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NAS CECIL FIELD, FL
5090.3a

SOURCE REMOVAL REPORT FOR EXCAVATION OF ARSENIC CONTAMINATED SOIL AT SITE 21 GOLF COURSE MAINTENANCE AREA REVISION 1 NAS CECIL FIELD FL

4/1/2004

CH2MHILL CONSTRUCTORS INC

Source Removal Report

Excavation of Arsenic Contaminated Soil at Site 21
Golf Course Maintenance Area
Naval Air Station Cecil Field
Jacksonville, Florida

Revision No. 01

Unit Identification Code: N65928

Contract Task Order No. 005
Contract No. N62467-98-D-0995

Prepared by

CH2MHILL

115 Perimeter Center Place, N.E.
Suite 700
Atlanta, GA 30346

Submitted to

Department of the Navy, Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
North Charleston, South Carolina 29406

April 2004

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115 Perimeter Center Place, N.E.
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Atlanta, GA 30346

April 2004

Prepared/Approved By:

Paul G. Malewicki, Project Manager — Date

Approved By:

R. Scott Newman, Program Manager — Date

Client Acceptance:

U.S. Navy Responsible Authority — Date

DISTRIBUTION LIST

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CH2M HILL Constructors, Inc.	1
Tetra Tech NUS, Inc.	2

Certificate of Completion

CH2M HILL Constructors, Inc., attests that, to the best of its knowledge and belief, the Source Removal for the Excavation of Arsenic Contaminated Soil at Site 21, Golf Course Maintenance Area, Naval Air Station Cecil Field, Jacksonville, Florida, delivered under Contract No. N62467-98-D-0995, Contract Task Order (CTO) No. 0005 has been completed, inspected, and tested and is in compliance with the contract.

_____ _____

Project QC Manager Date

Contents

Acronyms....iii
1.0 Introduction....1-1
1.1 Site Background....1-1
1.2 Project Objectives....1-2
2.0 Source Removal Activities....2-1
2.1 Site Preparation....2-1
2.2 Soil Excavation And Disposal....2-1
2.2.1 Soil Excavation....2-1
2.2.2 Soil Transportation and Disposal....2-1
2.2.3 Backfilling and Site Restoration....2-2
3.0 Conclusions....3-1
4.0 References....4-1

Appendices

A TetraTech NUS Dig and Haul Package and Table 1-1
B Photographs
C Waste Characterization Sample Analytical Laboratory Report
D Waste Disposal Profile
E Copies of Soil Manifests and Weight Tickets
F Certificate of Disposal
G Clean Fill Material Analytical Laboratory Report

Tables

1-1 Chronology of Source Removal Activities....1-2
2-1 Summary of Disposal Manifests....2-3

Figures

1-1 Site 21 Layout and Limits of May/June 2001 Excavations....1-3
1-2 Limits of August 2002 Excavations....1-4

Acronyms and Abbreviations

BCT	BRAC Cleanup Team
bls	below land surface
BRAC	Base Realignment and Closure
CCI	CH2M HILL Constructors, Inc.
CTO	Contract Task Order
FDEP	Florida Department of Environmental Protection
HDPE	high density polyethylene
IBDS	Inorganic Background Data Set
NAS	Naval Air Station
NAVFAC	Naval Facilities Engineering Command
STLC	Soil Cleanup Target Level
TRPH	Total recoverable petroleum hydrocarbon
TtNUS	Tetra Tech NUS, Inc.
UCL	upper confidence limit

1.0 Introduction

CH2M HILL Constructors, Inc. (CCI) was contracted by Southern Division, Naval Facilities Engineering Command (NAVFAC) to perform excavation, transportation, and disposal of arsenic contaminated soils and prepare a Source Removal Report for Site 21, Golf Course Maintenance Area (Site 21) at the former Naval Air Station (NAS) Cecil Field in Jacksonville, Florida. The source removal activities were conducted in accordance with the specifications outlined in the April 15, 2002 *Dig and Haul Package for Site 21 – Golf Course Maintenance Area* (TtNUS, 2002a) prepared by Tetra Tech NUS, Inc. (TtNUS). This Dig and Haul Package is provided in Appendix A.

The scope of services for excavation of contaminated soil at Site 21 is described in detail in the NAS Cecil Field Basewide Work Plan, Revision 01 (CCI, 1998) and the Work Plan Addendum No. 11, "Excavation of Arsenic, Pesticides, PCB- and/or Petroleum-Contaminated Soil from Various Grey Sites" (CCI, 2000). The specific scope of services for the Site 21 source removal activities included the following: the identification of underground utilities in the vicinity of proposed excavations, the collection of pre-excavation soil samples for waste characterization analysis, and the excavation, transportation and disposal of arsenic contaminated soils within boundaries staked out by TtNUS and specified in the Dig and Haul Package. This work was authorized under Response Action Contract No. N62467-98-D-0995, Contract Task Order (CTO) No. 0005.

1.1 Site Background

Site 21 referred to as the Golf Course Maintenance Area ,is located in the center of the golf course at NAS Cecil Field. The site consisting of approximately 1.5 acres of primarily unpaved area including buildings 238, 370, 371, 397, and 874. The site is bound to the northeast by a drainage ditch. A fence and trees separate the site from the golf course on the east, northeast, and south. A large wooded area is the western and northwestern boundary of the site. Figure 1-1 shows the general layout of the site.

Arsenic, pesticides (4,4'-DDT, chlordane, toxaphene, and dieldrin), and TRPH were detected in soil at concentrations that exceeded the Florida Department of Environmental Protection (FDEP) soil cleanup target levels (SCTLs) for direct industrial exposure during the Potential Source of Contamination Investigations conducted from 1999 to 2000. Arsenic was also detected at concentrations greater than the site-specific Inorganic Background Data Set (IBDS) value for Cecil Field. The contaminated soil was excavated from May 29 through June 26, 2001 (CCI, 2001) and the site was remediated to an industrial land use criteria with the Land Use Controls limiting the future use of the site to industrial uses. Approximately 2,975 tons of non-hazardous soil, and 24 tons of hazardous soil were excavated and disposed. Figure 1-2 shows the extent of the excavations.

A Feasibility Study Report was prepared using post-excavation soil sample results, which determined that unrestricted land use could be achieved for the site with additional excavation of approximately 40 cubic yards of contaminated soil (TtNUS, 2002b). The

95 percent upper confidence limit of arsenic indicated that it was the only parameter at concentrations exceeding the inorganic background data set (IBDS) value for NAS Cecil Field of 2.04 mg/kg (See Table 1-1; Appendix A). The post excavation sample locations and those samples with elevated arsenic concentrations are shown on a figure provided in Appendix A. Therefore, to achieve unrestricted land use for the site, the Base Realignment and Closure (BRAC) Cleanup team (BCT), made the decision to perform additional excavation of arsenic contaminated soils at Site 21. The arsenic contaminated soil was excavated on August 1 and 2, 2002, and this excavation activity is summarized in this Source Removal Report. Table 1-1 describes the chronology of source removal activities at Site 21.

TABLE 1-1
Site 21 Chronology of Source Removal Activities

1999-2000	May – June 2001	July 2001	August 01 –02, 2002
Potential Source of Contamination Investigation by TtNUS	Source Removal by CCI/J.A. Jones – Removed and disposed of 2,974 tons of non hazardous soil and 23.89 of hazardous soil	Feasibility study by TtNUS that determined arsenic was the only contaminant that exceeded FDEP criteria for residential land use.	CCI/J.A. Jones Source Removal – Excavation of Arsenic contaminated soils at Site 21 to obtain unrestricted land use.

1.2 Project Objectives

The primary objective of the source removal activities was to remove arsenic contaminated soil that exceeded the FDEP criteria for unrestricted land use. This was accomplished by excavating to the limits as specified in the Dig and Haul Package and to backfill with clean fill material imported from offsite.

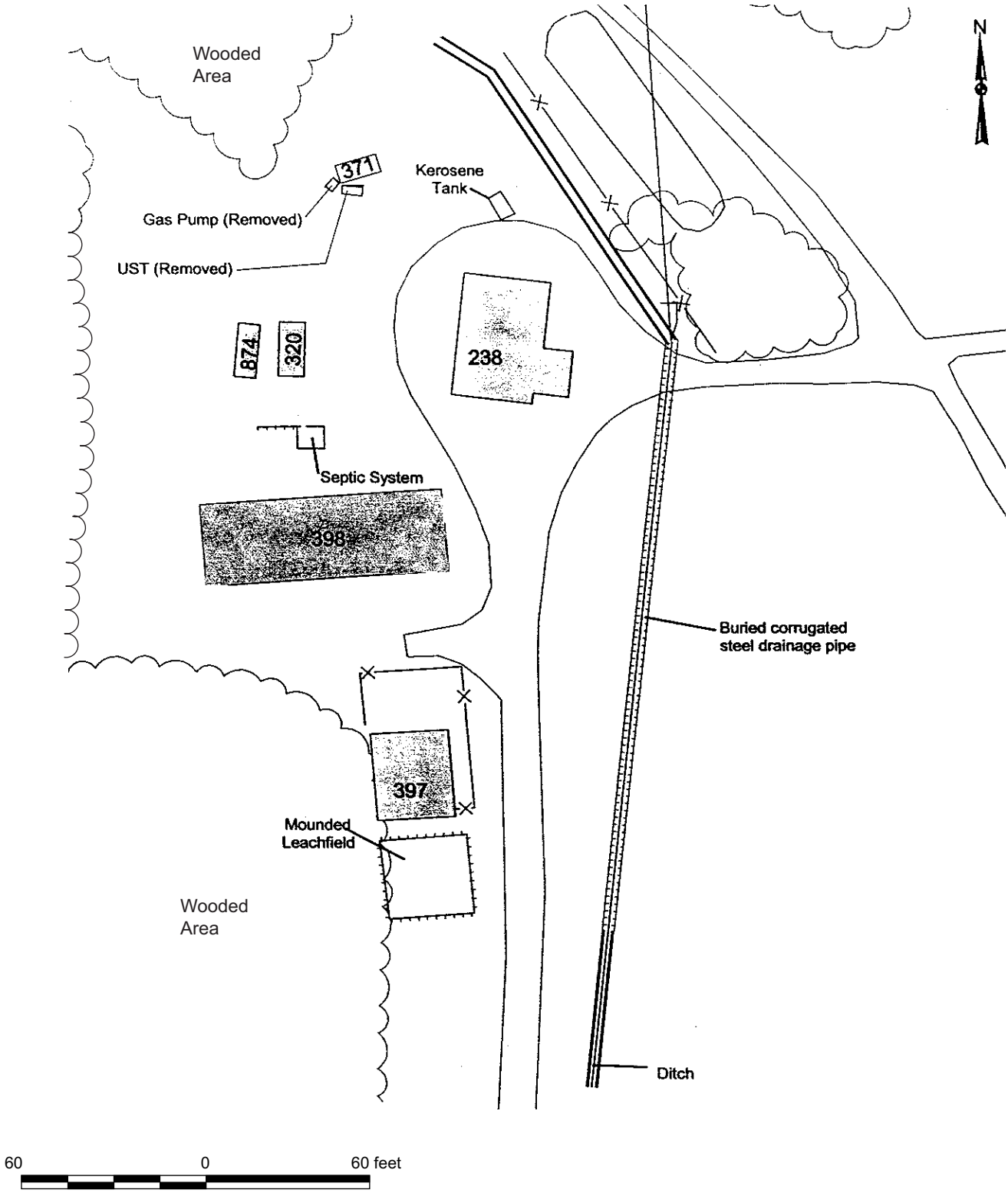

Figure 1-1
Site 21 Layout
Naval Air Station Cecil Field
Jacksonville, Florida

CH2MHILL

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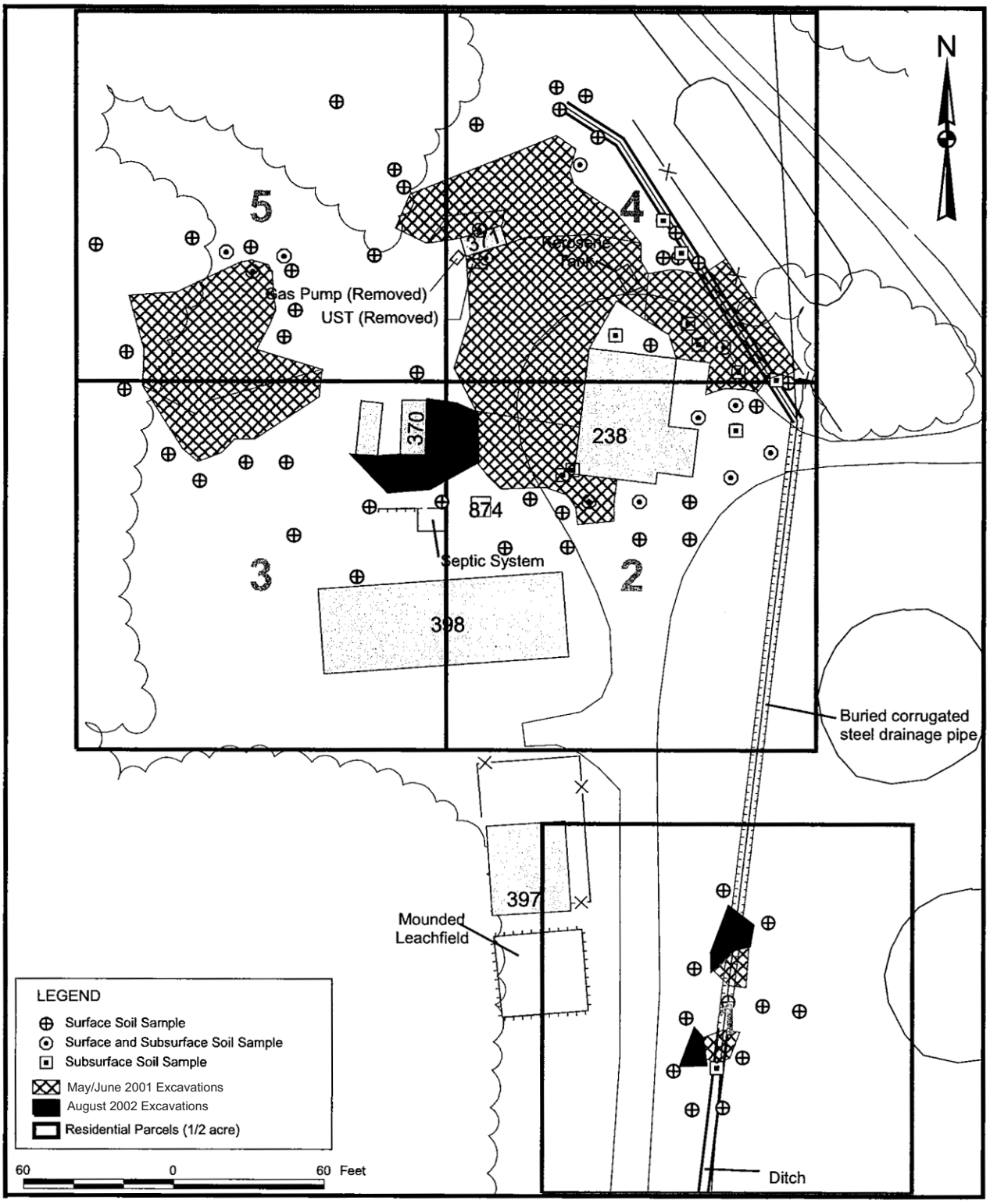


Figure 1-2
Site 21 Layout
Naval Air Station Cecil Field
Jacksonville, Florida

CH2MHILL

E022003014ATL\Jacksonville 102.ai

2.0 Source Removal Activities

Source removal activities were conducted at Site 21 on August 1 and 2, 2001. A total of 78.87 tons of non-hazardous soils were excavated and disposed. Figure 1-2 shows the limits of the August 2001 excavations. Photographs showing the site during the source removal are presented in Appendix B.

2.1 Site Preparation

In preparation for excavation activities, underground utility locating services were conducted by Sunshine State One-Call of Florida and J.A. Jones Management Services, the facilities maintenance contractor. No underground utilities were identified within the planned excavation area. The limits of the excavations were marked by TtNUS prior to excavating.

2.2 Soil Excavation And Disposal

2.2.1 Soil Excavation

Soil was excavated to the limits demarcated by TtNUS during the site preparation. These limits were established based on the contamination delineation performed by TtNUS. The actual excavation limits completely extended to the excavation limits specified in the Dig and Haul Package based on the site contamination delineation. In addition, there was no observed indication of contamination outside of the excavation limits during the source removal activities. Therefore, no confirmation sampling was required.

Soil was excavated to the proposed horizontal and vertical excavation limits as specified in the Dig and Haul Package for Site 21 (Appendix A). Soil was excavated using a hydraulic track excavator and were stockpiled on a 10-millimeter high-density polyethylene (HDPE) liner. The soil stockpiles were covered with 10-millimeter material during periods of non-activity on the site. The soil was transported offsite for disposal to an approved facility, as described in Section 2.2.2. Based on the facility weight tickets, 78.87 tons of non-hazardous soils were excavated from Site 21 and disposed offsite.

2.2.2 Soil Transportation and Disposal

Soil samples were collected and analyzed for waste characterization . The waste characterization analytical laboratory reports are included in Appendix C, and the waste profile form is included in Appendix D. The non-hazardous soil was transported offsite in dump trailers by Pritchett Trucking to the Chesser Island Landfill in Folkston, Georgia. The manifests are tabulated in Table 2-1 and copies of the manifests/weight tickets and the certificate of disposal are presented in Appendices E and F, respectively.

2.2.3 Backfilling and Site Restoration

The material used to backfill the excavation was certified clean fill excavated and brought in by Spencer Contracting, Inc. The certified clean soil used to backfill the Site 21 excavations was taken from Coxwell's Crystal Springs Pit. The laboratory analytical reports showing that the material was clean fill are presented in Appendix G.

Once the excavation area was backfilled, it was machine compacted in 1-foot lifts to a degree consistent with the requirements for a non-vehicular area, which is the specified final use for the area. The site was graded and seeded with a mixture of Bahia and rye grass. A layer of straw was applied to help temporarily prevent wind and water erosion until a good strand of grass is established, which would provide a permanent erosion protection.

Table 2-1
Summary of Manifest for Soil Disposal
Site 21, NAS Cecil Field

CTO No	Project No	Project Name	Site Description	Container Type	Container Design	Waste Profile Sample No	Contractor	Transporter	Date Transported	Transporter EPA ID	Load ID	Disposal Facility	Disp Fac EPA ID	Media	Waste Type (Haz, Nonhaz, TSCA)	Waste Code/ Haz Waste No	Disposal Date	Manifest Number	Disposal Treatment Method (Enter disposal quantity under appropriate method)					Certif of Disp/ Destruc Date	Comments/Notes	File Status (see note)
																			Incineration	Recycle	Landfill	Other	Unit			
0005	148799	Greysites IV	Site 21	DT	716	WMCU6014	EQIS	Pritchert	02-Aug-02	SLD984178269	1	Chesser Island	024-0006D	Soil	Non Haz	N/A	02-Aug-02	256325			19.9		TN			
0005	148799	Greysites IV	Site 21	DT	1021	WMCU6014	EQIS	Pritchert	02-Aug-02	SLD984178269	2	Chesser Island	024-0006D	Soil	Non Haz	N/A	02-Aug-02	256326			19.16		TN			
0005	148799	Greysites IV	Site 21	DT	706	WMCU6014	EQIS	Pritchert	02-Aug-02	SLD984178269	3	Chesser Island	024-0006D	Soil	Non Haz	N/A	02-Aug-02	256327			19.63		TN			
0005	148799	Greysites IV	Site 21	DT	716	WMCU6014	EQIS	Pritchert	02-Aug-02	SLD984178269	4	Chesser Island	024-0006D	Soil	Non Haz	N/A	02-Aug-02	256328			20.18		TN			

3.0 Conclusions

The source removal at Site 21 performed in August 2002 was completed in accordance with the Dig and Haul Package provided in Appendix A and included the excavation, transportation, and offsite disposal of 78.87 tons of non-hazardous soil and backfilling the excavations with clean fill imported from offsite. Arsenic-contaminated soil was removed from the horizontal and vertical excavation limits specified in the Dig and Haul Package provided in Appendix A in an attempt for the site to meet the criteria for unrestricted land use.

4.0 References

CCI. 1998. Basewide Work Plan, Naval Air Station Cecil Field, Jacksonville, Florida.

CCI. 2000. Work Plan Addendum No. 11, Excavation of Arsenic, Pesticides, PCB- and/or Petroleum-Contaminated Soil from Various Grey Sites, Naval Air Station Cecil Field, Jacksonville, Florida.

CCI. 2001. Source Removal Report Excavation of Arsenic, Pesticide, and TRPH Contaminated Soil at Site 21, Golf Course Maintenance Area (Facilities 238, 370, 371, 397, 874) Former Naval Air Station (NAS) Cecil Field, Jacksonville, Florida. Prepared for SOUTHNAVFACENCOM, North Charleston, South Carolina, June.

Tetra Tech NUS, Inc. April 15, 2002. Dig and Haul package for Site 21 – Golf Course Maintenance Area, Naval Air Station Cecil Field, Jacksonville, Florida. Prepared for SOUTHNAVFACENCOM, North Charleston, South Carolina.

Tetra Tech NUS, Inc. 2001. Feasibility Study Report Site 21 – Golf Course Maintenance Area at NAS Cecil Field, Jacksonville, Florida. Prepared for SOUTHNAVFACENCOM, North Charleston, South Carolina, March.

Appendix A

Tetra Tech NUS Dig and Haul Package and Table 1-1

DIG AND HAUL PACKAGE
for
Site 21 – Golf Course Maintenance Area

SITE BACKGROUND

Soil contamination was delineated during the Potential Source of Contamination (PSC) investigation conducted from 1999 through 2000. Soil contaminated with arsenic, chlordane, toxaphene, and dieldrin was delineated for excavation as presented in the Action Memorandum (TtNUS, 2001a). The soil excavation was conducted from May 29 through June 26, 2001 (CH2M Hill, 2001). This excavation remediated the site to an Industrial Re-use, which required a Land Use Control. Using the post excavation soil concentration data, TtNUS prepared a Feasibility Study Report (TtNUS, 2001b) which evaluated the requirements for unrestricted use which would not require institutional controls. The unrestricted reuse alternative evaluated the exposure point concentrations for ½ acre parcels, which would be representative of residential exposure units. The exposure point concentrations are represented by the 95% upper confidence limit of the mean (UCL). Arsenic was the only contaminant with UCL concentrations exceeding the Florida Department of Environmental Protection (FDEP) criteria for residential land use. The NAS Cecil Field Inorganic Background Data Set was also exceeded, thus additional excavation would be required to a residential land use. The results of this evaluation were reviewed by the Base Realignment and Closure (BRAC) Cleanup Team (BCT), and a decision was made to excavate soils that exceed the residential pick-up level as shown on figure E-1.

GUIDANCE NOTES

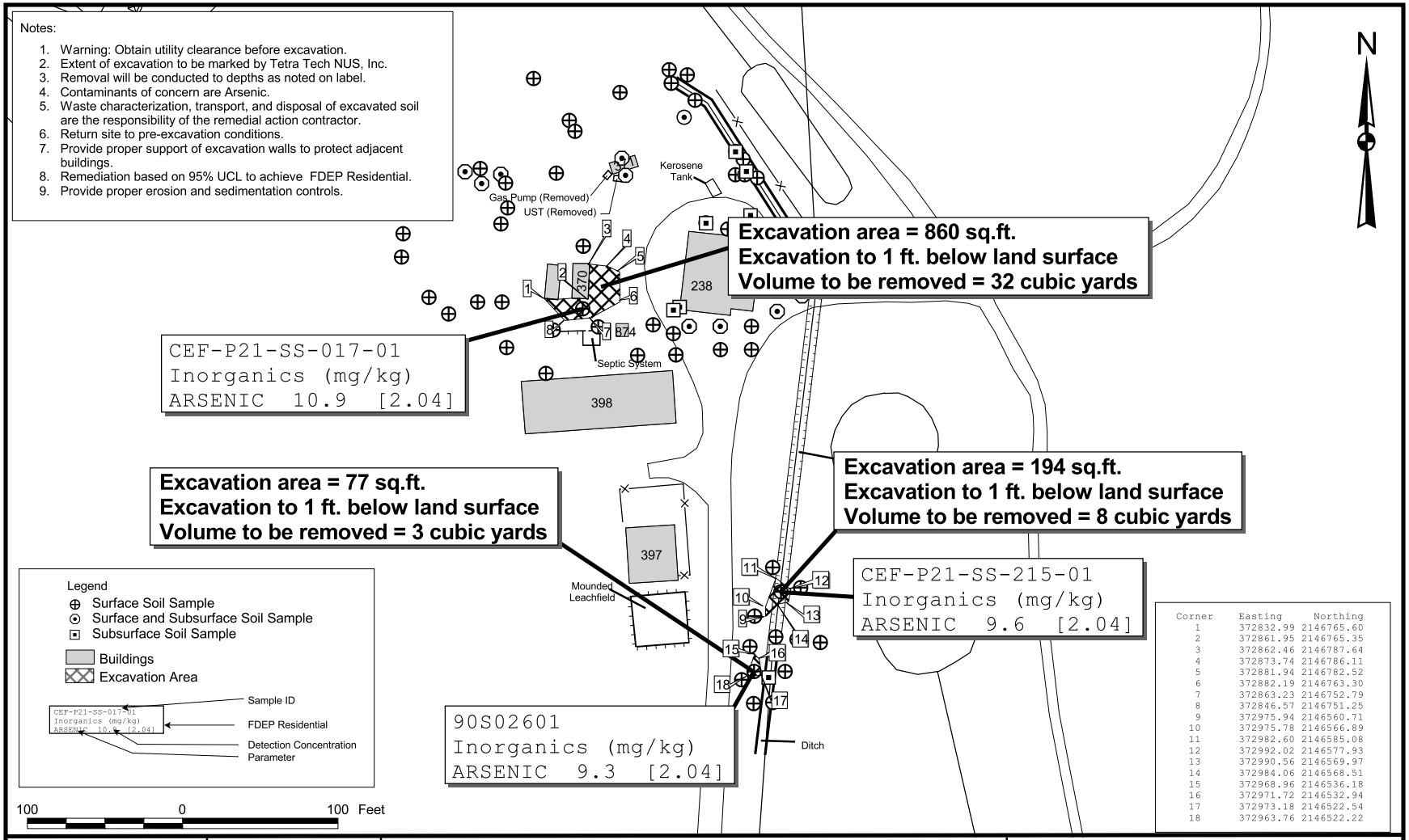
This information is provided for general guidance purposes only. The approximate area of excavation is shown on Figure E-1. The actual extent of excavation will be defined in the field by TtNUS with white spray-down paint (or equivalent) prior to the execution of the removal action.

The Remedial Action Contractor (RAC) shall be responsible for the following:

- The schedule and methods of excavation.
- All aspects of work-site health and safety.
- Identification and avoidance of all aboveground and underground utilities or other manmade structures.
- Waste characterization, transport (both on and off site), and disposal of all excavated soil.
- Notification of TtNUS and the Navy if observations indicate contaminants may extend beyond the planned lateral or vertical limits of the excavation.
- Depth of excavations is 1 foot below ground surface. Except where necessary for avoidance of structures or utilities, or where otherwise specified by TtNUS, the excavations should extend to the depths presented in Figure E-1.
- Excavated soil shall be stockpiled on, and covered with, heavy-duty polyethylene sheeting at the site. This shall be done in a manner to avoid the potential for contaminating surrounding soil or surface water. Alternately, soils may be stockpiled in properly covered roll-off containers.
- Stockpiling and combining of materials from different sites is permitted with prior approval of the BCT, if similar types and concentrations of contaminants are involved and were generated by similar processes.
- Materials used to backfill the excavation shall be from an uncontaminated source and be capable of supporting the same type of vegetation as the soil removed. The ground surface shall be restored to a similar or better condition than existed prior to excavation.

Notes:

1. Warning: Obtain utility clearance before excavation.
2. Extent of excavation to be marked by Tetra Tech NUS, Inc.
3. Removal will be conducted to depths as noted on label.
4. Contaminants of concern are Arsenic.
5. Waste characterization, transport, and disposal of excavated soil are the responsibility of the remedial action contractor.
6. Return site to pre-excavation conditions.
7. Provide proper support of excavation walls to protect adjacent buildings.
8. Remediation based on 95% UCL to achieve FDEP Residential.
9. Provide proper erosion and sedimentation controls.



Corner	Easting	Northing
1	372832.99	2146765.60
2	372861.95	2146765.35
3	372862.46	2146787.64
4	372873.74	2146786.11
5	372881.94	2146782.52
6	372882.19	2146763.30
7	372863.23	2146752.79
8	372846.57	2146751.25
9	372975.94	2146560.71
10	372975.78	2146566.89
11	372982.60	2146585.08
12	372992.02	2146577.93
13	372990.56	2146569.97
14	372984.06	2146568.51
15	372968.96	2146536.18
16	372971.72	2146532.94
17	372973.18	2146522.54
18	372963.76	2146522.22

DRAWN BY MJJ	DATE 29Mar02	CONTRACT NUMBER 0039	
CHECKED BY	DATE	APPROVED BY	DATE
COST/SCHEDULE-AREA		APPROVED BY	DATE
SCALE AS NOTED		DRAWING NO. FIGURE E-1	REV 0

REMOVAL ACTION DESIGN PLAN
SOIL EXCAVATION
SITE 21
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

P:\GIS\NAS_CecilField\Site-21_ResidentialDnH.apr 02Apr02 MJJ Layout1

TABLE 1-1

SUMMARY OF POST-REMOVAL ACTION SOIL ANALYTICAL DATA
OU 10, SITE 21 FEASIBILITY STUDY
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

Analyte	Unit	Minimum Detected Concentration	Maximum Detected Concentration	Residential UCL[1]					SCTL Direct Exposure Residential[2]	SCTL Leachability[2]	IBDS
				No. 1	No. 2	No. 3	No. 4	No. 5			
Arsenic	mg/kg	0.36	7.3	1.54	1.43	1.54	1.25	1.24	0.8	29	2.04
4,4'-DDT	µg/kg	4.2	5,740	NA	69	3.1	10	312	3,300	11,000	NA
Chlordane	µg/kg	4.0	3,860	NA	617	32	192	96	3,100	9,600	NA
Dieldrin	µg/kg	0.85	1.8	NA	ND	ND	ND	ND	70	4	NA
Toxaphene	µg/kg	410	3,620	NA	ND	ND	271	ND	1,000	31,000	NA
TRPH	mg/kg	12	152	NA	ND	42	57	85	340	340	NA

NOTES:

1. 95-percent upper confidence limit (UCL) of residual concentrations computed over each of five 0.5-acre parcels
2. Florida Department of Environmental Protection (FDEP) draft Soil Cleanup Target Levels (SCTLs) (FDEP, 1999a).

IBDS NAS Cecil Field site-specific Inorganic Background Data Set (HLA, 1998c)
µg/kg micrograms per kilogram
mg/kg milligrams per kilogram
NA not available
ND not detected
TRPH: total recoverable petroleum hydrocarbon

Appendix B

Photographs

Site 21 Prior to Excavation (Looking North)

Site 21 During Excavation (Looking West)

Site 21 Prior to Excavation (Looking West)

Site 21 After Excavation (Looking West)

Site 21 after excavation - 1 Foot Dig (Looking West)

Site after Excavation – 1 Foot Dig (Looking North)

Appendix C

Waste Characterization Sample Analytical Laboratory Report
(Provided on CD)

GULF COAST
ANALYTICAL LABORATORIES, INC.

ANALYTICAL RESULTS

PERFORMED BY

GULF COAST ANALYTICAL LABORATORIES, INC.

Report Date: 6/6/02

GCAL REPORT NO.: 202052421

Deliver To:	CH2M HILL Constructors Inc. 115 Perimeter Center Place N.E., Suite 700 Atlanta, GA 30346-1278 770-604-9182 Ext. 562
Attn:	Tatianna Romanova

CUSTOMER NAME: CH2M HILL Constructors Inc.

PROJECT NAME: NAS Cecil Field

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

CASE NARRATIVE

Client: CH2M HILL **Group No:** 202052421

ORGANIC QUALITY CONTROL CRITERIA:

Holding Times: All holding times were within method criteria.

Method Blanks: All method blanks were within quality control criteria.

Instrument Calibration: Both the initial and continuing calibrations were within method quality control criteria.

Surrogate Spikes: In the PCB analysis, the surrogate DCB was recovered slightly above the control limits in the MS for QC batch 132816; however, all other recoveries are within limits and there were no target analytes present.

In the Florida Petroleum Range analysis, the surrogate o-Terphenyl was recovered below the control limits in the blank for QC batch 133110, however all other recoveries were within limits and the sample were <DL.

All other surrogate recoveries were within quality control criteria.

Matrix Spike/Matrix Spike Duplicate (MS/MSD): In the Volatile analysis, the spike recovery for Acetone was outside the control limits in the MS/MSD for QC batch #132811. Its RPD was within control limits. The spike recovery for Total Xylene was slightly outside the control limits in the MS.

In the Pesticides analysis, the MS/MSD for QC batch 132817 recoveries were N/A due to the high presence of target analytes in the sample spiked.

All other MS/MSD recoveries were found to be within quality control limits.

Internal Standard Responses: All internal standard responses met method quality control criteria.

Analysis Comments: In the Pesticide analysis, for sample 20205242102 (005-212-S-0522-02 COMP) the lesser of the two values is being reported for Alpha and Gamma Chlordane, due to co-elution on the confirmation column.

No other unusual analytical problems were encountered during the analysis of these samples.

INORGANIC QUALITY CONTROL CRITERIA:

Holding Times: All holding times were within method criteria.

Method Blanks: All method blanks were found to be within quality control criteria.

CASE NARRATIVE

Client: CH2M HILL **Group No:** 202052421

INORGANIC QUALITY CONTROL CRITERIA:

Spike/Duplicate (S/D): In the Metals analysis, a post digestion spike was performed in the QC sample for this batch because the recovery for Aluminum was outside the control limit in the matrix spike and Matrix spike duplicate. The post-digestion spike recovery for this element was 97%.

In the Metals analysis, the spike recovery for Calcium in the MS/MSD for QC batch 132823 is reported as not applicable because the sample concentration is greater than four times the spike concentration.

In the Metals analysis, the RPD for duplicate Calcium analysis in batch 132823 is above the control limit. The heterogeneous nature of the QC sample is believed to be responsible for this.

All other S/D recoveries were within quality control criteria.

Laboratory Control Samples: All LCS analyses met quality control criteria.

Calibration Verifications: All ICV, ICB, CCV, CCB analyses met all quality control criteria.

Analysis Comments: No unusual analytical problems were encountered during the analysis of these samples.

LABORATORY ENDORSEMENT

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with ISO Guide 25 and NELAC, this report shall be reproduced 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.

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 of in accordance with GCAL's Standard Operating Procedures.

ND-Indicates that the result was not detected at the specified Reporting Limit (RDL)
DO-Indicates that the result was diluted out
MI-Indicates that the result was subject to Matrix Interference
TNTC-Indicates that the result was Too Numerous To Count
J-Indicates that the result was detected between the RDL and the MDL
U-Indicates that the result was not detected at the RDL
SUBC-Indicates that the analysis was Sub-contracted
FLD-Indicates that the result was performed in the field by the client
B- (ORGANICS) Indicates that the analyte was detected in the associated Method Blank
B- (INORGANICS) Indicates that the result is between the RDL and MDL
00:00 Reported as a time is equivalent to 24:00

This Report pertains only to the samples listed in the Sample Cross-Reference 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 CCI contract and Statement of Work both technically and for completeness, for other than the condition detailed above. 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 Bailey

SCOTT A. BAILEY
OPERATIONS MANAGER

GCAL REPORT NO.: 202052421

SAMPLE CROSS-REFERENCE

GCAL ID	CLIENT ID	MATRIX	SAMPLE DATE/TIME	RECEIVE DATE/TIME
20205242101	005-211-S-0522-02 COMP	Solid	5/22/02 9:30	5/23/02 9:15
20205242102	005-212-S-0522-02 COMP	Solid	5/22/02 9:55	5/23/02 9:15
20205242103	005-211-S-0522-02 GRAB	Solid	5/22/02 9:30	5/23/02 9:15
20205242104	005-212-S-0522-02 GRAB	Solid	5/22/02 9:55	5/23/02 9:15
20205242105	TRIP BLANK	Water		5/23/02 9:15

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Level:(low/med) LOW

	EPA SAMPLE NO.	SMC1 #	SMC2 (TOL) #	SMC3 (DCE) #	OTHER (BFB) #	TOT OUT
01	41648	96	112	99	97	0
02	41650	99	99	101	93	0
03	005-211-SMS	101	114	102	86	0
04	005-211-S	100	105	99	84	0
05	005-211-SMSD	98	105	97	91	0
06	005-212-S	98	99	97	90	0
07						
08						
09						
10						
11						
12						
13						
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25						
26						
27						
28						
29						
30						

		QC LIMITS
SMC1	= Dibromofluoromethane	(70-130)
SMC2 (TOL)	= Toluene-d8	(65-128)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(60-140)
OTHER(BFB)	= Bromofluorobenzene	(73-138)

Column to be used to flag recovery values

* Values outside of contract required QC limits

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

	EPA SAMPLE NO.	SMC1 #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER (BFB) #	TOT OUT
01	41483	99	94	100	90	0
02	41484	101	98	100	96	0
03	41485	101	97	102	101	0
04	TRIP BLANK	103	97	102	112	0
05						
06						
07						
08						
09						
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		QC LIMITS
SMC1	= Dibromofluoromethane	(70-130)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(76-128)
SMC3 (TOL)	= Toluene-d8	(83-112)
OTHER (BFB)	= Bromofluorobenzene	(78-115)

Column to be used to flag recovery values

* Values outside of contract required QC limits

QUALITY CONTROL SUMMARY

LCS ID: 41483	ORIGINAL LAB ID:	PREP BATCH:
	MATRIX Water	ANALYTICAL BATCH: 132428

SW-846 8260B

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
67-64-1	Acetone	50 ug/L	37.6	75	58 - 165
75-27-4	Bromodichloromethane	50 ug/L	44.7	89	76 - 128
75-25-2	Bromoform	50 ug/L	45.3	91	67 - 145
74-83-9	Bromomethane	50 ug/L	53.3	107	73 - 147
75-15-0	Carbon disulfide	50 ug/L	41.5	83	37 - 155
56-23-5	Carbon tetrachloride	50 ug/L	46	92	75 - 128
75-00-3	Chloroethane	50 ug/L	51.7	103	46 - 160
67-66-3	Chloroform	50 ug/L	44.1	88	80 - 124
74-87-3	Chloromethane	50 ug/L	44.5	89	71 - 120
124-48-1	Dibromochloromethane	50 ug/L	46.2	92	43 - 159
75-71-8	Dichlorodifluoromethane	50 ug/L	42.3	85	70 - 127
75-34-3	1,1-Dichloroethane	50 ug/L	45.4	91	75 - 127
107-06-2	1,2-Dichloroethane	50 ug/L	50.1	100	79 - 134
156-59-2	cis-1,2-Dichloroethene	50 ug/L	46.9	94	78 - 124
156-60-5	trans-1,2-Dichloroethene	50 ug/L	45.9	92	75 - 124
75-09-2	Methylene chloride	50 ug/L	42.1	84	74 - 130
78-87-5	1,2-Dichloropropane	50 ug/L	45.9	92	77 - 129
10061-01-5	cis-1,3-Dichloropropene	50 ug/L	43.1	86	73 - 128
10061-02-6	trans-1,3-Dichloropropene	50 ug/L	46.7	93	72 - 134
100-41-4	Ethylbenzene	50 ug/L	49.3	99	75 - 138
591-78-6	2-Hexanone	50 ug/L	41.4	83	71 - 166
98-82-8	Isopropylbenzene (Cumene)	50 ug/L	47.4	95	66 - 151
78-93-3	2-Butanone	50 ug/L	38.3	77	59 - 157
108-10-1	4-Methyl-2-pentanone	50 ug/L	40.9	82	65 - 159
100-42-5	Styrene	50 ug/L	50.6	101	75 - 139
127-18-4	Tetrachloroethene	50 ug/L	45.4	91	75 - 140
79-34-5	1,1,2,2-Tetrachloroethane	50 ug/L	33.9	68	55 - 153
120-82-1	1,2,4-Trichlorobenzene	50 ug/L	41.8	84	60 - 148
71-55-6	1,1,1-Trichloroethane	50 ug/L	45	90	45 - 152
79-00-5	1,1,2-Trichloroethane	50 ug/L	43.5	87	73 - 144
75-69-4	Trichlorofluoromethane	50 ug/L	44.4	89	73 - 131
75-01-4	Vinyl chloride	50 ug/L	44.5	89	68 - 127
96-12-8	1,2-Dibromo-3-chloropropane	50 ug/L	34.2	68	58 - 148
106-93-4	1,2-Dibromoethane	50 ug/L	44.7	89	74 - 140
1634-04-4	tert-Butyl methyl ether (MTBE)	50 ug/L	44.5	89	70 - 130
1330-20-7	Xylene (total)	150 ug/L	148	99	60 - 154
108-87-2	Methylcyclohexane	50 ug/L	42.3	85	40 - 130
110-82-7	Cyclohexane	50 ug/L	44	88	70 - 130
79-20-9	Methyl Acetate	50 ug/L	36.3	73	70 - 130

QUALITY CONTROL SUMMARY

76-13-1	Trichlorotrifluoroethane	50 ug/L	44	88	70 - 130
541-73-1	1,3-Dichlorobenzene	50 ug/L	46.5	93	65 - 143
106-46-7	1,4-Dichlorobenzene	50 ug/L	44.8	90	68 - 142
95-50-1	1,2-Dichlorobenzene	50 ug/L	44.1	88	67 - 142
75-35-4	1,1-Dichloroethene	50 ug/L	43.3	87	67 - 140
71-43-2	Benzene	50 ug/L	43.6	87	74 - 128
79-01-6	Trichloroethene	50 ug/L	45.6	91	63 - 118
108-88-3	Toluene	50 ug/L	45	90	76 - 125
108-90-7	Chlorobenzene	50 ug/L	46.2	92	78 - 125

LCSD LAB ID: 41484 ORIGINAL LAB ID: PREP BATCH:
MATRIX Water ANALYTICAL BATCH: 132428

SW-846 8260B

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
67-64-1	Acetone	50 ug/L	37.2	74	58 - 165	1	0 - 30
75-27-4	Bromodichloromethane	50 ug/L	44.9	90	76 - 128	1	0 - 30
75-25-2	Bromoform	50 ug/L	47	94	67 - 145	3	0 - 30
74-83-9	Bromomethane	50 ug/L	45.8	92	73 - 147	15	0 - 30
75-15-0	Carbon disulfide	50 ug/L	40.2	80	37 - 155	4	0 - 30
56-23-5	Carbon tetrachloride	50 ug/L	45	90	75 - 128	2	0 - 30
75-00-3	Chloroethane	50 ug/L	46.8	94	46 - 160	9	0 - 30
67-66-3	Chloroform	50 ug/L	43.4	87	80 - 124	1	0 - 30
74-87-3	Chloromethane	50 ug/L	43.1	86	71 - 120	3	0 - 30
124-48-1	Dibromochloromethane	50 ug/L	47.9	96	43 - 159	4	0 - 30
75-71-8	Dichlorodifluoromethane	50 ug/L	43.7	87	70 - 127	2	0 - 30
75-34-3	1,1-Dichloroethane	50 ug/L	43.8	88	75 - 127	3	0 - 30
107-06-2	1,2-Dichloroethane	50 ug/L	50.6	101	79 - 134	1	0 - 30
156-59-2	cis-1,2-Dichloroethene	50 ug/L	45.4	91	78 - 124	3	0 - 30
156-60-5	trans-1,2-Dichloroethene	50 ug/L	43.8	88	75 - 124	4	0 - 30
75-09-2	Methylene chloride	50 ug/L	41.5	83	74 - 130	1	0 - 30
78-87-5	1,2-Dichloropropane	50 ug/L	45.4	91	77 - 129	1	0 - 30
10061-01-5	cis-1,3-Dichloropropene	50 ug/L	44.2	88	73 - 128	2	0 - 30
10061-02-6	trans-1,3-Dichloropropene	50 ug/L	47.9	96	72 - 134	3	0 - 30
100-41-4	Ethylbenzene	50 ug/L	47.7	95	75 - 138	4	0 - 30
591-78-6	2-Hexanone	50 ug/L	44.4	89	71 - 166	7	0 - 30
98-82-8	Isopropylbenzene (Cumene)	50 ug/L	45.7	91	66 - 151	4	0 - 30
78-93-3	2-Butanone	50 ug/L	40.4	81	59 - 157	5	0 - 30
108-10-1	4-Methyl-2-pentanone	50 ug/L	43.8	88	65 - 159	7	0 - 30
100-42-5	Styrene	50 ug/L	48.1	96	75 - 139	5	0 - 30
127-18-4	Tetrachloroethene	50 ug/L	44.1	88	75 - 140	3	0 - 30
79-34-5	1,1,2,2-Tetrachloroethane	50 ug/L	37.8	76	55 - 153	11	0 - 30
120-82-1	1,2,4-Trichlorobenzene	50 ug/L	46.8	94	60 - 148	11	0 - 30
71-55-6	1,1,1-Trichloroethane	50 ug/L	43.7	87	45 - 152	3	0 - 30
79-00-5	1,1,2-Trichloroethane	50 ug/L	45.1	90	73 - 144	3	0 - 30

QUALITY CONTROL SUMMARY

75-69-4	Trichlorofluoromethane	50 ug/L	40.5	81	73 - 131	9	0 - 30
75-01-4	Vinyl chloride	50 ug/L	43.2	86	68 - 127	3	0 - 30
96-12-8	1,2-Dibromo-3-chloropropane	50 ug/L	38	76	58 - 148	11	0 - 30
106-93-4	1,2-Dibromoethane	50 ug/L	46.5	93	74 - 140	4	0 - 30
1634-04-4	tert-Butyl methyl ether (MTBE)	50 ug/L	46.7	93	70 - 130	4	0 - 30
1330-20-7	Xylene (total)	150 ug/L	139	93	60 - 154	6	0 - 30
108-87-2	Methylcyclohexane	50 ug/L	42	84	70 - 130	1	0 - 30
110-82-7	Cyclohexane	50 ug/L	43	86	70 - 130	2	0 - 30
79-20-9	Methyl Acetate	50 ug/L	37.9	76	70 - 130	4	0 - 30
76-13-1	Trichlorotrifluoroethane	50 ug/L	42.6	85	70 - 130	3	0 - 30
541-73-1	1,3-Dichlorobenzene	50 ug/L	47.3	95	65 - 143	2	0 - 30
106-46-7	1,4-Dichlorobenzene	50 ug/L	43.4	87	68 - 142	3	0 - 30
95-50-1	1,2-Dichlorobenzene	50 ug/L	45	90	67 - 142	2	0 - 30
75-35-4	1,1-Dichloroethene	50 ug/L	42.5	85	67 - 140	2	0 - 14
71-43-2	Benzene	50 ug/L	43.1	86	74 - 128	1	0 - 11
79-01-6	Trichloroethene	50 ug/L	44.7	89	63 - 118	2	0 - 12
108-88-3	Toluene	50 ug/L	44.4	89	76 - 125	1	0 - 14
108-90-7	Chlorobenzene	50 ug/L	45	90	78 - 125	2	0 - 13

MS LAB ID: 41528 **ORIGINAL LAB ID:** 202052223230 **PREP BATCH:**
MATRIX Water **ANALYTICAL BATCH:** 132428

SW-846 8260B

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
75-27-4	Bromodichloromethane	0	50 ug/L	48.2	96	76 - 128
75-25-2	Bromoform	0	50 ug/L	50.6	101	67 - 145
74-83-9	Bromomethane	0	50 ug/L	51.7	103	73 - 147
56-23-5	Carbon tetrachloride	0	50 ug/L	52.2	104	70 - 140
75-00-3	Chloroethane	0	50 ug/L	59.9	120	76 - 160
67-66-3	Chloroform	0	50 ug/L	47	94	80 - 124
74-87-3	Chloromethane	0	50 ug/L	51.1	102	71 - 120
124-48-1	Dibromochloromethane	0	50 ug/L	50.1	100	43 - 159
75-71-8	Dichlorodifluoromethane	0	50 ug/L	46.9	94	70 - 127
75-34-3	1,1-Dichloroethane	0	50 ug/L	48.2	96	75 - 127
107-06-2	1,2-Dichloroethane	0	50 ug/L	54.5	109	79 - 134
156-59-2	cis-1,2-Dichloroethene	0	50 ug/L	48.9	98	78 - 124
156-60-5	trans-1,2-Dichloroethene	0	50 ug/L	48.5	97	72 - 134
75-09-2	Methylene chloride	1.45	50 ug/L	43.8	85	74 - 130
78-87-5	1,2-Dichloropropane	0	50 ug/L	49.6	99	77 - 129
10061-01-5	cis-1,3-Dichloropropene	0	50 ug/L	47.2	94	7 - 227
10061-02-6	trans-1,3-Dichloropropene	0	50 ug/L	51.2	102	17 - 183
100-41-4	Ethylbenzene	0	50 ug/L	53.4	107	75 - 138
98-82-8	Isopropylbenzene (Cumene)	0	50 ug/L	52.5	105	66 - 151
100-42-5	Styrene	0	50 ug/L	54.1	108	75 - 139
127-18-4	Tetrachloroethene	0	50 ug/L	50.6	101	75 - 140

QUALITY CONTROL SUMMARY

79-34-5	1,1,2,2-Tetrachloroethane	0	50 ug/L	38.9	78	55 - 153
120-82-1	1,2,4-Trichlorobenzene	0	50 ug/L	46.9	94	60 - 148
71-55-6	1,1,1-Trichloroethane	0	50 ug/L	49.9	100	45 - 152
79-00-5	1,1,2-Trichloroethane	0	50 ug/L	47.7	95	73 - 144
75-69-4	Trichlorofluoromethane	0	50 ug/L	49.4	99	71 - 131
75-01-4	Vinyl chloride	0	50 ug/L	50	100	68 - 127
96-12-8	1,2-Dibromo-3-chloropropane	0	50 ug/L	39.4	79	58 - 148
106-93-4	1,2-Dibromoethane	0	50 ug/L	48.6	97	74 - 140
541-73-1	1,3-Dichlorobenzene	0	50 ug/L	48.5	97	65 - 143
106-46-7	1,4-Dichlorobenzene	0	50 ug/L	49.6	99	68 - 142
95-50-1	1,2-Dichlorobenzene	0	50 ug/L	47.6	95	67 - 142
75-35-4	1,1-Dichloroethene	0	50 ug/L	47.2	94	61 - 145
71-43-2	Benzene	0	50 ug/L	47.2	94	76 - 127
79-01-6	Trichloroethene	0	50 ug/L	50.2	100	71 - 120
108-88-3	Toluene	0	50 ug/L	49.3	99	76 - 125
108-90-7	Chlorobenzene	0	50 ug/L	49.1	98	75 - 130

MSD LAB ID: 41529 **ORIGINAL LAB ID:** 20205223230 **PREP BATCH:**
MATRIX Water **ANALYTICAL BATCH:** 132428

SW-846 8260B

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
75-27-4	Bromodichloromethane	50 ug/L	46.4	93	76 - 128	3	0 - 30
75-25-2	Bromoform	50 ug/L	47.2	94	67 - 145	7	0 - 30
74-83-9	Bromomethane	50 ug/L	48.1	96	73 - 147	7	0 - 30
56-23-5	Carbon tetrachloride	50 ug/L	50	100	70 - 140	4	0 - 30
75-00-3	Chloroethane	50 ug/L	53.5	107	76 - 160	11	0 - 30
67-66-3	Chloroform	50 ug/L	45.5	91	80 - 124	3	0 - 30
74-87-3	Chloromethane	50 ug/L	48.3	97	71 - 120	5	0 - 30
124-48-1	Dibromochloromethane	50 ug/L	47.3	95	43 - 159	5	0 - 30
75-71-8	Dichlorodifluoromethane	50 ug/L	48.1	96	70 - 127	2	0 - 30
75-34-3	1,1-Dichloroethane	50 ug/L	46.6	93	75 - 127	3	0 - 30
107-06-2	1,2-Dichloroethane	50 ug/L	51.3	103	79 - 134	6	0 - 30
156-59-2	cis-1,2-Dichloroethene	50 ug/L	47.7	95	78 - 124	3	0 - 30
156-60-5	trans-1,2-Dichloroethene	50 ug/L	48	96	72 - 134	1	0 - 30
75-09-2	Methylene chloride	50 ug/L	42.4	82	74 - 130	4	0 - 30
78-87-5	1,2-Dichloropropane	50 ug/L	48.1	96	77 - 129	3	0 - 30
10061-01-5	cis-1,3-Dichloropropene	50 ug/L	44.9	90	7 - 227	4	0 - 30
10061-02-6	trans-1,3-Dichloropropene	50 ug/L	48.6	97	17 - 183	5	0 - 30
100-41-4	Ethylbenzene	50 ug/L	51	102	75 - 138	5	0 - 30
98-82-8	Isopropylbenzene (Cumene)	50 ug/L	49.7	99	66 - 151	6	0 - 30
100-42-5	Styrene	50 ug/L	49.5	99	75 - 139	9	0 - 30
127-18-4	Tetrachloroethene	50 ug/L	48.9	98	75 - 140	3	0 - 30
79-34-5	1,1,2,2-Tetrachloroethane	50 ug/L	38.8	78	55 - 153	0	0 - 30
120-82-1	1,2,4-Trichlorobenzene	50 ug/L	45.2	90	60 - 148	4	0 - 30

QUALITY CONTROL SUMMARY

71-55-6	1,1,1-Trichloroethane	50 ug/L	47.7	95	45 - 152	5	0 - 30
79-00-5	1,1,2-Trichloroethane	50 ug/L	45.6	91	73 - 144	4	0 - 30
75-69-4	Trichlorofluoromethane	50 ug/L	48.3	97	71 - 131	2	0 - 30
75-01-4	Vinyl chloride	50 ug/L	49	98	68 - 127	2	0 - 30
96-12-8	1,2-Dibromo-3-chloropropane	50 ug/L	39.5	79	58 - 148	0	0 - 30
106-93-4	1,2-Dibromoethane	50 ug/L	46.1	92	74 - 140	5	0 - 30
541-73-1	1,3-Dichlorobenzene	50 ug/L	47.1	94	65 - 143	3	0 - 30
106-46-7	1,4-Dichlorobenzene	50 ug/L	46.2	92	68 - 142	7	0 - 30
95-50-1	1,2-Dichlorobenzene	50 ug/L	45.6	91	67 - 142	4	0 - 30
75-35-4	1,1-Dichloroethene	50 ug/L	46.5	93	61 - 145	1	0 - 14
71-43-2	Benzene	50 ug/L	45.2	90	76 - 127	4	0 - 11
79-01-6	Trichloroethene	50 ug/L	48.6	97	71 - 120	3	0 - 14
108-88-3	Toluene	50 ug/L	47.4	95	76 - 125	4	0 - 13
108-90-7	Chlorobenzene	50 ug/L	46.2	92	75 - 130	6	0 - 13

MS LAB ID: 20205212505 ORIGINAL LAB ID: 20205212504 PREP BATCH:
MATRIX Solid ANALYTICAL BATCH: 132811

SW-846 8260B

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
75-35-4	1,1-Dichloroethene	0	50 ug/Kg	57.3	115	59 - 172
71-43-2	Benzene	0	50 ug/Kg	51.8	104	60 - 133
79-01-6	Trichloroethene	0	50 ug/Kg	42.1	84	62 - 137
108-88-3	Toluene	0	50 ug/Kg	50.1	100	59 - 139
108-90-7	Chlorobenzene	0	50 ug/Kg	53.3	107	66 - 142

MSD LAB ID: 20205212506 ORIGINAL LAB ID: 20205212504 PREP BATCH:
MATRIX Solid ANALYTICAL BATCH: 132811

SW-846 8260B

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
75-35-4	1,1-Dichloroethene	50 ug/Kg	58.8	118	59 - 172	3	0 - 22
71-43-2	Benzene	50 ug/Kg	51.1	102	60 - 133	2	0 - 21
79-01-6	Trichloroethene	50 ug/Kg	41.9	84	62 - 137	0	0 - 24
108-88-3	Toluene	50 ug/Kg	52	104	59 - 139	4	0 - 21
108-90-7	Chlorobenzene	50 ug/Kg	53.7	107	66 - 142	0	0 - 21

LCS ID: 41648 ORIGINAL LAB ID: PREP BATCH:
MATRIX Solid ANALYTICAL BATCH: 132811

SW-846 8260B

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
67-64-1	Acetone	50 ug/Kg	38	76	58 - 165
75-27-4	Bromodichloromethane	50 ug/Kg	46.6	93	76 - 132
75-15-0	Carbon disulfide	50 ug/Kg	52.2	104	64 - 136
56-23-5	Carbon tetrachloride	50 ug/Kg	49.8	100	68 - 138
75-00-3	Chloroethane	50 ug/Kg	52	104	73 - 183

QUALITY CONTROL SUMMARY

67-66-3	Chloroform	50 ug/Kg	47.2	94	72 - 136
74-87-3	Chloromethane	50 ug/Kg	44.9	90	46 - 138
75-71-8	Dichlorodifluoromethane	50 ug/Kg	46.7	93	63 - 135
75-34-3	1,1-Dichloroethane	50 ug/Kg	39.7	79	69 - 133
107-06-2	1,2-Dichloroethane	50 ug/Kg	48.6	97	75 - 134
156-59-2	cis-1,2-Dichloroethene	50 ug/Kg	48.9	98	68 - 136
156-60-5	trans-1,2-Dichloroethene	50 ug/Kg	50.4	101	66 - 134
75-09-2	Methylene chloride	50 ug/Kg	45.7	91	61 - 145
78-87-5	1,2-Dichloropropane	50 ug/Kg	50.5	101	83 - 123
10061-01-5	cis-1,3-Dichloropropene	50 ug/Kg	45.5	91	7 - 186
10061-02-6	trans-1,3-Dichloropropene	50 ug/Kg	18.9	38	17 - 138
100-41-4	Ethylbenzene	50 ug/Kg	47	94	80 - 137
591-78-6	2-Hexanone	50 ug/Kg	44.1	88	62 - 181
78-93-3	2-Butanone	50 ug/Kg	41.9	84	49 - 170
108-10-1	4-Methyl-2-pentanone	50 ug/Kg	45.5	91	76 - 159
100-42-5	Styrene	50 ug/Kg	46.4	93	75 - 139
127-18-4	Tetrachloroethene	50 ug/Kg	46.1	92	79 - 141
71-55-6	1,1,1-Trichloroethane	50 ug/Kg	47.5	95	71 - 135
79-00-5	1,1,2-Trichloroethane	50 ug/Kg	45.7	91	77 - 141
75-69-4	Trichlorofluoromethane	50 ug/Kg	52.9	106	69 - 138
75-01-4	Vinyl chloride	50 ug/Kg	49.3	99	65 - 136
106-93-4	1,2-Dibromoethane	50 ug/Kg	49.2	98	75 - 143
1634-04-4	tert-Butyl methyl ether (MTBE)	50 ug/Kg	51.2	102	70 - 130
1330-20-7	Xylene (total)	150 ug/Kg	129	86	79 - 136
108-87-2	Methylcyclohexane	50 ug/Kg	54.5	109	70 - 130
110-82-7	Cyclohexane	50 ug/Kg	52.5	105	70 - 130
79-20-9	Methyl Acetate	50 ug/Kg	48.6	97	70 - 130
76-13-1	Trichlorotrifluoroethane	50 ug/Kg	54.6	109	70 - 130
75-35-4	1,1-Dichloroethene	50 ug/Kg	53.6	107	70 - 131
71-43-2	Benzene	50 ug/Kg	48.5	97	77 - 126
79-01-6	Trichloroethene	50 ug/Kg	45.2	90	70 - 124
108-88-3	Toluene	50 ug/Kg	56.3	113	76 - 124
108-90-7	Chlorobenzene	50 ug/Kg	48.3	97	80 - 121

MS LAB ID: 41777 **ORIGINAL LAB ID:** 20205242103 **PREP BATCH:**
MATRIX Solid **ANALYTICAL BATCH:** 132811

SW-846 8260B

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
67-64-1	Acetone	7.34	50 ug/Kg	41.2	68 *	73 - 143
75-27-4	Bromodichloromethane	0	50 ug/Kg	45.3	91	76 - 132
75-15-0	Carbon disulfide	0	50 ug/Kg	45.6	91	64 - 136
56-23-5	Carbon tetrachloride	0	50 ug/Kg	48.1	96	68 - 138
75-00-3	Chloroethane	0	50 ug/Kg	49.1	98	73 - 183
67-66-3	Chloroform	0	50 ug/Kg	47.9	96	72 - 136

QUALITY CONTROL SUMMARY

74-87-3	Chloromethane	0	50 ug/Kg	47.2	94	66 - 138
75-71-8	Dichlorodifluoromethane	0	50 ug/Kg	54.8	110	63 - 135
75-34-3	1,1-Dichloroethane	0	50 ug/Kg	50.1	100	69 - 133
107-06-2	1,2-Dichloroethane	0	50 ug/Kg	48.7	97	75 - 134
156-59-2	cis-1,2-Dichloroethene	0	50 ug/Kg	48.5	97	68 - 136
156-60-5	trans-1,2-Dichloroethene	0	50 ug/Kg	48.5	97	66 - 134
75-09-2	Methylene chloride	2.13	50 ug/Kg	44.5	85	61 - 145
78-87-5	1,2-Dichloropropane	0	50 ug/Kg	47.8	96	83 - 123
10061-01-5	cis-1,3-Dichloropropene	0	50 ug/Kg	41.1	82	66 - 130
10061-02-6	trans-1,3-Dichloropropene	0	50 ug/Kg	46.9	94	66 - 131
100-41-4	Ethylbenzene	0	50 ug/Kg	45.1	90	80 - 137
591-78-6	2-Hexanone	0	50 ug/Kg	44.3	89	62 - 181
78-93-3	2-Butanone	0	50 ug/Kg	37.8	76	49 - 170
108-10-1	4-Methyl-2-pentanone	0	50 ug/Kg	41.7	83	76 - 159
100-42-5	Styrene	0	50 ug/Kg	39	78	75 - 139
127-18-4	Tetrachloroethene	0	50 ug/Kg	45.7	91	79 - 141
71-55-6	1,1,1-Trichloroethane	0	50 ug/Kg	46.8	94	71 - 135
79-00-5	1,1,2-Trichloroethane	0	50 ug/Kg	49.3	99	77 - 141
75-69-4	Trichlorofluoromethane	0	50 ug/Kg	48.6	97	69 - 138
75-01-4	Vinyl chloride	0	50 ug/Kg	46.6	93	65 - 136
106-93-4	1,2-Dibromoethane	0	50 ug/Kg	49.8	100	75 - 143
1634-04-4	tert-Butyl methyl ether (MTBE)	0	50 ug/Kg	46.7	93	70 - 130
1330-20-7	Xylene (total)	0	150 ug/Kg	117	78 *	79 - 136
108-87-2	Methylcyclohexane	0	50 ug/Kg	36.9	74	70 - 130
110-82-7	Cyclohexane	0	50 ug/Kg	44.6	89	70 - 130
79-20-9	Methyl Acetate	0	50 ug/Kg	38.1	76	70 - 130
76-13-1	Trichlorotrifluoroethane	0	50 ug/Kg	47.9	96	70 - 130
75-35-4	1,1-Dichloroethene	0	50 ug/Kg	47.5	95	59 - 172
71-43-2	Benzene	0	50 ug/Kg	48.6	97	60 - 133
79-01-6	Trichloroethene	0	50 ug/Kg	38.4	77	62 - 137
108-88-3	Toluene	0	50 ug/Kg	54.9	110	59 - 139
108-90-7	Chlorobenzene	0	50 ug/Kg	45.5	91	66 - 142

MSD LAB ID: 41778	ORIGINAL LAB ID: 20205242103	PREP BATCH:
	MATRIX Solid	ANALYTICAL BATCH: 132811

SW-846 8260B

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
67-64-1	Acetone	50 ug/Kg	40.6	67 *	73 - 143	1	0 - 30
75-27-4	Bromodichloromethane	50 ug/Kg	45.2	90	76 - 132	1	0 - 30
75-15-0	Carbon disulfide	50 ug/Kg	44.7	89	64 - 136	2	0 - 30
56-23-5	Carbon tetrachloride	50 ug/Kg	52.7	105	68 - 138	9	0 - 30
75-00-3	Chloroethane	50 ug/Kg	46.2	92	73 - 183	6	0 - 30
67-66-3	Chloroform	50 ug/Kg	49.2	98	72 - 136	2	0 - 30
74-87-3	Chloromethane	50 ug/Kg	44.3	89	66 - 138	5	0 - 30

QUALITY CONTROL SUMMARY

75-71-8	Dichlorodifluoromethane	50 ug/Kg	57.2	114	63 - 135	4	0 - 30
75-34-3	1,1-Dichloroethane	50 ug/Kg	52.9	106	69 - 133	6	0 - 30
107-06-2	1,2-Dichloroethane	50 ug/Kg	49.8	100	75 - 134	3	0 - 30
156-59-2	cis-1,2-Dichloroethene	50 ug/Kg	50.4	101	68 - 136	4	0 - 30
156-60-5	trans-1,2-Dichloroethene	50 ug/Kg	47.6	95	66 - 134	2	0 - 30
75-09-2	Methylene chloride	50 ug/Kg	43.7	83	61 - 145	2	0 - 30
78-87-5	1,2-Dichloropropane	50 ug/Kg	50.2	100	83 - 123	4	0 - 30
10061-01-5	cis-1,3-Dichloropropene	50 ug/Kg	42.8	86	66 - 130	5	0 - 30
10061-02-6	trans-1,3-Dichloropropene	50 ug/Kg	46.4	93	66 - 131	1	0 - 30
100-41-4	Ethylbenzene	50 ug/Kg	46.6	93	80 - 137	3	0 - 30
591-78-6	2-Hexanone	50 ug/Kg	44.9	90	62 - 181	1	0 - 30
78-93-3	2-Butanone	50 ug/Kg	41.1	82	49 - 170	8	0 - 30
108-10-1	4-Methyl-2-pentanone	50 ug/Kg	42.7	85	76 - 159	2	0 - 30
100-42-5	Styrene	50 ug/Kg	41.5	83	75 - 139	6	0 - 30
127-18-4	Tetrachloroethene	50 ug/Kg	47.9	96	79 - 141	5	0 - 30
71-55-6	1,1,1-Trichloroethane	50 ug/Kg	49.5	99	71 - 135	5	0 - 30
79-00-5	1,1,2-Trichloroethane	50 ug/Kg	47.2	94	77 - 141	5	0 - 30
75-69-4	Trichlorofluoromethane	50 ug/Kg	50.2	100	69 - 138	3	0 - 30
75-01-4	Vinyl chloride	50 ug/Kg	45.4	91	65 - 136	2	0 - 30
106-93-4	1,2-Dibromoethane	50 ug/Kg	48.8	98	75 - 143	2	0 - 30
1634-04-4	tert-Butyl methyl ether (MTBE)	50 ug/Kg	46.9	94	70 - 130	1	0 - 30
1330-20-7	Xylene (total)	150 ug/Kg	121	81	79 - 136	4	0 - 30
108-87-2	Methylcyclohexane	50 ug/Kg	46.3	93	70 - 130	23	0 - 30
110-82-7	Cyclohexane	50 ug/Kg	52.6	105	70 - 130	16	0 - 30
79-20-9	Methyl Acetate	50 ug/Kg	39.3	79	70 - 130	4	0 - 30
76-13-1	Trichlorotrifluoroethane	50 ug/Kg	48.3	97	70 - 130	1	0 - 30
75-35-4	1,1-Dichloroethene	50 ug/Kg	45.8	92	59 - 172	3	0 - 22
71-43-2	Benzene	50 ug/Kg	49.6	99	60 - 133	2	0 - 21
79-01-6	Trichloroethene	50 ug/Kg	39.8	80	62 - 137	4	0 - 24
108-88-3	Toluene	50 ug/Kg	49.6	99	59 - 139	11	0 - 21
108-90-7	Chlorobenzene	50 ug/Kg	47.1	94	66 - 142	3	0 - 21

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Lab File ID: R4397 BFB Injection Date: 05/14/02

Instrument ID: MSV0 BFB Injection Time: 1311

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.6
75	30.0 - 60.0% of mass 95	45.4
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 99.9% of mass 95	75.7
175	5.0 - 9.0% of mass 174	5.6 (7.4)1
176	95.0 - 101.0% of mass 174	72.2 (95.3)1
177	5.0 - 9.0% of mass 176	4.9 (6.7)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	V0STD002	V0STD002	R4400	05/14/02	1439
02	V0STD005	V0STD005	R4401	05/14/02	1501
03	V0STD020	V0STD020	R4402	05/14/02	1523
04	V0STD050	V0STD050	R4403	05/14/02	1545
05	V0STD100	V0STD100	R4404	05/14/02	1607
06	V0STD200	V0STD200	R4405	05/14/02	1628
07	V0STD0.2	V0STD0.2	R4408	05/14/02	1734
08	V0STD0.4	V0STD0.4	R4409	05/14/02	1756
09	V0ICV050	V0ICV050	R4410	05/14/02	1823
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5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Lab File ID: R2625 BFB Injection Date: 05/25/02

Instrument ID: MSV2 BFB Injection Time: 1003

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	25.0
75	30.0 - 60.0% of mass 95	52.5
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 99.9% of mass 95	87.5
175	5.0 - 9.0% of mass 174	6.7 (7.7)1
176	95.0 - 101.0% of mass 174	85.3 (97.5)1
177	5.0 - 9.0% of mass 176	5.8 (6.8)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	V2STD005	V2STD005	R2626	05/25/02	1052
02	V2STD020	V2STD020	R2627	05/25/02	1118
03	V2STD050	V2STD050	R2628	05/25/02	1145
04	V2STD100	V2STD100	R2629	05/25/02	1212
05	V2STD200	V2STD200	R2630	05/25/02	1239
06	V2ICV050	V2ICV050	R2632	05/25/02	1332
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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Lab File ID: R4990 BFB Injection Date: 05/28/02

Instrument ID: MSV0 BFB Injection Time: 0800

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.1
75	30.0 - 60.0% of mass 95	45.8
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 99.9% of mass 95	73.2
175	5.0 - 9.0% of mass 174	5.4 (7.3)1
176	95.0 - 101.0% of mass 174	69.6 (95.2)1
177	5.0 - 9.0% of mass 176	4.6 (6.5)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	V0STD050	V0STD050	R4991	05/28/02	0829
02	41483	41483	R4992	05/28/02	0908
03	41484	41484	R4993	05/28/02	0932
04	41485	41485	R4995	05/28/02	1023
05	TRIP BLANK	20205242105	R5013	05/28/02	1821
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5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Lab File ID: R2745 BFB Injection Date: 05/29/02

Instrument ID: MSV2 BFB Injection Time: 0648

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	23.6
75	30.0 - 60.0% of mass 95	51.5
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 99.9% of mass 95	88.9
175	5.0 - 9.0% of mass 174	6.0 (6.7)1
176	95.0 - 101.0% of mass 174	86.8 (97.6)1
177	5.0 - 9.0% of mass 176	5.7 (6.5)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	V2STD050	V2STD050	R2747	05/29/02	0806
02	41648	41648	R2748	05/29/02	0843
03	41650	41650	R2751	05/29/02	1012
04	005-211-SMS	41777	R2755MS	05/29/02	1212
05	005-211-S	20205242103	R2757	05/29/02	1305
06	005-211-SMSD	41778	R2762MSD	05/29/02	1520
07	005-212-S	20205242104	R2763	05/29/02	1547
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8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Lab File ID (Standard): R4991 Date Analyzed: 05/28/02

Instrument ID: MSV0 Time Analyzed: 0829

GC Column: DB-624-30M ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS1 AREA #	RT #	IS2(CBZ) AREA #	RT #	IS3(DCB) AREA #	RT #
	12 HOUR STD	4174823	5.91	1758676	8.15	1412677	9.73
	UPPER LIMIT	8349646	6.41	3517352	8.65	2825354	10.23
	LOWER LIMIT	2087412	5.41	879338	7.65	706338	9.23
	EPA SAMPLE NO.						
01	41483	4444505	5.91	1827165	8.14	1382107	9.74
02	41484	4487529	5.91	1854318	8.14	1310202	9.74
03	41485	3800894	5.91	1507129	8.14	946901	9.74
04	TRIP BLANK	3870443	5.90	1490552	8.15	792181	9.74
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IS1 = FLUOROBENZENE
IS2 (CBZ) = CHLOROBENZENE-d5
IS3 (DCB) = 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
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

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

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Lab File ID (Standard): R2749 Date Analyzed: 05/29/02

Instrument ID: MSV2 Time Analyzed: 0910

GC Column: DB-624-30M ID: 0.53 (mm) Heated Purge: (Y/N) Y

		IS1(CBZ) AREA #	RT #	IS2 AREA #	RT #	IS3(DCB) AREA #	RT #
	12 HOUR STD	645486	9.03	2393349	6.50	474937	10.82
	UPPER LIMIT	1290972	9.53	4786698	7.00	949874	11.32
	LOWER LIMIT	322743	8.53	1196674	6.00	237468	10.32
	EPA SAMPLE NO.						
01	41650	629233	9.03	2378575	6.50	447887	10.82
02	005-211-SMS	541384	9.03	2286132	6.51	318745	10.82
03	005-211-S	538162	9.03	2221953	6.50	256394	10.83
04	005-211-SMSD	595394	9.04	2379661	6.51	396652	10.83
05	005-212-S	599988	9.04	2316656	6.51	347158	10.83
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IS1 (CBZ) = Chlorobenzene-d5
IS2 = FLUOROBENZENE
IS3 (DCB) = 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
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

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

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242103	005-211-S-0522-02 GRAB	Solid	5/22/02 09:30	5/23/02 09:15	5/23/02 09:15

8260B, VOA , Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	5/29/02 13:05	KRV	132811

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
71-55-6	1,1,1-Trichloroethane	ND	6.14	0.320	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.14	0.344	ug/Kg
79-00-5	1,1,2-Trichloroethane	ND	6.14	0.258	ug/Kg
75-34-3	1,1-Dichloroethane	ND	6.14	0.307	ug/Kg
75-35-4	1,1-Dichloroethene	ND	6.14	0.332	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	ND	6.14	0.430	ug/Kg
96-12-8	1,2-Dibromo-3-chloropropane	ND	6.14	0.467	ug/Kg
106-93-4	1,2-Dibromoethane	ND	6.14	0.197	ug/Kg
95-50-1	1,2-Dichlorobenzene	ND	6.14	0.700	ug/Kg
107-06-2	1,2-Dichloroethane	ND	6.14	0.258	ug/Kg
78-87-5	1,2-Dichloropropane	ND	6.14	0.283	ug/Kg
541-73-1	1,3-Dichlorobenzene	ND	6.14	0.504	ug/Kg
106-46-7	1,4-Dichlorobenzene	ND	6.14	0.258	ug/Kg
78-93-3	2-Butanone	ND	30.7	0.700	ug/Kg
591-78-6	2-Hexanone	ND	6.14	0.725	ug/Kg
108-10-1	4-Methyl-2-pentanone	ND	6.14	0.246	ug/Kg
67-64-1	Acetone	9.02J	30.7	1.46	ug/Kg
71-43-2	Benzene	ND	6.14	0.270	ug/Kg
75-27-4	Bromodichloromethane	ND	6.14	0.209	ug/Kg
75-25-2	Bromoform	ND	6.14	0.258	ug/Kg
74-83-9	Bromomethane	ND	6.14	0.467	ug/Kg
75-15-0	Carbon disulfide	ND	6.14	0.233	ug/Kg
56-23-5	Carbon tetrachloride	ND	6.14	0.295	ug/Kg
108-90-7	Chlorobenzene	ND	6.14	0.283	ug/Kg
75-00-3	Chloroethane	ND	6.14	0.344	ug/Kg
67-66-3	Chloroform	ND	6.14	0.233	ug/Kg
74-87-3	Chloromethane	ND	6.14	0.246	ug/Kg
110-82-7	Cyclohexane	ND	6.14	1.23	ug/Kg
124-48-1	Dibromochloromethane	ND	6.14	0.258	ug/Kg
75-71-8	Dichlorodifluoromethane	ND	6.14	0.246	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	ND	6.14	0.197	ug/Kg
10061-02-6	trans-1,3-Dichloropropene	ND	6.14	0.172	ug/Kg
100-41-4	Ethylbenzene	ND	6.14	0.295	ug/Kg
98-82-8	Isopropylbenzene (Cumene)	ND	6.14	1.23	ug/Kg
79-20-9	Methyl Acetate	ND	6140	1.23	ug/Kg
108-87-2	Methylcyclohexane	ND	6140	1.23	ug/Kg
75-09-2	Methylene chloride	ND	12.3	4.06	ug/Kg

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242103	005-211-S-0522-02 GRAB	Solid	5/22/02 09:30	5/23/02 09:15	5/23/02 09:15

8260B, VOA , Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	5/29/02 13:05	KRV	132811

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
100-42-5	Styrene	ND	6.14	0.295	ug/Kg
127-18-4	Tetrachloroethene	ND	6.14	0.430	ug/Kg
108-88-3	Toluene	ND	6.14	0.172	ug/Kg
79-01-6	Trichloroethene	ND	6.14	0.369	ug/Kg
75-69-4	Trichlorofluoromethane	ND	6.14	0.209	ug/Kg
76-13-1	Trichlorotrifluoroethane	ND	6.14	1.23	ug/Kg
75-01-4	Vinyl chloride	ND	2.46	0.307	ug/Kg
1330-20-7	Xylene (total)	ND	12.3	0.799	ug/Kg
156-59-2	cis-1,2-Dichloroethene	ND	6.14	0.320	ug/Kg
1634-04-4	tert-Butyl methyl ether (MTBE)	ND	6.14	0.197	ug/Kg
156-60-5	trans-1,2-Dichloroethene	ND	6.14	0.283	ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
460-00-4	4-Bromofluorobenzene	50	42 ug/Kg	84	73 - 138
1868-53-7	Dibromofluoromethane	50	50.1 ug/Kg	100	70 - 130
2037-26-5	Toluene d8	50	52.5 ug/Kg	105	65 - 128
17060-07-0	1,2-Dichloroethane-d4	50	49.3 ug/Kg	99	60 - 140

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242103	005-211-S-0522-02 GRAB	Solid	5/22/02 09:30	5/23/02 09:15	6/6/02 09:46

8260B, VOA , Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	5/29/02 13:05	DLB	133116

CAS #	TENTATIVELY IDENTIFIED COMP	RETENTION	RESULT	PQL	MDL	UNITS
	|No tics detected					ug/Kg

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242104	005-212-S-0522-02 GRAB	Solid	5/22/02 09:55	5/23/02 09:15	5/23/02 09:15

8260B, VOA , Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			2	5/29/02 15:47	KRV	132811

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
71-55-6	1,1,1-Trichloroethane	ND	13.1	0.684	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	ND	13.1	0.736	ug/Kg
79-00-5	1,1,2-Trichloroethane	ND	13.1	0.552	ug/Kg
75-34-3	1,1-Dichloroethane	ND	13.1	0.657	ug/Kg
75-35-4	1,1-Dichloroethene	ND	13.1	0.710	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	ND	13.1	0.920	ug/Kg
96-12-8	1,2-Dibromo-3-chloropropane	ND	13.1	0.999	ug/Kg
106-93-4	1,2-Dibromoethane	ND	13.1	0.421	ug/Kg
95-50-1	1,2-Dichlorobenzene	ND	13.1	1.50	ug/Kg
107-06-2	1,2-Dichloroethane	ND	13.1	0.552	ug/Kg
78-87-5	1,2-Dichloropropane	ND	13.1	0.605	ug/Kg
541-73-1	1,3-Dichlorobenzene	ND	13.1	1.08	ug/Kg
106-46-7	1,4-Dichlorobenzene	ND	13.1	0.552	ug/Kg
78-93-3	2-Butanone	ND	65.7	1.50	ug/Kg
591-78-6	2-Hexanone	ND	13.1	1.55	ug/Kg
108-10-1	4-Methyl-2-pentanone	ND	13.1	0.526	ug/Kg
67-64-1	Acetone	12.4J	65.7	3.13	ug/Kg
71-43-2	Benzene	ND	13.1	0.578	ug/Kg
75-27-4	Bromodichloromethane	ND	13.1	0.447	ug/Kg
75-25-2	Bromoform	ND	13.1	0.552	ug/Kg
74-83-9	Bromomethane	ND	13.1	0.999	ug/Kg
75-15-0	Carbon disulfide	ND	13.1	0.500	ug/Kg
56-23-5	Carbon tetrachloride	ND	13.1	0.631	ug/Kg
108-90-7	Chlorobenzene	ND	13.1	0.605	ug/Kg
75-00-3	Chloroethane	ND	13.1	0.736	ug/Kg
67-66-3	Chloroform	ND	13.1	0.500	ug/Kg
74-87-3	Chloromethane	ND	13.1	0.526	ug/Kg
110-82-7	Cyclohexane	ND	13.1	2.63	ug/Kg
124-48-1	Dibromochloromethane	ND	13.1	0.552	ug/Kg
75-71-8	Dichlorodifluoromethane	ND	13.1	0.526	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	ND	13.1	0.421	ug/Kg
10061-02-6	trans-1,3-Dichloropropene	ND	13.1	0.368	ug/Kg
100-41-4	Ethylbenzene	ND	13.1	0.631	ug/Kg
98-82-8	Isopropylbenzene (Cumene)	ND	13.1	2.63	ug/Kg
79-20-9	Methyl Acetate	ND	13100	2.63	ug/Kg
108-87-2	Methylcyclohexane	ND	13100	2.63	ug/Kg
75-09-2	Methylene chloride	ND	26.3	8.68	ug/Kg

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242104	005-212-S-0522-02 GRAB	Solid	5/22/02 09:55	5/23/02 09:15	5/23/02 09:15

8260B, VOA , Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			2	5/29/02 15:47	KRV	132811

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
100-42-5	Styrene	ND	13.1	0.631	ug/Kg
127-18-4	Tetrachloroethene	ND	13.1	0.920	ug/Kg
108-88-3	Toluene	ND	13.1	0.368	ug/Kg
79-01-6	Trichloroethene	ND	13.1	0.789	ug/Kg
75-69-4	Trichlorofluoromethane	ND	13.1	0.447	ug/Kg
76-13-1	Trichlorotrifluoroethane	ND	13.1	2.63	ug/Kg
75-01-4	Vinyl chloride	ND	5.26	0.657	ug/Kg
1330-20-7	Xylene (total)	ND	26.3	1.71	ug/Kg
156-59-2	cis-1,2-Dichloroethene	ND	13.1	0.684	ug/Kg
1634-04-4	tert-Butyl methyl ether (MTBE)	ND	13.1	0.421	ug/Kg
156-60-5	trans-1,2-Dichloroethene	ND	13.1	0.605	ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
460-00-4	4-Bromofluorobenzene	100	89.9 ug/Kg	90	73 - 138
1868-53-7	Dibromofluoromethane	100	97.9 ug/Kg	98	70 - 130
2037-26-5	Toluene d8	100	98.9 ug/Kg	99	65 - 128
17060-07-0	1,2-Dichloroethane-d4	100	96.9 ug/Kg	97	60 - 140

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242104	005-212-S-0522-02 GRAB	Solid	5/22/02 09:55	5/23/02 09:15	6/6/02 09:46

8260B, VOA , Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	5/29/02 15:47	DLB	133116

CAS #	TENTATIVELY IDENTIFIED COMP	RETENTION	RESULT	PQL	MDL	UNITS
	|No tics detected					ug/Kg

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242105	TRIP BLANK	Water		5/23/02 09:15	6/6/02 09:46

8260B, VOA , Water

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	5/28/02 18:21	RJO	132428

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
71-55-6	1,1,1-Trichloroethane	ND	5.00	0.848	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	0.200	ug/L
79-00-5	1,1,2-Trichloroethane	ND	5.00	0.851	ug/L
75-34-3	1,1-Dichloroethane	ND	5.00	0.822	ug/L
75-35-4	1,1-Dichloroethene	ND	5.00	0.896	ug/L
120-82-1	1,2,4-Trichlorobenzene	ND	5.00	0.367	ug/L
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	0.200	ug/L
106-93-4	1,2-Dibromoethane	ND	0.200	0.200	ug/L
95-50-1	1,2-Dichlorobenzene	ND	5.00	0.531	ug/L
107-06-2	1,2-Dichloroethane	ND	3.00	0.821	ug/L
78-87-5	1,2-Dichloropropane	ND	5.00	0.734	ug/L
541-73-1	1,3-Dichlorobenzene	ND	5.00	0.686	ug/L
106-46-7	1,4-Dichlorobenzene	ND	5.00	0.471	ug/L
78-93-3	2-Butanone	ND	10.0	0.817	ug/L
591-78-6	2-Hexanone	ND	10.0	0.833	ug/L
108-10-1	4-Methyl-2-pentanone	ND	10.0	0.820	ug/L
67-64-1	Acetone	ND	10.0	0.932	ug/L
71-43-2	Benzene	ND	1.00	0.836	ug/L
75-27-4	Bromodichloromethane	ND	0.600	0.600	ug/L
75-25-2	Bromoform	ND	4.00	0.742	ug/L
74-83-9	Bromomethane	ND	5.00	0.962	ug/L
75-15-0	Carbon disulfide	ND	5.00	0.764	ug/L
56-23-5	Carbon tetrachloride	ND	3.00	0.848	ug/L
108-90-7	Chlorobenzene	ND	5.00	0.713	ug/L
75-00-3	Chloroethane	ND	5.00	0.820	ug/L
67-66-3	Chloroform	ND	5.00	0.919	ug/L
74-87-3	Chloromethane	ND	2.70	0.823	ug/L
110-82-7	Cyclohexane	ND	100	1.00	ug/L
124-48-1	Dibromochloromethane	ND	0.400	0.400	ug/L
75-71-8	Dichlorodifluoromethane	ND	5.00	0.802	ug/L
10061-01-5	cis-1,3-Dichloropropene	ND	5.00	0.757	ug/L
10061-02-6	trans-1,3-Dichloropropene	ND	5.00	0.633	ug/L
100-41-4	Ethylbenzene	ND	5.00	0.690	ug/L
98-82-8	Isopropylbenzene (Cumene)	ND	5.00	0.558	ug/L
79-20-9	Methyl Acetate	ND	5.00	1.00	ug/L
108-87-2	Methylcyclohexane	ND	5.00	1.00	ug/L
75-09-2	Methylene chloride	1.21J	5.00	0.748	ug/L

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242105	TRIP BLANK	Water		5/23/02 09:15	6/6/02 09:46

8260B, VOA , Water

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	5/28/02 18:21	RJO	132428

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
100-42-5	Styrene	ND	5.00	0.699	ug/L
127-18-4	Tetrachloroethene	ND	3.00	0.692	ug/L
108-88-3	Toluene	ND	5.00	0.678	ug/L
79-01-6	Trichloroethene	ND	3.00	0.989	ug/L
75-69-4	Trichlorofluoromethane	ND	5.00	0.926	ug/L
76-13-1	Trichlorotrifluoroethane	ND	5.00	0.480	ug/L
75-01-4	Vinyl chloride	ND	1.00	1.00	ug/L
1330-20-7	Xylene (total)	ND	5.00	2.24	ug/L
156-59-2	cis-1,2-Dichloroethene	ND	5.00	0.751	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	ND	5.00	0.531	ug/L
156-60-5	trans-1,2-Dichloroethene	ND	5.00	0.735	ug/L

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
460-00-4	4-Bromofluorobenzene	50	56 ug/L	112	78 - 115
1868-53-7	Dibromofluoromethane	50	51.7 ug/L	103	70 - 130
2037-26-5	Toluene d8	50	51.2 ug/L	102	83 - 112
17060-07-0	1,2-Dichloroethane-d4	50	48.7 ug/L	97	76 - 128

RESULTS REPORTED ON A WET WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242105	TRIP BLANK	Water		5/23/02 09:15	6/6/02 09:46

8260B, VOA , Water

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	5/28/02 18:21	DLB	133117

CAS #	TENTATIVELY IDENTIFIED COMP	RETENTION	RESULT	PQL	MDL	UNITS
	|No tics detected					ug/L

RESULTS REPORTED ON A WET WEIGHT BASIS

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Instrument ID: MSV0 Calibration Date(s): 05/14/02 05/14/02

Heated Purge: (Y/N) N Calibration Time(s): 1439 1756

GC Column: DB-624-30M ID: 0.53 (mm)

LAB FILE ID: RRF5 =R4401 RRF20 =R4402
RRF50 =R4403 RRF100=R4404 RRF200=R4405

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD
Dichlorodifluoromethane *	0.180	0.199	0.215	0.195	0.208		*
Chloromethane ++ *	0.299	0.312	0.318	0.286	0.296		*
Vinyl Chloride + *	0.243	0.266	0.287	0.263	0.272		*
Bromomethane *	0.091	0.080	0.076	0.064	0.052		*
Chloroethane	0.113	0.132	0.111	0.082	0.053		
Trichlorofluoromethane *	0.299	0.324	0.339	0.302	0.306		*
Acrolein *	0.022	0.035	0.032	0.027	0.027		*
1,1-Dichloroethene + *	0.171	0.187	0.198	0.177	0.186		*
1,1,2Trichlorotrifluoroethan *	0.182	0.212	0.216	0.195	0.205		*
Acetone *	0.116	0.106	0.091	0.078	0.076		*
Methyl Iodide *	0.335	0.367	0.384	0.360	0.375		*
Carbon Disulfide *	0.848	0.781	0.804	0.731	0.749		*
Methylene Chloride *	0.441	0.352	0.333	0.300	0.302		*
Acrylonitrile *	0.107	0.119	0.121	0.106	0.106		*
trans-1,2-Dichloroethene *	0.298	0.327	0.338	0.303	0.302		*
MTBE *	0.639	0.690	0.700	0.713	0.720		*
1,1-Dichloroethane ++ *	0.416	0.454	0.461	0.419	0.428		*
Vinyl Acetate *	0.202	0.226	0.244	0.226	0.230		*
cis-1,2-Dichloroethene *	0.368	0.410	0.412	0.378	0.379		*
2,2-Dichloropropane *	0.303	0.329	0.340	0.292	0.301		*
2-Butanone *	0.193	0.162	0.162	0.140	0.135		*
Bromochloromethane *	0.123	0.135	0.136	0.135	0.142		*
Chloroform + *	0.465	0.432	0.440	0.412	0.424		*
1,1,1-Trichloroethane *	0.312	0.343	0.356	0.325	0.338		*
Total 1,2-Dichloroethene *	0.222	0.246	0.250	0.227	0.227		*
1,1-Dichloropropene *	0.277	0.309	0.327	0.304	0.315		*
Carbon Tetrachloride *	0.254	0.289	0.303	0.280	0.297		*
1,2-Dichloroethane *	0.142	0.367	0.355	0.343	0.333		*
Benzene *	0.951	1.033	1.071	1.002	1.012		*
Trichloroethene *	0.224	0.248	0.263	0.252	0.267		*
1,2-Dichloropropane + *	0.295	0.321	0.318	0.300	0.292		*
Dibromomethane *	0.161	0.172	0.174	0.172	0.178		*
Bromodichloromethane *	0.329	0.363	0.367	0.355	0.368		*
2-Chloroethyl vinyl ether *	0.151	0.189	0.190	0.192	0.192		*
cis-1,3-Dichloropropene *	0.389	0.454	0.468	0.452	0.465		*
4-methyl-2-pentanone *	0.300	0.354	0.360	0.337	0.341		*
Toluene + *	1.025	1.134	1.183	1.108	1.149		*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Instrument ID: MSV0 Calibration Date(s): 05/14/02 05/14/02

Heated Purge: (Y/N) N Calibration Time(s): 1439 1756

GC Column: DB-624-30M ID: 0.53 (mm)

LAB FILE ID: RRF5 =R4401 RRF20 =R4402
RRF50 =R4403 RRF100=R4404 RRF200=R4405

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD
trans-1,3-Dichloropropene *	0.372	0.410	0.425	0.414	0.434		*
1,1,2-Trichloroethane *	0.243	0.250	0.253	0.250	0.264		*
1,3-Dichloropropane *	0.412	0.455	0.452	0.449	0.450		*
Tetrachloroethene *	0.166	0.190	0.201	0.192	0.211		*
2-Hexanone *	0.536	0.599	0.573	0.523	0.560		*
Dibromochloromethane *	0.574	0.592	0.598	0.610	0.689		*
1,2-Dibromoethane(EDB) *	0.570	0.582	0.584	0.594	0.661		*
Chlorobenzene ++ *	1.744	1.833	1.786	1.680	1.874		*
1,1,1,2-Tetrachloroethane *	0.534	0.556	0.558	0.554	0.628		*
Ethylbenzene + *	0.726	0.854	0.848	0.778	0.895		*
p,m-Xylene *	0.888	1.086	1.092	0.958	1.148		*
o-Xylene *	0.792	1.029	1.007	0.882	1.067		*
Styrene *	1.388	1.819	1.788	1.592	1.919		*
Bromoform ++ *	0.367	0.390	0.397	0.405	0.473		*
Isopropylbenzene *	2.238	2.719	2.807	2.518	2.976		*
1,1,2,2-Tetrachloroethane++ *	1.523	1.361	1.349	1.517	1.335		*
trans-1,4-Dichloro-2-Butene *	0.327	0.269	0.265	0.226	0.230		*
1,2,3-Trichloropropane *	1.781	1.593	1.567	1.612	1.452		*
Bromobenzene *	2.656	2.425	2.460	2.589	2.319		*
n-Propylbenzene *	3.964	4.448	4.538	4.366	4.316		*
2-Chlorotoluene *	2.672	2.852	2.862	2.758	2.698		*
1,3,5-Trimethylbenzene *	2.194	2.178	2.206	1.890	1.793		*
4-Chlorotoluene *	2.825	2.923	2.780	2.788	2.769		*
tert-butylbenzene *	1.800	1.974	2.034	1.926	1.872		*
1,2,4-Trimethylbenzene *	2.231	2.166	2.170	1.855	1.699		*
sec-Butylbenzene *	3.459	3.933	4.151	3.917	3.831		*
p-Isopropyltoluene *	2.451	2.624	2.827	2.509	2.473		*
1,3-Dichlorobenzene *	1.553	1.627	1.638	1.580	1.637		*
1,4-Dichlorobenzene *	1.700	1.743	1.732	1.687	1.697		*
TOTAL XYLENE *	0.856	1.067	1.063	0.932	1.121		*
n-Butylbenzene *	2.301	2.370	2.522	2.165	2.075		*
1,2-Dichlorobenzene *	1.494	1.594	1.575	1.545	1.555		*
1,2-Dibromo-3-Chloropropane *	0.248	0.241	0.246	0.271	0.259		*
1,2,4-Trichlorobenzene *	0.871	0.773	0.754	0.761	0.636		*
Hexachlorobutadiene *	0.554	0.564	0.603	0.607	0.615		*
Naphthalene *	2.430	2.208	1.992	2.088	1.659		*
1,2,3-Trichlorobenzene *	0.840	0.720	0.697	0.731	0.603		*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Instrument ID: MSV0 Calibration Date(s): 05/14/02 05/14/02

Heated Purge: (Y/N) N Calibration Time(s): 1439 1756

GC Column: DB-624-30M ID: 0.53 (mm)

LAB FILE ID: RRF5 =R4401 RRF20 =R4402
RRF50 =R4403 RRF100=R4404 RRF200=R4405

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD
Hexane *	0.327	0.354	0.376	0.354	0.382		*
Cyclohexane *	0.400	0.451	0.479	0.434	0.449		*
Methyl Acetate *	0.120	0.139	0.140	0.215	0.219		*
Methyl Cyclohexane *	0.379	0.458	0.498	0.466	0.484		*
Dibromofluoromethane *	0.249	0.248	0.247	0.243	0.247		*
1,2-Dichloroethane-d4 *	0.148	0.151	0.147	0.157	0.156		*
Toluene-d8 *	2.262	2.265	2.243	2.182	2.366		*
Bromofluorobenzene *	0.972	0.873	0.875	0.959	0.894		*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Instrument ID: MSV0 Calibration Date(s): 05/14/02 05/14/02

Heated Purge: (Y/N) N Calibration Time(s): 1439 1756

GC Column: DB-624-30M ID: 0.53 (mm)

LAB FILE ID: RRF150= RRF10 =
RRF2 =R4400 RRF0.4=R4409 RRF0.2=R4408

COMPOUND	RRF150	RRF10	RRF2	RRF0.4	RRF0.2	$\overline{RRF}$	% RSD
Dichlorodifluoromethane *						0.199	6.8*
Chloromethane ++ *			0.320			0.305	4.4*
Vinyl Chloride + *			0.249		0.276	0.265	5.7*
Bromomethane *			0.089	0.053		0.072	22.5*
Chloroethane						0.098	31.4
Trichlorofluoromethane *						0.314	5.5*
Acrolein *						0.029	17.9*
1,1-Dichloroethene + *						0.184	5.7*
1,1,2Trichlorotrifluoroethan*						0.202	6.8*
Acetone *						0.093	18.6*
Methyl Iodide *						0.364	5.1*
Carbon Disulfide *						0.783	5.9*
Methylene Chloride *						0.346	16.8*
Acrylonitrile *						0.112	6.7*
trans-1,2-Dichloroethene *						0.314	5.7*
MTBE *						0.692	4.6*
1,1-Dichloroethane ++ *						0.436	4.8*
Vinyl Acetate *						0.226	6.6*
cis-1,2-Dichloroethene *						0.389	5.2*
2,2-Dichloropropane *						0.313	6.5*
2-Butanone *						0.158	14.4*
Bromochloromethane *						0.134	5.2*
Chloroform + *						0.435	4.5*
1,1,1-Trichloroethane *						0.335	5.0*
Total 1,2-Dichloroethene *			0.225			0.233	5.1*
1,1-Dichloropropene *						0.306	6.1*
Carbon Tetrachloride *			0.261			0.281	7.0*
1,2-Dichloroethane *			0.334			0.312	27.1*
Benzene *			1.055		1.452	1.082	15.5*
Trichloroethene *			0.243			0.250	6.2*
1,2-Dichloropropane + *						0.305	4.4*
Dibromomethane *						0.171	3.7*
Bromodichloromethane *			0.357		0.372	0.359	4.1*
2-Chloroethyl vinyl ether *						0.183	9.6*
cis-1,3-Dichloropropene *						0.446	7.3*
4-methyl-2-pentanone *						0.338	6.9*
Toluene + *						1.120	5.3*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Instrument ID: MSV0 Calibration Date(s): 05/14/02 05/14/02

Heated Purge: (Y/N) N Calibration Time(s): 1439 1756

GC Column: DB-624-30M ID: 0.53 (mm)

LAB FILE ID: RRF150= RRF10 =
RRF2 =R4400 RRF0.4=R4409 RRF0.2=R4408

COMPOUND	RRF150	RRF10	RRF2	RRF0.4	RRF0.2	$\overline{RRF}$	% RSD
trans-1,3-Dichloropropene *						0.411	5.8*
1,1,2-Trichloroethane *						0.252	3.0*
1,3-Dichloropropane *						0.444	4.0*
Tetrachloroethene *			0.177			0.190	8.6*
2-Hexanone *						0.558	5.4*
Dibromochloromethane *			0.632		0.623	0.617	6.1*
1,2-Dibromoethane(EDB) *			0.610		0.589	0.598	5.1*
Chlorobenzene ++ *						1.783	4.2*
1,1,1,2-Tetrachloroethane *						0.566	6.4*
Ethylbenzene + *						0.820	8.2*
p,m-Xylene *						1.034	10.4*
o-Xylene *						0.955	12.0*
Styrene *						1.701	12.4*
Bromoform ++ *			0.412			0.407	8.7*
Isopropylbenzene *						2.652	10.7*
1,1,2,2-Tetrachloroethane++ *			1.686		1.691	1.494	10.3*
trans-1,4-Dichloro-2-Butene *						0.263	15.4*
1,2,3-Trichloropropane *						1.601	7.4*
Bromobenzene *						2.490	5.4*
n-Propylbenzene *						4.326	5.1*
2-Chlorotoluene *						2.768	3.1*
1,3,5-Trimethylbenzene *						2.052	9.5*
4-Chlorotoluene *						2.817	2.2*
tert-butylbenzene *						1.921	4.7*
1,2,4-Trimethylbenzene *						2.024	11.6*
sec-Butylbenzene *						3.858	6.5*
p-Isopropyltoluene *						2.577	6.0*
1,3-Dichlorobenzene *						1.607	2.4*
1,4-Dichlorobenzene *						1.712	1.4*
TOTAL XYLENE *						1.008	10.9*
n-Butylbenzene *						2.287	7.6*
1,2-Dichlorobenzene *						1.553	2.4*
1,2-Dibromo-3-Chloropropane *			0.259		0.251	0.254	4.0*
1,2,4-Trichlorobenzene *						0.759	11.0*
Hexachlorobutadiene *						0.589	4.7*
Naphthalene *						2.075	13.7*
1,2,3-Trichlorobenzene *						0.718	11.8*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Instrument ID: MSV0 Calibration Date(s): 05/14/02 05/14/02

Heated Purge: (Y/N) N Calibration Time(s): 1439 1756

GC Column: DB-624-30M ID: 0.53 (mm)

LAB FILE ID: RRF150= RRF10 =
RRF2 =R4400 RRF0.4=R4409 RRF0.2=R4408

COMPOUND	RRF150	RRF10	RRF2	RRF0.4	RRF0.2	$\overline{RRF}$	% RSD
Hexane *						0.359	6.1*
Cyclohexane *						0.443	6.6*
Methyl Acetate *						0.167	28.0*
Methyl Cyclohexane *						0.457	10.1*
Dibromofluoromethane *				0.248	0.258	0.248	1.8*
1,2-Dichloroethane-d4 *			0.148	0.147	0.149	0.150	2.5*
Toluene-d8 *			2.308	2.272	2.292	2.274	2.3*
Bromofluorobenzene *			0.964	0.904	0.900	0.918	4.5*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Instrument ID: MSV0 Calibration Date: 05/28/02 Time: 0829

Lab File ID: R4991 Init. Calib. Date(s): 05/14/02 05/14/02

Heated Purge: (Y/N) N Init. Calib. Times: 1439 1756

GC Column: DB-624-30M ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.199	0.228		14.5	50.0
Chloromethane ++	0.305	0.316	0.100	-3.6	50.0
Vinyl Chloride +	0.265	0.272		-2.6	20.0
Bromomethane	0.072	0.075		-4.2	50.0
Chloroethane	0.098	0.111		-13.3	
Trichlorofluoromethane	0.314	0.321		-2.2	50.0
Acrolein	0.029	0.014		51.7	50.0
1,1-Dichloroethene +	0.184	0.175		4.9	20.0
1,1,2Trichlorotrifluoroethan	0.202	0.205		-1.5	50.0
Acetone	0.093	0.090		3.2	50.0
Methyl Iodide	0.364	0.368		-1.1	50.0
Carbon Disulfide	0.783	0.712		9.1	50.0
Methylene Chloride	0.346	0.334		3.5	50.0
Acrylonitrile	0.112	0.098		12.5	50.0
trans-1,2-Dichloroethene	0.314	0.311		1.0	50.0
MTBE	0.692	0.683		1.3	50.0
1,1-Dichloroethane ++	0.436	0.431	0.100	1.1	50.0
Vinyl Acetate	0.226	0.242		-7.1	50.0
cis-1,2-Dichloroethene	0.389	0.394		-1.3	50.0
2,2-Dichloropropane	0.313	0.337		-7.7	50.0
2-Butanone	0.158	0.134		15.2	50.0
Bromochloromethane	0.134	0.136		-1.5	50.0
Chloroform +	0.435	0.430		1.1	20.0
1,1,1-Trichloroethane	0.335	0.346		-3.3	50.0
Total 1,2-Dichloroethene	0.233	0.235		-0.8	50.0
1,1-Dichloropropene	0.306	0.305		0.3	50.0
Carbon Tetrachloride	0.281	0.294		-4.6	50.0
1,2-Dichloroethane	0.312	0.363		-16.3	50.0
Benzene	1.082	1.025		5.3	50.0
Trichloroethene	0.250	0.256		-2.4	50.0
1,2-Dichloropropane +	0.305	0.311		-2.0	20.0
Dibromomethane	0.171	0.171		0.0	50.0
Bromodichloromethane	0.359	0.360		-0.3	50.0
2-Chloroethyl vinyl ether	0.183	0.196		-7.1	50.0
cis-1,3-Dichloropropene	0.446	0.440		1.3	50.0
4-methyl-2-pentanone	0.338	0.315		6.8	50.0
Toluene +	1.120	1.107		1.2	20.0

All other compounds must meet a minimum RRF of 0.010.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Instrument ID: MSV0 Calibration Date: 05/28/02 Time: 0829

Lab File ID: R4991 Init. Calib. Date(s): 05/14/02 05/14/02

Heated Purge: (Y/N) N Init. Calib. Times: 1439 1756

GC Column: DB-624-30M ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
trans-1,3-Dichloropropene	0.411	0.440		-7.0	50.0
1,1,2-Trichloroethane	0.252	0.252		0.0	50.0
1,3-Dichloropropane	0.444	0.464		-4.5	50.0
Tetrachloroethene	0.190	0.198		-4.2	50.0
2-Hexanone	0.558	0.497		10.9	50.0
Dibromochloromethane	0.617	0.653		-5.8	50.0
1,2-Dibromoethane(EDB)	0.598	0.609		-1.8	50.0
Chlorobenzene ++	1.783	1.791	0.300	-0.4	50.0
1,1,1,2-Tetrachloroethane	0.566	0.598		-5.6	50.0
Ethylbenzene +	0.820	0.871		-6.2	20.0
p,m-Xylene	1.034	1.134		-9.7	50.0
o-Xylene	0.955	1.086		-13.7	50.0
Styrene	1.701	1.937		-13.9	50.0
Bromoform ++	0.407	0.426	0.100	-4.7	50.0
Isopropylbenzene	2.652	2.880		-8.6	50.0
1,1,2,2-Tetrachloroethane++	1.494	1.069	0.300	28.4	50.0
trans-1,4-Dichloro-2-Butene	0.263	0.278		-5.7	50.0
1,2,3-Trichloropropane	1.601	1.368		14.6	50.0
Bromobenzene	2.490	2.128		14.5	50.0
n-Propylbenzene	4.326	4.138		4.3	50.0
2-Chlorotoluene	2.768	2.630		5.0	50.0
1,3,5-Trimethylbenzene	2.052	2.195		-7.0	50.0
4-Chlorotoluene	2.817	2.817		0.0	50.0
tert-butylbenzene	1.921	1.842		4.1	50.0
1,2,4-Trimethylbenzene	2.024	2.150		-6.2	50.0
sec-Butylbenzene	3.858	2.150		44.3	50.0
p-Isopropyltoluene	2.577	2.763		-7.2	50.0
1,3-Dichlorobenzene	1.607	1.565		2.6	50.0
1,4-Dichlorobenzene	1.712	1.781		-4.0	50.0
TOTAL XYLENE	1.008	1.118		-10.9	50.0
n-Butylbenzene	2.287	2.371		-3.7	50.0
1,2-Dichlorobenzene	1.553	1.526		1.7	50.0
1,2-Dibromo-3-Chloropropane	0.254	0.183		28.0	50.0
1,2,4-Trichlorobenzene	0.759	0.710		6.4	50.0
Hexachlorobutadiene	0.589	0.559		5.1	50.0
Naphthalene	2.075	1.725		16.9	50.0
1,2,3-Trichlorobenzene	0.718	0.646		10.0	50.0

All other compounds must meet a minimum RRF of 0.010.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Instrument ID: MSV0 Calibration Date: 05/28/02 Time: 0829

Lab File ID: R4991 Init. Calib. Date(s): 05/14/02 05/14/02

Heated Purge: (Y/N) N Init. Calib. Times: 1439 1756

GC Column: DB-624-30M ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Hexane	0.359	0.380	0.050	-5.8	50.0
Cyclohexane	0.443	0.469	0.050	-5.9	50.0
Methyl Acetate	0.167	0.140	0.050	16.2	50.0
Methyl Cyclohexane	0.457	0.469	0.050	-2.6	50.0
Dibromofluoromethane	0.248	0.245		1.2	50.0
1,2-Dichloroethane-d4	0.150	0.151		-0.7	50.0
Toluene-d8	2.274	2.242		1.4	50.0
Bromofluorobenzene	0.918	0.801		12.7	50.0

All other compounds must meet a minimum RRF of 0.010.

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Instrument ID: MSV2 Calibration Date(s): 05/20/02 05/25/02

Heated Purge: (Y/N) Y Calibration Time(s): 0130 1239

GC Column: DB-624-30M ID: 0.53 (mm)

LAB FILE ID: RRF5 =R2626 RRF20 =R2627
RRF50 =R2628 RRF100=R2629 RRF200=R2630

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD
Chloromethane ++ *	0.216	0.212	0.190	0.208	0.196		*
Vinyl Chloride +	0.176	0.173	0.153	0.176	0.167		
Bromomethane	0.157	0.130	0.120	0.117	0.102		
Chloroethane	0.112	0.106	0.096	0.102	0.093		
Trichlorofluoromethane	0.245	0.260	0.226	0.260	0.256		
Acrolein	0.010	0.009	0.008	0.008	0.008		
1,1-Dichloroethene +	0.136	0.137	0.120	0.136	0.127		
1,1,2Trichlotrifluoroethane	0.157	0.159	0.138	0.157	0.152		
Acetone	0.107	0.064	0.050	0.048	0.045		
Methyl Iodide	0.280	0.274	0.262	0.283	0.281		
Carbon Disulfide *	0.536	0.532	0.461	0.526	0.499		*
Methylene Chloride *	0.302	0.214	0.192	0.195	0.179		*
Acrylonitrile	0.055	0.050	0.043	0.043	0.041		
trans-1,2-Dichloroethene *	0.231	0.220	0.201	0.220	0.199		*
MTBE *	0.514	0.459	0.455	0.464	0.423		*
Hexane *	0.241	0.285	0.316	0.329	0.336		*
1,1-Dichloroethane ++ *	0.348	0.409	0.411	0.444	0.430		*
Vinyl Acetate *	0.162	0.194	0.208	0.217	0.215		*
2,2-Dichloropropane *	0.291	0.321	0.313	0.360	0.337		*
cis-1,2-Dichloroethene *	0.320	0.348	0.365	0.394	0.367		*
2-Butanone *	0.208	0.124	0.109	0.112	0.108		*
Bromochloromethane *	0.122	0.122	0.124	0.132	0.129		*
Chloroform + *	0.411	0.416	0.406	0.439	0.432		*
Hexachlorobutadiene *	0.449	0.502	0.499	0.544	0.504		*
1,1,1-Trichloroethane *	0.315	0.339	0.320	0.378	0.373		*
1,1-Dichloropropene *	0.227	0.274	0.271	0.340	0.342		*
Carbon Tetrachloride *	0.268	0.300	0.285	0.338	0.328		*
Total 1,2-Dichloroethene *	0.275	0.284	0.283	0.307	0.283		*
Napthalene *	1.350	0.745	0.821	0.777	0.546		*
Benzene *	0.858	0.874	0.914	1.048	1.034		*
1,2-Dichloroethane *	0.312	0.310	0.318	0.320	0.290		*
Trichloroethene *	0.209	0.220	0.189	0.258	0.296		*
1,2-Dichloropropane + *	0.198	0.182	0.228	0.253	0.250		*
Dibromomethane *	0.111	0.108	0.109	0.114	0.141		*
Bromodichloromethane *	0.245	0.244	0.250	0.266	0.300		*
2-Chloroethyl vinyl ether *	0.033	0.041	0.045	0.052	0.054		*
cis-1,3-Dichloropropene *	0.231	0.258	0.282	0.335	0.376		*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Instrument ID: MSV2 Calibration Date(s): 05/20/02 05/25/02

Heated Purge: (Y/N) Y Calibration Time(s): 0130 1239

GC Column: DB-624-30M ID: 0.53 (mm)

LAB FILE ID: RRF5 =R2626 RRF20 =R2627
RRF50 =R2628 RRF100=R2629 RRF200=R2630

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD
4-methyl-2-pentanone *	0.149	0.154	0.168	0.185	0.204		*
1,2,3-Trichlorobenzene *	0.501	0.396	0.410	0.382	0.294		*
Toluene + *	2.526	2.601	3.005	3.765	3.512		*
Dichlorodifluoromethane	0.724	0.809	0.768	0.878	0.822		
trans-1,3-Dichloropropene *	0.782	0.853	0.956	1.110	1.208		*
Methyl Acetate *	0.133	0.099	0.094	0.098	0.092		*
1,1,2-Trichloroethane *	0.501	0.490	0.524	0.526	0.648		*
1,3-Dichloropropane *	0.843	0.858	0.929	1.165	1.186		*
Tetrachloroethene *	0.476	0.525	0.528	0.708	0.793		*
2-Hexanone *	0.484	0.371	0.411	0.474	0.516		*
Dibromochloromethane *	0.589	0.585	0.630	0.647	0.614		*
1,2-Dibromoethane(EDB) *	0.469	0.462	0.500	0.515	0.481		*
Chlorobenzene ++ *	1.702	1.683	1.697	1.857	2.140		*
1,1,1,2-Tetrachloroethane *	0.558	0.592	0.629	0.750	0.791		*
Ethylbenzene + *	0.732	0.840	0.855	1.158	1.231		*
p,m-Xylene *	1.004	1.051	1.057	1.395	1.480		*
o-Xylene *	0.876	0.978	1.019	1.378	1.410		*
Styrene *	1.408	1.693	1.810	2.497	2.535		*
Bromoform ++ *	0.384	0.378	0.404	0.452	0.434		*
Isopropylbenzene *	2.037	2.518	2.589	3.454	3.592		*
Cyclohexane *	0.260	0.336	0.331	0.418	0.438		*
1,1,2,2-Tetrachloroethane++ *	0.762	0.699	0.735	0.751	0.644		*
trans-1,4-Dichloro-2-Butene *	0.199	0.213	0.242	0.263	0.235		*
1,2,3-Trichloropropane *	0.960	0.936	0.989	1.082	1.076		*
Bromobenzene *	1.577	1.639	1.756	1.920	1.808		*
n-Propylbenzene *	2.927	3.529	3.628	4.031	4.298		*
2-Chlorotoluene *	1.843	2.203	2.312	2.391	2.555		*
1,3,5-Trimethylbenzene *	1.576	1.891	1.752	1.714	2.281		*
4-Chlorotoluene *	2.093	2.309	2.333	2.513	2.977		*
tert-butylbenzene *	1.251	1.550	1.615	1.840	1.980		*
1,2,4-Trimethylbenzene *	1.530	1.669	1.489	1.394	1.766		*
sec-Butylbenzene *	2.516	3.157	3.289	3.708	4.069		*
p-Isopropyltoluene *	1.886	2.411	2.442	2.666	3.155		*
1,3-Dichlorobenzene *	1.439	1.517	1.456	1.678	1.930		*
1,4-Dichlorobenzene *	1.432	1.411	1.531	1.523	1.642		*
n-Butylbenzene *	1.251	1.575	1.615	1.840	1.983		*
TOTAL XYLENE *	1.442	1.027	1.044	1.389	1.457		*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Instrument ID: MSV2 Calibration Date(s): 05/20/02 05/25/02

Heated Purge: (Y/N) Y Calibration Time(s): 0130 1239

GC Column: DB-624-30M ID: 0.53 (mm)

LAB FILE ID: RRF5 =R2626 RRF20 =R2627
RRF50 =R2628 RRF100=R2629 RRF200=R2630

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD
1,2-Dichlorobenzene *	1.601	1.398	1.374	1.414	1.295		*
1,2-Dibromo-3-Chloropropane *	0.136	0.133	0.140	0.150	0.132		*
1,2,4-Trichlorobenzene *	0.518	0.432	0.444	0.403	0.322		*
Methyl Cyclohexane *	0.228	0.269	0.317	0.402	0.459		*
Dibromofluoromethane *	0.268	0.268	0.268	0.260	0.264		*
Toluene-d8 *	2.662	2.525	2.544	2.747	2.662		*
1,2-Dichloroethane-d4 *	0.133	0.131	0.127	0.126	0.124		*
Bromofluorobenzene *	0.732	0.742	0.734	0.761	0.709		*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Instrument ID: MSV2 Calibration Date(s): 05/20/02 05/25/02

Heated Purge: (Y/N) Y Calibration Time(s): 0130 1239

GC Column: DB-624-30M ID: 0.53 (mm)

LAB FILE ID: RRF2 = RRF10 =
RRF150=R2414

COMPOUND	RRF2	RRF10	RRF150			$\overline{RRF}$	% RSD
Chloromethane ++ *						0.204	5.3*
Vinyl Chloride +						0.169	5.7
Bromomethane						0.125	16.3
Chloroethane						0.102	7.5
Trichlorofluoromethane						0.249	5.8
Acrolein						0.009	8.0
1,1-Dichloroethene +						0.131	5.8
1,1,2Trichlotrifluoroethane						0.153	5.6
Acetone						0.063	41.1
Methyl Iodide						0.276	3.1
Carbon Disulfide *						0.511	6.1*
Methylene Chloride *						0.216	22.8*
Acrylonitrile						0.046	12.4
trans-1,2-Dichloroethene *						0.214	6.4*
MTBE *						0.463	7.1*
Hexane *						0.301	12.9*
1,1-Dichloroethane ++ *						0.408	9.0*
Vinyl Acetate *						0.199	11.5*
2,2-Dichloropropane *						0.324	8.0*
cis-1,2-Dichloroethene *						0.359	7.6*
2-Butanone *						0.132	32.3*
Bromochloromethane *						0.126	3.5*
Chloroform + *						0.421	3.3*
Hexachlorobutadiene *						0.500	6.8*
1,1,1-Trichloroethane *						0.345	8.5*
1,1-Dichloropropene *						0.291	17.0*
Carbon Tetrachloride *						0.304	9.6*
Total 1,2-Dichloroethene *						0.286	4.1*
Napthalene *						0.848	35.3*
Benzene *						0.946	9.5*
1,2-Dichloroethane *						0.310	3.9*
Trichloroethene *						0.234	18.3*
1,2-Dichloropropane + *						0.222	14.2*
Dibromomethane *						0.117	11.8*
Bromodichloromethane *						0.261	9.0*
2-Chloroethyl vinyl ether *						0.045	19.1*
cis-1,3-Dichloropropene *						0.296	19.8*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Instrument ID: MSV2 Calibration Date(s): 05/20/02 05/25/02

Heated Purge: (Y/N) Y Calibration Time(s): 0130 1239

GC Column: DB-624-30M ID: 0.53 (mm)

LAB FILE ID: RRF2 = RRF10 =
RRF150=R2414

COMPOUND	RRF2	RRF10	RRF150			$\overline{RRF}$	% RSD
4-methyl-2-pentanone *						0.172	13.2*
1,2,3-Trichlorobenzene *						0.397	18.7*
Toluene + *						3.082	17.8*
Dichlorodifluoromethane						0.800	7.3
trans-1,3-Dichloropropene *						0.982	18.0*
Methyl Acetate *						0.103	16.5*
1,1,2-Trichloroethane *						0.538	11.8*
1,3-Dichloropropane *						0.996	16.7*
Tetrachloroethene *						0.606	22.6*
2-Hexanone *						0.451	13.1*
Dibromochloromethane *						0.613	4.3*
1,2-Dibromoethane(EDB) *						0.485	4.5*
Chlorobenzene ++ *						1.816	10.7*
1,1,1,2-Tetrachloroethane *						0.664	15.3*
Ethylbenzene + *						0.963	22.6*
p,m-Xylene *						1.197	18.6*
o-Xylene *						1.132	21.6*
Styrene *						1.989	25.3*
Bromoform ++ *						0.410	7.7*
Isopropylbenzene *						2.838	23.3*
Cyclohexane *						0.357	20.2*
1,1,2,2-Tetrachloroethane++ *						0.718	6.7*
trans-1,4-Dichloro-2-Butene *						0.230	10.8*
1,2,3-Trichloropropane *						1.009	6.6*
Bromobenzene *						1.740	7.8*
n-Propylbenzene *						3.683	14.2*
2-Chlorotoluene *						2.261	11.8*
1,3,5-Trimethylbenzene *						1.843	14.6*
4-Chlorotoluene *						2.445	13.6*
tert-butylbenzene *						1.647	17.1*
1,2,4-Trimethylbenzene *						1.570	9.4*
sec-Butylbenzene *						3.348	17.6*
p-Isopropyltoluene *						2.512	18.3*
1,3-Dichlorobenzene *						1.604	12.8*
1,4-Dichlorobenzene *						1.508	6.1*
n-Butylbenzene *						1.653	16.9*
TOTAL XYLENE *						1.272	17.1*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Instrument ID: MSV2 Calibration Date(s): 05/20/02 05/25/02

Heated Purge: (Y/N) Y Calibration Time(s): 0130 1239

GC Column: DB-624-30M ID: 0.53 (mm)

LAB FILE ID: RRF2 = RRF10 =
RRF150=R2414

COMPOUND	RRF2	RRF10	RRF150			$\overline{RRF}$	% RSD
1,2-Dichlorobenzene *						1.416	8.0*
1,2-Dibromo-3-Chloropropane *						0.138	5.3*
1,2,4-Trichlorobenzene *						0.424	16.8*
Methyl Cyclohexane *						0.335	28.4*
Dibromofluoromethane *						0.266	1.3*
Toluene-d8 *						2.628	3.5*
1,2-Dichloroethane-d4 *						0.128	3.0*
Bromofluorobenzene *						0.736	2.6*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Instrument ID: MSV2 Calibration Date: 05/29/02 Time: 0806

Lab File ID: R2747 Init. Calib. Date(s): 05/20/02 05/25/02

Heated Purge: (Y/N) N Init. Calib. Times: 0130 1239

GC Column: DB-624-30M ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Chloromethane ++	0.204	0.195	0.100	4.4	50.0
Vinyl Chloride +	0.169	0.178		-5.3	
Bromomethane	0.125	0.126		-0.8	
Chloroethane	0.102	0.107		-4.9	
Trichlorofluoromethane	0.249	0.272		-9.2	
Acrolein	0.009	0.006		33.3	
1,1-Dichloroethene +	0.131	0.142		-8.4	
1,1,2Trichlotrifluoroethane	0.153	0.170		-11.1	
Acetone	0.063	0.051		19.0	
Methyl Iodide	0.276	0.294		-6.5	
Carbon Disulfide	0.511	0.548	0.100	-7.2	50.0
Methylene Chloride	0.216	0.204	0.100	5.6	50.0
Acrylonitrile	0.046	0.043		6.5	
trans-1,2-Dichloroethene	0.214	0.228	0.100	-6.5	50.0
MTBE	0.463	0.468	0.100	-1.1	50.0
Hexane	0.301	0.254	0.100	15.6	50.0
1,1-Dichloroethane ++	0.408	0.339	0.100	16.9	50.0
Vinyl Acetate	0.199	0.128	0.100	35.7	50.0
2,2-Dichloropropane	0.324	0.344	0.100	-6.2	50.0
cis-1,2-Dichloroethene	0.359	0.373	0.100	-3.9	50.0
2-Butanone	0.132	0.105	0.100	20.4	50.0
Bromochloromethane	0.126	0.123	0.100	2.4	50.0
Chloroform +	0.421	0.417	0.100	1.0	20.0
Hexachlorobutadiene	0.500	0.580	0.100	-16.0	50.0
1,1,1-Trichloroethane	0.345	0.346	0.100	-0.3	50.0
1,1-Dichloropropene	0.291	0.302	0.100	-3.8	50.0
Carbon Tetrachloride	0.304	0.321	0.100	-5.6	50.0
Total 1,2-Dichloroethene	0.286	0.300	0.100	-4.9	50.0
Napthalene	0.848	0.789	0.100	7.0	50.0
Benzene	0.946	0.958	0.100	-1.3	50.0
1,2-Dichloroethane	0.310	0.313	0.100	-1.0	50.0
Trichloroethene	0.234	0.246	0.100	-5.1	50.0
1,2-Dichloropropane +	0.222	0.238	0.100	-7.2	20.0
Dibromomethane	0.117	0.110	0.100	6.0	50.0
Bromodichloromethane	0.261	0.262	0.100	-0.4	50.0
2-Chloroethyl vinyl ether	0.045	0.040	0.050	11.1	50.0
cis-1,3-Dichloropropene	0.296	0.293	0.100	1.0	50.0

All other compounds must meet a minimum RRF of 0.010.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Instrument ID: MSV2 Calibration Date: 05/29/02 Time: 0806

Lab File ID: R2747 Init. Calib. Date(s): 05/20/02 05/25/02

Heated Purge: (Y/N) N Init. Calib. Times: 0130 1239

GC Column: DB-624-30M ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
4-methyl-2-pentanone	0.172	0.156	0.100	9.3	50.0
1,2,3-Trichlorobenzene	0.397	0.395	0.100	0.5	50.0
Toluene +	3.082	3.479	0.100	-12.9	20.0
Dichlorodifluoromethane	0.800	0.834		-4.2	
trans-1,3-Dichloropropene	0.982	0.962	0.100	2.0	50.0
Methyl Acetate	0.103	0.094	0.100	8.7	50.0
1,1,2-Trichloroethane	0.538	0.491	0.100	8.7	50.0
1,3-Dichloropropane	0.996	0.922	0.100	7.4	50.0
Tetrachloroethene	0.606	0.591	0.100	2.5	50.0
2-Hexanone	0.451	0.375	0.100	16.8	50.0
Dibromochloromethane	0.613	0.597	0.100	2.6	50.0
1,2-Dibromoethane(EDB)	0.485	0.463	0.100	4.5	50.0
Chlorobenzene ++	1.816	1.826	0.300	-0.6	50.0
1,1,1,2-Tetrachloroethane	0.664	0.667	0.100	-0.4	50.0
Ethylbenzene +	0.963	0.946	0.100	1.8	20.0
p,m-Xylene	1.197	1.199	0.100	-0.2	50.0
o-Xylene	1.132	1.163	0.100	-2.7	50.0
Styrene	1.989	2.077	0.100	-4.4	50.0
Bromoform ++	0.410	0.380	0.100	7.3	50.0
Isopropylbenzene	2.838	2.838	0.100	0.0	50.0
Cyclohexane	0.357	0.380	0.100	-6.4	50.0
1,1,2,2-Tetrachloroethane++	0.718	0.705	0.300	1.8	50.0
trans-1,4-Dichloro-2-Butene	0.230	0.231	0.100	-0.4	50.0
1,2,3-Trichloropropane	1.009	0.984	0.100	2.5	50.0
Bromobenzene	1.740	1.813	0.100	-4.2	50.0
n-Propylbenzene	3.683	4.022	0.100	-9.2	50.0
2-Chlorotoluene	2.261	2.450	0.100	-8.4	50.0
1,3,5-Trimethylbenzene	1.843	1.778	0.100	3.5	50.0
4-Chlorotoluene	2.445	2.561	0.100	-4.7	50.0
tert-butylbenzene	1.647	1.738	0.100	-5.5	50.0
1,2,4-Trimethylbenzene	1.570	1.416	0.100	9.8	50.0
sec-Butylbenzene	3.348	3.574	0.100	-6.8	50.0
p-Isopropyltoluene	2.512	2.600	0.100	-3.5	50.0
1,3-Dichlorobenzene	1.604	1.558	0.100	2.9	50.0
1,4-Dichlorobenzene	1.508	1.570	0.100	-4.1	50.0
n-Butylbenzene	1.653	1.822	0.100	-10.2	50.0
TOTAL XYLENE	1.272	1.187	0.100	6.7	50.0

All other compounds must meet a minimum RRF of 0.010.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Instrument ID: MSV2 Calibration Date: 05/29/02 Time: 0806

Lab File ID: R2747 Init. Calib. Date(s): 05/20/02 05/25/02

Heated Purge: (Y/N) N Init. Calib. Times: 0130 1239

GC Column: DB-624-30M ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
1,2-Dichlorobenzene	1.416	1.420	0.100	-0.3	50.0
1,2-Dibromo-3-Chloropropane	0.138	0.135	0.100	2.2	50.0
1,2,4-Trichlorobenzene	0.424	0.426	0.100	-0.5	50.0
Methyl Cyclohexane	0.335	0.375	0.100	-11.9	50.0
Dibromofluoromethane	0.266	0.260	0.100	2.2	50.0
Toluene-d8	2.628	2.949	0.100	-12.2	50.0
1,2-Dichloroethane-d4	0.128	0.128	0.100	0.0	50.0
Bromofluorobenzene	0.736	0.716	0.100	2.7	50.0

All other compounds must meet a minimum RRF of 0.010.

