloropropane	mg/m3	0.067U	0.067U
cis-1,3-Dichloropropene	mg/m3	0.067U	0.067U
trans-1,3-Dichloropropene	mg/m3	0.067U	0.067U
Dichlorotetrafluoroethane	mg/m3	0.067U	0.067U
Ethylbenzene	mg/m3	0.067U	0.067U

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
01513-6	86-271-AS6-A-0120-04	Air	01/22/04	01/20/04 10:20	
01513-7	86-271-AS7-A-0120-04	Air	01/22/04	01/20/04 10:23	

Parameter	Units	Lab Sample IDs 01513-6	01513-7
Volatile Organic Compounds in Air			
Hexane	mg/m3	0.067U	0.067U
4-Ethyltoluene	mg/m3	0.067U	0.067U
Hexachlorobutadiene	mg/m3	0.067U	0.067U
Methylene chloride (Dichloromethane)	mg/m3	0.067U	0.067U
Methyl t-butyl ether (MTBE)	mg/m3	0.067U	0.067U
Styrene	mg/m3	0.067U	0.067U
1,1,2,2-Tetrachloroethane	mg/m3	0.067U	0.067U
Tetrachloroethene	mg/m3	0.067U	0.067U
Toluene	mg/m3	0.067U	0.067U
1,2,4-Trichlorobenzene	mg/m3	0.067U	0.067U
1,1,1-Trichloroethane	mg/m3	0.067U	0.067U
1,1,2-Trichloroethane	mg/m3	0.067U	0.067U
Trichloroethene	mg/m3	0.067U	0.067U
Trichlorofluoromethane	mg/m3	0.067U	0.067U
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/m3	0.067U	0.067U
1,2,4-Trimethylbenzene	mg/m3	0.067U	0.067U
1,3,5-Trimethylbenzene	mg/m3	0.067U	0.067U
Vinyl chloride	mg/m3	0.067U	0.067U
o-Xylene	mg/m3	0.067U	0.067U
m&p-Xylene	mg/m3	0.13U	0.13U
Surrogate - 1,2-Dichloroethane-d4 *	%	119 %	118 %
Surrogate - Toluene-d8 *	%	105 %	106 %
Surrogate - 4-Bromofluorobenzene *	%	108 %	111 %
Dilution Factor		1	1
Prep Date		01/30/04	01/30/04
Prep Time		14:37	15:15
Analysis Date		01/30/04	01/30/04
Analysis Time		14:37	15:15
Batch ID		MAA013	MAA013
Prep Method		MOD-TO14	MOD-TO14
Analyst		DWB	DWB
Quantitation Factor		2.23	2.23

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
01513-8	Method Blank	QC-A	01/22/04		
01513-9	LCS True Value	QC-A	01/22/04		
01513-10	Lab Control Standard Result	QC-A	01/22/04		
01513-11	Lab Control Standard % Recovery	QC-A	01/22/04		
01513-12	LCS Accuracy Control Limit (%R)	QC-A	01/22/04		

		Lab Sample IDs				
Parameter	**Units**	**01513-8**	**01513-9**	**01513-10**	**01513-11**	**01513-12**
Volatile Organic Compounds in Air						
Benzene	mg/m3	0.030U	0.5000	0.5101	102 %	87-116
Bromodichloromethane	mg/m3	0.030U				
Bromoform	mg/m3	0.030U				
Bromomethane (Methyl bromide)	mg/m3	0.030U				
Carbon disulfide	mg/m3	0.030U				
Carbon tetrachloride	mg/m3	0.030U				
Chlorobenzene	mg/m3	0.030U	0.5000	0.5064	101 %	88-111
Chloroethane	mg/m3	0.030U				
Chloroform	mg/m3	0.030U				
Chloromethane (Methyl chloride)	mg/m3	0.030U				
2-Chlorotoluene	mg/m3	0.030U				
Dibromochloromethane	mg/m3	0.030U				
1,2-Dibromoethane (EDB)	mg/m3	0.030U				
1,2-Dichlorobenzene	mg/m3	0.030U				
1,3-Dichlorobenzene	mg/m3	0.030U				
1,4-Dichlorobenzene	mg/m3	0.030U				
trans-1,4-Dichloro-2-butene	mg/m3	0.030U				
Dichlorodifluoromethane	mg/m3	0.030U				
1,1-Dichloroethane	mg/m3	0.030U				
1,2-Dichloroethane	mg/m3	0.030U				
1,1-Dichloroethene	mg/m3	0.030U	0.5000	0.5304	106 %	58-138
cis-1,2-Dichloroethene	mg/m3	0.030U				
trans-1,2-Dichloroethene	mg/m3	0.030U				
1,2-Dichloropropane	mg/m3	0.030U				
cis-1,3-Dichloropropene	mg/m3	0.030U				

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
01513-8	Method Blank	QC-A	01/22/04		
01513-9	LCS True Value	QC-A	01/22/04		
01513-10	Lab Control Standard Result	QC-A	01/22/04		
01513-11	Lab Control Standard % Recovery	QC-A	01/22/04		
01513-12	LCS Accuracy Control Limit (%R)	QC-A	01/22/04		

Parameter	Units	Lab Sample IDs 01513-8	01513-9	01513-10	01513-11	01513-12
Volatile Organic Compounds in Air						
trans-1,3-Dichloropropene	mg/m3	0.030U				
Dichlorotetrafluoroethane	mg/m3	0.030U				
Ethylbenzene	mg/m3	0.030U				
Hexane	mg/m3	0.030U				
4-Ethyltoluene	mg/m3	0.030U				
Hexachlorobutadiene	mg/m3	0.030U				
Methylene chloride (Dichloromethane)	mg/m3	0.030U				
Methyl t-butyl ether (MTBE)	mg/m3	0.030U				
Styrene	mg/m3	0.030U				
1,1,2,2-Tetrachloroethane	mg/m3	0.030U				
Tetrachloroethene	mg/m3	0.030U				
Toluene	mg/m3	0.030U	0.5000	0.5021	100 %	86-113
1,2,4-Trichlorobenzene	mg/m3	0.030U				
1,1,1-Trichloroethane	mg/m3	0.030U				
1,1,2-Trichloroethane	mg/m3	0.030U				
Trichloroethene	mg/m3	0.030U	0.5000	0.4925	99 %	85-116
Trichlorofluoromethane	mg/m3	0.030U				
1,1,2-Trichloro-1,2,2-trifluor oethane	mg/m3	0.030U				
1,2,4-Trimethylbenzene	mg/m3	0.030U				
1,3,5-Trimethylbenzene	mg/m3	0.030U				
Vinyl chloride	mg/m3	0.030U				
o-Xylene	mg/m3	0.030U				
m&p-Xylene	mg/m3	0.060U				
Surrogate - 1,2-Dichloroethane-d4 *	%	104 %	0.5000	0.5314	106 %	61-140

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
01513-8	Method Blank	QC-A	01/22/04		
01513-9	LCS True Value	QC-A	01/22/04		
01513-10	Lab Control Standard Result	QC-A	01/22/04		
01513-11	Lab Control Standard % Recovery	QC-A	01/22/04		
01513-12	LCS Accuracy Control Limit (%R)	QC-A	01/22/04		

Parameter	Units	Lab Sample IDs 01513-8	01513-9	01513-10	01513-11	01513-12
Volatile Organic Compounds in Air						
Surrogate - Toluene-d8 *	%	100 %	0.5000	0.4881	98 %	90-109
Surrogate - 4-Bromofluorobenzene *	%	104 %	0.5000	0.5238	105 %	87-112
Dilution Factor		1		1		
Prep Date		01/30/04		01/30/04		
Prep Time		09:09		09:47		
Analysis Date		01/30/04		01/30/04		
Analysis Time		09:09		09:47		
Batch ID		MAA013	MAA013	MAA013	MAA013	
Prep Method		MOD-TO14		MOD-TO14		
Analyst		DWB		DWB		
Quantitation Factor		1.00		1.00		

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
01513-13	Method Detection Limit (MDL)	QC-A	01/22/04		
01513-14	Reporting Limit (RL)	QC-A	01/22/04		

Parameter	Units	Lab Sample IDs 01513-13	01513-14
Volatile Organic Compounds in Air			
Benzene	mg/m3	0.018	0.030
Bromodichloromethane	mg/m3	0.017	0.030
Bromoform	mg/m3	0.018	0.030
Bromomethane (Methyl bromide)	mg/m3	0.021	0.030
Carbon disulfide	mg/m3	0.017	0.030
Carbon tetrachloride	mg/m3	0.017	0.030
Chlorobenzene	mg/m3	0.018	0.030
Chloroethane	mg/m3	0.020	0.030
Chloroform	mg/m3	0.017	0.030
Chloromethane (Methyl chloride)	mg/m3	0.026	0.030
2-Chlorotoluene	mg/m3	0.022	0.030
Dibromochloromethane	mg/m3	0.017	0.030
1,2-Dibromoethane (EDB)	mg/m3	0.015	0.030
1,2-Dichlorobenzene	mg/m3	0.018	0.030
1,3-Dichlorobenzene	mg/m3	0.018	0.030
1,4-Dichlorobenzene	mg/m3	0.017	0.030
trans-1,4-Dichloro-2-butene	mg/m3	0.015	0.030
Dichlorodifluoromethane	mg/m3	0.013	0.030
1,1-Dichloroethane	mg/m3	0.017	0.030
1,2-Dichloroethane	mg/m3	0.016	0.030
1,1-Dichloroethene	mg/m3	0.023	0.030
cis-1,2-Dichloroethene	mg/m3	0.017	0.030
trans-1,2-Dichloroethene	mg/m3	0.018	0.030
1,2-Dichloropropane	mg/m3	0.019	0.030
cis-1,3-Dichloropropene	mg/m3	0.016	0.030
trans-1,3-Dichloropropene	mg/m3	0.015	0.030
Dichlorotetrafluoroethane	mg/m3	0.019	0.030
Ethylbenzene	mg/m3	0.021	0.030

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
01513-13	Method Detection Limit (MDL)	QC-A	01/22/04		
01513-14	Reporting Limit (RL)	QC-A	01/22/04		

Parameter	Units	Lab Sample IDs 01513-13	01513-14
Volatile Organic Compounds in Air			
Hexane	mg/m3	0.018	0.030
4-Ethyltoluene	mg/m3	0.021	0.030
Hexachlorobutadiene	mg/m3	0.021	0.030
Methylene chloride (Dichloromethane)	mg/m3	0.026	0.030
Methyl t-butyl ether (MTBE)	mg/m3	0.022	0.030
Styrene	mg/m3	0.020	0.030
1,1,2,2-Tetrachloroethane	mg/m3	0.019	0.030
Tetrachloroethene	mg/m3	0.019	0.030
Toluene	mg/m3	0.018	0.030
1,2,4-Trichlorobenzene	mg/m3	0.022	0.030
1,1,1-Trichloroethane	mg/m3	0.016	0.030
1,1,2-Trichloroethane	mg/m3	0.015	0.030
Trichloroethene	mg/m3	0.018	0.030
Trichlorofluoromethane	mg/m3	0.017	0.030
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/m3	0.016	0.030
1,2,4-Trimethylbenzene	mg/m3	0.020	0.030
1,3,5-Trimethylbenzene	mg/m3	0.020	0.030
Vinyl chloride	mg/m3	0.019	0.030
o-Xylene	mg/m3	0.019	0.030
m&p-Xylene	mg/m3	0.035	0.060

Order Number: C401513

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

Appendix B

Laboratory Analytical Reports for Groundwater Samples (provided on CD)

Former NAS Cecil Field

PREPARED FOR: Former NAS Cecil Field Bldg. 271/Baseline System Startup Groundwater

FINAL REVEIWER: Camden Robinson/ Associate Project Chemist/CCI

COPIES: Mike Halil /Project Manager/CCI

DATE: January 5, 2004

SUBJECT: Quality Assessment for Samples Collected October 2003

This quality assurance memorandum is based upon a review of analytical data generated for water samples and associated field quality control samples collected October 2003 at the Former Naval Air Station Cecil Field Bldg. 271 in Jacksonville, Florida. The samples were collected as a part of the building 271 baseline system startup groundwater sampling event conducted at the site. Table 1-1 presents a summary of the CCI sample identification numbers, dates of collection, sample matrices, and the analyses performed.

Gulf Coast Laboratory of Baton Rouge, Louisiana served as the laboratory for this Building 271 Baseline System Startup Groundwater sampling event for the following analyses:

- Benzene, Etylbenzene, Toluene, Total Xylenes, and MTBE (BTEX + MTBE) by SW-846 method 8260B
- Polyaromatic nuclear hydrocarbons (PAH) by HPLC method 8310

Table 1-1 *Summary Sample Data Reviewed*
Former NAS Cecil Field

Sample Number	Lab Sample ID	Date Sampled	Analysis Required
86-CEF271-8S-Q4-03	20310240801	10/23/2003	[1], [2]
86-CEF271-9S-Q4-03	20310240804	10/23/2003	[1], [2]
86-CEF271-11S-Q4-03	20310240805	10/23/2003	[1], [2]
86-CEF271-12S-Q4-03	20310240806	10/23/2003	[1], [2]
*86-271-DUP1-Q4-03	20310240807	10/23/2003	[1], [2]
86-CEF271-1S-Q4-03	20310290501	10/27/2003	[1], [2]
86-CEF271-2S-Q4-03	20310290502	10/27/2003	[1], [2]
86-CEF271-3S-Q4-03	20310290503	10/27/2003	[1], [2]

Sample Number	Lab Sample ID	Date Sampled	Analysis Required
86-CEF271-4SR-Q4-03	20310290504	10/27/2003	[1], [2]
86-CEF271-5SR-Q4-03	20310290505	10/27/2003	[1], [2]
86-CEF271-6S-Q4-03	20310290506	10/27/2003	[1], [2]
86-CEF271-7S-Q4-03	20310290507	10/27/2003	[1], [2]
86-CEF271-10S-Q4-03	20310290508	10/27/2003	[1], [2]
86-CEF271-1I-Q4-03	20310290509	10/27/2003	[1], [2]
*86-271-DUP2-Q4-03	20310290510	10/27/2003	[1], [2]
86-271-EB-Q4-03	20310290511	10/27/2003	[1], [2]
86-271-TB1-Q4-03	20310290512	10/27/2003	[1]

ANALYSES PERFORMED CODES:
[1] –Benzene, Ethylbenzene, Toluene, Total Xylenes, and MTBE (BTEX + MTBE) by method SW846 8021B,
[2] –Polyaromatic nuclear hydrocarbons (PAH) by HPLC method 8310,
* *86-271-DUP1-Q4-03 blind field duplicate of 86-CEF271-9S-Q4-03*
** *86-271-DUP2-Q4-03 blind field duplicate of 86-CEF271-10S-Q4-03*

Data for the analyses were reviewed for adherence to the specified analytical protocols in accordance with CCI Sampling Analysis Plan. All analysis results have been validated or qualified according to general guidance provided in the " National Functional Guidelines for Organic and Inorganic Data Review," EPA 540/OR-99/008, October 1999 and EPA 540/R-94/013, February 1994. Additionally, the data were evaluated for adherence to the Department of Defense (DOD) Quality Systems Manual-Version 2 June 2002.

The findings of this quality assurance report are based upon the comprehensive review of the following results summaries reported according to the CCI Level C (CLP-like data deliverables format): chain of custody documentation, holding times, laboratory method and field blank analyses, surrogate compound recoveries, matrix spike compound recoveries and reproducibility, bromofluorobenzene (BFB) mass tuning results, initial and continuing calibration, second source recovery and internal standard area performance summaries, target compound identification, laboratory control sample results, laboratory and blind field duplicate sample results, detection limits/sensitivity, and electronic data deliverables.

The analyses were performed acceptably, but require several qualifying statements; it is recommended that the analytical data be used only with the qualifying statements provided below. Any aspects of the data, which are not discussed in this report, should be considered qualitatively and quantitatively valid as reported, based on the deliverables reviewed. A result summary report presenting the validated and qualified results is presented in Attachment I.

General Data Qualifiers

As required by U.S. EPA protocols, all compounds which were qualitatively identified at concentrations below their respective reporting limits (RL) but above the method detection limit (MDL) have been qualified with "J" qualifiers on the data summary reports to indicate that they are quantitative estimates.

Organic Data Qualifiers

The positive result for volatile organic compound toluene reported in the sample listed below is considered estimated due to the level at which this compound was present in the associated equipment blank. This has been indicated by placing a "JB" qualifier next to the quantitative results for toluene in the samples listed below on the data summary tables.

Compound	Affected Samples
Toluene	86-CEF271-7S-Q4-03

The samples presented below were analyzed or re-analyzed at dilutions for the volatile organic analysis. These dilutions were required to prevent saturation of the instrument and to allow quantitation of the compounds within the linear range of the calibration curve. Positive results for these compounds in the samples below have been reported from the diluted analyses. All other results and quantitation limits have been reported on the sample report summary from the initial analysis. However, higher quantitation limits have resulted for specific volatile and semi-volatile organic compounds, which were not detected, in these samples. This should be noted when assessing these samples for the qualitative absence of specific volatile and semi-volatile organic compounds.

Sample ID	Analysis	Dilution Factor
86-CEF271-7S-Q4-03	BTEX + MTBE	10x
86-CEF271-7S-Q4-03	PAH	20x

Samples 86-CEF271-9S-Q4-03 03 and 86-CEF271-10S-Q4-03 and their blind field duplicate samples 86-271-DUP1-Q4-03 and 86-271-DUP2-Q4-03 were submitted to the laboratory to evaluate sampling and analytical precision for those compounds determined to be confidently detected. All compounds met CCI's blind duplicate precision criteria of 20% for water samples relative percent difference (RPD) for volatile organic analyses and 25% water samples relative percent difference (RPD) for semivolatile organics analyses with the exception of acenaphthylene, naphthalene, 1-methylnaphthalene, and 2-methlynaphthalene. A "J" qualifier was appended to these compounds for the native samples listed below to indicate that the reported value should be considered quantitative estimates due to the field duplicate RPD

exceedances. The RPD was not calculated for the compounds that were not detected in both samples.

Compound	Affected Samples
Acenaphthylene	86-CEF271-9S-Q4-03
Naphthalene	86-CEF271-9S-Q4-03
1-methylnaphthalene	86-CEF271-9S-Q4-03
2-methlynaphthalene	86-CEF271-9S-Q4-03

Summary

The organic analyses were performed acceptably, but required qualifying statements. This analytical quality assurance report has identified the aspects of the data, which required qualification. These qualifiers are noted on the attached analytical sample summary reports. A support documentation package has been prepared for this quality assurance review and is filed with the Former NAS Cecil Field CTO 86/Bldg. 271 Baseline system startup groundwater sampling project file.

Attachment I

VALID QUALIFIERS

QUALIFIER	
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit
J	The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a "tentative identification."
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.
B	The analyte was detected in the associated method and/or calibration blank.
JB	The analyte detected in the associated field, equipment, and/or trip blank.

QUALIFICATION CODE REFERENCE

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect.
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
MB	Presumed contamination from preparation (method) blank.	Presumed contamination from preparation (method) blank or calibration blank.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
G	Result is over the calibration range. Not other acceptable result was provided.	Result is over the calibration range. Not other acceptable result was provided.
E	Not applicable	Duplicate showed poor agreement.
Z	Duplicates RPD showed poor agreement.	Duplicates RPD showed poor agreement
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D was not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination from trip blank.	Not applicable.
+	False positive—reported compound was not present.	Not applicable.
-	False negative—compound was present but not reported.	Not applicable.
F	Presumed contamination from FB or ER.	Presumed contamination from FB or ER
$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.
D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor.	Poor Digestion Spike recovery was not within control limits.
*#	Unusual problems found with the data that have been described in Section 2, "Data Validation Findings." The number following the asterisk (*) will indicate the subsection where a description of the problem can be found.	Unusual problems found with the data that have been described in Section 2, "Data Validation Findings." The number following the asterisk (*) will indicate the subsection where a description of the problem can be found.
T/D	Not applicable	Total metals results reported were less than the dissolved metals result.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-8S-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102408

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624-30M ID: .53 (mm)

Instrument ID: MSV1

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 20310240801

Lab File ID: 2031029/S4663

Date Collected: 10/23/03 Time: 1420

Date Received: 10/24/03

Date Analyzed: 10/29/03 Time: 1639

Dilution Factor: 1 Analyst: RSP

Prep Batch: Analytical Batch: 264330

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

C.L.R

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-9S-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102408

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624-30M ID: .53 (mm)

Instrument ID: MSV1

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 20310240804

Lab File ID: 2031029/S4668

Date Collected: 10/23/03 Time: 1300

Date Received: 10/24/03

Date Analyzed: 10/29/03 Time: 1836

Dilution Factor: 1 Analyst: RSP

Prep Batch: Analytical Batch: 264330

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	1.93		0.100	0.500
100-41-4	Ethylbenzene	25.8		0.312	5.00
108-88-3	Toluene	20.3		0.152	5.00
1330-20-7	Xylene (total)	98.5		0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

C.L.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-11S-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102408

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624-30M ID: .53 (mm)

Instrument ID: MSV1

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 20310240805

Lab File ID: 2031029/S4669

Date Collected: 10/23/03 Time: 1135

Date Received: 10/24/03

Date Analyzed: 10/29/03 Time: 1900

Dilution Factor: 1 Analyst: RSP

Prep Batch: Analytical Batch: 264330

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

C.L.R

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-12S-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102408

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624-30M ID: .53 (mm)

Instrument ID: MSV1

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 20310240806

Lab File ID: 2031029/S4670

Date Collected: 10/23/03 Time: 1050

Date Received: 10/24/03

Date Analyzed: 10/29/03 Time: 1924

Dilution Factor: 1 Analyst: RSP

Prep Batch: Analytical Batch: 264330

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

C.L.R

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-271-DUP1-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102408

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624-30M ID: .53 (mm)

Instrument ID: MSV1

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 20310240807

Lab File ID: 2031029/S4671

Date Collected: 10/23/03 Time: 0000

Date Received: 10/24/03

Date Analyzed: 10/29/03 Time: 1947

Dilution Factor: 1 Analyst: RSP

Prep Batch: Analytical Batch: 264330

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	1.74		0.100	0.500
100-41-4	Ethylbenzene	22.6		0.312	5.00
108-88-3	Toluene	19.7		0.152	5.00
1330-20-7	Xylene (total)	100		0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264230 Analytical Batch: 264316

Sample ID: 86-CEF271-8S-Q4-03

Contract:

SAS No.: SDG No.: 203102408

Lab Sample ID: 20310240801

Date Collected: 10/23/03 Time: 1420

Date Received: 10/24/03

Date Extracted: 10/27/03

Date Analyzed: 10/29/03 Time: 1215

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031029/H000550

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264230 Analytical Batch: 264316

CONCENTRATION UNITS: ug/L

Sample ID: 86-CEF271-9S-Q4-03

Contract:

SAS No.: SDG No.: 203102408

Lab Sample ID: 20310240804

Date Collected: 10/23/03 Time: 1300

Date Received: 10/24/03

Date Extracted: 10/27/03

Date Analyzed: 10/29/03 Time: 1236

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031029/H000550

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
90-12-0	1-Methylnaphthalene	0.536	J	0.291	1.00	Z
91-57-6	2-Methylnaphthalene	1.13	J	0.142	1.00	Z
83-32-9	Acenaphthene	1.00	U	0.331	1.00	
208-96-8	Acenaphthylene	3.05	J	0.153	1.00	Z
120-12-7	Anthracene	0.100	U	0.024	0.100	
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100	
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100	
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100	
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100	
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100	
218-01-9	Chrysene	0.100	U	0.030	0.100	
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100	
206-44-0	Fluoranthene	0.100	U	0.044	0.100	
86-73-7	Fluorene	0.500	U	0.099	0.500	
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250	
91-20-3	Naphthalene	5.89	J	0.124	0.250	Z
85-01-8	Phenanthrene	0.100	U	0.025	0.100	
129-00-0	Pyrene	0.100	U	0.034	0.100	

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264230 Analytical Batch: 264316

Sample ID: 86-CEF271-11S-Q4-03

Contract:

SAS No.: SDG No.: 203102408

Lab Sample ID: 20310240805

Date Collected: 10/23/03 Time: 1135

Date Received: 10/24/03

Date Extracted: 10/27/03

Date Analyzed: 10/29/03 Time: 1243

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031029/H000550

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264230 Analytical Batch: 264316

CONCENTRATION UNITS: ug/L

Sample ID: 86-CEF271-12S-Q4-03

Contract:

SAS No.: SDG No.: 203102408

Lab Sample ID: 20310240806

Date Collected: 10/23/03 Time: 1050

Date Received: 10/24/03

Date Extracted: 10/27/03

Date Analyzed: 10/29/03 Time: 1250

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031029/H000550

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264230 Analytical Batch: 264316

CONCENTRATION UNITS: ug/L

Sample ID: 86-271-DUP1-Q4-03

Contract:

SAS No.: SDG No.: 203102408

Lab Sample ID: 20310240807

Date Collected: 10/23/03 Time: 0000

Date Received: 10/24/03

Date Extracted: 10/27/03

Date Analyzed: 10/29/03 Time: 1257

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031029/H000550

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00	
91-57-6	2-Methylnaphthalene	0.271	J	0.142	1.00	Z
83-32-9	Acenaphthene	1.00	U	0.331	1.00	
208-96-8	Acenaphthylene	0.632	J	0.153	1.00	Z
120-12-7	Anthracene	0.100	U	0.024	0.100	
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100	
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100	
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100	
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100	
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100	
218-01-9	Chrysene	0.100	U	0.030	0.100	
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100	
206-44-0	Fluoranthene	0.100	U	0.044	0.100	
86-73-7	Fluorene	0.500	U	0.099	0.500	
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250	
91-20-3	Naphthalene	1.42	J	0.124	0.250	Z
85-01-8	Phenanthrene	0.100	U	0.025	0.100	
129-00-0	Pyrene	0.100	U	0.034	0.100	

C.L.R

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-1S-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624-30M ID: .53 (mm)

Instrument ID: MSV2

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 20310290501

Lab File ID: 2031101/T0139

Date Collected: 10/27/03 Time: 1025

Date Received: 10/29/03

Date Analyzed: 11/01/03 Time: 1512

Dilution Factor: 1 Analyst: HJL

Prep Batch: Analytical Batch: 264480

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

O.K.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-2S-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624-30M ID: .53 (mm)

Instrument ID: MSV2

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 20310290502

Lab File ID: 2031101/T0140

Date Collected: 10/27/03 Time: 1055

Date Received: 10/29/03

Date Analyzed: 11/01/03 Time: 1536

Dilution Factor: 1 Analyst: HJL

Prep Batch: Analytical Batch: 264480

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

C.L

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-3S-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624-30M ID: .53 (mm)

Instrument ID: MSV2

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 20310290503

Lab File ID: 2031101/T0141

Date Collected: 10/27/03 Time: 1550

Date Received: 10/29/03

Date Analyzed: 11/01/03 Time: 1601

Dilution Factor: 1 Analyst: HJL

Prep Batch: Analytical Batch: 264480

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-4SR-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20310290504

Level: (low/med) LOW

Lab File ID: 2031101/T0142

% Moisture: not dec.

Date Collected: 10/27/03 Time: 1615

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 10/29/03

Instrument ID: MSV2

Date Analyzed: 11/01/03 Time: 1625

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: HJL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264480

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

C. R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-5SR-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624-30M ID: .53 (mm)

Instrument ID: MSV2

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 20310290505

Lab File ID: 2031101/T0143

Date Collected: 10/28/03 Time: 0915

Date Received: 10/29/03

Date Analyzed: 11/01/03 Time: 1649

Dilution Factor: 1 Analyst: HJL

Prep Batch: Analytical Batch: 264480

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

C.L

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-6S-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624-30M ID: .53 (mm)

Instrument ID: MSV2

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 20310290506

Lab File ID: 2031101/T0144

Date Collected: 10/28/03 Time: 1015

Date Received: 10/29/03

Date Analyzed: 11/01/03 Time: 1713

Dilution Factor: 1 Analyst: HJL

Prep Batch: Analytical Batch: 264480

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

a.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-7S-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624-30M ID: .53 (mm)

Instrument ID: MSV2

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 20310290507

Lab File ID: 2031101/T0149

Date Collected: 10/28/03 Time: 0845

Date Received: 10/29/03

Date Analyzed: 11/01/03 Time: 1914

Dilution Factor: 10 Analyst: RJO

Prep Batch: Analytical Batch: 264480

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	188		1.00	5.00
100-41-4	Ethylbenzene	398		3.12	50.0
108-88-3	Toluene	1180	JB	1.52	50.0
1330-20-7	Xylene (total)	1690		5.07	100
1634-04-4	tert-Butyl methyl ether (MTBE)	50.0	U	1.22	50.0

F

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-10S-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624-30M ID: .53 (mm)

Instrument ID: MSV2

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 20310290508

Lab File ID: 2031101/T0146

Date Collected: 10/27/03 Time: 1315

Date Received: 10/29/03

Date Analyzed: 11/01/03 Time: 1801

Dilution Factor: 1 Analyst: HJL

Prep Batch: Analytical Batch: 264480

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

0.4

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-1I-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624-30M ID: .53 (mm)

Instrument ID: MSV2

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 20310290509

Lab File ID: 2031101/T0147

Date Collected: 10/27/03 Time: 1405

Date Received: 10/29/03

Date Analyzed: 11/01/03 Time: 1826

Dilution Factor: 1 Analyst: RJO

Prep Batch: Analytical Batch: 264480

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-271-DUP2-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624-30M ID: .53 (mm)

Instrument ID: MSV2

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 20310290510

Lab File ID: 2031101/T0148

Date Collected: 10/27/03 Time: 0000

Date Received: 10/29/03

Date Analyzed: 11/01/03 Time: 1850

Dilution Factor: 1 Analyst: RJO

Prep Batch: Analytical Batch: 264480

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

CR

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-271-EB-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624-30M ID: .53 (mm)

Instrument ID: MSV2

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 20310290511

Lab File ID: 2031101/T0131

Date Collected: 10/27/03 Time: 1510

Date Received: 10/29/03

Date Analyzed: 11/01/03 Time: 1159

Dilution Factor: 1 Analyst: HJL

Prep Batch: Analytical Batch: 264480

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	1.01	J	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

CL

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-271-TB1-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20310290512

Level: (low/med) LOW

Lab File ID: 2031101/T0132

% Moisture: not dec.

Date Collected: Time:

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 10/29/03

Instrument ID: MSV2

Date Analyzed: 11/01/03 Time: 1223

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: HJL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264480

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

OK

FORM I VOA

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264406 Analytical Batch: 264431

Sample ID 86-CEF271-1S-Q4-03

Contract:

SAS No.: SDG No.: 203102905

Lab Sample ID: 20310290501

Date Collected 10/27/03 Time: 1025

Date Received: 10/29/03

Date Extracted: 10/30/03

Date Analyzed: 10/31/03 Time: 1020

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031031/H000552

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.216		0.032	0.100
50-32-8	Benzo(a)pyrene	0.256		0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.250		0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.417		0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.386		0.033	0.100
218-01-9	Chrysene	0.243		0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.553		0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.372		0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C. R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264406 Analytical Batch: 264431

CONCENTRATION UNITS: ug/L

Sample ID 86-CEF271-2S-Q4-03

Contract:

SAS No.: SDG No.: 203102905

Lab Sample ID: 20310290502

Date Collected 10/27/03 Time: 1055

Date Received: 10/29/03

Date Extracted: 10/30/03

Date Analyzed: 10/31/03 Time: 1027

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031031/H000552

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.F

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264406 Analytical Batch: 264431

CONCENTRATION UNITS: ug/L

Sample ID 86-CEF271-3S-Q4-03

Contract:

SAS No.: SDG No.: 203102905

Lab Sample ID: 20310290503

Date Collected 10/27/03 Time: 1550

Date Received: 10/29/03

Date Extracted: 10/30/03

Date Analyzed: 10/31/03 Time: 1034

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031031/H000552

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264406 Analytical Batch: 264431

Sample ID 86-CEF271-4SR-Q4-03

Contract:

SAS No.: SDG No.: 203102905

Lab Sample ID: 20310290504

Date Collected 10/27/03 Time: 1615

Date Received: 10/29/03

Date Extracted: 10/30/03

Date Analyzed: 10/31/03 Time: 1041

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031031/H000553

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.F

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264406 Analytical Batch: 264431

CONCENTRATION UNITS: ug/L

Sample ID 86-CEF271-5SR-Q4-03

Contract:

SAS No.: SDG No.: 203102905

Lab Sample ID: 20310290505

Date Collected 10/28/03 Time: 0915

Date Received: 10/29/03

Date Extracted: 10/30/03

Date Analyzed: 10/31/03 Time: 1048

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031031/H000553

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

G. L

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264406 Analytical Batch: 264431

Sample ID 86-CEF271-6S-Q4-03

Contract:

SAS No.: SDG No.: 203102905

Lab Sample ID: 20310290506

Date Collected 10/28/03 Time: 1015

Date Received: 10/29/03

Date Extracted: 10/30/03

Date Analyzed: 10/31/03 Time: 1055

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031031/H000553

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

c.l

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264406 Analytical Batch: 264431

CONCENTRATION UNITS: ug/L

Sample ID 86-CEF271-7S-Q4-03

Contract:

SAS No.: SDG No.: 203102905

Lab Sample ID: 20310290507

Date Collected 10/28/03 Time: 0845

Date Received: 10/29/03

Date Extracted: 10/30/03

Date Analyzed: 10/31/03 Time: 1139

Dilution Factor: 20 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031031/H000553

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	21.1		5.82	20.0
91-57-6	2-Methylnaphthalene	58.9		2.84	20.0
83-32-9	Acenaphthene	20.0	U	6.62	20.0
208-96-8	Acenaphthylene	117		3.06	20.0
120-12-7	Anthracene	2.00	U	0.480	2.00
56-55-3	Benzo(a)anthracene	2.00	U	0.640	2.00
50-32-8	Benzo(a)pyrene	2.00	U	0.660	2.00
205-99-2	Benzo(b)fluoranthene	2.00	U	0.320	2.00
191-24-2	Benzo(g,h,i)perylene	2.00	U	0.320	2.00
207-08-9	Benzo(k)fluoranthene	2.00	U	0.660	2.00
218-01-9	Chrysene	2.00	U	0.600	2.00
53-70-3	Dibenz(a,h)anthracene	2.00	U	0.580	2.00
206-44-0	Fluoranthene	2.00	U	0.880	2.00
86-73-7	Fluorene	10.0	U	1.98	10.0
193-39-5	Indeno(1,2,3-cd)pyrene	5.00	U	0.820	5.00
91-20-3	Naphthalene	184		2.48	5.00
85-01-8	Phenanthrene	4.19		0.500	2.00
129-00-0	Pyrene	2.00	U	0.680	2.00

C.L

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264406 Analytical Batch: 264431

Sample ID 86-CEF271-10S-Q4-03

Contract:

SAS No.: SDG No.: 203102905

Lab Sample ID: 20310290508

Date Collected 10/27/03 Time: 1315

Date Received: 10/29/03

Date Extracted: 10/30/03

Date Analyzed: 10/31/03 Time: 1146

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031031/H000553

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.F

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264406 Analytical Batch: 264431

CONCENTRATION UNITS: ug/L

Sample ID 86-CEF271-1I-Q4-03

Contract:

SAS No.: SDG No.: 203102905

Lab Sample ID: 20310290509

Date Collected 10/27/03 Time: 1405

Date Received: 10/29/03

Date Extracted: 10/30/03

Date Analyzed: 10/31/03 Time: 1153

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031031/H000553

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264406 Analytical Batch: 264431

CONCENTRATION UNITS: ug/L

Sample ID 86-271-DUP2-Q4-03

Contract:

SAS No.: SDG No.: 203102905

Lab Sample ID: 20310290510

Date Collected 10/27/03 Time: 0000

Date Received: 10/29/03

Date Extracted: 10/30/03

Date Analyzed: 10/31/03 Time: 1200

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031031/H000553

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264406 Analytical Batch: 264431

CONCENTRATION UNITS: ug/L

Sample ID 86-271-EB-Q4-03

Contract:

SAS No.: SDG No.: 203102905

Lab Sample ID: 20310290511

Date Collected 10/27/03 Time: 1510

Date Received: 10/29/03

Date Extracted: 10/30/03

Date Analyzed: 10/31/03 Time: 1207

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031031/H000553

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.F

CH2M HILL 14580 / 203102408 / Due 10-31-0

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
171591-008 page 1 of 1

PROJECT NAME:	PROJECT NUMBER:	LAB NAME AND CONTACT:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	RECIPIENT 1 (Address, Tel No. , and Fax No.):
Former N.A.S. Cecil Field Building 271	171591	Gulf Coast Labs. Dano Merril	Jeff Marks / J.A Jones Env. Services	6219 Authority Ave. Jacksonville, FL 32221 (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 271 Baseline sytem startup GW	0086	6421	Bonnie Hogue / 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.):
Jeff Marks	Ph:(904)777-4812 Fax:(904) 777-4262	Ph:(225) 769-4900		

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 & MTBE by 8260B.	16 listed PAHs (incl 1- & 2-Methylnaphthalene) by 8310							SAMPLE TYPE (see codes on back)	COMMENTS/ SCREENING READINGS	LAB ID
1	86-CEF271-8S-Q4-03	CEF-271-8S	W	10/23/03	14:20	III/C	14	3	2							Grab	MS/MSD	10/24 -01
2	86-CEF271-9S-Q4-03	CEF-271-9S	W	10/23/03	13:00	III/C	14	3	2							Grab		-04
3	86-CEF271-11S-Q4-03	CEF-271-11S	W	10/23/03	11:35	III/C	14	3	2							Grab		-05
4	86-CEF271-12S-Q4-03	CEF-271-12S	W	10/23/03	10:50	III/C	14	3	2							Grab		-06
5	086-271-MS-Q4-03	MS	W	10/23/03	14:20	III/C	14	3	2							Grab		-02
6	086-271-MSD-Q4-03	MSD	W	10/23/03	14:20	III/C	14	3	2							Grab		-03
7	086-271-DUP1-Q4-03	Duplicate	W	10/23/03	NA	III/C	14	3	2							Grab		-07
8	~~086-271-TB1-Q4-03~~	~~Trip Blank~~	~~W~~	~~10/23/03~~	~~NA~~	~~III/C~~	~~14~~	~~3~~								~~Grab~~	~~Prepared by Lab~~	~~-08~~
9																		
10																		

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:	SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT:
Randy Dumaop / Leslie Baechler / Sean Smith J.A. Jones Environmental Services / CH2Mhill	UPS Tracking #,s.1Z2AE0480140665616, 1Z2AE0480140915622.	2°C Good

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R.Dumaop	10/23/2003	18:00	UPS Tracking #,s.1Z2AE0480140665616, 1Z2AE0480140915622.	10/23/2003	18:00
Printed Name and Signature:			Printed Name and Signature:		
UPS	10-24-03	1145	Daria Hayden	10-24-03	1145
Printed Name and Signature:			Printed Name and Signature:		

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Form CCI001, Rev 02/00

CH2M H.11 / 4380 / 203102905

CH2M Hill Constructors, Inc.
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Atlanta, GA 30346-1278
Tel No (770) 604-9182 ; Fax No (770) 604-9282

CHAIN-OF-CUSTODY RECORD

COC NUMBER
171591-009 page 1 of 1

PROJECT NAME:	PROJECT NUMBER:	LAB NAME AND CONTACT:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company):	RECIPIENT 1 (Address, Tel No. , and Fax No.):
Former N.A.S. Cecil Field Building 271	171591	Gulf Coast Labs. Dano Merril	Jeff Marks / J.A Jones Env. Services	6219 Authority Ave. Jacksonville, FL 32221 (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 271 Baseline sytem startup GW	0086	6421	Bonnie Hogue / 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.):
Jeff Marks	Ph:(904)777-4812 Fax:(904) 777-4262	Ph:(225) 769-4900		

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 & MTBE by 8260B.	16 listed PAHs (incl 1- & 2-Methylnaphthalene) by 8310								SAMPLE TYPE (see codes on back)	COMMENTS/ SCREENING READINGS	LAB ID
1	86-CEF271-1S-Q4-03	CEF-271-1S	W	10/27/03	10:25	III/C	14	3	2								Grab		-01
2	86-CEF271-2S-Q4-03	CEF-271-2S	W	10/27/03	10:55	III/C	14	3	2								Grab		-02
3	86-CEF271-3S-Q4-03	CEF-271-3S	W	10/27/03	15:50	III/C	14	3	2								Grab		-03
4	86-CEF271-4SR-Q4-03	CEF-271-4SR	W	10/27/03	16:15	III/C	14	3	2								Grab		-04
5	86-CEF271-5SR-Q4-03	CEF-271-5SR	W	10/28/03	9:15	III/C	14	3	2								Grab		-05
6	86-CEF271-6S-Q4-03	CEF-271-6S	W	10/28/03	10:15	III/C	14	3	2								Grab		-06
7	86-CEF271-7S-Q4-03	CEF-271-7S	W	10/28/03	8:45	III/C	14	3	2								Grab		-07
8	86-CEF271-10S-Q4-03	CEF-271-10S	W	10/27/03	13:15	III/C	14	3	2								Grab		-08
9	86-CEF271-1I-Q4-03	CEF-271-1I	W	10/27/03	14:05	III/C	14	3	2								Grab		-09
10	086-271-DUP2-Q4-03	Duplicate #2	W	10/27/03	NA	III/C	14	3	2								Grab		-10
11	086-271-EB-Q4-03	Equipment Blank	W	10/27/03	15:10	III/C	14	3	2								Grab		-11
12	086-271-TB1-Q4-03	Trip Blank	W	NA	NA	III/C	14	3									Grab	Prepared by Lab	-12

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:	SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT:
Randy Dumaop / Sean Smith J.A. Jones Environmental Services	Federal Express Tracking Numbers: 792358028820, 792358028842, 792358028864. (3 Coolers)	2°C Good

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature: R.Dumaop	10/28/2003	13:00	Printed Name and Signature: Federal Express Tracking Numbers: 792358028820, 792358028842, 792358028864. (3 Coolers)	10/28/2003	13:00
Printed Name and Signature: Fed.Ex 792358028820	10-29-03	0940	Printed Name and Signature: Daria Hardel	10-29-03	0940
Printed Name and Signature:			Printed Name and Signature:		

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

Form CCI001, Rev 02/00

Former NAS Cecil Field

PREPARED FOR: Former NAS Cecil Field Bldg. 271/Quarterly GW Sampling Event- 2nd Qtr.

FINAL REVEIWER: Camden Robinson/ Associate Project Chemist/CCI

COPIES: Mike Halil /Project Manager/CCI

DATE: June 7, 2004

SUBJECT: Quality Assessment for Samples Collected April 2004

This quality assurance memorandum is based upon a review of analytical data generated for water samples and associated field quality control samples collected April 2004 at the Former Naval Air Station Cecil Field Bldg. 271 in Jacksonville, Florida. The samples were collected as a part of the building 271 quarterly groundwater sampling event conducted at the site. Table 1-1 presents a summary of the CCI sample identification numbers, laboratory sample identification numbers, dates of collection, and the analyses performed.

Gulf Coast Laboratory of Baton Rouge, Louisiana served as the laboratory for this Building 271 Quarterly Groundwater sampling event for the following analyses:

- Benzene, Etylbenzene, Toluene, Total Xylenes, and MTBE (BTEX + MTBE) by SW-846 method 8260B
- Polyaromatic nuclear hydrocarbons (PAH) by HPLC method 8310

Table 1-1 ***Summary Sample Data Reviewed Former NAS Cecil Field***

Sample Number	Lab Sample ID	Date Sampled	Analysis Required
86-CEF271-7S-Q1-04	20404280601	04/26/2004	[1], [2]
86-CEF271-9S-Q1-04	20404280602	04/26/2004	[1], [2]
86-CEF271-10S-Q1-04	20404280603	04/27/2004	[1], [2]
86-CEF271-12S-Q1-04	20404280604	04/27/2004	[1], [2]
*86-271-DUP-Q1-04	20404280607	04/26/2004	[1], [2]
86-CEF271-EB-Q1-04	20404280608	04/27/2004	[1], [2]
86-CEF271-TB-Q1-04	20404280609	04/26/2004	[1]

ANALYSES PERFORMED CODES:
[1] –Benzene, Ethylbenzene, Toluene, Total Xylenes, and MTBE (BTEX + MTBE) by method SW846 8260B,
[2] –Polyaromatic nuclear hydrocarbons (PAH) by HPLC method 8310,

* *86-271-DUP-Q1-04 blind field duplicate of 86-CEF271-9S-Q1-04*

Data for the analyses were reviewed for adherence to the specified analytical protocols in accordance with CCI Sampling Analysis Plan. All analysis results have been validated or qualified according to general guidance provided in the " National Functional Guidelines for Organic and Inorganic Data Review," EPA 540/OR-99/008, October 1999 and EPA 540/R-94/013, February 1994. Additionally, the data were evaluated for adherence to the Department of Defense (DOD) Quality Systems Manual-Version 2 June 2002.

The findings of this quality assurance report are based upon the comprehensive review of the following results summaries reported according to the CCI Level C (CLP-like data deliverables format): chain of custody documentation, holding times, laboratory method and field blank analyses, surrogate compound recoveries, matrix spike compound recoveries and reproducibility, bromofluorobenzene (BFB) mass tuning results, initial and continuing calibration, second source recovery and internal standard area performance summaries, target compound identification, laboratory control sample results, laboratory and blind field duplicate sample results, detection limits/sensitivity, and electronic data deliverables.

The analyses were performed acceptably, but require several qualifying statements; it is recommended that the analytical data be used only with the qualifying statements provided below. Any aspects of the data, which are not discussed in this report, should be considered qualitatively and quantitatively valid as reported, based on the deliverables reviewed. A result summary report presenting the validated and qualified results is presented in Attachment I.

General Data Qualifiers

As required by U.S. EPA protocols, all compounds which were qualitatively identified at concentrations below their respective reporting limits (RL) but above the method detection limit (MDL) have been qualified with "J" qualifiers on the data summary reports to indicate that they are quantitative estimates.

Organic Data Qualifiers

The positive result for benzene in sample 86-CEF271-7S-Q1-04 should be considered a bias low quantitative estimate and may be higher than reported. The associated recoveries for the client specific matrix spike (MS) and matrix spike duplicate (MSD) samples were below the established quality control (QC) limit for this analyte. The bias low recoveries for this compound indicate the possible presence of matrix interferences in samples of similar matrix. This has been indicated by placing a "J" qualifier next to the benzene result for sample 86-CEF271-7S-Q1-04 on the data summary tables.

The positive result for total xylene in sample 86-CEF271-7S-Q1-04 should be considered a bias high quantitative estimate and may be lower than reported. The associated recoveries for the client specific matrix spike (MS) and matrix spike duplicate (MSD) samples were above the established quality control (QC) limit for this analyte. The bias high recoveries for this compound indicate the possible presence of matrix interferences in samples of similar matrix.

This has been indicated by placing a "J" qualifier next to the total xylene result for sample 86-CEF271-7S-Q1-04 on the data summary tables.

The samples presented below were analyzed or re-analyzed at dilutions for the volatile organic and polyaromatic hydrocarbon analyses. These dilutions may have resulted in surrogate compounds diluted below the instrument detection limit, therefore surrogate recoveries may not be reported for all diluted analysis. These dilutions were required to prevent saturation of the instrument and to allow quantitation of the compounds within the linear range of the calibration curve. Positive results for these compounds in the samples below have been reported from the diluted analyses. All other results and quantitation limits have been reported on the sample report summary from the initial analysis. However, higher quantitation limits have resulted for specific volatile organic and polyaromatic hydrocarbon compounds, which were not detected, in these samples. This should be noted when assessing these samples for the qualitative absence of specific volatile organic and polyaromatic hydrocarbon compounds.

Sample ID	Analysis	Dilution Factor
86-CEF271-7S-Q4-03	BTEX + MTBE	5x
86-CEF271-7S-Q4-03	PAH	50x

Sample 86-CEF271-9S-Q1-04 and its blind field duplicate sample 86-271-DUP-Q1-04 were submitted to the laboratory to evaluate sampling and analytical precision for those compounds determined to be confidently detected. All compounds met CCI's blind duplicate precision criteria of 30% for water samples relative percent difference (RPD) for volatile organic and polyaromatic hydrocarbon analyses. The RPD was not calculated for the compounds that were not detected in both samples.

Summary

The organic analyses were performed acceptably, but required qualifying statements. This analytical quality assurance report has identified the aspects of the data, which required qualification. These qualifiers are noted on the attached analytical sample summary reports. A support documentation package has been prepared for this quality assurance review and is filed with the Former NAS Cecil Field CTO 86/Bldg. 271 quarterly groundwater sampling project file.

Attachment I

VALID QUALIFIERS

QUALIFIER	
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit
J	The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a "tentative identification."
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R/UR	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.
B	The analyte was detected in the associated method and/or calibration blank.
JB	The analyte detected in the associated field, equipment, and/or trip blank.

QUALIFICATION CODE REFERENCE

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect.
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
K	Second source %D was noncompliant.	Second source %D was noncompliant.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
MB	Presumed contamination from preparation (method) blank.	Presumed contamination from preparation (method) blank or calibration blank.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or high RPD.	MS/MSD recovery was poor or high RPD.
G	Result is over the calibration range. No other acceptable result was provided.	Result is over the calibration range. Not other acceptable result was provided.
E	Not applicable.	Lab duplicate RPD showed poor agreement.
Z	Field duplicate RPD showed poor agreement.	Field duplicate RPD showed poor agreement
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D was not within control limits.
TN	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination from trip blank.	Not applicable.
+	False positive—reported compound was not present.	Not applicable.
-	False negative—compound was present but not reported.	Not applicable.
F	Presumed contamination from FB or ER.	Presumed contamination from FB or ER.
$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.
D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Confirmation analysis RPD exceeded 40%.	Post Digestion Spike recovery was not within control limits.
T/D	Not applicable.	Total metals results were less than the dissolved metals result.
SD	Not applicable.	Seed correction factor was below the acceptable limit.
M	Reported values may be biased due to apparent matrix interferences. (AIR ANALYSIS ONLY)	Not applicable

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-7S-Q1-04

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204042806

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20404280601

Level: (low/med) LOW

Lab File ID: 2040501/T9057

% Moisture: not dec.

Date Collected: 04/26/04 Time: 1320

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 04/28/04

Instrument ID: MSV1

Date Analyzed: 05/01/04 Time: 1512

Soil Extract Volume: (µL)

Dilution Factor: 5 Analyst: RJO

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 273041

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
71-43-2	Benzene	324	J	1.13	2.50	Q
100-41-4	Ethylbenzene	133		1.14	25.0	
108-88-3	Toluene	16.7	J	1.07	25.0	
1330-20-7	Xylene (total)	17.2	J	2.55	50.0	Q
1634-04-4	tert-Butyl methyl ether (MTBE)	25.0	U	0.895	25.0	

C.R

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-9S-Q1-04

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204042806

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20404280602

Level: (low/med) LOW

Lab File ID: 2040501/T9061

% Moisture: not dec.

Date Collected: 04/26/04 Time: 1405

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 04/28/04

Instrument ID: MSV1

Date Analyzed: 05/01/04 Time: 1702

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: (µL)

Prep Batch:

Analytical Batch: 273041

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.225	0.500
100-41-4	Ethylbenzene	5.00	U	0.227	5.00
108-88-3	Toluene	5.00	U	0.213	5.00
1330-20-7	Xylene (total)	3.06	J	0.509	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.179	5.00

C.A

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-10S-Q1-04

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204042806

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20404280603

Level: (low/med) LOW

Lab File ID: 2040501/T9062

% Moisture: not dec.

Date Collected: 04/27/04 Time: 1255

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 04/28/04

Instrument ID: MSV1

Date Analyzed: 05/01/04 Time: 1725

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 273041

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.225	0.500
100-41-4	Ethylbenzene	5.00	U	0.227	5.00
108-88-3	Toluene	5.00	U	0.213	5.00
1330-20-7	Xylene (total)	10.0	U	0.509	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.179	5.00

C.R

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-12S-Q1-04

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204042806

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 20404280604

Level: (low/med) LOW Lab File ID: 2040501/T9063

% Moisture: not dec. Date Collected: 04/27/04 Time: 1335

GC Column: DB-624-30M ID: .53 (mm) Date Received: 04/28/04

Instrument ID: MSV1 Date Analyzed: 05/01/04 Time: 1749

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 273041

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.225	0.500
100-41-4	Ethylbenzene	5.00	U	0.227	5.00
108-88-3	Toluene	5.00	U	0.213	5.00
1330-20-7	Xylene (total)	10.0	U	0.509	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.179	5.00

a.k

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

086-271-DUP-Q1-04

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204042806

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 20404280607

Level: (low/med) LOW Lab File ID: 2040501/T9064

% Moisture: not dec. Date Collected: Time:

GC Column: DB-624-30M ID: .53 (mm) Date Received: 04/28/04

Instrument ID: MSV1 Date Analyzed: 05/01/04 Time: 1813

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 273041

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.225	0.500
100-41-4	Ethylbenzene	5.00	U	0.227	5.00
108-88-3	Toluene	5.00	U	0.213	5.00
1330-20-7	Xylene (total)	3.12	J	0.509	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.179	5.00

C. R

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

086-271-EB-Q1-04

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204042806

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20404280608

Level: (low/med) LOW

Lab File ID: 2040501/T9065

% Moisture: not dec.

Date Collected: 04/27/04 Time: 1355

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 04/28/04

Instrument ID: MSV1

Date Analyzed: 05/01/04 Time: 1836

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 273041

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.225	0.500
100-41-4	Ethylbenzene	5.00	U	0.227	5.00
108-88-3	Toluene	5.00	U	0.213	5.00
1330-20-7	Xylene (total)	10.0	U	0.509	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.179	5.00

a. h

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

086-271-TB-Q1-04

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204042806

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20404280609

Level: (low/med) LOW

Lab File ID: 2040501/T9066

% Moisture: not dec.

Date Collected: Time:

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 04/28/04

Instrument ID: MSV1

Date Analyzed: 05/01/04 Time: 1900

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 273041

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.225	0.500
100-41-4	Ethylbenzene	5.00	U	0.227	5.00
108-88-3	Toluene	5.00	U	0.213	5.00
1330-20-7	Xylene (total)	10.0	U	0.509	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.179	5.00

C. R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 272890 Analytical Batch: 273336

CONCENTRATION UNITS: ug/L

Sample ID: 86-CEF271-7S-Q1-04

Contract:

SAS No.: SDG No.: 204042806

Lab Sample ID: 20404280601

Date Collected: 04/26/04 Time: 1320

Date Received: 04/28/04

Date Extracted: 04/29/04

Date Analyzed: 05/05/04 Time: 0930

Dilution Factor: 50 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040505/H0006472

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	37.0	J	14.6	50.0
91-57-6	2-Methylnaphthalene	74.0		7.10	50.0
83-32-9	Acenaphthene	50.0	U	16.6	50.0
208-96-8	Acenaphthylene	50.0	U	7.65	50.0
120-12-7	Anthracene	5.00	U	1.20	5.00
56-55-3	Benzo(a)anthracene	5.00	U	1.60	5.00
50-32-8	Benzo(a)pyrene	5.00	U	1.65	5.00
205-99-2	Benzo(b)fluoranthene	5.00	U	0.800	5.00
191-24-2	Benzo(g,h,i)perylene	5.00	U	0.800	5.00
207-08-9	Benzo(k)fluoranthene	5.00	U	1.65	5.00
218-01-9	Chrysene	5.00	U	1.50	5.00
53-70-3	Dibenz(a,h)anthracene	5.00	U	1.45	5.00
206-44-0	Fluoranthene	5.00	U	2.20	5.00
86-73-7	Fluorene	25.0	U	4.95	25.0
193-39-5	Indeno(1,2,3-cd)pyrene	12.5	U	2.05	12.5
91-20-3	Naphthalene	476		6.20	12.5
85-01-8	Phenanthrene	7.78		1.25	5.00
129-00-0	Pyrene	5.00	U	1.70	5.00

C.V

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 272890 Analytical Batch: 273292

CONCENTRATION UNITS: ug/L

Sample ID: 86-CEF271-9S-Q1-04

Contract:

SAS No.: SDG No.: 204042806

Lab Sample ID: 20404280602

Date Collected: 04/26/04 Time: 1405

Date Received: 04/28/04

Date Extracted: 04/29/04

Date Analyzed: 05/04/04 Time: 1253

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040504/H0006460

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

c.r

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 272890 Analytical Batch: 273292

CONCENTRATION UNITS: ug/L

Sample ID: 86-CEF271-10S-Q1-04

Contract:

SAS No.: SDG No.: 204042806

Lab Sample ID: 20404280603

Date Collected: 04/27/04 Time: 1255

Date Received: 04/28/04

Date Extracted: 04/29/04

Date Analyzed: 05/04/04 Time: 1300

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040504/H0006461

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 272890 Analytical Batch: 273292

Sample ID: 86-CEF271-12S-Q1-04

Contract:

SAS No.: SDG No.: 204042806

Lab Sample ID: 20404280604

Date Collected: 04/27/04 Time: 1335

Date Received: 04/28/04

Date Extracted: 04/29/04

Date Analyzed: 05/04/04 Time: 1307

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

CONCENTRATION UNITS: ug/L

Lab File ID: 040504/H0006462

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C. R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 272890 Analytical Batch: 273292

CONCENTRATION UNITS: ug/L

Sample ID: 086-271-DUP-Q1-04

Contract:

SAS No.: SDG No.: 204042806

Lab Sample ID: 20404280607

Date Collected: Time:

Date Received: 04/28/04

Date Extracted: 04/29/04

Date Analyzed: 05/04/04 Time: 1328

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040504/H0006465

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C. R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 272890 Analytical Batch: 273292

CONCENTRATION UNITS: ug/L

Sample ID: 086-271-EB-Q1-04

Contract:

SAS No.: SDG No.: 204042806

Lab Sample ID: 20404280608

Date Collected: 04/27/04 Time: 1355

Date Received: 04/28/04

Date Extracted: 04/29/04

Date Analyzed: 05/04/04 Time: 1335

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040504/H0006466

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.R

CHCM Hill / 4380 / 204042806 / Due 5/5/04

CH2MHILL 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

3c

COC NUMBER: 171591-024

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.):
Former N.A.S. Cecil Field Building 271	171591	Gulf Coast Labs. Dano Merril	Jeff Marks / CH2M Hill Constuctors, Inc.	6219 Authority Ave. Jacksonville, FL 32221 (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 271 Quarterly GW Sampling Event	0086	6421	Bonnie Hogue / 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.):
Jeff Marks CH2M Hill Constuctors, Inc.	Ph:(904)777-4812 Fax:(904) 777-4262	Ph:(225) 769-4900		

ANALYSES REQUIRED (Include Method Numbers)

ITEM	SAMPLE IDENTIFIER	SAMPLE DESCRIPTION/LOCATION	MATRIX (see codes on SOP)	DATE COLLECTED	TIME COLLECTED	DATA PKG LEVEL (see codes on SOP)	TAT (calendar days)	BTEX & MTBE by 8260B.	16 listed PAHs (incl 1- & 2-Methylnaphthalene) by 8310								SAMPLE TYPE (see codes on SOP)	COMMENTS/ SCREENING READINGS	LAB ID (for lab's use) 204042806
1	86-CEF271-7S-Q1-04	CEF-271-7S	W	04/26/04	1320	III/C	14	3	2								Grab	MS/MSD	-1
2	86-CEF271-9S-Q1-04	CEF-271-9S	W	04/26/04	1405	III/C	14	3	2								Grab		2
3	86-CEF271-10S-Q1-04	CEF-271-10S	W	04/27/04	1255	III/C	14	3	2								Grab		3
4	86-CEF271-12S-Q1-04	CEF-271-12S	W	04/27/04	1335	III/C	14	3	2								Grab		4
5	086-271-MS-Q1-04	MS	W	04/26/04	1320	III/C	14	3	2								Grab	CEF-271-7S	5
6	086-271-MSD-Q1-04	MSD	W	04/26/04	1320	III/C	14	3	2								Grab	CEF-271-7S	6
7	086-271-DUP-Q1-04	Duplicate	W	NA	NA	III/C	14	3	2								Grab		7
8	086-271-EB-Q1-04	Equipment Blank	W	04/27/04	1355	III/C	14	3	2								Grab		8
9	086-271-TB-Q1-04	Trip Blank	W	NA	NA	III/C	14	3									Grab	Prepared by Lab	9
10																			

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:	SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
Randy Dumaop AGVIQ Environmental Services	Federal Express Tracking Numbers: 7906 2289 3420, 7906 2289 3453.	

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	4/27/2004	18:00	Federal Express Tracking Numbers: 7906 2289 3420, 7906 2289 3453.	4/27/2004	18:00
Printed Name and Signature:			Printed Name and Signature:		
FEDEX 7906 2289 3420, 7906 2289 3453	4-28-04	945	Michelle Raborn	4-28-04	945
Printed Name and Signature:			Printed Name and Signature:		

000383

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

Form CC1001, Rev 02/00

GCAL
GULF COAST ANALYTICAL LABORATORIES, INC

ANALYTICAL RESULTS

PERFORMED BY

GULF COAST ANALYTICAL LABORATORIES, INC.

Report Date 10/30/2003

GCAL Report 203102408

Deliver To	CH2M HILL Constructors Inc. 115 Perimeter Center Place Suite 700 Atlanta, GA 30346 770-604-9182 Ext. 614
Attn	Melissa Aycock

Customer CH2M HILL Constructors Inc.

Project CTO 86 Cecil Field - South Fue

7979 GSRI Avenue, Baton Rouge, Louisiana 70820-7402 • Phone 225.769.4900 • Fax 225.767.5717

CASE NARRATIVE

Client: CH2M HILL Constructors Inc. **Report:** 203102408

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the sample cross-reference page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

VOLATILES MASS SPECTROMETRY

In the SW-846 8260B analysis of samples 20310240805 (86-CEF271-11S-Q4-03) and 20310240806 (86-CEF271-12S-Q4-03), the recovery for the surrogate Toluene d8 was above the upper control limit. The remaining surrogates were all within control limits.

In analytical batch 264330, the MS/MSD exhibited sporadic recovery failures. These recoveries were within limits in the LCS. This is attributed to matrix interference.

HIGH PERFORMANCE LIQUID CHROMATOGRAPHY

In the PNAs analysis of samples 20310240804 (86-CEF271-9S-Q4-03) and 20310240807 (86-271-DUP1-Q4-03), the lower of the two results for 1-methylnaphthalene was reported due to a suspected co-elution of an unknown non-target analyte on the UV detector.

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with GCAL's Standard Operating Procedures.

Common Abbreviations Utilized in this Report

ND	Indicates the result was Not Detected at the specified RDL
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
RDL	Reporting Detection Limit
00:00	Reported as a time equivalent to 12:00 AM

Reporting Flags Utilized in this Report

J	Indicates an estimated value
U	Indicates the compound was analyzed for but not detected
B	(ORGANICS) Indicates the analyte was detected in the associated Method Blank
B	(INORGANICS) Indicates the result is between the RDL and MDL

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with ISO Guide 25 and NELAC, this report shall be reporduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Scott A. Bailey

SCOTT A. BAILEY
OPERATIONS MANAGER
GCAL REPORT 203102408

Report Sample Summary

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20310240801	86-CEF271-8S-Q4-03	Water	10/23/2003 14:20	10/24/2003 11:45
20310240802	86-CEF271-8S-Q4-03(MS)	Water	10/23/2003 14:20	10/24/2003 11:45
20310240803	86-CEF271-8S-Q4-03(MSD)	Water	10/23/2003 14:20	10/24/2003 11:45
20310240804	86-CEF271-9S-Q4-03	Water	10/23/2003 13:00	10/24/2003 11:45
20310240805	86-CEF271-11S-Q4-03	Water	10/23/2003 11:35	10/24/2003 11:45
20310240806	86-CEF271-12S-Q4-03	Water	10/23/2003 10:50	10/24/2003 11:45
20310240807	86-271-DUP1-Q4-03	Water	10/23/2003 00:00	10/24/2003 11:45

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-8S-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102408

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20310240801

Level: (low/med) LOW

Lab File ID: 2031029/S4663

% Moisture: not dec.

Date Collected: 10/23/03 Time: 1420

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 10/24/03

Instrument ID: MSV1

Date Analyzed: 10/29/03 Time: 1639

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RSP

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264330

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-9S-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102408

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20310240804

Level: (low/med) LOW

Lab File ID: 2031029/S4668

% Moisture: not dec.

Date Collected: 10/23/03 Time: 1300

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 10/24/03

Instrument ID: MSV1

Date Analyzed: 10/29/03 Time: 1836

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RSP

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264330

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	1.93		0.100	0.500
100-41-4	Ethylbenzene	25.8		0.312	5.00
108-88-3	Toluene	20.3		0.152	5.00
1330-20-7	Xylene (total)	98.5		0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-11S-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102408

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624-30M ID: .53 (mm)

Instrument ID: MSV1

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 20310240805

Lab File ID: 2031029/S4669

Date Collected: 10/23/03 Time: 1135

Date Received: 10/24/03

Date Analyzed: 10/29/03 Time: 1900

Dilution Factor: 1 Analyst: RSP

Prep Batch: Analytical Batch: 264330

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-12S-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102408

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624-30M ID: .53 (mm)

Instrument ID: MSV1

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 20310240806

Lab File ID: 2031029/S4670

Date Collected: 10/23/03 Time: 1050

Date Received: 10/24/03

Date Analyzed: 10/29/03 Time: 1924

Dilution Factor: 1 Analyst: RSP

Prep Batch: Analytical Batch: 264330

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-271-DUP1-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102408

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624-30M ID: .53 (mm)

Instrument ID: MSV1

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 20310240807

Lab File ID: 2031029/S4671

Date Collected: 10/23/03 Time: 0000

Date Received: 10/24/03

Date Analyzed: 10/29/03 Time: 1947

Dilution Factor: 1 Analyst: RSP

Prep Batch: Analytical Batch: 264330

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	1.74		0.100	0.500
100-41-4	Ethylbenzene	22.6		0.312	5.00
108-88-3	Toluene	19.7		0.152	5.00
1330-20-7	Xylene (total)	100		0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MB127047

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102408

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 127047

Level: (low/med) LOW

Lab File ID: 2031029/S4662

% Moisture: not dec.

Date Collected: Time:

GC Column: DB-624-30M ID: .53 (mm)

Date Received:

Instrument ID: MSV1

Date Analyzed: 10/29/03 Time: 1615

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RSP

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264330

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00
79-01-6	Trichloroethene	5.00	U	0.323	5.00
108-90-7	Chlorobenzene	5.00	U	0.157	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

LCS127046

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102408

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 127046

Level: (low/med) LOW

Lab File ID: 2031029/S4660

% Moisture: not dec.

Date Collected: Time:

GC Column: DB-624-30M ID: .53 (mm)

Date Received:

Instrument ID: MSV1

Date Analyzed: 10/29/03 Time: 1528

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RSP

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264330

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	24.9		0.100	0.500
100-41-4	Ethylbenzene	26.1		0.312	5.00
108-88-3	Toluene	27.8		0.152	5.00
1330-20-7	Xylene (total)	80.8		0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	23.6		0.122	5.00
79-01-6	Trichloroethene	25.1		0.323	5.00
108-90-7	Chlorobenzene	26.8		0.157	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-8S-Q4-03(MS)

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102408

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20310240802

Level: (low/med) LOW

Lab File ID: 2031029/S4665

% Moisture: not dec.

Date Collected: 10/23/03 Time: 1420

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 10/24/03

Instrument ID: MSV1

Date Analyzed: 10/29/03 Time: 1726

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RSP

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264330

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	22.3		0.100	0.500
100-41-4	Ethylbenzene	26.7		0.312	5.00
108-88-3	Toluene	26.4		0.152	5.00
1330-20-7	Xylene (total)	85.8		0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	21.4		0.122	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-8S-Q4-03(MSD)

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102408

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20310240803

Level: (low/med) LOW

Lab File ID: 2031029/S4666

% Moisture: not dec.

Date Collected: 10/23/03 Time: 1420

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 10/24/03

Instrument ID: MSV1

Date Analyzed: 10/29/03 Time: 1749

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RSP

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264330

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	22.2		0.100	0.500
100-41-4	Ethylbenzene	27.9		0.312	5.00
108-88-3	Toluene	28.7		0.152	5.00
1330-20-7	Xylene (total)	87.8		0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	21.5		0.122	5.00

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102408

	SAMPLE NO.	SMC1	#	SMC2	#	SMC3	#	SMC4	#	TOT OUT
1.	86-CEF271-8S-Q4-03	102		96		112		98		0
2.	86-CEF271-8S-Q4-03(MS)	94		101		104		99		0
3.	86-CEF271-8S-Q4-03(MSD)	98		101		109		100		0
4.	86-CEF271-9S-Q4-03	92		97		106		101		0
5.	86-CEF271-11S-Q4-03	102		95		114	*	96		1
6.	86-CEF271-12S-Q4-03	103		99		115	*	98		1
7.	86-271-DUP1-Q4-03	96		99		111		102		0
8.	LCS127046	95		100		111		98		0
9.	MB127047	97		96		111		100		0

		QC LIMITS
SMC 1	4-Bromofluorobenzene	78 - 115
SMC 2	Dibromofluoromethane	70 - 130
SMC 3	Toluene-d8	83 - 112
SMC 4	1,2-Dichloroethane-d4	76 - 128

Column to be used to flag recovery values

* Values outside of contract required QC limits

3A

WATER VOLATILE MS/MSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102408

Matrix Spike - EPA Sample No: 86-CEF271-8S-Q4-03

Analytical Batch: 264330

SAMPLE NO. : 20310240802

COMPOUND	UNITS	SPIKE ADDED	SAMPLE CONCENTRATION	MS CONCENTRATION	MS % REC	#	QC. LIMITS
Benzene	ug/L	25	0	22.3	89		77 - 119
Chlorobenzene	ug/L	25	0	24.3	97		78 - 116
Ethylbenzene	ug/L	25	0	26.7	107		76 - 118
Toluene	ug/L	25	0	26.4	106		78 - 114
Trichloroethene	ug/L	25	0	22.6	90		67 - 126
Xylene (total)	ug/L	75	0	85.8	114		77 - 119
tert-Butyl methyl ether (MTBE)	ug/L	25	0	21.4	86		61 - 135

SAMPLE NO. : 20310240803

COMPOUND	UNITS	SPIKE ADDED	MSD CONC.	MSD % REC	#	% RPD	#	QC. LIMITS REC	QC. LIMITS RPD
Benzene	ug/L	25	22.2	89		.4		77 - 119	0 - 11
Chlorobenzene	ug/L	25	25	100		3		78 - 116	0 - 13
Ethylbenzene	ug/L	25	27.9	112		4		76 - 118	0 - 30
Toluene	ug/L	25	28.7	115	*	8		78 - 114	0 - 13
Trichloroethene	ug/L	25	22.1	88		2		67 - 126	0 - 14
Xylene (total)	ug/L	75	87.8	117		2		77 - 119	0 - 30
tert-Butyl methyl ether (MTBE)	ug/L	25	21.5	86		.5		61 - 135	0 - 30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 7 outside limits

Spike Recovery: 1 out of 14 outside limits

3A

WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102408

Analytical Batch: 264330

SAMPLE NO. : 127046

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*LCS CONCENTRATION*	*LCS % REC*	#	*QC. LIMITS*
Benzene	ug/L	25	0	24.9	100		77 - 119
Chlorobenzene	ug/L	25	0	26.8	107		78 - 116
Ethylbenzene	ug/L	25	0	26.1	104		76 - 118
Toluene	ug/L	25	0	27.8	111		78 - 114
Trichloroethene	ug/L	25	0	25.1	100		67 - 126
Xylene (total)	ug/L	75	0	80.8	108		77 - 119
tert-Butyl methyl ether (MTBE)	ug/L	25	0	23.6	94		61 - 135

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 0 outside limits

Spike Recovery: 0 out of 7 outside limits

4A

VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

MB127047

Lab Name: GCAL

Contract:

Lab Code: LA024 Case No.:

SAS No.: SDG No.: 203102408

Lab File ID: 2031029/S4662

Lab Sample ID: 127047 Date Extracted:

GC Column: DB-624-30M ID: .53 (mm)

Date Analyzed: 10/29/03 Time: 1615

Instrument ID: MSV1 Matrix: Water

Heated Purge: N

Level: LOW

Prep Batch: Analytical Batch: 264330

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1.	LCS127046	127046	2031029/S4660	10/29/03	1528
2.	86-CEF271-8S-Q4-03	20310240801	2031029/S4663	10/29/03	1639
3.	86-CEF271-8S-Q4-03(MS)	20310240802	2031029/S4665	10/29/03	1726
4.	86-CEF271-8S-Q4-03(MSD)	20310240803	2031029/S4666	10/29/03	1749
5.	86-CEF271-9S-Q4-03	20310240804	2031029/S4668	10/29/03	1836
6.	86-CEF271-11S-Q4-03	20310240805	2031029/S4669	10/29/03	1900
7.	86-CEF271-12S-Q4-03	20310240806	2031029/S4670	10/29/03	1924
8.	86-271-DUP1-Q4-03	20310240807	2031029/S4671	10/29/03	1947

5A

VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: GCAL

Contract:

Lab Code: LA024 Case No.:

SAS No.: SDG No.: 203102408

Lab File ID: 2031029/S4647

BFB Injection Date: 10/29/03

Instrument ID: MSV1

BFB Injection Time: 0908

GC Column: DB-624-30M ID: .53 (mm

Analytical Batch: 264330

m / e	ION ABUNDANCE CRITERIA	% Relative Abundance			
50	15.0 - 40.0% of mass 95	20.22	(	)	
75	30.0 - 60.0% of mass 95	53.49	(	)	
95	Base Peak, 100% relative abundance	100	(	)	
96	5.0 -9.0% of mass 95	7.45	(	)	
173	Less than 2.0% of mass 174	0	(0	)	1
174	50.0 - 99.9% of mass 95	56.95	(	)	
175	5.0 - 9.0% of mass 174	4.9	(8.61	)	1
176	95.0 - 101.0% of mass 174	55.67	(97.76	)	1
177	5.0 - 9.0% of mass 176	4.42	(7.95	)	2

1- Value is % mass 174

2- Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1.	V1STD0.400	1208	2031029/S4650	10/29/03	1029
2.	V1STD002	1206	2031029/S4651	10/29/03	1052
3.	V1STD020	1202	2031029/S4653	10/29/03	1140
4.	V1STD050	1203	2031029/S4654	10/29/03	1203
5.	V1STD100	1204	2031029/S4655	10/29/03	1226
6.	V1STD200	1205	2031029/S4656	10/29/03	1250
7.	V1STD005	1201	2031029/S4658	10/29/03	1358
8.	LCS127046	127046	2031029/S4660	10/29/03	1528
9.	MB127047	127047	2031029/S4662	10/29/03	1615
10.	86-CEF271-8S-Q4-03	20310240801	2031029/S4663	10/29/03	1639
11.	86-CEF271-8S-Q4-03(MS)	20310240802	2031029/S4665	10/29/03	1726
12.	86-CEF271-8S-Q4-03(MSD)	20310240803	2031029/S4666	10/29/03	1749
13.	86-CEF271-9S-Q4-03	20310240804	2031029/S4668	10/29/03	1836
14.	86-CEF271-11S-Q4-03	20310240805	2031029/S4669	10/29/03	1900
15.	86-CEF271-12S-Q4-03	20310240806	2031029/S4670	10/29/03	1924
16.	86-271-DUP1-Q4-03	20310240807	2031029/S4671	10/29/03	1947

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GCAL

Contract:

Lab Code: LA024 Case No.:

SAS No.: SDG No.: 203102408

Instrument ID: MSV1

Calibration Date 1 10/27/03 Time 1: 1345

GC Column: DB-624-30M ID: .53 (mm)

Calibration Date 2 10/29/03 Time 2: 1358

Heated Purge: (Y/N) N

Method: SW-846 8260

Analytical Batch: 264220

Lab File ID: Level 1: 1201 Level 2: 1202 Level 3: 1203

Level 4: 1204 Level 5: 1205 Level 6: 1206

Level 7: 1208 Level 8: Level 9:

COMPOUND	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	$\overline{RF}$	RSD	#	LIMIT	TYPE
Acetone	0.077	0.084	0.074	0.066	0.065					0.073	10.65		50	Averaged
Acrolein	0.024	0.022	0.023	0.024	0.024					0.024	3.491		50	Averaged
Acrylonitrile	0.092	0.083	0.083	0.079	0.079					0.083	6.398		50	Averaged
Benzal chloride										0.200	19.77		50	Averaged
Bromochloromethane	0.221	0.213	0.195	0.188	0.186					0.201	7.779		50	Averaged
Bromodichloromethane	0.712	0.677	0.567	0.587	0.565	0.758				0.644	12.84		50	Averaged
Bromoform	0.677	0.655	0.613	0.609	0.570	0.663				0.631	6.429		50	Averaged
Bromomethane	0.260	0.259	0.219	0.216	0.197					0.230	12.05		50	Averaged
Carbon disulfide	0.855	0.849	0.777	0.807	0.816					0.821	3.897		50	Averaged
Carbon tetrachloride	0.574	0.546	0.492	0.504	0.483	0.618				0.536	9.859		50	Averaged
Chloroethane	0.196	0.203	0.187	0.174	0.147					0.181	12.09		50	Averaged
m,p-Xylene	1.083	1.030	0.939	0.899	0.775					0.945	12.63		50	Averaged
Chloroform	0.930	0.786	0.685	0.677	0.651					0.746	15.41		30	Averaged
Chloromethane	0.225	0.258	0.224	0.231	0.222					0.232	6.513		50	Averaged
Dibromochloromethane	1.063	0.936	0.840	0.843	0.761	1.029				0.912	12.94		50	Averaged
Dibromomethane	0.371	0.355	0.311	0.316	0.289					0.328	10.24		50	Averaged
Dichlorodifluoromethane	0.481	0.520	0.459	0.477	0.460					0.479	5.164		50	Averaged
1,1-Dichloroethane	0.599	0.630	0.568	0.533	0.581					0.582	6.224		50	Averaged
1,2-Dichloroethane	0.507	0.468	0.468	0.456	0.449	0.535				0.481	6.910		50	Averaged
cis-1,2-Dichloroethene	0.592	0.621	0.583	0.532	0.545					0.575	6.238		50	Averaged
trans-1,2-Dichloroethene	0.481	0.502	0.458	0.462	0.448					0.470	4.550		50	Averaged
Methylene chloride	0.400	0.430	0.400	0.393	0.398					0.404	3.640		50	Averaged
1,2-Dichloropropane	0.457	0.431	0.405	0.393	0.366					0.410	8.527		30	Averaged
cis-1,3-Dichloropropene	0.677	0.634	0.569	0.570	0.559					0.601	8.541		50	Averaged
trans-1,3-Dichloropropene	1.221	1.040	0.965	0.937	0.871					1.007	13.31		50	Averaged
Ethylbenzene	0.847	0.723	0.631	0.587	0.538					0.665	18.37		30	Averaged
Ethyl methacrylate	0.545	0.571	0.701	0.598	0.569					0.597	10.24		50	Averaged
2-Hexanone	0.646	0.567	0.477	0.457	0.420					0.412	0.998		50	Linear
Isobutyl alcohol	0.011	0.013	0.011	0.009	0.009					0.011	14.35		50	Averaged
Isopropylbenzene (Cumene)	3.137	2.848	2.568	2.492	2.210	3.447				2.784	16.30		50	Averaged
2-Butanone	0.180	0.163	0.148	0.132	0.140					0.152	12.62		50	Averaged
Methyl iodide	0.512	0.603	0.573	0.621	0.608					0.583	7.501		50	Averaged
4-Methyl-2-pentanone	0.578	0.452	0.400	0.403	0.404					0.447	16.99		50	Averaged
n-Propylbenzene	4.523	4.101	3.800	3.740	3.453					3.923	10.36		50	Averaged
Styrene	1.800	1.676	1.553	1.509	1.351					1.578	10.77		50	Averaged

Column used to indicate that the required RRF or %RSD values is outside of QC limits

* Indicates that the compound is outside of the required minimum RRF and maximum %RSD values.

FORM VI VOA

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GCAL | Contract:

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 203102408

Instrument ID: MSV1 | Calibration Date 1 10/27/03 | Time 1: 1345

GC Column: DB-624-30M | ID: .53 (mm) | Calibration Date 2 10/29/03 | Time 2: 1358

Heated Purge: (Y/N) N | Method: SW-846 8260

Analytical Batch: 264220

Lab File ID: Level 1: 1201 | Level 2: 1202 | Level 3: 1203

Level 4: 1204 | Level 5: 1205 | Level 6: 1206

Level 7: 1208 | Level 8: | Level 9:

COMPOUND	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	$\overline{RF}$	RSD	#	LIMIT	TYPE
Tetrachloroethene	0.684	0.584	0.522	0.495	0.442	0.750				0.441	0.996		50	Linear
1,1,1,2-Tetrachloroethane	0.786	0.704	0.640	0.609	0.545					0.657	14.01		50	Averaged
1,1,2,2-Tetrachloroethane	1.460	1.261	1.195	1.173	1.121	1.465				1.279	11.62		50	Averaged
1,2,4-Trichlorobenzene	0.562	0.721	0.690	0.610	0.742					0.665	11.51		50	Averaged
1,1,1-Trichloroethane	0.682	0.655	0.582	0.586	0.561					0.613	8.506		50	Averaged
1,1,2-Trichloroethane	0.800	0.688	0.625	0.599	0.534					0.649	15.50		50	Averaged
Trichlorofluoromethane	0.674	0.707	0.627	0.667	0.630					0.661	5.018		50	Averaged
1,2,3-Trichloropropane	1.854	1.684	1.561	1.557	1.365					1.604	11.24		50	Averaged
1,2,4-Trimethylbenzene	2.892	2.808	2.566	2.531	2.531					2.666	6.439		50	Averaged
1,3,5-Trimethylbenzene	4.060	3.335	3.076	3.160	2.994					3.325	12.92		50	Averaged
Vinyl chloride	0.268	0.283	0.268	0.270	0.261	0.265				0.269	2.804		30	Averaged
o-Xylene	1.072	0.985	0.892	0.861	0.763					0.914	12.94		50	Averaged
Chloroprene	0.374	0.366	0.361	0.343	0.325					0.354	5.605		50	Averaged
1,2-Dibromo-3-chloropropane	0.340	0.315	0.302	0.320	0.326	0.273				0.313	7.407		50	Averaged
1,2-Dibromoethane	0.954	0.904	0.807	0.792	0.734	1.004				0.866	12.08		50	Averaged
Methyl methacrylate	0.480	0.490	0.518	0.448	0.500					0.487	5.325		50	Averaged
Propiontrile	0.021	0.023	0.026	0.025	0.024					0.024	6.997		50	Averaged
Vinyl acetate	0.239	0.297	0.263	0.271	0.268					0.267	7.697		50	Averaged
tert-Butyl methyl ether (MTBE)	1.069	1.079	0.997	0.975	0.959					1.016	5.419		50	Averaged
1,2-Dichloroethene	0.536	0.561	0.520	0.497	0.496					0.522	5.251		50	Averaged
4-Isopropyltoluene	3.111	2.870	2.640	2.697	2.700					2.803	6.849		50	Averaged
Xylene (total)	1.396	1.188	1.106	1.124	1.044					1.172	11.56		50	Averaged
1,4 Dioxane	0.001	0.002	0.002	0.002	0.002					0.002	24.71		50	Averaged
1,3-Butadiene	0.138	0.171	0.155	0.156	0.139					0.152	9.054		50	Averaged
Methylcyclohexane	0.695	0.652	0.571	0.570	0.531					0.604	11.16		50	Averaged
n-Hexane	0.474	0.460	0.434	0.450	0.443					0.452	3.446		50	Averaged
trans-1,4-Dichloro-2-butene	0.354	0.316	0.303	0.304	0.298					0.315	7.244		50	Averaged
Cyclohexane	0.660	0.608	0.546	0.547	0.508					0.574	10.46		50	Averaged
2,2-Dichloropropane	0.664	0.647	0.576	0.546	0.561					0.599	8.869		50	Averaged
Diethyl ether	0.181	0.176	0.179	0.175	0.162					0.175	4.154		50	Averaged
Cyclohexanone	0.073	0.083	0.093	0.088	0.072					0.082	11.24		50	Averaged
Methyl Acetate	0.287	0.268	0.246	0.241	0.244					0.257	7.679		50	Averaged
Trichlorotrifluoroethane	0.640	0.663	0.564	0.599	0.567					0.607	7.297		50	Averaged
1,1-Dichloropropene	0.564	0.561	0.467	0.506	0.486					0.517	8.531		50	Averaged
2-Chloroethylvinyl ether	0.254	0.268	0.230	0.214	0.215					0.236	10.08		50	Averaged

Column used to indicate that the required RRF or %RSD values is outside of QC limits

* Indicates that the compound is outside of the required minimum RRF and maximum %RSD values.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GCAL

Contract:

Lab Code: LA024 Case No.:

SAS No.: SDG No.: 203102408

Instrument ID: MSV1

Calibration Date 1 10/27/03 Time 1: 1345

GC Column: DB-624-30M ID: .53 (mm)

Calibration Date 2 10/29/03 Time 2: 1358

Heated Purge: (Y/N) N

Method: SW-846 8260

Analytical Batch: 264220

Lab File ID: Level 1: 1201 Level 2: 1202 Level 3: 1203

Level 4: 1204 Level 5: 1205 Level 6: 1206

Level 7: 1208 Level 8: Level 9:

COMPOUND	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	$\overline{RF}$	RSD	#	LIMIT	TYPE
1,3-Dichloropropane	1.340	1.146	1.066	1.019	0.927					1.100	14.19		50	Averaged
Bromobenzene	2.939	2.542	2.769	2.330	2.630					2.642	8.702		50	Averaged
2-Chlorotoluene	3.051	2.787	2.596	2.673	2.509					2.723	7.698		50	Averaged
4-Chlorotoluene	2.996	2.826	2.672	2.721	2.700					2.783	4.771		50	Averaged
tert-Butylbenzene	2.302	2.218	2.049	2.114	2.107					2.158	4.669		50	Averaged
sec-Butylbenzene	4.490	4.159	3.875	3.980	3.874					4.076	6.360		50	Averaged
1,3-Dichlorobenzene	1.737	1.464	1.459	1.401	1.425					1.497	9.127		50	Averaged
1,4-Dichlorobenzene	1.914	1.720	1.557	1.652	1.569					1.682	8.652		50	Averaged
n-Butylbenzene	2.098	2.685	2.449	2.407	2.697					2.467	9.940		50	Averaged
1,2-Dichlorobenzene	1.612	1.511	1.424	1.500	1.475					1.504	4.582		50	Averaged
Hexachlorobutadiene	0.812	0.761	0.712	0.718	0.726	0.806				0.756	5.888		50	Averaged
Naphthalene	0.789	0.968	0.979	0.773	1.040					0.910	13.25		50	Averaged
1,2,3-Trichlorobenzene	0.569	0.710	0.649	0.572	0.697					0.640	10.46		50	Averaged
2,3-Dichloro-1-propene	0.532	0.525	0.529	0.515	0.513					0.523	1.652		50	Averaged
Isopropyl Ether	0.824	0.789	0.757	0.719	0.696					0.757	6.829		50	Averaged
Acetonitrile	0.071	0.075	0.078	0.076	0.073					0.075	3.607		50	Averaged
Allyl chloride	0.203	0.214	0.219	0.224	0.215					0.215	3.794		50	Averaged
sec-Butanol	0.137	0.131	0.126	0.120	0.116					0.126	6.829			Averaged
t-Butanol	0.091	0.105	0.103	0.099	0.098					0.099	5.477		50	Averaged
Ethyl acetate	0.253	0.254	0.265	0.250	0.234					0.251	4.452		50	Averaged
n-Butyl alcohol	0.070	0.073	0.077	0.069	0.071					0.072	4.609		50	Averaged
Pentachloroethane										0.245	23.32		50	Averaged
1,1-Dichloroethene	0.304	0.307	0.279	0.281	0.272					0.289	5.483		30	Averaged
Benzene	1.176	1.116	1.017	1.002	0.968	1.308		1.388		1.139	14.12		50	Averaged
Trichloroethene	0.478	0.434	0.393	0.402	0.376	0.511				0.432	12.21		50	Averaged
Toluene	2.582	2.192	1.975	1.891	1.697					2.068	16.35		30	Averaged
Chlorobenzene	1.612	1.489	1.343	1.278	1.142					1.373	13.32		50	Averaged
4-Bromofluorobenzene	0.743	0.591	0.640	0.673	0.577					0.645	10.38		50	Averaged
Dibromofluoromethane	0.534	0.432	0.460	0.485	0.433					0.469	9.118		50	Averaged
Toluene-d8	2.157	1.504	1.588	1.671	1.372					1.658	18.07		50	Averaged
1,2-Dichloroethane-d4	0.243	0.188	0.204	0.224	0.198					0.211	10.36		50	Averaged

Column used to indicate that the required RRF or %RSD values is outside of QC limits

* Indicates that the compound is outside of the required minimum RRF and maximum %RSD values.

FORM VI VOA

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GCAL

Contract:

Lab Code: LA024 Case No.:

SAS No.: SDG No.: 203102408

Lab File ID (Standard): 2031029/S4654

Date Analyzed: 10/29/03

Instrument ID: MSV1

Time: 1203

GC Column: DB-624-30M ID: .53 (mm)

Heated Purge: (Y/N) N

Analytical Batch: 264330

	IS 1 Area	RT	IS 2 Area	RT	IS 3 Area	RT
12 HOUR STD	580072	8.214	1031796	6.12	484299	10.36

EPA Sample		#		#		#		#		#		#
1. LCS127046	620733		8.22		1145628		6.1		486169		10.37	
2. MB127047	601468		8.23		1134894		6.11		468731		10.39	
3. 86-CEF271-8S-Q4-03	606235		8.24		1138895		6.12		459982		10.39	
4. 86-CEF271-8S-Q4-03(MS)	653567		8.24		1103629		6.12		475220		10.4	
5. 86-CEF271-8S-Q4-03(MSD)	611822		8.25		1140343		6.12		482518		10.39	
6. 86-CEF271-9S-Q4-03	612338		8.23		1160428		6.12		474514		10.38	
7. 86-CEF271-11S-Q4-03	601615		8.25		1150702		6.13		442244		10.4	
8. 86-CEF271-12S-Q4-03	600660		8.24		1120630		6.12		464346		10.4	
9. 86-271-DUP1-Q4-03	602196		8.24		1113845		6.12		477718		10.39	

IS 1 ID : Chlorobenzene-d5
IS 2 ID : Fluorobenzene
IS 3 ID : 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RTLOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC limits

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv1.i/2031029.s.b/s4663.d
Lab Smp Id: 20310240801 Client Smp ID: 86-CEF271-8S-Q4-03
Inj Date : 29-OCT-2003 16:39
Operator : RSP Inst ID: msv1.i
Smp Info : 20310240801*86-CEF271-8S-Q4-03
Misc Info : MSV~3914~*1*RSP
Comment :
Method : /var/chem/msv1.i/2031029.s.b/8260Bw1.m
Meth Date : 04-Nov-2003 09:37 rsp Quant Type: ISTD
Cal Date : 29-OCT-2003 12:50 Cal File: s4656.d
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
25 Dibromofluoromethane	111	5.671	5.659	(0.926)	512351	47.9781	48.0	214
29 1,2-Dichloroethane-d4	67	5.928	5.911	(0.968)	235795	48.9908	49.0	
33 FLUOROBENZENE	96	6.123	6.116	(1.000)	1138895	50.0000		
42 Toluene-d8	98	7.175	7.169	(0.871)	1126089	56.0045	56.0	(R)
51 CHLOROBENZENE-d5	82	8.240	8.222	(1.000)	606235	50.0000		
60 Bromofluorobenzene	174	9.235	9.212	(1.121)	398018	50.9087	50.9	
74 1,4 DICHLOROBENZENE-D4	152	10.391	10.367	(1.000)	459982	50.0000		

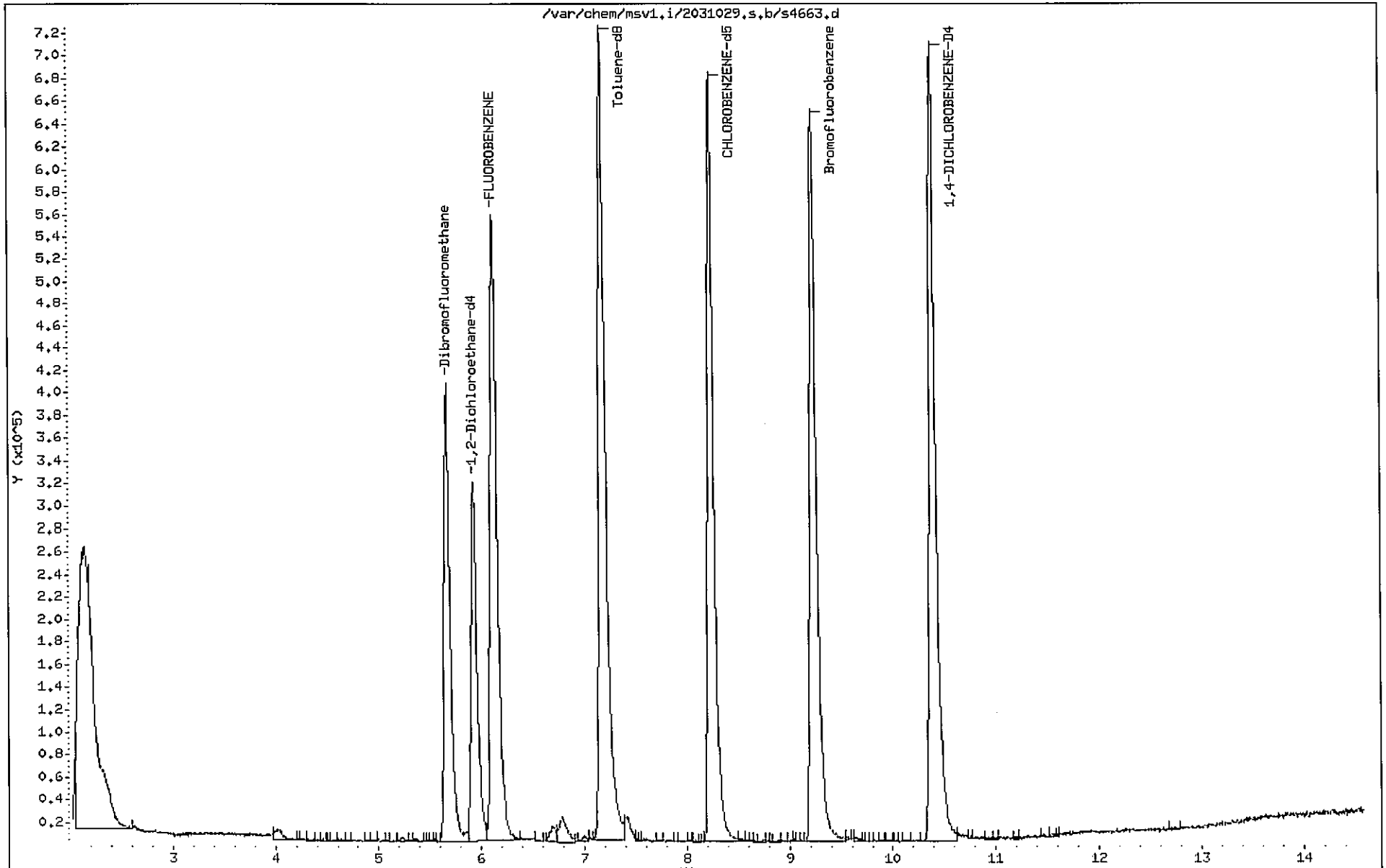
QC Flag Legend

R - Spike/Surrogate failed recovery limits.

000024

Data File: /var/chem/msv1.i/2031029.s.b/s4663.d
Date : 29-OCT-2003 16:39
Client ID: 86-CEF271-8S-Q4-03
Sample Info: 20310240801*86-CEF271-8S-Q4-03
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i
Operator: RSP
Column diameter: 0.53



Data File: /var/chem/msv1.i/2031029.s.b/s4668.d
Report Date: 04-Nov-2003 09:52

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv1.i/2031029.s.b/s4668.d
Lab Smp Id: 20310240804 Client Smp ID: 86-CEF271-9S-Q4-03
Inj Date : 29-OCT-2003 18:36
Operator : RSP Inst ID: msv1.i
Smp Info : 20310240804*86-CEF271-9S-Q4-03
Misc Info : MSV~3914~*1*RSP
Comment :
Method : /var/chem/msv1.i/2031029.s.b/8260Bw1.m
Meth Date : 04-Nov-2003 09:37 rsp Quant Type: ISTD
Cal Date : 29-OCT-2003 12:50 Cal File: s4656.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: btexsm+lcs.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

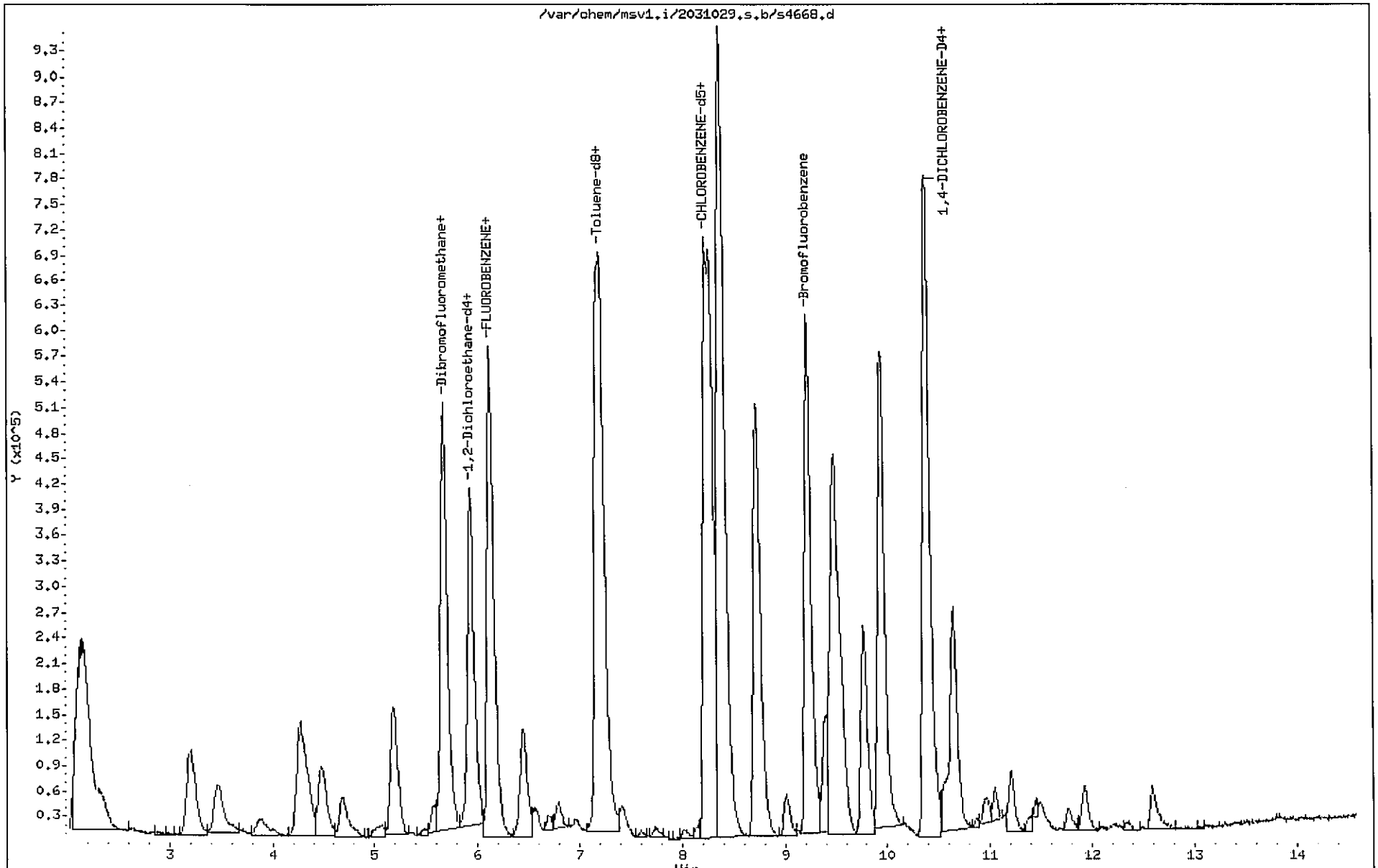
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
31 Benzene	78	5.934	5.922	(0.969)	51133	1.93377	1.93	
43 Toluene +	91	7.222	7.221	(0.877)	514518	20.3194	20.3	
54 Ethylbenzene +	106	8.280	8.279	(1.006)	210429	25.8282	25.8	
55 p,m-Xylene	106	8.383	8.376	(1.018)	747591	64.5891	64.6	
56 o-Xylene	106	8.721	8.725	(1.059)	379683	33.9014	33.9	
78 TOTAL XYLENE	106				1127274	98.4905	98.5	
29 1,2-Dichloroethane-d4	67	5.934	5.911	(0.969)	247031	50.3729	50.4	
25 Dibromofluoromethane	111	5.671	5.659	(0.926)	527084	48.4419	48.4	4327
33 FLUOROBENZENE	96	6.123	6.116	(1.000)	1160428	50.0000		
42 Toluene-d8	98	7.170	7.169	(0.871)	1071811	52.7738	52.8	
51 Chlorobenzene-d5	82	8.234	8.222	(1.000)	612338	50.0000		
60 Bromofluorobenzene	174	9.224	9.212	(1.120)	364634	46.1738	46.2	
74 1,4-DICHLOROBENZENE-D4	152	10.380	10.367	(1.000)	474514	50.0000		

Data File: /var/chem/msv1.i/2031029.s.b/s4668.d
Date : 29-OCT-2003 18:36
Client ID: 86-CEF271-9S-Q4-03
Sample Info: 20310240804*86-CEF271-9S-Q4-03
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

Operator: RSP
Column diameter: 0.53

000026



Data File: /var/chem/msv1.i/2031029.s.b/s4668.d

Date : 29-OCT-2003 18:36

Client ID: B6-CEF271-9S-Q4-03

Instrument: msv1.i

Sample Info: 20310240804*B6-CEF271-9S-Q4-03

Purge Volume: 5.0

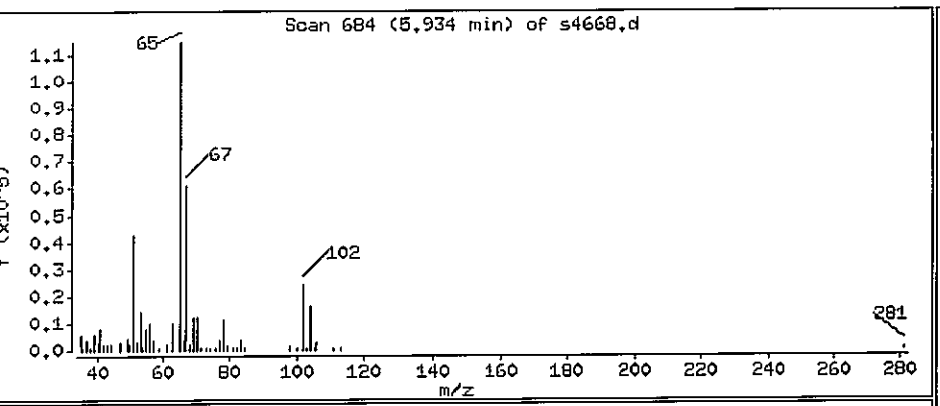
Operator: RSP

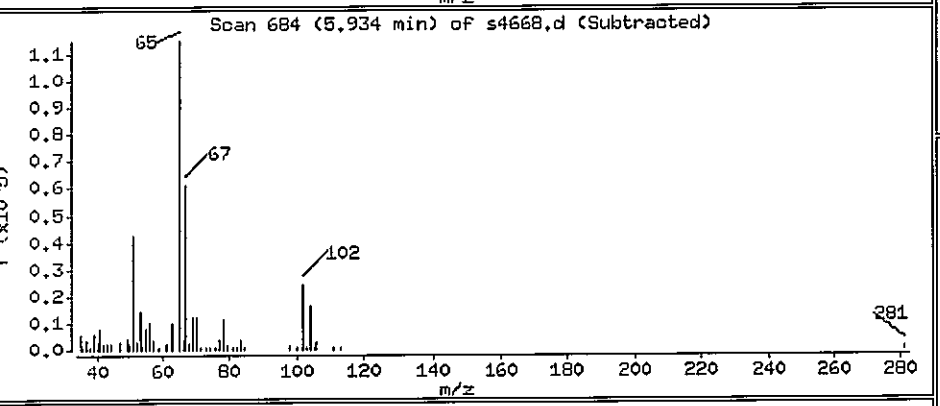
Column phase: DB-624-30M

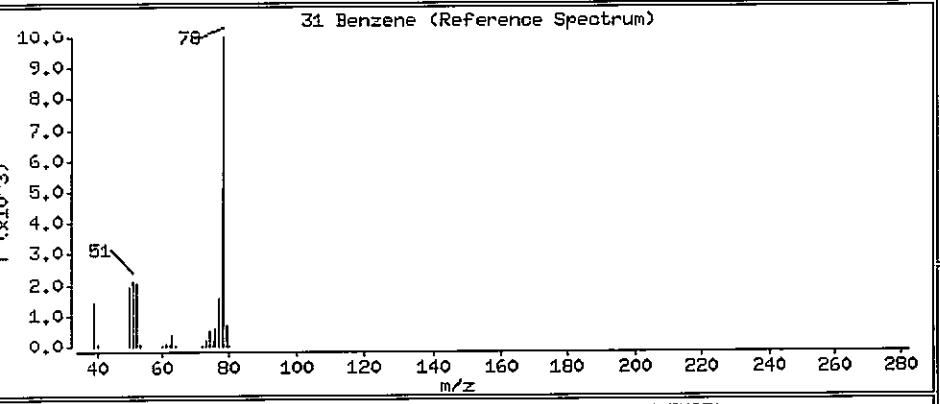
Column diameter: 0.53

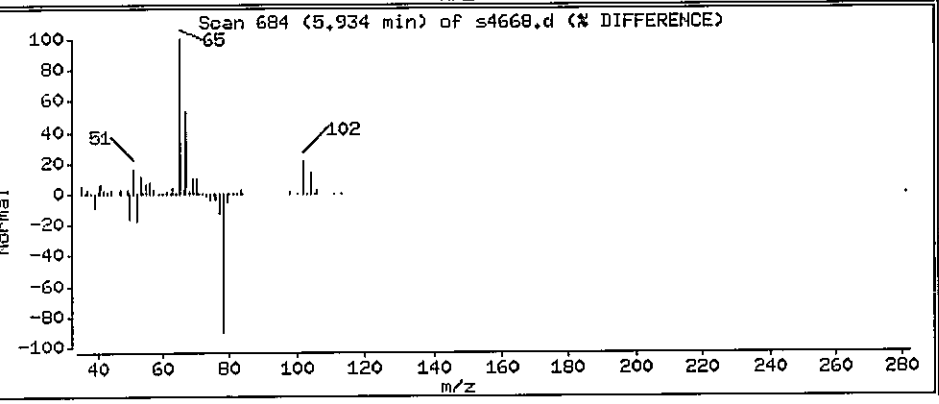
31 Benzene

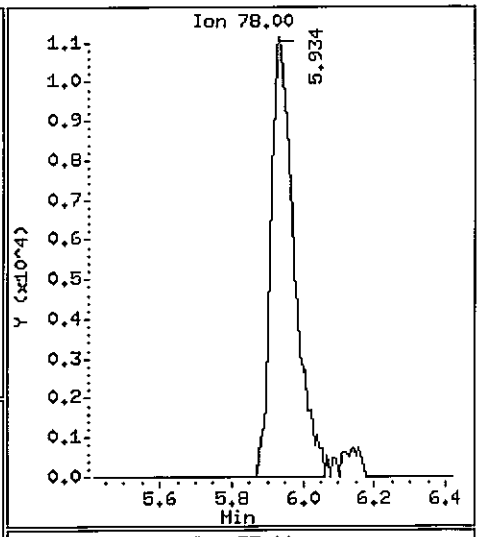
Concentration: 1.93 ug/L

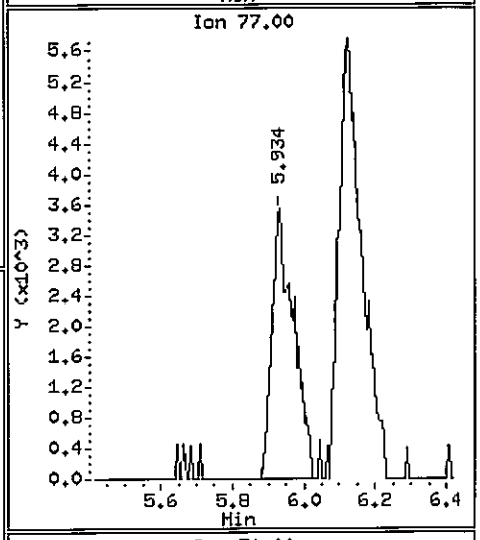


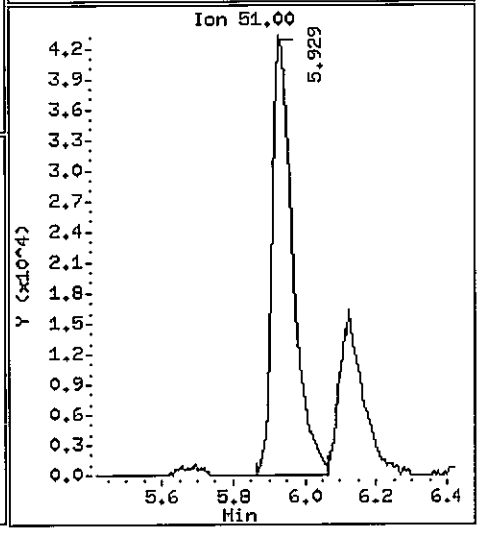












Data File: /var/chem/msv1.i/2031029.s.b/s4668.d

Date : 29-OCT-2003 18:36

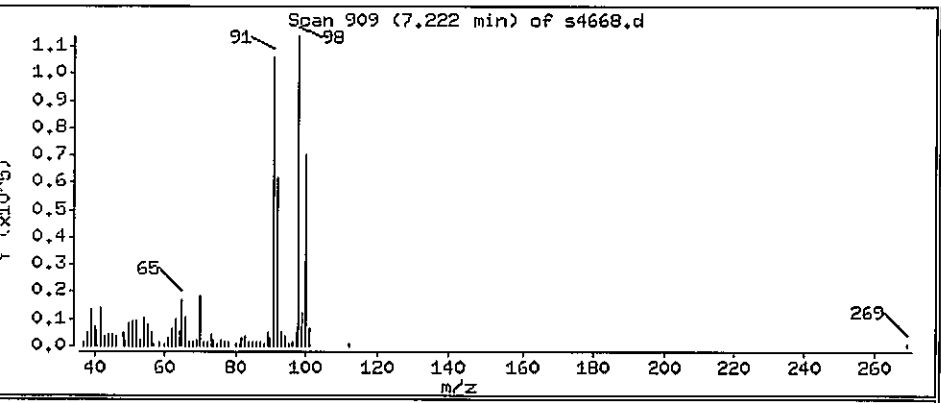
Client ID: 86-CEF271-9S-Q4-03 Instrument: msv1.i

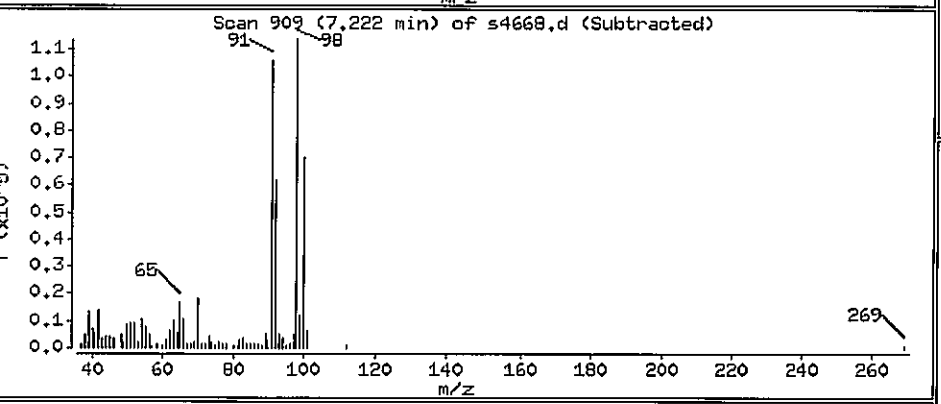
Sample Info: 20310240804*86-CEF271-9S-Q4-03

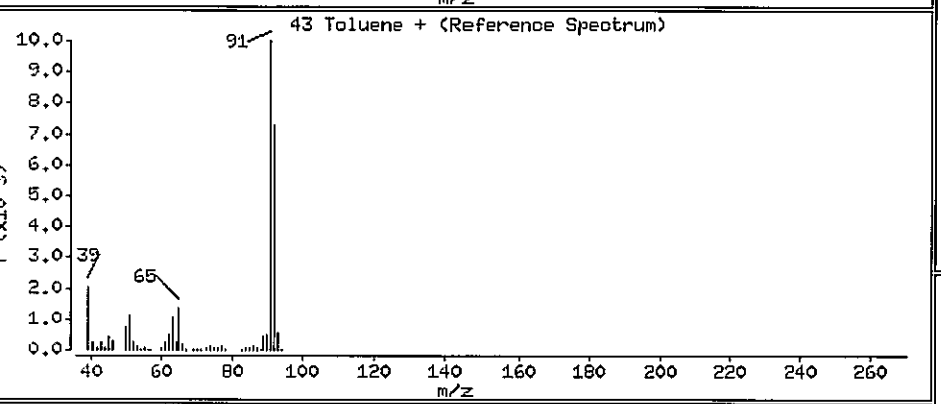
Purge Volume: 5.0 Operator: RSP

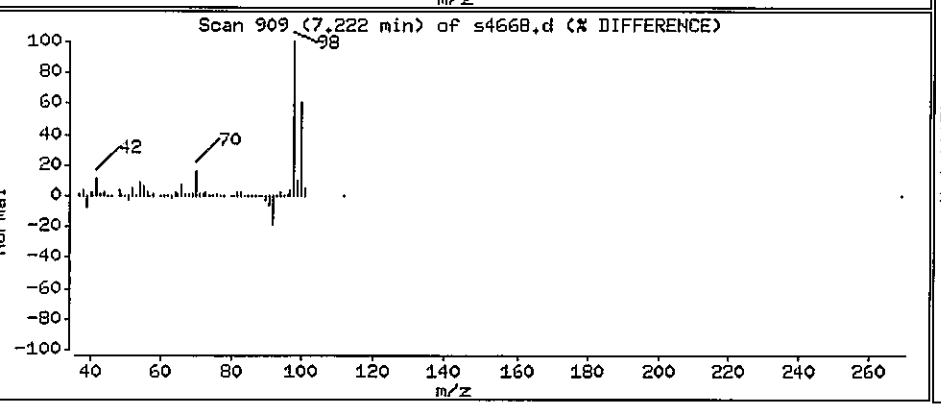
Column phase: DB-624-30M Column diameter: 0.53

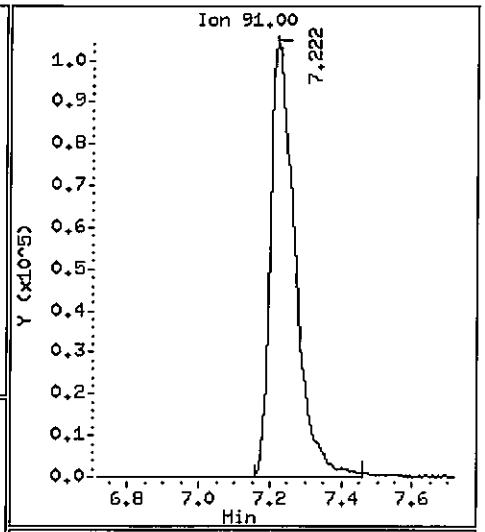
43 Toluene + Concentration: 20.3 ug/L

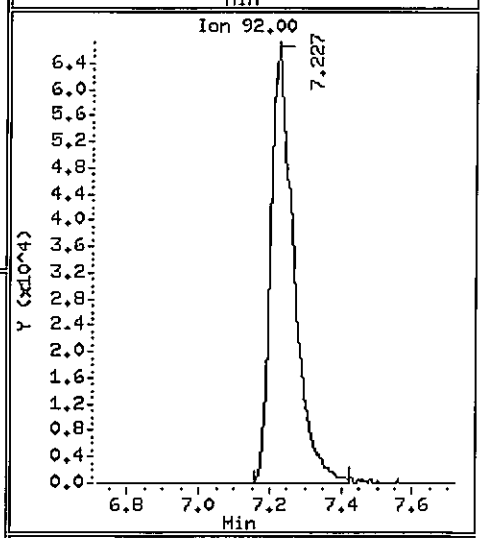


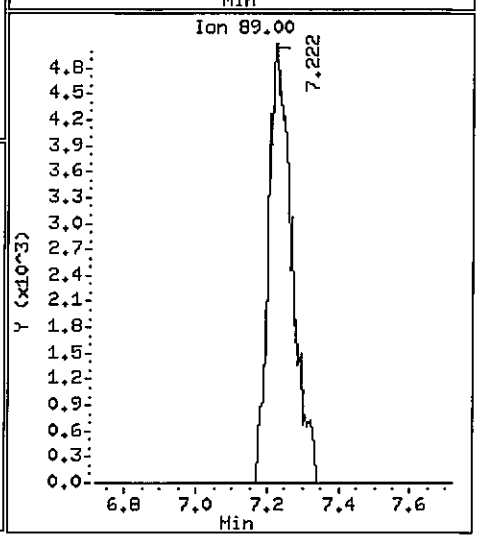












Data File: /var/chem/msv1.i/2031029.s.b/s4668.d

Date : 29-OCT-2003 18:36

Client ID: 86-CEF271-9S-Q4-03

Instrument: msv1.i

Sample Info: 20310240804x86-CEF271-9S-Q4-03

Purge Volume: 5.0

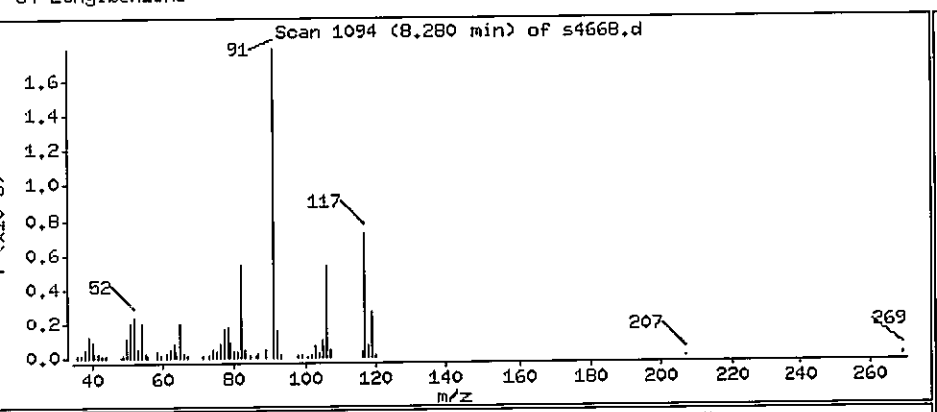
Operator: RSP

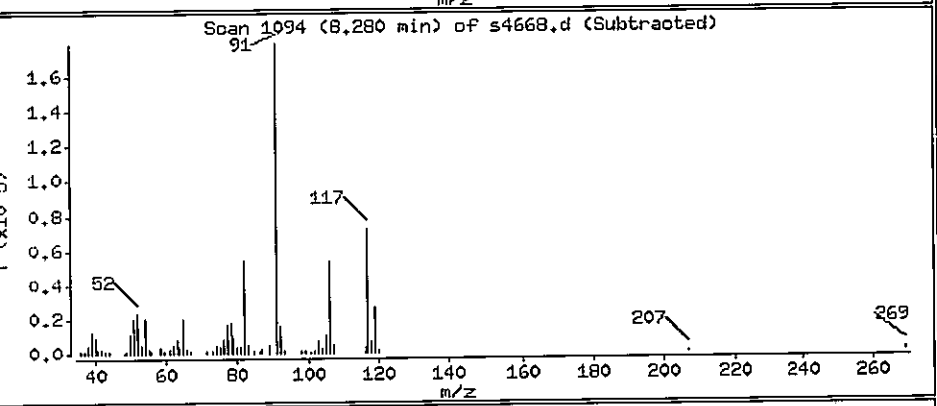
Column phase: DB-624-30M

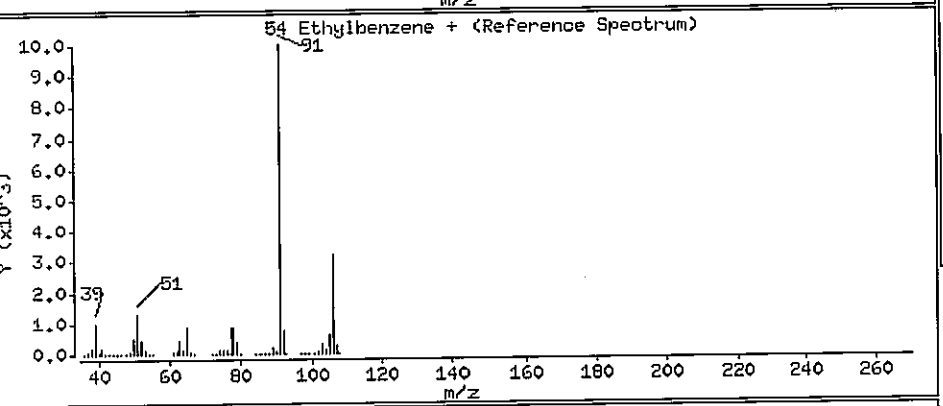
Column diameter: 0.53

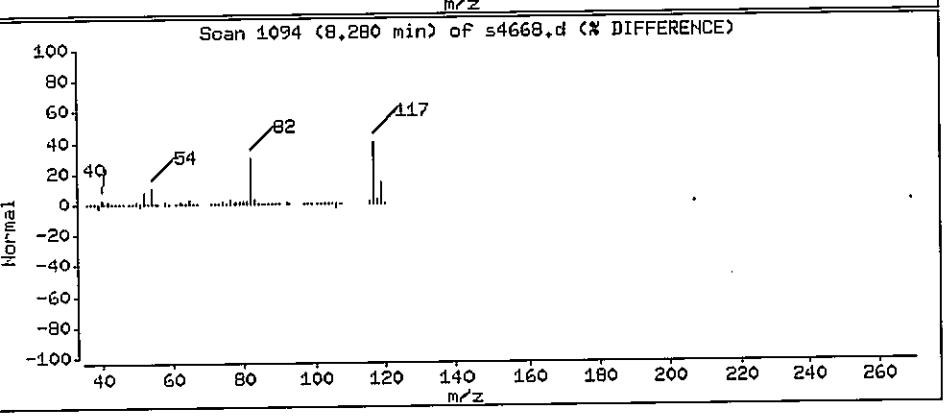
54 Ethylbenzene +

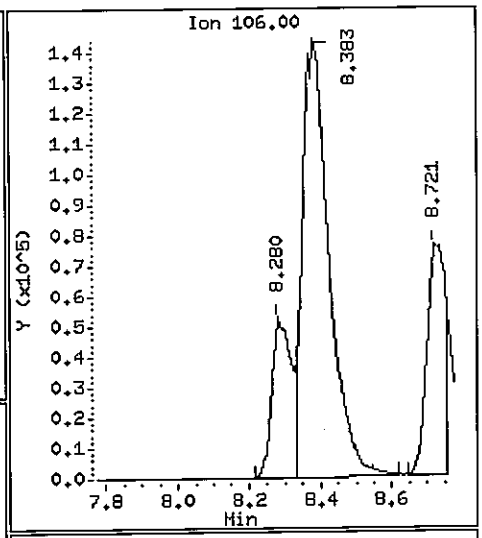
Concentration: 25.8 ug/L

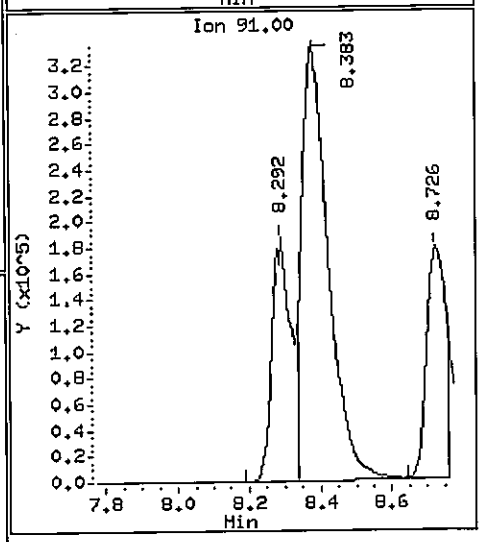












Data File: /var/chem/msv1.i/2031029.s.b/s4668.d

Date : 29-OCT-2003 18:36

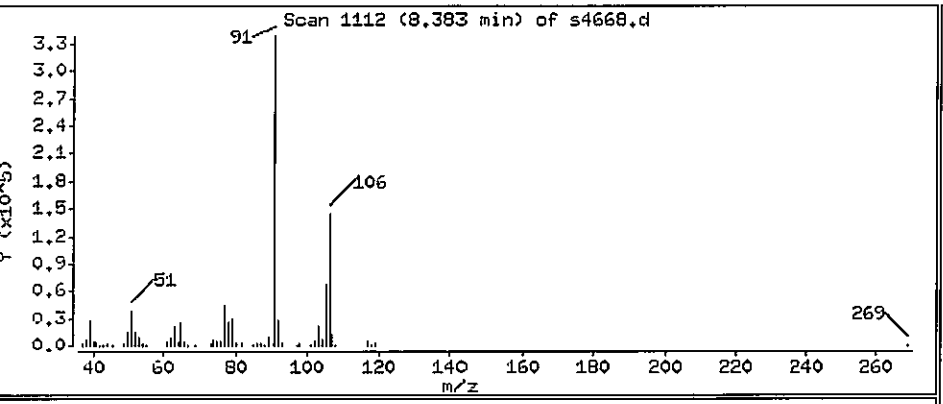
Client ID: 86-CEF271-9S-Q4-03 Instrument: msv1.i

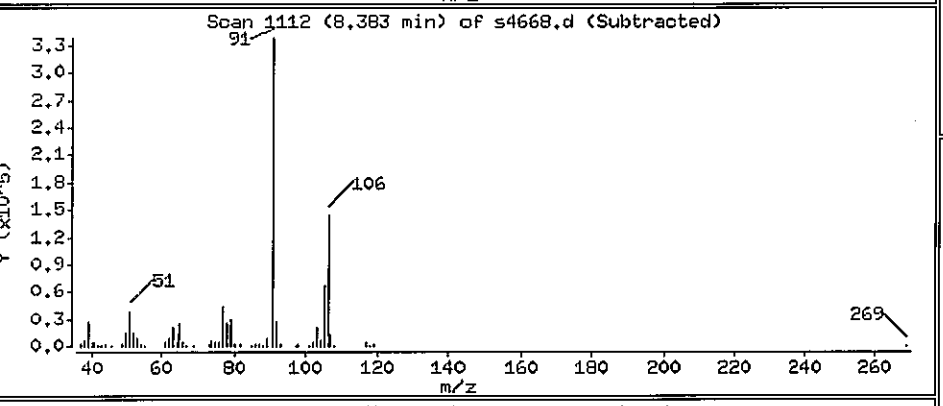
Sample Info: 20310240804*86-CEF271-9S-Q4-03

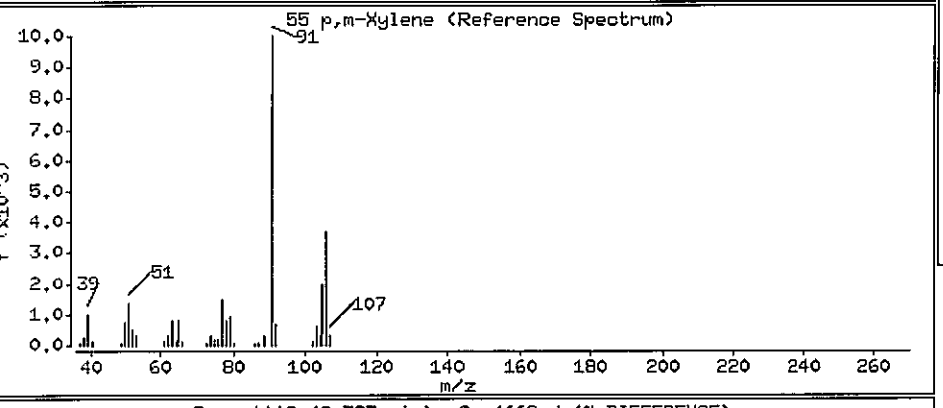
Purge Volume: 5.0 Operator: RSP

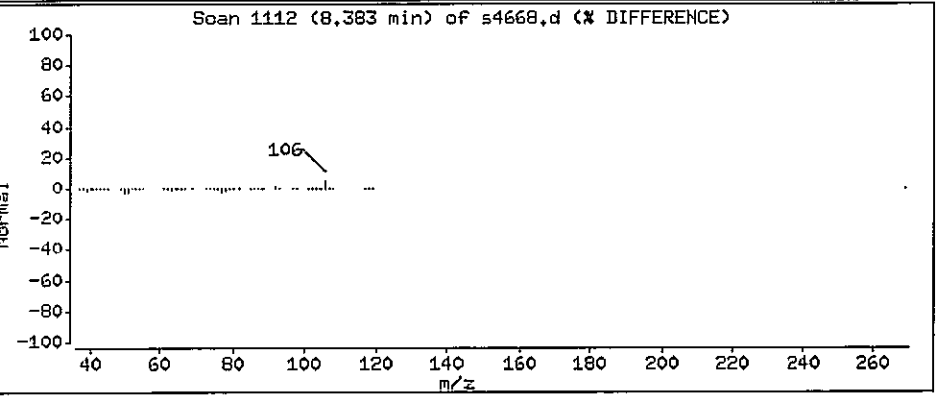
Column phase: DB-624-30M Column diameter: 0.53

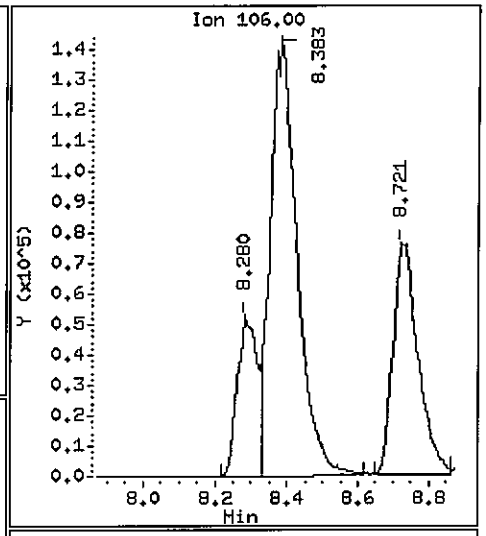
55 p,m-Xylene Concentration: 64.6 ug/L

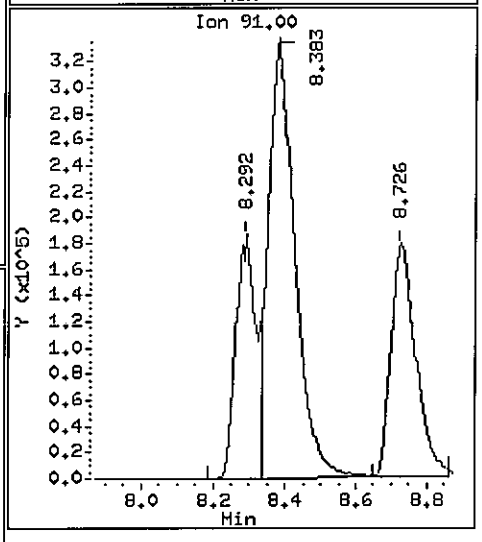












Data File: /var/chem/msv1.i/2031029.s.b/s4668.d

Date : 29-OCT-2003 18:36

Client ID: 86-CEF271-9S-Q4-03

Instrument: msv1.i

Sample Info: 20310240804*86-CEF271-9S-Q4-03

Purge Volume: 5.0

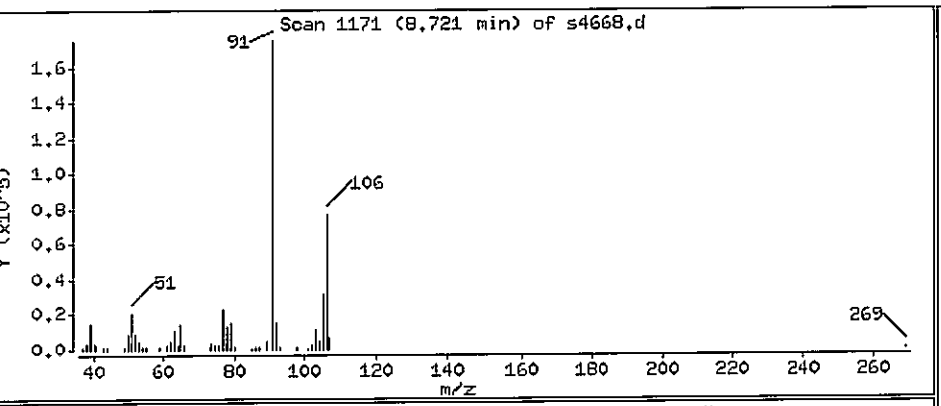
Operator: RSP

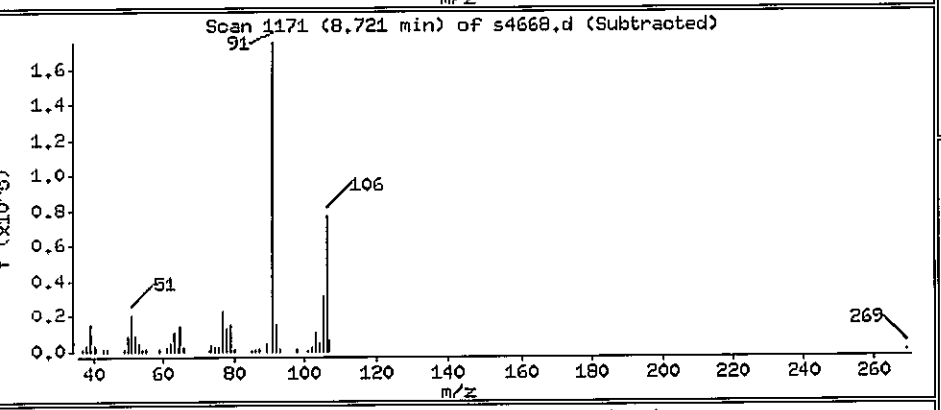
Column phase: DB-624-30M

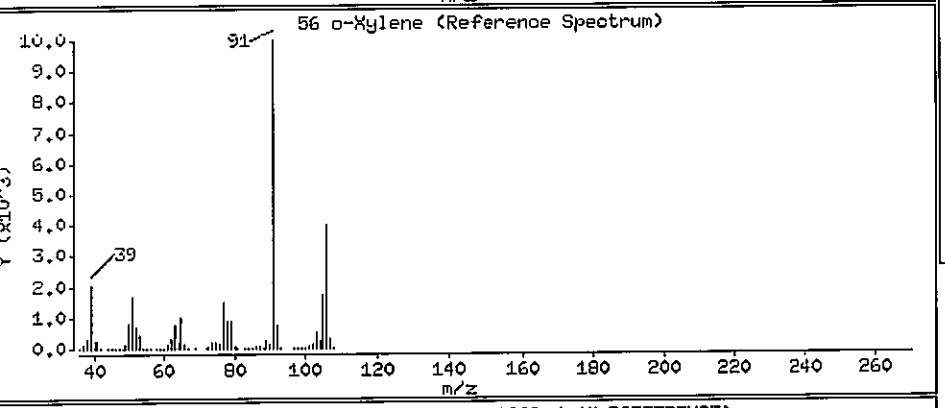
Column diameter: 0.53

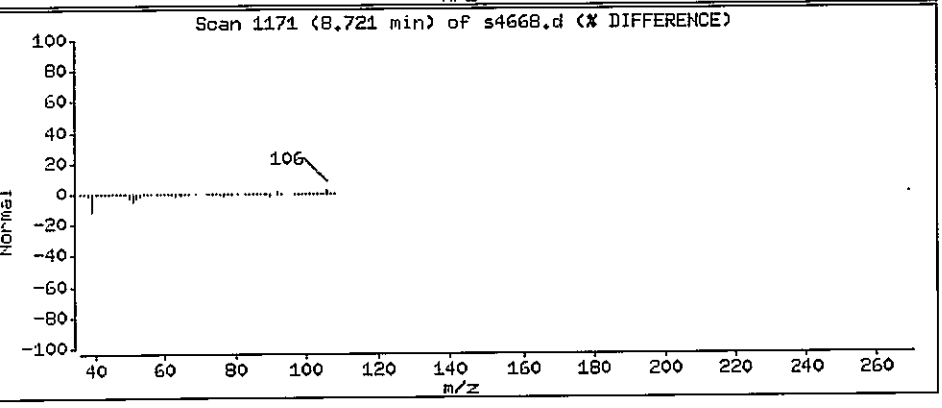
56 o-Xylene

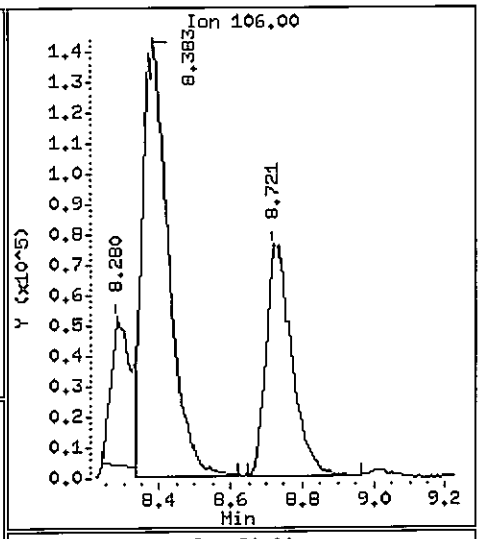
Concentration: 33.9 ug/L

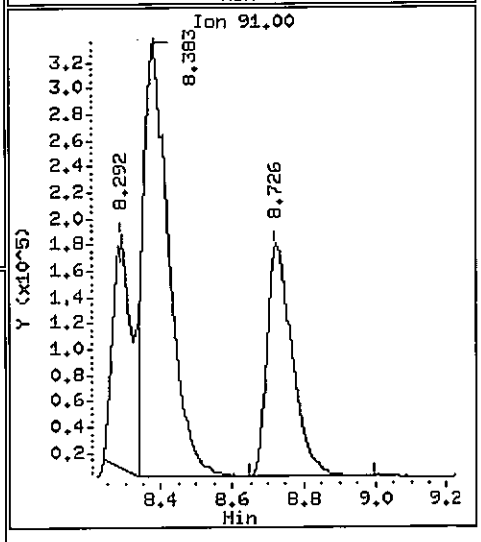












Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv1.i/2031029.s.b/s4669.d
Lab Smp Id: 20310240805 Client Smp ID: 86-CEF271-11S-Q4-03
Inj Date : 29-OCT-2003 19:00
Operator : RSP Inst ID: msv1.i
Smp Info : 20310240805*86-CEF271-11S-Q4-03
Misc Info : MSV~3914~*1*RSP
Comment :
Method : /var/chem/msv1.i/2031029.s.b/8260Bw1.m
Meth Date : 04-Nov-2003 09:37 rsp Quant Type: ISTD
Cal Date : 29-OCT-2003 12:50 Cal File: s4656.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: btexsm+lcs.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
29 1,2-Dichloroethane-d4	67	5.939	5.911	(0.969)	233558	48.0281	48.0	
25 Dibromofluoromethane	111	5.670	5.659	(0.925)	510425	47.3073	47.3	522
33 FLUOROBENZENE	96	6.127	6.116	(1.000)	1150702	50.0000		
42 Toluene-d8	98	7.186	7.169	(0.871)	1139606	57.1120	57.1	(R)
51 Chlorobenzene-d5	82	8.250	8.222	(1.000)	601615	50.0000		
60 Bromofluorobenzene	174	9.251	9.212	(1.121)	395679	50.9981	51.0	
74 1,4-DICHLOROBENZENE-D4	152	10.396	10.367	(1.000)	442244	50.0000		

QC Flag Legend

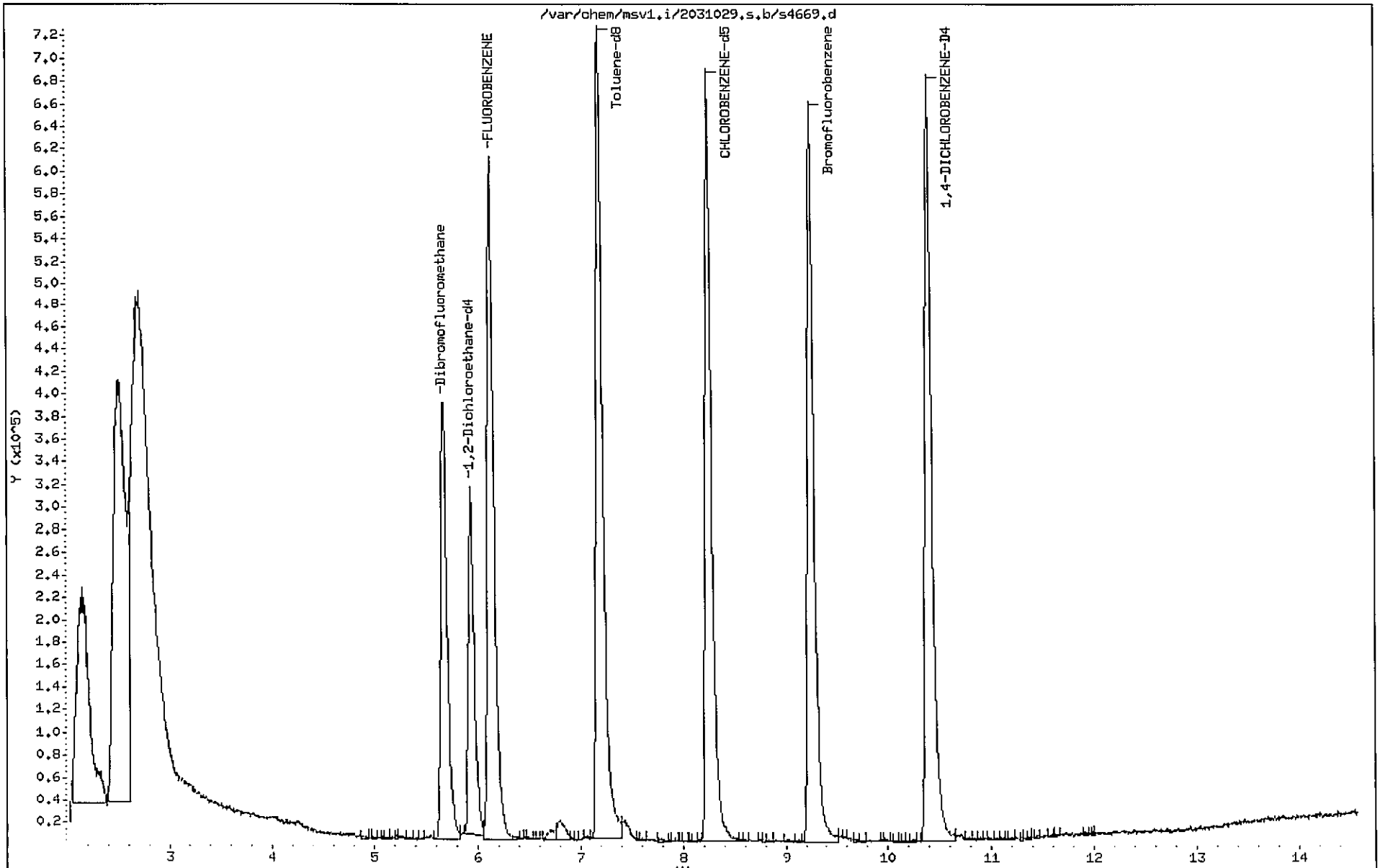
R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/msv1.i/2031029.s.b/s4669.d
Date : 29-OCT-2003 19:00
Client ID: B6-CEF271-11S-Q4-03
Sample Info: 20310240805*B6-CEF271-11S-Q4-03
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

Operator: RSP
Column diameter: 0.53

000033



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv1.i/2031029.s.b/s4670.d
Lab Smp Id: 20310240806 Client Smp ID: 86-CEF271-12S-Q4-03
Inj Date : 29-OCT-2003 19:24
Operator : RSP Inst ID: msv1.i
Smp Info : 20310240806*86-CEF271-12S-Q4-03
Misc Info : MSV~3914~*1*RSP
Comment :
Method : /var/chem/msv1.i/2031029.s.b/8260Bw1.m
Meth Date : 04-Nov-2003 09:37 rsp Quant Type: ISTD
Cal Date : 29-OCT-2003 12:50 Cal File: s4656.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: btexsm+lcs.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
29 1,2-Dichloroethane-d4	67	5.932	5.911	(0.969)	231754	48.9360	48.9	
25 Dibromofluoromethane	111	5.664	5.659	(0.925)	520303	49.5169	49.5	522
33 FLUOROBENZENE	96	6.121	6.116	(1.000)	1120630	50.0000		
42 Toluene-d8	98	7.180	7.169	(0.871)	1144362	57.4415	57.4	(R)
51 Chlorobenzene-d5	82	8.244	8.222	(1.000)	600660	50.0000		
60 Bromofluorobenzene	174	9.245	9.212	(1.121)	397724	51.3432	51.3	
74 1,4-DICHLOROBENZENE-D4	152	10.395	10.367	(1.000)	464346	50.0000		

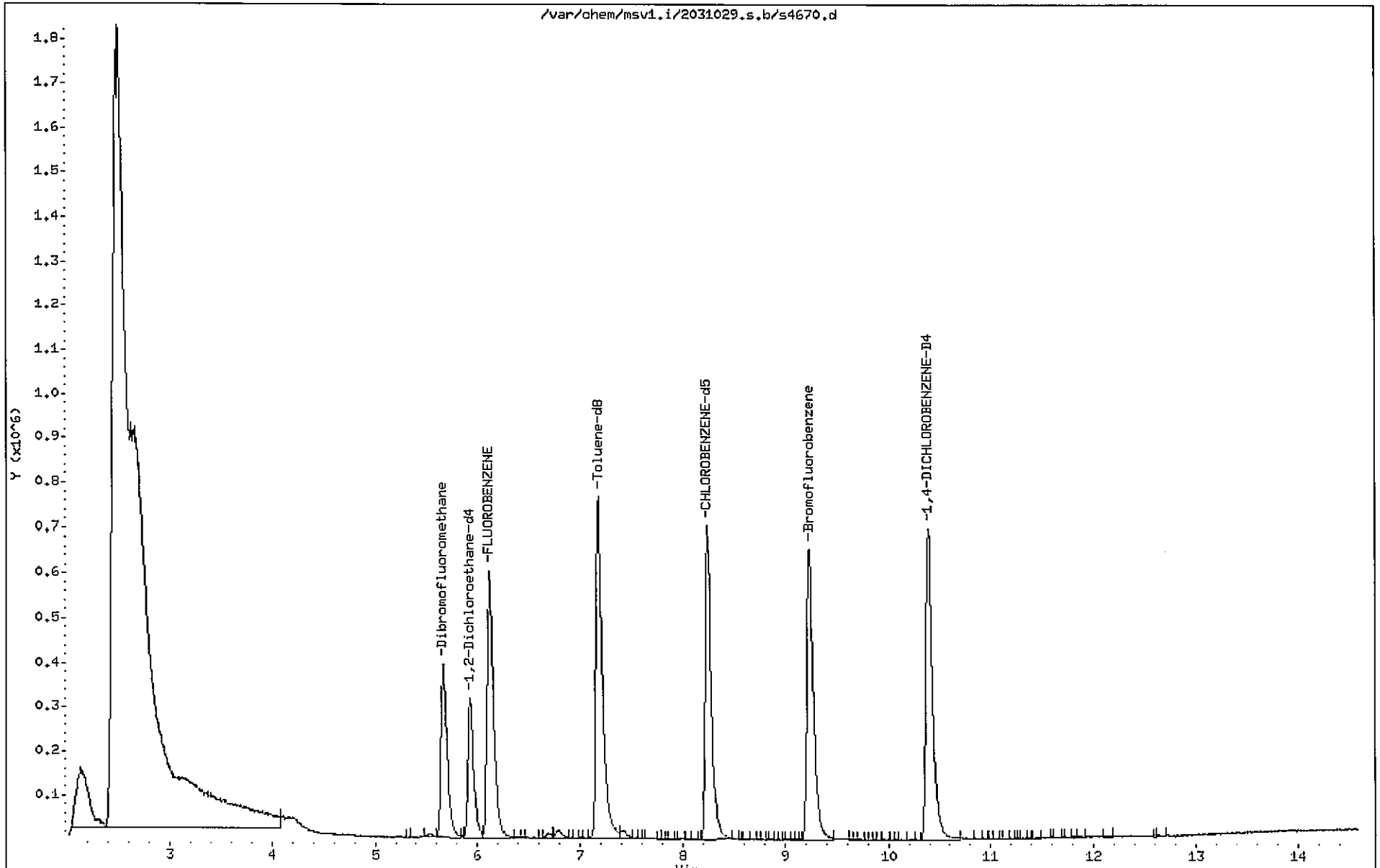
QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/msv1.i/2031029.s.b/s4670.d
Date : 29-OCT-2003 19:24
Client ID: 86-CEF271-12S-Q4-03
Sample Info: 20310240806M86-CEF271-12S-Q4-03
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i
Operator: RSP
Column diameter: 0.53

000035



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv1.i/2031029.s.b/s4671.d
Lab Smp Id: 20310240807 Client Smp ID: 86-271-DUP1-Q4-03
Inj Date : 29-OCT-2003 19:47
Operator : RSP Inst ID: msv1.i
Smp Info : 20310240807*86-271-DUP1-Q4-03
Misc Info : MSV~3914~*1*RSP
Comment :
Method : /var/chem/msv1.i/2031029.s.b/8260Bw1.m
Meth Date : 04-Nov-2003 09:37 rsp Quant Type: ISTD
Cal Date : 29-OCT-2003 12:50 Cal File: s4656.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: btexsm+lcs.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
31 Benzene	78	5.922	5.922	(0.968)	44108	1.73786	1.74	
43 Toluene +	91	7.221	7.221	(0.876)	491733	19.7466	19.7	
54 Ethylbenzene +	106	8.291	8.279	(1.006)	181410	22.6414	22.6	
55 p,m-Xylene	106	8.382	8.376	(1.017)	775536	68.1319	68.1	
56 o-Xylene	106	8.731	8.725	(1.059)	351828	31.9433	31.9	
57 Styrene	104	8.731	8.737	(1.059)	19661	1.03448	1.03	(a)
78 TOTAL XYLENE	106				1127364	100.075	100	
29 1,2-Dichloroethane-d4	67	5.922	5.911	(0.968)	240127	51.0129	51.0	
25 Dibromofluoromethane	111	5.665	5.659	(0.926)	515071	49.3176	49.3	4384
33 FLUOROBENZENE	96	6.117	6.116	(1.000)	1113845	50.0000		
42 Toluene-d8	98	7.169	7.169	(0.870)	1103935	55.2709	55.3	
51 Chlorobenzene-d5	82	8.245	8.222	(1.000)	602196	50.0000		
60 Bromofluorobenzene	174	9.229	9.212	(1.119)	371629	47.8522	47.9	
74 1,4-DICHLOROBENZENE-D4	152	10.390	10.367	(1.000)	477718	50.0000		

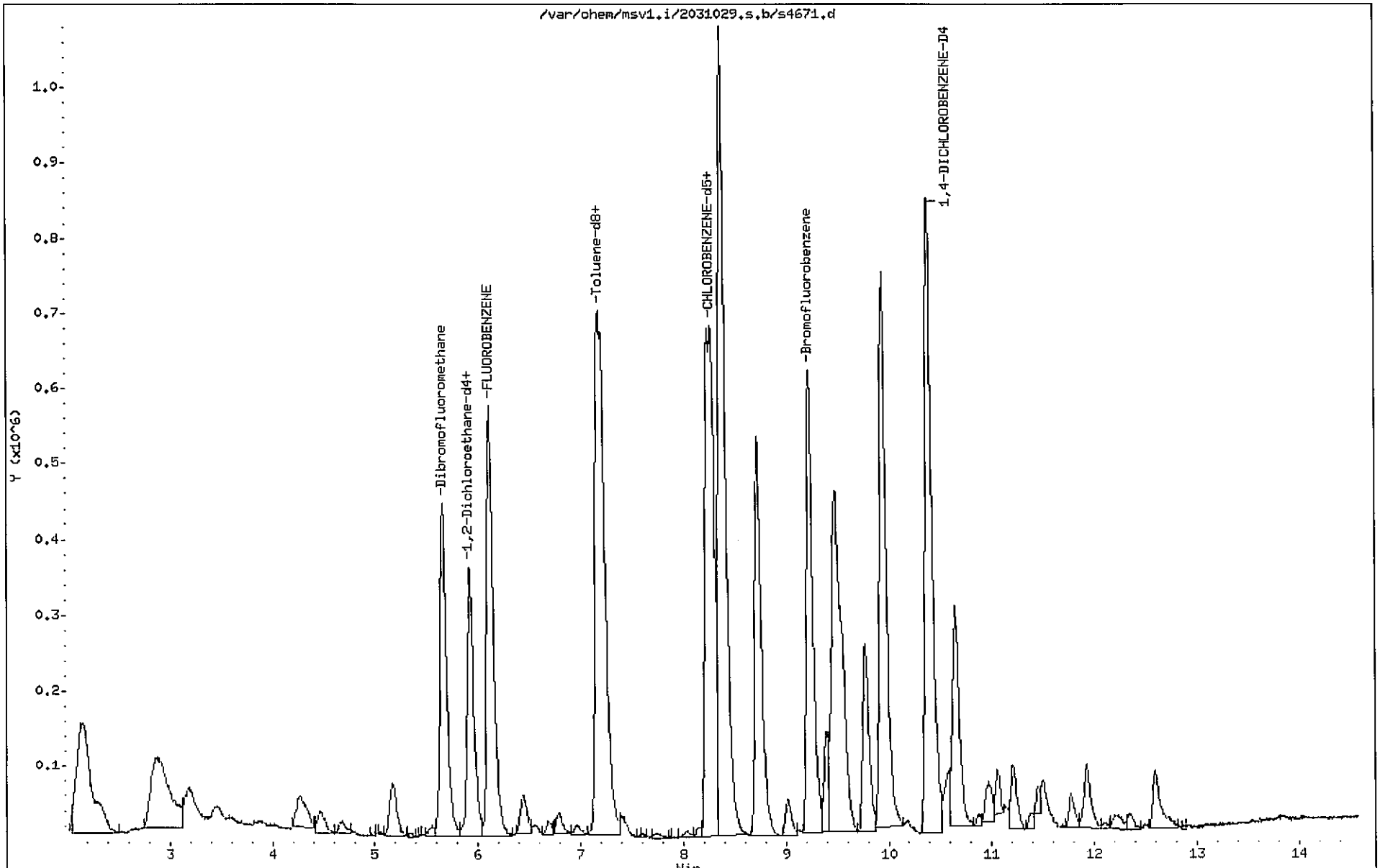
QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

000038

Data File: /var/ohem/msv1.i/2031029.s.b/s4671.d
Date : 29-OCT-2003 19:47
Client ID: 86-271-DUP1-Q4-03
Sample Info: 20310240807*86-271-DUP1-Q4-03
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i
Operator: RSP
Column diameter: 0.53



Data File: /var/chem/msv1.i/2031029.s.b/s4671.d

Date : 29-OCT-2003 19:47

Client ID: B6-271-DUP1-Q4-03

Instrument: msv1.i

Sample Info: 20310240807*B6-271-DUP1-Q4-03

Purge Volume: 5.0

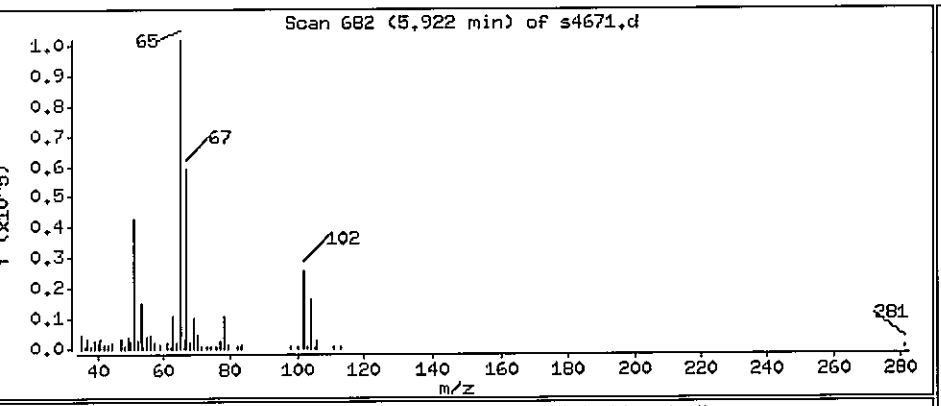
Operator: RSP

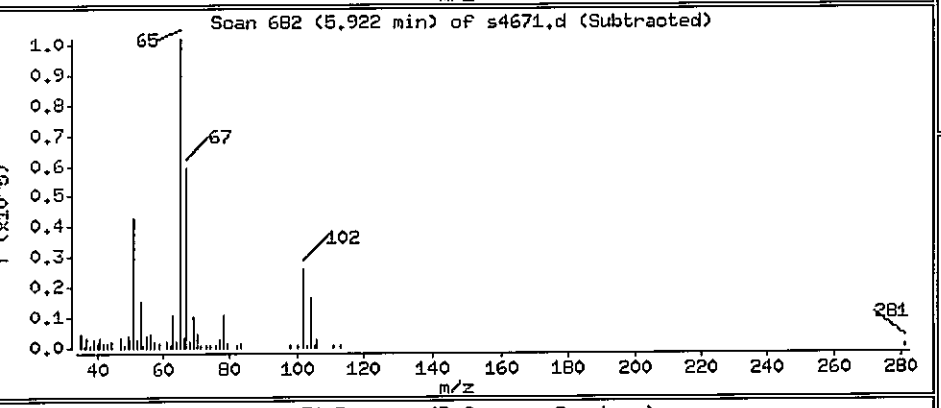
Column phase: DB-624-30M

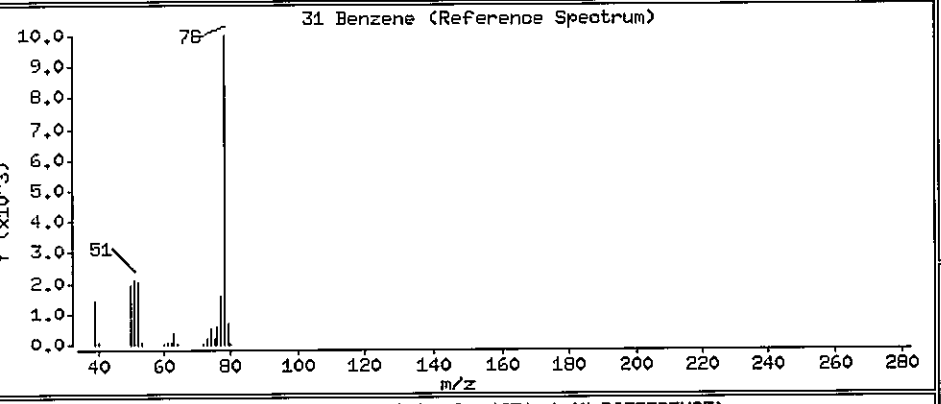
Column diameter: 0.53

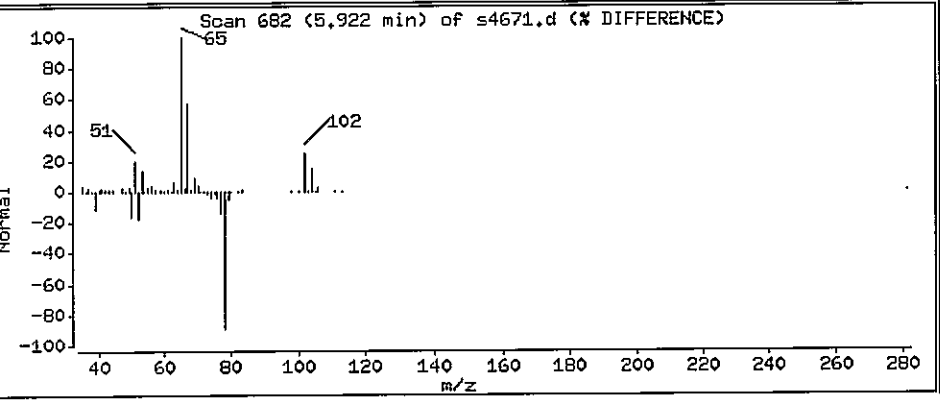
31 Benzene

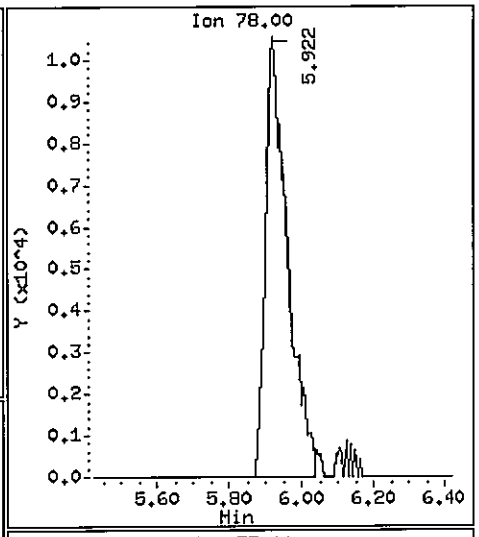
Concentration: 1.74 ug/L

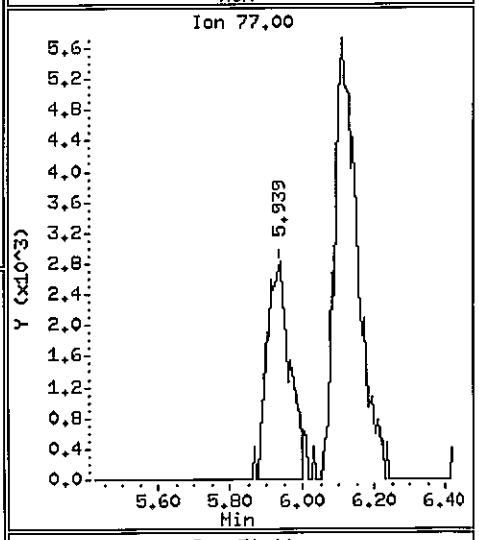


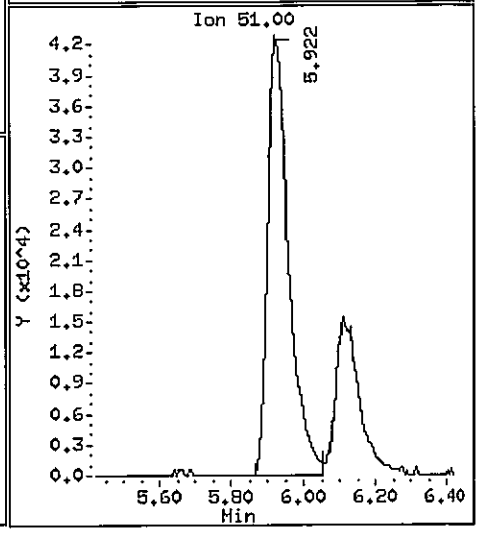












Data File: /var/chem/msv1.i/2031029.s.b/s4671.d

Date : 29-OCT-2003 19:47

Client ID: B6-271-DUP1-Q4-03

Instrument: msv1.i

Sample Info: 20310240807*B6-271-DUP1-Q4-03

Purge Volume: 5.0

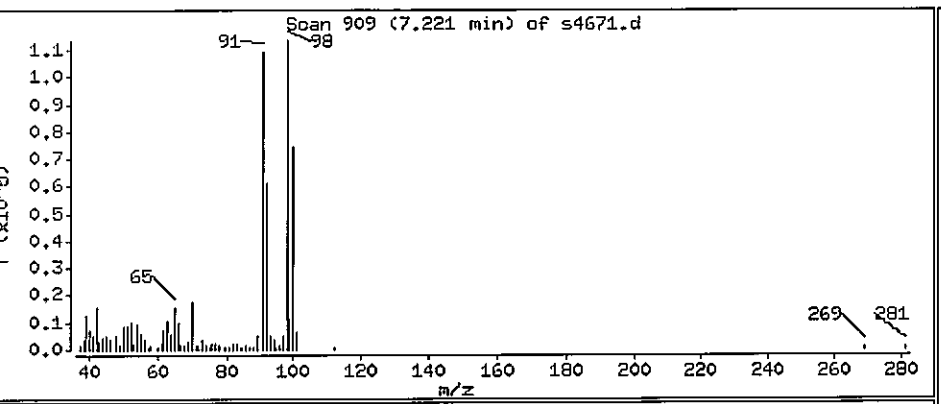
Operator: RSP

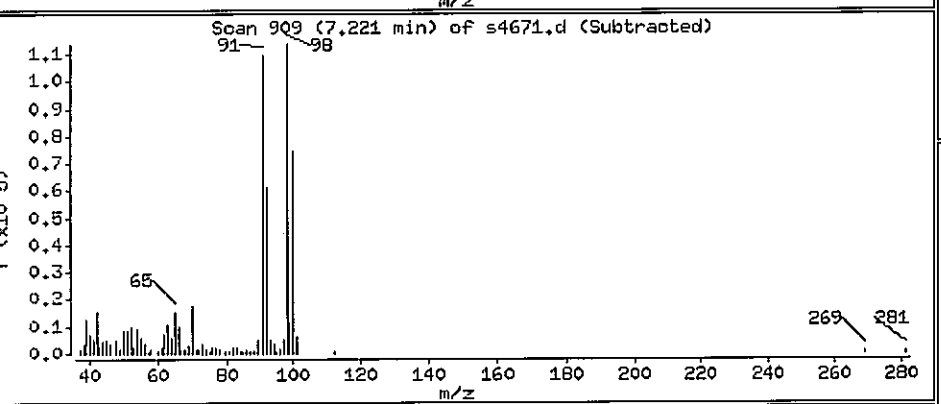
Column phase: DB-624-30M

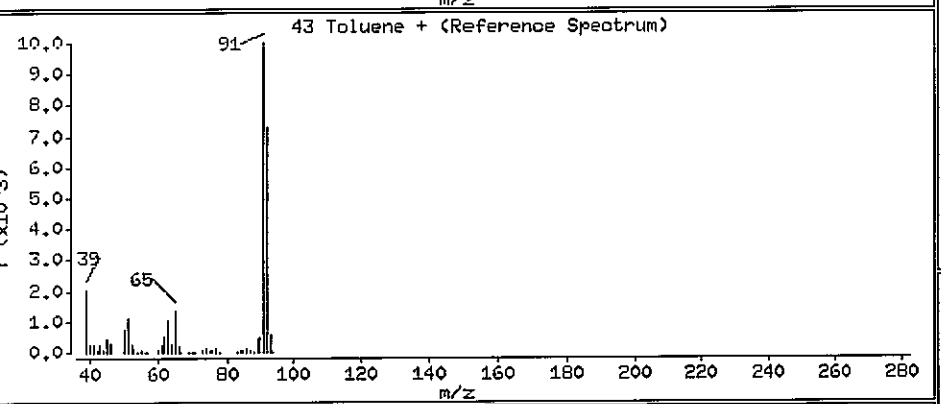
Column diameter: 0.53

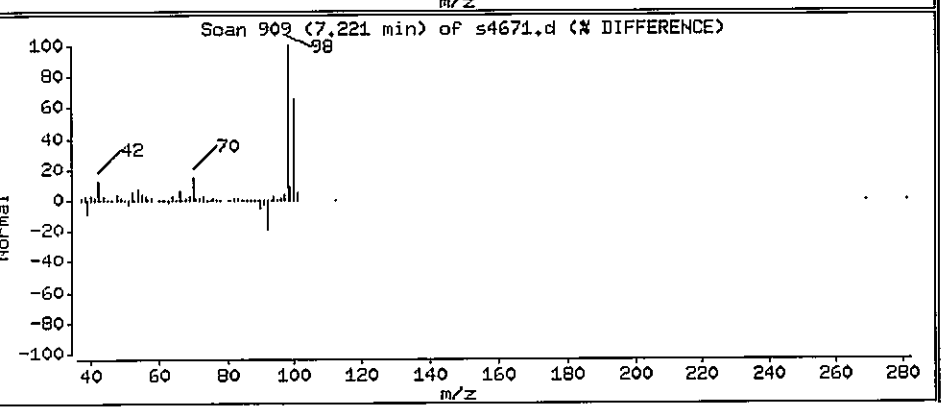
43 Toluene +

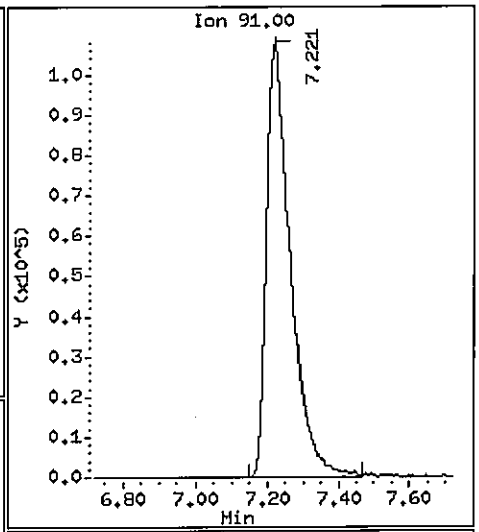
Concentration: 19.7 ug/L

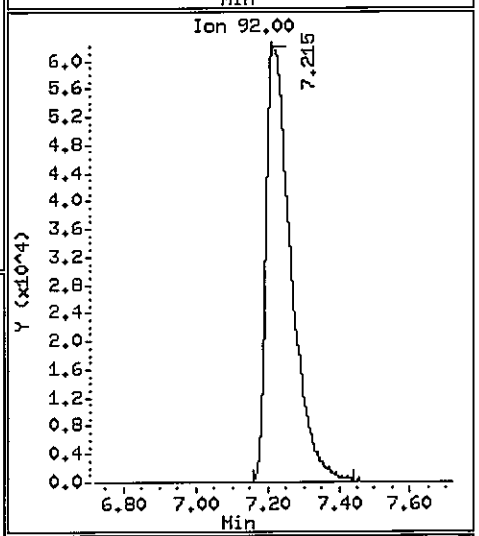


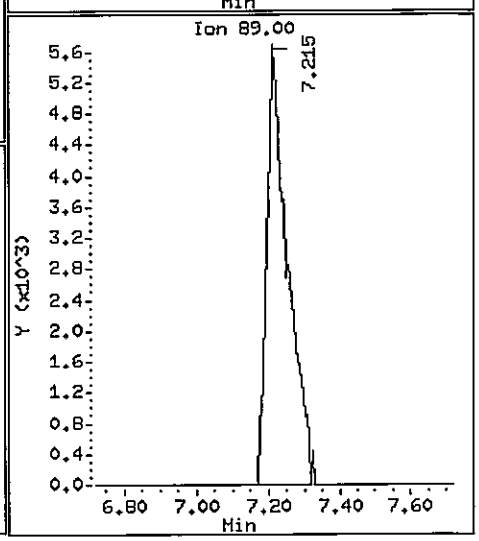












Data File: /var/chem/msv1.i/2031029.s.b/s4671.d

Date : 29-OCT-2003 19:47

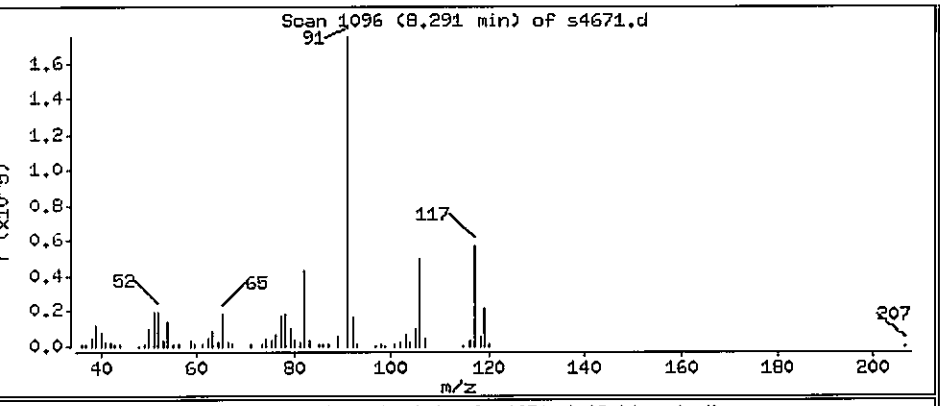
Client ID: 86-271-DUP1-Q4-03 Instrument: msv1.i

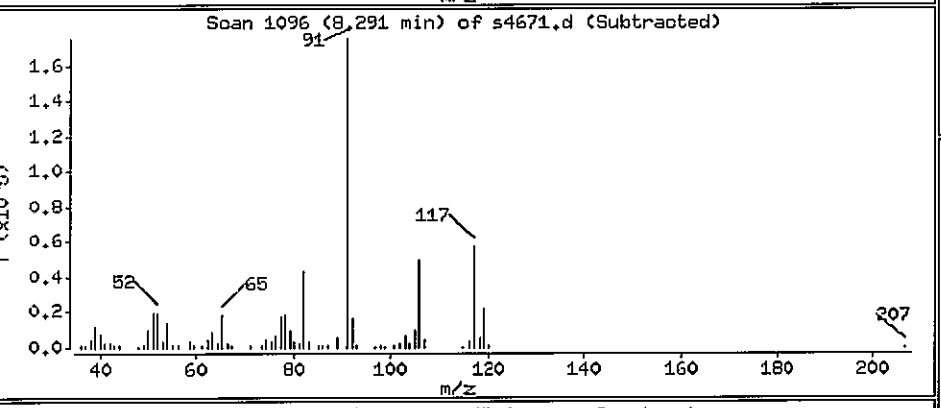
Sample Info: 20310240B07*86-271-DUP1-Q4-03

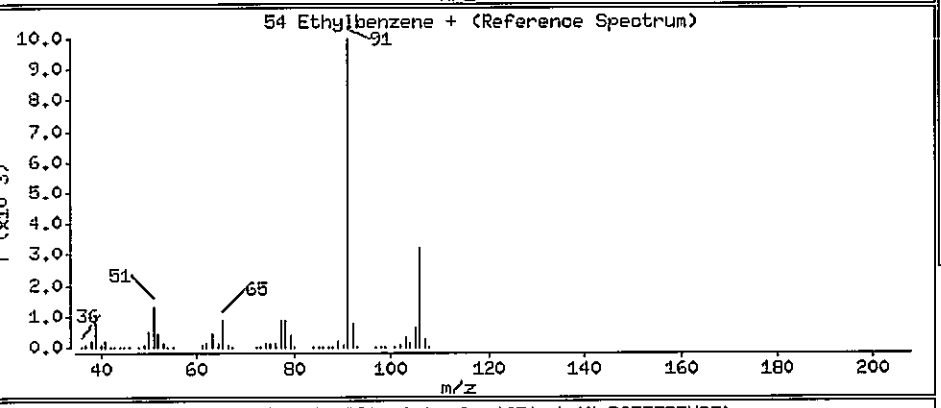
Purge Volume: 5.0 Operator: RSP

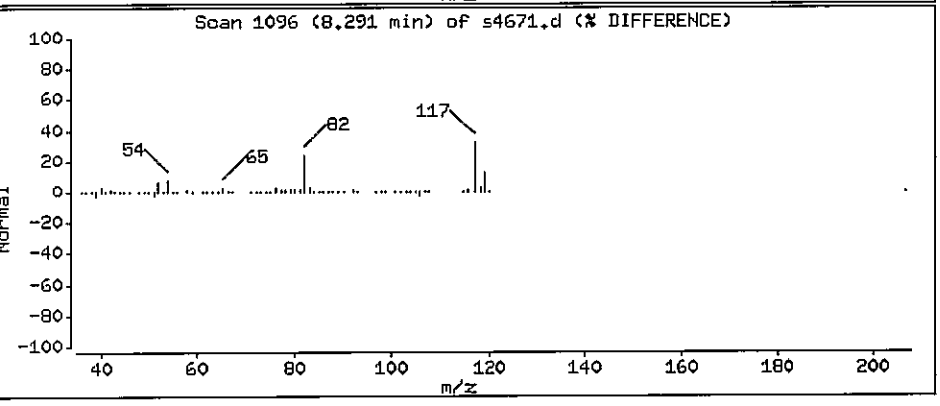
Column phase: DB-624-30M Column diameter: 0.53

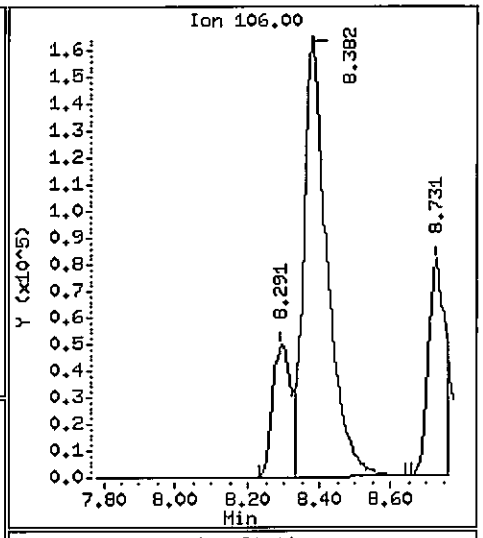
54 Ethylbenzene + Concentration: 22.6 ug/L

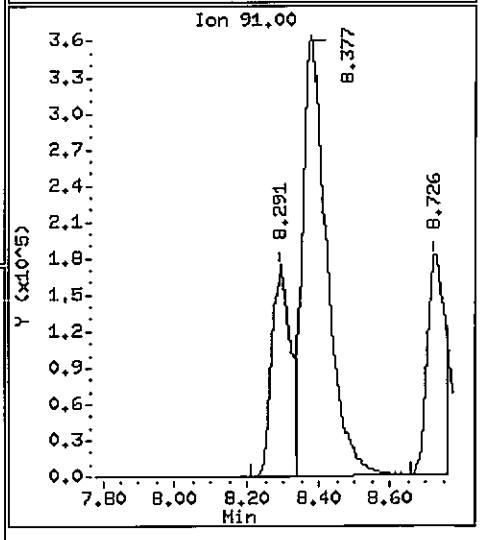












Data File: /var/chem/msv1.i/2031029.s.b/s4671.d

Date : 29-OCT-2003 19:47

Client ID: 86-271-DUP1-Q4-03

Instrument: msv1.i

Sample Info: 20310240807*86-271-DUP1-Q4-03

Purge Volume: 5.0

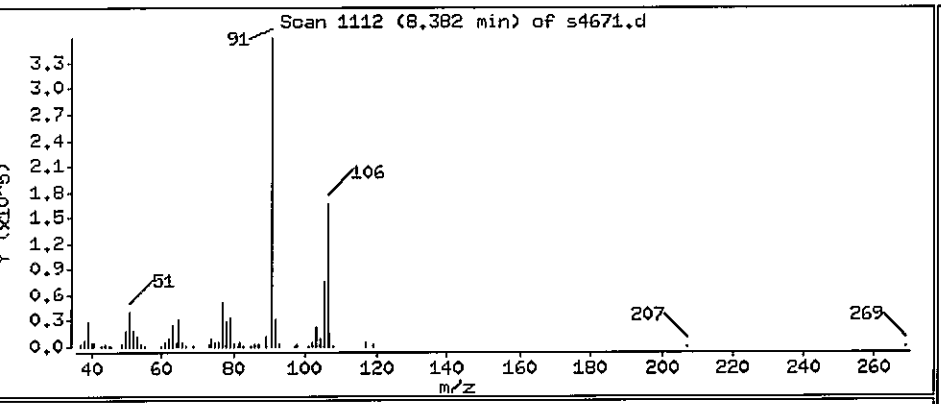
Operator: RSP

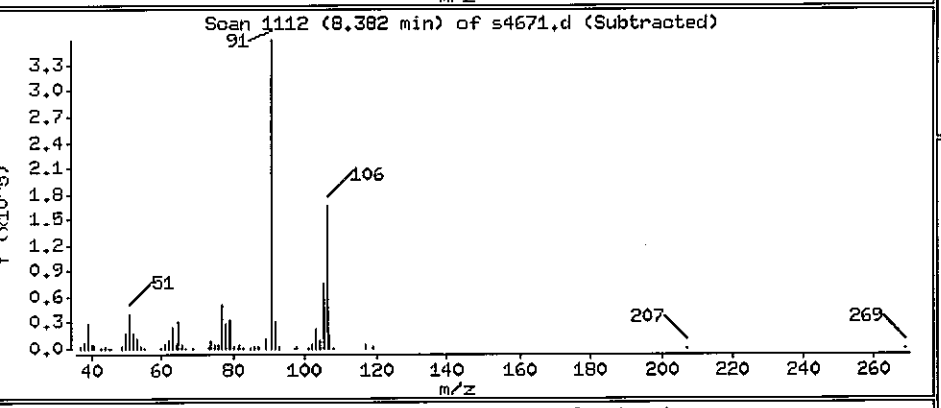
Column phase: DB-624-30M

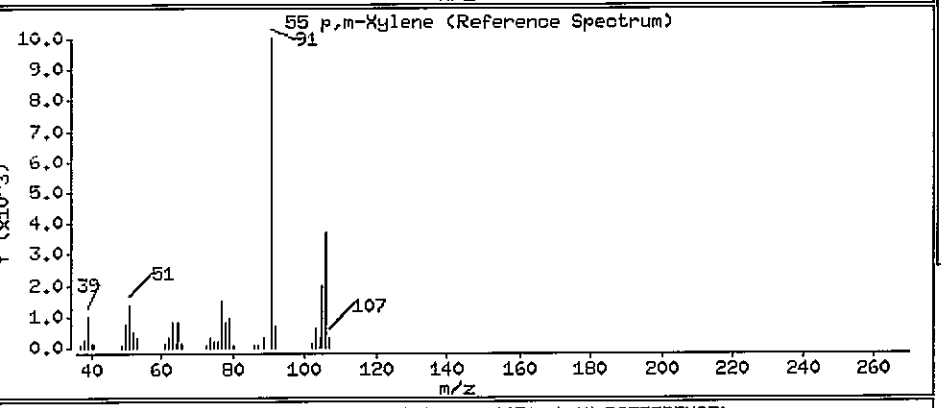
Column diameter: 0.53

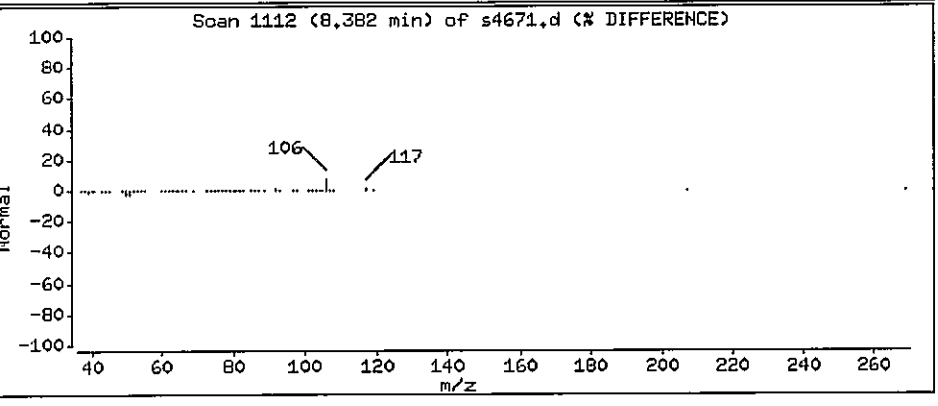
55 p,m-Xylene

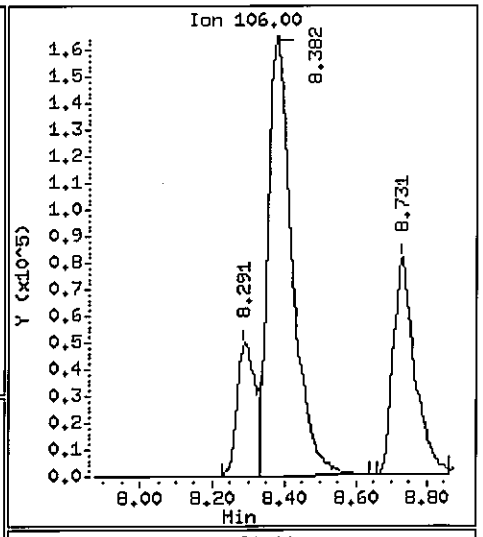
Concentration: 68.1 ug/L

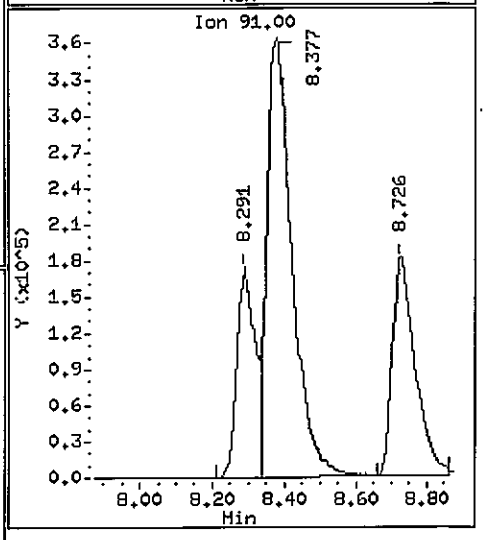












Data File: /var/chem/msv1.i/2031029.s.b/s4671.d

Date : 29-OCT-2003 19:47

Client ID: 86-271-DUP1-Q4-03

Instrument: msv1.i

Sample Info: 20310240807*86-271-DUP1-Q4-03

Purge Volume: 5.0

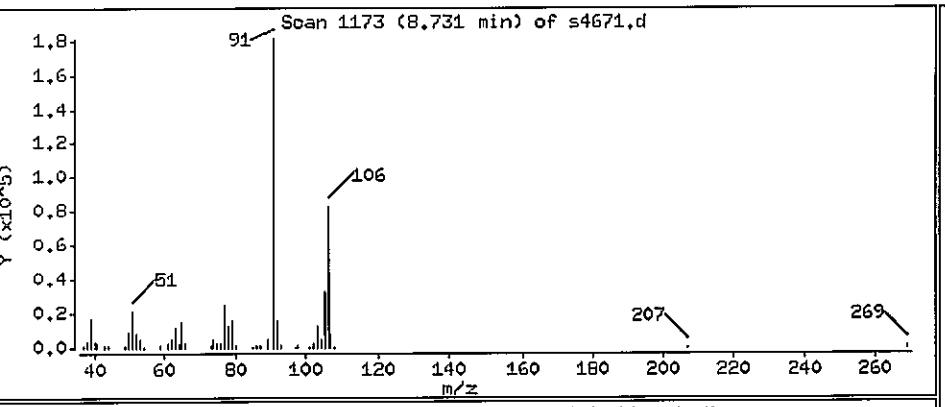
Operator: RSP

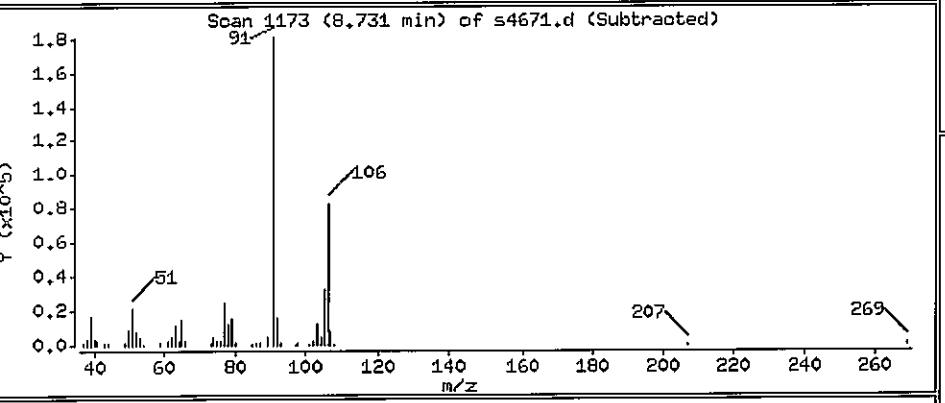
Column phase: DB-624-30M

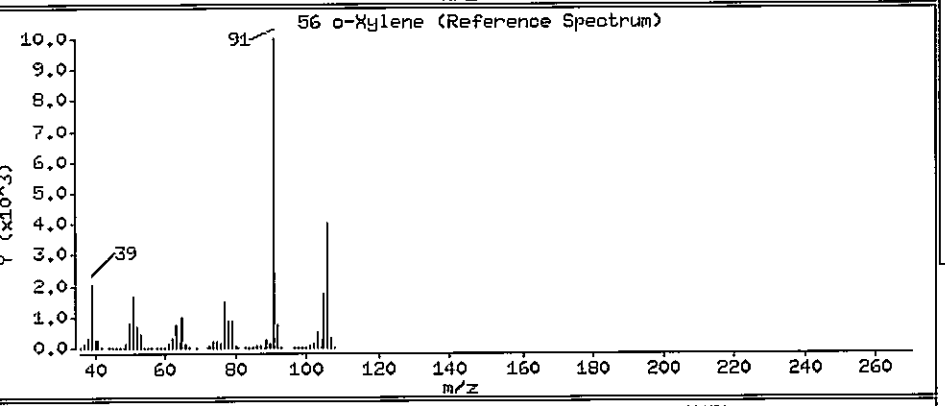
Column diameter: 0.53

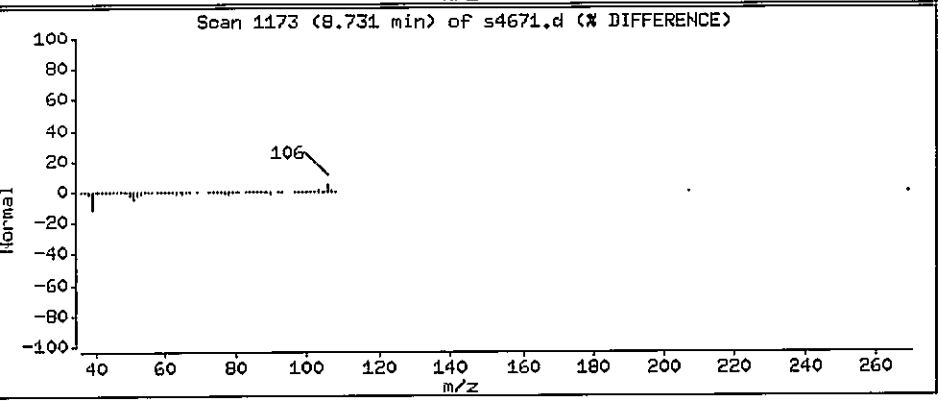
56 o-Xylene

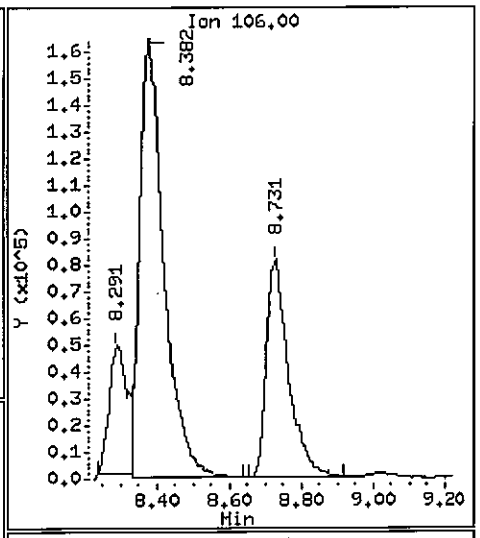
Concentration: 31.9 ug/L

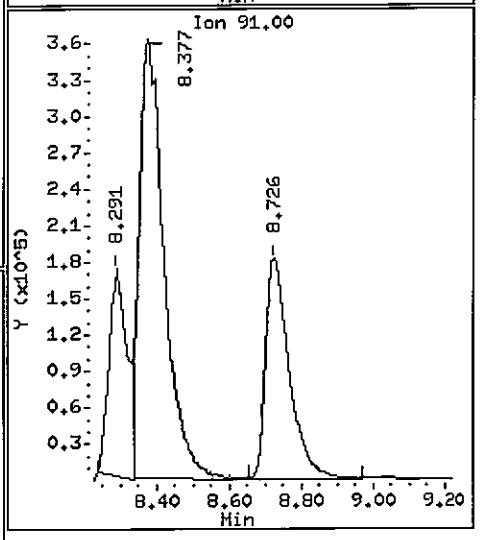












Data File: /var/chem/msv1.i/2031029.s.b/s4671.d

Date : 29-OCT-2003 19:47

Client ID: B6-271-DUP1-Q4-03

Instrument: msv1.i

Sample Info: 20310240807*B6-271-DUP1-Q4-03

Purge Volume: 5.0

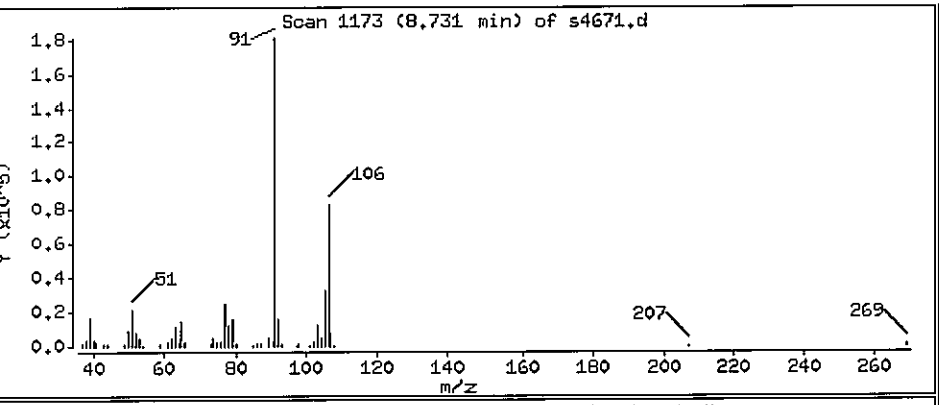
Operator: RSP

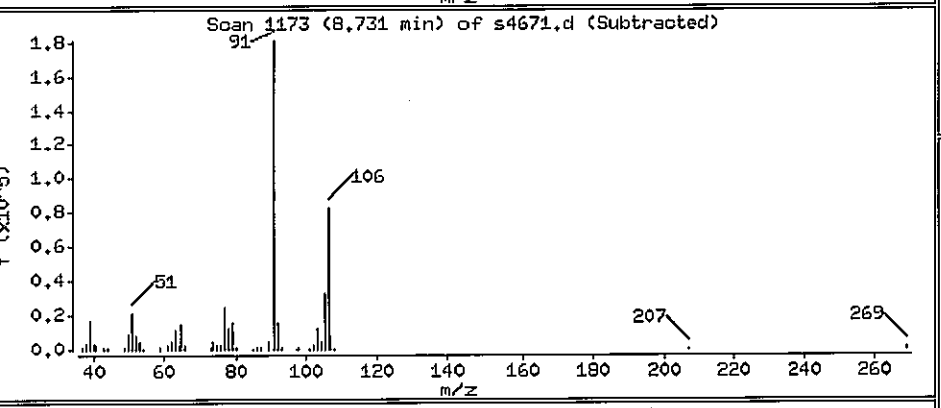
Column phase: DB-624-30M

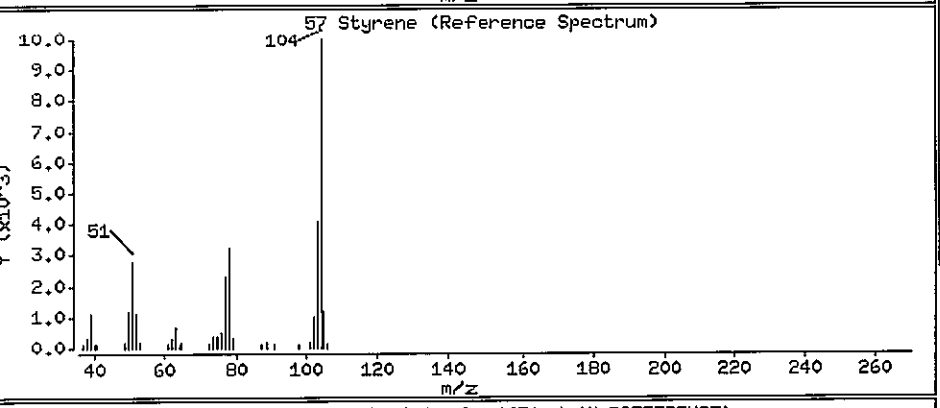
Column diameter: 0.53

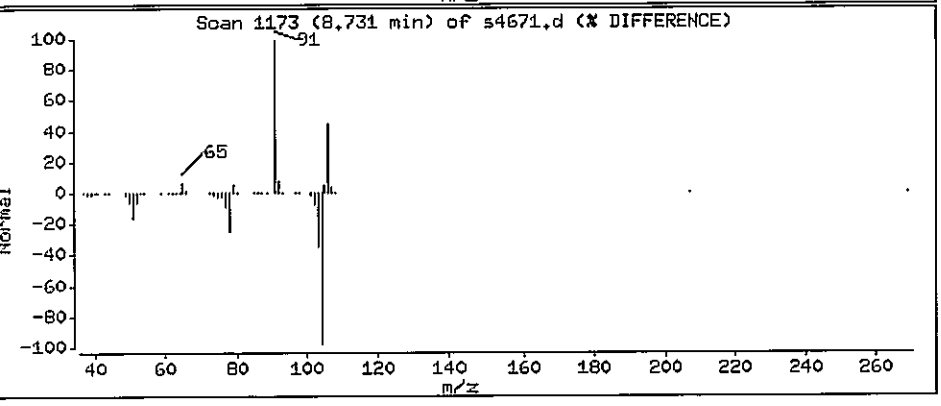
57 Styrene

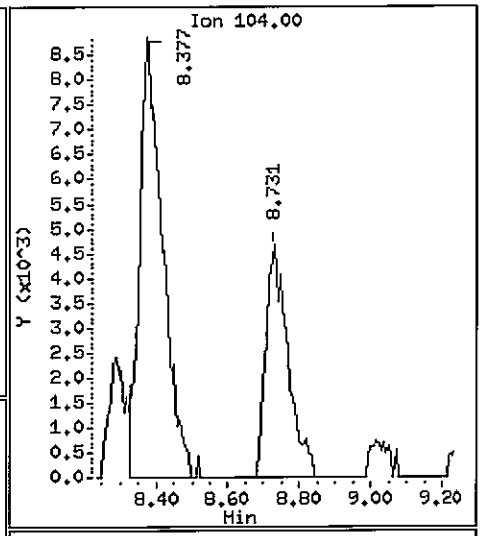
Concentration: 1.03 ug/L

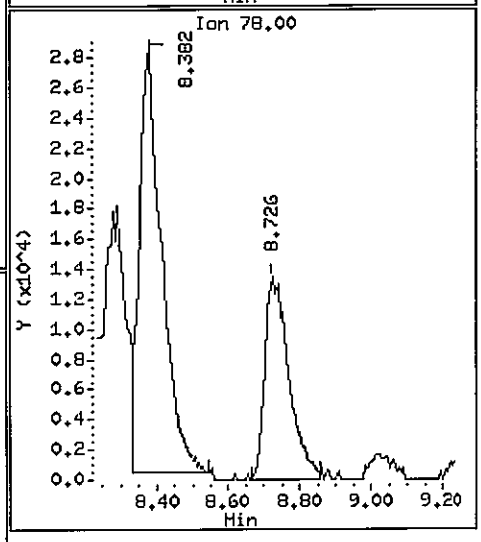












Data File: /var/chem/msv1.i/2031029.s.b/s4647.d

Date : 29-OCT-2003 09:08

Client ID: V1BFB01

Instrument: msv1.i

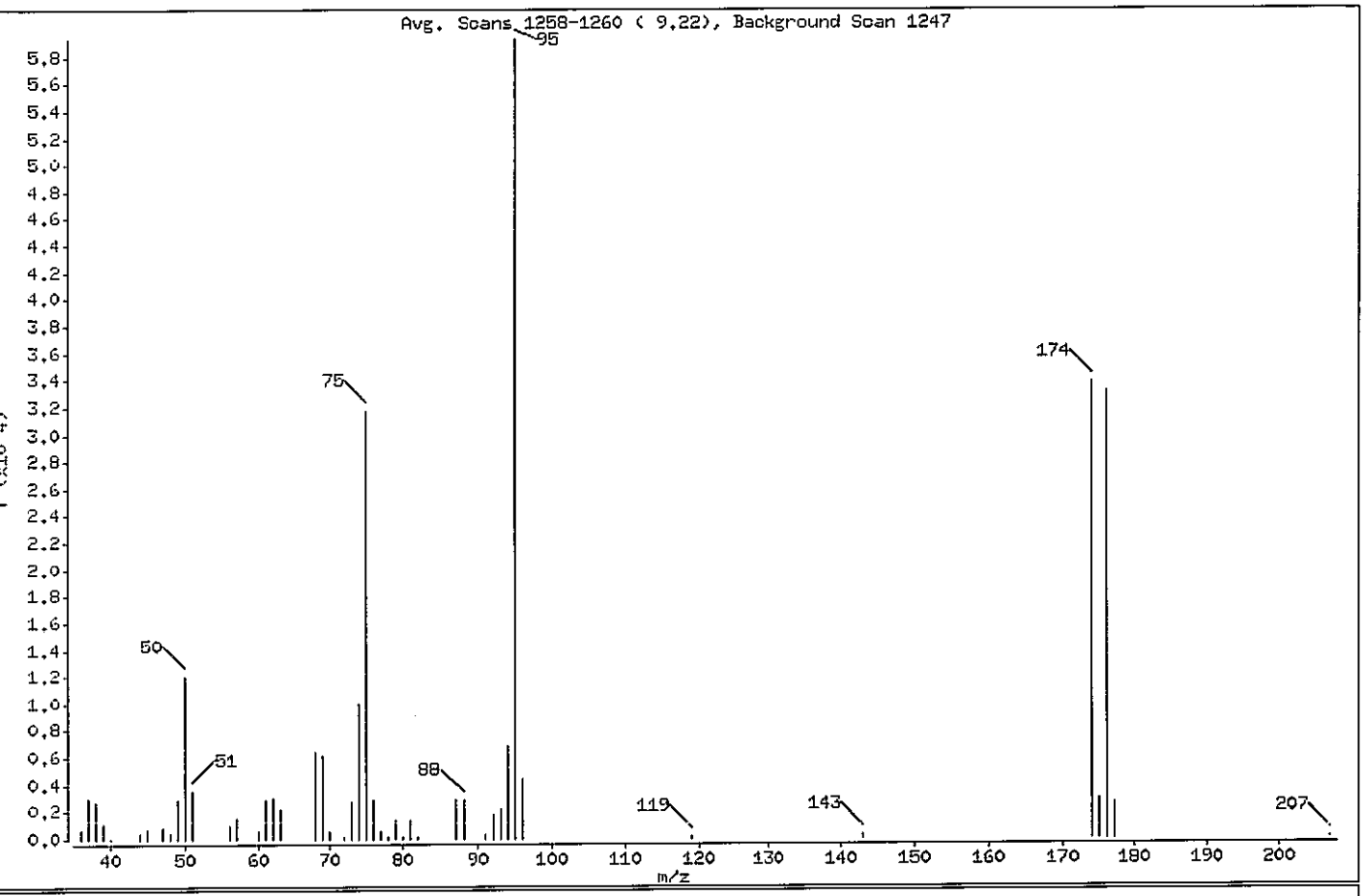
Sample Info: 1000*V1BFB01

Operator: RSP

Column phase: DB-624-30M

Column diameter: 0.53

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.22
75	30.00 - 60.00% of mass 95	53.49
96	5.00 - 9.00% of mass 95	7.45
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	56.95
175	5.00 - 9.00% of mass 174	4.91 (8.61)
176	95.00 - 101.00% of mass 174	55.67 (97.76)
177	5.00 - 9.00% of mass 176	4.43 (7.95)

Data File: /var/chem/msv1.i/2031029.s.b/s4647.d

Date : 29-OCT-2003 09:08

Client ID: V1BFB01

Instrument: msv1.i

Sample Info: 1000xV1BFB01

Operator: RSP

Column phase: DB-624-30M

Column diameter: 0.53

Data File: s4647.d

Spectrum: Avg. Scans 1258-1260 (9.22), Background Scan 1247

Location of Maximum: 95.00

Number of points: 47

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	623	56.00	948	75.00	31728	93.00	2155
37.00	3038	57.00	1438	76.00	2891	94.00	6818
38.00	2700	60.00	566	77.00	587	95.00	59320
39.00	1079	61.00	2848	78.00	150	96.00	4421
40.00	11	62.00	3050	79.00	1355	119.00	150
44.00	392	63.00	2123	80.00	158	143.00	295
45.00	616	68.00	6479	81.00	1336	174.00	33784
47.00	758	69.00	6117	82.00	142	175.00	2910
48.00	377	70.00	508	87.00	2839	176.00	33024
49.00	2820	72.00	135	88.00	2875	177.00	2626
50.00	11995	73.00	2735	91.00	340	207.00	29
51.00	3524	74.00	9973	92.00	1726		

Data File: /var/chem/msv1.i/2031029.s.b/s4647.d

Date : 29-OCT-2003 09:08

Client ID: V1BFB01

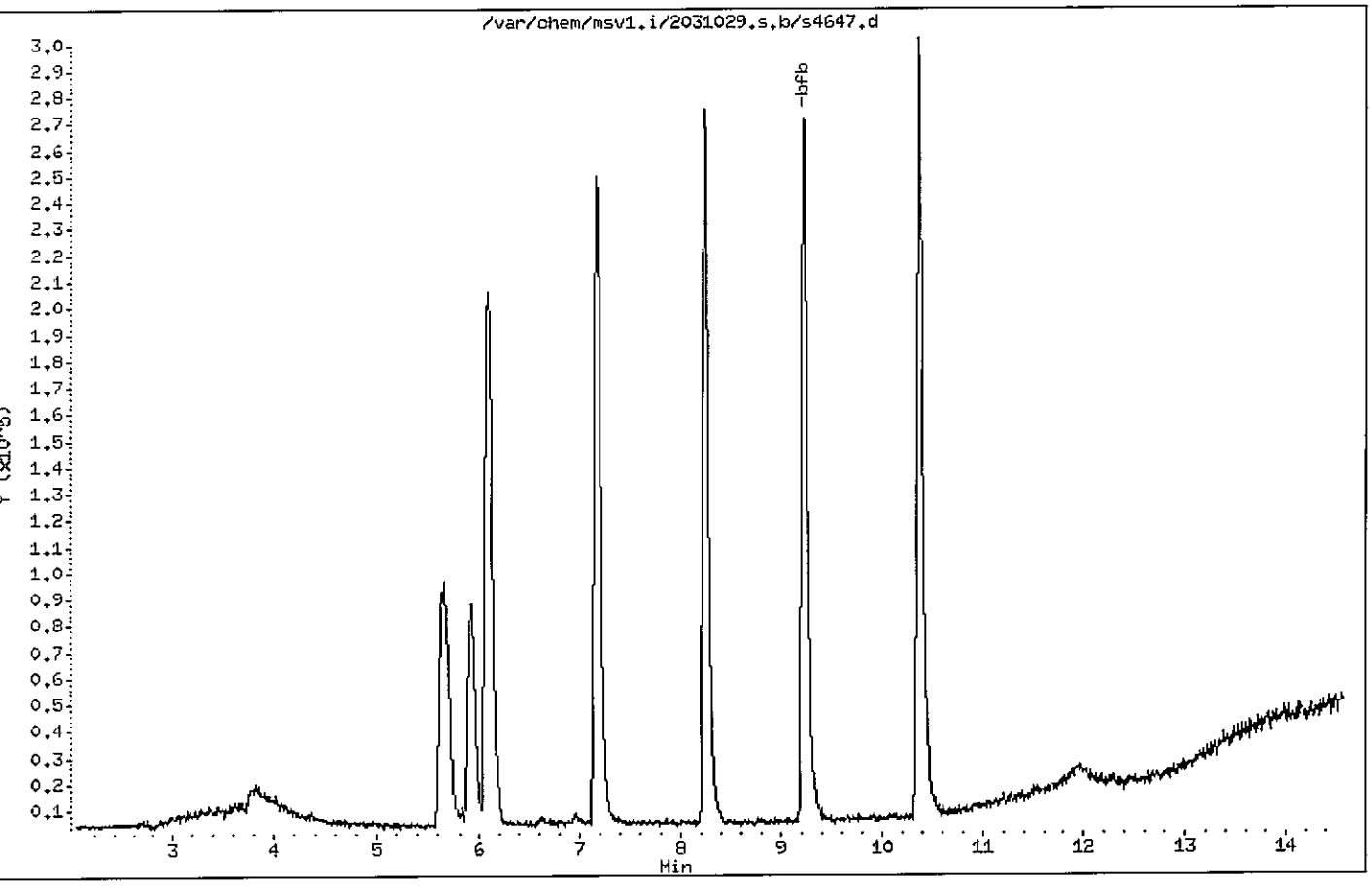
Instrument: msv1.i

Sample Info: 1000*V1BFB01

Operator: RSP

Column phase: DB-624-30M

Column diameter: 0.53



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv1.i/2031029.s.b/s4650.d
Lab Smp Id: 1208 Client Smp ID: V1STD0.400
Inj Date : 29-OCT-2003 10:29
Operator : RSP Inst ID: msv1.i
Smp Info : 1208*V1STD0.400*5-4-2
Misc Info : MSV~3914~*1*RSP
Comment :
Method : /var/chem/msv1.i/2031029.s.b/8260Bw1.m
Meth Date : 04-Nov-2003 09:37 rsp Quant Type: ISTD
Cal Date : 29-OCT-2003 10:29 Cal File: s4650.d
Als bottle: 3 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
31 Benzene	78	5.933	5.922	(0.971)	12495	0.40000	0.400	(aM)
33 FLUOROBENZENE	96	6.110	6.116	(1.000)	1125319	50.0000		
51 CHLOROBENZENE-d5	82	8.221	8.222	(1.000)	548986	50.0000		
74 1,4-DICHLOROBENZENE-D4	152	10.367	10.367	(1.000)	466635	50.0000		

QC Flag Legend

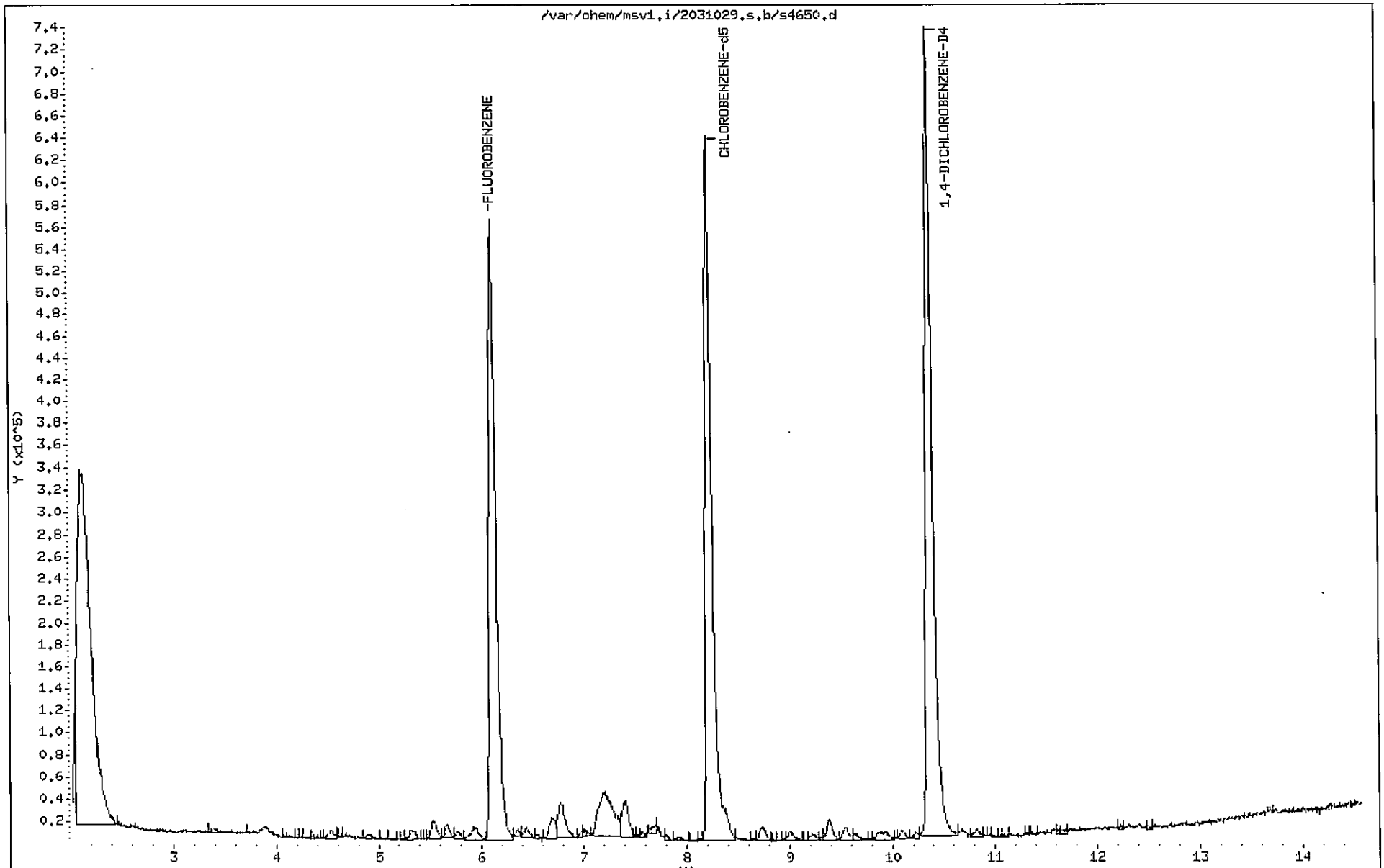
a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

000049

Data File: /var/chem/msv1.i/2031029.s.b/s4650.d
Date : 29-OCT-2003 10:29
Client ID: V1STD0.400
Sample Info: 120BMV1STD0.400M5-4-2
Purge Volume: 5.0
Column phase: DB-624-30M

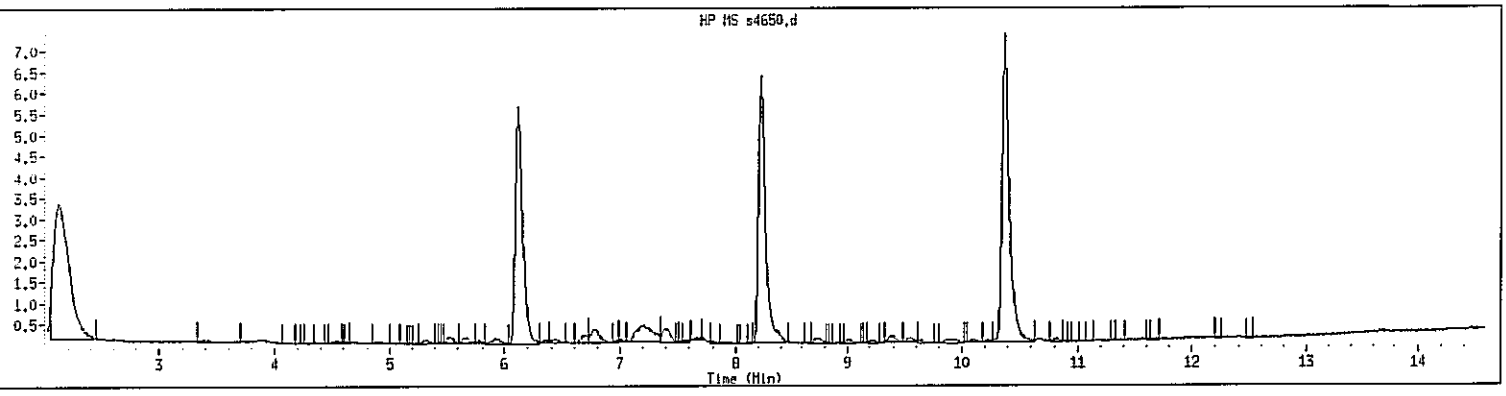
Instrument: msv1.i

Operator: RSP
Column diameter: 0.53



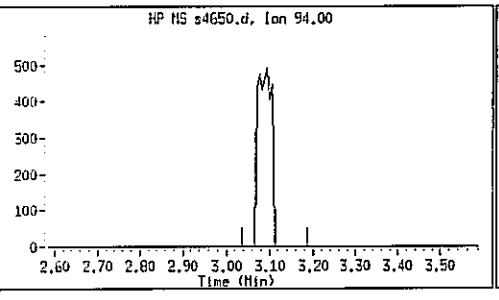
MANUAL INTEGRATION GRAPHIC REPORT

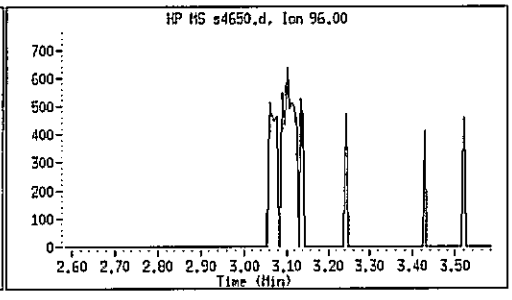
Lab ID : 1208 SampleType : CALIB_9
Injection Date: 29-OCT-2003 10:29 Instrument : msv1.i
Operator : RSP
Sample Info : 1208*V1STD0.400*5-4-2
Misc Info : MSV~3914~*1*RSP
Method : /var/chem/msv1.i/2031029.s.b/8260Bw1.m
Dilution : 1.0
Matrix : WATER
Integrator : HP RTE Compound Sublist: 8260b



CONCENTRATIONS

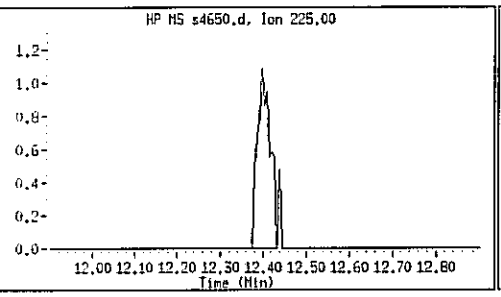
RT	(REL RT)	MASS	RESPONSE	AMT	CONC	RANGE	RATIO
4 Bromomethane			CAS#: 74-83-9				
.095	0.507	94	1077	0	0	80-120	100
.190	0.522	96	0			76-114	0

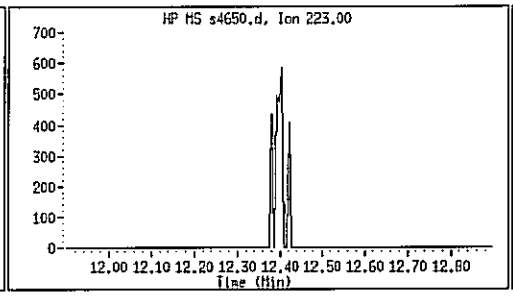


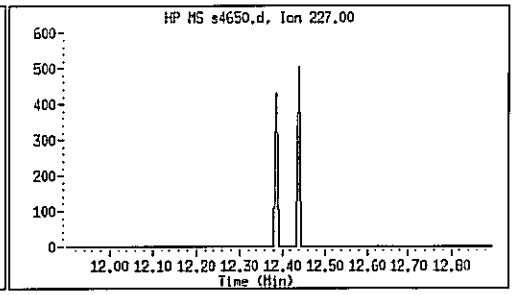


CONCENTRATIONS

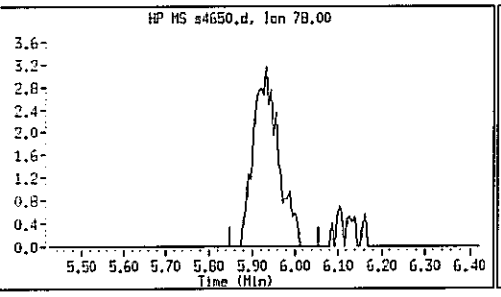
RT	(REL RT)	MASS	RESPONSE	AMT	CONC	RANGE	RATIO
81 Hexachlorobutadiene				CAS#: 87-68-3			
12.398	1.196	225	2246	0	0	80-120	100
12.426	1.199	223	0			51- 77	0
12.449	1.201	227	0			52- 78	0

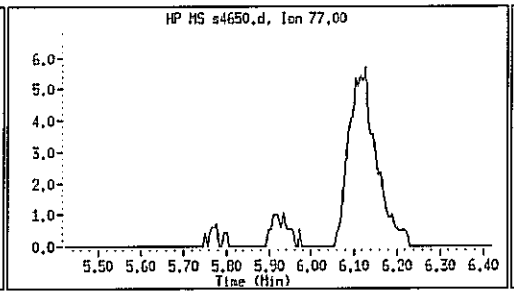


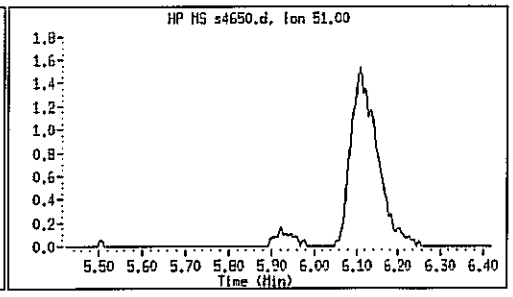




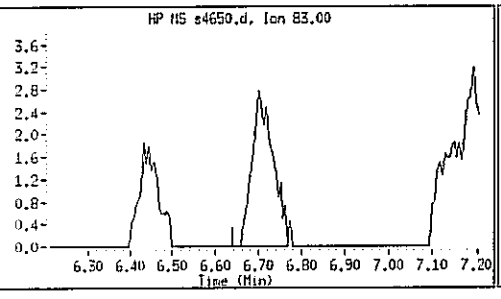
31 Benzene				CAS#: 71-43-2			
5.933	0.971	78	12495	0	0	80-120	100
5.936	0.971	77	0			22- 34	0
5.936	0.971	51	0			30- 45	0

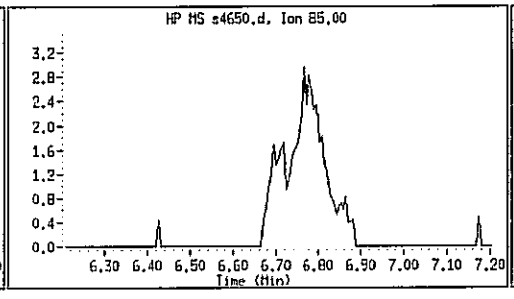


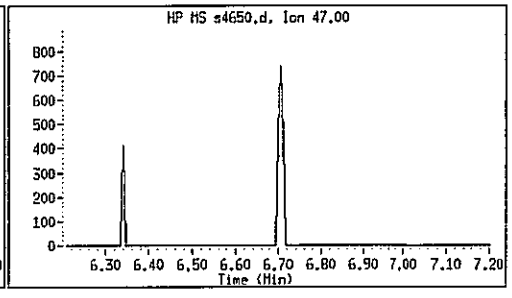




38 Bromodichloromethane				CAS#: 75-27-4			
5.699	1.096	83	9371	0	0	80-120	100
5.727	1.101	85	0			53- 80	0
5.721	1.100	47	0			15- 23	0







Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv1.i/2031029.s.b/s4651.d
Lab Smp Id: 1206 Client Smp ID: V1STD002
Inj Date : 29-OCT-2003 10:52
Operator : RSP Inst ID: msv1.i
Smp Info : 1206*V1STD002*5-4-2
Misc Info : MSV~3914~*1*RSP
Comment :
Method : /var/chem/msv1.i/2031029.s.b/8260Bw1.m
Meth Date : 04-Nov-2003 09:37 rsp Quant Type: ISTD
Cal Date : 29-OCT-2003 10:52 Cal File: s4651.d
Als bottle: 4 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
3 Vinyl Chloride +	62	2.678	2.672	(0.438)	11928	2.00000	2.00	(aM)
28 Carbon Tetrachloride	117	5.751	5.756	(0.941)	27790	2.00000	2.00	(a)
31 Benzene	78	5.928	5.922	(0.970)	58647	2.00000	1.94	(a)
30 1,2-Dichloroethane	62	5.963	5.973	(0.976)	24046	2.00000	2.00	(a)
33 FLUOROBENZENE	96	6.111	6.116	(1.000)	1124619	50.0000		
34 Trichloroethene	130	6.340	6.357	(1.037)	22985	2.00000	2.00	(aM)
38 Bromodichloromethane	83	6.701	6.706	(1.096)	34087	2.00000	2.00	(a)
47 Tetrachloroethene	164	7.564	7.581	(0.920)	16276	2.00000	2.00	(aM)
49 Dibromochloromethane	129	7.793	7.799	(0.948)	22314	2.00000	2.00	(a)
50 1,2-Dibromoethane(EDB)	107	7.908	7.913	(0.962)	21788	2.00000	2.00	(a)
51 CHLOROBENZENE-d5	82	8.222	8.222	(1.000)	542370	50.0000		
58 Bromoform ++	173	8.955	8.954	(1.089)	14376	2.00000	2.00	(a)
59 Isopropylbenzene	105	9.001	9.006	(1.095)	74784	2.00000	2.00	(a)
61 1,1,2,2-Tetrachloroethane++	83	9.327	9.326	(0.900)	27245	2.00000	2.00	(a)
74 1,4-DICHLOROBENZENE-D4	152	10.368	10.367	(1.000)	465023	50.0000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
79 1,2-Dibromo-3-Chloropropane	157	11.581	11.569	(1.117)	5070	2.00000	2.00	(aM)
81 Hexachlorobutadiene	225	12.393	12.399	(1.195)	14987	2.00000	2.00	(a)

QC Flag Legend

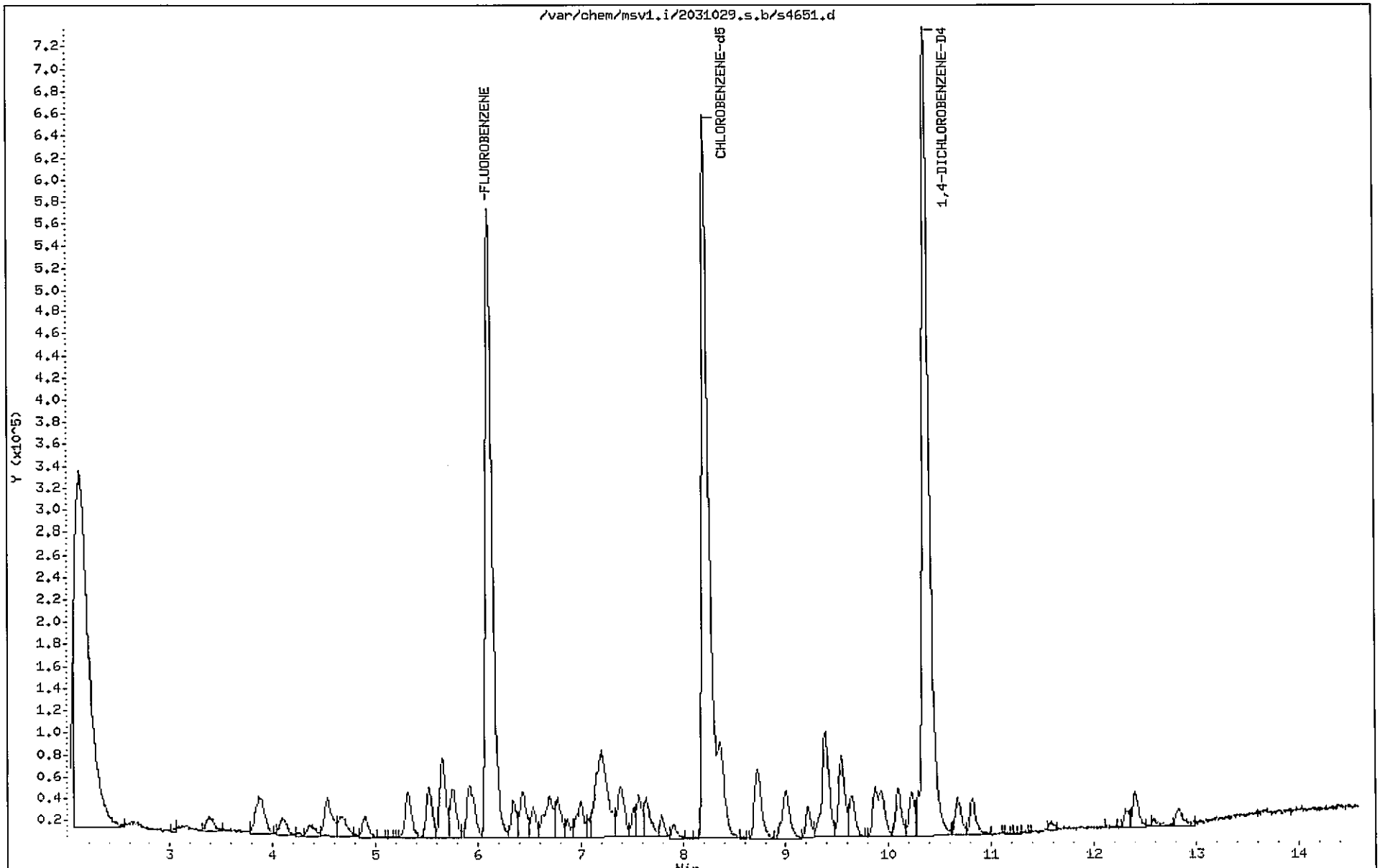
a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /var/chem/msv1.i/2031029.s.b/s4651.d
Date : 29-OCT-2003 10:52
Client ID: V1STD002
Sample Info: 1206%V1STD002%5-4-2
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

Operator: RSP
Column diameter: 0.53

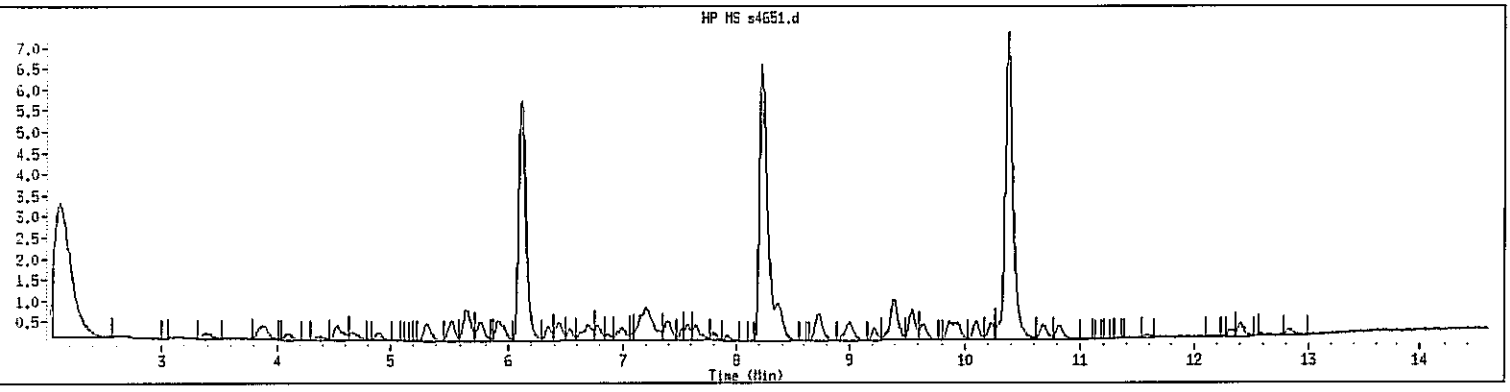
000054



Report Date: 11/04/2003 09:39

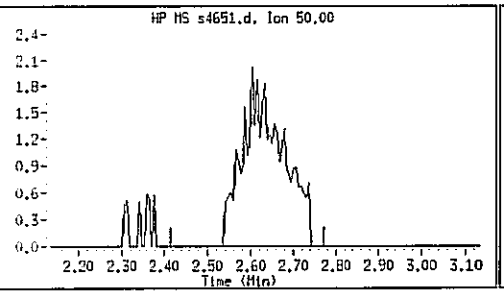
MANUAL INTEGRATION GRAPHIC REPORT

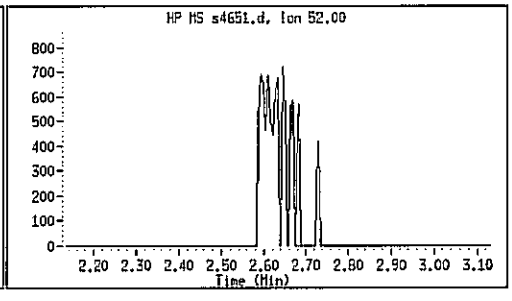
Lab ID : 1206 SampleType : CALIB_8
Injection Date: 29-OCT-2003 10:52 Instrument : msv1.i
Operator : RSP
Sample Info : 1206*V1STD002*5-4-2
Misc Info : MSV~3914~*1*RSP
Method : /var/chem/msv1.i/2031029.s.b/8260Bw1.m
Dilution : 1.0
Matrix : WATER
Integrator : HP RTE Compound Sublist: 8260b



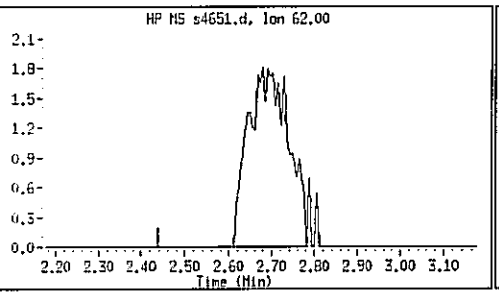
CONCENTRATIONS

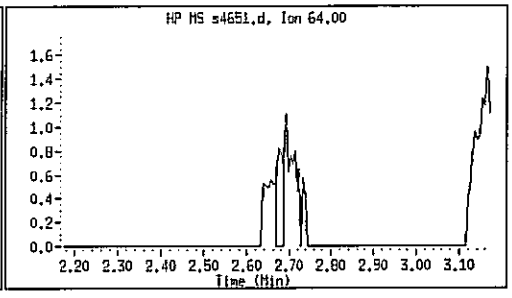
RT	(REL RT)	MASS	RESPONSE	AMT	CONC	RANGE	RATIO
2 Chloromethane ++			CAS#: 74-87-3				
2.604	0.426	50	12559	0	0	80-120	100
2.684	0.439	52	362			28- 42	3



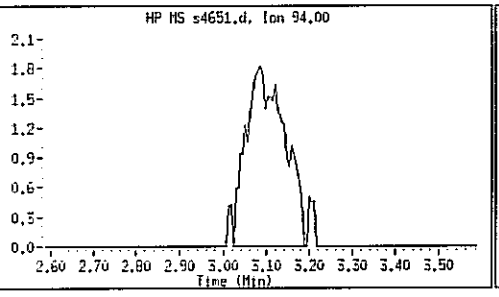


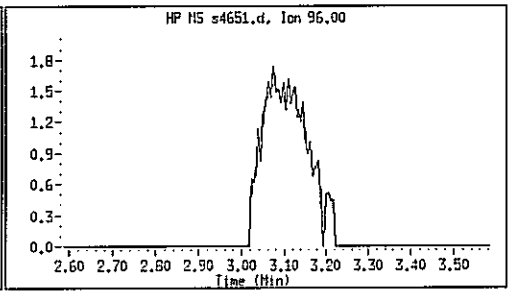
RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS AMT	CONC	RANGE	RATIO
3 Vinyl Chloride +			CAS#: 75-01-4				
.678	0.438	62	11928	2	2	80-120	100
.673	0.437	64	951			27- 41	8



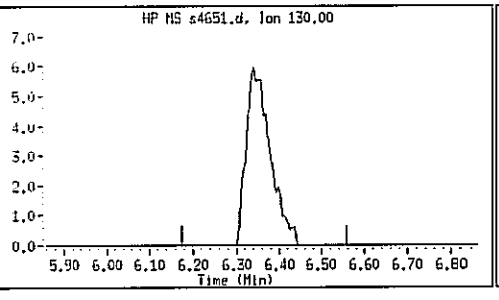


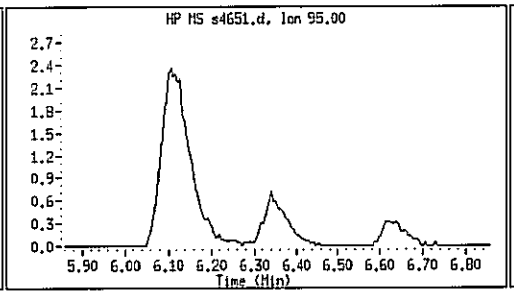
4 Bromomethane			CAS#: 74-83-9				
.085	0.505	94	11454	0	0	80-120	100
.155	0.516	96	0			76-114	0

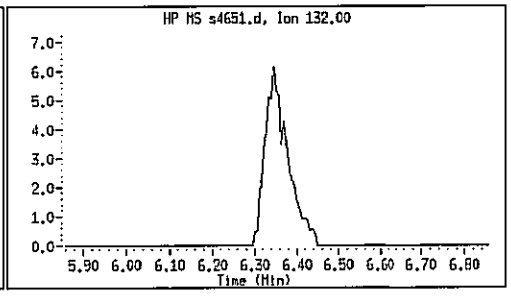




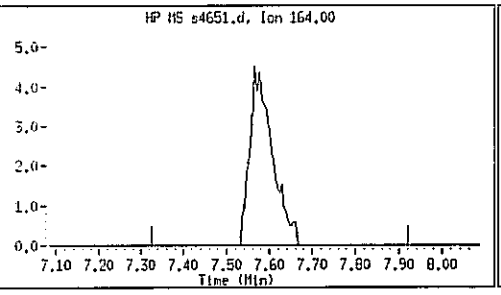
34 Trichloroethene			CAS#: 79-01-6				
.340	1.037	130	22985	2	2	80-120	100
.360	1.041	95	0			88-132	0
.360	1.041	132	0			77-115	0

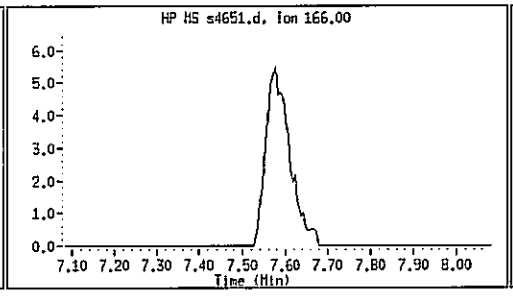


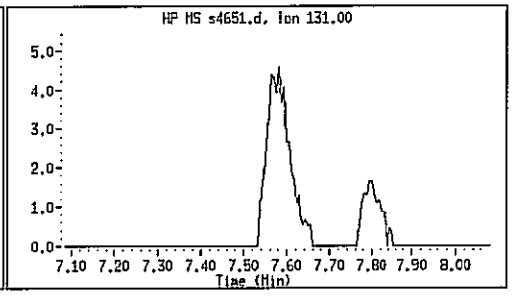




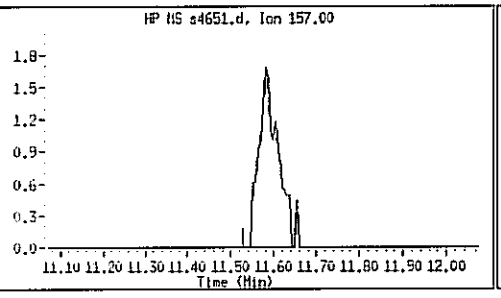
RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS AMT	CONC	RANGE	RATIO
47 Tetrachloroethene				CAS#: 127-18-4			
7.564	0.920	164	16276	2	2	80-120	100
7.593	0.923	166	0			105-157	0
7.593	0.923	131	0			84-126	0

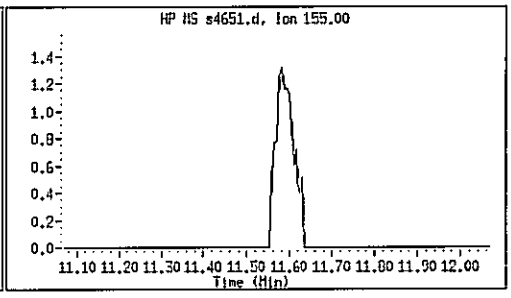






79 1,2-Dibromo-3-Chloropropane				CAS#: 96-12-8			
11.581	1.117	157	5070	2	2	80-120	100
11.594	1.118	155	0			62- 93	0





Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv1.i/2031029.s.b/s4658.d
Lab Smp Id: 1201 Client Smp ID: V1STD005
Inj Date : 29-OCT-2003 13:58
Operator : RSP Inst ID: msv1.i
Smp Info : 1201*V1STD005*5-4-2
Misc Info : MSV~3914~*1*RSP
Comment :
Method : /var/chem/msv1.i/2031029.s.b/8260Bw1.m
Meth Date : 04-Nov-2003 09:37 rsp Quant Type: ISTD
Cal Date : 29-OCT-2003 13:58 Cal File: s4658.d
Als bottle: 10 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
1 Dichlorodifluoromethane	85	2.324	2.335	(0.380)	57038	5.00000	5.02	
2 Chloromethane ++	50	2.633	2.632	(0.430)	26644	5.00000	4.84	(a)
3 Vinyl Chloride +	62	2.713	2.672	(0.443)	31746	5.00000	4.97	(a)
4 Bromomethane	94	3.102	3.084	(0.507)	30813	5.00000	5.64	(M)
5 Chloroethane	64	3.199	3.159	(0.523)	23236	5.00000	5.40	(M)
6 Trichlorofluoromethane	101	3.388	3.370	(0.554)	79912	5.00000	5.10	
7 Acrolein	56	3.880	3.868	(0.634)	14301	25.0000	25.6	
8 1,1-Dichloroethene +	96	3.914	3.891	(0.640)	36073	5.00000	5.27	
9 1,1,2Trichlotrifluoroethane	101	3.874	3.857	(0.633)	75942	5.00000	5.28	
10 Acetone	43	4.017	4.017	(0.657)	9075	5.00000	5.25	
11 Methyl Iodide	142	4.097	4.085	(0.670)	60660	5.00000	4.39	(a)
12 Carbon Disulfide	76	4.115	4.103	(0.673)	101428	5.00000	5.21	(M)
13 Methylene Chloride	49	4.378	4.360	(0.716)	47439	5.00000	4.95	(a)
14 Acrylonitrile	53	4.618	4.606	(0.755)	54685	25.0000	27.7	
15 trans-1,2-Dichloroethene	61	4.544	4.532	(0.743)	57046	5.00000	5.12	

ompounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
16 Methyl Acetate	43	4.258	4.246	(0.696)	34026	5.00000	5.58	1931(H)
17 MTBE	73	4.527	4.520	(0.740)	126748	5.00000	5.26	5180
18 1,1-Dichloroethane ++	63	4.904	4.886	(0.802)	71003	5.00000	5.14	
19 Vinyl Acetate	43	4.681	4.680	(0.765)	28335	5.00000	4.47	(aM)
21 2,2-Dichloropropane	77	5.328	5.298	(0.871)	78689	5.00000	5.54	
20 cis-1,2-Dichloroethene	61	5.328	5.321	(0.871)	70167	5.00000	5.15	
22 2-Butanone	43	5.345	5.344	(0.874)	21352	5.00000	5.91	
23 Bromochloromethane	128	5.505	5.499	(0.900)	26257	5.00000	5.52	
24 Chloroform +	83	5.534	5.533	(0.905)	110231	5.00000	6.23	
25 Dibromofluoromethane	111	5.654	5.659	(0.924)	63356	5.00000	5.70	5118
26 1,1,1-Trichloroethane	97	5.671	5.665	(0.927)	80837	5.00000	5.56	
28 Carbon Tetrachloride	117	5.762	5.756	(0.942)	68095	5.00000	5.35	
27 1,1-Dichloropropene	75	5.785	5.767	(0.946)	66890	5.00000	5.46	
29 1,2-Dichloroethane-d4	67	5.917	5.911	(0.967)	28773	5.00000	5.74	
31 Benzene	78	5.934	5.922	(0.970)	139431	5.00000	5.16	
30 1,2-Dichloroethane	62	5.968	5.973	(0.976)	60103	5.00000	5.27	
33 FLUOROBENZENE	96	6.117	6.116	(1.000)	1185693	50.0000		
32 Total 1,2-Dichloroethene	61				127213	10.0000	10.3	
34 Trichloroethene	130	6.357	6.357	(1.039)	56703	5.00000	5.53	
35 Methyl Cyclohexane	83	6.449	6.443	(1.054)	82369	5.00000	5.75	6052
36 1,2-Dichloropropane +	63	6.546	6.546	(1.070)	54160	5.00000	5.57	
37 Dibromomethane	93	6.632	6.626	(1.084)	43988	5.00000	5.65	
38 Bromodichloromethane	83	6.706	6.706	(1.096)	84461	5.00000	5.53	
39 2-Chloroethyl vinyl ether	63	6.878	6.872	(1.124)	30066	5.00000	5.37	
40 cis-1,3-Dichloropropene	75	7.010	7.009	(1.146)	80219	5.00000	5.62	
41 4-methyl-2-pentanone	43	7.078	7.078	(1.157)	68523	5.00000	6.46	
42 Toluene-d8	98	7.164	7.169	(0.871)	135385	5.00000	6.50	
43 Toluene +	91	7.210	7.221	(0.877)	162108	5.00000	6.25	
44 trans-1,3-Dichloropropene	75	7.376	7.381	(0.897)	76619	5.00000	6.06	
45 1,1,2-Trichloroethane	97	7.519	7.518	(0.914)	50232	5.00000	6.16	
47 Tetrachloroethene	164	7.582	7.581	(0.922)	42933	5.00000	2.34	(a)
46 1,3-Dichloropropane	76	7.645	7.650	(0.930)	84111	5.00000	6.09	
48 2-Hexanone	43	7.645	7.638	(0.930)	40582	5.00000	1.19	(aM)
49 Dibromochloromethane	129	7.805	7.799	(0.949)	66711	5.00000	5.83	
50 1,2-Dibromoethane(EDB)	107	7.914	7.913	(0.962)	59890	5.00000	5.51	
51 CHLOROBENZENE-d5	82	8.223	8.222	(1.000)	627717	50.0000		
52 Chlorobenzene ++	112	8.245	8.251	(1.003)	101196	5.00000	5.87	
53 1,1,1,2-Tetrachloroethane	133	8.291	8.302	(1.008)	49335	5.00000	5.98	(M)
54 Ethylbenzene +	106	8.285	8.279	(1.008)	53158	5.00000	6.36	
55 p,m-Xylene	106	8.388	8.376	(1.020)	135913	10.0000	11.5	
56 o-Xylene	106	8.726	8.725	(1.061)	67275	5.00000	5.86	
57 Styrene	104	8.749	8.737	(1.064)	113004	5.00000	5.70	
58 Bromoform ++	173	8.949	8.954	(1.088)	42476	5.00000	5.36	
59 Isopropylbenzene	105	9.018	9.006	(1.097)	196934	5.00000	5.63	
60 Bromofluorobenzene	174	9.212	9.212	(1.120)	46619	5.00000	5.76	
61 1,1,2,2-Tetrachloroethane++	83	9.332	9.326	(0.900)	70808	5.00000	5.71	
64 Bromobenzene	77	9.390	9.383	(0.905)	142546	5.00000	5.56	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
63	1,2,3-Trichloropropane	75	9.401	9.395	(0.906)	89946	5.00000	5.78	
62	trans-1,4-Dichloro-2-Butene	53	9.378	9.378	(0.904)	17181	5.00000	5.62	
65	n-Propylbenzene	91	9.395	9.389	(0.906)	219418	5.00000	5.76	
66	2-Chlorotoluene	91	9.544	9.532	(0.920)	147982	5.00000	5.60	
67	1,3,5-Trimethylbenzene	105	9.018	9.006	(0.869)	196934	5.00000	6.11	
68	4-Chlorotoluene	91	9.641	9.635	(0.929)	145351	5.00000	5.38	
78	TOTAL XYLENE	106				203188	15.0000	17.3	
69	tert-butylbenzene	91	9.876	9.870	(0.952)	111651	5.00000	5.33	
72	p-Isopropyltoluene	119	9.876	9.870	(0.952)	150885	5.00000	5.55	
70	1,2,4-Trimethylbenzene	105	9.556	9.549	(0.921)	140298	5.00000	5.43	
71	sec-Butylbenzene	105	10.088	10.099	(0.972)	217802	5.00000	5.51	
73	1,3-Dichlorobenzene	146	10.299	10.293	(0.993)	84279	5.00000	5.80	
74	1,4-DICHLOROBENZENE-D4	152	10.374	10.367	(1.000)	485081	50.0000		
75	1,4-Dichlorobenzene	146	10.391	10.390	(1.002)	92867	5.00000	5.69	
77	n-Butylbenzene	91	10.671	10.671	(1.029)	101764	5.00000	4.25	(a)
76	1,2-Dichlorobenzene	146	10.809	10.802	(1.042)	78190	5.00000	5.36	
79	1,2-Dibromo-3-Chloropropane	157	11.575	11.569	(1.116)	16473	5.00000	5.43	
80	1,2,4-Trichlorobenzene	180	12.302	12.301	(1.186)	27247	5.00000	4.22	(a)
81	Hexachlorobutadiene	225	12.411	12.399	(1.196)	39397	5.00000	5.37	
82	Naphthalene	128	12.571	12.570	(1.212)	38287	5.00000	4.34	(a)
83	1,2,3-Trichlorobenzene	180	12.828	12.810	(1.237)	27598	5.00000	4.45	(a)
95	Cyclohexane	56	5.659	5.653	(0.925)	78256	5.00000	5.75	4873
89	Hexane	57	4.698	4.669	(0.768)	56229	5.00000	5.24	0(M)

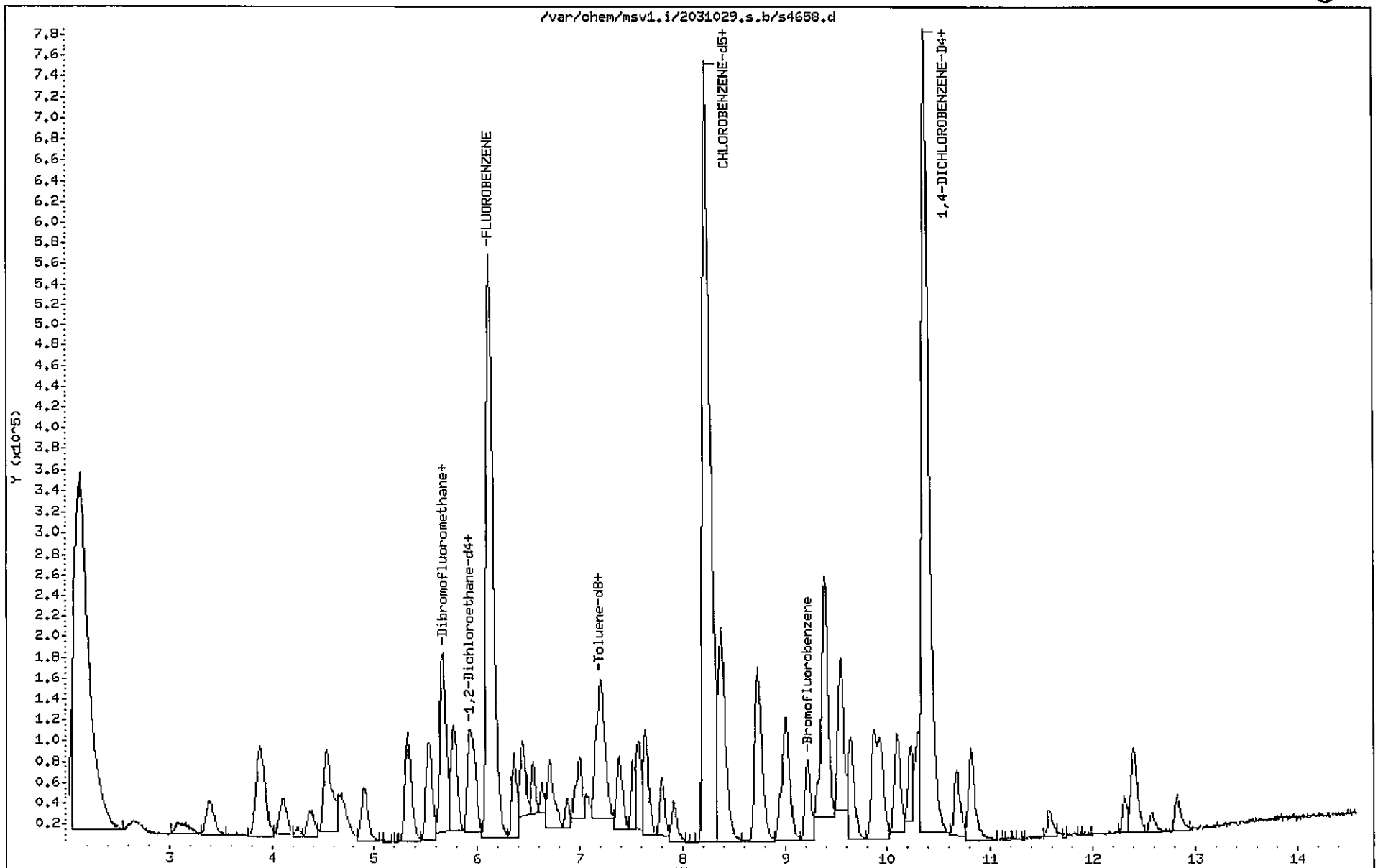
QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /var/chem/msv1.i/2031029.s.b/s4658.d
Date : 29-OCT-2003 13:58
Client ID: V1STD005
Sample Info: 1201*V1STD005*5-4-2
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i
Operator: RSP
Column diameter: 0.53

000061

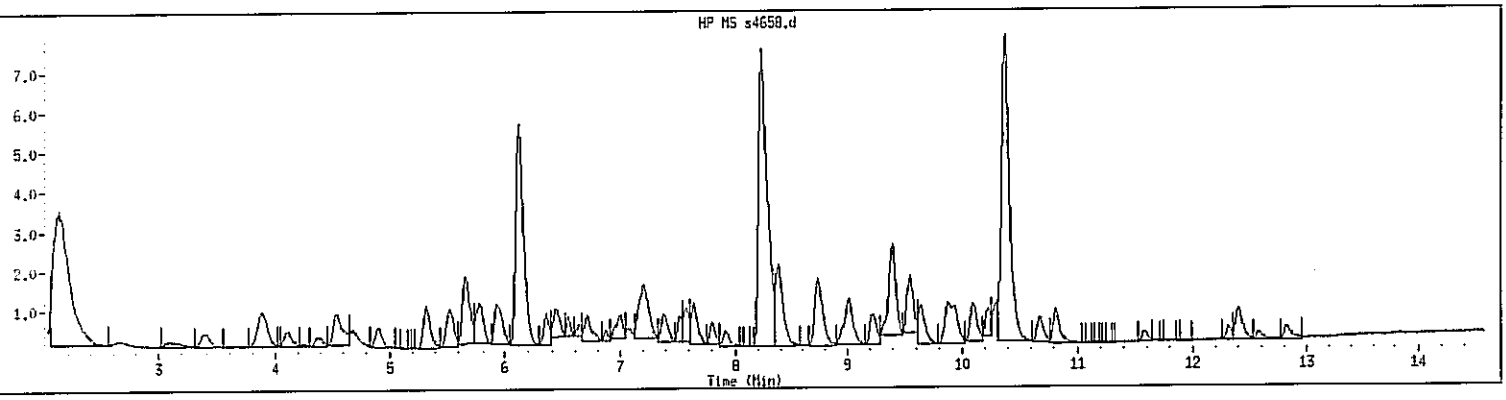


Data file : /var/chem/msv1.i/2031029.s.b/s4658.d
Report Date: 11/04/2003 09:39

MANUAL INTEGRATION GRAPHIC REPORT

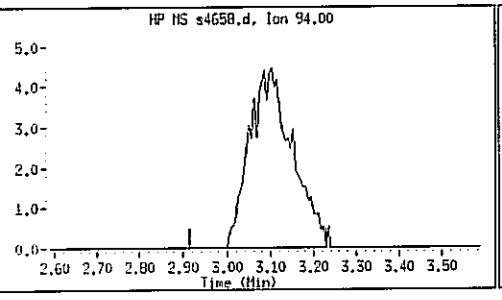
Lab ID : 1201
Injection Date: 29-OCT-2003 13:58
Operator : RSP
Sample Info : 1201*V1STD005*5-4-2
Misc Info : MSV~3914~*1*RSP
Method : /var/chem/msv1.i/2031029.s.b/8260Bw1.m
Dilution : 1.0
Matrix : WATER
Integrator : HP RTE

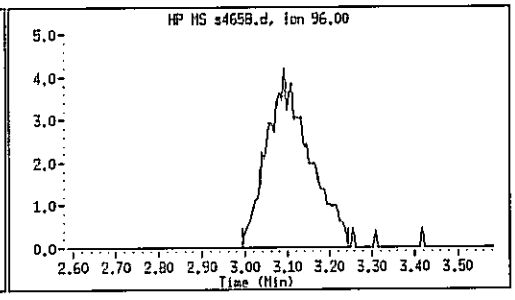
SampleType : CALIB_1
Instrument : msv1.i
Compound Sublist: 8260b



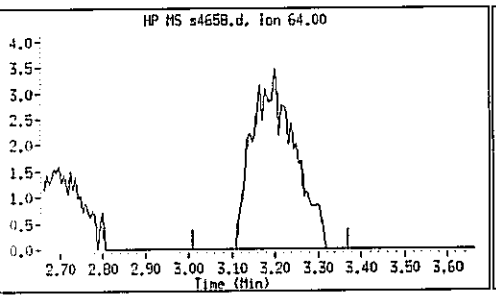
CONCENTRATIONS

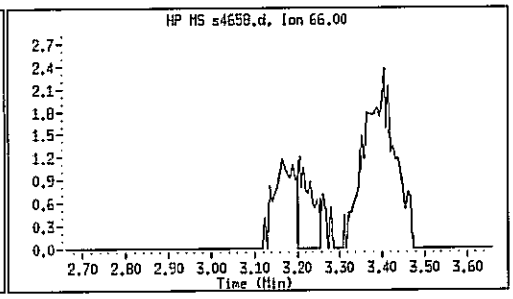
RT	(REL RT)	MASS	RESPONSE	AMT	CONC	RANGE	RATIO
4 Bromomethane			CAS#: 74-83-9				
3.102	0.507	94	30813	6	6	80-120	100
3.091	0.505	96	29332			76-114	95



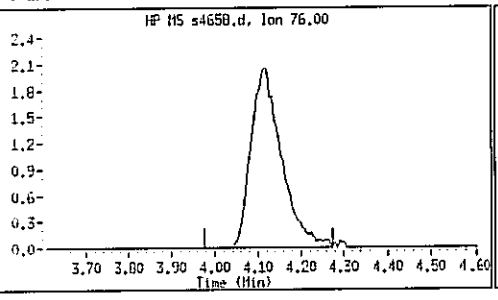


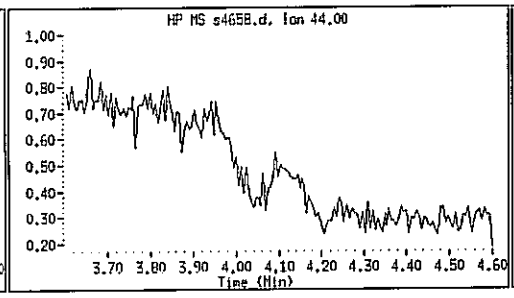
RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS AMT	CONC	RANGE	RATIO
5 Chloroethane			CAS#: 75-00-3				
.199	0.523	64	23236	5	5	80-120	100
.205	0.524	66	2922			26- 40	13

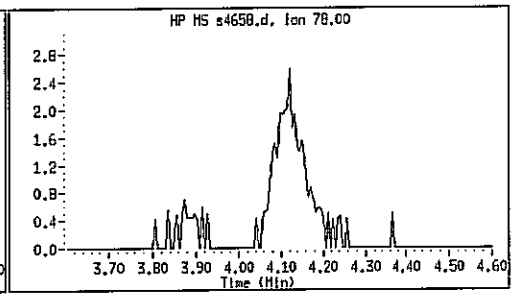




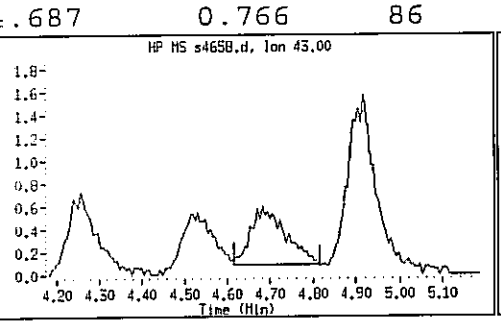
12 Carbon Disulfide			CAS#: 75-15-0				
.115	0.673	76	101428	5	5	80-120	100
.110	0.672	44	0			10- 15	0
.110	0.672	78	0			8- 12	0

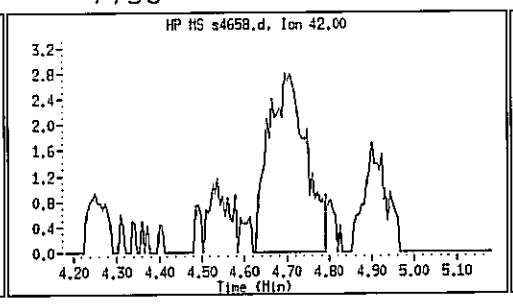


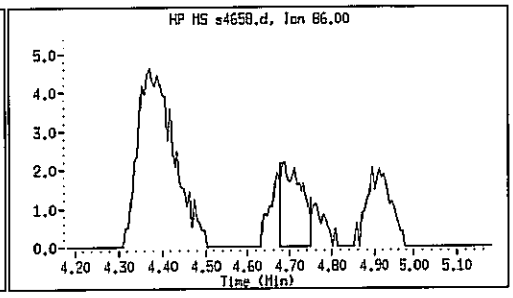




19 Vinyl Acetate			CAS#: 108-05-4				
.681	0.765	43	28335	4	4	80-120	100
.692	0.767	42	17211			42- 63	61
.687	0.766	86	7758			29- 43	27

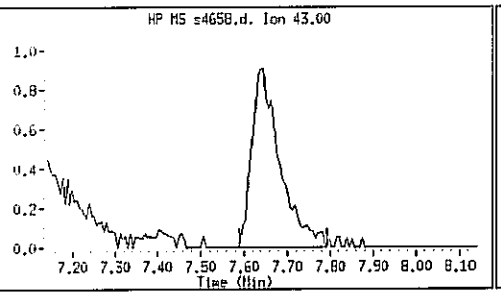


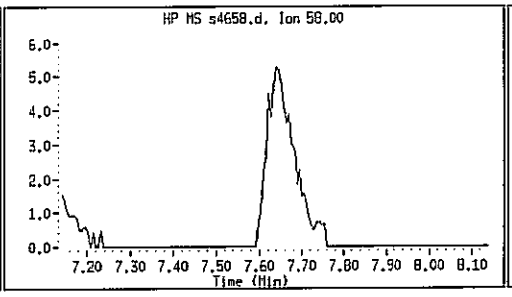


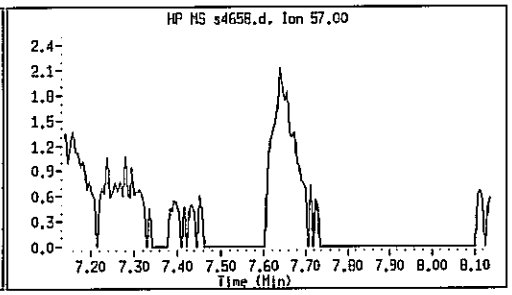


CONCENTRATIONS

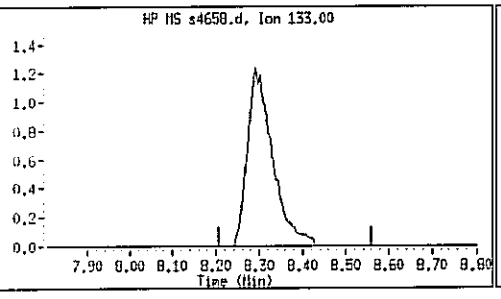
RT	(REL RT)	MASS	RESPONSE	AMT	CONC	RANGE	RATIO
48 2-Hexanone			CAS#: 591-78-6				
7.645	0.930	43	40582	1	1	80-120	100
7.084	0.862	58	24528			51- 76	60
7.073	0.860	57	13204			31- 47	33

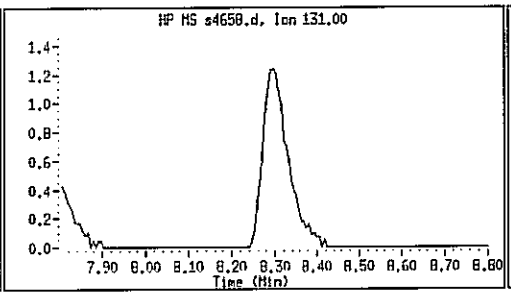


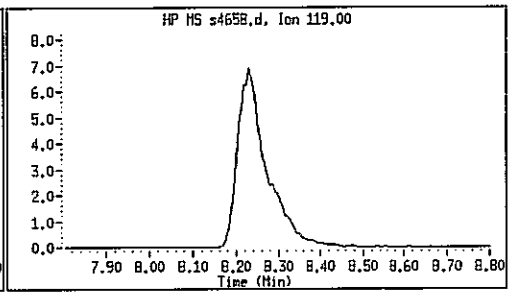




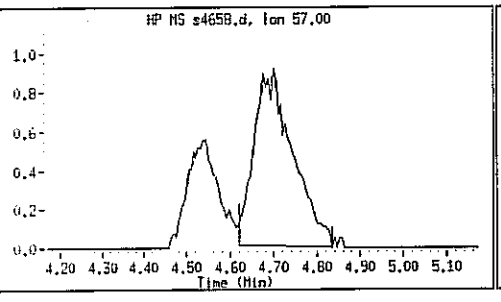
53 1,1,1,2-Tetrachloroethane				CAS#: 630-20-6			
8.291	1.008	133	49335	6	6	80-120	100
8.304	1.010	131	0			84-125	0
8.304	1.010	119	0			61- 92	0

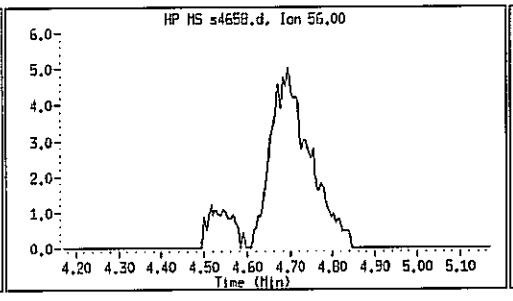


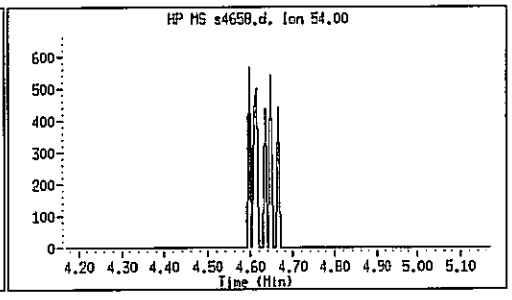




89 Hexane			CAS#: 110-54-3				
4.698	0.768	57	56229	5	5	80-120	100
4.676	0.764	56	0			39- 59	0
4.676	0.764	54	0			2- 3	0







Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv1.i/2031029.s.b/s4653.d
Lab Smp Id: 1202 Client Smp ID: V1STD020
Inj Date : 29-OCT-2003 11:40
Operator : RSP Inst ID: msv1.i
Smp Info : 1202*V1STD020*5-4-2
Misc Info : MSV~3914~*1*RSP
Comment :
Method : /var/chem/msv1.i/2031029.s.b/8260Bw1.m
Meth Date : 04-Nov-2003 09:37 rsp Quant Type: ISTD
Cal Date : 29-OCT-2003 11:40 Cal File: s4653.d
Als bottle: 5 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
1 Dichlorodifluoromethane	85	2.323	2.335	(0.380)	211002	20.0000	20.0	
2 Chloromethane ++	50	2.614	2.632	(0.428)	104774	20.0000	20.0	
3 Vinyl Chloride +	62	2.666	2.672	(0.437)	114958	20.0000	20.7	
4 Bromomethane	94	3.089	3.084	(0.506)	104679	20.0000	20.0	
5 Chloroethane	64	3.164	3.159	(0.518)	82392	20.0000	20.0	
6 Trichlorofluoromethane	101	3.392	3.370	(0.556)	286663	20.0000	20.0	
7 Acrolein	56	3.873	3.868	(0.634)	45053	100.000	100	
8 1,1-Dichloroethene +	96	3.890	3.891	(0.637)	124413	20.0000	20.0	
9 1,1,2Trichlotrifluoroethane	101	3.862	3.857	(0.633)	269161	20.0000	20.0	
10 Acetone	43	4.005	4.017	(0.656)	33889	20.0000	20.0	
11 Methyl Iodide	142	4.085	4.085	(0.669)	244801	20.0000	20.0	
12 Carbon Disulfide	76	4.108	4.103	(0.673)	344424	20.0000	20.0	
13 Methylene Chloride	49	4.348	4.360	(0.712)	174404	20.0000	20.0	
14 Acrylonitrile	53	4.611	4.606	(0.755)	167635	100.000	100	
15 trans-1,2-Dichloroethene	61	4.525	4.532	(0.741)	203546	20.0000	20.0	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
16 Methyl Acetate	43	4.251	4.246	(0.696)	108814	20.0000	20.0	1808(H)
17 MTBE	73	4.514	4.520	(0.739)	437877	20.0000	20.0	5216
18 1,1-Dichloroethane ++	63	4.880	4.886	(0.799)	255737	20.0000	20.0	
19 Vinyl Acetate	43	4.668	4.680	(0.765)	120347	20.0000	20.0	
21 2,2-Dichloropropane	77	5.303	5.298	(0.869)	262497	20.0000	20.0	
20 cis-1,2-Dichloroethene	61	5.320	5.321	(0.872)	251861	20.0000	20.0	
22 2-Butanone	43	5.326	5.344	(0.873)	66097	20.0000	20.0	
23 Bromochloromethane	128	5.498	5.499	(0.901)	86267	20.0000	20.0	
24 Chloroform +	83	5.532	5.533	(0.906)	318710	20.0000	20.0	
25 Dibromofluoromethane	111	5.652	5.659	(0.926)	175145	20.0000	20.0	5231
26 1,1,1-Trichloroethane	97	5.658	5.665	(0.927)	265892	20.0000	20.0	(MH)
28 Carbon Tetrachloride	117	5.750	5.756	(0.942)	221590	20.0000	18.8	
27 1,1-Dichloropropene	75	5.761	5.767	(0.944)	227785	20.0000	20.0	
29 1,2-Dichloroethane-d4	67	5.915	5.911	(0.969)	76131	20.0000	20.0	
31 Benzene	78	5.915	5.922	(0.969)	452727	20.0000	17.6	
30 1,2-Dichloroethane	62	5.967	5.973	(0.978)	190053	20.0000	18.7	
33 FLUOROBENZENE	96	6.104	6.116	(1.000)	1014217	50.0000		
32 Total 1,2-Dichloroethene	61				455407	40.0000	40.0	
34 Trichloroethene	130	6.339	6.357	(1.038)	175885	20.0000	18.4	
35 Methyl Cyclohexane	83	6.430	6.443	(1.053)	264537	20.0000	20.0	6343
36 1,2-Dichloropropane +	63	6.539	6.546	(1.071)	174714	20.0000	20.0	
37 Dibromomethane	93	6.619	6.626	(1.084)	144005	20.0000	20.0	
38 Bromodichloromethane	83	6.694	6.706	(1.097)	274534	20.0000	18.9	
39 2-Chloroethyl vinyl ether	63	6.865	6.872	(1.125)	108582	20.0000	20.0	
40 cis-1,3-Dichloropropene	75	6.985	7.009	(1.144)	257010	20.0000	20.0	
41 4-methyl-2-pentanone	43	7.071	7.078	(1.158)	183190	20.0000	20.0	
42 Toluene-d8	98	7.157	7.169	(0.871)	339789	20.0000	20.0	
43 Toluene +	91	7.203	7.221	(0.877)	495454	20.0000	20.0	
44 trans-1,3-Dichloropropene	75	7.374	7.381	(0.898)	234921	20.0000	20.0	
45 1,1,2-Trichloroethane	97	7.512	7.518	(0.914)	155474	20.0000	20.0	
47 Tetrachloroethene	164	7.569	7.581	(0.921)	131918	20.0000	20.0	
46 1,3-Dichloropropane	76	7.643	7.650	(0.930)	259012	20.0000	20.0	
48 2-Hexanone	43	7.620	7.638	(0.928)	128186	20.0000	20.0	(M)
49 Dibromochloromethane	129	7.792	7.799	(0.948)	211535	20.0000	19.1	
50 1,2-Dibromoethane(EDB)	107	7.901	7.913	(0.962)	204312	20.0000	18.9	
51 CHLOROBENZENE-d5	82	8.215	8.222	(1.000)	564972	50.0000		
52 Chlorobenzene ++	112	8.238	8.251	(1.003)	336596	20.0000	20.0	
53 1,1,1,2-Tetrachloroethane	133	8.284	8.302	(1.008)	159061	20.0000	20.0	(M)
54 Ethylbenzene +	106	8.261	8.279	(1.006)	163435	20.0000	20.0	
55 p,m-Xylene	106	8.364	8.376	(1.018)	465345	40.0000	40.0	
56 o-Xylene	106	8.702	8.725	(1.059)	222551	20.0000	20.0	
57 Styrene	104	8.719	8.737	(1.061)	378792	20.0000	20.0	
58 Bromoform ++	173	8.936	8.954	(1.088)	148114	20.0000	19.9	
59 Isopropylbenzene	105	8.994	9.006	(1.095)	643689	20.0000	18.1	
60 Bromofluorobenzene	174	9.200	9.212	(1.120)	133625	20.0000	20.0	
61 1,1,2,2-Tetrachloroethane++	83	9.308	9.326	(0.898)	243393	20.0000	18.5	
64 Bromobenzene	77	9.365	9.383	(0.904)	490626	20.0000	20.0	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
63 1,2,3-Trichloropropane	75	9.388	9.395	(0.906)	325103	20.0000	20.0	
62 trans-1,4-Dichloro-2-Butene	53	9.371	9.378	(0.904)	60922	20.0000	20.0	
65 n-Propylbenzene	91	9.371	9.389	(0.904)	791561	20.0000	20.0	
66 2-Chlorotoluene	91	9.526	9.532	(0.919)	537881	20.0000	20.0	
67 1,3,5-Trimethylbenzene	105	8.994	9.006	(0.868)	643689	20.0000	20.0	
68 4-Chlorotoluene	91	9.629	9.635	(0.929)	545363	20.0000	20.0	
78 TOTAL XYLENE	106				687896	60.0000	60.0	
69 tert-butylbenzene	91	9.852	9.870	(0.951)	428048	20.0000	20.0	
72 p-Isopropyltoluene	119	9.852	9.870	(0.951)	553831	20.0000	20.0	
70 1,2,4-Trimethylbenzene	105	9.531	9.549	(0.920)	541909	20.0000	20.0	
71 sec-Butylbenzene	105	10.081	10.099	(0.973)	802671	20.0000	20.0	
73 1,3-Dichlorobenzene	146	10.287	10.293	(0.993)	282476	20.0000	20.0	
74 1,4-DICHLOROBENZENE-D4	152	10.361	10.367	(1.000)	482514	50.0000		
75 1,4-Dichlorobenzene	146	10.378	10.390	(1.002)	331921	20.0000	20.0	
77 n-Butylbenzene	91	10.658	10.671	(1.029)	518182	20.0000	20.0	
76 1,2-Dichlorobenzene	146	10.802	10.802	(1.043)	291716	20.0000	20.0	
79 1,2-Dibromo-3-Chloropropane	157	11.568	11.569	(1.117)	60836	20.0000	21.5	
80 1,2,4-Trichlorobenzene	180	12.318	12.301	(1.189)	139237	20.0000	20.0	
81 Hexachlorobutadiene	225	12.392	12.399	(1.196)	146801	20.0000	19.4	
82 Naphthalene	128	12.575	12.570	(1.214)	186794	20.0000	20.0	
83 1,2,3-Trichlorobenzene	180	12.821	12.810	(1.237)	137044	20.0000	20.0	
95 Cyclohexane	56	5.647	5.653	(0.925)	246757	20.0000	20.0	5104
89 Hexane	57	4.668	4.669	(0.765)	186794	20.0000	20.0	3199

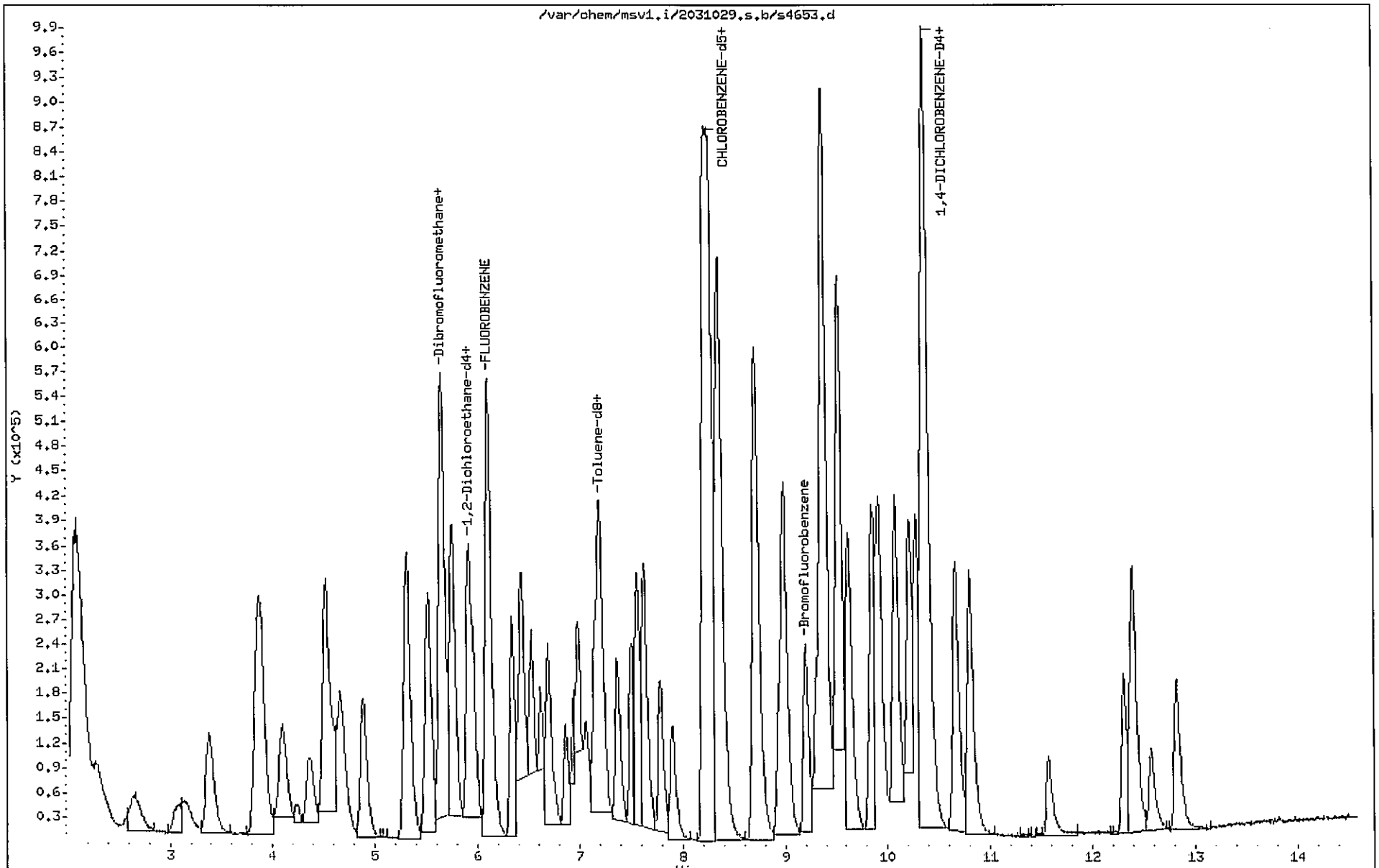
QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

000068

Data File: /var/chem/msv1.i/2031029.s.b/s4653.d
Date : 29-OCT-2003 11:40
Client ID: V1STD020
Sample Info: 1202*V1STD020*5-4-2
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i
Operator: RSP
Column diameter: 0.53

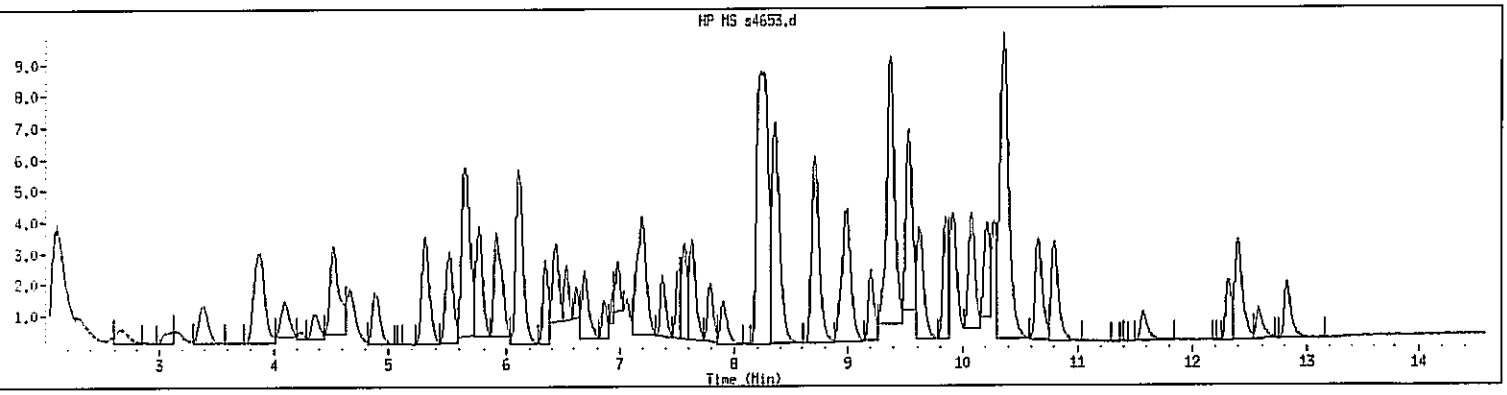


Data file : /var/chem/msv1.i/2031029.s.b/s4653.d
Report Date: 11/04/2003 09:39

MANUAL INTEGRATION GRAPHIC REPORT

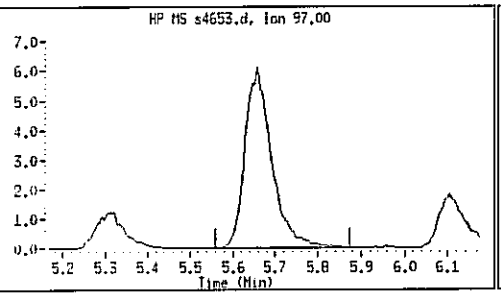
Lab ID : 1202
Injection Date: 29-OCT-2003 11:40
Operator : RSP
Sample Info : 1202*V1STD020*5-4-2
Misc Info : MSV~3914~*1*RSP
Method : /var/chem/msv1.i/2031029.s.b/8260Bw1.m
Dilution : 1.0
Matrix : WATER
Integrator : HP RTE

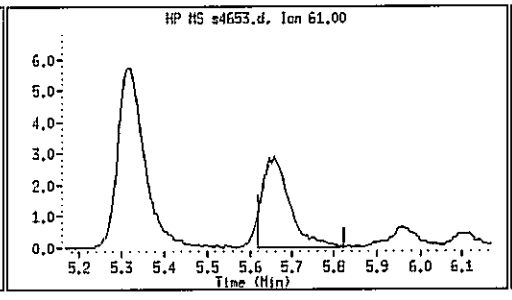
SampleType : CALIB_2
Instrument : msv1.i
Compound Sublist: 8260b

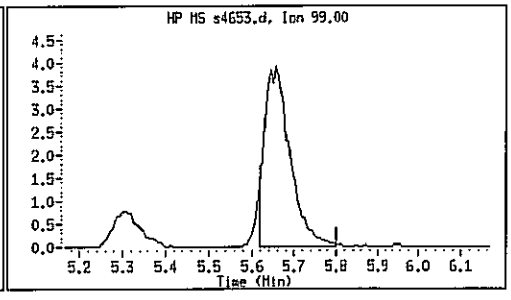


CONCENTRATIONS

RT	(REL RT)	MASS	RESPONSE	AMT	CONC	RANGE	RATIO
26 1,1,1-Trichloroethane				CAS#: 71-55-6			
5.658	0.927	97	265892	20	20	80-120	100
5.658	0.927	61	129284			37- 55	49
5.658	0.927	99	165776			50- 75	62

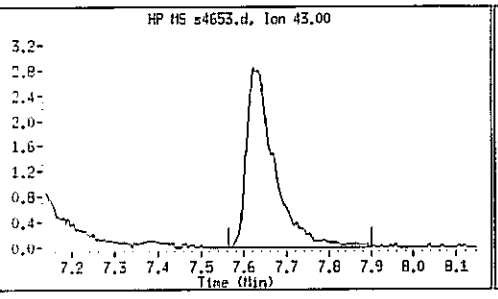


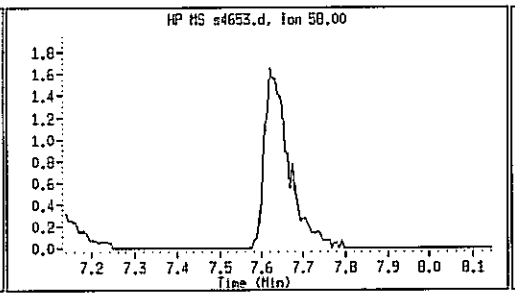


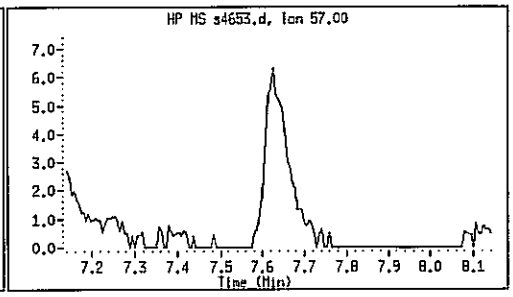


CONCENTRATIONS

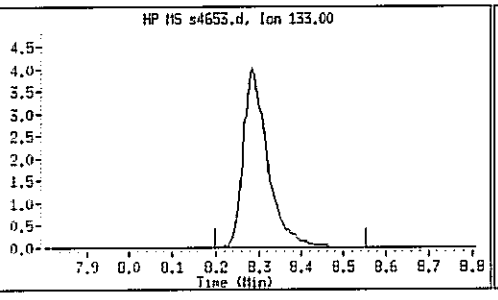
RT	(REL RT)	MASS	RESPONSE	AMT	CONC	RANGE	RATIO
48 2-Hexanone			CAS#: 591-78-6				
.620	0.928	43	128186	20	20	80-120	100
.071	0.861	58	72573			51- 76	57
.065	0.860	57	49052			31- 47	38

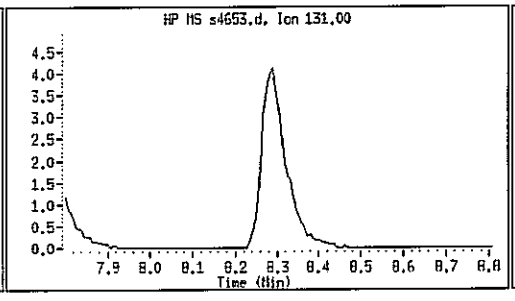


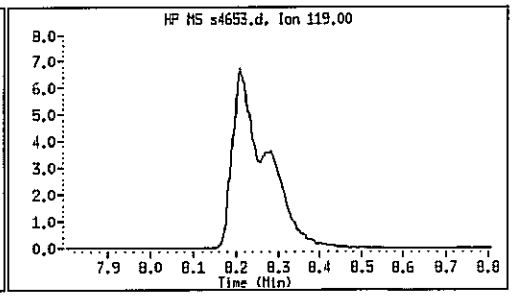




53 1,1,1,2-Tetrachloroethane				CAS#: 630-20-6			
.284	1.008	133	159061	20	20	80-120	100
.303	1.011	131	0			84-125	0
.303	1.011	119	0			61- 92	0







Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv1.i/2031029.s.b/s4654.d
Lab Smp Id: 1203 Client Smp ID: V1STD050
Inj Date : 29-OCT-2003 12:03
Operator : RSP Inst ID: msv1.i
Smp Info : 1203*V1STD050*5-4-2
Misc Info : MSV~3914~*1*RSP
Comment :
Method : /var/chem/msv1.i/2031029.s.b/8260Bw1.m
Meth Date : 04-Nov-2003 09:37 rsp Quant Type: ISTD
Cal Date : 29-OCT-2003 12:03 Cal File: s4654.d
Als bottle: 6 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
1 Dichlorodifluoromethane	85	2.316	2.335	(0.378)	473933	50.0000	47.9	
2 Chloromethane ++	50	2.665	2.632	(0.435)	230671	50.0000	48.2	
3 Vinyl Chloride +	62	2.693	2.672	(0.440)	276686	50.0000	49.8	
4 Bromomethane	94	3.065	3.084	(0.501)	225960	50.0000	47.6	
5 Chloroethane	64	3.162	3.159	(0.517)	192655	50.0000	51.4	
6 Trichlorofluoromethane	101	3.380	3.370	(0.552)	647020	50.0000	47.4	
7 Acrolein	56	3.878	3.868	(0.634)	120914	250.000	248	(A)
8 1,1-Dichloroethene +	96	3.900	3.891	(0.637)	287634	50.0000	48.3	
9 1,1,2Trichlotrifluoroethane	101	3.849	3.857	(0.629)	581455	50.0000	46.4	
10 Acetone	43	4.015	4.017	(0.656)	76042	50.0000	50.6	
11 Methyl Iodide	142	4.083	4.085	(0.667)	591199	50.0000	49.1	
12 Carbon Disulfide	76	4.101	4.103	(0.670)	802102	50.0000	47.3	
13 Methylene Chloride	49	4.370	4.360	(0.714)	412963	50.0000	49.5	
14 Acrylonitrile	53	4.621	4.606	(0.755)	429482	250.000	250	(A)
15 trans-1,2-Dichloroethene	61	4.530	4.532	(0.740)	472506	50.0000	48.7	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
16 Methyl Acetate	43	4.244	4.246	(0.693)	253585	50.0000	47.8	1863(H)
17 MTBE	73	4.518	4.520	(0.738)	1028205	50.0000	49.1	5223
18 1,1-Dichloroethane ++	63	4.896	4.886	(0.800)	585589	50.0000	48.8	
19 Vinyl Acetate	43	4.673	4.680	(0.763)	271262	50.0000	49.2	
21 2,2-Dichloropropane	77	5.308	5.298	(0.867)	594019	50.0000	48.1	
20 cis-1,2-Dichloroethene	61	5.319	5.321	(0.869)	601517	50.0000	50.7	
22 2-Butanone	43	5.336	5.344	(0.872)	152306	50.0000	48.4	
23 Bromochloromethane	128	5.502	5.499	(0.899)	201288	50.0000	48.6	
24 Chloroform +	83	5.525	5.533	(0.903)	707203	50.0000	46.0	
25 Dibromofluoromethane	111	5.651	5.659	(0.923)	475010	50.0000	49.1	5134
26 1,1,1-Trichloroethane	97	5.663	5.665	(0.925)	600747	50.0000	47.5	(MH)
28 Carbon Tetrachloride	117	5.754	5.756	(0.940)	507723	50.0000	45.9	
27 1,1-Dichloropropene	75	5.771	5.767	(0.943)	481668	50.0000	45.1	
29 1,2-Dichloroethane-d4	67	5.920	5.911	(0.967)	210847	50.0000	48.4	
31 Benzene	78	5.926	5.922	(0.968)	1049012	50.0000	44.6	
30 1,2-Dichloroethane	62	5.966	5.973	(0.975)	483069	50.0000	48.7	
33 FLUOROBENZENE	96	6.120	6.116	(1.000)	1031796	50.0000		
32 Total 1,2-Dichloroethene	61				1074023	100.000	99.4	
34 Trichloroethene	130	6.349	6.357	(1.037)	406004	50.0000	45.5	
35 Methyl Cyclohexane	83	6.435	6.443	(1.051)	589044	50.0000	47.3	6344
36 1,2-Dichloropropane +	63	6.538	6.546	(1.068)	417727	50.0000	49.3	
37 Dibromomethane	93	6.624	6.626	(1.082)	320729	50.0000	47.3	
38 Bromodichloromethane	83	6.698	6.706	(1.094)	584661	50.0000	44.0	
39 2-Chloroethyl vinyl ether	63	6.875	6.872	(1.123)	237190	50.0000	48.7	
40 cis-1,3-Dichloropropene	75	7.001	7.009	(1.144)	586599	50.0000	47.3	
41 4-methyl-2-pentanone	43	7.076	7.078	(1.156)	413231	50.0000	44.8	
42 Toluene-d8	98	7.167	7.169	(1.000)	921291	50.0000	47.9	
43 Toluene +	91	7.213	7.221	(1.000)	1145691	50.0000	47.8	
44 trans-1,3-Dichloropropene	75	7.379	7.381	(1.000)	559485	50.0000	47.9	
45 1,1,2-Trichloroethane	97	7.516	7.518	(1.000)	362804	50.0000	48.2	
47 Tetrachloroethene	164	7.574	7.581	(1.000)	302525	50.0000	53.7	
46 1,3-Dichloropropane	76	7.636	7.650	(1.000)	618162	50.0000	48.5	
48 2-Hexanone	43	7.636	7.638	(0.930)	276712	50.0000	51.3	(M)
49 Dibromochloromethane	129	7.791	7.799	(1.000)	486991	50.0000	46.0	
50 1,2-Dibromoethane(EDB)	107	7.905	7.913	(1.000)	468030	50.0000	46.6	
51 CHLOROBENZENE-d5	82	8.214	8.222	(1.000)	580072	50.0000		(M)
52 Chlorobenzene ++	112	8.243	8.251	(1.000)	779286	50.0000	48.9	
53 1,1,1,2-Tetrachloroethane	133	8.283	8.302	(1.000)	371194	50.0000	48.7	
54 Ethylbenzene +	106	8.272	8.279	(1.000)	366145	50.0000	47.4	
55 p,m-Xylene	106	8.369	8.376	(1.000)	1089339	100.000	99.3	
56 o-Xylene	106	8.706	8.725	(1.000)	517600	50.0000	48.8	
57 Styrene	104	8.729	8.737	(1.000)	900866	50.0000	49.2	
58 Bromoform ++	173	8.947	8.954	(1.000)	355300	50.0000	48.5	
59 Isopropylbenzene	105	8.998	9.006	(1.000)	1489552	50.0000	46.1	
60 Bromofluorobenzene	174	9.204	9.212	(1.000)	371374	50.0000	49.6	
61 1,1,2,2-Tetrachloroethane++	83	9.313	9.326	(0.899)	578746	50.0000	46.7	
64 Bromobenzene	77	9.376	9.383	(0.905)	1340797	50.0000	52.4	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
63	1,2,3-Trichloropropane	75	9.387	9.395	(0.906)	755908	50.0000	48.6	
62	trans-1,4-Dichloro-2-Butene	53	9.376	9.378	(0.905)	146951	50.0000	48.2	
65	n-Propylbenzene	91	9.370	9.389	(0.904)	1840340	50.0000	48.4	
66	2-Chlorotoluene	91	9.524	9.532	(0.919)	1257266	50.0000	47.7	
67	1,3,5-Trimethylbenzene	105	8.998	9.006	(0.869)	1489552	50.0000	46.3	
68	4-Chlorotoluene	91	9.633	9.635	(0.930)	1293924	50.0000	48.0	
78	TOTAL XYLENE	106				1606939	150.000	148	
69	tert-butylbenzene	91	9.856	9.870	(0.951)	992565	50.0000	47.5	
72	p-Isopropyltoluene	119	9.862	9.870	(0.952)	1278427	50.0000	47.1	
70	1,2,4-Trimethylbenzene	105	9.547	9.549	(0.922)	1242790	50.0000	48.1	
71	sec-Butylbenzene	105	10.079	10.099	(0.973)	1876511	50.0000	47.5	
73	1,3-Dichlorobenzene	146	10.291	10.293	(0.993)	706578	50.0000	48.7	
74	1,4-DICHLOROBENZENE-D4	152	10.360	10.367	(1.000)	484299	50.0000		
75	1,4-Dichlorobenzene	146	10.383	10.390	(1.002)	754240	50.0000	46.3	
77	n-Butylbenzene	91	10.663	10.671	(1.029)	1186002	50.0000	49.6	
76	1,2-Dichlorobenzene	146	10.800	10.802	(1.043)	689545	50.0000	47.3	
79	1,2-Dibromo-3-Chloropropane	157	11.567	11.569	(1.117)	146434	50.0000	48.4	
80	1,2,4-Trichlorobenzene	180	12.311	12.301	(1.188)	334392	50.0000	51.9	
81	Hexachlorobutadiene	225	12.402	12.399	(1.197)	344766	50.0000	47.1	
82	Naphthalene	128	12.574	12.570	(1.214)	474217	50.0000	53.8	
83	1,2,3-Trichlorobenzene	180	12.826	12.810	(1.238)	314509	50.0000	50.8	
95	Cyclohexane	56	5.663	5.653	(0.925)	563508	50.0000	47.6	5084
89	Hexane	57	4.679	4.669	(0.764)	447609	50.0000	47.9	3275(H)

QC Flag Legend

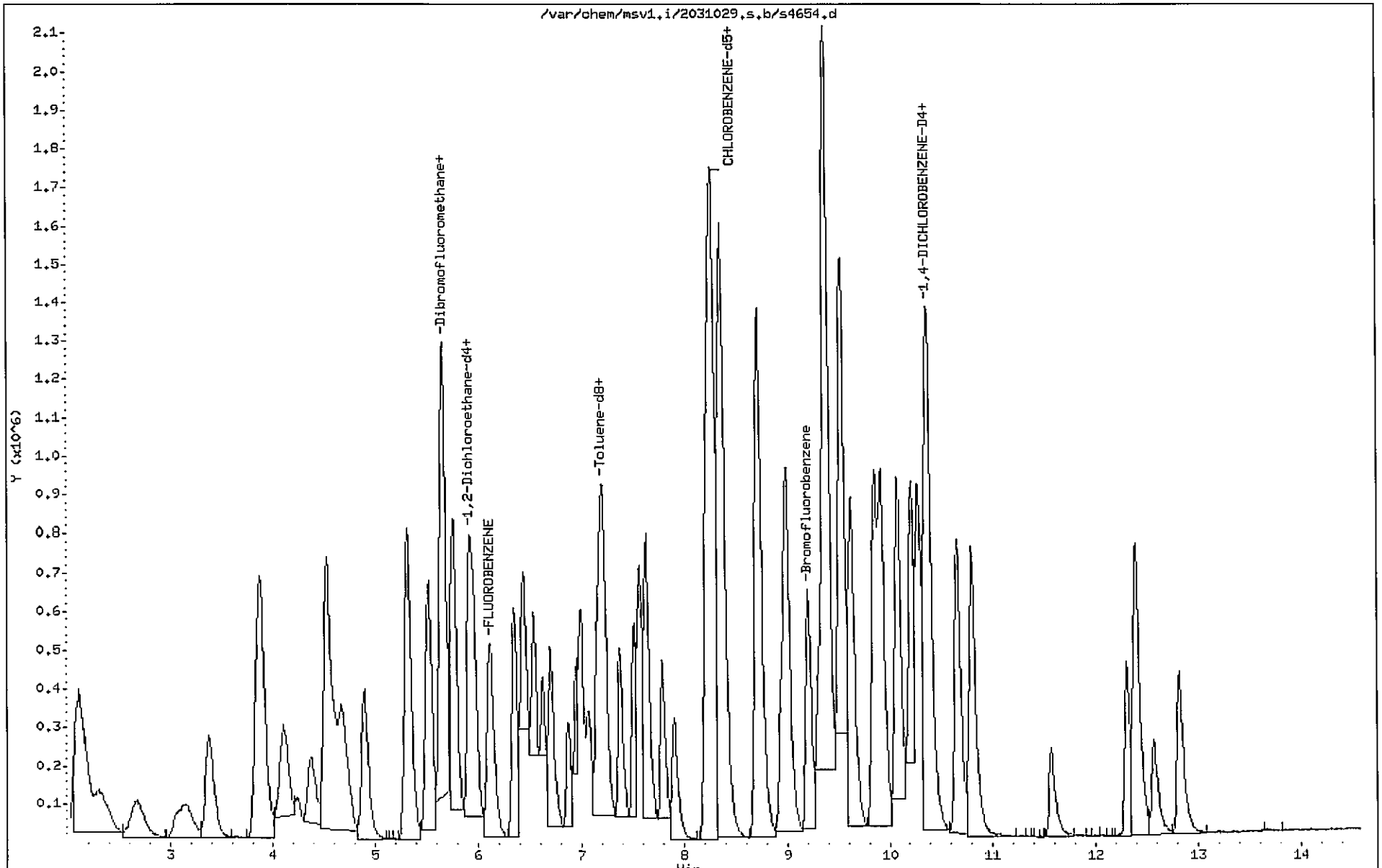
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

000074

Data File: /var/chem/msv1.i/2031029.s.b/s4654.d
Date : 29-OCT-2003 12:03
Client ID: V1STD050
Sample Info: 1203*V1STD050*5-4-2
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

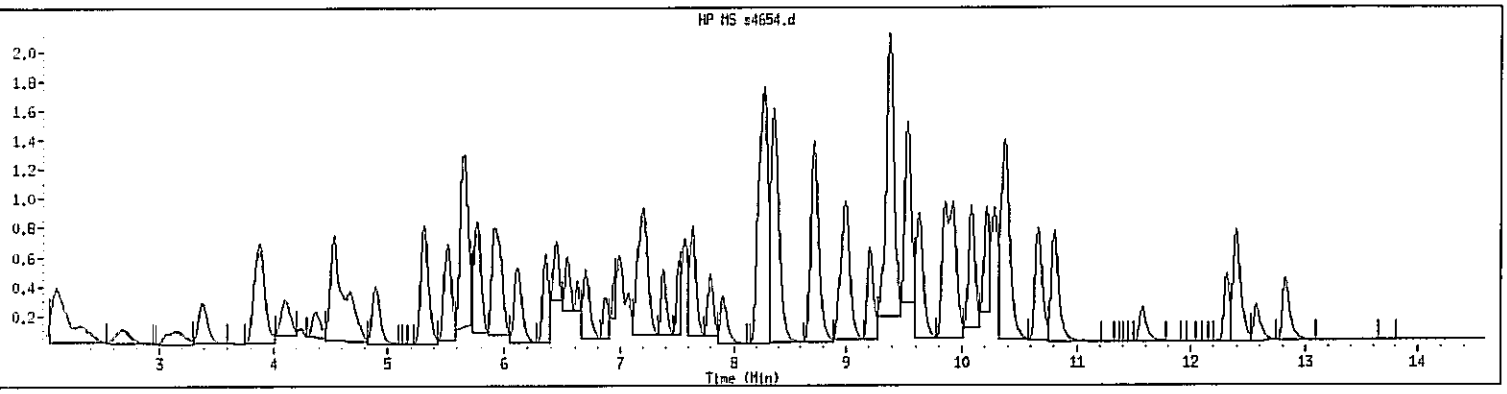
Operator: RSP
Column diameter: 0.53



Data file : /var/chem/msv1.i/2031029.s.b/s4654.d Page: 1
Report Date: 11/04/2003 09:39

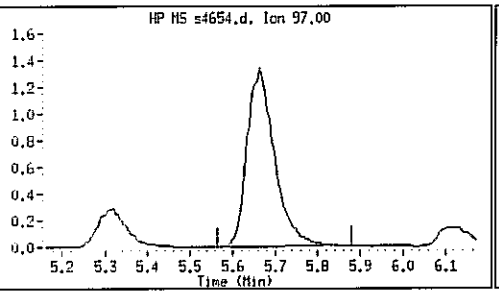
MANUAL INTEGRATION GRAPHIC REPORT

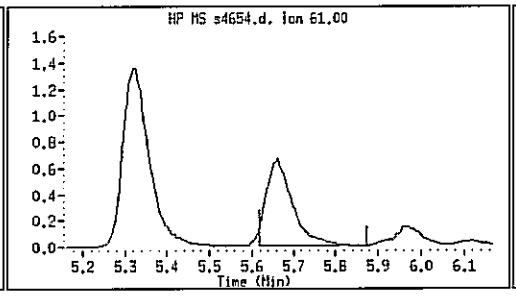
Lab ID : 1203 SampleType : CALIB_3
Injection Date: 29-OCT-2003 12:03 Instrument : msv1.i
Operator : RSP
Sample Info : 1203*V1STD050*5-4-2
Misc Info : MSV~3914~*1*RSP
Method : /var/chem/msv1.i/2031029.s.b/8260Bw1.m
Dilution : 1.0
Matrix : WATER
Integrator : HP RTE Compound Sublist: 8260b

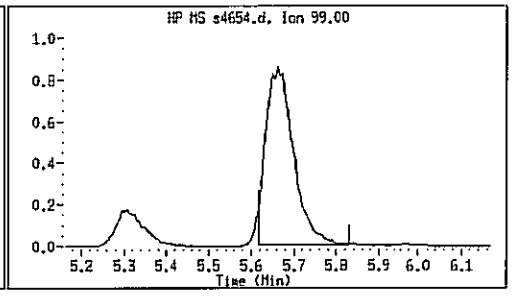


CONCENTRATIONS

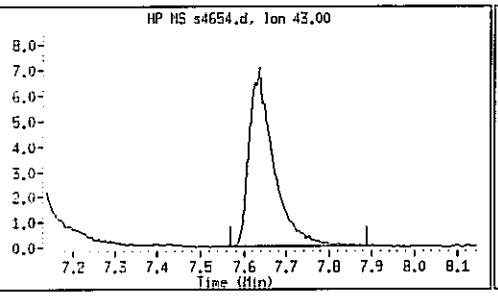
RT	(REL RT)	MASS	RESPONSE	AMT	CONC	RANGE	RATIO
26 1,1,1-Trichloroethane				CAS#: 71-55-6			
.663	0.925	97	600747	47	47	80-120	100
.663	0.925	61	283486			37- 55	47
.663	0.925	99	379444			50- 75	63

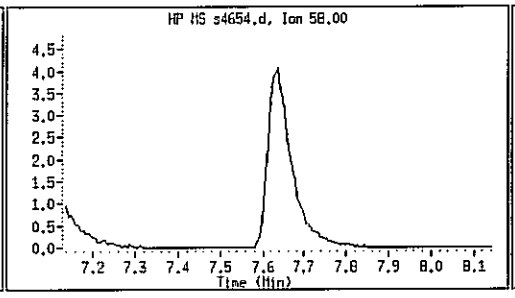


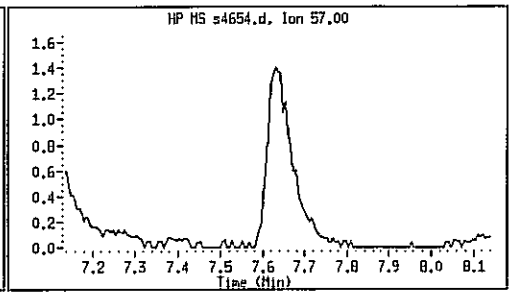




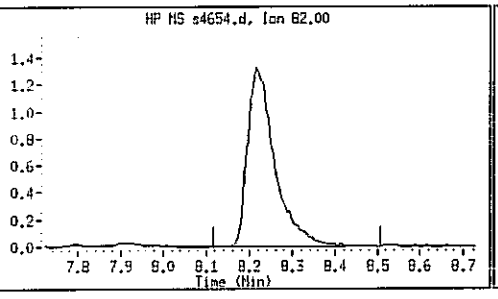
				CONCENTRATIONS			
RT	(REL RT)	MASS	RESPONSE	AMT	CONC	RANGE	RATIO
48 2-Hexanone			CAS#: 591-78-6				
7.636	0.930	43	276712	51	51	80-120	100
7.076	0.861	58	170988			51- 76	62
7.076	0.861	57	116987			31- 47	42

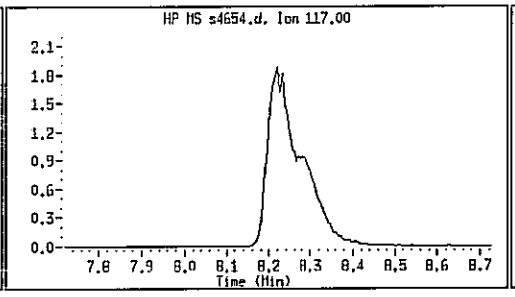


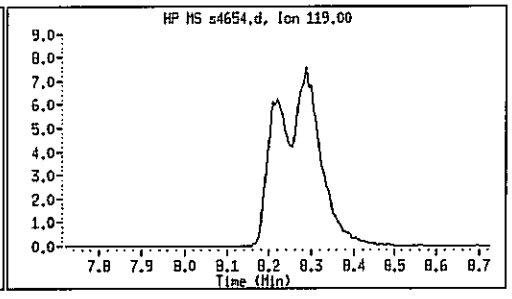




* 51 CHLOROBENZENE-d5			CAS#: 3114-55-4				
7.214	1.000	82	580072	50	50	80-120	100
7.215	1.000	117	0			171-257	0
7.210	0.999	119	0			30- 45	0







Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv1.i/2031029.s.b/s4655.d
Lab Smp Id: 1204 Client Smp ID: V1STD100
Inj Date : 29-OCT-2003 12:26
Operator : RSP Inst ID: msv1.i
Smp Info : 1204*V1STD100*5-4-2
Misc Info : MSV~3914~*1*RSP
Comment :
Method : /var/chem/msv1.i/2031029.s.b/8260Bw1.m
Meth Date : 04-Nov-2003 09:37 rsp Quant Type: ISTD
Cal Date : 29-OCT-2003 12:26 Cal File: s4655.d
Als bottle: 7 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
1 Dichlorodifluoromethane	85	2.335	2.335	(1.000)	1005115	100.000	99.4	
2 Chloromethane ++	50	2.632	2.632	(1.000)	486851	100.000	99.6	
3 Vinyl Chloride +	62	2.672	2.672	(1.000)	568770	100.000	100	
4 Bromomethane	94	3.084	3.084	(1.000)	455862	100.000	93.9	
5 Chloroethane	64	3.159	3.159	(1.000)	367748	100.000	96.1	
6 Trichlorofluoromethane	101	3.370	3.370	(1.000)	1406195	100.000	101	
7 Acrolein	56	3.868	3.868	(1.000)	254495	500.000	512	(A)
8 1,1-Dichloroethene +	96	3.891	3.891	(1.000)	593050	100.000	97.5	
9 1,1,2Trichlotrifluoroethane	101	3.857	3.857	(1.000)	1263921	100.000	98.8	
10 Acetone	43	4.017	4.017	(1.000)	138595	100.000	90.2	
11 Methyl Iodide	142	4.085	4.085	(1.000)	1308467	100.000	106	
12 Carbon Disulfide	76	4.103	4.103	(1.000)	1701256	100.000	98.3	
13 Methylene Chloride	49	4.360	4.360	(1.000)	827917	100.000	97.1	
14 Acrylonitrile	53	4.606	4.606	(1.000)	836482	500.000	476	(A)
15 trans-1,2-Dichloroethene	61	4.532	4.532	(1.000)	974803	100.000	98.3	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
16 Methyl Acetate	43	4.246	4.246	(1.000)	508962	100.000	93.8	2152(H)
17 MTBE	73	4.520	4.520	(1.000)	2055536	100.000	96.0	5077
18 1,1-Dichloroethane ++	63	4.886	4.886	(1.000)	1123602	100.000	91.6	
19 Vinyl Acetate	43	4.680	4.680	(1.000)	570425	100.000	101	
21 2,2-Dichloropropane	77	5.298	5.298	(1.000)	1150810	100.000	91.2	
20 cis-1,2-Dichloroethene	61	5.321	5.321	(1.000)	1122794	100.000	92.7	
22 2-Butanone	43	5.344	5.344	(1.000)	277851	100.000	86.4	
23 Bromochloromethane	128	5.499	5.499	(1.000)	395889	100.000	93.6	
24 Chloroform +	83	5.533	5.533	(1.000)	1427694	100.000	90.8	
25 Dibromofluoromethane	111	5.659	5.659	(1.000)	1022747	100.000	103	5185
26 1,1,1-Trichloroethane	97	5.665	5.665	(0.926)	1236264	100.000	95.6	(MH)
28 Carbon Tetrachloride	117	5.756	5.756	(1.000)	1062804	100.000	94.0	
27 1,1-Dichloropropene	75	5.767	5.767	(1.000)	1068016	100.000	98.0	
29 1,2-Dichloroethane-d4	67	5.911	5.911	(1.000)	471765	100.000	106	
31 Benzene	78	5.922	5.922	(1.000)	2113577	100.000	88.0	
30 1,2-Dichloroethane	62	5.973	5.973	(1.000)	962569	100.000	95.0	
33 FLUOROBENZENE	96	6.116	6.116	(1.000)	1054313	50.0000		(M)
32 Total 1,2-Dichloroethene	61				2097597	200.000	191	
34 Trichloroethene	130	6.357	6.357	(1.000)	847248	100.000	92.9	
35 Methyl Cyclohexane	83	6.443	6.443	(1.000)	1201920	100.000	94.4	6298
36 1,2-Dichloropropane +	63	6.546	6.546	(1.000)	828665	100.000	95.8	
37 Dibromomethane	93	6.626	6.626	(1.000)	665395	100.000	96.1	
38 Bromodichloromethane	83	6.706	6.706	(1.000)	1237265	100.000	91.1	
39 2-Chloroethyl vinyl ether	63	6.872	6.872	(1.000)	451630	100.000	90.7	
40 cis-1,3-Dichloropropene	75	7.009	7.009	(1.000)	1201211	100.000	94.7	
41 4-methyl-2-pentanone	43	7.078	7.078	(1.000)	849139	100.000	90.0	
42 Toluene-d8	98	7.169	7.169	(0.872)	2059082	100.000	101	
43 Toluene +	91	7.221	7.221	(0.878)	2329625	100.000	91.4	
44 trans-1,3-Dichloropropene	75	7.381	7.381	(0.898)	1154646	100.000	93.1	
45 1,1,2-Trichloroethane	97	7.518	7.518	(0.914)	738411	100.000	92.3	
47 Tetrachloroethene	164	7.581	7.581	(0.922)	609661	100.000	107	
46 1,3-Dichloropropane	76	7.650	7.650	(0.930)	1255201	100.000	92.6	
48 2-Hexanone	43	7.638	7.638	(0.929)	563391	100.000	104	(M)
49 Dibromochloromethane	129	7.799	7.799	(0.948)	1039197	100.000	92.5	
50 1,2-Dibromoethane(EDB)	107	7.913	7.913	(0.962)	976240	100.000	91.5	
51 CHLOROBENZENE-d5	82	8.222	8.222	(1.000)	616098	50.0000		
52 Chlorobenzene ++	112	8.251	8.251	(1.003)	1574952	100.000	93.1	
53 1,1,1,2-Tetrachloroethane	133	8.302	8.302	(1.010)	750268	100.000	92.7	
54 Ethylbenzene +	106	8.279	8.279	(1.007)	722862	100.000	88.2	
55 p,m-Xylene	106	8.376	8.376	(1.019)	2215834	200.000	190	
56 o-Xylene	106	8.725	8.725	(1.061)	1060896	100.000	94.1	
57 Styrene	104	8.737	8.737	(1.063)	1859778	100.000	95.6	
58 Bromoform ++	173	8.954	8.954	(1.089)	750115	100.000	96.5	
59 Isopropylbenzene	105	9.006	9.006	(1.095)	3070939	100.000	89.5	
60 Bromofluorobenzene	174	9.212	9.212	(1.120)	829645	100.000	104	
61 1,1,2,2-Tetrachloroethane++	83	9.326	9.326	(0.900)	1140200	100.000	91.7	
64 Bromobenzene	77	9.383	9.383	(0.905)	2264163	100.000	88.2	

		QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
ompounds									
63	1,2,3-Trichloropropane	75	9.395	9.395	(0.906)	1512500	100.000	97.0	
62	trans-1,4-Dichloro-2-Butene	53	9.378	9.378	(0.905)	295406	100.000	96.5	
65	n-Propylbenzene	91	9.389	9.389	(0.906)	3633795	100.000	95.3	
66	2-Chlorotoluene	91	9.532	9.532	(0.919)	2597161	100.000	98.2	
67	1,3,5-Trimethylbenzene	105	9.006	9.006	(0.869)	3070939	100.000	95.1	
68	4-Chlorotoluene	91	9.635	9.635	(0.929)	2643632	100.000	97.8	
78	TOTAL XYLENE	106				3276730	300.000	284	
69	tert-butylbenzene	91	9.870	9.870	(0.952)	2053779	100.000	97.9	
72	p-Isopropyltoluene	119	9.870	9.870	(0.952)	2620653	100.000	96.2	
70	1,2,4-Trimethylbenzene	105	9.549	9.549	(0.921)	2458962	100.000	94.9	
71	sec-Butylbenzene	105	10.099	10.099	(0.974)	3867098	100.000	97.6	
73	1,3-Dichlorobenzene	146	10.293	10.293	(0.993)	1361641	100.000	93.6	
74	1,4-DICHLOROBENZENE-D4	152	10.367	10.367	(1.000)	485851	50.0000		
75	1,4-Dichlorobenzene	146	10.390	10.390	(1.002)	1605427	100.000	98.2	
77	n-Butylbenzene	91	10.671	10.671	(1.029)	2338666	100.000	97.6	
76	1,2-Dichlorobenzene	146	10.802	10.802	(1.042)	1457887	100.000	99.7	
79	1,2-Dibromo-3-Chloropropane	157	11.569	11.569	(1.116)	310588	100.000	102	
80	1,2,4-Trichlorobenzene	180	12.301	12.301	(1.187)	593036	100.000	91.7	
81	Hexachlorobutadiene	225	12.399	12.399	(1.196)	698096	100.000	95.1	
82	Naphthalene	128	12.570	12.570	(1.212)	751544	100.000	85.0	
83	1,2,3-Trichlorobenzene	180	12.810	12.810	(1.236)	556025	100.000	89.5	
95	Cyclohexane	56	5.653	5.653	(1.000)	1153980	100.000	95.4	5085
89	Hexane	57	4.669	4.669	(1.000)	948763	100.000	99.5	3389(H)

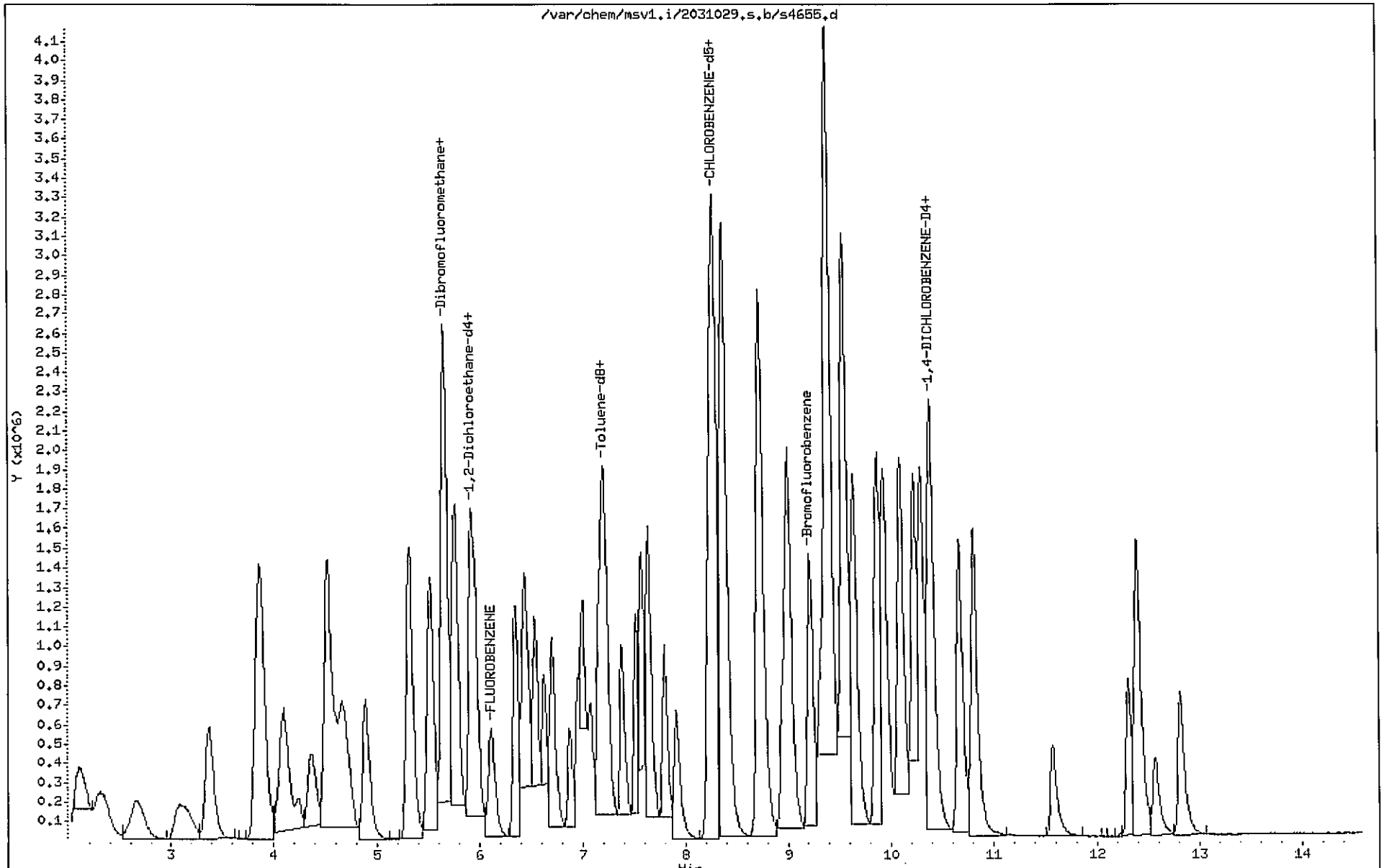
QC Flag Legend

- Target compound detected but, quantitated amount exceeded maximum amount.
- Compound response manually integrated.
- Operator selected an alternate compound hit.