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
41485	Method Blank	Water	5/30/02 16:58

SW-846 8260B

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	5/28/02 10:23	RSP	132428

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
71-55-6	1,1,1-Trichloroethane	ND	5.00		ug/L
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200		ug/L
79-00-5	1,1,2-Trichloroethane	ND	5.00		ug/L
75-34-3	1,1-Dichloroethane	ND	5.00		ug/L
75-35-4	1,1-Dichloroethene	ND	5.00		ug/L
120-82-1	1,2,4-Trichlorobenzene	ND	5.00		ug/L
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200		ug/L
106-93-4	1,2-Dibromoethane	ND	0.200		ug/L
95-50-1	1,2-Dichlorobenzene	ND	5.00		ug/L
107-06-2	1,2-Dichloroethane	ND	3.00		ug/L
78-87-5	1,2-Dichloropropane	ND	5.00		ug/L
541-73-1	1,3-Dichlorobenzene	ND	5.00		ug/L
106-46-7	1,4-Dichlorobenzene	ND	5.00		ug/L
78-93-3	2-Butanone	ND	10.0		ug/L
591-78-6	2-Hexanone	ND	10.0		ug/L
108-10-1	4-Methyl-2-pentanone	ND	10.0		ug/L
67-64-1	Acetone	ND	10.0		ug/L
71-43-2	Benzene	ND	1.00		ug/L
75-27-4	Bromodichloromethane	ND	0.600		ug/L
75-25-2	Bromoform	ND	4.00		ug/L
74-83-9	Bromomethane	ND	5.00		ug/L
75-15-0	Carbon disulfide	ND	5.00		ug/L
56-23-5	Carbon tetrachloride	ND	3.00		ug/L
108-90-7	Chlorobenzene	ND	5.00		ug/L
75-00-3	Chloroethane	ND	5.00		ug/L
67-66-3	Chloroform	ND	5.00		ug/L
74-87-3	Chloromethane	ND	2.70		ug/L
110-82-7	Cyclohexane	ND	100		ug/L
124-48-1	Dibromochloromethane	ND	0.400		ug/L
75-71-8	Dichlorodifluoromethane	ND	5.00		ug/L
10061-01-	cis-1,3-Dichloropropene	ND	5.00		ug/L
10061-02-	trans-1,3-Dichloropropene	ND	5.00		ug/L
100-41-4	Ethylbenzene	ND	5.00		ug/L
98-82-8	Isopropylbenzene (Cumene)	ND	5.00		ug/L
79-20-9	Methyl Acetate	ND	5.00		ug/L
108-87-2	Methylcyclohexane	ND	5.00		ug/L
75-09-2	Methylene chloride	1.89J	5.00		ug/L
100-42-5	Styrene	ND	5.00		ug/L
127-18-4	Tetrachloroethene	ND	3.00		ug/L
108-88-3	Toluene	ND	5.00		ug/L

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
41485	Method Blank	Water	5/30/02 16:58

SW-846 8260B

	PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
				1	5/28/02 10:23	RSP	132428

79-01-6	Trichloroethene	ND	3.00	ug/L
75-69-4	Trichlorofluoromethane	ND	5.00	ug/L
76-13-1	Trichlorotrifluoroethane	ND	5.00	ug/L
75-01-4	Vinyl chloride	ND	1.00	ug/L
1330-20-7	Xylene (total)	ND	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	ND	5.00	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	ND	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	ND	5.00	ug/L

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
460-00-4	4-Bromofluorobenzene	50	50.3 ug/L	101	78 - 115
1868-53-7	Dibromofluoromethane	50	50.7 ug/L	101	70 - 130
2037-26-5	Toluene d8	50	51.2 ug/L	102	83 - 112
17060-07-	1,2-Dichloroethane-d4	50	48.7 ug/L	97	76 - 128

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
41650	Method Blank	Solid	5/30/02 11:23

SW-846 8260B

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	5/29/02 10:12	KRV	132811

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
71-55-6	1,1,1-Trichloroethane	ND	5.00		ug/Kg
79-00-5	1,1,2-Trichloroethane	ND	5.00		ug/Kg
75-34-3	1,1-Dichloroethane	ND	5.00		ug/Kg
75-35-4	1,1-Dichloroethene	ND	5.00		ug/Kg
106-93-4	1,2-Dibromoethane	ND	5.00		ug/Kg
107-06-2	1,2-Dichloroethane	ND	5.00		ug/Kg
78-87-5	1,2-Dichloropropane	ND	5.00		ug/Kg
78-93-3	2-Butanone	1.72J	25.0		ug/Kg
591-78-6	2-Hexanone	ND	5.00		ug/Kg
108-10-1	4-Methyl-2-pentanone	ND	5.00		ug/Kg
67-64-1	Acetone	5.97J	25.0		ug/Kg
71-43-2	Benzene	ND	5.00		ug/Kg
75-27-4	Bromodichloromethane	ND	5.00		ug/Kg
75-15-0	Carbon disulfide	ND	5.00		ug/Kg
56-23-5	Carbon tetrachloride	ND	5.00		ug/Kg
108-90-7	Chlorobenzene	ND	5.00		ug/Kg
75-00-3	Chloroethane	ND	5.00		ug/Kg
67-66-3	Chloroform	ND	5.00		ug/Kg
74-87-3	Chloromethane	ND	5.00		ug/Kg
110-82-7	Cyclohexane	ND	5.00		ug/Kg
75-71-8	Dichlorodifluoromethane	ND	5.00		ug/Kg
10061-01-	cis-1,3-Dichloropropene	ND	5.00		ug/Kg
10061-02-	trans-1,3-Dichloropropene	ND	5.00		ug/Kg
100-41-4	Ethylbenzene	ND	5.00		ug/Kg
79-20-9	Methyl Acetate	ND	5000		ug/Kg
108-87-2	Methylcyclohexane	ND	5000		ug/Kg
75-09-2	Methylene chloride	ND	10.0		ug/Kg
100-42-5	Styrene	ND	5.00		ug/Kg
127-18-4	Tetrachloroethene	ND	5.00		ug/Kg
108-88-3	Toluene	ND	5.00		ug/Kg
79-01-6	Trichloroethene	ND	5.00		ug/Kg
75-69-4	Trichlorofluoromethane	ND	5.00		ug/Kg
76-13-1	Trichlorotrifluoroethane	ND	5.00		ug/Kg
75-01-4	Vinyl chloride	ND	2.00		ug/Kg
1330-20-7	Xylene (total)	ND	10.0		ug/Kg
156-59-2	cis-1,2-Dichloroethene	ND	5.00		ug/Kg
1634-04-4	tert-Butyl methyl ether (MTBE)	ND	5.00		ug/Kg
156-60-5	trans-1,2-Dichloroethene	ND	5.00		ug/Kg

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
41650	Method Blank	Solid	5/30/02 11:23

SW-846 8260B

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	5/29/02 10:12	KRV	132811

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
460-00-4	4-Bromofluorobenzene	50	46.6 ug/Kg	93	73 - 138
1868-53-7	Dibromofluoromethane	50	49.5 ug/Kg	99	70 - 130
2037-26-5	Toluene d8	50	49.6 ug/Kg	99	65 - 128
17060-07-	1,2-Dichloroethane-d4	50	50.7 ug/Kg	101	60 - 140

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
41483	Lab Control Sample	Water	5/30/02 16:58

SW-846 8260B

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	5/28/02 9:08	RSP	132428

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
71-55-6	1,1,1-Trichloroethane	45.0	5.00		ug/L
79-34-5	1,1,2,2-Tetrachloroethane	33.9	0.200		ug/L
79-00-5	1,1,2-Trichloroethane	43.5	5.00		ug/L
75-34-3	1,1-Dichloroethane	45.4	5.00		ug/L
75-35-4	1,1-Dichloroethene	43.3	5.00		ug/L
120-82-1	1,2,4-Trichlorobenzene	41.8	5.00		ug/L
96-12-8	1,2-Dibromo-3-chloropropane	34.2	0.200		ug/L
106-93-4	1,2-Dibromoethane	44.7	0.200		ug/L
95-50-1	1,2-Dichlorobenzene	44.1	5.00		ug/L
107-06-2	1,2-Dichloroethane	50.1	3.00		ug/L
78-87-5	1,2-Dichloropropane	45.9	5.00		ug/L
541-73-1	1,3-Dichlorobenzene	46.5	5.00		ug/L
106-46-7	1,4-Dichlorobenzene	44.8	5.00		ug/L
78-93-3	2-Butanone	38.3	10.0		ug/L
591-78-6	2-Hexanone	41.4	10.0		ug/L
108-10-1	4-Methyl-2-pentanone	40.9	10.0		ug/L
67-64-1	Acetone	37.6	10.0		ug/L
71-43-2	Benzene	43.6	1.00		ug/L
75-27-4	Bromodichloromethane	44.7	0.600		ug/L
75-25-2	Bromoform	45.3	4.00		ug/L
74-83-9	Bromomethane	53.3	5.00		ug/L
75-15-0	Carbon disulfide	41.5	5.00		ug/L
56-23-5	Carbon tetrachloride	46.0	3.00		ug/L
108-90-7	Chlorobenzene	46.2	5.00		ug/L
75-00-3	Chloroethane	51.7	5.00		ug/L
67-66-3	Chloroform	44.1	5.00		ug/L
74-87-3	Chloromethane	44.5	2.70		ug/L
110-82-7	Cyclohexane	44.0J	100		ug/L
124-48-1	Dibromochloromethane	46.2	0.400		ug/L
75-71-8	Dichlorodifluoromethane	42.3	5.00		ug/L
10061-01-	cis-1,3-Dichloropropene	43.1	5.00		ug/L
10061-02-	trans-1,3-Dichloropropene	46.7	5.00		ug/L
100-41-4	Ethylbenzene	49.3	5.00		ug/L
98-82-8	Isopropylbenzene (Cumene)	47.4	5.00		ug/L
79-20-9	Methyl Acetate	36.3	5.00		ug/L
108-87-2	Methylcyclohexane	42.3	5.00		ug/L
75-09-2	Methylene chloride	42.1	5.00		ug/L
100-42-5	Styrene	50.6	5.00		ug/L
127-18-4	Tetrachloroethene	45.4	3.00		ug/L
108-88-3	Toluene	45.0	5.00		ug/L

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
41483	Lab Control Sample	Water	5/30/02 16:58

SW-846 8260B

	PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
				1	5/28/02 9:08	RSP	132428

79-01-6	**Trichloroethene**	**45.6**	**3.00**	**ug/L**
75-69-4	**Trichlorofluoromethane**	**44.4**	**5.00**	**ug/L**
76-13-1	**Trichlorotrifluoroethane**	**44.0**	**5.00**	**ug/L**
75-01-4	**Vinyl chloride**	**44.5**	**1.00**	**ug/L**
1330-20-7	**Xylene (total)**	**148**	**5.00**	**ug/L**
156-59-2	**cis-1,2-Dichloroethene**	**46.9**	**5.00**	**ug/L**
1634-04-4	**tert-Butyl methyl ether (MTBE)**	**44.5**	**5.00**	**ug/L**
156-60-5	**trans-1,2-Dichloroethene**	**45.9**	**5.00**	**ug/L**

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
460-00-4	**4-Bromofluorobenzene**	50	44.8 ug/L	90	78 - 115
1868-53-7	**Dibromofluoromethane**	50	49.7 ug/L	99	70 - 130
2037-26-5	**Toluene d8**	50	50.2 ug/L	100	83 - 112
17060-07-	**1,2-Dichloroethane-d4**	50	46.8 ug/L	94	76 - 128

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
41484	Lab Control Sample Duplicate	Water	5/30/02 16:58

SW-846 8260B

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	5/28/02 9:32	RSP	132428

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
71-55-6	1,1,1-Trichloroethane	43.7	5.00		ug/L
79-34-5	1,1,2,2-Tetrachloroethane	37.8	0.200		ug/L
79-00-5	1,1,2-Trichloroethane	45.1	5.00		ug/L
75-34-3	1,1-Dichloroethane	43.8	5.00		ug/L
75-35-4	1,1-Dichloroethene	42.5	5.00		ug/L
120-82-1	1,2,4-Trichlorobenzene	46.8	5.00		ug/L
96-12-8	1,2-Dibromo-3-chloropropane	38.0	0.200		ug/L
106-93-4	1,2-Dibromoethane	46.5	0.200		ug/L
95-50-1	1,2-Dichlorobenzene	45.0	5.00		ug/L
107-06-2	1,2-Dichloroethane	50.6	3.00		ug/L
78-87-5	1,2-Dichloropropane	45.4	5.00		ug/L
541-73-1	1,3-Dichlorobenzene	47.3	5.00		ug/L
106-46-7	1,4-Dichlorobenzene	43.4	5.00		ug/L
78-93-3	2-Butanone	40.4	10.0		ug/L
591-78-6	2-Hexanone	44.4	10.0		ug/L
108-10-1	4-Methyl-2-pentanone	43.8	10.0		ug/L
67-64-1	Acetone	37.2	10.0		ug/L
71-43-2	Benzene	43.1	1.00		ug/L
75-27-4	Bromodichloromethane	44.9	0.600		ug/L
75-25-2	Bromoform	47.0	4.00		ug/L
74-83-9	Bromomethane	45.8	5.00		ug/L
75-15-0	Carbon disulfide	40.2	5.00		ug/L
56-23-5	Carbon tetrachloride	45.0	3.00		ug/L
108-90-7	Chlorobenzene	45.0	5.00		ug/L
75-00-3	Chloroethane	46.8	5.00		ug/L
67-66-3	Chloroform	43.4	5.00		ug/L
74-87-3	Chloromethane	43.1	2.70		ug/L
110-82-7	Cyclohexane	43.0J	100		ug/L
124-48-1	Dibromochloromethane	47.9	0.400		ug/L
75-71-8	Dichlorodifluoromethane	43.7	5.00		ug/L
10061-01-	cis-1,3-Dichloropropene	44.2	5.00		ug/L
10061-02-	trans-1,3-Dichloropropene	47.9	5.00		ug/L
100-41-4	Ethylbenzene	47.7	5.00		ug/L
98-82-8	Isopropylbenzene (Cumene)	45.7	5.00		ug/L
79-20-9	Methyl Acetate	37.9	5.00		ug/L
108-87-2	Methylcyclohexane	42.0	5.00		ug/L
75-09-2	Methylene chloride	41.5	5.00		ug/L
100-42-5	Styrene	48.1	5.00		ug/L
127-18-4	Tetrachloroethene	44.1	3.00		ug/L
108-88-3	Toluene	44.4	5.00		ug/L

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
41484	Lab Control Sample Duplicate	Water	5/30/02 16:58

SW-846 8260B

	PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
				1	5/28/02 9:32	RSP	132428

79-01-6	**Trichloroethene**	**44.7**	**3.00**	**ug/L**
75-69-4	**Trichlorofluoromethane**	**40.5**	**5.00**	**ug/L**
76-13-1	**Trichlorotrifluoroethane**	**42.6**	**5.00**	**ug/L**
75-01-4	**Vinyl chloride**	**43.2**	**1.00**	**ug/L**
1330-20-7	**Xylene (total)**	**139**	**5.00**	**ug/L**
156-59-2	**cis-1,2-Dichloroethene**	**45.4**	**5.00**	**ug/L**
1634-04-4	**tert-Butyl methyl ether (MTBE)**	**46.7**	**5.00**	**ug/L**
156-60-5	**trans-1,2-Dichloroethene**	**43.8**	**5.00**	**ug/L**

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
460-00-4	**4-Bromofluorobenzene**	50	48 ug/L	96	78 - 115
1868-53-7	**Dibromofluoromethane**	50	50.6 ug/L	101	70 - 130
2037-26-5	**Toluene d8**	50	50 ug/L	100	83 - 112
17060-07-	**1,2-Dichloroethane-d4**	50	49.1 ug/L	98	76 - 128

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
41648	Lab Control Sample	Solid	5/30/02 11:23

SW-846 8260B

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	5/29/02 8:43	KRV	132811

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
71-55-6	1,1,1-Trichloroethane	47.5	5.00		ug/Kg
79-00-5	1,1,2-Trichloroethane	45.7	5.00		ug/Kg
75-34-3	1,1-Dichloroethane	39.7	5.00		ug/Kg
75-35-4	1,1-Dichloroethene	53.6	5.00		ug/Kg
106-93-4	1,2-Dibromoethane	49.2	5.00		ug/Kg
107-06-2	1,2-Dichloroethane	48.6	5.00		ug/Kg
78-87-5	1,2-Dichloropropane	50.5	5.00		ug/Kg
78-93-3	2-Butanone	41.9	25.0		ug/Kg
591-78-6	2-Hexanone	44.1	5.00		ug/Kg
108-10-1	4-Methyl-2-pentanone	45.5	5.00		ug/Kg
67-64-1	Acetone	38.0	25.0		ug/Kg
71-43-2	Benzene	48.5	5.00		ug/Kg
75-27-4	Bromodichloromethane	46.6	5.00		ug/Kg
75-15-0	Carbon disulfide	52.2	5.00		ug/Kg
56-23-5	Carbon tetrachloride	49.8	5.00		ug/Kg
108-90-7	Chlorobenzene	48.3	5.00		ug/Kg
75-00-3	Chloroethane	52.0	5.00		ug/Kg
67-66-3	Chloroform	47.2	5.00		ug/Kg
74-87-3	Chloromethane	44.9	5.00		ug/Kg
110-82-7	Cyclohexane	52.5	5.00		ug/Kg
75-71-8	Dichlorodifluoromethane	46.7	5.00		ug/Kg
10061-01-	cis-1,3-Dichloropropene	45.5	5.00		ug/Kg
10061-02-	trans-1,3-Dichloropropene	18.9	5.00		ug/Kg
100-41-4	Ethylbenzene	47.0	5.00		ug/Kg
79-20-9	Methyl Acetate	48.6J	5000		ug/Kg
108-87-2	Methylcyclohexane	54.5J	5000		ug/Kg
75-09-2	Methylene chloride	45.7	10.0		ug/Kg
100-42-5	Styrene	46.4	5.00		ug/Kg
127-18-4	Tetrachloroethene	46.1	5.00		ug/Kg
108-88-3	Toluene	56.3	5.00		ug/Kg
79-01-6	Trichloroethene	45.2	5.00		ug/Kg
75-69-4	Trichlorofluoromethane	52.9	5.00		ug/Kg
76-13-1	Trichlorotrifluoroethane	54.6	5.00		ug/Kg
75-01-4	Vinyl chloride	49.3	2.00		ug/Kg
1330-20-7	Xylene (total)	129	10.0		ug/Kg
156-59-2	cis-1,2-Dichloroethene	48.9	5.00		ug/Kg
1634-04-4	tert-Butyl methyl ether (MTBE)	51.2	5.00		ug/Kg
156-60-5	trans-1,2-Dichloroethene	50.4	5.00		ug/Kg

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
41648	Lab Control Sample	Solid	5/30/02 11:23

SW-846 8260B

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	5/29/02 8:43	KRV	132811

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
460-00-4	**4-Bromofluorobenzene**	50	48.6 ug/Kg	97	73 - 138
1868-53-7	**Dibromofluoromethane**	50	47.9 ug/Kg	96	70 - 130
2037-26-5	**Toluene d8**	50	56.1 ug/Kg	112	65 - 128
17060-07-	**1,2-Dichloroethane-d4**	50	49.7 ug/Kg	99	60 - 140

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (2FP)#	S2 (TBP)#	S3 (PHL)#	S4 (NBZ)#	S5 (FBP)#	S6 (TPH)#	S7 #	S8 #	TOT OUT
01	41613	69	76	70	76	84	84			0
02	41614	73	82	74	80	89	68			0
03	005-211-S	71	87	74	77	84	62			0
04	005-212-S	64	76	68	66	72	86			0
05	005-12-SMS	70	78	69	72	77	68			0
06	005-12-SMSD	68	78	72	69	74	61			0
07										
08										
09										
10										
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		QC LIMITS
S1 (2FP)	= 2-Fluorophenol	(0-106)
S2 (TBP)	= 2,4,6-Tribromophenol	(0-120)
S3 (PHL)	= Phenol-d5	(0-113)
S4 (NBZ)	= Nitrobenzene-d5	(0-116)
S5 (FBP)	= 2-Fluorobiphenyl	(0-116)
S6 (TPH)	= Terphenyl-d14	(0-137)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

QUALITY CONTROL SUMMARY

LCS ID: 41614	ORIGINAL LAB ID:	PREP BATCH: 132708
	MATRIX Solid	ANALYTICAL BATCH: 132710

SW-846 8270C

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
208-96-8	Acenaphthylene	3330 ug/Kg	2870	86	60 - 120
120-12-7	Anthracene	3330 ug/Kg	2790	84	60 - 120
56-55-3	Benzo(a)anthracene	3330 ug/Kg	2700	81	60 - 120
205-99-2	Benzo(b)fluoranthene	3330 ug/Kg	2710	81	60 - 120
207-08-9	Benzo(k)fluoranthene	3330 ug/Kg	2710	81	60 - 120
191-24-2	Benzo(g,h,i)perylene	3330 ug/Kg	3020	91	60 - 120
50-32-8	Benzo(a)pyrene	3330 ug/Kg	2910	87	60 - 120
85-68-7	Butyl benzyl phthalate	3330 ug/Kg	2800	84	60 - 120
111-91-1	Bis(2-Chloroethoxy)methane	3330 ug/Kg	2530	76	60 - 120
111-44-4	Bis(2-Chloroethyl)ether	3330 ug/Kg	2430	73	45 - 135
108-60-1	Bis(2-Chloroisopropyl)ether	3330 ug/Kg	2470	74	45 - 135
117-81-7	Bis(2-Ethylhexyl)phthalate	3330 ug/Kg	2820	85	60 - 120
101-55-3	4-Bromophenyl phenyl ether	3330 ug/Kg	2780	83	60 - 120
86-74-8	Carbazole	3330 ug/Kg	2710	81	60 - 120
7005-72-3	4-Chlorophenyl phenyl ether	3330 ug/Kg	2650	80	45 - 135
218-01-9	Chrysene	3270 ug/Kg	2700	83	60 - 120
53-70-3	Dibenz(a,h)anthracene	3330 ug/Kg	3010	90	60 - 120
132-64-9	Dibenzofuran	3330 ug/Kg	2850	86	45 - 135
91-94-1	3,3'-Dichlorobenzidine	3330 ug/Kg	2250	68	60 - 120
120-83-2	2,4-Dichlorophenol	3330 ug/Kg	2620	79	30 - 150
84-66-2	Diethyl phthalate	3330 ug/Kg	2710	81	60 - 120
105-67-9	2,4-Dimethylphenol	3330 ug/Kg	2650	80	60 - 120
131-11-3	Dimethyl phthalate	3330 ug/Kg	2740	82	60 - 120
117-84-0	Di-n-octyl phthalate	3330 ug/Kg	2820	85	60 - 120
51-28-5	2,4-Dinitrophenol	3330 ug/Kg	2540	76	30 - 150
606-20-2	2,6-Dinitrotoluene	3330 ug/Kg	2850	86	60 - 120
206-44-0	Fluoranthene	3330 ug/Kg	2570	77	60 - 120
86-73-7	Fluorene	3330 ug/Kg	2740	82	60 - 120
118-74-1	Hexachlorobenzene	3330 ug/Kg	2740	82	60 - 120
87-68-3	Hexachlorobutadiene	3330 ug/Kg	2590	78	60 - 120
77-47-4	Hexachlorocyclopentadiene	3330 ug/Kg	2840	85	45 - 135
67-72-1	Hexachloroethane	3330 ug/Kg	2520	76	45 - 135
78-59-1	Isophorone	3330 ug/Kg	2700	81	45 - 135
193-39-5	Indeno(1,2,3-cd)pyrene	3330 ug/Kg	2990	90	60 - 120
91-57-6	2-Methylnaphthalene	3330 ug/Kg	2650	80	60 - 120
95-48-7	o-Cresol	3330 ug/Kg	2530	76	30 - 150
91-20-3	Naphthalene	3330 ug/Kg	2610	78	45 - 135
98-95-3	Nitrobenzene	3330 ug/Kg	2680	80	60 - 120
88-75-5	2-Nitrophenol	3330 ug/Kg	2670	80	30 - 150

QUALITY CONTROL SUMMARY

86-30-6	n-Nitrosodiphenylamine	3270 ug/Kg	2740	84	60 - 120
85-01-8	Phenanthrene	3330 ug/Kg	2700	81	60 - 120
95-95-4	2,4,5-Trichlorophenol	3330 ug/Kg	2890	87	45 - 135
88-06-2	2,4,6-Trichlorophenol	3330 ug/Kg	2970	89	45 - 135
99-09-2	3-Nitroaniline	3330 ug/Kg	1960	59	30 - 150
100-01-6	4-Nitroaniline	3370 ug/Kg	2510	75	30 - 150
84-74-2	Di-n-butyl phthalate	3330 ug/Kg	2710	81	60 - 120
88-74-4	2-Nitroaniline	3330 ug/Kg	2860	86	30 - 150
91-58-7	2-Chloronaphthalene	3330 ug/Kg	2930	88	45 - 135
106-47-8	4-Chloroaniline	3330 ug/Kg	2600	78	30 - 150
1319-77-3MP	m,p-Cresol	3330 ug/Kg	2500	75	30 - 150
534-52-1	4,6-Dinitro-2-methylphenol	3330 ug/Kg	2820	85	60 - 120
108-95-2	Phenol	3330 ug/Kg	2440	73	29 - 127
95-57-8	2-Chlorophenol	3330 ug/Kg	2480	74	31 - 124
621-64-7	n-Nitrosodi-n-propylamine	3330 ug/Kg	2570	77	60 - 115
59-50-7	4-Chloro-3-methylphenol	3330 ug/Kg	2590	78	38 - 118
83-32-9	Acenaphthene	3330 ug/Kg	2840	85	56 - 116
100-02-7	4-Nitrophenol	3330 ug/Kg	2750	83	23 - 130
121-14-2	2,4-Dinitrotoluene	3330 ug/Kg	2790	84	58 - 122
87-86-5	Pentachlorophenol	3330 ug/Kg	2890	87	30 - 125
129-00-0	Pyrene	3330 ug/Kg	2710	81	54 - 122

MS LAB ID: 41615 **ORIGINAL LAB ID:** 20205242102 **PREP BATCH:** 132708
MATRIX Solid **ANALYTICAL BATCH:** 132710

SW-846 8270C

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
208-96-8	Acenaphthylene	0	3330 ug/Kg	2690	81	60 - 120
120-12-7	Anthracene	0	3330 ug/Kg	2620	79	60 - 120
56-55-3	Benzo(a)anthracene	0	3330 ug/Kg	2640	79	60 - 120
205-99-2	Benzo(b)fluoranthene	0	3330 ug/Kg	2480	74	60 - 120
207-08-9	Benzo(k)fluoranthene	0	3330 ug/Kg	2480	74	60 - 120
191-24-2	Benzo(g,h,i)perylene	0	3330 ug/Kg	2700	81	60 - 120
50-32-8	Benzo(a)pyrene	0	3330 ug/Kg	2790	84	60 - 120
85-68-7	Butyl benzyl phthalate	0	3330 ug/Kg	2720	82	60 - 120
111-91-1	Bis(2-Chloroethoxy)methane	0	3330 ug/Kg	2480	74	60 - 120
111-44-4	Bis(2-Chloroethyl)ether	0	3330 ug/Kg	2410	72	45 - 135
108-60-1	Bis(2-Chloroisopropyl)ether	0	3330 ug/Kg	2440	73	45 - 135
117-81-7	Bis(2-Ethylhexyl)phthalate	0	3330 ug/Kg	2910	87	60 - 120
101-55-3	4-Bromophenyl phenyl ether	0	3330 ug/Kg	2550	77	60 - 120
86-74-8	Carbazole	0	3330 ug/Kg	2640	79	60 - 120
7005-72-3	4-Chlorophenyl phenyl ether	0	3330 ug/Kg	2700	81	45 - 135
218-01-9	Chrysene	0	3270 ug/Kg	2620	80	60 - 120
53-70-3	Dibenz(a,h)anthracene	0	3330 ug/Kg	2820	85	60 - 120
132-64-9	Dibenzofuran	0	3330 ug/Kg	2720	82	45 - 135

QUALITY CONTROL SUMMARY

91-94-1	3,3'-Dichlorobenzidine	0	3330 ug/Kg	2190	66	60 - 120
120-83-2	2,4-Dichlorophenol	0	3330 ug/Kg	2490	75	30 - 150
84-66-2	Diethyl phthalate	0	3330 ug/Kg	2790	84	60 - 120
105-67-9	2,4-Dimethylphenol	0	3330 ug/Kg	2610	78	60 - 120
131-11-3	Dimethyl phthalate	0	3330 ug/Kg	2780	83	60 - 120
117-84-0	Di-n-octyl phthalate	0	3330 ug/Kg	3100	93	60 - 120
51-28-5	2,4-Dinitrophenol	0	3330 ug/Kg	2460	74	30 - 150
606-20-2	2,6-Dinitrotoluene	0	3330 ug/Kg	2850	86	60 - 120
206-44-0	Fluoranthene	0	3330 ug/Kg	2550	77	60 - 120
86-73-7	Fluorene	0	3330 ug/Kg	2660	80	60 - 120
118-74-1	Hexachlorobenzene	0	3330 ug/Kg	2550	77	60 - 120
87-68-3	Hexachlorobutadiene	0	3330 ug/Kg	2470	74	60 - 120
77-47-4	Hexachlorocyclopentadiene	0	3330 ug/Kg	1970	59	45 - 135
67-72-1	Hexachloroethane	0	3330 ug/Kg	2380	71	45 - 135
78-59-1	Isophorone	0	3330 ug/Kg	2630	79	45 - 135
193-39-5	Indeno(1,2,3-cd)pyrene	0	3330 ug/Kg	2810	84	60 - 120
91-57-6	2-Methylnaphthalene	0	3330 ug/Kg	2560	77	60 - 120
95-48-7	o-Cresol	0	3330 ug/Kg	2420	73	30 - 150
91-20-3	Naphthalene	0	3330 ug/Kg	2540	76	45 - 135
98-95-3	Nitrobenzene	0	3330 ug/Kg	2630	79	60 - 120
88-75-5	2-Nitrophenol	0	3330 ug/Kg	2600	78	30 - 150
86-30-6	n-Nitrosodiphenylamine	0	3270 ug/Kg	2660	81	60 - 120
85-01-8	Phenanthrene	0	3330 ug/Kg	2590	78	60 - 120
95-95-4	2,4,5-Trichlorophenol	0	3330 ug/Kg	2930	88	45 - 135
88-06-2	2,4,6-Trichlorophenol	0	3330 ug/Kg	2760	83	45 - 135
99-09-2	3-Nitroaniline	0	3330 ug/Kg	2320	70	30 - 150
100-01-6	4-Nitroaniline	0	3370 ug/Kg	2560	76	30 - 150
84-74-2	Di-n-butyl phthalate	0	3330 ug/Kg	2690	81	60 - 120
88-74-4	2-Nitroaniline	0	3330 ug/Kg	2890	87	30 - 150
91-58-7	2-Chloronaphthalene	0	3330 ug/Kg	2760	83	45 - 135
106-47-8	4-Chloroaniline	0	3330 ug/Kg	2530	76	30 - 150
1319-77-3MP	m,p-Cresol	0	3330 ug/Kg	2450	74	30 - 150
534-52-1	4,6-Dinitro-2-methylphenol	0	3330 ug/Kg	2630	79	60 - 120
108-95-2	Phenol	0	3330 ug/Kg	2330	70	43 - 114
95-57-8	2-Chlorophenol	0	3330 ug/Kg	2330	70	40 - 120
621-64-7	n-Nitrosodi-n-propylamine	0	3330 ug/Kg	2520	76	62 - 111
59-50-7	4-Chloro-3-methylphenol	0	3330 ug/Kg	2600	78	50 - 114
83-32-9	Acenaphthene	0	3330 ug/Kg	2670	80	48 - 126
100-02-7	4-Nitrophenol	0	3330 ug/Kg	2890	87	47 - 110
121-14-2	2,4-Dinitrotoluene	0	3330 ug/Kg	2750	83	43 - 148
87-86-5	Pentachlorophenol	0	3330 ug/Kg	2980	89	36 - 125
129-00-0	Pyrene	0	3330 ug/Kg	2460	74	38 - 143

MSD LAB ID: 41616	ORIGINAL LAB ID: 20205242102	PREP BATCH: 132708
	MATRIX Solid	ANALYTICAL BATCH: 132710

QUALITY CONTROL SUMMARY

SW-846 8270C

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
208-96-8	Acenaphthylene	3330 ug/Kg	2700	81	60 - 120	0	0 - 40
120-12-7	Anthracene	3330 ug/Kg	2710	81	60 - 120	3	0 - 40
56-55-3	Benzo(a)anthracene	3330 ug/Kg	2690	81	60 - 120	3	0 - 40
205-99-2	Benzo(b)fluoranthene	3330 ug/Kg	2630	79	60 - 120	7	0 - 40
207-08-9	Benzo(k)fluoranthene	3330 ug/Kg	2630	79	60 - 120	7	0 - 40
191-24-2	Benzo(g,h,i)perylene	3330 ug/Kg	2480	74	60 - 120	9	0 - 40
50-32-8	Benzo(a)pyrene	3330 ug/Kg	2850	86	60 - 120	2	0 - 40
85-68-7	Butyl benzyl phthalate	3330 ug/Kg	2760	83	60 - 120	1	0 - 40
111-91-1	Bis(2-Chloroethoxy)methane	3330 ug/Kg	2550	77	60 - 120	4	0 - 40
111-44-4	Bis(2-Chloroethyl)ether	3330 ug/Kg	2420	73	45 - 135	1	0 - 40
108-60-1	Bis(2-Chloroisopropyl)ether	3330 ug/Kg	2490	75	45 - 135	3	0 - 40
117-81-7	Bis(2-Ethylhexyl)phthalate	3330 ug/Kg	2950	89	60 - 120	2	0 - 40
101-55-3	4-Bromophenyl phenyl ether	3330 ug/Kg	2720	82	60 - 120	6	0 - 40
86-74-8	Carbazole	3330 ug/Kg	2700	81	60 - 120	3	0 - 40
7005-72-3	4-Chlorophenyl phenyl ether	3330 ug/Kg	2560	77	45 - 135	5	0 - 40
218-01-9	Chrysene	3270 ug/Kg	2650	81	60 - 120	1	0 - 40
53-70-3	Dibenz(a,h)anthracene	3330 ug/Kg	2620	79	60 - 120	7	0 - 40
132-64-9	Dibenzofuran	3330 ug/Kg	2710	81	45 - 135	1	0 - 40
91-94-1	3,3'-Dichlorobenzidine	3330 ug/Kg	2080	62	60 - 120	6	0 - 40
120-83-2	2,4-Dichlorophenol	3330 ug/Kg	2500	75	30 - 150	0	0 - 40
84-66-2	Diethyl phthalate	3330 ug/Kg	2710	81	60 - 120	4	0 - 40
105-67-9	2,4-Dimethylphenol	3330 ug/Kg	2680	80	60 - 120	3	0 - 40
131-11-3	Dimethyl phthalate	3330 ug/Kg	2760	83	60 - 120	0	0 - 40
117-84-0	Di-n-octyl phthalate	3330 ug/Kg	3120	94	60 - 120	1	0 - 40
51-28-5	2,4-Dinitrophenol	3330 ug/Kg	2350	71	30 - 150	4	0 - 40
606-20-2	2,6-Dinitrotoluene	3330 ug/Kg	2890	87	60 - 120	1	0 - 40
206-44-0	Fluoranthene	3330 ug/Kg	2610	78	60 - 120	1	0 - 40
86-73-7	Fluorene	3330 ug/Kg	2590	78	60 - 120	3	0 - 40
118-74-1	Hexachlorobenzene	3330 ug/Kg	2660	80	60 - 120	4	0 - 40
87-68-3	Hexachlorobutadiene	3330 ug/Kg	2560	77	60 - 120	4	0 - 40
77-47-4	Hexachlorocyclopentadiene	3330 ug/Kg	2170	65	45 - 135	10	0 - 40
67-72-1	Hexachloroethane	3330 ug/Kg	2460	74	45 - 135	4	0 - 40
78-59-1	Isophorone	3330 ug/Kg	2680	80	45 - 135	1	0 - 40
193-39-5	Indeno(1,2,3-cd)pyrene	3330 ug/Kg	2600	78	60 - 120	7	0 - 40
91-57-6	2-Methylnaphthalene	3330 ug/Kg	2560	77	60 - 120	0	0 - 40
95-48-7	o-Cresol	3330 ug/Kg	2520	76	30 - 150	4	0 - 40
91-20-3	Naphthalene	3330 ug/Kg	2510	75	45 - 135	1	0 - 40
98-95-3	Nitrobenzene	3330 ug/Kg	2630	79	60 - 120	0	0 - 40
88-75-5	2-Nitrophenol	3330 ug/Kg	2610	78	30 - 150	0	0 - 40
86-30-6	n-Nitrosodiphenylamine	3270 ug/Kg	2750	84	60 - 120	4	0 - 40
85-01-8	Phenanthrene	3330 ug/Kg	2680	80	60 - 120	3	0 - 40
95-95-4	2,4,5-Trichlorophenol	3330 ug/Kg	2790	84	45 - 135	5	0 - 40

QUALITY CONTROL SUMMARY

88-06-2	2,4,6-Trichlorophenol	3330 ug/Kg	2820	85	45 - 135	2	0 - 40
99-09-2	3-Nitroaniline	3330 ug/Kg	2190	66	30 - 150	6	0 - 40
100-01-6	4-Nitroaniline	3370 ug/Kg	2390	71	30 - 150	7	0 - 40
84-74-2	Di-n-butyl phthalate	3330 ug/Kg	2870	86	60 - 120	6	0 - 40
88-74-4	2-Nitroaniline	3330 ug/Kg	2820	85	30 - 150	2	0 - 40
91-58-7	2-Chloronaphthalene	3330 ug/Kg	2830	85	45 - 135	2	0 - 40
106-47-8	4-Chloroaniline	3330 ug/Kg	2530	76	30 - 150	0	0 - 40
1319-77-3MP	m,p-Cresol	3330 ug/Kg	2530	76	30 - 150	3	0 - 40
534-52-1	4,6-Dinitro-2-methylphenol	3330 ug/Kg	2710	81	60 - 120	3	0 - 40
108-95-2	Phenol	3330 ug/Kg	2400	72	43 - 114	3	0 - 33
95-57-8	2-Chlorophenol	3330 ug/Kg	2440	73	40 - 120	4	0 - 41
621-64-7	n-Nitrosodi-n-propylamine	3330 ug/Kg	2600	78	62 - 111	3	0 - 33
59-50-7	4-Chloro-3-methylphenol	3330 ug/Kg	2500	75	50 - 114	4	0 - 37
83-32-9	Acenaphthene	3330 ug/Kg	2680	80	48 - 126	0	0 - 25
100-02-7	4-Nitrophenol	3330 ug/Kg	2860	86	47 - 110	1	0 - 51
121-14-2	2,4-Dinitrotoluene	3330 ug/Kg	2730	82	43 - 148	1	0 - 38
87-86-5	Pentachlorophenol	3330 ug/Kg	2950	89	36 - 125	0	0 - 41
129-00-0	Pyrene	3330 ug/Kg	2490	75	38 - 143	1	0 - 31

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Lab File ID: A2000 DFTPP Injection Date: 05/29/02

Instrument ID: MSSV1 DFTPP Injection Time: 0819

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	34.1
68	Less than 2.0% of mass 69	0.3 (0.4)1
69	Mass 69 relative abundance	59.8
70	Less than 2.0% of mass 69	0.2 (0.3)1
127	40.0 - 60.0% of mass 198	50.4
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	21.8
365	Greater than 1.0% of mass 198	2.76
441	Present, but less than mass 443	4.8
442	40.0 - 100.0% of mass 198	49.1
443	17.0 - 23.0% of mass 442	9.5 (19.3)2

1-Value is % mass 69 2-Value is % mass 442

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	A2001	05/29/02	0914
02	SSTD010	SSTD010	A2002	05/29/02	0942
03	SSTD080	SSTD080	A2003	05/29/02	1006
04	SSTD120	SSTD120	A2004	05/29/02	1030
05	SSTD160	SSTD160	A2005	05/29/02	1053
06	SSTD200	SSTD200	A2006	05/29/02	1117
07	ICV050	ICV050	A2007	05/29/02	1141
08	41613	41613	A2008	05/29/02	1205
09	41614	41614	A2009	05/29/02	1229
10	005-211-S	20205242101	A2010	05/29/02	1253
11	005-212-S	20205242102	A2011	05/29/02	1316
12	005-12-SMS	41615	A2012	05/29/02	1340
13	005-12-SMSD	41616	A2013	05/29/02	1404
14					
15					
16					
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19					
20					
21					
22					

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Lab File ID (Standard): A2006 Date Analyzed: 05/29/02

Instrument ID: MSSV1 Time Analyzed: 1117

		IS1(PRY) AREA #	RT #	IS2(DCB) AREA #	RT #	IS3(NPT) AREA #	RT #
	12 HOUR STD	457570	11.52	107130	5.12	350174	5.96
	UPPER LIMIT	915140	12.02	214260	5.62	700348	6.46
	LOWER LIMIT	228785	11.02	53565	4.62	175087	5.46
	EPA SAMPLE NO.						
01	41613	305882	11.50	113879	5.12	371849	5.95
02	41614	299292	11.50	115009	5.12	381228	5.95
03	005-211-S	329036	11.50	110287	5.12	359999	5.95
04	005-212-S	364247	11.50	103394	5.12	352115	5.95
05	005-12-SMS	385521	11.51	108431	5.12	354454	5.96
06	005-12-SMSD	383589	11.51	116318	5.12	387908	5.96
07							
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22							

IS1 (PRY) = Perylene-d12
IS2 (DCB) = 1,4-Dichlorobenzene-d4
IS3 (NPT) = Naphthalene-d8

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
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Lab File ID (Standard): A2006 Date Analyzed: 05/29/02

Instrument ID: MSSV1 Time Analyzed: 1117

		IS4(ANT) AREA #	RT #	IS5(PHN) AREA #	RT #	IS6(CRY) AREA #	RT #
	12 HOUR STD	217634	7.07	390366	8.03	507987	10.13
	UPPER LIMIT	435268	7.57	780732	8.53	1015974	10.63
	LOWER LIMIT	108817	6.57	195183	7.53	253994	9.63
	EPA SAMPLE NO.						
01	41613	188783	7.07	312896	8.03	329408	10.11
02	41614	192896	7.07	328158	8.03	336518	10.11
03	005-211-S	177968	7.07	315417	8.03	352198	10.12
04	005-212-S	177171	7.07	315038	8.03	374176	10.12
05	005-12-SMS	184894	7.07	326118	8.03	375134	10.12
06	005-12-SMSD	194265	7.07	317658	8.04	370261	10.13
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22							

IS4 (ANT) = Acenaphthene-d10
IS5 (PHN) = Phenanthrene-d10
IS6 (CRY) = Chrysene-d12

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
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242101	005-211-S-0522-02 COMP	Solid	5/22/02 09:30	5/23/02 09:15	6/6/02 09:46

8270C, SemiVolatiles, Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/28/02 09:30	132708	3540C	1	5/29/02 12:53	RLW	132710

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
95-95-4	2,4,5-Trichlorophenol	ND	456	102	ug/Kg
88-06-2	2,4,6-Trichlorophenol	ND	456	43.1	ug/Kg
120-83-2	2,4-Dichlorophenol	ND	456	53.3	ug/Kg
105-67-9	2,4-Dimethylphenol	ND	456	53.9	ug/Kg
51-28-5	2,4-Dinitrophenol	ND	2280	39.0	ug/Kg
121-14-2	2,4-Dinitrotoluene	ND	456	67.4	ug/Kg
606-20-2	2,6-Dinitrotoluene	ND	456	62.3	ug/Kg
91-58-7	2-Chloronaphthalene	ND	456	36.3	ug/Kg
95-57-8	2-Chlorophenol	ND	456	50.7	ug/Kg
91-57-6	2-Methylnaphthalene	ND	456	102	ug/Kg
88-74-4	2-Nitroaniline	ND	2280	87.6	ug/Kg
88-75-5	2-Nitrophenol	ND	456	39.8	ug/Kg
91-94-1	3,3'-Dichlorobenzidine	ND	912	427	ug/Kg
99-09-2	3-Nitroaniline	ND	2280	291	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	ND	2280	42.4	ug/Kg
101-55-3	4-Bromophenyl phenyl ether	ND	456	103	ug/Kg
59-50-7	4-Chloro-3-methylphenol	ND	456	119	ug/Kg
106-47-8	4-Chloroaniline	ND	456	397	ug/Kg
7005-72-3	4-Chlorophenyl phenyl ether	ND	456	55.6	ug/Kg
100-01-6	4-Nitroaniline	ND	2280	133	ug/Kg
100-02-7	4-Nitrophenol	ND	2280	35.8	ug/Kg
83-32-9	Acenaphthene	ND	456	30.8	ug/Kg
208-96-8	Acenaphthylene	ND	456	34.8	ug/Kg
98-86-2	Acetophenone	ND	456	456	ug/Kg
120-12-7	Anthracene	ND	456	125	ug/Kg
1912-24-9	Atrazine (Aatrex)	ND	912	456	ug/Kg
100-52-7	Benzaldehyde	ND	912	456	ug/Kg
56-55-3	Benzo(a)anthracene	ND	456	124	ug/Kg
50-32-8	Benzo(a)pyrene	ND	456	144	ug/Kg
205-99-2	Benzo(b)fluoranthene	ND	456	101	ug/Kg
191-24-2	Benzo(g,h,i)perylene	ND	456	174	ug/Kg
207-08-9	Benzo(k)fluoranthene	ND	456	155	ug/Kg
92-52-4	Biphenyl	ND	456	456	ug/Kg
111-91-1	Bis(2-Chloroethoxy)methane	ND	456	48.6	ug/Kg
111-44-4	Bis(2-Chloroethyl)ether	ND	456	47.4	ug/Kg
108-60-1	Bis(2-Chloroisopropyl)ether	ND	456	53.9	ug/Kg
117-81-7	Bis(2-Ethylhexyl)phthalate	ND	456	119	ug/Kg

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242101	005-211-S-0522-02 COMP	Solid	5/22/02 09:30	5/23/02 09:15	6/6/02 09:46

8270C, SemiVolatiles, Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/28/02 09:30	132708	3540C	1	5/29/02 12:53	RLW	132710

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
85-68-7	Butyl benzyl phthalate	ND	456	137	ug/Kg
105-60-2	Caprolactam	ND	456	456	ug/Kg
86-74-8	Carbazole	ND	456	106	ug/Kg
218-01-9	Chrysene	ND	456	97.4	ug/Kg
84-74-2	Di-n-butyl phthalate	ND	456	149	ug/Kg
117-84-0	Di-n-octyl phthalate	ND	456	177	ug/Kg
53-70-3	Dibenz(a,h)anthracene	ND	456	170	ug/Kg
132-64-9	Dibenzofuran	ND	456	38.8	ug/Kg
84-66-2	Diethyl phthalate	ND	456	52.5	ug/Kg
131-11-3	Dimethyl phthalate	ND	456	103	ug/Kg
206-44-0	Fluoranthene	ND	456	112	ug/Kg
86-73-7	Fluorene	ND	456	48.5	ug/Kg
118-74-1	Hexachlorobenzene	ND	456	35.1	ug/Kg
87-68-3	Hexachlorobutadiene	ND	456	99.5	ug/Kg
77-47-4	Hexachlorocyclopentadiene	ND	456	43.7	ug/Kg
67-72-1	Hexachloroethane	ND	456	97.2	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	ND	456	149	ug/Kg
78-59-1	Isophorone	ND	456	34.7	ug/Kg
91-20-3	Naphthalene	ND	456	48.5	ug/Kg
98-95-3	Nitrobenzene	ND	456	42.4	ug/Kg
87-86-5	Pentachlorophenol	ND	2280	31.1	ug/Kg
85-01-8	Phenanthrene	ND	456	112	ug/Kg
108-95-2	Phenol	ND	456	65.8	ug/Kg
129-00-0	Pyrene	ND	456	109	ug/Kg
1319-77-3MP	m,p-Cresol	ND	456	68.5	ug/Kg
621-64-7	n-Nitrosodi-n-propylamine	ND	456	52.8	ug/Kg
86-30-6	n-Nitrosodiphenylamine	ND	456	116	ug/Kg
95-48-7	o-Cresol	ND	456	98.7	ug/Kg

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242101	005-211-S-0522-02 COMP	Solid	5/22/02 09:30	5/23/02 09:15	6/6/02 09:46

8270C, SemiVolatiles, Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/28/02 09:30	132708	3540C	1	5/29/02 12:53	RLW	132710

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
4165-60-0	Nitrobenzene-d5	1670	1280 ug/Kg	77	46 - 116
321-60-8	2-Fluorobiphenyl	1670	1400 ug/Kg	84	39 - 116
1718-51-0	Terphenyl-d14	1670	1040 ug/Kg	62	24 - 137
4165-62-2	Phenol-d5	3330	2460 ug/Kg	74	34 - 113
367-12-4	2-Fluorophenol	3330	2360 ug/Kg	71	44 - 106

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242101	005-211-S-0522-02 COMP	Solid	5/22/02 09:30	5/23/02 09:15	6/6/02 09:46

8270C, SemiVolatiles, Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	5/29/02 12:53	RLW	134028

CAS #	TENTATIVELY IDENTIFIED COMP	RETENTION	RESULT	PQL	MDL	UNITS
	|No tics detected					ug/Kg

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242102	005-212-S-0522-02 COMP	Solid	5/22/02 09:55	5/23/02 09:15	6/6/02 09:46

8270C, SemiVolatiles, Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/28/02 09:30	132708	3540C	1	5/29/02 13:16	RLW	132710

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
95-95-4	2,4,5-Trichlorophenol	ND	445	99.2	ug/Kg
88-06-2	2,4,6-Trichlorophenol	ND	445	42.1	ug/Kg
120-83-2	2,4-Dichlorophenol	ND	445	52.1	ug/Kg
105-67-9	2,4-Dimethylphenol	ND	445	52.6	ug/Kg
51-28-5	2,4-Dinitrophenol	ND	2230	38.1	ug/Kg
121-14-2	2,4-Dinitrotoluene	ND	445	65.8	ug/Kg
606-20-2	2,6-Dinitrotoluene	ND	445	60.9	ug/Kg
91-58-7	2-Chloronaphthalene	ND	445	35.5	ug/Kg
95-57-8	2-Chlorophenol	ND	445	49.5	ug/Kg
91-57-6	2-Methylnaphthalene	ND	445	99.9	ug/Kg
88-74-4	2-Nitroaniline	ND	2230	85.5	ug/Kg
88-75-5	2-Nitrophenol	ND	445	38.9	ug/Kg
91-94-1	3,3'-Dichlorobenzidine	ND	891	417	ug/Kg
99-09-2	3-Nitroaniline	ND	2230	284	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	ND	2230	41.4	ug/Kg
101-55-3	4-Bromophenyl phenyl ether	ND	445	101	ug/Kg
59-50-7	4-Chloro-3-methylphenol	ND	445	116	ug/Kg
106-47-8	4-Chloroaniline	ND	445	388	ug/Kg
7005-72-3	4-Chlorophenyl phenyl ether	ND	445	54.2	ug/Kg
100-01-6	4-Nitroaniline	ND	2230	130	ug/Kg
100-02-7	4-Nitrophenol	ND	2230	34.9	ug/Kg
83-32-9	Acenaphthene	ND	445	30.1	ug/Kg
208-96-8	Acenaphthylene	ND	445	34.0	ug/Kg
98-86-2	Acetophenone	ND	445	445	ug/Kg
120-12-7	Anthracene	ND	445	122	ug/Kg
1912-24-9	Atrazine (Aatrex)	ND	891	445	ug/Kg
100-52-7	Benzaldehyde	ND	891	445	ug/Kg
56-55-3	Benzo(a)anthracene	ND	445	121	ug/Kg
50-32-8	Benzo(a)pyrene	ND	445	140	ug/Kg
205-99-2	Benzo(b)fluoranthene	ND	445	99.0	ug/Kg
191-24-2	Benzo(g,h,i)perylene	ND	445	169	ug/Kg
207-08-9	Benzo(k)fluoranthene	ND	445	151	ug/Kg
92-52-4	Biphenyl	ND	445	445	ug/Kg
111-91-1	Bis(2-Chloroethoxy)methane	ND	445	47.5	ug/Kg
111-44-4	Bis(2-Chloroethyl)ether	ND	445	46.3	ug/Kg
108-60-1	Bis(2-Chloroisopropyl)ether	ND	445	52.6	ug/Kg
117-81-7	Bis(2-Ethylhexyl)phthalate	ND	445	116	ug/Kg

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242102	005-212-S-0522-02 COMP	Solid	5/22/02 09:55	5/23/02 09:15	6/6/02 09:46

8270C, SemiVolatiles, Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/28/02 09:30	132708	3540C	1	5/29/02 13:16	RLW	132710

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
85-68-7	Butyl benzyl phthalate	ND	445	134	ug/Kg
105-60-2	Caprolactam	ND	445	445	ug/Kg
86-74-8	Carbazole	ND	445	103	ug/Kg
218-01-9	Chrysene	ND	445	95.1	ug/Kg
84-74-2	Di-n-butyl phthalate	ND	445	146	ug/Kg
117-84-0	Di-n-octyl phthalate	ND	445	172	ug/Kg
53-70-3	Dibenz(a,h)anthracene	ND	445	166	ug/Kg
132-64-9	Dibenzofuran	ND	445	37.9	ug/Kg
84-66-2	Diethyl phthalate	ND	445	51.3	ug/Kg
131-11-3	Dimethyl phthalate	ND	445	100	ug/Kg
206-44-0	Fluoranthene	ND	445	110	ug/Kg
86-73-7	Fluorene	ND	445	47.4	ug/Kg
118-74-1	Hexachlorobenzene	ND	445	34.3	ug/Kg
87-68-3	Hexachlorobutadiene	ND	445	97.2	ug/Kg
77-47-4	Hexachlorocyclopentadiene	ND	445	42.6	ug/Kg
67-72-1	Hexachloroethane	ND	445	94.9	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	ND	445	146	ug/Kg
78-59-1	Isophorone	ND	445	33.9	ug/Kg
91-20-3	Naphthalene	ND	445	47.4	ug/Kg
98-95-3	Nitrobenzene	ND	445	41.4	ug/Kg
87-86-5	Pentachlorophenol	ND	2230	30.4	ug/Kg
85-01-8	Phenanthrene	ND	445	109	ug/Kg
108-95-2	Phenol	ND	445	64.2	ug/Kg
129-00-0	Pyrene	ND	445	106	ug/Kg
1319-77-3MP	m,p-Cresol	ND	445	66.9	ug/Kg
621-64-7	n-Nitrosodi-n-propylamine	ND	445	51.5	ug/Kg
86-30-6	n-Nitrosodiphenylamine	ND	445	113	ug/Kg
95-48-7	o-Cresol	ND	445	96.3	ug/Kg

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242102	005-212-S-0522-02 COMP	Solid	5/22/02 09:55	5/23/02 09:15	6/6/02 09:46

8270C, SemiVolatiles, Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/28/02 09:30	132708	3540C	1	5/29/02 13:16	RLW	132710

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS

CAS #	SURROGATE NAME	CONC ADDED	CONC REC		% RECOVERY	REC-LIMITS
4165-60-0	Nitrobenzene-d5	1670	1100	ug/Kg	66	46 - 116
321-60-8	2-Fluorobiphenyl	1670	1190	ug/Kg	71	39 - 116
1718-51-0	Terphenyl-d14	1670	1440	ug/Kg	86	24 - 137
4165-62-2	Phenol-d5	3330	2250	ug/Kg	68	34 - 113
367-12-4	2-Fluorophenol	3330	2120	ug/Kg	64	44 - 106

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242102	005-212-S-0522-02 COMP	Solid	5/22/02 09:55	5/23/02 09:15	6/6/02 09:46

8270C, SemiVolatiles, Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	5/29/02 13:16	RLW	134028

CAS #	TENTATIVELY IDENTIFIED COMP	RETENTION	RESULT	PQL	MDL	UNITS
	|No tics detected					ug/Kg

RESULTS REPORTED ON A DRY WEIGHT BASIS

6B

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Instrument ID: MSSV1 Calibration Date(s): 05/15/02 05/29/02

Calibration Time(s): 2002 1117

LAB FILE ID: RRF10 =A2002 RRF50 =A2001
RRF80 =A2003 RRF120=A2004 RRF160=A2005

COMPOUND	RRF10	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
n-Nitrosodimethylamine *	0.705	0.695	0.672	0.646	0.652		*
Benzo(a)pyrene + *	1.469	1.545	1.448	1.446	1.501		*
Aniline *	2.822	2.031	2.002	1.807	1.783		*
Phenol + *	2.935	2.872	2.613	2.320	2.472		*
bis(-2-Chloroethyl)Ether *	1.460	1.388	1.305	1.224	1.241		*
2-Chlorophenol *	1.554	1.536	1.422	1.311	1.364		*
1,3-Dichlorobenzene *	1.842	1.777	1.641	1.608	1.593		*
1,4-Dichlorobenzene + *	1.875	1.839	1.698	1.650	1.654		*
Benzyl alcohol *	1.093	1.179	1.124	0.999	1.082		*
1,2-Dichlorobenzene *	1.687	1.717	1.577	1.506	1.520		*
2-Methylphenol *	1.660	1.612	1.542	1.380	1.458		*
Bis(2-chloroisopropyl)ether *	1.559	1.555	1.458	1.345	1.336		*
3- & 4-Methylphenol *	1.679	1.692	1.591	1.416	1.549		*
N-Nitroso-di-n-propylamine++ *	1.713	1.722	1.629	1.464	1.570		*
Hexachloroethane *	0.778	0.794	0.736	0.726	0.701		*
Indeno(1,2,3-cd)pyrene *	2.318	2.409	2.239	2.310	2.389		*
Nitrobenzene *	0.721	0.727	0.664	0.656	0.644		*
Isophorone *	1.274	1.259	1.184	1.135	1.172		*
2-Nitrophenol + *	0.196	0.213	0.200	0.194	0.200		*
2,4-Dimethyphenol *	0.515	0.563	0.494	0.484	0.513		*
bis(-2-Chloroethoxy)methane *	0.748	0.745	0.668	0.651	0.652		*
Benzoic Acid *		0.534	0.644	0.584	0.776		*
2,4-Dichlorophenol + *	0.325	0.334	0.313	0.303	0.319		*
1,2,4-Trichlorobenzene *	0.399	0.393	0.358	0.360	0.355		*
Naphthalene *	1.286	1.284	1.170	1.153	1.146		*
4-Chloroaniline *	0.182	0.182	0.167	0.162	0.161		*
Hexachlorobutadiene + *	0.286	0.282	0.263	0.275	0.257		*
4-Chloro-3-Methylphenol + *	0.390	0.428	0.416	0.404	0.428		*
2-Methylnaphthalene *	0.783	0.771	0.713	0.691	0.725		*
1-Methylnapthalene *	0.783	0.771	0.713	0.691	0.725		*
Hexachlorocyclopentadiene ++ *	0.392	0.466	0.420	0.442	0.443		*
2,4,6-Trichlorophenol + *	0.432	0.475	0.424	0.404	0.425		*
2,4,5-Trichlorphenol *	0.394	0.495	0.454	0.445	0.461		*
Dibenzo(a,h)anthracene *	1.898	1.962	1.860	1.934	1.983		*
2-Chloronaphthalene *	1.474	1.432	1.232	1.211	1.216		*
2-Nitroaniline *	0.397	0.442	0.404	0.381	0.401		*
Dimethylphthalate *		1.614	1.484	1.459	1.491		*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Instrument ID: MSSV1 Calibration Date(s): 05/15/02 05/29/02

Calibration Time(s): 2002 1117

LAB FILE ID: RRF10 =A2002 RRF50 =A2001
RRF80 =A2003 RRF120=A2004 RRF160=A2005

COMPOUND	RRF10	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
2,6-Dinitrotoluene *	0.297	0.366	0.325	0.313	0.330		*
Acenaphthylene *	2.180	2.243	1.954	1.905	1.935		*
3-Nitroaniline *	0.314	0.384	0.346	0.323	0.354		*
Pyridine *	1.746	2.138	1.994	1.945	1.986		*
Acenaphthene + *	1.409	1.424	1.260	1.231	1.252		*
Acetophenone *	1.290	2.513	2.408	2.171	2.308		*
2,4-Dinitrophenol ++ *		0.210	0.209	0.204	0.265		*
4-Nitrophenol ++ *	0.192	0.356	0.298	0.276	0.339		*
Dibenzofuran *	1.837	1.923	1.711	1.647	1.675		*
2,4-Dinitrotoluene *	0.359	0.512	0.455	0.426	0.481		*
Diethylphthalate *	1.406	1.732	1.556	1.492	1.630		*
4-Chlorophenyl-phenylether *	0.717	0.833	0.747	0.727	0.764		*
Fluorene *	1.432	1.655	1.458	1.399	1.481		*
4-Nitroaniline *	0.273	0.412	0.353	0.331	0.375		*
4,6-Dinitro-o-cresol *	0.102	0.181	0.169	0.167	0.190		*
N-nitrosodiphenylamine (1)+ *	0.754	0.669	0.624	0.628	0.605		*
Azobenzene *	3.845	4.821	4.764	4.074	4.752		*
Total Methylphenol *	3.339	3.303	3.134	2.796	3.007		*
4-Bromophenyl-phenylether *	0.241	0.215	0.202	0.209	0.203		*
Hexachlorobenzene *	0.228	0.208	0.195	0.196	0.199		*
Pentachlorophenol + *	0.058	0.125	0.128	0.127	0.147		*
Phenanthrene *	1.352	1.292	1.216	1.213	1.226		*
Anthracene *	1.320	1.333	1.202	1.184	1.214		*
Carbazole *	1.075	1.222	1.074	1.042	1.116		*
Di-n-butylphthalate *	1.479	1.847	1.635	1.548	1.667		*
Fluoranthene + *	1.313	1.667	1.475	1.416	1.602		*
Benzidine *		0.106	0.075	0.078	0.066		*
Pyrene *	1.626	1.470	1.401	1.386	1.394		*
Benzo(g,h,i)perylene *	2.015	2.076	1.884	1.942	1.950		*
Butylbenzylphthalate *	0.759	0.807	0.751	0.746	0.744		*
3,3'-Dichlorobenzidine *	0.518	0.483	0.448	0.424	0.441		*
Benzo(a)anthracene *	1.499	1.453	1.377	1.387	1.453		*
bis(2-Ethylhexyl)phthalate *	0.996	1.131	1.049	1.073	1.058		*
Chrysene *	1.502	1.434	1.364	1.384	1.447		*
Di-n-octylphthalate + *	1.764	2.056	1.908	1.919	1.916		*
Benzo(b)fluoranthene *	1.715	1.907	1.504	1.656	1.845		*
Benzo(k)fluoranthene *	1.715	1.907	1.504	1.656	1.845		*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Instrument ID: MSSV1 Calibration Date(s): 05/15/02 05/29/02

Calibration Time(s): 2002 1117

LAB FILE ID: RRF10 =A2002 RRF50 =A2001
RRF80 =A2003 RRF120=A2004 RRF160=A2005

COMPOUND	RRF10	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Benzaldehyde *	1.881	1.144	1.088	0.765	0.595		*
Caprolactam *	0.100	0.148	0.139	0.131	0.128		*
Biphenyl *	0.886	0.933	0.876	0.841	0.888		*
Atrazine *	0.200	0.061	0.059	0.058	0.043		*
2-Fluorophenol *	1.808	1.832	1.676	1.609	1.590		*
2,4,6-Tribromophenol *	0.105	0.150	0.130	0.127	0.146		*
Phenol-d5 *	2.316	2.234	2.123	1.904	2.040		*
Nitrobenzene-d5	0.687	0.697	0.646	0.636	0.626		*
2-Fluorobiphenyl *	1.702	1.704	1.429	1.418	1.422		*
Terphenyl-d14 *	1.007	0.947	0.912	0.903	0.942		*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Instrument ID: MSSV1 Calibration Date(s): 05/15/02 05/29/02

Calibration Time(s): 2002 1117

LAB FILE ID: RRF200=A2006 RRF1 =
RRF0.2= RRF5 =A1857

COMPOUND	RRF200	RRF1	RRF0.2	RRF5		$\overline{RRF}$	% RSD
n-Nitrosodimethylamine *	0.660					0.672	3.5*
Benzo(a)pyrene + *	1.546					1.492	3.1*
Aniline *	1.684					2.022	20.5*
Phenol + *	2.286					2.583	10.6*
bis(-2-Chloroethyl)Ether *	1.227					1.308	7.5*
2-Chlorophenol *	1.328					1.419	7.4*
1,3-Dichlorobenzene *	1.652					1.686	6.0*
1,4-Dichlorobenzene + *	1.695					1.735	5.6*
Benzyl alcohol *	0.996					1.079	6.6*
1,2-Dichlorobenzene *	1.535					1.590	5.7*
2-Methylphenol *	1.373					1.504	8.0*
Bis(2-chloroisopropyl)ether *	1.314					1.428	7.8*
3- & 4-Methylphenol *	1.410					1.556	7.9*
N-Nitroso-di-n-propylamine++ *	1.426					1.587	7.8*
Hexachloroethane *	0.726					0.744	4.7*
Indeno(1,2,3-cd)pyrene *	2.530					2.366	4.3*
Nitrobenzene *	0.641					0.676	5.7*
Isophorone *	1.123					1.191	5.3*
2-Nitrophenol + *	0.200					0.200	3.4*
2,4-Dimethyphenol *	0.503					0.512	5.4*
bis(-2-Chloroethoxy)methane *	0.647					0.685	7.0*
Benzoic Acid *	0.566					0.621	15.4*
2,4-Dichlorophenol + *	0.311					0.318	3.5*
1,2,4-Trichlorobenzene *	0.369					0.372	5.1*
Naphthalene *	1.160					1.200	5.5*
4-Chloroaniline *	0.162					0.169	5.8*
Hexachlorobutadiene + *	0.281					0.274	4.2*
4-Chloro-3-Methylphenol + *	0.431					0.416	3.9*
2-Methylnaphthalene *	0.725					0.735	4.8*
1-Methylnapthalene *	0.725					0.735	4.8*
Hexachlorocyclopentadiene ++ *	0.430					0.432	5.8*
2,4,6-Trichlorophenol + *	0.427					0.431	5.4*
2,4,5-Trichlorphenol *	0.468					0.453	7.4*
Dibenzo(a,h)anthracene *	2.111					1.958	4.4*
2-Chloronaphthalene *	1.205					1.295	9.5*
2-Nitroaniline *	0.392					0.403	5.1*
Dimethylphthalate *	1.516					1.513	4.0*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Instrument ID: MSSV1 Calibration Date(s): 05/15/02 05/29/02

Calibration Time(s): 2002 1117

LAB FILE ID: RRF200=A2006 RRF1 =
RRF0.2= RRF5 =A1857

COMPOUND	RRF200	RRF1	RRF0.2	RRF5		$\overline{RRF}$	% RSD
2,6-Dinitrotoluene *	0.331					0.327	7.0*
Acenaphthylene *	1.923					2.023	7.3*
3-Nitroaniline *	0.338					0.343	7.2*
Pyridine *	1.988					1.966	6.4*
Acenaphthene + *	1.270					1.308	6.5*
Acetophenone *	2.175					2.144	20.5*
2,4-Dinitrophenol ++ *	0.244					0.226	11.8*
4-Nitrophenol ++ *	0.308					0.295	19.6*
Dibenzofuran *	1.720					1.752	6.0*
2,4-Dinitrotoluene *	0.451					0.447	11.7*
Diethylphthalate *	1.602					1.570	7.2*
4-Chlorophenyl-phenylether *	0.786					0.762	5.6*
Fluorene *	1.491					1.486	6.0*
4-Nitroaniline *	0.346					0.348	13.4*
4,6-Dinitro-o-cresol *	0.196					0.168	20.3*
N-nitrosodiphenylamine (1)+ *	0.644					0.654	8.2*
Azobenzene *	4.764					4.503	9.5*
Total Methylphenol *	2.783					3.060	7.9*
4-Bromophenyl-phenylether *	0.222					0.215	6.8*
Hexachlorobenzene *	0.209					0.206	6.0*
Pentachlorophenol + *	0.150					0.122	27.2*
Phenanthrene *	1.232					1.255	4.4*
Anthracene *	1.230					1.247	5.1*
Carbazole *	1.121					1.108	5.7*
Di-n-butylphthalate *	1.733					1.652	7.9*
Fluoranthene + *	1.685					1.526	9.8*
Benzidine *	0.049					0.075	28.1*
Pyrene *	1.329					1.434	7.3*
Benzo(g,h,i)perylene *	2.046					1.986	3.7*
Butylbenzylphthalate *	0.756					0.760	3.1*
3,3'-Dichlorobenzidine *	0.430					0.457	7.9*
Benzo(a)anthracene *	1.477					1.441	3.4*
bis(2-Ethylhexyl)phthalate *	1.112					1.070	4.5*
Chrysene *	1.476					1.434	3.7*
Di-n-octylphthalate + *	2.074					1.940	5.9*
Benzo(b)fluoranthene *	2.044					1.778	10.8*
Benzo(k)fluoranthene *	2.044					1.778	10.8*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Instrument ID: MSSV1 Calibration Date(s): 05/15/02 05/29/02

Calibration Time(s): 2002 1117

LAB FILE ID: RRF200=A2006 RRF1 =
RRF0.2= RRF5 =A1857

COMPOUND	RRF200	RRF1	RRF0.2	RRF5		$\overline{RRF}$	% RSD
Benzaldehyde	* 0.481					0.992	51.2*
Caprolactam	* 0.123					0.128	12.7*
Biphenyl	* 0.924					0.891	3.7*
Atrazine	* 0.046					0.078	77.5*
2-Fluorophenol	* 1.605					1.687	6.4*
2,4,6-Tribromophenol	* 0.147					0.134	12.7*
Phenol-d5	* 1.886					2.084	8.3*
Nitrobenzene-d5	0.634					0.654	4.5*
2-Fluorobiphenyl	* 1.395					1.512	9.8*
Terphenyl-d14	* 0.942					0.942	3.9*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

Data File: /var/chem/MSSV1.i/2020529.s.b/a2007.d
Report Date: 04-Jun-2002 12:11

Gulf Coast Analytical Laboratories, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSSV1.i
Lab File ID: a2007.d
Analysis Type: WATER
Lab Sample ID: ICV050
Method: /var/chem/MSSV1.i/2020529.s.b/8270CE_01.m

Injection Date: 29-MAY-2002 11:41
Init. Cal. Date(s): 26-DEC-2001 29-MAY-2002
Init. Cal. Times: 12:47 11:17
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
	2 Pyridine	1.96627	1.86772	0.050	-5.01181	50.00000	Averaged
	1 n-Nitrosodimethylamine	0.67160	0.56162	0.050	-16.37632	50.00000	Averaged
$	3 2-Fluorophenol	1.68665	1.52975	0.050	-9.30285	50.00000	Averaged
$	4 Phenol-d5	2.08392	1.92543	0.050	-7.60548	50.00000	Averaged
	5 Aniline	2.02147	1.42532	0.050	-29.49066	50.00000	Averaged
	6 Phenol +	2.58279	2.31993	0.050	-10.17729	20.00000	Averaged
	7 bis(-2-Chloroethyl)Ether	1.30769	1.12187	0.050	-14.20973	50.00000	Averaged
	8 2-Chlorophenol	1.41907	1.29244	0.050	-8.92338	50.00000	Averaged
	9 1,3-Dichlorobenzene	1.68553	1.46922	0.050	-12.83323	50.00000	Averaged
	11 1,4-Dichlorobenzene +	1.73538	1.49478	0.050	-13.86439	20.00000	Averaged
	12 Benzyl alcohol	1.07877	0.94029	0.050	-12.83696	50.00000	Averaged
	13 1,2-Dichlorobenzene	1.59019	1.34246	0.050	-15.57821	50.00000	Averaged
	15 2-Methylphenol	1.50426	1.34139	0.050	-10.82760	50.00000	Averaged
	14 Bis(2-chloroisopropyl)ether	1.42788	1.21519	0.050	-14.89539	50.00000	Averaged
	17 3- & 4-Methylphenol	1.55606	1.41103	0.050	-9.31999	50.00000	Averaged
	16 N-Nitroso-di-n-propylamine+	1.58732	1.41349	0.050	-10.95155	50.00000	Averaged
	18 Hexachloroethane	0.74381	0.64824	0.050	-12.84905	50.00000	Averaged
$	19 Nitrobenzene-d5	0.65438	0.56908	0.050	-13.03505	50.00000	Averaged
	20 Nitrobenzene	0.67551	0.58935	0.050	-12.75546	50.00000	Averaged
	21 Isophorone	1.19128	0.99737	0.050	-16.27723	50.00000	Averaged
	22 2-Nitrophenol +	0.20046	0.17638	0.050	-12.01279	20.00000	Averaged
	23 2,4-Dimethyphenol	0.51177	0.44699	0.050	-12.65696	50.00000	Averaged
	24 bis(-2-Chloroethoxy)methane	0.68534	0.57966	0.050	-15.42074	50.00000	Averaged
	25 Benzoic Acid	0.62086	0.50702	0.050	-18.33548	50.00000	Averaged
	26 2,4-Dichlorophenol +	0.31762	0.27612	0.050	-13.06638	20.00000	Averaged
	27 1,2,4-Trichlorobenzene	0.37243	0.31202	0.050	-16.22082	50.00000	Averaged
	29 Naphthalene	1.19971	1.02926	0.050	-14.20728	50.00000	Averaged
	30 4-Chloroaniline	0.16948	0.14921	0.050	-11.95800	50.00000	Averaged
	31 Hexachlorobutadiene +	0.27408	0.22803	0.050	-16.80063	20.00000	Averaged
	32 4-Chloro-3-Methylphenol +	0.41598	0.35121	0.050	-15.56959	20.00000	Averaged
	33 2-Methylnaphthalene	0.73493	0.62535	0.050	-14.91112	50.00000	Averaged
	145 1-Methylnapthalene	0.73493	0.62535	0.050	-14.91112	50.00000	Averaged
	34 Hexachlorocyclopentadiene +	0.43225	0.37148	0.050	-14.06001	50.00000	Averaged
	35 2,4,6-Trichlorophenol +	0.43142	0.37175	0.050	-13.83239	20.00000	Averaged
	36 2,4,5-Trichlorphenol	0.45279	0.39195	0.050	-13.43577	50.00000	Averaged
$	37 2-Fluorobiphenyl	1.51166	1.39851	0.050	-7.48459	50.00000	Averaged

Gulf Coast Analytical Laboratories, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSSV1.i
Lab File ID: a2007.d
Analysis Type: WATER
Lab Sample ID: ICV050
Method: /var/chem/MSSV1.i/2020529.s.b/8270CE_01.m

Injection Date: 29-MAY-2002 11:41
Init. Cal. Date(s): 26-DEC-2001 29-MAY-2002
Init. Cal. Times: 12:47 11:17
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	38 2-Chloronaphthalene	1.29523	1.13672	0.050	-12.23768	50.00000	Averaged	
	39 2-Nitroaniline	0.40290	0.32805	0.050	-18.57669	50.00000	Averaged	
	40 Dimethylphthalate	1.51278	1.26617	0.050	-16.30173	50.00000	Averaged	
	41 2,6-Dinitrotoluene	0.32719	0.27134	0.050	-17.06815	50.00000	Averaged	
	42 Acenaphthylene	2.02342	1.67537	0.050	-17.20110	50.00000	Averaged	
	43 3-Nitroaniline	0.34348	0.30083	0.050	-12.41854	50.00000	Averaged	
	45 Acenaphthene +	1.30779	1.13250	0.050	-13.40360	20.00000	Averaged	
	46 2,4-Dinitrophenol ++	0.22660	0.18962	0.050	-16.31962	50.00000	Averaged	
	49 4-Nitrophenol ++	0.29472	0.28188	0.050	-4.35571	50.00000	Averaged	
	47 Dibenzofuran	1.75224	1.48215	0.050	-15.41392	50.00000	Averaged	
	48 2,4-Dinitrotoluene	0.44748	0.39756	0.050	-11.15546	50.00000	Averaged	
	50 Diethylphthalate	1.56979	1.35085	0.050	-13.94749	50.00000	Averaged	
	52 4-Chlorophenyl-phenylether	0.76241	0.63146	0.050	-17.17552	50.00000	Averaged	
	51 Fluorene	1.48592	1.26988	0.050	-14.53888	50.00000	Averaged	
	53 4-Nitroaniline	0.34842	0.32762	0.050	-5.96991	50.00000	Averaged	
	54 4,6-Dinitro-o-cresol	0.16755	0.15236	0.050	-9.06820	50.00000	Averaged	
	55 N-nitrosodiphenylamine (1)+	0.65385	0.51041	0.050	-21.93743	20.00000	Averaged	<-
	56 Azobenzene	4.50342	3.79692	0.050	-15.68803	50.00000	Averaged	
$	57 2,4,6-Tribromophenol	0.13425	0.11890	0.050	-11.43850	50.00000	Averaged	
	58 4-Bromophenyl-phenylether	0.21528	0.16971	0.050	-21.17124	50.00000	Averaged	
	59 Hexachlorobenzene	0.20594	0.16399	0.050	-20.36766	50.00000	Averaged	
	60 Pentachlorophenol +	0.12266	0.11210	0.050	-8.60756	20.00000	Averaged	
	62 Phenanthrene	1.25519	1.06929	0.050	-14.81062	50.00000	Averaged	
	63 Anthracene	1.24716	1.09013	0.050	-12.59096	50.00000	Averaged	
	64 Carbazole	1.10861	0.97719	0.050	-11.85429	50.00000	Averaged	
	65 Di-n-butylphthalate	1.65148	1.54203	0.050	-6.62736	50.00000	Averaged	
	67 Fluoranthene +	1.52645	1.33224	0.050	-12.72296	20.00000	Averaged	
	69 Pyrene	1.43446	1.19245	0.050	-16.87160	50.00000	Averaged	
$	70 Terphenyl-d14	0.94199	0.88901	0.050	-5.62340	50.00000	Averaged	
	71 Butylbenzylphthalate	0.76044	0.66240	0.050	-12.89316	50.00000	Averaged	
	73 3,3'-Dichlorobenzidine	0.45738	0.42031	0.050	-8.10490	50.00000	Averaged	
	72 Benzo(a)anthracene	1.44090	1.23008	0.050	-14.63074	50.00000	Averaged	
	76 bis(2-Ethylhexyl)phthalate	1.06982	0.96181	0.050	-10.09556	50.00000	Averaged	
	75 Chrysene	1.43449	1.18925	0.050	-17.09618	50.00000	Averaged	
	77 Di-n-octylphthalate +	1.93963	1.73200	0.050	-10.70502	20.00000	Averaged	
	78 Benzo(b)fluoranthene	1.77829	1.47479	0.050	-17.06684	50.00000	Averaged	

Gulf Coast Analytical Laboratories, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSSV1.i
Lab File ID: a2007.d
Analysis Type: WATER
Lab Sample ID: ICV050
Method: /var/chem/MSSV1.i/2020529.s.b/8270CE_01.m

Injection Date: 29-MAY-2002 11:41
Init. Cal. Date(s): 26-DEC-2001 29-MAY-2002
Init. Cal. Times: 12:47 11:17
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
	79 Benzo(k)fluoranthene	1.77829	1.47479	0.050	-17.06684	50.00000	Averaged
	80 Benzo(a)pyrene +	1.49245	1.25045	0.050	-16.21500	20.00000	Averaged
	82 Indeno(1,2,3-cd)pyrene	2.36591	2.06901	0.050	-12.54918	50.00000	Averaged
	83 Dibenzo(a,h)anthracene	1.95796	1.70488	0.050	-12.92563	50.00000	Averaged
	84 Benzo(g,h,i)perylene	1.98565	1.71459	0.050	-13.65092	50.00000	Averaged
M	66 Total Methylphenol	3.06032	2.75242	0.050	-10.06109	50.00000	Averaged

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
41613	Method Blank	Solid	5/29/02 16:59

SW-846 8270C

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/28/02 09:30	132708	3540C	1	5/29/02 12:05	RLW	132710

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
95-95-4	2,4,5-Trichlorophenol	ND	330		ug/Kg
88-06-2	2,4,6-Trichlorophenol	ND	330		ug/Kg
120-83-2	2,4-Dichlorophenol	ND	330		ug/Kg
105-67-9	2,4-Dimethylphenol	ND	330		ug/Kg
51-28-5	2,4-Dinitrophenol	ND	1650		ug/Kg
121-14-2	2,4-Dinitrotoluene	ND	330		ug/Kg
606-20-2	2,6-Dinitrotoluene	ND	330		ug/Kg
91-58-7	2-Chloronaphthalene	ND	330		ug/Kg
95-57-8	2-Chlorophenol	ND	330		ug/Kg
91-57-6	2-Methylnaphthalene	ND	330		ug/Kg
88-74-4	2-Nitroaniline	ND	1650		ug/Kg
88-75-5	2-Nitrophenol	ND	330		ug/Kg
91-94-1	3,3'-Dichlorobenzidine	ND	660		ug/Kg
99-09-2	3-Nitroaniline	ND	1650		ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	ND	1650		ug/Kg
101-55-3	4-Bromophenyl phenyl ether	ND	330		ug/Kg
59-50-7	4-Chloro-3-methylphenol	ND	330		ug/Kg
106-47-8	4-Chloroaniline	ND	330		ug/Kg
7005-72-3	4-Chlorophenyl phenyl ether	ND	330		ug/Kg
100-01-6	4-Nitroaniline	ND	1650		ug/Kg
100-02-7	4-Nitrophenol	ND	1650		ug/Kg
83-32-9	Acenaphthene	ND	330		ug/Kg
208-96-8	Acenaphthylene	ND	330		ug/Kg
98-86-2	Acetophenone	ND	330		ug/Kg
120-12-7	Anthracene	ND	330		ug/Kg
1912-24-9	Atrazine (Aatrex)	ND	660		ug/Kg
100-52-7	Benzaldehyde	ND	660		ug/Kg
56-55-3	Benzo(a)anthracene	ND	330		ug/Kg
50-32-8	Benzo(a)pyrene	ND	330		ug/Kg
205-99-2	Benzo(b)fluoranthene	ND	330		ug/Kg
191-24-2	Benzo(g,h,i)perylene	ND	330		ug/Kg
207-08-9	Benzo(k)fluoranthene	ND	330		ug/Kg
92-52-4	Biphenyl	ND	330		ug/Kg
111-91-1	Bis(2-Chloroethoxy)methane	ND	330		ug/Kg
111-44-4	Bis(2-Chloroethyl)ether	ND	330		ug/Kg
108-60-1	Bis(2-Chloroisopropyl)ether	ND	330		ug/Kg
117-81-7	Bis(2-Ethylhexyl)phthalate	ND	330		ug/Kg
85-68-7	Butyl benzyl phthalate	ND	330		ug/Kg
105-60-2	Caprolactam	ND	330		ug/Kg
86-74-8	Carbazole	ND	330		ug/Kg

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
41613	Method Blank	Solid	5/29/02 16:59

SW-846 8270C

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/28/02 09:30	132708	3540C	1	5/29/02 12:05	RLW	132710

218-01-9	Chrysene	ND	330	ug/Kg
84-74-2	Di-n-butyl phthalate	ND	330	ug/Kg
117-84-0	Di-n-octyl phthalate	ND	330	ug/Kg
53-70-3	Dibenz(a,h)anthracene	ND	330	ug/Kg
132-64-9	Dibenzofuran	ND	330	ug/Kg
84-66-2	Diethyl phthalate	ND	330	ug/Kg
131-11-3	Dimethyl phthalate	ND	330	ug/Kg
206-44-0	Fluoranthene	ND	330	ug/Kg
86-73-7	Fluorene	ND	330	ug/Kg
118-74-1	Hexachlorobenzene	ND	330	ug/Kg
87-68-3	Hexachlorobutadiene	ND	330	ug/Kg
77-47-4	Hexachlorocyclopentadiene	ND	330	ug/Kg
67-72-1	Hexachloroethane	ND	330	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	ND	330	ug/Kg
78-59-1	Isophorone	ND	330	ug/Kg
91-20-3	Naphthalene	ND	330	ug/Kg
98-95-3	Nitrobenzene	ND	330	ug/Kg
87-86-5	Pentachlorophenol	ND	1650	ug/Kg
85-01-8	Phenanthrene	ND	330	ug/Kg
108-95-2	Phenol	ND	330	ug/Kg
129-00-0	Pyrene	ND	330	ug/Kg
1319-77-3	m,p-Cresol	ND	330	ug/Kg
621-64-7	n-Nitrosodi-n-propylamine	ND	330	ug/Kg
86-30-6	n-Nitrosodiphenylamine	ND	330	ug/Kg
95-48-7	o-Cresol	ND	330	ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
4165-60-0	Nitrobenzene-d5	1670	1260 ug/Kg	76	46 - 116
321-60-8	2-Fluorobiphenyl	1670	1390 ug/Kg	83	39 - 116
1718-51-0	Terphenyl-d14	1670	1400 ug/Kg	84	24 - 137
4165-62-2	Phenol-d5	3330	2340 ug/Kg	70	34 - 113
367-12-4	2-Fluorophenol	3330	2310 ug/Kg	69	44 - 106

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
41614	Lab Control Sample	Solid	5/29/02 16:59

SW-846 8270C

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/28/02 09:30	132708	3540C	1	5/29/02 12:29	RLW	132710

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
95-95-4	**2,4,5-Trichlorophenol**	**2890**	**330**		ug/Kg
88-06-2	**2,4,6-Trichlorophenol**	**2970**	**330**		ug/Kg
120-83-2	**2,4-Dichlorophenol**	**2620**	**330**		ug/Kg
105-67-9	**2,4-Dimethylphenol**	**2650**	**330**		ug/Kg
51-28-5	**2,4-Dinitrophenol**	**2540**	**1650**		ug/Kg
121-14-2	**2,4-Dinitrotoluene**	**2790**	**330**		ug/Kg
606-20-2	**2,6-Dinitrotoluene**	**2850**	**330**		ug/Kg
91-58-7	**2-Chloronaphthalene**	**2930**	**330**		ug/Kg
95-57-8	**2-Chlorophenol**	**2480**	**330**		ug/Kg
91-57-6	**2-Methylnaphthalene**	**2650**	**330**		ug/Kg
88-74-4	**2-Nitroaniline**	**2860**	**1650**		ug/Kg
88-75-5	**2-Nitrophenol**	**2670**	**330**		ug/Kg
91-94-1	**3,3'-Dichlorobenzidine**	**2250**	**660**		ug/Kg
99-09-2	**3-Nitroaniline**	**1960**	**1650**		ug/Kg
534-52-1	**4,6-Dinitro-2-methylphenol**	**2820**	**1650**		ug/Kg
101-55-3	**4-Bromophenyl phenyl ether**	**2780**	**330**		ug/Kg
59-50-7	**4-Chloro-3-methylphenol**	**2590**	**330**		ug/Kg
106-47-8	**4-Chloroaniline**	**2600**	**330**		ug/Kg
7005-72-3	**4-Chlorophenyl phenyl ether**	**2650**	**330**		ug/Kg
100-01-6	**4-Nitroaniline**	**2510**	**1650**		ug/Kg
100-02-7	**4-Nitrophenol**	**2750**	**1650**		ug/Kg
83-32-9	**Acenaphthene**	**2840**	**330**		ug/Kg
208-96-8	**Acenaphthylene**	**2870**	**330**		ug/Kg
98-86-2	Acetophenone	ND	330		ug/Kg
120-12-7	**Anthracene**	**2790**	**330**		ug/Kg
1912-24-9	Atrazine (Aatrex)	ND	660		ug/Kg
100-52-7	Benzaldehyde	ND	660		ug/Kg
56-55-3	**Benzo(a)anthracene**	**2700**	**330**		ug/Kg
50-32-8	**Benzo(a)pyrene**	**2910**	**330**		ug/Kg
205-99-2	**Benzo(b)fluoranthene**	**2710**	**330**		ug/Kg
191-24-2	**Benzo(g,h,i)perylene**	**3020**	**330**		ug/Kg
207-08-9	**Benzo(k)fluoranthene**	**2710**	**330**		ug/Kg
92-52-4	Biphenyl	ND	330		ug/Kg
111-91-1	**Bis(2-Chloroethoxy)methane**	**2530**	**330**		ug/Kg
111-44-4	**Bis(2-Chloroethyl)ether**	**2430**	**330**		ug/Kg
108-60-1	**Bis(2-Chloroisopropyl)ether**	**2470**	**330**		ug/Kg
117-81-7	**Bis(2-Ethylhexyl)phthalate**	**2820**	**330**		ug/Kg
85-68-7	**Butyl benzyl phthalate**	**2800**	**330**		ug/Kg
105-60-2	Caprolactam	ND	330		ug/Kg
86-74-8	**Carbazole**	**2710**	**330**		ug/Kg

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
41614	Lab Control Sample	Solid	5/29/02 16:59

SW-846 8270C

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/28/02 09:30	132708	3540C	1	5/29/02 12:29	RLW	132710

218-01-9	Chrysene	2700	330	ug/Kg
84-74-2	Di-n-butyl phthalate	2710	330	ug/Kg
117-84-0	Di-n-octyl phthalate	2820	330	ug/Kg
53-70-3	Dibenz(a,h)anthracene	3010	330	ug/Kg
132-64-9	Dibenzofuran	2850	330	ug/Kg
84-66-2	Diethyl phthalate	2710	330	ug/Kg
131-11-3	Dimethyl phthalate	2740	330	ug/Kg
206-44-0	Fluoranthene	2570	330	ug/Kg
86-73-7	Fluorene	2740	330	ug/Kg
118-74-1	Hexachlorobenzene	2740	330	ug/Kg
87-68-3	Hexachlorobutadiene	2590	330	ug/Kg
77-47-4	Hexachlorocyclopentadiene	2840	330	ug/Kg
67-72-1	Hexachloroethane	2520	330	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	2990	330	ug/Kg
78-59-1	Isophorone	2700	330	ug/Kg
91-20-3	Naphthalene	2610	330	ug/Kg
98-95-3	Nitrobenzene	2680	330	ug/Kg
87-86-5	Pentachlorophenol	2890	1650	ug/Kg
85-01-8	Phenanthrene	2700	330	ug/Kg
108-95-2	Phenol	2440	330	ug/Kg
129-00-0	Pyrene	2710	330	ug/Kg
1319-77-3	m,p-Cresol	2500	330	ug/Kg
621-64-7	n-Nitrosodi-n-propylamine	2570	330	ug/Kg
86-30-6	n-Nitrosodiphenylamine	2740	330	ug/Kg
95-48-7	o-Cresol	2530	330	ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
4165-60-0	Nitrobenzene-d5	1670	1340 ug/Kg	80	46 - 116
321-60-8	2-Fluorobiphenyl	1670	1480 ug/Kg	89	39 - 116
1718-51-0	Terphenyl-d14	1670	1130 ug/Kg	68	24 - 137
4165-62-2	Phenol-d5	3330	2470 ug/Kg	74	34 - 113
367-12-4	2-Fluorophenol	3330	2430 ug/Kg	73	44 - 106

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: GCAL Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Level:(low/med)

	EPA SAMPLE NO.	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	41963	74								0
02	41964	102								0
03	211-S COMP	97								0
04	212-S COMP	110								0
05	41965	79								0
06	41966	77								0
07										
08										
09										
10										
11										
12										
13										
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30										

S1 = DCAA QC LIMITS (37-140)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

QUALITY CONTROL SUMMARY

5103-71-9	alpha-Chlordane	16.7 ug/Kg	159	-564 *	45 - 119	-22 *	0 - 40
5103-74-2	gamma-Chlordane	16.7 ug/Kg	344	138 *	45 - 119	-908 *	0 - 40
58-89-9	gamma-BHC (Lindane)	16.7 ug/Kg	19.7	118	46 - 127	13	0 - 40
76-44-8	Heptachlor	16.7 ug/Kg	22	132 *	35 - 130	16	0 - 40
309-00-2	Aldrin	16.7 ug/Kg	25.9	155 *	35 - 132	18	0 - 40
60-57-1	Dieldrin	16.7 ug/Kg	32	192 *	31 - 134	23	0 - 40
72-20-8	Endrin	16.7 ug/Kg	63.4	380 *	42 - 139	16	0 - 40
50-29-3	4,4'-DDT	16.7 ug/Kg	27.5	165 *	23 - 134	9	0 - 40

LCS ID: 41669 ORIGINAL LAB ID: PREP BATCH: 132821
MATRIX Solid ANALYTICAL BATCH: 133110

Florida PRO

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
FLPRO-01	Petroleum Hydrocarbons	68000 ug/Kg	39500	58	50 - 150

MS LAB ID: 41670 ORIGINAL LAB ID: 20205242102 PREP BATCH: 132821
MATRIX Solid ANALYTICAL BATCH: 133110

Florida PRO

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
FLPRO-01	Petroleum Hydrocarbons	345	68000 ug/Kg	39700	58	50 - 150

MSD LAB ID: 41671 ORIGINAL LAB ID: 20205242102 PREP BATCH: 132821
MATRIX Solid ANALYTICAL BATCH: 133110

Florida PRO

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
FLPRO-01	Petroleum Hydrocarbons	68000 ug/Kg	48700	71	50 - 150	20	0 - 40

LCS ID: 41964 ORIGINAL LAB ID: PREP BATCH: 133308
MATRIX Solid ANALYTICAL BATCH: 133310

SW-846 8151A

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
94-75-7	2,4'-D	66.7 ug/Kg	53.8	81	10 - 126
93-76-5	2,4,5-T	66.7 ug/Kg	57.8	87	32 - 130
93-72-1	2,4,5-TP (Silvex)	66.7 ug/Kg	60.6	91	34 - 124

MS LAB ID: 41965 ORIGINAL LAB ID: 20205242102 PREP BATCH: 133308
MATRIX Solid ANALYTICAL BATCH: 133310

SW-846 8151A

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
94-75-7	2,4'-D	0	66.7 ug/Kg	36.3	54	10 - 126
93-76-5	2,4,5-T	0	66.7 ug/Kg	47	71	32 - 130
93-72-1	2,4,5-TP (Silvex)	0	66.7 ug/Kg	43.6	65	34 - 124

QUALITY CONTROL SUMMARY

MSD LAB ID: 41966	ORIGINAL LAB ID: 20205242102	PREP BATCH: 133308
	MATRIX Solid	ANALYTICAL BATCH: 133310

SW-846 8151A

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
94-75-7	2,4'-D	66.7 ug/Kg	42	63	10 - 126	15	0 - 40
93-76-5	2,4,5-T	66.7 ug/Kg	51	77	32 - 130	8	0 - 40
93-72-1	2,4,5-TP (Silvex)	66.7 ug/Kg	45.3	68	34 - 124	5	0 - 40

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242101	005-211-S-0522-02 COMP	Solid	5/22/02 09:30	5/23/02 09:15	6/6/02 09:46

8151A, Herbicides, Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/29/02 13:00	133308	3540C	1	5/30/02 17:55	TLS	133310

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
94-75-7	2,4'-D	ND	231	19.2	ug/Kg
93-76-5	2,4,5-T	ND	23.5	13.8	ug/Kg
93-72-1	2,4,5-TP (Silvex)	ND	23.5	21.3	ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
19719-28-9	DCAA	133	130 ug/Kg	98	37 - 140

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242102	005-212-S-0522-02 COMP	Solid	5/22/02 09:55	5/23/02 09:15	6/6/02 09:46

8151A, Herbicides, Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/29/02 13:00	133308	3540C	1	5/30/02 18:22	TLS	133310

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
94-75-7	2,4'-D	ND	225	18.8	ug/Kg
93-76-5	2,4,5-T	ND	22.9	13.5	ug/Kg
93-72-1	2,4,5-TP (Silvex)	ND	22.9	20.8	ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
19719-28-9	DCAA	133	147 ug/Kg	110	37 - 140

RESULTS REPORTED ON A DRY WEIGHT BASIS

Report Date : 05-Jun-2002 15:03

Gulf Coast Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 30-MAY-2002 13:38
End Cal Date : 30-MAY-2002 15:52
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/gcsv6.i/2020530.b/M8151.m
Cal Date : 05-Jun-2002 15:02 tnt
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcsv6.i/2020530.b/SV6001.d
Level 2: /var/chem/gcsv6.i/2020530.b/SV6002.d
Level 3: /var/chem/gcsv6.i/2020530.b/SV6003.d
Level 4: /var/chem/gcsv6.i/2020530.b/SV6004.d
Level 5: /var/chem/gcsv6.i/2020530.b/SV6005.d
Level 6: /var/chem/gcsv6.i/2020530.b/SV6006.d

Compound	6.250 Level 1	12.500 Level 2	25.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD
7 2,4-D	577688	522766	495548	455699	410006	359979	470281	16.727
8 2,4,5-TP	1690206	1641359	1646380	1536496	1405089	1269515	1531507	10.733
9 2,4,5-T	1627993	1625903	1562931	1473320	1345144	1205189	1473413	11.500
$ 2 DCAA	579126	499284	484360	464432	392710	339150	459844	18.319

Report Date : 05-Jun-2002 15:03

Gulf Coast Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date	: 30-MAY-2002 13:38
End Cal Date	: 30-MAY-2002 15:52
Quant Method	: ESTD
Origin	: Disabled
Target Version	: 3.50
Integrator	: Falcon
Method file	: /var/chem/gcsv6.i/2020530.b/M8151.m
Cal Date	: 05-Jun-2002 15:02 tnt
Curve Type	: Average

```
|Average %RSD Results.                                |
|=====================================================|
|Calculated Average %RSD = 14.3197994                 |
|Maximun Average %RSD    =         20                 |
|* Passed Average %RSD Test.                          |
|_____________________________________________________|
```

Data File: /var/chem/gcsv6.i/2020530.b/SV6014.d
Report Date: 05-Jun-2002 15:02

Gulf Coast Analytical Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv6.i
Lab File ID: SV6014.d
Analysis Type: WATER
Lab Sample ID: 50 PPB CCV
Method: /var/chem/gcsv6.i/2020530.b/M8151.m

Injection Date: 30-MAY-2002 19:43
Init. Cal. Date(s): 30-MAY-2002 30-MAY-2002
Init. Cal. Times: 13:38 15:52
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 2 DCAA	459844	447722	0.010	2.63608	15.00000	Averaged
7 2,4-D	470281	464384	0.010	1.25394	15.00000	Averaged
8 2,4,5-TP	1531507	1561848	0.010	-1.98110	15.00000	Averaged
9 2,4,5-T	1473413	1496869	0.010	-1.59194	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 1.86577
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
41963	Method Blank	Solid	5/31/02 12:28

SW-846 8151A

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/29/02 13:00	133308	3540C	1	5/30/02 17:01	TNT	133310

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
94-75-7	2,4'-D	ND	167		ug/Kg
93-76-5	2,4,5-T	ND	17.0		ug/Kg
93-72-1	2,4,5-TP (Silvex)	ND	17.0		ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
19719-28-	DCAA	133	98.7 ug/Kg	74	37 - 140

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
41964	Lab Control Sample	Solid	5/31/02 12:28

SW-846 8151A

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/29/02 13:00	133308	3540C	1	5/30/02 17:28	TNT	133310

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
94-75-7	2,4'-D	53.8J	167		ug/Kg
93-76-5	**2,4,5-T**	**57.8**	**17.0**		**ug/Kg**
93-72-1	**2,4,5-TP (Silvex)**	**60.6**	**17.0**		**ug/Kg**

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
19719-28-	**DCAA**	133	137 ug/Kg	103	37 - 140

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: GCAL Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Level:(low/med)

	EPA SAMPLE NO.	S1 (TCX)#	S2 (DCB)#	S3 #	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	41637	120	150							0
02	41638	88	118							0
03	212-S COMP	93	118							0
04	211-S COMP	DO	DO							0
05	41639	DO	DO							0
06	41640	DO	DO							0
07										
08										
09										
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29										
30										

		QC LIMITS	
S1 (TCX)	= Tetrachloro-m-xylene	(60-150)	
S2 (DCB)	= Decachlorobiphenyl	(60-150)	(advisory)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

QUALITY CONTROL SUMMARY

LCS ID: 41642	ORIGINAL LAB ID:	PREP BATCH: 132809
	MATRIX Solid	ANALYTICAL BATCH: 132816

SW-846 8082

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
12674-11-2	Aroclor-1016	133 ug/Kg	115	86	60 - 127
11096-82-5	Aroclor-1260	133 ug/Kg	134	101	61 - 132

MS LAB ID: 41643	ORIGINAL LAB ID: 20205242102	PREP BATCH: 132809
	MATRIX Solid	ANALYTICAL BATCH: 132816

SW-846 8082

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
12674-11-2	Aroclor-1016	0	133 ug/Kg	93.5	70	60 - 127
11096-82-5	Aroclor-1260	0	133 ug/Kg	159	119	61 - 132

MSD LAB ID: 41644	ORIGINAL LAB ID: 20205242102	PREP BATCH: 132809
	MATRIX Solid	ANALYTICAL BATCH: 132816

SW-846 8082

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
12674-11-2	Aroclor-1016	133 ug/Kg	111	83	60 - 127	17	0 - 40
11096-82-5	Aroclor-1260	133 ug/Kg	155	116	61 - 132	3	0 - 40

LCS ID: 41638	ORIGINAL LAB ID:	PREP BATCH: 132808
	MATRIX Solid	ANALYTICAL BATCH: 132817

SW-846 8081A

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
319-84-6	alpha-BHC	16.7 ug/Kg	14.8	89	37 - 134
319-85-7	beta-BHC	16.7 ug/Kg	14.9	89	17 - 147
319-86-8	delta-BHC	16.7 ug/Kg	15.2	91	19 - 140
1024-57-3	Heptachlor epoxide	16.7 ug/Kg	15.5	93	37 - 142
959-98-8	Endosulfan I	16.7 ug/Kg	14.1	85	45 - 153
72-55-9	4,4'-DDE	16.7 ug/Kg	19.3	116	30 - 145
33213-65-9	Endosulfan II	16.7 ug/Kg	15.2	91	0 - 202
72-54-8	4,4'-DDD	16.7 ug/Kg	19.2	115	31 - 141
1031-07-8	Endosulfan sulfate	16.7 ug/Kg	16.9	101	26 - 144
72-43-5	Methoxychlor	16.7 ug/Kg	13.3	80	26 - 144
53494-70-5	Endrin ketone	16.7 ug/Kg	18.1	109	26 - 144
7421-93-4	Endrin aldehyde	16.7 ug/Kg	21.9	131	0 - 202
5103-71-9	alpha-Chlordane	16.7 ug/Kg	17.4	104	45 - 119
5103-74-2	gamma-Chlordane	16.7 ug/Kg	15.5	93	45 - 119
58-89-9	gamma-BHC (Lindane)	16.7 ug/Kg	13.1	79	46 - 127
76-44-8	Heptachlor	16.7 ug/Kg	14.3	86	35 - 130
309-00-2	Aldrin	16.7 ug/Kg	15	90	35 - 132
60-57-1	Dieldrin	16.7 ug/Kg	15	90	31 - 134

QUALITY CONTROL SUMMARY

72-20-8	Endrin	16.7 ug/Kg	17.5	105	42 - 139
50-29-3	4,4'-DDT	16.7 ug/Kg	12.8	77	23 - 134

MS LAB ID: 41639 ORIGINAL LAB ID: 20205242101 PREP BATCH: 132808
MATRIX Solid ANALYTICAL BATCH: 132817

SW-846 8081A

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
319-84-6	alpha-BHC	0	16.7 ug/Kg	17.9	107	37 - 134
319-85-7	beta-BHC	0	16.7 ug/Kg	16.6	100	17 - 147
319-86-8	delta-BHC	0	16.7 ug/Kg	31	186 *	19 - 140
1024-57-3	Heptachlor epoxide	0	16.7 ug/Kg	69.2	415 *	37 - 142
959-98-8	Endosulfan I	0	16.7 ug/Kg	155	930 *	45 - 153
72-55-9	4,4'-DDE	0	16.7 ug/Kg	23.5	141	30 - 145
33213-65-9	Endosulfan II	0	16.7 ug/Kg	22.3	134	0 - 202
72-54-8	4,4'-DDD	0	16.7 ug/Kg	25.7	154 *	31 - 141
1031-07-8	Endosulfan sulfate	0	16.7 ug/Kg	19	114	26 - 144
72-43-5	Methoxychlor	0	16.7 ug/Kg	14.1	85	26 - 144
53494-70-5	Endrin ketone	0	16.7 ug/Kg	25.4	152 *	26 - 144
7421-93-4	Endrin aldehyde	0	16.7 ug/Kg	23.8	143	0 - 202
5103-71-9	alpha-Chlordane	253	16.7 ug/Kg	136	-702 *	45 - 119
5103-74-2	gamma-Chlordane	321	16.7 ug/Kg	285	-216 *	45 - 119
58-89-9	gamma-BHC (Lindane)	0	16.7 ug/Kg	17.3	104	46 - 127
76-44-8	Heptachlor	0	16.7 ug/Kg	18.9	113	35 - 130
309-00-2	Aldrin	0	16.7 ug/Kg	21.5	129	35 - 132
60-57-1	Dieldrin	0	16.7 ug/Kg	25.5	153 *	31 - 134
72-20-8	Endrin	0	16.7 ug/Kg	53.9	323 *	42 - 139
50-29-3	4,4'-DDT	0	16.7 ug/Kg	25.1	151 *	23 - 134

MSD LAB ID: 41640 ORIGINAL LAB ID: 20205242101 PREP BATCH: 132808
MATRIX Solid ANALYTICAL BATCH: 132817

SW-846 8081A

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
319-84-6	alpha-BHC	16.7 ug/Kg	20.4	122	37 - 134	13	0 - 40
319-85-7	beta-BHC	16.7 ug/Kg	19.4	116	17 - 147	15	0 - 40
319-86-8	delta-BHC	16.7 ug/Kg	33.4	200 *	19 - 140	7	0 - 40
1024-57-3	Heptachlor epoxide	16.7 ug/Kg	85.9	515 *	37 - 142	22	0 - 40
959-98-8	Endosulfan I	16.7 ug/Kg	158	948 *	45 - 153	2	0 - 40
72-55-9	4,4'-DDE	16.7 ug/Kg	25.8	155 *	30 - 145	9	0 - 40
33213-65-9	Endosulfan II	16.7 ug/Kg	28.3	170	0 - 202	24	0 - 40
72-54-8	4,4'-DDD	16.7 ug/Kg	25.7	154 *	31 - 141	0	0 - 40
1031-07-8	Endosulfan sulfate	16.7 ug/Kg	21.7	130	26 - 144	13	0 - 40
72-43-5	Methoxychlor	16.7 ug/Kg	47	282 *	26 - 144	107 *	0 - 40
53494-70-5	Endrin ketone	16.7 ug/Kg	57	342 *	26 - 144	77 *	0 - 40
7421-93-4	Endrin aldehyde	16.7 ug/Kg	25.6	154	0 - 202	7	0 - 40

QUALITY CONTROL SUMMARY

5103-71-9	alpha-Chlordane	16.7 ug/Kg	159	-564	*	45 - 119	-22	*	0 - 40
5103-74-2	gamma-Chlordane	16.7 ug/Kg	344	138	*	45 - 119	-908	*	0 - 40
58-89-9	gamma-BHC (Lindane)	16.7 ug/Kg	19.7	118		46 - 127	13		0 - 40
76-44-8	Heptachlor	16.7 ug/Kg	22	132	*	35 - 130	16		0 - 40
309-00-2	Aldrin	16.7 ug/Kg	25.9	155	*	35 - 132	18		0 - 40
60-57-1	Dieldrin	16.7 ug/Kg	32	192	*	31 - 134	23		0 - 40
72-20-8	Endrin	16.7 ug/Kg	63.4	380	*	42 - 139	16		0 - 40
50-29-3	4,4'-DDT	16.7 ug/Kg	27.5	165	*	23 - 134	9		0 - 40

LCS ID: 41669 ORIGINAL LAB ID: PREP BATCH: 132821
MATRIX Solid ANALYTICAL BATCH: 133110

Florida PRO

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
FLPRO-01	Petroleum Hydrocarbons	68000 ug/Kg	39500	58	50 - 150

MS LAB ID: 41670 ORIGINAL LAB ID: 20205242102 PREP BATCH: 132821
MATRIX Solid ANALYTICAL BATCH: 133110

Florida PRO

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
FLPRO-01	Petroleum Hydrocarbons	345	68000 ug/Kg	39700	58	50 - 150

MSD LAB ID: 41671 ORIGINAL LAB ID: 20205242102 PREP BATCH: 132821
MATRIX Solid ANALYTICAL BATCH: 133110

Florida PRO

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
FLPRO-01	Petroleum Hydrocarbons	68000 ug/Kg	48700	71	50 - 150	20	0 - 40

LCS ID: 41964 ORIGINAL LAB ID: PREP BATCH: 133308
MATRIX Solid ANALYTICAL BATCH: 133310

SW-846 8151A

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
94-75-7	2,4'-D	66.7 ug/Kg	53.8	81	10 - 126
93-76-5	2,4,5-T	66.7 ug/Kg	57.8	87	32 - 130
93-72-1	2,4,5-TP (Silvex)	66.7 ug/Kg	60.6	91	34 - 124

MS LAB ID: 41965 ORIGINAL LAB ID: 20205242102 PREP BATCH: 133308
MATRIX Solid ANALYTICAL BATCH: 133310

SW-846 8151A

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
94-75-7	2,4'-D	0	66.7 ug/Kg	36.3	54	10 - 126
93-76-5	2,4,5-T	0	66.7 ug/Kg	47	71	32 - 130
93-72-1	2,4,5-TP (Silvex)	0	66.7 ug/Kg	43.6	65	34 - 124

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242101	005-211-S-0522-02 COMP	Solid	5/22/02 09:30	5/23/02 09:15	6/6/02 09:46

8081A,Pesticides, Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/28/02 09:30	132808	3540C	10	5/30/02 12:32	TLS	132817

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
72-54-8	4,4'-DDD	ND	55.3	19.5	ug/Kg
72-55-9	4,4'-DDE	ND	55.3	4.84	ug/Kg
50-29-3	4,4'-DDT	ND	55.3	5.67	ug/Kg
309-00-2	Aldrin	ND	27.6	17.7	ug/Kg
60-57-1	Dieldrin	ND	55.3	10.6	ug/Kg
959-98-8	Endosulfan I	ND	27.6	2.49	ug/Kg
33213-65-9	Endosulfan II	ND	55.3	7.88	ug/Kg
1031-07-8	Endosulfan sulfate	ND	55.3	10.5	ug/Kg
72-20-8	Endrin	ND	55.3	15.6	ug/Kg
7421-93-4	Endrin aldehyde	ND	55.3	5.80	ug/Kg
53494-70-5	Endrin ketone	ND	55.3	4.98	ug/Kg
76-44-8	Heptachlor	ND	27.6	4.70	ug/Kg
1024-57-3	Heptachlor epoxide	ND	27.6	3.73	ug/Kg
72-43-5	Methoxychlor	ND	276	18.9	ug/Kg
8001-35-2	Toxaphene	ND	2760	2760	ug/Kg
319-84-6	alpha-BHC	ND	27.6	5.39	ug/Kg
5103-71-9	**alpha-Chlordane**	**350**	**27.6**	**2.21**	**ug/Kg**
319-85-7	beta-BHC	ND	55.3	6.91	ug/Kg
319-86-8	delta-BHC	ND	27.6	1.93	ug/Kg
58-89-9	gamma-BHC (Lindane)	ND	27.6	3.73	ug/Kg
5103-74-2	**gamma-Chlordane**	**444**	**27.6**	**2.35**	**ug/Kg**

CAS #	SURROGATE NAME		CONC ADDED	CONC REC	% RECOVERY		REC-LIMITS
877-09-8	Tetrachloro-m-xylene	DO	16.7	23.1 ug/Kg	139		60 - 150
2051-24-3	Decachlorobiphenyl	DO	16.7	30.7 ug/Kg	184	*	60 - 150

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242102	005-212-S-0522-02 COMP	Solid	5/22/02 09:55	5/23/02 09:15	6/6/02 09:46

8081A,Pesticides, Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/28/02 09:30	132808	3540C	1	5/29/02 15:19	TLS	132817

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
72-54-8	4,4'-DDD	ND	5.40	1.90	ug/Kg
72-55-9	4,4'-DDE	ND	5.40	0.472	ug/Kg
50-29-3	4,4'-DDT	ND	5.40	0.553	ug/Kg
309-00-2	Aldrin	ND	2.70	1.73	ug/Kg
60-57-1	Dieldrin	ND	5.40	1.04	ug/Kg
959-98-8	Endosulfan I	ND	2.70	0.243	ug/Kg
33213-65-9	Endosulfan II	ND	5.40	0.769	ug/Kg
1031-07-8	Endosulfan sulfate	ND	5.40	1.03	ug/Kg
72-20-8	Endrin	ND	5.40	1.52	ug/Kg
7421-93-4	Endrin aldehyde	ND	5.40	0.567	ug/Kg
53494-70-5	Endrin ketone	ND	5.40	0.486	ug/Kg
76-44-8	Heptachlor	ND	2.70	0.459	ug/Kg
1024-57-3	Heptachlor epoxide	ND	2.70	0.364	ug/Kg
72-43-5	Methoxychlor	ND	27.0	1.85	ug/Kg
8001-35-2	Toxaphene	ND	270	270	ug/Kg
319-84-6	alpha-BHC	ND	2.70	0.526	ug/Kg
5103-71-9	**alpha-Chlordane**	**18.6**	**2.70**	**0.216**	**ug/Kg**
319-85-7	beta-BHC	ND	5.40	0.675	ug/Kg
319-86-8	delta-BHC	ND	2.70	0.189	ug/Kg
58-89-9	gamma-BHC (Lindane)	ND	2.70	0.364	ug/Kg
5103-74-2	**gamma-Chlordane**	**10.2**	**2.70**	**0.229**	**ug/Kg**

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
877-09-8	Tetrachloro-m-xylene	16.7	15.5 ug/Kg	93	60 - 150
2051-24-3	Decachlorobiphenyl	16.7	19.7 ug/Kg	118	60 - 150

RESULTS REPORTED ON A DRY WEIGHT BASIS

Report Date : 05-Jun-2002 17:27

Gulf Coast Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 15-APR-2002 15:08
End Cal Date : 16-APR-2002 01:02
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/gcsv8.i/2020415.b/pest2.m
Cal Date : 05-Jun-2002 17:27 tnt
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcsv8.i/2020415.b/SV8020.d
Level 2: /var/chem/gcsv8.i/2020415.b/SV8021.d
Level 3: /var/chem/gcsv8.i/2020415.b/SV8022.d
Level 4: /var/chem/gcsv8.i/2020415.b/SV8023.d
Level 5: /var/chem/gcsv8.i/2020415.b/SV8024.d

	Compound	5.000 Level 1	40.000 Level 2	60.000 Level 3	80.000 Level 4	100.000 Level 5	RRF	% RSD	
	2 alpha-BHC	551362	520705	495590	457263	462842	497552	7.953	
	3 gamma-BHC (Lindane)	520615	478599	445051	411533	419937	455147	9.875	
	4 Heptachlor	359405	353629	312396	296331	302565	324865	9.089	
	5 Aldrin	371742	378310	332830	341958	298856	344739	9.299	
	6 beta-BHC	297007	246325	198578	200986	177456	224070	21.369	<-
	7 delta-BHC	469771	441391	377434	388376	342504	403895	12.658	
	8 Heptachlor epoxide	300874	300374	266114	272456	238921	275748	9.418	
	9 Endosulfan I	243760	237461	232050	221319	230435	233005	3.588	
	10 gamma-Chlordane	303463	307051	274564	279481	245338	281979	8.855	
	11 alpha-Chlordane	297528	297118	260209	266971	233347	271034	9.997	
	12 4,4'-DDE	239566	255343	226356	232439	201630	231067	8.525	
	13 Dieldrin	236655	229405	227454	213167	220529	225442	3.969	
	14 Endrin	186168	181325	178110	168265	175808	177935	3.742	
	15 4,4'-DDD	158058	151807	150539	143467	151934	151161	3.440	
	16 Endosulfan II	200036	211041	183831	194165	167866	191388	8.582	
	17 4,4'-DDT	123276	129123	134701	130806	143539	132289	5.680	
	18 Endrin aldehyde	116658	118703	91990	109284	95948	106517	11.322	
	19 Methoxychlor	61238	60527	60002	58811	64002	60916	3.184	
	20 Endosulfan sulfate	178732	184700	167346	171571	148783	170226	8.054	
	21 Endrin ketone	193309	195833	176057	180174	156241	180323	8.801	
M	23 AR 1016-AVG	75920	66946	56727	52875	45930	59680	19.837	
	24 AR 1016-PEAK1	9599	7705	7443	7008	5981	7547	17.515	
	25 AR 1016-PEAK2	20356	16838	14522	13515	11345	15315	22.466	<-
	26 AR 1016-PEAK3	33840	31326	25160	24039	20556	26984	20.228	<-
	27 AR 1016-PEAK4	12126	11077	9602	8314	8048	9833	17.870	
M	28 AR 1260-AVG	65841	60095	53815	55214	49551	56903	10.993	

Report Date : 05-Jun-2002 17:27

Gulf Coast Analytical Services

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Start Cal Date : 15-APR-2002 15:08
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Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/gcsv8.i/2020415.b/pest2.m
Cal Date : 05-Jun-2002 17:27 tnt
Curve Type : Average

	Compound	5.000 Level 1	40.000 Level 2	60.000 Level 3	80.000 Level 4	100.000 Level 5	RRF	% RSD
	29 AR 1260-PEAK1	8881	8287	7194	7254	6353	7594	13.088
	30 AR 1260-PEAK2	14768	12951	12038	12029	10510	12459	12.519
	31 AR 1260-PEAK3	15565	13932	12558	12614	10947	13123	13.161
	32 AR 1260-PEAK4	26628	24925	22025	23317	21741	23727	8.652
M	33 AR 1260-AVGII	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	34 AR 1260-PEAK5	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	35 AR 1260-PEAK6	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	36 AR 1260-PEAK7	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M	37 AR 1221-AVG	+++++	+++++	18819	+++++	+++++	18819	0.000
	38 AR 1221-PEAK1	+++++	+++++	740	+++++	+++++	740	0.000
	39 AR 1221-PEAK2	+++++	+++++	5036	+++++	+++++	5036	0.000
	40 AR 1221-PEAK3	+++++	+++++	3209	+++++	+++++	3209	0.000
	41 AR 1221-PEAK4	+++++	+++++	9835	+++++	+++++	9835	0.000
M	42 AR 1232-AVG	+++++	+++++	35439	+++++	+++++	35439	0.000
	43 AR 1232-PEAK1	+++++	+++++	3986	+++++	+++++	3986	0.000
	44 AR 1232-PEAK2	+++++	+++++	9402	+++++	+++++	9402	0.000
	45 AR 1232-PEAK3	+++++	+++++	8391	+++++	+++++	8391	0.000
	46 AR 1232-PEAK4	+++++	+++++	13661	+++++	+++++	13661	0.000
M	47 AR 1242-AVG	+++++	+++++	46488	+++++	+++++	46488	0.000
	48 AR 1242-PEAK1	+++++	+++++	6095	+++++	+++++	6095	0.000
	49 AR 1242-PEAK2	+++++	+++++	12205	+++++	+++++	12205	0.000
	50 AR 1242-PEAK3	+++++	+++++	21180	+++++	+++++	21180	0.000
	51 AR 1242-PEAK4	+++++	+++++	7008	+++++	+++++	7008	0.000
M	52 AR 1248-AVG	+++++	+++++	48811	+++++	+++++	48811	0.000
	53 AR 1248-PEAK1	+++++	+++++	14286	+++++	+++++	14286	0.000
	54 AR 1248-PEAK2	+++++	+++++	11034	+++++	+++++	11034	0.000
	55 AR 1248-PEAK3	+++++	+++++	13540	+++++	+++++	13540	0.000
	56 AR 1248-PEAK4	+++++	+++++	9951	+++++	+++++	9951	0.000
M	57 AR 1254-AVG	+++++	+++++	28114	+++++	+++++	28114	0.000
	58 AR 1254-PEAK1	+++++	+++++	4058	+++++	+++++	4058	0.000
	59 AR 1254-PEAK2	+++++	+++++	3741	+++++	+++++	3741	0.000
	60 AR 1254-PEAK3	+++++	+++++	6572	+++++	+++++	6572	0.000
	61 AR 1254-PEAK4	+++++	+++++	13743	+++++	+++++	13743	0.000

Report Date : 05-Jun-2002 17:27

Gulf Coast Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 15-APR-2002 15:08
End Cal Date : 16-APR-2002 01:02
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/gcsv8.i/2020415.b/pest2.m
Cal Date : 05-Jun-2002 17:27 tnt
Curve Type : Average

	Compound	5.000 Level 1	40.000 Level 2	60.000 Level 3	80.000 Level 4	100.000 Level 5	RRF	% RSD
M	62 TOXAPHENE-AVG	+++++	+++++	+++++	+++++	24809	24809	0.000
	63 TOXAPHENE-PEAK1	+++++	+++++	+++++	+++++	2679	2679	0.000
	64 TOXAPHENE-PEAK2	+++++	+++++	+++++	+++++	7852	7852	0.000
	65 TOXAPHENE-PEAK3	+++++	+++++	+++++	+++++	8171	8171	0.000
	66 TOXAPHENE-PEAK4	+++++	+++++	+++++	+++++	6106	6106	0.000
	67 TOXAPHENE-PEAK5	+++++	+++++	+++++	+++++	4739	4739	0.000
M	68 CHLORDANE-AVG	+++++	+++++	+++++	+++++	111445	111445	0.000
	69 CHLORDANE-PEAK1	+++++	+++++	+++++	+++++	14037	14037	0.000
	70 CHLORDANE-PEAK2	+++++	+++++	+++++	+++++	19810	19810	0.000
	71 CHLORDANE-PEAK3	+++++	+++++	+++++	+++++	44601	44601	0.000
	72 CHLORDANE-PEAK4	+++++	+++++	+++++	+++++	23631	23631	0.000
	73 CHLORDANE-PEAK5	+++++	+++++	+++++	+++++	9366	9366	0.000
M	74 AR 1268-AVG	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	75 AR 1268-PEAK1	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	76 AR 1268-PEAK2	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	77 AR 1268-PEAK3	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	78 AR 1268 PEAK4	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$	1 Tetrachloro-m-xylene	524650	436820	383809	347578	348735	408319	18.239
$	22 Decachlorobiphenyl	212341	184638	162885	154357	161329	175110	13.535

Report Date : 05-Jun-2002 17:27

Gulf Coast Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date	: 15-APR-2002 15:08
End Cal Date	: 16-APR-2002 01:02
Quant Method	: ESTD
Origin	: Disabled
Target Version	: 3.50
Integrator	: Falcon
Method file	: /var/chem/gcsv8.i/2020415.b/pest2.m
Cal Date	: 05-Jun-2002 17:27 tnt
Curve Type	: Average

```
Average %RSD Results.
==============================================
Calculated Average %RSD = 11.1094856
Maximun Average %RSD    =         20
* Passed Average %RSD Test.
```

Data File: /var/chem/gcsv8.i/2020529.b/SV8002.d
Report Date: 05-Jun-2002 17:37

Gulf Coast Analytical Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv8.i
Lab File ID: SV8002.d
Analysis Type: WATER
Lab Sample ID: IND A III
Method: /var/chem/gcsv8.i/2020529.b/pest2.m

Injection Date: 29-MAY-2002 09:05
Init. Cal. Date(s): 15-APR-2002 16-APR-2002
Init. Cal. Times: 15:08 01:02
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF60	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 1 Tetrachloro-m-xylene	408319	388170	0.010	4.93450	15.00000	Averaged	
2 alpha-BHC	497552	499197	0.010	-0.33055	15.00000	Averaged	
3 gamma-BHC (Lindane)	455147	434777	0.010	4.47541	15.00000	Averaged	
4 Heptachlor	324865	297994	0.010	8.27151	15.00000	Averaged	
9 Endosulfan I	233005	254310	0.010	-9.14372	15.00000	Averaged	
13 Dieldrin	225442	242040	0.010	-7.36221	15.00000	Averaged	
14 Endrin	177935	159368	0.010	10.43468	15.00000	Averaged	
15 4,4'-DDD	151161	162749	0.010	-7.66566	15.00000	Averaged	
17 4,4'-DDT	132289	107881	0.010	18.45027	15.00000	Averaged	<-
19 Methoxychlor	60916	45596	0.010	25.14956	15.00000	Averaged	<-
$ 22 Decachlorobiphenyl	175110	181914	0.010	-3.88552	15.00000	Averaged	

Average %D / Drift Results.

Calculated Average %D/Drift = 9.10033
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Data File: /var/chem/gcsv8.i/2020529.b/SV8003.d
Report Date: 05-Jun-2002 17:37

Gulf Coast Analytical Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv8.i
Lab File ID: SV8003.d
Analysis Type: WATER
Lab Sample ID: IND B III
Method: /var/chem/gcsv8.i/2020529.b/pest2.m

Injection Date: 29-MAY-2002 09:34
Init. Cal. Date(s): 15-APR-2002 16-APR-2002
Init. Cal. Times: 15:08 01:02
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF60	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
5 Aldrin	344739	365137	0.010	-5.91694	15.00000	Averaged	
6 beta-BHC	224070	203552	0.010	9.15704	15.00000	Averaged	
7 delta-BHC	403895	382475	0.010	5.30336	15.00000	Averaged	
8 Heptachlor epoxide	275748	288410	0.010	-4.59212	15.00000	Averaged	
10 gamma-Chlordane	281979	304638	0.010	-8.03568	15.00000	Averaged	
11 alpha-Chlordane	271034	291949	0.010	-7.71673	15.00000	Averaged	
12 4,4'-DDE	231067	248456	0.010	-7.52547	15.00000	Averaged	
16 Endosulfan II	191388	209880	0.010	-9.66195	15.00000	Averaged	
18 Endrin aldehyde	106517	84140	0.010	21.00735	15.00000	Averaged	<-
20 Endosulfan sulfate	170226	188768	0.010	-10.89251	15.00000	Averaged	
21 Endrin ketone	180323	189387	0.010	-5.02668	15.00000	Averaged	

Average %D / Drift Results.

Calculated Average %D/Drift = 8.62144
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Data File: /var/chem/gcsv8.i/2020529.b/SV8010.d
Report Date: 05-Jun-2002 17:37

Gulf Coast Analytical Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv8.i
Lab File ID: SV8010.d
Analysis Type: WATER
Lab Sample ID: IND A III
Method: /var/chem/gcsv8.i/2020529.b/pest2.m

Injection Date: 29-MAY-2002 13:21
Init. Cal. Date(s): 15-APR-2002 16-APR-2002
Init. Cal. Times: 15:08 01:02
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF60	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 1 Tetrachloro-m-xylene	408319	372998	0.010	8.65033	15.00000	Averaged
2 alpha-BHC	497552	490217	0.010	1.47433	15.00000	Averaged
3 gamma-BHC (Lindane)	455147	435797	0.010	4.25133	15.00000	Averaged
4 Heptachlor	324865	315425	0.010	2.90608	15.00000	Averaged
9 Endosulfan I	233005	249844	0.010	-7.22679	15.00000	Averaged
13 Dieldrin	225442	242757	0.010	-7.68042	15.00000	Averaged
14 Endrin	177935	167549	0.010	5.83714	15.00000	Averaged
15 4,4'-DDD	151161	172285	0.010	-13.97467	15.00000	Averaged
17 4,4'-DDT	132289	116172	0.010	12.18286	15.00000	Averaged
19 Methoxychlor	60916	56592	0.010	7.09819	15.00000	Averaged
$ 22 Decachlorobiphenyl	175110	180170	0.010	-2.88936	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 6.74286
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Data File: /var/chem/gcsv8.i/2020529.b/SV8018.d
Report Date: 05-Jun-2002 17:37

Gulf Coast Analytical Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv8.i
Lab File ID: SV8018.d
Analysis Type: WATER
Lab Sample ID: IND B III
Method: /var/chem/gcsv8.i/2020529.b/pest2.m

Injection Date: 29-MAY-2002 17:21
Init. Cal. Date(s): 15-APR-2002 16-APR-2002
Init. Cal. Times: 15:08 01:02
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF60	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
5 Aldrin	344739	349845	0.010	-1.48101	15.00000	Averaged	
6 beta-BHC	224070	199557	0.010	10.93989	15.00000	Averaged	
7 delta-BHC	403895	381292	0.010	5.59628	15.00000	Averaged	
8 Heptachlor epoxide	275748	282338	0.010	-2.38985	15.00000	Averaged	
10 gamma-Chlordane	281979	291220	0.010	-3.27722	15.00000	Averaged	
11 alpha-Chlordane	271034	278631	0.010	-2.80280	15.00000	Averaged	
12 4,4'-DDE	231067	242919	0.010	-5.12924	15.00000	Averaged	
16 Endosulfan II	191388	205494	0.010	-7.37039	15.00000	Averaged	
18 Endrin aldehyde	106517	86223	0.010	19.05220	15.00000	Averaged	<-
20 Endosulfan sulfate	170226	184750	0.010	-8.53201	15.00000	Averaged	
21 Endrin ketone	180323	196820	0.010	-9.14892	15.00000	Averaged	

Average %D / Drift Results.

Calculated Average %D/Drift = 6.88362
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Data File: /var/chem/gcsv8.i/2020529.b/SV8023.d
Report Date: 05-Jun-2002 17:38

Gulf Coast Analytical Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv8.i
Lab File ID: SV8023.d
Analysis Type: WATER
Lab Sample ID: IND A III
Method: /var/chem/gcsv8.i/2020529.b/pest2.m

Injection Date: 30-MAY-2002 10:08
Init. Cal. Date(s): 15-APR-2002 16-APR-2002
Init. Cal. Times: 15:08 01:02
Quant Type: ESTD

	COMPOUND	RRF / AMOUNT	RF60	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$	1 Tetrachloro-m-xylene	408319	401415	0.010	1.69069	15.00000	Averaged	
	2 alpha-BHC	497552	516261	0.010	-3.76020	15.00000	Averaged	
	3 gamma-BHC (Lindane)	455147	454289	0.010	0.18845	15.00000	Averaged	
	4 Heptachlor	324865	315592	0.010	2.85439	15.00000	Averaged	
	9 Endosulfan I	233005	260172	0.010	-11.65951	15.00000	Averaged	
	13 Dieldrin	225442	249357	0.010	-10.60791	15.00000	Averaged	
	14 Endrin	177935	171445	0.010	3.64769	15.00000	Averaged	
	15 4,4'-DDD	151161	175781	0.010	-16.28703	15.00000	Averaged	<-
	17 4,4'-DDT	132289	116400	0.010	12.01089	15.00000	Averaged	
	19 Methoxychlor	60916	51246	0.010	15.87383	15.00000	Averaged	<-
$	22 Decachlorobiphenyl	175110	182749	0.010	-4.36208	15.00000	Averaged	

Average %D / Drift Results.

Calculated Average %D/Drift = 7.54024
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Data File: /var/chem/gcsv8.i/2020529.b/SV8024.d
Report Date: 05-Jun-2002 17:38

Gulf Coast Analytical Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv8.i
Lab File ID: SV8024.d
Analysis Type: WATER
Lab Sample ID: IND B III
Method: /var/chem/gcsv8.i/2020529.b/pest2.m

Injection Date: 30-MAY-2002 10:37
Init. Cal. Date(s): 15-APR-2002 16-APR-2002
Init. Cal. Times: 15:08 01:02
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF60	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
5 Aldrin	344739	339259	0.010	1.58977	15.00000	Averaged	
6 beta-BHC	224070	190560	0.010	14.95509	15.00000	Averaged	
7 delta-BHC	403895	362635	0.010	10.21556	15.00000	Averaged	
8 Heptachlor epoxide	275748	267928	0.010	2.83567	15.00000	Averaged	
10 gamma-Chlordane	281979	278797	0.010	1.12866	15.00000	Averaged	
11 alpha-Chlordane	271034	267313	0.010	1.37290	15.00000	Averaged	
12 4,4'-DDE	231067	230374	0.010	0.29967	15.00000	Averaged	
16 Endosulfan II	191388	194184	0.010	-1.46120	15.00000	Averaged	
18 Endrin aldehyde	106517	81954	0.010	23.05959	15.00000	Averaged	<-
20 Endosulfan sulfate	170226	175777	0.010	-3.26052	15.00000	Averaged	
21 Endrin ketone	180323	178238	0.010	1.15626	15.00000	Averaged	

Average %D / Drift Results.

Calculated Average %D/Drift = 5.57590
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Data File: /var/chem/gcsv8.i/2020529.b/SV8029.d
Report Date: 05-Jun-2002 17:38

Gulf Coast Analytical Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv8.i
Lab File ID: SV8029.d
Analysis Type: WATER
Lab Sample ID: IND A III
Method: /var/chem/gcsv8.i/2020529.b/pest2.m

Injection Date: 30-MAY-2002 15:06
Init. Cal. Date(s): 15-APR-2002 16-APR-2002
Init. Cal. Times: 15:08 01:02
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF60	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 1 Tetrachloro-m-xylene	408319	378409	0.010	7.32514	15.00000	Averaged	
2 alpha-BHC	497552	492759	0.010	0.96347	15.00000	Averaged	
3 gamma-BHC (Lindane)	455147	427880	0.010	5.99091	15.00000	Averaged	
4 Heptachlor	324865	324055	0.010	0.24950	15.00000	Averaged	
9 Endosulfan I	233005	246159	0.010	-5.64542	15.00000	Averaged	
13 Dieldrin	225442	237128	0.010	-5.18344	15.00000	Averaged	
14 Endrin	177935	178382	0.010	-0.25126	15.00000	Averaged	
15 4,4'-DDD	151161	176074	0.010	-16.48126	15.00000	Averaged	<-
17 4,4'-DDT	132289	126329	0.010	4.50544	15.00000	Averaged	
19 Methoxychlor	60916	61588	0.010	-1.10411	15.00000	Averaged	
$ 22 Decachlorobiphenyl	175110	178691	0.010	-2.04504	15.00000	Averaged	

Average %D / Drift Results.

Calculated Average %D/Drift = 4.52227
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Gulf Coast Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2002 14:15
End Cal Date : 27-MAY-2002 02:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/gcsv3.i/2020605.b/pest608.m
Cal Date : 05-Jun-2002 16:21 tls
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcsv3.i/2020526.b/SV3022.d
Level 2: /var/chem/gcsv3.i/2020526.b/SV3023.d
Level 3: /var/chem/gcsv3.i/2020526.b/SV3024.d
Level 4: /var/chem/gcsv3.i/2020526.b/SV3026.d
Level 5: /var/chem/gcsv3.i/2020526.b/SV3027.d

	Compound	5.000 Level 1	40.000 Level 2	60.000 Level 3	80.000 Level 4	100.000 Level 5	RRF	% RSD	
	2 alpha-BHC	2858	3763	4671	5128	5494	4383	24.423	<-
	3 gamma-BHC (Lindane)	3015	3804	4473	4867	5173	4266	20.314	<-
	4 Heptachlor	2957	3093	3105	3390	3581	3225	7.869	
	5 Aldrin	2923	3779	4590	4846	5002	4228	20.540	<-
	6 beta-BHC	2393	2563	2608	2641	2668	2575	4.233	
	7 delta-BHC	2510	3386	4114	4367	4520	3779	22.027	<-
	8 Heptachlor epoxide	2899	3412	4004	4169	4316	3760	15.722	
	9 Endosulfan I	2645	2952	3490	3870	4152	3422	18.267	
	10 gamma-Chlordane	3190	3707	4324	4501	4685	4081	15.177	
	11 alpha-Chlordane	3364	3924	4473	4597	4734	4218	13.462	
	12 4,4'-DDE	2808	3760	4298	4377	4478	3944	17.577	
	13 Dieldrin	2387	2999	3462	3758	3978	3317	19.178	
	14 Endrin	2279	2642	2955	3254	3438	2914	16.000	
	15 4,4'-DDD	2077	2311	2576	2752	2882	2519	12.972	
	16 Endosulfan II	2452	3108	3531	3605	3702	3280	15.716	
	17 4,4'-DDT	2196	2211	2263	2567	2715	2390	9.878	
	18 Endrin aldehyde	1338	1595	1434	1883	1785	1607	14.268	
	19 Endosulfan sulfate	2423	2715	3008	3108	3192	2889	10.960	
	20 Methoxychlor	1154	1089	1034	1144	1196	1123	5.599	
	21 Endrin ketone	2366	2965	3283	3304	3388	3061	13.737	
M	23 AR 1016-AVG	1004	980	951	777	744	891	13.612	
	24 AR 1016-PEAK1	121	119	116	87.62375	88.40438	106	15.810	
	25 AR 1016-PEAK2	244	232	221	175	168	208	16.687	
	26 AR 1016-PEAK3	437	428	416	352	331	393	12.266	
	27 AR 1016-PEAK4	201	201	199	162	158	184	12.031	
M	28 AR 1260-AVG	1120	1108	1101	1007	978	1063	6.155	

Gulf Coast Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2002 14:15
End Cal Date : 27-MAY-2002 02:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/gcsv3.i/2020605.b/pest608.m
Cal Date : 05-Jun-2002 16:21 tls
Curve Type : Average

	Compound	5.000 Level 1	40.000 Level 2	60.000 Level 3	80.000 Level 4	100.000 Level 5	___ RRF	% RSD
	29 AR 1260-PEAK1	154	154	154	145	142	150	3.941
	30 AR 1260-PEAK2	260	253	243	209	199	233	11.685
	31 AR 1260-PEAK3	287	280	273	242	230	263	9.563
	32 AR 1260-PEAK4	418	421	430	411	407	417	2.223
M	33 AR 1221-AVG	+++++	+++++	267	+++++	+++++	267	0.000
	34 AR 1221-PEAK1	+++++	+++++	58.65250	+++++	+++++	58.65250	0.000
	35 AR 1221-PEAK2	+++++	+++++	42.05000	+++++	+++++	42.05000	0.000
	36 AR 1221-PEAK3	+++++	+++++	151	+++++	+++++	151	0.000
	37 AR 1221-PEAK4	+++++	+++++	15.14750	+++++	+++++	15.14750	0.000
M	38 AR 1232-AVG	+++++	+++++	560	+++++	+++++	560	0.000
	39 AR 1232-PEAK1	+++++	+++++	152	+++++	+++++	152	0.000
	40 AR 1232-PEAK2	+++++	+++++	109	+++++	+++++	109	0.000
	41 AR 1232-PEAK3	+++++	+++++	201	+++++	+++++	201	0.000
	42 AR 1232-PEAK4	+++++	+++++	97.76000	+++++	+++++	97.76000	0.000
M	43 AR 1242-AVG	+++++	+++++	795	+++++	+++++	795	0.000
	44 AR 1242-PEAK1	+++++	+++++	96.69000	+++++	+++++	96.69000	0.000
	45 AR 1242-PEAK2	+++++	+++++	185	+++++	+++++	185	0.000
	46 AR 1242-PEAK3	+++++	+++++	345	+++++	+++++	345	0.000
	47 AR 1242-PEAK4	+++++	+++++	168	+++++	+++++	168	0.000
M	48 AR 1248-AVG	+++++	+++++	1129	+++++	+++++	1129	0.000
	49 AR 1248-PEAK1	+++++	+++++	209	+++++	+++++	209	0.000
	50 AR 1248-PEAK2	+++++	+++++	334	+++++	+++++	334	0.000
	51 AR 1248-PEAK3	+++++	+++++	206	+++++	+++++	206	0.000
	52 AR 1248-PEAK4	+++++	+++++	379	+++++	+++++	379	0.000
M	53 AR 1254-AVG	+++++	+++++	719	+++++	+++++	719	0.000
	54 AR 1254-PEAK1	+++++	+++++	91.60250	+++++	+++++	91.60250	0.000
	55 AR 1254-PEAK2	+++++	+++++	182	+++++	+++++	182	0.000
	56 AR 1254-PEAK3	+++++	+++++	279	+++++	+++++	279	0.000
	57 AR 1254-PEAK4	+++++	+++++	166	+++++	+++++	166	0.000
M	58 TOXAPHENE-AVG	+++++	+++++	+++++	+++++	398	398	0.000
	59 TOXAPHENE-PEAK1	+++++	+++++	+++++	+++++	86.30400	86.30400	0.000
	60 TOXAPHENE-PEAK2	+++++	+++++	+++++	+++++	87.47960	87.47960	0.000
	61 TOXAPHENE-PEAK3	+++++	+++++	+++++	+++++	98.47960	98.47960	0.000

Gulf Coast Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2002 14:15
End Cal Date : 27-MAY-2002 02:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/gcsv3.i/2020605.b/pest608.m
Cal Date : 05-Jun-2002 16:21 tls
Curve Type : Average

	Compound	5.000 Level 1	40.000 Level 2	60.000 Level 3	80.000 Level 4	100.000 Level 5	___ RRF	% RSD
	62 TOXAPHENE-PEAK4	+++++	+++++	+++++	+++++	125	125	0.000
	63 TOXAPHENE-PEAK5	+++++	+++++	+++++	+++++	131	131	0.000
M	64 CHLORDANE-AVG	+++++	+++++	+++++	+++++	1346	1346	0.000
	65 CHLORDANE-PEAK1	+++++	+++++	+++++	+++++	124	124	0.000
	66 CHLORDANE-PEAK2	+++++	+++++	+++++	+++++	200	200	0.000
	67 CHLORDANE-PEAK3	+++++	+++++	+++++	+++++	408	408	0.000
	68 CHLORDANE-PEAK4	+++++	+++++	+++++	+++++	613	613	0.000
	69 CHLORDANE-PEAK5	+++++	+++++	+++++	+++++	167	167	0.000
$	1 Tetrachloro-m-xylene	4200	4361	4425	4610	4789	4477	5.097
$	22 Decachlorobiphenyl	3374	3998	3584	3743	3828	3705	6.425

Gulf Coast Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2002 14:15
End Cal Date : 27-MAY-2002 02:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/gcsv3.i/2020605.b/pest608.m
Cal Date : 05-Jun-2002 16:21 tls
Curve Type : Average

```
|Average %RSD Results.                                |
|=====================================================|
|Calculated Average %RSD = 12.9191989                 |
|Maximun Average %RSD    =         20                 |
|* Passed Average %RSD Test.                          |
|_____________________________________________________|
```

Gulf Coast Analytical Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv3.i
Lab File ID: SV3006.d
Analysis Type: WATER
Lab Sample ID:
Method: /var/chem/gcsv3.i/2020605.b/pest608.m

Injection Date: 05-JUN-2002 13:05
Init. Cal. Date(s): 26-MAY-2002 27-MAY-2002
Init. Cal. Times: 14:15 02:39
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF60	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
2 alpha-BHC	4383	5412	0.010	-23.49106	15.00000	Averaged	<-
3 gamma-BHC (Lindane)	4266	5194	0.010	-21.74600	15.00000	Averaged	<-
4 Heptachlor	3225	3625	0.010	-12.39461	15.00000	Averaged	
9 Endosulfan I	3422	3562	0.010	-4.09303	15.00000	Averaged	
13 Dieldrin	3317	3701	0.010	-11.57433	15.00000	Averaged	
14 Endrin	2914	3200	0.010	-9.82903	15.00000	Averaged	
15 4,4'-DDD	2519	2746	0.010	-8.99751	15.00000	Averaged	
17 4,4'-DDT	2390	2190	0.010	8.38407	15.00000	Averaged	
20 Methoxychlor	1123	1149	0.010	-2.32674	15.00000	Averaged	
$ 1 Tetrachloro-m-xylene	4477	4884	0.010	-9.08279	15.00000	Averaged	
$ 22 Decachlorobiphenyl	3705	3767	0.010	-1.66882	15.00000	Averaged	

Average %D / Drift Results.

Calculated Average %D/Drift = 10.32618
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Gulf Coast Analytical Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv3.i Injection Date: 05-JUN-2002 18:07
Lab File ID: SV3011.d Init. Cal. Date(s): 26-MAY-2002 27-MAY-2002
Analysis Type: WATER Init. Cal. Times: 14:15 02:39
Lab Sample ID: IND B III Quant Type: ESTD
Method: /var/chem/gcsv3.i/2020605.b/pest608.m

COMPOUND	RRF / AMOUNT	RF60	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
5 Aldrin	4228	4086	0.010	3.35369	15.00000	Averaged	
6 beta-BHC	2575	2389	0.010	7.20992	15.00000	Averaged	
7 delta-BHC	3779	3885	0.010	-2.78845	15.00000	Averaged	
8 Heptachlor epoxide	3760	3722	0.010	0.99394	15.00000	Averaged	
10 gamma-Chlordane	4081	3751	0.010	8.09727	15.00000	Averaged	
11 alpha-Chlordane	4218	3979	0.010	5.67248	15.00000	Averaged	
12 4,4'-DDE	3944	3724	0.010	5.57289	15.00000	Averaged	
16 Endosulfan II	3280	3082	0.010	6.02032	15.00000	Averaged	
18 Endrin aldehyde	1607	1008	0.010	37.28328	15.00000	Averaged	<-
19 Endosulfan sulfate	2889	2747	0.010	4.91560	15.00000	Averaged	
21 Endrin ketone	3061	2942	0.010	3.89496	15.00000	Averaged	

Average %D / Drift Results.

Calculated Average %D/Drift = 7.80025
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
41637	Method Blank	Solid	5/30/02 16:58

SW-846 8081A

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/28/02 09:30	132808	3540C	1	5/29/02 10:52	TLS	132817

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
72-54-8	4,4'-DDD	ND	4.00		ug/Kg
72-55-9	4,4'-DDE	ND	4.00		ug/Kg
50-29-3	4,4'-DDT	ND	4.00		ug/Kg
309-00-2	Aldrin	ND	2.00		ug/Kg
60-57-1	Dieldrin	ND	4.00		ug/Kg
959-98-8	Endosulfan I	ND	2.00		ug/Kg
33213-65-	Endosulfan II	ND	4.00		ug/Kg
1031-07-8	Endosulfan sulfate	ND	4.00		ug/Kg
72-20-8	Endrin	ND	4.00		ug/Kg
7421-93-4	Endrin aldehyde	ND	4.00		ug/Kg
53494-70-	Endrin ketone	ND	4.00		ug/Kg
76-44-8	Heptachlor	ND	2.00		ug/Kg
1024-57-3	Heptachlor epoxide	ND	2.00		ug/Kg
72-43-5	Methoxychlor	ND	20.0		ug/Kg
8001-35-2	Toxaphene	ND	200		ug/Kg
319-84-6	alpha-BHC	ND	2.00		ug/Kg
5103-71-9	alpha-Chlordane	ND	2.00		ug/Kg
319-85-7	beta-BHC	ND	4.00		ug/Kg
319-86-8	delta-BHC	ND	2.00		ug/Kg
58-89-9	gamma-BHC (Lindane)	ND	2.00		ug/Kg
5103-74-2	gamma-Chlordane	ND	2.00		ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
877-09-8	Tetrachloro-m-xylene	16.7	19.9 ug/Kg	119	60 - 150
2051-24-3	Decachlorobiphenyl	16.7	25 ug/Kg	150	60 - 150

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
41638	Lab Control Sample	Solid	5/30/02 16:58

SW-846 8081A

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/28/02 09:30	132808	3540C	1	5/29/02 11:22	TLS	132817

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
72-54-8	**4,4'-DDD**	**19.2**	**4.00**		**ug/Kg**
72-55-9	**4,4'-DDE**	**19.3**	**4.00**		**ug/Kg**
50-29-3	**4,4'-DDT**	**12.8**	**4.00**		**ug/Kg**
309-00-2	**Aldrin**	**15.0**	**2.00**		**ug/Kg**
60-57-1	**Dieldrin**	**15.0**	**4.00**		**ug/Kg**
959-98-8	**Endosulfan I**	**14.1**	**2.00**		**ug/Kg**
33213-65-	**Endosulfan II**	**15.2**	**4.00**		**ug/Kg**
1031-07-8	**Endosulfan sulfate**	**16.9**	**4.00**		**ug/Kg**
72-20-8	**Endrin**	**17.5**	**4.00**		**ug/Kg**
7421-93-4	**Endrin aldehyde**	**21.9**	**4.00**		**ug/Kg**
53494-70-	**Endrin ketone**	**18.1**	**4.00**		**ug/Kg**
76-44-8	**Heptachlor**	**14.3**	**2.00**		**ug/Kg**
1024-57-3	**Heptachlor epoxide**	**15.5**	**2.00**		**ug/Kg**
72-43-5	Methoxychlor	13.3J	20.0		ug/Kg
8001-35-2	Toxaphene	ND	200		ug/Kg
319-84-6	**alpha-BHC**	**14.8**	**2.00**		**ug/Kg**
5103-71-9	**alpha-Chlordane**	**17.4**	**2.00**		**ug/Kg**
319-85-7	**beta-BHC**	**14.9**	**4.00**		**ug/Kg**
319-86-8	**delta-BHC**	**15.2**	**2.00**		**ug/Kg**
58-89-9	**gamma-BHC (Lindane)**	**13.1**	**2.00**		**ug/Kg**
5103-74-2	**gamma-Chlordane**	**15.5**	**2.00**		**ug/Kg**

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
877-09-8	**Tetrachloro-m-xylene**	16.7	14.8 ug/Kg	89	60 - 150
2051-24-3	**Decachlorobiphenyl**	16.7	19.7 ug/Kg	118	60 - 150

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: GCAL Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Level:(low/med)

	EPA SAMPLE NO.	S1 (TCX)#	S2 (DCB)#	S3 #	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	41641	120	150							0
02	41642	102	123							0
03	211-S COMP	104	147							0
04	212-S COMP	93	118							0
05	41643	76	156*							1
06	41644	90	132							0
07										
08										
09										
10										
11										
12										
13										
14										
15										
16										
17										
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19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

		QC LIMITS	
S1 (TCX)	= Tetrachloro-m-xylene	(60-150)	
S2 (DCB)	= Decachlorobiphenyl	(60-150)	(advisory)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

QUALITY CONTROL SUMMARY

LCS ID: 41642	ORIGINAL LAB ID:	PREP BATCH: 132809
	MATRIX Solid	ANALYTICAL BATCH: 132816

SW-846 8082

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
12674-11-2	Aroclor-1016	133 ug/Kg	115	86	60 - 127
11096-82-5	Aroclor-1260	133 ug/Kg	134	101	61 - 132

MS LAB ID: 41643	ORIGINAL LAB ID: 20205242102	PREP BATCH: 132809
	MATRIX Solid	ANALYTICAL BATCH: 132816

SW-846 8082

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
12674-11-2	Aroclor-1016	0	133 ug/Kg	93.5	70	60 - 127
11096-82-5	Aroclor-1260	0	133 ug/Kg	159	119	61 - 132

MSD LAB ID: 41644	ORIGINAL LAB ID: 20205242102	PREP BATCH: 132809
	MATRIX Solid	ANALYTICAL BATCH: 132816

SW-846 8082

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
12674-11-2	Aroclor-1016	133 ug/Kg	111	83	60 - 127	17	0 - 40
11096-82-5	Aroclor-1260	133 ug/Kg	155	116	61 - 132	3	0 - 40

LCS ID: 41638	ORIGINAL LAB ID:	PREP BATCH: 132808
	MATRIX Solid	ANALYTICAL BATCH: 132817

SW-846 8081A

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
319-84-6	alpha-BHC	16.7 ug/Kg	14.8	89	37 - 134
319-85-7	beta-BHC	16.7 ug/Kg	14.9	89	17 - 147
319-86-8	delta-BHC	16.7 ug/Kg	15.2	91	19 - 140
1024-57-3	Heptachlor epoxide	16.7 ug/Kg	15.5	93	37 - 142
959-98-8	Endosulfan I	16.7 ug/Kg	14.1	85	45 - 153
72-55-9	4,4'-DDE	16.7 ug/Kg	19.3	116	30 - 145
33213-65-9	Endosulfan II	16.7 ug/Kg	15.2	91	0 - 202
72-54-8	4,4'-DDD	16.7 ug/Kg	19.2	115	31 - 141
1031-07-8	Endosulfan sulfate	16.7 ug/Kg	16.9	101	26 - 144
72-43-5	Methoxychlor	16.7 ug/Kg	13.3	80	26 - 144
53494-70-5	Endrin ketone	16.7 ug/Kg	18.1	109	26 - 144
7421-93-4	Endrin aldehyde	16.7 ug/Kg	21.9	131	0 - 202
5103-71-9	alpha-Chlordane	16.7 ug/Kg	17.4	104	45 - 119
5103-74-2	gamma-Chlordane	16.7 ug/Kg	15.5	93	45 - 119
58-89-9	gamma-BHC (Lindane)	16.7 ug/Kg	13.1	79	46 - 127
76-44-8	Heptachlor	16.7 ug/Kg	14.3	86	35 - 130
309-00-2	Aldrin	16.7 ug/Kg	15	90	35 - 132
60-57-1	Dieldrin	16.7 ug/Kg	15	90	31 - 134

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242101	005-211-S-0522-02 COMP	Solid	5/22/02 09:30	5/23/02 09:15	6/6/02 09:46

8082, PCBs, Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/28/02 09:30	132809	3540C	1	5/29/02 13:50	TLS	132816

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
12674-11-2	Aroclor-1016	ND	55.3	18.5	ug/Kg
11104-28-2	Aroclor-1221	ND	55.3	18.5	ug/Kg
11141-16-5	Aroclor-1232	ND	55.3	18.5	ug/Kg
53469-21-9	Aroclor-1242	ND	55.3	13.0	ug/Kg
12672-29-6	Aroclor-1248	ND	55.3	13.0	ug/Kg
11097-69-1	Aroclor-1254	ND	55.3	13.0	ug/Kg
11096-82-5	Aroclor-1260	ND	55.3	13.0	ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
877-09-8	Tetrachloro-m-xylene	16.7	17.4 ug/Kg	104	60 - 150
2051-24-3	Decachlorobiphenyl	16.7	24.5 ug/Kg	147	60 - 150

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242102	005-212-S-0522-02 COMP	Solid	5/22/02 09:55	5/23/02 09:15	6/6/02 09:46

8082, PCBs, Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/28/02 09:30	132809	3540C	1	5/29/02 15:19	TLS	132816

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
12674-11-2	Aroclor-1016	ND	54.0	18.1	ug/Kg
11104-28-2	Aroclor-1221	ND	54.0	18.1	ug/Kg
11141-16-5	Aroclor-1232	ND	54.0	18.1	ug/Kg
53469-21-9	Aroclor-1242	ND	54.0	12.7	ug/Kg
12672-29-6	Aroclor-1248	ND	54.0	12.7	ug/Kg
11097-69-1	Aroclor-1254	ND	54.0	12.7	ug/Kg
11096-82-5	Aroclor-1260	ND	54.0	12.7	ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
877-09-8	Tetrachloro-m-xylene	16.7	15.5 ug/Kg	93	60 - 150
2051-24-3	Decachlorobiphenyl	16.7	19.7 ug/Kg	118	60 - 150

RESULTS REPORTED ON A DRY WEIGHT BASIS

Report Date : 05-Jun-2002 17:27

Gulf Coast Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 15-APR-2002 15:08
End Cal Date : 16-APR-2002 01:02
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/gcsv8.i/2020415.b/pest2.m
Cal Date : 05-Jun-2002 17:27 tnt
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcsv8.i/2020415.b/SV8020.d
Level 2: /var/chem/gcsv8.i/2020415.b/SV8021.d
Level 3: /var/chem/gcsv8.i/2020415.b/SV8022.d
Level 4: /var/chem/gcsv8.i/2020415.b/SV8023.d
Level 5: /var/chem/gcsv8.i/2020415.b/SV8024.d

	Compound	5.000 Level 1	40.000 Level 2	60.000 Level 3	80.000 Level 4	100.000 Level 5	RRF	% RSD	
	2 alpha-BHC	551362	520705	495590	457263	462842	497552	7.953	
	3 gamma-BHC (Lindane)	520615	478599	445051	411533	419937	455147	9.875	
	4 Heptachlor	359405	353629	312396	296331	302565	324865	9.089	
	5 Aldrin	371742	378310	332830	341958	298856	344739	9.299	
	6 beta-BHC	297007	246325	198578	200986	177456	224070	21.369	<-
	7 delta-BHC	469771	441391	377434	388376	342504	403895	12.658	
	8 Heptachlor epoxide	300874	300374	266114	272456	238921	275748	9.418	
	9 Endosulfan I	243760	237461	232050	221319	230435	233005	3.588	
	10 gamma-Chlordane	303463	307051	274564	279481	245338	281979	8.855	
	11 alpha-Chlordane	297528	297118	260209	266971	233347	271034	9.997	
	12 4,4'-DDE	239566	255343	226356	232439	201630	231067	8.525	
	13 Dieldrin	236655	229405	227454	213167	220529	225442	3.969	
	14 Endrin	186168	181325	178110	168265	175808	177935	3.742	
	15 4,4'-DDD	158058	151807	150539	143467	151934	151161	3.440	
	16 Endosulfan II	200036	211041	183831	194165	167866	191388	8.582	
	17 4,4'-DDT	123276	129123	134701	130806	143539	132289	5.680	
	18 Endrin aldehyde	116658	118703	91990	109284	95948	106517	11.322	
	19 Methoxychlor	61238	60527	60002	58811	64002	60916	3.184	
	20 Endosulfan sulfate	178732	184700	167346	171571	148783	170226	8.054	
	21 Endrin ketone	193309	195833	176057	180174	156241	180323	8.801	
M	23 AR 1016-AVG	75920	66946	56727	52875	45930	59680	19.837	
	24 AR 1016-PEAK1	9599	7705	7443	7008	5981	7547	17.515	
	25 AR 1016-PEAK2	20356	16838	14522	13515	11345	15315	22.466	<-
	26 AR 1016-PEAK3	33840	31326	25160	24039	20556	26984	20.228	<-
	27 AR 1016-PEAK4	12126	11077	9602	8314	8048	9833	17.870	
M	28 AR 1260-AVG	65841	60095	53815	55214	49551	56903	10.993	

Report Date : 05-Jun-2002 17:27

Gulf Coast Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 15-APR-2002 15:08
End Cal Date : 16-APR-2002 01:02
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/gcsv8.i/2020415.b/pest2.m
Cal Date : 05-Jun-2002 17:27 tnt
Curve Type : Average

	Compound	5.000 Level 1	40.000 Level 2	60.000 Level 3	80.000 Level 4	100.000 Level 5	___ RRF	% RSD
	29 AR 1260-PEAK1	8881	8287	7194	7254	6353	7594	13.088
	30 AR 1260-PEAK2	14768	12951	12038	12029	10510	12459	12.519
	31 AR 1260-PEAK3	15565	13932	12558	12614	10947	13123	13.161
	32 AR 1260-PEAK4	26628	24925	22025	23317	21741	23727	8.652
M	33 AR 1260-AVGII	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	34 AR 1260-PEAK5	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	35 AR 1260-PEAK6	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	36 AR 1260-PEAK7	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M	37 AR 1221-AVG	+++++	+++++	18819	+++++	+++++	18819	0.000
	38 AR 1221-PEAK1	+++++	+++++	740	+++++	+++++	740	0.000
	39 AR 1221-PEAK2	+++++	+++++	5036	+++++	+++++	5036	0.000
	40 AR 1221-PEAK3	+++++	+++++	3209	+++++	+++++	3209	0.000
	41 AR 1221-PEAK4	+++++	+++++	9835	+++++	+++++	9835	0.000
M	42 AR 1232-AVG	+++++	+++++	35439	+++++	+++++	35439	0.000
	43 AR 1232-PEAK1	+++++	+++++	3986	+++++	+++++	3986	0.000
	44 AR 1232-PEAK2	+++++	+++++	9402	+++++	+++++	9402	0.000
	45 AR 1232-PEAK3	+++++	+++++	8391	+++++	+++++	8391	0.000
	46 AR 1232-PEAK4	+++++	+++++	13661	+++++	+++++	13661	0.000
M	47 AR 1242-AVG	+++++	+++++	46488	+++++	+++++	46488	0.000
	48 AR 1242-PEAK1	+++++	+++++	6095	+++++	+++++	6095	0.000
	49 AR 1242-PEAK2	+++++	+++++	12205	+++++	+++++	12205	0.000
	50 AR 1242-PEAK3	+++++	+++++	21180	+++++	+++++	21180	0.000
	51 AR 1242-PEAK4	+++++	+++++	7008	+++++	+++++	7008	0.000
M	52 AR 1248-AVG	+++++	+++++	48811	+++++	+++++	48811	0.000
	53 AR 1248-PEAK1	+++++	+++++	14286	+++++	+++++	14286	0.000
	54 AR 1248-PEAK2	+++++	+++++	11034	+++++	+++++	11034	0.000
	55 AR 1248-PEAK3	+++++	+++++	13540	+++++	+++++	13540	0.000
	56 AR 1248-PEAK4	+++++	+++++	9951	+++++	+++++	9951	0.000
M	57 AR 1254-AVG	+++++	+++++	28114	+++++	+++++	28114	0.000
	58 AR 1254-PEAK1	+++++	+++++	4058	+++++	+++++	4058	0.000
	59 AR 1254-PEAK2	+++++	+++++	3741	+++++	+++++	3741	0.000
	60 AR 1254-PEAK3	+++++	+++++	6572	+++++	+++++	6572	0.000
	61 AR 1254-PEAK4	+++++	+++++	13743	+++++	+++++	13743	0.000

Report Date : 05-Jun-2002 17:27

Gulf Coast Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 15-APR-2002 15:08
End Cal Date : 16-APR-2002 01:02
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/gcsv8.i/2020415.b/pest2.m
Cal Date : 05-Jun-2002 17:27 tnt
Curve Type : Average

	Compound	5.000 Level 1	40.000 Level 2	60.000 Level 3	80.000 Level 4	100.000 Level 5	___ RRF	% RSD
M	62 TOXAPHENE-AVG	+++++	+++++	+++++	+++++	24809	24809	0.000
	63 TOXAPHENE-PEAK1	+++++	+++++	+++++	+++++	2679	2679	0.000
	64 TOXAPHENE-PEAK2	+++++	+++++	+++++	+++++	7852	7852	0.000
	65 TOXAPHENE-PEAK3	+++++	+++++	+++++	+++++	8171	8171	0.000
	66 TOXAPHENE-PEAK4	+++++	+++++	+++++	+++++	6106	6106	0.000
	67 TOXAPHENE-PEAK5	+++++	+++++	+++++	+++++	4739	4739	0.000
M	68 CHLORDANE-AVG	+++++	+++++	+++++	+++++	111445	111445	0.000
	69 CHLORDANE-PEAK1	+++++	+++++	+++++	+++++	14037	14037	0.000
	70 CHLORDANE-PEAK2	+++++	+++++	+++++	+++++	19810	19810	0.000
	71 CHLORDANE-PEAK3	+++++	+++++	+++++	+++++	44601	44601	0.000
	72 CHLORDANE-PEAK4	+++++	+++++	+++++	+++++	23631	23631	0.000
	73 CHLORDANE-PEAK5	+++++	+++++	+++++	+++++	9366	9366	0.000
M	74 AR 1268-AVG	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	75 AR 1268-PEAK1	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	76 AR 1268-PEAK2	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	77 AR 1268-PEAK3	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	78 AR 1268 PEAK4	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$	1 Tetrachloro-m-xylene	524650	436820	383809	347578	348735	408319	18.239
$	22 Decachlorobiphenyl	212341	184638	162885	154357	161329	175110	13.535

Report Date : 05-Jun-2002 17:27

Gulf Coast Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date	: 15-APR-2002 15:08
End Cal Date	: 16-APR-2002 01:02
Quant Method	: ESTD
Origin	: Disabled
Target Version	: 3.50
Integrator	: Falcon
Method file	: /var/chem/gcsv8.i/2020415.b/pest2.m
Cal Date	: 05-Jun-2002 17:27 tnt
Curve Type	: Average

```
|Average %RSD Results.                                |
|=====================================================|
|Calculated Average %RSD = 11.1094856                 |
|Maximun Average %RSD    =         20                 |
|* Passed Average %RSD Test.                          |
|_____________________________________________________|
```

Data File: /var/chem/gcsv8.i/2020529.b/SV8004.d
Report Date: 05-Jun-2002 17:37

Gulf Coast Analytical Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv8.i
Lab File ID: SV8004.d
Analysis Type: WATER
Lab Sample ID: 1016/1260
Method: /var/chem/gcsv8.i/2020529.b/pest2.m

Injection Date: 29-MAY-2002 10:04
Init. Cal. Date(s): 15-APR-2002 16-APR-2002
Init. Cal. Times: 15:08 01:02
Quant Type: ESTD

	COMPOUND	RRF / AMOUNT	RF60	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	23 AR 1016-AVG	59680	51542	0.010	13.63594	15.00000	Averaged	
	24 AR 1016-PEAK1	7547	6539	0.010	13.36144	15.00000	Averaged	
	25 AR 1016-PEAK2	15315	13881	0.010	9.36188	15.00000	Averaged	
	26 AR 1016-PEAK3	26984	22818	0.010	15.43827	15.00000	Averaged	<-
	27 AR 1016-PEAK4	9833	8303	0.010	15.55754	15.00000	Averaged	<-
M	28 AR 1260-AVG	56903	55956	0.010	1.66420	15.00000	Averaged	
	29 AR 1260-PEAK1	7594	6990	0.010	7.95700	15.00000	Averaged	
	30 AR 1260-PEAK2	12459	12141	0.010	2.55185	15.00000	Averaged	
	31 AR 1260-PEAK3	13123	13935	0.010	-6.18936	15.00000	Averaged	
	32 AR 1260-PEAK4	23727	22890	0.010	3.52782	15.00000	Averaged	

Average %D / Drift Results.

Calculated Average %D/Drift = 8.92453
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Data File: /var/chem/gcsv8.i/2020529.b/SV8009.d
Report Date: 05-Jun-2002 17:37

Gulf Coast Analytical Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv8.i
Lab File ID: SV8009.d
Analysis Type: WATER
Lab Sample ID: 1016/1260
Method: /var/chem/gcsv8.i/2020529.b/pest2.m

Injection Date: 29-MAY-2002 12:51
Init. Cal. Date(s): 15-APR-2002 16-APR-2002
Init. Cal. Times: 15:08 01:02
Quant Type: ESTD

	COMPOUND	RRF / AMOUNT	RF60	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	23 AR 1016-AVG	59680	50325	0.010	15.67414	15.00000	Averaged	<-
	24 AR 1016-PEAK1	7547	6040	0.010	19.97172	15.00000	Averaged	<-
	25 AR 1016-PEAK2	15315	13146	0.010	14.16536	15.00000	Averaged	
	26 AR 1016-PEAK3	26984	22778	0.010	15.58746	15.00000	Averaged	<-
	27 AR 1016-PEAK4	9833	8362	0.010	14.96354	15.00000	Averaged	
M	28 AR 1260-AVG	56903	51448	0.010	9.58747	15.00000	Averaged	
	29 AR 1260-PEAK1	7594	6608	0.010	12.98423	15.00000	Averaged	
	30 AR 1260-PEAK2	12459	10914	0.010	12.39959	15.00000	Averaged	
	31 AR 1260-PEAK3	13123	11403	0.010	13.10514	15.00000	Averaged	
	32 AR 1260-PEAK4	23727	22522	0.010	5.07809	15.00000	Averaged	

Average %D / Drift Results.

Calculated Average %D/Drift = 13.35167
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Data File: /var/chem/gcsv8.i/2020529.b/SV8020.d
Report Date: 05-Jun-2002 17:38

Gulf Coast Analytical Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv8.i
Lab File ID: SV8020.d
Analysis Type: WATER
Lab Sample ID: 1016/1260
Method: /var/chem/gcsv8.i/2020529.b/pest2.m

Injection Date: 29-MAY-2002 18:20
Init. Cal. Date(s): 15-APR-2002 16-APR-2002
Init. Cal. Times: 15:08 01:02
Quant Type: ESTD

	COMPOUND	RRF / AMOUNT	RF60	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
M	23 AR 1016-AVG	59680	58427	0.010	2.09851	15.00000	Averaged
	24 AR 1016-PEAK1	7547	7495	0.010	0.68278	15.00000	Averaged
	25 AR 1016-PEAK2	15315	14659	0.010	4.28765	15.00000	Averaged
	26 AR 1016-PEAK3	26984	26560	0.010	1.57035	15.00000	Averaged
	27 AR 1016-PEAK4	9833	9713	0.010	1.22486	15.00000	Averaged
M	28 AR 1260-AVG	56903	63402	0.010	-11.42020	15.00000	Averaged
	29 AR 1260-PEAK1	7594	7987	0.010	-5.17109	15.00000	Averaged
	30 AR 1260-PEAK2	12459	13772	0.010	-10.53798	15.00000	Averaged
	31 AR 1260-PEAK3	13123	14515	0.010	-10.60469	15.00000	Averaged
	32 AR 1260-PEAK4	23727	27128	0.010	-14.33453	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 6.19327
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Data File: /var/chem/gcsv8.i/2020529.b/SV8025.d
Report Date: 05-Jun-2002 17:38

Gulf Coast Analytical Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv8.i
Lab File ID: SV8025.d
Analysis Type: WATER
Lab Sample ID: 1016/1260
Method: /var/chem/gcsv8.i/2020529.b/pest2.m

Injection Date: 30-MAY-2002 11:43
Init. Cal. Date(s): 15-APR-2002 16-APR-2002
Init. Cal. Times: 15:08 01:02
Quant Type: ESTD

	COMPOUND	RRF / AMOUNT	RF60	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	23 AR 1016-AVG	59680	50958	0.010	14.61408	15.00000	Averaged	
	24 AR 1016-PEAK1	7547	6999	0.010	7.26517	15.00000	Averaged	
	25 AR 1016-PEAK2	15315	13461	0.010	12.10623	15.00000	Averaged	
	26 AR 1016-PEAK3	26984	22214	0.010	17.67792	15.00000	Averaged	<-
	27 AR 1016-PEAK4	9833	8284	0.010	15.75259	15.00000	Averaged	<-
M	28 AR 1260-AVG	56903	51427	0.010	9.62420	15.00000	Averaged	
	29 AR 1260-PEAK1	7594	6748	0.010	11.13796	15.00000	Averaged	
	30 AR 1260-PEAK2	12459	10803	0.010	13.28902	15.00000	Averaged	
	31 AR 1260-PEAK3	13123	11217	0.010	14.52486	15.00000	Averaged	
	32 AR 1260-PEAK4	23727	22658	0.010	4.50483	15.00000	Averaged	

Average %D / Drift Results.

Calculated Average %D/Drift = 12.04969
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
41641	Method Blank	Solid	5/30/02 11:49

SW-846 8082

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/28/02 09:30	132809	3540C	1	5/29/02 10:52	TLS	132816

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
12674-11-	Aroclor-1016	ND	40.0		ug/Kg
11104-28-	Aroclor-1221	ND	40.0		ug/Kg
11141-16-	Aroclor-1232	ND	40.0		ug/Kg
53469-21-	Aroclor-1242	ND	40.0		ug/Kg
12672-29-	Aroclor-1248	ND	40.0		ug/Kg
11097-69-	Aroclor-1254	ND	40.0		ug/Kg
11096-82-	Aroclor-1260	ND	40.0		ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
877-09-8	Tetrachloro-m-xylene	16.7	19.9 ug/Kg	119	60 - 150
2051-24-3	Decachlorobiphenyl	16.7	25 ug/Kg	150	60 - 150

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
41642	Lab Control Sample	Solid	5/30/02 11:49

SW-846 8082

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/28/02 09:30	132809	3540C	1	5/29/02 11:52	TLS	132816

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
12674-11-	**Aroclor-1016**	**115**	**40.0**		**ug/Kg**
11104-28-	Aroclor-1221	ND	40.0		ug/Kg
11141-16-	Aroclor-1232	ND	40.0		ug/Kg
53469-21-	Aroclor-1242	ND	40.0		ug/Kg
12672-29-	Aroclor-1248	ND	40.0		ug/Kg
11097-69-	Aroclor-1254	ND	40.0		ug/Kg
11096-82-	**Aroclor-1260**	**134**	**40.0**		**ug/Kg**

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
877-09-8	**Tetrachloro-m-xylene**	16.7	16.9 ug/Kg	101	60 - 150
2051-24-3	**Decachlorobiphenyl**	16.7	20.5 ug/Kg	123	60 - 150

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: GCAL Contract:

Lab Code: Case No.: 202052421 SAS No.: SDG No.: 202052421

Level:(low/med)

	EPA SAMPLE NO.	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	41668	34*	44							1
02	41669	56	45							0
03	211-S-COMP	61	71							0
04	212-S COMP	66	77							0
05	41670	52	51							0
06	41671	58	89							0
07										
08										
09										
10										
11										
12										
13										
14										
15										
16										
17										
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21										
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23										
24										
25										
26										
27										
28										
29										
30										

		QC LIMITS
S1	= O-TERPHENYL	(50-150)
S2	= Nonatriacontane	(40-150)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

QUALITY CONTROL SUMMARY

5103-71-9	alpha-Chlordane	16.7 ug/Kg	159	-564 *	45 - 119	-22 *	0 - 40
5103-74-2	gamma-Chlordane	16.7 ug/Kg	344	138 *	45 - 119	-908 *	0 - 40
58-89-9	gamma-BHC (Lindane)	16.7 ug/Kg	19.7	118	46 - 127	13	0 - 40
76-44-8	Heptachlor	16.7 ug/Kg	22	132 *	35 - 130	16	0 - 40
309-00-2	Aldrin	16.7 ug/Kg	25.9	155 *	35 - 132	18	0 - 40
60-57-1	Dieldrin	16.7 ug/Kg	32	192 *	31 - 134	23	0 - 40
72-20-8	Endrin	16.7 ug/Kg	63.4	380 *	42 - 139	16	0 - 40
50-29-3	4,4'-DDT	16.7 ug/Kg	27.5	165 *	23 - 134	9	0 - 40

LCS ID: 41669 ORIGINAL LAB ID: PREP BATCH: 132821
MATRIX Solid ANALYTICAL BATCH: 133110

Florida PRO

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
FLPRO-01	Petroleum Hydrocarbons	68000 ug/Kg	39500	58	50 - 150

MS LAB ID: 41670 ORIGINAL LAB ID: 20205242102 PREP BATCH: 132821
MATRIX Solid ANALYTICAL BATCH: 133110

Florida PRO

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
FLPRO-01	Petroleum Hydrocarbons	345	68000 ug/Kg	39700	58	50 - 150

MSD LAB ID: 41671 ORIGINAL LAB ID: 20205242102 PREP BATCH: 132821
MATRIX Solid ANALYTICAL BATCH: 133110

Florida PRO

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
FLPRO-01	Petroleum Hydrocarbons	68000 ug/Kg	48700	71	50 - 150	20	0 - 40

LCS ID: 41964 ORIGINAL LAB ID: PREP BATCH: 133308
MATRIX Solid ANALYTICAL BATCH: 133310

SW-846 8151A

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
94-75-7	2,4'-D	66.7 ug/Kg	53.8	81	10 - 126
93-76-5	2,4,5-T	66.7 ug/Kg	57.8	87	32 - 130
93-72-1	2,4,5-TP (Silvex)	66.7 ug/Kg	60.6	91	34 - 124

MS LAB ID: 41965 ORIGINAL LAB ID: 20205242102 PREP BATCH: 133308
MATRIX Solid ANALYTICAL BATCH: 133310

SW-846 8151A

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
94-75-7	2,4'-D	0	66.7 ug/Kg	36.3	54	10 - 126
93-76-5	2,4,5-T	0	66.7 ug/Kg	47	71	32 - 130
93-72-1	2,4,5-TP (Silvex)	0	66.7 ug/Kg	43.6	65	34 - 124

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242101	005-211-S-0522-02 COMP	Solid	5/22/02 09:30	5/23/02 09:15	6/6/02 09:46

Florida PRO

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/29/02 10:00	132821	Florida PRO	1	5/29/02 13:50	TNT	133110

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
FLPRO-01	Petroleum Hydrocarbons	ND	11100	6910	ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
84-15-1	o-Terphenyl	4000	2450 ug/Kg	61	50 - 150
7194-86-7	Nonatriacontane	24000	17100 ug/Kg	71	40 - 150

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242102	005-212-S-0522-02 COMP	Solid	5/22/02 09:55	5/23/02 09:15	6/6/02 09:46

Florida PRO

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/29/02 10:00	132821	Florida PRO	1	5/29/02 14:45	TNT	133110

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
FLPRO-01	Petroleum Hydrocarbons	ND	10800	6750	ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
84-15-1	o-Terphenyl	4000	2640 ug/Kg	66	50 - 150
7194-86-7	Nonatriacontane	24000	18500 ug/Kg	77	40 - 150

RESULTS REPORTED ON A DRY WEIGHT BASIS

Gulf Coast Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 25-APR-2002 09:17
End Cal Date : 25-APR-2002 13:07
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /var/chem/gcsv2ad.i/2020515.b/flprosur.m
Cal Date : 15-May-2002 10:05 tls
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcsv2ad.i/2020425.b/SV2ad003s.d
Level 2: /var/chem/gcsv2ad.i/2020425.b/SV2ad002s.d
Level 3: /var/chem/gcsv2ad.i/2020425.b/SV2ad004s.d
Level 4: /var/chem/gcsv2ad.i/2020425.b/SV2ad005s.d
Level 6: /var/chem/gcsv2ad.i/2020425.b/SV2ad006s.d

Compound	5.000 Level 1	50.000 Level 2	150.000 Level 3	250.000 Level 4	500.000 Level 6	RRF	% RSD
1 C-8	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 C-10	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 C-12	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 C-14	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 C-16	+++++	+++++	+++++	+++++	+++++	+++++	+++++
6 C-18	+++++	+++++	+++++	+++++	+++++	+++++	+++++
8 C-20	+++++	+++++	+++++	+++++	+++++	+++++	+++++
9 C-22	+++++	+++++	+++++	+++++	+++++	+++++	+++++
10 C-24	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11 C-26	+++++	+++++	+++++	+++++	+++++	+++++	+++++
12 C-28	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 C-30	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 C-32	+++++	+++++	+++++	+++++	+++++	+++++	+++++
15 C-34	+++++	+++++	+++++	+++++	+++++	+++++	+++++
16 C-36	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17 C-38	+++++	+++++	+++++	+++++	+++++	+++++	+++++
19 C-40	+++++	+++++	+++++	+++++	+++++	+++++	+++++
20 Total PRO	305008	359383	301362	286435	259930	302424	12.052
$ 7 O-TERPHENYL	657233	835587	692726	676855	637643	700009	11.223
$ 18 Nonatriacontane	10277	9198	10127	9261	10075	9787	5.266

Gulf Coast Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 25-APR-2002 09:17
End Cal Date : 25-APR-2002 13:07
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /var/chem/gcsv2ad.i/2020515.b/flprosur.m
Cal Date : 15-May-2002 10:05 tls
Curve Type : Average

```
|Average %RSD Results.                                |
|=====================================================|
|Calculated Average %RSD = 8.24476909                 |
|Maximun Average %RSD    =         20                 |
|* Passed Average %RSD Test.                          |
|_____________________________________________________|
```

Gulf Coast Analytical Services

Data file : /var/chem/gcsv2ad.i/2020529.b/SV2ad001.d
Lab Smp Id: 50 PPM CCV
Inj Date : 29-MAY-2002 08:45
Operator : tls Inst ID: gcsv2ad.i
Smp Info : 50 PPM CCV
Misc Info :
Comment :
Method : /var/chem/gcsv2ad.i/2020529.b/flpro.m
Meth Date : 29-May-2002 09:30 tls Quant Type: ESTD
Cal Date : 25-APR-2002 13:07 Cal File: SV2ad006.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PRO.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * (Uf * Vt)/(Vo * Vi)*1000 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
20 Total PRO	14.460	6.788	7.672	258211461	853.807	1707.6137(M)

QC Flag Legend

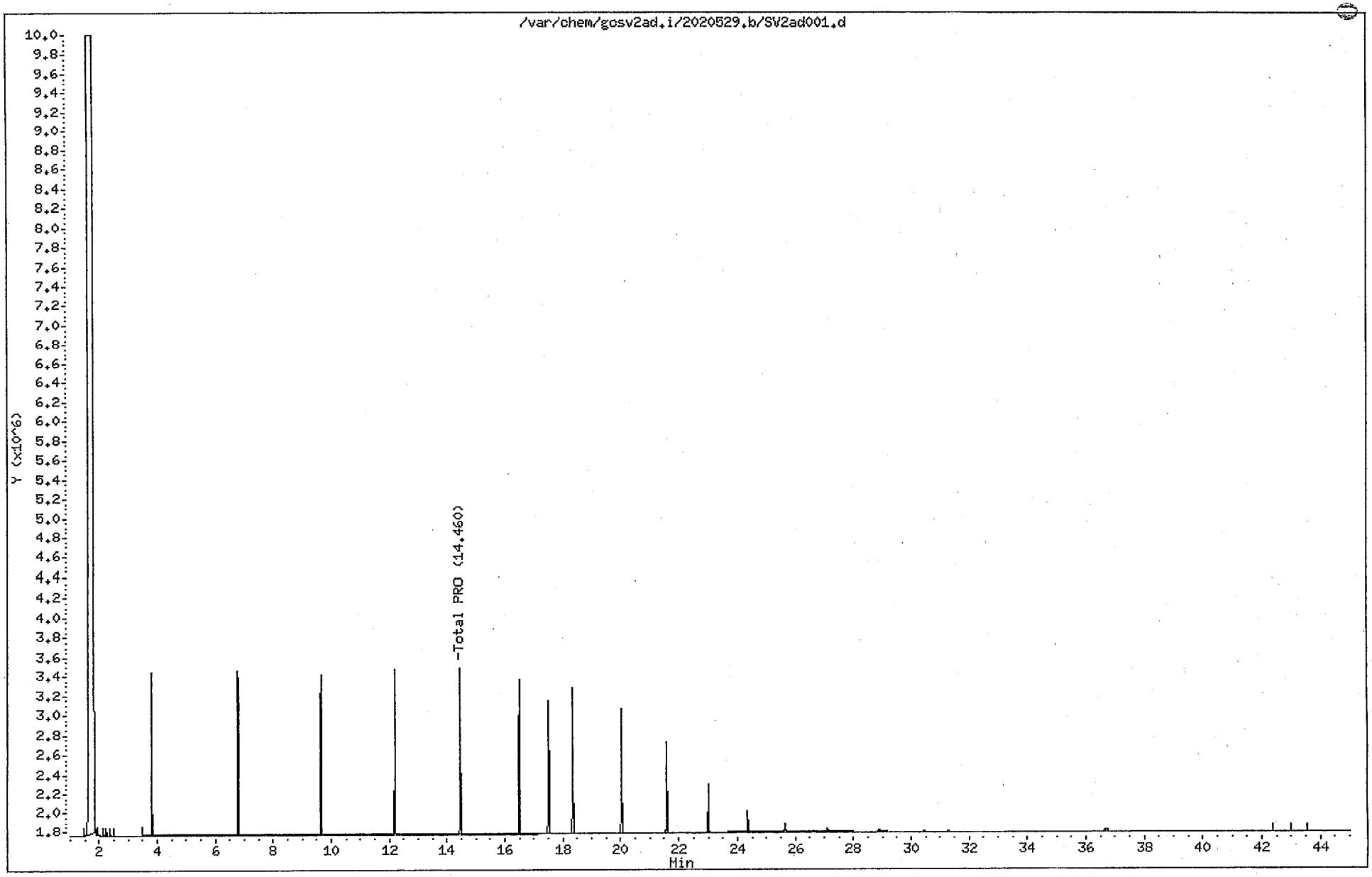
M - Compound response manually integrated.

$\frac{258,211,461 - 28,104,873}{850}$

$\frac{270,713 - 302424}{302424} \cdot 100 = 10\%$

Data File: /var/chem/gcsv2ad.i/2020529.b/SV2ad001.d
Date : 29-MAY-2002 08:45
Client ID:
Sample Info: 50 PPM CCV
Volume Injected (uL): 1.0
Column phase: DB-1

Instrument: gcsv2ad.i
Operator: tls
Column diameter: 0.53



000145

Gulf Coast Analytical Services

Data file : /var/chem/gcsv2ad.i/2020529.b/SV2ad001s.d
Lab Smp Id: 50 PPM CCV
Inj Date : 29-MAY-2002 08:45
Operator : tls Inst ID: gcsv2ad.i
Smp Info : 50 PPM CCV
Misc Info :
Comment :
Method : /var/chem/gcsv2ad.i/2020529.b/flprosur.m
Meth Date : 29-May-2002 09:38 Quant Type: ESTD
Cal Date : 25-APR-2002 10:15 Cal File: SV2ad003s.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: flsurr.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * (Uf * Vt)/(Vo * Vi)*1000 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

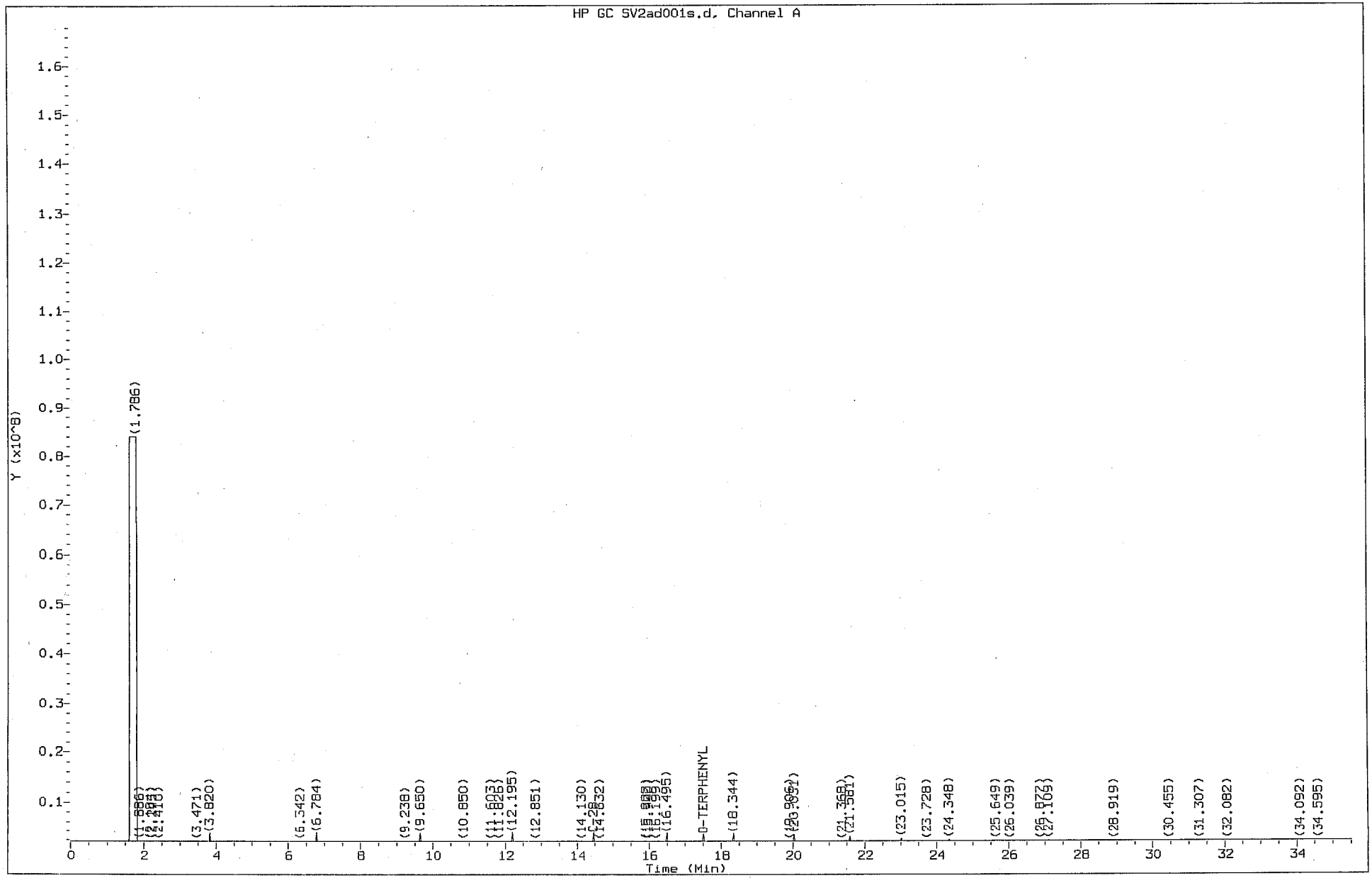
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
$ 7 O-TERPHENYL	17.506	17.536	-0.030	26456655	37.7948	75.5895
$ 18 Nonatriacontane	36.712	36.815	-0.103	1648218	168.402	336.8032

28,104,873

Data File: /var/chem/gcsv2ad.i/2020529.b/SV2ad001s.d
Date: 29-MAY-2002 08:45
Client Id:
Sample Info: 50 PPM CCV
Volume Injected (uL): 1
Column phase: DB-1

Instrument: gcsv2ad.i
Operator: tls
Column diameter: 0.53



000147

Gulf Coast Analytical Services

Data file : /var/chem/gcsv2ad.i/2020529.b/SV2ad009.d
Lab Smp Id: 50 PPM CCV
Inj Date : 29-MAY-2002 17:32
Operator : tls Inst ID: gcsv2ad.i
Smp Info : 50 PPM CCV
Misc Info :
Comment :
Method : /var/chem/gcsv2ad.i/2020529.b/flpro.m
Meth Date : 29-May-2002 09:30 tls Quant Type: ESTD
Cal Date : 25-APR-2002 13:07 Cal File: SV2ad006.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PRO.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * (Uf * Vt)/(Vo * Vi)*1000 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
20 Total PRO	14.452	6.788	7.664	253684159	838.837	1677.6736(M)

QC Flag Legend

M - Compound response manually integrated.

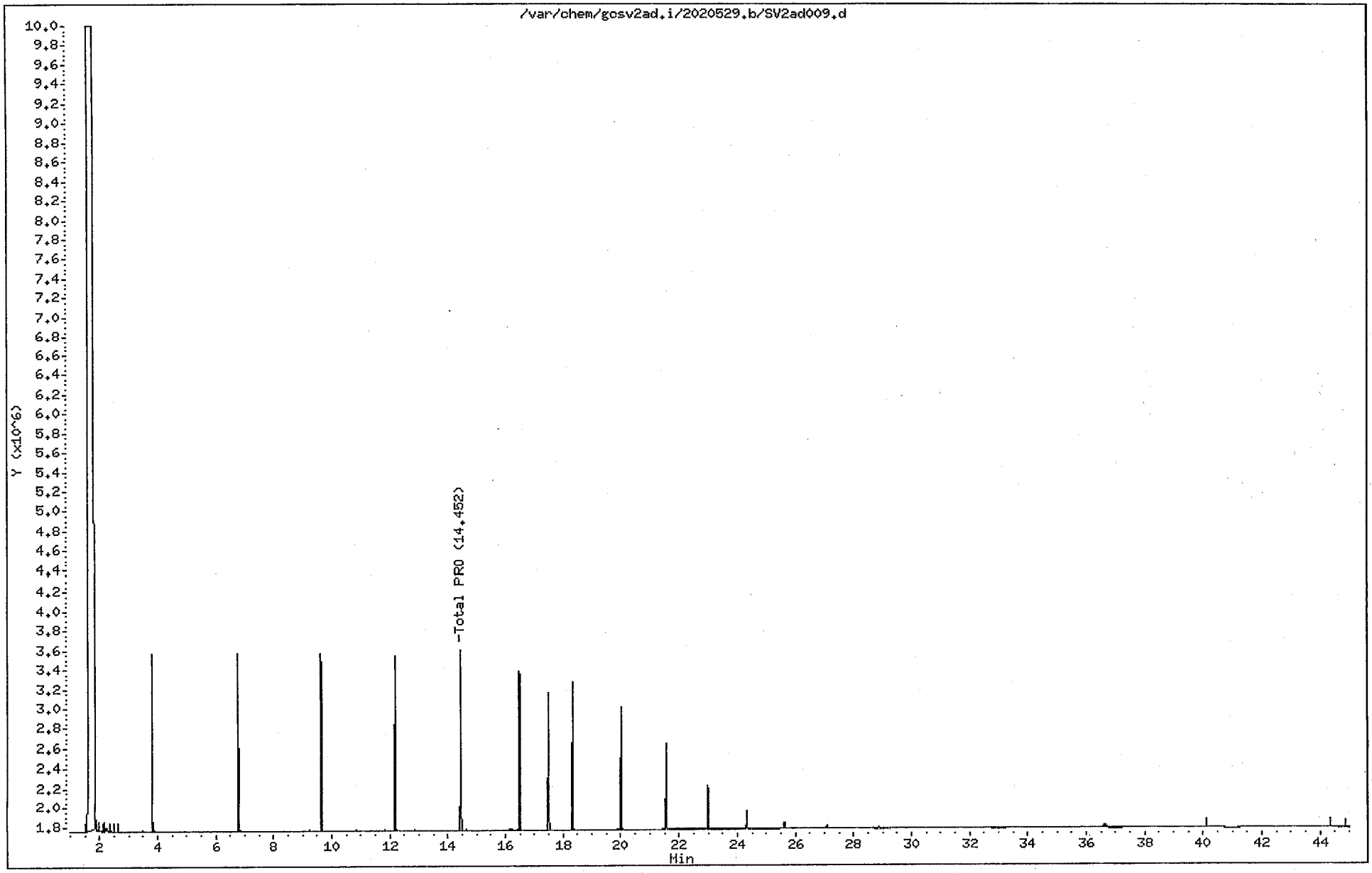
$\frac{253,684,159 - 28,899,396}{850}$

$\frac{264452 - 302424}{302424} \cdot 100 = 12\%$

000149

Data File: /var/chem/gcsv2ad.i/2020529.b/SV2ad009.d
Date : 29-MAY-2002 17:32
Client ID:
Sample Info: 50 PPM CCV
Volume Injected (uL): 1.0
Column phase: DB-1

Instrument: gcsv2ad.i
Operator: tls
Column diameter: 0.53



Gulf Coast Analytical Services

Data file : /var/chem/gcsv2ad.i/2020529.b/SV2ad009s.d
Lab Smp Id: 50 PPM CCV
Inj Date : 29-MAY-2002 17:32
Operator : tls Inst ID: gcsv2ad.i
Smp Info : 50 PPM CCV
Misc Info :
Comment :
Method : /var/chem/gcsv2ad.i/2020529.b/flprosur.m
Meth Date : 29-May-2002 09:38 Quant Type: ESTD
Cal Date : 25-APR-2002 10:15 Cal File: SV2ad003s.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: flsurr.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * (Uf * Vt)/(Vo * Vi)*1000 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

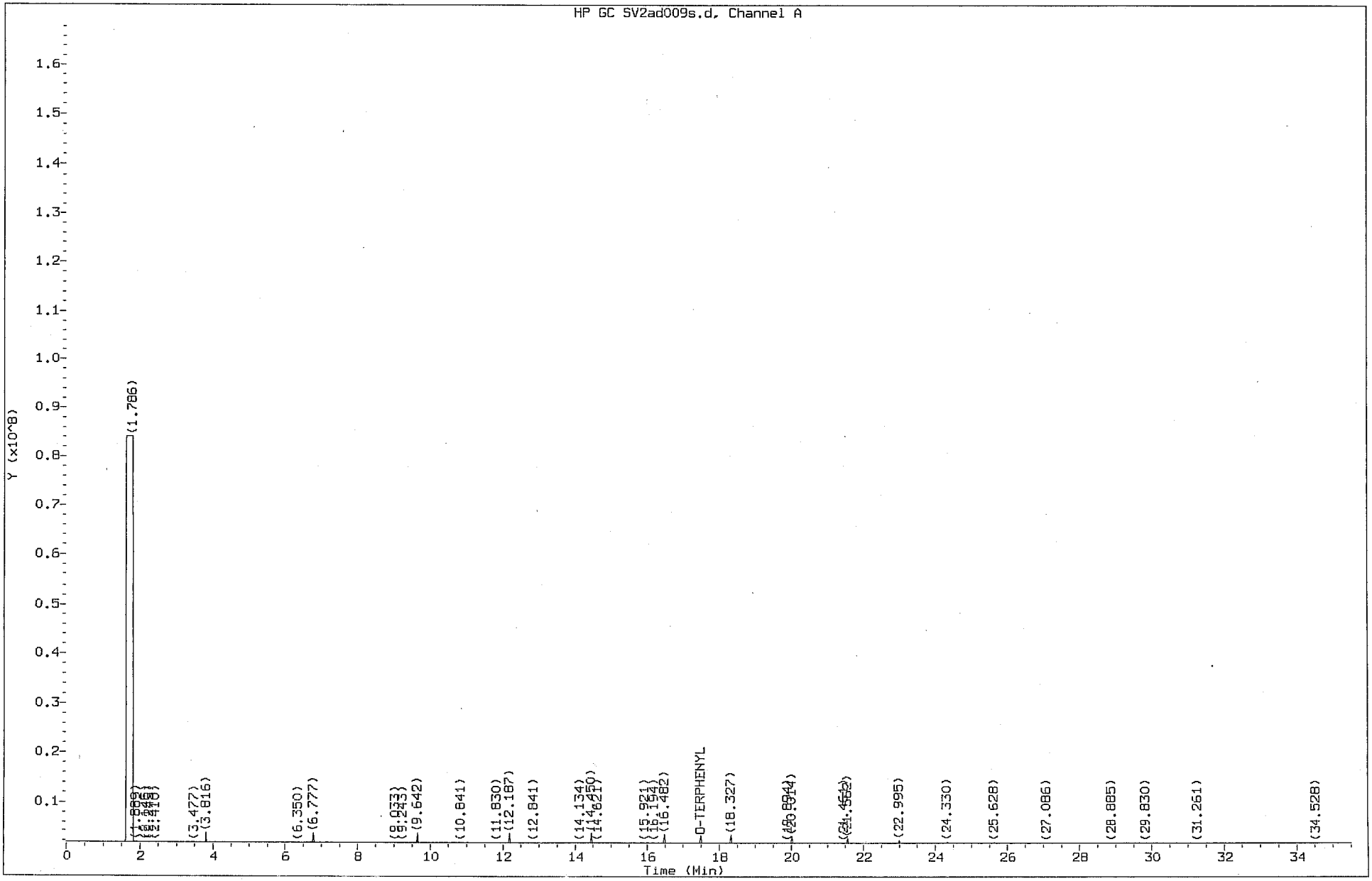
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
$ 7 O-TERPHENYL	17.491	17.536	-0.045	26987008	38.5524	77.1047
$ 18 Nonatriacontane	36.630	36.815	-0.185	1912388	195.392	390.7847

28899396

Data File: /var/chem/gcsv2ad.i/2020529.b/SV2ad009s.d
Date: 29-MAY-2002 17:32
Client Id:
Sample Info: 50 PPM CCV
Volume Injected (uL): 1
Column phase: DB-1

Instrument: gcsv2ad.i
Operator: tls
Column diameter: 0.53



000151

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
41668	Method Blank	Solid	5/30/02 12:31

Florida PRO

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/29/02 10:00	132821	Florida PRO	1	5/29/02 11:59	TNT	133110

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
FLPRO-01	Petroleum Hydrocarbons	ND	8000		ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
84-15-1	o-Terphenyl	4000	1380 ug/Kg	35 *	50 - 150
7194-86-7	Nonatriacontane	24000	10500 ug/Kg	44	40 - 150

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
41669	Lab Control Sample	Solid	5/30/02 12:31

Florida PRO

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/29/02 10:00	132821	Florida PRO	1	5/29/02 11:59	TNT	133110

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
FLPRO-01	**Petroleum Hydrocarbons**	**39500**	**8000**		**ug/Kg**

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
84-15-1	**o-Terphenyl**	4000	2240 ug/Kg	56	50 - 150
7194-86-7	**Nonatriacontane**	24000	10900 ug/Kg	45	40 - 150

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242101	005-211-S-0522-02 COMP	Solid	5/22/02 09:30	5/23/02 09:15	6/6/02 09:46

Mercury 7471A

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/28/02 14:00	132604	SW-846 7471	1	5/29/02 15:57	JAC	133008

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
7439-97-6	Mercury	0.098	0.014	0.0014	mg/kg

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242101	005-211-S-0522-02 COMP	Solid	5/22/02 09:30	5/23/02 09:15	6/6/02 09:46

SW-846 6010 - Solid - ICP

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/28/02 14:00	132603	3010A	1	5/29/02 16:54	JAC	132823

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
7429-90-5	**Aluminum**	**921**	**11.1**	**0.86**	**mg/kg**
7440-36-0	Antimony	1.44B	3.32	0.22	mg/kg
7440-38-2	**Arsenic**	**3.06**	**2.21**	**0.21**	**mg/kg**
7440-39-3	**Barium**	**6.85**	**0.55**	**0.014**	**mg/kg**
7440-41-7	Beryllium	0.037B	0.28	0.0069	mg/kg
7440-43-9	**Cadmium**	**0.28**	**0.28**	**0.0097**	**mg/kg**
7440-70-2	**Calcium**	**4420**	**2.76**	**0.91**	**mg/kg**
7440-47-3	**Chromium**	**3.03**	**0.55**	**0.022**	**mg/kg**
7440-48-4	Cobalt	0.045B	0.55	0.023	mg/kg
7440-50-8	**Copper**	**6.06**	**0.55**	**0.14**	**mg/kg**
7439-89-6	**Iron**	**377**	**2.76**	**0.55**	**mg/kg**
7439-92-1	**Lead**	**8.30**	**0.83**	**0.069**	**mg/kg**
7439-95-4	**Magnesium**	**54.1**	**2.76**	**0.85**	**mg/kg**
7439-96-5	**Manganese**	**5.70**	**0.83**	**0.014**	**mg/kg**
7440-02-0	Nickel	0.72B	2.21	0.070	mg/kg
7440-09-7	**Potassium**	**18.5**	**11.1**	**2.11**	**mg/kg**
7782-49-2	Selenium	ND	2.21	0.28	mg/kg
7440-22-4	**Silver**	**0.71**	**0.55**	**0.025**	**mg/kg**
7440-23-5	Sodium	ND	55.3	5.53	mg/kg
7440-28-0	Thallium	ND	1.11	0.098	mg/kg
7440-62-2	**Vanadium**	**1.14**	**1.11**	**0.043**	**mg/kg**
7440-66-6	**Zinc**	**17.4**	**1.11**	**0.50**	**mg/kg**

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242102	005-212-S-0522-02 COMP	Solid	5/22/02 09:55	5/23/02 09:15	6/6/02 09:46

Mercury 7471A

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/28/02 14:00	132604	SW-846 7471	1	5/29/02 16:04	JAC	133008

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
7439-97-6	Mercury	0.027	0.013	0.0013	mg/kg

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242102	005-212-S-0522-02 COMP	Solid	5/22/02 09:55	5/23/02 09:15	6/6/02 09:46

SW-846 6010 - Solid - ICP

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
5/28/02 14:00	132603	3010A	1	5/29/02 17:36	JAC	132823

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
7429-90-5	**Aluminum**	**2140**	**10.8**	**0.84**	**mg/kg**
7440-36-0	Antimony	ND	3.24	0.22	mg/kg
7440-38-2	**Arsenic**	**7.19**	**2.16**	**0.21**	**mg/kg**
7440-39-3	**Barium**	**10.1**	**0.54**	**0.013**	**mg/kg**
7440-41-7	Beryllium	0.12B	0.27	0.0067	mg/kg
7440-43-9	Cadmium	0.045B	0.27	0.0094	mg/kg
7440-70-2	**Calcium**	**13500**	**2.70**	**0.89**	**mg/kg**
7440-47-3	**Chromium**	**3.46**	**0.54**	**0.022**	**mg/kg**
7440-48-4	Cobalt	0.077B	0.54	0.023	mg/kg
7440-50-8	**Copper**	**1.85**	**0.54**	**0.13**	**mg/kg**
7439-89-6	**Iron**	**562**	**2.70**	**0.53**	**mg/kg**
7439-92-1	**Lead**	**5.71**	**0.81**	**0.067**	**mg/kg**
7439-95-4	**Magnesium**	**382**	**2.70**	**0.83**	**mg/kg**
7439-96-5	**Manganese**	**28.4**	**0.81**	**0.013**	**mg/kg**
7440-02-0	Nickel	0.67B	2.16	0.069	mg/kg
7440-09-7	**Potassium**	**78.7**	**10.8**	**2.06**	**mg/kg**
7782-49-2	Selenium	ND	2.16	0.27	mg/kg
7440-22-4	**Silver**	**0.73**	**0.54**	**0.024**	**mg/kg**
7440-23-5	Sodium	ND	54.0	5.40	mg/kg
7440-28-0	Thallium	ND	1.08	0.096	mg/kg
7440-62-2	**Vanadium**	**2.34**	**1.08**	**0.042**	**mg/kg**
7440-66-6	**Zinc**	**7.43**	**1.08**	**0.49**	**mg/kg**

RESULTS REPORTED ON A DRY WEIGHT BASIS

U.S. EPA - CLP
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Calibration Source: 100-50-4
Instrument ID: ICP5 ICAL ID: 2
Date Analyzed: 05/29/02 Time: 0946

INITIAL CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Antimony	1.00	1.00	100	mg/L	SW-846 6010B	P
Arsenic	1.00	1.04	104	mg/L	SW-846 6010B	P
Beryllium	1.00	1.01	101	mg/L	SW-846 6010B	P
Cadmium	1.00	1.01	101	mg/L	SW-846 6010B	P
Calcium	1.00	0.98	98	mg/L	SW-846 6010B	P
Chromium	1.00	1.02	102	mg/L	SW-846 6010B	P
Cobalt	1.00	1.02	102	mg/L	SW-846 6010B	P
Copper	1.00	0.97	97	mg/L	SW-846 6010B	P
Iron	1.00	0.99	99	mg/L	SW-846 6010B	P
Lead	1.00	1.02	102	mg/L	SW-846 6010B	P
Magnesium	1.00	0.97	97	mg/L	SW-846 6010B	P
Manganese	1.00	1.02	102	mg/L	SW-846 6010B	P
Molybdenum	1.00	1.02	102	mg/L	SW-846 6010B	P
Nickel	1.00	1.02	102	mg/L	SW-846 6010B	P
Selenium	1.00	1.01	101	mg/L	SW-846 6010B	P
Silver	1.00	1.04	104	mg/L	SW-846 6010B	P
Thallium	1.00	1.02	102	mg/L	SW-846 6010B	P
Titanium	1.00	1.01	101	mg/L	SW-846 6010B	P
Vanadium	1.00	1.00	100	mg/L	SW-846 6010B	P
Zinc	1.00	0.99	99	mg/L	SW-846 6010B	P

ICV CONTROL LIMITS EPA 6010B = 90-100 EPA 200.7 = 95-105

U.S. EPA - CLP
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Calibration Source: 100-40-1
Instrument ID: ICP5 ICAL ID: 2
Date Analyzed: 05/29/02 Time: 0953

INITIAL CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	10.0	10.1	101	mg/L	SW-846 6010B	P
Barium	1.00	0.99	99	mg/L	SW-846 6010B	P
Boron	5.00	4.80	96	mg/L	SW-846 6010B	P
Potassium	10.0	9.86	99	mg/L	SW-846 6010B	P
Sodium	10.0	9.53	95	mg/L	SW-846 6010B	P
Tin	1.00	0.98	98	mg/L	SW-846 6010B	P
Zirconium	1.00	0.95	95	mg/L	SW-846 6010B	P

ICV CONTROL LIMITS EPA 6010B = 90-100 EPA 200.7 = 95-105

U.S. EPA - CLP
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Calibration Source: 1-1-1
Instrument ID: ICP5 ICAL ID: 2
Date Analyzed: 05/29/02 Time: 1021

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Aluminum	5.00	5.30	106	mg/L	SW-846 6010B	P
Arsenic	0.50	0.52	103	mg/L	SW-846 6010B	P
Barium	0.50	0.49	99	mg/L	SW-846 6010B	P
Beryllium	0.50	0.50	100	mg/L	SW-846 6010B	P
Cadmium	0.50	0.50	100	mg/L	SW-846 6010B	P
Calcium	5.00	5.15	103	mg/L	SW-846 6010B	P
Chromium	0.50	0.50	99	mg/L	SW-846 6010B	P
Cobalt	0.50	0.50	99	mg/L	SW-846 6010B	P
Copper	0.50	0.49	98	mg/L	SW-846 6010B	P
Iron	5.00	5.40	108	mg/L	SW-846 6010B	P
Lead	0.50	0.51	102	mg/L	SW-846 6010B	P
Magnesium	5.00	5.31	106	mg/L	SW-846 6010B	P
Manganese	0.50	0.50	99	mg/L	SW-846 6010B	P
Nickel	0.50	0.50	100	mg/L	SW-846 6010B	P
Potassium	10.0	9.81	98	mg/L	SW-846 6010B	P
Selenium	0.50	0.50	100	mg/L	SW-846 6010B	P
Silver	0.50	0.50	99	mg/L	SW-846 6010B	P
Sodium	20.0	20.1	100	mg/L	SW-846 6010B	P
Thallium	0.50	0.50	99	mg/L	SW-846 6010B	P
Vanadium	0.50	0.49	98	mg/L	SW-846 6010B	P
Zinc	0.50	0.49	98	mg/L	SW-846 6010B	P

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-100 EPA 7470/7471 AND 7XXX = 80-120

U.S. EPA - CLP
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Calibration Source: 1-1-1
Instrument ID: ICP5 ICAL ID: 2
Date Analyzed: 05/29/02 Time: 1028

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Antimony	0.50	0.50	100	mg/L	SW-846 6010B	P
Boron	2.50	2.48	99	mg/L	SW-846 6010B	P
Molybdenum	0.50	0.50	100	mg/L	SW-846 6010B	P
Tin	0.50	0.49	99	mg/L	SW-846 6010B	P
Titanium	0.50	0.49	98	mg/L	SW-846 6010B	P
Zirconium	0.50	0.49	99	mg/L	SW-846 6010B	P

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-100 EPA 7470/7471 AND 7XXX = 80-120

U.S. EPA - CLP
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Calibration Source: 1-1-1
Instrument ID: ICP5 ICAL ID: 2
Date Analyzed: 05/29/02 Time: 1133

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Aluminum	5.00	5.02	100	mg/L	SW-846 6010B	P
Arsenic	0.50	0.51	103	mg/L	SW-846 6010B	P
Barium	0.50	0.48	96	mg/L	SW-846 6010B	P
Beryllium	0.50	0.50	100	mg/L	SW-846 6010B	P
Cadmium	0.50	0.49	98	mg/L	SW-846 6010B	P
Calcium	5.00	4.93	99	mg/L	SW-846 6010B	P
Chromium	0.50	0.49	97	mg/L	SW-846 6010B	P
Cobalt	0.50	0.49	97	mg/L	SW-846 6010B	P
Copper	0.50	0.47	95	mg/L	SW-846 6010B	P
Iron	5.00	5.06	101	mg/L	SW-846 6010B	P
Lead	0.50	0.50	100	mg/L	SW-846 6010B	P
Magnesium	5.00	5.02	100	mg/L	SW-846 6010B	P
Manganese	0.50	0.49	99	mg/L	SW-846 6010B	P
Nickel	0.50	0.49	98	mg/L	SW-846 6010B	P
Potassium	10.0	10.1	101	mg/L	SW-846 6010B	P
Selenium	0.50	0.50	100	mg/L	SW-846 6010B	P
Silver	0.50	0.49	98	mg/L	SW-846 6010B	P
Sodium	20.0	19.8	99	mg/L	SW-846 6010B	P
Thallium	0.50	0.49	99	mg/L	SW-846 6010B	P
Vanadium	0.50	0.48	96	mg/L	SW-846 6010B	P
Zinc	0.50	0.48	96	mg/L	SW-846 6010B	P

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-100 EPA 7470/7471 AND 7XXX = 80-120

U.S. EPA - CLP

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL

Contract:

Lab Code: LA024 Case No.:

SAS No.: SDG No.: 202052421

Calibration Source: 1-1-1

Instrument ID: ICP5 ICAL ID: 2

Date Analyzed: 05/29/02 Time: 1141

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Antimony	0.50	0.49	98	mg/L	SW-846 6010B	P
Boron	2.50	2.48	99	mg/L	SW-846 6010B	P
Molybdenum	0.50	0.50	99	mg/L	SW-846 6010B	P
Tin	0.50	0.49	98	mg/L	SW-846 6010B	P
Titanium	0.50	0.49	99	mg/L	SW-846 6010B	P
Zirconium	0.50	0.49	98	mg/L	SW-846 6010B	P

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-100 EPA 7470/7471 AND 7XXX = 80-120

U.S. EPA - CLP
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Calibration Source: 1-1-1
Instrument ID: ICP5 ICAL ID: 2
Date Analyzed: 05/29/02 Time: 1309

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Aluminum	5.00	4.98	100	mg/L	SW-846 6010B	P
Arsenic	0.50	0.51	103	mg/L	SW-846 6010B	P
Barium	0.50	0.49	99	mg/L	SW-846 6010B	P
Beryllium	0.50	0.50	100	mg/L	SW-846 6010B	P
Cadmium	0.50	0.49	99	mg/L	SW-846 6010B	P
Calcium	5.00	4.83	97	mg/L	SW-846 6010B	P
Chromium	0.50	0.50	99	mg/L	SW-846 6010B	P
Cobalt	0.50	0.50	99	mg/L	SW-846 6010B	P
Copper	0.50	0.49	98	mg/L	SW-846 6010B	P
Iron	5.00	4.96	99	mg/L	SW-846 6010B	P
Lead	0.50	0.50	101	mg/L	SW-846 6010B	P
Magnesium	5.00	4.96	99	mg/L	SW-846 6010B	P
Manganese	0.50	0.50	100	mg/L	SW-846 6010B	P
Nickel	0.50	0.50	100	mg/L	SW-846 6010B	P
Potassium	10.0	10.2	102	mg/L	SW-846 6010B	P
Selenium	0.50	0.50	100	mg/L	SW-846 6010B	P
Silver	0.50	0.50	99	mg/L	SW-846 6010B	P
Sodium	20.0	20.0	100	mg/L	SW-846 6010B	P
Thallium	0.50	0.50	100	mg/L	SW-846 6010B	P
Vanadium	0.50	0.49	98	mg/L	SW-846 6010B	P
Zinc	0.50	0.49	97	mg/L	SW-846 6010B	P

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-100 EPA 7470/7471 AND 7XXX = 80-120

U.S. EPA - CLP
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Calibration Source: 1-1-1
Instrument ID: ICP5 ICAL ID: 2
Date Analyzed: 05/29/02 Time: 1317

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Antimony	0.50	0.49	98	mg/L	SW-846 6010B	P
Boron	2.50	2.52	101	mg/L	SW-846 6010B	P
Molybdenum	0.50	0.49	98	mg/L	SW-846 6010B	P
Tin	0.50	0.49	98	mg/L	SW-846 6010B	P
Titanium	0.50	0.49	99	mg/L	SW-846 6010B	P
Zirconium	0.50	0.49	99	mg/L	SW-846 6010B	P

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-100 EPA 7470/7471 AND 7XXX = 80-120

U.S. EPA - CLP
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Calibration Source: 1-1-1
Instrument ID: ICP5 ICAL ID: 2
Date Analyzed: 05/29/02 Time: 1445

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Aluminum	5.00	4.86	97	mg/L	SW-846 6010B	P
Arsenic	0.50	0.51	102	mg/L	SW-846 6010B	P
Barium	0.50	0.48	97	mg/L	SW-846 6010B	P
Beryllium	0.50	0.50	100	mg/L	SW-846 6010B	P
Cadmium	0.50	0.48	97	mg/L	SW-846 6010B	P
Calcium	5.00	4.74	95	mg/L	SW-846 6010B	P
Chromium	0.50	0.49	98	mg/L	SW-846 6010B	P
Cobalt	0.50	0.49	97	mg/L	SW-846 6010B	P
Copper	0.50	0.48	97	mg/L	SW-846 6010B	P
Iron	5.00	4.86	97	mg/L	SW-846 6010B	P
Lead	0.50	0.50	100	mg/L	SW-846 6010B	P
Magnesium	5.00	4.85	97	mg/L	SW-846 6010B	P
Manganese	0.50	0.50	100	mg/L	SW-846 6010B	P
Nickel	0.50	0.49	98	mg/L	SW-846 6010B	P
Potassium	10.0	10.2	102	mg/L	SW-846 6010B	P
Selenium	0.50	0.50	100	mg/L	SW-846 6010B	P
Silver	0.50	0.49	98	mg/L	SW-846 6010B	P
Sodium	20.0	19.7	98	mg/L	SW-846 6010B	P
Thallium	0.50	0.49	99	mg/L	SW-846 6010B	P
Vanadium	0.50	0.48	97	mg/L	SW-846 6010B	P
Zinc	0.50	0.48	95	mg/L	SW-846 6010B	P

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-100 EPA 7470/7471 AND 7XXX = 80-120

U.S. EPA - CLP
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Calibration Source: 1-1-1
Instrument ID: ICP5 ICAL ID: 2
Date Analyzed: 05/29/02 Time: 1452

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Antimony	0.50	0.49	98	mg/L	SW-846 6010B	P
Boron	2.50	2.45	98	mg/L	SW-846 6010B	P
Molybdenum	0.50	0.49	98	mg/L	SW-846 6010B	P
Tin	0.50	0.49	97	mg/L	SW-846 6010B	P
Titanium	0.50	0.49	99	mg/L	SW-846 6010B	P
Zirconium	0.50	0.48	97	mg/L	SW-846 6010B	P

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-100 EPA 7470/7471 AND 7XXX = 80-120

U.S. EPA - CLP
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Calibration Source: 1-1-1
Instrument ID: ICP5 ICAL ID: 2
Date Analyzed: 05/29/02 Time: 1617

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Aluminum	5.00	4.97	99	mg/L	SW-846 6010B	P
Arsenic	0.50	0.51	103	mg/L	SW-846 6010B	P
Barium	0.50	0.49	98	mg/L	SW-846 6010B	P
Beryllium	0.50	0.50	99	mg/L	SW-846 6010B	P
Cadmium	0.50	0.49	97	mg/L	SW-846 6010B	P
Calcium	5.00	4.82	96	mg/L	SW-846 6010B	P
Chromium	0.50	0.49	99	mg/L	SW-846 6010B	P
Cobalt	0.50	0.49	98	mg/L	SW-846 6010B	P
Copper	0.50	0.49	98	mg/L	SW-846 6010B	P
Iron	5.00	4.96	99	mg/L	SW-846 6010B	P
Lead	0.50	0.51	102	mg/L	SW-846 6010B	P
Magnesium	5.00	4.94	99	mg/L	SW-846 6010B	P
Manganese	0.50	0.49	99	mg/L	SW-846 6010B	P
Nickel	0.50	0.50	99	mg/L	SW-846 6010B	P
Potassium	10.0	10.1	101	mg/L	SW-846 6010B	P
Selenium	0.50	0.51	102	mg/L	SW-846 6010B	P
Silver	0.50	0.50	99	mg/L	SW-846 6010B	P
Sodium	20.0	19.5	98	mg/L	SW-846 6010B	P
Thallium	0.50	0.50	99	mg/L	SW-846 6010B	P
Vanadium	0.50	0.49	97	mg/L	SW-846 6010B	P
Zinc	0.50	0.49	97	mg/L	SW-846 6010B	P

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-100 EPA 7470/7471 AND 7XXX = 80-120

U.S. EPA - CLP
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Calibration Source: 1-1-1
Instrument ID: ICP5 ICAL ID: 2
Date Analyzed: 05/29/02 Time: 1625

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Antimony	0.50	0.49	97	mg/L	SW-846 6010B	P
Boron	2.50	2.48	99	mg/L	SW-846 6010B	P
Molybdenum	0.50	0.49	98	mg/L	SW-846 6010B	P
Tin	0.50	0.48	96	mg/L	SW-846 6010B	P
Titanium	0.50	0.49	99	mg/L	SW-846 6010B	P
Zirconium	0.50	0.48	97	mg/L	SW-846 6010B	P

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-100 EPA 7470/7471 AND 7XXX = 80-120

U.S. EPA - CLP
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Calibration Source: 1-1-1
Instrument ID: ICP5 ICAL ID: 2
Date Analyzed: 05/29/02 Time: 1750

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Aluminum	5.00	4.84	97	mg/L	SW-846 6010B	P
Arsenic	0.50	0.51	102	mg/L	SW-846 6010B	P
Barium	0.50	0.49	97	mg/L	SW-846 6010B	P
Beryllium	0.50	0.49	98	mg/L	SW-846 6010B	P
Cadmium	0.50	0.49	97	mg/L	SW-846 6010B	P
Calcium	5.00	4.68	94	mg/L	SW-846 6010B	P
Chromium	0.50	0.49	97	mg/L	SW-846 6010B	P
Cobalt	0.50	0.49	98	mg/L	SW-846 6010B	P
Copper	0.50	0.49	97	mg/L	SW-846 6010B	P
Iron	5.00	4.77	95	mg/L	SW-846 6010B	P
Lead	0.50	0.50	99	mg/L	SW-846 6010B	P
Magnesium	5.00	4.78	96	mg/L	SW-846 6010B	P
Manganese	0.50	0.49	98	mg/L	SW-846 6010B	P
Nickel	0.50	0.49	98	mg/L	SW-846 6010B	P
Potassium	10.0	10.3	103	mg/L	SW-846 6010B	P
Selenium	0.50	0.50	100	mg/L	SW-846 6010B	P
Silver	0.50	0.49	98	mg/L	SW-846 6010B	P
Sodium	20.0	19.7	99	mg/L	SW-846 6010B	P
Thallium	0.50	0.50	99	mg/L	SW-846 6010B	P
Vanadium	0.50	0.49	97	mg/L	SW-846 6010B	P
Zinc	0.50	0.48	97	mg/L	SW-846 6010B	P

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-100 EPA 7470/7471 AND 7XXX = 80-120

U.S. EPA - CLP
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Calibration Source: 1-1-1
Instrument ID: ICP5 ICAL ID: 2
Date Analyzed: 05/29/02 Time: 1757

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Antimony	0.50	0.49	99	mg/L	SW-846 6010B	P
Boron	2.50	2.50	100	mg/L	SW-846 6010B	P
Molybdenum	0.50	0.50	99	mg/L	SW-846 6010B	P
Tin	0.50	0.49	98	mg/L	SW-846 6010B	P
Titanium	0.50	0.50	100	mg/L	SW-846 6010B	P
Zirconium	0.50	0.49	98	mg/L	SW-846 6010B	P

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-100 EPA 7470/7471 AND 7XXX = 80-120

U.S. EPA - CLP
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Calibration Source: 1-1-1
Instrument ID: ICP5 ICAL ID: 2
Date Analyzed: 05/29/02 Time: 1832

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Aluminum	5.00	4.98	100	mg/L	SW-846 6010B	P
Arsenic	0.50	0.50	100	mg/L	SW-846 6010B	P
Barium	0.50	0.48	96	mg/L	SW-846 6010B	P
Beryllium	0.50	0.49	98	mg/L	SW-846 6010B	P
Cadmium	0.50	0.48	96	mg/L	SW-846 6010B	P
Calcium	5.00	4.84	97	mg/L	SW-846 6010B	P
Chromium	0.50	0.48	96	mg/L	SW-846 6010B	P
Cobalt	0.50	0.48	97	mg/L	SW-846 6010B	P
Copper	0.50	0.48	96	mg/L	SW-846 6010B	P
Iron	5.00	4.94	99	mg/L	SW-846 6010B	P
Lead	0.50	0.49	99	mg/L	SW-846 6010B	P
Magnesium	5.00	4.96	99	mg/L	SW-846 6010B	P
Manganese	0.50	0.50	100	mg/L	SW-846 6010B	P
Nickel	0.50	0.49	97	mg/L	SW-846 6010B	P
Potassium	10.0	10.1	101	mg/L	SW-846 6010B	P
Selenium	0.50	0.49	98	mg/L	SW-846 6010B	P
Silver	0.50	0.49	97	mg/L	SW-846 6010B	P
Sodium	20.0	19.5	97	mg/L	SW-846 6010B	P
Thallium	0.50	0.49	99	mg/L	SW-846 6010B	P
Vanadium	0.50	0.48	96	mg/L	SW-846 6010B	P
Zinc	0.50	0.48	96	mg/L	SW-846 6010B	P

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-100 EPA 7470/7471 AND 7XXX = 80-120

U.S. EPA - CLP
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Calibration Source: 1-1-1
Instrument ID: ICP5 ICAL ID: 2
Date Analyzed: 05/29/02 Time: 1840

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Antimony	0.50	0.49	99	mg/L	SW-846 6010B	P
Boron	2.50	2.50	100	mg/L	SW-846 6010B	P
Molybdenum	0.50	0.49	99	mg/L	SW-846 6010B	P
Tin	0.50	0.49	98	mg/L	SW-846 6010B	P
Titanium	0.50	0.50	100	mg/L	SW-846 6010B	P
Zirconium	0.50	0.49	98	mg/L	SW-846 6010B	P

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-100 EPA 7470/7471 AND 7XXX = 80-120

U.S. EPA - CLP

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL

Contract:

Lab Code: LA024 Case No.:

SAS No.: SDG No.: 202052421

Calibration Source: 100-50-6 Solutions Plus

Instrument ID: FIMS1 ICAL ID: 1

Date Analyzed: 05/29/02 Time: 1547

INITIAL CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Mercury	0.00500	0.00456	91	mg/L	SW-846 7471A	AV

ICV CONTROL LIMITS EPA 6010B = 90-100 EPA 200.7 = 95-105

U.S. EPA - CLP

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL

Contract:

Lab Code: LA024 Case No.:

SAS No.: SDG No.: 202052421

Calibration Source: 100-50-5 SPEX

Instrument ID: FIMS1 ICAL ID: 1

Date Analyzed: 05/29/02 Time: 1551

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Mercury	0.00500	0.00511	102	mg/L	SW-846 7471A	AV

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-100 EPA 7470/7471 AND 7XXX = 80-120

U.S. EPA - CLP
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Calibration Source: 100-50-5 SPEX
Instrument ID: FIMS1 ICAL ID: 1
Date Analyzed: 05/29/02 Time: 1611

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Mercury	0.00500	0.00536	107	mg/L	SW-846 7471A	AV

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-100 EPA 7470/7471 AND 7XXX = 80-120

U.S. EPA - CLP

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL

Contract:

Lab Code: LA024 Case No.:

SAS No.: SDG No.: 202052421

Calibration Source: 100-50-5 SPEX

Instrument ID: FIMS1 ICAL ID: 1

Date Analyzed: 05/29/02 Time: 1616

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Mercury	0.00500	0.00534	107	mg/L	SW-846 7471A	AV

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-100 EPA 7470/7471 AND 7XXX = 80-120

U.S. EPA - CLP
BLANKS

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Lab Sample ID: ICB
ICAL ID: 2
Lab Sample DESC: ICB
Preparation Blank Matrix: (soil / water)
Instrument ID: ICP5
Date Analyzed: 05/29/02 Time: 0938

INITIAL CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*PQL*	*Method*	*Type*
Aluminum	0.20	U	mg/L	0.016	0.20	SW-846 6010B	P
Antimony	0.060	U	mg/L	0.0040	0.060	SW-846 6010B	P
Arsenic	0.040	U	mg/L	0.0039	0.040	SW-846 6010B	P
Barium	0.010	U	mg/L	0.00030	0.010	SW-846 6010B	P
Beryllium	0.0050	U	mg/L	0.00020	0.0050	SW-846 6010B	P
Cadmium	0.0050	U	mg/L	0.00020	0.0050	SW-846 6010B	P
Calcium	0.050	U	mg/L	0.017	0.050	SW-846 6010B	P
Chromium	0.010	U	mg/L	0.00040	0.010	SW-846 6010B	P
Cobalt	0.010	U	mg/L	0.00050	0.010	SW-846 6010B	P
Copper	0.0065	B	mg/L	0.0025	0.010	SW-846 6010B	P
Iron	0.050	U	mg/L	0.0099	0.050	SW-846 6010B	P
Lead	0.015	U	mg/L	0.0013	0.015	SW-846 6010B	P
Magnesium	0.050	U	mg/L	0.015	0.050	SW-846 6010B	P
Manganese	0.015	U	mg/L	0.00030	0.015	SW-846 6010B	P
Nickel	0.040	U	mg/L	0.0013	0.040	SW-846 6010B	P
Potassium	0.20	U	mg/L	0.034	0.20	SW-846 6010B	P
Selenium	0.040	U	mg/L	0.0050	0.040	SW-846 6010B	P
Silver	0.010	U	mg/L	0.00050	0.010	SW-846 6010B	P
Sodium	1.00	U	mg/L	0.14	1.00	SW-846 6010B	P
Thallium	0.020	U	mg/L	0.0018	0.020	SW-846 6010B	P
Vanadium	0.020	U	mg/L	0.00080	0.020	SW-846 6010B	P
Zinc	0.020	U	mg/L	0.0092	0.020	SW-846 6010B	P