000080

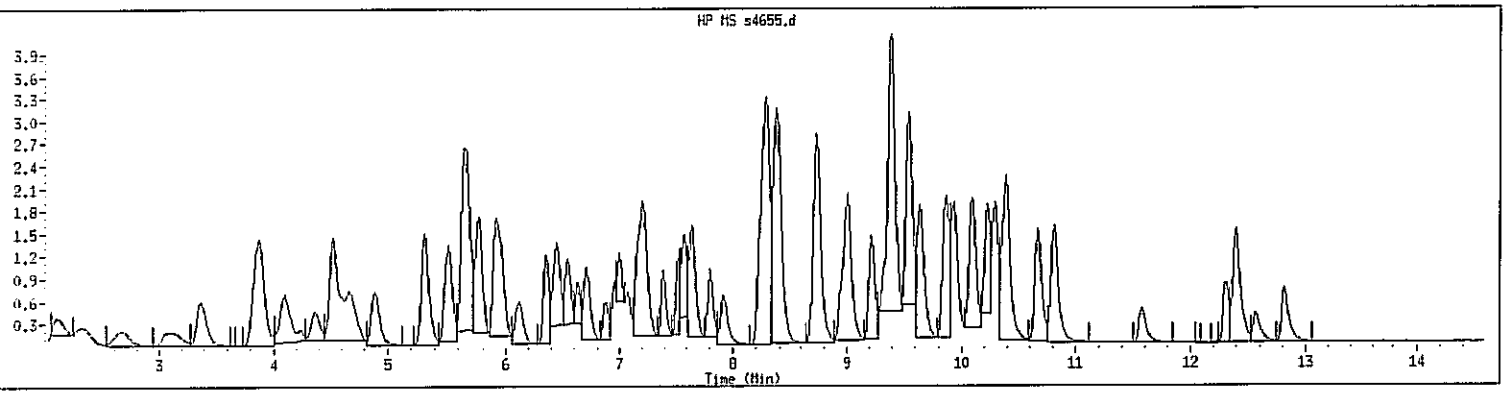
Data File: /var/chem/msv1.i/2031029.s.b/s4655.d
Date : 29-OCT-2003 12:26
Client ID: V1STD100
Sample Info: 1204*V1STD100*5-4-2
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i
Operator: RSP
Column diameter: 0.53



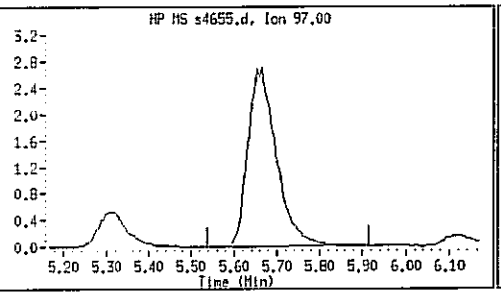
MANUAL INTEGRATION GRAPHIC REPORT

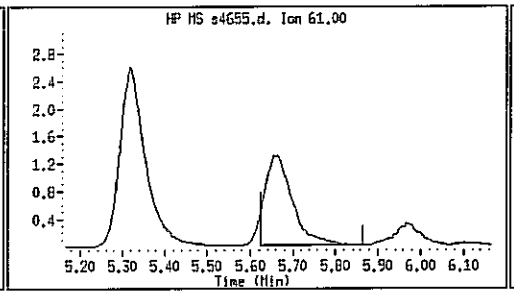
Lab ID : 1204 SampleType : CALIB_4
Injection Date: 29-OCT-2003 12:26 Instrument : msv1.i
Operator : RSP
Sample Info : 1204*V1STD100*5-4-2
Misc Info : MSV~3914~*1*RSP
Method : /var/chem/msv1.i/2031029.s.b/8260Bw1.m
Dilution : 1.0
Matrix : WATER
Integrator : HP RTE Compound Sublist: 8260b

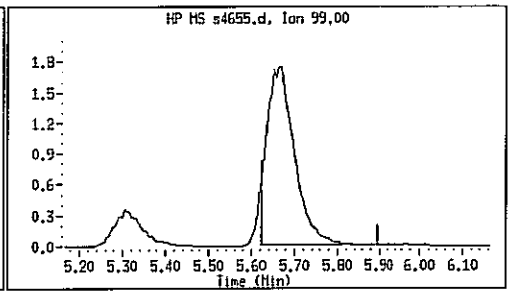


CONCENTRATIONS

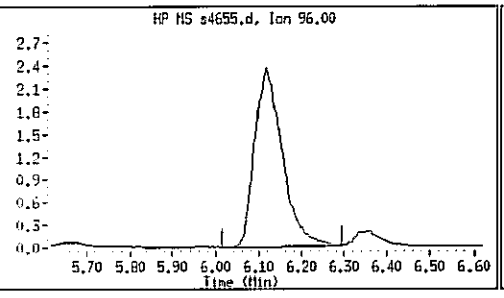
RT	(REL RT)	MASS	RESPONSE	AMT	CONC	RANGE	RATIO
26 1,1,1-Trichloroethane				CAS#: 71-55-6			
5.665	0.926	97	1236264	96	96	80-120	100
5.653	0.924	61	569188			37- 55	46
5.665	0.926	99	768180			50- 75	62

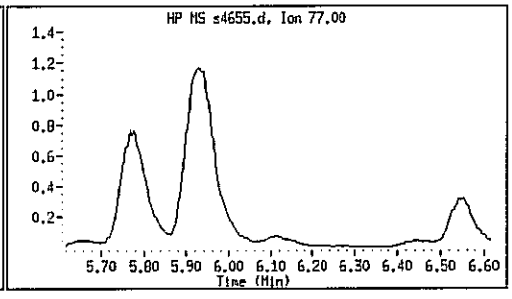




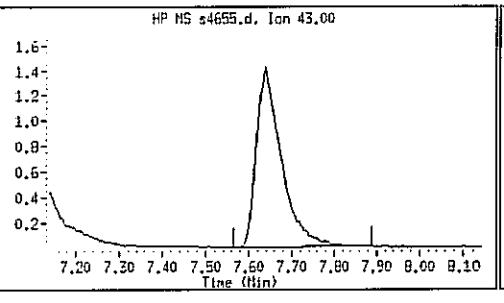


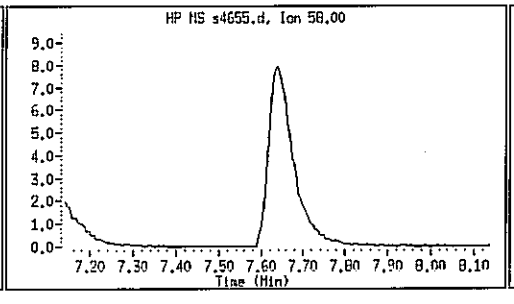
	RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS AMT	CONC	RANGE	RATIO
* 33 FLUOROBENZENE				CAS#: 462-06-6				
5.116		1.000	96	1054313	50	50	80-120	100
5.120		1.001	77	0			0- 0	0

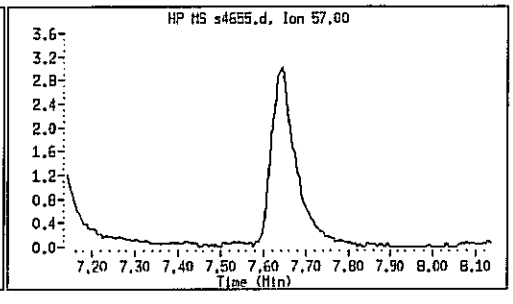




48 2-Hexanone			CAS#: 591-78-6				
7.638	0.929	43	563391	104	104	80-120	100
7.078	0.861	58	356321			51- 76	63
7.083	0.862	57	220846			31- 47	39







Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv1.i/2031029.s.b/s4656.d
Lab Smp Id: 1205 Client Smp ID: V1STD200
Inj Date : 29-OCT-2003 12:50
Operator : RSP Inst ID: msv1.i
Smp Info : 1205*V1STD200*5-4-2
Misc Info : MSV~3914~*1*RSP
Comment :
Method : /var/chem/msv1.i/2031029.s.b/8260Bw1.m
Meth Date : 04-Nov-2003 09:37 rsp Quant Type: ISTD
Cal Date : 29-OCT-2003 12:50 Cal File: s4656.d
Als bottle: 8 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
1 Dichlorodifluoromethane	85	2.336	2.335	(1.000)	1970792	200.000	192	
2 Chloromethane ++	50	2.622	2.632	(1.000)	951952	200.000	190	
3 Vinyl Chloride +	62	2.680	2.672	(1.000)	1119280	200.000	194	
4 Bromomethane	94	3.051	3.084	(1.000)	845875	200.000	177	
5 Chloroethane	64	3.166	3.159	(1.000)	630893	200.000	166	
6 Trichlorofluoromethane	101	3.355	3.370	(1.000)	2699505	200.000	192	
7 Acrolein	56	3.875	3.868	(1.000)	515102	1000.00	1020	(A)
8 1,1-Dichloroethene +	96	3.887	3.891	(1.000)	1165114	200.000	191	
9 1,1,2Trichlotrifluoroethane	101	3.835	3.857	(1.000)	2430597	200.000	190	
10 Acetone	43	4.013	4.017	(1.000)	278419	200.000	181	
11 Methyl Iodide	142	4.070	4.085	(1.000)	2606378	200.000	202	(A)
12 Carbon Disulfide	76	4.110	4.103	(1.000)	3498743	200.000	201	(A)
13 Methylene Chloride	49	4.367	4.360	(1.000)	1705391	200.000	196	
14 Acrylonitrile	53	4.608	4.606	(1.000)	1695007	1000.00	976	(A)
15 trans-1,2-Dichloroethene	61	4.527	4.532	(1.000)	1918800	200.000	192	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
16 Methyl Acetate	43	4.241	4.246	(1.000)	1045971	200.000	195	2090(H)
17 MTBE	73	4.516	4.520	(1.000)	4110672	200.000	191	5180
18 1,1-Dichloroethane ++	63	4.882	4.886	(1.000)	2488055	200.000	201	(A)
19 Vinyl Acetate	43	4.671	4.680	(1.000)	1147008	200.000	195	
21 2,2-Dichloropropane	77	5.306	5.298	(1.000)	2405842	200.000	193	
20 cis-1,2-Dichloroethene	61	5.311	5.321	(1.000)	2336528	200.000	191	
22 2-Butanone	43	5.334	5.344	(1.000)	599604	200.000	192	
23 Bromochloromethane	128	5.500	5.499	(1.000)	799150	200.000	191	
24 Chloroform +	83	5.523	5.533	(1.000)	2788439	200.000	186	
25 Dibromofluoromethane	111	5.643	5.659	(1.000)	1854157	200.000	191	5200
26 1,1,1-Trichloroethane	97	5.649	5.665	(1.000)	2404341	200.000	188	
28 Carbon Tetrachloride	117	5.740	5.756	(1.000)	2071439	200.000	183	
27 1,1-Dichloropropene	75	5.758	5.767	(1.000)	2083348	200.000	192	
29 1,2-Dichloroethane-d4	67	5.906	5.911	(1.000)	848989	200.000	195	
31 Benzene	78	5.912	5.922	(1.000)	4149376	200.000	171	
30 1,2-Dichloroethane	62	5.958	5.973	(1.000)	1922109	200.000	189	
33 FLUOROBENZENE	96	6.107	6.116	(1.000)	1071368	50.0000		(M)
32 Total 1,2-Dichloroethene	61				4255328	400.000	383	
34 Trichloroethene	130	6.335	6.357	(1.000)	1609881	200.000	178	
35 Methyl Cyclohexane	83	6.438	6.443	(1.000)	2273721	200.000	183	6356
36 1,2-Dichloropropane +	63	6.536	6.546	(1.000)	1567164	200.000	184	
37 Dibromomethane	93	6.621	6.626	(1.000)	1239429	200.000	182	
38 Bromodichloromethane	83	6.696	6.706	(1.000)	2419693	200.000	179	
39 2-Chloroethyl vinyl ether	63	6.867	6.872	(1.000)	921393	200.000	186	
40 cis-1,3-Dichloropropene	75	6.999	7.009	(1.000)	2396016	200.000	192	
41 4-methyl-2-pentanone	43	7.073	7.078	(1.000)	1731573	200.000	195	
42 Toluene-d8	98	7.165	7.169	(0.871)	3656264	200.000	179	
43 Toluene +	91	7.216	7.221	(0.877)	4523105	200.000	175	
44 trans-1,3-Dichloropropene	75	7.377	7.381	(0.896)	2321641	200.000	183	
45 1,1,2-Trichloroethane	97	7.514	7.518	(0.913)	1423658	200.000	175	
47 Tetrachloroethene	164	7.571	7.581	(0.920)	1178995	200.000	196	
46 1,3-Dichloropropane	76	7.646	7.650	(0.929)	2470317	200.000	178	
48 2-Hexanone	43	7.634	7.638	(0.928)	1119118	200.000	198	(M)
49 Dibromochloromethane	129	7.794	7.799	(0.947)	2028001	200.000	173	
50 1,2-Dibromoethane(EDB)	107	7.920	7.913	(0.962)	1955441	200.000	173	
51 CHLOROBENZENE-d5	82	8.229	8.222	(1.000)	666158	50.0000		
52 Chlorobenzene ++	112	8.246	8.251	(1.002)	3043947	200.000	174	
53 1,1,1,2-Tetrachloroethane	133	8.304	8.302	(1.009)	1452976	200.000	175	
54 Ethylbenzene +	106	8.275	8.279	(1.006)	1434619	200.000	174	
55 p,m-Xylene	106	8.378	8.376	(1.018)	4131679	400.000	341	(A)
56 o-Xylene	106	8.721	8.725	(1.060)	2032261	200.000	174	
57 Styrene	104	8.727	8.737	(1.060)	3601072	200.000	178	
58 Bromoform ++	173	8.950	8.954	(1.088)	1519089	200.000	183	
59 Isopropylbenzene	105	9.002	9.006	(1.094)	5889191	200.000	163	
60 Bromofluorobenzene	174	9.219	9.212	(1.120)	1536478	200.000	186	
61 1,1,2,2-Tetrachloroethane++	83	9.322	9.326	(0.900)	2205900	200.000	180	
64 Bromobenzene	77	9.379	9.383	(0.906)	5174052	200.000	205	(A)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
63	1,2,3-Trichloropropane	75	9.402	9.395	(0.908)	2686177	200.000	177	
62	trans-1,4-Dichloro-2-Butene	53	9.385	9.378	(0.906)	586050	200.000	195	
65	n-Propylbenzene	91	9.385	9.389	(0.906)	6792796	200.000	183	
66	2-Chlorotoluene	91	9.528	9.532	(0.920)	4936549	200.000	190	
67	1,3,5-Trimethylbenzene	105	9.002	9.006	(0.869)	5889191	200.000	191	
68	4-Chlorotoluene	91	9.642	9.635	(0.931)	5311893	200.000	198	
78	TOTAL XYLENE	106				6163940	600.000	515	
69	tert-butylbenzene	91	9.865	9.870	(0.952)	4144671	200.000	199	
72	p-Isopropyltoluene	119	9.865	9.870	(0.952)	5311845	200.000	198	
70	1,2,4-Trimethylbenzene	105	9.545	9.549	(0.922)	4979228	200.000	194	
71	sec-Butylbenzene	105	10.094	10.099	(0.975)	7622127	200.000	195	
73	1,3-Dichlorobenzene	146	10.289	10.293	(0.993)	2803506	200.000	198	
74	1,4-DICHLOROBENZENE-D4	152	10.358	10.367	(1.000)	491828	50.0000		
75	1,4-Dichlorobenzene	146	10.380	10.390	(1.002)	3085766	200.000	193	
77	n-Butylbenzene	91	10.666	10.671	(1.030)	5305812	200.000	211	(A)
76	1,2-Dichlorobenzene	146	10.798	10.802	(1.043)	2900880	200.000	200	
79	1,2-Dibromo-3-Chloropropane	157	11.576	11.569	(1.118)	642006	200.000	212	(A)
80	1,2,4-Trichlorobenzene	180	12.309	12.301	(1.188)	1460536	200.000	215	(A)
81	Hexachlorobutadiene	225	12.389	12.399	(1.196)	1428407	200.000	195	
82	Naphthalene	128	12.572	12.570	(1.214)	2045150	200.000	221	(A)
83	1,2,3-Trichlorobenzene	180	12.818	12.810	(1.238)	1371477	200.000	212	(A)
95	Cyclohexane	56	5.649	5.653	(1.000)	2176591	200.000	184	5186
89	Hexane	57	4.676	4.669	(1.000)	1900488	200.000	198	3303 (H)

QC Flag Legend

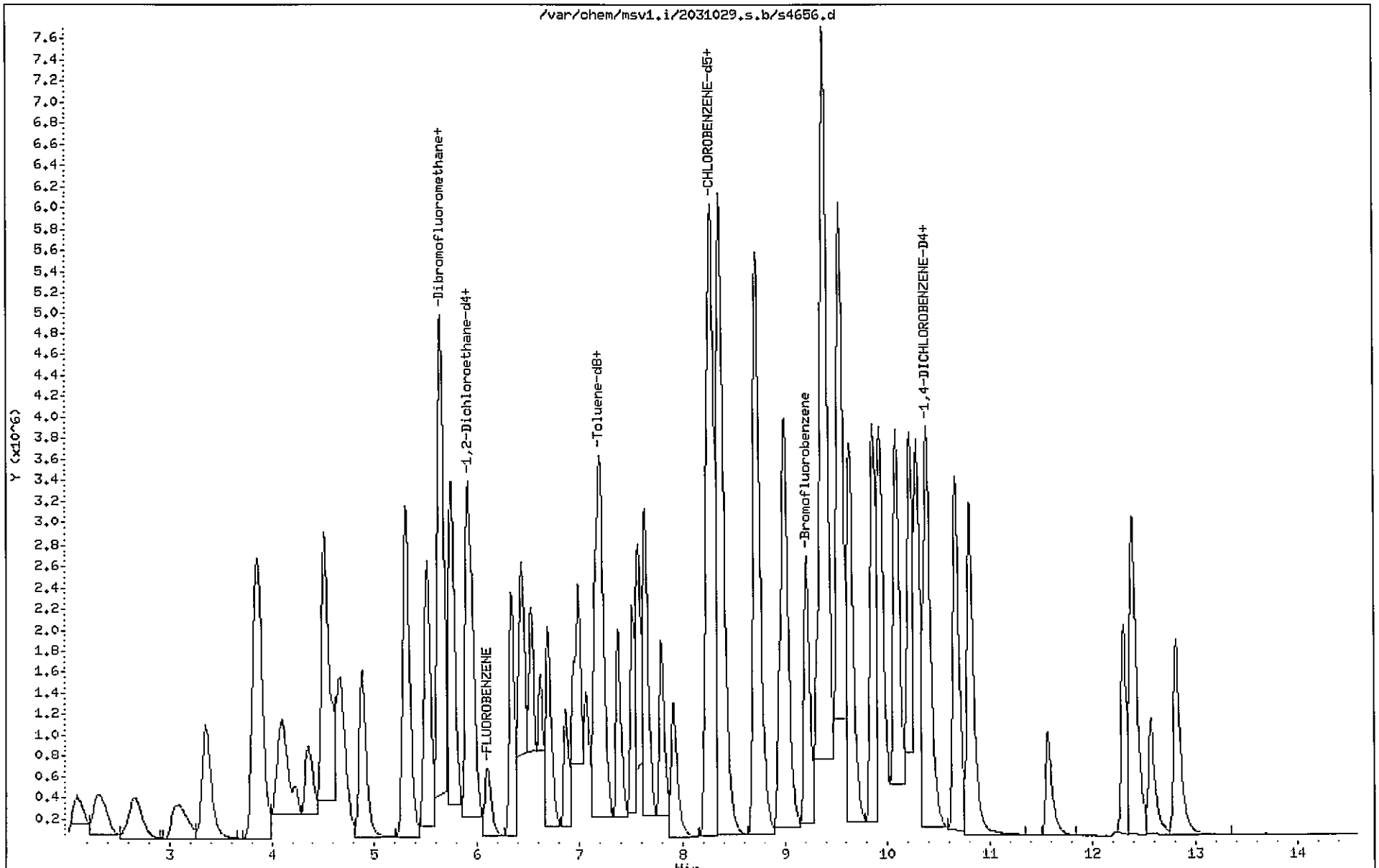
A - Target compound detected but, quantitated amount exceeded maximum amount.
H - Compound response manually integrated.
I - Operator selected an alternate compound hit.

Data File: /var/chem/msv1.i/2031029.s.b/s4656.d
Date : 29-OCT-2003 12:50
Client ID: V1STD200
Sample Info: 1205MV1STD200M5-4-2
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

Operator: RSP
Column diameter: 0.53

0000086

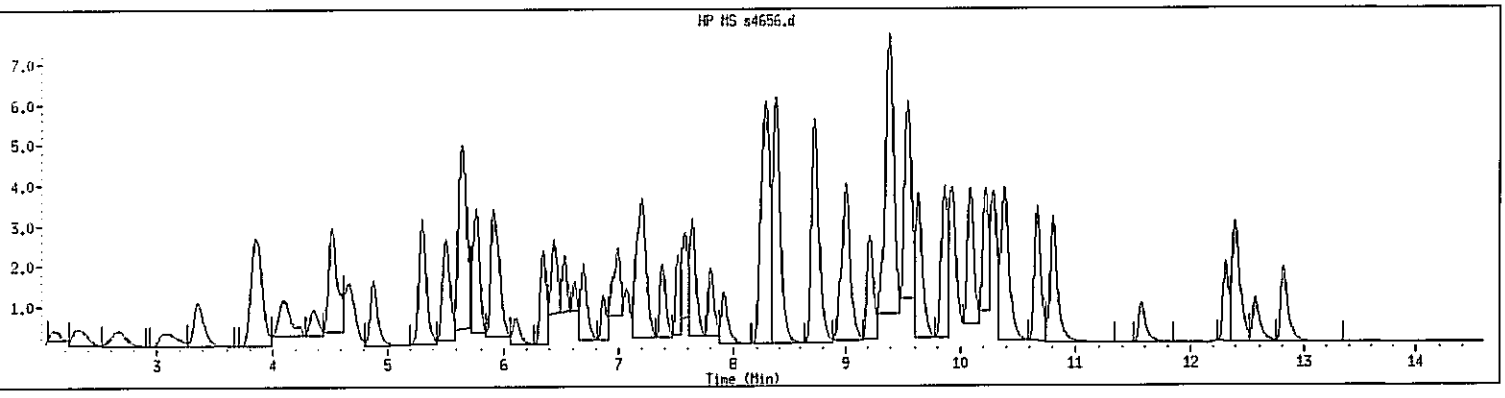


Data file : /var/chem/msv1.i/2031029.s.b/s4656.d
Report Date: 11/04/2003 09:39

MANUAL INTEGRATION GRAPHIC REPORT

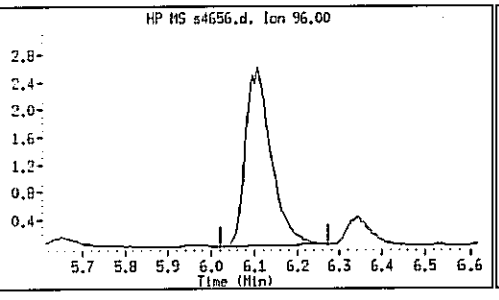
Lab ID : 1205
Injection Date: 29-OCT-2003 12:50
Operator : RSP
Sample Info : 1205*V1STD200*5-4-2
Misc Info : MSV~3914~*1*RSP
Method : /var/chem/msv1.i/2031029.s.b/8260Bw1.m
Dilution : 1.0
Matrix : WATER
Integrator : HP RTE

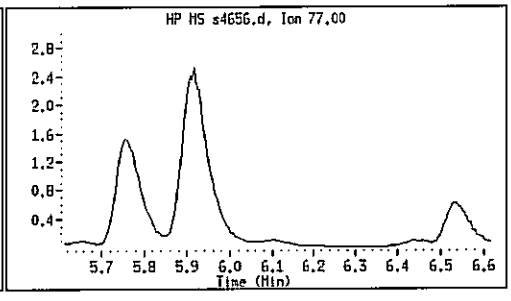
SampleType : CALIB_5
Instrument : msv1.i
Compound Sublist: 8260b



CONCENTRATIONS

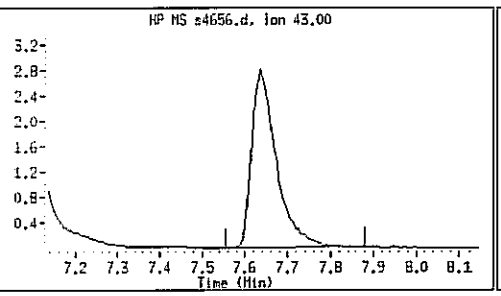
RT	(REL RT)	MASS	RESPONSE	AMT	CONC	RANGE	RATIO
* 33 FLUOROBENZENE			CAS#: 462-06-6				
.107	1.000	96	1071368	50	50	80-120	100
.116	1.002	77	0			0- 0	0

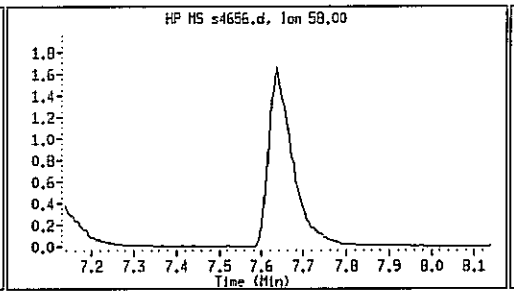


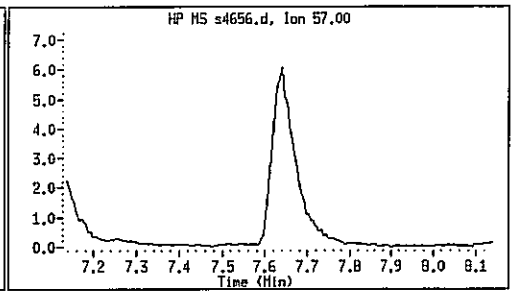


CONCENTRATIONS

RT	(REL RT)	MASS	RESPONSE	AMT	CONC	RANGE	RATIO
48 2-Hexanone			CAS#: 591-78-6				
7.634	0.928	43	1119118	198	198	80-120	100
7.073	0.860	58	718853			51- 76	64
7.079	0.860	57	447792			31- 47	40







Data File: /var/chem/msv1.i/2031029.s.b/s4659.d
Report Date: 04-Nov-2003 09:40

Gulf Coast Analytical Laboratories, Inc.

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: ICV
Level: LOW
Data Type: MS DATA
SpikeList File: CH2-ICV.spk
Sublist File: 8260b.sub
Method File: /var/chem/msv1.i/2031029.s.b/8260Bw1.m
Misc Info: MSV~3914~*1*RSP

Client SDG: 2031029.s
Fraction: VOA
Client Smp ID: V1STD050
Operator: RSP
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Dichlorodifluorome	50.0	43.3	86.54	80-120
2 Chloromethane ++	50.0	42.4	84.74	80-120
3 Vinyl Chloride +	50.0	42.5	84.93	80-120
4 Bromomethane	50.0	43.9	87.81	80-120
5 Chloroethane	50.0	46.3	92.54	80-120
6 Trichlorofluoromet	50.0	43.6	87.11	80-120
7 Acrolein	250	238	95.34	80-120
8 1,1-Dichloroethene	50.0	44.1	88.25	80-120
9 1,1,2Trichlotriflu	50.0	44.1	88.17	80-120
10 Acetone	50.0	36.0	71.96*	80-120
11 Methyl Iodide	50.0	43.2	86.33	80-120
12 Carbon Disulfide	50.0	44.2	88.46	80-120
13 Methylene Chloride	50.0	44.8	89.50	80-120
14 Acrylonitrile	250	214	85.62	80-120
15 trans-1,2-Dichloro	50.0	45.1	90.15	80-120
17 MTBE	50.0	44.5	89.06	80-120
18 1,1-Dichloroethane	50.0	46.9	93.70	80-120
19 Vinyl Acetate	50.0	45.3	90.57	80-120
20 cis-1,2-Dichloroet	50.0	46.5	92.95	80-120
21 2,2-Dichloropropan	50.0	47.3	94.66	80-120
22 2-Butanone	50.0	40.0	80.05	80-120
23 Bromochloromethane	50.0	48.9	97.79	80-120
24 Chloroform +	50.0	47.1	94.15	80-120
26 1,1,1-Trichloroeth	50.0	48.9	97.78	80-120
27 1,1-Dichloropropen	50.0	48.9	97.76	80-120
28 Carbon Tetrachlori	50.0	48.4	96.81	80-120
30 1,2-Dichloroethane	50.0	49.6	99.25	80-120
31 Benzene	50.0	44.7	89.50	80-120
34 Trichloroethene	50.0	47.6	95.12	80-120
36 1,2-Dichloropropan	50.0	47.5	94.97	80-120
37 Dibromomethane	50.0	50.7	101.46	80-120
38 Bromodichlorometha	50.0	48.6	97.21	80-120
39 2-Chloroethyl viny	50.0	49.5	98.98	80-120

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
40 cis-1,3-Dichloropr	50.0	52.7	105.35	80-120
41 4-methyl-2-pentano	50.0	47.6	95.25	80-120
43 Toluene +	50.0	48.9	97.71	80-120
44 trans-1,3-Dichloro	50.0	48.8	97.63	80-120
45 1,1,2-Trichloroeth	50.0	49.8	99.62	80-120
46 1,3-Dichloropropan	50.0	49.5	99.05	80-120
47 Tetrachloroethene	50.0	55.9	111.82	80-120
48 2-Hexanone	50.0	50.9	101.71	80-120
49 Dibromochlorometha	50.0	49.0	97.95	80-120
50 1,2-Dibromoethane (	50.0	48.2	96.40	80-120
52 Chlorobenzene ++	50.0	50.4	100.79	80-120
53 1,1,1,2-Tetrachlor	50.0	51.1	102.12	80-120
54 Ethylbenzene +	50.0	47.1	94.20	80-120
55 p,m-Xylene	100	104	104.33	80-120
56 o-Xylene	50.0	51.3	102.55	80-120
57 Styrene	50.0	51.1	102.21	80-120
58 Bromoform ++	50.0	52.9	105.71	80-120
59 Isopropylbenzene	50.0	48.0	95.97	80-120
61 1,1,2,2-Tetrachlor	50.0	49.6	99.24	80-120
62 trans-1,4-Dichloro	50.0	51.6	103.13	80-120
63 1,2,3-Trichloropro	50.0	54.7	109.32	80-120
64 Bromobenzene	50.0	45.8	91.57	80-120
65 n-Propylbenzene	50.0	49.7	99.49	80-120
66 2-Chlorotoluene	50.0	51.5	103.00	80-120
67 1,3,5-Trimethylben	50.0	48.6	97.25	80-120
68 4-Chlorotoluene	50.0	50.9	101.81	80-120
69 tert-butylbenzene	50.0	51.2	102.45	80-120
70 1,2,4-Trimethylben	50.0	51.9	103.82	80-120
71 sec-Butylbenzene	50.0	50.5	101.08	80-120
72 p-Isopropyltoluene	50.0	49.8	99.61	80-120
73 1,3-Dichlorobenzen	50.0	48.2	96.39	80-120
75 1,4-Dichlorobenzen	50.0	50.1	100.18	80-120
76 1,2-Dichlorobenzen	50.0	50.8	101.53	80-120
77 n-Butylbenzene	50.0	54.1	108.13	80-120
79 1,2-Dibromo-3-Chlo	50.0	51.6	103.21	80-120
80 1,2,4-Trichloroben	50.0	55.9	111.84	80-120
81 Hexachlorobutadien	50.0	43.6	87.26	80-120
82 Naphthalene	50.0	61.1	122.27*	80-120
83 1,2,3-Trichloroben	50.0	54.5	109.05	80-120

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 25 Dibromofluorometha	50.0	52.5	104.91	70-130

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 29 1,2-Dichloroethane	50.0	50.6	101.19	76-128
$ 42 Toluene-d8	50.0	50.1	100.19	83-112
$ 60 Bromofluorobenzene	50.0	54.9	109.80	78-115

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Data file : /var/chem/msv1.i/2031029.s.b/s4659.d
Lab Smp Id: ICV Client Smp ID: V1STD050
Inj Date : 29-OCT-2003 14:39
Operator : RSP Inst ID: msv1.i
Smp Info : ICV*V1STD050
Misc Info : MSV~3914~*1*RSP
Comment :
Method : /var/chem/msv1.i/2031029.s.b/8260Bw1.m
Meth Date : 04-Nov-2003 09:37 rsp Quant Type: ISTD
Cal Date : 29-OCT-2003 12:26 Cal File: s4655.d
Als bottle: 11 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
1 Dichlorodifluoromethane	85	2.323	2.335	(0.380)	457979	43.2717	43.3	
2 Chloromethane ++	50	2.620	2.632	(0.428)	216929	42.3699	42.4	
3 Vinyl Chloride +	62	2.689	2.672	(0.440)	252406	42.4668	42.5	
4 Bromomethane	94	3.089	3.084	(0.505)	223130	43.9065	43.9	
5 Chloroethane	64	3.164	3.159	(0.517)	185371	46.2675	46.3	
6 Trichlorofluoromethane	101	3.393	3.370	(0.555)	635487	43.5551	43.6	
7 Acrolein	56	3.885	3.868	(0.635)	124130	238.350	238	(A)
8 1,1-Dichloroethene +	96	3.913	3.891	(0.640)	281098	44.1249	44.1	
9 1,1,2Trichlotrifluoroethane	101	3.862	3.857	(0.631)	590560	44.0830	44.1	
10 Acetone	43	4.022	4.017	(0.658)	57903	35.9812	36.0	(R)
11 Methyl Iodide	142	4.079	4.085	(0.667)	555894	43.1648	43.2	
12 Carbon Disulfide	76	4.119	4.103	(0.674)	801667	44.2293	44.2	
13 Methylene Chloride	49	4.377	4.360	(0.716)	399290	44.7503	44.8	
14 Acrylonitrile	53	4.617	4.606	(0.755)	393730	214.060	214	(A)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
15 trans-1,2-Dichloroethene	61	4.537	4.532	(0.742)	467846	45.0727	45.1	
16 Methyl Acetate	43	4.245	4.246	(0.694)	233227	41.0613	41.1	1849(H)
17 MTBE	73	4.537	4.520	(0.742)	998615	44.5311	44.5	5123
18 1,1-Dichloroethane ++	63	4.903	4.886	(0.802)	602009	46.8505	46.9	
19 Vinyl Acetate	43	4.691	4.680	(0.767)	267266	45.2839	45.3	
21 2,2-Dichloropropane	77	5.315	5.298	(0.869)	625605	47.3308	47.3	
20 cis-1,2-Dichloroethene	61	5.332	5.321	(0.872)	589587	46.4731	46.5	
22 2-Butanone	43	5.344	5.344	(0.874)	134710	40.0225	40.0	
23 Bromochloromethane	128	5.509	5.499	(0.901)	216631	48.8965	48.9	
24 Chloroform +	83	5.544	5.533	(0.906)	774932	47.0727	47.1	
25 Dibromofluoromethane	111	5.664	5.659	(0.926)	542937	52.4567	52.5	5232
26 1,1,1-Trichloroethane	97	5.670	5.665	(0.927)	661984	48.8880	48.9	
28 Carbon Tetrachloride	117	5.761	5.756	(0.942)	573085	48.4040	48.4	
27 1,1-Dichloropropene	75	5.767	5.767	(0.943)	557945	48.8820	48.9	
29 1,2-Dichloroethane-d4	67	5.927	5.911	(0.969)	236023	50.5953	50.6	
31 Benzene	78	5.921	5.922	(0.968)	1125562	44.7492	44.7	
30 1,2-Dichloroethane	62	5.979	5.973	(0.978)	526443	49.6255	49.6	
33 FLUOROBENZENE	96	6.116	6.116	(1.000)	1103843	50.0000		
32 Total 1,2-Dichloroethene	61				1057433	91.5458	91.5	
34 Trichloroethene	130	6.351	6.357	(1.038)	453868	47.5584	47.6	
35 Methyl Cyclohexane	83	6.454	6.443	(1.055)	658953	49.4466	49.4	6301
36 1,2-Dichloropropane +	63	6.545	6.546	(1.070)	430018	47.4852	47.5	
37 Dibromomethane	93	6.631	6.626	(1.084)	367709	50.7313	50.7	
38 Bromodichloromethane	83	6.711	6.706	(1.097)	691185	48.6047	48.6	
39 2-Chloroethyl vinyl ether	63	6.877	6.872	(1.124)	257914	49.4902	49.5	
40 cis-1,3-Dichloropropene	75	7.008	7.009	(1.146)	699474	52.6766	52.7	
41 4-methyl-2-pentanone	43	7.083	7.078	(1.158)	470327	47.6234	47.6	
42 Toluene-d8	98	7.174	7.169	(0.872)	1094149	50.0960	50.1	
43 Toluene +	91	7.214	7.221	(0.877)	1330328	48.8535	48.9	
44 trans-1,3-Dichloropropene	75	7.386	7.381	(0.898)	647129	48.8137	48.8	
45 1,1,2-Trichloroethane	97	7.523	7.518	(0.914)	426027	49.8086	49.8	
47 Tetrachloroethene	164	7.586	7.581	(0.922)	356295	55.9112	55.9	
46 1,3-Dichloropropane	76	7.649	7.650	(0.930)	717153	49.5248	49.5	
48 2-Hexanone	43	7.644	7.638	(0.929)	311946	50.8554	50.9	(M)
49 Dibromochloromethane	129	7.804	7.799	(0.949)	588192	48.9760	49.0	
50 1,2-Dibromoethane(EDB)	107	7.912	7.913	(0.962)	549669	48.1987	48.2	
51 CHLOROBENZENE-d5	82	8.227	8.222	(1.000)	658513	50.0000		
52 Chlorobenzene ++	112	8.250	8.251	(1.003)	911348	50.3949	50.4	
53 1,1,1,2-Tetrachloroethane	133	8.301	8.302	(1.009)	441660	51.0597	51.1	
54 Ethylbenzene +	106	8.284	8.279	(1.007)	412654	47.0979	47.1	
55 p,m-Xylene	106	8.370	8.376	(1.017)	1298591	104.326	104	
56 o-Xylene	106	8.713	8.725	(1.059)	617577	51.2760	51.3	
57 Styrene	104	8.736	8.737	(1.062)	1062110	51.1045	51.1	
58 Bromoform ++	173	8.959	8.954	(1.089)	439263	52.8555	52.9	
59 Isopropylbenzene	105	9.005	9.006	(1.095)	1759243	47.9832	48.0	
60 Bromofluorobenzene	174	9.228	9.212	(1.122)	466238	54.9001	54.9	
61 1,1,2,2-Tetrachloroethane++	83	9.331	9.326	(0.900)	690692	49.6193	49.6	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
64	Bromobenzene	77	9.389	9.383	(0.905)	1316226	45.7852	45.8	
63	1,2,3-Trichloropropane	75	9.411	9.395	(0.907)	954261	54.6624	54.7	
62	trans-1,4-Dichloro-2-Butene	53	9.394	9.378	(0.906)	176762	51.5627	51.6	
65	n-Propylbenzene	91	9.394	9.389	(0.906)	2123794	49.7455	49.7	
66	2-Chlorotoluene	91	9.537	9.532	(0.919)	1526129	51.5023	51.5	
67	1,3,5-Trimethylbenzene	105	9.005	9.006	(0.868)	1759243	48.6241	48.6	
68	4-Chlorotoluene	91	9.640	9.635	(0.929)	1541592	50.9068	50.9	
78	TOTAL XYLENE	106				1916168	155.602	156	
69	tert-butylbenzene	91	9.875	9.870	(0.952)	1202878	51.2272	51.2	
72	p-Isopropyltoluene	119	9.875	9.870	(0.952)	1519294	49.8044	49.8	
70	1,2,4-Trimethylbenzene	105	9.554	9.549	(0.921)	1505665	51.9095	51.9	
71	sec-Butylbenzene	105	10.092	10.099	(0.973)	2241301	50.5383	50.5	
73	1,3-Dichlorobenzene	146	10.310	10.293	(0.994)	785247	48.1963	48.2	
74	1,4-DICHLOROBENZENE-D4	152	10.373	10.367	(1.000)	544084	50.0000		
75	1,4-Dichlorobenzene	146	10.401	10.390	(1.003)	917055	50.0904	50.1	
77	n-Butylbenzene	91	10.682	10.671	(1.030)	1451383	54.0636	54.1	
76	1,2-Dichlorobenzene	146	10.819	10.802	(1.043)	831079	50.7671	50.8	
79	1,2-Dibromo-3-Chloropropane	157	11.597	11.569	(1.118)	175554	51.6064	51.6	
80	1,2,4-Trichlorobenzene	180	12.329	12.301	(1.189)	404809	55.9196	55.9	
81	Hexachlorobutadiene	225	12.427	12.399	(1.198)	358830	43.6294	43.6	
82	Naphthalene	128	12.598	12.570	(1.215)	605265	61.1331	61.1	(R)
83	1,2,3-Trichlorobenzene	180	12.838	12.810	(1.238)	379450	54.5236	54.5	
95	Cyclohexane	56	5.670	5.653	(0.927)	612669	48.3553	48.4	5166
89	Hexane	57	4.691	4.669	(0.767)	442727	44.3298	44.3	3188(H)

C Flag Legend

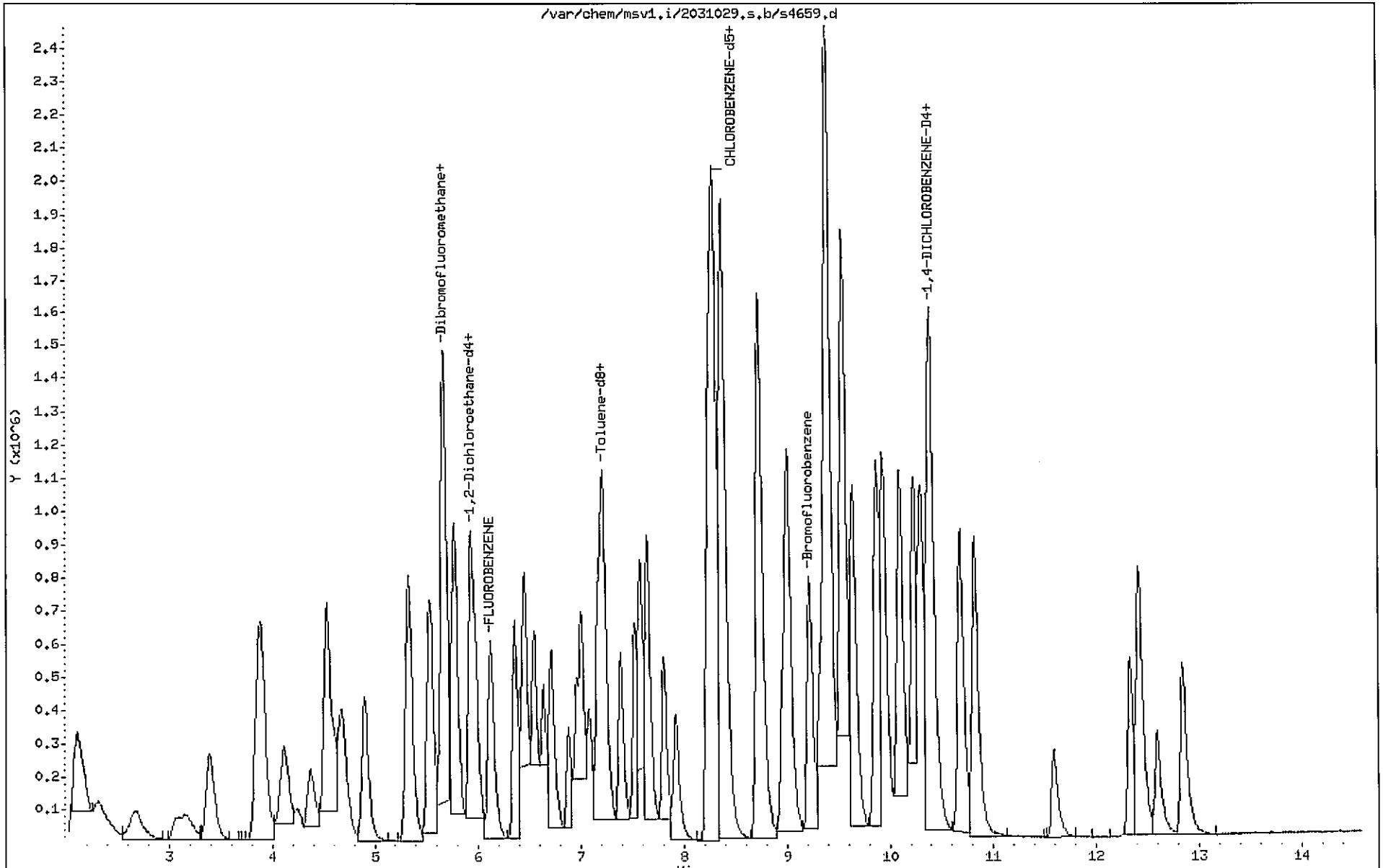
- Target compound detected but, quantitated amount exceeded maximum amount.
- Spike/Surrogate failed recovery limits.
- Compound response manually integrated.
- Operator selected an alternate compound hit.

Data File: /var/chem/msv1.i/2031029.s.b/s4659.d
Date : 29-OCT-2003 14:39
Client ID: V1STD050
Sample Info: ICV*V1STD050
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

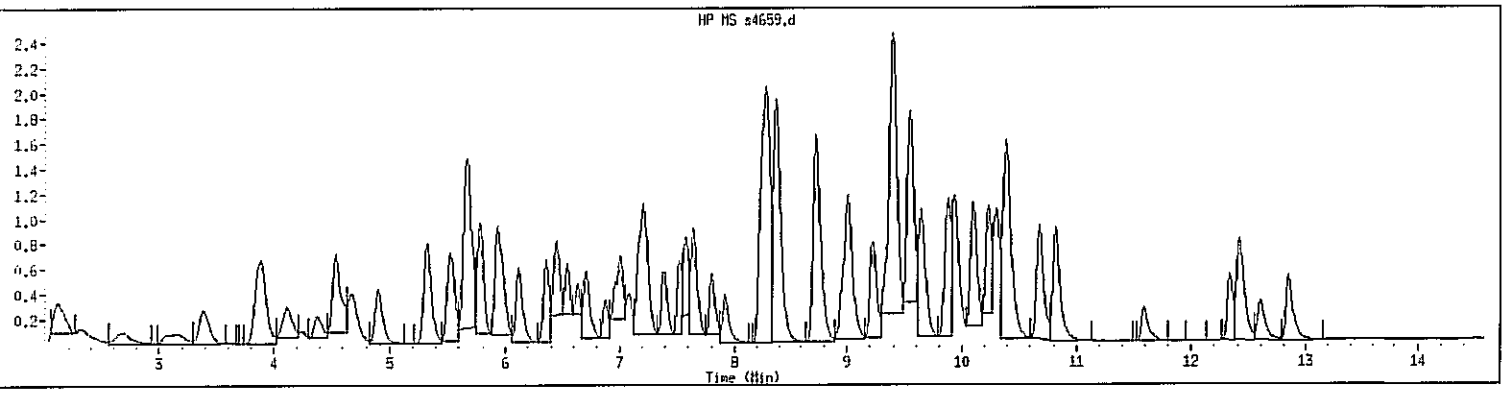
Operator: RSP
Column diameter: 0.53

000095



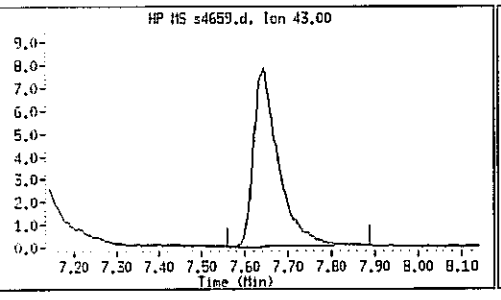
MANUAL INTEGRATION GRAPHIC REPORT

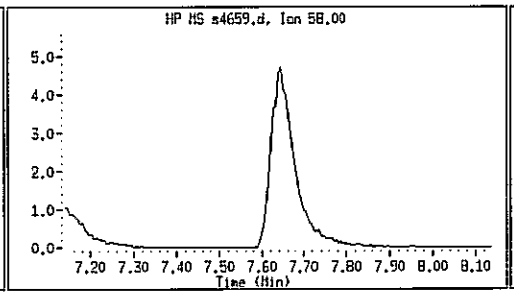
Lab ID : ICV SampleType : LCS
Injection Date: 29-OCT-2003 14:39 Instrument : msv1.i
Operator : RSP
Sample Info : ICV*V1STD050
Misc Info : MSV~3914~*1*RSP
Method : /var/chem/msv1.i/2031029.s.b/8260Bw1.m
Dilution : 1.0
Matrix : WATER
Integrator : HP RTE Compound Sublist: 8260b

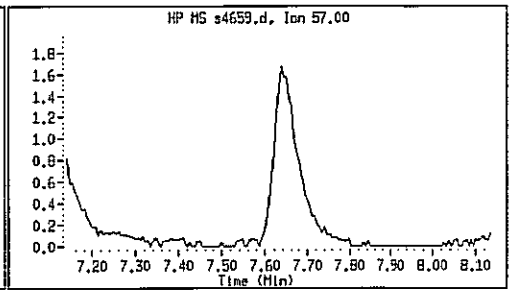


CONCENTRATIONS

RT	(REL RT)	MASS	RESPONSE	AMT	CONC	RANGE	RATIO
48 2-Hexanone			CAS#: 591-78-6				
7.644	0.929	43	311946	51	51	80-120	100
7.077	0.860	58	200171			51- 76	64
7.083	0.861	57	139014			31- 47	45







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Data file : /var/chem/msv1.i/2031029.s.b/s4662.d
Lab Smp Id: 127047 Client Smp ID: MB for HBN 264330
Inj Date : 29-OCT-2003 16:15
Operator : RSP Inst ID: msv1.i
Smp Info : 127047*MB for HBN 264330 [MSV/3914]
Misc Info : MSV~3914~*1*RSP
Comment :
Method : /var/chem/msv1.i/2031029.s.b/8260Bw1.m
Meth Date : 04-Nov-2003 09:37 rsp Quant Type: ISTD
Cal Date : 29-OCT-2003 12:26 Cal File: s4655.d
Als bottle: 3 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

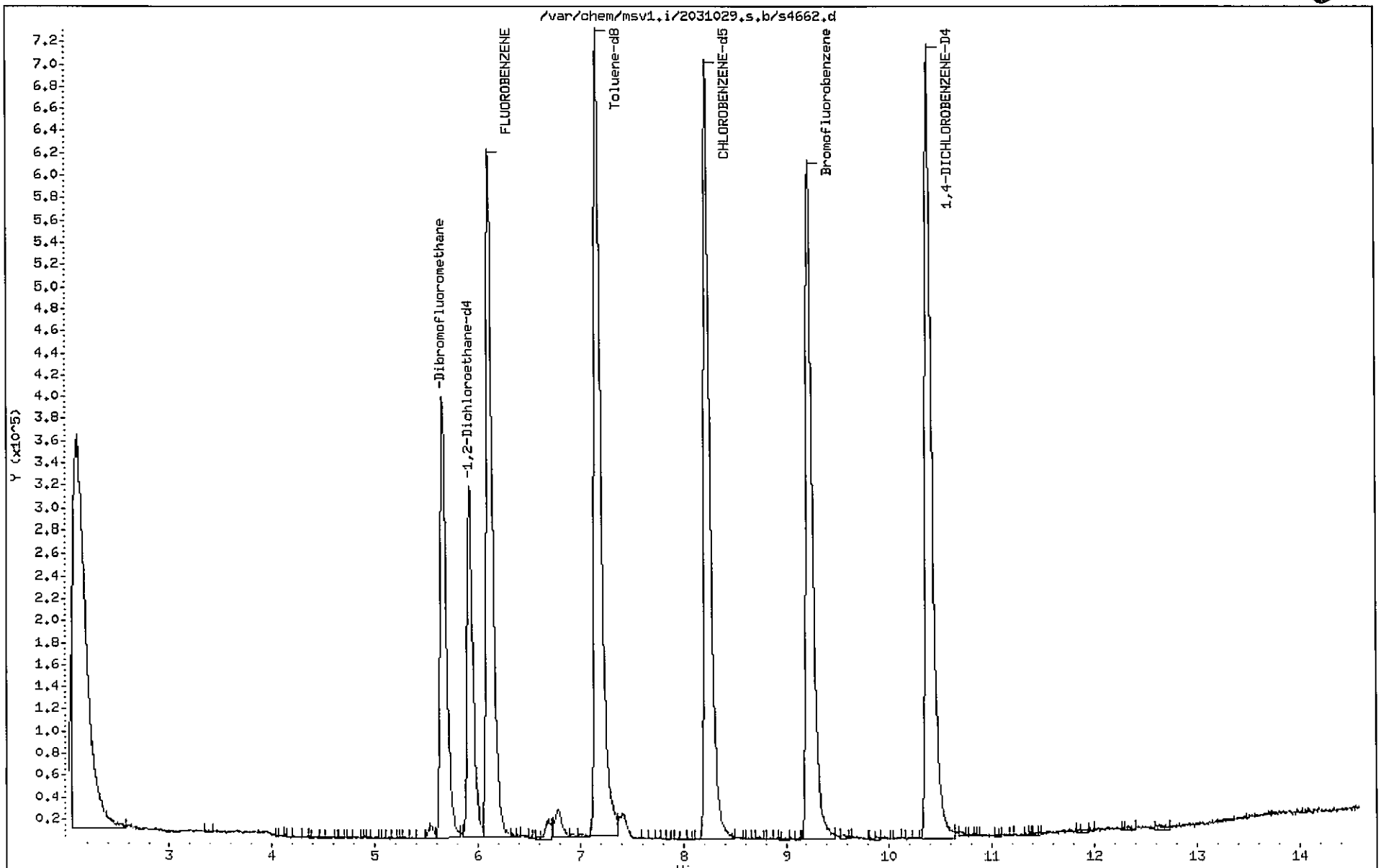
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
25 Dibromofluoromethane	111	5.659	5.659	(0.926)	512389	48.1508	48.2	214
29 1,2-Dichloroethane-d4	67	5.922	5.911	(0.969)	239086	49.8497	49.8	
33 FLUOROBENZENE	96	6.111	6.116	(1.000)	1134894	50.0000		
42 Toluene-d8	98	7.169	7.169	(0.871)	1110616	55.6728	55.7	
51 CHLOROBENZENE-d5	82	8.234	8.222	(1.000)	601468	50.0000		
60 Bromofluorobenzene	174	9.235	9.212	(1.122)	375250	48.3769	48.4	
74 1,4-DICHLOROBENZENE-D4	152	10.391	10.367	(1.000)	468731	50.0000		

Data File: /var/chem/msv1.i/2031029.s.b/s4662.d
Date : 29-OCT-2003 16:15
Client ID: MB for HBN 264330
Sample Info: 127047MB for HBN 264330 [MSV/3914]
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i
Operator: RSP
Column diameter: 0.53

000098



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv1.i/2031029.s.b/s4660.d
Lab Smp Id: 127046 Client Smp ID: LCS for HBN 264330
Inj Date : 29-OCT-2003 15:28
Operator : RSP Inst ID: msv1.i
Smp Info : 127046*LCS for HBN 264330 [MSV/3914]
Misc Info : MSV~3914~*1*RSP
Comment :
Method : /var/chem/msv1.i/2031029.s.b/8260Bw1.m
Meth Date : 04-Nov-2003 09:37 rsp Quant Type: ISTD
Cal Date : 29-OCT-2003 12:26 Cal File: s4655.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
1 Dichlorodifluoromethane	85	2.306	2.335	(0.378)	250553	22.8098	22.8	
2 Chloromethane ++	50	2.621	2.632	(0.430)	123854	23.3085	23.3	
3 Vinyl Chloride +	62	2.673	2.672	(0.438)	143962	23.3379	23.3	
4 Bromomethane	94	3.067	3.084	(0.503)	123022	23.3248	23.3	
5 Chloroethane	64	3.159	3.159	(0.518)	105124	25.2813	25.3	
6 Trichlorofluoromethane	101	3.382	3.370	(0.554)	355802	23.4966	23.5	
7 Acrolein	56	3.863	3.868	(0.633)	66258	122.586	123	
8 1,1-Dichloroethene +	96	3.891	3.891	(0.638)	156921	23.7340	23.7	
9 1,1,2Trichlotrifluoroethane	101	3.851	3.857	(0.631)	326813	23.5055	23.5	
10 Acetone	43	4.006	4.017	(0.657)	36506	21.8576	21.9	
11 Methyl Iodide	142	4.086	4.085	(0.670)	339250	25.3817	25.4	
12 Carbon Disulfide	76	4.103	4.103	(0.673)	444139	23.6101	23.6	
13 Methylene Chloride	49	4.372	4.360	(0.717)	207015	22.3549	22.4	
14 Acrylonitrile	53	4.606	4.606	(0.755)	218486	114.452	114	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
15 trans-1,2-Dichloroethene	61	4.526	4.532	(0.742)	258283	23.9756	24.0	
16 Methyl Acetate	43	4.521	4.246	(0.741)	116146	19.7025	19.7	5201
17 MTBE	73	4.521	4.520	(0.741)	549173	23.5960	23.6	5201
18 1,1-Dichloroethane ++	63	4.887	4.886	(0.801)	315210	23.6360	23.6	
19 Vinyl Acetate	43	4.681	4.680	(0.767)	148975	24.3207	24.3	
21 2,2-Dichloropropane	77	5.310	5.298	(0.871)	354843	25.8668	25.9	
20 cis-1,2-Dichloroethene	61	5.310	5.321	(0.871)	331249	25.1578	25.2	
22 2-Butanone	43	5.339	5.344	(0.875)	81425	23.3091	23.3	
23 Bromochloromethane	128	5.493	5.499	(0.901)	116694	25.3787	25.4	
24 Chloroform +	83	5.527	5.533	(0.906)	433190	25.3541	25.4	
25 Dibromofluoromethane	111	5.653	5.659	(0.927)	539009	50.1778	50.2	5111
26 1,1,1-Trichloroethane	97	5.659	5.665	(0.928)	368857	26.2468	26.2	
28 Carbon Tetrachloride	117	5.745	5.756	(0.942)	305401	24.8540	24.9	
27 1,1-Dichloropropene	75	5.762	5.767	(0.945)	309544	26.1302	26.1	
29 1,2-Dichloroethane-d4	67	5.911	5.911	(0.969)	237380	49.0302	49.0	
31 Benzene	78	5.917	5.922	(0.970)	626135	23.9854	24.0	
30 1,2-Dichloroethane	62	5.962	5.973	(0.977)	269956	24.5194	24.5	
33 FLUOROBENZENE	96	6.100	6.116	(1.000)	1145628	50.0000		
32 Total 1,2-Dichloroethene	61				589532	49.1334	49.1	
34 Trichloroethene	130	6.346	6.357	(1.040)	248153	25.0542	25.1	
35 Methyl Cyclohexane	83	6.437	6.443	(1.055)	365012	26.3908	26.4	6306
36 1,2-Dichloropropane +	63	6.529	6.546	(1.070)	241443	25.6892	25.7	
37 Dibromomethane	93	6.620	6.626	(1.085)	199490	26.5190	26.5	
38 Bromodichloromethane	83	6.700	6.706	(1.098)	380248	25.7641	25.8	
39 2-Chloroethyl vinyl ether	63	6.872	6.872	(1.127)	125295	23.1655	23.2	
40 cis 1,3-Dichloropropene	75	6.992	7.009	(1.146)	357513	25.9419	25.9	
41 4-methyl-2-pentanone	43	7.067	7.078	(1.159)	266955	26.0449	26.0	
42 Toluene-d8	98	7.158	7.169	(0.871)	1138442	55.2965	55.3	
43 Toluene +	91	7.204	7.221	(0.877)	714178	27.8229	27.8	
44 trans-1,3-Dichloropropene	75	7.381	7.381	(0.898)	345753	27.6679	27.7	
45 1,1,2-Trichloroethane	97	7.513	7.518	(0.914)	218573	27.1096	27.1	
47 Tetrachloroethene	164	7.576	7.581	(0.922)	188808	29.0636	29.1	
46 1,3-Dichloropropane	76	7.644	7.650	(0.930)	374414	27.4298	27.4	
48 2-Hexanone	43	7.627	7.638	(0.928)	169682	26.5321	26.5	(M)
49 Dibromochloromethane	129	7.793	7.799	(0.948)	304446	26.8927	26.9	
50 1,2-Dibromoethane(EDB)	107	7.908	7.913	(0.962)	290798	27.0511	27.1	
51 CHLOROBENZENE-d5	82	8.216	8.222	(1.000)	620733	50.0000		
52 Chlorobenzene ++	112	8.245	8.251	(1.003)	457295	26.8262	26.8	
53 1,1,1,2-Tetrachloroethane	133	8.297	8.302	(1.010)	217857	26.7191	26.7	(M)
54 Ethylbenzene +	106	8.279	8.279	(1.008)	215531	26.0966	26.1	
55 p,m-Xylene	106	8.371	8.376	(1.019)	639766	54.5259	54.5	
56 o-Xylene	106	8.709	8.725	(1.060)	298505	26.2926	26.3	
57 Styrene	104	8.731	8.737	(1.063)	517302	26.4054	26.4	
58 Bromoform ++	173	8.943	8.954	(1.088)	202905	25.9011	25.9	
59 Isopropylbenzene	105	9.000	9.006	(1.095)	872393	25.2426	25.2	
60 Bromofluorobenzene	174	9.218	9.212	(1.122)	380788	47.5673	47.6	
61 1,1,2,2-Tetrachloroethane++	83	9.326	9.326	(0.900)	307251	24.7023	24.7	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
64 Bromobenzene	77	9.384	9.383	(0.905)	599586	23.3413	23.3	
63 1,2,3-Trichloropropane	75	9.395	9.395	(0.906)	428396	27.4628	27.5	
62 trans-1,4-Dichloro-2-Butene	53	9.384	9.378	(0.905)	77437	25.2798	25.3	
65 n-Propylbenzene	91	9.389	9.389	(0.906)	974991	25.5576	25.6	
66 2-Chlorotoluene	91	9.532	9.532	(0.919)	704202	26.5957	26.6	
67 1,3,5-Trimethylbenzene	105	9.000	9.006	(0.868)	872393	26.9847	27.0	
68 4-Chlorotoluene	91	9.635	9.635	(0.929)	674339	24.9209	24.9	
78 TOTAL XYLENE	106				938271	80.8185	80.8	
69 tert butylbenzene	91	9.870	9.870	(0.952)	526902	25.1124	25.1	
72 p-Isopropyltoluene	119	9.870	9.870	(0.952)	674222	24.7347	24.7	
70 1,2,4-Trimethylbenzene	105	9.550	9.549	(0.921)	659140	25.4317	25.4	
71 sec-Butylbenzene	105	10.099	10.099	(0.974)	978569	24.6940	24.7	
73 1,3-Dichlorobenzene	146	10.293	10.293	(0.993)	343951	23.6256	23.6	(M)
74 1,4-DICHLOROBENZENE-D4	152	10.368	10.367	(1.000)	486169	50.0000		
75 1,4-Dichlorobenzene	146	10.396	10.390	(1.003)	404506	24.7265	24.7	
77 n-Butylbenzene	91	10.671	10.671	(1.029)	527864	22.0051	22.0	
76 1,2-Dichlorobenzene	146	10.814	10.802	(1.043)	354485	24.2335	24.2	
79 1,2-Dibromo-3-Chloropropane	157	11.581	11.569	(1.117)	76675	25.2247	25.2	
80 1,2,4-Trichlorobenzene	180	12.324	12.301	(1.189)	150242	23.2265	23.2	
81 Hexachlorobutadiene	225	12.405	12.399	(1.196)	179931	24.4836	24.5	
82 Naphthalene	128	12.588	12.570	(1.214)	192904	21.8047	21.8	
83 1,2,3-Trichlorobenzene	180	12.834	12.810	(1.238)	134980	21.7059	21.7	
95 Cyclohexane	56	5.653	5.653	(0.927)	341429	25.9646	26.0	5111
89 Hexane	57	4.669	4.669	(0.766)	248406	23.9654	24.0	3281

QC Flag Legend

M - Compound response manually integrated.

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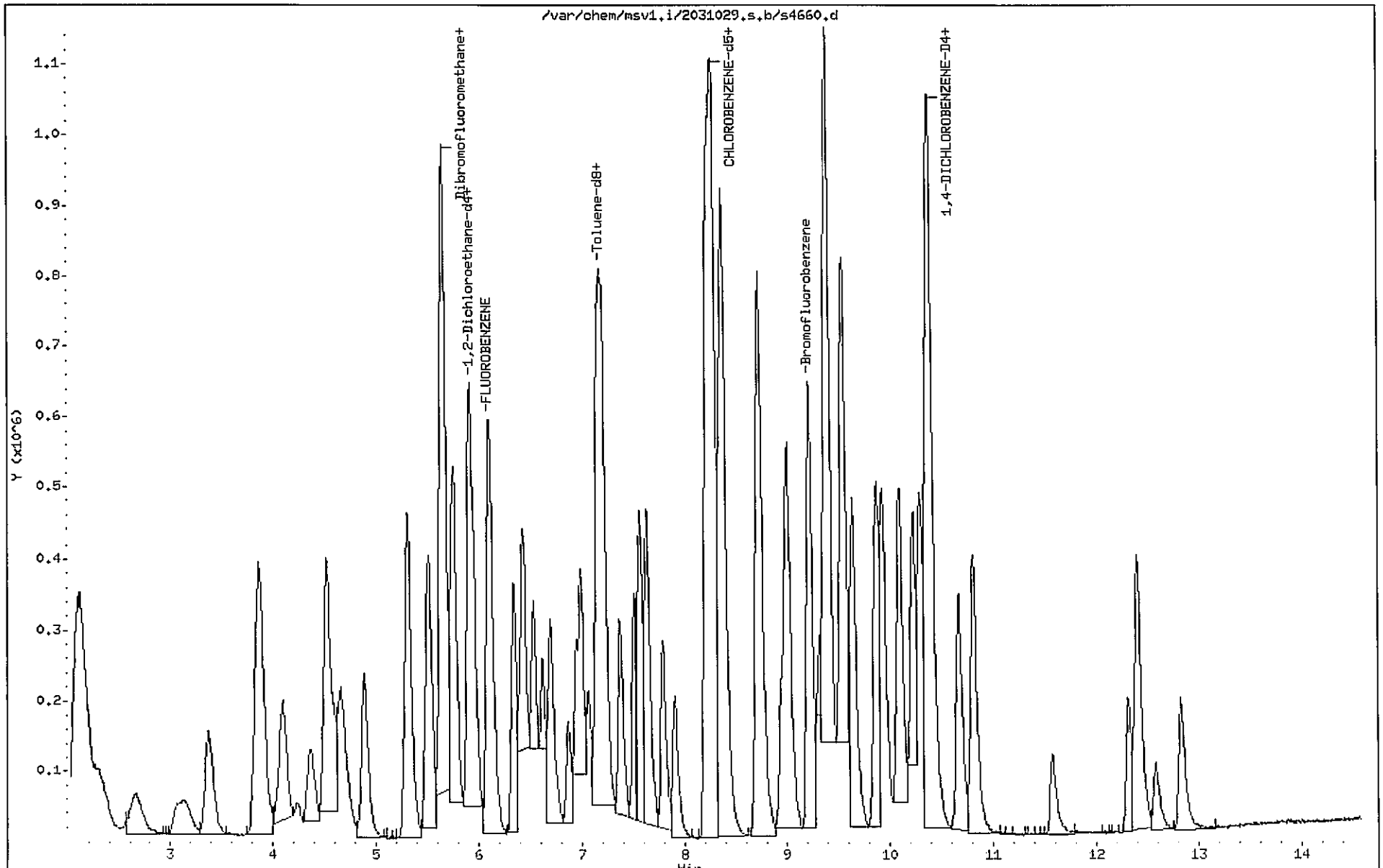
Date : 29-OCT-2003 15:28
Client ID: LCS for HBN 264330
Sample Info: 127046MLCS for HBN 264330 [MSV/3914]
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

Operator: RSP
Column diameter: 0.53

000102



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Report Date: 11/04/2003 09:50

MANUAL INTEGRATION GRAPHIC REPORT

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Injection Date: 29-OCT-2003 15:28 Instrument : msv1.i
Operator : RSP
Sample Info : 127046*LCS for HBN 264330 [MSV/3914]
Misc Info : MSV~3914~*1*RSP
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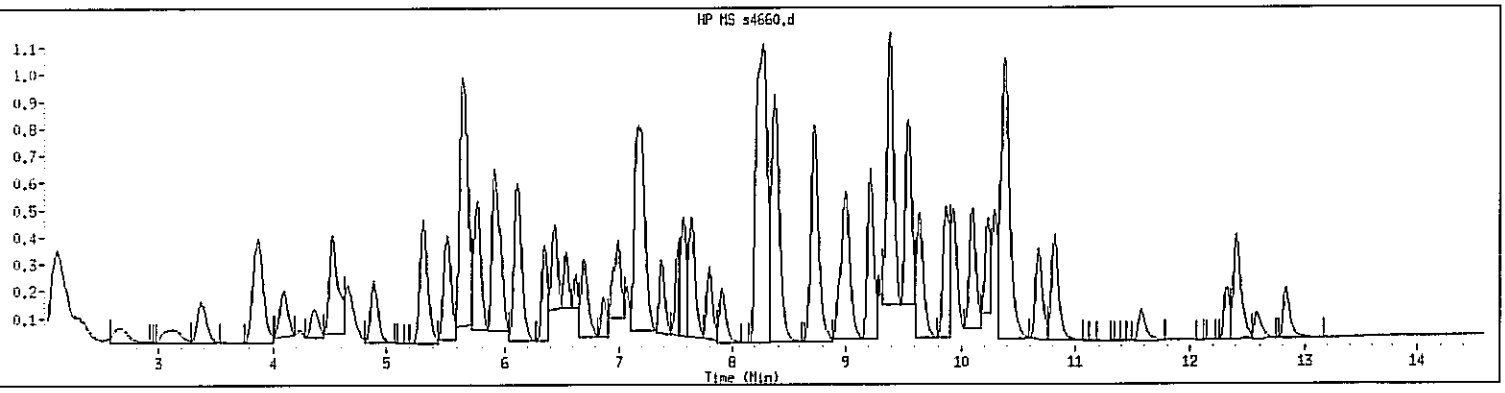
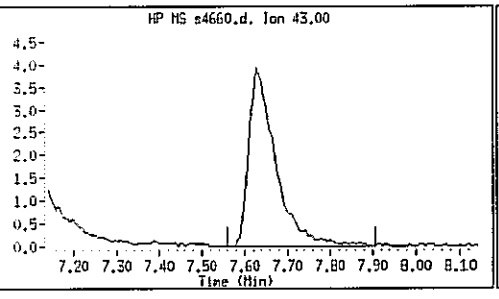
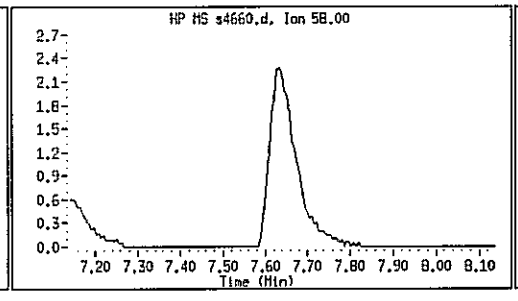
Dilution : 1.0
Matrix : WATER
Integrator : HP RTE Compound Sublist: 8260b

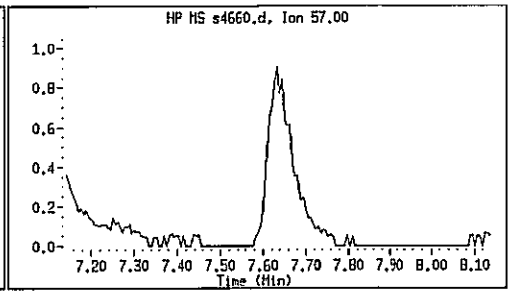


CONCENTRATIONS

RT	(REL RT)	MASS	RESPONSE	AMT	CONC	RANGE	RATIO
48 2-Hexanone			CAS#: 591-78-6				
.627	0.928	43	169682	27	27	80-120	100
.067	0.860	58	111957			51- 76	66
.061	0.859	57	64613			31- 47	38

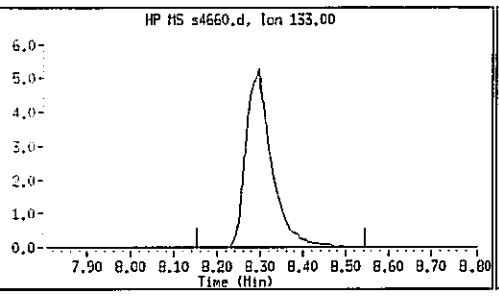


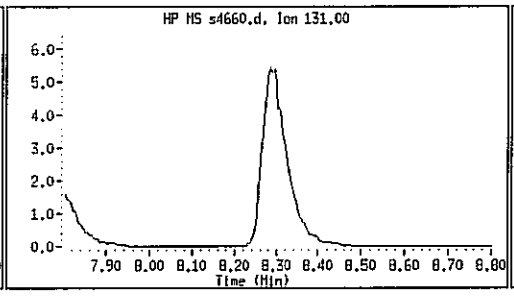


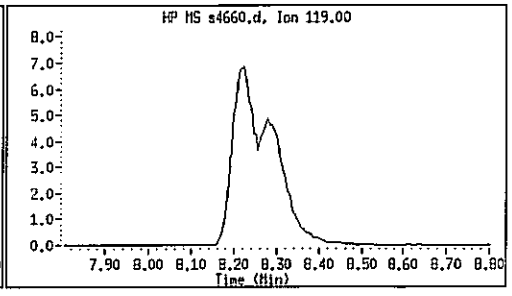


CONCENTRATIONS

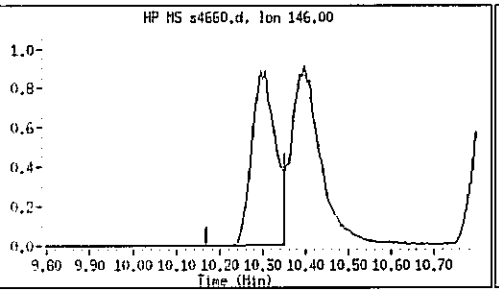
RT	(REL RT)	MASS	RESPONSE	AMT	CONC	RANGE	RATIO
53 1,1,1,2-Tetrachloroethane				CAS#: 630-20-6			
8.297	1.010	133	217857	27	27	80-120	100
8.291	1.009	131	0			84-125	0
8.291	1.009	119	0			61- 92	0

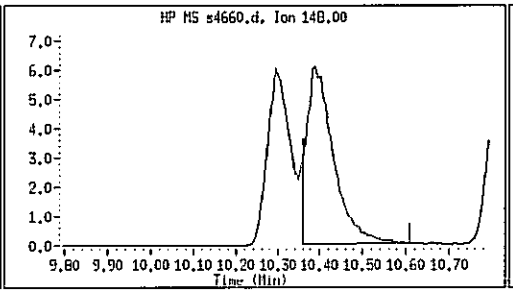


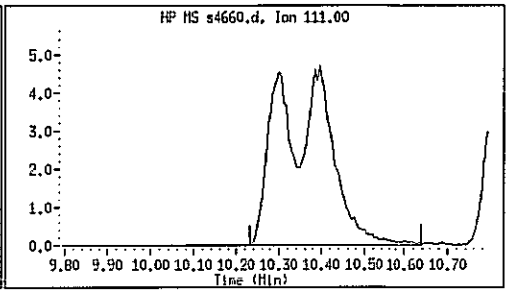




73 1,3-Dichlorobenzene				CAS#: 541-73-1			
10.293	0.993	146	343951	24	24	80-120	100
10.391	1.002	148	264674			53- 79	77
10.396	1.003	111	390479			40- 59	114







Gulf Coast Analytical Laboratories, Inc.

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Inj Date : 29-OCT-2003 17:26
Operator : RSP Inst ID: msv1.i
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Misc Info : MSV~3914~*1*RSP
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Meth Date : 30-Oct-2003 09:48 rsp Quant Type: ISTD
Cal Date : 29-OCT-2003 12:50 Cal File: s4656.d
Als bottle: 6 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
1 Dichlorodifluoromethane	85	2.329	2.324	(0.380)	233022	22.0211	22.0	
2 Chloromethane ++	50	2.626	2.633	(0.429)	115686	22.5998	22.6	
3 Vinyl Chloride +	62	2.695	2.713	(0.440)	131672	22.1579	22.2	(M)
4 Bromomethane	94	3.095	3.102	(0.506)	113893	22.4157	22.4	
5 Chloroethane	64	3.181	3.199	(0.520)	140465	35.0660	35.1	
6 Trichlorofluoromethane	101	3.398	3.388	(0.555)	316868	21.7218	21.7	
7 Acrolein	56	3.879	3.880	(0.634)	20261	38.9121	38.9	
8 1,1-Dichloroethene +	96	3.908	3.914	(0.638)	138798	21.7918	21.8	
9 1,1,2Trichlotrifluoroethane	101	3.868	3.874	(0.632)	296032	22.1019	22.1	
10 Acetone	43	4.039	4.017	(0.660)	36745	22.8380	22.8	
11 Methyl Iodide	142	4.096	4.097	(0.669)	291322	22.6253	22.6	
12 Carbon Disulfide	76	4.125	4.115	(0.674)	385130	21.2524	21.3	
13 Methylene Chloride	49	4.382	4.378	(0.716)	197278	22.1141	22.1	
14 Acrylonitrile	53	4.634	4.618	(0.757)	191777	104.284	104	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
15 trans-1,2-Dichloroethene	61	4.554	4.544	(0.744)	229761	22.1397	22.1	
16 Methyl Acetate	43	4.268	4.258	(0.697)	137625	24.2346	24.2	3733(H)
17 MTBE	73	4.543	4.527	(0.742)	480918	21.4496	21.4	5133
18 1,1-Dichloroethane ++	63	4.909	4.904	(0.802)	309755	24.1109	24.1	
19 Vinyl Acetate	43	4.697	4.681	(0.767)	137658	23.3284	23.3	
21 2,2-Dichloropropane	77	5.327	5.328	(0.870)	311126	23.5431	23.5	
20 cis 1,2-Dichloroethene	61	5.338	5.328	(0.872)	287581	22.6725	22.7	
22 2-Butanone	43	5.355	5.345	(0.875)	73532	21.8507	21.9	
23 Bromochloromethane	128	5.515	5.505	(0.901)	105616	23.8435	23.8	
24 Chloroform +	83	5.550	5.534	(0.907)	368768	22.4049	22.4	
25 Dibromofluoromethane	111	5.670	5.654	(0.926)	521291	50.3751	50.4	5273
26 1,1,1-Trichloroethane	97	5.676	5.671	(0.927)	326293	24.1016	24.1	
28 Carbon Tetrachloride	117	5.767	5.762	(0.942)	273337	23.0911	23.1	
27 1,1-Dichloropropene	75	5.784	5.785	(0.945)	254358	22.2888	22.3	
29 1,2-Dichloroethane-d4	67	5.933	5.917	(0.969)	231992	49.7409	49.7	
31 Benzene	78	5.944	5.934	(0.971)	560423	22.2852	22.3	
30 1,2-Dichloroethane	62	5.984	5.968	(0.978)	238118	22.4507	22.5	
33 FLUOROBENZENE	96	6.122	6.125	(1.000)	1103629	50.0000		
32 Total 1,2-Dichloroethene	61				517342	44.8121	44.8	
34 Trichloroethene	130	6.362	6.357	(1.039)	215326	22.5672	22.6	
35 Methyl Cyclohexane	83	6.459	6.449	(1.055)	333470	25.0278	25.0	6296
36 1,2-Dichloropropane +	63	6.557	6.546	(1.071)	227758	25.1553	25.2	
37 Dibromomethane	93	6.642	6.632	(1.085)	175045	24.1549	24.2	
38 Bromodichloromethane	83	6.723	6.706	(1.098)	331157	23.2917	23.3	
40 cis-1,3-Dichloropropene	75	7.014	7.010	(1.146)	333562	25.1251	25.1	
41 4-methyl-2-pentanone	43	7.100	7.078	(1.160)	218629	22.1418	22.1	
42 Toluene-d8	98	7.180	7.164	(0.871)	1127168	51.9984	52.0	
43 Toluene +	91	7.232	7.210	(0.877)	713181	26.3883	26.4	
44 trans-1,3-Dichloropropene	75	7.398	7.376	(0.897)	294730	22.4001	22.4	
45 1,1,2-Trichloroethane	97	7.529	7.519	(0.913)	200125	23.5745	23.6	
47 Tetrachloroethene	164	7.598	7.582	(0.922)	174966	24.9315	24.9	
46 1,3-Dichloropropane	76	7.661	7.645	(0.929)	339254	23.6054	23.6	
48 2-Hexanone	43	7.655	7.645	(0.929)	149255	21.0705	21.1	(M)
49 Dibromochloromethane	129	7.821	7.805	(0.949)	268576	22.5323	22.5	
50 1,2-Dibromoethane(EDB)	107	7.930	7.914	(0.962)	258019	22.7961	22.8	
51 CHLOROBENZENE-d5	82	8.244	8.223	(1.000)	653567	50.0000		
52 Chlorobenzene ++	112	8.273	8.245	(1.003)	435250	24.2502	24.3	
53 1,1,1,2-Tetrachloroethane	133	8.319	8.291	(1.009)	210336	24.5007	24.5	(M)
54 Ethylbenzene +	106	8.290	8.285	(1.006)	232308	26.7149	26.7	
55 p,m-Xylene	106	8.393	8.388	(1.018)	726859	58.8365	58.8	
56 o-Xylene	106	8.731	8.726	(1.059)	322484	26.9777	27.0	
57 Styrene	104	8.759	8.749	(1.062)	432723	20.9785	21.0	
58 Bromoform ++	173	8.965	8.949	(1.087)	181690	22.0278	22.0	
59 Isopropylbenzene	105	9.028	9.018	(1.095)	785413	21.5842	21.6	
60 Bromofluorobenzene	174	9.234	9.212	(1.120)	396264	47.0137	47.0	
61 1,1,2,2-Tetrachloroethane++	83	9.349	9.332	(0.899)	295538	24.3081	24.3	
64 Bromobenzene	77	9.406	9.390	(0.904)	701955	27.9560	28.0	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
63 1,2,3-Trichloropropane	75	9.417	9.401	(0.905)	384042	25.1867	25.2	
62 trans-1,4-Dichloro-2-Butene	53	9.400	9.378	(0.904)	75393	25.1796	25.2	
65 n-Propylbenzene	91	9.412	9.395	(0.905)	982124	26.3377	26.3	
66 2-Chlorotoluene	91	9.555	9.544	(0.919)	656802	25.3770	25.4	
67 1,3,5-Trimethylbenzene	105	9.028	9.018	(0.868)	785413	24.8540	24.9	
68 4-Chlorotoluene	91	9.663	9.641	(0.929)	669168	25.2995	25.3	
78 TOTAL XYLENE	106				1049343	85.8142	85.8	
69 tert-butylbenzene	91	9.892	9.876	(0.951)	515869	25.1530	25.2	
72 p-Isopropyltoluene	119	9.892	9.876	(0.951)	685169	25.7155	25.7	
70 1,2,4-Trimethylbenzene	105	9.572	9.556	(0.920)	671354	26.4997	26.5	
71 sec-Butylbenzene	105	10.121	10.088	(0.973)	928785	23.9777	24.0	
73 1,3-Dichlorobenzene	146	10.321	10.299	(0.992)	343282	24.1229	24.1	
74 1,4-DICHLOROBENZENE-D4	152	10.401	10.367	(1.000)	475220	50.0000		
75 1,4-Dichlorobenzene	146	10.418	10.391	(1.002)	370274	23.1555	23.2	
77 n-Butylbenzene	91	10.693	10.671	(1.028)	493849	21.0615	21.1	
76 1,2-Dichlorobenzene	146	10.836	10.809	(1.042)	324325	22.6825	22.7	
79 1,2-Dibromo-3-Chloropropane	157	11.609	11.575	(1.116)	64377	24.7720	24.8	
80 1,2,4-Trichlorobenzene	180	12.335	12.302	(1.186)	133054	21.0433	21.0	
81 Hexachlorobutadiene	225	12.432	12.411	(1.195)	157370	21.9070	21.9	
82 Naphthalene	128	12.604	12.571	(1.212)	192850	22.3009	22.3	
83 1,2,3-Trichlorobenzene	180	12.856	12.828	(1.236)	135975	22.3697	22.4	
95 Cyclohexane	56	5.676	5.659	(0.927)	312377	24.6593	24.7	5123
89 Hexane	57	4.680	4.698	(0.764)	229105	22.9445	22.9	3503

QC Flag Legend

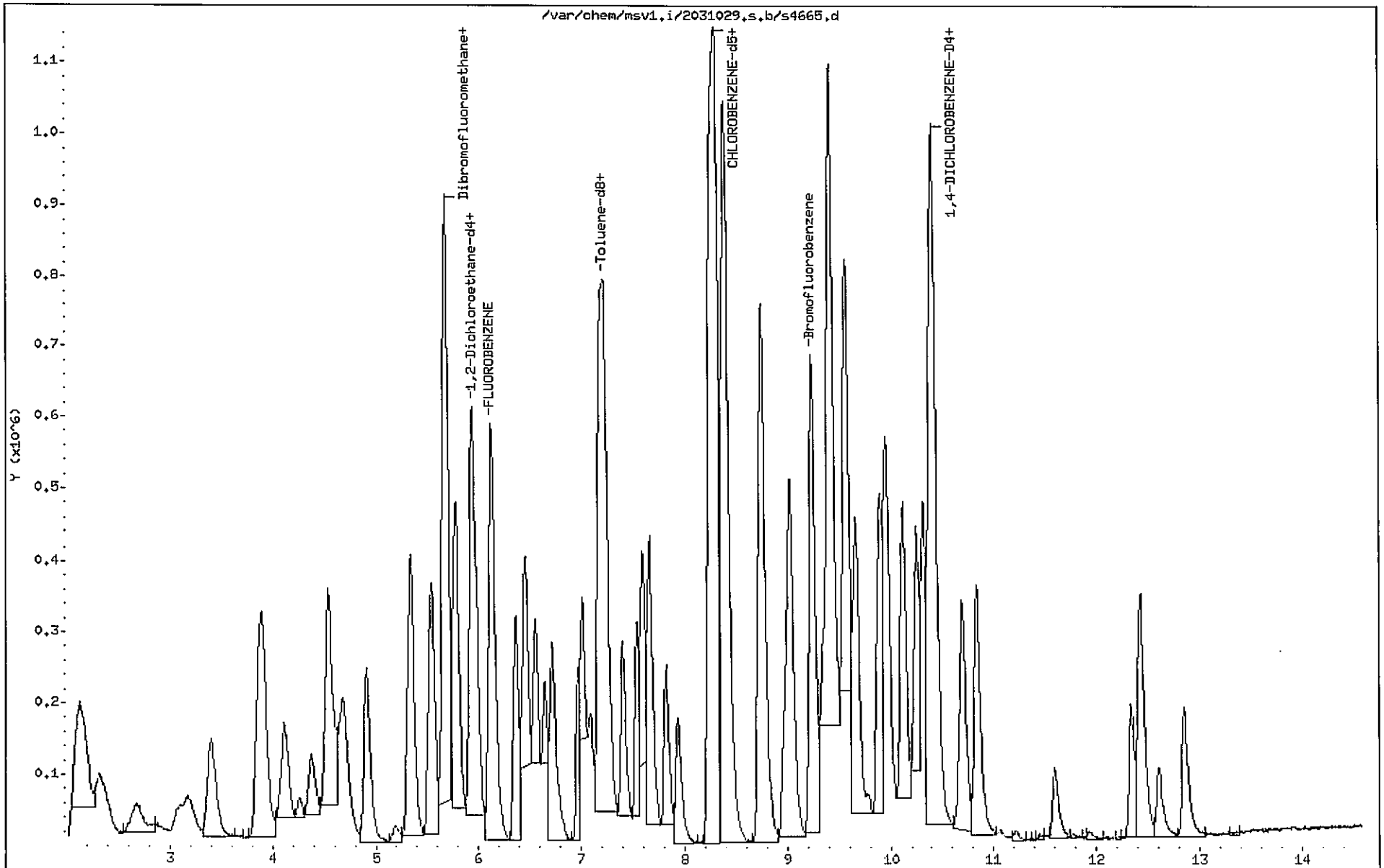
I - Compound response manually integrated.
I - Operator selected an alternate compound hit.

Data File: /var/chem/msv1.i/2031029.s.b/s4665.d
Date : 29-OCT-2003 17:26
Client ID: 86-CEF271-8S-Q4-03(
Sample Info: 20310240802*86-CEF271-8S-Q4-03(HS)
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

Operator: RSP
Column diameter: 0.53

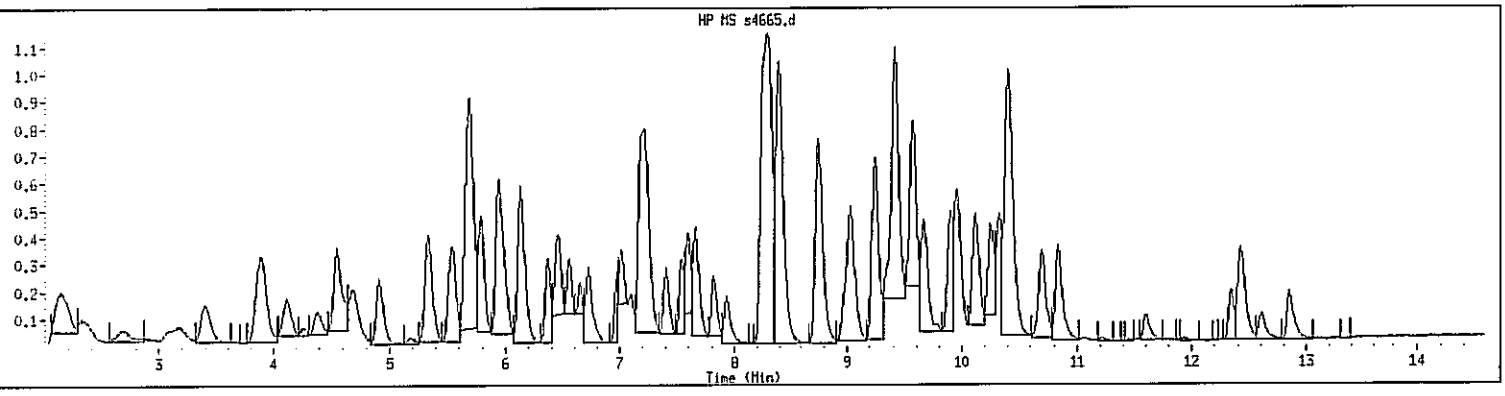
000108



Data file : /var/chem/msv1.i/2031029.s.b/s4665.d
Report Date: 10/30/2003 09:50

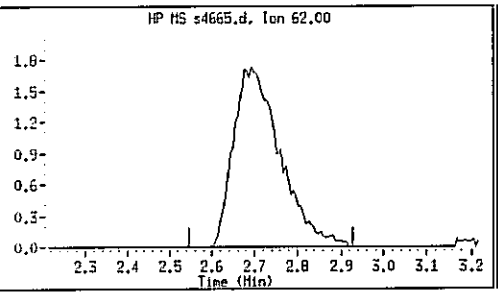
MANUAL INTEGRATION GRAPHIC REPORT

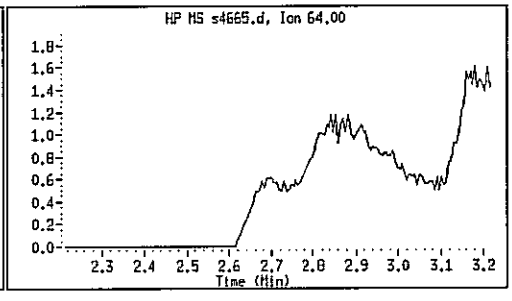
Lab ID : 20310240802 SampleType : MS
Injection Date: 29-OCT-2003 17:26 Instrument : msv1.i
Operator : RSP
Sample Info : 20310240802*86-CEF271-8S-Q4-03(MS)
Misc Info : MSV~3914~*1*RSP
Method : /var/chem/msv1.i/2031029.s.b/8260Bw1.m
Dilution : 1.0
Matrix : WATER
Integrator : HP RTE Compound Sublist: 8260b



CONCENTRATIONS

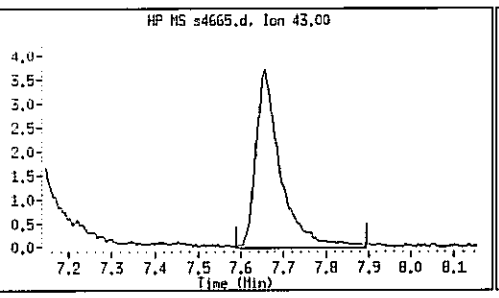
RT	(REL RT)	MASS	RESPONSE	AMT	CONC	RANGE	RATIO
3 Vinyl Chloride +			CAS#: 75-01-4				
2.695	0.440	62	131672	22	22	80-120	100
2.713	0.443	64	0			26- 39	0

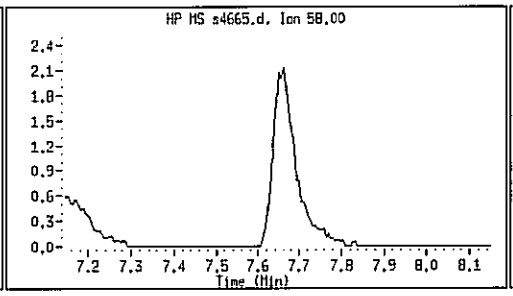


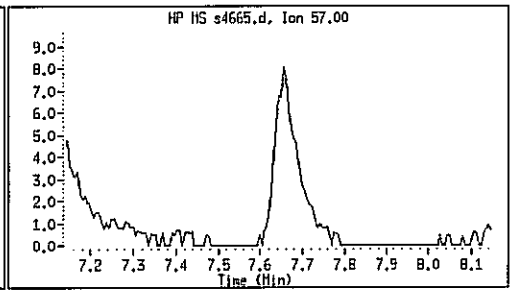


CONCENTRATIONS

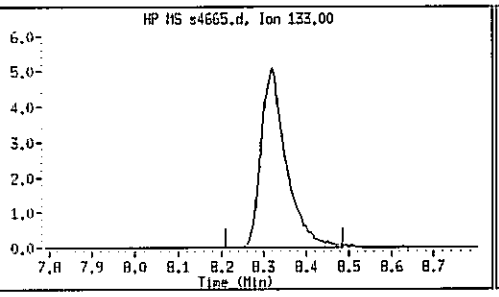
RT	(REL RT)	MASS	RESPONSE	AMT	CONC	RANGE	RATIO
48 2-Hexanone			CAS#: 591-78-6				
.655	0.929	43	149255	21	21	80-120	100
.089	0.860	58	95484			48- 73	64
.094	0.860	57	55126			26- 39	37

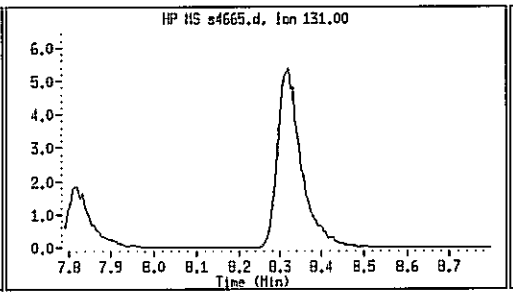


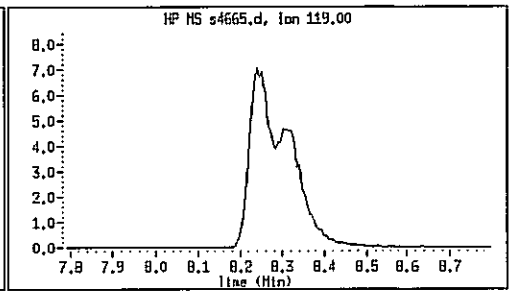




53 1,1,1,2-Tetrachloroethane				CAS#: 630-20-6			
.319	1.009	133	210336	25	25	80-120	100
.291	1.006	131	0			0- 0	0
.291	1.006	119	0			0- 0	0







Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv1.i/2031029.s.b/s4666.d
Lab Smp Id: 20310240803 Client Smp ID: 86-CEF271-8S-Q4-03(
Inj Date : 29-OCT-2003 17:49
Operator : RSP Inst ID: msv1.i
Smp Info : 20310240803*86-CEF271-8S-Q4-03(MSD)
Misc Info : MSV~3914~*1*RSP
Comment :
Method : /var/chem/msv1.i/2031029.s.b/8260Bw1.m
Meth Date : 30-Oct-2003 09:48 rsp Quant Type: ISTD
Cal Date : 29-OCT-2003 12:50 Cal File: s4656.d
Als bottle: 7 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
1 Dichlorodifluoromethane	85	2.325	2.324	(0.380)	232815	21.2932	21.3	
2 Chloromethane ++	50	2.623	2.633	(0.428)	135998	25.7125	25.7	
3 Vinyl Chloride +	62	2.680	2.713	(0.438)	135079	21.9993	22.0	(M)
4 Bromomethane	94	3.086	3.102	(0.504)	114053	21.7245	21.7	
5 Chloroethane	64	3.178	3.199	(0.519)	133678	32.2973	32.3	(M)
6 Trichlorofluoromethane	101	3.406	3.388	(0.556)	319927	21.2254	21.2	
7 Acrolein	56	3.876	3.880	(0.633)	4270	7.93668	7.94	(R)
8 1,1-Dichloroethene +	96	3.916	3.914	(0.639)	144310	21.9277	21.9	
9 1,1,2Trichlotrifluoroethane	101	3.864	3.874	(0.631)	304129	21.9754	22.0	
10 Acetone	43	4.019	4.017	(0.656)	39388	23.6925	23.7	
11 Methyl Iodide	142	4.110	4.097	(0.671)	308919	23.2196	23.2	
12 Carbon Disulfide	76	4.116	4.115	(0.672)	408521	21.8174	21.8	
13 Methylene Chloride	49	4.379	4.378	(0.715)	204340	22.1683	22.2	
14 Acrylonitrile	53	4.625	4.618	(0.755)	205038	107.905	108	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
15 trans-1,2-Dichloroethene	61	4.551	4.544	(0.743)	238854	22.2749	22.3	
16 Methyl Acetate	43	4.253	4.258	(0.694)	150247	25.6054	25.6	4234(H)
17 MTBE	73	4.539	4.527	(0.741)	498119	21.5015	21.5	5266
18 1,1-Dichloroethane ++	63	4.905	4.904	(0.801)	324815	24.4691	24.5	
19 Vinyl Acetate	43	4.682	4.681	(0.765)	136323	22.3584	22.4	
21 2,2-Dichloropropane	77	5.329	5.328	(0.870)	320368	23.4620	23.5	
20 cis-1,2-Dichloroethene	61	5.346	5.328	(0.873)	303165	23.1316	23.1	
22 2-Butanone	43	5.363	5.345	(0.876)	80217	23.0698	23.1	
23 Bromochloromethane	128	5.523	5.505	(0.902)	108882	23.7895	23.8	
24 Chloroform +	83	5.552	5.534	(0.907)	384504	22.6089	22.6	
25 Dibromofluoromethane	111	5.666	5.654	(0.925)	537341	50.2544	50.3	5374
26 1,1,1-Trichloroethane	97	5.672	5.671	(0.926)	341817	24.4354	24.4	
28 Carbon Tetrachloride	117	5.764	5.762	(0.941)	279288	22.8342	22.8	
27 1,1-Dichloropropene	75	5.786	5.785	(0.945)	284733	24.1472	24.1	
29 1,2-Dichloroethane-d4	67	5.929	5.917	(0.968)	241002	50.0091	50.0	
31 Benzene	78	5.935	5.934	(0.969)	577468	22.2236	22.2	
30 1,2-Dichloroethane	62	5.981	5.968	(0.977)	254638	23.2353	23.2	
33 FLUOROBENZENE	96	6.124	6.125	(1.000)	1140343	50.0000		
32 Total 1,2-Dichloroethene	61				542019	45.4064	45.4	
34 Trichloroethene	130	6.364	6.357	(1.039)	217906	22.1024	22.1	
35 Methyl Cyclohexane	83	6.450	6.449	(1.053)	342472	24.8759	24.9	6359
36 1,2-Dichloropropane +	63	6.553	6.546	(1.070)	223906	23.9337	23.9	
37 Dibromomethane	93	6.645	6.632	(1.085)	183155	24.4603	24.5	
38 Bromodichloromethane	83	6.719	6.706	(1.097)	344519	23.4514	23.5	
40 cis-1,3-Dichloropropene	75	7.011	7.010	(1.145)	323363	23.5727	23.6	
41 4-methyl-2-pentanone	43	7.085	7.078	(1.157)	239354	23.4603	23.5	
42 Toluene-d8	98	7.177	7.164	(0.870)	1106057	54.5059	54.5	
43 Toluene +	91	7.228	7.210	(0.876)	725195	28.6636	28.7	(R)
44 trans-1,3-Dichloropropene	75	7.388	7.376	(0.896)	309589	25.1348	25.1	
45 1,1,2-Trichloroethane	97	7.537	7.519	(0.914)	206898	26.0353	26.0	
47 Tetrachloroethene	164	7.583	7.582	(0.920)	178186	27.5981	27.6	
46 1,3-Dichloropropane	76	7.663	7.645	(0.929)	347177	25.8049	25.8	
48 2-Hexanone	43	7.646	7.645	(0.927)	156098	24.3200	24.3	(M)
49 Dibromochloromethane	129	7.806	7.805	(0.947)	286650	25.6895	25.7	
50 1,2-Dibromoethane(EDB)	107	7.932	7.914	(0.962)	257427	24.2956	24.3	
51 CHLOROBENZENE-d5	82	8.247	8.223	(1.000)	611822	50.0000		
52 Chlorobenzene ++	112	8.269	8.245	(1.003)	419531	24.9693	25.0	
53 1,1,1,2-Tetrachloroethane	133	8.321	8.291	(1.009)	200757	24.9804	25.0	(M)
54 Ethylbenzene +	106	8.298	8.285	(1.006)	226733	27.8528	27.9	
55 p,m-Xylene	106	8.390	8.388	(1.017)	675066	58.3724	58.4	
56 o-Xylene	106	8.744	8.726	(1.060)	329769	29.4694	29.5	(R)
57 Styrene	104	8.750	8.749	(1.061)	413601	21.4195	21.4	
58 Bromoform ++	173	8.973	8.949	(1.088)	188233	24.3782	24.4	
59 Isopropylbenzene	105	9.025	9.018	(1.094)	815686	23.9456	23.9	
60 Bromofluorobenzene	174	9.231	9.212	(1.119)	387659	49.1309	49.1	
61 1,1,2,2-Tetrachloroethane++	83	9.339	9.332	(0.899)	308260	24.9710	25.0	
64 Bromobenzene	77	9.402	9.390	(0.905)	668863	26.2352	26.2	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
63	1,2,3 Trichloropropane	75	9.414	9.401	(0.906)	366875	23.6969	23.7	
62	trans-1,4-Dichloro-2-Butene	53	9.397	9.378	(0.905)	74188	24.4024	24.4	
65	n-Propylbenzene	91	9.408	9.395	(0.906)	931956	24.6144	24.6	
66	2-Chlorotoluene	91	9.557	9.544	(0.920)	640369	24.3679	24.4	
67	1,3,5-Trimethylbenzene	105	9.025	9.018	(0.869)	815686	25.4215	25.4	
68	4-Chlorotoluene	91	9.660	9.641	(0.930)	637048	23.7209	23.7	
78	TOTAL XYLENE	106				1004835	87.8418	87.8	
69	tert-butylbenzene	91	9.894	9.876	(0.953)	483140	23.2009	23.2	
72	p-Isopropyltoluene	119	9.894	9.876	(0.953)	626467	23.1567	23.2	
70	1,2,4-Trimethylbenzene	105	9.568	9.556	(0.921)	591364	22.9893	23.0	
71	sec-Butylbenzene	105	10.117	10.088	(0.974)	881151	22.4039	22.4	
73	1,3-Dichlorobenzene	146	10.318	10.299	(0.993)	318999	22.0775	22.1	
74	1,4-DICHLOROBENZENE-D4	152	10.386	10.367	(1.000)	482518	50.0000		
75	1,4-Dichlorobenzene	146	10.415	10.391	(1.003)	395874	24.3820	24.4	
77	n-Butylbenzene	91	10.690	10.671	(1.029)	483932	20.3264	20.3	
76	1,2-Dichlorobenzene	146	10.833	10.809	(1.043)	338824	23.3381	23.3	
79	1,2-Dibromo-3-Chloropropane	157	11.594	11.575	(1.116)	68615	26.0035	26.0	
80	1,2,4-Trichlorobenzene	180	12.332	12.302	(1.187)	130209	20.2819	20.3	
81	Hexachlorobutadiene	225	12.429	12.411	(1.197)	165030	22.6259	22.6	
82	Naphthalene	128	12.601	12.571	(1.213)	180729	20.5831	20.6	
83	1,2,3-Trichlorobenzene	180	12.841	12.828	(1.236)	125740	20.3730	20.4	
95	Cyclohexane	56	5.672	5.659	(0.926)	330377	25.2406	25.2	5158
89	Hexane	57	4.688	4.698	(0.766)	227143	22.0156	22.0	3574

QC Flag Legend

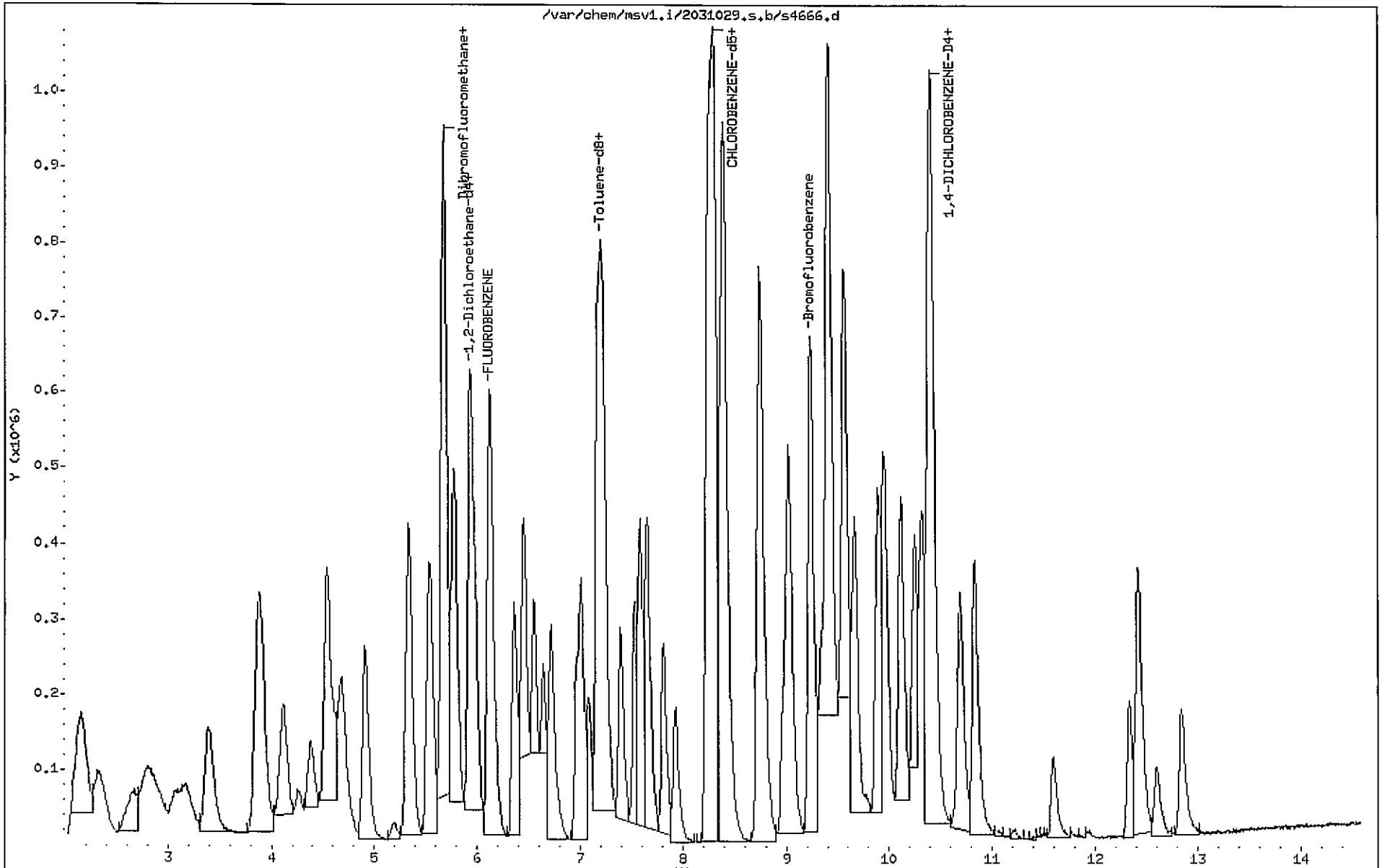
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /var/chem/msv1.i/2031029.s.b/s4666.d
Date : 29-OCT-2003 17:49
Client ID: 86-CEF271-8S-Q4-03(
Sample Info: 20310240803*86-CEF271-8S-Q4-03(MSD)
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

Operator: RSP
Column diameter: 0.53

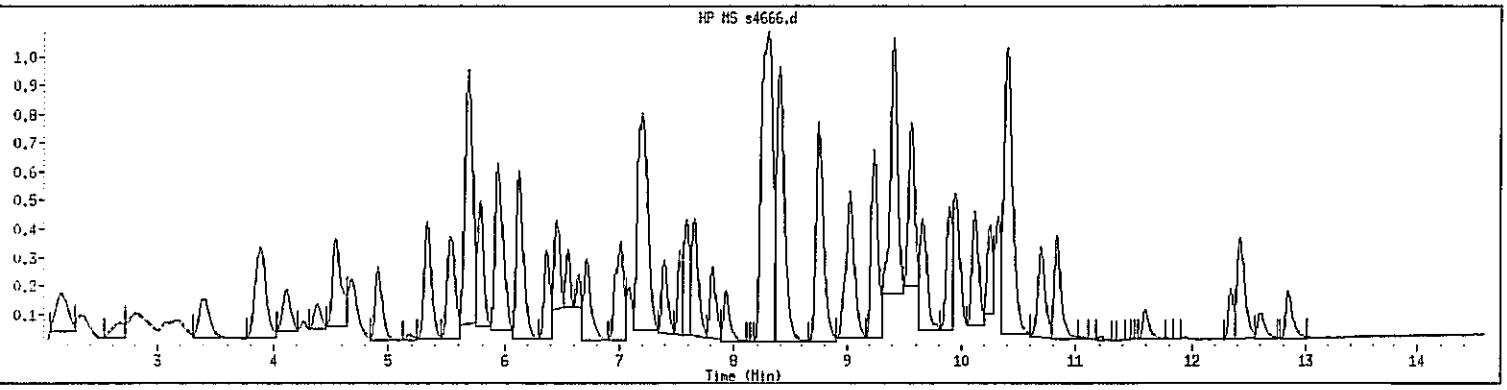
000114



Data file : /var/chem/msv1.i/2031029.s.b/s4666.d
Report Date: 10/30/2003 09:50

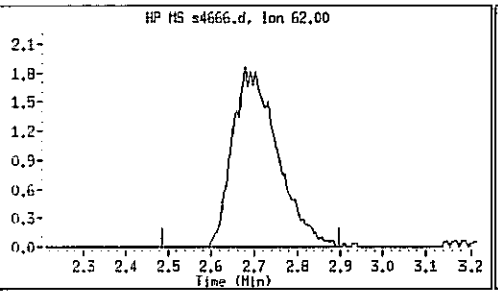
MANUAL INTEGRATION GRAPHIC REPORT

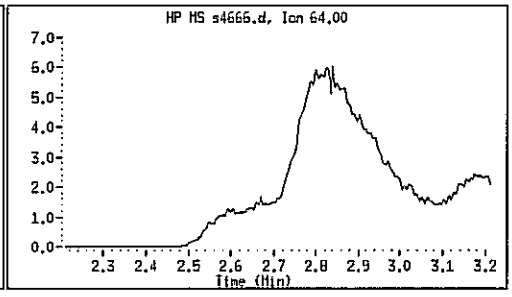
Lab ID : 20310240803 SampleType : MSD
Injection Date: 29-OCT-2003 17:49 Instrument : msv1.i
Operator : RSP
Sample Info : 20310240803*86-CEF271-8S-Q4-03(MSD)
Misc Info : MSV~3914~*1*RSP
Method : /var/chem/msv1.i/2031029.s.b/8260Bw1.m
Dilution : 1.0
Matrix : WATER
Integrator : HP RTE Compound Sublist: 8260b



CONCENTRATIONS

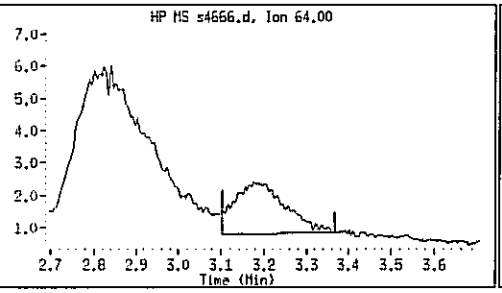
RT	(REL RT)	MASS	RESPONSE	AMT	CONC	RANGE	RATIO
3 Vinyl Chloride +			CAS#: 75-01-4				
2.680	0.438	62	135079	22	22	80-120	100
2.713	0.443	64	0			26- 39	0

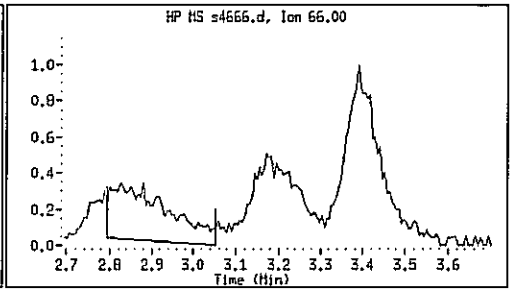




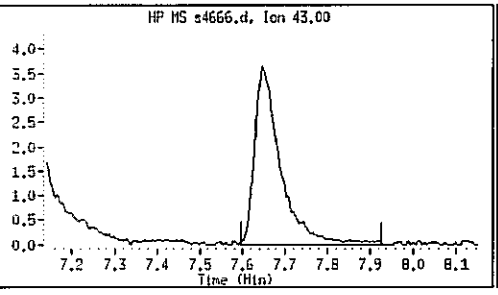
CONCENTRATIONS

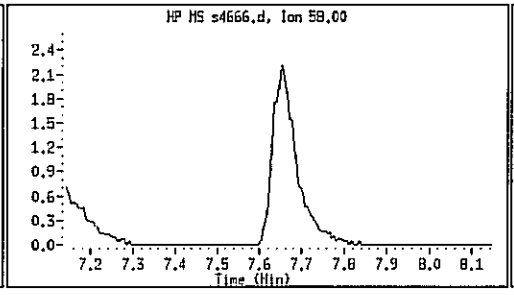
RT	(REL RT)	MASS	RESPONSE	AMT	CONC	RANGE	RATIO
5 Chloroethane			CAS#: 75-00-3				
3.178	0.519	64	133678	32	32	80-120	100
2.880	0.470	66	29275			10- 15	22

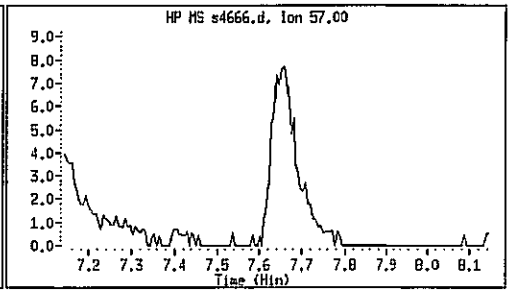




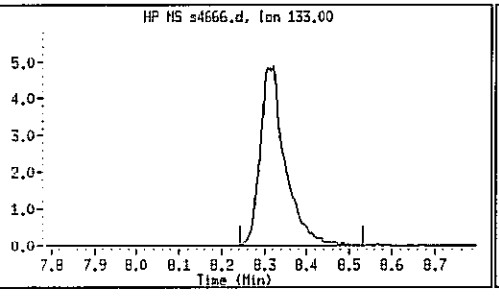
48 2-Hexanone			CAS#: 591-78-6				
7.646	0.927	43	156098	24	24	80-120	100
7.085	0.859	58	99062			48- 73	63
7.085	0.859	57	57591			26- 39	37

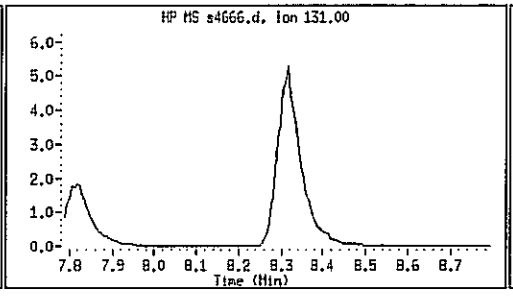


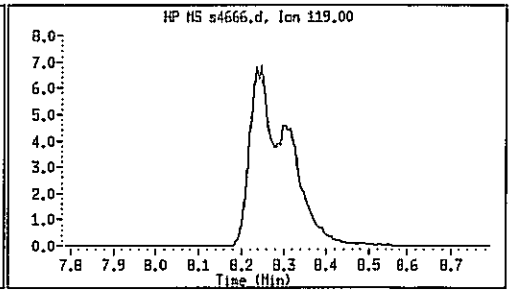




53 1,1,1,2-Tetrachloroethane				CAS#: 630-20-6			
.321	1.009	133	200757	25	25	80-120	100
.291	1.005	131	0			0- 0	0
.291	1.005	119	0			0- 0	0







LABORATORY CHRONICLE: GC-MS DEPARTMENT

Date: 29-OCT-2003
Instrument: msv1.i
Analyst(s): RSP

Standard	Conc ppm
Int. Standard	50
Surrogate	50
8260	50
Ac/Ac/VA	250/50
CVE	50

Sample ID	Status/Comments	DataFile	WT VOL	Injection Time	DilFactor	ALS
1000		s4647.d	0.00	29-OCT-2003 09:08	1.000	2
BLK		s4648.d	5.00	29-OCT-2003 09:42	1.000	2
1207		s4649.d	5.00	29-OCT-2003 10:05	1.000	3
1208		s4650.d	5.00	29-OCT-2003 10:29	1.000	3
1206		s4651.d	5.00	29-OCT-2003 10:52	1.000	4
1201		s4652.d	5.00	29-OCT-2003 11:16	1.000	4
1202		s4653.d	5.00	29-OCT-2003 11:40	1.000	5
1203		s4654.d	5.00	29-OCT-2003 12:03	1.000	6
1204		s4655.d	5.00	29-OCT-2003 12:26	1.000	7
1205		s4656.d	5.00	29-OCT-2003 12:50	1.000	8
BLANK		s4657.d	5.00	29-OCT-2003 13:34	1.000	9
1201		s4658.d	5.00	29-OCT-2003 13:58	1.000	10
ICV		s4659.d	5.00	29-OCT-2003 14:39	1.000	11
127046		s4660.d	5.00	29-OCT-2003 15:28	1.000	1
127047		s4661.d	5.00	29-OCT-2003 15:52	1.000	2
127047		s4662.d	5.00	29-OCT-2003 16:15	1.000	3
20310240801		s4663.d	5.00	29-OCT-2003 16:39	1.000	4
20310240807		s4664.d	5.00	29-OCT-2003 17:02	1.000	5
20310240802		s4665.d	5.00	29-OCT-2003 17:26	1.000	6
20310240803		s4666.d	5.00	29-OCT-2003 17:49	1.000	7
BLK		s4667.d	5.00	29-OCT-2003 18:13	1.000	8
20310240804		s4668.d	5.00	29-OCT-2003 18:36	1.000	9
20310240805		s4669.d	5.00	29-OCT-2003 19:00	1.000	10
20310240806		s4670.d	5.00	29-OCT-2003 19:24	1.000	11
20310240807		s4671.d	5.00	29-OCT-2003 19:47	1.000	12
20310233601		s4672.d	5.00	29-OCT-2003 20:11	40.000	13
20310241601		s4673.d	5.00	29-OCT-2003 20:35	40.000	14
20310233602		s4674.d	5.00	29-OCT-2003 20:58	40.000	15
20310241701		s4675.d	5.00	29-OCT-2003 21:22	40.000	16
20310230902		s4676.d	5.00	29-OCT-2003 21:45	40.000	17
20310271303		s4677.d	5.00	29-OCT-2003 22:09	40.000	18
20310271304		s4678.d	5.00	29-OCT-2003 22:32	40.000	19
20310213502		s4679.d	5.00	29-OCT-2003 22:56	1000.000	20
20310213501		s4680.d	5.00	29-OCT-2003 23:19	50000.000	21
BLK		s4681.d	5.00	29-OCT-2003 23:43	1.000	22
BLK		s4682.d	5.00	30-OCT-2003 00:06	1.000	23
BLK		s4683.d	5.00	30-OCT-2003 00:30	1.000	24
BLK		s4684.d	5.00	30-OCT-2003 00:54	1.000	25
BLK		s4685.d	5.00	30-OCT-2003 01:17	1.000	26

REVISED 01/01/2000

STANDARD PREPARATION LOGBOOK

STANDARD NAME	STD#	STOCK STD	SUPPLIER	LOT#/ EXP DATE	WT/VOL g/ml	FINAL VOL(ml)	FINAL CONC	SOLVENT/ LOT#	INITIAL	DATE PREPARED	EXP DATE
AC/AC	5-4-1	Q-2143	NSI	080103-04 Exp. 02/04	3.125ml	25ml	50ppm	water	HSL	10-14-03	4-13-04
8260 STD	5-4-2	Q3393	NSI	101303-03 EXP 10/04	6.25ml	25ml ~~20ml~~	250ppm	CH3OH 033518	RJO	10-17-03	2-01-04 ~~4-16-04~~ RJO 10-23-
		Q2128	NSI	051203-04 EXP 2/04	3.125ml	25ml	250ppm	CH3OH 033518	RJO	10-17-03	2-01-04 ~~4-16-04~~ RJO 10-23
		C303-H	NSI	080503 EXP 1/8/04	3.125ml	25ml	250ppm	CH3OH 033518	RJO	10-17-03	2-01-04 ~~4-16-04~~ RJO 10-23
Supelco Ketone mix	5-4-3	48949	Supelco	LB73838 Exp-07-2006 2000ppm	0.625ml	5ml	250ppm	CH3OH 033518	RJO	10-20-03	2-1-04 ~~4-19-04~~ RJO 10-23
10/23/03		9/24/03 — 10/20/03									
8260 ICV	5-4-4	93017 2000ppm	Absolute 2000ppm	110101 Exp 11-01-04	1.25	10ml	250ppm	CH3OH 033518	RJO	10-23-03	3-16-04
		30058 2000ppm	Absolute 2000ppm	031701 EXP 03-17-04	1.25	10ml	250ppm	CH3OH 033518	RJO	10-23-03	3-16-04
		93338 2500ppm	Absolute ~~2500ppm~~ 2500ppm	122302 EXP 12-23-07	1.0ml	10ml	250ppm	CH3OH 033518	RJO	10-23-03	3-16-04
8260 Std	5-4-5	Q3393	NSI 1000ug/ml	090903-03 exp-09-04	2.5ml	10ml	250ppm	CH3OH 033518	SAB	10/24/03	02-23-04 3/17/04
		Q2128	NSI 2000ug/ml	051203-04 exp-02-04	1.25ml	10ml	250ppm	CH3OH 033518	SAB	10/24/03	02-23-04 3/17/04
		C-303H	NSI 2000ug/ml	080503 08/04	1.25ml	10ml	250ppm	CH3OH 033518	SAB	10/24/03	02-23-04 3/17/04
Ac/Ac	5-4-6	Q-2143	NSI	101603-04 04/04	3.125ml	25ml	250/50ppm	Water	SAB	10/24/03	3/17/04
2 CVE	5-4-7	17-04-06	NSI	17-04-06 02/05	2.5ml	10ml	250ppm	CH3OH 033518	SAB	10/24/03	03/17/04
1-Bromo-2 Chloroethane	5-4-8	71245	Absolute	012003 01/08	2.5ml	10ml	250ppm	CH3OH 033518	SAB	10/24/03	03/17/04
CLP STD 4-2	5-4-9	CLP-18 100ppm	Ultra	T-0563 Exp-05-2005	1.0ml	1.0ml	100ppm	NA	RV	10-24-03	3-23-04
8260 II/SS	5-4-10	C-440-05 2500ppm	NSI	C-440-05 Exp-02-05	0.5ml	50ml	25ppm	meoH	RV	10-25-03	2-28-04
	5-4-10	C-441-04	NSI	C-441-04 Exp-02-04	0.5ml			033518			

STANDARD PREPARATION LOGBOOK

STANDARD NAME	STD#	STOCK STD	SUPPLIER	LOT#/ EXP DATE	WT/VOL g/ml	FINAL VOL(ml)	FINAL CONC	SOLVENT/ LOT#	INITIAL	DATE PREPARED	EXP DATE
8260 IS/SS	5-5-1	C-440-05	NSI 2500 ppm	C-440-05 EXP-02-05	2.0ml	100ml	50ppm	meoH	RSP	10-25-03	02-28-04
		C-441-04	NSI 2500 ppm	C-441-04 EXP-02-04	2.0ml			033518			
8260 IS	5-5-2	~~C-440-05~~ C-441-04	NSI 2500ppm	C-441-04 EXP-02-04	2.0ml	100ml	50ppm	meOH 033518	RSP	10-25-03	-2-28-03
		~~C-4~~ RSP 10-25-03									
AC/AC	5-5-3	Q-2143	NSI	101603-04 04/04	3.125ml	25ml	50ppm	Water	RJO	10-27-03	3-26-04
AC/AC ICV	5-5-4	43018	Absolute	022503 2/25/06	1.25	10ml	50 ppm	Water	RJO	10-28-03	4-27-04
8260 STD	5-5-5	Q3393	1000ppm NSI	102403-04 10-04	6.25ml	25ml	250ppm	Methanol 033518	RJO	10-28-03	1-31-04 ~~1-30-04~~
		Q2128	2000ppm NSI	080503 08-04	3.125ml	25ml	250ppm	Methanol 033518	RJO	10-28-03	1-31-04
		C-303 H	2000ppm NSI	051203-04 02-04	3.125ml	25ml	250ppm	Methanol 033518	RJO	10-28-03	1-31-04
AC/AC RJO 1-31-04 ~~ECV~~	5-5-6	Q2143	NSI	080103-04 02-04	1.25ml	10ml	50ppm	Water	RJO	10-28-03	1-31-04
8260 SS	5-5-7	C-440-05	NSI	C-440-05 EXP-02-05	2.0ml	100ml	50ppm	meOH 033518	RW	10-29-03	3-28-04
AC/AC-ICV	5-5-8	93018	Absolute	022503 EXP-02-25-06	0.625	5ml	0.50ppm	Water	RW	10-29-03	3-28-04
AC/AC- Accustd	5-5-9	M-603 1000ppm	Accu	13 3100067 EXP-8-2004	1.25ml	5ml	250ppm	Water	RW	10-30-03	2-31-04
8260 IS	5-5-10	C-441-04	NSI 2500ppm	C-441-04 02/04	1.0ml	100ml	25ppm	MeOH 033518	RJO	11-02-03	1-31-04
AC/AC-	5-5-11	Q-2143	NSI	102903-04 EXP-05-04	3.125ml	25ml	50/250 ppm	NA Water	RSP AH	11-03-03	5-02-03
2CVE	5-5-12	17-04-05	NSI	17-04-06 EXP-02-05	6.250	25ml	250ppm	MeOH 033518	RW	11-4-03	5-3-03

STANDARD PREPARATION LOGBOOK

STANDARD NAME	STD#	STOCK STD	SUPPLIER	LOT#/ EXP DATE	WT/VOL g/ml	FINAL VOL(ml)	FINAL CONC	SOLVENT/ LOT#	INITIAL	DATE PREPARED	EXP DATE
AC/AC	5-4-1	Q-2143	NSI	080103-04 Exp. 02/04	3.125ml	25ml	50ppm	water	HJL	10-14-03	4-13-04
8260 STD	5-4-2	Q3393	NSI	101303-03 EXP 10/04	6.25ml	~~20ml~~ 25ml	250ppm	CH_3OH 033518	RJO	10-17-03	2-01-04 ~~4-16-04~~
		Q2128	NSI	051203-04 EXP 2/04	3.125ml	25ml	250ppm	CH_3OH 033518	RJO	10-17-03	2-01-04 ~~4-16-04~~
		C303-H	NSI	080503 EXP 1/8/04	3.125ml	25ml	250ppm	CH_3OH 033518	RJO	10-17-03	2-01-04 ~~4-16-04~~
Supelco Ketone mix	5-4-3	48949	Supelco	LB73838 Exp-07-2006 2000 ppm	0.625ml	5ml	250ppm	CH_3OH 033518	RJ	10-20-03	2-1-04 ~~4-19-04~~
10/23/03		9/26/03 — 10/20/03									
8260 ICV	5-4-4	93017 2000ppm	Absolute 2000ppm	110101 Exp 11-01-04	1.25	10ml	250ppm	CH_3OH 033518	RJO	10-23-03	3-16-04
		30058 2000ppm	Absolute 2000ppm	031701 EXP 03-17-04	1.25	10ml	250ppm	CH_3OH 033518	RJO	10-23-03	3-16-04
		93338 2500ppm	Absolute ~~2500ppm~~ 2500ppm	122302 EXP 12-23-07	1.0ml	10ml	250ppm	CH_3OH 033518	RJO	10-23-03	3-16-04
8260 Std	5-4-5	Q3393	NSI 1000ug/ml	090903-03 Exp-09-04	2.5ml	10ml	250ppm	CH_3OH 033518	SAB	10/24/03	02-23-04 ~~3/17/04~~
		Q2128	NSI 2000ug/ml	051203-04 Exp-02-04	1.25ml	10ml	250ppm	CH_3OH 033518	SAB	10/24/03	02-23-04 ~~3/17/04~~
		C-303H	NSI 2000ug/ml	080503 02/04	1.25ml	10ml	250ppm	CH_3OH 033518	SAB	10/24/03	02-23-04 3/17/04
Ac/Ac	5-4-6	Q-2143	NSI	101603-04 04/04	3.125ml	25ml	250/50ppm	Water	SAB	10/24/03	3/17/04
2 CVE	5-4-7	17-04-06	NSI	17-04-06 02/05	2.5ml	10ml	250ppm	CH_3OH 033518	SAB	10/24/03	03/17/04
1-Bromo-2 Chloroethane	5-4-8	71245	Absolute	012003 01/08	2.5ml	10ml	250ppm	CH_3OH 033518	SAB	10/24/03	03/17/04
CLP STD 4.2	5-4-9	CLP-18 100ppm	Ultra	T-0563 Exp-05-2005	1.0ml	1.0ml	100ppm	NA	RV	10-24-03	3-23-04
8260 II/SS	5-4-10	C-440-05 2500ppm	NSI	C-440-05 Exp-02-05	0.5ml	50ml	25ppm	meOH	RV	10-25-03	2-28-04
	5-4-10	C-441-04	NSI	C-441-04 Exp-02-04	0.5ml			033518			

STANDARD PREPARATION LOGBOOK

STANDARD NAME	STD#	STOCK STD	SUPPLIER	LOT#/ EXP DATE	WT/VOL g/ml	FINAL VOL(ml)	FINAL CONC	SOLVENT/ LOT#	INITIAL	DATE PREPARED	EXP DATE
8260 IS/SS	5-5-1	C-440-05	NSI 2500 ppm	C-440-05 EXP-02-05	2.0ml	100ml	50ppm	meOH	RSP	10-25-03	02-28-0
		C-441-04	NSI 2500 ppm	C-441-04 EXP-02-04	2.0ml			033518			
8260 IS	5-5-2	~~C-440-05~~ C-441-04	NSI 2500ppm	C-441-04 EXP-02-04	2.0ml	100ml	50ppm	meOH 033518	RSP	10-25-03	-2-28-0
		~~C-4~~ RSP 10-25-03									
AC/AC	5-5-3	Q-2143	NSI	101603-04 04/04	3.125ml	25ml	50ppm	Water	RJO	10-27-03	3-26-04
AC/AC ICV	5-5-4	43018	Absolute	022503 2/25/06	1.25	10ml	50ppm	Water	RJO	10-28-03	4-27-04
8260 STD	5-5-5	Q3393	1000ppm NSI	102403-04 10-04	6.25ml	25ml	250ppm	Methanol 033518	RJO	10-28-03	1-31-04 ~~1-33-04~~
		Q2128	2000ppm NSI	080503 08-04	3.125ml	25ml	250ppm	Methanol 033518	RJO	10-28-03	1-31-04
		C-303 H	2000ppm NSI	051203-04 02-04	3.125ml	25ml	250ppm	Methanol 033518	RJO	10-28-03	1-31-04
AC/AC RJO 1-31-04 ~~ICV~~	5-5-6	Q2143	NSI	080103-04 02-04	1.25ml	10ml	50ppm	Water	RJO	10-28-03	1-31-04
8260 SS	5-5-7	C-440-05	NSI	C-440-05 EXP-02-05	2.0ml	100ml	50ppm	meOH 033518	RW	10-29-03	3-28-04
AC/AC-ICV	5-5-8	93018	Absolute	022503 EXP-02-25-06	0.625	5ml	050ppm	Water	RW	10-29-03	3-28-04
AC/AC- ACCUSTD	5-5-9	M-603 100ppm	Accu	B3100067 EXP-8-2004	1.25ml	5ml	250ppm	Water	RW	10-30-03	1-31-04
8260 IS	5-5-10	C-441-04	NSI 2500ppm	C-441-04 02/04	1.0ml	100ml	25ppm	MeOH 033518	RJO	11-02-03	1-31-04
AC/AC-	5-5-11	Q-2143	NSI	102903-04 EXP-05-04	3.125ml	25ml	50/250 ppm	NA water	RSP AH	11-03-03	5-02-03
2CVE	5-5-12	17-04-05	NSI	17-04-06 EXP-02-05	6.250	25ml	250ppm	MeOH 033518	RW	11-4-03	5-3-03

0001121

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264230 Analytical Batch: 264316

Sample ID: 86-CEF271-8S-Q4-03

Contract:

SAS No.: SDG No.: 203102408

Lab Sample ID: 20310240801

Date Collected: 10/23/03 Time: 1420

Date Received: 10/24/03

Date Extracted: 10/27/03

Date Analyzed: 10/29/03 Time: 1215

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

CONCENTRATION UNITS: ug/L

Lab File ID: 031029/H000550

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264230 Analytical Batch: 264316

Sample ID: 86-CEF271-9S-Q4-03

Contract:

SAS No.: SDG No.: 203102408

Lab Sample ID: 20310240804

Date Collected: 10/23/03 Time: 1300

Date Received: 10/24/03

Date Extracted: 10/27/03

Date Analyzed: 10/29/03 Time: 1236

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031029/H000550

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	0.536	J	0.291	1.00
91-57-6	2-Methylnaphthalene	1.13		0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	3.05		0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	5.89		0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264230 Analytical Batch: 264316

Sample ID: 86-CEF271-11S-Q4-03

Contract:

SAS No.: SDG No.: 203102408

Lab Sample ID: 20310240805

Date Collected: 10/23/03 Time: 1135

Date Received: 10/24/03

Date Extracted: 10/27/03

Date Analyzed: 10/29/03 Time: 1243

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031029/H000550

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264230 Analytical Batch: 264316

Sample ID: 86-CEF271-12S-Q4-03

Contract:

SAS No.: SDG No.: 203102408

Lab Sample ID: 20310240806

Date Collected: 10/23/03 Time: 1050

Date Received: 10/24/03

Date Extracted: 10/27/03

Date Analyzed: 10/29/03 Time: 1250

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031029/H000550

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264230 Analytical Batch: 264316

Sample ID: 86-271-DUP1-Q4-03

Contract:

SAS No.: SDG No.: 203102408

Lab Sample ID: 20310240807

Date Collected: 10/23/03 Time: 0000

Date Received: 10/24/03

Date Extracted: 10/27/03

Date Analyzed: 10/29/03 Time: 1257

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031029/H000550

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	0.271	J	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	0.632	J	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	1.42		0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264230 Analytical Batch: 264316

Sample ID: MB126690

Contract:

SAS No.: SDG No.: 203102408

Lab Sample ID: 126690

Date Collected: Time:

Date Received:

Date Extracted: 10/27/03

Date Analyzed: 10/29/03 Time: 1041

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031029/H000549

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264230 Analytical Batch: 264316

Sample ID: LCS126691

Contract:

SAS No.: SDG No.: 203102408

Lab Sample ID: 126691

Date Collected: Time:

Date Received:

Date Extracted: 10/27/03

Date Analyzed: 10/29/03 Time: 1120

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031029/H000549

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	10.9		0.291	1.00
91-57-6	2-Methylnaphthalene	8.45		0.142	1.00
83-32-9	Acenaphthene	7.97		0.331	1.00
208-96-8	Acenaphthylene	5.26		0.153	1.00
120-12-7	Anthracene	0.164		0.024	0.100
56-55-3	Benzo(a)anthracene	0.407		0.032	0.100
50-32-8	Benzo(a)pyrene	0.389		0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.188		0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.682		0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.182		0.033	0.100
218-01-9	Chrysene	0.410		0.030	0.100
53-70-3	Dibenz(a,h)anthracene	1.64		0.029	0.100
206-44-0	Fluoranthene	0.397		0.044	0.100
86-73-7	Fluorene	1.01		0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.424		0.041	0.250
91-20-3	Naphthalene	4.54		0.124	0.250
85-01-8	Phenanthrene	0.350		0.025	0.100
129-00-0	Pyrene	0.788		0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264230 Analytical Batch: 264316

Sample ID: LCSD126692

Contract:

SAS No.: SDG No.: 203102408

Lab Sample ID: 126692

Date Collected: Time:

Date Received:

Date Extracted: 10/27/03

Date Analyzed: 10/29/03 Time: 1127

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031029/H000550

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	11.7		0.291	1.00
91-57-6	2-Methylnaphthalene	9.27		0.142	1.00
83-32-9	Acenaphthene	9.29		0.331	1.00
208-96-8	Acenaphthylene	6.01		0.153	1.00
120-12-7	Anthracene	0.208		0.024	0.100
56-55-3	Benzo(a)anthracene	0.431		0.032	0.100
50-32-8	Benzo(a)pyrene	0.402		0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.175		0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.717		0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.154		0.033	0.100
218-01-9	Chrysene	0.434		0.030	0.100
53-70-3	Dibenz(a,h)anthracene	1.74		0.029	0.100
206-44-0	Fluoranthene	0.382		0.044	0.100
86-73-7	Fluorene	1.14		0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.439		0.041	0.250
91-20-3	Naphthalene	5.03		0.124	0.250
85-01-8	Phenanthrene	0.405		0.025	0.100
129-00-0	Pyrene	0.830		0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264230 Analytical Batch: 264316

Sample ID: 86-CEF271-8S-Q4-03(MS)

Contract:

SAS No.: SDG No.: 203102408

Lab Sample ID: 20310240802

Date Collected: 10/23/03 Time: 1420

Date Received: 10/24/03

Date Extracted: 10/27/03

Date Analyzed: 10/29/03 Time: 1222

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031029/H000550

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	9.07		0.291	1.00
91-57-6	2-Methylnaphthalene	8.37		0.142	1.00
83-32-9	Acenaphthene	8.35		0.331	1.00
208-96-8	Acenaphthylene	4.10		0.153	1.00
120-12-7	Anthracene	0.167		0.024	0.100
56-55-3	Benzo(a)anthracene	0.518		0.032	0.100
50-32-8	Benzo(a)pyrene	0.297		0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.181		0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.411		0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.159		0.033	0.100
218-01-9	Chrysene	0.367		0.030	0.100
53-70-3	Dibenz(a,h)anthracene	1.18		0.029	0.100
206-44-0	Fluoranthene	0.426		0.044	0.100
86-73-7	Fluorene	0.920		0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.266		0.041	0.250
91-20-3	Naphthalene	4.23		0.124	0.250
85-01-8	Phenanthrene	0.368		0.025	0.100
129-00-0	Pyrene	0.888		0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264230 Analytical Batch: 264316

Sample ID: 86-CEF271-8S-Q4-03(MSD)

Contract:

SAS No.: SDG No.: 203102408

Lab Sample ID: 20310240803

Date Collected: 10/23/03 Time: 1420

Date Received: 10/24/03

Date Extracted: 10/27/03

Date Analyzed: 10/29/03 Time: 1229

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031029/H000550

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	9.89		0.291	1.00
91-57-6	2-Methylnaphthalene	9.17		0.142	1.00
83-32-9	Acenaphthene	8.57		0.331	1.00
208-96-8	Acenaphthylene	4.31		0.153	1.00
120-12-7	Anthracene	0.175		0.024	0.100
56-55-3	Benzo(a)anthracene	0.541		0.032	0.100
50-32-8	Benzo(a)pyrene	0.349		0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.169		0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.505		0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.157		0.033	0.100
218-01-9	Chrysene	0.416		0.030	0.100
53-70-3	Dibenz(a,h)anthracene	1.47		0.029	0.100
206-44-0	Fluoranthene	0.434		0.044	0.100
86-73-7	Fluorene	0.985		0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.292		0.041	0.250
91-20-3	Naphthalene	4.42		0.124	0.250
85-01-8	Phenanthrene	0.394		0.025	0.100
129-00-0	Pyrene	0.951		0.034	0.100

2E

WATER PESTICIDE SURROGATE RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102408

GC Column (1): 201TP-0.15 ID: 2.1 (mm) GC Cloumn (2): ID: (mm)

Method: SW-846 8310

	EPA SAMPLE NO.	SMC1 1-(1)	Lo	Hi	F	SMC1 1-(2)	Lo	Hi	F	SMC2 2-(1)	Lo	Hi	F	SMC2 2-(2)	Lo	Hi	F	TOT OUT
1.	86-CEF271-8S-Q4-03	88	40	140														0
2.	86-CEF271-8S-Q4-03(MS)	86	40	140														0
3.	86-CEF271-8S-Q4-03(MSD)	93	40	140														0
4.	86-CEF271-9S-Q4-03	69	40	140														0
5.	86-CEF271-11S-Q4-03	86	40	140														0
6.	86-CEF271-12S-Q4-03	76	40	140														0
7.	86-271-DUP1-Q4-03	77	40	140														0
8.	MB126690	74	40	140														0
9.	LCS126691	86	40	140														0
10.	LCSD126692	91	40	140														0

SMC 1 : p-Terphenyl SMC 2 :

3E

WATER ORGANICS LCS/LCSD RECOVERY

Lab Name: GCAL

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102408

Contract: Method: SW-846 8310

SAMPLE NO : 126691

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*LCS CONCENTRATION*	*LCS % REC*	*LCS % REC FLAG*	*QC. LIMITS*
1-Methylnaphthalene	ug/L	10	0	10.9	109		40 - 140
2-Methylnaphthalene	ug/L	10	0	8.45	85		40 - 140
Acenaphthene	ug/L	10	0	7.97	80		40 - 140
Acenaphthylene	ug/L	5	0	5.26	105		40 - 140
Anthracene	ug/L	.2	0	.164	82		40 - 140
Benzo(a)anthracene	ug/L	.5	0	.407	81		40 - 140
Benzo(a)pyrene	ug/L	.5	0	.389	78		40 - 140
Benzo(b)fluoranthene	ug/L	.2	0	.188	94		40 - 140
Benzo(g,h,i)perylene	ug/L	.8	0	.682	85		40 - 140
Benzo(k)fluoranthene	ug/L	.2	0	.182	91		40 - 140
Chrysene	ug/L	.5	0	.41	82		40 - 140
Dibenz(a,h)anthracene	ug/L	2	0	1.64	82		40 - 140
Fluoranthene	ug/L	.5	0	.397	79		40 - 140
Fluorene	ug/L	1	0	1.01	101		40 - 140
Indeno(1,2,3-cd)pyrene	ug/L	.5	0	.424	85		40 - 140
Naphthalene	ug/L	5	0	4.54	91		40 - 140
Phenanthrene	ug/L	.4	0	.35	88		40 - 140
Pyrene	ug/L	1	0	.788	79		40 - 140

RPD : 0 out of 18 outside limits

Spike Recovery: 0 out of 36 outside limits

3E

WATER ORGANICS LCS/LCSD RECOVERY

Lab Name: GCAL

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102408

Contract: Method: SW-846 8310

SAMPLE NO : ***126692***

COMPOUND	*UNITS*	*SPIKE ADDED*	*LCSD CONC.*	*LCSD % REC*	*REC FLAG*	*% RPD*	*RPD FLAG*	*QC. LIMITS REC*	*QC. LIMITS RPD*
1-Methylnaphthalene	ug/L	10	11.7	117		7		40 - 140	0 - 30
2-Methylnaphthalene	ug/L	10	9.27	93		9		40 - 140	0 - 30
Acenaphthene	ug/L	10	9.29	93		15		40 - 140	0 - 30
Acenaphthylene	ug/L	5	6.01	120		13		40 - 140	0 - 30
Anthracene	ug/L	.2	.208	104		24		40 - 140	0 - 30
Benzo(a)anthracene	ug/L	.5	.431	86		6		40 - 140	0 - 30
Benzo(a)pyrene	ug/L	.5	.402	80		3		40 - 140	0 - 30
Benzo(b)fluoranthene	ug/L	.2	.175	88		7		40 - 140	0 - 30
Benzo(g,h,i)perylene	ug/L	.8	.717	90		5		40 - 140	0 - 30
Benzo(k)fluoranthene	ug/L	.2	.154	77		17		40 - 140	0 - 30
Chrysene	ug/L	.5	.434	87		6		40 - 140	0 - 30
Dibenz(a,h)anthracene	ug/L	2	1.74	87		6		40 - 140	0 - 30
Fluoranthene	ug/L	.5	.382	76		4		40 - 140	0 - 30
Fluorene	ug/L	1	1.14	114		12		40 - 140	0 - 30
Indeno(1,2,3-cd)pyrene	ug/L	.5	.439	88		3		40 - 140	0 - 30
Naphthalene	ug/L	5	5.03	101		10		40 - 140	0 - 30
Phenanthrene	ug/L	.4	.405	101		15		40 - 140	0 - 30
Pyrene	ug/L	1	.83	83		5		40 - 140	0 - 30

RPD : 0 out of 18 outside limits

Spike Recovery: 0 out of 36 outside limits

3E

WATER ORGANICS MS/MSD RECOVERY

Lab Name: GCAL

Sample ID: 86-CEF271-8S-Q4-03

Lab Code: LA024 Case No.:

SAS No.: SDG No.: 203102408

Contract:

Method: SW-846 8310

SAMPLE NO : 20310240802

COMPOUND	UNITS	SPIKE ADDED	SAMPLE CONCENTRATION	MS CONCENTRATION	MS % REC	MS % REC FLAG	QC. LIMITS
1-Methylnaphthalene	ug/L	10	0	9.07	91		40 - 140
2-Methylnaphthalene	ug/L	10	0	8.37	84		40 - 140
Acenaphthene	ug/L	10	0	8.35	84		40 - 140
Acenaphthylene	ug/L	5	0	4.1	82		40 - 140
Anthracene	ug/L	.2	0	.167	84		40 - 140
Benzo(a)anthracene	ug/L	.5	0	.518	104		40 - 140
Benzo(a)pyrene	ug/L	.5	0	.297	59		40 - 140
Benzo(b)fluoranthene	ug/L	.2	0	.181	91		40 - 140
Benzo(g,h,i)perylene	ug/L	.8	0	.411	51		40 - 140
Benzo(k)fluoranthene	ug/L	.2	0	.159	80		40 - 140
Chrysene	ug/L	.5	0	.367	73		40 - 140
Dibenz(a,h)anthracene	ug/L	2	0	1.18	59		40 - 140
Fluoranthene	ug/L	.5	0	.426	85		40 - 140
Fluorene	ug/L	1	0	.92	92		40 - 140
Indeno(1,2,3-cd)pyrene	ug/L	.5	0	.266	53		40 - 140
Naphthalene	ug/L	5	0	4.23	85		40 - 140
Phenanthrene	ug/L	.4	0	.368	92		40 - 140
Pyrene	ug/L	1	0	.888	89		40 - 140

RPD : 0 out of 18 outside limits

Spike Recovery: 0 out of 36 outside limits

3E
WATER ORGANICS MS/MSD RECOVERY

Lab Name: GCAL
Sample ID: 86-CEF271-8S-Q4-03
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 203102408
Contract:
Method: SW-846 8310

SAMPLE NO : ***20310240803***

COMPOUND	UNITS	SPIKE ADDED	MSD CONC.	MSD % REC	REC FLAG	% RPD	RPD FLAG	QC. LIMITS REC	QC. LIMITS RPD
1-Methylnaphthalene	ug/L	10	9.89	99		9		40 - 140	0 - 30
2-Methylnaphthalene	ug/L	10	9.17	92		9		40 - 140	0 - 30
Acenaphthene	ug/L	10	8.57	86		3		40 - 140	0 - 30
Acenaphthylene	ug/L	5	4.31	86		5		40 - 140	0 - 30
Anthracene	ug/L	.2	.175	88		5		40 - 140	0 - 30
Benzo(a)anthracene	ug/L	.5	.541	108		4		40 - 140	0 - 30
Benzo(a)pyrene	ug/L	.5	.349	70		16		40 - 140	0 - 30
Benzo(b)fluoranthene	ug/L	.2	.169	85		7		40 - 140	0 - 30
Benzo(g,h,i)perylene	ug/L	.8	.505	63		21		40 - 140	0 - 30
Benzo(k)fluoranthene	ug/L	.2	.157	79		1		40 - 140	0 - 30
Chrysene	ug/L	.5	.416	83		13		40 - 140	0 - 30
Dibenz(a,h)anthracene	ug/L	2	1.47	74		22		40 - 140	0 - 30
Fluoranthene	ug/L	.5	.434	87		2		40 - 140	0 - 30
Fluorene	ug/L	1	.985	99		7		40 - 140	0 - 30
Indeno(1,2,3-cd)pyrene	ug/L	.5	.292	58		9		40 - 140	0 - 30
Naphthalene	ug/L	5	4.42	88		4		40 - 140	0 - 30
Phenanthrene	ug/L	.4	.394	99		7		40 - 140	0 - 30
Pyrene	ug/L	1	.951	95		7		40 - 140	0 - 30

RPD : 0 out of 18 outside limits
Spike Recovery: 0 out of 36 outside limits

4C

ORGANIC METHOD BLANK SUMMARY

Lab Name: GCAL

Sample ID: MB126690

Lab Code: LA024 Case No.:

Contract:

Lab Sample ID: 126690

SAS No.: SDG No.: 203102408

Matrix: Water Sulfur Cleanup: (Y/N) N

Date Extracted: 10/27/03

Date Analyzed (1): 10/29/03 Time (1): 1041

Date Analyzed (2): Time (2):

Instrument ID (1): HPLC 1

Instrument ID (2):

GC Column (1): 201TP-0.15 ID: 2.1 (mm)

GC Column (2): ID: (mm)

Method: SW-846 8310

Prep Batch: 264230 Analytical Batch: 264316

Lab File ID: 031029/H000549

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATE ANALYZED	TIME ANALYZED
1.	LCS126691	126691	10/29/03	1120		
2.	LCSD126692	126692	10/29/03	1127		
3.	86-CEF271-8S-Q4-03	20310240801	10/29/03	1215		
4.	86-CEF271-8S-Q4-03(MS)	20310240802	10/29/03	1222		
5.	86-CEF271-8S-Q4-03(MSD)	20310240803	10/29/03	1229		
6.	86-CEF271-9S-Q4-03	20310240804	10/29/03	1236		
7.	86-CEF271-11S-Q4-03	20310240805	10/29/03	1243		
8.	86-CEF271-12S-Q4-03	20310240806	10/29/03	1250		
9.	86-271-DUP1-Q4-03	20310240807	10/29/03	1257		

Gulf Coast Analytical Laboratories, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-OCT-2003 07:49
End Cal Date : 03-OCT-2003 08:38
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/hplc1.i/031003.b/flpnauv.m
Cal Date : 03-Oct-2003 16:43 jdt
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/hplc1.i/031003.b/h0005408.d
Level 2: /var/chem/hplc1.i/031003.b/h0005407.d
Level 3: /var/chem/hplc1.i/031003.b/h0005406.d
Level 4: /var/chem/hplc1.i/031003.b/h0005405.d
Level 5: /var/chem/hplc1.i/031003.b/h0005404.d
Level 6: /var/chem/hplc1.i/031003.b/h0005403.d
Level 7: /var/chem/hplc1.i/031003.b/h0005402.d
Level 8: /var/chem/hplc1.i/031003.b/h0005401.d

Compound	0.10000 Level 1	0.25000 Level 2	0.50000 Level 3	1.000 Level 4	2.500 Level 5	5.000 Level 6	RRF	% RSD
	10.000 Level 7	20.000 Level 8						
1 Naphthalene	+++++	1956	2412	2172	2576	2663		
	2542	2516					2405	10.502
2 Acenaphthylene	+++++	+++++	+++++	1579	1544	1728		
	1667	1661					1636	4.499
3 1-Methynaphthalene	+++++	+++++	+++++	1279	1321	1471		
	1435	1382					1378	5.726
4 2-Methylnaphthalene	+++++	+++++	+++++	1876	1950	2067		
	2003	2034					1986	3.773
5 Acenaphthene	+++++	+++++	+++++	819	1039	1125		
	1042	984					1002	11.380
6 Fluorene	+++++	+++++	10842	11128	11448	11633		
	11494	11413					11327	2.555
7 Phenanthrene	26090	26436	25024	25745	25979	26371		
	25918	25666					25904	1.725

Gulf Coast Analytical Laboratories, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-OCT-2003 07:49
End Cal Date : 03-OCT-2003 08:38
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/hplc1.i/031003.b/flpnauv.m
Cal Date : 03-Oct-2003 16:43 jdt
Curve Type : Average

Compound	0.10000 Level 1 / 10.000 Level 7	0.25000 Level 2 / 20.000 Level 8	0.50000 Level 3	1.000 Level 4	2.500 Level 5	5.000 Level 6	RRF	% RSD
8 Anthracene	58300	55936	54314	56191	56070	55827		
	53855	50797					55161	4.010
9 Fluoranthene	7260	7616	6548	6785	7230	7413		
	7313	7172					7167	4.790
10 Pyrene	5560	5336	5574	5439	5940	6131		
	6067	5928					5747	5.297
12 Benzo(a)Anthracene	15220	15096	15696	15444	16350	16477		
	16970	16827					16010	4.603
13 Chrysene	25330	24332	24144	25268	26782	26794		
	27690	27180					25940	5.187
14 Benzo(b)Fluoranthene	19810	19296	19986	20637	20071	20109		
	21046	19996					20119	2.614
15 Benzo(k)Fluoranthene	10680	11840	11996	12389	12872	12773		
	13057	12696					12288	6.316
16 Benzo(a)Pyrene	16030	17848	16838	16994	18590	18485		
	18899	18377					17758	5.762
17 Dibenzo(a,h)Anthracene	4630	4816	4642	4149	4382	4179		
	4275	4126					4400	6.000
18 Benzo(g,h,i)Perylene	6910	8440	7566	6351	7240	7053		
	7079	7030					7209	8.360

Gulf Coast Analytical Laboratories, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-OCT-2003 07:49
End Cal Date : 03-OCT-2003 08:38
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/hplc1.i/031003.b/flpnauv.m
Cal Date : 03-Oct-2003 16:43 jdt
Curve Type : Average

Compound	0.10000 Level 1	0.25000 Level 2	0.50000 Level 3	1.000 Level 4	2.500 Level 5	5.000 Level 6	RRF	% RSD
	10.000 Level 7	20.000 Level 8						
19 Indeno(1,2,3-c,d)Pyrene	+++++	14572	16552	14347	15532	15268		
	15256	15127					15236	4.690
$ 11 p-Terphenyl	6210	6376	6532	6722	6932	6958		
	7258	7138					6766	5.481

Gulf Coast Analytical Laboratories, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: hplc1.i Injection Date: 29-OCT-2003 10:21
Lab File ID: h0005497.d Init. Cal. Date(s): 03-OCT-2003 03-OCT-2003
Analysis Type: WATER Init. Cal. Times: 07:49 08:38
Lab Sample ID: 1029STD05 Quant Type: ESTD
Method: /var/chem/hplc1.i/031029.b/flpnauv.m

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 Naphthalene	2405	2144	0.010	10.84635	15.00000	Averaged
2 Acenaphthylene	1636	1578	0.010	3.54846	15.00000	Averaged
3 1-Methynaphthalene	1378	1335	0.010	3.10474	15.00000	Averaged
4 2-Methylnaphthalene	1986	1984	0.010	0.10020	15.00000	Averaged
5 Acenaphthene	1002	908	0.010	9.40669	15.00000	Averaged
6 Fluorene	11327	11548	0.010	-1.95183	15.00000	Averaged
7 Phenanthrene	25904	26616	0.010	-2.75005	15.00000	Averaged
8 Anthracene	55161	57925	0.010	-5.01096	15.00000	Averaged
9 Fluoranthene	7167	7206	0.010	-0.54407	15.00000	Averaged
10 Pyrene	5747	5986	0.010	-4.15400	15.00000	Averaged
$ 11 p-Terphenyl	6766	7020	0.010	-3.75227	15.00000	Averaged
12 Benzo(a)Anthracene	16010	16269	0.010	-1.61847	15.00000	Averaged
13 Chrysene	25940	26527	0.010	-2.26373	15.00000	Averaged
14 Benzo(b)Fluoranthene	20119	20629	0.010	-2.53402	15.00000	Averaged
15 Benzo(k)Fluoranthene	12288	12603	0.010	-2.56557	15.00000	Averaged
16 Benzo(a)Pyrene	17758	18194	0.010	-2.45772	15.00000	Averaged
17 Dibenzo(a,h)Anthracene	4400	3751	0.010	14.74158	15.00000	Averaged
18 Benzo(g,h,i)Perylene	7209	6292	0.010	12.72220	15.00000	Averaged
19 Indeno(1,2,3-c,d)Pyrene	15236	14577	0.010	4.32532	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 4.65254
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Gulf Coast Analytical Laboratories, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: hplc1.i Injection Date: 29-OCT-2003 13:04
Lab File ID: h0005508.d Init. Cal. Date(s): 03-OCT-2003 03-OCT-2003
Analysis Type: WATER Init. Cal. Times: 07:49 08:38
Lab Sample ID: 1029STD05 Quant Type: ESTD
Method: /var/chem/hplc1.i/031029.b/flpnauv.m

	COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
	1 Naphthalene	2405	2528	0.010	-5.08523	15.00000	Averaged
	2 Acenaphthylene	1636	1549	0.010	5.29456	15.00000	Averaged
	3 1-Methynaphthalene	1378	1329	0.010	3.49383	15.00000	Averaged
	4 2-Methylnaphthalene	1986	1991	0.010	-0.23414	15.00000	Averaged
	5 Acenaphthene	1002	927	0.010	7.51417	15.00000	Averaged
	6 Fluorene	11327	11518	0.010	-1.69262	15.00000	Averaged
	7 Phenanthrene	25904	26497	0.010	-2.29050	15.00000	Averaged
	8 Anthracene	55161	57486	0.010	-4.21431	15.00000	Averaged
	9 Fluoranthene	7167	7409	0.010	-3.37371	15.00000	Averaged
	10 Pyrene	5747	6065	0.010	-5.53074	15.00000	Averaged
$	11 p-Terphenyl	6766	7007	0.010	-3.56190	15.00000	Averaged
	12 Benzo(a)Anthracene	16010	16448	0.010	-2.73727	15.00000	Averaged
	13 Chrysene	25940	26772	0.010	-3.20838	15.00000	Averaged
	14 Benzo(b)Fluoranthene	20119	20382	0.010	-1.30771	15.00000	Averaged
	15 Benzo(k)Fluoranthene	12288	12980	0.010	-5.63004	15.00000	Averaged
	16 Benzo(a)Pyrene	17758	18345	0.010	-3.30648	15.00000	Averaged
	17 Dibenzo(a,h)Anthracene	4400	3917	0.010	10.97232	15.00000	Averaged
	18 Benzo(g,h,i)Perylene	7209	6722	0.010	6.74832	15.00000	Averaged
	19 Indeno(1,2,3-c,d)Pyrene	15236	14866	0.010	2.42721	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 4.13808
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Gulf Coast Analytical Laboratories, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-OCT-2003 07:49
End Cal Date : 03-OCT-2003 08:38
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/hplc1.i/031003f.b/flpnafld.m
Cal Date : 03-Oct-2003 16:43 jdt

Calibration File Names:
Level 1: /var/chem/hplc1.i/031003f.b/h0005408.d
Level 2: /var/chem/hplc1.i/031003f.b/h0005407.d
Level 3: /var/chem/hplc1.i/031003f.b/h0005406.d
Level 4: /var/chem/hplc1.i/031003f.b/h0005405.d
Level 5: /var/chem/hplc1.i/031003f.b/h0005404.d
Level 6: /var/chem/hplc1.i/031003f.b/h0005403.d
Level 7: /var/chem/hplc1.i/031003f.b/h0005402.d
Level 8: /var/chem/hplc1.i/031003f.b/h0005401.d

Compound	0.1000 Level 1 / 10 Level 7	0.2500 Level 2 / 20 Level 8	0.5000 Level 3	1 Level 4	2 Level 5	5 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
1 Naphthalene	+++++	11452	12064	12276	10980	10725					
	10674	10790					AVRG		11280		5.88159
3 1-Methynaphthalene	+++++	+++++	+++++	1485	1110	1308					
	1759	1275					AVRG		1387		17.78700
4 2-Methylnaphthalene	+++++	+++++	+++++	1368	1189	1301					
	1577	1261					AVRG		1339		11.04595
5 Acenaphthene	+++++	+++++	+++++	3957	3872	4022					
	4193	3986					AVRG		4006		2.95185
7 Phenanthrene	16730	14960	15864	15680	16045	16271					
	16768	15863					AVRG		16023		3.66623

000143

Gulf Coast Analytical Laboratories, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-OCT-2003 07:49
End Cal Date : 03-OCT-2003 08:38
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/hplc1.i/031003f.b/flpnafld.m
Cal Date : 03-Oct-2003 16:43 jdt

Compound	0.1000 Level 1 / 10 Level 7	0.2500 Level 2 / 20 Level 8	0.5000 Level 3	1 Level 4	2 Level 5	5 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
8 Anthracene	6850	4740	5886	5492	5630	5609					
	5758	5284					AVRG		5656		10.55775
9 Fluoranthene	5730	5812	5128	5170	5547	5614					
	5630	5506					AVRG		5517		4.47865
10 Pyrene	34060	33972	33018	33063	35143	35933					
	34926	+++++					AVRG		34302		3.17299
12 Benzo(a)Anthracene	24390	26936	27260	28397	29013	29488					
	29092	+++++					AVRG		27797		6.40393
13 Chrysene	207	572	1192	3075	9099	19441					
	39670	80765					LINR	0.000e+00	4012		0.99936
14 Benzo(b)Fluoranthene	23860	23304	23066	23116	23533	24123					
	24296	+++++					AVRG		23614		2.07157
15 Benzo(k)Fluoranthene	55240	53132	52342	52928	53506	54201					
	43799	+++++					AVRG		52164		7.29761
16 Benzo(a)Pyrene	45600	42292	43360	44085	45313	46297					
	41767	+++++					AVRG		44102		3.90623
17 Dibenzo(a,h)Anthracene	18820	17428	17018	17188	17064	17381					
	17585	17066					AVRG		17444		3.39253

000144

Gulf Coast Analytical Laboratories, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-OCT-2003 07:49
End Cal Date : 03-OCT-2003 08:38
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/hplc1.i/031003f.b/flpnafld.m
Cal Date : 03-Oct-2003 16:43 jdt

Compound	0.1000 Level 1 / 10 Level 7	0.2500 Level 2 / 20 Level 8	0.5000 Level 3	1 Level 4	2 Level 5	5 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
18 Benzo(g,h,i)Perylene	16680	15036	14006	14263	14537	14995					
	15377	15516					AVRG		15051		5.59094
19 Indeno(1,2,3-c,d)Pyrene	+++++	5172	4130	4150	4753	4999					
	4917	4809					AVRG		4704		8.68431
$ 11 p-Terphenyl	+++++	7824	8436	9016	9508	9765					
	9703	9700					AVRG		9136		8.23832

000145

Gulf Coast Analytical Laboratories, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: hplc1.i
Lab File ID: h0005497.d
Analysis Type: WATER
Lab Sample ID: 1029STD05
Method: /var/chem/hplc1.i/031029f.b/flpnafld.m

Injection Date: 29-OCT-2003 10:21
Init. Cal. Date(s): 03-OCT-2003 03-OCT-2003
Init. Cal. Times: 07:49 08:38
Quant Type: ESTD

	COMPOUND	RRF / AMOUNT	RF2	CCAL RRF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
	1 Naphthalene	11280	11388	11388	0.010	-0.95572	15.00000	Averaged
	3 1-Methynaphthalene	1387	1528	1528	0.010	-10.13248	15.00000	Averaged
	4 2-Methylnaphthalene	1339	1324	1324	0.010	1.11802	15.00000	Averaged
	5 Acenaphthene	4006	3891	3891	0.010	2.87957	15.00000	Averaged
	7 Phenanthrene	16023	16348	16348	0.010	-2.02791	15.00000	Averaged
	8 Anthracene	5656	5771	5771	0.010	-2.02587	15.00000	Averaged
	9 Fluoranthene	5517	5772	5772	0.010	-4.61115	15.00000	Averaged
	10 Pyrene	34302	37545	37545	0.010	-9.45448	15.00000	Averaged
$	11 p-Terphenyl	9136	9247	9247	0.010	-1.21780	15.00000	Averaged
	12 Benzo(a)Anthracene	27797	30296	30296	0.010	-8.99059	15.00000	Averaged
	13 Chrysene	2.25601	2.50000	3620	0.010	9.75974	15.00000	Linear
	14 Benzo(b)Fluoranthene	23614	23958	23958	0.010	-1.45482	15.00000	Averaged
	15 Benzo(k)Fluoranthene	52164	53607	53607	0.010	-2.76655	15.00000	Averaged
	16 Benzo(a)Pyrene	44102	46792	46792	0.010	-6.09849	15.00000	Averaged
	17 Dibenzo(a,h)Anthracene	17444	17174	17174	0.010	1.54700	15.00000	Averaged
	18 Benzo(g,h,i)Perylene	15051	14966	14966	0.010	0.56391	15.00000	Averaged
	19 Indeno(1,2,3-c,d)Pyrene	4704	4377	4377	0.010	6.96299	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 4.26865
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Gulf Coast Analytical Laboratories, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: hplc1.i
Lab File ID: h0005508.d
Analysis Type: WATER
Lab Sample ID: 1029STD05
Method: /var/chem/hplc1.i/031029f.b/flpnafld.m

Injection Date: 29-OCT-2003 13:04
Init. Cal. Date(s): 03-OCT-2003 03-OCT-2003
Init. Cal. Times: 07:49 08:38
Quant Type: ESTD

	COMPOUND	RRF / AMOUNT	RF2	CCAL RRF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
	1 Naphthalene	11280	10808	10808	0.010	4.18249	15.00000	Averaged
	3 1-Methynaphthalene	1387	1233	1233	0.010	11.14443	15.00000	Averaged
	4 2-Methylnaphthalene	1339	1215	1215	0.010	9.24367	15.00000	Averaged
	5 Acenaphthene	4006	3624	3624	0.010	9.53931	15.00000	Averaged
	7 Phenanthrene	16023	15625	15625	0.010	2.48320	15.00000	Averaged
	8 Anthracene	5656	5628	5628	0.010	0.49172	15.00000	Averaged
	9 Fluoranthene	5517	5315	5315	0.010	3.66842	15.00000	Averaged
	10 Pyrene	34302	32503	32503	0.010	5.24432	15.00000	Averaged
$	11 p-Terphenyl	9136	9340	9340	0.010	-2.22919	15.00000	Averaged
	12 Benzo(a)Anthracene	27797	29353	29353	0.010	-5.60024	15.00000	Averaged
	13 Chrysene	2.26398	2.50000	3633	0.010	9.44069	15.00000	Linear
	14 Benzo(b)Fluoranthene	23614	22816	22816	0.010	3.37789	15.00000	Averaged
	15 Benzo(k)Fluoranthene	52164	52080	52080	0.010	0.16191	15.00000	Averaged
	16 Benzo(a)Pyrene	44102	43626	43626	0.010	1.07851	15.00000	Averaged
	17 Dibenzo(a,h)Anthracene	17444	16558	16558	0.010	5.08062	15.00000	Averaged
	18 Benzo(g,h,i)Perylene	15051	13705	13705	0.010	8.94326	15.00000	Averaged
	19 Indeno(1,2,3-c,d)Pyrene	4704	4315	4315	0.010	8.28091	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 5.30534
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031029.b/h0005501.d
Lab Smp Id: 20310240801
Inj Date : 29-OCT-2003 12:15
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310240801-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031029.b/flpnauv.m
Meth Date : 29-Oct-2003 12:40 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

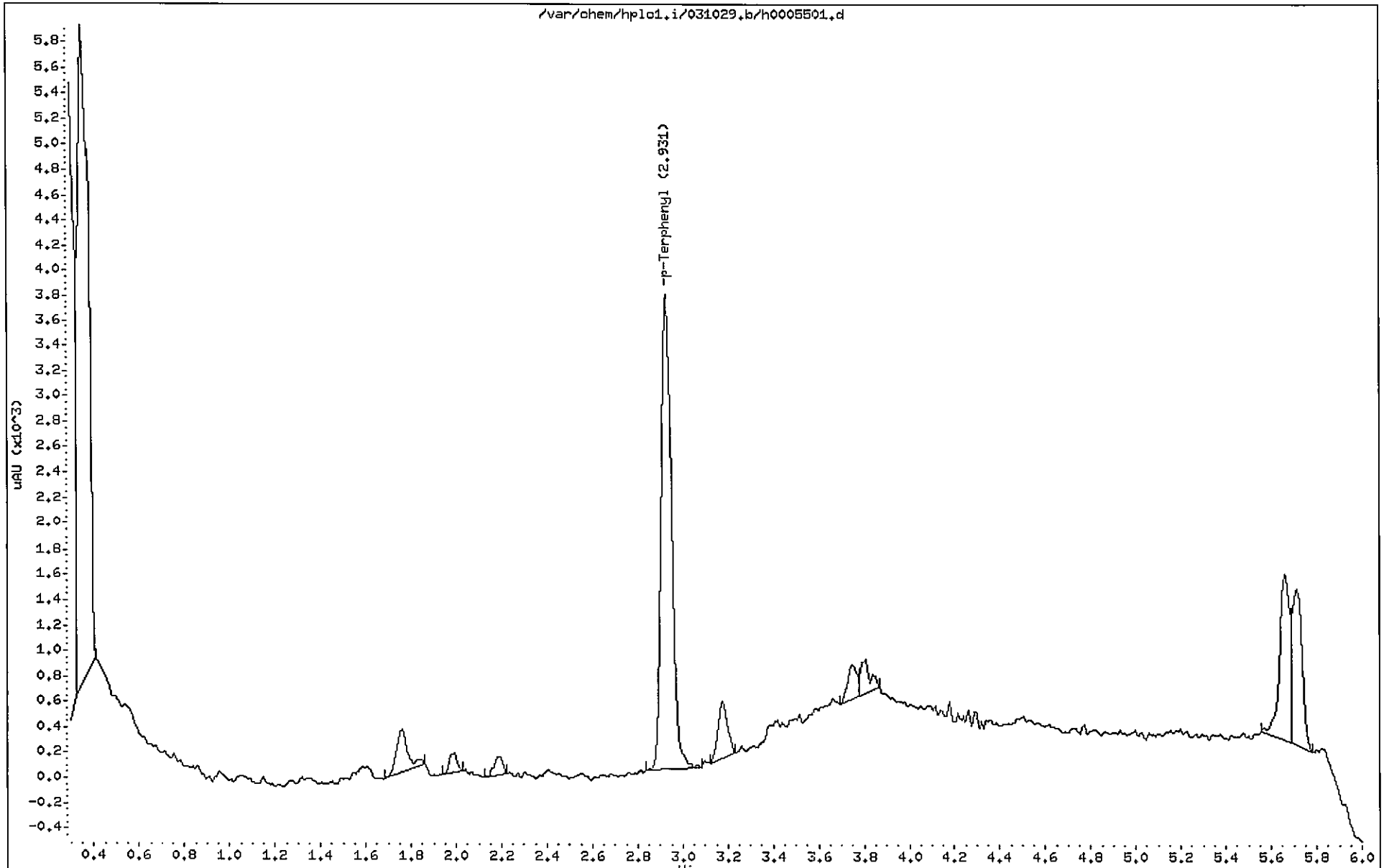
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
11 p-Terphenyl	2.931	2.994	-0.063	11911	1.76049	1.76

Data File: /var/chem/hplc1.i/031029.b/h0005501.d
Date : 29-OCT-2003 12:15
Client ID:
Sample Info: 20310240801-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15H

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000149



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031029f.b/h0005501.d
Lab Smp Id: 20310240801
Inj Date : 29-OCT-2003 12:15
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310240801-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031029f.b/flpnafld.m
Meth Date : 29-Oct-2003 12:39 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

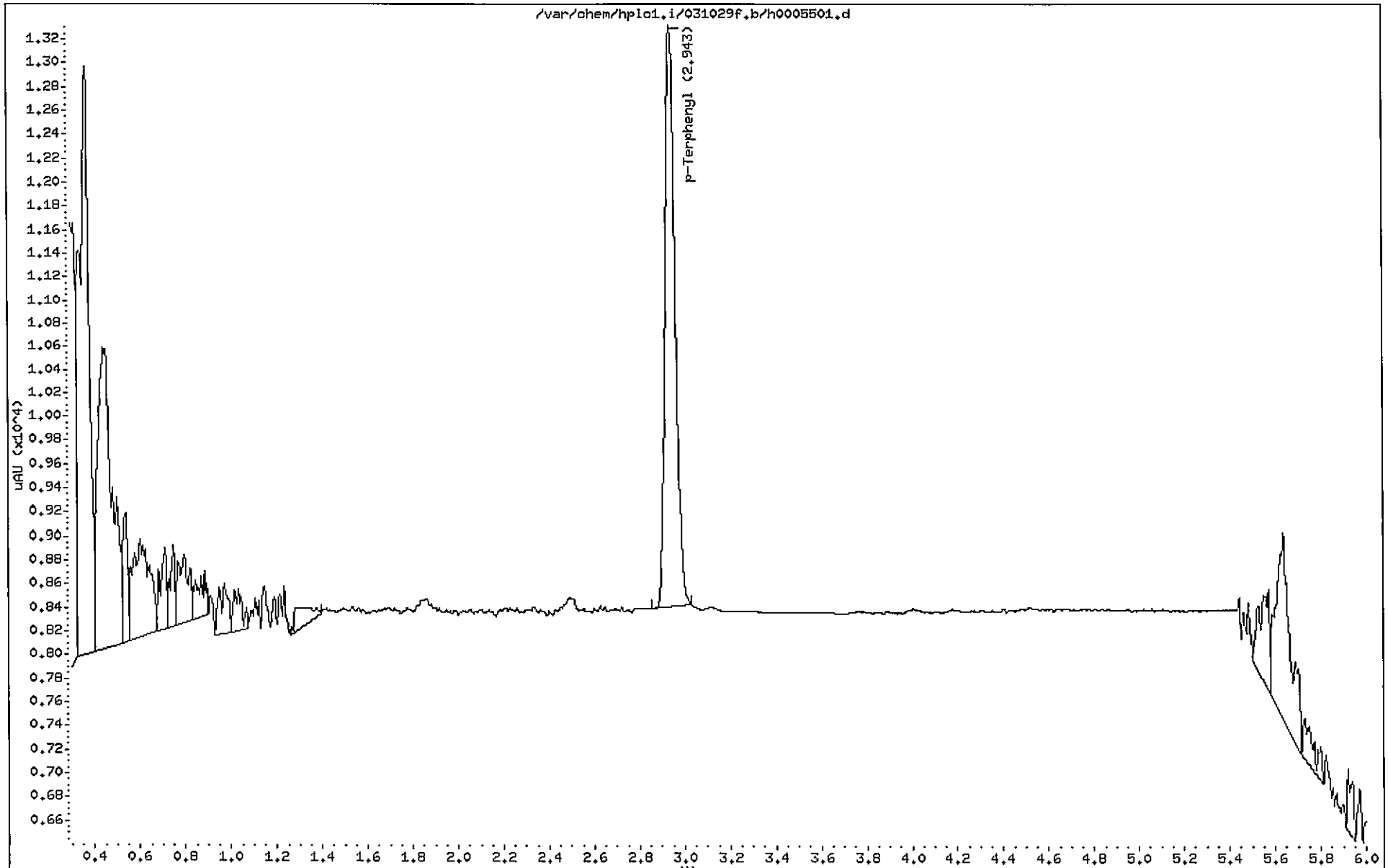
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
11 p-Terphenyl	2.943	2.977	-0.034	15151	1.65839	1.66

Data File: /var/chem/hplc1.i/031029f.b/h0005501.d
Date : 29-OCT-2003 12:15
Client ID:
Sample Info: 20310240801-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000151



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031029.b/h0005504.d
Lab Smp Id: 20310240804
Inj Date : 29-OCT-2003 12:36
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310240804-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031029.b/flpnauv.m
Meth Date : 29-Oct-2003 12:40 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 Naphthalene	1.018	1.034	-0.016	14163	5.88828	5.89(M)
2 Acenaphthylene	1.224	1.248	-0.024	4984	3.04713	3.05(M)
3 1-Methynaphthalene	1.371	1.374	-0.003	5736	4.16385	4.16(MH)
4 2-Methylnaphthalene	1.431	1.461	-0.030	2248	1.13193	1.13(M)
11 p-Terphenyl	2.931	2.994	-0.063	9302	1.37487	1.37

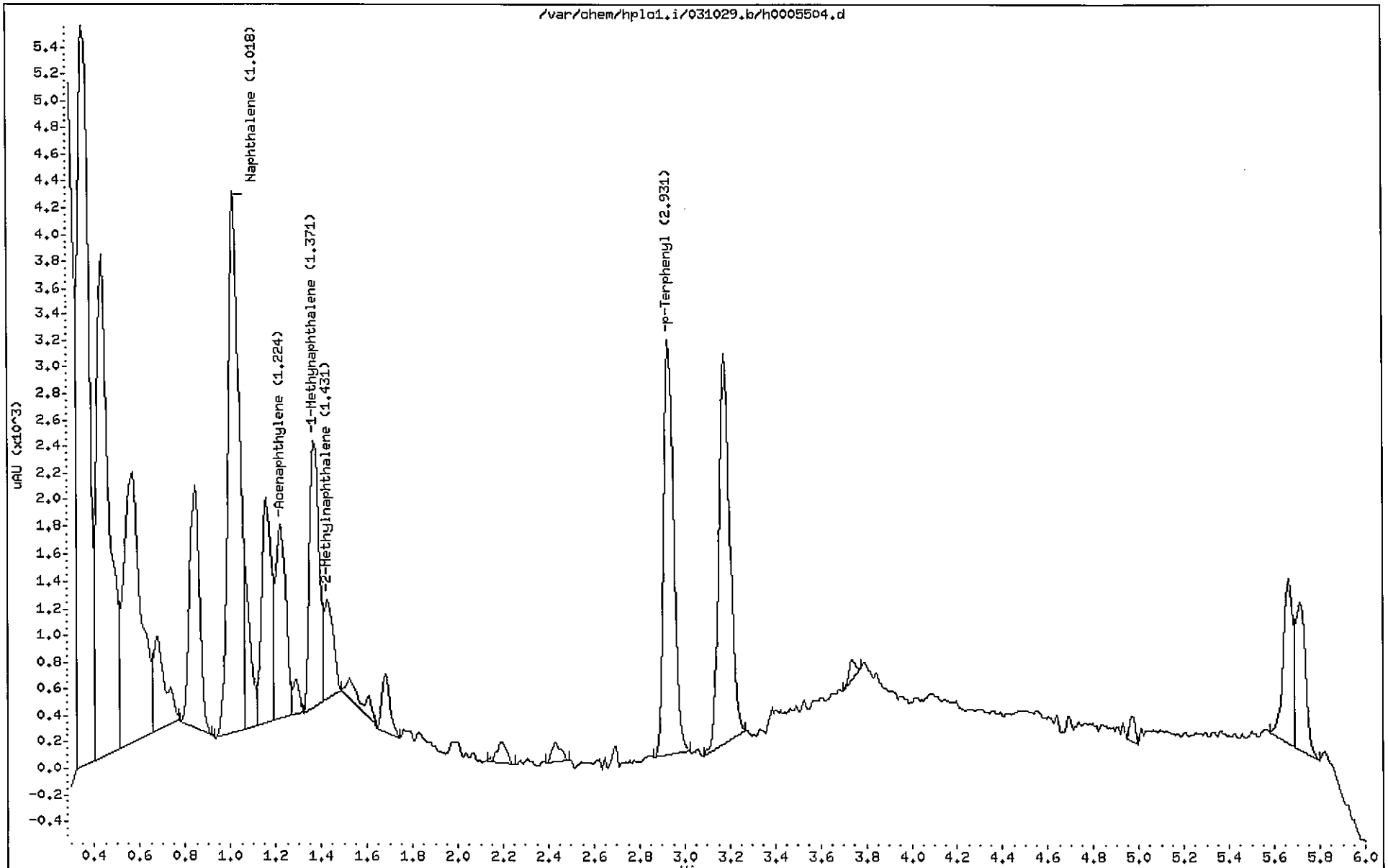
QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

000153

Data File: /var/chem/hplo1.i/031029.b/h0005504.d
Date : 29-OCT-2003 12:36
Client ID:
Sample Info: 20310240B04-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplo1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031029f.b/h0005504.d
Lab Smp Id: 20310240804
Inj Date : 29-OCT-2003 12:36
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310240804-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031029f.b/flpnafld.m
Meth Date : 29-Oct-2003 12:39 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 Naphthalene	1.033	1.043	-0.010	47113	4.17661	4.18
3 1-Methynaphthalene	1.367	1.377	-0.010	743	0.53553	0.536(H)
4 2-Methylnaphthalene	1.457	1.473	-0.016	1496	1.11728	1.12
11 p-Terphenyl	2.947	2.977	-0.030	11799	1.29149	1.29

QC Flag Legend

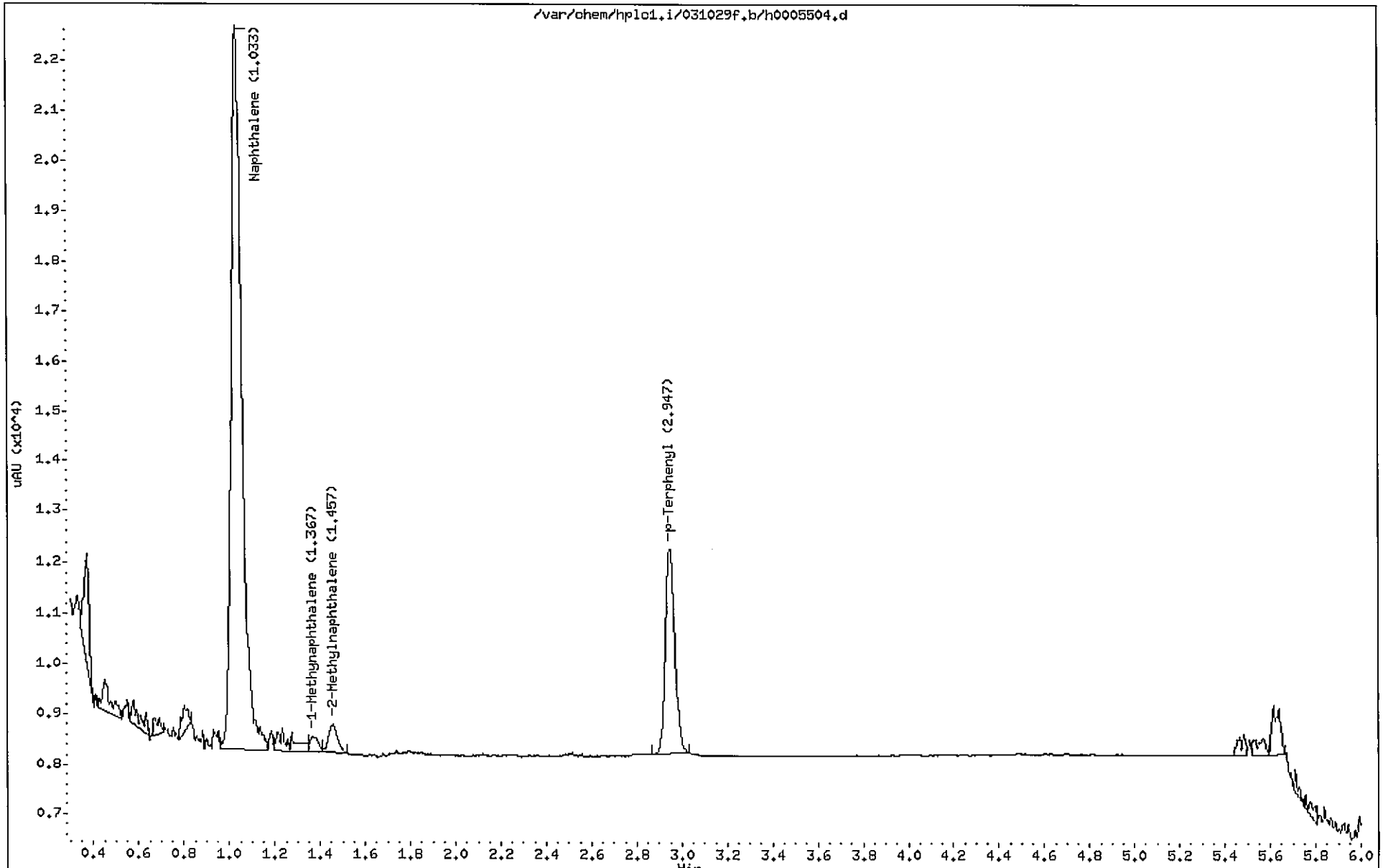
H - Operator selected an alternate compound hit.

Data File: /var/chem/hplc1.i/031029f.b/h0005504.d
Date : 29-OCT-2003 12:36
Client ID:
Sample Info: 20310240804-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000155



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031029.b/h0005505.d
Lab Smp Id: 20310240805
Inj Date : 29-OCT-2003 12:43
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310240805-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031029.b/flpnauv.m
Meth Date : 29-Oct-2003 12:40 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

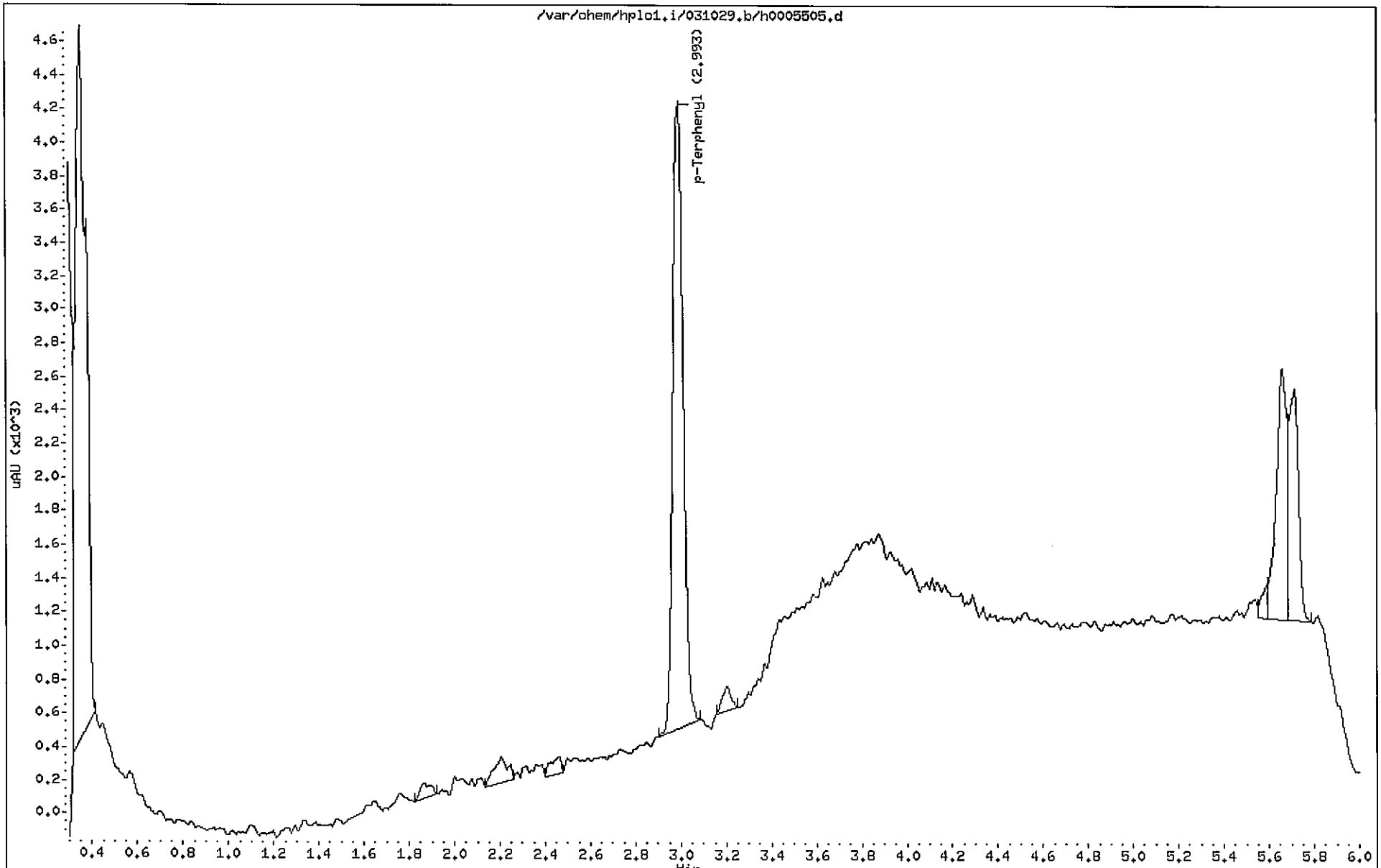
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
11 p-Terphenyl	2.993	2.994	-0.001	11576	1.71098	1.71

Data File: /var/chem/hplc1.i/031029.b/h0005505.d
Date : 29-OCT-2003 12:43
Client ID:
Sample Info: 20310240805-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000157



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031029f.b/h0005505.d
Lab Smp Id: 20310240805
Inj Date : 29-OCT-2003 12:43
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310240805-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031029f.b/flpnafld.m
Meth Date : 29-Oct-2003 12:39 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

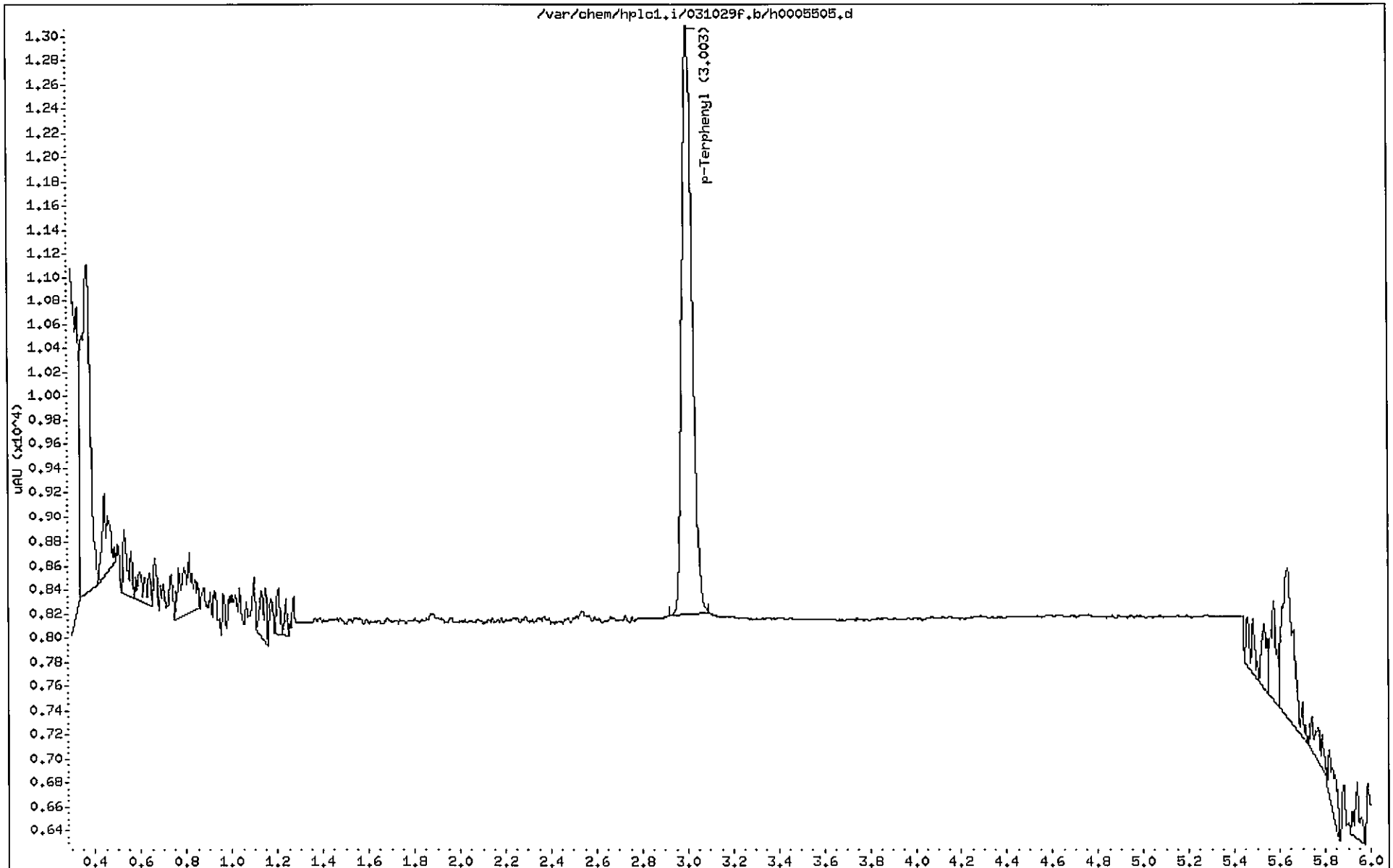
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
11 p-Terphenyl	3.003	2.977	0.026	15093	1.65209	1.65

Data File: /var/chem/hplc1.i/031029f.b/h0005505.d
Date : 29-OCT-2003 12:43
Client ID:
Sample Info: 20310240805-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15H

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000159



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031029.b/h0005506.d
Lab Smp Id: 20310240806
Inj Date : 29-OCT-2003 12:50
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310240806-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031029.b/flpnauv.m
Meth Date : 29-Oct-2003 12:40 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
11 p-Terphenyl	3.017	2.994	0.023	10309	1.52371	1.52

Data File: /var/chem/hplc1.i/031029.b/h0005506.d

Date : 29-OCT-2003 12:50

Client ID:

Sample Info: 20310240806-DL1

Volume Injected (uL): 10.0

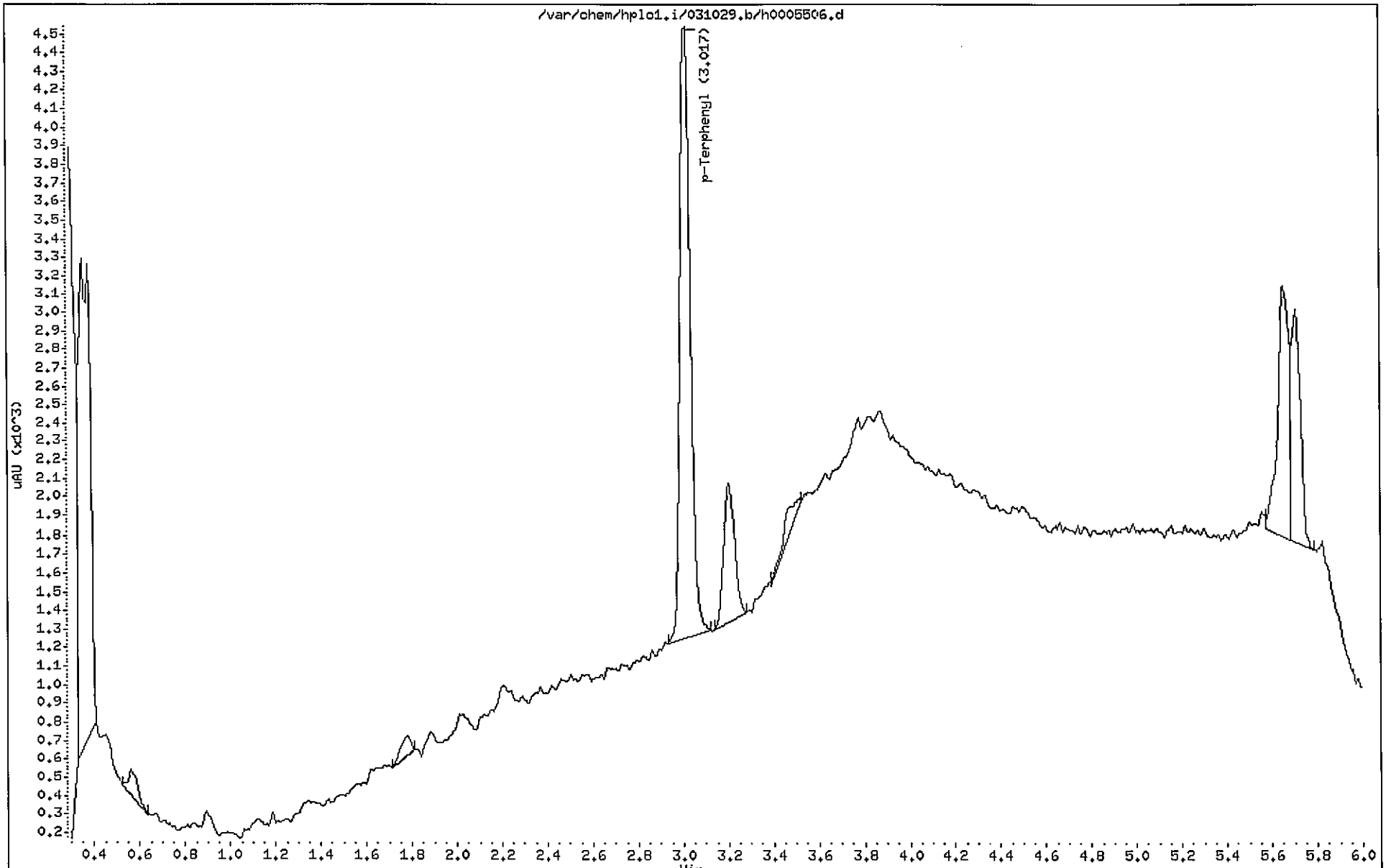
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt

Column diameter: 2.10

000161



Gulf Coast Analytical Laboratories, Inc.

ata file : /var/chem/hplc1.i/031029f.b/h0005506.d
ab Smp Id: 20310240806
nj Date : 29-OCT-2003 12:50
perator : jdt Inst ID: hplc1.i
mp Info : 20310240806-DL1
isc Info :
omment :
ethod : /var/chem/hplc1.i/031029f.b/flpnafld.m
eth Date : 29-Oct-2003 12:39 jdt Quant Type: ESTD
al Date : 03-OCT-2003 07:49 Cal File: h0005401.d
ls bottle: 1
il Factor: 1.00000
ntegrator: Falcon Compound Sublist: all.sub
arget Version: 3.50

oncentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

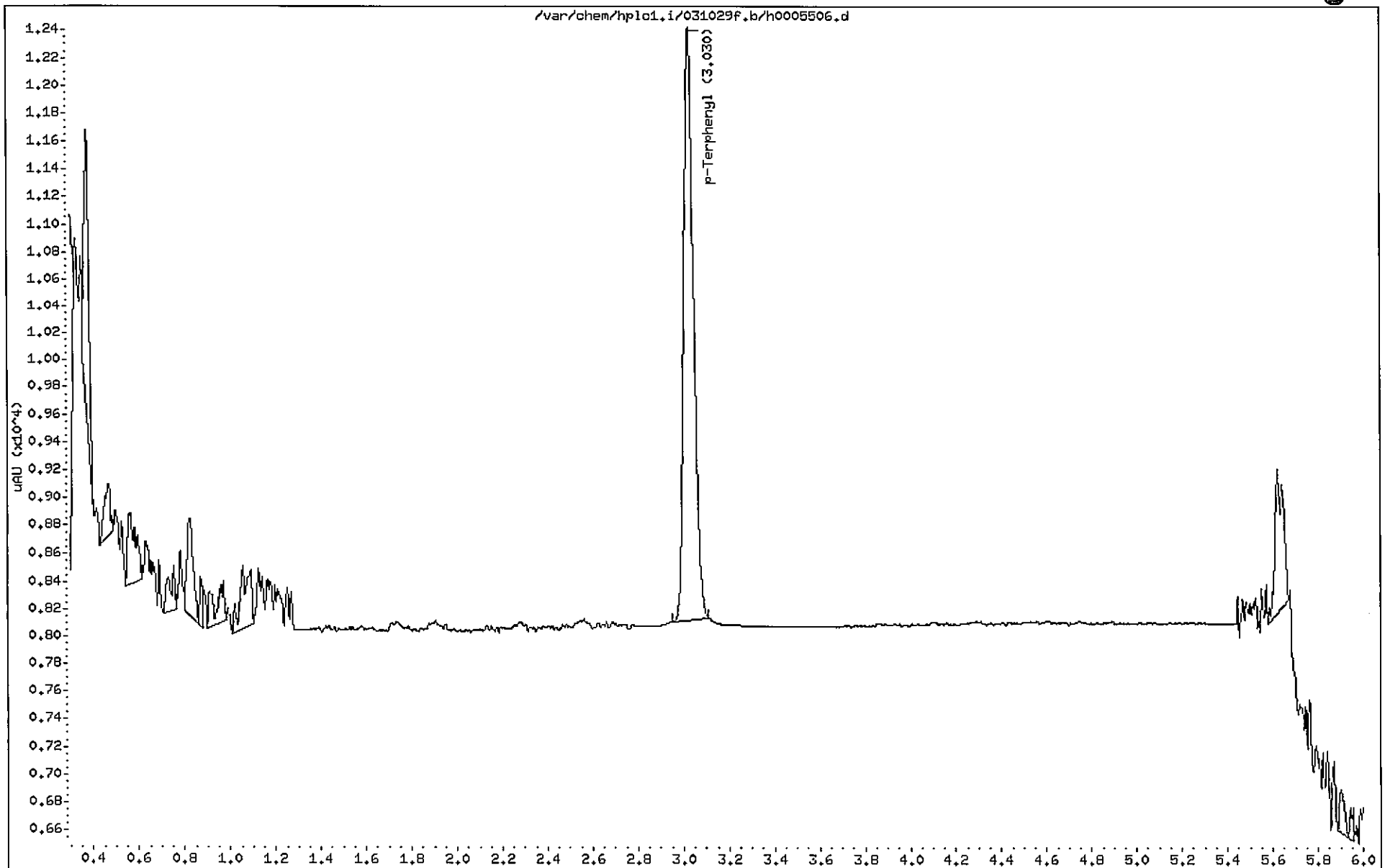
pnd Variable Local Compound Variable

ompounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
11 p-Terphenyl	3.030	2.977	0.053	12910	1.41310	1.41

Data File: /var/chem/hplc1.i/031029f.b/h0005506.d
Date : 29-OCT-2003 12:50
Client ID:
Sample Info: 20310240806-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10

000163



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031029.b/h0005507.d
Lab Smp Id: 20310240807
Inj Date : 29-OCT-2003 12:57
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310240807-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031029.b/flpnauv.m
Meth Date : 29-Oct-2003 12:40 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 Naphthalene	1.026	1.034	-0.008	3415	1.42004	1.42 (M)
2 Acenaphthylene	1.232	1.248	-0.016	1034	0.63217	0.632 (M)
3 1-Methynaphthalene	1.379	1.374	0.005	1308	0.95008	0.950 (M)
4 2-Methylnaphthalene	1.439	1.461	-0.022	495	0.24935	0.249 (M)
11 p-Terphenyl	2.953	2.994	-0.041	10349	1.52962	1.53

QC Flag Legend

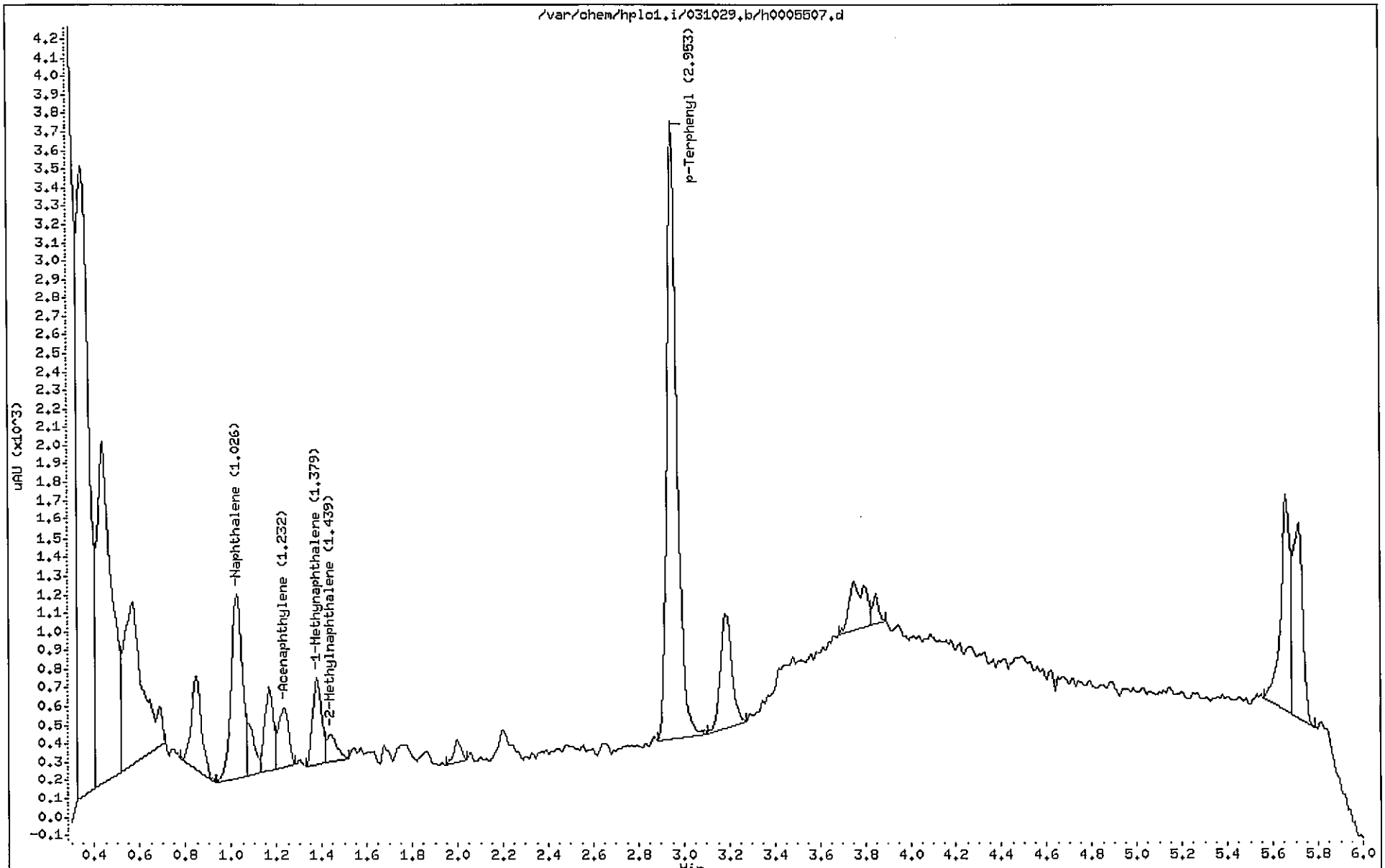
M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/031029.b/h0005507.d
Date : 29-OCT-2003 12:57
Client ID:
Sample Info: 20310240807-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000165



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031029f.b/h0005507.d
Lab Smp Id: 20310240807
Inj Date : 29-OCT-2003 12:57
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310240807-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031029f.b/flpnafld.m
Meth Date : 29-Oct-2003 12:39 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 Naphthalene	1.043	1.043	0.000	9600	0.85110	0.851(M)
3 1-Methynaphthalene	1.377	1.377	0.000	230	0.16606	0.166(M)
4 2-Methylnaphthalene	1.470	1.473	-0.003	362	0.27103	0.271(M)
11 p-Terphenyl	2.967	2.977	-0.010	12541	1.37271	1.37

QC Flag Legend

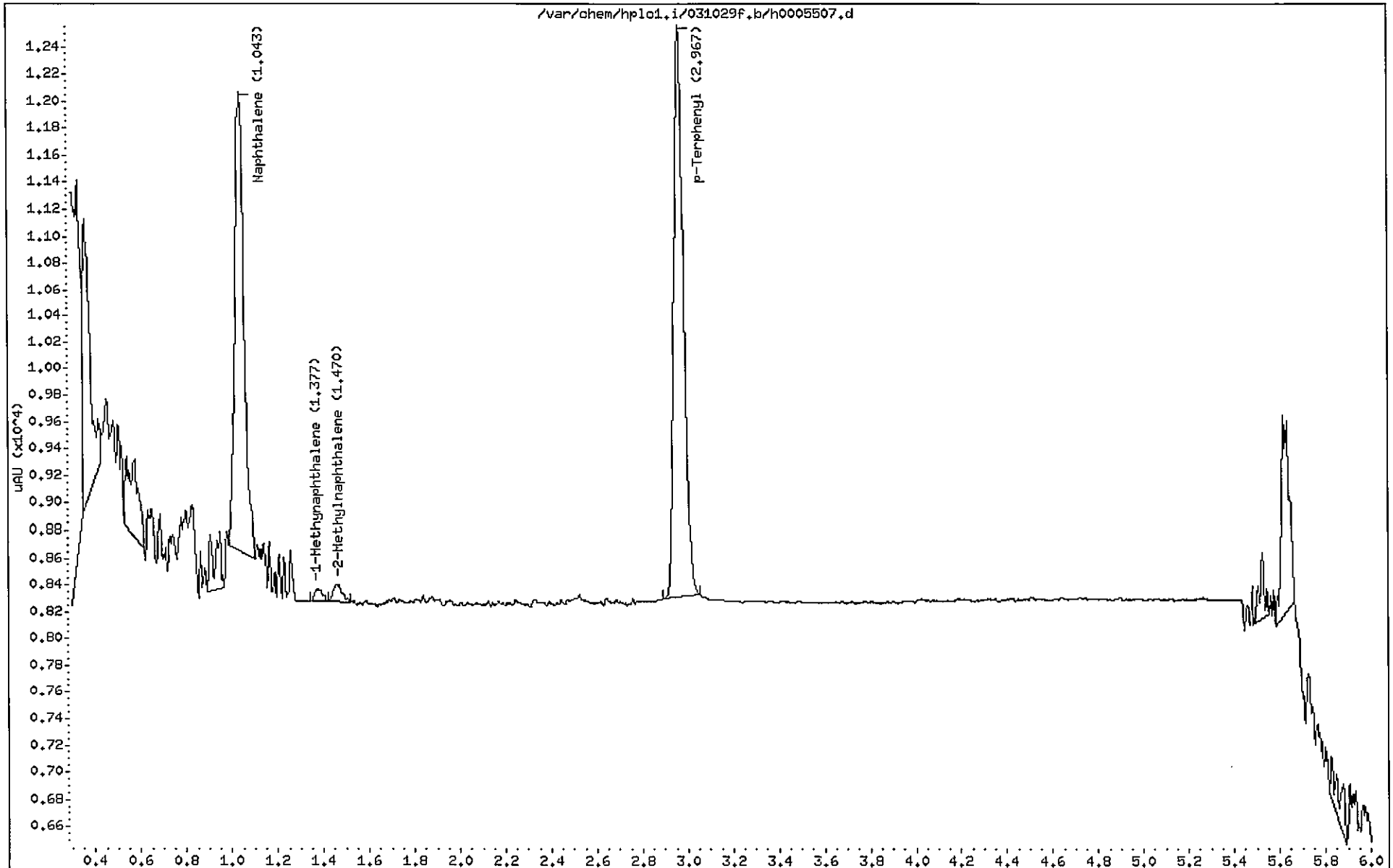
M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/031029f.b/h0005507.d
Date : 29-OCT-2003 12:57
Client ID:
Sample Info: 20310240807-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000167



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003.b/h0005408.d
Lab Smp Id: 1003STD01 Client Smp ID: 1003STD01
Inj Date : 03-OCT-2003 08:38
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD01
Misc Info : 3-46-10
Comment :
Method : /var/chem/hplc1.i/031003.b/flpnauv.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 08:38 Cal File: h0005408.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
7 Phenanthrene	1.857	1.858	-0.001	2609	0.10000	0.101
8 Anthracene	2.098	2.098	0.000	5830	0.10000	0.106
9 Fluoranthene	2.331	2.332	-0.001	726	0.10000	0.101
10 Pyrene	2.504	2.505	-0.001	556	0.10000	0.0967
11 p-Terphenyl	2.964	2.965	-0.001	621	0.10000	0.0918(M)
12 Benzo(a)Anthracene	3.144	3.152	-0.008	1522	0.10000	0.0951
13 Chrysene	3.304	3.305	-0.001	2533	0.10000	0.0976(M)
14 Benzo(b)Fluoranthene	3.791	3.866	-0.075	1981	0.10000	0.0985
15 Benzo(k)Fluoranthene	4.044	4.045	-0.001	1068	0.10000	0.0869(M)
16 Benzo(a)Pyrene	4.218	4.225	-0.007	1603	0.10000	0.0903(M)
17 Dibenzo(a,h)Anthracene	4.524	4.618	-0.094	463	0.10000	0.105(M)
18 Benzo(g,h,i)Perylene	4.678	4.772	-0.094	691	0.10000	0.0959(M)

QC Flag Legend

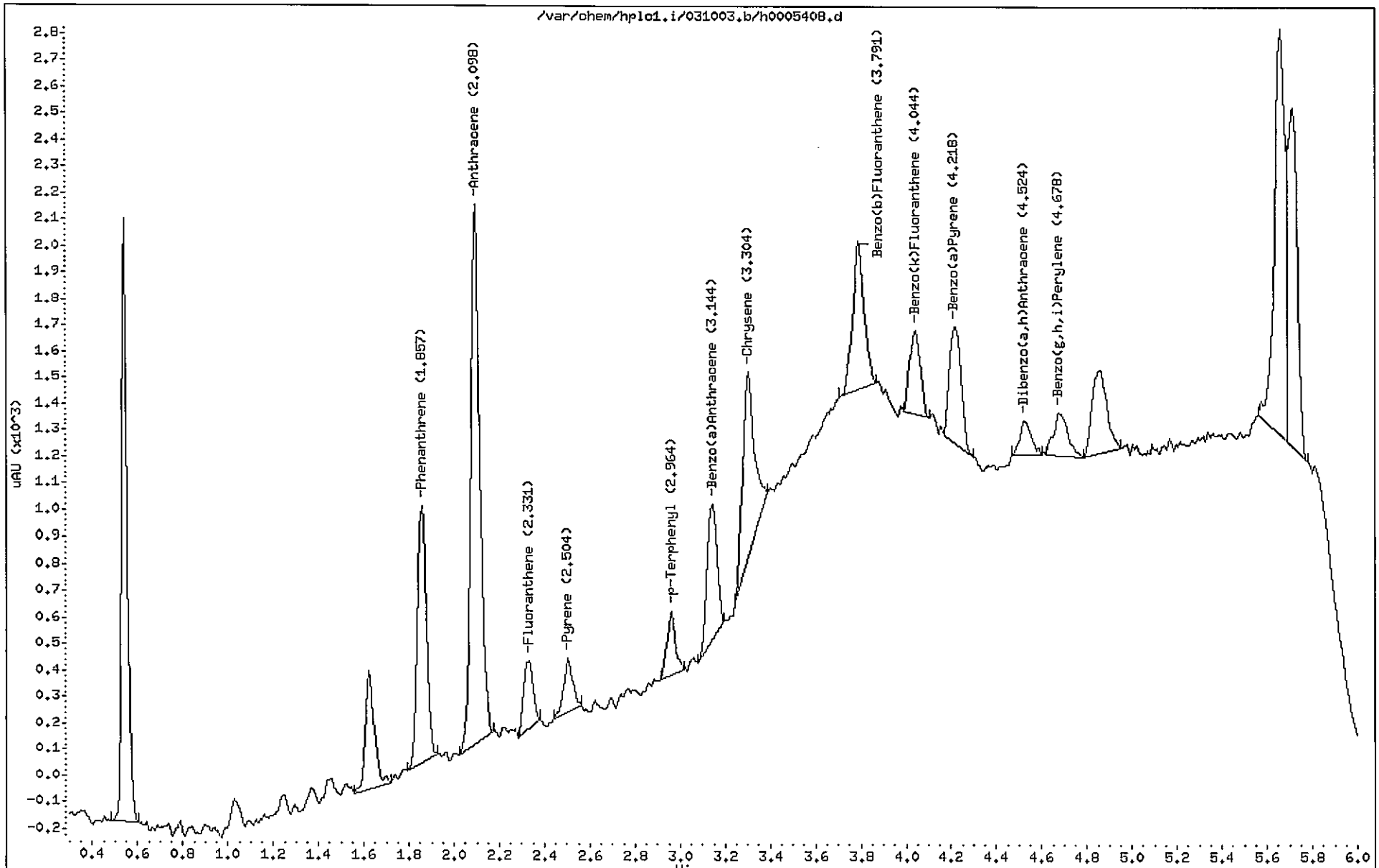
M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/031003.b/h0005408.d
Date : 03-OCT-2003 08:38
Client ID: 1003STD01
Sample Info: 1003STD01
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000170



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003.b/h0005407.d
Lab Smp Id: 1003STD02 Client Smp ID: 1003STD02
Inj Date : 03-OCT-2003 08:31
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD02
Misc Info : 3-46-9
Comment :
Method : /var/chem/hplc1.i/031003.b/flpnauv.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 08:31 Cal File: h0005407.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

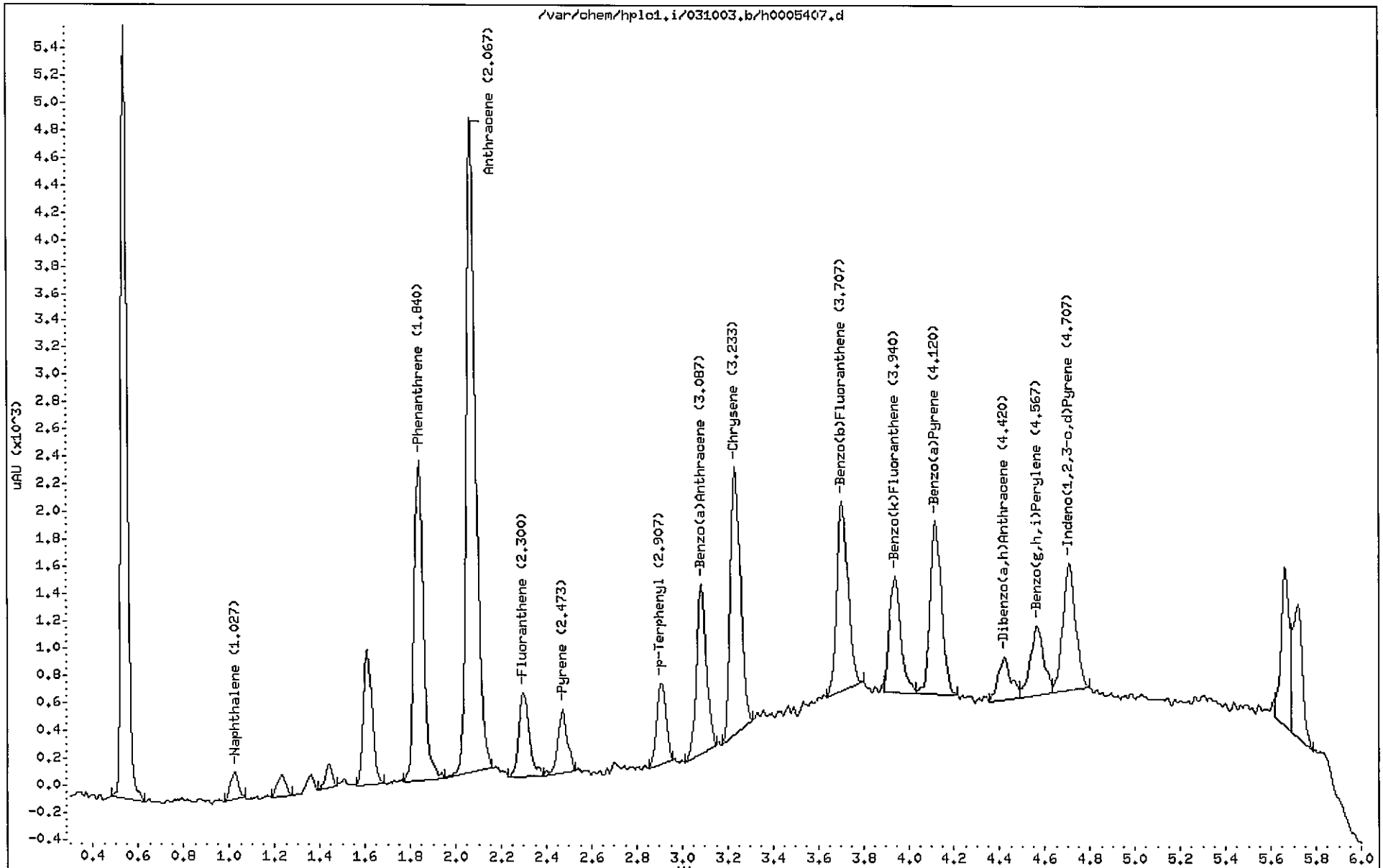
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.027	1.025	0.002	489	0.25000	0.203
7 Phenanthrene	1.840	1.858	-0.018	6609	0.25000	0.255
8 Anthracene	2.067	2.098	-0.031	13984	0.25000	0.254
9 Fluoranthene	2.300	2.332	-0.032	1904	0.25000	0.266
10 Pyrene	2.473	2.505	-0.032	1334	0.25000	0.232
11 p-Terphenyl	2.907	2.965	-0.058	1594	0.25000	0.236
12 Benzo(a)Anthracene	3.087	3.152	-0.065	3774	0.25000	0.236
13 Chrysene	3.233	3.305	-0.072	6083	0.25000	0.235
14 Benzo(b)Fluoranthene	3.707	3.866	-0.159	4824	0.25000	0.240
15 Benzo(k)Fluoranthene	3.940	4.045	-0.105	2960	0.25000	0.241
16 Benzo(a)Pyrene	4.120	4.225	-0.105	4462	0.25000	0.251
17 Dibenzo(a,h)Anthracene	4.420	4.618	-0.198	1204	0.25000	0.274
18 Benzo(g,h,i)Perylene	4.567	4.772	-0.205	2110	0.25000	0.293
19 Indeno(1,2,3-c,d)Pyrene	4.707	4.972	-0.265	3643	0.25000	0.239

Data File: /var/chem/hplc1.i/031003.b/h0005407.d
Date : 03-OCT-2003 08:31
Client ID: 1003STD02
Sample Info: 1003STD02
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

0001172



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003.b/h0005406.d
Lab Smp Id: 1003STD03 Client Smp ID: 1003STD03
Inj Date : 03-OCT-2003 08:24
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD03
Misc Info : 3-46-8
Comment :
Method : /var/chem/hplc1.i/031003.b/flpnauv.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 08:24 Cal File: h0005406.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

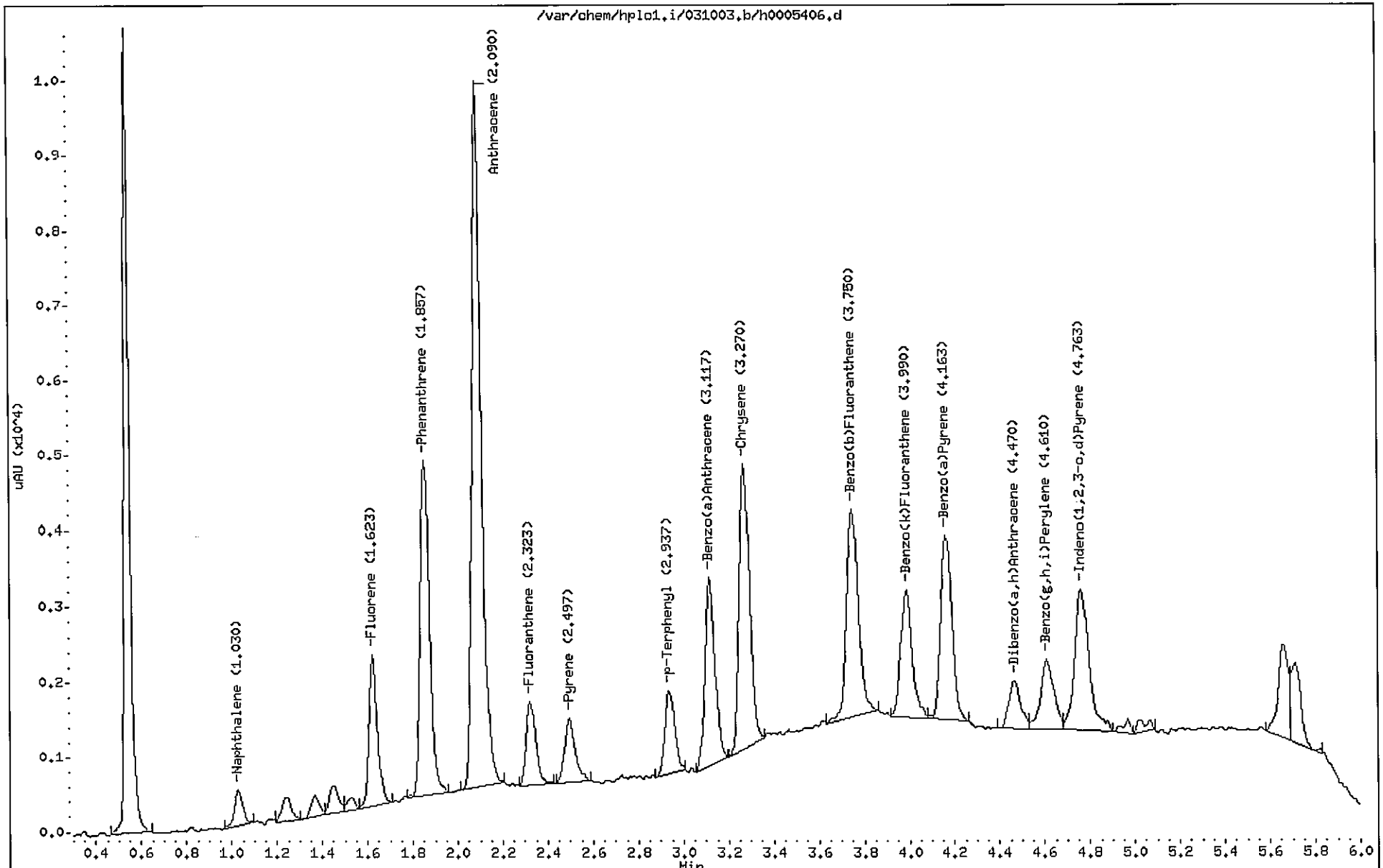
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.030	1.025	0.005	1206	0.50000	0.501
6 Fluorene	1.623	1.625	-0.002	5421	0.50000	0.479
7 Phenanthrene	1.857	1.858	-0.001	12512	0.50000	0.483
8 Anthracene	2.090	2.098	-0.008	27157	0.50000	0.492
9 Fluoranthene	2.323	2.332	-0.009	3274	0.50000	0.457
10 Pyrene	2.497	2.505	-0.008	2787	0.50000	0.485
11 p-Terphenyl	2.937	2.965	-0.028	3266	0.50000	0.483
12 Benzo(a)Anthracene	3.117	3.152	-0.035	7848	0.50000	0.490
13 Chrysene	3.270	3.305	-0.035	12072	0.50000	0.465
14 Benzo(b)Fluoranthene	3.750	3.866	-0.116	9993	0.50000	0.497
15 Benzo(k)Fluoranthene	3.990	4.045	-0.055	5998	0.50000	0.488
16 Benzo(a)Pyrene	4.163	4.225	-0.062	8419	0.50000	0.474
17 Dibenzo(a,h)Anthracene	4.470	4.618	-0.148	2321	0.50000	0.528
18 Benzo(g,h,i)Perylene	4.610	4.772	-0.162	3783	0.50000	0.525

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
19 Indeno(1,2,3-c,d)Pyrene	4.763	4.972	-0.209	8276	0.50000	0.543

000175

Data File: /var/chem/hplc1.i/031003.b/h0005406.d
Date : 03-OCT-2003 08:24
Client ID: 1003STD03
Sample Info: 1003STD03
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003.b/h0005405.d
Lab Smp Id: 1003STD04 Client Smp ID: 1003STD04
Inj Date : 03-OCT-2003 08:17
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD04
Misc Info : 3-46-7
Comment :
Method : /var/chem/hplc1.i/031003.b/flpnauv.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 08:17 Cal File: h0005405.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

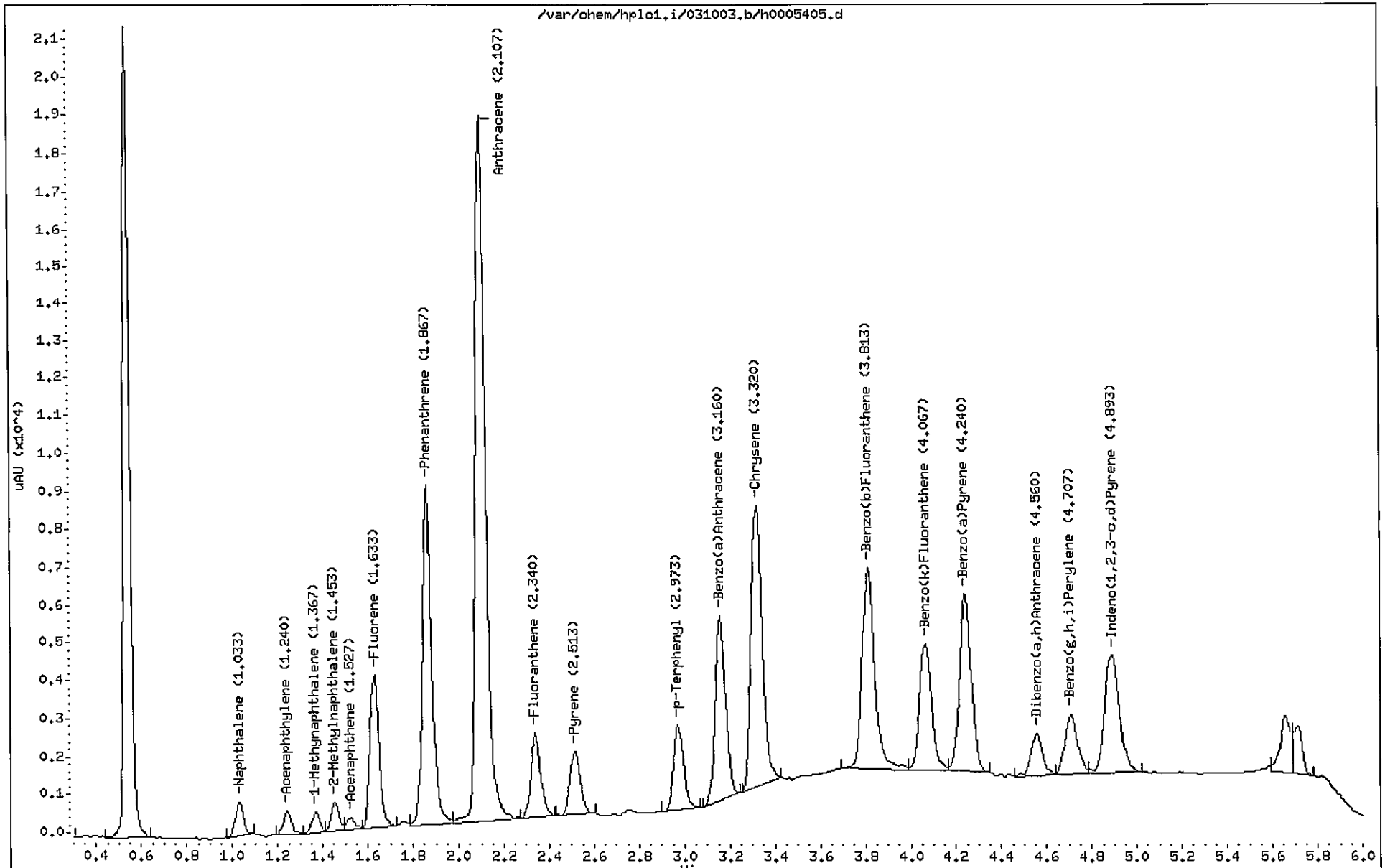
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.033	1.025	0.008	2172	1.00000	0.903
2 Acenaphthylene	1.240	1.238	0.002	1579	1.00000	0.965
3 1-Methynaphthalene	1.367	1.365	0.002	1279	1.00000	0.928
4 2-Methylnaphthalene	1.453	1.445	0.008	1876	1.00000	0.945
5 Acenaphthene	1.527	1.518	0.009	819	1.00000	0.817
6 Fluorene	1.633	1.625	0.008	11128	1.00000	0.982
7 Phenanthrene	1.867	1.858	0.009	25745	1.00000	0.994
8 Anthracene	2.107	2.098	0.009	56191	1.00000	1.02
9 Fluoranthene	2.340	2.332	0.008	6785	1.00000	0.947
10 Pyrene	2.513	2.505	0.008	5439	1.00000	0.946
11 p-Terphenyl	2.973	2.965	0.008	6722	1.00000	0.994
12 Benzo(a)Anthracene	3.160	3.152	0.008	15444	1.00000	0.965
13 Chrysene	3.320	3.305	0.015	25268	1.00000	0.974
14 Benzo(b)Fluoranthene	3.813	3.866	-0.053	20637	1.00000	1.03

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
15 Benzo(k)Fluoranthene	4.067	4.045	0.022	12389	1.00000	1.01
16 Benzo(a)Pyrene	4.240	4.225	0.015	16994	1.00000	0.957
17 Dibenzo(a,h)Anthracene	4.560	4.618	-0.058	4149	1.00000	0.943
18 Benzo(g,h,i)Perylene	4.707	4.772	-0.065	6351	1.00000	0.881
19 Indeno(1,2,3-c,d)Pyrene	4.893	4.972	-0.079	14347	1.00000	0.942

Data File: /var/chem/hplc1.i/031003.b/h0005405.d
Date : 03-OCT-2003 08:17
Client ID: 1003STD04
Sample Info: 1003STD04
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10

000178



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003.b/h0005404.d
Lab Smp Id: 1003STD05 Client Smp ID: 1003STD05
Inj Date : 03-OCT-2003 08:10
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD05
Misc Info : 3-46-6
Comment :
Method : /var/chem/hplc1.i/031003.b/flpnauv.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 08:10 Cal File: h0005404.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

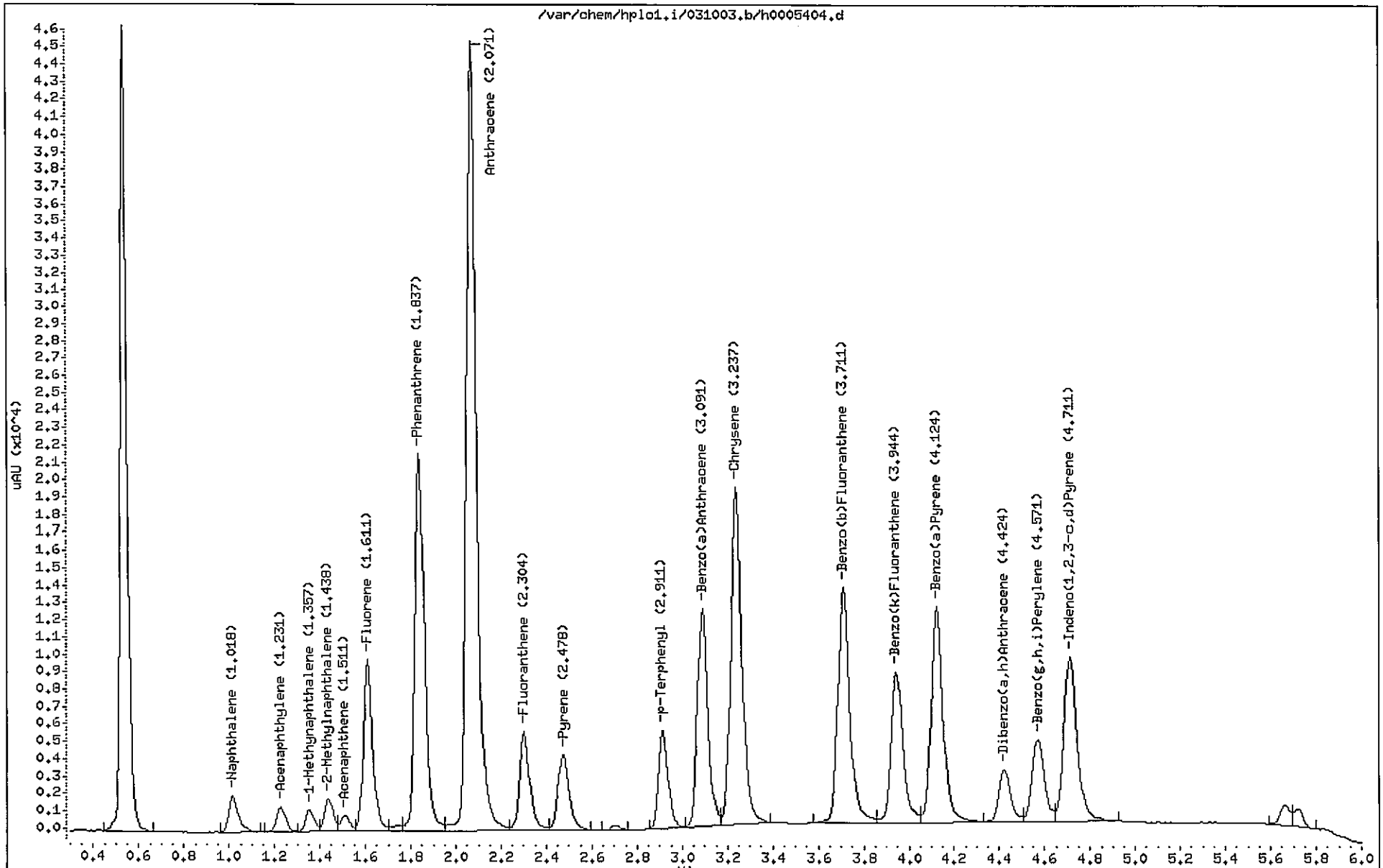
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.018	1.025	-0.007	6440	2.50000	2.68
2 Acenaphthylene	1.231	1.238	-0.007	3860	2.50000	2.36
3 1-Methynaphthalene	1.357	1.365	-0.008	3303	2.50000	2.40
4 2-Methylnaphthalene	1.438	1.445	-0.007	4876	2.50000	2.46
5 Acenaphthene	1.511	1.518	-0.007	2598	2.50000	2.59
6 Fluorene	1.611	1.625	-0.014	28621	2.50000	2.53
7 Phenanthrene	1.837	1.858	-0.021	64947	2.50000	2.51
8 Anthracene	2.071	2.098	-0.027	140174	2.50000	2.54
9 Fluoranthene	2.304	2.332	-0.028	18074	2.50000	2.52
10 Pyrene	2.478	2.505	-0.027	14850	2.50000	2.58
11 p-Terphenyl	2.911	2.965	-0.054	17330	2.50000	2.56
12 Benzo(a)Anthracene	3.091	3.152	-0.061	40876	2.50000	2.55
13 Chrysene	3.237	3.305	-0.068	66955	2.50000	2.58
14 Benzo(b)Fluoranthene	3.711	3.866	-0.155	50177	2.50000	2.49

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
15 Benzo(k)Fluoranthene	3.944	4.045	-0.101	32181	2.50000	2.62
16 Benzo(a)Pyrene	4.124	4.225	-0.101	46474	2.50000	2.62
17 Dibenzo(a,h)Anthracene	4.424	4.618	-0.194	10956	2.50000	2.49
18 Benzo(g,h,i)Perylene	4.571	4.772	-0.201	18101	2.50000	2.51
19 Indeno(1,2,3-c,d)Pyrene	4.711	4.972	-0.261	38830	2.50000	2.55

Data File: /var/chem/hplc1.i/031003.b/h0005404.d
Date : 03-OCT-2003 08:10
Client ID: 1003STD05
Sample Info: 1003STD05
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10

000181



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003.b/h0005403.d
Lab Smp Id: 1003STD06 Client Smp ID: 1003STD06
Inj Date : 03-OCT-2003 08:03
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD06
Misc Info : 3-46-5
Comment :
Method : /var/chem/hplc1.i/031003.b/flpnauv.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 08:03 Cal File: h0005403.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.022	1.025	-0.003	13315	5.00000	5.54
2 Acenaphthylene	1.235	1.238	-0.003	8638	5.00000	5.28
3 1-Methynaphthalene	1.362	1.365	-0.003	7353	5.00000	5.34
4 2-Methylnaphthalene	1.442	1.445	-0.003	10334	5.00000	5.20
5 Acenaphthene	1.515	1.518	-0.003	5626	5.00000	5.62
6 Fluorene	1.615	1.625	-0.010	58166	5.00000	5.14
7 Phenanthrene	1.848	1.858	-0.010	131857	5.00000	5.09
8 Anthracene	2.082	2.098	-0.016	279134	5.00000	5.06
9 Fluoranthene	2.315	2.332	-0.017	37064	5.00000	5.17
10 Pyrene	2.488	2.505	-0.017	30657	5.00000	5.33
11 p-Terphenyl	2.928	2.965	-0.037	34791	5.00000	5.14
12 Benzo(a)Anthracene	3.108	3.152	-0.044	82383	5.00000	5.15
13 Chrysene	3.262	3.305	-0.043	133970	5.00000	5.16
14 Benzo(b)Fluoranthene	3.735	3.866	-0.131	100547	5.00000	5.00

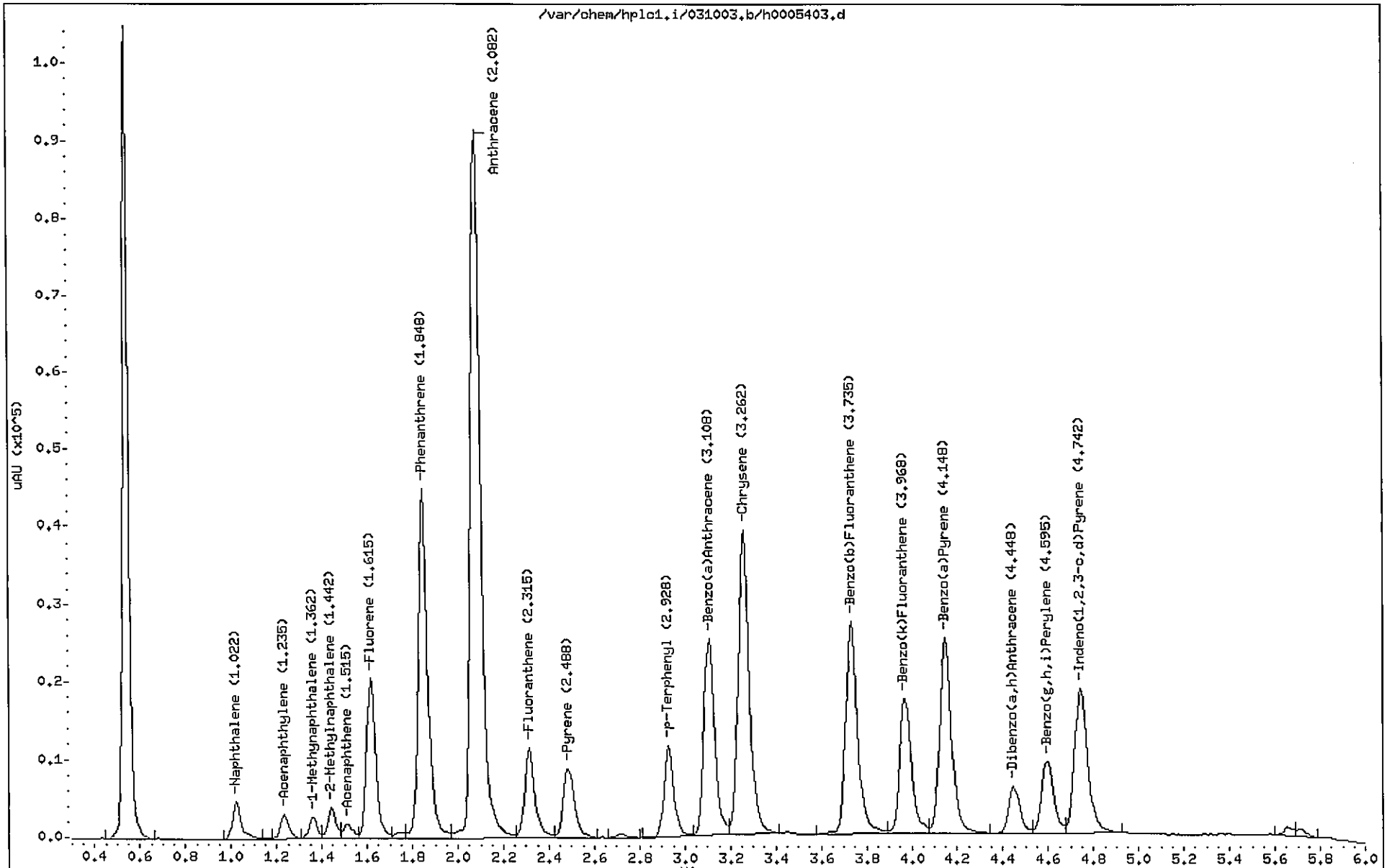
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
15 Benzo(k)Fluoranthene	3.968	4.045	-0.077	63867	5.00000	5.20
16 Benzo(a)Pyrene	4.148	4.225	-0.077	92423	5.00000	5.20
17 Dibenzo(a,h)Anthracene	4.448	4.618	-0.170	20893	5.00000	4.75
18 Benzo(g,h,i)Perylene	4.595	4.772	-0.177	35267	5.00000	4.89
19 Indeno(1,2,3-c,d)Pyrene	4.742	4.972	-0.230	76338	5.00000	5.01

Data File: /var/chem/hplc1.i/031003.b/h0005403.d
Date : 03-OCT-2003 08:03
Client ID: 1003STD06
Sample Info: 1003STD06
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000184



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003.b/h0005402.d
Lab Smp Id: 1003STD07 Client Smp ID: 1003STD07
Inj Date : 03-OCT-2003 07:56
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD07
Misc Info : 3-46-4
Comment :
Method : /var/chem/hplc1.i/031003.b/flpnauv.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:56 Cal File: h0005402.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.032	1.025	0.007	25423	10.0000	10.6
2 Acenaphthylene	1.246	1.238	0.008	16666	10.0000	10.2
3 1-Methynaphthalene	1.373	1.365	0.008	14352	10.0000	10.4
4 2-Methylnaphthalene	1.459	1.445	0.014	20031	10.0000	10.1
5 Acenaphthene	1.532	1.518	0.014	10421	10.0000	10.4
6 Fluorene	1.639	1.625	0.014	114945	10.0000	10.1
7 Phenanthrene	1.872	1.858	0.014	259182	10.0000	10.0
8 Anthracene	2.119	2.098	0.021	538548	10.0000	9.76
9 Fluoranthene	2.353	2.332	0.021	73129	10.0000	10.2
10 Pyrene	2.526	2.505	0.021	60668	10.0000	10.6
11 p-Terphenyl	2.986	2.965	0.021	72578	10.0000	10.7
12 Benzo(a)Anthracene	3.166	3.152	0.014	169703	10.0000	10.6
13 Chrysene	3.326	3.305	0.021	276897	10.0000	10.7
14 Benzo(b)Fluoranthene	3.812	3.866	-0.054	210465	10.0000	10.5

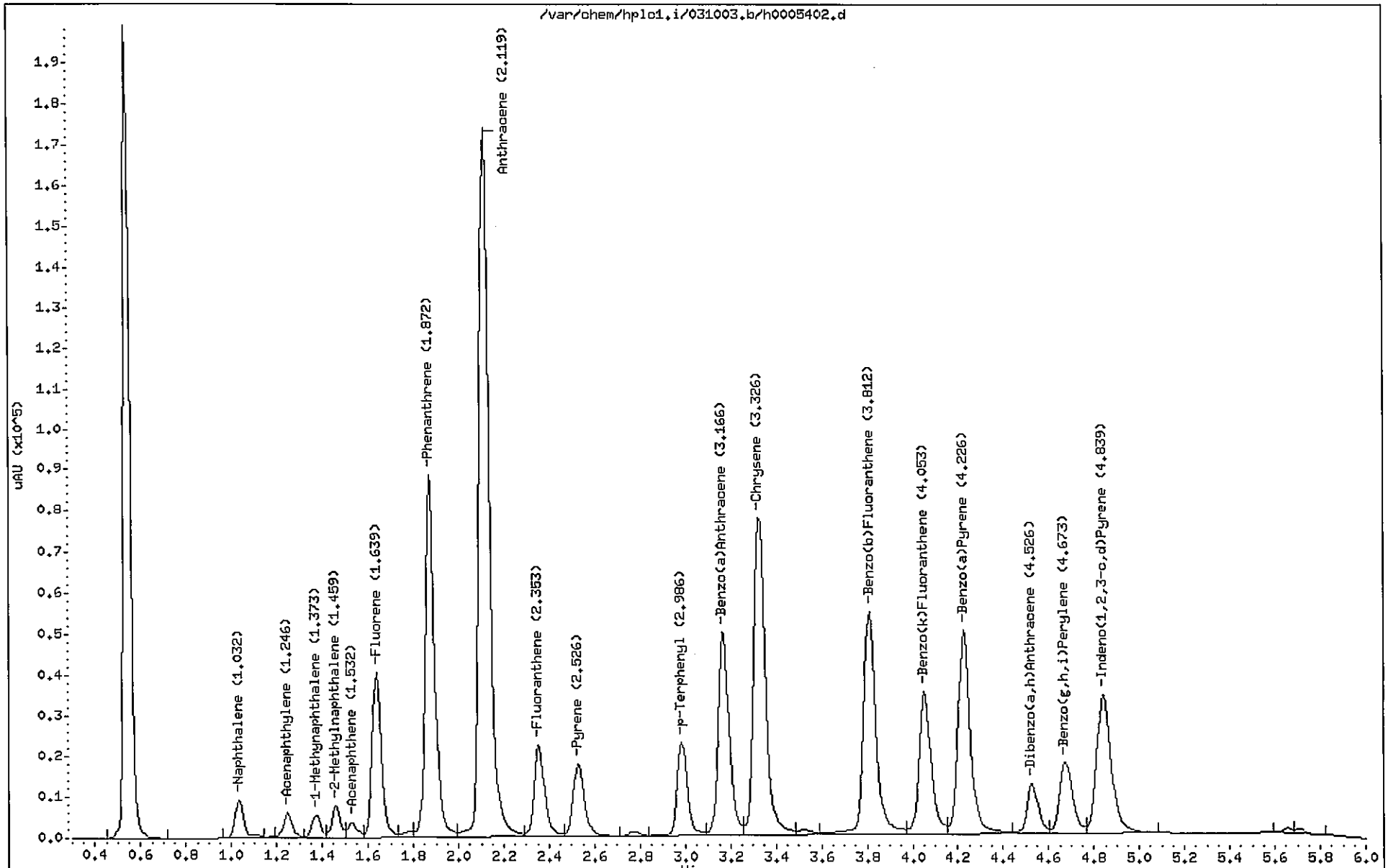
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
15 Benzo(k)Fluoranthene	4.053	4.045	0.008	130567	10.0000	10.6
16 Benzo(a)Pyrene	4.226	4.225	0.001	188992	10.0000	10.6
17 Dibenzo(a,h)Anthracene	4.526	4.618	-0.092	42746	10.0000	9.72
18 Benzo(g,h,i)Perylene	4.673	4.772	-0.099	70789	10.0000	9.82
19 Indeno(1,2,3-c,d)Pyrene	4.839	4.972	-0.133	152560	10.0000	10.0

Data File: /var/chem/hplc1.i/031003.b/h0005402.d
Date : 03-OCT-2003 07:56
Client ID: 1003STD07
Sample Info: 1003STD07
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000187



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003.b/h0005401.d
Lab Smp Id: 1003STD08 Client Smp ID: 1003STD08
Inj Date : 03-OCT-2003 07:49
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD08
Misc Info : 3-46-3
Comment :
Method : /var/chem/hplc1.i/031003.b/flpnauv.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.025	1.025	0.000	50314	20.0000	20.9
2 Acenaphthylene	1.238	1.238	0.000	33220	20.0000	20.3
3 1-Methynaphthalene	1.365	1.365	0.000	27637	20.0000	20.1
4 2-Methylnaphthalene	1.445	1.445	0.000	40673	20.0000	20.5
5 Acenaphthene	1.518	1.518	0.000	19674	20.0000	19.6
6 Fluorene	1.625	1.625	0.000	228261	20.0000	20.2
7 Phenanthrene	1.858	1.858	0.000	513314	20.0000	19.8
8 Anthracene	2.098	2.098	0.000	1015932	20.0000	18.4
9 Fluoranthene	2.332	2.332	0.000	143435	20.0000	20.0
10 Pyrene	2.505	2.505	0.000	118556	20.0000	20.6
11 p-Terphenyl	2.965	2.965	0.000	142757	20.0000	21.1
12 Benzo(a)Anthracene	3.152	3.152	0.000	336547	20.0000	21.0
13 Chrysene	3.305	3.305	0.000	543604	20.0000	21.0
14 Benzo(b)Fluoranthene	3.798	3.866	-0.068	399923	20.0000	19.9

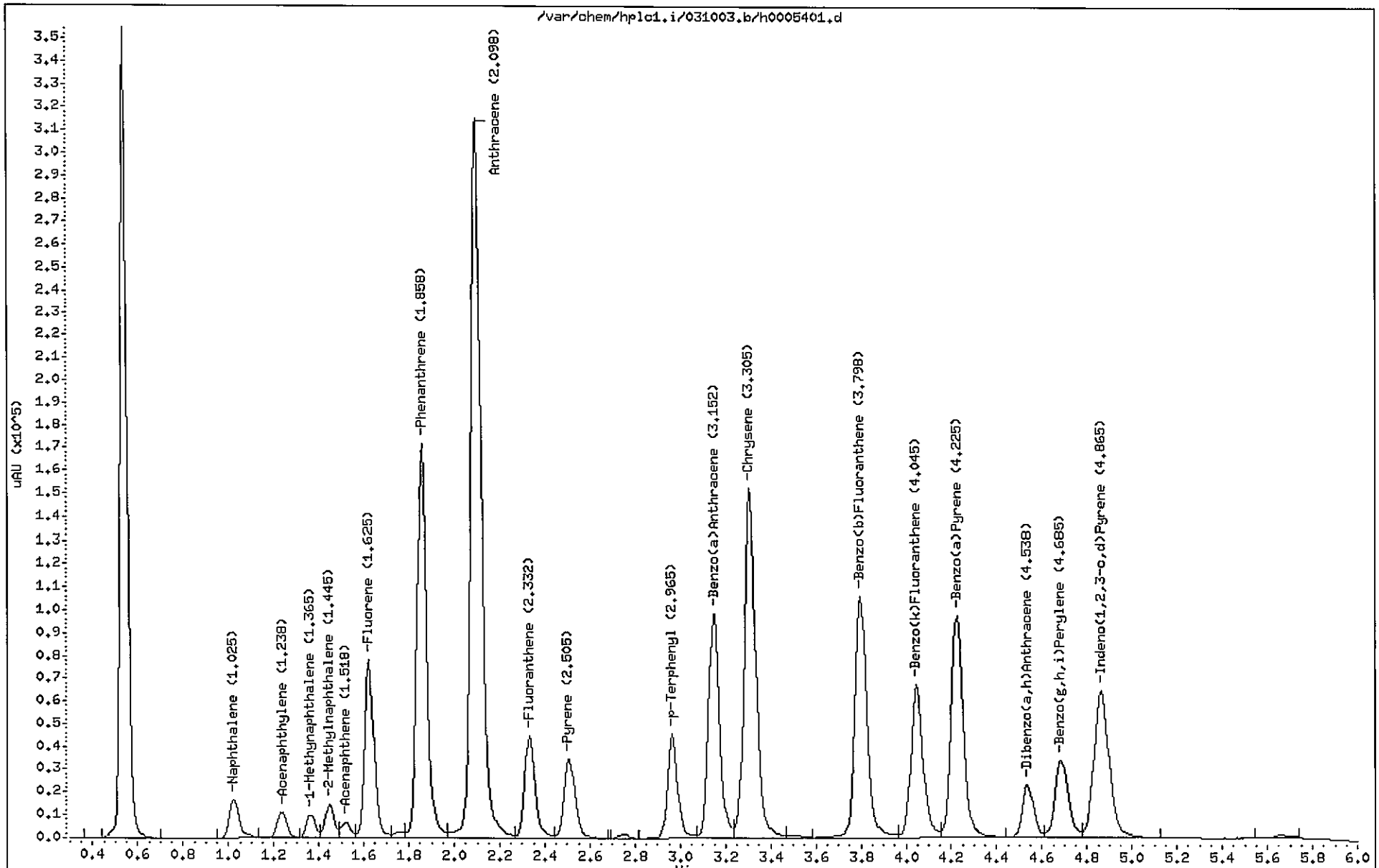
					AMOUNTS	
					CAL-AMT	ON-COL
ompounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)
15 Benzo(k)Fluoranthene	4.045	4.045	0.000	253921	20.0000	20.7
16 Benzo(a)Pyrene	4.225	4.225	0.000	367543	20.0000	20.7
17 Dibenzo(a,h)Anthracene	4.538	4.618	-0.080	82516	20.0000	18.8
18 Benzo(g,h,i)Perylene	4.685	4.772	-0.087	140599	20.0000	19.5
19 Indeno(1,2,3-c,d)Pyrene	4.865	4.972	-0.107	302538	20.0000	19.9

Data File: /var/chem/hplc1.i/031003.b/h0005401.d
Date : 03-OCT-2003 07:49
Client ID: 1003STD08
Sample Info: 1003STD08
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000190



Gulf Coast Analytical Laboratories, Inc.

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 1003PNAICV
Level: LOW
Data Type: LC DATA
SpikeList File: ICV.spk
Sublist File: all.sub
Method File: /var/chem/hplc1.i/031003.b/flpnauv.m
Misc Info: 3-47-8

Client SDG:
Fraction: OTHER
Client Smp ID: 1003PNAICV
Operator: jdt
SampleType: LCS
Quant Type: ESTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Naphthalene	5.00	5.19	103.80	80-120
2 Acenaphthylene	5.00	5.15	102.96	80-120
3 1-Methynaphthalene	10.0	11.5	115.30	80-120
4 2-Methylnaphthalen	10.0	10.2	102.14	80-120
5 Acenaphthene	10.0	9.87	98.75	80-120
6 Fluorene	1.00	1.07	106.87	80-120
7 Phenanthrene	0.400	0.422	105.50	80-120
8 Anthracene	0.200	0.210	104.87	80-120
9 Fluoranthene	0.500	0.509	101.74	80-120
10 Pyrene	1.00	0.967	96.70	80-120
12 Benzo(a)Anthracene	0.500	0.504	100.89	80-120
13 Chrysene	0.500	0.532	106.41	80-120
14 Benzo(b)Fluoranthe	0.200	0.178	88.85	80-120
15 Benzo(k)Fluoranthe	0.200	0.206	103.15	80-120
16 Benzo(a)Pyrene	0.500	0.533	106.69	80-120
17 Dibenzo(a,h)Anthra	2.00	2.00	100.08	80-120
18 Benzo(g,h,i)Peryle	0.800	0.798	99.81	80-120
19 Indeno(1,2,3-c,d)P	0.500	0.452	90.40	80-120

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 11 p-Terphenyl	4.00	4.25	106.26	40-140

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003.b/h0005409.d
Lab Smp Id: 1003PNAICV Client Smp ID: 1003PNAICV
Inj Date : 03-OCT-2003 08:58
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003PNAICV
Misc Info : 3-47-8
Comment :
Method : /var/chem/hplc1.i/031003.b/flpnauv.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

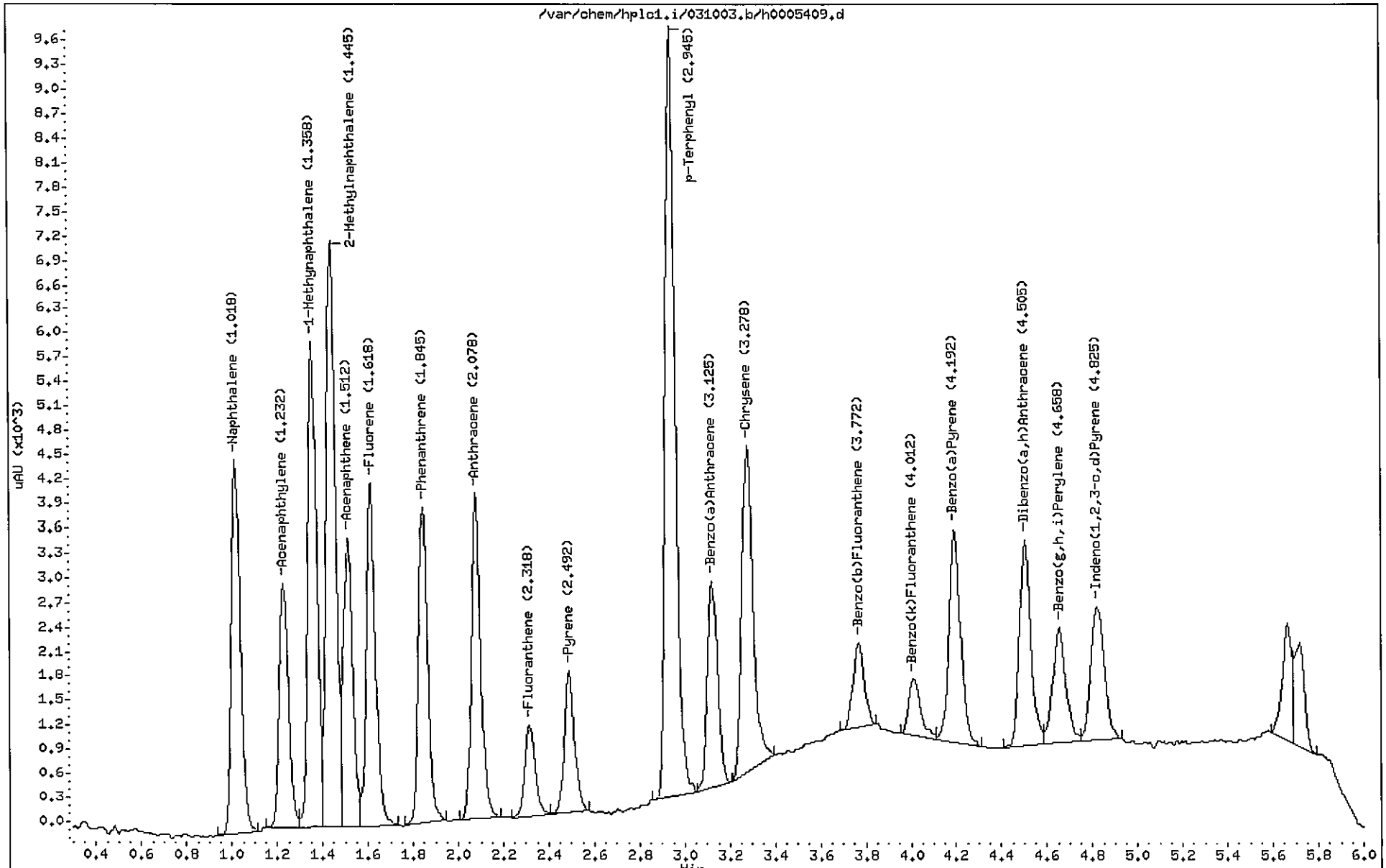
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 Naphthalene	1.018	1.025	-0.007	12483	5.18982	5.19
2 Acenaphthylene	1.232	1.238	-0.006	8420	5.14783	5.15
3 1-Methynaphthalene	1.358	1.365	-0.007	15883	11.5297	11.5
4 2-Methylnaphthalene	1.445	1.445	0.000	20285	10.2140	10.2
5 Acenaphthene	1.512	1.518	-0.006	9893	9.87483	9.87
6 Fluorene	1.618	1.625	-0.007	12105	1.06873	1.07
7 Phenanthrene	1.845	1.858	-0.013	10931	0.42199	0.422
8 Anthracene	2.078	2.098	-0.020	11570	0.20975	0.210
9 Fluoranthene	2.318	2.332	-0.014	3646	0.50872	0.509
10 Pyrene	2.492	2.505	-0.013	5557	0.96696	0.967
11 p-Terphenyl	2.945	2.965	-0.020	28758	4.25054	4.25
12 Benzo(a)Anthracene	3.125	3.152	-0.027	8076	0.50443	0.504
13 Chrysene	3.278	3.305	-0.027	13801	0.53204	0.532
14 Benzo(b)Fluoranthene	3.772	3.866	-0.094	3575	0.17769	0.178

					CONCENTRATIONS	
					ON-COLUMN	FINAL
ompounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/L)
==========	==	======	======	========	=======	=======
15 Benzo(k)Fluoranthene	4.012	4.045	-0.033	2535	0.20630	0.206
16 Benzo(a)Pyrene	4.192	4.225	-0.033	9473	0.53346	0.533
17 Dibenzo(a,h)Anthracene	4.505	4.618	-0.113	8807	2.00168	2.00
18 Benzo(g,h,i)Perylene	4.658	4.772	-0.114	5756	0.79848	0.798
19 Indeno(1,2,3-c,d)Pyrene	4.825	4.972	-0.147	6887	0.45202	0.452

Data File: /var/chem/hplc1.i/031003.b/h0005409.d
Date : 03-OCT-2003 08:58
Client ID: 1003PNAICV
Sample Info: 1003PNAICV
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10

000194



ata File: /var/chem/hplc1.i/031029.b/h0005497.d
eport Date: 30-Oct-2003 12:15

Gulf Coast Analytical Laboratories, Inc.

ata file : /var/chem/hplc1.i/031029.b/h0005497.d
ab Smp Id: 1029STD05 Client Smp ID: 1029STD05
nj Date : 29-OCT-2003 10:21
perator : jdt Inst ID: hplc1.i
mp Info : 1029STD05
isc Info : 3-46-6
omment :
ethod : /var/chem/hplc1.i/031029.b/flpnauv.m
eth Date : 29-Oct-2003 12:40 jdt Quant Type: ESTD
al Date : 03-OCT-2003 07:49 Cal File: h0005401.d
ls bottle: 1 Continuing Calibration Sample
il Factor: 1.00000
ntegrator: Falcon Compound Sublist: all.sub
arget Version: 3.50

oncentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

pnd Variable Local Compound Variable

					AMOUNTS	
ompounds	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
1 Naphthalene	1.034	1.034	0.000	5361	2.50000	2.23
2 Acenaphthylene	1.248	1.248	0.000	3944	2.50000	2.41
3 1-Methynaphthalene	1.374	1.374	0.000	3337	2.50000	2.42
4 2-Methylnaphthalene	1.461	1.461	0.000	4960	2.50000	2.50
5 Acenaphthene	1.528	1.528	0.000	2269	2.50000	2.26
6 Fluorene	1.634	1.634	0.000	28869	2.50000	2.55
7 Phenanthrene	1.874	1.874	0.000	66540	2.50000	2.57
8 Anthracene	2.121	2.121	0.000	144813	2.50000	2.63
9 Fluoranthene	2.354	2.354	0.000	18015	2.50000	2.51
10 Pyrene	2.534	2.534	0.000	14964	2.50000	2.60
11 p-Terphenyl	2.994	2.994	0.000	17549	2.50000	2.59
12 Benzo(a)Anthracene	3.181	3.181	0.000	40673	2.50000	2.54
13 Chrysene	3.341	3.341	0.000	66318	2.50000	2.56
14 Benzo(b)Fluoranthene	3.834	3.834	0.000	51572	2.50000	2.56

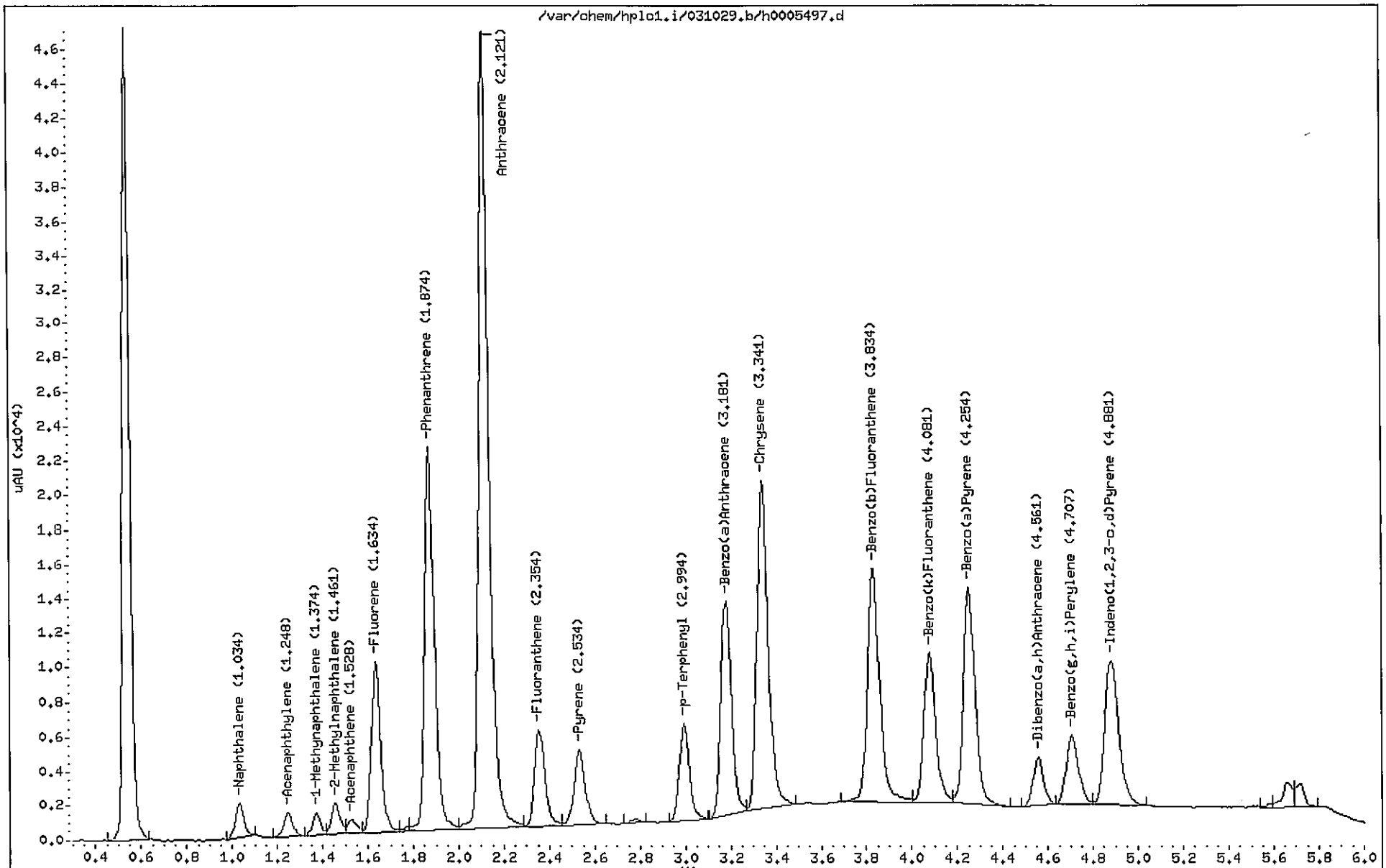
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
15 Benzo(k)Fluoranthene	4.081	4.081	0.000	31508	2.50000	2.56
16 Benzo(a)Pyrene	4.254	4.254	0.000	45485	2.50000	2.56
17 Dibenzo(a,h)Anthracene	4.561	4.561	0.000	9378	2.50000	2.13
18 Benzo(g,h,i)Perylene	4.707	4.707	0.000	15729	2.50000	2.18
19 Indeno(1,2,3-c,d)Pyrene	4.881	4.881	0.000	36443	2.50000	2.39

Data File: /var/chem/hplc1.i/031029.b/h0005497.d
Date : 29-OCT-2003 10:21
Client ID: 1029STD05
Sample Info: 1029STD05
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000197



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031029.b/h0005508.d
Lab Smp Id: 1029STD05 Client Smp ID: 1029STD05
Inj Date : 29-OCT-2003 13:04
Operator : jdt Inst ID: hplc1.i
Smp Info : 1029STD05
Misc Info : 3-46-6
Comment :
Method : /var/chem/hplc1.i/031029.b/flpnauv.m
Meth Date : 29-Oct-2003 12:40 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.023	1.034	-0.011	6319	2.50000	2.63
2 Acenaphthylene	1.237	1.248	-0.011	3872	2.50000	2.37
3 1-Methynaphthalene	1.363	1.374	-0.011	3323	2.50000	2.41
4 2-Methylnaphthalene	1.450	1.461	-0.011	4976	2.50000	2.51
5 Acenaphthene	1.523	1.528	-0.005	2316	2.50000	2.31
6 Fluorene	1.623	1.634	-0.011	28795	2.50000	2.54
7 Phenanthrene	1.857	1.874	-0.017	66242	2.50000	2.56
8 Anthracene	2.097	2.121	-0.024	143714	2.50000	2.61
9 Fluoranthene	2.330	2.354	-0.024	18522	2.50000	2.58
10 Pyrene	2.503	2.534	-0.031	15161	2.50000	2.64
11 p-Terphenyl	2.963	2.994	-0.031	17516	2.50000	2.59
12 Benzo(a)Anthracene	3.143	3.181	-0.038	41120	2.50000	2.57
13 Chrysene	3.303	3.341	-0.038	66930	2.50000	2.58
14 Benzo(b)Fluoranthene	3.797	3.834	-0.037	50955	2.50000	2.53

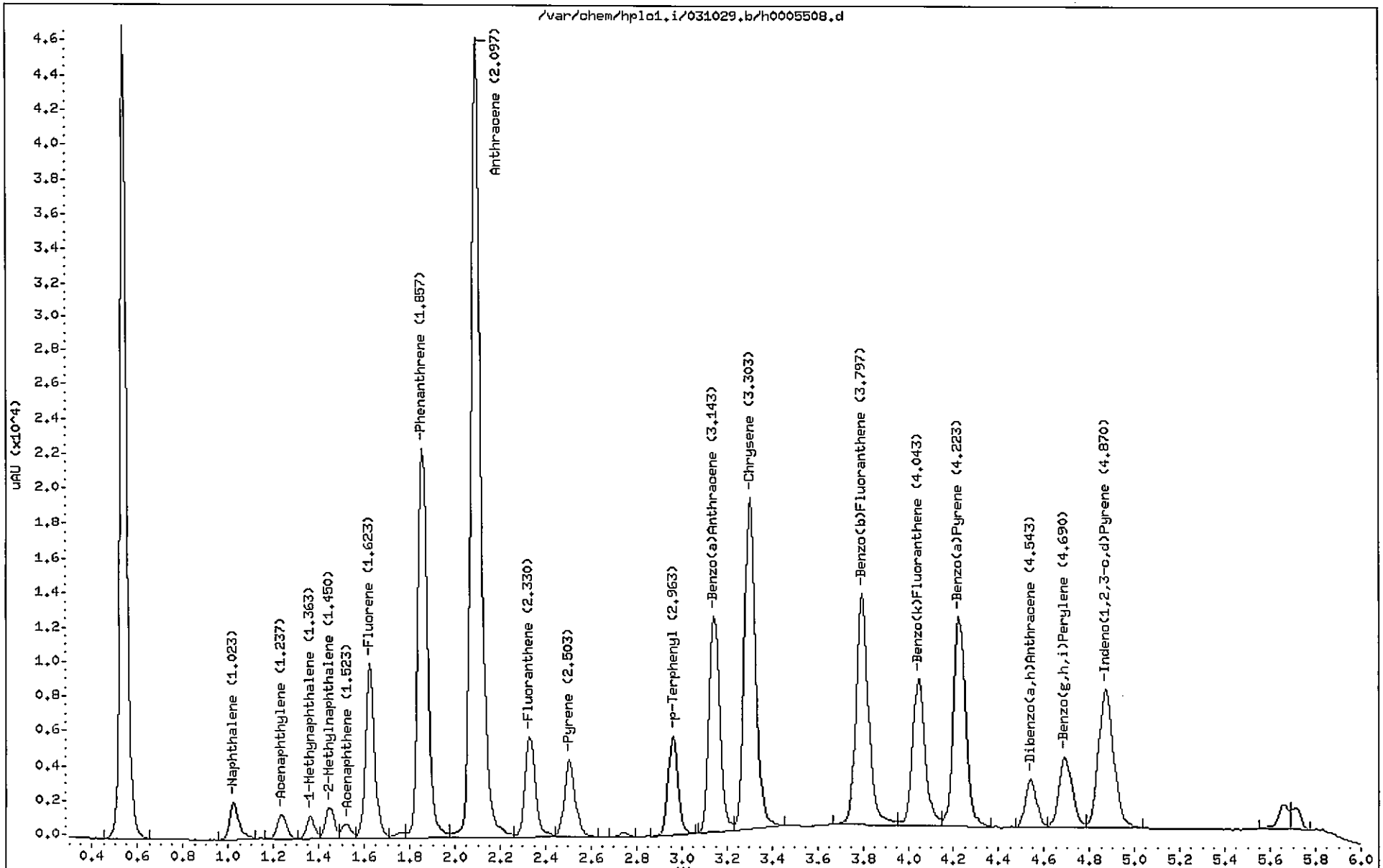
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
15 Benzo(k)Fluoranthene	4.043	4.081	-0.038	32449	2.50000	2.64
16 Benzo(a)Pyrene	4.223	4.254	-0.031	45861	2.50000	2.58
17 Dibenzo(a,h)Anthracene	4.543	4.561	-0.018	9792	2.50000	2.23
18 Benzo(g,h,i)Perylene	4.690	4.707	-0.017	16805	2.50000	2.33
19 Indeno(1,2,3-c,d)Pyrene	4.870	4.881	-0.011	37165	2.50000	2.44

Data File: /var/chem/hplc1.i/031029.b/h0005508.d
Date : 29-OCT-2003 13:04
Client ID: 1029STD05
Sample Info: 1029STD05
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000200



ata File: /var/chem/hplc1.i/031003f.b/h0005408.d
eport Date: 30-Oct-2003 12:15

Gulf Coast Analytical Laboratories, Inc.

ata file : /var/chem/hplc1.i/031003f.b/h0005408.d
ab Smp Id: 1003STD01 Client Smp ID: 1003STD01
nj Date : 03-OCT-2003 08:38
perator : jdt Inst ID: hplc1.i
mp Info : 1003STD01
isc Info : 3-46-10
omment :
ethod : /var/chem/hplc1.i/031003f.b/flpnafld.m
eth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
al Date : 03-OCT-2003 08:38 Cal File: h0005408.d
ls bottle: 1 Calibration Sample, Level: 1
il Factor: 1.00000
ntegrator: Falcon Compound Sublist: all.sub
arget Version: 3.50

oncentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

pnd Variable Local Compound Variable

ompounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
7 Phenanthrene	1.873	1.877	-0.004	1673	0.10000	0.104 (M)
8 Anthracene	2.107	2.110	-0.003	685	0.10000	0.121 (M)
9 Fluoranthene	2.340	2.347	-0.007	573	0.10000	0.104 (M)
10 Pyrene	2.517	2.553	-0.036	3406	0.10000	0.0993 (M)
12 Benzo(a)Anthracene	3.153	3.213	-0.060	2439	0.10000	0.0877 (M)
13 Chrysene	3.313	3.377	-0.064	207	0.10000	0.0516 (M)
14 Benzo(b)Fluoranthene	3.807	3.823	-0.016	2386	0.10000	0.101 (M)
15 Benzo(k)Fluoranthene	4.053	4.087	-0.034	5524	0.10000	0.106 (M)
16 Benzo(a)Pyrene	4.230	4.257	-0.027	4560	0.10000	0.103 (M)
17 Dibenzo(a,h)Anthracene	4.543	4.630	-0.087	1882	0.10000	0.108 (M)
18 Benzo(g,h,i)Perylene	4.690	4.787	-0.097	1668	0.10000	0.111 (M)

QC Flag Legend

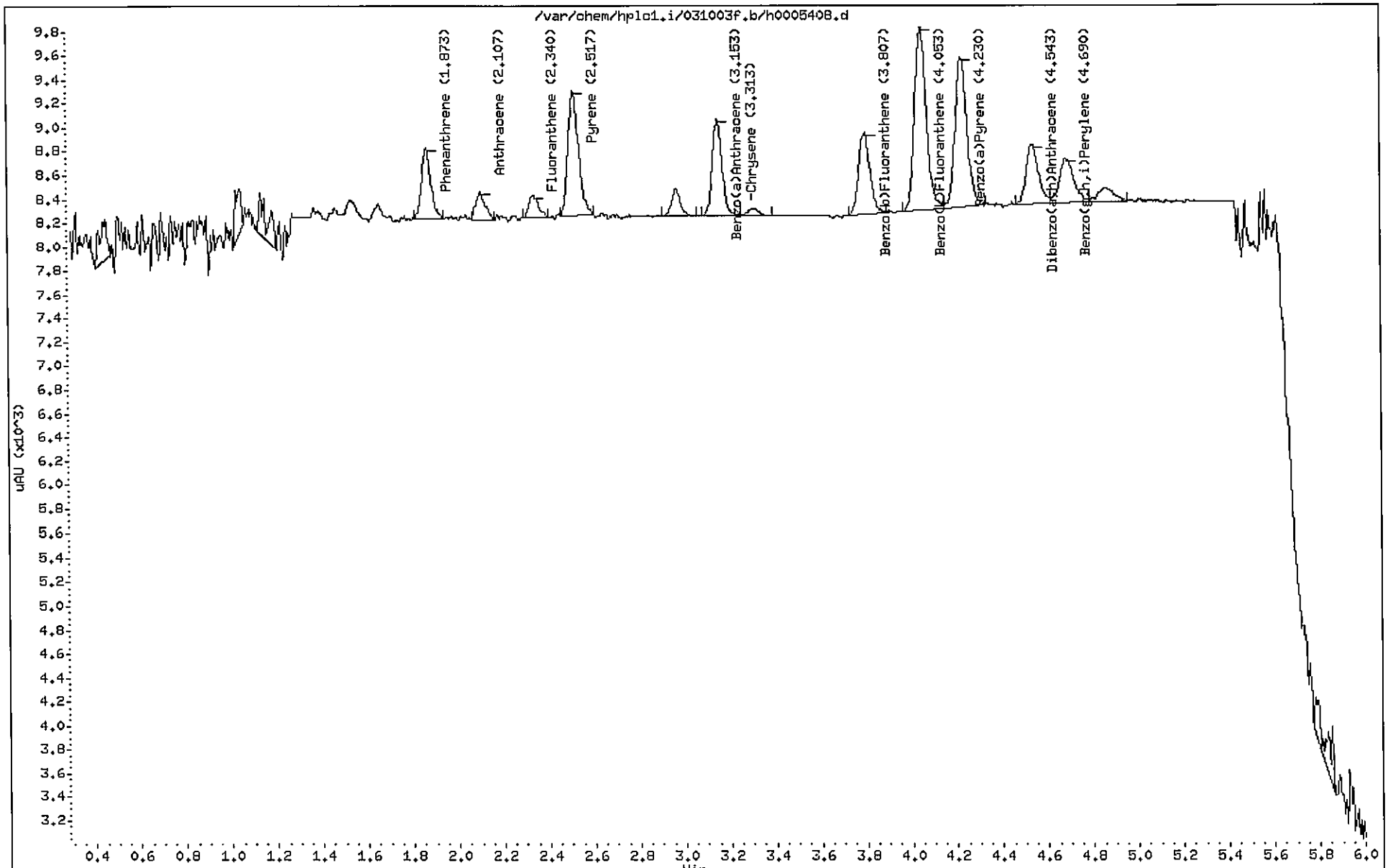
M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/031003f.b/h0005408.d
Date : 03-OCT-2003 08:38
Client ID: 1003STD01
Sample Info: 1003STD01
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000203



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003f.b/h0005407.d
Lab Smp Id: 1003STD02 Client Smp ID: 1003STD02
Inj Date : 03-OCT-2003 08:31
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD02
Misc Info : 3-46-9
Comment :
Method : /var/chem/hplc1.i/031003f.b/flpnafld.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 08:31 Cal File: h0005407.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.037	1.040	-0.003	2863	0.25000	0.254(M)
7 Phenanthrene	1.853	1.877	-0.024	3740	0.25000	0.233
8 Anthracene	2.083	2.110	-0.027	1185	0.25000	0.210
9 Fluoranthene	2.317	2.347	-0.030	1453	0.25000	0.263
10 Pyrene	2.487	2.553	-0.066	8493	0.25000	0.248
11 p-Terphenyl	2.923	2.980	-0.057	1956	0.25000	0.214(M)
12 Benzo(a)Anthracene	3.100	3.213	-0.113	6734	0.25000	0.242(M)
13 Chrysene	3.247	3.377	-0.130	572	0.25000	0.143(M)
14 Benzo(b)Fluoranthene	3.723	3.823	-0.100	5826	0.25000	0.247
15 Benzo(k)Fluoranthene	3.957	4.087	-0.130	13283	0.25000	0.255(M)
16 Benzo(a)Pyrene	4.133	4.257	-0.124	10573	0.25000	0.240(M)
17 Dibenzo(a,h)Anthracene	4.433	4.630	-0.197	4357	0.25000	0.250(M)
18 Benzo(g,h,i)Perylene	4.580	4.787	-0.207	3759	0.25000	0.250(M)
19 Indeno(1,2,3-c,d)Pyrene	4.720	4.980	-0.260	1293	0.25000	0.275(MH)

QC Flag Legend

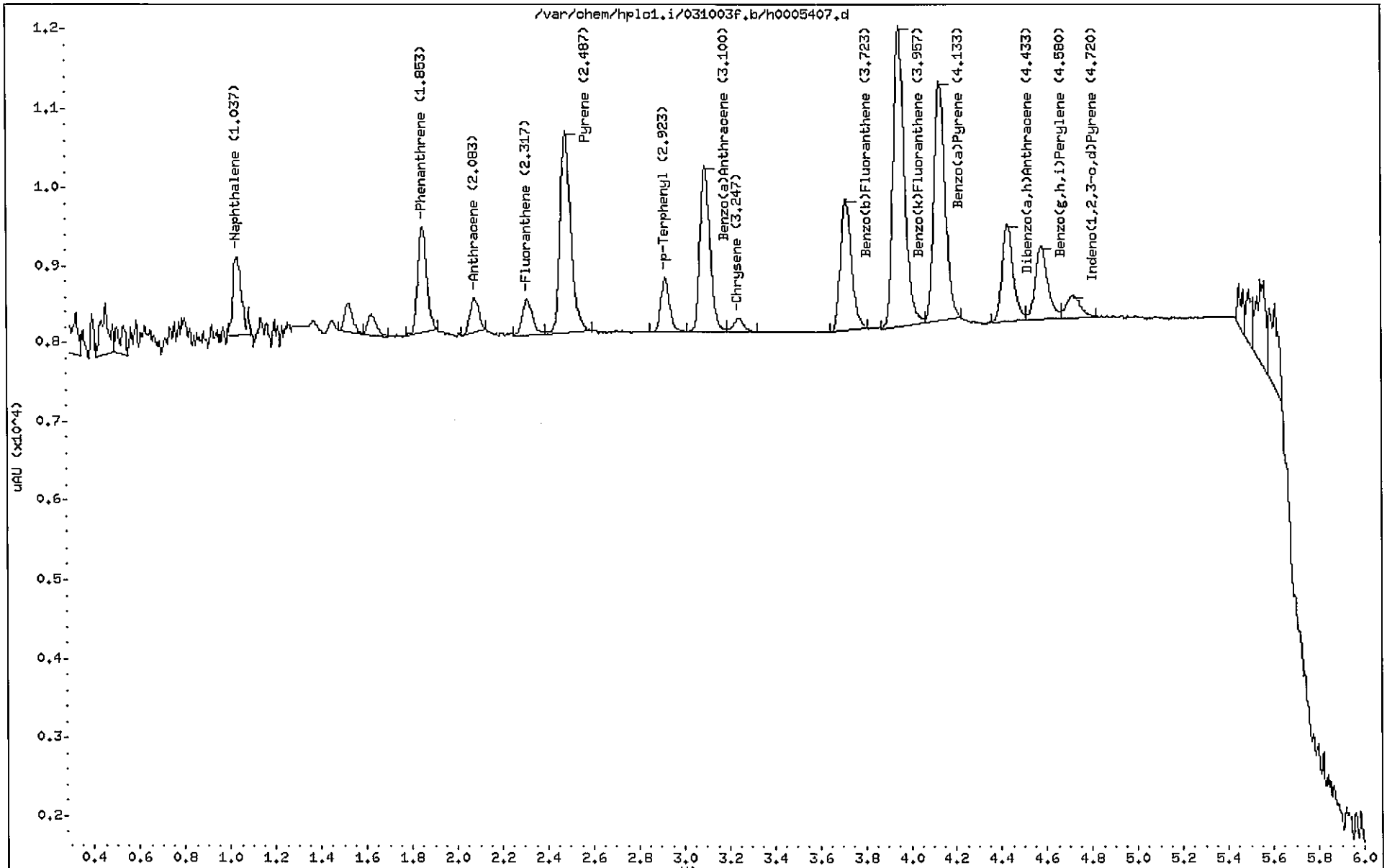
M - Compound response manually integrated.
I - Operator selected an alternate compound hit.

Data File: /var/chem/hplc1.i/031003f.b/h0005407.d
Date : 03-OCT-2003 08:31
Client ID: 1003STD02
Sample Info: 1003STD02
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000206



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003f.b/h0005406.d
Lab Smp Id: 1003STD03 Client Smp ID: 1003STD03
Inj Date : 03-OCT-2003 08:24
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD03
Misc Info : 3-46-8
Comment :
Method : /var/chem/hplc1.i/031003f.b/flpnafld.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 08:24 Cal File: h0005406.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

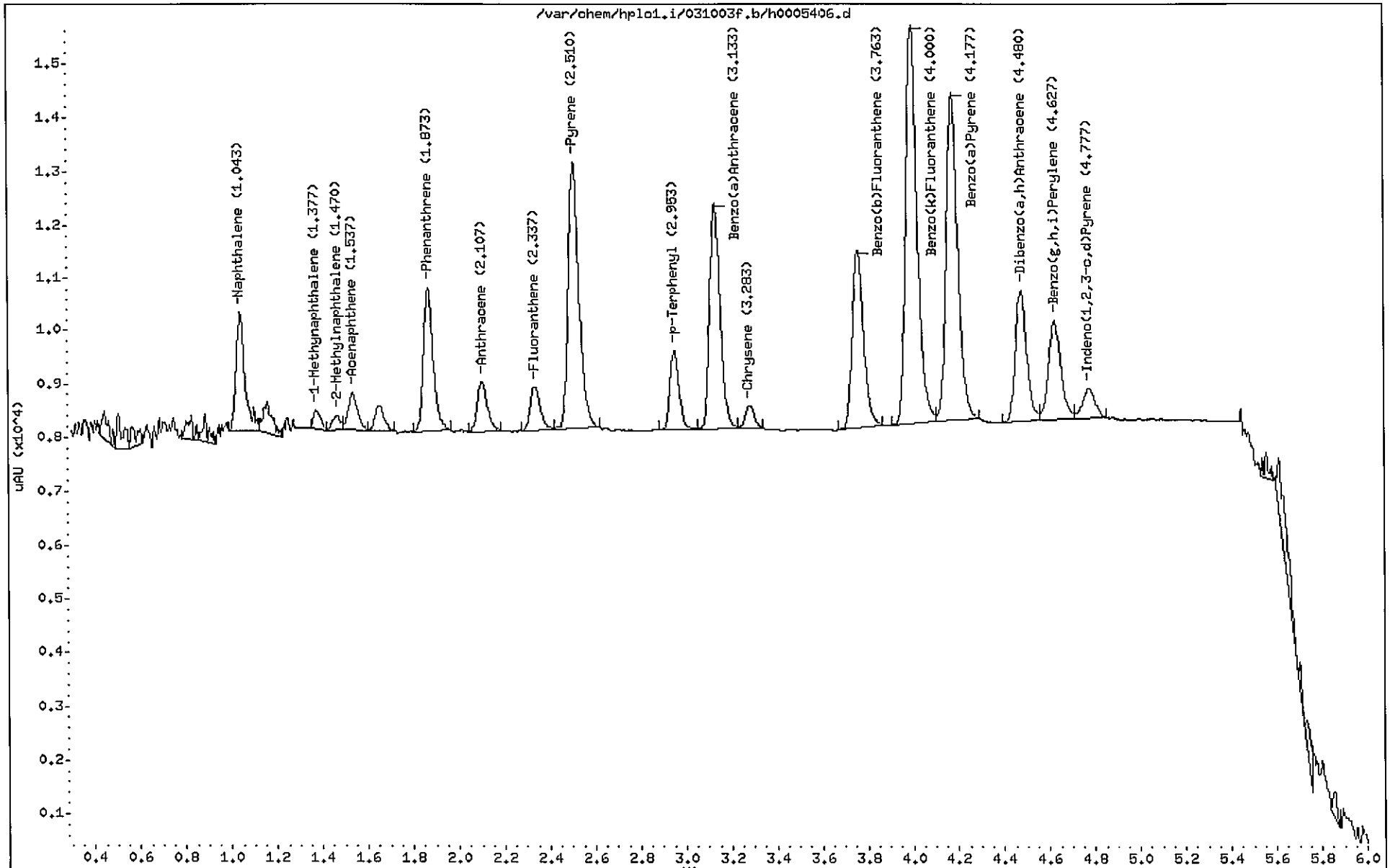
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.043	1.040	0.003	6032	0.50000	0.535
3 1-Methynaphthalene	1.377	1.393	-0.016	763	0.50000	0.550
4 2-Methylnaphthalene	1.470	1.480	-0.010	638	0.50000	0.476
5 Acenaphthene	1.537	1.550	-0.013	1971	0.50000	0.492
7 Phenanthrene	1.873	1.877	-0.004	7932	0.50000	0.495
8 Anthracene	2.107	2.110	-0.003	2943	0.50000	0.520
9 Fluoranthene	2.337	2.347	-0.010	2564	0.50000	0.465
10 Pyrene	2.510	2.553	-0.043	16509	0.50000	0.481
11 p-Terphenyl	2.953	2.980	-0.027	4218	0.50000	0.462
12 Benzo(a)Anthracene	3.133	3.213	-0.080	13630	0.50000	0.490
13 Chrysene	3.283	3.377	-0.094	1192	0.50000	0.297
14 Benzo(b)Fluoranthene	3.763	3.823	-0.060	11533	0.50000	0.488
15 Benzo(k)Fluoranthene	4.000	4.087	-0.087	26171	0.50000	0.502
16 Benzo(a)Pyrene	4.177	4.257	-0.080	21680	0.50000	0.492

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
17 Dibenzo(a,h)Anthracene	4.480	4.630	-0.150	8509	0.50000	0.468
18 Benzo(g,h,i)Perylene	4.627	4.787	-0.160	7003	0.50000	0.465
19 Indeno(1,2,3-c,d)Pyrene	4.777	4.980	-0.203	2065	0.50000	0.439

Data File: /var/chem/hplc1.i/031003f.b/h0005406.d
Date : 03-OCT-2003 08:24
Client ID: 1003STD03
Sample Info: 1003STD03
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10

000209



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003f.b/h0005405.d
Lab Smp Id: 1003STD04 Client Smp ID: 1003STD04
Inj Date : 03-OCT-2003 08:17
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD04
Misc Info : 3-46-7
Comment :
Method : /var/chem/hplc1.i/031003f.b/flpnafld.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 08:17 Cal File: h0005405.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.043	1.040	0.003	12276	1.00000	1.09
3 1-Methynaphthalene	1.383	1.393	-0.010	1485	1.00000	1.07(M)
4 2-Methylnaphthalene	1.467	1.480	-0.013	1368	1.00000	1.02(M)
5 Acenaphthene	1.543	1.550	-0.007	3957	1.00000	0.988(M)
7 Phenanthrene	1.880	1.877	0.003	15680	1.00000	0.979
8 Anthracene	2.120	2.110	0.010	5492	1.00000	0.971
9 Fluoranthene	2.357	2.347	0.010	5170	1.00000	0.937
10 Pyrene	2.530	2.553	-0.023	33063	1.00000	0.964
11 p-Terphenyl	2.990	2.980	0.010	9016	1.00000	0.987
12 Benzo(a)Anthracene	3.173	3.213	-0.040	28397	1.00000	1.02
13 Chrysene	3.333	3.377	-0.044	3075	1.00000	0.766
14 Benzo(b)Fluoranthene	3.830	3.823	0.007	23116	1.00000	0.979
15 Benzo(k)Fluoranthene	4.080	4.087	-0.007	52928	1.00000	1.01
16 Benzo(a)Pyrene	4.257	4.257	0.000	44085	1.00000	1.000

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
17 Dibenzo(a,h)Anthracene	4.570	4.630	-0.060	17188	1.00000	0.985
18 Benzo(g,h,i)Perylene	4.723	4.787	-0.064	14263	1.00000	0.948
19 Indeno(1,2,3-c,d)Pyrene	4.903	4.980	-0.077	4150	1.00000	0.882

QC Flag Legend

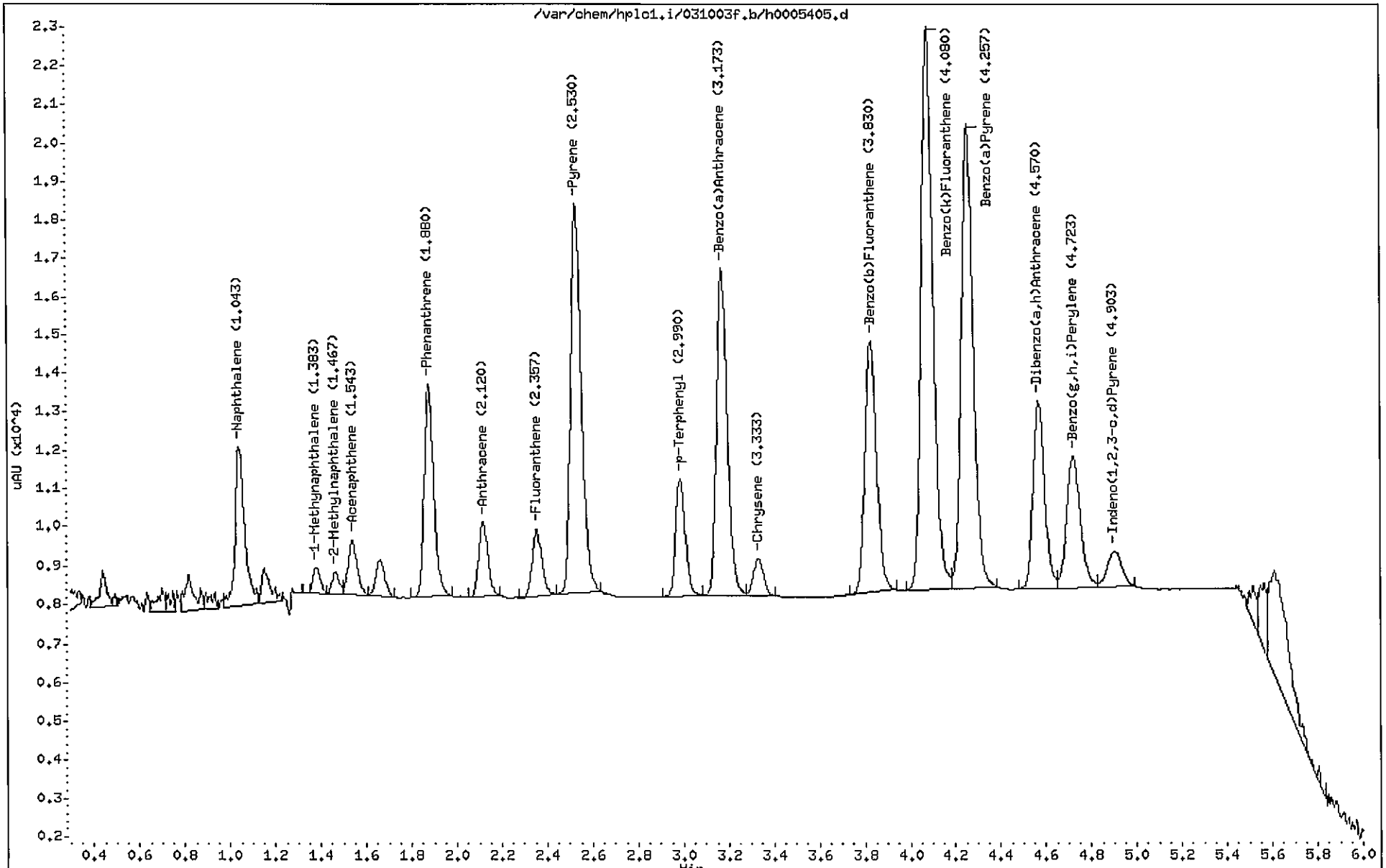
M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/031003f.b/h0005405.d
Date : 03-OCT-2003 08:17
Client ID: 1003STD04
Sample Info: 1003STD04
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000212



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003f.b/h0005404.d
Lab Smp Id: 1003STD05 Client Smp ID: 1003STD05
Inj Date : 03-OCT-2003 08:10
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD05
Misc Info : 3-46-6
Comment :
Method : /var/chem/hplc1.i/031003f.b/flpnafld.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 08:10 Cal File: h0005404.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.037	1.040	-0.003	27449	2.50000	2.43(M)
3 1-Methynaphthalene	1.370	1.393	-0.023	2775	2.50000	2.00(M)
4 2-Methylnaphthalene	1.453	1.480	-0.027	2972	2.50000	2.22(M)
5 Acenaphthene	1.527	1.550	-0.023	9680	2.50000	2.42(M)
7 Phenanthrene	1.857	1.877	-0.020	40113	2.50000	2.50
8 Anthracene	2.087	2.110	-0.023	14076	2.50000	2.49
9 Fluoranthene	2.317	2.347	-0.030	13867	2.50000	2.51
10 Pyrene	2.490	2.553	-0.063	87857	2.50000	2.56
11 p-Terphenyl	2.930	2.980	-0.050	23770	2.50000	2.60
12 Benzo(a)Anthracene	3.103	3.213	-0.110	72532	2.50000	2.61
13 Chrysene	3.253	3.377	-0.124	9099	2.50000	2.27
14 Benzo(b)Fluoranthene	3.727	3.823	-0.096	58833	2.50000	2.49
15 Benzo(k)Fluoranthene	3.960	4.087	-0.127	133766	2.50000	2.56
16 Benzo(a)Pyrene	4.137	4.257	-0.120	113282	2.50000	2.57

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
17 Dibenzo(a,h)Anthracene	4.437	4.630	-0.193	42660	2.50000	2.45
18 Benzo(g,h,i)Perylene	4.583	4.787	-0.204	36342	2.50000	2.41
19 Indeno(1,2,3-c,d)Pyrene	4.723	4.980	-0.257	11882	2.50000	2.53

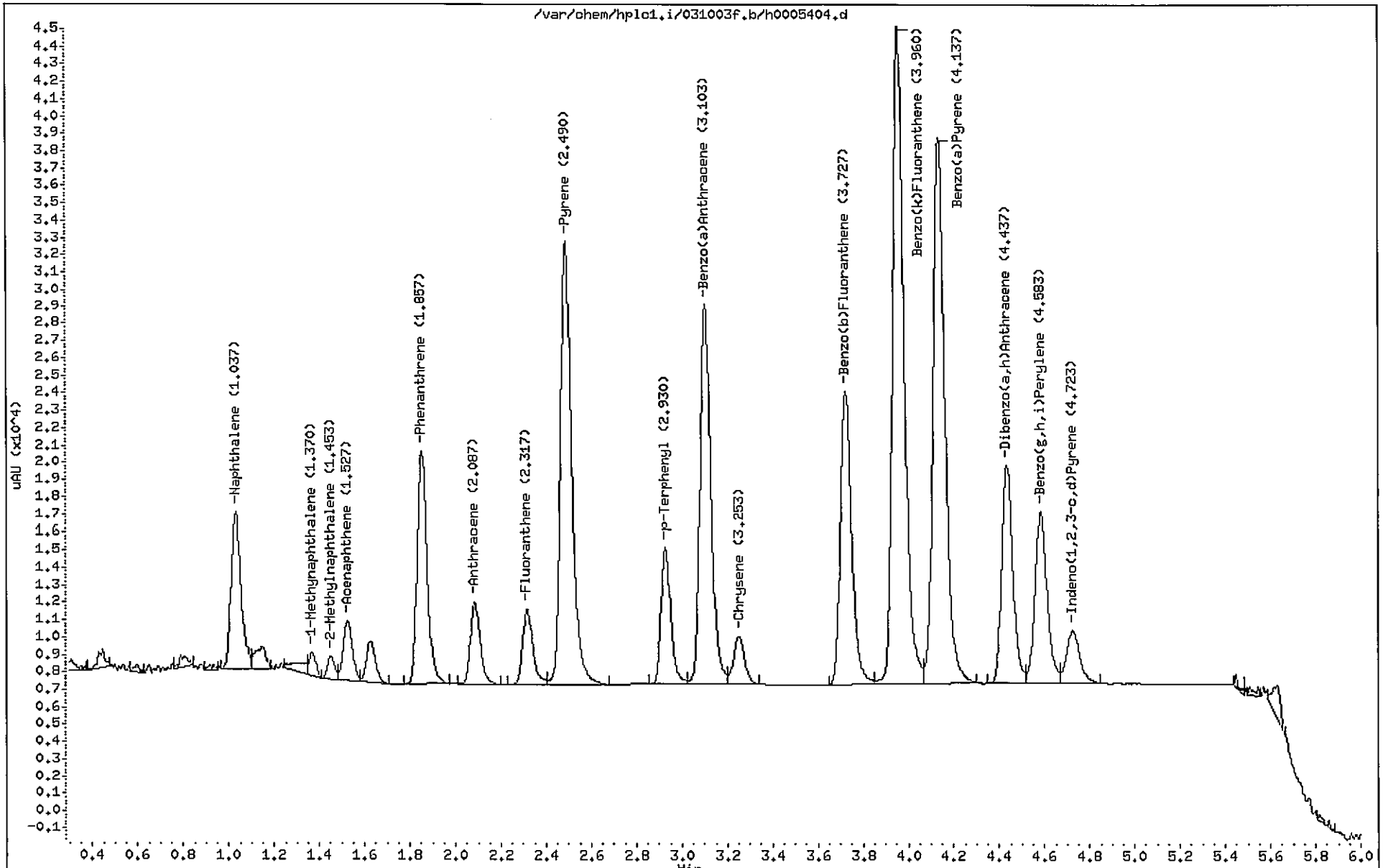
QC Flag Legend

M - Compound response manually integrated.

000215

Data File: /var/chem/hplc1.i/031003f.b/h0005404.d
Date : 03-OCT-2003 08:10
Client ID: 1003STD05
Sample Info: 1003STD05
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003f.b/h0005403.d
Lab Smp Id: 1003STD06 Client Smp ID: 1003STD06
Inj Date : 03-OCT-2003 08:03
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD06
Misc Info : 3-46-5
Comment :
Method : /var/chem/hplc1.i/031003f.b/flpnafld.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 08:03 Cal File: h0005403.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.037	1.040	-0.003	53624	5.00000	4.75(M)
3 1-Methynaphthalene	1.377	1.393	-0.016	6542	5.00000	4.72(M)
4 2-Methylnaphthalene	1.460	1.480	-0.020	6503	5.00000	4.86(M)
5 Acenaphthene	1.530	1.550	-0.020	20112	5.00000	5.02(M)
7 Phenanthrene	1.863	1.877	-0.014	81354	5.00000	5.08
8 Anthracene	2.097	2.110	-0.013	28047	5.00000	4.96
9 Fluoranthene	2.330	2.347	-0.017	28070	5.00000	5.09
10 Pyrene	2.500	2.553	-0.053	179665	5.00000	5.24
11 p-Terphenyl	2.943	2.980	-0.037	48824	5.00000	5.34
12 Benzo(a)Anthracene	3.120	3.213	-0.093	147441	5.00000	5.30
13 Chrysene	3.273	3.377	-0.104	19441	5.00000	4.85
14 Benzo(b)Fluoranthene	3.747	3.823	-0.076	120617	5.00000	5.11
15 Benzo(k)Fluoranthene	3.983	4.087	-0.104	271007	5.00000	5.20
16 Benzo(a)Pyrene	4.163	4.257	-0.094	231486	5.00000	5.25

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
17 Dibenzo(a,h)Anthracene	4.460	4.630	-0.170	86907	5.00000	4.98
18 Benzo(g,h,i)Perylene	4.610	4.787	-0.177	74977	5.00000	4.98
19 Indeno(1,2,3-c,d)Pyrene	4.757	4.980	-0.223	24995	5.00000	5.31

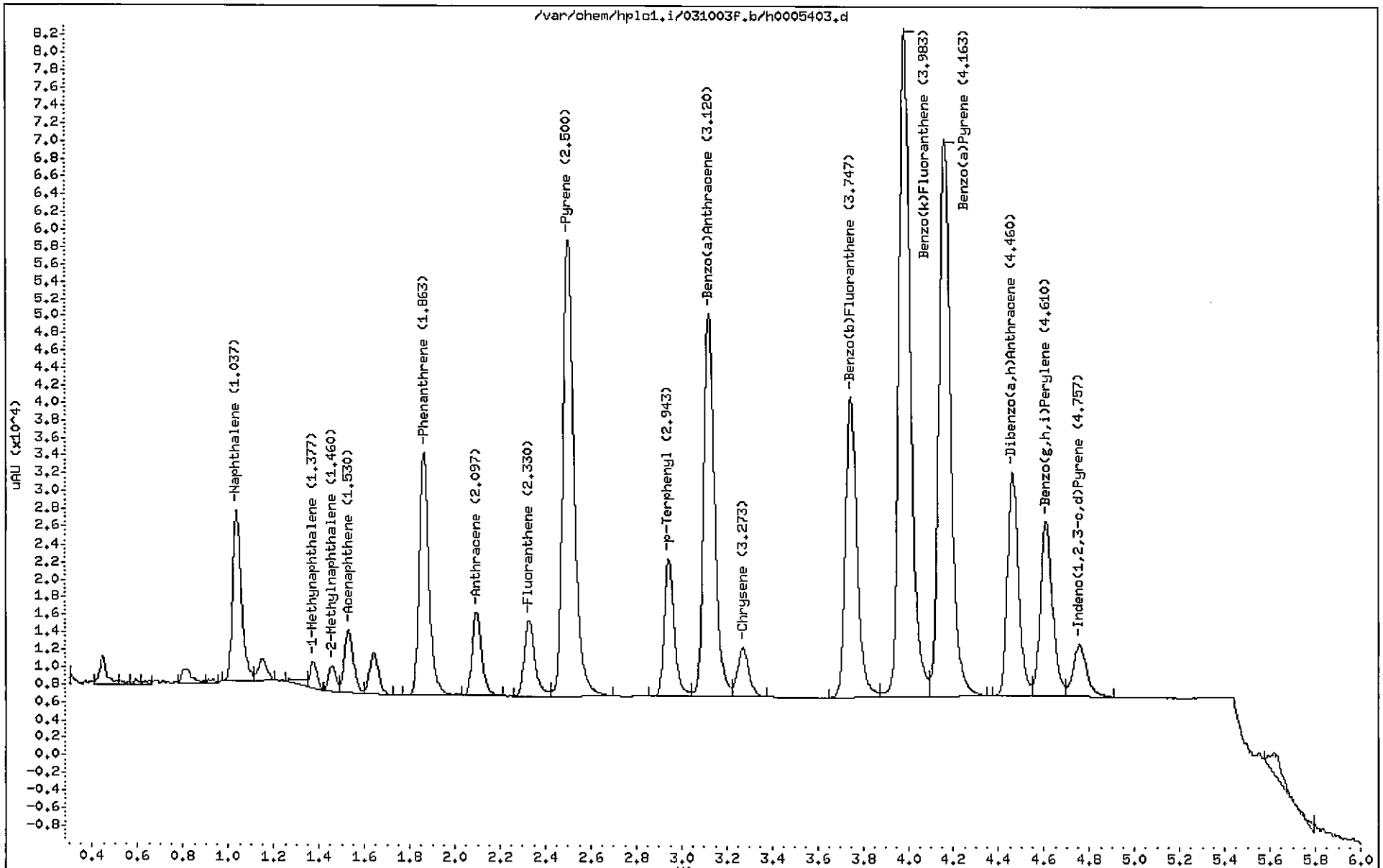
QC Flag Legend

M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/031003f.b/h0005403.d
Date : 03-OCT-2003 08:03
Client ID: 1003STD06
Sample Info: 1003STD06
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10

000218



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003f.b/h0005402.d
Lab Smp Id: 1003STD07 Client Smp ID: 1003STD07
Inj Date : 03-OCT-2003 07:56
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD07
Misc Info : 3-46-4
Comment :
Method : /var/chem/hplc1.i/031003f.b/flpnafld.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:56 Cal File: h0005402.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.047	1.040	0.007	106745	10.0000	9.46(M)
3 1-Methynaphthalene	1.387	1.393	-0.006	17591	10.0000	12.7(M)
4 2-Methylnaphthalene	1.473	1.480	-0.007	15767	10.0000	11.8(M)
5 Acenaphthene	1.547	1.550	-0.003	41929	10.0000	10.5(M)
7 Phenanthrene	1.890	1.877	0.013	167682	10.0000	10.5
8 Anthracene	2.133	2.110	0.023	57581	10.0000	10.2
9 Fluoranthene	2.370	2.347	0.023	56304	10.0000	10.2
10 Pyrene	2.553	2.553	0.000	349260	10.0000	10.2
11 p-Terphenyl	3.000	2.980	0.020	97032	10.0000	10.6
12 Benzo(a)Anthracene	3.183	3.213	-0.030	290917	10.0000	10.5
13 Chrysene	3.340	3.377	-0.037	39670	10.0000	9.89
14 Benzo(b)Fluoranthene	3.823	3.823	0.000	242958	10.0000	10.3
15 Benzo(k)Fluoranthene	4.087	4.087	0.000	437986	10.0000	8.40
16 Benzo(a)Pyrene	4.257	4.257	0.000	417673	10.0000	9.47

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
17 Dibenzo(a,h)Anthracene	4.540	4.630	-0.090	175851	10.0000	10.1
18 Benzo(g,h,i)Perylene	4.690	4.787	-0.097	153766	10.0000	10.2
19 Indeno(1,2,3-c,d)Pyrene	4.853	4.980	-0.127	49173	10.0000	10.5

QC Flag Legend

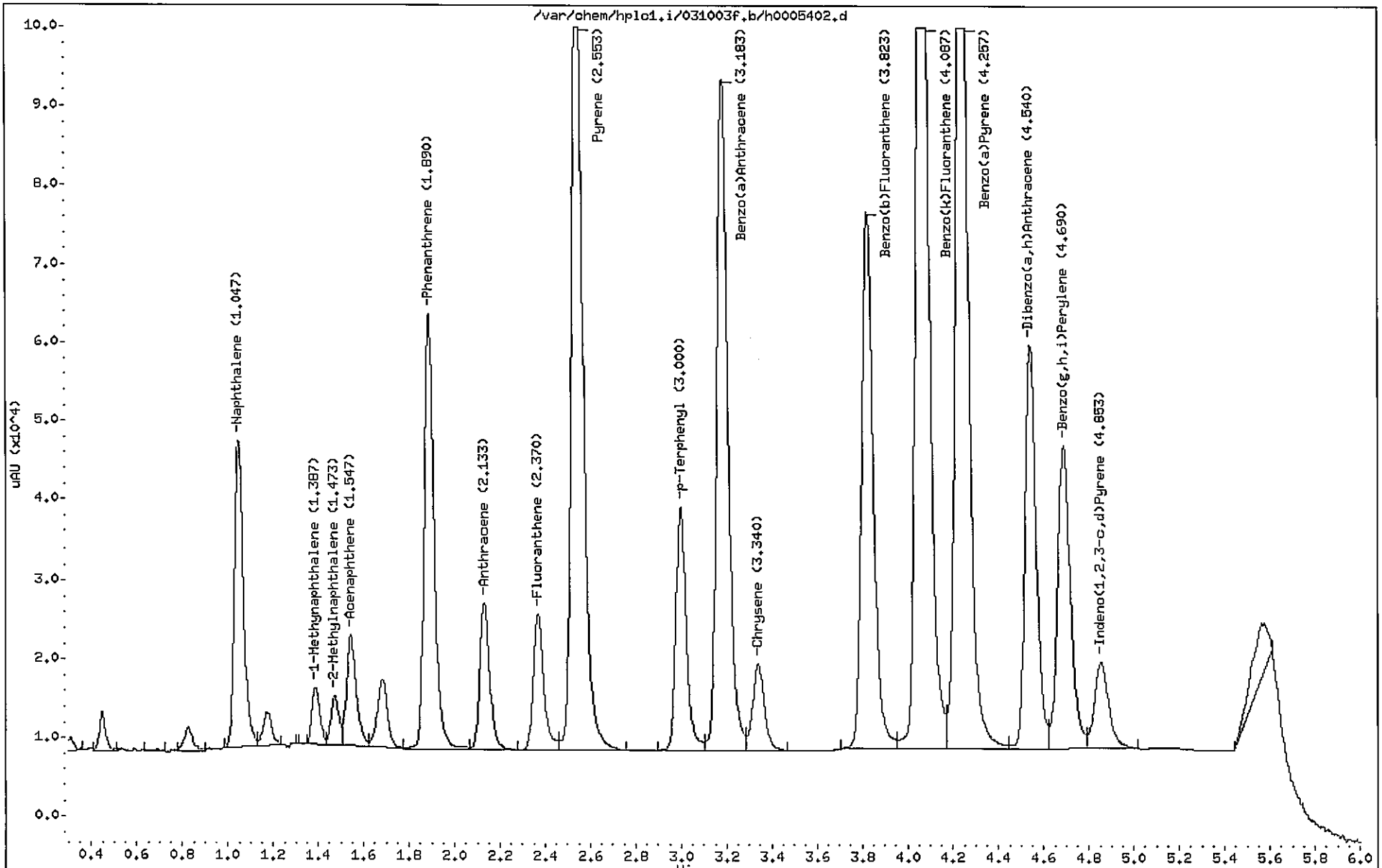
M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/031003f.b/h0005402.d
Date : 03-OCT-2003 07:56
Client ID: 1003STD07
Sample Info: 1003STD07
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000221



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003f.b/h0005401.d
Lab Smp Id: 1003STD08 Client Smp ID: 1003STD08
Inj Date : 03-OCT-2003 07:49
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD08
Misc Info : 3-46-3
Comment :
Method : /var/chem/hplc1.i/031003f.b/flpnafld.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.040	1.040	0.000	215809	20.0000	19.1(M)
3 1-Methynaphthalene	1.377	1.393	-0.016	25492	20.0000	18.4(M)
4 2-Methylnaphthalene	1.463	1.480	-0.017	25215	20.0000	18.8(M)
5 Acenaphthene	1.537	1.550	-0.013	79730	20.0000	19.9(M)
7 Phenanthrene	1.877	1.877	0.000	317264	20.0000	19.8
8 Anthracene	2.110	2.110	0.000	105676	20.0000	18.7
9 Fluoranthene	2.347	2.347	0.000	110127	20.0000	20.0
11 p-Terphenyl	2.980	2.980	0.000	193992	20.0000	21.2
13 Chrysene	3.320	3.377	-0.057	80765	20.0000	20.1
17 Dibenzo(a,h)Anthracene	4.550	4.630	-0.080	341327	20.0000	19.6
18 Benzo(g,h,i)Perylene	4.700	4.787	-0.087	310328	20.0000	20.6
19 Indeno(1,2,3-c,d)Pyrene	4.877	4.980	-0.103	96189	20.0000	20.4

QC Flag Legend

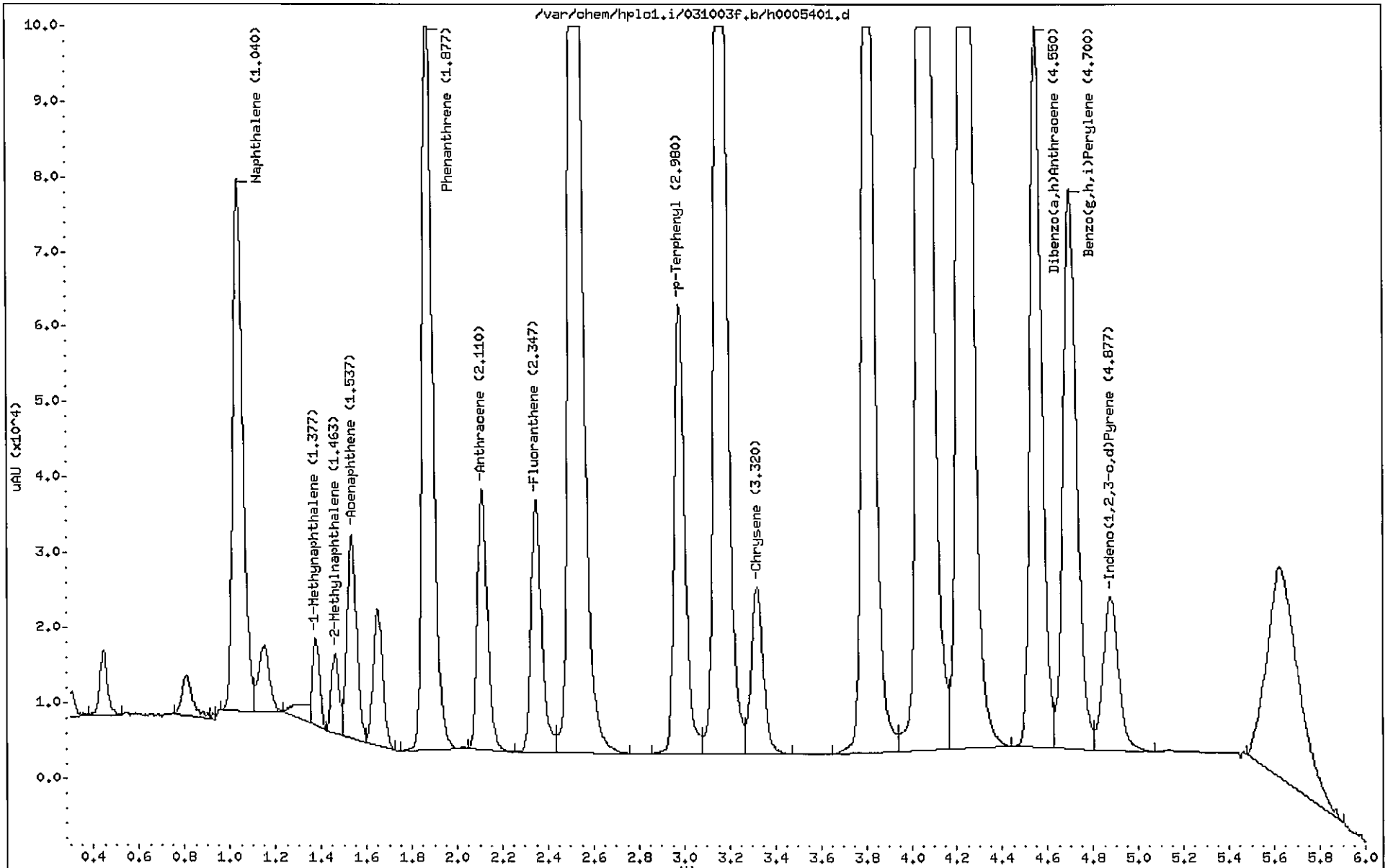
M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/031003f.b/h0005401.d
Date : 03-OCT-2003 07:49
Client ID: 1003STD08
Sample Info: 1003STD08
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000224



Gulf Coast Analytical Laboratories, Inc.

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 1003PNAICV
Level: LOW
Data Type: LC DATA
SpikeList File: ICV.spk
Sublist File: all.sub
Method File: /var/chem/hplc1.i/031003f.b/flpnafld.m
Misc Info: 3-47-8

Client SDG:
Fraction: OTHER
Client Smp ID: 1003PNAICV
Operator: jdt
SampleType: LCS
Quant Type: ESTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Naphthalene	5.00	4.71	94.13	80-120
3 1-Methynaphthalene	10.0	9.77	97.70	80-120
4 2-Methylnaphthalen	10.0	9.28	92.83	80-120
5 Acenaphthene	10.0	9.97	99.69	80-120
7 Phenanthrene	0.400	0.423	105.77	80-120
8 Anthracene	0.200	0.203	101.75	80-120
9 Fluoranthene	0.500	0.464	92.73	80-120
10 Pyrene	1.00	0.986	98.64	80-120
12 Benzo(a)Anthracene	0.500	0.551	110.21	80-120
13 Chrysene	0.500	0.411	82.25	80-120
14 Benzo(b)Fluoranthe	0.200	0.199	99.50	80-120
15 Benzo(k)Fluoranthe	0.200	0.214	107.23	80-120
16 Benzo(a)Pyrene	0.500	0.532	106.37	80-120
17 Dibenzo(a,h)Anthra	2.00	2.14	106.81	80-120
18 Benzo(g,h,i)Peryle	0.800	0.887	110.86	80-120
19 Indeno(1,2,3-c,d)P	0.500	0.498	99.69	80-120

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 11 p-Terphenyl	4.00	4.47	111.81	40-140

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003f.b/h0005409.d
Lab Smp Id: 1003PNAICV Client Smp ID: 1003PNAICV
Inj Date : 03-OCT-2003 08:58
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003PNAICV
Misc Info : 3-47-8
Comment :
Method : /var/chem/hplc1.i/031003f.b/flpnafld.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 Naphthalene	1.033	1.040	-0.007	53091	4.70657	4.71(M)
3 1-Methynaphthalene	1.373	1.393	-0.020	13555	9.76993	9.77(M)
4 2-Methylnaphthalene	1.457	1.480	-0.023	12429	9.28251	9.28
5 Acenaphthene	1.530	1.550	-0.020	39936	9.96865	9.97
7 Phenanthrene	1.860	1.877	-0.017	6779	0.42309	0.423
8 Anthracene	2.093	2.110	-0.017	1151	0.20349	0.203(M)
9 Fluoranthene	2.333	2.347	-0.014	2558	0.46364	0.464
10 Pyrene	2.507	2.553	-0.046	33834	0.98635	0.986
11 p-Terphenyl	2.957	2.980	-0.023	40860	4.47244	4.47(M)
12 Benzo(a)Anthracene	3.140	3.213	-0.073	15317	0.55104	0.551(M)
13 Chrysene	3.293	3.377	-0.084	1650	0.41127	0.411(M)
14 Benzo(b)Fluoranthene	3.783	3.823	-0.040	4699	0.19899	0.199
15 Benzo(k)Fluoranthene	4.027	4.087	-0.060	11187	0.21446	0.214
16 Benzo(a)Pyrene	4.207	4.257	-0.050	23455	0.53183	0.532

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
17 Dibenzo(a,h)Anthracene	4.517	4.630	-0.113	37265	2.13628	2.14 (M)
18 Benzo(g,h,i)Perylene	4.670	4.787	-0.117	13349	0.88690	0.887 (M)
19 Indeno(1,2,3-c,d)Pyrene	4.833	4.980	-0.147	2345	0.49847	0.498 (M)

QC Flag Legend

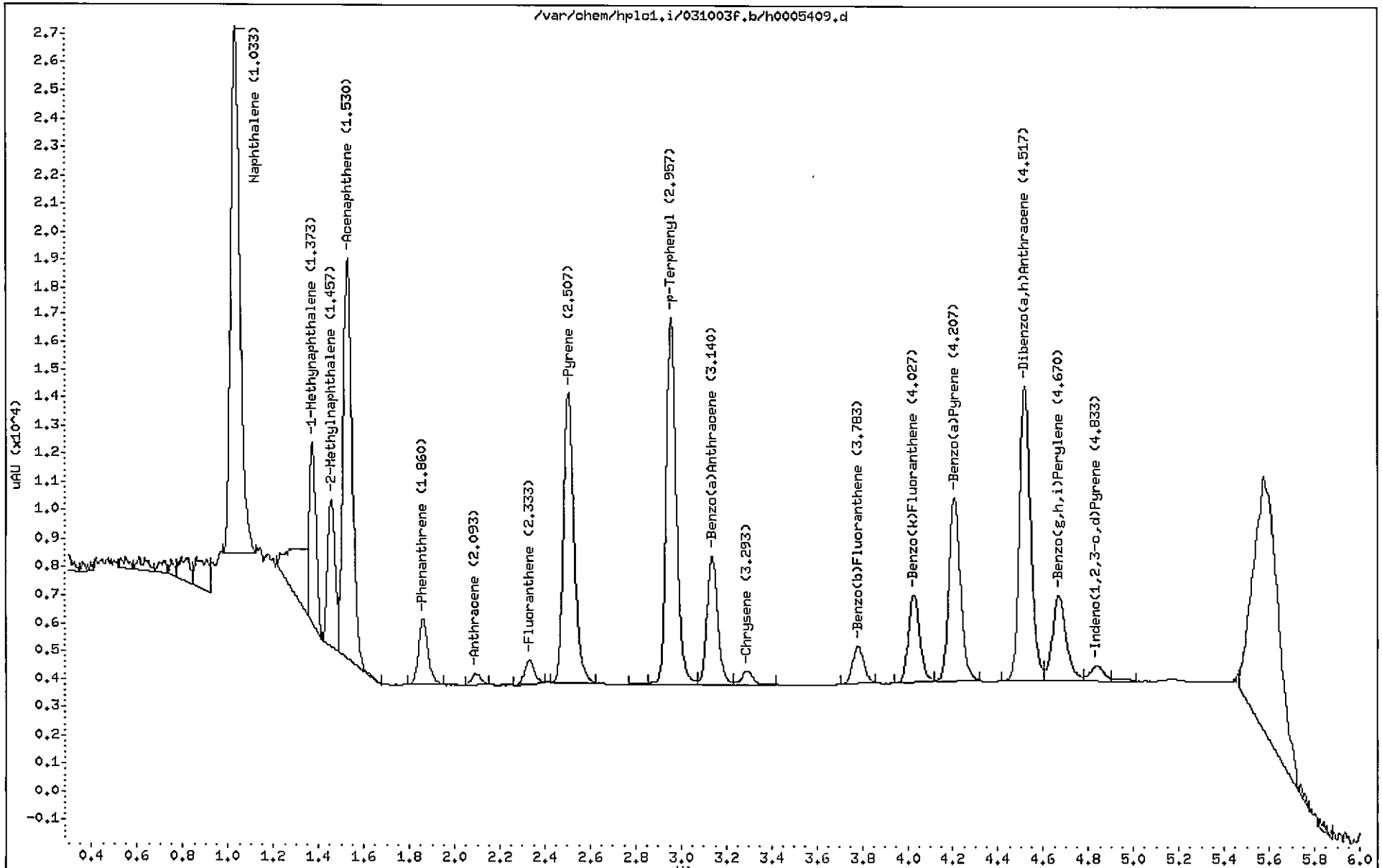
M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/031003f.b/h0005409.d
Date : 03-OCT-2003 08:58
Client ID: 1003PNAICV
Sample Info: 1003PNAICV
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000228



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031029f.b/h0005497.d
Lab Smp Id: 1029STD05 Client Smp ID: 1029STD05
Inj Date : 29-OCT-2003 10:21
Operator : jdt Inst ID: hplc1.i
Smp Info : 1029STD05
Misc Info : 3-46-6
Comment :
Method : /var/chem/hplc1.i/031029f.b/flpnafld.m
Meth Date : 29-Oct-2003 12:39 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.043	1.043	0.000	28470	2.50000	2.52
3 1-Methynaphthalene	1.387	1.377	0.010	3820	2.50000	2.75
4 2-Methylnaphthalene	1.473	1.473	0.000	3310	2.50000	2.47
5 Acenaphthene	1.543	1.543	0.000	9727	2.50000	2.43
7 Phenanthrene	1.887	1.887	0.000	40869	2.50000	2.55
8 Anthracene	2.133	2.133	0.000	14427	2.50000	2.55
9 Fluoranthene	2.370	2.370	0.000	14429	2.50000	2.62
10 Pyrene	2.547	2.547	0.000	93863	2.50000	2.74
11 p-Terphenyl	3.010	2.977	0.033	23118	2.50000	2.53
12 Benzo(a)Anthracene	3.193	3.160	0.033	75739	2.50000	2.72
13 Chrysene	3.357	3.317	0.040	9051	2.50000	2.26
14 Benzo(b)Fluoranthene	3.843	3.843	0.000	59894	2.50000	2.54
15 Benzo(k)Fluoranthene	4.090	4.090	0.000	134018	2.50000	2.57
16 Benzo(a)Pyrene	4.267	4.267	0.000	116979	2.50000	2.65

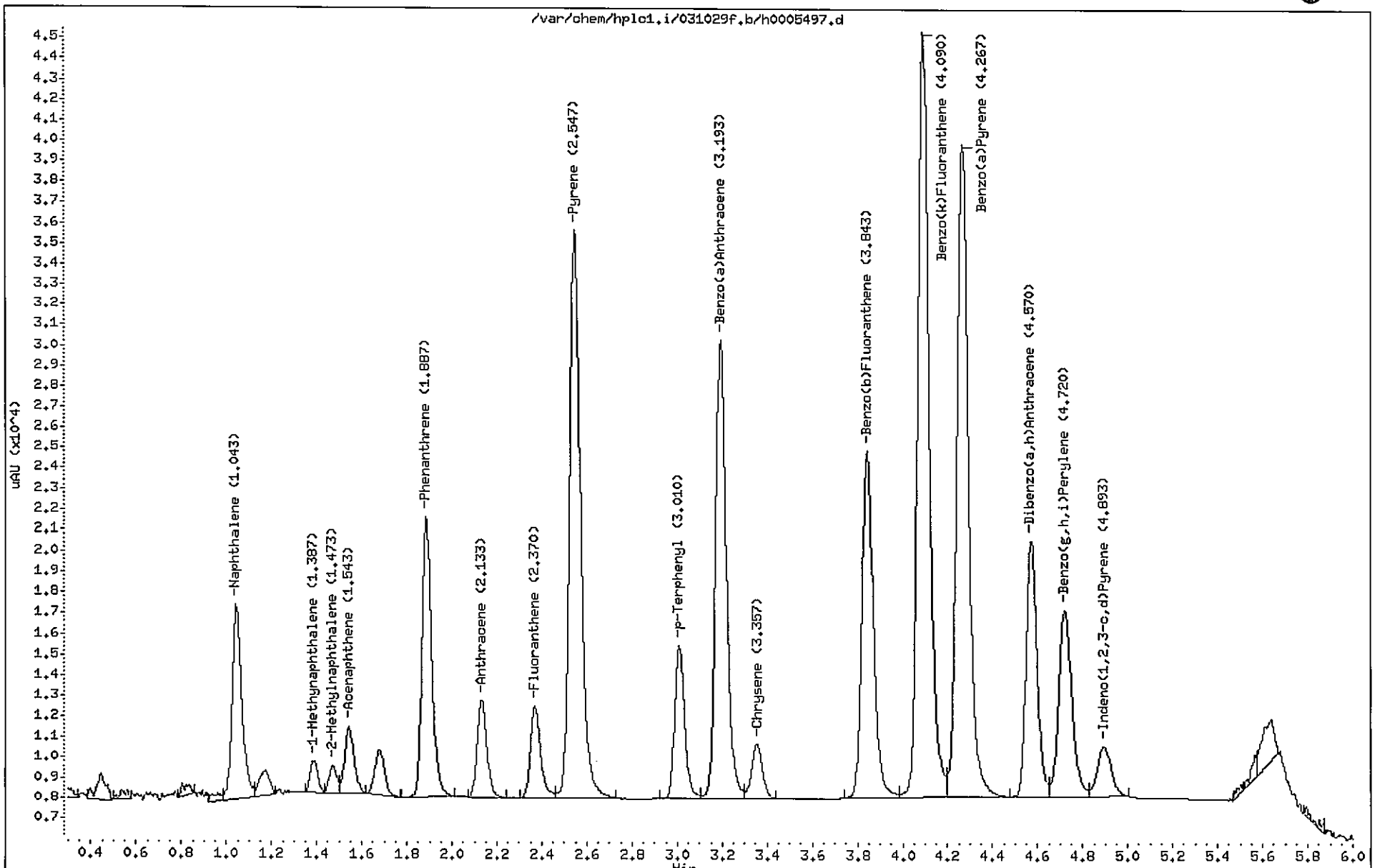
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
17 Dibenzo(a,h)Anthracene	4.570	4.570	0.000	42935	2.50000	2.46
18 Benzo(g,h,i)Perylene	4.720	4.720	0.000	37416	2.50000	2.49
19 Indeno(1,2,3-c,d)Pyrene	4.893	4.893	0.000	10942	2.50000	2.33

Data File: /var/chem/hplc1.i/031029f.b/h0005497.d
Date : 29-OCT-2003 10:21
Client ID: 1029STD05
Sample Info: 1029STD05
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000231



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031029f.b/h0005508.d
Lab Smp Id: 1029STD05 Client Smp ID: 1029STD05
Inj Date : 29-OCT-2003 13:04
Operator : jdt Inst ID: hplc1.i
Smp Info : 1029STD05
Misc Info : 3-46-6
Comment :
Method : /var/chem/hplc1.i/031029f.b/flpnafld.m
Meth Date : 29-Oct-2003 12:39 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

pnd Variable Local Compound Variable

mpounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.040	1.043	-0.003	27021	2.50000	2.40
3 1-Methynaphthalene	1.377	1.377	0.000	3082	2.50000	2.22(M)
4 2-Methylnaphthalene	1.460	1.473	-0.013	3038	2.50000	2.27
5 Acenaphthene	1.537	1.543	-0.006	9060	2.50000	2.26
7 Phenanthrene	1.873	1.887	-0.014	39062	2.50000	2.44
8 Anthracene	2.110	2.133	-0.023	14071	2.50000	2.49
9 Fluoranthene	2.347	2.370	-0.023	13287	2.50000	2.41
10 Pyrene	2.520	2.547	-0.027	81258	2.50000	2.37
11 p-Terphenyl	2.977	2.977	0.000	23349	2.50000	2.56(M)
12 Benzo(a)Anthracene	3.160	3.160	0.000	73383	2.50000	2.64(M)
13 Chrysene	3.317	3.317	0.000	9083	2.50000	2.26(M)
14 Benzo(b)Fluoranthene	3.810	3.843	-0.033	57041	2.50000	2.42
15 Benzo(k)Fluoranthene	4.060	4.090	-0.030	130199	2.50000	2.50
16 Benzo(a)Pyrene	4.240	4.267	-0.027	109066	2.50000	2.47

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
17 Dibenzo(a,h)Anthracene	4.557	4.570	-0.013	41394	2.50000	2.37
18 Benzo(g,h,i)Perylene	4.707	4.720	-0.013	34263	2.50000	2.28
19 Indeno(1,2,3-c,d)Pyrene	4.887	4.893	-0.006	10787	2.50000	2.29

QC Flag Legend

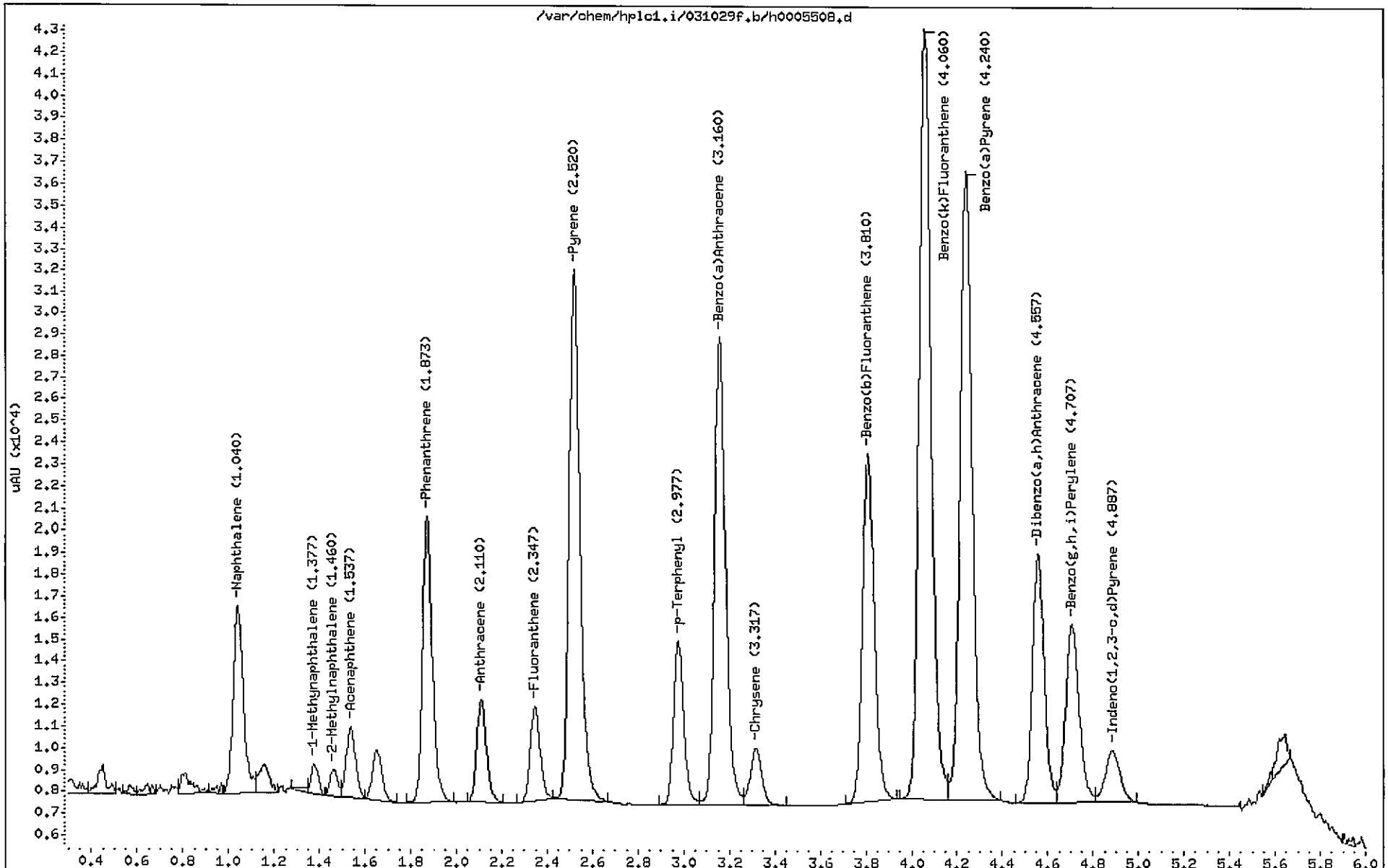
X - Compound response manually integrated.

Data File: /var/chem/hplc1.i/031029f.b/h0005508.d
Date : 29-OCT-2003 13:04
Client ID: 1029STD05
Sample Info: 1029STD05
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000234



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031029.b/h0005498.d
Lab Smp Id: 126690 Client Smp ID: 126690
Inj Date : 29-OCT-2003 10:41
Operator : jdt Inst ID: hplc1.i
Smp Info : 126690-DL1
Misc Info : 1027BLK01
Comment :
Method : /var/chem/hplc1.i/031029.b/flpnauv.m
Meth Date : 29-Oct-2003 12:40 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

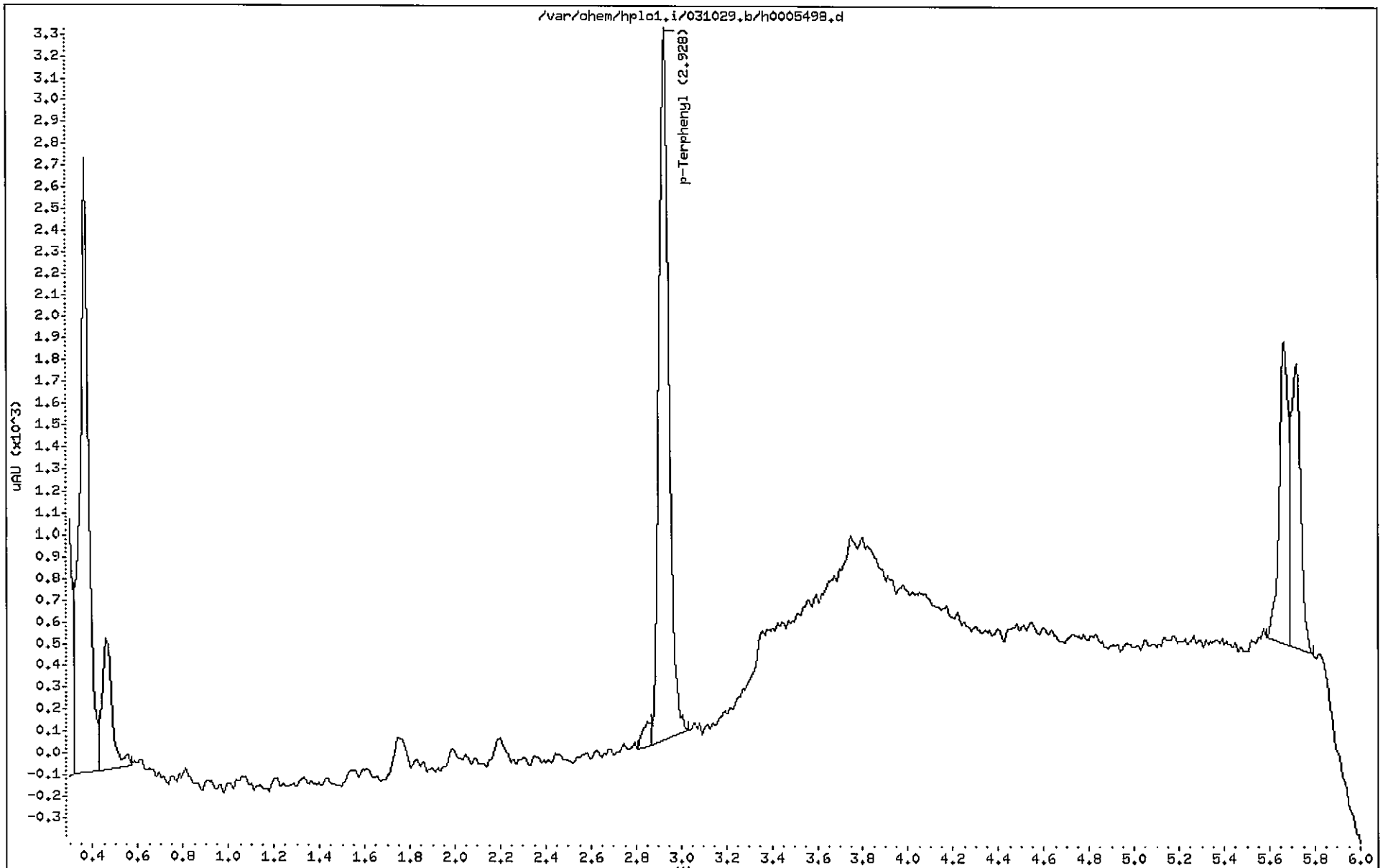
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
11 p-Terphenyl	2.928	2.994	-0.066	9925	1.46695	1.47

Data File: /var/chem/hplc1.i/031029.b/h0005498.d
Date : 29-OCT-2003 10:41
Client ID: 126690
Sample Info: 126690-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000236



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031029f.b/h0005498.d
Lab Smp Id: 126690 Client Smp ID: 126690
Inj Date : 29-OCT-2003 10:41
Operator : jdt Inst ID: hplc1.i
Smp Info : 126690-DL1
Misc Info : 1027BLK01
Comment :
Method : /var/chem/hplc1.i/031029f.b/flpnafld.m
Meth Date : 29-Oct-2003 12:39 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

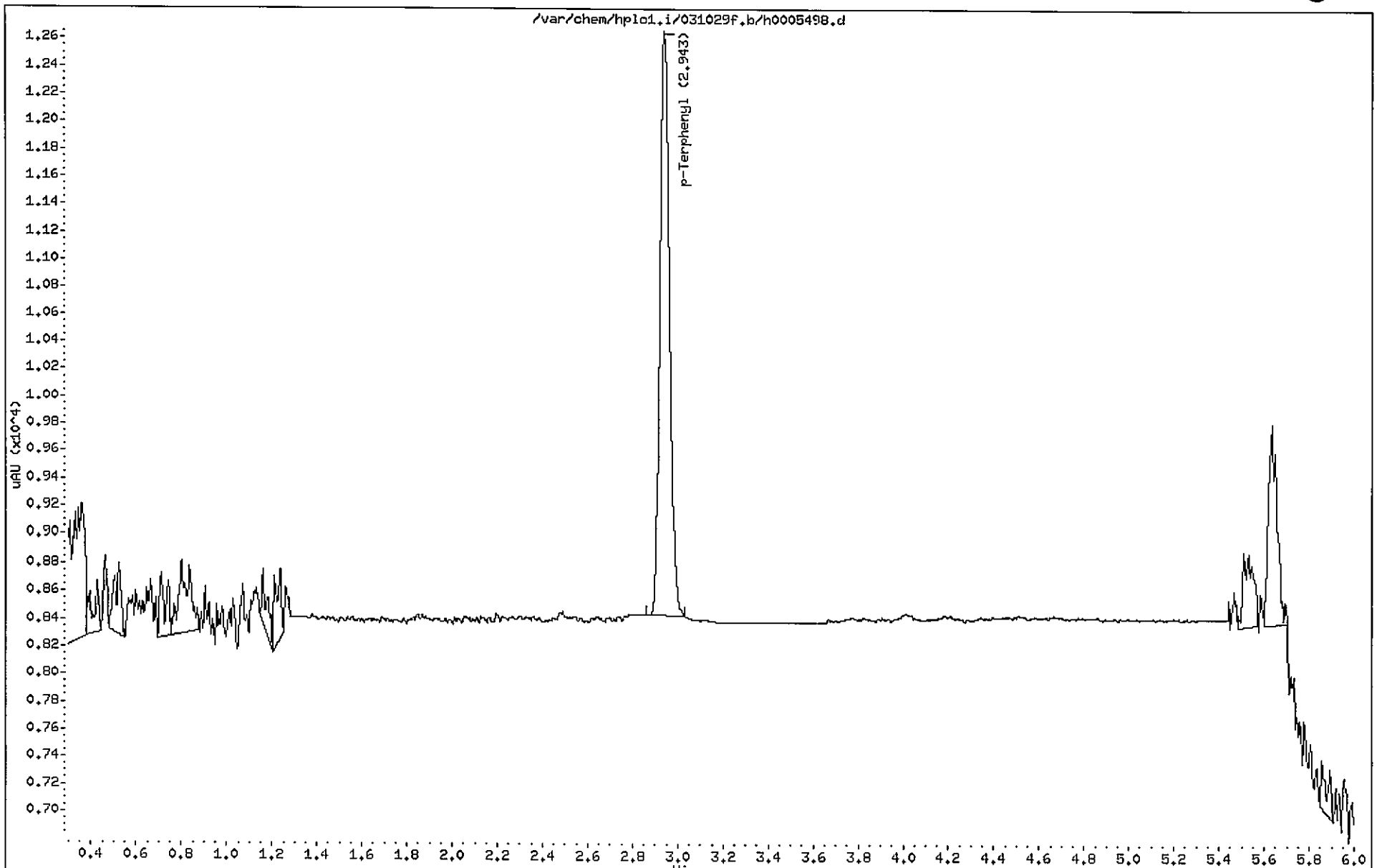
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
11 p-Terphenyl	2.943	2.977	-0.034	12430	1.36060	1.36

Data File: /var/chem/hplc1.i/031029f.b/h0005498.d
Date : 29-OCT-2003 10:41
Client ID: 126690
Sample Info: 126690-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000238



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031029.b/h0005499.d
Lab Smp Id: 126691 Client Smp ID: 126691
Inj Date : 29-OCT-2003 11:20
Operator : jdt Inst ID: hplc1.i
Smp Info : 126691-DL1
Misc Info : 1027LCS01
Comment :
Method : /var/chem/hplc1.i/031029.b/flpnauv.m
Meth Date : 29-Oct-2003 12:40 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

					CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
Compounds	RT	EXP RT	DLT RT	RESPONSE		
1 Naphthalene	1.027	1.034	-0.007	10923	4.54125	4.54
2 Acenaphthylene	1.233	1.248	-0.015	8603	5.25984	5.26(M)
3 1-Methynaphthalene	1.367	1.374	-0.007	15025	10.9072	10.9
4 2-Methylnaphthalene	1.447	1.461	-0.014	16783	8.45080	8.45
5 Acenaphthene	1.520	1.528	-0.008	7981	7.96654	7.97
6 Fluorene	1.627	1.634	-0.007	11416	1.00793	1.01
7 Phenanthrene	1.860	1.874	-0.014	9053	0.34951	0.350
8 Anthracene	2.093	2.121	-0.028	9019	0.16351	0.164
9 Fluoranthene	2.327	2.354	-0.027	2844	0.39687	0.397
10 Pyrene	2.500	2.534	-0.034	4529	0.78815	0.788
11 p-Terphenyl	2.947	2.994	-0.047	11541	1.70583	1.71
12 Benzo(a)Anthracene	3.127	3.181	-0.054	6510	0.40667	0.407
13 Chrysene	3.287	3.341	-0.054	10625	0.40961	0.410
14 Benzo(b)Fluoranthene	3.767	3.834	-0.067	3789	0.18836	0.188

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
15 Benzo(k)Fluoranthene	4.007	4.081	-0.074	2241	0.18239	0.182
16 Benzo(a)Pyrene	4.180	4.254	-0.074	6913	0.38934	0.389
17 Dibenzo(a,h)Anthracene	4.480	4.561	-0.081	7223	1.64167	1.64
18 Benzo(g,h,i)Perylene	4.627	4.707	-0.080	4918	0.68231	0.682
19 Indeno(1,2,3-c,d)Pyrene	4.787	4.881	-0.094	6458	0.42390	0.424

QC Flag Legend

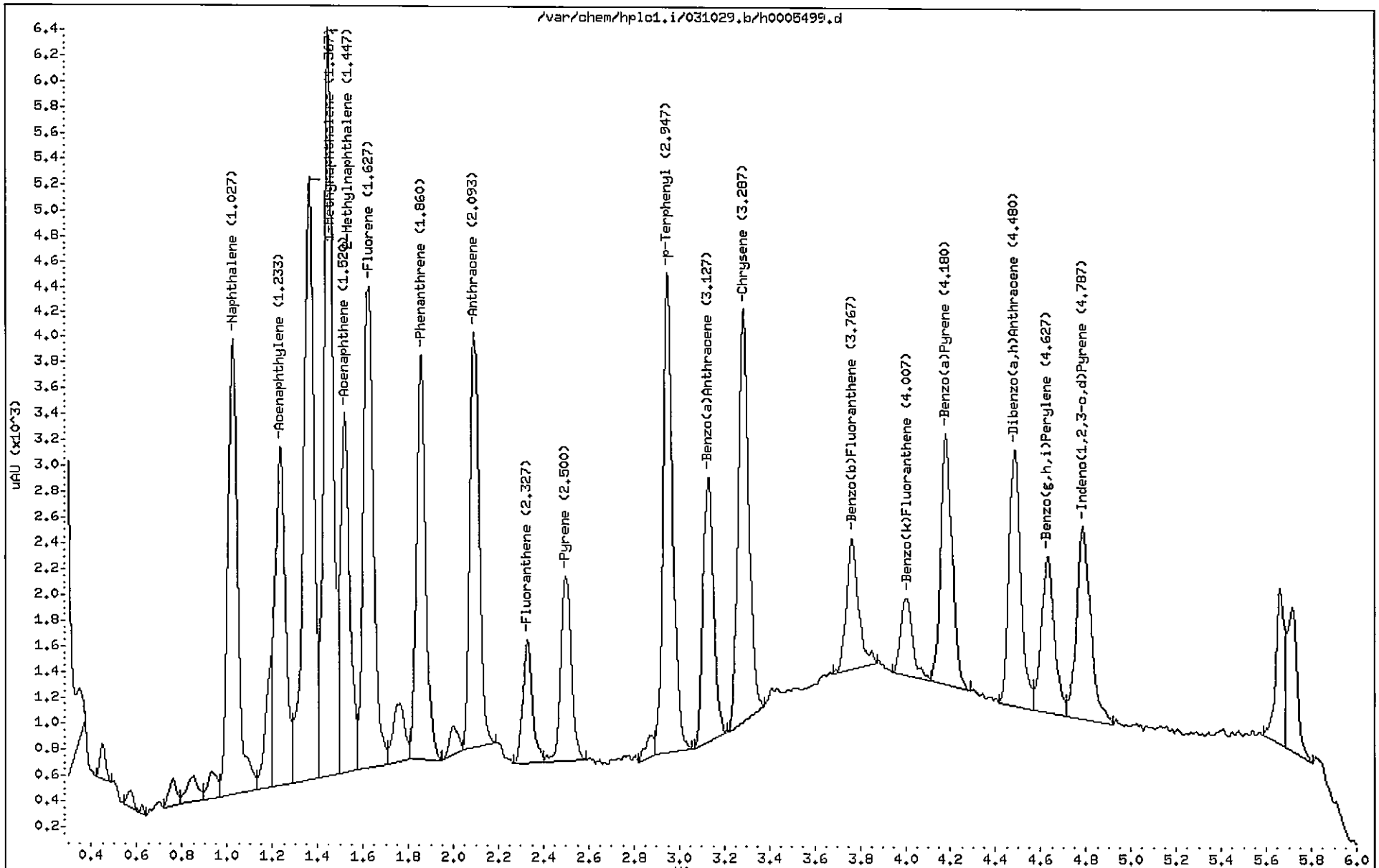
M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/031029.b/h0005499.d
Date : 29-OCT-2003 11:20
Client ID: 126691
Sample Info: 126691-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000241



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031029f.b/h0005499.d
Lab Smp Id: 126691 Client Smp ID: 126691
Inj Date : 29-OCT-2003 11:20
Operator : jdt Inst ID: hplc1.i
Smp Info : 126691-DL1
Misc Info : 1027LCS01
Comment :
Method : /var/chem/hplc1.i/031029f.b/flpnafld.m
Meth Date : 29-Oct-2003 12:39 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 Naphthalene	1.043	1.043	0.000	39829	3.53092	3.53
3 1-Methynaphthalene	1.377	1.377	0.000	11765	8.47977	8.48(M)
4 2-Methylnaphthalene	1.463	1.473	-0.010	10596	7.91407	7.91
5 Acenaphthene	1.537	1.543	-0.006	29827	7.44546	7.45
7 Phenanthrene	1.873	1.887	-0.014	5490	0.34268	0.343
8 Anthracene	2.107	2.133	-0.026	1163	0.20565	0.206
9 Fluoranthene	2.340	2.370	-0.030	2109	0.38240	0.382
10 Pyrene	2.517	2.547	-0.030	27349	0.79731	0.797
11 p-Terphenyl	2.963	2.977	-0.014	14913	1.63245	1.63(M)
12 Benzo(a)Anthracene	3.143	3.160	-0.017	11821	0.42529	0.425(M)
13 Chrysene	3.297	3.317	-0.020	1142	0.28465	0.285(M)
14 Benzo(b)Fluoranthene	3.777	3.843	-0.066	3777	0.15997	0.160
15 Benzo(k)Fluoranthene	4.017	4.090	-0.073	9417	0.18053	0.181
16 Benzo(a)Pyrene	4.193	4.267	-0.074	17067	0.38700	0.387

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
17 Dibenzo(a,h)Anthracene	4.497	4.570	-0.073	27755	1.59111	1.59
18 Benzo(g,h,i)Perylene	4.643	4.720	-0.077	9785	0.65017	0.650
19 Indeno(1,2,3-c,d)Pyrene	4.800	4.893	-0.093	1347	0.28641	0.286

QC Flag Legend

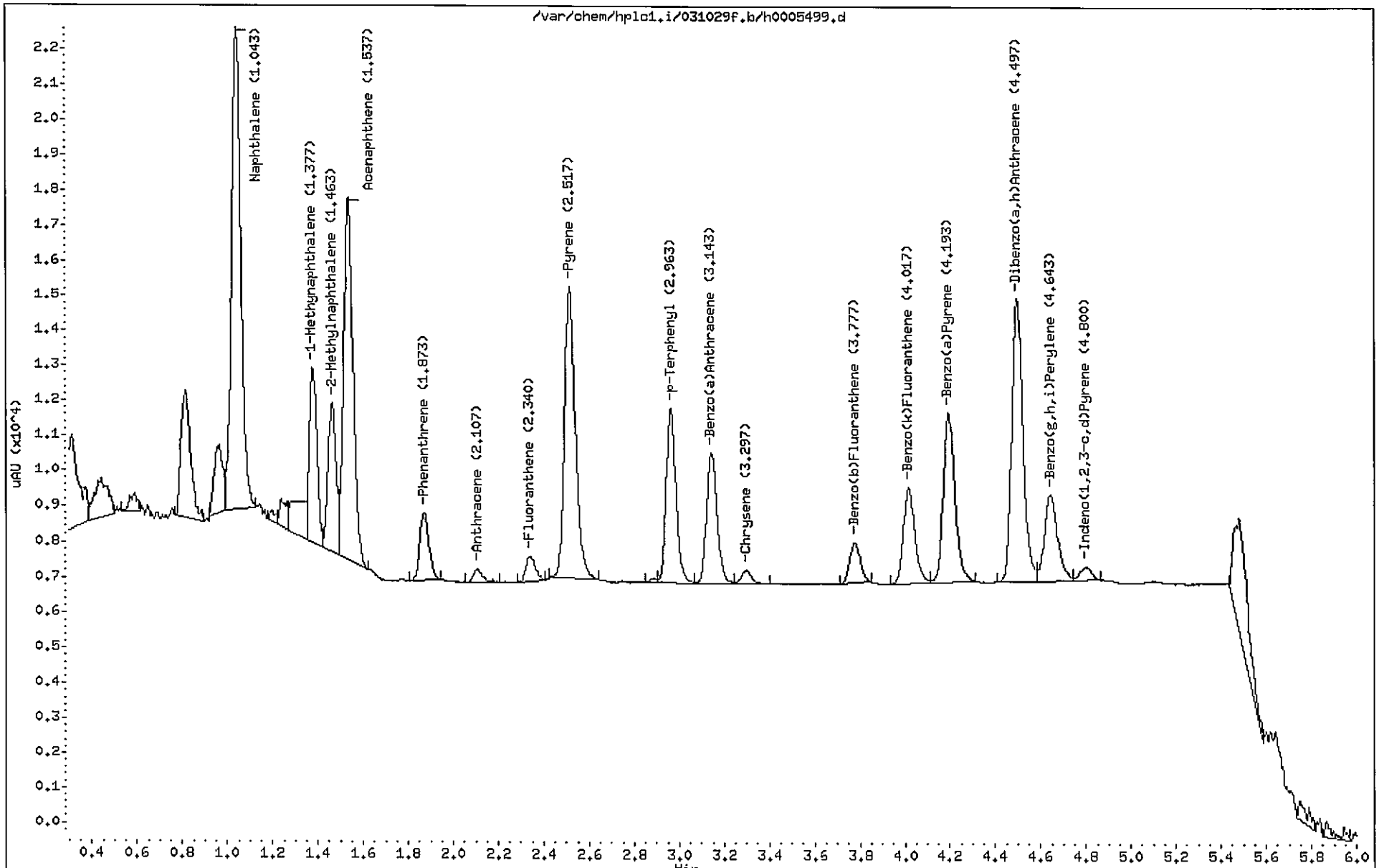
M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/031029f.b/h0005499.d
Date : 29-OCT-2003 11:20
Client ID: 126691
Sample Info: 126691-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000244



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031029.b/h0005500.d
Lab Smp Id: 126692 Client Smp ID: 126692
Inj Date : 29-OCT-2003 11:27
Operator : jdt Inst ID: hplc1.i
Smp Info : 126692-DL1
Misc Info : 1027LCSD01
Comment :
Method : /var/chem/hplc1.i/031029.b/flpnauv.m
Meth Date : 29-Oct-2003 12:40 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 Naphthalene	1.012	1.034	-0.022	12095	5.02884	5.03
2 Acenaphthylene	1.226	1.248	-0.022	9826	6.00792	6.01(M)
3 1-Methynaphthalene	1.353	1.374	-0.021	16099	11.6865	11.7
4 2-Methylnaphthalene	1.439	1.461	-0.022	18402	9.26621	9.27
5 Acenaphthene	1.512	1.528	-0.016	9305	9.28791	9.29
6 Fluorene	1.612	1.634	-0.022	12958	1.14408	1.14
7 Phenanthrene	1.839	1.874	-0.035	10496	0.40520	0.405
8 Anthracene	2.072	2.121	-0.049	11499	0.20847	0.208
9 Fluoranthene	2.312	2.354	-0.042	2738	0.38211	0.382
10 Pyrene	2.479	2.534	-0.055	4770	0.83012	0.830
11 p-Terphenyl	2.933	2.994	-0.061	12263	1.81252	1.81
12 Benzo(a)Anthracene	3.112	3.181	-0.069	6906	0.43140	0.431
13 Chrysene	3.266	3.341	-0.075	11264	0.43423	0.434
14 Benzo(b)Fluoranthene	3.746	3.834	-0.088	3521	0.17505	0.175

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
15 Benzo(k)Fluoranthene	3.993	4.081	-0.088	1889	0.15381	0.154
16 Benzo(a)Pyrene	4.173	4.254	-0.081	7138	0.40199	0.402
17 Dibenzo(a,h)Anthracene	4.486	4.561	-0.075	7670	1.74331	1.74
18 Benzo(g,h,i)Perylene	4.633	4.707	-0.074	5171	0.71733	0.717
19 Indeno(1,2,3-c,d)Pyrene	4.799	4.881	-0.082	6692	0.43928	0.439

QC Flag Legend

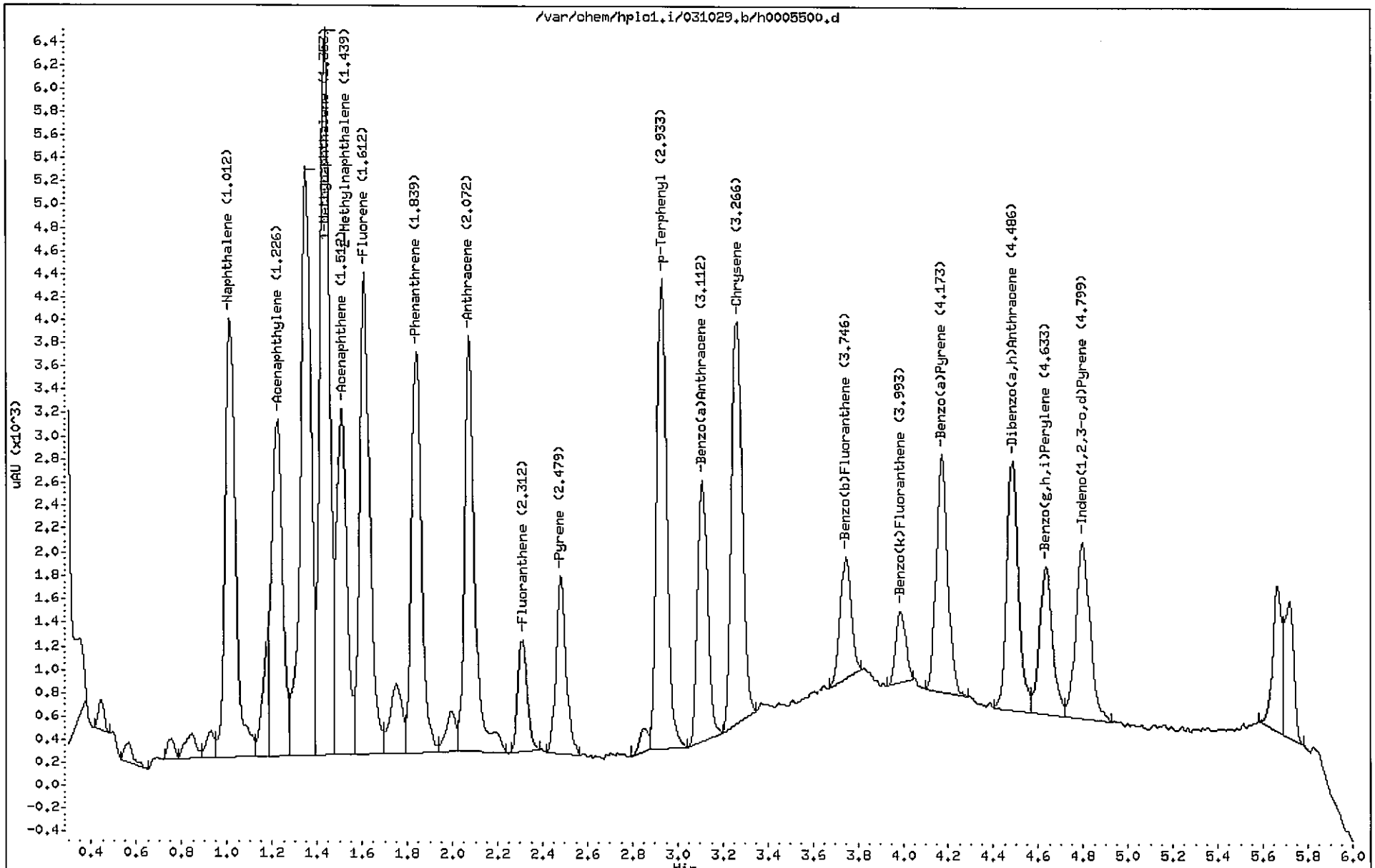
M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/031029.b/h0005500.d
Date : 29-OCT-2003 11:27
Client ID: 126692
Sample Info: 126692-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000247



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031029f.b/h0005500.d
Lab Smp Id: 126692 Client Smp ID: 126692
Inj Date : 29-OCT-2003 11:27
Operator : jdt Inst ID: hplc1.i
Smp Info : 126692-DL1
Misc Info : 1027LCSD01
Comment :
Method : /var/chem/hplc1.i/031029f.b/flpnafld.m
Meth Date : 29-Oct-2003 12:39 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 Naphthalene	1.030	1.043	-0.013	45401	4.02484	4.02
3 1-Methynaphthalene	1.370	1.377	-0.007	9395	6.77185	6.77(M)
4 2-Methylnaphthalene	1.453	1.473	-0.020	9994	7.46395	7.46
5 Acenaphthene	1.523	1.543	-0.020	31627	7.89459	7.89
7 Phenanthrene	1.857	1.887	-0.030	6220	0.38820	0.388
8 Anthracene	2.093	2.133	-0.040	1109	0.19607	0.196
9 Fluoranthene	2.323	2.370	-0.047	2153	0.39023	0.390
10 Pyrene	2.497	2.547	-0.050	29051	0.84692	0.847
11 p-Terphenyl	2.947	2.977	-0.030	15589	1.70639	1.71(M)
12 Benzo(a)Anthracene	3.123	3.160	-0.037	12469	0.44859	0.449(M)
13 Chrysene	3.277	3.317	-0.040	1167	0.29096	0.291(M)
14 Benzo(b)Fluoranthene	3.763	3.843	-0.080	4164	0.17634	0.176
15 Benzo(k)Fluoranthene	4.003	4.090	-0.087	10111	0.19383	0.194
16 Benzo(a)Pyrene	4.187	4.267	-0.080	18163	0.41184	0.412

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
17 Dibenzo(a,h)Anthracene	4.500	4.570	-0.070	29814	1.70914	1.71
18 Benzo(g,h,i)Perylene	4.650	4.720	-0.070	10430	0.69296	0.693
19 Indeno(1,2,3-c,d)Pyrene	4.813	4.893	-0.080	1509	0.32077	0.321

QC Flag Legend

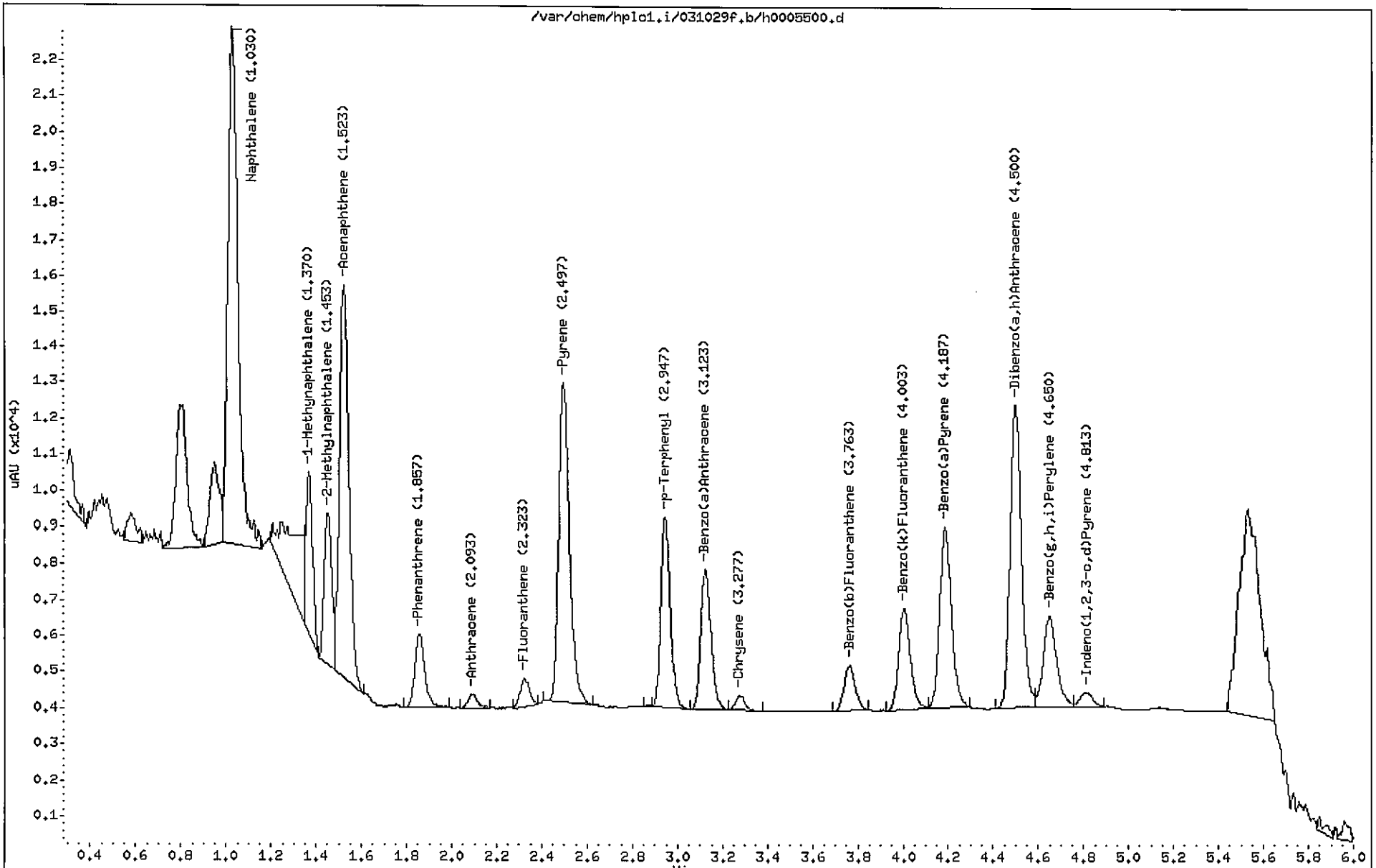
M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/031029f.b/h0005500.d
Date : 29-OCT-2003 11:27
Client ID: 126692
Sample Info: 126692-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000250



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031029.b/h0005502.d
Lab Smp Id: 20310240802
Inj Date : 29-OCT-2003 12:22
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310240802MS-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031029.b/flpnauv.m
Meth Date : 29-Oct-2003 12:40 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 Naphthalene	1.029	1.034	-0.005	10181	4.23309	4.23
2 Acenaphthylene	1.242	1.248	-0.006	6711	4.10310	4.10
3 1-Methynaphthalene	1.369	1.374	-0.005	12489	9.06640	9.07
4 2-Methylnaphthalene	1.456	1.461	-0.005	16619	8.36842	8.37
5 Acenaphthene	1.529	1.528	0.001	8366	8.35063	8.35
6 Fluorene	1.636	1.634	0.002	10421	0.92007	0.920
7 Phenanthrene	1.876	1.874	0.002	9540	0.36830	0.368
8 Anthracene	2.116	2.121	-0.005	9206	0.16690	0.167
9 Fluoranthene	2.356	2.354	0.002	3053	0.42606	0.426
10 Pyrene	2.536	2.534	0.002	5102	0.88782	0.888
11 p-Terphenyl	3.002	2.994	0.008	11628	1.71875	1.72
12 Benzo(a)Anthracene	3.189	3.181	0.008	8290	0.51785	0.518
13 Chrysene	3.356	3.341	0.015	9516	0.36685	0.367
14 Benzo(b)Fluoranthene	3.856	3.834	0.022	3640	0.18096	0.181

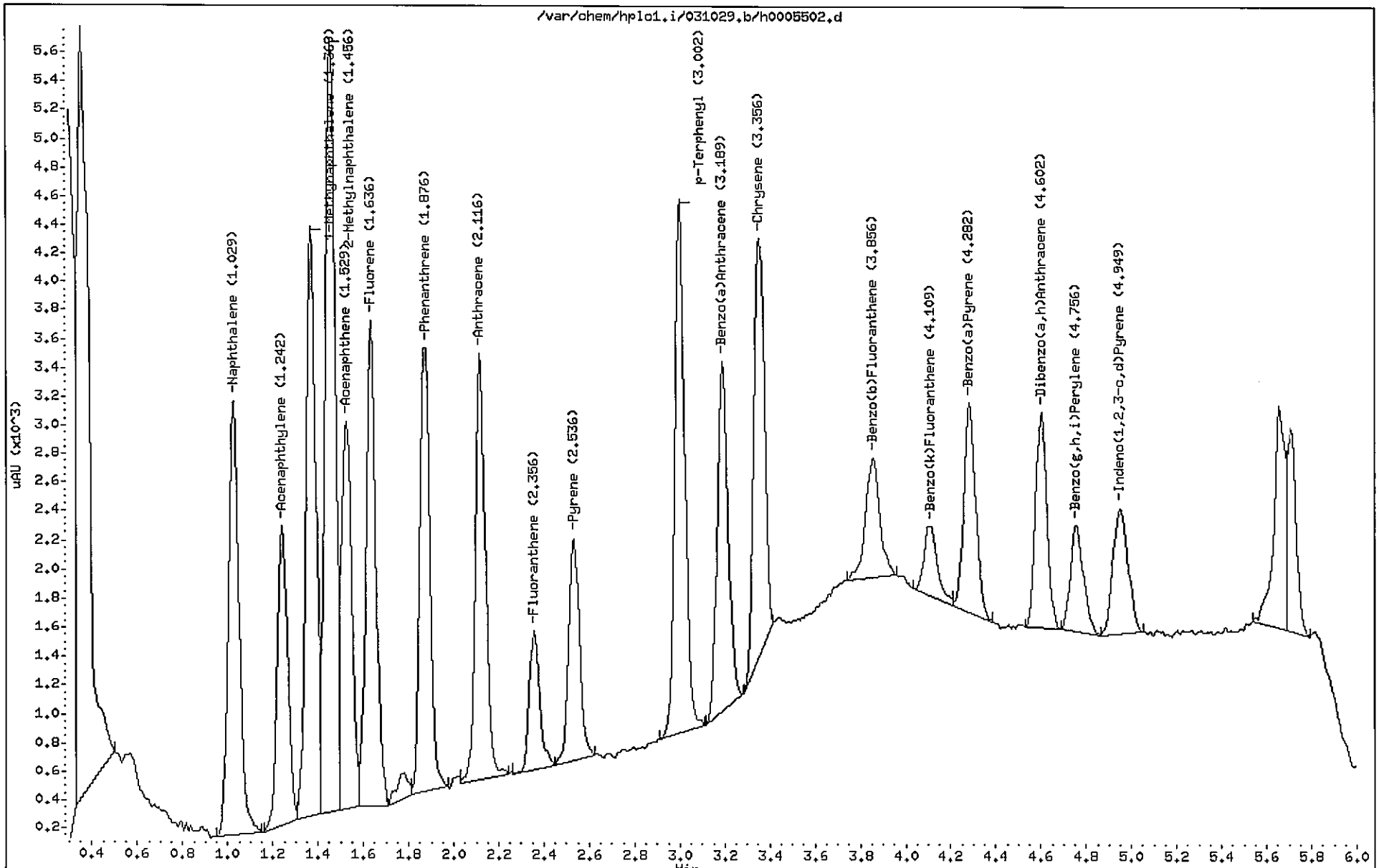
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
15 Benzo(k)Fluoranthene	4.109	4.081	0.028	1955	0.15910	0.159
16 Benzo(a)Pyrene	4.282	4.254	0.028	5282	0.29746	0.297
17 Dibenzo(a,h)Anthracene	4.602	4.561	0.041	5170	1.17514	1.18
18 Benzo(g,h,i)Perylene	4.756	4.707	0.049	2961	0.41075	0.411
19 Indeno(1,2,3-c,d)Pyrene	4.949	4.881	0.068	4056	0.26623	0.266

Data File: /var/chem/hplc1.i/031029.b/h0005502.d
Date : 29-OCT-2003 12:22
Client ID:
Sample Info: 20310240802HS-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000253



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031029f.b/h0005502.d
Lab Smp Id: 20310240802
Inj Date : 29-OCT-2003 12:22
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310240802MS-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031029f.b/flpnafld.m
Meth Date : 29-Oct-2003 12:39 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 Naphthalene	1.043	1.043	0.000	46892	4.15702	4.16
3 1-Methynaphthalene	1.383	1.377	0.006	11850	8.54132	8.54(M)
4 2-Methylnaphthalene	1.470	1.473	-0.003	10186	7.60734	7.61
5 Acenaphthene	1.543	1.543	0.000	33121	8.26752	8.27
7 Phenanthrene	1.890	1.887	0.003	6095	0.38040	0.380
8 Anthracene	2.133	2.133	0.000	853	0.15081	0.151
9 Fluoranthene	2.370	2.370	0.000	2352	0.42630	0.426
10 Pyrene	2.550	2.547	0.003	29577	0.86225	0.862
11 p-Terphenyl	3.017	2.977	0.040	15485	1.69495	1.69(M)
12 Benzo(a)Anthracene	3.203	3.160	0.043	11364	0.40885	0.409(M)
13 Chrysene	3.367	3.317	0.050	1134	0.28288	0.283(M)
14 Benzo(b)Fluoranthene	3.863	3.843	0.020	2995	0.12683	0.127
15 Benzo(k)Fluoranthene	4.120	4.090	0.030	7357	0.14104	0.141
16 Benzo(a)Pyrene	4.300	4.267	0.033	13097	0.29697	0.297

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
17 Dibenzo(a,h)Anthracene	4.613	4.570	0.043	24188	1.38663	1.39(M)
18 Benzo(g,h,i)Perylene	4.770	4.720	0.050	7690	0.51093	0.511(M)
19 Indeno(1,2,3-c,d)Pyrene	4.967	4.893	0.074	1209	0.25719	0.257(M)

QC Flag Legend

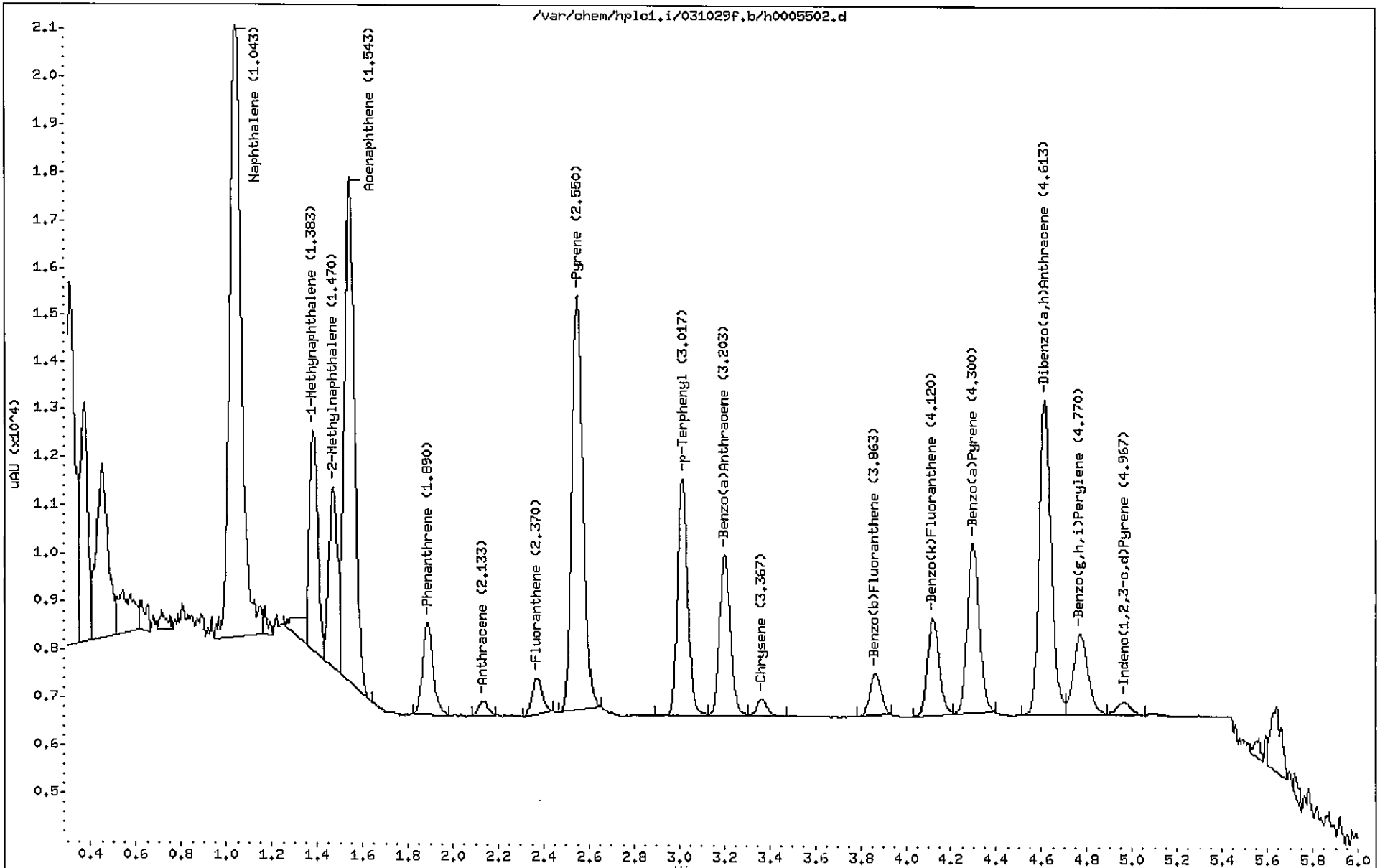
M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/031029f.b/h0005502.d
Date : 29-OCT-2003 12:22
Client ID:
Sample Info: 20310240B02HS-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000256



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031029.b/h0005503.d
Lab Smp Id: 20310240803
Inj Date : 29-OCT-2003 12:29
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310240803MSD-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031029.b/flpnauv.m
Meth Date : 29-Oct-2003 12:40 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
1 Naphthalene	1.023	1.034	-0.011	10638	4.42276	4.42
2 Acenaphthylene	1.243	1.248	-0.005	7057	4.31464	4.31
3 1-Methynaphthalene	1.370	1.374	-0.004	13624	9.89002	9.89
4 2-Methylnaphthalene	1.450	1.461	-0.011	18205	9.16712	9.17
5 Acenaphthene	1.523	1.528	-0.005	8588	8.57303	8.57
6 Fluorene	1.630	1.634	-0.004	11153	0.98468	0.985
7 Phenanthrene	1.863	1.874	-0.011	10201	0.39381	0.394
8 Anthracene	2.110	2.121	-0.011	9630	0.17458	0.175
9 Fluoranthene	2.343	2.354	-0.011	3110	0.43399	0.434
10 Pyrene	2.517	2.534	-0.017	5466	0.95126	0.951
11 p-Terphenyl	2.970	2.994	-0.024	12548	1.85467	1.85
12 Benzo(a)Anthracene	3.157	3.181	-0.024	8658	0.54083	0.541
13 Chrysene	3.310	3.341	-0.031	10802	0.41645	0.416
14 Benzo(b)Fluoranthene	3.797	3.834	-0.037	3409	0.16946	0.169

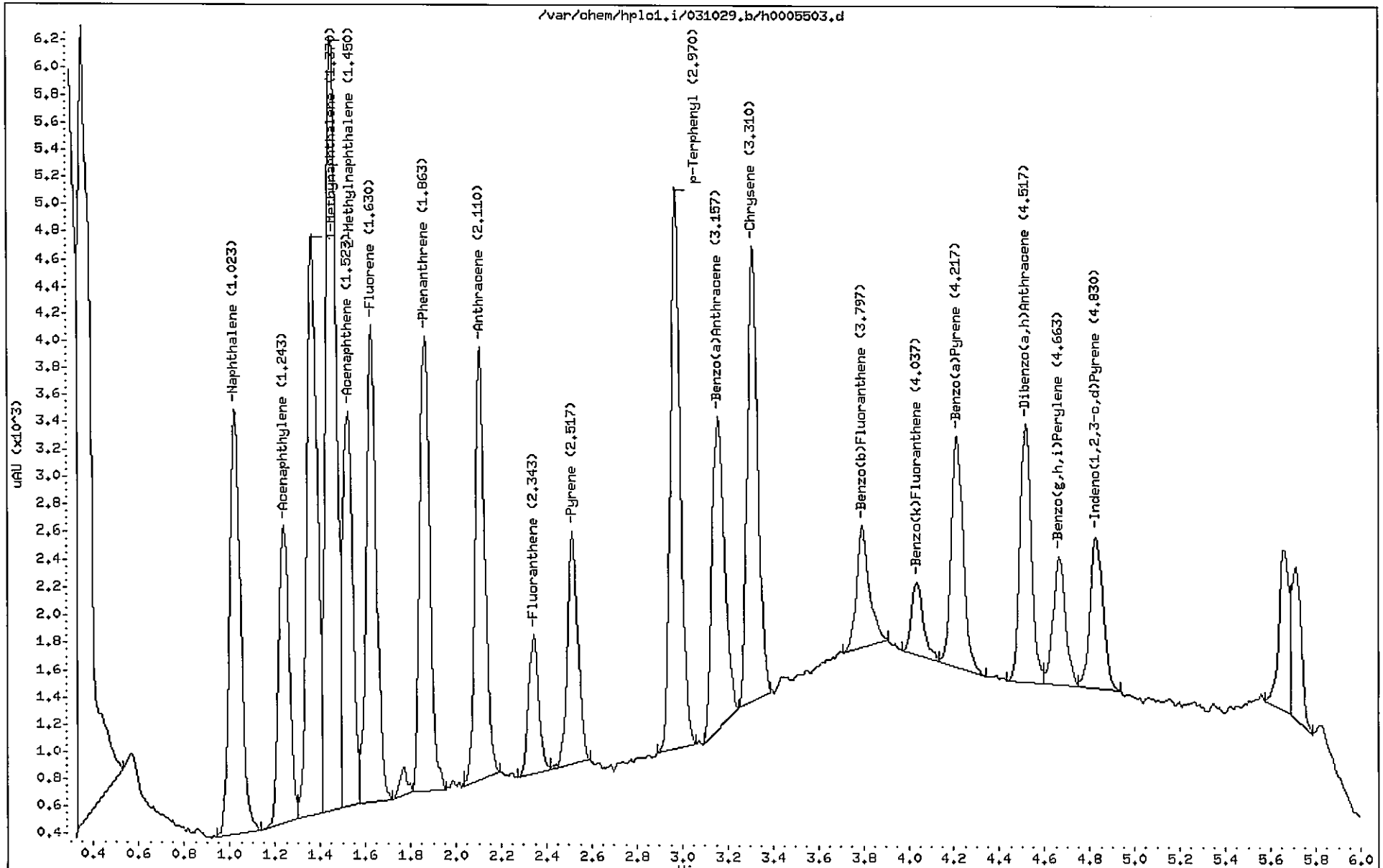
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
15 Benzo(k)Fluoranthene	4.037	4.081	-0.044	1926	0.15674	0.157
16 Benzo(a)Pyrene	4.217	4.254	-0.037	6197	0.34901	0.349
17 Dibenzo(a,h)Anthracene	4.517	4.561	-0.044	6489	1.47493	1.47
18 Benzo(g,h,i)Perylene	4.663	4.707	-0.044	3642	0.50533	0.505
19 Indeno(1,2,3-c,d)Pyrene	4.830	4.881	-0.051	4447	0.29190	0.292

Data File: /var/chem/hplc1.i/031029.b/h0005503.d
Date : 29-OCT-2003 12:29
Client ID:
Sample Info: 20310240803MSD-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000259



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031029f.b/h0005503.d
Lab Smp Id: 20310240803
Inj Date : 29-OCT-2003 12:29
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310240803MSD-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031029f.b/flpnafld.m
Meth Date : 29-Oct-2003 12:39 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 Naphthalene	1.040	1.043	-0.003	45903	4.06935	4.07
3 1-Methynaphthalene	1.380	1.377	0.003	12850	9.26223	9.26(M)
4 2-Methylnaphthalene	1.467	1.473	-0.006	10902	8.14208	8.14
5 Acenaphthene	1.537	1.543	-0.006	36370	9.07852	9.08
7 Phenanthrene	1.880	1.887	-0.007	6514	0.40655	0.407
8 Anthracene	2.127	2.133	-0.006	1040	0.18387	0.184
9 Fluoranthene	2.357	2.370	-0.013	2455	0.44497	0.445
10 Pyrene	2.533	2.547	-0.014	32240	0.93988	0.940
11 p-Terphenyl	2.987	2.977	0.010	16898	1.84971	1.85(M)
12 Benzo(a)Anthracene	3.170	3.160	0.010	12387	0.44564	0.446(M)
13 Chrysene	3.327	3.317	0.010	1256	0.31326	0.313(M)
14 Benzo(b)Fluoranthene	3.807	3.843	-0.036	3289	0.13928	0.139
15 Benzo(k)Fluoranthene	4.050	4.090	-0.040	7970	0.15279	0.153
16 Benzo(a)Pyrene	4.227	4.267	-0.040	14429	0.32717	0.327

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
17 Dibenzo(a,h)Anthracene	4.530	4.570	-0.040	26228	1.50361	1.50(M)
18 Benzo(g,h,i)Perylene	4.680	4.720	-0.040	8536	0.56715	0.567(M)
19 Indeno(1,2,3-c,d)Pyrene	4.847	4.893	-0.046	1494	0.31777	0.318(M)

QC Flag Legend

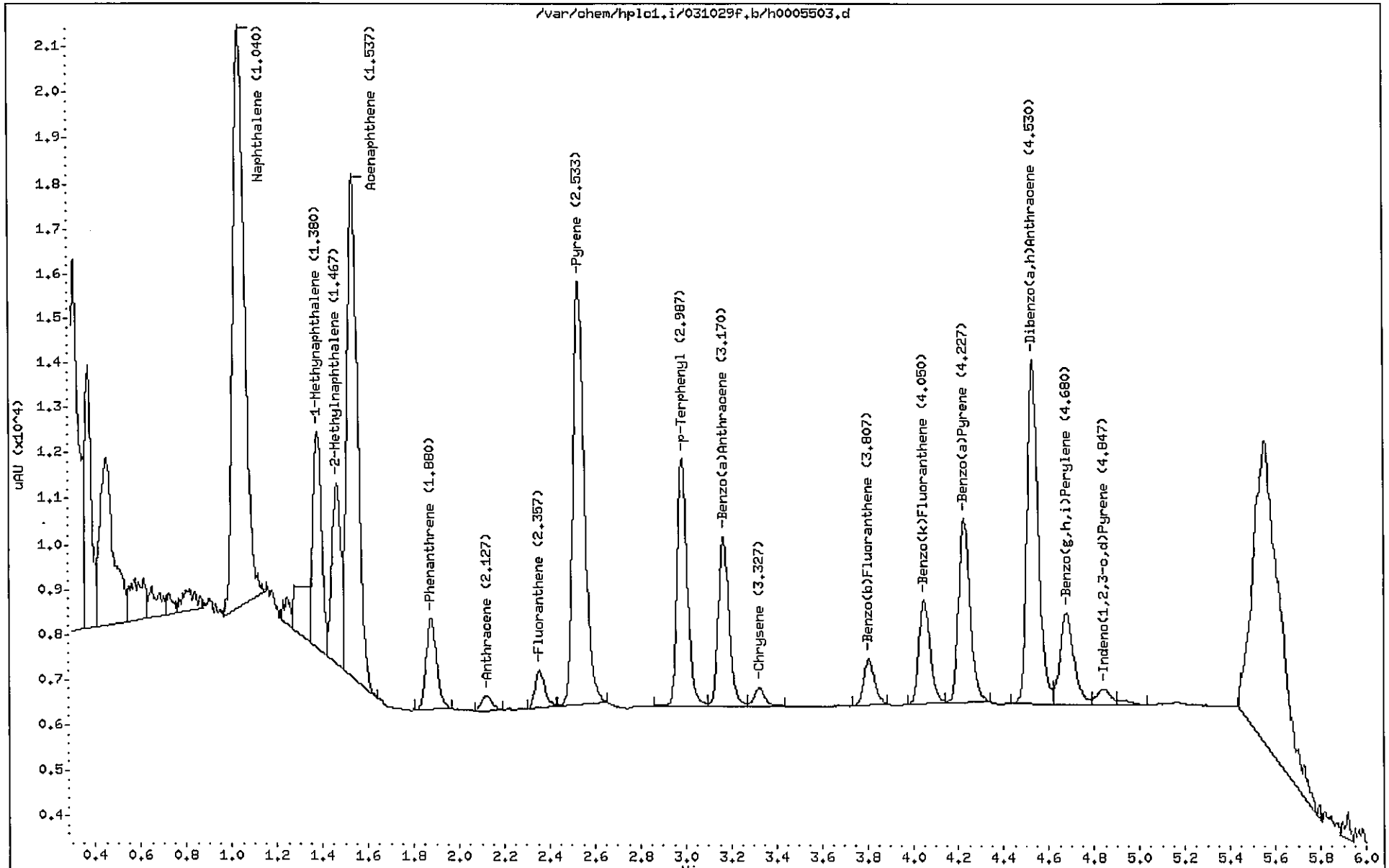
M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/031029f.b/h0005503.d
Date : 29-OCT-2003 12:29
Client ID:
Sample Info: 20310240803MSD-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000262



PAH SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME:	10-27-03 1400	BATCH NO:	264230
MATRIX:	WATER ☑ SOIL ☐ OTHER ☑	LEVEL:	LOW ☑ MEDIUM ☐

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	Init pH	COMMENTS	METHOD
1	In-house QC Ac	MB for HBN 264230 [EXTO/4407]	126690	1000	1.0	7		LIQUID LIQUID/3520
2	In-house QC Ac	LCS for HBN 264230 [EXTO/4407]	126691	1000	1.0	7		
3	In-house QC Ac	LCSD for HBN 264230 [EXTO/4407	126692	1000	1.0	7		SEPARATORY FUNNEL/3510 ✓
4	CH2M HILL Cons	86-CEF271-8S-Q4-03	20310240801	1000	1.0	7		
5	CH2M HILL Cons	86-CEF271-8S-Q4-03(MS)	20310240802	1000	1.0	7		
6	CH2M HILL Cons	86-CEF271-8S-Q4-03(MSD)	20310240803	1000	1.0	7		
7	CH2M HILL Cons	86-CEF271-9S-Q4-03	20310240804	1000	1.0	7		SONICATOR/3550
8	CH2M HILL Cons	86-CEF271-11S-Q4-03	20310240805	1000	1.0	7		
9	CH2M HILL Cons	86-CEF271-12S-Q4-03	20310240806	1000	1.0	7		SOXHLET/3540
10	CH2M HILL Cons	86-271-DUP1-Q4-03	20310240807	1000	1.0	7		
11	Gulf Coast Ana	WP PAH	20310220759	1000	1.0	7		
12	Gulf Coast Ana	QC PAH	20310220760	1000	1.0	7		
13			0759Dup	1000	1.0	7		
14			0760Dup	1000	1.0	7		
15								
16								
17								
18								
19								Sodium Sulfate Lot No: 035189
20								
21				SKB 10/28/03				ACETONITRILE: 030799
22								
23								MeCL2 Lot No: 030789
24								
25								
26								
27								
28								

COMMENTS: SAMPLE PREPARATION INCLUDE DETERMINATION OF SAMPLE VOLUME/WEIGHT, SOLVENT EXTRACTION AND EVAPORATION OF SOLVENT TO FINAL VOLUME

SURROGATE ID	8-215-1			SPIKE ID	8-231-1	TECHNICIAN	DATE
VOLUME	0.1mL			VOLUME	1.0mL	Lanell Clark	10-27-03
CONCENTRATION	400ug/mL			CONCENTRATION	–		
NaOH		ACID				SUPERVISOR	DATE
SPIKE WITNESS	SKB					John Bailey	10/28/03

8-230-1 625 MDL SPIKE

Solution was prepared by transferring 1.0mL of NSI 625 SPIKE STD# 8-228-3 into a 10mL class "A" vol flask, then diluting to mark with acetone. Transfer was made with a 1.0mL gastight syring. (Acetone LOT# 034451)

FINAL CONC 10ug/mL EXP 04/10/04

John Bailey
10/10/03

8-230-2 CRANGE SURR

Solution was prepared by transferring 6.25mL of NSI O-Terphenyl LOT# 1341H-02-04 into a 50mL class "A" vol flask, then diluting to mark with pentane. Transfer was made with a 5.0mL + 1.0mL gastight syring (Pentane LOT# 026094)

FINAL 1250ug/mL EXP 04/19/04

John Bailey
10/14/03

8-230-3 OIL + GREASE SPIKE

Solution was prepared by transferring 2.0grams of Aldrich Stearic acid LOT# CA 07910MO and 2.0grams of Fisher Scientific Hexadecane LOT# HX0200-1 into a 100mL class "A" vol flask then diluting to mark with acetone. (Acetone LOT# 034641)

FINAL CONC 14000ug/mL EXP 04/15/04

John Bailey
10/15/03

000264

8-231-1 PAH SPIKE 8310

Solution was prepared by transferring 200ul of ULTRA 1-methylNaphthalene EPA-1225 LOT# R 1454 and 200ul of ULTRA PAH mixture PM-831A LOT# T 1385 and 2.0mL ULTRA 2-methylNaphthalene SU-200 LOT# T 0520 into a 20mL class "A" vol flask, then diluting to mark with Acetonitrile. (Acetonitrile LOT# 030641)

FINAL CONC EXP 04/16/04

John Bailey
10/16/03

8-231-2 CRANGE SURR

Solution was prepared by transferring 6.25mL of NSI O-Terphenyl LOT# 1341H-02-05 into a 50mL class "A" vol flask, then diluting to mark with pentane. Transfer was made with a 5.0mL + 1.0mL gastight syring. (Pentane LOT# 026094)

FINAL CONC 1250ug/mL EXP 04/20/04

NSI Solutions Inc. 1-800-334-7837
7517 Precision Dr. Ste 101 Raleigh, NC 27617
O-TERPHENYL
1341H-02-05 EXP DATE: 08/05
SOLU: Methylene chloride CONC: 10,107 ug/mL
HAZARD: IRRITANT,CARCINOGEN
For Research Use Only

John Bailey
10/20/03

8-231-3 TPHD SURR

Solution was prepared by transferring 2.0mL of NSI O-Terphenyl LOT# 1341H-02-04 into a 200mL class "A" vol flask then diluting to mark with Acetone. Transfer was made with a 1.0mL gastight syring. (Acetone LOT 034641)

FINAL CONC 100ug/mL EXP 04/20/04

NSI Solutions Inc. 1-800-334-7837
7517 Precision Dr. Ste 101 Raleigh, NC 27617

8-214-1 504 SPIKE (Stock ICV) 50 ppm

Solution was prepared by transferring 250ul of Supelco EPA 8010B EDB/DBCP mix 2000 ug/ml Lot# LB08363 into a 10ml class "A" vol flask, then diluting to mark with Methanol. Transfer was made with a 250 ul syringe. (Methanol Lot# 030536)

FINAL CONC 50 ppm EXP 02/21/04

John Bailey
07/21/03

8-214-2 504 SPIKE (Stock ICV 3.5ug/ml)

Solution was prepared by transferring 700ul of 504 SPIKE STD# 8-214-1 into a 10ml class A vol flask, then diluting to mark with methanol. Transfer was made with a 1.0ml gastight syring. (Methanol Lot# 030536)

FINAL CONC 3.5 ug/ml EXP 02/21/04

John Bailey
07/21/03

8-214-3 ICV 504 SPIKE

Solution was prepared by transferring 2.0mL of 504 SPIKE STD# 8-214-2 into a 10.mL class "A" vol flask, then diluting to mark with methanol. Transfer was made with a 1.0ml syring. (Methanol Lot# 030536)

FINAL CONC 0.7 ug/ml EXP 02/21/04

John Bailey
07/21/03

215-1 PNA 8310 SORR

Solution was prepared by transferring 400ul of ULTRA P-Terphenyl 1ST-490 into a 200ml Class "A" vol flask, then diluting to mark with acetonitrile. Transfer was made with a 0.5ml gastight syring. (Acetonitrile Lot# 030799)

FINAL CONC 4.0 ug/ml EXP 02/21/04

John Bailey
07/21/03

HERB SPIKE

215-2 Solution was prepared by transferring ~~HCU~~ 1.0ml of AccuStandard M-8150A Lot # B3020166 into a 10ml class "A" vol flask, then diluting to mark with methanol. Transfer was made with a 1.0ml ~~glass tight~~ gastight syring. (Methanol Lot 030536)

Final conc 10ug/ml EXP 01/24/04

7/24/03

AccuStandard, Inc.
M-8150A
Underivatized Chlorinated Herbicides
Varied conc. in MeOH
Lot: B3020166
Exp: Feb 20,2005
1 mL
10 comps.
CARCINOGENIC
FOR LABORATORY USE ONLY
WARNING: This product contains a chemical(s) known to the State of California to cause birth defects or other reproductive harm.
STORAGE AMBIENT

7/25/03 Dates 6/30/03 - 7/24/03
DK/QC

STANDARD PREPARATION LOGBOOK

STANDARD NAME	STD#	STOCK STD	SUPPLIER	LOT#/ EXP DATE	WT/VOL g/ml	FINAL VOL(ml)	FINAL CONC	SOLVENT/ LOT#	INIT	DATE PREPARED	EXP DATE
BNA 10	3-47-1	Q-3392	NSI	040203-08/04-02-04	50 ul	1.0ml	10 ppm	DCM/030609	RLW	07-30-03	04-02-04
50	3-47-2	↓	↓	↓	250ul	↓	50 ppm	↓	↓	↓	↓
80	3-47-3	↓	↓	↓	400ul	↓	80 ppm	↓	↓	↓	↓
120	3-47-4	↓	↓	↓	600ul	↓	120 ppm	↓	↓	↓	↓
160	3-47-5	↓	↓	↓	800ul	↓	160 ppm	↓	↓	↓	↓
200	3-47-6	↓	↓	↓	1000ul	↓	200 ppm	↓	↓	↓	↓
Cal form 1000ppm	3-47-7	form 37.42	fisher	011029/NA	267ul	100ml	1000ppm	DI H_2O	JDT	7/31/03	8/7/03
8/26/03 Dates 7/30/03 - 7/31/03 reviewed by [illegible]											
PNA ICV	3-47-8	PAH Mix	Ultra	T-1325/11/05	10ul	1.0ml	Various	ACN/030646	JDT	9/2/03	3/2/04
↓	↓	2000ug/ml p-Terphenyl	Ultra	U-0599/5/07	2ul	↓	4ppm	↓	↓	↓	↓
↓	↓	1000ug/ml 1-MNAP	Ultra	R-1459/12/04	10ul	↓	10ppm	↓	↓	↓	↓
↓	↓	100ug/ml 2-MNAP	Ultra	T-1514/12/06	100ul	↓	10 ppm	↓	↓	↓	↓
Acetate Buffer	3-47-9	$NaAc \cdot 3H_2O$	FISHER	015923/NA	13.6g	1000ml	—	HPLC H_2O 030792	JDT	9/17/03	10/1/03
↓	↓	Acetic Acid	FISHER	031457/NA	5.8ml	↓	—	↓	↓	↓	↓
Benzidine 50ppm	3-47-10	Benzidine 200ppm	Ultra	S-1149/10/04	25ul	1000ul	50ppm	Acetate Buffer 3-47-9	JDT	9/18/03	3/18/04
BDZ 400	3-47-11	Benz 50ppm	In House	3-47-10/03/18/04	40ul	5.0ml	400ppb	"	"	"	"
BDZ 200	3-47-12	"	"	" "	20ul	5.0ml	200ppb	"	"	"	"
BDZ 100	3-47-13	"	"	" "	10ul	5.0ml	100ppb	"	"	"	"
BDZ 50	3-47-14	"	"	" "	5ul	5.0ml	50ppb	"	"	"	"
BDZ 25	3-47-15	"	"	" "	2.5ul	5.0ml	25ppb	"	"	"	"
BDZ ICV	3-47-16	Benzidine STK 500ppb	In House	8-225-3/11/30/03	200ul	1000ul	100ppb	Acetate Buffer 3-47-9	JDT	9/18/03	11/30/03
9/25/03 Dates 9/2/03 - 9/18/03 reviewed by [illegible]											

000266

STANDARD PREPARATION LOGBOOK

STANDARD NAME	STD#	STOCK STD	SUPPLIER	LOT#/ EXP DATE	WT/VOL g/ml	FINAL VOL(ml)	FINAL CONC	SOLVENT/ LOT#	INIT	DATE PREPARED	EXP DATE
~~8330HR ICV~~	~~3-46-1~~	~~(1.0mg/ml) M-8330A-R-10~~	~~Accu Std~~								~~JDT 6/10~~
8330HR ICV	3-46-1	100ug/ml EPA 8330 MixA	Supelco	LB04486/ 12/04	50ul	10.0ml	500ppb	MeOH/023617	JDT	6/10/03	12/10/03
↓	↓	1000ug/ml 3,4-DNT	Ultra	S-1018/ 9/5	5ul	↓	50ppb	↓	↓	↓	↓
Cal form 1000ppm	3-46-2	Form 37.4%	Fisher	011089/ NA	267ul	100ml	1000ppm	DI H_2O	JDT	6/17/03	6/24/03
Dates 6/10/03 - 6/17/03 Reviewed By QA/QC 6/25/03											
PNA Cal 8	3-46-3	2.0mg/ml PAH Mix	Accu Std	B2060136/ 6/11/04	500ul	50ml	20ppm	ACN/030646	JDT	6/30/03	12/30/03
↓	↓	2000ug/ml p-Terphenyl	Ultra	~~M-1491B~~ ~~1/2005~~ M-4916/ 1/2005	500ul	↓	20ppm	↓	↓	↓	↓
PNA Cal 7	3-46-4	PNA Cal 8	In House	3-46-3/ 12/30/03	2.5ml	5.0ml	10ppm	ACN/030646	JDT	6/30/03	12/30/03
PNA Cal 6	3-46-5	↓	↓	↓	1.25ml	5.0ml	5ppm	↓	↓	↓	↓
PNA Cal 5	3-46-6	↓	↓	↓	6.25ml	5.0ml	2.5ppm	↓	↓	↓	↓
PNA Cal 4	3-46-7	↓	↓	↓	250ul	5.0ml	1.0ppm	↓	↓	↓	↓
PNA Cal 3	3-46-8	↓	↓	↓	125ul	5.0ml	0.50ppm	↓	↓	↓	↓
PNA Cal 2	3-46-9	↓	↓	↓	62.5ul	5.0ml	0.25ppm	↓	↓	↓	↓
PNA Cal 1	3-46-10	↓	↓	↓	25ul	5.0ml	0.10ppm	↓	↓	↓	↓
PNA ICV	3-46-11	PAH Mix	Ultra	R-0889/ 02/2003	100ul	10.0ml	Various	ACN/030646	JDT	06/30/03	08/31/03
↓	↓	2000ug/ml p-Terphenyl	Ultra	M-4918/ 1/2005	20ul	↓	4ppm	↓	↓	↓	↓
↓	↓	1000ug/ml 1-MNAP	Ultra	R-1459/ 12/2004	100ul	↓	10ppm	↓	↓	↓	↓
↓	↓	100ug/ml 2-MNAP	Ultra	T-0520/ 05/2006	1000ul	↓	10ppm	↓	↓	↓	↓
Cal Form 1000ppm	3-46-12	Form 37.4%	Fisher	011089/ NA	267ul	100ml	1000ppm	DI H_2O	JDT	7/15/03	7/22/03
7/25/03 Dates 6/30/03 - 7/15/03 Reviewed By QA/QC 7/25/03											
8270 IS	3-46-13	US-108N	Ultra	T-1284/ 11/2005	12.0ml	12.0ml	4000ppm	N/A	RLW	N/A	11/2005
				RLW 07-30-03							

000267

000046

LABORATORY CHRONICLE: HPLC - 8310

ate: 29-OCT-2003
nstrument: hplc1.i
nalyst: jdt

Sample ID	ClientName	DataFile	WT VOL	Injection Time	DilFactor	ALS	Comments
1029STD05	3-46-6	h0005497.d	1000.00 ml	29-OCT-2003 10:21	1.000	1	
126690		h0005498.d	1000.00 ml	29-OCT-2003 10:41	1.000	1	
126691		h0005499.d	1000.00 ml	29-OCT-2003 11:20	1.000	1	
126692		h0005500.d	1000.00 ml	29-OCT-2003 11:27	1.000	1	
20310240801		h0005501.d	1000.00 ml	29-OCT-2003 12:15	1.000	1	
20310240802		h0005502.d	1000.00 ml	29-OCT-2003 12:22	1.000	1	
20310240803		h0005503.d	1000.00 ml	29-OCT-2003 12:29	1.000	1	
20310240804		h0005504.d	1000.00 ml	29-OCT-2003 12:36	1.000	1	
20310240805		h0005505.d	1000.00 ml	29-OCT-2003 12:43	1.000	1	
20310240806		h0005506.d	1000.00 ml	29-OCT-2003 12:50	1.000	1	
20310240807		h0005507.d	1000.00 ml	29-OCT-2003 12:57	1.000	1	
1029STD05	3-46-6	h0005508.d	1000.00 ml	29-OCT-2003 13:04	1.000	1	
20310220759		h0005509.d	1000.00 ml	29-OCT-2003 13:18	1.000	1	
20310220759		h0005510.d	1000.00 ml	29-OCT-2003 13:25	1.000	1	
20310220760		h0005511.d	1000.00 ml	29-OCT-2003 13:32	1.000	1	
20310220760		h0005512.d	1000.00 ml	29-OCT-2003 13:39	1.000	1	
1029STD05	3-46-6	h0005513.d	1000.00 ml	29-OCT-2003 13:51	1.000	1	

VISED 10/30/2003 Supervisor Review: QA Review:

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
171591-008 page 1 of 1

PROJECT NAME:	PROJECT NUMBER:	LAB NAME AND CONTACT:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	RECIPIENT 1 (Address, Tel No. , and Fax No.):
Former N.A.S. Cecil Field Building 271	171591	Gulf Coast Labs. Dano Merril	Jeff Marks / J.A Jones Env. Services	6219 Authority Ave. Jacksonville, FL 32221 (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 271 Baseline sytem startup GW	0086	6421	Bonnie Hogue / 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.):
Jeff Marks	Ph:(904)777-4812 Fax:(904) 777-4262	Ph:(225) 769-4900		

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 & MTBE by 8260B.	16 listed PAHs (incl 1- & 2-Methylnaphthalene) by 8310							SAMPLE TYPE (see codes on back)	COMMENTS/ SCREENING READINGS	LAB ID
1	86-CEF271-8S-Q4-03	CEF-271-8S	W	10/23/03	14:20	III/C	14	3	2							Grab	MS/MSD	10/24 -01
2	86-CEF271-9S-Q4-03	CEF-271-9S	W	10/23/03	13:00	III/C	14	3	2							Grab		-04
3	86-CEF271-11S-Q4-03	CEF-271-11S	W	10/23/03	11:35	III/C	14	3	2							Grab		-05
4	86-CEF271-12S-Q4-03	CEF-271-12S	W	10/23/03	10:50	III/C	14	3	2							Grab		-06
5	086-271-MS-Q4-03	MS	W	10/23/03	14:20	III/C	14	3	2							Grab		-02
6	086-271-MSD-Q4-03	MSD	W	10/23/03	14:20	III/C	14	3	2							Grab		-03
7	086-271-DUP1-Q4-03	Duplicate	W	10/23/03	NA	III/C	14	3	2							Grab		-07
8	~~086-271-TB1-Q4-03~~	~~Trip Blank~~	~~W~~	~~10/23/03~~	~~NA~~	~~III/C~~	~~14~~	~~3~~								~~Grab~~	~~Prepared by Lab~~	~~-08~~
9																		
10																		

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:	SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT:
Randy Dumaop / Leslie Baechler / Sean Smith J.A. Jones Environmental Services / CH2Mhill	UPS Tracking #,s.1Z2AE0480140665616, 1Z2AE0480140915622.	2°C Good

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R.Dumaop	10/23/2003	18:00	UPS Tracking #,s.1Z2AE0480140665616, 1Z2AE0480140915622.	10/23/2003	18:00
Printed Name and Signature:			Printed Name and Signature:		
UPS	10-24-03	1145	Daria Hayden	10-24-03	1145
Printed Name and Signature:			Printed Name and Signature:		

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

Form CCI001, Rev 02/00

PRESERVATION CHECKLIST / COOLER RECEIPT

Gulf Coast Analytical Laboratories, Inc.

WO:	203102408	Type:	D
Desc:		Report:	REVIEW_RPT
Work ID:	CTO 86 Cecil Field - South Fue	Status:	WP
Project Seq:	16108	Created:	10/24/03 12:48
Client:	4380 - CH2M HILL Constructors Inc.	QA:	
Profile:	42891 - CTO 0086 - CTO 86 Cecil Field - South Fuel Farm	PO:	

WORKORDER SAMPLES

Container ID	Type	Preservative	pH PRESERVATIVE A	pH PRESERVATIVE U	pH PRESERVATIVE N\A	VOA HEADSPACE A	VOA HEADSPACE U	VOA HEADSPACE N\A	CONTAINER CONDITION
20310240801-1	40	HCL+SS			✓	✓			OK
20310240801-2	LA	NONE			X			X	OK
20310240802-1	40	HCL+SS			✓	✓			OK
20310240802-2	LA	NONE			X			X	OK
20310240803-1	40	HCL+SS			✓	✓			OK
20310240803-2	LA	NONE			X			X	OK
20310240804-1	40	HCL+SS			✓	✓			OK
20310240804-2	LA	NONE			X			X	OK
20310240805-1	40	HCL+SS			✓	✓			OK
20310240805-2	LA	NONE			X			X	OK
20310240806-1	40	HCL+SS			✓	✓			OK
20310240806-2	LA	NONE			X			X	OK
20310240807-1	40	HCL+SS			✓	✓			OK
20310240807-2	LA	NONE			X			X	OK

A = ACCEPTABLE
U = UNACCEPTABLE
N\A = NOT APPLICABLE

COOLER (S) TEMPERATURE (A) U LIMIT = 4C + \ - 2C

MAXIMUM VOLATILE HEADSPACE BUBBLE 6MM

Custody Seal
used [✓] Yes [ ] No
in tact [✓] Yes [ ] No

CUSTODIAN DJH / MSR

GCAL
GULF COAST ANALYTICAL LABORATORIES, INC

ANALYTICAL RESULTS

PERFORMED BY

GULF COAST ANALYTICAL LABORATORIES, INC.

Report Date 11/03/2003

GCAL Report 203102905

Deliver To	CH2M HILL Constructors Inc. 115 Perimeter Center Place Suite 700 Atlanta, GA 30346 770-604-9182 Ext. 614
Attn	Melissa Aycock

Customer CH2M HILL Constructors Inc.

Project CTO 86 Cecil Field - South Fue

000001

CASE NARRATIVE

Client: CH2M HILL Constructors Inc. **Report:** 203102905

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the sample cross-reference page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

VOLATILES MASS SPECTROMETRY

Sample 20310290507 (86-CEF271-7S-Q4-03) had to be diluted due to compounds that were detected above the linear range of the calibration.

HIGH PERFORMANCE LIQUID CHROMATOGRAPHY

In analytical batch 264431 no MS/MSD was performed due to insufficient sample volume. The LCS/LCSD is included for review.

Sample 20310290507 (86-CEF271-7S-Q4-03) had to be diluted due to compounds that were detected above the linear range of the calibration. The surrogate recovery for p-Terphenyl is reported as DO (diluted out), due to the dilution performed on the sample. Naphthalene and 1-methylnaphthalene were reported from the lower of the two results due to the suspected co-elution of unknown non-target analytes.

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with GCAL's Standard Operating Procedures.

Common Abbreviations Utilized in this Report

ND	Indicates the result was Not Detected at the specified RDL
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
RDL	Reporting Detection Limit
00:00	Reported as a time equivalent to 12:00 AM

Reporting Flags Utilized in this Report

J	Indicates an estimated value
U	Indicates the compound was analyzed for but not detected
B	(ORGANICS) Indicates the analyte was detected in the associated Method Blank
B	(INORGANICS) Indicates the result is between the RDL and MDL

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with ISO Guide 25 and NELAC, this report shall be reporduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

SCOTT A. BAILEY
OPERATIONS MANAGER
GCAL REPORT 203102905

Report Sample Summary

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20310290501	86-CEF271-1S-Q4-03	Water	10/27/2003 10:25	10/29/2003 09:40
20310290502	86-CEF271-2S-Q4-03	Water	10/27/2003 10:55	10/29/2003 09:40
20310290503	86-CEF271-3S-Q4-03	Water	10/27/2003 15:50	10/29/2003 09:40
20310290504	86-CEF271-4SR-Q4-03	Water	10/27/2003 16:15	10/29/2003 09:40
20310290505	86-CEF271-5SR-Q4-03	Water	10/28/2003 09:15	10/29/2003 09:40
20310290506	86-CEF271-6S-Q4-03	Water	10/28/2003 10:15	10/29/2003 09:40
20310290507	86-CEF271-7S-Q4-03	Water	10/28/2003 08:45	10/29/2003 09:40
20310290508	86-CEF271-10S-Q4-03	Water	10/27/2003 13:15	10/29/2003 09:40
20310290509	86-CEF271-1I-Q4-03	Water	10/27/2003 14:05	10/29/2003 09:40
20310290510	86-271-DUP2-Q4-03	Water	10/27/2003 00:00	10/29/2003 09:40
20310290511	86-271-EB-Q4-03	Water	10/27/2003 15:10	10/29/2003 09:40
20310290512	86-271-TB1-Q4-03	Water		10/29/2003 09:40

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-1S-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20310290501

Level: (low/med) LOW

Lab File ID: 2031101/T0139

% Moisture: not dec.

Date Collected: 10/27/03 Time: 1025

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 10/29/03

Instrument ID: MSV2

Date Analyzed: 11/01/03 Time: 1512

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: HJL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264480

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-2S-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20310290502

Level: (low/med) LOW

Lab File ID: 2031101/T0140

% Moisture: not dec.

Date Collected: 10/27/03 Time: 1055

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 10/29/03

Instrument ID: MSV2

Date Analyzed: 11/01/03 Time: 1536

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: HJL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264480

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-3S-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20310290503

Level: (low/med) LOW

Lab File ID: 2031101/T0141

% Moisture: not dec.

Date Collected: 10/27/03 Time: 1550

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 10/29/03

Instrument ID: MSV2

Date Analyzed: 11/01/03 Time: 1601

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: HJL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264480

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-4SR-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20310290504

Level: (low/med) LOW

Lab File ID: 2031101/T0142

% Moisture: not dec.

Date Collected: 10/27/03 Time: 1615

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 10/29/03

Instrument ID: MSV2

Date Analyzed: 11/01/03 Time: 1625

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: HJL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264480

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-5SR-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20310290505

Level: (low/med) LOW

Lab File ID: 2031101/T0143

% Moisture: not dec.

Date Collected: 10/28/03 Time: 0915

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 10/29/03

Instrument ID: MSV2

Date Analyzed: 11/01/03 Time: 1649

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: HJL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264480

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-6S-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20310290506

Level: (low/med) LOW

Lab File ID: 2031101/T0144

% Moisture: not dec.

Date Collected: 10/28/03 Time: 1015

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 10/29/03

Instrument ID: MSV2

Date Analyzed: 11/01/03 Time: 1713

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: HJL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264480

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-7S-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20310290507

Level: (low/med) LOW

Lab File ID: 2031101/T0149

% Moisture: not dec.

Date Collected: 10/28/03 Time: 0845

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 10/29/03

Instrument ID: MSV2

Date Analyzed: 11/01/03 Time: 1914

Soil Extract Volume: (µL)

Dilution Factor: 10 Analyst: RJO

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264480

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	188		1.00	5.00
100-41-4	Ethylbenzene	398		3.12	50.0
108-88-3	Toluene	1180		1.52	50.0
1330-20-7	Xylene (total)	1690		5.07	100
1634-04-4	tert-Butyl methyl ether (MTBE)	50.0	U	1.22	50.0

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-10S-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20310290508

Level: (low/med) LOW

Lab File ID: 2031101/T0146

% Moisture: not dec.

Date Collected: 10/27/03 Time: 1315

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 10/29/03

Instrument ID: MSV2

Date Analyzed: 11/01/03 Time: 1801

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: HJL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264480

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-1I-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20310290509

Level: (low/med) LOW

Lab File ID: 2031101/T0147

% Moisture: not dec.

Date Collected: 10/27/03 Time: 1405

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 10/29/03

Instrument ID: MSV2

Date Analyzed: 11/01/03 Time: 1826

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264480

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-271-DUP2-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20310290510

Level: (low/med) LOW

Lab File ID: 2031101/T0148

% Moisture: not dec.

Date Collected: 10/27/03 Time: 0000

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 10/29/03

Instrument ID: MSV2

Date Analyzed: 11/01/03 Time: 1850

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264480

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-271-EB-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20310290511

Level: (low/med) LOW

Lab File ID: 2031101/T0131

% Moisture: not dec.

Date Collected: 10/27/03 Time: 1510

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 10/29/03

Instrument ID: MSV2

Date Analyzed: 11/01/03 Time: 1159

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: HJL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264480

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	1.01	J	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-271-TB1-Q4-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20310290512

Level: (low/med) LOW

Lab File ID: 2031101/T0132

% Moisture: not dec.

Date Collected: Time:

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 10/29/03

Instrument ID: MSV2

Date Analyzed: 11/01/03 Time: 1223

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: HJL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264480

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MB127625

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 127625

Level: (low/med) LOW

Lab File ID: 2031101/T0129

% Moisture: not dec.

Date Collected: Time:

GC Column: DB-624-30M ID: .53 (mm)

Date Received:

Instrument ID: MSV2

Date Analyzed: 11/01/03 Time: 1057

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: HJL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264480

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00
79-01-6	Trichloroethene	5.00	U	0.323	5.00
108-90-7	Chlorobenzene	5.00	U	0.157	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

LCS127624

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 127624

Level: (low/med) LOW

Lab File ID: 2031101/T0127

% Moisture: not dec.

Date Collected: Time:

GC Column: DB-624-30M ID: .53 (mm)

Date Received:

Instrument ID: MSV2

Date Analyzed: 11/01/03 Time: 0951

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: HJL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264480

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	22.8		0.100	0.500
100-41-4	Ethylbenzene	21.9		0.312	5.00
108-88-3	Toluene	22.0		0.152	5.00
1330-20-7	Xylene (total)	67.0		0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	24.2		0.122	5.00
79-01-6	Trichloroethene	22.5		0.323	5.00
108-90-7	Chlorobenzene	21.5		0.157	5.00

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

	SAMPLE NO.	SMC1	#	SMC2	#	SMC3	#	SMC4	#	TOT OUT
1.	86-CEF271-1S-Q4-03	99		105		102		100		0
2.	86-271-DUP2-Q4-03	94		103		103		96		0
3.	86-271-EB-Q4-03	101		102		102		97		0
4.	86-271-TB1-Q4-03	102		102		101		97		0
5.	LCS127624	93		100		102		97		0
6.	MB127625	98		103		101		97		0
7.	86-CEF271-2S-Q4-03	108		105		101		101		0
8.	86-CEF271-3S-Q4-03	102		106		102		102		0
9.	86-CEF271-4SR-Q4-03	113		104		100		100		0
10.	86-CEF271-5SR-Q4-03	97		105		102		99		0
11.	86-CEF271-6S-Q4-03	96		106		102		101		0
12.	86-CEF271-7S-Q4-03	93		102		101		95		0
13.	86-CEF271-10S-Q4-03	93		104		103		99		0
14.	86-CEF271-1I-Q4-03	98		104		102		98		0

		QC LIMITS
SMC 1	4-Bromofluorobenzene	78 - 115
SMC 2	Dibromofluoromethane	70 - 130
SMC 3	Toluene-d8	83 - 112
SMC 4	1,2-Dichloroethane-d4	76 - 128

Column to be used to flag recovery values

* Values outside of contract required QC limits

3A

WATER VOLATILE MS/MSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Matrix Spike - EPA Sample No: 86-811-6S-Q4-03

Analytical Batch: 264480

SAMPLE NO. : 20310310516

COMPOUND	UNITS	SPIKE ADDED	SAMPLE CONCENTRATION	MS CONCENTRATION	MS % REC	#	QC. LIMITS
Benzene	ug/L	25	0	23.9	96		77 - 119
Chlorobenzene	ug/L	25	0	22.4	90		78 - 116
Ethylbenzene	ug/L	25	0	23.8	95		76 - 118
Toluene	ug/L	25	0	23.1	92		78 - 114
Trichloroethene	ug/L	25	0	23.2	93		67 - 126
Xylene (total)	ug/L	75	0	71.9	96		77 - 119
tert-Butyl methyl ether (MTBE)	ug/L	25	0	23.2	93		61 - 135

SAMPLE NO. : 20310310517

COMPOUND	UNITS	SPIKE ADDED	MSD CONC.	MSD % REC	#	% RPD	#	QC. LIMITS REC	QC. LIMITS RPD
Benzene	ug/L	25	22.7	91		5		77 - 119	0 - 11
Chlorobenzene	ug/L	25	21.5	86		4		78 - 116	0 - 13
Ethylbenzene	ug/L	25	21.4	86		11		76 - 118	0 - 30
Toluene	ug/L	25	22.3	89		4		78 - 114	0 - 13
Trichloroethene	ug/L	25	22.1	88		5		67 - 126	0 - 14
Xylene (total)	ug/L	75	63.4	85		13		77 - 119	0 - 30
tert-Butyl methyl ether (MTBE)	ug/L	25	22.6	90		3		61 - 135	0 - 30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 7 outside limits

Spike Recovery: 0 out of 14 outside limits

3A

WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Analytical Batch: 264480

SAMPLE NO. : 127624

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*LCS CONCENTRATION*	*LCS % REC*	#	*QC. LIMITS*
Benzene	ug/L	25	0	22.8	91		77 - 119
Chlorobenzene	ug/L	25	0	21.5	86		78 - 116
Ethylbenzene	ug/L	25	0	21.9	88		76 - 118
Toluene	ug/L	25	0	22	88		78 - 114
Trichloroethene	ug/L	25	0	22.5	90		67 - 126
Xylene (total)	ug/L	75	0	67	89		77 - 119
tert-Butyl methyl ether (MTBE)	ug/L	25	0	24.2	97		61 - 135

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 0 outside limits

Spike Recovery: 0 out of 7 outside limits

FORM III VOA-1

4A

VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

MB127625

Lab Name: GCAL

Contract:

Lab Code: LA024 Case No.:

SAS No.: SDG No.: 203102905

Lab File ID: 2031101/T0129

Lab Sample ID: 127625 Date Extracted:

GC Column: DB-624-30M ID: .53 (mm)

Date Analyzed: 11/01/03 Time: 1057

Instrument ID: MSV2 Matrix: Water

Heated Purge: N

Level: LOW

Prep Batch: Analytical Batch: 264480

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1.	LCS127624	127624	2031101/T0127	11/01/03	0951
2.	86-271-EB-Q4-03	20310290511	2031101/T0131	11/01/03	1159
3.	86-271-TB1-Q4-03	20310290512	2031101/T0132	11/01/03	1223
4.	86-CEF271-1S-Q4-03	20310290501	2031101/T0139	11/01/03	1512
5.	86-CEF271-2S-Q4-03	20310290502	2031101/T0140	11/01/03	1536
6.	86-CEF271-3S-Q4-03	20310290503	2031101/T0141	11/01/03	1601
7.	86-CEF271-4SR-Q4-03	20310290504	2031101/T0142	11/01/03	1625
8.	86-CEF271-5SR-Q4-03	20310290505	2031101/T0143	11/01/03	1649
9.	86-CEF271-6S-Q4-03	20310290506	2031101/T0144	11/01/03	1713
10.	86-CEF271-10S-Q4-03	20310290508	2031101/T0146	11/01/03	1801
11.	86-CEF271-1I-Q4-03	20310290509	2031101/T0147	11/01/03	1826
12.	86-271-DUP2-Q4-03	20310290510	2031101/T0148	11/01/03	1850
13.	86-CEF271-7S-Q4-03	20310290507	2031101/T0149	11/01/03	1914

5A

VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: GCAL

Contract:

Lab Code: LA024 Case No.:

SAS No.: SDG No.: 203102905

Lab File ID: 2031031P/T0110

BFB Injection Date: 10/31/03

Instrument ID: MSV2

BFB Injection Time: 1854

GC Column: DB-624-30M ID: .53 (mm)

Analytical Batch: 265182

m / e	ION ABUNDANCE CRITERIA	% Relative Abundance			
50	15.0 - 40.0% of mass 95	16.03	(	)	
75	30.0 - 60.0% of mass 95	43.85	(	)	
95	Base Peak, 100% relative abundance	100	(	)	
96	5.0 -9.0% of mass 95	6.81	(	)	
173	Less than 2.0% of mass 174	0	(0	)	1
174	50.0 - 99.9% of mass 95	91.78	(	)	
175	5.0 - 9.0% of mass 174	6.35	(6.92	)	1
176	95.0 - 101.0% of mass 174	87.45	(95.29	)	1
177	5.0 - 9.0% of mass 176	5.75	(6.58	)	2

1- Value is % mass 174

2- Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1.	V2STD00.2	1207	2031031P/T0112	10/31/03	2001
2.	V2STD00.4	1208	2031031P/T0113	10/31/03	2026
3.	V2STD002	1206	2031031P/T0114	10/31/03	2050
4.	V2STD005	1201	2031031P/T0115	10/31/03	2114
5.	V2STD020	1202	2031031P/T0116	10/31/03	2138
6.	V2STD050	1203	2031031P/T0117	10/31/03	2202
7.	V2STD100	1204	2031031P/T0118	10/31/03	2226
8.	V2STD200	1205	2031031P/T0119	10/31/03	2250

FORM V VOA

5A

VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: GCAL

Contract:

Lab Code: LA024 Case No.:

SAS No.: SDG No.: 203102905

Lab File ID: 2031101/T0124

BFB Injection Date: 11/01/03

Instrument ID: MSV2

BFB Injection Time: 0808

GC Column: DB-624-30M ID: .53 (mm)

Analytical Batch: 264480

m / e	ION ABUNDANCE CRITERIA	% Relative Abundance			
50	15.0 - 40.0% of mass 95	16.57	(	)	
75	30.0 - 60.0% of mass 95	44.09	(	)	
95	Base Peak, 100% relative abundance	100	(	)	
96	5.0 -9.0% of mass 95	6.98	(	)	
173	Less than 2.0% of mass 174	0	(0	)	1
174	50.0 - 99.9% of mass 95	90.1	(	)	
175	5.0 - 9.0% of mass 174	6.42	(7.13	)	1
176	95.0 - 101.0% of mass 174	86.26	(95.74	)	1
177	5.0 - 9.0% of mass 176	5.51	(6.39	)	2

1- Value is % mass 174 2- Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1.	LCS127624	127624	2031101/T0127	11/01/03	0951
2.	MB127625	127625	2031101/T0129	11/01/03	1057
3.	86-271-EB-Q4-03	20310290511	2031101/T0131	11/01/03	1159
4.	86-271-TB1-Q4-03	20310290512	2031101/T0132	11/01/03	1223
5.	86-CEF271-1S-Q4-03	20310290501	2031101/T0139	11/01/03	1512
6.	86-CEF271-2S-Q4-03	20310290502	2031101/T0140	11/01/03	1536
7.	86-CEF271-3S-Q4-03	20310290503	2031101/T0141	11/01/03	1601
8.	86-CEF271-4SR-Q4-03	20310290504	2031101/T0142	11/01/03	1625
9.	86-CEF271-5SR-Q4-03	20310290505	2031101/T0143	11/01/03	1649
10.	86-CEF271-6S-Q4-03	20310290506	2031101/T0144	11/01/03	1713
11.	86-CEF271-10S-Q4-03	20310290508	2031101/T0146	11/01/03	1801
12.	86-CEF271-1I-Q4-03	20310290509	2031101/T0147	11/01/03	1826
13.	86-271-DUP2-Q4-03	20310290510	2031101/T0148	11/01/03	1850
14.	86-CEF271-7S-Q4-03	20310290507	2031101/T0149	11/01/03	1914

FORM V VOA

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GCAL | Contract:

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 203102905

Instrument ID: MSV2 | Calibration Date 1: 10/31/03 | Time 1: 2026

GC Column: DB-624-30M | ID: .53 (mm) | Calibration Date 2: 10/31/03 | Time 2: 2250

Heated Purge: (Y/N) N | Method: SW-846 8260

Analytical Batch: 265182

Lab File ID: Level 1: 1201 | Level 2: 1202 | Level 3: 1203

Level 4: 1204 | Level 5: 1205 | Level 6: 1206

Level 7: 1208 | Level 8: | Level 9:

COMPOUND	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	$\overline{RF}$	RSD	#	LIMIT	TYPE
Acetone	0.032	0.029	0.028	0.032	0.026					0.029	9.313		50	Averaged
Acrylonitrile	0.024	0.023	0.025	0.027	0.027					0.025	6.807		50	Averaged
Bromochloromethane	0.135	0.134	0.139	0.143	0.146					0.139	3.733		50	Averaged
Bromodichloromethane	0.298	0.291	0.303	0.313	0.308					0.303	2.849		50	Averaged
Bromoform	0.384	0.376	0.405	0.424	0.435					0.405	6.215		50	Averaged
Bromomethane	0.170	0.142	0.148	0.145	0.125					0.146	11.20		50	Averaged
Carbon disulfide	0.536	0.467	0.550	0.586	0.581					0.544	8.773		50	Averaged
Carbon tetrachloride	0.289	0.245	0.296	0.309	0.293					0.286	8.551		50	Averaged
Chloroethane	0.254	0.143	0.130	0.128	0.117					0.115	0.999		50	Linear
m,p-Xylene	1.230	1.293	1.450	1.573	1.502					1.410	10.17		50	Averaged
Chloroform	0.421	0.399	0.420	0.433	0.427					0.420	2.996		30	Averaged
Chloromethane	0.288	0.227	0.252	0.269	0.277					0.263	9.101		50	Averaged
Dibromochloromethane	0.655	0.645	0.688	0.728	0.718					0.687	5.379		50	Averaged
Dibromomethane	0.131	0.130	0.135	0.139	0.134					0.134	2.401		50	Averaged
Dichlorodifluoromethane	0.198	0.154	0.202	0.221	0.234					0.239	0.999		50	Linear
1,1-Dichloroethane	0.388	0.357	0.312	0.322	0.332					0.342	8.996		50	Averaged
1,2-Dichloroethane	0.248	0.233	0.232	0.229	0.222					0.233	4.139		50	Averaged
cis-1,2-Dichloroethene	0.325	0.325	0.347	0.348	0.330					0.335	3.484		50	Averaged
trans-1,2-Dichloroethene	0.199	0.185	0.206	0.216	0.212					0.204	5.944		50	Averaged
Methylene chloride	0.207	0.182	0.189	0.191	0.196					0.193	4.775		50	Averaged
1,2-Dichloropropane	0.267	0.258	0.256	0.252	0.231	0.275		0.256		0.256	5.302		30	Averaged
cis-1,3-Dichloropropene	0.341	0.370	0.394	0.404	0.402					0.382	6.944		50	Averaged
trans-1,3-Dichloropropene	0.724	0.776	0.835	0.861	0.870					0.813	7.625		50	Averaged
Ethylbenzene	0.937	0.991	1.135	1.207	1.172					1.088	10.84		30	Averaged
2-Hexanone	0.179	0.207	0.255	0.284	0.265					0.271	0.998		50	Linear
Isopropylbenzene (Cumene)	2.588	3.032	3.605	3.927	3.821					3.898	0.999		50	Linear
2-Butanone	0.060	0.056	0.060	0.061	0.053					0.058	6.004		50	Averaged
Methyl Iodide	0.380	0.360	0.388	0.394	0.390					0.382	3.505		50	Averaged
4-Methyl-2-pentanone	0.10	0.117	0.131	0.140	0.142					0.126	14.02		50	Averaged
n-Propylbenzene	3.267	3.523	4.238	4.351	4.360					3.948	13.03		50	Averaged
Styrene	1.786	2.178	2.401	2.575	2.445					2.277	13.60		50	Averaged
Tetrachloroethene	0.645	0.580	0.691	0.752	0.689					0.671	9.501		50	Averaged
1,1,1,2-Tetrachloroethane	0.716	0.693	0.709	0.741	0.709					0.713	2.444		50	Averaged
1,1,2,2-Tetrachloroethane	0.795	0.634	0.658	0.579	0.598					0.653	13.04		50	Averaged
1,2,4-Trichlorobenzene	0.466	0.523	0.563	0.682	0.640					0.657	0.997		50	Linear

Column used to indicate that the required RRF or %RSD values is outside of QC limits

* Indicates that the compound is outside of the required minimum RRF and maximum %RSD values.

FORM VI VOA

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GCAL | Contract:

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 203102905

Instrument ID: MSV2 | Calibration Date 1: 10/31/03 | Time 1: 2026

GC Column: DB-624-30M | ID: .53 (mm) | Calibration Date 2: 10/31/03 | Time 2: 2250

Heated Purge: (Y/N) N | Method: SW-846 8260

Analytical Batch: 265182

Lab File ID: Level 1: 1201 | Level 2: 1202 | Level 3: 1203

Level 4: 1204 | Level 5: 1205 | Level 6: 1206

Level 7: 1208 | Level 8: | Level 9:

COMPOUND	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	$\overline{RF}$	RSD	#	LIMIT	TYPE
1,1,1-Trichloroethane	0.334	0.294	0.346	0.366	0.352					0.338	8.122		50	Averaged
1,1,2-Trichloroethane	0.502	0.482	0.505	0.533	0.528					0.510	4.031		50	Averaged
Trichlorofluoromethane	0.239	0.192	0.253	0.279	0.273					0.247	14.04		50	Averaged
1,2,3-Trichloropropane	0.920	0.752	0.778	0.715	0.655					0.764	12.95		50	Averaged
1,2,4-Trimethylbenzene	1.737	1.922	1.884	2.033	1.718					1.859	7.114		50	Averaged
1,3,5-Trimethylbenzene	1.987	2.111	2.109	2.200	1.911					2.063	5.534		50	Averaged
Vinyl chloride	0.206	0.177	0.212	0.233	0.225	0.235		0.209		0.214	9.411		30	Averaged
o-Xylene	1.016	1.214	1.348	1.449	1.380					1.281	13.35		50	Averaged
1,2-Dibromo-3-chloropropane	0.135	0.115	0.128	0.125	0.133	0.120				0.126	5.887		50	Averaged
1,2-Dibromoethane	0.488	0.481	0.521	0.557	0.562					0.522	7.234		50	Averaged
Vinyl acetate	0.135	0.118	0.149	0.158	0.160	0.166				0.148	12.21		50	Averaged
tert-Butyl methyl ether (MTBE)	0.279	0.281	0.302	0.315	0.318					0.299	6.183		50	Averaged
1,2-Dichloroethene	0.262	0.255	0.277	0.282	0.271					0.269	4.024		50	Averaged
4-Isopropyltoluene	1.867	2.209	2.476	2.742	2.352					2.329	13.93		50	Averaged
Xylene (total)	1.159	1.267	1.416	1.532	1.461	1.147				1.330	12.20		50	Averaged
Methylcyclohexane	0.417	0.391	0.498	0.522	0.497					0.465	12.28		50	Averaged
n-Hexane	0.216	0.180	0.234	0.247	0.257					0.227	13.32		50	Averaged
trans-1,4-Dichloro-2-butene	0.132	0.121	0.128	0.116	0.110					0.121	7.340		50	Averaged
Cyclohexane	0.377	0.340	0.451	0.472	0.458					0.420	13.73		50	Averaged
2,2-Dichloropropane	0.291	0.258	0.298	0.308	0.298					0.291	6.601		50	Averaged
Methyl Acetate	0.067	0.063	0.064	0.067	0.068					0.066	3.076		50	Averaged
Trichlorotrifluoroethane	0.168	0.132	0.178	0.194	0.184					0.171	13.85		50	Averaged
1,1-Dichloropropene	0.280	0.262	0.319	0.331	0.309					0.300	9.471		50	Averaged
2-Chloroethylvinyl ether	0.356	0.367	0.403	0.411	0.398					0.387	6.126		50	Averaged
1,3-Dichloropropane	0.848	0.837	0.881	0.889	0.821					0.855	3.400		50	Averaged
Bromobenzene	2.152	1.825	1.875	1.719	1.645					1.843	10.55		50	Averaged
2-Chlorotoluene	3.011	2.172	2.217	1.944	1.817					1.781	0.998		50	Linear
4-Chlorotoluene	2.591	2.605	2.801	2.811	2.699					2.702	3.859		50	Averaged
tert-Butylbenzene	1.273	1.413	1.680	1.756	1.718					1.568	13.57		50	Averaged
sec-Butylbenzene	2.369	2.791	3.480	3.823	3.672					3.759	0.999		50	Linear
1,3-Dichlorobenzene	1.841	1.752	1.838	1.777	1.647					1.771	4.463		50	Averaged
1,4-Dichlorobenzene	1.875	1.731	1.794	1.843	1.767					1.802	3.195		50	Averaged
n-Butylbenzene	1.234	1.588	1.773	2.111	1.881					1.718	19.20		50	Averaged
1,2-Dichlorobenzene	1.577	1.513	1.577	1.595	1.592					1.571	2.143		50	Averaged
Hexachlorobutadiene	0.390	0.396	0.497	0.579	0.574					0.590	0.999		50	Linear

Column used to indicate that the required RRF or %RSD values is outside of QC limits

* Indicates that the compound is outside of the required minimum RRF and maximum %RSD values.

FORM V I VOA

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Instrument ID: MSV2 Calibration Date 1: 10/31/03 Time 1: 2026

GC Column: DB-624-30M ID: .53 (mm) Calibration Date 2: 10/31/03 Time 2: 2250

Heated Purge: (Y/N) N Method: SW-846 8260

Analytical Batch: 265182

Lab File ID: Level 1: 1201 Level 2: 1202 Level 3: 1203

Level 4: 1204 Level 5: 1205 Level 6: 1206

Level 7: 1208 Level 8: Level 9:

COMPOUND	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	$\overline{RF}$	RSD	#	LIMIT	TYPE
Naphthalene	0.728	0.783	0.821	0.944	0.891					0.834	10.27		50	Averaged
1,2,3-Trichlorobenzene	0.455	0.470	0.485	0.565	0.535					0.545	0.998		50	Linear
1-Bromo-2-chloroethane	0.096	0.098	0.106	0.111	0.108	0.090				0.101	7.896		50	Averaged
1,1-Dichloroethene	0.142	0.123	0.154	0.162	0.159					0.148	10.70		30	Averaged
Benzene	1.038	0.998	1.040	1.062	1.028	1.071		1.122		1.051	3.701		50	Averaged
Trichloroethene	0.293	0.286	0.333	0.365	0.342					0.324	10.33		50	Averaged
Toluene	2.990	2.967	3.152	3.372	3.318					3.160	5.837		30	Averaged
Chlorobenzene	2.412	2.163	2.256	2.381	2.336					2.309	4.371		50	Averaged
4-Bromofluorobenzene	0.991	1.012	1.036	0.984	1.008					1.007	2.019		50	Averaged
Dibromofluoromethane	0.229	0.260	0.254	0.260	0.259					0.253	5.246		50	Averaged
Toluene-d8	1.855	2.452	2.386	2.563	2.607					2.373	12.74		50	Averaged
1,2-Dichloroethane-d4	0.103	0.107	0.108	0.111	0.107					0.107	2.784		50	Averaged

Column used to indicate that the required RRF or %RSD values is outside of QC limits

* Indicates that the compound is outside of the required minimum RRF and maximum %RSD values.

FORM V I VOA

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GCAL | Contract:

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 203102905

Instrument ID: MSV2 | Calibration Date: 11/01/03 | Time: 0914

Lab File ID: 2031101/T0126 | Init. Calib. Date 1: 10/31/03 | Time 1: 2026

Heated Purge: (Y/N) N | Init. Calib. Date 2: 10/31/03 | Time 2: 2250

GC Column: DB-624-30M | ID: .53 (mm)

Analytical Batch: 264480

COMPOUND	RRF	RRF50	Min RRF	% D	Max %D
Acetone	0.029	0.029	0	-0.68	50
Acrolein		0.00	0	-1000	50
Acrylonitrile	0.025	0.024	0	-6.40	50
Bromochloromethane	0.139	0.122	0	-12.3	50
Bromodichloromethane	0.303	0.265	0	-12.4	50
Bromoform	0.405	0.334	.1	-17.3	50
Bromomethane	0.146	0.141	0	-3.59	50
Carbon disulfide	0.544	0.491	0	-9.81	50
Carbon tetrachloride	0.286	0.248	0	-13.4	50
Chloroethane	0.115	0.110	0	-17.4	50
m,p-Xylene	1.410	1.216	0	-13.7	50
Chloroform	0.420	0.366	0	-12.9	20
Chloromethane	0.263	0.221	.1	-15.7	50
Dibromochloromethane	0.687	0.580	0	-15.6	50
Dibromomethane	0.134	0.118	0	-11.8	50
Dichlorodifluoromethane	0.239	0.170	0	-17.9	50
1,1-Dichloroethane	0.342	0.279	.1	-18.5	50
1,2-Dichloroethane	0.233	0.205	0	-11.7	50
cis-1,2-Dichloroethene	0.335	0.306	0	-8.83	50
trans-1,2-Dichloroethene	0.204	0.187	0	-8.02	50
Methylene chloride	0.193	0.175	0	-9.08	50
1,2-Dichloropropane	0.256	0.227	0	-11.4	20
cis-1,3-Dichloropropene	0.382	0.351	0	-8.07	50
trans-1,3-Dichloropropene	0.813	0.738	0	-9.23	50
Ethylbenzene	1.088	0.917	0	-15.7	20
2-Hexanone	0.271	0.222	0	-14.3	50
Isopropylbenzene (Cumene)	3.898	2.930	0	-19.5	50
2-Butanone	0.058	0.054	0	-6.15	50
Methyl iodide	0.382	0.359	0	-6.09	50
4-Methyl-2-pentanone	0.126	0.117	0	-6.82	50
n-Propylbenzene	3.948	3.633	0	-7.97	50
Styrene	2.277	1.989	0	-12.6	50
Tetrachloroethene	0.671	0.561	0	-16.3	50
1,1,1,2-Tetrachloroethane	0.713	0.602	0	-15.5	50
1,1,2,2-Tetrachloroethane	0.653	0.550	.3	-15.7	50
1,2,4-Trichlorobenzene	0.657	0.626	0	0.886	50
1,1,1-Trichloroethane	0.338	0.297	0	-12.3	50
1,1,2-Trichloroethane	0.510	0.427	0	-16.3	50
Trichlorofluoromethane	0.247	0.218	0	-11.5	50

FORM V II VOA

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GCAL

Contract:

Lab Code: LA024 Case No.:

SAS No.: SDG No.: 203102905

Instrument ID: MSV2

Calibration Date: 11/01/03 Time: 0914

Lab File ID: 2031101/T0126

Init. Calib. Date 1: 10/31/03 Time 1: 2026

Heated Purge: (Y/N) N

Init. Calib. Date 2: 10/31/03 Time 2: 2250

GC Column: DB-624-30M ID: .53 (mm)

Analytical Batch: 264480

COMPOUND	$\overline{RRF}$	RRF50	Min RRF	% D	Max %D
1,2,3-Trichloropropane	0.764	0.676	0	-11.5	50
1,2,4-Trimethylbenzene	1.859	2.029	0	9.143	50
1,3,5-Trimethylbenzene	2.063	2.145	0	3.978	50
Vinyl chloride	0.214	0.190	0	-11.3	20
o-Xylene	1.281	1.117	0	-12.8	50
1,2-Dibromo-3-chloropropane	0.126	0.105	0	-17.4	50
1,2-Dibromoethane	0.522	0.443	0	-15.0	50
Vinyl acetate	0.148	0.133	0	-9.89	50
tert-Butyl methyl ether (MTBE)	0.299	0.296	0	-1.05	50
1,2-Dichloroethene	0.269	0.246	0	-8.42	50
4-Isopropyltoluene	2.329	2.471	0	6.100	50
Xylene (total)	1.330	1.183	0	-13.4	50
Methylcyclohexane	0.465	0.412	0	-11.3	50
n-Hexane	0.227	0.209	0	-7.73	50
trans-1,4-Dichloro-2-butene	0.121	0.115	0	-5.56	50
Cyclohexane	0.420	0.370	0	-11.7	50
2,2-Dichloropropane	0.291	0.269	0	-7.30	50
Methyl Acetate	0.066	0.061	0	-8.02	50
Trichlorotrifluoroethane	0.171	0.158	0	-7.87	50
1,1-Dichloropropene	0.300	0.272	0	-9.50	50
2-Chloroethylvinyl ether	0.387	0.348	0	-9.98	50
1,3-Dichloropropane	0.855	0.752	0	-12.1	50
Bromobenzene	1.843	1.607	0	-12.8	50
2-Chlorotoluene	1.781	2.513	0	27.8	50
4-Chlorotoluene	2.702	2.434	0	-9.92	50
tert-Butylbenzene	1.568	1.501	0	-4.30	50
sec-Butylbenzene	3.759	3.124	0	-11.4	50
1,3-Dichlorobenzene	1.771	1.545	0	-12.7	50
1,4-Dichlorobenzene	1.802	1.627	0	-9.70	50
n-Butylbenzene	1.718	1.996	0	16.2	50
1,2-Dichlorobenzene	1.571	1.370	0	-12.7	50
Hexachlorobutadiene	0.590	0.459	0	-12.7	50
Naphthalene	0.834	0.915	0	9.789	50
1,2,3-Trichlorobenzene	0.545	0.528	0	0.564	50
1-Bromo-2-chloroethane	0.101	0.088	0	-13.1	50
1,1-Dichloroethene	0.148	0.137	0	-7.70	20
Benzene	1.051	0.914	0	-13.0	50
Trichloroethene	0.324	0.282	0	-12.8	50
Toluene	3.160	2.725	0	-13.7	20

FORM V II VOA

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GCAL

Contract:

Lab Code: LA024 Case No.:

SAS No.: SDG No.: 203102905

Instrument ID: MSV2

Calibration Date: 11/01/03 Time: 0914

Lab File ID: 2031101/T0126

Init. Calib. Date 1: 10/31/03 Time 1: 2026

Heated Purge: (Y/N) N

Init. Calib. Date 2: 10/31/03 Time 2: 2250

GC Column: DB-624-30M ID: .53 (mm)

Analytical Batch: 264480

COMPOUND	$\overline{RRF}$	RRF50	Min RRF	% D	Max %D
Chlorobenzene	2.309	1.931	.3	-16.3	50
4-Bromofluorobenzene	1.007	0.916	0	-9.01	50
Dibromofluoromethane	0.253	0.247	0	-2.19	50
Toluene-d8	2.373	2.416	0	1.849	50
1,2-Dichloroethane-d4	0.107	0.101	0	-5.55	50

FORM VII VOA

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GCAL

Contract:

Lab Code: LA024 Case No.:

SAS No.: SDG No.: 203102905

Lab File ID (Standard): 2031101/T0126

Date Analyzed: 11/01/03

Instrument ID: MSV2

Time: 0914

GC Column: DB-624-30M ID: .53 (mm)

Heated Purge: (Y/N) N

Analytical Batch: 264480

	IS 1 Area	RT	IS 2 Area	RT	IS 3 Area	RT
12 HOUR STD	976706	8.36	2443503	5.852	842846	10.16

EPA Sample		IS 1 Area	#	RT	#	IS 2 Area	#	RT	#	IS 3 Area	#	RT	#
1.	LCS127624	975270		8.36		2447848		5.86		862170		10.18	
2.	86-CEF271-6S-Q4-03	882563		8.37		2229156		5.86		729566		10.18	
3.	86-CEF271-10S-Q4-03	909068		8.37		2324307		5.86		784619		10.18	
4.	86-CEF271-1I-Q4-03	918024		8.37		2338987		5.86		744856		10.18	
5.	86-271-DUP2-Q4-03	944423		8.37		2439461		5.86		781266		10.17	
6.	86-CEF271-7S-Q4-03	988463		8.37		2512128		5.86		868666		10.18	
7.	MB127625	1167576		8.36		2867820		5.86		972029		10.17	
8.	86-271-EB-Q4-03	960754		8.36		2413316		5.86		735899		10.17	
9.	86-271-TB1-Q4-03	1209381		8.36		2965152		5.87		960447		10.18	
10.	86-CEF271-1S-Q4-03	874465		8.37		2214269		5.86		715657		10.18	
11.	86-CEF271-2S-Q4-03	905816		8.38		2285043		5.87		650544		10.19	
12.	86-CEF271-3S-Q4-03	906630		8.37		2272859		5.86		710085		10.18	
13.	86-CEF271-4SR-Q4-03	865630		8.37		2177198		5.86		594302		10.18	
14.	86-CEF271-5SR-Q4-03	872813		8.37		2209966		5.86		721538		10.18	

IS 1 ID : Chlorobenzene-d5
IS 2 ID : Fluorobenzene
IS 3 ID : 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RTLOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC limits

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv2.i/2031101.s.b/t0139.d
Lab Smp Id: 20310290501 Client Smp ID: 86-CEF271-1S-Q4-03
Inj Date : 01-NOV-2003 15:12
Operator : HJL Inst ID: msv2.i
Smp Info : 20310290501*86-CEF271-1S-Q4-03
Misc Info : MSV~3927~*1*HJL
Comment :
Method : /var/chem/msv2.i/2031101.s.b/8260Bw2.m
Meth Date : 10-Nov-2003 10:48 rjo Quant Type: ISTD
Cal Date : 31-OCT-2003 21:14 Cal File: t0115.d
Als bottle: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260B.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)
12 Acetone	43	2.900	2.887	(0.495)	31928	24.5852	24.6(a)
38 Dibromofluoromethane	111	5.244	5.238	(0.895)	589077	52.6536	52.7
44 1,2-Dichloroethane-d4	67	5.548	5.541	(0.947)	237519	50.0216	50.0
47 FLUOROBENZENE	96	5.858	5.852	(1.000)	2214269	50.0000	
58 Toluene-d8	98	7.198	7.192	(0.860)	2120392	51.1006	51.1
70 CHLOROBENZENE-d5	82	8.367	8.360	(1.000)	874465	50.0000	
81 Bromofluorobenzene	174	9.291	9.285	(0.913)	713960	49.5583	49.6
99 1,4-DICHLOROBENZENE-D4	152	10.175	10.169	(1.000)	715657	50.0000	

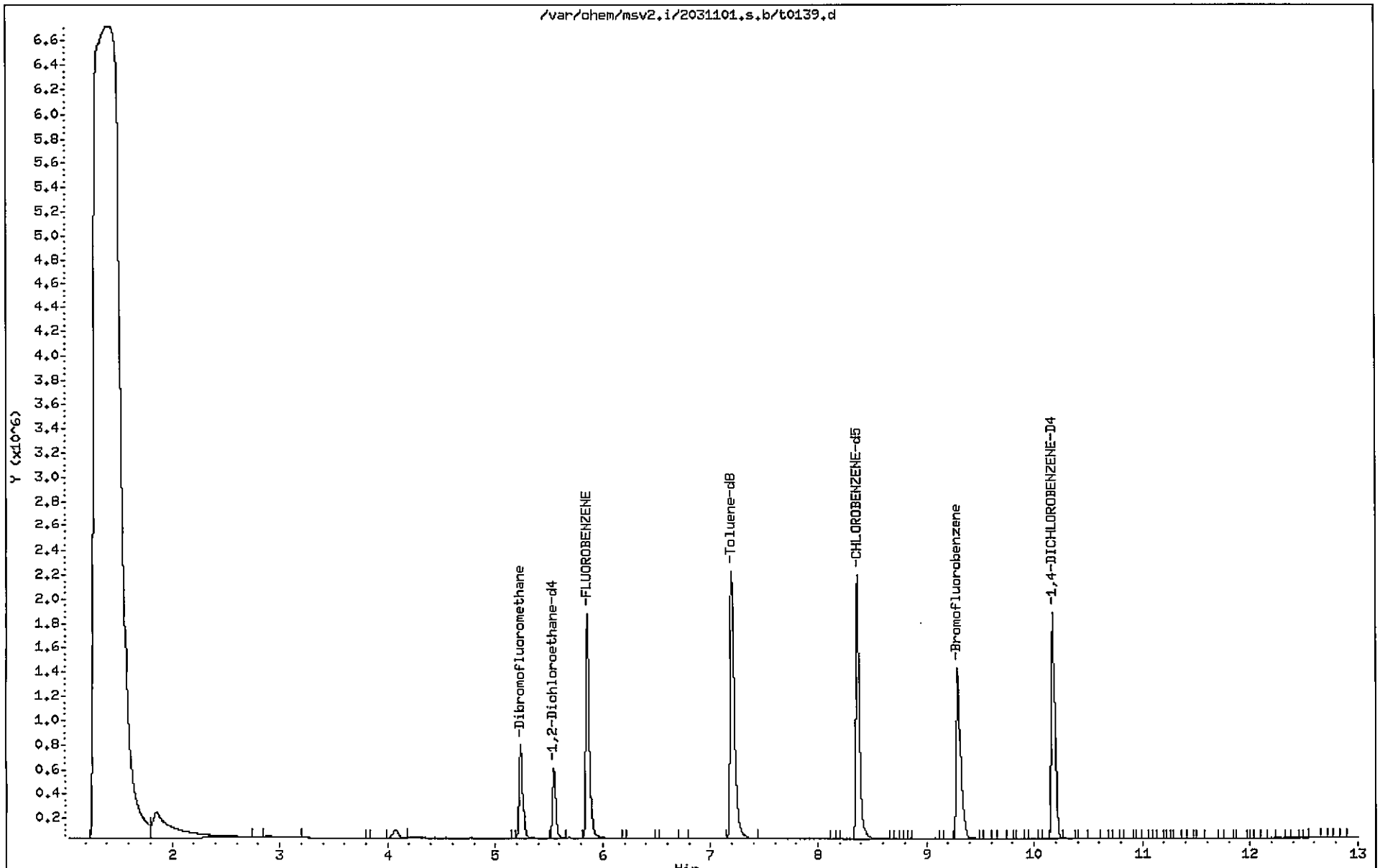
QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

000033

Data File: /var/chem/msv2.i/2031101.s.b/t0139.d
Date : 01-NOV-2003 15:12
Client ID: 86-CEF271-1S-Q4-03
Sample Info: 20310290501*86-CEF271-1S-Q4-03
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv2.i
Operator: HJL
Column diameter: 0.53



Data File: /var/chem/msv2.i/2031101.s.b/t0139.d

Date : 01-NOV-2003 15:12

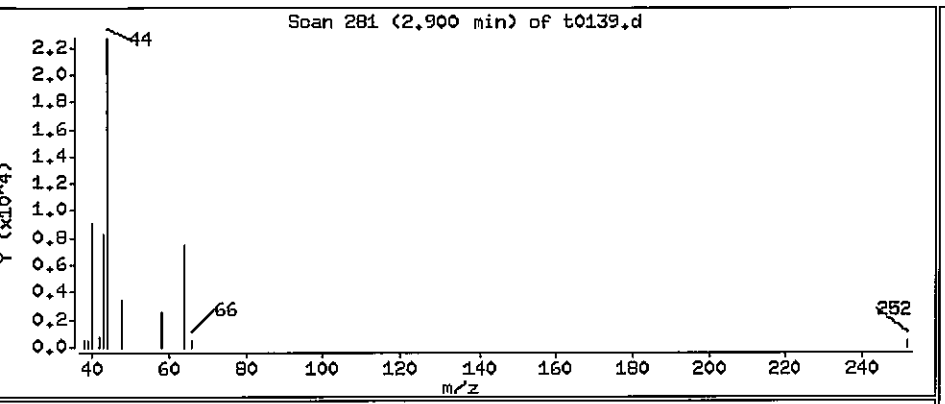
Client ID: 86-CEF271-1S-Q4-03 Instrument: msv2.i

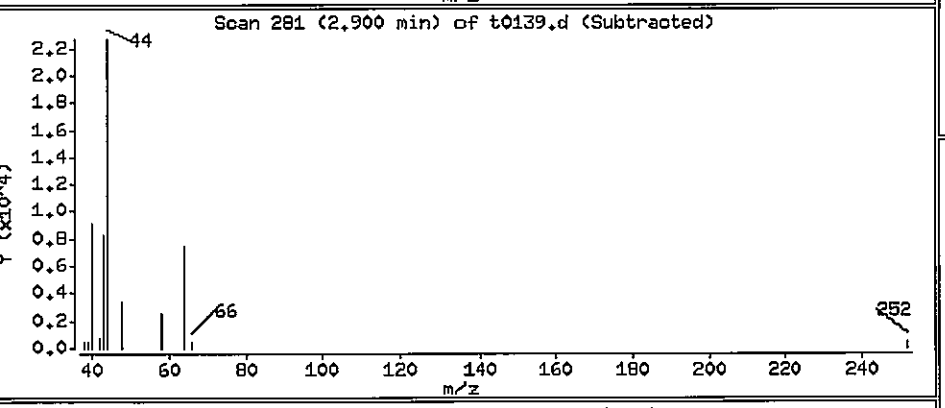
Sample Info: 20310290501*86-CEF271-1S-Q4-03

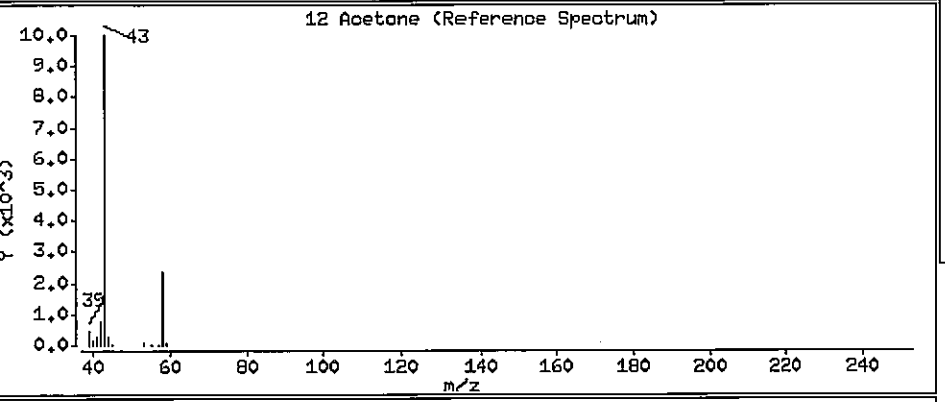
Purge Volume: 5.0 Operator: HJL

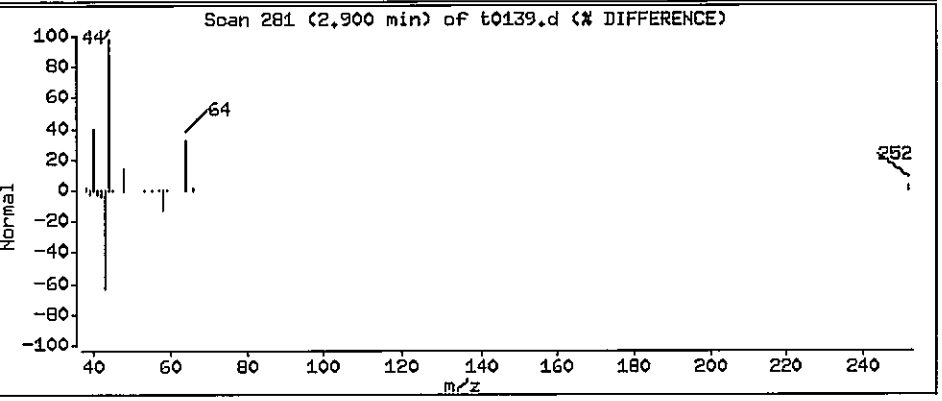
Column phase: DB-624-30M Column diameter: 0.53

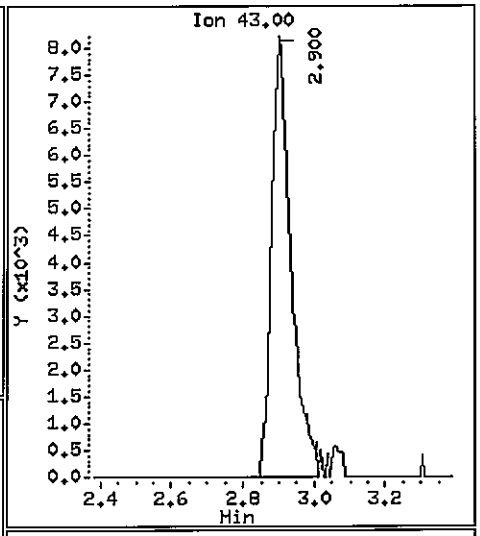
12 Acetone Concentration: 24.6 ug/L

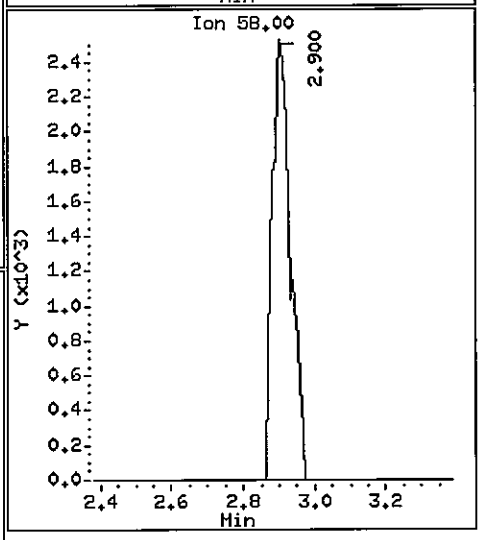












Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv2.i/2031101.s.b/t0140.d
Lab Smp Id: 20310290502 Client Smp ID: 86-CEF271-2S-Q4-03
Inj Date : 01-NOV-2003 15:36
Operator : HJL Inst ID: msv2.i
Smp Info : 20310290502*86-CEF271-2S-Q4-03
Misc Info : MSV~3927~*1*HJL
Comment :
Method : /var/chem/msv2.i/2031101.s.b/8260Bw2.m
Meth Date : 10-Nov-2003 10:48 rjo Quant Type: ISTD
Cal Date : 31-OCT-2003 21:14 Cal File: t0115.d
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260B.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)

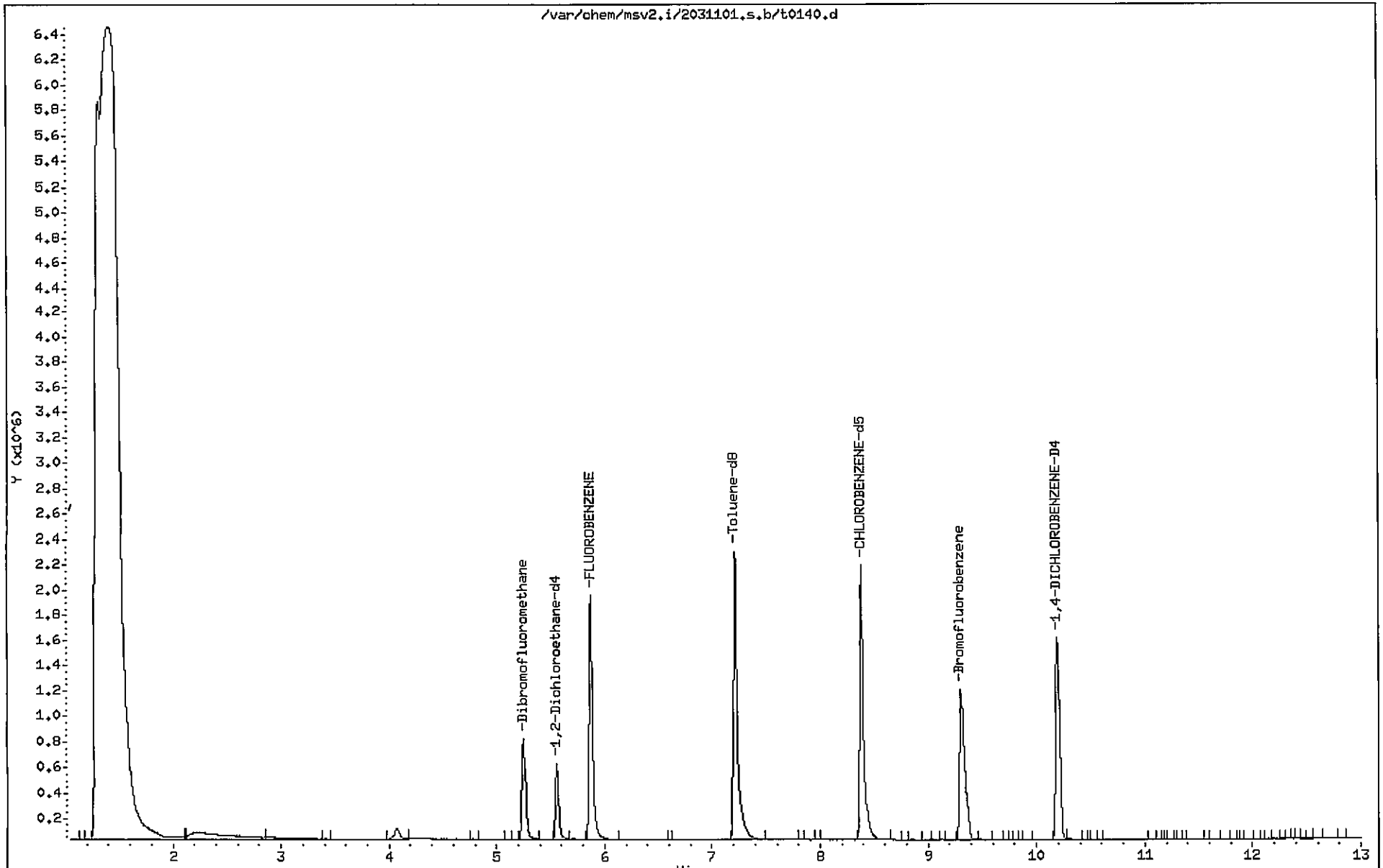
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)
38 Dibromofluoromethane	111	5.250	5.238	(0.894)	603675	52.2872	52.3
44 1,2-Dichloroethane-d4	67	5.560	5.541	(0.947)	247041	50.4155	50.4
47 FLUOROBENZENE	96	5.870	5.852	(1.000)	2285043	50.0000	
58 Toluene-d8	98	7.211	7.192	(0.861)	2160864	50.2736	50.3
70 CHLOROBENZENE-d5	82	8.379	8.360	(1.000)	905816	50.0000	
81 Bromofluorobenzene	174	9.310	9.285	(0.914)	705199	53.8496	53.8
99 1,4-DICHLOROBENZENE-D4	152	10.188	10.169	(1.000)	650544	50.0000	

000036

Data File: /var/chem/msv2.i/2031101.s.b/t0140.d
Date : 01-NOV-2003 15:36
Client ID: 86-CEF271-2S-Q4-03
Sample Info: 20310290502X86-CEF271-2S-Q4-03
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv2.i
Operator: HJL
Column diameter: 0.53



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv2.i/2031101.s.b/t0141.d
Lab Smp Id: 20310290503 Client Smp ID: 86-CEF271-3S-Q4-03
Inj Date : 01-NOV-2003 16:01
Operator : HJL Inst ID: msv2.i
Smp Info : 20310290503*86-CEF271-3S-Q4-03
Misc Info : MSV~3927~*1*HJL
Comment :
Method : /var/chem/msv2.i/2031101.s.b/8260Bw2.m
Meth Date : 10-Nov-2003 10:48 rjo Quant Type: ISTD
Cal Date : 31-OCT-2003 21:14 Cal File: t0115.d
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260B.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)

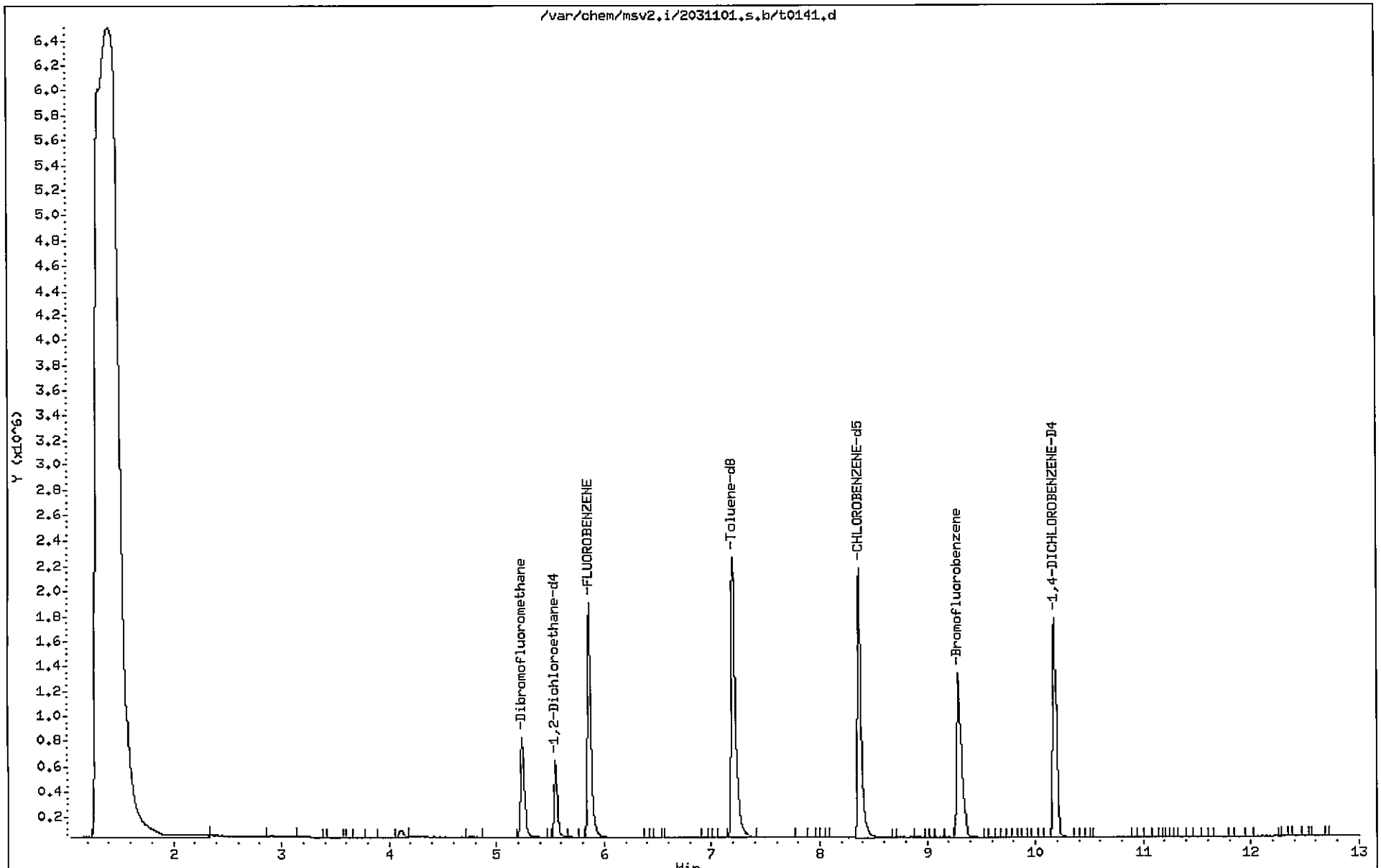
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)
$ 38 Dibromofluoromethane	111	5.244	5.238	(0.895)	607651	52.9137	52.9
$ 44 1,2-Dichloroethane-d4	67	5.548	5.541	(0.947)	247925	50.8671	50.9
* 47 FLUOROBENZENE	96	5.858	5.852	(1.000)	2272859	50.0000	
$ 58 Toluene-d8	98	7.198	7.192	(0.860)	2184188	50.7706	50.8
* 70 CHLOROBENZENE-d5	82	8.367	8.360	(1.000)	906630	50.0000	
$ 81 Bromofluorobenzene	174	9.291	9.285	(0.913)	728268	50.9482	50.9
* 99 1,4-DICHLOROBENZENE-D4	152	10.176	10.169	(1.000)	710085	50.0000	

000038

Data File: /var/chem/msv2.i/2031101.s.b/t0141.d
Date : 01-NOV-2003 16:01
Client ID: 86-CEF271-3S-Q4-03
Sample Info: 20310290503*86-CEF271-3S-Q4-03
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv2.i
Operator: HJL
Column diameter: 0.53



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv2.i/2031101.s.b/t0142.d
Lab Smp Id: 20310290504 Client Smp ID: 86-CEF271-4SR-Q4-03
Inj Date : 01-NOV-2003 16:25
Operator : HJL Inst ID: msv2.i
Smp Info : 20310290504*86-CEF271-4SR-Q4-03
Misc Info : MSV~3927~*1*HJL
Comment :
Method : /var/chem/msv2.i/2031101.s.b/8260Bw2.m
Meth Date : 10-Nov-2003 10:48 rjo Quant Type: ISTD
Cal Date : 31-OCT-2003 21:14 Cal File: t0115.d
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260B.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)
38 Dibromofluoromethane	111	5.237	5.238	(0.894)	572893	52.0789	52.1
44 1,2-Dichloroethane-d4	67	5.548	5.541	(0.947)	233878	50.0934	50.1
47 FLUOROBENZENE	96	5.858	5.852	(1.000)	2177198	50.0000	
58 Toluene-d8	98	7.198	7.192	(0.860)	2062180	50.2049	50.2
70 CHLOROBENZENE-d5	82	8.367	8.360	(1.000)	865630	50.0000	
81 Bromofluorobenzene	174	9.298	9.285	(0.914)	678028	56.6746	56.7
99 1,4-DICHLOROBENZENE-D4	152	10.176	10.169	(1.000)	594302	50.0000	

Data File: /var/chem/msv2.i/2031101.s.b/t0142.d

Date : 01-NOV-2003 16:25

Client ID: 86-CEF271-4SR-Q4-03

Sample Info: 20310290504x86-CEF271-4SR-Q4-03

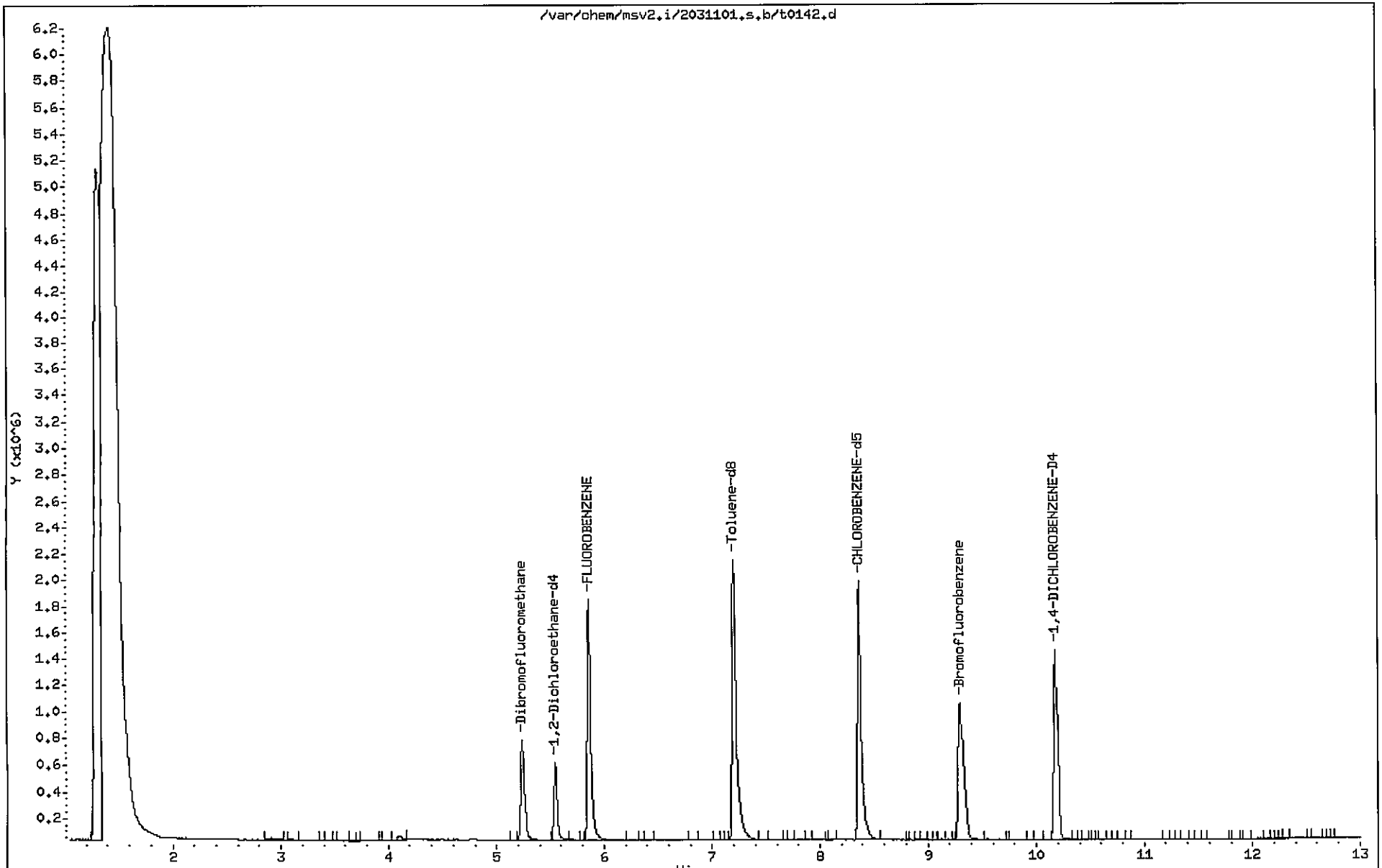
Purge Volume: 5.0

Column phase: DB-624-30M

Instrument: msv2.i

Operator: HJL

Column diameter: 0.53



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv2.i/2031101.s.b/t0143.d
Lab Smp Id: 20310290505 Client Smp ID: 86-CEF271-5SR-Q4-03
Inj Date : 01-NOV-2003 16:49
Operator : HJL Inst ID: msv2.i
Smp Info : 20310290505*86-CEF271-5SR-Q4-03
Misc Info : MSV~3927~*1*HJL
Comment :
Method : /var/chem/msv2.i/2031101.s.b/8260Bw2.m
Meth Date : 10-Nov-2003 10:48 rjo Quant Type: ISTD
Cal Date : 31-OCT-2003 21:14 Cal File: t0115.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260B.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)

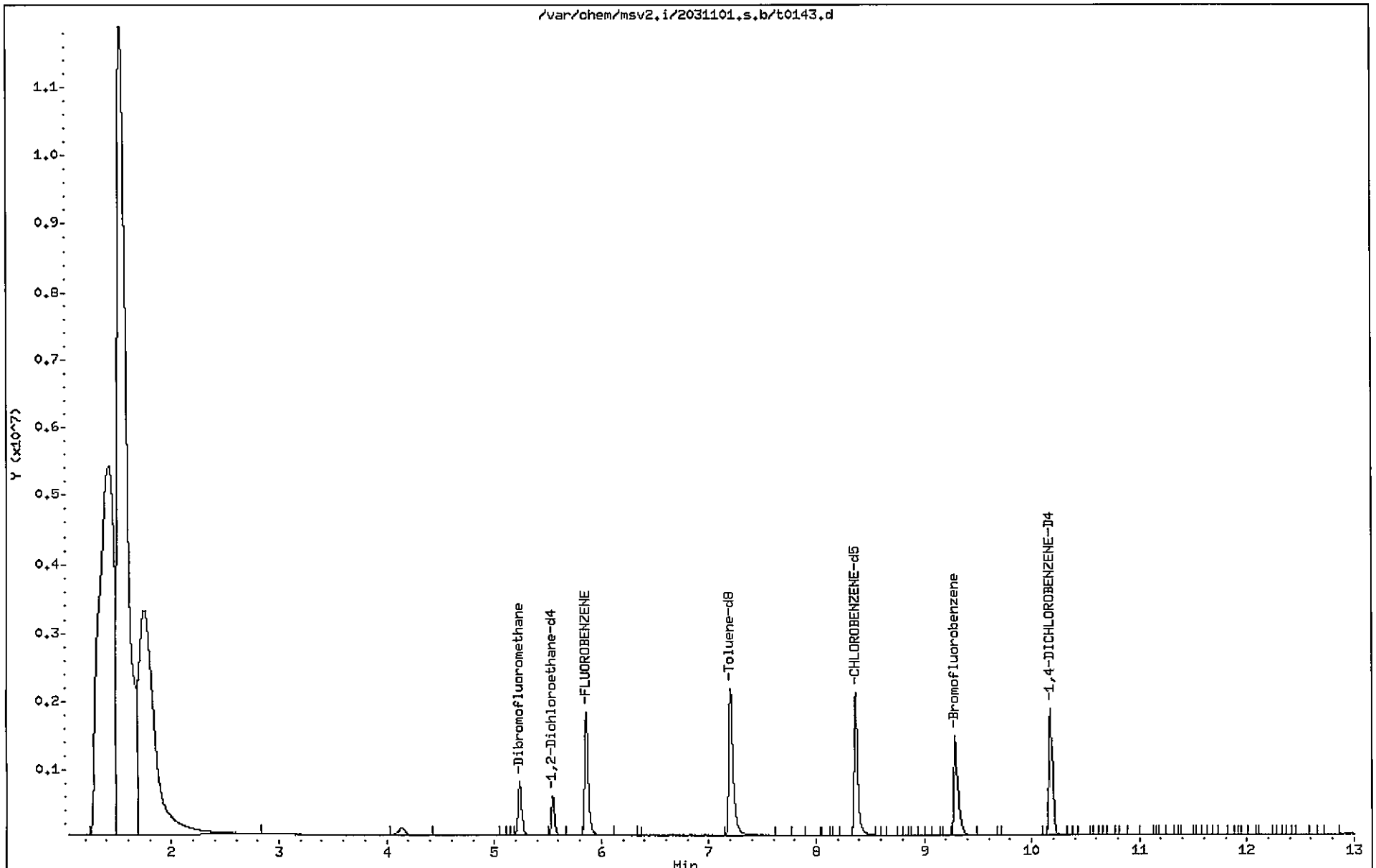
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)
38 Dibromofluoromethane	111	5.244	5.238	(0.895)	584633	52.3582	52.4
44 1,2-Dichloroethane-d4	67	5.548	5.541	(0.947)	234989	49.5851	49.6
47 FLUOROBENZENE	96	5.858	5.852	(1.000)	2209966	50.0000	
58 Toluene-d8	98	7.199	7.192	(0.860)	2107823	50.8938	50.9
70 CHLOROBENZENE-d5	82	8.367	8.360	(1.000)	872813	50.0000	
81 Bromofluorobenzene	174	9.291	9.285	(0.913)	701559	48.3006	48.3
99 1,4-DICHLOROBENZENE-D4	152	10.176	10.169	(1.000)	721538	50.0000	

000042

Data File: /var/chem/msv2.i/2031101.s.b/t0143.d
Date : 01-NOV-2003 16:49
Client ID: 86-CEF271-5SR-Q4-03
Sample Info: 20310290505X86-CEF271-5SR-Q4-03
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv2.i
Operator: HJL
Column diameter: 0.53



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv2.i/2031101.s.b/t0144.d
Lab Smp Id: 20310290506 Client Smp ID: 86-CEF271-6S-Q4-03
Inj Date : 01-NOV-2003 17:13
Operator : HJL Inst ID: msv2.i
Smp Info : 20310290506*86-CEF271-6S-Q4-03
Misc Info : MSV~3927~*1*HJL
Comment :
Method : /var/chem/msv2.i/2031101.s.b/8260Bw2.m
Meth Date : 10-Nov-2003 10:48 rjo Quant Type: ISTD
Cal Date : 31-OCT-2003 21:14 Cal File: t0115.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260B.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)

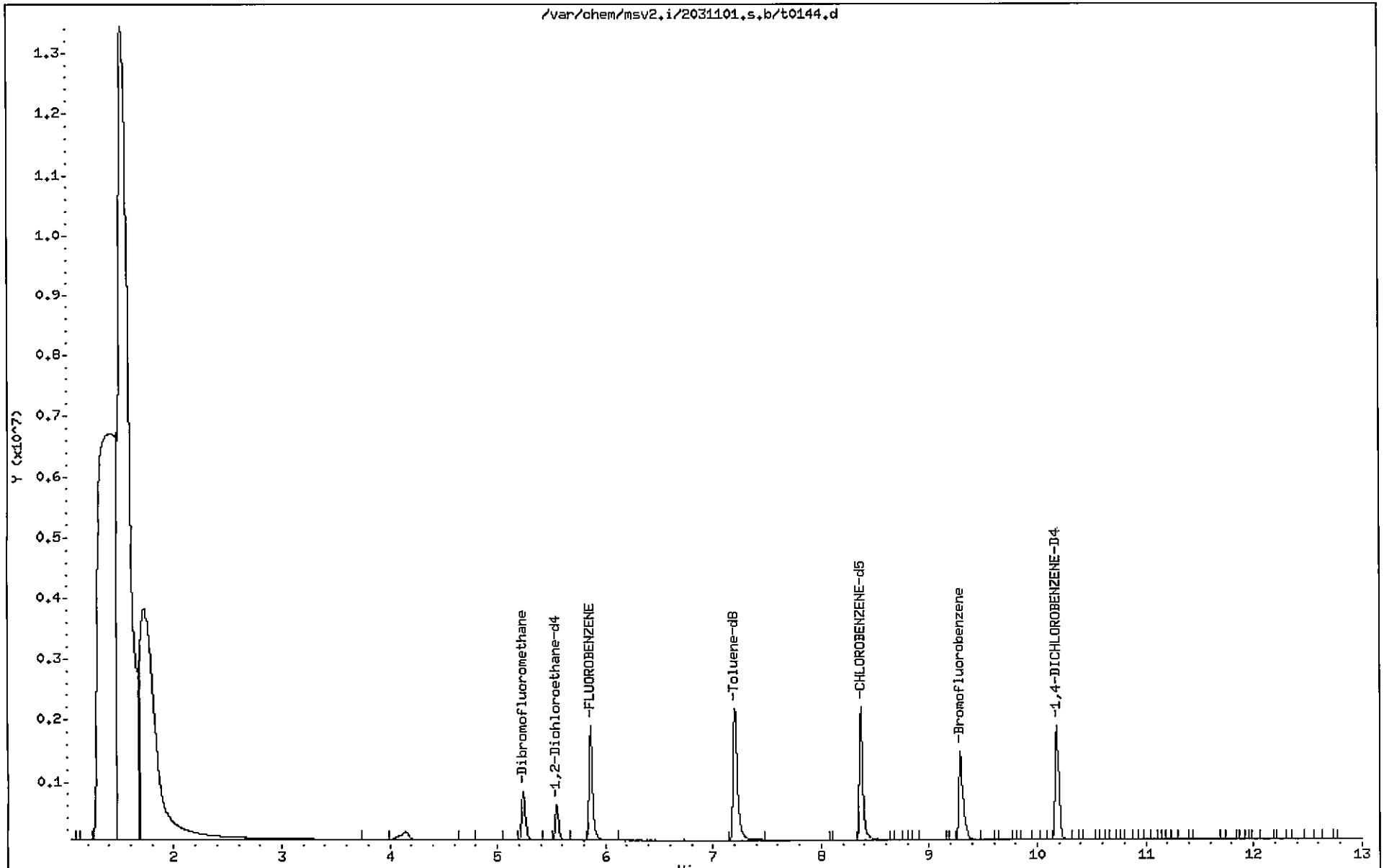
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)
38 Dibromofluoromethane	111	5.246	5.238	(0.895)	594521	52.7853	52.8
44 1,2-Dichloroethane-d4	67	5.550	5.541	(0.947)	241508	50.5220	50.5
47 FLUOROBENZENE	96	5.860	5.852	(1.000)	2229156	50.0000	
58 Toluene-d8	98	7.200	7.192	(0.860)	2129623	50.8521	50.9
70 CHLOROBENZENE-d5	82	8.369	8.360	(1.000)	882563	50.0000	
81 Bromofluorobenzene	174	9.293	9.285	(0.913)	705484	48.0364	48.0
99 1,4-DICHLOROBENZENE-D4	152	10.178	10.169	(1.000)	729566	50.0000	

000044

Data File: /var/chem/msv2.i/2031101.s.b/t0144.d
Date : 01-NOV-2003 17:13
Client ID: 86-CEF271-6S-Q4-03
Sample Info: 20310290506M86-CEF271-6S-Q4-03
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv2.i
Operator: HJL
Column diameter: 0.53



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv2.i/2031101.s.b/t0149.d
Lab Smp Id: 20310290507 Client Smp ID: 86-CEF271-7S-Q4-03
Inj Date : 01-NOV-2003 19:14
Operator : RJO Inst ID: msv2.i
Smp Info : 20310290507*86-CEF271-7S-Q4-03
Misc Info : MSV~3927~*10*HJL
Comment :
Method : /var/chem/msv2.i/2031101.s.b/8260Bw2.m
Meth Date : 10-Nov-2003 10:48 rjo Quant Type: ISTD
Cal Date : 31-OCT-2003 21:14 Cal File: t0115.d
Als bottle: 9
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: btexs+mtbe+lcs.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)

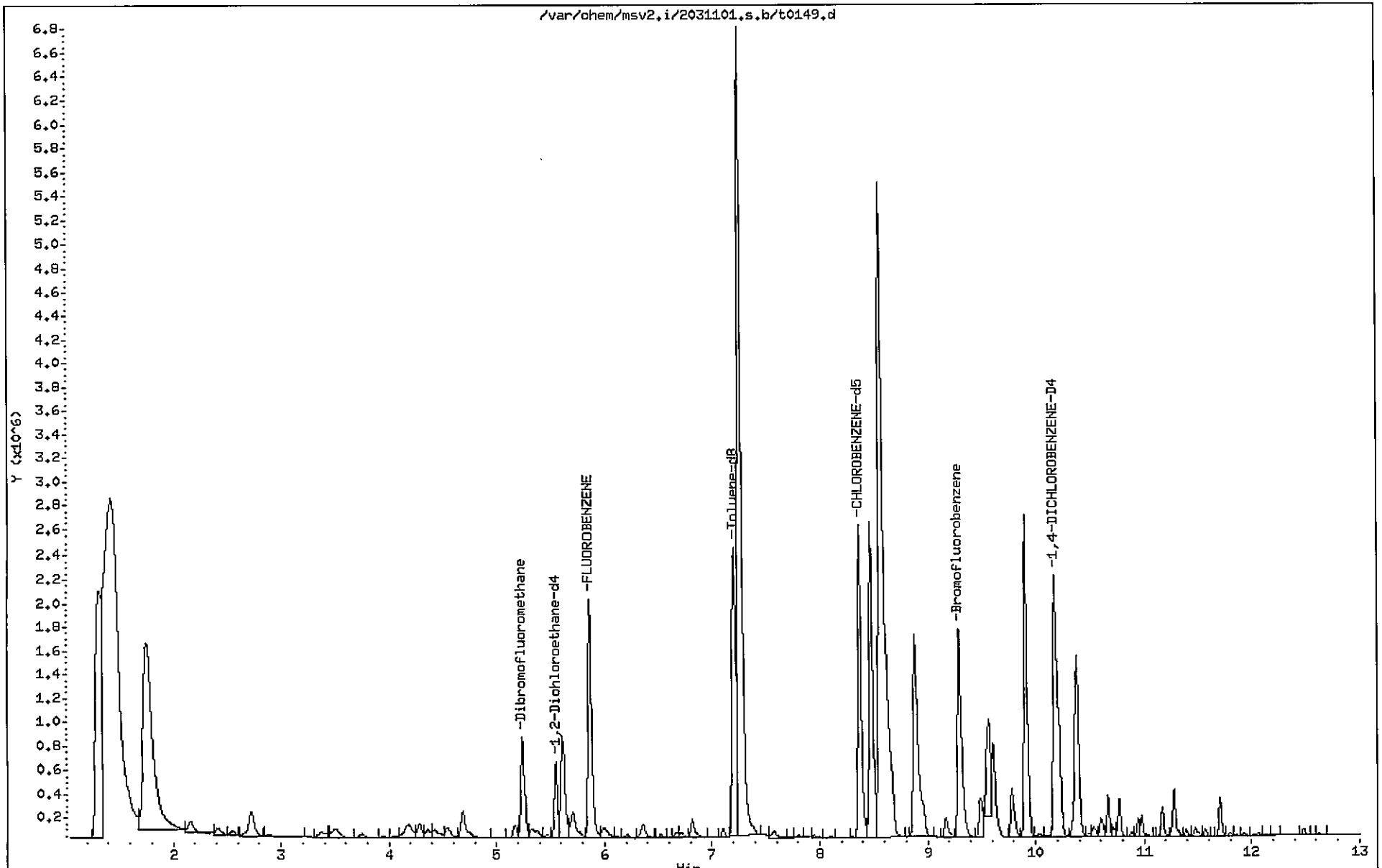
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)
45 Benzene	78	5.614	5.607	(0.957)	991361	18.7700	188
59 Toluene +	91	7.258	7.251	(0.867)	7366274	117.922	1180
73 Ethylbenzene +	106	8.472	8.459	(1.013)	856517	39.8049	398
74 p,m-Xylene	106	8.565	8.552	(1.024)	3618330	129.840	1300
76 o-Xylene	106	8.882	8.869	(1.062)	988109	39.0077	390
77 Styrene	104	8.882	8.875	(1.062)	46392	1.03059	10.3(a)
109 TOTAL XYLENE	106				4606439	168.848	1690
44 1,2-Dichloroethane-d4	67	5.554	5.541	(0.947)	256677	47.6469	476
38 Dibromofluoromethane	111	5.244	5.238	(0.894)	646384	50.9255	509
47 FLUOROBENZENE	96	5.865	5.852	(1.000)	2512128	50.0000	
58 Toluene-d8	98	7.205	7.192	(0.861)	2374231	50.6191	506
70 Chlorobenzene-d5	82	8.367	8.360	(1.000)	988463	50.0000	
81 Bromofluorobenzene	174	9.298	9.285	(0.914)	814696	46.5898	466
99 1,4-DICHLOROBENZENE-D4	152	10.176	10.169	(1.000)	868666	50.0000	

000045

Data File: /var/chem/msv2.i/2031101.s.b/t0149.d
Date : 01-NOV-2003 19:14
Client ID: 86-CEF271-7S-Q4-03
Sample Info: 20310290507*86-CEF271-7S-Q4-03
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv2.i
Operator: RJO
Column diameter: 0.53



Data File: /var/chem/msv2.i/2031101.s.b/t0149.d

Date : 01-NOV-2003 19:14

Client ID: 86-CEF271-7S-Q4-03

Instrument: msv2.i

Sample Info: 20310290507M86-CEF271-7S-Q4-03

Purge Volume: 5.0

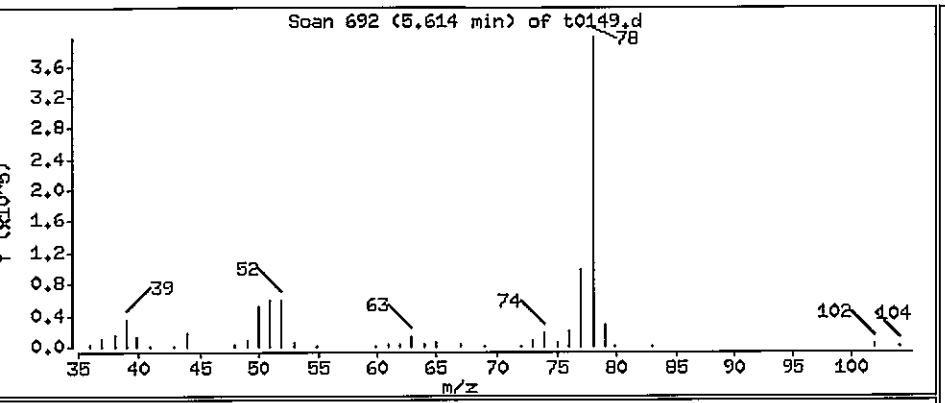
Operator: RJD

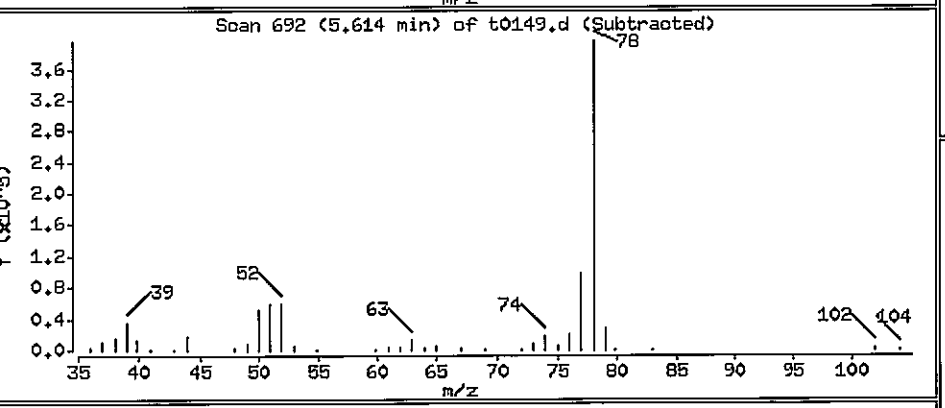
Column phase: DB-624-30M

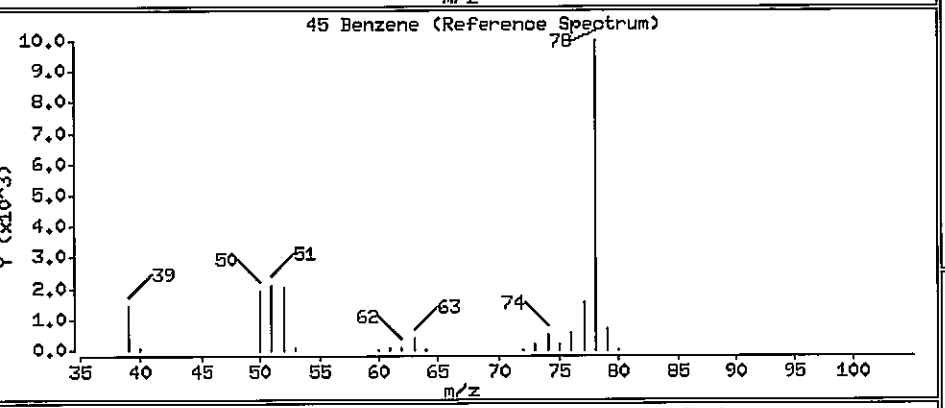
Column diameter: 0.53

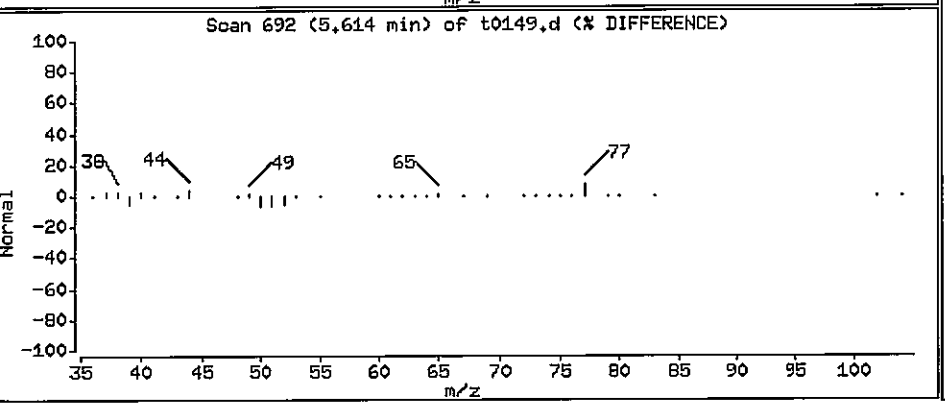
45 Benzene

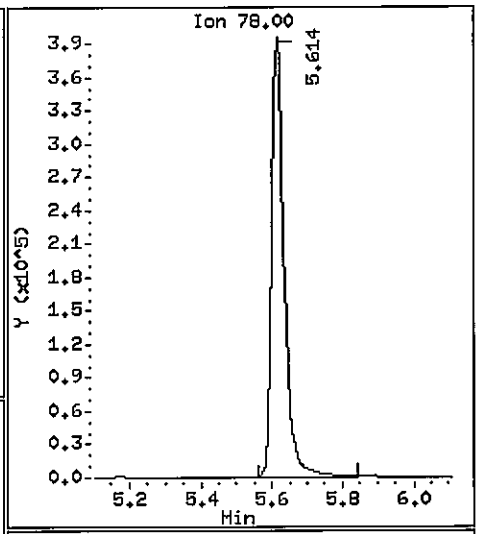
Concentration: 188 ug/L

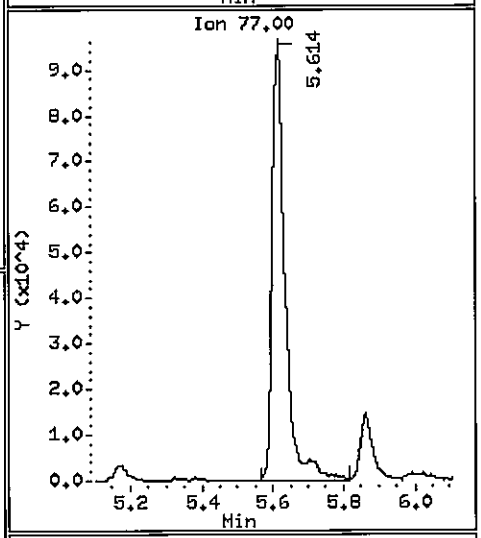


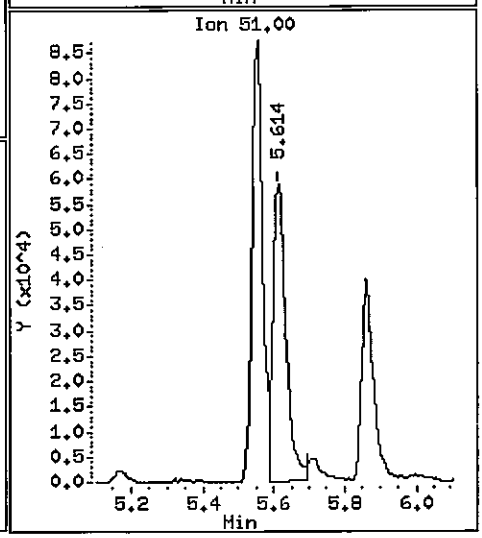












Data File: /var/chem/msv2.i/2031101.s.b/t0149.d

Date : 01-NOV-2003 19:14

Client ID: 86-CEF271-7S-Q4-03

Instrument: msv2.i

Sample Info: 20310290507*86-CEF271-7S-Q4-03

Purge Volume: 5.0

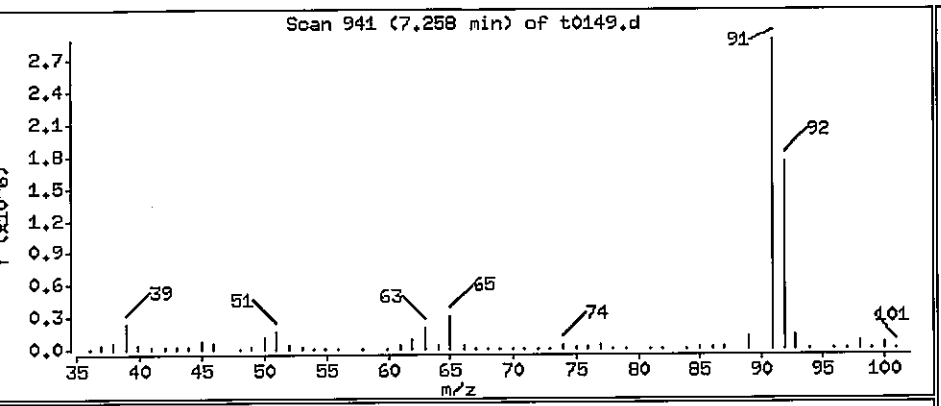
Operator: RJO

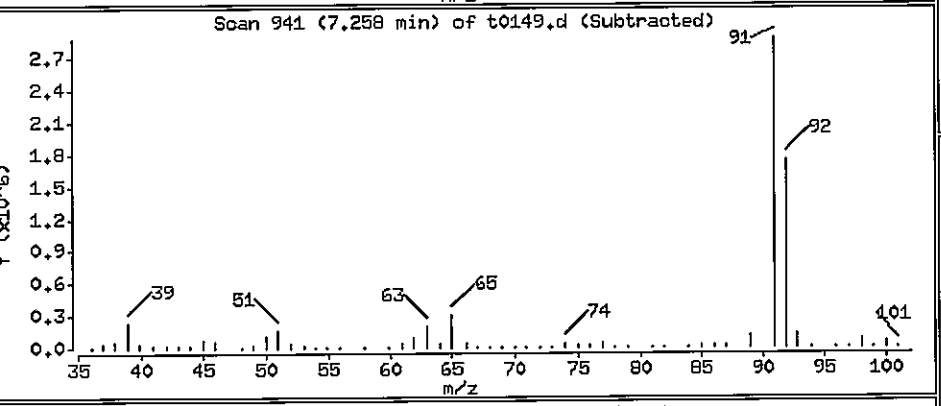
Column phase: DB-624-30M

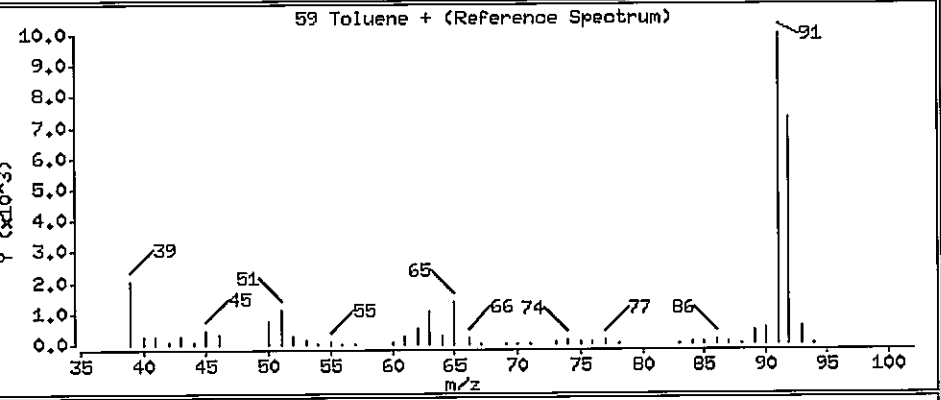
Column diameter: 0.53

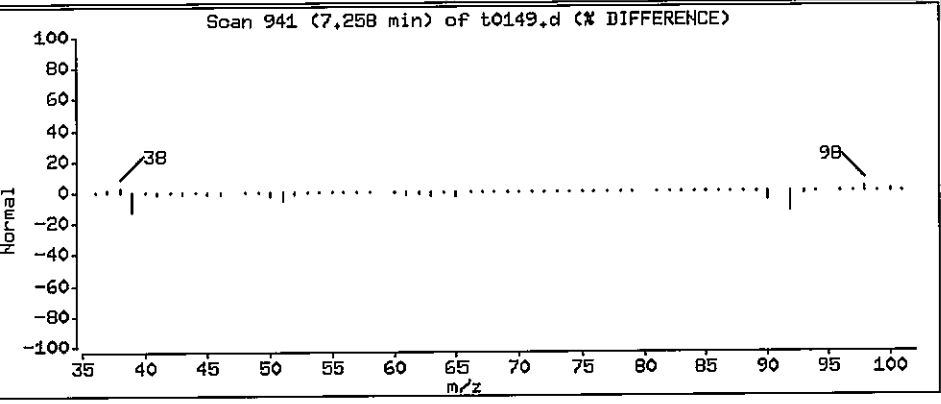
59 Toluene +

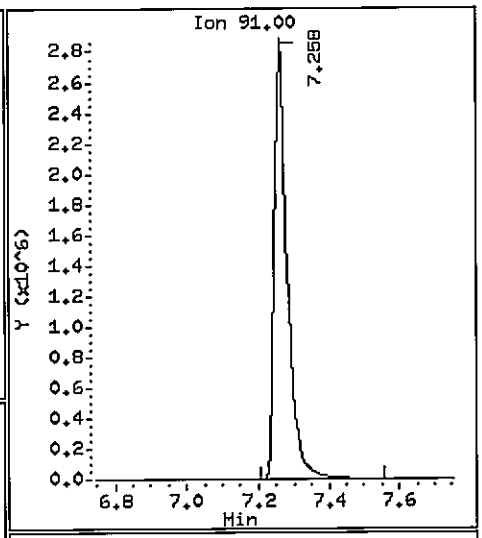
Concentration: 1180 ug/L

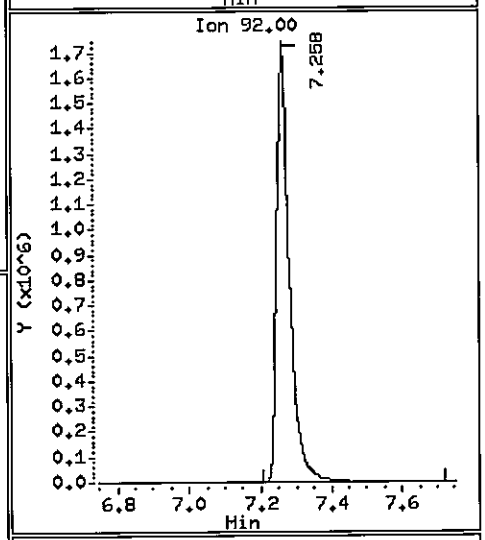


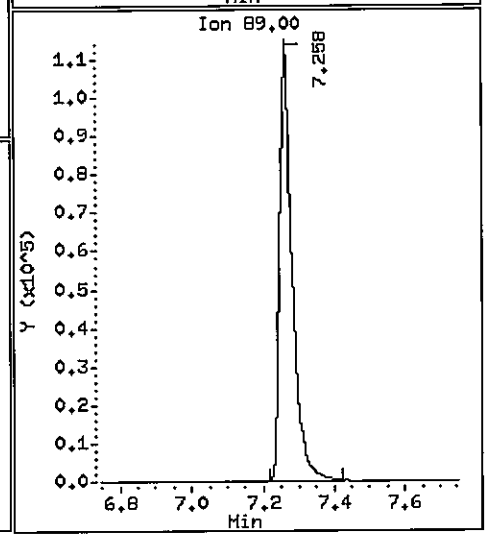












Data File: /var/chem/msv2.i/2031101.s.b/t0149.d

Date : 01-NOV-2003 19:14

Client ID: 86-CEF271-7S-Q4-03

Instrument: msv2.i

Sample Info: 20310290507*86-CEF271-7S-Q4-03

Purge Volume: 5.0

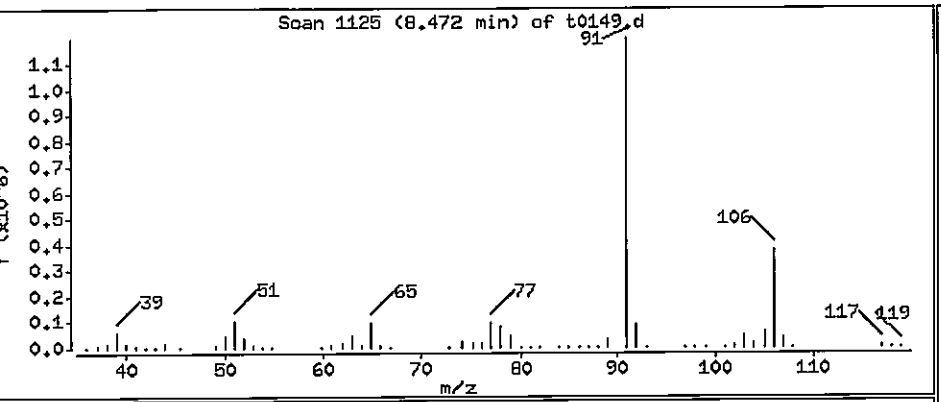
Operator: RJO

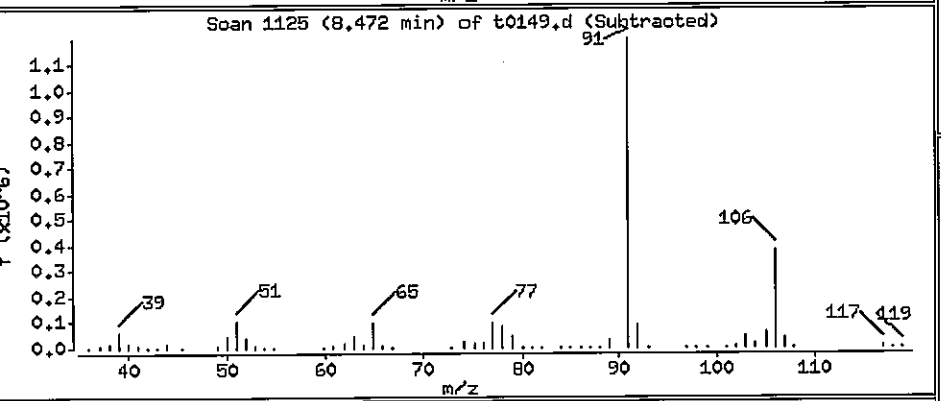
Column phase: DB-624-30M

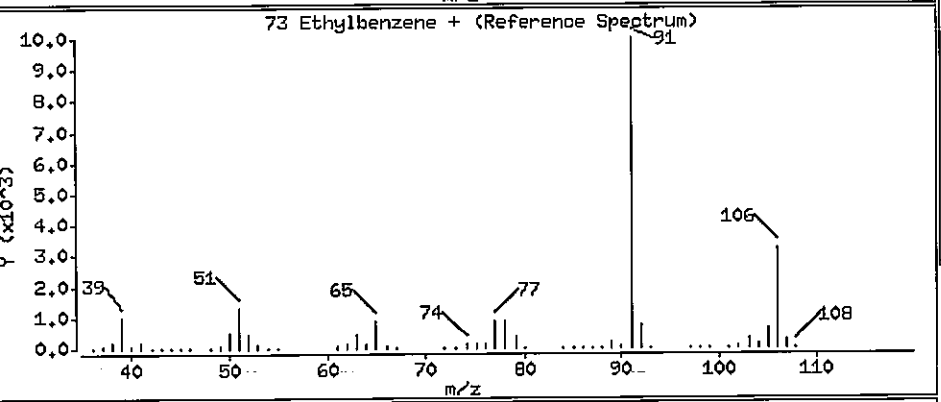
Column diameter: 0.53

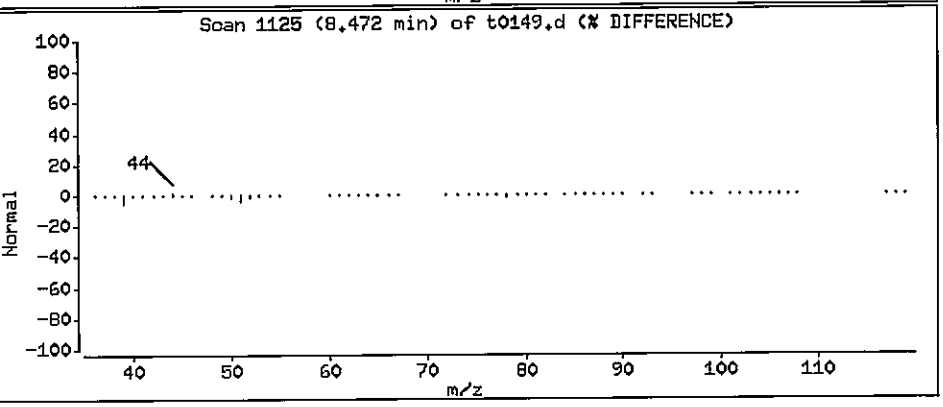
73 Ethylbenzene +

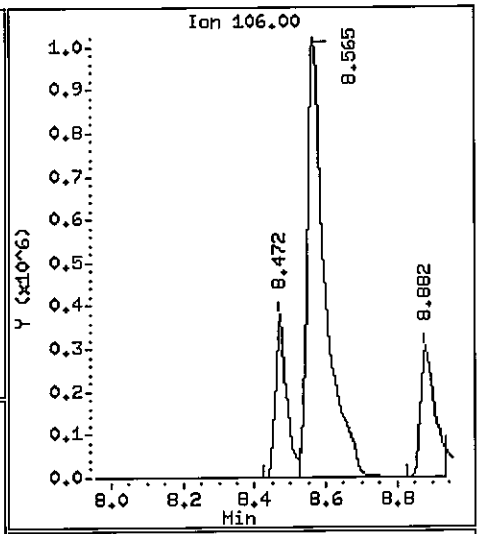
Concentration: 398 ug/L

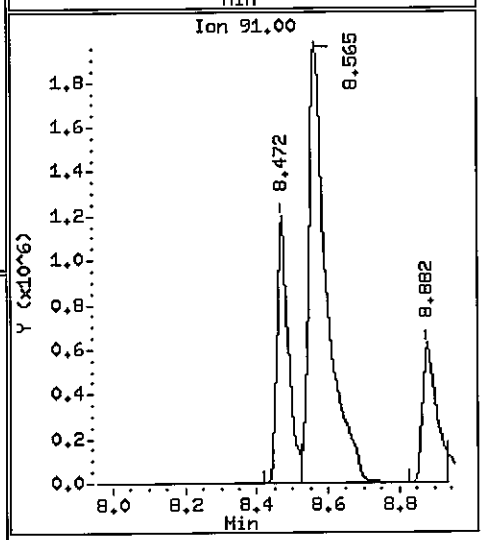












Data File: /var/chem/msv2.i/2031101.s.b/t0149.d

Date : 01-NOV-2003 19:14

Client ID: 86-CEF271-7S-Q4-03

Instrument: msv2.i

Sample Info: 20310290507X86-CEF271-7S-Q4-03

Purge Volume: 5.0

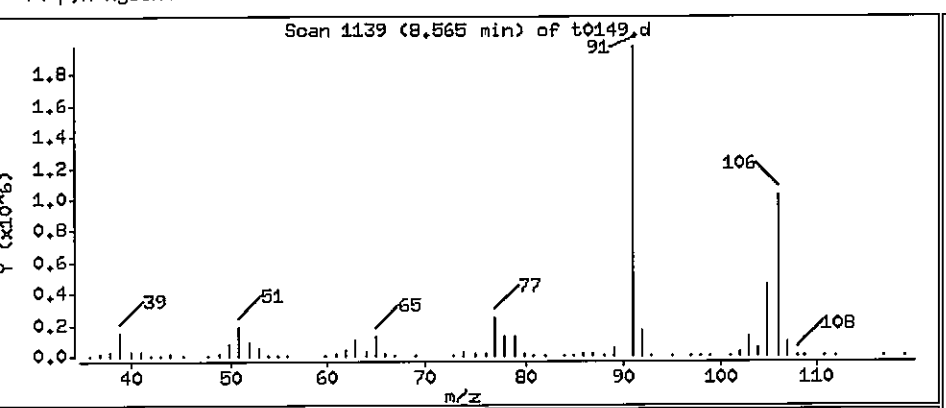
Operator: RJD

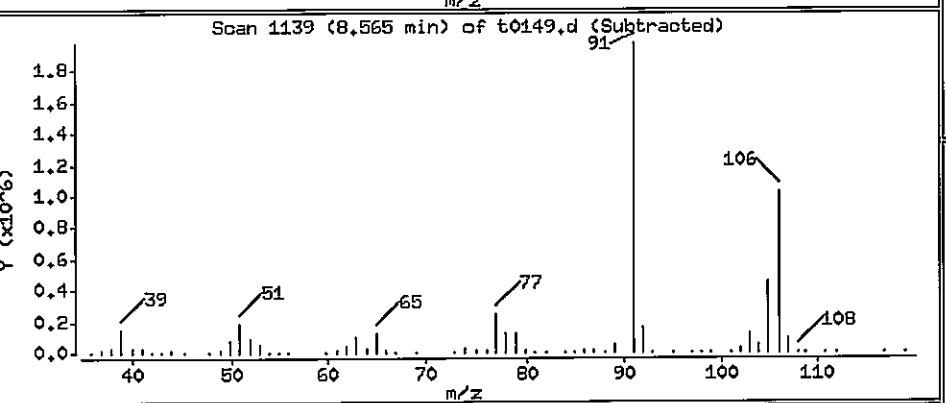
Column phase: DB-624-30M

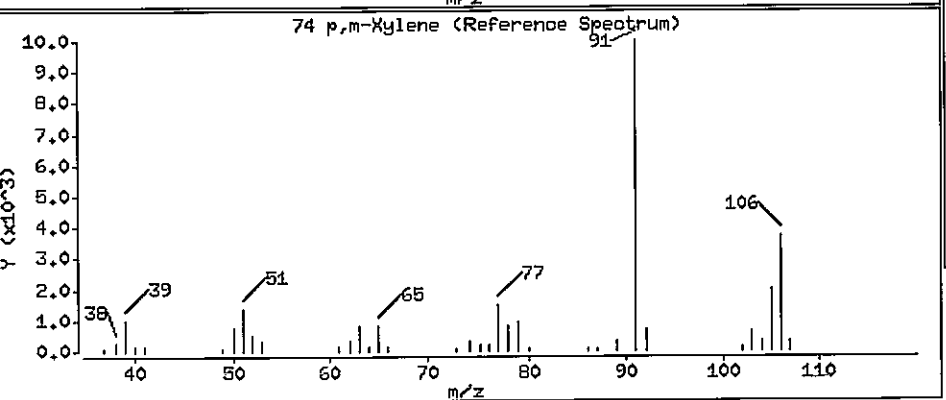
Column diameter: 0.53

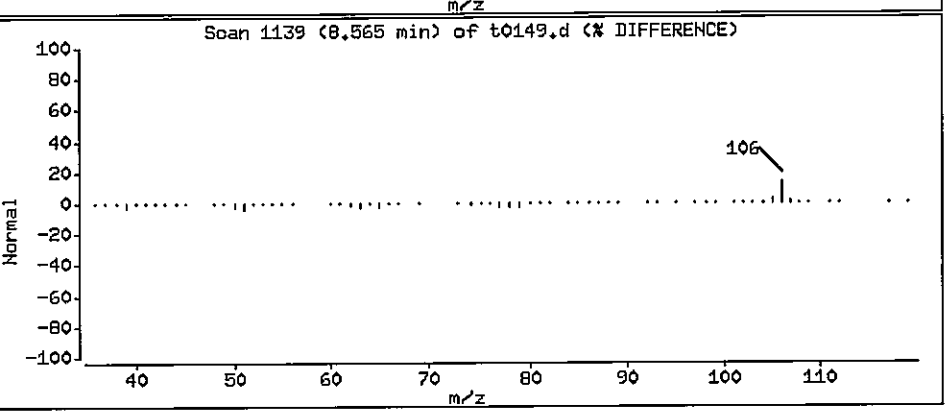
74 p,m-Xylene

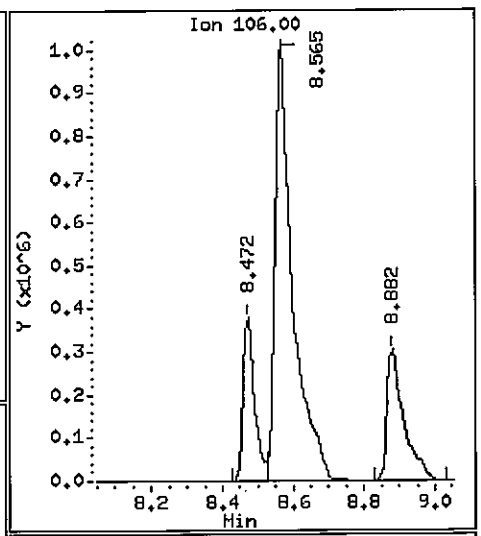
Concentration: 1300 ug/L

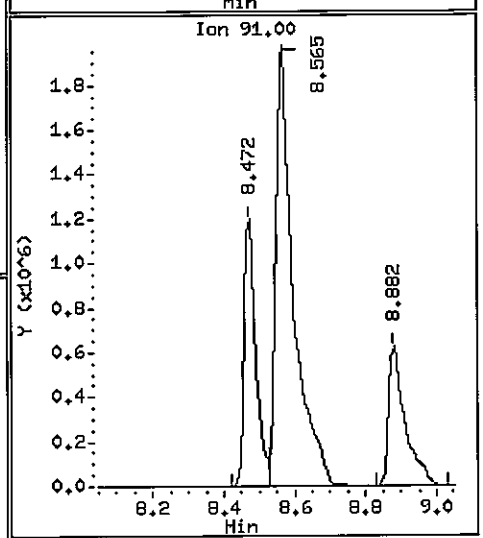












Data File: /var/chem/msv2.i/2031101.s.b/t0149.d

Date : 01-NOV-2003 19:14

Client ID: 86-CEF271-7S-Q4-03

Instrument: msv2.i

Sample Info: 20310290507*86-CEF271-7S-Q4-03

Purge Volume: 5.0

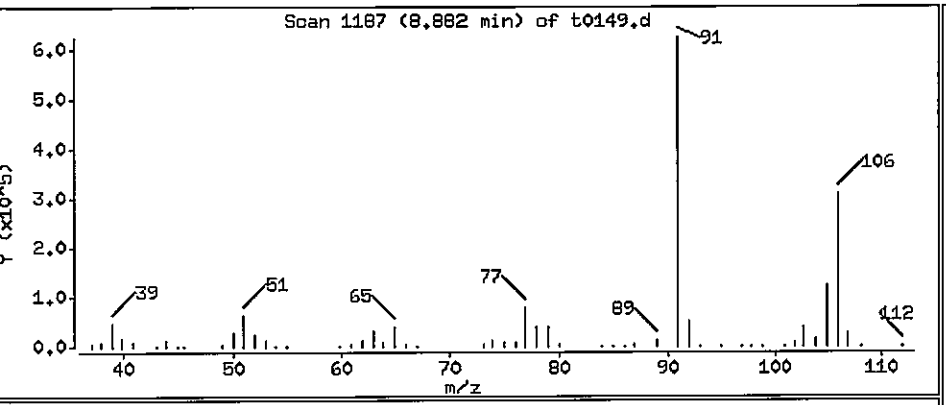
Operator: RJO

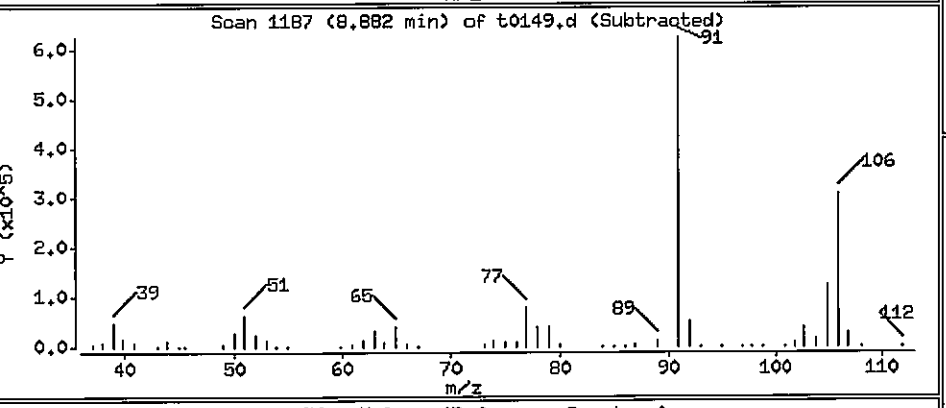
Column phase: DB-624-30M

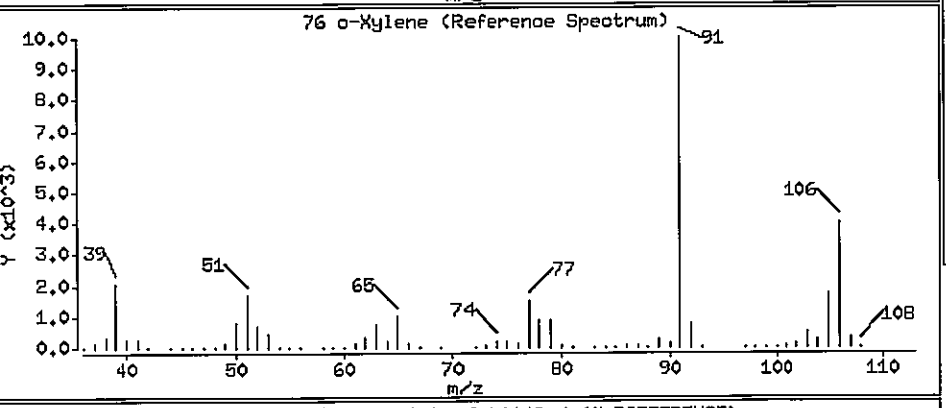
Column diameter: 0.53

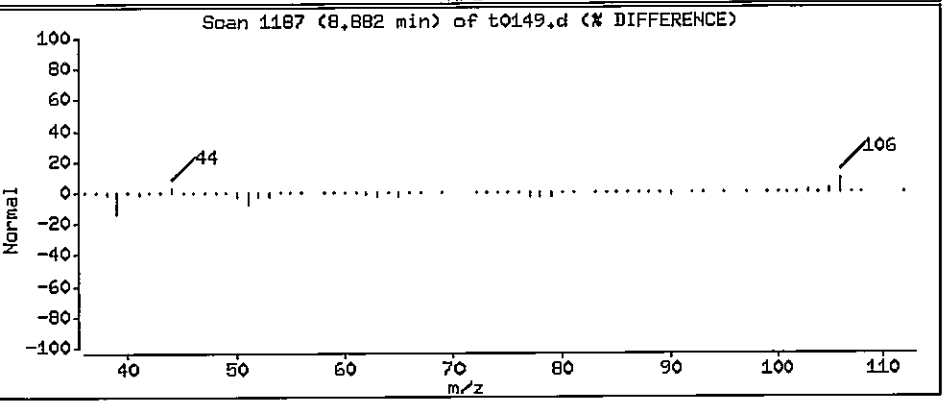
76 o-Xylene

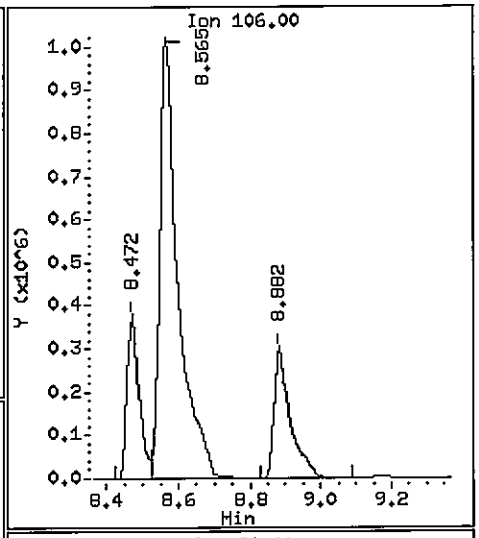
Concentration: 390 ug/L

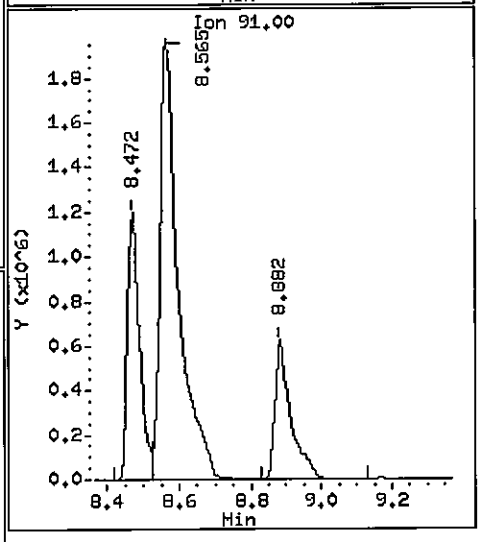












Data File: /var/chem/msv2.i/2031101.s.b/t0149.d

Date : 01-NOV-2003 19:14

Client ID: 86-CEF271-7S-Q4-03

Instrument: msv2.i

Sample Info: 20310290507*86-CEF271-7S-Q4-03

Purge Volume: 5.0

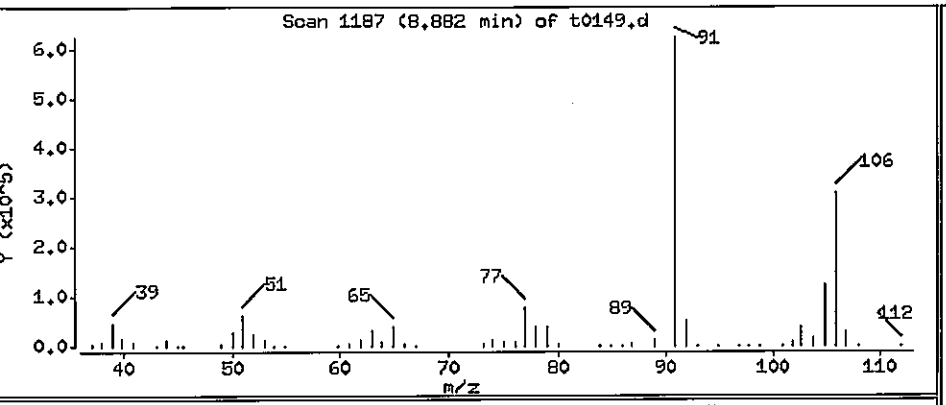
Operator: RJD

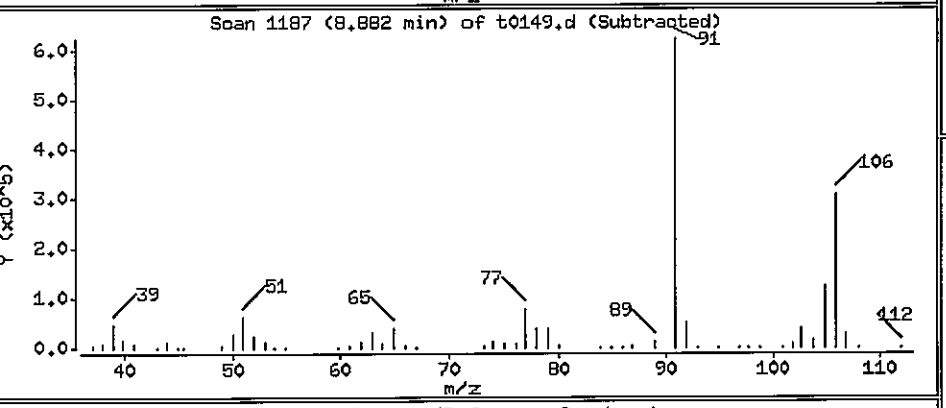
Column phase: DB-624-30M

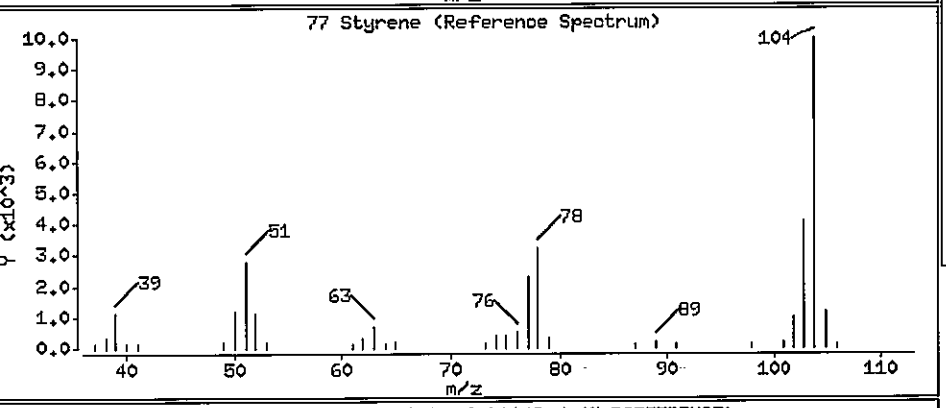
Column diameter: 0.53

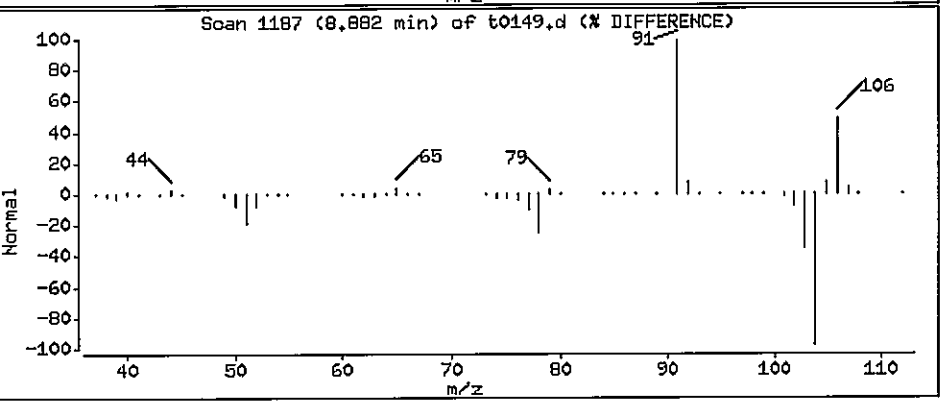
77 Styrene

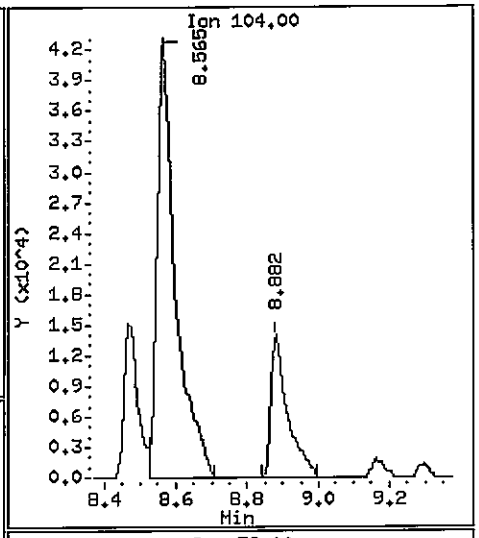
Concentration: 10.3 ug/L

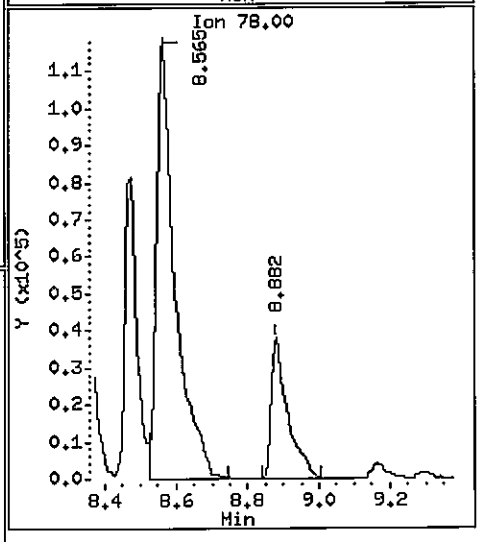












Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv2.i/2031101.s.b/t0146.d
Lab Smp Id: 20310290508 Client Smp ID: 86-CEF271-10S-Q4-03
Inj Date : 01-NOV-2003 18:01
Operator : HJL Inst ID: msv2.i
Smp Info : 20310290508*86-CEF271-10S-Q4-03
Misc Info : MSV~3927~*1*HJL
Comment :
Method : /var/chem/msv2.i/2031101.s.b/8260Bw2.m
Meth Date : 10-Nov-2003 10:48 rjo Quant Type: ISTD
Cal Date : 31-OCT-2003 21:14 Cal File: t0115.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260B.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)

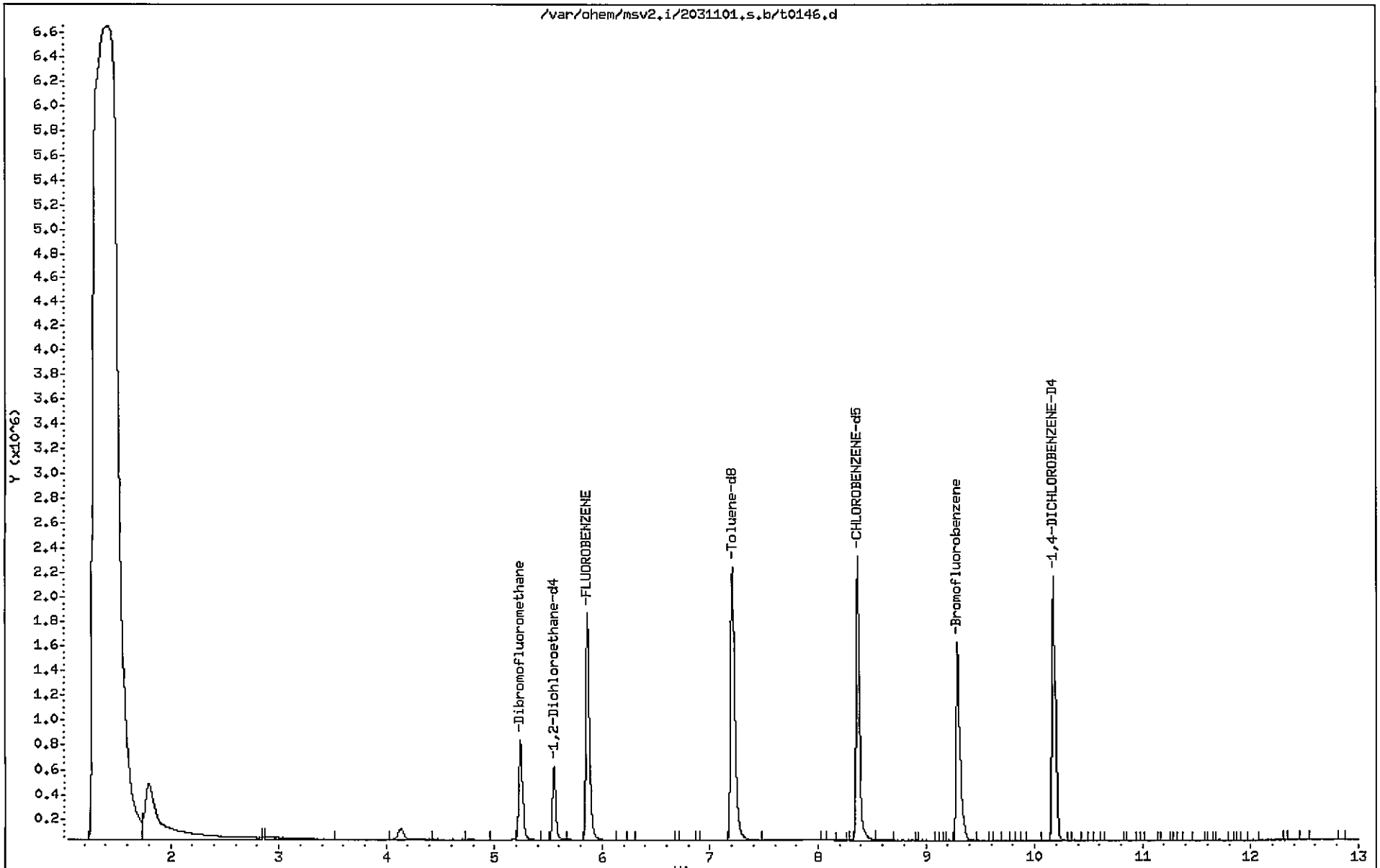
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)
38 Dibromofluoromethane	111	5.244	5.238	(0.894)	612564	52.1608	52.2
44 1,2-Dichloroethane-d4	67	5.548	5.541	(0.946)	246158	49.3867	49.4
47 FLUOROBENZENE	96	5.865	5.852	(1.000)	2324307	50.0000	
58 Toluene-d8	98	7.205	7.192	(0.861)	2216635	51.3866	51.4
70 CHLOROBENZENE-d5	82	8.367	8.360	(1.000)	909068	50.0000	
81 Bromofluorobenzene	174	9.291	9.285	(0.913)	730723	46.2638	46.3
99 1,4-DICHLOROBENZENE-D4	152	10.176	10.169	(1.000)	784619	50.0000	

000054

Data File: /var/chem/msv2.i/2031101.s.b/t0146.d
Date : 01-NOV-2003 18:01
Client ID: 86-CEF271-10S-Q4-03
Sample Info: 20310290508*86-CEF271-10S-Q4-03
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv2.i
Operator: HJL
Column diameter: 0.53



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv2.i/2031101.s.b/t0147.d
Lab Smp Id: 20310290509 Client Smp ID: 86-CEF271-1I-Q4-03
Inj Date : 01-NOV-2003 18:26
Operator : RJO Inst ID: msv2.i
Smp Info : 20310290509*86-CEF271-1I-Q4-03
Misc Info : MSV~3927~*1*HJL
Comment :
Method : /var/chem/msv2.i/2031101.s.b/8260Bw2.m
Meth Date : 10-Nov-2003 10:48 rjo Quant Type: ISTD
Cal Date : 31-OCT-2003 21:14 Cal File: t0115.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: btexs+mtbe+lcs.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)
44 1,2-Dichloroethane-d4	67	5.550	5.541	(0.947)	246246	49.0943	49.1
38 Dibromofluoromethane	111	5.247	5.238	(0.895)	614948	52.0352	52.0
47 FLUOROBENZENE	96	5.861	5.852	(1.000)	2338987	50.0000	
58 Toluene-d8	98	7.201	7.192	(0.860)	2228465	51.1569	51.2
70 Chlorobenzene-d5	82	8.370	8.360	(1.000)	918024	50.0000	
81 Bromofluorobenzene	174	9.294	9.285	(0.913)	731131	48.7608	48.8
99 1,4-DICHLOROBENZENE-D4	152	10.178	10.169	(1.000)	744856	50.0000	

Data File: /var/chem/msv2.i/2031101.s.b/t0147.d

Date : 01-NOV-2003 18:26

Client ID: B6-CEF271-1I-Q4-03

Sample Info: 20310290509*B6-CEF271-1I-Q4-03

Purge Volume: 5.0

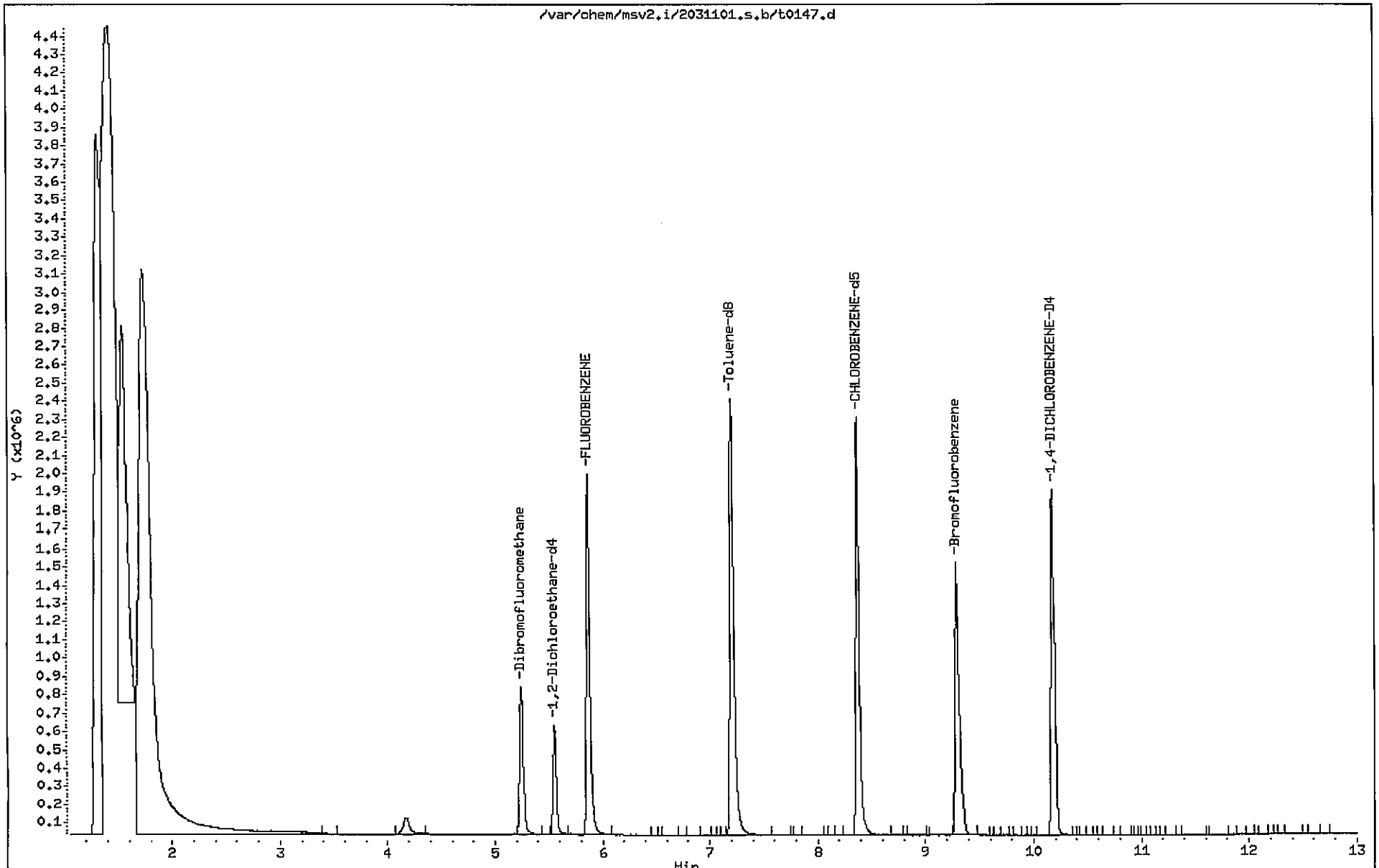
Column phase: DB-624-30M

Instrument: msv2.i

Operator: RJD

Column diameter: 0.53

000056



Gulf Coast Analytical Laboratories, Inc.

ata file : /var/chem/msv2.i/2031101.s.b/t0148.d
ab Smp Id: 20310290510 Client Smp ID: 86-271-DUP2-Q4-03
nj Date : 01-NOV-2003 18:50
perator : RJO Inst ID: msv2.i
mp Info : 20310290510*86-271-DUP2-Q4-03
isc Info : MSV~3927~*1*HJL
omment :
ethod : /var/chem/msv2.i/2031101.s.b/8260Bw2.m
eth Date : 10-Nov-2003 10:48 rjo Quant Type: ISTD
al Date : 31-OCT-2003 21:14 Cal File: t0115.d
ls bottle: 12
il Factor: 1.00000
ntegrator: HP RTE Compound Sublist: btexs+mtbe+lcs.sub
arget Version: 3.50

oncentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)

pnd Variable Local Compound Variable

ompounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)
44 1,2-Dichloroethane-d4	67	5.551	5.541	(0.947)	251852	48.1439	48.1
38 Dibromofluoromethane	111	5.247	5.238	(0.895)	636580	51.6471	51.6
47 FLUOROBENZENE	96	5.861	5.852	(1.000)	2439461	50.0000	
58 Toluene-d8	98	7.202	7.192	(0.860)	2310161	51.5499	51.5
70 Chlorobenzene-d5	82	8.370	8.360	(1.000)	944423	50.0000	
81 Bromofluorobenzene	174	9.294	9.285	(0.914)	740630	47.0923	47.1
99 1,4-DICHLOROBENZENE-D4	152	10.172	10.169	(1.000)	781266	50.0000	

Data File: /var/chem/msv2.i/2031101.s.b/t0148.d

Date : 01-NOV-2003 18:50

Client ID: B6-271-DUP2-Q4-03

Instrument: msv2.i

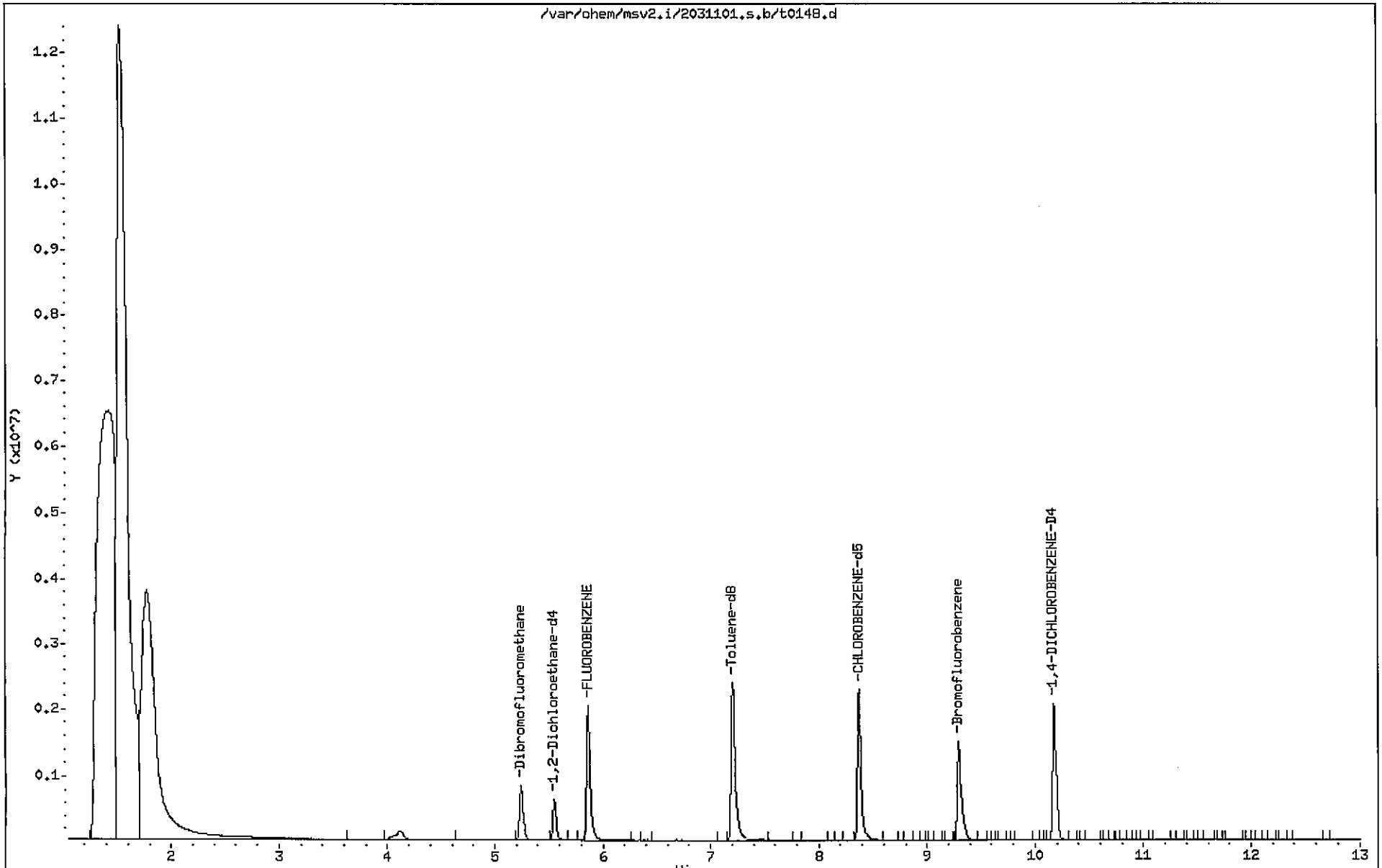
Sample Info: 20310290510*B6-271-DUP2-Q4-03

Purge Volume: 5.0

Operator: RJD

Column phase: DB-624-30M

Column diameter: 0.53



Gulf Coast Analytical Laboratories, Inc.

ata file : /var/chem/msv2.i/2031101.s.b/t0131.d
ab Smp Id: 20310290511 Client Smp ID: 86-271-EB-Q4-03
nj Date : 01-NOV-2003 11:59
perator : HJL Inst ID: msv2.i
mp Info : 20310290511*86-271-EB-Q4-03
isc Info : MSV~3927~*1*HJL
omment :
ethod : /var/chem/msv2.i/2031101.s.b/8260Bw2.m
eth Date : 10-Nov-2003 10:48 rjo Quant Type: ISTD
al Date : 31-OCT-2003 21:14 Cal File: t0115.d
ls bottle: 13
il Factor: 1.00000
ntegrator: HP RTE Compound Sublist: 8260B.sub
arget Version: 3.50

oncentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)

pnd Variable Local Compound Variable

ompounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)
12 Acetone	43	2.903	2.887	(0.495)	44207	31.2327	31.2
37 Chloroform +	83	5.088	5.086	(0.868)	27768	1.36970	1.37(a)
38 Dibromofluoromethane	111	5.240	5.238	(0.894)	621882	51.0012	51.0
44 1,2-Dichloroethane-d4	67	5.551	5.541	(0.947)	250563	48.4164	48.4
47 FLUOROBENZENE	96	5.861	5.852	(1.000)	2413316	50.0000	
58 Toluene-d8	98	7.201	7.192	(0.861)	2322421	50.9426	50.9
59 Toluene +	91	7.254	7.251	(0.867)	61252	1.00882	1.01(a)
70 CHLOROBENZENE-d5	82	8.363	8.360	(1.000)	960754	50.0000	
81 Bromofluorobenzene	174	9.287	9.285	(0.913)	748823	50.5485	50.5
99 1,4-DICHLOROBENZENE-D4	152	10.172	10.169	(1.000)	735899	50.0000	

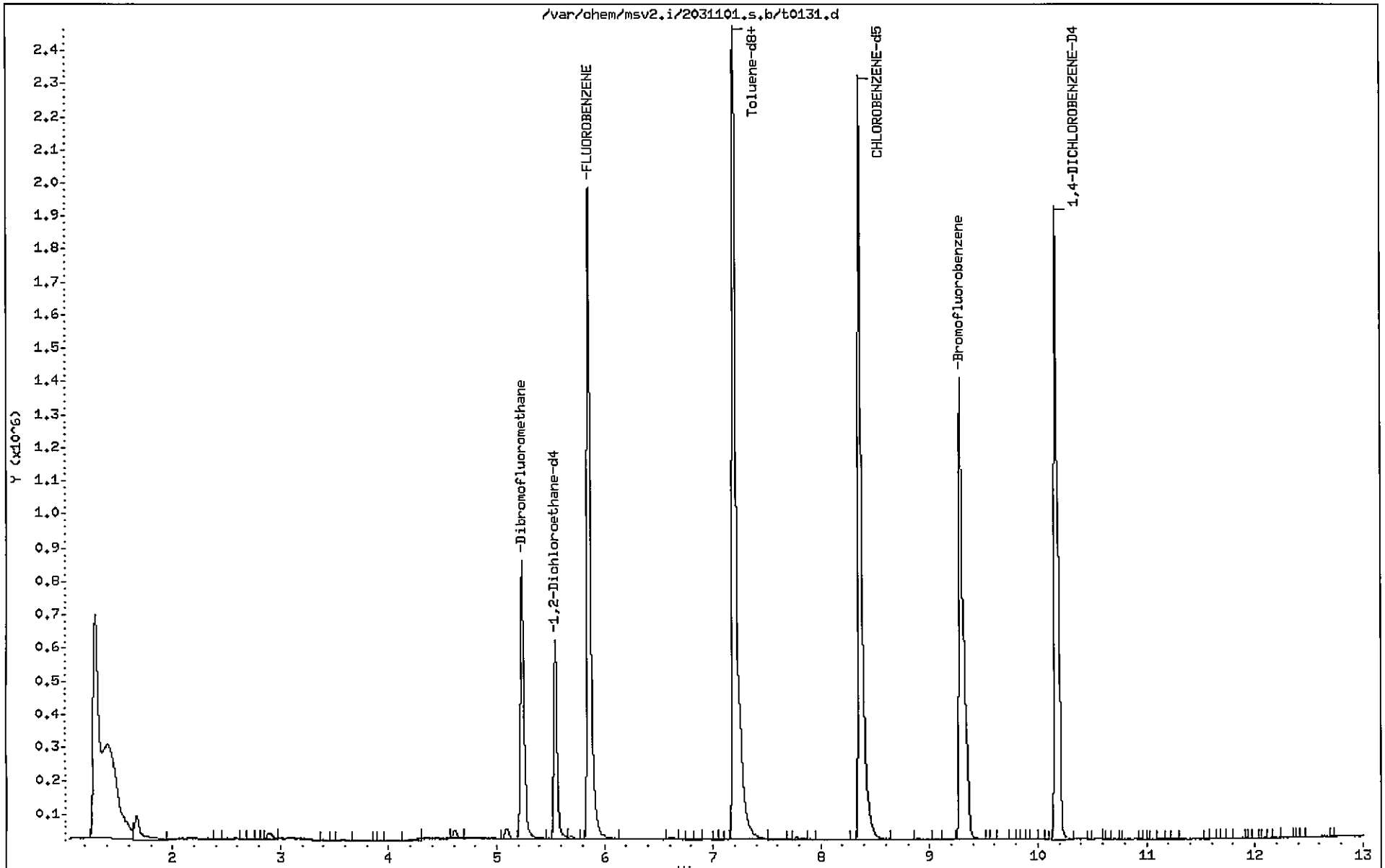
QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

000060

Data File: /var/chem/msv2.i/2031101.s.b/t0131.d
Date : 01-NOV-2003 11:59
Client ID: B6-271-EB-Q4-03
Sample Info: 20310290511*B6-271-EB-Q4-03
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv2.i
Operator: HJL
Column diameter: 0.53



Data File: /var/chem/msv2.i/2031101.s.b/t0131.d

Date : 01-NOV-2003 11:59

Client ID: B6-271-EB-Q4-03

Instrument: msv2.i

Sample Info: 20310290511*B6-271-EB-Q4-03

Purge Volume: 5.0

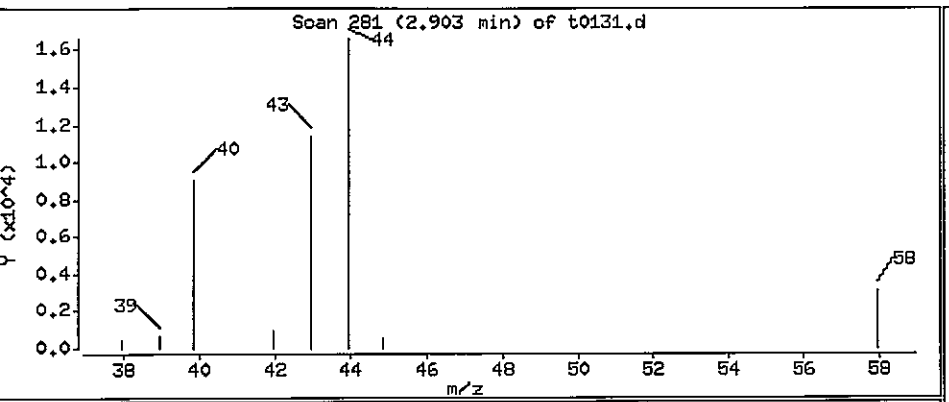
Operator: HJL

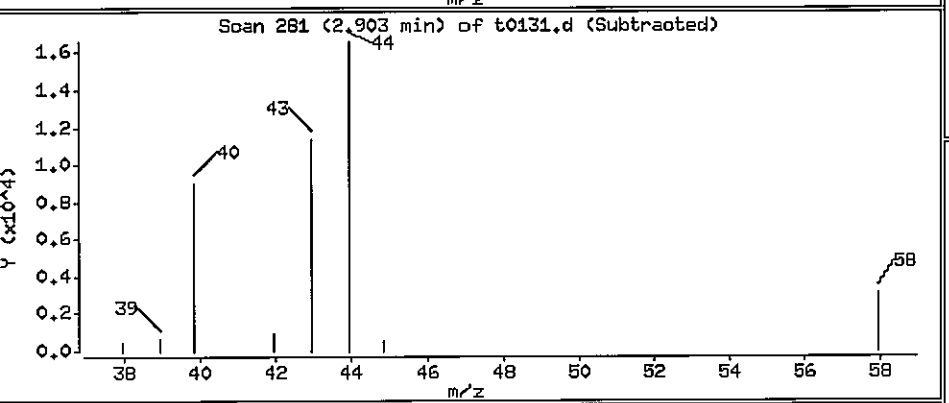
Column phase: DB-624-30M

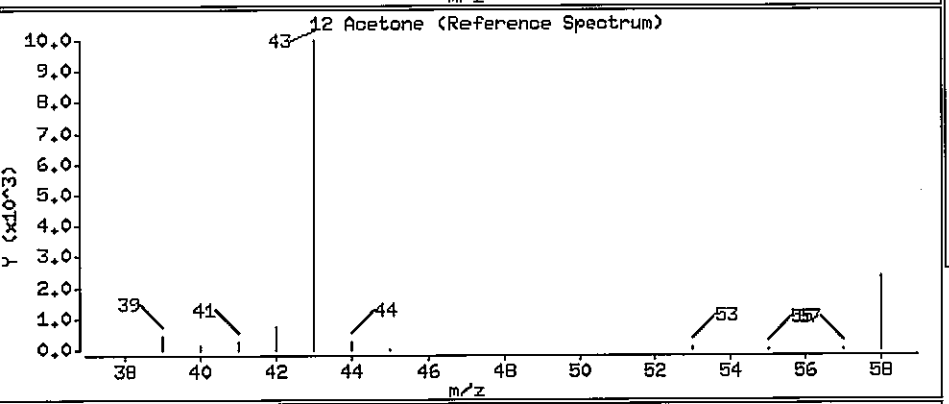
Column diameter: 0.53

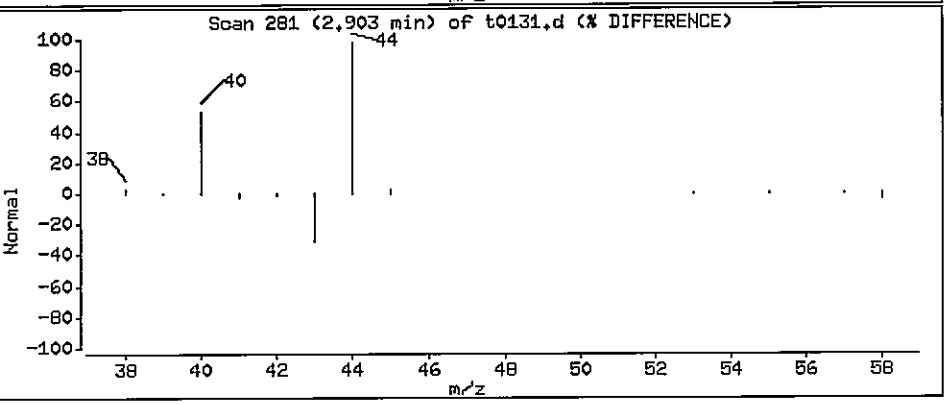
12 Acetone

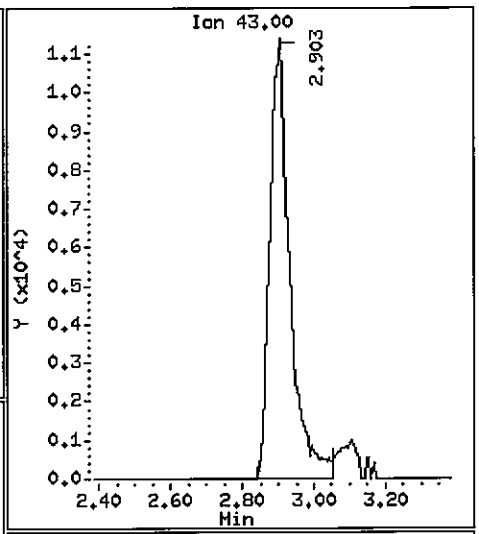
Concentration: 31.2 ug/L

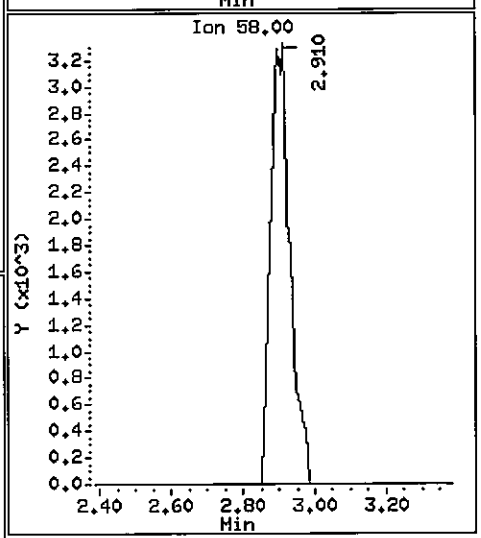












Data File: /var/chem/msv2.i/2031101.s.b/t0131.d

Date : 01-NOV-2003 11:59

Client ID: 86-271-EB-Q4-03

Instrument: msv2.i

Sample Info: 20310290511*86-271-EB-Q4-03

Purge Volume: 5.0

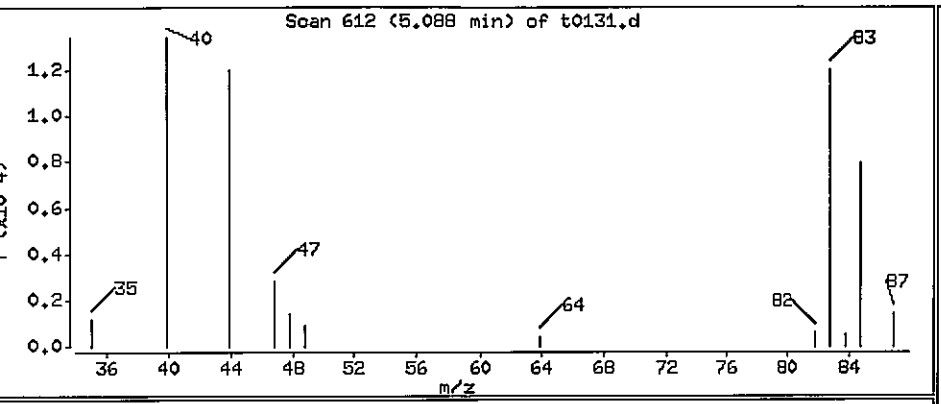
Operator: HJL

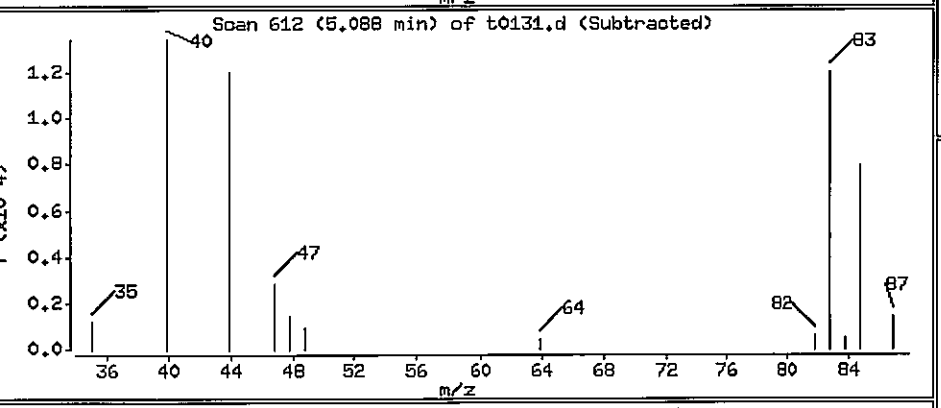
Column phase: DB-624-30M

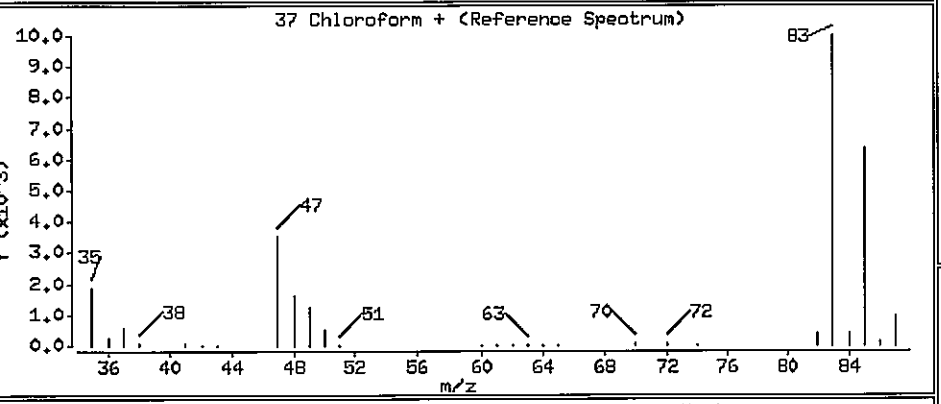
Column diameter: 0.53

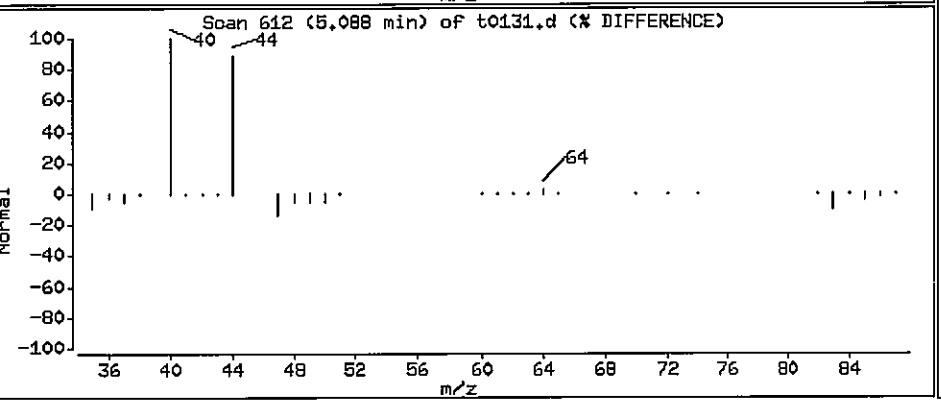
37 Chloroform +

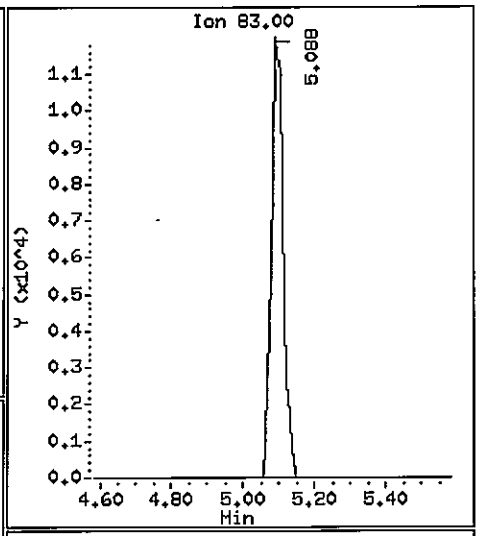
Concentration: 1.37 ug/L

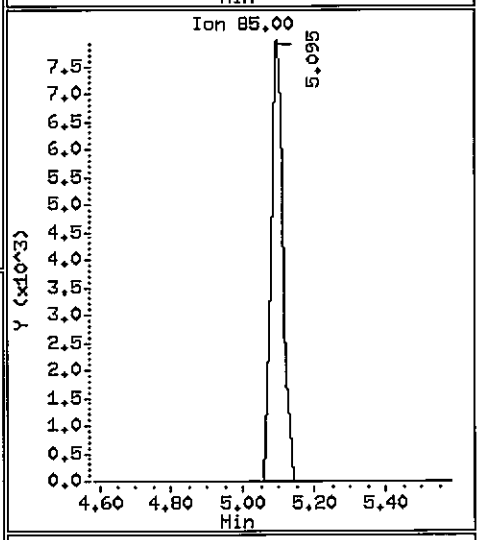


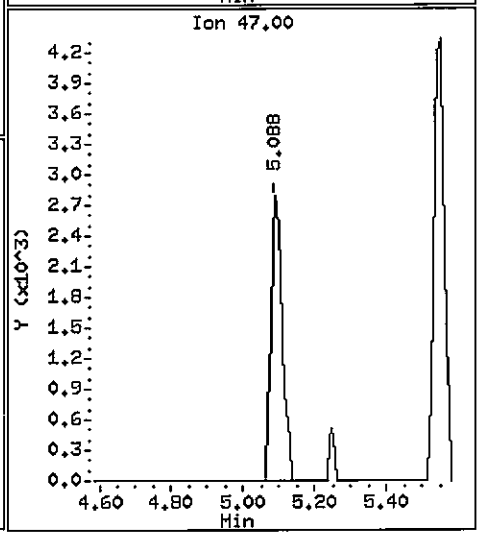












Data File: /var/chem/msv2.i/2031101.s.b/t0131.d

Date : 01-NOV-2003 11:59

Client ID: 86-271-EB-Q4-03

Instrument: msv2.i

Sample Info: 20310290511*86-271-EB-Q4-03

Purge Volume: 5.0

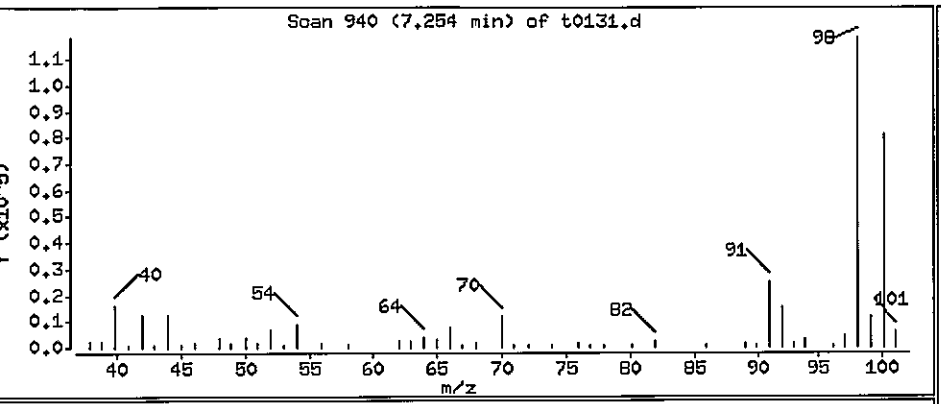
Operator: HJL

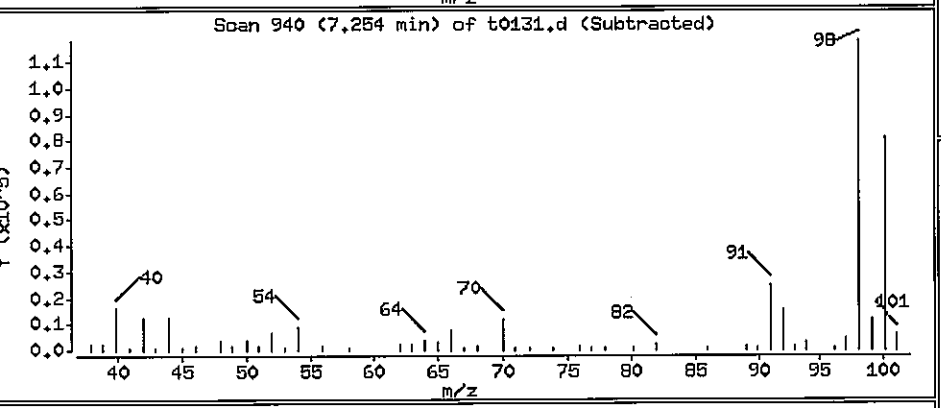
Column phase: DB-624-30M

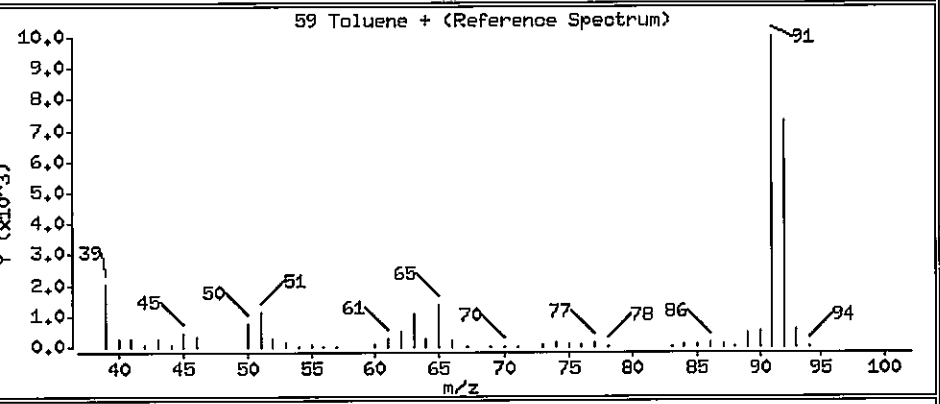
Column diameter: 0.53

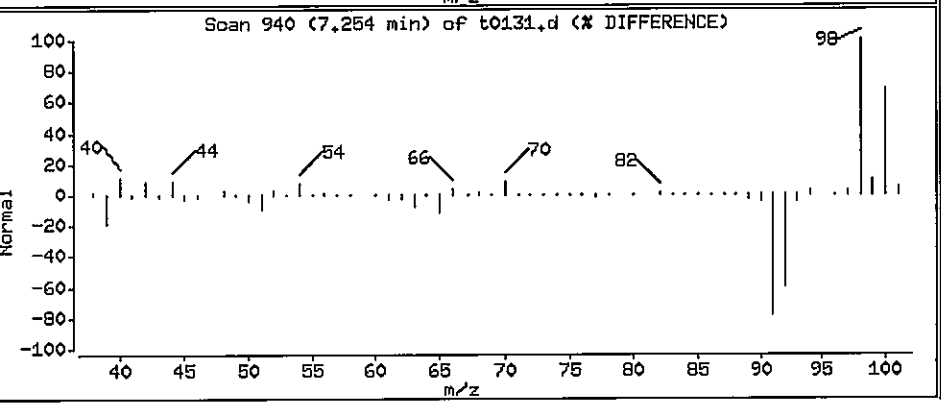
59 Toluene +

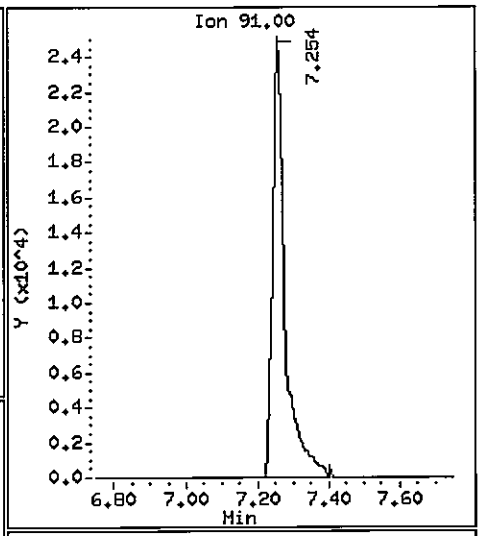
Concentration: 1.01 ug/L

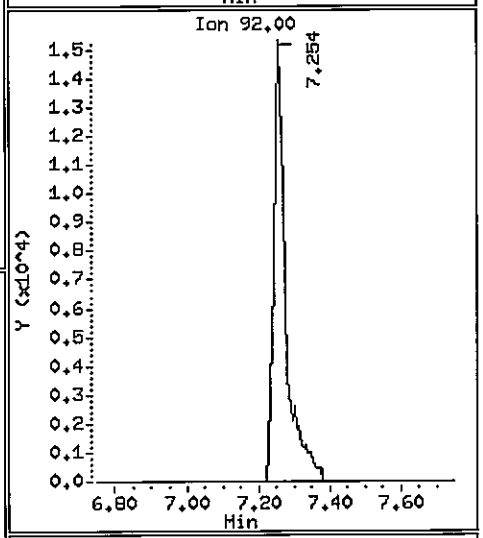


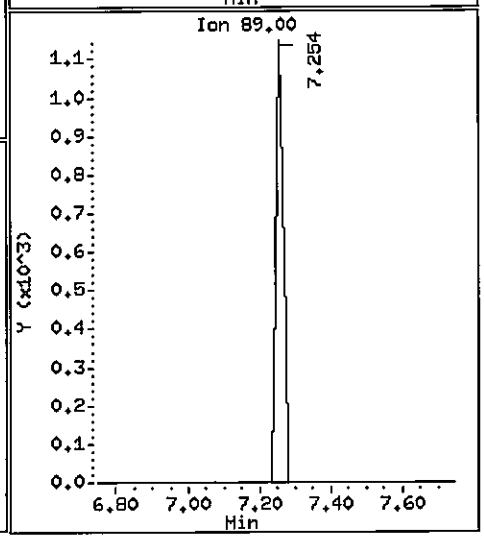












Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv2.i/2031101.s.b/t0132.d
Lab Smp Id: 20310290512 Client Smp ID: 86-271-TB1-Q4-03
Inj Date : 01-NOV-2003 12:23
Operator : HJL Inst ID: msv2.i
Smp Info : 20310290512*86-271-TB1-Q4-03
Misc Info : MSV~3927~*1*HJL
Comment :
Method : /var/chem/msv2.i/2031101.s.b/8260Bw2.m
Meth Date : 10-Nov-2003 10:48 rjo Quant Type: ISTD
Cal Date : 31-OCT-2003 21:14 Cal File: t0115.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260B.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)

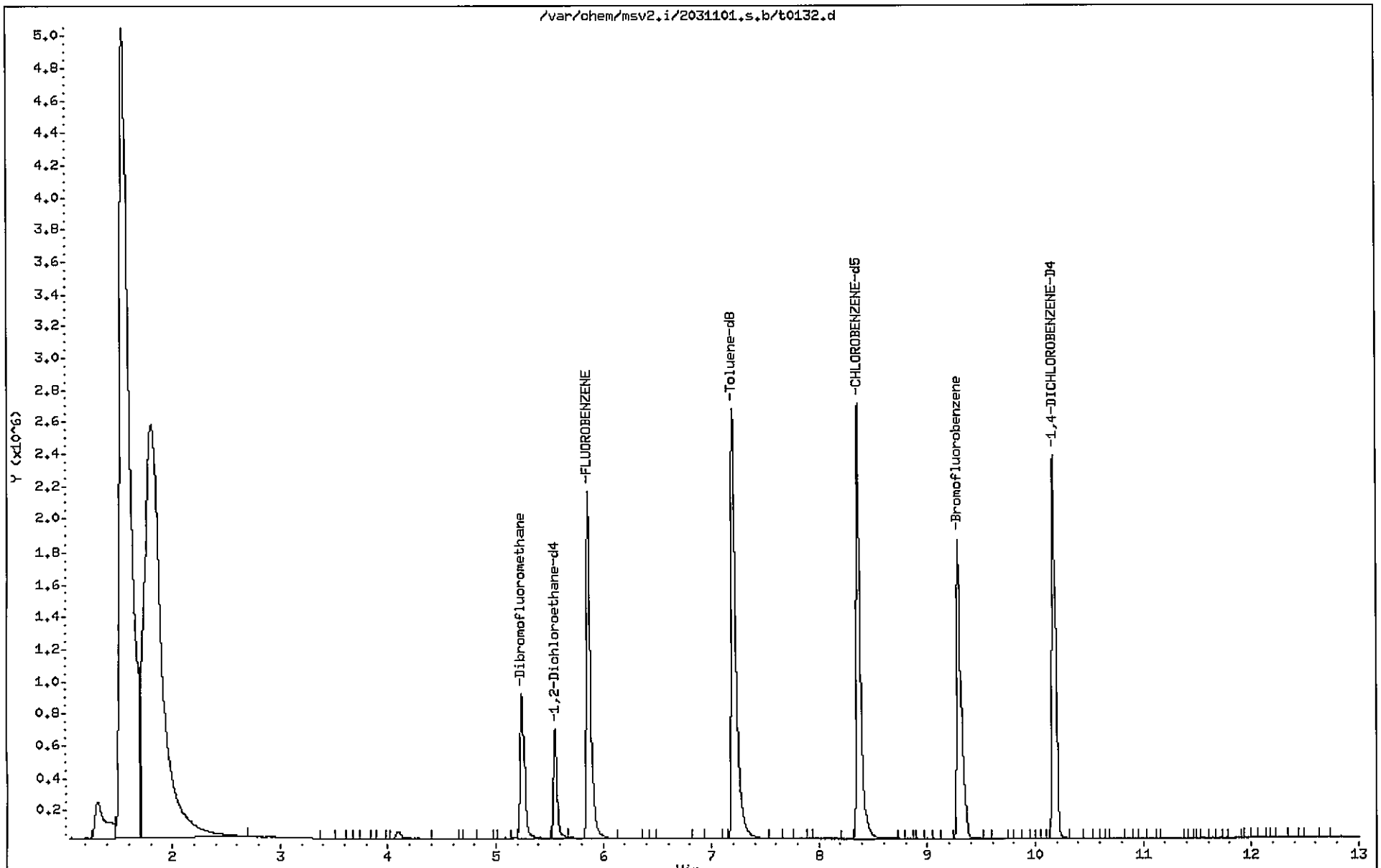
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)
38 Dibromofluoromethane	111	5.247	5.238	(0.894)	762142	50.8716	50.9
44 1,2-Dichloroethane-d4	67	5.557	5.541	(0.947)	307410	48.3460	48.3
47 FLUOROBENZENE	96	5.867	5.852	(1.000)	2965152	50.0000	
58 Toluene-d8	98	7.201	7.192	(0.861)	2908751	50.6869	50.7
70 CHLOROBENZENE-d5	82	8.363	8.360	(1.000)	1209381	50.0000	
81 Bromofluorobenzene	174	9.294	9.285	(0.913)	983948	50.8916	50.9
99 1,4-DICHLOROBENZENE-D4	152	10.178	10.169	(1.000)	960447	50.0000	

000065

Data File: /var/chem/msv2.i/2031101.s.b/t0132.d
Date : 01-NOV-2003 12:23
Client ID: 86-271-TB1-Q4-03
Sample Info: 20310290512X86-271-TB1-Q4-03
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv2.i
Operator: HJL
Column diameter: 0.53



Data File: /var/chem/msv2.i/2031031p.s.b/t0110.d

Date : 31-OCT-2003 18:54

Client ID: BFB

Instrument: msv2.i

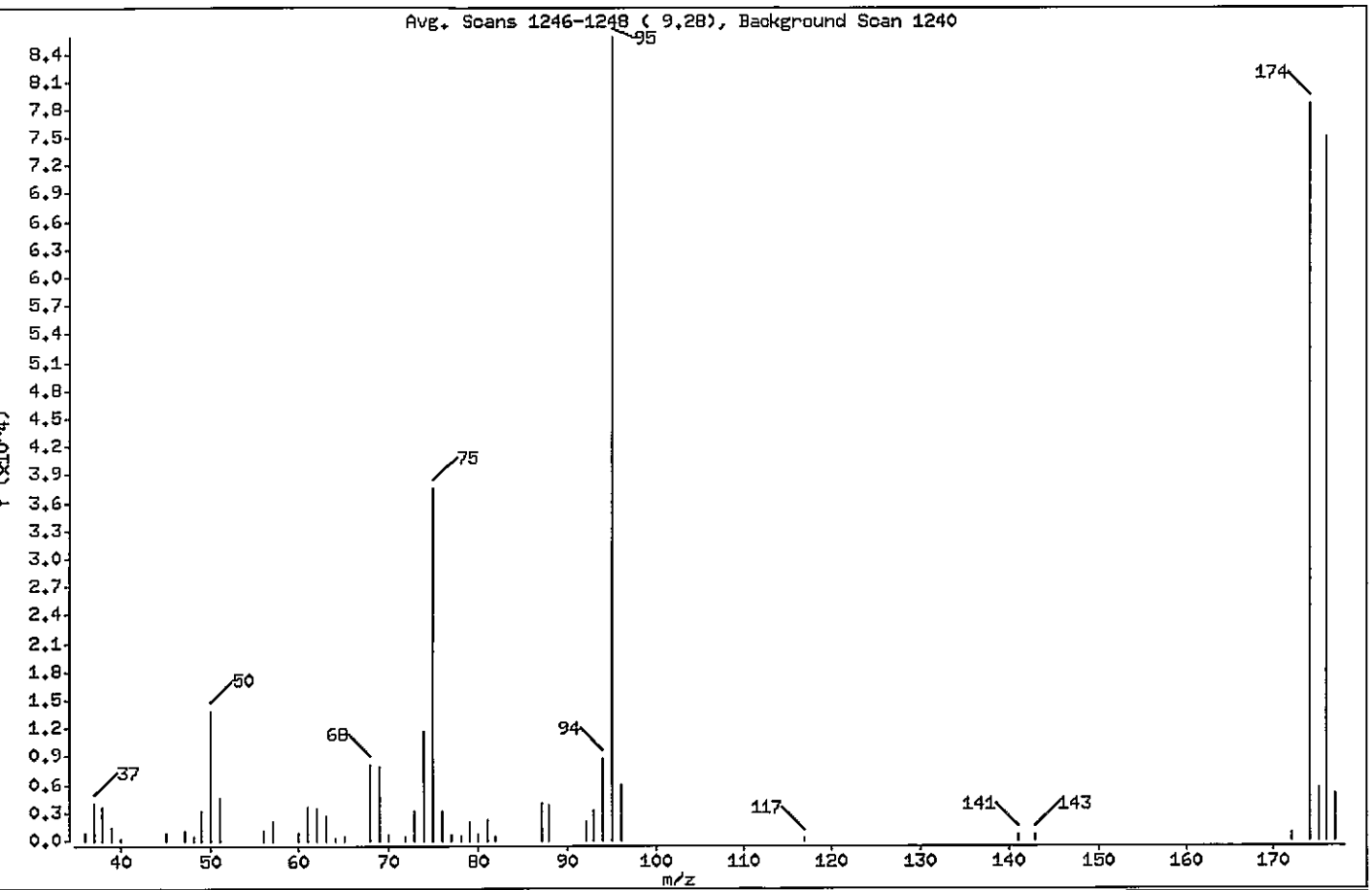
Sample Info: 1000NBFB

Operator: RJO

Column phase: DB-624-30M

Column diameter: 0.53

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.03
75	30.00 - 60.00% of mass 95	43.85
96	5.00 - 9.00% of mass 95	6.81
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	91.78
175	5.00 - 9.00% of mass 174	6.35 (6.92)
176	95.00 - 101.00% of mass 174	87.46 (95.29)
177	5.00 - 9.00% of mass 176	5.75 (6.58)

Data File: /var/chem/msv2.i/2031031p.s.b/t0110.d

Date : 31-OCT-2003 18:54

Client ID: BFB

Instrument: msv2.i

Sample Info: 1000XBFB

Operator: RJO

Column phase: DB-624-30M

Column diameter: 0.53

Data File: t0110.d
Spectrum: Avg. Scans 1246-1248 (9.28), Background Scan 1240
Location of Maximum: 95.00
Number of points: 48

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	871	60.00	745	76.00	3242	96.00	5836
37.00	4031	61.00	3605	77.00	628	117.00	284
38.00	3575	62.00	3283	78.00	357	141.00	641
39.00	1361	63.00	2632	79.00	1900	143.00	671
40.00	122	64.00	161	80.00	669	172.00	807
45.00	843	65.00	419	81.00	2076	174.00	78640
47.00	1077	68.00	8148	82.00	437	175.00	5439
48.00	429	69.00	7818	87.00	4042	176.00	74936
49.00	3105	70.00	521	88.00	3802	177.00	4930
50.00	13737	72.00	330	92.00	2019		
51.00	4625	73.00	3164	93.00	3245		
56.00	1017	74.00	11567	94.00	8724		
57.00	2041	75.00	37568	95.00	85680		

Data File: /var/chem/msv2.i/2031031p.s.b/t0110.d

Date : 31-OCT-2003 18:54

Client ID: BFB

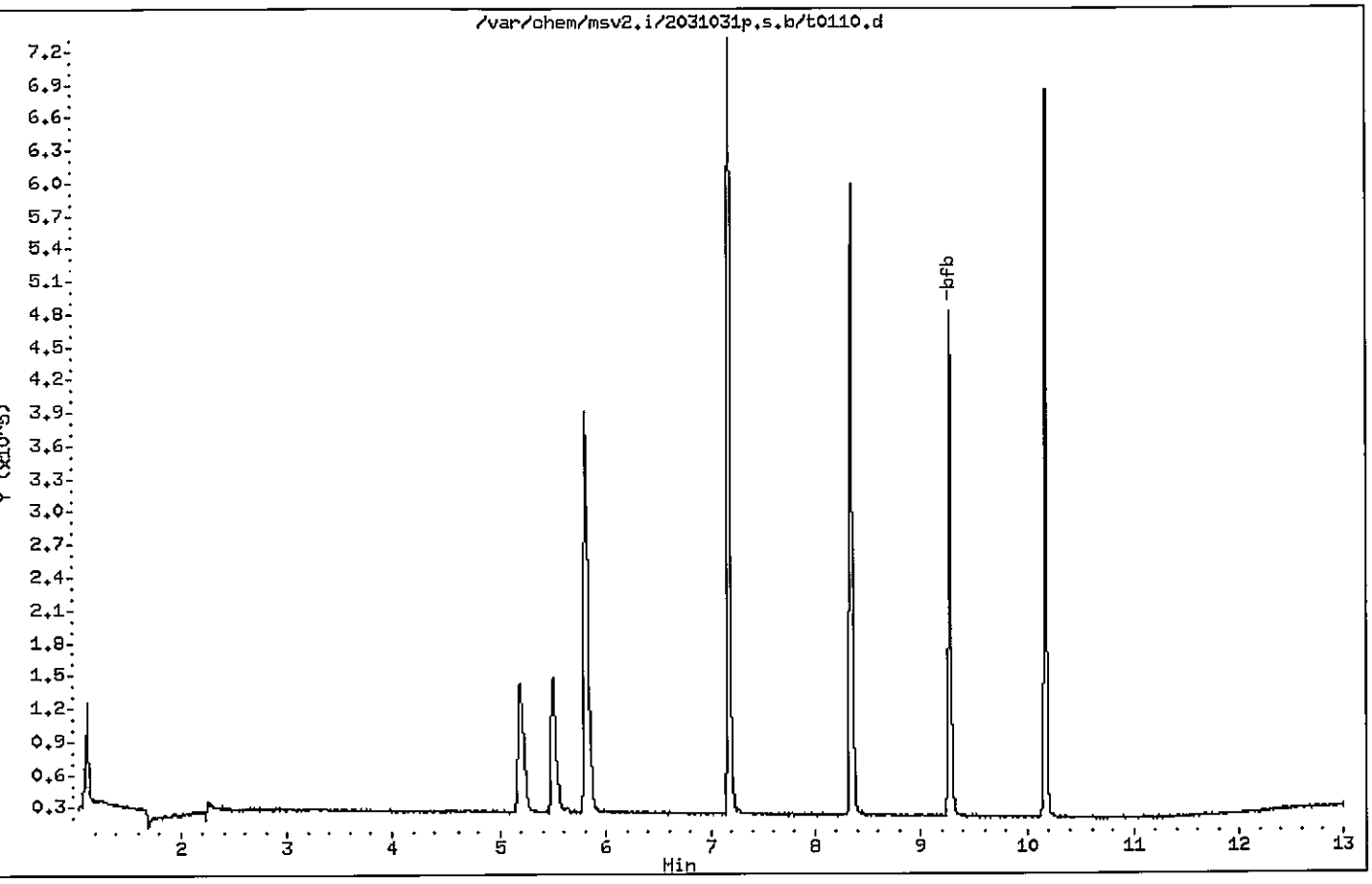
Instrument: msv2.i

Sample Info: 1000MBFB

Operator: RJO

Column phase: DB-624-30M

Column diameter: 0.53



000068

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv2.i/2031031p.s.b/t0112.d
Lab Smp Id: 1207 Client Smp ID: V2STD00.2
Inj Date : 31-OCT-2003 20:01
Operator : RJO Inst ID: msv2.i
Smp Info : 1207*V2STD00.2*5-5-5
Misc Info : MSV~3917~*1*RJO
Comment :
Method : /var/chem/msv2.i/2031031p.s.b/8260Bw2.m
Meth Date : 08-Nov-2003 15:40 sab Quant Type: ISTD
Cal Date : 31-OCT-2003 20:01 Cal File: t0112.d
Als bottle: 38 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260B.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
6 Chloroethane	64	2.046	2.154	(0.349)	618758	0.20000	72.3
38 Dibromofluoromethane	111	5.241	5.244	(0.895)	1813	0.20000	0.170(a)
46 1,2-Dichloroethane	62	5.855	5.620	(1.000)	20785	0.20000	1.93(a)
47 FLUOROBENZENE	96	5.855	5.864	(1.000)	2013663	50.0000	
49 Methyl Cyclohexane	83	6.363	6.359	(1.087)	2080	0.20000	0.108(a)
70 CHLOROBENZENE-d5	82	8.364	8.366	(1.000)	796170	50.0000	
99 1,4-DICHLOROBENZENE-D4	152	10.173	10.175	(1.000)	559047	50.0000	

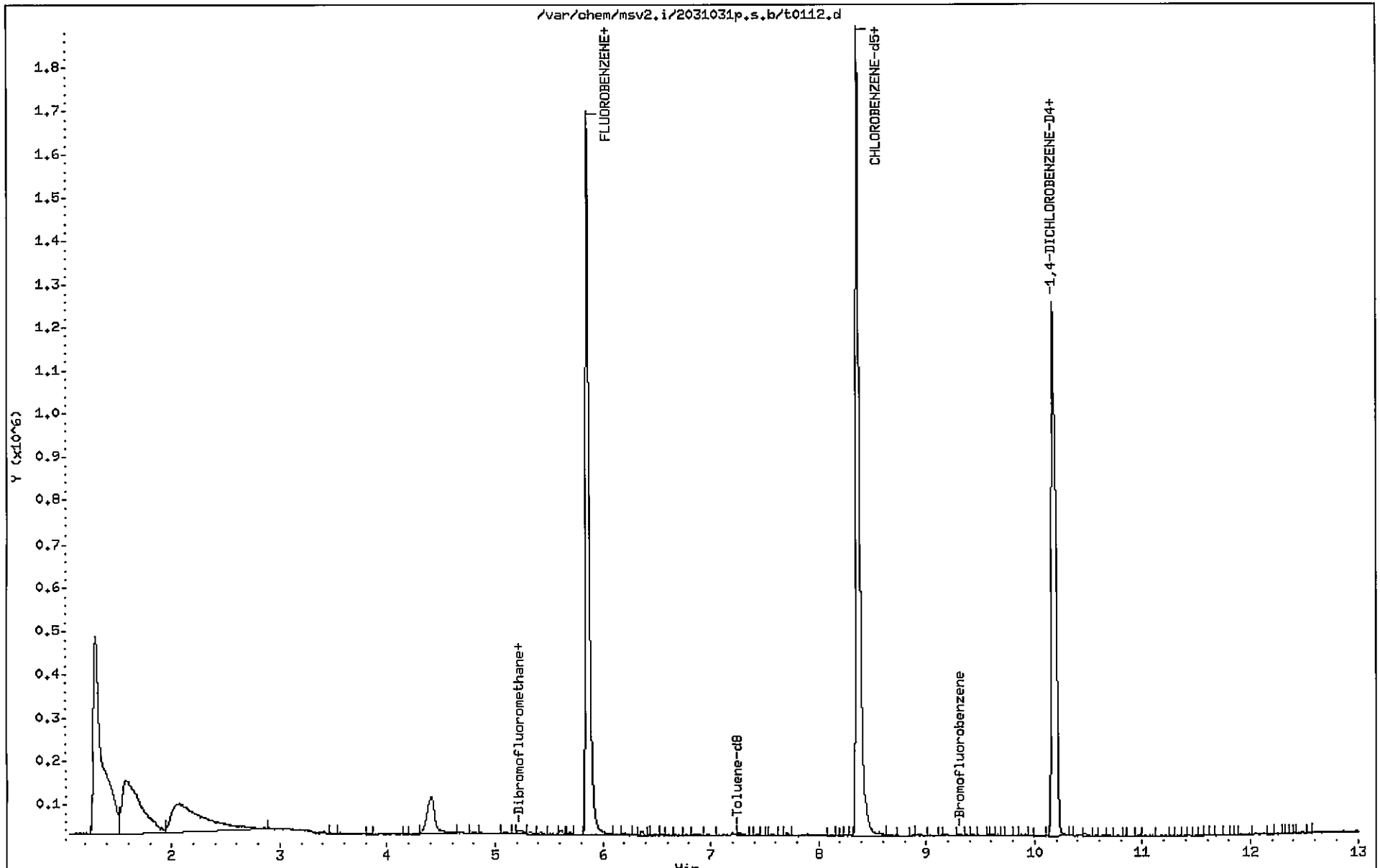
QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

000070

Data File: /var/chem/msv2.i/2031031p.s.b/t0112.d
Date : 31-OCT-2003 20:01
Client ID: V2STD00.2
Sample Info: 1207*V2STD00.2*5-5-5
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv2.i
Operator: RJO
Column diameter: 0.53



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv2.i/2031031p.s.b/t0113.d
Lab Smp Id: 1208 Client Smp ID: V2STD00.4
Inj Date : 31-OCT-2003 20:26
Operator : RJO Inst ID: msv2.i
Smp Info : 1208*V2STD00.4*5-5-5
Misc Info : MSV~3917~*1*RJO
Comment :
Method : /var/chem/msv2.i/2031031p.s.b/8260Bw2.m
Meth Date : 08-Nov-2003 15:40 sab Quant Type: ISTD
Cal Date : 31-OCT-2003 20:26 Cal File: t0113.d
Als bottle: 39 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260B.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

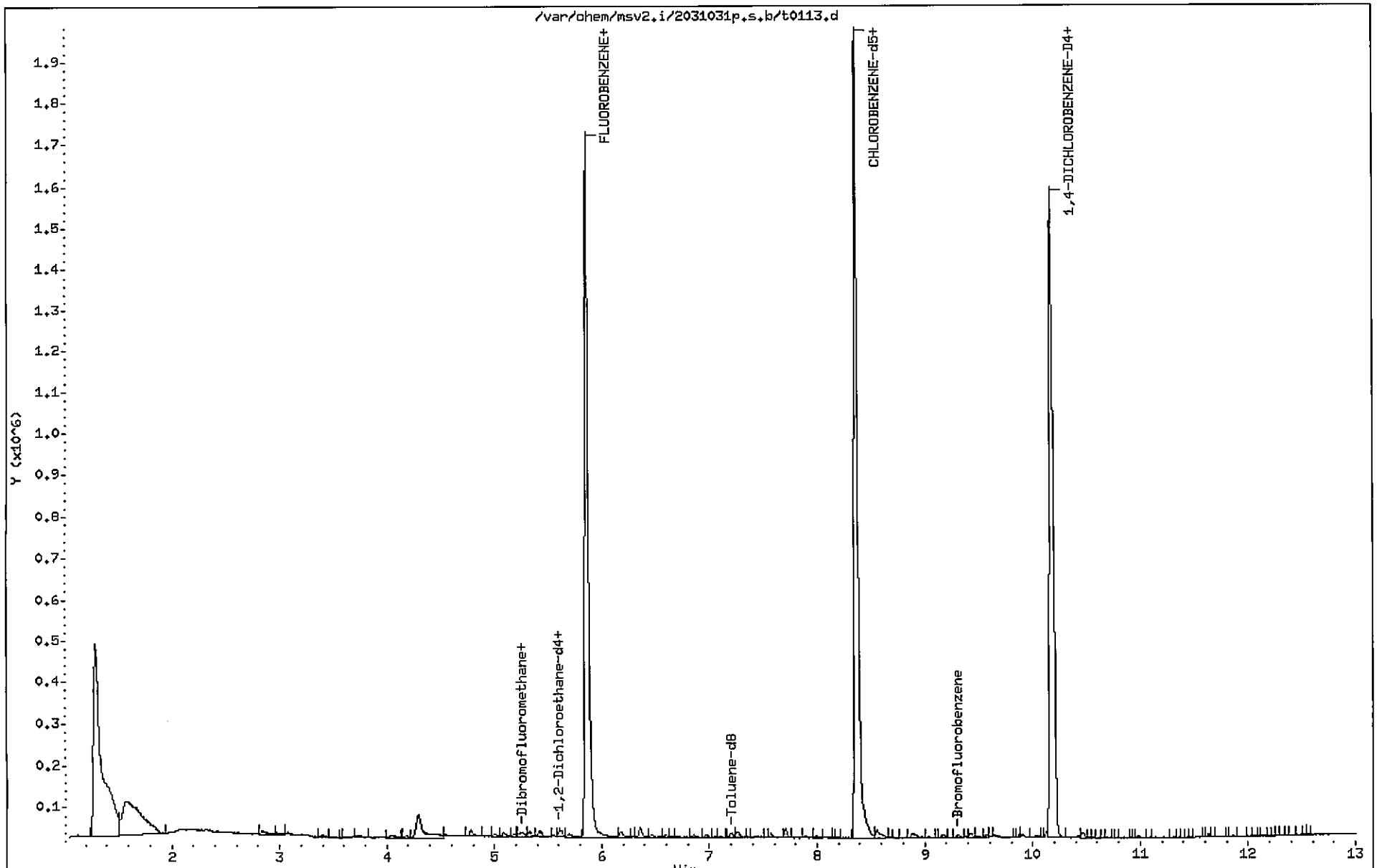
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
22 MTBE	73	3.758	3.758	(0.642)	4873	0.40000	0.352(a)
38 Dibromofluoromethane	111	5.237	5.244	(0.894)	4329	0.40000	0.404(a)
46 1,2-Dichloroethane	62	5.857	5.620	(1.000)	20581	0.40000	1.90(a)
47 FLUOROBENZENE	96	5.857	5.864	(1.000)	2029864	50.0000	
49 Methyl Cyclohexane	83	6.352	6.359	(1.085)	4808	0.40000	0.248(a)
70 CHLOROBENZENE-d5	82	8.366	8.366	(1.000)	781932	50.0000	
99 1,4-DICHLOROBENZENE-D4	152	10.175	10.175	(1.000)	646898	50.0000	
106 Hexachlorobutadiene	225	11.627	11.621	(1.143)	2166	0.40000	8.09
107 Napthalene	128	11.706	11.694	(1.151)	2819	0.40000	1.01(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /var/chem/msv2.i/2031031p.s.b/t0113.d
Date : 31-OCT-2003 20:26
Client ID: V2STD00.4
Sample Info: 1208MV2STD00.4X5-5-5
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv2.i
Operator: RJO
Column diameter: 0.53

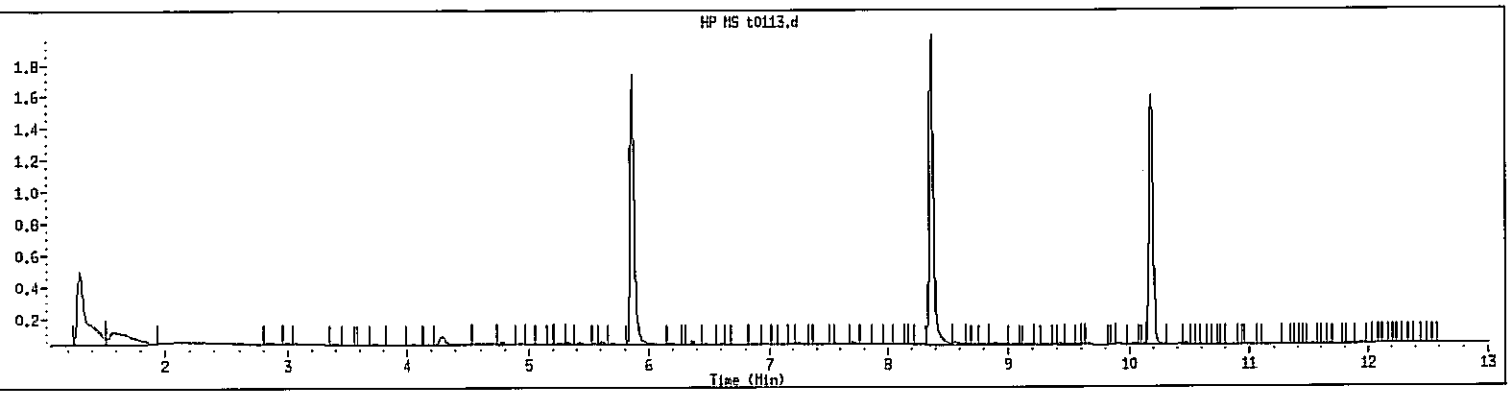


Data file : /var/chem/msv2.i/2031031p.s.b/t0113.d
Report Date: 11/10/2003 11:22

MANUAL INTEGRATION GRAPHIC REPORT

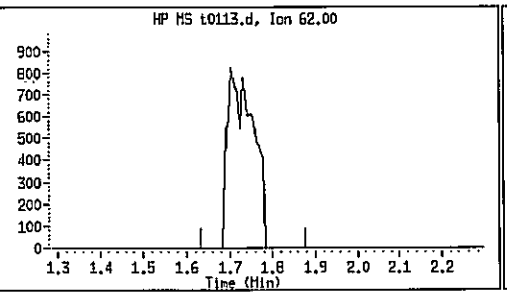
Lab ID : 1208
Injection Date: 31-OCT-2003 20:26
Operator : RJO
Sample Info : 1208*V2STD00.4*5-5-5
Misc Info : MSV~3917~*1*RJO
Method : /var/chem/msv2.i/2031031p.s.b/8260Bw2.m
Dilution : 1.0
Matrix : WATER
Integrator : HP RTE

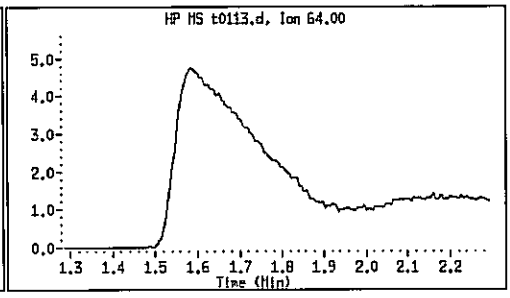
SampleType : CALIB_8
Instrument : msv2.i
Compound Sublist: 8260B



CONCENTRATIONS

RT	(REL RT)	MASS	RESPONSE	AMT	CONC	RANGE	RATIO
3 Vinyl Chloride +			CAS#: 75-01-4				
1.704	0.291	62	3398	0	0	80-120	100
1.702	0.291	64	0			28- 42	0





Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv2.i/2031031p.s.b/t0114.d
Lab Smp Id: 1206 Client Smp ID: V2STD002
Inj Date : 31-OCT-2003 20:50
Operator : RJO Inst ID: msv2.i
Smp Info : 1206*V2STD002*5-5-5
Misc Info : MSV~3917~*1*RJO
Comment :
Method : /var/chem/msv2.i/2031031p.s.b/8260Bw2.m
Meth Date : 08-Nov-2003 15:40 sab Quant Type: ISTD
Cal Date : 31-OCT-2003 20:50 Cal File: t0114.d
Als bottle: 40 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260B.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
1 Dichlorodifluoromethane	85	1.509	1.553	(0.258)	17959	2.00000	7.22
2 Chloromethane ++	50	1.635	1.659	(0.279)	33511	2.00000	3.04(a)
3 Vinyl Chloride +	62	1.721	1.791	(0.294)	19736	2.00000	2.20(aM)
5 Bromomethane	94	2.064	2.075	(0.352)	17245	2.00000	2.82(a)
7 Trichlorofluoromethane	101	2.321	2.332	(0.396)	22618	2.00000	2.18(a)
10 1,1-Dichloroethene +	96	2.836	2.854	(0.484)	13331	2.00000	2.15(a)
11 1,1,2Trichlotrifluoroethane	101	2.869	2.874	(0.490)	16103	2.00000	2.24(a)
13 Methyl Iodide	142	3.001	3.025	(0.512)	33237	2.00000	2.07(a)
18 Methylene Chloride	49	3.398	3.415	(0.580)	19885	2.00000	2.46(a)
20 Acrylonitrile	53	3.681	3.686	(0.628)	10226	2.00000	9.64(a)
21 trans-1,2-Dichloroethene	61	3.728	3.738	(0.636)	18100	2.00000	2.12(a)
15 Methyl Acetate	43	3.299	3.303	(0.563)	6119	2.00000	2.22(a)
22 MTBE	73	3.748	3.758	(0.639)	24912	2.00000	1.99(a)
24 1,1-Dichloroethane ++	63	4.183	4.187	(0.714)	32829	2.00000	2.29(a)
25 Vinyl Acetate	43	4.045	4.062	(0.690)	13908	2.00000	2.25(a)
30 2,2-Dichloropropane	77	4.784	4.788	(0.816)	27184	2.00000	2.23(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
31	cis-1,2-Dichloroethene	61	4.784	4.788	(0.816)	28173	2.00000	2.00(a)
32	2-Butanone	43	4.810	4.808	(0.821)	4610	2.00000	1.89(a)
36	Bromochloromethane	128	5.008	5.019	(0.855)	11431	2.00000	1.96(a)
37	Chloroform +	83	5.094	5.098	(0.869)	36010	2.00000	2.04(a)
38	Dibromofluoromethane	111	5.240	5.244	(0.894)	23038	2.00000	2.17(a)
39	1,1,1-Trichloroethane	97	5.266	5.277	(0.899)	30957	2.00000	2.18(a)
42	1,1-Dichloropropene	75	5.424	5.435	(0.926)	25182	2.00000	2.00(a)
43	Carbon Tetrachloride	117	5.431	5.442	(0.927)	27279	2.00000	2.27(a)
44	1,2-Dichloroethane-d4	67	5.550	5.554	(0.947)	9048	2.00000	2.01(a)
45	Benzene	78	5.609	5.613	(0.957)	89790	2.00000	2.04(a)
46	1,2-Dichloroethane	62	5.860	5.620	(1.000)	21280	2.00000	2.18(a)
47	FLUOROBENZENE	96	5.860	5.864	(1.000)	2096866	50.0000	
48	Trichloroethene	130	6.184	6.188	(1.055)	26282	2.00000	1.94(a)
49	Methyl Cyclohexane	83	6.355	6.359	(1.084)	33754	2.00000	1.73(a)
50	1,2-Dichloropropane +	63	6.362	6.373	(1.086)	23038	2.00000	2.14(a)
51	Dibromomethane	93	6.468	6.465	(1.104)	11453	2.00000	2.04(a)
54	Bromodichloromethane	83	6.600	6.597	(1.126)	26337	2.00000	2.08(a)
55	2-Chloroethyl vinyl ether	63	6.864	6.861	(1.171)	28545	2.00000	1.76(a)
139	1 Bromo-2-chloroethane	144	6.864	6.861	(0.821)	2952	2.00000	1.78(a)
56	cis-1,3-Dichloropropene	75	6.976	6.973	(1.190)	26366	2.00000	1.65(a)
57	4-methyl-2-pentanone	43	7.101	7.092	(1.212)	6887	2.00000	1.30(a)
58	Toluene-d8	98	7.200	7.205	(0.861)	69090	2.00000	1.77(a)
59	Toluene +	91	7.253	7.257	(0.867)	95759	2.00000	1.85(a)
60	trans-1,3-Dichloropropene	75	7.418	7.416	(0.887)	22070	2.00000	1.65(a)
62	1,1,2-Trichloroethane	97	7.570	7.568	(0.905)	16249	2.00000	1.94(a)
64	1,3-Dichloropropane	76	7.702	7.700	(0.921)	26764	2.00000	1.91(a)
65	Tetrachloroethene	164	7.709	7.713	(0.922)	22016	2.00000	2.00(a)
68	Dibromochloromethane	129	7.894	7.891	(0.944)	21708	2.00000	1.92(a)
69	1,2-Dibromoethane(EDB)	107	7.993	7.990	(0.956)	15210	2.00000	1.78(a)
70	CHLOROBENZENE-d5	82	8.362	8.366	(1.000)	820940	50.0000	
71	Chlorobenzene ++	112	8.389	8.386	(1.003)	86410	2.00000	2.28(a)
73	Ethylbenzene +	106	8.468	8.466	(1.013)	29829	2.00000	1.67(a)
74	p,m-Xylene	106	8.560	8.558	(1.024)	82048	4.00000	3.55(a)
76	o-Xylene	106	8.877	8.875	(1.062)	30976	2.00000	1.47(a)
77	Styrene	104	8.890	8.881	(1.063)	53062	2.00000	1.42(a)
78	Bromoform ++	173	9.036	9.033	(1.081)	12969	2.00000	1.95(a)
79	Isopropylbenzene	105	9.161	9.159	(1.096)	79332	2.00000	3.86(a)
81	Bromofluorobenzene	174	9.293	9.291	(0.914)	24806	50.0000	1.97(a)
84	1,1,2,2-Tetrachloroethane++	83	9.372	9.370	(0.921)	18847	2.00000	2.31(a)
85	trans-1,4-Dichloro-2-Butene	53	9.412	9.410	(0.925)	2505	2.00000	1.65(a)
86	1,2,3-Trichloropropane	75	9.419	9.416	(0.926)	20541	2.00000	2.15(a)
87	Bromobenzene	77	9.419	9.416	(0.926)	46982	2.00000	2.04(a)
75	Total 1,2-Dichloroethene	61				46273	2.00000	4.12(a)
88	n-Propylbenzene	91	9.485	9.482	(0.932)	80319	2.00000	1.63(a)
90	1,3,5-Trimethylbenzene	105	9.610	9.614	(0.945)	45996	2.00000	1.78(a)
91	4-Chlorotoluene	91	9.650	9.647	(0.949)	63314	2.00000	1.87(a)
92	tert-butylbenzene	91	9.868	9.872	(0.970)	29457	2.00000	1.50(aH)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
93	1,2,4-Trimethylbenzene	105	9.907	9.905	(0.974)	39304	2.00000	1.69(a)
96	sec-Butylbenzene	105	10.033	10.030	(0.986)	60802	2.00000	4.02(a)
97	p-Isopropyltoluene	119	10.125	10.129	(0.995)	45732	2.00000	1.57(a)
98	1,3-Dichlorobenzene	146	10.132	10.136	(0.996)	43586	2.00000	1.97(a)
99	1,4-DICHLOROBENZENE-D4	152	10.171	10.175	(1.000)	625634	50.0000	
100	1,4-Dichlorobenzene	146	10.191	10.195	(1.002)	52510	2.00000	2.33(a)
101	n-Butylbenzene	91	10.422	10.420	(1.025)	29788	2.00000	1.39(a)
102	1,2-Dichlorobenzene	146	10.462	10.459	(1.029)	39192	2.00000	1.99(a)
103	1,2-Dibromo-3-Chloropropane	157	10.977	10.974	(1.079)	3008	2.00000	1.89(a)
105	1,2,4-Trichlorobenzene	180	11.531	11.522	(1.134)	11758	2.00000	4.30(a)
106	Hexachlorobutadiene	225	11.630	11.621	(1.143)	11475	2.00000	6.23
107	Napthalene	128	11.703	11.694	(1.151)	17359	2.00000	1.66(a)
108	1,2,3-Trichlorobenzene	180	11.861	11.852	(1.166)	11439	2.00000	3.58(a)
109	TOTAL XYLENE	106				113024	6.00000	5.02
40	Cyclohexane	56	5.325	5.336	(0.909)	31710	2.00000	1.80(a)

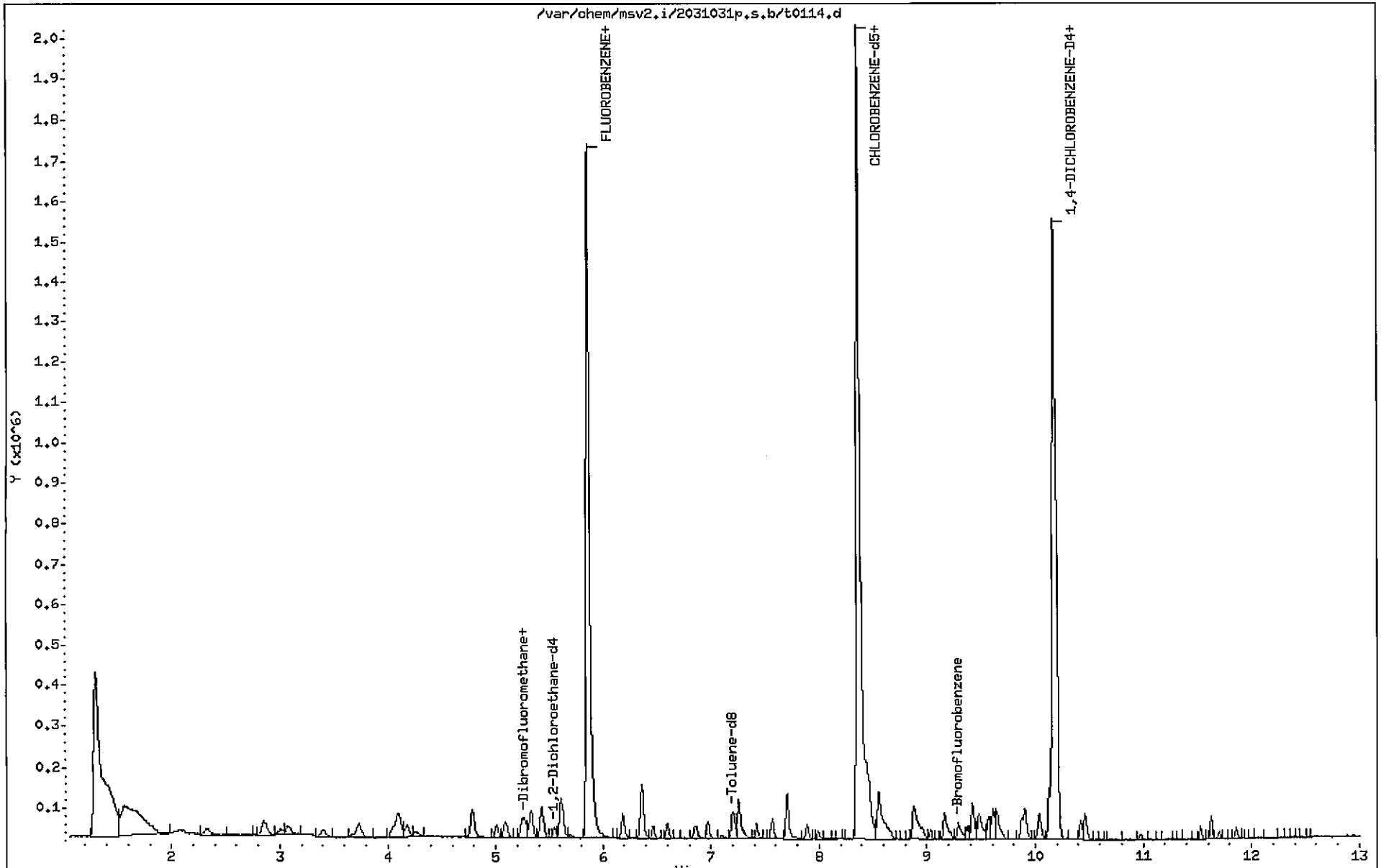
QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
I - Operator selected an alternate compound hit.