U.S. EPA - CLP
BLANKS

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Lab Sample ID: CCB
ICAL ID: 2
Lab Sample DESC: CCB
Preparation Blank Matrix: (soil / water)
Instrument ID: ICP5
Date Analyzed: 05/29/02 Time: 1041

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	PQL	Method	Type
Aluminum	0.20	U	mg/L	0.016	0.20	SW-846 6010B	P
Antimony	0.060	U	mg/L	0.0040	0.060	SW-846 6010B	P
Arsenic	0.040	U	mg/L	0.0039	0.040	SW-846 6010B	P
Barium	0.010	U	mg/L	0.00030	0.010	SW-846 6010B	P
Beryllium	0.0050	U	mg/L	0.00020	0.0050	SW-846 6010B	P
Cadmium	0.0050	U	mg/L	0.00020	0.0050	SW-846 6010B	P
Calcium	0.050	U	mg/L	0.017	0.050	SW-846 6010B	P
Chromium	0.010	U	mg/L	0.00040	0.010	SW-846 6010B	P
Cobalt	0.010	U	mg/L	0.00050	0.010	SW-846 6010B	P
Copper	0.0095	B	mg/L	0.0025	0.010	SW-846 6010B	P
Iron	0.050	U	mg/L	0.0099	0.050	SW-846 6010B	P
Lead	0.015	U	mg/L	0.0013	0.015	SW-846 6010B	P
Magnesium	0.050	U	mg/L	0.015	0.050	SW-846 6010B	P
Manganese	0.015	U	mg/L	0.00030	0.015	SW-846 6010B	P
Nickel	0.040	U	mg/L	0.0013	0.040	SW-846 6010B	P
Potassium	0.20	U	mg/L	0.034	0.20	SW-846 6010B	P
Selenium	0.040	U	mg/L	0.0050	0.040	SW-846 6010B	P
Silver	0.010	U	mg/L	0.00050	0.010	SW-846 6010B	P
Sodium	1.00	U	mg/L	0.14	1.00	SW-846 6010B	P
Thallium	0.020	U	mg/L	0.0018	0.020	SW-846 6010B	P
Vanadium	0.00094	B	mg/L	0.00080	0.020	SW-846 6010B	P
Zinc	0.020	U	mg/L	0.0092	0.020	SW-846 6010B	P

U.S. EPA - CLP
BLANKS

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Lab Sample ID: CCB
ICAL ID: 2
Lab Sample DESC: CCB
Preparation Blank Matrix: (soil / water)
Instrument ID: ICP5
Date Analyzed: 05/29/02 Time: 1148

CONTINUING CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*PQL*	*Method*	*Type*
Aluminum	0.20	U	mg/L	0.016	0.20	SW-846 6010B	P
Antimony	0.060	U	mg/L	0.0040	0.060	SW-846 6010B	P
Arsenic	0.040	U	mg/L	0.0039	0.040	SW-846 6010B	P
Barium	0.010	U	mg/L	0.00030	0.010	SW-846 6010B	P
Beryllium	0.0050	U	mg/L	0.00020	0.0050	SW-846 6010B	P
Cadmium	0.0050	U	mg/L	0.00020	0.0050	SW-846 6010B	P
Calcium	0.050	U	mg/L	0.017	0.050	SW-846 6010B	P
Chromium	0.010	U	mg/L	0.00040	0.010	SW-846 6010B	P
Cobalt	0.010	U	mg/L	0.00050	0.010	SW-846 6010B	P
Copper	0.0062	B	mg/L	0.0025	0.010	SW-846 6010B	P
Iron	0.050	U	mg/L	0.0099	0.050	SW-846 6010B	P
Lead	0.015	U	mg/L	0.0013	0.015	SW-846 6010B	P
Magnesium	0.050	U	mg/L	0.015	0.050	SW-846 6010B	P
Manganese	0.015	U	mg/L	0.00030	0.015	SW-846 6010B	P
Nickel	0.0021	B	mg/L	0.0013	0.040	SW-846 6010B	P
Potassium	0.20	U	mg/L	0.034	0.20	SW-846 6010B	P
Selenium	0.040	U	mg/L	0.0050	0.040	SW-846 6010B	P
Silver	0.010	U	mg/L	0.00050	0.010	SW-846 6010B	P
Sodium	1.00	U	mg/L	0.14	1.00	SW-846 6010B	P
Thallium	0.020	U	mg/L	0.0018	0.020	SW-846 6010B	P
Vanadium	0.020	U	mg/L	0.00080	0.020	SW-846 6010B	P
Zinc	0.020	U	mg/L	0.0092	0.020	SW-846 6010B	P

U.S. EPA - CLP
BLANKS

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Lab Sample ID: CCB
ICAL ID: 2
Lab Sample DESC: CCB
Preparation Blank Matrix: (soil / water)
Instrument ID: ICP5
Date Analyzed: 05/29/02 Time: 1324

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	PQL	Method	Type
Aluminum	0.20	U	mg/L	0.016	0.20	SW-846 6010B	P
Antimony	0.060	U	mg/L	0.0040	0.060	SW-846 6010B	P
Arsenic	0.040	U	mg/L	0.0039	0.040	SW-846 6010B	P
Barium	0.010	U	mg/L	0.00030	0.010	SW-846 6010B	P
Beryllium	0.0050	U	mg/L	0.00020	0.0050	SW-846 6010B	P
Cadmium	0.0050	U	mg/L	0.00020	0.0050	SW-846 6010B	P
Calcium	0.050	U	mg/L	0.017	0.050	SW-846 6010B	P
Chromium	0.010	U	mg/L	0.00040	0.010	SW-846 6010B	P
Cobalt	0.010	U	mg/L	0.00050	0.010	SW-846 6010B	P
Copper	0.0033	B	mg/L	0.0025	0.010	SW-846 6010B	P
Iron	0.050	U	mg/L	0.0099	0.050	SW-846 6010B	P
Lead	0.015	U	mg/L	0.0013	0.015	SW-846 6010B	P
Magnesium	0.050	U	mg/L	0.015	0.050	SW-846 6010B	P
Manganese	0.015	U	mg/L	0.00030	0.015	SW-846 6010B	P
Nickel	0.040	U	mg/L	0.0013	0.040	SW-846 6010B	P
Potassium	0.20	U	mg/L	0.034	0.20	SW-846 6010B	P
Selenium	0.040	U	mg/L	0.0050	0.040	SW-846 6010B	P
Silver	0.010	U	mg/L	0.00050	0.010	SW-846 6010B	P
Sodium	1.00	U	mg/L	0.14	1.00	SW-846 6010B	P
Thallium	0.020	U	mg/L	0.0018	0.020	SW-846 6010B	P
Vanadium	0.020	U	mg/L	0.00080	0.020	SW-846 6010B	P
Zinc	0.020	U	mg/L	0.0092	0.020	SW-846 6010B	P

U.S. EPA - CLP
BLANKS

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Lab Sample ID: CCB
ICAL ID: 2
Lab Sample DESC: CCB
Preparation Blank Matrix: (soil / water)
Instrument ID: ICP5
Date Analyzed: 05/29/02 Time: 1500

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	PQL	Method	Type
Aluminum	0.033	B	mg/L	0.016	0.20	SW-846 6010B	P
Antimony	0.060	U	mg/L	0.0040	0.060	SW-846 6010B	P
Arsenic	0.040	U	mg/L	0.0039	0.040	SW-846 6010B	P
Barium	0.010	U	mg/L	0.00030	0.010	SW-846 6010B	P
Beryllium	0.0050	U	mg/L	0.00020	0.0050	SW-846 6010B	P
Cadmium	0.0050	U	mg/L	0.00020	0.0050	SW-846 6010B	P
Calcium	0.050	U	mg/L	0.017	0.050	SW-846 6010B	P
Chromium	0.010	U	mg/L	0.00040	0.010	SW-846 6010B	P
Cobalt	0.010	U	mg/L	0.00050	0.010	SW-846 6010B	P
Copper	0.010	U	mg/L	0.0025	0.010	SW-846 6010B	P
Iron	0.050	U	mg/L	0.0099	0.050	SW-846 6010B	P
Lead	0.015	U	mg/L	0.0013	0.015	SW-846 6010B	P
Magnesium	0.050	U	mg/L	0.015	0.050	SW-846 6010B	P
Manganese	0.015	U	mg/L	0.00030	0.015	SW-846 6010B	P
Nickel	0.040	U	mg/L	0.0013	0.040	SW-846 6010B	P
Potassium	0.035	B	mg/L	0.034	0.20	SW-846 6010B	P
Selenium	0.040	U	mg/L	0.0050	0.040	SW-846 6010B	P
Silver	0.010	U	mg/L	0.00050	0.010	SW-846 6010B	P
Sodium	1.00	U	mg/L	0.14	1.00	SW-846 6010B	P
Thallium	0.020	U	mg/L	0.0018	0.020	SW-846 6010B	P
Vanadium	0.020	U	mg/L	0.00080	0.020	SW-846 6010B	P
Zinc	0.020	U	mg/L	0.0092	0.020	SW-846 6010B	P

U.S. EPA - CLP
BLANKS

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Lab Sample ID: CCB
ICAL ID: 2
Lab Sample DESC: CCB
Preparation Blank Matrix: (soil / water)
Instrument ID: ICP5
Date Analyzed: 05/29/02 Time: 1632

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	PQL	Method	Type
Aluminum	0.043	B	mg/L	0.016	0.20	SW-846 6010B	P
Antimony	0.060	U	mg/L	0.0040	0.060	SW-846 6010B	P
Arsenic	0.040	U	mg/L	0.0039	0.040	SW-846 6010B	P
Barium	0.010	U	mg/L	0.00030	0.010	SW-846 6010B	P
Beryllium	0.0050	U	mg/L	0.00020	0.0050	SW-846 6010B	P
Cadmium	0.0050	U	mg/L	0.00020	0.0050	SW-846 6010B	P
Calcium	0.050	U	mg/L	0.017	0.050	SW-846 6010B	P
Chromium	0.010	U	mg/L	0.00040	0.010	SW-846 6010B	P
Cobalt	0.010	U	mg/L	0.00050	0.010	SW-846 6010B	P
Copper	0.010	U	mg/L	0.0025	0.010	SW-846 6010B	P
Iron	0.050	U	mg/L	0.0099	0.050	SW-846 6010B	P
Lead	0.0074	B	mg/L	0.0013	0.015	SW-846 6010B	P
Magnesium	0.050	U	mg/L	0.015	0.050	SW-846 6010B	P
Manganese	0.015	U	mg/L	0.00030	0.015	SW-846 6010B	P
Nickel	0.040	U	mg/L	0.0013	0.040	SW-846 6010B	P
Potassium	0.20	U	mg/L	0.034	0.20	SW-846 6010B	P
Selenium	0.040	U	mg/L	0.0050	0.040	SW-846 6010B	P
Silver	0.010	U	mg/L	0.00050	0.010	SW-846 6010B	P
Sodium	1.00	U	mg/L	0.14	1.00	SW-846 6010B	P
Thallium	0.020	U	mg/L	0.0018	0.020	SW-846 6010B	P
Vanadium	0.020	U	mg/L	0.00080	0.020	SW-846 6010B	P
Zinc	0.020	U	mg/L	0.0092	0.020	SW-846 6010B	P

U.S. EPA - CLP
BLANKS

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Lab Sample ID: 41562
ICAL ID: 2
Lab Sample DESC: MB FOR HBN 132603
Preparation Blank Matrix: (soil / water) Soil
Instrument ID: ICP5
Date Analyzed: 05/29/02 Time: 1640

PREPARATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*PQL*	*Method*	*Type*
Aluminum	1.27	B	mg/kg	0.62	8.00	SW-846 6010B	P
Antimony	0.17	B	mg/kg	0.16	2.40	SW-846 6010B	P
Arsenic	1.60	U	mg/kg	0.15	1.60	SW-846 6010B	P
Barium	0.40	U	mg/kg	0.010	0.40	SW-846 6010B	P
Beryllium	0.0091	B	mg/kg	0.0050	0.20	SW-846 6010B	P
Cadmium	0.20	U	mg/kg	0.0070	0.20	SW-846 6010B	P
Calcium	0.98	B	mg/kg	0.66	2.00	SW-846 6010B	P
Chromium	0.065	B	mg/kg	0.016	0.40	SW-846 6010B	P
Cobalt	0.40	U	mg/kg	0.017	0.40	SW-846 6010B	P
Copper	0.40	U	mg/kg	0.098	0.40	SW-846 6010B	P
Iron	1.29	B	mg/kg	0.40	2.00	SW-846 6010B	P
Lead	0.46	B	mg/kg	0.050	0.60	SW-846 6010B	P
Magnesium	2.00	U	mg/kg	0.62	2.00	SW-846 6010B	P
Manganese	0.029	B	mg/kg	0.010	0.60	SW-846 6010B	P
Nickel	0.18	B	mg/kg	0.051	1.60	SW-846 6010B	P
Potassium	8.00	U	mg/kg	1.53	8.00	SW-846 6010B	P
Selenium	1.60	U	mg/kg	0.20	1.60	SW-846 6010B	P
Silver	0.40	U	mg/kg	0.018	0.40	SW-846 6010B	P
Sodium	40.0	U	mg/kg	4.00	40.0	SW-846 6010B	P
Thallium	0.80	U	mg/kg	0.071	0.80	SW-846 6010B	P
Vanadium	0.80	U	mg/kg	0.031	0.80	SW-846 6010B	P
Zinc	0.80	U	mg/kg	0.37	0.80	SW-846 6010B	P

U.S. EPA - CLP
BLANKS

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Lab Sample ID: CCB
ICAL ID: 2
Lab Sample DESC: CCB
Preparation Blank Matrix: (soil / water)
Instrument ID: ICP5
Date Analyzed: 05/29/02 Time: 1804

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	PQL	Method	Type
Aluminum	0.028	B	mg/L	0.016	0.20	SW-846 6010B	P
Antimony	0.060	U	mg/L	0.0040	0.060	SW-846 6010B	P
Arsenic	0.040	U	mg/L	0.0039	0.040	SW-846 6010B	P
Barium	0.010	U	mg/L	0.00030	0.010	SW-846 6010B	P
Beryllium	0.00021	B	mg/L	0.00020	0.0050	SW-846 6010B	P
Cadmium	0.0050	U	mg/L	0.00020	0.0050	SW-846 6010B	P
Calcium	0.050	U	mg/L	0.017	0.050	SW-846 6010B	P
Chromium	0.010	U	mg/L	0.00040	0.010	SW-846 6010B	P
Cobalt	0.010	U	mg/L	0.00050	0.010	SW-846 6010B	P
Copper	0.0037	B	mg/L	0.0025	0.010	SW-846 6010B	P
Iron	0.011	B	mg/L	0.0099	0.050	SW-846 6010B	P
Lead	0.0018	B	mg/L	0.0013	0.015	SW-846 6010B	P
Magnesium	0.050	U	mg/L	0.015	0.050	SW-846 6010B	P
Manganese	0.015	U	mg/L	0.00030	0.015	SW-846 6010B	P
Nickel	0.040	U	mg/L	0.0013	0.040	SW-846 6010B	P
Potassium	0.20	U	mg/L	0.034	0.20	SW-846 6010B	P
Selenium	0.040	U	mg/L	0.0050	0.040	SW-846 6010B	P
Silver	0.010	U	mg/L	0.00050	0.010	SW-846 6010B	P
Sodium	1.00	U	mg/L	0.14	1.00	SW-846 6010B	P
Thallium	0.020	U	mg/L	0.0018	0.020	SW-846 6010B	P
Vanadium	0.020	U	mg/L	0.00080	0.020	SW-846 6010B	P
Zinc	0.020	U	mg/L	0.0092	0.020	SW-846 6010B	P

U.S. EPA - CLP
BLANKS

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Lab Sample ID: CCB
ICAL ID: 2
Lab Sample DESC: CCB
Preparation Blank Matrix: (soil / water)
Instrument ID: ICP5
Date Analyzed: 05/29/02 Time: 1847

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	PQL	Method	Type
Aluminum	0.042	B	mg/L	0.016	0.20	SW-846 6010B	P
Antimony	0.060	U	mg/L	0.0040	0.060	SW-846 6010B	P
Arsenic	0.040	U	mg/L	0.0039	0.040	SW-846 6010B	P
Barium	0.010	U	mg/L	0.00030	0.010	SW-846 6010B	P
Beryllium	0.0050	U	mg/L	0.00020	0.0050	SW-846 6010B	P
Cadmium	0.0050	U	mg/L	0.00020	0.0050	SW-846 6010B	P
Calcium	0.050	U	mg/L	0.017	0.050	SW-846 6010B	P
Chromium	0.010	U	mg/L	0.00040	0.010	SW-846 6010B	P
Cobalt	0.010	U	mg/L	0.00050	0.010	SW-846 6010B	P
Copper	0.0036	B	mg/L	0.0025	0.010	SW-846 6010B	P
Iron	0.050	U	mg/L	0.0099	0.050	SW-846 6010B	P
Lead	0.0018	B	mg/L	0.0013	0.015	SW-846 6010B	P
Magnesium	0.050	U	mg/L	0.015	0.050	SW-846 6010B	P
Manganese	0.0011	B	mg/L	0.00030	0.015	SW-846 6010B	P
Nickel	0.040	U	mg/L	0.0013	0.040	SW-846 6010B	P
Potassium	0.20	U	mg/L	0.034	0.20	SW-846 6010B	P
Selenium	0.040	U	mg/L	0.0050	0.040	SW-846 6010B	P
Silver	0.010	U	mg/L	0.00050	0.010	SW-846 6010B	P
Sodium	1.00	U	mg/L	0.14	1.00	SW-846 6010B	P
Thallium	0.020	U	mg/L	0.0018	0.020	SW-846 6010B	P
Vanadium	0.020	U	mg/L	0.00080	0.020	SW-846 6010B	P
Zinc	0.020	U	mg/L	0.0092	0.020	SW-846 6010B	P

U.S. EPA - CLP
BLANKS

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Lab Sample ID: ICB
ICAL ID: 1
Lab Sample DESC: ICB
Preparation Blank Matrix: (soil / water)
Instrument ID: FIMS1
Date Analyzed: 05/29/02 Time: 1549

INITIAL CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*PQL*	*Method*	*Type*
Mercury	0.00020	U	mg/L	0.000080	0.00020	SW-846 7471A	AV

FORM III - IN

U.S. EPA - CLP
BLANKS

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Lab Sample ID: CCB
ICAL ID: 1
Lab Sample DESC: CCB
Preparation Blank Matrix: (soil / water)
Instrument ID: FIMS1
Date Analyzed: 05/29/02 Time: 1552

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	PQL	Method	Type
Mercury	0.00020	U	mg/L	0.000080	0.00020	SW-846 7471A	AV

FORM III - IN

U.S. EPA - CLP
BLANKS

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Lab Sample ID: 41567
ICAL ID: 1
Lab Sample DESC: MB FOR HBN 132604
Preparation Blank Matrix: (soil / water) Soil
Instrument ID: FIMS1
Date Analyzed: 05/29/02 Time: 1554

PREPARATION BLANK

Analyte	Conc.	C	Units	MDL	PQL	Method	Type
Mercury	0.010	U	mg/kg	0.0010	0.010	SW-846 7471A	AV

FORM III - IN

U.S. EPA - CLP
BLANKS

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Lab Sample ID: CCB
ICAL ID: 1
Lab Sample DESC: CCB
Preparation Blank Matrix: (soil / water)
Instrument ID: FIMS1
Date Analyzed: 05/29/02 Time: 1613

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	PQL	Method	Type
Mercury	0.00020	U	mg/L	0.000080	0.00020	SW-846 7471A	AV

FORM III - IN

U.S. EPA - CLP
BLANKS

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202052421
Lab Sample ID: CCB
ICAL ID: 1
Lab Sample DESC: CCB
Preparation Blank Matrix: (soil / water)
Instrument ID: FIMS1
Date Analyzed: 05/29/02 Time: 1618

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	PQL	Method	Type
Mercury	0.00020	U	mg/L	0.000080	0.00020	SW-846 7471A	AV

FORM III - IN

QUALITY CONTROL SUMMARY

LCS ID: 41563	ORIGINAL LAB ID:	PREP BATCH: 132603
	MATRIX Solid	ANALYTICAL BATCH: 132823

SW-846 6010

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
7429-90-5	Aluminum	400 mg/kg	388	97	80 - 120
7440-36-0	Antimony	40 mg/kg	39.3	98	80 - 120
7440-38-2	Arsenic	40 mg/kg	39.8	100	80 - 120
7440-39-3	Barium	40 mg/kg	38.9	97	80 - 120
7440-41-7	Beryllium	40 mg/kg	39.3	98	80 - 120
7440-43-9	Cadmium	40 mg/kg	38.1	95	80 - 120
7440-70-2	Calcium	400 mg/kg	387	97	80 - 120
7440-47-3	Chromium	40 mg/kg	39.4	98	80 - 120
7440-48-4	Cobalt	40 mg/kg	39.1	98	80 - 120
7440-50-8	Copper	40 mg/kg	42.2	105	80 - 120
7439-89-6	Iron	400 mg/kg	388	97	80 - 120
7439-92-1	Lead	40 mg/kg	38.2	96	80 - 120
7439-95-4	Magnesium	400 mg/kg	389	97	80 - 120
7439-96-5	Manganese	40 mg/kg	39.5	99	80 - 120
7440-02-0	Nickel	40 mg/kg	39.3	98	80 - 120
7440-09-7	Potassium	800 mg/kg	782	98	80 - 120
7782-49-2	Selenium	40 mg/kg	38.1	95	80 - 120
7440-22-4	Silver	40 mg/kg	39.5	99	80 - 120
7440-23-5	Sodium	1600 mg/kg	1540	96	80 - 120
7440-28-0	Thallium	40 mg/kg	39.2	98	80 - 120
7440-62-2	Vanadium	40 mg/kg	39.3	98	80 - 120
7440-66-6	Zinc	40 mg/kg	37.8	95	80 - 120

DUPLICATE SAMPLE ID: 41564	ORIGINAL LAB ID: 20205242101	PREP BATCH: 132603
	MATRIX Solid	ANALYTICAL BATCH: 132823

SW-846 6010

CAS #	PARAMETER	Original Result	Result	RPD	RPD LIMITS
7429-90-5	Aluminum	667	670	0.4	0 - 20
7440-36-0	Antimony	1.04	0.88	17	0 - 20
7440-38-2	Arsenic	2.21	2.17	2	0 - 20
7440-39-3	Barium	4.96	4.88	2	0 - 20
7440-41-7	Beryllium	0.027	0.026	4	0 - 20
7440-43-9	Cadmium	0.2	0.18	11	0 - 20
7440-70-2	Calcium	3200	4170	26 *	0 - 20
7440-47-3	Chromium	2.2	2.24	2	0 - 20
7440-48-4	Cobalt	0.032	0.036	12	0 - 20
7440-50-8	Copper	4.39	4.31	2	0 - 20
7439-89-6	Iron	273	229	18	0 - 20
7439-92-1	Lead	6.01	5.67	6	0 - 20

QUALITY CONTROL SUMMARY

7439-95-4	Magnesium	39.2	45.3	14	0 - 20
7439-96-5	Manganese	4.12	3.6	13	0 - 20
7440-02-0	Nickel	0.52	0.49	6	0 - 20
7440-09-7	Potassium	13.4	14.6	9	0 - 20
7782-49-2	Selenium	0	0	0	0 - 20
7440-22-4	Silver	0.51	0.48	6	0 - 20
7440-23-5	Sodium	0	0	0	0 - 20
7440-28-0	Thallium	0	0	0	0 - 20
7440-62-2	Vanadium	0.82	0.85	4	0 - 20
7440-66-6	Zinc	12.6	11.8	7	0 - 20

MS LAB ID: 41565 **ORIGINAL LAB ID: 20205242101** **PREP BATCH: 132603**
MATRIX Solid **ANALYTICAL BATCH: 132823**

SW-846 6010

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
7429-90-5	Aluminum	667	400 mg/kg	1450	197 *	75 - 125
7440-36-0	Antimony	1.04	40 mg/kg	31.4	76	75 - 125
7440-38-2	Arsenic	2.21	40 mg/kg	40.2	95	75 - 125
7440-39-3	Barium	4.96	40 mg/kg	44.2	98	75 - 125
7440-41-7	Beryllium	0.027	40 mg/kg	39.2	98	75 - 125
7440-43-9	Cadmium	0.2	40 mg/kg	37.3	93	75 - 125
7440-70-2	Calcium	3200	400 mg/kg	4830	407 *	75 - 125
7440-47-3	Chromium	2.2	40 mg/kg	41.1	97	75 - 125
7440-48-4	Cobalt	0.032	40 mg/kg	38.4	96	75 - 125
7440-50-8	Copper	4.39	40 mg/kg	46	104	75 - 125
7439-89-6	Iron	273	400 mg/kg	637	91	75 - 125
7439-92-1	Lead	6.01	40 mg/kg	42.9	92	75 - 125
7439-95-4	Magnesium	39.2	400 mg/kg	472	108	75 - 125
7439-96-5	Manganese	4.12	40 mg/kg	43.5	98	75 - 125
7440-02-0	Nickel	0.52	40 mg/kg	38.7	96	75 - 125
7440-09-7	Potassium	13.4	800 mg/kg	807	99	75 - 125
7782-49-2	Selenium	0	40 mg/kg	36.8	92	75 - 125
7440-22-4	Silver	0.51	40 mg/kg	39.8	98	75 - 125
7440-23-5	Sodium	0	1600 mg/kg	1550	97	75 - 125
7440-28-0	Thallium	0	40 mg/kg	38.7	97	75 - 125
7440-62-2	Vanadium	0.82	40 mg/kg	40.4	99	75 - 125
7440-66-6	Zinc	12.6	40 mg/kg	50.7	95	75 - 125

MSD LAB ID: 41566 **ORIGINAL LAB ID: 20205242101** **PREP BATCH: 132603**
MATRIX Solid **ANALYTICAL BATCH: 132823**

SW-846 6010

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
7429-90-5	Aluminum	400 mg/kg	1400	182 *	83 - 151	8	0 - 20
7440-36-0	Antimony	40 mg/kg	31.7	77	75 - 125	1	0 - 20

QUALITY CONTROL SUMMARY

7440-38-2	Arsenic	40 mg/kg	40.3	95		75 - 125	0	0 - 20
7440-39-3	Barium	40 mg/kg	43.7	97		75 - 125	1	0 - 20
7440-41-7	Beryllium	40 mg/kg	39.8	99		75 - 125	1	0 - 20
7440-43-9	Cadmium	40 mg/kg	37.4	93		75 - 125	0	0 - 20
7440-70-2	Calcium	400 mg/kg	4360	292	*	75 - 125	33 *	0 - 20
7440-47-3	Chromium	40 mg/kg	41.2	98		75 - 125	1	0 - 20
7440-48-4	Cobalt	40 mg/kg	38.6	97		75 - 125	1	0 - 20
7440-50-8	Copper	40 mg/kg	46.1	104		75 - 125	0	0 - 20
7439-89-6	Iron	400 mg/kg	633	90		75 - 125	1	0 - 20
7439-92-1	Lead	40 mg/kg	43.2	93		75 - 125	1	0 - 20
7439-95-4	Magnesium	400 mg/kg	437	100		75 - 125	8	0 - 20
7439-96-5	Manganese	40 mg/kg	42.4	96		75 - 125	2	0 - 20
7440-02-0	Nickel	40 mg/kg	39	96		75 - 125	0	0 - 20
7440-09-7	Potassium	800 mg/kg	809	99		75 - 125	0	0 - 20
7782-49-2	Selenium	40 mg/kg	37	92		75 - 125	0	0 - 20
7440-22-4	Silver	40 mg/kg	39.9	99		75 - 125	1	0 - 20
7440-23-5	Sodium	1600 mg/kg	1560	98		59 - 158	1	0 - 20
7440-28-0	Thallium	40 mg/kg	39	97		75 - 125	0	0 - 20
7440-62-2	Vanadium	40 mg/kg	40.4	99		75 - 125	0	0 - 20
7440-66-6	Zinc	40 mg/kg	50.6	95		75 - 125	0	0 - 20

LCS ID: 41568 | **ORIGINAL LAB ID:** | **PREP BATCH: 132604**
MATRIX Solid | **ANALYTICAL BATCH: 133008**

SW-846 7471

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
7439-97-6	Mercury	0.25 mg/kg	0.26	106	80 - 120

MS LAB ID: 41569 | **ORIGINAL LAB ID: 20205242101** | **PREP BATCH: 132604**
MATRIX Solid | **ANALYTICAL BATCH: 133008**

SW-846 7471

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
7439-97-6	Mercury	0.071	0.25 mg/kg	0.33	104	75 - 125

DUPLICATE SAMPLE ID: 41570 | **ORIGINAL LAB ID: 20205242101** | **PREP BATCH: 132604**
MATRIX Solid | **ANALYTICAL BATCH: 133008**

SW-846 7471

CAS #	PARAMETER	Original Result	Result	RPD	RPD LIMITS
7439-97-6	Mercury	0.071	0.075	5	0 - 20

MSD LAB ID: 41571 | **ORIGINAL LAB ID: 20205242101** | **PREP BATCH: 132604**
MATRIX Solid | **ANALYTICAL BATCH: 133008**

SW-846 7471

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
7439-97-6	Mercury	0.25 mg/kg	0.33	104	75 - 125	0	0 - 20

U.S. EPA - CLP

ICP INTERFERENCE CHECK SAMPLE

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 202052421

ICP ID Number: ICP5 ICS Source: 1-1-1 ~100-21-3

Concentration Units: mg/L

Analyte	True		Initial Found			Final Found		
	Sol. A	Sol. AB	Sol. A	Sol. AB	%R	Sol. A	Sol. AB	%R
Aluminum	200	200	203	205	102			
Antimony	0	1.00		0.97	97			
Arsenic	0	1.00		1.02	102			
Barium	0	0.50		0.49	98			
Beryllium	0	0.50		0.50	100			
Boron	0	1.00		1.04	104			
Cadmium	0	1.00		0.94	94			
Calcium	200	200	193	194	97			
Chromium	0	0.50		0.49	98			
Cobalt	0	0.50		0.47	94			
Copper	0	0.50		0.48	96			
Iron	80.0	80.0	77.9	78.0	98			
Lead	0	1.00		0.97	97			
Magnesium	200	200	196	195	98			
Manganese	0	0.50		0.48	96			
Molybdenum	0	1.00		0.99	99			
Nickel	0	1.00		0.91	91			
Selenium	0	1.00		1.04	104			
Silver	0	1.00		1.04	104			
Thallium	0	1.00		1.03	103			
Vanadium	0	0.50		0.49	98			
Zinc	0	1.00		0.95	95			

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242101	005-211-S-0522-02 COMP	Solid	5/22/02 09:30	5/23/02 09:15	6/6/02 09:46

2540 G Total Moisture - Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	5/30/02 15:30	MDT	133749

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
WET-037	Total Moisture	27.6	0.010	0.010	%

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242102	005-212-S-0522-02 COMP	Solid	5/22/02 09:55	5/23/02 09:15	6/6/02 09:46

2540 G Total Moisture - Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	5/30/02 15:30	MDT	133749

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
WET-037	Total Moisture	25.9	0.010	0.010	%

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242103	005-211-S-0522-02 GRAB	Solid	5/22/02 09:30	5/23/02 09:15	6/6/02 09:46

2540 G Total Moisture - Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	5/30/02 15:30	MDT	133749

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
WET-037	Total Moisture	18.6	0.010	0.010	%

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20205242104	005-212-S-0522-02 GRAB	Solid	5/22/02 09:55	5/23/02 09:15	6/6/02 09:46

2540 G Total Moisture - Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	5/30/02 15:30	MDT	133749

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
WET-037	Total Moisture	23.9	0.010	0.010	%

RESULTS REPORTED ON A DRY WEIGHT BASIS

QUALITY CONTROL SUMMARY

DUPLICATE SAMPLE ID: 42366	ORIGINAL LAB ID: 20205242101	PREP BATCH:
	MATRIX Solid	ANALYTICAL BATCH: 133749

2540 G (Dry Weight)

CAS #	PARAMETER	Original Result	Result	RPD	RPD LIMITS
WET-037	Total Moisture	27.6	27.7	0.36	0 - 25

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

CHamthill / 4380 /

CHAIN-OF-CUSTODY RECORD

COC NUMBER
148799-49 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.):
NAS Cecil Field	148799	Gulf Coast Labs	Paul Malewicki, CCI/J.A. Jones	6219 Authority Avenue, Jacksonville, FL 32215 PH: 904-777-4812 FAX: 904-777-4262
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.):
WC - Site 21-Golf Course	CTO 005	4139	Paul Malewicki, CCI/J.A. Jones	6219 Authority Avenue, Jacksonville, FL 32215 PH: 904-777-4812 FAX: 904-777-4262
PROJECT CONTACT:	PROJECT TEL NO AND FAX NO:		FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	RECIPIENT 3 (Address, Tel No. , and Fax No.):
Paul Malewicki	PH (904)777-4812 FAX (904) 777-4262	Phone: 740-373-4071 Fax: 740-373-4835	Bonnie Hogue,CCI	115 Perimeter Center Place, N.E. Suite 700 Atlanta, GA 30346 (770)604-9182 Ext.263 FAX:604-9282

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)	8260B TCL Volitiles	8270C TCL SemiVols	8081A TCL Pest.	8151A TCL Herb.	6010B/7471 ~~TCLP~~ Metals TAL	EL PRO	Method 8082 PCBs	Ignitability DMM 1010/1030	Corrosivity DMM ~~9045C~~	Reactivity DMM ~~Ch.7.3~~	SAMPLE TYPE (see codes on back)	COMMENTS/ SCREENING READINGS	LAB ID 20205242
1	005-211-S-0522-02	Waste Characterization	S	05/22/02	9:30	III/B	7		x	x	x	x	x	x	x	x	x	Composite		-1
2	005-211-S-0522-02	Waste Characterization	S	05/22/02	9:30	III/B	7	x										Grab		-3
3	005-212-S-0522-02	Waste Characterization	S	05/22/02	9:55	III/B	7		x	x	x	x	x	x	x	x	x	Composite		-2
4	005-212-S-0522-02	Waste Characterization	S	05/22/02	9:55	III/B	7	x										Grab		-4
5	005-TB-W-0522-02	Trip Blank	W																	-5
6																				
7																				
8																				
9																				
10																				

SAMPLER(S) AND COMPANY: (please print)	COURIER AND SHIPPING NUMBER:	SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT:
Paul Malewicki / Dave Keul JAJES		3°C Good

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
Paul Malewicki JAJES Paul Malewicki	5/22/02	15:00			
Printed Name and Signature:			Printed Name and Signature:		
FedEx #833151582744	5/23/02	0915	Anna Kincher	5/23/02	0915

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

Form CCI001, Rev 02/00

3°C

PRESERVATION CHECKLIST / COOLER RECEIPT

Gulf Coast Analytical Laboratories, Inc.

WO:	202052421	**Type:**	D
Desc:		**Report:**	REVIEW_RPT
Work ID:	NAS Cecil Field	**Status:**	WP
Project Seq:	6001	**Created:**	5/24/02 14:11
Client:	4380 - CH2M HILL Constructors Inc.	**QA:**	
Profile:	29790 - CTO 0005 - NAS Cecil Field	**PO:**	4139

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
20205242101-1	LC	NONE			X			X	OK
20205242102-1	LC	NONE			X			X	OK
20205242103-1	2	NONE			X			X	OK
20205242104-1	2	NONE			X			X	OK
20205242105-1	40	NONE			X				OK

A = ACCEPTABLE
U = UNACCEPTABLE
N\A = NOT APPLICABLE

COOLER (S) TEMPERATURE A U LIMIT = 4C + \ - 2C

MAXIMUM VOLATILE HEADSPACE BUBBLE 4MM

Custody Seal
used [ ] Yes [ ] No
in tact [ ] Yes [ ] No

CUSTODIAN Mk

Appendix D

Waste Disposal Profile

COPY

WASTE MANAGEMENT

Confirmation of Profile

August 2, 2002

WASTE MANAGEMENT
Emelle Treatment Facility
Highway 17 N. Mile Marker 163
P.O. Box 55
Emelle, AL 35459
(205) 652-9721

ATT: STEVE GRANT
EQ INDUSTRIAL SERVICES
5600 FULTON INDUSTRIAL BLVD.
ATLANTA, GA 30336

Your waste material has been approved for disposal at CHESSER ISLAND LANDFILL located at Folkston, GA, subject to the terms of the Agreement between the companies. The following information is based on the volume profiled and analytical data you have provided:

Profile Number:	**WM-CU 6014 (PUBLIC WORKS CENTER)**
Waste Type:	**NON-HAZARDOUS, NON-REGULATED SOIL**
Profile Expiration Date:	**10/31/02**
Disposal rates:	[redacted]
Transportation rates:	**22 TON MINIMUM PER LOAD**
Demurrage rates:	**N/A**

NET PAYMENT IS WITHIN 30 DAYS. A LATE FEE OF (1.5%) WILL BE ASSESSED ON ACCOUNT AFTER 30 DAYS.

Note that disposal pricing is based on the information from your profile and analytical previously submitted. The actual invoice produced is determined on the actual volume received.

Waste Priced as Profiled – Invoiced as Received

Thank you for the opportunity to be of service to you.

Diana Simpson
CUSTOMER SERVICE
Florida Region

COPY

WASTE MANAGEMENT

GENERATOR'S WASTE PROFILE SHEET

PLEASE PRINT IN INK OR TYPE

Service Agreement on File? ☐ YES ☐ NO

☐ Hazardous ☒ Non-Hazardous ☐ TSCA

Profile Number: WM CU 6014

Renewal Date: 10/31/02

A. Waste Generator Information

1. Generator Name: Public Works center
2. SIC Code:
3. Facility Street Address: Box 30 Code 331
4. Phone: (904) 542-5979
5. Facility City: Jacksonville, Florida
6. State/Province: Georgia
7. Zip/Postal Code: 32212
8. Generator USEPA/Federal ID #: FL5170022474
9. County:
10. State/Province ID #:
11. Customer Name: EQ Industrial Services
12. Customer Phone: (904) 661-1873
13. Customer Contact: Steve Grant
14. Customer Fax: (904) 994-3566
15. Billing Address: ☐ Same as above

B. Waste Stream Information

1. Description

a. Name of Waste: Non Hazardous Non Regulated Soil

b. Process Generating Waste: Incidental Spills/Bio-Remediation Site 21

c. Color	d. Strong odor (describe):	e. Physical state @ 70°F	f. Layers	g. Free liquid range
Brown	Mild	☒ Solid ☐ Liquid ☐ Gas ☐ Sludge ☐ Other	☒ Single Layer ☐ Multi-layer	0 to 0 %
				h. pH: Range 5 to 9 %

i. Liquid Flash Point: ☐ <73°F ☐ 73-99°F ☐ 100-139°F ☐ 140-199°F ☐ ≥200°F ☐ Not applicable

j. Chemical Composition (List all constituents (including hydrocarbons, debris, and UHC's) present in any concentration and attach representative analysis)

Constituents	Concentration Range	Constituents	Concentration Range
Soil	98%		
Debris, Plastic, PPE, Rags	2%		

TOTAL COMPOSITION MUST EQUAL OR EXCEED 100%

k. ☐ Oxidizer ☐ Pyrophoric ☐ Explosive ☐ Radioactive ☐ Carcinogen ☐ Infectious ☐ Shock Sensitive ☐ Water Reactive

l. Does the waste represented by this profile contain any of the carcinogens which require OSHA notification? (list in Section B.1.j) ☐ YES ☒ NO

m. Does the waste represented by this profile contain dioxins? (list in Section B.1.j) ☐ YES ☒ NO

n. Does the waste represented by this profile contain asbestos? ☐ YES ☒ NO
If yes ☐ friable ☐ non-friable

o. Does the waste represented by this profile contain benzene? ☐ YES ☒ NO
If yes, concentration ____ ppm
Is the waste subject to the benzene waste operations NESHAP? ☐ YES ☒ NO

p. Is the waste subject to RCRA Subpart CC controls? ☐ YES ☒ NO
If no, does the waste meet the organic LDR Exemption? ☐ YES ☒ NO
If no, does the waste contain <500 ppmw volatile organic (VO)? ☐ YES ☒ NO
Volatile organic concentration ____ ppmw

q. Does the waste contain any Class I or Class II ozone-depleting substances? ☐ YES ☒ NO

r. Does the waste contain debris? (list in Ssection B.1.j) ☒ YES ☐ NO

2. Quantity of Waste
Estimated Annual Volume 100 ☒ Tons ☐ Yards ☐ Drums ☐ Other (specify) ____

3. Shipping Information

a. Packaging:
☒ Bulk Solid; Type/Size: Tractor Trailer ☐ Bulk Liquid: Type/Size: ____
☐ Drum; Type; Size: ____ ☐ Other: ____

b. Shipping Frequency: Units Tons Per ☐ Month ☐ Quarter ☐ Year ☒ One time ☐ Other ____

c. Is this a U.S. Department of Transportation (USDOT) Hazardous Material? (If no, skip d, e, and f) ☐ YES ☒ NO

3. Is the waste from a CERCLA (40 CFR 300, Appendix B) or state mandated clean-up? ☐YES ☐NO
If yes, attach Record of Decision (ROD), 104/106 or 122 order or court order that governs site clean-up activity. For state mandated clean-up, provide relevant documentation.

COPY

4. Does the waste represented by this waste profile sheet contain radioactive material, or is disposal regulated by the Nuclear Regulatory Commission? ☐YES ☒NO

5. Does the waste represented by this waste profile sheet contain concentrations of Polychlorinated Biphenyls (PCBs) regulated by 40 CFR 761? (If yes, list in Chemical Composition – B.1.j) ☐YES ☒NO
a. If yes, were the PCBs imported into the U.S.? ☐YES ☐NO

6. Do the waste profile sheet and all attachments contain true and accurate descriptions of the waste material, and has all relevant information within the possession of the Generator regarding known or suspected hazards pertaining to the waste been disclosed to the Contractor? ☒YES ☐NO

7. Will all changes which occur in the character of the waste be identified by the Generator and disclosed to the Contractor prior to providing the waste to the Contractor? ☒YES ☐NO

☐Check here if a Certificate of Destruction or Disposal is required.

Any sample submitted is representative as defined in 40 CFR 261 - Appendix I or by using an equivalent method. I authorize WM to obtain a sample from any waste shipment for purposes of recertification. If this certification is made by a broker, the undersigned signs as authorized agent of the generator and has confirmed the information contained in this Profile Sheet from information provided by the generator and additional information as it has determined to be reasonably necessary. If approved for management, Contractor has all the necessary permits and licenses for the waste that has been characterized and identified by this approved profile.

Certification Signature: [signature] Title: PW. Prod. SPEC. Date: 8-1-02
Name (Type or Print): Michael L McPherson Company Name: U.S. NAVY
☐Check if additional information is attached. Indicate the number of attached pages _____

FOR WM USE ONLY

D. WM Management's Decision

1. Management Method ☒Landfill ☐Non-hazardous Solidification ☐Bioremediation ☐Incineration ☐Hazardous Stabilization ☐Other (Specify) _____
2. Proposed Ultimate Management Facility: Chemical Island
3. Precautions, Special Handling Procedures, or Limitation on Approval: _____
4. Waste Form _____ 5. Source _____ 6. System Type _____

Special Waste Decision ☒Approved ☐Disapproved
Salesperson's Signature: _____ Date: _____
Division Approval Signature (Optional): _____ Date: _____
Special Waste Approvals Person Signature: [signature] Date: 8/2/02

999-2117

Appendix E

Copies of Soil Manifests and Weight Tickets

Note: The original manifests were printed with Beaver Bulk as the transporter, but Pritchett Trucking was used. The transporter line (Line 5) of the manifest was hand corrected to reflect the transporter change to Pritchett Trucking. In addition, the profile number (5793) on the pre-printed manifests was incorrect. This profile number (5793) that was pre-printed on the manifest was the profile for activities at Building 635, which was one of the sites being excavated during this Grey Sites Dig. The incorrect profile number (Line # 11a) was hand crossed out and the correct profile number (6014) was hand written in.

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

COPY

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. FL517002247 11 Manifest Document No. 2222

2. Page 1 of 1

3. Generator's Name and Mailing Address
PUBLIC WORKS CENTER
BOX 30, CODE 331
JACKSONVILLE, FL 32212

4. Generator's Phone 904 542-5979

A. Manifest Number WMNA 256507

B. State Generator's ID

5. Transporter 1 Company Name ~~BEAVER BULK~~ Petroleum

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone (800) 232-8371

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
CHESSER ISLAND ROAD LANDFILL, INC.
12.1 MILES SW OF FOLKSTON
P. O. BOX 128
FOLKSTON, GA 37537

10. US EPA ID Number 024-0006D

G. State Facility's ID NA

H. Facility's Phone 912-496-7918

11. Description of Waste Materials	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a. NON-HAZARDOUS, NON-REGULATED SOIL WM Profile # 6014 ~~CU 5793~~	001	DT	19.9	T	
b. WM Profile #					
c. WM Profile #					
d. WM Profile #					

J. Additional Descriptions for Materials Listed Above

Landfill _____ Solidification _____

Bio Remediation _____

K. Disposal Location

Cell Level

Grid

15. Special Handling Instructions and Additional Information

21 Truck 716 Building 21

Purchase Order #

EMERGENCY CONTACT: STEVE GRANT (404)661-1873

16. GENERATOR'S CERTIFICATION:

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.

Printed/Typed Name: MITCHELL B. McPHERSON

Signature (On behalf of): [signature]

Month Day Year: 08 02 02

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year: 08 02 02

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

FACILITY

19. Certificate of Final Treatment/Disposal

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certificateion of receipt of non-hazardous materials covered by this manifest.

Printed/Typed Name

Signature

Month Day Year

CWM - NHM - 1- 5/97

#5 - FACILITY USE ONLY

WEIGHED ON A FAIRBANKS SCALE

-2 D2

R'S NAME E Q

TY

Pritchett

DATE TIME

Tare 25120

lb GROSS

lb TARE – DRIVER ON OFF

lb NET @ PER lb PRICE

Truck # 716

REMARKS Bldg 21

Tons 19.9

Manifest 256507

NKS CAT. 083602

06-20-01 08:57 AM 44920 16 GA

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

COPY

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. FL517002247 Manifest Document No. 12123

2. Page 1 of 1

A. Manifest Number WMNA 256508

3. Generator's Name and Mailing Address
PUBLIC WORKS CENTER
BOX 30, CODE 331
JACKSONVILLE, FL 32212

4. Generator's Phone 904 542-5979

B. State Generator's ID

5. Transporter 1 Company Name ~~BEAVER BULK~~

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone (800) 232-8371

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
CHESSER ISLAND ROAD LANDFILL, INC.
12.1 MILES SW OF FOLKSTON
P. O. BOX 128
FOLKSTON, GA 37537

10. US EPA ID Number 024-0006D

G. State Facility's ID NA

H. Facility's Phone 912-496-7918

11. Description of Waste Materials	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a. NON-HAZARDOUS, NON-REGULATED SOIL WM Profile # 6014 ~~CU 5793~~	001	T	19.16	T	
b. WM Profile #					
c. WM Profile #					
d. WM Profile #					

J. Additional Descriptions for Materials Listed Above

Landfill_____ Solidification_____

Bio Remediation_____

K. Disposal Location

Cell Level

Grid

15. Special Handling Instructions and Additional Information

Purchase Order # EMERGENCY CONTACT: STEVE GRANT (404)661-1873

16. GENERATOR'S CERTIFICATION:

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.

Printed/Typed Name: MITCHELL B. McPHERSON Signature "On behalf of" Month Day Year 08 02 02

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name Signature Month Day Year 08 02 02

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name Signature Month Day Year

19. Certificate of Final Treatment/Disposal

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certificateion of receipt of non-hazardous materials covered by this manifest.

Printed/Typed Name Signature Month Day Year

GENERATOR TRANSPORTER FACILITY

CWM - NHM - 1- 5/97

#5 - FACILITY USE ONLY

WEIGHED ON A FAIRBANKS SCALE

P-2-02

OMER'S NAME EQ

ESS

IODITY

IER Pr Archett

DATE TIME

Tare 23260

lb GROSS 61580 lb GR

lb TARE — DRIVER ON OFF

lb NET @ PER lb PRICE

08-02-01 08:46 AM

ER Truck # 1021

HER

REMARKS Bldg 21
Tons 19.16
Manifest 256508

RBANKS CAT. 083602

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

COPY

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. FL517002247 1 Manifest Document No. 12224

2. Page 1 of 1

3. Generator's Name and Mailing Address
PUBLIC WORKS CENTER
BOX 30, CODE 331
JACKSONVILLE, FL 32212

4. Generator's Phone 904 542-5979

A. Manifest Number WMNA 256509

B. State Generator's ID

5. Transporter 1 Company Name ~~BEAVER BULK~~

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone (800) ~~232-8371~~

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
CHESSER ISLAND ROAD LANDFILL, INC.
12.1 MILES SW OF FOLKSTON
P. O. BOX 128
FOLKSTON, GA 37537

10. US EPA ID Number 024-0006D

G. State Facility's ID NA

H. Facility's Phone 912-496-7918

GENERATOR

11. Description of Waste Materials	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a. NON-HAZARDOUS, NON-REGULATED SOIL WM Profile # 6014 OU 5793	001	DT	19.63	T	
b. WM Profile #					
c. WM Profile #					
d. WM Profile #					

J. Additional Descriptions for Materials Listed Above

Landfill_____ Solidification_____

Bio Remediation_____

K. Disposal Location

Cell Level

Grid

15. Special Handling Instructions and Additional Information

Purchase Order # EMERGENCY CONTACT: STEVE GRANT (404)661-1873

16. GENERATOR'S CERTIFICATION:

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.

Printed/Typed Name: MITCHELL B. McPHERSON

Signature "On behalf of"

Month Day Year: 080203

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Joe Brown

Signature

Month Day Year: 080203

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

FACILITY

19. Certificate of Final Treatment/Disposal

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certificateion of receipt of non-hazardous materials covered by this manifest.

Printed/Typed Name

Signature

Month Day Year

CWM - NHM - 1- 5/97

#5 - FACILITY USE ONLY

WEIGHED ON A FAIRBANKS SCALE

8-2-02

MER'S NAME EQ

S

DITY

R Pritchett

DATE TIME

Tare 18646

lb GROSS

lb TARE – DRIVER ON OFF

lb NET @ PER lb PRICE

57920 lb GR

08-02-01
09:00 AM

Truck # 706

R

REMARKS Bldg 21
Tons 19.63
Manifest 256509

ANKS CAT. 083602

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

COPY

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. FL517002247 1 / 2225 Manifest Document No.

2. Page 1 of 1

3. Generator's Name and Mailing Address
PUBLIC WORKS CENTER
BOX 30, CODE 331
JACKSONVILLE, FL 32212

4. Generator's Phone 904 542-5979

A. Manifest Number WMNA 256510

B. State Generator's ID

5. Transporter 1 Company Name ~~BEGWER BULK~~

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone (800) ~~232-0374~~

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
CHESSER ISLAND ROAD LANDFILL, INC.
12.1 MILES SW OF FOLKSTON
P. O. BOX 128
FOLKSTON, GA 37537

10. US EPA ID Number 024-0006D

G. State Facility's ID NA

H. Facility's Phone 912-496-7918

GENERATOR

11. Description of Waste Materials	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a. NON-HAZARDOUS, NON-REGULATED SOIL WM Profile # 6014 CU ~~5793~~	001	DT	12018	T	
b. WM Profile #					
c. WM Profile #					
d. WM Profile #					

J. Additional Descriptions for Materials Listed Above

Landfill_____ Solidification_____

Bio Remediation_____

K. Disposal Location

Cell Level

Grid

15. Special Handling Instructions and Additional Information

Purchase Order # EMERGENCY CONTACT: STEVE GRANT (404)661-1873

16. GENERATOR'S CERTIFICATION:

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.

Printed/Typed Name: MITCHELL B. McPHERSON | Signature "On behalf of" | Month Day Year 08 02 02

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month Day Year 08 02 02

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month Day Year

FACILITY

19. Certificate of Final Treatment/Disposal

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certificateion of receipt of non-hazardous materials covered by this manifest.

Printed/Typed Name | Signature | Month Day Year

CWM - NHM - 1- 5/97

#5 - FACILITY USE ONLY

WEIGHED ON A FAIRBANKS SCALE

-02

S NAME EQ

Pritchett

ATE TIME

tare
25120

lb GROSS
lb TARE – DRIVER ON OFF
lb NET @ PER lb PRICE

65480 lb GR
08-02-01
11:27 AM

Truck # 716

REMARKS Bldg 21
Tons 20.18
manifest 256510

IKS CAT. 083602

Appendix F

Certificate of Disposal

WASTE MANAGEMENT

CERTIFICATE OF DISPOSAL

This is to document the disposition of waste material(s) removed from your facility located at:

Cecil Field Public Works Center , Jacksonville, Florida

Charged to: EQ Industrial Services, 5600 Fulton Ind. Blvd., Atlanta, GA 30336

The waste material(s) consisted of

a) Soil

A. The waste material(s) were transported by:

B. 1st Company: Pritchett Trucking EPA ID #: SLD984178269

The waste material(s) were disposed of at:

Facility: Chesser Island Road Landfill (Solid Waste Handling Permit #024-006 D (SL)

Address: P.O. Box 128, Highway 121 @ Chesser Island Road
Folkston, GA 31537-0128

C. Disposal of your waste material(s) was accomplished by the following method(s):

a) Subtitle-D Landfill, immediately compacted and covered in accordance with all permit regulations

E. Date of Disposal: August 2, 2002

F. Tons Disposed: 78.87 tons (Manifests #256507 through 256510)

Linda J. Hair, Office Manager

Chesser Island Road Landfill
P.O. Box 128, Hwy 121 @Chesser Island Rd
Folkston, Ga 31537
912/496-7918

Appendix G

Clean Fill Material Analytical Laboratory Report
(Provided on CD)

GULF COAST
ANALYTICAL LABORATORIES, INC.

ANALYTICAL RESULTS

PERFORMED BY

GULF COAST ANALYTICAL LABORATORIES, INC.

Report Date: 06/27/2002

GCAL REPORT NO.: 202062002

Deliver To:	CH2M HILL Constructors Inc. 115 Perimeter Center Place N.E., Suite 700 Atlanta, GA 30346-1278 770-604-9182 Ext. 562
Attn:	Tatianna Romanova

CUSTOMER NAME: CH2M HILL Constructors Inc.

PROJECT NAME: FISC Jacksonville

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

CASE NARRATIVE

Client: CH2M HILL **Group No:** 202062002

ORGANIC QUALITY CONTROL CRITERIA:

Holding Times: All holding times were within method criteria.

Method Blanks: All method blanks were within quality control criteria.

Instrument Calibration: Both the initial and continuing calibrations were within method quality control criteria.

Surrogate Spikes: In the Florida Pro analysis, the surrogate recovery nonatriacontane in method blank 46425 was below recovery limit, all other surrogate recoveries were within control limits in the associated samples.

All other surrogate recoveries were within quality control criteria.

Matrix Spike/Matrix Spike Duplicate (MS/MSD): In the Semi Volatile analysis, the recoveries for 3,3-Dichlorobenzidine and 4-Chloroanaline were below the control limits in the MS/MSD for batch 145931.

In the PCB analysis, the MS/MSD RPD recoveries in batch 146072 were out of control limits due to the matrix of the sample and the presence of target analytes; however, the MS/MSD recoveries match.

All other MS/MSD recoveries were found to be within quality control limits.

Internal Standard Responses: All internal standard responses met method quality control criteria.

Analysis Comments: In the Volatile analysis, the RPD for Chloroethane in the LCS/LCSD was above control limits for QC batch #145825.

In the Semi Volatile analysis, the recoveries for 3,3-Dichlorobenzidine and Benzaldehyde were below control limit in the LCS for QC batch #145931.

In the Pesticide analysis, the recoveries for alpha-BHC, Dieldrin, Endrin and 4,4'-DDT were above control limits in the LCS for batch 146072.

No other unusual analytical problems were encountered during the analysis of these samples.

INORGANIC QUALITY CONTROL CRITERIA:

Holding Times: All holding times were within method criteria.

Method Blanks: Calcium was detected in the method blank. The concentration is insignificant compared to the concentration detected in the sample.

All other method blanks were found to be within quality control criteria.

CASE NARRATIVE

Client: CH2M HILL **Group No:** 202062002

INORGANIC QUALITY CONTROL CRITERIA:

Spike/Duplicate (S/D): In the Metals analysis, a post digestion spike was performed in the QC sample for this batch because the recoveries for Aluminum, Antimony, and Iron were outside the control limit in the matrix spike and matrix spike duplicate. The post-digestion spike recoveries for these elements were 99%, 91%, and 96%.

All other S/D recoveries were within quality control criteria.

Laboratory Control Samples: All LCS analyses met quality control criteria.

Calibration Verifications: All ICV, ICB, CCV, CCB analyses met all quality control criteria.

Analysis Comments: Aluminum, Calcium, Chromium, Iron, and Magnesium are flagged as estimated due to the fact that the percent difference between the original sample result and the serial dilution result is greater than ten. A chemical or physical interference is suspected for these analytes.

No other unusual analytical problems were encountered during the analysis of these samples.

LABORATORY ENDORSEMENT

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with ISO Guide 25 and NELAC, this report shall be reproduced 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.

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 of in accordance with GCAL's Standard Operating Procedures.

ND-Indicates that the result was not detected at the specified Reporting Limit (RDL)
DO-Indicates that the result was diluted out
MI-Indicates that the result was subject to Matrix Interference
TNTC-Indicates that the result was Too Numerous To Count
J-Indicates that the result was detected between the RDL and the MDL
U-Indicates that the result was not detected at the RDL
SUBC-Indicates that the analysis was Sub-contracted
FLD-Indicates that the result was performed in the field by the client
B- (ORGANICS) Indicates that the analyte was detected in the associated Method Blank
B- (INORGANICS) Indicates that the result is between the RDL and MDL
00:00 Reported as a time is equivalent to 24:00

This Report pertains only to the samples listed in the Sample Cross-Reference 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 CCI contract and Statement of Work both technically and for completeness, for other than the condition detailed above. 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 NO.: 202062002

SAMPLE CROSS-REFERENCE

GCAL ID	CLIENT ID	MATRIX	SAMPLE DATE/TIME	RECEIVE DATE/TIME
20206200201	046-BF-S-0619-02	Solid	06/19/2002 09:40	06/20/2002 09:05
20206200202	046-RB-S-0619-02	Solid	06/19/2002 11:00	06/20/2002 09:05
20206200203	046-TB-W-0619-02	Water	06/19/2002 00:00	06/20/2002 09:05

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

	EPA SAMPLE NO.	SMC1 #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER (BFB) #	TOT OUT
01	46326	95	97	98	99	0
02	46525	88	95	99	104	0
03	46325	102	100	102	93	0
04	046-TB-W	106	105	101	87	0
05						
06						
07						
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09						
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23						
24						
25						
26						
27						
28						
29						
30						

		QC LIMITS
SMC1	= Dibromofluoromethane	(70-130)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(76-128)
SMC3 (TOL)	= Toluene-d8	(83-112)
OTHER (BFB)	= Bromofluorobenzene	(78-115)

Column to be used to flag recovery values

* Values outside of contract required QC limits

2B
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Level:(low/med) LOW

	EPA SAMPLE NO.	SMC1 (TOL)#	SMC2 (BFB)#	SMC3 (DCE)#	OTHER #	TOT OUT
01	46407	96	102	102	103	0
02	46408	99	102	98	100	0
03	46406	101	100	101	99	0
04	046-BF-S	102	103	104	102	0
05	046-RB-S	103	103	103	100	0
06						
07						
08						
09						
10						
11						
12						
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30						

		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(65-128)
SMC2 (BFB)	= Bromofluorobenzene	(73-138)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(60-140)
OTHER	= Dibromofluoromethane	(70-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

QUALITY CONTROL SUMMARY

LCS ID: 46326	ORIGINAL LAB ID:	PREP BATCH:
	MATRIX Water	ANALYTICAL BATCH: 145825

SW-846 8260B

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
67-64-1	Acetone	50 ug/L	49.6	99	58 - 165
75-27-4	Bromodichloromethane	50 ug/L	47.1	94	76 - 128
75-25-2	Bromoform	50 ug/L	48.9	98	67 - 145
74-83-9	Bromomethane	50 ug/L	41.5	83	73 - 147
75-15-0	Carbon disulfide	50 ug/L	47.3	95	37 - 155
56-23-5	Carbon tetrachloride	50 ug/L	45.3	91	75 - 128
75-00-3	Chloroethane	50 ug/L	52.1	104	46 - 160
67-66-3	Chloroform	50 ug/L	45.8	92	80 - 124
74-87-3	Chloromethane	50 ug/L	48.7	97	71 - 120
124-48-1	Dibromochloromethane	50 ug/L	46.6	93	43 - 159
75-71-8	Dichlorodifluoromethane	50 ug/L	47.9	96	70 - 127
75-34-3	1,1-Dichloroethane	50 ug/L	48.5	97	75 - 127
107-06-2	1,2-Dichloroethane	50 ug/L	46.3	93	79 - 134
156-59-2	cis-1,2-Dichloroethene	50 ug/L	48.3	97	78 - 124
156-60-5	trans-1,2-Dichloroethene	50 ug/L	48.2	96	75 - 124
75-09-2	Methylene chloride	50 ug/L	44	88	74 - 130
78-87-5	1,2-Dichloropropane	50 ug/L	49.4	99	77 - 129
10061-01-5	cis-1,3-Dichloropropene	50 ug/L	48.3	97	73 - 128
10061-02-6	trans-1,3-Dichloropropene	50 ug/L	48.3	97	72 - 134
100-41-4	Ethylbenzene	50 ug/L	48	96	75 - 138
591-78-6	2-Hexanone	50 ug/L	53.7	107	71 - 166
98-82-8	Isopropylbenzene (Cumene)	50 ug/L	50.7	101	66 - 151
78-93-3	2-Butanone	50 ug/L	54	108	59 - 157
108-10-1	4-Methyl-2-pentanone	50 ug/L	54.2	108	65 - 159
100-42-5	Styrene	50 ug/L	49.3	99	75 - 139
127-18-4	Tetrachloroethene	50 ug/L	47.6	95	75 - 140
79-34-5	1,1,2,2-Tetrachloroethane	50 ug/L	47.3	95	55 - 153
120-82-1	1,2,4-Trichlorobenzene	50 ug/L	49.9	100	60 - 148
71-55-6	1,1,1-Trichloroethane	50 ug/L	46.6	93	45 - 152
79-00-5	1,1,2-Trichloroethane	50 ug/L	48.3	97	73 - 144
75-69-4	Trichlorofluoromethane	50 ug/L	46.6	93	73 - 131
75-01-4	Vinyl chloride	50 ug/L	52.6	105	68 - 127
96-12-8	1,2-Dibromo-3-chloropropane	50 ug/L	50.4	101	58 - 148
106-93-4	1,2-Dibromoethane	50 ug/L	47.2	94	74 - 140
1634-04-4	tert-Butyl methyl ether (MTBE)	50 ug/L	50.4	101	70 - 130
1330-20-7	Xylene (total)	150 ug/L	145	97	60 - 154
108-87-2	Methylcyclohexane	50 ug/L	50.9	102	40 - 130
110-82-7	Cyclohexane	50 ug/L	49.6	99	70 - 130
79-20-9	Methyl Acetate	50 ug/L	48	96	70 - 130

QUALITY CONTROL SUMMARY

76-13-1	Trichlorotrifluoroethane	50 ug/L	48.8	98	70 - 130
541-73-1	1,3-Dichlorobenzene	50 ug/L	46.7	93	65 - 143
106-46-7	1,4-Dichlorobenzene	50 ug/L	50	100	68 - 142
95-50-1	1,2-Dichlorobenzene	50 ug/L	48.8	98	67 - 142
75-35-4	1,1-Dichloroethene	50 ug/L	49.5	99	67 - 140
71-43-2	Benzene	50 ug/L	48.5	97	74 - 128
79-01-6	Trichloroethene	50 ug/L	51.4	103	63 - 118
108-88-3	Toluene	50 ug/L	48.5	97	76 - 125
108-90-7	Chlorobenzene	50 ug/L	48.2	96	78 - 125

LCSD LAB ID: 46525 ORIGINAL LAB ID: PREP BATCH:
MATRIX Water ANALYTICAL BATCH: 145825

SW-846 8260B

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
67-64-1	Acetone	50 ug/L	46.6	93	58 - 165	6	0 - 30
75-27-4	Bromodichloromethane	50 ug/L	43.8	88	76 - 128	7	0 - 30
75-25-2	Bromoform	50 ug/L	49.8	100	67 - 145	2	0 - 30
74-83-9	Bromomethane	50 ug/L	39.5	79	73 - 147	5	0 - 30
75-15-0	Carbon disulfide	50 ug/L	42.1	84	37 - 155	12	0 - 30
56-23-5	Carbon tetrachloride	50 ug/L	40.8	82	75 - 128	10	0 - 30
75-00-3	Chloroethane	50 ug/L	37.6	75	46 - 160	32 *	0 - 30
67-66-3	Chloroform	50 ug/L	41.9	84	80 - 124	9	0 - 30
74-87-3	Chloromethane	50 ug/L	43	86	71 - 120	12	0 - 30
124-48-1	Dibromochloromethane	50 ug/L	47.9	96	43 - 159	3	0 - 30
75-71-8	Dichlorodifluoromethane	50 ug/L	42.4	85	70 - 127	12	0 - 30
75-34-3	1,1-Dichloroethane	50 ug/L	43.5	87	75 - 127	11	0 - 30
107-06-2	1,2-Dichloroethane	50 ug/L	43.7	87	79 - 134	7	0 - 30
156-59-2	cis-1,2-Dichloroethene	50 ug/L	43.8	88	78 - 124	10	0 - 30
156-60-5	trans-1,2-Dichloroethene	50 ug/L	43.2	86	75 - 124	11	0 - 30
75-09-2	Methylene chloride	50 ug/L	40.2	80	74 - 130	10	0 - 30
78-87-5	1,2-Dichloropropane	50 ug/L	45.9	92	77 - 129	7	0 - 30
10061-01-5	cis-1,3-Dichloropropene	50 ug/L	44.3	89	73 - 128	9	0 - 30
10061-02-6	trans-1,3-Dichloropropene	50 ug/L	44.3	89	72 - 134	9	0 - 30
100-41-4	Ethylbenzene	50 ug/L	48.7	97	75 - 138	1	0 - 30
591-78-6	2-Hexanone	50 ug/L	52.9	106	71 - 166	0.9	0 - 30
98-82-8	Isopropylbenzene (Cumene)	50 ug/L	48.8	98	66 - 151	3	0 - 30
78-93-3	2-Butanone	50 ug/L	49.8	100	59 - 157	8	0 - 30
108-10-1	4-Methyl-2-pentanone	50 ug/L	50	100	65 - 159	8	0 - 30
100-42-5	Styrene	50 ug/L	47.1	94	75 - 139	5	0 - 30
127-18-4	Tetrachloroethene	50 ug/L	43.4	87	75 - 140	9	0 - 30
79-34-5	1,1,2,2-Tetrachloroethane	50 ug/L	49.3	99	55 - 153	4	0 - 30
120-82-1	1,2,4-Trichlorobenzene	50 ug/L	49.8	100	60 - 148	0	0 - 30
71-55-6	1,1,1-Trichloroethane	50 ug/L	42.3	85	45 - 152	9	0 - 30
79-00-5	1,1,2-Trichloroethane	50 ug/L	46.2	92	73 - 144	5	0 - 30

QUALITY CONTROL SUMMARY

75-69-4	Trichlorofluoromethane	50 ug/L	40.5	81	73 - 131	14	0 - 30
75-01-4	Vinyl chloride	50 ug/L	46.1	92	68 - 127	13	0 - 30
96-12-8	1,2-Dibromo-3-chloropropane	50 ug/L	52.4	105	58 - 148	4	0 - 30
106-93-4	1,2-Dibromoethane	50 ug/L	47.3	95	74 - 140	1	0 - 30
1634-04-4	tert-Butyl methyl ether (MTBE)	50 ug/L	48.2	96	70 - 130	5	0 - 30
1330-20-7	Xylene (total)	150 ug/L	135	90	60 - 154	7	0 - 30
108-87-2	Methylcyclohexane	50 ug/L	45.8	92	70 - 130	10	0 - 30
110-82-7	Cyclohexane	50 ug/L	44.5	89	70 - 130	11	0 - 30
79-20-9	Methyl Acetate	50 ug/L	45.5	91	70 - 130	5	0 - 30
76-13-1	Trichlorotrifluoroethane	50 ug/L	41.8	84	70 - 130	15	0 - 30
541-73-1	1,3-Dichlorobenzene	50 ug/L	52.1	104	65 - 143	11	0 - 30
106-46-7	1,4-Dichlorobenzene	50 ug/L	43.2	86	68 - 142	15	0 - 30
95-50-1	1,2-Dichlorobenzene	50 ug/L	48	96	67 - 142	2	0 - 30
75-35-4	1,1-Dichloroethene	50 ug/L	43.6	87	67 - 140	13	0 - 14
71-43-2	Benzene	50 ug/L	44.2	88	74 - 128	10	0 - 11
79-01-6	Trichloroethene	50 ug/L	47.3	95	63 - 118	8	0 - 12
108-88-3	Toluene	50 ug/L	44.2	88	76 - 125	10	0 - 14
108-90-7	Chlorobenzene	50 ug/L	47.4	95	78 - 125	1	0 - 13

MS LAB ID: 46572 ORIGINAL LAB ID: 20206190301 PREP BATCH:
MATRIX Solid ANALYTICAL BATCH: 145825

SW-846 8260B

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
56-23-5	Carbon tetrachloride	0	2000 ug/L	1720	86	68 - 138
67-66-3	Chloroform	0	2000 ug/L	1840	92	72 - 136
107-06-2	1,2-Dichloroethane	0	2000 ug/L	1950	98	75 - 134
78-93-3	2-Butanone	0	2000 ug/L	1630	82	49 - 170
127-18-4	Tetrachloroethene	0	2000 ug/L	1840	92	79 - 141
75-01-4	Vinyl chloride	0	2000 ug/L	1930	97	65 - 136
75-35-4	1,1-Dichloroethene	0	2000 ug/L	1660	83	59 - 172
71-43-2	Benzene	0	2000 ug/L	2140	107	60 - 133
79-01-6	Trichloroethene	0	2000 ug/L	1900	95	62 - 137
108-90-7	Chlorobenzene	0	2000 ug/L	1940	97	66 - 142

MSD LAB ID: 46573 ORIGINAL LAB ID: 20206190301 PREP BATCH:
MATRIX Solid ANALYTICAL BATCH: 145825

SW-846 8260B

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
56-23-5	Carbon tetrachloride	2000 ug/L	2010	101	68 - 138	16	0 - 30
67-66-3	Chloroform	2000 ug/L	1910	96	72 - 136	4	0 - 30
107-06-2	1,2-Dichloroethane	2000 ug/L	1830	92	75 - 134	6	0 - 30
78-93-3	2-Butanone	2000 ug/L	1870	94	49 - 170	14	0 - 30
127-18-4	Tetrachloroethene	2000 ug/L	2040	102	79 - 141	10	0 - 30
75-01-4	Vinyl chloride	2000 ug/L	2100	105	65 - 136	8	0 - 30

QUALITY CONTROL SUMMARY

75-35-4	1,1-Dichloroethene	2000 ug/L	2030	102	59 - 172	21	0 - 22
71-43-2	Benzene	2000 ug/L	2040	102	60 - 133	5	0 - 21
79-01-6	Trichloroethene	2000 ug/L	2110	106	62 - 137	11	0 - 24
108-90-7	Chlorobenzene	2000 ug/L	2040	102	66 - 142	5	0 - 21

LCS ID: 46407 ORIGINAL LAB ID: PREP BATCH:
MATRIX Solid ANALYTICAL BATCH: 145848

SW-846 8260B

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
67-64-1	Acetone	50 ug/Kg	44.1	88	58 - 165
75-27-4	Bromodichloromethane	50 ug/Kg	52.1	104	76 - 132
75-25-2	Bromoform	50 ug/Kg	52.2	104	73 - 144
74-83-9	Bromomethane	50 ug/Kg	51.5	103	74 - 166
75-15-0	Carbon disulfide	50 ug/Kg	44.7	89	64 - 136
56-23-5	Carbon tetrachloride	50 ug/Kg	51.6	103	68 - 138
75-00-3	Chloroethane	50 ug/Kg	51.2	102	73 - 183
67-66-3	Chloroform	50 ug/Kg	50.9	102	72 - 136
74-87-3	Chloromethane	50 ug/Kg	48.1	96	46 - 138
124-48-1	Dibromochloromethane	50 ug/Kg	52.3	105	78 - 136
75-71-8	Dichlorodifluoromethane	50 ug/Kg	46.6	93	63 - 135
75-34-3	1,1-Dichloroethane	50 ug/Kg	50.6	101	69 - 133
107-06-2	1,2-Dichloroethane	50 ug/Kg	53.7	107	75 - 134
156-59-2	cis-1,2-Dichloroethene	50 ug/Kg	51.2	102	68 - 136
156-60-5	trans-1,2-Dichloroethene	50 ug/Kg	49.3	99	66 - 134
75-09-2	Methylene chloride	50 ug/Kg	44.5	89	61 - 145
78-87-5	1,2-Dichloropropane	50 ug/Kg	51.7	103	83 - 123
10061-01-5	cis-1,3-Dichloropropene	50 ug/Kg	52.4	105	7 - 186
10061-02-6	trans-1,3-Dichloropropene	50 ug/Kg	52	104	17 - 138
100-41-4	Ethylbenzene	50 ug/Kg	50.2	100	80 - 137
591-78-6	2-Hexanone	50 ug/Kg	49.2	98	62 - 181
98-82-8	Isopropylbenzene (Cumene)	50 ug/Kg	50	100	71 - 140
78-93-3	2-Butanone	50 ug/Kg	49.1	98	49 - 170
108-10-1	4-Methyl-2-pentanone	50 ug/Kg	50.9	102	76 - 159
100-42-5	Styrene	50 ug/Kg	49.3	99	75 - 139
127-18-4	Tetrachloroethene	50 ug/Kg	48.9	98	79 - 141
79-34-5	1,1,2,2-Tetrachloroethane	50 ug/Kg	48.5	97	74 - 148
120-82-1	1,2,4-Trichlorobenzene	50 ug/Kg	52	104	40 - 129
71-55-6	1,1,1-Trichloroethane	50 ug/Kg	50.9	102	71 - 135
79-00-5	1,1,2-Trichloroethane	50 ug/Kg	51	102	77 - 141
75-69-4	Trichlorofluoromethane	50 ug/Kg	52.1	104	69 - 138
75-01-4	Vinyl chloride	50 ug/Kg	48.9	98	65 - 136
96-12-8	1,2-Dibromo-3-chloropropane	50 ug/Kg	54.6	109	71 - 144
106-93-4	1,2-Dibromoethane	50 ug/Kg	52.2	104	75 - 143
1634-04-4	tert-Butyl methyl ether (MTBE)	50 ug/Kg	53	106	70 - 130

QUALITY CONTROL SUMMARY

1330-20-7	Xylene (total)	150 ug/Kg	148	99	79 - 136
108-87-2	Methylcyclohexane	50 ug/Kg	51.5	103	70 - 130
110-82-7	Cyclohexane	50 ug/Kg	52.5	105	70 - 130
79-20-9	Methyl Acetate	50 ug/Kg	50.3	101	70 - 130
76-13-1	Trichlorotrifluoroethane	50 ug/Kg	53.3	107	70 - 130
541-73-1	1,3-Dichlorobenzene	50 ug/Kg	49.3	99	75 - 131
106-46-7	1,4-Dichlorobenzene	50 ug/Kg	46.1	92	69 - 136
95-50-1	1,2-Dichlorobenzene	50 ug/Kg	48.6	97	73 - 129
75-35-4	1,1-Dichloroethene	50 ug/Kg	50.2	100	70 - 131
71-43-2	Benzene	50 ug/Kg	50.5	101	77 - 126
79-01-6	Trichloroethene	50 ug/Kg	50.6	101	70 - 124
108-88-3	Toluene	50 ug/Kg	48.8	98	76 - 124
108-90-7	Chlorobenzene	50 ug/Kg	48.7	97	80 - 121

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

46325

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Lab File ID: R5644 Lab Sample ID: 46325

Date Analyzed: 06/20/02 Time Analyzed: 1838

GC Column: DB-624-30MID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: MSV0

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	46326	46326	R5641	1714
02	46525	46525	R5642	1737
03	046-TB-W	20206200203	R5650	2147
04				
05				
06				
07				
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COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

46406

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Lab File ID: R7866 Lab Sample ID: 46406

Date Analyzed: 06/20/02 Time Analyzed: 1106

GC Column: DB-624-M ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: MSV4

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	46407	46407	R7864	1004
02	46408	46408	R7865	1031
03	046-BF-S	20206200201	R7867	1212
04	046-RB-S	20206200202	R7868	1239
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COMMENTS:

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Lab File ID: R7728 BFB Injection Date: 06/14/02

Instrument ID: MSV4 BFB Injection Time: 1237

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.8
75	30.0 - 60.0% of mass 95	39.0
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 99.9% of mass 95	82.3
175	5.0 - 9.0% of mass 174	5.9 (7.1)1
176	95.0 - 101.0% of mass 174	80.0 (97.2)1
177	5.0 - 9.0% of mass 176	5.2 (6.5)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	V4STD020	V4STD020	R7731	06/14/02	1410
02	V4STD050	V4STD050	R7732	06/14/02	1437
03	V4STD100	V4STD100	R7733	06/14/02	1504
04	V4STD200	V4STD200	R7734	06/14/02	1531
05	V4STD005	V4STD005	R7736	06/14/02	1625
06	V2ICV050	V2ICV050	R7737	06/14/02	1703
07					
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21					
22					

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Lab File ID: R5621 BFB Injection Date: 06/20/02

Instrument ID: MSV0 BFB Injection Time: 0721

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.9
75	30.0 - 60.0% of mass 95	47.5
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 99.9% of mass 95	69.9
175	5.0 - 9.0% of mass 174	5.3 (7.6)1
176	95.0 - 101.0% of mass 174	68.4 (98.0)1
177	5.0 - 9.0% of mass 176	4.4 (6.5)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	V0STD00.2	V0STD00.2	R5626	06/20/02	1029
02	V0STD00.4	V0STD00.4	R5627	06/20/02	1053
03	V0STD002	V0STD002	R5628	06/20/02	1117
04	V0STD050	V0STD050	R5630	06/20/02	1209
05	V0STD100	V0STD100	R5631	06/20/02	1232
06	V0STD200	V0STD200	R5632	06/20/02	1255
07	V0STD020	V0STD020	R5634	06/20/02	1345
08	V0STD005	V0STD005	R5636	06/20/02	1438
09	V1ICV050	V1ICV050	R5637	06/20/02	1500
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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Lab File ID: R7862 BFB Injection Date: 06/20/02

Instrument ID: MSV4 BFB Injection Time: 0832

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.7
75	30.0 - 60.0% of mass 95	40.8
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 99.9% of mass 95	80.3
175	5.0 - 9.0% of mass 174	5.5 (6.9)1
176	95.0 - 101.0% of mass 174	77.6 (96.6)1
177	5.0 - 9.0% of mass 176	5.3 (6.8)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	V4STD050	V4STD050	R7863	06/20/02	0906
02	46407	46407	R7864	06/20/02	1004
03	46408	46408	R7865	06/20/02	1031
04	46406	46406	R7866	06/20/02	1106
05	046-BF-S	20206200201	R7867	06/20/02	1212
06	046-RB-S	20206200202	R7868	06/20/02	1239
07					
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5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Lab File ID: R5639 BFB Injection Date: 06/20/02

Instrument ID: MSV0 BFB Injection Time: 1613

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.2
75	30.0 - 60.0% of mass 95	46.8
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 99.9% of mass 95	66.6
175	5.0 - 9.0% of mass 174	4.9 (7.4)1
176	95.0 - 101.0% of mass 174	64.5 (96.8)1
177	5.0 - 9.0% of mass 176	4.4 (6.8)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	V0STD050	V0STD050	R5640	06/20/02	1652
02	46326	46326	R5641	06/20/02	1714
03	46525	46525	R5642	06/20/02	1737
04	46325	46325	R5644	06/20/02	1838
05	046-TB-W	20206200203	R5650	06/20/02	2147
06					
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8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Lab File ID (Standard): R7863 Date Analyzed: 06/20/02

Instrument ID: MSV4 Time Analyzed: 0906

GC Column: DB-624-M ID: 0.53 (mm) Heated Purge: (Y/N) Y

		IS1(CBZ) AREA #	RT #	IS2 AREA #	RT #	IS3(DCB) AREA #	RT #
	12 HOUR STD	285645	9.15	825575	6.85	207016	11.05
	UPPER LIMIT	571290	9.65	1651150	7.35	414032	11.55
	LOWER LIMIT	142822	8.65	412788	6.35	103508	10.55
	EPA SAMPLE NO.						
01	46407	280150	9.15	815704	6.85	204330	11.05
02	46408	248830	9.15	731868	6.85	181163	11.05
03	46406	223704	9.15	680858	6.85	147928	11.05
04	046-BF-S	271592	9.15	818442	6.85	178268	11.06
05	046-RB-S	254629	9.15	768005	6.85	172811	11.05
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IS1 (CBZ) = Chlorobenzene-d5
IS2 = FLUOROBENZENE
IS3 (DCB) = 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
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

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

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Lab File ID (Standard): R5640 Date Analyzed: 06/20/02

Instrument ID: MSV0 Time Analyzed: 1652

GC Column: DB-624-30M ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS1 AREA #	RT #	IS2(CBZ) AREA #	RT #	IS3(DCB) AREA #	RT #
	12 HOUR STD	6768950	5.83	2842429	8.07	1339267	9.66
	UPPER LIMIT	13537900	6.33	5684858	8.57	2678534	10.16
	LOWER LIMIT	3384475	5.33	1421214	7.57	669634	9.16
	EPA SAMPLE NO.						
01	46326	5960778	5.83	2769937	8.07	1597378	9.66
02	46525	6490182	5.83	2810612	8.07	1538361	9.67
03	46325	6112660	5.83	2733071	8.07	1630745	9.67
04	046-TB-W	5513784	5.83	2527498	8.08	1445185	9.66
05							
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22							

IS1 = FLUOROBENZENE
IS2 (CBZ) = CHLOROBENZENE-d5
IS3 (DCB) = 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
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

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

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200201	046-BF-S-0619-02	Solid	06/19/2002 09:40	06/20/2002 09:05	06/27/2002 08:58

8260B, VOA , Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	06/20/2002 12:12	RJO	145848

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
71-55-6	1,1,1-Trichloroethane	ND	5.81	0.302	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.81	0.325	ug/Kg
79-00-5	1,1,2-Trichloroethane	ND	5.81	0.244	ug/Kg
75-34-3	1,1-Dichloroethane	ND	5.81	0.290	ug/Kg
75-35-4	1,1-Dichloroethene	ND	5.81	0.314	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	ND	5.81	0.406	ug/Kg
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.81	0.441	ug/Kg
106-93-4	1,2-Dibromoethane	ND	5.81	0.186	ug/Kg
95-50-1	1,2-Dichlorobenzene	ND	5.81	0.662	ug/Kg
107-06-2	1,2-Dichloroethane	ND	5.81	0.244	ug/Kg
78-87-5	1,2-Dichloropropane	ND	5.81	0.267	ug/Kg
541-73-1	1,3-Dichlorobenzene	ND	5.81	0.476	ug/Kg
106-46-7	1,4-Dichlorobenzene	ND	5.81	0.244	ug/Kg
78-93-3	2-Butanone	ND	29.0	0.662	ug/Kg
591-78-6	2-Hexanone	ND	5.81	0.685	ug/Kg
108-10-1	4-Methyl-2-pentanone	ND	5.81	0.232	ug/Kg
67-64-1	Acetone	ND	29.0	1.38	ug/Kg
71-43-2	Benzene	ND	5.81	0.256	ug/Kg
75-27-4	Bromodichloromethane	ND	5.81	0.197	ug/Kg
75-25-2	Bromoform	ND	5.81	0.244	ug/Kg
74-83-9	Bromomethane	ND	5.81	0.441	ug/Kg
75-15-0	Carbon disulfide	ND	5.81	0.221	ug/Kg
56-23-5	Carbon tetrachloride	ND	5.81	0.279	ug/Kg
108-90-7	Chlorobenzene	ND	5.81	0.267	ug/Kg
75-00-3	Chloroethane	ND	5.81	0.325	ug/Kg
67-66-3	Chloroform	ND	5.81	0.221	ug/Kg
74-87-3	Chloromethane	ND	5.81	0.232	ug/Kg
110-82-7	Cyclohexane	ND	5.81	1.16	ug/Kg
124-48-1	Dibromochloromethane	ND	5.81	0.244	ug/Kg
75-71-8	Dichlorodifluoromethane	ND	5.81	0.232	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	ND	5.81	0.186	ug/Kg
10061-02-6	trans-1,3-Dichloropropene	ND	5.81	0.163	ug/Kg
100-41-4	Ethylbenzene	ND	5.81	0.279	ug/Kg
98-82-8	Isopropylbenzene (Cumene)	ND	5.81	1.16	ug/Kg
79-20-9	Methyl Acetate	ND	5810	1.16	ug/Kg
108-87-2	Methylcyclohexane	ND	5810	1.16	ug/Kg
75-09-2	Methylene chloride	ND	11.6	3.83	ug/Kg

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200201	046-BF-S-0619-02	Solid	06/19/2002 09:40	06/20/2002 09:05	06/27/2002 08:58

8260B, VOA , Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	06/20/2002 12:12	RJO	145848

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
100-42-5	Styrene	ND	5.81	0.279	ug/Kg
127-18-4	Tetrachloroethene	ND	5.81	0.406	ug/Kg
108-88-3	Toluene	ND	5.81	0.163	ug/Kg
79-01-6	Trichloroethene	ND	5.81	0.348	ug/Kg
75-69-4	Trichlorofluoromethane	ND	5.81	0.197	ug/Kg
76-13-1	Trichlorotrifluoroethane	ND	5.81	1.16	ug/Kg
75-01-4	Vinyl chloride	ND	2.32	0.290	ug/Kg
1330-20-7	Xylene (total)	ND	11.6	0.755	ug/Kg
156-59-2	cis-1,2-Dichloroethene	ND	5.81	0.302	ug/Kg
1634-04-4	tert-Butyl methyl ether (MTBE)	ND	5.81	0.186	ug/Kg
156-60-5	trans-1,2-Dichloroethene	ND	5.81	0.267	ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
460-00-4	4-Bromofluorobenzene	50	51.5 ug/Kg	103	73 - 138
1868-53-7	Dibromofluoromethane	50	51.2 ug/Kg	102	70 - 130
2037-26-5	Toluene d8	50	50.8 ug/Kg	102	65 - 128
17060-07-0	1,2-Dichloroethane-d4	50	51.9 ug/Kg	104	60 - 140

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200201	046-BF-S-0619-02	Solid	06/19/2002 09:40	06/20/2002 09:05	06/27/2002 08:58

8260B, VOA , Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	06/20/2002 12:12	RJO	146061

CAS #	TENTATIVELY IDENTIFIED COMP	RETENTION	RESULT	PQL	MDL	UNITS
	|No tics detected					ug/Kg

RESULTS REPORTED ON A DRY WEIGHT BASIS

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv4.i/2020620.s.b/r7867.d
Lab Smp Id: 20206200201 Client Smp ID: 046-BF-S
Inj Date : 20-JUN-2002 12:12
Operator : RJO Inst ID: msv4.i
Smp Info : 20206200201*046-BF-S-0619-02
Misc Info : MSV~2086~*1*RJO
Comment :
Method : /var/chem/msv4.i/2020620.s.b/8260Bs4.m
Meth Date : 25-Jun-2002 05:23 dlb Quant Type: ISTD
Cal Date : 14-JUN-2002 16:25 Cal File: r7736.d
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * ((Uf/Vo)/((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
M	0.00000	% Moisture (not decanted)
Va	100.00000	Volume of aliquot extract added (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/Kg)
13 Methylene Chloride	49	4.687	4.684	(0.684)	24289	3.25084	3.25
$ 27 Dibromofluoromethane	111	6.297	6.290	(0.919)	173888	51.2148	51.2
$ 32 1,2-Dichloroethane-d4	67	6.584	6.578	(0.961)	89977	51.8592	51.8
* 35 FLUOROBENZENE	96	6.853	6.848	(1.000)	818442	50.0000	
$ 44 Toluene-d8	98	8.060	8.057	(0.881)	701950	50.8086	50.8
* 53 Chlorobenzene-d5	82	9.149	9.148	(1.000)	271592	50.0000	
$ 62 Bromofluorobenzene	174	10.063	10.053	(1.100)	160032	51.4792	51.5
* 77 1,4-DICHLOROBENZENE-D4	152	11.058	11.048	(1.000)	178268	50.0000	

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv4.i/2020620.s.b/r7867.d
Lab Smp Id: 20206200201 Client Smp ID: 046-BF-S
Inj Date : 20-JUN-2002 12:12
Operator : RJO Inst ID: msv4.i
Smp Info : 20206200201*046-BF-S-0619-02
Misc Info : MSV~2086~*1*RJO
Comment :
Method : /var/chem/msv4.i/2020620.s.b/8260Bs4.m
Meth Date : 25-Jun-2002 05:23 dlb Quant Type: ISTD
Cal Date : 14-JUN-2002 16:25 Cal File: r7736.d
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpcs2

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

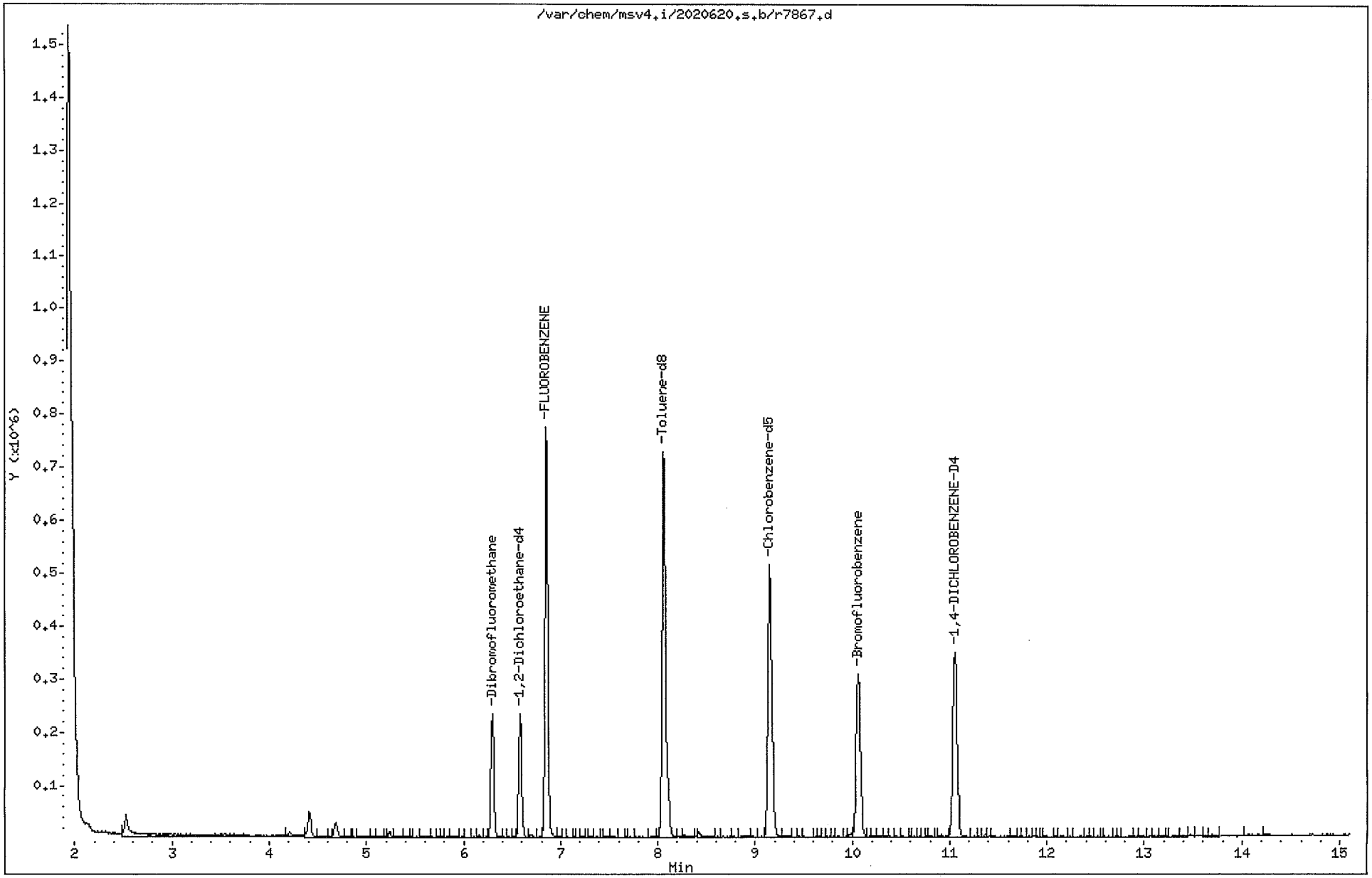
000026

Data File: /var/chem/msv4.i/2020620.s.b/r7867.d
Date : 20-JUN-2002 12:12
Client ID: 046-BF-S
Sample Info: 20206200201*046-BF-S-0619-02

Column phase: DB-624-M

Instrument: msv4.i

Operator: RJO
Column diameter: 0.53



Data File: /var/chem/msv4.i/2020620.s.b/r7867.d

Date : 20-JUN-2002 12:12

Client ID: 046-BF-S

Instrument: msv4.i

Sample Info: 202062002 01*046-BF-S-0619-02

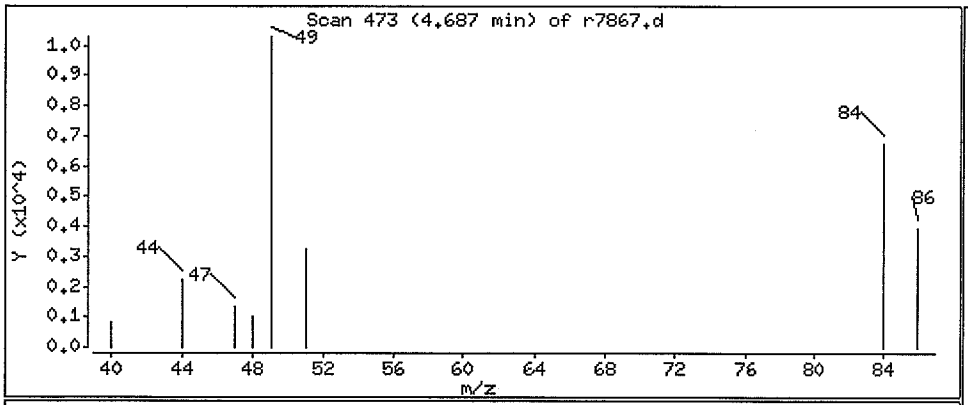
Operator: RJO

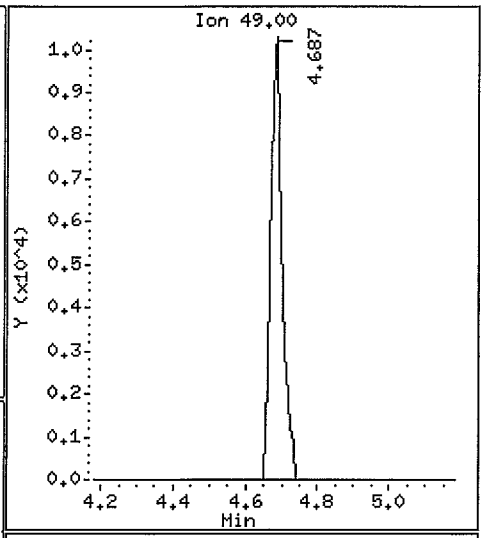
Column phase: DB-624-M

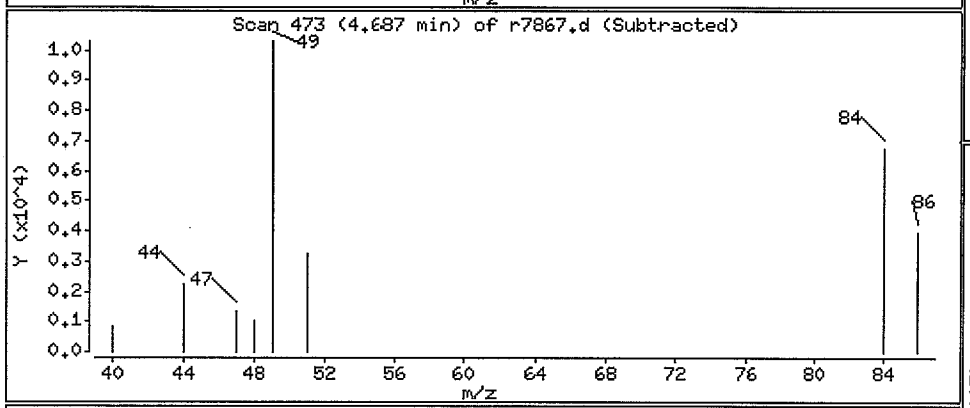
Column diameter: 0.53

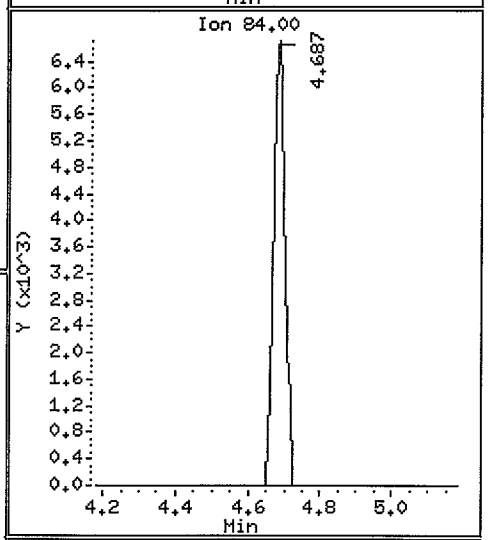
13 Methylene Chloride

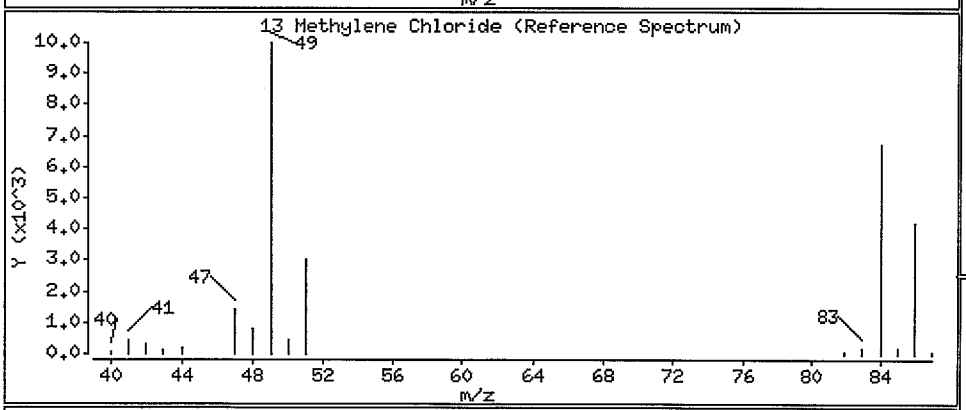
Concentration: 3.25 ug/Kg

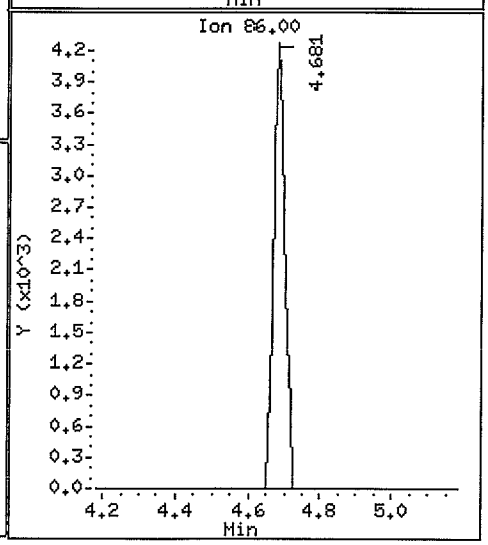


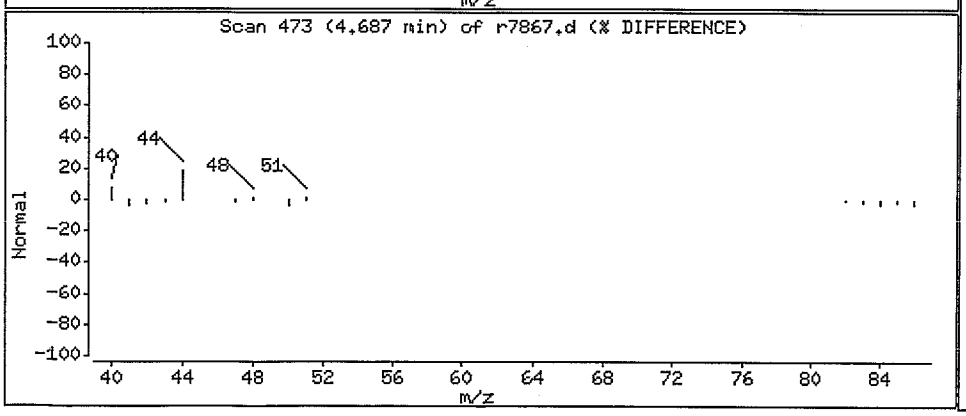












GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200202	046-RB-S-0619-02	Solid	06/19/2002 11:00	06/20/2002 09:05	06/27/2002 08:58

8260B, VOA , Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	06/20/2002 12:39	RJO	145848

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
71-55-6	1,1,1-Trichloroethane	ND	5.48	0.285	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.48	0.307	ug/Kg
79-00-5	1,1,2-Trichloroethane	ND	5.48	0.230	ug/Kg
75-34-3	1,1-Dichloroethane	ND	5.48	0.274	ug/Kg
75-35-4	1,1-Dichloroethene	ND	5.48	0.296	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	ND	5.48	0.384	ug/Kg
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.48	0.417	ug/Kg
106-93-4	1,2-Dibromoethane	ND	5.48	0.175	ug/Kg
95-50-1	1,2-Dichlorobenzene	ND	5.48	0.625	ug/Kg
107-06-2	1,2-Dichloroethane	ND	5.48	0.230	ug/Kg
78-87-5	1,2-Dichloropropane	ND	5.48	0.252	ug/Kg
541-73-1	1,3-Dichlorobenzene	ND	5.48	0.449	ug/Kg
106-46-7	1,4-Dichlorobenzene	ND	5.48	0.230	ug/Kg
78-93-3	2-Butanone	ND	27.4	0.625	ug/Kg
591-78-6	2-Hexanone	ND	5.48	0.647	ug/Kg
108-10-1	4-Methyl-2-pentanone	ND	5.48	0.219	ug/Kg
67-64-1	Acetone	ND	27.4	1.30	ug/Kg
71-43-2	Benzene	ND	5.48	0.241	ug/Kg
75-27-4	Bromodichloromethane	ND	5.48	0.186	ug/Kg
75-25-2	Bromoform	ND	5.48	0.230	ug/Kg
74-83-9	Bromomethane	ND	5.48	0.417	ug/Kg
75-15-0	Carbon disulfide	ND	5.48	0.208	ug/Kg
56-23-5	Carbon tetrachloride	ND	5.48	0.263	ug/Kg
108-90-7	Chlorobenzene	ND	5.48	0.252	ug/Kg
75-00-3	Chloroethane	ND	5.48	0.307	ug/Kg
67-66-3	Chloroform	ND	5.48	0.208	ug/Kg
74-87-3	Chloromethane	ND	5.48	0.219	ug/Kg
110-82-7	Cyclohexane	ND	5.48	1.10	ug/Kg
124-48-1	Dibromochloromethane	ND	5.48	0.230	ug/Kg
75-71-8	Dichlorodifluoromethane	ND	5.48	0.219	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	ND	5.48	0.175	ug/Kg
10061-02-6	trans-1,3-Dichloropropene	ND	5.48	0.153	ug/Kg
100-41-4	Ethylbenzene	ND	5.48	0.263	ug/Kg
98-82-8	Isopropylbenzene (Cumene)	ND	5.48	1.10	ug/Kg
79-20-9	Methyl Acetate	ND	5480	1.10	ug/Kg
108-87-2	Methylcyclohexane	ND	5480	1.10	ug/Kg
75-09-2	Methylene chloride	ND	11.0	3.62	ug/Kg

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200202	046-RB-S-0619-02	Solid	06/19/2002 11:00	06/20/2002 09:05	06/27/2002 08:58

8260B, VOA , Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	06/20/2002 12:39	RJO	145848

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
100-42-5	Styrene	ND	5.48	0.263	ug/Kg
127-18-4	Tetrachloroethene	ND	5.48	0.384	ug/Kg
108-88-3	Toluene	ND	5.48	0.153	ug/Kg
79-01-6	Trichloroethene	ND	5.48	0.329	ug/Kg
75-69-4	Trichlorofluoromethane	ND	5.48	0.186	ug/Kg
76-13-1	Trichlorotrifluoroethane	ND	5.48	1.10	ug/Kg
75-01-4	Vinyl chloride	ND	2.19	0.274	ug/Kg
1330-20-7	Xylene (total)	ND	11.0	0.713	ug/Kg
156-59-2	cis-1,2-Dichloroethene	ND	5.48	0.285	ug/Kg
1634-04-4	tert-Butyl methyl ether (MTBE)	ND	5.48	0.175	ug/Kg
156-60-5	trans-1,2-Dichloroethene	ND	5.48	0.252	ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
460-00-4	4-Bromofluorobenzene	50	51.4 ug/Kg	103	73 - 138
1868-53-7	Dibromofluoromethane	50	50.1 ug/Kg	100	70 - 130
2037-26-5	Toluene d8	50	51.3 ug/Kg	103	65 - 128
17060-07-0	1,2-Dichloroethane-d4	50	51.3 ug/Kg	103	60 - 140

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200202	046-RB-S-0619-02	Solid	06/19/2002 11:00	06/20/2002 09:05	06/27/2002 08:58

8260B, VOA , Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	06/20/2002 12:39	RJO	146061

CAS #	TENTATIVELY IDENTIFIED COMP	RETENTION	RESULT	PQL	MDL	UNITS
	|No tics detected					ug/Kg

RESULTS REPORTED ON A DRY WEIGHT BASIS

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv4.i/2020620.s.b/r7868.d
Lab Smp Id: 20206200202 Client Smp ID: 046-RB-S
Inj Date : 20-JUN-2002 12:39
Operator : RJO Inst ID: msv4.i
Smp Info : 20206200202*046-RB-S-0619-02
Misc Info : MSV~2086~*1*RJO
Comment :
Method : /var/chem/msv4.i/2020620.s.b/8260Bs4.m
Meth Date : 25-Jun-2002 05:23 dlb Quant Type: ISTD
Cal Date : 14-JUN-2002 16:25 Cal File: r7736.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * ((Uf/Vo)/((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
M	0.00000	% Moisture (not decanted)
Va	100.00000	Volume of aliquot extract added (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/Kg)
13 Methylene Chloride	49	4.681	4.684	(0.683)	22088	3.15041	3.15(H)
$ 27 Dibromofluoromethane	111	6.296	6.290	(0.919)	159621	50.1002	50.1
$ 32 1,2-Dichloroethane-d4	67	6.583	6.578	(0.961)	83526	51.3027	51.3
* 35 FLUOROBENZENE	96	6.853	6.848	(1.000)	768005	50.0000	
$ 44 Toluene-d8	98	8.059	8.057	(0.880)	664662	51.3146	51.3
* 53 Chlorobenzene-d5	82	9.155	9.148	(1.000)	254629	50.0000	
$ 62 Bromofluorobenzene	174	10.062	10.053	(1.099)	149850	51.4151	51.4
* 77 1,4-DICHLOROBENZENE-D4	152	11.052	11.048	(1.000)	172811	50.0000	

QC Flag Legend

H - Operator selected an alternate compound hit.