000077

Data File: /var/chem/msv2.i/2031031p.s.b/t0114.d
Date : 31-OCT-2003 20:50
Client ID: V2STD002
Sample Info: 1206*V2STD002*5-5-5
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv2.i
Operator: RJO
Column diameter: 0.53

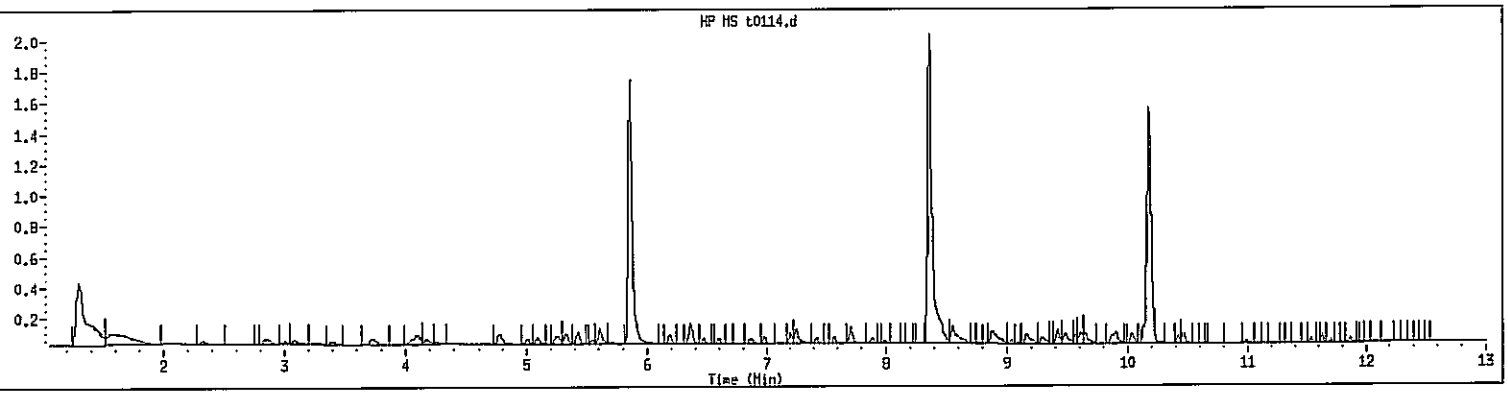


Data file : /var/chem/msv2.i/2031031p.s.b/t0114.d
Report Date: 11/10/2003 11:22

MANUAL INTEGRATION GRAPHIC REPORT

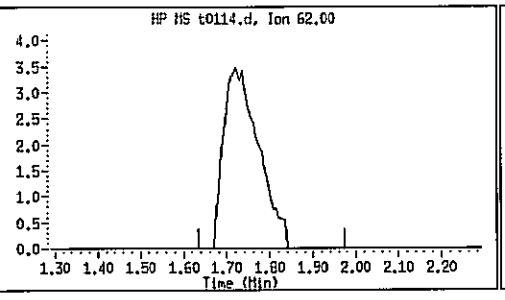
Lab ID : 1206
Injection Date: 31-OCT-2003 20:50
Operator : RJO
Sample Info : 1206*V2STD002*5-5-5
Misc Info : MSV~3917~*1*RJO
Method : /var/chem/msv2.i/2031031p.s.b/8260Bw2.m
Dilution : 1.0
Matrix : WATER
Integrator : HP RTE

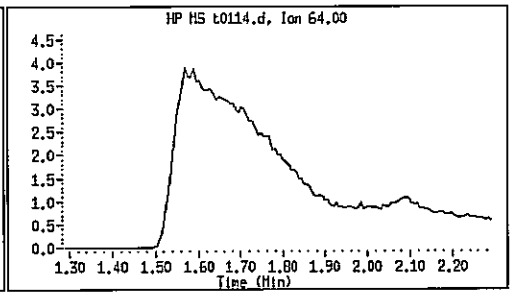
SampleType : CALIB_6
Instrument : msv2.i
Compound Sublist: 8260B



CONCENTRATIONS

RT	(REL RT)	MASS	RESPONSE	AMT	CONC	RANGE	RATIO
3 Vinyl Chloride +			CAS#: 75-01-4				
1.721	0.294	62	19736	2	2	80-120	100
1.791	0.306	64	0			28- 42	0





Data File: /var/chem/msv2.i/2031031p.s.b/t0115.d
Report Date: 10-Nov-2003 11:22

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv2.i/2031031p.s.b/t0115.d
Lab Smp Id: 1201 Client Smp ID: V2STD005
Inj Date : 31-OCT-2003 21:14
Operator : RJO Inst ID: msv2.i
Smp Info : 1201*V2STD005*5-5-5
Misc Info : MSV~3917~*1*RJO
Comment :
Method : /var/chem/msv2.i/2031031p.s.b/8260Bw2.m
Meth Date : 08-Nov-2003 15:40 sab Quant Type: ISTD
Cal Date : 31-OCT-2003 21:14 Cal File: t0115.d
Als bottle: 41 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260B.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
1 Dichlorodifluoromethane	85	1.527	1.553	(0.261)	42436	5.00000	9.57
23 Hexane	57	4.049	4.062	(0.691)	46236	5.00000	4.76(aM)
2 Chloromethane ++	50	1.633	1.659	(0.279)	61846	5.00000	5.49
3 Vinyl Chloride +	62	1.719	1.791	(0.293)	44269	5.00000	4.83(aM)
5 Bromomethane	94	2.042	2.075	(0.349)	36526	5.00000	5.83
6 Chloroethane	64	2.082	2.154	(0.355)	54365	5.00000	4.32(a)
7 Trichlorofluoromethane	101	2.320	2.332	(0.396)	51305	5.00000	4.84(a)
10 1,1-Dichloroethene +	96	2.841	2.854	(0.485)	30487	5.00000	4.80(a)
11 1,1,2Trichlotrifluoroethane	101	2.854	2.874	(0.487)	35966	5.00000	4.90(a)
12 Acetone	43	2.894	2.900	(0.494)	6913	5.00000	5.50(a)
13 Methyl Iodide	142	3.006	3.025	(0.513)	81555	5.00000	4.97(a)
14 Carbon Disulfide	76	3.079	3.098	(0.526)	114923	5.00000	4.92(aM)
18 Methylene Chloride	49	3.402	3.415	(0.581)	44381	5.00000	5.36(a)
20 Acrylonitrile	53	3.680	3.686	(0.628)	25666	25.0000	23.6(a)
21 trans-1,2-Dichloroethene	61	3.726	3.738	(0.636)	42660	5.00000	4.88(a)
15 Methyl Acetate	43	3.290	3.303	(0.562)	14384	5.00000	5.09

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
22 MTBE	73	3.746	3.758	(0.639)	59836	5.00000	4.67(a)
24 1,1-Dichloroethane ++	63	4.181	4.187	(0.714)	83260	5.00000	5.67
25 Vinyl Acetate	43	4.056	4.062	(0.692)	28877	5.00000	4.56(a)
30 2,2-Dichloropropane	77	4.782	4.788	(0.816)	62463	5.00000	5.01
31 cis-1,2-Dichloroethene	61	4.782	4.788	(0.816)	69706	5.00000	4.85(a)
32 2-Butanone	43	4.815	4.808	(0.822)	12902	5.00000	5.18(a)
36 Bromochloromethane	128	5.007	5.019	(0.855)	28928	5.00000	4.85(a)
37 Chloroform +	83	5.092	5.098	(0.869)	90342	5.00000	5.02
38 Dibromofluoromethane	111	5.238	5.244	(0.894)	49176	5.00000	4.54(a)
39 1,1,1-Trichloroethane	97	5.264	5.277	(0.899)	71541	5.00000	4.93(a)
42 1,1-Dichloropropene	75	5.423	5.435	(0.926)	60135	5.00000	4.67(a)
43 Carbon Tetrachloride	117	5.429	5.442	(0.927)	62026	5.00000	5.05
44 1,2-Dichloroethane-d4	67	5.548	5.554	(0.947)	22071	5.00000	4.80(a)
45 Benzene	78	5.607	5.613	(0.957)	222590	5.00000	4.94(a)
46 1,2-Dichloroethane	62	5.614	5.620	(0.958)	53245	5.00000	5.33(H)
47 FLUOROBENZENE	96	5.858	5.864	(1.000)	2144312	50.0000	
48 Trichloroethene	130	6.188	6.188	(1.056)	62817	5.00000	4.53(a)
49 Methyl Cyclohexane	83	6.353	6.359	(1.085)	89430	5.00000	4.48(a)
50 1,2-Dichloropropane +	63	6.367	6.373	(1.087)	57246	5.00000	5.21
51 Dibromomethane	93	6.466	6.465	(1.104)	28171	5.00000	4.90(a)
54 Bromodichloromethane	83	6.598	6.597	(1.126)	63874	5.00000	4.92(a)
55 2-Chloroethyl vinyl ether	63	6.862	6.861	(1.171)	76411	5.00000	4.61(a)
139 1 Bromo-2-chloroethane	144	6.862	6.861	(0.821)	8034	5.00000	4.74(a)
56 cis-1,3-Dichloropropene	75	6.967	6.973	(1.189)	73176	5.00000	4.47(a)
57 4-methyl-2-pentanone	43	7.093	7.092	(1.211)	21380	5.00000	3.96(a)
58 Toluene-d8	98	7.199	7.205	(0.861)	155403	5.00000	3.91(a)
59 Toluene +	91	7.258	7.257	(0.868)	250480	5.00000	4.73(a)
60 trans-1,3-Dichloropropene	75	7.416	7.416	(0.887)	60621	5.00000	4.45(a)
62 1,1,2-Trichloroethane	97	7.568	7.568	(0.905)	42092	5.00000	4.92(a)
64 1,3-Dichloropropane	76	7.700	7.700	(0.921)	71085	5.00000	4.96(a)
65 Tetrachloroethene	164	7.707	7.713	(0.922)	54070	5.00000	4.81(a)
66 2-Hexanone	43	7.773	7.759	(0.930)	14979	5.00000	5.31
68 Dibromochloromethane	129	7.892	7.891	(0.944)	54878	5.00000	4.77(a)
69 1,2-Dibromoethane(EDB)	107	7.991	7.990	(0.956)	40877	5.00000	4.68(a)
70 CHLOROBENZENE-d5	82	8.360	8.366	(1.000)	837785	50.0000	
71 Chlorobenzene ++	112	8.387	8.386	(1.003)	202071	5.00000	5.22
72 1,1,1,2-Tetrachloroethane	133	8.440	8.446	(1.009)	59978	5.00000	5.02(M)
73 Ethylbenzene +	106	8.466	8.466	(1.013)	78515	5.00000	4.31(a)
74 p,m-Xylene	106	8.559	8.558	(1.024)	206167	10.0000	8.73
76 o-Xylene	106	8.875	8.875	(1.062)	85112	5.00000	3.96(a)
77 Styrene	104	8.882	8.881	(1.062)	149614	5.00000	3.92(a)
78 Bromoform ++	173	9.034	9.033	(1.081)	32169	5.00000	4.75(a)
79 Isopropylbenzene	105	9.166	9.159	(1.096)	216851	5.00000	5.94
81 Bromofluorobenzene	174	9.291	9.291	(0.913)	58457	5.00000	4.92(a)
84 1,1,2,2-Tetrachloroethane++	83	9.371	9.370	(0.921)	46877	5.00000	6.09
85 trans-1,4-Dichloro-2-Butene	53	9.417	9.410	(0.925)	7798	5.00000	5.45
86 1,2,3-Trichloropropane	75	9.417	9.416	(0.925)	54285	5.00000	6.02

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
87	Bromobenzene	77	9.423	9.416	(0.926)	126906	5.00000	5.84
75	Total 1,2-Dichloroethene	61				112366	10.0000	9.73
88	n-Propylbenzene	91	9.483	9.482	(0.932)	192698	5.00000	4.14(a)
89	2-Chlorotoluene	91	9.569	9.568	(0.940)	177599	5.00000	1.81(a)
90	1,3,5-Trimethylbenzene	105	9.608	9.614	(0.944)	117159	5.00000	4.81(a)
91	4-Chlorotoluene	91	9.648	9.647	(0.948)	152809	5.00000	4.80(a)
92	tert-butylbenzene	91	9.892	9.872	(0.972)	75100	5.00000	4.06(aH)
93	1,2,4-Trimethylbenzene	105	9.905	9.905	(0.973)	102432	5.00000	4.67(a)
96	sec-Butylbenzene	105	10.031	10.030	(0.986)	139696	5.00000	5.88
97	p-Isopropyltoluene	119	10.130	10.129	(0.995)	110083	5.00000	4.01(a)
98	1,3-Dichlorobenzene	146	10.136	10.136	(0.996)	108556	5.00000	5.20
99	1,4-DICHLOROBENZENE-D4	152	10.176	10.175	(1.000)	589747	50.0000	
100	1,4-Dichlorobenzene	146	10.189	10.195	(1.001)	110590	5.00000	5.20
101	n-Butylbenzene	91	10.420	10.420	(1.024)	72774	5.00000	3.59(a)
102	1,2-Dichlorobenzene	146	10.460	10.459	(1.028)	93028	5.00000	5.02
103	1,2-Dibromo-3-Chloropropane	157	10.981	10.974	(1.079)	7942	5.00000	5.35
105	1,2,4-Trichlorobenzene	180	11.529	11.522	(1.133)	27470	5.00000	6.41
106	Hexachlorobutadiene	225	11.628	11.621	(1.143)	22976	5.00000	7.98
107	Napthalene	128	11.701	11.694	(1.150)	42954	5.00000	4.37(a)
108	1,2,3-Trichlorobenzene	180	11.860	11.852	(1.165)	26810	5.00000	6.07
109	TOTAL XYLENE	106				291279	15.0000	12.7
40	Cyclohexane	56	5.330	5.336	(0.910)	80918	5.00000	4.50(a)

QC Flag Legend

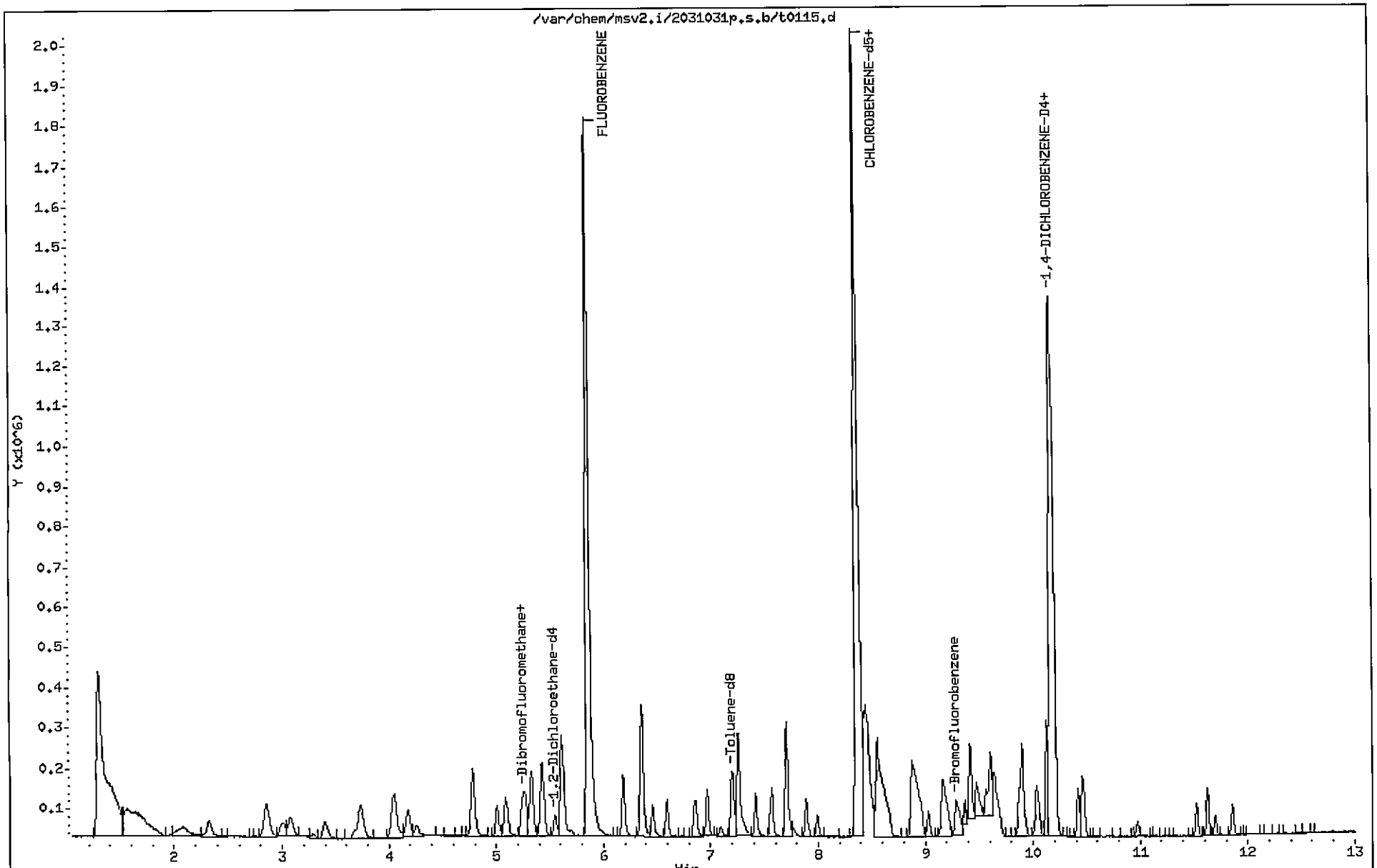
a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

000082

Data File: /var/chem/msv2.i/2031031p.s.b/t0115.d
Date : 31-OCT-2003 21:14
Client ID: V2STD005
Sample Info: 1201*V2STD005*5-5-5
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv2.i

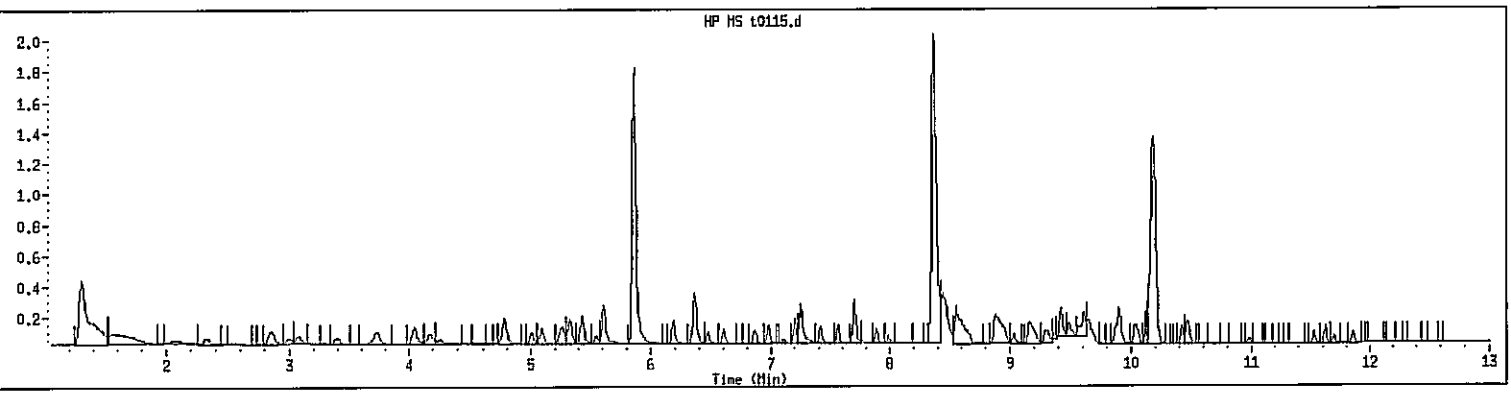
Operator: RJO
Column diameter: 0.53



Data file : /var/chem/msv2.i/2031031p.s.b/t0115.d
Report Date: 11/10/2003 11:22

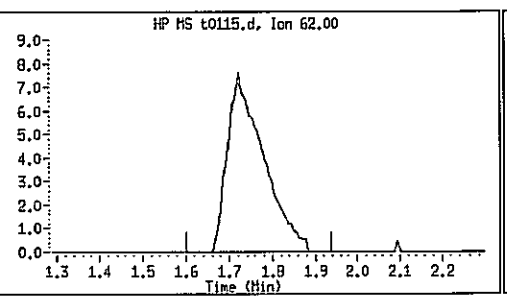
MANUAL INTEGRATION GRAPHIC REPORT

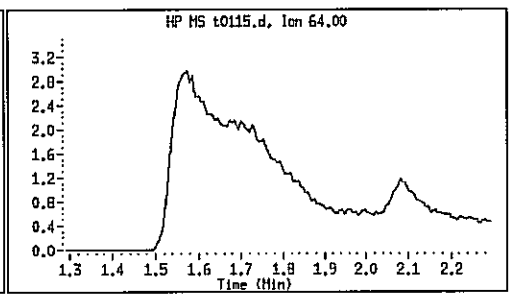
Lab ID : 1201 SampleType : CALIB_1
Injection Date: 31-OCT-2003 21:14 Instrument : msv2.i
Operator : RJO
Sample Info : 1201*V2STD005*5-5-5
Misc Info : MSV~3917~*1*RJO
Method : /var/chem/msv2.i/2031031p.s.b/8260Bw2.m
Dilution : 1.0
Matrix : WATER
Integrator : HP RTE Compound Sublist: 8260B



CONCENTRATIONS

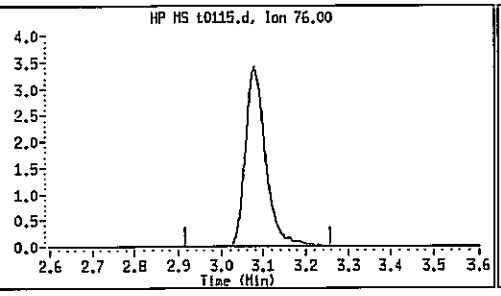
RT	(REL RT)	MASS	RESPONSE	AMT	CONC	RANGE	RATIO
3 Vinyl Chloride +			CAS#: 75-01-4				
1.719	0.293	62	44269	5	5	80-120	100
1.791	0.306	64	0			28- 42	0

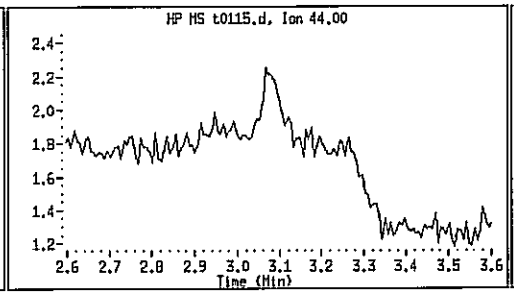


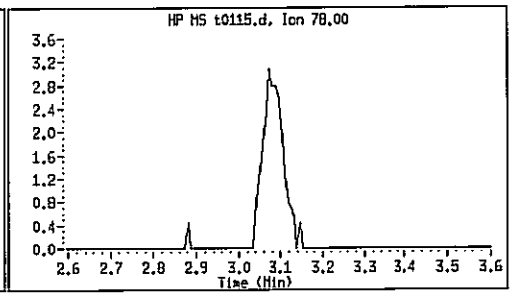


CONCENTRATIONS

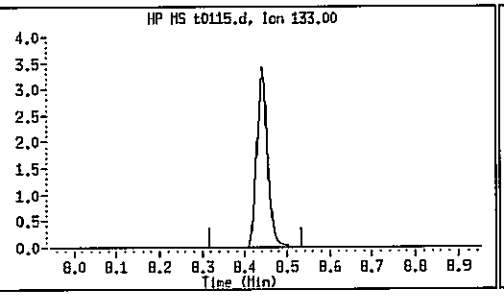
RT	(REL RT)	MASS	RESPONSE	AMT	CONC	RANGE	RATIO
14 Carbon Disulfide				CAS#: 75-15-0			
3.079	0.526	76	114923	5	5	80-120	100
3.098	0.529	44	0			10- 15	0
3.098	0.529	78	0			7- 11	0

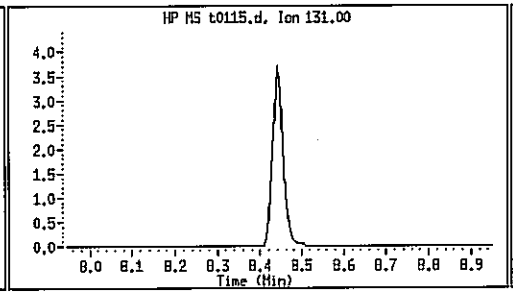


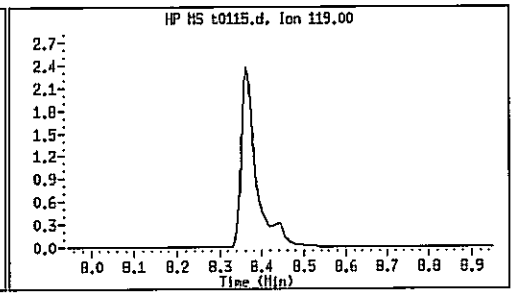




72 1,1,1,2-Tetrachloroethane				CAS#: 630-20-6			
8.440	1.009	133	59978	5	5	80-120	100
8.446	1.010	131	0			84-125	0
8.446	1.010	119	0			57- 85	0







23 Hexane				CAS#: 110-54-3			
4.049	0.691	57	46236	5	5	80-120	100
4.062	0.693	56	0			44- 66	0
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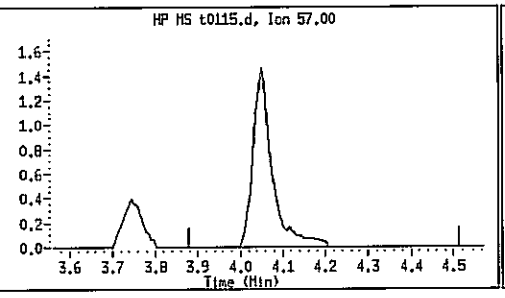

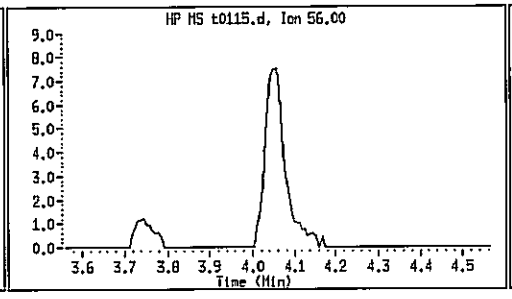

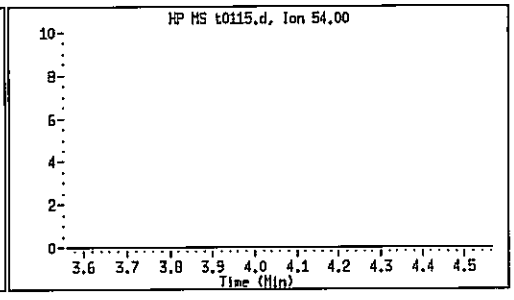

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv2.i/2031031p.s.b/t0116.d
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Inj Date : 31-OCT-2003 21:38
Operator : RJO Inst ID: msv2.i
Smp Info : 1202*V2STD020*5-5-5
Misc Info : MSV~3917~*1*RJO
Comment :
Method : /var/chem/msv2.i/2031031p.s.b/8260Bw2.m
Meth Date : 08-Nov-2003 15:40 sab Quant Type: ISTD
Cal Date : 31-OCT-2003 21:38 Cal File: t0116.d
Als bottle: 42 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260B.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
1 Dichlorodifluoromethane	85	1.533	1.553	(0.262)	141550	20.0000	18.3
23 Hexane	57	4.048	4.062	(0.691)	165732	20.0000	15.9
2 Chloromethane ++	50	1.638	1.659	(0.280)	209154	20.0000	17.3
3 Vinyl Chloride +	62	1.724	1.791	(0.294)	162416	20.0000	16.5
5 Bromomethane	94	2.048	2.075	(0.350)	130795	20.0000	19.5
6 Chloroethane	64	2.087	2.154	(0.356)	131406	20.0000	18.2
7 Trichlorofluoromethane	101	2.325	2.332	(0.397)	176414	20.0000	15.5
10 1,1-Dichloroethene +	96	2.840	2.854	(0.485)	113341	20.0000	16.6
11 1,1,2Trichlotrifluoroethane	101	2.860	2.874	(0.488)	121674	20.0000	15.5
12 Acetone	43	2.899	2.900	(0.495)	26299	20.0000	19.5(a)
13 Methyl Iodide	142	3.005	3.025	(0.513)	331306	20.0000	18.8
14 Carbon Disulfide	76	3.078	3.098	(0.525)	429995	20.0000	17.2
18 Methylene Chloride	49	3.401	3.415	(0.581)	167436	20.0000	18.9
20 Acrylonitrile	53	3.672	3.686	(0.627)	106695	100.000	91.7
21 trans-1,2-Dichloroethene	61	3.725	3.738	(0.636)	170612	20.0000	18.2
15 Methyl Acetate	43	3.289	3.303	(0.562)	58311	20.0000	19.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
22 MTBE	73	3.744	3.758	(0.639)	258068	20.0000	18.8
24 1,1-Dichloroethane ++	63	4.180	4.187	(0.714)	328629	20.0000	20.9
25 Vinyl Acetate	43	4.048	4.062	(0.691)	108712	20.0000	16.0
30 2,2-Dichloropropane	77	4.781	4.788	(0.816)	237343	20.0000	17.8
31 cis-1,2-Dichloroethene	61	4.781	4.788	(0.816)	299193	20.0000	19.4
32 2-Butanone	43	4.807	4.808	(0.821)	51085	20.0000	19.1(a)
36 Bromochloromethane	128	5.012	5.019	(0.856)	122838	20.0000	19.2
37 Chloroform +	83	5.091	5.098	(0.869)	367429	20.0000	19.0
38 Dibromofluoromethane	111	5.236	5.244	(0.894)	239519	20.0000	20.6
39 1,1,1-Trichloroethane	97	5.269	5.277	(0.900)	270428	20.0000	17.4
42 1,1-Dichloropropene	75	5.428	5.435	(0.927)	241058	20.0000	17.5
43 Carbon Tetrachloride	117	5.428	5.442	(0.927)	225104	20.0000	17.1
44 1,2-Dichloroethane-d4	67	5.547	5.554	(0.947)	98172	20.0000	19.9
45 Benzene	78	5.606	5.613	(0.957)	918155	20.0000	19.0
46 1,2-Dichloroethane	62	5.619	5.620	(0.959)	214668	20.0000	20.0
47 FLUOROBENZENE	96	5.857	5.864	(1.000)	2299710	50.0000	
48 Trichloroethene	130	6.187	6.188	(1.056)	262910	20.0000	17.7
49 Methyl Cyclohexane	83	6.352	6.359	(1.085)	359996	20.0000	16.8
50 1,2-Dichloropropane +	63	6.365	6.373	(1.087)	237451	20.0000	20.1
51 Dibromomethane	93	6.464	6.465	(1.104)	120020	20.0000	19.5
54 Bromodichloromethane	83	6.596	6.597	(1.126)	267940	20.0000	19.2
55 2-Chloroethyl vinyl ether	63	6.861	6.861	(1.171)	337793	20.0000	19.0
139 1 Bromo-2-chloroethane	144	6.861	6.861	(0.820)	35444	20.0000	19.3
56 cis-1,3-Dichloropropene	75	6.966	6.973	(1.189)	340317	20.0000	19.4
57 4-methyl-2-pentanone	43	7.092	7.092	(1.211)	107620	20.0000	18.6
58 Toluene-d8	98	7.197	7.205	(0.860)	891024	20.0000	20.7
59 Toluene +	91	7.257	7.257	(0.867)	1078340	20.0000	18.8
60 trans-1,3-Dichloropropene	75	7.415	7.416	(0.886)	282101	20.0000	19.1
62 1,1,2-Trichloroethane	97	7.567	7.568	(0.904)	175264	20.0000	18.9
64 1,3-Dichloropropane	76	7.699	7.700	(0.920)	304103	20.0000	19.6
65 Tetrachloroethene	164	7.706	7.713	(0.921)	210657	20.0000	17.3
66 2-Hexanone	43	7.765	7.759	(0.928)	75254	20.0000	17.3
68 Dibromochloromethane	129	7.890	7.891	(0.943)	234503	20.0000	18.8
69 1,2-Dibromoethane(EDB)	107	7.989	7.990	(0.955)	174704	20.0000	18.4
70 CHLOROBENZENE-d5	82	8.366	8.366	(1.000)	908568	50.0000	
71 Chlorobenzene ++	112	8.386	8.386	(1.002)	785982	20.0000	18.7
72 1,1,1,2-Tetrachloroethane	133	8.438	8.446	(1.009)	251820	20.0000	19.4
73 Ethylbenzene +	106	8.465	8.466	(1.012)	359987	20.0000	18.2
74 p,m-Xylene	106	8.557	8.558	(1.023)	940168	40.0000	36.7
76 o-Xylene	106	8.874	8.875	(1.061)	441321	20.0000	19.0
77 Styrene	104	8.867	8.881	(1.062)	791523	20.0000	19.1
78 Bromoform ++	173	9.033	9.033	(1.080)	136538	20.0000	18.6
79 Isopropylbenzene	105	9.158	9.159	(1.095)	1101954	20.0000	18.2
81 Bromofluorobenzene	174	9.290	9.291	(0.913)	315705	20.0000	20.1
84 1,1,2,2-Tetrachloroethane++	83	9.369	9.370	(0.921)	197875	20.0000	19.4
85 trans-1,4-Dichloro-2-Butene	53	9.416	9.410	(0.925)	37690	20.0000	19.9
86 1,2,3-Trichloropropane	75	9.416	9.416	(0.925)	234655	20.0000	19.7

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
87	Bromobenzene	77	9.416	9.416	(0.925)	569218	20.0000	19.8
75	Total 1,2-Dichloroethene	61				469805	40.0000	37.6
88	n-Propylbenzene	91	9.482	9.482	(0.932)	1099057	20.0000	17.8
89	2-Chlorotoluene	91	9.567	9.568	(0.940)	677690	20.0000	17.8
90	1,3,5-Trimethylbenzene	105	9.607	9.614	(0.944)	658473	20.0000	20.5
91	4-Chlorotoluene	91	9.647	9.647	(0.948)	812562	20.0000	19.3
92	tert-butylbenzene	91	9.871	9.872	(0.970)	440896	20.0000	18.0(H)
93	1,2,4-Trimethylbenzene	105	9.904	9.905	(0.973)	599700	20.0000	20.7
96	sec-Butylbenzene	105	10.030	10.030	(0.986)	870573	20.0000	17.6
97	p-Isopropyltoluene	119	10.129	10.129	(0.995)	689061	20.0000	19.0
98	1,3-Dichlorobenzene	146	10.129	10.136	(0.995)	546598	20.0000	19.8
99	1,4-DICHLOROBENZENE-D4	152	10.175	10.175	(1.000)	779857	50.0000	
100	1,4-Dichlorobenzene	146	10.188	10.195	(1.001)	540122	20.0000	19.2
101	n-Butylbenzene	91	10.419	10.420	(1.024)	495512	20.0000	18.5
102	1,2-Dichlorobenzene	146	10.465	10.459	(1.029)	471825	20.0000	19.3
103	1,2-Dibromo-3-Chloropropane	157	10.980	10.974	(1.079)	35928	20.0000	18.3
105	1,2,4-Trichlorobenzene	180	11.528	11.522	(1.133)	163073	20.0000	18.8
106	Hexachlorobutadiene	225	11.627	11.621	(1.143)	123373	20.0000	18.1
107	Napthalene	128	11.700	11.694	(1.150)	244350	20.0000	18.8
108	1,2,3-Trichlorobenzene	180	11.865	11.852	(1.166)	146569	20.0000	19.1
109	TOTAL XYLENE	106				1381489	60.0000	55.7
40	Cyclohexane	56	5.329	5.336	(0.910)	312893	20.0000	16.2

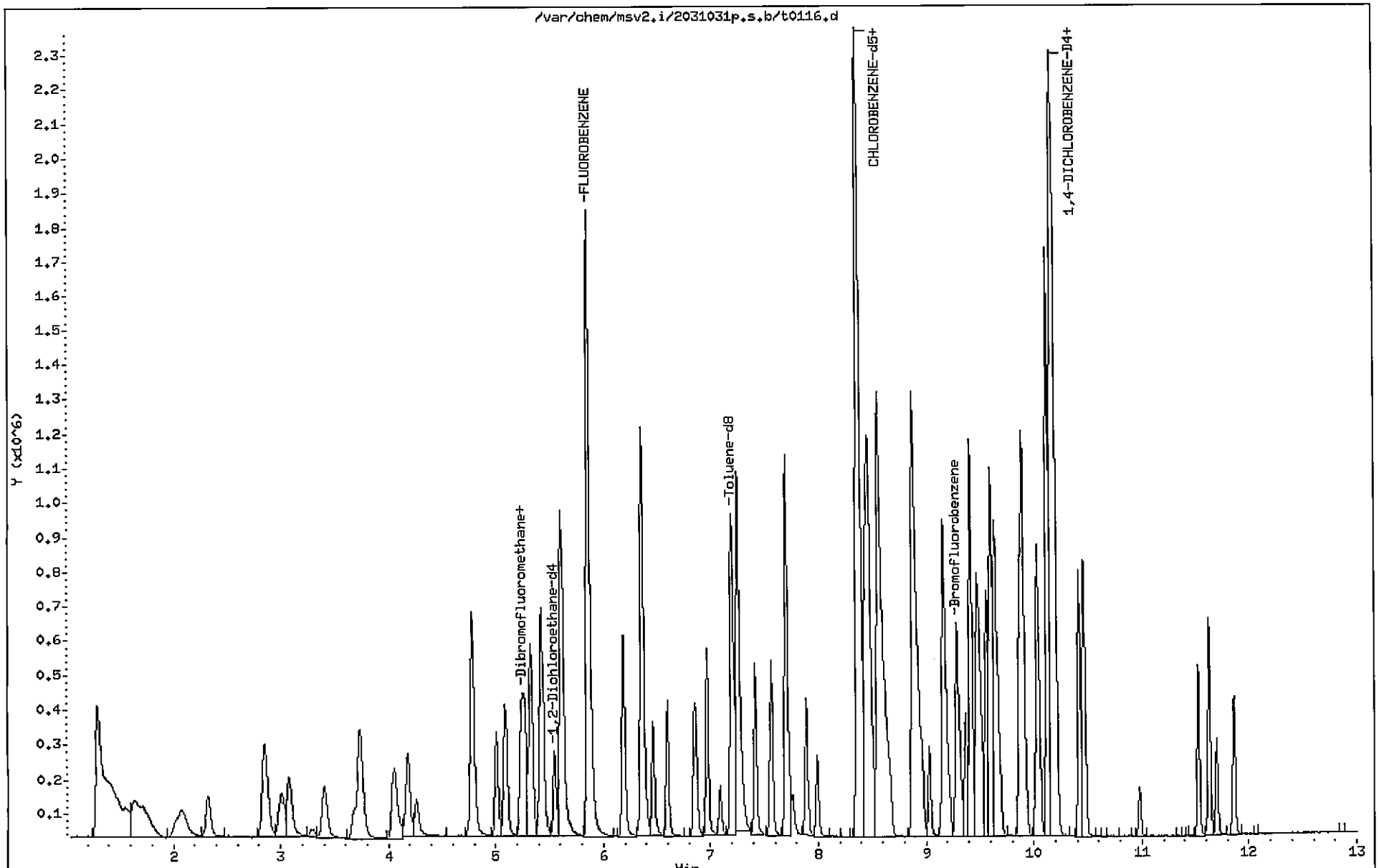
QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
H - Operator selected an alternate compound hit.

000088

Data File: /var/chem/msv2.i/2031031p.s.b/t0116.d
Date : 31-OCT-2003 21:38
Client ID: V2STD020
Sample Info: 1202MV2STD020M5-5-5
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv2.i
Operator: RJO
Column diameter: 0.53



Data File: /var/chem/msv2.i/2031031p.s.b/t0117.d
Report Date: 10-Nov-2003 11:22

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv2.i/2031031p.s.b/t0117.d
Lab Smp Id: 1203 Client Smp ID: V2STD050
Inj Date : 31-OCT-2003 22:02
Operator : RJO Inst ID: msv2.i
Smp Info : 1203*V2STD050*5-5-5
Misc Info : MSV~3917~*1*RJO
Comment :
Method : /var/chem/msv2.i/2031031p.s.b/8260Bw2.m
Meth Date : 08-Nov-2003 15:40 sab Quant Type: ISTD
Cal Date : 31-OCT-2003 22:02 Cal File: t0117.d
Als bottle: 43 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260B.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	ON-COL (ppb)
1 Dichlorodifluoromethane	85	1.533	1.553	(0.262)	456197	50.0000	47.8
23 Hexane	57	4.048	4.062	(0.691)	526924	50.0000	51.6
2 Chloromethane ++	50	1.638	1.659	(0.280)	567269	50.0000	47.9
3 Vinyl Chloride +	62	1.737	1.791	(0.297)	477624	50.0000	49.5
5 Bromomethane	94	2.034	2.075	(0.347)	334651	50.0000	50.8
6 Chloroethane	64	2.094	2.154	(0.357)	293294	50.0000	50.0
7 Trichlorofluoromethane	101	2.318	2.332	(0.396)	570662	50.0000	51.2
10 1,1-Dichloroethene +	96	2.840	2.854	(0.485)	346695	50.0000	51.9
11 1,1,2Trichlotrifluoroethane	101	2.860	2.874	(0.488)	402024	50.0000	52.1
12 Acetone	43	2.893	2.900	(0.494)	64051	50.0000	48.4
13 Methyl Iodide	142	3.005	3.025	(0.513)	875237	50.0000	50.7
14 Carbon Disulfide	76	3.077	3.098	(0.525)	1240365	50.0000	50.6
18 Methylene Chloride	49	3.401	3.415	(0.581)	426424	50.0000	49.0
20 Acrylonitrile	53	3.672	3.686	(0.627)	287347	250.000	252(A)
21 trans-1,2-Dichloroethene	61	3.724	3.738	(0.636)	464850	50.0000	50.6
15 Methyl Acetate	43	3.289	3.303	(0.562)	144150	50.0000	48.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
22 MTBE	73	3.744	3.758	(0.639)	681091	50.0000	50.5
24 1,1-Dichloroethane ++	63	4.180	4.187	(0.714)	702655	50.0000	45.5
25 Vinyl Acetate	43	4.048	4.062	(0.691)	335071	50.0000	50.4
30 2,2-Dichloropropane	77	4.781	4.788	(0.816)	672956	50.0000	51.3
31 cis-1,2-Dichloroethene	61	4.781	4.788	(0.816)	782740	50.0000	51.8
32 2-Butanone	43	4.801	4.808	(0.820)	136176	50.0000	52.0
36 Bromochloromethane	128	5.005	5.019	(0.855)	312990	50.0000	49.9
37 Chloroform +	83	5.091	5.098	(0.869)	946346	50.0000	50.0
38 Dibromofluoromethane	111	5.236	5.244	(0.894)	573270	50.0000	50.3
39 1,1,1-Trichloroethane	97	5.269	5.277	(0.900)	781004	50.0000	51.2
42 1,1-Dichloropropene	75	5.428	5.435	(0.927)	719386	50.0000	53.1
43 Carbon Tetrachloride	117	5.428	5.442	(0.927)	667084	50.0000	51.7
44 1,2-Dichloroethane-d4	67	5.547	5.554	(0.947)	242930	50.0000	50.2
45 Benzene	78	5.606	5.613	(0.957)	2345554	50.0000	49.5
46 1,2-Dichloroethane	62	5.613	5.620	(0.958)	522276	50.0000	49.7
47 FLUOROBENZENE	96	5.857	5.864	(1.000)	2254651	50.0000	
48 Trichloroethene	130	6.180	6.188	(1.055)	749694	50.0000	51.4
49 Methyl Cyclohexane	83	6.352	6.359	(1.085)	1122668	50.0000	53.5
50 1,2-Dichloropropane +	63	6.365	6.373	(1.087)	577643	50.0000	50.0
51 Dibromomethane	93	6.464	6.465	(1.104)	304979	50.0000	50.5
54 Bromodichloromethane	83	6.596	6.597	(1.126)	682137	50.0000	50.0
55 2-Chloroethyl vinyl ether	63	6.854	6.861	(1.170)	907958	50.0000	52.0
139 1 Bromo-2-chloroethane	144	6.860	6.861	(0.821)	93259	50.0000	52.2
56 cis-1,3-Dichloropropene	75	6.966	6.973	(1.189)	887797	50.0000	51.5
57 4-methyl-2-pentanone	43	7.091	7.092	(1.211)	296031	50.0000	52.1
58 Toluene-d8	98	7.197	7.205	(0.861)	2105039	50.0000	50.3
59 Toluene +	91	7.257	7.257	(0.868)	2780798	50.0000	49.9
60 trans-1,3-Dichloropropene	75	7.415	7.416	(0.887)	736896	50.0000	51.4
62 1,1,2-Trichloroethane	97	7.567	7.568	(0.905)	445855	50.0000	49.5
64 1,3-Dichloropropane	76	7.699	7.700	(0.921)	777312	50.0000	51.5
65 Tetrachloroethene	164	7.705	7.713	(0.922)	609155	50.0000	51.4
66 2-Hexanone	43	7.758	7.759	(0.928)	224565	50.0000	48.9
68 Dibromochloromethane	129	7.890	7.891	(0.944)	607026	50.0000	50.1
69 1,2-Dibromoethane(EDB)	107	7.989	7.990	(0.956)	459300	50.0000	49.9
70 CHLOROBENZENE-d5	82	8.359	8.366	(1.000)	882135	50.0000	
71 Chlorobenzene ++	112	8.385	8.386	(1.003)	1989882	50.0000	48.8
72 1,1,1,2-Tetrachloroethane	133	8.438	8.446	(1.009)	624998	50.0000	49.7
73 Ethylbenzene +	106	8.465	8.466	(1.013)	1001404	50.0000	52.1
74 p,m-Xylene	106	8.557	8.558	(1.024)	2557477	100.000	103
76 o-Xylene	106	8.874	8.875	(1.062)	1189185	50.0000	52.6
77 Styrene	104	8.881	8.881	(1.062)	2117796	50.0000	52.7
78 Bromoform ++	173	9.032	9.033	(1.081)	357190	50.0000	50.0
79 Isopropylbenzene	105	9.158	9.159	(1.096)	3179994	50.0000	48.9
81 Bromofluorobenzene	174	9.290	9.291	(0.913)	796664	50.0000	51.5
84 1,1,2,2-Tetrachloroethane++	83	9.369	9.370	(0.921)	505942	50.0000	50.4
85 trans-1,4-Dichloro-2-Butene	53	9.409	9.410	(0.925)	98056	50.0000	52.6
86 1,2,3-Trichloropropane	75	9.415	9.416	(0.925)	598039	50.0000	50.9

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
87	Bromobenzene	77	9.415	9.416	(0.925)	1440878	50.0000	50.9
75	Total 1,2-Dichloroethene	61				1247590	100.000	102
88	n-Propylbenzene	91	9.481	9.482	(0.932)	3257793	50.0000	53.7
89	2-Chlorotoluene	91	9.567	9.568	(0.940)	1703708	50.0000	55.6
90	1,3,5-Trimethylbenzene	105	9.607	9.614	(0.944)	1620893	50.0000	51.1
91	4-Chlorotoluene	91	9.646	9.647	(0.948)	2152760	50.0000	51.8
92	tert-butylbenzene	91	9.871	9.872	(0.970)	1291532	50.0000	53.6(H)
93	1,2,4-Trimethylbenzene	105	9.904	9.905	(0.973)	1447991	50.0000	50.7
96	sec-Butylbenzene	105	10.029	10.030	(0.986)	2674988	50.0000	49.0
97	p-Isopropyltoluene	119	10.128	10.129	(0.995)	1903512	50.0000	53.2
98	1,3-Dichlorobenzene	146	10.135	10.136	(0.996)	1412705	50.0000	51.9
99	1,4-DICHLOROBENZENE-D4	152	10.175	10.175	(1.000)	768643	50.0000	
100	1,4-Dichlorobenzene	146	10.194	10.195	(1.002)	1379275	50.0000	49.8
101	n-Butylbenzene	91	10.419	10.420	(1.024)	1362711	50.0000	51.6
102	1,2-Dichlorobenzene	146	10.458	10.459	(1.028)	1212028	50.0000	50.2
103	1,2-Dibromo-3-Chloropropane	157	10.980	10.974	(1.079)	98198	50.0000	50.7
105	1,2,4-Trichlorobenzene	180	11.528	11.522	(1.133)	432974	50.0000	45.7
106	Hexachlorobutadiene	225	11.627	11.621	(1.143)	382131	50.0000	46.8
107	Napthalene	128	11.700	11.694	(1.150)	631365	50.0000	49.3
108	1,2,3-Trichlorobenzene	180	11.858	11.852	(1.165)	372483	50.0000	46.3
109	TOTAL XYLENE	106				3746662	150.000	155
40	Cyclohexane	56	5.329	5.336	(0.910)	1016676	50.0000	53.7

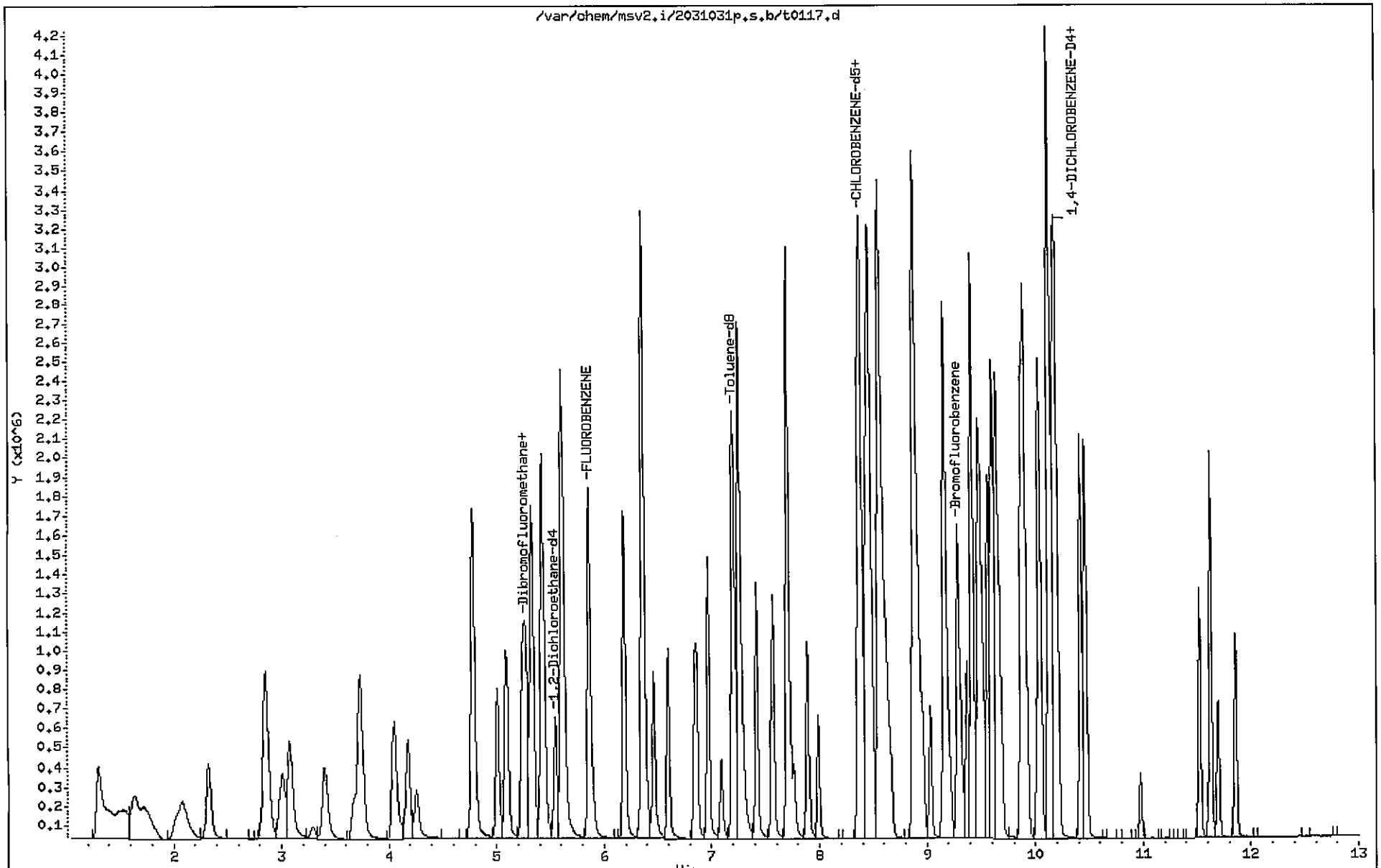
QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
H - Operator selected an alternate compound hit.

000092

Data File: /var/chem/msv2.i/2031031p.s.b/t0117.d
Date : 31-OCT-2003 22:02
Client ID: V2STD050
Sample Info: 1203MV2STD050M5-5-5
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv2.i
Operator: RJD
Column diameter: 0.53



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv2.i/2031031p.s.b/t0118.d
Lab Smp Id: 1204 Client Smp ID: V2STD100
Inj Date : 31-OCT-2003 22:26
Operator : RJO Inst ID: msv2.i
Smp Info : 1204*V2STD100*5-5-5
Misc Info : MSV~3917~*1*RJO
Comment :
Method : /var/chem/msv2.i/2031031p.s.b/8260Bw2.m
Meth Date : 08-Nov-2003 15:40 sab Quant Type: ISTD
Cal Date : 31-OCT-2003 22:26 Cal File: t0118.d
Als bottle: 44 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260B.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	ON-COL (ppb)
1 Dichlorodifluoromethane	85	1.522	1.553	(1.000)	979554	100.000	97.8
23 Hexane	57	4.051	4.062	(1.000)	1097309	100.000	109
2 Chloromethane ++	50	1.641	1.659	(1.000)	1193503	100.000	102
3 Vinyl Chloride +	62	1.753	1.791	(1.000)	1036405	100.000	109
5 Bromomethane	94	2.044	2.075	(1.000)	642433	100.000	99.1
6 Chloroethane	64	2.103	2.154	(1.000)	568038	100.000	105
7 Trichlorofluoromethane	101	2.321	2.332	(1.000)	1236415	100.000	113
10 1,1-Dichloroethene +	96	2.843	2.854	(1.000)	719215	100.000	109
11 1,1,2Trichlotrifluoroethane	101	2.862	2.874	(1.000)	860664	100.000	113
12 Acetone	43	2.895	2.900	(1.000)	141108	100.000	108
13 Methyl Iodide	142	3.008	3.025	(1.000)	1747592	100.000	103
14 Carbon Disulfide	76	3.080	3.098	(1.000)	2602886	100.000	108
18 Methylene Chloride	49	3.404	3.415	(1.000)	849573	100.000	99.2
20 Acrylonitrile	53	3.674	3.686	(1.000)	593511	500.000	528(A)
21 trans-1,2-Dichloroethene	61	3.727	3.738	(1.000)	959255	100.000	106
15 Methyl Acetate	43	3.292	3.303	(1.000)	298377	100.000	102

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
22 MTBE	73	3.747	3.758	(1.000)	1396931	100.000	105
24 1,1-Dichloroethane ++	63	4.183	4.187	(1.000)	1430045	100.000	94.1
25 Vinyl Acetate	43	4.051	4.062	(1.000)	699871	100.000	107
30 2,2-Dichloropropane	77	4.784	4.788	(1.000)	1366497	100.000	106
31 cis-1,2-Dichloroethene	61	4.777	4.788	(1.000)	1545825	100.000	104
32 2-Butanone	43	4.803	4.808	(1.000)	270966	100.000	105
36 Bromochloromethane	128	5.008	5.019	(1.000)	635230	100.000	103
37 Chloroform +	83	5.094	5.098	(1.000)	1920186	100.000	103
38 Dibromofluoromethane	111	5.239	5.244	(1.000)	1153754	100.000	103
39 1,1,1-Trichloroethane	97	5.272	5.277	(1.000)	1626031	100.000	108
42 1,1-Dichloropropene	75	5.424	5.435	(1.000)	1470084	100.000	110
43 Carbon Tetrachloride	117	5.431	5.442	(1.000)	1372445	100.000	108
44 1,2-Dichloroethane-d4	67	5.549	5.554	(1.000)	494041	100.000	104
45 Benzene	78	5.609	5.613	(1.000)	4711885	100.000	101
46 1,2-Dichloroethane	62	5.615	5.620	(1.000)	1015521	100.000	98.3
47 FLUOROBENZENE	96	5.860	5.864	(1.000)	2219404	50.0000	(M)
48 Trichloroethene	130	6.183	6.188	(1.000)	1619566	100.000	113
49 Methyl Cyclohexane	83	6.355	6.359	(1.000)	2317252	100.000	112
50 1,2-Dichloropropane +	63	6.368	6.373	(1.000)	1120771	100.000	98.5
51 Dibromomethane	93	6.467	6.465	(1.000)	614872	100.000	103
54 Bromodichloromethane	83	6.599	6.597	(1.000)	1391205	100.000	104
55 2-Chloroethyl vinyl ether	63	6.857	6.861	(1.000)	1822641	100.000	106
139 1 Bromo-2-chloroethane	144	6.863	6.861	(0.821)	186992	100.000	109
56 cis-1,3-Dichloropropene	75	6.969	6.973	(1.000)	1793708	100.000	106
57 4-methyl-2-pentanone	43	7.088	7.092	(1.000)	623147	100.000	111
58 Toluene-d8	98	7.200	7.205	(0.861)	4336941	100.000	108
59 Toluene +	91	7.253	7.257	(0.867)	5705336	100.000	107
60 trans-1,3-Dichloropropene	75	7.411	7.416	(0.886)	1456164	100.000	106
62 1,1,2-Trichloroethane	97	7.563	7.568	(0.904)	902149	100.000	105
64 1,3-Dichloropropane	76	7.702	7.700	(0.921)	1503724	100.000	104
65 Tetrachloroethene	164	7.708	7.713	(0.922)	1272576	100.000	112
66 2-Hexanone	43	7.761	7.759	(0.928)	480145	100.000	107
68 Dibromochloromethane	129	7.893	7.891	(0.944)	1232404	100.000	106
69 1,2-Dibromoethane(EDB)	107	7.992	7.990	(0.956)	942798	100.000	107
70 CHLOROBENZENE-d5	82	8.362	8.366	(1.000)	846037	50.0000	
71 Chlorobenzene ++	112	8.388	8.386	(1.003)	4029197	100.000	103
72 1,1,1,2-Tetrachloroethane	133	8.441	8.446	(1.009)	1253419	100.000	104
73 Ethylbenzene +	106	8.468	8.466	(1.013)	2042942	100.000	111
74 p,m-Xylene	106	8.560	8.558	(1.024)	5322819	200.000	223
76 o-Xylene	106	8.877	8.875	(1.062)	2451419	100.000	113
77 Styrene	104	8.883	8.881	(1.062)	4357616	100.000	113
78 Bromoform ++	173	9.035	9.033	(1.081)	716731	100.000	105
79 Isopropylbenzene	105	9.161	9.159	(1.096)	6645144	100.000	103
81 Bromofluorobenzene	174	9.286	9.291	(0.913)	1643384	100.000	97.8
84 1,1,2,2-Tetrachloroethane++	83	9.372	9.370	(0.921)	966735	100.000	88.7
85 trans-1,4-Dichloro-2-Butene	53	9.412	9.410	(0.925)	193863	100.000	95.7
86 1,2,3-Trichloropropane	75	9.412	9.416	(0.925)	1193216	100.000	93.6

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
87	Bromobenzene	77	9.418	9.416	(0.926)	2869798	100.000	93.3
75	Total 1,2-Dichloroethene	61				2505080	200.000	210
88	n-Propylbenzene	91	9.484	9.482	(0.932)	7263253	100.000	110
89	2-Chlorotoluene	91	9.563	9.568	(0.940)	3245610	100.000	102
90	1,3,5-Trimethylbenzene	105	9.610	9.614	(0.945)	3672162	100.000	107
91	4-Chlorotoluene	91	9.649	9.647	(0.949)	4693285	100.000	104
92	tert-butylbenzene	91	9.867	9.872	(0.970)	2931410	100.000	112(H)
93	1,2,4-Trimethylbenzene	105	9.900	9.905	(0.973)	3394317	100.000	109
96	sec-Butylbenzene	105	10.032	10.030	(0.986)	6381717	100.000	104
97	p-Isopropyltoluene	119	10.131	10.129	(0.996)	4577398	100.000	118
98	1,3-Dichlorobenzene	146	10.131	10.136	(0.996)	2965807	100.000	100
99	1,4-DICHLOROBENZENE-D4	152	10.171	10.175	(1.000)	834677	50.0000	
100	1,4-Dichlorobenzene	146	10.191	10.195	(1.002)	3076455	100.000	102
101	n-Butylbenzene	91	10.415	10.420	(1.024)	3523930	100.000	123
102	1,2-Dichlorobenzene	146	10.461	10.459	(1.029)	2663275	100.000	102
103	1,2-Dibromo-3-Chloropropane	157	10.976	10.974	(1.079)	208868	100.000	99.4
105	1,2,4-Trichlorobenzene	180	11.524	11.522	(1.133)	1138515	100.000	107
106	Hexachlorobutadiene	225	11.623	11.621	(1.143)	965957	100.000	103
107	Napthalene	128	11.696	11.694	(1.150)	1576150	100.000	113
108	1,2,3-Trichlorobenzene	180	11.854	11.852	(1.166)	942689	100.000	105
109	TOTAL XYLENE	106				7774238	300.000	336
40	Cyclohexane	56	5.332	5.336	(1.000)	2094674	100.000	112

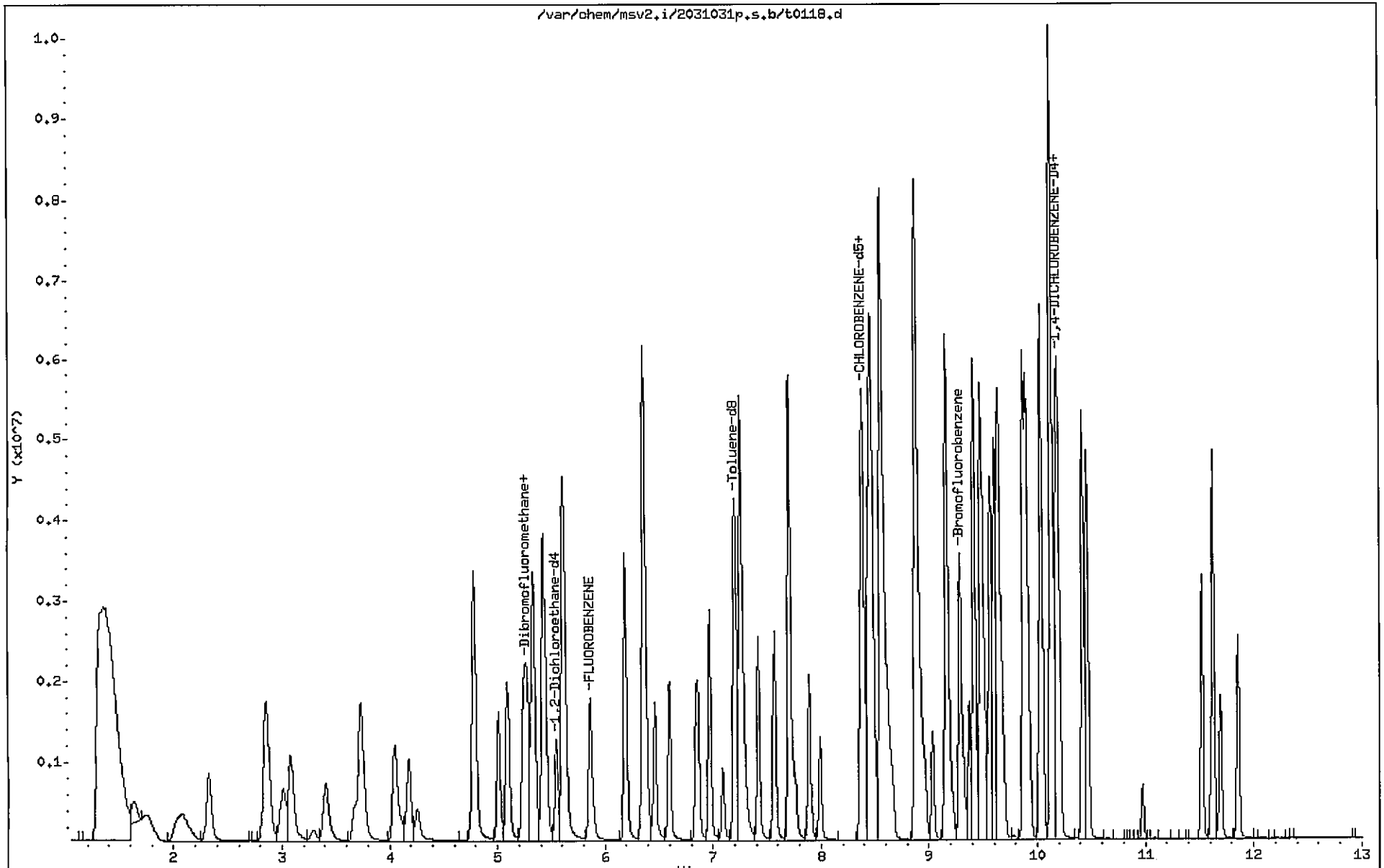
QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

000000

Data File: /var/chem/msv2.i/2031031p.s.b/t0118.d
Date : 31-OCT-2003 22:26
Client ID: V2STD100
Sample Info: 1204*V2STD100*5-5-5
Purge Volume: 5.0
Column phase: DB-624-30M

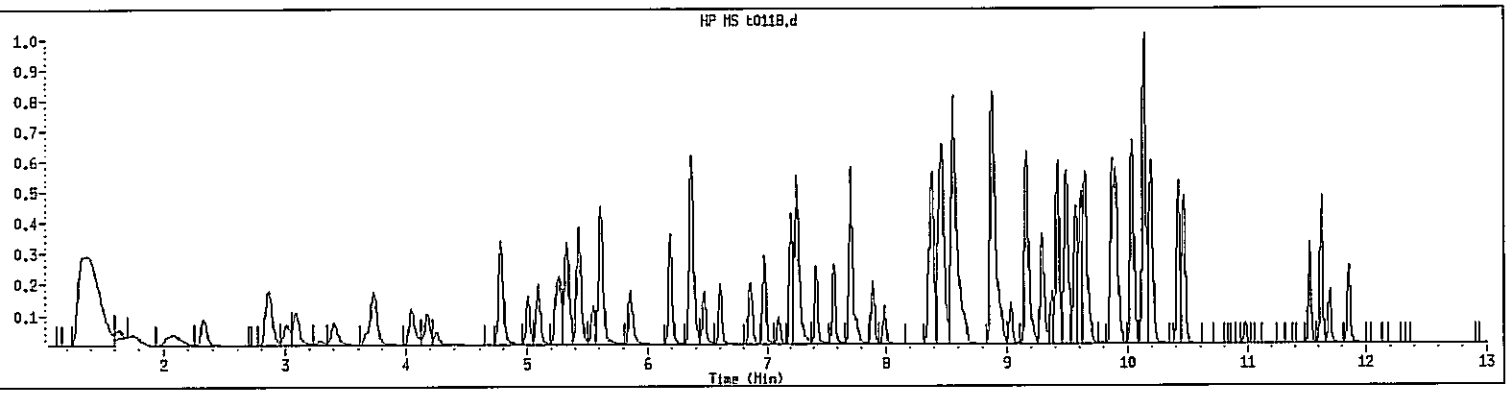
Instrument: msv2.i
Operator: RJO
Column diameter: 0.53



Data file : /var/chem/msv2.i/2031031p.s.b/t0118.d
Report Date: 11/10/2003 11:22

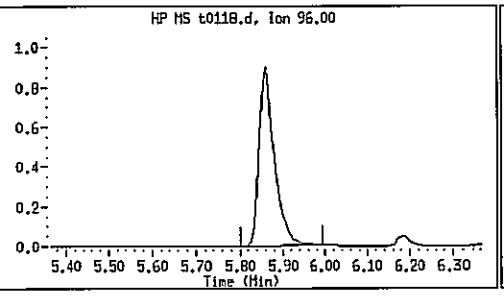
MANUAL INTEGRATION GRAPHIC REPORT

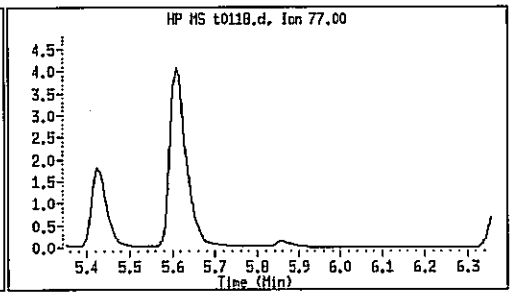
Lab ID : 1204 SampleType : CALIB_4
Injection Date: 31-OCT-2003 22:26 Instrument : msv2.i
Operator : RJO
Sample Info : 1204*V2STD100*5-5-5
Misc Info : MSV~3917~*1*RJO
Method : /var/chem/msv2.i/2031031p.s.b/8260Bw2.m
Dilution : 1.0
Matrix : WATER
Integrator : HP RTE Compound Sublist: 8260B



CONCENTRATIONS

RT	(REL RT)	MASS	RESPONSE	AMT	CONC	RANGE	RATIO
* 47 FLUOROBENZENE			CAS#: 462-06-6				
6.860	1.000	96	2219404	50	50	80-120	100
6.854	0.999	77	0			0- 0	0





ata File: /var/chem/msv2.i/2031031p.s.b/t0119.d
eport Date: 10-Nov-2003 11:22

Gulf Coast Analytical Laboratories, Inc.

ata file : /var/chem/msv2.i/2031031p.s.b/t0119.d
ab Smp Id: 1205 — Client Smp ID: V2STD200
nj Date : 31-OCT-2003 22:50
perator : RJO — Inst ID: msv2.i
mp Info : 1205*V2STD200*5-5-5
isc Info : MSV~3917~*1*RJO
omment :
ethod : /var/chem/msv2.i/2031031p.s.b/8260Bw2.m
eth Date : 08-Nov-2003 15:40 sab — Quant Type: ISTD
al Date : 31-OCT-2003 22:50 — Cal File: t0119.d
ls bottle: 45 — Calibration Sample, Level: 5
il Factor: 1.00000
ntegrator: HP RTE — Compound Sublist: 8260B.sub
arget Version: 3.50

oncentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
pnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
1 Dichlorodifluoromethane	85	1.553	1.553	(1.000)	2393519	200.000	202(A)
23 Hexane	57	4.062	4.062	(1.000)	2621718	200.000	226
2 Chloromethane ++	50	1.659	1.659	(1.000)	2834601	200.000	211(A)
3 Vinyl Chloride +	62	1.791	1.791	(1.000)	2295003	200.000	210(A)
5 Bromomethane	94	2.075	2.075	(1.000)	1273418	200.000	171
6 Chloroethane	64	2.154	2.154	(1.000)	1196212	200.000	198
7 Trichlorofluoromethane	101	2.332	2.332	(1.000)	2790509	200.000	221(A)
10 1,1-Dichloroethene +	96	2.854	2.854	(1.000)	1627109	200.000	215(A)
11 1,1,2Trichlotrifluoroethane	101	2.874	2.874	(1.000)	1877387	200.000	215(A)
12 Acetone	43	2.900	2.900	(1.000)	261573	200.000	175
13 Methyl Iodide	142	3.025	3.025	(1.000)	3985888	200.000	204(A)
14 Carbon Disulfide	76	3.098	3.098	(1.000)	5935112	200.000	213(A)
18 Methylene Chloride	49	3.415	3.415	(1.000)	1998097	200.000	203(A)
20 Acrylonitrile	53	3.686	3.686	(1.000)	1387963	1000.00	1070(A)
21 trans-1,2-Dichloroethene	61	3.738	3.738	(1.000)	2168170	200.000	208(A)
15 Methyl Acetate	43	3.303	3.303	(1.000)	691438	200.000	205

	ompounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
	22 MTBE	73	3.758	3.758	(1.000)	3252201	200.000	213(A)
	24 1,1-Dichloroethane ++	63	4.187	4.187	(1.000)	3391074	200.000	194
	25 Vinyl Acetate	43	4.062	4.062	(1.000)	1635836	200.000	217(A)
	30 2,2-Dichloropropane	77	4.788	4.788	(1.000)	3042081	200.000	205(A)
	31 cis-1,2-Dichloroethene	61	4.788	4.788	(1.000)	3369105	200.000	197
	32 2-Butanone	43	4.808	4.808	(1.000)	543810	200.000	183
	36 Bromochloromethane	128	5.019	5.019	(1.000)	1488677	200.000	209(A)
	37 Chloroform +	83	5.098	5.098	(1.000)	4363829	200.000	203(A)
	38 Dibromofluoromethane	111	5.244	5.244	(1.000)	2649092	200.000	205(A)
	39 1,1,1-Trichloroethane	97	5.277	5.277	(1.000)	3596131	200.000	208(A)
	42 1,1-Dichloropropene	75	5.435	5.435	(1.000)	3155165	200.000	206(A)
	43 Carbon Tetrachloride	117	5.442	5.442	(1.000)	2994198	200.000	205(A)
	44 1,2-Dichloroethane-d4	67	5.554	5.554	(1.000)	1097544	200.000	200(A)
	45 Benzene	78	5.613	5.613	(1.000)	10508026	200.000	196
	46 1,2-Dichloroethane	62	5.620	5.620	(1.000)	2270085	200.000	191
	47 FLUOROBENZENE	96	5.864	5.864	(1.000)	2554589	50.0000	(M)
	48 Trichloroethene	130	6.188	6.188	(1.000)	3489739	200.000	211(A)
	49 Methyl Cyclohexane	83	6.359	6.359	(1.000)	5074898	200.000	214
	50 1,2-Dichloropropane +	63	6.373	6.373	(1.000)	2360554	200.000	180
	51 Dibromomethane	93	6.465	6.465	(1.000)	1370673	200.000	200(A)
	54 Bromodichloromethane	83	6.597	6.597	(1.000)	3147890	200.000	204(A)
	55 2-Chloroethyl vinyl ether	63	6.861	6.861	(1.000)	4062438	200.000	206(A)
	139 1 Bromo-2-chloroethane	144	6.861	6.861	(0.820)	419460	200.000	213
	56 cis-1,3-Dichloropropene	75	6.973	6.973	(1.000)	4103888	200.000	210(A)
	57 4-methyl-2-pentanone	43	7.092	7.092	(1.000)	1446003	200.000	225(A)
	58 Toluene-d8	98	7.205	7.205	(0.861)	10148145	200.000	220(A)
	59 Toluene +	91	7.257	7.257	(0.867)	12917047	200.000	210(A)
	60 trans-1,3-Dichloropropene	75	7.416	7.416	(0.886)	3387549	200.000	214(A)
	62 1,1,2-Trichloroethane	97	7.568	7.568	(0.905)	2053685	200.000	207(A)
	64 1,3-Dichloropropane	76	7.700	7.700	(0.920)	3194363	200.000	192
	65 Tetrachloroethene	164	7.713	7.713	(0.922)	2680905	200.000	205(A)
	66 2-Hexanone	43	7.759	7.759	(0.927)	1030072	200.000	197
	68 Dibromochloromethane	129	7.891	7.891	(0.943)	2796866	200.000	209(A)
	69 1,2-Dibromoethane(EDB)	107	7.990	7.990	(0.955)	2187409	200.000	215(A)
*	70 CHLOROBENZENE-d5	82	8.366	8.366	(1.000)	973248	50.0000	
	71 Chlorobenzene ++	112	8.386	8.386	(1.002)	9092741	200.000	202(A)
	72 1,1,1,2-Tetrachloroethane	133	8.446	8.446	(1.009)	2760904	200.000	199
	73 Ethylbenzene +	106	8.466	8.466	(1.012)	4562547	200.000	215(A)
	74 p,m-Xylene	106	8.558	8.558	(1.023)	11693195	400.000	426(A)
	76 o-Xylene	106	8.875	8.875	(1.061)	5370769	200.000	215(A)
	77 Styrene	104	8.881	8.881	(1.062)	9519265	200.000	215(A)
	78 Bromoform ++	173	9.033	9.033	(1.080)	1692420	200.000	215(A)
	79 Isopropylbenzene	105	9.159	9.159	(1.095)	14876636	200.000	199
$	81 Bromofluorobenzene	174	9.291	9.291	(0.913)	3909108	200.000	200(A)
	84 1,1,2,2-Tetrachloroethane++	83	9.370	9.370	(0.921)	2317581	200.000	183
	85 trans-1,4-Dichloro-2-Butene	53	9.410	9.410	(0.925)	425754	200.000	181
	86 1,2,3-Trichloropropane	75	9.416	9.416	(0.925)	2538037	200.000	171

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
87	Bromobenzene	77	9.416	9.416	(0.925)	6375310	200.000	178
75	Total 1,2-Dichloroethene	61				5537275	400.000	405
88	n-Propylbenzene	91	9.482	9.482	(0.932)	16901042	200.000	221(A)
89	2-Chlorotoluene	91	9.568	9.568	(0.940)	7044016	200.000	197
90	1,3,5-Trimethylbenzene	105	9.614	9.614	(0.945)	7406427	200.000	185
91	4-Chlorotoluene	91	9.647	9.647	(0.948)	10464370	200.000	200
92	tert-butylbenzene	91	9.872	9.872	(0.970)	6659820	200.000	219(AH)
93	1,2,4-Trimethylbenzene	105	9.905	9.905	(0.973)	6658236	200.000	185
96	sec-Butylbenzene	105	10.030	10.030	(0.986)	14235652	200.000	198
97	p-Isopropyltoluene	119	10.129	10.129	(0.995)	9118488	200.000	202(A)
98	1,3-Dichlorobenzene	146	10.136	10.136	(0.996)	6386337	200.000	186
99	1,4-DICHLOROBENZENE-D4	152	10.175	10.175	(1.000)	969119	50.0000	
100	1,4-Dichlorobenzene	146	10.195	10.195	(1.002)	6850908	200.000	196
101	n-Butylbenzene	91	10.420	10.420	(1.024)	7293326	200.000	219(A)
102	1,2-Dichlorobenzene	146	10.459	10.459	(1.028)	6171733	200.000	203(A)
103	1,2-Dibromo-3-Chloropropane	157	10.974	10.974	(1.079)	514442	200.000	211(A)
105	1,2,4-Trichlorobenzene	180	11.522	11.522	(1.132)	2480144	200.000	197
106	Hexachlorobutadiene	225	11.621	11.621	(1.142)	2226914	200.000	199
107	Napthalene	128	11.694	11.694	(1.149)	3455583	200.000	214(A)
108	1,2,3-Trichlorobenzene	180	11.852	11.852	(1.165)	2072847	200.000	198
109	TOTAL XYLENE	106				17063964	600.000	641
40	Cyclohexane	56	5.336	5.336	(1.000)	4680137	200.000	218(A)

QC Flag Legend

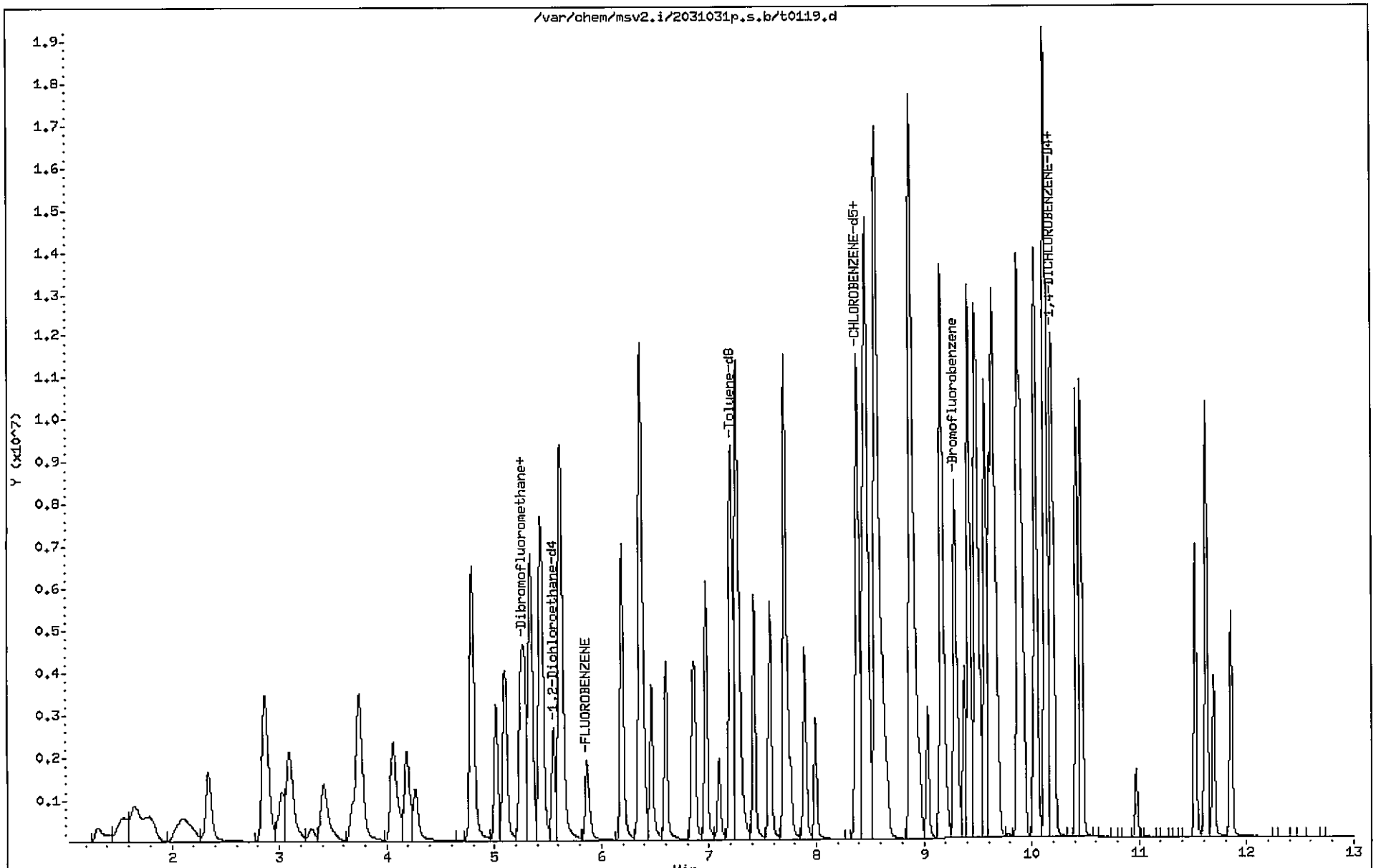
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

000104

Data File: /var/chem/msv2.i/2031031p.s.b/t0119.d
Date : 31-OCT-2003 22:50
Client ID: V2STD200
Sample Info: 1205*V2STD200*5-5-5
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv2.i

Operator: RJO
Column diameter: 0.53

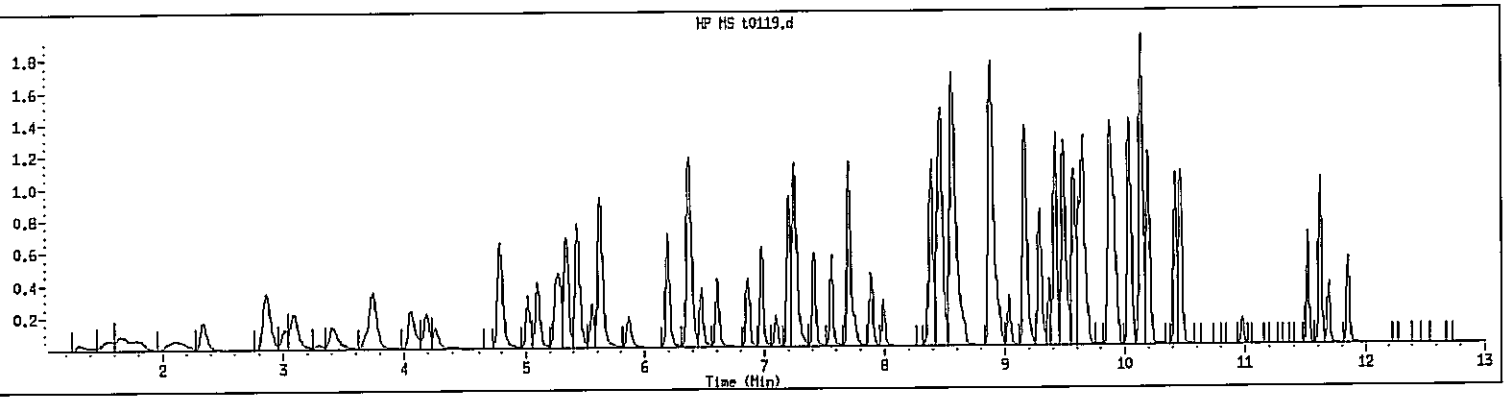


Data file : /var/chem/msv2.i/2031031p.s.b/t0119.d
Report Date: 11/10/2003 11:22

MANUAL INTEGRATION GRAPHIC REPORT

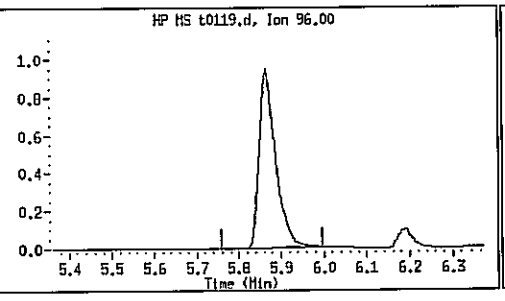
Lab ID : 1205
Injection Date: 31-OCT-2003 22:50
Operator : RJO
Sample Info : 1205*V2STD200*5-5-5
Misc Info : MSV~3917~*1*RJO
Method : /var/chem/msv2.i/2031031p.s.b/8260Bw2.m
Dilution : 1.0
Matrix : WATER
Integrator : HP RTE

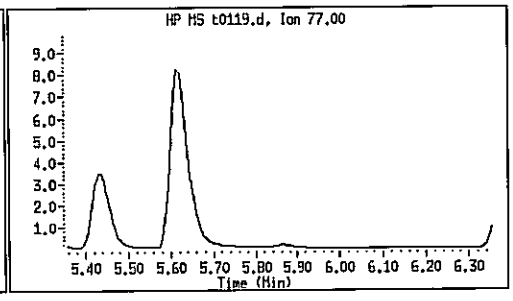
SampleType : CALIB_5
Instrument : msv2.i
Compound Sublist: 8260B



CONCENTRATIONS

RT	(REL RT)	MASS	RESPONSE	AMT	CONC	RANGE	RATIO
* 47 FLUOROBENZENE			CAS#: 462-06-6				
5.864	1.000	96	2554589	50	50	80-120	100
5.854	0.998	77	0			0- 0	0





Data File: /var/chem/msv2.i/2031031p.s.b/t0122.d
Report Date: 08-Nov-2003 15:39

Gulf Coast Analytical Laboratories, Inc.

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: ICV
Level: LOW
Data Type: MS DATA
SpikeList File: ICV.spk
Sublist File: 8260B.sub
Method File: /var/chem/msv2.i/2031031p.s.b/8260Bw2.m
Misc Info: MSV~3917~*1*RJO

Client SDG: 2031031p.s
Fraction: VOA

Operator: RJO
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Dichlorodifluorome	50.0	48.5	97.07	70-130
2 Chloromethane ++	50.0	44.3	88.51	70-130
3 Vinyl Chloride +	50.0	45.7	91.49	70-130
5 Bromomethane	50.0	44.5	88.92	70-130
6 Chloroethane	50.0	39.5	78.99	70-130
7 Trichlorofluoromet	50.0	45.9	91.82	70-130
9 Acrolein	250	0.00	*	70-130
10 1,1-Dichloroethene	50.0	48.2	96.50	70-130
11 1,1,2Trichlotriflu	50.0	47.8	95.56	70-130
12 Acetone	50.0	91.8	183.60*	70-130
13 Methyl Iodide	50.0	44.5	89.09	70-130
14 Carbon Disulfide	50.0	38.4	76.77	70-130
18 Methylene Chloride	50.0	46.4	92.75	70-130
20 Acrylonitrile	250	229	91.60	70-130
19 2-Chloropropene	50.0	0.00	*	70-130
21 trans-1,2-Dichloro	50.0	49.9	99.82	70-130
22 MTBE	50.0	48.6	97.14	70-130
24 1,1-Dichloroethane	50.0	52.4	104.78	70-130
25 Vinyl Acetate	50.0	37.5	75.03	70-130
31 cis-1,2-Dichloroet	50.0	49.7	99.32	70-130
30 2,2-Dichloropropan	50.0	49.1	98.30	70-130
32 2-Butanone	50.0	78.1	156.20*	70-130
36 Bromochloromethane	50.0	47.4	94.74	70-130
37 Chloroform +	50.0	49.0	98.09	70-130
39 1,1,1-Trichloroeth	50.0	47.1	94.14	70-130
42 1,1-Dichloropropen	50.0	49.6	99.21	70-130
43 Carbon Tetrachlori	50.0	49.3	98.67	70-130
46 1,2-Dichloroethane	50.0	48.1	96.28	70-130
45 Benzene	50.0	46.4	92.84	70-130
48 Trichloroethene	50.0	50.8	101.54	70-130
50 1,2-Dichloropropan	50.0	48.8	97.53	70-130
51 Dibromomethane	50.0	47.7	95.33	70-130
54 Bromodichlorometha	50.0	52.3	104.56	70-130

SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
55	2-Chloroethyl viny	50.0	49.2	98.30	70-130
56	cis-1,3-Dichloropr	50.0	51.8	103.51	70-130
57	4-methyl-2-pentano	50.0	54.9	109.81	70-130
59	Toluene +	50.0	45.6	91.22	70-130
60	trans-1,3-Dichloro	50.0	48.1	96.29	70-130
62	1,1,2-Trichloroeth	50.0	47.3	94.62	70-130
64	1,3-Dichloropropan	50.0	47.7	95.33	70-130
65	Tetrachloroethene	50.0	45.7	91.44	70-130
66	2-Hexanone	50.0	70.1	140.23*	70-130
68	Dibromochlorometha	50.0	45.2	90.43	70-130
69	1,2-Dibromoethane (	50.0	46.6	93.13	70-130
71	Chlorobenzene ++	50.0	45.1	90.27	70-130
72	1,1,1,2-Tetrachlor	50.0	46.9	93.84	70-130
73	Ethylbenzene +	50.0	46.2	92.47	70-130
74	p,m-Xylene	100	91.3	91.26	70-130
76	o-Xylene	50.0	47.8	95.54	70-130
77	Styrene	50.0	45.0	89.96	70-130
78	Bromoform ++	50.0	45.1	90.28	70-130
79	Isopropylbenzene	50.0	43.1	86.26	70-130
84	1,1,2,2-Tetrachlor	50.0	44.5	89.06	70-130
85	trans-1,4-Dichloro	50.0	55.5	111.01	70-130
86	1,2,3-Trichloropro	50.0	48.1	96.17	70-130
87	Bromobenzene	50.0	46.4	92.80	70-130
88	n-Propylbenzene	50.0	46.8	93.59	70-130
89	2-Chlorotoluene	50.0	51.8	103.55	70-130
90	1,3,5-Trimethylben	50.0	52.2	104.35	70-130
91	4-Chlorotoluene	50.0	46.2	92.44	70-130
92	tert-butylbenzene	50.0	50.5	101.10	70-130
93	1,2,4-Trimethylben	50.0	56.0	112.01	70-130
96	sec-Butylbenzene	50.0	48.4	96.87	70-130
97	p-Isopropyltoluene	50.0	57.1	114.18	70-130
98	1,3-Dichlorobenzen	50.0	47.0	93.99	70-130
100	1,4-Dichlorobenzen	50.0	48.3	96.68	70-130
102	1,2-Dichlorobenzen	50.0	47.7	95.39	70-130
101	n-Butylbenzene	50.0	60.8	121.68	70-130
103	1,2-Dibromo-3-Chlo	50.0	45.3	90.58	70-130
105	1,2,4-Trichloroben	50.0	51.6	103.16	70-130
106	Hexachlorobutadien	50.0	45.8	91.60	70-130
107	Napthalene	50.0	52.0	104.00	70-130
108	1,2,3-Trichloroben	50.0	50.8	101.68	70-130

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 38 Dibromofluorometha	50.0	50.7	101.46	70-130

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 44 1,2-Dichloroethane	50.0	49.2	98.44	76-128
$ 58 Toluene-d8	50.0	51.9	103.83	83-112
$ 81 Bromofluorobenzene	50.0	46.4	92.80	78-115

Gulf Coast Analytical Laboratories, Inc.

ata file : /var/chem/msv2.i/2031031p.s.b/t0122.d
ab Smp Id: ICV
nj Date : 01-NOV-2003 00:03
perator : RJO
mp Info : ICV
isc Info : MSV~3917~*1*RJO
omment :
ethod : /var/chem/msv2.i/2031031p.s.b/8260Bw2.m
eth Date : 03-Nov-2003 09:46 rsp
al Date : 31-OCT-2003 21:14
ls bottle: 48
il Factor: 1.00000
ntegrator: HP RTE
arget Version: 3.50
rocessing Host: hpcs2

Inst ID: msv2.i

Quant Type: ISTD
Cal File: t0115.d
QC Sample: LCS

Compound Sublist: 8260B.sub

oncentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)

pnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)
1 Dichlorodifluoromethane	85	1.521	1.553	(0.259)	553248	48.5363	48.5
23 Hexane	57	4.056	4.062	(0.692)	470545	38.6417	38.6
2 Chloromethane ++	50	1.653	1.659	(0.282)	624662	44.2535	44.3
3 Vinyl Chloride +	62	1.752	1.791	(0.299)	525736	45.7427	45.7
5 Bromomethane	94	2.049	2.075	(0.349)	348872	44.4581	44.5
6 Chloroethane	64	2.108	2.154	(0.359)	284684	39.4930	39.5
7 Trichlorofluoromethane	101	2.339	2.332	(0.399)	609651	45.9123	45.9
10 1,1-Dichloroethene +	96	2.854	2.854	(0.487)	383861	48.2486	48.2
11 1,1,2Trichlotrifluoroethane	101	2.874	2.874	(0.490)	439415	47.7777	47.8
12 Acetone	43	2.907	2.900	(0.496)	144631	91.8001	91.8(R)
13 Methyl Iodide	142	3.026	3.025	(0.516)	915411	44.5463	44.5
14 Carbon Disulfide	76	3.092	3.098	(0.527)	1122121	38.3831	38.4
18 Methylene Chloride	49	3.416	3.415	(0.582)	480904	46.3761	46.4
20 Acrylonitrile	53	3.686	3.686	(0.629)	311338	228.990	229(A)
21 trans-1,2-Dichloroethene	61	3.739	3.738	(0.638)	546395	49.9082	49.9

	ompounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)
	==========	====	==	======	======	========	=======	=======
15	Methyl Acetate	43	3.303	3.303	(0.563)	240610	68.0023	68.0
22	MTBE	73	3.759	3.758	(0.641)	780050	48.5704	48.6
24	1,1-Dichloroethane ++	63	4.195	4.187	(0.715)	963318	52.3908	52.4
25	Vinyl Acetate	43	4.056	4.062	(0.692)	297302	37.5150	37.5
30	2,2-Dichloropropane	77	4.789	4.788	(0.816)	767533	49.1493	49.1
31	cis-1,2-Dichloroethene	61	4.789	4.788	(0.816)	894061	49.6619	49.7
32	2-Butanone	43	4.809	4.808	(0.820)	243667	78.0984	78.1(R)
36	Bromochloromethane	128	5.013	5.019	(0.855)	354278	47.3684	47.4
37	Chloroform +	83	5.099	5.098	(0.869)	1106800	49.0472	49.0
38	Dibromofluoromethane	111	5.244	5.244	(0.894)	688559	50.7314	50.7
39	1,1,1-Trichloroethane	97	5.277	5.277	(0.900)	855876	47.0688	47.1
42	1,1-Dichloropropene	75	5.429	5.435	(0.926)	800346	49.6060	49.6
43	Carbon Tetrachloride	117	5.436	5.442	(0.927)	759173	49.3368	49.3
44	1,2-Dichloroethane-d4	67	5.555	5.554	(0.947)	283532	49.2198	49.2
45	Benzene	78	5.614	5.613	(0.957)	2621589	46.4182	46.4
46	1,2-Dichloroethane	62	5.621	5.620	(0.958)	602265	48.1424	48.1
47	FLUOROBENZENE	96	5.865	5.864	(1.000)	2686280	50.0000	
48	Trichloroethene	130	6.188	6.188	(1.055)	882506	50.7718	50.8
49	Methyl Cyclohexane	83	6.360	6.359	(1.084)	1031513	41.2891	41.3
50	1,2-Dichloropropane +	63	6.367	6.373	(1.086)	671815	48.7634	48.8
51	Dibromomethane	93	6.466	6.465	(1.102)	343029	47.6640	47.7
54	Bromodichloromethane	83	6.598	6.597	(1.125)	850058	52.2813	52.3
55	2-Chloroethyl vinyl ether	63	6.862	6.861	(1.170)	1021670	49.1524	49.2
139	1 Bromo-2-chloroethane	144	6.862	6.861	(0.820)	103107	46.6238	46.6
56	cis-1,3-Dichloropropene	75	6.974	6.973	(1.189)	1062528	51.7534	51.8
57	4-methyl-2-pentanone	43	7.093	7.092	(1.209)	371609	54.9045	54.9
58	Toluene-d8	98	7.205	7.205	(0.861)	2691164	51.9148	51.9
59	Toluene +	91	7.258	7.257	(0.867)	3148850	45.6099	45.6
60	trans-1,3-Dichloropropene	75	7.416	7.416	(0.886)	855422	48.1462	48.1
62	1,1,2-Trichloroethane	97	7.568	7.568	(0.905)	527334	47.3096	47.3
64	1,3-Dichloropropane	76	7.707	7.700	(0.921)	890517	47.6628	47.7
65	Tetrachloroethene	164	7.713	7.713	(0.922)	670583	45.7225	45.7
66	2-Hexanone	43	7.760	7.759	(0.927)	403890	70.1142	70.1(R)
68	Dibromochloromethane	129	7.892	7.891	(0.943)	678760	45.2172	45.2
69	1,2-Dibromoethane(EDB)	107	7.991	7.990	(0.955)	530772	46.5670	46.6
* 70	CHLOROBENZENE-d5	82	8.367	8.366	(1.000)	1092448	50.0000	
71	Chlorobenzene ++	112	8.387	8.386	(1.002)	2277455	45.1345	45.1
72	1,1,1,2-Tetrachloroethane	133	8.446	8.446	(1.009)	731387	46.9191	46.9
73	Ethylbenzene +	106	8.466	8.466	(1.012)	1099505	46.2335	46.2
74	p,m-Xylene	106	8.559	8.558	(1.023)	2810589	91.2554	91.3
76	o-Xylene	106	8.875	8.875	(1.061)	1337409	47.7716	47.8
77	Styrene	104	8.882	8.881	(1.062)	2237802	44.9806	45.0
78	Bromoform ++	173	9.034	9.033	(1.080)	399019	45.1396	45.1
79	Isopropylbenzene	105	9.159	9.159	(1.095)	3450596	43.1307	43.1
$ 81	Bromofluorobenzene	174	9.291	9.291	(0.913)	912399	46.3979	46.4
84	1,1,2,2-Tetrachloroethane++	83	9.371	9.370	(0.921)	567973	44.5278	44.5
85	trans-1,4-Dichloro-2-Butene	53	9.410	9.410	(0.925)	131553	55.5032	55.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)
86 1,2,3-Trichloropropane	75	9.417	9.416	(0.925)	717787	48.0847	48.1
87 Bromobenzene	77	9.417	9.416	(0.925)	1670705	46.3995	46.4
75 Total 1,2-Dichloroethene	61				1440456	99.5701	99.6
88 n-Propylbenzene	91	9.483	9.482	(0.932)	3609585	46.7969	46.8
89 2-Chlorotoluene	91	9.569	9.568	(0.940)	2033050	51.7741	51.8
90 1,3,5-Trimethylbenzene	105	9.608	9.614	(0.944)	2103212	52.1737	52.2
91 4-Chlorotoluene	91	9.648	9.647	(0.948)	2439628	46.2224	46.2
92 tert-butylbenzene	91	9.872	9.872	(0.970)	1548772	50.5493	50.5(H)
93 1,2,4-Trimethylbenzene	105	9.905	9.905	(0.973)	2033947	56.0065	56.0
96 sec-Butylbenzene	105	10.031	10.030	(0.986)	3356924	48.4362	48.4
97 p-Isopropyltoluene	119	10.123	10.129	(0.995)	2597993	57.0895	57.1
98 1,3-Dichlorobenzene	146	10.130	10.136	(0.995)	1625988	46.9933	47.0
99 1,4-DICHLOROBENZENE-D4	152	10.176	10.175	(1.000)	976865	50.0000	
100 1,4-Dichlorobenzene	146	10.189	10.195	(1.001)	1702079	48.3389	48.3
101 n-Butylbenzene	91	10.414	10.420	(1.023)	2041563	60.8401	60.8
102 1,2-Dichlorobenzene	146	10.460	10.459	(1.028)	1463792	47.6955	47.7
103 1,2-Dibromo-3-Chloropropane	157	10.975	10.974	(1.079)	111439	45.2917	45.3
105 1,2,4-Trichlorobenzene	180	11.516	11.522	(1.132)	625647	51.5785	51.6
106 Hexachlorobutadiene	225	11.615	11.621	(1.141)	474064	45.7996	45.8
107 Napthalene	128	11.688	11.694	(1.149)	847056	52.0022	52.0
108 1,2,3-Trichlorobenzene	180	11.846	11.852	(1.164)	521380	50.8386	50.8
109 TOTAL XYLENE	106				4147998	139.027	139
40 Cyclohexane	56	5.337	5.336	(0.910)	936357	41.5292	41.5

QC Flag Legend

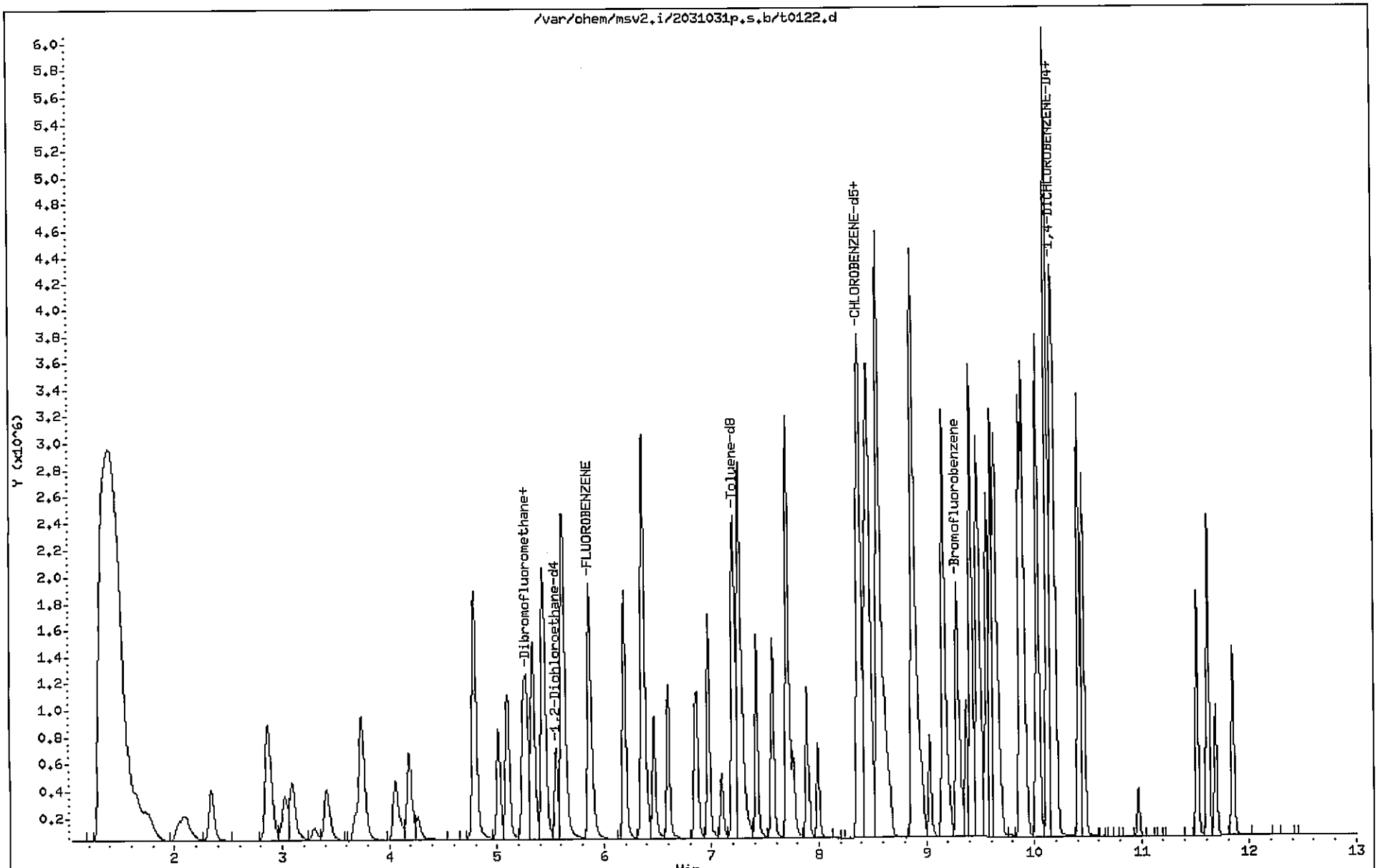
A - Target compound detected but, quantitated amount exceeded maximum amount.
2 - Spike/Surrogate failed recovery limits.
I - Operator selected an alternate compound hit.

000109

Data File: /var/chem/msv2.i/2031031p.s.b/t0122.d
Date : 01-NOV-2003 00:03
Client ID:
Sample Info: ICV
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv2.i

Operator: RJO
Column diameter: 0.53



Data File: /var/chem/msv2.i/2031101.s.b/t0124.d

Date : 01-NOV-2003 08:08

Client ID: BFB

Instrument: msv2.i

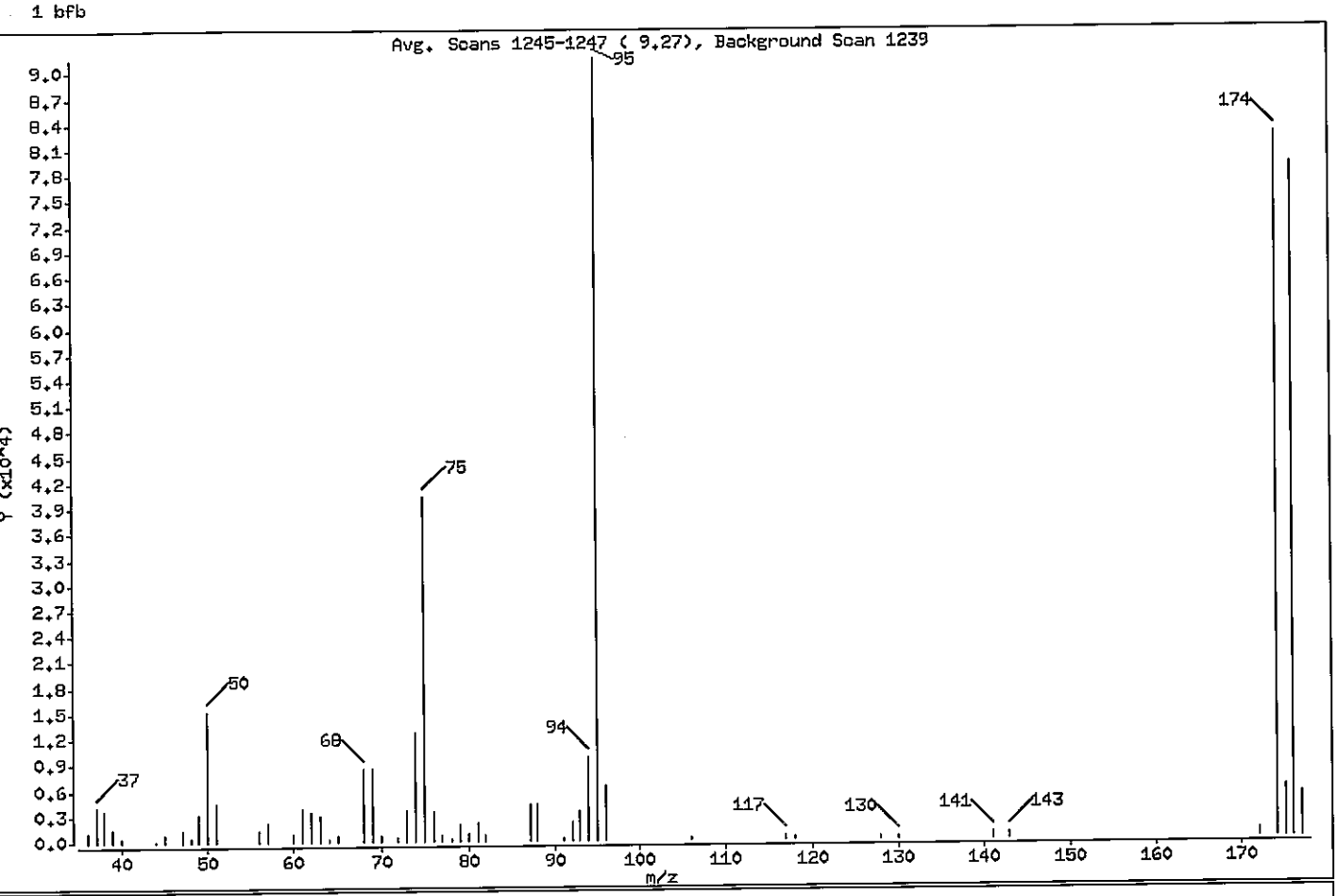
Sample Info: 1000XBFB

Operator: RJO

Column phase: DB-624-30M

Column diameter: 0.53

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.57
75	30.00 - 60.00% of mass 95	44.09
96	5.00 - 9.00% of mass 95	6.98
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	90.10
175	5.00 - 9.00% of mass 174	6.42 (7.13)
176	95.00 - 101.00% of mass 174	86.27 (95.74)
177	5.00 - 9.00% of mass 176	5.51 (6.39)

Data File: /var/chem/msv2.i/2031101.s.b/t0124.d

Date : 01-NOV-2003 08:08

Client ID: BFB

Instrument: msv2.i

Sample Info: 1000*BFB

Operator: RJO

Column phase: DB-624-30M

Column diameter: 0.53

Data File: t0124.d

Spectrum: Avg. Scans 1245-1247 (9.27), Background Scan 1239

Location of Maximum: 95.00

Number of points: 54

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	994	60.00	756	77.00	655	106.00	137
37.00	3977	61.00	3701	78.00	186	117.00	340
38.00	3513	62.00	3454	79.00	1968	118.00	134
39.00	1505	63.00	2913	80.00	761	128.00	135
40.00	381	64.00	143	81.00	2194	130.00	142
44.00	104	65.00	580	82.00	572	141.00	732
45.00	902	68.00	8522	87.00	4277	143.00	718
47.00	1213	69.00	8395	88.00	4185	172.00	798
48.00	511	70.00	659	91.00	160	174.00	82480
49.00	3186	72.00	336	92.00	2164	175.00	5881
50.00	15165	73.00	3626	93.00	3275	176.00	78968
51.00	4456	74.00	12567	94.00	9740	177.00	5045
56.00	1216	75.00	40352	95.00	91536		
57.00	2163	76.00	3405	96.00	6387		

Data File: /var/chem/msv2.i/2031101.s.b/t0124.d

Date : 01-NOV-2003 08:08

Client ID: BFB

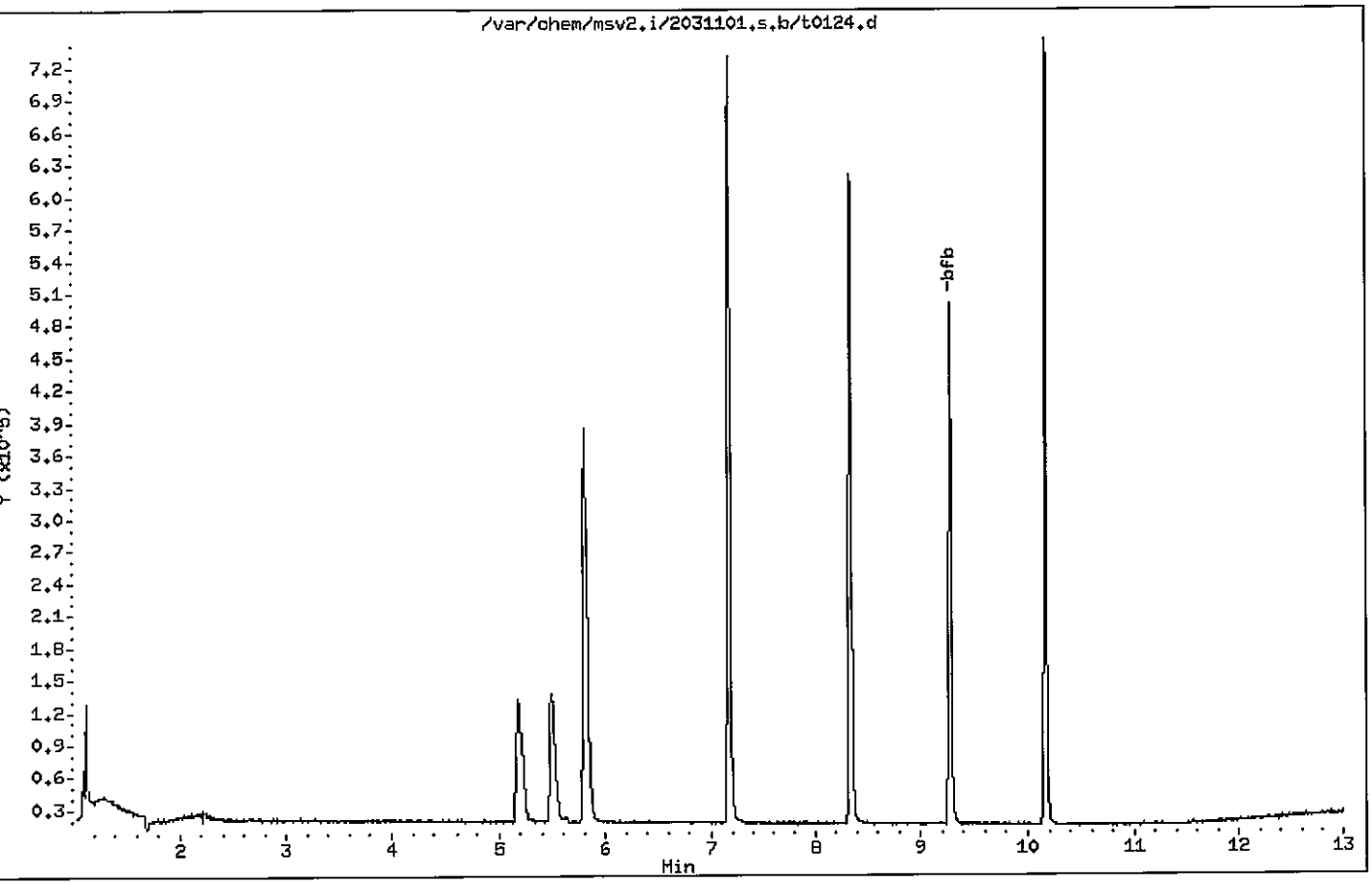
Instrument: msv2.i

Sample Info: 1000XBFB

Operator: RJO

Column phase: DB-624-30M

Column diameter: 0.53



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv2.i/2031101.s.b/t0126.d
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Inj Date : 01-NOV-2003 09:14
Operator : HJL Inst ID: msv2.i
Smp Info : 1400*V2STD050*5-5-5
Misc Info : MSV~3927~*1*HJL
Comment :
Method : /var/chem/msv2.i/2031101.s.b/8260Bw2.m
Meth Date : 03-Nov-2003 09:23 rsp Quant Type: ISTD
Cal Date : 31-OCT-2003 22:50 Cal File: t0119.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260B.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
1 Dichlorodifluoromethane	85	1.507	1.507	(0.258)	415608	50.0000	41.0
23 Hexane	57	4.043	4.043	(0.691)	511001	50.0000	46.1
2 Chloromethane ++	50	1.633	1.633	(0.279)	541142	50.0000	42.1
3 Vinyl Chloride +	62	1.745	1.745	(0.298)	463240	50.0000	44.3
5 Bromomethane	94	2.029	2.029	(0.347)	344080	50.0000	48.2
6 Chloroethane	64	2.095	2.095	(0.358)	268921	50.0000	41.3
7 Trichlorofluoromethane	101	2.320	2.320	(0.396)	533912	50.0000	44.2
10 1,1-Dichloroethene +	96	2.841	2.841	(0.486)	333957	50.0000	46.1
11 1,1,2Trichlotrifluoroethane	101	2.854	2.854	(0.488)	385368	50.0000	46.1
12 Acetone	43	2.887	2.887	(0.493)	71162	50.0000	49.7
13 Methyl Iodide	142	3.006	3.006	(0.514)	877632	50.0000	47.0
14 Carbon Disulfide	76	3.079	3.079	(0.526)	1199109	50.0000	45.1
18 Methylene Chloride	49	3.396	3.396	(0.580)	428784	50.0000	45.5
20 Acrylonitrile	53	3.666	3.666	(0.627)	289389	250.000	234(A)
21 trans-1,2-Dichloroethene	61	3.719	3.719	(0.636)	457989	50.0000	46.0

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
15	Methyl Acetate	43	3.283	3.283	(0.561)	148010	50.0000	46.0
22	MTBE	73	3.739	3.739	(0.639)	722713	50.0000	49.5
24	1,1-Dichloroethane ++	63	4.175	4.175	(0.713)	681000	50.0000	40.7
25	Vinyl Acetate	43	4.049	4.049	(0.692)	324769	50.0000	45.1
30	2,2-Dichloropropane	77	4.775	4.775	(0.816)	658372	50.0000	46.3
31	cis-1,2-Dichloroethene	61	4.775	4.775	(0.816)	746499	50.0000	45.6
32	2-Butanone	43	4.802	4.802	(0.821)	133171	50.0000	46.9
36	Bromochloromethane	128	5.007	5.007	(0.856)	298074	50.0000	43.8
37	Chloroform +	83	5.086	5.086	(0.869)	893583	50.0000	43.5
38	Dibromofluoromethane	111	5.238	5.238	(0.895)	603770	50.0000	48.9
39	1,1,1-Trichloroethane	97	5.264	5.264	(0.900)	725235	50.0000	43.8
42	1,1-Dichloropropene	75	5.422	5.422	(0.927)	664031	50.0000	45.2
43	Carbon Tetrachloride	117	5.429	5.429	(0.928)	606048	50.0000	43.3
44	1,2-Dichloroethane-d4	67	5.541	5.541	(0.947)	247455	50.0000	47.2
45	Benzene	78	5.607	5.607	(0.958)	2234452	50.0000	43.5
46	1,2-Dichloroethane	62	5.614	5.614	(0.959)	502099	50.0000	44.1
47	FLUOROBENZENE	96	5.852	5.852	(1.000)	2443503	50.0000	
48	Trichloroethene	130	6.182	6.182	(1.056)	689078	50.0000	43.6
49	Methyl Cyclohexane	83	6.353	6.353	(1.086)	1007018	50.0000	44.3
50	1,2-Dichloropropane +	63	6.360	6.360	(1.087)	555083	50.0000	44.3
51	Dibromomethane	93	6.459	6.459	(1.104)	288633	50.0000	44.1
54	Bromodichloromethane	83	6.591	6.591	(1.126)	647600	50.0000	43.8
55	2-Chloroethyl vinyl ether	63	6.848	6.848	(1.170)	850977	50.0000	45.0
139	1 Bromo-2-chloroethane	144	6.855	6.855	(0.820)	85884	50.0000	43.4
56	cis-1,3-Dichloropropene	75	6.967	6.967	(1.191)	858329	50.0000	46.0
57	4-methyl-2-pentanone	43	7.086	7.086	(1.211)	286832	50.0000	46.6
58	Toluene-d8	98	7.192	7.192	(0.860)	2360148	50.0000	50.9
59	Toluene +	91	7.251	7.251	(0.867)	2661674	50.0000	43.1
60	trans-1,3-Dichloropropene	75	7.410	7.410	(0.886)	720884	50.0000	45.4
62	1,1,2-Trichloroethane	97	7.561	7.561	(0.904)	416737	50.0000	41.8
64	1,3-Dichloropropane	76	7.694	7.694	(0.920)	733998	50.0000	43.9
65	Tetrachloroethene	164	7.707	7.707	(0.922)	548202	50.0000	41.8
66	2-Hexanone	43	7.753	7.753	(0.927)	216360	50.0000	42.8
68	Dibromochloromethane	129	7.885	7.885	(0.943)	566329	50.0000	42.2
69	1,2-Dibromoethane(EDB)	107	7.984	7.984	(0.955)	432934	50.0000	42.5
70	CHLOROBENZENE-d5	82	8.360	8.360	(1.000)	976706	50.0000	
71	Chlorobenzene ++	112	8.380	8.380	(1.002)	1886066	50.0000	41.8
72	1,1,1,2-Tetrachloroethane	133	8.440	8.440	(1.009)	588189	50.0000	42.2
73	Ethylbenzene +	106	8.459	8.459	(1.012)	895846	50.0000	42.1
74	p,m-Xylene	106	8.552	8.552	(1.023)	2374602	100.000	86.2
76	o-Xylene	106	8.869	8.869	(1.061)	1091042	50.0000	43.6
77	Styrene	104	8.875	8.875	(1.062)	1942760	50.0000	43.7
78	Bromoform ++	173	9.027	9.027	(1.080)	326711	50.0000	41.3
79	Isopropylbenzene	105	9.153	9.153	(1.095)	2862157	50.0000	40.2
81	Bromofluorobenzene	174	9.285	9.285	(0.913)	771850	50.0000	45.5
84	1,1,2,2-Tetrachloroethane++	83	9.364	9.364	(0.921)	463688	50.0000	42.1
85	trans-1,4-Dichloro-2-Butene	53	9.410	9.410	(0.925)	96558	50.0000	47.2

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
86	1,2,3-Trichloropropane	75	9.410	9.410	(0.925)	569410	50.0000	44.2
87	Bromobenzene	77	9.410	9.410	(0.925)	1354297	50.0000	43.6
75	Total 1,2-Dichloroethene	61				1204488	100.000	91.6
88	n-Propylbenzene	91	9.476	9.476	(0.932)	3062146	50.0000	46.0
89	2-Chlorotoluene	91	9.562	9.562	(0.940)	2118079	50.0000	63.9
90	1,3,5-Trimethylbenzene	105	9.608	9.608	(0.945)	1808245	50.0000	52.0
91	4-Chlorotoluene	91	9.641	9.641	(0.948)	2051090	50.0000	45.0
92	tert-butylbenzene	91	9.866	9.866	(0.970)	1264935	50.0000	47.9(H)
93	1,2,4-Trimethylbenzene	105	9.899	9.899	(0.973)	1709938	50.0000	54.6
96	sec-Butylbenzene	105	10.031	10.031	(0.986)	2633057	50.0000	44.3
97	p-Isopropyltoluene	119	10.123	10.123	(0.995)	2082955	50.0000	53.0
98	1,3-Dichlorobenzene	146	10.130	10.130	(0.996)	1302240	50.0000	43.6
99	1,4-DICHLOROBENZENE-D4	152	10.169	10.169	(1.000)	842846	50.0000	
100	1,4-Dichlorobenzene	146	10.189	10.189	(1.002)	1371692	50.0000	45.2
101	n-Butylbenzene	91	10.420	10.420	(1.025)	1681998	50.0000	58.1
102	1,2-Dichlorobenzene	146	10.466	10.466	(1.029)	1154700	50.0000	43.6
103	1,2-Dibromo-3-Chloropropane	157	10.995	10.995	(1.081)	88402	50.0000	41.3
105	1,2,4-Trichlorobenzene	180	11.569	11.569	(1.138)	527229	50.0000	50.4
106	Hexachlorobutadiene	225	11.668	11.668	(1.147)	387216	50.0000	43.6
107	Napthalene	128	11.741	11.741	(1.155)	771494	50.0000	54.9
108	1,2,3-Trichlorobenzene	180	11.899	11.899	(1.170)	444734	50.0000	50.3
109	TOTAL XYLENE	106				3465644	150.000	130
40	Cyclohexane	56	5.323	5.323	(0.910)	904493	50.0000	44.1

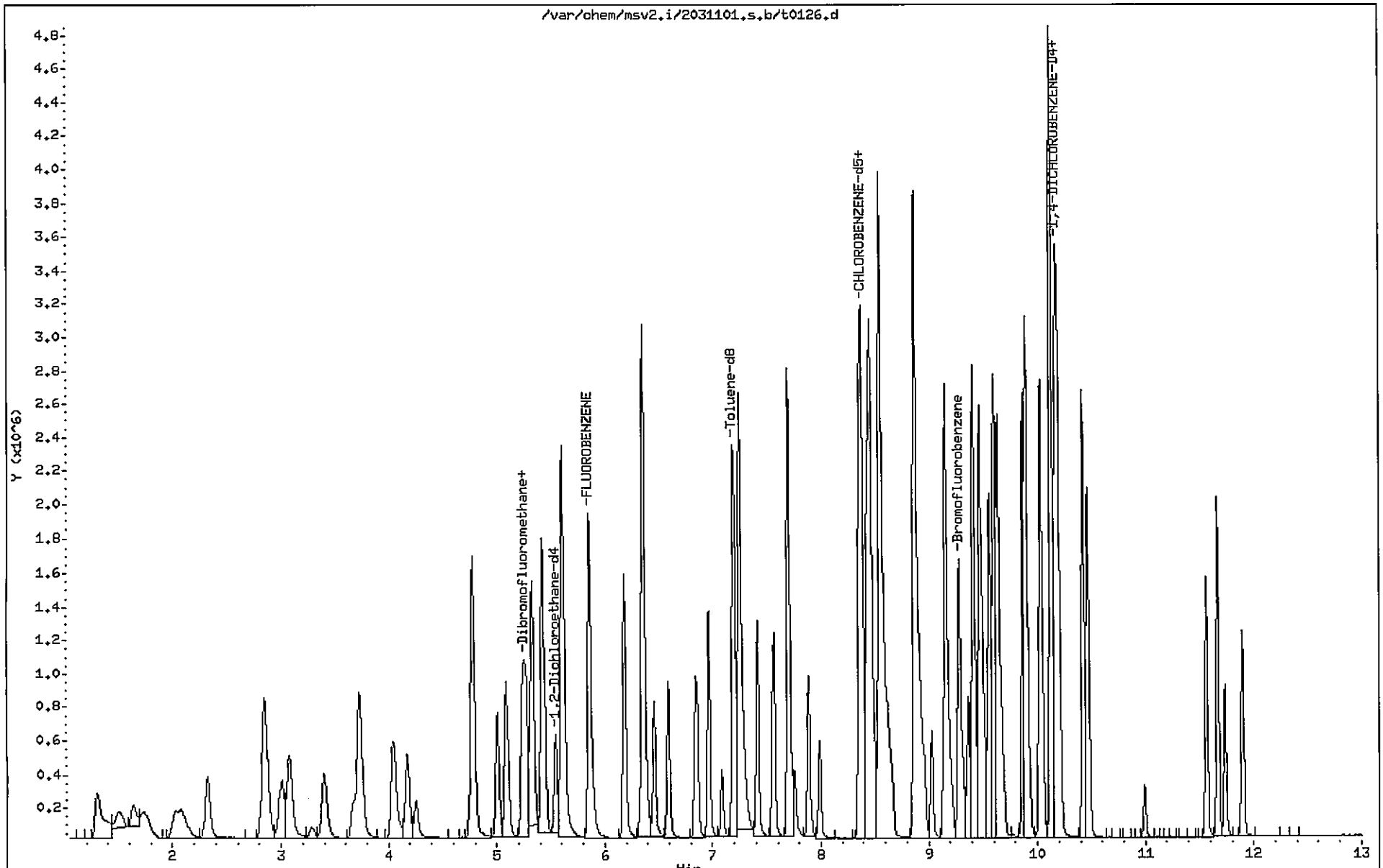
QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
H - Operator selected an alternate compound hit.

Data File: /var/chem/msv2.i/2031101.s.b/t0126.d
Date : 01-NOV-2003 09:14
Client ID: V2STD050
Sample Info: 1400XV2STD050X5-5-5
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv2.i
Operator: HJL
Column diameter: 0.53

000116



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv2.i/2031101.s.b/t0129.d
Lab Smp Id: 127625 Client Smp ID: MB for HBN 264480 [
Inj Date : 01-NOV-2003 10:57
Operator : HJL Inst ID: msv2.i
Smp Info : 127625*MB for HBN 264480 [MSV/3927]
Misc Info : MSV~3927~*1*HJL
Comment :
Method : /var/chem/msv2.i/2031101.s.b/8260Bw2.m
Meth Date : 10-Nov-2003 10:48 rjo Quant Type: ISTD
Cal Date : 31-OCT-2003 21:14 Cal File: t0115.d
Als bottle: 3 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260B.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)
38 Dibromofluoromethane	111	5.240	5.238	(0.894)	743359	51.3019	51.3
44 1,2-Dichloroethane-d4	67	5.550	5.541	(0.947)	299451	48.6926	48.7
47 FLUOROBENZENE	96	5.861	5.852	(1.000)	2867820	50.0000	
58 Toluene-d8	98	7.201	7.192	(0.861)	2797588	50.4953	50.5
70 CHLOROBENZENE-d5	82	8.363	8.360	(1.000)	1167576	50.0000	
81 Bromofluorobenzene	174	9.287	9.285	(0.913)	961550	49.1406	49.1
99 1,4-DICHLOROBENZENE-D4	152	10.172	10.169	(1.000)	972029	50.0000	
105 1,2,4-Trichlorobenzene	180	11.565	11.569	(1.137)	4160	3.19616	3.20(a)
106 Hexachlorobutadiene	225	11.670	11.668	(1.147)	2430	4.88941	4.89(a)
108 1,2,3-Trichlorobenzene	180	11.901	11.899	(1.170)	5194	2.39488	2.39(a)

QC Flag Legend

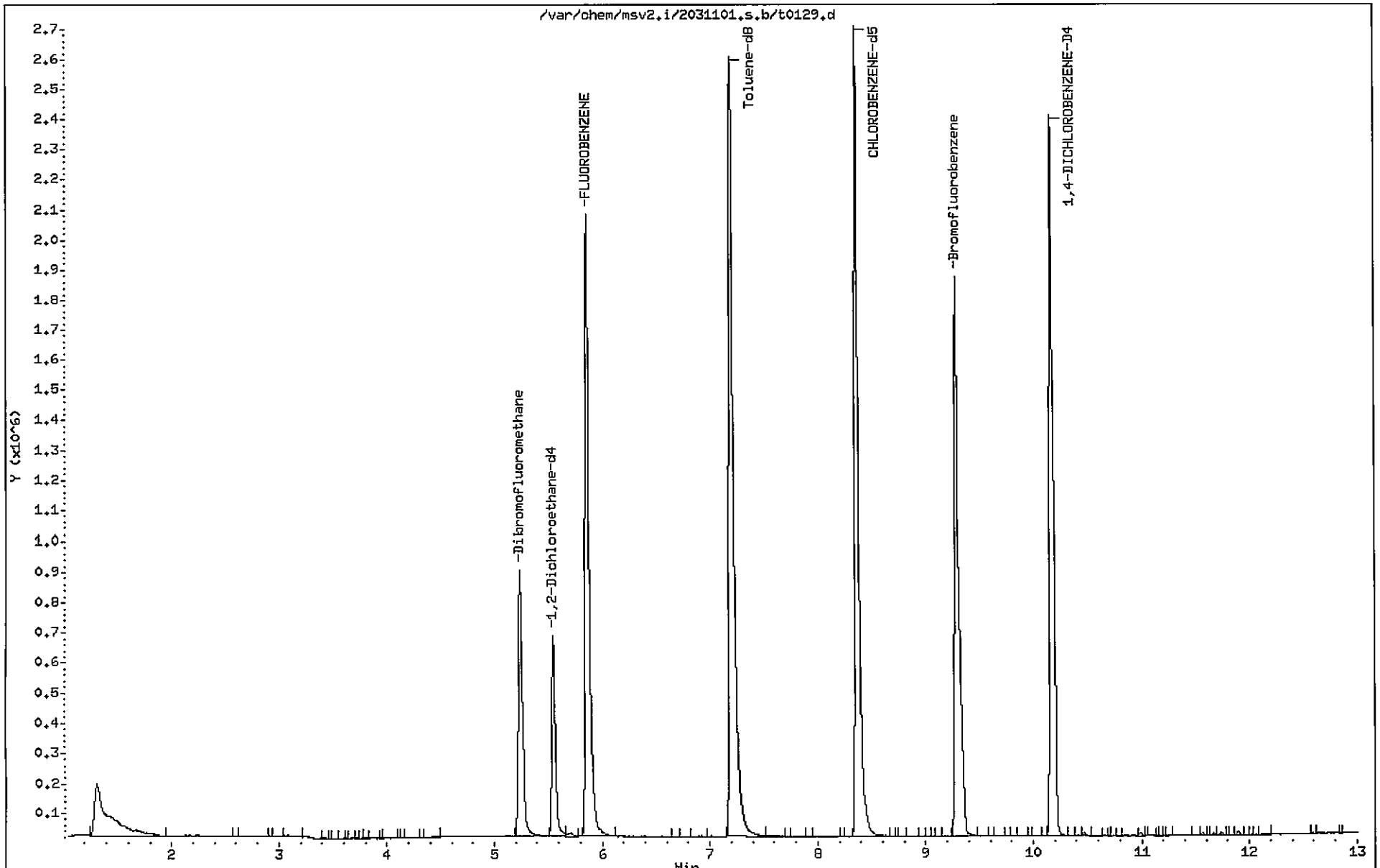
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /var/chem/msv2.i/2031101.s.b/t0129.d
Date : 01-NOV-2003 10:57
Client ID: MB for HBN 264480 [
Sample Info: 127625*MB for HBN 264480 [MSV/3927]
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv2.i

Operator: HJL
Column diameter: 0.53

000118



Data File: /var/chem/msv2.i/2031101.s.b/t0129.d

Date : 01-NOV-2003 10:57

Client ID: MB for HBN 264480 [

Instrument: msv2.i

Sample Info: 127625MB for HBN 264480 [MSV/3927]

Purge Volume: 5.0

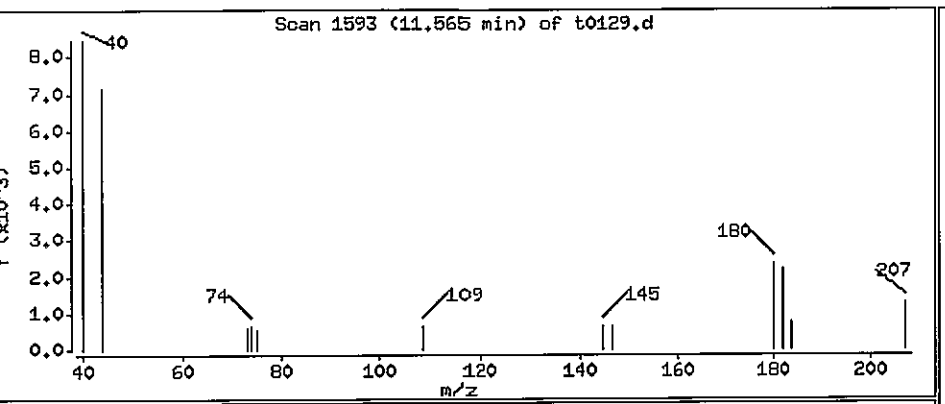
Operator: HJL

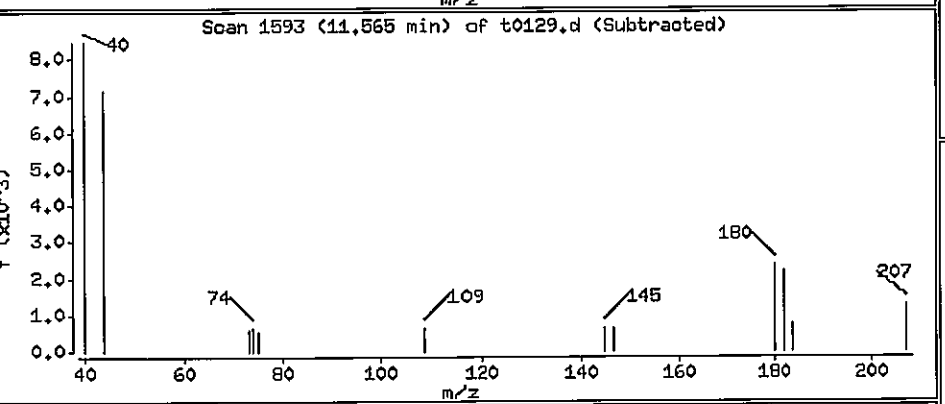
Column phase: DB-624-30M

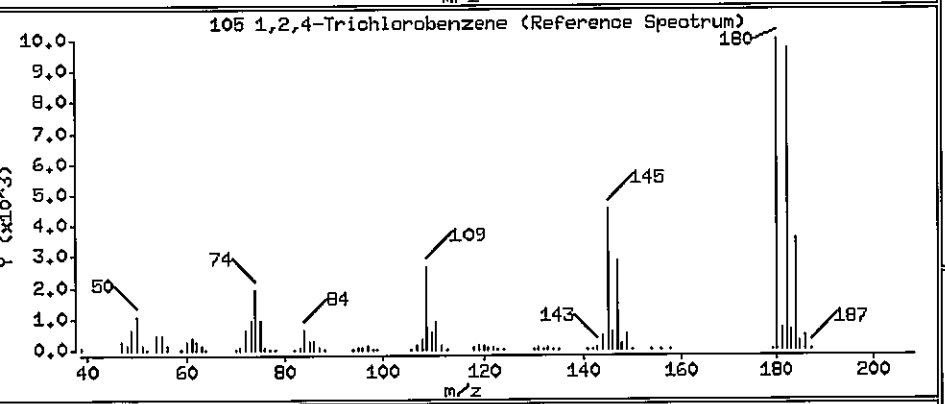
Column diameter: 0.53

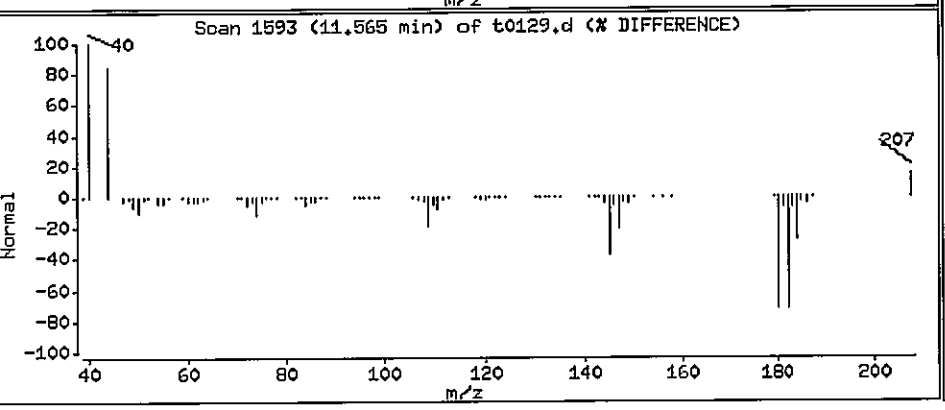
105 1,2,4-Trichlorobenzene

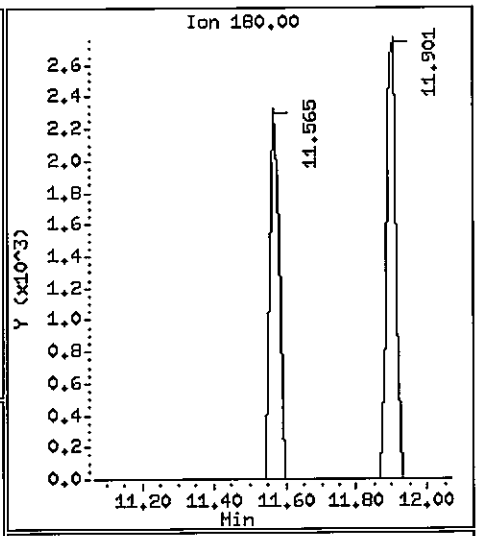
Concentration: 3.20 ug/L

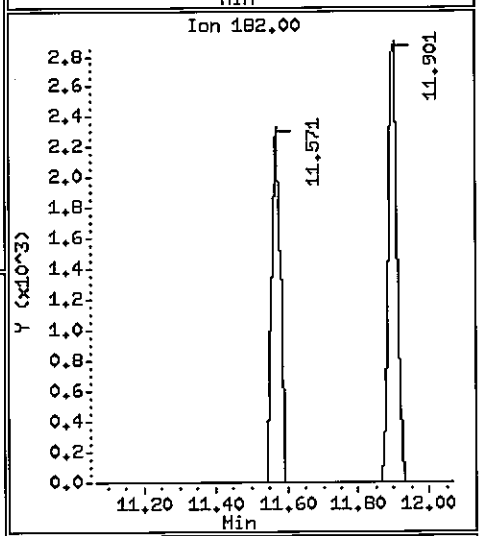


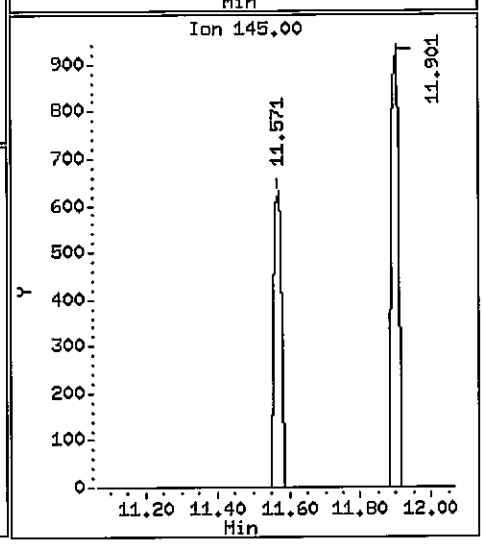












Data File: /var/chem/msv2.i/2031101.s.b/t0129.d

Date : 01-NOV-2003 10:57

Client ID: MB for HBN 264480 [

Instrument: msv2.i

Sample Info: 127625*MB for HBN 264480 [HSV/3927]

Purge Volume: 5.0

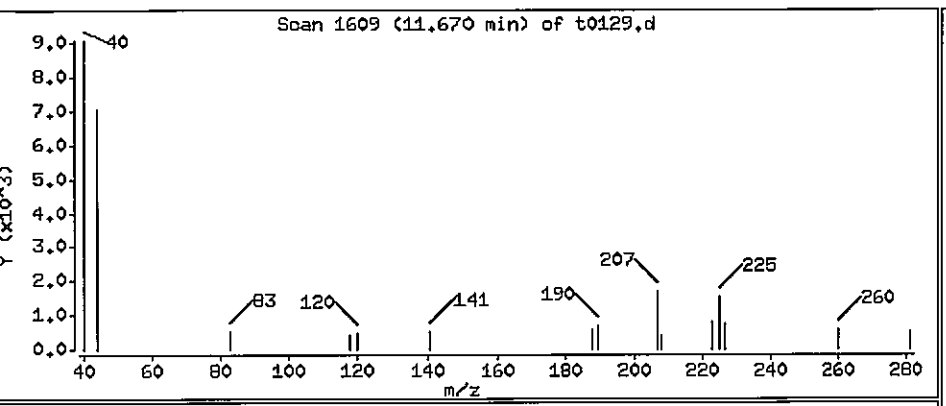
Operator: HJL

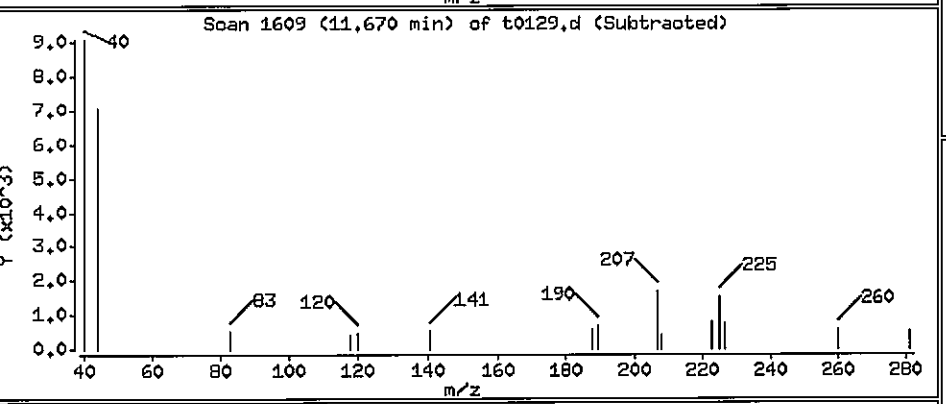
Column phase: DB-624-30M

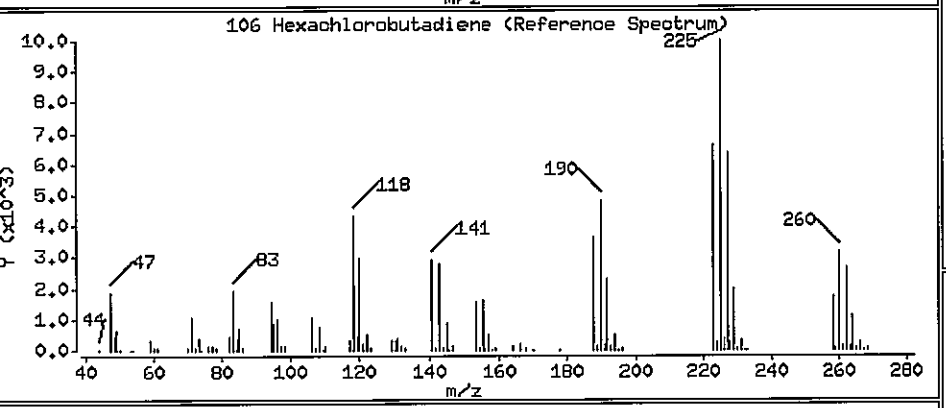
Column diameter: 0.53

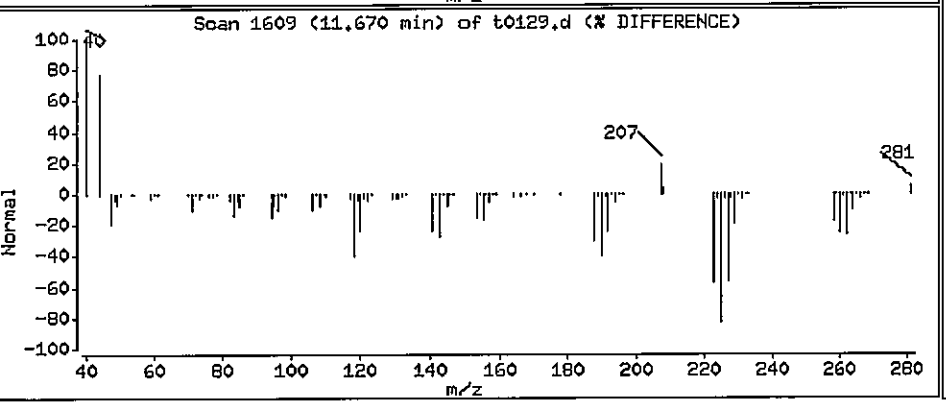
106 Hexachlorobutadiene

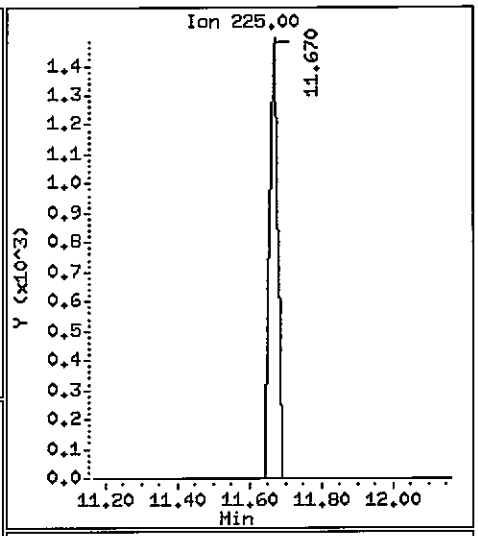
Concentration: 4.89 ug/L

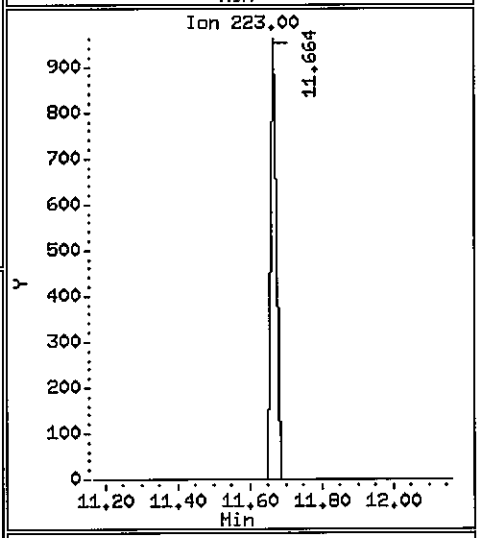


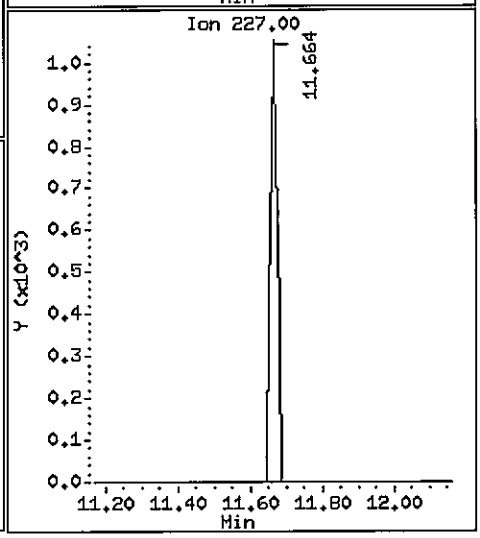












Data File: /var/chem/msv2.i/2031101.s.b/t0129.d

Date : 01-NOV-2003 10:57

Client ID: MB for HBN 264480 [

Instrument: msv2.i

Sample Info: 127625*MB for HBN 264480 [MSV/3927]

Purge Volume: 5.0

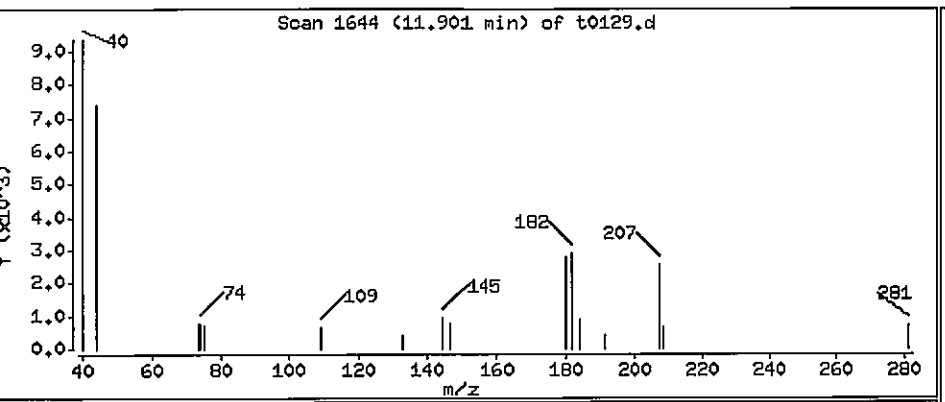
Operator: HJL

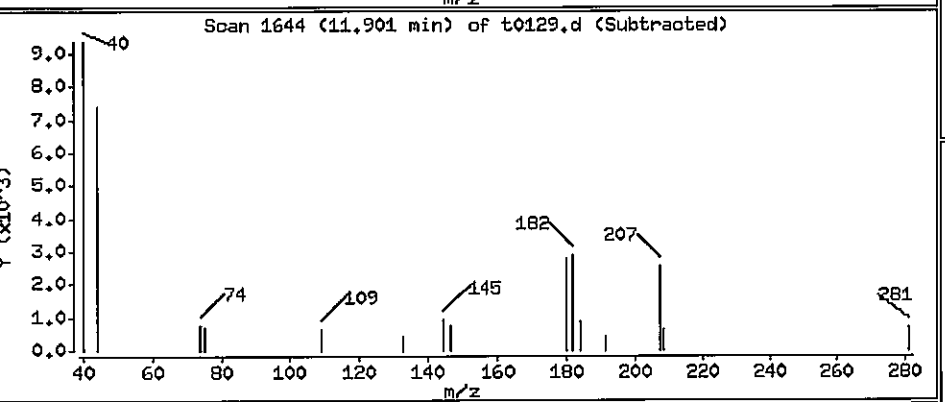
Column phase: DB-624-30M

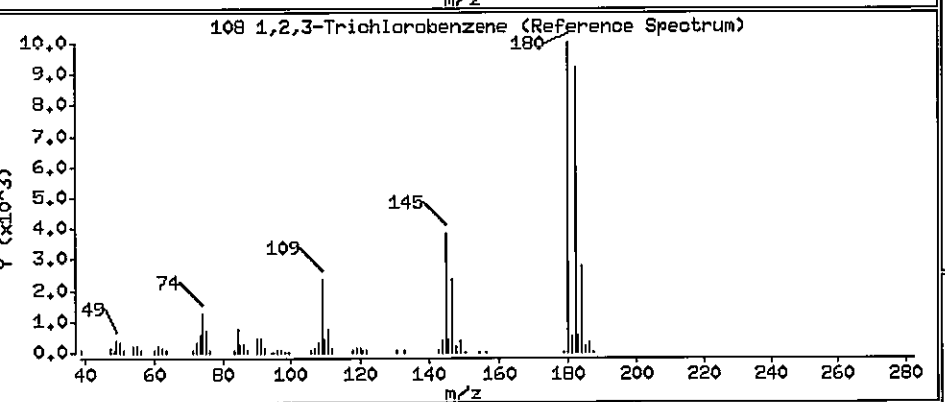
Column diameter: 0.53

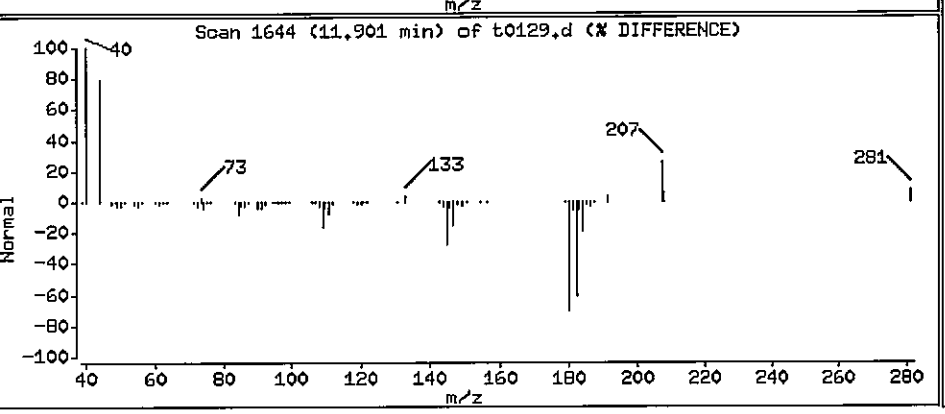
108 1,2,3-Trichlorobenzene

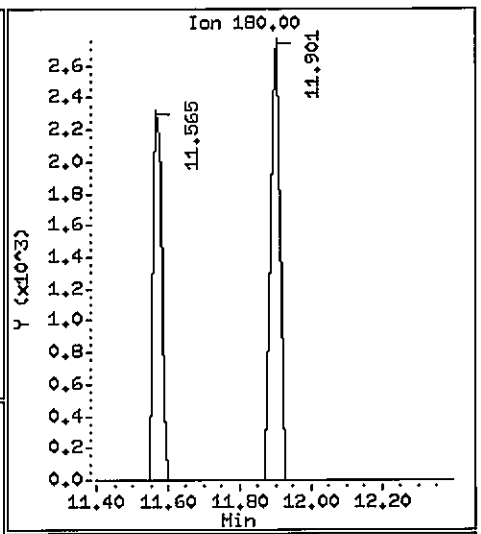
Concentration: 2.39 ug/L

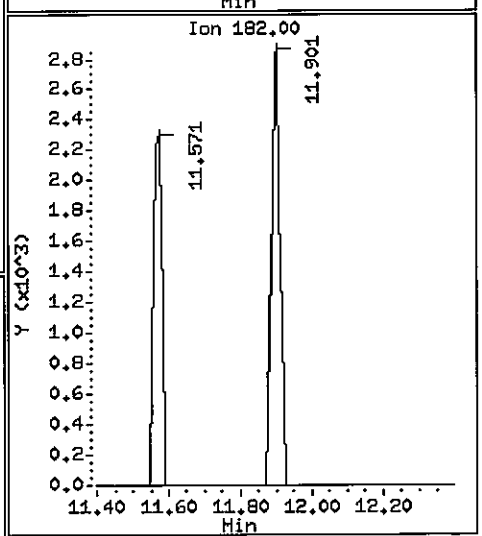


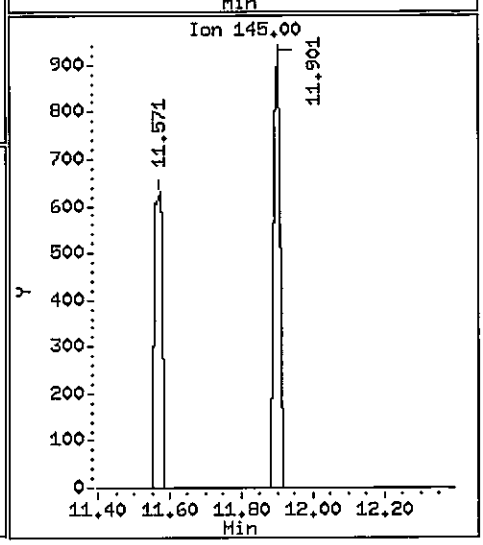












Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv2.i/2031101.s.b/t0127.d
Lab Smp Id: 127624 Client Smp ID: LCS for HBN 264480
Inj Date : 01-NOV-2003 09:51
Operator : HJL Inst ID: msv2.i
Smp Info : 127624*LCS for HBN 264480 [MSV/3927]
Misc Info : MSV~3927~*1*HJL
Comment :
Method : /var/chem/msv2.i/2031101.s.b/8260Bw2.m
Meth Date : 03-Nov-2003 09:23 rsp Quant Type: ISTD
Cal Date : 31-OCT-2003 22:50 Cal File: t0119.d
Als bottle: 2 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260B.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)
1 Dichlorodifluoromethane	85	1.500	1.507	(0.256)	224789	24.6516	24.7
23 Hexane	57	4.048	4.043	(0.691)	279021	25.1454	25.1
2 Chloromethane ++	50	1.632	1.633	(0.279)	283873	22.0695	22.1
3 Vinyl Chloride +	62	1.731	1.745	(0.295)	248927	23.7680	23.8
5 Bromomethane	94	2.021	2.029	(0.345)	173970	24.3291	24.3
6 Chloroethane	64	2.087	2.095	(0.356)	142265	18.6115	18.6
7 Trichlorofluoromethane	101	2.318	2.320	(0.396)	291761	24.1125	24.1
10 1,1-Dichloroethene +	96	2.840	2.841	(0.485)	176847	24.3936	24.4
11 1,1,2Trichlotrifluoroethane	101	2.853	2.854	(0.487)	211325	25.2156	25.2
12 Acetone	43	2.893	2.887	(0.494)	37742	26.2890	26.3
13 Methyl Iodide	142	2.998	3.006	(0.512)	455309	24.3147	24.3
14 Carbon Disulfide	76	3.077	3.079	(0.525)	654645	24.5739	24.6
18 Methylene Chloride	49	3.394	3.396	(0.580)	218429	23.1160	23.1
20 Acrylonitrile	53	3.672	3.666	(0.627)	160757	129.754	130
21 trans-1,2-Dichloroethene	61	3.718	3.719	(0.635)	240757	24.1330	24.1

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)
15	Methyl Acetate	43	3.289	3.283	(0.562)	77155	23.9299	23.9
22	MTBE	73	3.738	3.739	(0.638)	354812	24.2445	24.2
24	1,1-Dichloroethane ++	63	4.173	4.175	(0.713)	354758	21.1731	21.2
25	Vinyl Acetate	43	4.048	4.049	(0.691)	181400	25.1195	25.1
30	2,2-Dichloropropane	77	4.774	4.775	(0.815)	353987	24.8756	24.9
31	cis-1,2-Dichloroethene	61	4.774	4.775	(0.815)	384874	23.4607	23.5
32	2-Butanone	43	4.801	4.802	(0.820)	68650	24.1464	24.1(a)
36	Bromochloromethane	128	5.005	5.007	(0.855)	150186	22.0364	22.0
37	Chloroform +	83	5.084	5.086	(0.868)	449285	21.8491	21.8
38	Dibromofluoromethane	111	5.236	5.238	(0.894)	616994	49.8865	49.9
39	1,1,1-Trichloroethane	97	5.263	5.264	(0.899)	382226	23.0679	23.1
42	1,1-Dichloropropene	75	5.421	5.422	(0.926)	356767	24.2666	24.3
43	Carbon Tetrachloride	117	5.428	5.429	(0.927)	325666	23.2257	23.2
44	1,2-Dichloroethane-d4	67	5.540	5.541	(0.946)	255249	48.6261	48.6
45	Benzene	78	5.606	5.607	(0.957)	1173925	22.8103	22.8
46	1,2-Dichloroethane	62	5.613	5.614	(0.958)	262639	23.0391	23.0
47	FLUOROBENZENE	96	5.857	5.852	(1.000)	2447848	50.0000	
48	Trichloroethene	130	6.180	6.182	(1.055)	356230	22.4907	22.5
49	Methyl Cyclohexane	83	6.352	6.353	(1.085)	554832	24.3719	24.4
50	1,2-Dichloropropane +	63	6.359	6.360	(1.086)	289806	23.0844	23.1
51	Dibromomethane	93	6.464	6.459	(1.104)	146297	22.3081	22.3
54	Bromodichloromethane	83	6.590	6.591	(1.125)	328926	22.2005	22.2
55	2-Chloroethyl vinyl ether	63	6.854	6.848	(1.170)	431113	22.7610	22.8
139	1 Bromo-2-chloroethane	144	6.860	6.855	(0.821)	43834	22.2027	22.2
56	cis-1,3-Dichloropropene	75	6.966	6.967	(1.189)	425670	22.7530	22.8
57	4-methyl-2-pentanone	43	7.085	7.086	(1.210)	141228	22.8986	22.9
58	Toluene-d8	98	7.197	7.192	(0.861)	2358539	50.9648	51.0
59	Toluene +	91	7.250	7.251	(0.867)	1357281	22.0218	22.0
60	trans-1,3-Dichloropropene	75	7.415	7.410	(0.887)	358401	22.5957	22.6
62	1,1,2-Trichloroethane	97	7.560	7.561	(0.904)	212988	21.4040	21.4
64	1,3-Dichloropropane	76	7.699	7.694	(0.921)	379553	22.7554	22.8
65	Tetrachloroethene	164	7.705	7.707	(0.922)	294928	22.5252	22.5
66	2-Hexanone	43	7.758	7.753	(0.928)	107266	22.2762	22.3
68	Dibromochloromethane	129	7.890	7.885	(0.944)	283544	21.1584	21.2
69	1,2-Dibromoethane(EDB)	107	7.989	7.984	(0.956)	218924	21.5149	21.5
70	CHLOROBENZENE-d5	82	8.359	8.360	(1.000)	975270	50.0000	
71	Chlorobenzene ++	112	8.385	8.380	(1.003)	967547	21.4786	21.5
72	1,1,1,2-Tetrachloroethane	133	8.438	8.440	(1.009)	300079	21.5632	21.6
73	Ethylbenzene +	106	8.465	8.459	(1.013)	464740	21.8900	21.9
74	p,m-Xylene	106	8.557	8.552	(1.024)	1228783	44.6902	44.7
76	o-Xylene	106	8.874	8.869	(1.062)	557215	22.2948	22.3
77	Styrene	104	8.881	8.875	(1.062)	986249	22.2058	22.2
78	Bromoform ++	173	9.032	9.027	(1.081)	167982	21.2864	21.3
79	Isopropylbenzene	105	9.158	9.153	(1.096)	1492894	22.2518	22.3
81	Bromofluorobenzene	174	9.283	9.285	(0.912)	803239	46.2807	46.3
84	1,1,2,2-Tetrachloroethane++	83	9.369	9.364	(0.921)	241587	21.4595	21.5
85	trans-1,4-Dichloro-2-Butene	53	9.409	9.410	(0.925)	49394	23.6120	23.6

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	CONCENTRATIONS FINAL (ug/L)
86	1,2,3-Trichloropropane	75	9.409	9.410	(0.925)	295912	22.4603	22.5
87	Bromobenzene	77	9.415	9.410	(0.925)	698186	21.9698	22.0
75	Total 1,2-Dichloroethene	61				625631	47.5937	47.6
88	n-Propylbenzene	91	9.475	9.476	(0.931)	1536933	22.5765	22.6
89	2-Chlorotoluene	91	9.561	9.562	(0.940)	1092641	28.9308	28.9(M)
90	1,3,5-Trimethylbenzene	105	9.607	9.608	(0.944)	918781	25.8239	25.8
91	4-Chlorotoluene	91	9.640	9.641	(0.947)	1072573	23.0249	23.0
92	tert-butylbenzene	91	9.864	9.866	(0.970)	641321	23.7162	23.7(H)
93	1,2,4-Trimethylbenzene	105	9.897	9.899	(0.973)	852762	26.6053	26.6
96	sec-Butylbenzene	105	10.029	10.031	(0.986)	1327656	23.2121	23.2
97	p-Isopropyltoluene	119	10.128	10.123	(0.995)	1058229	26.3475	26.3
98	1,3-Dichlorobenzene	146	10.128	10.130	(0.995)	698744	22.8812	22.9
99	1,4-DICHLOROBENZENE-D4	152	10.175	10.169	(1.000)	862170	50.0000	
100	1,4-Dichlorobenzene	146	10.194	10.189	(1.002)	696185	22.4018	22.4
101	n-Butylbenzene	91	10.419	10.420	(1.024)	826341	27.9016	27.9
102	1,2-Dichlorobenzene	146	10.465	10.466	(1.029)	596604	22.0255	22.0
103	1,2-Dibromo-3-Chloropropane	157	11.000	10.995	(1.081)	46069	21.0228	21.0
105	1,2,4-Trichlorobenzene	180	11.568	11.569	(1.137)	263572	26.1200	26.1
106	Hexachlorobutadiene	225	11.667	11.668	(1.147)	199182	24.2538	24.3
107	Napthalene	128	11.733	11.741	(1.153)	423242	29.4401	29.4
108	1,2,3-Trichlorobenzene	180	11.898	11.899	(1.169)	233889	26.7766	26.8
109	TOTAL XYLENE	106				1785998	66.9851	67.0
40	Cyclohexane	56	5.322	5.323	(0.909)	495353	24.1098	24.1

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /var/chem/msv2.i/2031101.s.b/t0127.d

Date : 01-NOV-2003 09:51

Client ID: LCS for HBN 264480

Sample Info: 127624*LCS for HBN 264480 [MSV/3927]

Purge Volume: 5.0

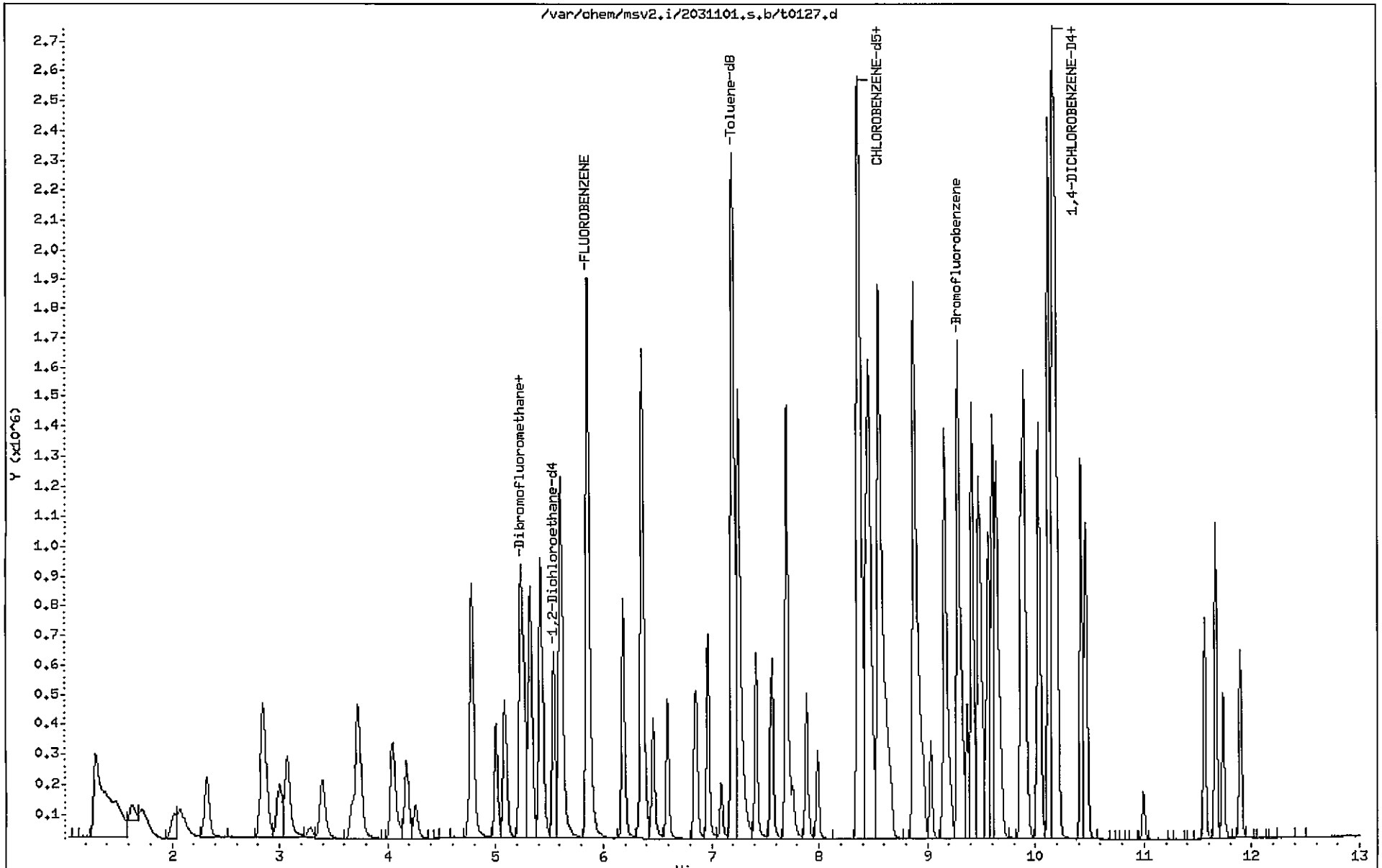
Column phase: DB-624-30M

Instrument: msv2.i

Operator: HJL

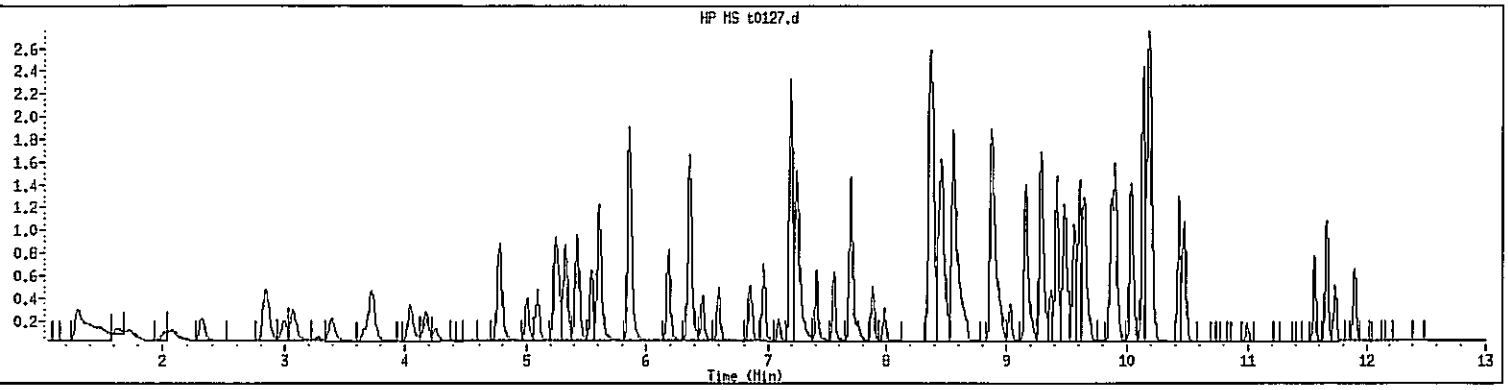
Column diameter: 0.53

000125



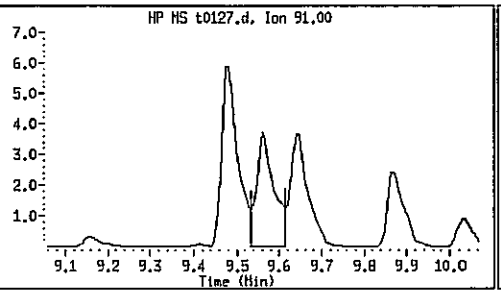
MANUAL INTEGRATION GRAPHIC REPORT

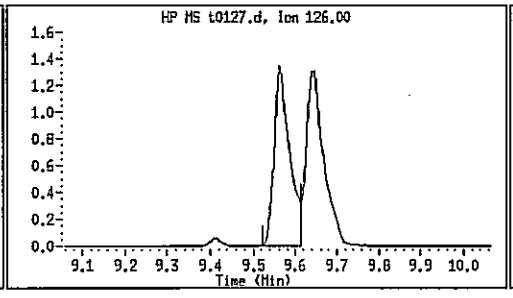
Lab ID : 127624 SampleType : LCS
Injection Date: 01-NOV-2003 09:51 Instrument : msv2.i
Operator : HJL
Sample Info : 127624*LCS for HBN 264480 [MSV/3927]
Misc Info : MSV~3927~*1*HJL
Method : /var/chem/msv2.i/2031101.s.b/8260Bw2.m
Dilution : 1.0
Matrix : WATER
Integrator : HP RTE Compound Sublist: 8260B

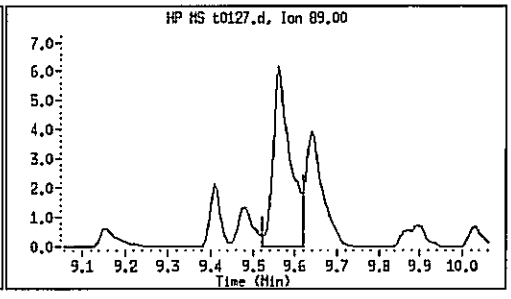


CONCENTRATIONS

RT	(REL RT)	MASS	RESPONSE	AMT	CONC	RANGE	RATIO
89 2-Chlorotoluene			CAS#: 95-49-8				
9.561	0.940	91	1092641	29	29	80-120	100
9.561	0.940	126	349511			26- 39	32
9.561	0.940	89	178990			13- 19	16







LABORATORY CHRONICLE: GC-MS DEPARTMENT

Date: 31-OCT-2003
Instrument: msv2.i
Analyst(s): RJO

Standard	Conc ppm
Int. Standard	50
Surrogate	50
8260	50
Ac/Ac/VA	250/50
CVE	50

Sample ID	Status/Comments	DataFile	WT VOL	Injection Time	DilFactor	ALS
1000		t0110.d	0.00	31-OCT-2003 18:54	1.000	2
BLANK		t0111.d	5.00	31-OCT-2003 19:37	1.000	37
1207		t0112.d	5.00	31-OCT-2003 20:01	1.000	38
1208		t0113.d	5.00	31-OCT-2003 20:26	1.000	39
1206		t0114.d	5.00	31-OCT-2003 20:50	1.000	40
1201		t0115.d	5.00	31-OCT-2003 21:14	1.000	41
1202		t0116.d	5.00	31-OCT-2003 21:38	1.000	42
1203		t0117.d	5.00	31-OCT-2003 22:02	1.000	43
1204		t0118.d	5.00	31-OCT-2003 22:26	1.000	44
1205		t0119.d	5.00	31-OCT-2003 22:50	1.000	45
BLANK		t0120.d	5.00	31-OCT-2003 23:14	1.000	46
BLANK		t0121.d	5.00	31-OCT-2003 23:38	1.000	47
ICV		t0122.d	5.00	01-NOV-2003 00:03	1.000	48
ICVKETONES		t0123.d	5.00	01-NOV-2003 00:27	1.000	49

REVISED 01/01/2000

LABORATORY CHRONICLE: GC-MS DEPARTMENT

Date: 01-NOV-2003
Instrument: msv2.i
Analyst(s): RJO

Standard	Conc ppm
Int. Standard	50
Surrogate	50
8260	50
Ac/Ac/VA	250/50
CVE	50

Sample ID	Status/Comments	DataFile	WT VOL	Injection Time	DilFactor	ALS
1000		t0124.d	0.00	01-NOV-2003 08:08	1.000	2
1400		t0125.d	5.00	01-NOV-2003 08:41	1.000	2
1400		t0126.d	5.00	01-NOV-2003 09:14	1.000	3
127624		t0127.d	5.00	01-NOV-2003 09:51	1.000	2
127625		t0128.d	5.00	01-NOV-2003 10:15	1.000	2
127625		t0129.d	5.00	01-NOV-2003 10:57	1.000	3
20310310510		t0130.d	5.00	01-NOV-2003 11:35	10.000	24
20310290511		t0131.d	5.00	01-NOV-2003 11:59	1.000	13
20310290512		t0132.d	5.00	01-NOV-2003 12:23	1.000	14
20310310510		t0133.d	5.00	01-NOV-2003 12:47	1.000	24
20310310516		t0134.d	5.00	01-NOV-2003 13:11	1.000	30
20310310517		t0135.d	5.00	01-NOV-2003 13:35	1.000	31
BLANK		t0136.d	5.00	01-NOV-2003 14:00	1.000	32
20310310520		t0137.d	5.00	01-NOV-2003 14:24	1.000	34
20310310521		t0138.d	5.00	01-NOV-2003 14:48	1.000	35
20310290501		t0139.d	5.00	01-NOV-2003 15:12	1.000	3
20310290502		t0140.d	5.00	01-NOV-2003 15:36	1.000	4
20310290503		t0141.d	5.00	01-NOV-2003 16:01	1.000	5
20310290504		t0142.d	5.00	01-NOV-2003 16:25	1.000	6
20310290505		t0143.d	5.00	01-NOV-2003 16:49	1.000	7
20310290506		t0144.d	5.00	01-NOV-2003 17:13	1.000	8
20310290507		t0145.d	5.00	01-NOV-2003 17:37	20.000	9
20310290508		t0146.d	5.00	01-NOV-2003 18:01	1.000	10
20310290509		t0147.d	5.00	01-NOV-2003 18:26	1.000	11
20310290510		t0148.d	5.00	01-NOV-2003 18:50	1.000	12
20310290507		t0149.d	5.00	01-NOV-2003 19:14	10.000	9
20310310501		t0150.d	5.00	01-NOV-2003 19:38	1.000	15
BLANK		t0151.d	5.00	01-NOV-2003 20:02	1.000	16
BLANK		t0152.d	5.00	01-NOV-2003 20:26	1.000	17
BLANK		t0153.d	5.00	01-NOV-2003 20:50	1.000	18
BLANK		t0154.d	5.00	01-NOV-2003 21:14	1.000	19
BLANK		t0155.d	5.00	01-NOV-2003 21:39	1.000	20

REVISED 01/01/2000

STANDARD PREPARATION LOGBOOK

STANDARD NAME	STD#	STOCK STD	SUPPLIER	LOT#/ EXP DATE	WT/VOL g/ml	FINAL VOL(ml)	FINAL CONC	SOLVENT/ LOT#	INITIAL	DATE PREPARED	EXP DATE
AC/AC	5-4-1	Q-2143	NSI	080103-04 Exp. 02/04	3.125ml	25ml	50ppm	water	HJL	10-14-03	4-13-04
8260 STD	5-4-2	Q3393	NSI	101303-03 EXP 10/04	6.25ml	25ml ~~20ml~~	250ppm	CH_3OH 033518	RJO	10-17-03	2-01-04 ~~4-16-04~~
		Q2128	NSI	051203-04 EXP 2/04	3.125ml	25ml	250ppm	CH_3OH 033518	RJO	10-17-03	2-01-04 ~~4-16-04~~
		C303-H	NSI	080503 EXP 8/04	3.125ml	25ml	250ppm	CH_3OH 033518	RJO	10-17-03	2-01-04 ~~4-16-04~~
Supelco Ketone mix	5-4-3	48949	Supelco	LB73838 EXP-07-2006 2000 ppm	0.625ml	5ml	250ppm	CH_3OH 033518	RJ	10-20-03	2-1-04 ~~4-19-04~~
10/23/03		9/24/03 — 10/20/03									
8260 ICV	5-4-4	93017 2000ppm	Absolute 2000ppm	110101 Exp 11-01-04	1.25	10ml	250ppm	CH_3OH 033518	RJO	10-23-03	3-16-04
		30058 2000 ppm	Absolute 2000ppm	031701 EXP 03-17-04	1.25	10ml	250ppm	CH_3OH 033518	RJO	10-23-03	3-16-04
		93338 2500ppm	Absolute ~~2500ppm~~ 2500ppm	122302 EXP 12-23-07	1.0ml	10ml	250ppm	CH_3OH 033518	RJO	10-23-03	3-16-04
8260 Std	5-4-5	Q3393	NSI 1000ug/ml	09 09 03-03 Exp-09-04	2.5ml	10ml	250ppm	CH_3OH 033518	SAB	10/24/03	02-23-04 ~~3/17/04~~
		Q2128	NSI 2000ug/ml	051203-04 Exp-02-04	1.25ml	10ml	250ppm	CH_3OH 033518	SAB	10/24/03	02-23-04 ~~3/17/04~~
		C-303H	NSI 2000ug/ml	080503 08/04	1.25ml	10ml	250ppm	CH_3OH 033518	SAB	10/24/03	02-23-04 ~~3/17/04~~
Ac/Ac	5-4-6	Q-2143	NSI	101603-04 04/04	3.125ml	25ml	250/50ppm	water	SAB	10/24/03	3/17/04
2 CVE	5-4-7	17-04-06	NSI	17-04-06 02/05	2.5ml	10ml	250ppm	CH_3OH 033518	SAB	10/24/03	03/17/04
1-Bromo-2 Chloroethane	5-4-8	71245	Absolute	012003 01/08	2.5ml	10ml	250ppm	CH_3OH 033518	SAB	10/24/03	03/17/04
CLP STD 4.2	5-4-9	CLP-18 100ppm	Ultra	T-0563 Exp-05-2005	1.0ml	1.0ml	100ppm	NA	RJ	10-24-03	3-23-04
8260 IS/SS	5-4-10	C-440-05 2500ppm	NSI	C-440-05 Exp-02-05	0.5ml	50ml	25ppm	meOH	RJ	10-25-03	2-28-04
	5-4-10	C-441-04	NSI	C-441-04 Exp-02-04	0.5ml			033518			

STANDARD PREPARATION LOGBOOK

STANDARD NAME	STD#	STOCK STD	SUPPLIER	LOT#/ EXP DATE	WT/VOL g/ml	FINAL VOL(ml)	FINAL CONC	SOLVENT/ LOT#	INITIAL	DATE PREPARED	EXP DATE
8260 IS/SS	5-5-1	C-440-05	NSI 2500 ppm	C-440-05 EXP-02-05	2.0ml	100ml	50ppm	MeOH	RSP	10-25-03	02-28-04
		C-441-04	NSI 2500 ppm	C-441-04 EXP-02-04	2.0ml			033518			
8260 IS	5-5-2	~~C-440-05~~ C-441-04	NSI 2500PPM	C-441-04 EXP-02-04	2.0ml	100ml	50ppm	MeOH 033518	RSP	10-25-03	~~2-28-03~~
		~~C-4~~ RSP 10-25-03									
AC/AC	5-5-3	Q-2143	NSI	101603-04 04/04	3.125ml	25ml	50ppm	Water	RJO	10-27-03	3-26-04
AC/AC ICV	5-5-4	43018	Absolute	022503 2/25/06	1.25	10ml	50 ppm	Water	RJO	10-28-03	4-27-04
8260 STD	5-5-5	Q3393	1000ppm NSI	102403-04 10-04	6.25ml	25ml	250ppm	Methanol 033518	RJO	10-28-03	1-31-04 ~~1-33-04~~
		Q2128	2000ppm NSI	080503 08-04	3.125ml	25ml	250ppm	Methanol 033518	RJO	10-28-03	1-31-04
		C-303 H	2000ppm NSI	051203-04 02-04	3.125ml	25ml	250ppm	Methanol 033518	RJO	10-28-03	1-31-04
AC/AC RJO 1-31-04 ~~ICV~~	5-5-6	Q2143	NSI	080103-04 02-04	1.25ml	10ml	50ppm	Water	RJO	10-28-03	1-31-04
8260 SS	5-5-7	C-440-05	NSI	C-440-05 EXP-02-05	2.0ml	10ml	50ppm	MeOH 033518	RV	10-29-03	3-28-04
AC/AC-ICV	5-5-8	93018	Absolute	022503 EXP-02-25-06	0.625	5ml	0.50ppm	Water	RV	10-29-03	3-28-04
AC/AC- ACCUSTD	5-5-9	M-603 1000ppm	Aecu	B3100067 EXP-8-2004	1.25ml	5ml	250ppm	Water	RV	10-30-03	4-31-04
8260 IS	5-5-10	C-441-04	NSI 2500ppm	C-441-04 02/04	1.0ml	100ml	25ppm	MeOH 033518	RJO	11-02-03	1-31-04
AC/AC-	5-5-11	Q-2143	NSI	102903-04 EXP-05-04	3.125ml	25ml	50/250 ppm	NA Water	RSP AH	11-03-03	5-02-04 ~~03~~
2CVE	5-5-12	17-04-05	NSI	17-04-06 EXP-02-05	6.250	25ml	250ppm	MeOH 033518	RER	11-4-03	5-3-04 ~~03~~
AC/AC-ICV Ultra	5-5-13	AMN-613	Ultra 1000ppm	U-1835 EXP-2/03/04	01.250 ml	25ml	50ppm	Water	RSP	11-4-03	3-31-04 ~~5-3-03~~
AC/AC ICV NSI	5-5-14	Q2143	NSI	080103-04 EXP 2-4	1.25ml	10ml	50 ppm	water	RJO	11-5-03	1-31-04

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264406 Analytical Batch: 264431

Sample ID 86-CEF271-1S-Q4-03

Contract:

SAS No.: SDG No.: 203102905

Lab Sample ID: 20310290501

Date Collected 10/27/03 Time: 1025

Date Received: 10/29/03

Date Extracted: 10/30/03

Date Analyzed: 10/31/03 Time: 1020

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031031/H000552

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.216		0.032	0.100
50-32-8	Benzo(a)pyrene	0.256		0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.250		0.016	0.100
191-24-2	Benzo(g,h,l)perylene	0.417		0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.386		0.033	0.100
218-01-9	Chrysene	0.243		0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.553		0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.372		0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264406 Analytical Batch: 264431

Sample ID 86-CEF271-2S-Q4-03

Contract:

SAS No.: SDG No.: 203102905

Lab Sample ID: 20310290502

Date Collected 10/27/03 Time: 1055

Date Received: 10/29/03

Date Extracted: 10/30/03

Date Analyzed: 10/31/03 Time: 1027

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031031/H000552

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264406 Analytical Batch: 264431

Sample ID 86-CEF271-3S-Q4-03

Contract:

SAS No.: SDG No.: 203102905

Lab Sample ID: 20310290503

Date Collected 10/27/03 Time: 1550

Date Received: 10/29/03

Date Extracted: 10/30/03

Date Analyzed: 10/31/03 Time: 1034

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031031/H000552

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264406 Analytical Batch: 264431

Sample ID 86-CEF271-4SR-Q4-03

Contract:

SAS No.: SDG No.: 203102905

Lab Sample ID: 20310290504

Date Collected 10/27/03 Time: 1615

Date Received: 10/29/03

Date Extracted: 10/30/03

Date Analyzed: 10/31/03 Time: 1041

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031031/H000553

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264406 Analytical Batch: 264431

Sample ID 86-CEF271-5SR-Q4-03

Contract:

SAS No.: SDG No.: 203102905

Lab Sample ID: 20310290505

Date Collected 10/28/03 Time: 0915

Date Received: 10/29/03

Date Extracted: 10/30/03

Date Analyzed: 10/31/03 Time: 1048

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031031/H000553

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264406 Analytical Batch: 264431

Sample ID 86-CEF271-6S-Q4-03

Contract:

SAS No.: SDG No.: 203102905

Lab Sample ID: 20310290506

Date Collected 10/28/03 Time: 1015

Date Received: 10/29/03

Date Extracted: 10/30/03

Date Analyzed: 10/31/03 Time: 1055

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031031/H000553

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264406 Analytical Batch: 264431

Sample ID 86-CEF271-7S-Q4-03

Contract:

SAS No.: SDG No.: 203102905

Lab Sample ID: 20310290507

Date Collected 10/28/03 Time: 0845

Date Received: 10/29/03

Date Extracted: 10/30/03

Date Analyzed: 10/31/03 Time: 1139

Dilution Factor: 20 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031031/H000553

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	21.1		5.82	20.0
91-57-6	2-Methylnaphthalene	58.9		2.84	20.0
83-32-9	Acenaphthene	20.0	U	6.62	20.0
208-96-8	Acenaphthylene	117		3.06	20.0
120-12-7	Anthracene	2.00	U	0.480	2.00
56-55-3	Benzo(a)anthracene	2.00	U	0.640	2.00
50-32-8	Benzo(a)pyrene	2.00	U	0.660	2.00
205-99-2	Benzo(b)fluoranthene	2.00	U	0.320	2.00
191-24-2	Benzo(g,h,i)perylene	2.00	U	0.320	2.00
207-08-9	Benzo(k)fluoranthene	2.00	U	0.660	2.00
218-01-9	Chrysene	2.00	U	0.600	2.00
53-70-3	Dibenz(a,h)anthracene	2.00	U	0.580	2.00
206-44-0	Fluoranthene	2.00	U	0.880	2.00
86-73-7	Fluorene	10.0	U	1.98	10.0
193-39-5	Indeno(1,2,3-cd)pyrene	5.00	U	0.820	5.00
91-20-3	Naphthalene	184		2.48	5.00
85-01-8	Phenanthrene	4.19		0.500	2.00
129-00-0	Pyrene	2.00	U	0.680	2.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264406 Analytical Batch: 264431

Sample ID 86-CEF271-10S-Q4-03

Contract:

SAS No.: SDG No.: 203102905

Lab Sample ID: 20310290508

Date Collected 10/27/03 Time: 1315

Date Received: 10/29/03

Date Extracted: 10/30/03

Date Analyzed: 10/31/03 Time: 1146

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031031/H000553

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264406 Analytical Batch: 264431

Sample ID 86-CEF271-1I-Q4-03

Contract:

SAS No.: SDG No.: 203102905

Lab Sample ID: 20310290509

Date Collected 10/27/03 Time: 1405

Date Received: 10/29/03

Date Extracted: 10/30/03

Date Analyzed: 10/31/03 Time: 1153

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

CONCENTRATION UNITS: ug/L

Lab File ID: 031031/H000553

CAS NO.	*COMPOUND*	*RESULT*		*MDL*	*RL*
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264406 Analytical Batch: 264431

Sample ID 86-271-DUP2-Q4-03

Contract:

SAS No.: SDG No.: 203102905

Lab Sample ID: 20310290510

Date Collected 10/27/03 Time: 0000

Date Received: 10/29/03

Date Extracted: 10/30/03

Date Analyzed: 10/31/03 Time: 1200

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031031/H000553

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264406 Analytical Batch: 264431

Sample ID 86-271-EB-Q4-03

Contract:

SAS No.: SDG No.: 203102905

Lab Sample ID: 20310290511

Date Collected 10/27/03 Time: 1510

Date Received: 10/29/03

Date Extracted: 10/30/03

Date Analyzed: 10/31/03 Time: 1207

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

CONCENTRATION UNITS: ug/L

Lab File ID: 031031/H000553

CAS NO.	*COMPOUND*	*RESULT*		*MDL*	*RL*
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264406 Analytical Batch: 264431

Sample ID MB127357

Contract:

SAS No.: SDG No.: 203102905

Lab Sample ID: 127357

Date Collected Time:

Date Received:

Date Extracted: 10/30/03

Date Analyzed: 10/31/03 Time: 0948

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031031/H000552

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264406 Analytical Batch: 264431

Sample ID LCS127358

Contract:

SAS No.: SDG No.: 203102905

Lab Sample ID: 127358

Date Collected Time:

Date Received:

Date Extracted: 10/30/03

Date Analyzed: 10/31/03 Time: 0956

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031031/H000552

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	10.8		0.291	1.00
91-57-6	2-Methylnaphthalene	10.4		0.142	1.00
83-32-9	Acenaphthene	6.94		0.331	1.00
208-96-8	Acenaphthylene	4.66		0.153	1.00
120-12-7	Anthracene	0.171		0.024	0.100
56-55-3	Benzo(a)anthracene	0.476		0.032	0.100
50-32-8	Benzo(a)pyrene	0.479		0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.244		0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.725		0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.201		0.033	0.100
218-01-9	Chrysene	0.469		0.030	0.100
53-70-3	Dibenz(a,h)anthracene	1.74		0.029	0.100
206-44-0	Fluoranthene	0.423		0.044	0.100
86-73-7	Fluorene	0.933		0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.419		0.041	0.250
91-20-3	Naphthalene	4.41		0.124	0.250
85-01-8	Phenanthrene	0.392		0.025	0.100
129-00-0	Pyrene	0.920		0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264406 Analytical Batch: 264431

Sample ID LCSD127359

Contract:

SAS No.: SDG No.: 203102905

Lab Sample ID: 127359

Date Collected Time:

Date Received:

Date Extracted: 10/30/03

Date Analyzed: 10/31/03 Time: 1003

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031031/H000552

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	9.78		0.291	1.00
91-57-6	2-Methylnaphthalene	8.97		0.142	1.00
83-32-9	Acenaphthene	8.43		0.331	1.00
208-96-8	Acenaphthylene	4.53		0.153	1.00
120-12-7	Anthracene	0.172		0.024	0.100
56-55-3	Benzo(a)anthracene	0.450		0.032	0.100
50-32-8	Benzo(a)pyrene	0.429		0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.216		0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.716		0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.171		0.033	0.100
218-01-9	Chrysene	0.435		0.030	0.100
53-70-3	Dibenz(a,h)anthracene	1.70		0.029	0.100
206-44-0	Fluoranthene	0.436		0.044	0.100
86-73-7	Fluorene	0.885		0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.411		0.041	0.250
91-20-3	Naphthalene	4.42		0.124	0.250
85-01-8	Phenanthrene	0.359		0.025	0.100
129-00-0	Pyrene	0.900		0.034	0.100

2E

WATER SURROGATE RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

GC Column (1): 201TP-0.15 ID: 2.1 (mm) GC Cloumn (2): ID: (mm)

Method: SW-846 8310

	EPA SAMPLE NO.	SMC1 1-(1)	Lo	Hi	F	SMC1 1-(2)	Lo	Hi	F	SMC2 2-(1)	Lo	Hi	F	SMC2 2-(2)	Lo	Hi	F	TOT OUT
1 .	86-CEF271-1S-Q4-03	97	40	140														0
2 .	86-CEF271-2S-Q4-03	93	40	140														0
3 .	86-CEF271-3S-Q4-03	91	40	140														0
4 .	86-CEF271-4SR-Q4-03	97	40	140														0
5 .	86-CEF271-5SR-Q4-03	96	40	140														0
6 .	86-CEF271-6S-Q4-03	96	40	140														0
7 .	86-CEF271-7S-Q4-03	0	40	140	D													0
8 .	86-CEF271-10S-Q4-03	89	40	140														0
9 .	86-CEF271-1I-Q4-03	99	40	140														0
10 .	86-271-DUP2-Q4-03	90	40	140														0
11 .	86-271-EB-Q4-03	99	40	140														0
12 .	MB127357	84	40	140														0
13 .	LCS127358	101	40	140														0
14 .	LCSD127359	94	40	140														0

SMC 1 : p-Terphenyl SMC 2 :

Column to be used to flag recovery limits

* Value outside of contract required limits

D Surrogate diluted out

3E

WATER ORGANICS LCS/LCSD RECOVERY

Lab Name: GCAL

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Contract: Method: SW-846 8310

SAMPLE NO : 127358

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*LCS CONCENTRATION*	*LCS % REC*	*LCS % REC FLAG*	*QC. LIMITS*
1-Methylnaphthalene	ug/L	10	0	10.8	108		40 - 140
2-Methylnaphthalene	ug/L	10	0	10.4	104		40 - 140
Acenaphthene	ug/L	10	0	6.94	69		40 - 140
Acenaphthylene	ug/L	5	0	4.66	93		40 - 140
Anthracene	ug/L	.2	0	.171	86		40 - 140
Benzo(a)anthracene	ug/L	.5	0	.476	95		40 - 140
Benzo(a)pyrene	ug/L	.5	0	.479	96		40 - 140
Benzo(b)fluoranthene	ug/L	.2	0	.244	122		40 - 140
Benzo(g,h,i)perylene	ug/L	.8	0	.725	91		40 - 140
Benzo(k)fluoranthene	ug/L	.2	0	.201	101		40 - 140
Chrysene	ug/L	.5	0	.469	94		40 - 140
Dibenz(a,h)anthracene	ug/L	2	0	1.74	87		40 - 140
Fluoranthene	ug/L	.5	0	.423	85		40 - 140
Fluorene	ug/L	1	0	.933	93		40 - 140
Indeno(1,2,3-cd)pyrene	ug/L	.5	0	.419	84		40 - 140
Naphthalene	ug/L	5	0	4.41	88		40 - 140
Phenanthrene	ug/L	.4	0	.392	98		40 - 140
Pyrene	ug/L	1	0	.92	92		40 - 140

RPD : 0 out of 18 outside limits

Spike Recovery: 0 out of 36 outside limits

3E

WATER ORGANICS LCS/LCSD RECOVERY

Lab Name: GCAL

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203102905

Contract: Method: SW-846 8310

SAMPLE NO : *127359*

COMPOUND	*UNITS*	*SPIKE ADDED*	*LCSD CONC.*	*LCSD % REC*	*REC FLAG*	*% RPD*	*RPD FLAG*	*QC. LIMITS REC*	*QC. LIMITS RPD*
1-Methylnaphthalene	ug/L	10	9.78	98		10		40 - 140	0 - 30
2-Methylnaphthalene	ug/L	10	8.97	90		15		40 - 140	0 - 30
Acenaphthene	ug/L	10	8.43	84		19		40 - 140	0 - 30
Acenaphthylene	ug/L	5	4.53	91		3		40 - 140	0 - 30
Anthracene	ug/L	.2	.172	86		.6		40 - 140	0 - 30
Benzo(a)anthracene	ug/L	.5	.45	90		6		40 - 140	0 - 30
Benzo(a)pyrene	ug/L	.5	.429	86		11		40 - 140	0 - 30
Benzo(b)fluoranthene	ug/L	.2	.216	108		12		40 - 140	0 - 30
Benzo(g,h,i)perylene	ug/L	.8	.716	90		1		40 - 140	0 - 30
Benzo(k)fluoranthene	ug/L	.2	.171	86		16		40 - 140	0 - 30
Chrysene	ug/L	.5	.435	87		8		40 - 140	0 - 30
Dibenz(a,h)anthracene	ug/L	2	1.7	85		2		40 - 140	0 - 30
Fluoranthene	ug/L	.5	.436	87		3		40 - 140	0 - 30
Fluorene	ug/L	1	.885	89		5		40 - 140	0 - 30
Indeno(1,2,3-cd)pyrene	ug/L	.5	.411	82		2		40 - 140	0 - 30
Naphthalene	ug/L	5	4.42	88		.2		40 - 140	0 - 30
Phenanthrene	ug/L	.4	.359	90		9		40 - 140	0 - 30
Pyrene	ug/L	1	.9	90		2		40 - 140	0 - 30

RPD : 0 out of 18 outside limits

Spike Recovery: 0 out of 36 outside limits

4C

ORGANIC METHOD BLANK SUMMARY

Lab Name: GCAL

Sample ID MB127357

Lab Code: LA024 Case No.:

Contract:

Lab Sample ID: 127357

SAS No.: SDG No.: 203102905

Matrix: Water Sulfur Cleanup: (Y/N) N

Date Extracted: 10/30/03

Date Analyzed (1): 10/31/03 Time (1): 0948

Date Analyzed (2): Time (2):

Instrument ID (1): HPLC 1

Instrument ID (2):

GC Column (1): 201TP-0.15 ID: 2.1 (mm)

GC Column (2): ID: (mm)

Method: SW-846 8310

Prep Batch: 264406 Analytical Batch: 264431

Lab File ID: 031031/H000552

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATE ANALYZED	TIME ANALYZED
1.	LCS127358	127358	10/31/03	0956		
2.	LCSD127359	127359	10/31/03	1003		
3.	86-CEF271-1S-Q4-03	20310290501	10/31/03	1020		
4.	86-CEF271-2S-Q4-03	20310290502	10/31/03	1027		
5.	86-CEF271-3S-Q4-03	20310290503	10/31/03	1034		
6.	86-CEF271-4SR-Q4-03	20310290504	10/31/03	1041		
7.	86-CEF271-5SR-Q4-03	20310290505	10/31/03	1048		
8.	86-CEF271-6S-Q4-03	20310290506	10/31/03	1055		
9.	86-CEF271-7S-Q4-03	20310290507	10/31/03	1139		
10.	86-CEF271-10S-Q4-03	20310290508	10/31/03	1146		
11.	86-CEF271-1I-Q4-03	20310290509	10/31/03	1153		
12.	86-271-DUP2-Q4-03	20310290510	10/31/03	1200		
13.	86-271-EB-Q4-03	20310290511	10/31/03	1207		

Gulf Coast Analytical Laboratories, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-OCT-2003 07:49
End Cal Date : 03-OCT-2003 08:38
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/hplc1.i/031031p.b/flpnauv.m
Cal Date : 31-Oct-2003 12:26 jdt
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/hplc1.i/031003.b/h0005408.d
Level 2: /var/chem/hplc1.i/031003.b/h0005407.d
Level 3: /var/chem/hplc1.i/031003.b/h0005406.d
Level 4: /var/chem/hplc1.i/031003.b/h0005405.d
Level 5: /var/chem/hplc1.i/031003.b/h0005404.d
Level 6: /var/chem/hplc1.i/031003.b/h0005403.d
Level 7: /var/chem/hplc1.i/031003.b/h0005402.d
Level 8: /var/chem/hplc1.i/031003.b/h0005401.d

Compound	0.10000 Level 1 / 10.000 Level 7	0.25000 Level 2 / 20.000 Level 8	0.50000 Level 3	1.000 Level 4	2.500 Level 5	5.000 Level 6	___ RRF	% RSD
1 Naphthalene	+++++	1956	2412	2172	2576	2663		
	2542	2516					2405	10.502
2 Acenaphthylene	+++++	+++++	+++++	1579	1544	1728		
	1667	1661					1636	4.499
3 1-Methynaphthalene	+++++	+++++	+++++	1279	1321	1471		
	1435	1382					1378	5.726
4 2-Methylnaphthalene	+++++	+++++	+++++	1876	1950	2067		
	2003	2034					1986	3.773
5 Acenaphthene	+++++	+++++	+++++	819	1039	1125		
	1042	984					1002	11.380
6 Fluorene	+++++	+++++	10842	11128	11448	11633		
	11494	11413					11327	2.555
7 Phenanthrene	26090	26436	25024	25745	25979	26371		
	25918	25666					25904	1.725

Gulf Coast Analytical Laboratories, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-OCT-2003 07:49
End Cal Date : 03-OCT-2003 08:38
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/hplc1.i/031031p.b/flpnauv.m
Cal Date : 31-Oct-2003 12:26 jdt
Curve Type : Average

Compound	0.10000 Level 1 / 10.000 Level 7	0.25000 Level 2 / 20.000 Level 8	0.50000 Level 3	1.000 Level 4	2.500 Level 5	5.000 Level 6	___ RRF	% RSD
8 Anthracene	58300	55936	54314	56191	56070	55827		
	53855	50797					55161	4.010
9 Fluoranthene	7260	7616	6548	6785	7230	7413		
	7313	7172					7167	4.790
10 Pyrene	5560	5336	5574	5439	5940	6131		
	6067	5928					5747	5.297
12 Benzo(a)Anthracene	15220	15096	15696	15444	16350	16477		
	16970	16827					16010	4.603
13 Chrysene	25330	24332	24144	25268	26782	26794		
	27690	27180					25940	5.187
14 Benzo(b)Fluoranthene	19810	19296	19986	20637	20071	20109		
	21046	19996					20119	2.614
15 Benzo(k)Fluoranthene	10680	11840	11996	12389	12872	12773		
	13057	12696					12288	6.316
16 Benzo(a)Pyrene	16030	17848	16838	16994	18590	18485		
	18899	18377					17758	5.762
17 Dibenzo(a,h)Anthracene	4630	4816	4642	4149	4382	4179		
	4275	4126					4400	6.000
18 Benzo(g,h,i)Perylene	6910	8440	7566	6351	7240	7053		
	7079	7030					7209	8.360

Gulf Coast Analytical Laboratories, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-OCT-2003 07:49
End Cal Date : 03-OCT-2003 08:38
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/hplc1.i/031031p.b/flpnauv.m
Cal Date : 31-Oct-2003 12:26 jdt
Curve Type : Average

Compound	0.10000 Level 1	0.25000 Level 2	0.50000 Level 3	1.000 Level 4	2.500 Level 5	5.000 Level 6	RRF	% RSD
	10.000 Level 7	20.000 Level 8						
19 Indeno(1,2,3-c,d)Pyrene	++++++	14572	16552	14347	15532	15268		
	15256	15127					15236	4.690
$ 11 p-Terphenyl	6210	6376	6532	6722	6932	6958		
	7258	7138					6766	5.481

Gulf Coast Analytical Laboratories, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: hplc1.i Injection Date: 31-OCT-2003 09:33
Lab File ID: h0005523.d Init. Cal. Date(s): 03-OCT-2003 03-OCT-2003
Analysis Type: WATER Init. Cal. Times: 07:49 08:38
Lab Sample ID: 1031STD05 Quant Type: ESTD
Method: /var/chem/hplc1.i/031031.b/flpnauv.m

	COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
	1 Naphthalene	2405	2530	0.010	-5.20164	15.00000	Averaged
	2 Acenaphthylene	1636	1654	0.010	-1.14695	15.00000	Averaged
	3 1-Methynaphthalene	1378	1350	0.010	2.00135	15.00000	Averaged
	4 2-Methylnaphthalene	1986	1919	0.010	3.38320	15.00000	Averaged
	5 Acenaphthene	1002	934	0.010	6.77154	15.00000	Averaged
	6 Fluorene	11327	11504	0.010	-1.57043	15.00000	Averaged
	7 Phenanthrene	25904	26487	0.010	-2.25282	15.00000	Averaged
	8 Anthracene	55161	57615	0.010	-4.44824	15.00000	Averaged
	9 Fluoranthene	7167	7194	0.010	-0.37664	15.00000	Averaged
	10 Pyrene	5747	5863	0.010	-2.01718	15.00000	Averaged
$	11 p-Terphenyl	6766	6904	0.010	-2.03775	15.00000	Averaged
	12 Benzo(a)Anthracene	16010	16022	0.010	-0.07195	15.00000	Averaged
	13 Chrysene	25940	26346	0.010	-1.56674	15.00000	Averaged
	14 Benzo(b)Fluoranthene	20119	20708	0.010	-2.92569	15.00000	Averaged
	15 Benzo(k)Fluoranthene	12288	12867	0.010	-4.71077	15.00000	Averaged
	16 Benzo(a)Pyrene	17758	18433	0.010	-3.80250	15.00000	Averaged
	17 Dibenzo(a,h)Anthracene	4400	4113	0.010	6.52302	15.00000	Averaged
	18 Benzo(g,h,i)Perylene	7209	7111	0.010	1.35817	15.00000	Averaged
	19 Indeno(1,2,3-c,d)Pyrene	15236	15360	0.010	-0.81244	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 2.78837
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Gulf Coast Analytical Laboratories, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: hplc1.i Injection Date: 31-OCT-2003 11:24
Lab File ID: h0005534.d Init. Cal. Date(s): 03-OCT-2003 03-OCT-2003
Analysis Type: WATER Init. Cal. Times: 07:49 08:38
Lab Sample ID: 1031STD05 Quant Type: ESTD
Method: /var/chem/hplc1.i/031031.b/flpnauv.m

	COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
	1 Naphthalene	2405	2403	0.010	0.10334	15.00000	Averaged
	2 Acenaphthylene	1636	1514	0.010	7.43684	15.00000	Averaged
	3 1-Methynaphthalene	1378	1293	0.010	6.12455	15.00000	Averaged
	4 2-Methylnaphthalene	1986	1917	0.010	3.48390	15.00000	Averaged
	5 Acenaphthene	1002	897	0.010	10.48471	15.00000	Averaged
	6 Fluorene	11327	11261	0.010	0.58028	15.00000	Averaged
	7 Phenanthrene	25904	25424	0.010	1.85008	15.00000	Averaged
	8 Anthracene	55161	56173	0.010	-1.83408	15.00000	Averaged
	9 Fluoranthene	7167	6710	0.010	6.37653	15.00000	Averaged
	10 Pyrene	5747	5659	0.010	1.53257	15.00000	Averaged
$	11 p-Terphenyl	6766	6827	0.010	-0.90262	15.00000	Averaged
	12 Benzo(a)Anthracene	16010	16200	0.010	-1.18375	15.00000	Averaged
	13 Chrysene	25940	26505	0.010	-2.17738	15.00000	Averaged
	14 Benzo(b)Fluoranthene	20119	20550	0.010	-2.14434	15.00000	Averaged
	15 Benzo(k)Fluoranthene	12288	12919	0.010	-5.13394	15.00000	Averaged
	16 Benzo(a)Pyrene	17758	18723	0.010	-5.43560	15.00000	Averaged
	17 Dibenzo(a,h)Anthracene	4400	4061	0.010	7.70490	15.00000	Averaged
	18 Benzo(g,h,i)Perylene	7209	6756	0.010	6.28554	15.00000	Averaged
	19 Indeno(1,2,3-c,d)Pyrene	15236	15072	0.010	1.07516	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 3.78159
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Gulf Coast Analytical Laboratories, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: hplc1.i Injection Date: 31-OCT-2003 12:14
Lab File ID: h0005540.d Init. Cal. Date(s): 03-OCT-2003 03-OCT-2003
Analysis Type: WATER Init. Cal. Times: 07:49 08:38
Lab Sample ID: 1031STD05 Quant Type: ESTD
Method: /var/chem/hplc1.i/031031.b/flpnauv.m

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 Naphthalene	2405	2499	0.010	-3.90450	15.00000	Averaged
2 Acenaphthylene	1636	1653	0.010	-1.07359	15.00000	Averaged
3 1-Methynaphthalene	1378	1321	0.010	4.12102	15.00000	Averaged
4 2-Methylnaphthalene	1986	1970	0.010	0.82528	15.00000	Averaged
5 Acenaphthene	1002	892	0.010	10.96383	15.00000	Averaged
6 Fluorene	11327	11296	0.010	0.26597	15.00000	Averaged
7 Phenanthrene	25904	25447	0.010	1.76206	15.00000	Averaged
8 Anthracene	55161	56843	0.010	-3.04943	15.00000	Averaged
9 Fluoranthene	7167	7069	0.010	1.36467	15.00000	Averaged
10 Pyrene	5747	5724	0.010	0.40500	15.00000	Averaged
$ 11 p-Terphenyl	6766	7202	0.010	-6.45412	15.00000	Averaged
12 Benzo(a)Anthracene	16010	16359	0.010	-2.17812	15.00000	Averaged
13 Chrysene	25940	26701	0.010	-2.93297	15.00000	Averaged
14 Benzo(b)Fluoranthene	20119	20177	0.010	-0.28738	15.00000	Averaged
15 Benzo(k)Fluoranthene	12288	12653	0.010	-2.96922	15.00000	Averaged
16 Benzo(a)Pyrene	17758	18252	0.010	-2.78209	15.00000	Averaged
17 Dibenzo(a,h)Anthracene	4400	4108	0.010	6.63212	15.00000	Averaged
18 Benzo(g,h,i)Perylene	7209	6898	0.010	4.31015	15.00000	Averaged
19 Indeno(1,2,3-c,d)Pyrene	15236	15121	0.010	0.75487	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 3.00192
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Gulf Coast Analytical Laboratories, Inc.

INITIAL CALIBRATION DATA

tart Cal Date : 03-OCT-2003 07:49
nd Cal Date : 03-OCT-2003 08:38
uant Method : ESTD
arget Version : 3.50
ntegrator : Falcon
ethod file : /var/chem/hplc1.i/031031pf.b/flpnafld.m
al Date : 31-Oct-2003 12:28 jdt

alibration File Names:
evel 1: /var/chem/hplc1.i/031003f.b/h0005408.d
evel 2: /var/chem/hplc1.i/031003f.b/h0005407.d
evel 3: /var/chem/hplc1.i/031003f.b/h0005406.d
evel 4: /var/chem/hplc1.i/031003f.b/h0005405.d
evel 5: /var/chem/hplc1.i/031003f.b/h0005404.d
evel 6: /var/chem/hplc1.i/031003f.b/h0005403.d
evel 7: /var/chem/hplc1.i/031003f.b/h0005402.d
evel 8: /var/chem/hplc1.i/031003f.b/h0005401.d

Compound	0.1000 Level 1 / 10 Level 7	0.2500 Level 2 / 20 Level 8	0.5000 Level 3	1 Level 4	2 Level 5	5 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
1 Naphthalene	+++++	11452	12064	12276	10980	10725					
	10674	10790					AVRG		11280		5.88159
3 1-Methynaphthalene	+++++	+++++	+++++	1485	1110	1308					
	1759	1275					AVRG		1387		17.78700
4 2-Methylnaphthalene	+++++	+++++	+++++	1368	1189	1301					
	1577	1261					AVRG		1339		11.04595
5 Acenaphthene	+++++	+++++	+++++	3957	3872	4022					
	4193	3986					AVRG		4006		2.95185
7 Phenanthrene	16730	14960	15864	15680	16045	16271					
	16768	15863					AVRG		16023		3.66623

Gulf Coast Analytical Laboratories, Inc.

INITIAL CALIBRATION DATA

tart Cal Date : 03-OCT-2003 07:49
nd Cal Date : 03-OCT-2003 08:38
uant Method : ESTD
arget Version : 3.50
ntegrator : Falcon
ethod file : /var/chem/hplc1.i/031031pf.b/flpnafld.m
al Date : 31-Oct-2003 12:28 jdt

Compound	0.1000 Level 1 / 10 Level 7	0.2500 Level 2 / 20 Level 8	0.5000 Level 3	1 Level 4	2 Level 5	5 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
8 Anthracene	6850	4740	5886	5492	5630	5609					
	5758	5284					AVRG		5656		10.55775
9 Fluoranthene	5730	5812	5128	5170	5547	5614					
	5630	5506					AVRG		5517		4.47865
10 Pyrene	34060	33972	33018	33063	35143	35933					
	34926	+++++					AVRG		34302		3.17299
12 Benzo(a)Anthracene	24390	26936	27260	28397	29013	29488					
	29092	+++++					AVRG		27797		6.40393
13 Chrysene	207	572	1192	3075	9099	19441					
	39670	80765					LINR	0.000e+00	4012		0.99936
14 Benzo(b)Fluoranthene	23860	23304	23066	23116	23533	24123					
	24296	+++++					AVRG		23614		2.07157
15 Benzo(k)Fluoranthene	55240	53132	52342	52928	53506	54201					
	43799	+++++					AVRG		52164		7.29761
16 Benzo(a)Pyrene	45600	42292	43360	44085	45313	46297					
	41767	+++++					AVRG		44102		3.90623
17 Dibenzo(a,h)Anthracene	18820	17428	17018	17188	17064	17381					
	17585	17066					AVRG		17444		3.39253

Gulf Coast Analytical Laboratories, Inc.

INITIAL CALIBRATION DATA

tart Cal Date : 03-OCT-2003 07:49
nd Cal Date : 03-OCT-2003 08:38
uant Method : ESTD
arget Version : 3.50
ntegrator : Falcon
ethod file : /var/chem/hplc1.i/031031pf.b/flpnafld.m
al Date : 31-Oct-2003 12:28 jdt

Compound	0.1000 Level 1 / 10 Level 7	0.2500 Level 2 / 20 Level 8	0.5000 Level 3	1 Level 4	2 Level 5	5 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
18 Benzo(g,h,i)Perylene	16680	15036	14006	14263	14537	14995					
	15377	15516					AVRG		15051		5.59094
19 Indeno(1,2,3-c,d)Pyrene	+++++	5172	4130	4150	4753	4999					
	4917	4809					AVRG		4704		8.68431
$ 11 p-Terphenyl	+++++	7824	8436	9016	9508	9765					
	9703	9700					AVRG		9136		8.23832

000157

Gulf Coast Analytical Laboratories, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: hplc1.i Injection Date: 31-OCT-2003 09:33
Lab File ID: h0005523.d Init. Cal. Date(s): 03-OCT-2003 03-OCT-2003
Analysis Type: WATER Init. Cal. Times: 07:49 08:38
Lab Sample ID: 1031STD05 Quant Type: ESTD
Method: /var/chem/hplc1.i/031031f.b/flpnafld.m

	COMPOUND	RRF / AMOUNT	RF2	CCAL RRF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
	1 Naphthalene	11280	11186	11186	0.010	0.83857	15.00000	Averaged
	3 1-Methynaphthalene	1387	1353	1353	0.010	2.46645	15.00000	Averaged
	4 2-Methylnaphthalene	1339	1312	1312	0.010	2.04411	15.00000	Averaged
	5 Acenaphthene	4006	3867	3867	0.010	3.46866	15.00000	Averaged
	7 Phenanthrene	16023	16566	16566	0.010	-3.39098	15.00000	Averaged
	8 Anthracene	5656	5866	5866	0.010	-3.70897	15.00000	Averaged
	9 Fluoranthene	5517	5930	5930	0.010	-7.48218	15.00000	Averaged
	10 Pyrene	34302	37620	37620	0.010	-9.67254	15.00000	Averaged
$	11 p-Terphenyl	9136	9369	9369	0.010	-2.54880	15.00000	Averaged
	12 Benzo(a)Anthracene	27797	30667	30667	0.010	-10.32601	15.00000	Averaged
	13 Chrysene	2.29688	2.50000	3686	0.010	8.12462	15.00000	Linear
	14 Benzo(b)Fluoranthene	23614	24131	24131	0.010	-2.18998	15.00000	Averaged
	15 Benzo(k)Fluoranthene	52164	54186	54186	0.010	-3.87612	15.00000	Averaged
	16 Benzo(a)Pyrene	44102	47613	47613	0.010	-7.96053	15.00000	Averaged
	17 Dibenzo(a,h)Anthracene	17444	17853	17853	0.010	-2.34664	15.00000	Averaged
	18 Benzo(g,h,i)Perylene	15051	15427	15427	0.010	-2.49763	15.00000	Averaged
	19 Indeno(1,2,3-c,d)Pyrene	4704	4454	4454	0.010	5.31346	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 4.60331
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

ata File: /var/chem/hplc1.i/031031f.b/h0005534.d
eport Date: 31-Oct-2003 10:11

Gulf Coast Analytical Laboratories, Inc.

CONTINUING CALIBRATION COMPOUNDS

nstrument ID: hplc1.i
ab File ID: h0005534.d
nalysis Type: WATER
ab Sample ID: 1031STD05
ethod: /var/chem/hplc1.i/031031f.b/flpnafld.m

Injection Date: 31-OCT-2003 11:24
Init. Cal. Date(s): 03-OCT-2003 03-OCT-2003
Init. Cal. Times: 07:49 08:38
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF2	CCAL RRF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 Naphthalene	11280	10714	10714	0.010	5.01935	15.00000	Averaged
3 1-Methynaphthalene	1387	1440	1440	0.010	-3.76094	15.00000	Averaged
4 2-Methylnaphthalene	1339	1212	1212	0.010	9.45279	15.00000	Averaged
5 Acenaphthene	4006	3662	3662	0.010	8.59077	15.00000	Averaged
7 Phenanthrene	16023	16158	16158	0.010	-0.84209	15.00000	Averaged
8 Anthracene	5656	5793	5793	0.010	-2.42189	15.00000	Averaged
9 Fluoranthene	5517	5757	5757	0.010	-4.35015	15.00000	Averaged
10 Pyrene	34302	34770	34770	0.010	-1.36518	15.00000	Averaged
$ 11 p-Terphenyl	9136	9362	9362	0.010	-2.47875	15.00000	Averaged
12 Benzo(a)Anthracene	27797	29923	29923	0.010	-7.65085	15.00000	Averaged
13 Chrysene	2.24953	2.50000	3610	0.010	10.01896	15.00000	Linear
14 Benzo(b)Fluoranthene	23614	23858	23858	0.010	-1.03304	15.00000	Averaged
15 Benzo(k)Fluoranthene	52164	54678	54678	0.010	-4.81853	15.00000	Averaged
16 Benzo(a)Pyrene	44102	46034	46034	0.010	-4.38065	15.00000	Averaged
17 Dibenzo(a,h)Anthracene	17444	17097	17097	0.010	1.98956	15.00000	Averaged
18 Benzo(g,h,i)Perylene	15051	14570	14570	0.010	3.20023	15.00000	Averaged
19 Indeno(1,2,3-c,d)Pyrene	4704	4345	4345	0.010	7.64321	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 4.64806
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Gulf Coast Analytical Laboratories, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: hplc1.i
Lab File ID: h0005540.d
Analysis Type: WATER
Lab Sample ID: 1031STD05
Method: /var/chem/hplc1.i/031031f.b/flpnafld.m

Injection Date: 31-OCT-2003 12:14
Init. Cal. Date(s): 03-OCT-2003 03-OCT-2003
Init. Cal. Times: 07:49 08:38
Quant Type: ESTD

	COMPOUND	RRF / AMOUNT	RF2	CCAL RRF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
	1 Naphthalene	11280	10878	10878	0.010	3.56193	15.00000	Averaged
	3 1-Methynaphthalene	1387	1292	1292	0.010	6.84868	15.00000	Averaged
	4 2-Methylnaphthalene	1339	1210	1210	0.010	9.63203	15.00000	Averaged
	5 Acenaphthene	4006	3738	3738	0.010	6.69369	15.00000	Averaged
	7 Phenanthrene	16023	15609	15609	0.010	2.58056	15.00000	Averaged
	8 Anthracene	5656	5703	5703	0.010	-0.83072	15.00000	Averaged
	9 Fluoranthene	5517	5725	5725	0.010	-3.76290	15.00000	Averaged
	10 Pyrene	34302	32838	32838	0.010	4.26946	15.00000	Averaged
$	11 p-Terphenyl	9136	9290	9290	0.010	-1.68190	15.00000	Averaged
	12 Benzo(a)Anthracene	27797	29264	29264	0.010	-5.27789	15.00000	Averaged
	13 Chrysene	2.18622	2.50000	3508	0.010	12.55139	15.00000	Linear
	14 Benzo(b)Fluoranthene	23614	23464	23464	0.010	0.63546	15.00000	Averaged
	15 Benzo(k)Fluoranthene	52164	53102	53102	0.010	-1.79806	15.00000	Averaged
	16 Benzo(a)Pyrene	44102	44781	44781	0.010	-1.53906	15.00000	Averaged
	17 Dibenzo(a,h)Anthracene	17444	16636	16636	0.010	4.63347	15.00000	Averaged
	18 Benzo(g,h,i)Perylene	15051	13903	13903	0.010	7.62776	15.00000	Averaged
	19 Indeno(1,2,3-c,d)Pyrene	4704	4426	4426	0.010	5.90865	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 4.69609
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031.b/h0005527.d
Lab Smp Id: 20310290501
Inj Date : 31-OCT-2003 10:20
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310290501-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031031.b/flpnauv.m
Meth Date : 31-Oct-2003 11:00 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
11 p-Terphenyl	2.983	3.008	-0.025	13105	1.93697	1.94
12 Benzo(a)Anthracene	3.183	3.195	-0.012	3454	0.21574	0.216
13 Chrysene	3.337	3.362	-0.025	6292	0.24256	0.243
14 Benzo(b)Fluoranthene	3.830	3.862	-0.032	5033	0.25019	0.250(M)
15 Benzo(k)Fluoranthene	4.090	4.115	-0.025	4603	0.37459	0.375
16 Benzo(a)Pyrene	4.270	4.288	-0.018	4119	0.23196	0.232
17 Dibenzo(a,h)Anthracene	4.583	4.531	0.052	1965	0.44661	0.447
18 Benzo(g,h,i)Perylene	4.737	4.678	0.059	2220	0.30796	0.308
19 Indeno(1,2,3-c,d)Pyrene	4.930	4.844	0.086	4869	0.31959	0.320(M)

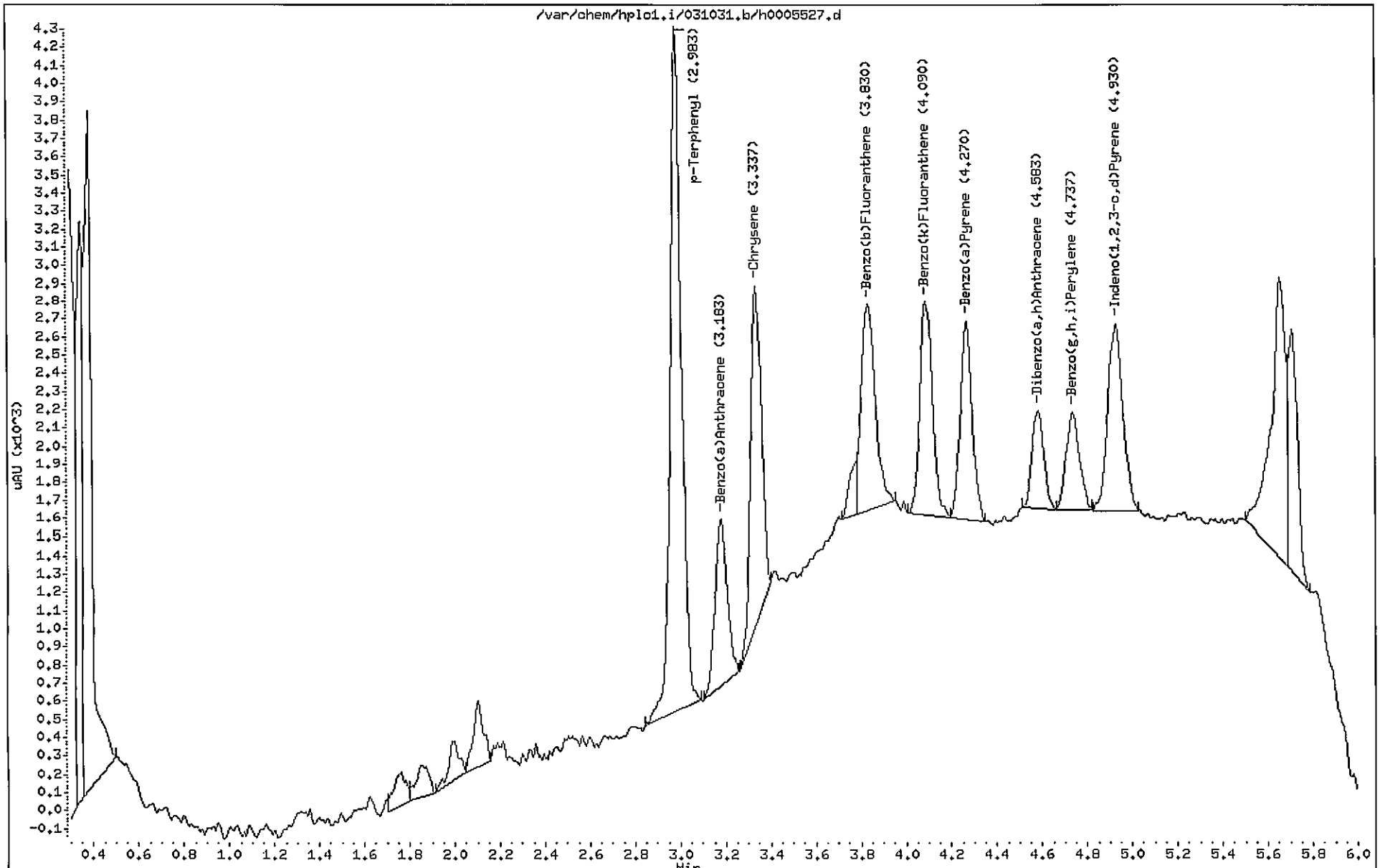
QC Flag Legend

M - Compound response manually integrated.

000162

Data File: /var/chem/hplc1.i/031031.b/h0005527.d
Date : 31-OCT-2003 10:20
Client ID:
Sample Info: 20310290501-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031f.b/h0005527.d
Lab Smp Id: 20310290501
Inj Date : 31-OCT-2003 10:20
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310290501-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031031f.b/flpnafld.m
Meth Date : 31-Oct-2003 10:58 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

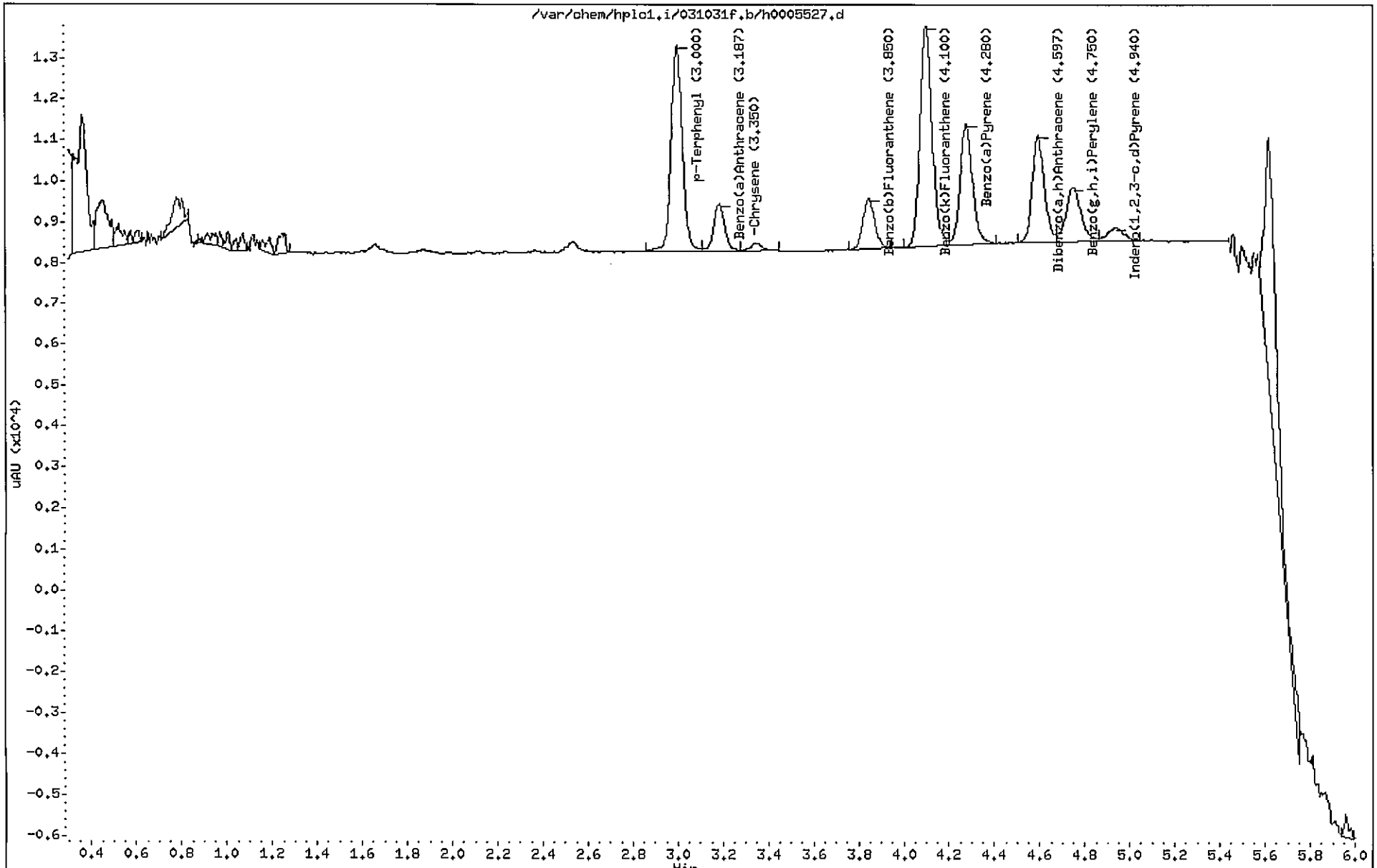
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
11 p-Terphenyl	3.000	3.020	-0.020	17345	1.89861	1.90(M)
12 Benzo(a)Anthracene	3.187	3.210	-0.023	3909	0.14066	0.141(M)
13 Chrysene	3.350	3.373	-0.023	660	0.16471	0.165(M)
14 Benzo(b)Fluoranthene	3.850	3.873	-0.023	4515	0.19120	0.191(M)
15 Benzo(k)Fluoranthene	4.100	4.130	-0.030	20132	0.38594	0.386(M)
16 Benzo(a)Pyrene	4.280	4.303	-0.023	11298	0.25618	0.256(M)
17 Dibenzo(a,h)Anthracene	4.597	4.543	0.054	9643	0.55280	0.553(M)
18 Benzo(g,h,i)Perylene	4.750	4.693	0.057	6276	0.41701	0.417(M)
19 Indeno(1,2,3-c,d)Pyrene	4.940	4.860	0.080	1750	0.37217	0.372(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/031031f.b/h0005527.d
Date : 31-OCT-2003 10:20
Client ID:
Sample Info: 20310290501-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



000164

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031.b/h0005528.d
Lab Smp Id: 20310290502
Inj Date : 31-OCT-2003 10:27
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310290502-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031031.b/flpnauv.m
Meth Date : 31-Oct-2003 11:00 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

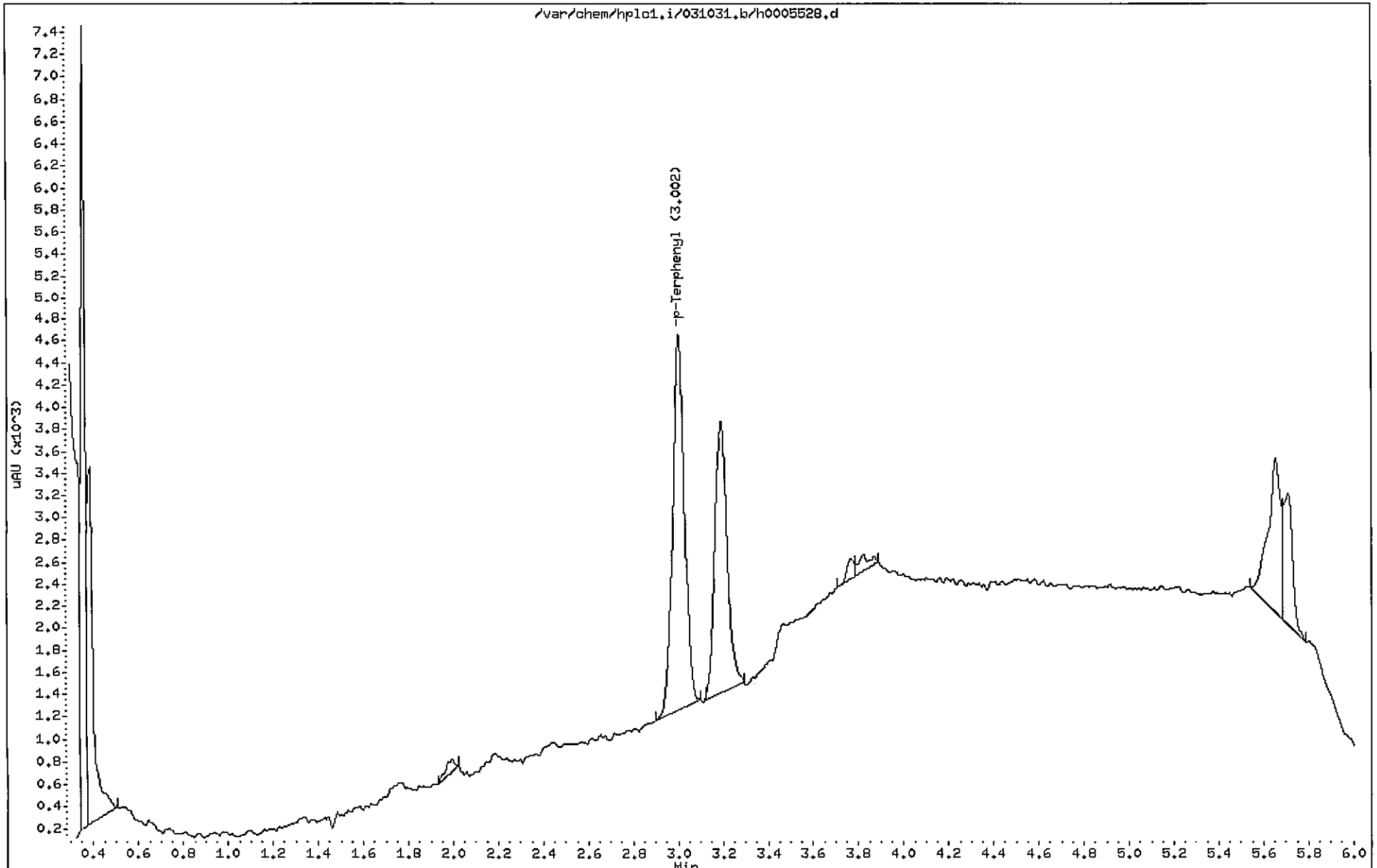
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
11 p-Terphenyl	3.002	3.008	-0.006	12525	1.85124	1.85

Data File: /var/chem/hplc1.i/031031.b/h0005528.d
Date : 31-OCT-2003 10:27
Client ID:
Sample Info: 20310290502-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15H

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031f.b/h0005528.d
Lab Smp Id: 20310290502
Inj Date : 31-OCT-2003 10:27
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310290502-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031031f.b/flpnafld.m
Meth Date : 31-Oct-2003 10:58 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

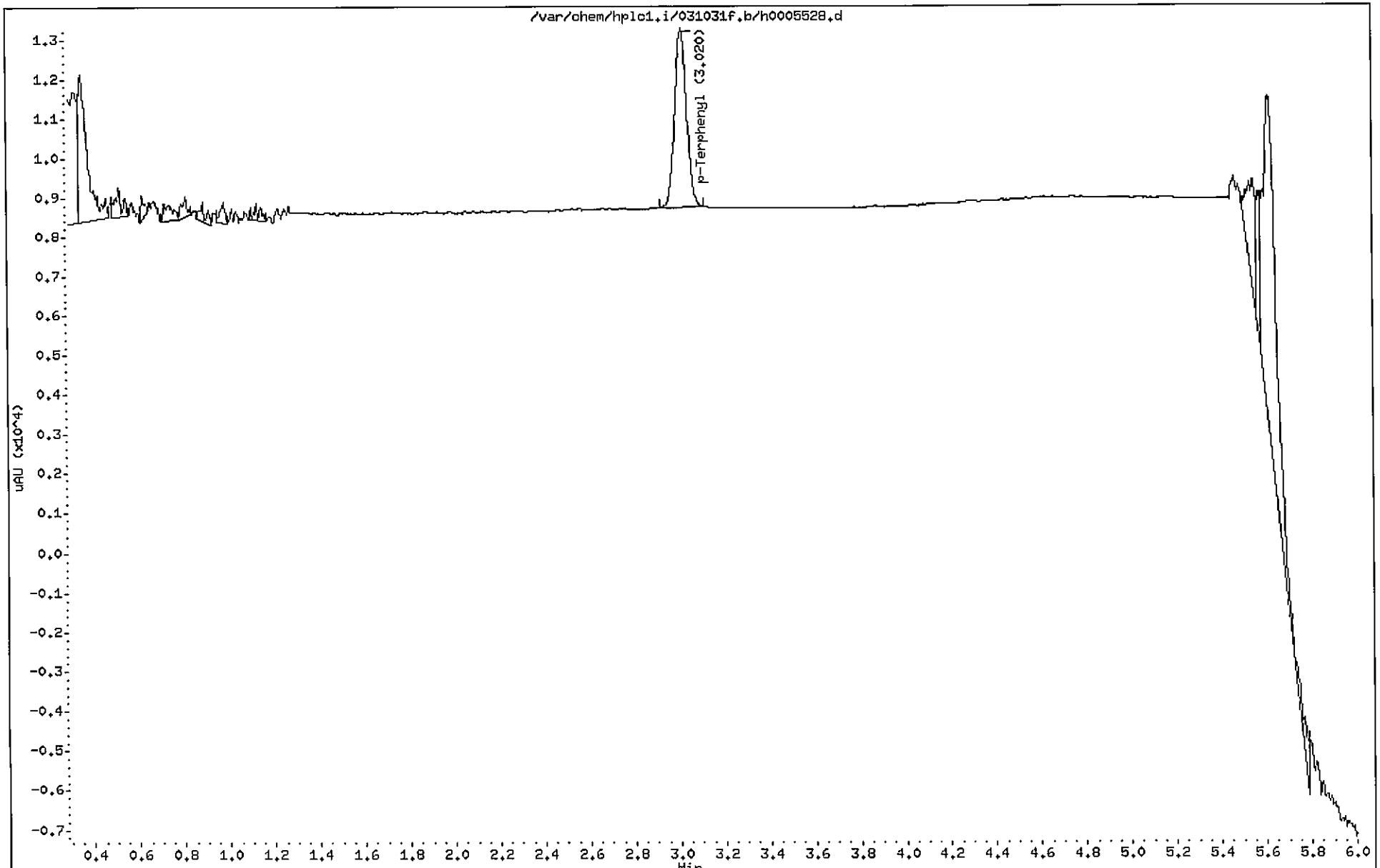
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
11 p-Terphenyl	3.020	3.020	0.000	16458	1.80157	1.80

Data File: /var/chem/hplc1.i/031031f.b/h0005528.d
Date : 31-OCT-2003 10:27
Client ID:
Sample Info: 20310290502-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031.b/h0005529.d
Lab Smp Id: 20310290503
Inj Date : 31-OCT-2003 10:34
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310290503-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031031.b/flpnauv.m
Meth Date : 31-Oct-2003 11:00 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

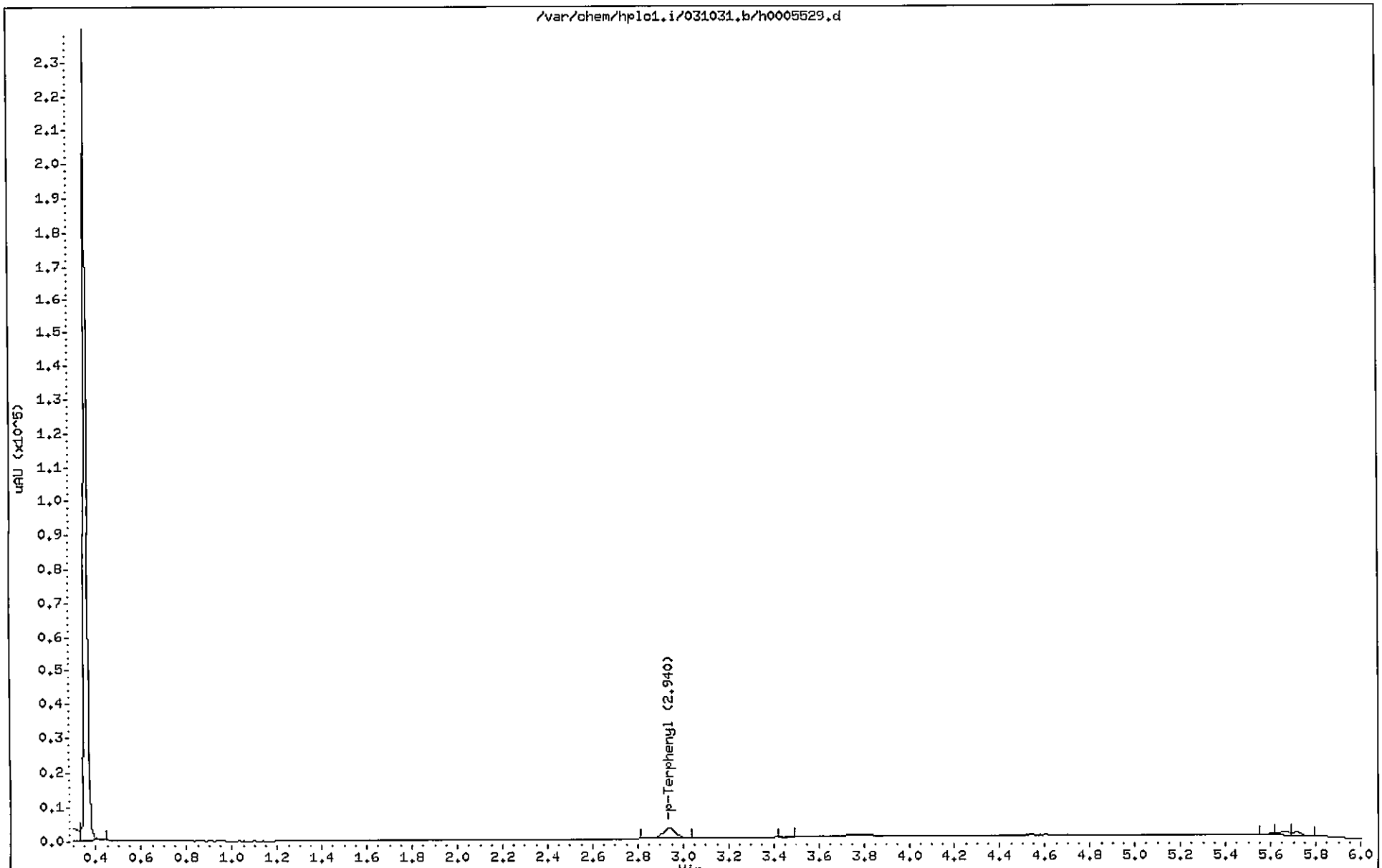
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
11 p-Terphenyl	2.940	3.008	-0.068	12287	1.81606	1.82

0001170

Data File: /var/chem/hplc1.i/031031.b/h0005529.d
Date : 31-OCT-2003 10:34
Client ID:
Sample Info: 20310290503-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031f.b/h0005529.d
Lab Smp Id: 20310290503
Inj Date : 31-OCT-2003 10:34
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310290503-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031031f.b/flpnafld.m
Meth Date : 31-Oct-2003 10:58 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

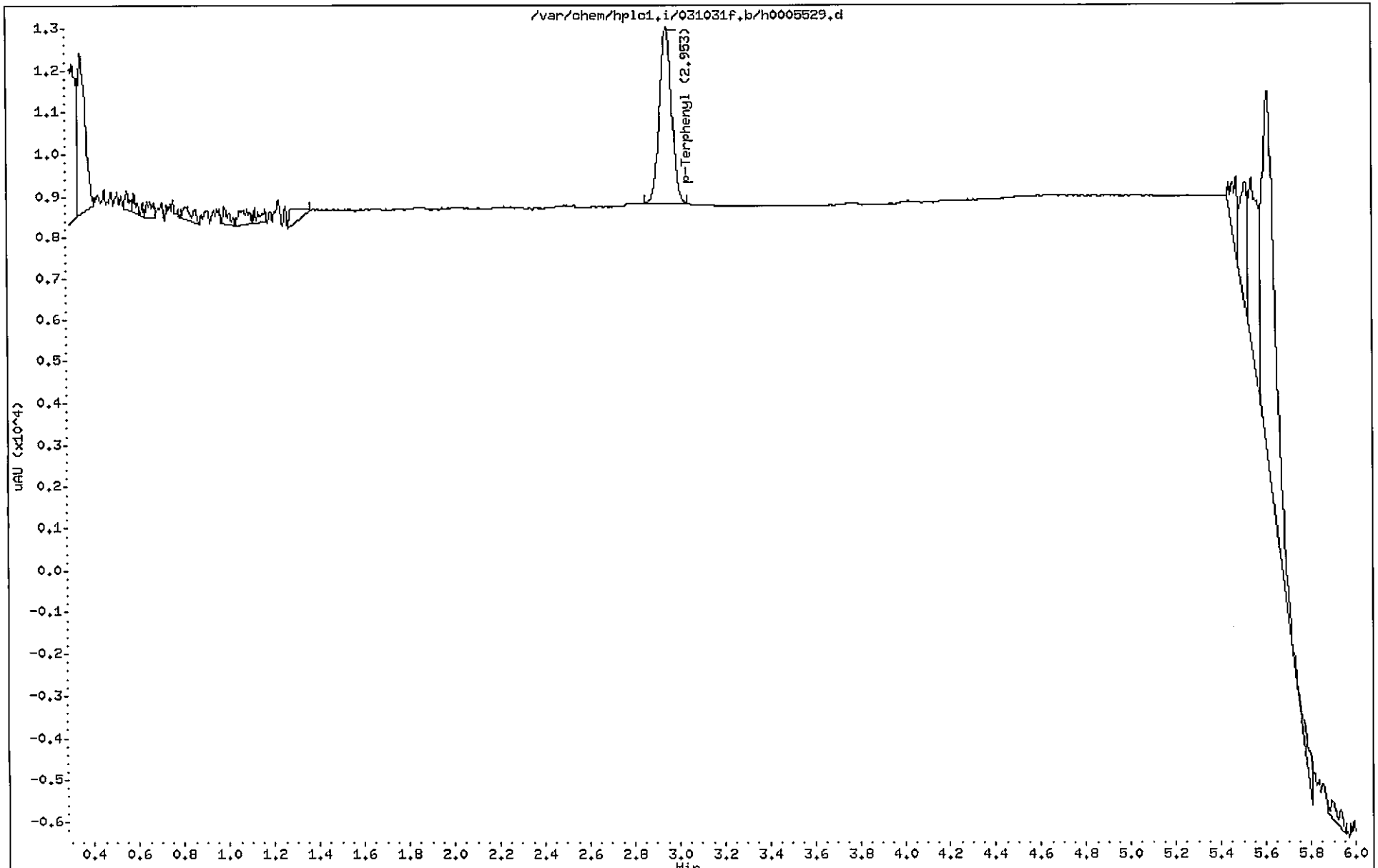
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
11 p-Terphenyl	2.953	3.020	-0.067	15932	1.74388	1.74

0001172

Data File: /var/chem/hplc1.i/031031f.b/h0005529.d
Date : 31-OCT-2003 10:34
Client ID:
Sample Info: 20310290503-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031.b/h0005530.d
Lab Smp Id: 20310290504
Inj Date : 31-OCT-2003 10:41
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310290504-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031031.b/flpnauv.m
Meth Date : 31-Oct-2003 11:00 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

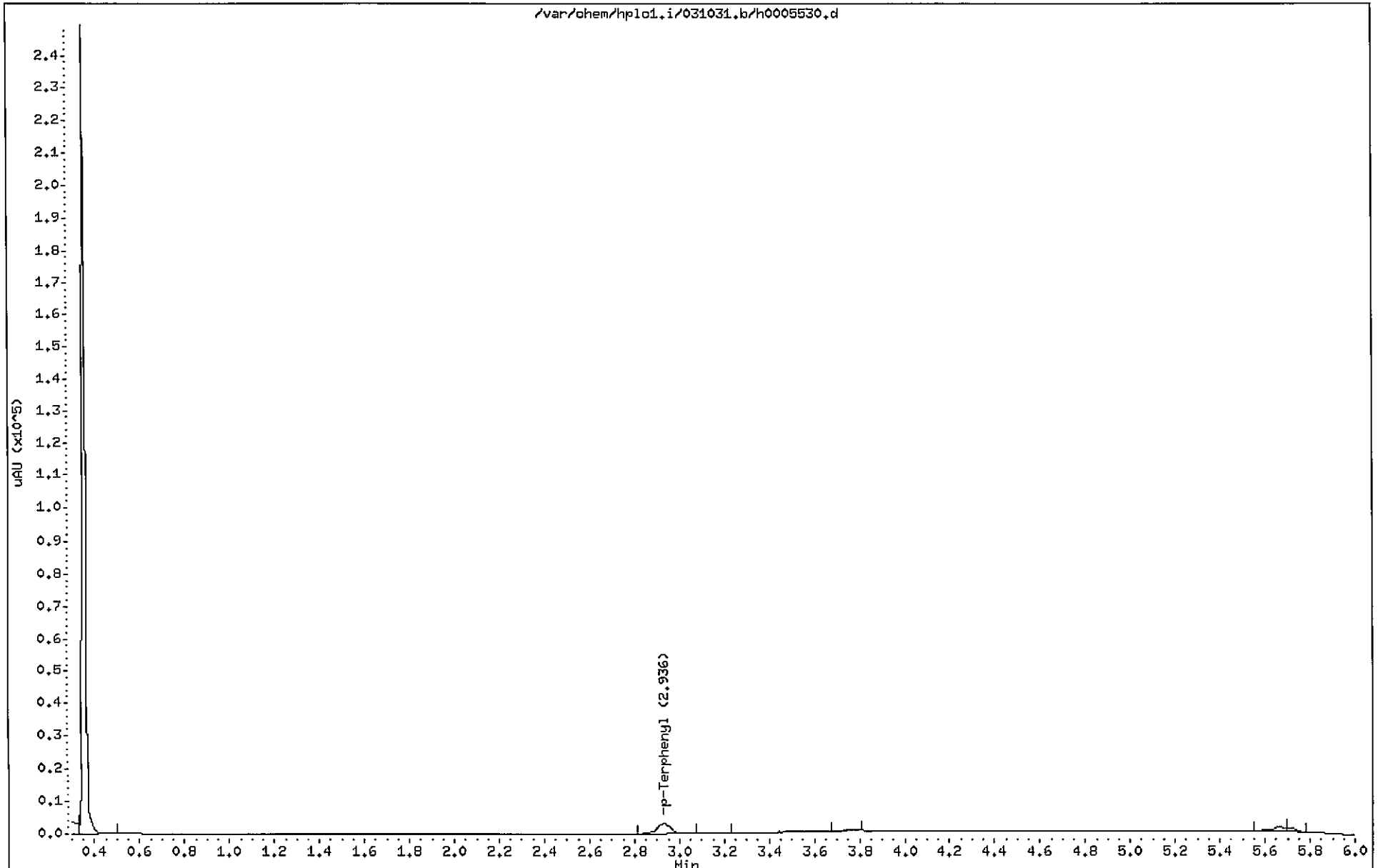
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
11 p-Terphenyl	2.936	3.008	-0.072	13074	1.93239	1.93

Data File: /var/chem/hplc1.i/031031.b/h0005530.d
Date : 31-OCT-2003 10:41
Client ID:
Sample Info: 20310290504-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



000174

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031f.b/h0005530.d
Lab Smp Id: 20310290504
Inj Date : 31-OCT-2003 10:41
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310290504-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031031f.b/flpnafld.m
Meth Date : 31-Oct-2003 10:58 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

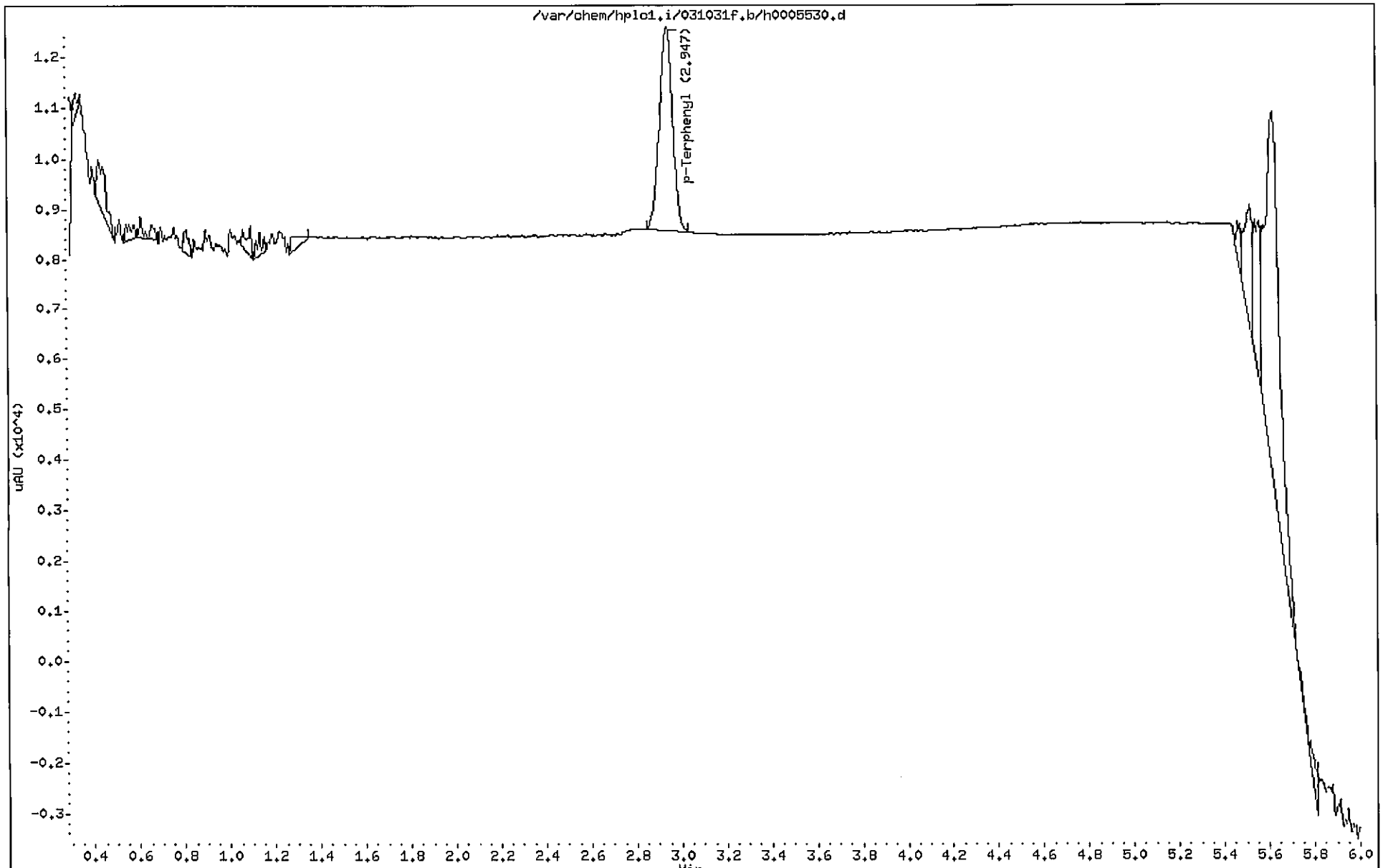
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
11 p-Terphenyl	2.947	3.020	-0.073	16484	1.80430	1.80

000176

Data File: /var/chem/hplc1.i/031031f.b/h0005530.d
Date : 31-OCT-2003 10:41
Client ID:
Sample Info: 20310290504-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031.b/h0005531.d
Lab Smp Id: 20310290505
Inj Date : 31-OCT-2003 10:48
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310290505-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031031.b/flpnauv.m
Meth Date : 31-Oct-2003 11:00 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
11 p-Terphenyl	2.991	3.008	-0.017	12993	1.92041	1.92

Data File: /var/chem/hplc1.i/031031.b/h0005531.d

Date : 31-OCT-2003 10:48

Client ID:

Sample Info: 20310290505-DL1

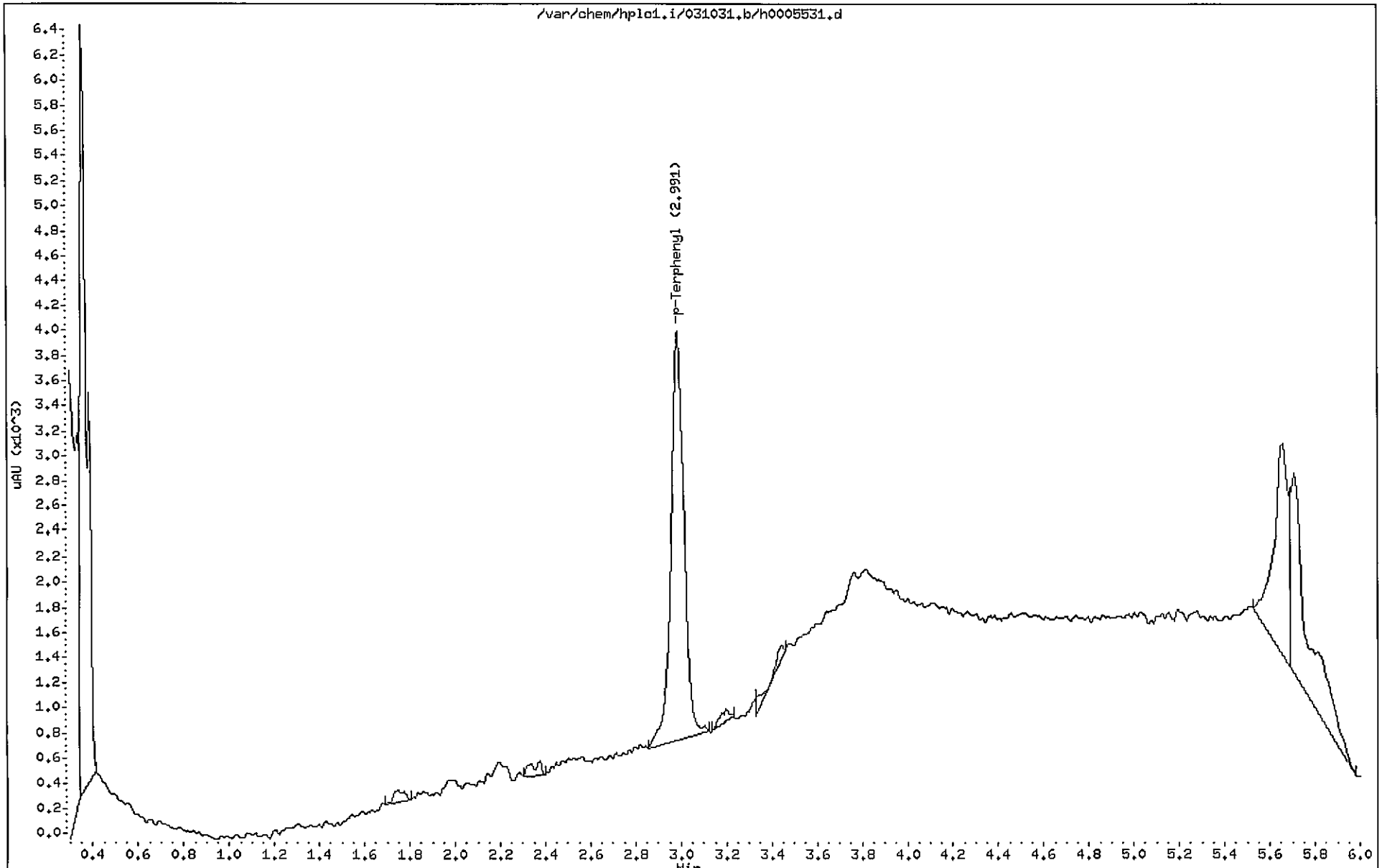
Volume Injected (uL): 10.0

Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt

Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031f.b/h0005531.d
Lab Smp Id: 20310290505
Inj Date : 31-OCT-2003 10:48
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310290505-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031031f.b/flpnafld.m
Meth Date : 31-Oct-2003 10:58 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

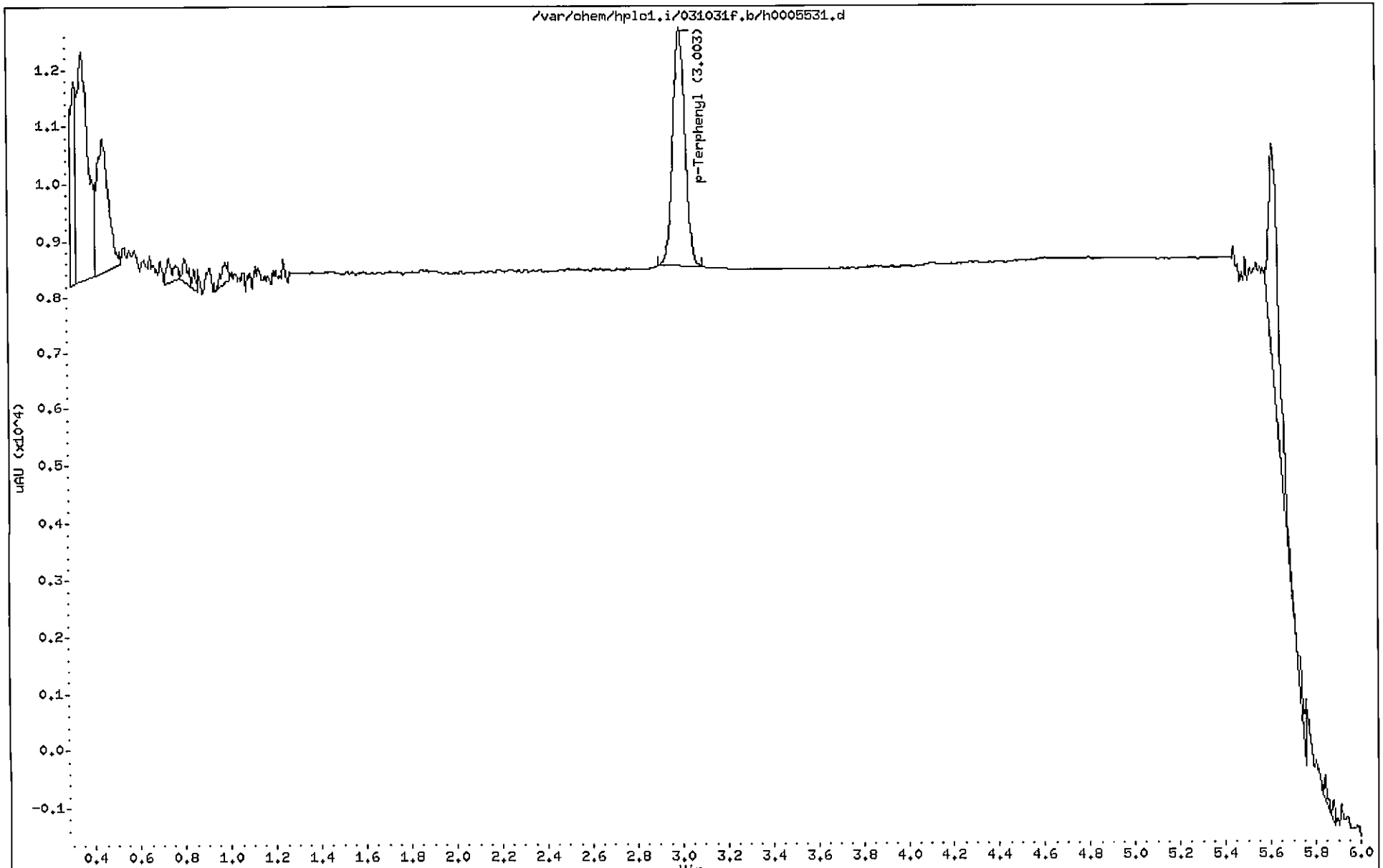
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
11 p-Terphenyl	3.003	3.020	-0.017	15586	1.70601	1.71

000180

Data File: /var/chem/hplc1.i/031031f.b/h0005531.d
Date : 31-OCT-2003 10:48
Client ID:
Sample Info: 20310290505-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031.b/h0005532.d
Lab Smp Id: 20310290506
Inj Date : 31-OCT-2003 10:55
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310290506-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031031.b/flpnauv.m
Meth Date : 31-Oct-2003 11:00 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

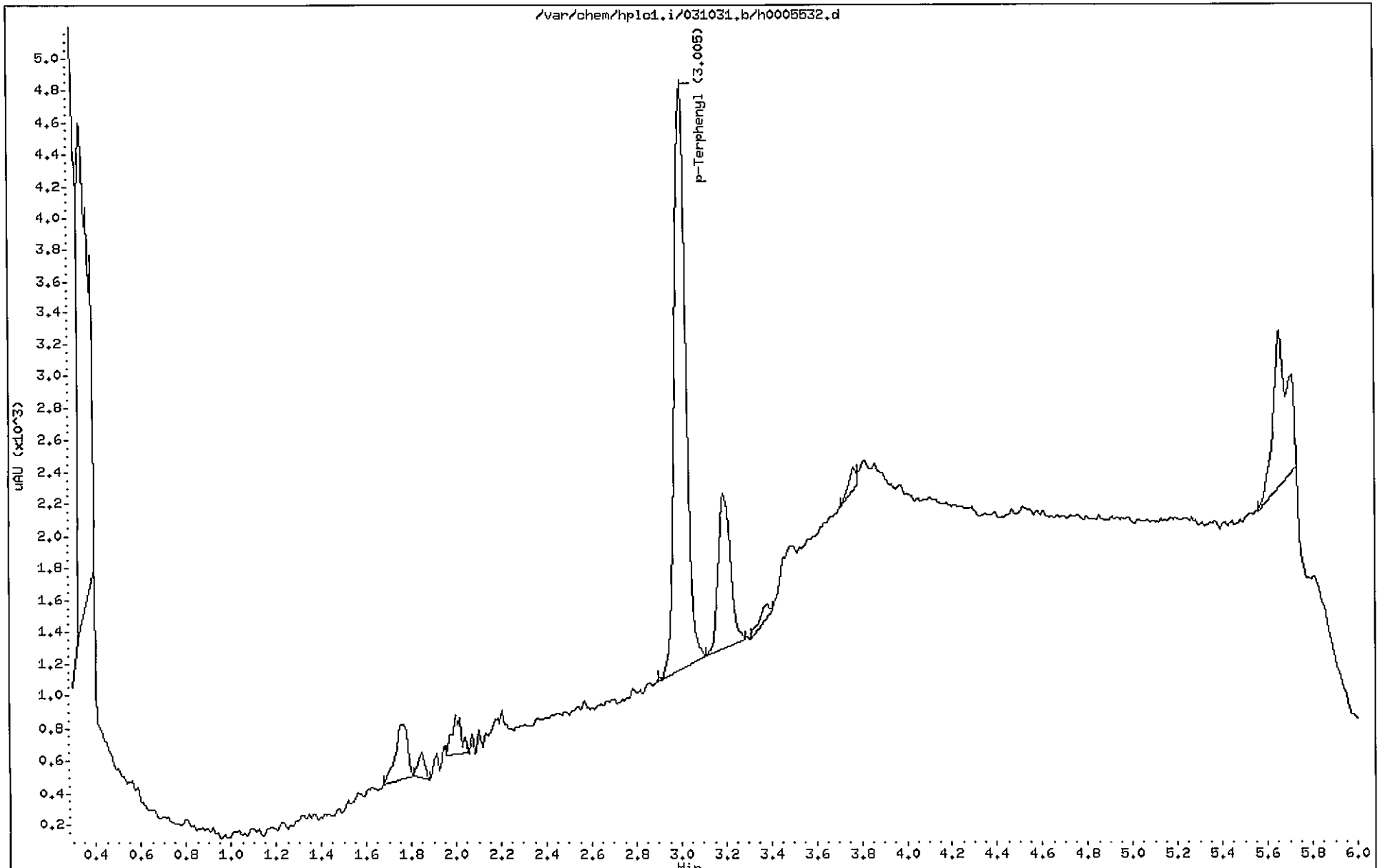
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
11 p-Terphenyl	3.005	3.008	-0.003	12968	1.91672	1.92

000182

Data File: /var/chem/hplc1.i/031031.b/h0005532.d
Date : 31-OCT-2003 10:55
Client ID:
Sample Info: 20310290506-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031f.b/h0005532.d
Lab Smp Id: 20310290506
Inj Date : 31-OCT-2003 10:55
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310290506-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031031f.b/flpnafld.m
Meth Date : 31-Oct-2003 10:58 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

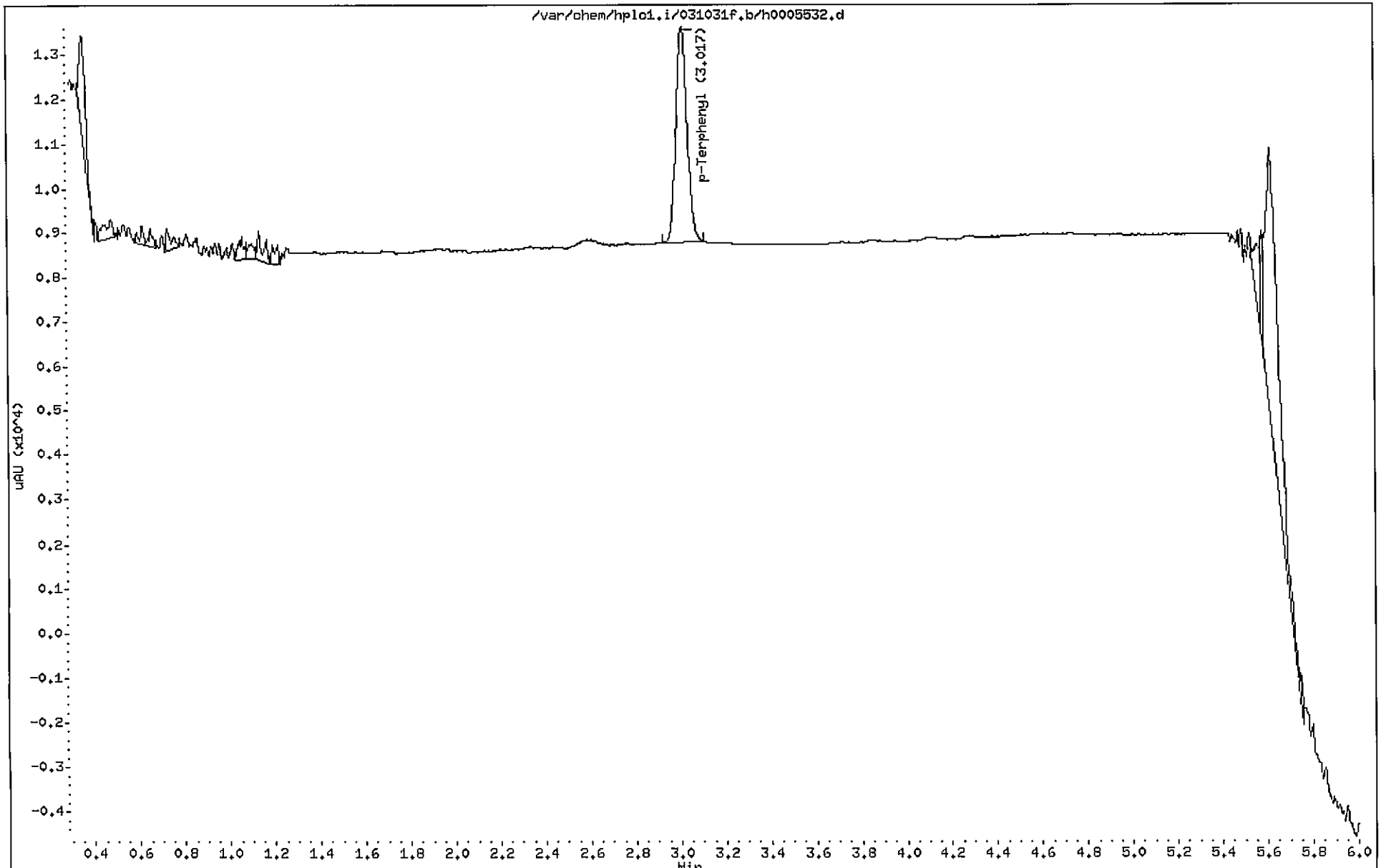
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
11 p-Terpheny1	3.017	3.020	-0.003	16685	1.82630	1.83

Data File: /var/chem/hplc1.i/031031f.b/h0005532.d
Date : 31-OCT-2003 10:55
Client ID:
Sample Info: 20310290506-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



0001184

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031.b/h0005535.d
Lab Smp Id: 20310290507
Inj Date : 31-OCT-2003 11:39
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310290507-DL20
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031031.b/flpnauv.m
Meth Date : 31-Oct-2003 11:00 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 20.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

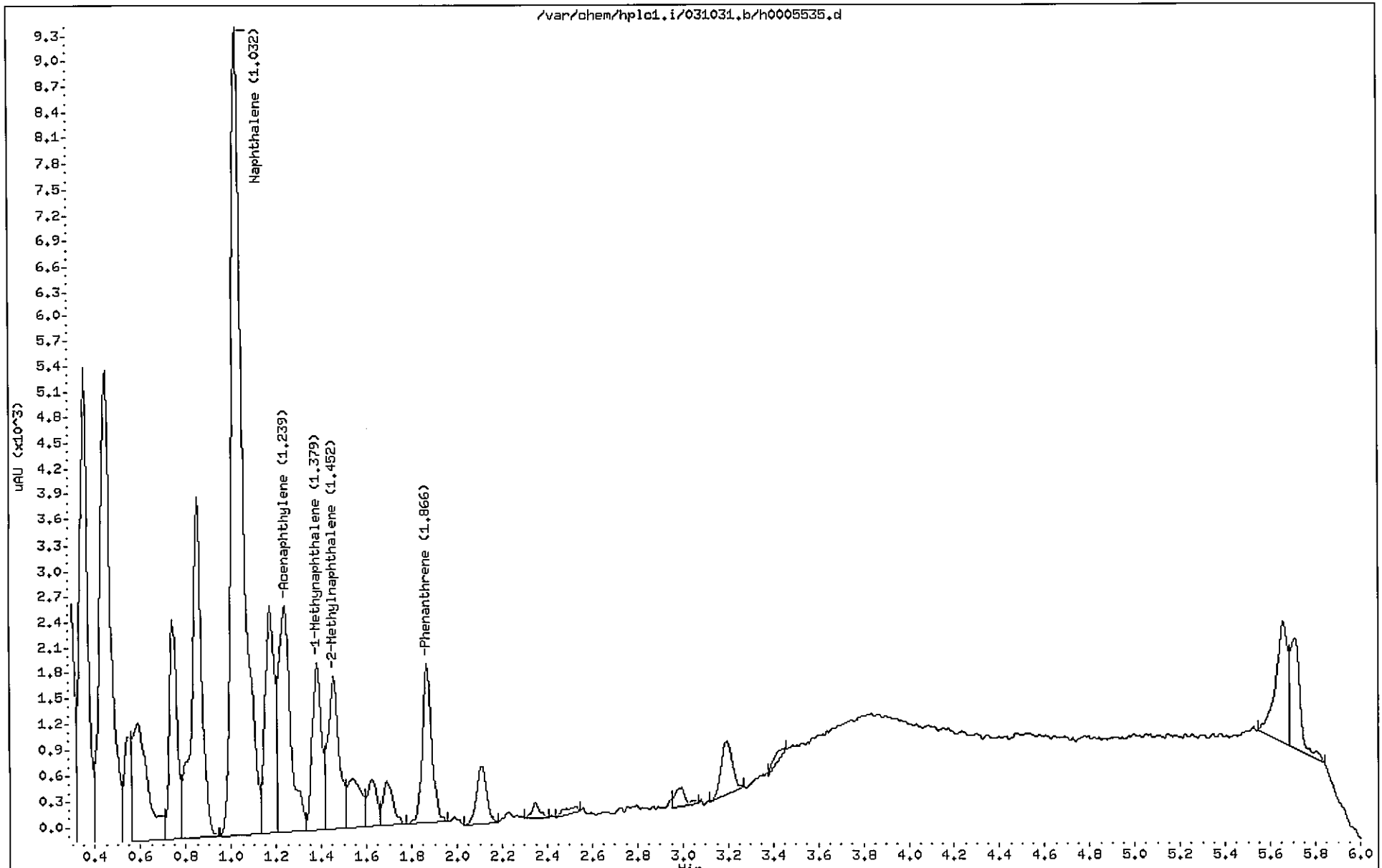
Name	Value	Description
DF	20.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 Naphthalene	1.032	1.028	0.004	32805	13.6387	273
2 Acenaphthylene	1.239	1.251	-0.012	9545	5.83564	117
3 1-Methynaphthalene	1.379	1.371	0.008	5618	4.07820	81.6
4 2-Methylnaphthalene	1.452	1.458	-0.006	5850	2.94563	58.9
7 Phenanthrene	1.866	1.878	-0.012	5422	0.20931	4.19

Data File: /var/chem/hplc1.i/031031.b/h0005535.d
Date : 31-OCT-2003 11:39
Client ID:
Sample Info: 20310290507-DL20
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031f.b/h0005535.d
Lab Smp Id: 20310290507
Inj Date : 31-OCT-2003 11:39
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310290507-DL20
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031031f.b/flpnafld.m
Meth Date : 31-Oct-2003 10:58 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 20.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	20.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

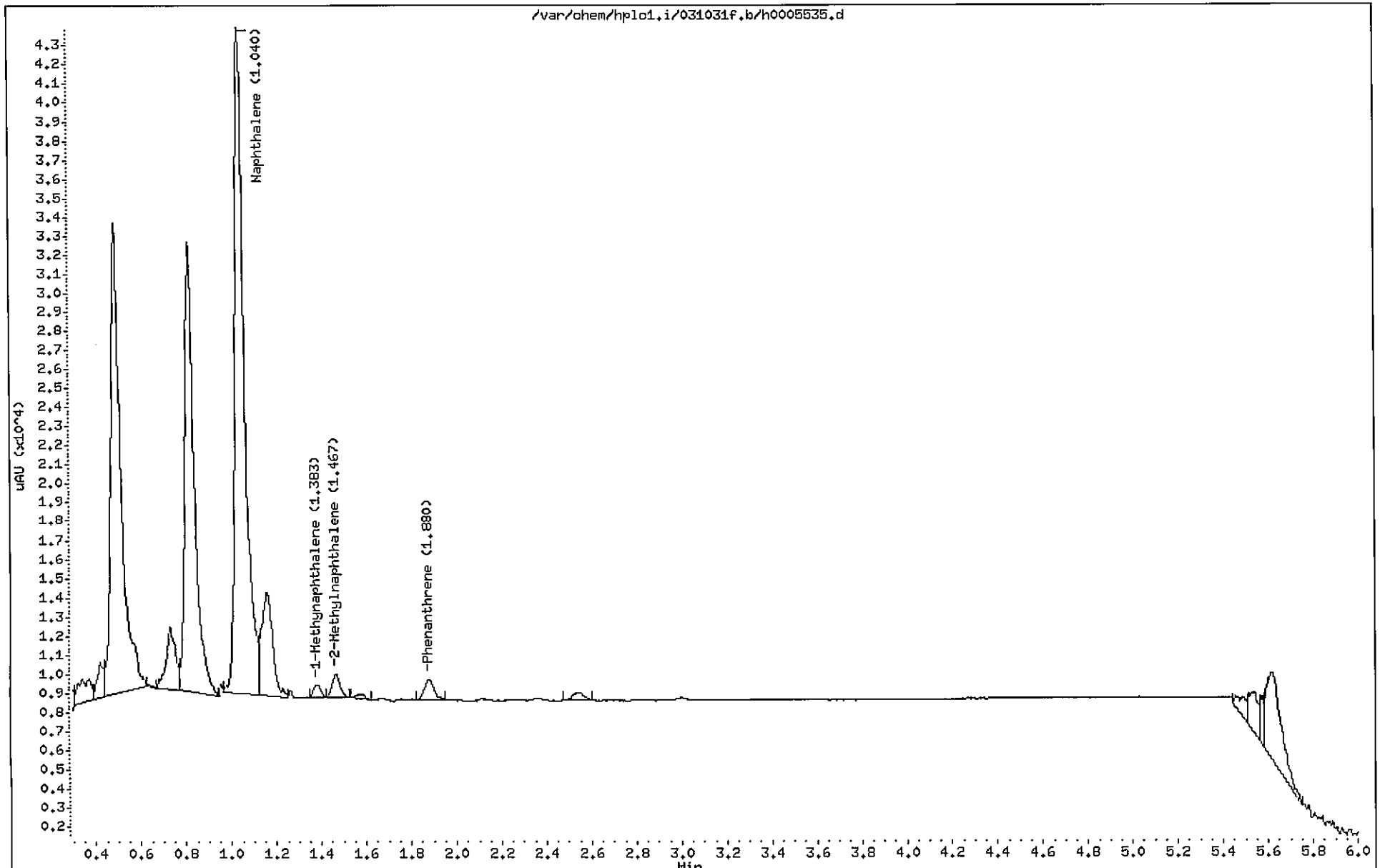
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
1 Naphthalene	1.040	1.043	-0.003	103764	9.19878	184
3 1-Methynaphthalene	1.383	1.383	0.000	1463	1.05448	21.1
4 2-Methylnaphthalene	1.467	1.477	-0.010	2990	2.23306	44.7
7 Phenanthrene	1.880	1.890	-0.010	3010	0.18786	3.76

000188

Data File: /var/chem/hplc1.i/031031f.b/h0005535.d
Date : 31-OCT-2003 11:39
Client ID:
Sample Info: 20310290507-DL20
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031.b/h0005536.d
Lab Smp Id: 20310290508
Inj Date : 31-OCT-2003 11:46
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310290508-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031031.b/flpnauv.m
Meth Date : 31-Oct-2003 11:00 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

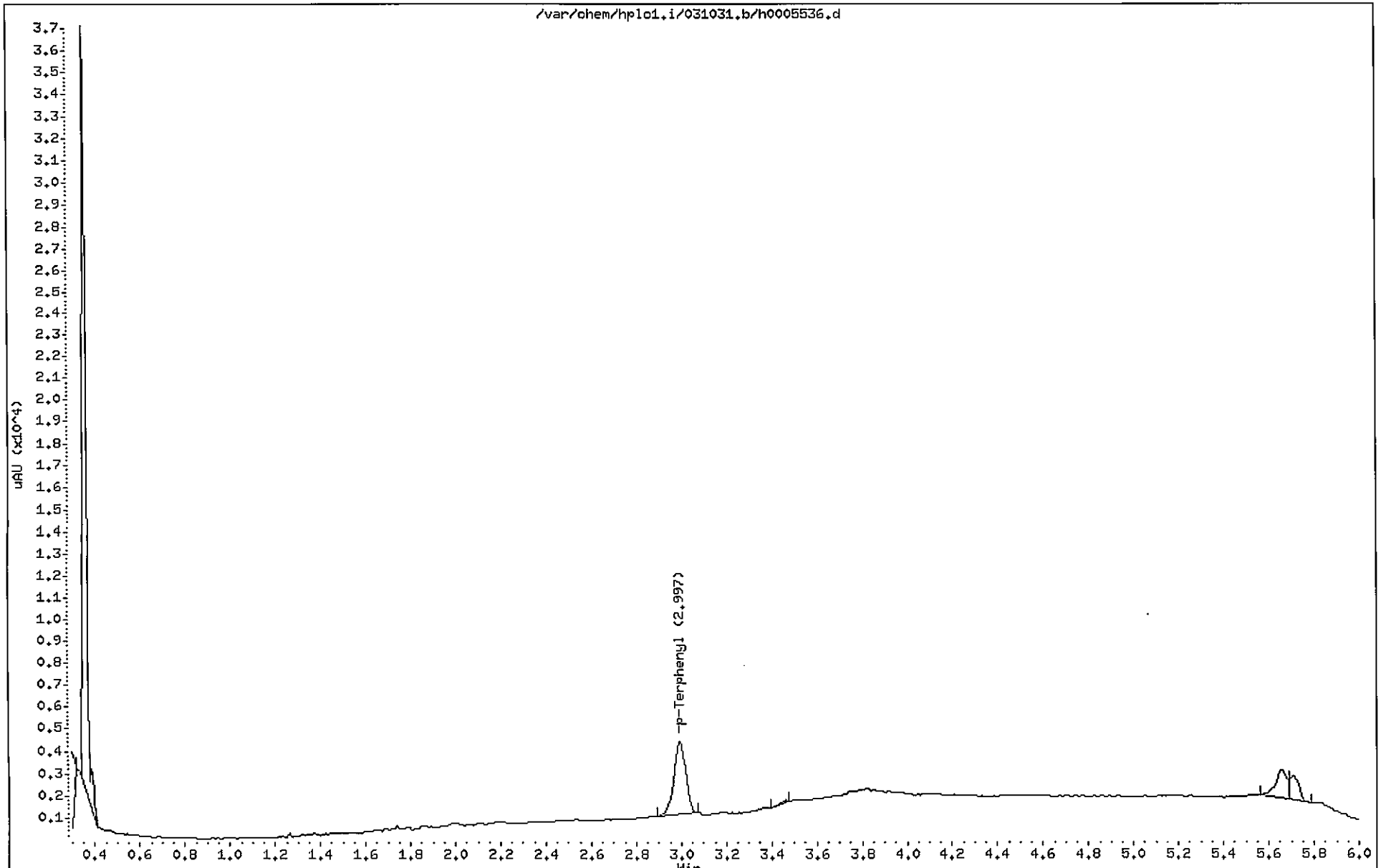
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
11 p-Terphenyl	2.997	3.008	-0.011	12044	1.78018	1.78

Data File: /var/chem/hplc1.i/031031.b/h0005536.d
Date : 31-OCT-2003 11:46
Client ID:
Sample Info: 20310290508-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



0001190

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031f.b/h0005536.d
Lab Smp Id: 20310290508
Inj Date : 31-OCT-2003 11:46
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310290508-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031031f.b/flpnafld.m
Meth Date : 31-Oct-2003 10:58 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

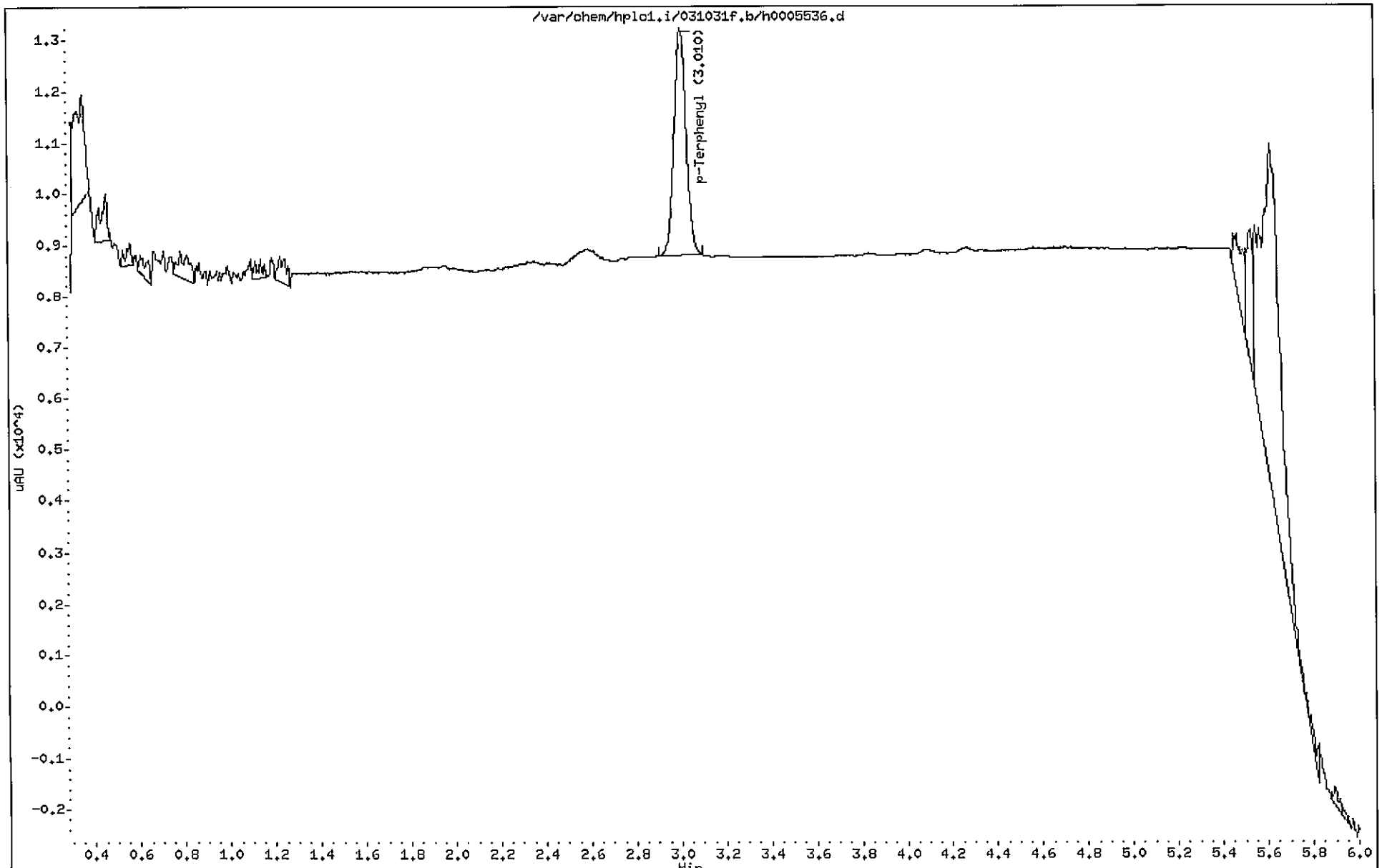
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
11 p-Terphenyl	3.010	3.020	-0.010	16455	1.80115	1.80

000192

Data File: /var/chem/hplc1.i/031031f.b/h0005536.d
Date : 31-OCT-2003 11:46
Client ID:
Sample Info: 20310290508-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15H

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031.b/h0005537.d
Lab Smp Id: 20310290509
Inj Date : 31-OCT-2003 11:53
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310290509-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031031.b/flpnauv.m
Meth Date : 31-Oct-2003 11:00 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

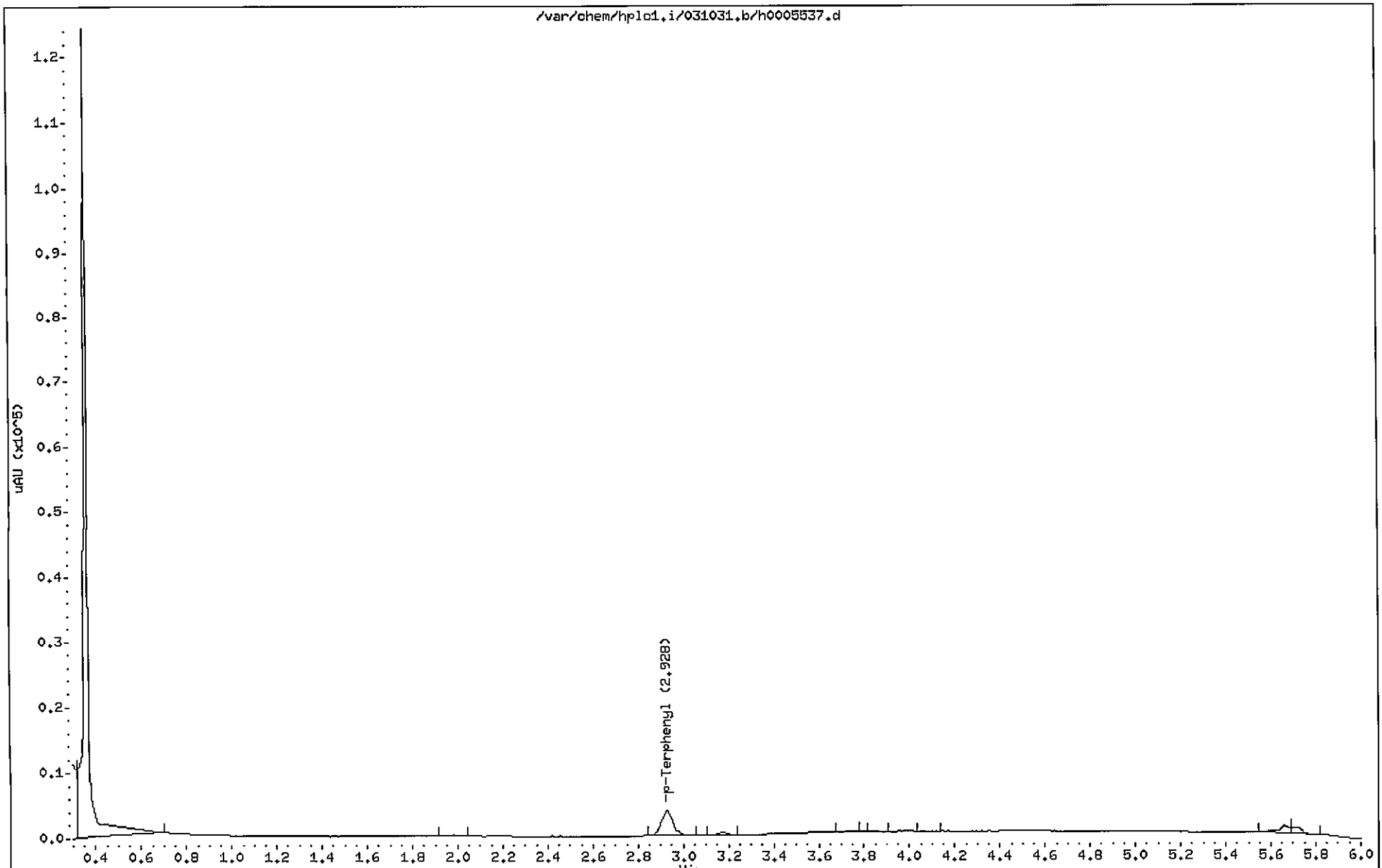
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
11 p-Terphenyl	2.928	3.008	-0.080	13385	1.97835	1.98

Data File: /var/chem/hplc1.i/031031.b/h0005537.d
Date : 31-OCT-2003 11:53
Client ID:
Sample Info: 20310290509-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000194



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031f.b/h0005537.d
Lab Smp Id: 20310290509
Inj Date : 31-OCT-2003 11:53
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310290509-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031031f.b/flpnafld.m
Meth Date : 31-Oct-2003 10:58 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

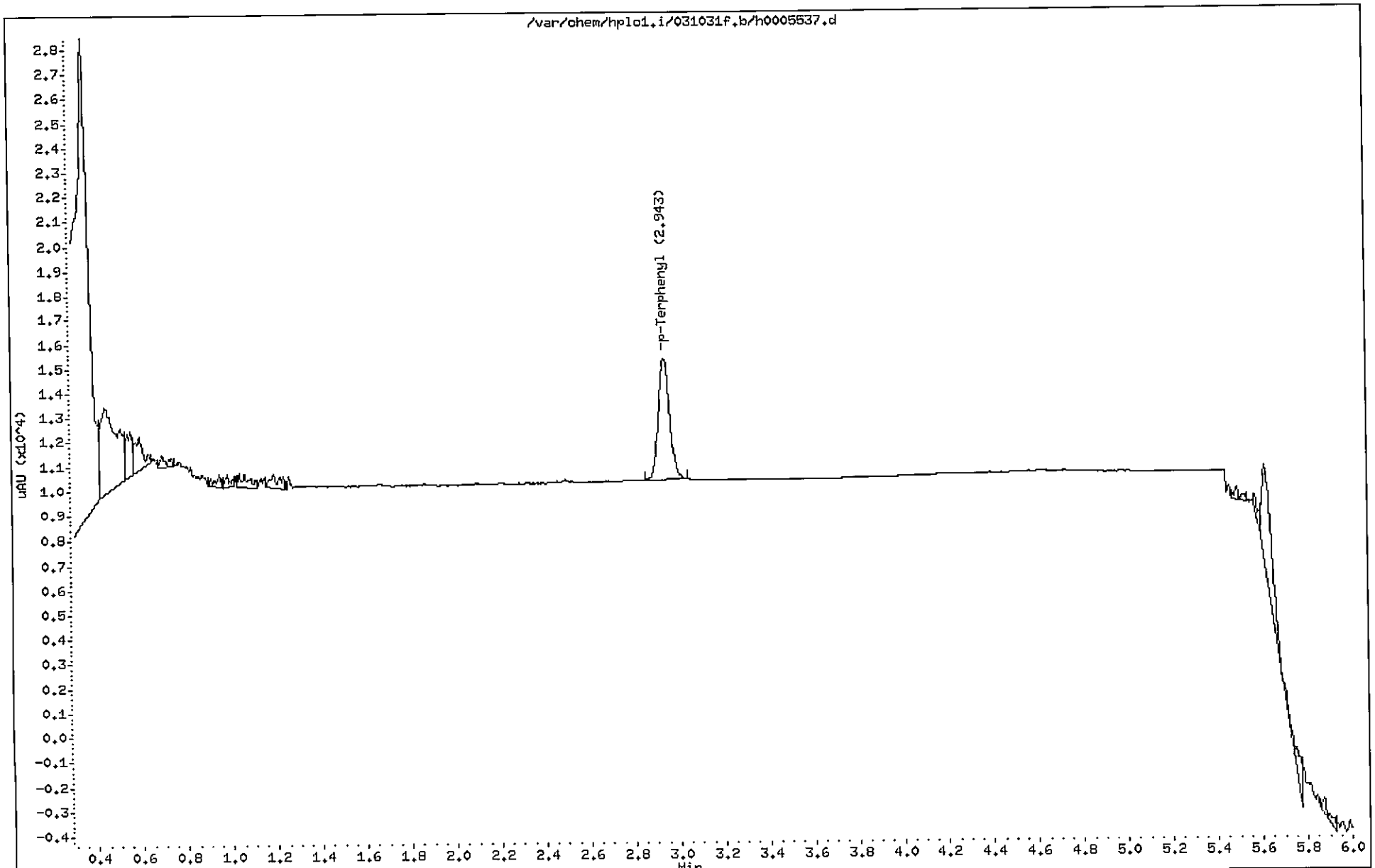
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
11 p-Terphenyl	2.943	3.020	-0.077	17476	1.91288	1.91

Data File: /var/chem/hplc1.i/031031f.b/h0005537.d
Date : 31-OCT-2003 11:53
Client ID:
Sample Info: 20310290509-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

0001196



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031.b/h0005538.d
Lab Smp Id: 20310290510
Inj Date : 31-OCT-2003 12:00
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310290510-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031031.b/flpnauv.m
Meth Date : 31-Oct-2003 11:00 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