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv4.i/2020620.s.b/r7868.d
Lab Smp Id: 20206200202 Client Smp ID: 046-RB-S
Inj Date : 20-JUN-2002 12:39
Operator : RJO Inst ID: msv4.i
Smp Info : 20206200202*046-RB-S-0619-02
Misc Info : MSV~2086~*1*RJO
Comment :
Method : /var/chem/msv4.i/2020620.s.b/8260Bs4.m
Meth Date : 25-Jun-2002 05:23 dlb Quant Type: ISTD
Cal Date : 14-JUN-2002 16:25 Cal File: r7736.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpcs2

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

000033

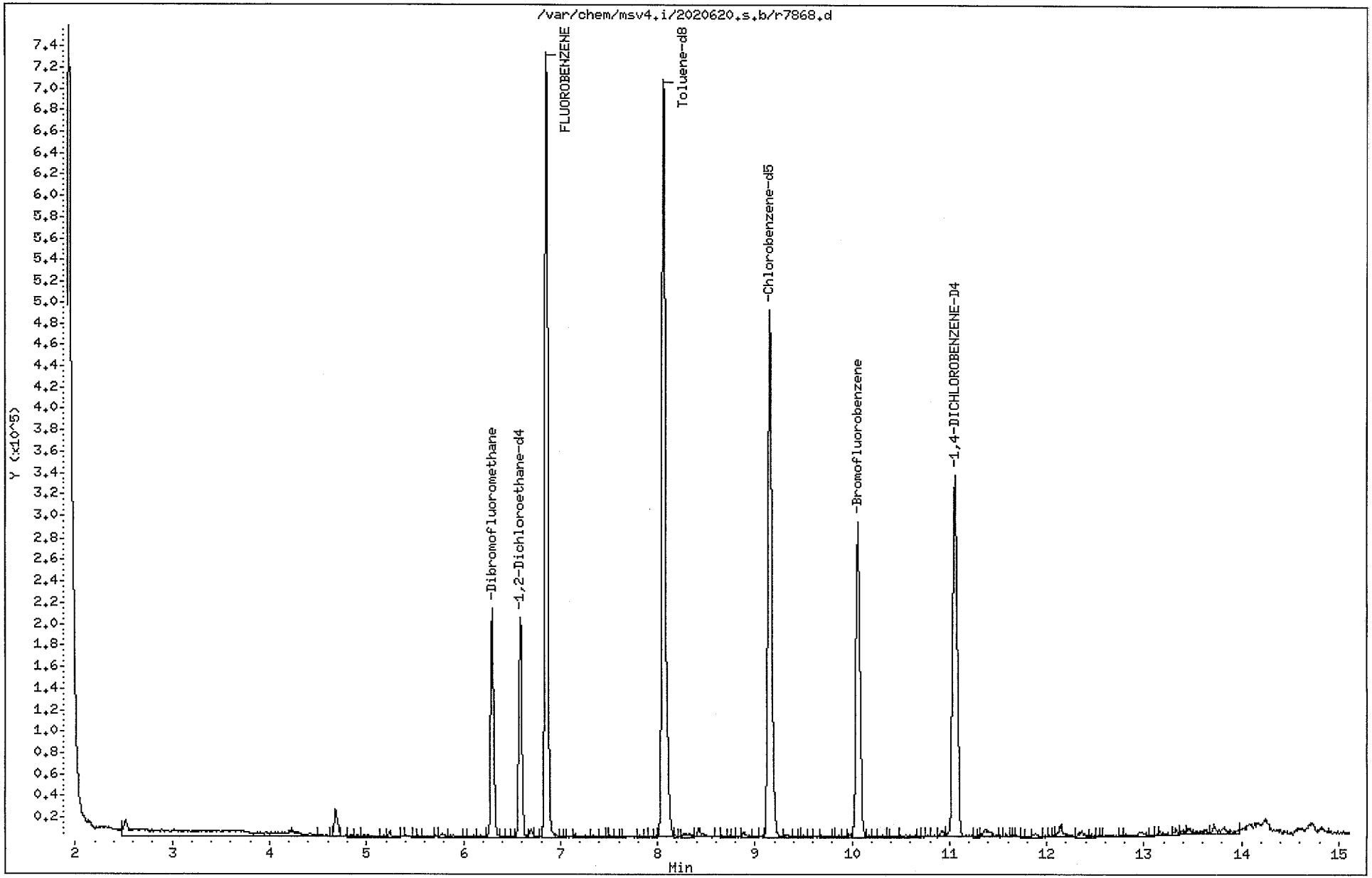
Data File: /var/chem/msv4.i/2020620.s.b/r7868.d
Date : 20-JUN-2002 12:39
Client ID: 046-RB-S
Sample Info: 20206200202*046-RB-S-0619-02

Instrument: msv4.i

Operator: RJO

Column phase: DB-624-M

Column diameter: 0.53



Data File: /var/chem/msv4.i/2020620.s.b/r7868.d

Date : 20-JUN-2002 12:39

Client ID: 046-RB-S

Instrument: msv4.i

Sample Info: 20206200202*046-RB-S-0619-02

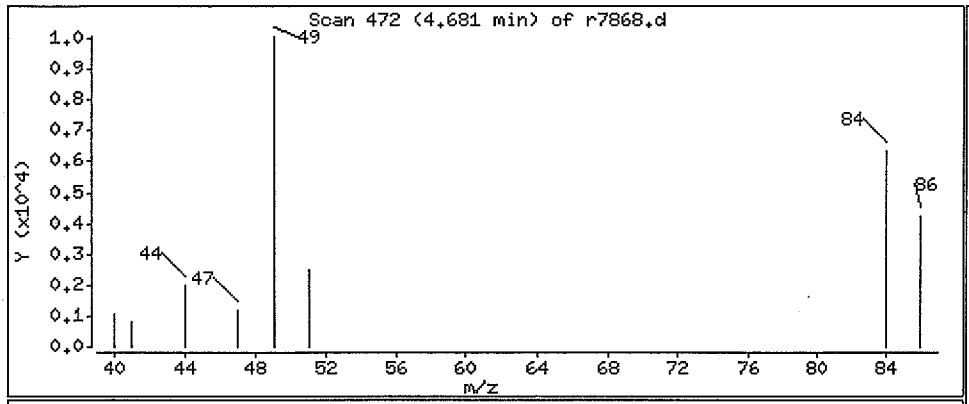
Operator: RJO

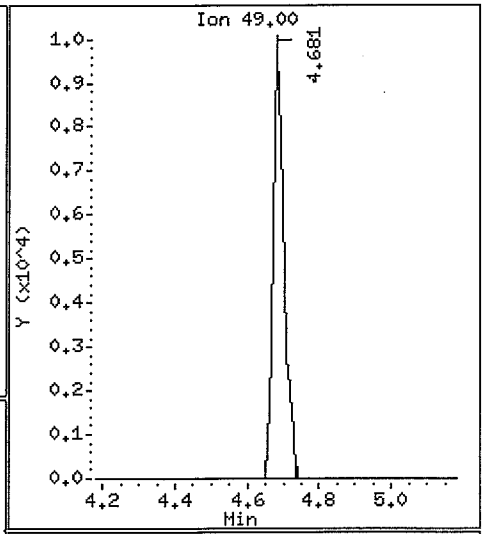
Column phase: DB-624-M

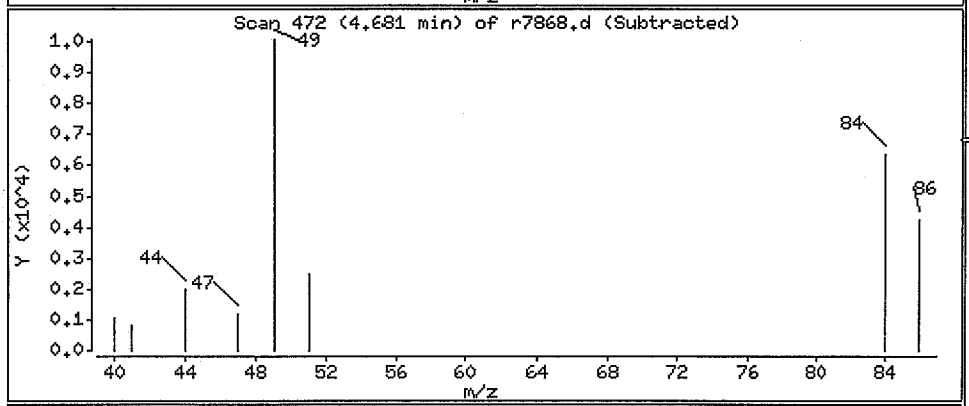
Column diameter: 0.53

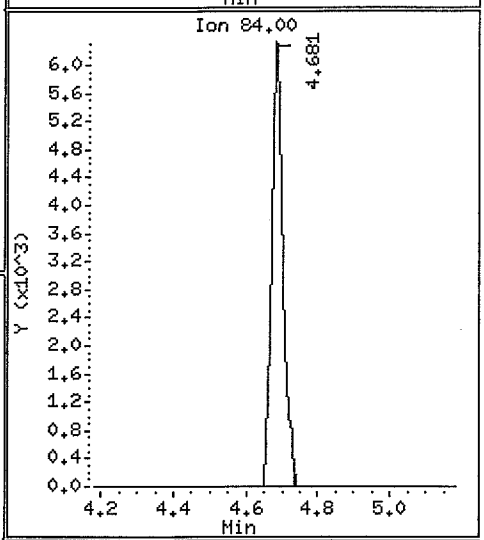
13 Methylene Chloride

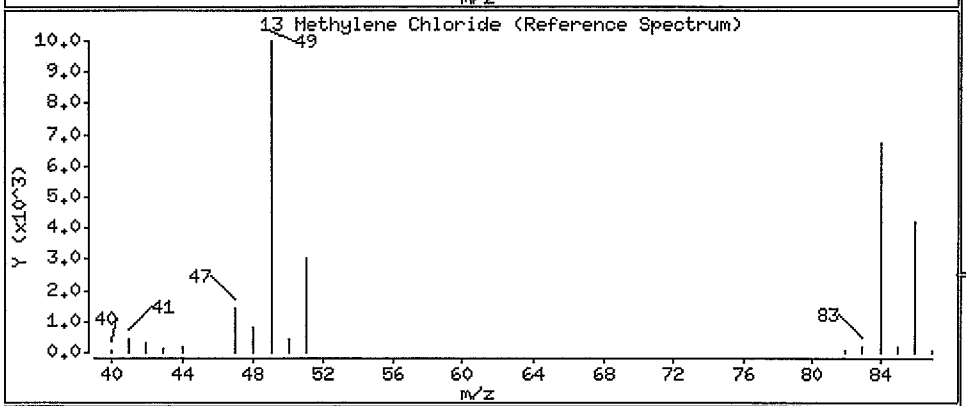
Concentration: 3.15 ug/Kg

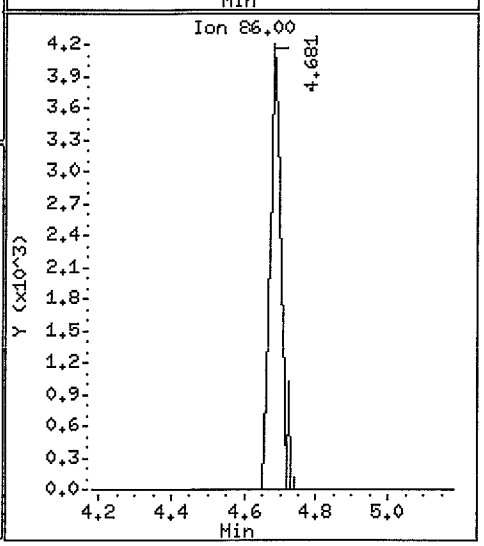


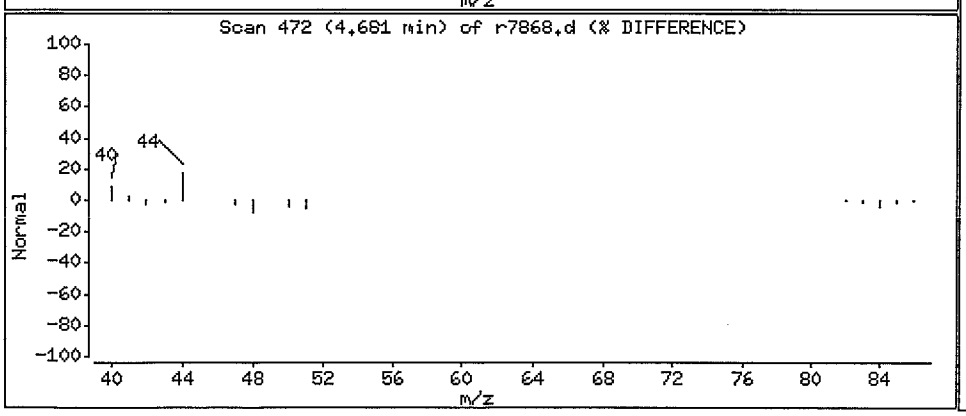












GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200203	046-TB-W-0619-02	Water	06/19/2002 00:00	06/20/2002 09:05	06/27/2002 08:58

8260B, VOA , Water

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	06/20/2002 21:47	RSP	145825

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
71-55-6	1,1,1-Trichloroethane	ND	5.00	0.848	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	0.200	ug/L
79-00-5	1,1,2-Trichloroethane	ND	5.00	0.851	ug/L
75-34-3	1,1-Dichloroethane	ND	5.00	0.822	ug/L
75-35-4	1,1-Dichloroethene	ND	5.00	0.896	ug/L
120-82-1	1,2,4-Trichlorobenzene	ND	5.00	0.367	ug/L
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	0.200	ug/L
106-93-4	1,2-Dibromoethane	ND	0.200	0.200	ug/L
95-50-1	1,2-Dichlorobenzene	ND	5.00	0.531	ug/L
107-06-2	1,2-Dichloroethane	ND	3.00	0.821	ug/L
78-87-5	1,2-Dichloropropane	ND	5.00	0.734	ug/L
541-73-1	1,3-Dichlorobenzene	ND	5.00	0.686	ug/L
106-46-7	1,4-Dichlorobenzene	ND	5.00	0.471	ug/L
78-93-3	2-Butanone	ND	10.0	0.817	ug/L
591-78-6	2-Hexanone	ND	10.0	0.833	ug/L
108-10-1	4-Methyl-2-pentanone	ND	10.0	0.820	ug/L
67-64-1	Acetone	ND	10.0	0.932	ug/L
71-43-2	Benzene	ND	1.00	0.836	ug/L
75-27-4	Bromodichloromethane	ND	0.600	0.600	ug/L
75-25-2	Bromoform	ND	4.00	0.742	ug/L
74-83-9	Bromomethane	ND	5.00	0.962	ug/L
75-15-0	Carbon disulfide	ND	5.00	0.764	ug/L
56-23-5	Carbon tetrachloride	ND	3.00	0.848	ug/L
108-90-7	Chlorobenzene	ND	5.00	0.713	ug/L
75-00-3	Chloroethane	ND	5.00	0.820	ug/L
67-66-3	Chloroform	ND	5.00	0.919	ug/L
74-87-3	Chloromethane	ND	2.70	0.823	ug/L
110-82-7	Cyclohexane	ND	100	1.00	ug/L
124-48-1	Dibromochloromethane	ND	0.400	0.400	ug/L
75-71-8	Dichlorodifluoromethane	ND	5.00	0.802	ug/L
10061-01-5	cis-1,3-Dichloropropene	ND	5.00	0.757	ug/L
10061-02-6	trans-1,3-Dichloropropene	ND	5.00	0.633	ug/L
100-41-4	Ethylbenzene	ND	5.00	0.690	ug/L
98-82-8	Isopropylbenzene (Cumene)	ND	5.00	0.558	ug/L
79-20-9	Methyl Acetate	ND	5.00	1.00	ug/L
108-87-2	Methylcyclohexane	ND	5.00	1.00	ug/L
75-09-2	Methylene chloride	2.69J	5.00	0.748	ug/L

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200203	046-TB-W-0619-02	Water	06/19/2002 00:00	06/20/2002 09:05	06/27/2002 08:58

8260B, VOA , Water

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	06/20/2002 21:47	RSP	145825

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
100-42-5	Styrene	ND	5.00	0.699	ug/L
127-18-4	Tetrachloroethene	ND	3.00	0.692	ug/L
108-88-3	Toluene	ND	5.00	0.678	ug/L
79-01-6	Trichloroethene	ND	3.00	0.989	ug/L
75-69-4	Trichlorofluoromethane	ND	5.00	0.926	ug/L
76-13-1	Trichlorotrifluoroethane	ND	5.00	0.480	ug/L
75-01-4	Vinyl chloride	ND	1.00	1.00	ug/L
1330-20-7	Xylene (total)	ND	5.00	2.24	ug/L
156-59-2	cis-1,2-Dichloroethene	ND	5.00	0.751	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	ND	5.00	0.531	ug/L
156-60-5	trans-1,2-Dichloroethene	ND	5.00	0.735	ug/L

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
460-00-4	4-Bromofluorobenzene	50	43.4 ug/L	87	78 - 115
1868-53-7	Dibromofluoromethane	50	53 ug/L	106	70 - 130
2037-26-5	Toluene d8	50	50.5 ug/L	101	83 - 112
17060-07-0	1,2-Dichloroethane-d4	50	52.6 ug/L	105	76 - 128

RESULTS REPORTED ON A WET WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200203	046-TB-W-0619-02	Water	06/19/2002 00:00	06/20/2002 09:05	06/27/2002 08:58

8260B, VOA , Water

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	06/20/2002 21:47	RSP	146062

CAS #	TENTATIVELY IDENTIFIED COMP	RETENTION	RESULT	PQL	MDL	UNITS
	|No tics detected					ug/L

RESULTS REPORTED ON A WET WEIGHT BASIS

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv0.i/2020620p.s.b/r5650.d
Lab Smp Id: 20206200203 Client Smp ID: 046-TB-W
Inj Date : 20-JUN-2002 21:47
Operator : RSP Inst ID: msv0.i
Smp Info : 20206200203*046-TB-W-0619-02
Misc Info : MSV~2084~*1*RJO
Comment :
Method : /var/chem/msv0.i/2020620p.s.b/8260Bw0.m
Meth Date : 24-Jun-2002 15:05 dlb Quant Type: ISTD
Cal Date : 09-JUN-2002 10:05 Cal File: r5333.d
Als bottle: 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	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
14 Methylene Chloride	49	3.685	3.668	(0.632)	78401	2.69063	2.69	(a)
$ 26 Dibromofluoromethane	111	5.287	5.283	(0.907)	1484754	53.0277	53.0	2389
$ 31 1,2-Dichloroethane-d4	67	5.565	5.561	(0.955)	831781	52.6434	52.6	
* 35 FLUOROBENZENE	96	5.829	5.833	(1.000)	5513784	50.0000		
$ 43 Toluene-d8	98	7.027	7.024	(0.870)	5785732	50.4665	50.5	
* 52 CHLOROBENZENE-d5	82	8.080	8.070	(1.000)	2527498	50.0000		
$ 61 Bromofluorobenzene	174	8.900	8.897	(0.921)	1273894	43.4254	43.4	
* 75 1,4-DICHLOROBENZENE-D4	152	9.662	9.665	(1.000)	1445185	50.0000		

QC Flag Legend

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

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv0.i/2020620p.s.b/r5650.d
Lab Smp Id: 20206200203 Client Smp ID: 046-TB-W
Inj Date : 20-JUN-2002 21:47
Operator : RSP Inst ID: msv0.i
Smp Info : 20206200203*046-TB-W-0619-02
Misc Info : MSV~2084~*1*RJO
Comment :
Method : /var/chem/msv0.i/2020620p.s.b/8260Bw0.m
Meth Date : 25-Jun-2002 05:22 dlb Quant Type: ISTD
Cal Date : 09-JUN-2002 10:05 Cal File: r5333.d
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50
Processing Host: hpcs2

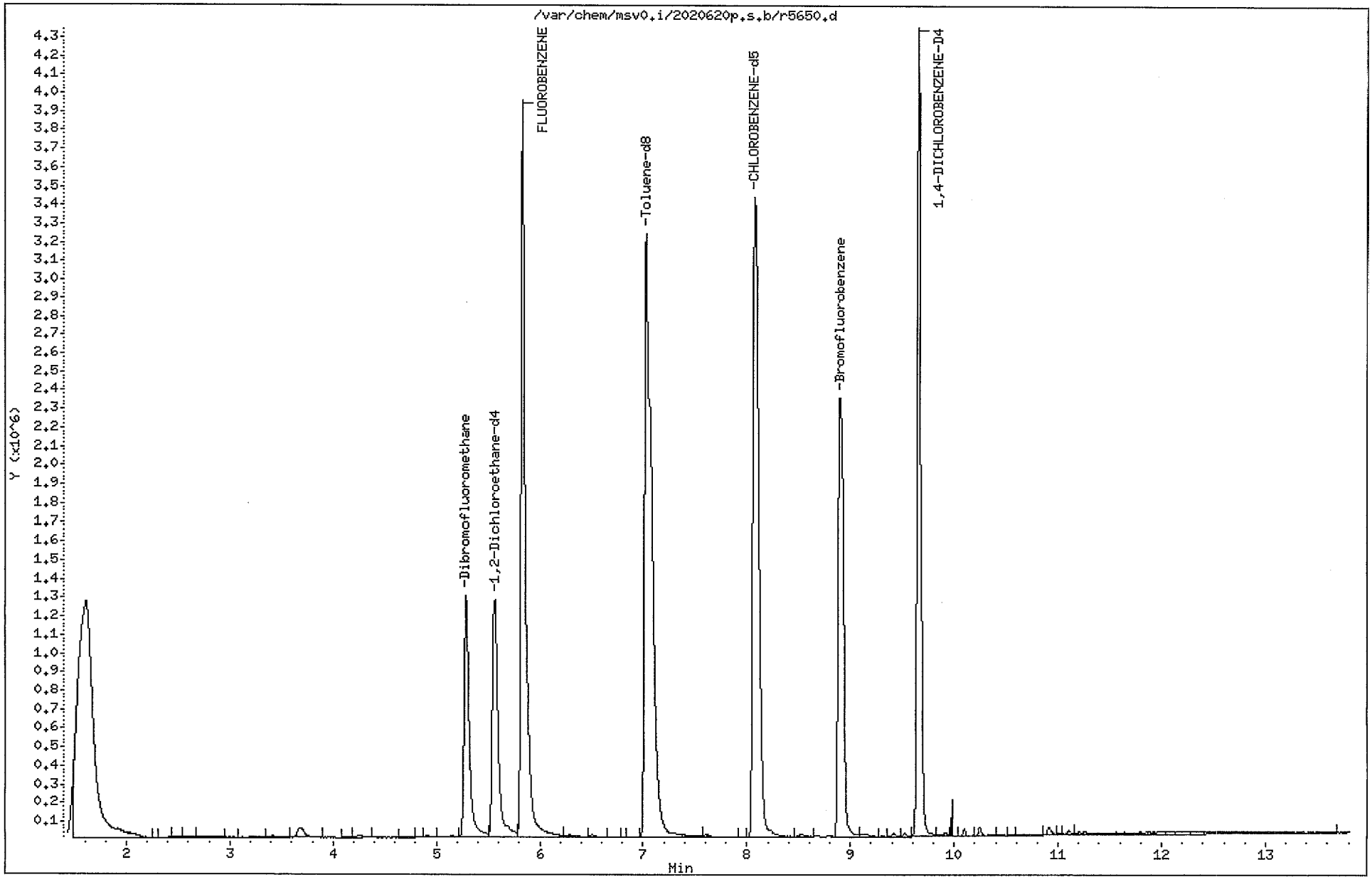
- NO TENTATIVELY IDENTIFIED COMPOUNDS -

000040

Data File: /var/chem/msv0.i/2020620p.s.b/r5650.d
Date : 20-JUN-2002 21:47
Client ID: 046-TB-W
Sample Info: 20206200203*046-TB-W-0619-02
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv0.i

Operator: RSP
Column diameter: 0.53



Data File: /var/chem/msv0.i/2020620p.s.b/r5650.d

Date : 20-JUN-2002 21:47

Client ID: 046-TB-W

Instrument: msv0.i

Sample Info: 20206200203*046-TB-W-0619-02

Purge Volume: 5.0

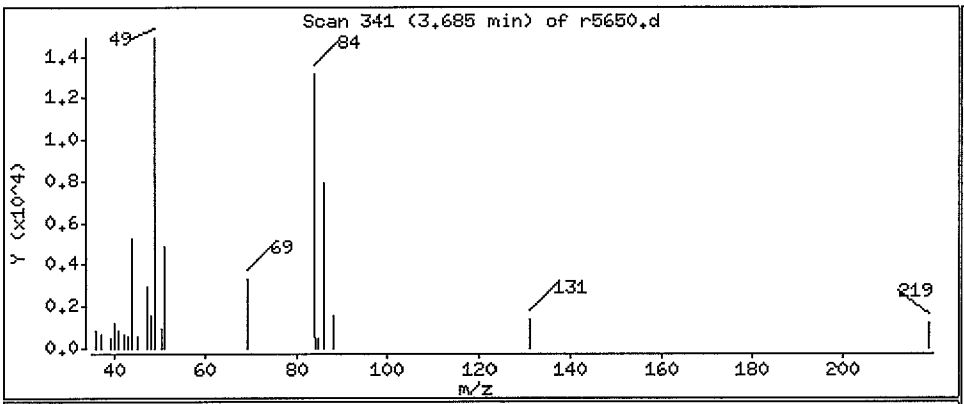
Operator: RSP

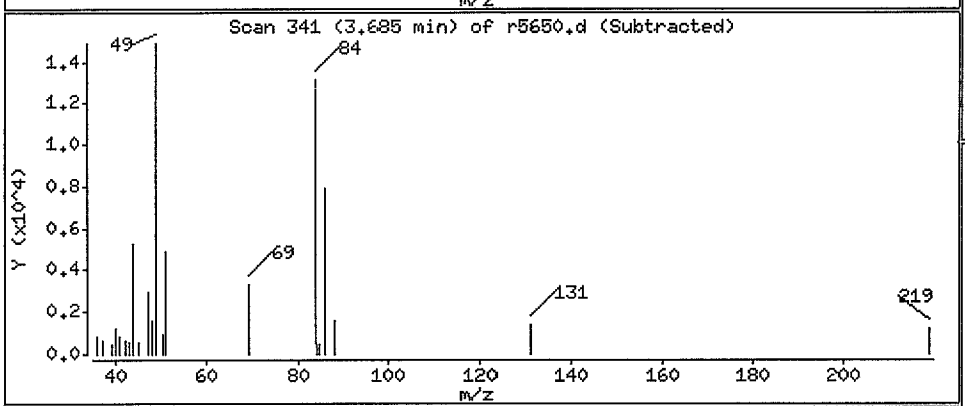
Column phase: DB-624-30M

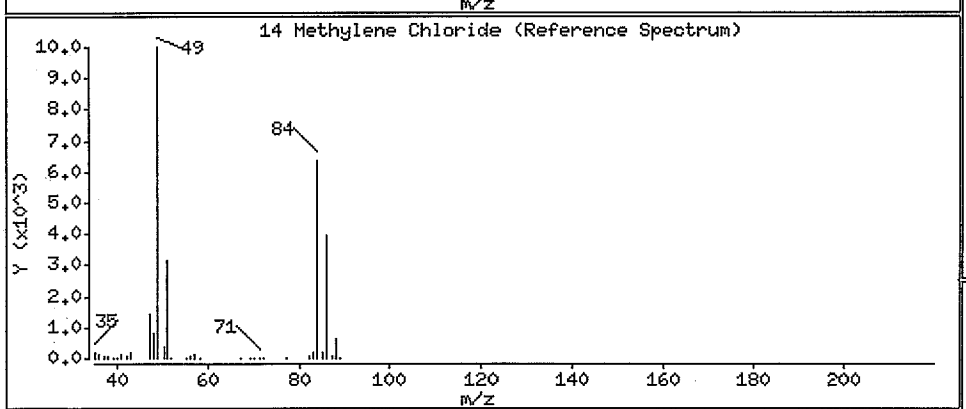
Column diameter: 0.53

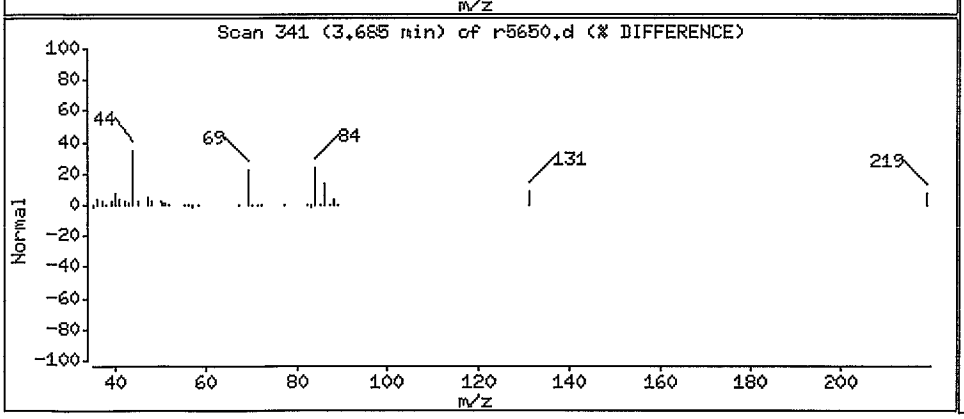
14 Methylene Chloride

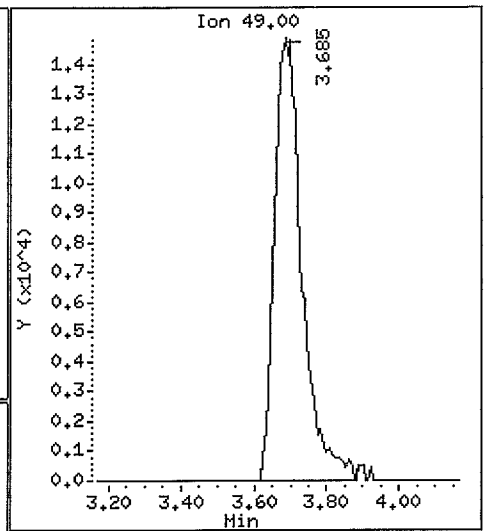
Concentration: 2.69 ug/L

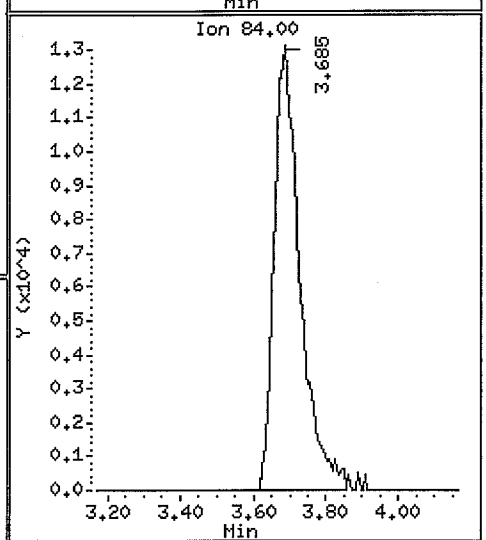


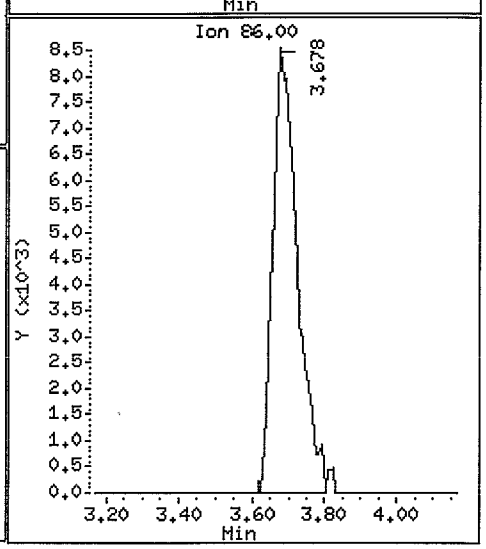












6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Instrument ID: MSV0 Calibration Date(s): 06/20/02 06/20/02

Heated Purge: (Y/N) N Calibration Time(s): 1029 1438

GC Column: DB-624-30M ID: 0.53 (mm)

LAB FILE ID: RRF5 =R5636 RRF20 =R5634
RRF50 =R5630 RRF100=R5631 RRF200=R5632

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD
Dichlorodifluoromethane *	0.109	0.119	0.130	0.130	0.131		*
Chloromethane ++ *	0.200	0.209	0.212	0.211	0.198		*
Vinyl Chloride + *	0.169	0.191	0.196	0.195	0.191		*
Bromomethane *	0.060	0.053	0.053	0.052	0.040		*
Chloroethane	0.059	0.062	0.055	0.060	0.047		
Trichlorofluoromethane *	0.220	0.249	0.273	0.271	0.276		*
Acrolein *	0.009	0.010	0.009	0.009	0.009		*
1,1-Dichloroethene + *	0.130	0.135	0.136	0.140	0.142		*
1,1,2Trichlorotrifluoroethan *	0.132	0.157	0.160	0.165	0.170		*
Acetone *	0.080	0.085	0.061	0.057	0.053		*
Methyl Iodide *	0.306	0.336	0.320	0.333	0.324		*
Carbon Disulfide *	0.486	0.527	0.526	0.548	0.539		*
Methylene Chloride *	0.341	0.254	0.257	0.243	0.227		*
Acrylonitrile *	0.074	0.082	0.069	0.064	0.065		*
trans-1,2-Dichloroethene *	0.251	0.260	0.258	0.254	0.243		*
MTBE *	0.628	0.666	0.620	0.599	0.579		*
1,1-Dichloroethane ++ *	0.360	0.357	0.358	0.356	0.349		*
Vinyl Acetate *	0.153	0.165	0.175	0.173	0.170		*
cis-1,2-Dichloroethene *	0.358	0.358	0.357	0.348	0.330		*
2,2-Dichloropropane *	0.304	0.317	0.322	0.309	0.306		*
2-Butanone *	0.123	0.126	0.108	0.093	0.092		*
Bromochloromethane *	0.139	0.142	0.133	0.132	0.134		*
Chloroform + *	0.474	0.420	0.413	0.395	0.389		*
1,1,1-Trichloroethane *	0.312	0.332	0.350	0.340	0.344		*
Total 1,2-Dichloroethene *	0.203	0.206	0.205	0.201	0.191		*
1,1-Dichloropropene *	0.266	0.276	0.289	0.281	0.285		*
Carbon Tetrachloride *	0.265	0.287	0.307	0.306	0.316		*
1,2-Dichloroethane *	0.366	0.358	0.358	0.333	0.310		*
Benzene *	0.899	0.930	0.928	0.892	0.830		*
Trichloroethene *	0.260	0.268	0.278	0.278	0.287		*
1,2-Dichloropropane + *	0.335	0.323	0.303	0.284	0.252		*
Dibromomethane *	0.185	0.187	0.177	0.165	0.163		*
Bromodichloromethane *	0.395	0.394	0.390	0.380	0.364		*
2-Chloroethyl vinyl ether *	0.216	0.237	0.219	0.194	0.167		*
cis-1,3-Dichloropropene *	0.512	0.520	0.494	0.488	0.465		*
4-methyl-2-pentanone *	0.350	0.376	0.329	0.304	0.301		*
Toluene + *	1.130	1.169	1.165	1.141	0.862		*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Instrument ID: MSV0 Calibration Date(s): 06/20/02 06/20/02

Heated Purge: (Y/N) N Calibration Time(s): 1029 1438

GC Column: DB-624-30M ID: 0.53 (mm)

LAB FILE ID: RRF5 =R5636 RRF20 =R5634
RRF50 =R5630 RRF100=R5631 RRF200=R5632

COMPOUND		RRF5	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD	
trans-1,3-Dichloropropene	*	0.512	0.520	0.494	0.488	0.465			*
1,1,2-Trichloroethane	*	0.286	0.290	0.265	0.252	0.247			*
1,3-Dichloropropane	*	0.516	0.518	0.492	0.456	0.409			*
Tetrachloroethene	*	0.179	0.198	0.203	0.206	0.215			*
2-Hexanone	*	0.554	0.561	0.488	0.442	0.504			*
Dibromochloromethane	*	0.641	0.669	0.635	0.642	0.754			*
1,2-Dibromoethane(EDB)	*	0.621	0.648	0.599	0.578	0.678			*
Chlorobenzene ++	*	1.758	1.768	1.700	1.711	1.773			*
1,1,1,2-Tetrachloroethane	*	0.582	0.601	0.584	0.589	0.657			*
Ethylbenzene +	*	0.749	0.829	0.804	0.784	0.943			*
p,m-Xylene	*	0.923	1.042	1.041	0.973	1.125			*
o-Xylene	*	0.852	0.971	0.960	0.878	1.052			*
Styrene	*	1.622	1.795	1.747	1.633	1.904			*
Bromoform ++	*	0.358	0.394	0.372	0.375	0.462			*
Isopropylbenzene	*	2.473	2.780	2.831	2.757	2.444			*
1,1,2,2-Tetrachloroethane++	*	1.754	1.449	1.278	1.558	1.359			*
trans-1,4-Dichloro-2-Butene	*	0.434	0.371	0.306	0.380	0.315			*
1,2,3-Trichloropropane	*	2.218	1.841	1.563	1.866	1.559			*
Bromobenzene	*	3.276	2.776	2.523	3.122	2.584			*
n-Propylbenzene	*	4.478	4.526	4.404	5.111	3.700			*
2-Chlorotoluene	*	3.447	3.276	2.846	3.139	2.911			*
1,3,5-Trimethylbenzene	*	4.856	4.511	4.336	5.496	3.783			*
4-Chlorotoluene	*	3.133	2.870	2.983	3.008	3.071			*
tert-butylbenzene	*	2.067	2.054	1.989	2.206	2.024			*
1,2,4-Trimethylbenzene	*	2.645	2.354	2.229	1.888	1.476			*
sec-Butylbenzene	*	4.040	4.239	4.230	4.547	3.202			*
p-Isopropyltoluene	*	2.702	2.849	2.847	2.592	2.289			*
1,3-Dichlorobenzene	*	1.769	1.541	1.568	1.605	1.628			*
1,4-Dichlorobenzene	*	1.720	1.888	1.769	1.847	1.847			*
TOTAL XYLENE	*	0.899	1.018	1.014	0.942	1.101			*
n-Butylbenzene	*	2.530	2.525	2.471	2.198	1.840			*
1,2-Dichlorobenzene	*	1.593	1.565	1.544	1.562	1.593			*
1,2-Dibromo-3-Chloropropane	*	0.268	0.249	0.215	0.266	0.267			*
1,2,4-Trichlorobenzene	*	1.025	0.855	0.699	0.818	0.688			*
Hexachlorobutadiene	*	0.533	0.541	0.523	0.609	0.626			*
Naphthalene	*	3.091	2.569	1.929	2.221	1.862			*
1,2,3-Trichlorobenzene	*	0.973	0.801	0.652	0.768	0.660			*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Instrument ID: MSV0 Calibration Date(s): 06/20/02 06/20/02

Heated Purge: (Y/N) N Calibration Time(s): 1029 1438

GC Column: DB-624-30M ID: 0.53 (mm)

LAB FILE ID: RRF5 =R5636 RRF20 =R5634
RRF50 =R5630 RRF100=R5631 RRF200=R5632

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD
Hexane *	0.258	0.274	0.290	0.288	0.287		*
Cyclohexane *	0.321	0.374	0.383	0.378	0.377		*
Methyl Acetate *	0.126	0.121	0.127	0.140	0.129		*
Methyl Cyclohexane *	0.395	0.459	0.470	0.456	0.437		*
Dibromofluoromethane *	0.270	0.262	0.256	0.244	0.236		*
1,2-Dichloroethane-d4 *	0.147	0.148	0.150	0.138	0.133		*
Toluene-d8 *	2.257	2.268	2.215	2.162	2.436		*
Bromofluorobenzene *	1.068	0.954	0.896	1.112	1.044		*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Instrument ID: MSV0 Calibration Date(s): 06/20/02 06/20/02

Heated Purge: (Y/N) N Calibration Time(s): 1029 1438

GC Column: DB-624-30M ID: 0.53 (mm)

LAB FILE ID: RRF150= RRF10 =
RRF2 =R5628 RRF0.4=R5627 RRF0.2=R5626

COMPOUND	RRF150	RRF10	RRF2	RRF0.4	RRF0.2	$\overline{RRF}$	% RSD
Dichlorodifluoromethane *						0.124	7.8*
Chloromethane ++ *			0.258			0.215	10.3*
Vinyl Chloride + *			0.209	0.143	0.148	0.180	13.5*
Bromomethane *			0.091	0.052		0.057	28.2*
Chloroethane						0.057	10.5
Trichlorofluoromethane *						0.258	9.1*
Acrolein *						0.009	4.5*
1,1-Dichloroethene + *						0.137	3.5*
1,1,2Trichlorotrifluoroethan *						0.157	9.3*
Acetone *						0.067	21.6*
Methyl Iodide *						0.324	3.7*
Carbon Disulfide *						0.525	4.5*
Methylene Chloride *						0.264	16.8*
Acrylonitrile *						0.071	10.5*
trans-1,2-Dichloroethene *						0.253	2.6*
MTBE *						0.618	5.3*
1,1-Dichloroethane ++ *						0.356	1.1*
Vinyl Acetate *						0.167	5.2*
cis-1,2-Dichloroethene *						0.350	3.5*
2,2-Dichloropropane *						0.312	2.4*
2-Butanone *						0.108	14.8*
Bromochloromethane *						0.136	3.2*
Chloroform + *						0.418	8.0*
1,1,1-Trichloroethane *						0.336	4.3*
Total 1,2-Dichloroethene *			0.235			0.207	7.2*
1,1-Dichloropropene *						0.279	3.2*
Carbon Tetrachloride *			0.335			0.303	8.0*
1,2-Dichloroethane *			0.411			0.356	9.5*
Benzene *			1.060	0.945		0.926	7.6*
Trichloroethene *			0.287			0.276	3.9*
1,2-Dichloropropane + *						0.299	10.9*
Dibromomethane *						0.175	6.2*
Bromodichloromethane *			0.429		0.365	0.388	5.7*
2-Chloroethyl vinyl ether *						0.207	12.9*
cis-1,3-Dichloropropene *						0.496	4.4*
4-methyl-2-pentanone *						0.332	9.6*
Toluene + *			1.518			1.164	18.0*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Instrument ID: MSV0 Calibration Date(s): 06/20/02 06/20/02

Heated Purge: (Y/N) N Calibration Time(s): 1029 1438

GC Column: DB-624-30M ID: 0.53 (mm)

LAB FILE ID: RRF150= RRF10 =
RRF2 =R5628 RRF0.4=R5627 RRF0.2=R5626

COMPOUND	RRF150	RRF10	RRF2	RRF0.4	RRF0.2	$\overline{RRF}$	% RSD
trans-1,3-Dichloropropene *						0.496	4.4*
1,1,2-Trichloroethane *						0.268	7.3*
1,3-Dichloropropane *						0.478	9.6*
Tetrachloroethene *			0.220			0.204	7.0*
2-Hexanone *						0.510	9.6*
Dibromochloromethane *			0.638		0.610	0.656	7.1*
1,2-Dibromoethane(EDB) *			0.637		0.713	0.639	7.2*
Chlorobenzene ++ *						1.742	2.0*
1,1,1,2-Tetrachloroethane *				0.558		0.595	5.6*
Ethylbenzene + *						0.822	9.0*
p,m-Xylene *						1.021	7.5*
o-Xylene *						0.943	8.4*
Styrene *						1.740	6.8*
Bromoform ++ *			0.348			0.385	10.7*
Isopropylbenzene *						2.657	6.9*
1,1,2,2-Tetrachloroethane++ *			1.238	1.354	2.106	1.512	19.3*
trans-1,4-Dichloro-2-Butene *			0.277			0.347	16.7*
1,2,3-Trichloropropane *						1.809	15.0*
Bromobenzene *						2.856	11.6*
n-Propylbenzene *						4.444	11.3*
2-Chlorotoluene *						3.124	8.0*
1,3,5-Trimethylbenzene *						4.596	13.8*
4-Chlorotoluene *						3.013	3.3*
tert-butylbenzene *						2.068	4.0*
1,2,4-Trimethylbenzene *						2.118	21.2*
sec-Butylbenzene *						4.052	12.6*
p-Isopropyltoluene *						2.656	8.7*
1,3-Dichlorobenzene *						1.622	5.5*
1,4-Dichlorobenzene *						1.814	3.8*
TOTAL XYLENE *						0.995	7.8*
n-Butylbenzene *						2.313	12.9*
1,2-Dichlorobenzene *						1.571	1.4*
1,2-Dibromo-3-Chloropropane *			0.172	0.169	0.481	0.261	37.6*
1,2,4-Trichlorobenzene *						0.817	16.8*
Hexachlorobutadiene *				0.484		0.553	9.8*
Naphthalene *						2.334	21.7*
1,2,3-Trichlorobenzene *						0.771	16.9*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Instrument ID: MSV0 Calibration Date(s): 06/20/02 06/20/02

Heated Purge: (Y/N) N Calibration Time(s): 1029 1438

GC Column: DB-624-30M ID: 0.53 (mm)

LAB FILE ID: RRF150= RRF10 =
RRF2 =R5628 RRF0.4=R5627 RRF0.2=R5626

COMPOUND	RRF150	RRF10	RRF2	RRF0.4	RRF0.2	$\overline{RRF}$	% RSD
Hexane *						0.279	4.8*
Cyclohexane *						0.367	7.0*
Methyl Acetate *						0.129	5.3*
Methyl Cyclohexane *						0.443	6.7*
Dibromofluoromethane *						0.254	5.4*
1,2-Dichloroethane-d4 *						0.143	5.3*
Toluene-d8 *						2.268	4.5*
Bromofluorobenzene *						1.015	8.7*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

Data File: /var/chem/msv0.i/2020620.s.b/r5621.d

Date : 20-JUN-2002 07:21

Client ID: 0620V0BFB01

Instrument: msv0.i

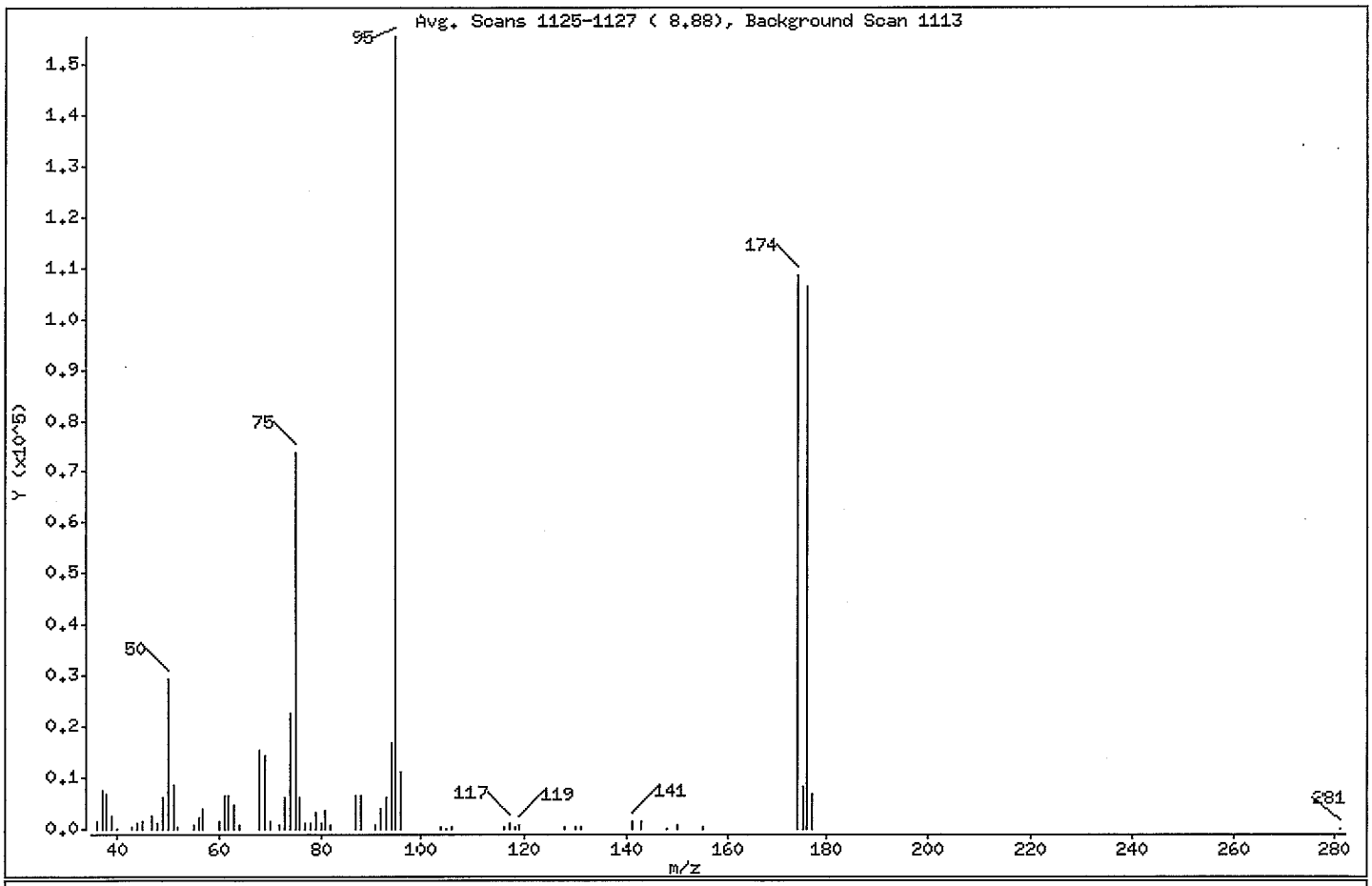
Sample Info: 0620V0BFB01*TUNE

Operator: RJO

Column phase: DB-624

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	18.89
75	30.00 - 60.00% of mass 95	47.49
96	5.00 - 9.00% of mass 95	7.17
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	69.87
175	5.00 - 9.00% of mass 174	5.30 (7.58)
176	95.00 - 101.00% of mass 174	68.45 (97.96)
177	5.00 - 9.00% of mass 176	4.44 (6.49)

Data File: /var/chem/msv0.i/2020620.s.b/r5621.d

Date : 20-JUN-2002 07:21

Client ID: 0620V0BFB01

Instrument: msv0.i

Sample Info: 0620V0BFB01*TUNE

Operator: RJO

Column phase: DB-624

Column diameter: 0.53

Data File: r5621.d
Spectrum: Avg. Scans 1125-1127 (8.88), Background Scan 1113
Location of Maximum: 95.00
Number of points: 64

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1598	60.00	1364	81.00	3757	128.00	524
37.00	7604	61.00	6501	82.00	719	130.00	468
38.00	6742	62.00	6574	87.00	6502	131.00	406
39.00	2677	63.00	4509	88.00	6476	141.00	1289
40.00	51	64.00	636	91.00	679	143.00	1267
43.00	274	68.00	15221	92.00	3891	148.00	149
44.00	1066	69.00	14394	93.00	5949	150.00	543
45.00	1563	70.00	1342	94.00	16720	155.00	296
47.00	2412	72.00	881	95.00	155392	174.00	108592
48.00	969	73.00	6048	96.00	11145	175.00	8232
49.00	5979	74.00	22576	104.00	529	176.00	106376
50.00	29360	75.00	73800	105.00	135	177.00	6904
51.00	8561	76.00	6245	106.00	503	281.00	144
52.00	522	77.00	1044	116.00	346		
55.00	538	78.00	979	117.00	911		
56.00	2175	79.00	3357	118.00	307		
57.00	3894	80.00	1052	119.00	690		

Data File: /var/chem/msv0.i/2020620.s.b/r5621.d

Date : 20-JUN-2002 07:21

Client ID: 0620V0BFB01

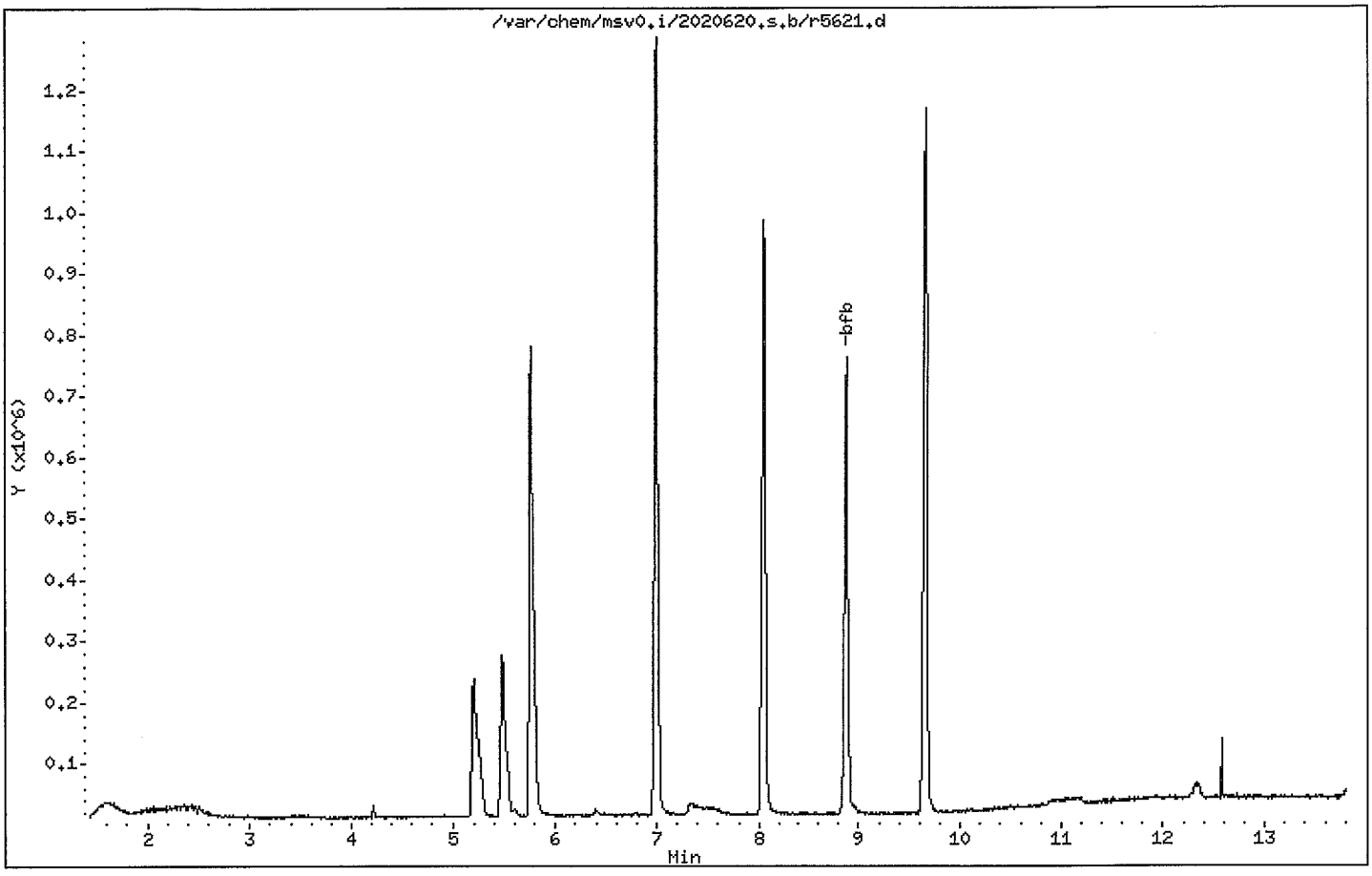
Instrument: msv0.i

Sample Info: 0620V0BFB01*TUNE

Operator: RJO

Column phase: DB-624

Column diameter: 0.53



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv0.i/2020620.s.b/r5626.d
Lab Smp Id: V0STD00.2 Client Smp ID: V0STD00.2
Inj Date : 20-JUN-2002 10:29
Operator : RJO Inst ID: msv0.i
Smp Info : V0STD00.2*4-13-6
Misc Info : MSV~STD~*1*RJO
Comment :
Method : /var/chem/msv0.i/2020620.s.b/8260Bw0.m
Meth Date : 24-Jun-2002 14:59 dlb Quant Type: ISTD
Cal Date : 20-JUN-2002 10:29 Cal File: r5626.d
Als bottle: 4 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
2 Chloromethane ++	50	1.892	1.892	(0.324)	9185	0.20000	0.457	(a)
3 Vinyl Chloride +	62	1.925	1.925	(0.330)	2768	0.20000	0.164	(aM)
11 Acetone	43	3.222	3.222	(0.553)	24574	0.20000	3.90	(a)
14 Methylene Chloride	49	3.672	3.672	(0.630)	147369	0.20000	5.95	(a)
15 Acrylonitrile	53	3.904	3.904	(0.670)	16678	0.20000	2.51	(a)
17 MTBE	73	3.977	3.977	(0.682)	13375	0.20000	0.231	3835(a)
20 Vinyl Acetate	43	4.248	4.248	(0.729)	33768	0.20000	2.15	(a)
23 2-Butanone	43	4.897	4.897	(0.840)	20816	0.20000	2.04	(a)
$ 26 Dibromofluoromethane	111	5.281	5.281	(0.906)	1245491	50.0000	52.3	2389
$ 31 1,2-Dichloroethane-d4	67	5.552	5.552	(0.952)	705835	50.0000	52.6	
* 35 FLUOROBENZENE	96	5.830	5.830	(1.000)	4686651	50.0000		
$ 43 Toluene-d8	98	7.021	7.021	(0.870)	5077554	50.0000	51.0	
* 52 CHLOROBENZENE-d5	82	8.067	8.067	(1.000)	2196562	50.0000		
$ 61 Bromofluorobenzene	174	8.888	8.888	(0.920)	1256495	50.0000	40.1	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
62 1,1,2,2-Tetrachloroethane++	83	8.954	8.954	(0.927)	13005	0.20000	0.279	(a)
* 75 1,4-DICHLOROBENZENE-D4	152	9.662	9.662	(1.000)	1543551	50.0000		
77 1,2-Dichlorobenzene	146	9.927	9.927	(1.027)	57471	0.20000	1.18	(a)
M 79 TOTAL XYLENE	106				46701	0.20000	1.07	(a)
80 1,2-Dibromo-3-Chloropropane	157	10.397	10.397	(1.076)	2969	0.20000	0.369	(a)
132 Methyl Cyclohexane	83	6.280	6.280	(1.077)	9210	0.20000	0.222	5188 (a)

QC Flag Legend

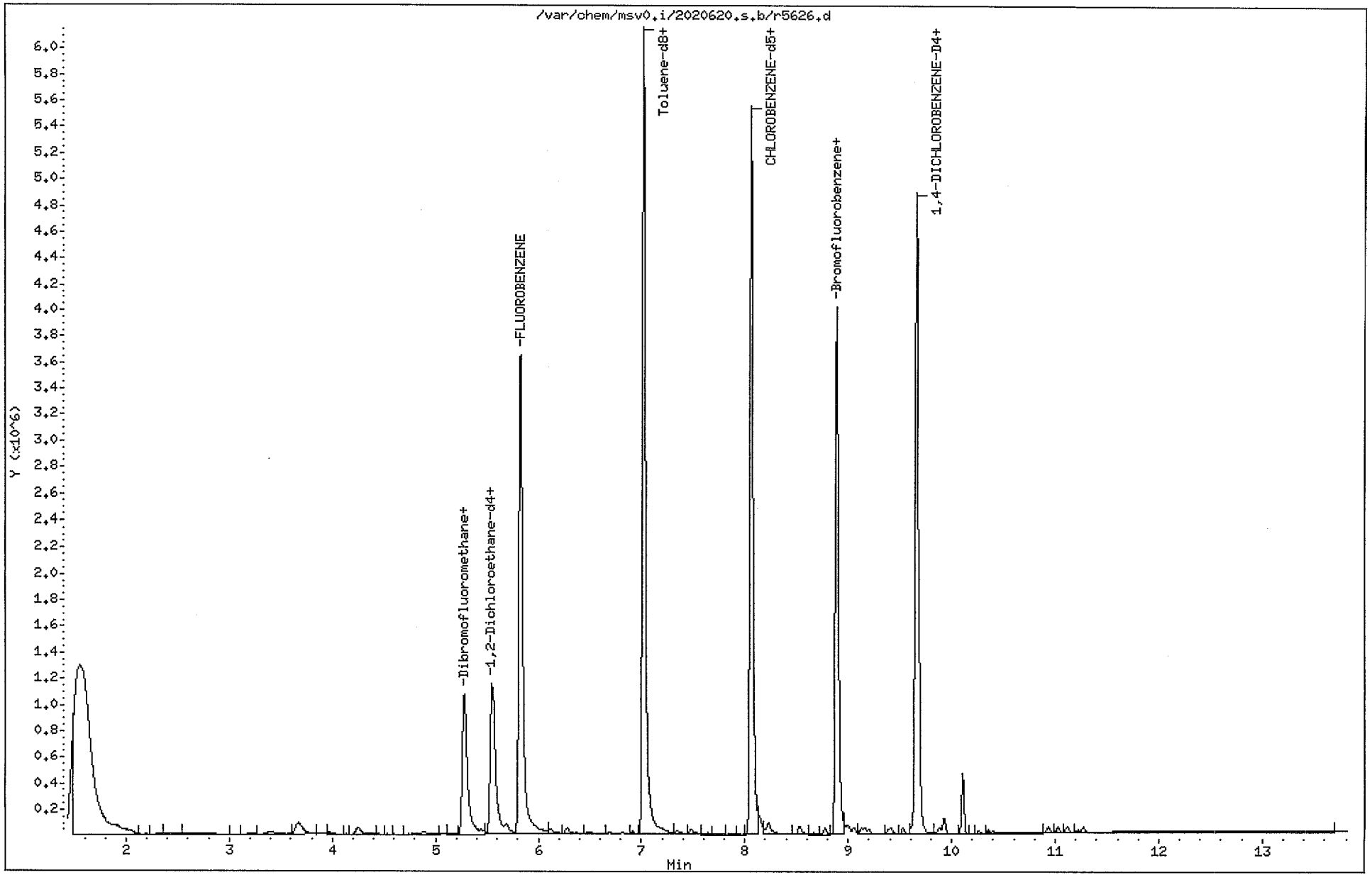
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

000053

Data File: /var/chem/msv0.i/2020620.s.b/r5626.d
Date : 20-JUN-2002 10:29
Client ID: V0STD00.2
Sample Info: V0STD00.2*4-13-6
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv0.i

Operator: RJO
Column diameter: 0.53



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv0.i/2020620.s.b/r5627.d
Lab Smp Id: V0STD00.4 Client Smp ID: V0STD00.4
Inj Date : 20-JUN-2002 10:53
Operator : RJO Inst ID: msv0.i
Smp Info : V0STD00.4*4-13-6
Misc Info : MSV~STD~*1*RJO
Comment :
Method : /var/chem/msv0.i/2020620.s.b/8260Bw0.m
Meth Date : 24-Jun-2002 14:59 dlb Quant Type: ISTD
Cal Date : 20-JUN-2002 10:53 Cal File: r5627.d
Als bottle: 5 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
2 Chloromethane ++	50	1.863	1.863	(0.320)	15640	0.40000	0.609	(a)
3 Vinyl Chloride +	62	1.929	1.929	(0.331)	6845	0.40000	0.317	(aM)
5 Bromomethane	94	2.266	2.266	(0.389)	2496	0.40000	0.363	(aMH)
8 Acrolein	56	3.061	3.061	(0.525)	1179	0.40000	1.10	(a)
11 Acetone	43	3.213	3.213	(0.551)	27451	0.40000	3.41	(a)
14 Methylene Chloride	49	3.663	3.663	(0.629)	156778	0.40000	4.96	(a)
15 Acrylonitrile	53	3.901	3.901	(0.669)	17820	0.40000	2.10	(a)
17 MTBE	73	3.981	3.981	(0.683)	30114	0.40000	0.407	5945 (a)
20 Vinyl Acetate	43	4.246	4.246	(0.729)	28399	0.40000	1.42	(a)
23 2-Butanone	43	4.894	4.894	(0.840)	28584	0.40000	2.20	(a)
$ 26 Dibromofluoromethane	111	5.278	5.278	(0.906)	1616412	50.0000	53.2	3012
$ 31 1,2-Dichloroethane-d4	67	5.556	5.556	(0.953)	912004	50.0000	53.2	
* 35 FLUOROBENZENE	96	5.827	5.827	(1.000)	5986415	50.0000		
$ 43 Toluene-d8	98	7.019	7.019	(0.870)	6388630	50.0000	51.2	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
* 52 CHLOROBENZENE-d5	82	8.065	8.065	(1.000)	2753003	50.0000		
$ 61 Bromofluorobenzene	174	8.892	8.892	(0.920)	1660698	50.0000	40.5	
62 1,1,2,2-Tetrachloroethane++	83	8.951	8.951	(0.926)	21902	0.40000	0.358	(aM)
64 1,2,3-Trichloropropane	75	8.885	8.885	(0.919)	1209378	0.40000	16.5	
* 75 1,4-DICHLOROBENZENE-D4	152	9.666	9.666	(1.000)	2021584	50.0000		
77 1,2-Dichlorobenzene	146	9.931	9.931	(1.027)	107464	0.40000	1.69	(a)
M 79 TOTAL XYLENE	106				75925	0.40000	1.39	(a)
80 1,2-Dibromo-3-Chloropropane	157	10.401	10.401	(1.076)	2728	0.40000	0.259	(a)
132 Methyl Cyclohexane	83	6.277	6.277	(1.077)	18996	0.40000	0.358	5087 (a)
131 Methyl Acetate	43	3.577	3.577	(0.614)	3411	0.40000	0.221	2389 (a)

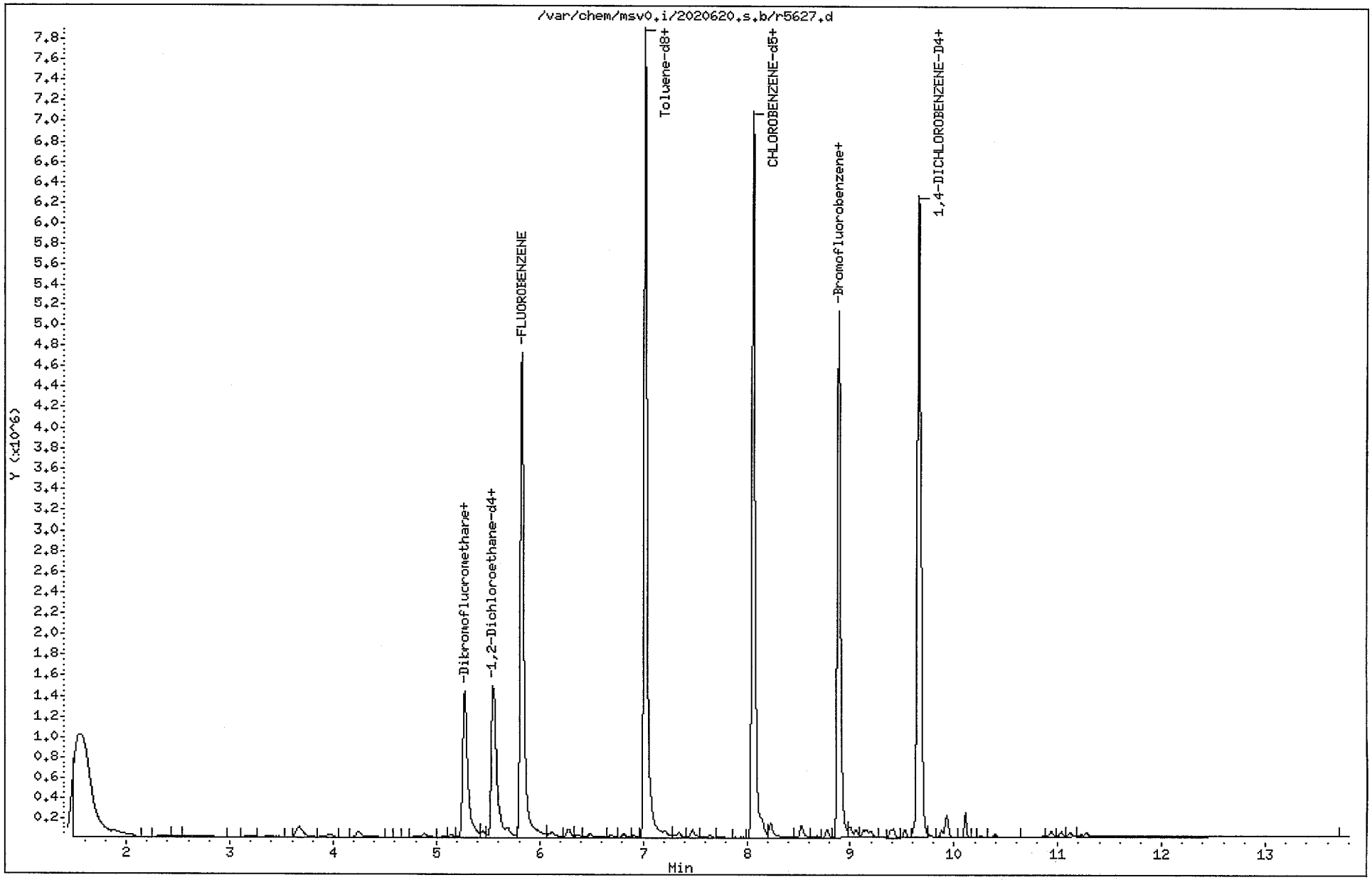
QC Flag Legend

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

000056

Data File: /var/chem/msv0.i/2020620.s.b/r5627.d
Date : 20-JUN-2002 10:53
Client ID: VOSTD00.4
Sample Info: VOSTD00.4*4-13-6
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv0.i
Operator: RJO
Column diameter: 0.53



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv0.i/2020620.s.b/r5628.d
Lab Smp Id: V0STD002 Client Smp ID: V0STD002
Inj Date : 20-JUN-2002 11:17
Operator : RJO Inst ID: msv0.i
Smp Info : V0STD002*4-13-6
Misc Info : MSV~STD~*1*RJO
Comment :
Method : /var/chem/msv0.i/2020620.s.b/8260Bw0.m
Meth Date : 24-Jun-2002 14:59 dlb Quant Type: ISTD
Cal Date : 20-JUN-2002 11:17 Cal File: r5628.d
Als bottle: 6 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)	AMOUNTS ON-COL (ppb)	SIMILARITY
1 Dichlorodifluoromethane	85	1.683	1.683	(0.289)	35236	2.00000	2.45	(a)
2 Chloromethane ++	50	1.842	1.842	(0.316)	60116	2.00000	2.41	(a)
3 Vinyl Chloride +	62	1.934	1.934	(0.332)	48773	2.00000	2.32	(a)
5 Bromomethane	94	2.245	2.245	(0.385)	21297	2.00000	3.18	(a)
6 Chloroethane	64	2.312	2.312	(0.397)	22344	2.00000	3.38	(a)
7 Trichlorofluoromethane	101	2.603	2.603	(0.447)	71680	2.00000	2.39	(a)
8 Acrolein	56	3.040	3.040	(0.522)	9479	2.00000	9.10	(a)
9 1,1-Dichloroethene +	96	3.152	3.152	(0.541)	34243	2.00000	2.15	(a)
10 1,1,2Trichlorotrifluoroethane	101	3.179	3.179	(0.546)	39925	2.00000	2.18	(a)
11 Acetone	43	3.212	3.212	(0.551)	49871	2.00000	6.37	(a)
12 Methyl Iodide	142	3.311	3.311	(0.568)	81194	2.00000	2.15	(a)
13 Carbon Disulfide	76	3.390	3.390	(0.582)	175546	2.00000	2.87	(aM)
14 Methylene Chloride	49	3.668	3.668	(0.630)	205061	2.00000	6.66	(a)
15 Acrylonitrile	53	3.900	3.900	(0.669)	91048	2.00000	11.0	(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	16 trans-1,2-Dichloroethene	61	3.953	3.953	(0.678)	68672	2.00000	2.33	(a)
	17 MTBE	73	3.980	3.980	(0.683)	153249	2.00000	2.13	6874 (a)
	19 1,1-Dichloroethane ++	63	4.350	4.350	(0.747)	96594	2.00000	2.33	(a)
	20 Vinyl Acetate	43	4.244	4.244	(0.728)	45005	2.00000	2.31	(a)
	21 cis-1,2-Dichloroethene	61	4.873	4.873	(0.836)	95549	2.00000	2.34	(a)
	22 2,2-Dichloropropane	77	4.873	4.873	(0.836)	84022	2.00000	2.31	(a)
	23 2-Butanone	43	4.900	4.900	(0.841)	51441	2.00000	4.06	(a)
	24 Bromochloromethane	128	5.078	5.078	(0.872)	33276	2.00000	2.10	(a)
	25 Chloroform +	83	5.144	5.144	(0.883)	112022	2.00000	2.30	(a)
$	26 Dibromofluoromethane	111	5.277	5.277	(0.906)	1567928	50.0000	53.0	5654
	27 1,1,1-Trichloroethane	97	5.310	5.310	(0.911)	94168	2.00000	2.41	(a)
	29 1,1-Dichloropropene	75	5.449	5.449	(0.935)	76804	2.00000	2.36	(a)
	30 Carbon Tetrachloride	117	5.456	5.456	(0.936)	78019	2.00000	2.21	(a)
$	31 1,2-Dichloroethane-d4	67	5.555	5.555	(0.953)	881299	50.0000	52.8	
	32 1,2-Dichloroethane	62	5.614	5.614	(0.964)	95709	2.00000	2.31	(a)
	33 Benzene	78	5.614	5.614	(0.964)	247046	2.00000	2.29	(a)
M	34 Total 1,2-Dichloroethene	61				164221	6.00000	4.67	(a)
*	35 FLUOROBENZENE	96	5.826	5.826	(1.000)	5824209	50.0000		
	36 Trichloroethene	130	6.117	6.117	(1.050)	66833	2.00000	2.08	(a)
	37 1,2-Dichloropropane +	63	6.276	6.276	(1.077)	82979	2.00000	2.38	(a)
	38 Dibromomethane	93	6.369	6.369	(1.093)	46069	2.00000	2.25	(a)
	39 Bromodichloromethane	83	6.481	6.481	(1.112)	99881	2.00000	2.21	(a)
	40 2-Chloroethyl vinyl ether	63	6.693	6.693	(1.149)	54223	2.00000	2.25	(a)
	41 cis-1,3-Dichloropropene	75	6.812	6.812	(1.169)	124874	2.00000	2.16	(a)
	42 4-methyl-2-pentanone	43	6.912	6.912	(1.186)	83276	2.00000	2.15	(a)
$	43 Toluene-d8	98	7.018	7.018	(0.870)	6236393	50.0000	49.8	
	44 Toluene +	91	7.071	7.071	(1.214)	353773	2.00000	2.61	(a)
	45 trans-1,3-Dichloropropene	75	6.812	6.812	(1.169)	124874	2.00000	2.16	(a)
	46 1,1,2-Trichloroethane	97	7.349	7.349	(1.261)	70097	2.00000	2.24	(a)
	47 1,3-Dichloropropane	76	7.468	7.468	(1.282)	127384	2.00000	2.29	(a)
	48 Tetrachloroethene	164	7.481	7.481	(1.284)	51192	2.00000	2.16	(a)
	49 2-Hexanone	43	7.514	7.514	(0.932)	61199	2.00000	2.17	(a)
	50 Dibromochloromethane	129	7.640	7.640	(0.947)	70519	2.00000	1.95	(a)
	51 1,2-Dibromoethane(EDB)	107	7.739	7.739	(0.960)	70413	2.00000	1.99	(a)
*	52 CHLOROBENZENE-d5	82	8.063	8.063	(1.000)	2761954	50.0000		
	53 Chlorobenzene ++	112	8.090	8.090	(1.003)	234684	2.00000	2.44	(a)
	54 1,1,1,2-Tetrachloroethane	133	8.136	8.136	(1.009)	67078	2.00000	2.04	(aM)
	55 Ethylbenzene +	106	8.156	8.156	(1.011)	106425	2.00000	2.34	(a)
	56 p,m-Xylene	106	8.235	8.235	(1.021)	284596	4.00000	5.05	
	57 o-Xylene	106	8.520	8.520	(1.057)	136209	2.00000	2.62	(a)
	58 Styrene	104	8.527	8.527	(1.057)	232073	2.00000	2.41	(a)
	59 Bromoform ++	173	8.672	8.672	(1.075)	38451	2.00000	1.81	(a)
	60 Isopropylbenzene	105	8.772	8.772	(1.088)	360509	2.00000	2.46	(a)
$	61 Bromofluorobenzene	174	8.891	8.891	(0.920)	1624126	50.0000	39.5	
	62 1,1,2,2-Tetrachloroethane++	83	8.957	8.957	(0.927)	100349	2.00000	1.64	(a)
	63 trans-1,4-Dichloro-2-Butene	53	8.990	8.990	(0.930)	22459	2.00000	1.60	(a)
	64 1,2,3-Trichloropropane	75	8.997	8.997	(0.931)	129468	2.00000	1.77	(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	65 Bromobenzene	77	9.010	9.010	(0.932)	211335	2.00000	1.83	(a)
	66 n-Propylbenzene	91	9.056	9.056	(0.937)	419694	2.00000	2.33	(a)
	67 2-Chlorotoluene	91	9.202	9.202	(0.952)	278182	2.00000	2.20	(a)
	68 1,3,5-Trimethylbenzene	105	9.162	9.162	(0.948)	242518	2.00000	2.96	(aH)
	69 4-Chlorotoluene	91	9.202	9.202	(0.952)	278182	2.00000	2.28	(a)
	70 tert-butylbenzene	91	9.129	9.129	(0.945)	262844	2.00000	3.14	(a)
	71 1,2,4-Trimethylbenzene	105	9.414	9.414	(0.974)	245188	2.00000	2.86	(a)
	72 sec-Butylbenzene	105	9.533	9.533	(0.986)	379339	2.00000	2.31	(a)
	73 p-Isopropyltoluene	119	9.612	9.612	(0.995)	275739	2.00000	2.56	(a)
	74 1,3-Dichlorobenzene	146	9.678	9.678	(1.001)	153570	2.00000	2.34	(a)
*	75 1,4-DICHLOROBENZENE-D4	152	9.665	9.665	(1.000)	2025602	50.0000		
	76 1,4-Dichlorobenzene	146	9.678	9.678	(1.001)	153570	2.00000	2.09	(a)
	77 1,2-Dichlorobenzene	146	9.923	9.923	(1.027)	222175	2.00000	3.49	(a)
	78 n-Butylbenzene	91	9.877	9.877	(1.022)	261108	2.00000	2.79	(a)
M	79 TOTAL XYLENE	106				420805	6.00000	7.66	(a)
	80 1,2-Dibromo-3-Chloropropane	157	10.400	10.400	(1.076)	13903	2.00000	1.32	(a)
	81 1,2,4-Trichlorobenzene	180	10.943	10.943	(1.132)	64520	2.00000	1.95	(a)
	82 Hexachlorobutadiene	225	11.035	11.035	(1.142)	43368	2.00000	1.94	(a)
	83 Naphthalene	128	11.115	11.115	(1.150)	171210	2.00000	1.81	(a)
	84 1,2,3-Trichlorobenzene	180	11.273	11.273	(1.166)	56780	2.00000	1.82	(a)
	132 Methyl Cyclohexane	83	6.276	6.276	(1.077)	114344	2.00000	2.21	3463 (a)
	131 Methyl Acetate	43	3.980	3.980	(0.683)	31262	2.00000	2.08	6874 (a)
	114 Hexane	57	4.244	4.244	(0.728)	108163	2.00000	3.32	2763 (aH)
	120 Cyclohexane	56	5.370	5.370	(0.922)	98256	2.00000	2.30	3561 (a)

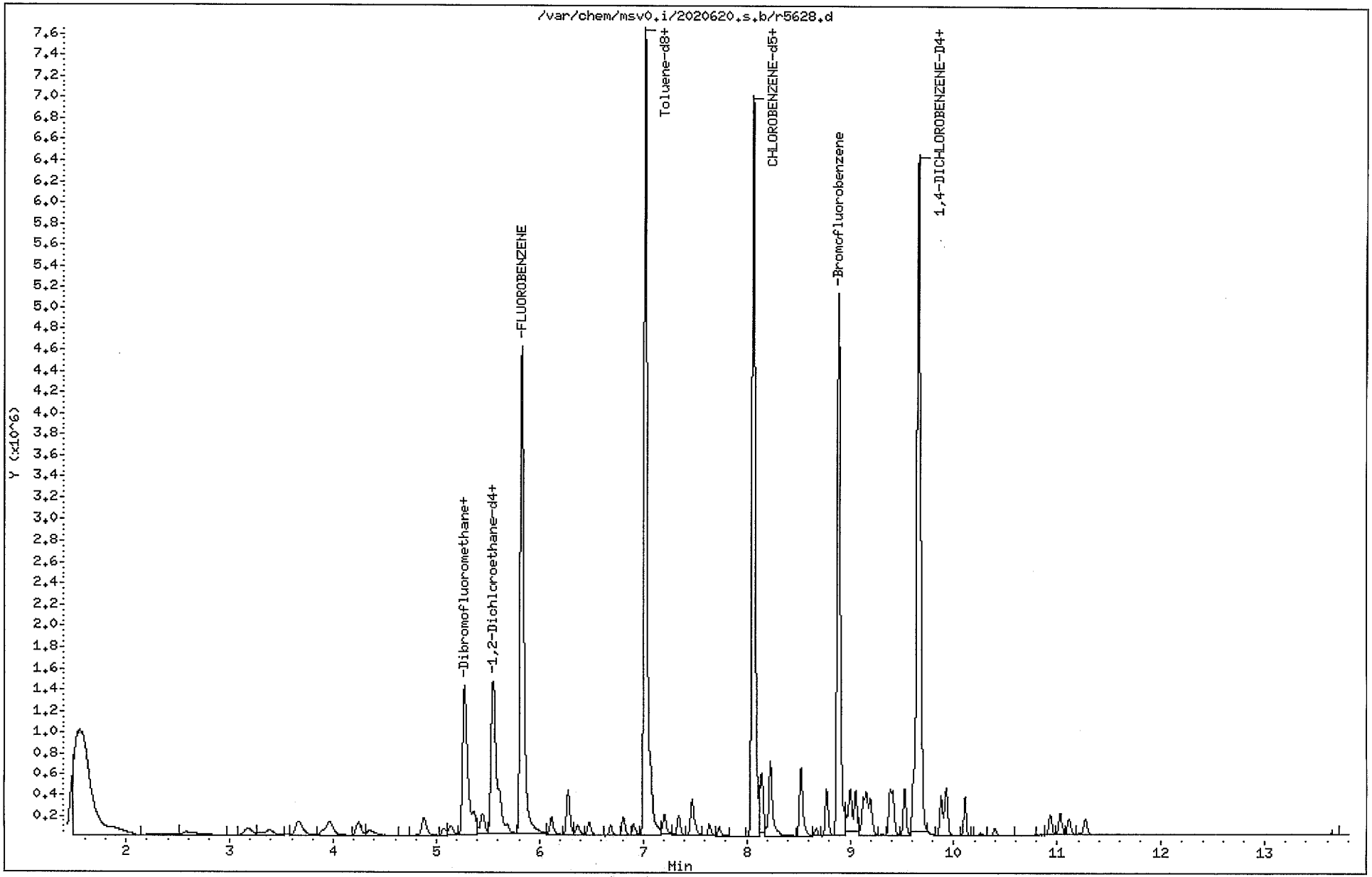
QC Flag Legend

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

000060

Data File: /var/chem/msv0.i/2020620.s.b/r5628.d
Date : 20-JUN-2002 11:17
Client ID: VOSTD002
Sample Info: VOSTD002*4-13-6
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv0.i
Operator: RJO
Column diameter: 0.53



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv0.i/2020620.s.b/r5636.d
Lab Smp Id: V0STD005 Client Smp ID: V0STD005
Inj Date : 20-JUN-2002 14:38
Operator : RJO Inst ID: msv0.i
Smp Info : V0STD005*4-13-6
Misc Info : MSV~STD~*1*RJO
Comment :
Method : /var/chem/msv0.i/2020620.s.b/8260Bw0.m
Meth Date : 24-Jun-2002 15:03 dlb Quant Type: ISTD
Cal Date : 09-JUN-2002 09:20 Cal File: r5330.d
Als bottle: 8 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	1.664	1.664	(0.286)	60278	5.00000	4.41	(a)
2 Chloromethane ++	50	1.829	1.829	(0.314)	110509	5.00000	4.65	(a)
3 Vinyl Chloride +	62	1.948	1.948	(0.334)	93696	5.00000	4.70	(a)
5 Bromomethane	94	2.233	2.233	(0.383)	33437	5.00000	5.26	
6 Chloroethane	64	2.339	2.339	(0.401)	32469	5.00000	5.17	
7 Trichlorofluoromethane	101	2.590	2.590	(0.445)	122005	5.00000	4.27	(a)
8 Acrolein	56	3.047	3.047	(0.523)	24051	25.0000	24.3	(a)
9 1,1-Dichloroethene +	96	3.159	3.159	(0.542)	71661	5.00000	4.75	(a)
10 1,1,2Trichlorotrifluoroethane	101	3.186	3.186	(0.547)	73350	5.00000	4.22	(a)
11 Acetone	43	3.226	3.226	(0.554)	44360	5.00000	5.96	(a)
12 Methyl Iodide	142	3.312	3.312	(0.568)	169368	5.00000	4.73	(a)
13 Carbon Disulfide	76	3.391	3.391	(0.582)	268652	5.00000	4.62	(a)
14 Methylene Chloride	49	3.669	3.669	(0.630)	188551	5.00000	6.45	(a)
15 Acrylonitrile	53	3.907	3.907	(0.671)	205695	25.0000	26.3	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	16 trans-1,2-Dichloroethene	61	3.954	3.954	(0.679)	138777	5.00000	4.95	(a)
	17 MTBE	73	3.980	3.980	(0.683)	347266	5.00000	5.08	6452
	19 1,1-Dichloroethane ++	63	4.357	4.357	(0.748)	199155	5.00000	5.06	
	20 Vinyl Acetate	43	4.238	4.238	(0.727)	84818	5.00000	4.58	(a)
	21 cis-1,2-Dichloroethene	61	4.880	4.880	(0.838)	198278	5.00000	5.12	
	22 2,2-Dichloropropane	77	4.887	4.887	(0.839)	168491	5.00000	4.89	(a)
	23 2-Butanone	43	4.894	4.894	(0.840)	68290	5.00000	5.68	(a)
	24 Bromochloromethane	128	5.086	5.086	(0.873)	76692	5.00000	5.09	
	25 Chloroform +	83	5.152	5.152	(0.884)	262094	5.00000	5.66	
$	26 Dibromofluoromethane	111	5.277	5.277	(0.906)	1494676	50.0000	53.2	4826
	27 1,1,1-Trichloroethane	97	5.317	5.317	(0.913)	172772	5.00000	4.65	(a)
	29 1,1-Dichloropropene	75	5.450	5.450	(0.935)	147014	5.00000	4.75	(a)
	30 Carbon Tetrachloride	117	5.463	5.463	(0.938)	146424	5.00000	4.37	(a)
$	31 1,2-Dichloroethane-d4	67	5.555	5.555	(0.953)	813951	50.0000	51.3	
	32 1,2-Dichloroethane	62	5.615	5.615	(0.964)	202335	5.00000	5.14	
	33 Benzene	78	5.615	5.615	(0.964)	497458	5.00000	4.85	(a)
M	34 Total 1,2-Dichloroethene	61				337055	15.0000	10.1	
*	35 FLUOROBENZENE	96	5.827	5.827	(1.000)	5533002	50.0000		
	36 Trichloroethene	130	6.118	6.118	(1.050)	143635	5.00000	4.70	(a)
	37 1,2-Dichloropropane +	63	6.284	6.284	(1.078)	185194	5.00000	5.59	
	38 Dibromomethane	93	6.370	6.370	(1.093)	102363	5.00000	5.27	
	39 Bromodichloromethane	83	6.482	6.482	(1.112)	218804	5.00000	5.09	
	40 2-Chloroethyl vinyl ether	63	6.694	6.694	(1.149)	119690	5.00000	5.23	
	41 cis-1,3-Dichloropropene	75	6.813	6.813	(1.169)	283485	5.00000	5.16	
	42 4-methyl-2-pentanone	43	6.912	6.912	(1.186)	193951	5.00000	5.28	
$	43 Toluene-d8	98	7.025	7.025	(0.870)	5861633	50.0000	49.8	
	44 Toluene +	91	7.071	7.071	(1.214)	625211	5.00000	4.85	(a)
	45 trans-1,3-Dichloropropene	75	6.813	6.813	(1.169)	283485	5.00000	5.16	
	46 1,1,2-Trichloroethane	97	7.349	7.349	(1.261)	158431	5.00000	5.34	
	47 1,3-Dichloropropane	76	7.468	7.468	(1.282)	285501	5.00000	5.40	
	48 Tetrachloroethene	164	7.482	7.482	(1.284)	99307	5.00000	4.41	(a)
	49 2-Hexanone	43	7.508	7.508	(0.930)	143794	5.00000	5.43	
	50 Dibromochloromethane	129	7.647	7.647	(0.948)	166481	5.00000	4.89	(a)
	51 1,2-Dibromoethane(EDB)	107	7.740	7.740	(0.959)	161345	5.00000	4.86	(a)
*	52 CHLOROBENZENE-d5	82	8.071	8.071	(1.000)	2596696	50.0000		
	53 Chlorobenzene ++	112	8.090	8.090	(1.002)	456653	5.00000	5.05	
	54 1,1,1,2-Tetrachloroethane	133	8.137	8.137	(1.008)	151181	5.00000	4.89	(aM)
	55 Ethylbenzene +	106	8.157	8.157	(1.011)	194549	5.00000	4.56	(a)
	56 p,m-Xylene	106	8.236	8.236	(1.020)	479285	10.0000	9.04	
	57 o-Xylene	106	8.527	8.527	(1.057)	221333	5.00000	4.52	(a)
	58 Styrene	104	8.527	8.527	(1.057)	421160	5.00000	4.66	(a)
	59 Bromoform ++	173	8.673	8.673	(1.075)	93101	5.00000	4.66	(a)
	60 Isopropylbenzene	105	8.779	8.779	(1.088)	642106	5.00000	4.65	(a)
$	61 Bromofluorobenzene	174	8.891	8.891	(0.920)	1412898	50.0000	52.6	
	62 1,1,2,2-Tetrachloroethane++	83	8.958	8.958	(0.927)	231884	5.00000	5.80	
	63 trans-1,4-Dichloro-2-Butene	53	8.991	8.991	(0.930)	57408	5.00000	6.25	
	64 1,2,3-Trichloropropane	75	8.997	8.997	(0.931)	293208	5.00000	6.13	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	65 Bromobenzene	77	9.011	9.011	(0.932)	433144	5.00000	5.73	
	66 n-Propylbenzene	91	9.057	9.057	(0.937)	592138	5.00000	5.04	
	67 2-Chlorotoluene	91	9.136	9.136	(0.945)	455835	5.00000	5.52	
	68 1,3,5-Trimethylbenzene	105	8.779	8.779	(0.908)	642106	5.00000	5.28	(H)
	69 4-Chlorotoluene	91	9.202	9.202	(0.952)	414303	5.00000	5.20	
	70 tert-butylbenzene	91	9.394	9.394	(0.972)	273286	5.00000	5.00	(H)
	71 1,2,4-Trimethylbenzene	105	9.414	9.414	(0.974)	349771	5.00000	6.24	
	72 sec-Butylbenzene	105	9.533	9.533	(0.986)	534137	5.00000	4.99	(a)
	73 p-Isopropyltoluene	119	9.613	9.613	(0.995)	357270	5.00000	5.09	
	74 1,3-Dichlorobenzene	146	9.626	9.626	(0.996)	233907	5.00000	5.45	
*	75 1,4-DICHLOROBENZENE-D4	152	9.666	9.666	(1.000)	1322228	50.0000		
	76 1,4-Dichlorobenzene	146	9.679	9.679	(1.001)	227422	5.00000	4.74	(a)
	77 1,2-Dichlorobenzene	146	9.924	9.924	(1.027)	210616	5.00000	5.07	
	78 n-Butylbenzene	91	9.871	9.871	(1.021)	334474	5.00000	5.47	
M	79 TOTAL XYLENE	106				700618	15.0000	13.6	
	80 1,2-Dibromo-3-Chloropropane	157	10.400	10.400	(1.076)	35470	5.00000	5.14	
	81 1,2,4-Trichlorobenzene	180	10.937	10.937	(1.131)	135502	5.00000	6.27	
	82 Hexachlorobutadiene	225	11.029	11.029	(1.141)	70483	5.00000	4.82	(a)
	83 Naphthalene	128	11.109	11.109	(1.149)	408729	5.00000	6.62	
	84 1,2,3-Trichlorobenzene	180	11.268	11.268	(1.166)	128660	5.00000	6.31	
	132 Methyl Cyclohexane	83	6.284	6.284	(1.078)	218344	5.00000	4.45	2958 (a)
	131 Methyl Acetate	43	3.980	3.980	(0.683)	69909	5.00000	4.91	6452 (a)
	114 Hexane	57	4.245	4.245	(0.728)	142872	5.00000	4.62	2956 (aH)
	120 Cyclohexane	56	5.383	5.383	(0.924)	177642	5.00000	4.38	3386 (a)

QC Flag Legend

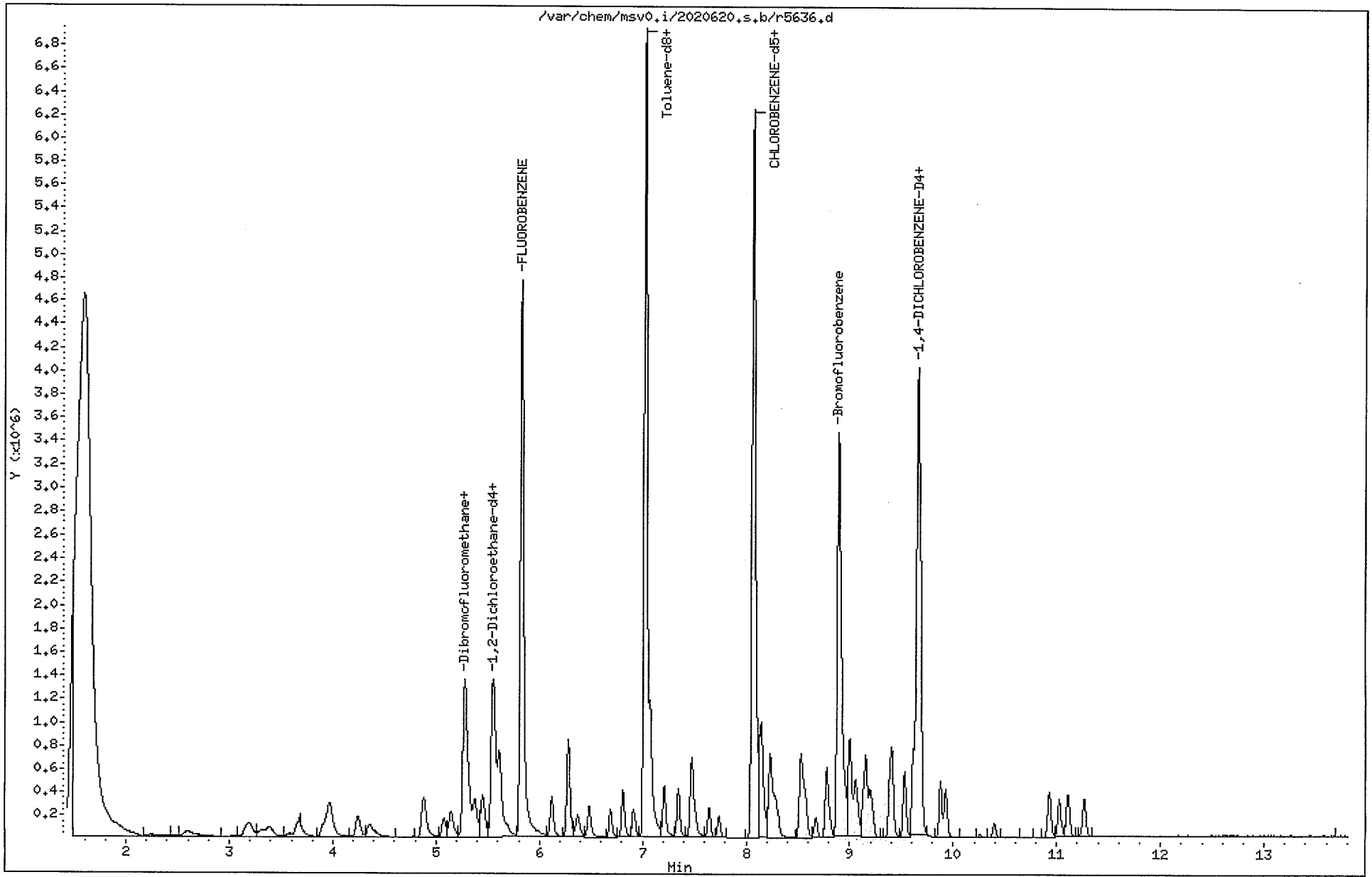
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

000064

Data File: /var/chem/msv0.i/2020620.s.b/r5636.d
Date : 20-JUN-2002 14:38
Client ID: VOSTD005
Sample Info: VOSTD005*4-13-6
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv0.i

Operator: RJO
Column diameter: 0.53



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv0.i/2020620.s.b/r5634.d
Lab Smp Id: V0STD020 Client Smp ID: V0STD020
Inj Date : 20-JUN-2002 13:45
Operator : RJO Inst ID: msv0.i
Smp Info : V0STD020*4-13-6
Misc Info : MSV~STD~*1*RJO
Comment :
Method : /var/chem/msv0.i/2020620.s.b/8260Bw0.m
Meth Date : 24-Jun-2002 15:03 dlb Quant Type: ISTD
Cal Date : 09-JUN-2002 09:42 Cal File: r5332.d
Als bottle: 8 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	1.662	1.662	(0.285)	268690	20.0000	19.2	
2 Chloromethane ++	50	1.828	1.828	(0.314)	473240	20.0000	19.5	
3 Vinyl Chloride +	62	1.927	1.927	(0.331)	431989	20.0000	21.2	
5 Bromomethane	94	2.218	2.218	(0.381)	120016	20.0000	18.5	
6 Chloroethane	64	2.331	2.331	(0.400)	140823	20.0000	21.9	
7 Trichlorofluoromethane	101	2.596	2.596	(0.446)	564362	20.0000	19.3	
8 Acrolein	56	3.019	3.019	(0.518)	109326	100.000	108	
9 1,1-Dichloroethene +	96	3.152	3.152	(0.541)	305491	20.0000	19.8	
10 1,1,2Trichlorotrifluoroethane	101	3.191	3.191	(0.548)	356290	20.0000	20.0	
11 Acetone	43	3.211	3.211	(0.551)	193255	20.0000	25.4	
12 Methyl Iodide	142	3.304	3.304	(0.567)	760092	20.0000	20.7	
13 Carbon Disulfide	76	3.377	3.377	(0.580)	1193260	20.0000	20.1	
14 Methylene Chloride	49	3.655	3.655	(0.627)	574561	20.0000	19.2	
15 Acrylonitrile	53	3.900	3.900	(0.669)	927666	100.000	116	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	16 trans-1,2-Dichloroethene	61	3.952	3.952	(0.678)	588502	20.0000	20.5	
	17 MTBE	73	3.972	3.972	(0.682)	1508344	20.0000	21.5	5710
	19 1,1-Dichloroethane ++	63	4.356	4.356	(0.748)	808378	20.0000	20.1	
	20 Vinyl Acetate	43	4.237	4.237	(0.727)	373986	20.0000	19.7	
	21 cis-1,2-Dichloroethene	61	4.872	4.872	(0.836)	810088	20.0000	20.4	
	22 2,2-Dichloropropane	77	4.879	4.879	(0.838)	718510	20.0000	20.4	
	23 2-Butanone	43	4.886	4.886	(0.839)	286414	20.0000	23.3	(a)
	24 Bromochloromethane	128	5.078	5.078	(0.872)	322414	20.0000	20.9	
	25 Chloroform +	83	5.144	5.144	(0.883)	952472	20.0000	20.1	
$	26 Dibromofluoromethane	111	5.276	5.276	(0.906)	1486581	50.0000	51.7	7003
	27 1,1,1-Trichloroethane	97	5.316	5.316	(0.912)	753024	20.0000	19.8	
	29 1,1-Dichloropropene	75	5.448	5.448	(0.935)	626483	20.0000	19.8	
	30 Carbon Tetrachloride	117	5.462	5.462	(0.938)	649548	20.0000	19.0	
$	31 1,2-Dichloroethane-d4	67	5.554	5.554	(0.953)	840147	50.0000	51.8	
	32 1,2-Dichloroethane	62	5.614	5.614	(0.964)	809827	20.0000	20.1	
	33 Benzene	78	5.607	5.607	(0.962)	2105333	20.0000	20.1	
M	34 Total 1,2-Dichloroethene	61				1398590	60.0000	41.0	
*	35 FLUOROBENZENE	96	5.826	5.826	(1.000)	5662409	50.0000		
	36 Trichloroethene	130	6.117	6.117	(1.050)	606561	20.0000	19.4	
	37 1,2-Dichloropropane +	63	6.282	6.282	(1.078)	731356	20.0000	21.6	
	38 Dibromomethane	93	6.368	6.368	(1.093)	422694	20.0000	21.3	
	39 Bromodichloromethane	83	6.481	6.481	(1.112)	893160	20.0000	20.3	
	40 2-Chloroethyl vinyl ether	63	6.686	6.686	(1.148)	537487	20.0000	22.9	
	41 cis-1,3-Dichloropropene	75	6.812	6.812	(1.169)	1179065	20.0000	21.0	
	42 4-methyl-2-pentanone	43	6.911	6.911	(1.186)	851668	20.0000	22.6	
$	43 Toluene-d8	98	7.024	7.024	(0.870)	5948686	50.0000	50.0	
	44 Toluene +	91	7.070	7.070	(1.214)	2647838	20.0000	20.1	
	45 trans-1,3-Dichloropropene	75	6.812	6.812	(1.169)	1179065	20.0000	21.0	
	46 1,1,2-Trichloroethane	97	7.348	7.348	(1.261)	657183	20.0000	21.6	
	47 1,3-Dichloropropane	76	7.467	7.467	(1.282)	1173171	20.0000	21.7	
	48 Tetrachloroethene	164	7.480	7.480	(1.284)	447613	20.0000	19.4	
	49 2-Hexanone	43	7.507	7.507	(0.930)	588255	20.0000	22.0	
	50 Dibromochloromethane	129	7.646	7.646	(0.948)	701626	20.0000	20.4	
	51 1,2-Dibromoethane(EDB)	107	7.738	7.738	(0.959)	679948	20.0000	20.3	
*	52 CHLOROBENZENE-d5	82	8.069	8.069	(1.000)	2622609	50.0000		
	53 Chlorobenzene ++	112	8.089	8.089	(1.002)	1854748	20.0000	20.3	
	54 1,1,1,2-Tetrachloroethane	133	8.136	8.136	(1.008)	630907	20.0000	20.2	
	55 Ethylbenzene +	106	8.155	8.155	(1.011)	869340	20.0000	20.2	
	56 p,m-Xylene	106	8.235	8.235	(1.020)	2186637	40.0000	40.8	
	57 o-Xylene	106	8.526	8.526	(1.057)	1018424	20.0000	20.6	
	58 Styrene	104	8.533	8.533	(1.057)	1883540	20.0000	20.6	
	59 Bromoform ++	173	8.672	8.672	(1.075)	413235	20.0000	20.5	
	60 Isopropylbenzene	105	8.778	8.778	(1.088)	2915868	20.0000	20.9	
$	61 Bromofluorobenzene	174	8.897	8.897	(0.921)	1541744	50.0000	47.0	
	62 1,1,2,2-Tetrachloroethane++	83	8.956	8.956	(0.927)	936435	20.0000	19.2	
	63 trans-1,4-Dichloro-2-Butene	53	8.989	8.989	(0.930)	240050	20.0000	21.4	
	64 1,2,3-Trichloropropane	75	8.996	8.996	(0.931)	1190316	20.0000	20.4	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	65 Bromobenzene	77	9.009	9.009	(0.932)	1794545	20.0000	19.4	
	66 n-Propylbenzene	91	9.062	9.062	(0.938)	2925562	20.0000	20.4	
	67 2-Chlorotoluene	91	9.142	9.142	(0.946)	2117735	20.0000	21.0	
	68 1,3,5-Trimethylbenzene	105	8.778	8.778	(0.908)	2915868	20.0000	19.6	(H)
	69 4-Chlorotoluene	91	9.201	9.201	(0.952)	1855108	20.0000	19.1	
	70 tert-butylbenzene	91	9.393	9.393	(0.972)	1327599	20.0000	19.9	(H)
	71 1,2,4-Trimethylbenzene	105	9.420	9.420	(0.975)	1521572	20.0000	22.2	
	72 sec-Butylbenzene	105	9.539	9.539	(0.987)	2740445	20.0000	20.9	
	73 p-Isopropyltoluene	119	9.618	9.618	(0.995)	1841412	20.0000	21.5	
	74 1,3-Dichlorobenzene	146	9.631	9.631	(0.997)	996350	20.0000	19.0	
*	75 1,4-DICHLOROBENZENE-D4	152	9.665	9.665	(1.000)	1616019	50.0000		
	76 1,4-Dichlorobenzene	146	9.684	9.684	(1.002)	1220595	20.0000	20.8	
	77 1,2-Dichlorobenzene	146	9.929	9.929	(1.027)	1011415	20.0000	19.9	
	78 n-Butylbenzene	91	9.876	9.876	(1.022)	1632315	20.0000	21.8	
M	79 TOTAL XYLENE	106				3205061	60.0000	61.4	
	80 1,2-Dibromo-3-Chloropropane	157	10.399	10.399	(1.076)	160922	20.0000	19.1	
	81 1,2,4-Trichlorobenzene	180	10.935	10.935	(1.131)	552704	20.0000	20.9	
	82 Hexachlorobutadiene	225	11.035	11.035	(1.142)	349512	20.0000	19.6	
	83 Naphthalene	128	11.107	11.107	(1.149)	1660896	20.0000	22.0	
	84 1,2,3-Trichlorobenzene	180	11.273	11.273	(1.166)	517788	20.0000	20.8	
	132 Methyl Cyclohexane	83	6.276	6.276	(1.077)	1040315	20.0000	20.7	2589
	131 Methyl Acetate	43	3.979	3.979	(0.683)	274780	20.0000	18.8	5806
	114 Hexane	57	4.237	4.237	(0.727)	621057	20.0000	19.6	4473(H)
	120 Cyclohexane	56	5.382	5.382	(0.924)	848029	20.0000	20.4	2261

QC Flag Legend

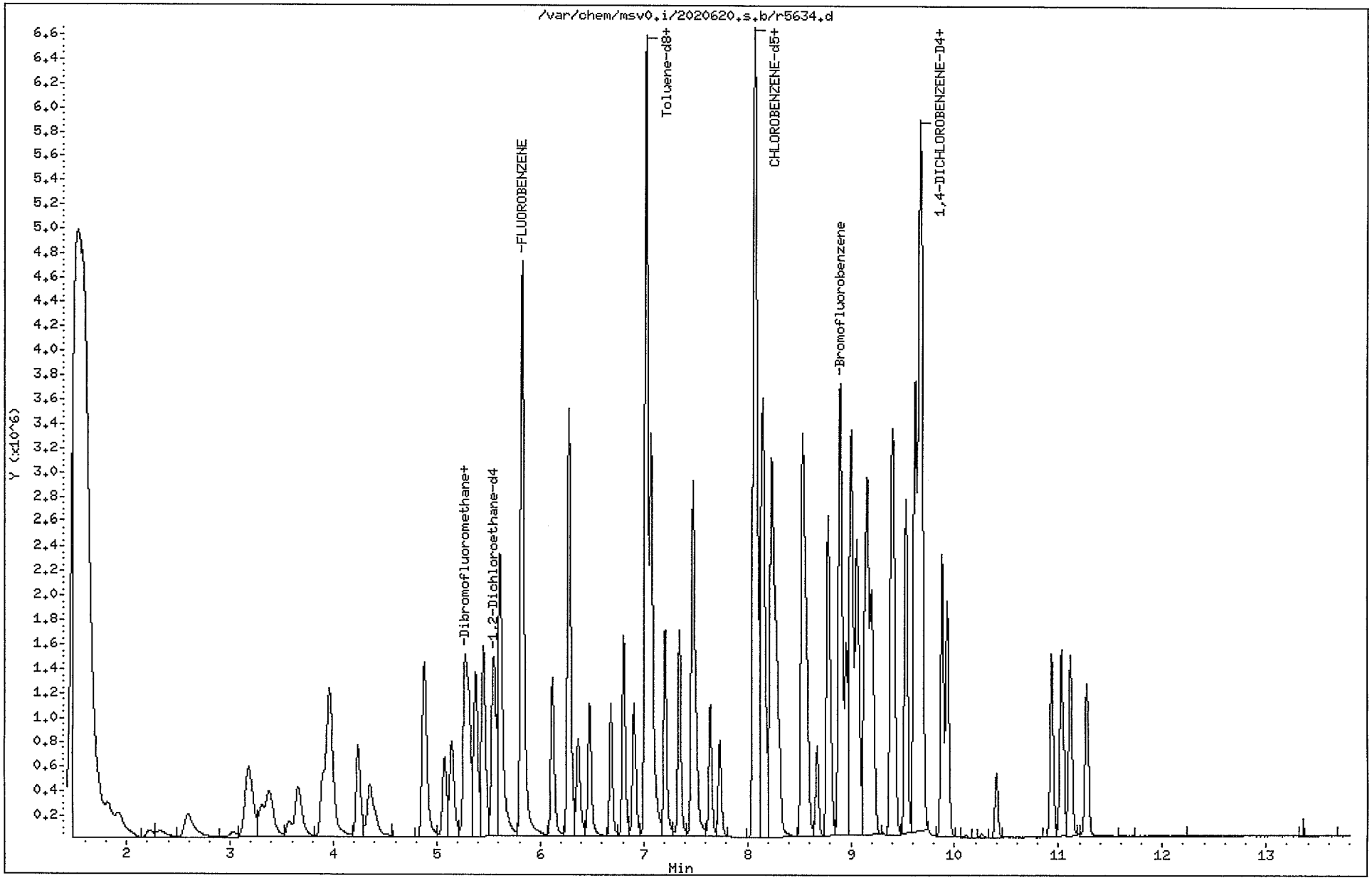
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
H - Operator selected an alternate compound hit.

000068

Data File: /var/chem/msv0.i/2020620.s.b/r5634.d
Date : 20-JUN-2002 13:45
Client ID: VOSTD020
Sample Info: VOSTD020X4-13-6
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv0.i

Operator: RJO
Column diameter: 0.53



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv0.i/2020620.s.b/r5630.d
Lab Smp Id: V0STD050 Client Smp ID: V0STD050
Inj Date : 20-JUN-2002 12:09
Operator : RJO Inst ID: msv0.i
Smp Info : V0STD050*4-13-6
Misc Info : MSV~STD~*1*RJO
Comment :
Method : /var/chem/msv0.i/2020620.s.b/8260Bw0.m
Meth Date : 24-Jun-2002 15:02 dlb Quant Type: ISTD
Cal Date : 09-JUN-2002 10:05 Cal File: r5333.d
Als bottle: 8 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	1.672	1.672	(0.287)	782386	50.0000	52.6	
2 Chloromethane ++	50	1.838	1.838	(0.315)	1271354	50.0000	49.3	
3 Vinyl Chloride +	62	1.931	1.931	(0.331)	1180358	50.0000	54.5	
5 Bromomethane	94	2.228	2.228	(0.382)	319302	50.0000	46.3	
6 Chloroethane	64	2.341	2.341	(0.402)	333002	50.0000	48.8	
7 Trichlorofluoromethane	101	2.612	2.612	(0.448)	1643114	50.0000	53.0	
8 Acrolein	56	3.043	3.043	(0.522)	265345	250.000	247	(A)
9 1,1-Dichloroethene +	96	3.175	3.175	(0.545)	819650	50.0000	50.0	
10 1,1,2Trichlorotrifluoroethane	101	3.208	3.208	(0.550)	964492	50.0000	51.1	
11 Acetone	43	3.228	3.228	(0.554)	365617	50.0000	45.2	
12 Methyl Iodide	142	3.327	3.327	(0.571)	1921298	50.0000	49.4	
13 Carbon Disulfide	76	3.393	3.393	(0.582)	3161363	50.0000	50.1	
14 Methylene Chloride	49	3.671	3.671	(0.630)	1546274	50.0000	48.7	
15 Acrylonitrile	53	3.903	3.903	(0.670)	2070961	250.000	243	(A)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	16 trans-1,2-Dichloroethene	61	3.963	3.963	(0.680)	1553010	50.0000	51.0	
	17 MTBE	73	3.982	3.982	(0.683)	3724485	50.0000	50.1	5622
	19 1,1-Dichloroethane ++	63	4.360	4.360	(0.748)	2152764	50.0000	50.3	
	20 Vinyl Acetate	43	4.247	4.247	(0.729)	1050769	50.0000	52.2	
	21 cis-1,2-Dichloroethene	61	4.883	4.883	(0.838)	2143624	50.0000	51.0	
	22 2,2-Dichloropropane	77	4.896	4.896	(0.840)	1935538	50.0000	51.7	
	23 2-Butanone	43	4.889	4.889	(0.839)	646422	50.0000	49.5	
	24 Bromochloromethane	128	5.081	5.081	(0.872)	800807	50.0000	49.0	
	25 Chloroform +	83	5.154	5.154	(0.884)	2481392	50.0000	49.4	
$	26 Dibromofluoromethane	111	5.286	5.286	(0.907)	1539830	50.0000	50.5	6335
	27 1,1,1-Trichloroethane	97	5.326	5.326	(0.914)	2102836	50.0000	52.1	
	29 1,1-Dichloropropene	75	5.452	5.452	(0.935)	1736950	50.0000	51.7	
	30 Carbon Tetrachloride	117	5.472	5.472	(0.939)	1843975	50.0000	50.7	
$	31 1,2-Dichloroethane-d4	67	5.558	5.558	(0.953)	903640	50.0000	52.5	
	32 1,2-Dichloroethane	62	5.617	5.617	(0.964)	2151108	50.0000	50.3	
	33 Benzene	78	5.611	5.611	(0.963)	5574228	50.0000	50.1	
M	34 Total 1,2-Dichloroethene	61				3696634	150.000	102	
*	35 FLUOROBENZENE	96	5.829	5.829	(1.000)	6009761	50.0000		
	36 Trichloroethene	130	6.120	6.120	(1.050)	1672863	50.0000	50.4	
	37 1,2-Dichloropropane +	63	6.286	6.286	(1.078)	1820633	50.0000	50.6	
	38 Dibromomethane	93	6.372	6.372	(1.093)	1064301	50.0000	50.5	
	39 Bromodichloromethane	83	6.484	6.484	(1.112)	2342688	50.0000	50.2	
	40 2-Chloroethyl vinyl ether	63	6.689	6.689	(1.148)	1314928	50.0000	52.9	
	41 cis-1,3-Dichloropropene	75	6.815	6.815	(1.169)	2970901	50.0000	49.8	
	42 4-methyl-2-pentanone	43	6.915	6.915	(1.186)	1978702	50.0000	49.6	
$	43 Toluene-d8	98	7.027	7.027	(0.870)	6323913	50.0000	48.8	
	44 Toluene +	91	7.073	7.073	(1.213)	7003730	50.0000	50.0	
	45 trans-1,3-Dichloropropene	75	6.815	6.815	(1.169)	2970901	50.0000	49.8	
	46 1,1,2-Trichloroethane	97	7.345	7.345	(1.260)	1591576	50.0000	49.4	
	47 1,3-Dichloropropane	76	7.471	7.471	(1.282)	2956544	50.0000	51.4	
	48 Tetrachloroethene	164	7.484	7.484	(1.284)	1217842	50.0000	49.8	
	49 2-Hexanone	43	7.510	7.510	(0.930)	1391933	50.0000	47.8	
	50 Dibromochloromethane	129	7.643	7.643	(0.947)	1811968	50.0000	48.4	
	51 1,2-Dibromoethane(EDB)	107	7.742	7.742	(0.959)	1711166	50.0000	46.9	
*	52 CHLOROBENZENE-d5	82	8.073	8.073	(1.000)	2854598	50.0000		
	53 Chlorobenzene ++	112	8.093	8.093	(1.002)	4852778	50.0000	48.8	
	54 1,1,1,2-Tetrachloroethane	133	8.139	8.139	(1.008)	1668794	50.0000	49.1	
	55 Ethylbenzene +	106	8.159	8.159	(1.011)	2294341	50.0000	48.9	
	56 p,m-Xylene	106	8.238	8.238	(1.020)	5945011	100.000	102	
	57 o-Xylene	106	8.530	8.530	(1.057)	2739549	50.0000	50.9	
	58 Styrene	104	8.530	8.530	(1.057)	4987351	50.0000	50.2	
	59 Bromoform ++	173	8.675	8.675	(1.075)	1062273	50.0000	48.3	
	60 Isopropylbenzene	105	8.781	8.781	(1.088)	8081250	50.0000	53.3	
$	61 Bromofluorobenzene	174	8.894	8.894	(0.920)	1669219	50.0000	44.1	
	62 1,1,2,2-Tetrachloroethane++	83	8.953	8.953	(0.926)	2382919	50.0000	42.3	
	63 trans-1,4-Dichloro-2-Butene	53	8.986	8.986	(0.929)	570001	50.0000	44.0	
	64 1,2,3-Trichloropropane	75	8.993	8.993	(0.930)	2913277	50.0000	43.2	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	65 Bromobenzene	77	9.013	9.013	(0.932)	4701896	50.0000	44.2	
	66 n-Propylbenzene	91	9.059	9.059	(0.937)	8208057	50.0000	49.6	
	67 2-Chlorotoluene	91	9.138	9.138	(0.945)	5304439	50.0000	45.6	
	68 1,3,5-Trimethylbenzene	105	8.781	8.781	(0.908)	8081250	50.0000	47.2	(H)
	69 4-Chlorotoluene	91	9.205	9.205	(0.952)	5559456	50.0000	49.5	
	70 tert-butylbenzene	91	9.397	9.397	(0.972)	3706574	50.0000	48.1	(H)
	71 1,2,4-Trimethylbenzene	105	9.416	9.416	(0.974)	4154062	50.0000	52.6	
	72 sec-Butylbenzene	105	9.536	9.536	(0.986)	7883580	50.0000	52.2	
	73 p-Isopropyltoluene	119	9.615	9.615	(0.995)	5305477	50.0000	53.6	
	74 1,3-Dichlorobenzene	146	9.628	9.628	(0.996)	2923173	50.0000	48.3	
*	75 1,4-DICHLOROBENZENE-D4	152	9.668	9.668	(1.000)	1863702	50.0000		
	76 1,4-Dichlorobenzene	146	9.681	9.681	(1.001)	3297229	50.0000	48.8	
	77 1,2-Dichlorobenzene	146	9.933	9.933	(1.027)	2876976	50.0000	49.1	
	78 n-Butylbenzene	91	9.880	9.880	(1.022)	4605386	50.0000	53.4	
M	79 TOTAL XYLENE	106				8684560	150.000	153	
	80 1,2-Dibromo-3-Chloropropane	157	10.403	10.403	(1.076)	400001	50.0000	41.2	
	81 1,2,4-Trichlorobenzene	180	10.939	10.939	(1.131)	1303425	50.0000	42.8	
	82 Hexachlorobutadiene	225	11.038	11.038	(1.142)	974424	50.0000	47.3	
	83 Naphthalene	128	11.111	11.111	(1.149)	3595695	50.0000	41.3	
	84 1,2,3-Trichlorobenzene	180	11.276	11.276	(1.166)	1215955	50.0000	42.3	
	132 Methyl Cyclohexane	83	6.279	6.279	(1.077)	2823771	50.0000	53.0	2505
	131 Methyl Acetate	43	3.982	3.982	(0.683)	763221	50.0000	49.3	5622
	114 Hexane	57	4.241	4.241	(0.727)	1741267	50.0000	51.8	4827 (H)
	120 Cyclohexane	56	5.386	5.386	(0.924)	2302439	50.0000	52.2	2077

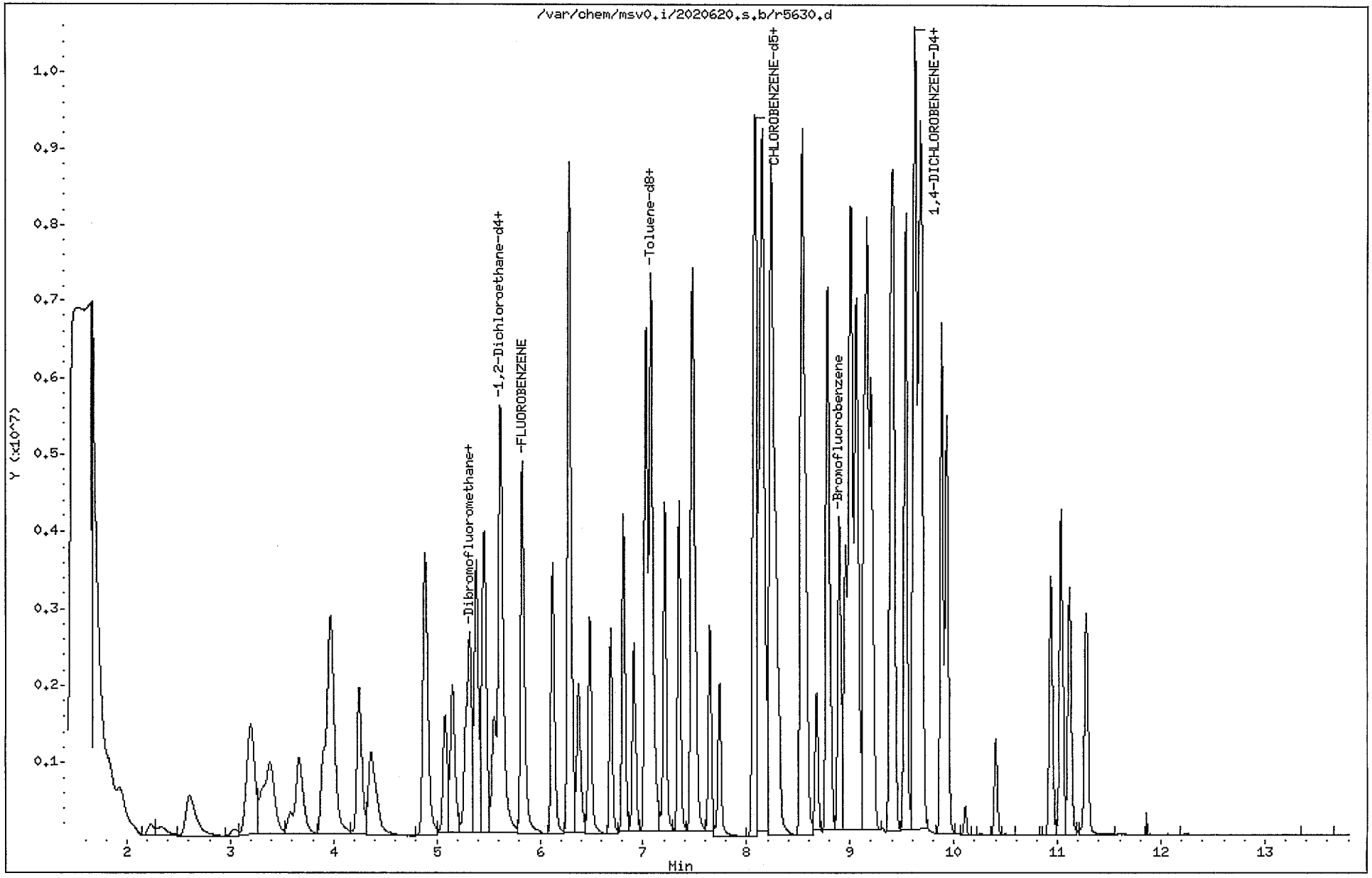
QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
H - Operator selected an alternate compound hit.