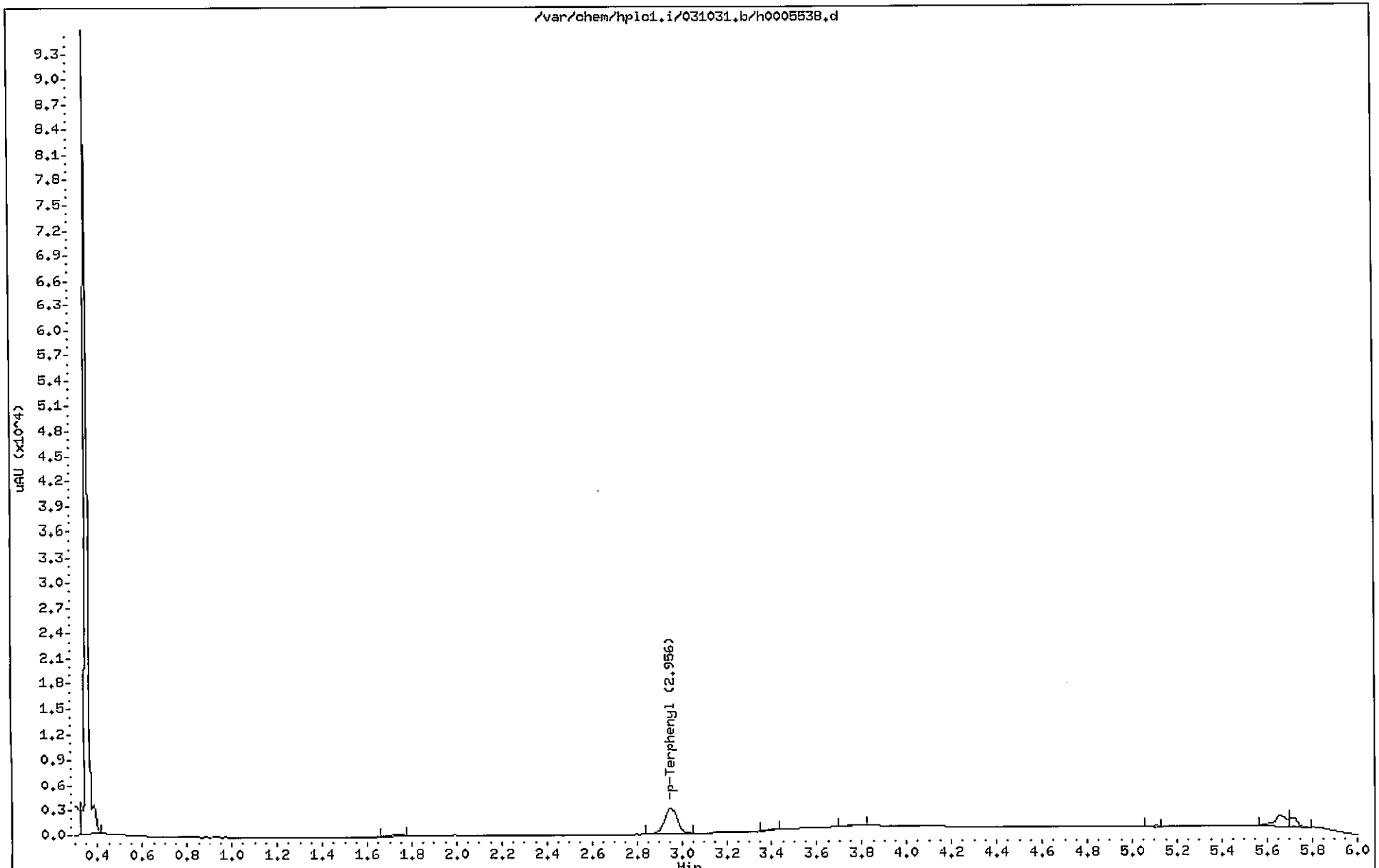
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
11 p-Terphenyl	2.956	3.008	-0.052	12176	1.79966	1.80

Data File: /var/chem/hplc1.i/031031.b/h0005538.d
Date : 31-OCT-2003 12:00
Client ID:
Sample Info: 20310290510-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031f.b/h0005538.d
Lab Smp Id: 20310290510
Inj Date : 31-OCT-2003 12:00
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310290510-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031031f.b/flpnafld.m
Meth Date : 31-Oct-2003 10:58 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

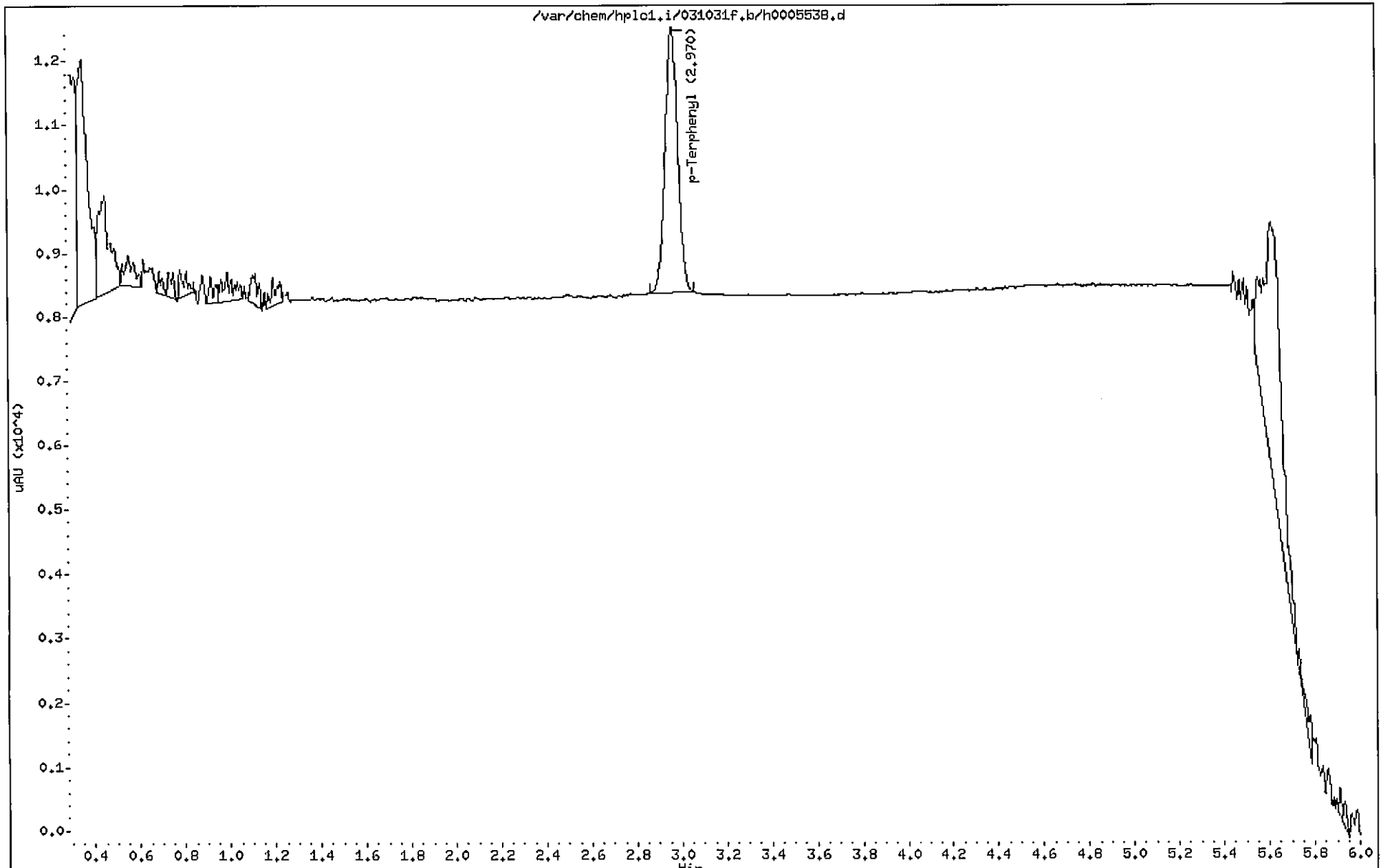
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
11 p-Terphenyl	2.970	3.020	-0.050	16157	1.76860	1.77

000200

Data File: /var/chem/hplc1.i/031031f.b/h0005538.d
Date : 31-OCT-2003 12:00
Client ID:
Sample Info: 20310290510-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031.b/h0005539.d
Lab Smp Id: 20310290511
Inj Date : 31-OCT-2003 12:07
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310290511-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031031.b/flpnauv.m
Meth Date : 31-Oct-2003 11:00 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

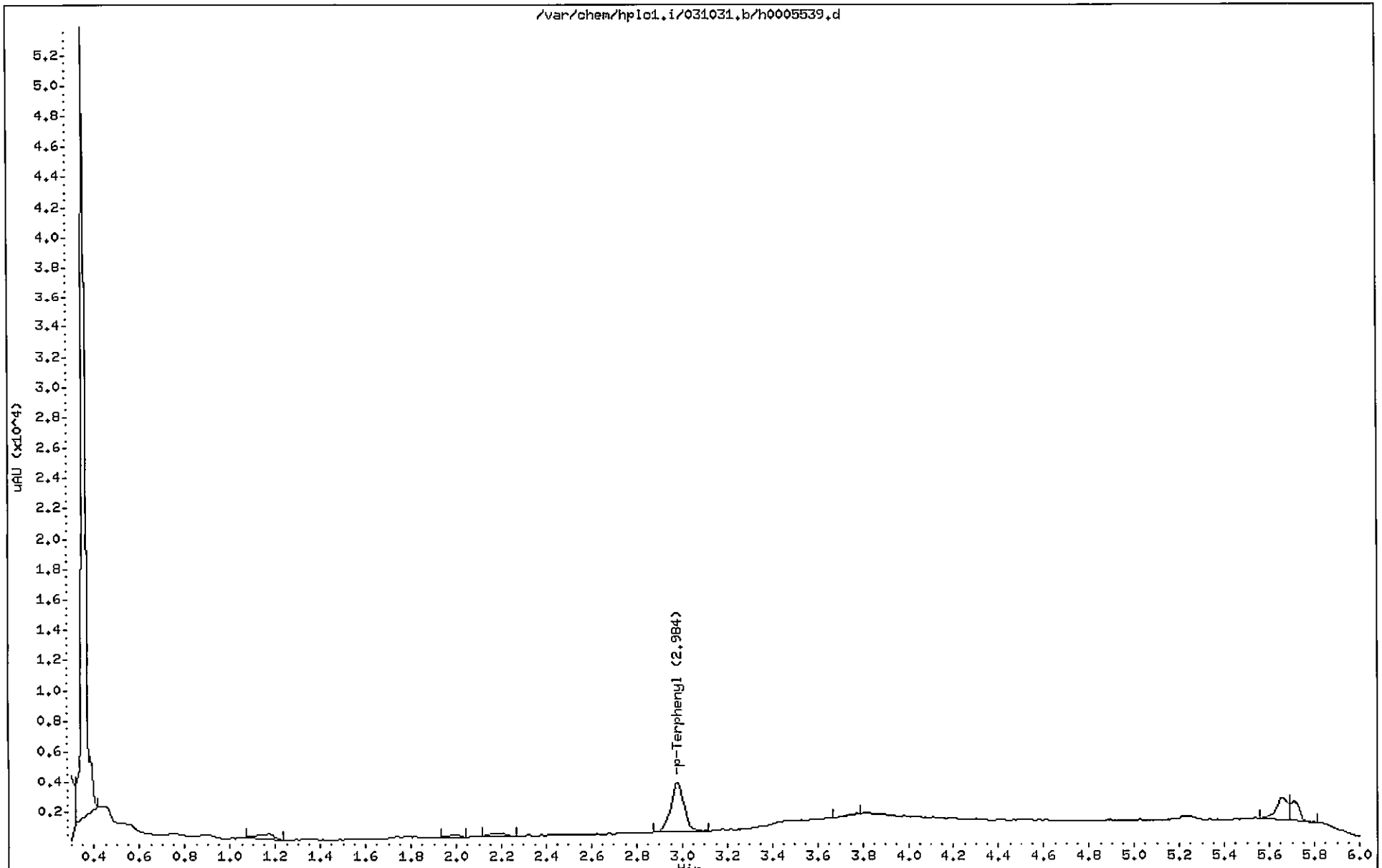
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
11 p-Terphenyl	2.984	3.008	-0.024	13406	1.98146	1.98

000202

Data File: /var/chem/hplc1.i/031031.b/h0005539.d
Date : 31-OCT-2003 12:07
Client ID:
Sample Info: 20310290511-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15H

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031f.b/h0005539.d
Lab Smp Id: 20310290511
Inj Date : 31-OCT-2003 12:07
Operator : jdt Inst ID: hplc1.i
Smp Info : 20310290511-DL1
Misc Info :
Comment :
Method : /var/chem/hplc1.i/031031f.b/flpnafld.m
Meth Date : 31-Oct-2003 10:58 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

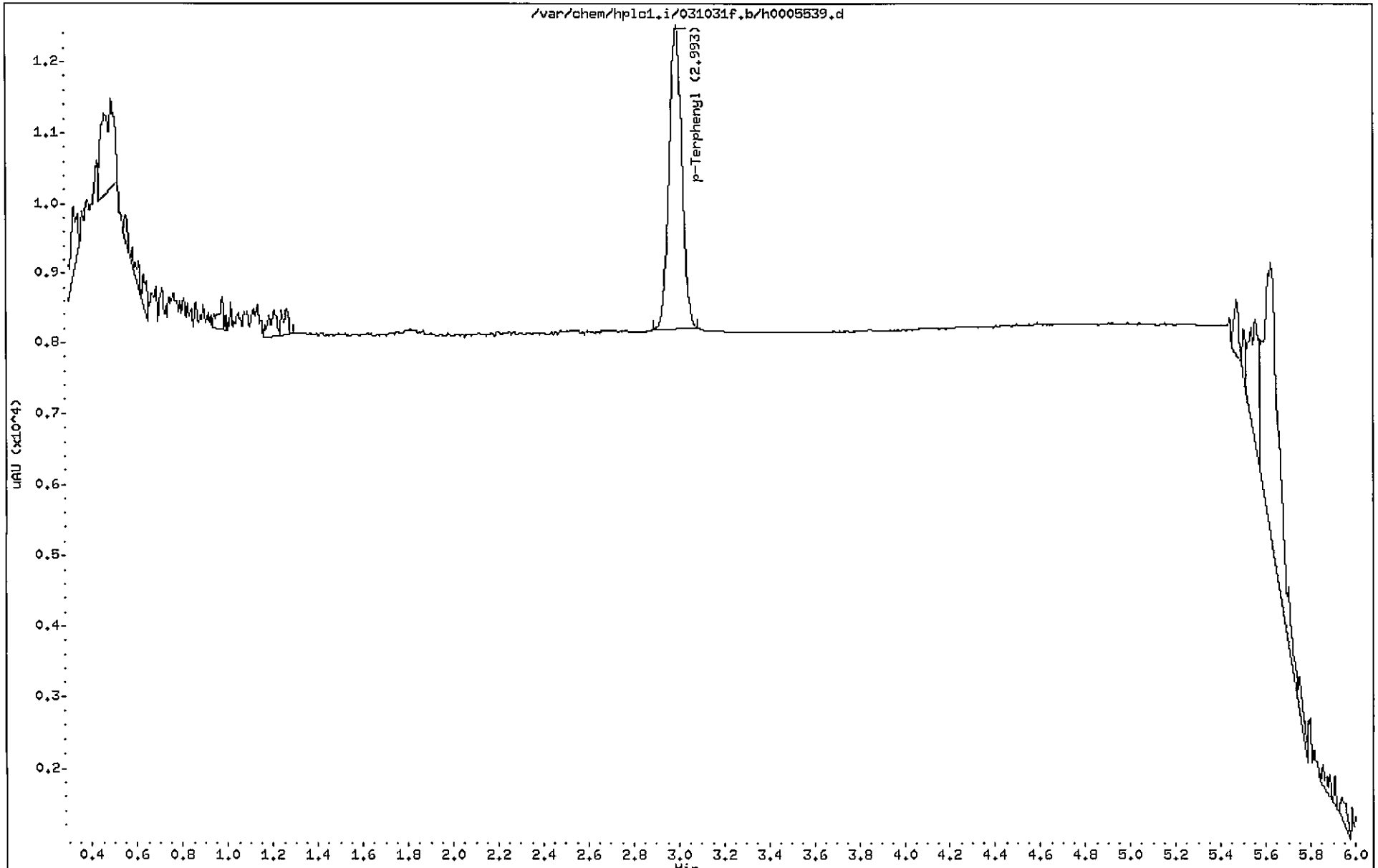
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
11 p-Terphenyl	2.993	3.020	-0.027	16930	1.85321	1.85

Data File: /var/chem/hplc1.i/031031f.b/h0005539.d
Date : 31-OCT-2003 12:07
Client ID:
Sample Info: 20310290511-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

0002004



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003.b/h0005408.d
Lab Smp Id: 1003STD01 Client Smp ID: 1003STD01
Inj Date : 03-OCT-2003 08:38
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD01
Misc Info : 3-46-10
Comment :
Method : /var/chem/hplc1.i/031003.b/flpnauv.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 08:38 Cal File: h0005408.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
7 Phenanthrene	1.857	1.858	-0.001	2609	0.10000	0.101
8 Anthracene	2.098	2.098	0.000	5830	0.10000	0.106
9 Fluoranthene	2.331	2.332	-0.001	726	0.10000	0.101
10 Pyrene	2.504	2.505	-0.001	556	0.10000	0.0967
11 p-Terphenyl	2.964	2.965	-0.001	621	0.10000	0.0918(M)
12 Benzo(a)Anthracene	3.144	3.152	-0.008	1522	0.10000	0.0951
13 Chrysene	3.304	3.305	-0.001	2533	0.10000	0.0976(M)
14 Benzo(b)Fluoranthene	3.791	3.866	-0.075	1981	0.10000	0.0985
15 Benzo(k)Fluoranthene	4.044	4.045	-0.001	1068	0.10000	0.0869(M)
16 Benzo(a)Pyrene	4.218	4.225	-0.007	1603	0.10000	0.0903(M)
17 Dibenzo(a,h)Anthracene	4.524	4.618	-0.094	463	0.10000	0.105(M)
18 Benzo(g,h,i)Perylene	4.678	4.772	-0.094	691	0.10000	0.0959(M)

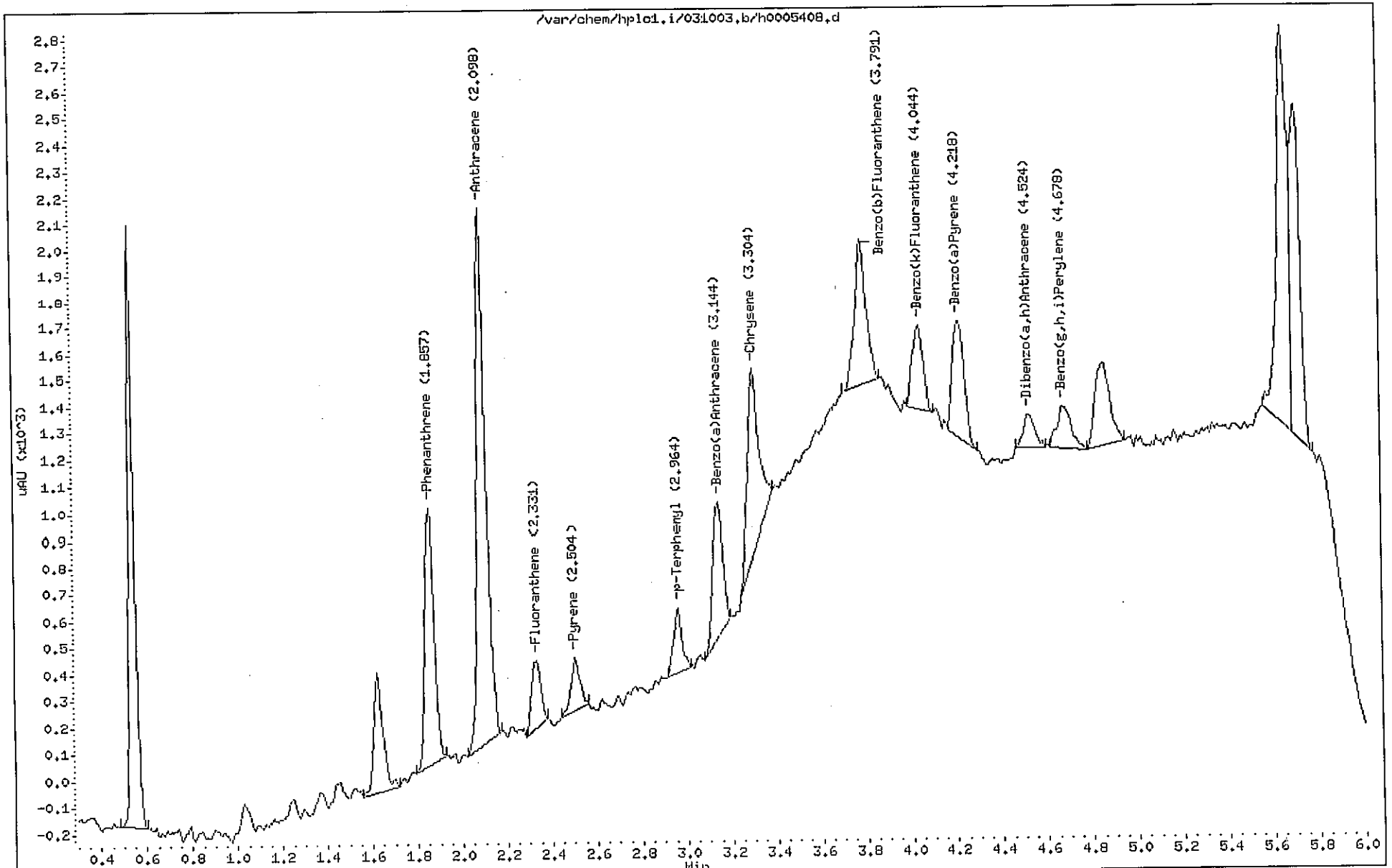
QC Flag Legend

M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/031003.b/h0005408.d
Date : 03-OCT-2003 08:38
Client ID: 1003STD01
Sample Info: 1003STD01
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10



000207

Data File: /var/chem/hplc1.i/031003.b/h0005407.d
Report Date: 04-Nov-2003 07:20

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003.b/h0005407.d
Lab Smp Id: 1003STD02 Client Smp ID: 1003STD02
Inj Date : 03-OCT-2003 08:31
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD02
Misc Info : 3-46-9
Comment :
Method : /var/chem/hplc1.i/031003.b/flpnauv.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 08:31 Cal File: h0005407.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

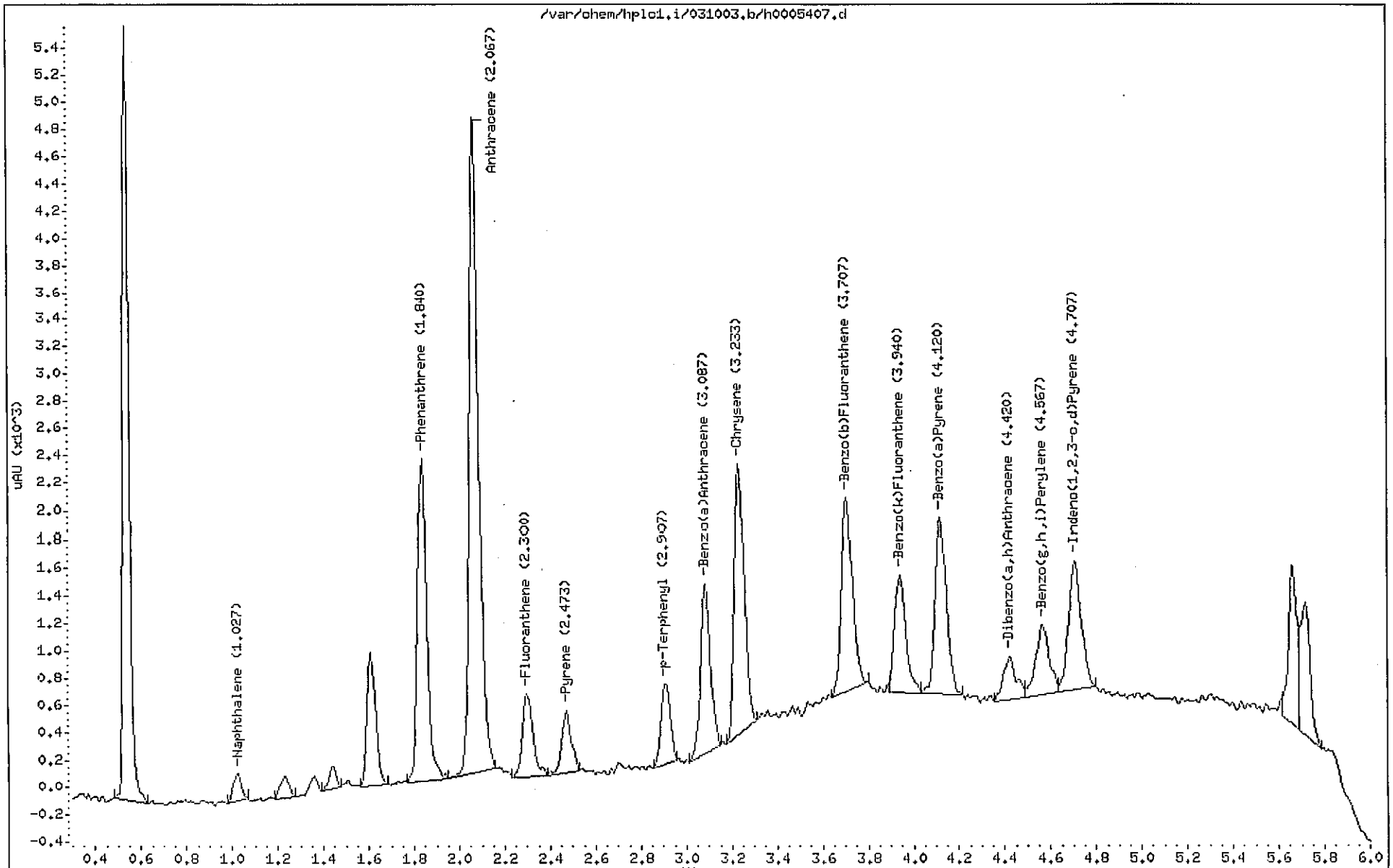
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.027	1.025	0.002	489	0.25000	0.203
7 Phenanthrene	1.840	1.858	-0.018	6609	0.25000	0.255
8 Anthracene	2.067	2.098	-0.031	13984	0.25000	0.254
9 Fluoranthene	2.300	2.332	-0.032	1904	0.25000	0.266
10 Pyrene	2.473	2.505	-0.032	1334	0.25000	0.232
11 p-Terphenyl	2.907	2.965	-0.058	1594	0.25000	0.236
12 Benzo(a)Anthracene	3.087	3.152	-0.065	3774	0.25000	0.236
13 Chrysene	3.233	3.305	-0.072	6083	0.25000	0.235
14 Benzo(b)Fluoranthene	3.707	3.866	-0.159	4824	0.25000	0.240
15 Benzo(k)Fluoranthene	3.940	4.045	-0.105	2960	0.25000	0.241
16 Benzo(a)Pyrene	4.120	4.225	-0.105	4462	0.25000	0.251
17 Dibenzo(a,h)Anthracene	4.420	4.618	-0.198	1204	0.25000	0.274
18 Benzo(g,h,i)Perylene	4.567	4.772	-0.205	2110	0.25000	0.293
19 Indeno(1,2,3-c,d)Pyrene	4.707	4.972	-0.265	3643	0.25000	0.239

Data File: /var/chem/hplc1.i/031003.b/h0005407.d
Date : 03-OCT-2003 08:31
Client ID: 1003STD02
Sample Info: 1003STD02
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



000209

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003.b/h0005406.d
Lab Smp Id: 1003STD03 Client Smp ID: 1003STD03
Inj Date : 03-OCT-2003 08:24
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD03
Misc Info : 3-46-8
Comment :
Method : /var/chem/hplc1.i/031003.b/flpnauv.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 08:24 Cal File: h0005406.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

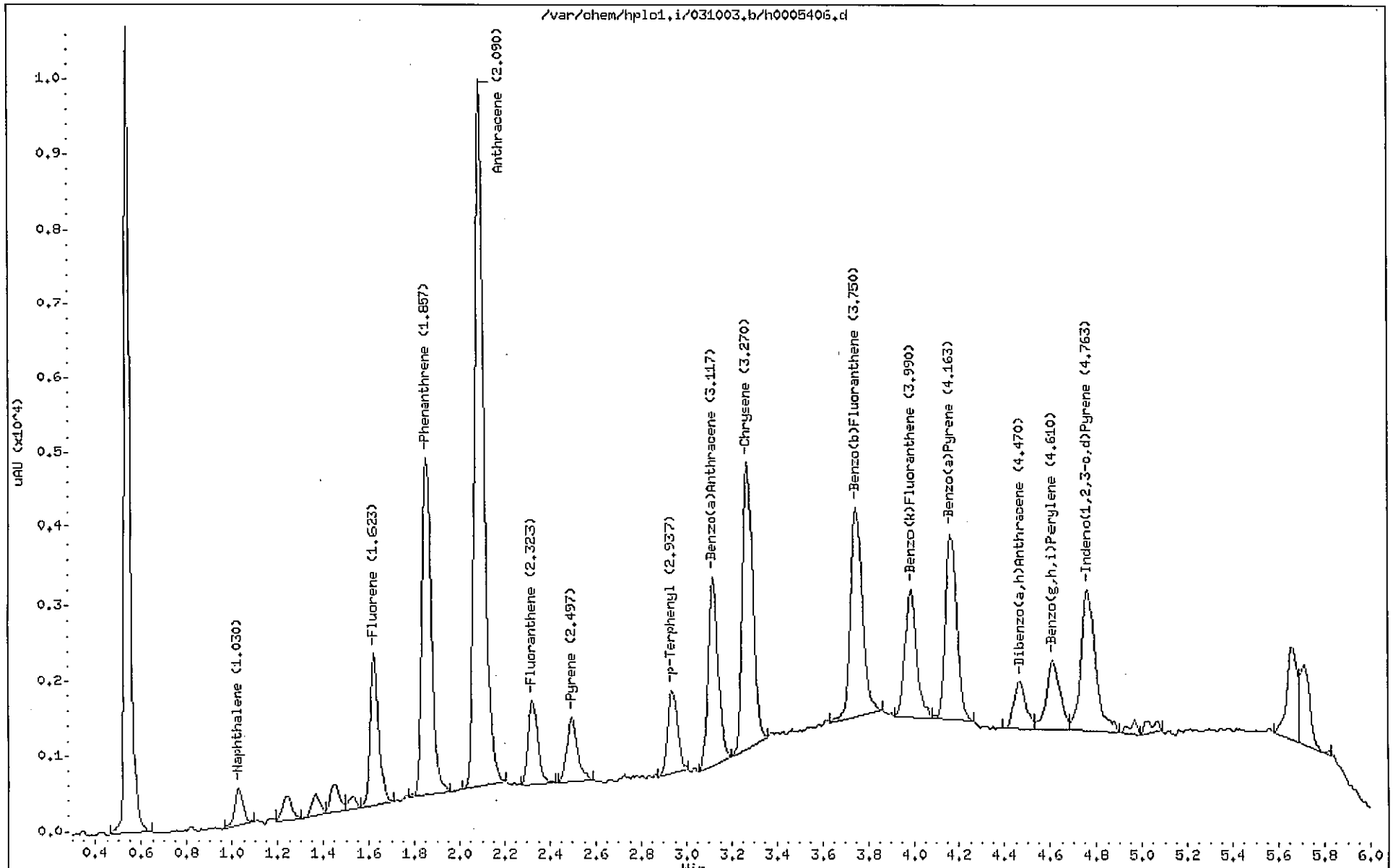
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.030	1.025	0.005	1206	0.50000	0.501
6 Fluorene	1.623	1.625	-0.002	5421	0.50000	0.479
7 Phenanthrene	1.857	1.858	-0.001	12512	0.50000	0.483
8 Anthracene	2.090	2.098	-0.008	27157	0.50000	0.492
9 Fluoranthene	2.323	2.332	-0.009	3274	0.50000	0.457
10 Pyrene	2.497	2.505	-0.008	2787	0.50000	0.485
11 p-Terphenyl	2.937	2.965	-0.028	3266	0.50000	0.483
12 Benzo(a)Anthracene	3.117	3.152	-0.035	7848	0.50000	0.490
13 Chrysene	3.270	3.305	-0.035	12072	0.50000	0.465
14 Benzo(b)Fluoranthene	3.750	3.866	-0.116	9993	0.50000	0.497
15 Benzo(k)Fluoranthene	3.990	4.045	-0.055	5998	0.50000	0.488
16 Benzo(a)Pyrene	4.163	4.225	-0.062	8419	0.50000	0.474
17 Dibenzo(a,h)Anthracene	4.470	4.618	-0.148	2321	0.50000	0.528
18 Benzo(g,h,i)Perylene	4.610	4.772	-0.162	3783	0.50000	0.525

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
19 Indeno(1,2,3-c,d)Pyrene	4.763	4.972	-0.209	8276	0.50000	0.543

Data File: /var/chem/hplc1.i/031003.b/h0005406.d
Date : 03-OCT-2003 08:24
Client ID: 1003STD03
Sample Info: 1003STD03
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10



000212

ata File: /var/chem/hplc1.i/031003.b/h0005405.d
eport Date: 04-Nov-2003 07:20

Gulf Coast Analytical Laboratories, Inc.

ata file : /var/chem/hplc1.i/031003.b/h0005405.d
ab Smp Id: 1003STD04 Client Smp ID: 1003STD04
nj Date : 03-OCT-2003 08:17
perator : jdt Inst ID: hplc1.i
mp Info : 1003STD04
isc Info : 3-46-7
omment :
ethod : /var/chem/hplc1.i/031003.b/flpnauv.m
eth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
al Date : 03-OCT-2003 08:17 Cal File: h0005405.d
ls bottle: 1 Calibration Sample, Level: 4
il Factor: 1.00000
ntegrator: Falcon Compound Sublist: all.sub
arget Version: 3.50

oncentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

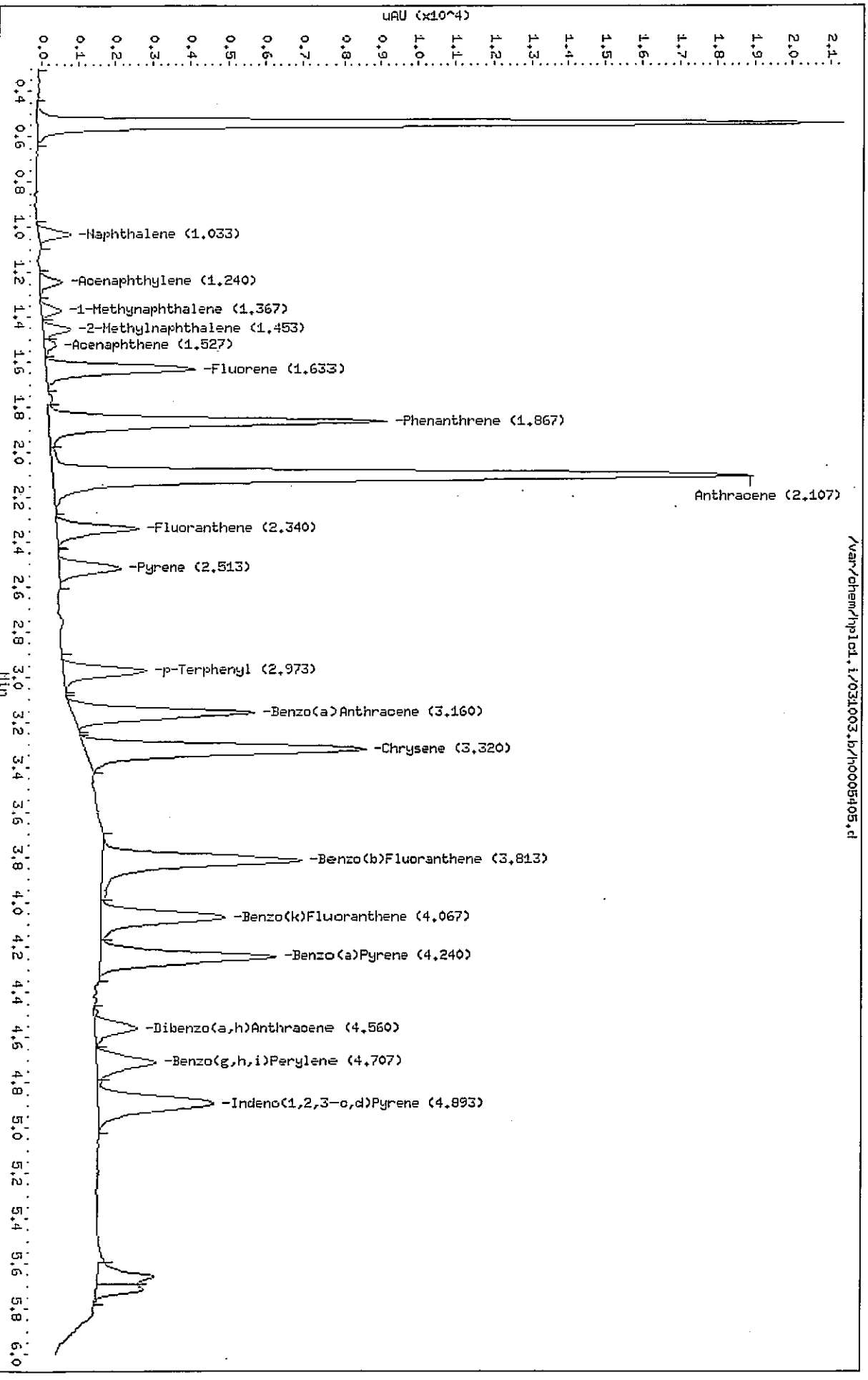
pnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	1 Naphthalene	1.033	1.025	0.008	2172	1.00000	0.903
	2 Acenaphthylene	1.240	1.238	0.002	1579	1.00000	0.965
	3 1-Methynaphthalene	1.367	1.365	0.002	1279	1.00000	0.928
	4 2-Methylnaphthalene	1.453	1.445	0.008	1876	1.00000	0.945
	5 Acenaphthene	1.527	1.518	0.009	819	1.00000	0.817
	6 Fluorene	1.633	1.625	0.008	11128	1.00000	0.982
	7 Phenanthrene	1.867	1.858	0.009	25745	1.00000	0.994
	8 Anthracene	2.107	2.098	0.009	56191	1.00000	1.02
	9 Fluoranthene	2.340	2.332	0.008	6785	1.00000	0.947
	10 Pyrene	2.513	2.505	0.008	5439	1.00000	0.946
$	11 p-Terphenyl	2.973	2.965	0.008	6722	1.00000	0.994
	12 Benzo(a)Anthracene	3.160	3.152	0.008	15444	1.00000	0.965
	13 Chrysene	3.320	3.305	0.015	25268	1.00000	0.974
	14 Benzo(b)Fluoranthene	3.813	3.866	-0.053	20637	1.00000	1.03

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
15 Benzo(k)Fluoranthene	4.067	4.045	0.022	12389	1.00000	1.01
16 Benzo(a)Pyrene	4.240	4.225	0.015	16994	1.00000	0.957
17 Dibenzo(a,h)Anthracene	4.560	4.618	-0.058	4149	1.00000	0.943
18 Benzo(g,h,i)Perylene	4.707	4.772	-0.065	6351	1.00000	0.881
19 Indeno(1,2,3-c,d)Pyrene	4.893	4.972	-0.079	14347	1.00000	0.942

Data File: /var/chem/hplc1.i/031003.b/h0005405.d
Date : 03-OCT-2003 08:17
Client ID: 1003STD04
Sample Info: 1003STD04
Volume Injected (uL): 10.0
Column phase: 20%TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003.b/h0005404.d
Lab Smp Id: 1003STD05 Client Smp ID: 1003STD05
Inj Date : 03-OCT-2003 08:10
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD05
Misc Info : 3-46-6
Comment :
Method : /var/chem/hplc1.i/031003.b/flpnauv.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 08:10 Cal File: h0005404.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

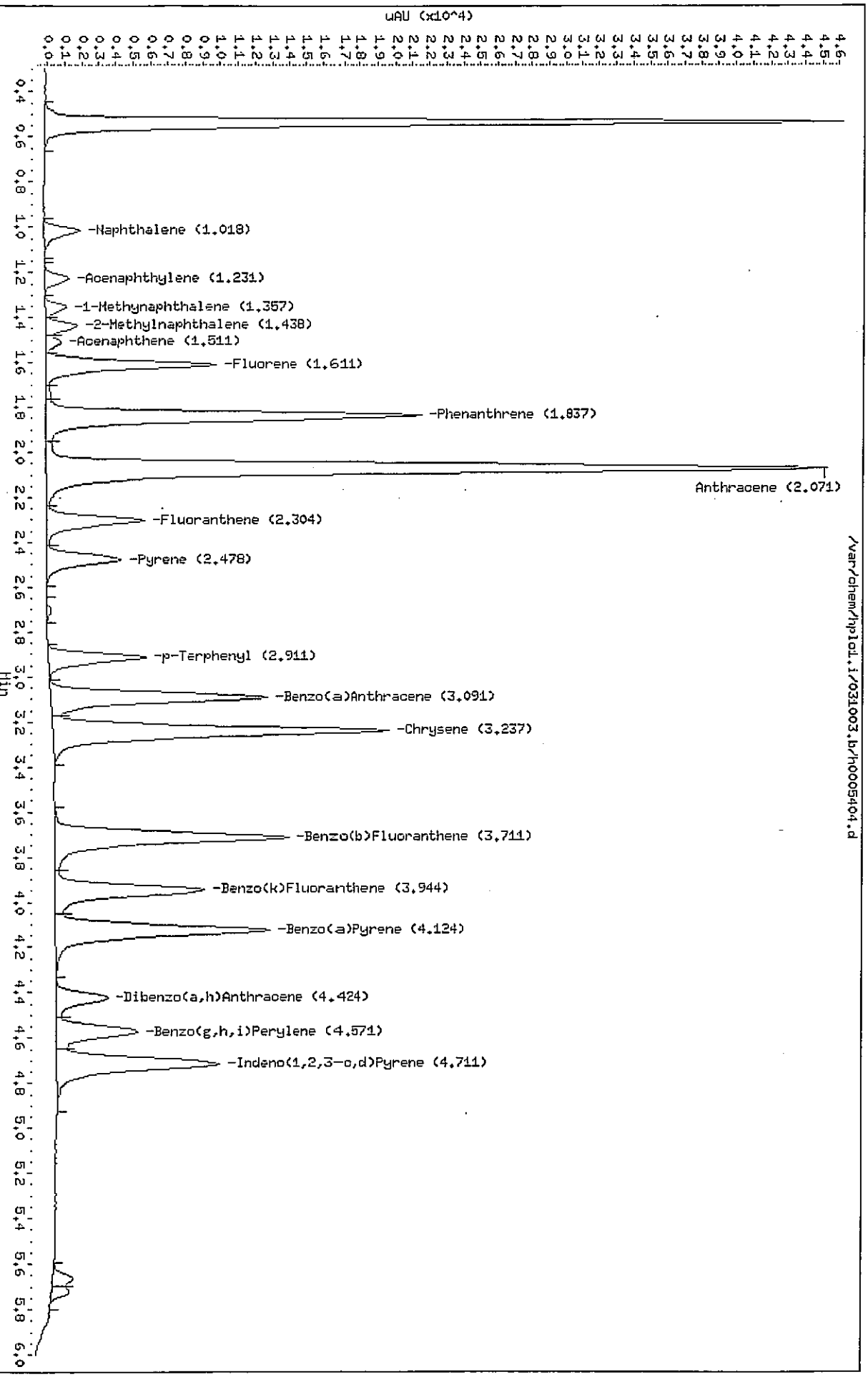
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.018	1.025	-0.007	6440	2.50000	2.68
2 Acenaphthylene	1.231	1.238	-0.007	3860	2.50000	2.36
3 1-Methynaphthalene	1.357	1.365	-0.008	3303	2.50000	2.40
4 2-Methylnaphthalene	1.438	1.445	-0.007	4876	2.50000	2.46
5 Acenaphthene	1.511	1.518	-0.007	2598	2.50000	2.59
6 Fluorene	1.611	1.625	-0.014	28621	2.50000	2.53
7 Phenanthrene	1.837	1.858	-0.021	64947	2.50000	2.51
8 Anthracene	2.071	2.098	-0.027	140174	2.50000	2.54
9 Fluoranthene	2.304	2.332	-0.028	18074	2.50000	2.52
10 Pyrene	2.478	2.505	-0.027	14850	2.50000	2.58
11 p-Terphenyl	2.911	2.965	-0.054	17330	2.50000	2.56
12 Benzo(a)Anthracene	3.091	3.152	-0.061	40876	2.50000	2.55
13 Chrysene	3.237	3.305	-0.068	66955	2.50000	2.58
14 Benzo(b)Fluoranthene	3.711	3.866	-0.155	50177	2.50000	2.49

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
15 Benzo(k)Fluoranthene	3.944	4.045	-0.101	32181	2.50000	2.62
16 Benzo(a)Pyrene	4.124	4.225	-0.101	46474	2.50000	2.62
17 Dibenzo(a,h)Anthracene	4.424	4.618	-0.194	10956	2.50000	2.49
18 Benzo(g,h,i)Perylene	4.571	4.772	-0.201	18101	2.50000	2.51
19 Indeno(1,2,3-c,d)Pyrene	4.711	4.972	-0.261	38830	2.50000	2.55

Data File: /var/chem/hplc1.i/031003.b/h0005404.d
Date : 03-OCT-2003 08:10
Client ID: 1003STD05
Sample Info: 1003STD05
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003.b/h0005403.d
Lab Smp Id: 1003STD06 Client Smp ID: 1003STD06
Inj Date : 03-OCT-2003 08:03
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD06
Misc Info : 3-46-5
Comment :
Method : /var/chem/hplc1.i/031003.b/flpnauv.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 08:03 Cal File: h0005403.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

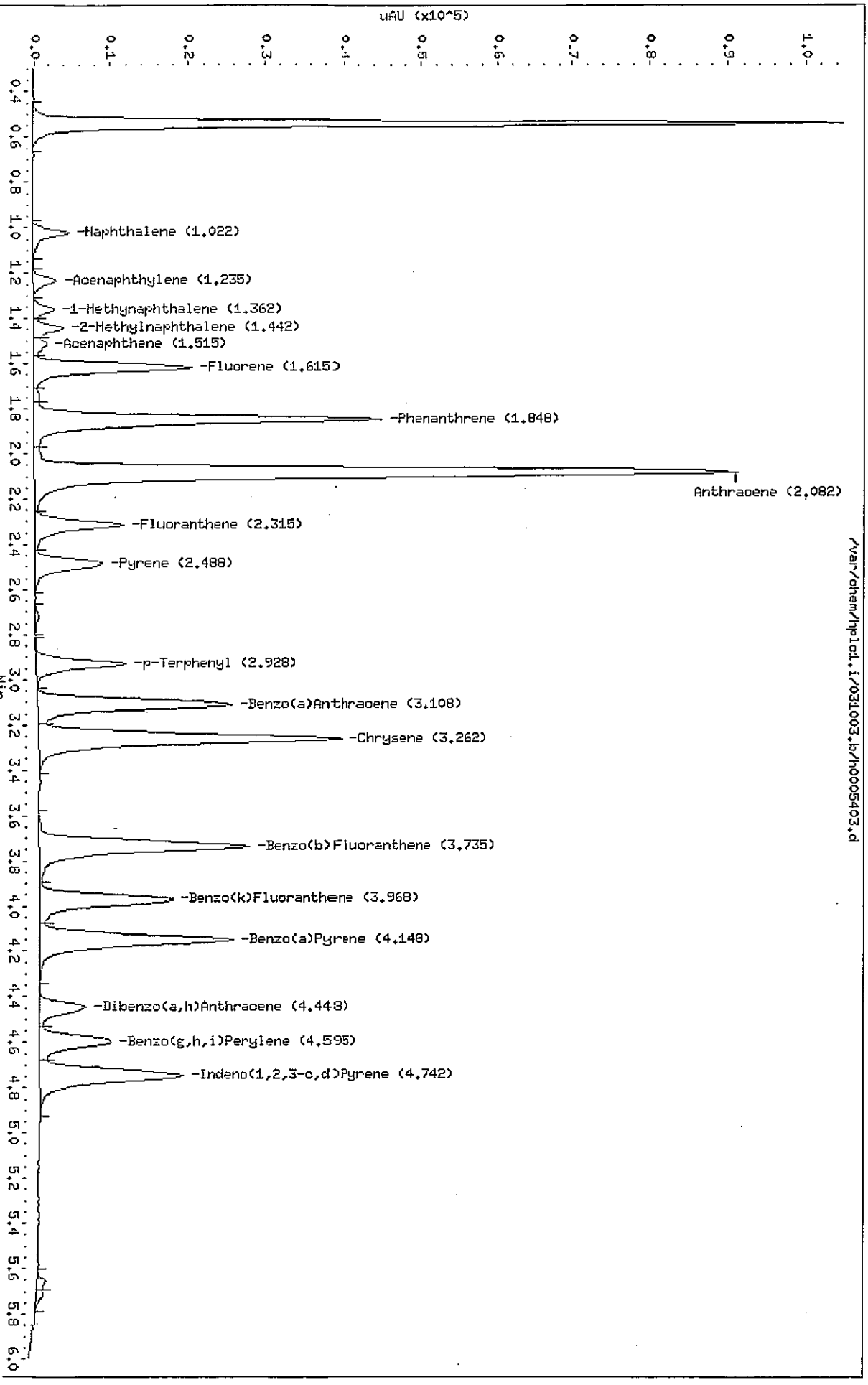
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.022	1.025	-0.003	13315	5.00000	5.54
2 Acenaphthylene	1.235	1.238	-0.003	8638	5.00000	5.28
3 1-Methynaphthalene	1.362	1.365	-0.003	7353	5.00000	5.34
4 2-Methylnaphthalene	1.442	1.445	-0.003	10334	5.00000	5.20
5 Acenaphthene	1.515	1.518	-0.003	5626	5.00000	5.62
6 Fluorene	1.615	1.625	-0.010	58166	5.00000	5.14
7 Phenanthrene	1.848	1.858	-0.010	131857	5.00000	5.09
8 Anthracene	2.082	2.098	-0.016	279134	5.00000	5.06
9 Fluoranthene	2.315	2.332	-0.017	37064	5.00000	5.17
10 Pyrene	2.488	2.505	-0.017	30657	5.00000	5.33
11 p-Terphenyl	2.928	2.965	-0.037	34791	5.00000	5.14
12 Benzo(a)Anthracene	3.108	3.152	-0.044	82383	5.00000	5.15
13 Chrysene	3.262	3.305	-0.043	133970	5.00000	5.16
14 Benzo(b)Fluoranthene	3.735	3.866	-0.131	100547	5.00000	5.00

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
15 Benzo(k)Fluoranthene	3.968	4.045	-0.077	63867	5.00000	5.20
16 Benzo(a)Pyrene	4.148	4.225	-0.077	92423	5.00000	5.20
17 Dibenzo(a,h)Anthracene	4.448	4.618	-0.170	20893	5.00000	4.75
18 Benzo(g,h,i)Perylene	4.595	4.772	-0.177	35267	5.00000	4.89
19 Indeno(1,2,3-c,d)Pyrene	4.742	4.972	-0.230	76338	5.00000	5.01

Data File: /var/chem/hplc1.i/031003.b/h0005403.d
Date : 03-OCT-2003 08:03
Client ID: 1003STD06
Sample Info: 1003STD06
Volume Injected (uL): 10.0
Column phase: 20ITP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003.b/h0005402.d
Lab Smp Id: 1003STD07 Client Smp ID: 1003STD07
Inj Date : 03-OCT-2003 07:56
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD07
Misc Info : 3-46-4
Comment :
Method : /var/chem/hplc1.i/031003.b/flpnauv.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:56 Cal File: h0005402.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.032	1.025	0.007	25423	10.0000	10.6
2 Acenaphthylene	1.246	1.238	0.008	16666	10.0000	10.2
3 1-Methynaphthalene	1.373	1.365	0.008	14352	10.0000	10.4
4 2-Methylnaphthalene	1.459	1.445	0.014	20031	10.0000	10.1
5 Acenaphthene	1.532	1.518	0.014	10421	10.0000	10.4
6 Fluorene	1.639	1.625	0.014	114945	10.0000	10.1
7 Phenanthrene	1.872	1.858	0.014	259182	10.0000	10.0
8 Anthracene	2.119	2.098	0.021	538548	10.0000	9.76
9 Fluoranthene	2.353	2.332	0.021	73129	10.0000	10.2
10 Pyrene	2.526	2.505	0.021	60668	10.0000	10.6
11 p-Terphenyl	2.986	2.965	0.021	72578	10.0000	10.7
12 Benzo(a)Anthracene	3.166	3.152	0.014	169703	10.0000	10.6
13 Chrysene	3.326	3.305	0.021	276897	10.0000	10.7
14 Benzo(b)Fluoranthene	3.812	3.866	-0.054	210465	10.0000	10.5

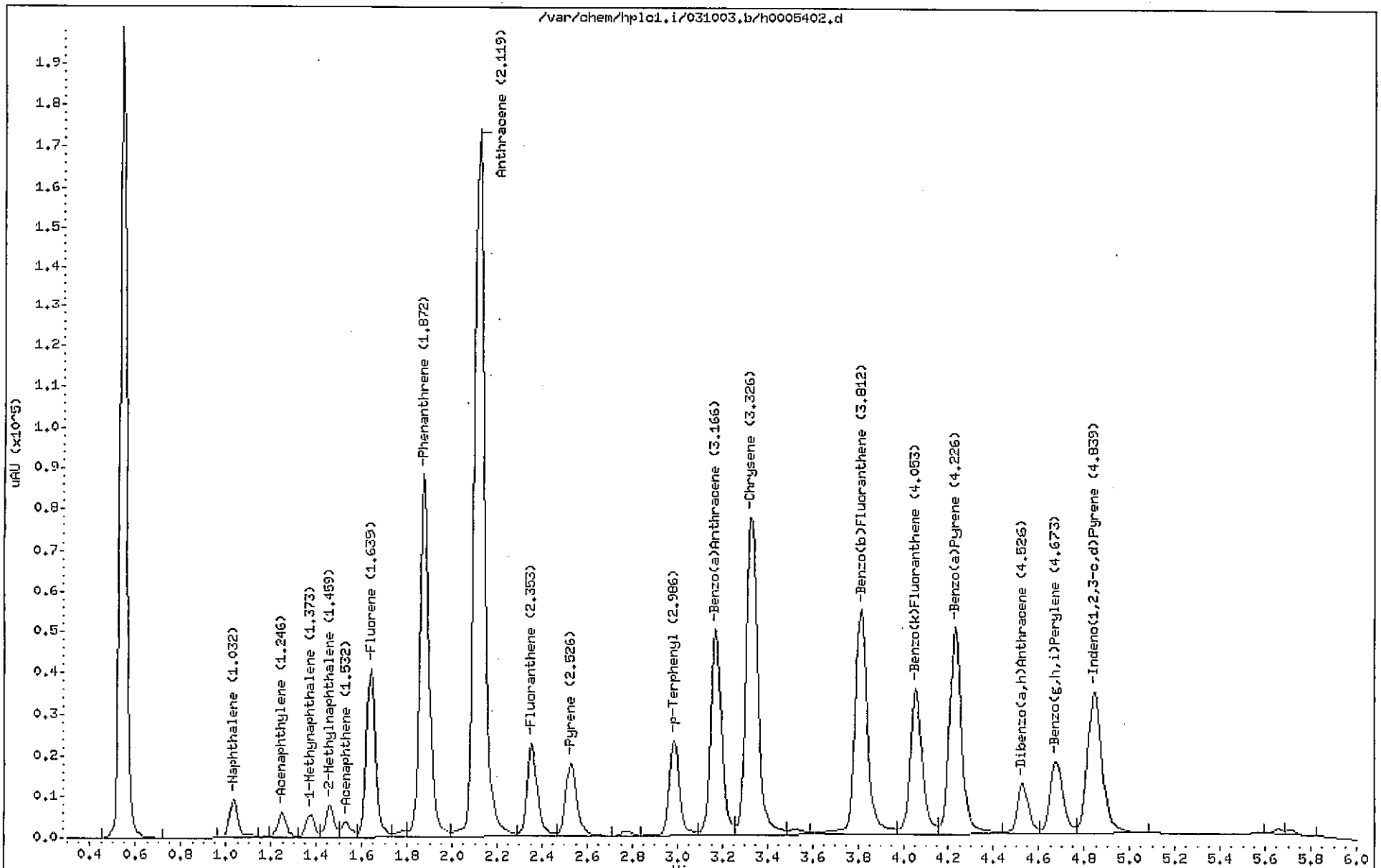
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
15 Benzo(k)Fluoranthene	4.053	4.045	0.008	130567	10.0000	10.6
16 Benzo(a)Pyrene	4.226	4.225	0.001	188992	10.0000	10.6
17 Dibenzo(a,h)Anthracene	4.526	4.618	-0.092	42746	10.0000	9.72
18 Benzo(g,h,i)Perylene	4.673	4.772	-0.099	70789	10.0000	9.82
19 Indeno(1,2,3-c,d)Pyrene	4.839	4.972	-0.133	152560	10.0000	10.0

Data File: /var/chem/hplc1.i/031003.b/h0005402.d
Date : 03-OCT-2003 07:56
Client ID: 1003STD07
Sample Info: 1003STD07
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000224



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003.b/h0005401.d
Lab Smp Id: 1003STD08 Client Smp ID: 1003STD08
Inj Date : 03-OCT-2003 07:49
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD08
Misc Info : 3-46-3
Comment :
Method : /var/chem/hplc1.i/031003.b/flpnauv.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	1 Naphthalene	1.025	1.025	0.000	50314	20.0000	20.9
	2 Acenaphthylene	1.238	1.238	0.000	33220	20.0000	20.3
	3 1-Methynaphthalene	1.365	1.365	0.000	27637	20.0000	20.1
	4 2-Methylnaphthalene	1.445	1.445	0.000	40673	20.0000	20.5
	5 Acenaphthene	1.518	1.518	0.000	19674	20.0000	19.6
	6 Fluorene	1.625	1.625	0.000	228261	20.0000	20.2
	7 Phenanthrene	1.858	1.858	0.000	513314	20.0000	19.8
	8 Anthracene	2.098	2.098	0.000	1015932	20.0000	18.4
	9 Fluoranthene	2.332	2.332	0.000	143435	20.0000	20.0
	10 Pyrene	2.505	2.505	0.000	118556	20.0000	20.6
s	11 p-Terphenyl	2.965	2.965	0.000	142757	20.0000	21.1
	12 Benzo(a)Anthracene	3.152	3.152	0.000	336547	20.0000	21.0
	13 Chrysene	3.305	3.305	0.000	543604	20.0000	21.0
	14 Benzo(b)Fluoranthene	3.798	3.866	-0.068	399923	20.0000	19.9

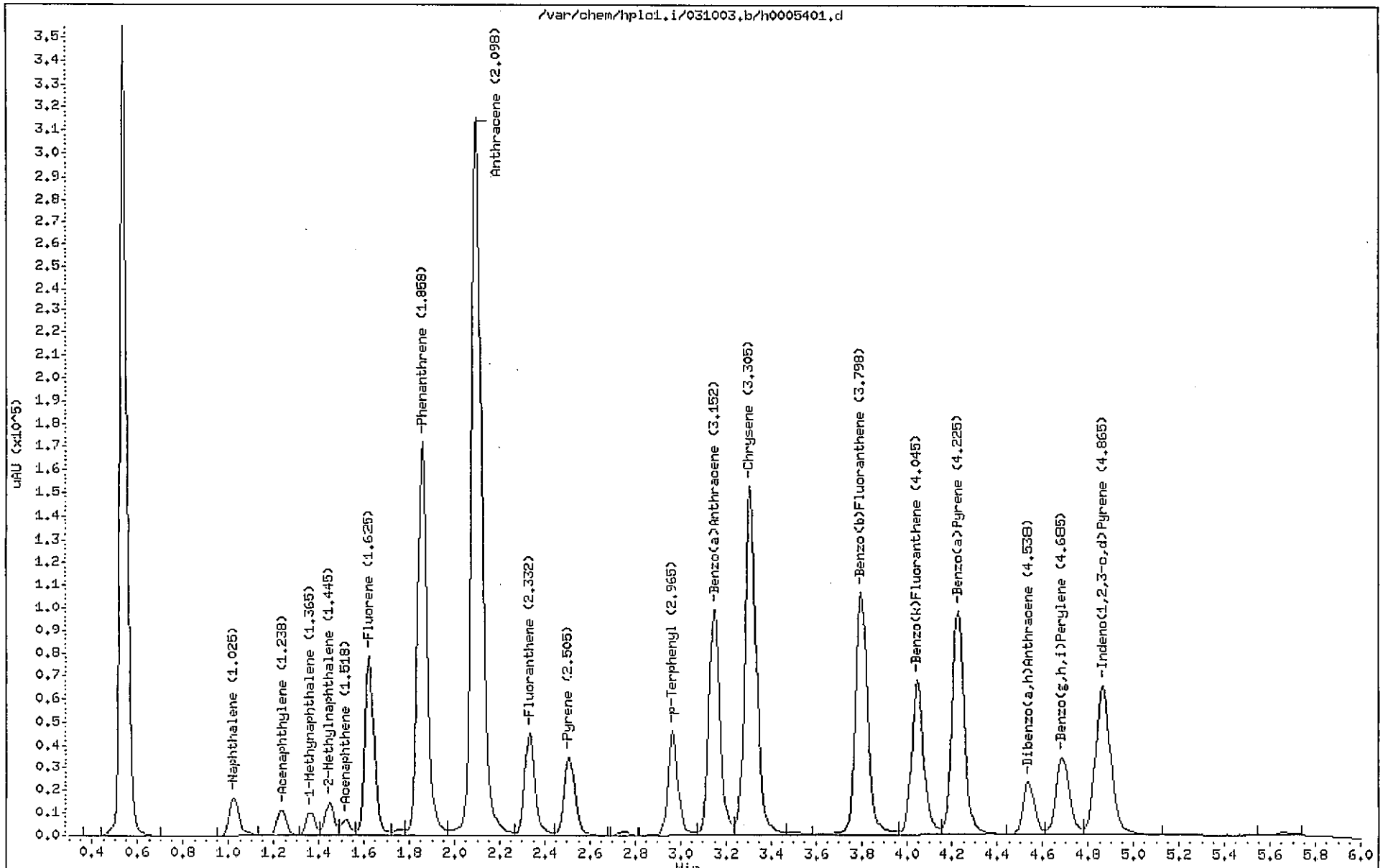
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
15 Benzo(k)Fluoranthene	4.045	4.045	0.000	253921	20.0000	20.7
16 Benzo(a)Pyrene	4.225	4.225	0.000	367543	20.0000	20.7
17 Dibenzo(a,h)Anthracene	4.538	4.618	-0.080	82516	20.0000	18.8
18 Benzo(g,h,i)Perylene	4.685	4.772	-0.087	140599	20.0000	19.5
19 Indeno(1,2,3-c,d)Pyrene	4.865	4.972	-0.107	302538	20.0000	19.9

Data File: /var/chem/hplc1.i/031003.b/h0005401.d
Date : 03-OCT-2003 07:49
Client ID: 1003STD08
Sample Info: 1003STD08
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000227



Gulf Coast Analytical Laboratories, Inc.

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 1003PNAICV
Level: LOW
Data Type: LC DATA
SpikeList File: ICV.spk
Sublist File: all.sub
Method File: /var/chem/hplc1.i/031003.b/flpnauv.m
Misc Info: 3-47-8

Client SDG:
Fraction: OTHER
Client Smp ID: 1003PNAICV
Operator: jdt
SampleType: LCS
Quant Type: ESTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Naphthalene	5.00	5.19	103.80	80-120
2 Acenaphthylene	5.00	5.15	102.96	80-120
3 1-Methynaphthalene	10.0	11.5	115.30	80-120
4 2-Methylnaphthalen	10.0	10.2	102.14	80-120
5 Acenaphthene	10.0	9.87	98.75	80-120
6 Fluorene	1.00	1.07	106.87	80-120
7 Phenanthrene	0.400	0.422	105.50	80-120
8 Anthracene	0.200	0.210	104.87	80-120
9 Fluoranthene	0.500	0.509	101.74	80-120
10 Pyrene	1.00	0.967	96.70	80-120
12 Benzo(a)Anthracene	0.500	0.504	100.89	80-120
13 Chrysene	0.500	0.532	106.41	80-120
14 Benzo(b)Fluoranthe	0.200	0.178	88.85	80-120
15 Benzo(k)Fluoranthe	0.200	0.206	103.15	80-120
16 Benzo(a)Pyrene	0.500	0.533	106.69	80-120
17 Dibenzo(a,h)Anthra	2.00	2.00	100.08	80-120
18 Benzo(g,h,i)Peryle	0.800	0.798	99.81	80-120
19 Indeno(1,2,3-c,d)P	0.500	0.452	90.40	80-120

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 11 p-Terphenyl	4.00	4.25	106.26	40-140

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003.b/h0005409.d
Lab Smp Id: 1003PNAICV Client Smp ID: 1003PNAICV
Inj Date : 03-OCT-2003 08:58
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003PNAICV
Misc Info : 3-47-8
Comment :
Method : /var/chem/hplc1.i/031003.b/flpnauv.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 Naphthalene	1.018	1.025	-0.007	12483	5.18982	5.19
2 Acenaphthylene	1.232	1.238	-0.006	8420	5.14783	5.15
3 1-Methynaphthalene	1.358	1.365	-0.007	15883	11.5297	11.5
4 2-Methylnaphthalene	1.445	1.445	0.000	20285	10.2140	10.2
5 Acenaphthene	1.512	1.518	-0.006	9893	9.87483	9.87
6 Fluorene	1.618	1.625	-0.007	12105	1.06873	1.07
7 Phenanthrene	1.845	1.858	-0.013	10931	0.42199	0.422
8 Anthracene	2.078	2.098	-0.020	11570	0.20975	0.210
9 Fluoranthene	2.318	2.332	-0.014	3646	0.50872	0.509
10 Pyrene	2.492	2.505	-0.013	5557	0.96696	0.967
11 p-Terphenyl	2.945	2.965	-0.020	28758	4.25054	4.25
12 Benzo(a)Anthracene	3.125	3.152	-0.027	8076	0.50443	0.504
13 Chrysene	3.278	3.305	-0.027	13801	0.53204	0.532
14 Benzo(b)Fluoranthene	3.772	3.866	-0.094	3575	0.17769	0.178

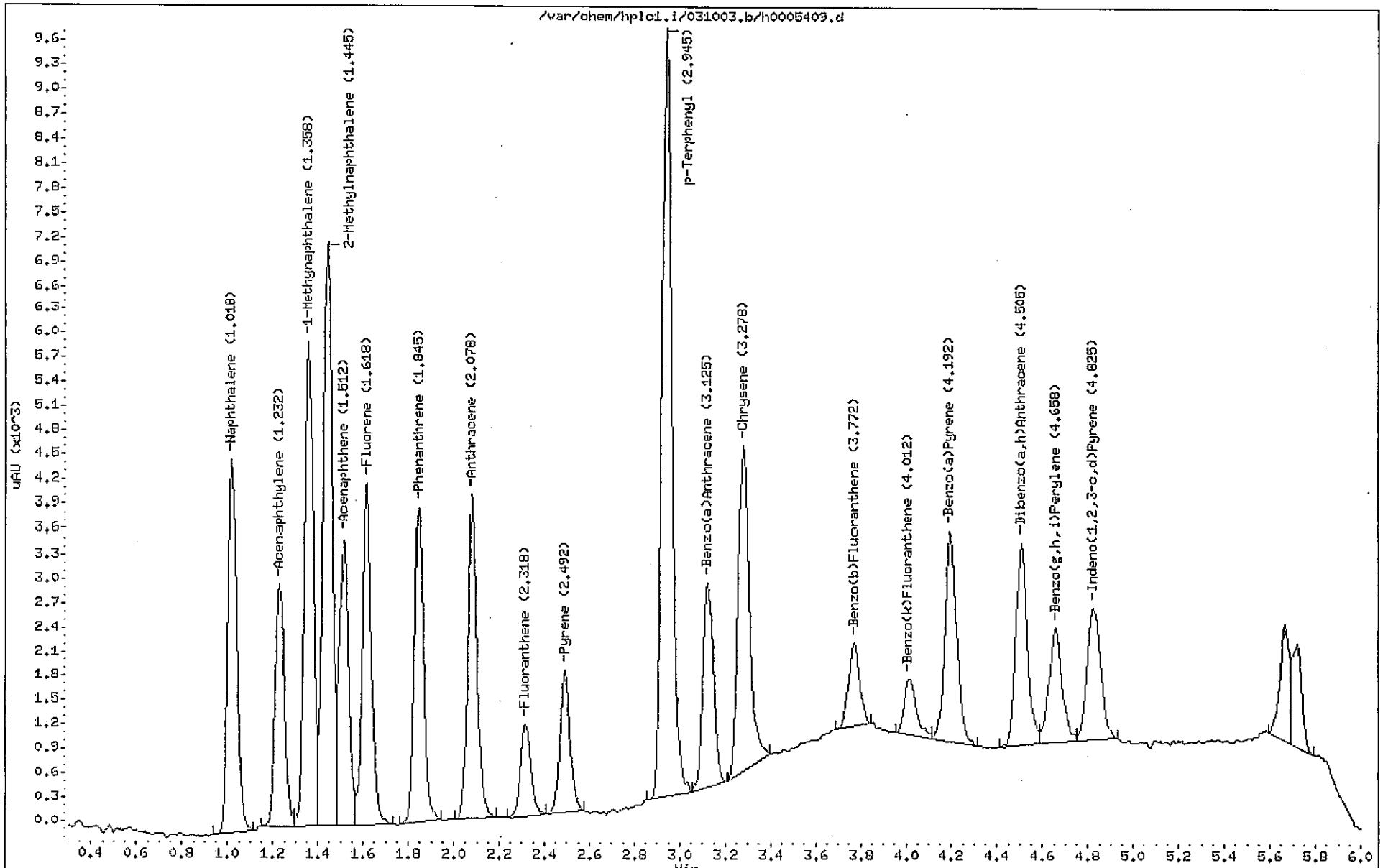
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
15 Benzo(k)Fluoranthene	4.012	4.045	-0.033	2535	0.20630	0.206
16 Benzo(a)Pyrene	4.192	4.225	-0.033	9473	0.53346	0.533
17 Dibenzo(a,h)Anthracene	4.505	4.618	-0.113	8807	2.00168	2.00
18 Benzo(g,h,i)Perylene	4.658	4.772	-0.114	5756	0.79848	0.798
19 Indeno(1,2,3-c,d)Pyrene	4.825	4.972	-0.147	6887	0.45202	0.452

Data File: /var/chem/hplc1.i/031003.b/h0005409.d
Date : 03-OCT-2003 08:58
Client ID: 1003PNAICV
Sample Info: 1003PNAICV
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000231



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031.b/h0005523.d
Lab Smp Id: 1031STD05 Client Smp ID: 1031STD05
Inj Date : 31-OCT-2003 09:33
Operator : jdt Inst ID: hplc1.i
Smp Info : 1031STD05
Misc Info : 3-46-6
Comment :
Method : /var/chem/hplc1.i/031031.b/flpnauv.m
Meth Date : 31-Oct-2003 11:00 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

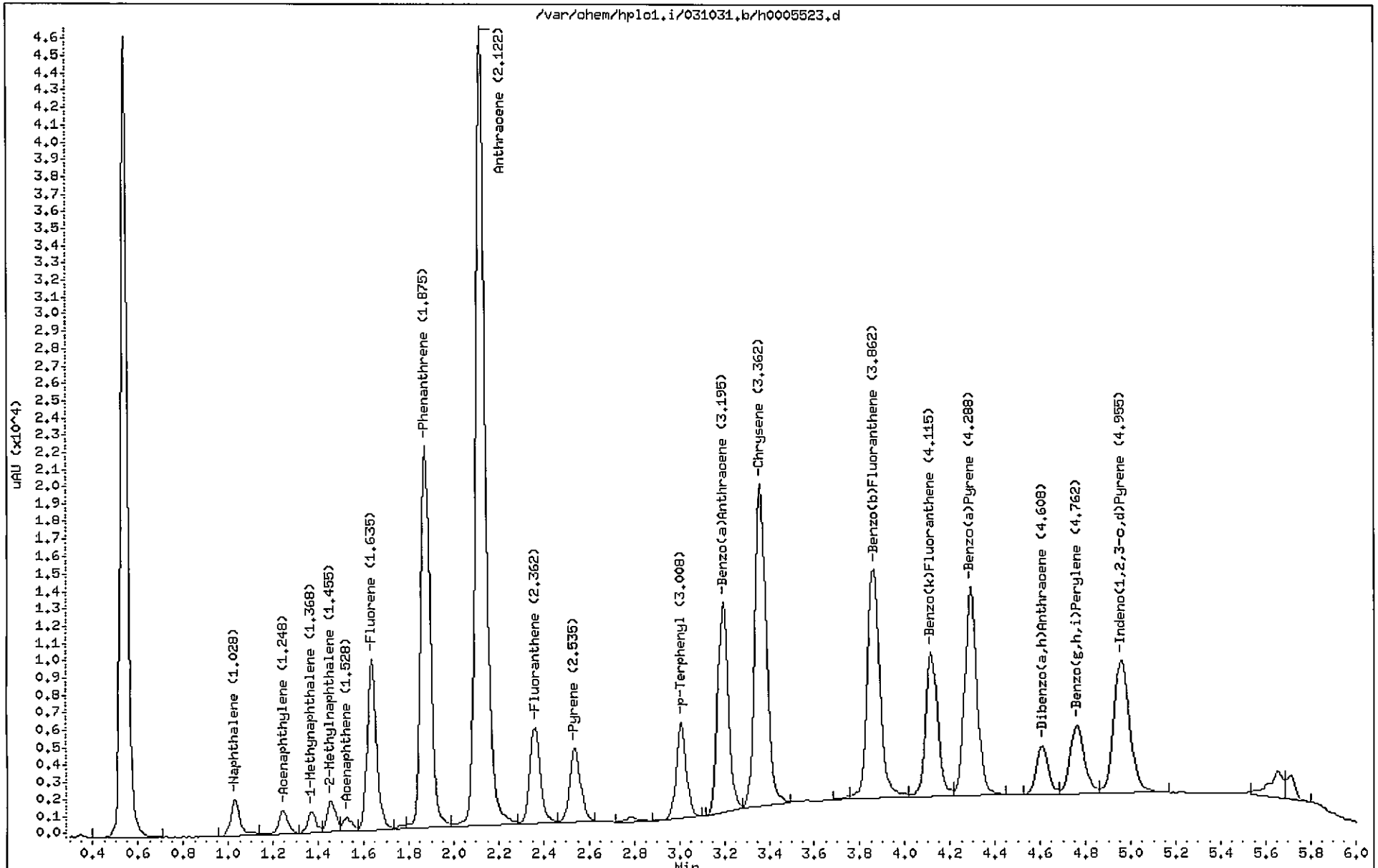
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.028	1.028	0.000	6326	2.50000	2.63
2 Acenaphthylene	1.248	1.251	-0.003	4136	2.50000	2.53
3 1-Methynaphthalene	1.368	1.371	-0.003	3375	2.50000	2.45
4 2-Methylnaphthalene	1.455	1.458	-0.003	4797	2.50000	2.42
5 Acenaphthene	1.528	1.524	0.004	2335	2.50000	2.33
6 Fluorene	1.635	1.631	0.004	28761	2.50000	2.54
7 Phenanthrene	1.875	1.878	-0.003	66218	2.50000	2.56
8 Anthracene	2.122	2.124	-0.002	144037	2.50000	2.61
9 Fluoranthene	2.362	2.364	-0.002	17985	2.50000	2.51
10 Pyrene	2.535	2.538	-0.003	14657	2.50000	2.55
11 p-Terphenyl	3.008	3.008	0.000	17259	2.50000	2.55
12 Benzo(a)Anthracene	3.195	3.195	0.000	40054	2.50000	2.50
13 Chrysene	3.362	3.362	0.000	65866	2.50000	2.54

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
14 Benzo(b)Fluoranthene	3.862	3.862	0.000	51769	2.50000	2.57
15 Benzo(k)Fluoranthene	4.115	4.115	0.000	32167	2.50000	2.62
16 Benzo(a)Pyrene	4.288	4.288	0.000	46082	2.50000	2.60
17 Dibenzo(a,h)Anthracene	4.608	4.531	0.077	10282	2.50000	2.34
18 Benzo(g,h,i)Perylene	4.762	4.678	0.084	17777	2.50000	2.47
19 Indeno(1,2,3-c,d)Pyrene	4.955	4.844	0.111	38400	2.50000	2.52

000234

Data File: /var/chem/hplc1.i/031031.b/h0005523.d
Date : 31-OCT-2003 09:33
Client ID: 1031STD05
Sample Info: 1031STD05
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031.b/h0005534.d
Lab Smp Id: 1031STD05 Client Smp ID: 1031STD05
Inj Date : 31-OCT-2003 11:24
Operator : jdt Inst ID: hplc1.i
Smp Info : 1031STD05
Misc Info : 3-46-6
Comment :
Method : /var/chem/hplc1.i/031031.b/flpnauv.m
Meth Date : 31-Oct-2003 11:00 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.031	1.028	0.003	6007	2.50000	2.50(M)
2 Acenaphthylene	1.251	1.251	0.000	3785	2.50000	2.31(M)
3 1-Methynaphthalene	1.371	1.371	0.000	3233	2.50000	2.35(M)
4 2-Methylnaphthalene	1.458	1.458	0.000	4792	2.50000	2.41(M)
5 Acenaphthene	1.531	1.524	0.007	2242	2.50000	2.24(M)
6 Fluorene	1.638	1.631	0.007	28152	2.50000	2.49(M)
7 Phenanthrene	1.878	1.878	0.000	63561	2.50000	2.45(M)
8 Anthracene	2.124	2.124	0.000	140432	2.50000	2.55(M)
9 Fluoranthene	2.364	2.364	0.000	16775	2.50000	2.34(M)
10 Pyrene	2.538	2.538	0.000	14147	2.50000	2.46(M)
11 p-Terphenyl	2.998	3.008	-0.010	17067	2.50000	2.52
12 Benzo(a)Anthracene	3.184	3.195	-0.011	40499	2.50000	2.53
13 Chrysene	3.344	3.362	-0.018	66262	2.50000	2.55

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
14 Benzo(b)Fluoranthene	3.831	3.862	-0.031	51376	2.50000	2.55
15 Benzo(k)Fluoranthene	4.077	4.115	-0.038	32297	2.50000	2.63
16 Benzo(a)Pyrene	4.251	4.288	-0.037	46807	2.50000	2.64
17 Dibenzo(a,h)Anthracene	4.551	4.531	0.020	10152	2.50000	2.31
18 Benzo(g,h,i)Perylene	4.704	4.678	0.026	16889	2.50000	2.34
19 Indeno(1,2,3-c,d)Pyrene	4.878	4.844	0.034	37681	2.50000	2.47

QC Flag Legend

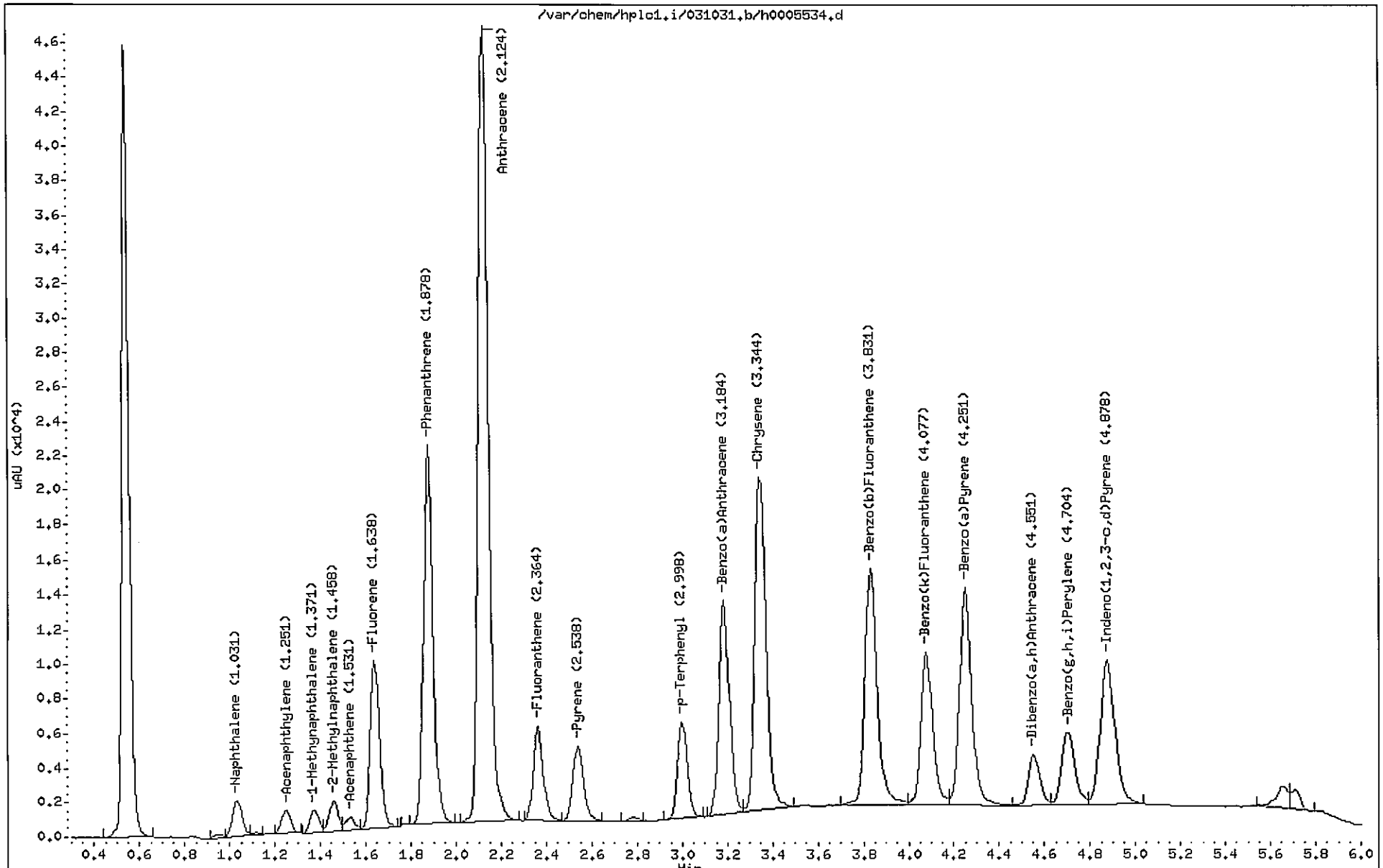
M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/031031.b/h0005534.d
Date : 31-OCT-2003 11:24
Client ID: 1031STD05
Sample Info: 1031STD05
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000237



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031.b/h0005540.d
Lab Smp Id: 1031STD05 Client Smp ID: 1031STD05
Inj Date : 31-OCT-2003 12:14
Operator : jdt Inst ID: hplc1.i
Smp Info : 1031STD05
Misc Info : 3-46-6
Comment :
Method : /var/chem/hplc1.i/031031.b/flpnauv.m
Meth Date : 31-Oct-2003 11:00 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.031	1.028	0.003	6248	2.50000	2.60
2 Acenaphthylene	1.244	1.251	-0.007	4133	2.50000	2.53
3 1-Methynaphthalene	1.371	1.371	0.000	3302	2.50000	2.40(M)
4 2-Methylnaphthalene	1.458	1.458	0.000	4924	2.50000	2.48(M)
5 Acenaphthene	1.524	1.524	0.000	2230	2.50000	2.23(M)
6 Fluorene	1.631	1.631	0.000	28241	2.50000	2.49(M)
7 Phenanthrene	1.871	1.878	-0.007	63618	2.50000	2.46
8 Anthracene	2.111	2.124	-0.013	142108	2.50000	2.58
9 Fluoranthene	2.351	2.364	-0.013	17673	2.50000	2.47
10 Pyrene	2.524	2.538	-0.014	14309	2.50000	2.49
11 p-Terphenyl	2.984	3.008	-0.024	18006	2.50000	2.66
12 Benzo(a)Anthracene	3.164	3.195	-0.031	40897	2.50000	2.55
13 Chrysene	3.324	3.362	-0.038	66752	2.50000	2.57

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
14 Benzo(b)Fluoranthene	3.804	3.862	-0.058	50442	2.50000	2.51
15 Benzo(k)Fluoranthene	4.051	4.115	-0.064	31632	2.50000	2.57
16 Benzo(a)Pyrene	4.224	4.288	-0.064	45629	2.50000	2.57
17 Dibenzo(a,h)Anthracene	4.531	4.531	0.000	10270	2.50000	2.33
18 Benzo(g,h,i)Perylene	4.678	4.678	0.000	17245	2.50000	2.39
19 Indeno(1,2,3-c,d)Pyrene	4.844	4.844	0.000	37803	2.50000	2.48

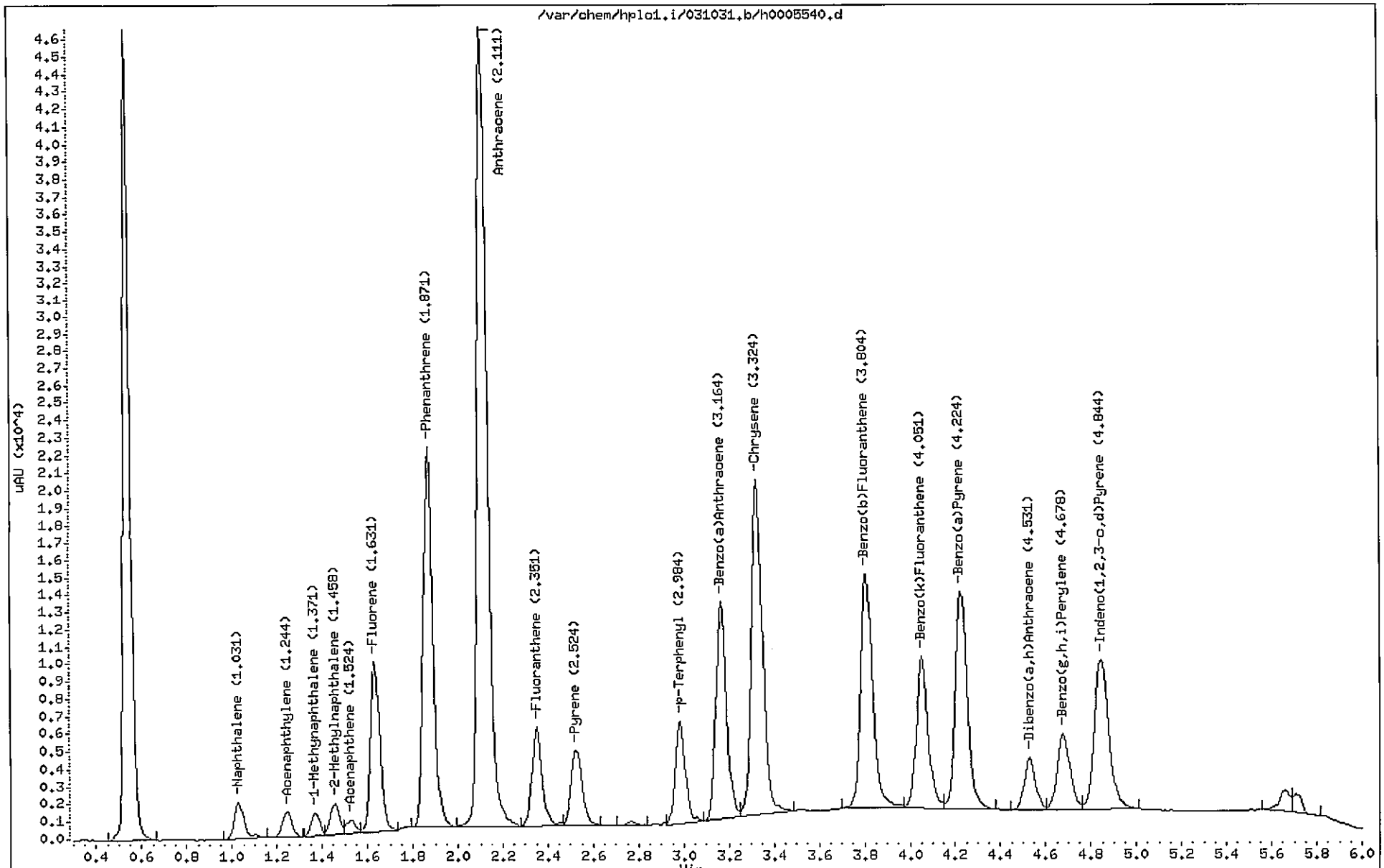
QC Flag Legend

M - Compound response manually integrated.

000240

Data File: /var/chem/hplc1.i/031031.b/h0005540.d
Date : 31-OCT-2003 12:14
Client ID: 1031STD05
Sample Info: 1031STD05
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003f.b/h0005408.d
Lab Smp Id: 1003STD01 Client Smp ID: 1003STD01
Inj Date : 03-OCT-2003 08:38
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD01
Misc Info : 3-46-10
Comment :
Method : /var/chem/hplc1.i/031003f.b/flpnafld.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 08:38 Cal File: h0005408.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
7 Phenanthrene	1.873	1.877	-0.004	1673	0.10000	0.104 (M)
8 Anthracene	2.107	2.110	-0.003	685	0.10000	0.121 (M)
9 Fluoranthene	2.340	2.347	-0.007	573	0.10000	0.104 (M)
10 Pyrene	2.517	2.553	-0.036	3406	0.10000	0.0993 (M)
12 Benzo(a)Anthracene	3.153	3.213	-0.060	2439	0.10000	0.0877 (M)
13 Chrysene	3.313	3.377	-0.064	207	0.10000	0.0516 (M)
14 Benzo(b)Fluoranthene	3.807	3.823	-0.016	2386	0.10000	0.101 (M)
15 Benzo(k)Fluoranthene	4.053	4.087	-0.034	5524	0.10000	0.106 (M)
16 Benzo(a)Pyrene	4.230	4.257	-0.027	4560	0.10000	0.103 (M)
17 Dibenzo(a,h)Anthracene	4.543	4.630	-0.087	1882	0.10000	0.108 (M)
18 Benzo(g,h,i)Perylene	4.690	4.787	-0.097	1668	0.10000	0.111 (M)

QC Flag Legend

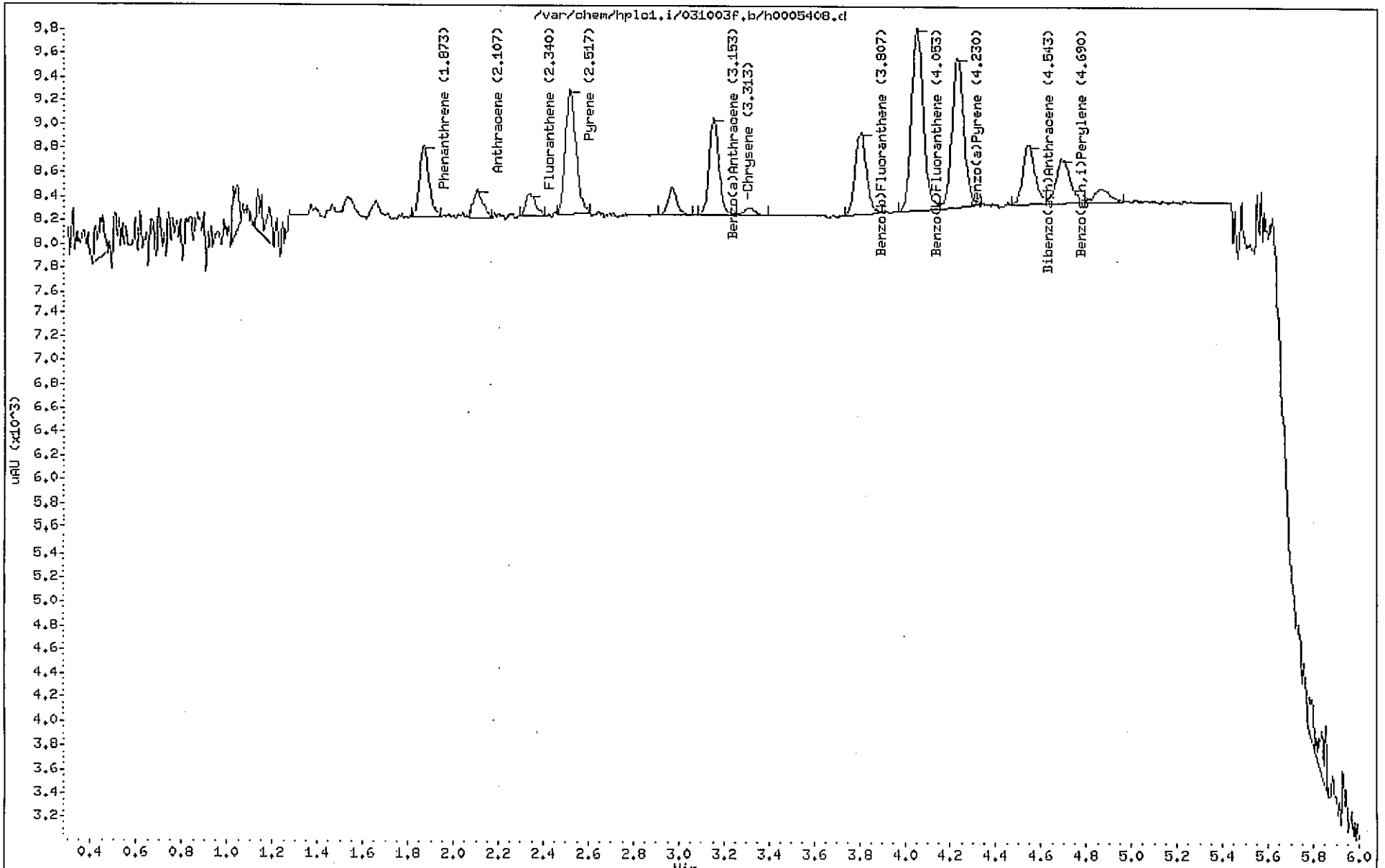
M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/031003f.b/h0005408.d
Date : 03-OCT-2003 08:38
Client ID: 1003STD01
Sample Info: 1003STD01
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000243



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003f.b/h0005407.d
Lab Smp Id: 1003STD02 Client Smp ID: 1003STD02
Inj Date : 03-OCT-2003 08:31
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD02
Misc Info : 3-46-9
Comment :
Method : /var/chem/hplc1.i/031003f.b/flpnafld.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 08:31 Cal File: h0005407.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.037	1.040	-0.003	2863	0.25000	0.254(M)
7 Phenanthrene	1.853	1.877	-0.024	3740	0.25000	0.233
8 Anthracene	2.083	2.110	-0.027	1185	0.25000	0.210
9 Fluoranthene	2.317	2.347	-0.030	1453	0.25000	0.263
10 Pyrene	2.487	2.553	-0.066	8493	0.25000	0.248
11 p-Terphenyl	2.923	2.980	-0.057	1956	0.25000	0.214(M)
12 Benzo(a)Anthracene	3.100	3.213	-0.113	6734	0.25000	0.242(M)
13 Chrysene	3.247	3.377	-0.130	572	0.25000	0.143(M)
14 Benzo(b)Fluoranthene	3.723	3.823	-0.100	5826	0.25000	0.247
15 Benzo(k)Fluoranthene	3.957	4.087	-0.130	13253	0.25000	0.255(M)
16 Benzo(a)Pyrene	4.133	4.257	-0.124	10573	0.25000	0.240(M)
17 Dibenzo(a,h)Anthracene	4.433	4.630	-0.197	4357	0.25000	0.250(M)
18 Benzo(g,h,i)Perylene	4.580	4.787	-0.207	3759	0.25000	0.250(M)
19 Indeno(1,2,3-c,d)Pyrene	4.720	4.980	-0.260	1293	0.25000	0.275(MH)

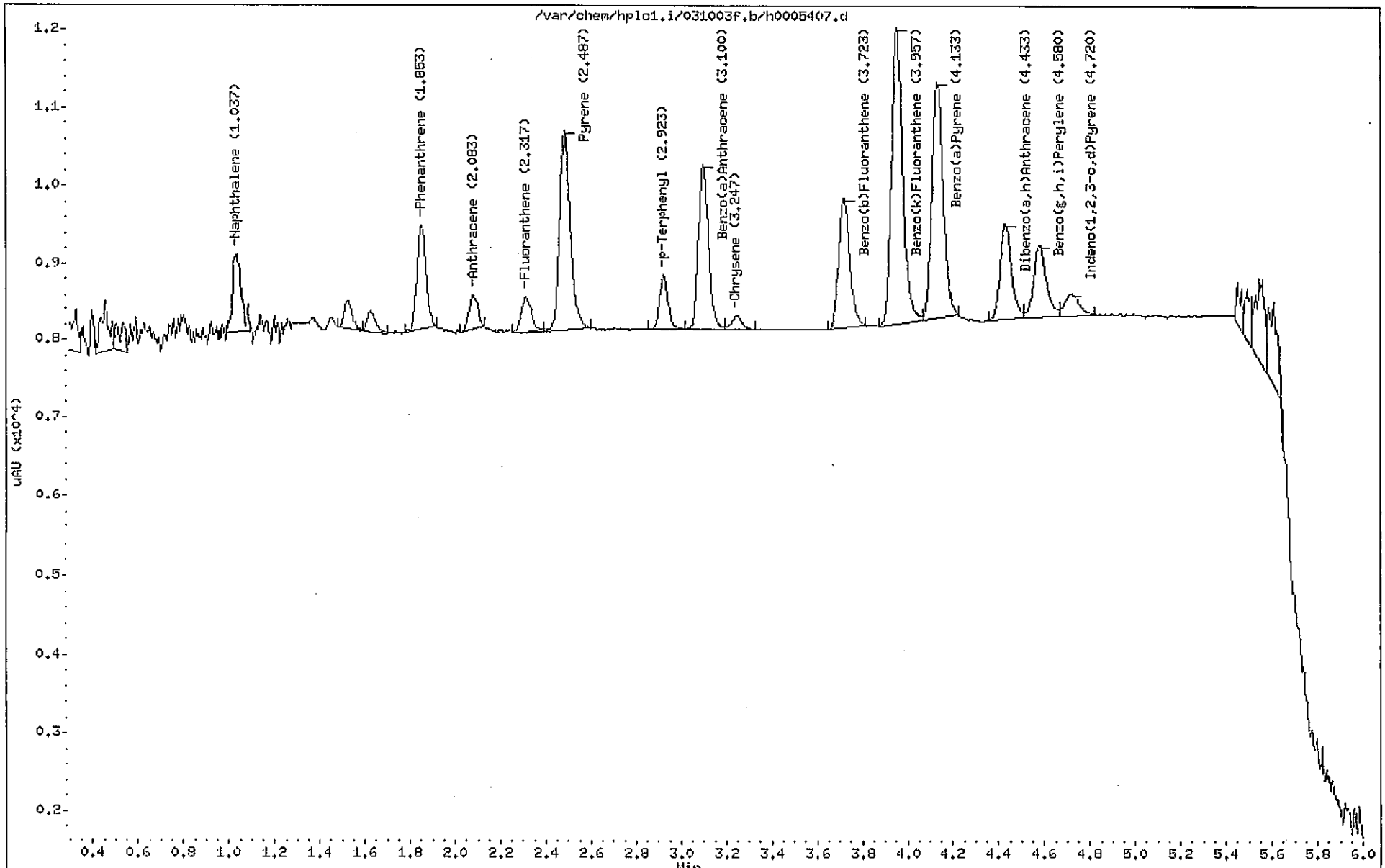
QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

000246

Data File: /var/chem/hplc1.i/031003f.b/h0005407.d
Date : 03-OCT-2003 08:31
Client ID: 1003STD02
Sample Info: 1003STD02
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003f.b/h0005406.d
Lab Smp Id: 1003STD03 Client Smp ID: 1003STD03
Inj Date : 03-OCT-2003 08:24
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD03
Misc Info : 3-46-8
Comment :
Method : /var/chem/hplc1.i/031003f.b/flpnafld.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 08:24 Cal File: h0005406.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.043	1.040	0.003	6032	0.50000	0.535
3 1-Methynaphthalene	1.377	1.393	-0.016	763	0.50000	0.550
4 2-Methylnaphthalene	1.470	1.480	-0.010	638	0.50000	0.476
5 Acenaphthene	1.537	1.550	-0.013	1971	0.50000	0.492
7 Phenanthrene	1.873	1.877	-0.004	7932	0.50000	0.495
8 Anthracene	2.107	2.110	-0.003	2943	0.50000	0.520
9 Fluoranthene	2.337	2.347	-0.010	2564	0.50000	0.465
10 Pyrene	2.510	2.553	-0.043	16509	0.50000	0.481
11 p-Terphenyl	2.953	2.980	-0.027	4218	0.50000	0.462
12 Benzo(a)Anthracene	3.133	3.213	-0.080	13630	0.50000	0.490
13 Chrysene	3.283	3.377	-0.094	1192	0.50000	0.297
14 Benzo(b)Fluoranthene	3.763	3.823	-0.060	11533	0.50000	0.488
15 Benzo(k)Fluoranthene	4.000	4.087	-0.087	26171	0.50000	0.502
16 Benzo(a)Pyrene	4.177	4.257	-0.080	21680	0.50000	0.492

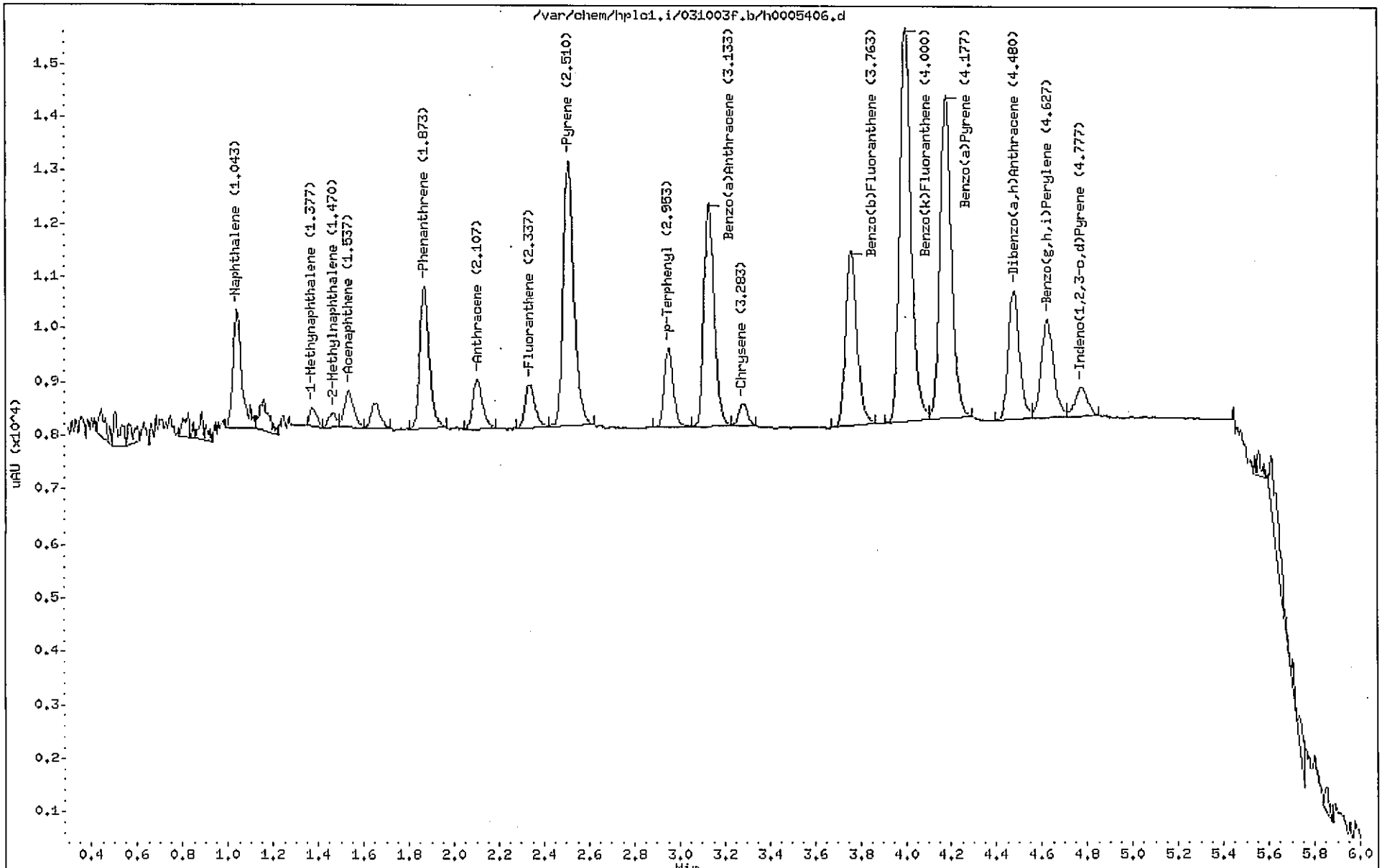
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
17 Dibenzo(a,h)Anthracene	4.480	4.630	-0.150	8509	0.50000	0.488
18 Benzo(g,h,i)Perylene	4.627	4.787	-0.160	7003	0.50000	0.465
19 Indeno(1,2,3-c,d)Pyrene	4.777	4.980	-0.203	2065	0.50000	0.439

Data File: /var/chem/hplc1.i/031003f.b/h0005406.d
Date : 03-OCT-2003 08:24
Client ID: 1003STD03
Sample Info: 1003STD03
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000249



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003f.b/h0005405.d
Lab Smp Id: 1003STD04 Client Smp ID: 1003STD04
Inj Date : 03-OCT-2003 08:17
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD04
Misc Info : 3-46-7
Comment :
Method : /var/chem/hplc1.i/031003f.b/flpnafld.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 08:17 Cal File: h0005405.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.043	1.040	0.003	12276	1.00000	1.09
3 1-Methynaphthalene	1.383	1.393	-0.010	1485	1.00000	1.07(M)
4 2-Methylnaphthalene	1.467	1.480	-0.013	1368	1.00000	1.02(M)
5 Acenaphthene	1.543	1.550	-0.007	3957	1.00000	0.988(M)
7 Phenanthrene	1.880	1.877	0.003	15680	1.00000	0.979
8 Anthracene	2.120	2.110	0.010	5492	1.00000	0.971
9 Fluoranthene	2.357	2.347	0.010	5170	1.00000	0.937
10 Pyrene	2.530	2.553	-0.023	33063	1.00000	0.964
11 p-Terphenyl	2.990	2.980	0.010	9016	1.00000	0.987
12 Benzo(a)Anthracene	3.173	3.213	-0.040	28397	1.00000	1.02
13 Chrysene	3.333	3.377	-0.044	3075	1.00000	0.766
14 Benzo(b)Fluoranthene	3.830	3.823	0.007	23116	1.00000	0.979
15 Benzo(k)Fluoranthene	4.080	4.087	-0.007	52928	1.00000	1.01
16 Benzo(a)Pyrene	4.257	4.257	0.000	44085	1.00000	1.000

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
17 Dibenzo(a,h)Anthracene	4.570	4.630	-0.060	17188	1.00000	0.985
18 Benzo(g,h,i)Perylene	4.723	4.787	-0.064	14263	1.00000	0.948
19 Indeno(1,2,3-c,d)Pyrene	4.903	4.980	-0.077	4150	1.00000	0.882

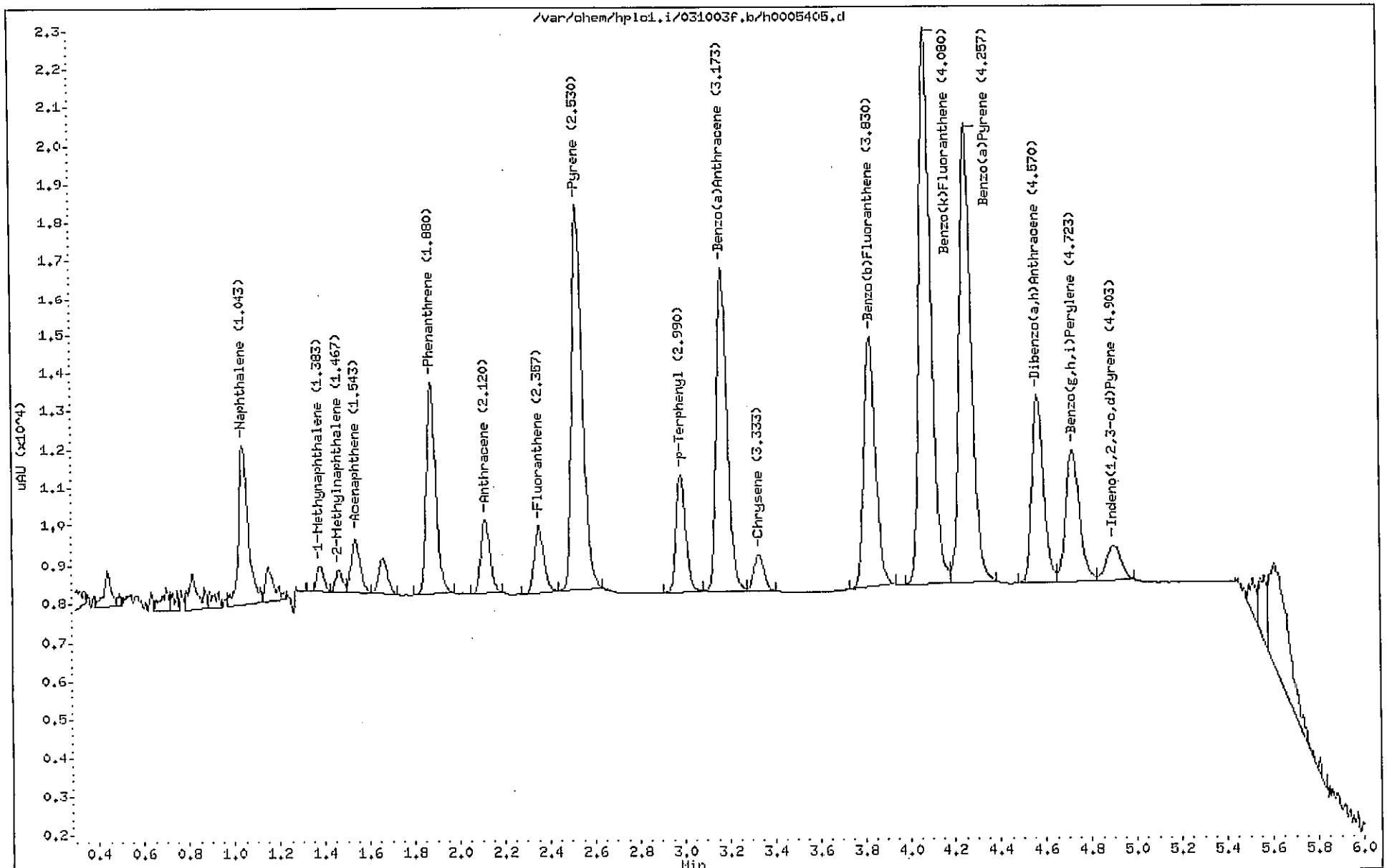
QC Flag Legend

M - Compound response manually integrated.

000252

Data File: /var/chem/hplc1.i/031003f.b/h0005405.d
Date : 03-OCT-2003 08:17
Client ID: 1003STD04
Sample Info: 1003STD04
Volume Injected (uL): 10.0
Column phase: 201TP-0.15H

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003f.b/h0005404.d
Lab Smp Id: 1003STD05 Client Smp ID: 1003STD05
Inj Date : 03-OCT-2003 08:10
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD05
Misc Info : 3-46-6
Comment :
Method : /var/chem/hplc1.i/031003f.b/flpnafld.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 08:10 Cal File: h0005404.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.037	1.040	-0.003	27449	2.50000	2.43(M)
3 1-Methynaphthalene	1.370	1.393	-0.023	2775	2.50000	2.00(M)
4 2-Methylnaphthalene	1.453	1.480	-0.027	2972	2.50000	2.22(M)
5 Acenaphthene	1.527	1.550	-0.023	9680	2.50000	2.42(M)
7 Phenanthrene	1.857	1.877	-0.020	40113	2.50000	2.50
8 Anthracene	2.087	2.110	-0.023	14076	2.50000	2.49
9 Fluoranthene	2.317	2.347	-0.030	13867	2.50000	2.51
10 Pyrene	2.490	2.553	-0.063	87857	2.50000	2.56
11 p-Terphenyl	2.930	2.980	-0.050	23770	2.50000	2.60
12 Benzo(a)Anthracene	3.103	3.213	-0.110	72532	2.50000	2.61
13 Chrysene	3.253	3.377	-0.124	9099	2.50000	2.27
14 Benzo(b)Fluoranthene	3.727	3.823	-0.096	58833	2.50000	2.49
15 Benzo(k)Fluoranthene	3.960	4.087	-0.127	133766	2.50000	2.56
16 Benzo(a)Pyrene	4.137	4.257	-0.120	113282	2.50000	2.57

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
17 Dibenzo(a,h)Anthracene	4.437	4.630	-0.193	42660	2.50000	2.45
18 Benzo(g,h,i)Perylene	4.583	4.787	-0.204	36342	2.50000	2.41
19 Indeno(1,2,3-c,d)Pyrene	4.723	4.980	-0.257	11882	2.50000	2.53

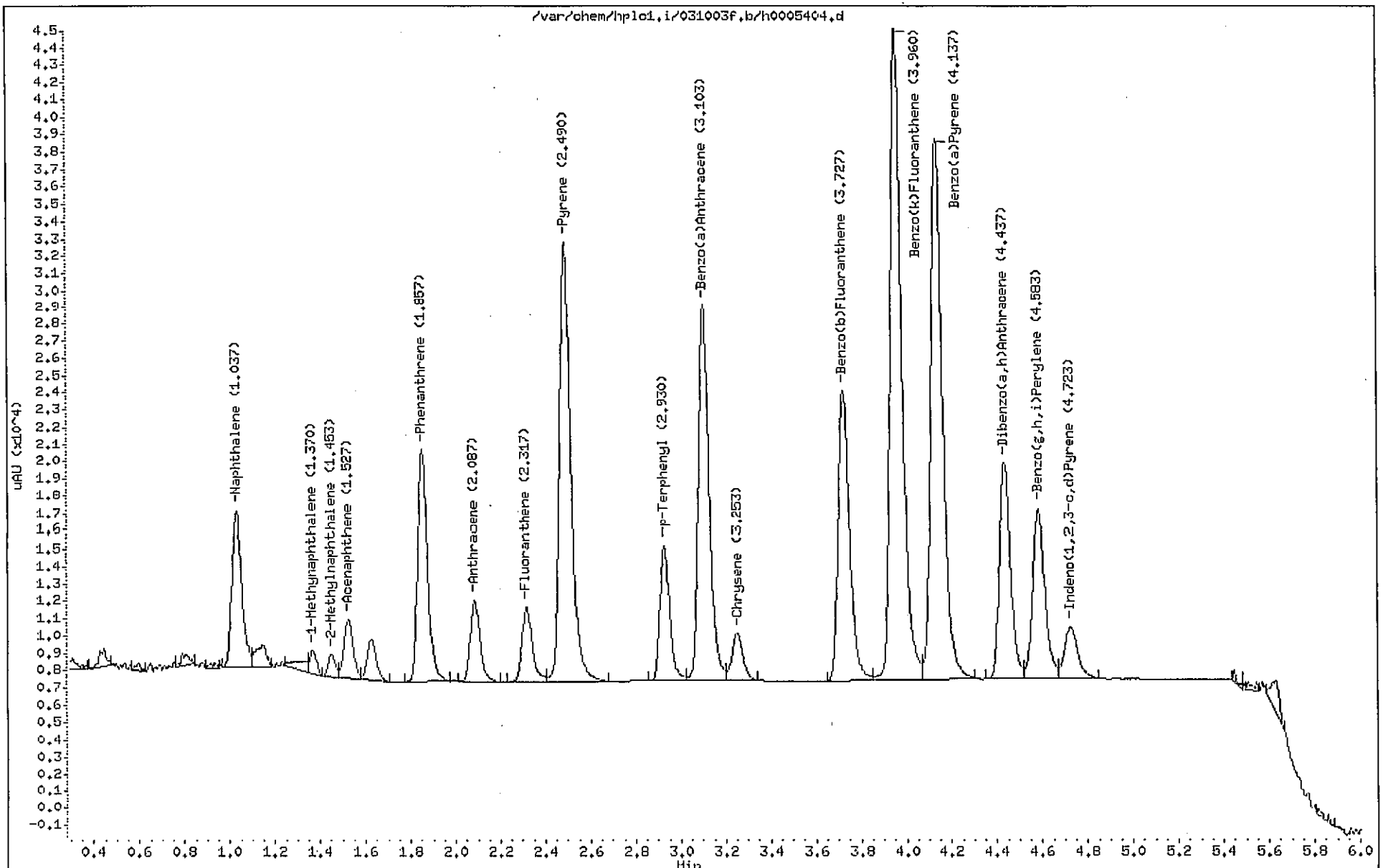
QC Flag Legend

M - Compound response manually integrated.

000255

Data File: /var/chem/hplc1.i/031003f.b/h0005404.d
Date : 03-OCT-2003 08:10
Client ID: 1003STD05
Sample Info: 1003STD05
Volume Injected (uL): 10.0
Column phase: 201TP-0.15H

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003f.b/h0005403.d
Lab Smp Id: 1003STD06 Client Smp ID: 1003STD06
Inj Date : 03-OCT-2003 08:03
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD06
Misc Info : 3-46-5
Comment :
Method : /var/chem/hplc1.i/031003f.b/flpnafld.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 08:03 Cal File: h0005403.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.037	1.040	-0.003	53624	5.00000	4.75(M)
3 1-Methynaphthalene	1.377	1.393	-0.016	6542	5.00000	4.72(M)
4 2-Methylnaphthalene	1.460	1.480	-0.020	6503	5.00000	4.86(M)
5 Acenaphthene	1.530	1.550	-0.020	20112	5.00000	5.02(M)
7 Phenanthrene	1.863	1.877	-0.014	81354	5.00000	5.08
8 Anthracene	2.097	2.110	-0.013	28047	5.00000	4.96
9 Fluoranthene	2.330	2.347	-0.017	28070	5.00000	5.09
10 Pyrene	2.500	2.553	-0.053	179665	5.00000	5.24
11 p-Terphenyl	2.943	2.980	-0.037	48824	5.00000	5.34
12 Benzo(a)Anthracene	3.120	3.213	-0.093	147441	5.00000	5.30
13 Chrysene	3.273	3.377	-0.104	19441	5.00000	4.85
14 Benzo(b)Fluoranthene	3.747	3.823	-0.076	120617	5.00000	5.11
15 Benzo(k)Fluoranthene	3.983	4.087	-0.104	271007	5.00000	5.20
16 Benzo(a)Pyrene	4.163	4.257	-0.094	231486	5.00000	5.25

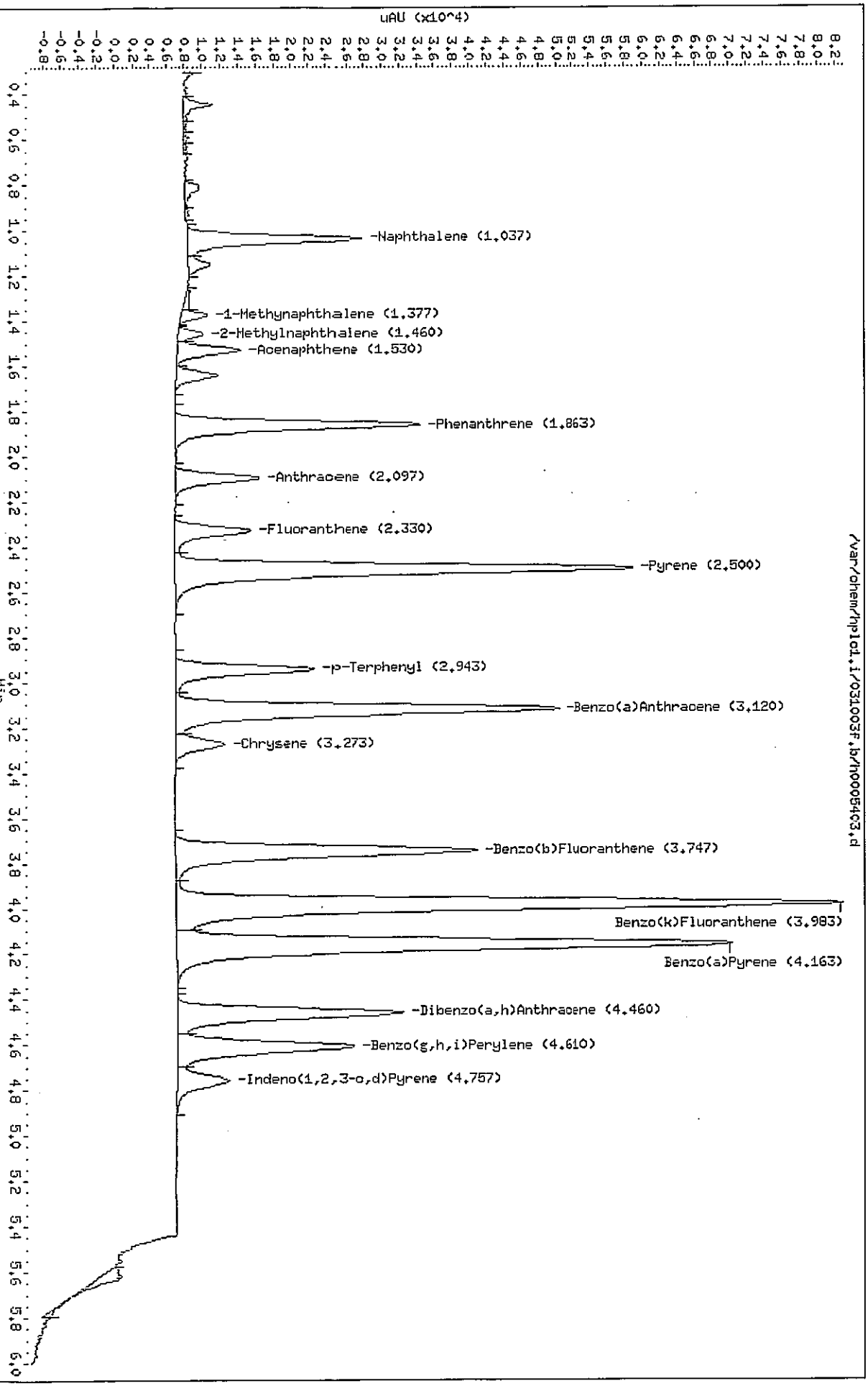
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
17 Dibenzo(a,h)Anthracene	4.460	4.630	-0.170	86907	5.00000	4.98
18 Benzo(g,h,i)Perylene	4.610	4.787	-0.177	74977	5.00000	4.98
19 Indeno(1,2,3-c,d)Pyrene	4.757	4.980	-0.223	24995	5.00000	5.31

QC Flag Legend

M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/031003f.b/h0005403.d
Date : 03-OCT-2003 08:03
Client ID: 1003STD06
Sample Info: 1003STD06
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003f.b/h0005402.d
Lab Smp Id: 1003STD07 Client Smp ID: 1003STD07
Inj Date : 03-OCT-2003 07:56
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD07
Misc Info : 3-46-4
Comment :
Method : /var/chem/hplc1.i/031003f.b/flpnafld.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:56 Cal File: h0005402.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.047	1.040	0.007	106745	10.0000	9.46(M)
3 1-Methynaphthalene	1.387	1.393	-0.006	17591	10.0000	12.7(M)
4 2-Methylnaphthalene	1.473	1.480	-0.007	15767	10.0000	11.8(M)
5 Acenaphthene	1.547	1.550	-0.003	41929	10.0000	10.5(M)
7 Phenanthrene	1.890	1.877	0.013	167682	10.0000	10.5
8 Anthracene	2.133	2.110	0.023	57581	10.0000	10.2
9 Fluoranthene	2.370	2.347	0.023	56304	10.0000	10.2
10 Pyrene	2.553	2.553	0.000	349260	10.0000	10.2
11 p-Terphenyl	3.000	2.980	0.020	97032	10.0000	10.6
12 Benzo(a)Anthracene	3.183	3.213	-0.030	290917	10.0000	10.5
13 Chrysene	3.340	3.377	-0.037	39670	10.0000	9.89
14 Benzo(b)Fluoranthene	3.823	3.823	0.000	242958	10.0000	10.3
15 Benzo(k)Fluoranthene	4.087	4.087	0.000	437986	10.0000	8.40
16 Benzo(a)Pyrene	4.257	4.257	0.000	417673	10.0000	9.47

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
17 Dibenzo(a,h)Anthracene	4.540	4.630	-0.090	175851	10.0000	10.1
18 Benzo(g,h,i)Perylene	4.690	4.787	-0.097	153766	10.0000	10.2
19 Indeno(1,2,3-c,d)Pyrene	4.853	4.980	-0.127	49173	10.0000	10.5

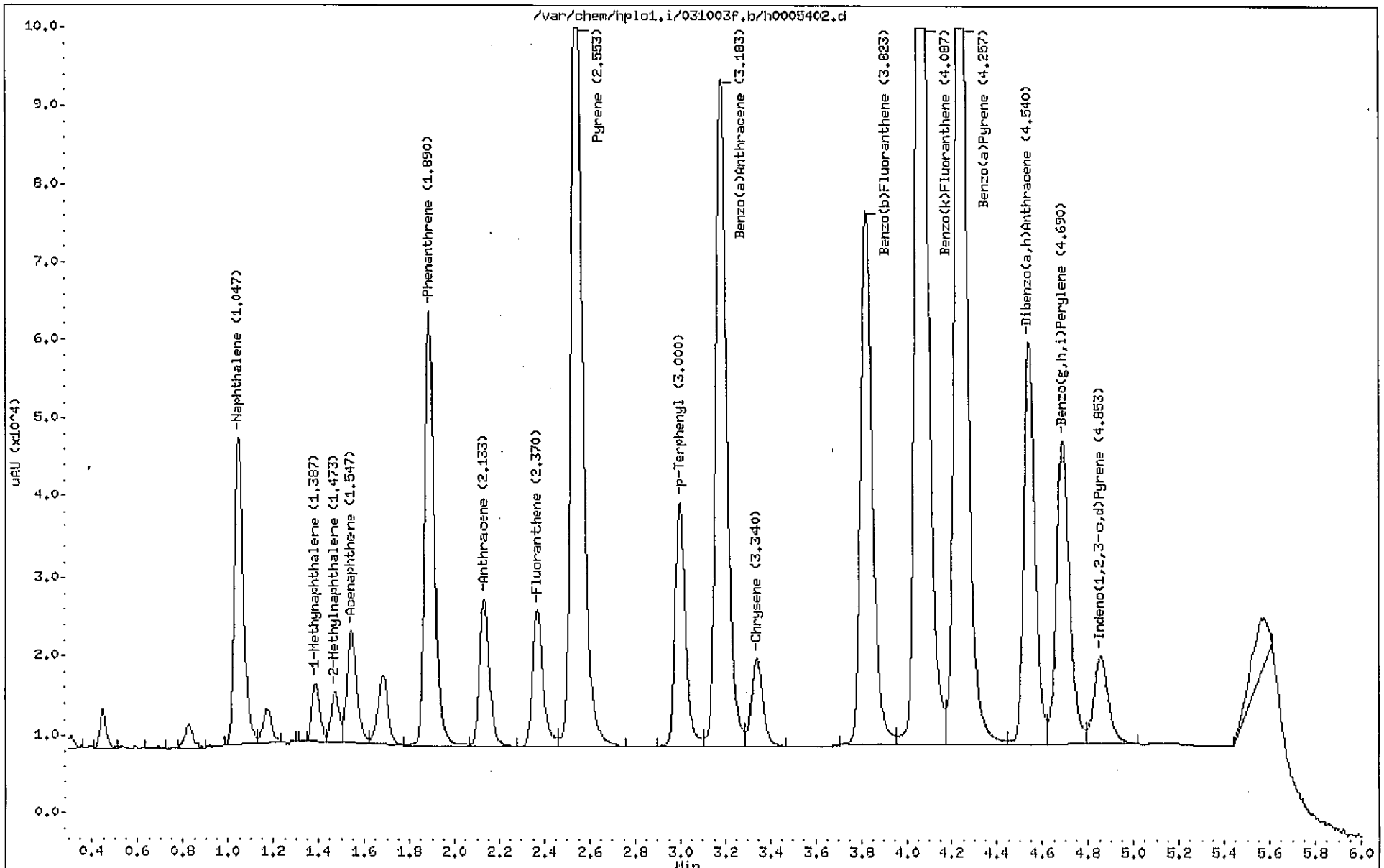
QC Flag Legend

M - Compound response manually integrated.

000261

Data File: /var/chem/hplc1.i/031003f.b/h0005402.d
Date : 03-OCT-2003 07:56
Client ID: 1003STD07
Sample Info: 1003STD07
Volume Injected (uL): 10.0
Column phase: 201TP-0.15H

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003f.b/h0005401.d
Lab Smp Id: 1003STD08 Client Smp ID: 1003STD08
Inj Date : 03-OCT-2003 07:49
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003STD08
Misc Info : 3-46-3
Comment :
Method : /var/chem/hplc1.i/031003f.b/flpnafld.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.040	1.040	0.000	215809	20.0000	19.1(M)
3 1-Methynaphthalene	1.377	1.393	-0.016	25492	20.0000	18.4(M)
4 2-Methylnaphthalene	1.463	1.480	-0.017	25215	20.0000	18.8(M)
5 Acenaphthene	1.537	1.550	-0.013	79730	20.0000	19.9(M)
7 Phenanthrene	1.877	1.877	0.000	317264	20.0000	19.8
8 Anthracene	2.110	2.110	0.000	105676	20.0000	18.7
9 Fluoranthene	2.347	2.347	0.000	110127	20.0000	20.0
11 p-Terphenyl	2.980	2.980	0.000	193992	20.0000	21.2
13 Chrysene	3.320	3.377	-0.057	80765	20.0000	20.1
17 Dibenzo(a,h)Anthracene	4.550	4.630	-0.080	341327	20.0000	19.6
18 Benzo(g,h,i)Perylene	4.700	4.787	-0.087	310328	20.0000	20.6
19 Indeno(1,2,3-c,d)Pyrene	4.877	4.980	-0.103	96189	20.0000	20.4

QC Flag Legend

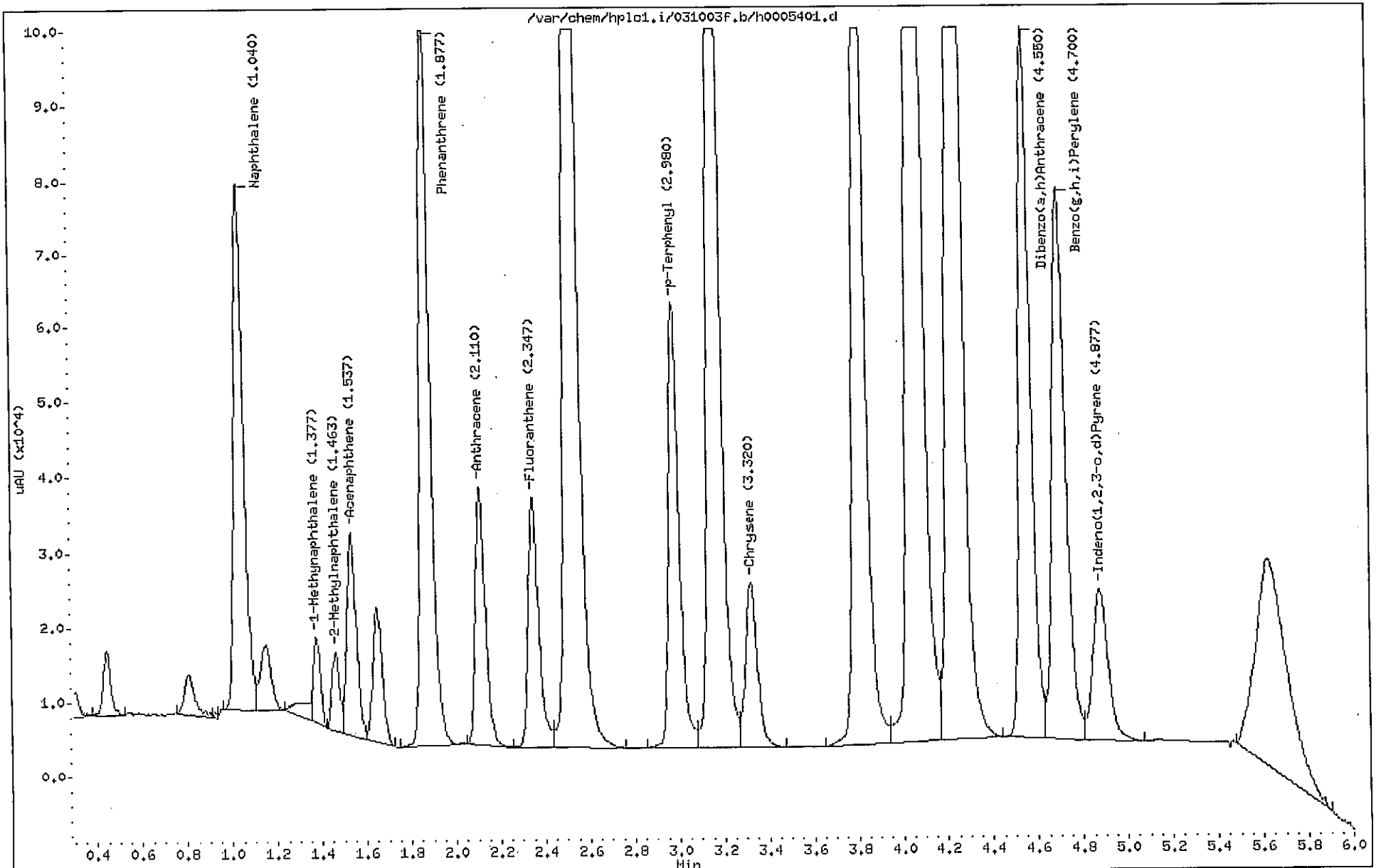
M - Compound response manually integrated.

000264

Data File: /var/chem/hplc1.i/031003f.b/h0005401.d
Date : 03-OCT-2003 07:49
Client ID: 1003STD08
Sample Info: 1003STD08
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 1003PNAICV
Level: LOW
Data Type: LC DATA
SpikeList File: ICV.spk
Sublist File: all.sub
Method File: /var/chem/hplc1.i/031003f.b/flpnafld.m
Misc Info: 3-47-8

Client SDG:
Fraction: OTHER
Client Smp ID: 1003PNAICV
Operator: jdt
SampleType: LCS
Quant Type: ESTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Naphthalene	5.00	4.71	94.13	80-120
3 1-Methynaphthalene	10.0	9.77	97.70	80-120
4 2-Methylnaphthalen	10.0	9.28	92.83	80-120
5 Acenaphthene	10.0	9.97	99.69	80-120
7 Phenanthrene	0.400	0.423	105.77	80-120
8 Anthracene	0.200	0.203	101.75	80-120
9 Fluoranthene	0.500	0.464	92.73	80-120
10 Pyrene	1.00	0.986	98.64	80-120
12 Benzo(a)Anthracene	0.500	0.551	110.21	80-120
13 Chrysene	0.500	0.411	82.25	80-120
14 Benzo(b)Fluoranthe	0.200	0.199	99.50	80-120
15 Benzo(k)Fluoranthe	0.200	0.214	107.23	80-120
16 Benzo(a)Pyrene	0.500	0.532	106.37	80-120
17 Dibenzo(a,h)Anthra	2.00	2.14	106.81	80-120
18 Benzo(g,h,i)Peryle	0.800	0.887	110.86	80-120
19 Indeno(1,2,3-c,d)P	0.500	0.498	99.69	80-120

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 11 p-Terphenyl	4.00	4.47	111.81	40-140

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031003f.b/h0005409.d
Lab Smp Id: 1003PNAICV Client Smp ID: 1003PNAICV
Inj Date : 03-OCT-2003 08:58
Operator : jdt Inst ID: hplc1.i
Smp Info : 1003PNAICV
Misc Info : 3-47-8
Comment :
Method : /var/chem/hplc1.i/031003f.b/flpnafld.m
Meth Date : 30-Oct-2003 12:14 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 Naphthalene	1.033	1.040	-0.007	53091	4.70657	4.71(M)
3 1-Methynaphthalene	1.373	1.393	-0.020	13555	9.76993	9.77(M)
4 2-Methylnaphthalene	1.457	1.480	-0.023	12429	9.28251	9.28
5 Acenaphthene	1.530	1.550	-0.020	39936	9.96865	9.97
7 Phenanthrene	1.860	1.877	-0.017	6779	0.42309	0.423
8 Anthracene	2.093	2.110	-0.017	1151	0.20349	0.203(M)
9 Fluoranthene	2.333	2.347	-0.014	2558	0.46364	0.464
10 Pyrene	2.507	2.553	-0.046	33834	0.98635	0.986
11 p-Terphenyl	2.957	2.980	-0.023	40860	4.47244	4.47(M)
12 Benzo(a)Anthracene	3.140	3.213	-0.073	15317	0.55104	0.551(M)
13 Chrysene	3.293	3.377	-0.084	1650	0.41127	0.411(M)
14 Benzo(b)Fluoranthene	3.783	3.823	-0.040	4699	0.19899	0.199
15 Benzo(k)Fluoranthene	4.027	4.087	-0.060	11187	0.21446	0.214
16 Benzo(a)Pyrene	4.207	4.257	-0.050	23455	0.53183	0.532

ompounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
17 Dibenzo(a,h)Anthracene	4.517	4.630	-0.113	37265	2.13628	2.14(M)
18 Benzo(g,h,i)Perylene	4.670	4.787	-0.117	13349	0.88690	0.887(M)
19 Indeno(1,2,3-c,d)Pyrene	4.833	4.980	-0.147	2345	0.49847	0.498(M)

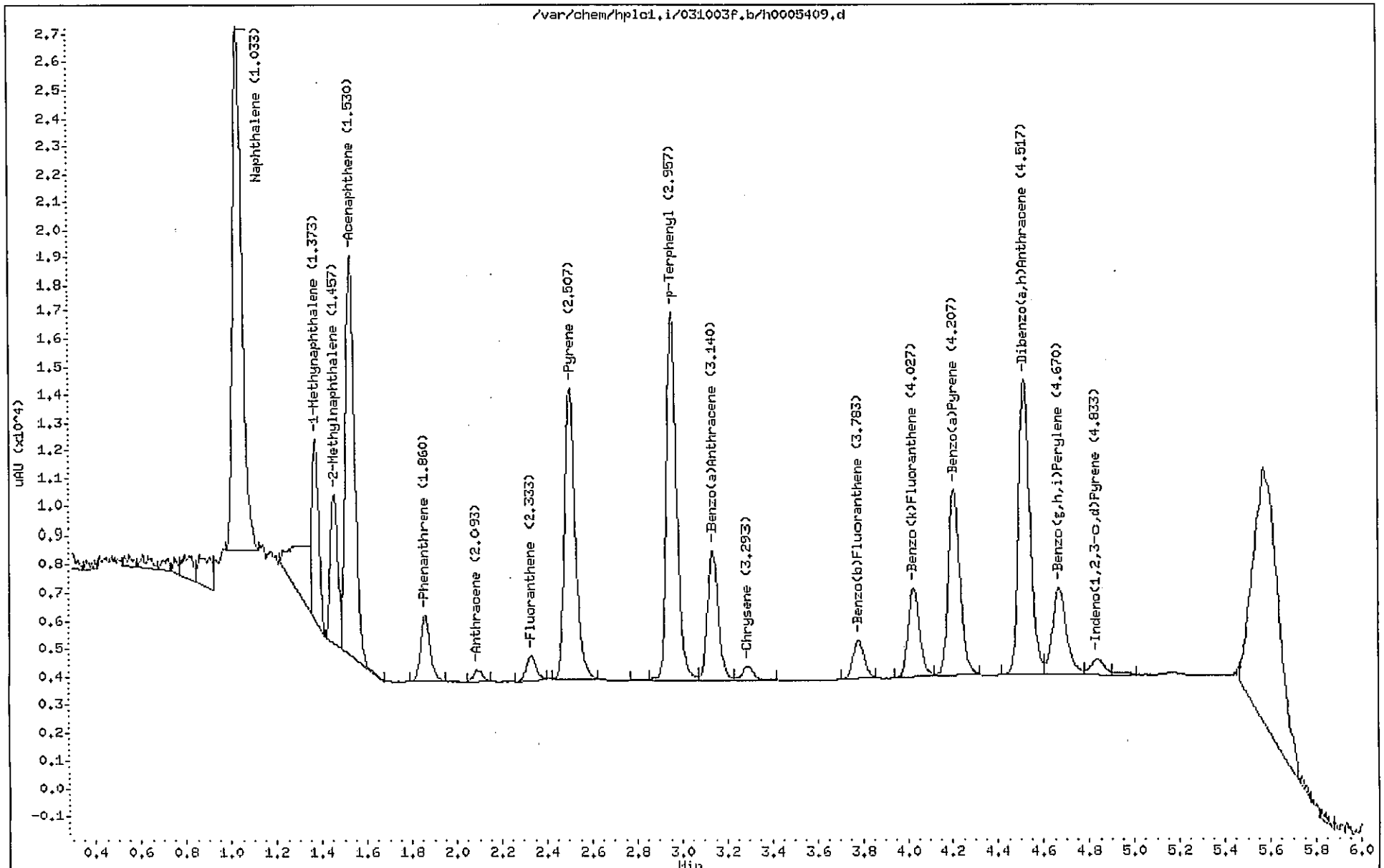
C Flag Legend

- Compound response manually integrated.

000268

Data File: /var/chem/hplc1.i/031003f.b/h0005409.d
Date : 03-OCT-2003 08:58
Client ID: 1003PNAICV
Sample Info: 1003PNAICV
Volume Injected (uL): 10.0
Column phase: 201TP-0.15N

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031f.b/h0005523.d
Lab Smp Id: 1031STD05 Client Smp ID: 1031STD05
Inj Date : 31-OCT-2003 09:33
Operator : jdt Inst ID: hplc1.i
Smp Info : 1031STD05
Misc Info : 3-46-6
Comment :
Method : /var/chem/hplc1.i/031031f.b/flpnafld.m
Meth Date : 31-Oct-2003 10:58 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.043	1.043	0.000	27964	2.50000	2.48(M)
3 1-Methynaphthalene	1.383	1.383	0.000	3383	2.50000	2.44(M)
4 2-Methylnaphthalene	1.470	1.477	-0.007	3279	2.50000	2.45(M)
5 Acenaphthene	1.543	1.547	-0.004	9668	2.50000	2.41(M)
7 Phenanthrene	1.890	1.890	0.000	41415	2.50000	2.58
8 Anthracene	2.137	2.137	0.000	14665	2.50000	2.59
9 Fluoranthene	2.377	2.377	0.000	14825	2.50000	2.69
10 Pyrene	2.553	2.553	0.000	94050	2.50000	2.74
11 p-Terphenyl	3.020	3.020	0.000	23422	2.50000	2.56
12 Benzo(a)Anthracene	3.210	3.210	0.000	76667	2.50000	2.76
13 Chrysene	3.373	3.373	0.000	9215	2.50000	2.30
14 Benzo(b)Fluoranthene	3.873	3.873	0.000	60328	2.50000	2.55
15 Benzo(k)Fluoranthene	4.130	4.130	0.000	135465	2.50000	2.60

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
16 Benzo(a)Pyrene	4.303	4.303	0.000	119032	2.50000	2.70
17 Dibenzo(a,h)Anthracene	4.620	4.543	0.077	44633	2.50000	2.56
18 Benzo(g,h,i)Perylene	4.777	4.693	0.084	38568	2.50000	2.56
19 Indeno(1,2,3-c,d)Pyrene	4.973	4.860	0.113	11136	2.50000	2.37

QC Flag Legend

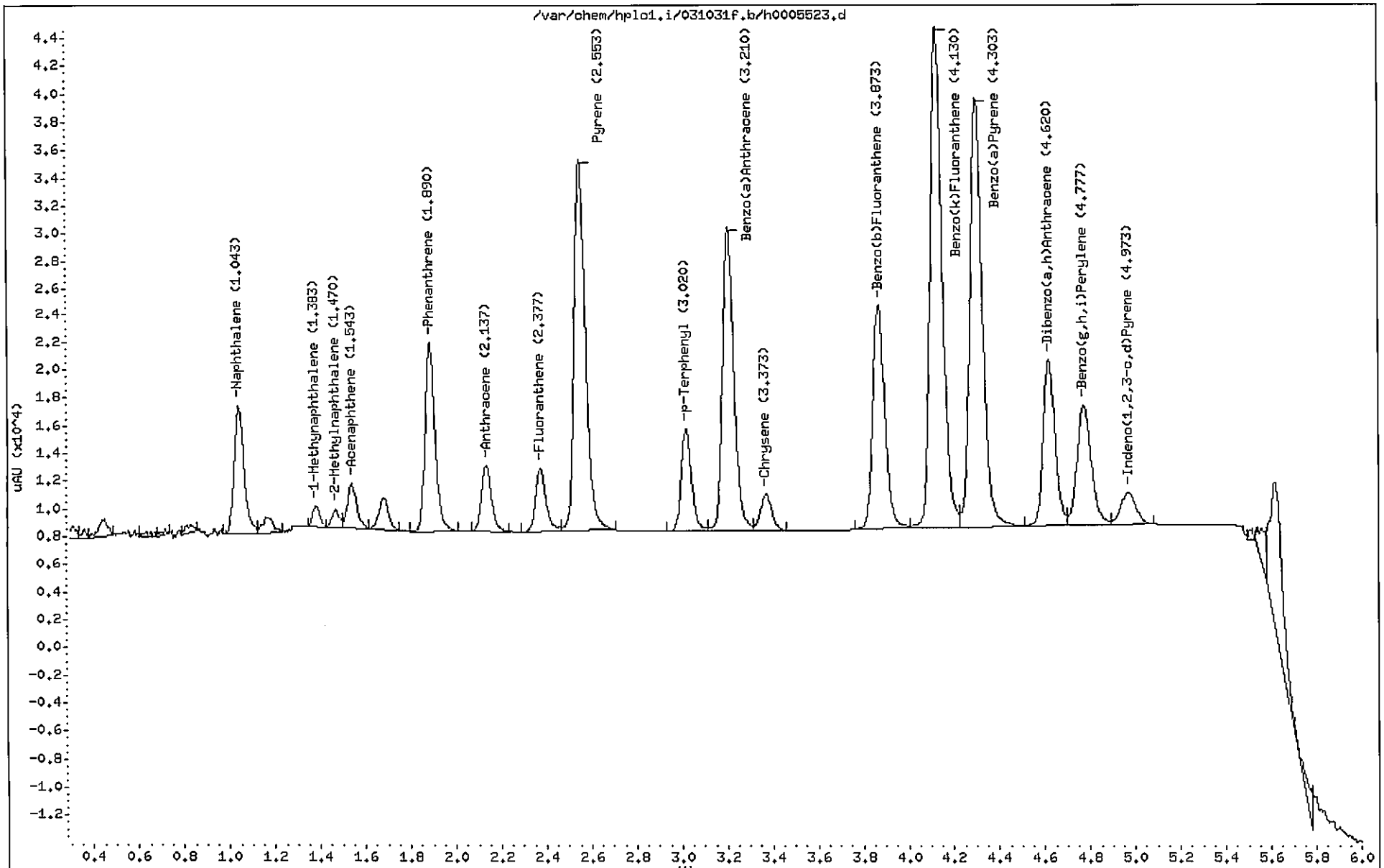
M - Compound response manually integrated.

000271

Data File: /var/chem/hplc1.i/031031f.b/h0005523.d
Date : 31-OCT-2003 09:33
Client ID: 1031STD05
Sample Info: 1031STD05
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031f.b/h0005534.d
Lab Smp Id: 1031STD05 Client Smp ID: 1031STD05
Inj Date : 31-OCT-2003 11:24
Operator : jdt Inst ID: hplc1.i
Smp Info : 1031STD05
Misc Info : 3-46-6
Comment :
Method : /var/chem/hplc1.i/031031f.b/flpnafld.m
Meth Date : 31-Oct-2003 10:58 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.047	1.043	0.004	26785	2.50000	2.37
3 1-Methynaphthalene	1.387	1.383	0.004	3599	2.50000	2.59(M)
4 2-Methylnaphthalene	1.477	1.477	0.000	3031	2.50000	2.26(M)
5 Acenaphthene	1.547	1.547	0.000	9155	2.50000	2.29(M)
7 Phenanthrene	1.893	1.890	0.003	40394	2.50000	2.52
8 Anthracene	2.140	2.137	0.003	14483	2.50000	2.56
9 Fluoranthene	2.377	2.377	0.000	14393	2.50000	2.61
10 Pyrene	2.553	2.553	0.000	86926	2.50000	2.53
11 p-Terphenyl	3.013	3.020	-0.007	23406	2.50000	2.56
12 Benzo(a)Anthracene	3.200	3.210	-0.010	74808	2.50000	2.69
13 Chrysene	3.360	3.373	-0.013	9025	2.50000	2.25
14 Benzo(b)Fluoranthene	3.847	3.873	-0.026	59645	2.50000	2.53
15 Benzo(k)Fluoranthene	4.093	4.130	-0.037	136694	2.50000	2.62

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
16 Benzo(a)Pyrene	4.267	4.303	-0.036	115085	2.50000	2.61
17 Dibenzo(a,h)Anthracene	4.567	4.543	0.024	42742	2.50000	2.45
18 Benzo(g,h,i)Perylene	4.717	4.693	0.024	36424	2.50000	2.42
19 Indeno(1,2,3-c,d)Pyrene	4.890	4.860	0.030	10862	2.50000	2.31

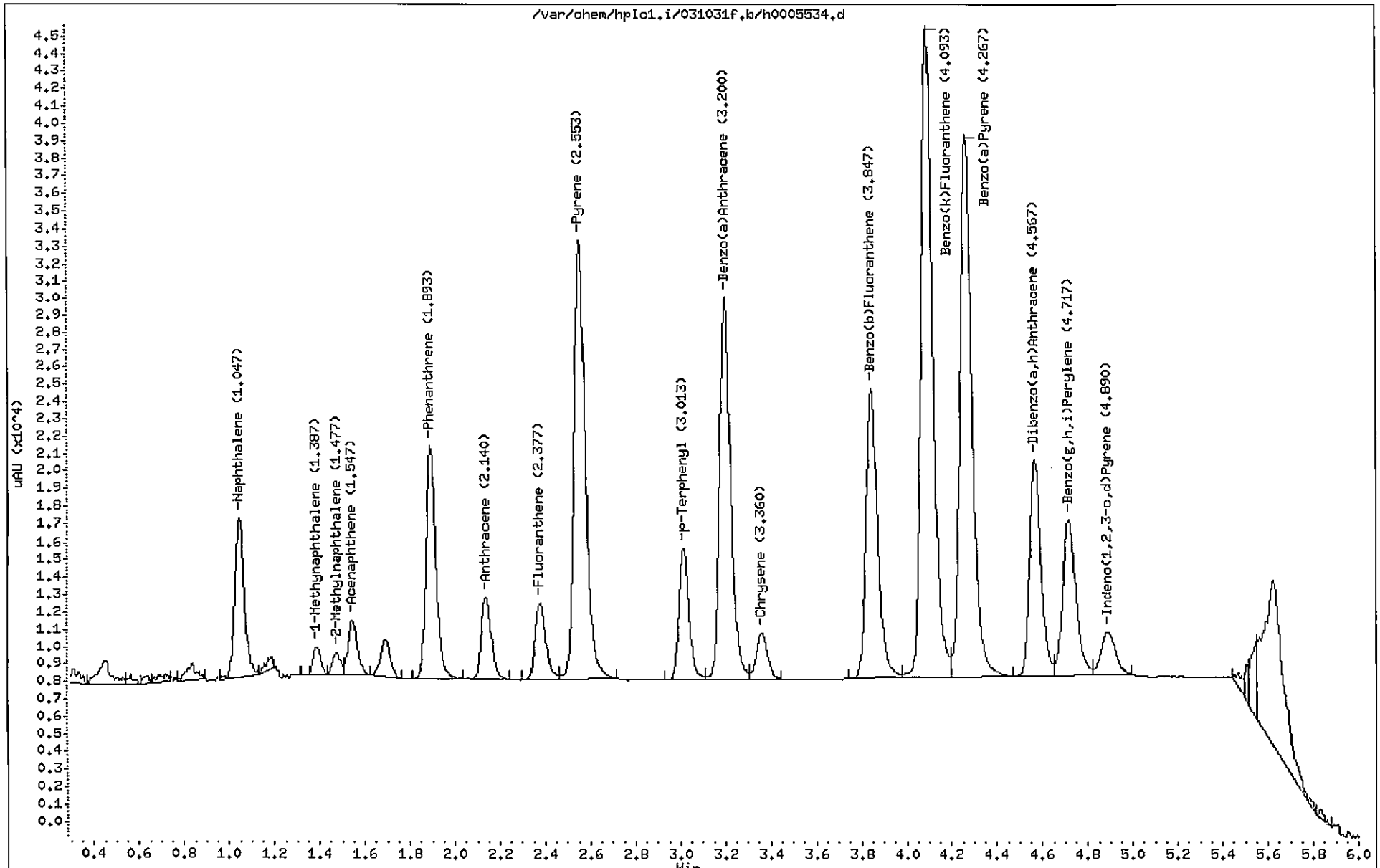
QC Flag Legend

M - Compound response manually integrated.

000274

Data File: /var/chem/hplc1.i/031031f.b/h0005534.d
Date : 31-OCT-2003 11:24
Client ID: 1031STD05
Sample Info: 1031STD05
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031f.b/h0005540.d
Lab Smp Id: 1031STD05 Client Smp ID: 1031STD05
Inj Date : 31-OCT-2003 12:14
Operator : jdt Inst ID: hplc1.i
Smp Info : 1031STD05
Misc Info : 3-46-6
Comment :
Method : /var/chem/hplc1.i/031031f.b/flpnafld.m
Meth Date : 31-Oct-2003 10:58 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

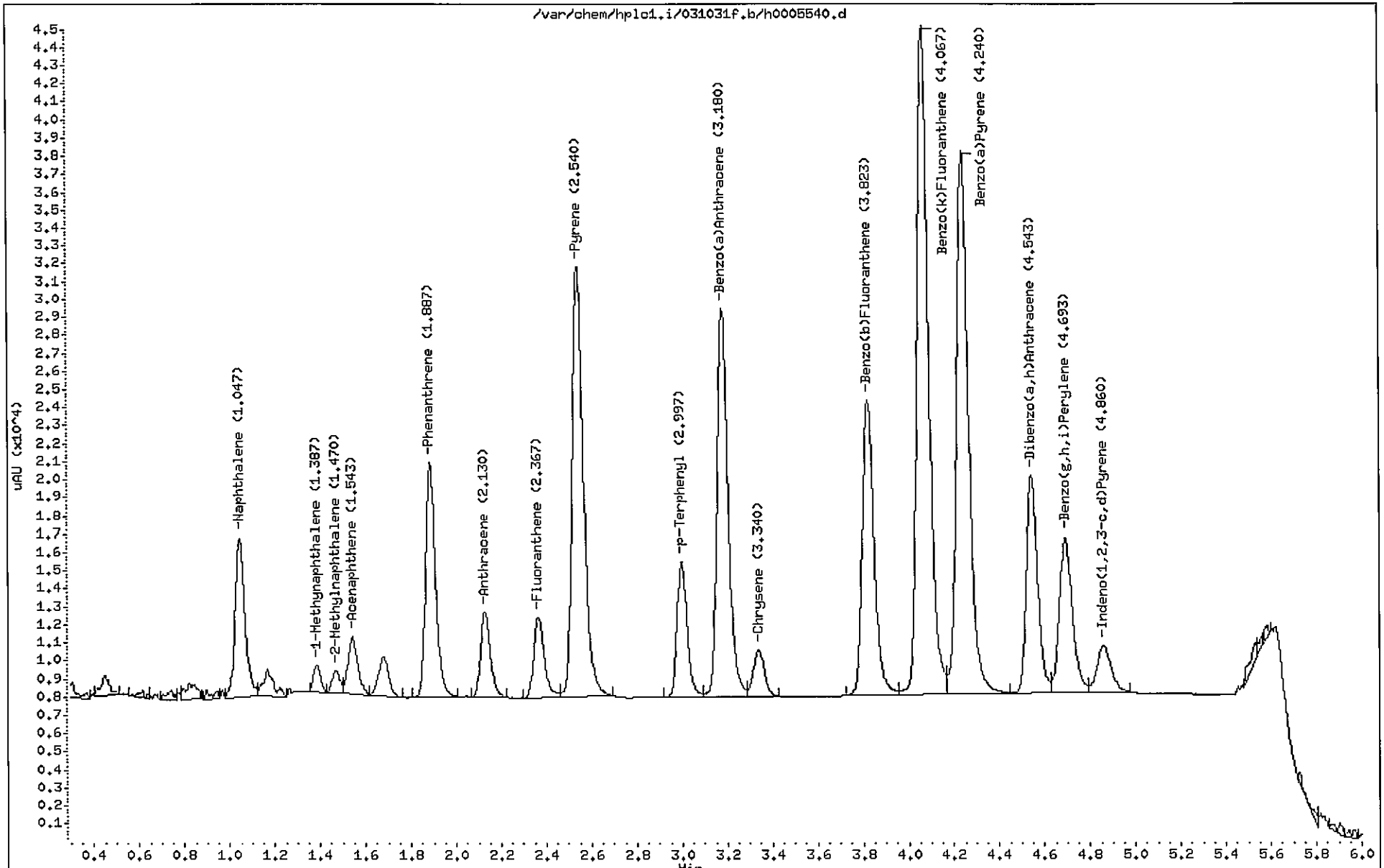
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.047	1.043	0.004	27196	2.50000	2.41
3 1-Methynaphthalene	1.387	1.383	0.004	3231	2.50000	2.33
4 2-Methylnaphthalene	1.470	1.477	-0.007	3025	2.50000	2.26
5 Acenaphthene	1.543	1.547	-0.004	9345	2.50000	2.33
7 Phenanthrene	1.887	1.890	-0.003	39023	2.50000	2.44
8 Anthracene	2.130	2.137	-0.007	14258	2.50000	2.52
9 Fluoranthene	2.367	2.377	-0.010	14312	2.50000	2.59
10 Pyrene	2.540	2.553	-0.013	82094	2.50000	2.39
11 p-Terphenyl	2.997	3.020	-0.023	23224	2.50000	2.54
12 Benzo(a)Anthracene	3.180	3.210	-0.030	73159	2.50000	2.63
13 Chrysene	3.340	3.373	-0.033	8771	2.50000	2.19
14 Benzo(b)Fluoranthene	3.823	3.873	-0.050	58660	2.50000	2.48
15 Benzo(k)Fluoranthene	4.067	4.130	-0.063	132755	2.50000	2.54

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
16 Benzo(a)Pyrene	4.240	4.303	-0.063	111952	2.50000	2.54
17 Dibenzo(a,h)Anthracene	4.543	4.543	0.000	41589	2.50000	2.38
18 Benzo(g,h,i)Perylene	4.693	4.693	0.000	34758	2.50000	2.31
19 Indeno(1,2,3-c,d)Pyrene	4.860	4.860	0.000	11066	2.50000	2.35

Data File: /var/chem/hplc1.i/031031f.b/h0005540.d
Date : 31-OCT-2003 12:14
Client ID: 1031STD05
Sample Info: 1031STD05
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



0002177

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031.b/h0005524.d
Lab Smp Id: 127357 Client Smp ID: 127357
Inj Date : 31-OCT-2003 09:48
Operator : jdt Inst ID: hplc1.i
Smp Info : 127357-DL1
Misc Info : 1030BLK01
Comment :
Method : /var/chem/hplc1.i/031031.b/flpnauv.m
Meth Date : 31-Oct-2003 11:00 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
11 p-Terphenyl	2.922	3.008	-0.086	11379	1.68195	1.68

Data File: /var/chem/hplc1.i/031031.b/h0005524.d

Date : 31-OCT-2003 09:48

Client ID: 127357

Sample Info: 127357-DL1

Volume Injected (uL): 10.0

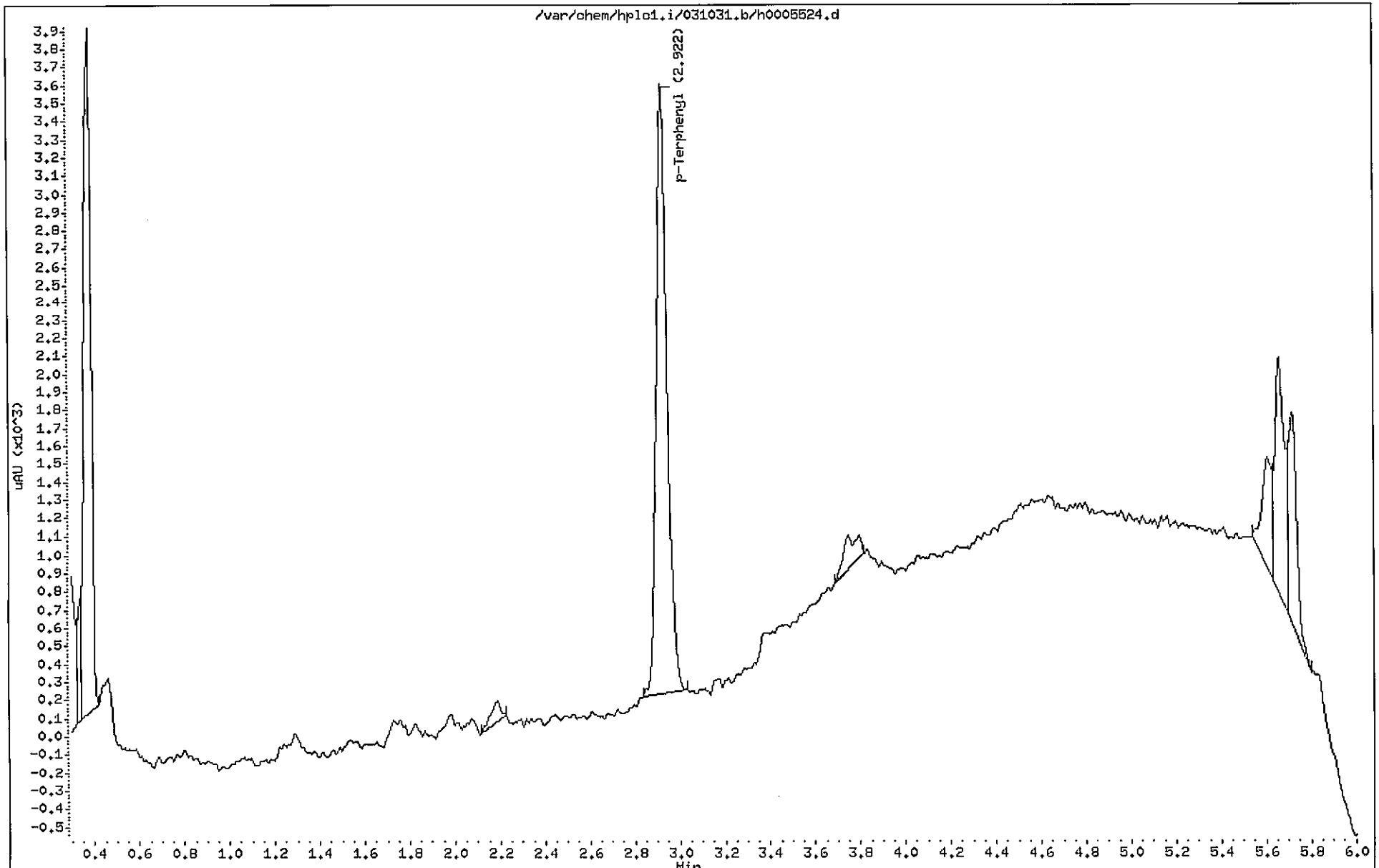
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt

Column diameter: 2.10

0002179



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031f.b/h0005524.d
Lab Smp Id: 127357 Client Smp ID: 127357
Inj Date : 31-OCT-2003 09:48
Operator : jdt Inst ID: hplc1.i
Smp Info : 127357-DL1
Misc Info : 1030BLK01
Comment :
Method : /var/chem/hplc1.i/031031f.b/flpnafld.m
Meth Date : 31-Oct-2003 10:58 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

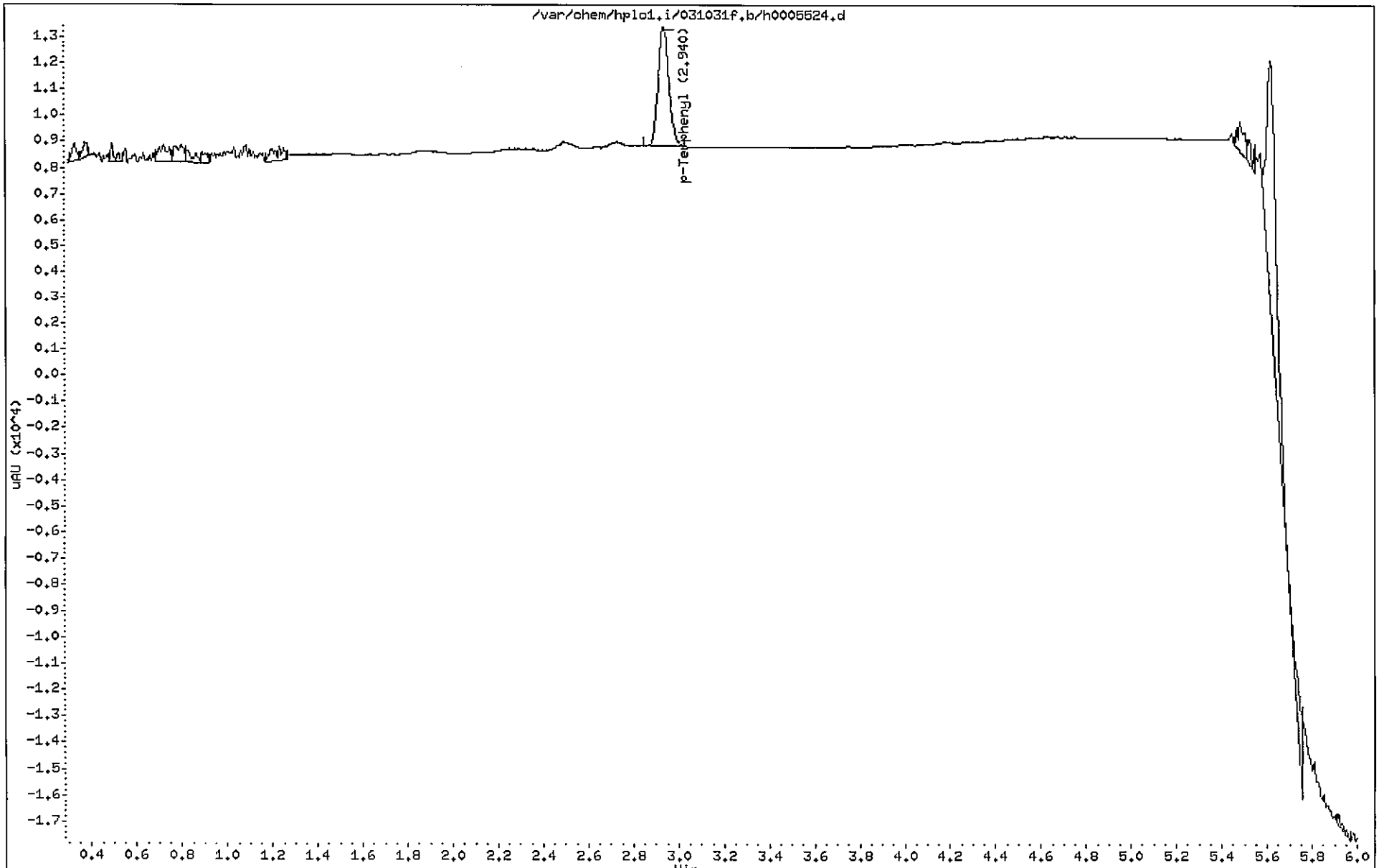
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
11 p-Terphenyl	2.940	3.020	-0.080	15172	1.66074	1.66

Data File: /var/chem/hplc1.i/031031f.b/h0005524.d
Date : 31-OCT-2003 09:48
Client ID: 127357
Sample Info: 127357-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

002281



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031.b/h0005525.d
Lab Smp Id: 127358 Client Smp ID: 127358
Inj Date : 31-OCT-2003 09:56
Operator : jdt Inst ID: hplc1.i
Smp Info : 127358-DL1
Misc Info : 1030LCS01
Comment :
Method : /var/chem/hplc1.i/031031.b/flpnauv.m
Meth Date : 31-Oct-2003 11:00 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 Naphthalene	1.014	1.028	-0.014	10605	4.40904	4.41
2 Acenaphthylene	1.228	1.251	-0.023	7617	4.65689	4.66
3 1-Methynaphthalene	1.361	1.371	-0.010	14875	10.7980	10.8
4 2-Methylnaphthalene	1.441	1.458	-0.017	20613	10.3792	10.4(M)
5 Acenaphthene	1.508	1.524	-0.016	6953	6.94023	6.94(M)
6 Fluorene	1.621	1.631	-0.010	10571	0.93330	0.933
7 Phenanthrene	1.861	1.878	-0.017	10147	0.39172	0.392
8 Anthracene	2.107	2.124	-0.017	9418	0.17074	0.171
9 Fluoranthene	2.348	2.364	-0.016	3031	0.42291	0.423
10 Pyrene	2.521	2.538	-0.017	5288	0.92015	0.920
11 p-Terphenyl	2.994	3.008	-0.014	13640	2.01604	2.02
12 Benzo(a)Anthracene	3.181	3.195	-0.014	7625	0.47626	0.476
13 Chrysene	3.348	3.362	-0.014	12171	0.46920	0.469
14 Benzo(b)Fluoranthene	3.848	3.862	-0.014	4900	0.24358	0.244(M)

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
15 Benzo(k)Fluoranthene	4.101	4.115	-0.014	2469	0.20093	0.201
16 Benzo(a)Pyrene	4.281	4.288	-0.007	8498	0.47856	0.479
17 Dibenzo(a,h)Anthracene	4.601	4.531	0.070	7651	1.73894	1.74
18 Benzo(g,h,i)Perylene	4.754	4.678	0.076	5229	0.72537	0.725
19 Indeno(1,2,3-c,d)Pyrene	4.954	4.844	0.110	6391	0.41946	0.419

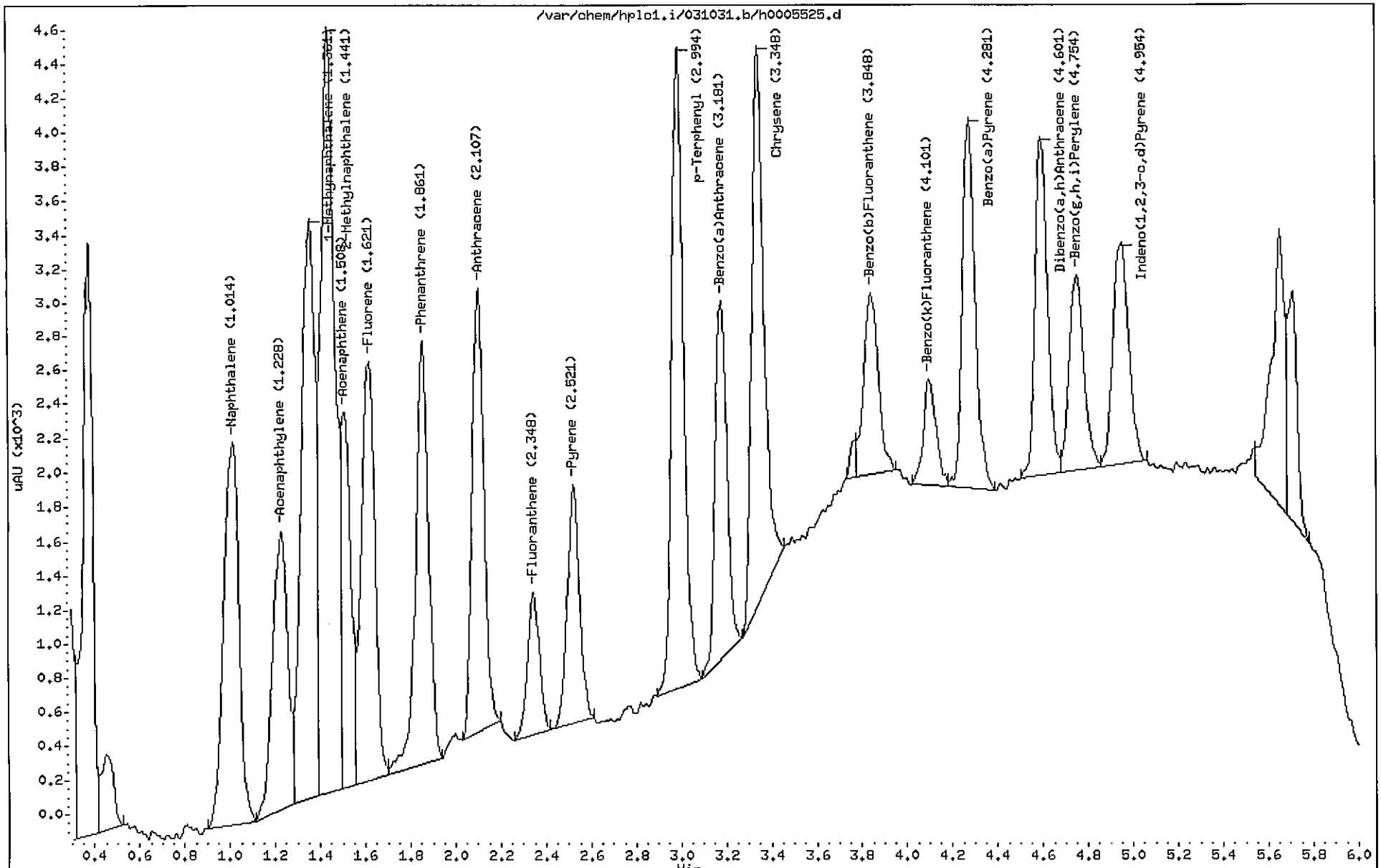
QC Flag Legend

M - Compound response manually integrated.

000284

Data File: /var/chem/hplc1.i/031031.b/h0005525.d
Date : 31-OCT-2003 09:56
Client ID: 127358
Sample Info: 127358-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031f.b/h0005525.d
Lab Smp Id: 127358 Client Smp ID: 127358
Inj Date : 31-OCT-2003 09:56
Operator : jdt Inst ID: hplc1.i
Smp Info : 127358-DL1
Misc Info : 1030LCS01
Comment :
Method : /var/chem/hplc1.i/031031f.b/flpnafld.m
Meth Date : 31-Oct-2003 10:58 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
1 Naphthalene	1.020	1.043	-0.023	50189	4.44932	4.45(M)
3 1-Methynaphthalene	1.370	1.383	-0.013	10048	7.24222	7.24(M)
4 2-Methylnaphthalene	1.483	1.477	0.006	12312	9.19513	9.20(M)
5 Acenaphthene	1.527	1.547	-0.020	33558	8.37682	8.38(M)
7 Phenanthrene	1.873	1.890	-0.017	6079	0.37940	0.379
8 Anthracene	2.117	2.137	-0.020	1110	0.19635	0.196(M)
9 Fluoranthene	2.360	2.377	-0.017	2537	0.45984	0.460
10 Pyrene	2.540	2.553	-0.013	33879	0.98767	0.988
11 p-Terphenyl	3.007	3.020	-0.013	18011	1.97149	1.97(M)
12 Benzo(a)Anthracene	3.193	3.210	-0.017	14141	0.50874	0.509(M)
13 Chrysene	3.360	3.373	-0.013	1383	0.34489	0.345(M)
14 Benzo(b)Fluoranthene	3.860	3.873	-0.013	4273	0.18095	0.181
15 Benzo(k)Fluoranthene	4.117	4.130	-0.013	10023	0.19214	0.192
16 Benzo(a)Pyrene	4.293	4.303	-0.010	21515	0.48785	0.488

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
17 Dibenzo(a,h)Anthracene	4.613	4.543	0.070	32923	1.88742	1.89(M)
18 Benzo(g,h,i)Perylene	4.767	4.693	0.074	12713	0.84469	0.845(M)
19 Indeno(1,2,3-c,d)Pyrene	4.963	4.860	0.103	1949	0.41430	0.414(M)

QC Flag Legend

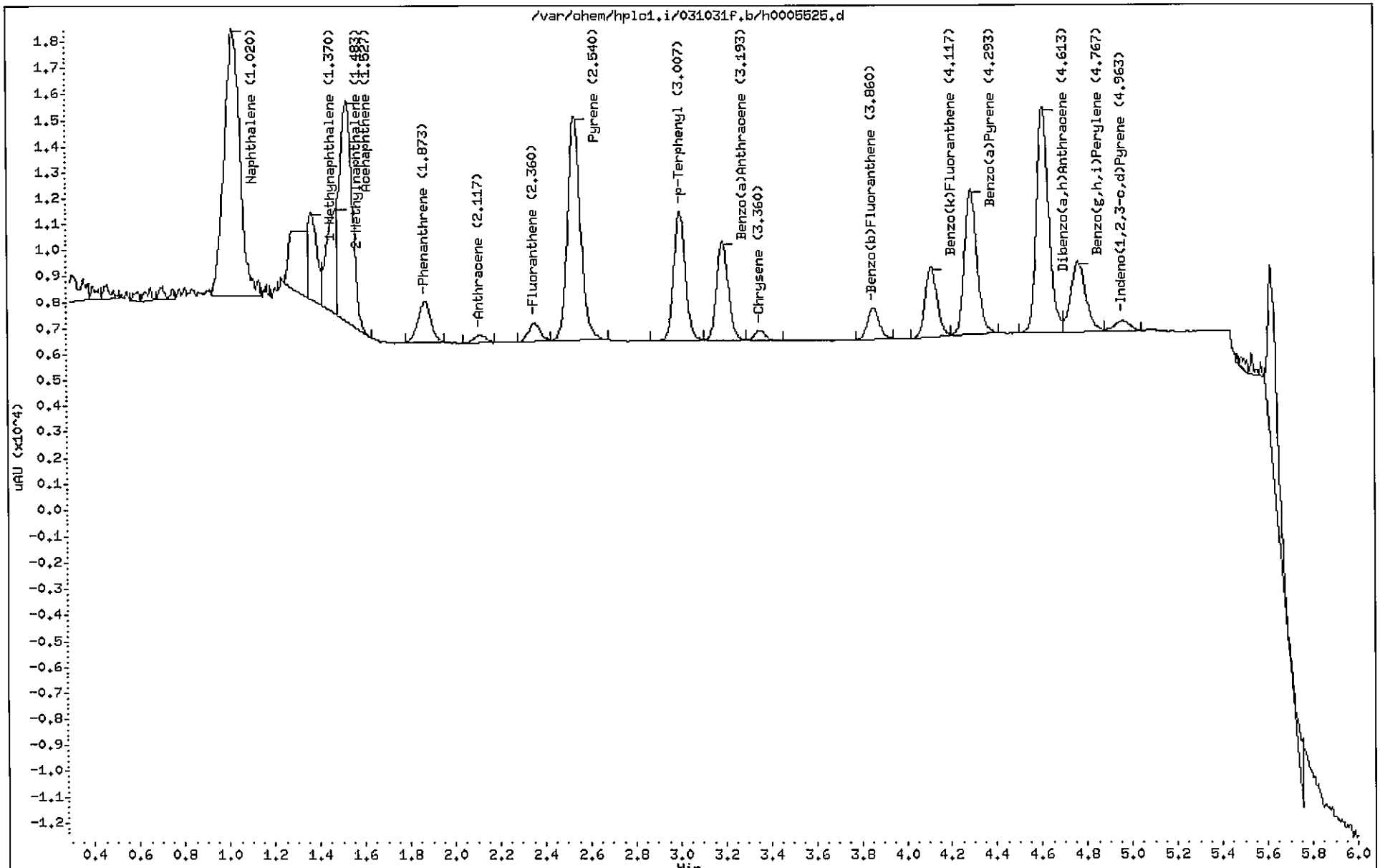
M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/031031f.b/h0005525.d
Date : 31-OCT-2003 09:56
Client ID: 127358
Sample Info: 127358-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000287



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031.b/h0005526.d
Lab Smp Id: 127359 Client Smp ID: 127359
Inj Date : 31-OCT-2003 10:03
Operator : jdt Inst ID: hplc1.i
Smp Info : 127359-DL1
Misc Info : 1030LCSD01
Comment :
Method : /var/chem/hplc1.i/031031.b/flpnauv.m
Meth Date : 31-Oct-2003 11:00 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 Naphthalene	1.028	1.028	0.000	10632	4.42026	4.42
2 Acenaphthylene	1.241	1.251	-0.010	7415	4.53339	4.53
3 1-Methynaphthalene	1.367	1.371	-0.004	13478	9.78389	9.78
4 2-Methylnaphthalene	1.454	1.458	-0.004	17807	8.96631	8.97
5 Acenaphthene	1.521	1.524	-0.003	8447	8.43149	8.43
6 Fluorene	1.634	1.631	0.003	10019	0.88456	0.885
7 Phenanthrene	1.874	1.878	-0.004	9300	0.35902	0.359
8 Anthracene	2.121	2.124	-0.003	9467	0.17162	0.172
9 Fluoranthene	2.361	2.364	-0.003	3125	0.43603	0.436
10 Pyrene	2.534	2.538	-0.004	5175	0.90049	0.900
11 p-Terphenyl	2.994	3.008	-0.014	12692	1.87592	1.88
12 Benzo(a)Anthracene	3.181	3.195	-0.014	7208	0.45022	0.450
13 Chrysene	3.348	3.362	-0.014	11293	0.43535	0.435
14 Benzo(b)Fluoranthene	3.834	3.862	-0.028	4350	0.21625	0.216(M)

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
15 Benzo(k)Fluoranthene	4.081	4.115	-0.034	2102	0.17106	0.171
16 Benzo(a)Pyrene	4.254	4.288	-0.034	7616	0.42889	0.429
17 Dibenzo(a,h)Anthracene	4.554	4.531	0.023	7497	1.70394	1.70
18 Benzo(g,h,i)Perylene	4.707	4.678	0.029	5162	0.71608	0.716
19 Indeno(1,2,3-c,d)Pyrene	4.881	4.844	0.037	6262	0.41099	0.411

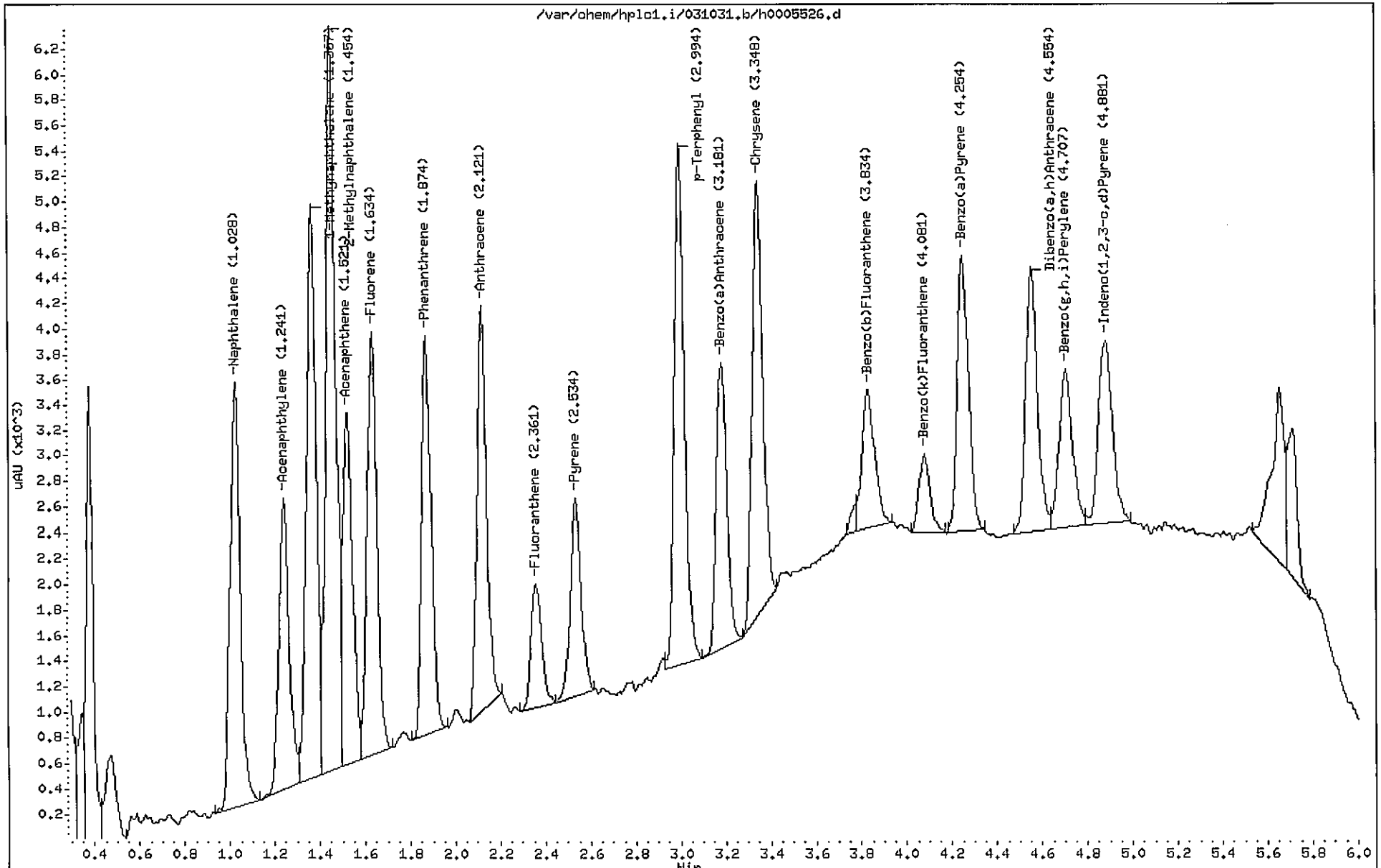
QC Flag Legend

M - Compound response manually integrated.

000290

Data File: /var/chem/hplc1.i/031031.b/h0005526.d
Date : 31-OCT-2003 10:03
Client ID: 127359
Sample Info: 127359-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: jdt
Column diameter: 2.10



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/031031f.b/h0005526.d
Lab Smp Id: 127359 Client Smp ID: 127359
Inj Date : 31-OCT-2003 10:03
Operator : jdt Inst ID: hplc1.i
Smp Info : 127359-DL1
Misc Info : 1030LCSD01
Comment :
Method : /var/chem/hplc1.i/031031f.b/flpnafld.m
Meth Date : 31-Oct-2003 10:58 jdt Quant Type: ESTD
Cal Date : 03-OCT-2003 07:49 Cal File: h0005401.d
Als bottle: 1 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 Naphthalene	1.037	1.043	-0.006	49296	4.37014	4.37
3 1-Methynaphthalene	1.380	1.383	-0.003	9685	6.98058	6.98
4 2-Methylnaphthalene	1.467	1.477	-0.010	9842	7.35043	7.35
5 Acenaphthene	1.540	1.547	-0.007	33363	8.32792	8.33
7 Phenanthrene	1.887	1.890	-0.003	5996	0.37422	0.374
8 Anthracene	2.127	2.137	-0.010	1023	0.18090	0.181(M)
9 Fluoranthene	2.370	2.377	-0.007	2388	0.43283	0.433
10 Pyrene	2.547	2.553	-0.006	32168	0.93778	0.938
11 p-Terphenyl	3.010	3.020	-0.010	17368	1.90115	1.90(M)
12 Benzo(a)Anthracene	3.197	3.210	-0.013	13592	0.48900	0.489(M)
13 Chrysene	3.357	3.373	-0.016	1382	0.34459	0.345(M)
14 Benzo(b)Fluoranthene	3.843	3.873	-0.030	3983	0.16867	0.169
15 Benzo(k)Fluoranthene	4.090	4.130	-0.040	9527	0.18264	0.183
16 Benzo(a)Pyrene	4.263	4.303	-0.040	20238	0.45889	0.459

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
17 Dibenzo(a,h)Anthracene	4.570	4.543	0.027	30791	1.76515	1.77
18 Benzo(g,h,i)Perylene	4.720	4.693	0.027	11873	0.78884	0.789
19 Indeno(1,2,3-c,d)Pyrene	4.893	4.860	0.033	1613	0.34287	0.343

QC Flag Legend

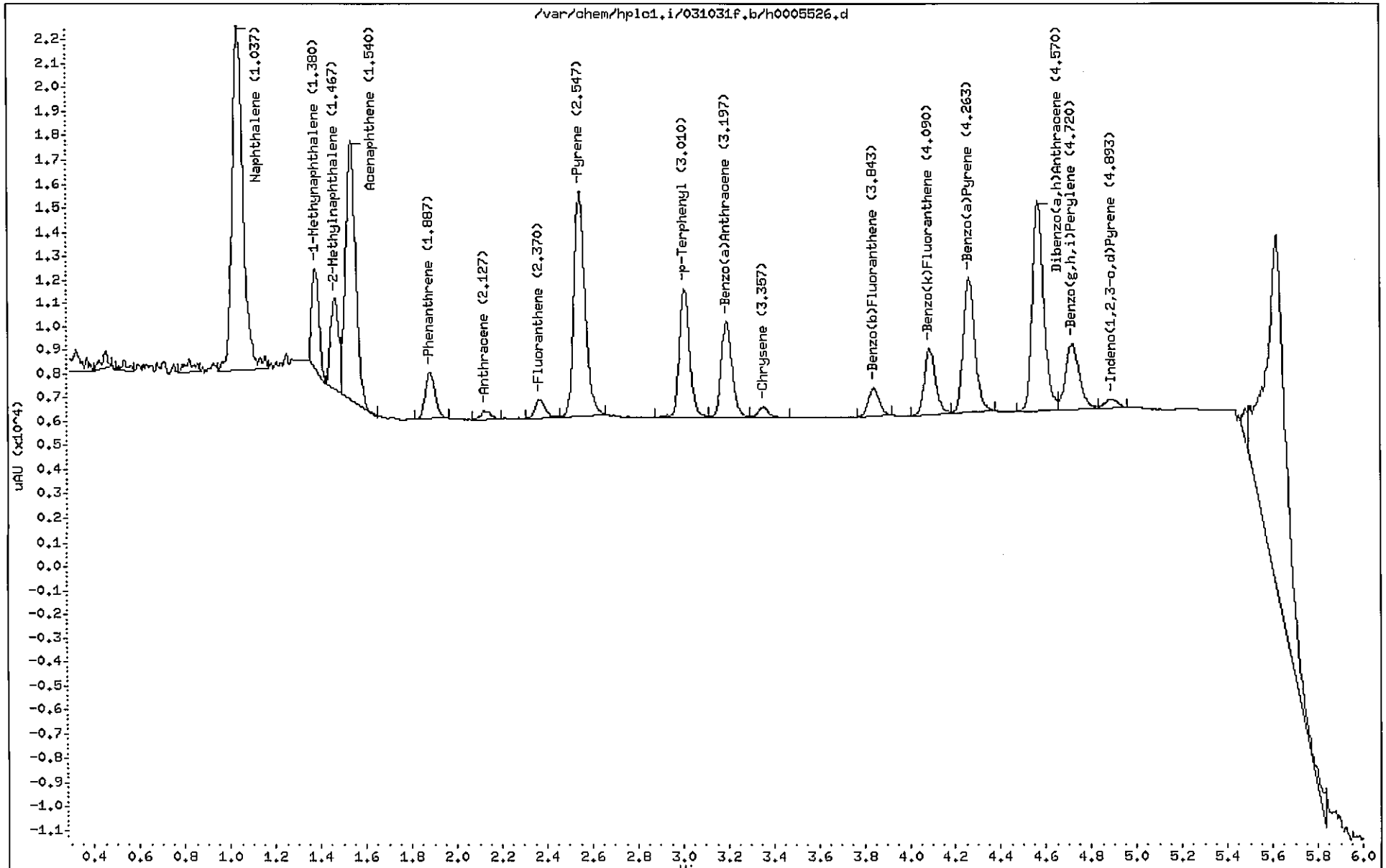
M - Compound response manually integrated.

000293

Data File: /var/chem/hplc1.i/031031f.b/h0005526.d
Date : 31-OCT-2003 10:03
Client ID: 127359
Sample Info: 127359-DL1
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10



PAH SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME:	10-30-03 1030	BATCH NO:	264406
MATRIX:	WATER ☑ SOIL ☐ OTHER ☐	LEVEL:	LOW ☑ MEDIUM ☐

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT (mL) g	FINAL VOLUME (mL)	Init pH	COMMENTS	METHOD
1	In-house QC Ac	MB for HBN 264406 [EXTO/4424]	127357	1000	1.0	7		LIQUID LIQUID/3520
2	In-house QC Ac	LCS for HBN 264406 [EXTO/4424]	127358	1000	1.0	7		
3	In-house QC Ac	LCSD for HBN 264406 [EXTO/4424	127359	1000	1.0	7		SEPARATORY FUNNEL/3510
4	CH2M HILL Cons	86-CEF271-1S-Q4-03	20310290501	1000	1.0	7		
5	CH2M HILL Cons	86-CEF271-2S-Q4-03	20310290502	1000	1.0	7		
6	CH2M HILL Cons	86-CEF271-3S-Q4-03	20310290503	1000	1.0	7		
7	CH2M HILL Cons	86-CEF271-4SR-Q4-03	20310290504	1000	1.0	7		SONICATOR/3550
8	CH2M HILL Cons	86-CEF271-5SR-Q4-03	20310290505	1000	1.0	7		
9	CH2M HILL Cons	86-CEF271-6S-Q4-03	20310290506	1000	1.0	7		SOXHLET/3540
10	CH2M HILL Cons	86-CEF271-7S-Q4-03	20310290507	1000	1.0	7		
11	CH2M HILL Cons	86-CEF271-10S-Q4-03	20310290508	1000	1.0	7		
12	CH2M HILL Cons	86-CEF271-11-Q4-03	20310290509	1000	1.0	7		
13	CH2M HILL Cons	86-271-DUP2-Q4-03	20310290510	1000	1.0	7		
14	CH2M HILL Cons	86-271-EB-Q4-03	20310290511	1000	1.0	7		
15								
16								
17								
18								
19								
20								Sodium Sulfate Lot No:
21								035189
22								ACETONITRILE:
23								030799
24								MeCL2 Lot No:
25								030989
26								
27								
28								

MMENTS: SAMPLE PREPARATION INCLUDE DETERMINATION OF SAMPLE VOLUME/WEIGHT, SOLVENT EXTRACTION AND EVAPORATION OF LVENT TO FINAL VOLUME

RROGATE ID	8-215-1			SPIKE ID	8-231-1	TECHNICIAN	DATE
LUME	0.5mL			VOLUME	1.0mL	Lynell Clark	10-30-03
NCENTRATION	4.0ug/mL			CONCENTRATION			
H		ACID				SUPERVISOR	DATE
KE WITNESS	SKB					John Bailey	10/30/03

STANDARD PREPARATION LOGBOOK

STANDARD NAME	STD#	STOCK STD	SUPPLIER	LOT#/ EXP DATE	WT/VOL g/ml	FINAL VOL(ml)	FINAL CONC	SOLVENT/ LOT#	INIT	DATE PREPARED	EXP DATE
~~8330HR ICV~~	~~3-46-1~~	~~1.0mg/ml M-8330A-R-10~~	~~Accu Std~~								~~JDT 6/10~~
8330HR ICV	3-46-1	100ug/ml EPA 8330 MixA	Supelco	LB04986 / 12/04	50ul	10.0ml	500ppb	MeOH / 023617	JDT	6/10/03	12/10/03
↓	↓	1000ug/ml 3,4-DNT	Ultra	S-1018 / 9/5	5ul	↓	500ppb	↓	↓	↓	↓
Cal form 1000ppm	3-46-2	Form 37.4%	Fisher	011089 / NA	267ul	100ml	1000ppm	DI H_2O	JDT	6/17/03	6/24/03
Dates 6/10/03 - 6/17/03 Reviewed By QA/QC 6/25/03											
PNA Cal 8	3-46-3	2.0mg/ml PAH Mix	Accu Std	B2060136 / 6/11/04	500ul	50ml	20ppm	ACN / 030646	JDT	6/30/03	12/30/03
↓	↓	2000ug/ml p-Terphenyl	Ultra	~~M-1491B~~ / ~~1/2005~~ M-4916 / 1/2005	500ul	↓	20ppm	↓	↓	↓	↓
PNA Cal 7	3-46-4	PNA Cal 8	In House	3-46-3 / 12/30/03	2.5ml	5.0ml	10ppm	ACN / 030646	JDT	6/30/03	12/30/03
PNA Cal 6	3-46-5	↓	↓	↓	1.25ml	5.0ml	5ppm	↓	↓	↓	↓
PNA Cal 5	3-46-6	↓	↓	↓	6.25ml	50ml	2.5ppm	↓	↓	↓	↓
PNA Cal 4	3-46-7	↓	↓	↓	250ul	5.0ml	1.0ppm	↓	↓	↓	↓
PNA Cal 3	3-46-8	↓	↓	↓	125ul	5.0ml	0.50ppm	↓	↓	↓	↓
PNA Cal 2	3-46-9	↓	↓	↓	62.5ul	5.0ml	0.25ppm	↓	↓	↓	↓
PNA Cal 1	3-46-10	↓	↓	↓	25ul	5.0ml	0.10ppm	↓	↓	↓	↓
PNA ICV	3-46-11	PAH Mix	Ultra	R-0889 / 02/2003	100ul	10.0ml	Various	ACN / 030646	JDT	06/30/03	08/31/03
↓	↓	2000ug/ml p-Terphenyl	Ultra	M-4916 / 1/2005	20ul	↓	4ppm	↓	↓	↓	↓
↓	↓	1000ug/ml 1-MNAP	Ultra	R-1459 / 12/2004	100ul	↓	10ppm	↓	↓	↓	↓
↓	↓	1000ug/ml 2-MNAP	Ultra	T-0520 / 05/2006	1000ul	↓	10ppm	↓	↓	↓	↓
Cal Form 1000ppm	3-46-12	Form 37.4%	Fisher	011089 / NA	267ul	100ml	1000ppm	DI H_2O	JDT	7/15/03	7/22/03
7/25/03 Dates 6/30/03 - 7/15/03 Reviewed By QA/QC 7/25/03											
8270 IS	3-46-13	US-108N	Ultra	T-1284 / 11/2005	12.0ml	12.0ml	4000ppm	N/A	RLW	N/A	11/2005
				RLW 07-30-03							

STANDARD PREPARATION LOGBOOK

STANDARD NAME	STD#	STOCK STD	SUPPLIER	LOT#/ EXP DATE	WT/VOL g/ml	FINAL VOL(ml)	FINAL CONC	SOLVENT/ LOT#	INIT	DATE PREPARED	EXP DATE
BNA 10	3-47-1	Q-3392	NSI	040203-08/04-02-04	50 ul	1.0ml	10 ppm	DCM/030609	RLW	07-30-03	04-02-04
50	3-47-2	↓	↓	↓	250ul	↓	50 ppm	↓	↓	↓	↓
80	3-47-3	↓	↓	↓	400ul	↓	80 ppm	↓	↓	↓	↓
120	3-47-4	↓	↓	↓	600ul	↓	120 ppm	↓	↓	↓	↓
160	3-47-5	↓	↓	↓	800ul	↓	160 ppm	↓	↓	↓	↓
200	3-47-6	↓	↓	↓	1000ul	↓	200 ppm	↓	↓	↓	↓
Cal form 1000ppm	3-47-7	form 37.42	fisher	011089/NA	267ul	100ml	1000ppm	DI H2O	JDT	7/31/03	8/7/03
8/26/03 Dates 7/30/03 - 7/31/03 reviewed by QA/QC											
PNA ICV	3-47-8	PAH Mix	Ultra	T-1385/11/05	10ul	1.0ml	Various	DACN/030646	JDT	9/2/03	3/2/04
↓	↓	2000ug/ml p-Terphenyl	Ultra	U-0599/5/07	2ul	↓	4ppm	↓	↓	↓	↓
↓	↓	1000ug/ml 1-MNAP	Ultra	R-1459/12/04	10ul	↓	10ppm	↓	↓	↓	↓
↓	↓	100ug/ml 2-MNAP	Ultra	T-1514/12/06	100ul	↓	10ppm	↓	↓	↓	↓
Acetate Buffer	3-47-9	NaAc·3H2O	FISHER	015923/NA	13.6g	1000ml	—	HPLC H2O 030798	JDT	9/17/03	10/1/03
↓	↓	Acetic Acid	FISHER	031457/NA	5.8ml	↓	—	↓	↓	↓	↓
Benzidine 50ppm	3-47-10	Benzidine 2000ppm	Ultra	S-1149/10/04	25ul	1000ul	50ppm	Acetate Buffer 3-47-9	JDT	9/18/03	3/18/04
BDZ 400	3-47-11	Benz 50ppm	In House	3-47-10/03/18/04	40ul	5.0ml	400ppb	"	"	"	"
BDZ 200	3-47-12	"	"	" "	20ul	5.0ml	200ppb	"	"	"	"
BDZ 100	3-47-13	"	"	" "	10ul	5.0ml	100ppb	"	"	"	"
BDZ 50	3-47-14	"	"	" "	5ul	5.0ml	50ppb	"	"	"	"
BDZ 25	3-47-15	"	"	" "	2.5ul	5.0ml	25ppb	"	"	"	"
BDZ ICV	3-47-16	Benzidine SPK 500ppb	In House	8-225-3/11/30/03	200ul	1000ul	100ppb	Acetate Buffer 3-47-9	JDT	9/18/03	11/30/03
9/25/03 Dates 9/2/03 - 9/18/03 reviewed by QA/QC											

8-214-1 504 SPIKE (Stock ICV) 50 ppm

Solution was prepared by transferring 250ul of Supelco EPA 8010B EDB/DBCP MIX 2000 ug/ml Lot# LB08363 into a 10ml class "A" vol flask, then diluting to mark with Methanol. Transfer was made with a 250 ul syring. (Methanol Lot# 030536)

FINAL CONC 50 PPM EXP 02/21/04

John Bailey
07/21/03

8-214-2 504 SPIKE (Stock ICV 3.5ug/ml)

Solution was prepared by transferring 700ul of 504 SPIKE STD# 8-214-1 into a 10ml class A vol flask, then diluting to mark with methanol. Transfer was made with a 1.0ml gastight syringe (Methanol Lot# 030536)

FINAL CONC 3.5 ug/ml EXP 02/21/04

John Bailey
07/21/03

8-214-3 ICV 504 SPIKE

Solution was prepared by transferring 2.0ml of 504 SPIKE STD# 8-214-2 into a 10.mL class A vol flask, then diluting to mark with methanol. Transfer was made with a 1.0ml syringe (Methanol Lot# 030536)

FINAL CONC 0.7 ug/ml EXP 02/21/04

John Bailey
07/21/03

8-215-1 PNA 8310 SoRR

Solution was prepared by transferring 400ul of ULTRA P-Terphenyl IST-490 into a 200ml Class "A" vol flask, then diluting to mark with acetonitrile. Transfer was made with a 0.5mL gastight syring. (Acetonitrile Lot# 030799)

FINAL CONC 4.0 ug/ml EXP 02/21/04

John Bailey
07/21/03

8-215-2 Herb Spike

Solution was prepared by transferring ~~400ul~~ 1.0ml of AccuStandard M-8150A Lot # B3020166 into a 10ml class "A" vol flask, then diluting to mark with methanol. Transfer was made with a 1.0ml ~~glass tight~~ gastight syring. (Methanol Lot 030536)

Final Conc 10ug/ml EXP 01/24/04

Brian Jones
7/24/03

AccuStandard, Inc.
M-8150A 1 mL
Underivatized Chlorinated Herbicides
Varied conc. in MeOH
Lot: B3020166
Exp: Feb 20,2005
10 comps.
CARCINOGENIC
FOR LABORATORY USE ONLY
WARNING: This product contains a chemical(s) known to the State of California to cause birth defects or other reproductive harm.
STORAGE AMBIENT

7/25/03 Dates 6/30/03 - 7/24/03 Reviewed by QA / QC

0002297

8-230-1 625 MDL SPIKE

Solution was prepared by transferring 1.0mL of NSI 625 SPIKE STD# 8-238-3 into a 10mL class "A" vol flask, then diluting to mark with acetone. Transfer was made with a 1.0mL gastight syring. (Acetone LOT# 034451)

FINAL CONC 10ug/mL EXP 04/10/04

John Bailey
10/10/03

8-230-2 CRANGE SURR

Solution was prepared by transferring 6.25mL of NSI O-Terphenyl LOT# 1341H-02-04 into a 50mL class "A" vol flask, then diluting to mark with pentane. Transfer was made with a 5.0mL & 1.0mL gastight syring (Pentane LOT# 026094)

FINAL 1250ug/mL EXP 04/14/04

John Bailey
10/14/03

8-230-3 OIL + GREASE SPIKE

Solution was prepared by transferring 2.0grams of Alfa Aesar Stearic acid LOT# CA 07210MO and 2.0grams of EM Science Hexadecane LOT# HX0200-1 into a 1000mL class "A" vol flask then diluting to mark with acetone. (Acetone LOT# 034641)

FINAL CONC 4000ug/mL EXP 04/15/04

John Bailey
10/15/03

8-231-1 PAH SPIKE 8310

Solution was prepared by transferring 200ul of ULTRA 1-methylNaphthalene EPA-1225 LOT# R1454 and 200ul of ULTRA PAH mixture PM-831A LOT# T1385 and 2.0mL ULTRA 2-methylNaphthalene SU-200 LOT# T0520 into a 20mL class "A" vol flask, then diluting to mark with Acetonitrile. (Acetonitrile LOT# 030641)

FINAL CONC EXP 04/16/04

John Bailey
10/16/03

8-231-2 CRANGE SURR

Solution was prepared by transferring 6.25mL of NSI O-Terphenyl LOT# 1341H-02-05 into a 50mL class "A" vol flask, then diluting to mark with pentane. Transfer was made with a 5.0mL & 1.0mL gastight syring. (Pentane LOT# 026094)

FINAL CONC 1250ug/mL EXP 04/20/04

NSI Solutions Inc. 1-800-234-7837
7617 Precision Dr. Ste 101 Raleigh, NC 27617
O-TERPHENYL
1341H-02-05 EXP DATE: 08/05
SOLV: Methylene chloride CONC: 10,167 ug/mL
HAZARD: IRRITANT, CARCINOGEN
For Research Use Only

John Bailey
10/20/03

8-231-3 TPHD SURR

Solution was prepared by transferring 2.0mL of NSI O-Terphenyl LOT# 1341H-02-04 into a 200mL class "A" vol flask, then diluting to mark with Acetone. Transfer was made with a 1.0mL gastight syring. (Acetone LOT 034641)

FINAL CONC 100ug/mL EXP 04/20/04

NSI Solutions Inc. 1-800-234-7837
7617 Precision Dr. Ste 101 Raleigh, NC 27617

000298

LABORATORY CHRONICLE: HPLC - 8310

Date: 31-OCT-2003
Instrument: hplc1.i
Analyst: jdt

Sample ID	ClientName	DataFile	WT VOL	Injection Time	DilFactor	ALS	Comments
1031STD05	3-46-6	h0005523.d	1000.00 ml	31-OCT-2003 09:33	1.000	1	
127357		h0005524.d	1000.00 ml	31-OCT-2003 09:48	1.000	1	
127358		h0005525.d	1000.00 ml	31-OCT-2003 09:56	1.000	1	
127359		h0005526.d	1000.00 ml	31-OCT-2003 10:03	1.000	1	
20310290501		h0005527.d	1000.00 ml	31-OCT-2003 10:20	1.000	1	
20310290502		h0005528.d	1000.00 ml	31-OCT-2003 10:27	1.000	1	
20310290503		h0005529.d	1000.00 ml	31-OCT-2003 10:34	1.000	1	
20310290504		h0005530.d	1000.00 ml	31-OCT-2003 10:41	1.000	1	
20310290505		h0005531.d	1000.00 ml	31-OCT-2003 10:48	1.000	1	
20310290506		h0005532.d	1000.00 ml	31-OCT-2003 10:55	1.000	1	
20310290507		h0005533.d	1000.00 ml	31-OCT-2003 11:02	1.000	1	
1031STD05	3-46-6	h0005534.d	1000.00 ml	31-OCT-2003 11:24	1.000	1	
20310290507		h0005535.d	1000.00 ml	31-OCT-2003 11:39	20.000	1	
20310290508		h0005536.d	1000.00 ml	31-OCT-2003 11:46	1.000	1	
20310290509		h0005537.d	1000.00 ml	31-OCT-2003 11:53	1.000	1	
20310290510		h0005538.d	1000.00 ml	31-OCT-2003 12:00	1.000	1	
20310290511		h0005539.d	1000.00 ml	31-OCT-2003 12:07	1.000	1	
1031STD05	3-46-6	h0005540.d	1000.00 ml	31-OCT-2003 12:14	1.000	1	

EVISED 10/31/2003 Supervisor Review: QA Review:

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
171591-009 page 1 of 1

PROJECT NAME:	PROJECT NUMBER:	LAB NAME AND CONTACT:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	RECIPIENT 1 (Address, Tel No. , and Fax No.):
Former N.A.S. Cecil Field Building 271	171591	Gulf Coast Labs. Dana Merril	Jeff Marks / J.A Jones Env. Services	6219 Authority Ave. Jacksonville, FL 32221 (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 271 Baseline sytem startup GW	0086	6421	Bonnie Hogue / 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.):
Jeff Marks	Ph:(904)777-4812 Fax:(904) 777-4262	Ph:(225) 769-4900		

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 & MTBE by 8260B.	16 listed PAHs (incl 1- & 2-Methylnaphthalene) by 8310								SAMPLE TYPE (see codes on back)	COMMENTS/ SCREENING READINGS	LAB ID
1	86-CEF271-1S-Q4-03	CEF-271-1S	W	10/27/03	10:25	III/C	14	3	2								Grab		-01
2	86-CEF271-2S-Q4-03	CEF-271-2S	W	10/27/03	10:55	III/C	14	3	2								Grab		-02
3	86-CEF271-3S-Q4-03	CEF-271-3S	W	10/27/03	15:50	III/C	14	3	2								Grab		-03
4	86-CEF271-4SR-Q4-03	CEF-271-4SR	W	10/27/03	16:15	III/C	14	3	2								Grab		-04
5	86-CEF271-5SR-Q4-03	CEF-271-5SR	W	10/28/03	9:15	III/C	14	3	2								Grab		-05
6	86-CEF271-6S-Q4-03	CEF-271-6S	W	10/28/03	10:15	III/C	14	3	2								Grab		-06
7	86-CEF271-7S-Q4-03	CEF-271-7S	W	10/28/03	8:45	III/C	14	3	2								Grab		-07
8	86-CEF271-10S-Q4-03	CEF-271-10S	W	10/27/03	13:15	III/C	14	3	2								Grab		-08
9	86-CEF271-11-Q4-03	CEF-271-11	W	10/27/03	14:05	III/C	14	3	2								Grab		-09
10	086-271-DUP2-Q4-03	Duplicate #2	W	10/27/03	NA	III/C	14	3	2								Grab		-10
11	086-271-EB-Q4-03	Equipment Blank	W	10/27/03	15:10	III/C	14	3	2								Grab		-11
12	086-271-TB1-Q4-03	Trip Blank	W	NA	NA	III/C	14	3									Grab	Prepared by Lab	-12

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:	SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT:
Randy Dumaop / Sean Smith J.A. Jones Environmental Services	Federal Express Tracking Numbers: 792358028820, 792358028842, 792358028864. (3 Coolers)	2°C Good

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature: R.Dumaop	10/28/2003	13:00	Printed Name and Signature: Federal Express Tracking Numbers: 792358028820, 792358028842, 792358028864. (3 Coolers)	10/28/2003	13:00
Printed Name and Signature: Fed. Ex. 79235802 3820	10-29-03	0940	Printed Name and Signature: David Haydel	10-29-03	0940
Printed Name and Signature:			Printed Name and Signature:		

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

Form CCI001, Rev 02/00

PRESERVATION CHECKLIST / COOLER RECEIPT

Gulf Coast Analytical Laboratories, Inc.

WO:	203102905	Type:	D
Desc:		Report:	REVIEW_RPT
Work ID:	CTO 86 Cecil Field - South Fue	Status:	WP
Project Seq:	16175	Created:	10/29/03 10:20
Client:	4380 - CH2M HILL Constructors Inc.	QA:	
Profile:	42891 - CTO 0086 - CTO 86 Cecil Field - South Fuel Farm	PO:	

WORKORDER SAMPLES

Container ID	Type	Preservative	pH PRESERVATIVE A	pH PRESERVATIVE U	pH PRESERVATIVE N\A	VOA HEADSPACE A	VOA HEADSPACE U	VOA HEADSPACE N\A	CONTAINER CONDITION
20310290501-1	40	HCL+SS			✓	✓			OK
20310290501-2	LA	NONE			X			X	OK
20310290502-1	40	HCL+SS			✓	✓			OK
20310290502-2	LA	NONE			X			X	OK
20310290503-1	40	HCL+SS			✓	✓			OK
20310290503-2	LA	NONE			X			X	OK
20310290504-1	40	HCL+SS			✓	✓			OK
20310290504-2	LA	NONE			X			X	OK
20310290505-1	40	HCL+SS			✓	✓			OK
20310290505-2	LA	NONE			X			X	OK
20310290506-1	40	HCL+SS			✓	✓			OK
20310290506-2	LA	NONE			X			X	OK
20310290507-1	40	HCL+SS			✓	✓			OK
20310290507-2	LA	NONE			X			X	OK
20310290508-1	40	HCL+SS			✓	✓			OK
20310290508-2	LA	NONE			X			X	OK

Container ID	Type	Preservative	pH PRESERVATIVE A	pH PRESERVATIVE U	pH PRESERVATIVE N\A	VOA HEADSPACE A	VOA HEADSPACE U	VOA HEADSPACE N\A	CONTAINER CONDITION
20310290509-1	40	HCL+SS			✓	✓			OK
20310290509-2	LA	NONE			X			X	OK

Container ID	Type	Preservative	A	U	N\A	A	U	N\A	CONTAINER CONDITION
20310290510-1	40	HCL+SS			✓	✓			OK
20310290510-2	LA	NONE			X			X	OK

Container ID	Type	Preservative	A	U	N\A	A	U	N\A	CONTAINER CONDITION
20310290511-1	40	HCL+SS			✓	✓			OK
20310290511-2	LA	NONE			X			X	OK

Container ID	Type	Preservative	A	U	N\A	A	U	N\A	CONTAINER CONDITION
20310290512-1	40	HCL+SS			✓	✓			OK

A = ACCEPTABLE
U = UNACCEPTABLE
N\A = NOT APPLICABLE

COOLER (S) TEMPERATURE (A) U LIMIT = 4C + \ - 2C

MAXIMUM VOLATILE HEADSPACE BUBBLE 6MM

Custody Seal
used [✓] Yes [ ] No
in tact [✓] Yes [ ] No

CUSTODIAN MS

GCAL
GULF COAST ANALYTICAL LABORATORIES, INC.

ANALYTICAL RESULTS

PERFORMED BY

GULF COAST ANALYTICAL LABORATORIES, INC.

Report Date 05/06/2004

GCAL Report 204042806

Deliver To	CH2M HILL Constructors Inc. 115 Perimeter Center Place Suite 700 Atlanta, GA 30346 770-604-9182 Ext. 614
Attn	Melissa Osborne

Customer CH2M HILL Constructors Inc.

Project CTO 86 Cecil Field - South Fue

7979 GSRI Avenue, Baton Rouge, Louisiana 70820-7402 • Phone 225.769-4900 • Fax 225.767.5717

CASE NARRATIVE

Client: CH2M HILL Constructors Inc. **Report:** 204042806

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the sample cross-reference page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

VOLATILES MASS SPECTROMETRY

Samples 20404280601 (86-CEF271-7S-Q1-04), 20404280605 (086-271-MS-Q1-04) and 20404280606 (086-271-MSD-Q1-04) had to be diluted due to the presence of non-target background. This dilution is reflected in the elevated reporting limits. The recovery for the surrogate 1,2-Dichloroethane-d4 was above the upper control limit. The remaining surrogates were all within control limits.

In the SW-846 8260B analysis for analytical batch 273041, the MS/MSD exhibited sporadic recovery failures. These recoveries were within limits in the LCS. This is attributed to matrix interference.

HIGH PERFORMANCE LIQUID CHROMATOGRAPHY

In the PNA's by HPLC analysis, samples 20404280601 (86-CEF271-7S-Q1-04), 20404280605 (086-271-MS-Q1-04) and 20404280606 (086-271-MSD-Q1-04) had to be diluted due to compounds that were detected above the linear range of the calibration. The surrogate recoveries for p-Terphenyl are reported as DO (diluted out), due to the dilution performed on these samples.

In the PNA's by HPLC analysis, the MS/MSD were diluted out for prep batch 272890.

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with GCAL's Standard Operating Procedures.

Common Abbreviations Utilized in this Report

ND	Indicates the result was Not Detected at the specified RDL
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
RDL	Reporting Detection Limit
00:00	Reported as a time equivalent to 12:00 AM

Reporting Flags Utilized in this Report

J	Indicates an estimated value
U	Indicates the compound was analyzed for but not detected
B	(ORGANICS) Indicates the analyte was detected in the associated Method Blank
B	(INORGANICS) Indicates the result is between the RDL and MDL

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with ISO Guide 25 and NELAC, this report shall be reporduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Curtis Ekker

CURTIS EKKER
DATA VALIDATION MANAGER
GCAL REPORT 204042806

THIS REPORT CONTAINS 385 PAGES.

Report Sample Summary

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20404280601	86-CEF271-7S-Q1-04	Water	04/26/2004 13:20	04/28/2004 09:45
20404280602	86-CEF271-9S-Q1-04	Water	04/26/2004 14:05	04/28/2004 09:45
20404280603	86-CEF271-10S-Q1-04	Water	04/27/2004 12:55	04/28/2004 09:45
20404280604	86-CEF271-12S-Q1-04	Water	04/27/2004 13:35	04/28/2004 09:45
20404280605	086-271-MS-Q1-04	Water	04/26/2004 13:20	04/28/2004 09:45
20404280606	086-271-MSD-Q1-04	Water	04/26/2004 13:20	04/28/2004 09:45
20404280607	086-271-DUP-Q1-04	Water		04/28/2004 09:45
20404280608	086-271-EB-Q1-04	Water	04/27/2004 13:55	04/28/2004 09:45
20404280609	086-271-TB-Q1-04	Water		04/28/2004 09:45

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-7S-Q1-04

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204042806

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20404280601

Level: (low/med) LOW

Lab File ID: 2040501/T9057

% Moisture: not dec.

Date Collected: 04/26/04 Time: 1320

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 04/28/04

Instrument ID: MSV1

Date Analyzed: 05/01/04 Time: 1512

Soil Extract Volume: (µL)

Dilution Factor: 5 Analyst: RJO

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 273041

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	324		1.13	2.50
100-41-4	Ethylbenzene	133		1.14	25.0
108-88-3	Toluene	16.7	J	1.07	25.0
1330-20-7	Xylene (total)	17.2	J	2.55	50.0
1634-04-4	tert-Butyl methyl ether (MTBE)	25.0	U	0.895	25.0

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-9S-Q1-04

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204042806

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20404280602

Level: (low/med) LOW

Lab File ID: 2040501/T9061

% Moisture: not dec.

Date Collected: 04/26/04 Time: 1405

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 04/28/04

Instrument ID: MSV1

Date Analyzed: 05/01/04 Time: 1702

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 273041

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.225	0.500
100-41-4	Ethylbenzene	5.00	U	0.227	5.00
108-88-3	Toluene	5.00	U	0.213	5.00
1330-20-7	Xylene (total)	3.06	J	0.509	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.179	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-10S-Q1-04

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204042806

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20404280603

Level: (low/med) LOW

Lab File ID: 2040501/T9062

% Moisture: not dec.

Date Collected: 04/27/04 Time: 1255

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 04/28/04

Instrument ID: MSV1

Date Analyzed: 05/01/04 Time: 1725

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 273041

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.225	0.500
100-41-4	Ethylbenzene	5.00	U	0.227	5.00
108-88-3	Toluene	5.00	U	0.213	5.00
1330-20-7	Xylene (total)	10.0	U	0.509	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.179	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

86-CEF271-12S-Q1-04

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204042806

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20404280604

Level: (low/med) LOW

Lab File ID: 2040501/T9063

% Moisture: not dec.

Date Collected: 04/27/04 Time: 1335

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 04/28/04

Instrument ID: MSV1

Date Analyzed: 05/01/04 Time: 1749

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 273041

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.225	0.500
100-41-4	Ethylbenzene	5.00	U	0.227	5.00
108-88-3	Toluene	5.00	U	0.213	5.00
1330-20-7	Xylene (total)	10.0	U	0.509	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.179	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

086-271-DUP-Q1-04

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204042806

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20404280607

Level: (low/med) LOW

Lab File ID: 2040501/T9064

% Moisture: not dec.

Date Collected: Time:

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 04/28/04

Instrument ID: MSV1

Date Analyzed: 05/01/04 Time: 1813

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 273041

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.225	0.500
100-41-4	Ethylbenzene	5.00	U	0.227	5.00
108-88-3	Toluene	5.00	U	0.213	5.00
1330-20-7	Xylene (total)	3.12	J	0.509	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.179	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

086-271-EB-Q1-04

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204042806

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20404280608

Level: (low/med) LOW

Lab File ID: 2040501/T9065

% Moisture: not dec.

Date Collected: 04/27/04 Time: 1355

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 04/28/04

Instrument ID: MSV1

Date Analyzed: 05/01/04 Time: 1836

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 273041

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.225	0.500
100-41-4	Ethylbenzene	5.00	U	0.227	5.00
108-88-3	Toluene	5.00	U	0.213	5.00
1330-20-7	Xylene (total)	10.0	U	0.509	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.179	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

086-271-TB-Q1-04

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204042806

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20404280609

Level: (low/med) LOW

Lab File ID: 2040501/T9066

% Moisture: not dec.

Date Collected: Time:

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 04/28/04

Instrument ID: MSV1

Date Analyzed: 05/01/04 Time: 1900

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 273041

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.225	0.500
100-41-4	Ethylbenzene	5.00	U	0.227	5.00
108-88-3	Toluene	5.00	U	0.213	5.00
1330-20-7	Xylene (total)	10.0	U	0.509	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.179	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MB162585

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204042806

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 162585

Level: (low/med) LOW Lab File ID: 2040501/T9052

% Moisture: not dec. Date Collected: Time:

GC Column: DB-624-30M ID: .53 (mm) Date Received:

Instrument ID: MSV1 Date Analyzed: 05/01/04 Time: 1240

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 273041

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.225	0.500
100-41-4	Ethylbenzene	5.00	U	0.227	5.00
108-88-3	Toluene	5.00	U	0.213	5.00
1330-20-7	Xylene (total)	10.0	U	0.509	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.179	5.00
75-35-4	1,1-Dichloroethene	5.00	U	0.229	5.00
79-01-6	Trichloroethene	5.00	U	0.270	5.00
108-90-7	Chlorobenzene	5.00	U	0.213	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

LCS162586

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204042806

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 162586

Level: (low/med) LOW

Lab File ID: 2040501/T9049

% Moisture: not dec.

Date Collected: Time:

GC Column: DB-624-30M ID: .53 (mm)

Date Received:

Instrument ID: MSV1

Date Analyzed: 05/01/04 Time: 1128

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 273041

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	26.7		0.225	0.500
100-41-4	Ethylbenzene	27.4		0.227	5.00
108-88-3	Toluene	26.6		0.213	5.00
1330-20-7	Xylene (total)	81.3		0.509	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	24.9		0.179	5.00
75-35-4	1,1-Dichloroethene	26.1		0.229	5.00
79-01-6	Trichloroethene	25.5		0.270	5.00
108-90-7	Chlorobenzene	26.1		0.213	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

LCSD162587

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204042806

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 162587

Level: (low/med) LOW

Lab File ID: 2040501/T9050

% Moisture: not dec.

Date Collected: Time:

GC Column: DB-624-30M ID: .53 (mm)

Date Received:

Instrument ID: MSV1

Date Analyzed: 05/01/04 Time: 1152

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 273041

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	25.8		0.225	0.500
100-41-4	Ethylbenzene	25.7		0.227	5.00
108-88-3	Toluene	25.9		0.213	5.00
1330-20-7	Xylene (total)	78.1		0.509	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	25.3		0.179	5.00
75-35-4	1,1-Dichloroethene	26.0		0.229	5.00
79-01-6	Trichloroethene	24.6		0.270	5.00
108-90-7	Chlorobenzene	25.0		0.213	5.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

086-271-MS-Q1-04

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204042806

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20404280605

Level: (low/med) LOW

Lab File ID: 2040501/T9058

% Moisture: not dec.

Date Collected: 04/26/04 Time: 1320

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 04/28/04

Instrument ID: MSV1

Date Analyzed: 05/01/04 Time: 1551

Soil Extract Volume: (µL)

Dilution Factor: 5 Analyst: RJO

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 273041

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	398		1.13	2.50
100-41-4	Ethylbenzene	235		1.14	25.0
108-88-3	Toluene	142		1.07	25.0
1330-20-7	Xylene (total)	476		2.55	50.0
1634-04-4	tert-Butyl methyl ether (MTBE)	130		0.895	25.0

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

086-271-MSD-Q1-04

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204042806

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20404280606

Level: (low/med) LOW

Lab File ID: 2040501/T9059

% Moisture: not dec.

Date Collected: 04/26/04 Time: 1320

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 04/28/04

Instrument ID: MSV1

Date Analyzed: 05/01/04 Time: 1615

Soil Extract Volume: (µL)

Dilution Factor: 5 Analyst: RJO

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 273041

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	388		1.13	2.50
100-41-4	Ethylbenzene	236		1.14	25.0
108-88-3	Toluene	144		1.07	25.0
1330-20-7	Xylene (total)	481		2.55	50.0
1634-04-4	tert-Butyl methyl ether (MTBE)	117		0.895	25.0

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204042806

	SAMPLE NO.	SMC1	#	SMC2	#	SMC3	#	SMC4	#	TOT OUT
1.	86-CEF271-7S-Q1-04	97		81		98		155	*	1
2.	LCS162586	93		89		97		96		0
3.	LCSD162587	94		89		98		94		0
4.	MB162585	93		87		99		95		0
5.	86-CEF271-9S-Q1-04	97		89		100		95		0
6.	86-CEF271-10S-Q1-04	97		89		99		97		0
7.	86-CEF271-12S-Q1-04	97		91		98		97		0
8.	086-271-MS-Q1-04	96		85		94		144	*	1
9.	086-271-MSD-Q1-04	96		86		98		136	*	1
10.	086-271-DUP-Q1-04	97		89		100		98		0
11.	086-271-EB-Q1-04	97		93		98		101		0
12.	086-271-TB-Q1-04	96		89		98		98		0

		QC LIMITS
SMC 1	4-Bromofluorobenzene	78 - 115
SMC 2	Dibromofluoromethane	70 - 130
SMC 3	Toluene-d8	78 - 127
SMC 4	1,2-Dichloroethane-d4	76 - 128

Column to be used to flag recovery values

* Values outside of contract required QC limits

3A

WATER VOLATILE MS/MSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204042806

Matrix Spike - EPA Sample No: 86-CEF271-7S-Q1-04

Analytical Batch: 273041

SAMPLE NO. : 20404280605

COMPOUND	UNITS	SPIKE ADDED	SAMPLE CONCENTRATION	MS CONCENTRATION	MS % REC	#	QC. LIMITS
1,1-Dichloroethene	ug/L	125	0	122	98		72 - 138
Benzene	ug/L	125	324	398	59	*	77 - 119
Chlorobenzene	ug/L	125	0	128	102		78 - 116
Ethylbenzene	ug/L	125	133	235	82		76 - 118
Toluene	ug/L	125	16.7	142	100		78 - 114
Trichloroethene	ug/L	125	0	125	100		67 - 126
Xylene (total)	ug/L	375	17.2	476	122	*	77 - 119
tert-Butyl methyl ether (MTBE)	ug/L	125	0	130	104		61 - 135

SAMPLE NO. : 20404280606

COMPOUND	UNITS	SPIKE ADDED	MSD CONC.	MSD % REC	#	% RPD	#	QC. LIMITS REC	QC. LIMITS RPD
1,1-Dichloroethene	ug/L	125	117	94		4		72 - 138	0 - 14
Benzene	ug/L	125	388	51	*	3		77 - 119	0 - 11
Chlorobenzene	ug/L	125	133	106		4		78 - 116	0 - 13
Ethylbenzene	ug/L	125	236	82		.4		76 - 118	0 - 30
Toluene	ug/L	125	144	102		1		78 - 114	0 - 13
Trichloroethene	ug/L	125	125	100		0		67 - 126	0 - 14
Xylene (total)	ug/L	375	481	124	*	1		77 - 119	0 - 30
tert-Butyl methyl ether (MTBE)	ug/L	125	117	94		11		61 - 135	0 - 30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 8 outside limits

Spike Recovery: 4 out of 16 outside limits

3A

WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204042806

Analytical Batch: 273041

SAMPLE NO. : 162586

COMPOUND	UNITS	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS % REC	#	QC. LIMITS
1,1-Dichloroethene	ug/L	25	0	26.1	104		72 - 138
Benzene	ug/L	25	0	26.7	107		77 - 119
Chlorobenzene	ug/L	25	0	26.1	104		78 - 116
Ethylbenzene	ug/L	25	0	27.4	110		76 - 118
Toluene	ug/L	25	0	26.6	106		78 - 114
Trichloroethene	ug/L	25	0	25.5	102		67 - 126
Xylene (total)	ug/L	75	0	81.3	108		77 - 119
tert-Butyl methyl ether (MTBE)	ug/L	25	0	24.9	100		61 - 135

SAMPLE NO. : 162587

COMPOUND	UNITS	SPIKE ADDED	LCSD CONC.	LCSD % REC	#	% RPD	#	QC. LIMITS REC	QC. LIMITS RPD
1,1-Dichloroethene	ug/L	25	26	104		.4		72 - 138	0 - 14
Benzene	ug/L	25	25.8	103		3		77 - 119	0 - 11
Chlorobenzene	ug/L	25	25	100		4		78 - 116	0 - 13
Ethylbenzene	ug/L	25	25.7	103		6		76 - 118	0 - 30
Toluene	ug/L	25	25.9	104		3		78 - 114	0 - 13
Trichloroethene	ug/L	25	24.6	98		4		67 - 126	0 - 14
Xylene (total)	ug/L	75	78.1	104		4		77 - 119	0 - 30
tert-Butyl methyl ether (MTBE)	ug/L	25	25.3	101		2		61 - 135	0 - 30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 8 outside limits

Spike Recovery: 0 out of 16 outside limits

4A

VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

MB162585

Lab Name: GCAL

Contract:

Lab Code: LA024 Case No.:

SAS No.: SDG No.: 204042806

Lab File ID: 2040501/T9052

Lab Sample ID: 162585 Date Extracted:

GC Column: DB-624-30M ID: .53 (mm)

Date Analyzed: 05/01/04 Time: 1240

Instrument ID: MSV1 Matrix: Water

Heated Purge: N

Level: LOW

Prep Batch: Analytical Batch: 273041

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1.	LCS162586	162586	2040501/T9049	05/01/04	1128
2.	LCSD162587	162587	2040501/T9050	05/01/04	1152
3.	86-CEF271-7S-Q1-04	20404280601	2040501/T9057	05/01/04	1512
4.	086-271-MS-Q1-04	20404280605	2040501/T9058	05/01/04	1551
5.	086-271-MSD-Q1-04	20404280606	2040501/T9059	05/01/04	1615
6.	86-CEF271-9S-Q1-04	20404280602	2040501/T9061	05/01/04	1702
7.	86-CEF271-10S-Q1-04	20404280603	2040501/T9062	05/01/04	1725
8.	86-CEF271-12S-Q1-04	20404280604	2040501/T9063	05/01/04	1749
9.	086-271-DUP-Q1-04	20404280607	2040501/T9064	05/01/04	1813
10.	086-271-EB-Q1-04	20404280608	2040501/T9065	05/01/04	1836
11.	086-271-TB-Q1-04	20404280609	2040501/T9066	05/01/04	1900

5A

VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: GCAL

Contract:

Lab Code: LA024 Case No.:

SAS No.: SDG No.: 204042806

Lab File ID: 2040417/T8437

BFB Injection Date: 04/17/04

Instrument ID: MSV1

BFB Injection Time: 0921

GC Column: DB-624-30M ID: .53 (mm)

Analytical Batch: 272539

m / e	ION ABUNDANCE CRITERIA	% Relative Abundance			
50	15.0 - 40.0% of mass 95	33.22	(	)	
75	30.0 - 60.0% of mass 95	55.68	(	)	
95	Base Peak, 100% relative abundance	100	(	)	
96	5.0 -9.0% of mass 95	7.2	(	)	
173	Less than 2.0% of mass 174	0	(0	)	1
174	50.0 - 99.9% of mass 95	58.93	(	)	
175	5.0 - 9.0% of mass 174	4.86	(8.26	)	1
176	95.0 - 101.0% of mass 174	57.27	(97.2	)	1
177	5.0 - 9.0% of mass 176	3.74	(6.54	)	2

1- Value is % mass 174

2- Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1.	V1APP002 5-9-04	1206	2040417/T8440	04/17/04	1051
2.	V1APP005 5-9-04	1201	2040417/T8441	04/17/04	1114
3.	V1APP020 5-9-04	1202	2040417/T8442	04/17/04	1137
4.	V1APP050 5-9-04	1203	2040417/T8443	04/17/04	1201
5.	V1APP100 5-9-04	1204	2040417/T8444	04/17/04	1224
6.	V1APP200 5-9-04	1205	2040417/T8445	04/17/04	1247

5A

VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: GCAL

Contract:

Lab Code: LA024 Case No.:

SAS No.: SDG No.: 204042806

Lab File ID: 2040430Q/T9004

BFB Injection Date: 04/30/04

Instrument ID: MSV1

BFB Injection Time: 1631

GC Column: DB-624-30M ID: .53 (mm)

Analytical Batch: 273049

m / e	ION ABUNDANCE CRITERIA	% Relative Abundance			
50	15.0 - 40.0% of mass 95	27.94	(	)	
75	30.0 - 60.0% of mass 95	52.25	(	)	
95	Base Peak, 100% relative abundance	100	(	)	
96	5.0 -9.0% of mass 95	7.51	(	)	
173	Less than 2.0% of mass 174	0	(0	)	1
174	50.0 - 99.9% of mass 95	61.73	(	)	
175	5.0 - 9.0% of mass 174	5	(8.11	)	1
176	95.0 - 101.0% of mass 174	60.61	(98.2	)	1
177	5.0 - 9.0% of mass 176	4.29	(7.09	)	2

1- Value is % mass 174 2- Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1.	V1STD00.2	1208	2040430Q/T9006	04/30/04	1727
2.	V1STD00.4	1207	2040430Q/T9007	04/30/04	1751
3.	V1STD002	1206	2040430Q/T9008	04/30/04	1815
4.	V1STD005	1201	2040430Q/T9009	04/30/04	1838
5.	V1STD020	1202	2040430Q/T9010	04/30/04	1902
6.	V1STD050	1203	2040430Q/T9011	04/30/04	1926
7.	V1STD100	1204	2040430Q/T9012	04/30/04	1949
8.	V1STD200	1205	2040430Q/T9013	04/30/04	2013

5A

VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: GCAL

Contract:

Lab Code: LA024 Case No.:

SAS No.: SDG No.: 204042806

Lab File ID: 2040501/T9046

BFB Injection Date: 05/01/04

Instrument ID: MSV1

BFB Injection Time: 0954

GC Column: DB-624-30M ID: .53 (mm)

Analytical Batch: 273041

m / e	ION ABUNDANCE CRITERIA	% Relative Abundance			
50	15.0 - 40.0% of mass 95	24.04	(	)	
75	30.0 - 60.0% of mass 95	48.09	(	)	
95	Base Peak, 100% relative abundance	100	(	)	
96	5.0 -9.0% of mass 95	7.37	(	)	
173	Less than 2.0% of mass 174	0	(0	)	1
174	50.0 - 99.9% of mass 95	54.31	(	)	
175	5.0 - 9.0% of mass 174	4.59	(8.46	)	1
176	95.0 - 101.0% of mass 174	54.16	(99.73	)	1
177	5.0 - 9.0% of mass 176	3.81	(7.05	)	2

1- Value is % mass 174

2- Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1.	V1STD050	1400	2040501/T9047	05/01/04	1026
2.	V1STD050	1400	2040501/T9048	05/01/04	1104
3.	LCS162586	162586	2040501/T9049	05/01/04	1128
4.	LCSD162587	162587	2040501/T9050	05/01/04	1152
5.	MB162585	162585	2040501/T9052	05/01/04	1240
6.	86-CEF271-7S-Q1-04	20404280601	2040501/T9057	05/01/04	1512
7.	086-271-MS-Q1-04	20404280605	2040501/T9058	05/01/04	1551
8.	086-271-MSD-Q1-04	20404280606	2040501/T9059	05/01/04	1615
9.	86-CEF271-9S-Q1-04	20404280602	2040501/T9061	05/01/04	1702
10.	86-CEF271-10S-Q1-04	20404280603	2040501/T9062	05/01/04	1725
11.	86-CEF271-12S-Q1-04	20404280604	2040501/T9063	05/01/04	1749
12.	086-271-DUP-Q1-04	20404280607	2040501/T9064	05/01/04	1813
13.	086-271-EB-Q1-04	20404280608	2040501/T9065	05/01/04	1836
14.	086-271-TB-Q1-04	20404280609	2040501/T9066	05/01/04	1900

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GCAL | Contract:

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 204042806

Instrument ID: MSV1 | Calibration Date 1: 04/17/04 | Time 1: 1051

GC Column: DB-624-30M | ID: .53 (mm) | Calibration Date 2: 04/30/04 | Time 2: 2013

Heated Purge: (Y/N) N | Method: SW-846 8260

Analytical Batch: 272539

Lab File ID: Level 1: 1201 | Level 2: 1202 | Level 3: 1203

Level 4: 1204 | Level 5: 1205 | Level 6: 1206

Level 7: 1207 | Level 8: 1208 | Level 9:

COMPOUND	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	$\overline{RF}$	RSD	#	LIMIT	TYPE
Acetone	0.117	0.092	0.098	0.078	0.081					0.080	0.996		50	Linear
Acrolein	0.026	0.026	0.026	0.026	0.028	0.016				0.028	0.998		50	Linear
Acrylonitrile	0.084	0.088	0.094	0.090	0.088					0.089	3.947		50	Averaged
Benzal chloride										0.215	0.991		50	Linear
Bromochloromethane	0.183	0.188	0.183	0.173	0.164					0.178	5.301		50	Averaged
Bromodichloromethane	0.554	0.553	0.536	0.510	0.463	0.570				0.531	7.354		50	Averaged
Bromoform	0.561	0.578	0.551	0.499	0.455	0.606				0.542	10.19		50	Averaged
Bromomethane	0.219	0.218	0.193	0.175		0.210	0.067			0.176	0.996		50	Linear
Carbon disulfide	0.732	0.697	0.760	0.756	0.700					0.729	4.123		50	Averaged
Carbon tetrachloride	0.323	0.300	0.335	0.316	0.276	0.406				0.326	13.59		50	Averaged
Chloroethane	0.229	0.214	0.221	0.211	0.146					0.204	16.25		50	Averaged
m,p-Xylene	1.037	1.034	1.049	0.994	0.898					1.002	6.171		50	Averaged
Chloroform	0.592	0.585	0.573	0.547	0.496					0.558	6.958		30	Averaged
Chloromethane	0.337	0.317	0.324	0.328	0.317	0.392				0.336	8.533		50	Averaged
Dibromochloromethane	0.887	0.908	0.841	0.776	0.721	0.939				0.845	9.857		50	Averaged
Dibromomethane	0.280	0.289	0.279	0.266	0.249					0.273	5.783		50	Averaged
Dichlorodifluoromethane	0.417	0.370	0.443	0.446	0.405					0.416	7.531		50	Averaged
1,1-Dichloroethane	0.634	0.620	0.619	0.616	0.580					0.614	3.276		50	Averaged
1,2-Dichloroethane	0.356	0.367	0.370	0.330	0.285	0.402				0.352	11.38		50	Averaged
cis-1,2-Dichloroethene	0.524	0.529	0.520	0.518	0.483	0.592				0.527	6.702		50	Averaged
trans-1,2-Dichloroethene	0.395	0.379	0.393	0.377	0.344	0.434				0.387	7.616		50	Averaged
Methylene chloride	0.509	0.519	0.511	0.493	0.471					0.501	3.813		50	Averaged
1,2-Dichloropropane	0.393	0.383	0.391	0.388	0.379					0.387	1.572		30	Averaged
cis-1,3-Dichloropropene	0.585	0.621	0.611	0.582	0.560					0.592	4.129		50	Averaged
trans-1,3-Dichloropropene	0.521	0.538	0.539	0.527	0.489					0.523	3.858		50	Averaged
Ethylbenzene	0.745	0.712	0.681	0.674	0.608					0.684	7.467		30	Averaged
Ethyl methacrylate	1.033	1.127	1.107	1.144	1.093					1.101	3.865		50	Averaged
2-Hexanone		0.556	0.576	0.531	0.545					0.552	3.478		50	Averaged
Isobutyl alcohol	0.017	0.015	0.013	0.019	0.022					0.022	0.995		50	Linear
Isopropylbenzene (Cumene)	2.556	2.454	2.571	2.484	2.212	3.156				2.572	12.19		50	Averaged
2-Butanone	0.247	0.197	0.192	0.177	0.177					0.198	14.60		50	Averaged
Methyl iodide	0.385	0.385	0.388	0.371	0.336					0.373	5.798		50	Averaged
4-Methyl-2-pentanone	0.407	0.426	0.443	0.447	0.442					0.433	3.858		50	Averaged
n-Propylbenzene	3.413	3.203	3.588	3.588	3.315					3.421	4.949		50	Averaged
Styrene	1.763	1.857	1.823	1.758	1.609					1.762	5.390		50	Averaged

Column used to indicate that the required RRF or %RSD values is outside of QC limits

* Indicates that the compound is outside of the required minimum RRF and maximum %RSD values.

FORM VI VOA

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GCAL | Contract:

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 204042806

Instrument ID: MSV1 | Calibration Date 1: 04/17/04 | Time 1: 1051

GC Column: DB-624-30M | ID: .53 (mm) | Calibration Date 2: 04/30/04 | Time 2: 2013

Heated Purge: (Y/N) N | Method: SW-846 8260

Analytical Batch: 272539

Lab File ID: Level 1: 1201 | Level 2: 1202 | Level 3: 1203

Level 4: 1204 | Level 5: 1205 | Level 6: 1206

Level 7: 1207 | Level 8: 1208 | Level 9:

COMPOUND	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	$\overline{RF}$	RSD	#	LIMIT	TYPE
Tetrachloroethene	0.529	0.475	0.509	0.487	0.441	0.658				0.516	14.60		50	Averaged
1,1,1,2-Tetrachloroethane	0.758	0.723	0.688	0.632	0.565					0.673	11.35		50	Averaged
1,1,2,2-Tetrachloroethane	1.401	1.383	1.406	1.427	1.435	1.486	1.640	1.681		1.482	7.730		50	Averaged
1,2,4-Trichlorobenzene	0.897	0.876	0.957	0.978	0.987					0.939	5.270		50	Averaged
1,1,1-Trichloroethane	0.438	0.397	0.424	0.399	0.338					0.399	9.577		50	Averaged
1,1,2-Trichloroethane	0.728	0.721	0.684	0.646	0.624					0.681	6.681		50	Averaged
Trichlorofluoromethane	0.327	0.297	0.352	0.341	0.302					0.324	7.402		50	Averaged
1,2,3-Trichloropropane	1.530	1.551	1.578	1.538	1.510					1.541	1.640		50	Averaged
1,2,4-Trimethylbenzene	2.366	2.231	2.371	2.348	2.251					2.314	2.911		50	Averaged
1,3,5-Trimethylbenzene	2.330	2.160	2.344	2.316	2.181					2.266	3.891		50	Averaged
Vinyl chloride	0.327	0.312	0.349	0.355	0.340	0.384	0.272			0.334	10.67		30	Averaged
o-Xylene	1.065	1.050	1.043	1.003	0.943					1.021	4.829		50	Averaged
Chloroprene	0.617	0.607	0.575	0.557	0.533					0.578	6.053		50	Averaged
1,2-Dibromo-3-chloropropane	0.306	0.314	0.333	0.343	0.351	0.316	0.347	0.392		0.338	8.187		50	Averaged
1,2-Dibromoethane	0.919	0.926	0.886	0.830	0.780	1.014	1.007	0.888		0.906	8.832		50	Averaged
Methyl methacrylate	0.587	0.601	0.615	0.622	0.624					0.610	2.579		50	Averaged
Propiontrile	0.040	0.040	0.039	0.039	0.039					0.039	1.575		50	Averaged
Vinyl acetate	0.682	0.724	0.696	0.697	0.690					0.698	2.247		50	Averaged
tert-Butyl methyl ether (MTBE)	0.703	0.709	0.693	0.653	0.594					0.671	7.168		50	Averaged
1,2-Dichloroethene	0.459	0.454	0.456	0.447	0.414	0.513				0.457	7.000		50	Averaged
4-Isopropyltoluene	2.421	2.239	2.546	2.676	2.626					2.502	7.023		50	Averaged
Xylene (total)	1.173	1.123	1.192	1.216	1.214					1.184	3.215		50	Averaged
1,4 Dioxane	0.004	0.004	0.004	0.004	0.004	0.003				0.004	8.530		50	Averaged
1,3-Butadiene	0.443	0.388	0.390	0.380	0.383					0.405	7.119		50	Averaged
Methylcyclohexane	0.380	0.330	0.437	0.470	0.453					0.414	13.96		50	Averaged
n-Hexane	0.341	0.291	0.395	0.414	0.410					0.370	14.28		50	Averaged
trans-1,4-Dichloro-2-butene	0.336	0.321	0.331	0.317	0.290					0.319	5.589		50	Averaged
Cyclohexane	0.433	0.385	0.488	0.518	0.475					0.460	11.27		50	Averaged
2,2-Dichloropropane	0.457	0.427	0.449	0.447	0.398					0.436	5.459		50	Averaged
Diethyl ether	0.253	0.247	0.233	0.218	0.189					0.228	11.21		50	Averaged
Cyclohexanone	0.151	0.135	0.151	0.142	0.143					0.144	4.722		50	Averaged
Methyl Acetate	0.200	0.215	0.222	0.218	0.213					0.213	3.958		50	Averaged
Trichlorotrifluoroethane	0.399	0.359	0.439	0.438	0.390					0.405	8.370		50	Averaged
1,1-Dichloropropene	0.446	0.431	0.473	0.484	0.438					0.455	5.057		50	Averaged
2-Chloroethylvinyl ether	0.212	0.225	0.244	0.249	0.232					0.232	6.523		50	Averaged

Column used to indicate that the required RRF or %RSD values is outside of QC limits

* Indicates that the compound is outside of the required minimum RRF and maximum %RSD values.

FORM V I VOA

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GCAL | Contract:

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 204042806

Instrument ID: MSV1 | Calibration Date 1: 04/17/04 | Time 1: 1051

GC Column: DB-624-30M | ID: .53 (mm) | Calibration Date 2: 04/30/04 | Time 2: 2013

Heated Purge: (Y/N) N | Method: SW-846 8260

Analytical Batch: 272539

Lab File ID: Level 1: 1201 | Level 2: 1202 | Level 3: 1203

Level 4: 1204 | Level 5: 1205 | Level 6: 1206

Level 7: 1207 | Level 8: 1208 | Level 9:

COMPOUND	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	$\overline{RF}$	RSD	#	LIMIT	TYPE
1,3-Dichloropropane	1.349	1.344	1.272	1.222	1.157					1.269	6.453		50	Averaged
Bromobenzene	2.309	2.280	2.290	2.239	2.058					2.235	4.574		50	Averaged
2-Chlorotoluene	2.586	2.402	2.499	2.477	2.254					2.444	5.092		50	Averaged
4-Chlorotoluene	2.482	2.382	2.408	2.357	2.259					2.378	3.413		50	Averaged
tert-Butylbenzene	1.489	1.347	1.572	1.588	1.520					1.503	6.371		50	Averaged
sec-Butylbenzene	3.255	3.104	3.681	3.789	3.722					3.510	8.801		50	Averaged
1,3-Dichlorobenzene	1.433	1.377	1.340	1.450	1.392					1.398	3.140		50	Averaged
1,4-Dichlorobenzene	2.035	1.767	1.635	1.623	1.558					1.724	11.02		50	Averaged
n-Butylbenzene	2.292	2.175	2.618	2.792	2.761					2.528	11.06		50	Averaged
1,2-Dichlorobenzene	1.645	1.504	1.534	1.514	1.454					1.530	4.623		50	Averaged
Hexachlorobutadiene	0.294	0.279	0.337	0.340	0.335	0.404				0.332	13.16		50	Averaged
Naphthalene	2.153	2.084	2.419	2.464	2.404					2.305	7.523		50	Averaged
1,2,3-Trichlorobenzene	0.707	0.754	0.859	0.867	0.850					0.807	8.999		50	Averaged
2,3-Dichloro-1-propene	0.750	0.688	0.640	0.611	0.591					0.656	9.774		50	Averaged
Isopropyl Ether	2.197	1.996	1.867	1.792	1.699					1.910	10.14		50	Averaged
Acetonitrile	0.152	0.172	0.162	0.150	0.154					0.158	5.728		50	Averaged
Allyl chloride	0.502	0.459	0.449	0.439	0.428					0.455	6.267		50	Averaged
1-Bromo-2-chloroethane	0.082	0.085	0.083	0.079	0.074					0.081	5.183		50	Averaged
2-Chloropropene	0.974	0.859	0.816	0.796	0.772					0.843	9.438		50	Averaged
sec-Butanol	0.066	0.060	0.053	0.055	0.052					0.058	9.961			Averaged
Ethyl acetate	0.460	0.456	0.394	0.410	0.381					0.423	8.407		50	Averaged
n-Butyl alcohol	0.016	0.012	0.012	0.013	0.014					0.014	10.74		50	Averaged
t-Butanol	0.028	0.035	0.030	0.027	0.027					0.029	11.77		50	Averaged
Pentachloroethane										0.565	12.34		50	Averaged
1,3-Dichloropropylene	0.553	0.579	0.575	0.554	0.525					0.557	3.914			Averaged
1,1-Dichloroethene	0.250	0.214	0.240	0.238	0.218					0.232	6.593		30	Averaged
Benzene	0.980	0.948	0.959	0.961	0.905	1.124	1.481			0.911	0.999		50	Linear
Trichloroethene	0.346	0.337	0.353	0.354	0.331	0.401				0.354	7.006		50	Averaged
Toluene	2.174	2.111	2.074	2.009	1.859					2.045	5.868		30	Averaged
Chlorobenzene	1.680	1.655	1.592	1.507	1.406					1.568	7.181		50	Averaged
4-Bromofluorobenzene	0.712	0.674	0.665	0.600	0.542					0.639	10.54		50	Averaged
Dibromofluoromethane	0.448	0.429	0.441	0.414	0.374					0.421	6.956		50	Averaged
Toluene-d8	1.835	1.698	1.792	1.674	1.589					1.718	5.675		50	Averaged
1,2-Dichloroethane-d4	0.173	0.169	0.168	0.158	0.143					0.162	7.476		50	Averaged

Column used to indicate that the required RRF or %RSD values is outside of QC limits

* Indicates that the compound is outside of the required minimum RRF and maximum %RSD values.

FORM V I VOA

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GCAL

Contract:

Lab Code: LA024 Case No.:

SAS No.: SDG No.: 204042806

Instrument ID: MSV1

Calibration Date: 05/01/04 Time: 1026

Lab File ID: 2040501/T9047

Init. Calib. Date 1: 04/17/04 Time 1: 1051

Heated Purge: (Y/N) N

Init. Calib. Date 2: 04/30/04 Time 2: 2013

GC Column: DB-624-30M ID: .53 (mm)

Analytical Batch: 273041

COMPOUND	$\overline{RRF}$	RRF50	Min RRF	% D	Max %D
Acetone	0.080	0.117	0	25.5	50
Acrolein	0.028	0.008	0	-65.9	50
Acrylonitrile	0.089	0.103	0	15.6	50
Bromochloromethane	0.178	0.176	0	-1.33	50
Bromodichloromethane	0.531	0.543	0	2.310	50
Bromoform	0.542	0.535	.1	-1.17	50
Carbon disulfide	0.729	0.761	0	4.414	50
Carbon tetrachloride	0.326	0.329	0	0.956	50
Chloroethane	0.204	0.228	0	11.8	50
m,p-Xylene	1.002	1.054	0	5.158	50
Chloroform	0.558	0.579	0	3.659	20
Chloromethane	0.336	0.355	.1	5.831	50
Dibromochloromethane	0.845	0.831	0	-1.68	50
Dibromomethane	0.273	0.281	0	3.051	50
Dichlorodifluoromethane	0.416	0.441	0	6.028	50
1,1-Dichloroethane	0.614	0.618	.1	0.748	50
1,2-Dichloroethane	0.352	0.380	0	8.034	50
cis-1,2-Dichloroethene	0.527	0.540	0	2.330	50
trans-1,2-Dichloroethene	0.387	0.401	0	3.580	50
Methylene chloride	0.501	0.535	0	6.936	50
1,2-Dichloropropane	0.387	0.405	0	4.628	20
cis-1,3-Dichloropropene	0.592	0.617	0	4.258	50
trans-1,3-Dichloropropene	0.523	0.559	0	6.859	50
Ethylbenzene	0.684	0.724	0	5.815	20
2-Hexanone	0.552	0.631	0	14.3	50
Isopropylbenzene (Cumene)	2.572	2.648	0	2.957	50
2-Butanone	0.198	0.223	0	12.5	50
Methyl iodide	0.373	0.363	0	-2.78	50
4-Methyl-2-pentanone	0.433	0.471	0	8.850	50
n-Propylbenzene	3.421	3.620	0	5.820	50
Styrene	1.762	1.845	0	4.678	50
Tetrachloroethene	0.516	0.506	0	-2.07	50
1,1,1,2-Tetrachloroethane	0.673	0.682	0	1.363	50
1,1,2,2-Tetrachloroethane	1.482	1.448	.3	-2.31	50
1,2,4-Trichlorobenzene	0.939	0.914	0	-2.65	50
1,1,1-Trichloroethane	0.399	0.430	0	7.748	50
1,1,2-Trichloroethane	0.681	0.683	0	0.386	50
Trichlorofluoromethane	0.324	0.342	0	5.651	50
1,2,3-Trichloropropane	1.541	1.600	0	3.817	50

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GCAL

Contract:

Lab Code: LA024 Case No.:

SAS No.: SDG No.: 204042806

Instrument ID: MSV1

Calibration Date: 05/01/04 Time: 1026

Lab File ID: 2040501/T9047

Init. Calib. Date 1: 04/17/04 Time 1: 1051

Heated Purge: (Y/N) N

Init. Calib. Date 2: 04/30/04 Time 2: 2013

GC Column: DB-624-30M ID: .53 (mm)

Analytical Batch: 273041

COMPOUND	RRF	RRF50	Min RRF	% D	Max %D
1,2,4-Trimethylbenzene	2.314	2.366	0	2.276	50
1,3,5-Trimethylbenzene	2.266	2.333	0	2.944	50
Vinyl chloride	0.334	0.351	0	5.152	20
o-Xylene	1.021	1.050	0	2.856	50
1,2-Dibromo-3-chloropropane	0.338	0.329	0	-2.76	50
1,2-Dibromoethane	0.906	0.869	0	-4.15	50
Vinyl acetate	0.698	0.771	0	10.5	50
tert-Butyl methyl ether (MTBE)	0.671	0.692	0	3.247	50
1,2-Dichloroethene	0.457	0.470	0	2.859	50
4-Isopropyltoluene	2.502	2.643	0	5.631	50
Xylene (total)	1.184	1.178	0	-0.48	50
Methylcyclohexane	0.414	0.459	0	10.9	50
n-Hexane	0.370	0.414	0	11.8	50
trans-1,4-Dichloro-2-butene	0.319	0.345	0	8.228	50
Cyclohexane	0.460	0.529	0	14.9	50
2,2-Dichloropropane	0.436	0.483	0	10.7	50
Methyl Acetate	0.213	0.222	0	4.208	50
Trichlorotrifluoroethane	0.405	0.435	0	7.347	50
1,1-Dichloropropene	0.455	0.497	0	9.229	50
2-Chloroethylvinyl ether	0.232	0.259	0	11.6	50
1,3-Dichloropropane	1.269	1.284	0	1.172	50
Bromobenzene	2.235	2.333	0	4.346	50
2-Chlorotoluene	2.444	2.581	0	5.638	50
4-Chlorotoluene	2.378	2.406	0	1.205	50
tert-Butylbenzene	1.503	1.592	0	5.923	50
sec-Butylbenzene	3.510	3.758	0	7.069	50
1,3-Dichlorobenzene	1.398	1.426	0	1.971	50
1,4-Dichlorobenzene	1.724	1.698	0	-1.50	50
n-Butylbenzene	2.528	2.697	0	6.721	50
1,2-Dichlorobenzene	1.530	1.514	0	-1.08	50
Hexachlorobutadiene	0.332	0.339	0	2.361	50
Naphthalene	2.305	2.352	0	2.062	50
1,2,3-Trichlorobenzene	0.807	0.796	0	-1.46	50
1-Bromo-2-chloroethane	0.081	0.083	0	2.965	50
1,3-Dichloropropylene	0.557	0.588		5.478	
1,1-Dichloroethene	0.232	0.238	0	2.418	20
Benzene	0.911	0.988	0	-6.05	50
Trichloroethene	0.354	0.349	0	-1.20	50
Toluene	2.045	2.083	0	1.827	20

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GCAL

Contract:

Lab Code: LA024 Case No.:

SAS No.: SDG No.: 204042806

Instrument ID: MSV1

Calibration Date: 05/01/04 Time: 1026

Lab File ID: 2040501/T9047

Init. Calib. Date 1: 04/17/04 Time 1: 1051

Heated Purge: (Y/N) N

Init. Calib. Date 2: 04/30/04 Time 2: 2013

GC Column: DB-624-30M ID: .53 (mm)

Analytical Batch: 273041

COMPOUND	$\overline{RRF}$	RRF50	Min RRF	% D	Max %D
Chlorobenzene	1.568	1.566	.3	-0.10	50
4-Bromofluorobenzene	0.639	0.599	0	-6.23	50
Dibromofluoromethane	0.421	0.394	0	-6.48	50
Toluene-d8	1.718	1.658	0	-3.49	50
1,2-Dichloroethane-d4	0.162	0.156	0	-3.80	50

FORM V II VOA

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GCAL

Contract:

Lab Code: LA024 Case No.:

SAS No.: SDG No.: 204042806

Instrument ID: MSV1

Calibration Date: 05/01/04 Time: 1104

Lab File ID: 2040501/T9048

Init. Calib. Date 1: 04/17/04 Time 1: 1051

Heated Purge: (Y/N) N

Init. Calib. Date 2: 04/30/04 Time 2: 2013

GC Column: DB-624-30M ID: .53 (mm)

Analytical Batch: 273041

COMPOUND	RRF	RRF50	Min RRF	% D	Max %D
Benzal chloride	0.215	0.405	0	298.8	50
Ethyl methacrylate	1.101	0.993	0	-9.80	50
Isobutyl alcohol	0.022	0.014	0	-13.7	50
Chloroprene	0.578	0.458	0	-20.7	50
Methyl methacrylate	0.610	0.591	0	-3.05	50
Propiontrile	0.039	0.039	0	-0.43	50
1,4 Dioxane	0.004	0.004	0	-3.46	50
1,3-Butadiene	0.405	0.384	0	-5.23	50
Diethyl ether	0.228	0.266	0	16.4	50
Cyclohexanone	0.144	0.183	0	26.6	50
2,3-Dichloro-1-propene	0.656	0.636	0	-3.08	50
Isopropyl Ether	1.910	1.594	0	-16.5	50
Acetonitrile	0.158	0.177	0	12.2	50
Allyl chloride	0.455	0.407	0	-10.5	50
2-Chloropropene	0.843	0.871	0	3.217	50
sec-Butanol	0.058	0.063		8.830	
Ethyl acetate	0.423	0.458	0	8.375	50
n-Butyl alcohol	0.014	0.013	0	-13.2	50
t-Butanol	0.029	0.029	0	1.256	50
Pentachloroethane	0.565	0.575	0	1.704	50

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GCAL

Contract:

Lab Code: LA024 Case No.:

SAS No.: SDG No.: 204042806

Lab File ID (Standard): 2040501/T9048

Date Analyzed: 05/01/04

Instrument ID: MSV1

Time: 1104

GC Column: DB-624-30M ID: .53 (mm)

Heated Purge: (Y/N) N

Analytical Batch: 273041

	IS 1 Area	RT	IS 2 Area	RT	IS 3 Area	RT
12 HOUR STD	1394199	8.117	1251813	10.24	2734303	6.004

	EPA Sample		#		#		#		#		#		#
1.	LCS162586	1564918		8.11		1343979		10.24		3083045		6	
2.	086-271-DUP-Q1-04	1404281		8.09		1228859		10.22		2852546		5.98	
3.	086-271-EB-Q1-04	1386482		8.09		1219277		10.23		2681940		5.98	
4.	086-271-TB-Q1-04	1404241		8.08		1215620		10.21		2824949		5.99	
5.	LCSD162587	1396450		8.11		1219407		10.23		2770294		6	
6.	MB162585	1394614		8.11		1206474		10.23		2840835		5.99	
7.	86-CEF271-7S-Q1-04	1484568		8.1		1289558		10.22		3164012		5.99	
8.	086-271-MS-Q1-04	1473216		8.1		1322199		10.24		2837618		6	
9.	086-271-MSD-Q1-04	1654126		8.1		1464605		10.23		3362135		6	
10.	86-CEF271-9S-Q1-04	1467813		8.1		1293863		10.23		2910792		6	
11.	86-CEF271-10S-Q1-04	1439624		8.1		1265079		10.22		2873346		6	
12.	86-CEF271-12S-Q1-04	1414151		8.1		1238820		10.22		2750007		6	

IS 1 ID : Chlorobenzene-d5
IS 2 ID : 1,4-Dichlorobenzene-d4
IS 3 ID : Fluorobenzene

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RTLOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC limits

GCAL, Inc.

Data file : /var/chem/msv1.i/2040501.s.b/t9057.d
Lab Smp Id: 20404280601 Client Smp ID: 86-CEF271-7S-Q1-04
Inj Date : 01-MAY-2004 15:12
Operator : RJO Inst ID: msv1.i
Smp Info : 20404280601*86-CEF271-7S-Q1-04
Misc Info : MSV~4640~*5*RJO
Comment :
Method : /var/chem/msv1.i/2040501.s.b/8260Bw1.m
Meth Date : 01-May-2004 13:04 rjo Quant Type: ISTD
Cal Date : 30-APR-2004 17:51 Cal File: t9007.d
Als bottle: 20
Dil Factor: 5.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
	32 2-Butanone	43	5.233	5.232	(0.874)	28804	2.29745	11.5	(a)
S	36 Dibromofluoromethane	111	5.536	5.541	(0.924)	1074627	40.3247	202	4693
S	43 1,2-Dichloroethane-d4	67	5.800	5.805	(0.968)	797301	77.6749	388	(R)
	44 Benzene	78	5.800	5.811	(0.968)	3811371	64.8742	324	
	46 1,2-Dichloroethane	62	5.811	5.856	(0.970)	36086	1.62187	8.11	(a)
*	47 FLUOROBENZENE	96	5.989	5.994	(1.000)	3164012	50.0000		
	54 Bromodichloromethane	83	6.332	6.583	(1.057)	166166	4.94594	24.7	(a)
S	60 Toluene-d8	98	7.048	7.053	(0.871)	2494544	48.9087	245	
	61 Toluene +	91	7.099	7.104	(0.877)	202989	3.34247	16.7	(a)
*	71 CHLOROBENZENE-d5	82	8.095	8.101	(1.000)	1484568	50.0000		
	73 Ethylbenzene +	106	8.158	8.158	(1.008)	538621	26.5195	133	(H)
	76 o-Xylene	106	8.588	8.593	(1.061)	104369	3.44420	17.2	(a)
	79 Isopropylbenzene	105	8.874	8.891	(1.096)	1431010	18.7385	93.7	
S	80 Bromofluorobenzene	174	9.080	9.097	(1.122)	917724	48.3719	242	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
	86 n-Propylbenzene	91	9.258	9.274	(0.905)	3499711	39.6610	198	
	93 1,2,4-Trimethylbenzene	105	9.796	9.812	(0.958)	170341	2.85478	14.3	(aH)
	94 sec-Butylbenzene	105	9.967	9.978	(0.975)	162674	1.79685	8.98	(a)
*	97 1,4-DICHLOROBENZENE-D4	152	10.225	10.242	(1.000)	1289558	50.0000		
M	99 TOTAL XYLENE	106				104369	3.44420	17.2	(a)
	110 Naphthalene	128	12.469	12.469	(1.219)	8769590	147.530	738	

QC Flag Legend

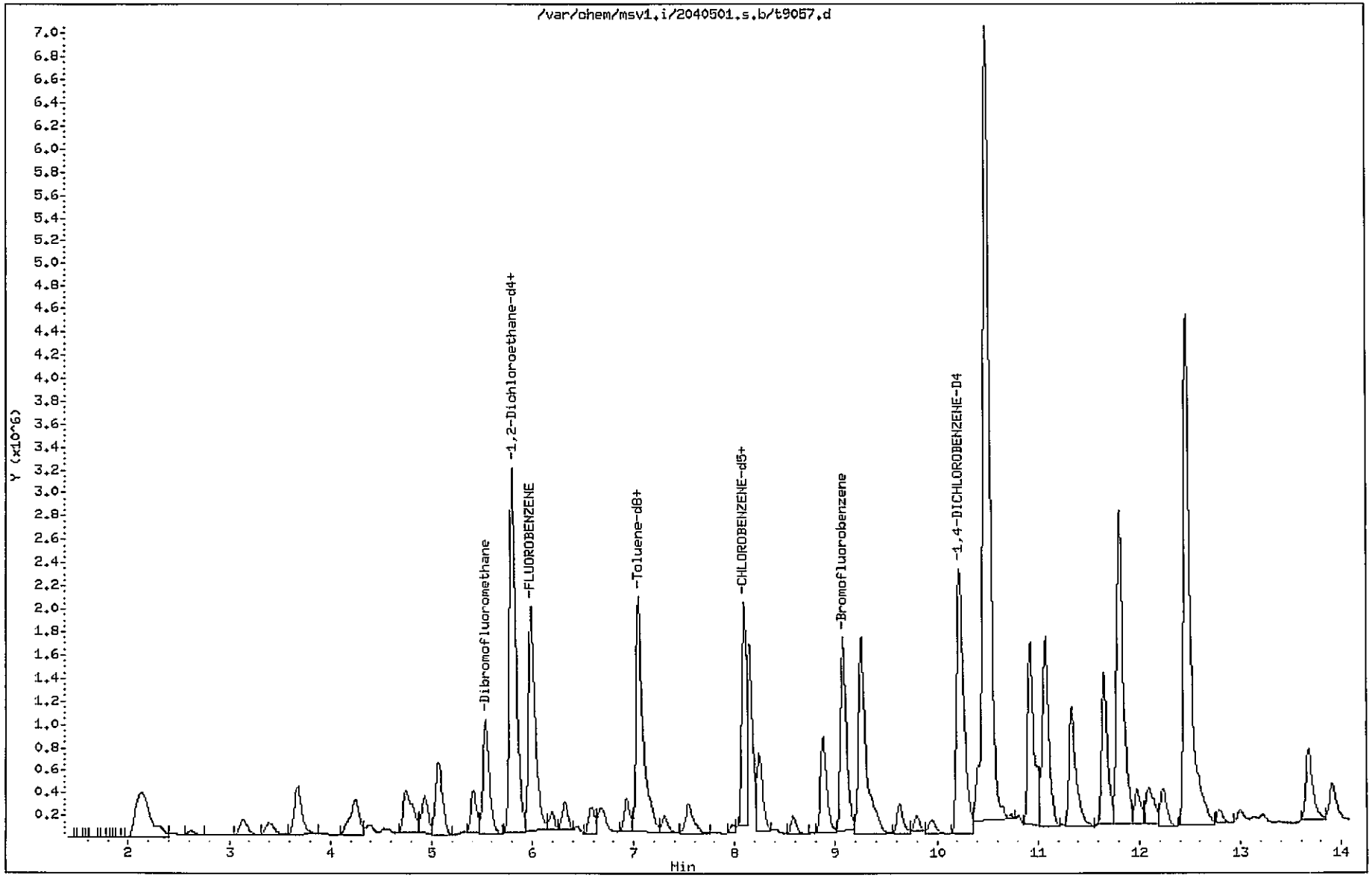
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

Data File: /var/chem/msv1.i/2040501.s.b/t9057.d
Date : 01-MAY-2004 15:12
Client ID: 86-CEF271-7S-Q1-04
Sample Info: 204042B0601*86-CEF271-7S-Q1-04
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

Operator: RJO
Column diameter: 0.53

000034



Data File: /var/chem/msv1.i/2040501.s.b/t9057.d

Date : 01-MAY-2004 15:12

Client ID: 86-CEF271-7S-Q1-04

Instrument: msv1.i

Sample Info: 20404280601X86-CEF271-7S-Q1-04

Purge Volume: 5.0

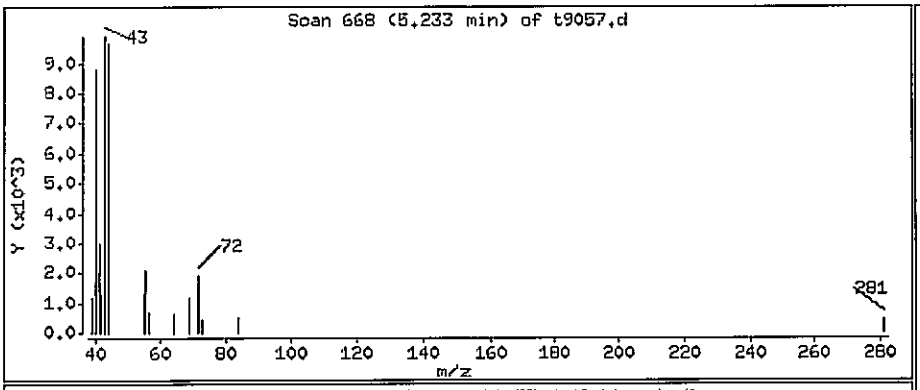
Operator: RJO

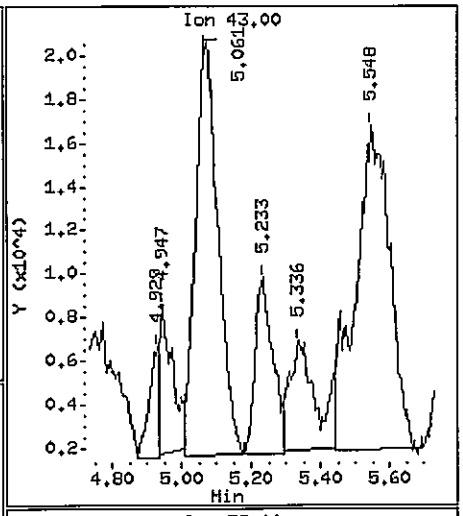
Column phase: DB-624-30M

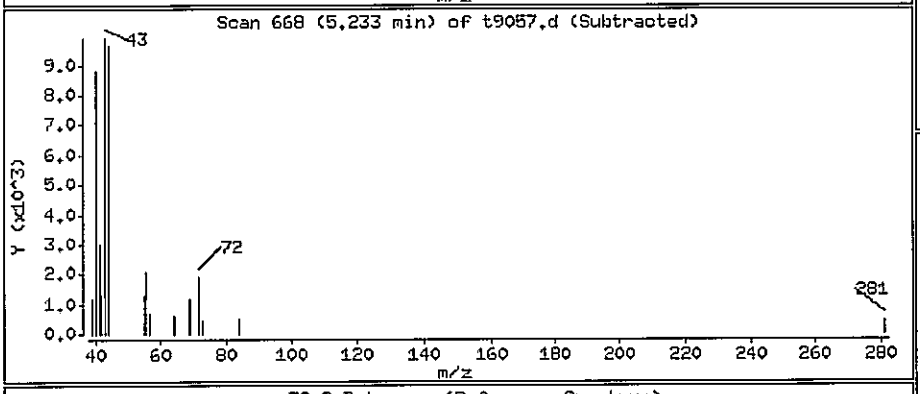
Column diameter: 0.53

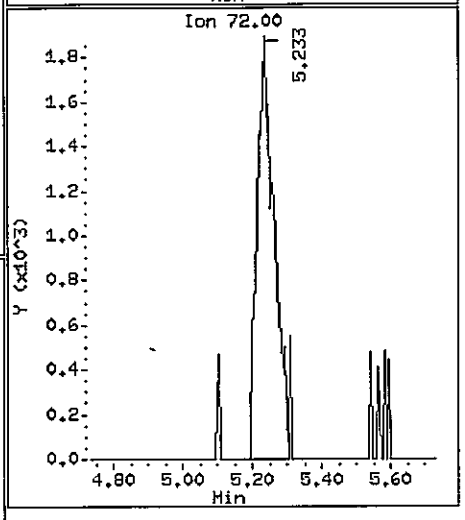
32 2-Butanone

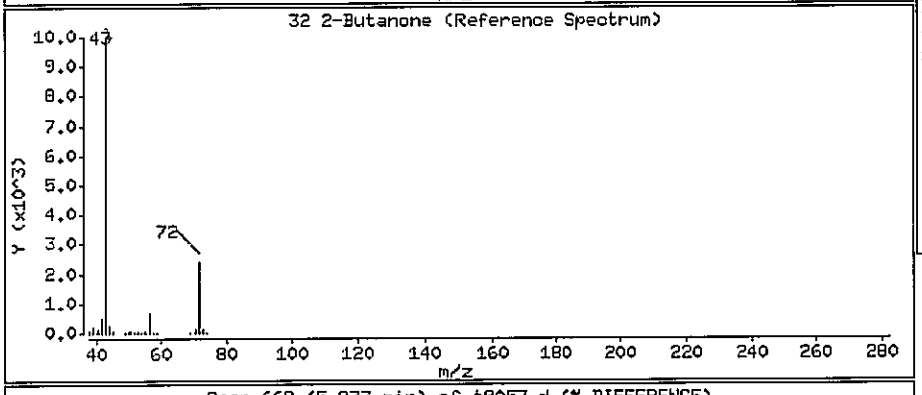
Concentration: 11.5 ug/L

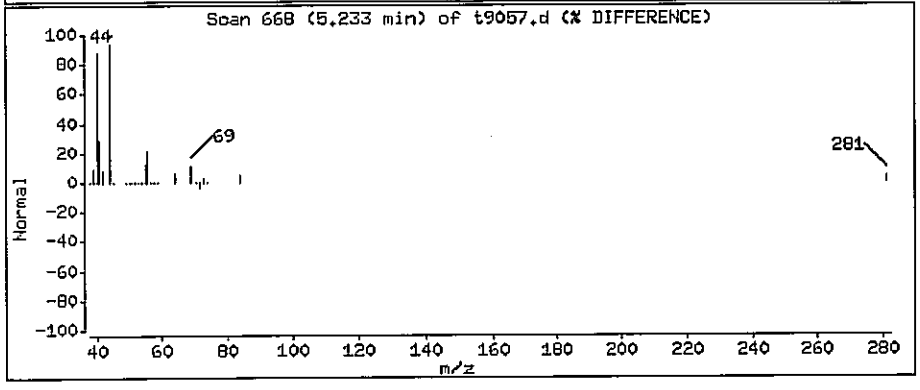












Data File: /var/chem/msv1.i/2040501.s.b/t9057.d

Date : 01-MAY-2004 15:12

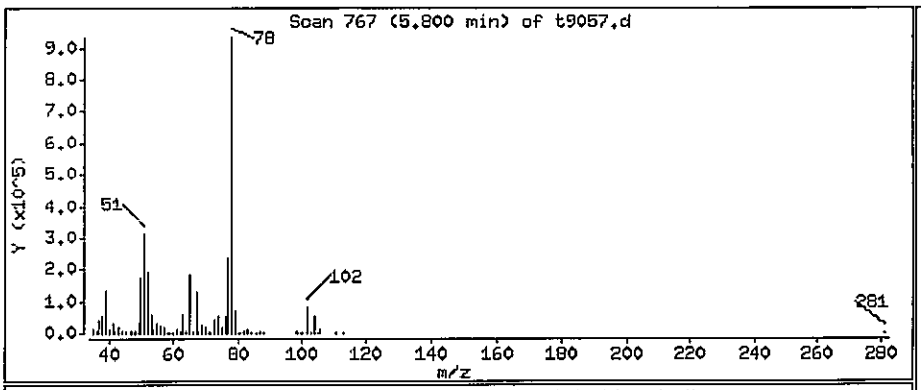
Client ID: 86-CEF271-7S-Q1-04 Instrument: msv1.i

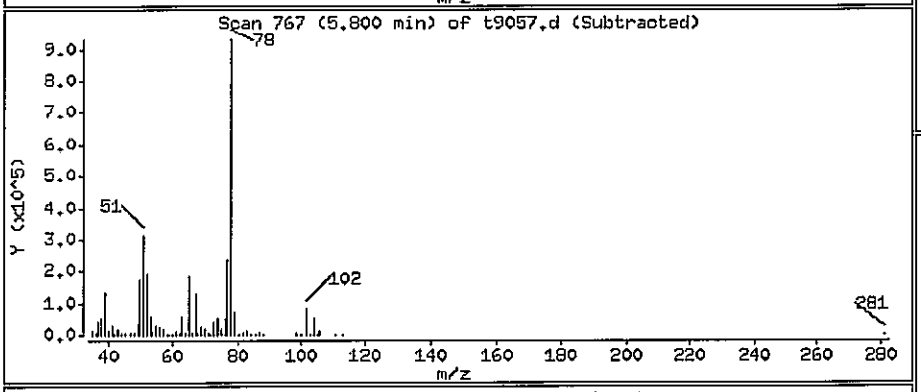
Sample Info: 20404280601X86-CEF271-7S-Q1-04

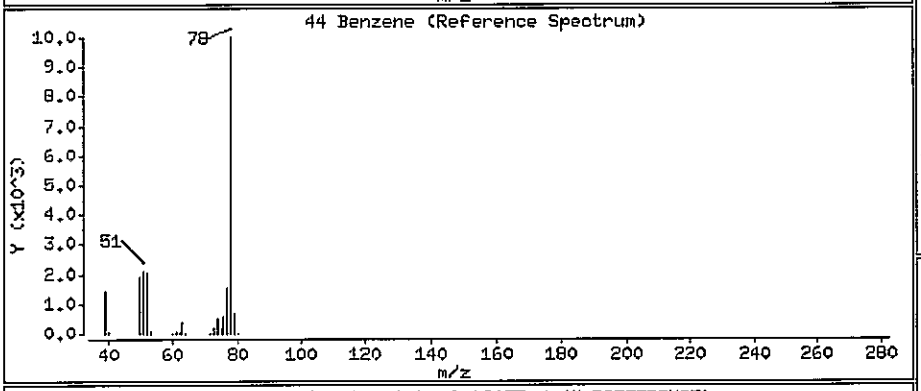
Purge Volume: 5.0 Operator: RJO

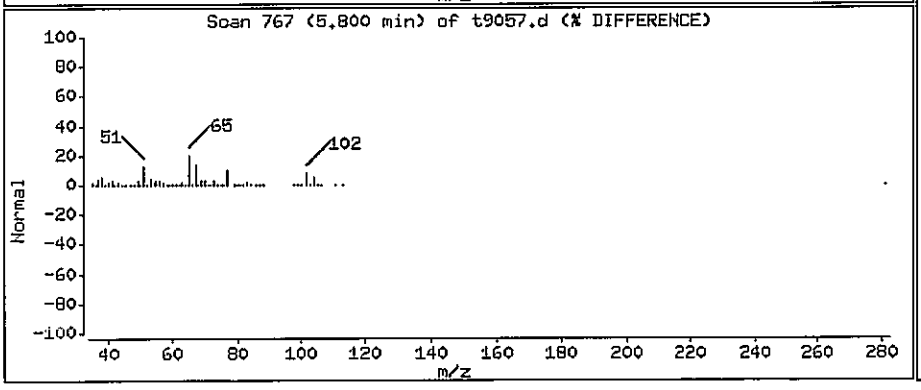
Column phase: DB-624-30M Column diameter: 0.53

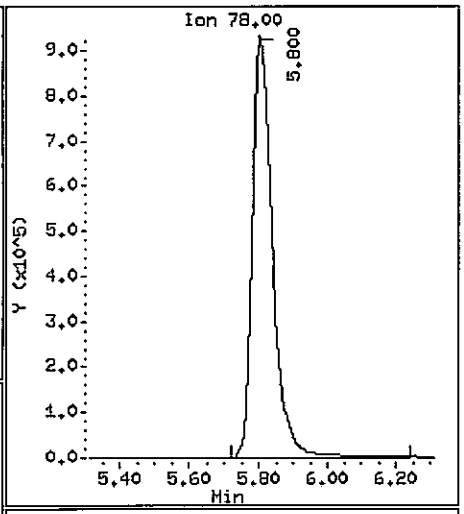
44 Benzene Concentration: 324 ug/L

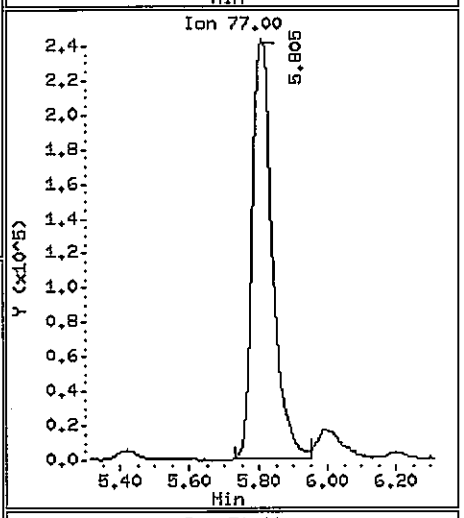


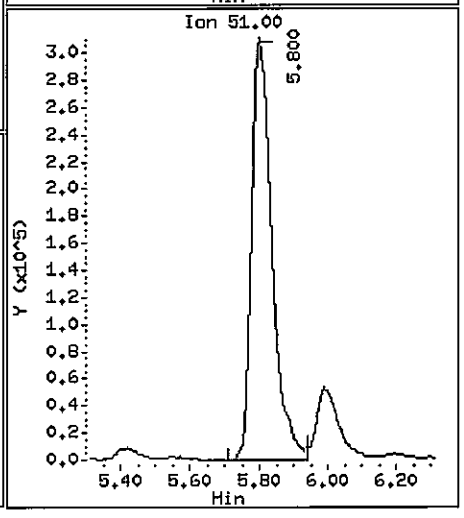












Data File: /var/chem/msv1.i/2040501.s.b/t9057.d

Date : 01-MAY-2004 15:12

Client ID: 86-CEF271-7S-Q1-04

Instrument: msv1.i

Sample Info: 20404280601*86-CEF271-7S-Q1-04

Purge Volume: 5.0

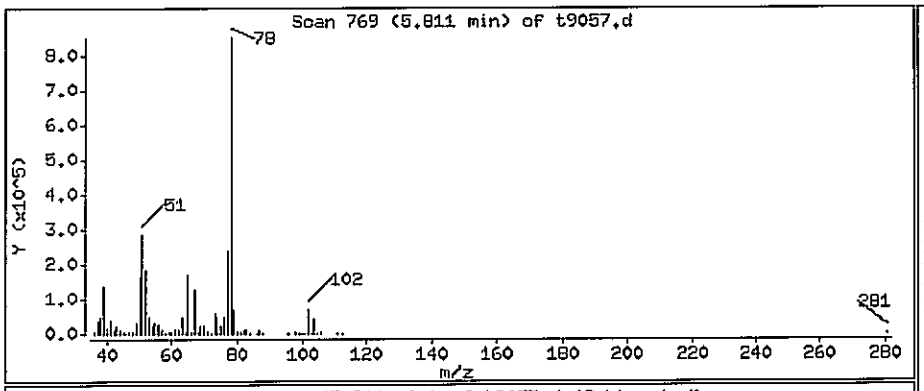
Operator: RJO

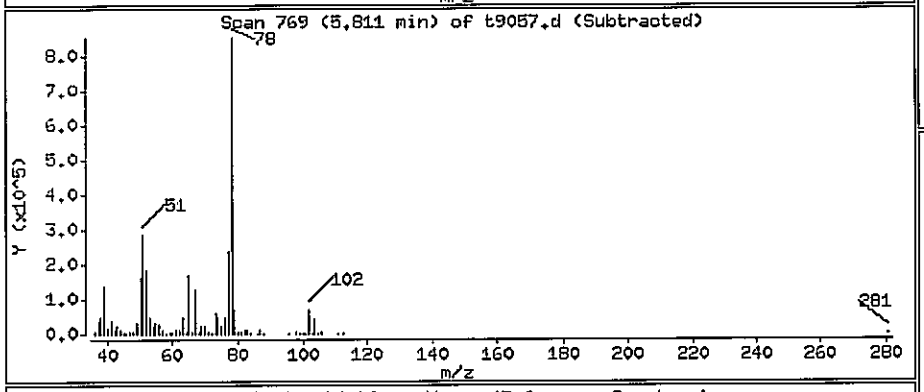
Column phase: DB-624-30M

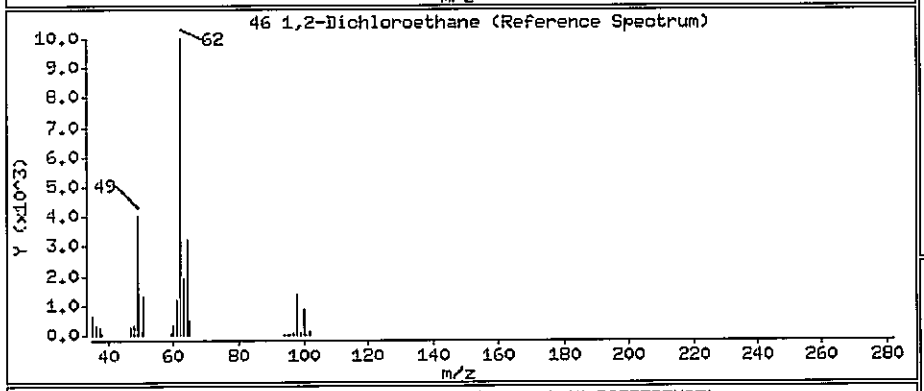
Column diameter: 0.53

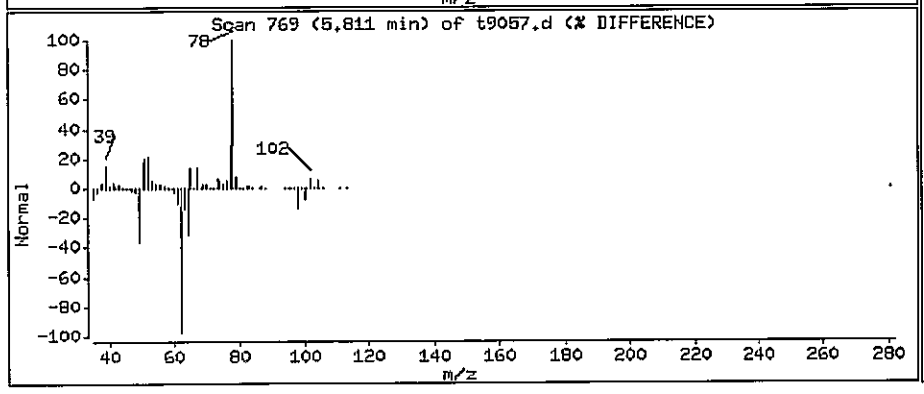
46 1,2-Dichloroethane

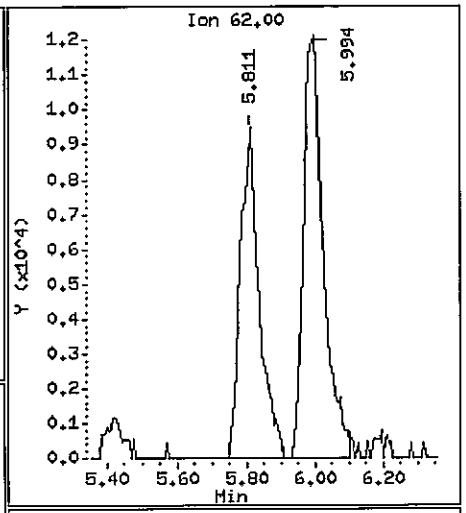
Concentration: 8.11 ug/L

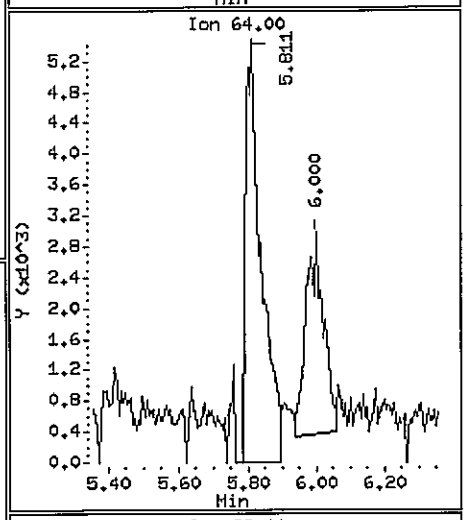


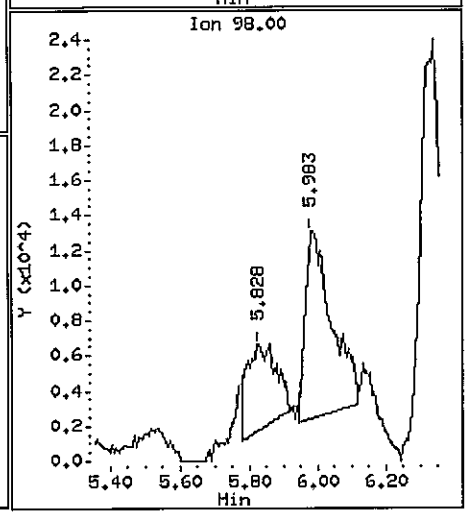












Data File: /var/chem/msv1.i/2040501.s.b/t9057.d

Date : 01-MAY-2004 15:12

Client ID: 86-CEF271-7S-Q1-04

Instrument: msv1.i

Sample Info: 20404280601x86-CEF271-7S-Q1-04

Purge Volume: 5.0

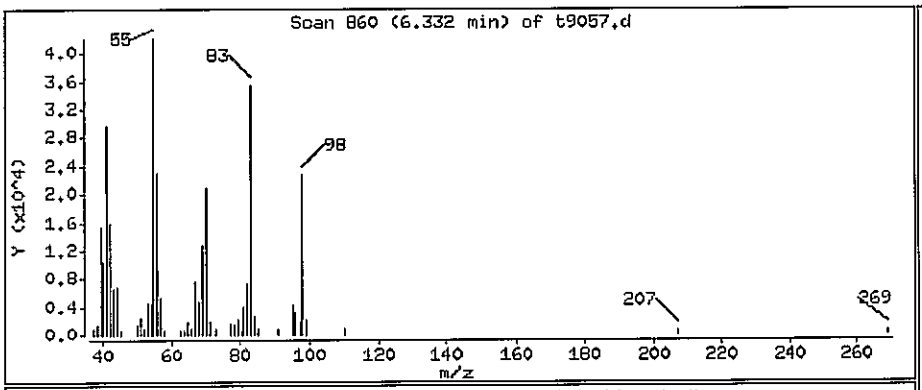
Operator: RJD

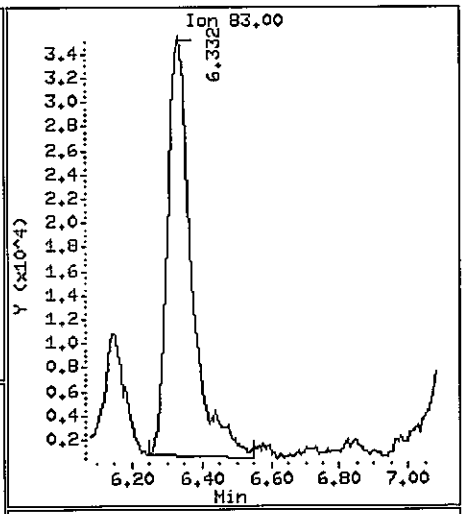
Column phase: DB-624-30M

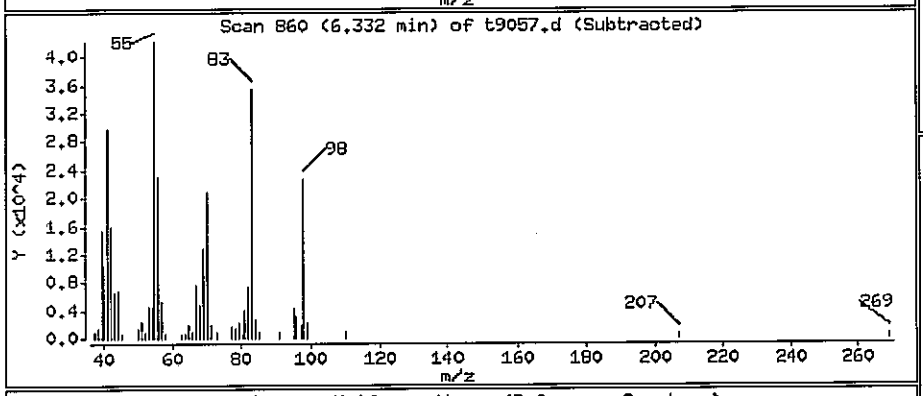
Column diameter: 0.53

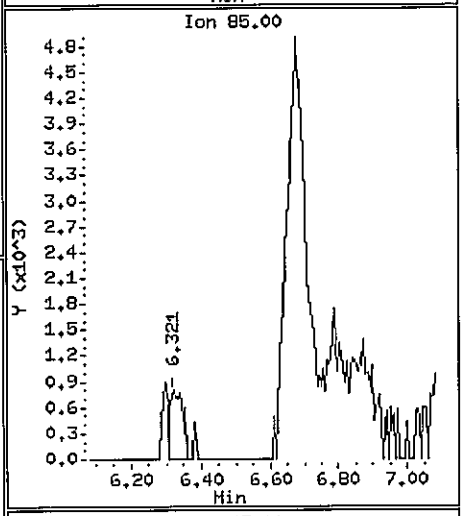
54 Bromodichloromethane

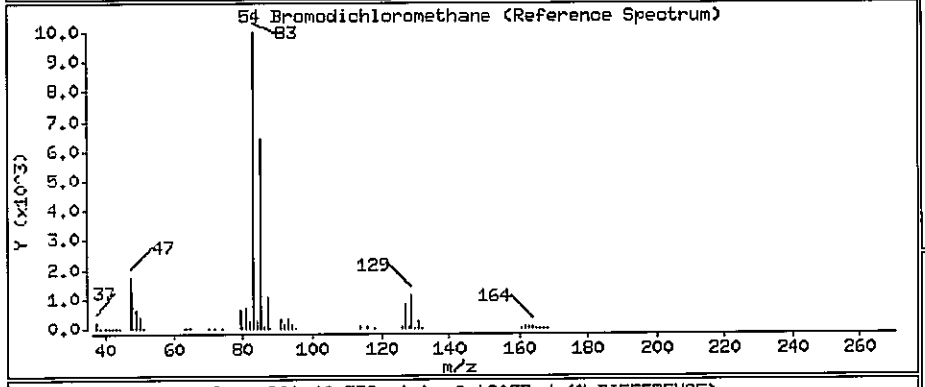
Concentration: 24.7 ug/L

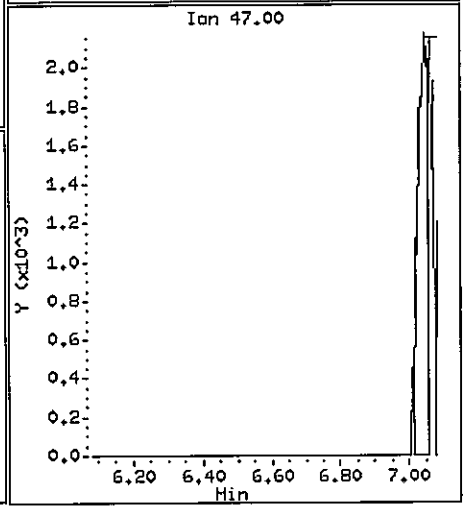


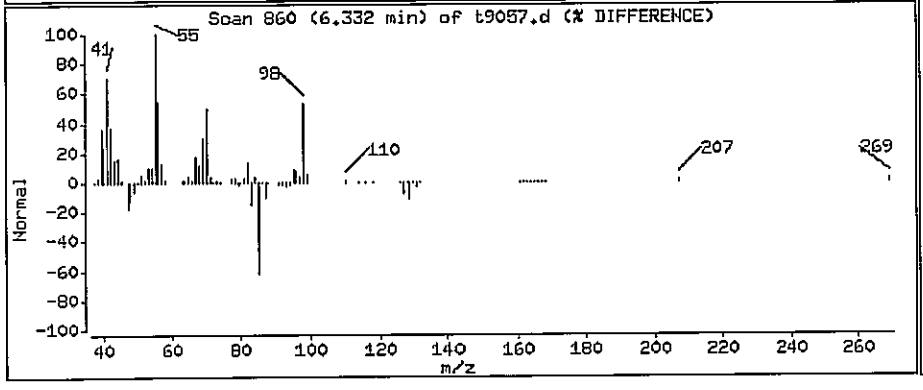












Data File: /var/chem/msv1.i/2040501.s.b/t9057.d

Date : 01-MAY-2004 15:12

Client ID: 86-CEF271-7S-Q1-04

Instrument: msv1.i

Sample Info: 20404280601M86-CEF271-7S-Q1-04

Purge Volume: 5.0

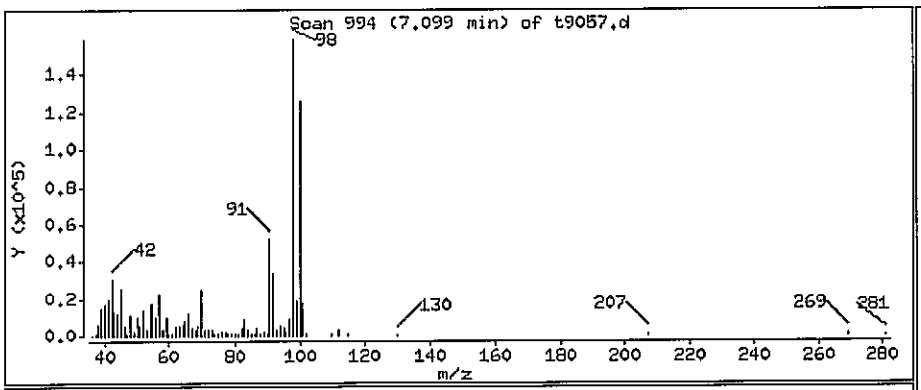
Operator: RJO

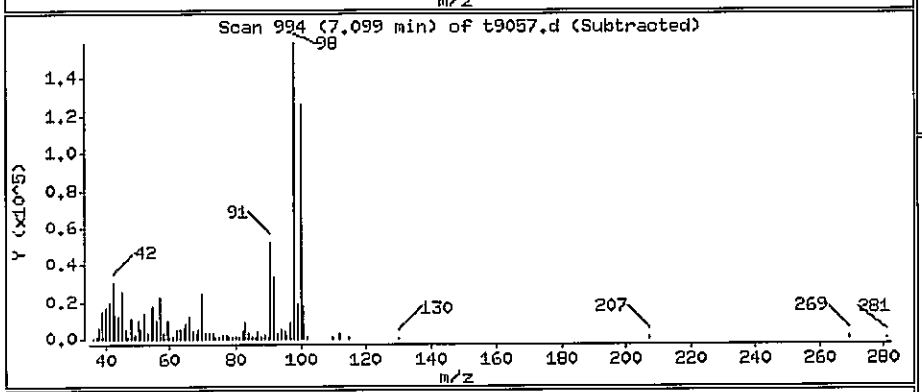
Column phase: DB-624-30M

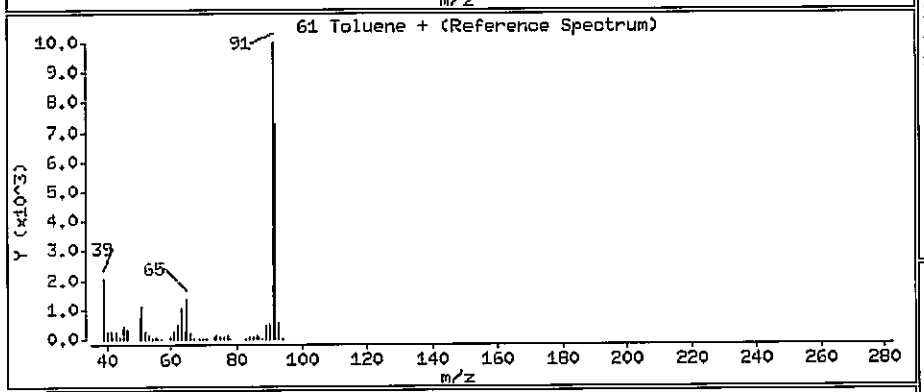
Column diameter: 0.53

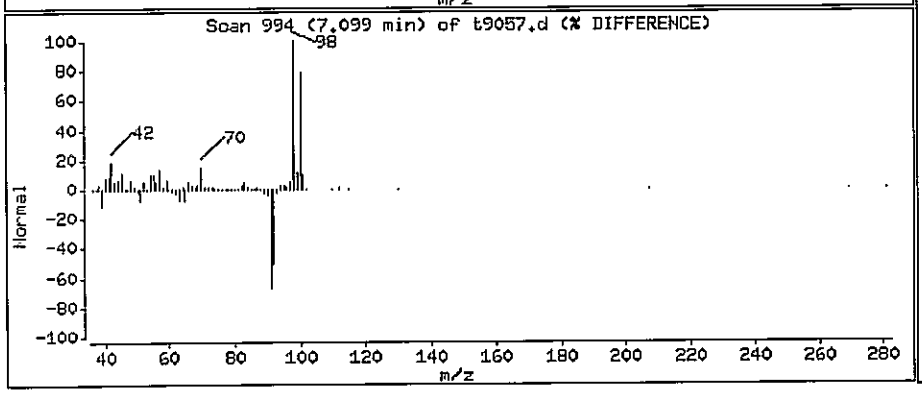
61 Toluene +

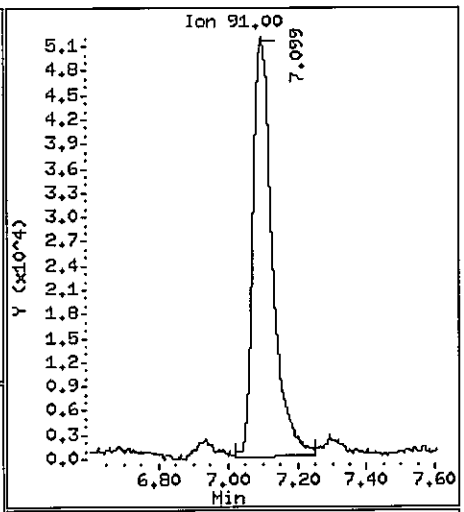
Concentration: 16.7 ug/L

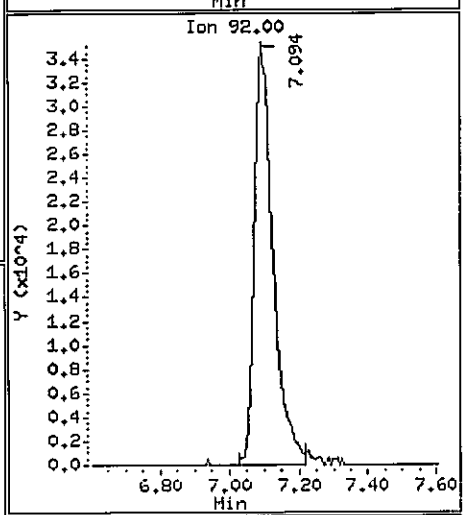


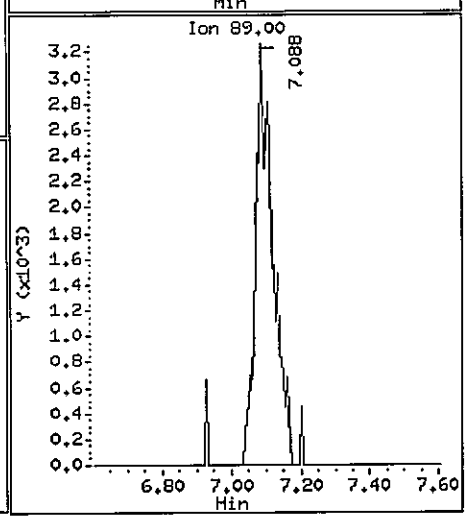












Data File: /var/chem/msv1.i/2040501.s.b/t9057.d

Date : 01-MAY-2004 15:12

Client ID: 86-CEF271-7S-Q1-04

Instrument: msv1.i

Sample Info: 20404280601*86-CEF271-7S-Q1-04

Purge Volume: 5.0

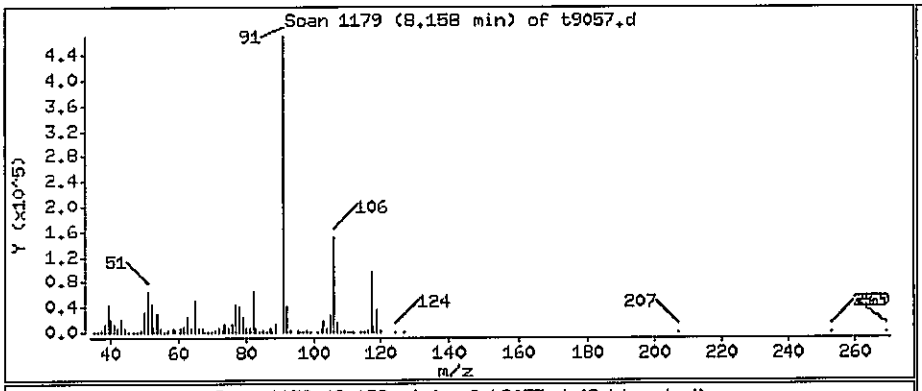
Operator: RJO

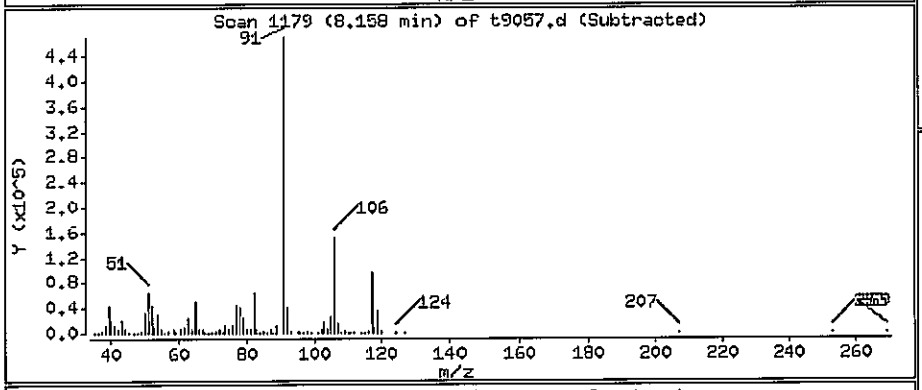
Column phase: DB-624-30M

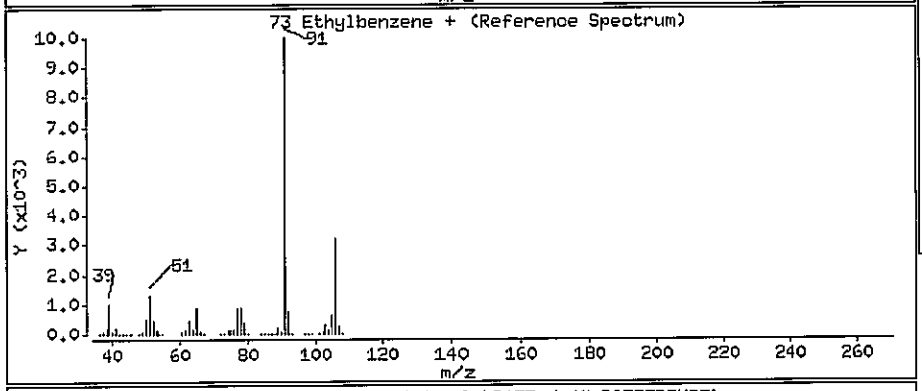
Column diameter: 0.53

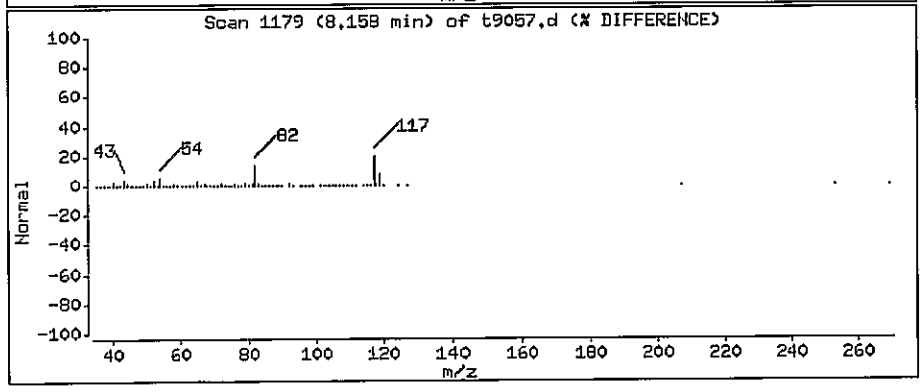
73 Ethylbenzene +

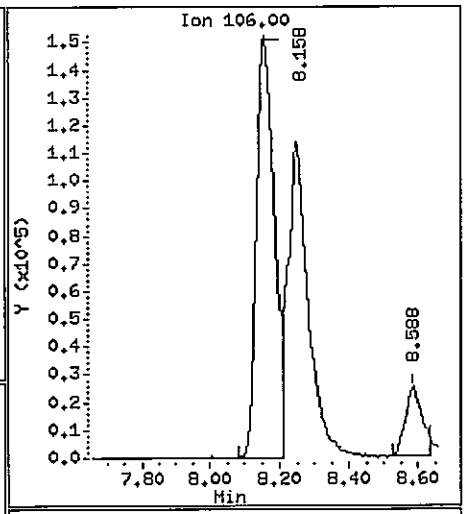
Concentration: 133 ug/L

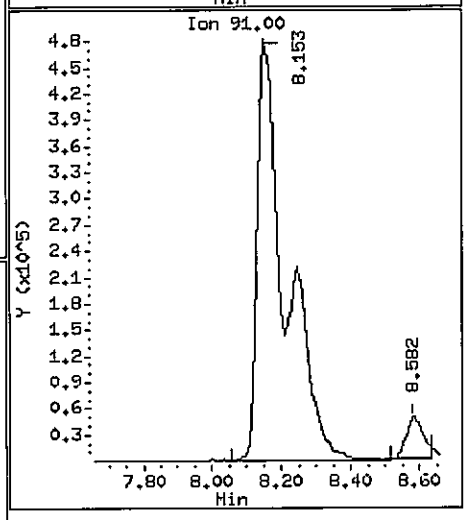












Data File: /var/chem/msv1.i/2040501.s.b/t9057.d

Date : 01-MAY-2004 15:12

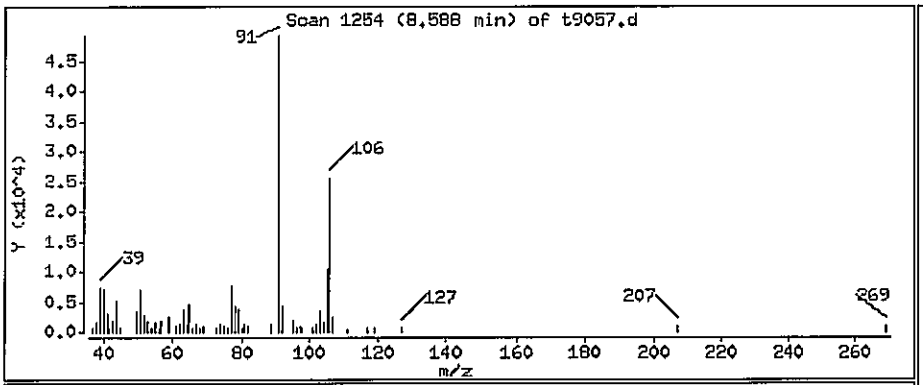
Client ID: 86-CEF271-7S-Q1-04 Instrument: msv1.i

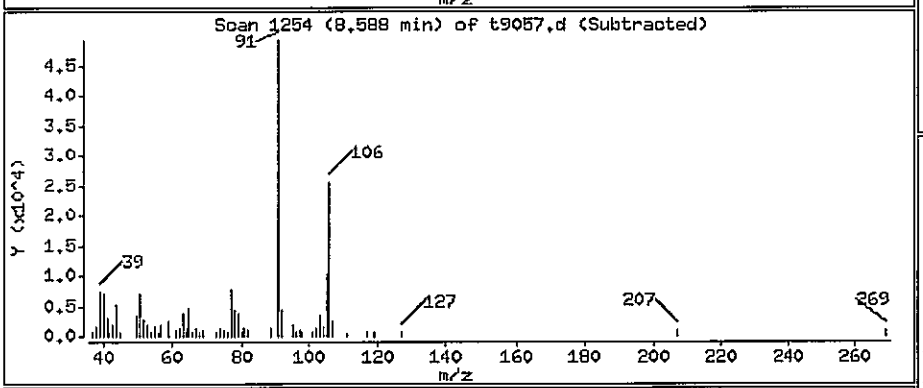
Sample Info: 20404280601X86-CEF271-7S-Q1-04

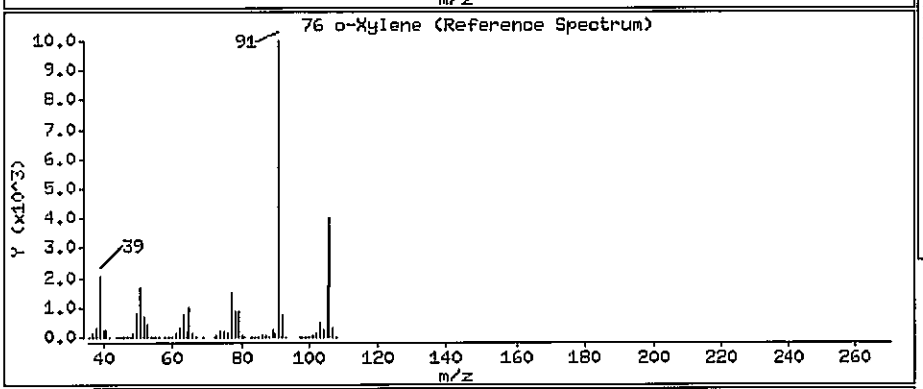
Purge Volume: 5.0 Operator: RJO

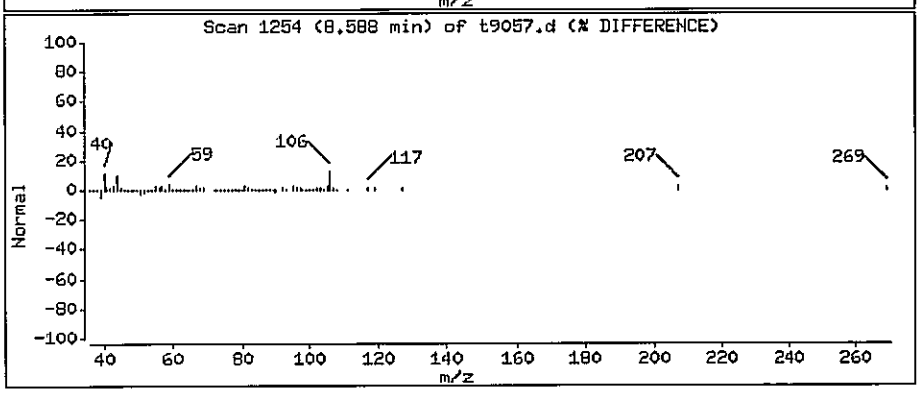
Column phase: DB-624-30M Column diameter: 0.53

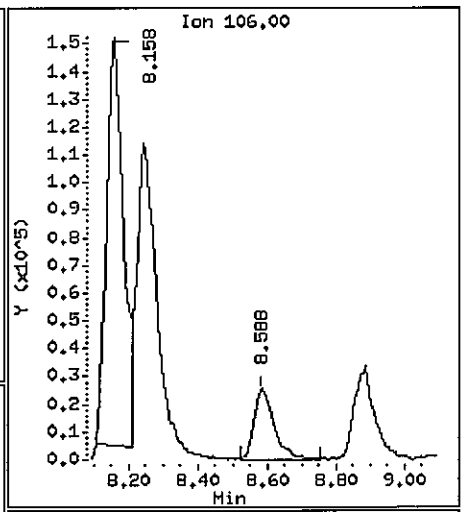
76 o-Xylene Concentration: 17.2 ug/L

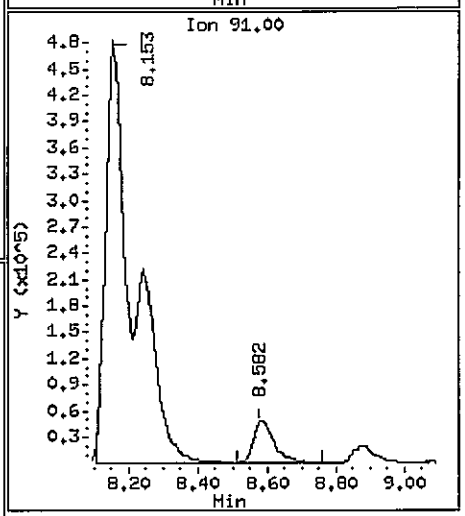












Data File: /var/chem/msv1.i/2040501.s.b/t9057.d

Date : 01-MAY-2004 15:12

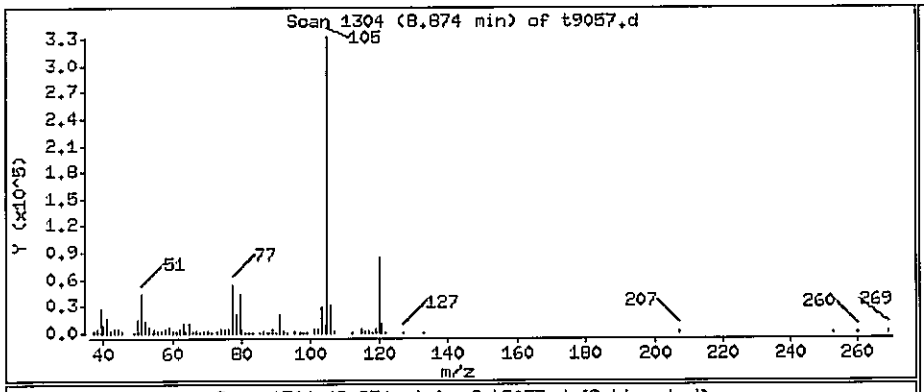
Client ID: 86-CEF271-7S-Q1-04 Instrument: msv1.i

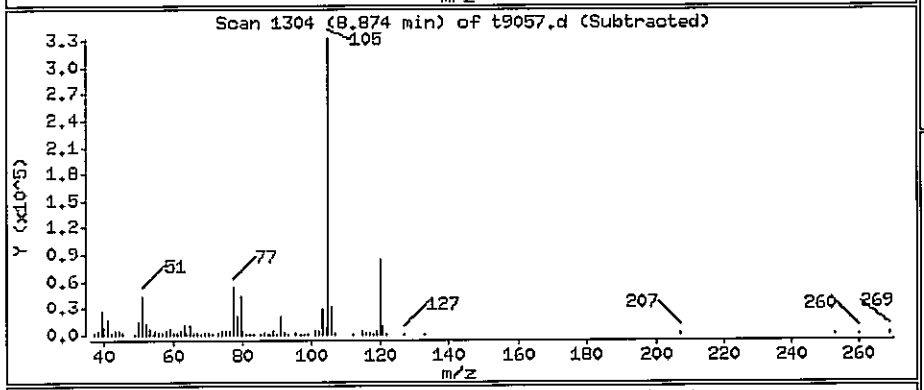
Sample Info: 20404280601M86-CEF271-7S-Q1-04

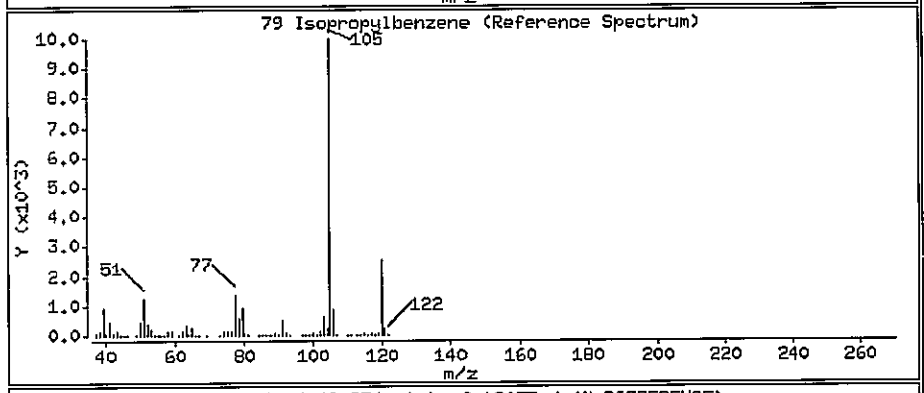
Purge Volume: 5.0 Operator: RJO

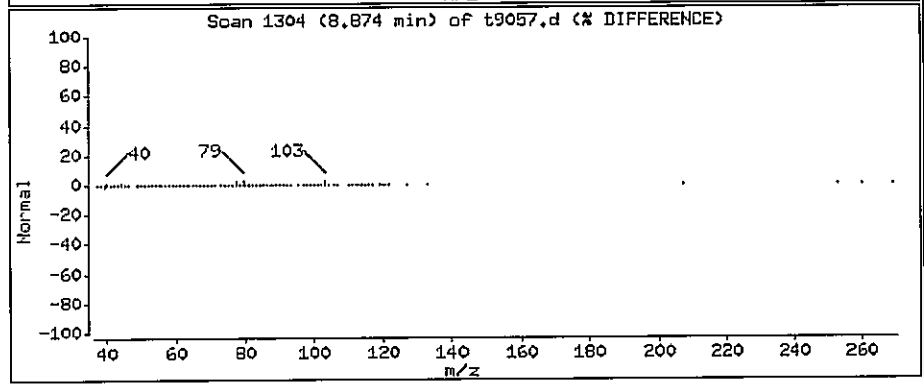
Column phase: DB-624-30M Column diameter: 0.53

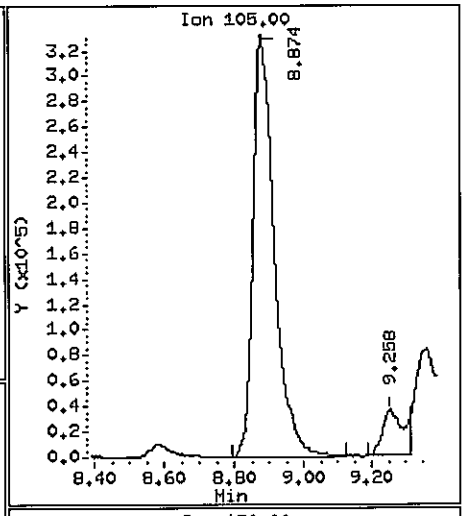
79 Isopropylbenzene Concentration: 93.7 ug/L

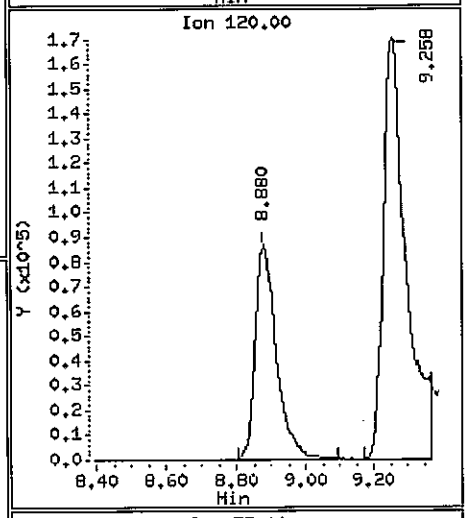


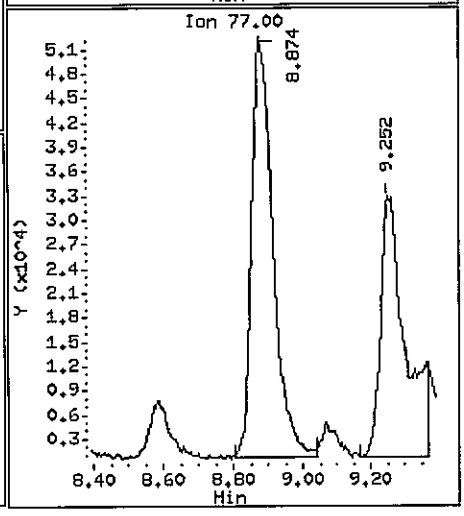












Data File: /var/chem/msv1.i/2040501.s.b/t9057.d

Date : 01-MAY-2004 15:12

Client ID: 86-CEF271-7S-Q1-04

Instrument: msv1.i

Sample Info: 20404280601*86-CEF271-7S-Q1-04

Purge Volume: 5.0

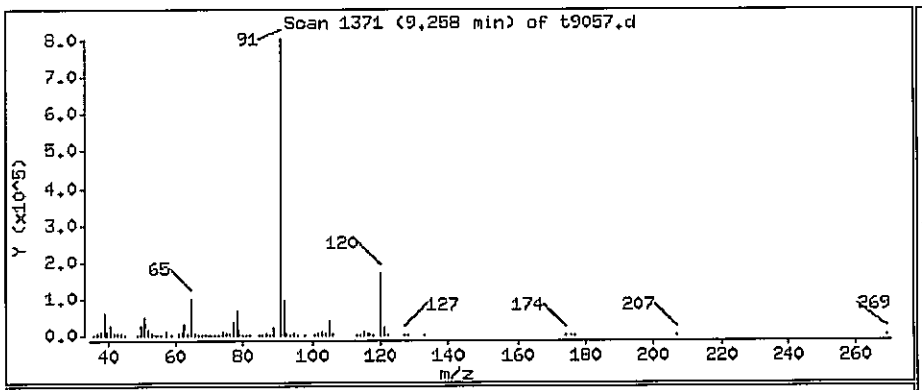
Operator: RJO

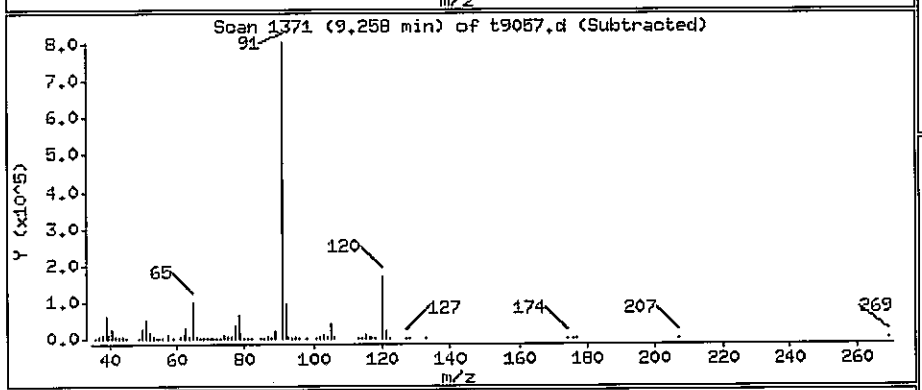
Column phase: DB-624-30M

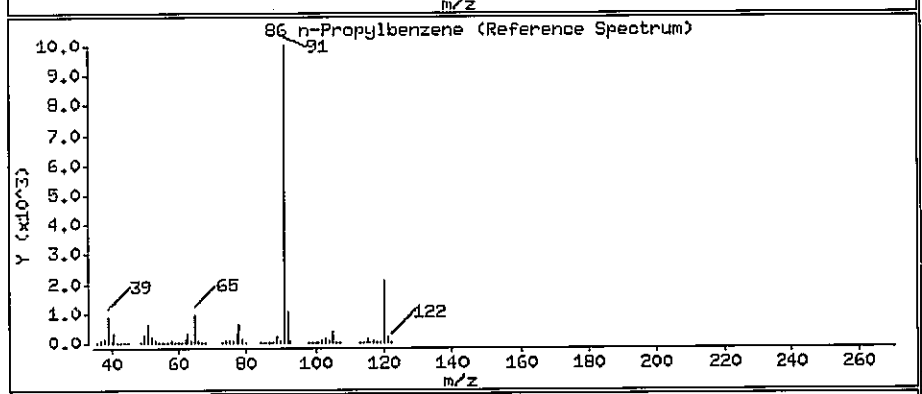
Column diameter: 0.53

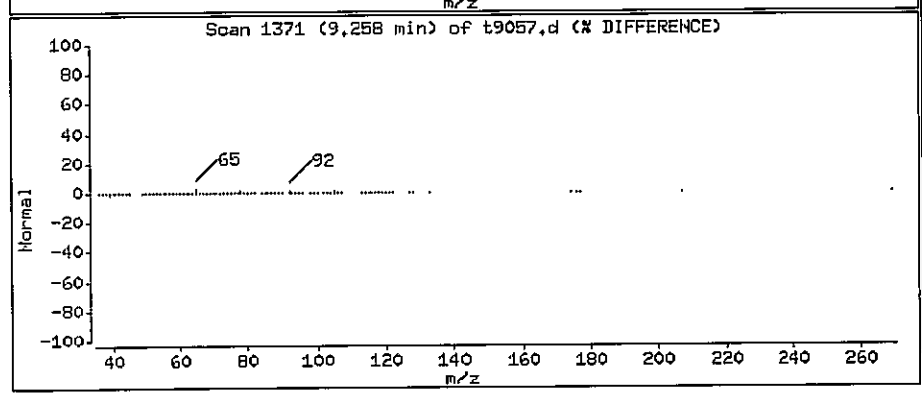
86 n-Propylbenzene

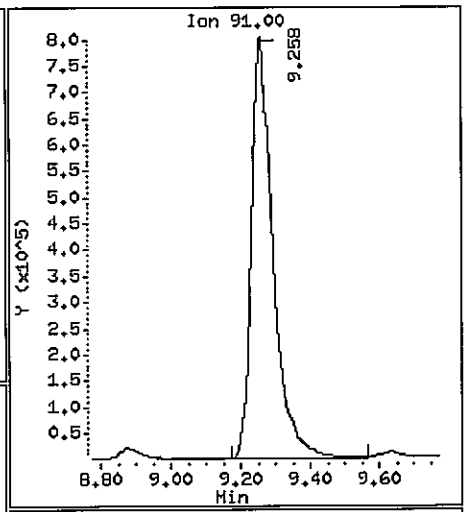
Concentration: 198 ug/L

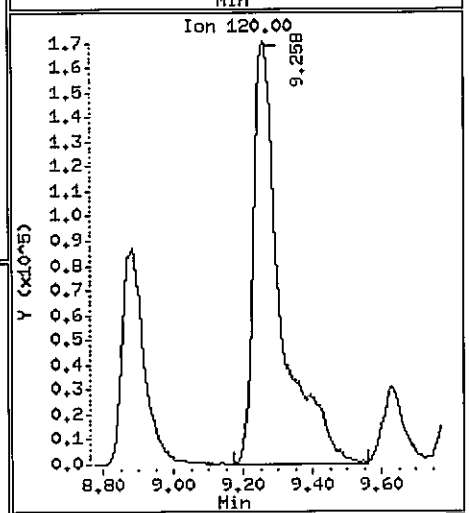


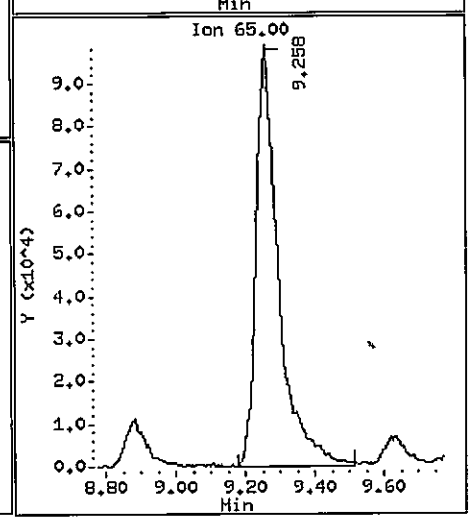












Data File: /var/chem/msv1.i/2040501.s.b/t9057.d

Date : 01-MAY-2004 15:12

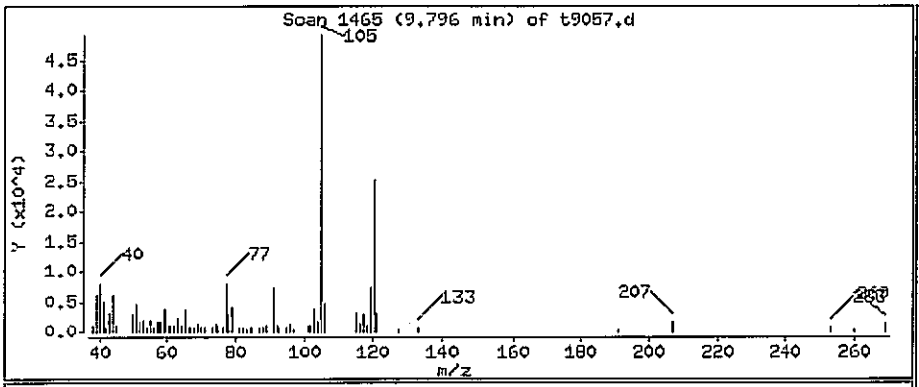
Client ID: 86-CEF271-7S-Q1-04 Instrument: msv1.i

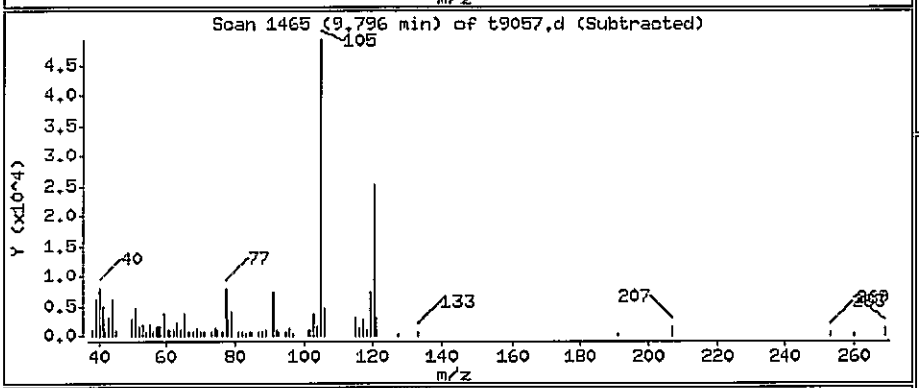
Sample Info: 20404280601X86-CEF271-7S-Q1-04

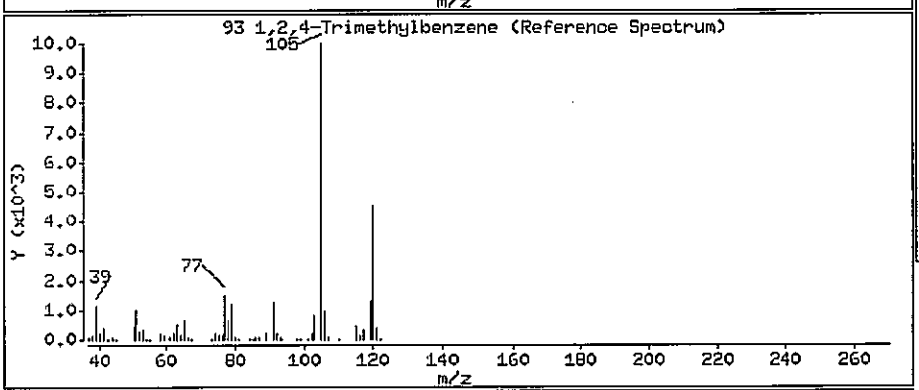
Purge Volume: 5.0 Operator: RJO

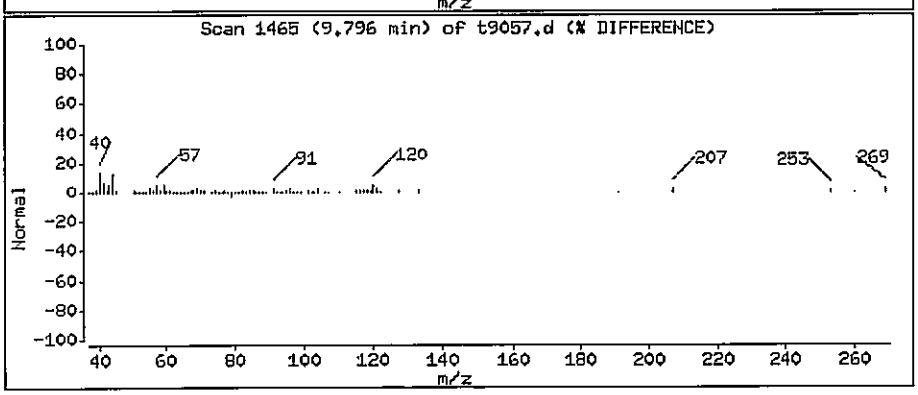
Column phase: DB-624-30M Column diameter: 0.53

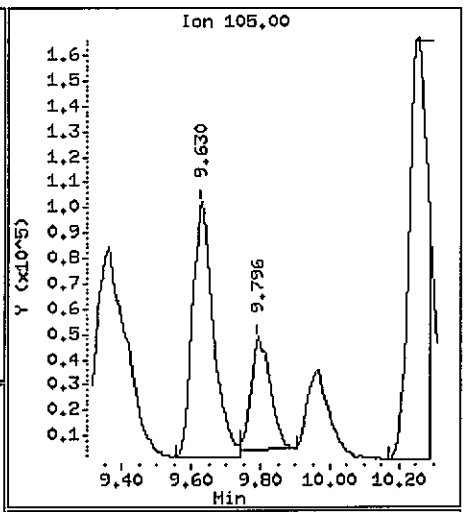
93 1,2,4-Trimethylbenzene Concentration: 14.3 ug/L

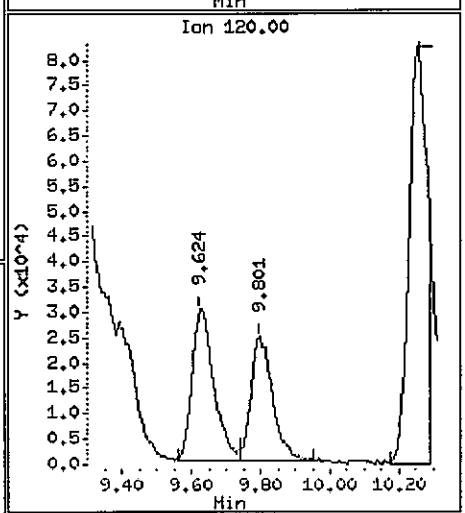












Data File: /var/chem/msv1.i/2040501.s.b/t9057.d

Date : 01-MAY-2004 15:12

Client ID: B6-CEF271-7S-Q1-04

Instrument: msv1.i

Sample Info: 20404280601XB6-CEF271-7S-Q1-04

Purge Volume: 5.0

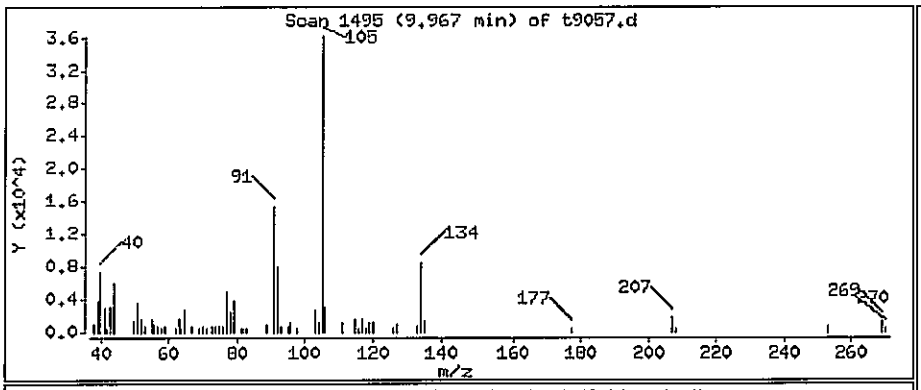
Operator: RJO

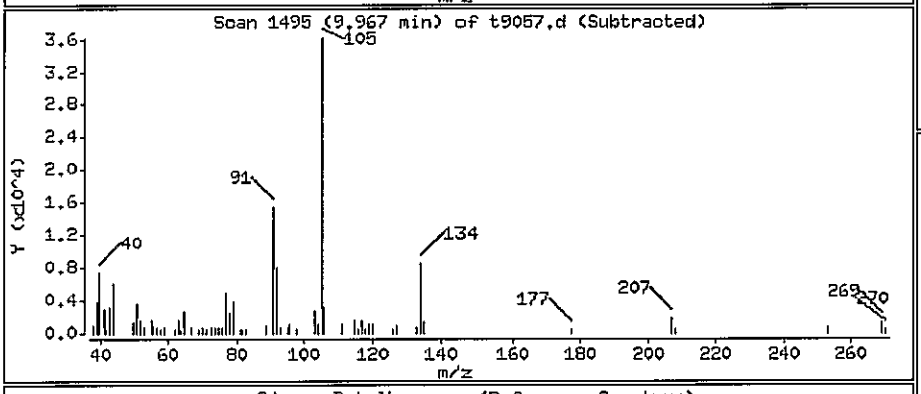
Column phase: DB-624-30M

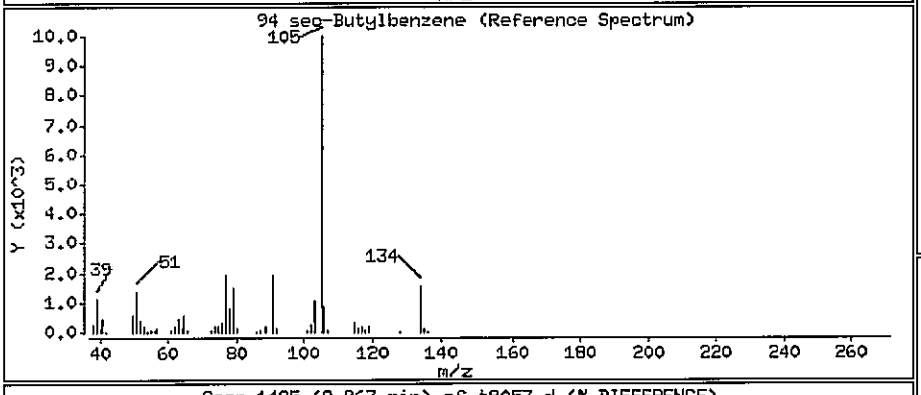
Column diameter: 0.53

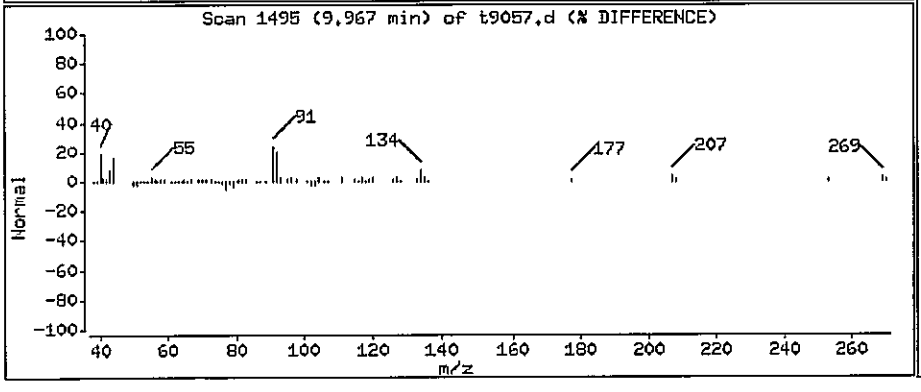
94 sec-Butylbenzene

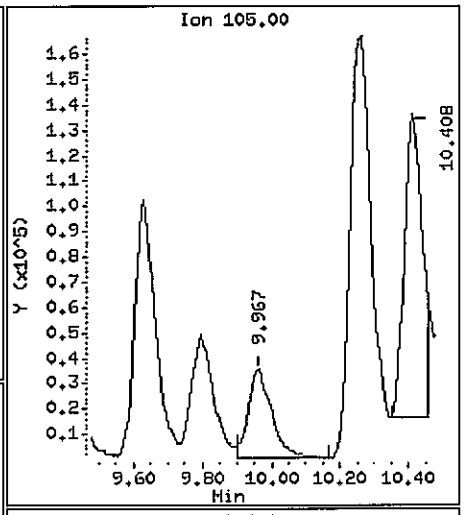
Concentration: 8.98 ug/L

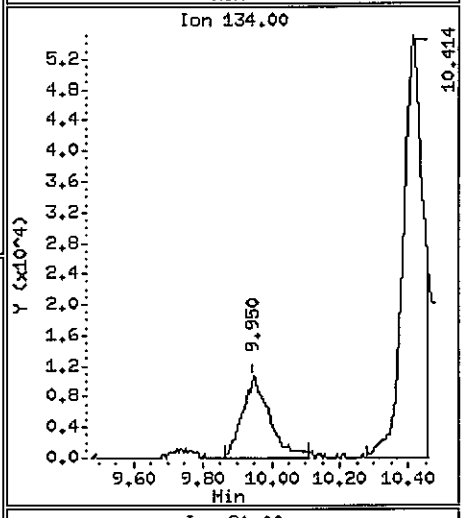


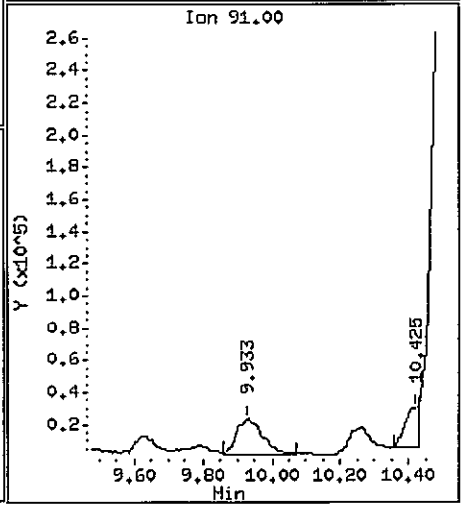












Data File: /var/chem/msv1.i/2040501.s.b/t9057.d

Date : 01-MAY-2004 15:12

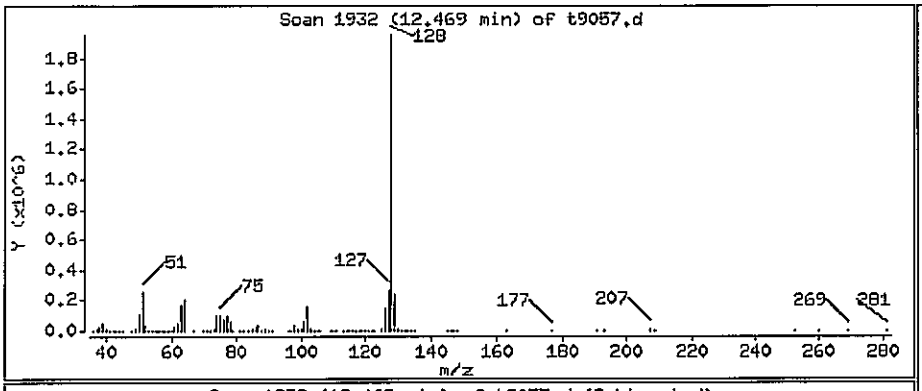
Client ID: 86-CEF271-7S-Q1-04 Instrument: msv1.i

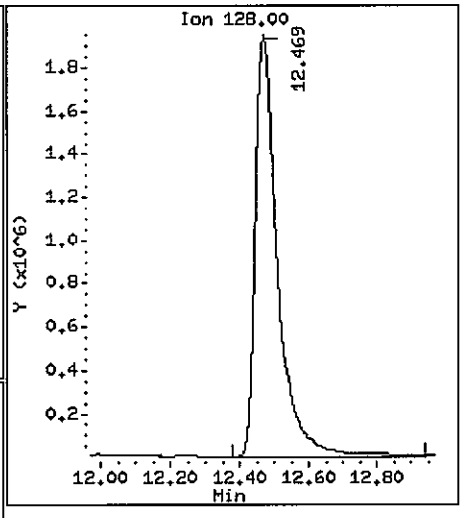
Sample Info: 20404280601X86-CEF271-7S-Q1-04

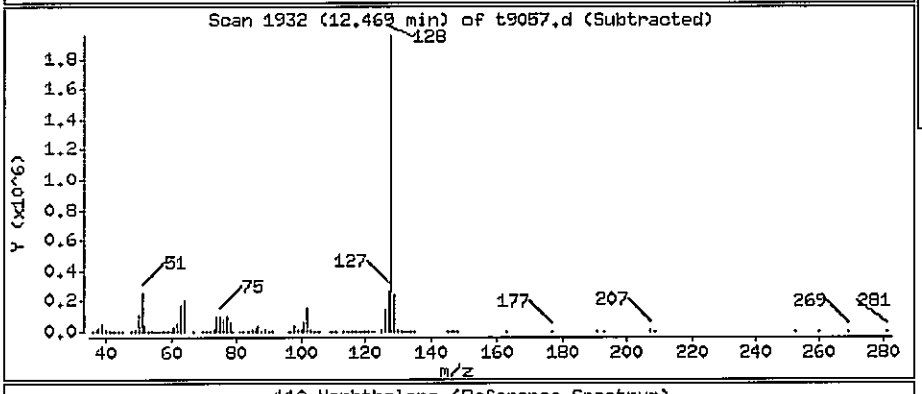
Purge Volume: 5.0 Operator: RJO

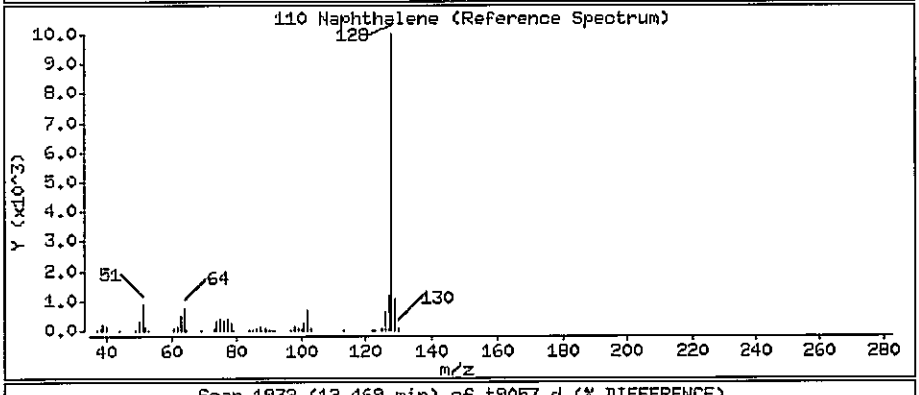
Column phase: DB-624-30M Column diameter: 0.53

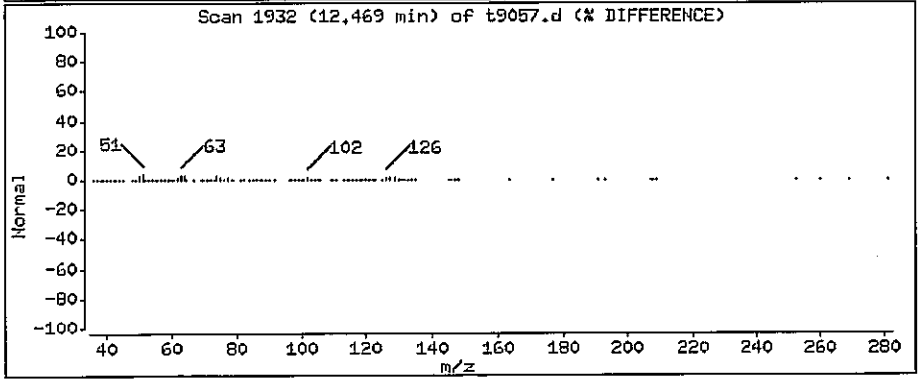
110 Naphthalene Concentration: 738 ug/L











GCAL, Inc.

Data file : /var/chem/msv1.i/2040501.s.b/t9061.d
Lab Smp Id: 20404280602 Client Smp ID: 86-CEF271-9S-Q1-04
Inj Date : 01-MAY-2004 17:02
Operator : RJO Inst ID: msv1.i
Smp Info : 20404280602*86-CEF271-9S-Q1-04
Misc Info : MSV~4640~*1*RJO
Comment :
Method : /var/chem/msv1.i/2040501.s.b/8260Bw1.m
Meth Date : 01-May-2004 13:04 rjo Quant Type: ISTD
Cal Date : 30-APR-2004 17:51 Cal File: t9007.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
$ 36 Dibromofluoromethane	111	5.543	5.541	(0.925)	1087514	44.3583	44.4	2084
$ 43 1,2-Dichloroethane-d4	67	5.801	5.805	(0.968)	446387	47.2712	47.3	
* 47 FLUOROBENZENE	96	5.996	5.994	(1.000)	2910792	50.0000		
$ 60 Toluene-d8	98	7.049	7.053	(0.871)	2511984	49.8128	49.8	
* 71 CHLOROBENZENE-d5	82	8.097	8.101	(1.000)	1467813	50.0000		
75 p,m-Xylene	106	8.257	8.255	(1.020)	58403	1.98475	1.98	(aH)
76 o-Xylene	106	8.589	8.593	(1.061)	32088	1.07100	1.07	(a)
$ 80 Bromofluorobenzene	174	9.081	9.097	(1.122)	914193	48.7358	48.7	
88 1,3,5-Trimethylbenzene	105	9.350	9.434	(0.914)	127057	2.16663	2.17	(a)
93 1,2,4-Trimethylbenzene	105	9.803	9.812	(0.959)	80750	1.34880	1.35	(a)
* 97 1,4-DICHLOROBENZENE-D4	152	10.226	10.242	(1.000)	1293863	50.0000		
M 99 TOTAL XYLENE	106				90491	3.05575	3.06	(a)
110 Naphthalene	128	12.465	12.469	(1.219)	118445	1.98595	1.99	(a)

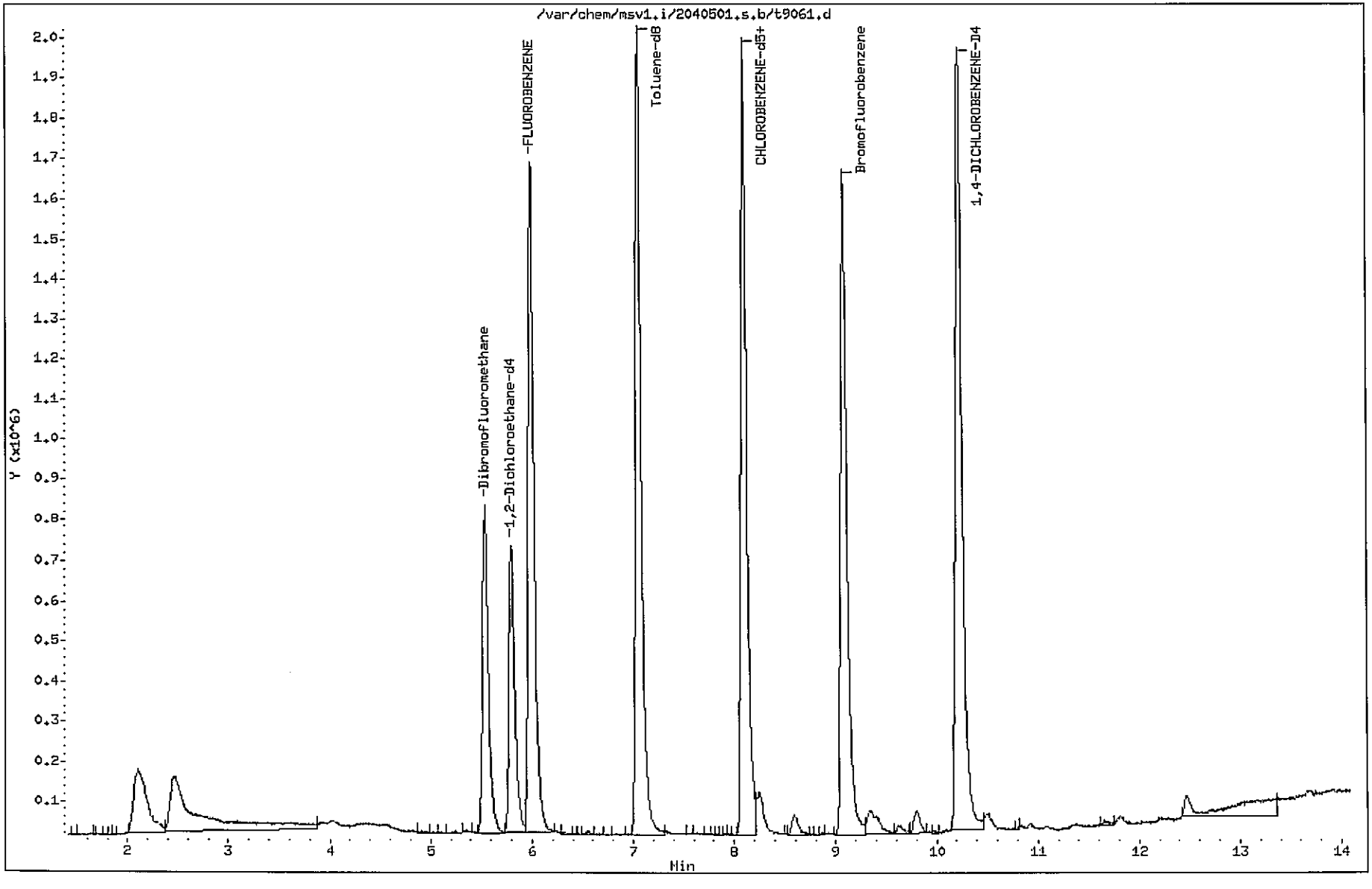
QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
H - Operator selected an alternate compound hit.

Data File: /var/chem/msv1.i/2040501.s.b/t9061.d
Date : 01-MAY-2004 17:02
Client ID: 86-CEF271-9S-Q1-04
Sample Info: 20404280602*86-CEF271-9S-Q1-04
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i
Operator: RJO
Column diameter: 0.53

000049



Data File: /var/chem/msv1.i/2040501.s.b/t9061.d

Date : 01-MAY-2004 17:02

Client ID: 86-CEF271-9S-Q1-04

Instrument: msv1.i

Sample Info: 20404280602X86-CEF271-9S-Q1-04

Purge Volume: 5.0

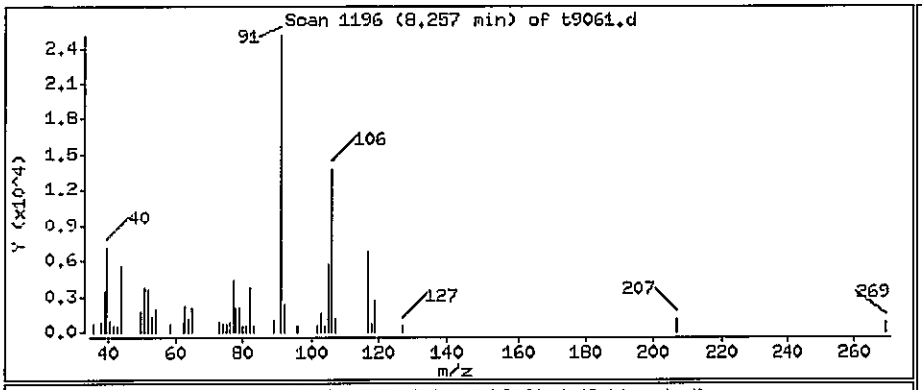
Operator: RJO

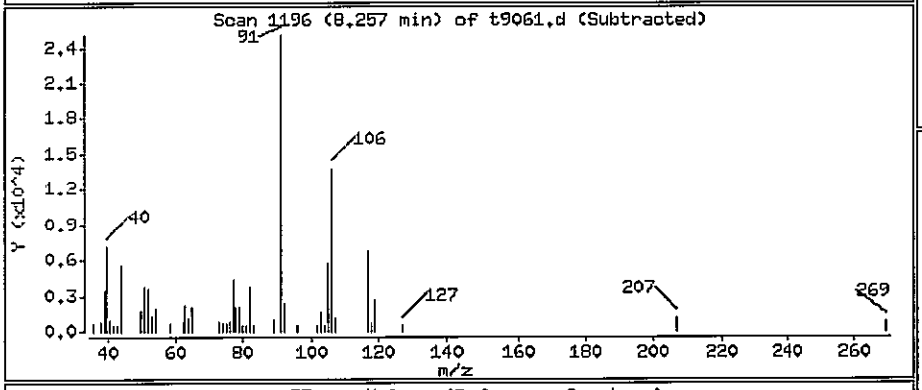
Column phase: DB-624-30M

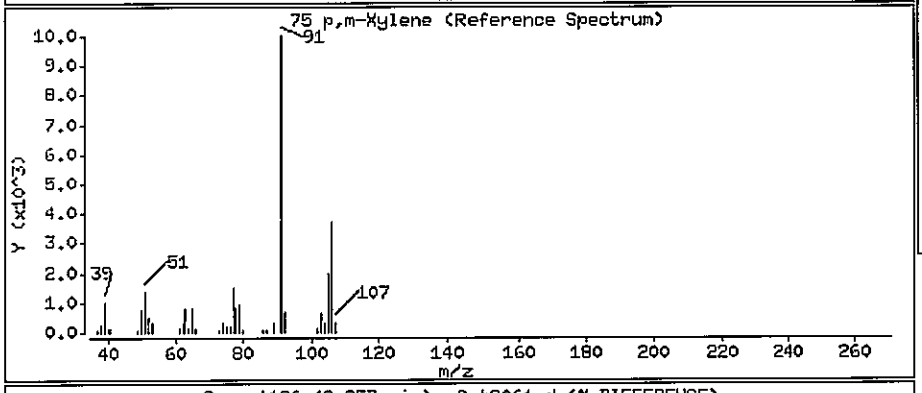
Column diameter: 0.53

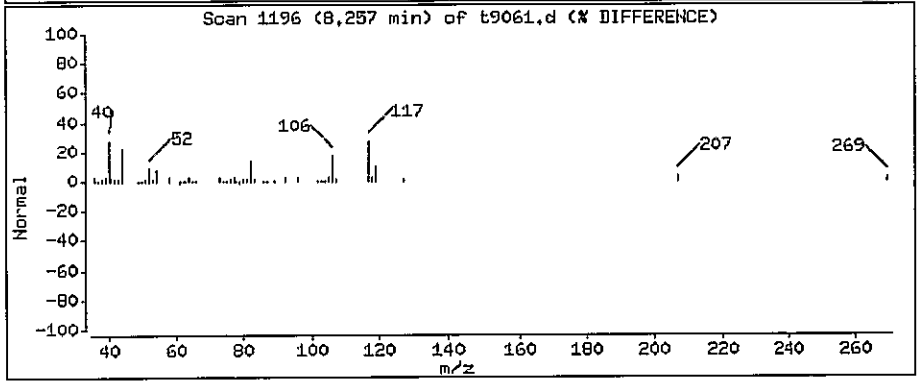
75 p,m-Xylene

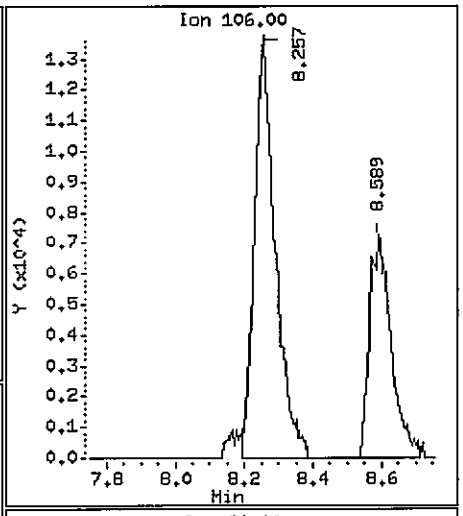
Concentration: 1.98 ug/L

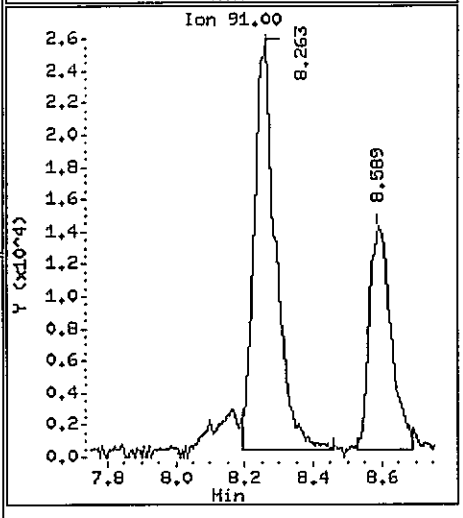












Data File: /var/chem/msv1.i/2040501.s.b/t9061.d

Date : 01-MAY-2004 17:02

Client ID: 86-CEF271-9S-Q1-04

Instrument: msv1.i

Sample Info: 204042B0602X86-CEF271-9S-Q1-04

Purge Volume: 5.0

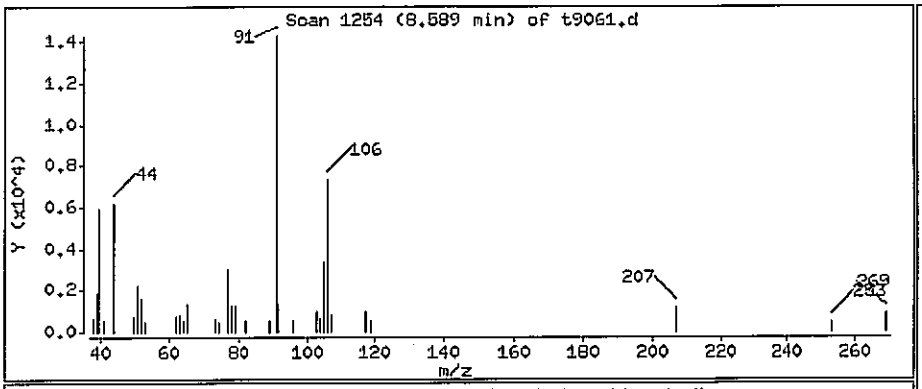
Operator: RJO

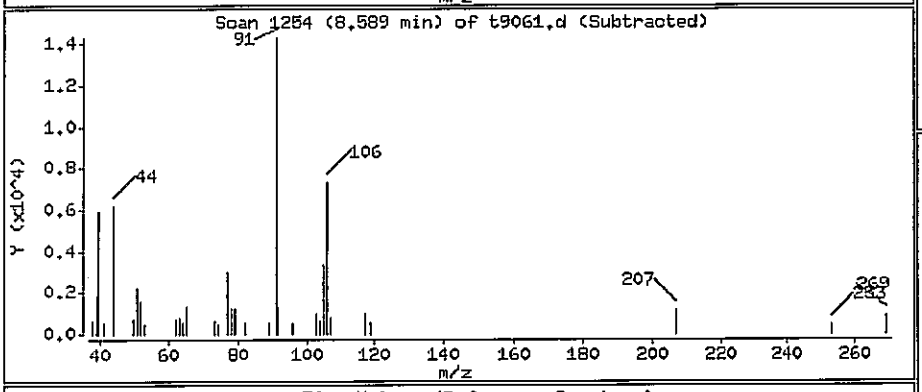
Column phase: DB-624-30M

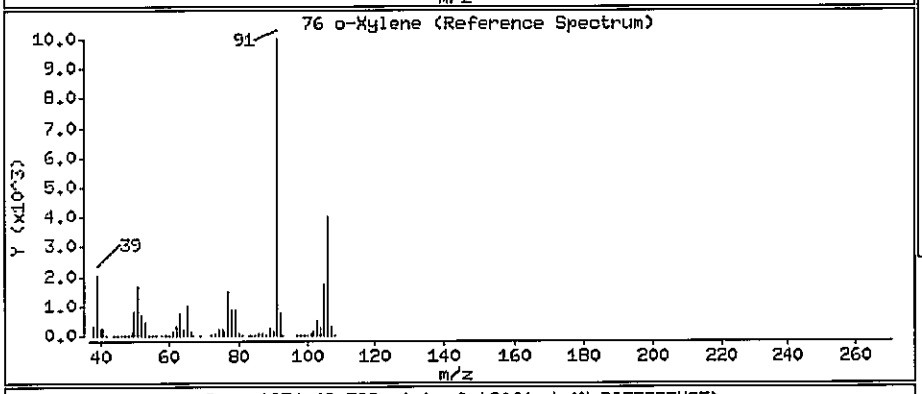
Column diameter: 0.53

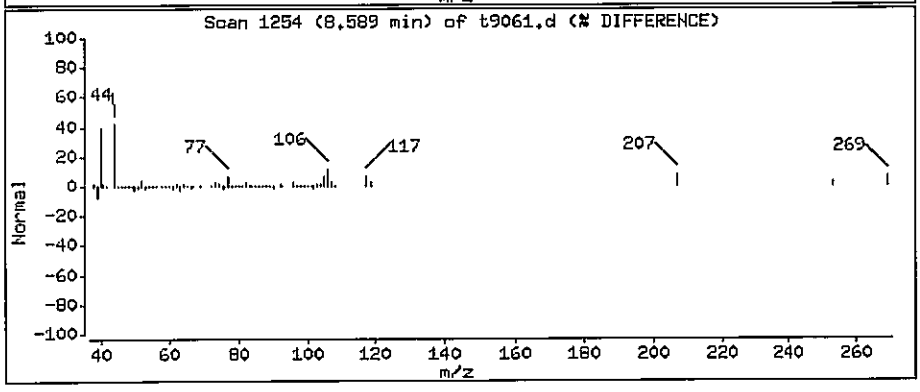
76 o-Xylene

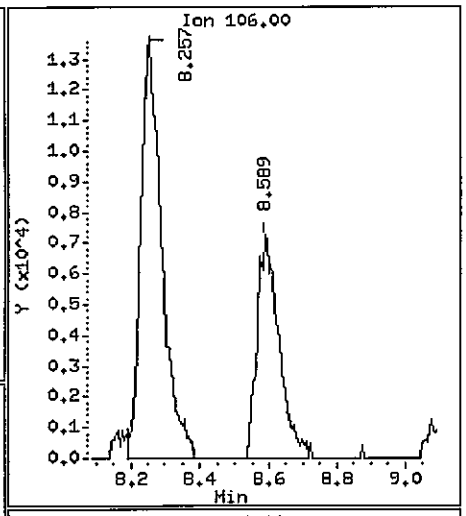
Concentration: 1.07 ug/L

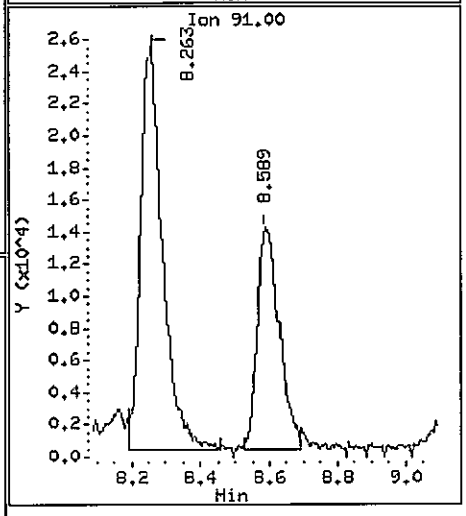












Data File: /var/chem/msv1.i/2040501.s.b/t9061.d

Date : 01-MAY-2004 17:02

Client ID: 86-CEF271-9S-Q1-04

Instrument: msv1.i

Sample Info: 20404280602X86-CEF271-9S-Q1-04

Purge Volume: 5.0

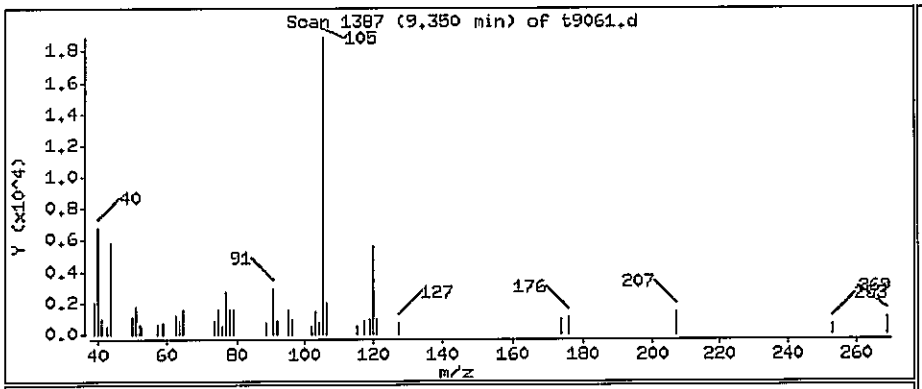
Operator: RJO

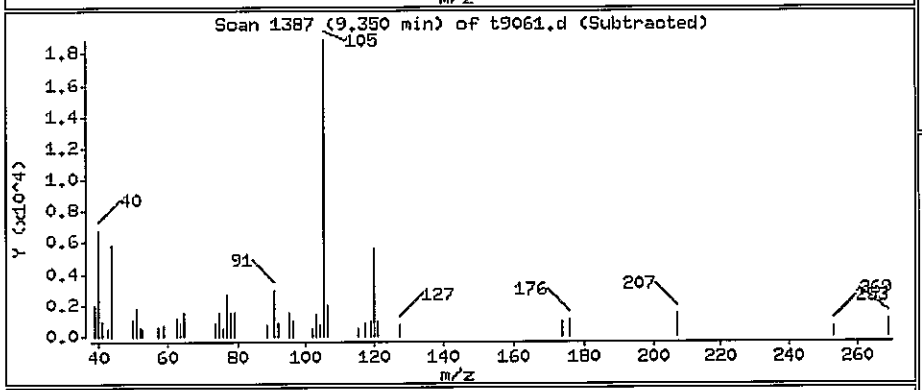
Column phase: DB-624-30M

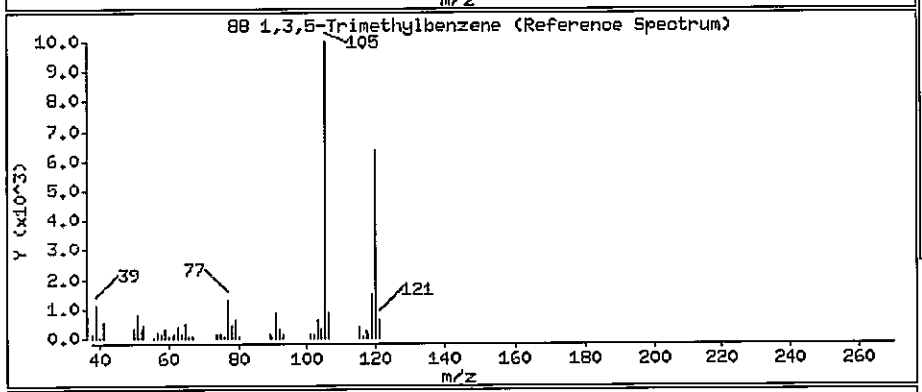
Column diameter: 0.53

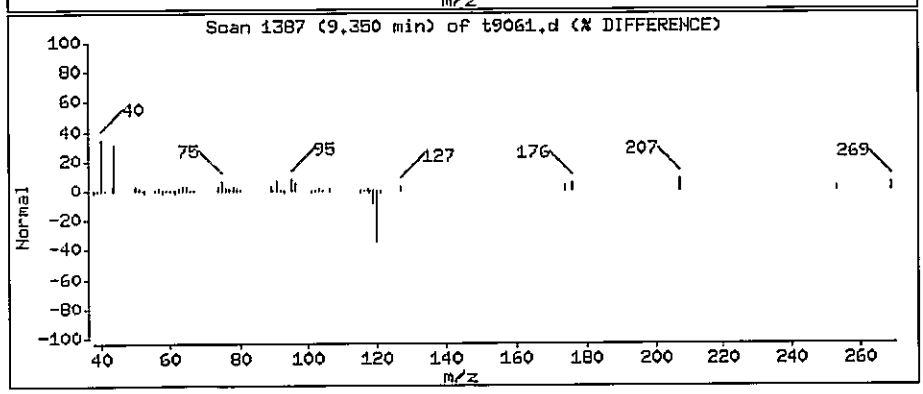
88 1,3,5-Trimethylbenzene

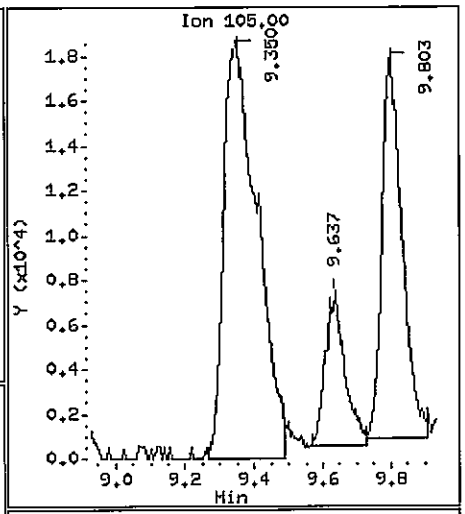
Concentration: 2.17 ug/L

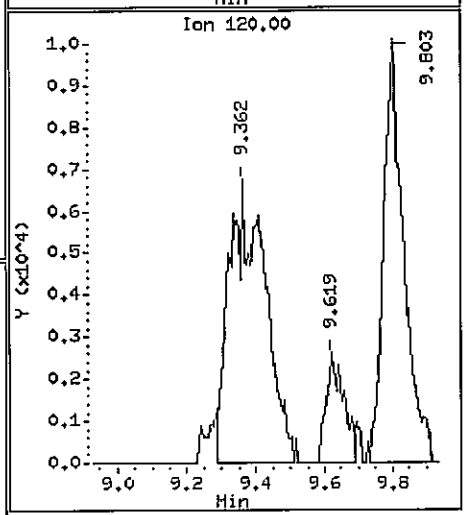












Data File: /var/chem/msv1.i/2040501.s.b/t9061.d

Date : 01-MAY-2004 17:02

Client ID: 86-CEF271-9S-Q1-04

Instrument: msv1.i

Sample Info: 20404280602*86-CEF271-9S-Q1-04

Purge Volume: 5.0

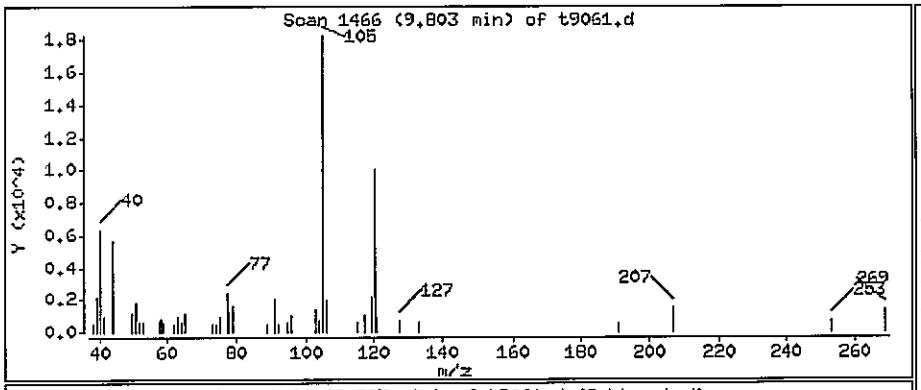
Operator: RJO

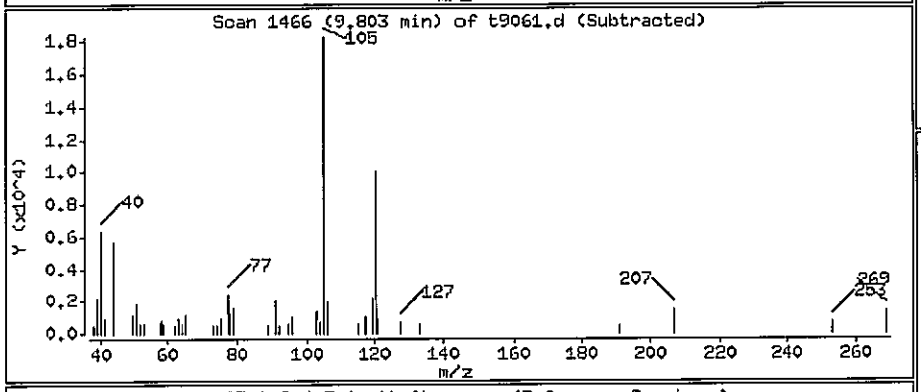
Column phase: DB-624-30M

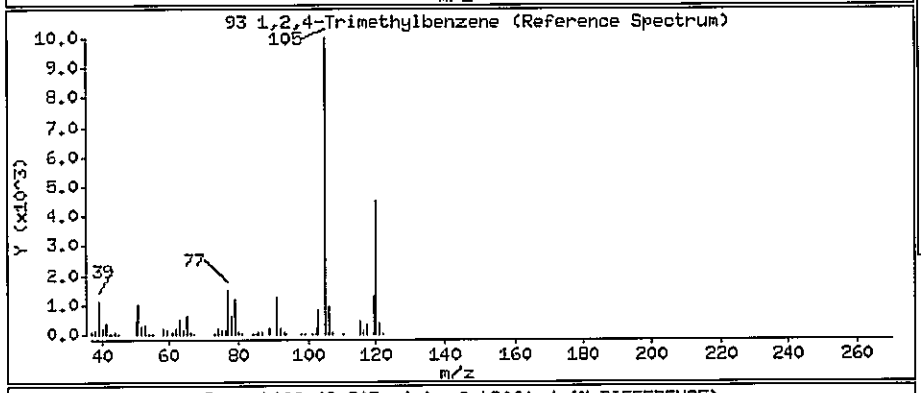
Column diameter: 0.53

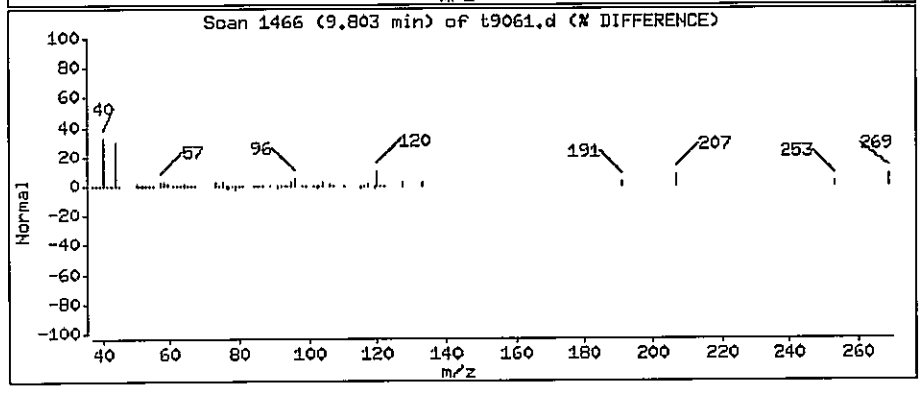
93 1,2,4-Trimethylbenzene

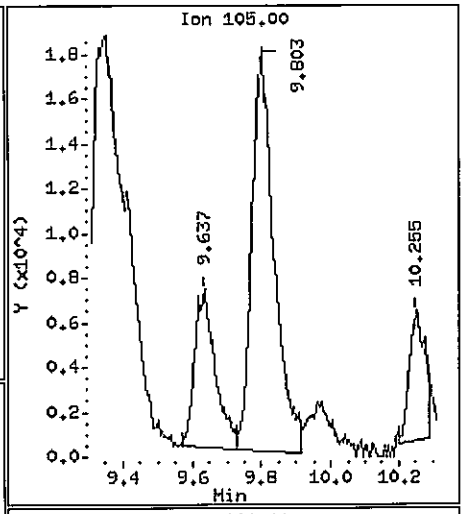
Concentration: 1.35 ug/L

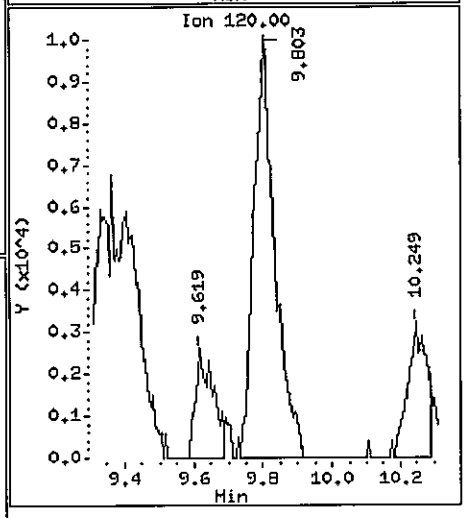












Data File: /var/chem/msv1.i/2040501.s.b/t9061.d

Date : 01-MAY-2004 17:02

Client ID: 86-CEF271-9S-Q1-04

Instrument: msv1.i

Sample Info: 20404280602X86-CEF271-9S-Q1-04

Purge Volume: 5.0

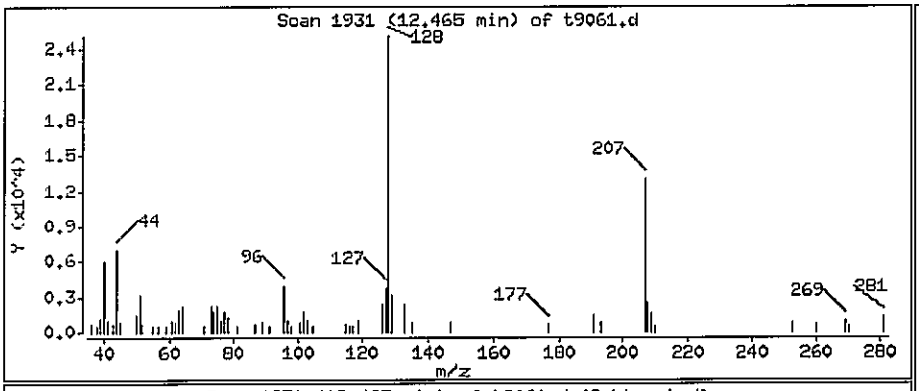
Operator: RJO

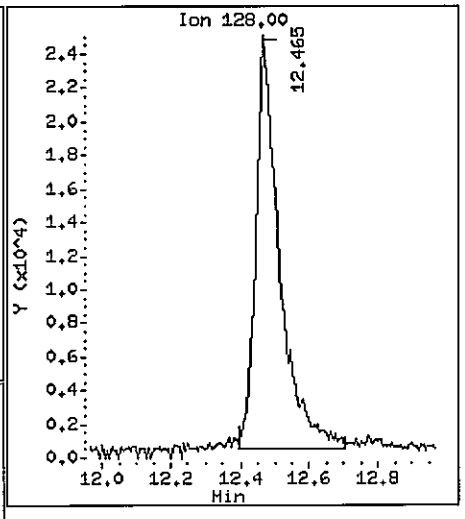
Column phase: DB-624-30M

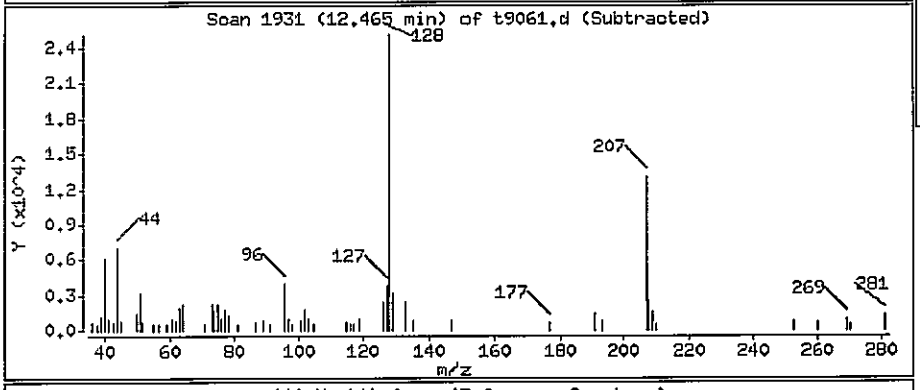
Column diameter: 0.53

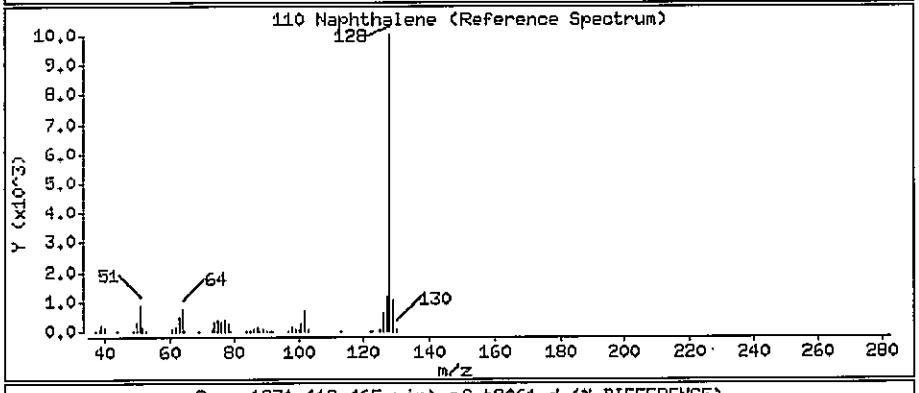
110 Naphthalene

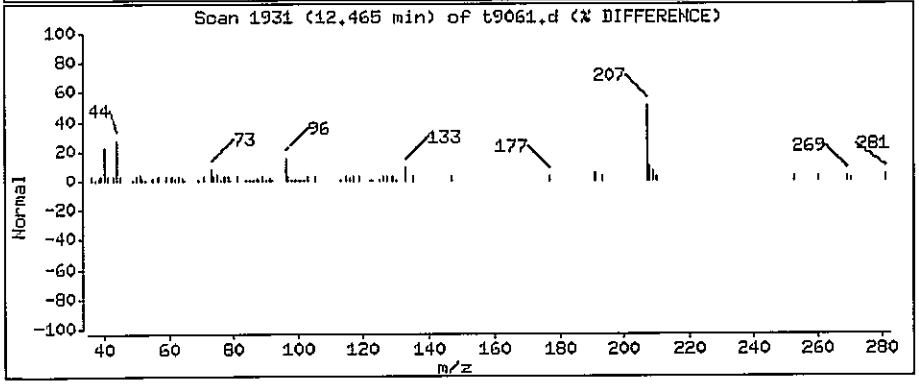
Concentration: 1.99 ug/L











GCAL, Inc.

Data file : /var/chem/msv1.i/2040501.s.b/t9062.d
Lab Smp Id: 20404280603 Client Smp ID: 86-CEF271-10S-Q1-04
Inj Date : 01-MAY-2004 17:25
Operator : RJO Inst ID: msv1.i
Smp Info : 20404280603*86-CEF271-10S-Q1-04
Misc Info : MSV~4640~*1*RJO
Comment :
Method : /var/chem/msv1.i/2040501.s.b/8260Bw1.m
Meth Date : 01-May-2004 13:04 rjo Quant Type: ISTD
Cal Date : 30-APR-2004 17:51 Cal File: t9007.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
$ 36 Dibromofluoromethane	111	5.548	5.541	(0.925)	1076200	44.4689	44.5	522
$ 43 1,2-Dichloroethane-d4	67	5.806	5.805	(0.968)	453198	48.6179	48.6	
* 47 FLUOROBENZENE	96	6.000	5.994	(1.000)	2873346	50.0000		
S 60 Toluene-d8	98	7.048	7.053	(0.871)	2445204	49.4380	49.4	
* 71 CHLOROBENZENE-d5	82	8.096	8.101	(1.000)	1439624	50.0000		
S 80 Bromofluorobenzene	174	9.075	9.097	(1.121)	891643	48.4644	48.5	
* 97 1,4-DICHLOROBENZENE-D4	152	10.220	10.242	(1.000)	1265079	50.0000		
110 Naphthalene	128	12.458	12.469	(1.219)	62708	1.07534	1.08	(aH)

QC Flag Legend

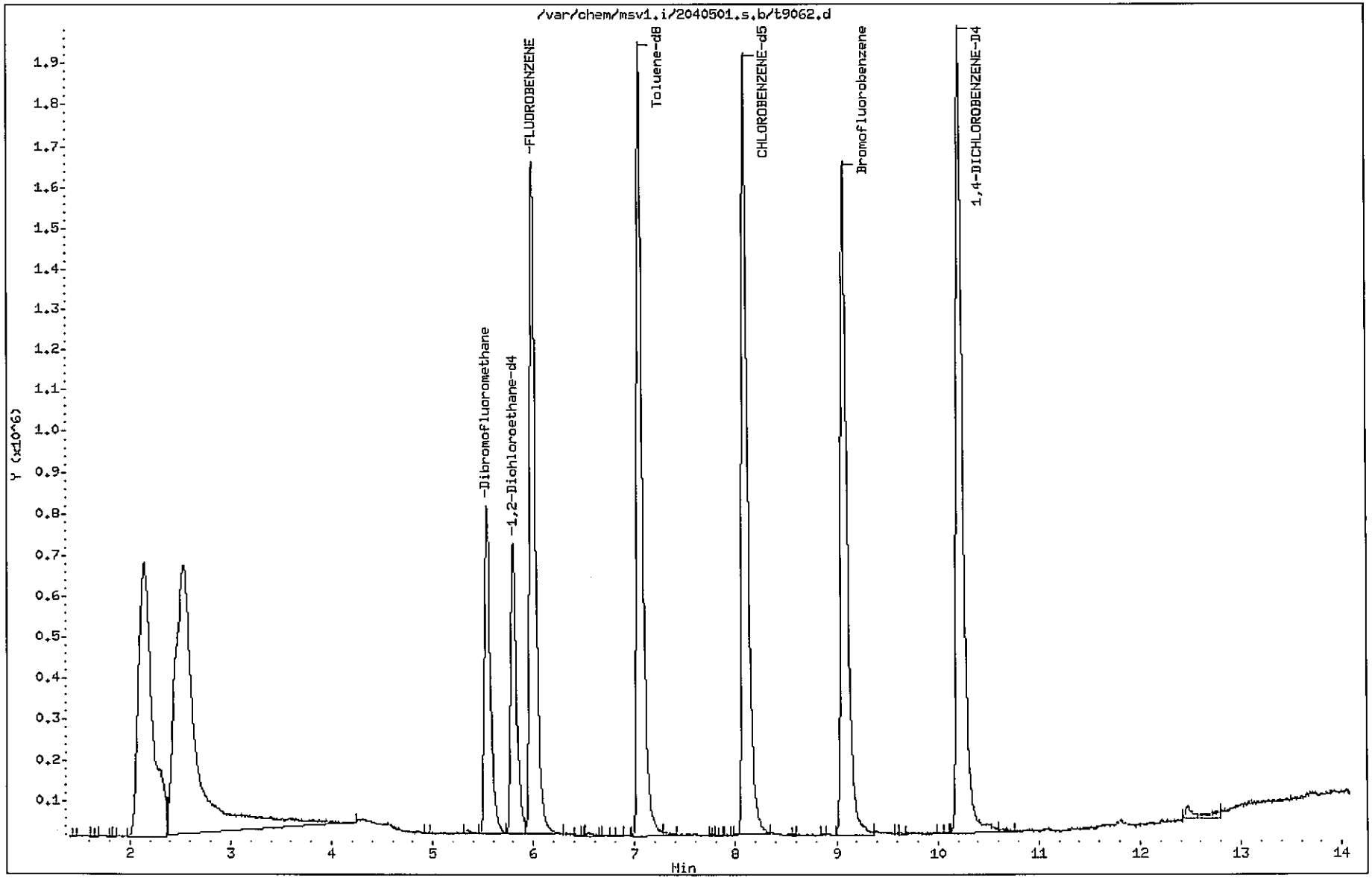
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
H - Operator selected an alternate compound hit.

Data File: /var/chem/msv1.i/2040501.s.b/t9062.d
Date : 01-MAY-2004 17:25
Client ID: 86-CEF271-10S-Q1-04
Sample Info: 20404280603*86-CEF271-10S-Q1-04
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

Operator: RJO
Column diameter: 0.53

000056



Data File: /var/chem/msv1.i/2040501.s.b/t9062.d

Date : 01-MAY-2004 17:25

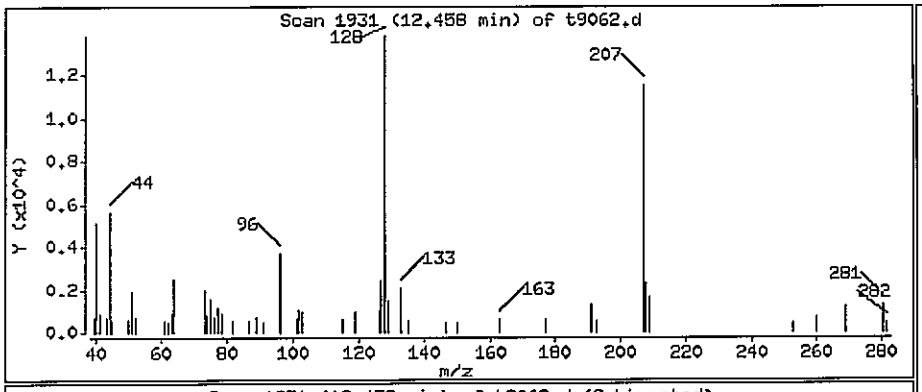
Client ID: 86-CEF271-10S-Q1-04 Instrument: msv1.i

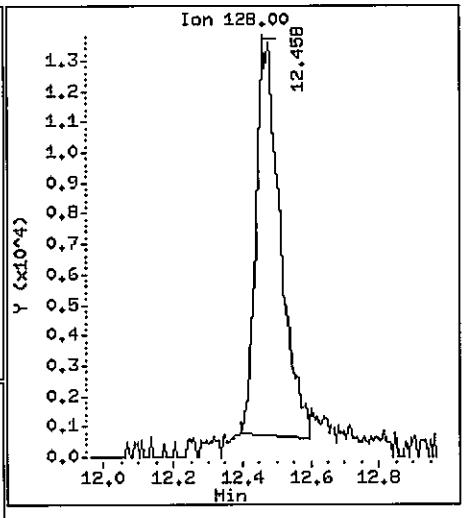
Sample Info: 20404280603X86-CEF271-10S-Q1-04

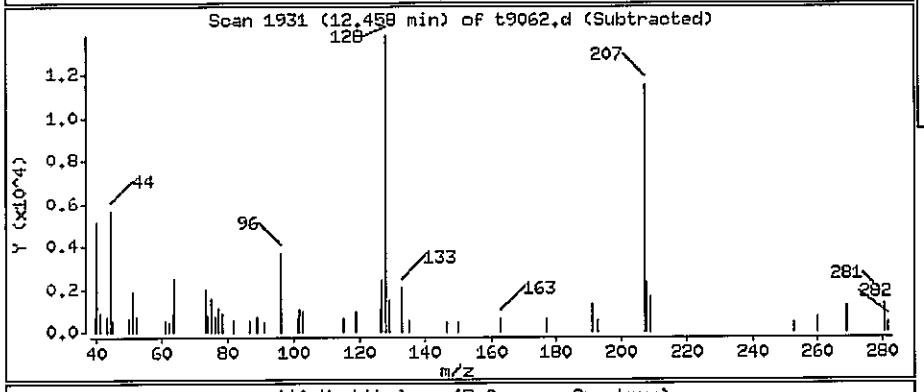
Purge Volume: 5.0 Operator: RJO

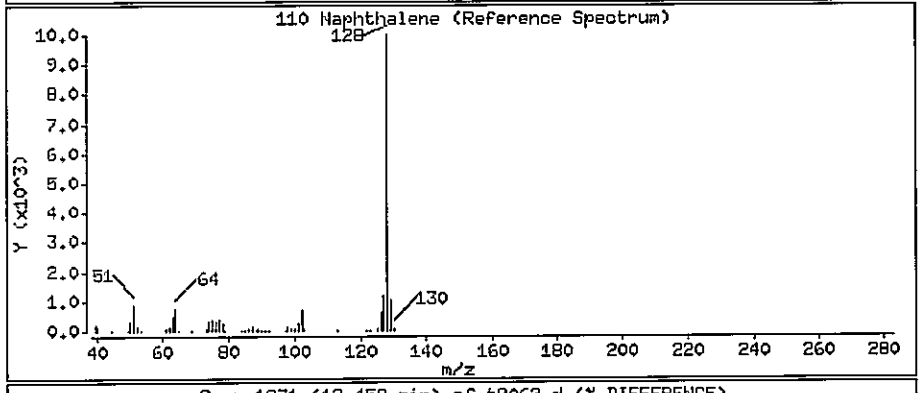
Column phase: DB-624-30M Column diameter: 0.53

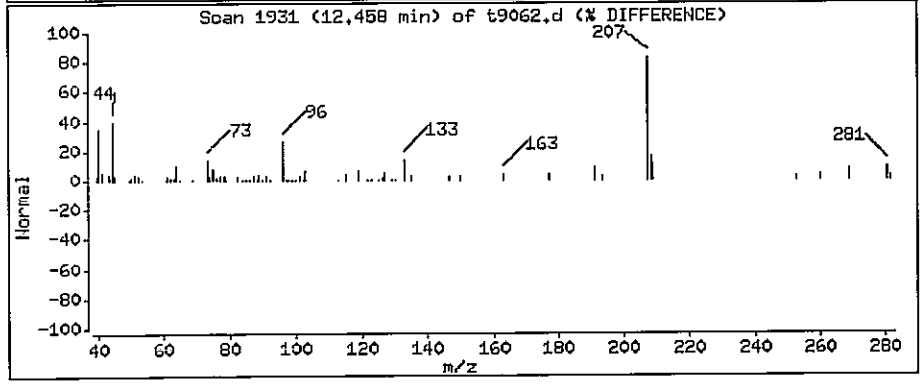
110 Naphthalene Concentration: 1.08 ug/L











GCAL, Inc.

Data file : /var/chem/msv1.i/2040501.s.b/t9063.d
Lab Smp Id: 20404280604 Client Smp ID: 86-CEF271-12S-Q1-04
Inj Date : 01-MAY-2004 17:49
Operator : RJO Inst ID: msv1.i
Smp Info : 20404280604*86-CEF271-12S-Q1-04
Misc Info : MSV~4640~*1*RJO
Comment :
Method : /var/chem/msv1.i/2040501.s.b/8260Bw1.m
Meth Date : 01-May-2004 13:04 rjo Quant Type: ISTD
Cal Date : 30-APR-2004 17:51 Cal File: t9007.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

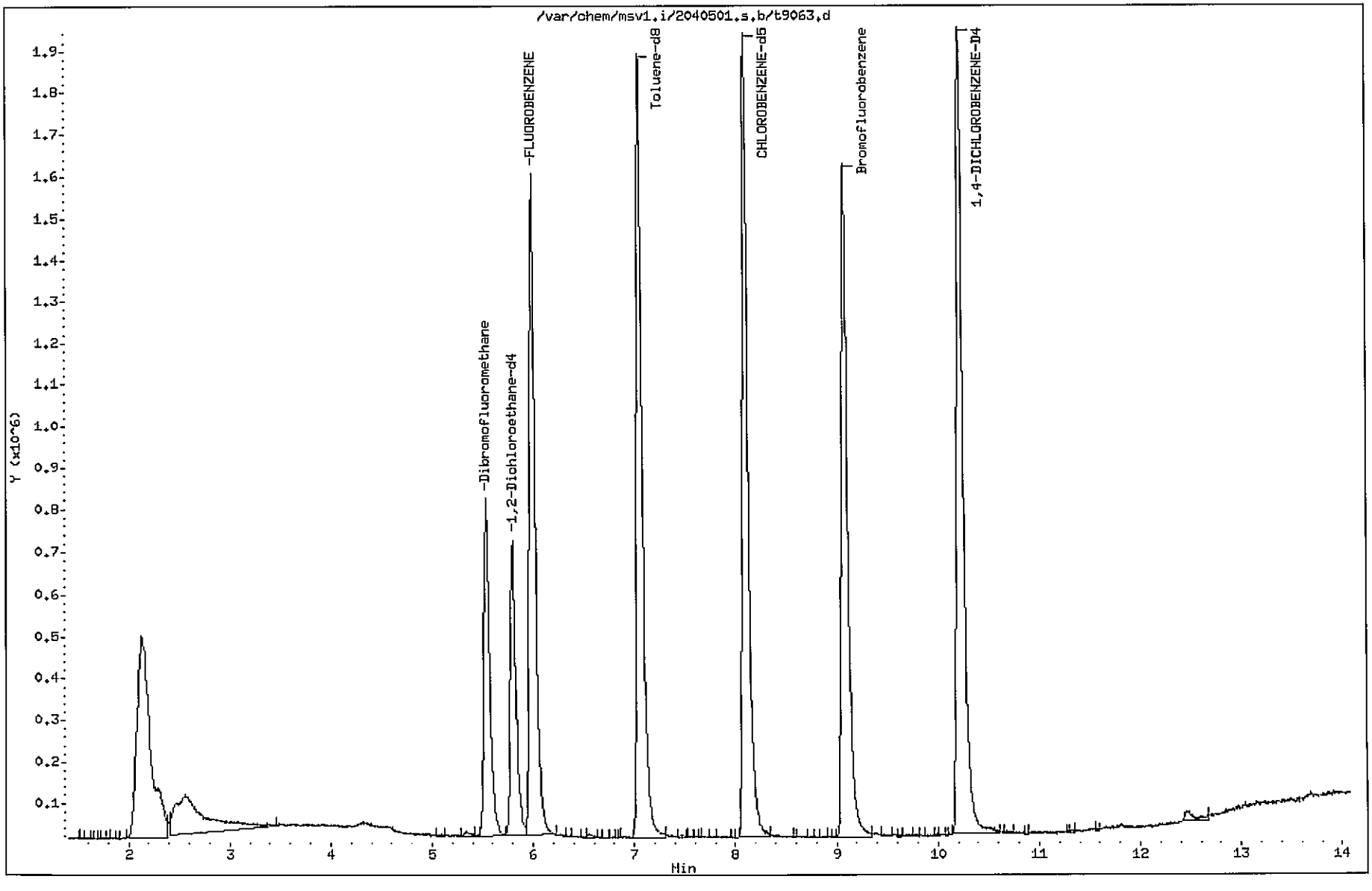
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
$ 36 Dibromofluoromethane	111	5.540	5.541	(0.924)	1048731	45.2774	45.3	1192
$ 43 1,2-Dichloroethane-d4	67	5.798	5.805	(0.967)	433504	48.5910	48.6	
* 47 FLUOROBENZENE	96	5.998	5.994	(1.000)	2750007	50.0000		
$ 60 Toluene-d8	98	7.057	7.053	(0.871)	2368984	48.7597	48.8	
* 71 CHLOROBENZENE-d5	82	8.099	8.101	(1.000)	1414151	50.0000		
$ 80 Bromofluorobenzene	174	9.084	9.097	(1.122)	876553	48.5024	48.5	
* 97 1,4-DICHLOROBENZENE-D4	152	10.223	10.242	(1.000)	1238820	50.0000		

Data File: /var/chem/msv1.i/2040501.s.b/t9063.d
Date : 01-MAY-2004 17:49
Client ID: 86-CEF271-12S-Q1-04
Sample Info: 20404280604X86-CEF271-12S-Q1-04
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i
Operator: RJO
Column diameter: 0.53

000059



GCAL, Inc.

Data file : /var/chem/msv1.i/2040501.s.b/t9064.d
Lab Smp Id: 20404280607 Client Smp ID: 86-271-DUP-Q1-04
Inj Date : 01-MAY-2004 18:13
Operator : RJO Inst ID: msv1.i
Smp Info : 20404280607*86-271-DUP-Q1-04
Misc Info : MSV~4640~*1*RJO
Comment :
Method : /var/chem/msv1.i/2040501.s.b/8260Bw1.m
Meth Date : 01-May-2004 13:04 rjo Quant Type: ISTD
Cal Date : 30-APR-2004 17:51 Cal File: t9007.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
S 36 Dibromofluoromethane	111	5.536	5.541	(0.925)	1071844	44.6118	44.6	1476
S 43 1,2-Dichloroethane-d4	67	5.794	5.805	(0.968)	451150	48.7511	48.8	
* 47 FLUOROBENZENE	96	5.983	5.994	(1.000)	2852546	50.0000		
$ 60 Toluene-d8	98	7.042	7.053	(0.870)	2402218	49.7913	49.8	
* 71 CHLOROBENZENE-d5	82	8.090	8.101	(1.000)	1404281	50.0000		
75 p,m-Xylene	106	8.239	8.255	(1.018)	57355	2.03732	2.04	(a)
76 o-Xylene	106	8.588	8.593	(1.062)	31144	1.08652	1.09	(a)
S 80 Bromofluorobenzene	174	9.069	9.097	(1.121)	866569	48.2870	48.3	
93 1,2,4-Trimethylbenzene	105	9.790	9.812	(0.958)	75475	1.32738	1.33	(a)
* 97 1,4-DICHLOROBENZENE-D4	152	10.219	10.242	(1.000)	1228859	50.0000		
M 99 TOTAL XYLENE	106				88499	3.12384	3.12	(a)

QC Flag Legend

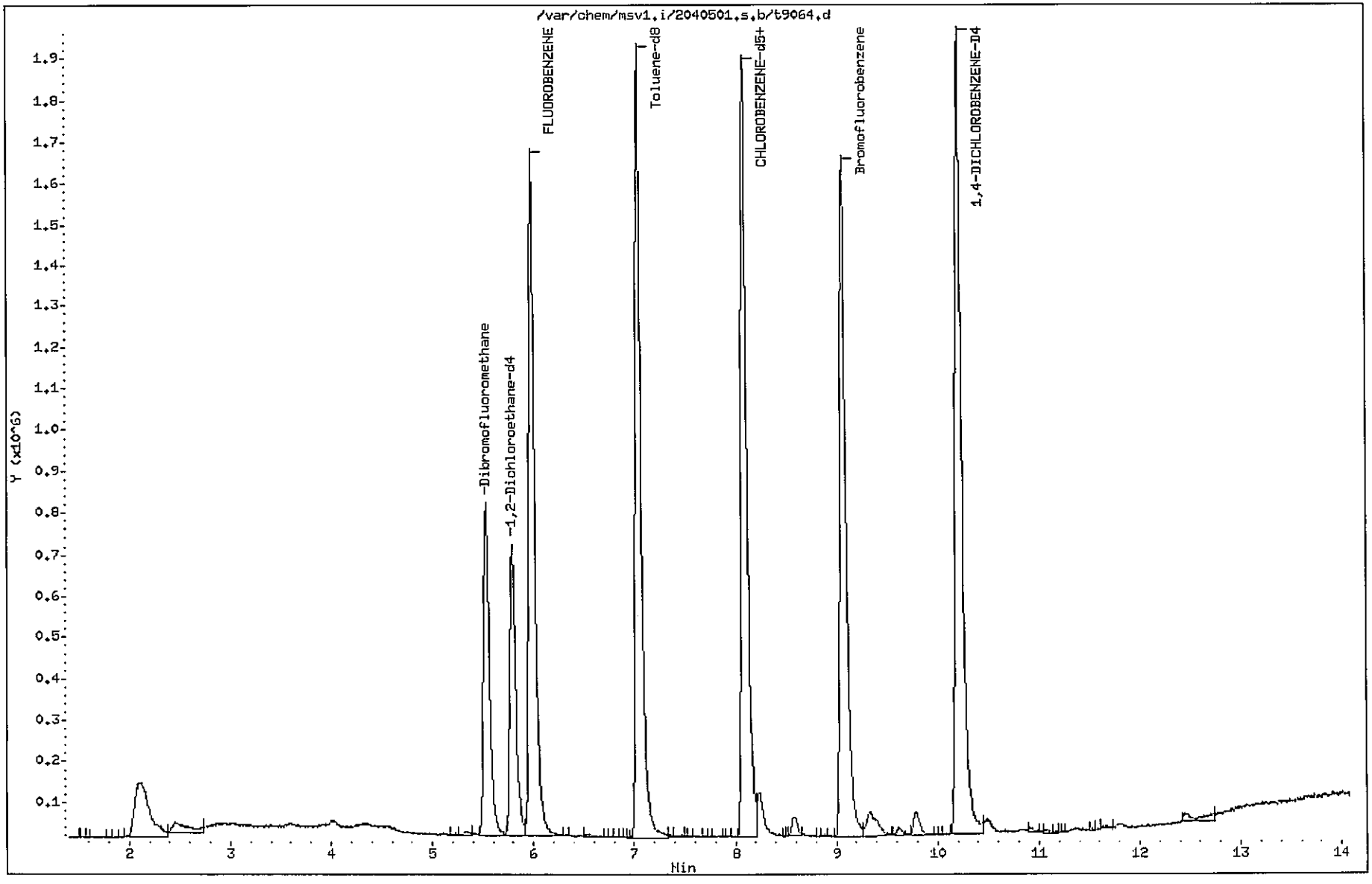
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /var/chem/msv1.i/2040501.s.b/t9064.d
Date : 01-MAY-2004 18:13
Client ID: 86-271-DUP-Q1-04
Sample Info: 20404280607*86-271-DUP-Q1-04
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

Operator: RJO
Column diameter: 0.53

000062



Data File: /var/chem/msv1.i/2040501.s.b/t9064.d

Date : 01-MAY-2004 18:13

Client ID: 86-271-DUP-Q1-04

Instrument: msv1.i

Sample Info: 20404280607*86-271-DUP-Q1-04

Purge Volume: 5.0

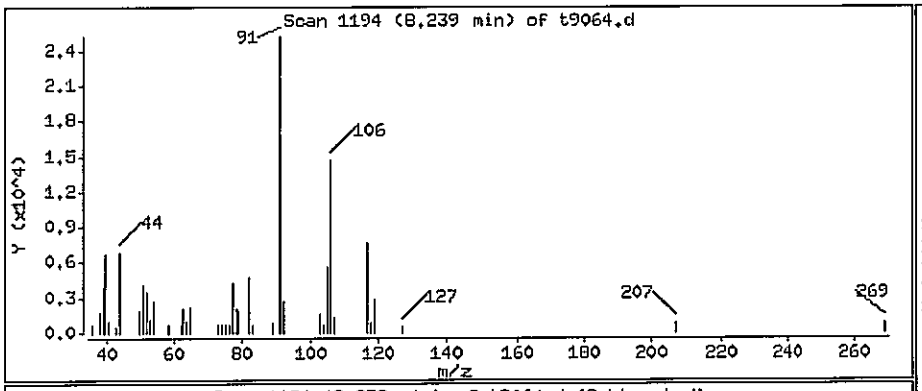
Operator: RJO

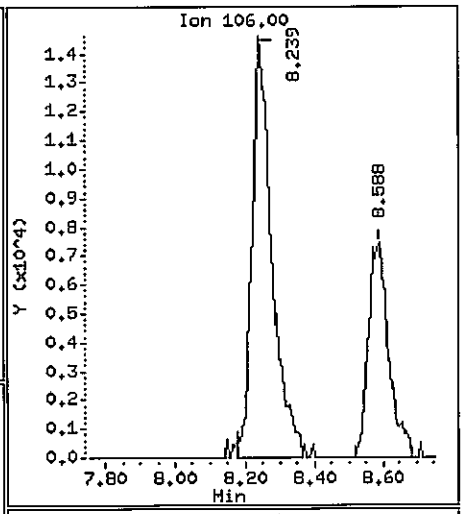
Column phase: DB-624-30M

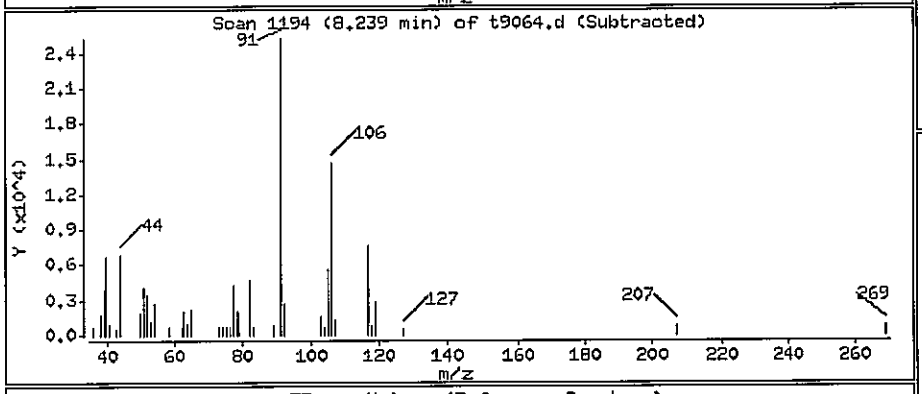
Column diameter: 0.53

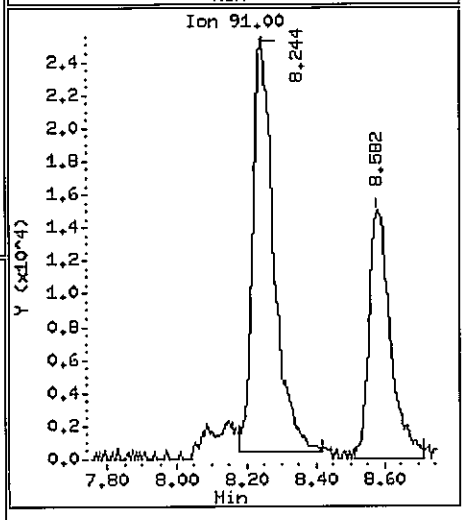
75 p,m-Xylene

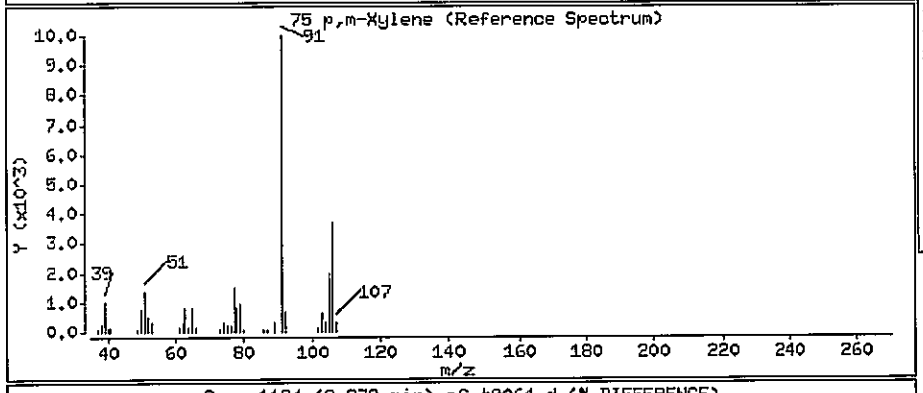
Concentration: 2.04 ug/L

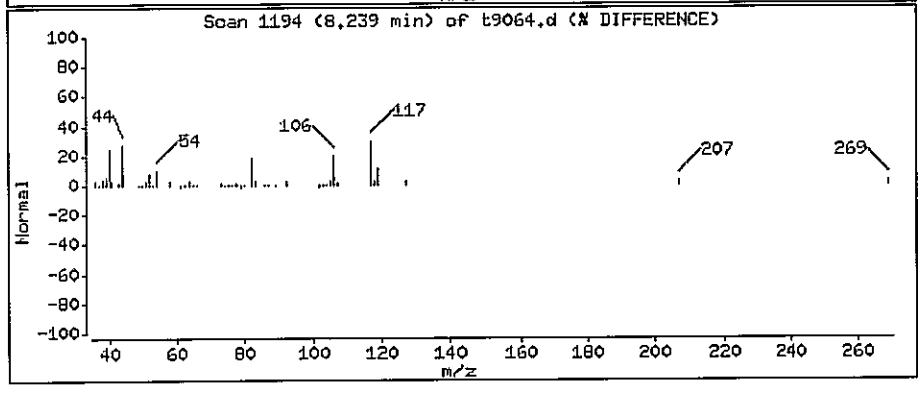












Data File: /var/chem/msv1.i/2040501.s.b/t9064.d

Date : 01-MAY-2004 18:13

Client ID: 86-271-DUP-Q1-04

Instrument: msv1.i

Sample Info: 20404280607*86-271-DUP-Q1-04

Purge Volume: 5.0

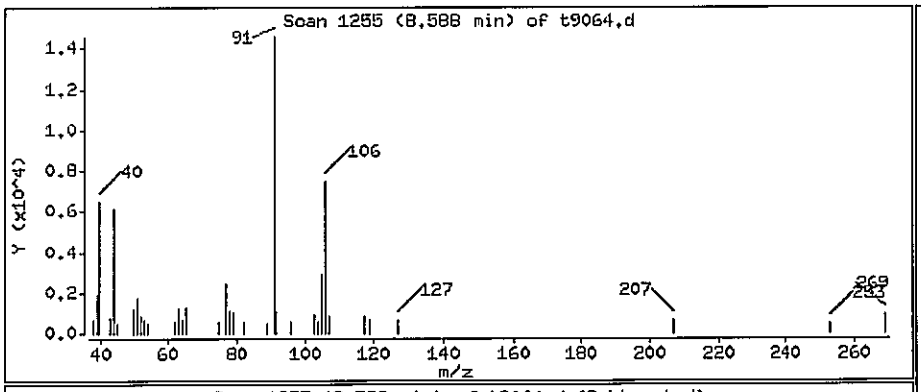
Operator: RJO

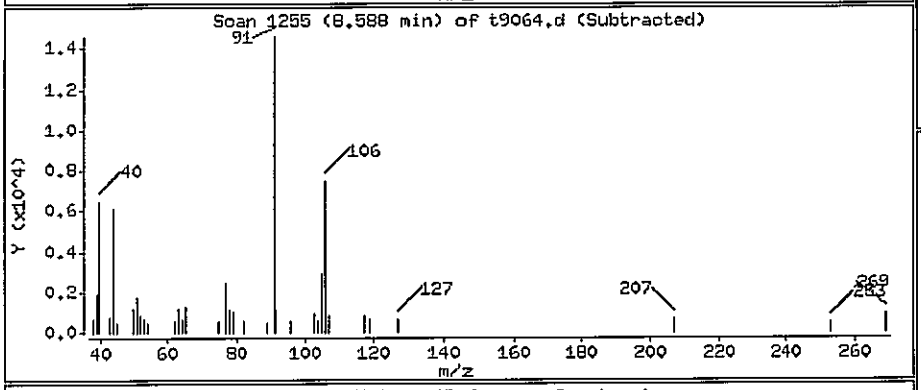
Column phase: DB-624-30M

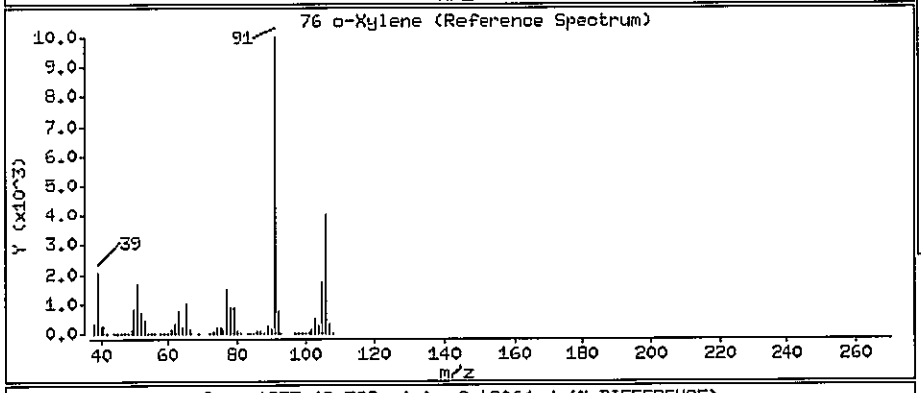
Column diameter: 0.53

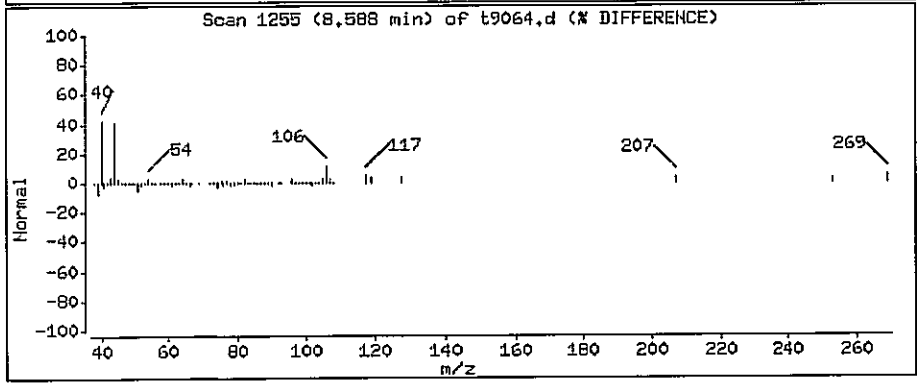
76 o-Xylene

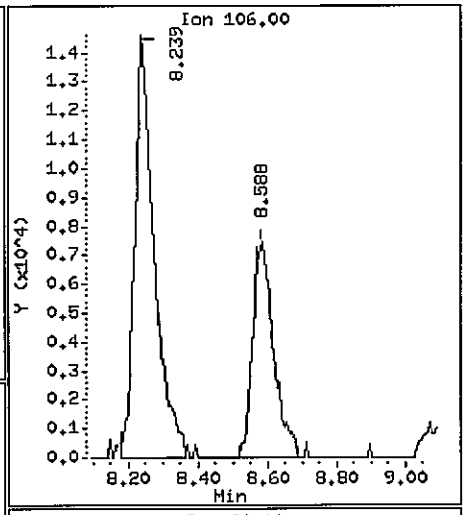
Concentration: 1.09 ug/L

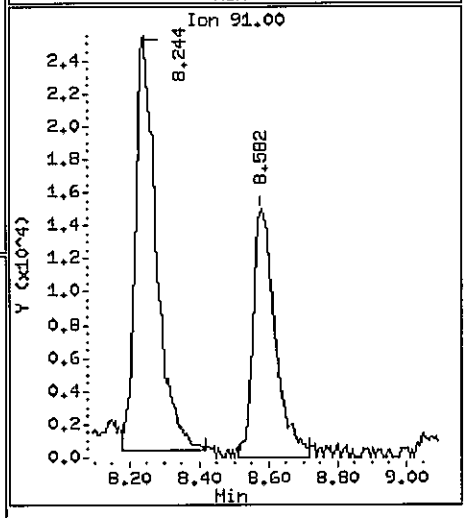












Data File: /var/chem/msv1.i/2040501.s.b/t9064.d

Date : 01-MAY-2004 18:13

Client ID: 86-271-DUP-Q1-04

Instrument: msv1.i

Sample Info: 20404280607X86-271-DUP-Q1-04

Purge Volume: 5.0

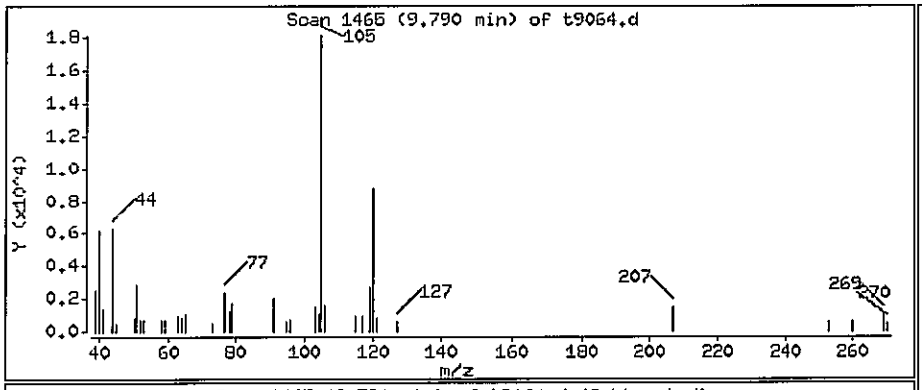
Operator: RJO

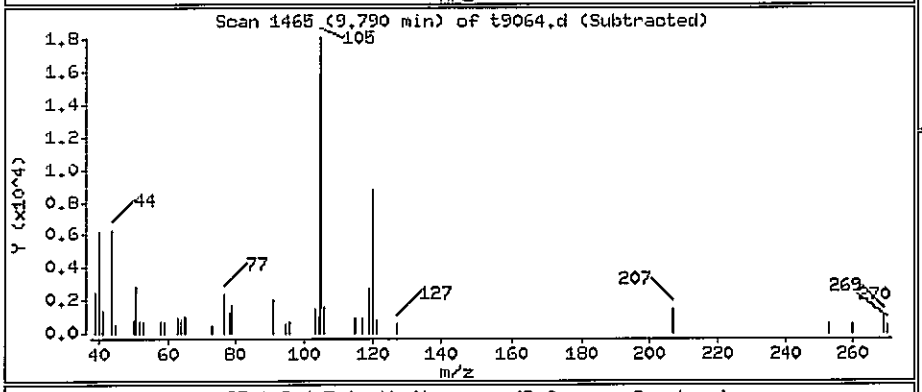
Column phase: DB-624-30M

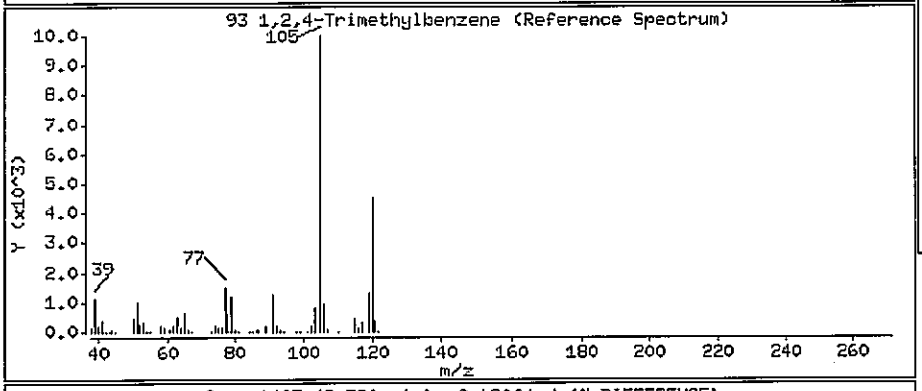
Column diameter: 0.53

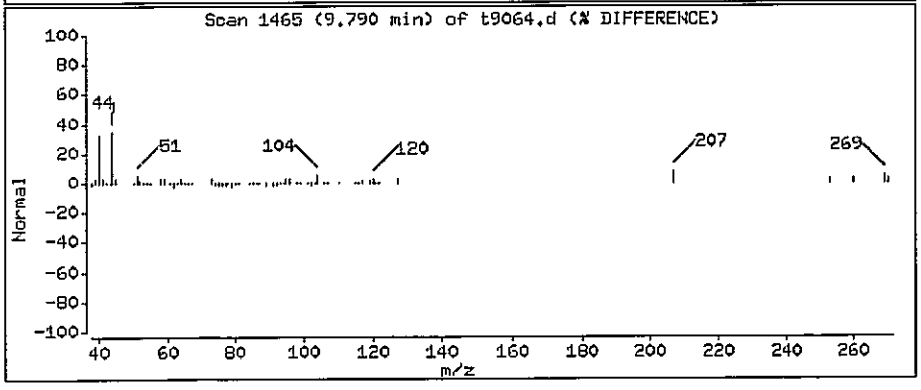
93 1,2,4-Trimethylbenzene

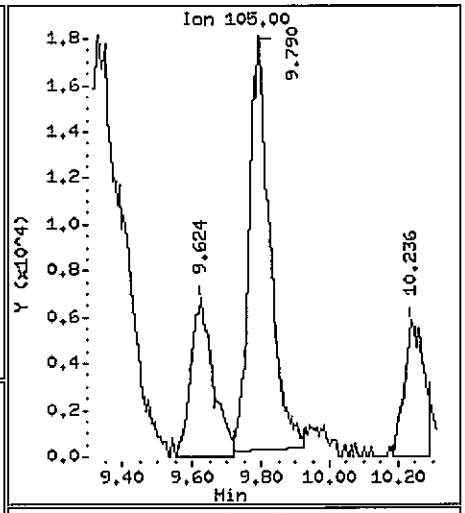
Concentration: 1.33 ug/L

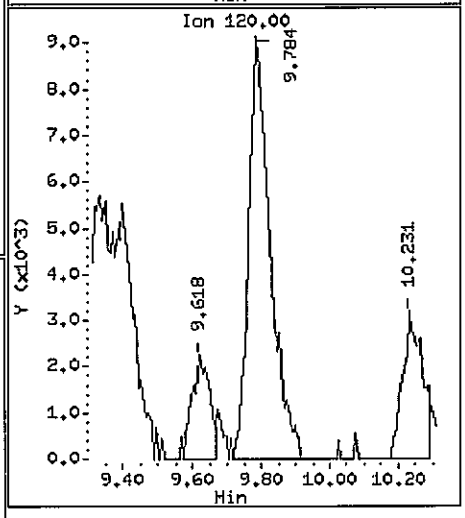












GCAL, Inc.

Data file : /var/chem/msv1.i/2040501.s.b/t9065.d
Lab Smp Id: 20404280608 Client Smp ID: 86-271-EB-Q1-04
Inj Date : 01-MAY-2004 18:36
Operator : RJO Inst ID: msv1.i
Smp Info : 20404280608*86-271-EB-Q1-04
Misc Info : MSV~4640~*1*RJO
Comment :
Method : /var/chem/msv1.i/2040501.s.b/8260Bw1.m
Meth Date : 01-May-2004 13:04 rjo Quant Type: ISTD
Cal Date : 30-APR-2004 17:51 Cal File: t9007.d
Als bottle: 28
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
	12 Acetone	43	3.929	3.933	(0.657)	71889	12.8231	12.8	(H)
	32 2-Butanone	43	5.229	5.232	(0.874)	19677	1.85157	1.85	(a)
S	36 Dibromofluoromethane	111	5.532	5.541	(0.924)	1045684	46.2916	46.3	1444
S	43 1,2-Dichloroethane-d4	67	5.795	5.805	(0.968)	440077	50.5797	50.6	
•	47 FLUOROBENZENE	96	5.984	5.994	(1.000)	2681940	50.0000		
S	60 Toluene-d8	98	7.049	7.053	(0.871)	2345569	49.2412	49.2	
•	71 CHLOROBENZENE-d5	82	8.091	8.101	(1.000)	1386482	50.0000		
S	80 Bromofluorobenzene	174	9.082	9.097	(1.122)	863678	48.7437	48.7	
•	97 1,4-DICHLOROBENZENE-D4	152	10.227	10.242	(1.000)	1219277	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

QC Flag Legend

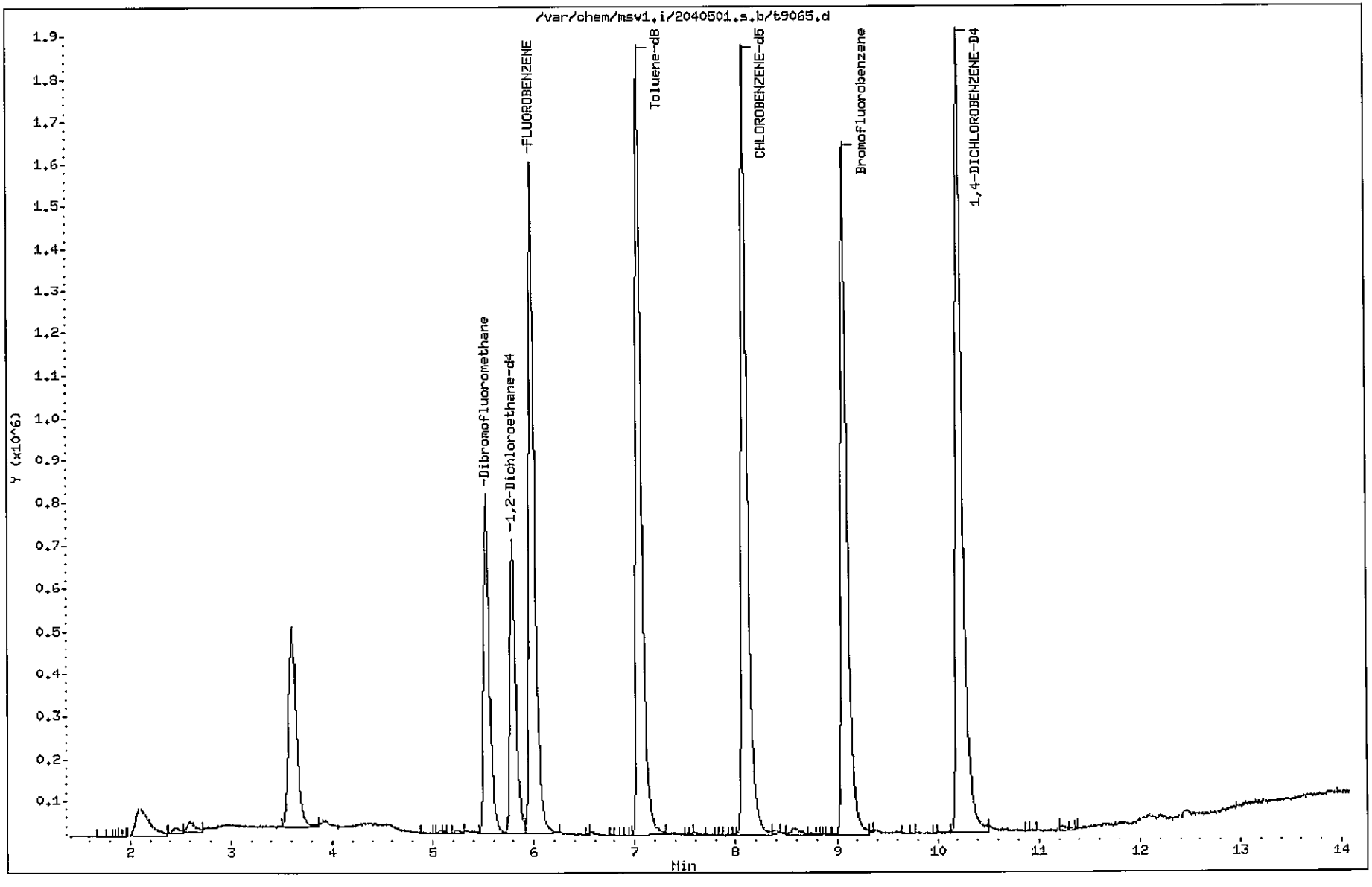
H - Operator selected an alternate compound hit.

Data File: /var/chem/msv1.i/2040501.s.b/t9065.d
Date : 01-MAY-2004 18:36
Client ID: 86-271-EB-Q1-04
Sample Info: 20404280608X86-271-EB-Q1-04
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

Operator: RJO
Column diameter: 0.53

000068



Data File: /var/chem/msv1.i/2040501.s.b/t9065.d

Date : 01-MAY-2004 18:36

Client ID: 86-271-EB-Q1-04

Instrument: msv1.i

Sample Info: 20404280608*86-271-EB-Q1-04

Purge Volume: 5.0

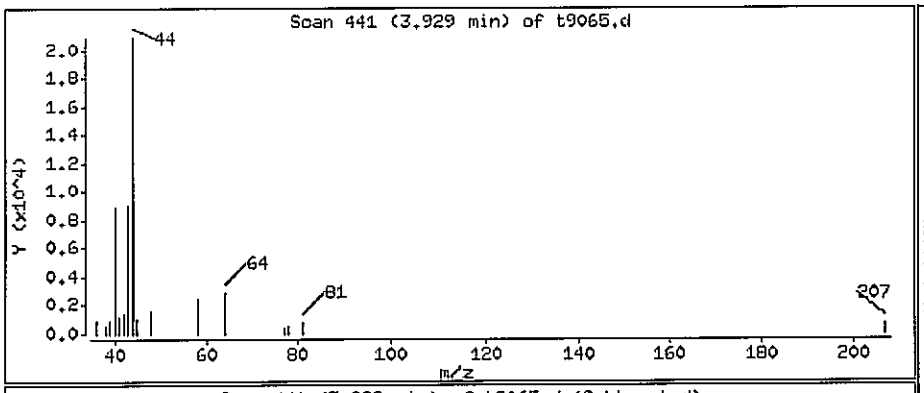
Operator: RJO

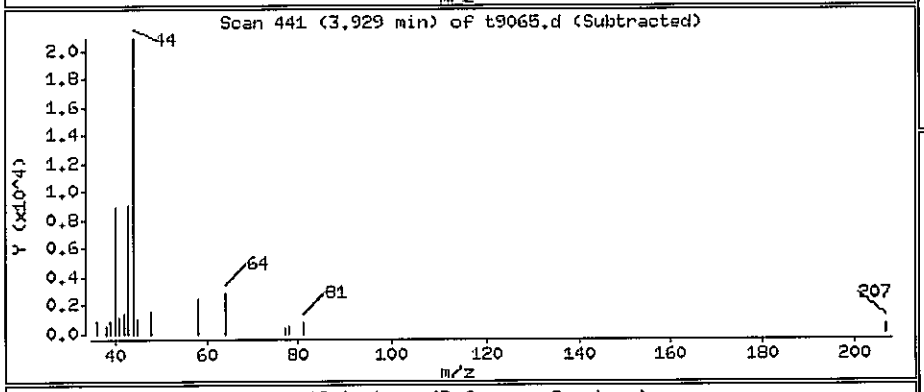
Column phase: DB-624-30M

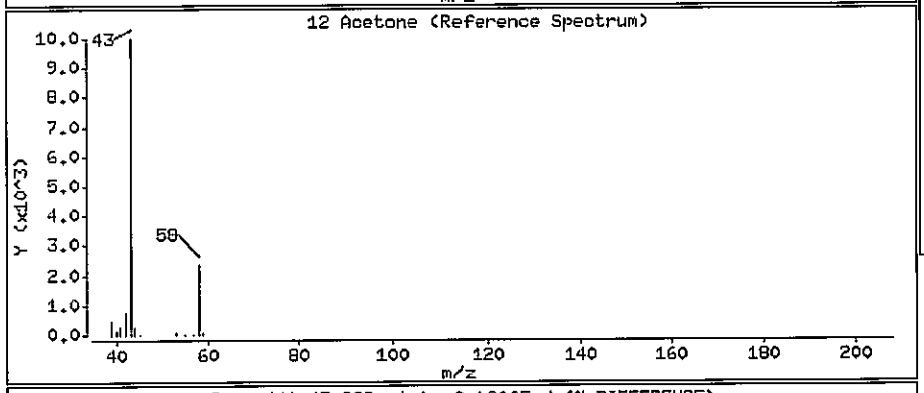
Column diameter: 0.53

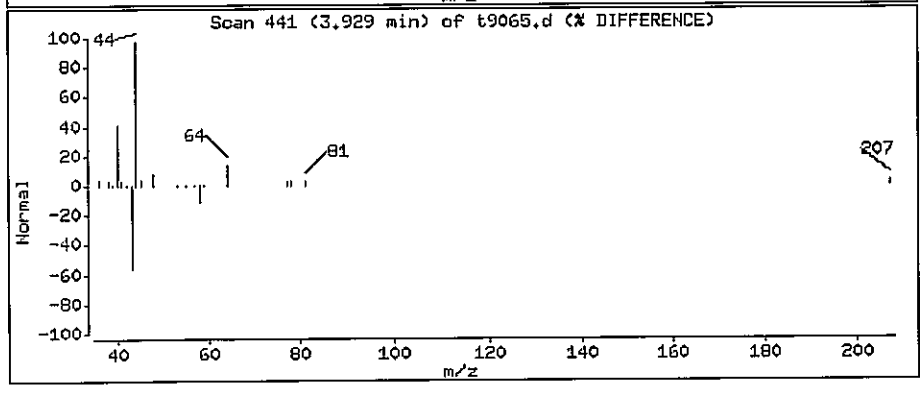
12 Acetone

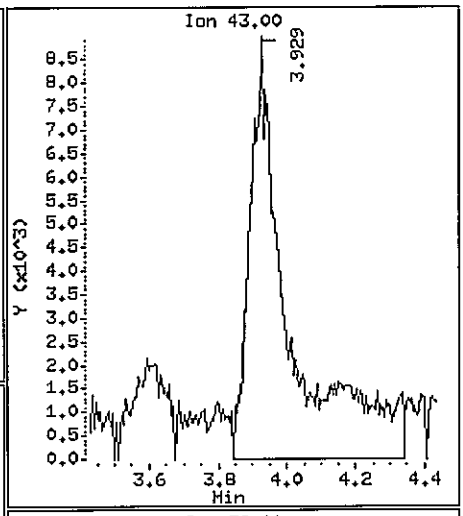
Concentration: 12.8 ug/L

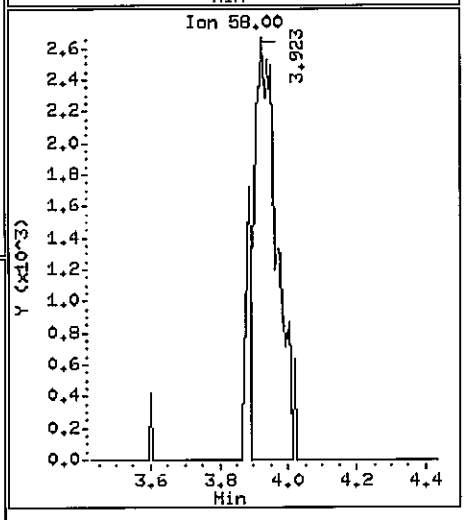












Data File: /var/chem/msv1.i/2040501.s.b/t9065.d

Date : 01-MAY-2004 18:36

Client ID: 86-271-EB-Q1-04

Instrument: msv1.i

Sample Info: 20404280608X86-271-EB-Q1-04

Purge Volume: 5.0

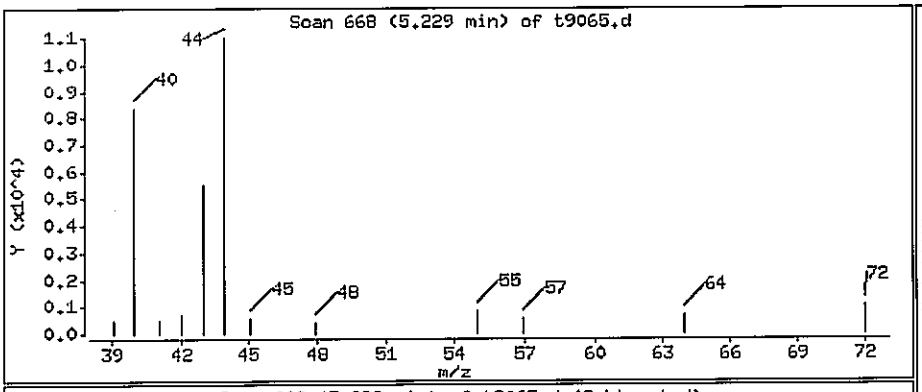
Operator: RJO

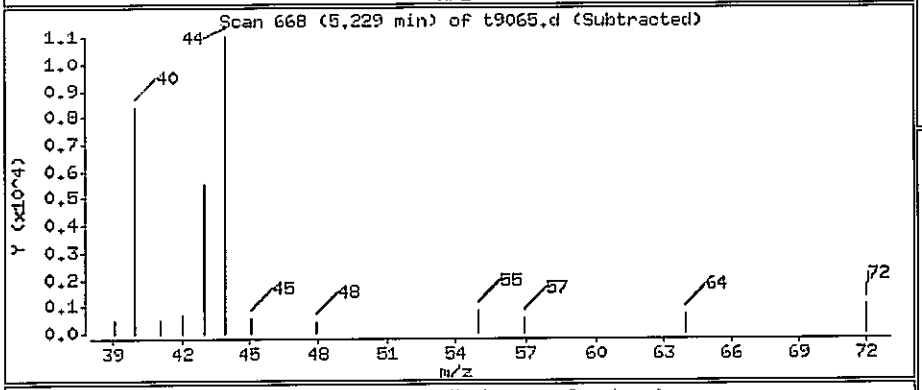
Column phase: DB-624-30M

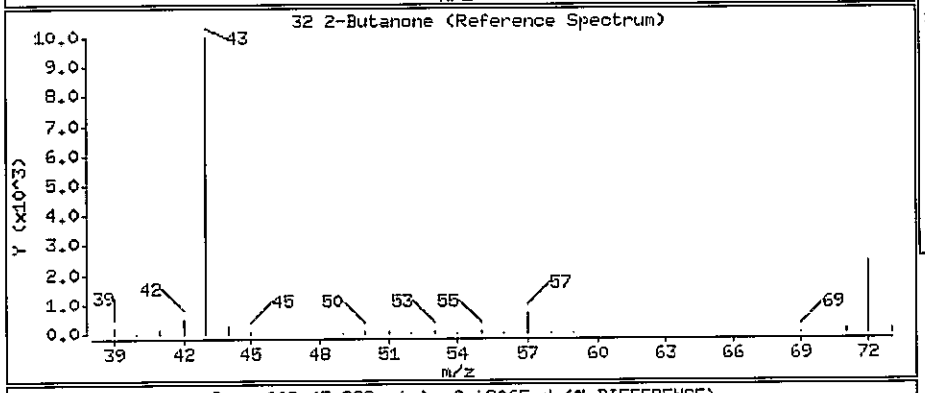
Column diameter: 0.53

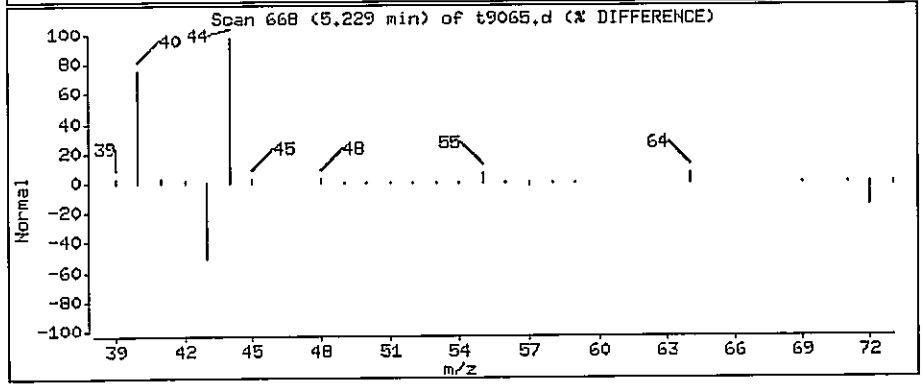
32 2-Butanone

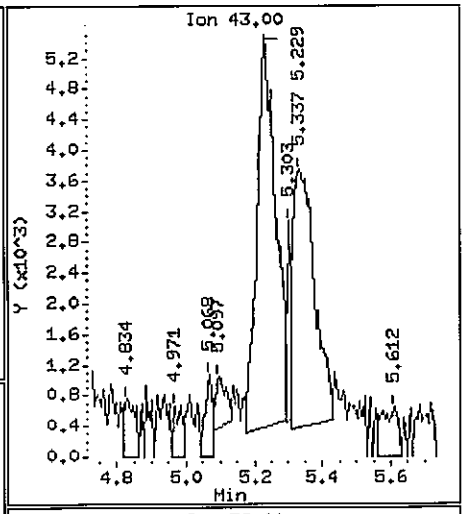
Concentration: 1.85 ug/L

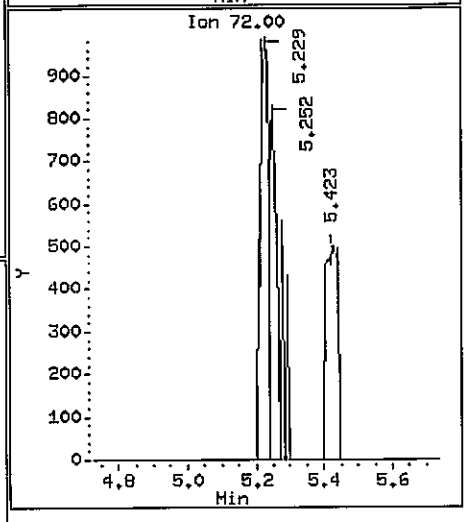












GCAL, Inc.

Data file : /var/chem/msv1.i/2040501.s.b/t9066.d
Lab Smp Id: 20404280609 Client Smp ID: 86-271-TB-Q1-04
Inj Date : 01-MAY-2004 19:00
Operator : RJO Inst ID: msv1.i
Smp Info : 20404280609*86-271-TB-Q1-04
Misc Info : MSV~4640~*1*RJO
Comment :
Method : /var/chem/msv1.i/2040501.s.b/8260Bw1.m
Meth Date : 01-May-2004 13:04 rjo Quant Type: ISTD
Cal Date : 30-APR-2004 17:51 Cal File: t9007.d
Als bottle: 29
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
17 Methylene Chloride	49	4.259	4.271	(0.711)	416363	14.7233	14.7	
32 2-Butanone	43	5.226	5.232	(0.873)	80091	7.15490	7.15	(a)
$ 36 Dibromofluoromethane	111	5.535	5.541	(0.924)	1053213	44.2646	44.3	1464
$ 43 1,2-Dichloroethane-d4	67	5.787	5.805	(0.967)	448042	48.8882	48.9	
* 47 FLUOROBENZENE	96	5.987	5.994	(1.000)	2824949	50.0000		
$ 60 Toluene-d8	98	7.041	7.053	(0.871)	2366815	49.0589	49.1	
* 71 CHLOROBENZENE-d5	82	8.083	8.101	(1.000)	1404241	50.0000		
$ 80 Bromofluorobenzene	174	9.073	9.097	(1.123)	864969	48.1992	48.2	
* 97 1,4-DICHLOROBENZENE-D4	152	10.207	10.242	(1.000)	1215620	50.0000		

QC Flag Legend

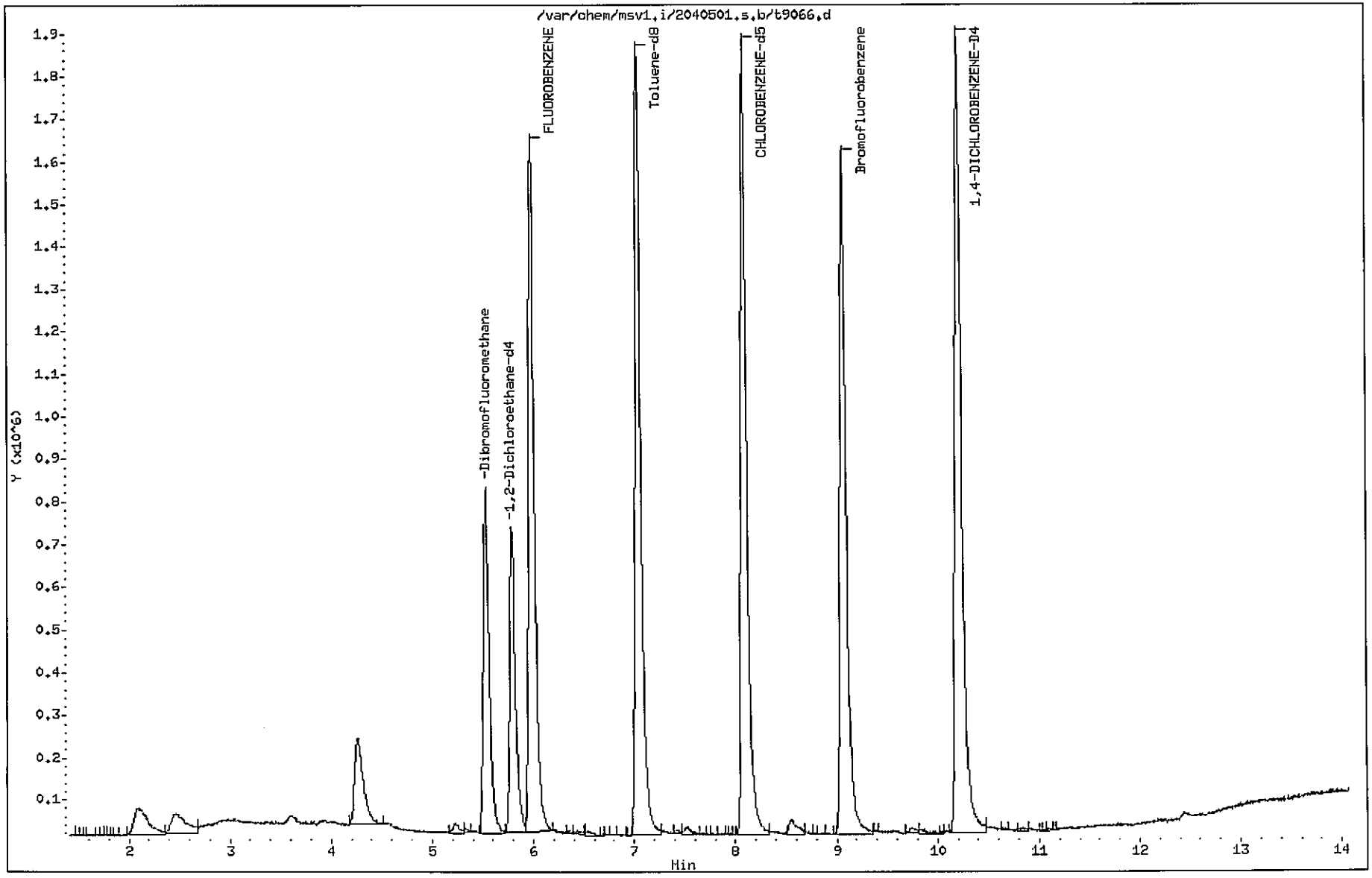
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /var/chem/msv1.i/2040501.s.b/t9066.d
Date : 01-MAY-2004 19:00
Client ID: 86-271-TB-Q1-04
Sample Info: 20404280609M86-271-TB-Q1-04
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

Operator: RJO
Column diameter: 0.53

000072



Data File: /var/chem/msv1.i/2040501.s.b/t9066.d

Date : 01-MAY-2004 19:00

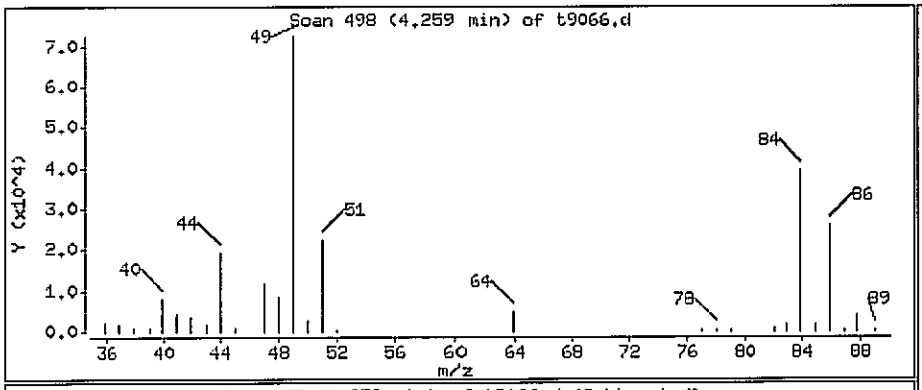
Client ID: 86-271-TB-Q1-04 Instrument: msv1.i

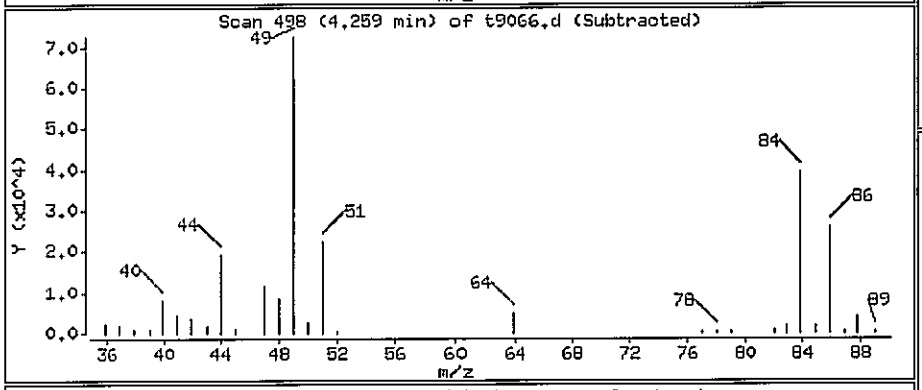
Sample Info: 20404280609W86-271-TB-Q1-04

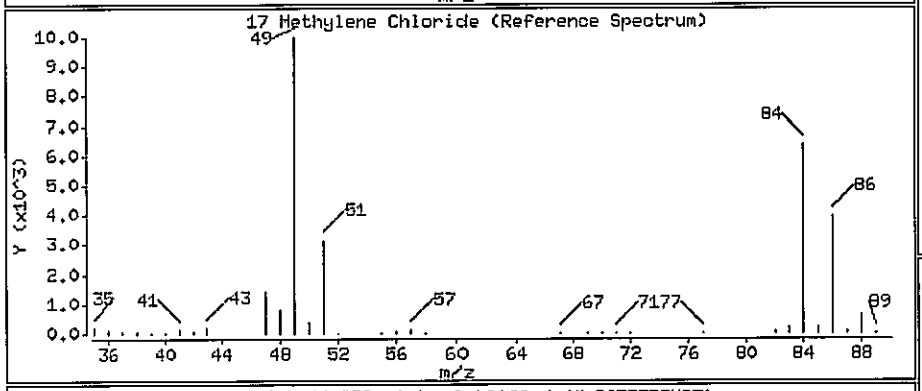
Purge Volume: 5.0 Operator: RJO

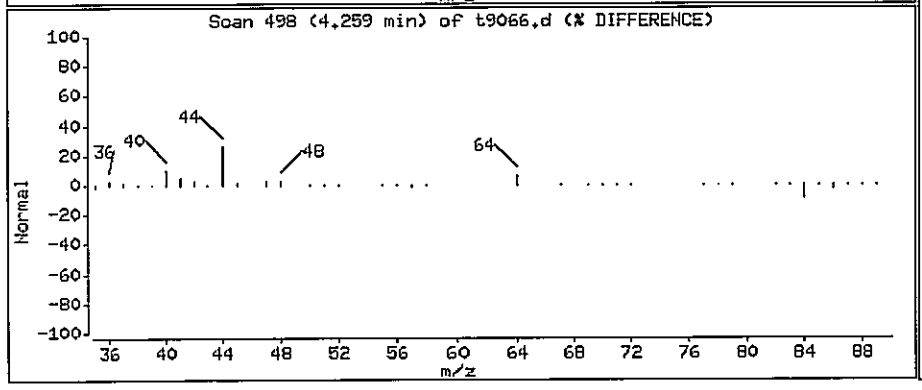
Column phase: DB-624-30M Column diameter: 0.53

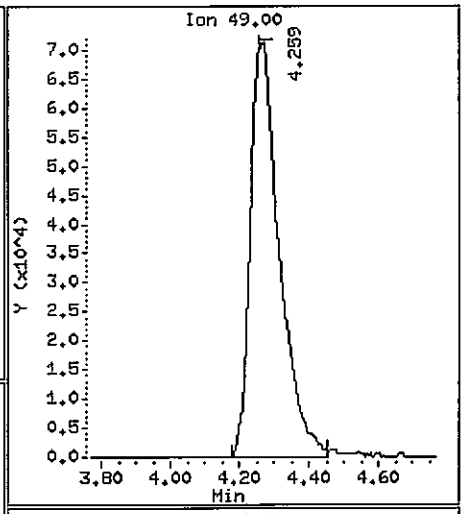
17 Methylene Chloride Concentration: 14.7 ug/L

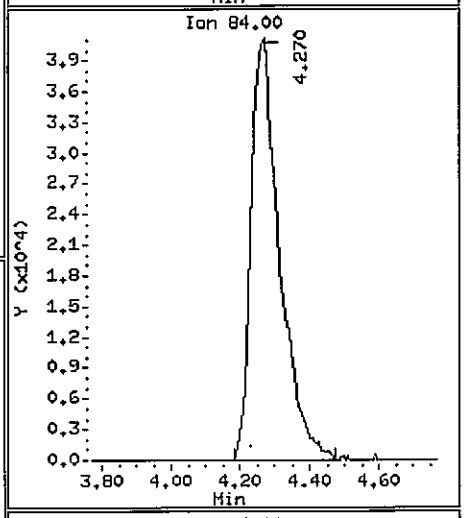


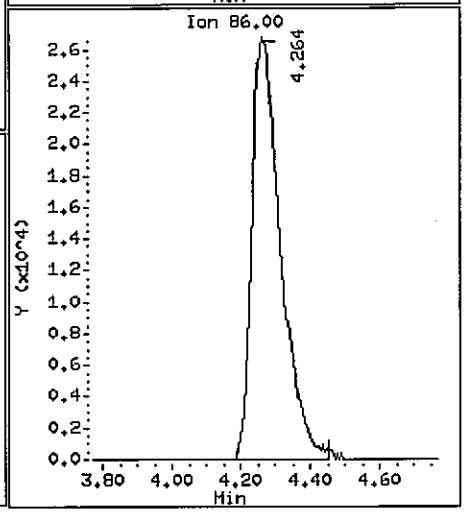












Data File: /var/chem/msv1.i/2040501.s.b/t9066.d

Date : 01-MAY-2004 19:00

Client ID: 86-271-TB-Q1-04

Instrument: msv1.i

Sample Info: 20404280609X86-271-TB-Q1-04

Purge Volume: 5.0

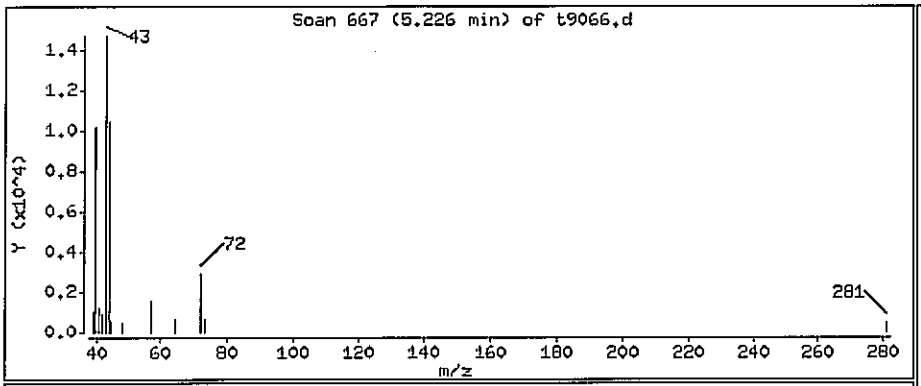
Operator: RJO

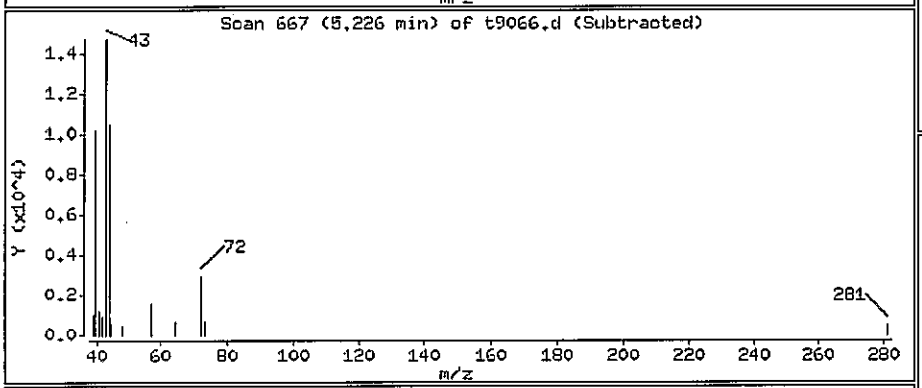
Column phase: DB-624-30M

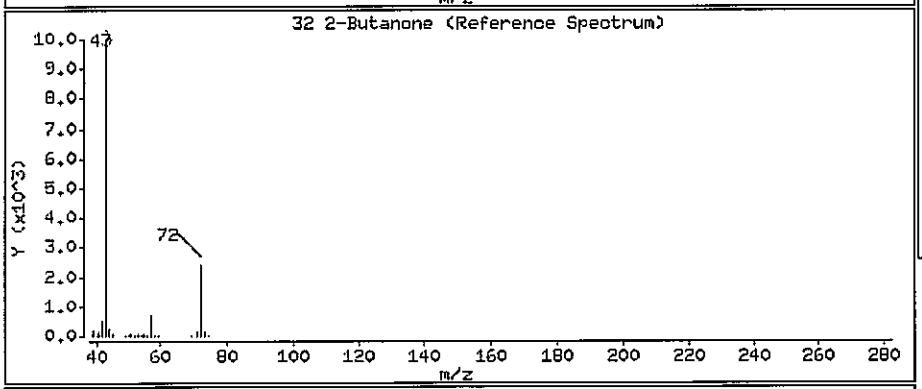
Column diameter: 0.53

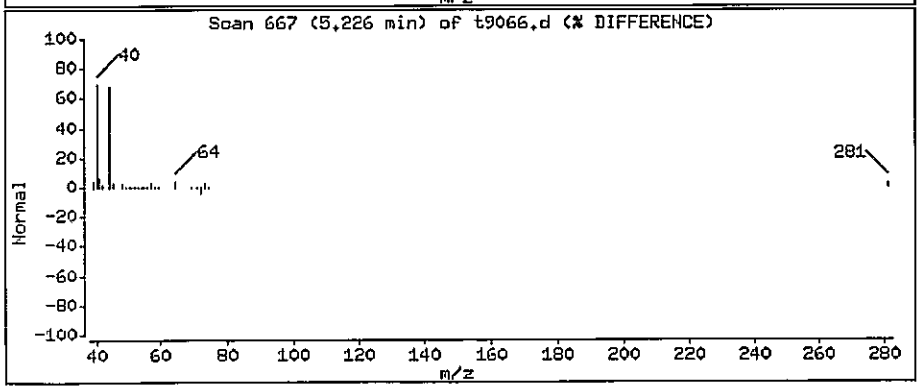
32 2-Butanone

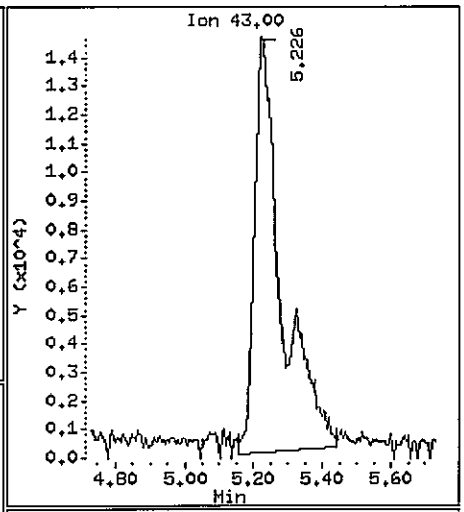
Concentration: 7.15 ug/L

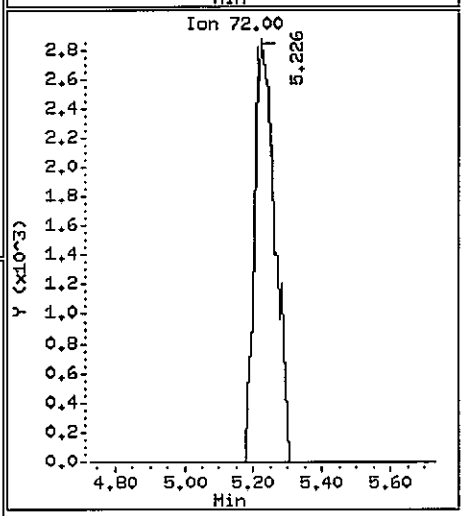












Data File: /var/chem/msv1.i/2040417.s.b/t8437.d

Date : 17-APR-2004 09:21

Client ID: BFB01

Instrument: msv1.i

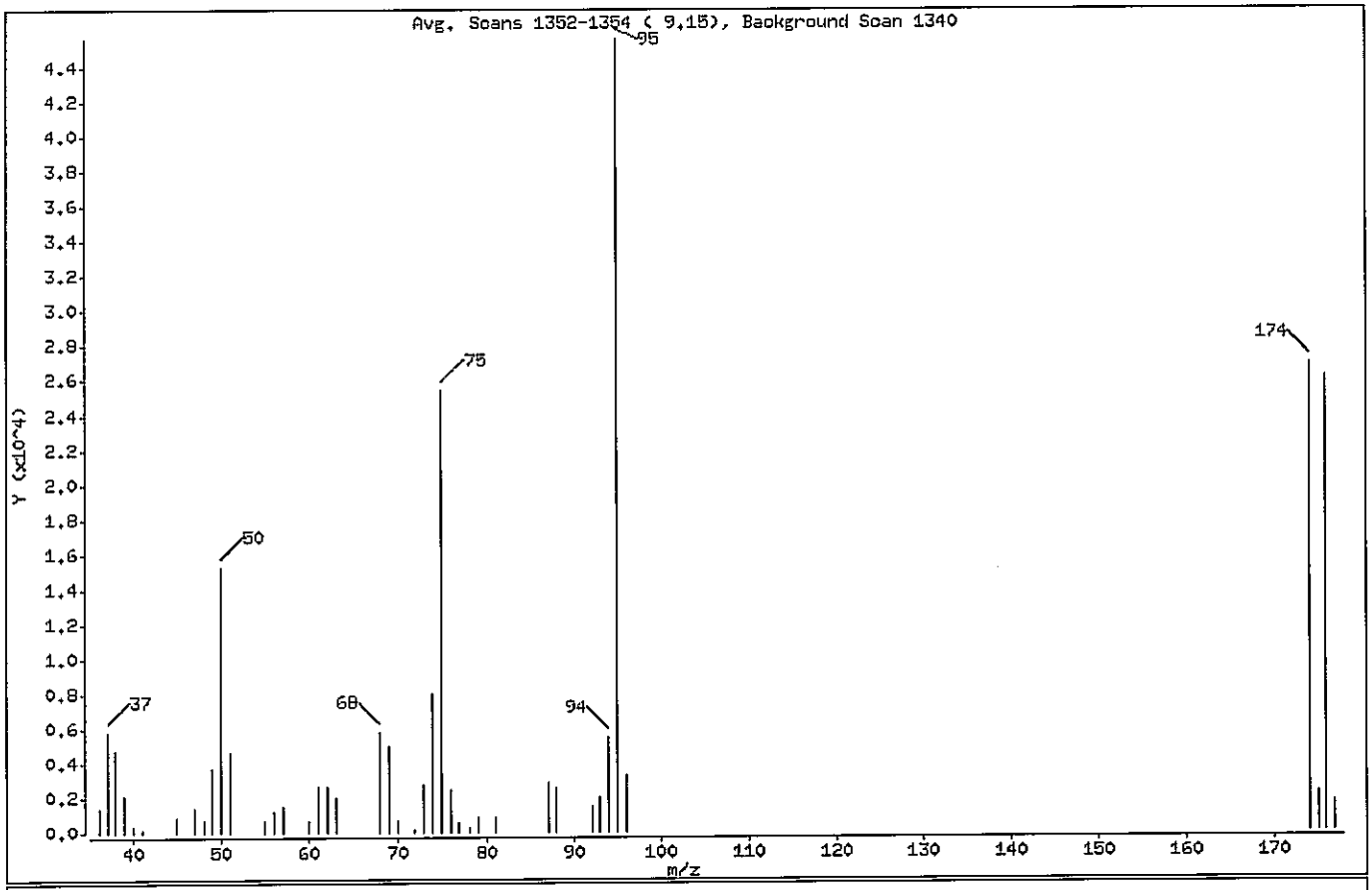
Sample Info: 1000XBFB01

Operator: RJO

Column phase: DB-624-30M

Column diameter: 0.53

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	33.22
75	30.00 - 60.00% of mass 95	55.68
96	5.00 - 9.00% of mass 95	7.20
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	58.93
175	5.00 - 9.00% of mass 174	4.87 (8.26)
176	95.00 - 101.00% of mass 174	57.28 (97.20)
177	5.00 - 9.00% of mass 176	3.74 (6.54)

Data File: /var/chem/msv1.i/2040417.s.b/t8437.d

Date : 17-APR-2004 09:21

Client ID: BFB01

Instrument: msv1.i

Sample Info: 1000MBFB01

Operator: RJO

Column phase: DB-624-30M

Column diameter: 0.53

Data File: t8437.d
Spectrum: Avg. Scans 1352-1354 (9.15), Background Scan 1340
Location of Maximum: 95.00
Number of points: 42

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1364	51.00	4579	72.00	139	92.00	1471
37.00	5757	55.00	613	73.00	2754	93.00	2017
38.00	4686	56.00	1129	74.00	7946	94.00	5465
39.00	2056	57.00	1448	75.00	25440	95.00	45696
40.00	267	60.00	639	76.00	2430	96.00	3289
41.00	64	61.00	2666	77.00	515	174.00	26928
45.00	880	62.00	2579	78.00	212	175.00	2225
47.00	1381	63.00	1946	79.00	828	176.00	26176
48.00	634	68.00	5773	81.00	883	177.00	1711
49.00	3678	69.00	4967	87.00	2811		
50.00	15180	70.00	672	88.00	2478		

Data File: /var/chem/msv1.i/2040417.s.b/t8437.d

Date : 17-APR-2004 09:21

Client ID: BFB01

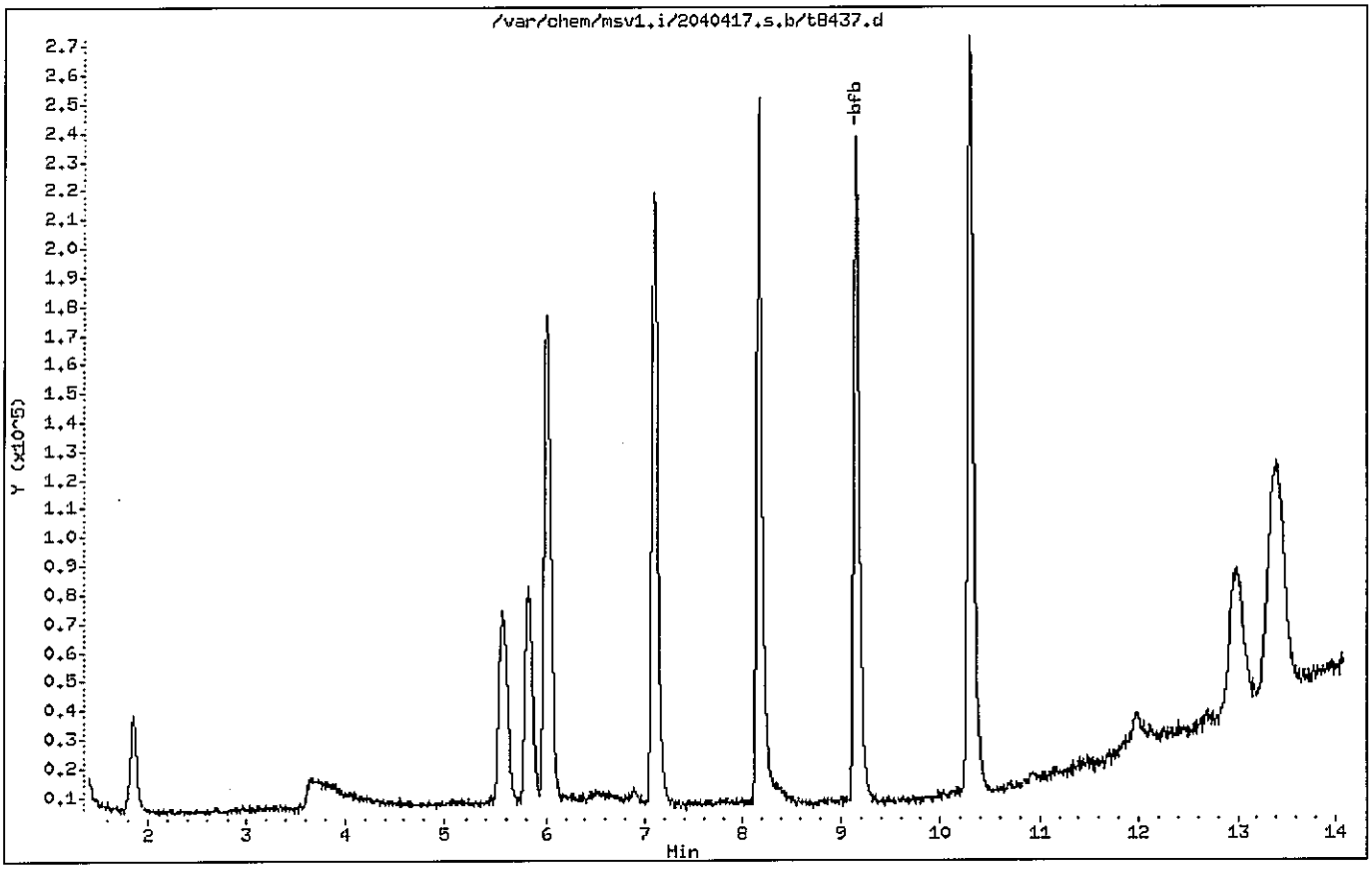
Instrument: msv1.i

Sample Info: 1000xBFB01

Operator: RJO

Column phase: DB-624-30M

Column diameter: 0.53



000077

GCAL, Inc.

Data file : /var/chem/msv1.i/2040417.s.b/t8440.d
Lab Smp Id: 1206 Client Smp ID: V1APP002 5-9-04
Inj Date : 17-APR-2004 10:51
Operator : RSP Inst ID: msv1.i
Smp Info : 1206*V1APP002 5-9-04
Misc Info : MSV~4588~*1*KCB
Comment :
Method : /var/chem/msv1.i/2040430.s.b/8260Bw1.m
Meth Date : 30-Apr-2004 13:45 rsp Quant Type: ISTD
Cal Date : 17-APR-2004 10:51 Cal File: t8440.d
Als bottle: 9 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: APP9.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
* 47 FLUOROBENZENE	96	6.029	6.029	(1.000)	1140319	50.0000		
18 2-Chloropropene	41	4.151	4.151	(0.689)	49000	2.00000	2.55	0(aM)
* 71 CHLOROBENZENE-d5	82	8.153	8.153	(1.000)	631254	50.0000		
* 97 1,4-DICHLOROBENZENE-D4	152	10.277	10.277	(1.000)	366597	50.0000		
4 1-3 Butadiene	39	2.674	2.674	(0.444)	26749	2.00000	2.90	2351(a)
8 Ethyl Ether	59	3.636	3.636	(0.603)	62131	2.00000	11.9	2526(aM)
15 Acetonitrile	41	4.151	4.151	(0.689)	40508	2.00000	11.2	2769(aH)
16 Allyl chloride	39	4.174	4.174	(0.692)	29703	2.00000	2.86	2936(a)
26 tert-Butyl Alcohol	59	4.809	4.809	(0.798)	12307	2.00000	18.6	2526(M)
29 Chloroprene	53	4.861	4.861	(0.806)	30271	2.00000	2.30	3185(a)
35 Propionitrile	54	5.336	5.336	(0.885)	10202	2.00000	11.4	2976(a)
27 Isopropyl Ether	45	4.804	4.804	(0.797)	135479	2.00000	3.11	2191(a)
28 2-Butanol	45	4.804	4.804	(0.797)	124905	2.00000	94.9	2191
40 n-Butanol	56	5.571	5.571	(0.924)	41310	2.00000	125	3799

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
53 2-3 Dichloro-1-Proprene	75	6.464	6.464	(1.072)	42988	2.00000	2.87	3383(aMH)
45 Isobutyl Alcohol	43	4.603	4.603	(0.764)	16205	2.00000	71.6	3114(H)
55 1,4- Dioxane	58	6.521	6.521	(1.082)	3581	50.0000	41.8	2533(a)
64 Ethyl Methacrylate	41	7.271	7.271	(0.892)	26000	2.00000	1.87	3909(a)
82 Cyclohexanone	55	9.149	9.149	(1.122)	13146	2.00000	7.21	4937(aM)
107 Benzal Chloride	125	11.948	11.948	(1.163)	2706	2.00000	24.1	4532(M)
95 Pentachloroethane	167	9.859	9.859	(0.959)	6675	2.00000	1.61	0(aM)
63 Methyl Methacrylate	69	7.288	7.288	(1.209)	26652	2.00000	1.92	2901(M)

QC Flag Legend

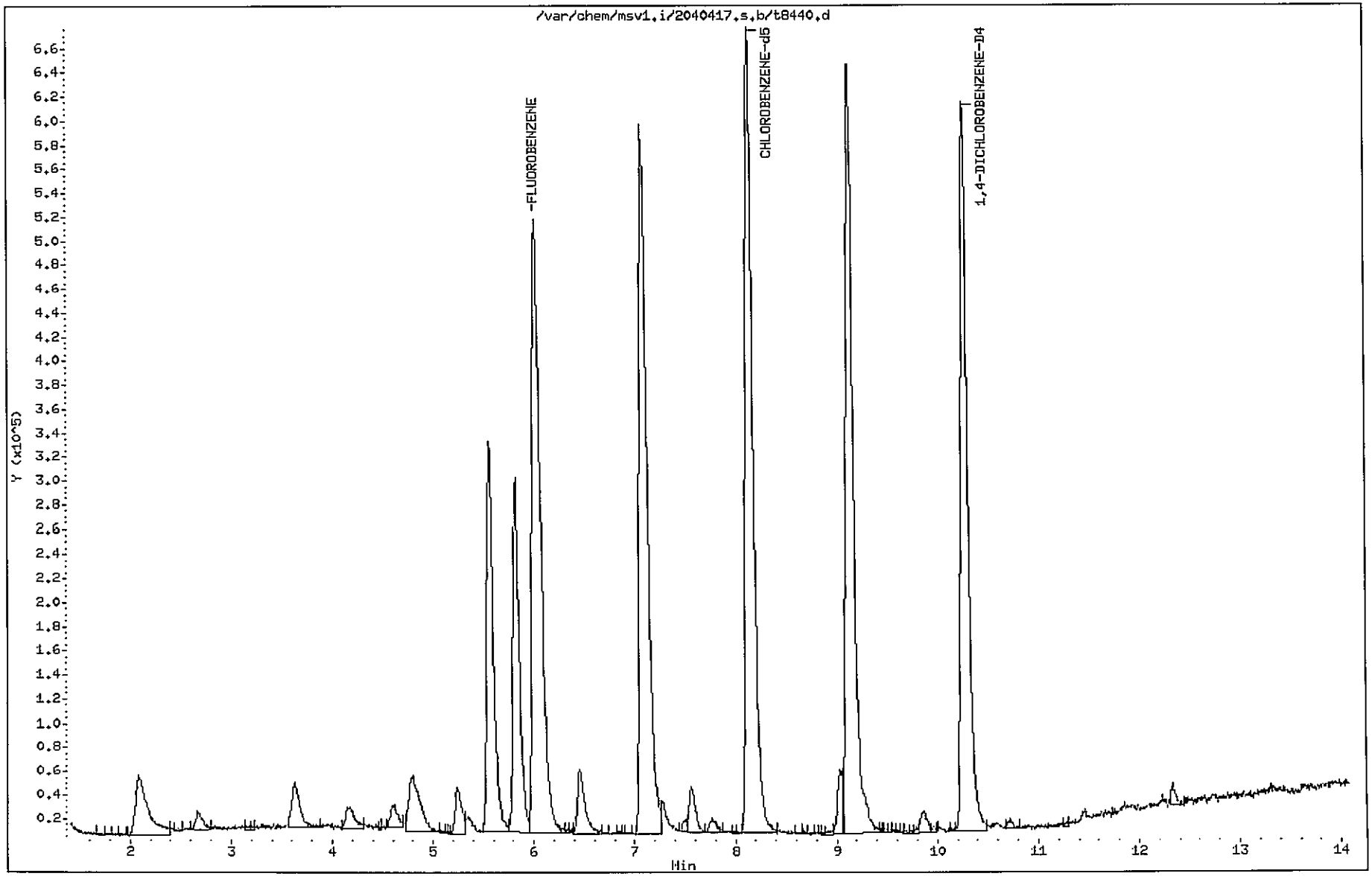
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /var/chem/msv1.i/2040417.s.b/t8440.d
Date : 17-APR-2004 10:51
Client ID: V1APP002 5-9-04
Sample Info: 1206*V1APP002 5-9-04
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

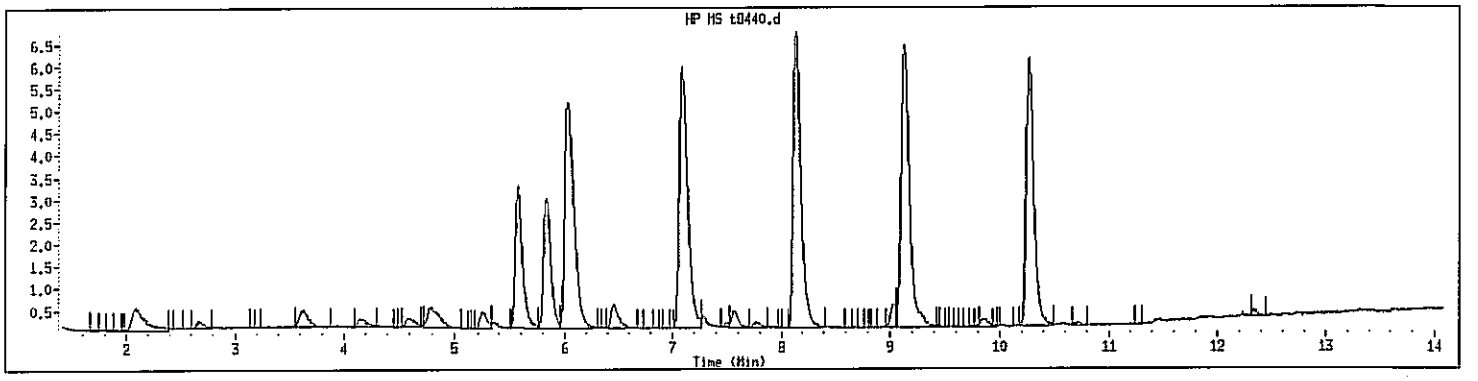
Operator: RSP
Column diameter: 0.53

000080



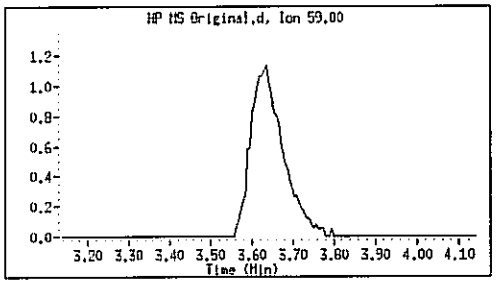
MANUAL INTEGRATION GRAPHIC REPORT

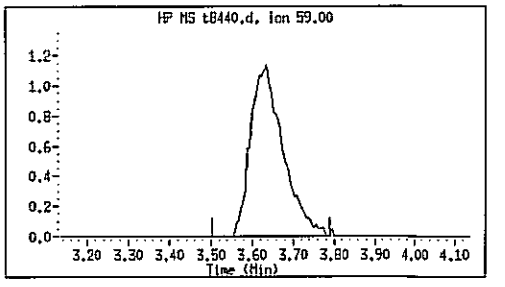
Lab ID	: 1206	SampleType	: CALIB_8
Injection Date	: 17-APR-2004 10:51	Instrument	: msv1.i
Operator	: RSP		
Sample Info	: 1206*V1APP002 5-9-04		
Misc Info	: MSV~4588~*1*KCB		
Method	: /var/chem/msv1.i/2040430.s.b/8260Bw1.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: HP RTE	Compound Sublist	: APP9



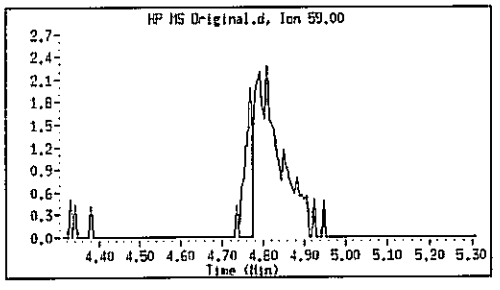
Original | Final

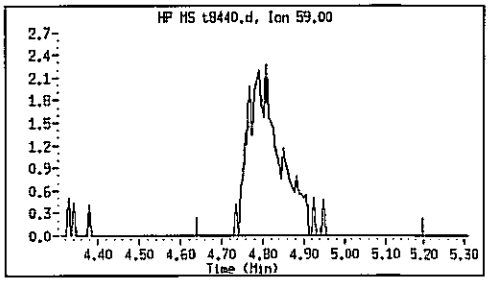
8 Ethyl Ether CAS#: 60-29-7





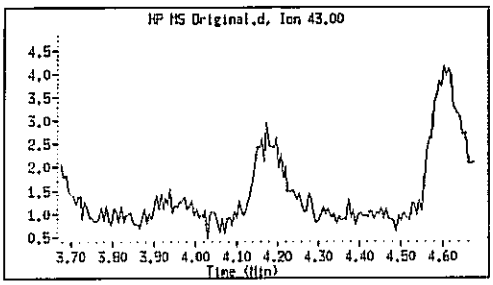
26 tert-Butyl Alcohol CAS#: 75-65-0

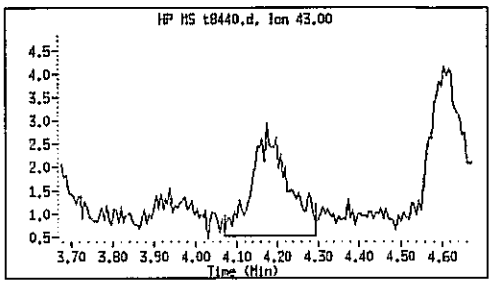




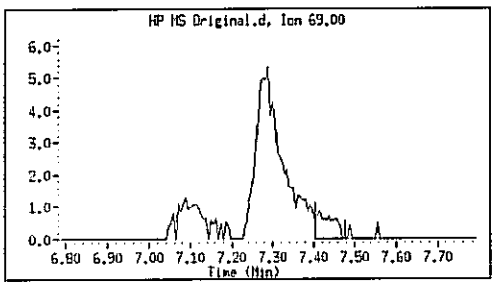
Original | Final

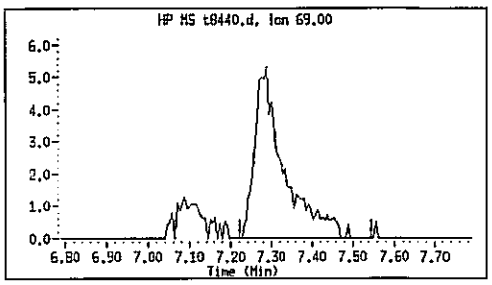
33 Ethyl Acetate CAS#: 141-78-6



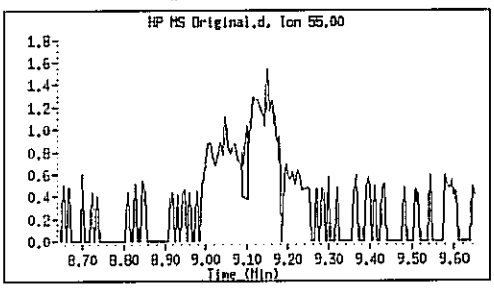


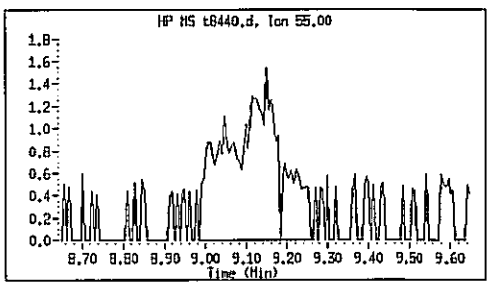
63 Methyl Methacrylate CAS#: 80-62-6



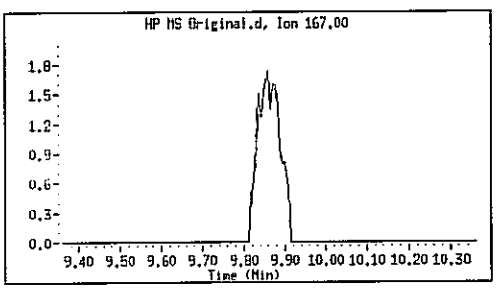


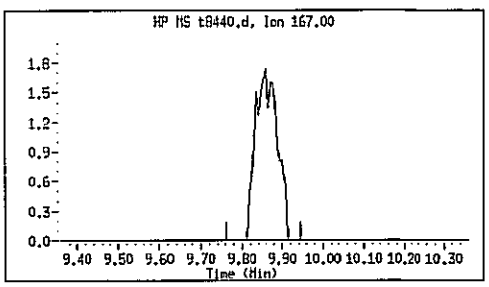
82 Cyclohexanone CAS#: 108-94-1



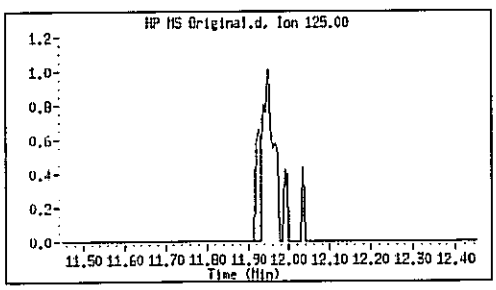


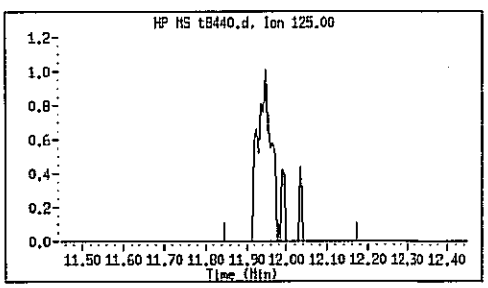
95 Pentachloroethane CAS#: 76-01-7





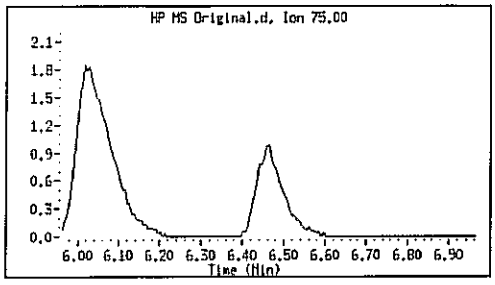
107 Benzal Chloride CAS#: 98-87-3

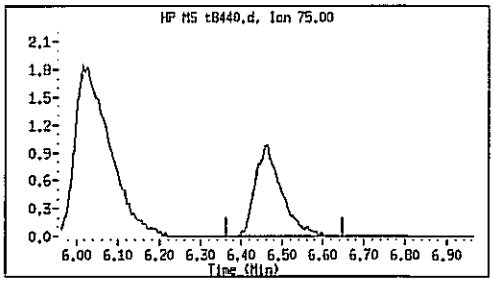




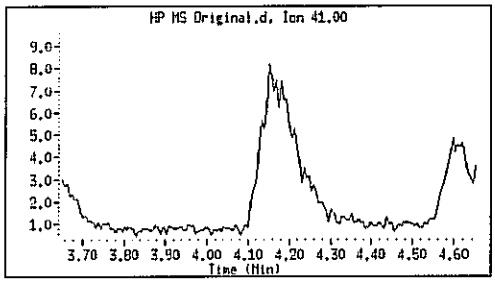
Original Final

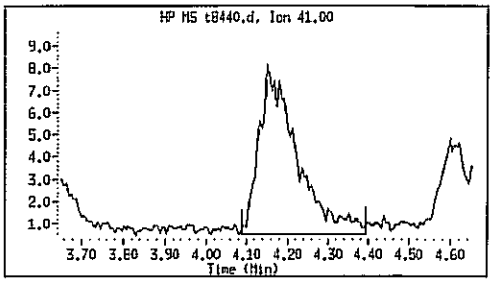
53 2-3 Dichloro-1-Proprene CAS#: 78-88-6





18 2-Chloropropene CAS#: 557-98-2





GCAL, Inc.

Data file : /var/chem/msv1.i/2040417.s.b/t8441.d
Lab Smp Id: 1201 Client Smp ID: V1APP005 5-9-04
Inj Date : 17-APR-2004 11:14
Operator : RSP Inst ID: msv1.i
Smp Info : 1201*V1APP005 5-9-04
Misc Info : MSV~4588~*1*KCB
Comment :
Method : /var/chem/msv1.i/2040417.s.b/8260Bw1.m
Meth Date : 04-May-2004 18:46 rsp Quant Type: ISTD
Cal Date : 17-APR-2004 11:14 Cal File: t8441.d
Als bottle: 10 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: APP9.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
* 47 FLUOROBENZENE	96	6.017	6.017	(1.000)	1158736	50.0000		
18 2-Chloropropene	41	4.151	4.151	(0.690)	112852	5.00000	5.77	0 (M)
* 71 CHLOROBENZENE-d5	82	8.136	8.136	(1.000)	644802	50.0000		
* 97 1,4-DICHLOROBENZENE-D4	152	10.271	10.271	(1.000)	410292	50.0000		
4 1-3 Butadiene	39	2.674	2.674	(0.444)	51366	5.00000	5.58	1689
8 Ethyl Ether	59	3.630	3.630	(0.603)	146341	25.0000	27.7	3349 (M)
15 Acetonitrile	41	4.151	4.151	(0.690)	88304	25.0000	24.1	2798 (a)
16 Allyl chloride	39	4.162	4.162	(0.692)	58189	5.00000	5.51	2892
26 tert-Butyl Alcohol	59	4.374	4.374	(0.727)	3083	5.00000	4.59	3349 (aM)
29 Chloroprene	53	4.849	4.849	(0.806)	71540	5.00000	5.34	3273
35 Propionitrile	54	5.348	5.348	(0.889)	23036	25.0000	25.4	3543
27 Isopropyl Ether	45	4.781	4.781	(0.794)	254560	5.00000	5.75	2673
33 Ethyl Acetate	43	5.239	5.239	(0.871)	267836	25.0000	27.5	0 (M)
28 2-Butanol	45	5.239	5.239	(0.871)	46208	30.0000	34.8	2673 (M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
40 n-Butanol	56	6.172	6.172	(1.026)	9734	25.0000	30.9	4104(M)
53 2-3 Dichloro-1-Proprene	75	6.458	6.458	(1.073)	86934	5.00000	5.72	3261(MH)
45 Isobutyl Alcohol	43	5.731	5.731	(0.952)	9611	25.0000	69.7	2820(MH)
55 1,4- Dioxane	58	6.515	6.515	(1.083)	11614	125.000	133	3206(M)
64 Ethyl Methacrylate	41	7.277	7.277	(0.894)	66592	5.00000	4.69	3603(a)
82 Cyclohexanone	55	9.120	9.120	(1.121)	19438	10.0000	10.4	5028(M)
63 Methyl Methacrylate	69	7.283	7.283	(1.210)	67972	5.00000	4.81	3537

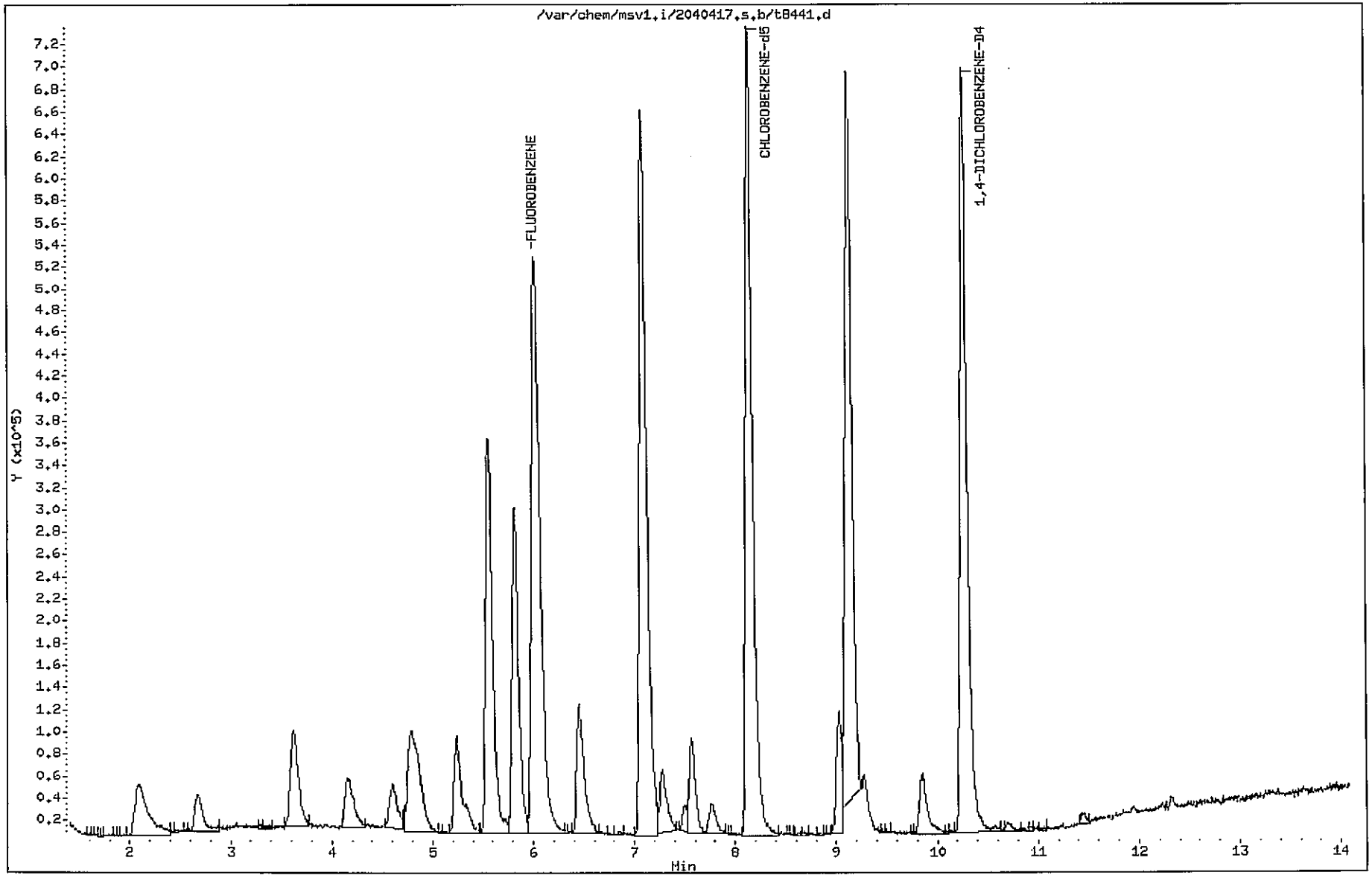
QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

000086

Data File: /var/chem/msv1.i/2040417.s.b/t8441.d
Date : 17-APR-2004 11:14
Client ID: V1APP005 5-9-04
Sample Info: 1201#V1APP005 5-9-04
Purge Volume: 5.0
Column phase: DB-624-30M

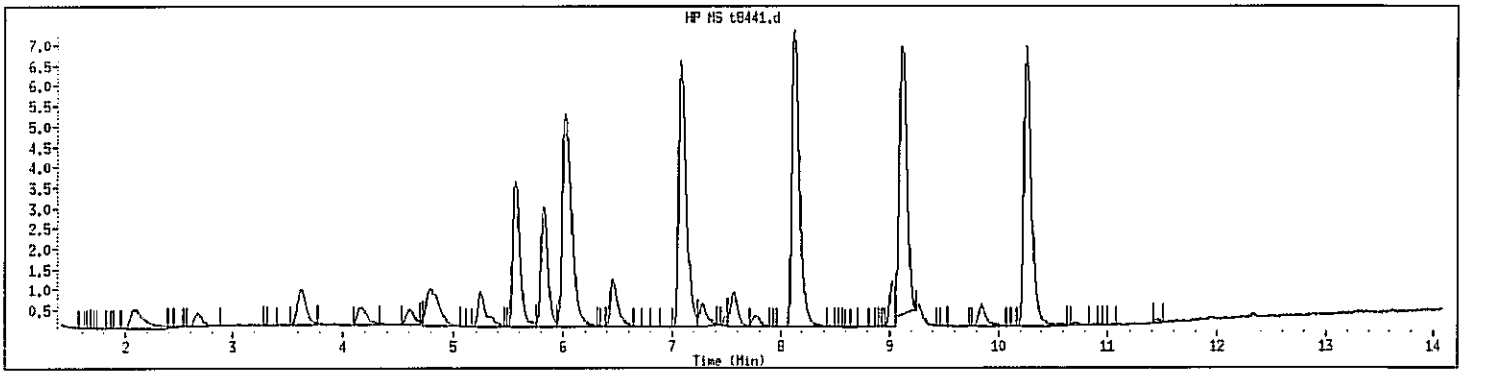
Instrument: msv1.i
Operator: RSP
Column diameter: 0.53



Data file : /var/chem/msv1.i/2040417.s.b/t8441.d
Report Date: 05/04/2004 18:46

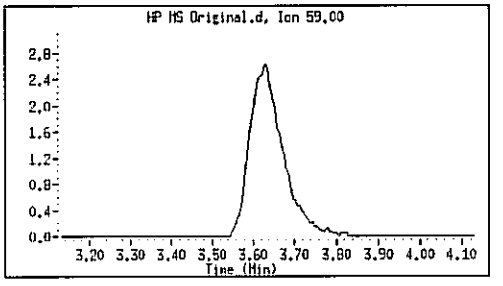
MANUAL INTEGRATION GRAPHIC REPORT

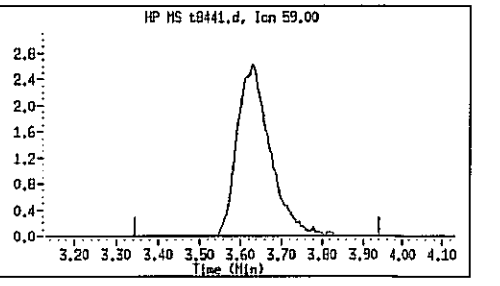
Lab ID	: 1201	SampleType	: CALIB_1
Injection Date	: 17-APR-2004 11:14	Instrument	: msv1.i
Operator	: RSP		
Sample Info	: 1201*V1APP005 5-9-04		
Misc Info	: MSV~4588~*1*KCB		
Method	: /var/chem/msv1.i/2040417.s.b/8260Bw1.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: HP RTE	Compound Sublist	: APP9



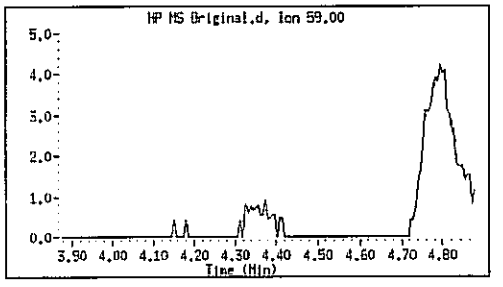
Original | Final

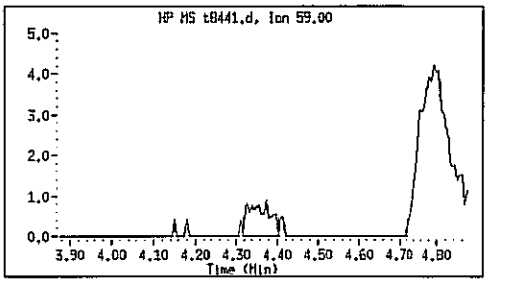
8 Ethyl Ether CAS#: 60-29-7





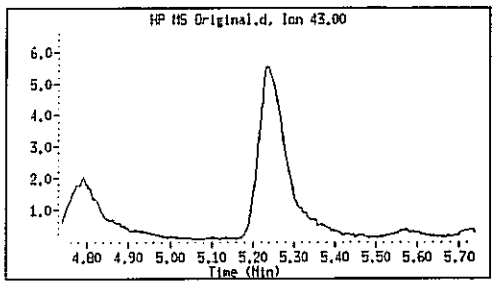
26 tert-Butyl Alcohol CAS#: 75-65-0

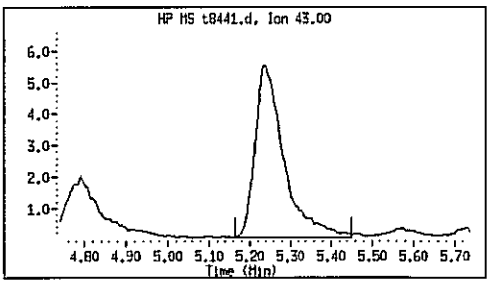




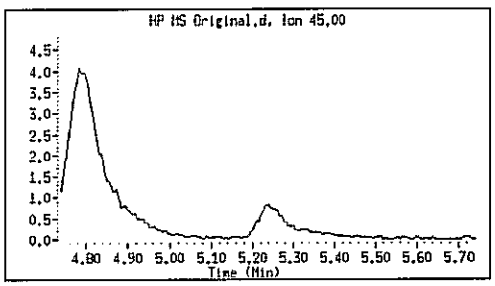
Original | Final

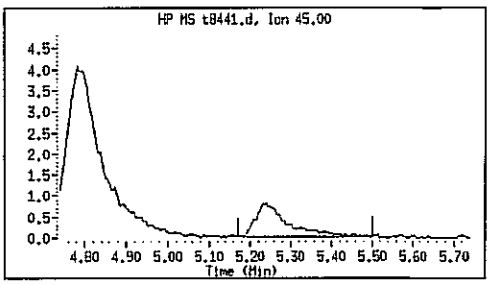
33 Ethyl Acetate CAS#: 141-78-6



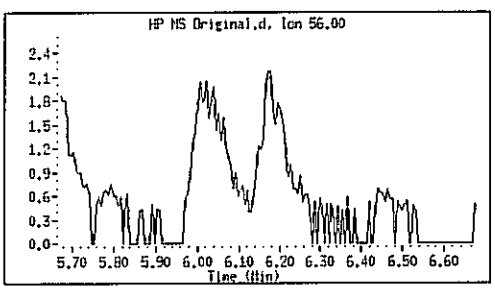


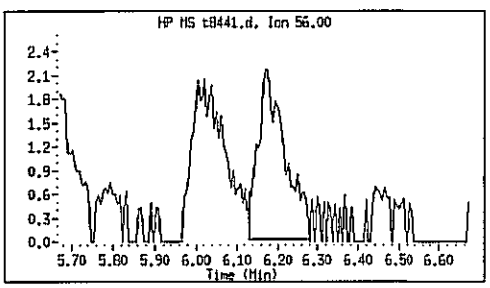
28 2-Butanol CAS#: 15892-23-6



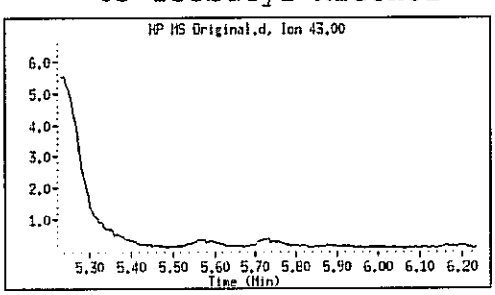


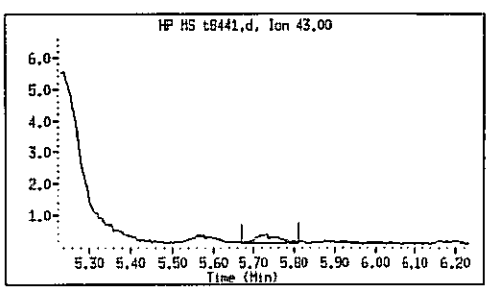
40 n-Butanol CAS#: 71-36-3



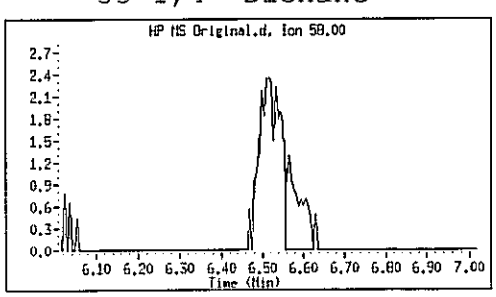


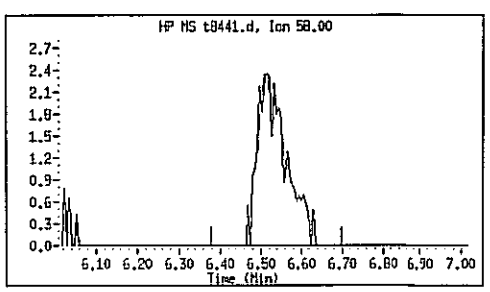
45 Isobutyl Alcohol CAS#: 78-83-1





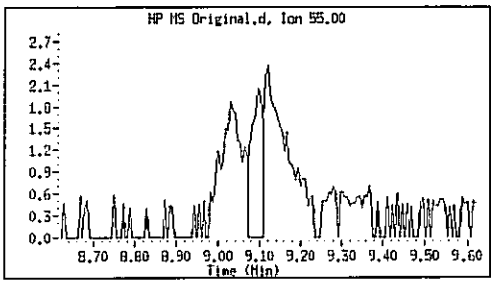
55 1,4- Dioxane CAS#: 123-91-1

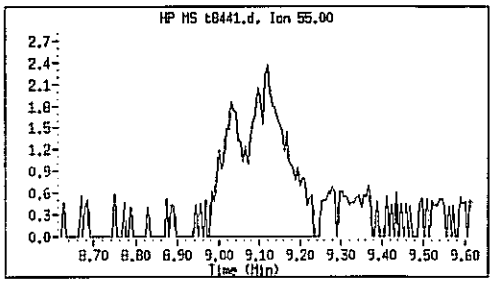




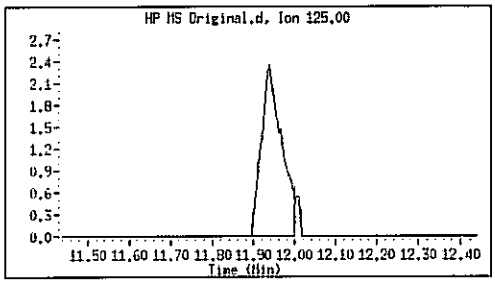
Original | Final

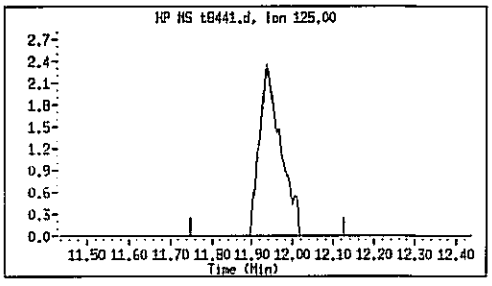
82 Cyclohexanone CAS#: 108-94-1



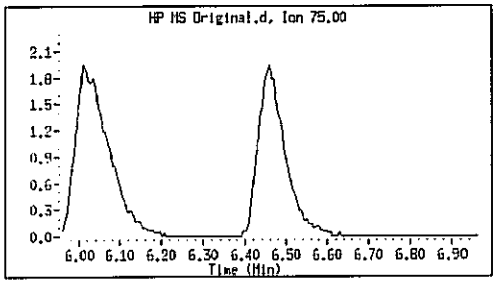


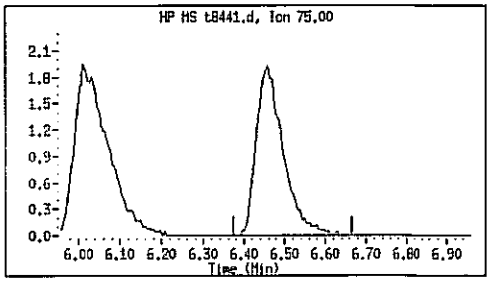
107 Benzal Chloride CAS#: 98-87-3



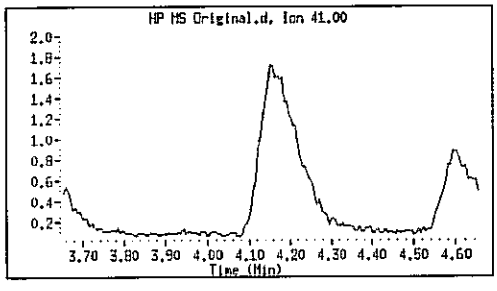


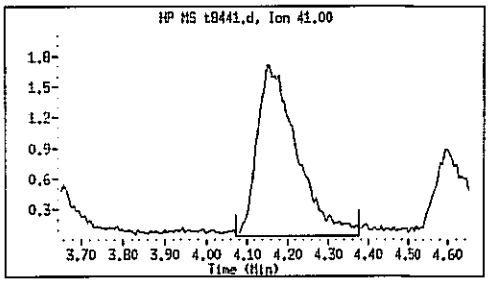
53 2-3 Dichloro-1-Proprene CAS#: 78-88-6





18 2-Chloropropene CAS#: 557-98-2





GCAL, Inc.

Data file : /var/chem/msv1.i/2040417.s.b/t8442.d
Lab Smp Id: 1202 Client Smp ID: V1APP020 5-9-04
Inj Date : 17-APR-2004 11:37
Operator : RSP Inst ID: msv1.i
Smp Info : 1202*V1APP020 5-9-04
Misc Info : MSV~4588~*1*KCB
Comment :
Method : /var/chem/msv1.i/2040417.s.b/8260Bw1.m
Meth Date : 04-May-2004 18:46 rsp Quant Type: ISTD
Cal Date : 17-APR-2004 11:37 Cal File: t8442.d
Als bottle: 11 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: APP9.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
* 47 FLUOROBENZENE	96	6.018	6.018	(1.000)	1210308	50.0000		
18 2-Chloropropene	41	4.163	4.163	(0.692)	415931	20.0000	20.4	0(M)
* 71 CHLOROBENZENE-d5	82	8.137	8.137	(1.000)	635200	50.0000		
* 97 1,4-DICHLOROBENZENE-D4	152	10.261	10.261	(1.000)	401588	50.0000		
4 1-3 Butadiene	39	2.681	2.681	(0.445)	207189	20.0000	21.1	1223(M)
8 Ethyl Ether	59	3.625	3.625	(0.602)	598628	100.000	108	2840(M)
15 Acetonitrile	41	4.163	4.163	(0.692)	416929	100.000	109	2752(H)
16 Allyl chloride	39	4.158	4.158	(0.691)	222298	20.0000	20.2	2784
26 tert-Butyl Alcohol	59	4.364	4.364	(0.725)	16775	20.0000	23.9	2840(M)
29 Chloroprene	53	4.845	4.845	(0.805)	293750	20.0000	21.0	4064
35 Propionitrile	54	5.343	5.343	(0.888)	96744	100.000	102	3543(H)
27 Isopropyl Ether	45	4.793	4.793	(0.796)	966468	20.0000	20.9	2768
33 Ethyl Acetate	43	5.240	5.240	(0.871)	1104210	100.000	108	2831(M)
28 2-Butanol	45	5.251	5.251	(0.873)	175020	120.000	126	1353(MH)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
40 n-Butanol	56	6.184	6.184	(1.028)	36685	100.000	106	4169(M)
53 2-3 Dichloro-1-Proprene	75	6.453	6.453	(1.072)	333184	20.0000	21.0	3188(MH)
45 Isobutyl Alcohol	43	5.726	5.726	(0.951)	58815	100.000	148	2757(MH)
55 1,4- Dioxane	58	6.516	6.516	(1.083)	46794	500.000	514	3331(M)
64 Ethyl Methacrylate	41	7.278	7.278	(0.894)	286273	20.0000	20.5	3083
82 Cyclohexanone	55	9.133	9.133	(1.122)	68599	40.0000	37.4	5501(MH)
63 Methyl Methacrylate	69	7.278	7.278	(1.209)	291160	20.0000	19.7	3083

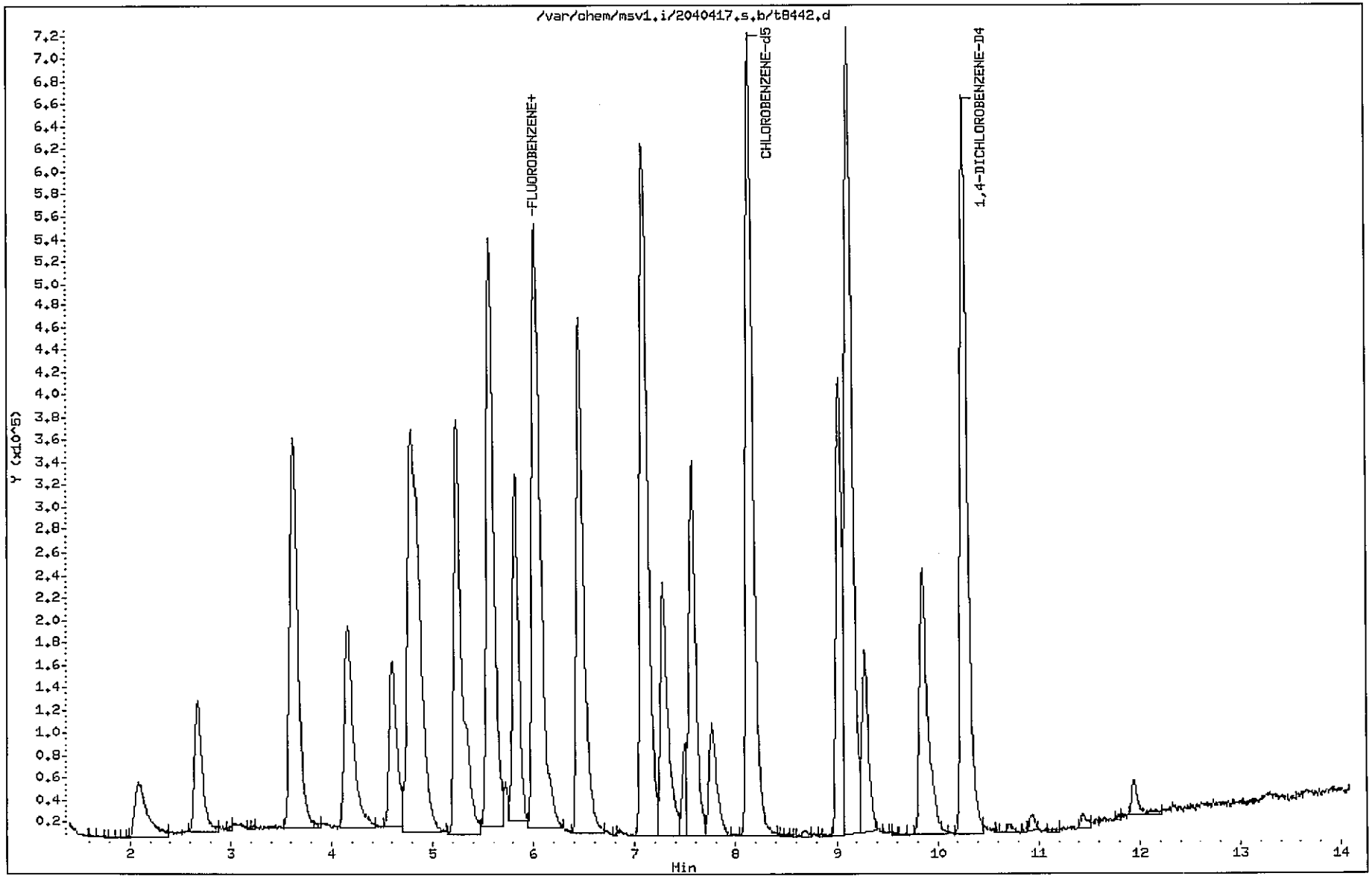
QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

260000

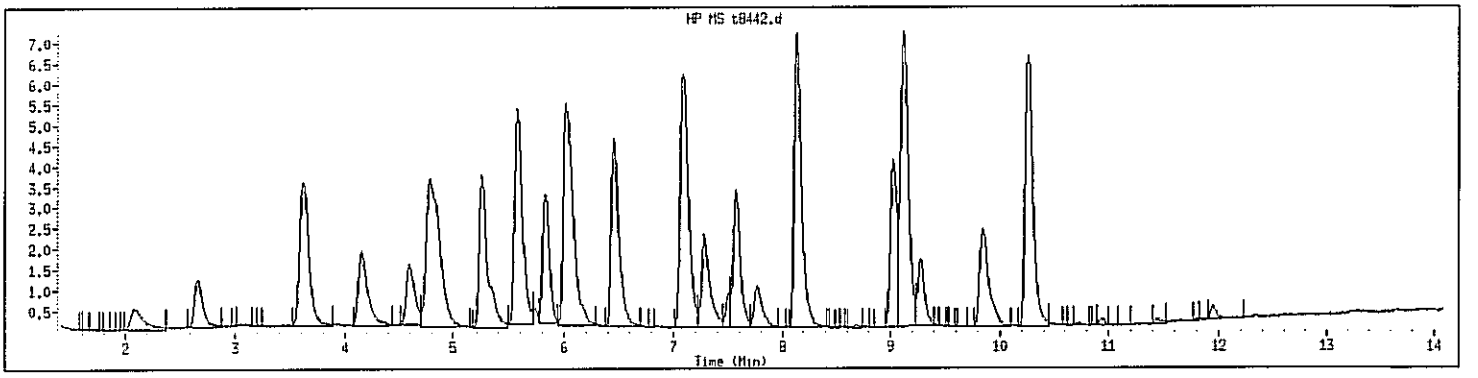
Data File: /var/chem/msv1.i/2040417.s.b/t8442.d
Date : 17-APR-2004 11:37
Client ID: V1APP020 5-9-04
Sample Info: 1202MV1APP020 5-9-04
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i
Operator: RSP
Column diameter: 0.53



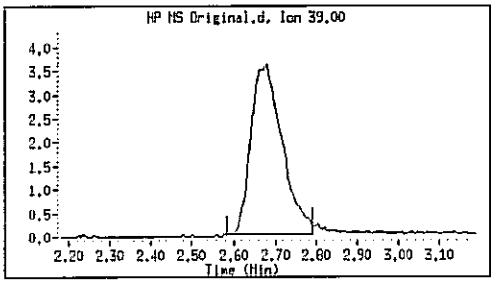
MANUAL INTEGRATION GRAPHIC REPORT

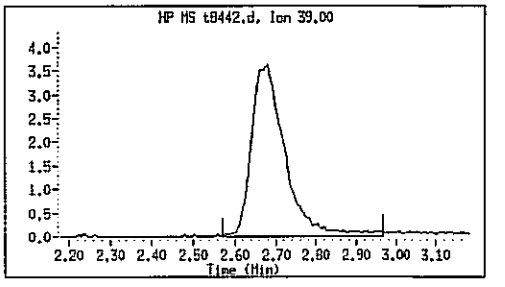
Lab ID	: 1202	SampleType	: CALIB_2
Injection Date	: 17-APR-2004 11:37	Instrument	: msv1.i
Operator	: RSP		
Sample Info	: 1202*V1APP020 5-9-04		
Misc Info	: MSV~4588~*1*KCB		
Method	: /var/chem/msv1.i/2040417.s.b/8260Bw1.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: HP RTE	Compound Sublist	: APP9



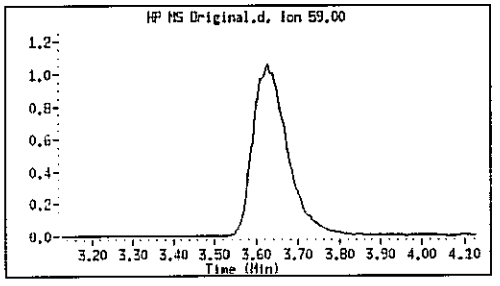
Original Final

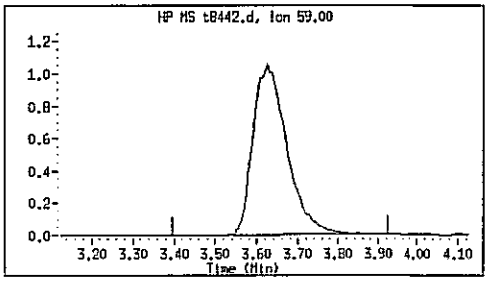
4 1-3 Butadiene CAS#: 106-99-0





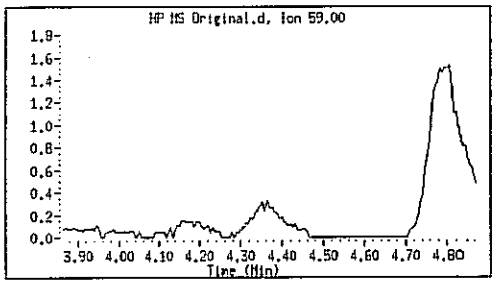
8 Ethyl Ether CAS#: 60-29-7

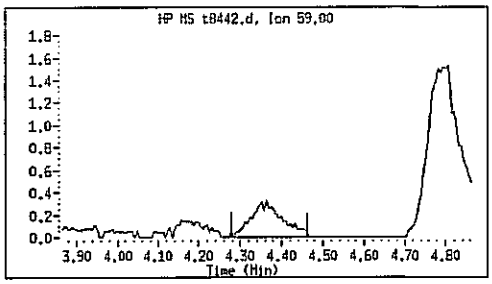




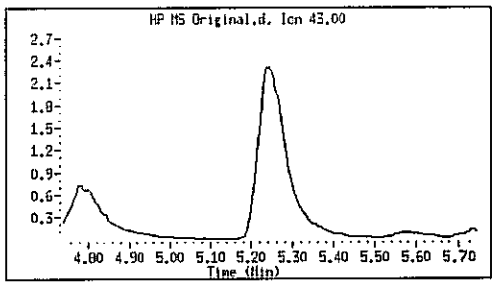
Original | Final

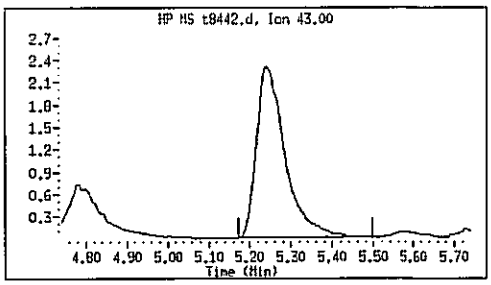
26 tert-Butyl Alcohol CAS#: 75-65-0



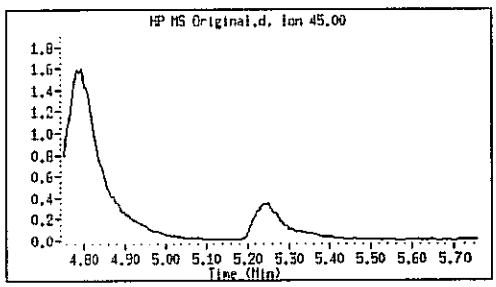


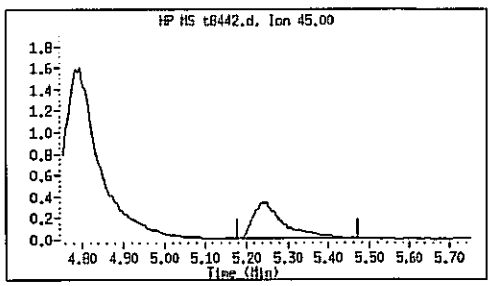
33 Ethyl Acetate CAS#: 141-78-6



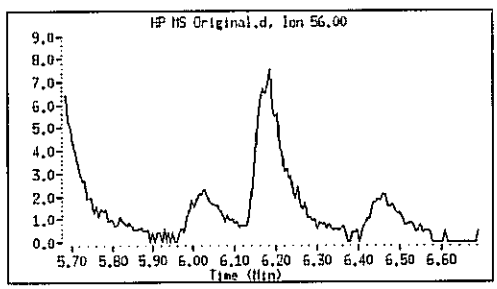


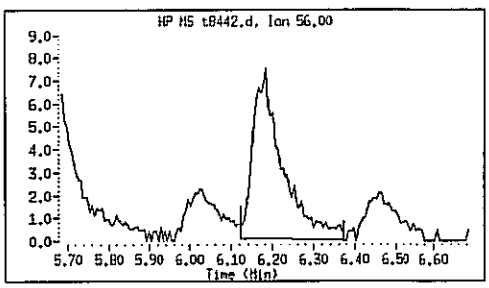
28 2-Butanol CAS#: 15892-23-6



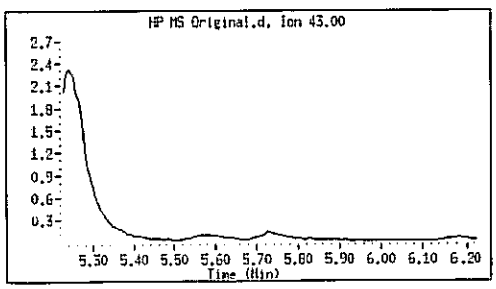


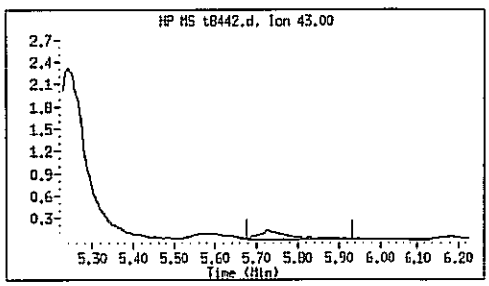
40 n-Butanol CAS#: 71-36-3





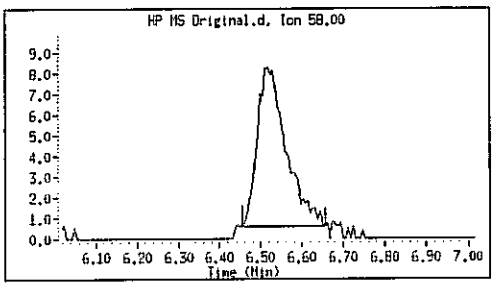
45 Isobutyl Alcohol CAS#: 78-83-1

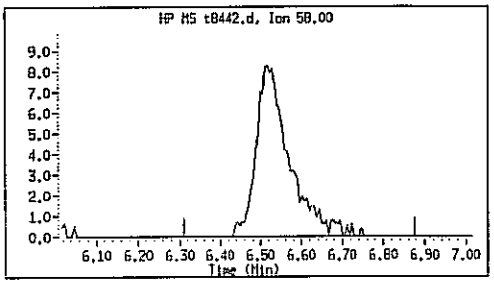




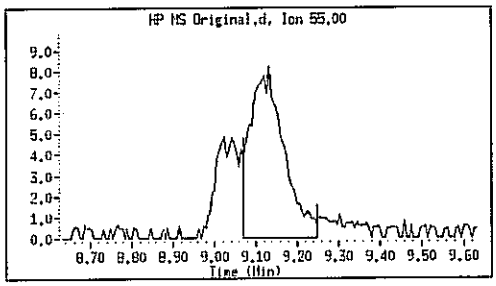
Original | Final

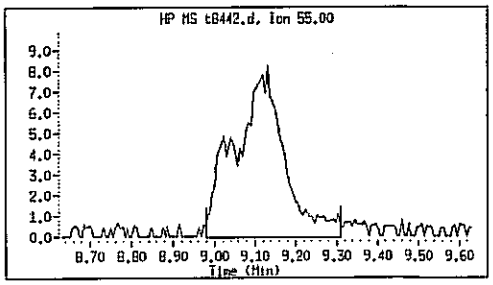
55 1,4- Dioxane CAS#: 123-91-1



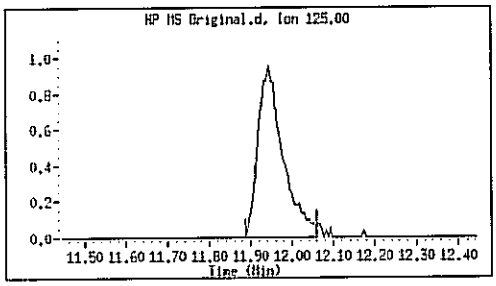


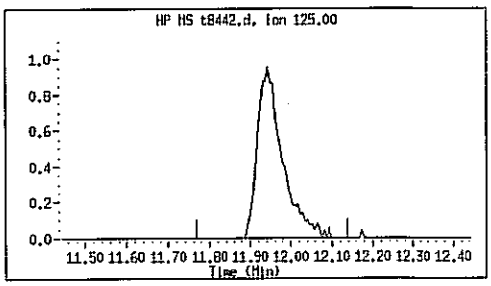
82 Cyclohexanone CAS#: 108-94-1



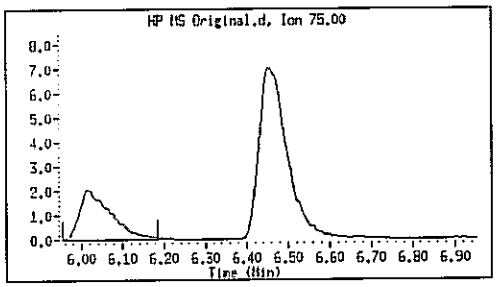


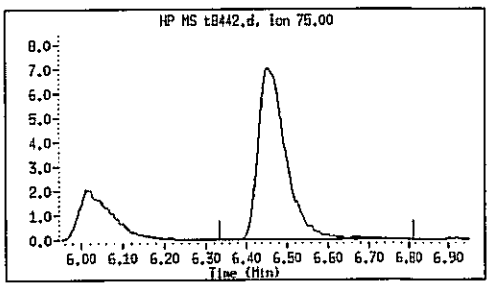
107 Benzal Chloride CAS#: 98-87-3



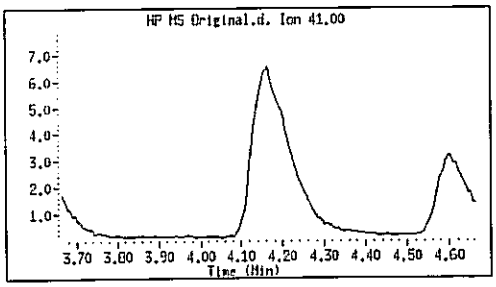


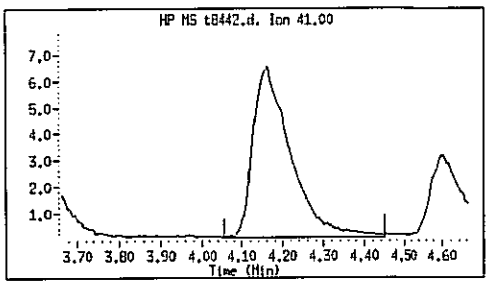
53 2-3 Dichloro-1-Proprene CAS#: 78-88-6





18 2-Chloropropene CAS#: 557-98-2





GCAL, Inc.

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Inj Date : 17-APR-2004 12:01
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Smp Info : 1203*V1APP050 5-9-04
Misc Info : MSV~4588~*1*KCB
Comment :
Method : /var/chem/msv1.i/2040417.s.b/8260Bw1.m
Meth Date : 04-May-2004 18:46 rsp Quant Type: ISTD
Cal Date : 17-APR-2004 12:01 Cal File: t8443.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: APP9.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
* 47 FLUOROBENZENE	96	6.013	6.013	(1.000)	1178942	50.0000		
18 2-Chloropropene	41	4.170	4.170	(0.693)	961509	50.0000	48.3	0(M)
* 71 CHLOROBENZENE-d5	82	8.137	8.137	(1.000)	650500	50.0000		
* 97 1,4-DICHLOROBENZENE-D4	152	10.261	10.261	(1.000)	405031	50.0000		
4 1-3 Butadiene	39	2.670	2.670	(0.444)	460085	50.0000	48.2	1094
8 Ethyl Ether	59	3.632	3.632	(0.604)	1376307	250.000	256	2721(M)
15 Acetonitrile	41	4.170	4.170	(0.693)	952163	250.000	256	2769(MH)
16 Allyl chloride	39	4.164	4.164	(0.692)	529163	50.0000	49.3	2776
26 tert-Butyl Alcohol	59	4.376	4.376	(0.728)	34899	50.0000	51.1	2394(MH)
29 Chloroprene	53	4.857	4.857	(0.808)	678240	50.0000	49.8	4138
35 Propionitrile	54	5.343	5.343	(0.889)	229122	250.000	248	3571(H)
27 Isopropyl Ether	45	4.794	4.794	(0.797)	2200934	50.0000	48.9	2685
33 Ethyl Acetate	43	5.246	5.246	(0.872)	2365845	250.000	238	2759(M)
28 2-Butanol	45	5.246	5.246	(0.872)	385732	300.000	284	1342(MH)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
40 n-Butanol	56	6.179	6.179	(1.028)	77358	250.000	228	4129(M)
53 2-3 Dichloro-1-Proprene	75	6.454	6.454	(1.073)	755078	50.0000	48.8	3252(MH)
45 Isobutyl Alcohol	43	5.733	5.733	(0.953)	132137	250.000	268	2750(MH)
55 1,4- Dioxane	58	6.517	6.517	(1.084)	116033	1250.00	1310	3447(M)
64 Ethyl Methacrylate	41	7.278	7.278	(0.894)	719895	50.0000	50.3	3002
82 Cyclohexanone	55	9.116	9.116	(1.120)	197022	100.000	105	6068
63 Methyl Methacrylate	69	7.290	7.290	(1.212)	725115	50.0000	50.4	2968

QC Flag Legend

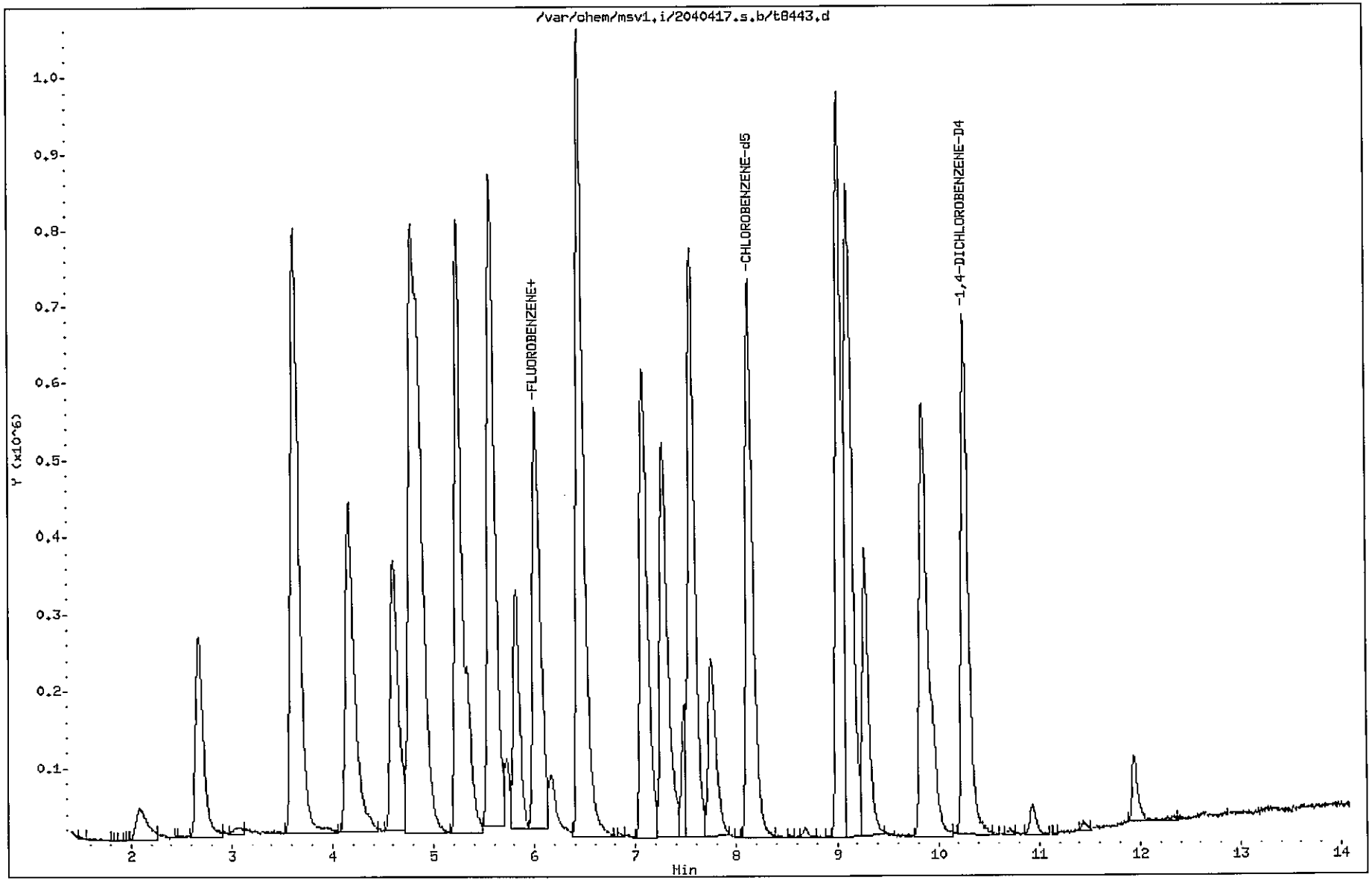
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

000098

Data File: /var/chem/msv1.i/2040417.s.b/t8443.d
Date : 17-APR-2004 12:01
Client ID: V1APP050 5-9-04
Sample Info: 1203HV1APP050 5-9-04
Purge Volume: 5.0
Column phase: DB-624-30M

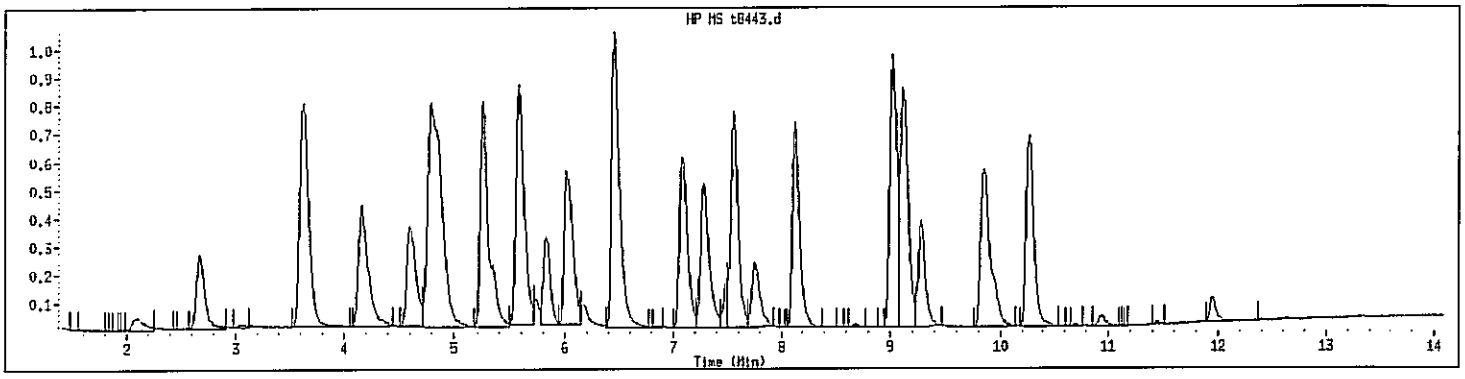
Instrument: msv1.i

Operator: RSP
Column diameter: 0.53



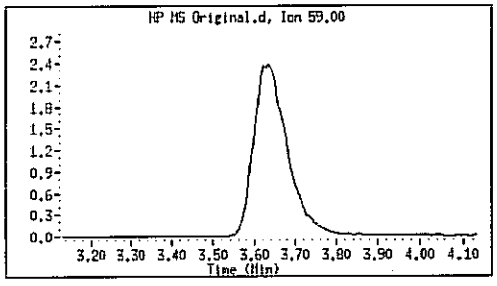
MANUAL INTEGRATION GRAPHIC REPORT

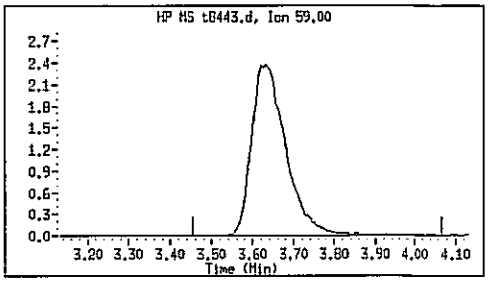
Lab ID	: 1203	SampleType	: CALIB_3
Injection Date	: 17-APR-2004 12:01	Instrument	: msv1.i
Operator	: RSP		
Sample Info	: 1203*V1APP050 5-9-04		
Misc Info	: MSV~4588~*1*KCB		
Method	: /var/chem/msv1.i/2040417.s.b/8260Bw1.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: HP RTE	Compound Sublist	: APP9



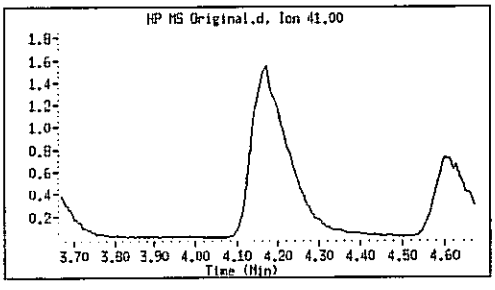
Original Final

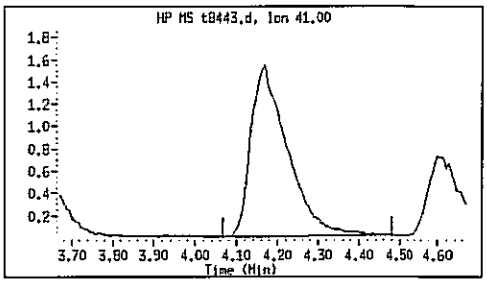
8 Ethyl Ether CAS#: 60-29-7





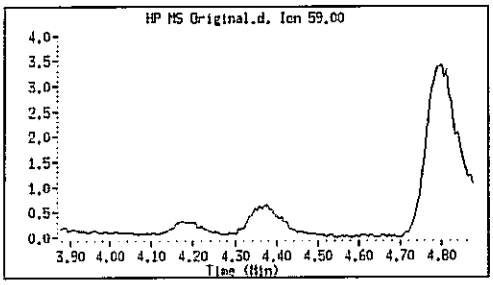
15 Acetonitrile CAS#: 75-05-8

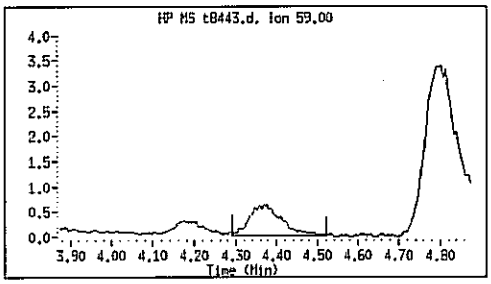




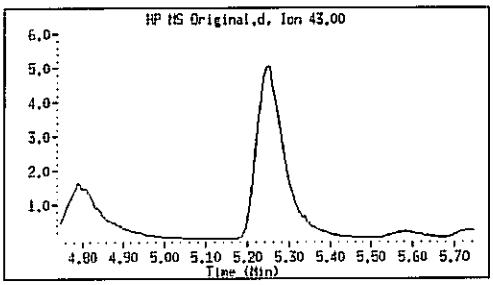
Original Final

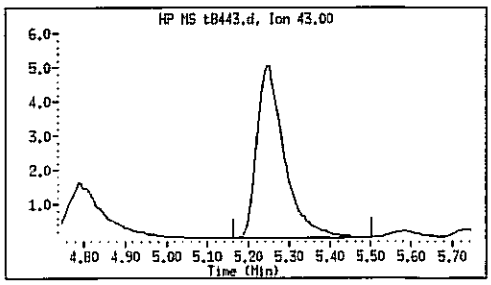
26 tert-Butyl Alcohol CAS#: 75-65-0



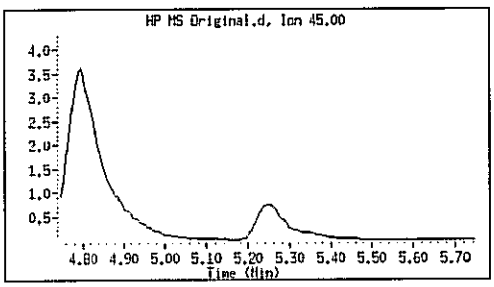


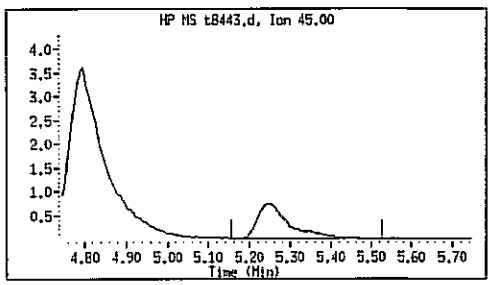
33 Ethyl Acetate CAS#: 141-78-6



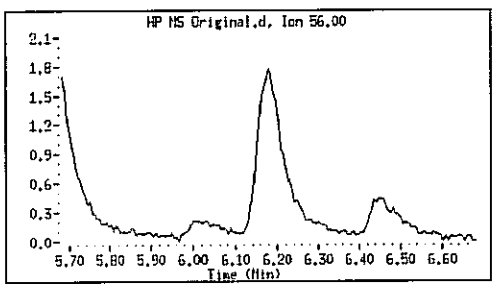


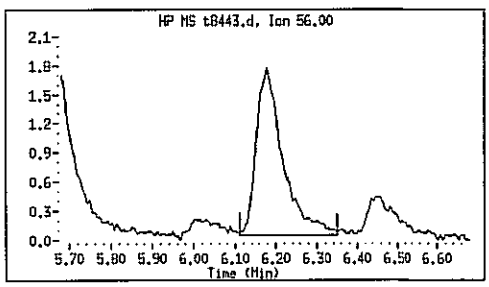
28 2-Butanol CAS#: 15892-23-6



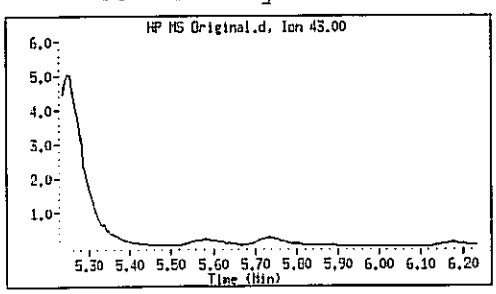


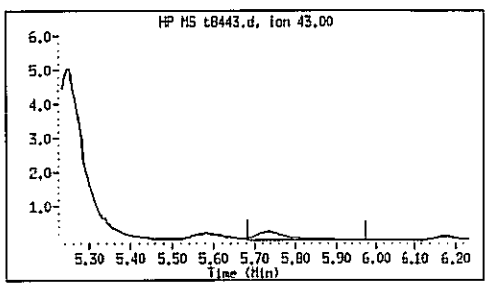
40 n-Butanol CAS#: 71-36-3





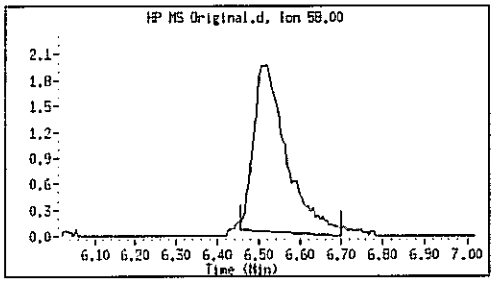
45 Isobutyl Alcohol CAS#: 78-83-1

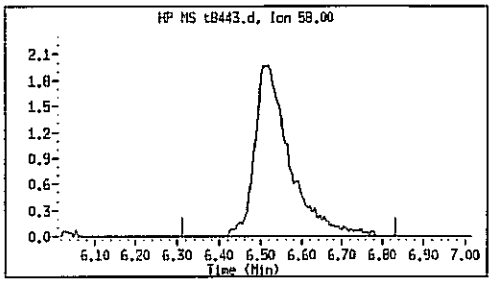




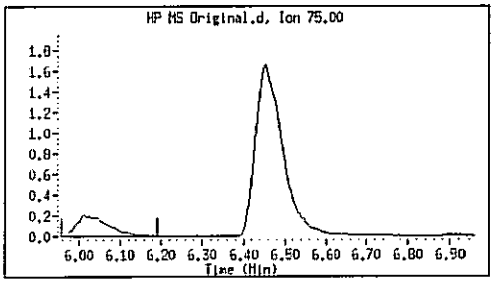
Original Final

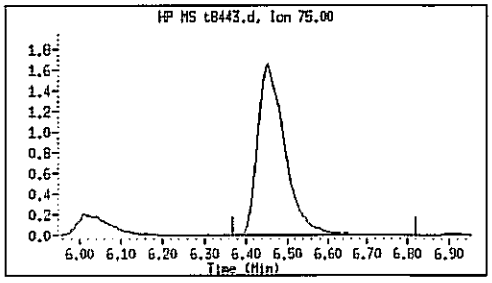
55 1,4- Dioxane CAS#: 123-91-1



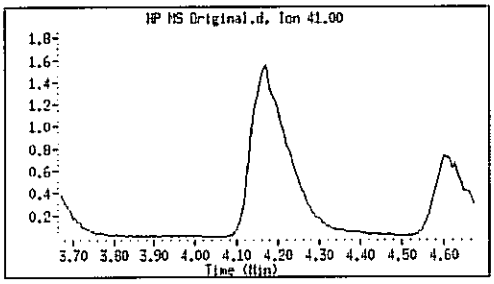


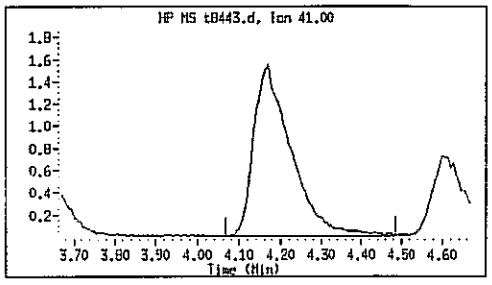
53 2-3 Dichloro-1-Proprene CAS#: 78-88-6





18 2-Chloropropene CAS#: 557-98-2





GCAL, Inc.

Data file : /var/chem/msv1.i/2040417.s.b/t8444.d
Lab Smp Id: 1204 Client Smp ID: V1APP100 5-9-04
Inj Date : 17-APR-2004 12:24
Operator : RSP Inst ID: msv1.i
Smp Info : 1204*V1APPD100 5-9-04
Misc Info : MSV~4588~*1*KCB
Comment :
Method : /var/chem/msv1.i/2040417.s.b/8260Bw1.m
Meth Date : 04-May-2004 18:46 rsp Quant Type: ISTD
Cal Date : 17-APR-2004 12:24 Cal File: t8444.d
Als bottle: 13 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: APP9.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	ON-COL (ppb)	SIMILARITY
* 47 FLUOROBENZENE	96	6.016	6.016	(1.000)	1238611	50.0000		
18 2-Chloropropene	41	4.167	4.167	(0.693)	1971877	100.000	94.4	0 (M)
* 71 CHLOROBENZENE-d5	82	8.123	8.123	(1.000)	659461	50.0000		
* 97 1,4-DICHLOROBENZENE-D4	152	10.270	10.270	(1.000)	420417	50.0000		
4 1-3 Butadiene	39	2.678	2.678	(0.445)	942151	100.000	93.9	1109
8 Ethyl Ether	59	3.629	3.629	(0.603)	2698940	500.000	478	3010 (M)
15 Acetonitrile	41	4.167	4.167	(0.693)	1857625	500.000	475	2766 (H)
16 Allyl chloride	39	4.167	4.167	(0.693)	1088001	100.000	96.4	2766
26 tert-Butyl Alcohol	59	4.373	4.373	(0.727)	67841	100.000	94.6	3010
29 Chloroprene	53	4.854	4.854	(0.807)	1380037	100.000	96.4	4163
35 Propionitrile	54	5.340	5.340	(0.888)	478722	500.000	493	3540 (H)
27 Isopropyl Ether	45	4.791	4.791	(0.796)	4438470	100.000	93.8	2715
33 Ethyl Acetate	43	5.243	5.243	(0.872)	5116082	500.000	489	2804 (M)
26 2-Butanol	45	5.237	5.237	(0.871)	820313	600.000	575	1276 (AMH)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
40 n-Butanol	56	6.171	6.171	(1.026)	163271	500.000	457	4092 (M)
53 2-3 Dichloro-1-Proprene	75	6.457	6.457	(1.073)	1513183	100.000	93.1	3261 (MH)
45 Isobutyl Alcohol	43	5.724	5.724	(0.951)	281066	500.000	516	2831 (M)
55 1,4- Dioxane	58	6.514	6.514	(1.083)	228760	2500.00	2460	3411
64 Ethyl Methacrylate	41	7.264	7.264	(0.894)	1508612	100.000	104	2949
62 Cyclohexanone	55	9.096	9.096	(1.120)	374086	200.000	196	5990 (M)
63 Methyl Methacrylate	69	7.270	7.270	(1.208)	1541293	100.000	102	2937

QC Flag Legend

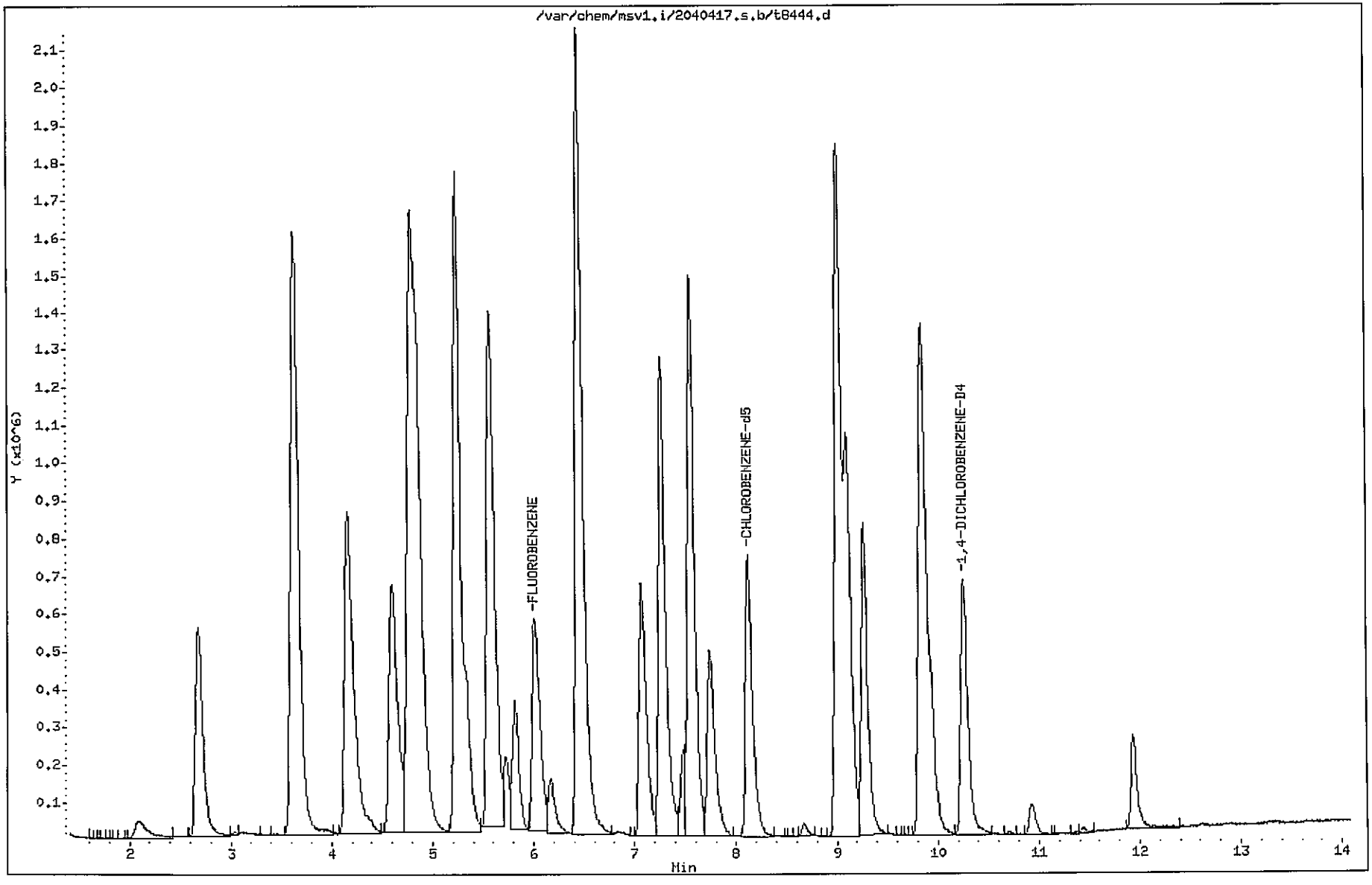
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /var/chem/msv1.i/2040417.s.b/t8444.d
Date : 17-APR-2004 12:24
Client ID: V1APP100 5-9-04
Sample Info: 1204%V1APPD100 5-9-04
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

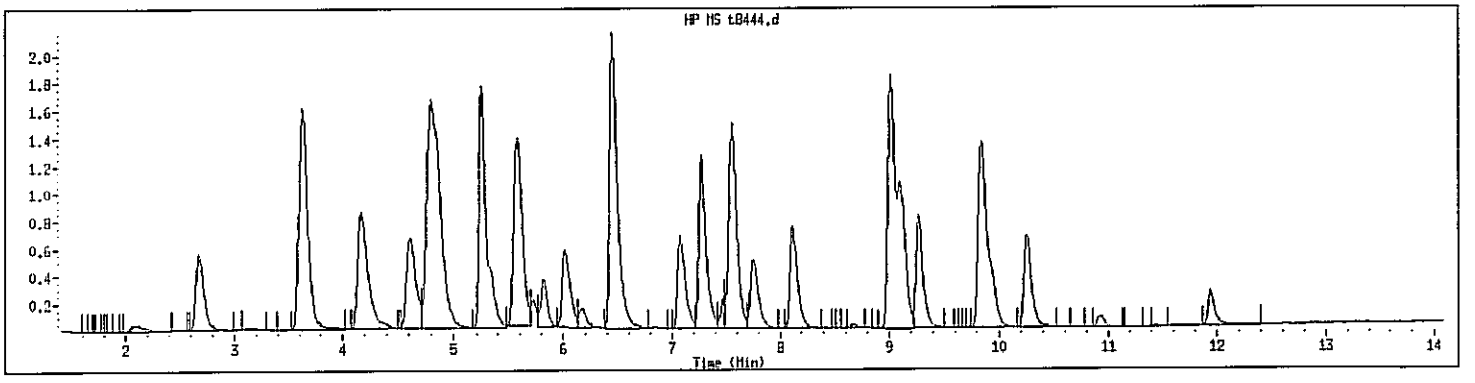
Operator: RSP
Column diameter: 0.53

000104



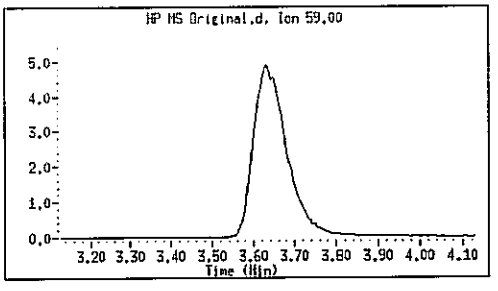
MANUAL INTEGRATION GRAPHIC REPORT

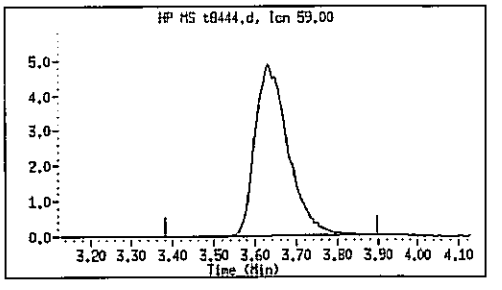
Lab ID	: 1204	SampleType	: CALIB_4
Injection Date	: 17-APR-2004 12:24	Instrument	: msv1.i
Operator	: RSP		
Sample Info	: 1204*V1APPD100 5-9-04		
Misc Info	: MSV~4588~*1*KCB		
Method	: /var/chem/msv1.i/2040417.s.b/8260Bw1.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: HP RTE	Compound Sublist	: APP9



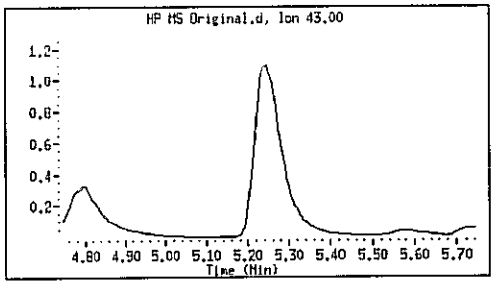
Original Final

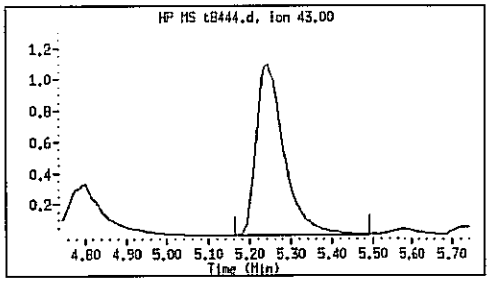
8 Ethyl Ether CAS#: 60-29-7





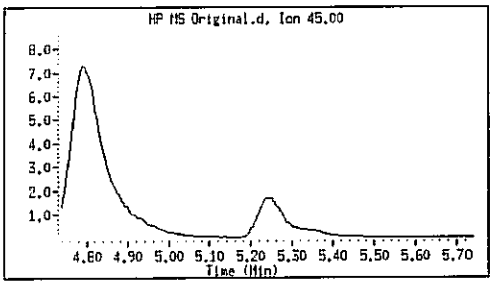
33 Ethyl Acetate CAS#: 141-78-6

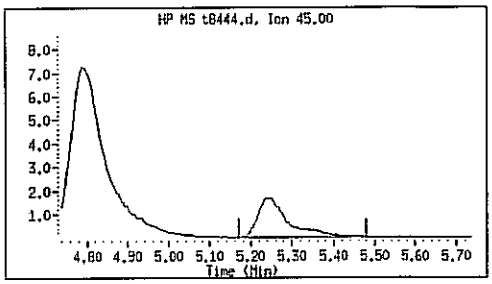




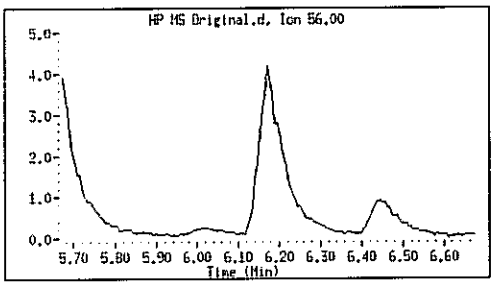
Original | Final

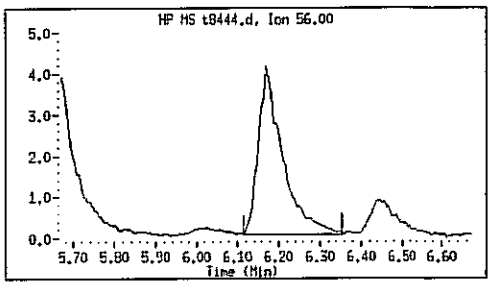
28 2-Butanol CAS#: 15892-23-6



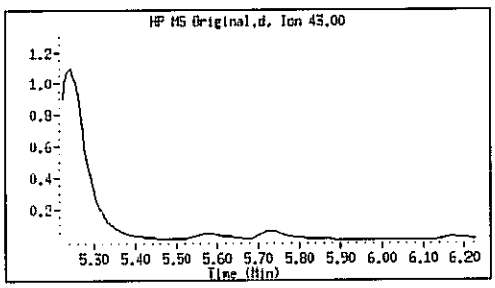


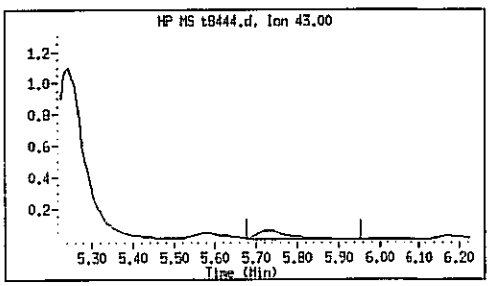
40 n-Butanol CAS#: 71-36-3



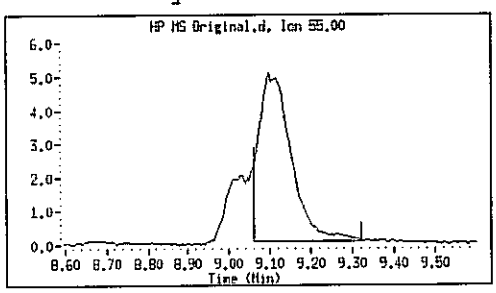


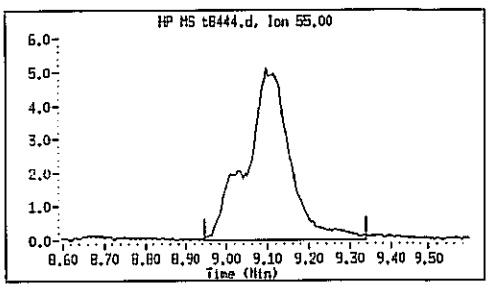
45 Isobutyl Alcohol CAS#: 78-83-1



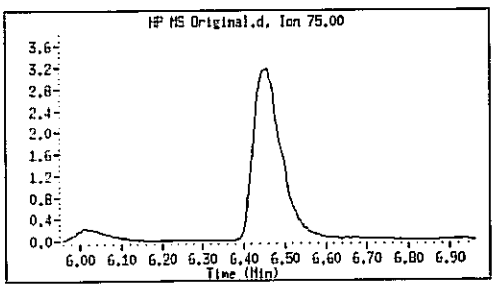


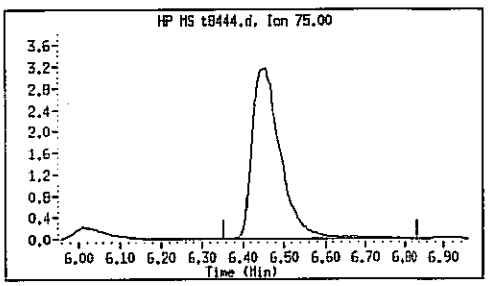
82 Cyclohexanone CAS#: 108-94-1





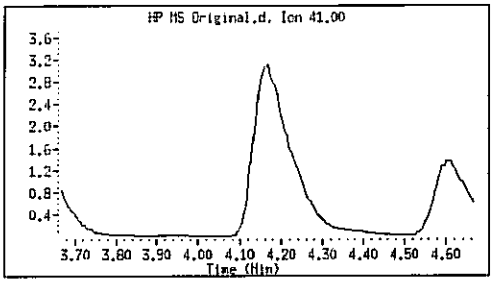
53 2-3 Dichloro-1-Proprene CAS#: 78-88-6

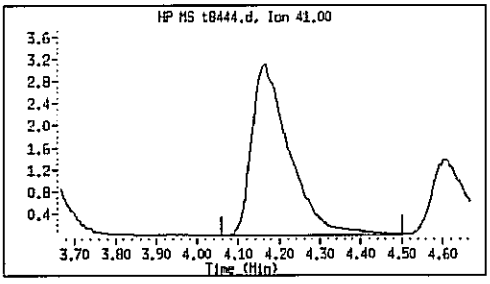




Original Final

18 2-Chloropropene CAS#: 557-98-2





GCAL, Inc.

Data file : /var/chem/msv1.i/2040417.s.b/t8445.d
Lab Smp Id: 1205 Client Smp ID: V1APP200 5-9-04
Inj Date : 17-APR-2004 12:47
Operator : RSP Inst ID: msv1.i
Smp Info : 1205*V1APP200 5-9-04
Misc Info : MSV~4588~*1*KCB
Comment :
Method : /var/chem/msv1.i/2040417.s.b/8260Bw1.m
Meth Date : 04-May-2004 18:46 rsp Quant Type: ISTD
Cal Date : 17-APR-2004 12:47 Cal File: t8445.d
Als bottle: 14 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: APP9.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	ON-COL (ppb)	SIMILARITY
* 47 FLUOROBENZENE	96	6.013	6.013	(1.000)	1220819	50.0000		(M)
19 2-Chloropropene	41	4.140	4.140	(0.689)	3771808	200.000	183	0(M)
* 71 CHLOROBENZENE-d5	82	8.136	8.136	(1.000)	688810	50.0000		
* 97 1,4-DICHLOROBENZENE-D4	152	10.255	10.255	(1.000)	396205	50.0000		
4 1-3 Butadiene	39	2.675	2.675	(1.000)	1868217	200.000	189	1090
8 Ethyl Ether	59	3.625	3.625	(0.603)	4618919	1000.00	829	3029(M)
15 Acetonitrile	41	4.140	4.140	(0.689)	3757724	1000.00	974	2712(MH)
16 Allyl chloride	39	4.152	4.152	(1.000)	2089966	200.000	188	2757
26 tert-Butyl Alcohol	59	4.381	4.381	(1.000)	129744	200.000	183	3029
29 Chloroprene	53	4.850	4.850	(1.000)	2600393	200.000	184	4102
35 Propionitrile	54	5.337	5.337	(1.000)	945927	1000.00	988	3445(H)
27 Isopropyl Ether	45	4.787	4.787	(1.000)	8294490	200.000	178	2722
33 Ethyl Acetate	43	5.240	5.240	(0.871)	9281384	1000.00	900	2805(M)
28 2-Butanol	45	5.240	5.240	(0.871)	1523743	1200.00	1080	1289(AMH)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
40 n-Butanol	56	6.173	6.173	(1.027)	340682	1000.00	966	4077(M)
53 2-3 Dichloro-1-Proprene	75	6.448	6.448	(1.000)	2885098	200.000	180	3215
45 Isobutyl Alcohol	43	5.732	5.732	(0.953)	529076	1000.00	991	2805(M)
55 1,4- Dioxane	58	6.505	6.505	(1.000)	476708	5000.00	5190	3371(A)
64 Ethyl Methacrylate	41	7.283	7.283	(0.895)	3012755	200.000	199	2900
82 Cyclohexanone	55	9.110	9.110	(1.120)	789342	400.000	397	5762
63 Methyl Methacrylate	69	7.278	7.278	(1.000)	3046840	200.000	205	2914

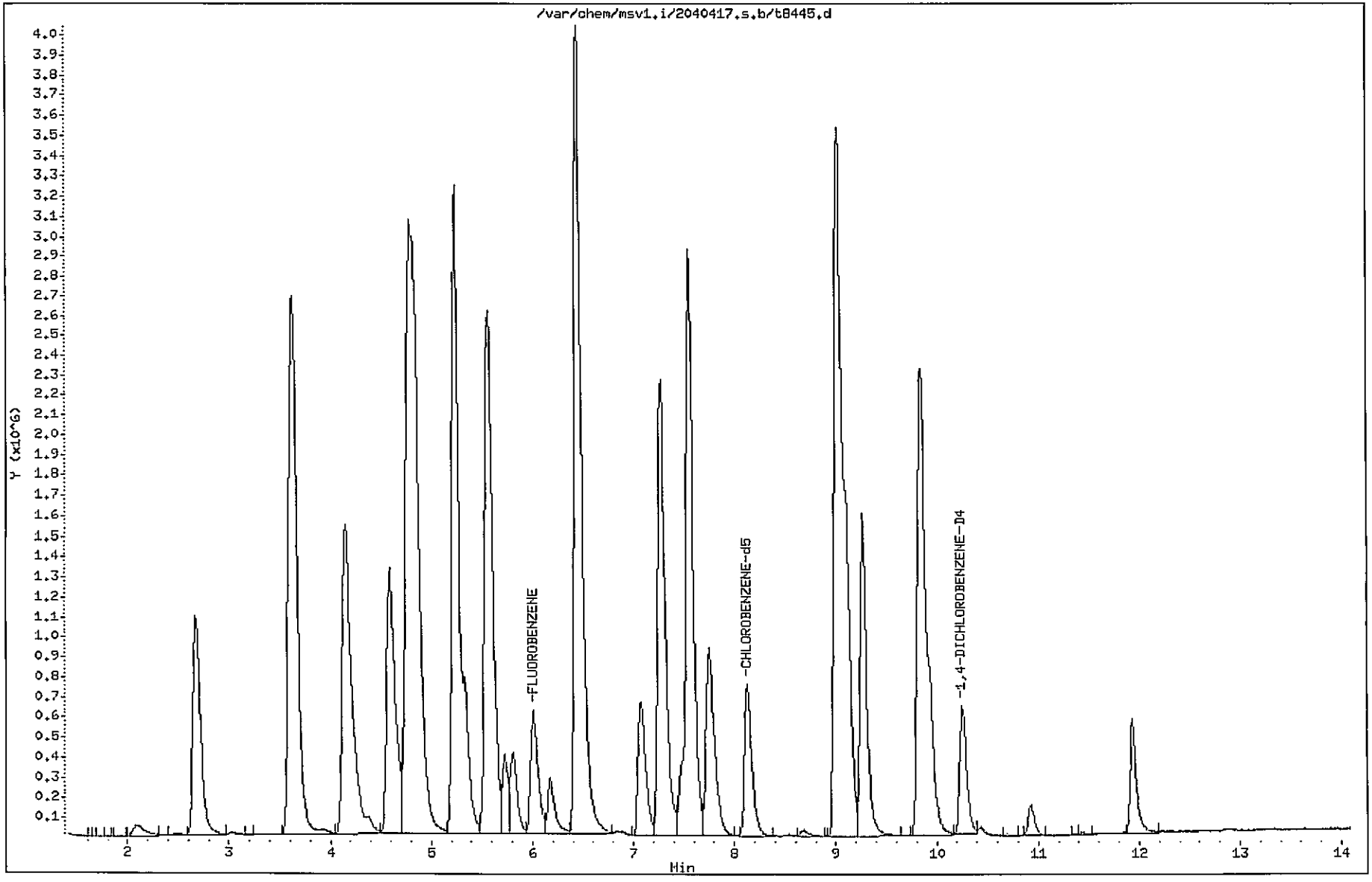
QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /var/chem/msv1.i/2040417.s.b/t8445.d
Date : 17-APR-2004 12:47
Client ID: V1APP200 5-9-04
Sample Info: 1205MV1APP200 5-9-04
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i
Operator: RSP
Column diameter: 0.53

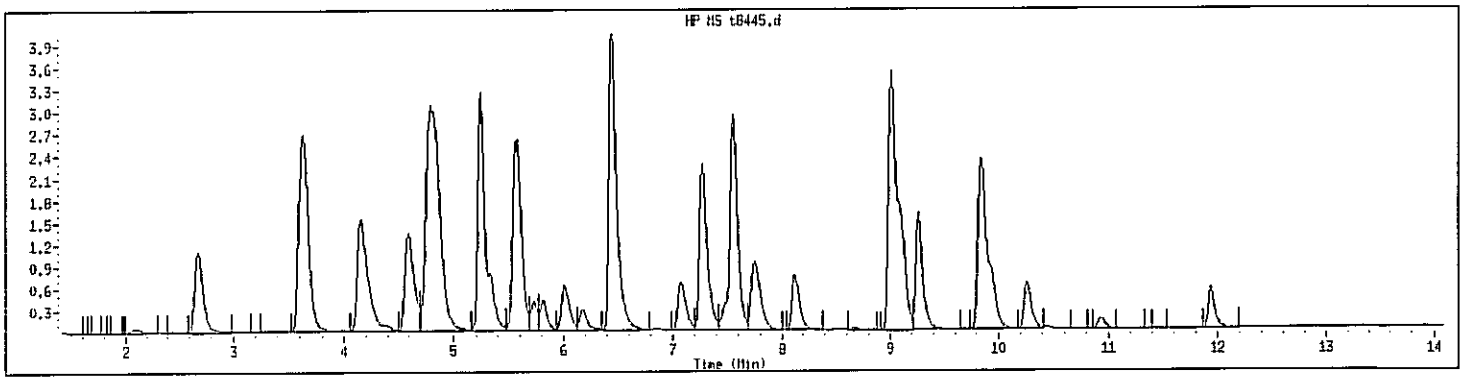
000110



Data file : /var/chem/msv1.i/2040417.s.b/t8445.d
Report Date: 05/04/2004 18:46

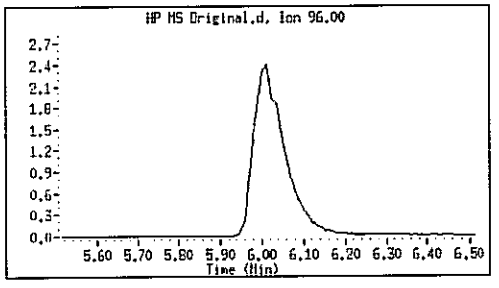
MANUAL INTEGRATION GRAPHIC REPORT

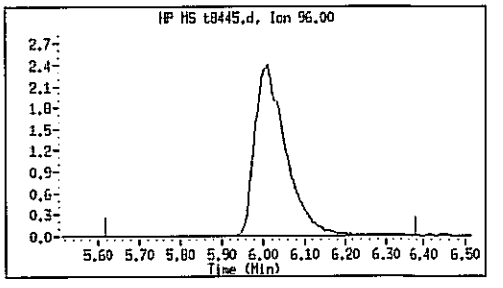
Lab ID	: 1205	SampleType	: CALIB_5
Injection Date	: 17-APR-2004 12:47	Instrument	: msv1.i
Operator	: RSP		
Sample Info	: 1205*V1APP200 5-9-04		
Misc Info	: MSV~4588~*1*KCB		
Method	: /var/chem/msv1.i/2040417.s.b/8260Bw1.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: HP RTE	Compound Sublist	: APP9



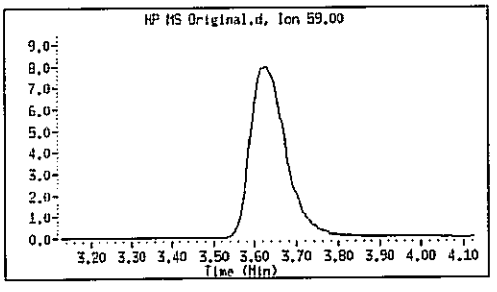
Original | Final

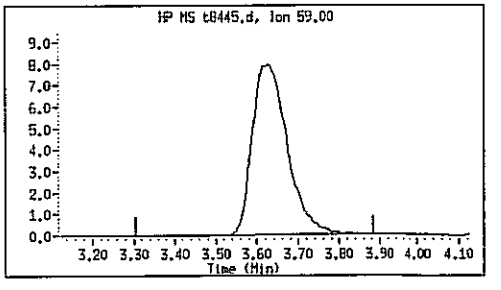
* 47 FLUOROBENZENE CAS#: 462-06-6





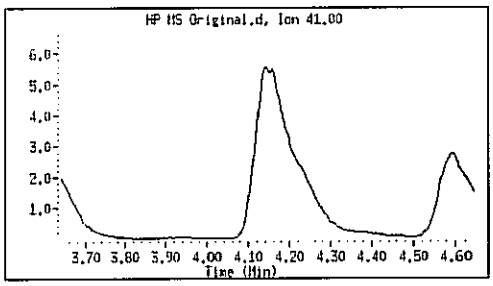
8 Ethyl Ether CAS#: 60-29-7

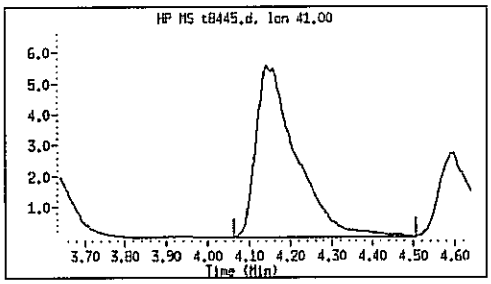




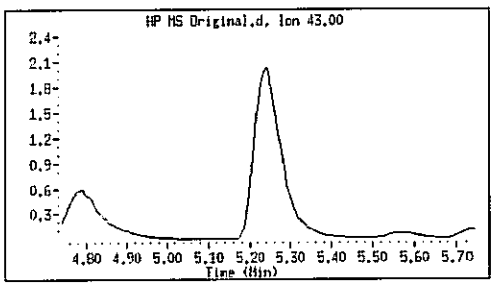
Original | Final

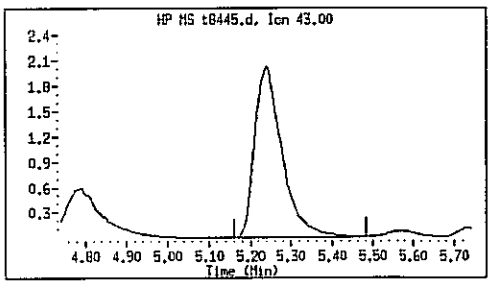
15 Acetonitrile CAS#: 75-05-8



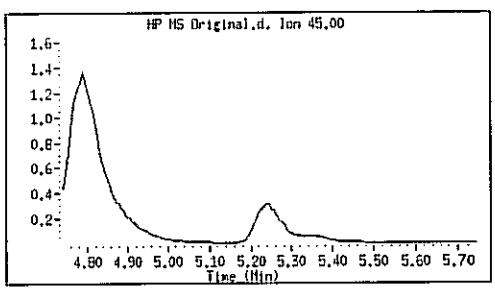


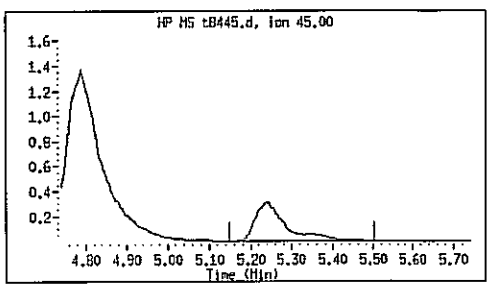
33 Ethyl Acetate CAS#: 141-78-6



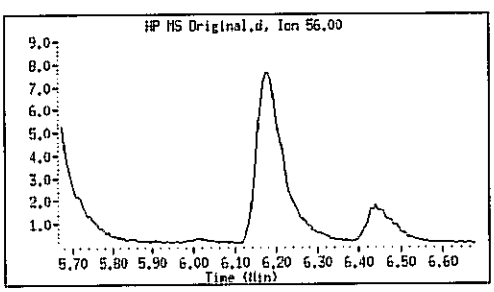


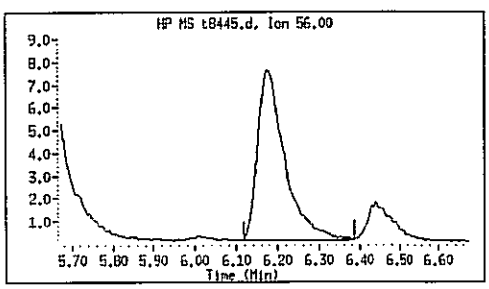
28 2-Butanol CAS#: 15892-23-6



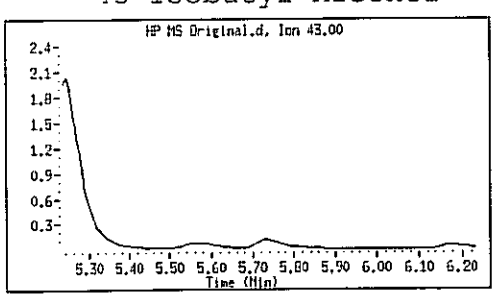


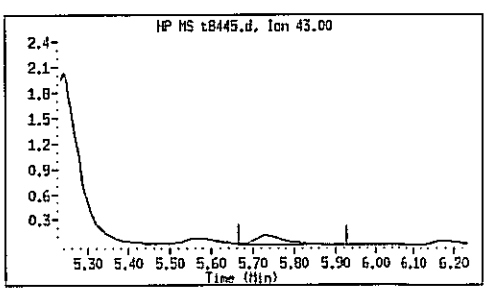
40 n-Butanol CAS#: 71-36-3





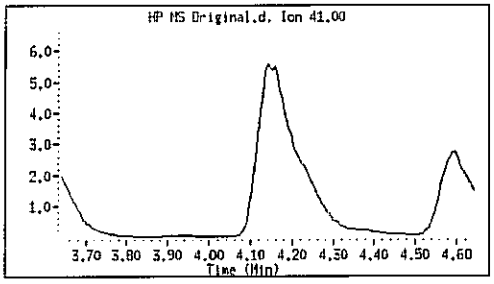
45 Isobutyl Alcohol CAS#: 78-83-1

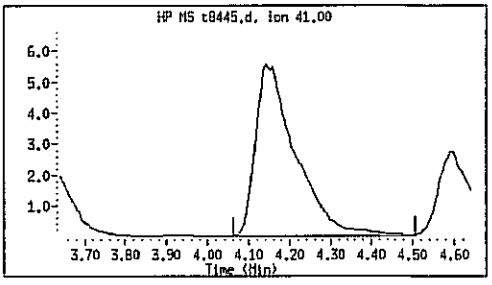




Original Final

18 2-Chloropropene CAS#: 557-98-2





Data file : /var/chem/msv1.i/2040417.s.b/t8438.d
Report Date: 04/21/2004 23:31

Gulf Coast Analytical Laboratories, Inc.

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: ICV
Level: LOW
Data Type: MS DATA
SpikeList File: ICV.spk
Sublist File: 8260b.sub
Method File: /var/chem/msv1.i/2040417.s.b/8260Bw1.m
Misc Info: MSV~4588~*1*RJO

Client SDG: 2040417.s
Fraction: VOA
Client Smp ID:
Operator: KCB
Sample Type: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Dichlorodifluoromethane	50.0	55.2	110.38	70-130
2 Chloromethane ++	50.0	59.0	118.04	70-130
3 Vinyl Chloride +	50.0	52.4	104.72	70-130
5 Bromomethane	50.0	41.0	81.91	70-130
6 Chloroethane	50.0	57.1	114.29	70-130
7 Trichlorofluoromethane	50.0	50.7	101.33	70-130
9 Acrolein	250	405	161.99*	70-130
10 1,1,2Trichlotrifluoroethane	50.0	48.6	97.29	70-130
11 1,1-Dichloroethene +	50.0	44.4	88.73	70-130
12 Acetone	50.0	56.2	112.44	70-130
13 Methyl Iodide	50.0	38.8	77.51	70-130
14 Carbon Disulfide	50.0	49.6	99.25	70-130
17 Methylene Chloride	50.0	50.6	101.21	70-130
19 trans-1,2-Dichloroethene	50.0	51.6	103.22	70-130
21 MTBE	50.0	51.2	102.39	70-130
22 Acrylonitrile	250	313	125.16	70-130
24 1,1-Dichloroethane ++	50.0	41.7	83.34	70-130
25 Vinyl Acetate	50.0	58.9	117.70	70-130
30 cis-1,2-Dichloroethene	50.0	50.5	101.03	70-130
31 2,2-Dichloropropane	50.0	51.6	103.25	70-130
32 2-Butanone	50.0	58.9	117.70	70-130
34 Bromochloromethane	50.0	43.0	86.02	70-130
37 1,1,1-Trichloroethane	50.0	48.8	97.56	70-130
39 Carbon Tetrachloride	50.0	48.6	97.19	70-130
41 Chloroform +	50.0	46.6	93.20	70-130
42 1,1-Dichloropropene	50.0	52.6	105.14	70-130
44 Benzene	50.0	49.9	99.79	70-130
46 1,2-Dichloroethane	50.0	54.4	108.77	70-130
49 Trichloroethene	50.0	45.4	90.74	70-130
51 1,2-Dichloropropane +	50.0	51.7	103.40	70-130

Data file : /var/chem/msv1.i/2040417.s.b/t8438.d
Report Date: 04/21/2004 23:31

SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
52	Dibromomethane	50.0	47.7	95.48	70-130
54	Bromodichloromethane	50.0	50.6	101.23	70-130
56	2-Chloroethyl vinyl ether	50.0	55.3	110.58	70-130
58	cis-1,3-Dichloropropene	50.0	51.9	103.78	70-130
59	4-methyl-2-pentanone	50.0	62.6	125.17	70-130
61	Toluene +	50.0	49.8	99.52	70-130
62	trans-1,3-Dichloropropene	50.0	52.2	104.43	70-130
65	1,1,2-Trichloroethane	50.0	48.9	97.75	70-130
66	Tetrachloroethene	50.0	47.7	95.46	70-130
67	1,3-Dichloropropane	50.0	52.5	105.00	70-130
68	2-Hexanone	50.0	70.0	139.94*	70-130
69	Dibromochloromethane	50.0	47.7	95.36	70-130
70	1,2-Dibromoethane(EDB)	50.0	43.6	87.13	70-130
72	Chlorobenzene ++	50.0	48.9	97.89	70-130
73	Ethylbenzene +	50.0	52.0	104.00	70-130
74	1,1,1,2-Tetrachloroethane	50.0	53.0	106.01	70-130
75	p,m-Xylene	100	105	104.69	70-130
76	o-Xylene	50.0	51.4	102.76	70-130
77	Styrene	50.0	52.0	104.09	70-130
78	Bromoform ++	50.0	50.3	100.68	70-130
79	Isopropylbenzene	50.0	54.0	108.09	70-130
81	1,1,2,2-Tetrachloroethane++	50.0	47.1	94.29	70-130
83	trans-1,4-Dichloro-2-Butene	50.0	73.2	146.37*	70-130
84	Bromobenzene	50.0	56.4	112.83	70-130
85	1,2,3-Trichloropropane	50.0	49.6	99.10	70-130
86	n-Propylbenzene	50.0	58.2	116.46	70-130
87	2-Chlorotoluene	50.0	53.4	106.78	70-130
88	1,3,5-Trimethylbenzene	50.0	70.1	140.30*	70-130
90	4-Chlorotoluene	50.0	53.5	107.05	70-130
91	tert-butylbenzene	50.0	60.9	121.83	70-130
92	p-Isopropyltoluene	50.0	57.8	115.68	70-130
93	1,2,4-Trimethylbenzene	50.0	68.2	136.46*	70-130
94	sec-Butylbenzene	50.0	60.7	121.44	70-130
96	1,3-Dichlorobenzene	50.0	49.3	98.60	70-130
98	1,4-Dichlorobenzene	50.0	49.2	98.38	70-130
100	n-Butylbenzene	50.0	75.1	150.25*	70-130
102	1,2-Dichlorobenzene	50.0	47.8	95.67	70-130
106	1,2-Dibromo-3-Chloropropane	50.0	52.7	105.42	70-130
108	1,2,4-Trichlorobenzene	50.0	63.2	126.33	70-130
109	Hexachlorobutadiene	50.0	69.6	139.11*	70-130
110	Naphthalene	50.0	59.6	119.12	70-130
111	1,2,3-Trichlorobenzene	50.0	62.2	124.35	70-130

Data file : /var/chem/msv1.i/2040417.s.b/t8438.d
Report Date: 04/21/2004 23:31

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 36 Dibromofluoromethane	50.0	43.4	86.71	70-130
$ 43 1,2-Dichloroethane-d4	50.0	44.1	88.10	76-128
$ 60 Toluene-d8	50.0	46.8	93.65	83-112
$ 80 Bromofluorobenzene	50.0	48.3	96.56	78-115

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv1.i/2040417.s.b/t8438.d
Lab Smp Id: ICV
Inj Date : 17-APR-2004 10:05
Operator : KCB Inst ID: msv1.i
Smp Info : ICV
Misc Info : MSV~4588~*1*RJO
Comment :
Method : /var/chem/msv1.i/2040417.s.b/8260Bw1.m
Meth Date : 21-Apr-2004 23:29 sab Quant Type: ISTD
Cal Date : 16-APR-2004 17:40 Cal File: t8434.d
Als bottle: 12 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
1 Dichlorodifluoromethane	85	2.387	2.343	(0.395)	502472	55.1880	55.2	
2 Chloromethane ++	50	2.657	2.641	(0.439)	391407	59.0180	59.0	
3 Vinyl Chloride +	62	2.720	2.681	(0.449)	345624	52.3579	52.4	
5 Bromomethane	94	3.109	3.024	(0.514)	156002	40.9543	41.0	
6 Chloroethane	64	3.166	3.139	(0.523)	237206	57.1466	57.1	
7 Trichlorofluoromethane	101	3.389	3.339	(0.560)	417063	50.6670	50.7	
9 Acrolein	56	3.842	3.820	(0.635)	70427	404.976	405	(AR)
10 1,1,2Trichlotrifluoroethane	101	3.847	3.797	(0.636)	417354	48.6469	48.6	
11 1,1-Dichloroethene +	96	3.882	3.831	(0.641)	206559	44.3660	44.4	
12 Acetone	43	3.973	3.946	(0.657)	91102	56.2214	56.2	
13 Methyl Iodide	142	4.042	4.009	(0.668)	273168	38.7567	38.8	
14 Carbon Disulfide	76	4.082	4.043	(0.675)	719284	49.6248	49.6	
17 Methylene Chloride	49	4.323	4.278	(0.714)	558291	50.6068	50.6	
19 trans-1,2-Dichloroethene	61	4.500	4.461	(0.744)	444046	51.6115	51.6	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
	20 Methyl Acetate	43	4.208	4.616	(0.695)	261633	56.6882	56.7	2406(H)
	21 MTBE	73	4.489	4.461	(0.742)	734027	51.1925	51.2	5173
	22 Acrylonitrile	53	4.552	4.530	(0.752)	556474	312.888	313	(A)
	23 Hexane	57	4.643	4.604	(0.767)	470005	55.6430	55.6	3048(H)
	24 1,1-Dichloroethane ++	63	4.849	4.810	(0.801)	627169	41.6688	41.7	
	25 Vinyl Acetate	43	4.849	4.822	(0.801)	999265	58.8502	58.9	
	31 2,2-Dichloropropane	77	5.267	5.234	(0.870)	580083	51.6230	51.6	
	30 cis-1,2-Dichloroethene	61	5.267	5.234	(0.870)	646755	50.5126	50.5	
	32 2-Butanone	43	5.279	5.263	(0.872)	240281	58.8504	58.9	
	34 Bromochloromethane	128	5.445	5.423	(0.900)	153682	43.0109	43.0	
$	36 Dibromofluoromethane	111	5.588	5.572	(0.923)	373272	43.3565	43.4	4911
	37 1,1,1-Trichloroethane	97	5.605	5.589	(0.926)	514491	48.7795	48.8	
	38 Cyclohexane	56	5.611	5.589	(0.927)	675426	55.6697	55.7	4813
	39 Carbon Tetrachloride	117	5.708	5.680	(0.943)	410666	48.5949	48.6	
	41 Chloroform +	83	5.473	5.452	(0.904)	644285	46.6008	46.6	
	42 1,1-Dichloropropene	75	5.719	5.698	(0.945)	582818	52.5683	52.6	
$	43 1,2-Dichloroethane-d4	67	5.845	5.824	(0.966)	187586	44.0519	44.1	
	44 Benzene	78	5.863	5.847	(0.969)	1091655	49.8927	49.9	
	46 1,2-Dichloroethane	62	5.903	5.881	(0.975)	534111	54.3856	54.4	
*	47 FLUOROBENZENE	96	6.051	6.024	(1.000)	1056029	50.0000		
M	48 Total 1,2-Dichloroethene	61				1090801	102.124	102	
	49 Trichloroethene	130	6.286	6.259	(1.039)	345261	45.3720	45.4	
	50 Methyl Cyclohexane	83	6.395	6.367	(1.057)	501846	52.8264	52.8	6388
	51 1,2-Dichloropropane +	63	6.475	6.459	(1.070)	480995	51.7007	51.7	
	52 Dibromomethane	93	6.561	6.534	(1.084)	291034	47.7392	47.7	
	54 Bromodichloromethane	83	6.635	6.614	(1.096)	665391	50.6142	50.6	
	56 2-Chloroethyl vinyl ether	63	6.813	6.791	(1.126)	252180	55.2923	55.3	
	57 1-Bromr-2-chloroethana	144	6.887	6.866	(1.138)	70023	42.6197	42.6	3386
	58 cis-1,3-Dichloropropene	75	6.939	6.923	(1.147)	701359	51.8877	51.9	
	59 4-methyl-2-pentanone	43	7.019	6.997	(1.160)	695851	62.5829	62.6	
$	60 Toluene-d8	98	7.111	7.083	(1.000)	880164	46.8228	46.8	
	61 Toluene +	91	7.151	7.129	(1.000)	1167148	49.7581	49.8	
	62 trans-1,3-Dichloropropene	75	7.311	7.295	(1.000)	658978	52.2155	52.2	
M	143 1-3 Dichloropropene-Total	75				1360337	89.2212	89.2	0
	65 1,1,2-Trichloroethane	97	7.448	7.427	(1.000)	359437	48.8743	48.9	
	66 Tetrachloroethene	164	7.517	7.501	(1.000)	282008	47.7280	47.7	
	67 1,3-Dichloropropane	76	7.574	7.558	(1.000)	761241	52.4984	52.5	
	68 2-Hexanone	43	7.580	7.558	(1.000)	439208	69.9715	70.0	(R)
	69 Dibromochloromethane	129	7.735	7.713	(1.000)	466067	47.6776	47.7	
	70 1,2-Dibromoethane(EDB)	107	7.838	7.822	(1.000)	413670	43.5632	43.6	
*	71 CHLOROBENZENE-d5	82	8.158	8.125	(1.000)	586548	50.0000		(M)
	72 Chlorobenzene ++	112	8.175	8.159	(1.000)	804632	48.9464	48.9	
	73 Ethylbenzene +	106	8.215	8.199	(1.007)	339044	51.9986	52.0	(M)
	74 1,1,1,2-Tetrachloroethane	133	8.233	8.217	(1.000)	363657	53.0060	53.0	
	75 p,m-Xylene	106	8.307	8.297	(1.000)	1177238	104.693	105	
	76 o-Xylene	106	8.651	8.635	(1.000)	557227	51.3802	51.4	
	77 Styrene	104	8.668	8.652	(1.000)	977773	52.0444	52.0	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
	78 Bromoform ++	173	8.880	8.846	(1.000)	344676	50.3411	50.3	
	79 Isopropylbenzene	105	8.948	8.927	(1.000)	1469535	54.0470	54.0	
S	80 Bromofluorobenzene	174	9.137	9.127	(1.000)	360738	48.2822	48.3	
	81 1,1,2,2-Tetrachloroethane++	83	9.246	9.224	(0.898)	674316	47.1455	47.1	
	84 Bromobenzene	77	9.303	9.287	(0.904)	1215610	56.4130	56.4	
	83 trans-1,4-Dichloro-2-Butene	53	9.309	9.276	(0.904)	219067	73.1854	73.2	(R)
	85 1,2,3-Trichloropropane	75	9.326	9.293	(0.906)	830069	49.5504	49.6	
	86 n-Propylbenzene	91	9.326	9.304	(0.906)	1778279	58.2315	58.2	
	87 2-Chlorotoluene	91	9.469	9.447	(0.920)	1343009	53.3917	53.4	
	88 1,3,5-Trimethylbenzene	105	9.870	9.848	(0.959)	1116469	70.1494	70.1	(R)
	90 4-Chlorotoluene	91	9.567	9.551	(0.929)	1279406	53.5234	53.5	
	91 tert-butylbenzene	91	9.801	9.791	(0.952)	850728	60.9165	60.9	
	92 p-Isopropyltoluene	119	9.801	9.785	(0.952)	1167050	57.8422	57.8	
	93 1,2,4-Trimethylbenzene	105	9.870	9.848	(0.959)	1116469	68.2276	68.2	(R)
	94 sec-Butylbenzene	105	10.030	10.014	(0.974)	1521587	60.7184	60.7	
	96 1,3-Dichlorobenzene	146	10.236	10.203	(0.994)	561577	49.2985	49.3	
*	97 1,4-DICHLOROBENZENE-D4	152	10.294	10.272	(1.000)	396886	50.0000		
	98 1,4-Dichlorobenzene	146	10.328	10.295	(1.003)	672400	49.1895	49.2	
M	99 TOTAL XYLENE	106				1734465	156.074	156	
	100 n-Butylbenzene	91	10.620	10.587	(1.032)	1041035	75.1243	75.1	(R)
	102 1,2-Dichlorobenzene	146	10.752	10.713	(1.044)	601424	47.8340	47.8	
	106 1,2-Dibromo-3-Chloropropane	157	11.519	11.480	(1.119)	143175	52.7102	52.7	
	108 1,2,4-Trichlorobenzene	180	12.274	12.236	(1.192)	361789	63.1629	63.2	
	109 Hexachlorobutadiene	225	12.372	12.333	(1.202)	235873	69.5536	69.6	(R)
	110 Naphthalene	128	12.532	12.487	(1.217)	789360	59.5609	59.6	
	111 1,2,3-Trichlorobenzene	180	12.778	12.728	(1.241)	337322	62.1752	62.2	

QC Flag Legend

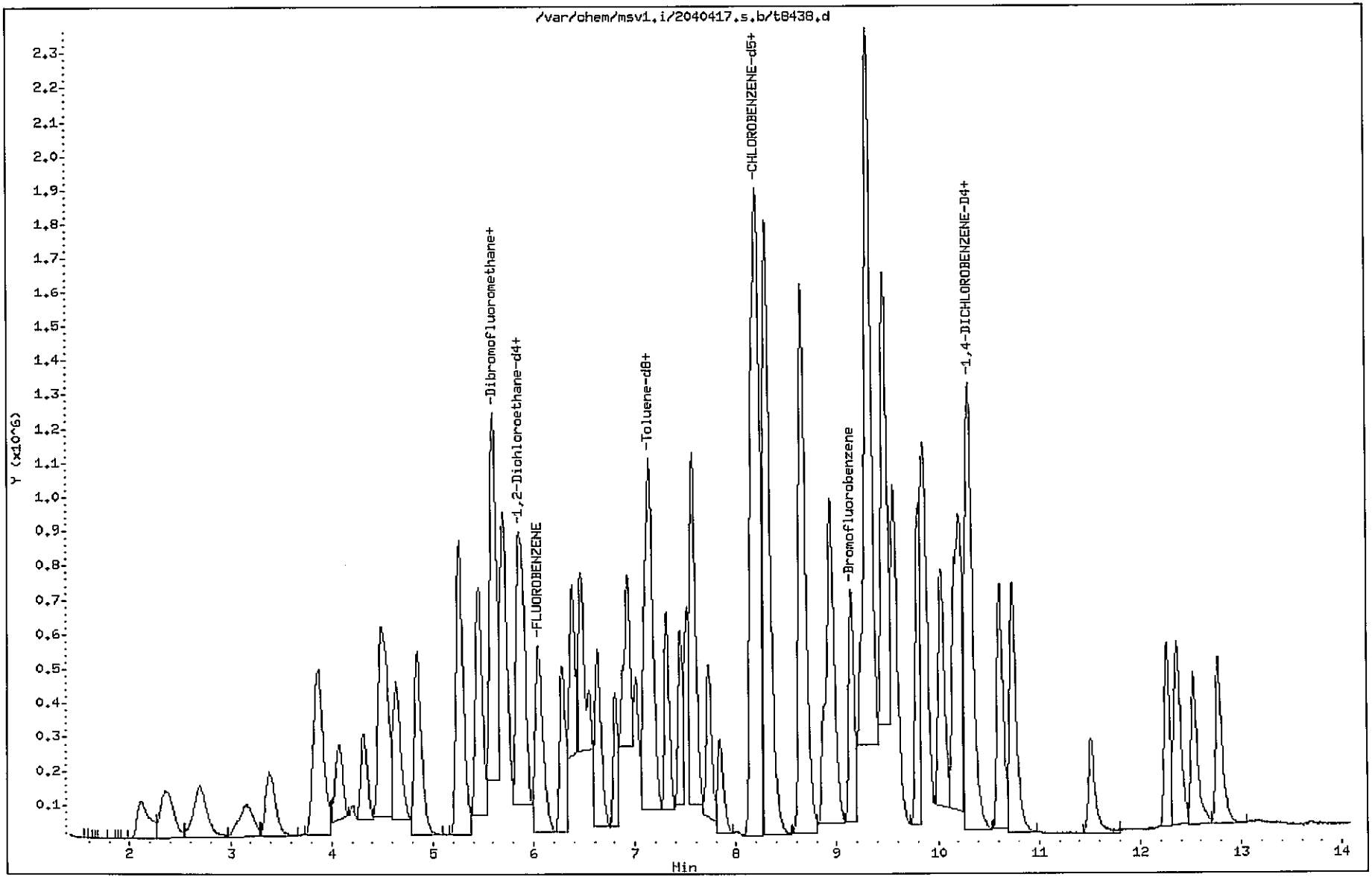
A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /var/chem/msv1.i/2040417.s.b/t8438.d
Date : 17-APR-2004 10:05
Client ID:
Sample Info: ICV
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

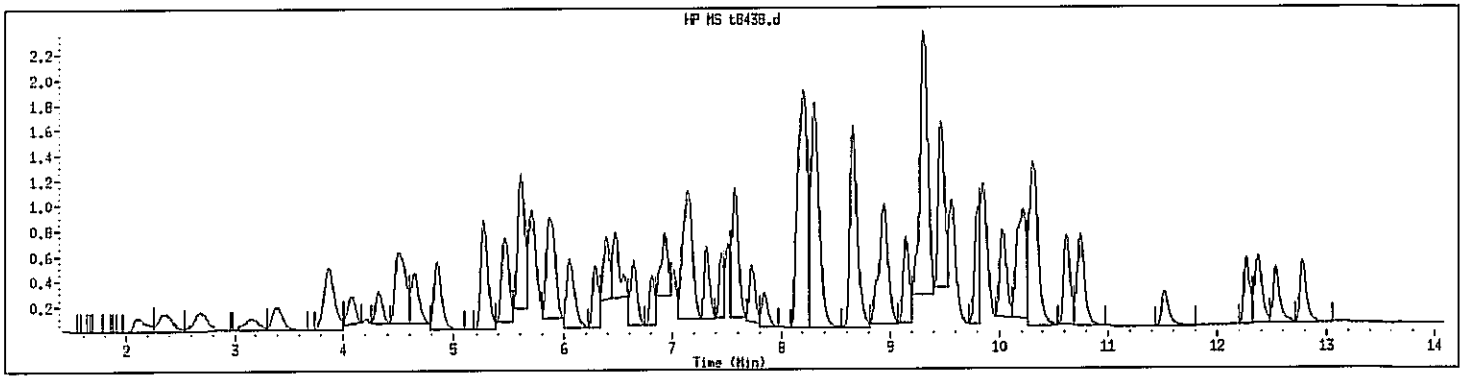
Operator: KCB
Column diameter: 0.53

000120



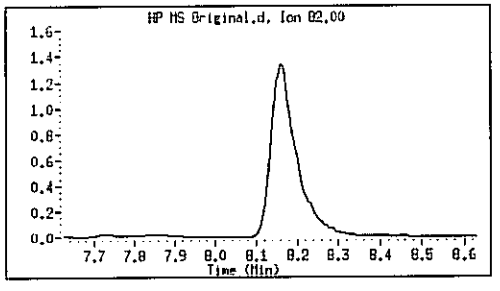
MANUAL INTEGRATION GRAPHIC REPORT

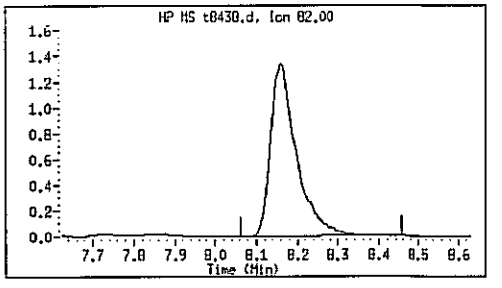
Lab ID	: ICV	SampleType	: LCS
Injection Date	: 17-APR-2004 10:05	Instrument	: msv1.i
Operator	: KCB		
Sample Info	: ICV		
Misc Info	: MSV~4588~*1*RJO		
Method	: /var/chem/msv1.i/2040417.s.b/8260Bw1.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: HP RTE	Compound Sublist	: 8260b



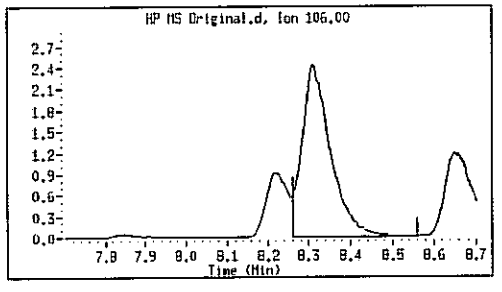
Original Final

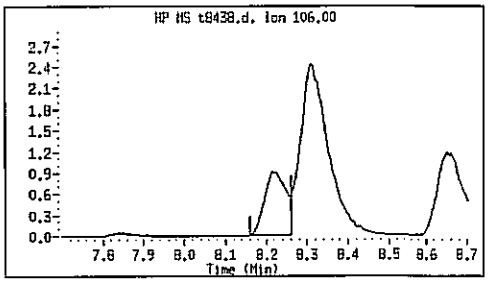
* 71 CHLOROBENZENE-d5 CAS#: 3114-55-4





73 Ethylbenzene + CAS#: 100-41-4





Data File: /var/chem/msv1.i/2040501.s.b/t9046.d

Date : 01-MAY-2004 09:54

Client ID: BFB

Instrument: msv1.i

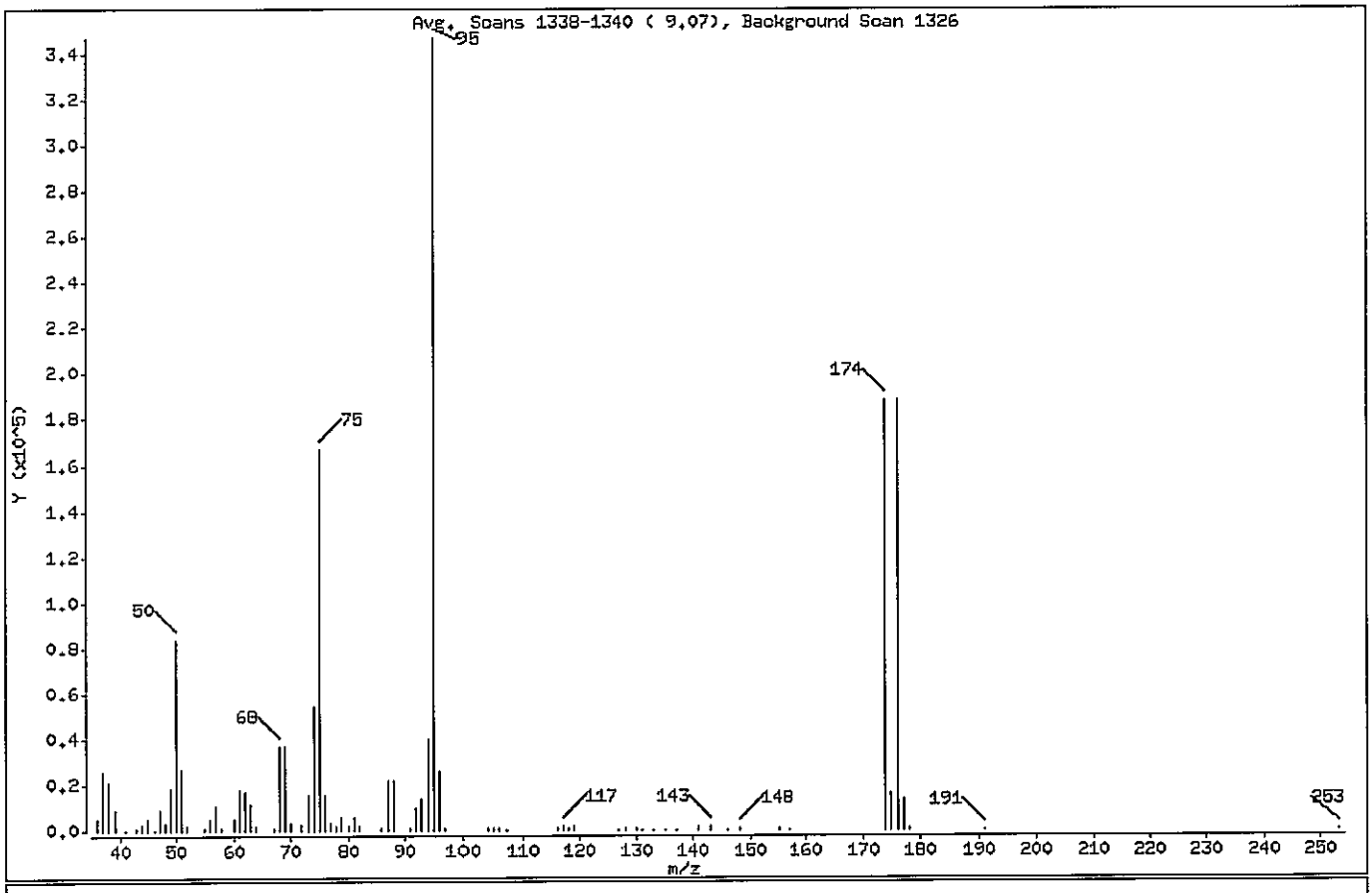
Sample Info: 1000xBFB

Operator: RJO

Column phase: DB-624-30M

Column diameter: 0.53

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	24.04
75	30.00 - 60.00% of mass 95	48.09
96	5.00 - 9.00% of mass 95	7.37
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	54.31
175	5.00 - 9.00% of mass 174	4.59 (8.46)
176	95.00 - 101.00% of mass 174	54.16 (99.73)
177	5.00 - 9.00% of mass 176	3.82 (7.05)

Data File: /var/chem/msv1.i/2040501.s.b/t9046.d

Date : 01-MAY-2004 09:54

Client ID: BFB

Instrument: msv1.i

Sample Info: 1000*BFB

Operator: RJO

Column phase: DB-624-30M

Column diameter: 0.53

Data File: t9046.d

Spectrum: Avg. Scans 1338-1340 (9.07), Background Scan 1326

Location of Maximum: 95.00

Number of points: 77

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	4509	61.00	17808	87.00	21808	131.00	142
37.00	25824	62.00	16496	88.00	21280	133.00	145
38.00	20688	63.00	11411	91.00	1003	135.00	175
39.00	8479	64.00	1200	92.00	9319	137.00	295
41.00	209	67.00	898	93.00	13529	141.00	1201
43.00	658	68.00	36512	94.00	40064	143.00	1443
44.00	2606	69.00	36488	95.00	347200	146.00	353
45.00	4574	70.00	3013	96.00	25592	148.00	544
46.00	146	72.00	2454	97.00	849	155.00	504
47.00	8888	73.00	15039	104.00	929	157.00	283
48.00	3078	74.00	54160	105.00	472	174.00	188544
49.00	18432	75.00	166976	106.00	1014	175.00	15944
50.00	83464	76.00	15381	107.00	160	176.00	188032
51.00	25976	77.00	3521	116.00	852	177.00	13250
52.00	1348	78.00	1896	117.00	1755	178.00	489
55.00	1101	79.00	5555	118.00	747	191.00	142
56.00	5072	80.00	1877	119.00	1360	253.00	170
57.00	10036	81.00	5591	127.00	342		
58.00	538	82.00	1439	128.00	1116		
60.00	4419	86.00	597	130.00	957		

Data File: /var/chem/msv1.i/2040501.s.b/t9046.d

Date : 01-MAY-2004 09:54

Client ID: BFB

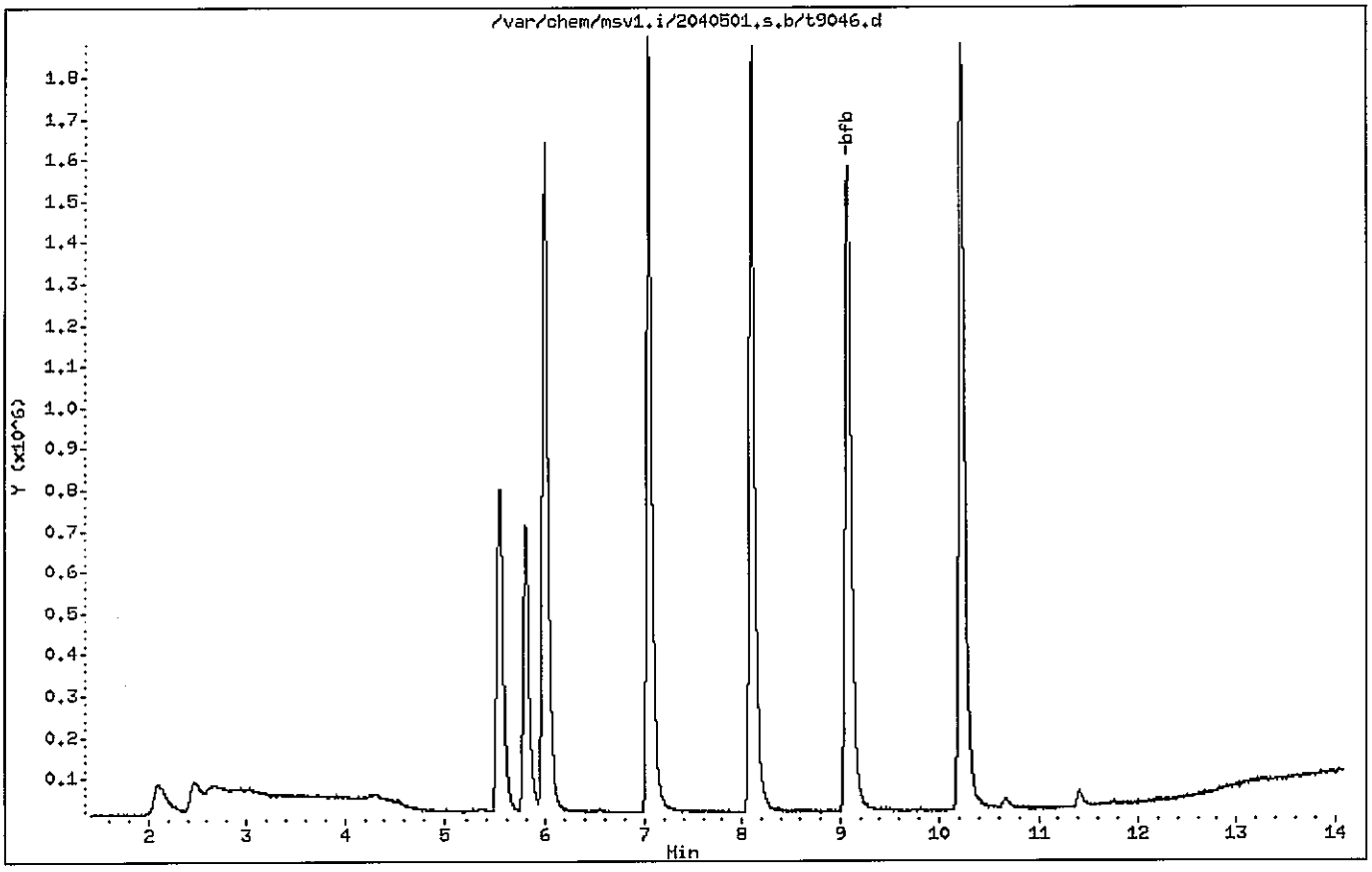
Instrument: msv1.i

Sample Info: 1000xBFB

Operator: RJD

Column phase: DB-624-30M

Column diameter: 0.53



GCAL, Inc.