0000072

Data File: /var/chem/msv0.i/2020620.s.b/r5630.d
Date : 20-JUN-2002 12:09
Client ID: V0STD050
Sample Info: V0STD050*4-13-6
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv0.i
Operator: RJO
Column diameter: 0.53



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv0.i/2020620.s.b/r5631.d
Lab Smp Id: V0STD100 Client Smp ID: V0STD100
Inj Date : 20-JUN-2002 12:32
Operator : RJO Inst ID: msv0.i
Smp Info : V0STD100*4-13-6
Misc Info : MSV~STD~*1*RJO
Comment :
Method : /var/chem/msv0.i/2020620.s.b/8260Bw0.m
Meth Date : 24-Jun-2002 15:02 dlb Quant Type: ISTD
Cal Date : 09-JUN-2002 10:27 Cal File: r5334.d
Als bottle: 9 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	1.686	1.686	(0.289)	1447007	100.000	105	
2 Chloromethane ++	50	1.838	1.838	(0.315)	2354794	100.000	98.3	
3 Vinyl Chloride +	62	1.958	1.958	(0.336)	2174077	100.000	108	
5 Bromomethane	94	2.249	2.249	(0.386)	583081	100.000	90.9	
6 Chloroethane	64	2.368	2.368	(0.406)	673256	100.000	106	
7 Trichlorofluoromethane	101	2.619	2.619	(0.449)	3024905	100.000	105	
8 Acrolein	56	3.036	3.036	(0.521)	492508	500.000	493	(A)
9 1,1-Dichloroethene +	96	3.189	3.189	(0.547)	1557743	100.000	102	
10 1,1,2Trichlorotrifluoroethane	101	3.222	3.222	(0.553)	1843672	100.000	105	
11 Acetone	43	3.235	3.235	(0.555)	632988	100.000	84.3	
12 Methyl Iodide	142	3.334	3.334	(0.572)	3722784	100.000	103	
13 Carbon Disulfide	76	3.400	3.400	(0.583)	6114624	100.000	104	
14 Methylene Chloride	49	3.678	3.678	(0.631)	2709184	100.000	91.8	
15 Acrylonitrile	53	3.910	3.910	(0.671)	3557078	500.000	450	(A)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	16 trans-1,2-Dichloroethene	61	3.970	3.970	(0.681)	2839759	100.000	100	
	17 MTBE	73	3.983	3.983	(0.683)	6691898	100.000	96.9	5543
	19 1,1-Dichloroethane ++	63	4.373	4.373	(0.750)	3970372	100.000	99.9	
	20 Vinyl Acetate	43	4.248	4.248	(0.729)	1930717	100.000	103	
	21 cis-1,2-Dichloroethene	61	4.883	4.883	(0.838)	3880872	100.000	99.3	
	22 2,2-Dichloropropane	77	4.903	4.903	(0.841)	3448266	100.000	99.1	
	23 2-Butanone	43	4.896	4.896	(0.840)	1043698	100.000	86.0	
	24 Bromochloromethane	128	5.088	5.088	(0.873)	1477557	100.000	97.3	
	25 Chloroform +	83	5.161	5.161	(0.885)	4411494	100.000	94.5	
$	26 Dibromofluoromethane	111	5.293	5.293	(0.908)	1365349	50.0000	48.2	6027
	27 1,1,1-Trichloroethane	97	5.333	5.333	(0.915)	3794239	100.000	101	
	29 1,1-Dichloropropene	75	5.452	5.452	(0.935)	3137851	100.000	101	
	30 Carbon Tetrachloride	117	5.479	5.479	(0.940)	3412995	100.000	101	
$	31 1,2-Dichloroethane-d4	67	5.565	5.565	(0.955)	769254	50.0000	48.1	
	32 1,2-Dichloroethane	62	5.624	5.624	(0.965)	3718451	100.000	93.6	
	33 Benzene	78	5.611	5.611	(0.963)	9964385	100.000	96.3	
M	34 Total 1,2-Dichloroethene	61				6720631	300.000	200	
*	35 FLUOROBENZENE	96	5.830	5.830	(1.000)	5583096	50.0000		
	36 Trichloroethene	130	6.121	6.121	(1.050)	3099125	100.000	100	
	37 1,2-Dichloropropane +	63	6.286	6.286	(1.078)	3170670	100.000	94.9	
	38 Dibromomethane	93	6.379	6.379	(1.094)	1845818	100.000	94.2	
	39 Bromodichloromethane	83	6.491	6.491	(1.114)	4240481	100.000	97.8	
	40 2-Chloroethyl vinyl ether	63	6.690	6.690	(1.148)	2172159	100.000	94.0	
	41 cis-1,3-Dichloropropene	75	6.816	6.816	(1.169)	5450393	100.000	98.4	
	42 4-methyl-2-pentanone	43	6.915	6.915	(1.186)	3399322	100.000	91.6	
$	43 Toluene-d8	98	7.028	7.028	(0.871)	5633513	50.0000	47.7	
	44 Toluene +	91	7.074	7.074	(1.213)	12738921	100.000	98.0	
	45 trans-1,3-Dichloropropene	75	6.816	6.816	(1.169)	5450393	100.000	98.4	
	46 1,1,2-Trichloroethane	97	7.345	7.345	(1.260)	2816518	100.000	94.1	
	47 1,3-Dichloropropane	76	7.471	7.471	(1.282)	5094234	100.000	95.4	
	48 Tetrachloroethene	164	7.484	7.484	(1.284)	2304816	100.000	101	
	49 2-Hexanone	43	7.511	7.511	(0.931)	2305359	100.000	86.8	
	50 Dibromochloromethane	129	7.643	7.643	(0.947)	3345780	100.000	97.9	
	51 1,2-Dibromoethane(EDB)	107	7.742	7.742	(0.960)	3010096	100.000	90.4	
*	52 CHLOROBENZENE-d5	82	8.067	8.067	(1.000)	2605352	50.0000		
	53 Chlorobenzene ++	112	8.093	8.093	(1.003)	8915685	100.000	98.2	
	54 1,1,1,2-Tetrachloroethane	133	8.139	8.139	(1.009)	3071220	100.000	99.0	
	55 Ethylbenzene +	106	8.159	8.159	(1.011)	4087197	100.000	95.5	
	56 p,m-Xylene	106	8.239	8.239	(1.021)	10141309	200.000	191	
	57 o-Xylene	106	8.523	8.523	(1.057)	4577254	100.000	93.2	
	58 Styrene	104	8.530	8.530	(1.057)	8507425	100.000	93.8	
	59 Bromoform ++	173	8.676	8.676	(1.075)	1955740	100.000	97.5	
	60 Isopropylbenzene	105	8.775	8.775	(1.088)	14364455	100.000	104	
$	61 Bromofluorobenzene	174	8.894	8.894	(0.920)	1453468	50.0000	54.8	
	62 1,1,2,2-Tetrachloroethane++	83	8.954	8.954	(0.926)	4073223	100.000	103	
	63 trans-1,4-Dichloro-2-Butene	53	8.987	8.987	(0.929)	992096	100.000	109	
	64 1,2,3-Trichloropropane	75	8.993	8.993	(0.930)	4876845	100.000	103	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	65 Bromobenzene	77	9.007	9.007	(0.932)	8158941	100.000	109	
	66 n-Propylbenzene	91	9.059	9.059	(0.937)	13358570	100.000	115	
	67 2-Chlorotoluene	91	9.139	9.139	(0.945)	8203917	100.000	100	
	68 1,3,5-Trimethylbenzene	105	8.775	8.775	(0.908)	14364455	100.000	120	(H)
	69 4-Chlorotoluene	91	9.205	9.205	(0.952)	7860889	100.000	99.8	
	70 tert-butylbenzene	91	9.397	9.397	(0.972)	5764749	100.000	107	(H)
	71 1,2,4-Trimethylbenzene	105	9.417	9.417	(0.974)	4935606	100.000	89.1	
	72 sec-Butylbenzene	105	9.536	9.536	(0.986)	11884515	100.000	112	
	73 p-Isopropyltoluene	119	9.615	9.615	(0.995)	6774697	100.000	97.6	
	74 1,3-Dichlorobenzene	146	9.635	9.635	(0.997)	4194204	100.000	98.9	
*	75 1,4-DICHLOROBENZENE-D4	152	9.668	9.668	(1.000)	1306862	50.0000		
	76 1,4-Dichlorobenzene	146	9.688	9.688	(1.002)	4827152	100.000	102	
	77 1,2-Dichlorobenzene	146	9.933	9.933	(1.027)	4083638	100.000	99.4	
	78 n-Butylbenzene	91	9.880	9.880	(1.022)	5744516	100.000	95.0	
M	79 TOTAL XYLENE	106				14718563	300.000	284	
	80 1,2-Dibromo-3-Chloropropane	157	10.403	10.403	(1.076)	695292	100.000	102	
	81 1,2,4-Trichlorobenzene	180	10.946	10.946	(1.132)	2139166	100.000	100	
	82 Hexachlorobutadiene	225	11.045	11.045	(1.142)	1592055	100.000	110	
	83 Naphthalene	128	11.118	11.118	(1.150)	5804399	100.000	95.1	
	84 1,2,3-Trichlorobenzene	180	11.277	11.277	(1.166)	2006949	100.000	99.6	
	132 Methyl Cyclohexane	83	6.286	6.286	(1.078)	5095650	100.000	103	2443
	131 Methyl Acetate	43	3.592	3.592	(0.616)	1561455	100.000	109	6148
	114 Hexane	57	4.248	4.248	(0.729)	3216839	100.000	103	4928 (H)
	120 Cyclohexane	56	5.399	5.399	(0.926)	4216947	100.000	103	2127

QC Flag Legend

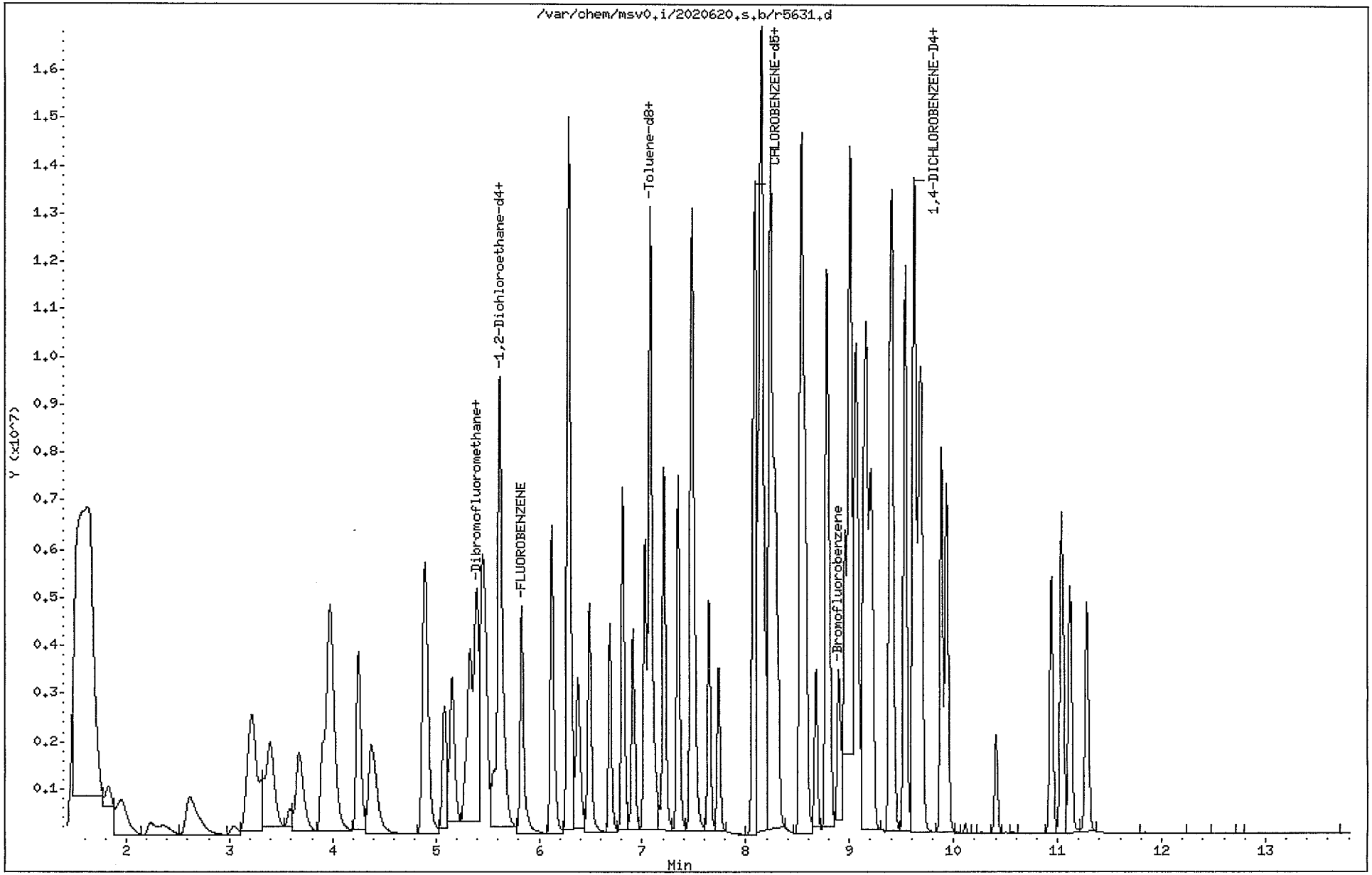
A - Target compound detected but, quantitated amount exceeded maximum amount.
H - Operator selected an alternate compound hit.

000076

Data File: /var/chem/msv0.i/2020620.s.b/r5631.d
Date : 20-JUN-2002 12:32
Client ID: VOSTD100
Sample Info: VOSTD100*4-13-6
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv0.i

Operator: RJO
Column diameter: 0.53



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv0.i/2020620.s.b/r5632.d
Lab Smp Id: V0STD200 Client Smp ID: V0STD200
Inj Date : 20-JUN-2002 12:55
Operator : RJO Inst ID: msv0.i
Smp Info : V0STD200*4-13-6
Misc Info : MSV~STD~*1*RJO
Comment :
Method : /var/chem/msv0.i/2020620.s.b/8260Bw0.m
Meth Date : 24-Jun-2002 15:03 dlb Quant Type: ISTD
Cal Date : 09-JUN-2002 10:50 Cal File: r5335.d
Als bottle: 10 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	1.672	1.672	(0.287)	3059572	200.000	212	(AM)
2 Chloromethane ++	50	1.818	1.818	(1.000)	4635677	200.000	185	
3 Vinyl Chloride +	62	1.950	1.950	(1.000)	4466056	200.000	212	(A)
5 Bromomethane	94	2.228	2.228	(1.000)	926689	200.000	138	
6 Chloroethane	64	2.374	2.374	(1.000)	1098958	200.000	166	
7 Trichlorofluoromethane	101	2.599	2.599	(1.000)	6449634	200.000	214	(A)
8 Acrolein	56	3.029	3.029	(1.000)	1016453	1000.00	973	(A)
9 1,1-Dichloroethene +	96	3.161	3.161	(1.000)	3320549	200.000	208	(A)
10 1,1,2Trichlorotrifluoroethane	101	3.201	3.201	(1.000)	3984349	200.000	217	(A)
11 Acetone	43	3.221	3.221	(1.000)	1243449	200.000	158	
12 Methyl Iodide	142	3.314	3.314	(1.000)	7574658	200.000	200	(A)
13 Carbon Disulfide	76	3.386	3.386	(1.000)	12589850	200.000	205	(A)
14 Methylene Chloride	49	3.671	3.671	(1.000)	5301392	200.000	172	
15 Acrylonitrile	53	3.903	3.903	(1.000)	7610993	1000.00	920	(A)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	16 trans-1,2-Dichloroethene	61	3.956	3.956	(1.000)	5685399	200.000	192	
	17 MTBE	73	3.976	3.976	(1.000)	13529499	200.000	187	5519
	19 1,1-Dichloroethane ++	63	4.366	4.366	(1.000)	8165968	200.000	196	
	20 Vinyl Acetate	43	4.234	4.234	(1.000)	3986424	200.000	204	(A)
	21 cis-1,2-Dichloroethene	61	4.876	4.876	(1.000)	7704541	200.000	188	
	22 2,2-Dichloropropane	77	4.896	4.896	(1.000)	7147228	200.000	196	
	23 2-Butanone	43	4.889	4.889	(1.000)	2158450	200.000	170	
	24 Bromochloromethane	128	5.081	5.081	(1.000)	3122860	200.000	196	
	25 Chloroform +	83	5.154	5.154	(1.000)	9087080	200.000	186	
$	26 Dibromofluoromethane	111	5.286	5.286	(1.000)	1379567	50.0000	46.5	5426
	27 1,1,1-Trichloroethane	97	5.326	5.326	(1.000)	8035411	200.000	205	(A)
	29 1,1-Dichloropropene	75	5.445	5.445	(1.000)	6660602	200.000	204	(A)
	30 Carbon Tetrachloride	117	5.471	5.471	(1.000)	7387073	200.000	209	(A)
$	31 1,2-Dichloroethane-d4	67	5.557	5.557	(1.000)	775879	50.0000	46.3	
	32 1,2-Dichloroethane	62	5.617	5.617	(1.000)	7258320	200.000	174	
	33 Benzene	78	5.604	5.604	(1.000)	19395459	200.000	179	
M	34 Total 1,2-Dichloroethene	61				13389940	600.000	380	
*	35 FLUOROBENZENE	96	5.822	5.822	(1.000)	5843590	50.0000		(M)
	36 Trichloroethene	130	6.120	6.120	(1.000)	6706401	200.000	208	(A)
	37 1,2-Dichloropropane +	63	6.286	6.286	(1.000)	5895485	200.000	169	
	38 Dibromomethane	93	6.378	6.378	(1.000)	3819152	200.000	186	
	39 Bromodichloromethane	83	6.491	6.491	(1.000)	8507841	200.000	188	
	40 2-Chloroethyl vinyl ether	63	6.689	6.689	(1.000)	3914560	200.000	162	
	41 cis-1,3-Dichloropropene	75	6.815	6.815	(1.000)	10866617	200.000	187	
	42 4-methyl-2-pentanone	43	6.914	6.914	(1.000)	7027971	200.000	181	
$	43 Toluene-d8	98	7.020	7.020	(0.870)	5765190	50.0000	53.7	
	44 Toluene +	91	7.073	7.073	(1.000)	20149631	200.000	148	
	45 trans-1,3-Dichloropropene	75	6.815	6.815	(1.000)	10866617	200.000	187	
	46 1,1,2-Trichloroethane	97	7.345	7.345	(1.000)	5780887	200.000	184	
	47 1,3-Dichloropropane	76	7.470	7.470	(1.000)	9557736	200.000	171	
	48 Tetrachloroethene	164	7.484	7.484	(1.000)	5034734	200.000	212	(A)
	49 2-Hexanone	43	7.510	7.510	(0.931)	4769250	200.000	198	
	50 Dibromochloromethane	129	7.649	7.649	(0.948)	7134298	200.000	230	(A)
	51 1,2-Dibromoethane(EDB)	107	7.742	7.742	(0.960)	6413646	200.000	212	(A)
*	52 CHLOROBENZENE-d5	82	8.066	8.066	(1.000)	2366110	50.0000		
	53 Chlorobenzene ++	112	8.092	8.092	(1.003)	16783170	200.000	204	(A)
	54 1,1,1,2-Tetrachloroethane	133	8.139	8.139	(1.009)	6222599	200.000	221	(A)
	55 Ethylbenzene +	106	8.159	8.159	(1.011)	8921530	200.000	229	(A)
	56 p,m-Xylene	106	8.238	8.238	(1.021)	21301998	400.000	441	(A)
	57 o-Xylene	106	8.523	8.523	(1.057)	9955075	200.000	223	(A)
	58 Styrene	104	8.529	8.529	(1.057)	18019180	200.000	219	(A)
	59 Bromoform ++	173	8.675	8.675	(1.075)	4377920	200.000	240	(A)
	60 Isopropylbenzene	105	8.774	8.774	(1.088)	23136150	200.000	184	
$	61 Bromofluorobenzene	174	8.893	8.893	(0.920)	1596575	50.0000	51.4	
	62 1,1,2,2-Tetrachloroethane++	83	8.960	8.960	(0.927)	8310139	200.000	180	
	63 trans-1,4-Dichloro-2-Butene	53	8.986	8.986	(0.929)	1926166	200.000	181	
	64 1,2,3-Trichloropropane	75	8.993	8.993	(0.930)	9537725	200.000	172	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
65 Bromobenzene	77	9.012	9.012	(0.932)	15803405	200.000	181	
66 n-Propylbenzene	91	9.059	9.059	(0.937)	22627331	200.000	167	
67 2-Chlorotoluene	91	9.138	9.138	(0.945)	17804649	200.000	186	
68 1,3,5-Trimethylbenzene	105	8.774	8.774	(0.908)	23136150	200.000	165	(H)
69 4-Chlorotoluene	91	9.204	9.204	(0.952)	18781426	200.000	204	(A)
70 tert-butylbenzene	91	9.396	9.396	(0.972)	12379975	200.000	196	(H)
71 1,2,4-Trimethylbenzene	105	9.423	9.423	(0.975)	9029260	200.000	139	
72 sec-Butylbenzene	105	9.529	9.529	(0.986)	19580672	200.000	158	
73 p-Isopropyltoluene	119	9.615	9.615	(0.995)	14001371	200.000	172	
74 1,3-Dichlorobenzene	146	9.635	9.635	(0.997)	9958412	200.000	201	(A)
* 75 1,4-DICHLOROBENZENE-D4	152	9.668	9.668	(1.000)	1528977	50.0000		
76 1,4-Dichlorobenzene	146	9.688	9.688	(1.002)	11295327	200.000	204	(A)
77 1,2-Dichlorobenzene	146	9.932	9.932	(1.027)	9741209	200.000	203	(A)
78 n-Butylbenzene	91	9.880	9.880	(1.022)	11255067	200.000	159	
M 79 TOTAL XYLENE	106				31257073	600.000	664	
80 1,2-Dibromo-3-Chloropropane	157	10.402	10.402	(1.076)	1632454	200.000	205	(A)
81 1,2,4-Trichlorobenzene	180	10.939	10.939	(1.131)	4205871	200.000	168	
82 Hexachlorobutadiene	225	11.038	11.038	(1.142)	3827742	200.000	226	(A)
83 Naphthalene	128	11.111	11.111	(1.149)	11385671	200.000	159	
84 1,2,3-Trichlorobenzene	180	11.276	11.276	(1.166)	4035385	200.000	171	
132 Methyl Cyclohexane	83	6.279	6.279	(1.000)	10208820	200.000	197	2413
131 Methyl Acetate	43	3.578	3.578	(1.000)	3018929	200.000	201	7035 (AH)
114 Hexane	57	4.234	4.234	(1.000)	6706660	200.000	205	5022 (AH)
120 Cyclohexane	56	5.385	5.385	(1.000)	8819076	200.000	206	2242 (A)

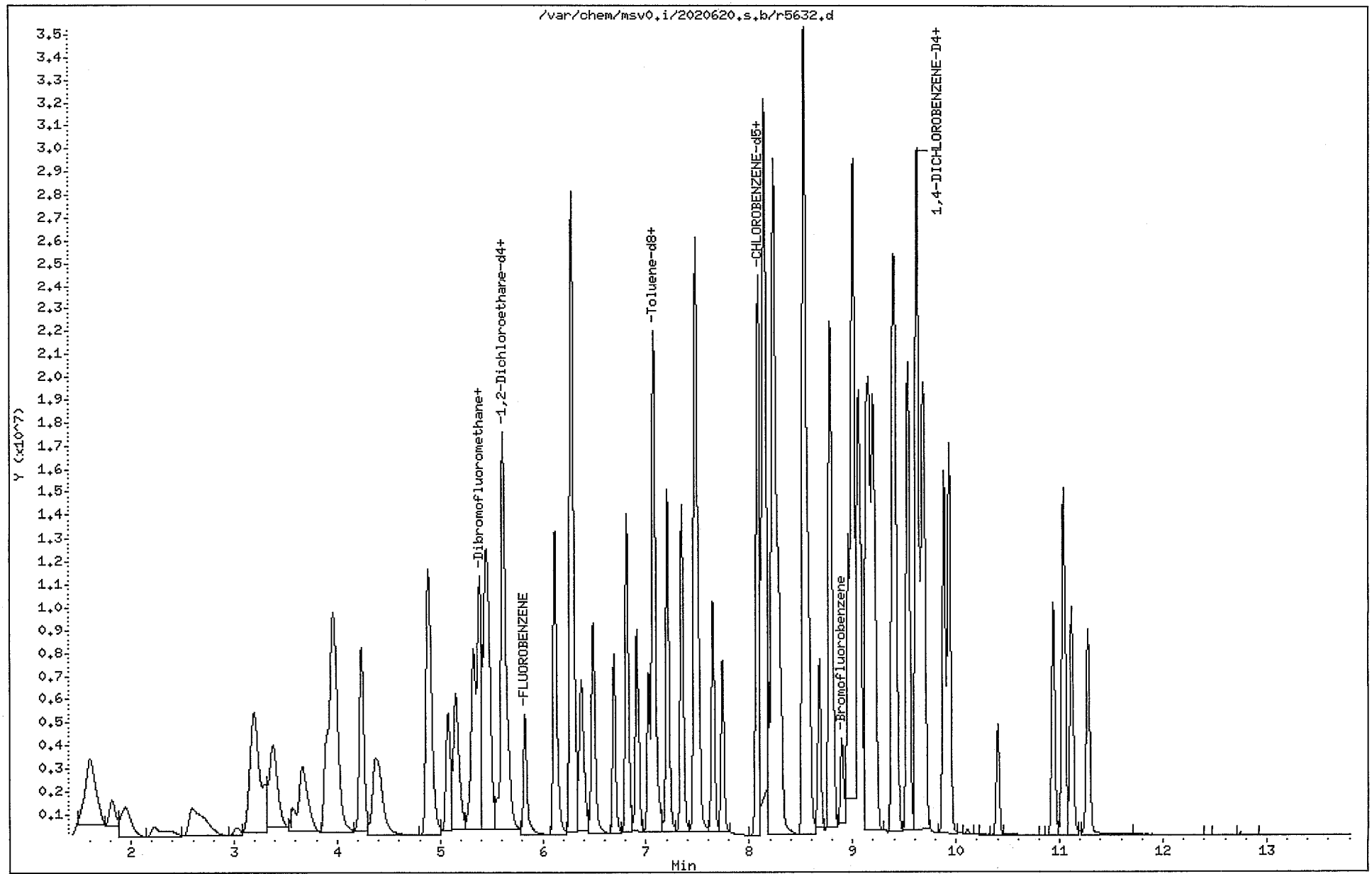
QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

000080

Data File: /var/chem/msv0.i/2020620.s.b/r5632.d
Date : 20-JUN-2002 12:55
Client ID: VOSTD200
Sample Info: VOSTD200*4-13-6
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv0.i
Operator: RJO
Column diameter: 0.53



Gulf Coast Analytical Laboratories, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msv0.i
Lab File ID: r5637.d
Analysis Type: WATER
Lab Sample ID: V1ICV050
Method: /var/chem/msv0.i/2020620.s.b/8260Bw0.m

Injection Date: 20-JUN-2002 15:00
Init. Cal. Date(s): 08-JUN-2002 20-JUN-2002
Init. Cal. Times: 09:00 14:38
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
	1 Dichlorodifluoromethane	0.12365	0.11097	0.000	-10.25089	50.00000	Averaged
	2 Chloromethane ++	0.21458	0.19572	0.100	-8.78901	50.00000	Averaged
	3 Vinyl Chloride +	0.18027	0.17319	0.000	-3.92863	20.00000	Averaged
	5 Bromomethane	0.05742	0.04947	0.005	-13.84955	50.00000	Averaged
	6 Chloroethane	0.05672	0.04801	0.010	-15.35584	50.00000	Averaged
	7 Trichlorofluoromethane	0.25798	0.22062	0.000	-14.48320	50.00000	Averaged
	8 Acrolein	0.00894	0.00765	0.000	-14.37285	50.00000	Averaged
	9 1,1-Dichloroethene +	0.13647	0.12202	0.000	-10.58972	20.00000	Averaged
	10 1,1,2Trichlorotrifluoroetha	0.15719	0.13590	0.000	-13.54240	50.00000	Averaged
	11 Acetone	0.06724	0.06344	0.000	-5.66294	50.00000	Averaged
	12 Methyl Iodide	0.32377	0.29005	0.000	-10.41583	50.00000	Averaged
	13 Carbon Disulfide	0.52493	0.47908	0.000	-8.73406	50.00000	Averaged
	14 Methylene Chloride	0.26423	0.23133	0.000	-12.45219	50.00000	Averaged
	15 Acrylonitrile	0.07080	0.07433	0.000	4.97297	50.00000	Averaged
	16 trans-1,2-Dichloroethene	0.25332	0.24079	0.000	-4.94749	50.00000	Averaged
	17 MTBE	0.61829	0.62037	0.000	0.33692	50.00000	Averaged
	19 1,1-Dichloroethane ++	0.35600	0.33368	0.100	-6.26762	50.00000	Averaged
	20 Vinyl Acetate	0.16734	0.14941	0.000	-10.71443	50.00000	Averaged
	21 cis-1,2-Dichloroethene	0.34998	0.33753	0.000	-3.55716	50.00000	Averaged
	22 2,2-Dichloropropane	0.31168	0.27578	0.000	-11.51921	50.00000	Averaged
	23 2-Butanone	0.10865	0.11215	0.000	3.22569	50.00000	Averaged
	24 Bromochloromethane	0.13603	0.13219	0.000	-2.81821	50.00000	Averaged
	25 Chloroform +	0.41819	0.38609	0.000	-7.67613	20.00000	Averaged
$	26 Dibromofluoromethane	0.25391	0.24309	0.000	-4.25867	50.00000	Averaged
	27 1,1,1-Trichloroethane	0.33564	0.32270	0.000	-3.85382	50.00000	Averaged
	29 1,1-Dichloropropene	0.27946	0.26881	0.000	-3.80972	50.00000	Averaged
	30 Carbon Tetrachloride	0.30247	0.28314	0.000	-6.39244	50.00000	Averaged
$	31 1,2-Dichloroethane-d4	0.14328	0.14182	0.000	-1.01878	50.00000	Averaged
	32 1,2-Dichloroethane	0.35592	0.33828	0.000	-4.95697	50.00000	Averaged
	33 Benzene	0.92631	0.86375	0.000	-6.75319	50.00000	Averaged
M	34 Total 1,2-Dichloroethene	0.20674	0.19277	0.000	-6.75830	50.00000	Averaged
	36 Trichloroethene	0.27618	0.29026	0.000	5.09670	50.00000	Averaged
	37 1,2-Dichloropropane +	0.29935	0.29114	0.000	-2.74208	20.00000	Averaged
	38 Dibromomethane	0.17548	0.17231	0.000	-1.81082	50.00000	Averaged
	39 Bromodichloromethane	0.38816	0.37526	0.000	-3.32189	50.00000	Averaged

Gulf Coast Analytical Laboratories, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msv0.i
Lab File ID: r5637.d
Analysis Type: WATER
Lab Sample ID: V1ICV050
Method: /var/chem/msv0.i/2020620.s.b/8260Bw0.m

Injection Date: 20-JUN-2002 15:00
Init. Cal. Date(s): 08-JUN-2002 20-JUN-2002
Init. Cal. Times: 09:00 14:38
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
	40 2-Chloroethyl vinyl ether	0.20689	0.22351	0.000	8.03452	50.00000	Averaged
	41 cis-1,3-Dichloropropene	0.49606	0.47949	0.000	-3.33912	50.00000	Averaged
	42 4-methyl-2-pentanone	0.33218	0.35327	0.000	6.35022	50.00000	Averaged
$	43 Toluene-d8	2.26795	2.18185	0.000	-3.79664	50.00000	Averaged
	44 Toluene +	1.16431	1.12242	0.000	-3.59715	20.00000	Averaged
	45 trans-1,3-Dichloropropene	0.49606	0.47949	0.000	-3.33912	50.00000	Averaged
	46 1,1,2-Trichloroethane	0.26818	0.26283	0.000	-1.99177	50.00000	Averaged
	47 1,3-Dichloropropane	0.47821	0.47856	0.000	0.07275	50.00000	Averaged
	48 Tetrachloroethene	0.20355	0.19095	0.000	-6.18995	50.00000	Averaged
	49 2-Hexanone	0.50969	0.53507	0.000	4.97926	50.00000	Averaged
	50 Dibromochloromethane	0.65558	0.65183	0.000	-0.57145	50.00000	Averaged
	51 1,2-Dibromoethane(EDB)	0.63927	0.61929	0.000	-3.12641	50.00000	Averaged
	53 Chlorobenzene ++	1.74219	1.69847	0.300	-2.50959	50.00000	Averaged
	54 1,1,1,2-Tetrachloroethane	0.59557	0.58487	0.000	-1.79501	50.00000	Averaged
	55 Ethylbenzene +	0.82173	0.80774	0.000	-1.70246	20.00000	Averaged
	56 p,m-Xylene	1.02098	0.97230	0.000	-4.76728	50.00000	Averaged
	57 o-Xylene	0.94263	0.89901	0.000	-4.62759	50.00000	Averaged
	58 Styrene	1.74022	1.68990	0.000	-2.89164	50.00000	Averaged
	59 Bromoform ++	0.38509	0.39246	0.100	1.91567	50.00000	Averaged
	60 Isopropylbenzene	2.65691	2.71816	0.000	2.30530	50.00000	Averaged
$	61 Bromofluorobenzene	1.01493	0.99679	0.000	-1.78711	50.00000	Averaged
	62 1,1,2,2-Tetrachloroethane++	1.51216	1.37197	0.300	-9.27109	50.00000	Averaged
	63 trans-1,4-Dichloro-2-Butene	0.34718	0.38502	0.000	10.89792	50.00000	Averaged
	64 1,2,3-Trichloropropane	1.80950	1.87510	0.000	3.62526	50.00000	Averaged
	65 Bromobenzene	2.85610	2.82919	0.000	-0.94211	50.00000	Averaged
	66 n-Propylbenzene	4.44381	4.39272	0.000	-1.14970	50.00000	Averaged
	67 2-Chlorotoluene	3.12396	3.17737	0.000	1.70965	50.00000	Averaged
	68 1,3,5-Trimethylbenzene	4.59640	4.71423	0.000	2.56373	50.00000	Averaged
	69 4-Chlorotoluene	3.01294	2.79266	0.000	-7.31141	50.00000	Averaged
	70 tert-butylbenzene	2.06786	2.03351	0.000	-1.66091	50.00000	Averaged
	71 1,2,4-Trimethylbenzene	2.11857	2.18015	0.000	2.90680	50.00000	Averaged
	72 sec-Butylbenzene	4.05156	4.11985	0.000	1.68539	50.00000	Averaged
	73 p-Isopropyltoluene	2.65575	2.63777	0.000	-0.67728	50.00000	Averaged
	74 1,3-Dichlorobenzene	1.62237	1.49077	0.000	-8.11128	50.00000	Averaged
	76 1,4-Dichlorobenzene	1.81423	1.80837	0.000	-0.32329	50.00000	Averaged

Gulf Coast Analytical Laboratories, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msv0.i Injection Date: 20-JUN-2002 15:00
Lab File ID: r5637.d Init. Cal. Date(s): 08-JUN-2002 20-JUN-2002
Analysis Type: WATER Init. Cal. Times: 09:00 14:38
Lab Sample ID: V1ICV050 Quant Type: ISTD
Method: /var/chem/msv0.i/2020620.s.b/8260Bw0.m

	COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
	77 1,2-Dichlorobenzene	1.57128	1.52245	0.000	-3.10731	50.00000	Averaged
	78 n-Butylbenzene	2.31281	2.27598	0.000	-1.59245	50.00000	Averaged
M	79 TOTAL XYLENE	0.99486	0.94787	0.000	-4.72316	50.00000	Averaged
	80 1,2-Dibromo-3-Chloropropane	0.26074	0.26032	0.000	-0.16185	50.00000	Averaged
	81 1,2,4-Trichlorobenzene	0.81707	0.78173	0.000	-4.32451	50.00000	Averaged
	82 Hexachlorobutadiene	0.55265	0.50198	0.000	-9.16873	50.00000	Averaged
	83 Naphthalene	2.33447	2.38062	0.000	1.97689	50.00000	Averaged
	84 1,2,3-Trichlorobenzene	0.77084	0.73843	0.000	-4.20480	50.00000	Averaged
	132 Methyl Cyclohexane	0.44338	0.42343	0.050	-4.49916	50.00000	Averaged
	131 Methyl Acetate	0.12873	0.11936	0.050	-7.27721	50.00000	Averaged
	114 Hexane	0.27943	0.25882	0.050	-7.37765	50.00000	Averaged
	120 Cyclohexane	0.36671	0.34641	0.050	-5.53485	50.00000	Averaged

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv0.i/2020620.s.b/r5637.d
Lab Smp Id: V1ICV050 Client Smp ID: V1ICV050
Inj Date : 20-JUN-2002 15:00
Operator : RJO Inst ID: msv0.i
Smp Info : V1ICV050
Misc Info : MSV~ICV~*1*RJO
Comment :
Method : /var/chem/msv0.i/2020620.s.b/8260Bw0.m
Meth Date : 24-Jun-2002 15:05 dlb Quant Type: ISTD
Cal Date : 09-JUN-2002 09:20 Cal File: r5330.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	1.679	1.679	(0.288)	641234	50.0000	44.9	(M)
2 Chloromethane ++	50	1.831	1.831	(0.314)	1130919	50.0000	45.6	
3 Vinyl Chloride +	62	1.943	1.943	(0.333)	1000742	50.0000	48.0	
5 Bromomethane	94	2.241	2.241	(0.385)	285844	50.0000	43.1	(M)
6 Chloroethane	64	2.354	2.354	(0.404)	277394	50.0000	42.3	
7 Trichlorofluoromethane	101	2.612	2.612	(0.448)	1274793	50.0000	42.8	(M)
8 Acrolein	56	3.036	3.036	(0.521)	221148	250.000	214	(A)
9 1,1-Dichloroethene +	96	3.181	3.181	(0.546)	705050	50.0000	44.7	(M)
10 1,1,2Trichlorotrifluoroethane	101	3.208	3.208	(0.550)	785266	50.0000	43.2	(M)
11 Acetone	43	3.228	3.228	(0.554)	366551	50.0000	47.2	
12 Methyl Iodide	142	3.320	3.320	(0.570)	1675968	50.0000	44.8	(M)
13 Carbon Disulfide	76	3.386	3.386	(0.581)	2768262	50.0000	45.6	(M)
14 Methylene Chloride	49	3.671	3.671	(0.630)	1336698	50.0000	43.8	
15 Acrylonitrile	53	3.909	3.909	(0.671)	2147362	250.000	262	(A)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	16 trans-1,2-Dichloroethene	61	3.969	3.969	(0.681)	1391348	50.0000	47.5	
	17 MTBE	73	3.975	3.975	(0.682)	3584673	50.0000	50.2	5597
	19 1,1-Dichloroethane ++	63	4.366	4.366	(0.749)	1928124	50.0000	46.9	(M)
	20 Vinyl Acetate	43	4.240	4.240	(0.727)	863348	50.0000	44.6	
	21 cis-1,2-Dichloroethene	61	4.889	4.889	(0.839)	1950324	50.0000	48.2	
	22 2,2-Dichloropropane	77	4.895	4.895	(0.840)	1593518	50.0000	44.2	
	23 2-Butanone	43	4.895	4.895	(0.840)	648064	50.0000	51.6	
	24 Bromochloromethane	128	5.081	5.081	(0.872)	763851	50.0000	48.6	
	25 Chloroform +	83	5.154	5.154	(0.884)	2230934	50.0000	46.2	
$	26 Dibromofluoromethane	111	5.286	5.286	(0.907)	1404659	50.0000	47.9	6445
	27 1,1,1-Trichloroethane	97	5.332	5.332	(0.915)	1864677	50.0000	48.1	
	29 1,1-Dichloropropene	75	5.445	5.445	(0.934)	1553270	50.0000	48.1	
	30 Carbon Tetrachloride	117	5.478	5.478	(0.940)	1636041	50.0000	46.8	
$	31 1,2-Dichloroethane-d4	67	5.557	5.557	(0.953)	819479	50.0000	49.5	
	32 1,2-Dichloroethane	62	5.624	5.624	(0.965)	1954670	50.0000	47.5	
	33 Benzene	78	5.610	5.610	(0.963)	4991026	50.0000	46.6	(M)
M	34 Total 1,2-Dichloroethene	61				3341672	150.000	95.7	
*	35 FLUOROBENZENE	96	5.829	5.829	(1.000)	5778290	50.0000		
	36 Trichloroethene	130	6.120	6.120	(1.050)	1677194	50.0000	52.5	
	37 1,2-Dichloropropane +	63	6.285	6.285	(1.078)	1682274	50.0000	48.6	
	38 Dibromomethane	93	6.378	6.378	(1.094)	995633	50.0000	49.1	
	39 Bromodichloromethane	83	6.491	6.491	(1.114)	2168382	50.0000	48.3	
	40 2-Chloroethyl vinyl ether	63	6.689	6.689	(1.148)	1291491	50.0000	54.0	
	41 cis-1,3-Dichloropropene	75	6.815	6.815	(1.169)	2770640	50.0000	48.3	
	42 4-methyl-2-pentanone	43	6.914	6.914	(1.186)	2041322	50.0000	53.2	
$	43 Toluene-d8	98	7.027	7.027	(0.871)	5761770	50.0000	48.1	
	44 Toluene +	91	7.073	7.073	(1.213)	6485691	50.0000	48.2	(M)
	45 trans-1,3-Dichloropropene	75	6.815	6.815	(1.169)	2770640	50.0000	48.3	
	46 1,1,2-Trichloroethane	97	7.344	7.344	(1.260)	1518729	50.0000	49.0	
	47 1,3-Dichloropropane	76	7.470	7.470	(1.282)	2765230	50.0000	50.0	
	48 Tetrachloroethene	164	7.483	7.483	(1.284)	1103361	50.0000	46.9	
	49 2-Hexanone	43	7.510	7.510	(0.931)	1413003	50.0000	52.5	
	50 Dibromochloromethane	129	7.642	7.642	(0.947)	1721349	50.0000	49.7	
	51 1,2-Dibromoethane(EDB)	107	7.735	7.735	(0.959)	1635394	50.0000	48.4	
*	52 CHLOROBENZENE-d5	82	8.066	8.066	(1.000)	2640775	50.0000		
	53 Chlorobenzene ++	112	8.092	8.092	(1.003)	4485265	50.0000	48.7	
	54 1,1,1,2-Tetrachloroethane	133	8.139	8.139	(1.009)	1544523	50.0000	49.1	
	55 Ethylbenzene +	106	8.159	8.159	(1.011)	2133072	50.0000	49.1	
	56 p,m-Xylene	106	8.238	8.238	(1.021)	5135265	100.000	95.2	
	57 o-Xylene	106	8.523	8.523	(1.057)	2374078	50.0000	47.7	
	58 Styrene	104	8.529	8.529	(1.057)	4462635	50.0000	48.6	
	59 Bromoform ++	173	8.675	8.675	(1.075)	1036407	50.0000	51.0	
	60 Isopropylbenzene	105	8.774	8.774	(1.088)	7178045	50.0000	51.2	
$	61 Bromofluorobenzene	174	8.893	8.893	(0.921)	1517748	50.0000	49.1	
	62 1,1,2,2-Tetrachloroethane++	83	8.959	8.959	(0.927)	2089002	50.0000	45.4	
	63 trans-1,4-Dichloro-2-Butene	53	8.986	8.986	(0.930)	586238	50.0000	55.4	
	64 1,2,3-Trichloropropane	75	8.992	8.992	(0.931)	2855081	50.0000	51.8	

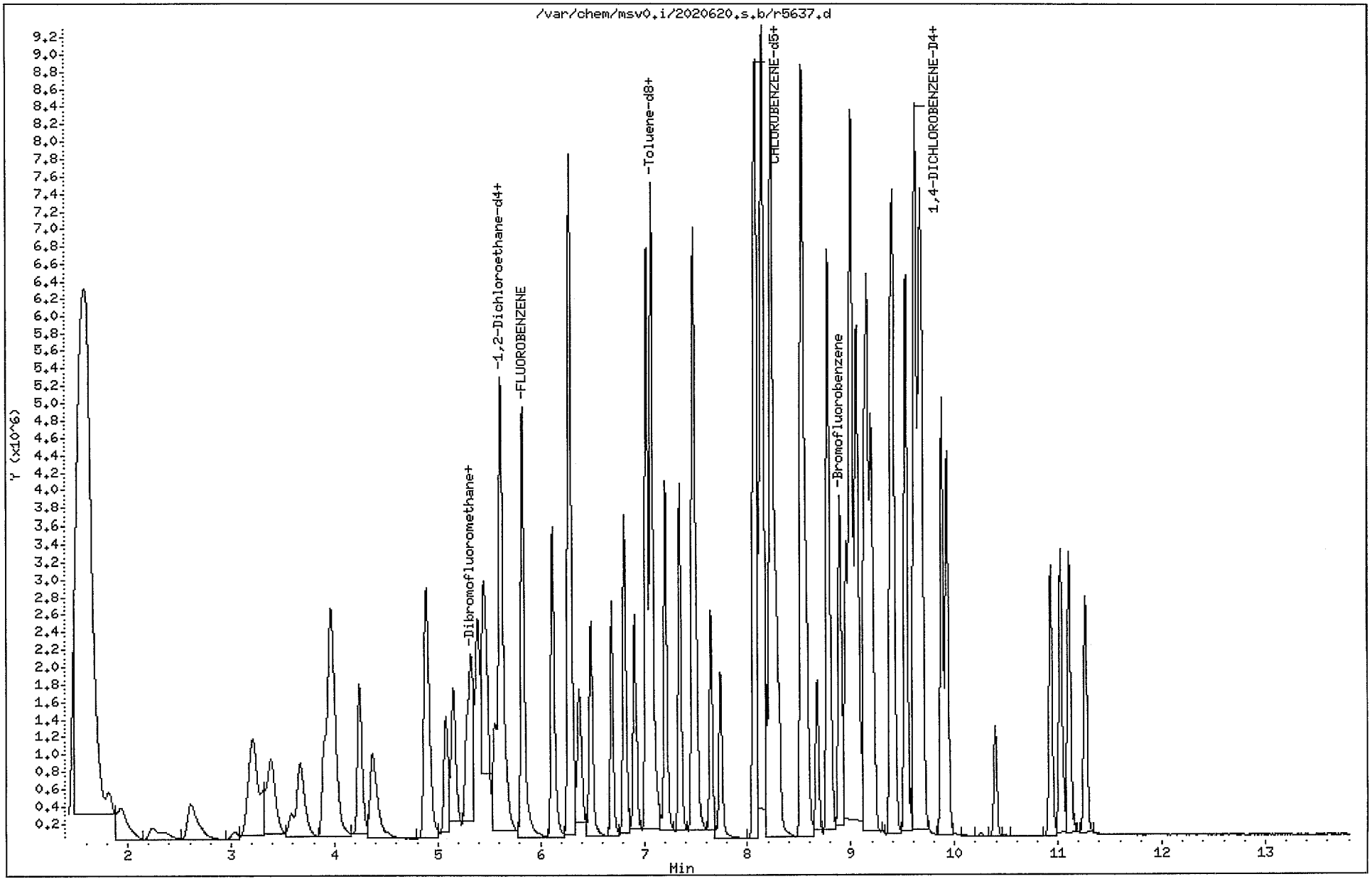
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
65 Bromobenzene	77	9.006	9.006	(0.932)	4307815	50.0000	49.5	
66 n-Propylbenzene	91	9.059	9.059	(0.938)	6688500	50.0000	49.4	
67 2-Chlorotoluene	91	9.138	9.138	(0.946)	4837966	50.0000	50.9	
68 1,3,5-Trimethylbenzene	105	8.774	8.774	(0.908)	7178045	50.0000	51.3	
69 4-Chlorotoluene	91	9.198	9.198	(0.952)	4252186	50.0000	46.3	
70 tert-butylbenzene	91	9.390	9.390	(0.972)	3096291	50.0000	49.2	(H)
71 1,2,4-Trimethylbenzene	105	9.416	9.416	(0.975)	3319565	50.0000	51.5	
72 sec-Butylbenzene	105	9.535	9.535	(0.987)	6273008	50.0000	50.8	
73 p-Isopropyltoluene	119	9.615	9.615	(0.995)	4016347	50.0000	49.7	
74 1,3-Dichlorobenzene	146	9.628	9.628	(0.997)	2269900	50.0000	45.9	
* 75 1,4-DICHLOROBENZENE-D4	152	9.661	9.661	(1.000)	1522632	50.0000		
76 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	2753481	50.0000	49.8	
77 1,2-Dichlorobenzene	146	9.926	9.926	(1.027)	2318138	50.0000	48.4	
78 n-Butylbenzene	91	9.873	9.873	(1.022)	3465480	50.0000	49.2	
M 79 TOTAL XYLENE	106				7509343	150.000	143	
80 1,2-Dibromo-3-Chloropropane	157	10.396	10.396	(1.076)	396367	50.0000	49.9	
81 1,2,4-Trichlorobenzene	180	10.932	10.932	(1.132)	1190294	50.0000	47.8	
82 Hexachlorobutadiene	225	11.031	11.031	(1.142)	764334	50.0000	45.4	
83 Naphthalene	128	11.104	11.104	(1.149)	3624810	50.0000	51.0	
84 1,2,3-Trichlorobenzene	180	11.263	11.263	(1.166)	1124350	50.0000	47.9	
132 Methyl Cyclohexane	83	6.279	6.279	(1.077)	2446702	50.0000	47.8	2471
131 Methyl Acetate	43	3.975	3.975	(0.682)	689716	50.0000	46.4	5597
114 Hexane	57	4.240	4.240	(0.727)	1495528	50.0000	46.3	4596 (H)
120 Cyclohexane	56	5.398	5.398	(0.926)	2001662	50.0000	47.2	2205

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/msv0.i/2020620.s.b/r5637.d
Date : 20-JUN-2002 15:00
Client ID: V1ICV050
Sample Info: V1ICV050
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv0.i
Operator: RJO
Column diameter: 0.53



180000

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Instrument ID: MSV0 Calibration Date: 06/20/02 Time: 1652

Lab File ID: R5640 Init. Calib. Date(s): 06/20/02 06/20/02

Heated Purge: (Y/N) N Init. Calib. Times: 1029 1438

GC Column: DB-624-30M ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.124	0.114		8.1	50.0
Chloromethane ++	0.215	0.200	0.100	7.0	50.0
Vinyl Chloride +	0.180	0.184		-2.2	20.0
Bromomethane	0.057	0.049	0.005	14.0	50.0
Chloroethane	0.057	0.042		26.3	
Trichlorofluoromethane	0.258	0.217		15.9	50.0
Acrolein	0.009	0.008		11.1	50.0
1,1-Dichloroethene +	0.137	0.123		10.2	20.0
1,1,2Trichlorotrifluoroethan	0.157	0.142		9.6	50.0
Acetone	0.067	0.057		14.9	50.0
Methyl Iodide	0.324	0.313		3.4	50.0
Carbon Disulfide	0.525	0.477		9.1	50.0
Methylene Chloride	0.264	0.221		16.3	50.0
Acrylonitrile	0.071	0.072		-1.4	50.0
trans-1,2-Dichloroethene	0.253	0.229		9.5	50.0
MTBE	0.618	0.598		3.2	50.0
1,1-Dichloroethane ++	0.356	0.326	0.100	8.4	50.0
Vinyl Acetate	0.167	0.154		7.8	50.0
cis-1,2-Dichloroethene	0.350	0.322		8.0	50.0
2,2-Dichloropropane	0.312	0.277		11.2	50.0
2-Butanone	0.108	0.105		2.8	50.0
Bromochloromethane	0.136	0.129		5.1	50.0
Chloroform +	0.418	0.366		12.4	20.0
1,1,1-Trichloroethane	0.336	0.296		11.9	50.0
Total 1,2-Dichloroethene	0.207	0.184		11.1	50.0
1,1-Dichloropropene	0.279	0.280		-0.4	50.0
Carbon Tetrachloride	0.303	0.270		10.9	50.0
1,2-Dichloroethane	0.356	0.339		4.8	50.0
Benzene	0.926	0.966		-4.3	50.0
Trichloroethene	0.276	0.267		3.3	50.0
1,2-Dichloropropane +	0.299	0.282		5.7	20.0
Dibromomethane	0.175	0.166		5.1	50.0
Bromodichloromethane	0.388	0.356		8.2	50.0
2-Chloroethyl vinyl ether	0.207	0.218		-5.3	50.0
cis-1,3-Dichloropropene	0.496	0.472		4.8	50.0
4-methyl-2-pentanone	0.332	0.341		-2.7	50.0
Toluene +	1.164	1.052		9.6	20.0

All other compounds must meet a minimum RRF of 0.010.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Instrument ID: MSV0 Calibration Date: 06/20/02 Time: 1652

Lab File ID: R5640 Init. Calib. Date(s): 06/20/02 06/20/02

Heated Purge: (Y/N) N Init. Calib. Times: 1029 1438

GC Column: DB-624-30M ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
trans-1,3-Dichloropropene	0.496	0.432		12.9	50.0
1,1,2-Trichloroethane	0.268	0.253		5.6	50.0
1,3-Dichloropropane	0.478	0.461		3.6	50.0
Tetrachloroethene	0.204	0.182		10.8	50.0
2-Hexanone	0.510	0.556		-9.0	50.0
Dibromochloromethane	0.656	0.670		-2.1	50.0
1,2-Dibromoethane(EDB)	0.639	0.644		-0.8	50.0
Chlorobenzene ++	1.742	1.746	0.300	-0.2	50.0
1,1,1,2-Tetrachloroethane	0.595	0.604		-1.5	50.0
Ethylbenzene +	0.822	0.778		5.4	20.0
p,m-Xylene	1.021	0.909		11.0	50.0
o-Xylene	0.943	0.815		13.6	50.0
Styrene	1.740	1.608		7.6	50.0
Bromoform ++	0.385	0.404	0.100	-4.9	50.0
Isopropylbenzene	2.657	2.622		1.3	50.0
1,1,2,2-Tetrachloroethane++	1.512	1.852	0.300	-22.5	50.0
trans-1,4-Dichloro-2-Butene	0.347	0.499		-43.8	50.0
1,2,3-Trichloropropane	1.809	2.372		-31.1	50.0
Bromobenzene	2.856	3.488		-22.1	50.0
n-Propylbenzene	4.444	5.016		-12.9	50.0
2-Chlorotoluene	3.124	3.151		-0.9	50.0
1,3,5-Trimethylbenzene	2.021	2.082		-3.0	50.0
4-Chlorotoluene	3.013	2.897		3.8	50.0
tert-butylbenzene	2.068	2.198		-6.3	50.0
1,2,4-Trimethylbenzene	2.118	2.257		-6.6	50.0
sec-Butylbenzene	4.052	4.414		-8.9	50.0
p-Isopropyltoluene	2.656	2.673		-0.6	50.0
1,3-Dichlorobenzene	1.622	1.791		-10.4	50.0
1,4-Dichlorobenzene	1.814	1.623		10.5	50.0
TOTAL XYLENE	0.995	0.878		11.8	50.0
n-Butylbenzene	2.313	2.364		-2.2	50.0
1,2-Dichlorobenzene	1.571	1.566		0.3	50.0
1,2-Dibromo-3-Chloropropane	0.261	0.323		-23.8	50.0
1,2,4-Trichlorobenzene	0.817	0.946		-15.8	50.0
Hexachlorobutadiene	0.553	0.570		-3.1	50.0
Naphthalene	2.334	3.001		-28.6	50.0
1,2,3-Trichlorobenzene	0.771	0.916		-18.8	50.0

All other compounds must meet a minimum RRF of 0.010.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Instrument ID: MSV0 Calibration Date: 06/20/02 Time: 1652

Lab File ID: R5640 Init. Calib. Date(s): 06/20/02 06/20/02

Heated Purge: (Y/N) N Init. Calib. Times: 1029 1438

GC Column: DB-624-30M ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Hexane	0.279	0.261	0.050	6.4	50.0
Cyclohexane	0.367	0.356	0.050	3.0	50.0
Methyl Acetate	0.129	0.112	0.050	13.2	50.0
Methyl Cyclohexane	0.443	0.429	0.050	3.2	50.0
Dibromofluoromethane	0.254	0.229		9.8	50.0
1,2-Dichloroethane-d4	0.143	0.148		-3.5	50.0
Toluene-d8	2.268	2.260		0.4	50.0
Bromofluorobenzene	1.015	1.175		-15.8	50.0

All other compounds must meet a minimum RRF of 0.010.

Data File: /var/chem/msv0.i/2020620p.s.b/r5639.d

Date : 20-JUN-2002 16:13

Client ID: 0620V0BFB02

Instrument: msv0.i

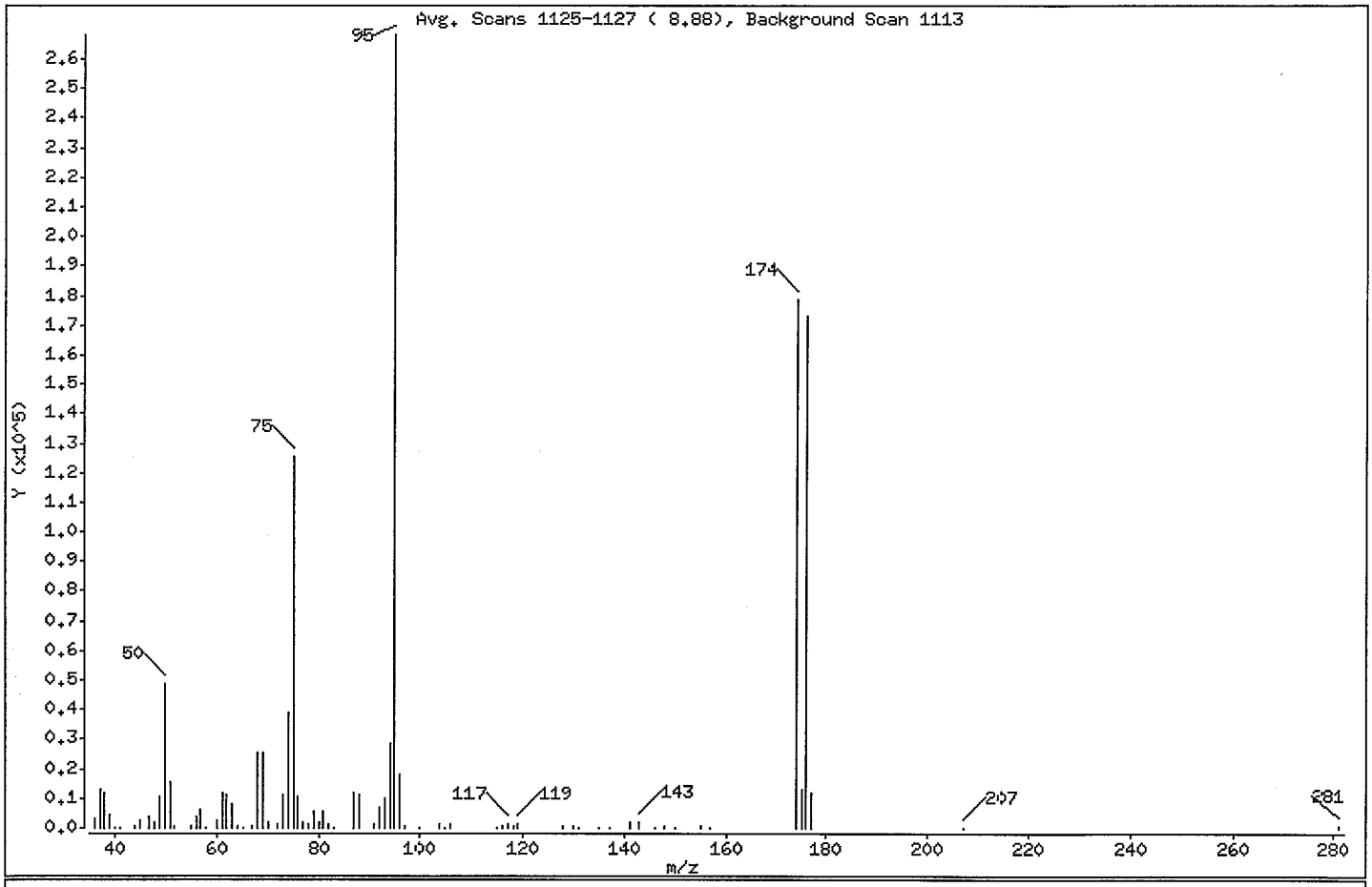
Sample Info: 0620V0BFB02*TUNE

Operator: RJO

Column phase: DB-624

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	18.23
75	30.00 - 60.00% of mass 95	46.76
96	5.00 - 9.00% of mass 95	6.78
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	66.62
175	5.00 - 9.00% of mass 174	4.93 (7.40)
176	95.00 - 101.00% of mass 174	64.46 (96.75)
177	5.00 - 9.00% of mass 176	4.39 (6.81)

Data File: /var/chem/msv0.i/2020620p.s.b/r5639.d

Date : 20-JUN-2002 16:13

Client ID: 0620V0BFB02

Instrument: msv0.i

Sample Info: 0620V0BFB02*TUNE

Operator: RJO

Column phase: DB-624

Column diameter: 0.53

Data File: r5639.d
Spectrum: Avg. Scans 1125-1127 (8.88), Background Scan 1113
Location of Maximum: 95.00
Number of points: 76

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3021	62.00	10915	87.00	11822	131.00	285
37.00	13081	63.00	7984	88.00	11078	135.00	301
38.00	11456	64.00	738	91.00	1207	137.00	189
39.00	4059	65.00	148	92.00	6819	141.00	1941
40.00	222	67.00	762	93.00	9576	143.00	2040
41.00	178	68.00	25112	94.00	28400	146.00	149
44.00	859	69.00	25152	95.00	268032	148.00	585
45.00	2673	70.00	1904	96.00	18160	150.00	166
47.00	3953	72.00	1312	97.00	614	155.00	535
48.00	1756	73.00	10930	100.00	7	157.00	144
49.00	10731	74.00	38808	104.00	992	174.00	178560
50.00	48856	75.00	125344	105.00	131	175.00	13220
51.00	15184	76.00	10696	106.00	978	176.00	172736
52.00	809	77.00	1664	115.00	141	177.00	11762
55.00	770	78.00	1408	116.00	813	207.00	136
56.00	3609	79.00	5710	117.00	1493	281.00	507
57.00	6250	80.00	1544	118.00	806		
58.00	307	81.00	5674	119.00	1146		
60.00	2515	82.00	1051	128.00	832		
61.00	11598	83.00	148	130.00	888		

Data File: /var/chem/msv0.i/2020620p.s.b/r5639.d

Date : 20-JUN-2002 16:13

Client ID: 0620V0BFB02

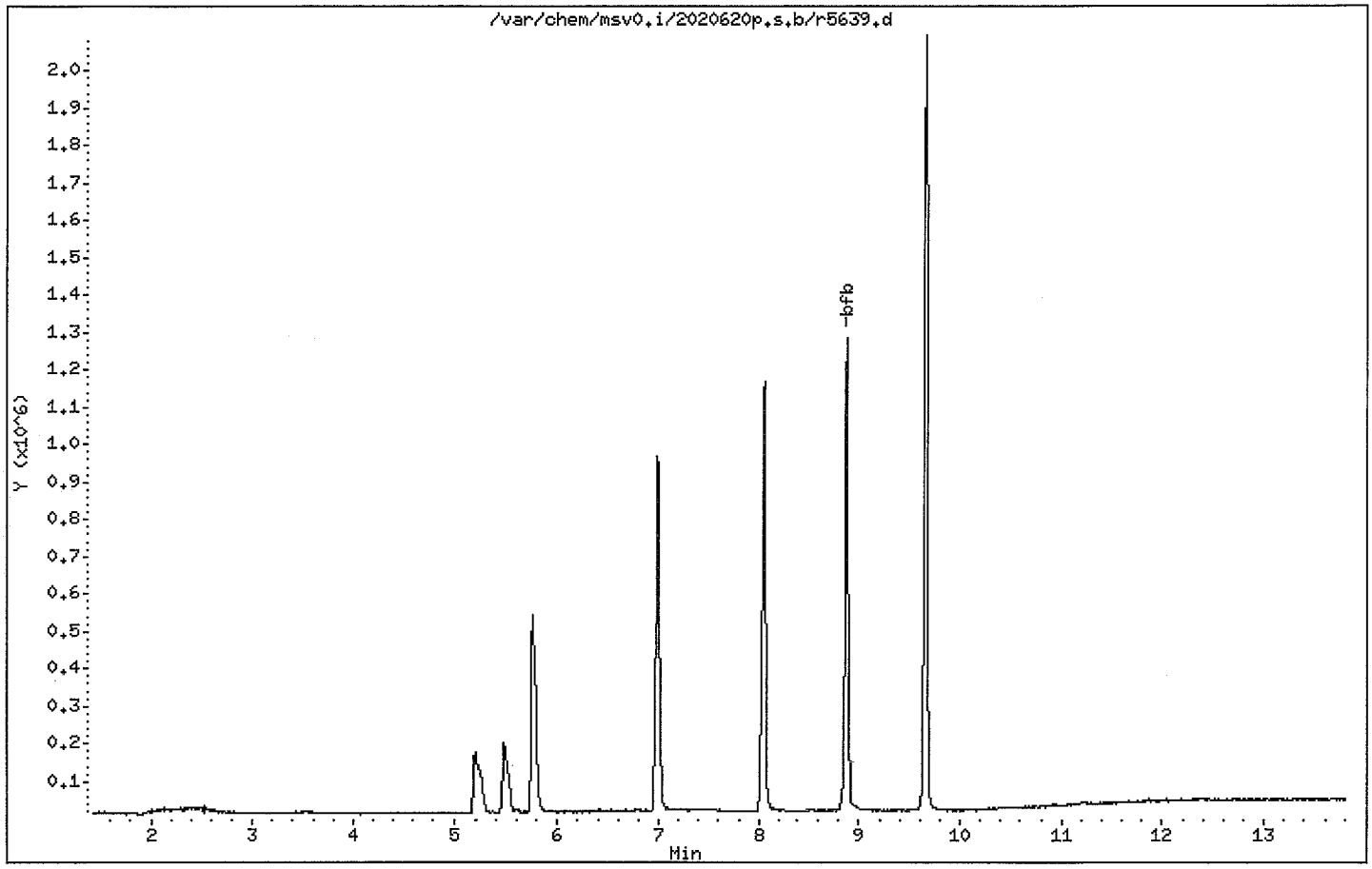
Instrument: msv0.i

Sample Info: 0620V0BFB02*TUNE

Operator: RJO

Column phase: DB-624

Column diameter: 0.53



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv0.i/2020620p.s.b/r5640.d
Lab Smp Id: V0STD050 Client Smp ID: V0STD050
Inj Date : 20-JUN-2002 16:52
Operator : RJO Inst ID: msv0.i
Smp Info : V0STD050*4-13-6
Misc Info : MSV~CCV~*1*RJO
Comment :
Method : /var/chem/msv0.i/2020620p.s.b/8260Bw0.m
Meth Date : 24-Jun-2002 15:05 dlb Quant Type: ISTD
Cal Date : 09-JUN-2002 10:05 Cal File: r5333.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)
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	1.669	1.669	(0.286)	770428	50.0000	46.0	
2 Chloromethane ++	50	1.841	1.841	(0.316)	1351023	50.0000	46.5	
3 Vinyl Chloride +	62	1.941	1.941	(0.333)	1245934	50.0000	51.1	
5 Bromomethane	94	2.239	2.239	(0.384)	330870	50.0000	42.6	
6 Chloroethane	64	2.344	2.344	(0.402)	282161	50.0000	36.7	
7 Trichlorofluoromethane	101	2.609	2.609	(0.447)	1471926	50.0000	42.1	
8 Acrolein	56	3.039	3.039	(0.521)	277513	250.000	229	(A)
9 1,1-Dichloroethene +	96	3.165	3.165	(0.543)	832425	50.0000	45.1	
10 1,1,2Trichlorotrifluoroethane	101	3.198	3.198	(0.548)	957973	50.0000	45.0	
11 Acetone	43	3.245	3.245	(0.556)	384550	50.0000	42.2	
12 Methyl Iodide	142	3.317	3.317	(0.569)	2118046	50.0000	48.3	
13 Carbon Disulfide	76	3.390	3.390	(0.581)	3229293	50.0000	45.4	
14 Methylene Chloride	49	3.668	3.668	(0.629)	1497693	50.0000	41.9	
15 Acrylonitrile	53	3.913	3.913	(0.671)	2431806	250.000	254	(A)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	16 trans-1,2-Dichloroethene	61	3.959	3.959	(0.679)	1551268	50.0000	45.2	
	17 MTBE	73	3.986	3.986	(0.683)	4048807	50.0000	48.4	5613
	19 1,1-Dichloroethane ++	63	4.363	4.363	(0.748)	2206665	50.0000	45.8	
	20 Vinyl Acetate	43	4.244	4.244	(0.728)	1042038	50.0000	46.0	
	21 cis-1,2-Dichloroethene	61	4.879	4.879	(0.837)	2183636	50.0000	46.1	
	22 2,2-Dichloropropane	77	4.893	4.893	(0.839)	1873190	50.0000	44.4	
	23 2-Butanone	43	4.899	4.899	(0.840)	713596	50.0000	48.5	
	24 Bromochloromethane	128	5.078	5.078	(0.871)	876485	50.0000	47.6	
	25 Chloroform +	83	5.151	5.151	(0.883)	2474995	50.0000	43.7	
$	26 Dibromofluoromethane	111	5.283	5.283	(0.906)	1549046	50.0000	45.1	6520
	27 1,1,1-Trichloroethane	97	5.323	5.323	(0.913)	2002777	50.0000	44.1	
	29 1,1-Dichloropropene	75	5.455	5.455	(0.935)	1899192	50.0000	50.2	
	30 Carbon Tetrachloride	117	5.469	5.469	(0.938)	1830254	50.0000	44.7	
$	31 1,2-Dichloroethane-d4	67	5.561	5.561	(0.953)	1003868	50.0000	51.8	
	32 1,2-Dichloroethane	62	5.621	5.621	(0.964)	2296124	50.0000	47.7	
	33 Benzene	78	5.614	5.614	(0.963)	6538549	50.0000	52.1	
M	34 Total 1,2-Dichloroethene	61				3734904	150.000	91.3	
*	35 FLUOROBENZENE	96	5.833	5.833	(1.000)	6768950	50.0000		
	36 Trichloroethene	130	6.124	6.124	(1.050)	1805346	50.0000	48.3	
	37 1,2-Dichloropropane +	63	6.289	6.289	(1.078)	1910922	50.0000	47.2	
	38 Dibromomethane	93	6.375	6.375	(1.093)	1124351	50.0000	47.3	
	39 Bromodichloromethane	83	6.488	6.488	(1.112)	2407471	50.0000	45.8	
	40 2-Chloroethyl vinyl ether	63	6.693	6.693	(1.148)	1477305	50.0000	52.7	
	41 cis-1,3-Dichloropropene	75	6.819	6.819	(1.169)	3196423	50.0000	47.6	
	42 4-methyl-2-pentanone	43	6.918	6.918	(1.186)	2308599	50.0000	51.3	
$	43 Toluene-d8	98	7.024	7.024	(0.870)	6424768	50.0000	49.8	
	44 Toluene +	91	7.077	7.077	(1.213)	7121277	50.0000	45.2	
	45 trans-1,3-Dichloropropene	75	7.209	7.209	(1.236)	2922542	50.0000	43.5	(H)
	46 1,1,2-Trichloroethane	97	7.348	7.348	(1.260)	1712537	50.0000	47.2	
	47 1,3-Dichloropropane	76	7.474	7.474	(1.281)	3118569	50.0000	48.2	
	48 Tetrachloroethene	164	7.487	7.487	(1.284)	1231830	50.0000	44.7	
	49 2-Hexanone	43	7.514	7.514	(0.931)	1581920	50.0000	54.6	
	50 Dibromochloromethane	129	7.646	7.646	(0.948)	1903339	50.0000	51.1	
	51 1,2-Dibromoethane(EDB)	107	7.739	7.739	(0.959)	1832202	50.0000	50.4	
*	52 CHLOROBENZENE-d5	82	8.070	8.070	(1.000)	2842429	50.0000		
	53 Chlorobenzene ++	112	8.096	8.096	(1.003)	4962271	50.0000	50.1	
	54 1,1,1,2-Tetrachloroethane	133	8.136	8.136	(1.008)	1717777	50.0000	50.7	
	55 Ethylbenzene +	106	8.162	8.162	(1.011)	2210648	50.0000	47.3	
	56 p,m-Xylene	106	8.242	8.242	(1.021)	5167863	100.000	89.0	
	57 o-Xylene	106	8.526	8.526	(1.057)	2316458	50.0000	43.2	
	58 Styrene	104	8.533	8.533	(1.057)	4571954	50.0000	46.2	
	59 Bromoform ++	173	8.679	8.679	(1.075)	1148696	50.0000	52.5	
	60 Isopropylbenzene	105	8.785	8.785	(1.089)	7453107	50.0000	49.3	
$	61 Bromofluorobenzene	174	8.897	8.897	(0.921)	1573720	50.0000	57.9	
	62 1,1,2,2-Tetrachloroethane++	83	8.957	8.957	(0.927)	2480843	50.0000	61.2	
	63 trans-1,4-Dichloro-2-Butene	53	8.990	8.990	(0.930)	668391	50.0000	71.9	
	64 1,2,3-Trichloropropane	75	8.996	8.996	(0.931)	3177251	50.0000	65.6	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	65 Bromobenzene	77	9.010	9.010	(0.932)	4671575	50.0000	61.1	
	66 n-Propylbenzene	91	9.063	9.063	(0.938)	6718278	50.0000	56.4	
	67 2-Chlorotoluene	91	9.142	9.142	(0.946)	4220374	50.0000	50.4	
	68 1,3,5-Trimethylbenzene	105	9.162	9.162	(0.948)	2787727	50.0000	51.5	(H)
	69 4-Chlorotoluene	91	9.208	9.208	(0.953)	3880215	50.0000	48.1	
	70 tert-butylbenzene	91	9.393	9.393	(0.972)	2943816	50.0000	53.1	(H)
	71 1,2,4-Trimethylbenzene	105	9.420	9.420	(0.975)	3022783	50.0000	53.3	
	72 sec-Butylbenzene	105	9.539	9.539	(0.987)	5911939	50.0000	54.5	
	73 p-Isopropyltoluene	119	9.618	9.618	(0.995)	3579444	50.0000	50.3	
	74 1,3-Dichlorobenzene	146	9.632	9.632	(0.997)	2398985	50.0000	55.2	
*	75 1,4-DICHLOROBENZENE-D4	152	9.665	9.665	(1.000)	1339267	50.0000		
	76 1,4-Dichlorobenzene	146	9.685	9.685	(1.002)	2173438	50.0000	44.7	
	77 1,2-Dichlorobenzene	146	9.930	9.930	(1.027)	2096717	50.0000	49.8	
	78 n-Butylbenzene	91	9.877	9.877	(1.022)	3166595	50.0000	51.1	
M	79 TOTAL XYLENE	106				7484321	150.000	132	
	80 1,2-Dibromo-3-Chloropropane	157	10.400	10.400	(1.076)	433227	50.0000	62.0	
	81 1,2,4-Trichlorobenzene	180	10.936	10.936	(1.131)	1266650	50.0000	57.9	
	82 Hexachlorobutadiene	225	11.035	11.035	(1.142)	762915	50.0000	51.5	
	83 Naphthalene	128	11.108	11.108	(1.149)	4019458	50.0000	64.3	
	84 1,2,3-Trichlorobenzene	180	11.273	11.273	(1.166)	1227031	50.0000	59.4	
	132 Methyl Cyclohexane	83	6.283	6.283	(1.077)	2902264	50.0000	48.4	2459
	131 Methyl Acetate	43	3.986	3.986	(0.683)	756785	50.0000	43.4	5613
	114 Hexane	57	4.244	4.244	(0.728)	1766368	50.0000	46.7	4789 (H)
	120 Cyclohexane	56	5.389	5.389	(0.924)	2409358	50.0000	48.5	1901

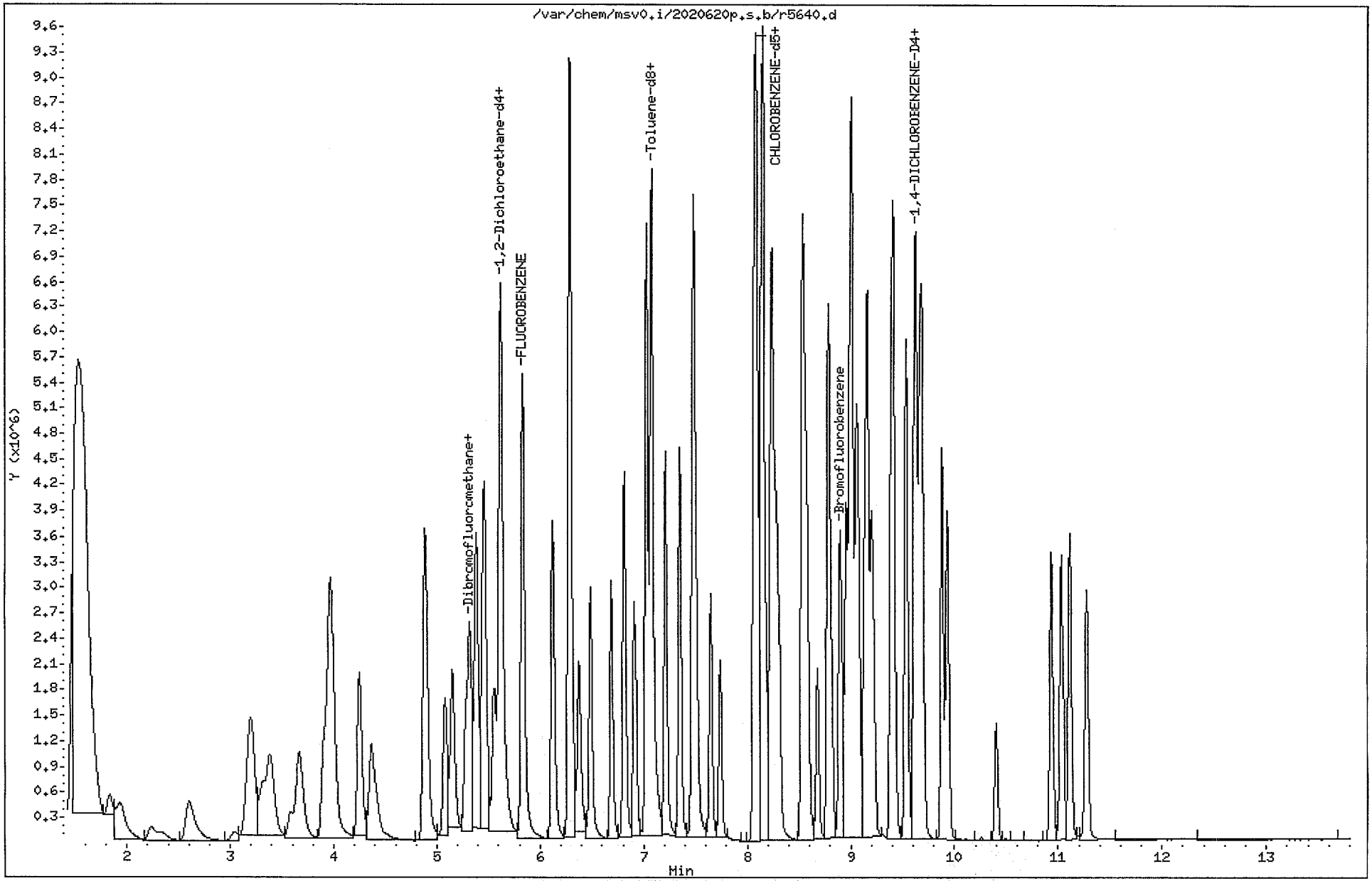
QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
H - Operator selected an alternate compound hit.

0000097

Data File: /var/chem/msv0.i/2020620p.s.b/r5640.d
Date : 20-JUN-2002 16:52
Client ID: V0STD050
Sample Info: V0STD050*4-13-6
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv0.i
Operator: RJO
Column diameter: 0.53



6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Instrument ID: MSV4 Calibration Date(s): 06/14/02 06/14/02

Heated Purge: (Y/N) Y Calibration Time(s): 1410 1625

GC Column: DB-624-30M ID: 0.53 (mm)

LAB FILE ID: RRF5 =R7736 RRF20 =R7731
RRF50 =R7732 RRF100=R7733 RRF200=R7734

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD
Chloromethane ++ *	0.324	0.310	0.305	0.330	0.334	0.321	3.9*
Vinyl Chloride +	0.252	0.274	0.273	0.299	0.306	0.281	7.9
Bromomethane	0.155	0.142	0.134	0.135	0.137	0.141	6.1
Chloroethane	0.146	0.167	0.173	0.183	0.171	0.168	8.2
Trichlorofluoromethane	0.170	0.204	0.208	0.225	0.244	0.210	13.1
Acrolein *	0.046	0.048	0.049	0.052	0.054	0.050	6.7*
1,1-Dichloroethene +	0.151	0.164	0.169	0.179	0.187	0.170	8.0
1,1,2Trichlotrifluoroethane	0.140	0.159	0.161	0.174	0.190	0.165	11.4
Acetone	0.160	0.101	0.082	0.071	0.072	0.097	38.2
Methyl Iodide	0.262	0.277	0.286	0.283	0.284	0.278	3.6
Carbon Disulfide *	0.820	0.820	0.849	0.883	0.902	0.855	4.3*
Methylene Chloride *	0.720	0.415	0.380	0.383	0.384	0.456	32.4*
Acrylonitrile	0.093	0.096	0.102	0.101	0.104	0.099	4.3
trans-1,2-Dichloroethene *	0.368	0.369	0.375	0.395	0.397	0.381	3.8*
MTBE *	0.567	0.587	0.594	0.610	0.622	0.596	3.5*
Hexane *	0.427	0.454	0.466	0.492	0.518	0.471	7.4*
1,1-Dichloroethane ++ *	0.466	0.479	0.478	0.504	0.506	0.487	3.6*
Vinyl Acetate *	0.309	0.324	0.334	0.346	0.361	0.335	6.0*
2,2-Dichloropropane *	0.259	0.294	0.297	0.316	0.324	0.298	8.4*
cis-1,2-Dichloroethene *	0.419	0.428	0.428	0.450	0.458	0.437	3.8*
2-Butanone *	0.195	0.156	0.158	0.153	0.162	0.165	10.5*
Bromochloromethane *	0.108	0.113	0.114	0.118	0.120	0.115	3.9*
Chloroform + *	0.384	0.385	0.384	0.398	0.407	0.392	2.7*
Hexachlorobutadiene *	0.513	0.509	0.530	0.510	0.542	0.521	2.8*
1,1,1-Trichloroethane *	0.242	0.272	0.276	0.293	0.301	0.277	8.2*
1,1-Dichloropropene *	0.323	0.342	0.344	0.364	0.374	0.349	5.7*
Carbon Tetrachloride *	0.192	0.221	0.227	0.244	0.259	0.229	11.1*
Total 1,2-Dichloroethene *	0.393	0.398	0.401	0.423	0.427	0.408	3.8*
Napthalene *	3.252	2.121	2.226	1.967	2.133	2.340	22.1*
Benzene *	1.142	1.145	1.140	1.198	1.213	1.168	3.0*
1,2-Dichloroethane *	0.234	0.244	0.235	0.244	0.250	0.241	2.9*
Trichloroethene *	0.266	0.263	0.263	0.272	0.278	0.268	2.5*
1,2-Dichloropropane + *	0.318	0.311	0.306	0.324	0.324	0.317	2.5*
Dibromomethane *	0.121	0.121	0.123	0.126	0.129	0.124	3.0*
Bromodichloromethane *	0.277	0.281	0.279	0.293	0.302	0.286	3.9*
2-Chloroethyl vinyl ether	0.155	0.165	0.176	0.180	0.186	0.172	7.1
cis-1,3-Dichloropropene *	0.393	0.407	0.408	0.427	0.441	0.415	4.6*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Instrument ID: MSV4 Calibration Date(s): 06/14/02 06/14/02

Heated Purge: (Y/N) Y Calibration Time(s): 1410 1625

GC Column: DB-624-30M ID: 0.53 (mm)

LAB FILE ID: RRF5 =R7736 RRF20 =R7731
RRF50 =R7732 RRF100=R7733 RRF200=R7734

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD
4-methyl-2-pentanone *	0.339	0.306	0.324	0.310	0.332	0.322	4.3*
1,2,3-Trichlorobenzene *	1.012	0.770	0.786	0.715	0.782	0.813	14.2*
Toluene + *	3.604	3.290	3.233	3.250	3.166	3.309	5.2*
Dichlorodifluoromethane	0.093	0.124	0.128	0.138	0.151	0.127	17.0
trans-1,3-Dichloropropene *	0.988	0.972	0.982	0.982	0.984	0.982	0.6*
Methyl Acetate	0.249	0.228	0.231	0.226	0.237	0.234	3.9
1,1,2-Trichloroethane *	0.618	0.582	0.591	0.567	0.573	0.586	3.4*
1,3-Dichloropropane *	1.213	1.118	1.106	1.096	1.089	1.124	4.5*
Tetrachloroethene *	0.548	0.554	0.556	0.565	0.554	0.555	1.1*
2-Hexanone *	0.881	0.749	0.715	0.646	0.645	0.727	13.3*
Dibromochloromethane *	0.572	0.532	0.551	0.551	0.558	0.553	2.6*
1,2-Dibromoethane(EDB) *	0.581	0.532	0.529	0.527	0.530	0.540	4.3*
Chlorobenzene ++ *	2.477	2.102	2.070	2.043	1.995	2.137	9.1*
1,1,1,2-Tetrachloroethane *	0.573	0.574	0.584	0.585	0.577	0.579	0.9*
Ethylbenzene + *	1.216	1.190	1.146	1.221	1.174	1.189	2.6*
p,m-Xylene *	1.679	1.483	1.488	1.437	1.400	1.497	7.2*
o-Xylene *	1.468	1.396	1.370	1.344	1.309	1.377	4.4*
Styrene *	2.593	2.253	2.220	2.203	2.178	2.289	7.5*
Bromoform ++ *	0.328	0.288	0.321	0.314	0.321	0.314	4.9*
Isopropylbenzene *	3.442	3.334	3.344	3.350	3.298	3.354	1.6*
Cyclohexane *	0.500	0.606	0.590	0.645	0.695	0.607	11.9*
1,1,2,2-Tetrachloroethane++ *	1.347	1.133	1.177	1.230	1.195	1.216	6.6*
trans-1,4-Dichloro-2-Butene *	0.264	0.242	0.254	0.269	0.275	0.261	4.9*
1,2,3-Trichloropropane *	1.538	1.308	1.387	1.433	1.428	1.419	5.9*
Bromobenzene *	2.841	2.438	2.428	2.599	2.497	2.561	6.7*
n-Propylbenzene *	5.803	5.538	5.511	5.970	5.706	5.706	3.3*
2-Chlorotoluene *	4.078	3.354	3.330	3.825	3.568	3.631	8.8*
1,3,5-Trimethylbenzene *	3.816	3.662	3.622	3.896	3.683	3.736	3.1*
4-Chlorotoluene *	3.750	3.266	3.132	3.490	3.217	3.371	7.4*
tert-butylbenzene *	2.247	2.202	2.185	2.368	2.267	2.254	3.2*
1,2,4-Trimethylbenzene *	3.961	3.622	3.470	3.688	3.558	3.660	5.1*
sec-Butylbenzene *	4.921	5.085	5.009	5.492	5.285	5.158	4.5*
p-Isopropyltoluene *	3.820	3.804	3.759	3.904	3.811	3.820	1.4*
1,3-Dichlorobenzene *	2.223	1.740	1.753	1.746	1.923	1.877	11.1*
1,4-Dichlorobenzene *	2.926	2.084	1.883	1.990	1.647	2.106	23.1*
n-Butylbenzene *	3.343	3.319	3.260	3.460	3.466	3.370	2.7*
TOTAL XYLENE *	2.413	1.454	1.449	1.406	1.370	1.618	27.5*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Instrument ID: MSV4 Calibration Date(s): 06/14/02 06/14/02

Heated Purge: (Y/N) Y Calibration Time(s): 1410 1625

GC Column: DB-624-30M ID: 0.53 (mm)

LAB FILE ID: RRF5 =R7736 RRF20 =R7731
RRF50 =R7732 RRF100=R7733 RRF200=R7734

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD
1,2-Dichlorobenzene *	2.085	1.631	1.622	1.647	1.593	1.716	12.1*
1,2-Dibromo-3-Chloropropane *	0.128	0.156	0.180	0.174	0.182	0.164	13.9*
1,2,4-Trichlorobenzene *	1.106	0.852	0.881	0.833	0.875	0.909	12.3*
Methyl cyclohexane *	0.417	0.487	0.486	0.516	0.543	0.490	9.6*
Dibromofluoromethane *	0.205	0.207	0.208	0.209	0.207	0.207	0.8*
Toluene-d8 *	2.638	2.598	2.591	2.486	2.404	2.543	3.8*
1,2-Dichloroethane-d4 *	0.103	0.106	0.108	0.106	0.108	0.106	1.8*
Bromofluorobenzene *	0.594	0.595	0.581	0.551	0.540	0.572	4.4*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

Data File: /var/chem/msv4.i/2020614a.s.b/r7728.d

Date : 14-JUN-2002 12:37

Client ID: 0614V4BFB04

Instrument: msv4.i

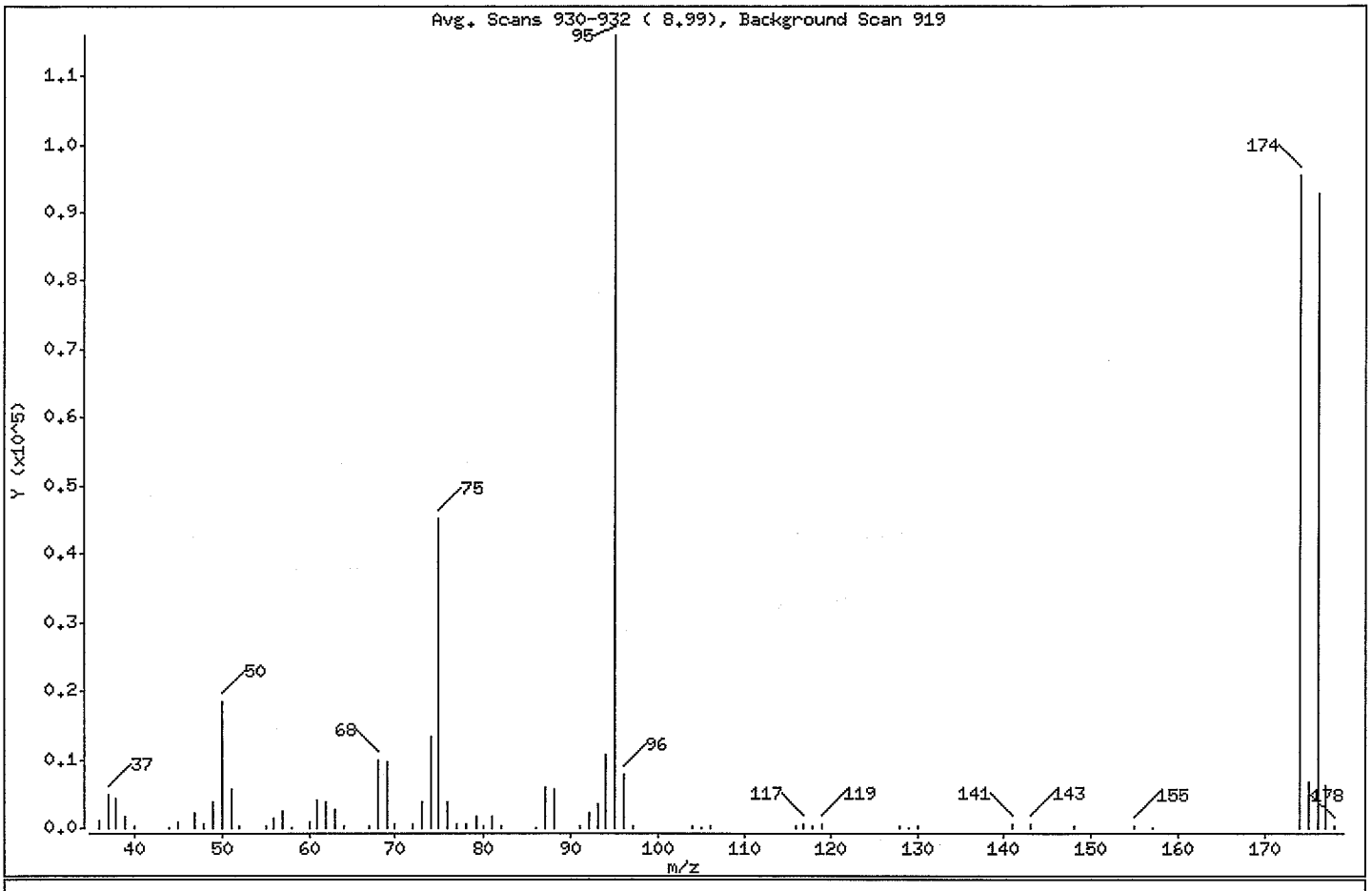
Sample Info: 0614V4BFB01*TUNE

Operator: RJO

Column phase: DB-624

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	15.84
75	30.00 - 60.00% of mass 95	38.97
96	5.00 - 9.00% of mass 95	6.72
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	82.33
175	5.00 - 9.00% of mass 174	5.86 (7.11)
176	95.00 - 101.00% of mass 174	80.00 (97.17)
177	5.00 - 9.00% of mass 176	5.22 (6.53)

Data File: /var/chem/msv4.i/2020614a.s.b/r7728.d

Date : 14-JUN-2002 12:37

Client ID: 0614V4BFB04

Instrument: msv4.i

Sample Info: 0614V4BFB01*TUNE

Operator: RJO

Column phase: DB-624

Column diameter: 0.53

Data File: r7728.d
Spectrum: Avg. Scans 930-932 (8.99), Background Scan 919
Location of Maximum: 95.00
Number of points: 67

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	978	60.00	808	80.00	395	117.00	443
37.00	4686	61.00	3974	81.00	1536	118.00	234
38.00	4206	62.00	3862	82.00	275	119.00	405
39.00	1548	63.00	2776	86.00	55	128.00	344
40.00	141	64.00	216	87.00	5840	129.00	51
44.00	133	67.00	327	88.00	5651	130.00	350
45.00	905	68.00	9857	91.00	305	141.00	507
47.00	2263	69.00	9633	92.00	2205	143.00	450
48.00	578	70.00	666	93.00	3471	148.00	219
49.00	3859	72.00	537	94.00	10753	155.00	228
50.00	18360	73.00	3647	95.00	115904	157.00	68
51.00	5720	74.00	13313	96.00	7793	174.00	95424
52.00	216	75.00	45168	97.00	261	175.00	6788
55.00	191	76.00	3716	104.00	269	176.00	92720
56.00	1262	77.00	654	105.00	132	177.00	6054
57.00	2446	78.00	560	106.00	231	178.00	196
58.00	52	79.00	1538	116.00	195		

Data File: /var/chem/msv4.i/2020614a.s.b/r7728.d

Date : 14-JUN-2002 12:37

Client ID: 0614V4BFB04

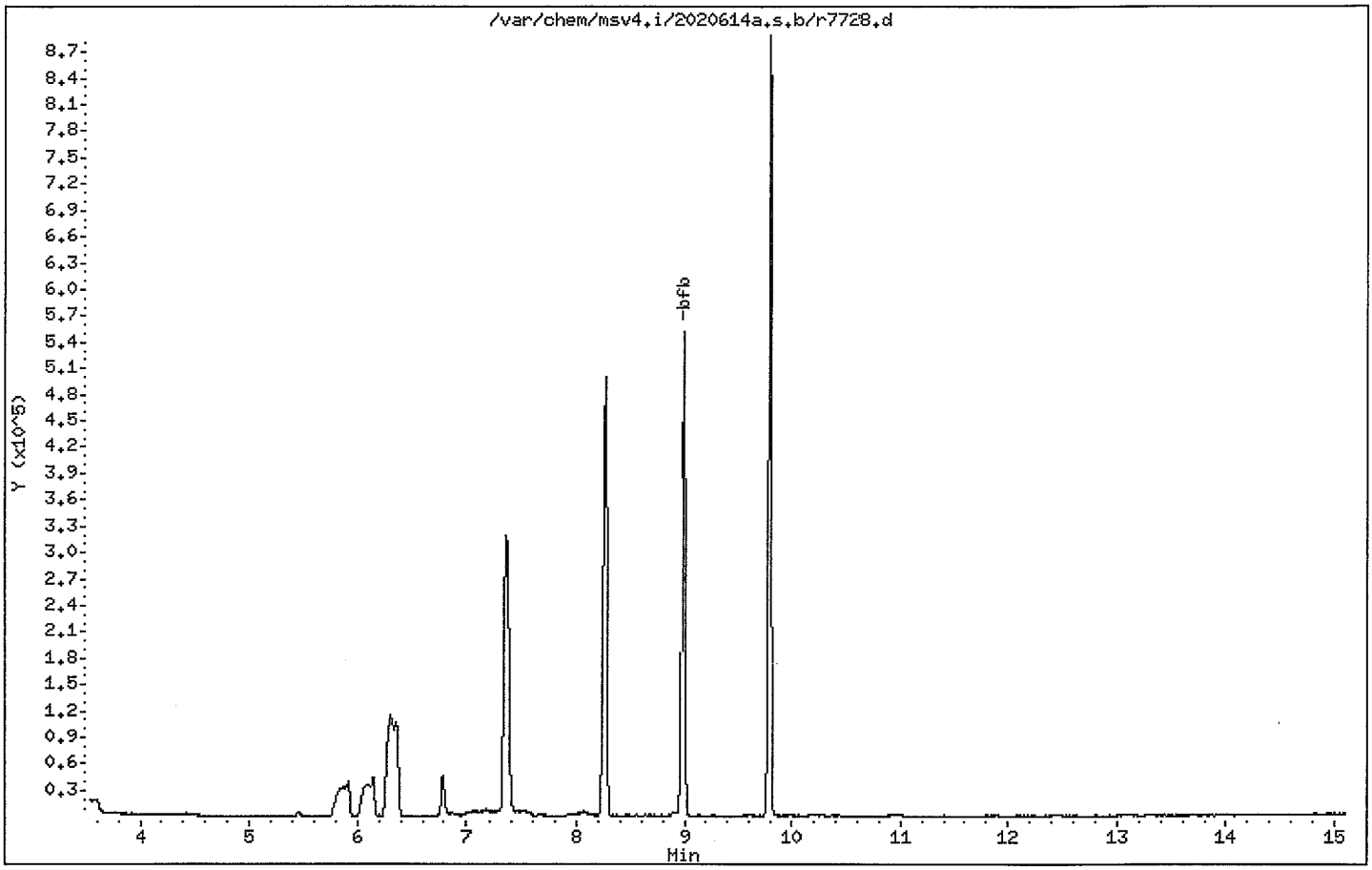
Instrument: msv4.i

Sample Info: 0614V4BFB01*TUNE

Operator: RJO

Column phase: DB-624

Column diameter: 0.53



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv4.i/2020614a.s.b/r7736.d
Lab Smp Id: V4STD005 Client Smp ID: V4STD005
Inj Date : 14-JUN-2002 16:25
Operator : RSP Inst ID: msv4.i
Smp Info : V4STD005*4-13-6
Misc Info : MSV~STD~*1*RJO
Comment :
Method : /var/chem/msv4.i/2020614a.s.b/8260Bs4.m
Meth Date : 24-Jun-2002 15:10 dlb Quant Type: ISTD
Cal Date : 14-JUN-2002 16:25 Cal File: r7736.d
Als bottle: 19 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/Ws)/((100-M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
M	0.00000	% Moisture (not decanted)
Va	100.00000	Volume of aliquot extract added (uL)
Ws	5.00000	Weight of sample extracted (g)

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	2.193	2.193	(0.319)	6543	5.00000	3.66	0(aM)
2 Chloromethane ++	50	2.427	2.427	(0.353)	22783	5.00000	5.05	0
3 Vinyl Chloride +	62	2.585	2.585	(0.376)	17719	5.00000	4.48	0(a)
4 Bromomethane	94	3.059	3.059	(0.444)	10901	5.00000	5.50	0
5 Chloroethane	64	3.200	3.200	(0.465)	10251	5.00000	4.34	0(a)
6 Trichlorofluoromethane	101	3.545	3.545	(0.515)	11958	5.00000	4.04	0(a)
7 Acrolein	56	5.273	5.273	(0.766)	16231	25.0000	23.1	0
8 1,1-Dichloroethene +	96	4.183	4.183	(0.608)	10660	5.00000	4.46	0(a)
9 1,1,2Trichlotrifluoroethane	101	4.189	4.189	(0.609)	9851	5.00000	4.24	0(a)
10 Acetone	43	4.254	4.254	(0.618)	11243	5.00000	8.23	0
11 Methyl Iodide	142	4.365	4.365	(0.634)	18419	5.00000	4.70	0(a)
12 Carbon Disulfide	76	4.447	4.447	(0.646)	57737	5.00000	4.80	0(aM)
13 Methylene Chloride	49	4.716	4.716	(0.685)	50662	5.00000	7.88	0

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	14 Acrylonitrile	53	4.956	4.956	(0.720)	32905	25.0000	23.5	0
	15 trans-1,2-Dichloroethene	61	5.009	5.009	(0.728)	25897	5.00000	4.83	0(a)
	16 MTBE	73	4.997	4.997	(0.726)	39949	5.00000	4.76	0(a)
	17 Hexane	57	5.267	5.267	(0.765)	30051	5.00000	4.53	0(aM)
	18 1,1-Dichloroethane ++	63	5.401	5.401	(0.785)	32771	5.00000	4.78	0(a)
	19 Vinyl Acetate	43	5.273	5.273	(0.766)	21755	5.00000	4.61	(a)
	20 2,2-Dichloropropane	77	5.940	5.940	(0.863)	18261	5.00000	4.35	0(a)
	21 cis-1,2-Dichloroethene	61	5.934	5.934	(0.862)	29491	5.00000	4.80	0(a)
	22 2-Butanone	43	5.928	5.928	(0.861)	13747	5.00000	5.93	
	23 Bromochloromethane	128	6.139	6.139	(0.892)	7608	5.00000	4.72	0(a)
	24 Chloroform +	83	6.192	6.192	(0.899)	27027	5.00000	4.90	0(a)
$	25 Dibromofluoromethane	111	6.327	6.327	(0.919)	144243	50.0000	49.4	0
	26 1,1,1-Trichloroethane	97	6.380	6.380	(0.927)	17059	5.00000	4.38	0(a)
	27 1,1-Dichloropropene	75	6.497	6.497	(0.944)	22750	5.00000	4.62	0(a)
	28 Carbon Tetrachloride	117	6.520	6.520	(0.947)	13498	5.00000	4.19	0(a)
M	29 Total 1,2-Dichloroethene	61				55388	10.0000	9.63	0
$	30 1,2-Dichloroethane-d4	67	6.614	6.614	(0.961)	72544	50.0000	48.6	0
	31 Benzene	78	6.679	6.679	(0.970)	80389	5.00000	4.89	0(a)
	32 1,2-Dichloroethane	62	6.673	6.673	(0.969)	16460	5.00000	4.84	0(aM)
*	33 FLUOROBENZENE	96	6.884	6.884	(1.000)	703968	50.0000		0
	34 Trichloroethene	130	7.177	7.177	(1.043)	18721	5.00000	4.95	0(a)
	35 1,2-Dichloropropane +	63	7.353	7.353	(1.068)	22383	5.00000	5.02	0
	36 Dibromomethane	93	7.452	7.452	(1.083)	8524	5.00000	4.88	0(a)
	37 Bromodichloromethane	83	7.540	7.540	(1.095)	19485	5.00000	4.83	0(a)
	38 2-Chloroethyl vinyl ether	63	7.728	7.728	(1.123)	10937	5.00000	4.50	0(a)
	39 cis-1,3-Dichloropropene	75	7.874	7.874	(1.144)	27673	5.00000	4.73	(a)
	40 4-methyl-2-pentanone	43	7.956	7.956	(1.156)	23898	5.00000	5.26	(M)
$	41 Toluene-d8	98	8.091	8.091	(0.881)	580283	50.0000	51.9	0
	42 Toluene +	91	8.144	8.144	(0.886)	79280	5.00000	5.45	0(M)
	43 trans-1,3-Dichloropropene	75	8.267	8.267	(0.900)	21743	5.00000	5.03	
	44 1,1,2-Trichloroethane	97	8.419	8.419	(0.916)	13592	5.00000	5.27	0
	45 1,3-Dichloropropane	76	8.554	8.554	(0.931)	26687	5.00000	5.39	0
	46 Tetrachloroethene	164	8.566	8.566	(0.932)	12067	5.00000	4.94	0(a)
	47 2-Hexanone	43	8.560	8.560	(0.932)	19373	5.00000	6.06	0
	48 Dibromochloromethane	129	8.736	8.736	(0.951)	12590	5.00000	5.17	0
	49 1,2-Dibromoethane(EDB)	107	8.847	8.847	(0.963)	12781	5.00000	5.38	0
*	50 Chlorobenzene-d5	82	9.187	9.187	(1.000)	219981	50.0000		0
	51 Chlorobenzene ++	112	9.210	9.210	(1.003)	54499	5.00000	5.80	0
	52 1,1,1,2-Tetrachloroethane	133	9.252	9.252	(1.007)	12612	5.00000	4.95	0(aM)
	53 Ethylbenzene +	106	9.263	9.263	(1.008)	26744	5.00000	5.11	0
	54 p,m-Xylene	106	9.340	9.340	(1.017)	73873	10.0000	11.2	0
	55 o-Xylene	106	9.674	9.674	(1.053)	32305	5.00000	5.33	
	56 Styrene	104	9.674	9.674	(1.053)	57033	5.00000	5.66	0
	57 Bromoform ++	173	9.855	9.855	(1.073)	7210	5.00000	5.21	0
	58 Isopropylbenzene	105	9.949	9.949	(1.083)	75722	5.00000	5.13	0
$	59 Bromofluorobenzene	174	10.096	10.096	(1.099)	130701	50.0000	51.9	0
	60 1,1,2,2-Tetrachloroethane++	83	10.154	10.154	(0.915)	21846	5.00000	5.54	0(M)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	61 trans-1,4-Dichloro-2-Butene	53	10.189	10.189	(0.918)	4285	5.00000	5.06	0(M)
	62 1,2,3-Trichloropropane	75	10.213	10.213	(0.920)	24951	5.00000	5.42	0
	63 Bromobenzene	77	10.260	10.260	(0.924)	46079	5.00000	5.55	0
	64 n-Propylbenzene	91	10.277	10.277	(0.926)	94120	5.00000	5.08	0
	65 2-Chlorotoluene	91	10.395	10.395	(0.937)	66141	5.00000	5.62	0
	66 1,3,5-Trimethylbenzene	105	10.401	10.401	(0.937)	61897	5.00000	5.11	
	67 4-Chlorotoluene	91	10.471	10.471	(0.943)	60823	5.00000	5.56	0
	68 tert-butylbenzene	91	10.700	10.700	(0.964)	36445	5.00000	4.98	0(a)
	69 1,2,4-Trimethylbenzene	105	10.735	10.735	(0.967)	64241	5.00000	5.41	
	70 sec-Butylbenzene	105	10.893	10.893	(0.981)	79814	5.00000	4.77	(a)
	71 p-Isopropyltoluene	119	10.993	10.993	(0.990)	61958	5.00000	5.00	0(H)
	72 1,3-Dichlorobenzene	146	11.046	11.046	(0.995)	36062	5.00000	5.92	
*	73 1,4-DICHLOROBENZENE-D4	152	11.098	11.098	(1.000)	162199	50.0000		0
	74 1,4-Dichlorobenzene	146	11.116	11.116	(1.002)	47459	5.00000	6.95	
	75 n-Butylbenzene	91	11.374	11.374	(1.025)	54223	5.00000	4.96	0(a)
M	76 TOTAL XYLENE	106				106178	10.0000	16.5	0
	77 1,2-Dichlorobenzene	146	11.480	11.480	(1.034)	33820	5.00000	6.08	
	78 1,2-Dibromo-3-Chloropropane	157	12.223	12.223	(1.101)	2074	5.00000	3.89	0(aM)
	79 1,2,4-Trichlorobenzene	180	13.095	13.095	(1.180)	17945	5.00000	6.08	
	80 Hexachlorobutadiene	225	13.248	13.248	(1.194)	8324	5.00000	4.93	0(a)
	81 Napthalene	128	13.400	13.400	(1.207)	52740	5.00000	6.95	0
	82 1,2,3-Trichlorobenzene	180	13.669	13.669	(1.232)	16420	5.00000	6.23	
	97 Cyclohexane	56	6.432	6.432	(0.934)	35193	5.00000	4.12	0(aM)
	98 Methyl Acetate	43	4.605	4.605	(0.669)	17507	5.00000	5.31	0(M)
	127 Methyl cyclohexane	83	7.347	7.347	(1.067)	29345	5.00000	4.26	0(aM)

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.

0001107

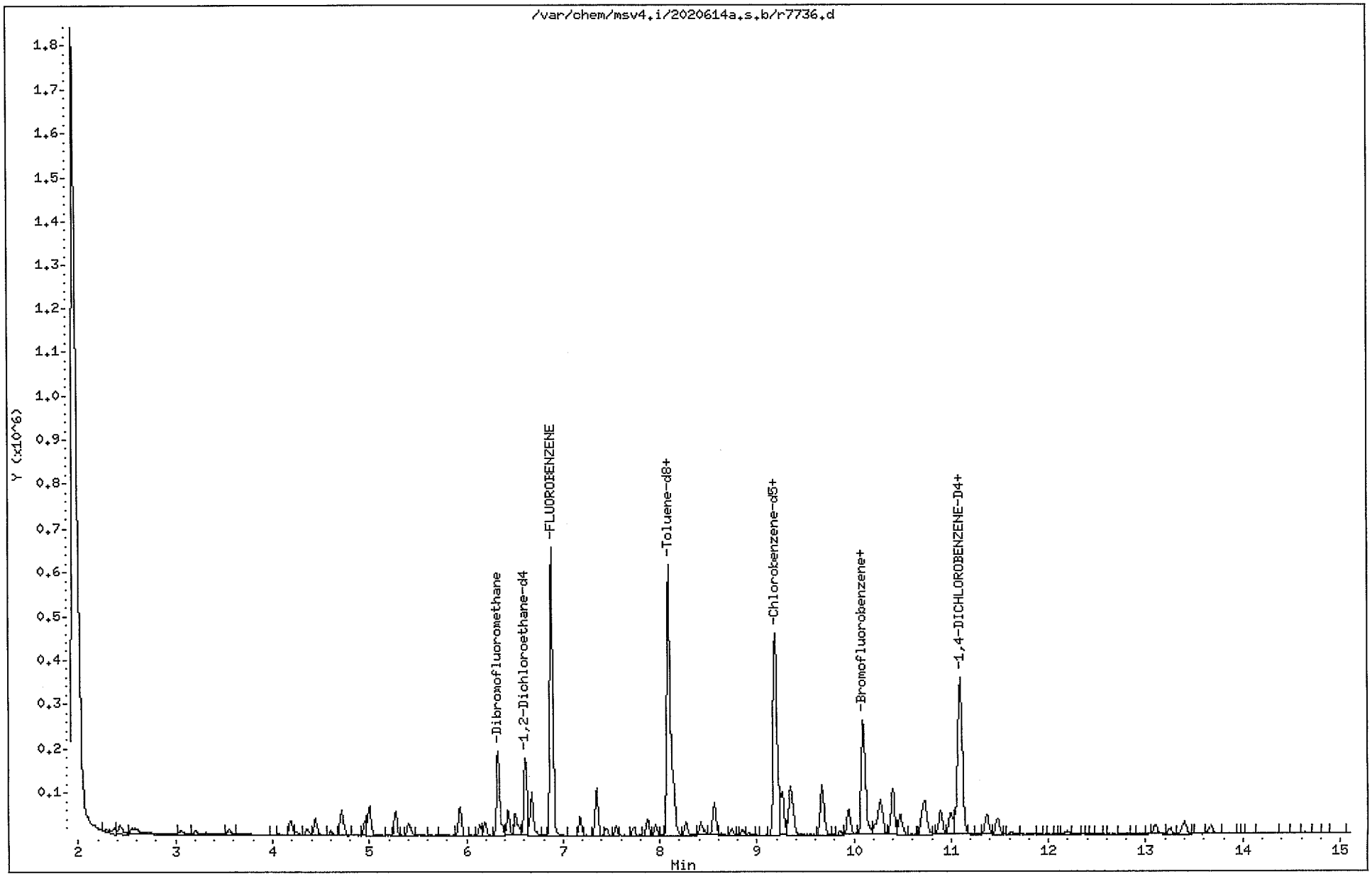
Data File: /var/chem/msv4.i/2020614a.s.b/r7736.d
Date : 14-JUN-2002 16:25
Client ID: V4STD005
Sample Info: V4STD005*4-13-6

Instrument: msv4.i

Operator: RSP

Column phase: DB-624-30M

Column diameter: 0.53



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv4.i/2020614a.s.b/r7731.d
Lab Smp Id: V4STD020 Client Smp ID: V4STD020
Inj Date : 14-JUN-2002 14:10
Operator : RSP Inst ID: msv4.i
Smp Info : V4STD020*4-13-6
Misc Info : MSV~STD~*1*RJO
Comment :
Method : /var/chem/msv4.i/2020614a.s.b/8260Bs4.m
Meth Date : 24-Jun-2002 15:09 dlb Quant Type: ISTD
Cal Date : 14-JUN-2002 14:10 Cal File: r7731.d
Als bottle: 14 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/Ws)/((100-M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
M	0.00000	% Moisture (not decanted)
Va	100.00000	Volume of aliquot extract added (uL)
Ws	5.00000	Weight of sample extracted (g)

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	2.193	2.193	(0.318)	37111	20.0000	19.6	0
2 Chloromethane ++	50	2.427	2.427	(0.352)	92517	20.0000	19.4	0
3 Vinyl Chloride +	62	2.585	2.585	(0.375)	81776	20.0000	19.5	0
4 Bromomethane	94	3.059	3.059	(0.444)	42515	20.0000	20.3	0
5 Chloroethane	64	3.200	3.200	(0.465)	49965	20.0000	19.9	0
6 Trichlorofluoromethane	101	3.551	3.551	(0.516)	61023	20.0000	19.4	0
7 Acrolein	56	5.268	5.268	(0.765)	71337	100.000	95.9	0
8 1,1-Dichloroethene +	96	4.184	4.184	(0.608)	48917	20.0000	19.3	0
9 1,1,2Trichlotrifluoroethane	101	4.190	4.190	(0.608)	47522	20.0000	19.3	0
10 Acetone	43	4.248	4.248	(0.617)	30122	20.0000	20.8	0
11 Methyl Iodide	142	4.359	4.359	(0.633)	82653	20.0000	19.9	0
12 Carbon Disulfide	76	4.442	4.442	(0.645)	244635	20.0000	19.2	0 (M)
13 Methylene Chloride	49	4.711	4.711	(0.684)	123830	20.0000	18.2	0

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	14 Acrylonitrile	53	4.951	4.951	(0.719)	143772	100.000	97.1	0
	15 trans-1,2-Dichloroethene	61	4.998	4.998	(0.726)	109995	20.0000	19.4	0
	16 MTBE	73	4.998	4.998	(0.726)	175115	20.0000	19.7	0
	17 Hexane	57	5.268	5.268	(0.765)	135546	20.0000	19.3	0 (M)
	18 1,1-Dichloroethane ++	63	5.403	5.403	(0.785)	142868	20.0000	19.7	0
	19 Vinyl Acetate	43	5.268	5.268	(0.765)	96737	20.0000	19.4	
	20 2,2-Dichloropropane	77	5.936	5.936	(0.862)	87588	20.0000	19.7	0
	21 cis-1,2-Dichloroethene	61	5.930	5.930	(0.861)	127679	20.0000	19.6	0
	22 2-Butanone	43	5.924	5.924	(0.860)	46610	20.0000	19.0	
	23 Bromochloromethane	128	6.141	6.141	(0.892)	33693	20.0000	19.7	0
	24 Chloroform +	83	6.194	6.194	(0.899)	114874	20.0000	19.7	0
$	25 Dibromofluoromethane	111	6.328	6.328	(0.919)	154597	50.0000	50.0	0
	26 1,1,1-Trichloroethane	97	6.375	6.375	(0.926)	81296	20.0000	19.7	0
	27 1,1-Dichloropropene	75	6.499	6.499	(0.944)	102213	20.0000	19.6	0
	28 Carbon Tetrachloride	117	6.516	6.516	(0.946)	65924	20.0000	19.3	0
M	29 Total 1,2-Dichloroethene	61				237674	40.0000	39.0	0
$	30 1,2-Dichloroethane-d4	67	6.610	6.610	(0.960)	78706	50.0000	49.8	0
	31 Benzene	78	6.675	6.675	(0.969)	341649	20.0000	19.6	0
	32 1,2-Dichloroethane	62	6.675	6.675	(0.969)	72853	20.0000	20.2	0
*	33 FLUOROBENZENE	96	6.886	6.886	(1.000)	745947	50.0000		0
	34 Trichloroethene	130	7.179	7.179	(1.043)	78619	20.0000	19.6	0
	35 1,2-Dichloropropane +	63	7.349	7.349	(1.067)	92784	20.0000	19.6	0
	36 Dibromomethane	93	7.449	7.449	(1.082)	36032	20.0000	19.5	0
	37 Bromodichloromethane	83	7.549	7.549	(1.096)	83791	20.0000	19.6	0
	38 2-Chloroethyl vinyl ether	63	7.730	7.730	(1.123)	49140	20.0000	19.1	0
	39 cis-1,3-Dichloropropene	75	7.871	7.871	(1.143)	121372	20.0000	19.6	
	40 4-methyl-2-pentanone	43	7.953	7.953	(1.155)	91470	20.0000	19.0	(M)
$	41 Toluene-d8	98	8.094	8.094	(0.882)	643680	50.0000	51.1	0
	42 Toluene +	91	8.147	8.147	(0.888)	326011	20.0000	19.9	0
	43 trans-1,3-Dichloropropene	75	8.270	8.270	(0.901)	96300	20.0000	19.8	
	44 1,1,2-Trichloroethane	97	8.417	8.417	(0.917)	57649	20.0000	19.9	0
	45 1,3-Dichloropropane	76	8.546	8.546	(0.931)	110812	20.0000	19.9	0
	46 Tetrachloroethene	164	8.563	8.563	(0.933)	54868	20.0000	19.9	0
	47 2-Hexanone	43	8.557	8.557	(0.932)	74200	20.0000	20.6	0
	48 Dibromochloromethane	129	8.739	8.739	(0.952)	52689	20.0000	19.2	0
	49 1,2-Dibromoethane(EDB)	107	8.851	8.851	(0.964)	52725	20.0000	19.7	0
*	50 Chlorobenzene-d5	82	9.179	9.179	(1.000)	247746	50.0000		0
	51 Chlorobenzene ++	112	9.208	9.208	(1.003)	208286	20.0000	19.7	0
	52 1,1,1,2-Tetrachloroethane	133	9.250	9.250	(1.008)	56886	20.0000	19.8	0
	53 Ethylbenzene +	106	9.261	9.261	(1.009)	117889	20.0000	20.0	0
	54 p,m-Xylene	106	9.344	9.344	(1.018)	293966	40.0000	39.6	0
	55 o-Xylene	106	9.666	9.666	(1.053)	138317	20.0000	20.3	
	56 Styrene	104	9.666	9.666	(1.053)	223242	20.0000	19.7	0
	57 Bromoform ++	173	9.860	9.860	(1.074)	28576	20.0000	18.3	0
	58 Isopropylbenzene	105	9.942	9.942	(1.083)	330427	20.0000	19.9	0
$	59 Bromofluorobenzene	174	10.094	10.094	(1.100)	147469	50.0000	52.0	0
	60 1,1,2,2-Tetrachloroethane++	83	10.147	10.147	(0.915)	79891	20.0000	18.6	0

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	61 trans-1,4-Dichloro-2-Butene	53	10.189	10.189	(0.919)	17096	20.0000	18.6	0
	62 1,2,3-Trichloropropane	75	10.218	10.218	(0.922)	92186	20.0000	18.4	0
	63 Bromobenzene	77	10.253	10.253	(0.925)	171890	20.0000	19.0	0
	64 n-Propylbenzene	91	10.277	10.277	(0.927)	390401	20.0000	19.4	0
	65 2-Chlorotoluene	91	10.394	10.394	(0.937)	236408	20.0000	18.5	0
	66 1,3,5-Trimethylbenzene	105	10.394	10.394	(0.937)	258182	20.0000	19.6	
	67 4-Chlorotoluene	91	10.471	10.471	(0.944)	230255	20.0000	19.4	0
	68 tert-butylbenzene	91	10.706	10.706	(0.966)	155212	20.0000	19.5	0
	69 1,2,4-Trimethylbenzene	105	10.735	10.735	(0.968)	255349	20.0000	19.8	
	70 sec-Butylbenzene	105	10.888	10.888	(0.982)	358426	20.0000	19.7	
	71 p-Isopropyltoluene	119	10.993	10.993	(0.991)	268193	20.0000	19.9	0(H)
	72 1,3-Dichlorobenzene	146	11.041	11.041	(0.996)	122622	20.0000	18.5	
*	73 1,4-DICHLOROBENZENE-D4	152	11.088	11.088	(1.000)	176231	50.0000		0
	74 1,4-Dichlorobenzene	146	11.111	11.111	(1.002)	146935	20.0000	19.8	
	75 n-Butylbenzene	91	11.370	11.370	(1.025)	233987	20.0000	19.7	0
M	76 TOTAL XYLENE	106				432283	60.0000	59.9	0
	77 1,2-Dichlorobenzene	146	11.469	11.469	(1.034)	114958	20.0000	19.0	
	78 1,2-Dibromo-3-Chloropropane	157	12.201	12.201	(1.100)	11016	20.0000	19.0	0
	79 1,2,4-Trichlorobenzene	180	13.091	13.091	(1.181)	60071	20.0000	18.7	
	80 Hexachlorobutadiene	225	13.250	13.250	(1.195)	35894	20.0000	19.5	0
	81 Napthalene	128	13.396	13.396	(1.208)	149538	20.0000	18.1	0
	82 1,2,3-Trichlorobenzene	180	13.666	13.666	(1.233)	54287	20.0000	18.9	
	97 Cyclohexane	56	6.434	6.434	(0.934)	180691	20.0000	19.9	0(M)
	98 Methyl Acetate	43	4.606	4.606	(0.669)	68104	20.0000	19.5	0(M)
	127 Methyl cyclohexane	83	7.343	7.343	(1.066)	145209	20.0000	19.9	0(M)

QC Flag Legend

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

000111

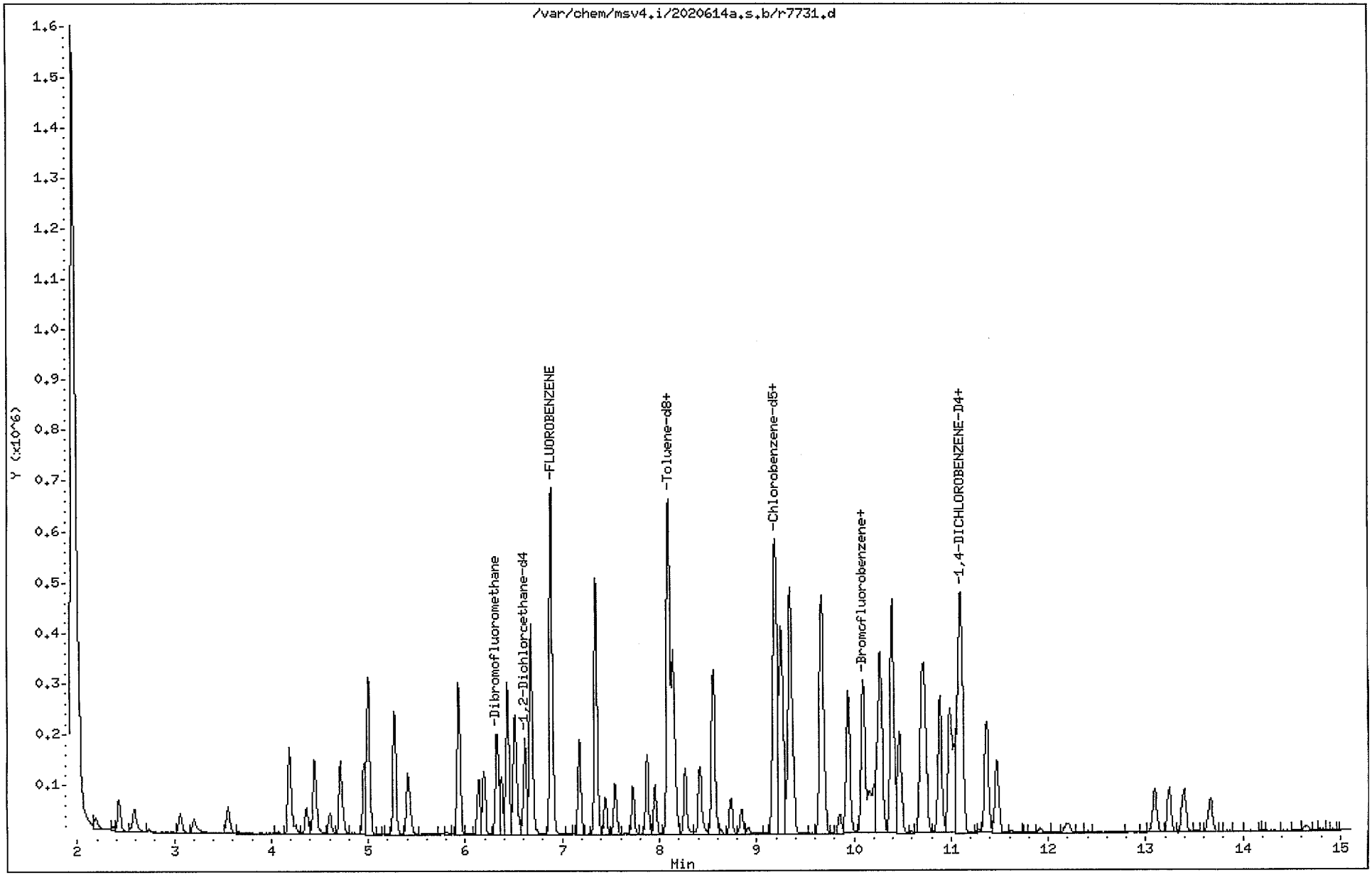
Data File: /var/chem/msv4.i/2020614a.s.b/r7731.d
Date : 14-JUN-2002 14:10
Client ID: V4STD020
Sample Info: V4STD020*4-13-6

Instrument: msv4.i

Operator: RSP

Column phase: DB-624-30M

Column diameter: 0.53



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Data file : /var/chem/msv4.i/2020614a.s.b/r7732.d
Lab Smp Id: V4STD050 Client Smp ID: V4STD050
Inj Date : 14-JUN-2002 14:37
Operator : RSP Inst ID: msv4.i
Smp Info : V4STD050*4-13-6
Misc Info : MSV~STD~*1*RJO
Comment :
Method : /var/chem/msv4.i/2020624.s.b/8260Bw4.m
Meth Date : 24-Jun-2002 15:09 dlb Quant Type: ISTD
Cal Date : 24-JUN-2002 12:07 Cal File: r7913.d
Als bottle: 15 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/(Ws*(100-M)/100))/5000 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Ws	5.00000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.00000	Volume of aliquot extract added (uL)
m	0.00000	

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	2.187	2.187	(0.318)	93443	50.0000	41.2	
2 Chloromethane ++	50	2.427	2.427	(0.353)	221519	50.0000	40.9	
3 Vinyl Chloride +	62	2.585	2.585	(0.376)	198300	50.0000	44.7	
4 Bromomethane	94	3.060	3.060	(0.445)	97732	50.0000	41.4	
5 Chloroethane	64	3.200	3.200	(0.465)	125483	50.0000	45.7	
6 Trichlorofluoromethane	101	3.546	3.546	(0.515)	151023	50.0000	46.7	
7 Acrolein	56	5.269	5.269	(0.766)	178118	250.000	810	(A)
8 1,1-Dichloroethene +	96	4.184	4.184	(0.608)	122572	50.0000	49.9	
9 1,1,2Trichlotrifluoroethane	101	4.190	4.190	(0.609)	117070	50.0000	54.2	
10 Acetone	43	4.243	4.243	(0.617)	59245	50.0000	40.9	
11 Methyl Iodide	142	4.360	4.360	(0.634)	208265	50.0000	48.6	
12 Carbon Disulfide	76	4.442	4.442	(0.645)	617511	50.0000	59.1	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	13 Methylene Chloride	49	4.712	4.712	(0.685)	276625	50.0000	50.4	
	14 Acrylonitrile	53	4.952	4.952	(0.720)	371317	250.000	182	
	15 trans-1,2-Dichloroethene	61	4.999	4.999	(0.726)	272543	50.0000	51.5	
	16 Methyl Acetate	43	4.600	4.600	(0.668)	167705	50.0000	65.3	0 (M)
	17 MTBE	73	4.999	4.999	(0.726)	431508	50.0000	39.2	0
	18 1,1-Dichloroethane ++	63	5.404	5.404	(0.785)	347634	50.0000	46.1	
	19 Vinyl Acetate	43	5.269	5.269	(0.766)	243205	50.0000	43.2	
	21 2,2-Dichloropropane	77	5.931	5.931	(0.862)	216096	50.0000	46.3	
	20 cis-1,2-Dichloroethene	61	5.931	5.931	(0.862)	310804	50.0000	46.4	
	22 2-Butanone	43	5.925	5.925	(0.861)	114964	50.0000	39.1	
	23 Bromochloromethane	128	6.136	6.136	(0.892)	83124	50.0000	40.3	
	24 Chloroform +	83	6.189	6.189	(0.899)	278833	50.0000	45.2	
$	25 Dibromofluoromethane	111	6.324	6.324	(0.919)	151267	50.0000	45.9	0
	26 1,1,1-Trichloroethane	97	6.371	6.371	(0.926)	200393	50.0000	45.9	
	28 Carbon Tetrachloride	117	6.518	6.518	(0.947)	165114	50.0000	48.1	
	27 1,1-Dichloropropene	75	6.500	6.500	(0.945)	250255	50.0000	50.4	
$	29 1,2-Dichloroethane-d4	67	6.612	6.612	(0.961)	78164	50.0000	38.9	
	31 Benzene	78	6.677	6.677	(0.970)	828625	50.0000	46.7	
	30 1,2-Dichloroethane	62	6.677	6.677	(0.970)	170886	50.0000	36.5	
*	33 FLUOROBENZENE	96	6.882	6.882	(1.000)	726918	50.0000		
M	32 Total 1,2-Dichloroethene	61				583347	100.000	97.9	
	34 Trichloroethene	130	7.175	7.175	(1.043)	190942	50.0000	39.5	
	35 Methyl Cyclohexane	83	7.345	7.345	(1.067)	353496	50.0000	56.0	0 (M)
	36 1,2-Dichloropropane +	63	7.345	7.345	(1.067)	222636	50.0000	42.4	
	37 Dibromomethane	93	7.445	7.445	(1.082)	89187	50.0000	37.3	
	38 Bromodichloromethane	83	7.545	7.545	(1.096)	202653	50.0000	41.1	
	39 2-Chloroethyl vinyl ether	63	7.727	7.727	(1.123)	128221	50.0000	35.5	
	40 cis-1,3-Dichloropropene	75	7.873	7.873	(1.144)	296278	50.0000	43.1	
	41 4-methyl-2-pentanone	43	7.955	7.955	(1.156)	235933	50.0000	37.2	(M)
$	42 Toluene-d8	98	8.090	8.090	(0.881)	624085	50.0000	54.7	
	43 Toluene +	91	8.143	8.143	(0.886)	778728	50.0000	45.5	
	44 trans-1,3-Dichloropropene	75	8.267	8.267	(0.900)	236548	50.0000	35.5	
	45 1,1,2-Trichloroethane	97	8.419	8.419	(0.916)	142348	50.0000	36.0	
	47 Tetrachloroethene	164	8.566	8.566	(0.932)	133812	50.0000	50.8	
	46 1,3-Dichloropropane	76	8.549	8.549	(0.930)	266469	50.0000	35.3	
	48 2-Hexanone	43	8.554	8.554	(0.931)	172139	50.0000	45.4	
	49 Dibromochloromethane	129	8.736	8.736	(0.951)	132841	50.0000	42.5	
	50 1,2-Dibromoethane(EDB)	107	8.848	8.848	(0.963)	127328	50.0000	38.3	
*	51 CHLOROBENZENE-d5	82	9.188	9.188	(1.000)	240877	50.0000		
	52 Chlorobenzene ++	112	9.211	9.211	(1.003)	498520	50.0000	49.2	
	53 1,1,1,2-Tetrachloroethane	133	9.247	9.247	(1.006)	140590	50.0000	45.3	
	54 Ethylbenzene +	106	9.265	9.265	(1.008)	275926	50.0000	50.3	
	55 p,m-Xylene	106	9.347	9.347	(1.017)	716928	100.000	105	
	56 o-Xylene	106	9.670	9.670	(1.052)	330078	50.0000	47.3	
	57 Styrene	104	9.670	9.670	(1.052)	534638	50.0000	46.3	
	58 Bromoform ++	173	9.857	9.857	(1.073)	77327	50.0000	38.5	
	59 Isopropylbenzene	105	9.940	9.940	(1.082)	805467	50.0000	61.0	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
$	60 Bromofluorobenzene	174	10.098	10.098	(1.099)	139960	50.0000	51.1	
	61 1,1,2,2-Tetrachloroethane++	83	10.151	10.151	(0.915)	203320	50.0000	42.3	
	64 Bromobenzene	77	10.257	10.257	(0.925)	419601	50.0000	46.3	
	63 1,2,3-Trichloropropane	75	10.210	10.210	(0.920)	239578	50.0000	40.2	
	62 trans-1,4-Dichloro-2-Butene	53	10.193	10.193	(0.919)	43902	50.0000	37.5	
	65 n-Propylbenzene	91	10.275	10.275	(0.926)	952216	50.0000	57.3	
	66 2-Chlorotoluene	91	10.393	10.393	(0.937)	575456	50.0000	51.2	
	67 1,3,5-Trimethylbenzene	105	10.399	10.399	(0.937)	625867	50.0000	54.3	
	68 4-Chlorotoluene	91	10.470	10.470	(0.944)	541235	50.0000	52.3	
M	78 TOTAL XYLENE	106				1047006	150.000	153	
	69 tert-butylbenzene	91	10.698	10.698	(0.964)	377605	50.0000	53.8	
	72 p-Isopropyltoluene	119	10.993	10.993	(0.991)	649444	50.0000	56.6	(H)
	70 1,2,4-Trimethylbenzene	105	10.734	10.734	(0.968)	599595	50.0000	50.7	
	71 sec-Butylbenzene	105	10.887	10.887	(0.981)	865410	50.0000	67.2	
	73 1,3-Dichlorobenzene	146	11.040	11.040	(0.995)	302865	50.0000	47.8	
*	74 1,4-DICHLOROBENZENE-D4	152	11.093	11.093	(1.000)	172779	50.0000		
	75 1,4-Dichlorobenzene	146	11.111	11.111	(1.002)	325418	50.0000	50.9	
	77 n-Butylbenzene	91	11.363	11.363	(1.024)	563213	50.0000	57.5	
	76 1,2-Dichlorobenzene	146	11.475	11.475	(1.034)	280293	50.0000	42.2	
	79 1,2-Dibromo-3-Chloropropane	157	12.207	12.207	(1.100)	31167	50.0000	42.3	
	80 1,2,4-Trichlorobenzene	180	13.097	13.097	(1.181)	152193	50.0000	47.2	
	81 Hexachlorobutadiene	225	13.244	13.244	(1.194)	91671	50.0000	66.9	
	83 1,2,3-Trichlorobenzene	180	13.666	13.666	(1.232)	135762	50.0000	41.7	
	95 Cyclohexane	56	6.436	6.436	(0.935)	428859	50.0000	50.7	0(M)

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.