Data file : /var/chem/msv1.i/2040501.s.b/t9047.d
Lab Smp Id: 1400 Client Smp ID: V1STD050
Inj Date : 01-MAY-2004 10:26
Operator : RJO Inst ID: msv1.i
Smp Info : 1400*V1STD050*5-12-1
Misc Info : MSV~4640~*1*RJO
Comment :
Method : /var/chem/msv1.i/2040501.s.b/8260Bw1.m
Meth Date : 01-May-2004 13:04 rjo Quant Type: ISTD
Cal Date : 30-APR-2004 17:51 Cal File: t9007.d
Als bottle: 13 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
1 Dichlorodifluoromethane	85	2.301	2.301	(0.384)	1261656	50.0000	53.0	
2 Chloromethane ++	50	2.599	2.599	(0.434)	1016253	50.0000	52.9	
3 Vinyl Chloride +	62	2.645	2.645	(0.441)	1004723	50.0000	52.6	
5 Bromomethane	94	3.045	3.045	(0.508)	557427	50.0000	53.6	
6 Chloroethane	64	3.120	3.120	(0.520)	653147	50.0000	55.9	
7 Trichlorofluoromethane	101	3.332	3.332	(0.556)	977932	50.0000	52.8	
9 Acrolein	56	3.807	3.807	(0.635)	119527	250.000	85.8	(M)
10 1,1,2Trichlotrifluoroethane	101	3.790	3.790	(0.632)	1244048	50.0000	53.7	
11 1,1-Dichloroethene +	96	3.824	3.824	(0.638)	679609	50.0000	51.2	
12 Acetone	43	3.933	3.933	(0.656)	334827	50.0000	69.6	
13 Methyl Iodide	142	3.996	3.996	(0.667)	1037138	50.0000	48.6	
14 Carbon Disulfide	76	4.036	4.036	(0.673)	2177034	50.0000	52.2	
17 Methylene Chloride	49	4.271	4.271	(0.712)	1530720	50.0000	53.5	
19 trans-1,2-Dichloroethene	61	4.454	4.454	(0.743)	1146121	50.0000	51.8	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	20 Methyl Acetate	43	4.167	4.167	(0.695)	636154	50.0000	52.1	2841(H)
	21 MTBE	73	4.442	4.442	(0.741)	1979994	50.0000	51.6	5356
	22 Acrylonitrile	53	4.517	4.517	(0.754)	1468527	250.000	289	(A)
	23 Hexane	57	4.591	4.591	(0.766)	1184272	50.0000	55.9	3272(H)
	24 1,1-Dichloroethane ++	63	4.803	4.803	(0.801)	1768800	50.0000	50.4	
	25 Vinyl Acetate	43	4.797	4.797	(0.800)	2205081	50.0000	55.2	
	31 2,2-Dichloropropane	77	5.215	5.215	(0.870)	1379929	50.0000	55.4	
	30 cis-1,2-Dichloroethene	61	5.221	5.221	(0.871)	1543416	50.0000	51.2	
	32 2-Butanone	43	5.232	5.232	(0.873)	637192	50.0000	56.2	
	34 Bromochloromethane	128	5.398	5.398	(0.901)	503135	50.0000	49.3	
$	36 Dibromofluoromethane	111	5.541	5.541	(0.925)	1126261	50.0000	46.8	5039
	37 1,1,1-Trichloroethane	97	5.559	5.559	(0.927)	1230609	50.0000	53.9	
	38 Cyclohexane	56	5.559	5.559	(0.927)	1511488	50.0000	57.5	4944
	39 Carbon Tetrachloride	117	5.650	5.650	(0.943)	940978	50.0000	50.5	
	41 Chloroform +	83	5.421	5.421	(0.904)	1655535	50.0000	51.8	
	42 1,1-Dichloropropene	75	5.662	5.662	(0.945)	1420302	50.0000	54.6	
$	43 1,2-Dichloroethane-d4	67	5.805	5.805	(0.968)	446262	50.0000	48.1	
	44 Benzene	78	5.811	5.811	(0.969)	2824441	50.0000	53.0	
	46 1,2-Dichloroethane	62	5.856	5.856	(0.977)	1086329	50.0000	54.0	
*	47 FLUOROBENZENE	96	5.994	5.994	(1.000)	2859861	50.0000		
M	48 Total 1,2-Dichloroethene	61				2689537	100.000	103	
	49 Trichloroethene	130	6.234	6.234	(1.040)	999118	50.0000	49.4	
	50 Methyl Cyclohexane	83	6.337	6.337	(1.057)	1313825	50.0000	55.5	6386
	51 1,2-Dichloropropane +	63	6.417	6.417	(1.071)	1156972	50.0000	52.3	
	52 Dibromomethane	93	6.515	6.515	(1.087)	803511	50.0000	51.5	
	54 Bromodichloromethane	83	6.583	6.583	(1.098)	1553415	50.0000	51.2	
	56 2-Chloroethyl vinyl ether	63	6.755	6.755	(1.127)	741092	50.0000	55.8	
	57 1-Bromr-2-chloroethana	144	6.835	6.835	(1.140)	237445	50.0000	51.5	2757
	58 cis-1,3-Dichloropropene	75	6.887	6.887	(1.149)	1764660	50.0000	52.1	
	59 4-methyl-2-pentanone	43	6.973	6.973	(1.163)	1347969	50.0000	54.4	
$	60 Toluene-d8	98	7.053	7.053	(0.871)	2421228	50.0000	48.3	
	61 Toluene +	91	7.104	7.104	(0.877)	3041833	50.0000	50.9	
	62 trans-1,3-Dichloropropene	75	7.265	7.265	(1.212)	1597264	50.0000	53.4	
M	143 1-3 Dichloropropene-Total	75				3361924	100.000	105	0
	65 1,1,2-Trichloroethane	97	7.396	7.396	(0.913)	997805	50.0000	50.2	
	66 Tetrachloroethene	164	7.465	7.465	(0.922)	738619	50.0000	49.0	
	67 1,3-Dichloropropane	76	7.528	7.528	(0.929)	1875004	50.0000	50.6	
	68 2-Hexanone	43	7.534	7.534	(0.930)	921353	50.0000	57.2	
	69 Dibromochloromethane	129	7.677	7.677	(0.948)	1213852	50.0000	49.2	
	70 1,2-Dibromoethane(EDB)	107	7.786	7.786	(0.961)	1268786	50.0000	47.9	
*	71 CHLOROBENZENE-d5	82	8.101	8.101	(1.000)	1460478	50.0000		
	72 Chlorobenzene ++	112	8.123	8.123	(1.003)	2287660	50.0000	49.9	
	73 Ethylbenzene +	106	8.158	8.158	(1.007)	1057135	50.0000	52.9	
	74 1,1,1,2-Tetrachloroethane	133	8.175	8.175	(1.009)	996382	50.0000	50.7	(M)
	75 p,m-Xylene	106	8.255	8.255	(1.019)	3078912	100.000	105	
	76 o-Xylene	106	8.593	8.593	(1.061)	1533130	50.0000	51.4	
	77 Styrene	104	8.610	8.610	(1.063)	2693864	50.0000	52.3	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	78 Bromoform ++	173	8.822	8.822	(1.089)	781648	50.0000	49.4	
	79 Isopropylbenzene	105	8.891	8.891	(1.098)	3867483	50.0000	51.5	
$	80 Bromofluorobenzene	174	9.097	9.097	(1.123)	875040	50.0000	46.9	
	81 1,1,2,2-Tetrachloroethane++	83	9.205	9.205	(0.899)	1890121	50.0000	48.8	
	84 Bromobenzene	77	9.251	9.251	(0.903)	3044680	50.0000	52.2	
	83 trans-1,4-Dichloro-2-Butene	53	9.263	9.263	(0.904)	450777	50.0000	54.1	
	85 1,2,3-Trichloropropane	75	9.274	9.274	(0.906)	2088714	50.0000	51.9	
	86 n-Propylbenzene	91	9.274	9.274	(0.906)	4725838	50.0000	52.9	
	87 2-Chlorotoluene	91	9.412	9.412	(0.919)	3369594	50.0000	52.8	
	88 1,3,5-Trimethylbenzene	105	9.434	9.434	(0.921)	3045149	50.0000	51.5	
	90 4-Chlorotoluene	91	9.515	9.515	(0.929)	3140992	50.0000	50.6	
	91 tert-butylbenzene	91	9.755	9.755	(0.952)	2078524	50.0000	53.0	
	92 p-Isopropyltoluene	119	9.755	9.755	(0.952)	3449355	50.0000	52.8	
	93 1,2,4-Trimethylbenzene	105	9.812	9.812	(0.958)	3088620	50.0000	51.1	
	94 sec-Butylbenzene	105	9.978	9.978	(0.974)	4905837	50.0000	53.5	
	96 1,3-Dichlorobenzene	146	10.173	10.173	(0.993)	1861434	50.0000	51.0	
*	97 1,4-DICHLOROBENZENE-D4	152	10.242	10.242	(1.000)	1305309	50.0000		
	98 1,4-Dichlorobenzene	146	10.265	10.265	(1.002)	2216066	50.0000	49.2	
M	99 TOTAL XYLENE	106				4612042	150.000	157	
	100 n-Butylbenzene	91	10.557	10.557	(1.031)	3520989	50.0000	53.4	
	102 1,2-Dichlorobenzene	146	10.682	10.682	(1.043)	1975697	50.0000	49.5	
	106 1,2-Dibromo-3-Chloropropane	157	11.461	11.461	(1.119)	428923	50.0000	48.6	
	108 1,2,4-Trichlorobenzene	180	12.211	12.211	(1.192)	1193202	50.0000	48.7	
	109 Hexachlorobutadiene	225	12.314	12.314	(1.202)	443075	50.0000	51.2	
	110 Naphthalene	128	12.469	12.469	(1.217)	3070475	50.0000	51.0	
	111 1,2,3-Trichlorobenzene	180	12.709	12.709	(1.241)	1038431	50.0000	49.3	

QC Flag Legend

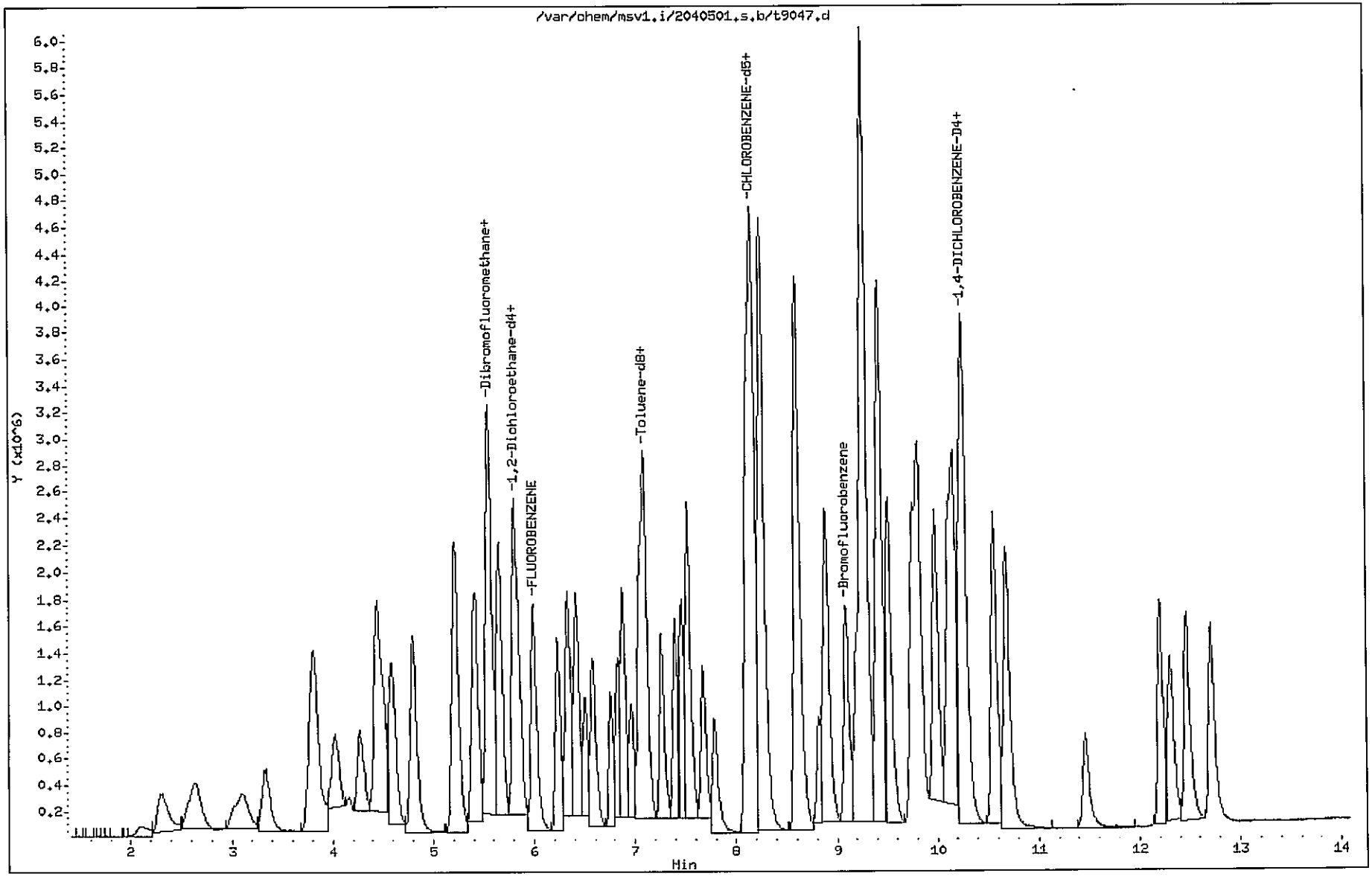
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /var/chem/msv1.i/2040501.s.b/t9047.d
Date : 01-MAY-2004 10:26
Client ID: V1STD050
Sample Info: 1400xV1STD050x5-12-1
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

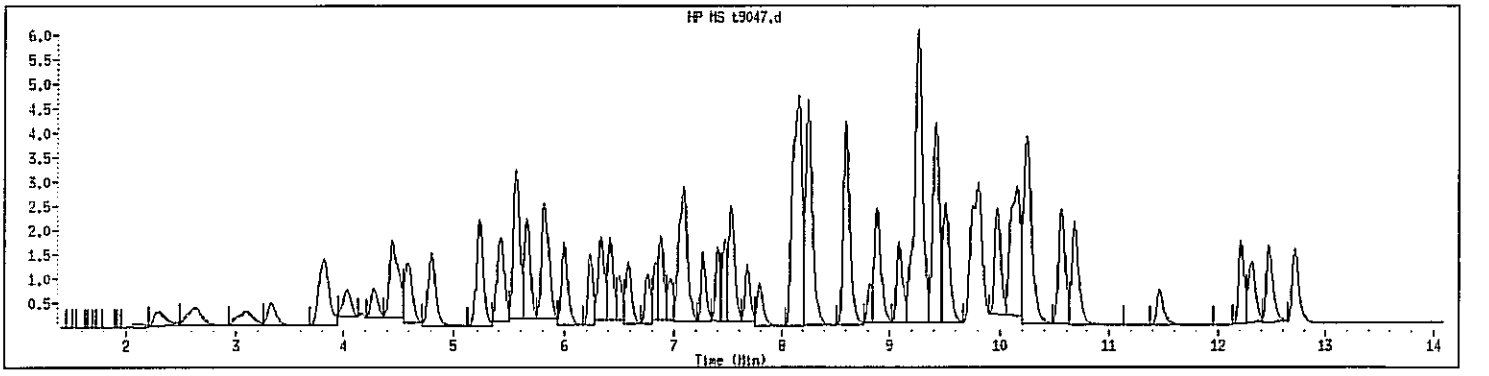
Operator: RJO
Column diameter: 0.53

000128



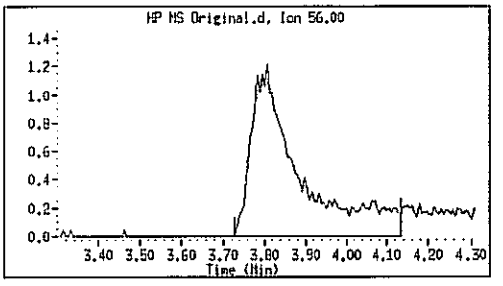
MANUAL INTEGRATION GRAPHIC REPORT

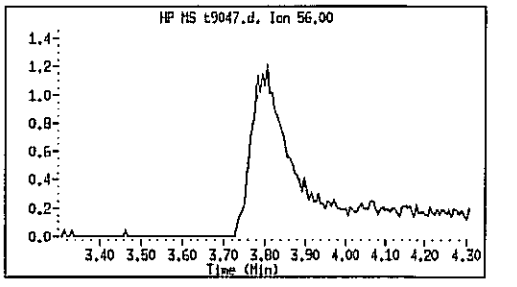
Lab ID	: 1400	SampleType	: CCALIB_3
Injection Date	: 01-MAY-2004 10:26	Instrument	: msv1.i
Operator	: RJO		
Sample Info	: 1400*V1STD050*5-12-1		
Misc Info	: MSV~4640~*1*RJO		
Method	: /var/chem/msv1.i/2040501.s.b/8260Bw1.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: HP RTE	Compound Sublist	: 8260b



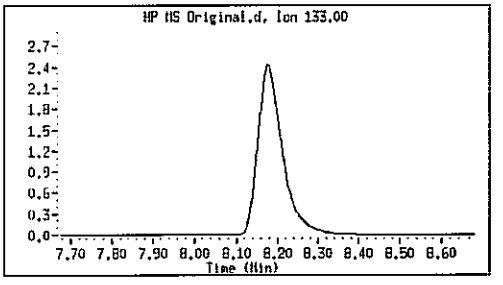
Original Final

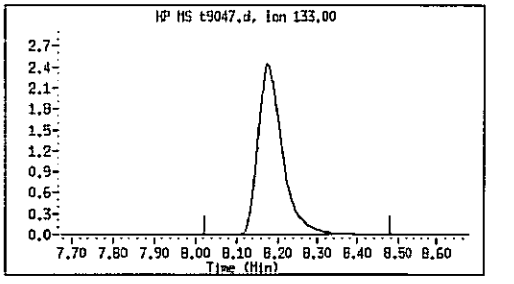
9 Acrolein CAS#: 107-02-8





74 1,1,1,2-Tetrachloroethane CAS#: 630-20-6





GCAL, Inc.

Data file : /var/chem/msv1.i/2040501.s.b/t9048.d
Lab Smp Id: 1400 Client Smp ID: V1STD050
Inj Date : 01-MAY-2004 11:04
Operator : RJO Inst ID: msv1.i
Smp Info : 1400*V1STD050*APP9
Misc Info : MSV~4640~*1*RJO
Comment :
Method : /var/chem/msv1.i/2040501.s.b/8260Bw1.m
Meth Date : 01-May-2004 13:04 rjo Quant Type: ISTD
Cal Date : 30-APR-2004 17:51 Cal File: t9007.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: APP9.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
* 47 FLUOROBENZENE	96	6.004	6.004	(1.000)	2734303	50.0000		
18 2-Chloropropene	41	4.150	4.150	(0.691)	2380318	50.0000	51.6	0(M)
* 71 CHLOROBENZENE-d5	82	8.117	8.117	(1.000)	1394199	50.0000		
* 97 1,4-DICHLOROBENZENE-D4	152	10.247	10.247	(1.000)	1251813	50.0000		
4 1-3 Butadiene	39	2.684	2.684	(0.447)	1049099	50.0000	47.4	1489
8 Ethyl Ether	59	3.629	3.629	(0.604)	3630295	250.000	291	2234
15 Acetonitrile	41	4.150	4.150	(0.691)	2423658	250.000	280	2751(H)
16 Allyl chloride	39	4.150	4.150	(0.691)	1113671	50.0000	44.7	2751
26 tert-Butyl Alcohol	59	4.361	4.361	(0.726)	80188	50.0000	50.6	3001
29 Chloroprene	53	4.848	4.848	(0.807)	1252252	50.0000	39.6	4227
35 Propionitrile	54	5.340	5.340	(0.889)	533582	250.000	249	3890(H)
27 Isopropyl Ether	45	4.779	4.779	(0.796)	4358056	50.0000	41.7	2831
33 Ethyl Acetate	43	5.232	5.232	(0.871)	6261398	250.000	271	1314
28 2-Butanol	45	5.237	5.237	(0.872)	1030001	300.000	326	1345

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
40 n-Butanol	56	6.176	6.176	(1.029)	171229	250.000	217	3482(H)
53 2-3 Dichloro-1-Proprene	75	6.451	6.451	(1.074)	1738620	50.0000	48.5	3328(H)
45 Isobutyl Alcohol	43	5.724	5.724	(0.953)	195533	250.000	201	2917(MH)
55 1,4- Dioxane	58	6.514	6.514	(1.085)	248025	1250.00	1210	3597
64 Ethyl Methacrylate	41	7.270	7.270	(0.896)	1384045	50.0000	45.1	2965
82 Cyclohexanone	55	9.085	9.085	(1.119)	509714	100.000	127	6057
107 Benzal Chloride	125	11.941	11.941	(1.165)	1014452	100.000	211	4095
95 Pentachloroethane	167	9.840	9.840	(0.960)	719201	50.0000	50.9	4174
63 Methyl Methacrylate	69	7.270	7.270	(1.211)	1616493	50.0000	48.5	2965

QC Flag Legend

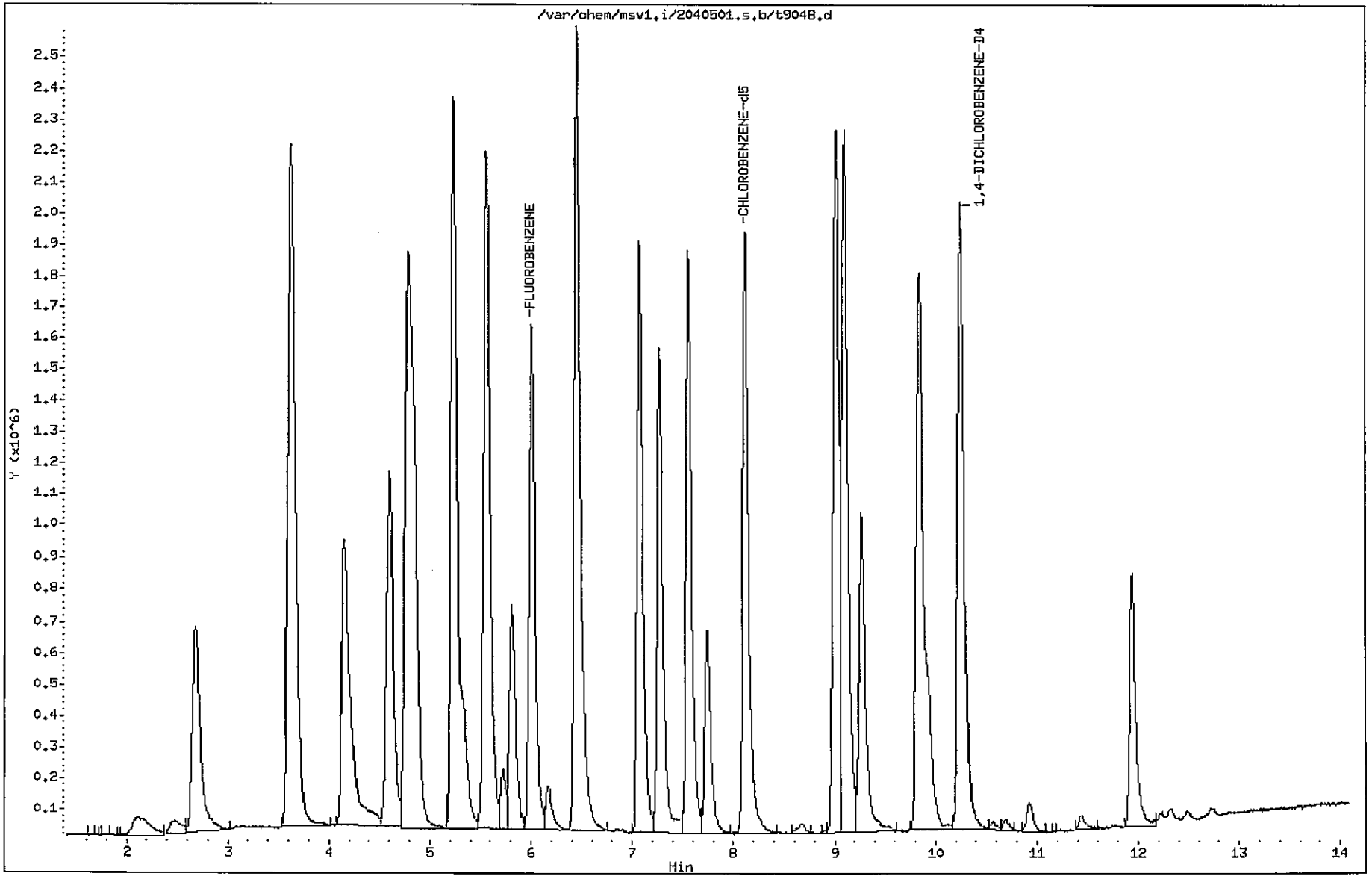
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /var/chem/msv1.i/2040501.s.b/t9048.d
Date : 01-MAY-2004 11:04
Client ID: V1STD050
Sample Info: 1400XV1STD050XAPP9
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

Operator: RJO
Column diameter: 0.53

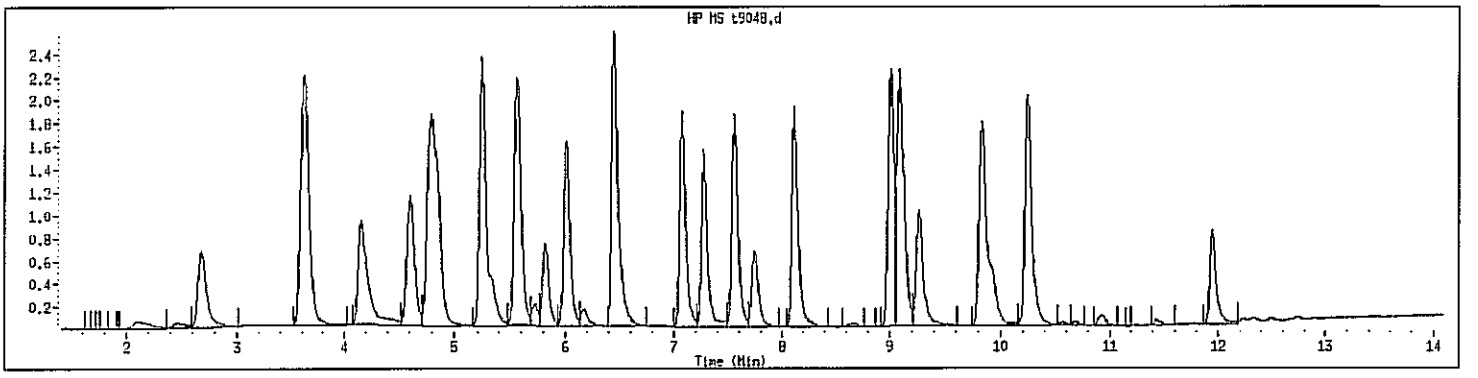
000132



Data file : /var/chem/msv1.i/2040501.s.b/t9048.d
Report Date: 05/01/2004 13:04

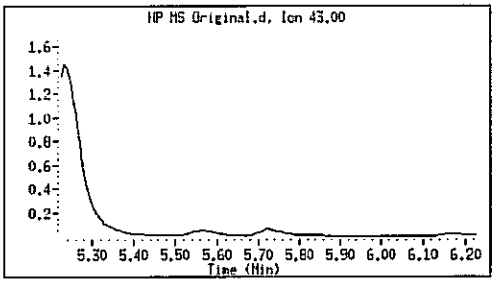
MANUAL INTEGRATION GRAPHIC REPORT

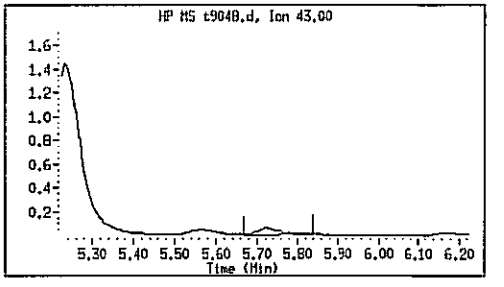
Lab ID	: 1400	SampleType	: CCALIB_3
Injection Date	: 01-MAY-2004 11:04	Instrument	: msv1.i
Operator	: RJO		
Sample Info	: 1400*V1STD050*APP9		
Misc Info	: MSV~4640~*1*RJO		
Method	: /var/chem/msv1.i/2040501.s.b/8260Bw1.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: HP RTE	Compound Sublist	: APP9



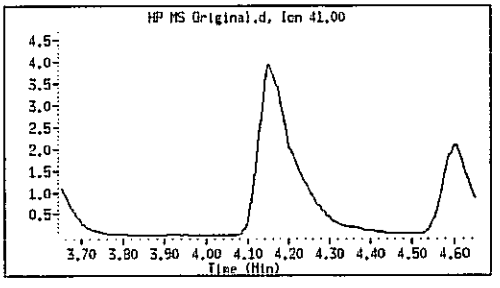
Original | Final

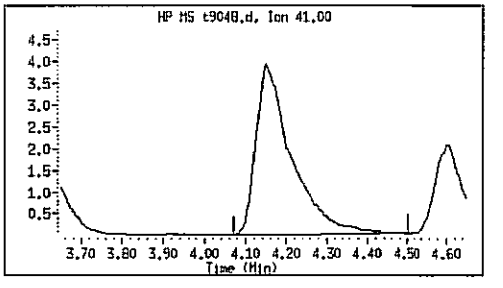
45 Isobutyl Alcohol CAS#: 78-83-1





18 2-Chloropropene CAS#: 557-98-2





Data File: /var/chem/msv1.i/2040430q.s.b/t9004.d

Date : 30-APR-2004 16:31

Client ID: BFB

Instrument: msv1.i

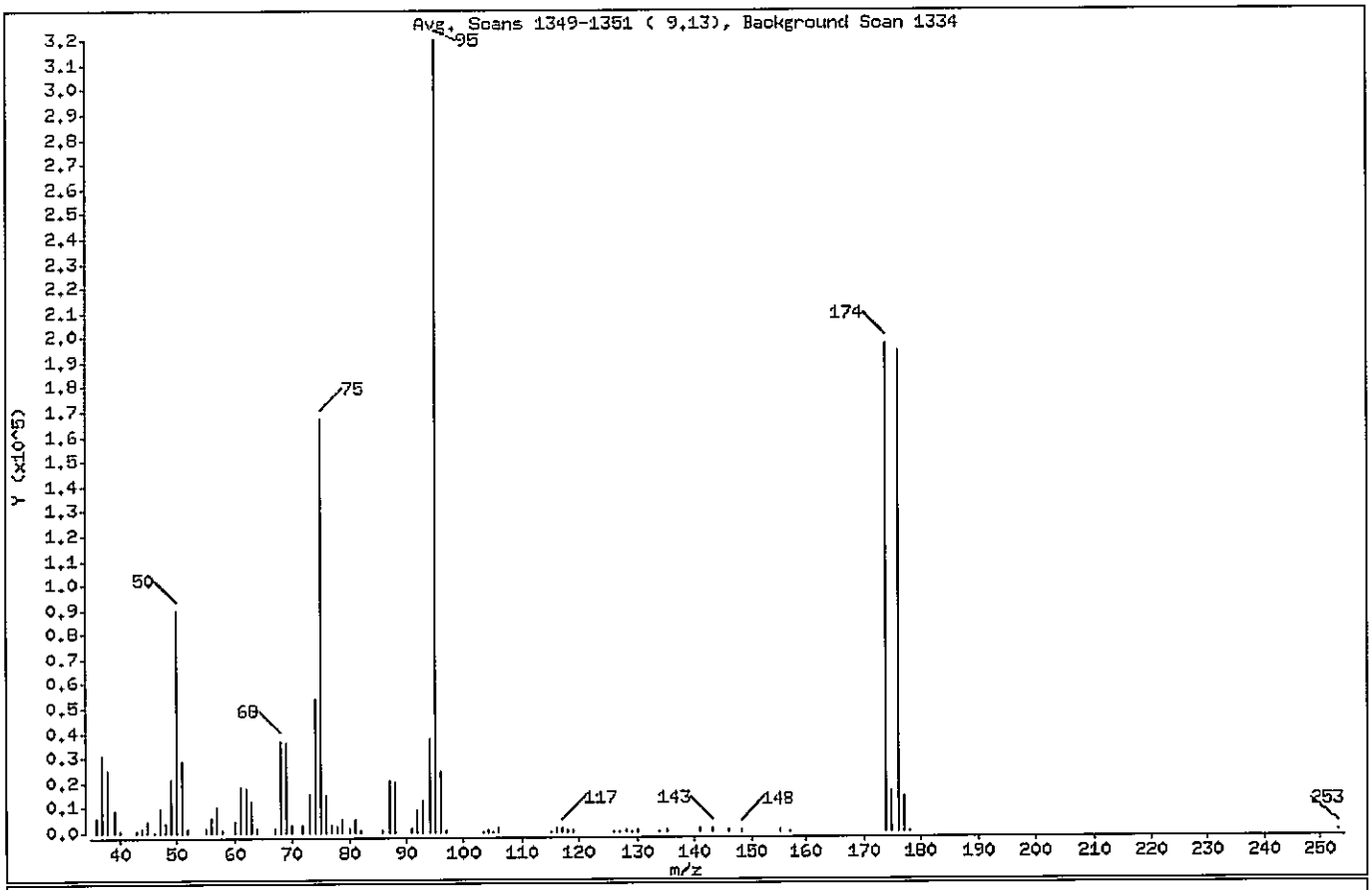
Sample Info: 1000xBFB

Operator: RJO

Column phase: DB-624-30M

Column diameter: 0.53

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	27.94
75	30.00 - 60.00% of mass 95	52.25
96	5.00 - 9.00% of mass 95	7.51
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	61.73
175	5.00 - 9.00% of mass 174	5.01 (8.11)
176	95.00 - 101.00% of mass 174	60.62 (98.20)
177	5.00 - 9.00% of mass 176	4.30 (7.09)

Data File: /var/chem/msv1.i/2040430q.s.b/t9004.d

Date : 30-APR-2004 16:31

Client ID: BFB

Instrument: msv1.i

Sample Info: 1000XBFB

Operator: RJO

Column phase: DB-624-30M

Column diameter: 0.53

Data File: t9004.d

Spectrum: Avg. Scans 1349-1351 (9.13), Background Scan 1334

Location of Maximum: 95.00

Number of points: 77

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	5867	61.00	18096	87.00	20792	128.00	938
37.00	31192	62.00	17872	88.00	19656	129.00	136
38.00	24744	63.00	12480	91.00	1136	130.00	851
39.00	9197	64.00	1501	92.00	8688	134.00	179
40.00	385	67.00	1105	93.00	12858	135.00	636
43.00	489	68.00	36968	94.00	37504	141.00	1362
44.00	1823	69.00	36288	95.00	320192	143.00	1503
45.00	4587	70.00	3308	96.00	24040	146.00	561
46.00	148	72.00	2709	97.00	998	148.00	695
47.00	9875	73.00	15747	103.00	173	155.00	535
48.00	3354	74.00	53936	104.00	1060	157.00	156
49.00	21384	75.00	167296	105.00	143	174.00	197632
50.00	89480	76.00	15056	106.00	1148	175.00	16037
51.00	28624	77.00	2951	115.00	309	176.00	194112
52.00	1579	78.00	2009	116.00	1128	177.00	13769
55.00	1261	79.00	5301	117.00	1798	178.00	341
56.00	5820	80.00	1784	118.00	924	253.00	158
57.00	10247	81.00	5305	119.00	871		
58.00	695	82.00	953	126.00	141		
60.00	4100	86.00	761	127.00	160		

Data File: /var/chem/msv1.i/2040430q.s.b/t9004.d

Date : 30-APR-2004 16:31

Client ID: BFB

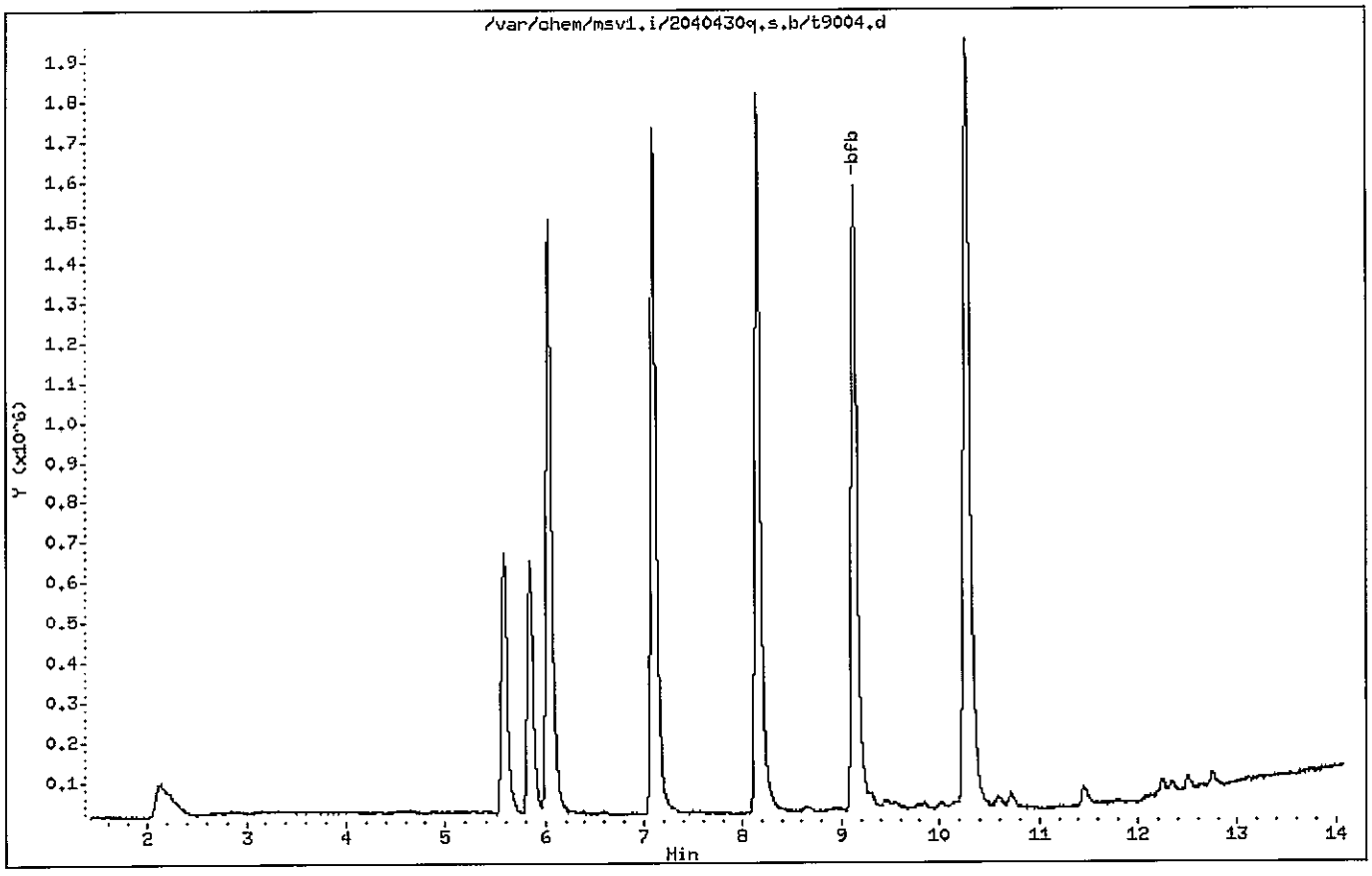
Instrument: msv1.i

Sample Info: 1000XBFB

Operator: RJO

Column phase: DB-624-30M

Column diameter: 0.53



GCAL, Inc.

Data file : /var/chem/msv1.i/2040430q.s.b/t9006.d
Lab Smp Id: 1208 Client Smp ID: V1STD00.2
Inj Date : 30-APR-2004 17:27
Operator : RJO Inst ID: msv1.i
Smp Info : 1208*V1STD00.2*5-12-1
Misc Info : MSV~4642~*1*RJO
Comment :
Method : /var/chem/msv1.i/2040430q.s.b/8260Bw1.m
Meth Date : 02-May-2004 08:22 rsp Quant Type: ISTD
Cal Date : 30-APR-2004 17:27 Cal File: t9006.d
Als bottle: 8 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
1 Dichlorodifluoromethane	85	2.313	2.303	(0.384)	3298	0.20000	0.128	(a)
2 Chloromethane ++	50	2.582	2.577	(0.429)	3575	0.20000	0.171	(a)
7 Trichlorofluoromethane	101	3.384	3.345	(0.562)	3372	0.20000	0.168	(a)
9 Acrolein	56	3.807	3.808	(0.632)	1198	0.20000	11.6	
10 1,1,2Trichlotrifluoroethane	101	3.802	3.791	(0.631)	6012	0.20000	0.239	(a)
11 1,1-Dichloroethene +	96	3.842	3.848	(0.638)	1494	0.20000	0.104	(a)
13 Methyl Iodide	142	4.008	4.014	(0.665)	2869	0.20000	0.124	(a)
17 Methylene Chloride	49	4.283	4.295	(0.711)	7485	0.20000	0.241	(a)
19 trans-1,2-Dichloroethene	61	4.460	4.461	(0.740)	6222	0.20000	0.259	(a)
21 MTBE	73	4.477	4.478	(0.743)	9940	0.20000	0.239	4003(a)
22 Acrylonitrile	53	4.529	4.535	(0.752)	5757	0.20000	1.04	(a)
25 Vinyl Acetate	43	4.832	4.827	(0.802)	7793	0.20000	0.180	(a)
31 2,2-Dichloropropane	77	5.674	6.018	(0.942)	1327	0.20000	0.0490	(a)
30 cis-1,2-Dichloroethene	61	5.250	5.245	(0.872)	7762	0.20000	0.237	(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	32 2-Butanone	43	5.588	5.577	(0.928)	1945	0.20000	0.158	(a)
	34 Bromochloromethane	128	5.410	5.434	(0.898)	511	0.20000	0.0461	(a)
$	36 Dibromofluoromethane	111	5.576	5.577	(0.926)	5813	50.0000	0.222	4247(a)
	38 Cyclohexane	56	5.576	5.589	(0.926)	9368	0.20000	0.328	4247(a)
	39 Carbon Tetrachloride	117	5.685	5.663	(0.944)	5100	0.20000	0.252	(a)
	41 Chloroform +	83	5.445	5.446	(0.904)	8256	0.20000	0.238	(a)
$	43 1,2-Dichloroethane-d4	67	5.828	5.812	(0.968)	2713	50.0000	0.269	(a)
	46 1,2-Dichloroethane	62	6.023	6.018	(1.000)	47720	0.20000	2.18	(a)
*	47 FLUOROBENZENE	96	6.023	6.024	(1.000)	3105952	50.0000		
M	48 Total 1,2-Dichloroethene	61				13984	0.40000	0.496	(a)
	50 Methyl Cyclohexane	83	6.378	6.344	(1.059)	7653	0.20000	0.297	5768(a)
	51 1,2-Dichloropropane +	63	6.853	6.860	(1.138)	8637	0.20000	0.360	(a)
	54 Bromodichloromethane	83	6.618	6.602	(1.099)	8106	0.20000	0.246	(a)
	56 2-Chloroethyl vinyl ether	63	6.784	6.780	(1.126)	1544	0.20000	0.107	(a)
	57 1-Bromr-2-chloroethana	144	6.876	6.865	(1.142)	143	0.20000	0.0285	3785(a)
	58 cis-1,3-Dichloropropene	75	6.910	6.905	(1.147)	8370	0.20000	0.228	(a)
	59 4-methyl-2-pentanone	43	6.979	7.003	(1.159)	5031	0.20000	0.187	(a)
$	60 Toluene-d8	98	7.076	7.077	(0.871)	17318	50.0000	0.332	(a)
	62 trans-1,3-Dichloropropene	75	7.288	7.289	(1.210)	8449	0.20000	0.260	(a)
M	143 1-3 Dichloropropene-Total	75				16819	0.20000	0.486	0(a)
	65 1,1,2-Trichloroethane	97	7.431	7.421	(0.915)	4686	0.20000	0.227	(a)
	66 Tetrachloroethene	164	7.489	7.495	(0.922)	4633	0.20000	0.296	(a)
	67 1,3-Dichloropropane	76	7.551	7.558	(0.930)	9549	0.20000	0.248	(a)
	69 Dibromochloromethane	129	7.712	7.696	(0.949)	4990	0.20000	0.195	(a)
	70 1,2-Dibromoethane(EDB)	107	7.815	7.816	(0.962)	5391	0.20000	0.196	(a)
*	71 CHLOROBENZENE-d5	82	8.124	8.125	(1.000)	1517003	50.0000		
	72 Chlorobenzene ++	112	8.153	8.148	(1.004)	17924	0.20000	0.377	(a)
	73 Ethylbenzene +	106	8.187	8.199	(1.008)	6401	0.20000	0.308	(a)
	75 p,m-Xylene	106	8.279	8.274	(1.019)	17895	0.20000	0.588	(a)
	76 o-Xylene	106	8.622	8.623	(1.061)	7872	0.20000	0.254	(a)
	77 Styrene	104	8.628	8.640	(1.062)	14173	0.20000	0.265	(a)
	78 Bromoform ++	173	8.845	8.841	(1.089)	2547	0.20000	0.155	(a)
	79 Isopropylbenzene	105	8.925	8.903	(1.099)	24872	0.20000	0.319	(a)
$	80 Bromofluorobenzene	174	9.120	9.104	(1.123)	5430	50.0000	0.280	(a)
	81 1,1,2,2-Tetrachloroethane++	83	9.212	9.218	(0.897)	9282	0.20000	0.227	(aM)
	84 Bromobenzene	77	9.275	9.276	(0.904)	21285	0.20000	0.345	(a)
	83 trans-1,4-Dichloro-2-Butene	53	9.280	9.276	(0.904)	1210	0.20000	0.137	(a)
	85 1,2,3-Trichloropropane	75	9.286	9.299	(0.905)	12113	0.20000	0.285	(a)
	86 n-Propylbenzene	91	9.292	9.293	(0.905)	30418	0.20000	0.322	(a)
	87 2-Chlorotoluene	91	9.435	9.430	(0.919)	21870	0.20000	0.324	(a)
	88 1,3,5-Trimethylbenzene	105	9.458	9.442	(0.921)	21750	0.20000	0.348	(a)
	90 4-Chlorotoluene	91	9.538	9.527	(0.929)	18610	0.20000	0.284	(a)
	91 tert-butylbenzene	91	9.773	9.779	(0.952)	13075	0.20000	0.315	(a)
	92 p-Isopropyltoluene	119	9.778	9.791	(0.953)	22252	0.20000	0.322	(a)
	93 1,2,4-Trimethylbenzene	105	9.841	9.825	(0.959)	26026	0.20000	0.408	(a)
	94 sec-Butylbenzene	105	10.007	9.997	(0.975)	32979	0.20000	0.340	(a)
	96 1,3-Dichlorobenzene	146	10.288	10.277	(1.002)	65663	0.20000	1.70	(a)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
* 97 1,4-DICHLOROBENZENE-D4	152	10.265	10.255	(1.000)	1380277	50.0000		
98 1,4-Dichlorobenzene	146	10.288	10.277	(1.002)	65663	0.20000	1.38	(a)
M 99 TOTAL XYLENE	106				25767	0.20000	0.843	(a)
100 n-Butylbenzene	91	10.574	10.587	(1.030)	30839	0.20000	0.442	(a)
102 1,2-Dichlorobenzene	146	10.706	10.707	(1.043)	38714	0.20000	0.916	(a)
106 1,2-Dibromo-3-Chloropropane	157	11.490	11.474	(1.119)	2166	0.20000	0.232	(a)
108 1,2,4-Trichlorobenzene	180	12.240	12.235	(1.192)	14164	0.20000	0.546	(a)
109 Hexachlorobutadiene	225	12.332	12.350	(1.201)	1748	0.20000	0.191	(a)
110 Naphthalene	128	12.515	12.510	(1.219)	37580	0.20000	0.591	(a)
111 1,2,3-Trichlorobenzene	180	12.744	12.751	(1.241)	11761	0.20000	0.528	(a)

QC Flag Legend

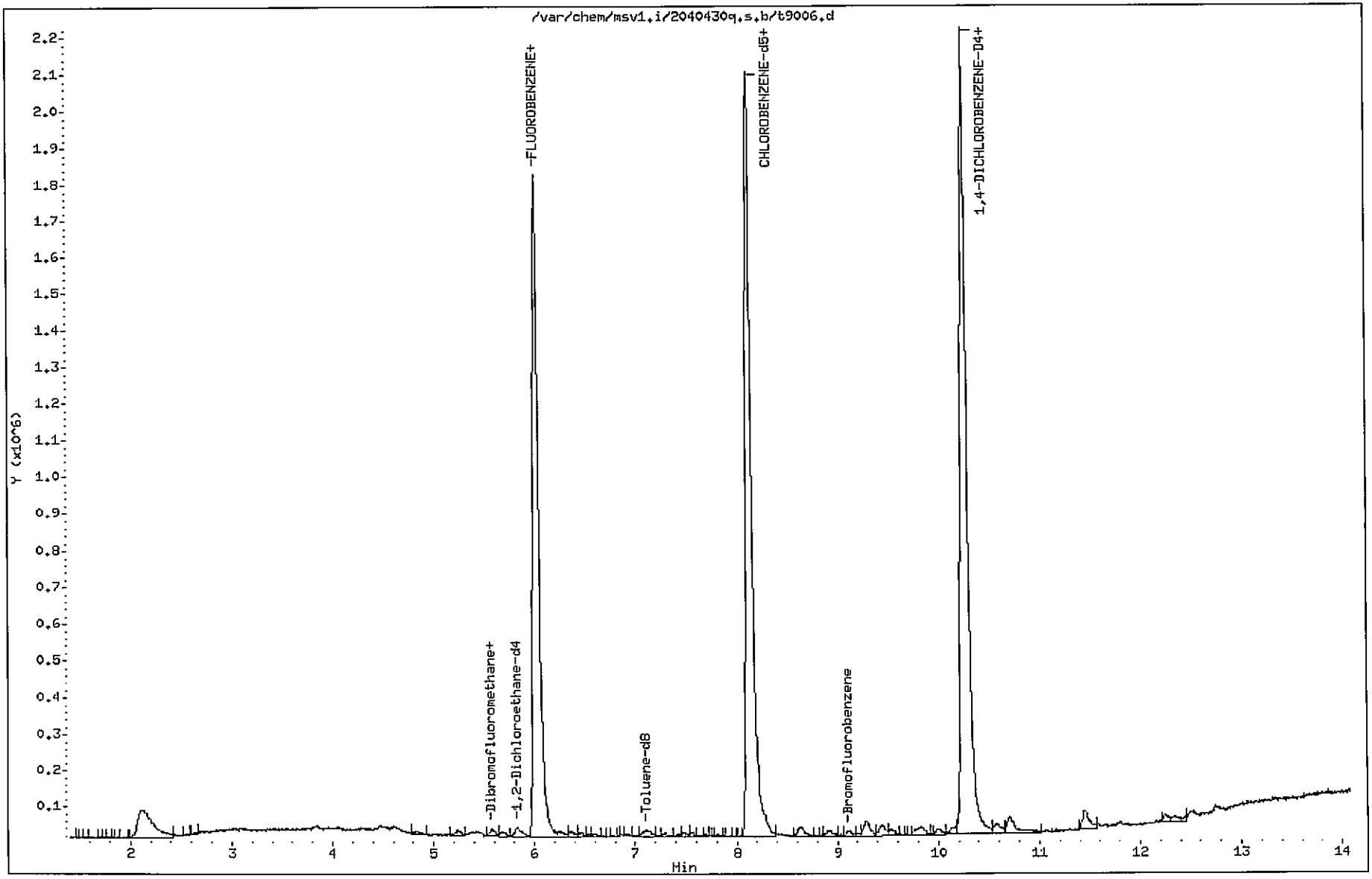
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /var/chem/msv1.i/2040430q.s.b/t9006.d
Date : 30-APR-2004 17:27
Client ID: V1STD00.2
Sample Info: 1208*V1STD00.2*5-12-1
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

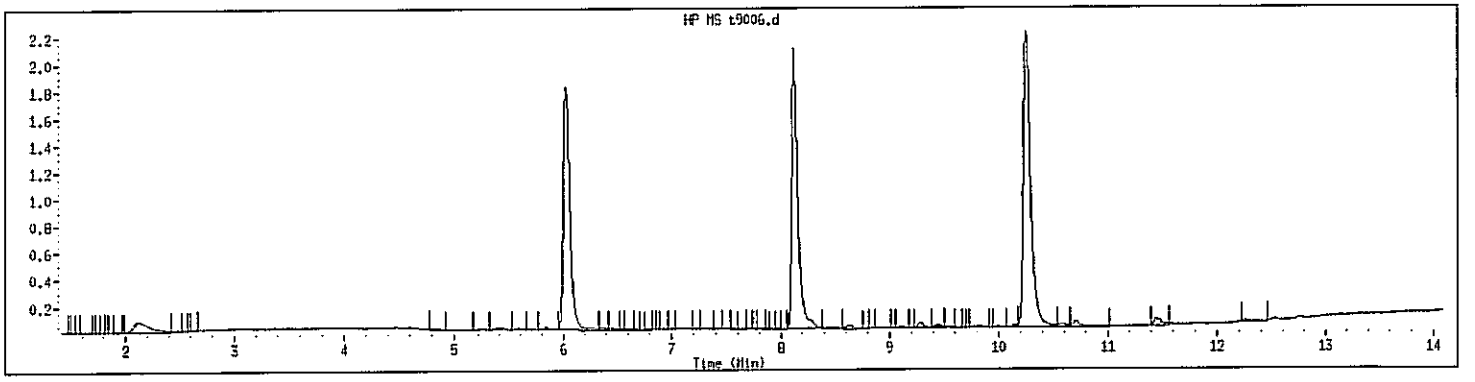
Operator: RJD
Column diameter: 0.53

000140



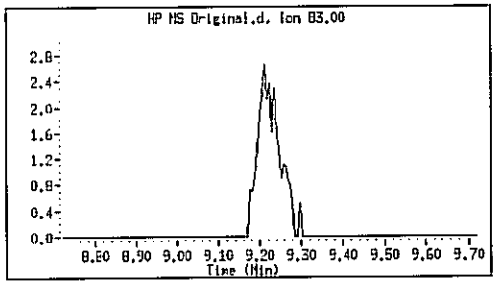
MANUAL INTEGRATION GRAPHIC REPORT

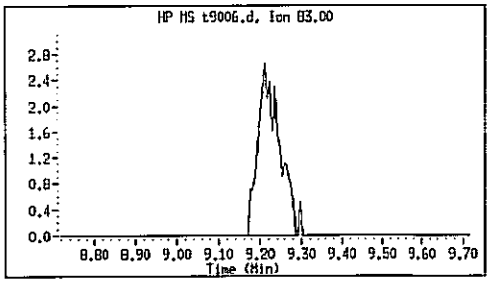
Lab ID	: 1208	SampleType	: CALIB_10
Injection Date	: 30-APR-2004 17:27	Instrument	: msv1.i
Operator	: RJO		
Sample Info	: 1208*V1STD00.2*5-12-1		
Misc Info	: MSV~4642~*1*RJO		
Method	: /var/chem/msv1.i/2040430q.s.b/8260Bw1.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: HP RTE	Compound Sublist	: 8260b



Original Final

81 1,1,2,2-Tetrachloroethane++ CAS#: 79-34-5





GCAL, Inc.

Data file : /var/chem/msv1.i/2040430q.s.b/t9007.d
Lab Smp Id: 1207 Client Smp ID: V1STD00.4
Inj Date : 30-APR-2004 17:51
Operator : RJO Inst ID: msv1.i
Smp Info : 1207*V1STD00.4*5-12-1
Misc Info : MSV~4642~*1*RJO
Comment :
Method : /var/chem/msv1.i/2040430q.s.b/8260Bw1.m
Meth Date : 02-May-2004 08:22 rsp Quant Type: ISTD
Cal Date : 30-APR-2004 17:51 Cal File: t9007.d
Als bottle: 9 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
1 Dichlorodifluoromethane	85	2.303	2.325	(0.382)	13247	0.40000	0.499	(a)
2 Chloromethane ++	50	2.577	2.605	(0.428)	2690	0.40000	0.125	(a)
3 Vinyl Chloride +	62	2.675	2.680	(0.444)	6936	0.40000	0.325	(a)
6 Chloroethane	64	3.161	3.138	(0.525)	5810	0.40000	0.445	(a)
7 Trichlorofluoromethane	101	3.345	3.355	(0.555)	9721	0.40000	0.470	(a)
9 Acrolein	56	3.808	3.813	(0.632)	1548	0.40000	11.7	
10 1,1,2Trichlotrifluoroethane	101	3.791	3.813	(0.629)	3264	0.40000	0.126	(a)
11 1,1-Dichloroethene +	96	3.848	3.853	(0.639)	7891	0.40000	0.533	(a)
13 Methyl Iodide	142	4.014	4.019	(0.666)	9167	0.40000	0.385	(a)
17 Methylene Chloride	49	4.295	4.294	(0.713)	15843	0.40000	0.496	(a)
19 trans-1,2-Dichloroethene	61	4.461	4.460	(0.741)	4846	0.40000	0.196	(a)
20 Methyl Acetate	43	4.461	4.466	(0.741)	6746	0.40000	0.495	4885(a)
21 MTBE	73	4.478	4.466	(0.743)	16854	0.40000	0.394	5584(a)
22 Acrylonitrile	53	4.535	4.535	(0.753)	12640	0.40000	2.23	(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	24 1,1-Dichloroethane ++	63	4.844	4.827	(0.804)	18109	0.40000	0.462	(a)
	25 Vinyl Acetate	43	4.827	4.827	(0.801)	19536	0.40000	0.438	(a)
	31 2,2-Dichloropropane	77	6.016	6.012	(0.999)	61691	0.40000	2.22	(a)
	30 cis-1,2-Dichloroethene	61	5.245	5.250	(0.871)	16357	0.40000	0.486	(a)
	32 2-Butanone	43	5.577	5.262	(0.926)	5136	0.40000	0.406	(a)
	34 Bromochloromethane	128	5.434	5.422	(0.902)	5192	0.40000	0.456	(a)
S	36 Dibromofluoromethane	111	5.577	5.571	(0.926)	13538	50.0000	0.503	4394(a)
	37 1,1,1-Trichloroethane	97	5.583	5.582	(0.927)	14571	0.40000	0.571	(aH)
	38 Cyclohexane	56	5.589	5.582	(0.928)	17025	0.40000	0.580	4187(a)
	39 Carbon Tetrachloride	117	5.663	5.680	(0.940)	10857	0.40000	0.522	(a)
	41 Chloroform +	83	5.446	5.451	(0.904)	17798	0.40000	0.499	(a)
S	43 1,2-Dichloroethane-d4	67	5.812	5.829	(0.965)	5278	50.0000	0.509	(a)
	46 1,2-Dichloroethane	62	6.018	5.880	(0.999)	48885	0.40000	2.18	(a)
*	47 FLUOROBENZENE	96	6.024	6.023	(1.000)	3193175	50.0000		
M	48 Total 1,2-Dichloroethene	61				21203	0.80000	0.682	(a)
	50 Methyl Cyclohexane	83	6.344	6.361	(1.053)	14852	0.40000	0.561	6498(a)
	51 1,2-Dichloropropane +	63	6.860	6.447	(1.139)	24095	0.40000	0.976	(a)
	52 Dibromomethane	93	6.539	6.533	(1.086)	7528	0.40000	0.432	(a)
	54 Bromodichloromethane	83	6.602	6.607	(1.096)	16769	0.40000	0.495	(a)
	56 2-Chloroethyl vinyl ether	63	6.780	6.785	(1.125)	5810	0.40000	0.392	(a)
	57 1-Bromr-2-chloroethana	144	6.865	6.859	(1.140)	1767	0.40000	0.343	3297(a)
	58 cis-1,3-Dichloropropene	75	6.905	6.916	(1.146)	17854	0.40000	0.472	(a)
	59 4-methyl-2-pentanone	43	7.003	6.996	(1.163)	12331	0.40000	0.446	(a)
S	60 Toluene-d8	98	7.077	7.071	(0.871)	28586	50.0000	0.538	(a)
	61 Toluene +	91	7.123	7.122	(0.877)	37283	0.40000	0.589	(a)
	62 trans-1,3-Dichloropropene	75	7.289	7.283	(1.210)	15847	0.40000	0.475	(a)
M	143 1-3 Dichloropropene-Total	75				33701	0.40000	0.947	0(a)
	65 1,1,2-Trichloroethane	97	7.421	7.414	(0.913)	8932	0.40000	0.424	(a)
	66 Tetrachloroethene	164	7.495	7.483	(0.922)	9032	0.40000	0.565	(a)
	67 1,3-Dichloropropane	76	7.558	7.546	(0.930)	18429	0.40000	0.469	(a)
	69 Dibromochloromethane	129	7.696	7.701	(0.947)	11895	0.40000	0.455	(a)
	70 1,2-Dibromoethane(EDB)	107	7.816	7.809	(0.962)	12464	0.40000	0.444	(a)
*	71 CHLOROBENZENE-d5	82	8.125	8.118	(1.000)	1547221	50.0000		
	72 Chlorobenzene ++	112	8.148	8.147	(1.003)	30240	0.40000	0.623	(a)
	73 Ethylbenzene +	106	8.199	8.193	(1.009)	13538	0.40000	0.640	(a)
	75 p,m-Xylene	106	8.274	8.279	(1.018)	33633	0.40000	1.08	(a)
	76 o-Xylene	106	8.623	8.617	(1.061)	16229	0.40000	0.514	(a)
	77 Styrene	104	8.640	8.628	(1.063)	25608	0.40000	0.470	(a)
	78 Bromoform ++	173	8.841	8.840	(1.088)	4791	0.40000	0.286	(a)
	79 Isopropylbenzene	105	8.903	8.909	(1.096)	43251	0.40000	0.543	(a)
S	80 Bromofluorobenzene	174	9.104	9.103	(1.120)	11611	50.0000	0.587	(a)
	81 1,1,2,2-Tetrachloroethane++	83	9.218	9.206	(0.899)	18079	0.40000	0.442	(aM)
	84 Bromobenzene	77	9.276	9.275	(0.905)	36277	0.40000	0.589	(a)
	83 trans-1,4-Dichloro-2-Butene	53	9.276	9.269	(0.905)	3614	0.40000	0.411	(a)
	85 1,2,3-Trichloropropane	75	9.299	9.292	(0.907)	21399	0.40000	0.504	(a)
	86 n-Propylbenzene	91	9.293	9.286	(0.906)	55098	0.40000	0.584	(a)
	87 2-Chlorotoluene	91	9.430	9.435	(0.920)	38044	0.40000	0.565	(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
88	1,3,5-Trimethylbenzene	105	9.442	9.452	(0.921)	37073	0.40000	0.594	(a)
90	4-Chlorotoluene	91	9.527	9.533	(0.929)	43037	0.40000	0.657	(a)
91	tert-butylbenzene	91	9.779	9.762	(0.954)	31688	0.40000	0.765	(a)
92	p-Isopropyltoluene	119	9.791	9.767	(0.955)	35296	0.40000	0.512	(a)
93	1,2,4-Trimethylbenzene	105	9.825	9.825	(0.958)	40067	0.40000	0.628	(a)
94	sec-Butylbenzene	105	9.997	10.002	(0.975)	54341	0.40000	0.562	(a)
96	1,3-Dichlorobenzene	146	10.277	10.185	(1.002)	76612	0.40000	1.99	(a)
* 97	1,4-DICHLOROBENZENE-D4	152	10.255	10.254	(1.000)	1378187	50.0000		
98	1,4-Dichlorobenzene	146	10.277	10.277	(1.002)	76612	0.40000	1.61	(a)
M 99	TOTAL XYLENE	106				49862	0.40000	1.60	(a)
100	n-Butylbenzene	91	10.587	10.574	(1.032)	39322	0.40000	0.564	(a)
102	1,2-Dichlorobenzene	146	10.707	10.700	(1.044)	48009	0.40000	1.14	(a)
106	1,2-Dibromo-3-Chloropropane	157	11.474	11.485	(1.119)	3831	0.40000	0.411	(aM)
108	1,2,4-Trichlorobenzene	180	12.235	12.240	(1.193)	17955	0.40000	0.694	(a)
109	Hexachlorobutadiene	225	12.350	12.349	(1.204)	5471	0.40000	0.599	(a)
110	Naphthalene	128	12.510	12.510	(1.220)	45378	0.40000	0.714	(a)
111	1,2,3-Trichlorobenzene	180	12.751	12.744	(1.243)	16283	0.40000	0.732	(a)

QC Flag Legend

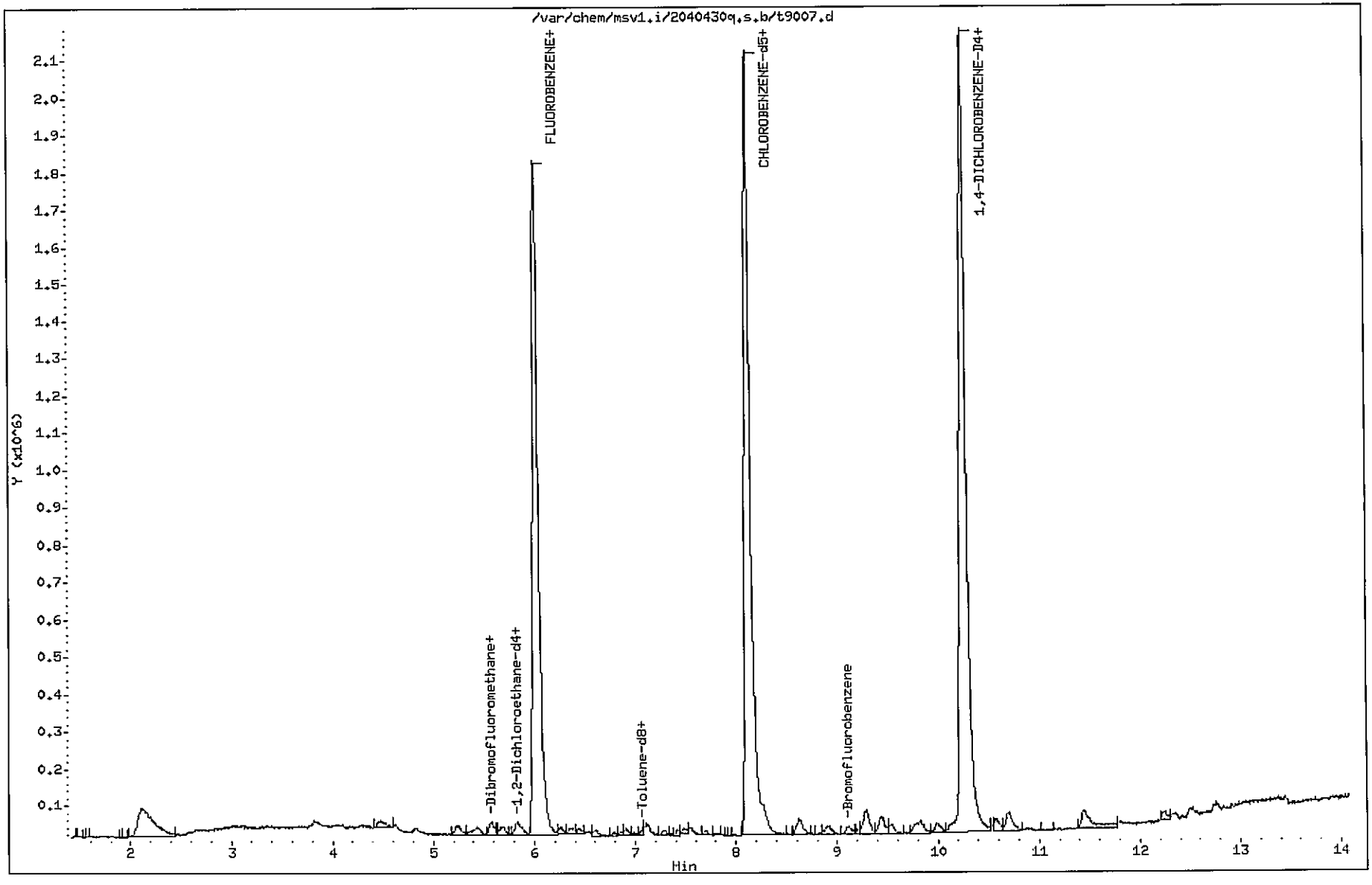
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

000145

Data File: /var/chem/msv1.i/2040430q.s.b/t9007.d
Date : 30-APR-2004 17:51
Client ID: V1STD00.4
Sample Info: 1207HV1STD00.4H5-12-1
Purge Volume: 5.0
Column phase: DB-624-30M

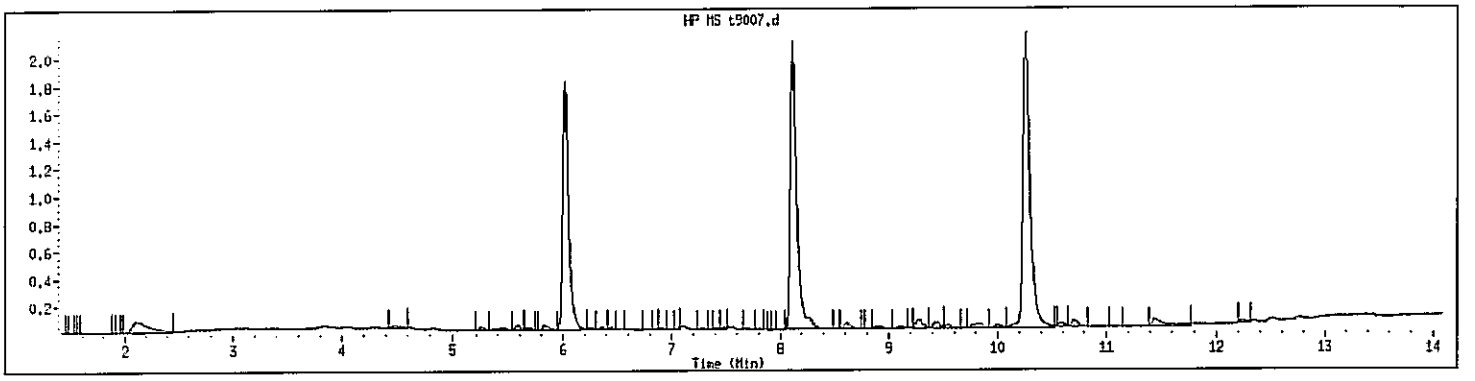
Instrument: msv1.i

Operator: RJO
Column diameter: 0.53



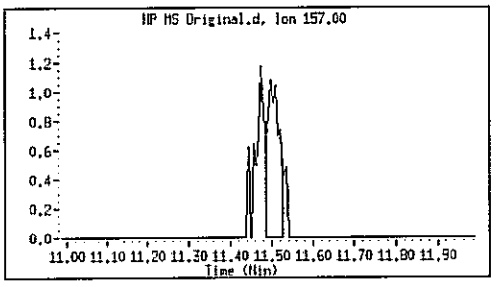
MANUAL INTEGRATION GRAPHIC REPORT

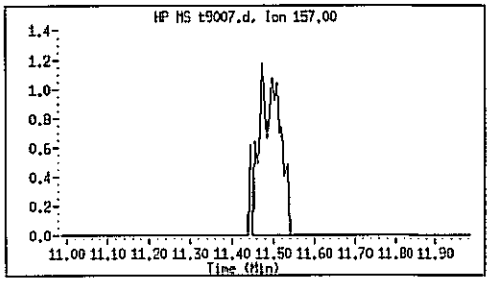
Lab ID	: 1207	SampleType	: CALIB_9
Injection Date	: 30-APR-2004 17:51	Instrument	: msv1.i
Operator	: RJO		
Sample Info	: 1207*V1STD00.4*5-12-1		
Misc Info	: MSV~4642~*1*RJO		
Method	: /var/chem/msv1.i/2040430q.s.b/8260Bw1.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: HP RTE	Compound Sublist	: 8260b



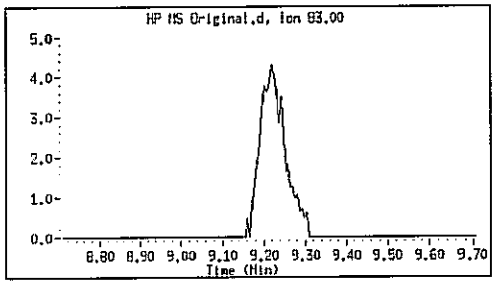
Original Final

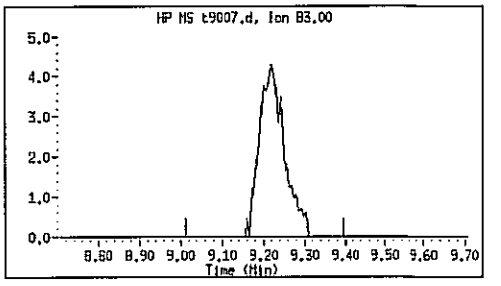
106 1,2-Dibromo-3-Chloropropane CAS#: 96-12-8





81 1,1,2,2-Tetrachloroethane++ CAS#: 79-34-5





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Data file : /var/chem/msv1.i/2040430q.s.b/t9008.d
Lab Smp Id: 1206 Client Smp ID: V1STD002
Inj Date : 30-APR-2004 18:15
Operator : RJO Inst ID: msv1.i
Smp Info : 1206*V1STD002*5-12-1
Misc Info : MSV~4642~*1*RJO
Comment :
Method : /var/chem/msv1.i/2040430q.s.b/8260Bw1.m
Meth Date : 02-May-2004 08:22 rsp Quant Type: ISTD
Cal Date : 30-APR-2004 18:15 Cal File: t9008.d
Als bottle: 10 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	ON-COL (ppb)	SIMILARITY
1 Dichlorodifluoromethane	85	2.325	2.313	(0.386)	62342	2.00000	2.34	(a)
2 Chloromethane ++	50	2.605	2.582	(0.433)	50189	2.00000	2.34	(aM)
3 Vinyl Chloride +	62	2.680	2.675	(0.445)	49138	2.00000	2.30	(a)
5 Bromomethane	94	3.040	3.069	(0.505)	26928	2.00000	0.675	(a)
6 Chloroethane	64	3.138	3.161	(0.521)	32402	2.00000	2.48	(a)
7 Trichlorofluoromethane	101	3.355	3.384	(0.557)	51537	2.00000	2.49	(a)
9 Acrolein	56	3.813	3.807	(0.633)	10165	10.0000	16.6	
10 1,1,2Trichlotrifluoroethane	101	3.813	3.802	(0.633)	63670	2.00000	2.46	(a)
11 1,1-Dichloroethene +	96	3.853	3.842	(0.640)	39868	2.00000	2.68	(a)
13 Methyl Iodide	142	4.019	4.008	(0.667)	46657	2.00000	1.95	(a)
14 Carbon Disulfide	76	4.054	4.054	(0.673)	111116	2.00000	2.38	(a)
17 Methylene Chloride	49	4.294	4.283	(0.713)	70230	2.00000	2.19	(a)
19 trans-1,2-Dichloroethene	61	4.460	4.460	(0.740)	55576	2.00000	2.24	(a)
20 Methyl Acetate	43	4.466	4.461	(0.741)	20840	2.00000	1.53	5237(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	21 MTBE	73	4.466	4.477	(0.741)	99953	2.00000	2.33	5237(a)
	22 Acrylonitrile	53	4.535	4.529	(0.753)	61761	10.0000	10.9	
	23 Hexane	57	4.615	4.615	(0.766)	57360	2.00000	2.42	0(aM)
	24 1,1-Dichloroethane ++	63	4.827	4.844	(0.801)	88923	2.00000	2.26	(a)
	25 Vinyl Acetate	43	4.827	4.832	(0.801)	84692	2.00000	1.90	(a)
	31 2,2-Dichloropropane	77	5.239	5.674	(0.870)	69328	2.00000	2.49	(aM)
	30 cis-1,2-Dichloroethene	61	5.250	5.250	(0.872)	75720	2.00000	2.24	(a)
	32 2-Butanone	43	5.262	5.588	(0.874)	25697	2.00000	2.03	(aH)
	34 Bromochloromethane	128	5.422	5.410	(0.900)	25552	2.00000	2.24	(a)
$	36 Dibromofluoromethane	111	5.571	5.576	(0.925)	63331	50.0000	2.35	5060(a)
	37 1,1,1-Trichloroethane	97	5.582	5.583	(0.927)	64761	2.00000	2.53	(aH)
	38 Cyclohexane	56	5.582	5.576	(0.927)	71298	2.00000	2.42	4818(a)
	39 Carbon Tetrachloride	117	5.680	5.685	(0.943)	51998	2.00000	2.49	(a)
	41 Chloroform +	83	5.451	5.445	(0.905)	86600	2.00000	2.42	(a)
	42 1,1-Dichloropropene	75	5.691	5.691	(0.945)	68168	2.00000	2.34	(a)
$	43 1,2-Dichloroethane-d4	67	5.829	5.828	(0.968)	24722	50.0000	2.38	(a)
	44 Benzene	78	5.829	6.023	(0.968)	143892	2.00000	1.21	(a)
	46 1,2-Dichloroethane	62	5.880	6.023	(0.976)	51480	2.00000	2.29	(aH)
*	47 FLUOROBENZENE	96	6.023	6.023	(1.000)	3199842	50.0000		
M	48 Total 1,2-Dichloroethene	61				131296	4.00000	4.49	(a)
	49 Trichloroethene	130	6.252	6.252	(1.038)	51286	2.00000	2.27	(a)
	50 Methyl Cyclohexane	83	6.361	6.378	(1.056)	64455	2.00000	2.43	6408(a)
	51 1,2-Dichloropropane +	63	6.447	6.853	(1.070)	55560	2.00000	2.25	(a)
	52 Dibromomethane	93	6.533	6.539	(1.085)	38591	2.00000	2.21	(a)
	54 Bromodichloromethane	83	6.607	6.618	(1.097)	72984	2.00000	2.15	(a)
	56 2-Chloroethyl vinyl ether	63	6.785	6.784	(1.126)	28331	2.00000	1.91	(a)
	57 1-Bromr-2-chloroethana	144	6.859	6.876	(1.139)	11354	2.00000	2.20	2941(a)
	58 cis-1,3-Dichloropropene	75	6.916	6.910	(1.148)	83044	2.00000	2.19	(a)
	59 4-methyl-2-pentanone	43	6.996	6.979	(1.162)	55717	2.00000	2.01	(a)
$	60 Toluene-d8	98	7.071	7.076	(0.871)	128366	50.0000	2.45	(a)
	61 Toluene +	91	7.122	7.123	(0.877)	154424	2.00000	2.48	(a)
	62 trans-1,3-Dichloropropene	75	7.283	7.288	(1.209)	72400	2.00000	2.16	(a)
M	143 1-3 Dichloropropene-Total	75				155444	2.00000	4.36	0(a)
	65 1,1,2-Trichloroethane	97	7.414	7.431	(0.913)	47766	2.00000	2.30	(a)
	66 Tetrachloroethene	164	7.483	7.489	(0.922)	40089	2.00000	2.55	(a)
	67 1,3-Dichloropropane	76	7.546	7.551	(0.929)	89506	2.00000	2.31	(a)
	68 2-Hexanone	43	7.552	7.552	(0.930)	37278	2.00000	2.22	(a)
	69 Dibromochloromethane	129	7.701	7.712	(0.949)	57251	2.00000	2.22	(a)
	70 1,2-Dibromoethane(EDB)	107	7.809	7.815	(0.962)	61825	2.00000	2.24	(a)
*	71 CHLOROBENZENE-d5	82	8.118	8.124	(1.000)	1523860	50.0000		
	72 Chlorobenzene ++	112	8.147	8.153	(1.004)	118471	2.00000	2.48	(a)
	73 Ethylbenzene +	106	8.193	8.187	(1.009)	53160	2.00000	2.55	(a)
	74 1,1,1,2-Tetrachloroethane	133	8.199	8.199	(1.010)	52556	2.00000	2.56	(aM)
	75 p,m-Xylene	106	8.279	8.279	(1.020)	148278	4.00000	4.85	(a)
	76 o-Xylene	106	8.617	8.622	(1.061)	74334	2.00000	2.39	(a)
	77 Styrene	104	8.628	8.628	(1.063)	117408	2.00000	2.19	(a)
	78 Bromoform ++	173	8.840	8.845	(1.089)	36949	2.00000	2.24	(a)

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	79	Isopropylbenzene	105	8.909	8.925	(1.097)	192344	2.00000	2.45	(a)
$	80	Bromofluorobenzene	174	9.103	9.120	(1.121)	48973	50.0000	2.51	(a)
	81	1,1,2,2-Tetrachloroethane++	83	9.206	9.212	(0.898)	82455	2.00000	2.01	(a)
	84	Bromobenzene	77	9.275	9.275	(0.905)	147351	2.00000	2.38	(a)
	83	trans-1,4-Dichloro-2-Butene	53	9.269	9.280	(0.904)	19299	2.00000	2.18	(a)
	85	1,2,3-Trichloropropane	75	9.292	9.286	(0.906)	101150	2.00000	2.37	(a)
	86	n-Propylbenzene	91	9.286	9.292	(0.906)	231448	2.00000	2.44	(a)
	87	2-Chlorotoluene	91	9.435	9.435	(0.920)	157669	2.00000	2.33	(a)
	88	1,3,5-Trimethylbenzene	105	9.452	9.458	(0.922)	149938	2.00000	2.39	(a)
	90	4-Chlorotoluene	91	9.533	9.538	(0.930)	153705	2.00000	2.33	(a)
	91	tert-butylbenzene	91	9.762	9.773	(0.952)	99293	2.00000	2.38	(a)
	92	p-Isopropyltoluene	119	9.767	9.778	(0.953)	169734	2.00000	2.45	(a)
	93	1,2,4-Trimethylbenzene	105	9.825	9.841	(0.958)	149484	2.00000	2.33	(a)
	94	sec-Butylbenzene	105	10.002	10.007	(0.975)	237364	2.00000	2.44	(a)
	96	1,3-Dichlorobenzene	146	10.185	10.288	(0.993)	87293	2.00000	2.25	(aH)
*	97	1,4-DICHLOROBENZENE-D4	152	10.254	10.265	(1.000)	1387021	50.0000		
	98	1,4-Dichlorobenzene	146	10.277	10.288	(1.002)	159483	2.00000	3.34	(a)
M	99	TOTAL XYLENE	106				222612	6.00000	7.24	
	100	n-Butylbenzene	91	10.574	10.574	(1.031)	161746	2.00000	2.31	(a)
	102	1,2-Dichlorobenzene	146	10.700	10.706	(1.044)	117819	2.00000	2.78	(a)
	106	1,2-Dibromo-3-Chloropropane	157	11.485	11.490	(1.120)	17553	2.00000	1.87	(a)
	108	1,2,4-Trichlorobenzene	180	12.240	12.240	(1.194)	56406	2.00000	2.17	(a)
	109	Hexachlorobutadiene	225	12.349	12.332	(1.204)	22407	2.00000	2.44	(a)
	110	Naphthalene	128	12.510	12.515	(1.220)	148845	2.00000	2.33	(a)
	111	1,2,3-Trichlorobenzene	180	12.744	12.744	(1.243)	54045	2.00000	2.41	(a)

QC Flag Legend

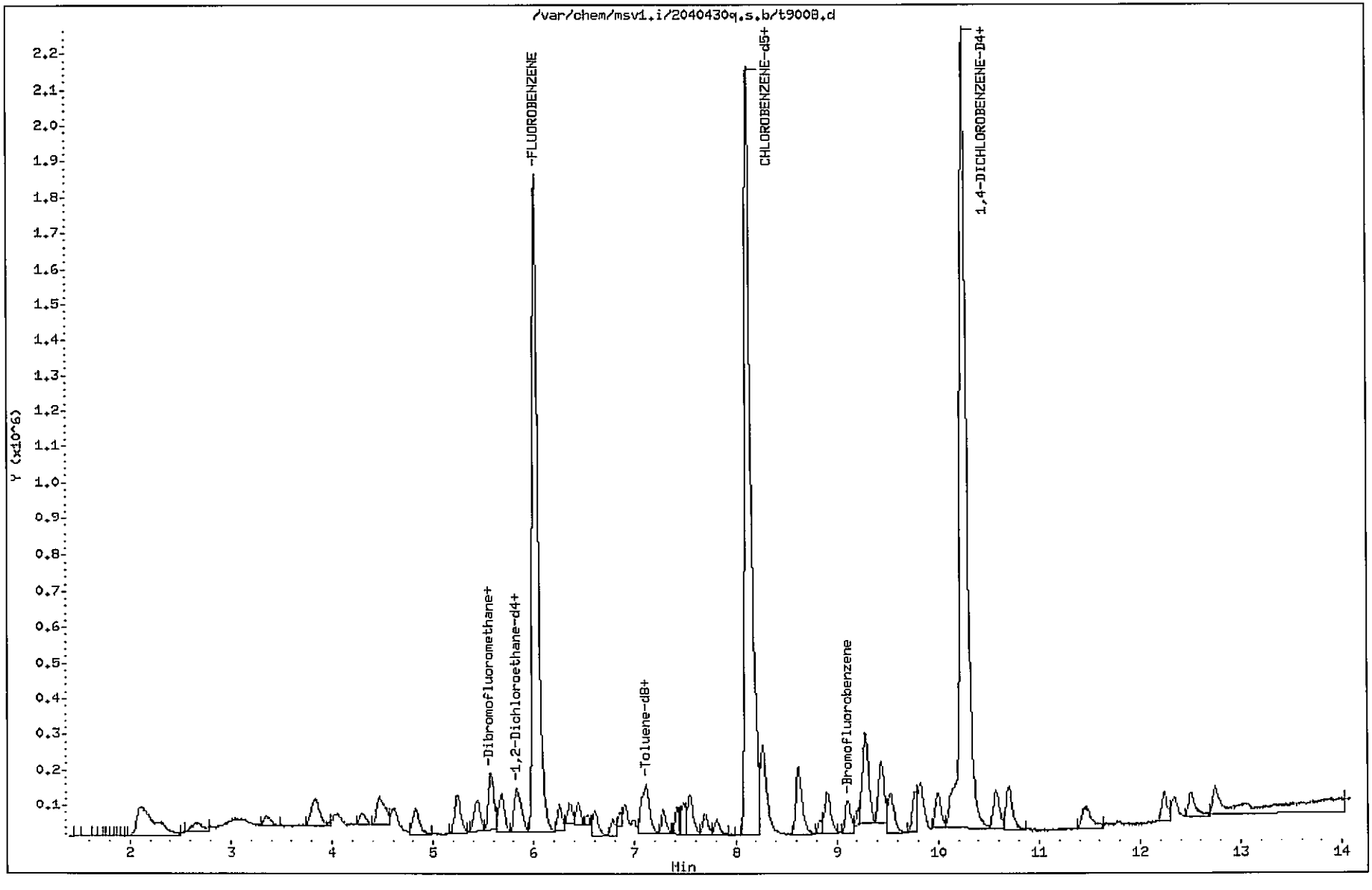
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /var/chem/msv1.i/2040430q.s.b/t9008.d
Date : 30-APR-2004 18:15
Client ID: V1STD002
Sample Info: 1206MV1STD002M5-12-1
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

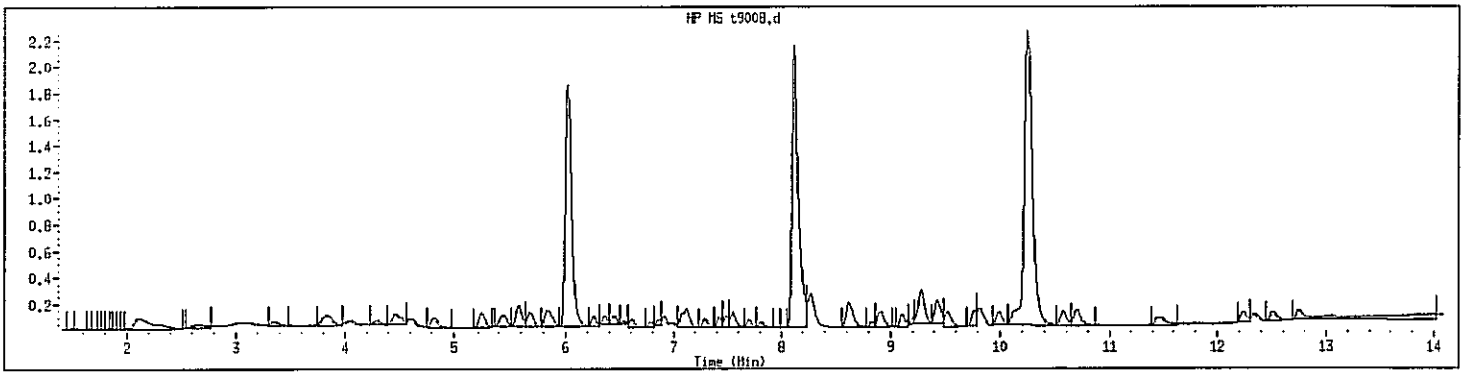
Operator: RJO
Column diameter: 0.53

000150



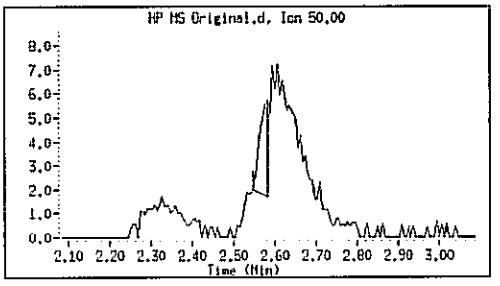
MANUAL INTEGRATION GRAPHIC REPORT

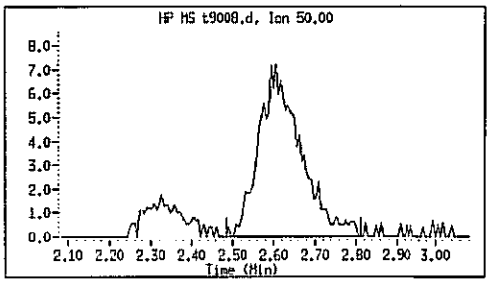
Lab ID	: 1206	SampleType	: CALIB_8
Injection Date	: 30-APR-2004 18:15	Instrument	: msv1.i
Operator	: RJO		
Sample Info	: 1206*V1STD002*5-12-1		
Misc Info	: MSV~4642~*1*RJO		
Method	: /var/chem/msv1.i/2040430q.s.b/8260Bw1.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: HP RTE	Compound Sublist	: 8260b



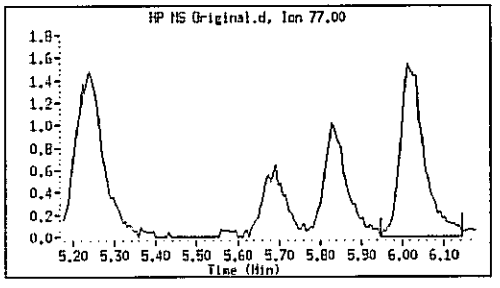
Original Final

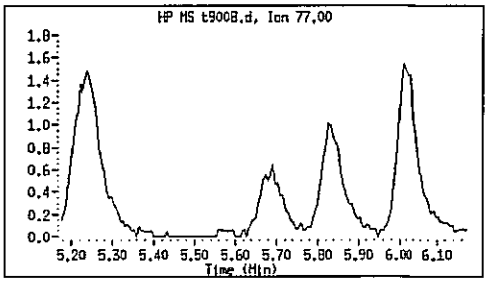
2 Chloromethane ++ CAS#: 74-87-3





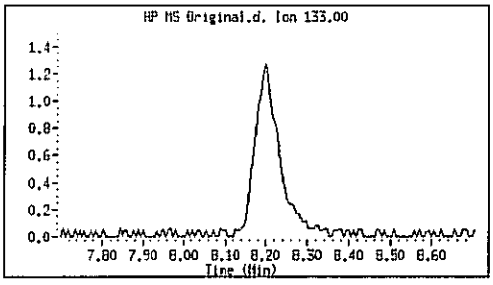
31 2,2-Dichloropropane CAS#: 594-20-7

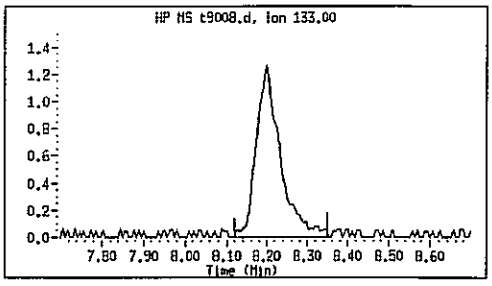




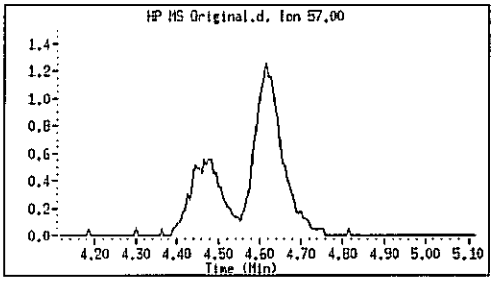
Original Final

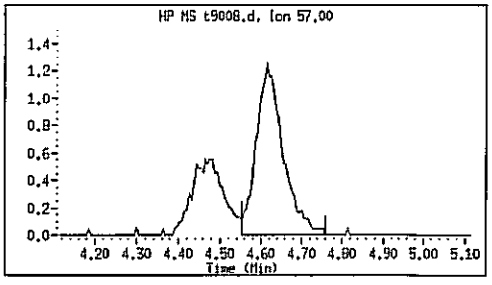
74 1,1,1,2-Tetrachloroethane CAS#: 630-20-6





23 Hexane CAS#: 110-54-3





GCAL, Inc.

Data file : /var/chem/msv1.i/2040430q.s.b/t9009.d
Lab Smp Id: 1201 Client Smp ID: V1STD005
Inj Date : 30-APR-2004 18:38
Operator : RJO Inst ID: msv1.i
Smp Info : 1201*V1STD005*5-12-1
Misc Info : MSV~4642~*1*RJO
Comment :
Method : /var/chem/msv1.i/2040430q.s.b/8260Bw1.m
Meth Date : 01-May-2004 18:04 rsp Quant Type: ISTD
Cal Date : 30-APR-2004 18:38 Cal File: t9009.d
Als bottle: 11 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
1 Dichlorodifluoromethane	85	2.314	2.314	(0.384)	133791	5.00000	5.01	
2 Chloromethane ++	50	2.589	2.589	(0.430)	108209	5.00000	5.02	
3 Vinyl Chloride +	62	2.652	2.652	(0.441)	105022	5.00000	4.90	(a)
5 Bromomethane	94	3.053	3.053	(0.507)	70260	5.00000	4.50	(a)
6 Chloroethane	64	3.133	3.133	(0.521)	73657	5.00000	5.62	
7 Trichlorofluoromethane	101	3.356	3.356	(0.558)	105060	5.00000	5.06	
9 Acrolein	56	3.808	3.808	(0.633)	40919	25.0000	33.7	
10 1,1,2Trichlotrifluoroethane	101	3.820	3.820	(0.635)	128228	5.00000	4.93	(a)
11 1,1-Dichloroethene +	96	3.848	3.848	(0.639)	80119	5.00000	5.38	
12 Acetone	43	3.946	3.946	(0.656)	37454	5.00000	3.31	(a)
13 Methyl Iodide	142	4.003	4.003	(0.665)	123442	5.00000	5.15	
14 Carbon Disulfide	76	4.054	4.054	(0.674)	234938	5.00000	5.02	
17 Methylene Chloride	49	4.301	4.301	(0.715)	163387	5.00000	5.08	
19 trans-1,2-Dichloroethene	61	4.472	4.472	(0.743)	126687	5.00000	5.10	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	20 Methyl Acetate	43	4.186	4.186	(0.696)	64069	5.00000	4.68	2865(aH)
	21 MTBE	73	4.461	4.461	(0.741)	225701	5.00000	5.24	5236
	22 Acrylonitrile	53	4.530	4.530	(0.753)	135240	25.0000	23.7	
	23 Hexane	57	4.621	4.621	(0.768)	109502	5.00000	4.60	0(aM)
	24 1,1-Dichloroethane ++	63	4.816	4.816	(0.800)	203579	5.00000	5.17	
	25 Vinyl Acetate	43	4.827	4.827	(0.802)	219056	5.00000	4.89	(a)
	31 2,2-Dichloropropane	77	5.234	5.234	(0.870)	146846	5.00000	5.25	(M)
	30 cis-1,2-Dichloroethene	61	5.245	5.245	(0.872)	168073	5.00000	4.96	(a)
	32 2-Butanone	43	5.262	5.262	(0.874)	79420	5.00000	6.24	
	34 Bromochloromethane	128	5.417	5.417	(0.900)	58739	5.00000	5.13	
$	36 Dibromofluoromethane	111	5.560	5.560	(0.924)	143760	5.00000	5.32	5143
	37 1,1,1-Trichloroethane	97	5.571	5.571	(0.926)	140647	5.00000	5.49	(H)
	38 Cyclohexane	56	5.577	5.577	(0.927)	138922	5.00000	4.71	4949(a)
	39 Carbon Tetrachloride	117	5.675	5.675	(0.943)	103752	5.00000	4.96	(a)
	41 Chloroform +	83	5.451	5.451	(0.906)	189932	5.00000	5.30	
	42 1,1-Dichloropropene	75	5.680	5.680	(0.944)	143255	5.00000	4.91	(a)
$	43 1,2-Dichloroethane-d4	67	5.818	5.818	(0.967)	55621	5.00000	5.34	
	44 Benzene	78	5.829	5.829	(0.969)	314614	5.00000	4.12	(a)
	46 1,2-Dichloroethane	62	5.881	5.881	(0.977)	114310	5.00000	5.06	
*	47 FLUOROBENZENE	96	6.018	6.018	(1.000)	3209937	50.0000		
M	48 Total 1,2-Dichloroethene	61				294760	10.0000	10.1	
	49 Trichloroethene	130	6.253	6.253	(1.039)	111139	5.00000	4.90	(a)
	50 Methyl Cyclohexane	83	6.362	6.362	(1.057)	122050	5.00000	4.59	6378(a)
	51 1,2-Dichloropropane +	63	6.442	6.442	(1.070)	126303	5.00000	5.09	
	52 Dibromomethane	93	6.528	6.528	(1.085)	90007	5.00000	5.14	
	54 Bromodichloromethane	83	6.608	6.608	(1.098)	177785	5.00000	5.22	
	56 2-Chloroethyl vinyl ether	63	6.779	6.779	(1.127)	67901	5.00000	4.55	(a)
	57 1-Bromr-2-chloroethana	144	6.860	6.860	(1.140)	26308	5.00000	5.08	3091
	58 cis-1,3-Dichloropropene	75	6.900	6.900	(1.147)	187868	5.00000	4.94	(a)
	59 4-methyl-2-pentanone	43	6.986	6.986	(1.161)	130566	5.00000	4.70	(a)
$	60 Toluene-d8	98	7.066	7.066	(0.870)	283369	5.00000	5.34	
	61 Toluene +	91	7.123	7.123	(0.877)	335685	5.00000	5.31	
	62 trans-1,3-Dichloropropene	75	7.283	7.283	(1.210)	167177	5.00000	4.98	(a)
M	143 1-3 Dichloropropene-Total	75				355045	10.0000	9.92	0
	65 1,1,2-Trichloroethane	97	7.415	7.415	(0.913)	112386	5.00000	5.35	
	66 Tetrachloroethene	164	7.484	7.484	(0.922)	81642	5.00000	5.12	
	67 1,3-Dichloropropane	76	7.552	7.552	(0.930)	208319	5.00000	5.32	
	68 2-Hexanone	43	7.552	7.552	(0.930)	84944	5.00000	4.98	(a)
	69 Dibromochloromethane	129	7.690	7.690	(0.947)	136891	5.00000	5.24	
	70 1,2-Dibromoethane(EDB)	107	7.810	7.810	(0.962)	141911	5.00000	5.07	
*	71 CHLOROBENZENE-d5	82	8.119	8.119	(1.000)	1544030	50.0000		
	72 Chlorobenzene ++	112	8.148	8.148	(1.004)	259381	5.00000	5.36	
	73 Ethylbenzene +	106	8.176	8.176	(1.007)	115050	5.00000	5.45	
	74 1,1,1,2-Tetrachloroethane	133	8.194	8.194	(1.009)	117031	5.00000	5.63	(M)
	75 p,m-Xylene	106	8.268	8.268	(1.018)	320137	10.0000	10.3	
	76 o-Xylene	106	8.606	8.606	(1.060)	164382	5.00000	5.22	
	77 Styrene	104	8.623	8.623	(1.062)	272208	5.00000	5.00	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	78 Bromoform ++	173	8.835	8.835	(1.088)	86602	5.00000	5.18	
	79 Isopropylbenzene	105	8.903	8.903	(1.097)	394591	5.00000	4.97	(a)
$	80 Bromofluorobenzene	174	9.104	9.104	(1.121)	110011	5.00000	5.58	
	81 1,1,2,2-Tetrachloroethane++	83	9.207	9.207	(0.898)	192984	5.00000	4.73	(a)
	84 Bromobenzene	77	9.270	9.270	(0.904)	318038	5.00000	5.16	
	83 trans-1,4-Dichloro-2-Butene	53	9.270	9.270	(0.904)	46237	5.00000	5.26	
	85 1,2,3-Trichloropropane	75	9.281	9.281	(0.906)	210672	5.00000	4.96	(a)
	86 n-Propylbenzene	91	9.287	9.287	(0.906)	470067	5.00000	4.99	(a)
	87 2-Chlorotoluene	91	9.419	9.419	(0.919)	356121	5.00000	5.29	
	88 1,3,5-Trimethylbenzene	105	9.442	9.442	(0.921)	320921	5.00000	5.14	
	90 4-Chlorotoluene	91	9.522	9.522	(0.929)	341809	5.00000	5.22	
	91 tert-butylbenzene	91	9.768	9.768	(0.953)	205123	5.00000	4.95	(a)
	92 p-Isopropyltoluene	119	9.768	9.768	(0.953)	333490	5.00000	4.84	(a)
	93 1,2,4-Trimethylbenzene	105	9.825	9.825	(0.959)	325939	5.00000	5.11	
	94 sec-Butylbenzene	105	9.997	9.997	(0.975)	448317	5.00000	4.64	(a)
	96 1,3-Dichlorobenzene	146	10.180	10.180	(0.993)	197326	5.00000	5.12	
*	97 1,4-DICHLOROBENZENE-D4	152	10.249	10.249	(1.000)	1377330	50.0000		
	98 1,4-Dichlorobenzene	146	10.272	10.272	(1.002)	280346	5.00000	5.90	
M	99 TOTAL XYLENE	106				484519	15.0000	15.6	
	100 n-Butylbenzene	91	10.575	10.575	(1.032)	315649	5.00000	4.53	(a)
	102 1,2-Dichlorobenzene	146	10.695	10.695	(1.044)	226595	5.00000	5.38	
	106 1,2-Dibromo-3-Chloropropane	157	11.480	11.480	(1.120)	42118	5.00000	4.52	(a)
	108 1,2,4-Trichlorobenzene	180	12.224	12.224	(1.193)	123582	5.00000	4.78	(a)
	109 Hexachlorobutadiene	225	12.344	12.344	(1.204)	40555	5.00000	4.44	(a)
	110 Naphthalene	128	12.493	12.493	(1.219)	296498	5.00000	4.67	(a)
	111 1,2,3-Trichlorobenzene	180	12.739	12.739	(1.243)	97314	5.00000	4.38	(a)

QC Flag Legend

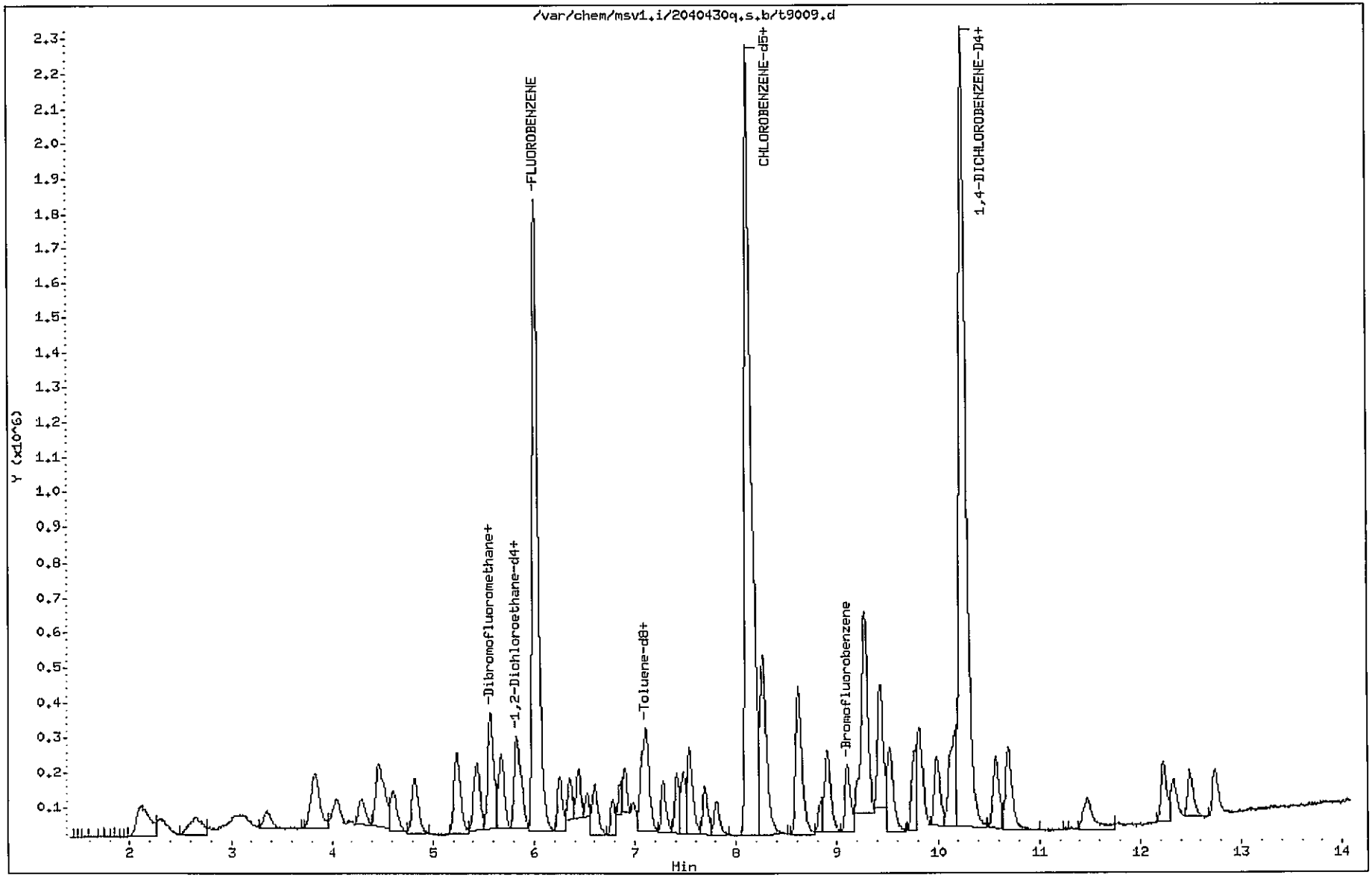
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /var/chem/msv1.i/2040430q.s.b/t9009.d
Date : 30-APR-2004 18:38
Client ID: V1STD005
Sample Info: 1201*V1STD005*5-12-1
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

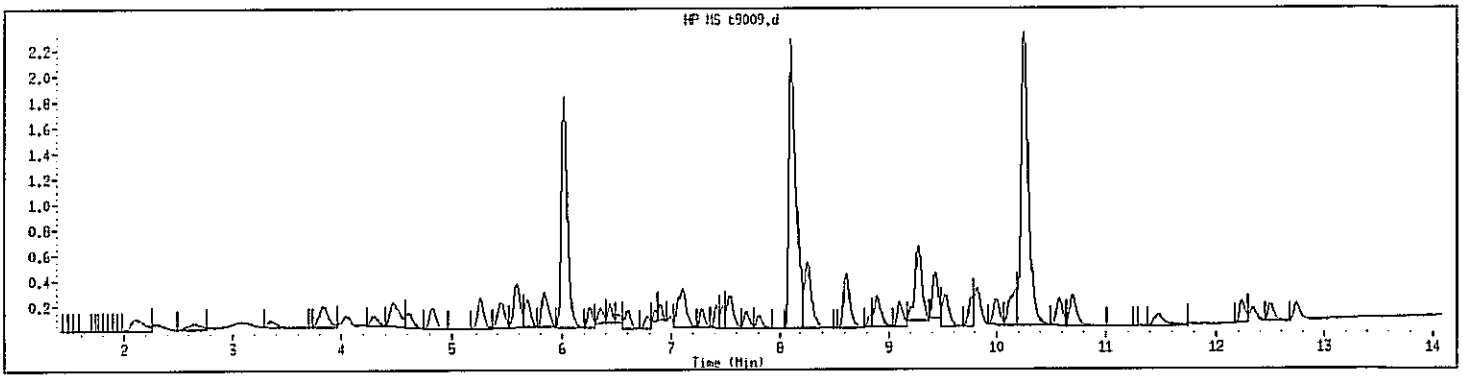
Operator: RJO
Column diameter: 0.53

000156



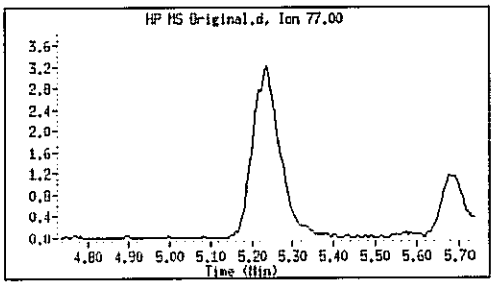
MANUAL INTEGRATION GRAPHIC REPORT

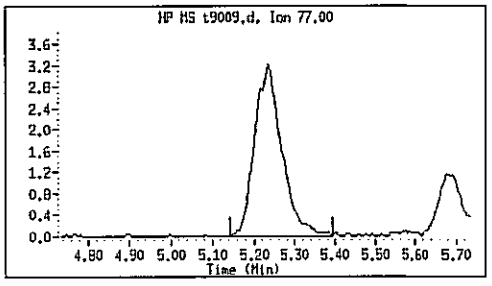
Lab ID	: 1201	SampleType	: CALIB_1
Injection Date	: 30-APR-2004 18:38	Instrument	: msv1.i
Operator	: RJO		
Sample Info	: 1201*V1STD005*5-12-1		
Misc Info	: MSV~4642~*1*RJO		
Method	: /var/chem/msv1.i/2040430q.s.b/8260Bw1.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: HP RTE	Compound Sublist	: 8260b



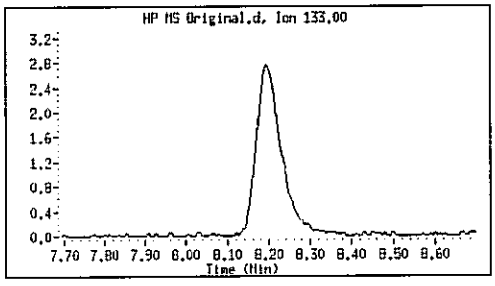
Original Final

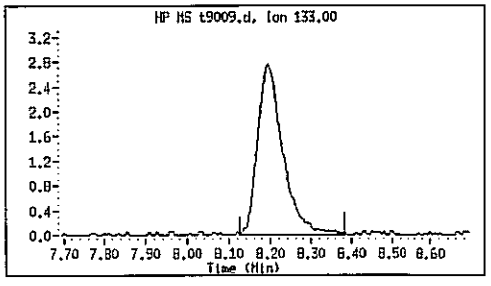
31 2,2-Dichloropropane CAS#: 594-20-7





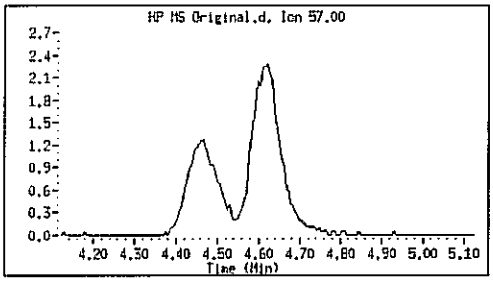
74 1,1,1,2-Tetrachloroethane CAS#: 630-20-6

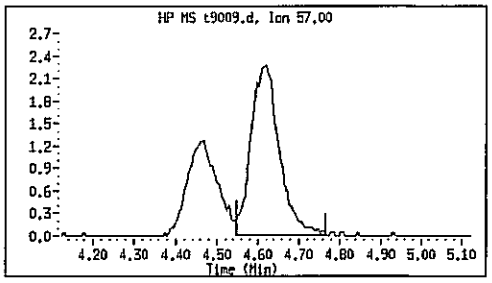




Original Final

23 Hexane CAS#: 110-54-3





GCAL, Inc.

Data file : /var/chem/msv1.i/2040430q.s.b/t9010.d
Lab Smp Id: 1202 Client Smp ID: V1STD020
Inj Date : 30-APR-2004 19:02
Operator : RJO Inst ID: msv1.i
Smp Info : 1202*V1STD020*5-12-1
Misc Info : MSV~4642~*1*RJO
Comment :
Method : /var/chem/msv1.i/2040430q.s.b/8260Bw1.m
Meth Date : 01-May-2004 18:04 rsp Quant Type: ISTD
Cal Date : 30-APR-2004 19:02 Cal File: t9010.d
Als bottle: 12 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
1 Dichlorodifluoromethane	85	2.319	2.319	(0.385)	460054	20.0000	17.8	
2 Chloromethane ++	50	2.605	2.605	(0.433)	394021	20.0000	18.9	
3 Vinyl Chloride +	62	2.657	2.657	(0.442)	388560	20.0000	18.7	
5 Bromomethane	94	3.046	3.046	(0.506)	271268	20.0000	23.0	
6 Chloroethane	64	3.132	3.132	(0.520)	266027	20.0000	20.9	
7 Trichlorofluoromethane	101	3.361	3.361	(0.559)	369291	20.0000	18.3	
9 Acrolein	56	3.813	3.813	(0.634)	164271	100.000	106	
10 1,1,2Trichlotrifluoroethane	101	3.813	3.813	(0.634)	447295	20.0000	17.7	
11 1,1-Dichloroethene +	96	3.854	3.854	(0.640)	266436	20.0000	18.4	
12 Acetone	43	3.945	3.945	(0.656)	114030	20.0000	19.0	
13 Methyl Iodide	142	4.014	4.014	(0.667)	479328	20.0000	20.6	
14 Carbon Disulfide	76	4.060	4.060	(0.675)	867614	20.0000	19.1	
17 Methylene Chloride	49	4.289	4.289	(0.713)	645455	20.0000	20.7	
19 trans-1,2-Dichloroethene	61	4.472	4.472	(0.743)	471871	20.0000	19.6	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	20 Methyl Acetate	43	4.186	4.186	(0.696)	268127	20.0000	20.2	2898(H)
	21 MTBE	73	4.460	4.460	(0.741)	882802	20.0000	21.2	5140
	22 Acrylonitrile	53	4.535	4.535	(0.754)	547747	100.000	99.1	
	23 Hexane	57	4.609	4.609	(0.766)	362768	20.0000	15.7	3222(H)
	24 1,1-Dichloroethane ++	63	4.827	4.827	(0.802)	771810	20.0000	20.2	
	25 Vinyl Acetate	43	4.821	4.821	(0.801)	901171	20.0000	20.7	
	31 2,2-Dichloropropane	77	5.233	5.233	(0.870)	531127	20.0000	19.6	(M)
	30 cis-1,2-Dichloroethene	61	5.239	5.239	(0.871)	658146	20.0000	20.0	
	32 2-Butanone	43	5.262	5.262	(0.874)	245577	20.0000	19.9	
	34 Bromochloromethane	128	5.416	5.416	(0.900)	233832	20.0000	21.1	
$	36 Dibromofluoromethane	111	5.560	5.560	(0.924)	533480	20.0000	20.4	5111
	37 1,1,1-Trichloroethane	97	5.577	5.577	(0.927)	493985	20.0000	19.9	(MH)
	38 Cyclohexane	56	5.577	5.577	(0.927)	479365	20.0000	16.7	5084
	39 Carbon Tetrachloride	117	5.674	5.674	(0.943)	373374	20.0000	18.4	
	41 Chloroform +	83	5.445	5.445	(0.905)	727963	20.0000	20.9	
	42 1,1-Dichloropropene	75	5.680	5.680	(0.944)	536969	20.0000	19.0	
$	43 1,2-Dichloroethane-d4	67	5.817	5.817	(0.967)	210122	20.0000	20.8	
	44 Benzene	78	5.834	5.834	(0.970)	1179811	20.0000	19.6	
	46 1,2-Dichloroethane	62	5.874	5.874	(0.976)	456628	20.0000	20.9	
*	47 FLUOROBENZENE	96	6.018	6.018	(1.000)	3112018	50.0000		
M	48 Total 1,2-Dichloroethene	61				1130017	40.0000	39.6	
	49 Trichloroethene	130	6.258	6.258	(1.040)	419697	20.0000	19.1	
	50 Methyl Cyclohexane	83	6.361	6.361	(1.057)	411166	20.0000	15.9	6356
	51 1,2-Dichloropropane +	63	6.435	6.435	(1.069)	476238	20.0000	19.8	
	52 Dibromomethane	93	6.521	6.521	(1.084)	359903	20.0000	21.2	
	54 Bromodichloromethane	83	6.607	6.607	(1.098)	688050	20.0000	20.8	
	56 2-Chloroethyl vinyl ether	63	6.779	6.779	(1.127)	279558	20.0000	19.3	
	57 1-Bromr-2-chloroethana	144	6.853	6.853	(1.139)	105572	20.0000	21.0	2777
	58 cis-1,3-Dichloropropene	75	6.905	6.905	(1.147)	772924	20.0000	21.0	
	59 4-methyl-2-pentanone	43	6.985	6.985	(1.161)	530540	20.0000	19.7	
$	60 Toluene-d8	98	7.071	7.071	(0.871)	1028886	20.0000	19.8	
	61 Toluene +	91	7.117	7.117	(0.877)	1278606	20.0000	20.6	
	62 trans-1,3-Dichloropropene	75	7.283	7.283	(1.210)	669442	20.0000	20.6	
M	143 1-3 Dichloropropene-Total	75				1442366	40.0000	41.6	0
	65 1,1,2-Trichloroethane	97	7.414	7.414	(0.913)	436726	20.0000	21.2	
	66 Tetrachloroethene	164	7.483	7.483	(0.922)	287727	20.0000	18.4	
	67 1,3-Dichloropropane	76	7.546	7.546	(0.929)	814263	20.0000	21.2	
	68 2-Hexanone	43	7.546	7.546	(0.929)	336774	20.0000	20.1	
	69 Dibromochloromethane	129	7.689	7.689	(0.947)	549974	20.0000	21.5	
	70 1,2-Dibromoethane(EDB)	107	7.809	7.809	(0.962)	561226	20.0000	20.4	
*	71 CHLOROBENZENE-d5	82	8.119	8.119	(1.000)	1514454	50.0000		
	72 Chlorobenzene ++	112	8.147	8.147	(1.004)	1002627	20.0000	21.1	
	73 Ethylbenzene +	106	8.182	8.182	(1.008)	431238	20.0000	20.8	
	74 1,1,1,2-Tetrachloroethane	133	8.199	8.199	(1.010)	437930	20.0000	21.5	(M)
	75 p,m-Xylene	106	8.273	8.273	(1.019)	1252589	40.0000	41.3	
	76 o-Xylene	106	8.617	8.617	(1.061)	636090	20.0000	20.6	
	77 Styrene	104	8.622	8.622	(1.062)	1124982	20.0000	21.1	

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	78	Bromoform ++	173	8.834	8.834	(1.088)	349935	20.0000	21.3	
	79	Isopropylbenzene	105	8.909	8.909	(1.097)	1486866	20.0000	19.1	
$	80	Bromofluorobenzene	174	9.109	9.109	(1.122)	408516	20.0000	21.1	
	81	1,1,2,2-Tetrachloroethane++	83	9.212	9.212	(0.898)	775241	20.0000	18.7	
	84	Bromobenzene	77	9.269	9.269	(0.903)	1277892	20.0000	20.4	
	83	trans-1,4-Dichloro-2-Butene	53	9.275	9.275	(0.904)	180067	20.0000	20.1	
	85	1,2,3-Trichloropropane	75	9.287	9.287	(0.905)	869138	20.0000	20.1	
	86	n-Propylbenzene	91	9.292	9.292	(0.906)	1795114	20.0000	18.7	
	87	2-Chlorotoluene	91	9.430	9.430	(0.919)	1346294	20.0000	19.7	
	88	1,3,5-Trimethylbenzene	105	9.441	9.441	(0.920)	1210551	20.0000	19.1	
	90	4-Chlorotoluene	91	9.533	9.533	(0.929)	1335126	20.0000	20.0	
	91	tert-butylbenzene	91	9.773	9.773	(0.953)	755086	20.0000	17.9	
	92	p-Isopropyltoluene	119	9.773	9.773	(0.953)	1254745	20.0000	17.9	
	93	1,2,4-Trimethylbenzene	105	9.830	9.830	(0.958)	1250196	20.0000	19.3	
	94	sec-Butylbenzene	105	9.991	9.991	(0.974)	1739725	20.0000	17.7	
	96	1,3-Dichlorobenzene	146	10.191	10.191	(0.993)	771807	20.0000	19.7	
*	97	1,4-DICHLOROBENZENE-D4	152	10.260	10.260	(1.000)	1401118	50.0000		
	98	1,4-Dichlorobenzene	146	10.277	10.277	(1.002)	990251	20.0000	20.5	
M	99	TOTAL XYLENE	106				1888679	60.0000	61.8	
	100	n-Butylbenzene	91	10.580	10.580	(1.031)	1218735	20.0000	17.2	
	102	1,2-Dichlorobenzene	146	10.706	10.706	(1.044)	842748	20.0000	19.7	
	106	1,2-Dibromo-3-Chloropropane	157	11.485	11.485	(1.119)	175820	20.0000	18.6	
	108	1,2,4-Trichlorobenzene	180	12.229	12.229	(1.192)	491096	20.0000	18.7	
	109	Hexachlorobutadiene	225	12.332	12.332	(1.202)	156200	20.0000	16.8	
	110	Naphthalene	128	12.487	12.487	(1.217)	1167926	20.0000	18.1	
	111	1,2,3-Trichlorobenzene	180	12.739	12.739	(1.242)	422535	20.0000	18.7	

QC Flag Legend

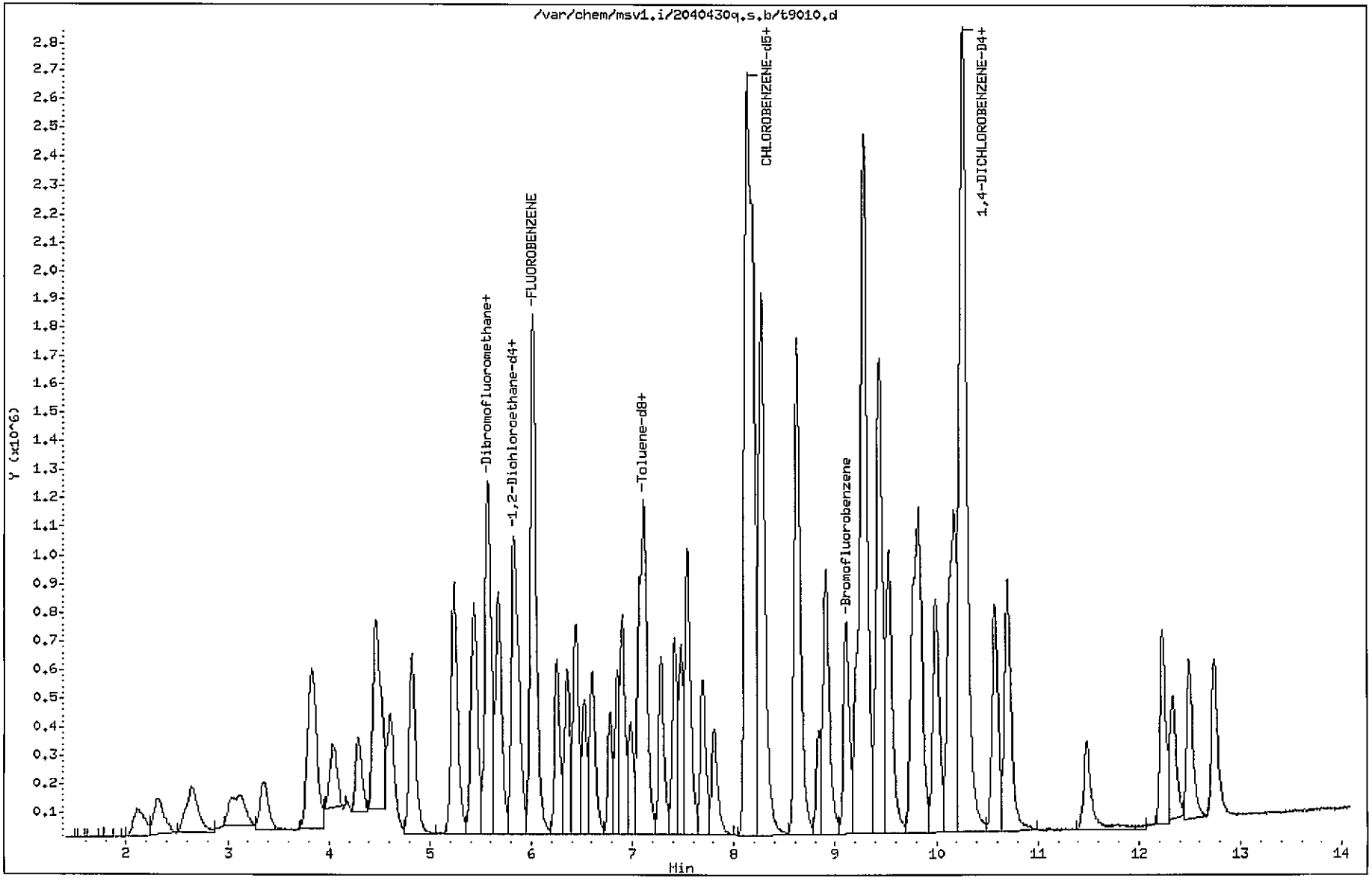
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /var/chem/msv1.i/2040430q.s.b/t9010.d
Date : 30-APR-2004 19:02
Client ID: V1STD020
Sample Info: 1202WV1STD020W5-12-1
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

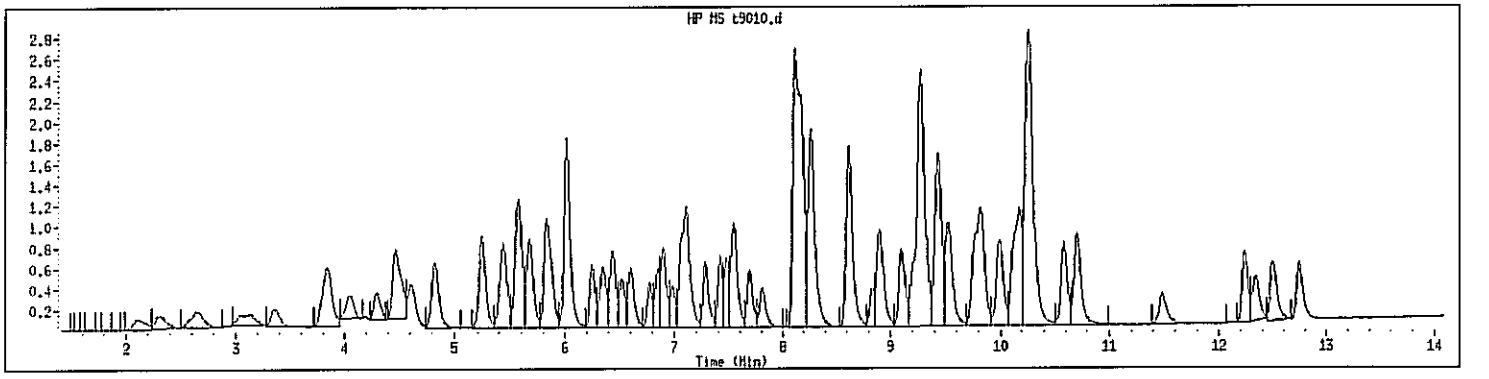
Operator: RJO
Column diameter: 0.53

000162



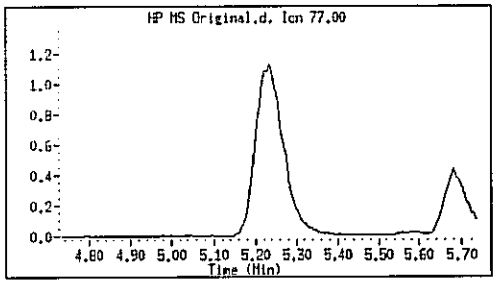
MANUAL INTEGRATION GRAPHIC REPORT

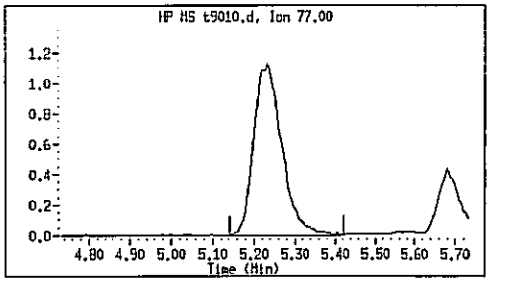
Lab ID	: 1202	SampleType	: CALIB_2
Injection Date	: 30-APR-2004 19:02	Instrument	: msv1.i
Operator	: RJO		
Sample Info	: 1202*V1STD020*5-12-1		
Misc Info	: MSV~4642~*1*RJO		
Method	: /var/chem/msv1.i/2040430q.s.b/8260Bw1.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: HP RTE	Compound Sublist	: 8260b



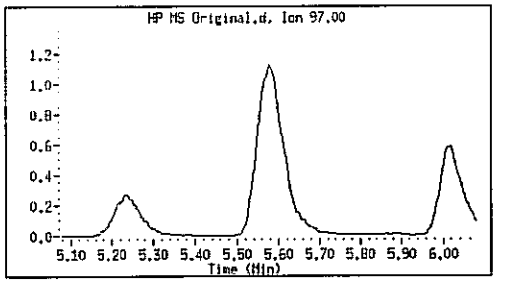
Original Final

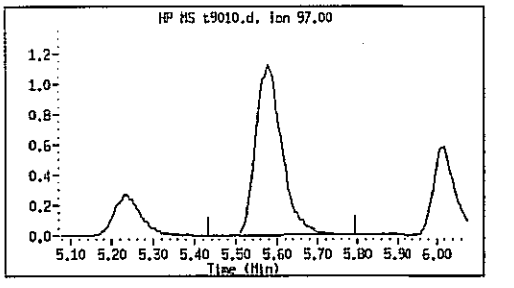
31 2,2-Dichloropropane CAS#: 594-20-7





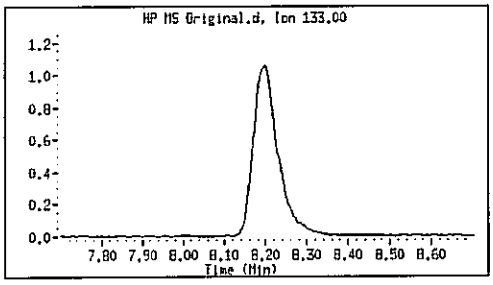
37 1,1,1-Trichloroethane CAS#: 71-55-6

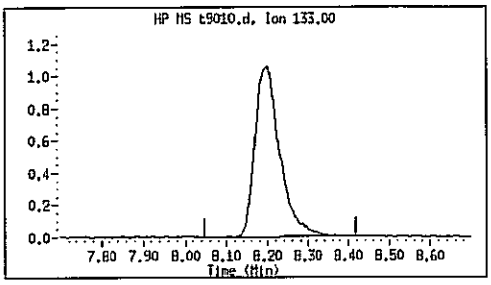




Original Final

74 1,1,1,2-Tetrachloroethane CAS#: 630-20-6





GCAL, Inc.

Data file : /var/chem/msv1.i/2040430q.s.b/t9011.d
Lab Smp Id: 1203 Client Smp ID: V1STD050
Inj Date : 30-APR-2004 19:26
Operator : RJO Inst ID: msv1.i
Smp Info : 1203*V1STD050*5-12-1
Misc Info : MSV~4642~*1*RJO
Comment :
Method : /var/chem/msv1.i/2040430q.s.b/8260Bw1.m
Meth Date : 01-May-2004 18:04 rsp Quant Type: ISTD
Cal Date : 30-APR-2004 19:26 Cal File: t9011.d
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
1 Dichlorodifluoromethane	85	2.305	2.305	(0.384)	1205613	50.0000	53.3	
2 Chloromethane ++	50	2.608	2.608	(0.434)	881470	50.0000	48.3	
3 Vinyl Chloride +	62	2.671	2.671	(0.445)	949787	50.0000	52.3	
5 Bromomethane	94	3.055	3.055	(0.509)	525954	50.0000	53.2	
6 Chloroethane	64	3.123	3.123	(0.520)	600723	50.0000	54.1	
7 Trichlorofluoromethane	101	3.335	3.335	(0.556)	956006	50.0000	54.3	
9 Acrolein	56	3.805	3.805	(0.634)	352727	250.000	243	(A)
10 1,1,2Trichlotrifluoroethane	101	3.799	3.799	(0.633)	1193391	50.0000	54.1	
11 1,1-Dichloroethene +	96	3.827	3.827	(0.638)	653814	50.0000	51.8	
12 Acetone	43	3.942	3.942	(0.657)	267531	50.0000	57.8	
13 Methyl Iodide	142	4.005	4.005	(0.667)	1055535	50.0000	52.0	
14 Carbon Disulfide	76	4.045	4.045	(0.674)	2067537	50.0000	52.1	
17 Methylene Chloride	49	4.274	4.274	(0.712)	1390283	50.0000	51.1	
19 trans-1,2-Dichloroethene	61	4.451	4.451	(0.742)	1068120	50.0000	50.8	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	20 Methyl Acetate	43	4.177	4.177	(0.696)	602720	50.0000	51.9	2422(H)
	21 MTBE	73	4.446	4.446	(0.741)	1885772	50.0000	51.7	5210
	22 Acrylonitrile	53	4.526	4.526	(0.754)	1276951	250.000	264	(A)
	23 Hexane	57	4.600	4.600	(0.766)	1075035	50.0000	53.4	3096(H)
	24 1,1-Dichloroethane ++	63	4.806	4.806	(0.801)	1684555	50.0000	50.4	
	25 Vinyl Acetate	43	4.812	4.812	(0.802)	1893576	50.0000	49.9	
	31 2,2-Dichloropropane	77	5.213	5.213	(0.868)	1220301	50.0000	51.5	(M)
	30 cis-1,2-Dichloroethene	61	5.224	5.224	(0.870)	1413022	50.0000	49.3	
	32 2-Butanone	43	5.247	5.247	(0.874)	520850	50.0000	48.3	
	34 Bromochloromethane	128	5.402	5.402	(0.900)	498263	50.0000	51.4	
$	36 Dibromofluoromethane	111	5.545	5.545	(0.924)	1200190	50.0000	52.4	5079
	37 1,1,1-Trichloroethane	97	5.556	5.556	(0.926)	1154391	50.0000	53.1	
	38 Cyclohexane	56	5.562	5.562	(0.927)	1327277	50.0000	53.1	4944
	39 Carbon Tetrachloride	117	5.654	5.654	(0.942)	909771	50.0000	51.3	
	41 Chloroform +	83	5.430	5.430	(0.905)	1558497	50.0000	51.3	
	42 1,1-Dichloropropene	75	5.671	5.671	(0.945)	1286894	50.0000	52.0	
$	43 1,2-Dichloroethane-d4	67	5.808	5.808	(0.968)	457097	50.0000	51.8	
	44 Benzene	78	5.814	5.814	(0.969)	2608465	50.0000	51.4	
	46 1,2-Dichloroethane	62	5.860	5.860	(0.976)	1005059	50.0000	52.6	
*	47 FLUOROBENZENE	96	6.003	6.003	(1.000)	2719741	50.0000		
M	48 Total 1,2-Dichloroethene	61				2481142	100.000	100	
	49 Trichloroethene	130	6.238	6.238	(1.039)	960222	50.0000	49.9	
	50 Methyl Cyclohexane	83	6.341	6.341	(1.056)	1189014	50.0000	52.8	6384
	51 1,2-Dichloropropane +	63	6.427	6.427	(1.071)	1062578	50.0000	50.5	
	52 Dibromomethane	93	6.512	6.512	(1.085)	758864	50.0000	51.2	
	54 Bromodichloromethane	83	6.587	6.587	(1.097)	1457267	50.0000	50.5	
	56 2-Chloroethyl vinyl ether	63	6.764	6.764	(1.127)	664451	50.0000	52.6	
	57 1-Bromr-2-chloroethana	144	6.839	6.839	(1.139)	226173	50.0000	51.6	2738
	58 cis-1,3-Dichloropropene	75	6.890	6.890	(1.148)	1662490	50.0000	51.6	
	59 4-methyl-2-pentanone	43	6.976	6.976	(1.162)	1205128	50.0000	51.2	
$	60 Toluene-d8	98	7.062	7.062	(1.000)	2451139	50.0000	52.1	
	61 Toluene +	91	7.108	7.108	(1.000)	2837696	50.0000	50.7	
	62 trans-1,3-Dichloropropene	75	7.268	7.268	(1.211)	1465565	50.0000	51.5	
M	143 1-3 Dichloropropene-Total	75				3128055	100.000	103	0
	65 1,1,2-Trichloroethane	97	7.406	7.406	(1.000)	935864	50.0000	50.3	
	66 Tetrachloroethene	164	7.474	7.474	(1.000)	696299	50.0000	49.3	
	67 1,3-Dichloropropane	76	7.532	7.532	(1.000)	1740376	50.0000	50.1	
	68 2-Hexanone	43	7.532	7.532	(1.000)	788259	50.0000	52.2	
	69 Dibromochloromethane	129	7.680	7.680	(1.000)	1151150	50.0000	49.8	
	70 1,2-Dibromoethane(EDB)	107	7.789	7.789	(1.000)	1211837	50.0000	48.9	
*	71 CHLOROBENZENE-d5	82	8.110	8.110	(1.000)	1368089	50.0000		(M)
	72 Chlorobenzene ++	112	8.127	8.127	(1.000)	2178571	50.0000	50.8	
	73 Ethylbenzene +	106	8.161	8.161	(1.000)	932039	50.0000	49.8	
	74 1,1,1,2-Tetrachloroethane	133	8.178	8.178	(1.000)	941144	50.0000	51.1	
	75 p,m-Xylene	106	8.253	8.253	(1.000)	2871204	100.000	105	
	76 o-Xylene	106	8.591	8.591	(1.000)	1427023	50.0000	51.1	
	77 Styrene	104	8.608	8.608	(1.000)	2494089	50.0000	51.7	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	78 Bromoform ++	173	8.820	8.820	(1.000)	753167	50.0000	50.8	
	79 Isopropylbenzene	105	8.888	8.888	(1.000)	3517253	50.0000	50.0	
$	80 Bromofluorobenzene	174	9.089	9.089	(1.000)	910154	50.0000	52.1	
	81 1,1,2,2-Tetrachloroethane++	83	9.192	9.192	(0.898)	1690503	50.0000	47.4	
	84 Bromobenzene	77	9.255	9.255	(0.904)	2753630	50.0000	51.2	
	83 trans-1,4-Dichloro-2-Butene	53	9.260	9.260	(0.905)	398173	50.0000	51.9	
	85 1,2,3-Trichloropropane	75	9.266	9.266	(0.905)	1897157	50.0000	51.2	
	86 n-Propylbenzene	91	9.266	9.266	(0.905)	4313937	50.0000	52.4	
	87 2-Chlorotoluene	91	9.404	9.404	(0.919)	3005089	50.0000	51.1	
	88 1,3,5-Trimethylbenzene	105	9.426	9.426	(0.921)	2817981	50.0000	51.7	
	90 4-Chlorotoluene	91	9.507	9.507	(0.929)	2895455	50.0000	50.6	
	91 tert-butylbenzene	91	9.753	9.753	(0.953)	1889961	50.0000	52.3	
	92 p-Isopropyltoluene	119	9.747	9.747	(0.952)	3061198	50.0000	50.9	
	93 1,2,4-Trimethylbenzene	105	9.810	9.810	(0.959)	2851184	50.0000	51.3	
	94 sec-Butylbenzene	105	9.970	9.970	(0.974)	4425585	50.0000	52.4	
	96 1,3-Dichlorobenzene	146	10.159	10.159	(0.993)	1611437	50.0000	47.9	(M)
*	97 1,4-DICHLOROBENZENE-D4	152	10.234	10.234	(1.000)	1202324	50.0000		
	98 1,4-Dichlorobenzene	146	10.257	10.257	(1.002)	1965615	50.0000	47.4	
M	99 TOTAL XYLENE	106				4298227	150.000	156	
	100 n-Butylbenzene	91	10.554	10.554	(1.031)	3147889	50.0000	51.8	
	102 1,2-Dichlorobenzene	146	10.680	10.680	(1.044)	1844332	50.0000	50.1	
	106 1,2-Dibromo-3-Chloropropane	157	11.470	11.470	(1.121)	400804	50.0000	49.3	
	108 1,2,4-Trichlorobenzene	180	12.220	12.220	(1.194)	1150605	50.0000	51.0	
	109 Hexachlorobutadiene	225	12.323	12.323	(1.204)	405283	50.0000	50.8	
	110 Naphthalene	128	12.484	12.484	(1.220)	2909006	50.0000	52.5	
	111 1,2,3-Trichlorobenzene	180	12.724	12.724	(1.243)	1033372	50.0000	53.2	

QC Flag Legend

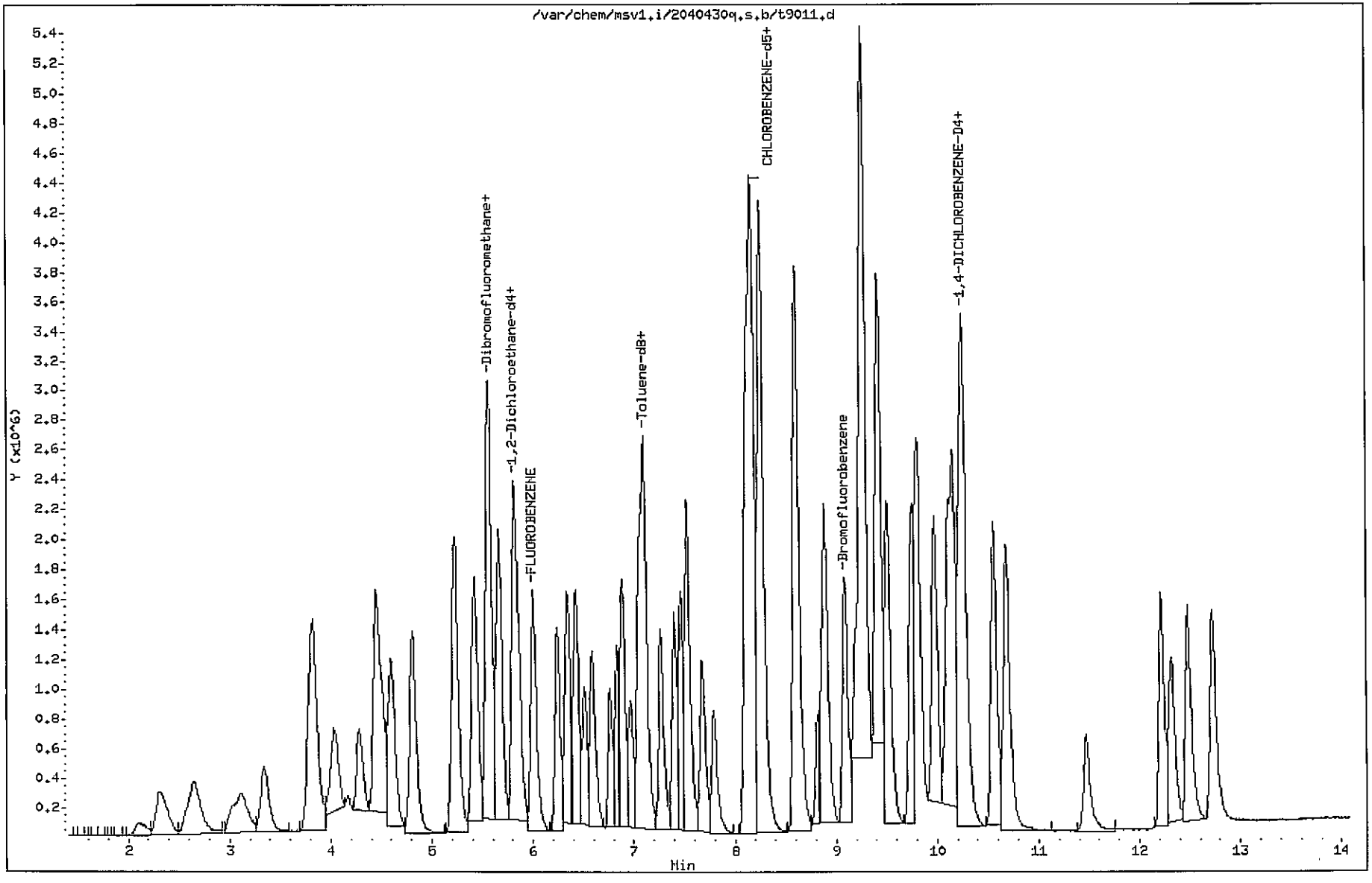
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /var/chem/msv1.i/2040430q.s.b/t9011.d
Date : 30-APR-2004 19:26
Client ID: V1STD050
Sample Info: 1203WV1STD050W5-12-1
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

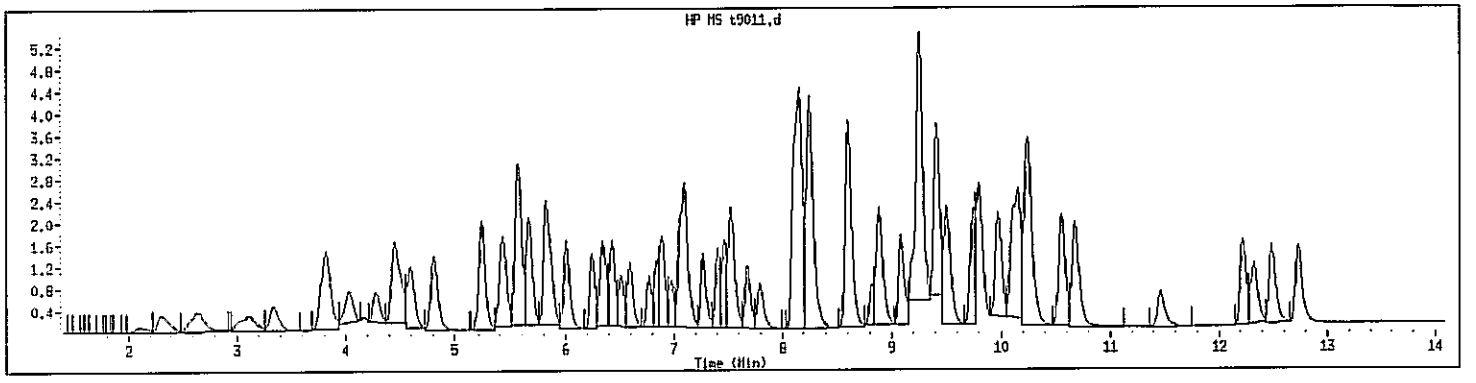
Operator: RJO
Column diameter: 0.53

000168



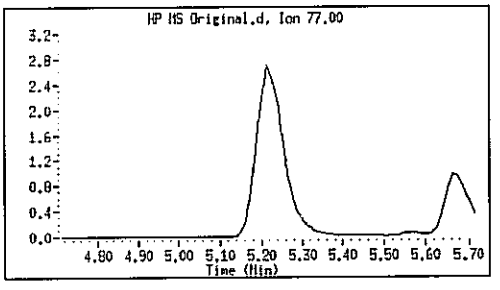
MANUAL INTEGRATION GRAPHIC REPORT

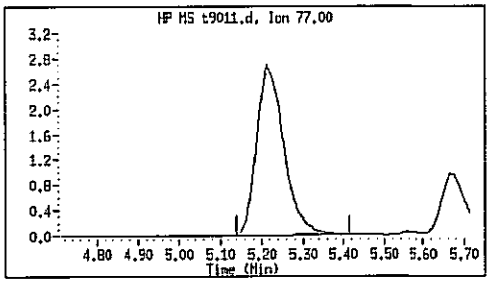
Lab ID	: 1203	SampleType	: CALIB_3
Injection Date	: 30-APR-2004 19:26	Instrument	: msv1.i
Operator	: RJO		
Sample Info	: 1203*V1STD050*5-12-1		
Misc Info	: MSV~4642~*1*RJO		
Method	: /var/chem/msv1.i/2040430q.s.b/8260Bw1.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: HP RTE	Compound Sublist	: 8260b



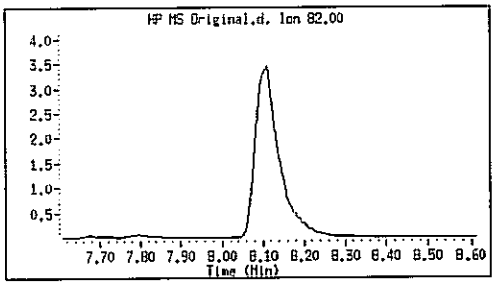
Original Final

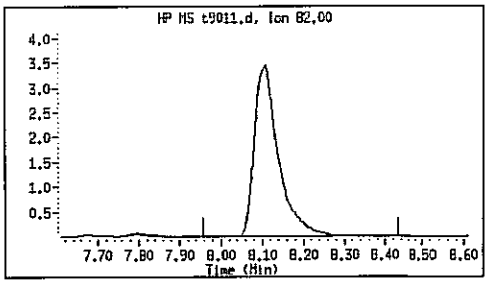
31 2,2-Dichloropropane CAS#: 594-20-7





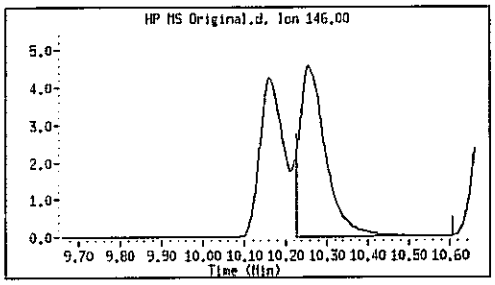
* 71 CHLOROBENZENE-d5 CAS#: 3114-55-4

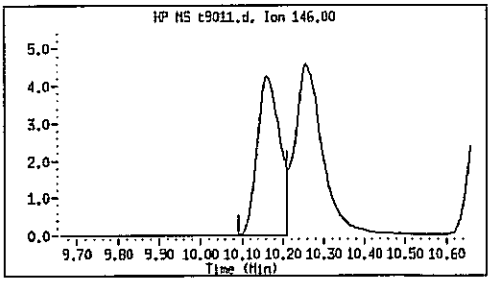




Original Final

96 1,3-Dichlorobenzene CAS#: 541-73-1





GCAL, Inc.

Data file : /var/chem/msv1.i/2040430q.s.b/t9012.d
Lab Smp Id: 1204 Client Smp ID: V1STD100
Inj Date : 30-APR-2004 19:49
Operator : RJO Inst ID: msv1.i
Smp Info : 1204*V1STD100*5-12-1
Misc Info : MSV~4642~*1*RJO
Comment :
Method : /var/chem/msv1.i/2040430q.s.b/8260Bw1.m
Meth Date : 01-May-2004 18:04 rsp Quant Type: ISTD
Cal Date : 30-APR-2004 19:49 Cal File: t9012.d
Als bottle: 14 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
1 Dichlorodifluoromethane	85	2.309	2.309	(1.000)	2496945	100.000	107	
2 Chloromethane ++	50	2.589	2.589	(1.000)	1836122	100.000	97.7	
3 Vinyl Chloride +	62	2.652	2.652	(1.000)	1988512	100.000	106	
5 Bromomethane	94	3.030	3.030	(1.000)	978014	100.000	97.5	
6 Chloroethane	64	3.116	3.116	(1.000)	1181525	100.000	103	
7 Trichlorofluoromethane	101	3.333	3.333	(1.000)	1909214	100.000	105	
9 Acrolein	56	3.791	3.791	(1.000)	719643	500.000	472	(A)
10 1,1,2Trichlotrifluoroethane	101	3.797	3.797	(1.000)	2454841	100.000	108	
11 1,1-Dichloroethene +	96	3.831	3.831	(1.000)	1333029	100.000	103	
12 Acetone	43	3.946	3.946	(1.000)	438149	100.000	94.4	
13 Methyl Iodide	142	3.997	3.997	(1.000)	2078929	100.000	99.5	
14 Carbon Disulfide	76	4.043	4.043	(1.000)	4234920	100.000	104	
17 Methylene Chloride	49	4.278	4.278	(1.000)	2761810	100.000	98.6	
19 trans-1,2-Dichloroethene	61	4.450	4.450	(1.000)	2109848	100.000	97.4	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	20 Methyl Acetate	43	4.169	4.169	(1.000)	1221490	100.000	102	2253(H)
	21 MTBE	73	4.438	4.438	(1.000)	3656882	100.000	97.4	5145
	22 Acrylonitrile	53	4.513	4.513	(1.000)	2518855	500.000	506	(A)
	23 Hexane	57	4.593	4.593	(1.000)	2316744	100.000	112	3091(H)
	24 1,1-Dichloroethane ++	63	4.799	4.799	(1.000)	3446691	100.000	100	
	25 Vinyl Acetate	43	4.810	4.810	(1.000)	3899827	100.000	99.8	
	31 2,2-Dichloropropane	77	5.217	5.217	(1.000)	2505089	100.000	103	
	30 cis-1,2-Dichloroethene	61	5.223	5.223	(1.000)	2898454	100.000	98.2	
	32 2-Butanone	43	5.240	5.240	(1.000)	991841	100.000	89.4	
	34 Bromochloromethane	128	5.406	5.406	(1.000)	969347	100.000	97.1	
S	36 Dibromofluoromethane	111	5.543	5.543	(1.000)	2316339	100.000	98.2	5060
	37 1,1,1-Trichloroethane	97	5.560	5.560	(1.000)	2233313	100.000	99.9	
	38 Cyclohexane	56	5.560	5.560	(1.000)	2901623	100.000	113	4908
	39 Carbon Tetrachloride	117	5.652	5.652	(1.000)	1766777	100.000	96.8	
	41 Chloroform +	83	5.429	5.429	(1.000)	3060352	100.000	97.9	
	42 1,1-Dichloropropene	75	5.663	5.663	(1.000)	2712002	100.000	107	
S	43 1,2-Dichloroethane-d4	67	5.801	5.801	(1.000)	884091	100.000	97.4	
	44 Benzene	78	5.812	5.812	(1.000)	5381185	100.000	104	
	46 1,2-Dichloroethane	62	5.858	5.858	(1.000)	1845556	100.000	93.8	
*	47 FLUOROBENZENE	96	6.001	6.001	(1.000)	2799235	50.0000		(M)
M	48 Total 1,2-Dichloroethene	61				5008302	200.000	196	
	49 Trichloroethene	130	6.236	6.236	(1.000)	1980875	100.000	100	
	50 Methyl Cyclohexane	83	6.339	6.339	(1.000)	2632780	100.000	114	6324
	51 1,2-Dichloropropane +	63	6.425	6.425	(1.000)	2172502	100.000	100	
	52 Dibromomethane	93	6.511	6.511	(1.000)	1489695	100.000	97.6	
	54 Bromodichloromethane	83	6.585	6.585	(1.000)	2854232	100.000	96.0	
	56 2-Chloroethyl vinyl ether	63	6.768	6.768	(1.000)	1394637	100.000	107	
	57 1-Bromr-2-chloroethana	144	6.837	6.837	(1.000)	442797	100.000	98.1	2652
	58 cis-1,3-Dichloropropene	75	6.889	6.889	(1.000)	3257982	100.000	98.3	
	59 4-methyl-2-pentanone	43	6.974	6.974	(1.000)	2503298	100.000	103	
S	60 Toluene-d8	98	7.055	7.055	(0.871)	4827375	100.000	97.5	
	61 Toluene +	91	7.100	7.100	(0.877)	5791227	100.000	98.2	
	62 trans-1,3-Dichloropropene	75	7.266	7.266	(1.000)	2948143	100.000	101	
M	143 1-3 Dichloropropene-Total	75				6206125	200.000	199	0
	65 1,1,2-Trichloroethane	97	7.398	7.398	(0.914)	1862357	100.000	94.9	
	66 Tetrachloroethene	164	7.472	7.472	(0.923)	1404849	100.000	94.4	
	67 1,3-Dichloropropane	76	7.530	7.530	(0.930)	3524267	100.000	96.3	
	68 2-Hexanone	43	7.530	7.530	(0.930)	1529936	100.000	96.1	
	69 Dibromochloromethane	129	7.679	7.679	(0.948)	2237940	100.000	91.8	
	70 1,2-Dibromoethane(EDB)	107	7.793	7.793	(0.963)	2391716	100.000	91.5	
*	71 CHLOROBENZENE-d5	82	8.096	8.096	(1.000)	1441554	50.0000		
	72 Chlorobenzene ++	112	8.125	8.125	(1.004)	4344640	100.000	96.1	
	73 Ethylbenzene +	106	8.165	8.165	(1.008)	1944012	100.000	98.6	
	74 1,1,1,2-Tetrachloroethane	133	8.182	8.182	(1.011)	1821715	100.000	93.9	
	75 p,m-Xylene	106	8.251	8.251	(1.019)	5730212	200.000	198	
	76 o-Xylene	106	8.595	8.595	(1.062)	2890694	100.000	98.2	
	77 Styrene	104	8.606	8.606	(1.063)	5068177	100.000	99.8	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
78	Bromoform ++	173	8.812	8.812	(1.088)	1439970	100.000	92.2	
79	Isopropylbenzene	105	8.887	8.887	(1.098)	7160713	100.000	96.6	
$ 80	Bromofluorobenzene	174	9.087	9.087	(1.122)	1730727	100.000	93.9	
81	1,1,2,2-Tetrachloroethane++	83	9.190	9.190	(0.898)	3371922	100.000	96.3	
84	Bromobenzene	77	9.253	9.253	(0.904)	5291139	100.000	100	
83	trans-1,4-Dichloro-2-Butene	53	9.259	9.259	(0.905)	749533	100.000	99.4	
85	1,2,3-Trichloropropane	75	9.270	9.270	(0.906)	3635376	100.000	99.8	
86	n-Propylbenzene	91	9.264	9.264	(0.905)	8478810	100.000	105	
87	2-Chlorotoluene	91	9.396	9.396	(0.918)	5853006	100.000	101	
88	1,3,5-Trimethylbenzene	105	9.425	9.425	(0.921)	5472999	100.000	102	
90	4-Chlorotoluene	91	9.511	9.511	(0.930)	5570833	100.000	99.2	
91	tert-butylbenzene	91	9.751	9.751	(0.953)	3752446	100.000	106	
92	p-Isopropyltoluene	119	9.745	9.745	(0.952)	6324322	100.000	107	
93	1,2,4-Trimethylbenzene	105	9.803	9.803	(0.958)	5549072	100.000	102	
94	sec-Butylbenzene	105	9.969	9.969	(0.974)	8953976	100.000	108	
96	1,3-Dichlorobenzene	146	10.157	10.157	(0.993)	3426552	100.000	104	
* 97	1,4-DICHLOROBENZENE-D4	152	10.232	10.232	(1.000)	1181523	50.0000		
98	1,4-Dichlorobenzene	146	10.255	10.255	(1.002)	3835902	100.000	94.2	
M 99	TOTAL XYLENE	106				8620906	300.000	297	
100	n-Butylbenzene	91	10.547	10.547	(1.031)	6597779	100.000	110	
102	1,2-Dichlorobenzene	146	10.678	10.678	(1.044)	3578136	100.000	99.0	
106	1,2-Dibromo-3-Chloropropane	157	11.468	11.468	(1.121)	811504	100.000	102	
108	1,2,4-Trichlorobenzene	180	12.218	12.218	(1.194)	2311161	100.000	104	
109	Hexachlorobutadiene	225	12.322	12.322	(1.204)	804536	100.000	103	
110	Naphthalene	128	12.476	12.476	(1.219)	5823015	100.000	107	
111	1,2,3-Trichlorobenzene	180	12.722	12.722	(1.243)	2048863	100.000	107	

QC Flag Legend

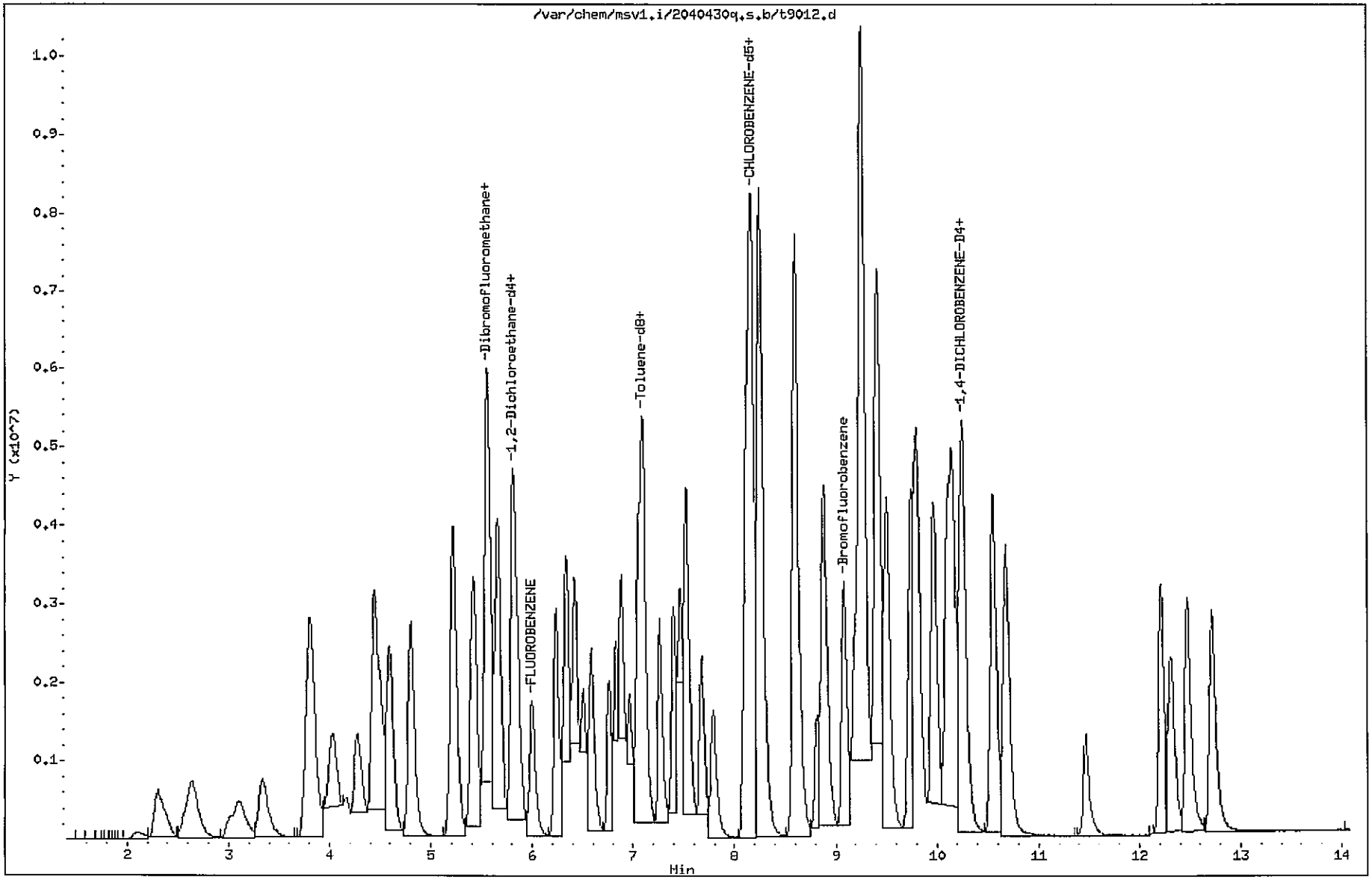
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /var/chem/msv1.i/2040430q.s.b/t9012.d
Date : 30-APR-2004 19:49
Client ID: V1STD100
Sample Info: 1204*V1STD100*5-12-1
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

Operator: RJO
Column diameter: 0.53

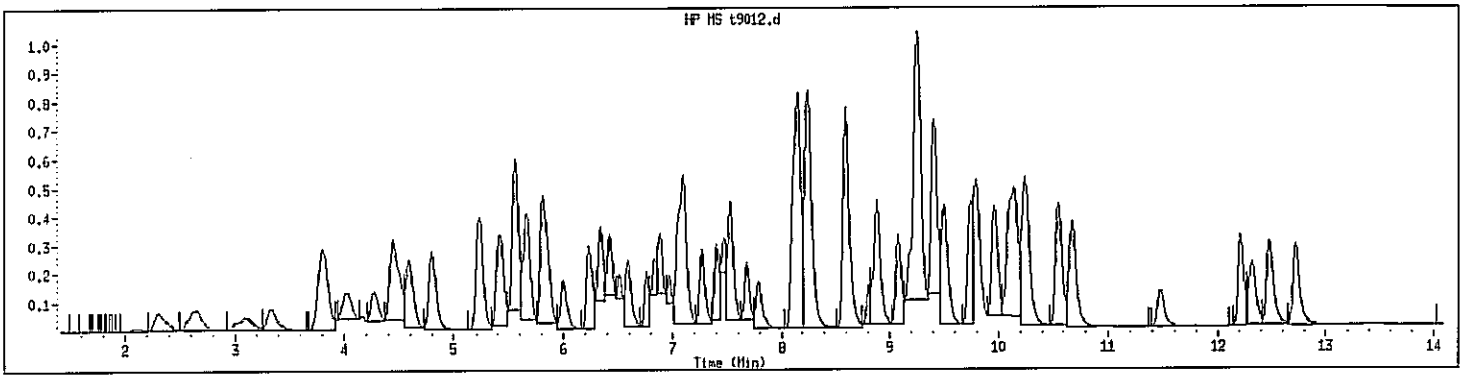
000174



Data file : /var/chem/msv1.i/2040430q.s.b/t9012.d
Report Date: 05/01/2004 18:04

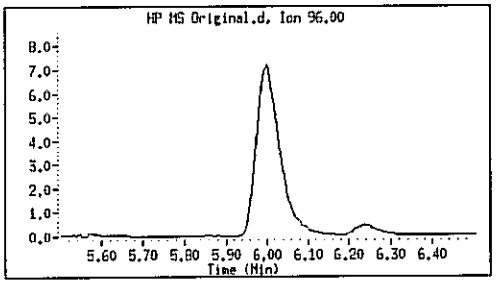
MANUAL INTEGRATION GRAPHIC REPORT

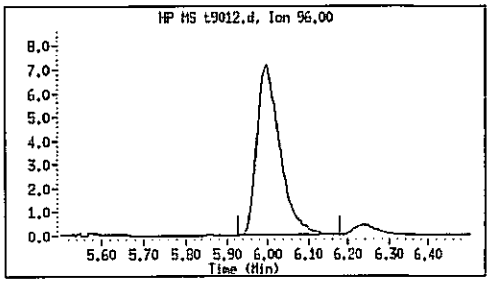
Lab ID	: 1204	SampleType	: CALIB_4
Injection Date	: 30-APR-2004 19:49	Instrument	: msv1.i
Operator	: RJO		
Sample Info	: 1204*V1STD100*5-12-1		
Misc Info	: MSV~4642~*1*RJO		
Method	: /var/chem/msv1.i/2040430q.s.b/8260Bw1.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: HP RTE	Compound Sublist	: 8260b



Original Final

* 47 FLUOROBENZENE CAS#: 462-06-6





GCAL, Inc.

Data file : /var/chem/msv1.i/2040430q.s.b/t9013.d
Lab Smp Id: 1205 Client Smp ID: V1STD200
Inj Date : 30-APR-2004 20:13
Operator : RJO Inst ID: msv1.i
Smp Info : 1205*V1STD200*5-12-1
Misc Info : MSV~4642~*1*RJO
Comment :
Method : /var/chem/msv1.i/2040430q.s.b/8260Bw1.m
Meth Date : 01-May-2004 18:04 rsp Quant Type: ISTD
Cal Date : 30-APR-2004 20:13 Cal File: t9013.d
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
1 Dichlorodifluoromethane	85	2.302	2.302	(1.000)	4702406	200.000	195	
2 Chloromethane ++	50	2.594	2.594	(1.000)	3680867	200.000	189	
3 Vinyl Chloride +	62	2.663	2.663	(1.000)	3945561	200.000	203	(A)
5 Bromomethane	94	3.018	3.018	(1.000)	1416923	200.000	137	
6 Chloroethane	64	3.133	3.133	(1.000)	1699492	200.000	143	
7 Trichlorofluoromethane	101	3.327	3.327	(1.000)	3506791	200.000	187	
9 Acrolein	56	3.808	3.808	(1.000)	1623907	1000.00	1010	(A)
10 1,1,2Trichlotrifluoroethane	101	3.791	3.791	(1.000)	4532323	200.000	193	
11 1,1-Dichloroethene +	96	3.831	3.831	(1.000)	2532869	200.000	188	
12 Acetone	43	3.934	3.934	(1.000)	945358	200.000	201	(A)
13 Methyl Iodide	142	3.991	3.991	(1.000)	3905150	200.000	180	
14 Carbon Disulfide	76	4.031	4.031	(1.000)	8130420	200.000	192	
17 Methylene Chloride	49	4.272	4.272	(1.000)	5467840	200.000	186	
19 trans-1,2-Dichloroethene	61	4.449	4.449	(1.000)	3995995	200.000	178	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	20 Methyl Acetate	43	4.174	4.174	(1.000)	2469165	200.000	199	2251(H)
	21 MTBE	73	4.449	4.449	(1.000)	6901111	200.000	177	5025
	22 Acrylonitrile	53	4.518	4.518	(1.000)	5115774	1000.00	991	(A)
	23 Hexane	57	4.592	4.592	(1.000)	4768112	200.000	222	3056(AH)
	24 1,1-Dichloroethane ++	63	4.798	4.798	(1.000)	6741425	200.000	189	
	25 Vinyl Acetate	43	4.810	4.810	(1.000)	8017683	200.000	198	
	31 2,2-Dichloropropane	77	5.205	5.205	(1.000)	4627555	200.000	183	
	30 cis-1,2-Dichloroethene	61	5.222	5.222	(1.000)	5614207	200.000	183	
	32 2-Butanone	43	5.245	5.245	(1.000)	2059498	200.000	179	(H)
	34 Bromochloromethane	128	5.400	5.400	(1.000)	1909952	200.000	184	
$	36 Dibromofluoromethane	111	5.543	5.543	(1.000)	4347844	200.000	178	4948
	37 1,1,1-Trichloroethane	97	5.554	5.554	(1.000)	3932382	200.000	169	
	38 Cyclohexane	56	5.560	5.560	(1.000)	5518906	200.000	207	4925(A)
	39 Carbon Tetrachloride	117	5.651	5.651	(1.000)	3206466	200.000	169	
	41 Chloroform +	83	5.434	5.434	(1.000)	5764118	200.000	178	
	42 1,1-Dichloropropene	75	5.663	5.663	(1.000)	5090413	200.000	193	
$	43 1,2-Dichloroethane-d4	67	5.806	5.806	(1.000)	1661301	200.000	176	
	44 Benzene	78	5.806	5.806	(1.000)	10513111	200.000	197	
	46 1,2-Dichloroethane	62	5.858	5.858	(1.000)	3314703	200.000	162	
*	47 FLUOROBENZENE	96	6.001	6.001	(1.000)	2904710	50.0000		(M)
M	48 Total 1,2-Dichloroethene	61				9610202	400.000	361	
	49 Trichloroethene	130	6.235	6.235	(1.000)	3841832	200.000	187	
	50 Methyl Cyclohexane	83	6.338	6.338	(1.000)	5265299	200.000	219	6310(A)
	51 1,2-Dichloropropane +	63	6.419	6.419	(1.000)	4397856	200.000	196	
	52 Dibromomethane	93	6.510	6.510	(1.000)	2888194	200.000	182	
	54 Bromodichloromethane	83	6.585	6.585	(1.000)	5380035	200.000	174	
	56 2-Chloroethyl vinyl ether	63	6.762	6.762	(1.000)	2692317	200.000	200	
	57 1-Bromr-2-chloroethana	144	6.837	6.837	(1.000)	861637	200.000	184	2628
	58 cis-1,3-Dichloropropene	75	6.888	6.888	(1.000)	6504586	200.000	189	
	59 4-methyl-2-pentanone	43	6.968	6.968	(1.000)	5134340	200.000	204	(A)
$	60 Toluene-d8	98	7.054	7.054	(1.000)	9330747	200.000	185	
	61 Toluene +	91	7.106	7.106	(1.000)	10915678	200.000	182	
	62 trans-1,3-Dichloropropene	75	7.266	7.266	(1.000)	5684487	200.000	187	
M	143 1-3 Dichloropropene-Total	75				12189073	400.000	377	0
	65 1,1,2-Trichloroethane	97	7.403	7.403	(1.000)	3663803	200.000	183	
	66 Tetrachloroethene	164	7.466	7.466	(1.000)	2588842	200.000	171	
	67 1,3-Dichloropropane	76	7.529	7.529	(1.000)	6792163	200.000	182	
	68 2-Hexanone	43	7.535	7.535	(1.000)	3199133	200.000	197	
	69 Dibromochloromethane	129	7.672	7.672	(1.000)	4232032	200.000	171	
	70 1,2-Dibromoethane(EDB)	107	7.787	7.787	(1.000)	4581366	200.000	172	
*	71 CHLOROBENZENE-d5	82	8.102	8.102	(1.000)	1467712	50.0000		(M)
	72 Chlorobenzene ++	112	8.119	8.119	(1.000)	8253654	200.000	179	
	73 Ethylbenzene +	106	8.159	8.159	(1.000)	3567741	200.000	178	
	74 1,1,1,2-Tetrachloroethane	133	8.176	8.176	(1.000)	3314816	200.000	168	
	75 p,m-Xylene	106	8.251	8.251	(1.000)	10546301	400.000	358	(A)
	76 o-Xylene	106	8.588	8.588	(1.000)	5533841	200.000	185	
	77 Styrene	104	8.606	8.606	(1.000)	9448419	200.000	183	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	78 Bromoform ++	173	8.817	8.817	(1.000)	2670134	200.000	168	
	79 Isopropylbenzene	105	8.880	8.880	(1.000)	12986381	200.000	172	
$	80 Bromofluorobenzene	174	9.086	9.086	(1.000)	3184840	200.000	170	
	81 1,1,2,2-Tetrachloroethane++	83	9.195	9.195	(0.899)	6334653	200.000	194	
	84 Bromobenzene	77	9.247	9.247	(0.904)	9088706	200.000	184	
	83 trans-1,4-Dichloro-2-Butene	53	9.258	9.258	(0.905)	1280866	200.000	182	
	85 1,2,3-Trichloropropane	75	9.264	9.264	(0.905)	6667546	200.000	196	
	86 n-Propylbenzene	91	9.270	9.270	(0.906)	14636667	200.000	194	
	87 2-Chlorotoluene	91	9.401	9.401	(0.919)	9954114	200.000	185	
	88 1,3,5-Trimethylbenzene	105	9.424	9.424	(0.921)	9630810	200.000	192	
	90 4-Chlorotoluene	91	9.504	9.504	(0.929)	9973390	200.000	190	
	91 tert-butylbenzene	91	9.745	9.745	(0.952)	6712283	200.000	202	(A)
	92 p-Isopropyltoluene	119	9.745	9.745	(0.952)	11594790	200.000	210	(A)
	93 1,2,4-Trimethylbenzene	105	9.808	9.808	(0.959)	9938807	200.000	195	
	94 sec-Butylbenzene	105	9.968	9.968	(0.974)	16434673	200.000	212	(A)
	96 1,3-Dichlorobenzene	146	10.157	10.157	(0.993)	6147728	200.000	199	
*	97 1,4-DICHLOROBENZENE-D4	152	10.231	10.231	(1.000)	1103897	50.0000		
	98 1,4-Dichlorobenzene	146	10.254	10.254	(1.002)	6880120	200.000	181	
M	99 TOTAL XYLENE	106				16080142	600.000	543	
	100 n-Butylbenzene	91	10.552	10.552	(1.031)	12192382	200.000	218	(A)
	102 1,2-Dichlorobenzene	146	10.672	10.672	(1.043)	6419654	200.000	190	
	106 1,2-Dibromo-3-Chloropropane	157	11.468	11.468	(1.121)	1550746	200.000	208	(A)
	108 1,2,4-Trichlorobenzene	180	12.212	12.212	(1.194)	4356494	200.000	210	(A)
	109 Hexachlorobutadiene	225	12.315	12.315	(1.204)	1479687	200.000	202	(A)
	110 Naphthalene	128	12.476	12.476	(1.219)	10613290	200.000	209	(A)
	111 1,2,3-Trichlorobenzene	180	12.722	12.722	(1.243)	3753238	200.000	211	(A)

QC Flag Legend

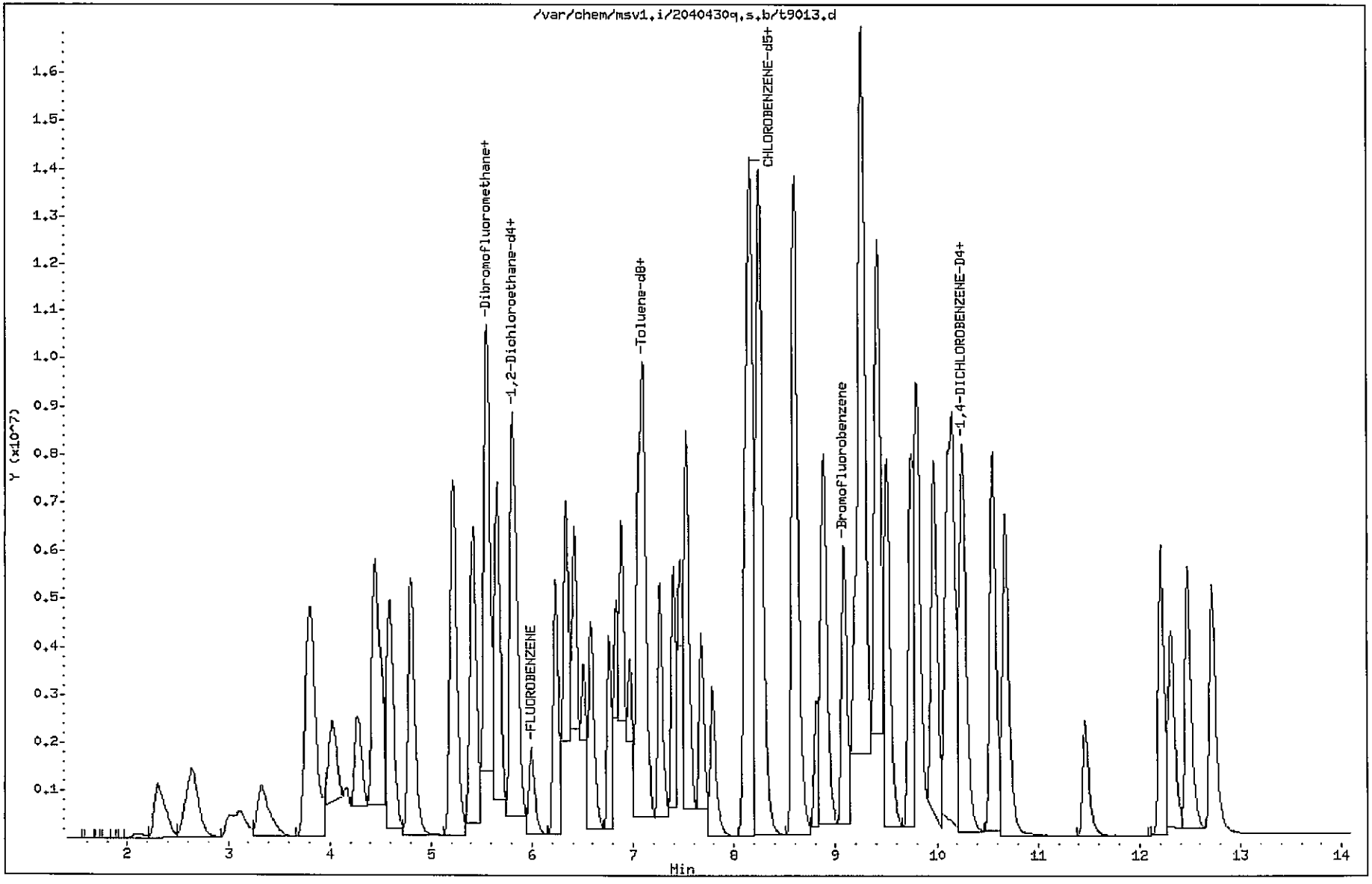
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /var/chem/msv1.i/2040430q.s.b/t9013.d
Date : 30-APR-2004 20:13
Client ID: V1STD200
Sample Info: 1205MV1STD200M5-12-1
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

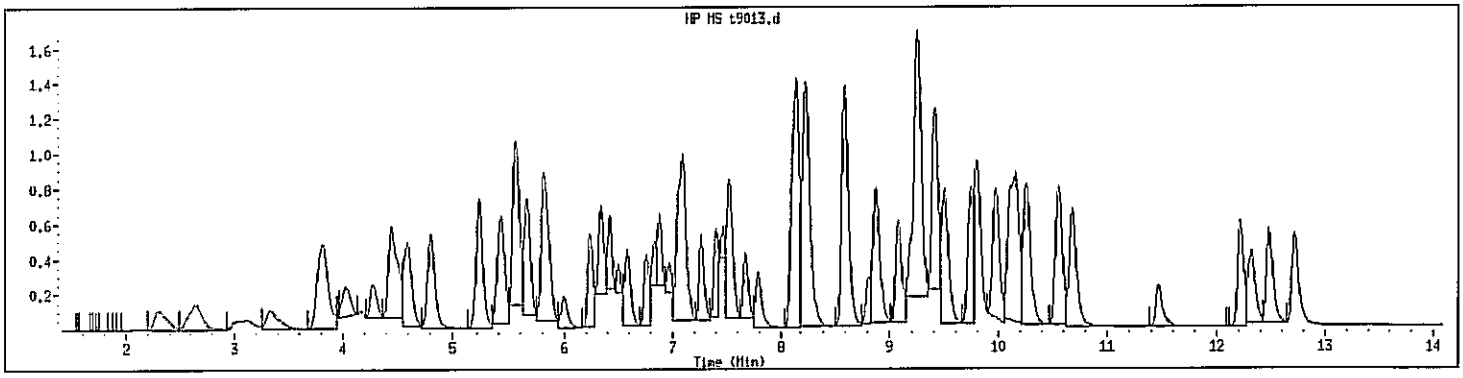
Operator: RJO
Column diameter: 0.53

000179



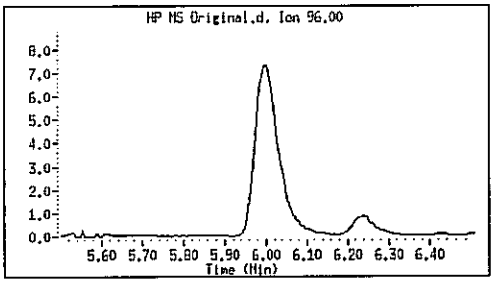
MANUAL INTEGRATION GRAPHIC REPORT

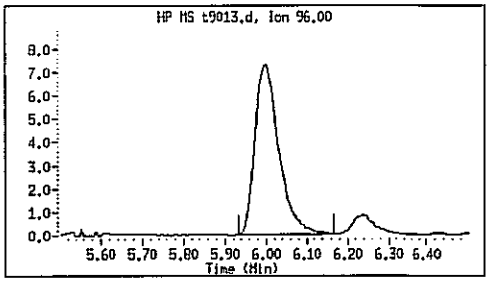
Lab ID	: 1205	SampleType	: CALIB_5
Injection Date	: 30-APR-2004 20:13	Instrument	: msv1.i
Operator	: RJO		
Sample Info	: 1205*V1STD200*5-12-1		
Misc Info	: MSV~4642~*1*RJO		
Method	: /var/chem/msv1.i/2040430q.s.b/8260Bw1.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: HP RTE	Compound Sublist	: 8260b



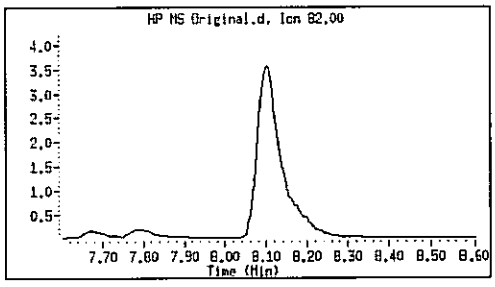
Original Final

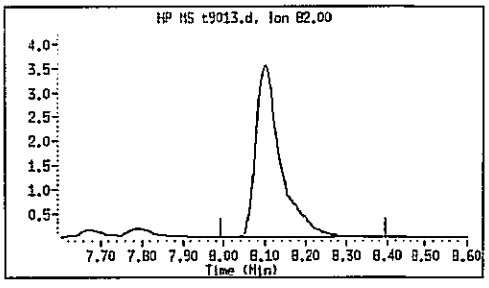
* 47 FLUOROBENZENE CAS#: 462-06-6





* 71 CHLOROBENZENE-d5 CAS#: 3114-55-4





Data file : /var/chem/msv1.i/2040430q.s.b/t9015.d
Report Date: 05/01/2004 18:04

GCAL, Inc.

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: ICV
Level: LOW
Data Type: MS DATA
SpikeList File: ICV.spk
Sublist File: 8260b.sub
Method File: /var/chem/msv1.i/2040430q.s.b/8260Bw1.m
Misc Info: MSV~4642~*1*RJO

Client SDG: 2040430q.s
Fraction: VOA
Client Smp ID:
Operator: RJO
Sample Type: LCS
Quant Type: ISTD

SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1	Dichlorodifluoromethane	50.0	42.4	84.74	70-130
2	Chloromethane ++	50.0	46.9	93.89	70-130
3	Vinyl Chloride +	50.0	47.3	94.55	70-130
5	Bromomethane	50.0	43.6	87.26	70-130
6	Chloroethane	50.0	47.1	94.16	70-130
7	Trichlorofluoromethane	50.0	42.2	84.49	70-130
9	Acrolein	250	273	109.11	70-130
10	1,1,2Trichlotrifluoroethane	50.0	42.7	85.39	70-130
11	1,1-Dichloroethene +	50.0	45.2	90.41	70-130
12	Acetone	50.0	53.9	107.75	70-130
13	Methyl Iodide	50.0	44.7	89.41	70-130
14	Carbon Disulfide	50.0	46.4	92.77	70-130
17	Methylene Chloride	50.0	48.1	96.27	70-130
19	trans-1,2-Dichloroethene	50.0	48.4	96.87	70-130
21	MTBE	50.0	49.1	98.17	70-130
22	Acrylonitrile	250	281	112.55	70-130
24	1,1-Dichloroethane ++	50.0	43.9	87.79	70-130
25	Vinyl Acetate	50.0	51.2	102.37	70-130
30	cis-1,2-Dichloroethene	50.0	47.4	94.81	70-130
31	2,2-Dichloropropane	50.0	50.0	100.02	70-130
32	2-Butanone	50.0	51.8	103.56	70-130
34	Bromochloromethane	50.0	45.8	91.51	70-130
37	1,1,1-Trichloroethane	50.0	48.4	96.76	70-130
39	Carbon Tetrachloride	50.0	44.9	89.85	70-130
41	Chloroform +	50.0	47.2	94.43	70-130
42	1,1-Dichloropropene	50.0	50.2	100.47	70-130
44	Benzene	50.0	50.6	101.20	70-130
46	1,2-Dichloroethane	50.0	48.7	97.37	70-130
49	Trichloroethene	50.0	47.4	94.90	70-130
51	1,2-Dichloropropane +	50.0	50.1	100.29	70-130

Data file : /var/chem/msv1.i/2040430q.s.b/t9015.d
Report Date: 05/01/2004 18:04

SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
52	Dibromomethane	50.0	48.4	96.77	70-130
54	Bromodichloromethane	50.0	47.5	95.05	70-130
56	2-Chloroethyl vinyl ether	50.0	51.7	103.45	70-130
58	cis-1,3-Dichloropropene	50.0	51.2	102.33	70-130
59	4-methyl-2-pentanone	50.0	52.8	105.57	70-130
61	Toluene +	50.0	49.6	99.23	70-130
62	trans-1,3-Dichloropropene	50.0	49.7	99.37	70-130
65	1,1,2-Trichloroethane	50.0	48.5	97.05	70-130
66	Tetrachloroethene	50.0	46.7	93.32	70-130
67	1,3-Dichloropropane	50.0	49.4	98.87	70-130
68	2-Hexanone	50.0	53.5	107.09	70-130
69	Dibromochloromethane	50.0	46.5	93.07	70-130
70	1,2-Dibromoethane(EDB)	50.0	47.6	95.25	70-130
72	Chlorobenzene ++	50.0	49.3	98.51	70-130
73	Ethylbenzene +	50.0	49.7	99.36	70-130
74	1,1,1,2-Tetrachloroethane	50.0	47.6	95.12	70-130
75	p,m-Xylene	100	104	103.77	70-130
76	o-Xylene	50.0	50.1	100.23	70-130
77	Styrene	50.0	50.6	101.14	70-130
78	Bromoform ++	50.0	47.6	95.20	70-130
79	Isopropylbenzene	50.0	49.2	98.40	70-130
81	1,1,2,2-Tetrachloroethane++	50.0	47.1	94.24	70-130
83	trans-1,4-Dichloro-2-Butene	50.0	52.6	105.22	70-130
84	Bromobenzene	50.0	49.1	98.16	70-130
85	1,2,3-Trichloropropane	50.0	52.6	105.22	70-130
86	n-Propylbenzene	50.0	51.1	102.28	70-130
87	2-Chlorotoluene	50.0	48.3	96.68	70-130
88	1,3,5-Trimethylbenzene	50.0	49.5	98.95	70-130
90	4-Chlorotoluene	50.0	50.2	100.33	70-130
91	tert-butylbenzene	50.0	50.3	100.55	70-130
92	p-Isopropyltoluene	50.0	51.3	102.57	70-130
93	1,2,4-Trimethylbenzene	50.0	50.3	100.54	70-130
94	sec-Butylbenzene	50.0	51.1	102.22	70-130
96	1,3-Dichlorobenzene	50.0	51.8	103.56	70-130
98	1,4-Dichlorobenzene	50.0	46.6	93.30	70-130
100	n-Butylbenzene	50.0	51.6	103.27	70-130
102	1,2-Dichlorobenzene	50.0	47.9	95.78	70-130
106	1,2-Dibromo-3-Chloropropane	50.0	48.2	96.33	70-130
108	1,2,4-Trichlorobenzene	50.0	48.7	97.37	70-130
109	Hexachlorobutadiene	50.0	49.8	99.51	70-130
110	Naphthalene	50.0	45.1	90.29	70-130
111	1,2,3-Trichlorobenzene	50.0	46.0	92.00	70-130

Data file : /var/chem/msv1.i/2040430q.s.b/t9015.d
Report Date: 05/01/2004 18:04

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 36 Dibromofluoromethane	50.0	45.1	90.23	70-130
$ 43 1,2-Dichloroethane-d4	50.0	46.3	92.59	76-128
$ 60 Toluene-d8	50.0	48.6	97.20	83-112
$ 80 Bromofluorobenzene	50.0	48.6	97.21	78-115

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Data file : /var/chem/msv1.i/2040430q.s.b/t9015.d
Lab Smp Id: ICV
Inj Date : 30-APR-2004 21:07
Operator : RJO Inst ID: msv1.i
Smp Info : ICV
Misc Info : MSV~4642~*1*RJO
Comment :
Method : /var/chem/msv1.i/2040430q.s.b/8260Bw1.m
Meth Date : 01-May-2004 18:04 rsp Quant Type: ISTD
Cal Date : 30-APR-2004 20:13 Cal File: t9013.d
Als bottle: 17 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
1 Dichlorodifluoromethane	85	2.297	2.302	(0.383)	1137118	42.3675	42.4	
2 Chloromethane ++	50	2.589	2.594	(0.431)	1016788	46.9450	46.9	
3 Vinyl Chloride +	62	2.634	2.663	(0.439)	1018893	47.2767	47.3	
5 Bromomethane	94	3.012	3.018	(0.502)	514876	43.6294	43.6	
6 Chloroethane	64	3.121	3.133	(0.520)	620337	47.0782	47.1	
7 Trichlorofluoromethane	101	3.333	3.327	(0.555)	881991	42.2450	42.2	
9 Acrolein	56	3.802	3.808	(0.634)	470916	272.764	273	(A)
10 1,1,2Trichlotrifluoroethane	101	3.785	3.791	(0.631)	1116062	42.6961	42.7	
11 1,1-Dichloroethene +	96	3.825	3.831	(0.637)	676600	45.2061	45.2	
12 Acetone	43	3.928	3.934	(0.655)	297117	53.8755	53.9	
13 Methyl Iodide	142	3.991	3.991	(0.665)	1075704	44.7041	44.7	
14 Carbon Disulfide	76	4.031	4.031	(0.672)	2181297	46.3826	46.4	
17 Methylene Chloride	49	4.272	4.272	(0.712)	1554066	48.1335	48.1	
19 trans-1,2-Dichloroethene	61	4.449	4.449	(0.741)	1208785	48.4329	48.4	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
	20 Methyl Acetate	43	4.169	4.174	(0.695)	687969	49.9638	50.0	2553(H)
	21 MTBE	73	4.443	4.449	(0.740)	2123176	49.0847	49.1	5136
	22 Acrylonitrile	53	4.512	4.518	(0.752)	1612569	281.387	281	(A)
	23 Hexane	57	4.592	4.592	(0.765)	1075337	45.0060	45.0	3153(H)
	24 1,1-Dichloroethane ++	63	4.804	4.798	(0.801)	1738280	43.8962	43.9	
	25 Vinyl Acetate	43	4.804	4.810	(0.801)	2304097	51.1848	51.2	
	31 2,2-Dichloropropane	77	5.216	5.205	(0.869)	1405587	50.0102	50.0	
	30 cis-1,2-Dichloroethene	61	5.222	5.222	(0.870)	1612785	47.4071	47.4	
	32 2-Butanone	43	5.239	5.245	(0.873)	661732	51.7780	51.8	
	34 Bromochloromethane	128	5.405	5.400	(0.901)	526302	45.7565	45.8	
$	36 Dibromofluoromethane	111	5.548	5.543	(0.925)	1225519	45.1132	45.1	4964
	37 1,1,1-Trichloroethane	97	5.566	5.554	(0.927)	1246266	48.3779	48.4	
	38 Cyclohexane	56	5.566	5.560	(0.927)	1470238	49.5664	49.6	5008
	39 Carbon Tetrachloride	117	5.657	5.651	(0.943)	944453	44.9242	44.9	
	41 Chloroform +	83	5.428	5.434	(0.905)	1700931	47.2173	47.2	
	42 1,1-Dichloropropene	75	5.669	5.663	(0.945)	1473347	50.2354	50.2	
$	43 1,2-Dichloroethane-d4	67	5.812	5.806	(0.968)	484388	46.2938	46.3	
	44 Benzene	78	5.812	5.806	(0.968)	3046487	50.5985	50.6	
	46 1,2-Dichloroethane	62	5.863	5.858	(0.977)	1104248	48.6872	48.7	
*	47 FLUOROBENZENE	96	6.001	6.001	(1.000)	3225279	50.0000		
M	48 Total 1,2-Dichloroethene	61				2821570	95.8400	95.8	
	49 Trichloroethene	130	6.235	6.235	(1.039)	1082277	47.4487	47.4	
	50 Methyl Cyclohexane	83	6.344	6.338	(1.057)	1227791	45.9501	46.0	6335
	51 1,2-Dichloropropane +	63	6.424	6.419	(1.071)	1250678	50.1438	50.1	
	52 Dibromomethane	93	6.510	6.510	(1.085)	850961	48.3859	48.4	
	54 Bromodichloromethane	83	6.585	6.585	(1.097)	1627567	47.5244	47.5	
	56 2-Chloroethyl vinyl ether	63	6.762	6.762	(1.127)	774886	51.7231	51.7	
	57 1-Bromr-2-chloroethana	144	6.842	6.837	(1.140)	264113	50.7767	50.8	2758
	58 cis-1,3-Dichloropropene	75	6.888	6.888	(1.148)	1953272	51.1631	51.2	
	59 4-methyl-2-pentanone	43	6.968	6.968	(1.161)	1474464	52.7872	52.8	
$	60 Toluene-d8	98	7.054	7.054	(0.871)	2700910	48.5985	48.6	
	61 Toluene +	91	7.100	7.106	(0.876)	3283297	49.6161	49.6	
	62 trans-1,3-Dichloropropene	75	7.266	7.266	(1.211)	1675129	49.6856	49.7	
M	143 1-3 Dichloropropene-Total	75				3628401	100.940	101	0
	65 1,1,2-Trichloroethane	97	7.398	7.403	(0.913)	1068482	48.5262	48.5	
	66 Tetrachloroethene	164	7.461	7.466	(0.921)	779629	46.6617	46.7	
	67 1,3-Dichloropropane	76	7.524	7.529	(0.929)	2029500	49.4345	49.4	
	68 2-Hexanone	43	7.529	7.535	(0.929)	956150	53.5472	53.5	
	69 Dibromochloromethane	129	7.678	7.672	(0.948)	1272761	46.5359	46.5	
	70 1,2-Dibromoethane(EDB)	107	7.787	7.787	(0.961)	1396521	47.6246	47.6	
*	71 CHLOROBENZENE-d5	82	8.102	8.102	(1.000)	1617642	50.0000		
	72 Chlorobenzene ++	112	8.119	8.119	(1.002)	2498736	49.2550	49.3	
	73 Ethylbenzene +	106	8.159	8.159	(1.007)	1099478	49.6805	49.7	
	74 1,1,1,2-Tetrachloroethane	133	8.170	8.176	(1.008)	1035620	47.5594	47.6	(M)
	75 p,m-Xylene	106	8.251	8.251	(1.018)	3365272	103.772	104	
	76 o-Xylene	106	8.594	8.588	(1.061)	1654688	50.1131	50.1	
	77 Styrene	104	8.606	8.606	(1.062)	2883018	50.5721	50.6	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
	78 Bromoform ++	173	8.817	8.817	(1.088)	834070	47.6019	47.6	
	79 Isopropylbenzene	105	8.892	8.880	(1.097)	4094030	49.1996	49.2	
$	80 Bromofluorobenzene	174	9.086	9.086	(1.122)	1004811	48.6052	48.6	
	81 1,1,2,2-Tetrachloroethane++	83	9.189	9.195	(0.698)	1978929	47.1203	47.1	
	84 Bromobenzene	77	9.247	9.247	(0.904)	3108264	49.0801	49.1	
	83 trans-1,4-Dichloro-2-Butene	53	9.252	9.258	(0.904)	475613	52.6121	52.6	
	85 1,2,3-Trichloropropane	75	9.270	9.264	(0.906)	2297400	52.6112	52.6	
	86 n-Propylbenzene	91	9.264	9.270	(0.905)	4957233	51.1425	51.1	
	87 2-Chlorotoluene	91	9.407	9.401	(0.919)	3346731	48.3412	48.3	
	88 1,3,5-Trimethylbenzene	105	9.424	9.424	(0.921)	3176415	49.4744	49.5	
	90 4-Chlorotoluene	91	9.504	9.504	(0.929)	3379245	50.1660	50.2	
	91 tert-butylbenzene	91	9.751	9.745	(0.953)	2141220	50.2747	50.3	
	92 p-Isopropyltoluene	119	9.745	9.745	(0.952)	3634707	51.2835	51.3	
	93 1,2,4-Trimethylbenzene	105	9.813	9.808	(0.959)	3294946	50.2703	50.3	
	94 sec-Butylbenzene	105	9.974	9.968	(0.975)	5082687	51.1090	51.1	
	96 1,3-Dichlorobenzene	146	10.168	10.157	(0.994)	2051504	51.7792	51.8	
*	97 1,4-DICHLOROBENZENE-D4	152	10.231	10.231	(1.000)	1416545	50.0000		
	98 1,4-Dichlorobenzene	146	10.266	10.254	(1.003)	2278118	46.6497	46.6	
M	99 TOTAL XYLENE	106				5019960	153.885	154	
	100 n-Butylbenzene	91	10.552	10.552	(1.031)	3697615	51.6370	51.6	
	102 1,2-Dichlorobenzene	146	10.684	10.672	(1.044)	2076184	47.8919	47.9	
	106 1,2-Dibromo-3-Chloropropane	157	11.462	11.468	(1.120)	461175	48.1667	48.2	
	108 1,2,4-Trichlorobenzene	180	12.212	12.212	(1.194)	1295149	48.6832	48.7	
	109 Hexachlorobutadiene	225	12.310	12.315	(1.203)	467450	49.7558	49.8	
	110 Naphthalene	128	12.470	12.476	(1.219)	2947805	45.1449	45.1	
	111 1,2,3-Trichlorobenzene	180	12.716	12.722	(1.243)	1052215	45.9999	46.0	

QC Flag Legend

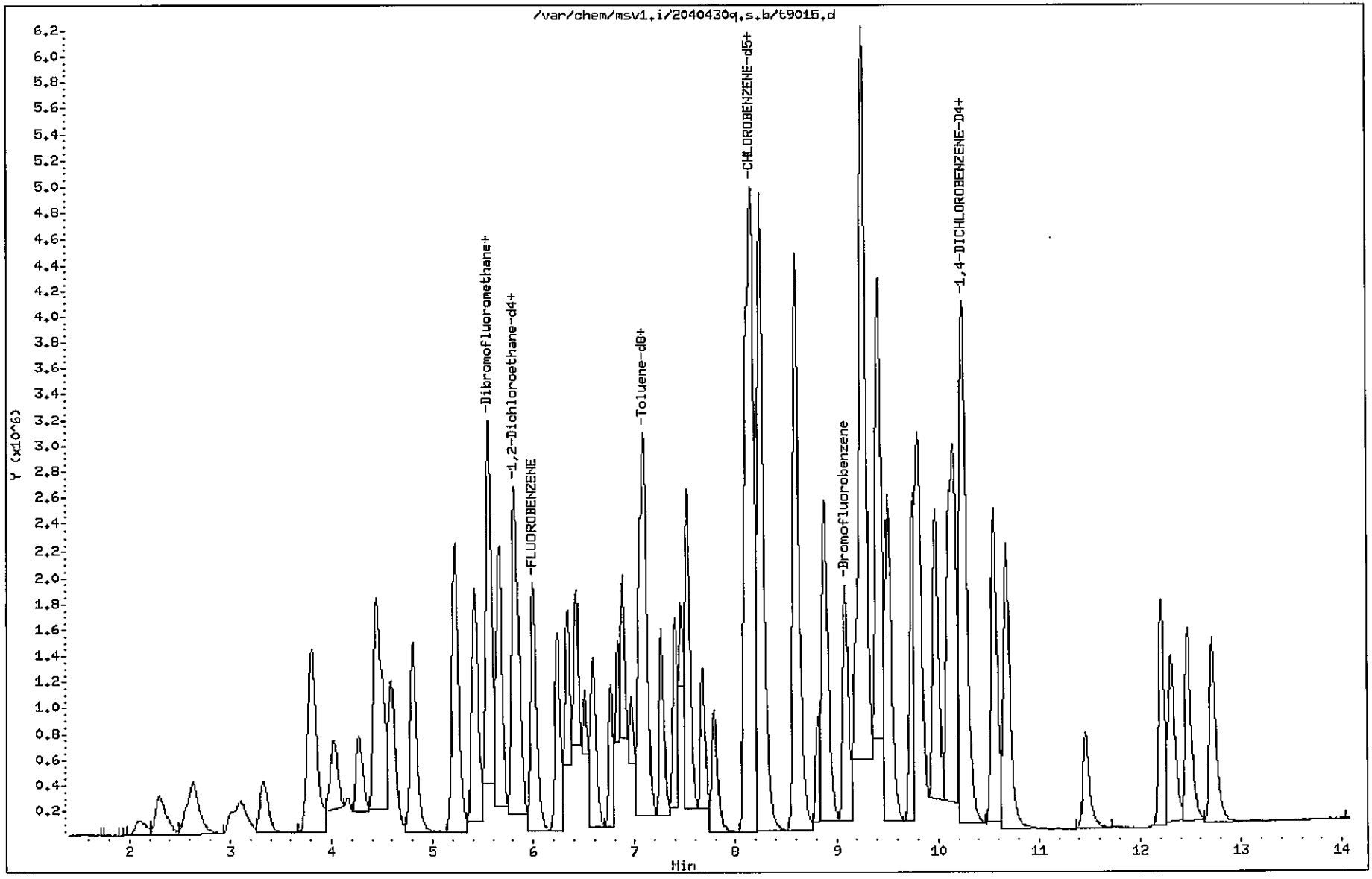
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /var/chem/msv1.i/2040430q.s.b/t9015.d
Date : 30-APR-2004 21:07
Client ID:
Sample Info: ICV
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

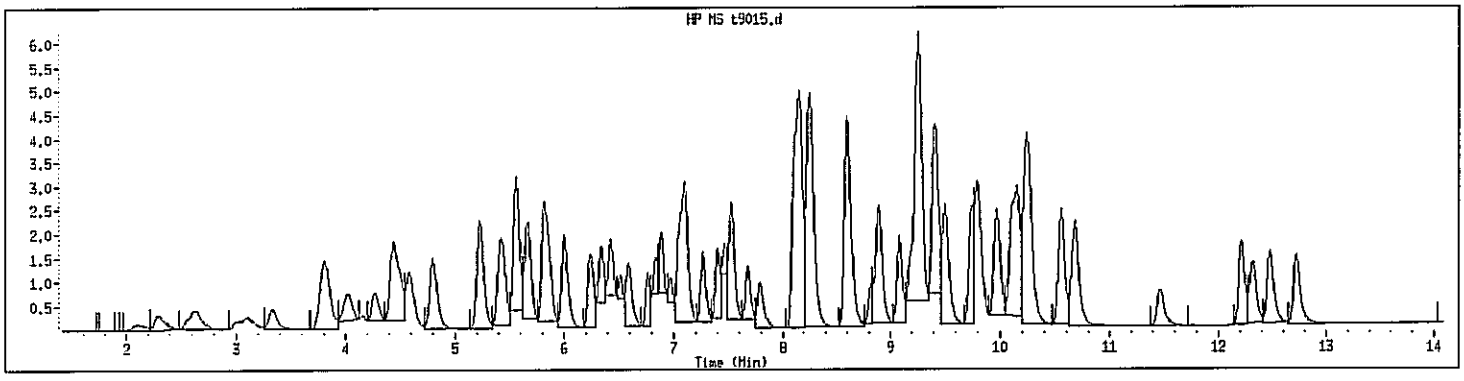
Operator: RJO
Column diameter: 0.53

000187



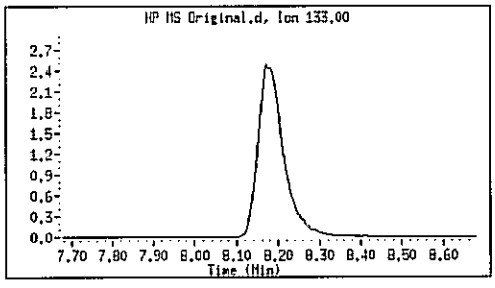
MANUAL INTEGRATION GRAPHIC REPORT

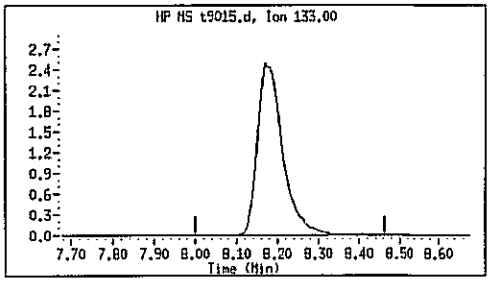
Lab ID	: ICV	SampleType	: LCS
Injection Date	: 30-APR-2004 21:07	Instrument	: msv1.i
Operator	: RJO		
Sample Info	: ICV		
Misc Info	: MSV~4642~*1*RJO		
Method	: /var/chem/msv1.i/2040430q.s.b/8260Bw1.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: HP RTE	Compound Sublist	: 8260b



Original Final

74 1,1,1,2-Tetrachloroethane CAS#: 630-20-6





GCAL, Inc.

Data file : /var/chem/msv1.i/2040501.s.b/t9052.d
Lab Smp Id: 162585 Client Smp ID: MB FOR HBN 273041
Inj Date : 01-MAY-2004 12:40
Operator : RJO Inst ID: msv1.i
Smp Info : 162585*MB FOR HBN 273041
Misc Info : MSV~4640~*1*RJO
Comment :
Method : /var/chem/msv1.i/2040501.s.b/8260Bw1.m
Meth Date : 01-May-2004 13:04 rjo Quant Type: ISTD
Cal Date : 30-APR-2004 17:51 Cal File: t9007.d
Als bottle: 18 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

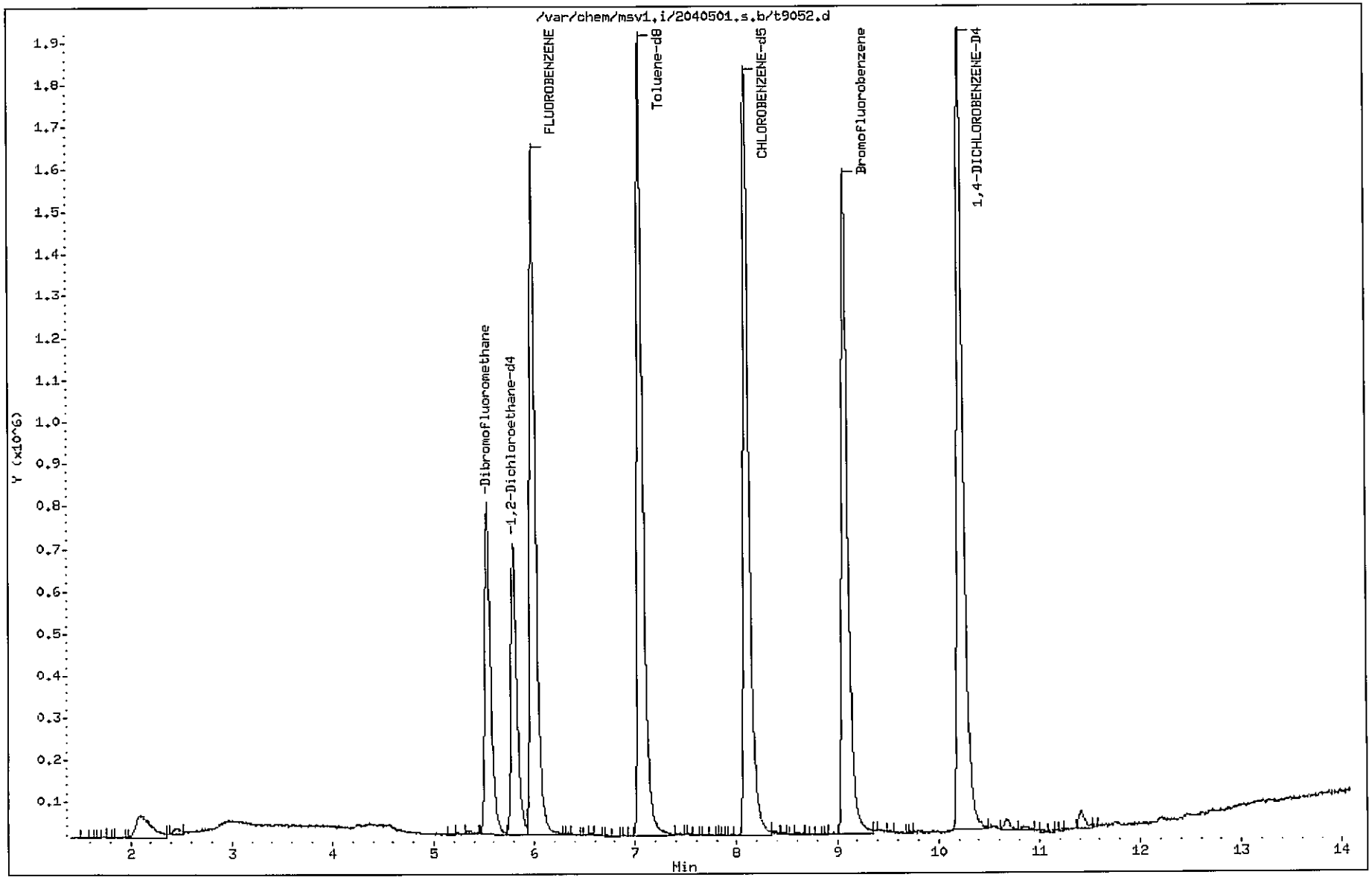
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
$ 36 Dibromofluoromethane	111	5.535	5.541	(0.924)	1038333	43.3952	43.4	1942
$ 43 1,2-Dichloroethane-d4	67	5.798	5.805	(0.968)	437559	47.4774	47.5	
* 47 FLUOROBENZENE	96	5.993	5.994	(1.000)	2840835	50.0000		
$ 60 Toluene-d8	98	7.057	7.053	(0.870)	2383494	49.7456	49.7	
* 71 CHLOROBENZENE-d5	82	8.111	8.101	(1.000)	1394614	50.0000		
$ 80 Bromofluorobenzene	174	9.084	9.097	(1.120)	831013	46.6267	46.6	
* 97 1,4-DICHLOROBENZENE-D4	152	10.229	10.242	(1.000)	1206474	50.0000		

000190

Data File: /var/chem/msv1.i/2040501.s.b/t9052.d
Date : 01-MAY-2004 12:40
Client ID: MB FOR HBN 273041
Sample Info: 162585*MB FOR HBN 273041
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

Operator: RJO
Column diameter: 0.53



GCAL, Inc.

Data file : /var/chem/msv1.i/2040501.s.b/t9049.d
Lab Smp Id: 162586 Client Smp ID: LCS FOR HBN 273041
Inj Date : 01-MAY-2004 11:28
Operator : RJO Inst ID: msv1.i
Smp Info : 162586*LCS FOR HBN 273041
Misc Info : MSV~4640~*1*RJO
Comment :
Method : /var/chem/msv1.i/2040501.s.b/8260Bw1.m
Meth Date : 01-May-2004 12:40 rjo Quant Type: ISTD
Cal Date : 30-APR-2004 17:51 Cal File: t9007.d
Als bottle: 15 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
1 Dichlorodifluoromethane	85	2.303	2.301	(0.384)	707294	27.5686	27.6	
2 Chloromethane ++	50	2.589	2.599	(0.431)	563552	27.2195	27.2	
3 Vinyl Chloride +	62	2.652	2.645	(0.442)	570993	27.7164	27.7	
5 Bromomethane	94	3.047	3.045	(0.508)	307542	26.6191	26.6	
6 Chloroethane	64	3.122	3.120	(0.520)	362322	28.7656	28.8	
7 Trichlorofluoromethane	101	3.339	3.332	(0.556)	546563	27.3866	27.4	
9 Acrolein	56	3.803	3.807	(0.634)	68487	50.7241	50.7	
10 1,1,2Trichlotrifluoroethane	101	3.797	3.790	(0.633)	723936	28.9726	29.0	
11 1,1-Dichloroethene +	96	3.832	3.824	(0.638)	373200	26.0852	26.1	
12 Acetone	43	3.940	3.933	(0.657)	177829	32.2284	32.2	
13 Methyl Iodide	142	4.003	3.996	(0.667)	559625	24.3298	24.3	
14 Carbon Disulfide	76	4.038	4.036	(0.673)	1188095	26.4289	26.4	
17 Methylene Chloride	49	4.278	4.271	(0.713)	808551	26.1983	26.2	
19 trans-1,2-Dichloroethene	61	4.450	4.454	(0.741)	617701	25.8915	25.9	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
	20 Methyl Acetate	43	4.169	4.167	(0.695)	352189	26.7578	26.8	2981(H)
	21 MTBE	73	4.444	4.442	(0.741)	1030063	24.9122	24.9	5340
	22 Acrylonitrile	53	4.519	4.517	(0.753)	710341	129.668	130	
	23 Hexane	57	4.599	4.591	(0.766)	617471	27.0352	27.0	3266(H)
	24 1,1-Dichloroethane ++	63	4.805	4.803	(0.801)	987269	26.0814	26.1	
	25 Vinyl Acetate	43	4.811	4.797	(0.802)	1187130	27.5883	27.6	
	31 2,2-Dichloropropane	77	5.211	5.215	(0.868)	774809	28.8392	28.8	
	30 cis-1,2-Dichloroethene	61	5.223	5.221	(0.870)	843214	25.9294	25.9	
	32 2-Butanone	43	5.240	5.232	(0.873)	336390	27.5355	27.5	
	34 Bromochloromethane	128	5.406	5.398	(0.901)	276742	25.1698	25.2	
$	36 Dibromofluoromethane	111	5.549	5.541	(0.925)	1152622	44.3872	44.4	5021
	37 1,1,1-Trichloroethane	97	5.555	5.559	(0.926)	703209	28.5567	28.6	
	38 Cyclohexane	56	5.561	5.559	(0.927)	879598	31.0221	31.0	4976
	39 Carbon Tetrachloride	117	5.652	5.650	(0.942)	540993	26.9203	26.9	
	41 Chloroform +	83	5.429	5.421	(0.905)	904857	26.2774	26.3	
	42 1,1-Dichloropropene	75	5.664	5.662	(0.944)	793026	28.2866	28.3	
$	43 1,2-Dichloroethane-d4	67	5.807	5.805	(0.968)	480379	48.0287	48.0	
	44 Benzene	78	5.813	5.811	(0.969)	1567839	26.6609	26.7	
	46 1,2-Dichloroethane	62	5.858	5.856	(0.976)	616084	28.4168	28.4	
*	47 FLUOROBENZENE	96	6.001	6.004	(1.000)	3083045	50.0000		
M	48 Total 1,2-Dichloroethene	61				1460915	51.8209	51.8	
	49 Trichloroethene	130	6.236	6.234	(1.039)	556356	25.5168	25.5	
	50 Methyl Cyclohexane	83	6.345	6.337	(1.057)	770555	30.1684	30.2	6391
	51 1,2-Dichloropropane +	63	6.431	6.417	(1.072)	634086	26.5954	26.6	
	52 Dibromomethane	93	6.517	6.515	(1.086)	432010	25.6975	25.7	
	54 Bromodichloromethane	83	6.597	6.583	(1.099)	846820	25.8676	25.9	
	56 2-Chloroethyl vinyl ether	63	6.769	6.755	(1.128)	374683	26.1637	26.2	
	57 1-Bromr-2-chloroethana	144	6.849	6.835	(1.141)	133173	26.7842	26.8	2779
	58 cis-1,3-Dichloropropene	75	6.900	6.887	(1.150)	951153	26.0635	26.1	
	59 4-methyl-2-pentanone	43	6.980	6.973	(1.163)	725885	27.1863	27.2	
$	60 Toluene-d8	98	7.066	7.053	(0.871)	2599614	48.3517	48.4	
	61 Toluene +	91	7.106	7.104	(0.876)	1704876	26.6315	26.6	
	62 trans-1,3-Dichloropropene	75	7.272	7.265	(1.212)	850135	26.3790	26.4	
M	143 1-3 Dichloropropene-Total	75				1801288	52.4228	52.4	0
	65 1,1,2-Trichloroethane	97	7.410	7.396	(0.913)	539558	25.3302	25.3	
	66 Tetrachloroethene	164	7.478	7.465	(0.922)	426127	26.3634	26.4	
	67 1,3-Dichloropropane	76	7.536	7.528	(0.929)	1025147	25.8118	25.8	
	68 2-Hexanone	43	7.541	7.534	(0.929)	466979	27.0333	27.0	
	69 Dibromochloromethane	129	7.690	7.677	(0.948)	664641	25.1200	25.1	
	70 1,2-Dibromoethane(EDB)	107	7.799	7.786	(0.961)	701421	24.7260	24.7	
*	71 CHLOROBENZENE-d5	82	8.114	8.117	(1.000)	1564918	50.0000		
	72 Chlorobenzene ++	112	8.137	8.123	(1.003)	1279837	26.0781	26.1	
	73 Ethylbenzene +	106	8.177	8.158	(1.008)	586573	27.3976	27.4	
	74 1,1,1,2-Tetrachloroethane	133	8.188	8.175	(1.009)	547921	26.0103	26.0	(M)
	75 p,m-Xylene	106	8.263	8.255	(1.018)	1713449	54.6162	54.6	
	76 o-Xylene	106	8.601	8.593	(1.060)	853589	26.7223	26.7	
	77 Styrene	104	8.618	8.610	(1.062)	1455242	26.3870	26.4	

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
	76	Bromoform ++	173	8.830	8.822	(1.088)	419549	24.7511	24.8	
	79	Isopropylbenzene	105	8.893	8.891	(1.096)	2172897	26.9924	27.0	
$	80	Bromofluorobenzene	174	9.093	9.097	(1.121)	926068	46.3055	46.3	
	81	1,1,2,2-Tetrachloroethane++	83	9.196	9.205	(0.898)	1001080	25.1238	25.1	
	84	Bromobenzene	77	9.259	9.251	(0.904)	1633755	27.1902	27.2	
	83	trans-1,4-Dichloro-2-Butene	53	9.259	9.263	(0.904)	239177	27.8862	27.9	
	85	1,2,3-Trichloropropane	75	9.270	9.274	(0.905)	1139246	27.4977	27.5	
	86	n-Propylbenzene	91	9.270	9.274	(0.905)	2666527	28.9952	29.0	
	87	2-Chlorotoluene	91	9.402	9.412	(0.918)	1833036	27.9065	27.9	
	88	1,3,5-Trimethylbenzene	105	9.431	9.434	(0.921)	1676516	27.5226	27.5	
	90	4-Chlorotoluene	91	9.517	9.515	(0.930)	1710744	26.7678	26.8	
	91	tert-butylbenzene	91	9.757	9.755	(0.953)	1131008	27.9893	28.0	
	92	p-Isopropyltoluene	119	9.757	9.755	(0.953)	1862794	27.7020	27.7	
	93	1,2,4-Trimethylbenzene	105	9.814	9.812	(0.959)	1710850	27.5114	27.5	
	94	sec-Butylbenzene	105	9.980	9.978	(0.975)	2738659	29.0277	29.0	
	96	1,3-Dichlorobenzene	146	10.169	10.173	(0.993)	1032293	27.4615	27.5	
*	97	1,4-DICHLOROBENZENE-D4	152	10.238	10.247	(1.000)	1343979	50.0000		
	98	1,4-Dichlorobenzene	146	10.267	10.265	(1.003)	1200718	25.9150	25.9	
M	99	TOTAL XYLENE	106				2567038	81.3385	81.3	
	100	n-Butylbenzene	91	10.559	10.557	(1.031)	1888106	27.7910	27.8	
	102	1,2-Dichlorobenzene	146	10.684	10.682	(1.044)	1045190	25.4114	25.4	
	106	1,2-Dibromo-3-Chloropropane	157	11.469	11.461	(1.120)	219635	24.1780	24.2	
	108	1,2,4-Trichlorobenzene	180	12.213	12.211	(1.193)	552540	21.8908	21.9	
	109	Hexachlorobutadiene	225	12.310	12.314	(1.202)	221207	24.8168	24.8	
	110	Naphthalene	128	12.471	12.469	(1.218)	1434073	23.1483	23.1	
	111	1,2,3-Trichlorobenzene	180	12.723	12.709	(1.243)	515271	23.7425	23.7	

QC Flag Legend

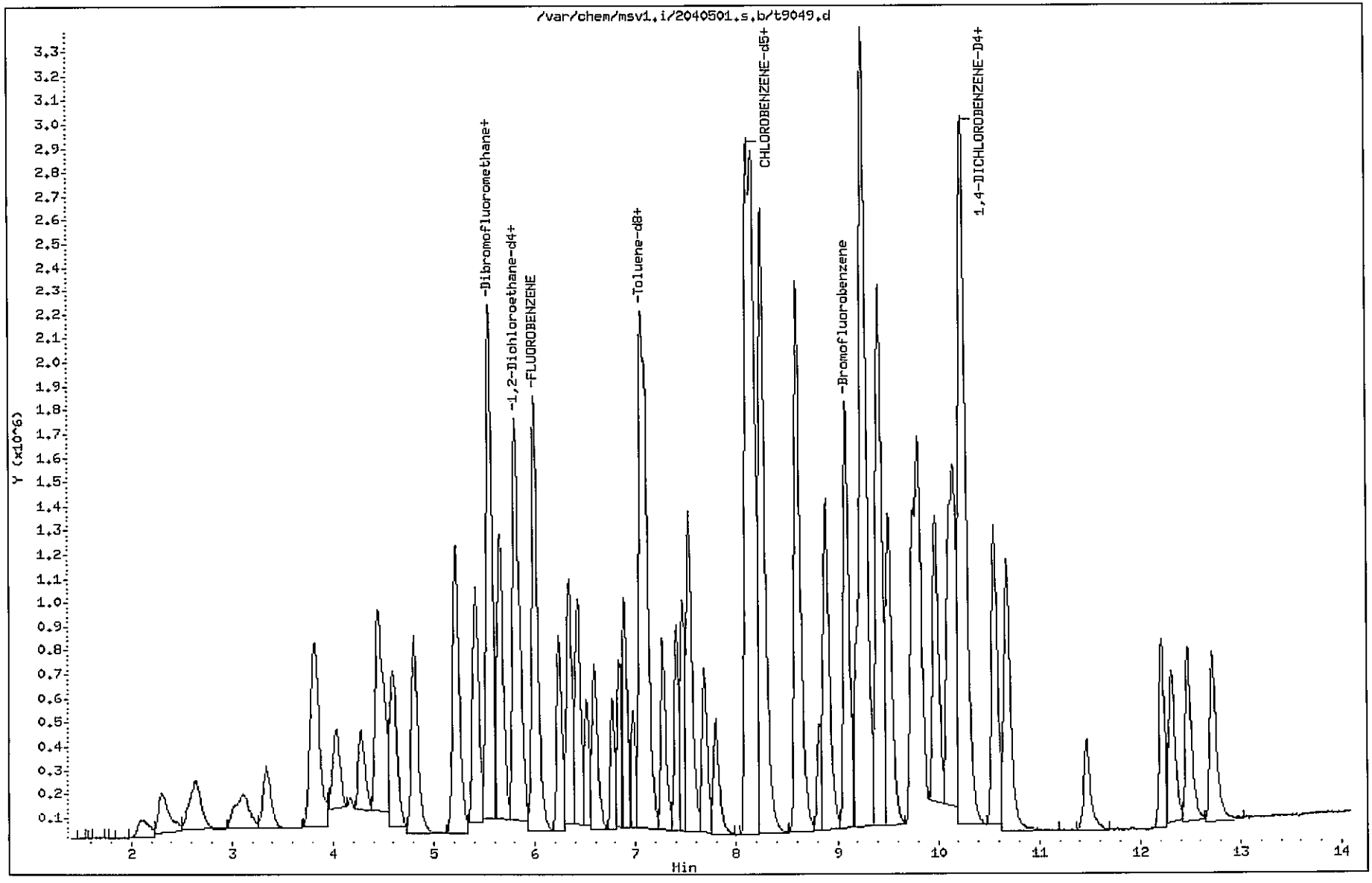
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /var/chem/msv1.i/2040501.s.b/t9049.d
Date : 01-MAY-2004 11:28
Client ID: LCS FOR HBN 273041
Sample Info: 162586WLCS FOR HBN 273041
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

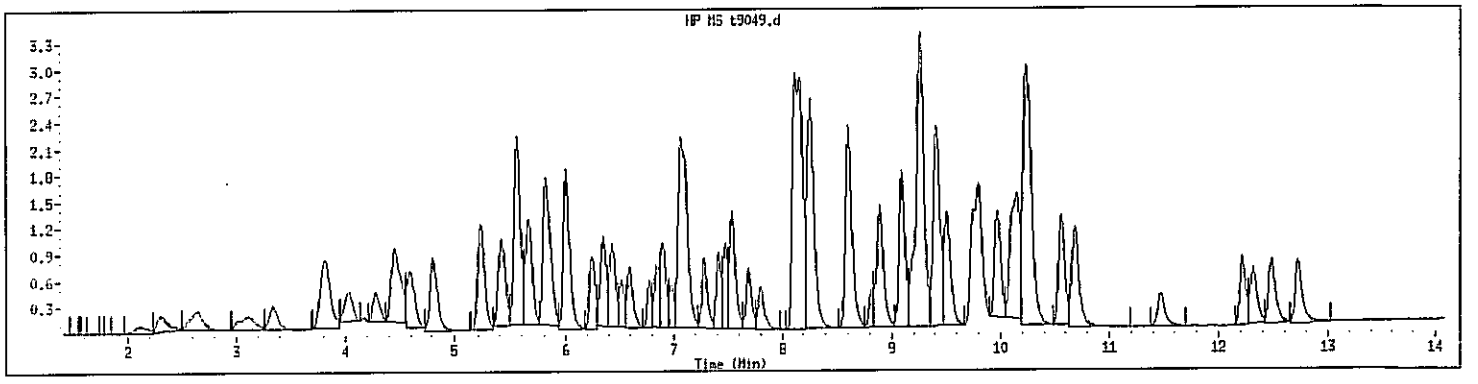
Operator: RJO
Column diameter: 0.53

000194



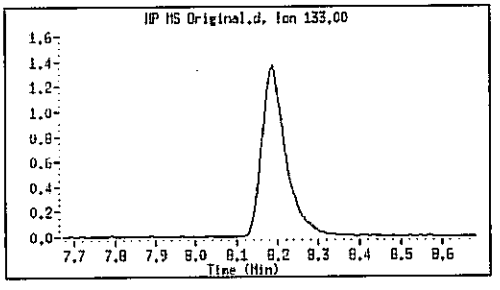
MANUAL INTEGRATION GRAPHIC REPORT

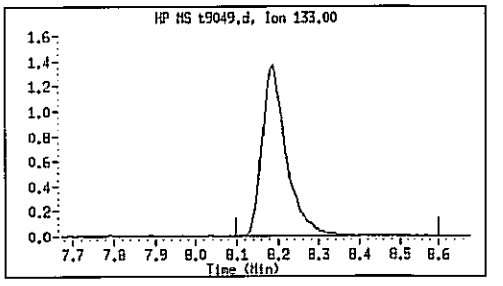
Lab ID : 162586 SampleType : LCS
Injection Date: 01-MAY-2004 11:28 Instrument : msv1.i
Operator : RJO
Sample Info : 162586*LCS FOR HBN 273041
Misc Info : MSV~4640~*1*RJO
Method : /var/chem/msv1.i/2040501.s.b/8260Bw1.m
Dilution : 1.0
Matrix : WATER
Integrator : HP RTE Compound Sublist: 8260b



Original Final

74 1,1,1,2-Tetrachloroethane CAS#: 630-20-6





GCAL, Inc.

Data file : /var/chem/msv1.i/2040501.s.b/t9050.d
Lab Smp Id: 162587 Client Smp ID: LCSD for HBN 273041
Inj Date : 01-MAY-2004 11:52
Operator : RJO Inst ID: msv1.i
Smp Info : 162587*LCSD FOR HBN 273041
Misc Info : MSV~4640~*1*RJO
Comment :
Method : /var/chem/msv1.i/2040501.s.b/8260Bw1.m
Meth Date : 01-May-2004 12:40 rjo Quant Type: ISTD
Cal Date : 30-APR-2004 17:51 Cal File: t9007.d
Als bottle: 16 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
1 Dichlorodifluoromethane	85	2.304	2.301	(0.384)	605066	26.2465	26.2	
2 Chloromethane ++	50	2.578	2.599	(0.430)	478006	25.6941	25.7	
3 Vinyl Chloride +	62	2.647	2.645	(0.441)	497561	26.8786	26.9	
5 Bromomethane	94	3.036	3.045	(0.506)	251282	24.0494	24.0	
6 Chloroethane	64	3.111	3.120	(0.519)	352048	31.1054	31.1	
7 Trichlorofluoromethane	101	3.328	3.332	(0.555)	477776	26.6426	26.6	
9 Acrolein	56	3.798	3.807	(0.633)	45495	40.3361	40.3	
10 1,1,2Trichlotrifluoroethane	101	3.798	3.790	(0.633)	629135	28.0211	28.0	
11 1,1-Dichloroethene +	96	3.821	3.824	(0.637)	334542	26.0230	26.0	
12 Acetone	43	3.930	3.933	(0.655)	156550	31.4934	31.5	
13 Methyl Iodide	142	4.004	3.996	(0.668)	528080	25.5503	25.6	
14 Carbon Disulfide	76	4.033	4.036	(0.673)	1044276	25.8522	25.9	
17 Methylene Chloride	49	4.267	4.271	(0.712)	709061	25.5684	25.6	
19 trans-1,2-Dichloroethene	61	4.439	4.454	(0.740)	540527	25.2145	25.2	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
	20 Methyl Acetate	43	4.159	4.167	(0.694)	311682	26.3536	26.4	2951(H)
	21 MTBE	73	4.433	4.442	(0.739)	939249	25.2803	25.3	5322
	22 Acrylonitrile	53	4.508	4.517	(0.752)	652026	132.460	132	
	23 Hexane	57	4.599	4.591	(0.767)	541749	26.3977	26.4	3144(H)
	24 1,1-Dichloroethane ++	63	4.800	4.803	(0.800)	867430	25.5025	25.5	
	25 Vinyl Acetate	43	4.800	4.797	(0.800)	1060859	27.4372	27.4	
	31 2,2-Dichloropropane	77	5.206	5.215	(0.868)	651797	26.9995	27.0	
	30 cis-1,2-Dichloroethene	61	5.212	5.221	(0.869)	741862	25.3882	25.4	
	32 2-Butanone	43	5.235	5.232	(0.873)	313407	28.5505	28.6	
	34 Bromochloromethane	128	5.395	5.398	(0.900)	246379	24.9381	24.9	
$	36 Dibromofluoromethane	111	5.538	5.541	(0.924)	1039113	44.5336	44.5	5000
	37 1,1,1-Trichloroethane	97	5.555	5.559	(0.926)	596701	26.9671	27.0	
	38 Cyclohexane	56	5.555	5.559	(0.926)	731461	28.7099	28.7	4894
	39 Carbon Tetrachloride	117	5.647	5.650	(0.942)	464608	25.7293	25.7	
	41 Chloroform +	83	5.424	5.421	(0.905)	785641	25.3910	25.4	
	42 1,1-Dichloropropene	75	5.658	5.662	(0.944)	679957	26.9916	27.0	
$	43 1,2-Dichloroethane-d4	67	5.796	5.805	(0.967)	424115	47.1904	47.2	
	44 Benzene	78	5.802	5.811	(0.968)	1363427	25.7619	25.8	
	46 1,2-Dichloroethane	62	5.859	5.856	(0.977)	541646	27.8038	27.8	
*	47 FLUOROBENZENE	96	5.996	6.004	(1.000)	2770294	50.0000		
M	48 Total 1,2-Dichloroethene	61				1282389	50.6027	50.6	
	49 Trichloroethene	130	6.237	6.234	(1.040)	482564	24.6310	24.6	
	50 Methyl Cyclohexane	83	6.340	6.337	(1.057)	652541	28.4322	28.4	6371
	51 1,2-Dichloropropane +	63	6.426	6.417	(1.072)	534938	24.9699	25.0	
	52 Dibromomethane	93	6.511	6.515	(1.086)	385955	25.5498	25.5	
	54 Bromodichloromethane	83	6.586	6.583	(1.098)	734091	24.9557	25.0	
	56 2-Chloroethyl vinyl ether	63	6.763	6.755	(1.128)	317809	24.6976	24.7	
	57 1-Bromr-2-chloroethana	144	6.838	6.835	(1.140)	112708	25.2273	25.2	2722
	58 cis-1,3-Dichloropropene	75	6.889	6.887	(1.149)	826084	25.1918	25.2	
	59 4-methyl-2-pentanone	43	6.975	6.973	(1.163)	632227	26.3517	26.4	
$	60 Toluene-d8	98	7.061	7.053	(0.871)	2340699	48.7882	48.8	
	61 Toluene +	91	7.107	7.104	(0.876)	1481716	25.9379	25.9	
	62 trans-1,3-Dichloropropene	75	7.267	7.265	(1.212)	743145	25.6624	25.7	
M	143 1-3 Dichloropropene-Total	75				1569229	50.8250	50.8	0
	65 1,1,2-Trichloroethane	97	7.410	7.396	(0.914)	476624	25.0751	25.1	
	66 Tetrachloroethene	164	7.473	7.465	(0.922)	364799	25.2920	25.3	
	67 1,3-Dichloropropane	76	7.536	7.528	(0.929)	902494	25.4649	25.5	
	68 2-Hexanone	43	7.536	7.534	(0.929)	416995	27.0520	27.1	
	69 Dibromochloromethane	129	7.685	7.677	(0.948)	581655	24.6357	24.6	
	70 1,2-Dibromoethane(EDB)	107	7.794	7.786	(0.961)	622393	24.5870	24.6	
*	71 CHLOROBENZENE-d5	82	8.109	8.117	(1.000)	1396450	50.0000		
	72 Chlorobenzene ++	112	8.132	8.123	(1.003)	1093414	24.9673	25.0	
	73 Ethylbenzene +	106	8.172	8.158	(1.008)	491405	25.7215	25.7	
	74 1,1,1,2-Tetrachloroethane	133	8.183	8.175	(1.009)	476602	25.3542	25.4	(M)
	75 p,m-Xylene	106	8.258	8.255	(1.018)	1481488	52.9194	52.9	
	76 o-Xylene	106	8.601	8.593	(1.061)	718841	25.2188	25.2	
	77 Styrene	104	8.613	8.610	(1.062)	1250330	25.4066	25.4	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
	78 Bromoform ++	173	8.819	8.822	(1.088)	369838	24.4506	24.5	
	79 Isopropylbenzene	105	8.893	8.891	(1.097)	1841201	25.6312	25.6	
S	80 Bromofluorobenzene	174	9.093	9.097	(1.121)	835955	46.8424	46.8	
	81 1,1,2,2-Tetrachloroethane++	83	9.191	9.205	(0.898)	865061	23.9280	23.9	
	84 Bromobenzene	77	9.254	9.251	(0.904)	1399274	25.6668	25.7	
	83 trans-1,4-Dichloro-2-Butene	53	9.259	9.263	(0.905)	203628	26.1668	26.2	
	85 1,2,3-Trichloropropane	75	9.265	9.274	(0.905)	1043287	27.7541	27.8	
	86 n-Propylbenzene	91	9.271	9.274	(0.906)	2217464	26.5754	26.6	
	87 2-Chlorotoluene	91	9.408	9.412	(0.919)	1569812	26.3406	26.3	
	88 1,3,5-Trimethylbenzene	105	9.431	9.434	(0.922)	1423705	25.7600	25.8	
	90 4-Chlorotoluene	91	9.511	9.515	(0.930)	1481254	25.5447	25.5	
	91 tert-butylbenzene	91	9.752	9.755	(0.953)	989021	26.9759	27.0	
	92 p-Isopropyltoluene	119	9.752	9.755	(0.953)	1606188	26.3261	26.3	
	93 1,2,4-Trimethylbenzene	105	9.803	9.812	(0.958)	1458132	25.8429	25.8	
	94 sec-Butylbenzene	105	9.975	9.978	(0.975)	2320359	27.1045	27.1	
	96 1,3-Dichlorobenzene	146	10.164	10.173	(0.993)	892812	26.1773	26.2	
*	97 1,4-DICHLOROBENZENE-D4	152	10.233	10.247	(1.000)	1219407	50.0000		
	98 1,4-Dichlorobenzene	146	10.261	10.265	(1.003)	1058809	25.1867	25.2	
M	99 TOTAL XYLENE	106				2200329	78.1382	78.1	
	100 n-Butylbenzene	91	10.553	10.557	(1.031)	1625096	26.3633	26.4	
	102 1,2-Dichlorobenzene	146	10.685	10.682	(1.044)	912633	24.4553	24.5	
	106 1,2-Dibromo-3-Chloropropane	157	11.469	11.461	(1.121)	193400	23.4649	23.5	
	108 1,2,4-Trichlorobenzene	180	12.208	12.211	(1.193)	558568	24.3903	24.4	
	109 Hexachlorobutadiene	225	12.317	12.314	(1.204)	212836	26.3169	26.3	
	110 Naphthalene	128	12.471	12.469	(1.219)	1422925	25.3148	25.3	
	111 1,2,3-Trichlorobenzene	180	12.717	12.709	(1.243)	500747	25.4304	25.4	

QC Flag Legend

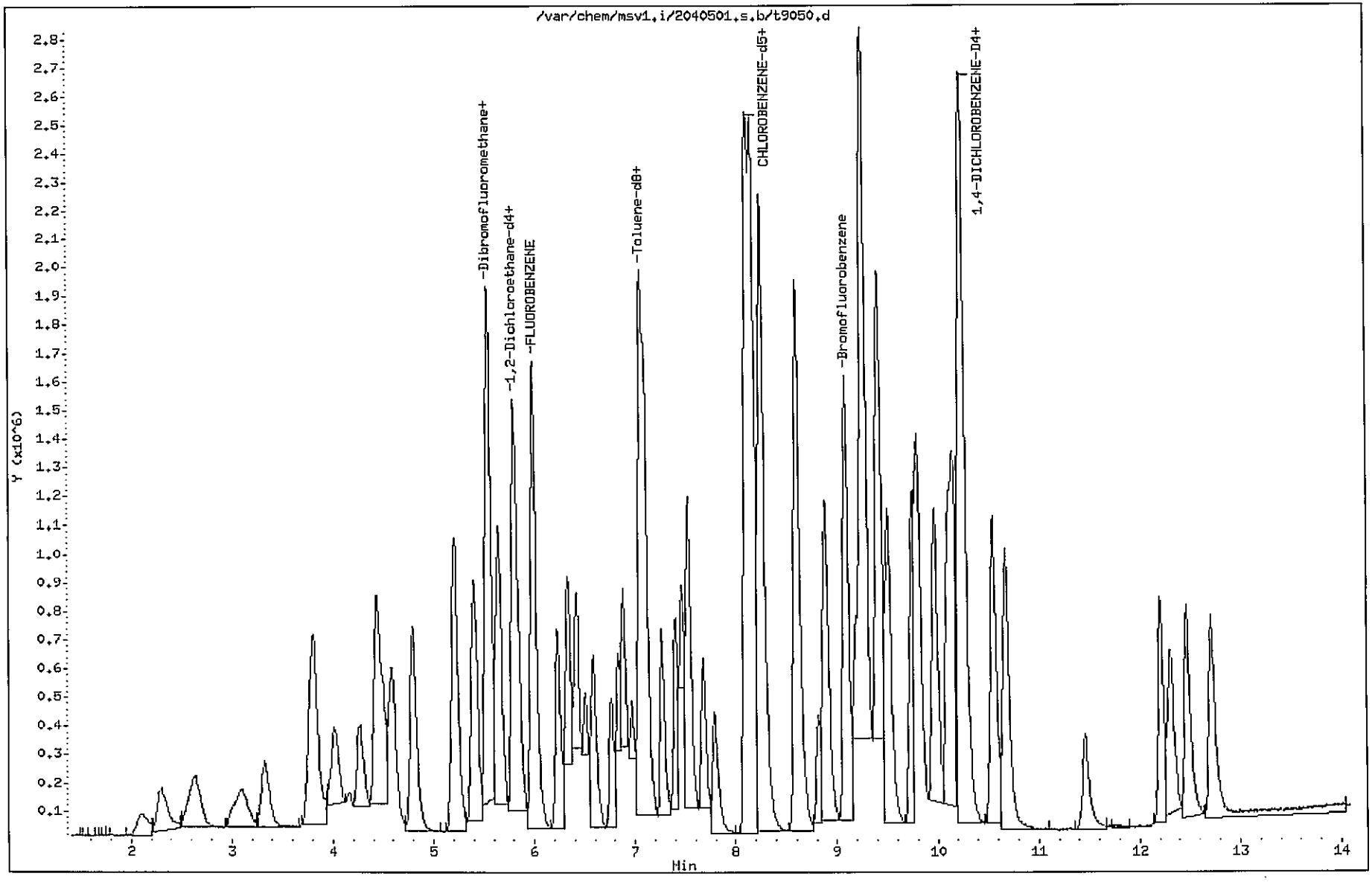
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /var/chem/msv1.i/2040501.s.b/t9050.d
Date : 01-MAY-2004 11:52
Client ID: LCSD for HBN 273041
Sample Info: 162587#LCSD FOR HBN 273041
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i

Operator: RJO
Column diameter: 0.53

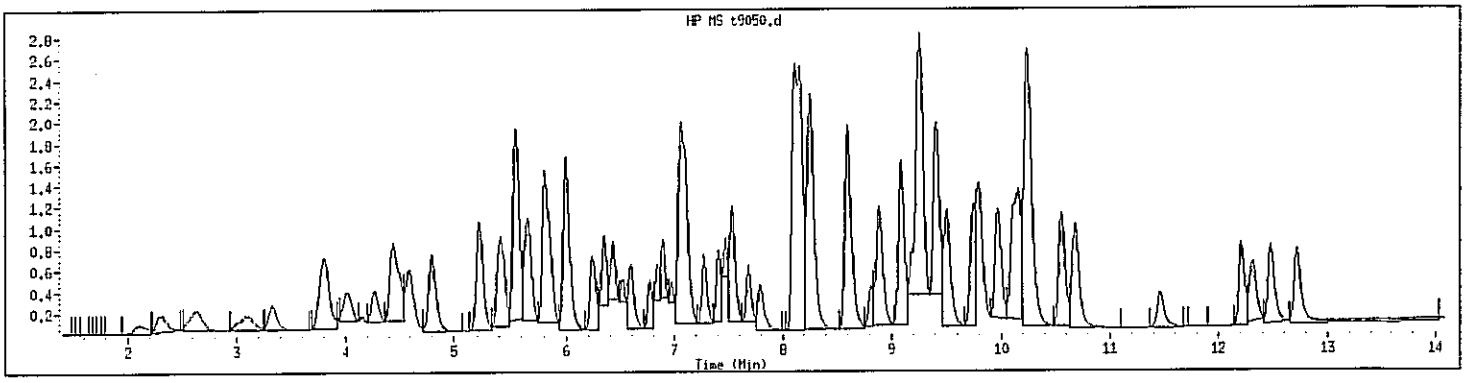
000199



Data file : /var/chem/msv1.i/2040501.s.b/t9050.d
Report Date: 05/01/2004 12:57

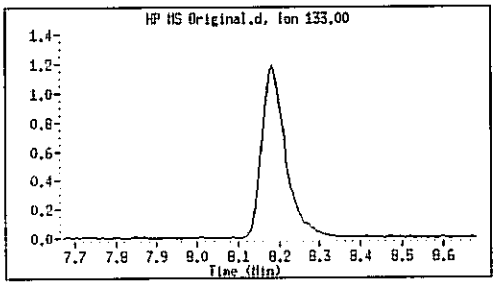
MANUAL INTEGRATION GRAPHIC REPORT

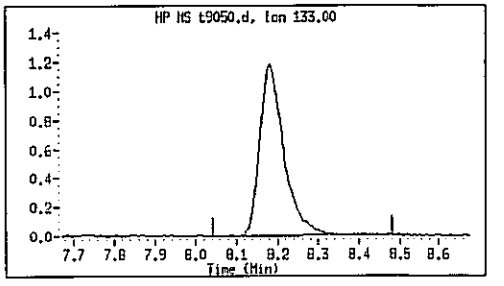
Lab ID	: 162587	SampleType	: LCSD
Injection Date	: 01-MAY-2004 11:52	Instrument	: msv1.i
Operator	: RJO		
Sample Info	: 162587*LCSD FOR HBN 273041		
Misc Info	: MSV~4640~*1*RJO		
Method	: /var/chem/msv1.i/2040501.s.b/8260Bw1.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: HP RTE	Compound Sublist	: 8260b



Original Final

74 1,1,1,2-Tetrachloroethane CAS#: 630-20-6





GCAL, Inc.

Data file : /var/chem/msv1.i/2040501.s.b/t9058.d
Lab Smp Id: 20404280605 Client Smp ID: 86-CEF271-MS-Q1-04
Inj Date : 01-MAY-2004 15:51
Operator : RJO Inst ID: msv1.i
Smp Info : 20404280605*86-CEF271-MS-Q1-04
Misc Info : MSV~4640~*5*RJO
Comment :
Method : /var/chem/msv1.i/2040501.s.b/8260Bw1.m
Meth Date : 01-May-2004 13:04 rjo Quant Type: ISTD
Cal Date : 30-APR-2004 17:51 Cal File: t9007.d
Als bottle: 21 QC Sample: MS
Dil Factor: 5.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
1 Dichlorodifluoromethane	85	2.302	2.301	(0.384)	611373	25.8909	129	
2 Chloromethane ++	50	2.600	2.599	(0.434)	514546	27.0020	135	
3 Vinyl Chloride +	62	2.657	2.645	(0.443)	508742	26.8306	134	
5 Bromomethane	94	3.069	3.045	(0.512)	244515	22.7607	114	
6 Chloroethane	64	3.127	3.120	(0.522)	334131	28.8219	144	
7 Trichlorofluoromethane	101	3.333	3.332	(0.556)	474437	25.8287	129	
9 Acrolein	56	3.785	3.807	(0.631)	40773	36.6530	183	(RM)
10 1,1,2Trichlotrifluoroethane	101	3.791	3.790	(0.632)	599538	26.0693	130	
11 1,1-Dichloroethene +	96	3.819	3.824	(0.637)	322396	24.4832	122	
12 Acetone	43	3.922	3.933	(0.654)	139532	26.8813	134	
13 Methyl Iodide	142	3.997	3.996	(0.667)	464860	21.9579	110	
14 Carbon Disulfide	76	4.031	4.036	(0.672)	1023936	24.7472	124	
17 Methylene Chloride	49	4.266	4.271	(0.712)	761530	26.8088	134	
19 trans-1,2-Dichloroethene	61	4.449	4.454	(0.742)	565112	25.7359	129	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
	20 Methyl Acetate	43	4.174	4.167	(0.696)	464950	38.3801	192	4097(H)
	21 MTBE	73	4.438	4.442	(0.740)	988666	25.9791	130	5239
	22 Acrylonitrile	53	4.512	4.517	(0.753)	769801	152.676	763	
	23 Hexane	57	4.598	4.591	(0.767)	641639	30.5232	153	3204(H)
	24 1,1-Dichloroethane ++	63	4.798	4.803	(0.800)	832959	23.9081	120	
	25 Vinyl Acetate	43	4.804	4.797	(0.801)	1072874	27.0896	135	
	31 2,2-Dichloropropane	77	5.211	5.215	(0.869)	686151	27.7482	139	
	30 cis-1,2-Dichloroethene	61	5.216	5.221	(0.870)	788662	26.3494	132	
	32 2-Butanone	43	5.234	5.232	(0.873)	345947	30.7671	154	
	34 Bromochloromethane	128	5.394	5.398	(0.900)	244358	24.1467	121	
S	36 Dibromofluoromethane	111	5.543	5.541	(0.925)	1019248	42.6459	213	4894
	37 1,1,1-Trichloroethane	97	5.554	5.559	(0.926)	626935	27.6612	138	
	38 Cyclohexane	56	5.554	5.559	(0.926)	937791	35.9351	180	4863
	39 Carbon Tetrachloride	117	5.651	5.650	(0.943)	485231	26.2339	131	
	41 Chloroform +	63	5.417	5.421	(0.904)	808512	25.5102	128	
	42 1,1-Dichloropropene	75	5.657	5.662	(0.944)	704736	27.3115	137	
$	43 1,2-Dichloroethane-d4	67	5.812	5.805	(0.969)	664142	72.1445	361	(R)
	44 Benzene	78	5.806	5.811	(0.968)	4183964	79.6894	398	(R)
	46 1,2-Dichloroethane	62	5.858	5.856	(0.977)	531200	26.6207	133	
*	47 FLUOROBENZENE	96	5.995	5.994	(1.000)	2837618	50.0000		
M	48 Total 1,2-Dichloroethene	61				1353774	52.0853	260	
	49 Trichloroethene	130	6.230	6.234	(1.039)	500066	24.9188	125	
	50 Methyl Cyclohexane	83	6.333	6.337	(1.056)	801078	34.0761	170	6408
	51 1,2-Dichloropropane +	63	6.424	6.417	(1.072)	594119	27.0744	135	
	52 Dibromomethane	93	6.510	6.515	(1.086)	398653	25.7642	129	
	54 Bromodichloromethane	83	6.585	6.583	(1.098)	775955	25.7530	129	
	56 2-Chloroethyl vinyl ether	63	6.756	6.755	(1.127)	334836	25.4034	127	
	57 1-Bromr-2-chloroethana	144	6.831	6.835	(1.139)	119909	26.2023	131	2950
	58 cis-1,3-Dichloropropene	75	6.888	6.887	(1.149)	915617	27.2597	136	
	59 4-methyl-2-pentanone	43	6.968	6.973	(1.162)	855395	34.8077	174	
$	60 Toluene-d8	98	7.054	7.053	(0.871)	2374026	46.9044	235	
	61 Toluene +	91	7.094	7.104	(0.876)	1715160	28.4599	142	
	62 trans-1,3-Dichloropropene	75	7.260	7.265	(1.211)	813846	27.4371	137	
M	143 1-3 Dichloropropene-Total	75				1729463	54.6858	273	0
	65 1,1,2-Trichloroethane	97	7.398	7.396	(0.914)	488306	24.3510	122	
	66 Tetrachloroethene	164	7.466	7.465	(0.922)	395099	25.9653	130	
	67 1,3-Dichloropropane	76	7.523	7.528	(0.929)	980346	26.2202	131	
	68 2-Hexanone	43	7.529	7.534	(0.930)	528799	32.5175	163	
	69 Dibromochloromethane	129	7.672	7.677	(0.948)	615949	24.7288	124	
	70 1,2-Dibromoethane(EDB)	107	7.787	7.786	(0.962)	655773	24.5558	123	
*	71 CHLOROBENZENE-d5	82	8.096	8.101	(1.000)	1473216	50.0000		
	72 Chlorobenzene ++	112	8.125	8.123	(1.004)	1185366	25.6565	128	
	73 Ethylbenzene +	106	8.159	8.158	(1.008)	945392	46.9059	235	(R)
	74 1,1,1,2-Tetrachloroethane	133	8.170	8.175	(1.009)	512067	25.8214	129	(M)
	75 p,m-Xylene	106	8.256	8.255	(1.020)	1963660	66.4878	332	
	76 o-Xylene	106	8.588	8.593	(1.061)	863431	28.7130	144	
	77 Styrene	104	8.605	8.610	(1.063)	1392144	26.8142	134	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
	78 Bromoform ++	173	8.817	8.822	(1.089)	411120	25.7636	129	
	79 Isopropylbenzene	105	8.892	8.891	(1.098)	3088477	40.7541	204	(R)
$	80 Bromofluorobenzene	174	9.086	9.097	(1.122)	898880	47.7437	239	
	81 1,1,2,2-Tetrachloroethane++	83	9.189	9.205	(0.898)	966818	24.6636	123	
	84 Bromobenzene	77	9.252	9.251	(0.904)	1685886	28.5200	143	
	83 trans-1,4-Dichloro-2-Butene	53	9.258	9.263	(0.904)	257096	30.4692	152	
	85 1,2,3-Trichloropropane	75	9.270	9.274	(0.905)	1122096	27.5299	138	
	86 n-Propylbenzene	91	9.264	9.274	(0.905)	5133064	56.7352	284	(R)
	87 2-Chlorotoluene	91	9.413	9.412	(0.919)	1740874	26.9400	135	
	88 1,3,5-Trimethylbenzene	105	9.424	9.434	(0.921)	1940127	32.3748	162	
	90 4-Chlorotoluene	91	9.510	9.515	(0.929)	1677580	26.6813	133	
	91 tert-butylbenzene	91	9.750	9.755	(0.952)	1081921	27.2156	136	
	92 p-Isopropyltoluene	119	9.745	9.755	(0.952)	1828797	27.6444	138	
	93 1,2,4-Trimethylbenzene	105	9.808	9.812	(0.958)	1710839	27.9644	140	
	94 sec-Butylbenzene	105	9.974	9.978	(0.974)	2680978	28.8823	144	
	96 1,3-Dichlorobenzene	146	10.168	10.173	(0.993)	1140964	30.8524	154	
*	97 1,4-DICHLOROBENZENE-D4	152	10.237	10.242	(1.000)	1322199	50.0000		
	98 1,4-Dichlorobenzene	146	10.266	10.265	(1.003)	1072313	23.5249	118	
M	99 TOTAL XYLENE	106				2827091	95.2007	476	
	100 n-Butylbenzene	91	10.552	10.557	(1.031)	3144182	47.0414	235	(R)
	102 1,2-Dichlorobenzene	146	10.678	10.682	(1.043)	1005518	24.8496	124	
	106 1,2-Dibromo-3-Chloropropane	157	11.462	11.461	(1.120)	227530	25.4597	127	
	108 1,2,4-Trichlorobenzene	180	12.218	12.211	(1.193)	650479	26.1955	131	
	109 Hexachlorobutadiene	225	12.315	12.314	(1.203)	263207	30.0151	150	
	110 Naphthalene	128	12.476	12.469	(1.219)	9947857	163.220	816	(R)
	111 1,2,3-Trichlorobenzene	180	12.716	12.709	(1.242)	585459	27.4210	137	

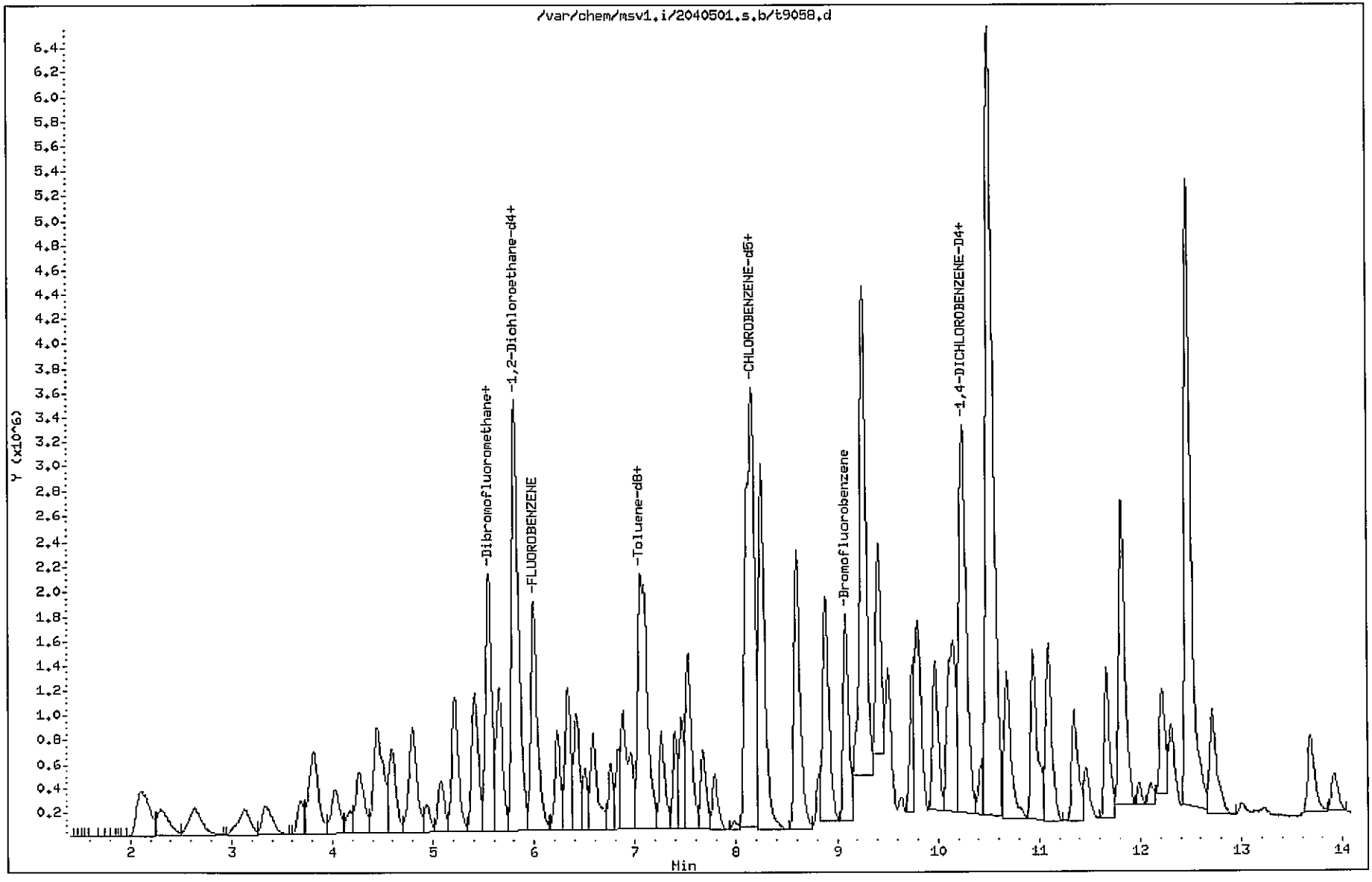
QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /var/chem/msv1.i/2040501.s.b/t9058.d
Date : 01-MAY-2004 15:51
Client ID: 86-CEF271-MS-Q1-04
Sample Info: 20404280605x86-CEF271-MS-Q1-04
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv1.i
Operator: RJO
Column diameter: 0.53

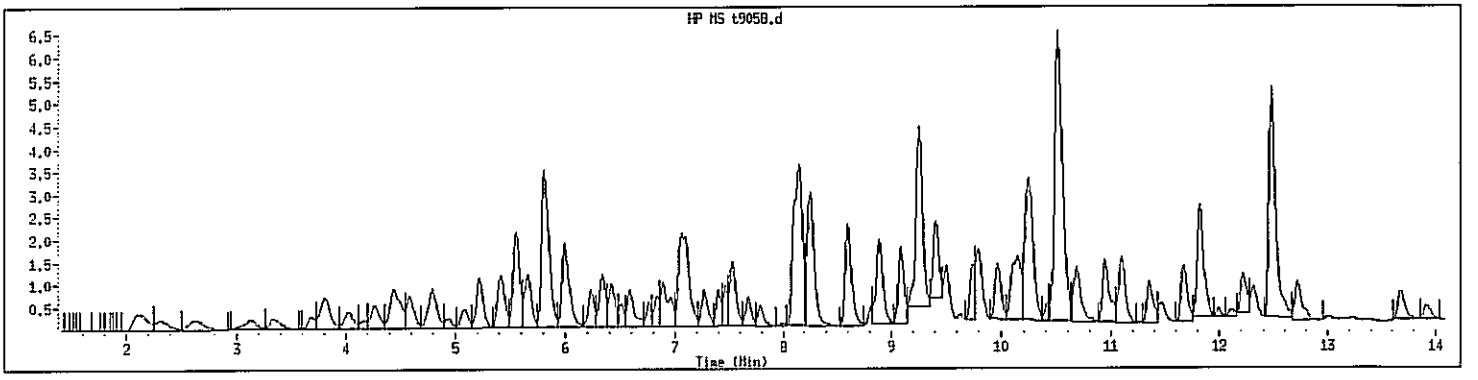
000204



Data file : /var/chem/msv1.i/2040501.s.b/t9058.d
Report Date: 05/01/2004 16:41

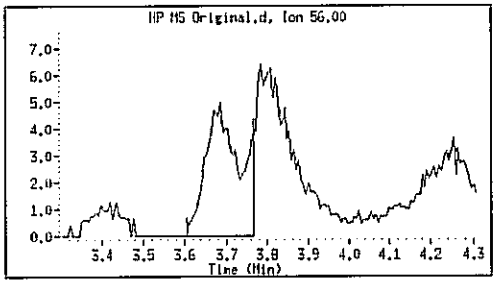
MANUAL INTEGRATION GRAPHIC REPORT

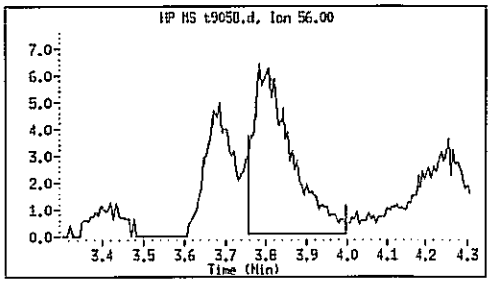
Lab ID	: 20404280605	SampleType	: MS
Injection Date	: 01-MAY-2004 15:51	Instrument	: msv1.i
Operator	: RJO		
Sample Info	: 20404280605*86-CEF271-MS-Q1-04		
Misc Info	: MSV~4640~*5*RJO		
Method	: /var/chem/msv1.i/2040501.s.b/8260Bw1.m		
Dilution	: 5.0		
Matrix	: WATER		
Integrator	: HP RTE	Compound Sublist	: 8260b



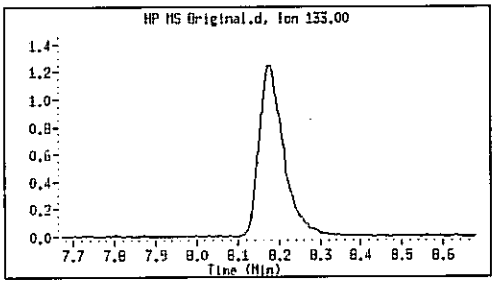
Original | Final

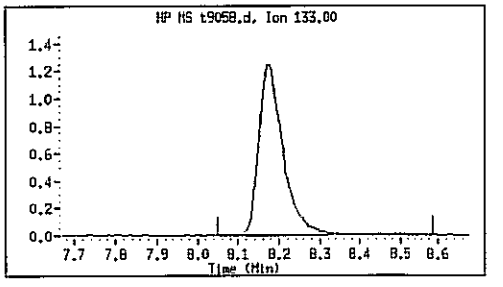
9 Acrolein CAS#: 107-02-8





74 1,1,1,2-Tetrachloroethane CAS#: 630-20-6





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Data file : /var/chem/msv1.i/2040501.s.b/t9059.d
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Inj Date : 01-MAY-2004 16:15
Operator : RJO Inst ID: msv1.i
Smp Info : 20404280606*86-CEF271-MSD-Q1-04
Misc Info : MSV~4640~*5*RJO
Comment :
Method : /var/chem/msv1.i/2040501.s.b/8260Bw1.m
Meth Date : 01-May-2004 13:04 rjo Quant Type: ISTD
Cal Date : 30-APR-2004 17:51 Cal File: t9007.d
Als bottle: 22 QC Sample: MSD
Dil Factor: 5.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	Sample Volume purged (mL)
DF	1.00000	

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
1 Dichlorodifluoromethane	85	2.297	2.301	(0.383)	682544	24.3955	122	
2 Chloromethane ++	50	2.583	2.599	(0.431)	578473	25.6209	128	
3 Vinyl Chloride +	62	2.640	2.645	(0.440)	565041	25.1508	126	
5 Bromomethane	94	3.047	3.045	(0.508)	286778	22.5128	113	
6 Chloroethane	64	3.127	3.120	(0.522)	347517	25.3000	126	
7 Trichlorofluoromethane	101	3.333	3.332	(0.556)	510061	23.4361	117	
9 Acrolein	56	3.797	3.807	(0.633)	68710	47.5358	238	(RM)
10 1,1,2Trichlotrifluoroethane	101	3.791	3.790	(0.632)	683549	25.0854	125	
11 1,1-Dichloroethene +	96	3.831	3.824	(0.639)	364038	23.3326	117	
12 Acetone	43	3.940	3.933	(0.657)	146557	23.3731	117	
13 Methyl Iodide	142	3.997	3.996	(0.667)	549633	21.9119	110	
14 Carbon Disulfide	76	4.032	4.036	(0.672)	1159233	23.6463	118	
17 Methylene Chloride	49	4.266	4.271	(0.712)	820131	24.3676	122	
19 trans-1,2-Dichloroethene	61	4.449	4.454	(0.742)	604696	23.2424	116	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
	20 Methyl Acetate	43	4.163	4.167	(0.694)	488938	34.0638	170	4074(H)
	21 MTBE	73	4.438	4.442	(0.740)	1053175	23.3568	117	5263
	22 Acrylonitrile	53	4.512	4.517	(0.753)	751510	125.796	629	
	23 Hexane	57	4.593	4.591	(0.766)	646440	25.9541	130	3154(H)
	24 1,1-Dichloroethane ++	63	4.799	4.803	(0.800)	1044153	25.2944	126	
	25 Vinyl Acetate	43	4.804	4.797	(0.801)	1349973	28.7685	144	
	31 2,2-Dichloropropane	77	5.211	5.215	(0.869)	762177	26.0141	130	
	30 cis-1,2-Dichloroethene	61	5.217	5.221	(0.870)	884402	24.9384	125	
	32 2-Butanone	43	5.234	5.232	(0.873)	332278	24.9412	125	
	34 Bromochloromethane	128	5.400	5.398	(0.901)	290680	24.2429	121	
$	36 Dibromofluoromethane	111	5.537	5.541	(0.924)	1220538	43.1010	216	5007
	37 1,1,1-Trichloroethane	97	5.554	5.559	(0.926)	697089	25.9583	130	
	38 Cyclohexane	56	5.554	5.559	(0.926)	1048482	33.9088	170	4835
	39 Carbon Tetrachloride	117	5.646	5.650	(0.942)	533625	24.3494	122	
	41 Chloroform +	83	5.423	5.421	(0.904)	901479	24.0062	120	
	42 1,1-Dichloropropene	75	5.657	5.662	(0.944)	790468	25.8548	129	
$	43 1,2-Dichloroethane-d4	67	5.806	5.805	(0.968)	740592	67.8985	339	(R)
	44 Benzene	78	5.806	5.811	(0.968)	4832441	77.6499	388	(R)
	46 1,2-Dichloroethane	62	5.852	5.856	(0.976)	584634	24.7277	124	
*	47 FLUOROBENZENE	96	5.995	5.994	(1.000)	3362135	50.0000		
M	48 Total 1,2-Dichloroethene	61				1489098	48.1808	241	
	49 Trichloroethene	130	6.230	6.234	(1.039)	596505	25.0872	125	
	50 Methyl Cyclohexane	83	6.339	6.337	(1.057)	898293	32.2502	161	6381
	51 1,2-Dichloropropane +	63	6.419	6.417	(1.071)	659793	25.3765	127	
	52 Dibromomethane	93	6.505	6.515	(1.085)	466040	25.4205	127	
	54 Bromodichloromethane	83	6.579	6.583	(1.097)	886452	24.8305	124	
	56 2-Chloroethyl vinyl ether	63	6.757	6.755	(1.127)	345813	22.1432	111	
	57 1-Bromr-2-chloroethana	144	6.831	6.835	(1.139)	139794	25.7819	129	2873
	58 cis-1,3-Dichloropropene	75	6.883	6.887	(1.148)	1059862	26.6315	133	
	59 4-methyl-2-pentanone	43	6.968	6.973	(1.162)	905840	31.1099	156	
$	60 Toluene-d8	98	7.049	7.053	(0.871)	2795255	49.1867	246	
	61 Toluene +	91	7.094	7.104	(0.876)	1947737	28.7843	144	
	62 trans-1,3-Dichloropropene	75	7.260	7.265	(1.211)	902552	25.6807	128	
M	143 1-3 Dichloropropene-Total	75				1962414	52.3712	262	0
	65 1,1,2-Trichloroethane	97	7.392	7.396	(0.913)	570723	25.3483	127	
	66 Tetrachloroethene	164	7.466	7.465	(0.922)	438986	25.6943	128	
	67 1,3-Dichloropropane	76	7.518	7.528	(0.929)	1104889	26.3192	132	
	68 2-Hexanone	43	7.524	7.534	(0.929)	563054	30.8372	154	
	69 Dibromochloromethane	129	7.673	7.677	(0.948)	719609	25.7307	129	
	70 1,2-Dibromoethane(EDB)	107	7.781	7.786	(0.961)	753786	25.1389	126	
*	71 CHLOROBENZENE-d5	82	8.096	8.101	(1.000)	1654126	50.0000		
	72 Chlorobenzene ++	112	8.119	8.123	(1.003)	1384401	26.6874	133	
	73 Ethylbenzene +	106	8.159	8.158	(1.008)	1070295	47.2952	236	(R)
	74 1,1,1,2-Tetrachloroethane	133	8.171	8.175	(1.009)	578853	25.9967	130	(M)
	75 p,m-Xylene	106	8.245	8.255	(1.018)	2213155	66.7398	334	
	76 o-Xylene	106	8.589	8.593	(1.061)	991486	29.3654	147	
	77 Styrene	104	8.600	8.610	(1.062)	1584693	27.1846	136	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
	78 Bromoform ++	173	8.818	8.822	(1.089)	457039	25.5087	128	
	79 Isopropylbenzene	105	8.881	8.891	(1.097)	3442442	40.4568	202	(R)
S	80 Bromofluorobenzene	174	9.081	9.097	(1.122)	1014591	47.9958	240	
	81 1,1,2,2-Tetrachloroethane++	83	9.184	9.205	(0.898)	1093789	25.1896	126	
	84 Bromobenzene	77	9.247	9.251	(0.904)	1885488	28.7953	144	
	83 trans-1,4-Dichloro-2-Butene	53	9.253	9.263	(0.905)	278507	29.7974	149	
	85 1,2,3-Trichloropropane	75	9.264	9.274	(0.906)	1299124	28.7741	144	
	86 n-Propylbenzene	91	9.258	9.274	(0.905)	5561067	55.4894	277	(R)
	87 2-Chlorotoluene	91	9.401	9.412	(0.919)	1922947	26.8642	134	
	88 1,3,5-Trimethylbenzene	105	9.419	9.434	(0.921)	2113020	31.8315	159	
	90 4-Chlorotoluene	91	9.505	9.515	(0.929)	1879654	26.9884	135	
	91 tert-butylbenzene	91	9.739	9.755	(0.952)	1150640	26.1299	131	
	92 p-Isopropyltoluene	119	9.745	9.755	(0.953)	1991658	27.1790	136	
	93 1,2,4-Trimethylbenzene	105	9.802	9.812	(0.959)	1869199	27.5822	138	
	94 sec-Butylbenzene	105	9.974	9.978	(0.975)	2958752	28.7755	144	
	96 1,3-Dichlorobenzene	146	10.157	10.173	(0.993)	1158065	28.2700	141	
*	97 1,4-DICHLOROBENZENE-D4	152	10.226	10.242	(1.000)	1464605	50.0000		
	98 1,4-Dichlorobenzene	146	10.249	10.265	(1.002)	1273965	25.2313	126	
M	99 TOTAL XYLENE	106				3204641	96.1052	481	
	100 n-Butylbenzene	91	10.541	10.557	(1.031)	3381084	45.6673	228	(R)
	102 1,2-Dichlorobenzene	146	10.672	10.682	(1.044)	1099475	24.5296	123	
	106 1,2-Dibromo-3-Chloropropane	157	11.462	11.461	(1.121)	215449	21.7638	109	
	108 1,2,4-Trichlorobenzene	180	12.212	12.211	(1.194)	614933	22.3561	112	
	109 Hexachlorobutadiene	225	12.315	12.314	(1.204)	240524	24.7615	124	
	110 Naphthalene	128	12.476	12.469	(1.220)	9550160	141.459	707	(R)
	111 1,2,3-Trichlorobenzene	180	12.716	12.709	(1.244)	564607	23.8731	119	

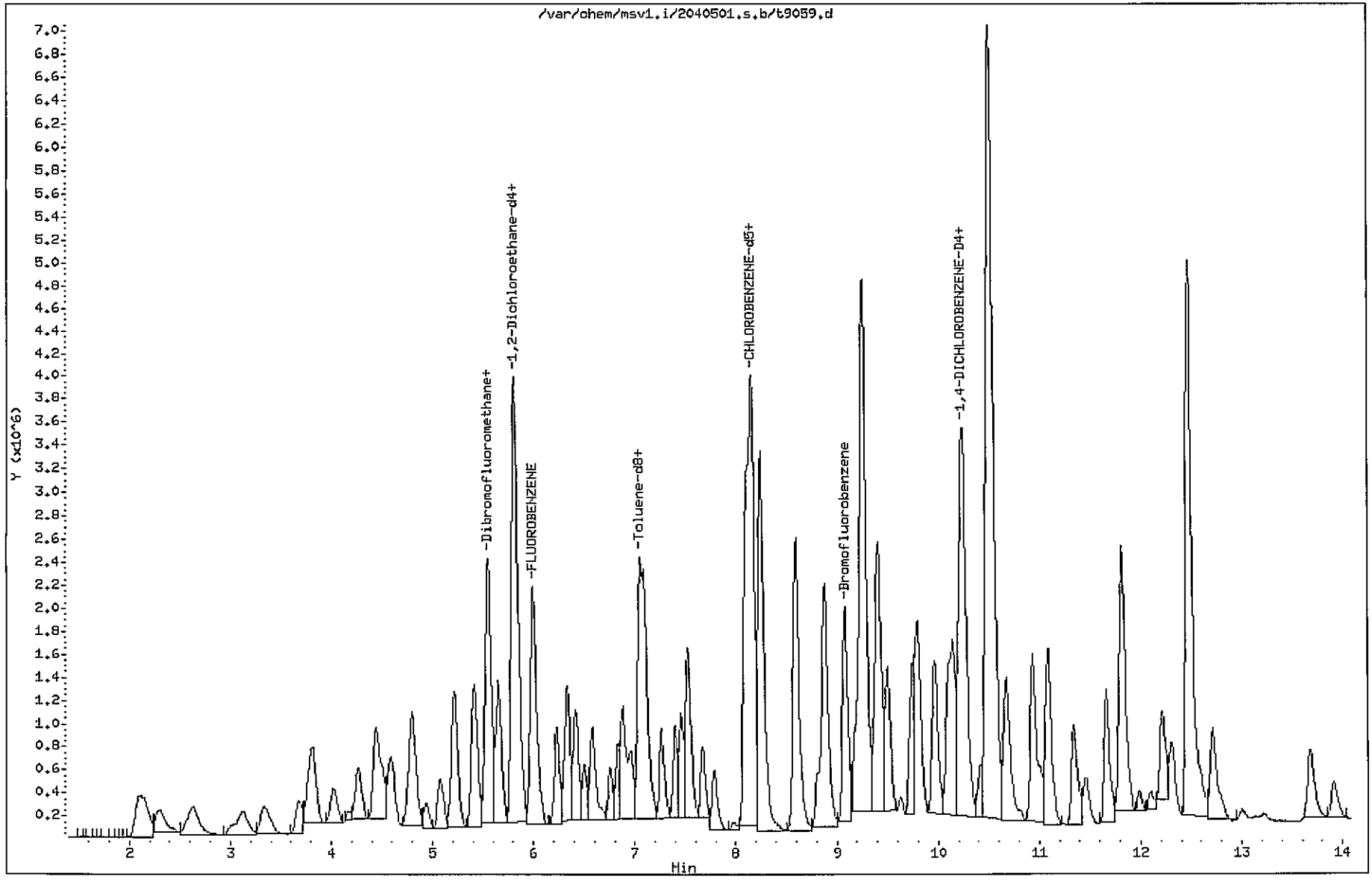
QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /var/chem/msv1.i/2040501.s.b/t9059.d
Date : 01-MAY-2004 16:15
Client ID: 86-CEF271-MSD-Q1-04
Sample Info: 20404280606*86-CEF271-MSD-Q1-04
Purge Volume: 5.0
Column phase: DB-624-30M

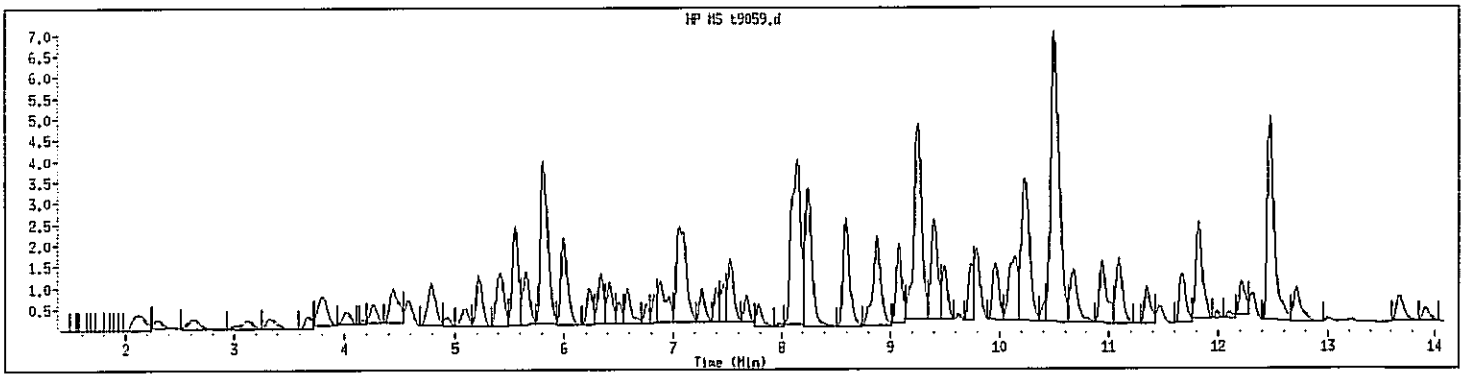
Instrument: msv1.i
Operator: RJO
Column diameter: 0.53

000209



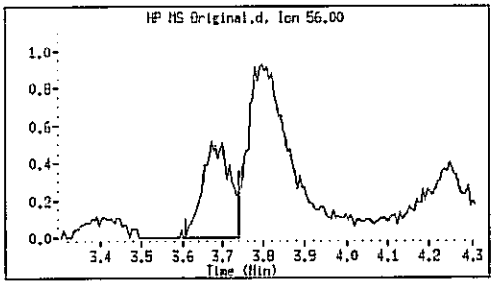
MANUAL INTEGRATION GRAPHIC REPORT

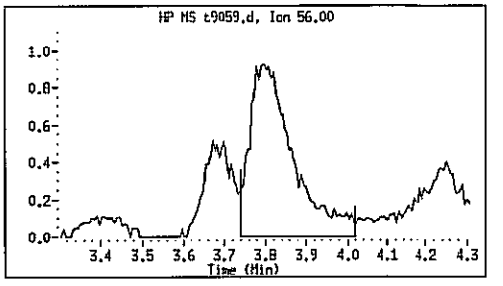
Lab ID : 20404280606 SampleType : MSD
Injection Date: 01-MAY-2004 16:15 Instrument : msv1.i
Operator : RJO
Sample Info : 20404280606*86-CEF271-MSD-Q1-04
Misc Info : MSV~4640~*5*RJO
Method : /var/chem/msv1.i/2040501.s.b/8260Bw1.m
Dilution : 5.0
Matrix : WATER
Integrator : HP RTE Compound Sublist: 8260b



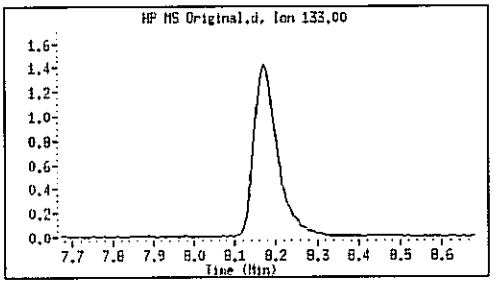
Original Final

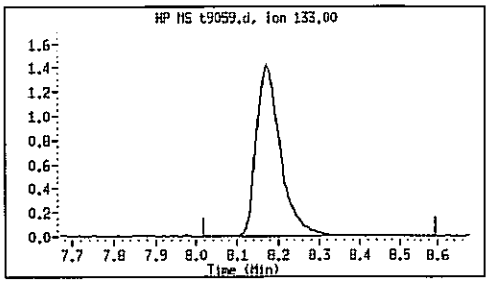
9 Acrolein CAS#: 107-02-8





74 1,1,1,2-Tetrachloroethane CAS#: 630-20-6





LABORATORY CHRONICLE: GC-MS DEPARTMENT

Date: 17-APR-2004
Instrument: msv1.i
Analyst(s): RJO

Standard	Conc ppm
Int. Standard	50
Surrogate	50
8260	50
Ac/Ac/VA	250/50
CVE	50

Sample ID	Status/Comments	DataFile	WT VOL	Injection Time	DilFactor	ALS
1000		t8436.d	0.00	17-APR-2004 08:57	1.000	2
1000		t8437.d	0.00	17-APR-2004 09:21	1.000	2
ICV		t8438.d	5.00	17-APR-2004 10:05	1.000	12
BLANK		t8439.d	5.00	17-APR-2004 10:28	1.000	8
1206		t8440.d	5.00	17-APR-2004 10:51	1.000	9
1201		t8441.d	5.00	17-APR-2004 11:14	1.000	10
1202		t8442.d	5.00	17-APR-2004 11:37	1.000	11
1203		t8443.d	5.00	17-APR-2004 12:01	1.000	12
1204		t8444.d	5.00	17-APR-2004 12:24	1.000	13
1205		t8445.d	5.00	17-APR-2004 12:47	1.000	14

REVISED 01/01/2000

LABORATORY CHRONICLE: GC-MS DEPARTMENT

Date: 01-MAY-2004
Instrument: msv1.i
Analyst(s): RJO

Standard	Conc ppm
Int. Standard	50
Surrogate	50
8260	50
Ac/Ac/VA	250/50
CVE	50

Sample ID	Status/Comments	DataFile	WT VOL	Injection Time	DilFactor	ALS
1000		t9046.d	0.00	01-MAY-2004 09:54	1.000	2
1400		t9047.d	5.00	01-MAY-2004 10:26	1.000	13
1400		t9048.d	5.00	01-MAY-2004 11:04	1.000	14
162586		t9049.d	5.00	01-MAY-2004 11:28	1.000	15
162587		t9050.d	5.00	01-MAY-2004 11:52	1.000	16
BLANK		t9051.d	5.00	01-MAY-2004 12:16	1.000	17
162585		t9052.d	5.00	01-MAY-2004 12:40	1.000	18
20404280601		t9053.d	5.00	01-MAY-2004 13:08	10.000	19
20404280601		t9054.d	5.00	01-MAY-2004 13:49	5.000	20
BLANK		t9055.d	5.00	01-MAY-2004 14:24	1.000	21
BLANK		t9056.d	5.00	01-MAY-2004 14:48	5.000	22
20404280601		t9057.d	5.00	01-MAY-2004 15:12	5.000	20
20404280605		t9058.d	5.00	01-MAY-2004 15:51	5.000	21
20404280606		t9059.d	5.00	01-MAY-2004 16:15	5.000	22
BLANK		t9060.d	5.00	01-MAY-2004 16:38	1.000	23
20404280602		t9061.d	5.00	01-MAY-2004 17:02	1.000	24
20404280603		t9062.d	5.00	01-MAY-2004 17:25	1.000	25
20404280604		t9063.d	5.00	01-MAY-2004 17:49	1.000	26
20404280607		t9064.d	5.00	01-MAY-2004 18:13	1.000	27
20404280608		t9065.d	5.00	01-MAY-2004 18:36	1.000	28
20404280609		t9066.d	5.00	01-MAY-2004 19:00	1.000	29
VOA STORAGE BLAN		t9067.d	5.00	01-MAY-2004 19:23	1.000	30
LOG IN STORAGE B		t9068.d	5.00	01-MAY-2004 19:47	1.000	31
20404231410		t9069.d	5.00	01-MAY-2004 20:10	1.000	32
20404221711		t9070.d	5.00	01-MAY-2004 20:34	1.000	33
BLANK		t9071.d	5.00	01-MAY-2004 20:57	1.000	34
BLANK		t9072.d	5.00	01-MAY-2004 21:21	1.000	35
BLANK		t9073.d	5.00	01-MAY-2004 21:44	1.000	36
BLANK		t9074.d	5.00	01-MAY-2004 22:08	1.000	37

REVISED 01/01/2000

LABORATORY CHRONICLE: GC-MS DEPARTMENT

Date: 30-APR-2004
Instrument: msv1.i
Analyst(s): RJO

Standard	Conc ppm
Int. Standard	50
Surrogate	50
8260	50
Ac/Ac/VA	250/50
CVE	50

Sample ID	Status/Comments	DataFile	WT VOL	Injection Time	DilFactor	ALS
1000		t9004.d	0.00	30-APR-2004 16:31	1.000	2
BLANK		t9005.d	5.00	30-APR-2004 17:03	1.000	7
1208		t9006.d	5.00	30-APR-2004 17:27	1.000	8
1207		t9007.d	5.00	30-APR-2004 17:51	1.000	9
1206		t9008.d	5.00	30-APR-2004 18:15	1.000	10
1201		t9009.d	5.00	30-APR-2004 18:38	1.000	11
1202		t9010.d	5.00	30-APR-2004 19:02	1.000	12
1203		t9011.d	5.00	30-APR-2004 19:26	1.000	13
1204		t9012.d	5.00	30-APR-2004 19:49	1.000	14
1205		t9013.d	5.00	30-APR-2004 20:13	1.000	15
BLANK		t9014.d	5.00	30-APR-2004 20:37	1.000	16
ICV		t9015.d	5.00	30-APR-2004 21:07	1.000	17

REVISED 01/01/2000

STANDARD PREPARATION LOGBOOK

STANDARD NAME	STD#	STOCK STD	SUPPLIER	LOT#/ EXP DATE	WT/VOL g/ml	FINAL VOL(ml)	FINAL CONC	SOLVENT/ LOT#	INITIAL	DATE PREPARED	EXP DATE
GM-ARC STD	5-11-01	5-10-12	IN HOUSE	IN HOUSE 9-19-04	250µl	10 ml	250ppm	Methanol 033518	RJD	3-20-04	9-19-04
8260 SS	5-11-02	C-440-05	NSI 2500 ppm	C-440-05 Exp-02-05	2.0ml	100ml	500ppm	meOH 033518	RSP	3-22-04	9-21-04
cumene hydroperoxide	5-11-03	125190	Aldrich	Neat STD	0.19m	10 ml	10000 ppm	meOH 033518	RW	3-22-04	9-21-04
cumene hydroperoxide	5-11-04	5-11-03	Aldrich IN House	5-11-03 9-21-04	250ul	10ml	250ppm	meOH 033518	RSP	3-22-04	9-21-04
Gm STD-2	5-11-05	M 0890-3	Aldrich 2-methyl styrene	Neat	0.1	10ml	10000ppm ~~250ppm~~	meOH 033518	RW	3-28-04	9-27-04
		281832	mesityl oxide	Neat	0.1		Rw 3-28-04				
GmSTD-3	5-11-06	5-11-05	In house	9-27-04	250ul	10ml	250ppm	meOH 033518	RW	3-28-04	9-27-04
Dates 2-27-04 — 3-28-04 were reviewed by QA/QC on 3/31/04 DLH											
Methacrylonitrile	5-11-07	EPA 1040	Ultra 1000ppm	R-166A Exp-03-2006	1.25ml	5.00 ml	250ppm	meOH 033518	RW	4-1-04	9-30-04
8260 SURRO	5-11-08	C-440-05	NSF 2500ppm	C-440-05 Exp-02-05	2.5ml	25ml	250ppm	meOH 033518	RW	4-5-04	10-2-04
8260 IS	5-11-09	C-441-05 INT STD	NSF 2500ppm	C-441-05 Exp-12-06	2.0ml	100ml	50ppm	meOH 033518	RSP	4-7-04	10-6-04
8260 SS	5-11-10	C-440-05 SURRO	NSF 2500ppm	C-440-05 Exp-02-05	2.0ml	100ml	50ppm	meOH 033518	RW	4-7-04	10-6-04
8260 IS/SS	5-11-11	C-441-05 INT STD	NSF 2500ppm	C-441-05 Exp-12-06	0.5ml	50ml	25ppm	meOH	RW	4-7-04	10-06-04
		C440-05 SURR	2500ppm NSF	C-440-05 Exp-02-05	0.5ml			033518		—	—
AC/ACICV	5-11-12	Q2143	NSF	030104-04 9-04	1.25ml	10ml	50ppm	DI H2O	RJD	4-7-04	9-04
2CVG	5-11-13	17-04-08	NSF	Exp-02-06 17-04-08 1000ppm	6.25	25ml	250ppm	meOH 033518	RW	4-14-04	10-13-04
1-Bromo-2chloroethane	5-11-14	~~17-04-08~~ 1407-01-01	NSF 2000ppm	Exp-12-05 1407-01-01	3.125	25ml	250ppm	meOH 033518	RW	4-14-04	10-13-04

000214

STANDARD PREPARATION LOGBOOK

STANDARD NAME	STD#	STOCK STD	SUPPLIER	LOT#/ EXP DATE	WT/VOL g/ml	FINAL VOL(ml)	FINAL CONC	SOLVENT/ LOT#	INITIAL	DATE PREPARED	EXP DATE
8260 STD	5-12-1	Q-4115	NSF 2000 ppm	112003-01 Exp. 11-05	3.125 ml	25 ml	250 ppm	meoH 034924	RSP	4-14-04	10-13-04
		Q-4116	NSF 2000 ppm	032204-01 Exp-0905	3.125 ml						
		C-303-28	NSF 1000	0323-28 Exp 1206	6.250 ml						
Ac/Ae	~~Q-21~~ 5-12-2	Q-2143	NSF	030104-04 Exp-0904	0.25 ml	10 ml	250/50 ppm	water NA	RSP	4-15-04	10-14-04
8260 SS	5-12-3	C-440-06 SURRO	NSF 2500 ppm	C-440-06 Exp-02-06	2.0 ml	100 ml	50 ppm	meoH 034924	RSP	4-28-04	10-27-04
8260 IS	5-12-4	C-441-05 INT STD	NSF 2500 ppm	C-441-05 Exp-12-06	2.0 ml	100 ml	50 ppm	meoH 034924	RSP	4-28-04	10-27-04
App mix-2	5-12-5	93015	ABS	93015 Exp-12-05	2.5 ml	10 ml	50 ppm	meoH 034924	RSP	4-28-04	10-27-04
Ac/Ae	5-12-6	Q-2143	NSF	030104-04 Exp-09-04	1.25 ml	10 ml	50 ppm	water	RSP	4-29-04	10-28-04
Dates 4-1-04 — 4-29-04 were reviewed by QA/QC on 4-30-04 (DLH)											
1-bromo-2-chloroethane ICV	5-12-7	71245 Exp-01-08	ABS	012003 1000 ppm	1.25 ml	5.0 ml	250 ppm	meoH 034924	RSP	4-30-04	10-29-04
8260 SS	5-12-8	C-440-06 Surrogate	NSI	C440-06 Exp-02-06	2.5 ml	25.0 ml RJD 4-30 ~~50.0 ml~~	250 ppm	MeOH 034924	RJD	4-30-04	10-29-04
8260 SS	5-12-9	5-12-8	In House	5-12-8 In House	20 ml	100 ml	50 ppm	MeOH 034924	RJD	4-30-04	10-29-04
8260 IS/SS	5-12-10	C-441-05 INT STD	NSF 2500 ppm	C-441-05 Exp-12-06	0.5 ml	50 ml	25 ppm	meoH 034924	RSP	5-7-04	RSP 11-6-04
		C-440-06 SURRO	NSF 2500 ppm	C-440-06 Exp-02-06	0.5 ml						
3.2 STD A	5-12-11	93164	ABS 2000 ppm	050102 Exp-050107	3.125 ml	25 ml	250 ppm	meoH 034924	RSP	5-9-04	11-8-04
3.2 STD-B Ketone	5-12-12	~~93~~ 82402 Exp 5-9-04	ABS 2000 ppm	111402 Exp-111405	2.5 ml	10 ml	500 ppm	meoH 034924	RSP	5-9-04	11-8-04
3.2 CLP IS	5-12-13	20048	ABS 2500 ppm	051601 Exp-051606	1 ml	50 ml	50 ppm	meoH 034924	RSP	5-9-04	11-8-04
3.2 non ketone SURR-A	5-12-14	CS-5038-1 100 ppm	cambridge	CS-5038-1	1 ml	10 ml	10 ppm ~~50 ppm~~ RSP	meoH 034924	RSP	5-9-04	11-8-04

000215

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 272890 Analytical Batch: 273336

CONCENTRATION UNITS: ug/L

Sample ID: 86-CEF271-7S-Q1-04

Contract:

SAS No.: SDG No.: 204042806

Lab Sample ID: 20404280601

Date Collected: 04/26/04 Time: 1320

Date Received: 04/28/04

Date Extracted: 04/29/04

Date Analyzed: 05/05/04 Time: 0930

Dilution Factor: 50 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040505/H0006472

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	37.0	J	14.6	50.0
91-57-6	2-Methylnaphthalene	74.0		7.10	50.0
83-32-9	Acenaphthene	50.0	U	16.6	50.0
208-96-8	Acenaphthylene	50.0	U	7.65	50.0
120-12-7	Anthracene	5.00	U	1.20	5.00
56-55-3	Benzo(a)anthracene	5.00	U	1.60	5.00
50-32-8	Benzo(a)pyrene	5.00	U	1.65	5.00
205-99-2	Benzo(b)fluoranthene	5.00	U	0.800	5.00
191-24-2	Benzo(g,h,i)perylene	5.00	U	0.800	5.00
207-08-9	Benzo(k)fluoranthene	5.00	U	1.65	5.00
218-01-9	Chrysene	5.00	U	1.50	5.00
53-70-3	Dibenz(a,h)anthracene	5.00	U	1.45	5.00
206-44-0	Fluoranthene	5.00	U	2.20	5.00
86-73-7	Fluorene	25.0	U	4.95	25.0
193-39-5	Indeno(1,2,3-cd)pyrene	12.5	U	2.05	12.5
91-20-3	Naphthalene	476		6.20	12.5
85-01-8	Phenanthrene	7.78		1.25	5.00
129-00-0	Pyrene	5.00	U	1.70	5.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 272890 Analytical Batch: 273292

CONCENTRATION UNITS: ug/L

Sample ID: 86-CEF271-9S-Q1-04

Contract:

SAS No.: SDG No.: 204042806

Lab Sample ID: 20404280602

Date Collected: 04/26/04 Time: 1405

Date Received: 04/28/04

Date Extracted: 04/29/04

Date Analyzed: 05/04/04 Time: 1253

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040504/H0006460

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 272890 Analytical Batch: 273292

Sample ID: 86-CEF271-10S-Q1-04

Contract:

SAS No.: SDG No.: 204042806

Lab Sample ID: 20404280603

Date Collected: 04/27/04 Time: 1255

Date Received: 04/28/04

Date Extracted: 04/29/04

Date Analyzed: 05/04/04 Time: 1300

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040504/H0006461

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 272890 Analytical Batch: 273292

CONCENTRATION UNITS: ug/L

Sample ID: 86-CEF271-12S-Q1-04

Contract:

SAS No.: SDG No.: 204042806

Lab Sample ID: 20404280604

Date Collected: 04/27/04 Time: 1335

Date Received: 04/28/04

Date Extracted: 04/29/04

Date Analyzed: 05/04/04 Time: 1307

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040504/H0006462

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 272890 Analytical Batch: 273292

Sample ID: 086-271-DUP-Q1-04

Contract:

SAS No.: SDG No.: 204042806

Lab Sample ID: 20404280607

Date Collected: Time:

Date Received: 04/28/04

Date Extracted: 04/29/04

Date Analyzed: 05/04/04 Time: 1328

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

CONCENTRATION UNITS: ug/L

Lab File ID: 040504/H0006465

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 272890 Analytical Batch: 273292

Sample ID: 086-271-EB-Q1-04

Contract:

SAS No.: SDG No.: 204042806

Lab Sample ID: 20404280608

Date Collected: 04/27/04 Time: 1355

Date Received: 04/28/04

Date Extracted: 04/29/04

Date Analyzed: 05/04/04 Time: 1335

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040504/H0006466

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 272890 Analytical Batch: 273292

Sample ID: MB162068

Contract:

SAS No.: SDG No.: 204042806

Lab Sample ID: 162068

Date Collected: Time:

Date Received:

Date Extracted: 04/29/04

Date Analyzed: 05/04/04 Time: 1225

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

CONCENTRATION UNITS: ug/L

Lab File ID: 040504/H0006456

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 272890 Analytical Batch: 273292

Sample ID: LCS162069

Contract:

SAS No.: SDG No.: 204042806

Lab Sample ID: 162069

Date Collected: Time:

Date Received:

Date Extracted: 04/29/04

Date Analyzed: 05/04/04 Time: 1232

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

CONCENTRATION UNITS: ug/L

Lab File ID: 040504/H0006457

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	3.71		0.291	1.00
91-57-6	2-Methylnaphthalene	3.31		0.142	1.00
83-32-9	Acenaphthene	3.45		0.331	1.00
208-96-8	Acenaphthylene	3.67		0.153	1.00
120-12-7	Anthracene	3.47		0.024	0.100
56-55-3	Benzo(a)anthracene	4.43		0.032	0.100
50-32-8	Benzo(a)pyrene	4.03		0.033	0.100
205-99-2	Benzo(b)fluoranthene	4.22		0.016	0.100
191-24-2	Benzo(g,h,i)perylene	3.32		0.016	0.100
207-08-9	Benzo(k)fluoranthene	4.14		0.033	0.100
218-01-9	Chrysene	4.73		0.030	0.100
53-70-3	Dibenz(a,h)anthracene	2.76		0.029	0.100
206-44-0	Fluoranthene	4.19		0.044	0.100
86-73-7	Fluorene	4.03		0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	3.58		0.041	0.250
91-20-3	Naphthalene	3.39		0.124	0.250
85-01-8	Phenanthrene	4.32		0.025	0.100
129-00-0	Pyrene	4.72		0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 272890 Analytical Batch: 273292

Sample ID: LCSD162070

Contract:

SAS No.: SDG No.: 204042806

Lab Sample ID: 162070

Date Collected: Time:

Date Received:

Date Extracted: 04/29/04

Date Analyzed: 05/04/04 Time: 1239

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040504/H0006458

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	3.32		0.291	1.00
91-57-6	2-Methylnaphthalene	2.71		0.142	1.00
83-32-9	Acenaphthene	2.77		0.331	1.00
208-96-8	Acenaphthylene	3.37		0.153	1.00
120-12-7	Anthracene	3.41		0.024	0.100
56-55-3	Benzo(a)anthracene	4.38		0.032	0.100
50-32-8	Benzo(a)pyrene	4.22		0.033	0.100
205-99-2	Benzo(b)fluoranthene	4.43		0.016	0.100
191-24-2	Benzo(g,h,i)perylene	3.30		0.016	0.100
207-08-9	Benzo(k)fluoranthene	4.36		0.033	0.100
218-01-9	Chrysene	4.69		0.030	0.100
53-70-3	Dibenz(a,h)anthracene	2.92		0.029	0.100
206-44-0	Fluoranthene	3.80		0.044	0.100
86-73-7	Fluorene	3.99		0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	3.57		0.041	0.250
91-20-3	Naphthalene	3.25		0.124	0.250
85-01-8	Phenanthrene	4.28		0.025	0.100
129-00-0	Pyrene	4.23		0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 272890 Analytical Batch: 273336

CONCENTRATION UNITS: ug/L

Sample ID: 086-271-MS-Q1-04

Contract:

SAS No.: SDG No.: 204042806

Lab Sample ID: 20404280605

Date Collected: 04/26/04 Time: 1320

Date Received: 04/28/04

Date Extracted: 04/29/04

Date Analyzed: 05/05/04 Time: 0937

Dilution Factor: 50 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040505/H0006473

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	50.4		14.6	50.0
91-57-6	2-Methylnaphthalene	117		7.10	50.0
83-32-9	Acenaphthene	50.0	U	16.6	50.0
208-96-8	Acenaphthylene	138		7.65	50.0
120-12-7	Anthracene	5.00	U	1.20	5.00
56-55-3	Benzo(a)anthracene	5.00	U	1.60	5.00
50-32-8	Benzo(a)pyrene	5.00	U	1.65	5.00
205-99-2	Benzo(b)fluoranthene	5.00	U	0.800	5.00
191-24-2	Benzo(g,h,i)perylene	5.00	U	0.800	5.00
207-08-9	Benzo(k)fluoranthene	5.00	U	1.65	5.00
218-01-9	Chrysene	5.00	U	1.50	5.00
53-70-3	Dibenz(a,h)anthracene	5.00	U	1.45	5.00
206-44-0	Fluoranthene	5.00	U	2.20	5.00
86-73-7	Fluorene	8.33	J	4.95	25.0
193-39-5	Indeno(1,2,3-cd)pyrene	12.5	U	2.05	12.5
91-20-3	Naphthalene	495		6.20	12.5
85-01-8	Phenanthrene	13.4		1.25	5.00
129-00-0	Pyrene	5.00	U	1.70	5.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 272890 Analytical Batch: 273336

CONCENTRATION UNITS: ug/L

Sample ID: 086-271-MSD-Q1-04

Contract:

SAS No.: SDG No.: 204042806

Lab Sample ID: 20404280606

Date Collected: 04/26/04 Time: 1320

Date Received: 04/28/04

Date Extracted: 04/29/04

Date Analyzed: 05/05/04 Time: 0944

Dilution Factor: 50 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040505/H0006474

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	43.6	J	14.6	50.0
91-57-6	2-Methylnaphthalene	79.3		7.10	50.0
83-32-9	Acenaphthene	50.0	U	16.6	50.0
208-96-8	Acenaphthylene	115		7.65	50.0
120-12-7	Anthracene	5.00	U	1.20	5.00
56-55-3	Benzo(a)anthracene	5.00	U	1.60	5.00
50-32-8	Benzo(a)pyrene	5.00	U	1.65	5.00
205-99-2	Benzo(b)fluoranthene	5.00	U	0.800	5.00
191-24-2	Benzo(g,h,i)perylene	5.00	U	0.800	5.00
207-08-9	Benzo(k)fluoranthene	5.00	U	1.65	5.00
218-01-9	Chrysene	5.00	U	1.50	5.00
53-70-3	Dibenz(a,h)anthracene	5.00	U	1.45	5.00
206-44-0	Fluoranthene	5.00	U	2.20	5.00
86-73-7	Fluorene	6.64	J	4.95	25.0
193-39-5	Indeno(1,2,3-cd)pyrene	12.5	U	2.05	12.5
91-20-3	Naphthalene	498		6.20	12.5
85-01-8	Phenanthrene	5.00	U	1.25	5.00
129-00-0	Pyrene	5.00	U	1.70	5.00

2E

WATER ORGANIC SURROGATE RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204042806

GC Column (1): 201TP-0.15 ID: 2.1 (mm) GC Cloumn (2): ID: (mm)

Method: SW-846 8310

	EPA SAMPLE NO.	SMC1 1-(1)	Lo	Hi	F	SMC1 1-(2)	Lo	Hi	F	SMC2 2-(1)	Lo	Hi	F	SMC2 2-(2)	Lo	Hi	F	TOT OUT
1 .	86-CEF271-7S-Q1-04	0	40	140	*													1
2 .	86-CEF271-9S-Q1-04	85	40	140														0
3 .	86-CEF271-10S-Q1-04	98	40	140														0
4 .	86-CEF271-12S-Q1-04	93	40	140														0
5 .	086-271-MS-Q1-04	0	40	140	*													1
6 .	086-271-MSD-Q1-04	0	40	140	*													1
7 .	086-271-DUP-Q1-04	80	40	140														0
8 .	086-271-EB-Q1-04	92	40	140														0
9 .	MB162068	88	40	140														0
10 .	LCS162069	94	40	140														0
11 .	LCSD162070	95	40	140														0

SMC 1 : p-Terphenyl SMC 2 :

Column to be used to flag recovery limits

* Value outside of contract required limits

D Surrogate diluted out

3E
WATER ORGANICS MS/MSD RECOVERY

Lab Name: GCAL Sample ID: 86-CEF271-7S-Q1-04

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204042806

Contract: Method: SW-846 8310

Prep Batch: 272890 Analytical Batch: 273336

SAMPLE NO : 20404280605

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*MS CONCENTRATION*	*MS % REC*	*MS % REC FLAG*	*QC. LIMITS*
1-Methylnaphthalene	ug/L	5	37	50.4	268	*	40 - 140
2-Methylnaphthalene	ug/L	5	74	117	860	*	40 - 140
Acenaphthene	ug/L	5	0	0	0	*	40 - 140
Acenaphthylene	ug/L	5	0	138	2760	*	40 - 140
Anthracene	ug/L	5	0	0	0	*	40 - 140
Benzo(a)anthracene	ug/L	5	0	0	0	*	40 - 140
Benzo(a)pyrene	ug/L	5	0	0	0	*	40 - 140
Benzo(b)fluoranthene	ug/L	5	0	0	0	*	40 - 140
Benzo(g,h,i)perylene	ug/L	5	0	0	0	*	40 - 140
Benzo(k)fluoranthene	ug/L	5	0	0	0	*	40 - 140
Chrysene	ug/L	5	0	0	0	*	40 - 140
Dibenz(a,h)anthracene	ug/L	5	0	0	0	*	40 - 140
Fluoranthene	ug/L	5	0	0	0	*	40 - 140
Fluorene	ug/L	5	0	8.33	167	*	40 - 140
Indeno(1,2,3-cd)pyrene	ug/L	5	0	0	0	*	40 - 140
Naphthalene	ug/L	5	476	495	380	*	40 - 140
Phenanthrene	ug/L	5	7.78	13.4	112		40 - 140
Pyrene	ug/L	5	0	0	0	*	40 - 140

RPD : 2 out of 18 outside limits

Spike Recovery: 32 out of 36 outside limits

3E

WATER ORGANICS MS/MSD RECOVERY

Lab Name: GCAL Sample ID: 86-CEF271-7S-Q1-04

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204042806

Contract: Method: SW-846 8310

Prep Batch: 272890 Analytical Batch: 273336

SAMPLE NO : ***20404280606***

COMPOUND	*UNITS*	*SPIKE ADDED*	*MSD CONC.*	*MSD % REC*	*REC FLAG*	*% RPD*	*RPD FLAG*	*QC. LIMITS REC*	*QC. LIMITS RPD*
1-Methylnaphthalene	ug/L	5	43.6	132		14		40 - 140	0 - 30
2-Methylnaphthalene	ug/L	5	79.3	106		38	*	40 - 140	0 - 30
Acenaphthene	ug/L	5	0	0	*	0		40 - 140	0 - 30
Acenaphthylene	ug/L	5	115	2300	*	18		40 - 140	0 - 30
Anthracene	ug/L	5	0	0	*	0		40 - 140	0 - 30
Benzo(a)anthracene	ug/L	5	0	0	*	0		40 - 140	0 - 30
Benzo(a)pyrene	ug/L	5	0	0	*	0		40 - 140	0 - 30
Benzo(b)fluoranthene	ug/L	5	0	0	*	0		40 - 140	0 - 30
Benzo(g,h,i)perylene	ug/L	5	0	0	*	0		40 - 140	0 - 30
Benzo(k)fluoranthene	ug/L	5	0	0	*	0		40 - 140	0 - 30
Chrysene	ug/L	5	0	0	*	0		40 - 140	0 - 30
Dibenz(a,h)anthracene	ug/L	5	0	0	*	0		40 - 140	0 - 30
Fluoranthene	ug/L	5	0	0	*	0		40 - 140	0 - 30
Fluorene	ug/L	5	6.64	133		23		40 - 140	0 - 30
Indeno(1,2,3-cd)pyrene	ug/L	5	0	0	*	0		40 - 140	0 - 30
Naphthalene	ug/L	5	498	440	*	.6		40 - 140	0 - 30
Phenanthrene	ug/L	5	0	-156	*	200	*	40 - 140	0 - 30
Pyrene	ug/L	5	0	0	*	0		40 - 140	0 - 30

RPD : 2 out of 18 outside limits

Spike Recovery: 32 out of 36 outside limits

3E

WATER ORGANICS LCS/LCSD RECOVERY

Lab Name: GCAL

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204042806

Contract: Method: SW-846 8310

Prep Batch: 272890 Analytical Batch: 273292

SAMPLE NO : 162069

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*LCS CONCENTRATION*	*LCS % REC*	*LCS % REC FLAG*	*QC. LIMITS*
1-Methylnaphthalene	ug/L	5	0	3.71	74		40 - 140
2-Methylnaphthalene	ug/L	5	0	3.31	66		40 - 140
Acenaphthene	ug/L	5	0	3.45	69		40 - 140
Acenaphthylene	ug/L	5	0	3.67	73		40 - 140
Anthracene	ug/L	5	0	3.47	69		40 - 140
Benzo(a)anthracene	ug/L	5	0	4.43	89		40 - 140
Benzo(a)pyrene	ug/L	5	0	4.03	81		40 - 140
Benzo(b)fluoranthene	ug/L	5	0	4.22	84		40 - 140
Benzo(g,h,i)perylene	ug/L	5	0	3.32	66		40 - 140
Benzo(k)fluoranthene	ug/L	5	0	4.14	83		40 - 140
Chrysene	ug/L	5	0	4.73	95		40 - 140
Dibenz(a,h)anthracene	ug/L	5	0	2.76	55		40 - 140
Fluoranthene	ug/L	5	0	4.19	84		40 - 140
Fluorene	ug/L	5	0	4.03	81		40 - 140
Indeno(1,2,3-cd)pyrene	ug/L	5	0	3.58	72		40 - 140
Naphthalene	ug/L	5	0	3.39	68		40 - 140
Phenanthrene	ug/L	5	0	4.32	86		40 - 140
Pyrene	ug/L	5	0	4.72	94		40 - 140

RPD : 0 out of 18 outside limits

Spike Recovery: 0 out of 36 outside limits

3E

WATER ORGANICS LCS/LCSD RECOVERY

Lab Name: GCAL

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204042806

Contract: Method: SW-846 8310

Prep Batch: 272890 Analytical Batch: 273292

SAMPLE NO : *162070*

COMPOUND	*UNITS*	*SPIKE ADDED*	*LCSD CONC.*	*LCSD % REC*	*REC FLAG*	*% RPD*	*RPD FLAG*	*QC. LIMITS REC*	*QC. LIMITS RPD*
1-Methylnaphthalene	ug/L	5	3.32	66		11		40 - 140	0 - 30
2-Methylnaphthalene	ug/L	5	2.71	54		20		40 - 140	0 - 30
Acenaphthene	ug/L	5	2.77	55		22		40 - 140	0 - 30
Acenaphthylene	ug/L	5	3.37	67		9		40 - 140	0 - 30
Anthracene	ug/L	5	3.41	68		2		40 - 140	0 - 30
Benzo(a)anthracene	ug/L	5	4.38	88		1		40 - 140	0 - 30
Benzo(a)pyrene	ug/L	5	4.22	84		5		40 - 140	0 - 30
Benzo(b)fluoranthene	ug/L	5	4.43	89		5		40 - 140	0 - 30
Benzo(g,h,i)perylene	ug/L	5	3.3	66		.6		40 - 140	0 - 30
Benzo(k)fluoranthene	ug/L	5	4.36	87		5		40 - 140	0 - 30
Chrysene	ug/L	5	4.69	94		.8		40 - 140	0 - 30
Dibenz(a,h)anthracene	ug/L	5	2.92	58		6		40 - 140	0 - 30
Fluoranthene	ug/L	5	3.8	76		10		40 - 140	0 - 30
Fluorene	ug/L	5	3.99	80		1		40 - 140	0 - 30
Indeno(1,2,3-cd)pyrene	ug/L	5	3.57	71		.3		40 - 140	0 - 30
Naphthalene	ug/L	5	3.25	65		4		40 - 140	0 - 30
Phenanthrene	ug/L	5	4.28	86		.9		40 - 140	0 - 30
Pyrene	ug/L	5	4.23	85		11		40 - 140	0 - 30

RPD : 0 out of 18 outside limits

Spike Recovery: 0 out of 36 outside limits

4C

ORGANIC METHOD BLANK SUMMARY

Lab Name: GCAL

Sample ID: MB162068

Lab Code: LA024 Case No.:

Contract:

Lab Sample ID: 162068

SAS No.: SDG No.: 204042806

Matrix: Water Sulfur Cleanup: (Y/N) N

Date Extracted: 04/29/04

Date Analyzed (1): 05/04/04 Time (1): 1225

Date Analyzed (2): Time (2):

Instrument ID (1): HPLC 1

Instrument ID (2):

GC Column (1): 201TP-0.15 ID: 2.1 (mm)

GC Column (2): ID: (mm)

Method: SW-846 8310

Prep Batch: 272890 Analytical Batch: 273292

Lab File ID: 040504/H000645

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATE ANALYZED	TIME ANALYZED
1.	LCS162069	162069	05/04/04	1232		
2.	LCSD162070	162070	05/04/04	1239		
3.	86-CEF271-9S-Q1-04	20404280602	05/04/04	1253		
4.	86-CEF271-10S-Q1-04	20404280603	05/04/04	1300		
5.	86-CEF271-12S-Q1-04	20404280604	05/04/04	1307		
6.	086-271-DUP-Q1-04	20404280607	05/04/04	1328		
7.	086-271-EB-Q1-04	20404280608	05/04/04	1335		
8.	86-CEF271-7S-Q1-04	20404280601	05/05/04	0930		
9.	086-271-MS-Q1-04	20404280605	05/05/04	0937		
10.	086-271-MSD-Q1-04	20404280606	05/05/04	0944		

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-JAN-2004 15:08
End Cal Date : 14-JAN-2004 15:59
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/hplc1.i/040114.b/flpnauv.m
Cal Date : 29-Apr-2004 10:34 rlw

Calibration File Names:
Level 1: /var/chem/hplc1.i/040114.b/h0005877.d
Level 2: /var/chem/hplc1.i/040114.b/h0005876.d
Level 3: /var/chem/hplc1.i/040114.b/h0005875.d
Level 4: /var/chem/hplc1.i/040114.b/h0005874.d
Level 5: /var/chem/hplc1.i/040114.b/h0005873.d
Level 6: /var/chem/hplc1.i/040114.b/h0005872.d
Level 7: /var/chem/hplc1.i/040114.b/h0005871.d
Level 8: /var/chem/hplc1.i/040114.b/h0005870.d

Compound	0.1000 Level 1 / 10 Level 7	0.2500 Level 2 / 20 Level 8	0.5000 Level 3	1 Level 4	2 Level 5	5 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
1 Naphthalene	+++++	2276	2132	2412	2199	2655					
	2682	2527					AVRG		2412		9.07407
2 Acenaphthylene	+++++	+++++	+++++	1523	1644	1734					
	1767	1856					AVRG		1705		7.44757
3 1-Methynaphthalene	+++++	+++++	+++++	1274	1336	1466					
	1460	1515					AVRG		1410		7.15396
4 2-Methylnaphthalene	+++++	+++++	+++++	1713	1967	2148					
	2053	2174					AVRG		2011		9.22907
5 Acenaphthene	+++++	+++++	+++++	719	2184	5017					
	10100	21710					LINR	0.51396	1106		0.99926

000233

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-JAN-2004 15:08
End Cal Date : 14-JAN-2004 15:59
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/hplc1.i/040114.b/flpnauv.m
Cal Date : 29-Apr-2004 10:34 rlw

Compound	0.1000 Level 1 / 10 Level 7	0.2500 Level 2 / 20 Level 8	0.5000 Level 3	1 Level 4	2 Level 5	5 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
6 Fluorene	+++++	+++++	11322	11178	11586	11959					
	11794	12015					AVRG		11642		2.93479
7 Phenanthrene	26890	24936	25464	25286	26108	26256					
	25812	26178					AVRG		25866		2.41091
8 Anthracene	58540	52700	52538	53682	53533	53055					
	51029	49064					AVRG		53018		5.09740
9 Fluoranthene	8180	7332	7012	7386	7214	7533					
	7075	7505					AVRG		7405		4.92941
10 Pyrene	6140	6204	5588	6217	5948	6267					
	5961	6401					AVRG		6091		4.15675
12 Benzo(a)Anthracene	16010	15892	15818	16082	16345	17014					
	16662	17544					AVRG		16421		3.71389
13 Chrysene	20550	26616	25684	27198	27974	28635					
	27992	29122					AVRG		26721		10.20077
14 Benzo(b)Fluoranthene	23110	20484	20236	22829	21546	20500					
	20355	21059					AVRG		21265		5.34814
15 Benzo(k)Fluoranthene	15010	13080	11964	13202	12619	12547					
	12630	12900					AVRG		12994		6.91857

000234

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-JAN-2004 15:08
End Cal Date : 14-JAN-2004 15:59
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/hplc1.i/040114.b/flpnauv.m
Cal Date : 29-Apr-2004 10:34 rlw

Compound	0.1000 Level 1 / 10 Level 7	0.2500 Level 2 / 20 Level 8	0.5000 Level 3	1 Level 4	2 Level 5	5 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
16 Benzo(a)Pyrene	17590	17016	18424	18182	17938	18186					
	18743	19092					AVRG		18146		3.58437
17 Dibenzo(a,h)Anthracene	3720	3572	4748	4048	3860	4225					
	4159	4228					AVRG		4070		8.96432
18 Benzo(g,h,i)Perylene	7030	6456	6178	6563	6546	6988					
	6978	7179					AVRG		6740		5.20265
19 Indeno(1,2,3-c,d)Pyrene	+++++	15308	13218	14727	14018	15001					
	14953	15120					AVRG		14621		5.08699
$ 11 p-Terphenyl	+++++	6636	6848	7168	7003	7152					
	6938	7458					AVRG		7029		3.73787

000235

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-JAN-2004 15:08
End Cal Date : 14-JAN-2004 15:59
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/hplc1.i/040114.b/flpnauv.m
Cal Date : 29-Apr-2004 10:34 rlw

Average %RSD Results.
Calculated Average %RSD = 5.84397172
Maximun Average %RSD = 20
* Passed Average %RSD Test.

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-JAN-2004 15:08
End Cal Date : 14-JAN-2004 15:59
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/hplc1.i/040114f.b/flpnafld.m
Cal Date : 29-Apr-2004 09:22 rlw

Calibration File Names:
Level 1: /var/chem/hplc1.i/040114f.b/h0005877.d
Level 2: /var/chem/hplc1.i/040114f.b/h0005876.d
Level 3: /var/chem/hplc1.i/040114f.b/h0005875.d
Level 4: /var/chem/hplc1.i/040114f.b/h0005874.d
Level 5: /var/chem/hplc1.i/040114f.b/h0005873.d
Level 6: /var/chem/hplc1.i/040114f.b/h0005872.d
Level 7: /var/chem/hplc1.i/040114f.b/h0005871.d
Level 8: /var/chem/hplc1.i/040114f.b/h0005870.d

Compound	0.1000 Level 1 / 10 Level 7	0.2500 Level 2 / 20 Level 8	0.5000 Level 3	1 Level 4	2 Level 5	5 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
1 Naphthalene	+++++	10756	12640	10282	11567	11391					
	11152	10778					AVRG		11224		6.76727
3 1-Methynaphthalene	+++++	+++++	+++++	2178	2156	2150					
	2163	2150					AVRG		2159		0.54061
4 2-Methylnaphthalene	+++++	+++++	+++++	1687	1774	1806					
	1823	1774					AVRG		1773		2.95935
5 Acenaphthene	+++++	+++++	+++++	4383	4444	4547					
	4642	4527					AVRG		4509		2.20591
7 Phenanthrene	19430	16780	16746	16507	16092	16198					
	16759	15220					AVRG		16717		7.26002

000237

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-JAN-2004 15:08
End Cal Date : 14-JAN-2004 15:59
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/hplc1.i/040114f.b/flpnafld.m
Cal Date : 29-Apr-2004 09:22 rlw

Compound	0.1000 Level 1 / 10 Level 7	0.2500 Level 2 / 20 Level 8	0.5000 Level 3	1 Level 4	2 Level 5	5 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
8 Anthracene	7590	5376	5804	5521	5588	5578					
	5871	5323					AVRG		5831		12.60314
9 Fluoranthene	5840	4804	4856	4903	5000	5081					
	5286	5023					AVRG		5099		6.56515
10 Pyrene	36090	33376	32752	33687	34624	35558					
	34661	+++++					AVRG		34393		3.47882
12 Benzo(a)Anthracene	23300	24912	26202	27027	27917	28001					
	27660	+++++					AVRG		26431		6.67950
13 Chrysene	226	510	1167	2947	8734	18696					
	39212	77888					LINR	0.17466	3936		0.99981
14 Benzo(b)Fluoranthene	24680	23160	22954	23746	24021	24284					
	24191	+++++					AVRG		23862		2.60116
15 Benzo(k)Fluoranthene	56010	53512	52658	53132	53795	54123					
	43444	+++++					AVRG		52382		7.79352
16 Benzo(a)Pyrene	46430	44932	44306	44800	45970	46672					
	41624	+++++					AVRG		44962		3.81909
17 Dibenzo(a,h)Anthracene	17930	17060	16790	16951	17220	17408					
	17423	17163					AVRG		17243		2.03581

000238

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-JAN-2004 15:08
End Cal Date : 14-JAN-2004 15:59
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/hplc1.i/040114f.b/flpnafld.m
Cal Date : 29-Apr-2004 09:22 rlw

Compound	0.1000 Level 1 / 10 Level 7	0.2500 Level 2 / 20 Level 8	0.5000 Level 3	1 Level 4	2 Level 5	5 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
18 Benzo(g,h,i)Perylene	13920	14432	14116	14283	15034	15153					
	15383	15588					AVRG		14738		4.25571
19 Indeno(1,2,3-c,d)Pyrene	+++++	4024	4004	4049	4310	4627					
	4995	4890					AVRG		4414		9.58419
$ 11 p-Terphenyl	+++++	7172	8122	8652	9072	9282					
	9283	9172					AVRG		8679		9.05755

000239

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-JAN-2004 15:08
End Cal Date : 14-JAN-2004 15:59
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/hplc1.i/040114f.b/flpnafld.m
Cal Date : 29-Apr-2004 09:22 rlw

Average %RSD Results.
Calculated Average %RSD = 5.51292562
Maximun Average %RSD = 20
* Passed Average %RSD Test.

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response

Data File: /var/chem/hplc1.i/040504.b/h0006455.d
Report Date: 04-May-2004 17:03

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: hplc1.i
Lab File ID: h0006455.d
Analysis Type: WATER
Lab Sample ID: 0504CCV2.5
Method: /var/chem/hplc1.i/040504.b/flpnauv.m

Injection Date: 04-MAY-2004 11:31
Init. Cal. Date(s): 14-JAN-2004 14-JAN-2004
Init. Cal. Times: 15:08 15:59
Quant Type: ESTD

	COMPOUND	RRF / AMOUNT	RF2	CCAL RRF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
	1 Naphthalene	2412	2639	2639	0.010	-9.41400	15.00000	Averaged
	2 Acenaphthylene	1705	1660	1660	0.010	2.66333	15.00000	Averaged
	3 1-Methynaphthalene	1410	1301	1301	0.010	7.72089	15.00000	Averaged
	4 2-Methylnaphthalene	2011	1879	1879	0.010	6.55581	15.00000	Averaged
	5 Acenaphthene	2.14090	2.50000	720	0.010	14.36398	15.00000	Linear
	6 Fluorene	11642	11393	11393	0.010	2.14129	15.00000	Averaged
	7 Phenanthrene	25866	25004	25004	0.010	3.33492	15.00000	Averaged
	8 Anthracene	53018	49923	49923	0.010	5.83718	15.00000	Averaged
	9 Fluoranthene	7405	7133	7133	0.010	3.66488	15.00000	Averaged
	10 Pyrene	6091	6086	6086	0.010	0.08609	15.00000	Averaged
$	11 p-Terphenyl	7029	7321	7321	0.010	-4.15812	15.00000	Averaged
	12 Benzo(a)Anthracene	16421	16790	16790	0.010	-2.25006	15.00000	Averaged
	13 Chrysene	26721	28354	28354	0.010	-6.10956	15.00000	Averaged
	14 Benzo(b)Fluoranthene	21265	22646	22646	0.010	-6.49640	15.00000	Averaged
	15 Benzo(k)Fluoranthene	12994	13497	13497	0.010	-3.86938	15.00000	Averaged
	16 Benzo(a)Pyrene	18146	18571	18571	0.010	-2.34054	15.00000	Averaged
	17 Dibenzo(a,h)Anthracene	4070	4062	4062	0.010	0.19840	15.00000	Averaged
	18 Benzo(g,h,i)Perylene	6740	6626	6626	0.010	1.68994	15.00000	Averaged
	19 Indeno(1,2,3-c,d)Pyrene	14621	13729	13729	0.010	6.09952	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 5.44337
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: hplc1.i Injection Date: 04-MAY-2004 13:42
Lab File ID: h0006467.d Init. Cal. Date(s): 14-JAN-2004 14-JAN-2004
Analysis Type: WATER Init. Cal. Times: 15:08 15:59
Lab Sample ID: 0504CCV2.5 Quant Type: ESTD
Method: /var/chem/hplc1.i/040504.b/flpnauv.m

	COMPOUND	RRF / AMOUNT	RF2	CCAL RRF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
	1 Naphthalene	2412	2666	2666	0.010	-10.52522	15.00000	Averaged
	2 Acenaphthylene	1705	1586	1586	0.010	6.98002	15.00000	Averaged
	3 1-Methynaphthalene	1410	1329	1329	0.010	5.73518	15.00000	Averaged
	4 2-Methylnaphthalene	2011	1873	1873	0.010	6.87406	15.00000	Averaged
	5 Acenaphthene	2.26842	2.50000	776	0.010	9.26339	15.00000	Linear
	6 Fluorene	11642	11398	11398	0.010	2.09663	15.00000	Averaged
	7 Phenanthrene	25866	24647	24647	0.010	4.71433	15.00000	Averaged
	8 Anthracene	53018	49140	49140	0.010	7.31292	15.00000	Averaged
	9 Fluoranthene	7405	7025	7025	0.010	5.12344	15.00000	Averaged
	10 Pyrene	6091	6006	6006	0.010	1.38640	15.00000	Averaged
$	11 p-Terphenyl	7029	7752	7752	0.010	-10.29277	15.00000	Averaged
	12 Benzo(a)Anthracene	16421	17526	17526	0.010	-6.72972	15.00000	Averaged
	13 Chrysene	26721	29338	29338	0.010	-9.79349	15.00000	Averaged
	14 Benzo(b)Fluoranthene	21265	20328	20328	0.010	4.40793	15.00000	Averaged
	15 Benzo(k)Fluoranthene	12994	12232	12232	0.010	5.86434	15.00000	Averaged
	16 Benzo(a)Pyrene	18146	18301	18301	0.010	-0.85044	15.00000	Averaged
	17 Dibenzo(a,h)Anthracene	4070	4161	4161	0.010	-2.22907	15.00000	Averaged
	18 Benzo(g,h,i)Perylene	6740	6811	6811	0.010	-1.05194	15.00000	Averaged
	19 Indeno(1,2,3-c,d)Pyrene	14621	14300	14300	0.010	2.19270	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 5.44337
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: hplc1.i Injection Date: 04-MAY-2004 11:31
Lab File ID: h0006455.d Init. Cal. Date(s): 14-JAN-2004 14-JAN-2004
Analysis Type: WATER Init. Cal. Times: 15:08 15:59
Lab Sample ID: 0504CCV2.5 Quant Type: ESTD
Method: /var/chem/hplc1.i/040504F.b/flpnafld.m

	COMPOUND	RRF / AMOUNT	RF2	CCAL RRF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
	1 Naphthalene	11224	10562	10562	0.010	5.89218	15.00000	Averaged
	3 1-Methynaphthalene	2159	2058	2058	0.010	4.67943	15.00000	Averaged
	4 2-Methylnaphthalene	1773	1671	1671	0.010	5.75467	15.00000	Averaged
	5 Acenaphthene	4509	4285	4285	0.010	4.96579	15.00000	Averaged
	7 Phenanthrene	16717	15491	15491	0.010	7.33403	15.00000	Averaged
	8 Anthracene	5831	5507	5507	0.010	5.56129	15.00000	Averaged
	9 Fluoranthene	5099	5213	5213	0.010	-2.22476	15.00000	Averaged
	10 Pyrene	34393	31346	31346	0.010	8.85794	15.00000	Averaged
$	11 p-Terphenyl	8679	8650	8650	0.010	0.34010	15.00000	Averaged
	12 Benzo(a)Anthracene	26431	27201	27201	0.010	-2.91228	15.00000	Averaged
	13 Chrysene	2.31183	2.50000	3365	0.010	7.52666	15.00000	Linear
	14 Benzo(b)Fluoranthene	23862	22974	22974	0.010	3.72261	15.00000	Averaged
	15 Benzo(k)Fluoranthene	52382	51738	51738	0.010	1.22992	15.00000	Averaged
	16 Benzo(a)Pyrene	44962	43197	43197	0.010	3.92616	15.00000	Averaged
	17 Dibenzo(a,h)Anthracene	17243	16252	16252	0.010	5.75017	15.00000	Averaged
	18 Benzo(g,h,i)Perylene	14738	13563	13563	0.010	7.97893	15.00000	Averaged
	19 Indeno(1,2,3-c,d)Pyrene	4414	4146	4146	0.010	6.08037	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 5.04572
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: hplc1.i Injection Date: 04-MAY-2004 13:42
Lab File ID: h0006467.d Init. Cal. Date(s): 14-JAN-2004 14-JAN-2004
Analysis Type: WATER Init. Cal. Times: 15:08 15:59
Lab Sample ID: 0504CCV2.5 Quant Type: ESTD
Method: /var/chem/hplc1.i/040504F.b/flpnafld.m

	COMPOUND	RRF / AMOUNT	RF2	CCAL RRF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
	1 Naphthalene	11224	11165	11165	0.010	0.52141	15.00000	Averaged
	3 1-Methynaphthalene	2159	2412	2412	0.010	-11.69511	15.00000	Averaged
	4 2-Methylnaphthalene	1773	1989	1989	0.010	-12.18285	15.00000	Averaged
	5 Acenaphthene	4509	4523	4523	0.010	-0.32271	15.00000	Averaged
	7 Phenanthrene	16717	15238	15238	0.010	8.84606	15.00000	Averaged
	8 Anthracene	5831	5513	5513	0.010	5.45977	15.00000	Averaged
	9 Fluoranthene	5099	5201	5201	0.010	-1.99178	15.00000	Averaged
	10 Pyrene	34393	31076	31076	0.010	9.64381	15.00000	Averaged
$	11 p-Terphenyl	8679	8772	8772	0.010	-1.06969	15.00000	Averaged
	12 Benzo(a)Anthracene	26431	26988	26988	0.010	-2.10566	15.00000	Averaged
	13 Chrysene	2.33414	2.50000	3400	0.010	6.63437	15.00000	Linear
	14 Benzo(b)Fluoranthene	23862	22950	22950	0.010	3.82402	15.00000	Averaged
	15 Benzo(k)Fluoranthene	52382	51909	51909	0.010	0.90270	15.00000	Averaged
	16 Benzo(a)Pyrene	44962	43476	43476	0.010	3.30528	15.00000	Averaged
	17 Dibenzo(a,h)Anthracene	17243	16098	16098	0.010	6.64142	15.00000	Averaged
	18 Benzo(g,h,i)Perylene	14738	13355	13355	0.010	9.38830	15.00000	Averaged
	19 Indeno(1,2,3-c,d)Pyrene	4414	4359	4359	0.010	1.24230	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 5.04572
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: hplc1.i Injection Date: 05-MAY-2004 09:06
Lab File ID: h0006471.d Init. Cal. Date(s): 14-JAN-2004 14-JAN-2004
Analysis Type: WATER Init. Cal. Times: 15:08 15:59
Lab Sample ID: 0505CCV2.5 Quant Type: ESTD
Method: /var/chem/hplc1.i/040505.b/flpnauv.m

	COMPOUND	RRF / AMOUNT	RF2	CCAL RRF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
	1 Naphthalene	2412	2256	2256	0.010	6.44166	15.00000	Averaged
	2 Acenaphthylene	1705	1627	1627	0.010	4.58707	15.00000	Averaged
	3 1-Methynaphthalene	1410	1384	1384	0.010	1.87721	15.00000	Averaged
	4 2-Methylnaphthalene	2011	2069	2069	0.010	-2.89204	15.00000	Averaged
	5 Acenaphthene	2.59489	2.50000	920	0.010	-3.79556	15.00000	Linear
	6 Fluorene	11642	11799	11799	0.010	-1.34250	15.00000	Averaged
	7 Phenanthrene	25866	25416	25416	0.010	1.73902	15.00000	Averaged
	8 Anthracene	53018	49936	49936	0.010	5.81153	15.00000	Averaged
	9 Fluoranthene	7405	7297	7297	0.010	1.45003	15.00000	Averaged
	10 Pyrene	6091	6033	6033	0.010	0.95297	15.00000	Averaged
$	11 p-Terphenyl	7029	7322	7322	0.010	-4.16950	15.00000	Averaged
	12 Benzo(a)Anthracene	16421	17026	17026	0.010	-3.68726	15.00000	Averaged
	13 Chrysene	26721	28796	28796	0.010	-7.76516	15.00000	Averaged
	14 Benzo(b)Fluoranthene	21265	24025	24025	0.010	-12.97843	15.00000	Averaged
	15 Benzo(k)Fluoranthene	12994	13676	13676	0.010	-5.24540	15.00000	Averaged
	16 Benzo(a)Pyrene	18146	18505	18505	0.010	-1.97463	15.00000	Averaged
	17 Dibenzo(a,h)Anthracene	4070	3895	3895	0.010	4.30643	15.00000	Averaged
	18 Benzo(g,h,i)Perylene	6740	6596	6596	0.010	2.12911	15.00000	Averaged
	19 Indeno(1,2,3-c,d)Pyrene	14621	14119	14119	0.010	3.43205	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 3.47494
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: hplc1.i Injection Date: 05-MAY-2004 12:47
Lab File ID: h0006492.d Init. Cal. Date(s): 14-JAN-2004 14-JAN-2004
Analysis Type: WATER Init. Cal. Times: 15:08 15:59
Lab Sample ID: 0505CCV2.5 Quant Type: ESTD
Method: /var/chem/hplc1.i/040505.b/flpnauv.m

	COMPOUND	RRF / AMOUNT	RF2	CCAL RRF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
	1 Naphthalene	2412	2217	2217	0.010	8.08361	15.00000	Averaged
	2 Acenaphthylene	1705	1695	1695	0.010	0.57536	15.00000	Averaged
	3 1-Methynaphthalene	1410	1409	1409	0.010	0.06170	15.00000	Averaged
	4 2-Methylnaphthalene	2011	1900	1900	0.010	5.50163	15.00000	Averaged
	5 Acenaphthene	2.36066	2.50000	817	0.010	5.57361	15.00000	Linear
	6 Fluorene	11642	11487	11487	0.010	1.33391	15.00000	Averaged
	7 Phenanthrene	25866	24726	24726	0.010	4.40659	15.00000	Averaged
	8 Anthracene	53018	49132	49132	0.010	7.32801	15.00000	Averaged
	9 Fluoranthene	7405	7271	7271	0.010	1.80117	15.00000	Averaged
	10 Pyrene	6091	6274	6274	0.010	-3.00051	15.00000	Averaged
$	11 p-Terphenyl	7029	7376	7376	0.010	-4.93207	15.00000	Averaged
	12 Benzo(a)Anthracene	16421	17116	17116	0.010	-4.23047	15.00000	Averaged
	13 Chrysene	26721	29230	29230	0.010	-9.38932	15.00000	Averaged
	14 Benzo(b)Fluoranthene	21265	20247	20247	0.010	4.78790	15.00000	Averaged
	15 Benzo(k)Fluoranthene	12994	12182	12182	0.010	6.25221	15.00000	Averaged
	16 Benzo(a)Pyrene	18146	18037	18037	0.010	0.60218	15.00000	Averaged
	17 Dibenzo(a,h)Anthracene	4070	3653	3653	0.010	10.24244	15.00000	Averaged
	18 Benzo(g,h,i)Perylene	6740	6828	6828	0.010	-1.30714	15.00000	Averaged
	19 Indeno(1,2,3-c,d)Pyrene	14621	14754	14754	0.010	-0.91525	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 3.47494
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

nstrument ID: hplc1.i Injection Date: 05-MAY-2004 09:06
ab File ID: h0006471.d Init. Cal. Date(s): 14-JAN-2004 14-JAN-2004
nalysis Type: WATER Init. Cal. Times: 15:08 15:59
ab Sample ID: 0505CCV2.5 Quant Type: ESTD
ethod: /var/chem/hplc1.i/040505F.b/flpnafld.m

COMPOUND	RRF / AMOUNT	RF2	CCAL RRF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 Naphthalene	11224	11183	11183	0.010	0.36103	15.00000	Averaged
3 1-Methynaphthalene	2159	2173	2173	0.010	-0.63674	15.00000	Averaged
4 2-Methylnaphthalene	1773	1706	1706	0.010	3.74657	15.00000	Averaged
5 Acenaphthene	4509	4444	4444	0.010	1.43391	15.00000	Averaged
7 Phenanthrene	16717	16240	16240	0.010	2.85106	15.00000	Averaged
8 Anthracene	5831	5604	5604	0.010	3.90541	15.00000	Averaged
9 Fluoranthene	5099	5300	5300	0.010	-3.93876	15.00000	Averaged
10 Pyrene	34393	36206	36206	0.010	-5.27225	15.00000	Averaged
$ 11 p-Terphenyl	8679	8839	8839	0.010	-1.84257	15.00000	Averaged
12 Benzo(a)Anthracene	26431	28599	28599	0.010	-8.20208	15.00000	Averaged
13 Chrysene	2.43511	2.50000	3559	0.010	2.59571	15.00000	Linear
14 Benzo(b)Fluoranthene	23862	23583	23583	0.010	1.17130	15.00000	Averaged
15 Benzo(k)Fluoranthene	52382	52686	52686	0.010	-0.58032	15.00000	Averaged
16 Benzo(a)Pyrene	44962	45330	45330	0.010	-0.81926	15.00000	Averaged
17 Dibenzo(a,h)Anthracene	17243	16924	16924	0.010	1.85345	15.00000	Averaged
18 Benzo(g,h,i)Perylene	14738	15018	15018	0.010	-1.89372	15.00000	Averaged
19 Indeno(1,2,3-c,d)Pyrene	4414	4264	4264	0.010	3.41078	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 12.24497
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: hplc1.i Injection Date: 05-MAY-2004 12:47
Lab File ID: h0006492.d Init. Cal. Date(s): 14-JAN-2004 14-JAN-2004
Analysis Type: WATER Init. Cal. Times: 15:08 15:59
Lab Sample ID: 0505CCV2.5 Quant Type: ESTD
Method: /var/chem/hplc1.i/040505F.b/flpnafld.m

COMPOUND	RRF / AMOUNT	RF2	CCAL RRF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
1 Naphthalene	11224	11391	11391	0.010	-1.49147	15.00000	Averaged	
3 1-Methynaphthalene	2159	2014	2014	0.010	6.75589	15.00000	Averaged	
4 2-Methylnaphthalene	1773	1635	1635	0.010	7.79211	15.00000	Averaged	
5 Acenaphthene	4509	4238	4238	0.010	6.01000	15.00000	Averaged	
7 Phenanthrene	16717	15225	15225	0.010	8.92311	15.00000	Averaged	
8 Anthracene	5831	5550	5550	0.010	4.83212	15.00000	Averaged	
9 Fluoranthene	5099	5192	5192	0.010	-1.82547	15.00000	Averaged	
10 Pyrene	34393	30895	30895	0.010	10.17031	15.00000	Averaged	
$ 11 p-Terphenyl	8679	8736	8736	0.010	-0.65353	15.00000	Averaged	
12 Benzo(a)Anthracene	26431	26876	26876	0.010	-1.68208	15.00000	Averaged	
13 Chrysene	2.30835	2.50000	3359	0.010	7.66589	15.00000	Linear	
14 Benzo(b)Fluoranthene	23862	22935	22935	0.010	3.88471	15.00000	Averaged	
15 Benzo(k)Fluoranthene	52382	51881	51881	0.010	0.95585	15.00000	Averaged	
16 Benzo(a)Pyrene	44962	42982	42982	0.010	4.40274	15.00000	Averaged	
17 Dibenzo(a,h)Anthracene	17243	13212	13212	0.010	23.37661	15.00000	Averaged	<-
18 Benzo(g,h,i)Perylene	14738	4398	4398	0.010	70.16249	15.00000	Averaged	<-

Average %D / Drift Results.

Calculated Average %D/Drift = 12.24497
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/hplc1.i/040505.b/h0006472.d
Lab Smp Id: 20404280601 Client Smp ID: 20404280601
Inj Date : 05-MAY-2004 09:30
Operator : rlw Inst ID: hplc1.i
Smp Info : 20404280601@50
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040505.b/flpnauv.m
Meth Date : 05-May-2004 16:55 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	50.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

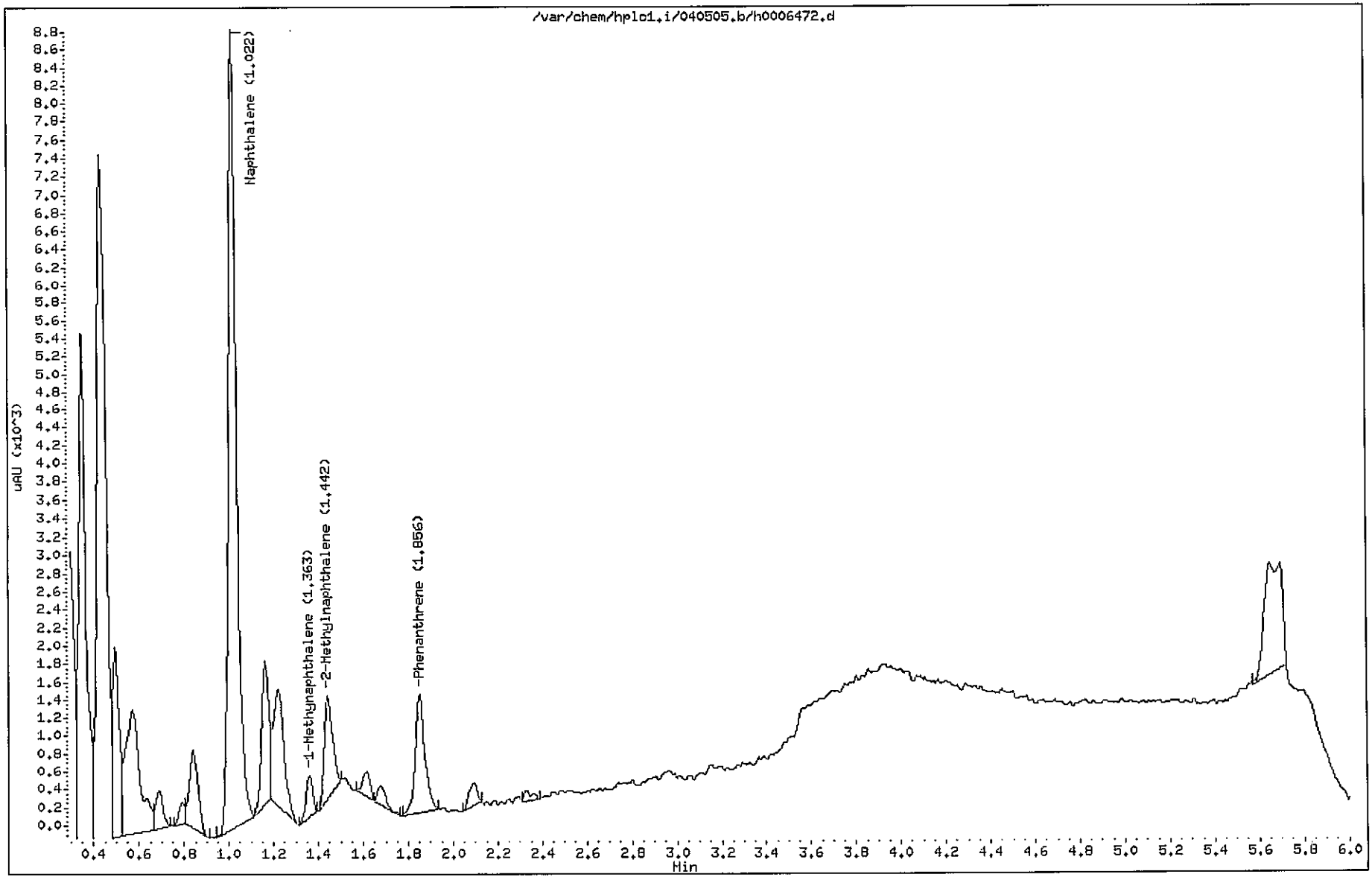
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 Naphthalene	1.022	1.015	0.007	22943	9.51298	476
3 1-Methynaphthalene	1.363	1.355	0.008	1044	0.74039	37.0
4 2-Methylnaphthalene	1.442	1.442	0.000	2978	1.48083	74.0
7 Phenanthrene	1.856	1.868	-0.012	4024	0.15557	7.78

Data File: /var/chem/hplc1.i/040505.b/h0006472.d
Date : 05-MAY-2004 09:30
Client ID: 20404280601
Sample Info: 20404280601050
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: rlw
Column diameter: 2.10

000250



GCAL, Inc.

Data file : /var/chem/hplc1.i/040505F.b/h0006472.d
Lab Smp Id: 20404280601 Client Smp ID: 20404280601
Inj Date : 05-MAY-2004 09:30
Operator : RLW Inst ID: hplc1.i
Smp Info : 20404280601@50
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040505F.b/flpnafld.m
Meth Date : 05-May-2004 16:57 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	50.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

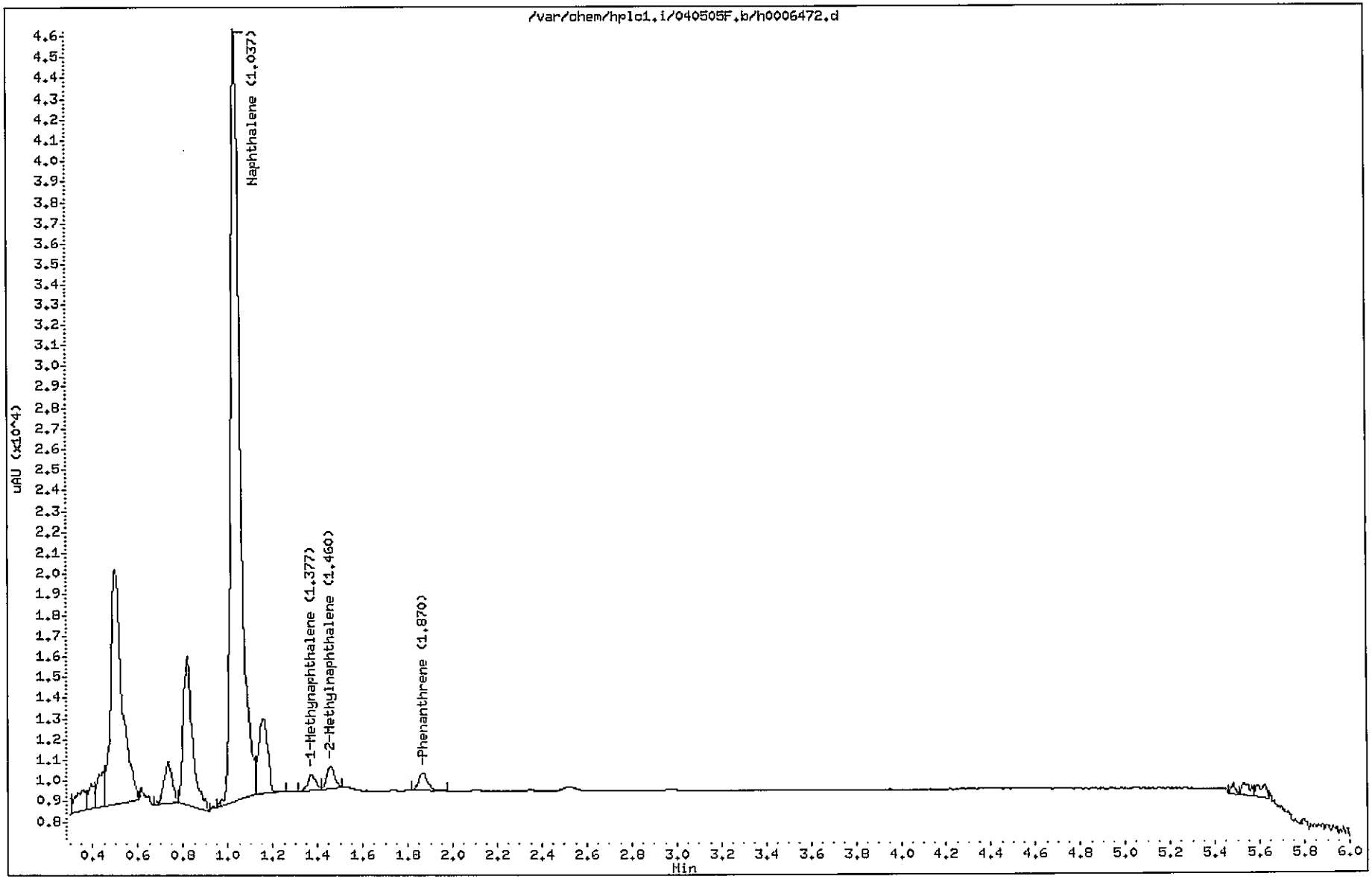
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 Naphthalene	1.037	1.030	0.007	108767	9.69087	485
3 1-Methynaphthalene	1.377	1.370	0.007	1888	0.87471	43.7
4 2-Methylnaphthalene	1.460	1.457	0.003	2685	1.51471	75.7
7 Phenanthrene	1.870	1.883	-0.013	2361	0.14124	7.06

Data File: /var/chem/hplc1.i/040505F.b/h0006472.d
Date : 05-MAY-2004 09:30
Client ID: 20404280601
Sample Info: 20404280601@50
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: RLW
Column diameter: 2.10

000252



GCAL, Inc.

Data file : /var/chem/hplc1.i/040504.b/h0006460.d
Lab Smp Id: 20404280602 Client Smp ID: 20404280602
Inj Date : 04-MAY-2004 12:53
Operator : rlw Inst ID: hplc1.i
Smp Info : 20404280602
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040504.b/flpnauv.m
Meth Date : 04-May-2004 16:55 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

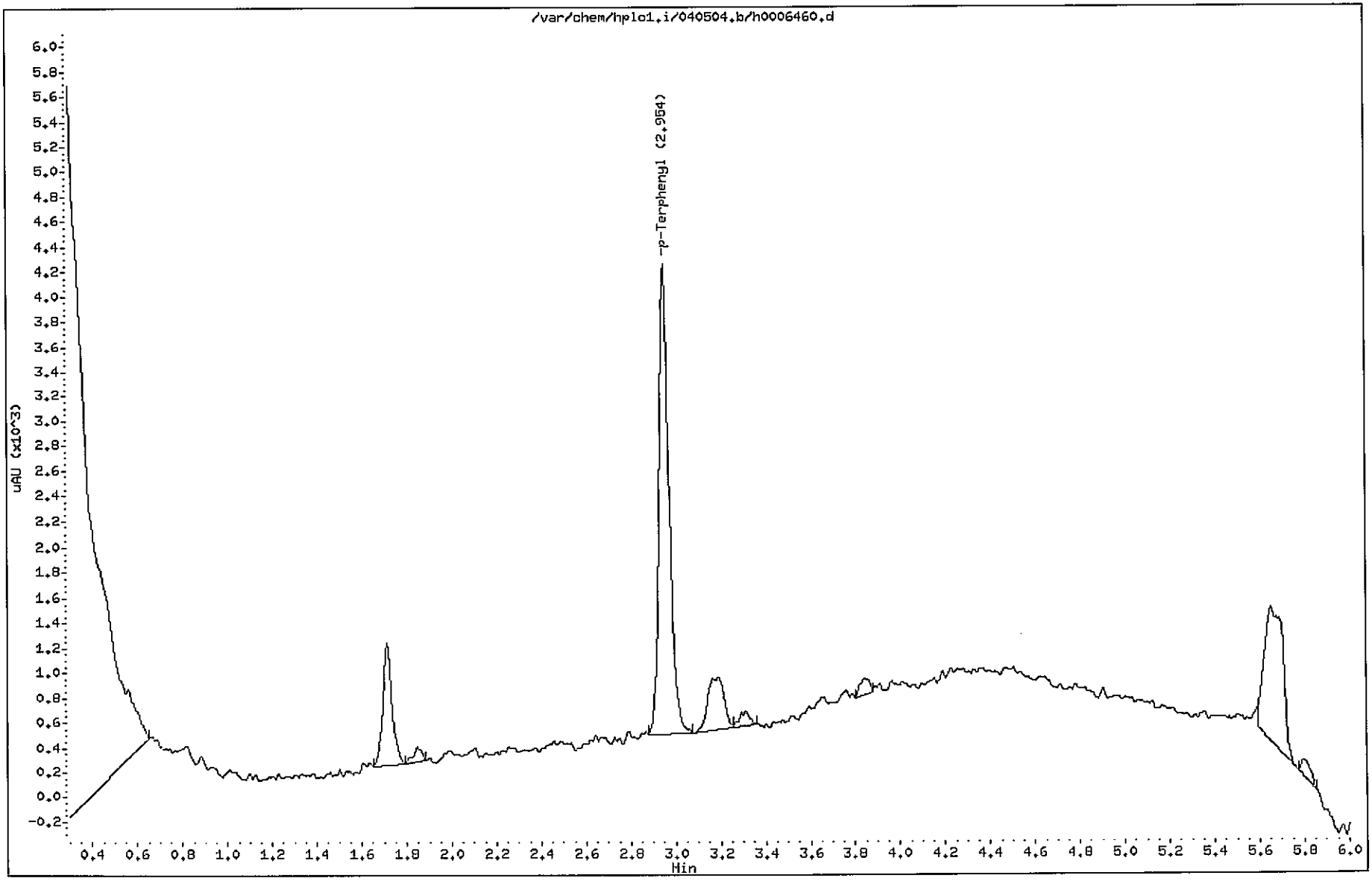
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
$ 11 p-Terphenyl	2.954	2.915	0.039	11913	1.69485	1.69

000254

Data File: /var/chem/hplc1.i/040504.b/h0006460.d
Date : 04-MAY-2004 12:53
Client ID: 20404280602
Sample Info: 20404280602
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: rlw
Column diameter: 2.10



GCAL, Inc.

Data file : /var/chem/hplc1.i/040504F.b/h0006460.d
Lab Smp Id: 20404280602 Client Smp ID: 20404280602
Inj Date : 04-MAY-2004 12:53
Operator : RLW Inst ID: hplc1.i
Smp Info : 20404280602
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040504F.b/flpnafld.m
Meth Date : 04-May-2004 16:50 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

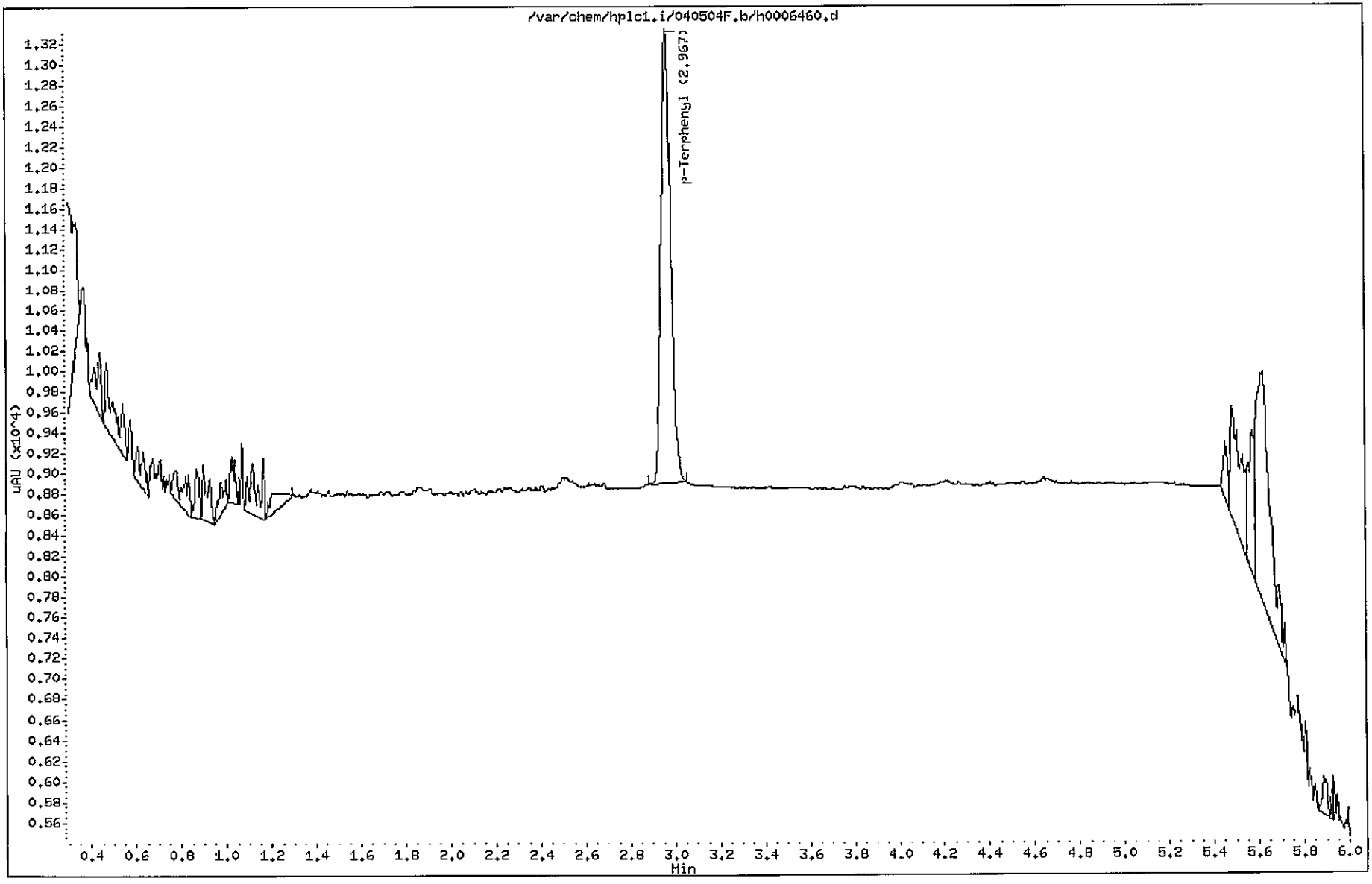
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
$ 11 p-Terphenyl	2.967	2.930	0.037	13345	1.53757	1.54

000256

Data File: /var/chem/hplc1.i/040504F.b/h0006460.d
Date : 04-MAY-2004 12:53
Client ID: 20404280602
Sample Info: 20404280602
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: RLW
Column diameter: 2.10



GCAL, Inc.

Data file : /var/chem/hplc1.i/040504.b/h0006461.d
Lab Smp Id: 20404260803 Client Smp ID: 20404260803
Inj Date : 04-MAY-2004 13:00
Operator : rlw Inst ID: hplc1.i
Smp Info : 20404260803
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040504.b/flpnauv.m
Meth Date : 04-May-2004 16:55 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
$ 11 p-Terphenyl	2.921	2.915	0.006	13700	1.94909	1.95(M)

QC Flag Legend

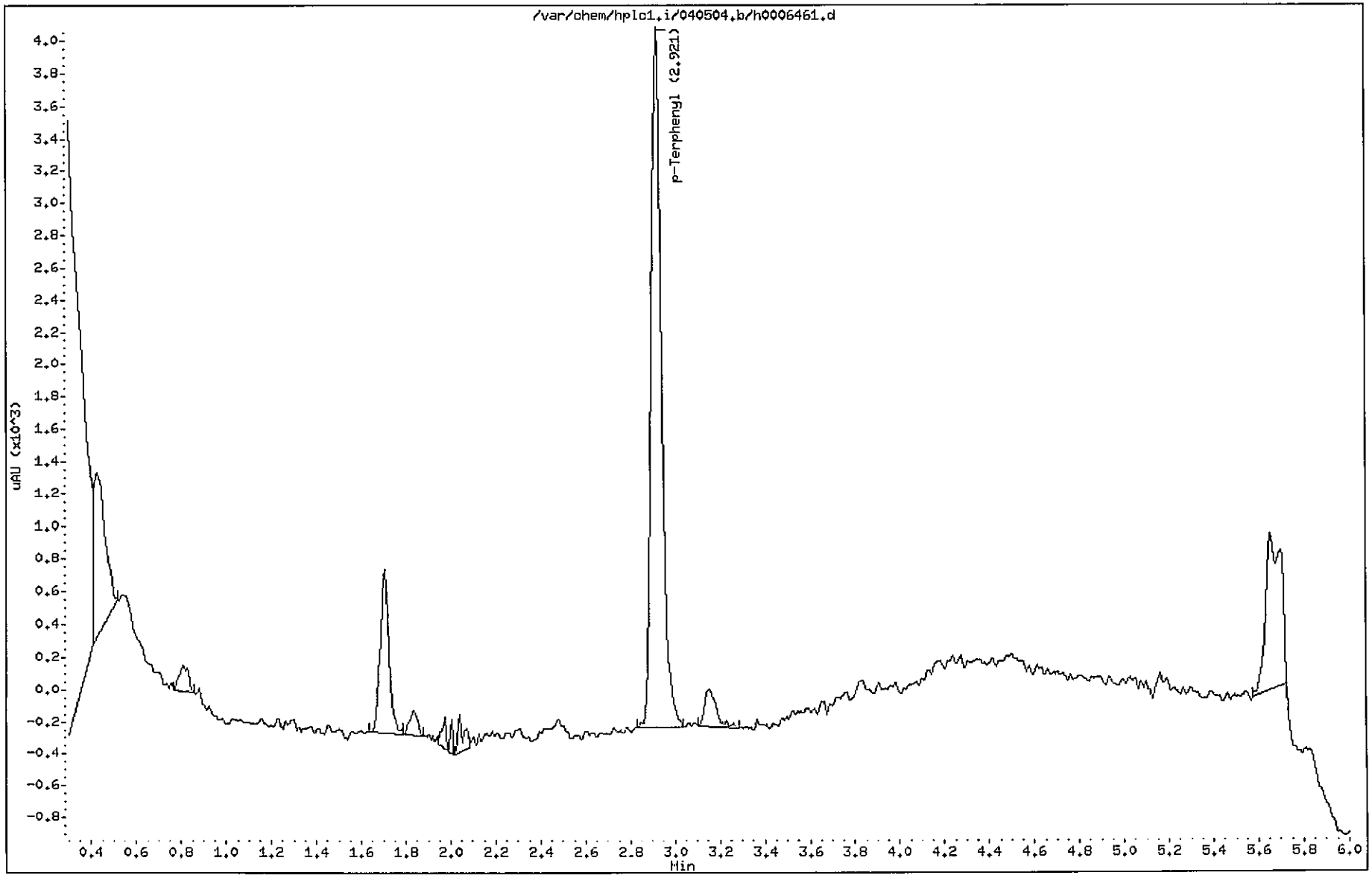
M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/040504.b/h0006461.d
Date : 04-MAY-2004 13:00
Client ID: 20404260803
Sample Info: 20404260803
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: rlw
Column diameter: 2.10

852000



GCAL, Inc.

Data file : /var/chem/hplc1.i/040504F.b/h0006461.d
Lab Smp Id: 20404260803 Client Smp ID: 20404260803
Inj Date : 04-MAY-2004 13:00
Operator : RLW Inst ID: hplc1.i
Smp Info : 20404260803
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040504F.b/flpnafld.m
Meth Date : 04-May-2004 16:50 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

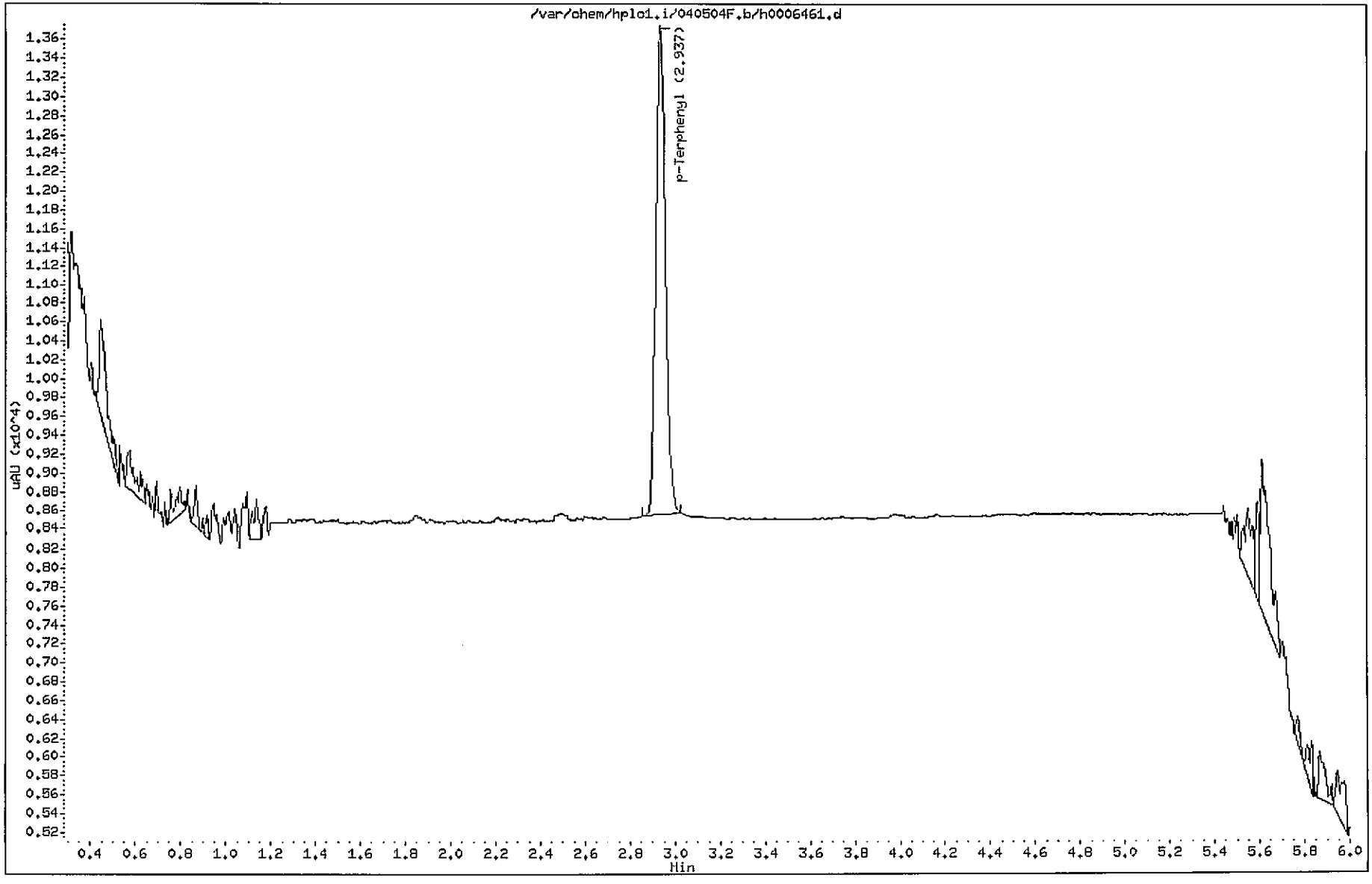
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
$ 11 p-Terphenyl	2.937	2.930	0.007	15530	1.78939	1.79

Data File: /var/chem/hplc1.i/040504F.b/h0006461.d
Date : 04-MAY-2004 13:00
Client ID: 20404260803
Sample Info: 20404260803
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: RLW
Column diameter: 2.10

000260



GCAL, Inc.

Data file : /var/chem/hplc1.i/040504.b/h0006462.d
Lab Smp Id: 20404280604 Client Smp ID: 20404280604
Inj Date : 04-MAY-2004 13:07
Operator : rlw Inst ID: hplc1.i
Smp Info : 20404280604
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040504.b/flpnauv.m
Meth Date : 04-May-2004 16:55 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

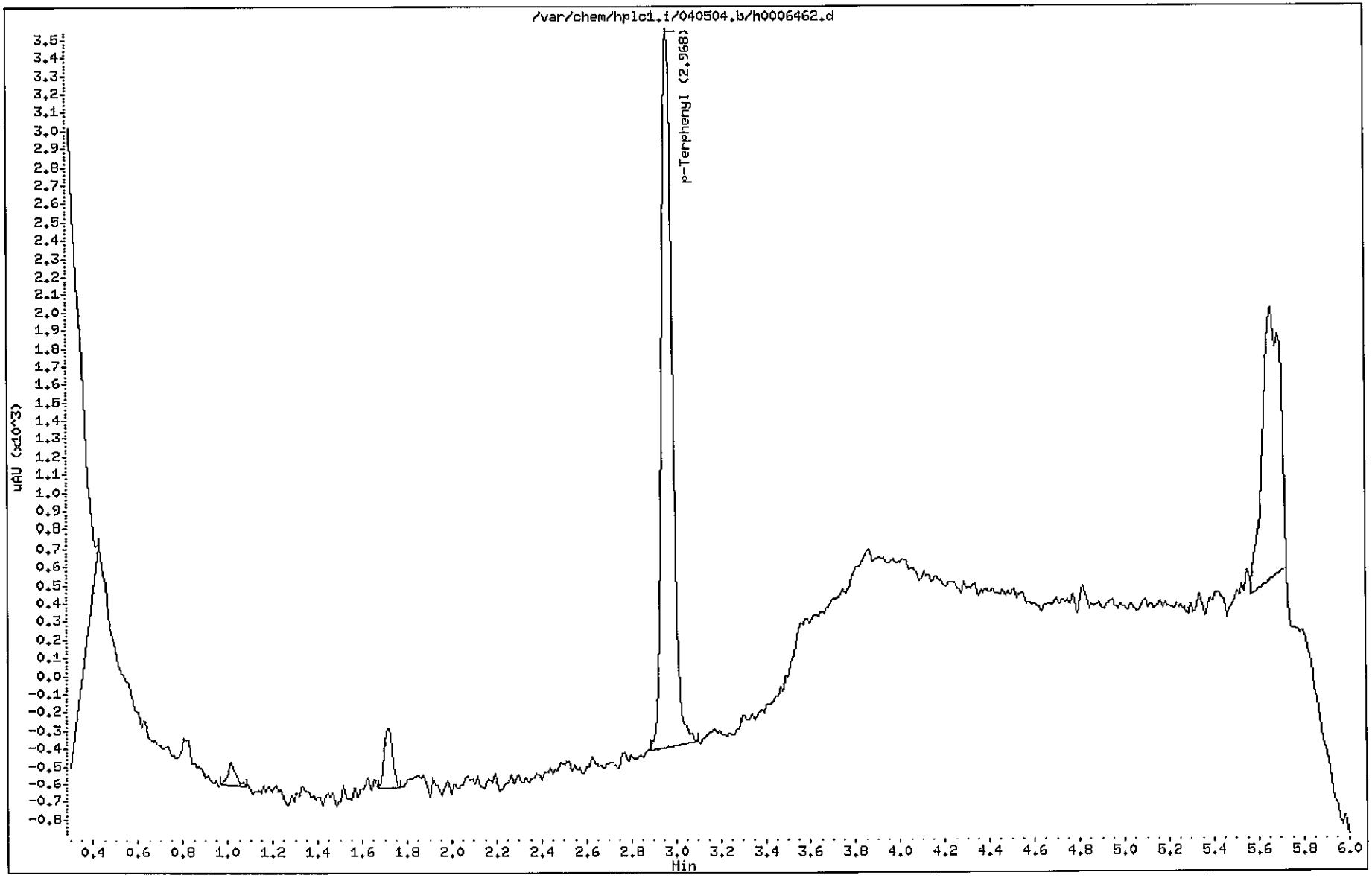
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
$ 11 p-Terphenyl	2.968	2.915	0.053	13011	1.85106	1.85

000262

Data File: /var/chem/hplc1.i/040504.b/h0006462.d
Date : 04-MAY-2004 13:07
Client ID: 20404280604
Sample Info: 20404280604
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: rlw
Column diameter: 2.10



GCAL, Inc.

Data file : /var/chem/hplc1.i/040504F.b/h0006462.d
Lab Smp Id: 20404280604 Client Smp ID: 20404280604
Inj Date : 04-MAY-2004 13:07
Operator : RLW Inst ID: hplc1.i
Smp Info : 20404280604
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040504F.b/flpnafld.m
Meth Date : 04-May-2004 16:50 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

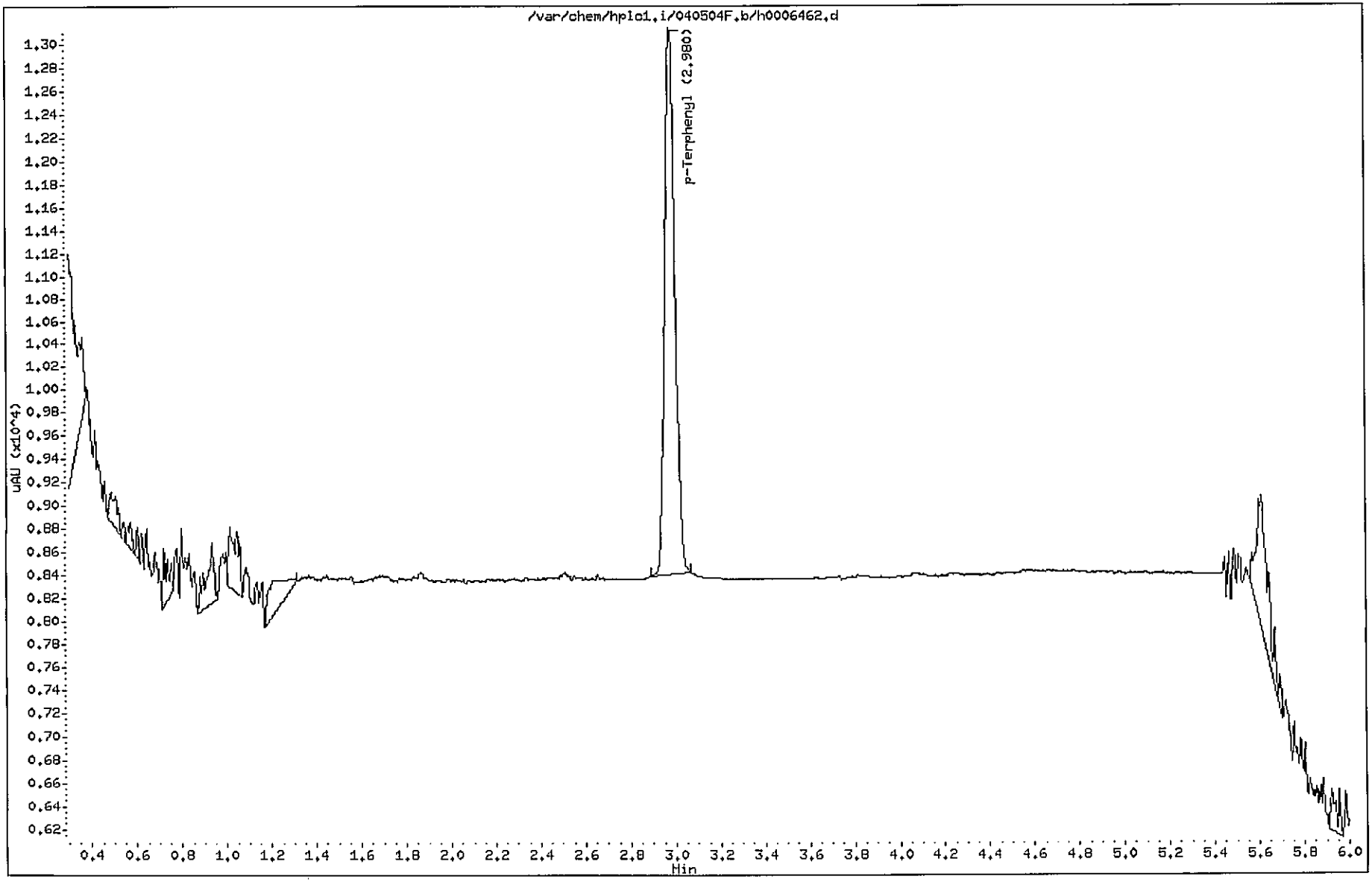
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
$ 11 p-Terphenyl	2.980	2.930	0.050	14854	1.71143	1.71

000264

Data File: /var/chem/hplc1.i/040504F.b/h0006462.d
Date : 04-MAY-2004 13:07
Client ID: 20404280604
Sample Info: 20404280604
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: RLW
Column diameter: 2.10



GCAL, Inc.

Data file : /var/chem/hplc1.i/040504.b/h0006465.d
Lab Smp Id: 20404280607 Client Smp ID: 20404280607
Inj Date : 04-MAY-2004 13:28
Operator : rlw Inst ID: hplc1.i
Smp Info : 20404280607
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040504.b/flpnauv.m
Meth Date : 04-May-2004 16:55 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

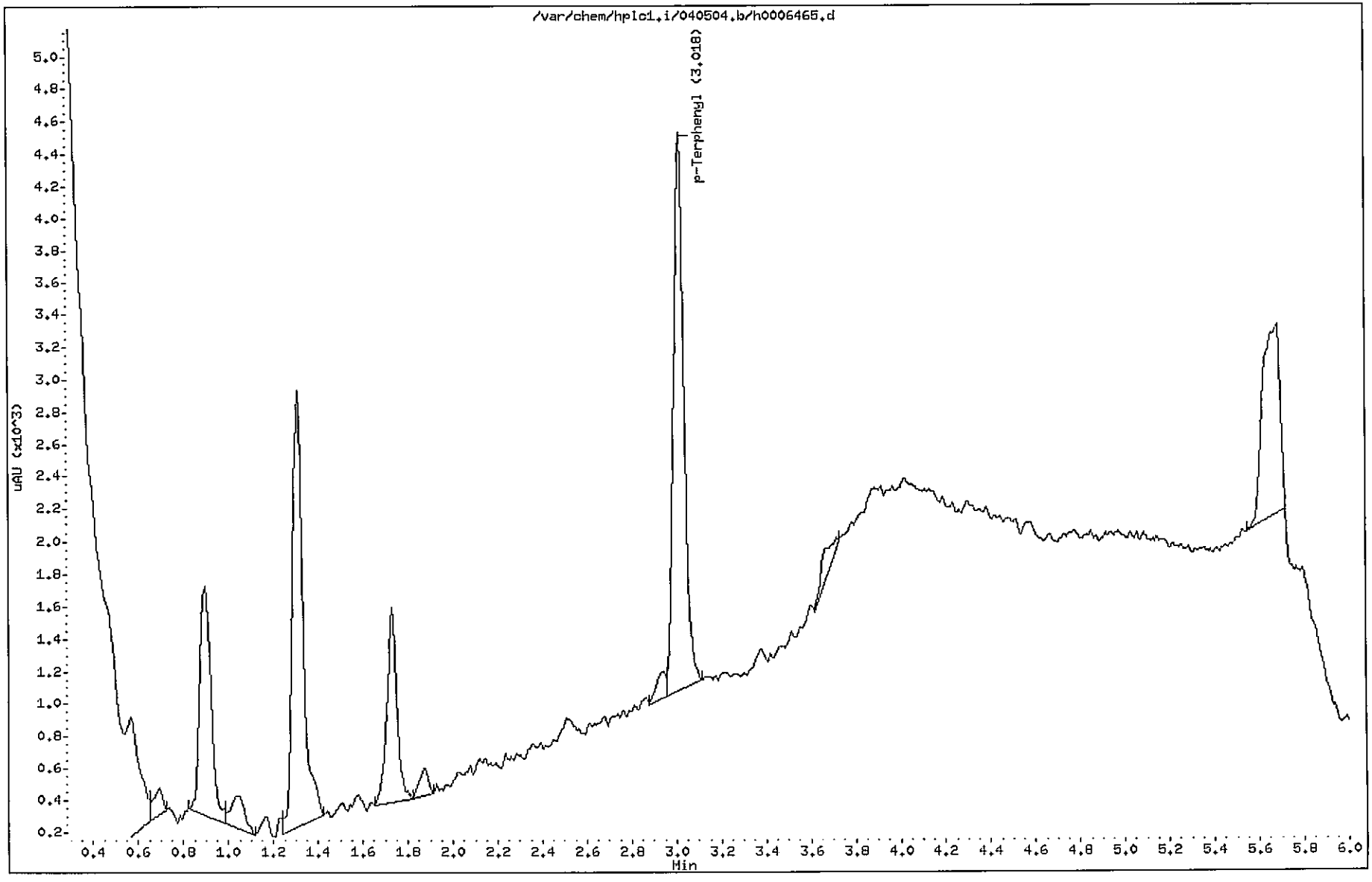
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
$ 11 p-Terphenyl	3.018	2.915	0.103	11276	1.60423	1.60

Data File: /var/chem/hplc1.i/040504.b/h0006465.d
Date : 04-MAY-2004 13:28
Client ID: 20404280607
Sample Info: 20404280607
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: rlw
Column diameter: 2.10

000266



GCAL, Inc.

Data file : /var/chem/hplc1.i/040504F.b/h0006465.d
Lab Smp Id: 20404280607 Client Smp ID: 20404280607
Inj Date : 04-MAY-2004 13:28
Operator : RLW Inst ID: hplc1.i
Smp Info : 20404280607
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040504F.b/flpnafld.m
Meth Date : 04-May-2004 16:50 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

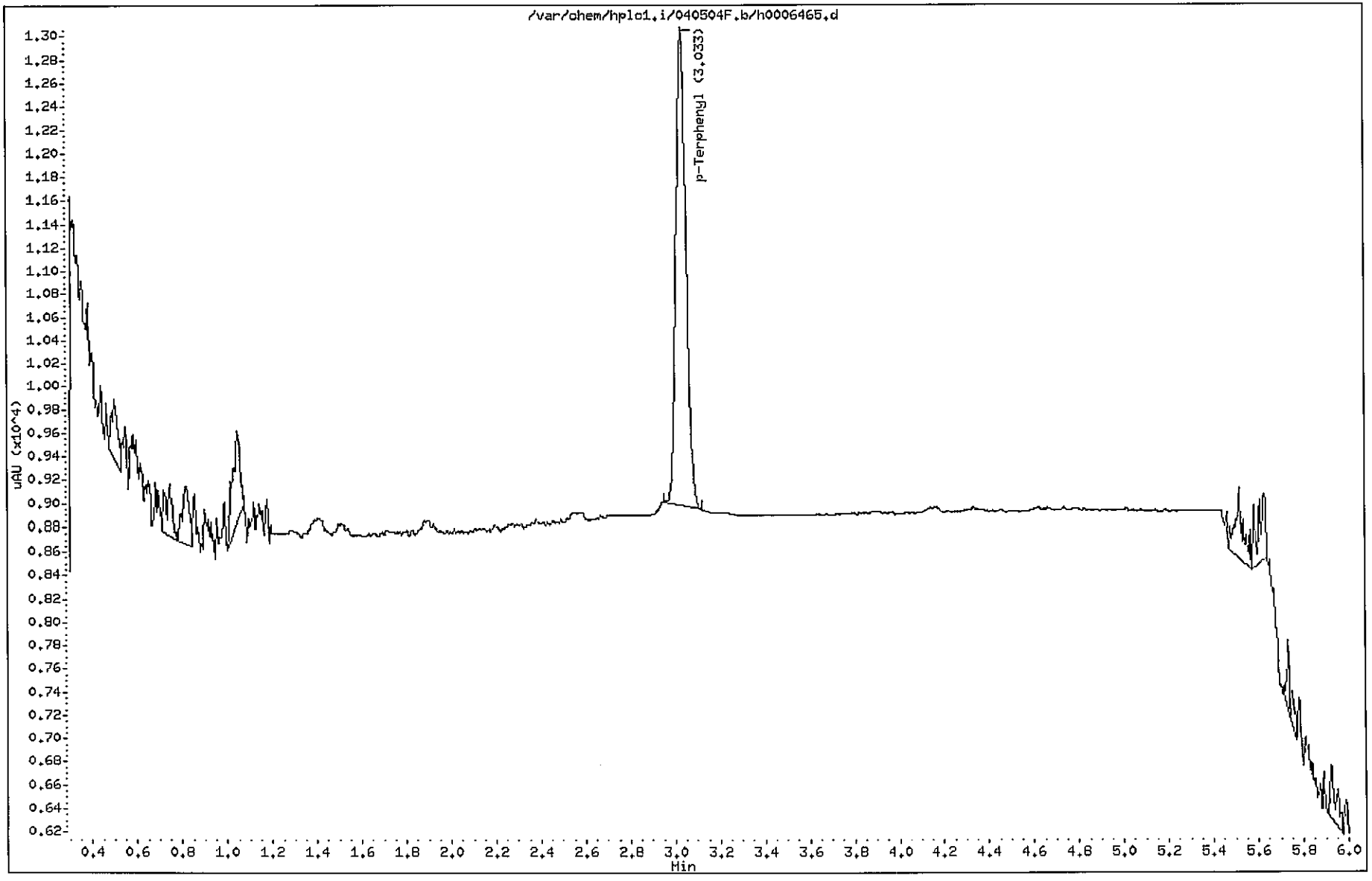
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
S 11 p-Terphenyl	3.033	2.930	0.103	12709	1.46429	1.46

Data File: /var/chem/hplc1.i/040504F.b/h0006465.d
Date : 04-MAY-2004 13:28
Client ID: 20404280607
Sample Info: 20404280607
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: RLW
Column diameter: 2.10

000268



GCAL, Inc.

Data file : /var/chem/hplc1.i/040504.b/h0006466.d
Lab Smp Id: 20404280608 Client Smp ID: 20404280608
Inj Date : 04-MAY-2004 13:35
Operator : rlw Inst ID: hplc1.i
Smp Info : 20404280608
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040504.b/flpnauv.m
Meth Date : 04-May-2004 16:55 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

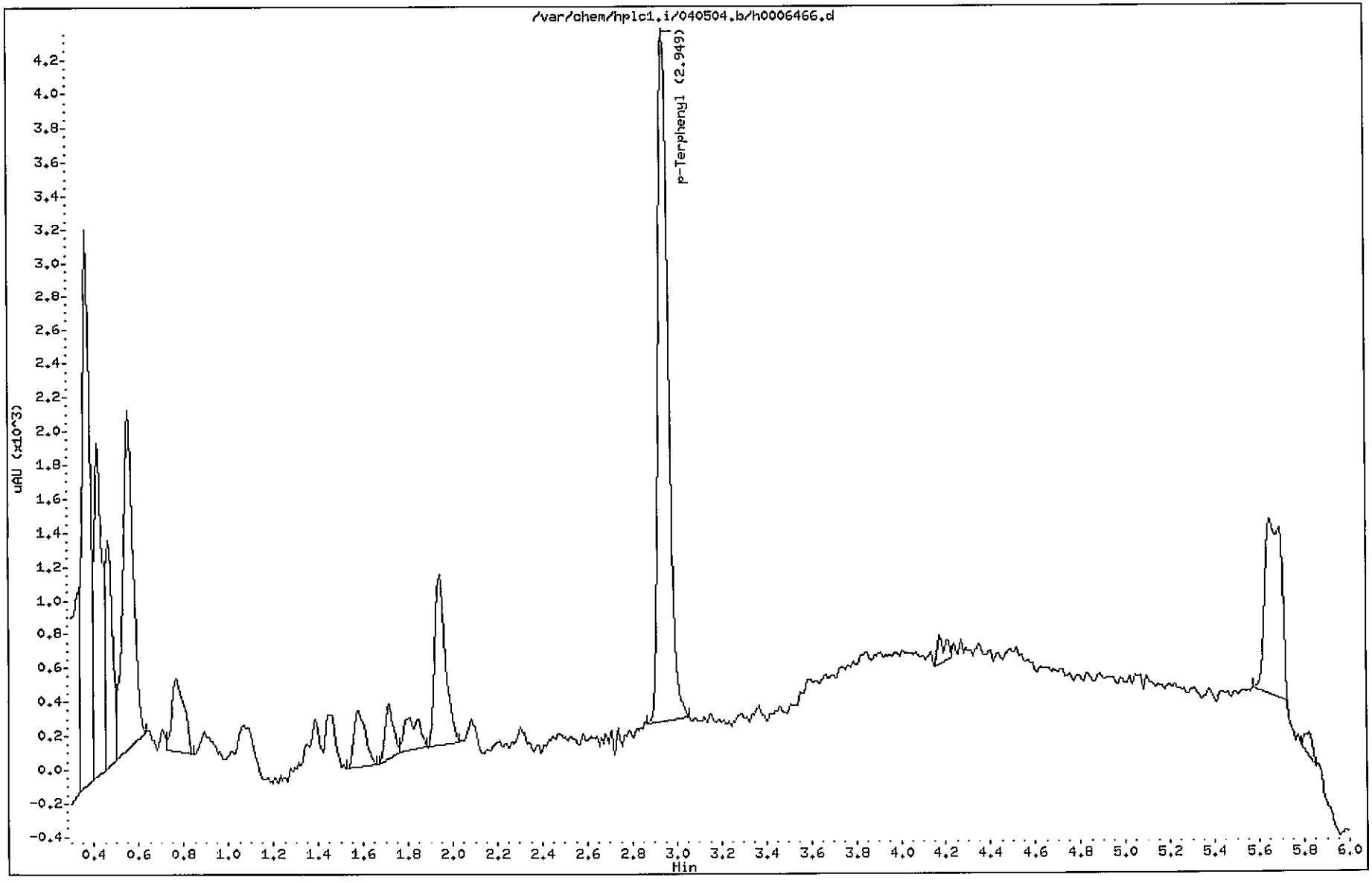
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
s 11 p-Terphenyl	2.949	2.915	0.034	12894	1.83442	1.83

000270

Data File: /var/chem/hplc1.i/040504.b/h0006466.d
Date : 04-MAY-2004 13:35
Client ID: 20404280608
Sample Info: 20404280608
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: rlw
Column diameter: 2.10



GCAL, Inc.

Data file : /var/chem/hplc1.i/040504F.b/h0006466.d
Lab Smp Id: 20404280608 Client Smp ID: 20404280608
Inj Date : 04-MAY-2004 13:35
Operator : RLW Inst ID: hplc1.i
Smp Info : 20404280608
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040504F.b/flpnafld.m
Meth Date : 04-May-2004 16:50 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

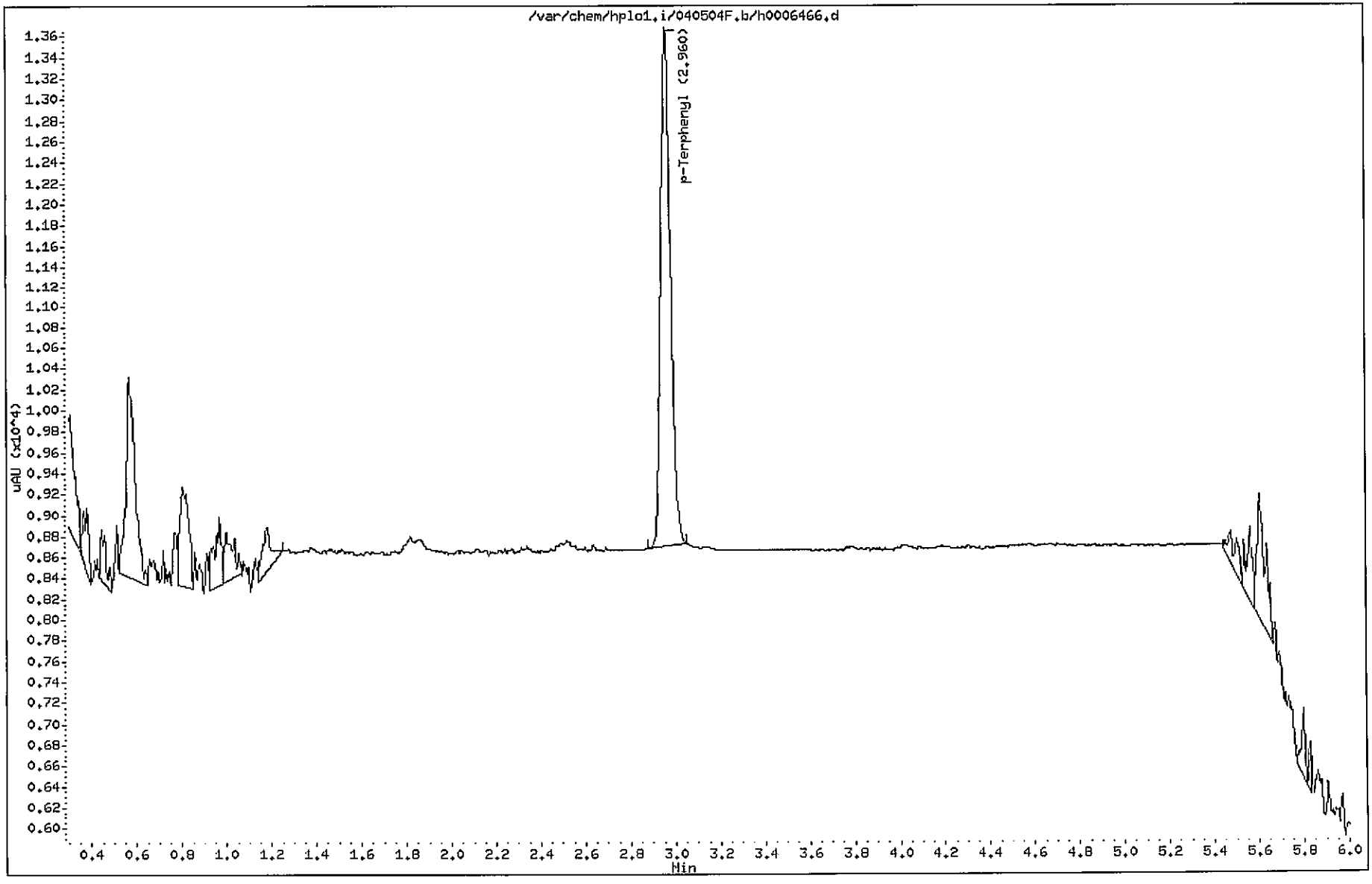
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
$ 11 p-Terphenyl	2.960	2.930	0.030	15025	1.73118	1.73

Data File: /var/chem/hplc1.i/040504F.b/h0006466.d
Date : 04-MAY-2004 13:35
Client ID: 20404280608
Sample Info: 20404280608
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: RLW
Column diameter: 2.10

000272



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/040114.b/h0005877.d
Lab Smp Id: 0114STD01 Client Smp ID: 0114STD01
Inj Date : 14-JAN-2004 15:59
Operator : jdt Inst ID: hplc1.i
Smp Info : 0114STD01
Misc Info : 4-1-14
Comment :
Method : /var/chem/hplc1.i/040114.b/flpnauv.m
Meth Date : 09-Feb-2004 16:03 jdt Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
7 Phenanthrene	1.874	1.874	0.000	2689	0.10000	0.104
8 Anthracene	2.121	2.121	0.000	5854	0.10000	0.110
9 Fluoranthene	2.368	2.368	0.000	818	0.10000	0.110(M)
10 Pyrene	2.541	2.541	0.000	614	0.10000	0.101(M)
11 p-Terphenyl	3.007	3.007	0.000	779	0.10000	0.111
12 Benzo(a)Anthracene	3.194	3.194	0.000	1601	0.10000	0.0975
13 Chrysene	3.361	3.361	0.000	2055	0.10000	0.0769
14 Benzo(b)Fluoranthene	3.861	3.861	0.000	2311	0.10000	0.109(M)
15 Benzo(k)Fluoranthene	4.094	4.094	0.000	1501	0.10000	0.116(M)
16 Benzo(a)Pyrene	4.281	4.281	0.000	1759	0.10000	0.0969
17 Dibenzo(a,h)Anthracene	4.607	4.607	0.000	372	0.10000	0.0914(M)
18 Benzo(g,h,i)Perylene	4.741	4.741	0.000	703	0.10000	0.104
19 Indeno(1,2,3-c,d)Pyrene	4.934	4.934	0.000	1441	0.10000	0.0986

QC Flag Legend

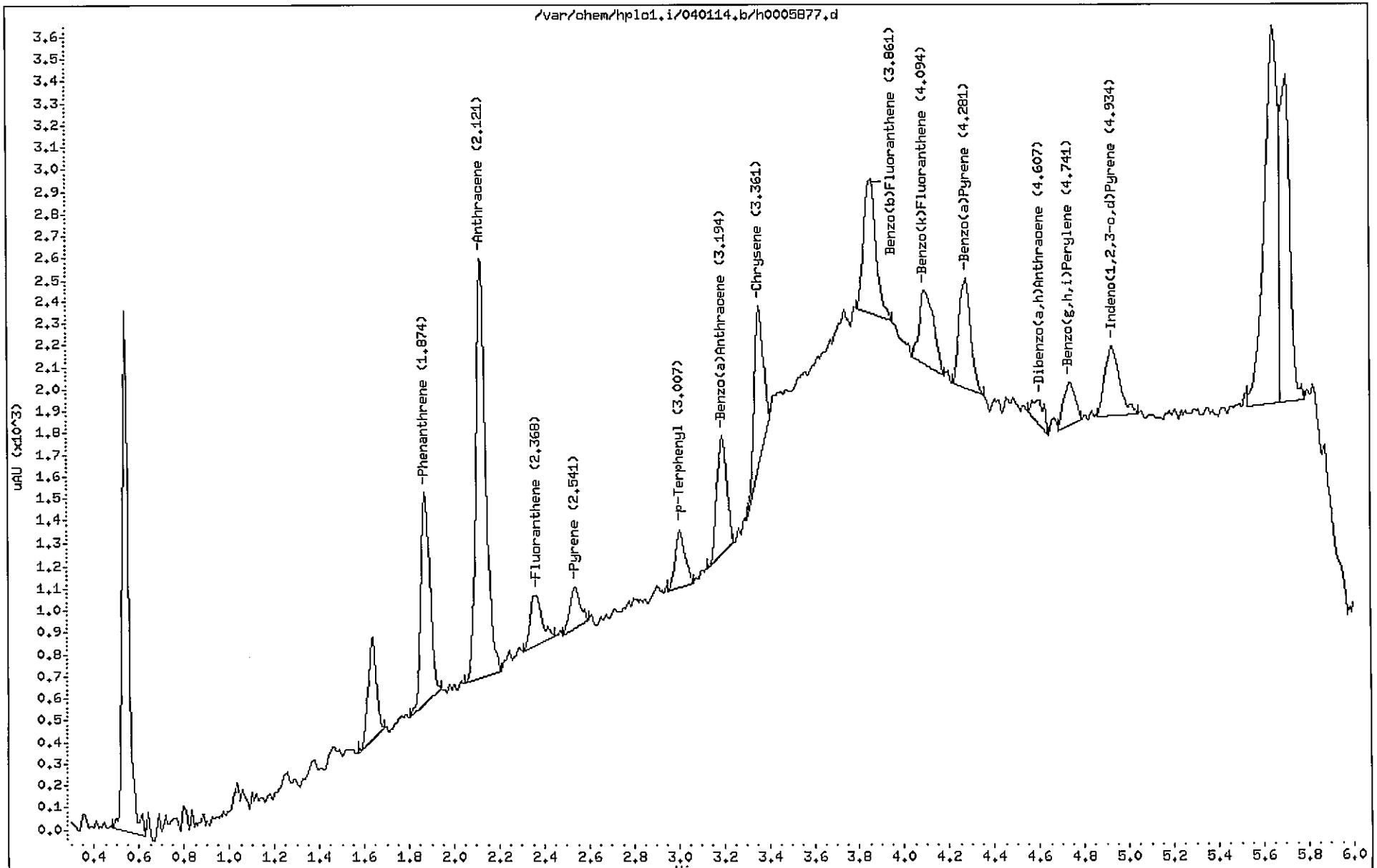
M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/040114.b/h0005877.d
Date : 14-JAN-2004 15:59
Client ID: 0114STD01
Sample Info: 0114STD01
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000275



Gulf Coast Analytical Laboratories, Inc.

ata file : /var/chem/hplc1.i/040114.b/h0005876.d
ab Smp Id: 0114STD02 Client Smp ID: 0114STD02
nj Date : 14-JAN-2004 15:52
perator : jdt Inst ID: hplc1.i
mp Info : 0114STD02
isc Info : 4-1-13
omment :
ethod : /var/chem/hplc1.i/040114.b/flpnauv.m
eth Date : 09-Feb-2004 16:03 jdt Quant Type: ESTD
al Date : 14-JAN-2004 15:52 Cal File: h0005876.d
ls bottle: 1 Calibration Sample, Level: 2
il Factor: 1.00000
ntegrator: Falcon Compound Sublist: all.sub
arget Version: 3.50

oncentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

pnd Variable Local Compound Variable

ompounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)
1 Naphthalene	1.028	1.028	0.000	569	0.25000	0.236(M)
7 Phenanthrene	1.862	1.874	-0.012	6234	0.25000	0.241
8 Anthracene	2.102	2.121	-0.019	13175	0.25000	0.249
9 Fluoranthene	2.342	2.368	-0.026	1833	0.25000	0.248
10 Pyrene	2.515	2.541	-0.026	1551	0.25000	0.255
11 p-Terphenyl	2.982	3.007	-0.025	1659	0.25000	0.236
12 Benzo(a)Anthracene	3.168	3.194	-0.026	3973	0.25000	0.242
13 Chrysene	3.335	3.361	-0.026	6654	0.25000	0.249
14 Benzo(b)Fluoranthene	3.828	3.861	-0.033	5121	0.25000	0.241
15 Benzo(k)Fluoranthene	4.088	4.094	-0.006	3270	0.25000	0.252
16 Benzo(a)Pyrene	4.262	4.281	-0.019	4254	0.25000	0.234
17 Dibenzo(a,h)Anthracene	4.575	4.607	-0.032	893	0.25000	0.219
18 Benzo(g,h,i)Perylene	4.728	4.741	-0.013	1614	0.25000	0.239
19 Indeno(1,2,3-c,d)Pyrene	4.922	4.934	-0.012	3827	0.25000	0.262

QC Flag Legend

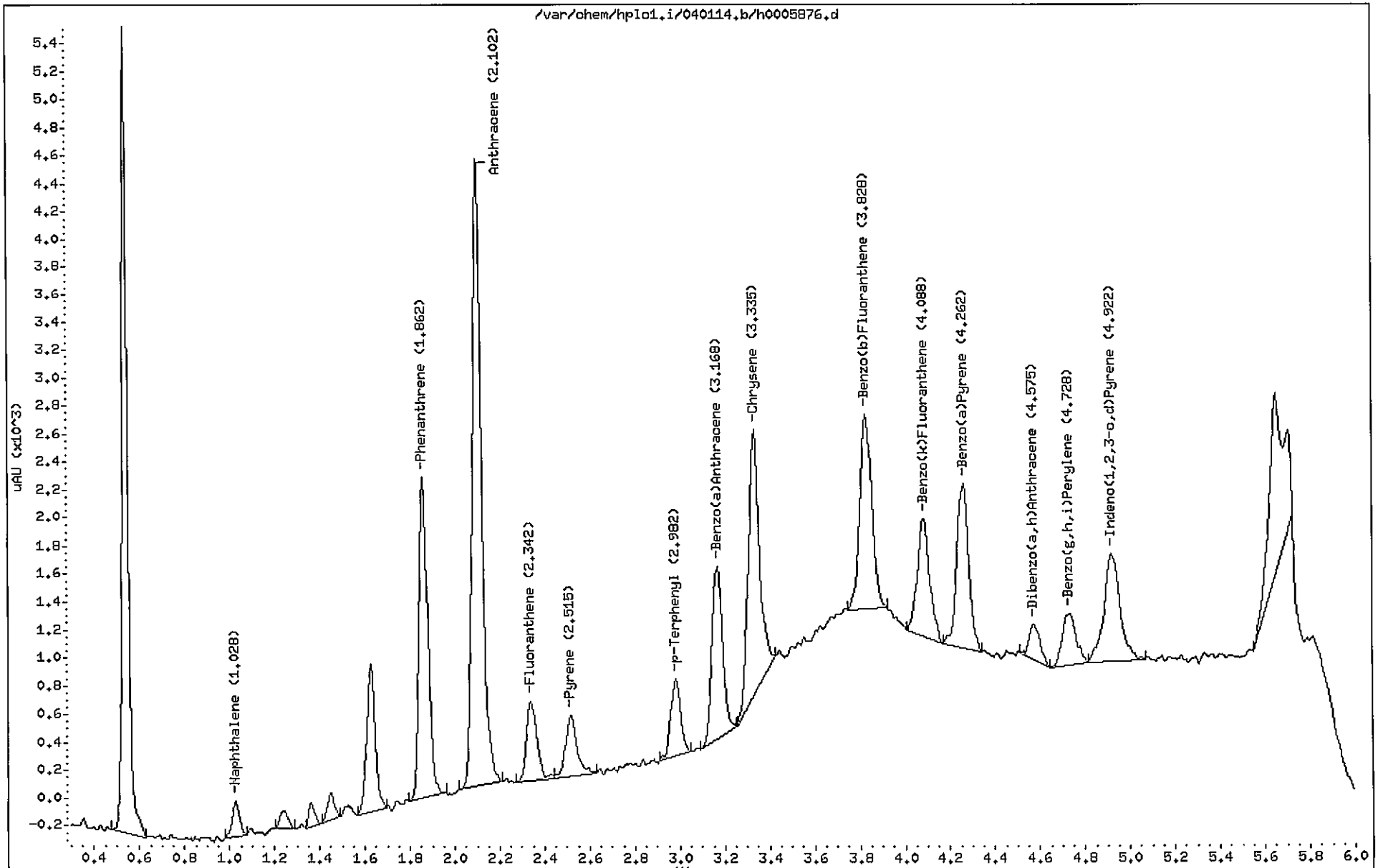
I - Compound response manually integrated.

Data File: /var/chem/hplc1.i/040114.b/h0005876.d
Date : 14-JAN-2004 15:52
Client ID: 0114STD02
Sample Info: 0114STD02
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000278



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/040114.b/h0005875.d
Lab Smp Id: 0114STD03 Client Smp ID: 0114STD03
Inj Date : 14-JAN-2004 15:45
Operator : jdt Inst ID: hplc1.i
Smp Info : 0114STD03
Misc Info : 4-1-12
Comment :
Method : /var/chem/hplc1.i/040114.b/flpnauv.m
Meth Date : 09-Feb-2004 16:03 jdt Quant Type: ESTD
Cal Date : 14-JAN-2004 15:45 Cal File: h0005875.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.021	1.028	-0.007	1066	0.50000	0.442
6 Fluorene	1.614	1.614	0.000	5661	0.50000	0.486
7 Phenanthrene	1.847	1.874	-0.027	12732	0.50000	0.492
8 Anthracene	2.081	2.121	-0.040	26269	0.50000	0.495
9 Fluoranthene	2.314	2.368	-0.054	3506	0.50000	0.473
10 Pyrene	2.487	2.541	-0.054	2794	0.50000	0.459
11 p-Terphenyl	2.941	3.007	-0.066	3424	0.50000	0.487
12 Benzo(a)Anthracene	3.114	3.194	-0.080	7909	0.50000	0.482
13 Chrysene	3.274	3.361	-0.087	12842	0.50000	0.481
14 Benzo(b)Fluoranthene	3.748	3.861	-0.113	10118	0.50000	0.476
15 Benzo(k)Fluoranthene	3.994	4.094	-0.100	5982	0.50000	0.460
16 Benzo(a)Pyrene	4.168	4.281	-0.113	9212	0.50000	0.508
17 Dibenzo(a,h)Anthracene	4.474	4.607	-0.133	2374	0.50000	0.583
18 Benzo(g,h,i)Perylene	4.621	4.741	-0.120	3089	0.50000	0.458

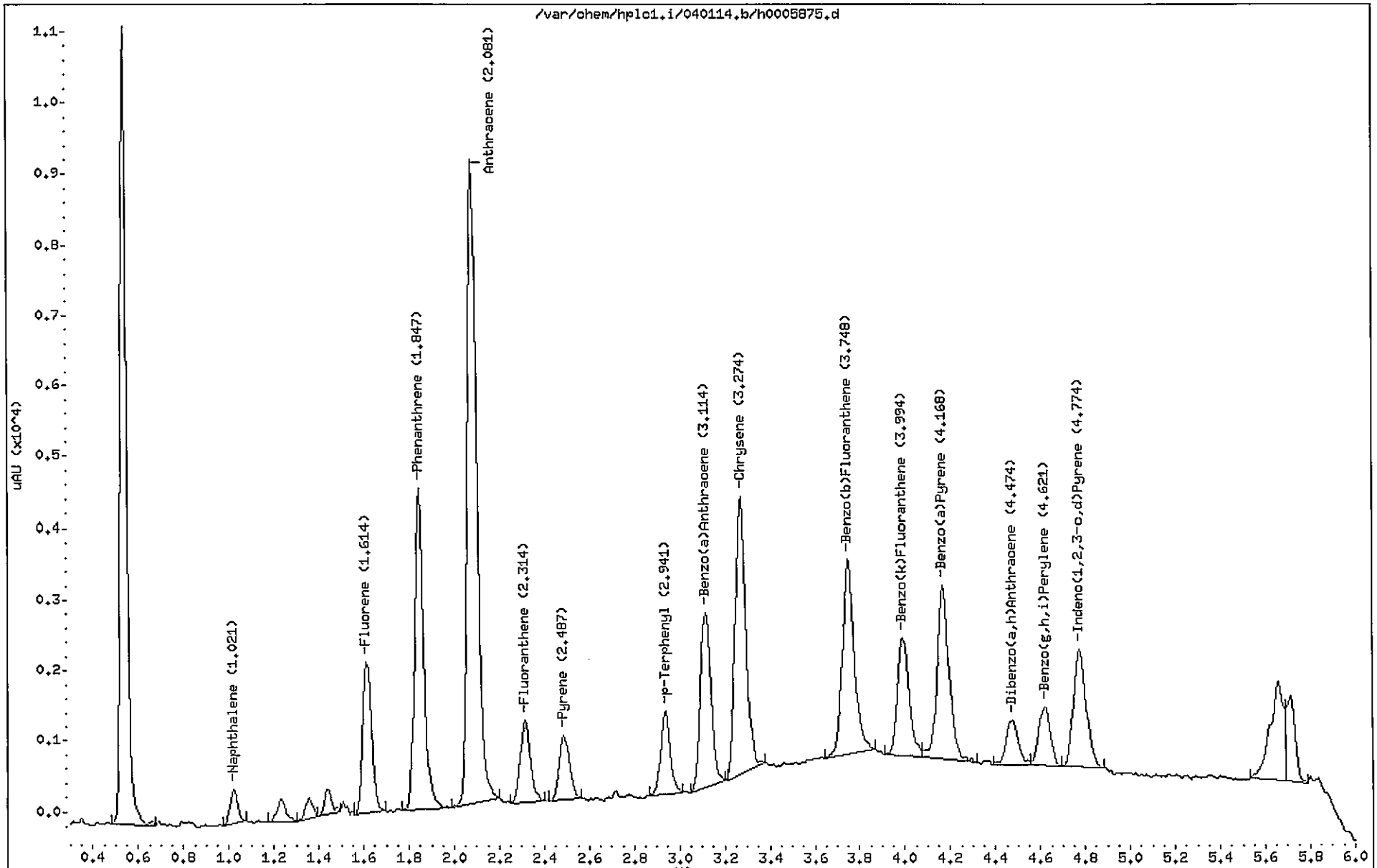
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
19 Indeno(1,2,3-c,d)Pyrene	4.774	4.934	-0.160	6609	0.50000	0.452

Data File: /var/chem/hplc1.i/040114.b/h0005875.d
Date : 14-JAN-2004 15:45
Client ID: 0114STD03
Sample Info: 0114STD03
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000281



Gulf Coast Analytical Laboratories, Inc.

ata file : /var/chem/hplc1.i/040114.b/h0005874.d
ab Smp Id: 0114STD04 Client Smp ID: 0114STD04
nj Date : 14-JAN-2004 15:38
perator : jdt Inst ID: hplc1.i
mp Info : 0114STD04
isc Info : 4-1-11
omment :
ethod : /var/chem/hplc1.i/040114.b/flpnauv.m
eth Date : 09-Feb-2004 16:03 jdt Quant Type: ESTD
al Date : 14-JAN-2004 15:38 Cal File: h0005874.d
ls bottle: 1 Calibration Sample, Level: 4
il Factor: 1.00000
ntegrator: Falcon Compound Sublist: all.sub
arget Version: 3.50

oncentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

pnd Variable Local Compound Variable

ompounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)
1 Naphthalene	1.029	1.028	0.001	2412	1.00000	1.00
2 Acenaphthylene	1.242	1.242	0.000	1523	1.00000	0.893
3 1-Methynaphthalene	1.363	1.363	0.000	1274	1.00000	0.904
4 2-Methylnaphthalene	1.449	1.449	0.000	1713	1.00000	0.852
5 Acenaphthene	1.522	1.522	0.000	719	1.00000	1.16
6 Fluorene	1.629	1.614	0.015	11178	1.00000	0.960
7 Phenanthrene	1.862	1.874	-0.012	25286	1.00000	0.978
8 Anthracene	2.103	2.121	-0.018	53682	1.00000	1.01
9 Fluoranthene	2.342	2.368	-0.026	7386	1.00000	0.997
10 Pyrene	2.516	2.541	-0.025	6217	1.00000	1.02
11 p-Terphenyl	2.969	3.007	-0.038	7168	1.00000	1.02
12 Benzo(a)Anthracene	3.156	3.194	-0.038	16082	1.00000	0.979
13 Chrysene	3.309	3.361	-0.052	27198	1.00000	1.02
14 Benzo(b)Fluoranthene	3.796	3.861	-0.065	22829	1.00000	1.07

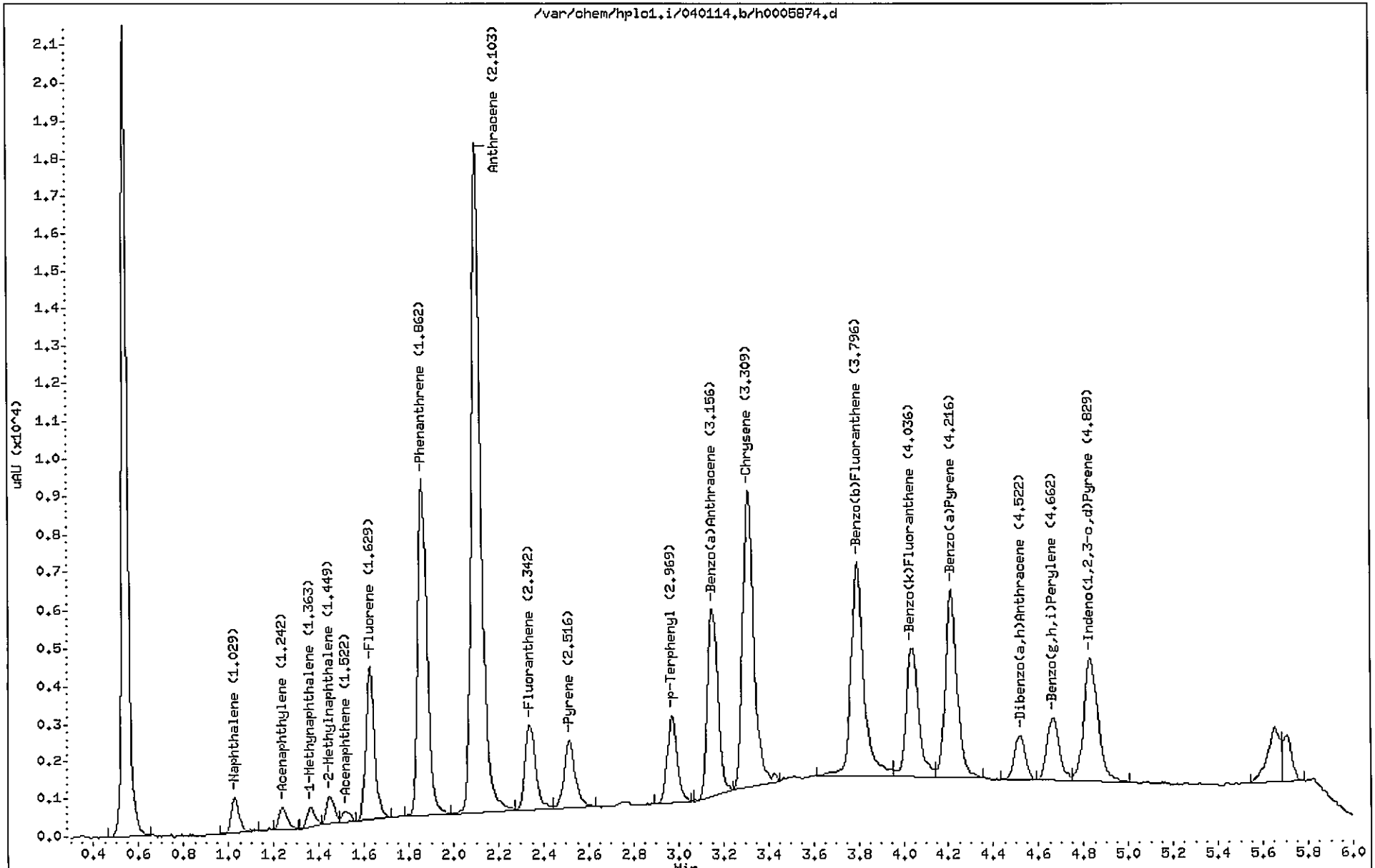
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
15 Benzo(k)Fluoranthene	4.036	4.094	-0.058	13202	1.00000	1.02
16 Benzo(a)Pyrene	4.216	4.281	-0.065	18182	1.00000	1.00
17 Dibenzo(a,h)Anthracene	4.522	4.607	-0.085	4048	1.00000	0.995
18 Benzo(g,h,i)Perylene	4.662	4.741	-0.079	6563	1.00000	0.974
19 Indeno(1,2,3-c,d)Pyrene	4.829	4.934	-0.105	14727	1.00000	1.01

Data File: /var/chem/hplc1.i/040114.b/h0005874.d
Date : 14-JAN-2004 15:38
Client ID: 0114STD04
Sample Info: 0114STD04
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000284



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/040114.b/h0005873.d
Lab Smp Id: 0114STD05 Client Smp ID: 0114STD05
Inj Date : 14-JAN-2004 15:31
Operator : jdt Inst ID: hplc1.i
Smp Info : 0114STD05
Misc Info : 4-1-10
Comment :
Method : /var/chem/hplc1.i/040114.b/flpnauv.m
Meth Date : 09-Feb-2004 16:03 jdt Quant Type: ESTD
Cal Date : 14-JAN-2004 15:31 Cal File: h0005873.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.030	1.028	0.002	5497	2.50000	2.28
2 Acenaphthylene	1.243	1.242	0.001	4110	2.50000	2.41
3 1-Methynaphthalene	1.370	1.363	0.007	3339	2.50000	2.37
4 2-Methylnaphthalene	1.457	1.449	0.008	4918	2.50000	2.45
5 Acenaphthene	1.523	1.522	0.001	2184	2.50000	2.49
6 Fluorene	1.630	1.614	0.016	28966	2.50000	2.49
7 Phenanthrene	1.870	1.874	-0.004	65271	2.50000	2.52
8 Anthracene	2.117	2.121	-0.004	133833	2.50000	2.52
9 Fluoranthene	2.357	2.368	-0.011	18034	2.50000	2.44
10 Pyrene	2.537	2.541	-0.004	14871	2.50000	2.44
11 p-Terphenyl	3.003	3.007	-0.004	17508	2.50000	2.49
12 Benzo(a)Anthracene	3.190	3.194	-0.004	40863	2.50000	2.49
13 Chrysene	3.357	3.361	-0.004	69936	2.50000	2.62
14 Benzo(b)Fluoranthene	3.857	3.861	-0.004	53866	2.50000	2.53

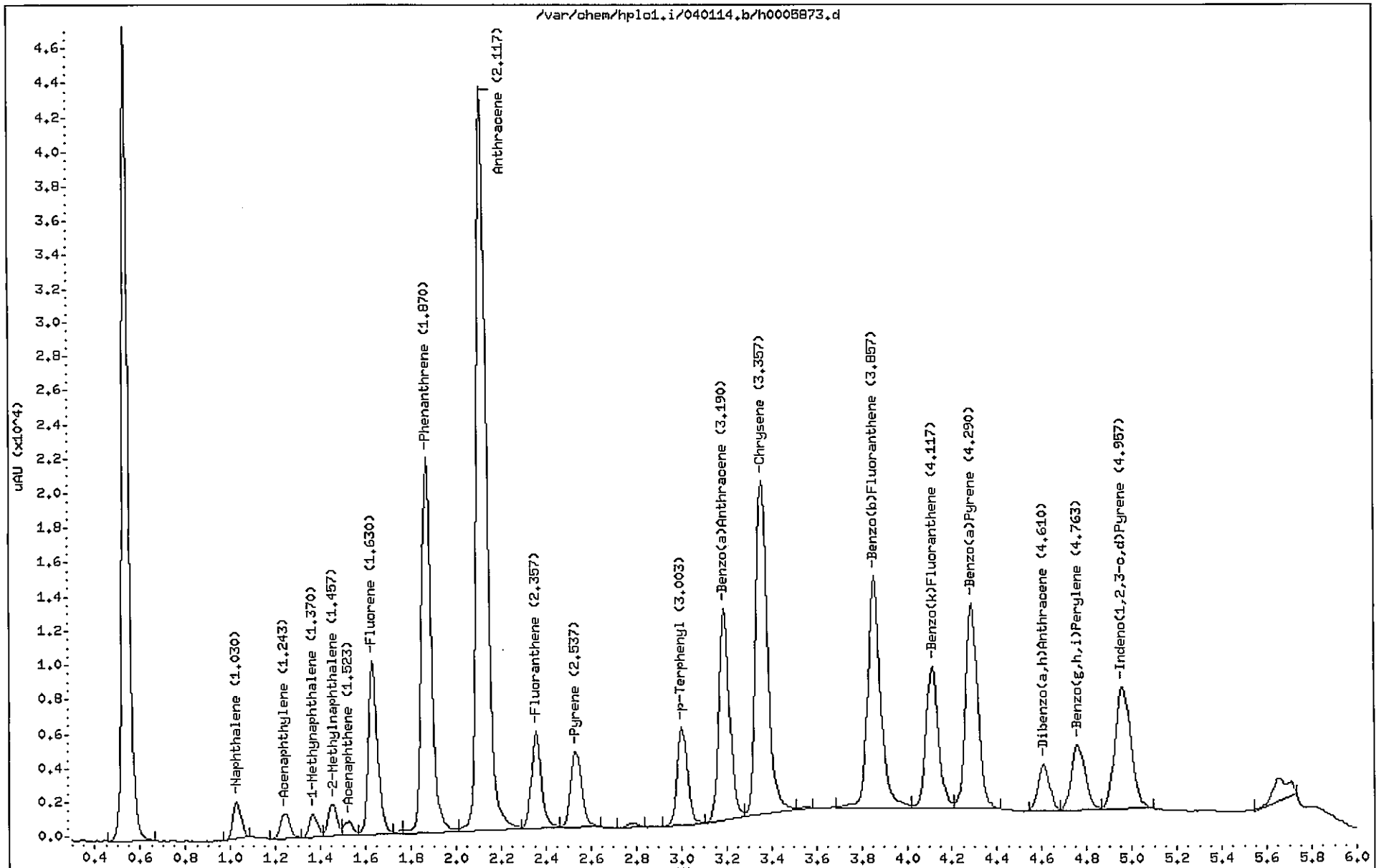
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
15 Benzo(k)Fluoranthene	4.117	4.094	0.023	31547	2.50000	2.43
16 Benzo(a)Pyrene	4.290	4.281	0.009	44846	2.50000	2.47
17 Dibenzo(a,h)Anthracene	4.610	4.607	0.003	9650	2.50000	2.37
18 Benzo(g,h,i)Perylene	4.763	4.741	0.022	16366	2.50000	2.43
19 Indeno(1,2,3-c,d)Pyrene	4.957	4.934	0.023	35044	2.50000	2.40

Data File: /var/chem/hplc1.i/040114.b/h0005873.d
Date : 14-JAN-2004 15:31
Client ID: 0114STD05
Sample Info: 0114STD05
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000287



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/040114.b/h0005872.d
Lab Smp Id: 0114STD06 Client Smp ID: 0114STD06
Inj Date : 14-JAN-2004 15:24
Operator : jdt Inst ID: hplc1.i
Smp Info : 0114STD06
Misc Info : 4-1-9
Comment :
Method : /var/chem/hplc1.i/040114.b/flpnauv.m
Meth Date : 09-Feb-2004 16:03 jdt Quant Type: ESTD
Cal Date : 14-JAN-2004 15:24 Cal File: h0005872.d
Vials bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.024	1.028	-0.004	13274	5.00000	5.50
2 Acenaphthylene	1.231	1.242	-0.011	8672	5.00000	5.09
3 1-Methynaphthalene	1.357	1.363	-0.006	7329	5.00000	5.20
4 2-Methylnaphthalene	1.438	1.449	-0.011	10741	5.00000	5.34
5 Acenaphthene	1.511	1.522	-0.011	5017	5.00000	5.05
6 Fluorene	1.617	1.614	0.003	59797	5.00000	5.14
7 Phenanthrene	1.844	1.874	-0.030	131279	5.00000	5.08
8 Anthracene	2.084	2.121	-0.037	265273	5.00000	5.00
9 Fluoranthene	2.317	2.368	-0.051	37665	5.00000	5.09
10 Pyrene	2.491	2.541	-0.050	31336	5.00000	5.14
11 p-Terphenyl	2.951	3.007	-0.056	35759	5.00000	5.09
12 Benzo(a)Anthracene	3.131	3.194	-0.063	85072	5.00000	5.18
13 Chrysene	3.284	3.361	-0.077	143174	5.00000	5.36
14 Benzo(b)Fluoranthene	3.777	3.861	-0.084	102500	5.00000	4.82

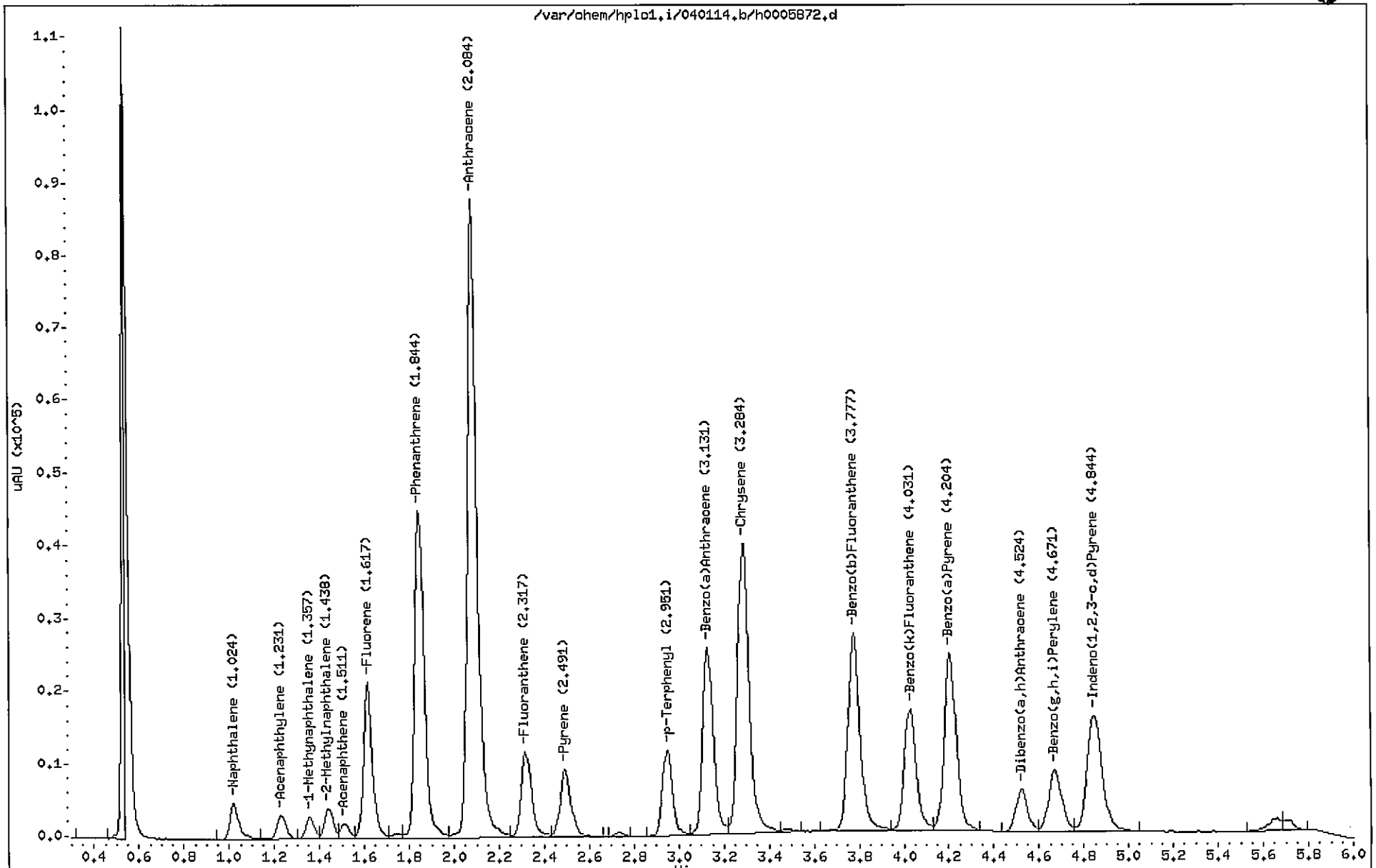
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
15 Benzo(k)Fluoranthene	4.031	4.094	-0.063	62735	5.00000	4.83
16 Benzo(a)Pyrene	4.204	4.281	-0.077	90929	5.00000	5.01
17 Dibenzo(a,h)Anthracene	4.524	4.607	-0.083	21124	5.00000	5.19
18 Benzo(g,h,i)Perylene	4.671	4.741	-0.070	34941	5.00000	5.18
19 Indeno(1,2,3-c,d)Pyrene	4.844	4.934	-0.090	75005	5.00000	5.13

Data File: /var/chem/hplc1.i/040114.b/h0005872.d
Date : 14-JAN-2004 15:24
Client ID: 0114STD06
Sample Info: 0114STD06
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000290



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/040114.b/h0005871.d
Lab Smp Id: 0114STD07 Client Smp ID: 0114STD07
Inj Date : 14-JAN-2004 15:17
Operator : jdt Inst ID: hplc1.i
Smp Info : 0114STD07
Misc Info : 4-1-8
Comment :
Method : /var/chem/hplc1.i/040114.b/flpnauv.m
Meth Date : 09-Feb-2004 16:03 jdt Quant Type: ESTD
Cal Date : 14-JAN-2004 15:17 Cal File: h0005871.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.022	1.028	-0.006	26820	10.0000	11.1
2 Acenaphthylene	1.236	1.242	-0.006	17673	10.0000	10.4
3 1-Methynaphthalene	1.356	1.363	-0.007	14596	10.0000	10.4
4 2-Methylnaphthalene	1.442	1.449	-0.007	20531	10.0000	10.2
5 Acenaphthene	1.516	1.522	-0.006	10100	10.0000	9.65
6 Fluorene	1.616	1.614	0.002	117944	10.0000	10.1
7 Phenanthrene	1.849	1.874	-0.025	258119	10.0000	9.98
8 Anthracene	2.089	2.121	-0.032	510287	10.0000	9.62
9 Fluoranthene	2.322	2.368	-0.046	70751	10.0000	9.56
10 Pyrene	2.496	2.541	-0.045	59608	10.0000	9.79
11 p-Terphenyl	2.949	3.007	-0.058	69380	10.0000	9.87
12 Benzo(a)Anthracene	3.129	3.194	-0.065	166622	10.0000	10.1
13 Chrysene	3.283	3.361	-0.078	279924	10.0000	10.5
14 Benzo(b)Fluoranthene	3.763	3.861	-0.098	203550	10.0000	9.57

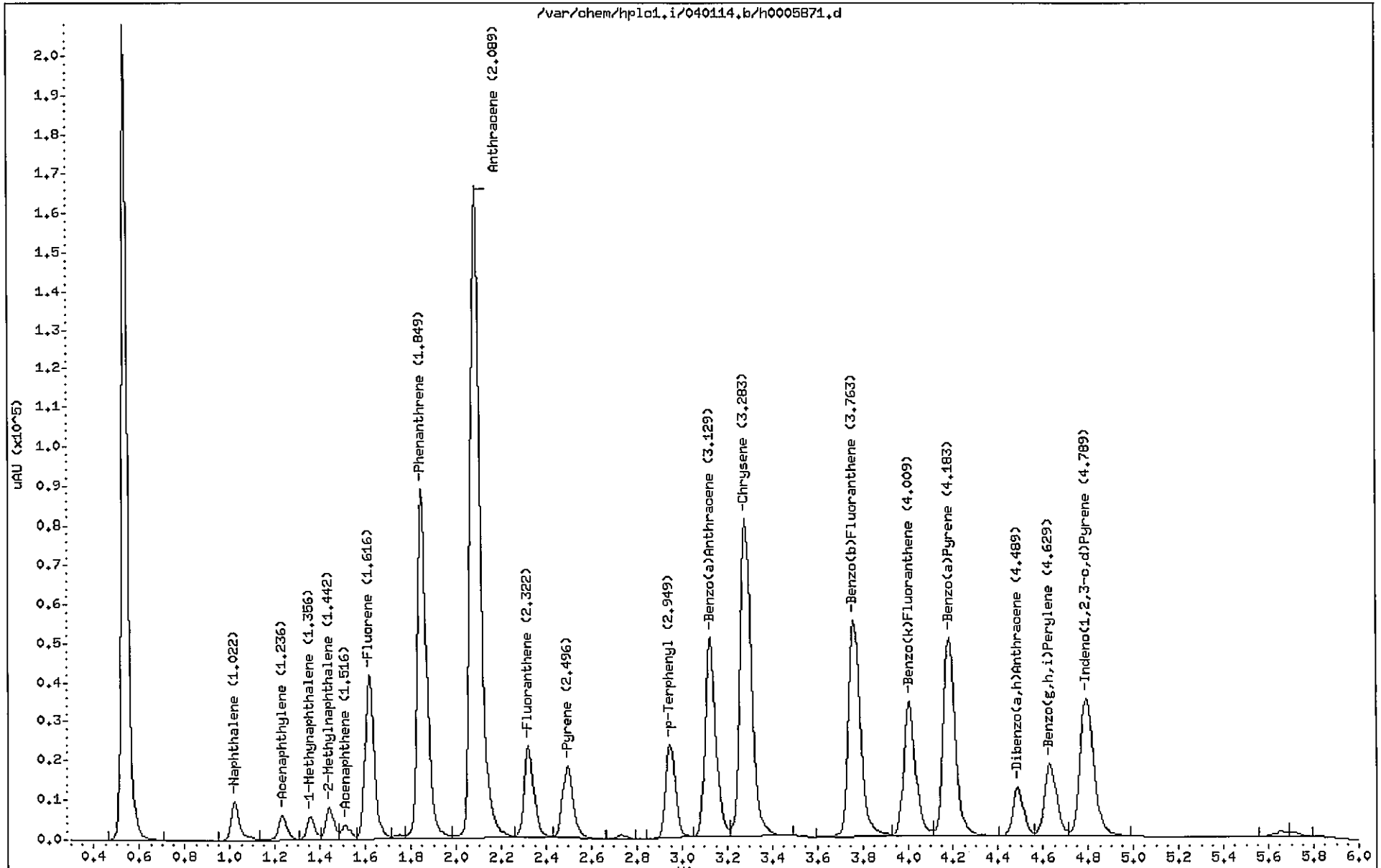
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
15 Benzo(k)Fluoranthene	4.009	4.094	-0.085	126305	10.0000	9.72
16 Benzo(a)Pyrene	4.183	4.281	-0.098	187434	10.0000	10.3
17 Dibenzo(a,h)Anthracene	4.489	4.607	-0.118	41593	10.0000	10.2
18 Benzo(g,h,i)Perylene	4.629	4.741	-0.112	69785	10.0000	10.4
19 Indeno(1,2,3-c,d)Pyrene	4.789	4.934	-0.145	149526	10.0000	10.2

Data File: /var/chem/hplc1.i/040114.b/h0005871.d
Date : 14-JAN-2004 15:17
Client ID: 0114STD07
Sample Info: 0114STD07
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000293



Gulf Coast Analytical Laboratories, Inc.

ata file : /var/chem/hplc1.i/040114.b/h0005870.d
ab Smp Id: 0114STD08 Client Smp ID: 0114STD08
nj Date : 14-JAN-2004 15:08
perator : jdt Inst ID: hplc1.i
mp Info : 0114STD08
isc Info : 4-1-7
omment :
ethod : /var/chem/hplc1.i/040114.b/flpnauv.m
eth Date : 09-Feb-2004 16:03 jdt Quant Type: ESTD
al Date : 14-JAN-2004 15:08 Cal File: h0005870.d
ls bottle: 1 Calibration Sample, Level: 8
il Factor: 1.00000
ntegrator: Falcon Compound Sublist: all.sub
arget Version: 3.50

oncentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

pnd Variable Local Compound Variable

					AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
ompounds	RT	EXP RT	DLT RT	RESPONSE		
1 Naphthalene	1.027	1.028	-0.001	50534	20.0000	21.0
2 Acenaphthylene	1.240	1.242	-0.002	37127	20.0000	21.8
3 1-Methynaphthalene	1.367	1.363	0.004	30307	20.0000	21.5
4 2-Methylnaphthalene	1.453	1.449	0.004	43474	20.0000	21.6
5 Acenaphthene	1.520	1.522	-0.002	21710	20.0000	20.1
6 Fluorene	1.633	1.614	0.019	240296	20.0000	20.6
7 Phenanthrene	1.873	1.874	-0.001	523553	20.0000	20.2
8 Anthracene	2.120	2.121	-0.001	981275	20.0000	18.5
9 Fluoranthene	2.360	2.368	-0.008	150097	20.0000	20.3
10 Pyrene	2.533	2.541	-0.008	128027	20.0000	21.0
11 p-Terphenyl	3.007	3.007	0.000	149150	20.0000	21.2
12 Benzo(a)Anthracene	3.193	3.194	-0.001	350871	20.0000	21.4
13 Chrysene	3.360	3.361	-0.001	582438	20.0000	21.8
14 Benzo(b)Fluoranthene	3.860	3.861	-0.001	421183	20.0000	19.8

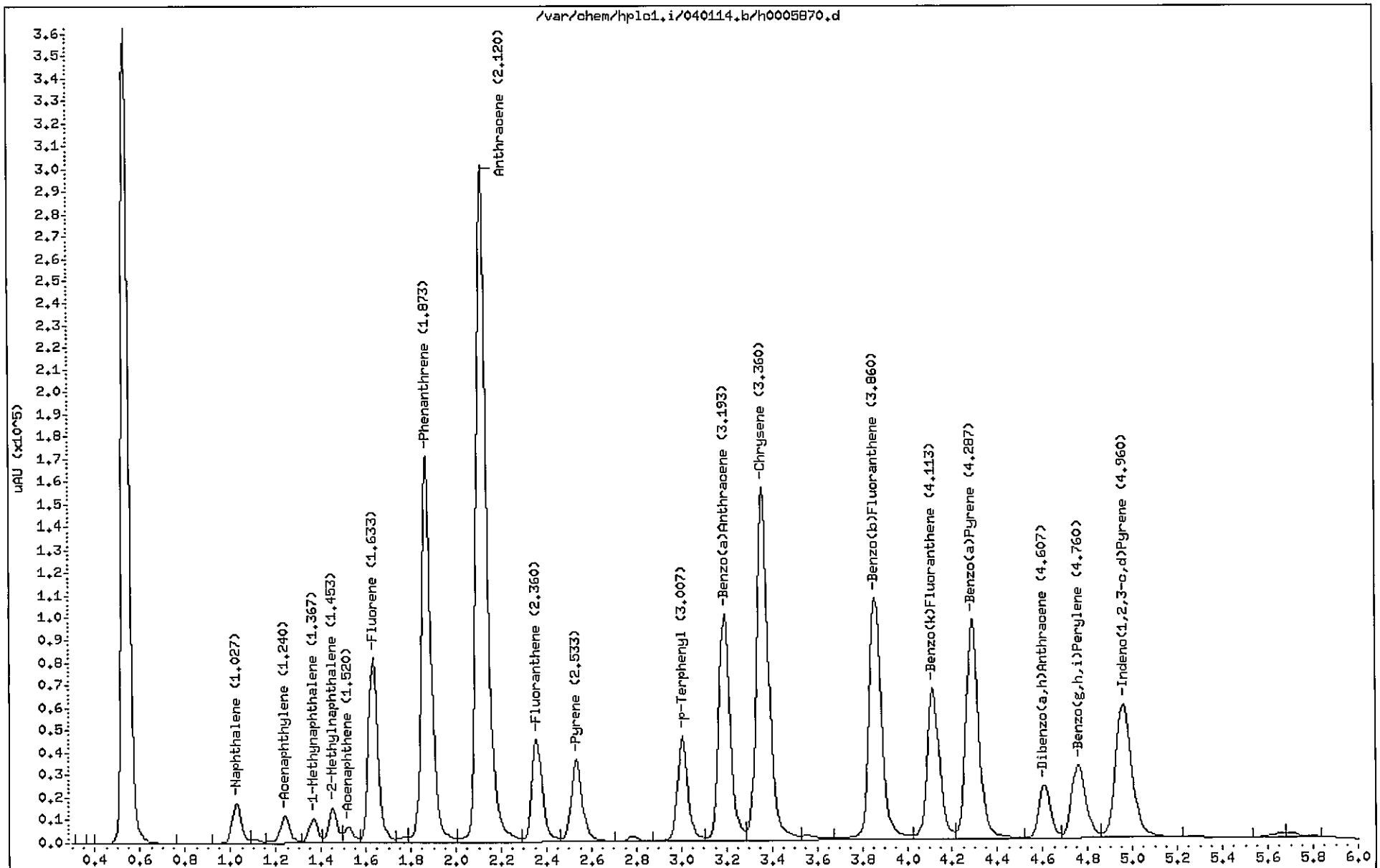
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
15 Benzo(k)Fluoranthene	4.113	4.094	0.019	257996	20.0000	19.9
16 Benzo(a)Pyrene	4.287	4.281	0.006	381844	20.0000	21.0
17 Dibenzo(a,h)Anthracene	4.607	4.607	0.000	84570	20.0000	20.8
18 Benzo(g,h,i)Perylene	4.760	4.741	0.019	143582	20.0000	21.3
19 Indeno(1,2,3-c,d)Pyrene	4.960	4.934	0.026	302398	20.0000	20.7

Data File: /var/chem/hplc1.i/040114.b/h0005870.d
Date : 14-JAN-2004 15:08
Client ID: 0114STD08
Sample Info: 0114STD08
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000296



Gulf Coast Analytical Laboratories, Inc.

ata file : /var/chem/hplc1.i/040114f.b/h0005877.d
ab Smp Id: 0114STD01 Client Smp ID: 0114STD01
nj Date : 14-JAN-2004 15:59
perator : jdt Inst ID: hplc1.i
mp Info : 0114STD01
isc Info : 4-1-14
omment :
ethod : /var/chem/hplc1.i/040114f.b/flpnafld.m
eth Date : 20-Feb-2004 13:17 lmc Quant Type: ESTD
al Date : 14-JAN-2004 15:59 Cal File: h0005877.d
ls bottle: 1 Calibration Sample, Level: 1
il Factor: 1.00000
ntegrator: Falcon Compound Sublist: all.sub
arget Version: 3.50

oncentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

pnd Variable Local Compound Variable

ompounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)
7 Phenanthrene	1.893	1.893	0.000	1943	0.10000	0.116(M)
8 Anthracene	2.133	2.133	0.000	759	0.10000	0.130(M)
9 Fluoranthene	2.383	2.383	0.000	584	0.10000	0.115(M)
10 Pyrene	2.560	2.560	0.000	3609	0.10000	0.105(M)
12 Benzo(a)Anthracene	3.210	3.210	0.000	2330	0.10000	0.0882(M)
13 Chrysene	3.373	3.373	0.000	226	0.10000	0.232(M)
14 Benzo(b)Fluoranthene	3.870	3.870	0.000	2468	0.10000	0.103(M)
15 Benzo(k)Fluoranthene	4.120	4.120	0.000	5601	0.10000	0.107(M)
16 Benzo(a)Pyrene	4.293	4.293	0.000	4643	0.10000	0.103(M)
17 Dibenzo(a,h)Anthracene	4.607	4.607	0.000	1793	0.10000	0.104(M)
18 Benzo(g,h,i)Perylene	4.760	4.760	0.000	1392	0.10000	0.0944(M)

QC Flag Legend

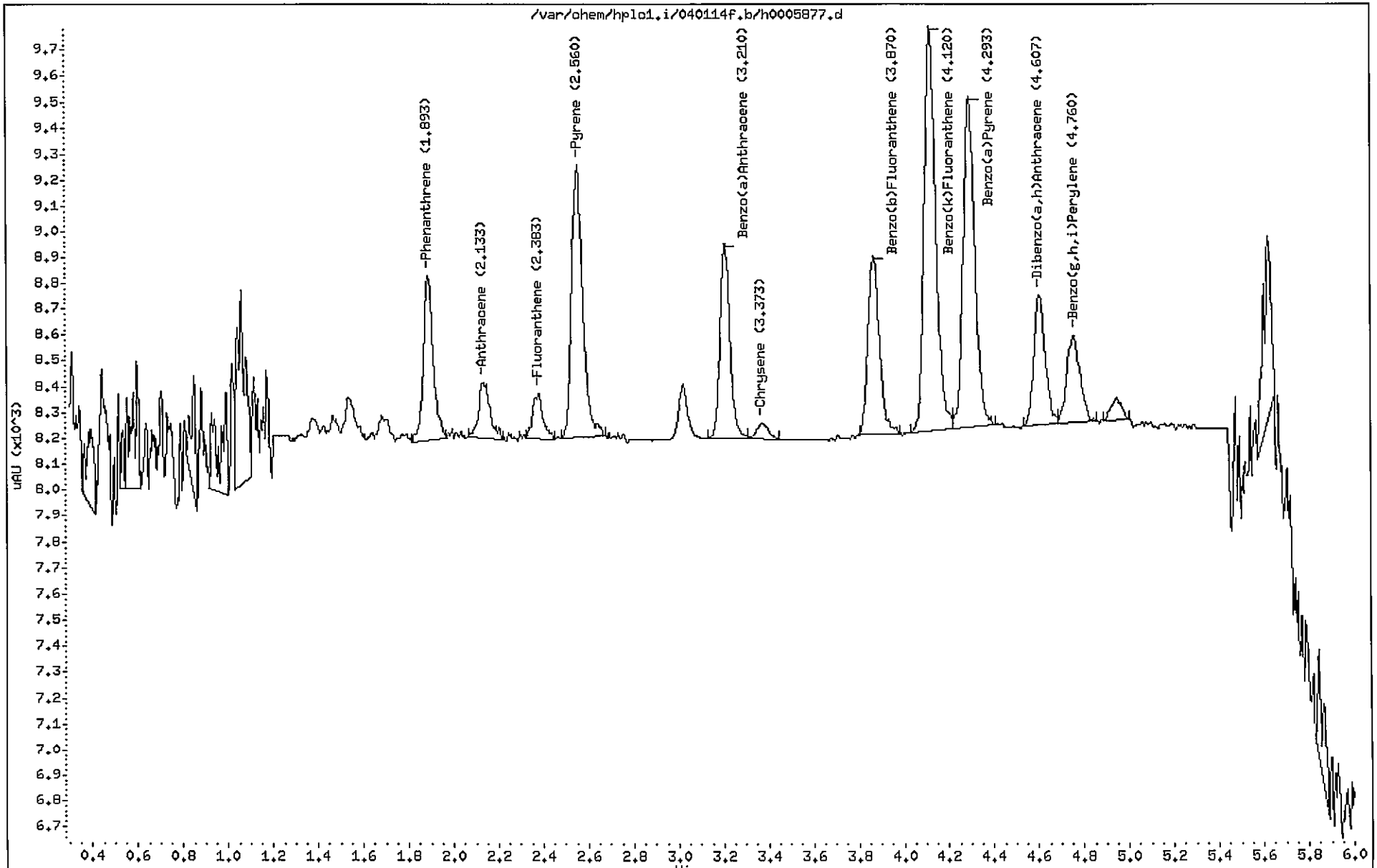
I - Compound response manually integrated.

Data File: /var/chem/hplc1.i/040114f.b/h0005877.d
Date : 14-JAN-2004 15:59
Client ID: 0114STD01
Sample Info: 0114STD01
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000299



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/040114f.b/h0005876.d
Lab Smp Id: 0114STD02 Client Smp ID: 0114STD02
Inj Date : 14-JAN-2004 15:52
Operator : jdt Inst ID: hplc1.i
Smp Info : 0114STD02
Misc Info : 4-1-13
Comment :
Method : /var/chem/hplc1.i/040114f.b/flpnafld.m
Meth Date : 20-Feb-2004 13:17 lmc Quant Type: ESTD
Cal Date : 14-JAN-2004 15:52 Cal File: h0005876.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.047	1.047	0.000	2689	0.25000	0.240(M)
7 Phenanthrene	1.877	1.893	-0.016	4195	0.25000	0.251(M)
8 Anthracene	2.120	2.133	-0.013	1344	0.25000	0.230
9 Fluoranthene	2.357	2.383	-0.026	1201	0.25000	0.236(M)
10 Pyrene	2.533	2.560	-0.027	8344	0.25000	0.243(M)
11 p-Terphenyl	2.997	2.997	0.000	1793	0.25000	0.207(M)
12 Benzo(a)Anthracene	3.183	3.210	-0.027	6228	0.25000	0.236(M)
13 Chrysene	3.347	3.373	-0.026	510	0.25000	0.304(M)
14 Benzo(b)Fluoranthene	3.843	3.870	-0.027	5790	0.25000	0.243(M)
15 Benzo(k)Fluoranthene	4.097	4.120	-0.023	13378	0.25000	0.255(M)
16 Benzo(a)Pyrene	4.273	4.293	-0.020	11233	0.25000	0.250(M)
17 Dibenzo(a,h)Anthracene	4.593	4.607	-0.014	4265	0.25000	0.247(M)
18 Benzo(g,h,i)Perylene	4.743	4.760	-0.017	3608	0.25000	0.245(M)
19 Indeno(1,2,3-c,d)Pyrene	4.930	4.930	0.000	1006	0.25000	0.228(M)

QC Flag Legend

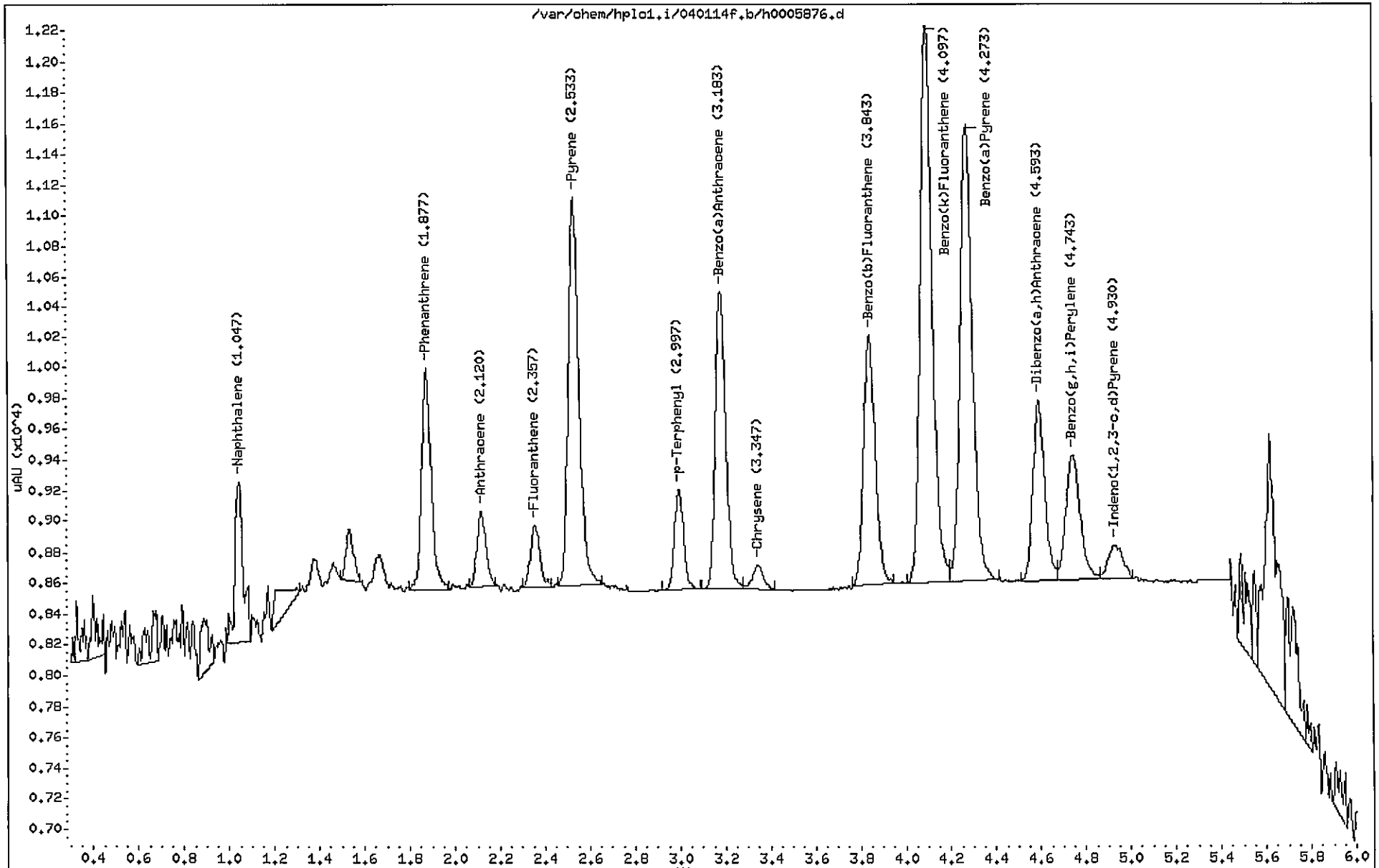
M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/040114f.b/h0005876.d
Date : 14-JAN-2004 15:52
Client ID: 0114STD02
Sample Info: 0114STD02
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000302



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/040114f.b/h0005875.d
Lab Smp Id: 0114STD03 Client Smp ID: 0114STD03
Inj Date : 14-JAN-2004 15:45
Operator : jdt Inst ID: hplc1.i
Smp Info : 0114STD03
Misc Info : 4-1-12
Comment :
Method : /var/chem/hplc1.i/040114f.b/flpnafld.m
Meth Date : 20-Feb-2004 13:17 lmc Quant Type: ESTD
Cal Date : 14-JAN-2004 15:45 Cal File: h0005875.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.037	1.047	-0.010	6320	0.50000	0.563(M)
7 Phenanthrene	1.860	1.893	-0.033	8373	0.50000	0.501(M)
8 Anthracene	2.097	2.133	-0.036	2902	0.50000	0.498
9 Fluoranthene	2.327	2.383	-0.056	2428	0.50000	0.476
10 Pyrene	2.500	2.560	-0.060	16376	0.50000	0.476
11 p-Terphenyl	2.950	2.997	-0.047	4061	0.50000	0.468
12 Benzo(a)Anthracene	3.130	3.210	-0.080	13101	0.50000	0.496
13 Chrysene	3.283	3.373	-0.090	1167	0.50000	0.471
14 Benzo(b)Fluoranthene	3.763	3.870	-0.107	11477	0.50000	0.481
15 Benzo(k)Fluoranthene	4.003	4.120	-0.117	26329	0.50000	0.503
16 Benzo(a)Pyrene	4.180	4.293	-0.113	22153	0.50000	0.493
17 Dibenzo(a,h)Anthracene	4.483	4.607	-0.124	8395	0.50000	0.487
18 Benzo(g,h,i)Perylene	4.630	4.760	-0.130	7058	0.50000	0.479
19 Indeno(1,2,3-c,d)Pyrene	4.787	4.930	-0.143	2002	0.50000	0.454

QC Flag Legend

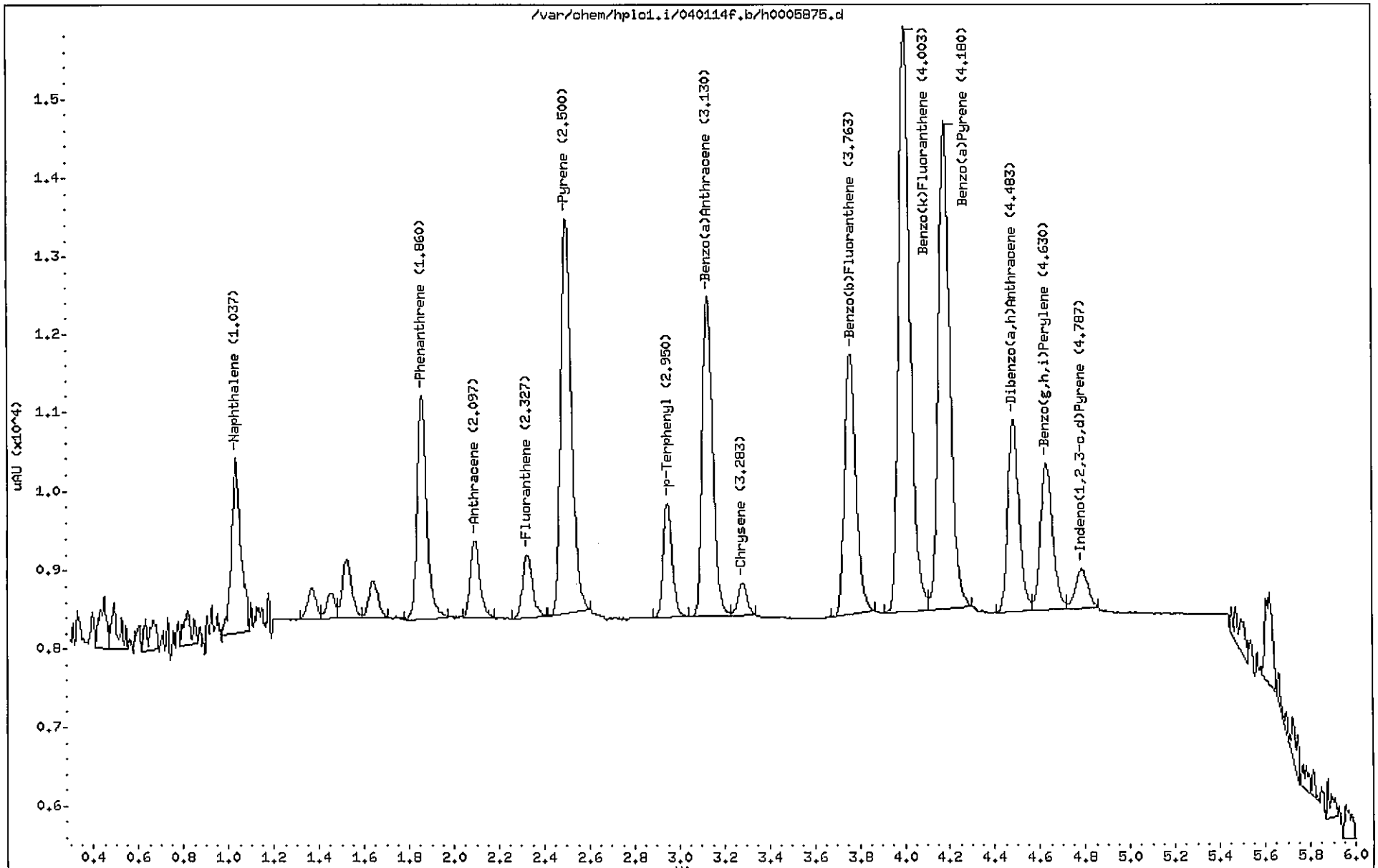
I - Compound response manually integrated.

Data File: /var/chem/hplc1.i/040114f.b/h0005875.d
Date : 14-JAN-2004 15:45
Client ID: 0114STD03
Sample Info: 0114STD03
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000305



Gulf Coast Analytical Laboratories, Inc.

ata file : /var/chem/hplc1.i/040114f.b/h0005874.d
ab Smp Id: 0114STD04 Client Smp ID: 0114STD04
nj Date : 14-JAN-2004 15:38
perator : jdt Inst ID: hplc1.i
mp Info : 0114STD04
isc Info : 4-1-11
omment :
ethod : /var/chem/hplc1.i/040114f.b/flpnafld.m
eth Date : 20-Feb-2004 13:17 lmc Quant Type: ESTD
al Date : 14-JAN-2004 15:38 Cal File: h0005874.d
ls bottle: 1 Calibration Sample, Level: 4
il Factor: 1.00000
ntegrator: Falcon Compound Sublist: all.sub
arget Version: 3.50

oncentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

pnd Variable Local Compound Variable

ompounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.040	1.047	-0.007	10282	1.00000	0.916(M)
3 1-Methynaphthalene	1.380	1.380	0.000	2178	1.00000	1.01
4 2-Methylnaphthalene	1.463	1.463	0.000	1687	1.00000	0.952
5 Acenaphthene	1.537	1.537	0.000	4383	1.00000	0.972
7 Phenanthrene	1.877	1.893	-0.016	16507	1.00000	0.987
8 Anthracene	2.120	2.133	-0.013	5521	1.00000	0.947
9 Fluoranthene	2.357	2.383	-0.026	4903	1.00000	0.962
10 Pyrene	2.530	2.560	-0.030	33687	1.00000	0.979
11 p-Terphenyl	2.987	2.997	-0.010	8652	1.00000	0.997
12 Benzo(a)Anthracene	3.167	3.210	-0.043	27027	1.00000	1.02
13 Chrysene	3.327	3.373	-0.046	2947	1.00000	0.923
14 Benzo(b)Fluoranthene	3.807	3.870	-0.063	23746	1.00000	0.995
15 Benzo(k)Fluoranthene	4.053	4.120	-0.067	53132	1.00000	1.01
16 Benzo(a)Pyrene	4.227	4.293	-0.066	44800	1.00000	0.996

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
17 Dibenzo(a,h)Anthracene	4.533	4.607	-0.074	16951	1.00000	0.983
18 Benzo(g,h,i)Perylene	4.680	4.760	-0.080	14283	1.00000	0.969
19 Indeno(1,2,3-c,d)Pyrene	4.843	4.930	-0.087	4049	1.00000	0.917

QC Flag Legend

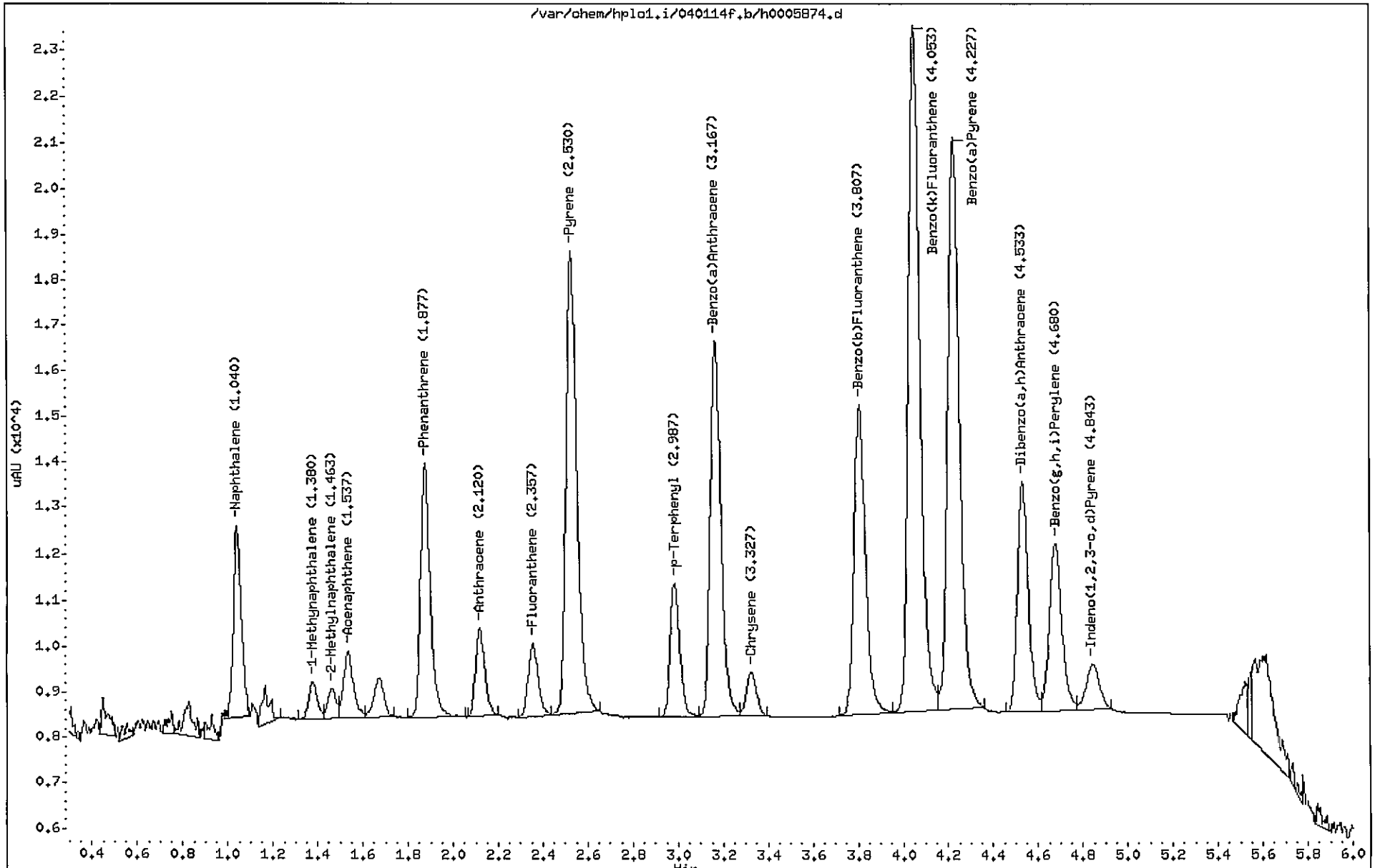
M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/040114f.b/h0005874.d
Date : 14-JAN-2004 15:38
Client ID: 0114STD04
Sample Info: 0114STD04
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000308



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/040114f.b/h0005873.d
Lab Smp Id: 0114STD05 Client Smp ID: 0114STD05
Inj Date : 14-JAN-2004 15:31
Operator : jdt Inst ID: hplc1.i
Smp Info : 0114STD05
Misc Info : 4-1-10
Comment :
Method : /var/chem/hplc1.i/040114f.b/flpnafld.m
Meth Date : 20-Feb-2004 13:17 lmc Quant Type: ESTD
Cal Date : 14-JAN-2004 15:31 Cal File: h0005873.d
Vials bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.043	1.047	-0.004	28918	2.50000	2.58
3 1-Methynaphthalene	1.383	1.380	0.003	5390	2.50000	2.50
4 2-Methylnaphthalene	1.470	1.463	0.007	4434	2.50000	2.50
5 Acenaphthene	1.540	1.537	0.003	11110	2.50000	2.46
7 Phenanthrene	1.887	1.893	-0.006	40231	2.50000	2.41
8 Anthracene	2.133	2.133	0.000	13969	2.50000	2.40
9 Fluoranthene	2.373	2.383	-0.010	12500	2.50000	2.45
10 Pyrene	2.550	2.560	-0.010	86561	2.50000	2.52
11 p-Terphenyl	3.020	2.997	0.023	22679	2.50000	2.61
12 Benzo(a)Anthracene	3.207	3.210	-0.003	69792	2.50000	2.64
13 Chrysene	3.373	3.373	0.000	8734	2.50000	2.39
14 Benzo(b)Fluoranthene	3.870	3.870	0.000	60052	2.50000	2.52
15 Benzo(k)Fluoranthene	4.127	4.120	0.007	134487	2.50000	2.57
16 Benzo(a)Pyrene	4.300	4.293	0.007	114924	2.50000	2.56

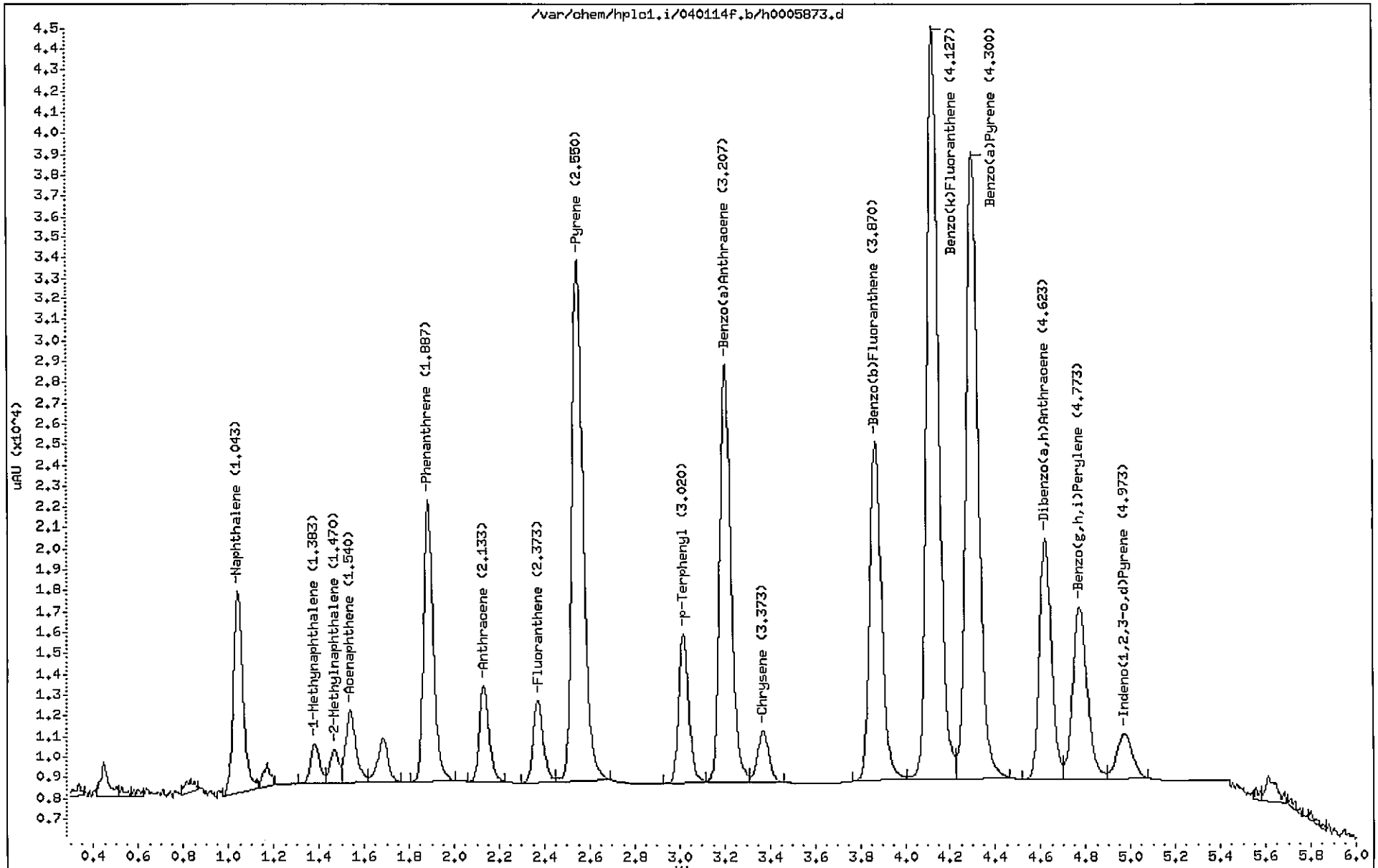
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
17 Dibenzo(a,h)Anthracene	4.623	4.607	0.016	43050	2.50000	2.50
18 Benzo(g,h,i)Perylene	4.773	4.760	0.013	37584	2.50000	2.55
19 Indeno(1,2,3-c,d)Pyrene	4.973	4.930	0.043	10775	2.50000	2.44

Data File: /var/chem/hplc1.i/040114f.b/h0005873.d
Date : 14-JAN-2004 15:31
Client ID: 0114STD05
Sample Info: 0114STD05
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000311



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/040114f.b/h0005872.d
Lab Smp Id: 0114STD06 Client Smp ID: 0114STD06
Inj Date : 14-JAN-2004 15:24
Operator : jdt Inst ID: hplc1.i
Smp Info : 0114STD06
Misc Info : 4-1-9
Comment :
Method : /var/chem/hplc1.i/040114f.b/flpnafld.m
Meth Date : 20-Feb-2004 13:17 lmc Quant Type: ESTD
Cal Date : 14-JAN-2004 15:24 Cal File: h0005872.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.037	1.047	-0.010	56954	5.00000	5.07
3 1-Methynaphthalene	1.370	1.380	-0.010	10751	5.00000	4.98
4 2-Methylnaphthalene	1.457	1.463	-0.006	9031	5.00000	5.09
5 Acenaphthene	1.527	1.537	-0.010	22735	5.00000	5.04
7 Phenanthrene	1.863	1.893	-0.030	80989	5.00000	4.84
8 Anthracene	2.100	2.133	-0.033	27888	5.00000	4.78
9 Fluoranthene	2.333	2.383	-0.050	25404	5.00000	4.98
10 Pyrene	2.507	2.560	-0.053	177792	5.00000	5.17
11 p-Terphenyl	2.963	2.997	-0.034	46410	5.00000	5.35
12 Benzo(a)Anthracene	3.143	3.210	-0.067	140004	5.00000	5.30
13 Chrysene	3.300	3.373	-0.073	18696	5.00000	4.92
14 Benzo(b)Fluoranthene	3.790	3.870	-0.080	121420	5.00000	5.09
15 Benzo(k)Fluoranthene	4.040	4.120	-0.080	270617	5.00000	5.17
16 Benzo(a)Pyrene	4.220	4.293	-0.073	233361	5.00000	5.19

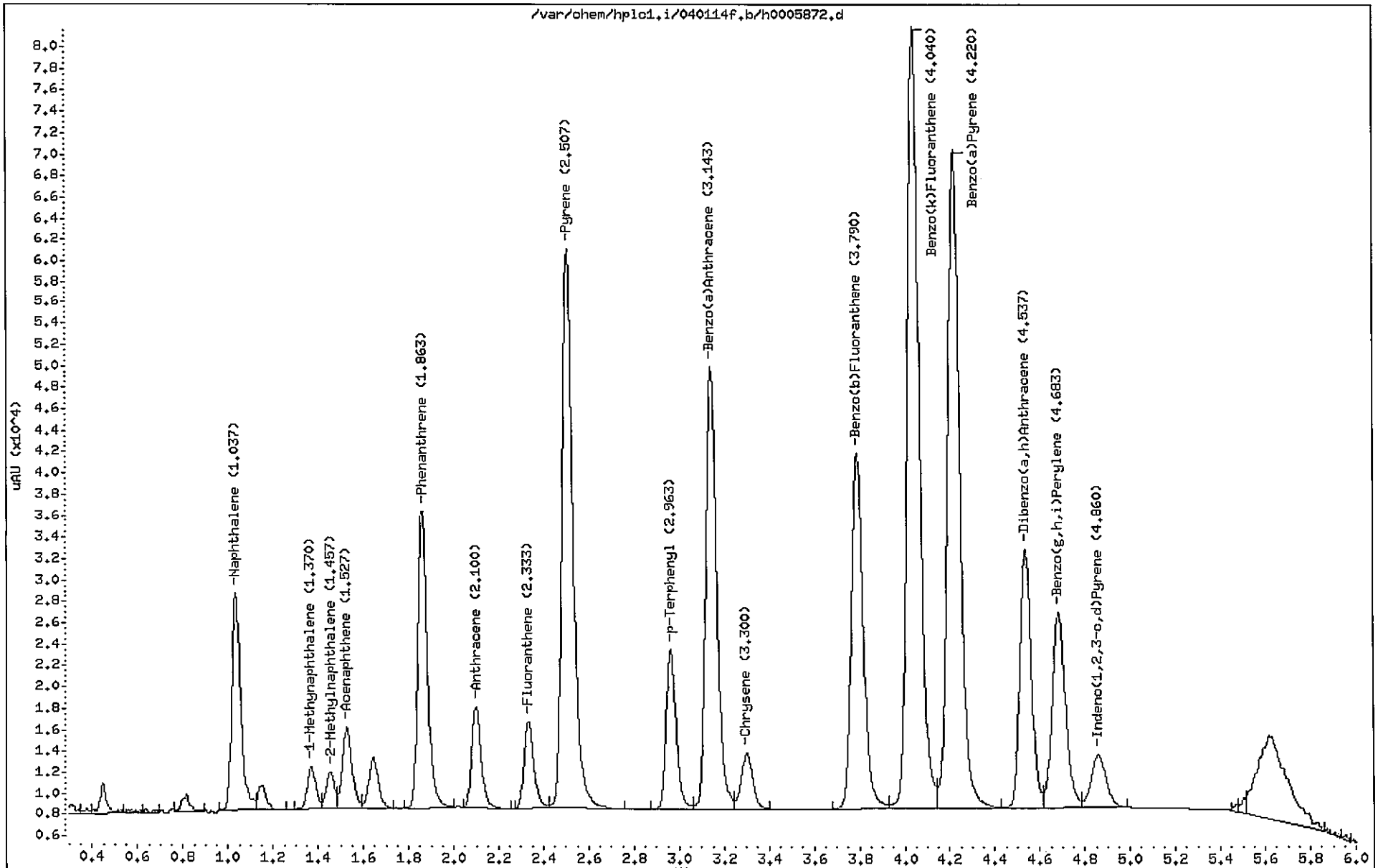
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
17 Dibenzo(a,h)Anthracene	4.537	4.607	-0.070	87041	5.00000	5.05
18 Benzo(g,h,i)Perylene	4.683	4.760	-0.077	75764	5.00000	5.14
19 Indeno(1,2,3-c,d)Pyrene	4.860	4.930	-0.070	23135	5.00000	5.24

Data File: /var/chem/hplc1.i/040114f.b/h0005872.d
Date : 14-JAN-2004 15:24
Client ID: 0114STD06
Sample Info: 0114STD06
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000314



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/040114f.b/h0005871.d
Lab Smp Id: 0114STD07 Client Smp ID: 0114STD07
Inj Date : 14-JAN-2004 15:17
Operator : jdt Inst ID: hplc1.i
Smp Info : 0114STD07
Misc Info : 4-1-8
Comment :
Method : /var/chem/hplc1.i/040114f.b/flpnafld.m
Meth Date : 20-Feb-2004 13:17 lmc Quant Type: ESTD
Cal Date : 14-JAN-2004 15:17 Cal File: h0005871.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.037	1.047	-0.010	111524	10.0000	9.94
3 1-Methynaphthalene	1.370	1.380	-0.010	21631	10.0000	10.0
4 2-Methylnaphthalene	1.457	1.463	-0.006	18231	10.0000	10.3
5 Acenaphthene	1.527	1.537	-0.010	46420	10.0000	10.3
7 Phenanthrene	1.863	1.893	-0.030	167591	10.0000	10.0
8 Anthracene	2.103	2.133	-0.030	58713	10.0000	10.1
9 Fluoranthene	2.337	2.383	-0.046	52862	10.0000	10.4
10 Pyrene	2.517	2.560	-0.043	346613	10.0000	10.1
11 p-Terphenyl	2.960	2.997	-0.037	92831	10.0000	10.7
12 Benzo(a)Anthracene	3.140	3.210	-0.070	276604	10.0000	10.5
13 Chrysene	3.297	3.373	-0.076	39212	10.0000	10.1
14 Benzo(b)Fluoranthene	3.773	3.870	-0.097	241913	10.0000	10.1
15 Benzo(k)Fluoranthene	4.040	4.120	-0.080	434439	10.0000	8.29
16 Benzo(a)Pyrene	4.210	4.293	-0.083	416245	10.0000	9.26

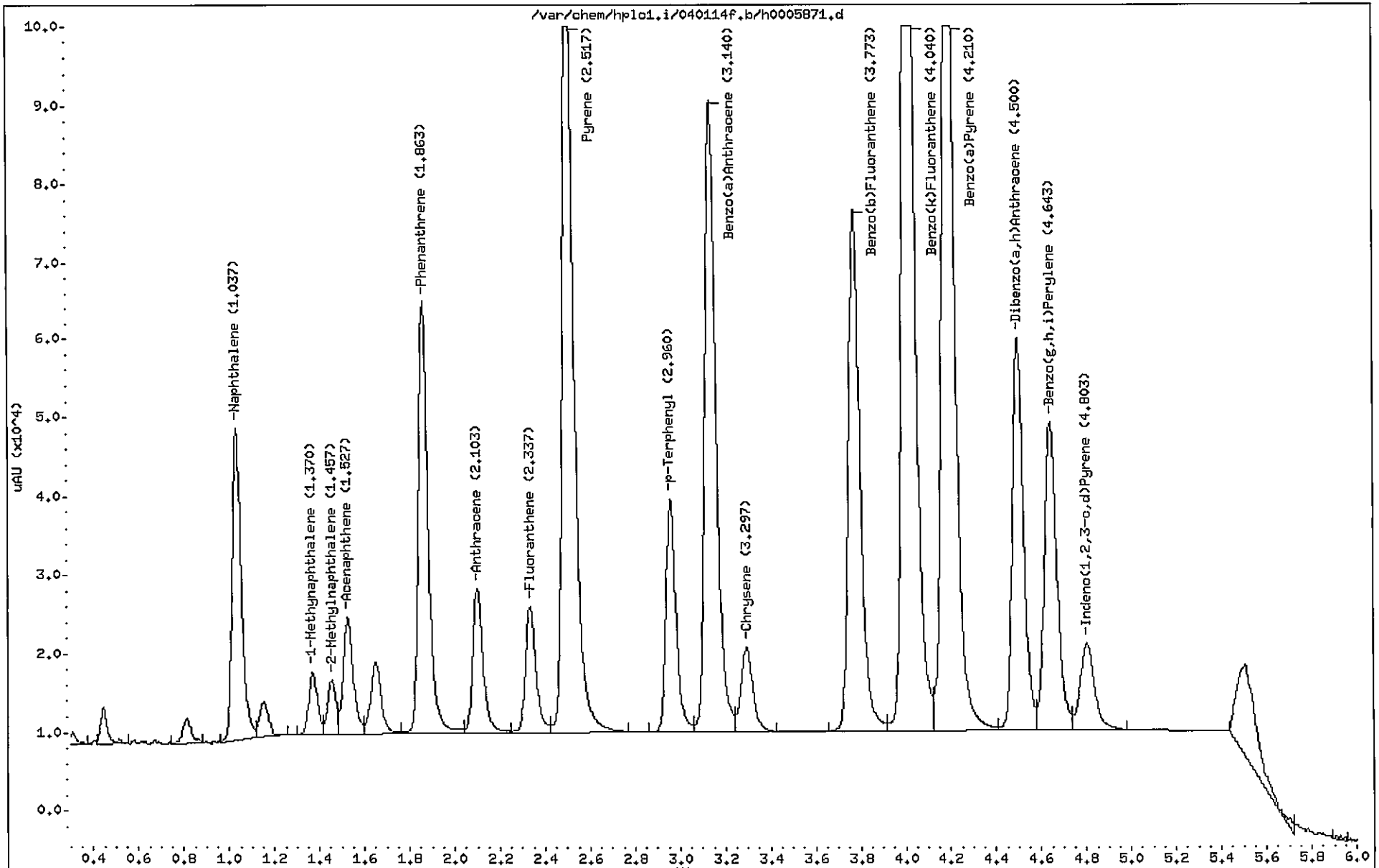
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
17 Dibenzo(a,h)Anthracene	4.500	4.607	-0.107	174232	10.0000	10.1
18 Benzo(g,h,i)Perylene	4.643	4.760	-0.117	153829	10.0000	10.4
19 Indeno(1,2,3-c,d)Pyrene	4.803	4.930	-0.127	49952	10.0000	11.3

Data File: /var/chem/hplc1.i/040114f.b/h0005871.d
Date : 14-JAN-2004 15:17
Client ID: 0114STD07
Sample Info: 0114STD07
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000317



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/040114f.b/h0005870.d
Lab Smp Id: 0114STD08 Client Smp ID: 0114STD08
Inj Date : 14-JAN-2004 15:08
Operator : jdt Inst ID: hplc1.i
Smp Info : 0114STD08
Misc Info : 4-1-7
Comment :
Method : /var/chem/hplc1.i/040114f.b/flpnafld.m
Meth Date : 20-Feb-2004 13:17 lmc Quant Type: ESTD
Cal Date : 14-JAN-2004 15:08 Cal File: h0005870.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.040	1.047	-0.007	215553	20.0000	19.2
3 1-Methynaphthalene	1.380	1.380	0.000	42999	20.0000	19.9
4 2-Methylnaphthalene	1.467	1.463	0.004	35484	20.0000	20.0
5 Acenaphthene	1.537	1.537	0.000	90545	20.0000	20.1
7 Phenanthrene	1.893	1.893	0.000	304410	20.0000	18.2
8 Anthracene	2.133	2.133	0.000	106464	20.0000	18.3
9 Fluoranthene	2.370	2.383	-0.013	100465	20.0000	19.7
10 Pyrene	2.573	2.560	0.013	472165	20.0000	13.7
11 p-Terphenyl	3.017	2.997	0.020	183445	20.0000	21.1
12 Benzo(a)Anthracene	3.227	3.210	0.017	427248	20.0000	16.2
13 Chrysene	3.370	3.373	-0.003	77888	20.0000	20.0
14 Benzo(b)Fluoranthene	3.890	3.870	0.020	417952	20.0000	17.5
15 Benzo(k)Fluoranthene	4.163	4.120	0.043	557601	20.0000	10.6
16 Benzo(a)Pyrene	4.337	4.293	0.044	551753	20.0000	12.3

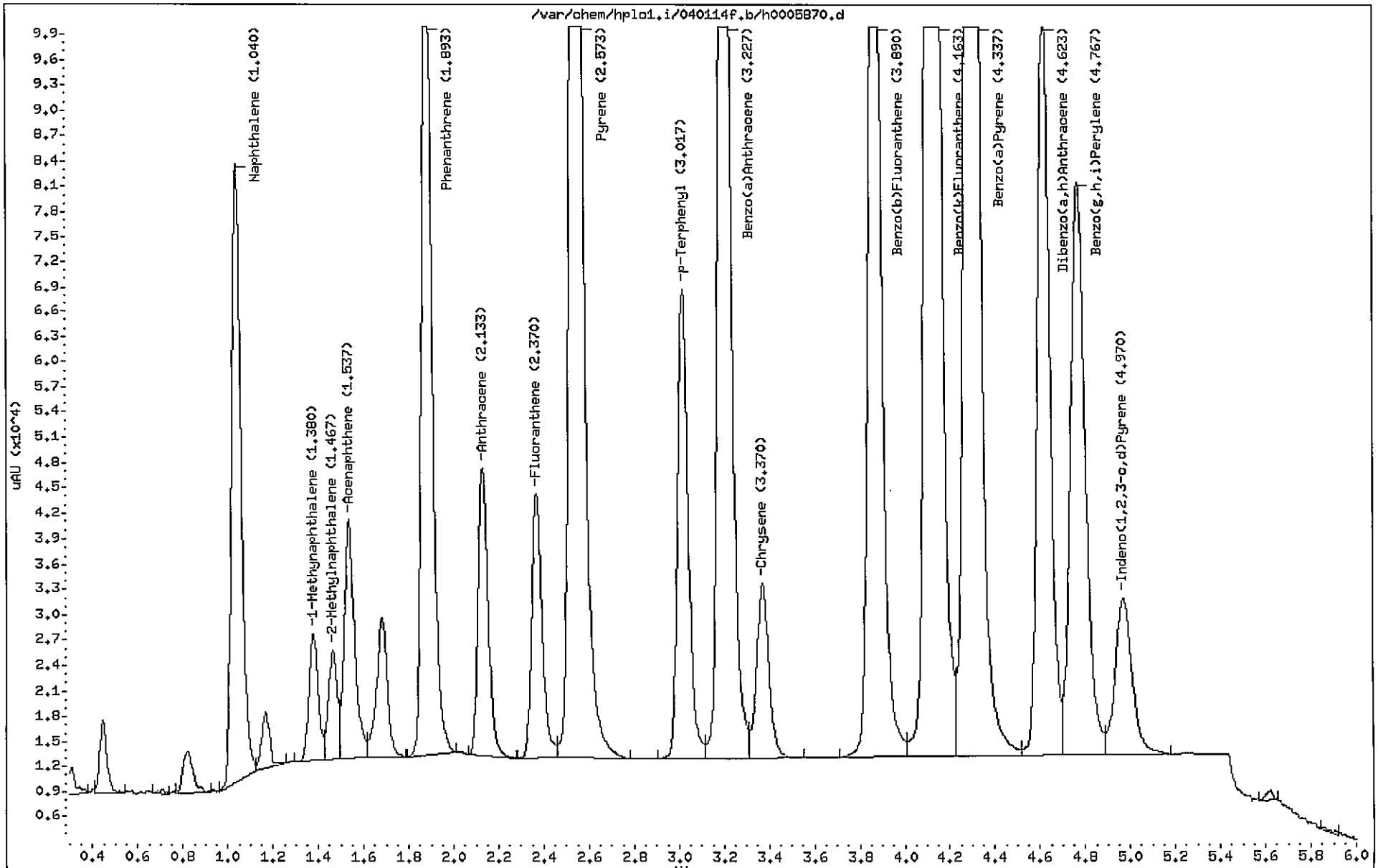
ompounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
17 Dibenzo(a,h)Anthracene	4.623	4.607	0.016	343263	20.0000	19.9
18 Benzo(g,h,i)Perylene	4.767	4.760	0.007	311753	20.0000	21.2
19 Indeno(1,2,3-c,d)Pyrene	4.970	4.930	0.040	97798	20.0000	22.2

Data File: /var/chem/hplc1.i/040114f.b/h0005870.d
Date : 14-JAN-2004 15:08
Client ID: 0114STD08
Sample Info: 0114STD08
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000320



Gulf Coast Analytical Laboratories, Inc.

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 0114PAHICV
Level: LOW
Data Type: LC DATA
SpikeList File: ICV.spk
Sublist File: all.sub
Method File: /var/chem/hplc1.i/040114.b/flpnauv.m
Misc Info: 3-47-8

Client SDG:
Fraction: OTHER
Client Smp ID: 0114PAHICV
Operator: jdt
SampleType: LCS
Quant Type: ESTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Naphthalene	5.00	5.28	105.58	80-120
2 Acenaphthylene	5.00	5.05	101.10	80-120
3 1-Methynaphthalene	10.0	11.5	115.30	80-120
4 2-Methylnaphthalen	10.0	10.2	102.08	80-120
5 Acenaphthene	10.0	9.72	97.24	80-120
6 Fluorene	1.00	1.04	103.63	80-120
7 Phenanthrene	0.400	0.413	103.32	80-120
8 Anthracene	0.200	0.204	101.94	80-120
9 Fluoranthene	0.500	0.483	96.53	80-120
10 Pyrene	1.00	0.921	92.13	80-120
12 Benzo(a)Anthracene	0.500	0.495	99.02	80-120
13 Chrysene	0.500	0.515	102.96	80-120
14 Benzo(b)Fluoranthe	0.200	0.202	101.12	80-120
15 Benzo(k)Fluoranthe	0.200	0.195	97.48	80-120
16 Benzo(a)Pyrene	0.500	0.496	99.28	80-120
17 Dibenzo(a,h)Anthra	2.00	2.05	102.28	80-120
18 Benzo(g,h,i)Peryle	0.800	0.821	102.64	80-120
19 Indeno(1,2,3-c,d)P	0.500	0.472	94.39	80-120

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 11 p-Terphenyl	4.00	4.22	105.54	40-140

Gulf Coast Analytical Laboratories, Inc.

ata file : /var/chem/hplc1.i/040114.b/h0005878.d
ab Smp Id: 0114PAHICV Client Smp ID: 0114PAHICV
nj Date : 14-JAN-2004 17:41
perator : jdt Inst ID: hplc1.i
mp Info : 0114PAHICV
isc Info : 3-47-8
omment :
ethod : /var/chem/hplc1.i/040114.b/flpnauv.m
eth Date : 09-Feb-2004 16:03 jdt Quant Type: ESTD
al Date : 14-JAN-2004 15:59 Cal File: h0005877.d
ls bottle: 1 QC Sample: LCS
il Factor: 1.00000
ntegrator: Falcon Compound Sublist: all.sub
arget Version: 3.50

oncentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

pnd Variable Local Compound Variable

	ompounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1	Naphthalene	1.032	1.028	0.004	12732	5.27922	5.28
2	Acenaphthylene	1.245	1.242	0.003	8618	5.05475	5.05
3	1-Methynaphthalene	1.372	1.363	0.009	16258	11.5303	11.5
4	2-Methylnaphthalene	1.458	1.449	0.009	20528	10.2081	10.2
5	Acenaphthene	1.525	1.522	0.003	10184	9.72432	9.72
6	Fluorene	1.638	1.614	0.024	12065	1.03632	1.04
7	Phenanthrene	1.878	1.874	0.004	10690	0.41328	0.413
8	Anthracene	2.125	2.121	0.004	10809	0.20389	0.204
9	Fluoranthene	2.365	2.368	-0.003	3574	0.48267	0.483
10	Pyrene	2.545	2.541	0.004	5611	0.92125	0.921
11	p-Terphenyl	3.018	3.007	0.011	29673	4.22158	4.22
12	Benzo(a)Anthracene	3.205	3.194	0.011	8130	0.49512	0.495
13	Chrysene	3.378	3.361	0.017	13756	0.51482	0.515
14	Benzo(b)Fluoranthene	3.878	3.861	0.017	4300	0.20224	0.202

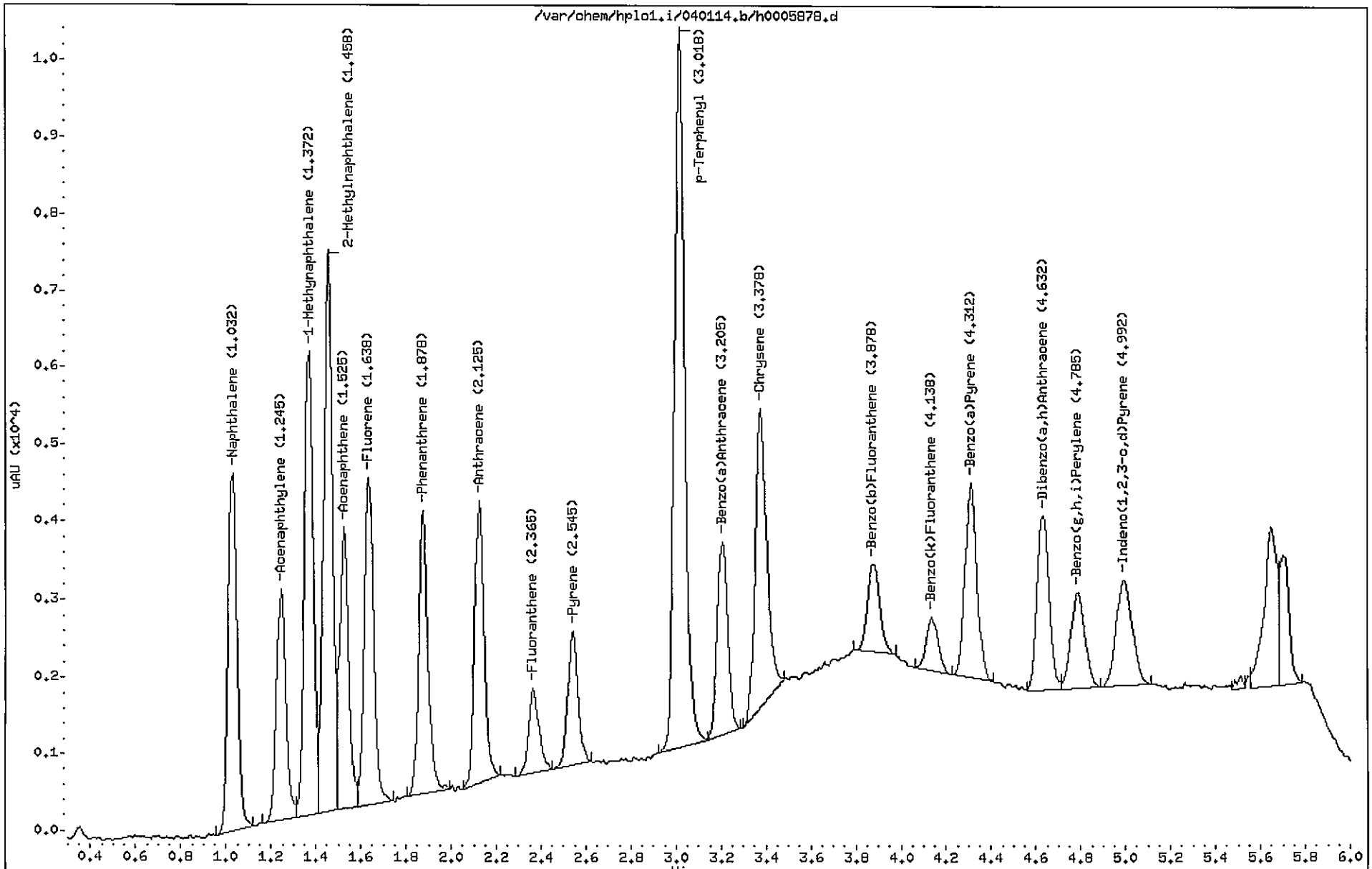
					CONCENTRATIONS	
					ON-COLUMN	FINAL
ompounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/L)
15 Benzo(k)Fluoranthene	4.138	4.094	0.044	2533	0.19495	0.195
16 Benzo(a)Pyrene	4.312	4.281	0.031	9008	0.49640	0.496
17 Dibenzo(a,h)Anthracene	4.632	4.607	0.025	8325	2.04556	2.05
18 Benzo(g,h,i)Perylene	4.785	4.741	0.044	5534	0.82114	0.821
19 Indeno(1,2,3-c,d)Pyrene	4.992	4.934	0.058	6900	0.47194	0.472

Data File: /var/chem/hplc1.i/040114.b/h0005878.d
Date : 14-JAN-2004 17:41
Client ID: 0114PAHICV
Sample Info: 0114PAHICV
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000324



Gulf Coast Analytical Laboratories, Inc.

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 0114PAHICV
Level: LOW
Data Type: LC DATA
SpikeList File: ICV.spk
Sublist File: all.sub
Method File: /var/chem/hplc1.i/040114f.b/flpnafld.m
Misc Info: 3-47-8

Client SDG:
Fraction: OTHER
Client Smp ID: 0114PAHICV
Operator: jdt
SampleType: LCS
Quant Type: ESTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Naphthalene	5.00	5.43	108.55	80-120
3 1-Methynaphthalene	10.0	11.6	115.79	80-120
4 2-Methylnaphthalen	10.0	10.6	105.89	80-120
5 Acenaphthene	10.0	10.6	105.97	80-120
7 Phenanthrene	0.400	0.417	104.27	80-120
8 Anthracene	0.200	0.204	102.12	80-120
9 Fluoranthene	0.500	0.485	97.07	80-120
10 Pyrene	1.00	1.12	111.52	80-120
12 Benzo(a)Anthracene	0.500	0.553	110.66	80-120
13 Chrysene	0.500	0.507	101.50	80-120
14 Benzo(b)Fluoranthe	0.200	0.193	96.43	80-120
15 Benzo(k)Fluoranthe	0.200	0.212	106.13	80-120
16 Benzo(a)Pyrene	0.500	0.538	107.66	80-120
17 Dibenzo(a,h)Anthra	2.00	2.19	109.57	80-120
18 Benzo(g,h,i)Peryle	0.800	0.948	118.50	80-120
19 Indeno(1,2,3-c,d)P	0.500	0.454	90.80	80-120

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 11 p-Terphenyl	4.00	4.46	111.41	40-140

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/hplc1.i/040114f.b/h0005878.d
Lab Smp Id: 0114PAHICV Client Smp ID: 0114PAHICV
Inj Date : 14-JAN-2004 17:41
Operator : jdt Inst ID: hplc1.i
Smp Info : 0114PAHICV
Misc Info : 3-47-8
Comment :
Method : /var/chem/hplc1.i/040114f.b/flpnafld.m
Meth Date : 12-Feb-2004 16:36 jdt Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 Naphthalene	1.043	1.047	-0.004	60917	5.42752	5.43(M)
3 1-Methynaphthalene	1.383	1.380	0.003	25005	11.5793	11.6(M)
4 2-Methylnaphthalene	1.470	1.463	0.007	18773	10.5895	10.6(M)
5 Acenaphthene	1.543	1.537	0.006	47780	10.5975	10.6(M)
7 Phenanthrene	1.893	1.893	0.000	6972	0.41707	0.417
8 Anthracene	2.140	2.133	0.007	1191	0.20424	0.204
9 Fluoranthene	2.380	2.383	-0.003	2475	0.48537	0.485
10 Pyrene	2.560	2.560	0.000	38356	1.11524	1.12
11 p-Terphenyl	3.033	2.997	0.036	38680	4.45659	4.46
12 Benzo(a)Anthracene	3.223	3.210	0.013	14625	0.55332	0.553
13 Chrysene	3.393	3.373	0.020	1310	0.50749	0.507
14 Benzo(b)Fluoranthene	3.893	3.870	0.023	4602	0.19286	0.193
15 Benzo(k)Fluoranthene	4.150	4.120	0.030	11119	0.21227	0.212
16 Benzo(a)Pyrene	4.323	4.293	0.030	24204	0.53832	0.538

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
17 Dibenzo(a,h)Anthracene	4.647	4.607	0.040	37788	2.19148	2.19(M)
18 Benzo(g,h,i)Perylene	4.803	4.760	0.043	13972	0.94799	0.948(M)
19 Indeno(1,2,3-c,d)Pyrene	5.007	4.930	0.077	2004	0.45402	0.454(M)

QC Flag Legend

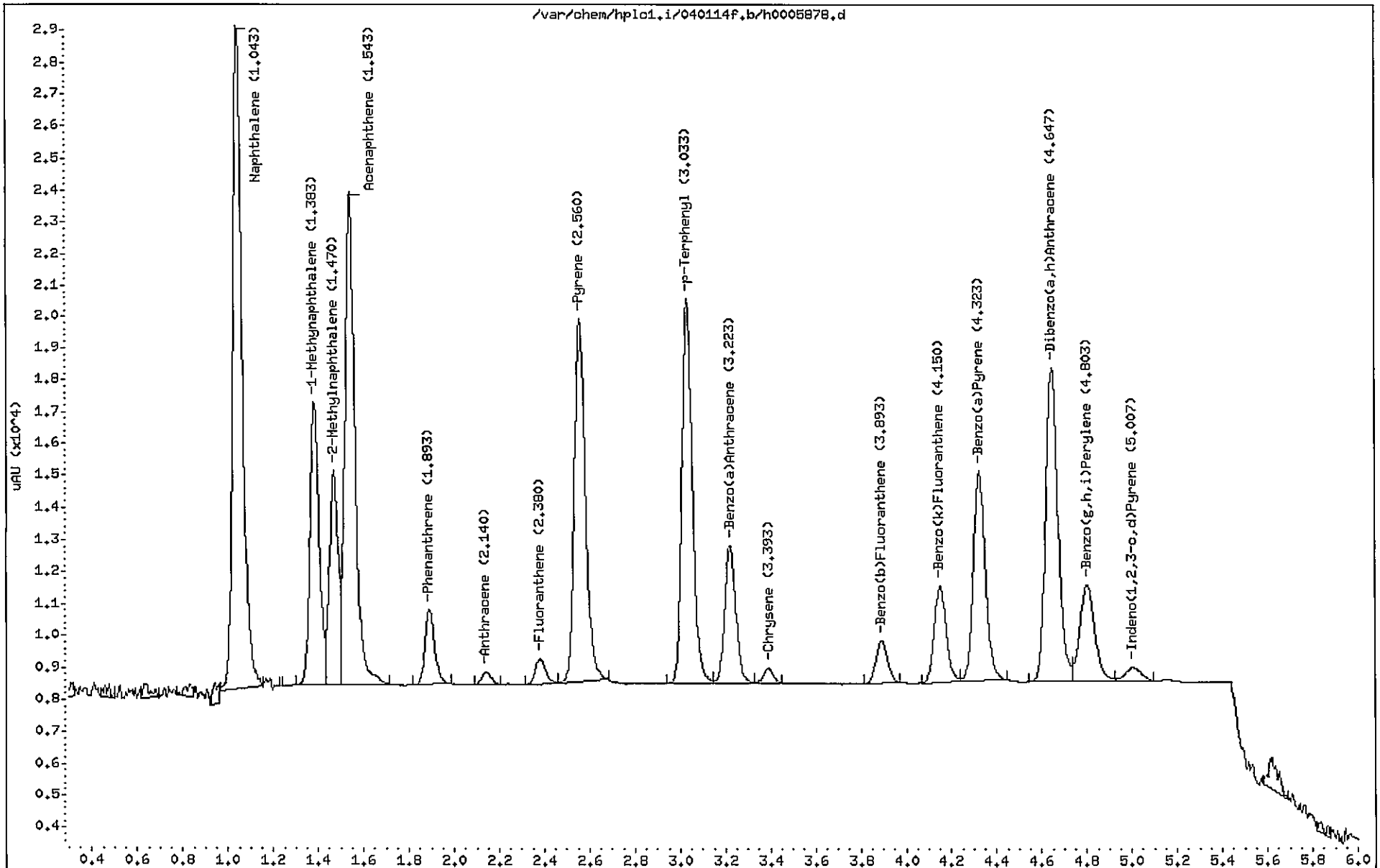
M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/040114f.b/h0005878.d
Date : 14-JAN-2004 17:41
Client ID: 0114PAHICV
Sample Info: 0114PAHICV
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: jdt
Column diameter: 2.10

000325



GCAL, Inc.

Data file : /var/chem/hplc1.i/040504.b/h0006455.d
Lab Smp Id: 0504CCV2.5 Client Smp ID: 0504CCV2.5
Inj Date : 04-MAY-2004 11:31
Operator : rlw Inst ID: hplc1.i
Smp Info : 0504CCV2.5
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040504.b/flpnauv.m
Meth Date : 04-May-2004 16:55 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.029	1.008	0.021	6597	2.50000	2.74
2 Acenaphthylene	1.242	1.222	0.020	4149	2.50000	2.43
3 1-Methynaphthalene	1.363	1.348	0.015	3253	2.50000	2.31
4 2-Methylnaphthalene	1.449	1.428	0.021	4698	2.50000	2.34
5 Acenaphthene	1.522	1.502	0.020	1799	2.50000	2.14
6 Fluorene	1.629	1.602	0.027	28483	2.50000	2.45(M)
7 Phenanthrene	1.869	1.835	0.034	62509	2.50000	2.42(M)
8 Anthracene	2.116	2.068	0.048	124807	2.50000	2.35(M)
9 Fluoranthene	2.356	2.302	0.054	17833	2.50000	2.41(M)
10 Pyrene	2.536	2.468	0.068	15214	2.50000	2.50(M)
11 p-Terphenyl	3.002	2.915	0.087	18303	2.50000	2.60(M)
12 Benzo(a)Anthracene	3.189	3.095	0.094	41976	2.50000	2.56(M)
13 Chrysene	3.349	3.242	0.107	70885	2.50000	2.65(M)
14 Benzo(b)Fluoranthene	3.842	3.722	0.120	56616	2.50000	2.66(M)

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
15 Benzo(k)Fluoranthene	4.089	3.962	0.127	33742	2.50000	2.60(M)
16 Benzo(a)Pyrene	4.263	4.135	0.128	46428	2.50000	2.56(M)
17 Dibenzo(a,h)Anthracene	4.562	4.442	0.120	10155	2.50000	2.50(M)
18 Benzo(g,h,i)Perylene	4.709	4.588	0.121	16565	2.50000	2.46(M)
19 Indeno(1,2,3-c,d)Pyrene	4.889	4.742	0.147	34322	2.50000	2.35(M)

QC Flag Legend

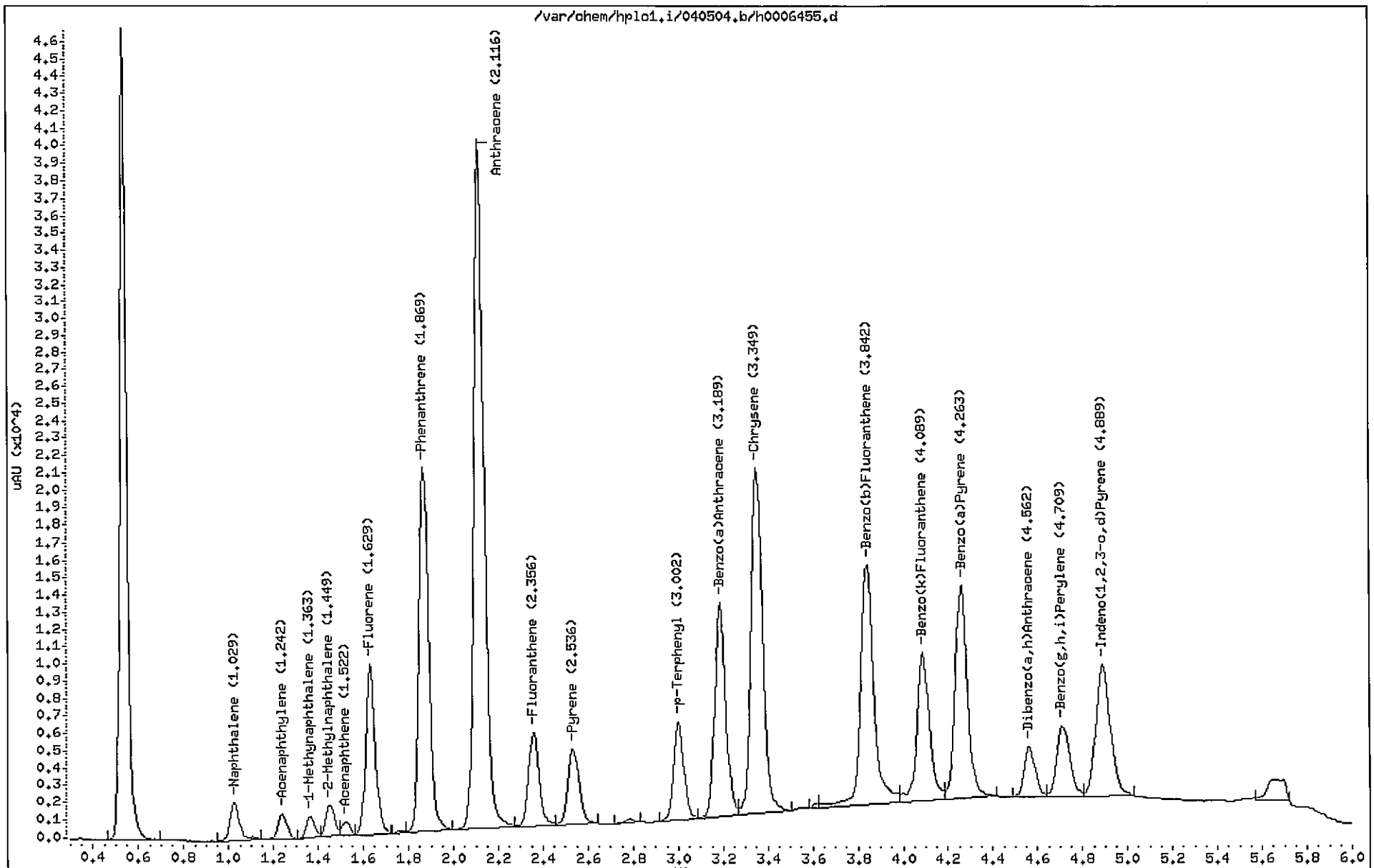
M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/040504.b/h0006455.d
Date : 04-MAY-2004 11:31
Client ID: 0504CCV2.5
Sample Info: 0504CCV2.5
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: rlw
Column diameter: 2.10

000331



GCAL, Inc.

Data file : /var/chem/hplc1.i/040504.b/h0006467.d
Lab Smp Id: 0504CCV2.5 Client Smp ID: 0504CCV2.5
Inj Date : 04-MAY-2004 13:42
Operator : rlw Inst ID: hplc1.i
Smp Info : 0504CCV2.5
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040504.b/flpnauv.m
Meth Date : 04-May-2004 16:55 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.008	1.008	0.000	6664	2.50000	2.76
2 Acenaphthylene	1.222	1.222	0.000	3965	2.50000	2.33
3 1-Methynaphthalene	1.348	1.348	0.000	3323	2.50000	2.36
4 2-Methylnaphthalene	1.428	1.428	0.000	4682	2.50000	2.33
5 Acenaphthene	1.502	1.502	0.000	1940	2.50000	2.27
6 Fluorene	1.602	1.602	0.000	28496	2.50000	2.45
7 Phenanthrene	1.835	1.835	0.000	61617	2.50000	2.38(M)
8 Anthracene	2.068	2.068	0.000	122851	2.50000	2.32(M)
9 Fluoranthene	2.302	2.302	0.000	17563	2.50000	2.37(M)
10 Pyrene	2.468	2.468	0.000	15016	2.50000	2.47(M)
11 p-Terphenyl	2.915	2.915	0.000	19381	2.50000	2.76(M)
12 Benzo(a)Anthracene	3.095	3.095	0.000	43815	2.50000	2.67(M)
13 Chrysene	3.242	3.242	0.000	73346	2.50000	2.74(M)
14 Benzo(b)Fluoranthene	3.722	3.722	0.000	50819	2.50000	2.39(M)

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
15 Benzo(k)Fluoranthene	3.962	3.962	0.000	30580	2.50000	2.35(M)
16 Benzo(a)Pyrene	4.135	4.135	0.000	45752	2.50000	2.52(M)
17 Dibenzo(a,h)Anthracene	4.442	4.442	0.000	10402	2.50000	2.56(M)
18 Benzo(g,h,i)Perylene	4.588	4.588	0.000	17027	2.50000	2.53(M)
19 Indeno(1,2,3-c,d)Pyrene	4.742	4.742	0.000	35750	2.50000	2.45(M)

QC Flag Legend

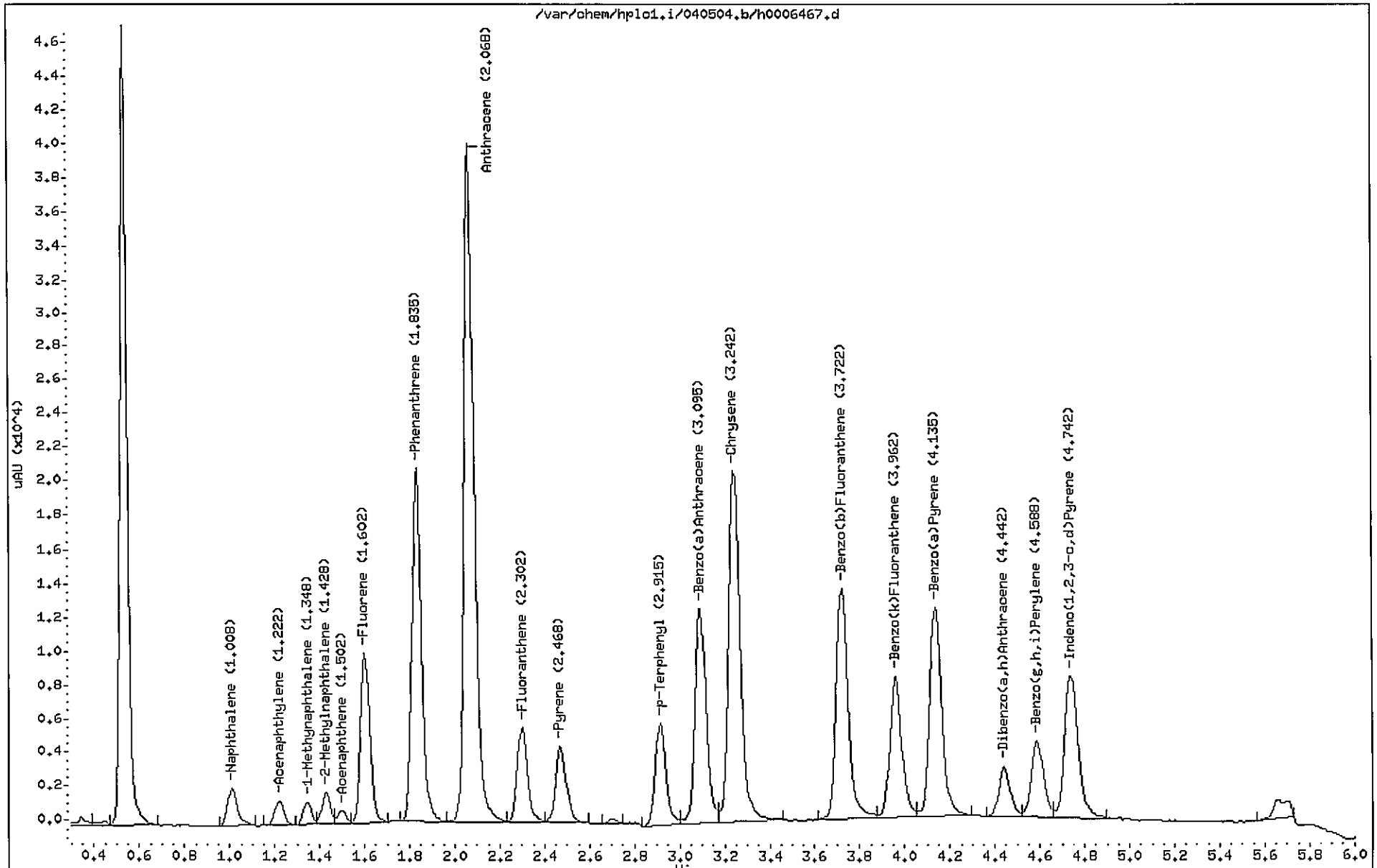
M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/040504.b/h0006467.d
Date : 04-MAY-2004 13:42
Client ID: 0504CCV2.5
Sample Info: 0504CCV2.5
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: rlw
Column diameter: 2.10

000334



GCAL, Inc.

Data file : /var/chem/hplc1.i/040504F.b/h0006455.d
Lab Smp Id: 0504CCV2.5 Client Smp ID: 0504CCV2.5
Inj Date : 04-MAY-2004 11:31
Operator : RLW Inst ID: hplc1.i
Smp Info : 0504CCV2.5
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040504F.b/flpnafld.m
Meth Date : 04-May-2004 16:50 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.043	1.027	0.016	26406	2.50000	2.35
3 1-Methynaphthalene	1.383	1.360	0.023	5146	2.50000	2.38
4 2-Methylnaphthalene	1.463	1.443	0.020	4177	2.50000	2.36
5 Acenaphthene	1.540	1.517	0.023	10711	2.50000	2.38(M)
7 Phenanthrene	1.887	1.847	0.040	38726	2.50000	2.32(M)
8 Anthracene	2.133	2.083	0.050	13767	2.50000	2.36(M)
9 Fluoranthene	2.373	2.313	0.060	13031	2.50000	2.56(M)
10 Pyrene	2.550	2.487	0.063	78365	2.50000	2.28(M)
11 p-Terphenyl	3.017	2.930	0.087	21624	2.50000	2.49(M)
12 Benzo(a)Anthracene	3.203	3.107	0.096	68002	2.50000	2.57(M)
13 Chrysene	3.363	3.257	0.106	8411	2.50000	2.31(M)
14 Benzo(b)Fluoranthene	3.853	3.733	0.120	57434	2.50000	2.41(M)
15 Benzo(k)Fluoranthene	4.100	3.970	0.130	129344	2.50000	2.47(M)
16 Benzo(a)Pyrene	4.273	4.150	0.123	107991	2.50000	2.40(M)

mpounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
17 Dibenzo(a,h)Anthracene	4.577	4.453	0.124	40629	2.50000	2.36(M)
18 Benzo(g,h,i)Perylene	4.727	4.600	0.127	33906	2.50000	2.30(M)
19 Indeno(1,2,3-c,d)Pyrene	4.900	4.750	0.150	10364	2.50000	2.35(M)

C Flag Legend

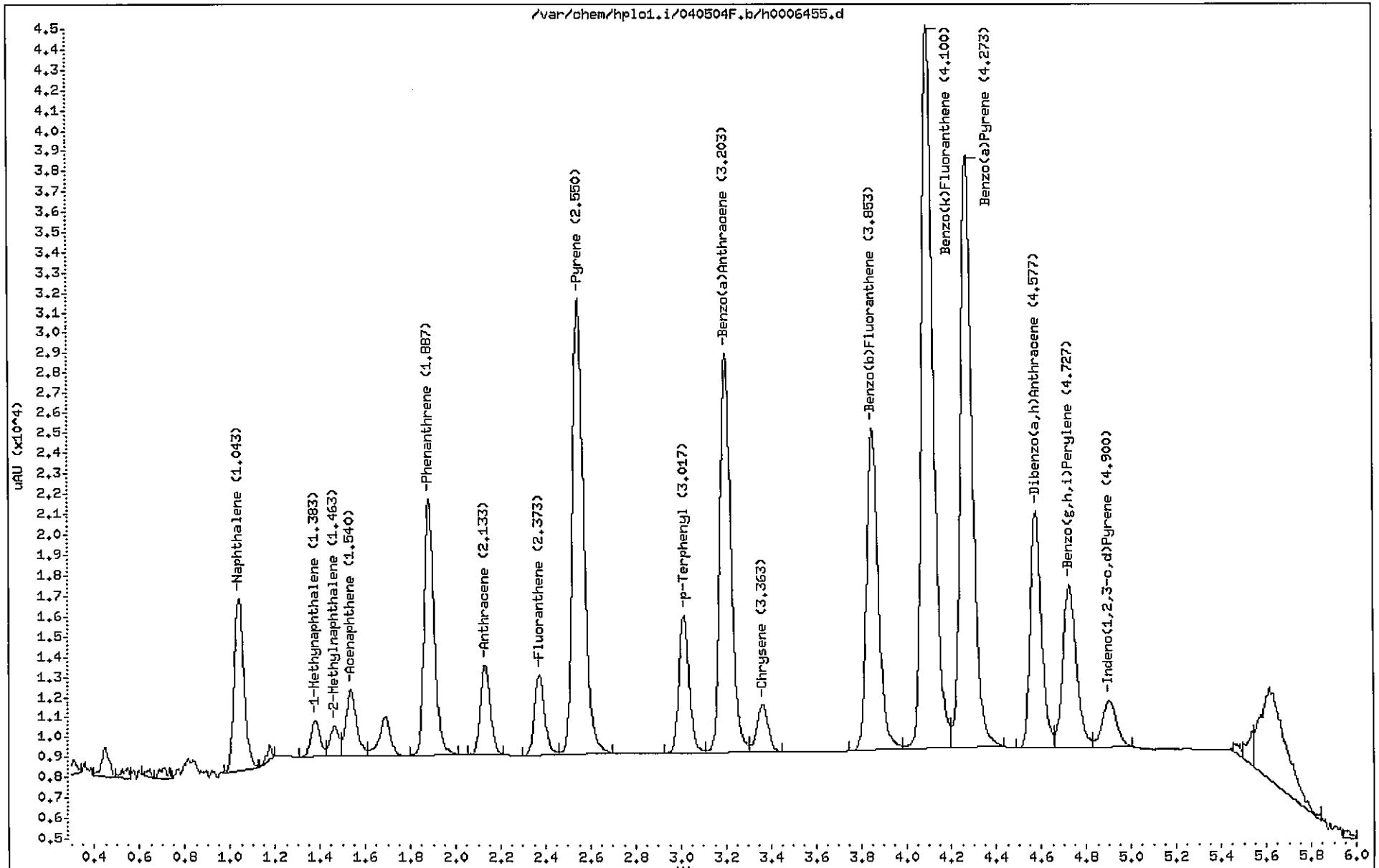
- Compound response manually integrated.

Data File: /var/chem/hplc1.i/040504F.b/h0006455.d
Date : 04-MAY-2004 11:31
Client ID: 0504CCV2.5
Sample Info: 0504CCV2.5
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: RLW
Column diameter: 2.10

000337



GCAL, Inc.

Data file : /var/chem/hplc1.i/040504F.b/h0006467.d
Lab Smp Id: 0504CCV2.5 Client Smp ID: 0504CCV2.5
Inj Date : 04-MAY-2004 13:42
Operator : RLW Inst ID: hplc1.i
Smp Info : 0504CCV2.5
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040504F.b/flpnafld.m
Meth Date : 04-May-2004 16:50 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Vials bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.027	1.027	0.000	27913	2.50000	2.49
3 1-Methynaphthalene	1.360	1.360	0.000	6030	2.50000	2.79
4 2-Methylnaphthalene	1.443	1.443	0.000	4972	2.50000	2.80
5 Acenaphthene	1.517	1.517	0.000	11308	2.50000	2.51
7 Phenanthrene	1.847	1.847	0.000	38094	2.50000	2.28(M)
8 Anthracene	2.083	2.083	0.000	13782	2.50000	2.36(M)
9 Fluoranthene	2.313	2.313	0.000	13001	2.50000	2.55(M)
10 Pyrene	2.487	2.487	0.000	77689	2.50000	2.26(M)
11 p-Terphenyl	2.930	2.930	0.000	21930	2.50000	2.53(M)
12 Benzo(a)Anthracene	3.107	3.107	0.000	67469	2.50000	2.55(M)
13 Chrysene	3.257	3.257	0.000	8499	2.50000	2.33(M)
14 Benzo(b)Fluoranthene	3.733	3.733	0.000	57374	2.50000	2.40(M)
15 Benzo(k)Fluoranthene	3.970	3.970	0.000	129772	2.50000	2.48(M)
16 Benzo(a)Pyrene	4.150	4.150	0.000	108689	2.50000	2.42(M)

ompounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
17 Dibenzo(a,h)Anthracene	4.453	4.453	0.000	40245	2.50000	2.33(M)
18 Benzo(g,h,i)Perylene	4.600	4.600	0.000	33386	2.50000	2.27(M)
19 Indeno(1,2,3-c,d)Pyrene	4.750	4.750	0.000	10898	2.50000	2.47(M)

C Flag Legend

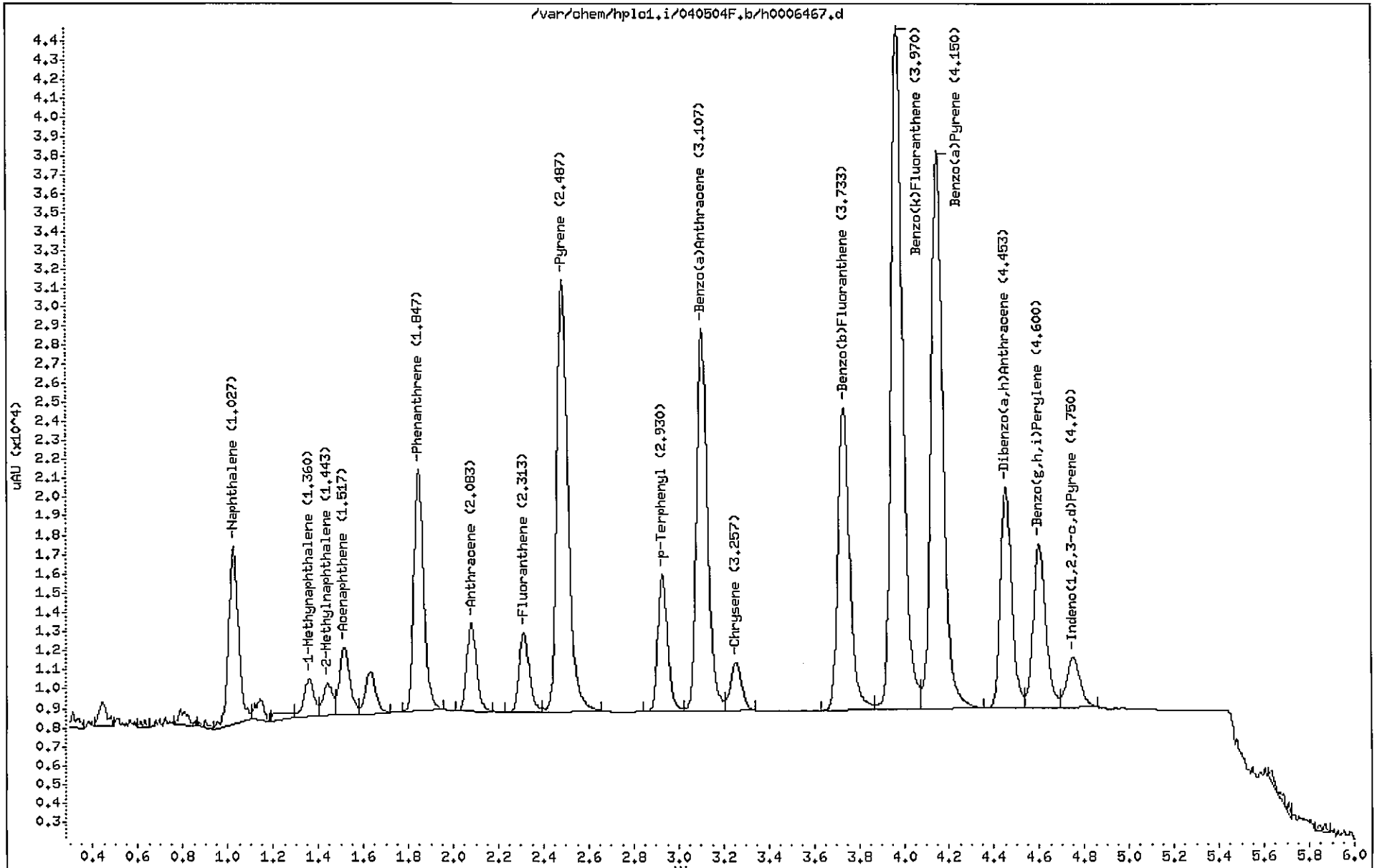
- Compound response manually integrated.

Data File: /var/chem/hplc1.i/040504F.b/h0006467.d
Date : 04-MAY-2004 13:42
Client ID: 0504CCV2.5
Sample Info: 0504CCV2.5
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: RLW
Column diameter: 2.10

000340



GCAL, Inc.

Data file : /var/chem/hplc1.i/040505.b/h0006471.d
Lab Smp Id: 0505CCV2.5 Client Smp ID: 0505CCV2.5
Inj Date : 05-MAY-2004 09:06
Operator : rlw Inst ID: hplc1.i
Smp Info : 0505CCV2.5
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040505.b/flpnauv.m
Meth Date : 05-May-2004 16:55 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.020	1.015	0.005	5641	2.50000	2.34(M)
2 Acenaphthylene	1.233	1.235	-0.002	4067	2.50000	2.39
3 1-Methynaphthalene	1.360	1.355	0.005	3459	2.50000	2.45
4 2-Methylnaphthalene	1.447	1.442	0.005	5173	2.50000	2.57
5 Acenaphthene	1.520	1.515	0.005	2301	2.50000	2.59
6 Fluorene	1.620	1.628	-0.008	29497	2.50000	2.53
7 Phenanthrene	1.860	1.868	-0.008	63541	2.50000	2.46
8 Anthracene	2.107	2.122	-0.015	124841	2.50000	2.35
9 Fluoranthene	2.340	2.362	-0.022	18243	2.50000	2.46
10 Pyrene	2.513	2.542	-0.029	15082	2.50000	2.48
11 p-Terphenyl	2.980	3.022	-0.042	18305	2.50000	2.60
12 Benzo(a)Anthracene	3.167	3.208	-0.041	42566	2.50000	2.59(M)
13 Chrysene	3.327	3.382	-0.055	71991	2.50000	2.69(M)
14 Benzo(b)Fluoranthene	3.827	3.882	-0.055	60062	2.50000	2.82

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
15 Benzo(k)Fluoranthene	4.080	4.142	-0.062	34189	2.50000	2.63(M)
16 Benzo(a)Pyrene	4.253	4.315	-0.062	46262	2.50000	2.55(M)
17 Dibenzo(a,h)Anthracene	4.567	4.635	-0.068	9737	2.50000	2.39(M)
18 Benzo(g,h,i)Perylene	4.720	4.788	-0.068	16491	2.50000	2.45(M)
19 Indeno(1,2,3-c,d)Pyrene	4.907	4.995	-0.088	35297	2.50000	2.41(M)

QC Flag Legend

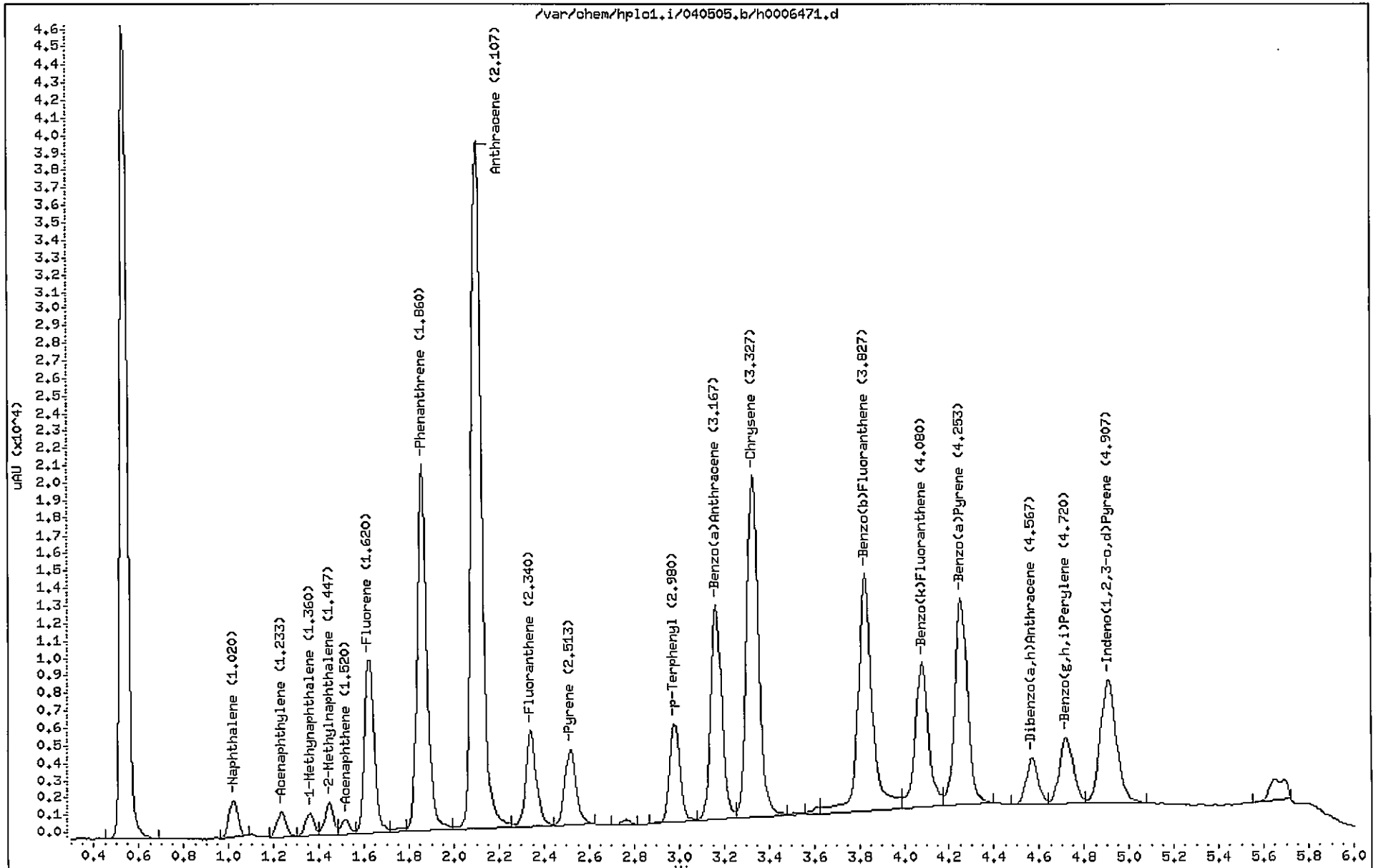
M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/040505.b/h0006471.d
Date : 05-MAY-2004 09:06
Client ID: 0505CCV2.5
Sample Info: 0505CCV2.5
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: rlw
Column diameter: 2.10

000343



GCAL, Inc.

Data file : /var/chem/hplc1.i/040505.b/h0006492.d
Lab Smp Id: 0505CCV2.5 Client Smp ID: 0505CCV2.5
Inj Date : 05-MAY-2004 12:47
Operator : rlw Inst ID: hplc1.i
Smp Info : 0505CCV2.5
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040505.b/flpnauv.m
Meth Date : 05-May-2004 16:55 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.012	1.015	-0.003	5542	2.50000	2.30
2 Acenaphthylene	1.226	1.235	-0.009	4238	2.50000	2.49
3 1-Methynaphthalene	1.346	1.355	-0.009	3523	2.50000	2.50
4 2-Methylnaphthalene	1.433	1.442	-0.009	4751	2.50000	2.36
5 Acenaphthene	1.506	1.515	-0.009	2042	2.50000	2.36
6 Fluorene	1.606	1.628	-0.022	28718	2.50000	2.47
7 Phenanthrene	1.839	1.868	-0.029	61816	2.50000	2.39
8 Anthracene	2.079	2.122	-0.043	122831	2.50000	2.32
9 Fluoranthene	2.312	2.362	-0.050	18178	2.50000	2.45
10 Pyrene	2.486	2.542	-0.056	15684	2.50000	2.58
11 p-Terphenyl	2.939	3.022	-0.083	18439	2.50000	2.62
12 Benzo(a)Anthracene	3.119	3.208	-0.089	42789	2.50000	2.61
13 Chrysene	3.272	3.382	-0.110	73076	2.50000	2.73
14 Benzo(b)Fluoranthene	3.752	3.882	-0.130	50617	2.50000	2.38

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
15 Benzo(k)Fluoranthene	3.993	4.142	-0.149	30454	2.50000	2.34
16 Benzo(a)Pyrene	4.166	4.315	-0.149	45093	2.50000	2.48
17 Dibenzo(a,h)Anthracene	4.473	4.635	-0.162	9133	2.50000	2.24(M)
18 Benzo(g,h,i)Perylene	4.619	4.788	-0.169	17070	2.50000	2.53(M)
19 Indeno(1,2,3-c,d)Pyrene	4.772	4.995	-0.223	36886	2.50000	2.52(M)

QC Flag Legend

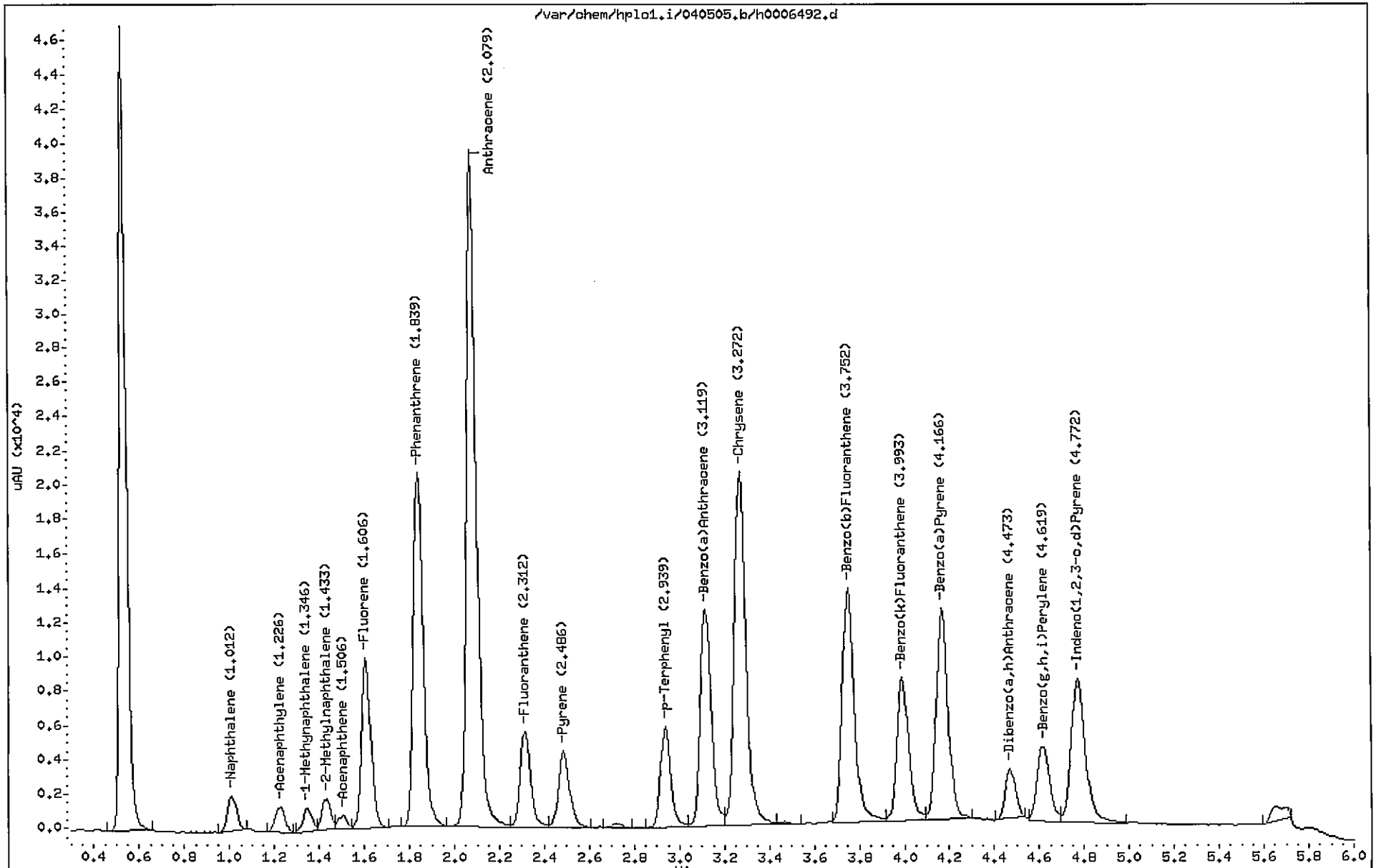
M - Compound response manually integrated.

000346

Data File: /var/chem/hplc1.i/040505.b/h0006492.d
Date : 05-MAY-2004 12:47
Client ID: 0505CCV2.5
Sample Info: 0505CCV2.5
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: rlw
Column diameter: 2.10



GCAL, Inc.

Data file : /var/chem/hplc1.i/040505F.b/h0006471.d
Lab Smp Id: 0505CCV2.5 Client Smp ID: 0505CCV2.5
Inj Date : 05-MAY-2004 09:06
Operator : RLW Inst ID: hplc1.i
Smp Info : 0505CCV2.5
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040505F.b/flpnafld.m
Meth Date : 05-May-2004 16:57 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.040	1.030	0.010	27958	2.50000	2.49
3 1-Methynaphthalene	1.373	1.370	0.003	5433	2.50000	2.52
4 2-Methylnaphthalene	1.460	1.457	0.003	4266	2.50000	2.41
5 Acenaphthene	1.533	1.530	0.003	11110	2.50000	2.46
7 Phenanthrene	1.877	1.883	-0.006	40600	2.50000	2.43
8 Anthracene	2.120	2.137	-0.017	14009	2.50000	2.40
9 Fluoranthene	2.360	2.377	-0.017	13250	2.50000	2.60
10 Pyrene	2.533	2.553	-0.020	90515	2.50000	2.63
11 p-Terphenyl	2.997	3.033	-0.036	22098	2.50000	2.55
12 Benzo(a)Anthracene	3.183	3.223	-0.040	71498	2.50000	2.71(M)
13 Chrysene	3.347	3.393	-0.046	8897	2.50000	2.44(M)
14 Benzo(b)Fluoranthene	3.840	3.897	-0.057	58957	2.50000	2.47
15 Benzo(k)Fluoranthene	4.093	4.157	-0.064	131715	2.50000	2.51(M)
16 Benzo(a)Pyrene	4.270	4.327	-0.057	113326	2.50000	2.52(M)

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
17 Dibenzo(a,h)Anthracene	4.583	4.647	-0.064	42309	2.50000	2.45(M)
18 Benzo(g,h,i)Perylene	4.733	4.803	-0.070	37544	2.50000	2.55(M)
19 Indeno(1,2,3-c,d)Pyrene	4.923	5.010	-0.087	10659	2.50000	2.41(M)

QC Flag Legend

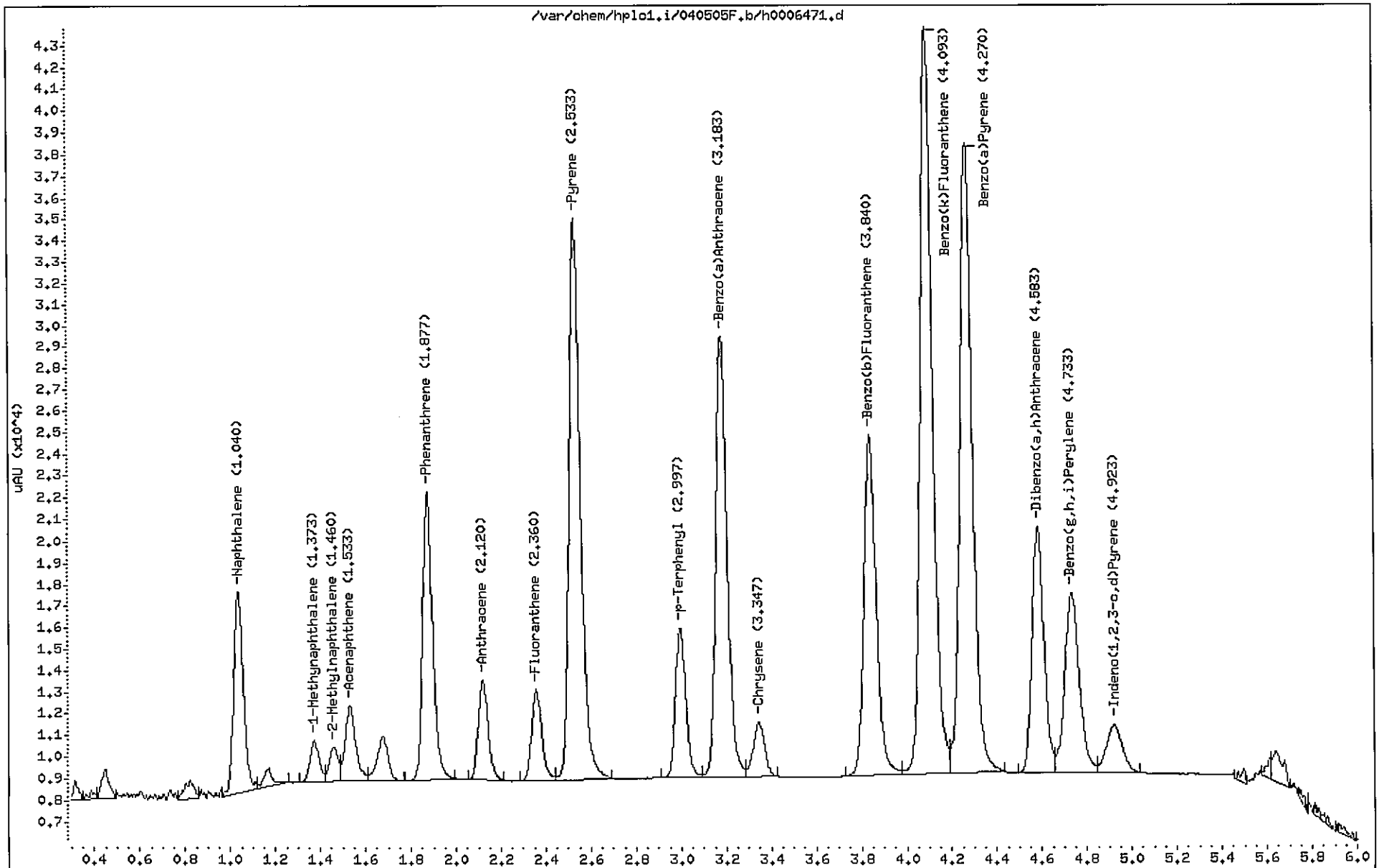
M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/040505F.b/h0006471.d
Date : 05-MAY-2004 09:06
Client ID: 0505CCV2.5
Sample Info: 0505CCV2.5
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: RLW
Column diameter: 2.10

000349



GCAL, Inc.

Data file : /var/chem/hplc1.i/040505F.b/h0006492.d
Lab Smp Id: 0505CCV2.5 Client Smp ID: 0505CCV2.5
Inj Date : 05-MAY-2004 12:47
Operator : RLW Inst ID: hplc1.i
Smp Info : 0505CCV2.5
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040505F.b/flpnafld.m
Meth Date : 05-May-2004 16:57 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
1 Naphthalene	1.023	1.030	-0.007	28477	2.50000	2.54
3 1-Methynaphthalene	1.363	1.370	-0.007	5033	2.50000	2.33
4 2-Methylnaphthalene	1.447	1.457	-0.010	4086	2.50000	2.31
5 Acenaphthene	1.517	1.530	-0.013	10594	2.50000	2.35
7 Phenanthrene	1.857	1.883	-0.026	38062	2.50000	2.28
8 Anthracene	2.093	2.137	-0.044	13873	2.50000	2.38
9 Fluoranthene	2.330	2.377	-0.047	12980	2.50000	2.55
10 Pyrene	2.500	2.553	-0.053	77237	2.50000	2.25
11 p-Terphenyl	2.953	3.033	-0.080	21840	2.50000	2.52
12 Benzo(a)Anthracene	3.130	3.223	-0.093	67189	2.50000	2.54
13 Chrysene	3.283	3.393	-0.110	8398	2.50000	2.31
14 Benzo(b)Fluoranthene	3.763	3.897	-0.134	57338	2.50000	2.40
15 Benzo(k)Fluoranthene	4.003	4.157	-0.154	129703	2.50000	2.48
16 Benzo(a)Pyrene	4.180	4.327	-0.147	107456	2.50000	2.39

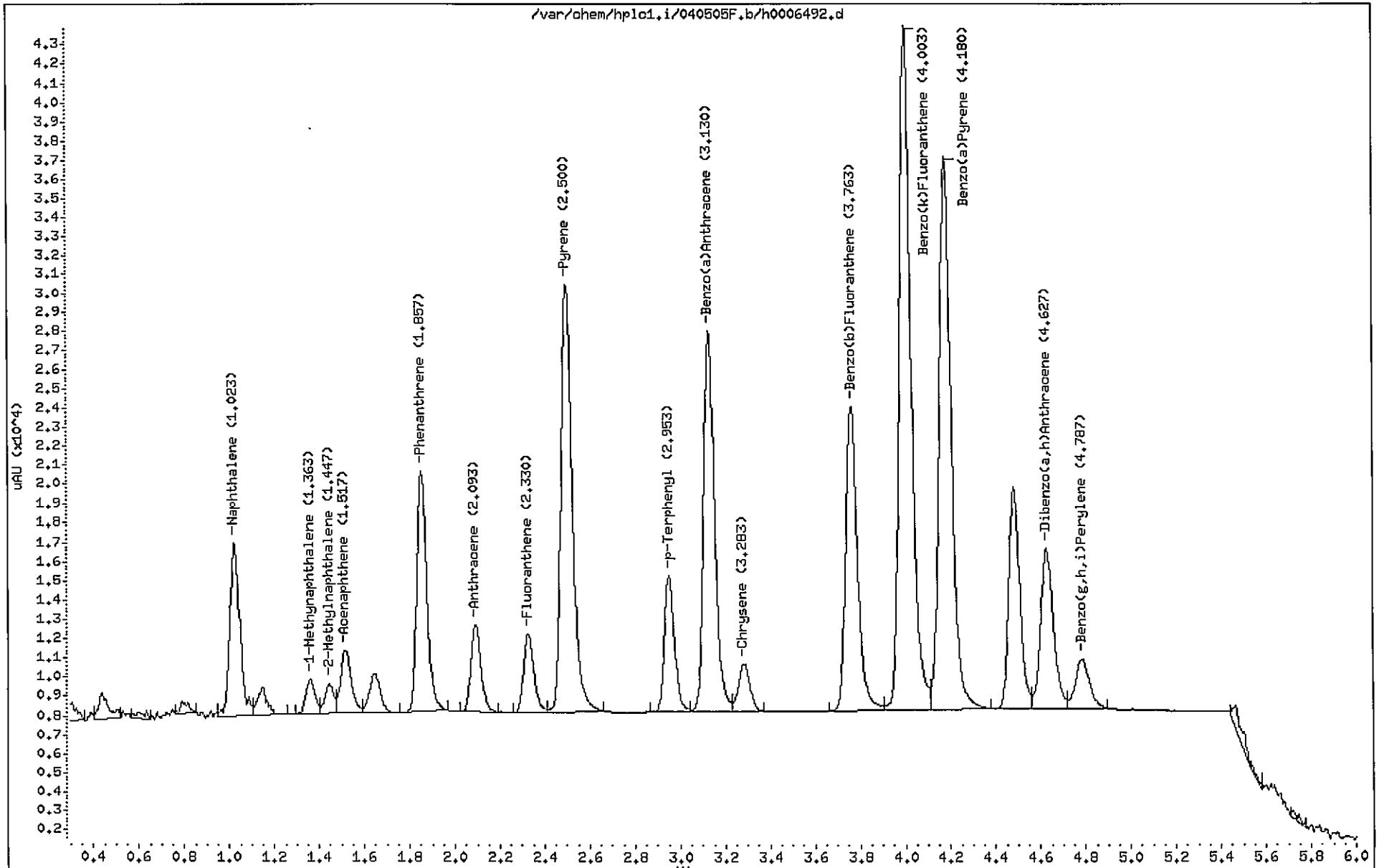
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
17 Dibenzo(a,h)Anthracene	4.627	4.647	-0.020	33030	2.50000	1.92
18 Benzo(g,h,i)Perylene	4.787	4.803	-0.016	10993	2.50000	0.746

Data File: /var/chem/hplc1.i/040505F.b/h0006492.d
Date : 05-MAY-2004 12:47
Client ID: 0505CCV2.5
Sample Info: 0505CCV2.5
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: RLW
Column diameter: 2.10

000352



GCAL, Inc.

Data file : /var/chem/hplc1.i/040504.b/h0006456.d
Lab Smp Id: 162068 Client Smp ID: 162068
Inj Date : 04-MAY-2004 12:25
Operator : rlw Inst ID: hplc1.i
Smp Info : 162068*BLK
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040504.b/flpnauv.m
Meth Date : 04-May-2004 16:55 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
$ 11 p-Terphenyl	2.978	2.915	0.063	12323	1.75318	1.75(M)

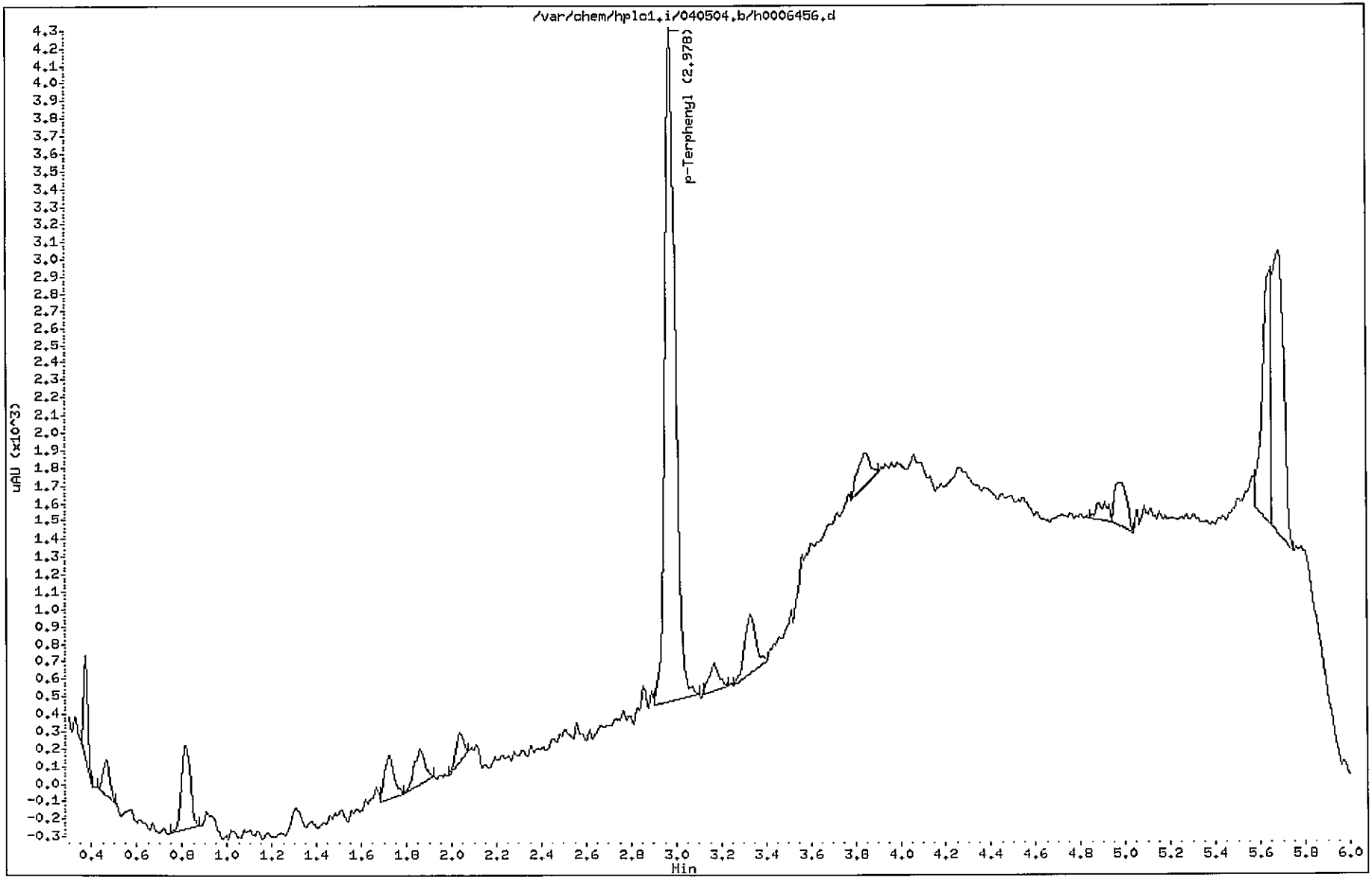
QC Flag Legend

M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/040504.b/h0006456.d
Date : 04-MAY-2004 12:25
Client ID: 162068
Sample Info: 162068*BLK
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: rlw
Column diameter: 2.10

000354



GCAL, Inc.

Data file : /var/chem/hplc1.i/040504F.b/h0006456.d
Lab Smp Id: 162068 Client Smp ID: 162068
Inj Date : 04-MAY-2004 12:25
Operator : RLW Inst ID: hplc1.i
Smp Info : 162068*BLK
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040504F.b/flpnafld.m
Meth Date : 04-May-2004 16:50 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
$ 11 p-Terphenyl	2.993	2.930	0.063	14051	1.61894	1.62(M)

QC Flag Legend

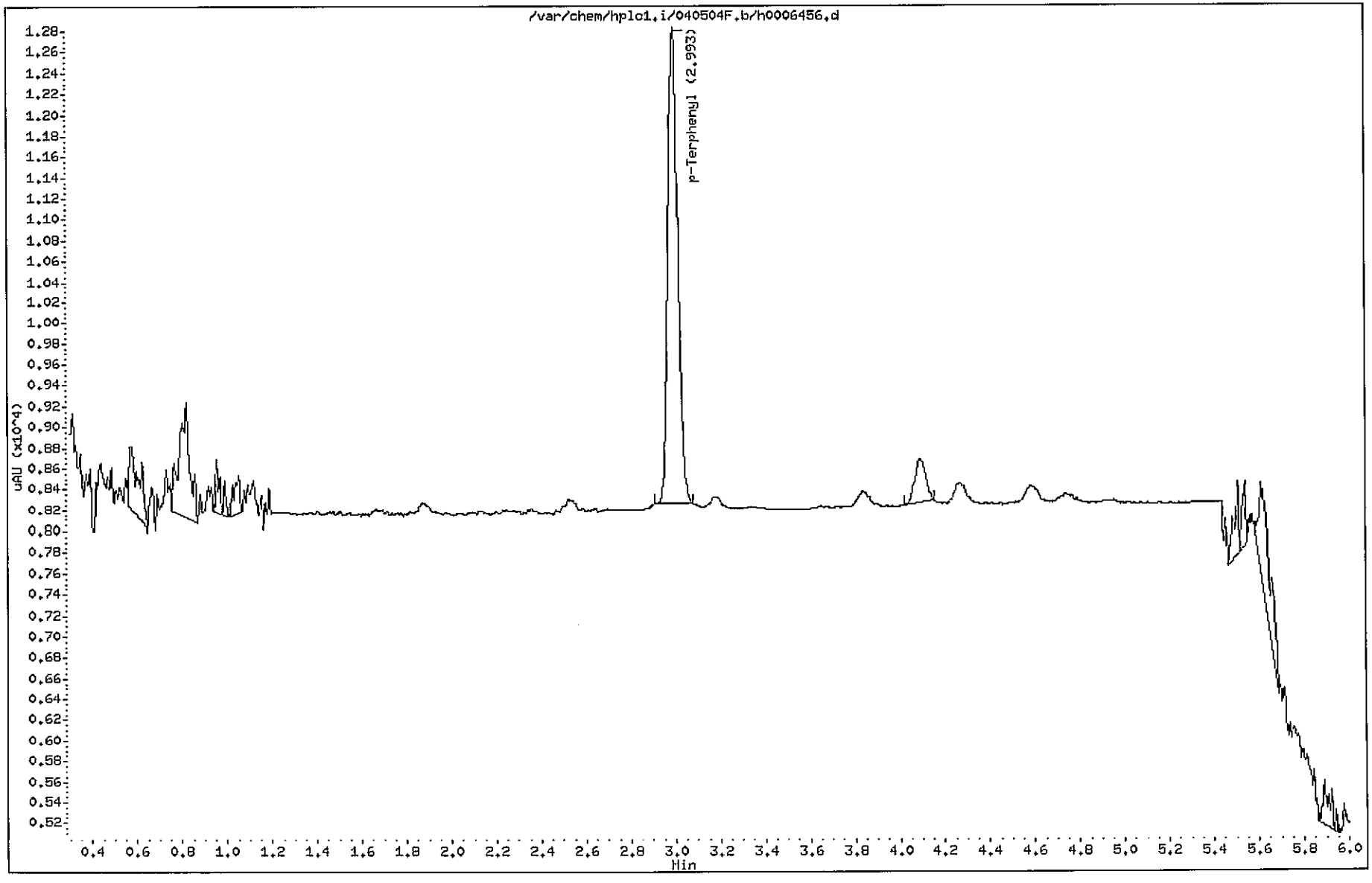
M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/040504F.b/h0006456.d
Date : 04-MAY-2004 12:25
Client ID: 162068
Sample Info: 162068MBLK
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: RLW
Column diameter: 2.10

000356



GCAL, Inc.

Data file : /var/chem/hplc1.i/040504.b/h0006457.d
Lab Smp Id: 162069 Client Smp ID: 162069
Inj Date : 04-MAY-2004 12:32
Operator : rlw Inst ID: hplc1.i
Smp Info : 162069*LCS
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040504.b/flpnauv.m
Meth Date : 04-May-2004 16:55 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 Naphthalene	1.024	1.008	0.016	8181	3.39213	3.39
2 Acenaphthylene	1.238	1.222	0.016	6260	3.67153	3.67
3 1-Methynaphthalene	1.364	1.348	0.016	5225	3.70549	3.71
4 2-Methylnaphthalene	1.451	1.428	0.023	6655	3.30923	3.31
5 Acenaphthene	1.524	1.502	0.022	3252	3.45494	3.45
6 Fluorene	1.631	1.602	0.029	46931	4.03106	4.03 (M)
7 Phenanthrene	1.871	1.835	0.036	111862	4.32464	4.32 (M)
8 Anthracene	2.118	2.068	0.050	184164	3.47366	3.47 (M)
9 Fluoranthene	2.357	2.302	0.055	31057	4.19436	4.19 (M)
10 Pyrene	2.531	2.468	0.063	28770	4.72355	4.72 (M)
s 11 p-Terphenyl	2.998	2.915	0.083	13116	1.86603	1.87 (M)
12 Benzo(a)Anthracene	3.184	3.095	0.089	72714	4.42813	4.43 (M)
13 Chrysene	3.351	3.242	0.109	126323	4.72741	4.73 (M)
14 Benzo(b)Fluoranthene	3.851	3.722	0.129	89744	4.22029	4.22 (M)

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
15 Benzo(k)Fluoranthene	4.111	3.962	0.149	53766	4.13778	4.14(M)
16 Benzo(a)Pyrene	4.284	4.135	0.149	73114	4.02911	4.03(M)
17 Dibenzo(a,h)Anthracene	4.604	4.442	0.162	11253	2.76496	2.76(M)
18 Benzo(g,h,i)Perylene	4.758	4.588	0.170	22393	3.32254	3.32(M)
19 Indeno(1,2,3-c,d)Pyrene	4.957	4.742	0.215	52313	3.57805	3.58(M)

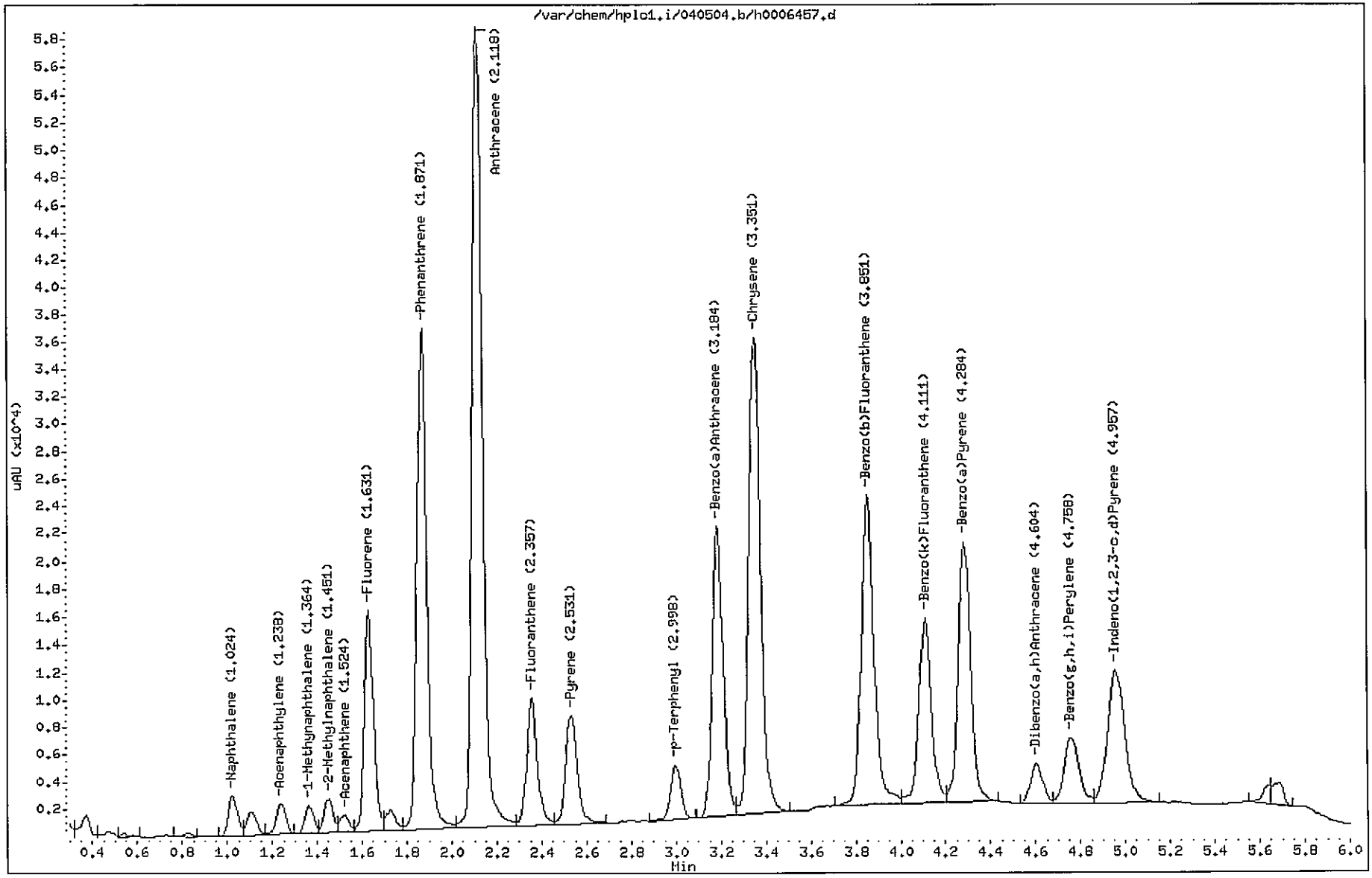
QC Flag Legend

M - Compound response manually integrated.

000359

Data File: /var/chem/hplc1.i/040504.b/h0006457.d
Date : 04-MAY-2004 12:32
Client ID: 162069
Sample Info: 162069MLCS
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: rlw
Column diameter: 2.10



GCAL, Inc.

Data file : /var/chem/hplc1.i/040504F.b/h0006457.d
Lab Smp Id: 162069 Client Smp ID: 162069
Inj Date : 04-MAY-2004 12:32
Operator : rlw Inst ID: hplc1.i
Smp Info : 162069*LCS
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040504F.b/flpnafld.m
Meth Date : 04-May-2004 16:50 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

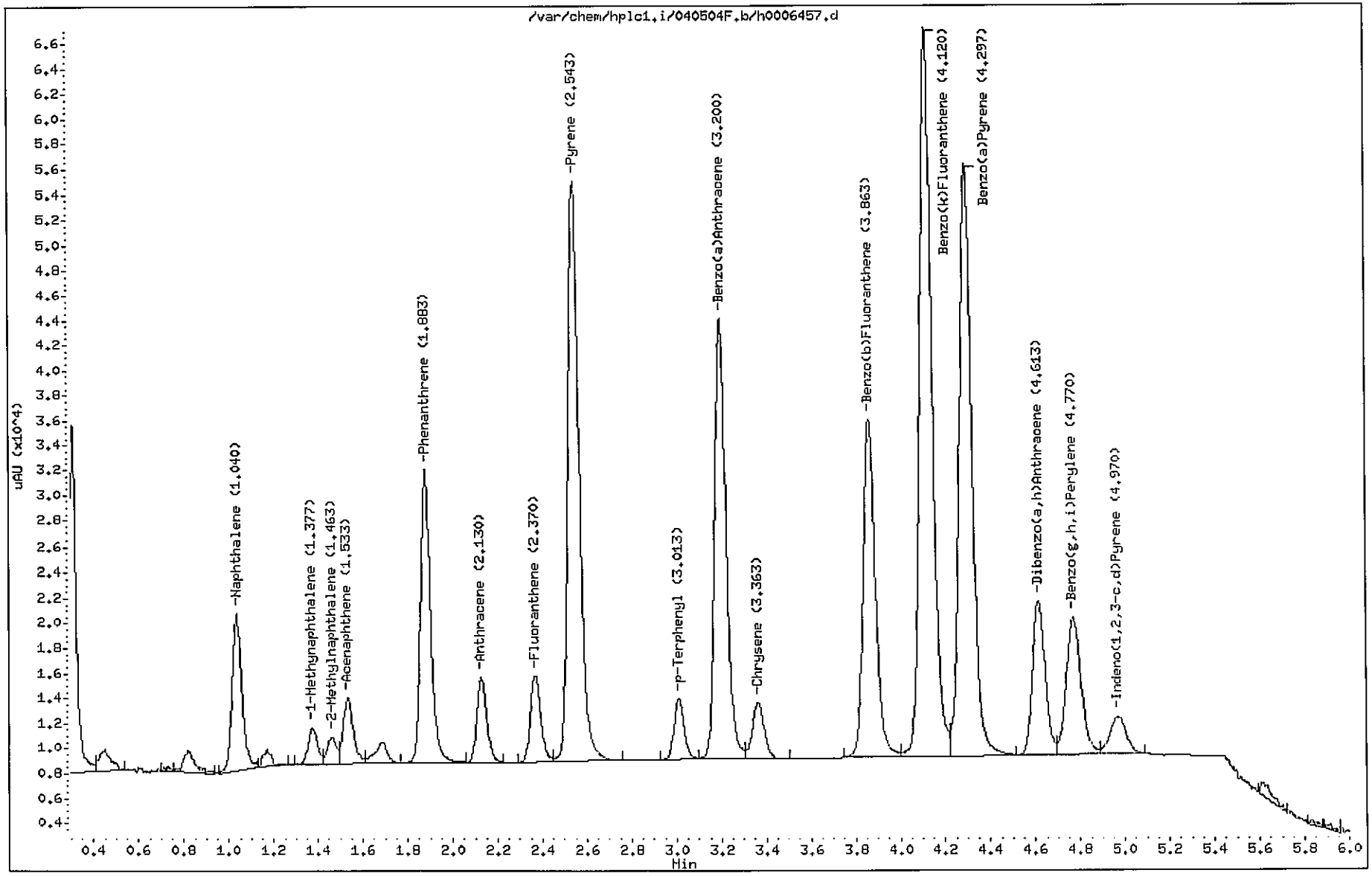
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 Naphthalene	1.040	1.027	0.013	38606	3.43971	3.44
3 1-Methynaphthalene	1.377	1.360	0.017	8450	3.91322	3.91
4 2-Methylnaphthalene	1.463	1.443	0.020	6065	3.42161	3.42
5 Acenaphthene	1.533	1.517	0.016	16685	3.70082	3.70
7 Phenanthrene	1.883	1.847	0.036	72194	4.31876	4.32
8 Anthracene	2.130	2.083	0.047	20681	3.54656	3.55
9 Fluoranthene	2.370	2.313	0.057	22245	4.36249	4.36
10 Pyrene	2.543	2.487	0.056	161642	4.69990	4.70
$ 11 p-Terphenyl	3.013	2.930	0.083	14836	1.70937	1.71
12 Benzo(a)Anthracene	3.200	3.107	0.093	122895	4.64964	4.65
13 Chrysene	3.363	3.257	0.106	16244	4.30175	4.30
14 Benzo(b)Fluoranthene	3.863	3.733	0.130	101249	4.24307	4.24
15 Benzo(k)Fluoranthene	4.120	3.970	0.150	222086	4.23974	4.24
16 Benzo(a)Pyrene	4.297	4.150	0.147	183815	4.08824	4.09

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
17 Dibenzo(a,h)Anthracene	4.613	4.453	0.160	48081	2.78844	2.79
18 Benzo(g,h,i)Perylene	4.770	4.600	0.170	50982	3.45911	3.46
19 Indeno(1,2,3-c,d)Pyrene	4.970	4.750	0.220	15245	3.45386	3.45

000362

Data File: /var/chem/hplc1.i/040504F.b/h0006457.d
Date : 04-MAY-2004 12:32
Client ID: 162069
Sample Info: 162069WLCS
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: rlw
Column diameter: 2.10



GCAL, Inc.

Data file : /var/chem/hplc1.i/040504.b/h0006458.d
Lab Smp Id: 162070 Client Smp ID: 162070
Inj Date : 04-MAY-2004 12:39
Operator : rlw Inst ID: hplc1.i
Smp Info : 162070*LCSD
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040504.b/flpnauv.m
Meth Date : 04-May-2004 16:55 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
	1 Naphthalene	1.028	1.008	0.020	7833	3.24784	3.25
	2 Acenaphthylene	1.248	1.222	0.026	5749	3.37183	3.37
	3 1-Methynaphthalene	1.367	1.348	0.019	4679	3.31827	3.32
	4 2-Methylnaphthalene	1.454	1.428	0.026	5455	2.71253	2.71
	5 Acenaphthene	1.528	1.502	0.026	2492	2.76762	2.77
	6 Fluorene	1.641	1.602	0.039	46464	3.99096	3.99 (M)
	7 Phenanthrene	1.881	1.835	0.046	110688	4.27926	4.28 (M)
	8 Anthracene	2.127	2.068	0.059	180721	3.40872	3.41 (M)
	9 Fluoranthene	2.374	2.302	0.072	28164	3.80362	3.80 (M)
	10 Pyrene	2.547	2.468	0.079	25781	4.23278	4.23 (M)
$	11 p-Terphenyl	3.027	2.915	0.112	13279	1.88933	1.89 (M)
	12 Benzo(a)Anthracene	3.214	3.095	0.119	71904	4.37883	4.38 (M)
	13 Chrysene	3.388	3.242	0.146	125410	4.69324	4.69 (M)
	14 Benzo(b)Fluoranthene	3.894	3.722	0.172	94218	4.43068	4.43 (M)

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)
15 Benzo(k)Fluoranthene	4.154	3.962	0.192	56671	4.36132	4.36 (M)
16 Benzo(a)Pyrene	4.327	4.135	0.192	76496	4.21551	4.22 (M)
17 Dibenzo(a,h)Anthracene	4.648	4.442	0.206	11894	2.92240	2.92 (M)
18 Benzo(g,h,i)Perylene	4.808	4.588	0.220	22234	3.29892	3.30 (M)
19 Indeno(1,2,3-c,d)Pyrene	5.014	4.742	0.272	52207	3.57083	3.57 (M)

QC Flag Legend

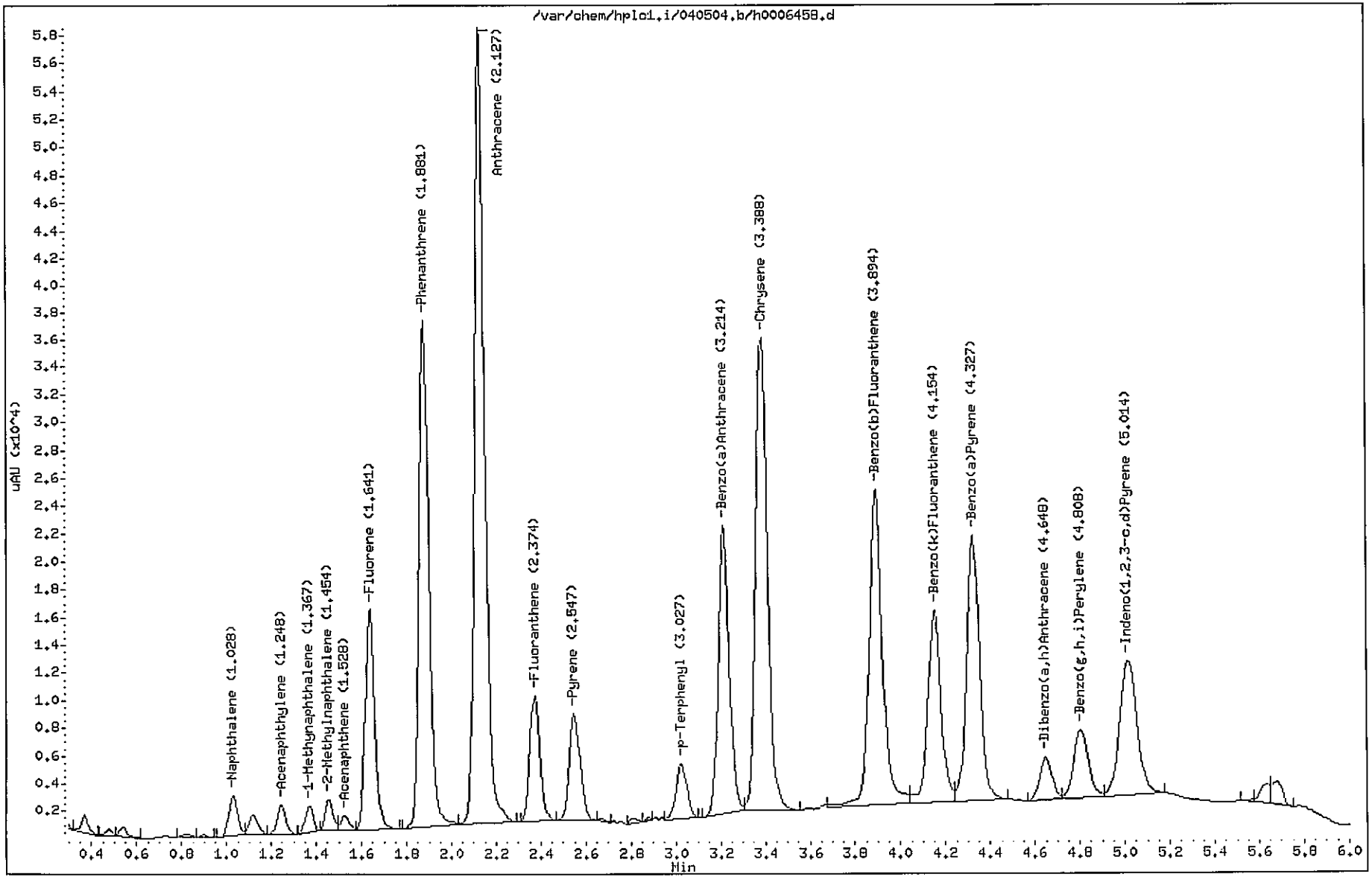
M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/040504.b/h0006458.d
Date : 04-MAY-2004 12:39
Client ID: 162070
Sample Info: 162070WLCSD
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: rlw
Column diameter: 2.10

000365



GCAL, Inc.

Data file : /var/chem/hplc1.i/040504F.b/h0006458.d
Lab Smp Id: 162070 Client Smp ID: 162070
Inj Date : 04-MAY-2004 12:39
Operator : rlw Inst ID: hplc1.i
Smp Info : 162070*LCSD
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040504F.b/flpnafld.m
Meth Date : 04-May-2004 16:50 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
	1 Naphthalene	1.043	1.027	0.016	38645	3.44315	3.44
	3 1-Methynaphthalene	1.383	1.360	0.023	8302	3.84450	3.84
	4 2-Methylnaphthalene	1.473	1.443	0.030	5865	3.30829	3.31
	5 Acenaphthene	1.543	1.517	0.026	16877	3.74325	3.74
	7 Phenanthrene	1.897	1.847	0.050	71509	4.27772	4.28
	8 Anthracene	2.147	2.083	0.064	20769	3.56162	3.56
	9 Fluoranthene	2.390	2.313	0.077	22092	4.33248	4.33
	10 Pyrene	2.563	2.487	0.076	153464	4.46211	4.46
S	11 p-Terphenyl	3.040	2.930	0.110	14415	1.66085	1.66
	12 Benzo(a)Anthracene	3.230	3.107	0.123	118367	4.47829	4.48
	13 Chrysene	3.400	3.257	0.143	13028	3.48466	3.48
	14 Benzo(b)Fluoranthene	3.907	3.733	0.174	102145	4.28060	4.28
	15 Benzo(k)Fluoranthene	4.167	3.970	0.197	229243	4.37637	4.38
	16 Benzo(a)Pyrene	4.337	4.150	0.187	183357	4.07804	4.08

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
17 Dibenzo(a,h)Anthracene	4.663	4.453	0.210	52139	3.02379	3.02 (M)
18 Benzo(g,h,i)Perylene	4.820	4.600	0.220	53094	3.60246	3.60 (M)
19 Indeno(1,2,3-c,d)Pyrene	5.030	4.750	0.280	16235	3.67812	3.68 (M)

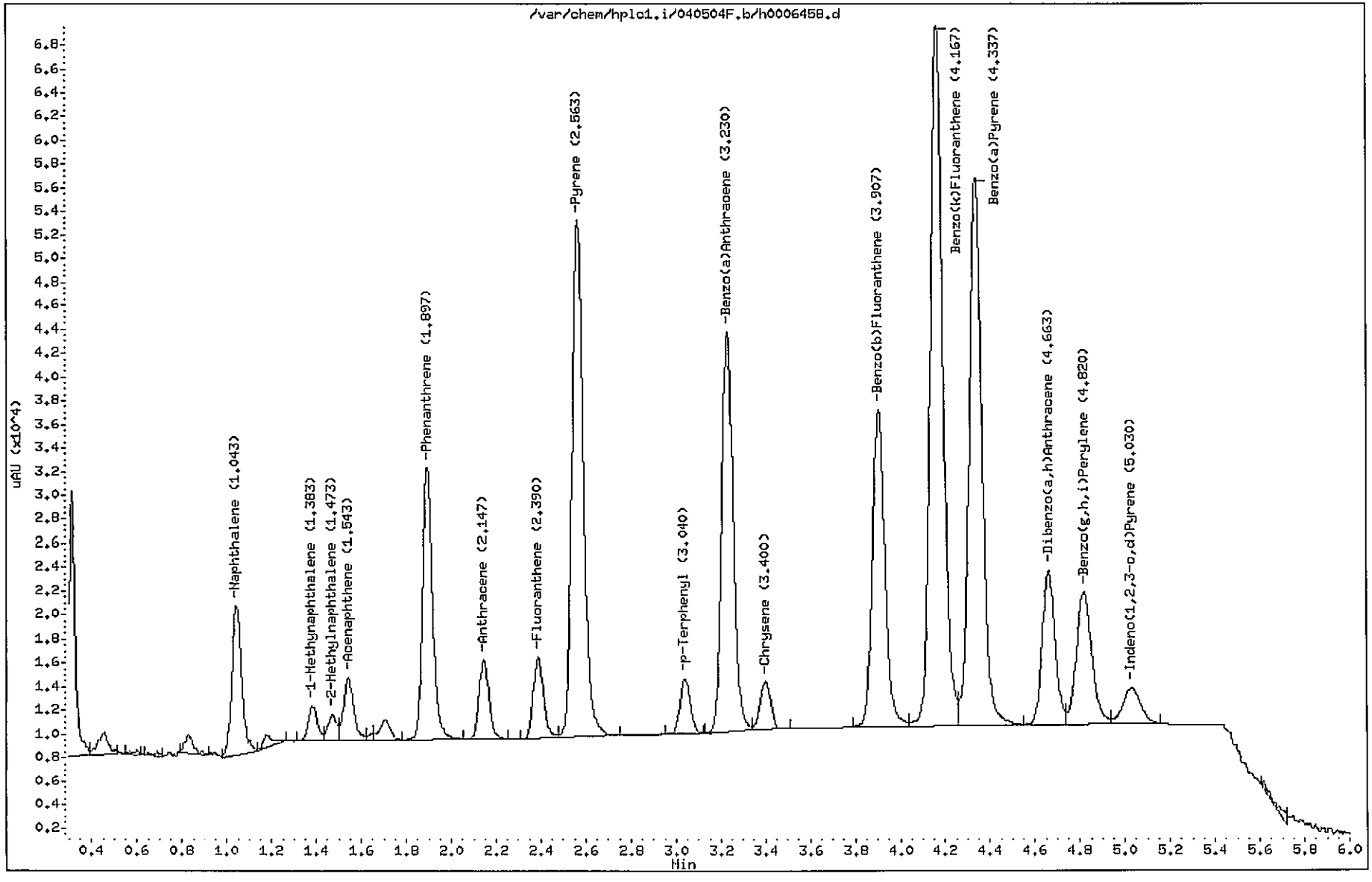
QC Flag Legend

M - Compound response manually integrated.

Data File: /var/chem/hplc1.i/040504F.b/h0006458.d
Date : 04-MAY-2004 12:39
Client ID: 162070
Sample Info: 162070%LCSD
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i
Operator: rlw
Column diameter: 2.10

000368



GCAL, Inc.

Data file : /var/chem/hplc1.i/040505.b/h0006473.d
Lab Smp Id: 20404280605 Client Smp ID: 20404280605
Inj Date : 05-MAY-2004 09:37
Operator : rlw Inst ID: hplc1.i
Smp Info : 20404280605@50
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040505.b/flpnauv.m
Meth Date : 05-May-2004 16:55 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	50.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

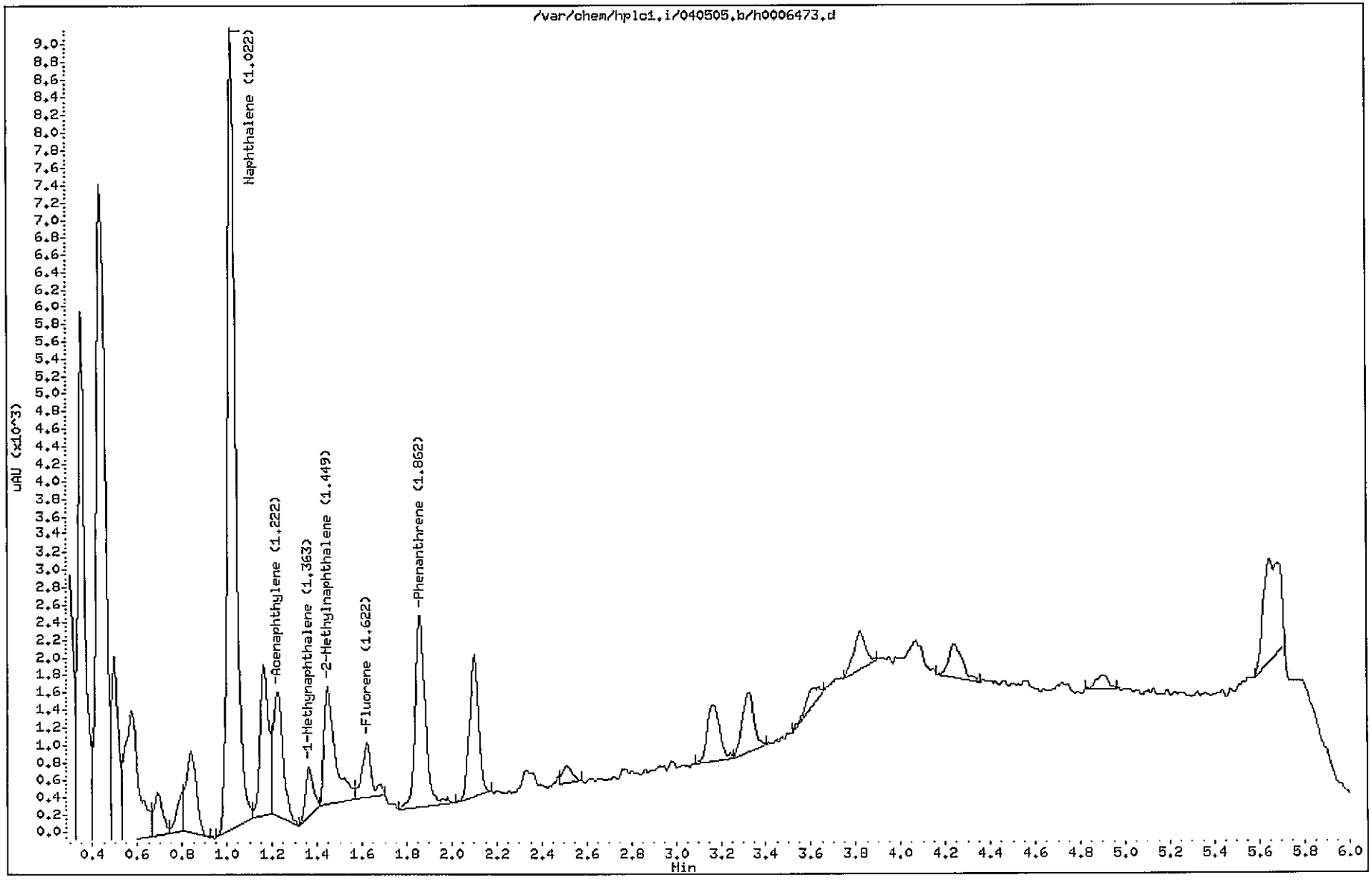
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 Naphthalene	1.022	1.015	0.007	23861	9.89362	495
2 Acenaphthylene	1.222	1.235	-0.013	4708	2.76127	138
3 1-Methynaphthalene	1.363	1.355	0.008	1420	1.00704	50.4
4 2-Methylnaphthalene	1.449	1.442	0.007	4715	2.34456	117
6 Fluorene	1.622	1.628	-0.006	1939	0.16654	8.33
7 Phenanthrene	1.862	1.868	-0.006	6953	0.26881	13.4

Data File: /var/chem/hplc1.i/040505.b/h0006473.d
Date : 05-MAY-2004 09:37
Client ID: 20404280605
Sample Info: 20404280605@50
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: rlw
Column diameter: 2.10

000370



GCAL, Inc.

Data file : /var/chem/hplc1.i/040505F.b/h0006473.d
Lab Smp Id: 20404280605 Client Smp ID: 20404280605
Inj Date : 05-MAY-2004 09:37
Operator : RLW Inst ID: hplc1.i
Smp Info : 20404280605@50
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040505F.b/flpnafld.m
Meth Date : 05-May-2004 16:57 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	50.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

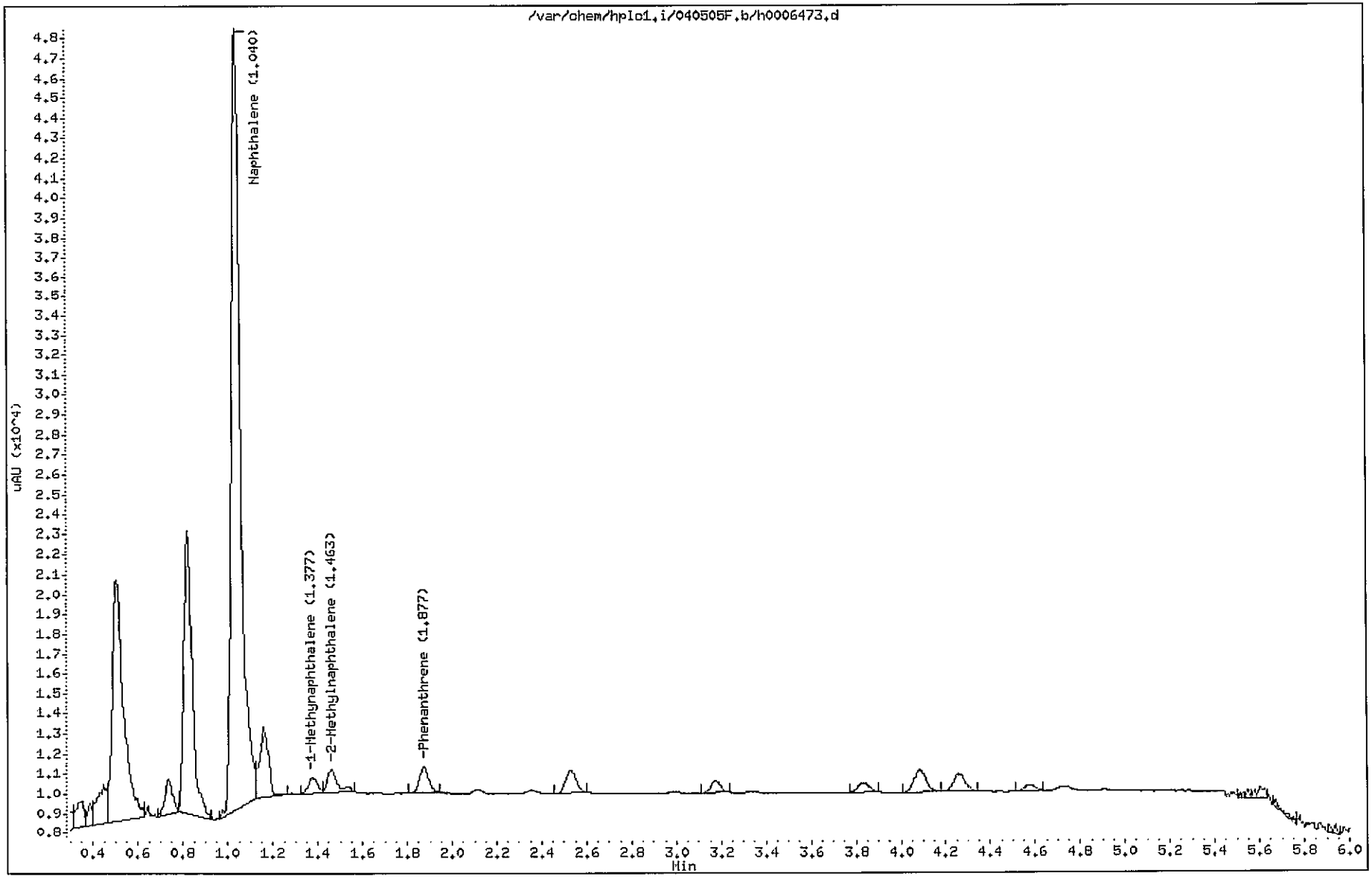
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 Naphthalene	1.040	1.030	0.010	111292	9.91578	496
3 1-Methynaphthalene	1.377	1.370	0.007	2178	1.00859	50.4
4 2-Methylnaphthalene	1.463	1.457	0.006	3562	2.00923	100
7 Phenanthrene	1.877	1.883	-0.006	3650	0.21835	10.9

Data File: /var/chem/hplc1.i/040505F.b/h0006473.d
Date : 05-MAY-2004 09:37
Client ID: 20404280605
Sample Info: 20404280605@50
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: RLW
Column diameter: 2.10

000372



GCAL, Inc.

Data file : /var/chem/hplc1.i/040505.b/h0006474.d
Lab Smp Id: 20404280606 Client Smp ID: 20404280606
Inj Date : 05-MAY-2004 09:44
Operator : rlw Inst ID: hplc1.i
Smp Info : 20404280606@50
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040505.b/flpnauv.m
Meth Date : 05-May-2004 16:55 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	50.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

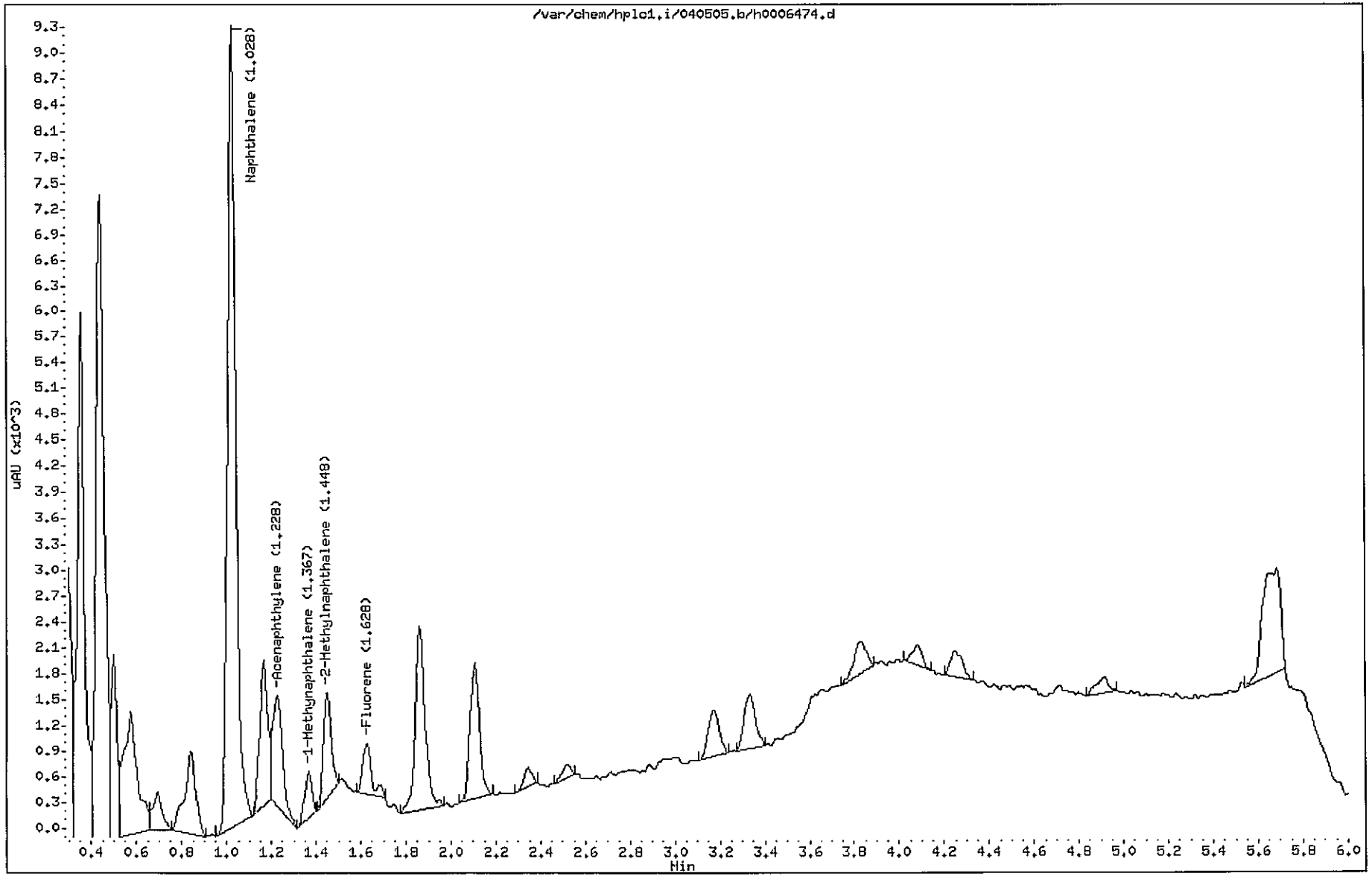
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 Naphthalene	1.028	1.015	0.013	23997	9.95001	498
2 Acenaphthylene	1.228	1.235	-0.007	3905	2.29031	115
3 1-Methynaphthalene	1.367	1.355	0.012	1229	0.87159	43.6
4 2-Methylnaphthalene	1.448	1.442	0.006	3191	1.58674	79.3
6 Fluorene	1.628	1.628	0.000	1546	0.13279	6.64

Data File: /var/chem/hplc1.i/040505.b/h0006474.d
Date : 05-MAY-2004 09:44
Client ID: 20404280606
Sample Info: 20404280606@50
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: rlw
Column diameter: 2.10

000374



GCAL, Inc.

Data file : /var/chem/hplc1.i/040505F.b/h0006474.d
Lab Smp Id: 20404280606 Client Smp ID: 20404280606
Inj Date : 05-MAY-2004 09:44
Operator : RLW Inst ID: hplc1.i
Smp Info : 20404280606@50
Misc Info :
Comment :
Method : /var/chem/hplc1.i/040505F.b/flpnafld.m
Meth Date : 05-May-2004 16:57 rlw Quant Type: ESTD
Cal Date : 14-JAN-2004 15:59 Cal File: h0005877.d
Als bottle: 1
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf*Vt/(Vo*Vi) * CpndVariable

Name	Value	Description
DF	50.00000	Dilution Factor
Uf	10.00000	unit correction factor
Vt	1000.00000	Sample Final Volume
Vo	1000.00000	Initial Sample Volume
Vi	10.00000	Injection Volume

Cpnd Variable Local Compound Variable

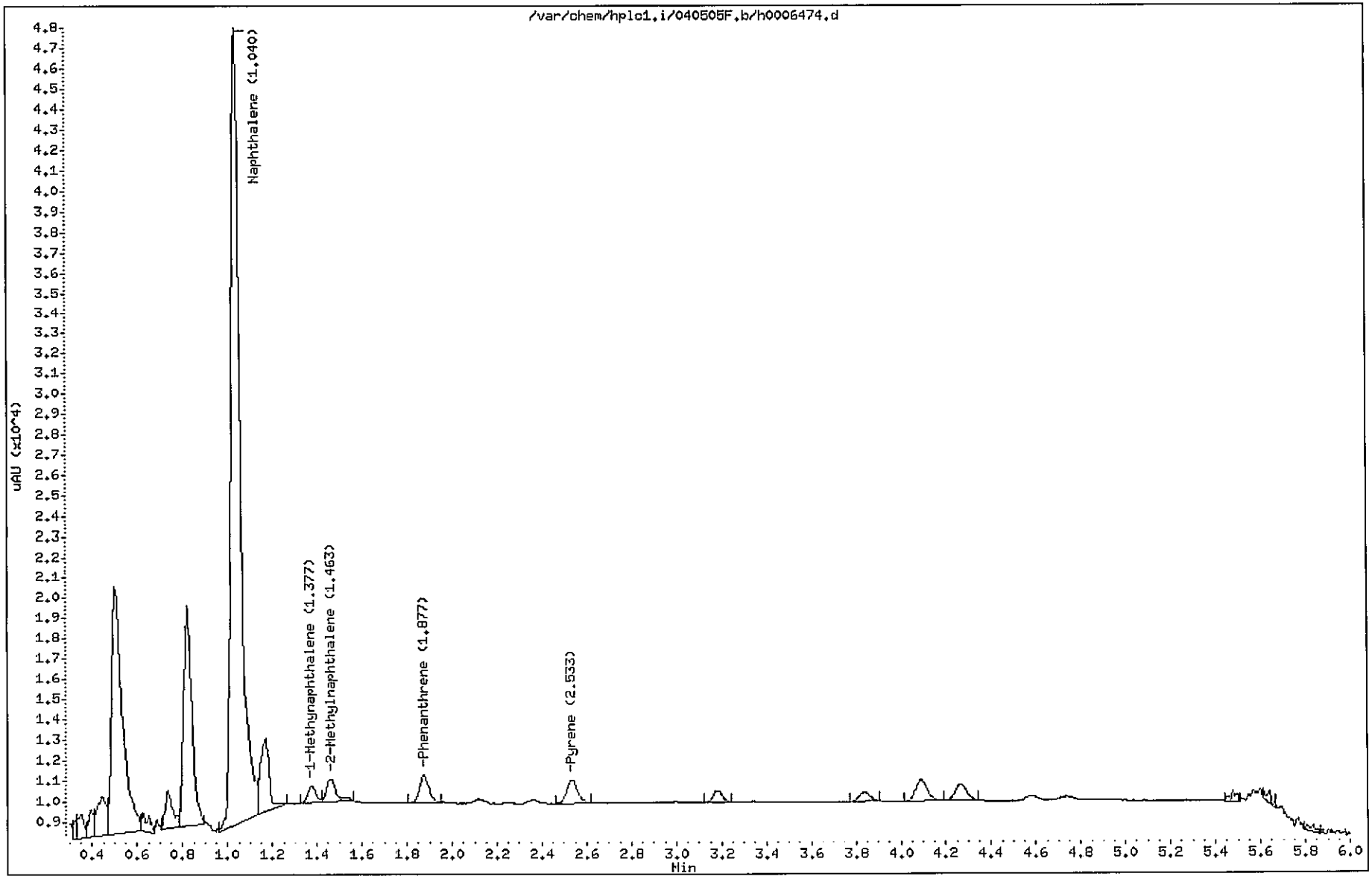
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
1 Naphthalene	1.040	1.030	0.010	113407	10.1042	505
3 1-Methynaphthalene	1.377	1.370	0.007	2080	0.96321	48.2
4 2-Methylnaphthalene	1.463	1.457	0.006	3386	1.90995	95.5
7 Phenanthrene	1.877	1.883	-0.006	3756	0.22469	11.2
10 Pyrene	2.533	2.553	-0.020	3774	0.10973	5.49

Data File: /var/chem/hplc1.i/040505F.b/h0006474.d
Date : 05-MAY-2004 09:44
Client ID: 20404280606
Sample Info: 20404280606@50
Volume Injected (uL): 10.0
Column phase: 201TP-0.15M

Instrument: hplc1.i

Operator: RLW
Column diameter: 2.10

000376



PAH SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME:	4/29/04 900	BATCH NO:	272890
MATRIX:	WATER ☑ SOIL ☐ OTHER ☐	LEVEL:	LOW ☑ MEDIUM ☐

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	Init pH	COMMENTS	METHOD
1	In-house QC Ac	MB for HBN 272890 [EXTO/5365]	162068	1000	1.0	7		LIQUID LIQUID/3520
2	In-house QC Ac	LCS for HBN 272890 [EXTO/5365]	162069	1000	1.0	7		
3	In-house QC Ac	LCSD for HBN 272890 [EXTO/5365	162070	1000	1.0	7		SEPARATORY FUNNEL/3510 ✓
4	CH2M HILL Cons	86-CEF271-7S-Q1-04	20404280601	1000	1.0	7		
5	CH2M HILL Cons	86-CEF271-9S-Q1-04	20404280602	1000	1.0	7		
6	CH2M HILL Cons	86-CEF271-10S-Q1-04	20404280603	1000	1.0	7		
7	CH2M HILL Cons	86-CEF271-12S-Q1-04	20404280604	1000	1.0	7		SONICATOR/3550
8	CH2M HILL Cons	086-271-MS-Q1-04	20404280605	1000	1.0	7		
9	CH2M HILL Cons	086-271-MSD-Q1-04	20404280606	1000	1.0	7		SOXHLET/3540
10	CH2M HILL Cons	086-271-DUP-Q1-04	20404280607	1000	1.0	7		
11	CH2M HILL Cons	086-271-EB-Q1-04	20404280608	1000	1.0	7		
12								
13								
14								
15								
16								
17								
18								
19								Sodium Sulfate Lot No: 035216
20								
21								ACETONITRILE:
22								
23								MeCL2 Lot No: 031300
24								
25								
26								
27								
28								

SKB 04/29/04

COMMENTS: SAMPLE PREPARATION INCLUDE DETERMINATION OF SAMPLE VOLUME/WEIGHT, SOLVENT EXTRACTION AND EVAPORATION OF SOLVENT TO FINAL VOLUME

SURROGATE ID	8-263-2			SPIKE ID	8-280-3	TECHNICIAN	DATE
VOLUME	0.5ml			VOLUME	1.0ml	[illegible]	4/29/04
CONCENTRATION	40ug/ml			CONCENTRATION	500ug/ml		
NaOH	/	ACID			/	SUPERVISOR	DATE
SPIKE WITNESS	SKB					John Bailey	04/29/04

LABORATORY CHRONICLE: GC-MS DEPARTMENT

ate: 04-MAY-2004
nstrument: hplc1.i

Standard	Conc ppm	Lot No.
DFTPP	50	
Int. Standard	4000	

Inst. Conditions:

MISC:

Sample ID	ClientName	DataFile	WT VOL	Injection Time	DilFactor	ALS	Comments
		h0006447.d	0.00 g	04-MAY-2004 09:54	1.000	1	
162356		h0006448.d	1000.00 ml	04-MAY-2004 10:43	1.000	1	
162357		h0006449.d	1000.00 ml	04-MAY-2004 10:50	1.000	1	
162358		h0006450.d	1000.00 ml	04-MAY-2004 10:57	1.000	1	
20404230803		h0006451.d	1000.00 ml	04-MAY-2004 11:04	1.000	1	
20404210715		h0006452.d	1000.00 ml	04-MAY-2004 11:11	1.000	1	
162359		h0006453.d	1000.00 ml	04-MAY-2004 11:17	1.000	1	
162360		h0006454.d	1000.00 ml	04-MAY-2004 11:24	1.000	1	
0504CCV2.5		h0006455.d	1000.00 ml	04-MAY-2004 11:31	1.000	1	
162068		h0006456.d	1000.00 ml	04-MAY-2004 12:25	1.000	1	
162069		h0006457.d	1000.00 ml	04-MAY-2004 12:32	1.000	1	
162070		h0006458.d	1000.00 ml	04-MAY-2004 12:39	1.000	1	
20404280601		h0006459.d	1000.00 ml	04-MAY-2004 12:46	1.000	1	
20404280602		h0006460.d	1000.00 ml	04-MAY-2004 12:53	1.000	1	
20404260803		h0006461.d	1000.00 ml	04-MAY-2004 13:00	1.000	1	
20404280604		h0006462.d	1000.00 ml	04-MAY-2004 13:07	1.000	1	
20404280605		h0006463.d	1000.00 ml	04-MAY-2004 13:14	1.000	1	
20404280606		h0006464.d	1000.00 ml	04-MAY-2004 13:21	1.000	1	
20404280607		h0006465.d	1000.00 ml	04-MAY-2004 13:28	1.000	1	
20404280608		h0006466.d	1000.00 ml	04-MAY-2004 13:35	1.000	1	
0504CCV2.5		h0006467.d	1000.00 ml	04-MAY-2004 13:42	1.000	1	

EVISED 6-1-95 Supervisor Review: QA Review:

LABORATORY CHRONICLE: GC-MS DEPARTMENT

ate: 04-MAY-2004
nstrument: hplc1.i

Standard	Conc ppm	Lot No.
DFTPP	50	
Int. Standard	4000	

Inst. Conditions:

MISC:

Sample ID	ClientName	DataFile	WT VOL	Injection Time	DilFactor	ALS	Comments
		h0006447.d	0.00 g	04-MAY-2004 09:54	1.000	1	
162356		h0006448.d	1000.00 ml	04-MAY-2004 10:43	1.000	1	
162357		h0006449.d	1000.00 ml	04-MAY-2004 10:50	1.000	1	
162358		h0006450.d	1000.00 ml	04-MAY-2004 10:57	1.000	1	
20404230803		h0006451.d	1000.00 ml	04-MAY-2004 11:04	1.000	1	
20404210715		h0006452.d	1000.00 ml	04-MAY-2004 11:11	1.000	1	
162359		h0006453.d	1000.00 ml	04-MAY-2004 11:17	1.000	1	
162360		h0006454.d	1000.00 ml	04-MAY-2004 11:24	1.000	1	
0504CCV2.5		h0006455.d	1000.00 ml	04-MAY-2004 11:31	1.000	1	
162068		h0006456.d	1000.00 ml	04-MAY-2004 12:25	1.000	1	
162069		h0006457.d	1000.00 ml	04-MAY-2004 12:32	1.000	1	
162070		h0006458.d	1000.00 ml	04-MAY-2004 12:39	1.000	1	
20404280601		h0006459.d	1000.00 ml	04-MAY-2004 12:46	1.000	1	
20404280602		h0006460.d	1000.00 ml	04-MAY-2004 12:53	1.000	1	
20404260803		h0006461.d	1000.00 ml	04-MAY-2004 13:00	1.000	1	
20404280604		h0006462.d	1000.00 ml	04-MAY-2004 13:07	1.000	1	
20404280605		h0006463.d	1000.00 ml	04-MAY-2004 13:14	1.000	1	
20404280606		h0006464.d	1000.00 ml	04-MAY-2004 13:21	1.000	1	
20404280607		h0006465.d	1000.00 ml	04-MAY-2004 13:28	1.000	1	
20404280608		h0006466.d	1000.00 ml	04-MAY-2004 13:35	1.000	1	
0504CCV2.5		h0006467.d	1000.00 ml	04-MAY-2004 13:42	1.000	1	

EVISED 6-1-95 Supervisor Review: QA Review:

LABORATORY CHRONICLE: GC-MS DEPARTMENT

ate: 05-MAY-2004
nstrument: hplc1.i

Standard	Conc ppm	Lot No.
DFTPP	50	
Int. Standard	4000	

Inst. Conditions:

MISC:

Sample ID	ClientName	DataFile	WT VOL	Injection Time	DilFactor	ALS	Comments
0505CCV2.5		h0006471.d	1000.00 ml	05-MAY-2004 09:06	1.000	1	
20404280601		h0006472.d	1000.00 ml	05-MAY-2004 09:30	50.000	1	
20404280605		h0006473.d	1000.00 ml	05-MAY-2004 09:37	50.000	1	
20404280606		h0006474.d	1000.00 ml	05-MAY-2004 09:44	50.000	1	
162774		h0006475.d	1000.00 ml	05-MAY-2004 10:50	1.000	1	
162775		h0006476.d	1000.00 ml	05-MAY-2004 10:57	1.000	1	
162776		h0006477.d	1000.00 ml	05-MAY-2004 11:04	1.000	1	
20405030101		h0006478.d	1000.00 ml	05-MAY-2004 11:10	1.000	1	
20405030102		h0006479.d	1000.00 ml	05-MAY-2004 11:17	1.000	1	
20405030103		h0006480.d	1000.00 ml	05-MAY-2004 11:24	1.000	1	
20405030104		h0006481.d	1000.00 ml	05-MAY-2004 11:31	1.000	1	
20405030105		h0006482.d	1000.00 ml	05-MAY-2004 11:38	1.000	1	
20405030106		h0006483.d	1000.00 ml	05-MAY-2004 11:45	1.000	1	
20405030107		h0006484.d	1000.00 ml	05-MAY-2004 11:51	50.000	1	
20405030108		h0006485.d	1000.00 ml	05-MAY-2004 11:58	1.000	1	
20405030109		h0006486.d	1000.00 ml	05-MAY-2004 12:05	1.000	1	
20405030110		h0006487.d	1000.00 ml	05-MAY-2004 12:12	1.000	1	
20405030111		h0006488.d	1000.00 ml	05-MAY-2004 12:19	1.000	1	
20405030112		h0006489.d	1000.00 ml	05-MAY-2004 12:26	1.000	1	
20405030113		h0006490.d	1000.00 ml	05-MAY-2004 12:33	1.000	1	
20405030114		h0006491.d	1000.00 ml	05-MAY-2004 12:40	1.000	1	
0505CCV2.5		h0006492.d	1000.00 ml	05-MAY-2004 12:47	1.000	1	
20405030107		h0006493.d	1000.00 ml	05-MAY-2004 15:33	1.000	1	
20405030109		h0006494.d	1000.00 ml	05-MAY-2004 15:40	10.000	1	

EVISED 6-1-95 Supervisor Review: QA Review:

LABORATORY CHRONICLE: GC-MS DEPARTMENT

Date: 05-MAY-2004
Instrument: hplc1.i

Standard	Conc ppm	Lot No.
DFTPP	50	
Int. Standard	4000	

Inst. Conditions:

MISC:

Sample ID	ClientName	DataFile	WT VOL	Injection Time	DilFactor	ALS	Comments
0505CCV2.5		h0006471.d	1000.00 ml	05-MAY-2004 09:06	1.000	1	
20404280601		h0006472.d	1000.00 ml	05-MAY-2004 09:30	50.000	1	
20404280605		h0006473.d	1000.00 ml	05-MAY-2004 09:37	50.000	1	
20404280606		h0006474.d	1000.00 ml	05-MAY-2004 09:44	50.000	1	
162774		h0006475.d	1000.00 ml	05-MAY-2004 10:50	1.000	1	
162775		h0006476.d	1000.00 ml	05-MAY-2004 10:57	1.000	1	
162776		h0006477.d	1000.00 ml	05-MAY-2004 11:04	1.000	1	
20405030101		h0006478.d	1000.00 ml	05-MAY-2004 11:10	1.000	1	
20405030102		h0006479.d	1000.00 ml	05-MAY-2004 11:17	1.000	1	
20405030103		h0006480.d	1000.00 ml	05-MAY-2004 11:24	1.000	1	
20405030104		h0006481.d	1000.00 ml	05-MAY-2004 11:31	1.000	1	
20405030105		h0006482.d	1000.00 ml	05-MAY-2004 11:38	1.000	1	
20405030106		h0006483.d	1000.00 ml	05-MAY-2004 11:45	1.000	1	
20405030107		h0006484.d	1000.00 ml	05-MAY-2004 11:51	50.000	1	
20405030108		h0006485.d	1000.00 ml	05-MAY-2004 11:58	1.000	1	
20405030109		h0006486.d	1000.00 ml	05-MAY-2004 12:05	1.000	1	
20405030110		h0006487.d	1000.00 ml	05-MAY-2004 12:12	1.000	1	
20405030111		h0006488.d	1000.00 ml	05-MAY-2004 12:19	1.000	1	
20405030112		h0006489.d	1000.00 ml	05-MAY-2004 12:26	1.000	1	
20405030113		h0006490.d	1000.00 ml	05-MAY-2004 12:33	1.000	1	
20405030114		h0006491.d	1000.00 ml	05-MAY-2004 12:40	1.000	1	
0505CCV2.5		h0006492.d	1000.00 ml	05-MAY-2004 12:47	1.000	1	
20405030107		h0006493.d	1000.00 ml	05-MAY-2004 15:33	1.000	1	
20405030109		h0006494.d	1000.00 ml	05-MAY-2004 15:40	10.000	1	
		h0006495.d	1000.00 ml	05-MAY-2004 16:17	1.000	1	

REVISED 6-1-95 Supervisor Review: QA Review:

STANDARD PREPARATION LOGBOOK

STANDARD NAME	STD#	STOCK STD	SUPPLIER	LOT# / EXP DATE	WT/VOL g/ml	FINAL VOL(ml)	FINAL CONC	SOLVENT/ LOT#	INITIAL	DATE PREPARED	EXP DATE
Hex 10	4-1-1	Q-3392	NSI	102103-10 / 10/31/05	50ul	1.0ml	10ppm	DCM / 030609	RLW	01-08-04	01-08-05
Hex 05	4-1-2	4-1-1	In-house	4-1-1 / 01-08-05	500ul	1.0ml	5ppm	↓	↓	↓	↓
Hex 01	4-1-3	4-1-1	In-house	4-1-1 / 01-08-05	100ul	1.0ml	1 ppm	↓	↓	↓	↓
Hex 0.5	4-1-4	4-1-1	In-house	4-1-1 / 01-08-05	50ul	1.0ml	0.5ppm	↓	↓	↓	↓
Hex 0.1	4-1-5	4-1-3	In-house	4-1-3 / 01-08-05	100ul	1.0ml	0.1ppm	↓	↓	↓	↓
Hex 0.05	4-1-6	4-1-4	In-house	4-1-4 / 01-08-05	100ul	1.0ml	0.05ppm	↓	↓	↓	↓
PNA Cal 8	4-1-7	2.0mg/ml PAH Mix	Accu Std	B2060136 / 6/11/04	500ul	50ml	20ppm	ACN / 031168	JDT	1/14/04	6/11/04
↓	↓	2000mg/ml p-Terphenyl	Ultra	U-0559 / 05/2007	500ul	↓	20ppm	↓	↓	↓	↓
PNA Cal 7	4-1-8	PNA Cal 8	In House	4-1-7 / 6/11/04	2.5ml	5.0ml	10 ppm	ACN / 031168	JDT	1/14/04	6/12/04
PNA Cal 6	4-1-9	↓	↓	↓	1.25ml	5.0ml	5.0ppm	↓	↓	↓	↓
PNA Cal 5	4-1-10	↓	↓	↓	6.25ml	5.0ml	2.5ppm	↓	↓	↓	↓
PNA Cal 4	4-1-11	↓	↓	↓	250ul	5.0ml	1.0ppm	↓	↓	↓	↓
PNA Cal 3	4-1-12	↓	↓	↓	125ul	5.0ml	0.50ppm	↓	↓	↓	↓
PNA Cal 2	4-1-13	↓	↓	↓	62.5ul	5.0ml	0.25ppm	↓	↓	↓	↓
PNA Cal 1	4-1-14	↓	↓	↓	25ul	5.0ml	0.10ppm	↓	↓	↓	↓
Octachlorocyclopentene DILUTION 200 10,000	4-1-15	5370142	Sigma/Aldrich	Library Product N/A / N/A	0.1g	10.0mls	10,000ppm	DCM / 030609	RLW	01-19-04	01-19-05
Octachlorocyclopentene 200	4-1-16	4-1-15	In house	4-1-15 / 01-19-05	1.0ml	50.0ml	200ppm	DCM / 030609	RLW	01-20-04	01-19-05
				RLW		01-20-04					

000382

CH2MHILL 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

3c

COC NUMBER: 171591-024

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.):
Former N.A.S. Cecil Field Building 271	171591	Gulf Coast Labs. Dano Merril	Jeff Marks / CH2M Hill Constuctors, Inc.	6219 Authority Ave. Jacksonville, FL 32221 (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 271 Quarterly GW Sampling Event	0086	6421	Bonnie Hogue / 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.):
Jeff Marks CH2M Hill Constuctors, Inc.	Ph:(904)777-4812 Fax:(904) 777-4262	Ph:(225) 769-4900		

ANALYSES REQUIRED (Include Method Numbers)

ITEM	SAMPLE IDENTIFIER	SAMPLE DESCRIPTION/LOCATION	MATRIX (see codes on SOP)	DATE COLLECTED	TIME COLLECTED	DATA PKG LEVEL (see codes on SOP)	TAT (calendar days)	BTEX & MTBE by 8260B.	16 listed PAHs (incl 1- & 2-Methylnaphthalene) by 8310								SAMPLE TYPE (see codes on SOP)	COMMENTS/ SCREENING READINGS	LAB ID (for lab's use) 20404 2001
1	86-CEF271-7S-Q1-04	CEF-271-7S	W	04/26/04	1320	III/C	14	3	2								Grab	MS/MSD	-1
2	86-CEF271-9S-Q1-04	CEF-271-9S	W	04/26/04	1405	III/C	14	3	2								Grab		2
3	86-CEF271-10S-Q1-04	CEF-271-10S	W	04/27/04	1255	III/C	14	3	2								Grab		3
4	86-CEF271-12S-Q1-04	CEF-271-12S	W	04/27/04	1335	III/C	14	3	2								Grab		4
5	086-271-MS-Q1-04	MS	W	04/26/04	1320	III/C	14	3	2								Grab	CEF-271-7S	5
6	086-271-MSD-Q1-04	MSD	W	04/26/04	1320	III/C	14	3	2								Grab	CEF-271-7S	6
7	086-271-DUP-Q1-04	Duplicate	W	NA	NA	III/C	14	3	2								Grab		7
8	086-271-EB-Q1-04	Equipment Blank	W	04/27/04	1355	III/C	14	3	2								Grab		8
9	086-271-TB-Q1-04	Trip Blank	W	NA	NA	III/C	14	3									Grab	Prepared by Lab	9
10																			

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:	SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
Randy Dumaop AGVIQ Environmental Services	Federal Express Tracking Numbers: 7906 2289 3420, 7906 2289 3453.	

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	4/27/2004	18:00	Federal Express Tracking Numbers: 7906 2289 3420, 7906 2289 3453.	4/27/2004	18:00
Printed Name and Signature:			Printed Name and Signature:		
FEDEX 7906 2289 3420, 7906 2289 3453	4-28-04	945	Michelle Raborn	4-28-04	945
Printed Name and Signature:			Printed Name and Signature:		

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

Form CCI001, Rev 02/00

PRESERVATION CHECKLIST / COOLER RECEIPT

Gulf Coast Analytical Laboratories, Inc.

WO:	204042806	Type:	D
Desc:		Report:	REVIEW_RPT
Work ID:	CTO 86 Cecil Field - South Fue	Status:	WP
Project Seq:	20336	Created:	4/28/04 10:24
Client:	4380 - CH2M HILL Constructors Inc.	QA:	
Profile:	42891 - CTO 0086 - CTO 86 Cecil Field - South Fuel Farm	PO:	6421

WORKORDER SAMPLES

Container ID	Type	Preservative	pH PRESERVATIVE A	pH PRESERVATIVE U	pH PRESERVATIVE N\A	VOA HEADSPACE A	VOA HEADSPACE U	VOA HEADSPACE N\A	CONTAINER CONDITION
20404280601-1	40	HCL+SS			✓	✓			OK
20404280601-2	LA	NONE			X			X	OK
20404280602-1	40	HCL+SS			✓	✓			OK
20404280602-2	LA	NONE			X			X	OK
20404280603-1	40	HCL+SS			✓	✓			OK
20404280603-2	LA	NONE			X			X	OK
20404280604-1	40	HCL+SS			✓	✓			OK
20404280604-2	LA	NONE			X			X	OK
20404280605-1	40	HCL+SS			✓	✓			OK
20404280605-2	LA	NONE			X			X	OK
20404280606-1	40	HCL+SS			✓	✓			OK
20404280606-2	LA	NONE			X			X	OK
20404280607-1	40	HCL+SS			✓	✓			OK
20404280607-2	LA	NONE			X			X	OK
20404280608-1	40	HCL+SS			✓	✓			OK
20404280608-2	LA	NONE			X			X	OK

Container ID	Type	Preservative	pH PRESERVATIVE A	U	N\A	VOA HEADSPACE A	U	N\A	CONTAINER CONDITION
20404280609-1	40	HCL+SS			✓	✓			OK

A = ACCEPTABLE
U = UNACCEPTABLE
N\A = NOT APPLICABLE

COOLER (S) TEMPERATURE (A) U LIMIT = 4C + \ - 2C

MAXIMUM VOLATILE HEADSPACE BUBBLE 6MM

Custody Seal
used [✓ Yes] [ ] No
in tact [✓ Yes] [ ] No

LABEL(S) VERIFIED mk CUSTODIAN AWK