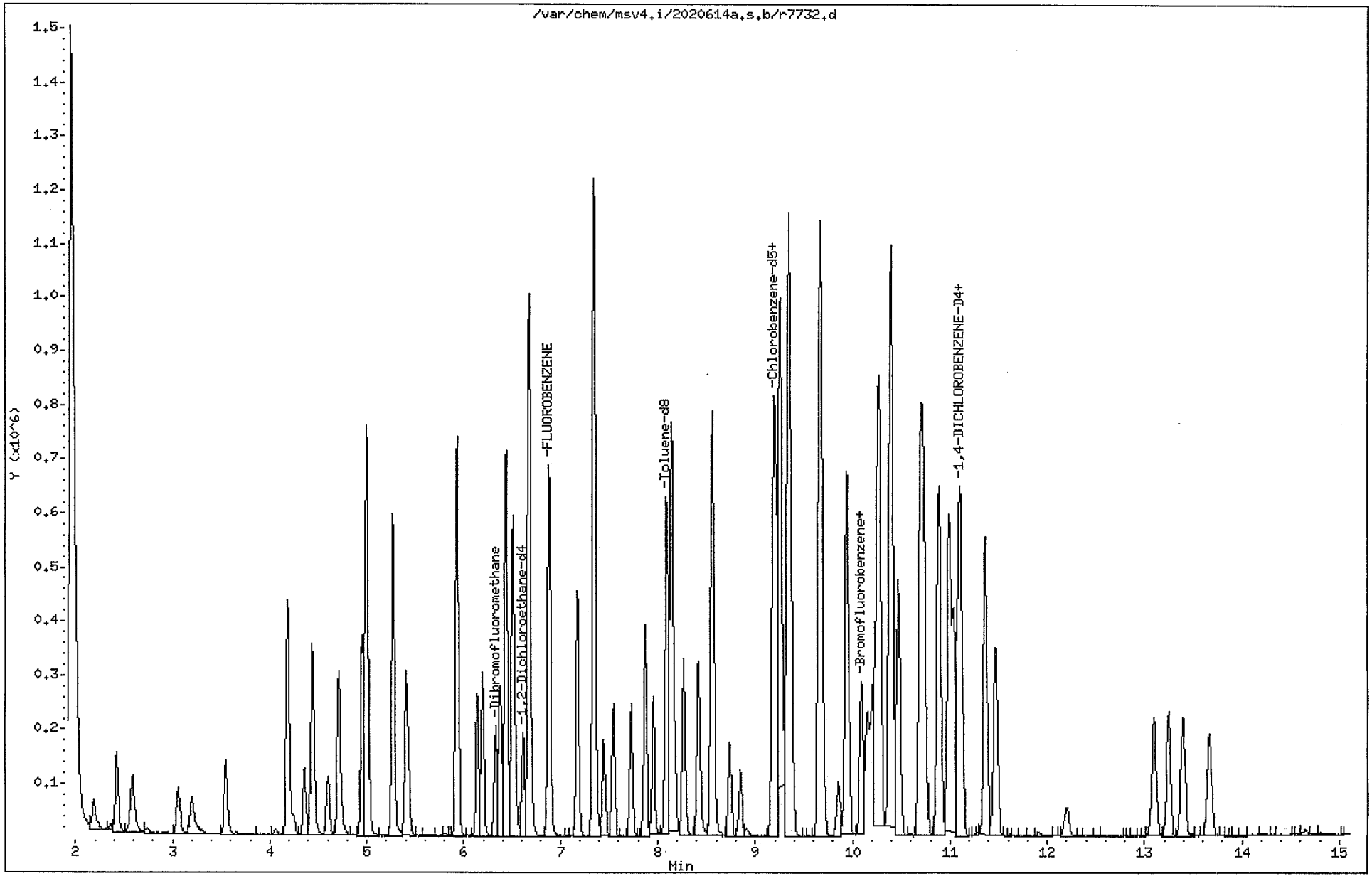
000115

Data File: /var/chem/msv4.i/2020614a.s.b/r7732.d
Date : 14-JUN-2002 14:37
Client ID: V4STD050
Sample Info: V4STD050*4-13-6

Instrument: msv4.i

Operator: RSP
Column diameter: 0.53

Column phase: DB-624-30M



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv4.i/2020614a.s.b/r7733.d
Lab Smp Id: V4STD100 Client Smp ID: V4STD100
Inj Date : 14-JUN-2002 15:04
Operator : RSP Inst ID: msv4.i
Smp Info : V4STD100*4-13-6
Misc Info : MSV~STD~*1*RJO
Comment :
Method : /var/chem/msv4.i/2020614a.s.b/8260Bs4.m
Meth Date : 24-Jun-2002 15:09 dlb Quant Type: ISTD
Cal Date : 14-JUN-2002 15:04 Cal File: r7733.d
Als bottle: 16 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/Ws)/((100-M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
M	0.00000	% Moisture (not decanted)
Va	100.00000	Volume of aliquot extract added (uL)
Ws	5.00000	Weight of sample extracted (g)

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	2.193	2.193	(1.000)	206453	100.000	109	0
2 Chloromethane ++	50	2.427	2.427	(1.000)	491012	100.000	103	0
3 Vinyl Chloride +	62	2.585	2.585	(1.000)	445108	100.000	106	0
4 Bromomethane	94	3.054	3.054	(1.000)	201286	100.000	96.0	0
5 Chloroethane	64	3.200	3.200	(1.000)	272761	100.000	109	0
6 Trichlorofluoromethane	101	3.552	3.552	(1.000)	335126	100.000	107	0
7 Acrolein	56	5.270	5.270	(1.000)	385652	500.000	519	0(A)
8 1,1-Dichloroethene +	96	4.185	4.185	(1.000)	266082	100.000	105	0
9 1,1,2Trichlotrifluoroethane	101	4.191	4.191	(1.000)	259018	100.000	105	0
10 Acetone	43	4.244	4.244	(1.000)	105938	100.000	73.3	0
11 Methyl Iodide	142	4.361	4.361	(1.000)	422090	100.000	102	0
12 Carbon Disulfide	76	4.443	4.443	(1.000)	1315144	100.000	103	0
13 Methylene Chloride	49	4.713	4.713	(1.000)	570687	100.000	83.9	0

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	14 Acrylonitrile	53	4.953	4.953	(1.000)	749401	500.000	507	0 (A)
	15 trans-1,2-Dichloroethene	61	5.000	5.000	(1.000)	588640	100.000	104	0
	16 MTBE	73	5.000	5.000	(1.000)	908929	100.000	102	0
	17 Hexane	57	5.270	5.270	(0.766)	732649	100.000	104	0 (M)
	18 1,1-Dichloroethane ++	63	5.405	5.405	(1.000)	751501	100.000	104	0
	19 Vinyl Acetate	43	5.270	5.270	(1.000)	516163	100.000	103	
	20 2,2-Dichloropropane	77	5.938	5.938	(1.000)	470807	100.000	106	0
	21 cis-1,2-Dichloroethene	61	5.926	5.926	(1.000)	670923	100.000	103	0
	22 2-Butanone	43	5.921	5.921	(1.000)	227349	100.000	92.6	
	23 Bromochloromethane	128	6.138	6.138	(1.000)	175223	100.000	103	0
	24 Chloroform +	83	6.191	6.191	(1.000)	593561	100.000	102	0
$	25 Dibromofluoromethane	111	6.325	6.325	(1.000)	156019	50.0000	50.5	0
	26 1,1,1-Trichloroethane	97	6.373	6.373	(1.000)	436712	100.000	106	0
	27 1,1-Dichloropropene	75	6.502	6.502	(1.000)	542672	100.000	104	0
	28 Carbon Tetrachloride	117	6.520	6.520	(1.000)	363914	100.000	107	0
M	29 Total 1,2-Dichloroethene	61				1259563	200.000	207	0 (A)
$	30 1,2-Dichloroethane-d4	67	6.614	6.614	(1.000)	79180	50.0000	50.1	0
	31 Benzene	78	6.679	6.679	(1.000)	1784928	100.000	103	0
	32 1,2-Dichloroethane	62	6.673	6.673	(1.000)	363276	100.000	101	0
*	33 FLUOROBENZENE	96	6.884	6.884	(1.000)	744862	50.0000		0 (M)
	34 Trichloroethene	130	7.177	7.177	(1.000)	405181	100.000	101	0
	35 1,2-Dichloropropane +	63	7.347	7.347	(1.000)	482317	100.000	102	0
	36 Dibromomethane	93	7.448	7.448	(1.000)	187660	100.000	102	0
	37 Bromodichloromethane	83	7.547	7.547	(1.000)	437022	100.000	102	0
	38 2-Chloroethyl vinyl ether	63	7.729	7.729	(1.000)	268303	100.000	104	0
	39 cis-1,3-Dichloropropene	75	7.876	7.876	(1.000)	635801	100.000	103	
	40 4-methyl-2-pentanone	43	7.952	7.952	(1.155)	462544	100.000	96.2	(M)
$	41 Toluene-d8	98	8.093	8.093	(0.881)	638174	50.0000	48.9	0
	42 Toluene +	91	8.140	8.140	(0.886)	1668390	100.000	98.2	0
	43 trans-1,3-Dichloropropene	75	8.270	8.270	(0.900)	504336	100.000	100	
	44 1,1,2-Trichloroethane	97	8.416	8.416	(0.916)	290996	100.000	96.7	0
	45 1,3-Dichloropropane	76	8.552	8.552	(0.931)	562793	100.000	97.5	0
	46 Tetrachloroethene	164	8.563	8.563	(0.932)	290209	100.000	102	0
	47 2-Hexanone	43	8.557	8.557	(0.932)	331919	100.000	88.9	0
	48 Dibromochloromethane	129	8.740	8.740	(0.951)	283134	100.000	99.7	0
	49 1,2-Dibromoethane(EDB)	107	8.845	8.845	(0.963)	270461	100.000	97.6	0
*	50 Chlorobenzene-d5	82	9.185	9.185	(1.000)	256709	50.0000		0
	51 Chlorobenzene ++	112	9.209	9.209	(1.003)	1048819	100.000	95.6	0
	52 1,1,1,2-Tetrachloroethane	133	9.244	9.244	(1.006)	300150	100.000	101	0
	53 Ethylbenzene +	106	9.262	9.262	(1.008)	626992	100.000	103	0
	54 p,m-Xylene	106	9.345	9.345	(1.017)	1475951	200.000	192	0
	55 o-Xylene	106	9.668	9.668	(1.053)	690086	100.000	97.6	
	56 Styrene	104	9.673	9.673	(1.053)	1131175	100.000	96.2	0
	57 Bromoform ++	173	9.855	9.855	(1.073)	161220	100.000	99.9	0
	58 Isopropylbenzene	105	9.944	9.944	(1.083)	1719855	100.000	99.9	0
$	59 Bromofluorobenzene	174	10.097	10.097	(1.099)	141459	50.0000	48.1	0
	60 1,1,2,2-Tetrachloroethane++	83	10.155	10.155	(0.916)	411283	100.000	101	0

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	61 trans-1,4-Dichloro-2-Butene	53	10.191	10.191	(0.919)	89984	100.000	103	0
	62 1,2,3-Trichloropropane	75	10.214	10.214	(0.921)	479098	100.000	101	0
	63 Bromobenzene	77	10.250	10.250	(0.924)	868677	100.000	101	0
	64 n-Propylbenzene	91	10.279	10.279	(0.927)	1995599	100.000	105	0
	65 2-Chlorotoluene	91	10.392	10.392	(0.937)	1278483	100.000	105	0
	66 1,3,5-Trimethylbenzene	105	10.397	10.397	(0.937)	1302367	100.000	104	
	67 4-Chlorotoluene	91	10.474	10.474	(0.944)	1166466	100.000	104	0
	68 tert-butylbenzene	91	10.697	10.697	(0.964)	791394	100.000	105	0
	69 1,2,4-Trimethylbenzene	105	10.733	10.733	(0.968)	1232777	100.000	101	
	70 sec-Butylbenzene	105	10.886	10.886	(0.981)	1835743	100.000	106	
	71 p-Isopropyltoluene	119	10.992	10.992	(0.991)	1304873	100.000	102	0 (M)
	72 1,3-Dichlorobenzene	146	11.039	11.039	(0.995)	583547	100.000	93.0	
*	73 1,4-DICHLOROBENZENE-D4	152	11.093	11.093	(1.000)	167123	50.0000		0
	74 1,4-Dichlorobenzene	146	11.110	11.110	(1.002)	665293	100.000	94.5	
	75 n-Butylbenzene	91	11.363	11.363	(1.024)	1156512	100.000	103	0
M	76 TOTAL XYLENE	106				2166037	300.000	290	0
	77 1,2-Dichlorobenzene	146	11.475	11.475	(1.034)	550559	100.000	96.0	
	78 1,2-Dibromo-3-Chloropropane	157	12.207	12.207	(1.100)	58245	100.000	106	0
	79 1,2,4-Trichlorobenzene	180	13.097	13.097	(1.181)	278587	100.000	91.6	
	80 Hexachlorobutadiene	225	13.244	13.244	(1.194)	170412	100.000	97.9	0
	81 Napthalene	128	13.397	13.397	(1.208)	657613	100.000	84.1	0
	82 1,2,3-Trichlorobenzene	180	13.673	13.673	(1.233)	238860	100.000	87.9	
	97 Cyclohexane	56	6.431	6.431	(0.934)	960961	100.000	106	0 (M)
	98 Methyl Acetate	43	4.601	4.601	(0.668)	336764	100.000	96.5	0 (M)
	127 Methyl cyclohexane	83	7.347	7.347	(1.067)	768305	100.000	105	0 (M)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

000119

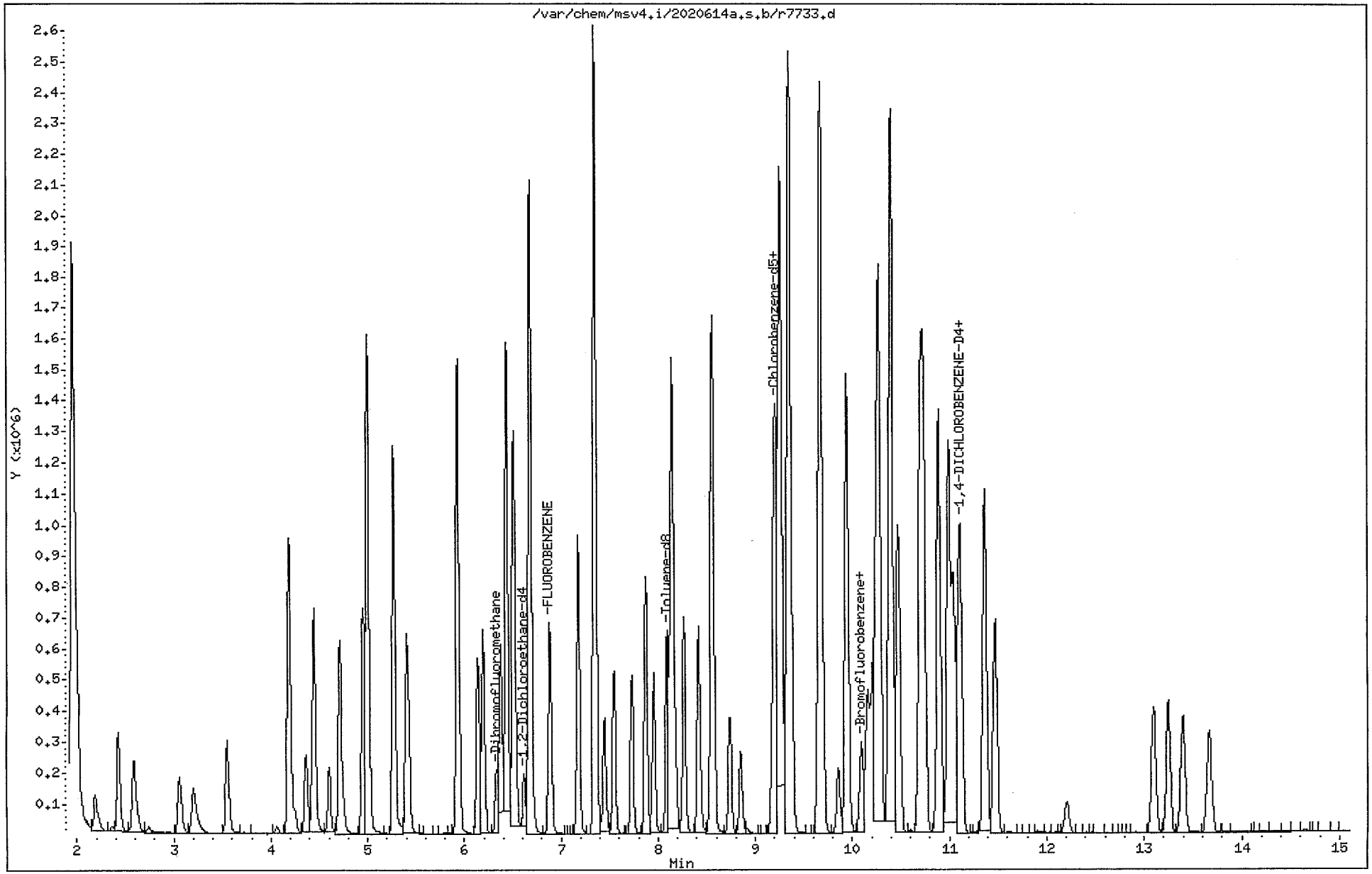
Data File: /var/chem/msv4.i/2020614a.s.b/r7733.d
Date : 14-JUN-2002 15:04
Client ID: V4STD100
Sample Info: V4STD100*4-13-6

Instrument: msv4.i

Operator: RSP

Column phase: DB-624-30M

Column diameter: 0.53



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv4.i/2020614a.s.b/r7734.d
Lab Smp Id: V4STD200 Client Smp ID: V4STD200
Inj Date : 14-JUN-2002 15:31
Operator : RSP Inst ID: msv4.i
Smp Info : V4STD200*4-13-6
Misc Info : MSV~STD~*1*RJO
Comment :
Method : /var/chem/msv4.i/2020614a.s.b/8260Bs4.m
Meth Date : 24-Jun-2002 15:10 dlb Quant Type: ISTD
Cal Date : 14-JUN-2002 15:31 Cal File: r7734.d
Als bottle: 17 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/Ws)/((100-M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
M	0.00000	% Moisture (not decanted)
Va	100.00000	Volume of aliquot extract added (uL)
Ws	5.00000	Weight of sample extracted (g)

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	2.193	2.193	(1.000)	455809	200.000	237	0 (A)
2 Chloromethane ++	50	2.427	2.427	(1.000)	1009451	200.000	209	0 (A)
3 Vinyl Chloride +	62	2.591	2.591	(1.000)	926402	200.000	218	0 (A)
4 Bromomethane	94	3.060	3.060	(1.000)	412917	200.000	194	0
5 Chloroethane	64	3.201	3.201	(1.000)	516577	200.000	204	0 (A)
6 Trichlorofluoromethane	101	3.552	3.552	(1.000)	738484	200.000	232	0 (A)
7 Acrolein	56	5.271	5.271	(1.000)	824191	1000.00	1090	0 (A)
8 1,1-Dichloroethene +	96	4.185	4.185	(1.000)	564764	200.000	220	0 (A)
9 1,1,2Trichlotrifluoroethane	101	4.191	4.191	(1.000)	575427	200.000	231	0 (A)
10 Acetone	43	4.250	4.250	(1.000)	216460	200.000	148	0
11 Methyl Iodide	142	4.362	4.362	(1.000)	856948	200.000	204	0 (A)
12 Carbon Disulfide	76	4.444	4.444	(1.000)	2724500	200.000	211	0 (A)
13 Methylene Chloride	49	4.714	4.714	(1.000)	1160174	200.000	168	0

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	14 Acrylonitrile	53	4.954	4.954	(1.000)	1569163	1000.00	1050	0 (A)
	15 trans-1,2-Dichloroethene	61	5.001	5.001	(1.000)	1199680	200.000	209	0 (A)
	16 MTBE	73	5.001	5.001	(1.000)	1880142	200.000	209	0 (A)
	17 Hexane	57	5.271	5.271	(0.765)	1565901	200.000	220	0 (AM)
	18 1,1-Dichloroethane ++	63	5.406	5.406	(1.000)	1527429	200.000	208	0 (A)
	19 Vinyl Acetate	43	5.271	5.271	(1.000)	1090504	200.000	215	(A)
	20 2,2-Dichloropropane	77	5.934	5.934	(1.000)	978915	200.000	217	0 (A)
	21 cis-1,2-Dichloroethene	61	5.928	5.928	(1.000)	1383456	200.000	210	0 (A)
	22 2-Butanone	43	5.928	5.928	(1.000)	488559	200.000	196	
	23 Bromochloromethane	128	6.139	6.139	(1.000)	361491	200.000	209	0 (A)
	24 Chloroform +	83	6.192	6.192	(1.000)	1229130	200.000	208	0 (A)
$	25 Dibromofluoromethane	111	6.327	6.327	(1.000)	156676	50.0000	50.0	0
	26 1,1,1-Trichloroethane	97	6.375	6.375	(1.000)	909466	200.000	217	0 (A)
	27 1,1-Dichloropropene	75	6.504	6.504	(1.000)	1131023	200.000	214	0 (A)
	28 Carbon Tetrachloride	117	6.522	6.522	(1.000)	781732	200.000	226	0 (A)
M	29 Total 1,2-Dichloroethene	61				2583136	400.000	418	0 (A)
$	30 1,2-Dichloroethane-d4	67	6.616	6.616	(1.000)	81270	50.0000	50.8	0
	31 Benzene	78	6.681	6.681	(1.000)	3665181	200.000	208	0 (A)
	32 1,2-Dichloroethane	62	6.675	6.675	(1.000)	757104	200.000	208	0 (A)
*	33 FLUOROBENZENE	96	6.887	6.887	(1.000)	755392	50.0000		0 (M)
	34 Trichloroethene	130	7.174	7.174	(1.000)	840936	200.000	207	0 (A)
	35 1,2-Dichloropropane +	63	7.350	7.350	(1.000)	980483	200.000	205	0 (A)
	36 Dibromomethane	93	7.445	7.445	(1.000)	391220	200.000	209	0 (A)
	37 Bromodichloromethane	83	7.544	7.544	(1.000)	913956	200.000	211	0 (A)
	38 2-Chloroethyl vinyl ether	63	7.732	7.732	(1.000)	561423	200.000	215	0 (A)
	39 cis-1,3-Dichloropropene	75	7.873	7.873	(1.000)	1333429	200.000	213	(A)
	40 4-methyl-2-pentanone	43	7.955	7.955	(1.155)	1002997	200.000	206	(AM)
$	41 Toluene-d8	98	8.090	8.090	(0.881)	649345	50.0000	47.3	0
	42 Toluene +	91	8.149	8.149	(0.887)	3419679	200.000	191	0
	43 trans-1,3-Dichloropropene	75	8.267	8.267	(0.900)	1062522	200.000	200	(A)
	44 1,1,2-Trichloroethane	97	8.420	8.420	(0.917)	618939	200.000	196	0
	45 1,3-Dichloropropane	76	8.549	8.549	(0.931)	1176098	200.000	194	0
	46 Tetrachloroethene	164	8.567	8.567	(0.933)	598067	200.000	199	0
	47 2-Hexanone	43	8.561	8.561	(0.932)	696569	200.000	177	0
	48 Dibromochloromethane	129	8.738	8.738	(0.951)	602814	200.000	202	0 (A)
	49 1,2-Dibromoethane(EDB)	107	8.849	8.849	(0.964)	573096	200.000	197	0
*	50 Chlorobenzene-d5	82	9.183	9.183	(1.000)	270073	50.0000		0
	51 Chlorobenzene ++	112	9.213	9.213	(1.003)	2155588	200.000	187	0
	52 1,1,1,2-Tetrachloroethane	133	9.249	9.249	(1.007)	623535	200.000	200	0
	53 Ethylbenzene +	106	9.266	9.266	(1.009)	1268665	200.000	197	0
	54 p,m-Xylene	106	9.349	9.349	(1.018)	3025839	400.000	374	0 (A)
	55 o-Xylene	106	9.666	9.666	(1.053)	1414056	200.000	190	
	56 Styrene	104	9.672	9.672	(1.053)	2352726	200.000	190	0
	57 Bromoform ++	173	9.854	9.854	(1.073)	346985	200.000	204	0 (A)
	58 Isopropylbenzene	105	9.943	9.943	(1.083)	3562565	200.000	197	0
$	59 Bromofluorobenzene	174	10.095	10.095	(1.099)	145853	50.0000	47.2	0
	60 1,1,2,2-Tetrachloroethane++	83	10.154	10.154	(0.915)	869474	200.000	196	0

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	61 trans-1,4-Dichloro-2-Butene	53	10.190	10.190	(0.919)	200174	200.000	211	0 (A)
	62 1,2,3-Trichloropropane	75	10.214	10.214	(0.921)	1039010	200.000	201	0 (A)
	63 Bromobenzene	77	10.255	10.255	(0.924)	1816473	200.000	195	0
	64 n-Propylbenzene	91	10.279	10.279	(0.927)	4151276	200.000	200	0 (A)
	65 2-Chlorotoluene	91	10.391	10.391	(0.937)	2595707	200.000	197	0
	66 1,3,5-Trimethylbenzene	105	10.397	10.397	(0.937)	2679547	200.000	197	
	67 4-Chlorotoluene	91	10.474	10.474	(0.944)	2340366	200.000	191	0
	68 tert-butylbenzene	91	10.703	10.703	(0.965)	1649352	200.000	201	0 (A)
	69 1,2,4-Trimethylbenzene	105	10.733	10.733	(0.968)	2588642	200.000	194	
	70 sec-Butylbenzene	105	10.886	10.886	(0.981)	3845017	200.000	205	(A)
	71 p-Isopropyltoluene	119	10.992	10.992	(0.991)	2772659	200.000	200	0 (M)
	72 1,3-Dichlorobenzene	146	11.045	11.045	(0.996)	1398763	200.000	205	(A)
*	73 1,4-DICHLOROBENZENE-D4	152	11.093	11.093	(1.000)	181872	50.0000		0
	74 1,4-Dichlorobenzene	146	11.117	11.117	(1.002)	1198238	200.000	156	
	75 n-Butylbenzene	91	11.363	11.363	(1.024)	2521337	200.000	206	0 (A)
M	76 TOTAL XYLENE	106				4439895	600.000	564	0
	77 1,2-Dichlorobenzene	146	11.475	11.475	(1.034)	1158688	200.000	186	
	78 1,2-Dibromo-3-Chloropropane	157	12.213	12.213	(1.101)	132520	200.000	222	0 (A)
	79 1,2,4-Trichlorobenzene	180	13.098	13.098	(1.181)	636494	200.000	192	
	80 Hexachlorobutadiene	225	13.245	13.245	(1.194)	394367	200.000	208	0 (A)
	81 Napthalene	128	13.398	13.398	(1.208)	1552090	200.000	182	0
	82 1,2,3-Trichlorobenzene	180	13.668	13.668	(1.232)	568832	200.000	192	
	97 Cyclohexane	56	6.434	6.434	(0.934)	2101103	200.000	229	0 (AM)
	98 Methyl Acetate	43	4.602	4.602	(0.668)	717343	200.000	203	0 (AM)
	127 Methyl cyclohexane	83	7.344	7.344	(1.066)	1640916	200.000	222	0 (AM)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

000123

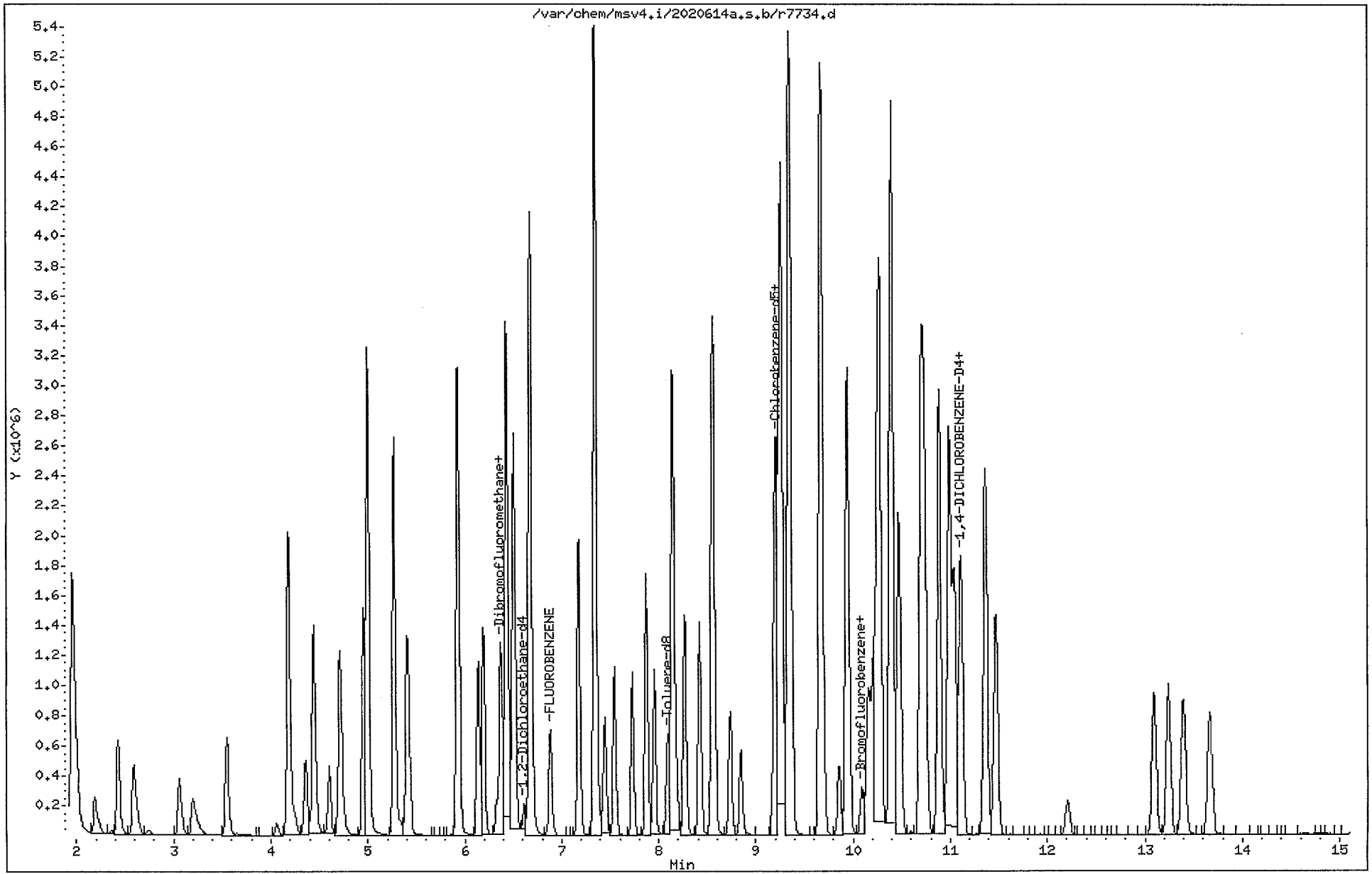
Data File: /var/chem/msv4.i/2020614a.s.b/r7734.d
Date : 14-JUN-2002 15:31
Client ID: V4STD200
Sample Info: V4STD200x4-13-6

Instrument: msv4.i

Operator: RSP

Column phase: DB-624-30M

Column diameter: 0.53



Data File: /var/chem/msv4.i/2020614a.s.b/r7737.d
Report Date: 25-Jun-2002 05:35

Gulf Coast Analytical Laboratories, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msv4.i
Lab File ID: r7737.d
Analysis Type: SOIL
Lab Sample ID: V2ICV050
Method: /var/chem/msv4.i/2020614a.s.b/8260Bs4.m

Injection Date: 14-JUN-2002 17:03
Init. Cal. Date(s): 14-JUN-2002 14-JUN-2002
Init. Cal. Times: 14:10 16:25
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
	1 Dichlorodifluoromethane	0.12706	0.13226	0.010	4.08840	50.00000	Averaged
	2 Chloromethane ++	0.32042	0.30994	0.100	-3.27080	50.00000	Averaged
	3 Vinyl Chloride +	0.28079	0.27897	0.010	-0.64810	20.00000	Averaged
	4 Bromomethane	0.14071	0.14355	0.010	2.01953	50.00000	Averaged
	5 Chloroethane	0.16795	0.17866	0.010	6.37555	50.00000	Averaged
	6 Trichlorofluoromethane	0.21030	0.21668	0.010	3.03243	50.00000	Averaged
	7 Acrolein	0.04985	0.04647	0.001	-6.78639	50.00000	Averaged
	8 1,1-Dichloroethene +	0.16990	0.17709	0.010	4.22802	20.00000	Averaged
	9 1,1,2Trichlotrifluoroethane	0.16491	0.16979	0.010	2.95637	50.00000	Averaged
	10 Acetone	0.09698	0.07332	0.010	-24.39453	50.00000	Averaged
	11 Methyl Iodide	0.27842	0.27474	0.010	-1.32015	50.00000	Averaged
	12 Carbon Disulfide	0.85481	0.87143	0.100	1.94519	50.00000	Averaged
	13 Methylene Chloride	0.45645	0.37361	0.100	-18.14893	50.00000	Averaged
	14 Acrylonitrile	0.09930	0.09693	0.010	-2.38224	50.00000	Averaged
	15 trans-1,2-Dichloroethene	0.38072	0.37561	0.100	-1.34282	50.00000	Averaged
	16 MTBE	0.59607	0.56595	0.100	-5.05354	50.00000	Averaged
	18 1,1-Dichloroethane ++	0.48651	0.49104	0.100	0.93186	50.00000	Averaged
	19 Vinyl Acetate	0.33504	0.32235	0.100	-3.78849	50.00000	Averaged
	20 2,2-Dichloropropane	0.29805	0.30827	0.100	3.43091	50.00000	Averaged
	21 cis-1,2-Dichloroethene	0.43653	0.42754	0.100	-2.05888	50.00000	Averaged
	22 2-Butanone	0.16479	0.14808	0.100	-10.14118	50.00000	Averaged
	23 Bromochloromethane	0.11452	0.11037	0.100	-3.62170	50.00000	Averaged
	24 Chloroform +	0.39154	0.38878	0.100	-0.70555	20.00000	Averaged
$	25 Dibromofluoromethane	0.20742	0.20461	0.100	-1.35562	50.00000	Averaged
	26 1,1,1-Trichloroethane	0.27692	0.28768	0.100	3.88535	50.00000	Averaged
	27 1,1-Dichloropropene	0.34972	0.35565	0.100	1.69753	50.00000	Averaged
	28 Carbon Tetrachloride	0.22857	0.23664	0.100	3.53127	50.00000	Averaged
M	29 Total 1,2-Dichloroethene	0.40862	0.40157	0.100	-1.72530	50.00000	Averaged
$	30 1,2-Dichloroethane-d4	0.10600	0.10423	0.100	-1.66846	50.00000	Averaged
	31 Benzene	1.16761	1.16152	0.100	-0.52109	50.00000	Averaged
	32 1,2-Dichloroethane	0.24150	0.23036	0.100	-4.61029	50.00000	Averaged
	34 Trichloroethene	0.26848	0.26579	0.100	-1.00125	50.00000	Averaged
	35 1,2-Dichloropropane +	0.31669	0.31027	0.100	-2.02849	20.00000	Averaged
	36 Dibromomethane	0.12400	0.11611	0.100	-6.36080	50.00000	Averaged
	37 Bromodichloromethane	0.28645	0.27751	0.100	-3.11897	50.00000	Averaged
	38 2-Chloroethyl vinyl ether	0.17247	0.16554	0.010	-4.01776	50.00000	Averaged

Gulf Coast Analytical Laboratories, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msv4.i
Lab File ID: r7737.d
Analysis Type: SOIL
Lab Sample ID: V2ICV050
Method: /var/chem/msv4.i/2020614a.s.b/8260Bs4.m

Injection Date: 14-JUN-2002 17:03
Init. Cal. Date(s): 14-JUN-2002 14-JUN-2002
Init. Cal. Times: 14:10 16:25
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
	39 cis-1,3-Dichloropropene	0.41511	0.39931	0.100	-3.80492	50.00000	Averaged
	40 4-methyl-2-pentanone	0.32261	0.21192	0.100	-34.30886	50.00000	Averaged
$	41 Toluene-d8	2.54344	2.58083	0.100	1.46992	50.00000	Averaged
	42 Toluene +	3.30834	3.25481	0.100	-1.61806	20.00000	Averaged
	43 trans-1,3-Dichloropropene	0.98161	0.95071	0.100	-3.14776	50.00000	Averaged
	44 1,1,2-Trichloroethane	0.58606	0.55889	0.100	-4.63544	50.00000	Averaged
	45 1,3-Dichloropropane	1.12449	1.09011	0.100	-3.05736	50.00000	Averaged
	46 Tetrachloroethene	0.55532	0.56203	0.100	1.20805	50.00000	Averaged
	47 2-Hexanone	0.72707	0.63821	0.100	-12.22128	50.00000	Averaged
	48 Dibromochloromethane	0.55299	0.52975	0.100	-4.20317	50.00000	Averaged
	49 1,2-Dibromoethane(EDB)	0.53979	0.51904	0.100	-3.84351	50.00000	Averaged
	51 Chlorobenzene ++	2.13741	2.05615	0.300	-3.80179	50.00000	Averaged
	52 1,1,1,2-Tetrachloroethane	0.57856	0.58345	0.100	0.84456	50.00000	Averaged
	53 Ethylbenzene +	1.18929	1.23933	0.100	4.20757	20.00000	Averaged
	54 p,m-Xylene	1.49766	1.49136	0.100	-0.42021	50.00000	Averaged
	55 o-Xylene	1.37753	1.37915	0.100	0.11718	50.00000	Averaged
	56 Styrene	2.28920	2.21150	0.100	-3.39416	50.00000	Averaged
	57 Bromoform ++	0.31447	0.30983	0.100	-1.47588	50.00000	Averaged
	58 Isopropylbenzene	3.35361	3.50047	0.100	4.37919	50.00000	Averaged
$	59 Bromofluorobenzene	0.57231	0.60119	0.100	5.04694	50.00000	Averaged
	60 1,1,2,2-Tetrachloroethane++	1.21652	1.07018	0.300	-12.02986	50.00000	Averaged
	61 trans-1,4-Dichloro-2-Butene	0.26103	0.23477	0.100	-10.06259	50.00000	Averaged
	62 1,2,3-Trichloropropane	1.41885	1.26963	0.100	-10.51711	50.00000	Averaged
	63 Bromobenzene	2.56074	2.31579	0.100	-9.56553	50.00000	Averaged
	64 n-Propylbenzene	5.70578	5.42589	0.100	-4.90537	50.00000	Averaged
	65 2-Chlorotoluene	3.63101	3.30501	0.100	-8.97816	50.00000	Averaged
	66 1,3,5-Trimethylbenzene	3.73615	3.61403	0.100	-3.26854	50.00000	Averaged
	67 4-Chlorotoluene	3.37114	2.98616	0.100	-11.41977	50.00000	Averaged
	68 tert-butylbenzene	2.25382	2.20670	0.100	-2.09067	50.00000	Averaged
	69 1,2,4-Trimethylbenzene	3.65997	3.44687	0.100	-5.82257	50.00000	Averaged
	70 sec-Butylbenzene	5.15833	5.15333	0.100	-0.09694	50.00000	Averaged
	71 p-Isopropyltoluene	3.81969	3.81510	0.100	-0.12028	50.00000	Averaged
	72 1,3-Dichlorobenzene	1.87686	1.80655	0.100	-3.74642	50.00000	Averaged
	74 1,4-Dichlorobenzene	2.10627	1.65545	0.100	-21.40368	50.00000	Averaged
	75 n-Butylbenzene	3.36958	3.19289	0.100	-5.24375	50.00000	Averaged
M	76 TOTAL XYLENE	1.61851	1.45396	0.100	-10.16661	50.00000	Averaged

Gulf Coast Analytical Laboratories, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msv4.i
Lab File ID: r7737.d
Analysis Type: SOIL
Lab Sample ID: V2ICV050
Method: /var/chem/msv4.i/2020614a.s.b/8260Bs4.m

Injection Date: 14-JUN-2002 17:03
Init. Cal. Date(s): 14-JUN-2002 14-JUN-2002
Init. Cal. Times: 14:10 16:25
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
77 1,2-Dichlorobenzene	1.71561	1.56461	0.100	-8.80158	50.00000	Averaged
78 1,2-Dibromo-3-Chloropropane	0.16419	0.16516	0.100	0.58951	50.00000	Averaged
79 1,2,4-Trichlorobenzene	0.90955	0.83436	0.100	-8.26691	50.00000	Averaged
80 Hexachlorobutadiene	0.52098	0.56915	0.100	9.24696	50.00000	Averaged
81 Napthalene	2.33998	2.16216	0.100	-7.59937	50.00000	Averaged
82 1,2,3-Trichlorobenzene	0.81295	0.77455	0.100	-4.72385	50.00000	Averaged

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv4.i/2020614a.s.b/r7737.d
Lab Smp Id: V2ICV050 Client Smp ID: V2ICV050
Inj Date : 14-JUN-2002 17:03
Operator : RSP Inst ID: msv4.i
Smp Info : V2ICV050
Misc Info : MSV~ICV~*1*RJO
Comment :
Method : /var/chem/msv4.i/2020614a.s.b/8260Bs4.m
Meth Date : 25-Jun-2002 05:34 dlb Quant Type: ISTD
Cal Date : 14-JUN-2002 16:25 Cal File: r7736.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * (Uf/Ws)/((100-M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
M	0.00000	% Moisture (not decanted)
Va	100.00000	Volume of aliquot extract added (uL)
Ws	5.00000	Weight of sample extracted (g)

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	2.187	2.187	(0.318)	94599	50.0000	52.0	0
2 Chloromethane ++	50	2.427	2.427	(0.352)	221695	50.0000	48.4	0
3 Vinyl Chloride +	62	2.585	2.585	(0.375)	199540	50.0000	49.7	0
4 Bromomethane	94	3.054	3.054	(0.443)	102680	50.0000	51.0	0
5 Chloroethane	64	3.200	3.200	(0.465)	127790	50.0000	53.2	0
6 Trichlorofluoromethane	101	3.552	3.552	(0.516)	154984	50.0000	51.5	0
7 Acrolein	56	5.269	5.269	(0.765)	166193	250.000	233	0
8 1,1-Dichloroethene +	96	4.184	4.184	(0.607)	126665	50.0000	52.1	0
9 1,1,2Trichlotrifluoroethane	101	4.190	4.190	(0.608)	121445	50.0000	51.5	0
10 Acetone	43	4.243	4.243	(0.616)	52447	50.0000	37.8	0
11 Methyl Iodide	142	4.360	4.360	(0.633)	196518	50.0000	49.3	0
12 Carbon Disulfide	76	4.442	4.442	(0.645)	623315	50.0000	51.0	0
13 Methylene Chloride	49	4.712	4.712	(0.684)	267235	50.0000	40.9	0

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	14 Acrylonitrile	53	4.952	4.952	(0.719)	346666	250.000	244	0
	15 trans-1,2-Dichloroethene	61	4.999	4.999	(0.726)	268665	50.0000	49.3	0
	16 MTBE	73	4.999	4.999	(0.726)	404809	50.0000	47.5	0
	18 1,1-Dichloroethane ++	63	5.404	5.404	(0.785)	351228	50.0000	50.5	0
	19 Vinyl Acetate	43	5.269	5.269	(0.765)	230567	50.0000	48.1	
	20 2,2-Dichloropropane	77	5.937	5.937	(0.862)	220500	50.0000	51.7	0
	21 cis-1,2-Dichloroethene	61	5.931	5.931	(0.861)	305807	50.0000	49.0	0
	22 2-Butanone	43	5.925	5.925	(0.860)	105916	50.0000	44.9	
	23 Bromochloromethane	128	6.136	6.136	(0.891)	78947	50.0000	48.2	0
	24 Chloroform +	83	6.195	6.195	(0.899)	278086	50.0000	49.6	0
$	25 Dibromofluoromethane	111	6.324	6.324	(0.918)	146353	50.0000	49.3	0
	26 1,1,1-Trichloroethane	97	6.371	6.371	(0.925)	205770	50.0000	51.9	0
	27 1,1-Dichloropropene	75	6.500	6.500	(0.944)	254391	50.0000	50.8	0
	28 Carbon Tetrachloride	117	6.518	6.518	(0.946)	169260	50.0000	51.8	0
M	29 Total 1,2-Dichloroethene	61				574472	100.000	98.3	0
$	30 1,2-Dichloroethane-d4	67	6.612	6.612	(0.960)	74551	50.0000	49.2	0
	31 Benzene	78	6.677	6.677	(0.969)	830809	50.0000	49.7	0
	32 1,2-Dichloroethane	62	6.677	6.677	(0.969)	164773	50.0000	47.7	0
*	33 FLUOROBENZENE	96	6.888	6.888	(1.000)	715275	50.0000		0
	34 Trichloroethene	130	7.175	7.175	(1.042)	190113	50.0000	49.5	0
	35 1,2-Dichloropropane +	63	7.351	7.351	(1.067)	221925	50.0000	49.0	0
	36 Dibromomethane	93	7.445	7.445	(1.081)	83050	50.0000	46.8	0
	37 Bromodichloromethane	83	7.545	7.545	(1.095)	198497	50.0000	48.4	0
	38 2-Chloroethyl vinyl ether	63	7.726	7.726	(1.122)	118407	50.0000	48.0	0
	39 cis-1,3-Dichloropropene	75	7.873	7.873	(1.143)	285620	50.0000	48.1	
	40 4-methyl-2-pentanone	43	8.560	8.560	(1.243)	151584	50.0000	32.8	
$	41 Toluene-d8	98	8.096	8.096	(0.881)	614945	50.0000	50.7	0
	42 Toluene +	91	8.143	8.143	(0.886)	775536	50.0000	49.2	0
	43 trans-1,3-Dichloropropene	75	8.266	8.266	(0.900)	226530	50.0000	48.4	
	44 1,1,2-Trichloroethane	97	8.419	8.419	(0.916)	133169	50.0000	47.7	0
	45 1,3-Dichloropropane	76	8.554	8.554	(0.931)	259745	50.0000	48.5	0
	46 Tetrachloroethene	164	8.566	8.566	(0.932)	133917	50.0000	50.6	0
	47 2-Hexanone	43	8.560	8.560	(0.932)	152069	50.0000	43.9	0
	48 Dibromochloromethane	129	8.742	8.742	(0.952)	126226	50.0000	47.9	0
	49 1,2-Dibromoethane(EDB)	107	8.847	8.847	(0.963)	123674	50.0000	48.1	0
*	50 Chlorobenzene-d5	82	9.187	9.187	(1.000)	238274	50.0000		0
	51 Chlorobenzene ++	112	9.211	9.211	(1.003)	489927	50.0000	48.1	0
	52 1,1,1,2-Tetrachloroethane	133	9.246	9.246	(1.006)	139021	50.0000	50.4	0
	53 Ethylbenzene +	106	9.264	9.264	(1.008)	295300	50.0000	52.1	0
	54 p,m-Xylene	106	9.347	9.347	(1.017)	710707	100.000	99.6	0
	55 o-Xylene	106	9.669	9.669	(1.052)	328615	50.0000	50.1	
	56 Styrene	104	9.669	9.669	(1.052)	526943	50.0000	48.3	0
	57 Bromoform ++	173	9.857	9.857	(1.073)	73824	50.0000	49.3	0
	58 Isopropylbenzene	105	9.945	9.945	(1.082)	834070	50.0000	52.2	0
$	59 Bromofluorobenzene	174	10.092	10.092	(1.098)	143248	50.0000	52.5	0
	60 1,1,2,2-Tetrachloroethane++	83	10.157	10.157	(0.916)	189267	50.0000	44.0	0
	61 trans-1,4-Dichloro-2-Butene	53	10.192	10.192	(0.919)	41520	50.0000	45.0	0

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)	SIMILARITY
	62 1,2,3-Trichloropropane	75	10.216	10.216	(0.921)	224541	50.0000	44.7	0
	63 Bromobenzene	77	10.257	10.257	(0.925)	409561	50.0000	45.2	0
	64 n-Propylbenzene	91	10.281	10.281	(0.927)	959601	50.0000	47.5	0
	65 2-Chlorotoluene	91	10.392	10.392	(0.937)	584511	50.0000	45.5	0
	66 1,3,5-Trimethylbenzene	105	10.398	10.398	(0.937)	639163	50.0000	48.4	
	67 4-Chlorotoluene	91	10.475	10.475	(0.944)	528121	50.0000	44.3	0
	68 tert-butylbenzene	91	10.704	10.704	(0.965)	390269	50.0000	49.0	0
	69 1,2,4-Trimethylbenzene	105	10.733	10.733	(0.968)	609599	50.0000	47.1	
	70 sec-Butylbenzene	105	10.892	10.892	(0.982)	911397	50.0000	50.0	
	71 p-Isopropyltoluene	119	10.992	10.992	(0.991)	674723	50.0000	49.9	0(H)
	72 1,3-Dichlorobenzene	146	11.039	11.039	(0.995)	319499	50.0000	48.1	
*	73 1,4-DICHLOROBENZENE-D4	152	11.092	11.092	(1.000)	176856	50.0000		0
	74 1,4-Dichlorobenzene	146	11.116	11.116	(1.002)	292776	50.0000	39.3	
	75 n-Butylbenzene	91	11.368	11.368	(1.025)	564682	50.0000	47.4	0
M	76 TOTAL XYLENE	106				1039322	150.000	150	0
	77 1,2-Dichlorobenzene	146	11.474	11.474	(1.034)	276710	50.0000	45.6	
	78 1,2-Dibromo-3-Chloropropane	157	12.211	12.211	(1.101)	29209	50.0000	50.3	0
	79 1,2,4-Trichlorobenzene	180	13.102	13.102	(1.181)	147562	50.0000	45.9	
	80 Hexachlorobutadiene	225	13.243	13.243	(1.194)	100658	50.0000	54.6	0
	81 Napthalene	128	13.401	13.401	(1.208)	382391	50.0000	46.2	0
	82 1,2,3-Trichlorobenzene	180	13.665	13.665	(1.232)	136983	50.0000	47.6	

QC Flag Legend

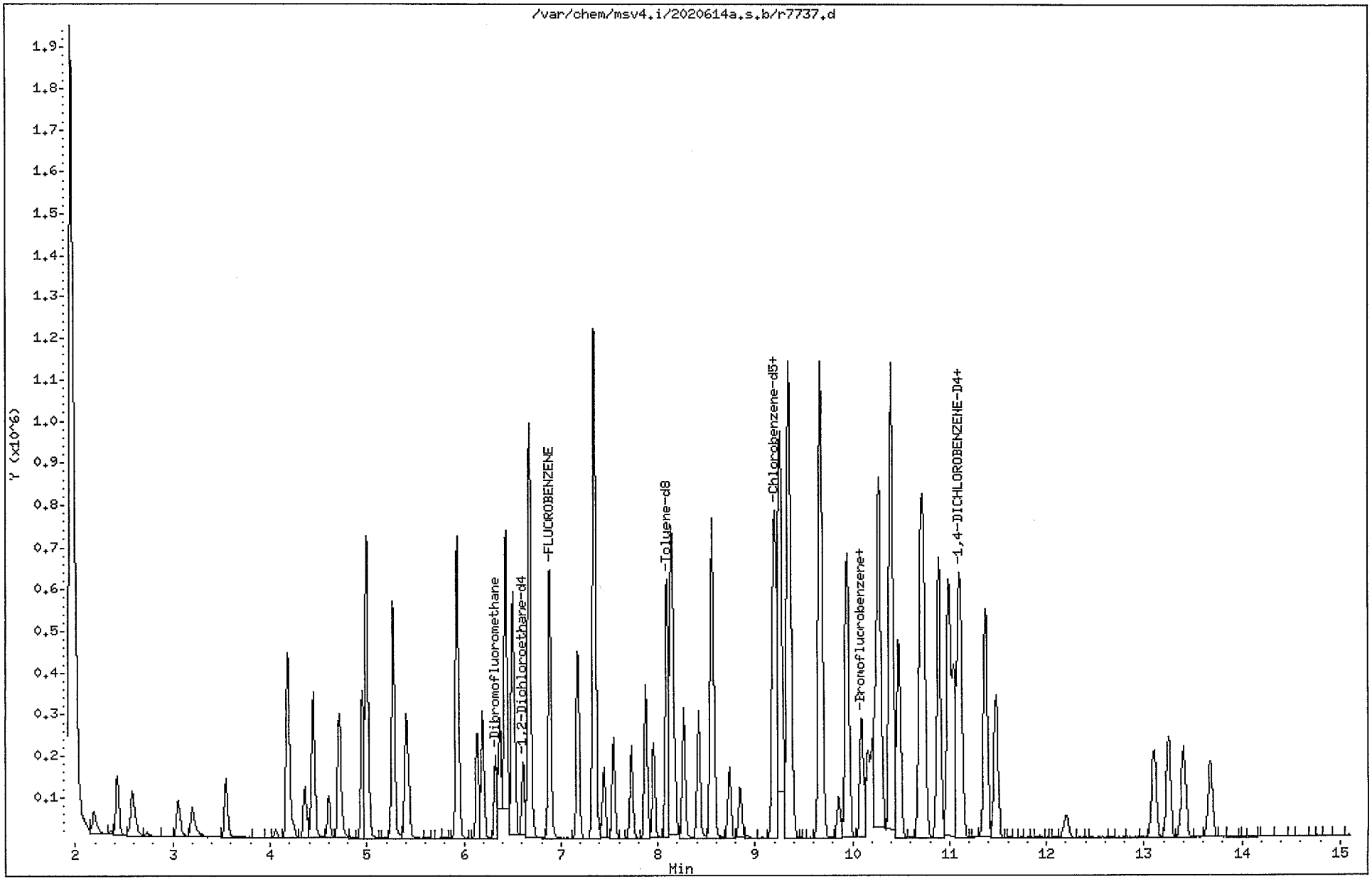
H - Operator selected an alternate compound hit.

Data File: /var/chem/msv4.i/2020614a.s.b/r7737.d
Date : 14-JUN-2002 17:03
Client ID: V2ICV050
Sample Info: V2ICV050

Column phase: DB-624-30M

Instrument: msv4.i

Operator: RSP
Column diameter: 0.53



7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Instrument ID: MSV4 Calibration Date: 06/20/02 Time: 0906

Lab File ID: R7863 Init. Calib. Date(s): 06/14/02 06/14/02

Heated Purge: (Y/N) Y Init. Calib. Times: 1410 1625

GC Column: DB-624-M ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Bromochloromethane	0.115	0.116	0.100	-0.9	50.0
Chloromethane ++	0.321	0.286	0.100	10.9	50.0
Bromomethane	0.141	0.142	0.100	-0.7	50.0
Vinyl Chloride +	0.281	0.262	0.100	6.8	20.0
Chloroethane	0.168	0.166	0.100	1.2	50.0
Methylene Chloride	0.456	0.399	0.100	12.5	50.0
1,1-Dichloroethene +	0.170	0.163	0.100	4.1	20.0
1,1-Dichloroethane ++	0.487	0.471	0.100	3.3	50.0
cis-1,2-Dichloroethene	0.437	0.432	0.100	1.1	50.0
Chloroform +	0.392	0.382	0.100	2.6	20.0
1,2-Dichloroethane	0.241	0.247	0.100	-2.5	50.0
1,1,1-Trichloroethane	0.277	0.270	0.100	2.5	50.0
Carbon Tetrachloride	0.229	0.225	0.100	1.7	50.0
Bromodichloromethane	0.286	0.283	0.100	1.0	50.0
1,2-Dichloropropane +	0.317	0.314	0.100	0.9	20.0
cis-1,3-Dichloropropene	0.415	0.420	0.100	-1.2	50.0
Trichloroethene	0.268	0.262	0.100	2.2	50.0
1,1,2-Trichloroethane	0.586	0.567	0.100	3.2	50.0
Benzene	1.168	1.155	0.100	1.1	50.0
trans-1,3-Dichloropropene	0.982	0.962	0.100	2.0	50.0
Bromoform ++	0.314	0.304	0.100	3.2	50.0
Tetrachloroethene	0.555	0.531	0.100	4.3	50.0
1,1,2,2-Tetrachloroethane++	1.216	1.085	0.300	10.8	50.0
Toluene +	3.309	3.118	0.100	5.8	20.0
Chlorobenzene ++	2.137	2.009	0.300	6.0	50.0
Ethylbenzene +	1.189	1.164	0.100	2.1	20.0
Styrene	2.289	2.161	0.100	5.6	50.0
Trichlorofluoromethane	0.210	0.209	0.100	0.5	50.0
p,m-Xylene	1.497	1.407	0.100	6.0	50.0
trans-1,2-Dichloroethene	0.381	0.370	0.100	2.9	50.0
1,2-Dibromoethane(EDB)	0.540	0.520	0.100	3.7	50.0
1,3-Dichlorobenzene	1.877	1.733	0.100	7.7	50.0
1,4-Dichlorobenzene	2.106	1.788	0.100	15.1	50.0
1,2-Dichlorobenzene	1.716	1.630	0.100	5.0	50.0
1,2-Dibromo-3-Chloropropane	0.164	0.161	0.100	1.8	50.0
o-Xylene	1.377	1.332	0.100	3.3	50.0
sec-Butylbenzene	5.158	4.862	0.100	5.7	50.0

All other compounds must meet a minimum RRF of 0.010.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Instrument ID: MSV4 Calibration Date: 06/20/02 Time: 0906

Lab File ID: R7863 Init. Calib. Date(s): 06/14/02 06/14/02

Heated Purge: (Y/N) Y Init. Calib. Times: 1410 1625

GC Column: DB-624-M ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
2-Chlorotoluene	3.631	3.503	0.100	3.5	50.0
Dibromomethane	0.124	0.123	0.100	0.8	50.0
Isopropylbenzene	3.354	3.238	0.100	3.4	50.0
n-Propylbenzene	5.706	5.398	0.100	5.4	50.0
1,2,3-Trichloropropane	1.419	1.294	0.100	8.8	50.0
4-Chlorotoluene	3.371	3.253	0.100	3.5	50.0
1,2,4-Trimethylbenzene	3.660	3.311	0.100	9.5	50.0
tert-butylbenzene	2.254	2.090	0.100	7.3	50.0
Bromobenzene	2.561	2.378	0.100	7.1	50.0
1,3,5-Trimethylbenzene	3.736	3.437	0.100	8.0	50.0
Dibromochloromethane	0.553	0.538	0.100	2.7	50.0
Acrolein	0.050	0.050	0.100	0.0	50.0
Acrylonitrile	0.099	0.095	0.100	4.0	50.0
1,1,1,2-Tetrachloroethane	0.579	0.559	0.100	3.4	50.0
Acetone	0.097	0.098	0.100	-1.0	50.0
Carbon Disulfide	0.855	0.802	0.100	6.2	50.0
2-Butanone	0.165	0.142	0.100	13.9	50.0
4-methyl-2-pentanone	0.322	0.210	0.100	34.8	50.0
2-Hexanone	0.727	0.609	0.100	16.2	50.0
Vinyl Acetate	0.335	0.326	0.100	2.7	50.0
Methyl Iodide	0.278	0.272	0.100	2.2	50.0
TOTAL XYLENE	1.458	1.382	0.100	5.2	50.0
trans-1,4-Dichloro-2-Butene	0.261	0.257	0.100	1.5	50.0
Dichlorodifluoromethane	0.127	0.111	0.100	12.6	50.0
2,2-Dichloropropane	0.298	0.296	0.100	0.7	50.0
1,1-Dichloropropene	0.349	0.335	0.100	4.0	50.0
1,3-Dichloropropane	1.124	1.081	0.100	3.8	50.0
n-Butylbenzene	3.370	3.190	0.100	5.3	50.0
p-Isopropyltoluene	3.820	3.626	0.100	5.1	50.0
2-Chloroethyl vinyl ether	0.172	0.182	0.100	-5.8	50.0
1,2,4-Trichlorobenzene	0.909	0.941	0.100	-3.5	50.0
Hexachlorobutadiene	0.521	0.530	0.100	-1.7	50.0
1,2,3-Trichlorobenzene	0.813	0.834	0.100	-2.6	50.0
Napthalene	2.340	2.274	0.100	2.8	50.0
1,1,2Trichlotrifluoroethane	0.165	0.166	0.100	-0.6	50.0
Total 1,2-Dichloroethene	0.408	0.401	0.100	1.7	50.0
MTBE	0.596	0.593	0.100	0.5	50.0

All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Instrument ID: MSV4 Calibration Date: 06/20/02 Time: 0906

Lab File ID: R7863 Init. Calib. Date(s): 06/14/02 06/14/02

Heated Purge: (Y/N) Y Init. Calib. Times: 1410 1625

GC Column: DB-624-M ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Toluene-d8	2.543	2.488	0.100	2.2	50.0
Bromofluorobenzene	0.572	0.582	0.100	-1.7	50.0
1,2-Dichloroethane-d4	0.106	0.108	0.100	-1.9	50.0
Dibromofluoromethane	0.207	0.208	0.100	-0.5	50.0

All other compounds must meet a minimum RRF of 0.010.

Data File: /var/chem/msv4.i/2020620.s.b/r7862.d

Date : 20-JUN-2002 08:32

Client ID: 0620V4BFB01

Instrument: msv4.i

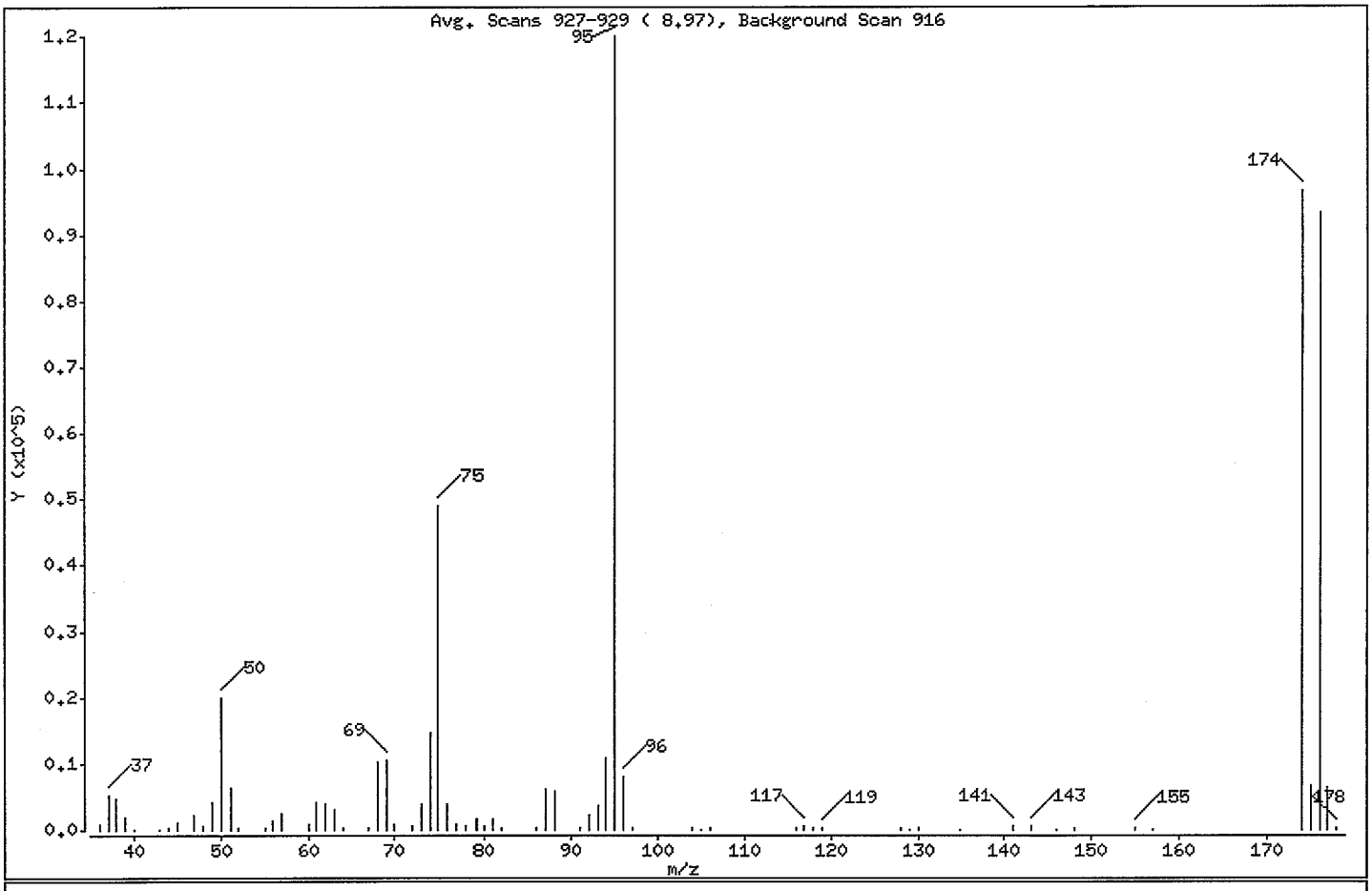
Sample Info: 0620V4BFB01*TUNE

Operator: RJO

Column phase: DB-624

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	16.65
75	30.00 - 60.00% of mass 95	40.80
96	5.00 - 9.00% of mass 95	6.62
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	80.30
175	5.00 - 9.00% of mass 174	5.53 (6.89)
176	95.00 - 101.00% of mass 174	77.59 (96.63)
177	5.00 - 9.00% of mass 176	5.30 (6.83)

Data File: /var/chem/msv4.i/2020620.s.b/r7862.d

Date : 20-JUN-2002 08:32

Client ID: 0620V4BFB01

Instrument: msv4.i

Sample Info: 0620V4BFB01*TUNE

Operator: RJO

Column phase: DB-624

Column diameter: 0.53

Data File: r7862.d
Spectrum: Avg. Scans 927-929 (8.97), Background Scan 916
Location of Maximum: 95.00
Number of points: 69

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	928	61.00	4230	82.00	267	128.00	311
37.00	5213	62.00	3805	86.00	166	129.00	120
38.00	4617	63.00	3014	87.00	6045	130.00	311
39.00	1877	64.00	245	88.00	5698	135.00	63
40.00	89	67.00	283	91.00	262	141.00	471
43.00	61	68.00	10215	92.00	2165	143.00	572
44.00	373	69.00	10409	93.00	3581	146.00	63
45.00	1006	70.00	766	94.00	10805	148.00	166
47.00	2258	72.00	468	95.00	120088	155.00	232
48.00	613	73.00	4003	96.00	7953	157.00	121
49.00	4251	74.00	14581	97.00	401	174.00	96432
50.00	20000	75.00	48992	104.00	249	175.00	6643
51.00	6317	76.00	3972	105.00	58	176.00	93176
52.00	207	77.00	796	106.00	308	177.00	6362
55.00	258	78.00	596	116.00	258	178.00	219
56.00	1314	79.00	1619	117.00	422		
57.00	2600	80.00	484	118.00	236		
60.00	920	81.00	1566	119.00	354		

Data File: /var/chem/msv4.i/2020620.s.b/r7862.d

Date : 20-JUN-2002 08:32

Client ID: 0620V4BFB01

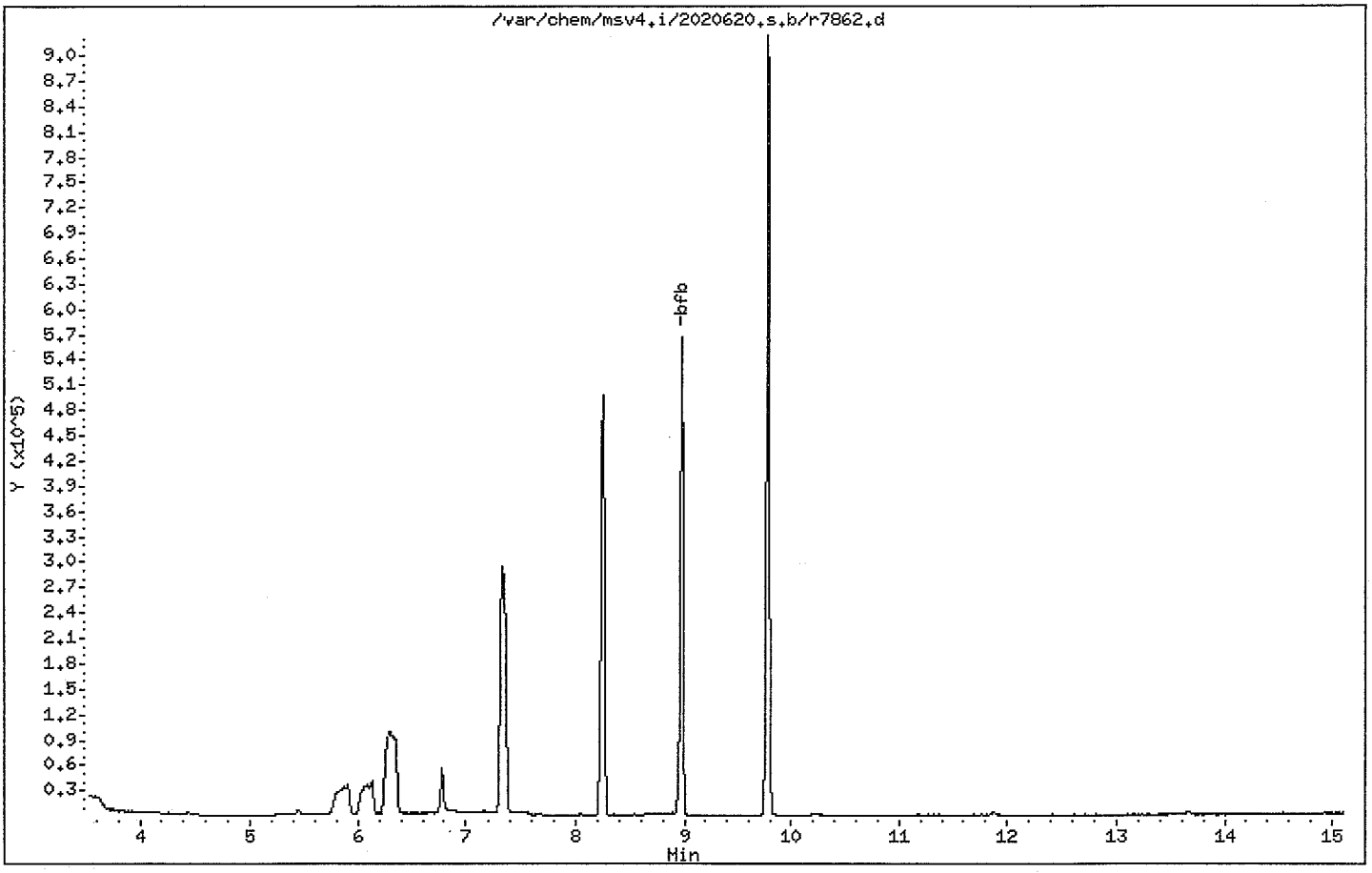
Instrument: msv4.i

Sample Info: 0620V4BFB01*TUNE

Operator: RJO

Column phase: DB-624

Column diameter: 0.53



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv4.i/2020620.s.b/r7863.d
Lab Smp Id: V4STD050 Client Smp ID: V4STD050
Inj Date : 20-JUN-2002 09:06
Operator : RJO Inst ID: msv4.i
Smp Info : V4STD050*4-13-6
Misc Info : MSV~CCV~*1*RJO
Comment :
Method : /var/chem/msv4.i/2020620.s.b/8260Bs4.m
Meth Date : 24-Jun-2002 15:21 dlb Quant Type: ISTD
Cal Date : 14-JUN-2002 16:25 Cal File: r7736.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * ((Uf/Vo)/((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
M	0.00000	% Moisture (not decanted)
Va	100.00000	Volume of aliquot extract added (uL)

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	2.169	2.169	(0.317)	91568	50.0000	43.6
2 Chloromethane ++	50	2.404	2.404	(0.351)	236191	50.0000	44.6
3 Vinyl Chloride +	62	2.562	2.562	(0.374)	216257	50.0000	46.6
4 Bromomethane	94	3.025	3.025	(0.442)	117121	50.0000	50.4
5 Chloroethane	64	3.172	3.172	(0.463)	137368	50.0000	49.5
6 Trichlorofluoromethane	101	3.518	3.518	(0.514)	172314	50.0000	49.6
7 1,1-Dichloroethene +	96	4.156	4.156	(0.607)	134732	50.0000	48.0
8 1,1,2Trichlotrifluoroethane	101	4.156	4.156	(0.607)	137487	50.0000	50.5
9 Acetone	43	4.209	4.209	(0.615)	81320	50.0000	50.8
10 Methyl Iodide	142	4.326	4.326	(0.632)	224805	50.0000	48.9
11 Carbon Disulfide	76	4.408	4.408	(0.644)	661717	50.0000	46.9
12 Methyl Acetate	43	4.566	4.566	(0.667)	172977	50.0000	44.7(M)
13 Methylene Chloride	49	4.684	4.684	(0.684)	329489	50.0000	43.7
14 Acrylonitrile	53	4.924	4.924	(0.719)	392277	250.000	239(A)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
	15 MTBE	73	4.965	4.965	(0.725)	489925	50.0000	49.8
	16 trans-1,2-Dichloroethene	61	4.965	4.965	(0.725)	305172	50.0000	48.5
	17 Hexane	57	5.241	5.241	(0.765)	381843	50.0000	49.0(M)
	18 Acrolein	56	5.241	5.241	(0.765)	207526	250.000	252(A)
	19 Vinyl Acetate	43	5.235	5.235	(0.764)	268939	50.0000	48.6
	20 1,1-Dichloroethane ++	63	5.376	5.376	(0.785)	389131	50.0000	48.4
	21 2-Butanone	43	5.891	5.891	(0.860)	117385	50.0000	43.1
	22 cis-1,2-Dichloroethene	61	5.897	5.897	(0.861)	356897	50.0000	49.5
	23 2,2-Dichloropropane	77	5.903	5.903	(0.862)	243972	50.0000	49.6
M	24 Total 1,2-Dichloroethene	61				662069	100.000	98.1
	25 Bromochloromethane	128	6.108	6.108	(0.892)	95714	50.0000	50.6
	26 Chloroform +	83	6.161	6.161	(0.900)	315268	50.0000	48.8
$	27 Dibromofluoromethane	111	6.290	6.290	(0.918)	172093	50.0000	50.2
	28 1,1,1-Trichloroethane	97	6.337	6.337	(0.925)	223090	50.0000	48.8
	29 Cyclohexane	56	6.402	6.402	(0.935)	511806	50.0000	51.0(M)
	30 1,1-Dichloropropene	75	6.467	6.467	(0.944)	276547	50.0000	47.9
	31 Carbon Tetrachloride	117	6.484	6.484	(0.947)	186042	50.0000	49.3
$	32 1,2-Dichloroethane-d4	67	6.578	6.578	(0.961)	89200	50.0000	51.0
	33 1,2-Dichloroethane	62	6.643	6.643	(0.970)	203697	50.0000	51.1
	34 Benzene	78	6.643	6.643	(0.970)	953351	50.0000	49.4
*	35 FLUOROBENZENE	96	6.848	6.848	(1.000)	825575	50.0000	
	36 Trichloroethene	130	7.142	7.142	(1.043)	216492	50.0000	48.8
	37 Methyl cyclohexane	83	7.312	7.312	(1.068)	407328	50.0000	50.4(M)
	38 1,2-Dichloropropane +	63	7.318	7.318	(1.068)	259268	50.0000	49.6
	39 Dibromomethane	93	7.412	7.412	(1.082)	101640	50.0000	49.6
	40 Bromodichloromethane	83	7.511	7.511	(1.097)	233673	50.0000	49.4
	41 2-Chloroethyl vinyl ether	63	7.693	7.693	(1.123)	150359	50.0000	52.8
	42 cis-1,3-Dichloropropene	75	7.840	7.840	(1.145)	346698	50.0000	50.6
	43 4-methyl-2-pentanone	43	8.521	8.521	(1.244)	173618	50.0000	32.6
$	44 Toluene-d8	98	8.057	8.057	(0.881)	710815	50.0000	48.9
	45 Toluene +	91	8.110	8.110	(0.886)	890624	50.0000	47.1
	46 trans-1,3-Dichloropropene	75	8.233	8.233	(0.900)	274902	50.0000	49.0
	47 1,1,2-Trichloroethane	97	8.386	8.386	(0.917)	162027	50.0000	48.4
	48 1,3-Dichloropropane	76	8.515	8.515	(0.931)	308906	50.0000	48.1
	49 2-Hexanone	43	8.521	8.521	(0.931)	173845	50.0000	41.8
	50 Tetrachloroethene	164	8.533	8.533	(0.933)	151634	50.0000	47.8
	51 Dibromochloromethane	129	8.703	8.703	(0.951)	153839	50.0000	48.7
	52 1,2-Dibromoethane(EDB)	107	8.808	8.808	(0.963)	148635	50.0000	48.2
*	53 Chlorobenzene-d5	82	9.148	9.148	(1.000)	285645	50.0000	
	54 Chlorobenzene ++	112	9.172	9.172	(1.003)	573980	50.0000	47.0
	55 1,1,1,2-Tetrachloroethane	133	9.213	9.213	(1.007)	159738	50.0000	48.3
	56 Ethylbenzene +	106	9.225	9.225	(1.008)	332655	50.0000	49.0
	57 p,m-Xylene	106	9.308	9.308	(1.017)	803971	100.000	94.0
	58 o-Xylene	106	9.636	9.636	(1.053)	380477	50.0000	48.3
	59 Styrene	104	9.636	9.636	(1.053)	617392	50.0000	47.2
	60 Bromoform ++	173	9.812	9.812	(1.073)	86875	50.0000	48.4
	61 Isopropylbenzene	105	9.906	9.906	(1.083)	924783	50.0000	48.3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
$	62 Bromofluorobenzene	174	10.053	10.053	(1.099)	166251	50.0000	50.8
	63 1,1,2,2-Tetrachloroethane++	83	10.118	10.118	(0.916)	224646	50.0000	44.6
	64 trans-1,4-Dichloro-2-Butene	53	10.147	10.147	(0.918)	53187	50.0000	49.2
	65 1,2,3-Trichloropropane	75	10.177	10.177	(0.921)	267935	50.0000	45.6
	66 Bromobenzene	77	10.212	10.212	(0.924)	492201	50.0000	46.4
	67 n-Propylbenzene	91	10.236	10.236	(0.926)	1117505	50.0000	47.3
	68 2-Chlorotoluene	91	10.354	10.354	(0.937)	725279	50.0000	48.2
	69 1,3,5-Trimethylbenzene	105	10.360	10.360	(0.938)	711559	50.0000	46.0
	70 4-Chlorotoluene	91	10.430	10.430	(0.944)	673447	50.0000	48.2
M	71 TOTAL XYLENE	106				1184448	150.000	142
	72 tert-butylbenzene	91	10.659	10.659	(0.965)	432755	50.0000	46.4
	73 1,2,4-Trimethylbenzene	105	10.695	10.695	(0.968)	685477	50.0000	45.2
	74 sec-Butylbenzene	105	10.848	10.848	(0.982)	1006506	50.0000	47.1
	75 p-Isopropyltoluene	119	10.948	10.948	(0.991)	750634	50.0000	47.5
	76 1,3-Dichlorobenzene	146	11.001	11.001	(0.996)	358702	50.0000	46.2
*	77 1,4-DICHLOROBENZENE-D4	152	11.048	11.048	(1.000)	207016	50.0000	
	78 1,4-Dichlorobenzene	146	11.072	11.072	(1.002)	370249	50.0000	42.4
	79 n-Butylbenzene	91	11.324	11.324	(1.025)	660484	50.0000	47.3
	80 1,2-Dichlorobenzene	146	11.430	11.430	(1.035)	337484	50.0000	47.5
	81 1,2-Dibromo-3-Chloropropane	157	12.162	12.162	(1.101)	33333	50.0000	49.0
	82 1,2,4-Trichlorobenzene	180	13.046	13.046	(1.181)	194800	50.0000	51.7
	83 Hexachlorobutadiene	225	13.199	13.199	(1.195)	109671	50.0000	50.8
	84 Napthalene	128	13.352	13.352	(1.208)	470796	50.0000	48.6
	85 1,2,3-Trichlorobenzene	180	13.610	13.610	(1.232)	172769	50.0000	51.3

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

000140

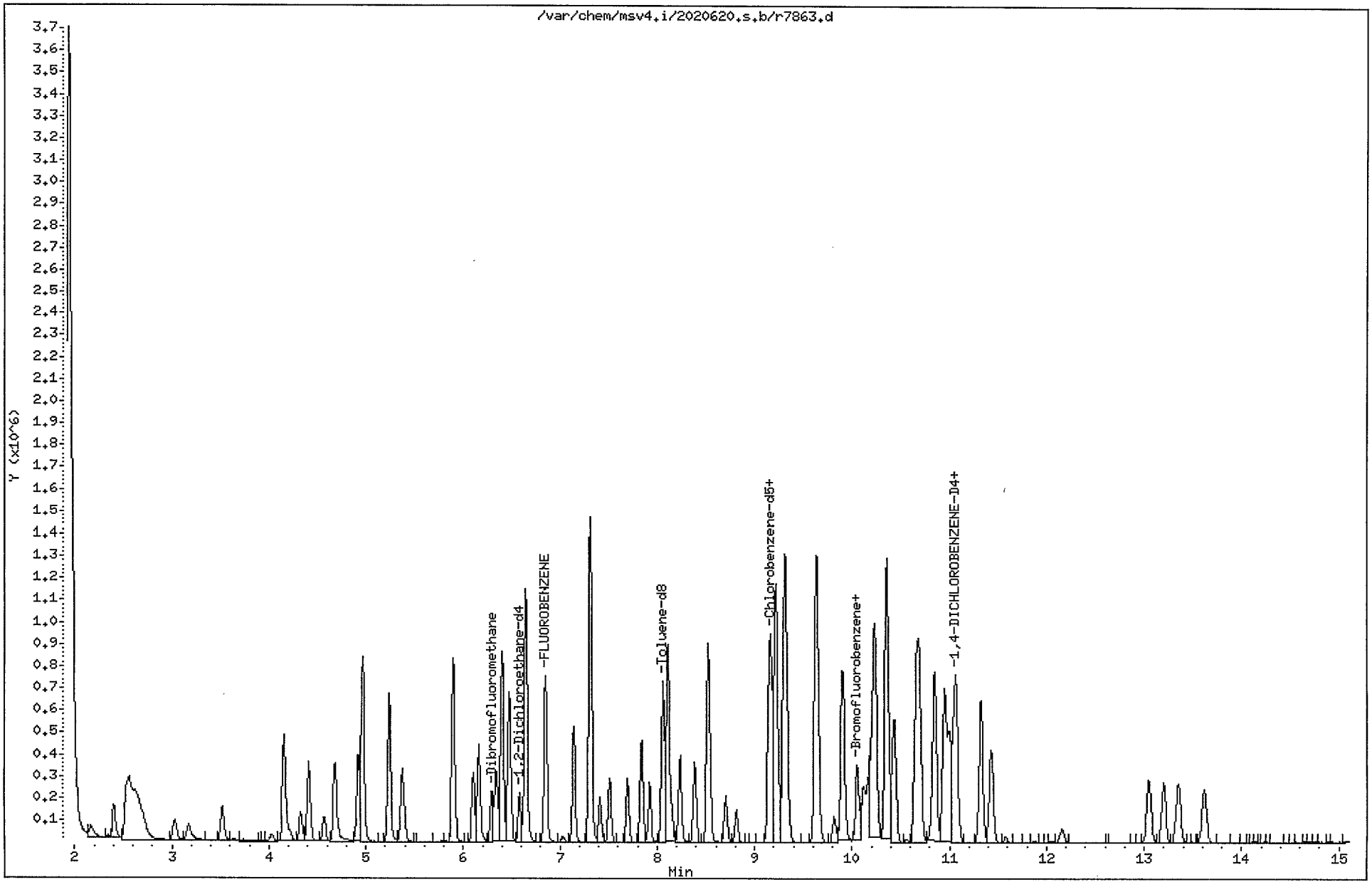
Data File: /var/chem/msv4.i/2020620.s.b/r7863.d
Date : 20-JUN-2002 09:06
Client ID: V4STD050
Sample Info: V4STD050*4-13-6

Instrument: msv4.i

Operator: RJO

Column phase: DB-624-M

Column diameter: 0.53



QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46325	Method Blank	Water	06/21/2002 14:20

SW-846 8260B

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	06/20/2002 18:38	RSP	145825

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
71-55-6	1,1,1-Trichloroethane	ND	5.00		ug/L
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200		ug/L
79-00-5	1,1,2-Trichloroethane	ND	5.00		ug/L
75-34-3	1,1-Dichloroethane	ND	5.00		ug/L
75-35-4	1,1-Dichloroethene	ND	5.00		ug/L
120-82-1	1,2,4-Trichlorobenzene	ND	5.00		ug/L
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200		ug/L
106-93-4	1,2-Dibromoethane	ND	0.200		ug/L
95-50-1	1,2-Dichlorobenzene	ND	5.00		ug/L
107-06-2	1,2-Dichloroethane	ND	3.00		ug/L
78-87-5	1,2-Dichloropropane	ND	5.00		ug/L
541-73-1	1,3-Dichlorobenzene	ND	5.00		ug/L
106-46-7	1,4-Dichlorobenzene	ND	5.00		ug/L
78-93-3	2-Butanone	ND	10.0		ug/L
591-78-6	2-Hexanone	ND	10.0		ug/L
108-10-1	4-Methyl-2-pentanone	ND	10.0		ug/L
67-64-1	Acetone	ND	10.0		ug/L
71-43-2	Benzene	ND	1.00		ug/L
75-27-4	Bromodichloromethane	ND	0.600		ug/L
75-25-2	Bromoform	ND	4.00		ug/L
74-83-9	Bromomethane	ND	5.00		ug/L
75-15-0	Carbon disulfide	ND	5.00		ug/L
56-23-5	Carbon tetrachloride	ND	3.00		ug/L
108-90-7	Chlorobenzene	ND	5.00		ug/L
75-00-3	Chloroethane	ND	5.00		ug/L
67-66-3	Chloroform	ND	5.00		ug/L
74-87-3	Chloromethane	ND	2.70		ug/L
110-82-7	Cyclohexane	ND	100		ug/L
124-48-1	Dibromochloromethane	ND	0.400		ug/L
75-71-8	Dichlorodifluoromethane	ND	5.00		ug/L
10061-01-	cis-1,3-Dichloropropene	ND	5.00		ug/L
10061-02-	trans-1,3-Dichloropropene	ND	5.00		ug/L
100-41-4	Ethylbenzene	ND	5.00		ug/L
98-82-8	Isopropylbenzene (Cumene)	ND	5.00		ug/L
79-20-9	Methyl Acetate	ND	5.00		ug/L
108-87-2	Methylcyclohexane	ND	5.00		ug/L
75-09-2	Methylene chloride	ND	5.00		ug/L
100-42-5	Styrene	ND	5.00		ug/L
127-18-4	Tetrachloroethene	ND	3.00		ug/L
108-88-3	Toluene	ND	5.00		ug/L

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46325	Method Blank	Water	06/21/2002 14:20

SW-846 8260B

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	06/20/2002 18:38	RSP	145825

79-01-6	Trichloroethene	ND	3.00	ug/L
75-69-4	Trichlorofluoromethane	ND	5.00	ug/L
76-13-1	Trichlorotrifluoroethane	ND	5.00	ug/L
75-01-4	Vinyl chloride	ND	1.00	ug/L
1330-20-7	Xylene (total)	ND	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	ND	5.00	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	ND	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	ND	5.00	ug/L

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
460-00-4	4-Bromofluorobenzene	50	46.3 ug/L	93	78 - 115
1868-53-7	Dibromofluoromethane	50	50.8 ug/L	102	70 - 130
2037-26-5	Toluene d8	50	50.8 ug/L	102	83 - 112
17060-07-	1,2-Dichloroethane-d4	50	50.3 ug/L	101	76 - 128

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv0.i/2020620p.s.b/r5644.d
Lab Smp Id: 46325 Client Smp ID: 46325
Inj Date : 20-JUN-2002 18:38
Operator : RSP Inst ID: msv0.i
Smp Info : 46325*MB for HBN 145825
Misc Info : MSV~2084~*1*RJO
Comment :
Method : /var/chem/msv0.i/2020620p.s.b/8260Bw0.m
Meth Date : 24-Jun-2002 15:05 dlb Quant Type: ISTD
Cal Date : 09-JUN-2002 10:05 Cal File: r5333.d
Als bottle: 7 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
$ 26 Dibromofluoromethane	111	5.280	5.283	(0.906)	1577424	50.8178	50.8	2389
$ 31 1,2-Dichloroethane-d4	67	5.558	5.561	(0.953)	880500	50.2671	50.3	
* 35 FLUOROBENZENE	96	5.830	5.833	(1.000)	6112660	50.0000		
$ 43 Toluene-d8	98	7.028	7.024	(0.870)	6300515	50.8231	50.8	
* 52 CHLOROBENZENE-d5	82	8.074	8.070	(1.000)	2733071	50.0000		
$ 61 Bromofluorobenzene	174	8.894	8.897	(0.920)	1534065	46.3438	46.3	
* 75 1,4-DICHLOROBENZENE-D4	152	9.669	9.665	(1.000)	1630745	50.0000		

Gulf Coast Analytical Laboratories, Inc.

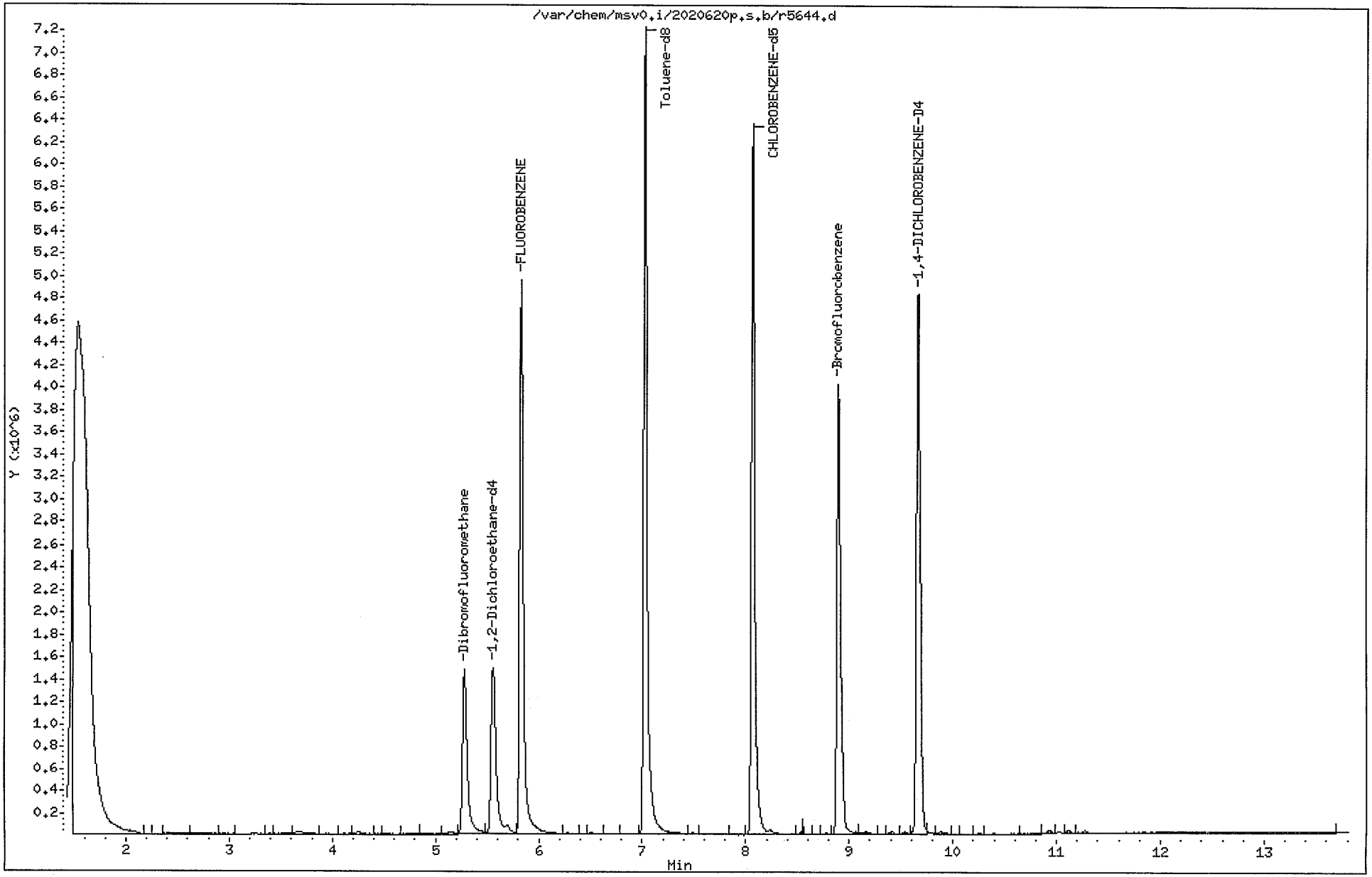
Data file : /var/chem/msv0.i/2020620p.s.b/r5644.d
Lab Smp Id: 46325 Client Smp ID: 46325
Inj Date : 20-JUN-2002 18:38
Operator : RSP Inst ID: msv0.i
Smp Info : 46325*MB for HBN 145825
Misc Info : MSV~2084~*1*RJO
Comment :
Method : /var/chem/msv0.i/2020620p.s.b/8260Bw0.m
Meth Date : 25-Jun-2002 05:22 dlb Quant Type: ISTD
Cal Date : 09-JUN-2002 10:05 Cal File: r5333.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260b.sub
Target Version: 3.50
Processing Host: hpcs2

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /var/chem/msv0.i/2020620p.s.b/r5644.d
Date : 20-JUN-2002 18:38
Client ID: 46325
Sample Info: 46325*MB for HBN 145825
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv0.i

Operator: RSP
Column diameter: 0.53



QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46406	Method Blank	Solid	06/21/2002 13:21

SW-846 8260B

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	06/20/2002 11:06	RJO	145848

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
71-55-6	1,1,1-Trichloroethane	ND	5.00		ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.00		ug/Kg
79-00-5	1,1,2-Trichloroethane	ND	5.00		ug/Kg
75-34-3	1,1-Dichloroethane	ND	5.00		ug/Kg
75-35-4	1,1-Dichloroethene	ND	5.00		ug/Kg
120-82-1	1,2,4-Trichlorobenzene	ND	5.00		ug/Kg
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.00		ug/Kg
106-93-4	1,2-Dibromoethane	ND	5.00		ug/Kg
95-50-1	1,2-Dichlorobenzene	ND	5.00		ug/Kg
107-06-2	1,2-Dichloroethane	ND	5.00		ug/Kg
78-87-5	1,2-Dichloropropane	ND	5.00		ug/Kg
541-73-1	1,3-Dichlorobenzene	ND	5.00		ug/Kg
106-46-7	1,4-Dichlorobenzene	ND	5.00		ug/Kg
78-93-3	2-Butanone	ND	25.0		ug/Kg
591-78-6	2-Hexanone	ND	5.00		ug/Kg
108-10-1	4-Methyl-2-pentanone	ND	5.00		ug/Kg
67-64-1	Acetone	ND	25.0		ug/Kg
71-43-2	Benzene	ND	5.00		ug/Kg
75-27-4	Bromodichloromethane	ND	5.00		ug/Kg
75-25-2	Bromoform	ND	5.00		ug/Kg
74-83-9	Bromomethane	ND	5.00		ug/Kg
75-15-0	Carbon disulfide	ND	5.00		ug/Kg
56-23-5	Carbon tetrachloride	ND	5.00		ug/Kg
108-90-7	Chlorobenzene	ND	5.00		ug/Kg
75-00-3	Chloroethane	ND	5.00		ug/Kg
67-66-3	Chloroform	ND	5.00		ug/Kg
74-87-3	Chloromethane	ND	5.00		ug/Kg
110-82-7	Cyclohexane	ND	5.00		ug/Kg
124-48-1	Dibromochloromethane	ND	5.00		ug/Kg
75-71-8	Dichlorodifluoromethane	ND	5.00		ug/Kg
10061-01-	cis-1,3-Dichloropropene	ND	5.00		ug/Kg
10061-02-	trans-1,3-Dichloropropene	ND	5.00		ug/Kg
100-41-4	Ethylbenzene	ND	5.00		ug/Kg
98-82-8	Isopropylbenzene (Cumene)	ND	5.00		ug/Kg
79-20-9	Methyl Acetate	ND	5000		ug/Kg
108-87-2	Methylcyclohexane	ND	5000		ug/Kg
75-09-2	Methylene chloride	ND	10.0		ug/Kg
100-42-5	Styrene	ND	5.00		ug/Kg
127-18-4	Tetrachloroethene	ND	5.00		ug/Kg
108-88-3	Toluene	ND	5.00		ug/Kg

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46406	Method Blank	Solid	06/21/2002 13:21

SW-846 8260B

	PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
				1	06/20/2002 11:06	RJO	145848

79-01-6	Trichloroethene	ND	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	ND	5.00	ug/Kg
76-13-1	Trichlorotrifluoroethane	ND	5.00	ug/Kg
75-01-4	Vinyl chloride	ND	2.00	ug/Kg
1330-20-7	Xylene (total)	ND	10.0	ug/Kg
156-59-2	cis-1,2-Dichloroethene	ND	5.00	ug/Kg
1634-04-4	tert-Butyl methyl ether (MTBE)	ND	5.00	ug/Kg
156-60-5	trans-1,2-Dichloroethene	ND	5.00	ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
460-00-4	4-Bromofluorobenzene	50	49.9 ug/Kg	100	73 - 138
1868-53-7	Dibromofluoromethane	50	49.3 ug/Kg	99	70 - 130
2037-26-5	Toluene d8	50	50.7 ug/Kg	101	65 - 128
17060-07-	1,2-Dichloroethane-d4	50	50.5 ug/Kg	101	60 - 140

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv4.i/2020620.s.b/r7866.d
Lab Smp Id: 46406 Client Smp ID: 46406
Inj Date : 20-JUN-2002 11:06
Operator : RJO Inst ID: msv4.i
Smp Info : 46406*MB FOR HBN 145848[MSV/2086]
Misc Info : MSV~2086~*1*RJO
Comment :
Method : /var/chem/msv4.i/2020620.s.b/8260Bs4.m
Meth Date : 25-Jun-2002 05:23 dlb Quant Type: ISTD
Cal Date : 14-JUN-2002 16:25 Cal File: r7736.d
Als bottle: 5 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)/((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
M	0.00000	% Moisture (not decanted)
Va	100.00000	Volume of aliquot extract added (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/Kg)
$ 27 Dibromofluoromethane	111	6.297	6.290	(0.919)	139333	49.3300	49.3
$ 32 1,2-Dichloroethane-d4	67	6.578	6.578	(0.960)	72883	50.4954	50.5
* 35 FLUOROBENZENE	96	6.853	6.848	(1.000)	680858	50.0000	
$ 44 Toluene-d8	98	8.059	8.057	(0.881)	576641	50.6733	50.7
* 53 Chlorobenzene-d5	82	9.149	9.148	(1.000)	223704	50.0000	
$ 62 Bromofluorobenzene	174	10.062	10.053	(1.100)	127765	49.8976	49.9
* 77 1,4-DICHLOROBENZENE-D4	152	11.052	11.048	(1.000)	147928	50.0000	

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv4.i/2020620.s.b/r7866.d
Lab Smp Id: 46406 Client Smp ID: 46406
Inj Date : 20-JUN-2002 11:06
Operator : RJO Inst ID: msv4.i
Smp Info : 46406*MB FOR HBN 145848[MSV/2086]
Misc Info : MSV~2086~*1*RJO
Comment :
Method : /var/chem/msv4.i/2020620.s.b/8260Bs4.m
Meth Date : 25-Jun-2002 05:23 dlb Quant Type: ISTD
Cal Date : 14-JUN-2002 16:25 Cal File: r7736.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpcs2

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

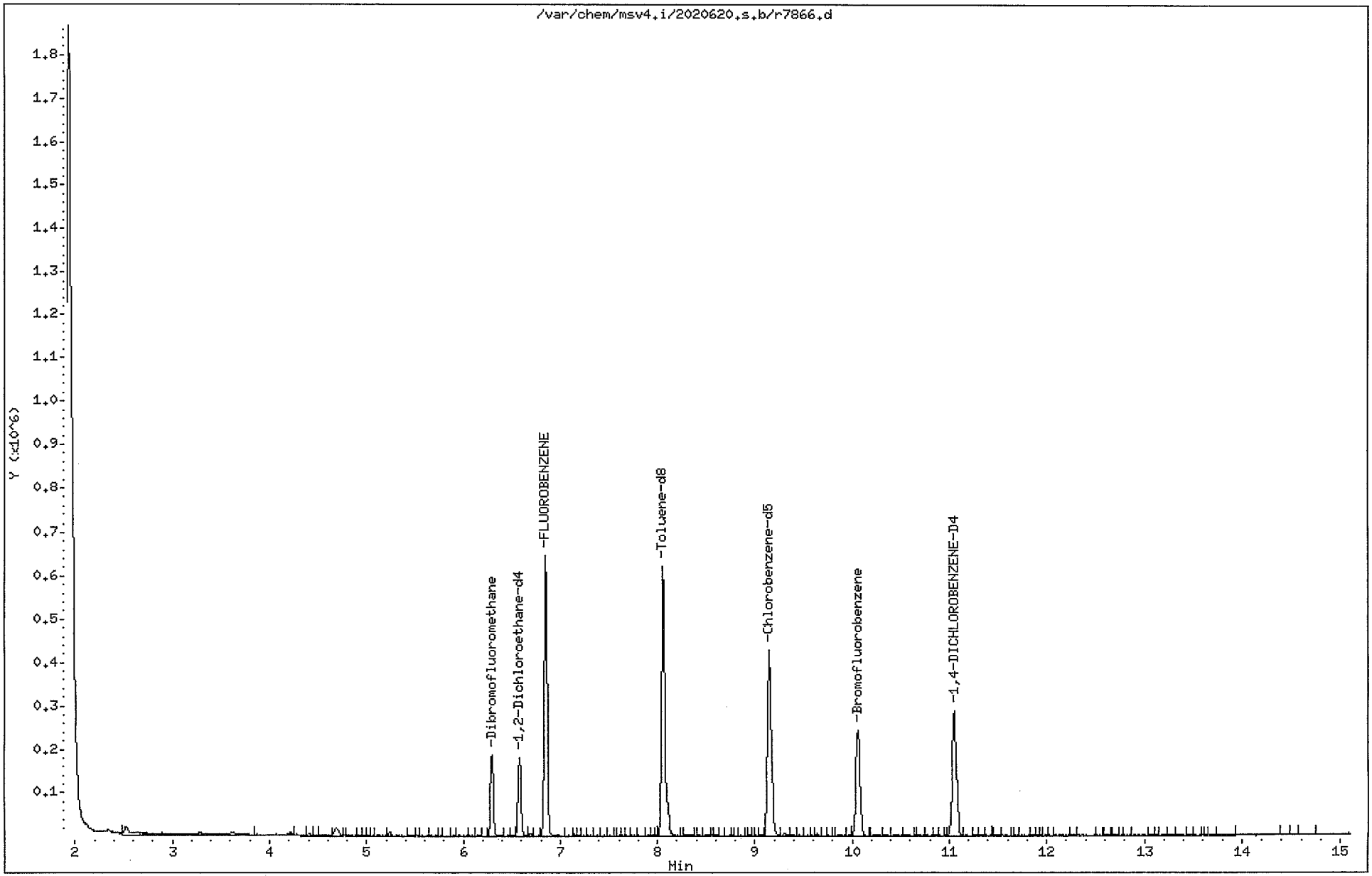
000150

Data File: /var/chem/msv4.i/2020620.s.b/r7866.d
Date : 20-JUN-2002 11:06
Client ID: 46406
Sample Info: 46406*MB FOR HBN 145848[MSV/2086]

Column phase: DB-624-M

Instrument: msv4.i

Operator: RJO
Column diameter: 0.53



QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46326	Lab Control Sample	Water	06/21/2002 14:20

SW-846 8260B

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	06/20/2002 17:14	RSP	145825

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
71-55-6	1,1,1-Trichloroethane	46.6	5.00		ug/L
79-34-5	1,1,2,2-Tetrachloroethane	47.3	0.200		ug/L
79-00-5	1,1,2-Trichloroethane	48.3	5.00		ug/L
75-34-3	1,1-Dichloroethane	48.5	5.00		ug/L
75-35-4	1,1-Dichloroethene	49.5	5.00		ug/L
120-82-1	1,2,4-Trichlorobenzene	49.9	5.00		ug/L
96-12-8	1,2-Dibromo-3-chloropropane	50.4	0.200		ug/L
106-93-4	1,2-Dibromoethane	47.2	0.200		ug/L
95-50-1	1,2-Dichlorobenzene	48.8	5.00		ug/L
107-06-2	1,2-Dichloroethane	46.3	3.00		ug/L
78-87-5	1,2-Dichloropropane	49.4	5.00		ug/L
541-73-1	1,3-Dichlorobenzene	46.7	5.00		ug/L
106-46-7	1,4-Dichlorobenzene	50.0	5.00		ug/L
78-93-3	2-Butanone	54.0	10.0		ug/L
591-78-6	2-Hexanone	53.7	10.0		ug/L
108-10-1	4-Methyl-2-pentanone	54.2	10.0		ug/L
67-64-1	Acetone	49.6	10.0		ug/L
71-43-2	Benzene	48.5	1.00		ug/L
75-27-4	Bromodichloromethane	47.1	0.600		ug/L
75-25-2	Bromoform	48.9	4.00		ug/L
74-83-9	Bromomethane	41.5	5.00		ug/L
75-15-0	Carbon disulfide	47.3	5.00		ug/L
56-23-5	Carbon tetrachloride	45.3	3.00		ug/L
108-90-7	Chlorobenzene	48.2	5.00		ug/L
75-00-3	Chloroethane	52.1	5.00		ug/L
67-66-3	Chloroform	45.8	5.00		ug/L
74-87-3	Chloromethane	48.7	2.70		ug/L
110-82-7	Cyclohexane	49.6J	100		ug/L
124-48-1	Dibromochloromethane	46.6	0.400		ug/L
75-71-8	Dichlorodifluoromethane	47.9	5.00		ug/L
10061-01-	cis-1,3-Dichloropropene	48.3	5.00		ug/L
10061-02-	trans-1,3-Dichloropropene	48.3	5.00		ug/L
100-41-4	Ethylbenzene	48.0	5.00		ug/L
98-82-8	Isopropylbenzene (Cumene)	50.7	5.00		ug/L
79-20-9	Methyl Acetate	48.0	5.00		ug/L
108-87-2	Methylcyclohexane	50.9	5.00		ug/L
75-09-2	Methylene chloride	44.0	5.00		ug/L
100-42-5	Styrene	49.3	5.00		ug/L
127-18-4	Tetrachloroethene	47.6	3.00		ug/L
108-88-3	Toluene	48.5	5.00		ug/L

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46326	Lab Control Sample	Water	06/21/2002 14:20

SW-846 8260B

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	06/20/2002 17:14	RSP	145825

79-01-6	**Trichloroethene**	**51.4**	**3.00**	**ug/L**
75-69-4	**Trichlorofluoromethane**	**46.6**	**5.00**	**ug/L**
76-13-1	**Trichlorotrifluoroethane**	**48.8**	**5.00**	**ug/L**
75-01-4	**Vinyl chloride**	**52.6**	**1.00**	**ug/L**
1330-20-7	**Xylene (total)**	**145**	**5.00**	**ug/L**
156-59-2	**cis-1,2-Dichloroethene**	**48.3**	**5.00**	**ug/L**
1634-04-4	**tert-Butyl methyl ether (MTBE)**	**50.4**	**5.00**	**ug/L**
156-60-5	**trans-1,2-Dichloroethene**	**48.2**	**5.00**	**ug/L**

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
460-00-4	**4-Bromofluorobenzene**	50	49.3 ug/L	99	78 - 115
1868-53-7	**Dibromofluoromethane**	50	47.5 ug/L	95	70 - 130
2037-26-5	**Toluene d8**	50	49.1 ug/L	98	83 - 112
17060-07-	**1,2-Dichloroethane-d4**	50	48.7 ug/L	97	76 - 128

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv0.i/2020620p.s.b/r5641.d
Lab Smp Id: 46326 Client Smp ID: 46326
Inj Date : 20-JUN-2002 17:14
Operator : RSP Inst ID: msv0.i
Smp Info : 46326*LCS for HBN 145825
Misc Info : MSV~2084~*1*RJO
Comment :
Method : /var/chem/msv0.i/2020620p.s.b/8260Bw0.m
Meth Date : 24-Jun-2002 15:05 dlb Quant Type: ISTD
Cal Date : 09-JUN-2002 10:05 Cal File: r5333.d
Als bottle: 4 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	1.669	1.669	(0.286)	705546	47.8636	47.9	
2 Chloromethane ++	50	1.828	1.841	(0.314)	1245899	48.7040	48.7	
3 Vinyl Chloride +	62	1.940	1.941	(0.333)	1130447	52.6003	52.6	
5 Bromomethane	94	2.225	2.239	(0.382)	283935	41.4776	41.5	
6 Chloroethane	64	2.337	2.344	(0.401)	352347	52.1119	52.1	
7 Trichlorofluoromethane	101	2.596	2.609	(0.446)	1434578	46.6447	46.6	
8 Acrolein	56	3.032	3.039	(0.521)	278788	261.601	262	(A)
9 1,1-Dichloroethene +	96	3.165	3.165	(0.543)	805459	49.5082	49.5	
10 1,1,2Trichlorotrifluoroethane	101	3.198	3.198	(0.549)	914252	48.7886	48.8	
11 Acetone	43	3.218	3.245	(0.552)	397595	49.5970	49.6	
12 Methyl Iodide	142	3.324	3.317	(0.571)	1923001	49.8209	49.8	
13 Carbon Disulfide	76	3.383	3.390	(0.581)	2957579	47.2611	47.3	
14 Methylene Chloride	49	3.668	3.668	(0.630)	1386659	44.0198	44.0	
15 Acrylonitrile	53	3.900	3.913	(0.669)	2394959	283.731	284	(A)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
	16 trans-1,2-Dichloroethene	61	3.959	3.959	(0.680)	1456734	48.2364	48.2	
	17 MTBE	73	3.972	3.986	(0.682)	3717627	50.4363	50.4	5600
	19 1,1-Dichloroethane ++	63	4.363	4.363	(0.749)	2056498	48.4562	48.5	
	20 Vinyl Acetate	43	4.237	4.244	(0.727)	979331	49.0898	49.1	
	21 cis-1,2-Dichloroethene	61	4.879	4.879	(0.838)	2014073	48.2731	48.3	
	22 2,2-Dichloropropane	77	4.892	4.893	(0.840)	1712775	46.0955	46.1	
	23 2-Butanone	43	4.886	4.899	(0.839)	699161	53.9776	54.0	
	24 Bromochloromethane	128	5.078	5.078	(0.872)	797982	49.2080	49.2	
	25 Chloroform +	83	5.151	5.151	(0.884)	2285285	45.8389	45.8	
$	26 Dibromofluoromethane	111	5.283	5.283	(0.907)	1438644	47.5279	47.5	6329
	27 1,1,1-Trichloroethane	97	5.323	5.323	(0.914)	1862911	46.5572	46.6	
	29 1,1-Dichloropropene	75	5.448	5.455	(0.935)	1612666	48.4055	48.4	
	30 Carbon Tetrachloride	117	5.468	5.469	(0.939)	1634410	45.3257	45.3	
$	31 1,2-Dichloroethane-d4	67	5.554	5.561	(0.953)	831033	48.6519	48.7	
	32 1,2-Dichloroethane	62	5.614	5.621	(0.964)	1963610	46.2773	46.3	
	33 Benzene	78	5.607	5.614	(0.962)	5350812	48.4541	48.5	
M	34 Total 1,2-Dichloroethene	61				3470807	96.5094	96.5	
*	35 FLUOROBENZENE	96	5.826	5.833	(1.000)	5960778	50.0000		
	36 Trichloroethene	130	6.117	6.124	(1.050)	1691708	51.3804	51.4	
	37 1,2-Dichloropropane +	63	6.282	6.289	(1.078)	1761486	49.3598	49.4	
	38 Dibromomethane	93	6.375	6.375	(1.094)	1021812	48.8429	48.8	
	39 Bromodichloromethane	83	6.487	6.488	(1.114)	2177729	47.0612	47.1	
	40 2-Chloroethyl vinyl ether	63	6.686	6.693	(1.148)	1369596	55.5303	55.5	
	41 cis-1,3-Dichloropropene	75	6.812	6.819	(1.169)	2856911	48.3096	48.3	
	42 4-methyl-2-pentanone	43	6.911	6.918	(1.186)	2146014	54.1908	54.2	
$	43 Toluene-d8	98	7.024	7.024	(0.870)	6171666	49.1211	49.1	
	44 Toluene +	91	7.070	7.077	(1.214)	6725886	48.4562	48.5	
	45 trans-1,3-Dichloropropene	75	7.209	7.209	(1.237)	2605540	44.0590	44.1	(H)
	46 1,1,2-Trichloroethane	97	7.348	7.348	(1.261)	1545648	48.3459	48.3	
	47 1,3-Dichloropropane	76	7.467	7.474	(1.282)	2849271	49.9787	50.0	
	48 Tetrachloroethene	164	7.480	7.487	(1.284)	1154586	47.5800	47.6	
	49 2-Hexanone	43	7.507	7.514	(0.930)	1515235	53.6626	53.7	
	50 Dibromochloromethane	129	7.646	7.646	(0.948)	1693893	46.6401	46.6	
	51 1,2-Dibromoethane(EDB)	107	7.738	7.739	(0.959)	1672070	47.2138	47.2	
*	52 CHLOROBENZENE-d5	82	8.069	8.070	(1.000)	2769937	50.0000		
	53 Chlorobenzene ++	112	8.089	8.096	(1.002)	4652625	48.2062	48.2	
	54 1,1,1,2-Tetrachloroethane	133	8.136	8.136	(1.008)	1540382	46.6873	46.7	
	55 Ethylbenzene +	106	8.155	8.162	(1.011)	2184554	47.9879	48.0	
	56 p,m-Xylene	106	8.235	8.242	(1.020)	5494181	97.1377	97.1	
	57 o-Xylene	106	8.526	8.526	(1.057)	2516446	48.1889	48.2	
	58 Styrene	104	8.533	8.533	(1.057)	4756737	49.3408	49.3	
	59 Bromoform ++	173	8.672	8.679	(1.075)	1043535	48.9158	48.9	
	60 Isopropylbenzene	105	8.778	8.785	(1.088)	7469709	50.7490	50.7	
$	61 Bromofluorobenzene	174	8.897	8.897	(0.921)	1599147	49.3190	49.3	
	62 1,1,2,2-Tetrachloroethane++	83	8.956	8.957	(0.927)	2283066	47.2588	47.3	
	63 trans-1,4-Dichloro-2-Butene	53	8.989	8.990	(0.930)	618416	55.7555	55.8	
	64 1,2,3-Trichloropropane	75	8.996	8.996	(0.931)	2996316	51.8313	51.8	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
	65 Bromobenzene	77	9.009	9.010	(0.932)	4466015	48.9451	48.9	
	66 n-Propylbenzene	91	9.062	9.063	(0.938)	7353798	51.7986	51.8	
	67 2-Chlorotoluene	91	9.135	9.142	(0.945)	4678342	46.8758	46.9	
	68 1,3,5-Trimethylbenzene	105	9.162	9.162	(0.948)	3619024	56.0346	56.0	(H)
	69 4-Chlorotoluene	91	9.201	9.208	(0.952)	4666633	48.4814	48.5	
	70 tert-butylbenzene	91	9.393	9.393	(0.972)	3291892	49.8296	49.8	(H)
	71 1,2,4-Trimethylbenzene	105	9.420	9.420	(0.975)	3755259	55.4830	55.5	
	72 sec-Butylbenzene	105	9.532	9.539	(0.986)	6847228	52.8999	52.9	
	73 p-Isopropyltoluene	119	9.618	9.618	(0.995)	4497983	53.0142	53.0	
	74 1,3-Dichlorobenzene	146	9.631	9.632	(0.997)	2419122	46.6735	46.7	
*	75 1,4-DICHLOROBENZENE-D4	152	9.665	9.665	(1.000)	1597378	50.0000		
	76 1,4-Dichlorobenzene	146	9.684	9.685	(1.002)	2896138	49.9676	50.0	
	77 1,2-Dichlorobenzene	146	9.929	9.930	(1.027)	2447280	48.7520	48.8	
	78 n-Butylbenzene	91	9.876	9.877	(1.022)	3970581	53.7374	53.7	
M	79 TOTAL XYLENE	106				8010627	145.327	145	
	80 1,2-Dibromo-3-Chloropropane	157	10.399	10.400	(1.076)	419957	50.4152	50.4	
	81 1,2,4-Trichlorobenzene	180	10.935	10.936	(1.131)	1302718	49.9062	49.9	
	82 Hexachlorobutadiene	225	11.035	11.035	(1.142)	873932	49.4979	49.5	
	83 Naphthalene	128	11.107	11.108	(1.149)	4056174	54.3864	54.4	
	84 1,2,3-Trichlorobenzene	180	11.266	11.273	(1.166)	1222787	49.6535	49.7	
	132 Methyl Cyclohexane	83	6.276	6.283	(1.077)	2690259	50.8963	50.9	2456
	131 Methyl Acetate	43	3.972	3.986	(0.682)	737354	48.0462	48.0	5600
	114 Hexane	57	4.237	4.244	(0.727)	1602695	48.1103	48.1	4715(H)
	120 Cyclohexane	56	5.389	5.389	(0.925)	2167459	49.5790	49.6	2074

QC Flag Legend

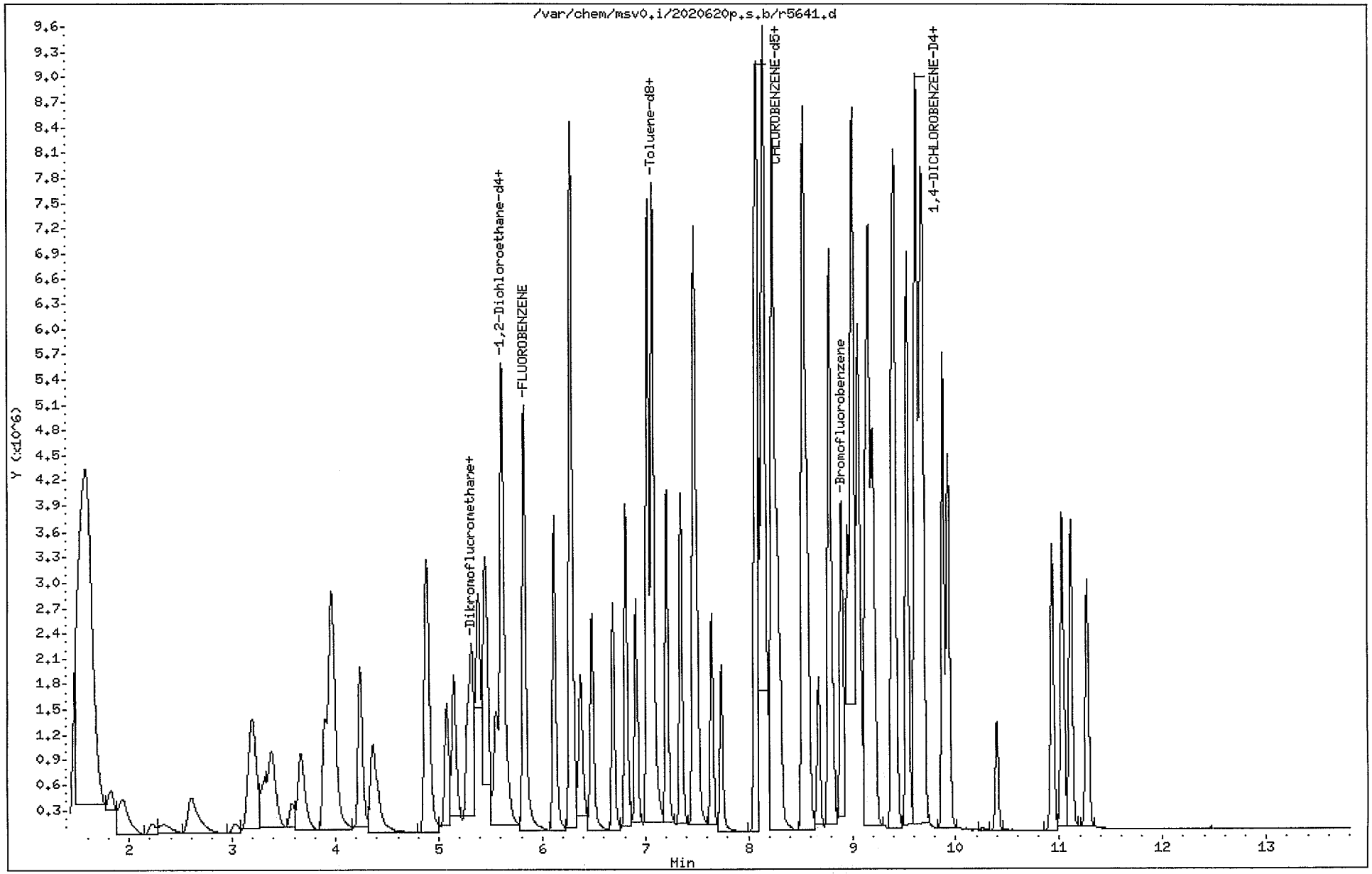
A - Target compound detected but, quantitated amount exceeded maximum amount.
H - Operator selected an alternate compound hit.

000156

Data File: /var/chem/msv0.i/2020620p.s.b/r5641.d
Date : 20-JUN-2002 17:14
Client ID: 46326
Sample Info: 46326*LCS for HBN 145825
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv0.i

Operator: RSP
Column diameter: 0.53



QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46525	Lab Control Sample Duplicate	Water	06/21/2002 14:20

SW-846 8260B

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	06/20/2002 17:37	RSP	145825

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
71-55-6	1,1,1-Trichloroethane	42.3	5.00		ug/L
79-34-5	1,1,2,2-Tetrachloroethane	49.3	0.200		ug/L
79-00-5	1,1,2-Trichloroethane	46.2	5.00		ug/L
75-34-3	1,1-Dichloroethane	43.5	5.00		ug/L
75-35-4	1,1-Dichloroethene	43.6	5.00		ug/L
120-82-1	1,2,4-Trichlorobenzene	49.8	5.00		ug/L
96-12-8	1,2-Dibromo-3-chloropropane	52.4	0.200		ug/L
106-93-4	1,2-Dibromoethane	47.3	0.200		ug/L
95-50-1	1,2-Dichlorobenzene	48.0	5.00		ug/L
107-06-2	1,2-Dichloroethane	43.7	3.00		ug/L
78-87-5	1,2-Dichloropropane	45.9	5.00		ug/L
541-73-1	1,3-Dichlorobenzene	52.1	5.00		ug/L
106-46-7	1,4-Dichlorobenzene	43.2	5.00		ug/L
78-93-3	2-Butanone	49.8	10.0		ug/L
591-78-6	2-Hexanone	52.9	10.0		ug/L
108-10-1	4-Methyl-2-pentanone	50.0	10.0		ug/L
67-64-1	Acetone	46.6	10.0		ug/L
71-43-2	Benzene	44.2	1.00		ug/L
75-27-4	Bromodichloromethane	43.8	0.600		ug/L
75-25-2	Bromoform	49.8	4.00		ug/L
74-83-9	Bromomethane	39.5	5.00		ug/L
75-15-0	Carbon disulfide	42.1	5.00		ug/L
56-23-5	Carbon tetrachloride	40.8	3.00		ug/L
108-90-7	Chlorobenzene	47.4	5.00		ug/L
75-00-3	Chloroethane	37.6	5.00		ug/L
67-66-3	Chloroform	41.9	5.00		ug/L
74-87-3	Chloromethane	43.0	2.70		ug/L
110-82-7	Cyclohexane	44.5J	100		ug/L
124-48-1	Dibromochloromethane	47.9	0.400		ug/L
75-71-8	Dichlorodifluoromethane	42.4	5.00		ug/L
10061-01-	cis-1,3-Dichloropropene	44.3	5.00		ug/L
10061-02-	trans-1,3-Dichloropropene	44.3	5.00		ug/L
100-41-4	Ethylbenzene	48.7	5.00		ug/L
98-82-8	Isopropylbenzene (Cumene)	48.8	5.00		ug/L
79-20-9	Methyl Acetate	45.5	5.00		ug/L
108-87-2	Methylcyclohexane	45.8	5.00		ug/L
75-09-2	Methylene chloride	40.2	5.00		ug/L
100-42-5	Styrene	47.1	5.00		ug/L
127-18-4	Tetrachloroethene	43.4	3.00		ug/L
108-88-3	Toluene	44.2	5.00		ug/L

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46525	Lab Control Sample Duplicate	Water	06/21/2002 14:20

SW-846 8260B

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	06/20/2002 17:37	RSP	145825

79-01-6	**Trichloroethene**	**47.3**	**3.00**	**ug/L**
75-69-4	**Trichlorofluoromethane**	**40.5**	**5.00**	**ug/L**
76-13-1	**Trichlorotrifluoroethane**	**41.8**	**5.00**	**ug/L**
75-01-4	**Vinyl chloride**	**46.1**	**1.00**	**ug/L**
1330-20-7	**Xylene (total)**	**135**	**5.00**	**ug/L**
156-59-2	**cis-1,2-Dichloroethene**	**43.8**	**5.00**	**ug/L**
1634-04-4	**tert-Butyl methyl ether (MTBE)**	**48.2**	**5.00**	**ug/L**
156-60-5	**trans-1,2-Dichloroethene**	**43.2**	**5.00**	**ug/L**

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
460-00-4	**4-Bromofluorobenzene**	50	51.9 ug/L	104	78 - 115
1868-53-7	**Dibromofluoromethane**	50	44.2 ug/L	88	70 - 130
2037-26-5	**Toluene d8**	50	49.5 ug/L	99	83 - 112
17060-07-	**1,2-Dichloroethane-d4**	50	47.4 ug/L	95	76 - 128

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv0.i/2020620p.s.b/r5642.d
Lab Smp Id: 46525 Client Smp ID: 46525
Inj Date : 20-JUN-2002 17:37
Operator : RSP Inst ID: msv0.i
Smp Info : 46525*LCSD for HBN 145825
Misc Info : MSV~2084~*1*RJO
Comment :
Method : /var/chem/msv0.i/2020620p.s.b/8260Bw0.m
Meth Date : 24-Jun-2002 15:05 dlb Quant Type: ISTD
Cal Date : 09-JUN-2002 10:05 Cal File: r5333.d
Als bottle: 5 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	1.679	1.669	(0.288)	680644	42.4078	42.4	
2 Chloromethane ++	50	1.824	1.841	(0.313)	1199044	43.0490	43.0	
3 Vinyl Chloride +	62	1.943	1.941	(0.333)	1078615	46.0947	46.1	
5 Bromomethane	94	2.241	2.239	(0.385)	294604	39.5257	39.5	
6 Chloroethane	64	2.360	2.344	(0.405)	277068	37.6356	37.6	
7 Trichlorofluoromethane	101	2.618	2.609	(0.449)	1357128	40.5271	40.5	
8 Acrolein	56	3.035	3.039	(0.521)	252797	217.863	218	(A)
9 1,1-Dichloroethene +	96	3.181	3.165	(0.546)	772139	43.5889	43.6	
10 1,1,2Trichlorotrifluoroethane	101	3.221	3.198	(0.553)	852928	41.8034	41.8	
11 Acetone	43	3.234	3.245	(0.555)	407083	46.6384	46.6	
12 Methyl Iodide	142	3.327	3.317	(0.571)	1842789	43.8484	43.8	
13 Carbon Disulfide	76	3.386	3.390	(0.581)	2868078	42.0925	42.1	
14 Methylene Chloride	49	3.671	3.668	(0.630)	1379580	40.2227	40.2	
15 Acrylonitrile	53	3.903	3.913	(0.670)	2352664	255.985	256	(A)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
	16 trans-1,2-Dichloroethene	61	3.962	3.959	(0.680)	1421194	43.2209	43.2	
	17 MTBE	73	3.969	3.986	(0.681)	3866695	48.1796	48.2	5619
	19 1,1-Dichloroethane ++	63	4.372	4.363	(0.750)	2008590	43.4669	43.5	
	20 Vinyl Acetate	43	4.240	4.244	(0.727)	947153	43.6042	43.6	
	21 cis-1,2-Dichloroethene	61	4.882	4.879	(0.838)	1990260	43.8112	43.8	
	22 2,2-Dichloropropane	77	4.902	4.893	(0.841)	1664724	41.1478	41.1	
	23 2-Butanone	43	4.889	4.899	(0.839)	702883	49.8386	49.8	
	24 Bromochloromethane	128	5.081	5.078	(0.872)	804729	45.5762	45.6	
	25 Chloroform +	83	5.160	5.151	(0.885)	2272576	41.8657	41.9	
$	26 Dibromofluoromethane	111	5.286	5.283	(0.907)	1455990	44.1773	44.2	6381
	27 1,1,1-Trichloroethane	97	5.332	5.323	(0.915)	1843145	42.3058	42.3	
	29 1,1-Dichloropropene	75	5.445	5.455	(0.934)	1577126	43.4774	43.5	
	30 Carbon Tetrachloride	117	5.471	5.469	(0.939)	1602105	40.8056	40.8	
$	31 1,2-Dichloroethane-d4	67	5.557	5.561	(0.953)	881064	47.3734	47.4	
	32 1,2-Dichloroethane	62	5.617	5.621	(0.964)	2017398	43.6667	43.7	
	33 Benzene	78	5.610	5.614	(0.963)	5320032	44.2457	44.2	
M	34 Total 1,2-Dichloroethene	61				3411454	87.0321	87.0	
*	35 FLUOROBENZENE	96	5.829	5.833	(1.000)	6490182	50.0000		
	36 Trichloroethene	130	6.120	6.124	(1.050)	1695559	47.2967	47.3	
	37 1,2-Dichloropropane +	63	6.279	6.289	(1.077)	1782208	45.8669	45.9	
	38 Dibromomethane	93	6.378	6.375	(1.094)	1034195	45.4024	45.4	
	39 Bromodichloromethane	83	6.484	6.488	(1.112)	2206911	43.8016	43.8	
	40 2-Chloroethyl vinyl ether	63	6.689	6.693	(1.148)	1398156	52.0642	52.1	
	41 cis-1,3-Dichloropropene	75	6.815	6.819	(1.169)	2855073	44.3405	44.3	
	42 4-methyl-2-pentanone	43	6.914	6.918	(1.186)	2155296	49.9858	50.0	
$	43 Toluene-d8	98	7.027	7.024	(0.871)	6315358	49.5374	49.5	
	44 Toluene +	91	7.073	7.077	(1.213)	6673015	44.1538	44.2	
	45 trans-1,3-Dichloropropene	75	7.205	7.209	(1.236)	2634975	40.9223	40.9	(H)
	46 1,1,2-Trichloroethane	97	7.344	7.348	(1.260)	1609233	46.2289	46.2	
	47 1,3-Dichloropropane	76	7.470	7.474	(1.282)	2937417	47.3220	47.3	
	48 Tetrachloroethene	164	7.483	7.487	(1.284)	1147608	43.4348	43.4	
	49 2-Hexanone	43	7.510	7.514	(0.931)	1515884	52.9087	52.9	
	50 Dibromochloromethane	129	7.642	7.646	(0.947)	1765147	47.8987	47.9	
	51 1,2-Dibromoethane(EDB)	107	7.735	7.739	(0.959)	1698135	47.2559	47.3	
*	52 CHLOROBENZENE-d5	82	8.066	8.070	(1.000)	2810612	50.0000		
	53 Chlorobenzene ++	112	8.092	8.096	(1.003)	4638894	47.3684	47.4	
	54 1,1,1,2-Tetrachloroethane	133	8.139	8.136	(1.009)	1569967	46.8954	46.9	
	55 Ethylbenzene +	106	8.158	8.162	(1.011)	2251825	48.7497	48.7	
	56 p,m-Xylene	106	8.238	8.242	(1.021)	5144189	89.6336	89.6	
	57 o-Xylene	106	8.522	8.526	(1.057)	2400148	45.2967	45.3	
	58 Styrene	104	8.529	8.533	(1.057)	4604667	47.0721	47.1	
	59 Bromoform ++	173	8.675	8.679	(1.075)	1078795	49.8368	49.8	
	60 Isopropylbenzene	105	8.774	8.785	(1.088)	7282229	48.7592	48.8	
$	61 Bromofluorobenzene	174	8.893	8.897	(0.920)	1619398	51.8596	51.9	
	62 1,1,2,2-Tetrachloroethane++	83	8.959	8.957	(0.927)	2291948	49.2627	49.3	
	63 trans-1,4-Dichloro-2-Butene	53	8.986	8.990	(0.929)	612049	57.2984	57.3	
	64 1,2,3-Trichloropropane	75	8.992	8.996	(0.930)	3012339	54.1075	54.1	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/L)	SIMILARITY
	65 Bromobenzene	77	9.006	9.010	(0.932)	4458333	50.7354	50.7	
	66 n-Propylbenzene	91	9.059	9.063	(0.937)	6838777	50.0189	50.0	
	67 2-Chlorotoluene	91	9.138	9.142	(0.945)	4345793	45.2142	45.2	
	68 1,3,5-Trimethylbenzene	105	8.774	9.162	(0.908)	7282229	117.079	117	(R)
	69 4-Chlorotoluene	91	9.204	9.208	(0.952)	4503245	48.5787	48.6	
	70 tert-butylbenzene	91	9.138	9.393	(0.945)	4345793	68.3062	68.3	(R)
	71 1,2,4-Trimethylbenzene	105	9.416	9.420	(0.974)	3304660	50.6986	50.7	
	72 sec-Butylbenzene	105	9.535	9.539	(0.986)	6211551	49.8298	49.8	
	73 p-Isopropyltoluene	119	9.615	9.618	(0.995)	3964176	48.5151	48.5	
	74 1,3-Dichlorobenzene	146	9.628	9.632	(0.996)	2602070	52.1292	52.1	
*	75 1,4-DICHLOROBENZENE-D4	152	9.668	9.665	(1.000)	1538361	50.0000		
	76 1,4-Dichlorobenzene	146	9.681	9.685	(1.001)	2409107	43.1593	43.2	
	77 1,2-Dichlorobenzene	146	9.926	9.930	(1.027)	2320098	47.9915	48.0	
	78 n-Butylbenzene	91	9.873	9.877	(1.021)	3440926	48.3556	48.4	
M	79 TOTAL XYLENE	106				7544337	134.930	135	
	80 1,2-Dibromo-3-Chloropropane	157	10.396	10.400	(1.075)	420162	52.3748	52.4	
	81 1,2,4-Trichlorobenzene	180	10.932	10.936	(1.131)	1252877	49.8381	49.8	
	82 Hexachlorobutadiene	225	11.031	11.035	(1.141)	803199	47.2370	47.2	
	83 Naphthalene	128	11.104	11.108	(1.149)	3878897	54.0047	54.0	
	84 1,2,3-Trichlorobenzene	180	11.263	11.273	(1.165)	1190555	50.1994	50.2	
	132 Methyl Cyclohexane	83	6.279	6.283	(1.077)	2637320	45.8249	45.8	2475
	131 Methyl Acetate	43	3.969	3.986	(0.681)	761024	45.5436	45.5	5619
	114 Hexane	57	4.240	4.244	(0.727)	1553987	42.8431	42.8	5055 (H)
	120 Cyclohexane	56	5.398	5.389	(0.926)	2116823	44.4711	44.5	2397

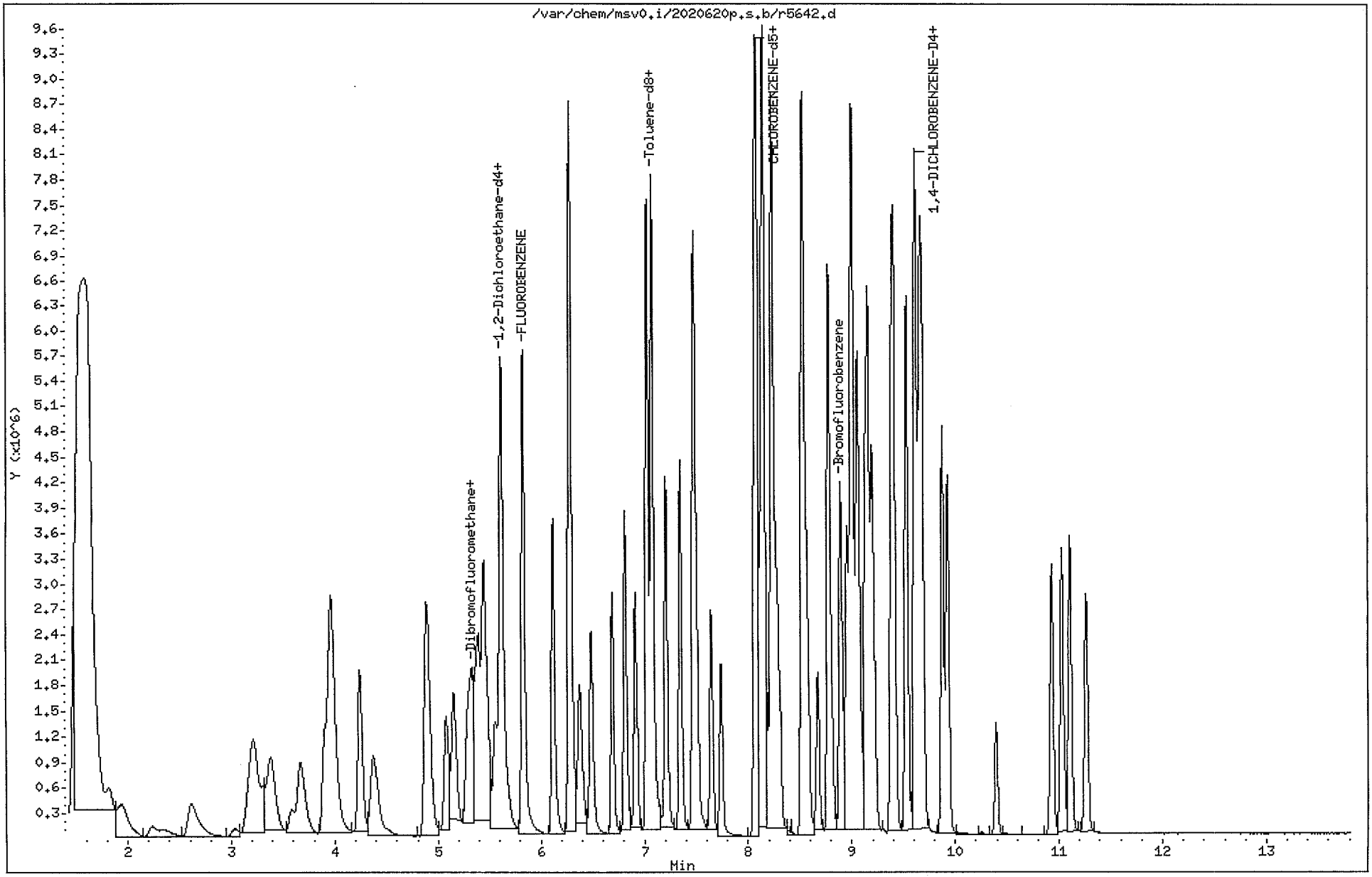
QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

000162

Data File: /var/chem/msv0.i/2020620p.s.b/r5642.d
Date : 20-JUN-2002 17:37
Client ID: 46525
Sample Info: 46525*LCSD for HBN 145825
Purge Volume: 5.0
Column phase: DB-624-30M

Instrument: msv0.i
Operator: RSP
Column diameter: 0.53



QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46407	Lab Control Sample	Solid	06/21/2002 13:21

SW-846 8260B

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	06/20/2002 10:04	RJO	145848

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
71-55-6	1,1,1-Trichloroethane	50.9	5.00		ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	48.5	5.00		ug/Kg
79-00-5	1,1,2-Trichloroethane	51.0	5.00		ug/Kg
75-34-3	1,1-Dichloroethane	50.6	5.00		ug/Kg
75-35-4	1,1-Dichloroethene	50.2	5.00		ug/Kg
120-82-1	1,2,4-Trichlorobenzene	52.0	5.00		ug/Kg
96-12-8	1,2-Dibromo-3-chloropropane	54.6	5.00		ug/Kg
106-93-4	1,2-Dibromoethane	52.2	5.00		ug/Kg
95-50-1	1,2-Dichlorobenzene	48.6	5.00		ug/Kg
107-06-2	1,2-Dichloroethane	53.7	5.00		ug/Kg
78-87-5	1,2-Dichloropropane	51.7	5.00		ug/Kg
541-73-1	1,3-Dichlorobenzene	49.3	5.00		ug/Kg
106-46-7	1,4-Dichlorobenzene	46.1	5.00		ug/Kg
78-93-3	2-Butanone	49.1	25.0		ug/Kg
591-78-6	2-Hexanone	49.2	5.00		ug/Kg
108-10-1	4-Methyl-2-pentanone	50.9	5.00		ug/Kg
67-64-1	Acetone	44.1	25.0		ug/Kg
71-43-2	Benzene	50.5	5.00		ug/Kg
75-27-4	Bromodichloromethane	52.1	5.00		ug/Kg
75-25-2	Bromoform	52.2	5.00		ug/Kg
74-83-9	Bromomethane	51.5	5.00		ug/Kg
75-15-0	Carbon disulfide	44.7	5.00		ug/Kg
56-23-5	Carbon tetrachloride	51.6	5.00		ug/Kg
108-90-7	Chlorobenzene	48.7	5.00		ug/Kg
75-00-3	Chloroethane	51.2	5.00		ug/Kg
67-66-3	Chloroform	50.9	5.00		ug/Kg
74-87-3	Chloromethane	48.1	5.00		ug/Kg
110-82-7	Cyclohexane	52.5	5.00		ug/Kg
124-48-1	Dibromochloromethane	52.3	5.00		ug/Kg
75-71-8	Dichlorodifluoromethane	46.6	5.00		ug/Kg
10061-01-	cis-1,3-Dichloropropene	52.4	5.00		ug/Kg
10061-02-	trans-1,3-Dichloropropene	52.0	5.00		ug/Kg
100-41-4	Ethylbenzene	50.2	5.00		ug/Kg
98-82-8	Isopropylbenzene (Cumene)	50.0	5.00		ug/Kg
79-20-9	Methyl Acetate	50.3J	5000		ug/Kg
108-87-2	Methylcyclohexane	51.5J	5000		ug/Kg
75-09-2	Methylene chloride	44.5	10.0		ug/Kg
100-42-5	Styrene	49.3	5.00		ug/Kg
127-18-4	Tetrachloroethene	48.9	5.00		ug/Kg
108-88-3	Toluene	48.8	5.00		ug/Kg

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46407	Lab Control Sample	Solid	06/21/2002 13:21

SW-846 8260B

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	06/20/2002 10:04	RJO	145848

79-01-6	**Trichloroethene**	**50.6**	**5.00**	**ug/Kg**
75-69-4	**Trichlorofluoromethane**	**52.1**	**5.00**	**ug/Kg**
76-13-1	**Trichlorotrifluoroethane**	**53.3**	**5.00**	**ug/Kg**
75-01-4	**Vinyl chloride**	**48.9**	**2.00**	**ug/Kg**
1330-20-7	**Xylene (total)**	**148**	**10.0**	**ug/Kg**
156-59-2	**cis-1,2-Dichloroethene**	**51.2**	**5.00**	**ug/Kg**
1634-04-4	**tert-Butyl methyl ether (MTBE)**	**53.0**	**5.00**	**ug/Kg**
156-60-5	**trans-1,2-Dichloroethene**	**49.3**	**5.00**	**ug/Kg**

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
460-00-4	**4-Bromofluorobenzene**	50	50.8 ug/Kg	102	73 - 138
1868-53-7	**Dibromofluoromethane**	50	51.4 ug/Kg	103	70 - 130
2037-26-5	**Toluene d8**	50	48.2 ug/Kg	96	65 - 128
17060-07-	**1,2-Dichloroethane-d4**	50	51.2 ug/Kg	102	60 - 140

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv4.i/2020620.s.b/r7864.d
Lab Smp Id: 46407 Client Smp ID: 46407
Inj Date : 20-JUN-2002 10:04
Operator : RJO Inst ID: msv4.i
Smp Info : 46407*LCS for HBN 145848[MSV/2086]
Misc Info : MSV~2086~*1*RJO
Comment :
Method : /var/chem/msv4.i/2020620.s.b/8260Bs4.m
Meth Date : 25-Jun-2002 05:23 dlb Quant Type: ISTD
Cal Date : 14-JUN-2002 16:25 Cal File: r7736.d
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * ((Uf/Vo)/((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
M	0.00000	% Moisture (not decanted)
Va	100.00000	Volume of aliquot extract added (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/Kg)
1 Dichlorodifluoromethane	85	2.169	2.169	(0.317)	96676	46.6385	46.6
2 Chloromethane ++	50	2.404	2.404	(0.351)	251239	48.0617	48.1
3 Vinyl Chloride +	62	2.568	2.562	(0.375)	224049	48.9102	48.9
4 Bromomethane	94	3.030	3.025	(0.442)	118213	51.4960	51.5
5 Chloroethane	64	3.171	3.172	(0.463)	140263	51.1916	51.2
6 Trichlorofluoromethane	101	3.523	3.518	(0.514)	178653	52.0724	52.1
7 1,1-Dichloroethene +	96	4.155	4.156	(0.606)	139228	50.2302	50.2
8 1,1,2Trichlotrifluoroethane	101	4.155	4.156	(0.606)	143525	53.3472	53.3
9 Acetone	43	4.214	4.209	(0.615)	69705	44.0562	44.0
10 Methyl Iodide	142	4.331	4.326	(0.632)	222684	49.0259	49.0
11 Carbon Disulfide	76	4.413	4.408	(0.644)	622843	44.6630	44.7
12 Methyl Acetate	43	4.571	4.566	(0.667)	192365	50.3426	50.3(M)
13 Methylene Chloride	49	4.683	4.684	(0.683)	331524	44.5201	44.5
14 Acrylonitrile	53	4.923	4.924	(0.718)	438775	270.857	271(A)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/Kg)
	15 MTBE	73	4.970	4.965	(0.725)	515124	52.9725	53.0
	16 trans-1,2-Dichloroethene	61	4.970	4.965	(0.725)	306434	49.3361	49.3
	17 Hexane	57	5.240	5.241	(0.765)	381900	49.6606	49.7(M)
	18 Acrolein	56	5.240	5.241	(0.765)	206477	253.874	254(A)
	19 Vinyl Acetate	43	5.240	5.235	(0.765)	274456	50.2126	50.2
	20 1,1-Dichloroethane ++	63	5.375	5.376	(0.784)	401387	50.5723	50.6
	21 2-Butanone	43	5.896	5.891	(0.860)	132080	49.1300	49.1
	22 cis-1,2-Dichloroethene	61	5.896	5.897	(0.860)	364624	51.2004	51.2
	23 2,2-Dichloropropane	77	5.902	5.903	(0.861)	243963	50.1737	50.2
M	24 Total 1,2-Dichloroethene	61				671058	100.537	100
	25 Bromochloromethane	128	6.107	6.108	(0.891)	97632	52.2572	52.2
	26 Chloroform +	83	6.160	6.161	(0.899)	325119	50.8978	50.9
$	27 Dibromofluoromethane	111	6.295	6.290	(0.919)	174060	51.4375	51.4
	28 1,1,1-Trichloroethane	97	6.336	6.337	(0.925)	230051	50.9222	50.9
	29 Cyclohexane	56	6.401	6.402	(0.934)	520487	52.5449	52.5(M)
	30 1,1-Dichloropropene	75	6.471	6.467	(0.944)	277926	48.7134	48.7
	31 Carbon Tetrachloride	117	6.483	6.484	(0.946)	192285	51.5671	51.6
$	32 1,2-Dichloroethane-d4	67	6.583	6.578	(0.961)	88579	51.2248	51.2
	33 1,2-Dichloroethane	62	6.642	6.643	(0.969)	211427	53.6644	53.7
	34 Benzene	78	6.642	6.643	(0.969)	962098	50.5079	50.5
*	35 FLUOROBENZENE	96	6.853	6.848	(1.000)	815704	50.0000	
	36 Trichloroethene	130	7.140	7.142	(1.042)	221743	50.6265	50.6
	37 Methyl cyclohexane	83	7.311	7.312	(1.067)	411825	51.5467	51.5(M)
	38 1,2-Dichloropropane +	63	7.316	7.318	(1.068)	267111	51.7006	51.7
	39 Dibromomethane	93	7.411	7.412	(1.081)	107491	53.1374	53.1
	40 Bromodichloromethane	83	7.510	7.511	(1.096)	243606	52.1295	52.1
	41 2-Chloroethyl vinyl ether	63	7.692	7.693	(1.122)	157052	55.8171	55.8
	42 cis-1,3-Dichloropropene	75	7.839	7.840	(1.144)	354692	52.3752	52.4
	43 4-methyl-2-pentanone	43	8.526	8.521	(1.244)	200547	38.1048	38.1
$	44 Toluene-d8	98	8.056	8.057	(0.881)	686731	48.1885	48.2
	45 Toluene +	91	8.109	8.110	(0.886)	904042	48.7706	48.8
	46 trans-1,3-Dichloropropene	75	8.232	8.233	(0.900)	285923	51.9863	52.0
	47 1,1,2-Trichloroethane	97	8.385	8.386	(0.917)	167453	50.9956	51.0
	48 1,3-Dichloropropane	76	8.514	8.515	(0.931)	321247	50.9874	51.0
	49 2-Hexanone	43	8.526	8.521	(0.932)	200446	49.2042	49.2
	50 Tetrachloroethene	164	8.532	8.533	(0.933)	152106	48.8857	48.9
	51 Dibromochloromethane	129	8.702	8.703	(0.951)	162193	52.3468	52.3
	52 1,2-Dibromoethane(EDB)	107	8.813	8.808	(0.963)	157957	52.2270	52.2
*	53 Chlorobenzene-d5	82	9.147	9.148	(1.000)	280150	50.0000	
	54 Chlorobenzene ++	112	9.171	9.172	(1.003)	583044	48.6848	48.7
	55 1,1,1,2-Tetrachloroethane	133	9.212	9.213	(1.007)	165397	51.0218	51.0
	56 Ethylbenzene +	106	9.224	9.225	(1.008)	334758	50.2369	50.2
	57 p,m-Xylene	106	9.312	9.308	(1.018)	825348	98.3567	98.4
	58 o-Xylene	106	9.629	9.636	(1.053)	383270	49.6572	49.6
	59 Styrene	104	9.635	9.636	(1.053)	632742	49.3313	49.3
	60 Bromoform ++	173	9.817	9.812	(1.073)	91993	52.2103	52.2
	61 Isopropylbenzene	105	9.905	9.906	(1.083)	938747	49.9593	50.0

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/Kg)
$	62 Bromofluorobenzene	174	10.052	10.053	(1.099)	162838	50.7816	50.8
	63 1,1,2,2-Tetrachloroethane++	83	10.111	10.118	(0.915)	240951	48.4671	48.5
	64 trans-1,4-Dichloro-2-Butene	53	10.152	10.147	(0.919)	54769	51.3423	51.3
	65 1,2,3-Trichloropropane	75	10.170	10.177	(0.921)	290822	50.1567	50.2
	66 Bromobenzene	77	10.217	10.212	(0.925)	509083	48.6476	48.6
	67 n-Propylbenzene	91	10.235	10.236	(0.926)	1123408	48.1793	48.2
	68 2-Chlorotoluene	91	10.353	10.354	(0.937)	696768	46.9568	47.0
	69 1,3,5-Trimethylbenzene	105	10.359	10.360	(0.938)	724487	47.4509	47.4
	70 4-Chlorotoluene	91	10.435	10.430	(0.945)	665068	48.2755	48.3
M	71 TOTAL XYLENE	106				1208618	148.014	148
	72 tert-butylbenzene	91	10.658	10.659	(0.965)	441691	47.9553	48.0
	73 1,2,4-Trimethylbenzene	105	10.688	10.695	(0.967)	693047	46.3365	46.3
	74 sec-Butylbenzene	105	10.847	10.848	(0.982)	1004471	47.6504	47.6
	75 p-Isopropyltoluene	119	10.947	10.948	(0.991)	752545	48.2105	48.2
	76 1,3-Dichlorobenzene	146	11.000	11.001	(0.996)	378367	49.3308	49.3
*	77 1,4-DICHLOROBENZENE-D4	152	11.047	11.048	(1.000)	204330	50.0000	
	78 1,4-Dichlorobenzene	146	11.071	11.072	(1.002)	396380	46.0507	46.0
	79 n-Butylbenzene	91	11.323	11.324	(1.025)	647484	47.0209	47.0
	80 1,2-Dichlorobenzene	146	11.429	11.430	(1.035)	340542	48.5725	48.6
	81 1,2-Dibromo-3-Chloropropane	157	12.161	12.162	(1.101)	36651	54.6235	54.6
	82 1,2,4-Trichlorobenzene	180	13.051	13.046	(1.181)	193124	51.9572	52.0
	83 Hexachlorobutadiene	225	13.198	13.199	(1.195)	111214	52.2370	52.2
	84 Napthalene	128	13.345	13.352	(1.208)	508793	53.2067	53.2
	85 1,2,3-Trichlorobenzene	180	13.620	13.610	(1.233)	175740	52.8988	52.9

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

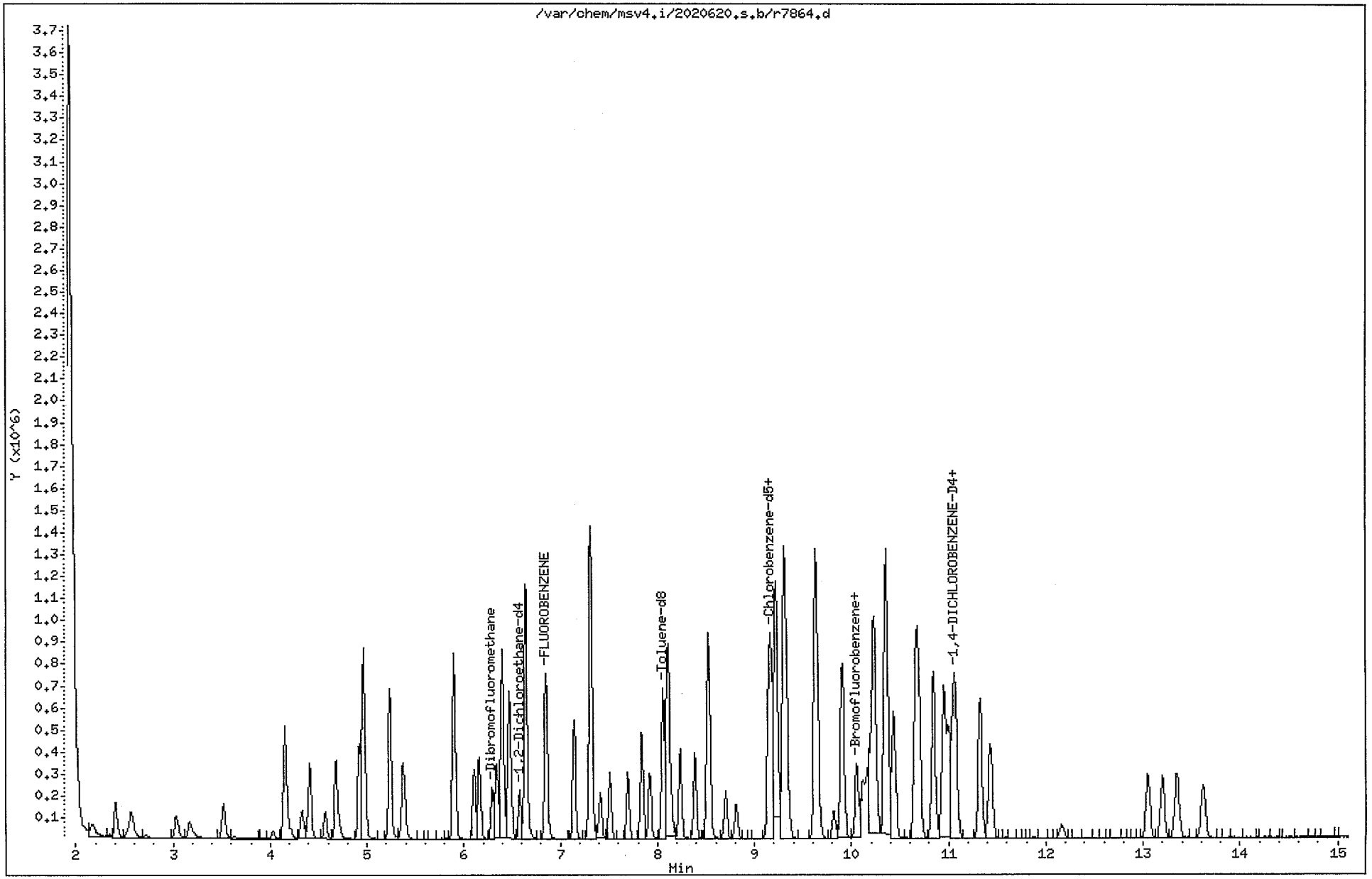
0001168

Data File: /var/chem/msv4.i/2020620.s.b/r7864.d
Date : 20-JUN-2002 10:04
Client ID: 46407
Sample Info: 46407%LCS for HBN 145848[MSV/2086]

Column phase: DB-624-M

Instrument: msv4.i

Operator: RJO
Column diameter: 0.53



QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46408	Lab Control Sample Duplicate	Solid	06/21/2002 13:21

SW-846 8260B

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	06/20/2002 10:31	RJO	145848

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
71-55-6	1,1,1-Trichloroethane	51.8	5.00		ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	45.5	5.00		ug/Kg
79-00-5	1,1,2-Trichloroethane	49.3	5.00		ug/Kg
75-34-3	1,1-Dichloroethane	50.5	5.00		ug/Kg
75-35-4	1,1-Dichloroethene	51.2	5.00		ug/Kg
120-82-1	1,2,4-Trichlorobenzene	51.4	5.00		ug/Kg
96-12-8	1,2-Dibromo-3-chloropropane	54.9	5.00		ug/Kg
106-93-4	1,2-Dibromoethane	49.9	5.00		ug/Kg
95-50-1	1,2-Dichlorobenzene	48.3	5.00		ug/Kg
107-06-2	1,2-Dichloroethane	50.6	5.00		ug/Kg
78-87-5	1,2-Dichloropropane	50.5	5.00		ug/Kg
541-73-1	1,3-Dichlorobenzene	48.6	5.00		ug/Kg
106-46-7	1,4-Dichlorobenzene	46.3	5.00		ug/Kg
78-93-3	2-Butanone	50.6	25.0		ug/Kg
591-78-6	2-Hexanone	47.8	5.00		ug/Kg
108-10-1	4-Methyl-2-pentanone	49.0	5.00		ug/Kg
67-64-1	Acetone	41.4	25.0		ug/Kg
71-43-2	Benzene	50.8	5.00		ug/Kg
75-27-4	Bromodichloromethane	50.3	5.00		ug/Kg
75-25-2	Bromoform	49.2	5.00		ug/Kg
74-83-9	Bromomethane	49.9	5.00		ug/Kg
75-15-0	Carbon disulfide	47.9	5.00		ug/Kg
56-23-5	Carbon tetrachloride	53.3	5.00		ug/Kg
108-90-7	Chlorobenzene	48.8	5.00		ug/Kg
75-00-3	Chloroethane	51.8	5.00		ug/Kg
67-66-3	Chloroform	50.5	5.00		ug/Kg
74-87-3	Chloromethane	47.9	5.00		ug/Kg
110-82-7	Cyclohexane	54.5	5.00		ug/Kg
124-48-1	Dibromochloromethane	50.3	5.00		ug/Kg
75-71-8	Dichlorodifluoromethane	47.0	5.00		ug/Kg
10061-01-	cis-1,3-Dichloropropene	50.1	5.00		ug/Kg
10061-02-	trans-1,3-Dichloropropene	50.2	5.00		ug/Kg
100-41-4	Ethylbenzene	51.1	5.00		ug/Kg
98-82-8	Isopropylbenzene (Cumene)	51.3	5.00		ug/Kg
79-20-9	Methyl Acetate	48.0J	5000		ug/Kg
108-87-2	Methylcyclohexane	52.9J	5000		ug/Kg
75-09-2	Methylene chloride	43.3	10.0		ug/Kg
100-42-5	Styrene	48.9	5.00		ug/Kg
127-18-4	Tetrachloroethene	51.0	5.00		ug/Kg
108-88-3	Toluene	49.8	5.00		ug/Kg

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46408	Lab Control Sample Duplicate	Solid	06/21/2002 13:21

SW-846 8260B

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	06/20/2002 10:31	RJO	145848

79-01-6	**Trichloroethene**	**51.5**	**5.00**	**ug/Kg**
75-69-4	**Trichlorofluoromethane**	**53.2**	**5.00**	**ug/Kg**
76-13-1	**Trichlorotrifluoroethane**	**53.4**	**5.00**	**ug/Kg**
75-01-4	**Vinyl chloride**	**50.1**	**2.00**	**ug/Kg**
1330-20-7	**Xylene (total)**	**151**	**10.0**	**ug/Kg**
156-59-2	**cis-1,2-Dichloroethene**	**51.1**	**5.00**	**ug/Kg**
1634-04-4	**tert-Butyl methyl ether (MTBE)**	**50.1**	**5.00**	**ug/Kg**
156-60-5	**trans-1,2-Dichloroethene**	**50.2**	**5.00**	**ug/Kg**

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
460-00-4	**4-Bromofluorobenzene**	50	50.9 ug/Kg	102	73 - 138
1868-53-7	**Dibromofluoromethane**	50	50 ug/Kg	100	70 - 130
2037-26-5	**Toluene d8**	50	49.7 ug/Kg	99	65 - 128
17060-07-	**1,2-Dichloroethane-d4**	50	49 ug/Kg	98	60 - 140

Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/msv4.i/2020620.s.b/r7865.d
Lab Smp Id: 46408 Client Smp ID: 46408
Inj Date : 20-JUN-2002 10:31
Operator : RJO Inst ID: msv4.i
Smp Info : 46408*LCSD FOR HBN 145848[MSV/2086]
Misc Info : MSV~2086~*1*RJO
Comment :
Method : /var/chem/msv4.i/2020620.s.b/8260Bs4.m
Meth Date : 25-Jun-2002 05:23 dlb Quant Type: ISTD
Cal Date : 14-JUN-2002 16:25 Cal File: r7736.d
Als bottle: 4 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula: Amt * DF * ((Uf/Vo)/((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
M	0.00000	% Moisture (not decanted)
Va	100.00000	Volume of aliquot extract added (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/Kg)
1 Dichlorodifluoromethane	85	2.169	2.169	(0.317)	87487	47.0402	47.0
2 Chloromethane ++	50	2.404	2.404	(0.351)	224806	47.9314	47.9
3 Vinyl Chloride +	62	2.562	2.562	(0.374)	205914	50.1005	50.1
4 Bromomethane	94	3.030	3.025	(0.442)	102779	49.9013	49.9
5 Chloroethane	64	3.171	3.172	(0.463)	127404	51.8249	51.8
6 Trichlorofluoromethane	101	3.516	3.518	(0.513)	163803	53.2132	53.2
7 1,1-Dichloroethene +	96	4.155	4.156	(0.606)	127450	51.2481	51.2
8 1,1,2Trichlotrifluoroethane	101	4.155	4.156	(0.606)	128824	53.3680	53.4
9 Acetone	43	4.214	4.209	(0.615)	58750	41.3857	41.4
10 Methyl Iodide	142	4.331	4.326	(0.632)	198781	48.7766	48.8
11 Carbon Disulfide	76	4.407	4.408	(0.643)	598904	47.8659	47.9
12 Methyl Acetate	43	4.571	4.566	(0.667)	164426	47.9601	48.0(M)
13 Methylene Chloride	49	4.677	4.684	(0.682)	289600	43.3451	43.3
14 Acrylonitrile	53	4.923	4.924	(0.718)	394761	271.601	272(A)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/Kg)
	15 MTBE	73	4.970	4.965	(0.725)	436836	50.0677	50.1
	16 trans-1,2-Dichloroethene	61	4.970	4.965	(0.725)	279902	50.2266	50.2
	17 Hexane	57	5.239	5.241	(0.765)	348212	50.4668	50.5(M)
	18 Acrolein	56	5.239	5.241	(0.765)	187954	257.572	258(A)
	19 Vinyl Acetate	43	5.239	5.235	(0.765)	254067	51.8070	51.8
	20 1,1-Dichloroethane ++	63	5.374	5.376	(0.784)	359663	50.5063	50.5
	21 2-Butanone	43	5.896	5.891	(0.860)	122028	50.5905	50.6
	22 cis-1,2-Dichloroethene	61	5.896	5.897	(0.860)	326560	51.1082	51.1
	23 2,2-Dichloropropane	77	5.902	5.903	(0.861)	222928	51.0995	51.1
M	24 Total 1,2-Dichloroethene	61				606462	101.335	101
	25 Bromochloromethane	128	6.107	6.108	(0.891)	84548	50.4379	50.4
	26 Chloroform +	83	6.160	6.161	(0.899)	289661	50.5413	50.5
$	27 Dibromofluoromethane	111	6.295	6.290	(0.919)	151892	50.0283	50.0
	28 1,1,1-Trichloroethane	97	6.342	6.337	(0.925)	210115	51.8370	51.8
	29 Cyclohexane	56	6.400	6.402	(0.934)	484635	54.5300	54.5(M)
	30 1,1-Dichloropropene	75	6.471	6.467	(0.944)	261231	51.0321	51.0
	31 Carbon Tetrachloride	117	6.483	6.484	(0.946)	178201	53.2645	53.3
$	32 1,2-Dichloroethane-d4	67	6.577	6.578	(0.960)	76041	49.0114	49.0
	33 1,2-Dichloroethane	62	6.641	6.643	(0.969)	179021	50.6442	50.6
	34 Benzene	78	6.647	6.643	(0.970)	867926	50.7835	50.8
*	35 FLUOROBENZENE	96	6.853	6.848	(1.000)	731868	50.0000	
	36 Trichloroethene	130	7.140	7.142	(1.042)	202339	51.4882	51.5
	37 Methyl cyclohexane	83	7.310	7.312	(1.067)	379253	52.9074	52.9(M)
	38 1,2-Dichloropropane +	63	7.316	7.318	(1.068)	234196	50.5223	50.5
	39 Dibromomethane	93	7.410	7.412	(1.081)	90274	49.7383	49.7
	40 Bromodichloromethane	83	7.516	7.511	(1.097)	210797	50.2759	50.3
	41 2-Chloroethyl vinyl ether	63	7.697	7.693	(1.123)	132694	52.5624	52.6
	42 cis-1,3-Dichloropropene	75	7.838	7.840	(1.144)	304132	50.0538	50.0
	43 4-methyl-2-pentanone	43	8.525	8.521	(1.244)	173030	36.6425	36.6
$	44 Toluene-d8	98	8.061	8.057	(0.881)	629453	49.7288	49.7
	45 Toluene +	91	8.108	8.110	(0.886)	819622	49.7818	49.8
	46 trans-1,3-Dichloropropene	75	8.237	8.233	(0.901)	245418	50.2382	50.2
	47 1,1,2-Trichloroethane	97	8.384	8.386	(0.917)	143790	49.3011	49.3
	48 1,3-Dichloropropane	76	8.513	8.515	(0.931)	274787	49.1030	49.1
	49 2-Hexanone	43	8.525	8.521	(0.932)	173091	47.8373	47.8
	50 Tetrachloroethene	164	8.531	8.533	(0.933)	140925	50.9931	51.0
	51 Dibromochloromethane	129	8.701	8.703	(0.951)	138393	50.2875	50.3
	52 1,2-Dibromoethane(EDB)	107	8.812	8.808	(0.963)	134001	49.8830	49.9
*	53 Chlorobenzene-d5	82	9.146	9.148	(1.000)	248830	50.0000	
	54 Chlorobenzene ++	112	9.170	9.172	(1.003)	518689	48.7626	48.8
	55 1,1,1,2-Tetrachloroethane	133	9.211	9.213	(1.007)	144713	50.2601	50.3
	56 Ethylbenzene +	106	9.229	9.225	(1.009)	302215	51.0618	51.1
	57 p,m-Xylene	106	9.312	9.308	(1.018)	743741	99.7875	99.8
	58 o-Xylene	106	9.634	9.636	(1.053)	352131	51.3653	51.4
	59 Styrene	104	9.634	9.636	(1.053)	557105	48.9013	48.9
	60 Bromoform ++	173	9.816	9.812	(1.073)	77053	49.2355	49.2
	61 Isopropylbenzene	105	9.904	9.906	(1.083)	856452	51.3167	51.3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/Kg)
$	62 Bromofluorobenzene	174	10.057	10.053	(1.100)	144933	50.8869	50.9
	63 1,1,2,2-Tetrachloroethane++	83	10.116	10.118	(0.916)	200497	45.4871	45.5
	64 trans-1,4-Dichloro-2-Butene	53	10.145	10.147	(0.918)	47912	50.6580	50.6
	65 1,2,3-Trichloropropane	75	10.169	10.177	(0.921)	247566	48.1566	48.2
	66 Bromobenzene	77	10.210	10.212	(0.924)	448318	48.3194	48.3
	67 n-Propylbenzene	91	10.240	10.236	(0.927)	1025825	49.6202	49.6
	68 2-Chlorotoluene	91	10.352	10.354	(0.937)	619402	47.0810	47.1
	69 1,3,5-Trimethylbenzene	105	10.357	10.360	(0.938)	660915	48.8227	48.8
	70 4-Chlorotoluene	91	10.434	10.430	(0.945)	591454	48.4222	48.4
M	71 TOTAL XYLENE	106				1095872	151.153	151
	72 tert-butylbenzene	91	10.663	10.659	(0.965)	399740	48.9506	49.0
	73 1,2,4-Trimethylbenzene	105	10.693	10.695	(0.968)	625551	47.1721	47.2
	74 sec-Butylbenzene	105	10.845	10.848	(0.982)	918542	49.1463	49.1
	75 p-Isopropyltoluene	119	10.951	10.948	(0.991)	681572	49.2475	49.2
	76 1,3-Dichlorobenzene	146	10.999	11.001	(0.996)	330724	48.6333	48.6
*	77 1,4-DICHLOROBENZENE-D4	152	11.046	11.048	(1.000)	181163	50.0000	
	78 1,4-Dichlorobenzene	146	11.075	11.072	(1.003)	353204	46.2821	46.3
	79 n-Butylbenzene	91	11.322	11.324	(1.025)	580566	47.5528	47.6
	80 1,2-Dichlorobenzene	146	11.427	11.430	(1.035)	300334	48.3156	48.3
	81 1,2-Dibromo-3-Chloropropane	157	12.165	12.162	(1.101)	32659	54.8983	54.9
	82 1,2,4-Trichlorobenzene	180	13.050	13.046	(1.181)	169477	51.4260	51.4
	83 Hexachlorobutadiene	225	13.202	13.199	(1.195)	103178	54.6599	54.6
	84 Napthalene	128	13.343	13.352	(1.208)	440940	52.0076	52.0
	85 1,2,3-Trichlorobenzene	180	13.619	13.610	(1.233)	153549	52.1297	52.1

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

000174

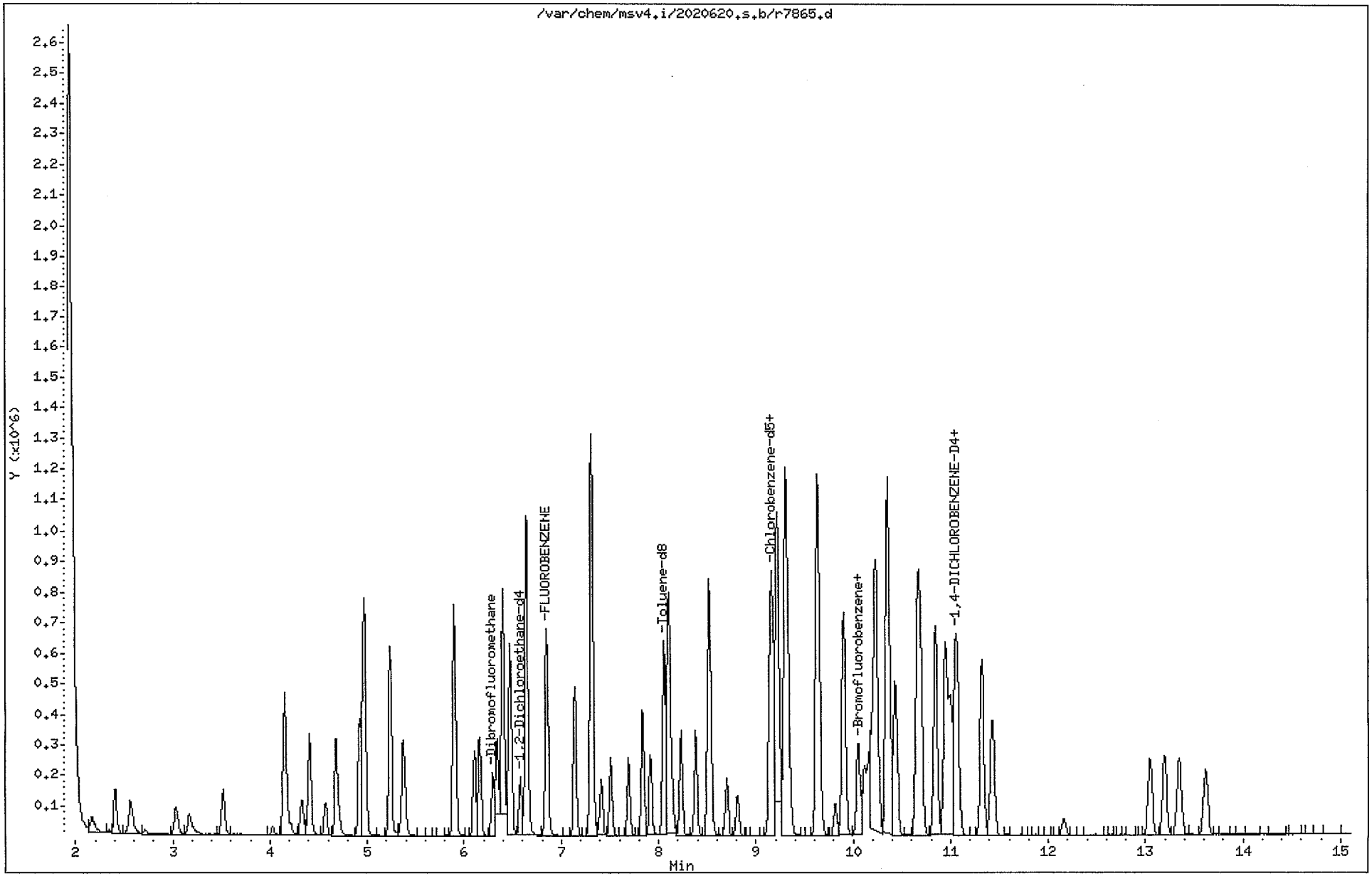
Data File: /var/chem/msv4.i/2020620.s.b/r7865.d
Date : 20-JUN-2002 10:31
Client ID: 46408
Sample Info: 46408*LCSD FOR HBN 145848[MSV/2086]

Instrument: msv4.i

Operator: RJO

Column phase: DB-624-M

Column diameter: 0.53



LABORATORY CHRONICLE: GC-MS DEPARTMENT

Date: 20-JUN-2002
Instrument: msv0.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
0620V0BFB02		r5639.d	0.00	20-JUN-2002 16:13	1.000	2
V0STD050		r5640.d	5.00	20-JUN-2002 16:52	1.000	3
46326		r5641.d	5.00	20-JUN-2002 17:14	1.000	4
46525		r5642.d	5.00	20-JUN-2002 17:37	1.000	5
BLANK		r5643.d	5.00	20-JUN-2002 18:07	1.000	6
46325		r5644.d	5.00	20-JUN-2002 18:38	1.000	7
20206190301		r5645.d	5.00	20-JUN-2002 19:15	40.000	3
46572		r5646.d	5.00	20-JUN-2002 20:17	40.000	4
46573		r5647msd.d	5.00	20-JUN-2002 20:39	40.000	5
20206190208		r5648.d	5.00	20-JUN-2002 21:02	1.000	4
20206190209		r5649.d	5.00	20-JUN-2002 21:24	1.000	4
20206200203		r5650.d	5.00	20-JUN-2002 21:47	1.000	5
20206192801		r5651.d	5.00	20-JUN-2002 22:09	1.000	6
20206192802		r5652.d	5.00	20-JUN-2002 22:32	1.000	7
20206192803		r5653.d	5.00	20-JUN-2002 22:54	1.000	8
20206192804		r5654.d	5.00	20-JUN-2002 23:17	1.000	9
20206192805		r5655.d	5.00	20-JUN-2002 23:39	1.000	10
20206192806		r5656.d	5.00	21-JUN-2002 00:02	1.000	11
20206192807		r5657.d	5.00	21-JUN-2002 00:24	1.000	12
20206192808		r5658.d	5.00	21-JUN-2002 00:47	1.000	13
20206192809		r5659.d	5.00	21-JUN-2002 01:09	1.000	14
20206192810		r5660.d	5.00	21-JUN-2002 01:31	1.000	15
20206192811		r5661.d	5.00	21-JUN-2002 01:54	25.000	16

REVISED 01/01/2000

LABORATORY CHRONICLE: GC-MS DEPARTMENT

Date: 20-JUN-2002
Instrument: msv4.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
0620V4BFB01		r7862.d	0.00	20-JUN-2002 08:32	1.000	2
V4STD050		r7863.d	5.00	20-JUN-2002 09:06	1.000	2
46407		r7864.d	5.00	20-JUN-2002 10:04	1.000	3
46408		r7865.d	5.00	20-JUN-2002 10:31	1.000	4
46406		r7866.d	5.00	20-JUN-2002 11:06	1.000	5
20206200201		r7867.d	5.00	20-JUN-2002 12:12	1.000	6
20206200202		r7868.d	5.00	20-JUN-2002 12:39	1.000	7

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-	4-13-1	Q2143	NSI	010702-03 EXP 07-02	3.125	25ml	250ppm	Water NA	RSF	04-03-02	07-31-02
8260 spike	4-13-2	090600	Absolute	19066/090605	2.5mL	25mL	250ppm	MEOH/ 014929	dlB	04-16-02	10-15-02
8260 IS/SS	4-13-3	C-441-04 2500ppm	NSI IS	C-441-04 Exp-02-04	1.0ml	100ml	25ppm	meOH 014929	RW	4-18-02	10-17-02
↓	↓	C-440-04 2500ppm	NSI SURR	C-440-04 Exp-06-03	1.0ml	↓	↓	↓	↓	↓	↓
2 CVE	4-13-4	17-04-04	NSF 1000	17-04-04 Exp 03-03	6.25ml	25ml	250ppm	meOH 014929	RW	4-18-02	10-17-02
Dates 4/3/02 - 4/18/02 Reviewed by QA/QC on 4/23/02 [illegible]											
8260-IS/SS-4	4-13-5	C-441-04 2500ppm	NSI IS	C-441-04 ~~Exp-06-03~~ Exp-02-04 RSF 4-28	0.5ml	25ml	50ppm	meOH	RSF	4-26-02	10-25-02
	↓	C-440-04 2500ppm	NSI SURR	C-440-04 Exp-06-03	0.5ml	25ml	50ppm	014929	↓	↓	↓
8260 STD	4-13-6	Q-3393 1000ppm	NSF	032102-01 Exp-03-03	6.250 ml	25 ml	250 ppm	meOH 014929	RW	4-27-02	10-26-02
	↓	C-303-11 2000ppm	NSF gases	011502 Exp 01-03	3.125 ml			↓	↓	↓	↓
	↓	Q 2128 2000ppm	NSF	040802-04 Exp-02-03	3.125 ml						
1-3-Butadiene	4-13-7	93016 2500ppm	ABS	103101 Exp 103104	~~1.0ml~~ 2.5ml 4-28-02 RSF	~~10ml~~ 25ml 4-28-02 RSF	250ppm	014929 meOH	RW	4-28-02	10-27-02
App-9 mix-1	4-13-8	93014 2500ppm	ABS	103001 Exp 103004	~~1.0ml~~ 2.5ml RW	~~10ml~~ 25ml 4-28-02 RW	250ppm	014929 meOH	RW	4-28-02	10-27-02
App9 mix-2	4-13-9	93015 variable	ABS	103101 Exp. 103104	1.25ml	5ml	50ppm	014929 meOH	RW	4-28-02	10-27-02
CLP-OLC-3-2 STD A	4-13-10	93164 2000ppm	ABS	050102 Exp-050107	3.125 ml	25ml	250ppm	014929 meOH	RSF	5-02-02	11-01-02
CLP-OLC-3-2 STD-B Ketone	4-13-11	82402 2000ppm	ABS	012901 Exp-012904	2.5ml	10ml	500ppm	014929 meOH	RSF	05-02-02	11-01-02
CLP-OLC-3-2 IS-	4-13-12	20048 2500ppm	ABS	051601 Exp-051606	1.0ml	10ml	250ppm	meOH 014929	RW	05-02-02	11-01-02
CLP-OLC-3-2 SURR-A-non Ketone	4-13-13	ES-5038-1 100ppm	cambridge	PR-12931 Exp-08-04	1.0ml	10ml	10ppm	meOH 014929	RSF	05-02-02	11-01-02

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
LP-OLC-3-2 SURR-B Keton-mix	4-14-1	ES-5038-2 200 ppm	cambridge	PR-12932 EXP-08-04	0.5ml	2.0ml	50ppm	meOH 014929	RSR	05-02-02	11-1-02
LP IS	4-14-2	C-157-03 2500 ug/ml	NSI	C-157-03 Exp 09/02	1 mL	20 mL	125 ppm	meOH 014929	HJL	05-03-02	11-02-02
GM Std	4-14-3	00706LL	Aldrich	00706LL Exp NEAT STD	0.1g	10ml	10,000ppm	Methanol 014929	RJO	5-3-02	11-2-02
		03009DO		03009DO NEAT STD	0.1g	10ml	10,000ppm	Methanol 014929	RJO	5-3-02	11-2-02
		03306KR		03306KR NEAT STD	0.1g	10ml	10,000ppm	Methanol 014929	RJO	5-3-02	11-2-02
		16319JO		16319JO NEAT STD	0.1g	10ml	10,000ppm	Methanol 014929	RJO	5-3-02	11-2-02
		12519LO		12519LO NEAT STD	0.1g	10ml	10,000ppm	Methanol 014929	RJO	5-3-02	11-2-02
GM-ARC STD	4-14-4	4-14-3	IN HOUSE	IN HOUSE 11-2-02	625µl	25ml	250ppm	Methanol 014929	RJO	5-3-02	11-2-02
LP-OLC-32 SUUR-A non Ketone	4-14-5	ES-5038-1 100ppm	cambridge	PR-12931 Exp. 8-04	1.0ml	10ml	10ppm	meOH 014929	RSR	5-7-02	11-6-02
LP-OLC-3-2 SURR-B-Ketone	4-14-6	ES-5038-2 200ppm	cambridge	PR-12932 Exp-08-04	0.5ml	2.0ml	50ppm	meOH 014929	RV	05-09-02 RV-05-09	11-8-02
AC/AC	4-14-7	Q2143	NSI	0210802-03 Exp-10-02	3.125	25ml	250ppm	Water NA	RV	05-11-02	10-10-02
8260 IS/SS	4-14-8	C-440-04 Exp06-03	NSI surr	C-440-04 Exp 06-03	1.0mL	10mL	250ppm	meOH 014929	MB	05-13-02	11-12-02
		C-441-03 Exp 02-04	NSI IS	C-441-03 Exp 02-04	1.0mL	↓	↓	↓	↓	↓	↓
8260 SS	4-14-9	C-440-04	NSI SURR 2500 ppm	C-440-04 Exp-06-03	1.0ml	100ml	25ppm	meOH 014929	RV	05-18-02	11-17-02
Dates 4/26/02-5/18/02 Reviewed By QA/QC on 5/28/02											
8260 IS/SS	4-14-10	C-440-04 Exp-06-03	NSI SURR	C-440-04 2500ppm	2.5ml	25 ml	250ppm	meOH 014929	RV	05-30-02	11-29-02
		C-441-03 Exp-02-04	NSI IS	C-441-03 2500ppm	2.5ml	↓	↓	↓	↓	↓	↓

0001178

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
~~2-4-Dieth~~ ~~1-15-1~~	RJO	6-2-02									
ethylbenzene	4-15-01	92970	ABS 2500ppm	091801 Exp - 09-18-06	1.0 ml	10 ml	250 ppm	MeOH 014929	RJO	6-2-02	12-1-02
c/AC	4-15-02	Q2143	NSI	040802-03 Exp-10-02	3-125ml	25ml	250ppm	water	RJO	6-7-02	10-06-02
260 Is/SS	4-15-03	C-440-04 SURRO	NSI 2500ppm	C-440-04 Exp-06-03	2.5ml	25ml	250ppm	MeOH 021271	RJO	6-22-02	12-21-02
		C-441-04 INT STD	NSI 2500ppm	C-441-04 Exp-02-04	2.5ml						
211 IS/SS	4-15-04	C-440-04 SURR	NSI 2500ppm	C-440-04 Exp-06-03	1.5ml	25ml	150ppm	MeOH 021271	RJO	6-22-02	12-21-02
		C-441-04 INT	NSI 2500ppm	C-441-04 Exp-02-04	1.5ml						
Bromo-2 chloro-thane	4-15-05	15824 JR	Aldrich	15824 JR EXP N/A NEAT	0.1g	10ml	10,000ppm	Methanol 021271	RJO	6-24-02	12-23-02
Bromo-2Chloroethane	4-15-06	4-15-05	IN HOUSE	IN HOUSE 12-23-02	250µl	10ml	250ppm	Methanol 021271	RJO	6-24-02	12-23-02
s (Chloro-methyl) Ether	4-15-7	RCC-006	Ultra	NT02016 Exp. 01/08	0.1g	10 mL	10,000 PPM	Methanol 021271	dB	06-24-02	12-23-02
s (chloromethyl) Ether	4-15-8	4-15-7	In house	In house 12-23-02	250 uL	10 mL	250 PPM	Methanol 021271	dB	06-24-02	12-23-02
~~LP IS/~~ RJO 6-24-02 CLP IS/SS	4-15-9	LA 87629	SUPELCO	LA 87629 11-02	625µl	5ml	250 ppm	Methanol 021271	RJO	6-24-02	11-01-02
	4-15-9	C-440-04	NSI	C-440-04 06-03	500µl	5ml	250ppm	Methanol 021271	RJO	6-24-02	11-01-02
CLP IS/SS	4-15-10	4-15-9	In House	In House 12-23-02	500µl	5ml	25ppm	Methanol 021271	RJO	6-24-02	11-1-02
C											

000179

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	S7 #	S8 #	TOT OUT
01	46410	81	74	84	83	74	72			0
02	46411	86	83	90	77	76	80			0
03	046-BF-S-061	69	66	79	72	63	68			0
04	46412	74	68	85	75	69	72			0
05	46413	76	70	89	76	69	74			0
06	046-RB-S-061	77	69	88	81	72	79			0
07										
08										
09										
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		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(46-116)
S2 (FBP)	= 2-Fluorobiphenyl	(39-116)
S3 (TPH)	= Terphenyl-d14	(24-137)
S4 (PHL)	= Phenol-d5	(34-113)
S5 (2FP)	= 2-Fluorophenol	(44-106)
S6 (TBP)	= 2,4,6-Tribromophenol	(17-120)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

QUALITY CONTROL SUMMARY

LCS ID: 46411	ORIGINAL LAB ID:	PREP BATCH: 145849
	MATRIX Solid	ANALYTICAL BATCH: 145931

SW-846 8270C

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
208-96-8	Acenaphthylene	3330 ug/Kg	2660	80	60 - 120
120-12-7	Anthracene	3330 ug/Kg	2620	79	60 - 120
56-55-3	Benzo(a)anthracene	3330 ug/Kg	2590	78	60 - 120
205-99-2	Benzo(b)fluoranthene	3330 ug/Kg	2710	81	60 - 120
207-08-9	Benzo(k)fluoranthene	3330 ug/Kg	2650	80	60 - 120
191-24-2	Benzo(g,h,i)perylene	3330 ug/Kg	2520	76	60 - 120
50-32-8	Benzo(a)pyrene	3330 ug/Kg	2670	80	60 - 120
85-68-7	Butyl benzyl phthalate	3330 ug/Kg	3100	93	60 - 120
111-91-1	Bis(2-Chloroethoxy)methane	3330 ug/Kg	2800	84	60 - 120
111-44-4	Bis(2-Chloroethyl)ether	3330 ug/Kg	2600	78	45 - 135
108-60-1	Bis(2-Chloroisopropyl)ether	3330 ug/Kg	2830	85	45 - 135
117-81-7	Bis(2-Ethylhexyl)phthalate	3330 ug/Kg	3220	97	60 - 120
101-55-3	4-Bromophenyl phenyl ether	3330 ug/Kg	2630	79	60 - 120
86-74-8	Carbazole	3330 ug/Kg	2900	87	60 - 120
7005-72-3	4-Chlorophenyl phenyl ether	3330 ug/Kg	2780	83	45 - 135
218-01-9	Chrysene	3270 ug/Kg	2760	84	60 - 120
53-70-3	Dibenz(a,h)anthracene	3330 ug/Kg	2510	75	60 - 120
132-64-9	Dibenzofuran	3330 ug/Kg	2750	83	45 - 135
91-94-1	3,3'-Dichlorobenzidine	3330 ug/Kg	1770	53 *	60 - 120
120-83-2	2,4-Dichlorophenol	3330 ug/Kg	2630	79	30 - 150
84-66-2	Diethyl phthalate	3330 ug/Kg	2640	79	60 - 120
105-67-9	2,4-Dimethylphenol	3330 ug/Kg	2750	83	60 - 120
131-11-3	Dimethyl phthalate	3330 ug/Kg	2550	77	60 - 120
117-84-0	Di-n-octyl phthalate	3330 ug/Kg	2900	87	60 - 120
51-28-5	2,4-Dinitrophenol	3330 ug/Kg	2590	78	30 - 150
606-20-2	2,6-Dinitrotoluene	3330 ug/Kg	2670	80	60 - 120
206-44-0	Fluoranthene	3330 ug/Kg	2740	82	60 - 120
86-73-7	Fluorene	3330 ug/Kg	2790	84	60 - 120
118-74-1	Hexachlorobenzene	3330 ug/Kg	2480	74	60 - 120
87-68-3	Hexachlorobutadiene	3330 ug/Kg	2610	78	60 - 120
77-47-4	Hexachlorocyclopentadiene	3330 ug/Kg	2740	82	45 - 135
67-72-1	Hexachloroethane	3330 ug/Kg	2620	79	45 - 135
78-59-1	Isophorone	3330 ug/Kg	2890	87	45 - 135
193-39-5	Indeno(1,2,3-cd)pyrene	3330 ug/Kg	2580	77	60 - 120
91-57-6	2-Methylnaphthalene	3330 ug/Kg	2730	82	60 - 120
95-48-7	o-Cresol	3330 ug/Kg	2510	75	30 - 150
91-20-3	Naphthalene	3330 ug/Kg	2750	83	45 - 135
98-95-3	Nitrobenzene	3330 ug/Kg	2960	89	60 - 120
88-75-5	2-Nitrophenol	3330 ug/Kg	2720	82	30 - 150

QUALITY CONTROL SUMMARY

86-30-6	n-Nitrosodiphenylamine	3270 ug/Kg	2730	84	60 - 120
85-01-8	Phenanthrene	3330 ug/Kg	2690	81	60 - 120
95-95-4	2,4,5-Trichlorophenol	3330 ug/Kg	2730	82	45 - 135
88-06-2	2,4,6-Trichlorophenol	3330 ug/Kg	2690	81	45 - 135
105-60-2	Caprolactam	3330 ug/Kg	2830	85	60 - 120
98-86-2	Acetophenone	3330 ug/Kg	3060	92	60 - 120
99-09-2	3-Nitroaniline	3330 ug/Kg	1700	51	30 - 150
100-01-6	4-Nitroaniline	3370 ug/Kg	2450	73	30 - 150
84-74-2	Di-n-butyl phthalate	3330 ug/Kg	2780	83	60 - 120
88-74-4	2-Nitroaniline	3330 ug/Kg	2630	79	30 - 150
91-58-7	2-Chloronaphthalene	3330 ug/Kg	2520	76	45 - 135
106-47-8	4-Chloroaniline	3330 ug/Kg	1370	41	30 - 150
1912-24-9	Atrazine (Aatrex)	3330 ug/Kg	3610	108	60 - 120
100-52-7	Benzaldehyde	3330 ug/Kg	1330	40 *	60 - 120
92-52-4	Biphenyl	3330 ug/Kg	2720	82	60 - 120
1319-77-3MP	m,p-Cresol	3330 ug/Kg	2750	83	30 - 150
534-52-1	4,6-Dinitro-2-methylphenol	3330 ug/Kg	3170	95	60 - 120
108-95-2	Phenol	3330 ug/Kg	2510	75	29 - 127
95-57-8	2-Chlorophenol	3330 ug/Kg	2550	77	31 - 124
621-64-7	n-Nitrosodi-n-propylamine	3330 ug/Kg	2830	85	60 - 115
59-50-7	4-Chloro-3-methylphenol	3330 ug/Kg	2740	82	38 - 118
83-32-9	Acenaphthene	3330 ug/Kg	2700	81	56 - 116
100-02-7	4-Nitrophenol	3330 ug/Kg	2890	87	23 - 130
121-14-2	2,4-Dinitrotoluene	3330 ug/Kg	2700	81	58 - 122
87-86-5	Pentachlorophenol	3330 ug/Kg	2730	82	30 - 125
129-00-0	Pyrene	3330 ug/Kg	2930	88	54 - 122

MS LAB ID: 46412 ORIGINAL LAB ID: 20206200201 PREP BATCH: 145849
MATRIX Solid ANALYTICAL BATCH: 145931

SW-846 8270C

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
208-96-8	Acenaphthylene	0	3330 ug/Kg	2270	68	60 - 120
120-12-7	Anthracene	0	3330 ug/Kg	2230	67	60 - 120
56-55-3	Benzo(a)anthracene	0	3330 ug/Kg	2240	67	60 - 120
205-99-2	Benzo(b)fluoranthene	0	3330 ug/Kg	2340	70	60 - 120
207-08-9	Benzo(k)fluoranthene	0	3330 ug/Kg	2450	74	60 - 120
191-24-2	Benzo(g,h,i)perylene	0	3330 ug/Kg	2290	69	60 - 120
50-32-8	Benzo(a)pyrene	0	3330 ug/Kg	2330	70	60 - 120
85-68-7	Butyl benzyl phthalate	0	3330 ug/Kg	2790	84	60 - 120
111-91-1	Bis(2-Chloroethoxy)methane	0	3330 ug/Kg	2440	73	60 - 120
111-44-4	Bis(2-Chloroethyl)ether	0	3330 ug/Kg	2340	70	45 - 135
108-60-1	Bis(2-Chloroisopropyl)ether	0	3330 ug/Kg	2600	78	45 - 135
117-81-7	Bis(2-Ethylhexyl)phthalate	50.8	3330 ug/Kg	2990	88	60 - 120
101-55-3	4-Bromophenyl phenyl ether	0	3330 ug/Kg	2300	69	60 - 120

QUALITY CONTROL SUMMARY

86-74-8	Carbazole	0	3330 ug/Kg	2380	71	60 - 120
7005-72-3	4-Chlorophenyl phenyl ether	0	3330 ug/Kg	2450	74	45 - 135
218-01-9	Chrysene	0	3270 ug/Kg	2410	74	60 - 120
53-70-3	Dibenz(a,h)anthracene	0	3330 ug/Kg	2230	67	60 - 120
132-64-9	Dibenzofuran	0	3330 ug/Kg	2390	72	45 - 135
91-94-1	3,3'-Dichlorobenzidine	0	3330 ug/Kg	1010	30 *	60 - 120
120-83-2	2,4-Dichlorophenol	0	3330 ug/Kg	2360	71	30 - 150
84-66-2	Diethyl phthalate	0	3330 ug/Kg	2380	71	60 - 120
105-67-9	2,4-Dimethylphenol	0	3330 ug/Kg	2310	69	60 - 120
131-11-3	Dimethyl phthalate	0	3330 ug/Kg	2280	68	60 - 120
117-84-0	Di-n-octyl phthalate	0	3330 ug/Kg	2580	77	60 - 120
51-28-5	2,4-Dinitrophenol	0	3330 ug/Kg	3210	96	30 - 150
606-20-2	2,6-Dinitrotoluene	0	3330 ug/Kg	2380	71	60 - 120
206-44-0	Fluoranthene	0	3330 ug/Kg	2340	70	60 - 120
86-73-7	Fluorene	0	3330 ug/Kg	2440	73	60 - 120
118-74-1	Hexachlorobenzene	0	3330 ug/Kg	2140	64	60 - 120
87-68-3	Hexachlorobutadiene	0	3330 ug/Kg	2170	65	60 - 120
77-47-4	Hexachlorocyclopentadiene	0	3330 ug/Kg	2270	68	45 - 135
67-72-1	Hexachloroethane	0	3330 ug/Kg	2240	67	45 - 135
78-59-1	Isophorone	0	3330 ug/Kg	2510	75	45 - 135
193-39-5	Indeno(1,2,3-cd)pyrene	0	3330 ug/Kg	2320	70	60 - 120
91-57-6	2-Methylnaphthalene	0	3330 ug/Kg	2410	72	60 - 120
95-48-7	o-Cresol	0	3330 ug/Kg	2430	73	30 - 150
91-20-3	Naphthalene	0	3330 ug/Kg	2340	70	45 - 135
98-95-3	Nitrobenzene	0	3330 ug/Kg	2550	77	60 - 120
88-75-5	2-Nitrophenol	0	3330 ug/Kg	2340	70	30 - 150
86-30-6	n-Nitrosodiphenylamine	0	3270 ug/Kg	2330	71	60 - 120
85-01-8	Phenanthrene	0	3330 ug/Kg	2270	68	60 - 120
95-95-4	2,4,5-Trichlorophenol	0	3330 ug/Kg	2410	72	45 - 135
88-06-2	2,4,6-Trichlorophenol	0	3330 ug/Kg	2370	71	45 - 135
105-60-2	Caprolactam	0	3330 ug/Kg	2630	79	60 - 120
98-86-2	Acetophenone	0	3330 ug/Kg	2840	85	60 - 120
99-09-2	3-Nitroaniline	0	3330 ug/Kg	1380	41	30 - 150
100-01-6	4-Nitroaniline	0	3370 ug/Kg	1820	54	30 - 150
84-74-2	Di-n-butyl phthalate	0	3330 ug/Kg	2440	73	60 - 120
88-74-4	2-Nitroaniline	0	3330 ug/Kg	2310	69	30 - 150
91-58-7	2-Chloronaphthalene	0	3330 ug/Kg	2150	65	45 - 135
106-47-8	4-Chloroaniline	0	3330 ug/Kg	810	24 *	30 - 150
1912-24-9	Atrazine (Aatrex)	0	3330 ug/Kg	2980	89	60 - 120
100-52-7	Benzaldehyde	0	3330 ug/Kg	3790	114	60 - 120
92-52-4	Biphenyl	0	3330 ug/Kg	2670	80	60 - 120
1319-77-3MP	m,p-Cresol	0	3330 ug/Kg	2570	77	30 - 150
534-52-1	4,6-Dinitro-2-methylphenol	0	3330 ug/Kg	3000	90	60 - 120
108-95-2	Phenol	0	3330 ug/Kg	2410	72	43 - 114
95-57-8	2-Chlorophenol	0	3330 ug/Kg	2300	69	40 - 120

QUALITY CONTROL SUMMARY

621-64-7	n-Nitrosodi-n-propylamine	0	3330 ug/Kg	2690	81	62 - 111
59-50-7	4-Chloro-3-methylphenol	0	3330 ug/Kg	2530	76	50 - 114
83-32-9	Acenaphthene	0	3330 ug/Kg	2330	70	48 - 126
100-02-7	4-Nitrophenol	0	3330 ug/Kg	2520	76	47 - 110
121-14-2	2,4-Dinitrotoluene	0	3330 ug/Kg	2420	73	43 - 148
87-86-5	Pentachlorophenol	0	3330 ug/Kg	2620	79	36 - 125
129-00-0	Pyrene	0	3330 ug/Kg	2760	83	38 - 143

MSD LAB ID: 46413 ORIGINAL LAB ID: 20206200201 PREP BATCH: 145849
MATRIX Solid ANALYTICAL BATCH: 145931

SW-846 8270C

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
208-96-8	Acenaphthylene	3330 ug/Kg	2370	71	60 - 120	4	0 - 40
120-12-7	Anthracene	3330 ug/Kg	2350	71	60 - 120	6	0 - 40
56-55-3	Benzo(a)anthracene	3330 ug/Kg	2330	70	60 - 120	4	0 - 40
205-99-2	Benzo(b)fluoranthene	3330 ug/Kg	2370	71	60 - 120	1	0 - 40
207-08-9	Benzo(k)fluoranthene	3330 ug/Kg	2540	76	60 - 120	3	0 - 40
191-24-2	Benzo(g,h,i)perylene	3330 ug/Kg	2440	73	60 - 120	6	0 - 40
50-32-8	Benzo(a)pyrene	3330 ug/Kg	2410	72	60 - 120	3	0 - 40
85-68-7	Butyl benzyl phthalate	3330 ug/Kg	2960	89	60 - 120	6	0 - 40
111-91-1	Bis(2-Chloroethoxy)methane	3330 ug/Kg	2550	77	60 - 120	5	0 - 40
111-44-4	Bis(2-Chloroethyl)ether	3330 ug/Kg	2320	70	45 - 135	0	0 - 40
108-60-1	Bis(2-Chloroisopropyl)ether	3330 ug/Kg	2610	78	45 - 135	0	0 - 40
117-81-7	Bis(2-Ethylhexyl)phthalate	3330 ug/Kg	3140	93	60 - 120	6	0 - 40
101-55-3	4-Bromophenyl phenyl ether	3330 ug/Kg	2380	71	60 - 120	3	0 - 40
86-74-8	Carbazole	3330 ug/Kg	2490	75	60 - 120	5	0 - 40
7005-72-3	4-Chlorophenyl phenyl ether	3330 ug/Kg	2520	76	45 - 135	3	0 - 40
218-01-9	Chrysene	3270 ug/Kg	2500	77	60 - 120	4	0 - 40
53-70-3	Dibenz(a,h)anthracene	3330 ug/Kg	2320	70	60 - 120	4	0 - 40
132-64-9	Dibenzofuran	3330 ug/Kg	2460	74	45 - 135	3	0 - 40
91-94-1	3,3'-Dichlorobenzidine	3330 ug/Kg	1020	31 *	60 - 120	3	0 - 40
120-83-2	2,4-Dichlorophenol	3330 ug/Kg	2500	75	30 - 150	5	0 - 40
84-66-2	Diethyl phthalate	3330 ug/Kg	2490	75	60 - 120	5	0 - 40
105-67-9	2,4-Dimethylphenol	3330 ug/Kg	1960	59 *	60 - 120	16	0 - 40
131-11-3	Dimethyl phthalate	3330 ug/Kg	2350	71	60 - 120	4	0 - 40
117-84-0	Di-n-octyl phthalate	3330 ug/Kg	2690	81	60 - 120	5	0 - 40
51-28-5	2,4-Dinitrophenol	3330 ug/Kg	3300	99	30 - 150	3	0 - 40
606-20-2	2,6-Dinitrotoluene	3330 ug/Kg	2460	74	60 - 120	4	0 - 40
206-44-0	Fluoranthene	3330 ug/Kg	2450	74	60 - 120	6	0 - 40
86-73-7	Fluorene	3330 ug/Kg	2530	76	60 - 120	4	0 - 40
118-74-1	Hexachlorobenzene	3330 ug/Kg	2210	66	60 - 120	3	0 - 40
87-68-3	Hexachlorobutadiene	3330 ug/Kg	2220	67	60 - 120	3	0 - 40
77-47-4	Hexachlorocyclopentadiene	3330 ug/Kg	2190	66	45 - 135	3	0 - 40
67-72-1	Hexachloroethane	3330 ug/Kg	2240	67	45 - 135	0	0 - 40

QUALITY CONTROL SUMMARY

78-59-1	Isophorone	3330 ug/Kg	2630	79	45 - 135	5	0 - 40
193-39-5	Indeno(1,2,3-cd)pyrene	3330 ug/Kg	2460	74	60 - 120	6	0 - 40
91-57-6	2-Methylnaphthalene	3330 ug/Kg	2550	77	60 - 120	7	0 - 40
95-48-7	o-Cresol	3330 ug/Kg	2360	71	30 - 150	3	0 - 40
91-20-3	Naphthalene	3330 ug/Kg	2420	73	45 - 135	4	0 - 40
98-95-3	Nitrobenzene	3330 ug/Kg	2660	80	60 - 120	4	0 - 40
88-75-5	2-Nitrophenol	3330 ug/Kg	2440	73	30 - 150	4	0 - 40
86-30-6	n-Nitrosodiphenylamine	3270 ug/Kg	2410	74	60 - 120	4	0 - 40
85-01-8	Phenanthrene	3330 ug/Kg	2390	72	60 - 120	6	0 - 40
95-95-4	2,4,5-Trichlorophenol	3330 ug/Kg	2450	74	45 - 135	3	0 - 40
88-06-2	2,4,6-Trichlorophenol	3330 ug/Kg	2420	73	45 - 135	3	0 - 40
105-60-2	Caprolactam	3330 ug/Kg	2820	85	60 - 120	7	0 - 40
98-86-2	Acetophenone	3330 ug/Kg	2870	86	60 - 120	1	0 - 40
99-09-2	3-Nitroaniline	3330 ug/Kg	1460	44	30 - 150	7	0 - 40
100-01-6	4-Nitroaniline	3370 ug/Kg	1960	58	30 - 150	7	0 - 40
84-74-2	Di-n-butyl phthalate	3330 ug/Kg	2610	78	60 - 120	7	0 - 40
88-74-4	2-Nitroaniline	3330 ug/Kg	2410	72	30 - 150	4	0 - 40
91-58-7	2-Chloronaphthalene	3330 ug/Kg	2200	66	45 - 135	2	0 - 40
106-47-8	4-Chloroaniline	3330 ug/Kg	530	16 *	30 - 150	40	0 - 40
1912-24-9	Atrazine (Aatrex)	3330 ug/Kg	3140	94	60 - 120	5	0 - 40
100-52-7	Benzaldehyde	3330 ug/Kg	3970	119	60 - 120	4	0 - 40
92-52-4	Biphenyl	3330 ug/Kg	2750	83	60 - 120	4	0 - 40
1319-77-3MP	m,p-Cresol	3330 ug/Kg	2560	77	30 - 150	0	0 - 40
534-52-1	4,6-Dinitro-2-methylphenol	3330 ug/Kg	3140	94	60 - 120	4	0 - 40
108-95-2	Phenol	3330 ug/Kg	2410	72	43 - 114	0	0 - 33
95-57-8	2-Chlorophenol	3330 ug/Kg	2300	69	40 - 120	0	0 - 41
621-64-7	n-Nitrosodi-n-propylamine	3330 ug/Kg	2730	82	62 - 111	1	0 - 33
59-50-7	4-Chloro-3-methylphenol	3330 ug/Kg	2660	80	50 - 114	5	0 - 37
83-32-9	Acenaphthene	3330 ug/Kg	2400	72	48 - 126	3	0 - 25
100-02-7	4-Nitrophenol	3330 ug/Kg	2710	81	47 - 110	6	0 - 51
121-14-2	2,4-Dinitrotoluene	3330 ug/Kg	2510	75	43 - 148	3	0 - 38
87-86-5	Pentachlorophenol	3330 ug/Kg	2680	80	36 - 125	1	0 - 41
129-00-0	Pyrene	3330 ug/Kg	2880	86	38 - 143	4	0 - 31

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

46410

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Lab File ID: T1424 Lab Sample ID: 46410

Instrument ID: MSSV3 Date Extracted: 06/20/02

Matrix: (soil/water) SOIL Date Analyzed: 06/20/02

Level:(low/med) LOW Time Analyzed: 1504

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	46411	46411	T1425	06/20/02
02	046-BF-S-061	20206200201	T1426	06/20/02
03	46412	46412	T1427	06/20/02
04	46413	46413	T1428	06/20/02
05	046-RB-S-061	20206200202	T1429	06/20/02
06				
07				
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COMMENTS:

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Lab File ID: T1200 DFTPP Injection Date: 06/03/02

Instrument ID: MSSV3 DFTPP Injection Time: 1147

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	33.3
68	Less than 2.0% of mass 69	0.2 (0.4)1
69	Mass 69 relative abundance	34.5
70	Less than 2.0% of mass 69	0.2 (0.5)1
127	40.0 - 60.0% of mass 198	48.6
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	24.8
365	Greater than 1.0% of mass 198	1.88
441	Present, but less than mass 443	8.0
442	40.0 - 100.0% of mass 198	51.7
443	17.0 - 23.0% of mass 442	9.9 (19.2)2

1-Value is % mass 69 2-Value is % mass 442

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	T1201	06/03/02	1231
02	SSTD010	SSTD010	T1202	06/03/02	1259
03	SSTD080	SSTD080	T1203	06/03/02	1325
04	SSTD120	SSTD120	T1204	06/03/02	1351
05	SSTD160	SSTD160	T1205	06/03/02	1418
06	SSTD200	SSTD200	T1206	06/03/02	1444
07	SSTD001	SSTD001	T1207	06/03/02	1510
08	SSTD00.2	SSTD00.2	T1208	06/03/02	1536
09					
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22					

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Lab File ID: T1422 DFTPP Injection Date: 06/20/02

Instrument ID: MSSV3 DFTPP Injection Time: 1417

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	34.7
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	36.9
70	Less than 2.0% of mass 69	0.2 (0.4)1
127	40.0 - 60.0% of mass 198	48.7
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	23.2
365	Greater than 1.0% of mass 198	1.97
441	Present, but less than mass 443	7.4
442	40.0 - 100.0% of mass 198	46.3
443	17.0 - 23.0% of mass 442	8.8 (19.1)2

1-Value is % mass 69 2-Value is % mass 442

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	T1423	06/20/02	1434
02	46410	46410	T1424	06/20/02	1504
03	46411	46411	T1425	06/20/02	1530
04	046-BF-S-061	20206200201	T1426	06/20/02	1556
05	46412	46412	T1427	06/20/02	1622
06	46413	46413	T1428	06/20/02	1648
07	046-RB-S-061	20206200202	T1429	06/20/02	1714
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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Lab File ID (Standard): T1423 Date Analyzed: 06/20/02

Instrument ID: MSSV3 Time Analyzed: 1434

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	665413	4.38	2408001	5.63	1056976	7.61
	UPPER LIMIT	1330826	4.88	4816002	6.13	2113952	8.11
	LOWER LIMIT	332706	3.88	1204000	5.13	528488	7.11
	EPA SAMPLE NO.						
01	46410	834510	4.38	3080923	5.62	1380298	7.60
02	46411	765588	4.39	2741742	5.62	1176745	7.60
03	046-BF-S-061	788652	4.38	2833447	5.61	1248890	7.59
04	46412	806287	4.38	3109757	5.62	1406452	7.60
05	46413	779746	4.38	2951715	5.62	1372765	7.60
06	046-RB-S-061	793907	4.38	2983011	5.61	1404065	7.59
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22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

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
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Lab File ID (Standard): T1423 Date Analyzed: 06/20/02

Instrument ID: MSSV3 Time Analyzed: 1434

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	1426880	9.38	968359	12.58	810521	14.18
	UPPER LIMIT	2853760	9.88	1936718	13.08	1621042	14.68
	LOWER LIMIT	713440	8.88	484180	12.08	405260	13.68
	EPA SAMPLE NO.						
01	46410	1833899	9.37	1157301	12.57	864034	14.17
02	46411	1508011	9.38	962796	12.59	824427	14.18
03	046-BF-S-061	1622878	9.37	1029135	12.57	785029	14.17
04	46412	1870581	9.38	1056978	12.58	834600	14.18
05	46413	1822856	9.38	1042231	12.58	855014	14.18
06	046-RB-S-061	2042645	9.37	1360526	12.57	905523	14.17
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21							
22							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

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
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200201	046-BF-S-0619-02	Solid	06/19/2002 09:40	06/20/2002 09:05	06/27/2002 08:58

8270C, SemiVolatiles, Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/20/2002 10:30	145849	3540C	1	06/20/2002 15:56	RLW	145931

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
95-95-4	2,4,5-Trichlorophenol	ND	383	26.7	ug/Kg
88-06-2	2,4,6-Trichlorophenol	ND	383	10.4	ug/Kg
120-83-2	2,4-Dichlorophenol	ND	383	11.8	ug/Kg
105-67-9	2,4-Dimethylphenol	ND	383	45.3	ug/Kg
51-28-5	2,4-Dinitrophenol	ND	1920	7.00	ug/Kg
121-14-2	2,4-Dinitrotoluene	ND	383	18.6	ug/Kg
606-20-2	2,6-Dinitrotoluene	ND	383	21.1	ug/Kg
91-58-7	2-Chloronaphthalene	ND	383	30.9	ug/Kg
95-57-8	2-Chlorophenol	ND	383	62.8	ug/Kg
91-57-6	2-Methylnaphthalene	ND	383	41.1	ug/Kg
88-74-4	2-Nitroaniline	ND	1920	39.7	ug/Kg
88-75-5	2-Nitrophenol	ND	383	42.0	ug/Kg
91-94-1	3,3'-Dichlorobenzidine	ND	767	359	ug/Kg
99-09-2	3-Nitroaniline	ND	1920	33.1	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	ND	1920	24.2	ug/Kg
101-55-3	4-Bromophenyl phenyl ether	ND	383	18.9	ug/Kg
59-50-7	4-Chloro-3-methylphenol	ND	383	25.3	ug/Kg
106-47-8	4-Chloroaniline	ND	383	26.9	ug/Kg
7005-72-3	4-Chlorophenyl phenyl ether	ND	383	9.41	ug/Kg
100-01-6	4-Nitroaniline	ND	1920	22.1	ug/Kg
100-02-7	4-Nitrophenol	ND	1920	7.42	ug/Kg
83-32-9	Acenaphthene	ND	383	21.6	ug/Kg
208-96-8	Acenaphthylene	ND	383	21.0	ug/Kg
98-86-2	Acetophenone	ND	383	383	ug/Kg
120-12-7	Anthracene	ND	383	7.25	ug/Kg
1912-24-9	Atrazine (Aatrex)	ND	767	383	ug/Kg
100-52-7	Benzaldehyde	ND	767	383	ug/Kg
56-55-3	Benzo(a)anthracene	ND	383	20.9	ug/Kg
50-32-8	Benzo(a)pyrene	ND	383	121	ug/Kg
205-99-2	Benzo(b)fluoranthene	ND	383	14.8	ug/Kg
191-24-2	Benzo(g,h,i)perylene	ND	383	6.21	ug/Kg
207-08-9	Benzo(k)fluoranthene	ND	383	13.1	ug/Kg
92-52-4	Biphenyl	ND	383	383	ug/Kg
111-91-1	Bis(2-Chloroethoxy)methane	ND	383	30.9	ug/Kg
111-44-4	Bis(2-Chloroethyl)ether	ND	383	23.5	ug/Kg
108-60-1	Bis(2-Chloroisopropyl)ether	ND	383	18.1	ug/Kg
117-81-7	Bis(2-Ethylhexyl)phthalate	59.0J	383	13.5	ug/Kg

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200201	046-BF-S-0619-02	Solid	06/19/2002 09:40	06/20/2002 09:05	06/27/2002 08:58

8270C, SemiVolatiles, Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/20/2002 10:30	145849	3540C	1	06/20/2002 15:56	RLW	145931

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
85-68-7	Butyl benzyl phthalate	ND	383	10.6	ug/Kg
105-60-2	Caprolactam	ND	383	383	ug/Kg
86-74-8	Carbazole	ND	383	7.54	ug/Kg
218-01-9	Chrysene	ND	383	21.1	ug/Kg
84-74-2	Di-n-butyl phthalate	ND	383	35.3	ug/Kg
117-84-0	Di-n-octyl phthalate	ND	383	148	ug/Kg
53-70-3	Dibenz(a,h)anthracene	ND	383	7.15	ug/Kg
132-64-9	Dibenzofuran	ND	383	10.3	ug/Kg
84-66-2	Diethyl phthalate	ND	383	20.3	ug/Kg
131-11-3	Dimethyl phthalate	ND	383	7.05	ug/Kg
206-44-0	Fluoranthene	ND	383	8.19	ug/Kg
86-73-7	Fluorene	ND	383	9.69	ug/Kg
118-74-1	Hexachlorobenzene	ND	383	7.15	ug/Kg
87-68-3	Hexachlorobutadiene	ND	383	23.8	ug/Kg
77-47-4	Hexachlorocyclopentadiene	ND	383	37.5	ug/Kg
67-72-1	Hexachloroethane	ND	383	32.5	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	ND	383	6.95	ug/Kg
78-59-1	Isophorone	ND	383	10.1	ug/Kg
91-20-3	Naphthalene	ND	383	16.1	ug/Kg
98-95-3	Nitrobenzene	ND	383	13.9	ug/Kg
87-86-5	Pentachlorophenol	ND	1920	15.8	ug/Kg
85-01-8	Phenanthrene	ND	383	20.6	ug/Kg
108-95-2	Phenol	ND	383	9.73	ug/Kg
129-00-0	Pyrene	ND	383	47.9	ug/Kg
1319-77-3MP	m,p-Cresol	ND	383	14.3	ug/Kg
621-64-7	n-Nitrosodi-n-propylamine	ND	383	52.6	ug/Kg
86-30-6	n-Nitrosodiphenylamine	ND	383	12.8	ug/Kg
95-48-7	o-Cresol	ND	383	15.8	ug/Kg

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200201	046-BF-S-0619-02	Solid	06/19/2002 09:40	06/20/2002 09:05	06/27/2002 08:58

8270C, SemiVolatiles, Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/20/2002 10:30	145849	3540C	1	06/20/2002 15:56	RLW	145931

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
4165-60-0	Nitrobenzene-d5	1670	1160 ug/Kg	70	46 - 116
321-60-8	2-Fluorobiphenyl	1670	1110 ug/Kg	67	39 - 116
1718-51-0	Terphenyl-d14	1670	1310 ug/Kg	79	24 - 137
4165-62-2	Phenol-d5	3330	2410 ug/Kg	72	34 - 113
367-12-4	2-Fluorophenol	3330	2110 ug/Kg	63	44 - 106

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200201	046-BF-S-0619-02	Solid	06/19/2002 09:40	06/20/2002 09:05	06/27/2002 08:58

8270C, SemiVolatiles, Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	06/20/2002 15:56	RLW	146064

CAS #	TENTATIVELY IDENTIFIED COMP	RETENTION	RESULT	PQL	MDL	UNITS
	|No tics detected					ug/Kg

RESULTS REPORTED ON A DRY WEIGHT BASIS

Gulf Coast Analytical Laboratories, Inc.

BNA QUANT AND RATIO REPORT

Data file : /var/chem/MSSV3.i/2020620.s.b/t1426.d
Lab Smp Id: 20206200201 Client Smp ID: 046-BF-S-0619-02
Inj Date : 20-JUN-2002 15:56
Operator : rlw Inst ID: MSSV3.i
Smp Info : 20206200201*CH2*@8270
Misc Info : 20206200201*MSSV~1414~*062002*30-1.0
Comment :
Method : /var/chem/MSSV3.i/2020620.s.b/8270C_03.m
Meth Date : 26-Jun-2002 18:51 rlw Quant Type: ISTD
Cal Date : 03-JUN-2002 14:44 Cal File: t1206.d
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270C.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula:
Amt * DF * (Uf * Vt/(Vi * Ws * (100 - M)/100)) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vt	1000.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppm)	FINAL (ug/Kg)
$ 3 2-Fluorophenol	112	3.329	3.297	(0.761)	1780420	63.4204	2110
$ 4 Phenol-d5	99	4.088	4.096	(0.934)	2152794	72.2277	2410
* 10 1,4-Dichlorobenzene-d4	152	4.375	4.335	(1.000)	788652	40.0000	
$ 19 Nitrobenzene-d5	82	4.894	4.910	(0.872)	679905	34.7009	1160
* 28 Naphthalene-d8	136	5.613	5.629	(1.000)	2833447	40.0000	
$ 37 2-Fluorobiphenyl	172	6.819	6.834	(0.898)	1454768	33.2363	1110
* 44 Acenaphthene-d10	164	7.593	7.609	(1.000)	1248890	40.0000	
$ 57 2,4,6-Tribromophenol	332	8.535	8.551	(1.124)	306130	67.8141	2260
* 61 Phenanthrene-d10	188	9.366	9.381	(1.000)	1622878	40.0000	
$ 70 Terphenyl-d14	244	11.322	11.330	(0.901)	1035663	39.2842	1310
* 74 Chrysene-d12	240	12.568	12.583	(1.000)	1029135	40.0000	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppm)	FINAL (ug/Kg)
76 bis(2-Ethylhexyl)phthalate	149	12.639	12.655	(1.006)	47995	1.52270	50.8
* 81 Perylene-d12	264	14.172	14.180	(1.000)	785029	40.0000	

Gulf Coast Analytical Laboratories, Inc.

BNA QUANT AND RATIO REPORT

Data file : /var/chem/MSSV3.i/2020620.s.b/t1426.d
Lab Smp Id: 20206200201 Client Smp ID: 046-BF-S-0619-02
Inj Date : 20-JUN-2002 15:56
Operator : rlw Inst ID: MSSV3.i
Smp Info : 20206200201*CH2*@8270
Misc Info : 20206200201*MSSV~1414~*062002*30-1.0
Comment :
Method : /var/chem/MSSV3.i/2020620.s.b/8270C_03.m
Meth Date : 26-Jun-2002 18:58 rlw Quant Type: ISTD
Cal Date : 03-JUN-2002 14:44 Cal File: t1206.d
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270C.sub
Target Version: 3.50
Processing Host: hpcs2

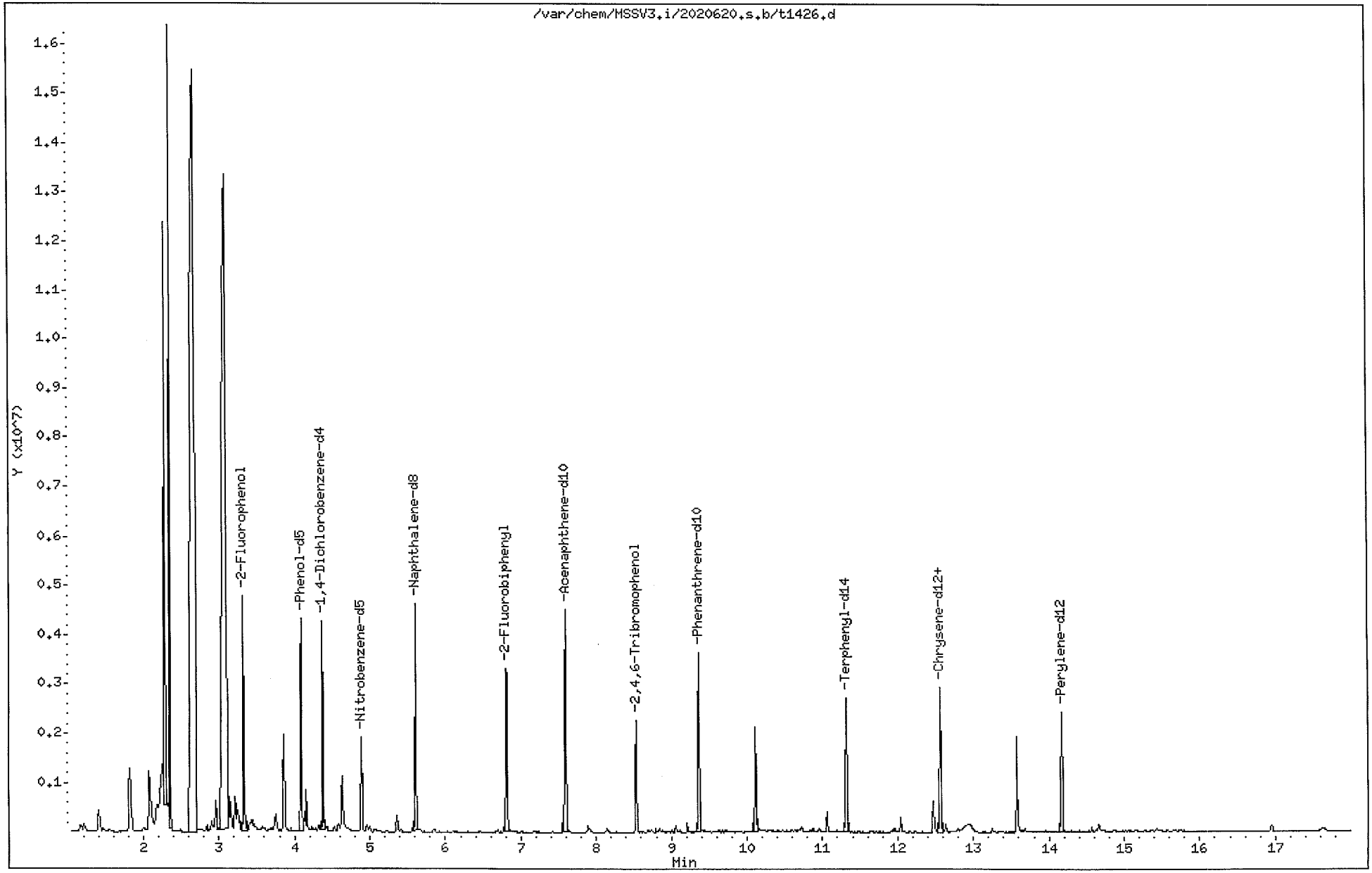
- NO TENTATIVELY IDENTIFIED COMPOUNDS -

000198

Data File: /var/chem/MSSV3.i/2020620.s.b/t1426.d
Date : 20-JUN-2002 15:56
Client ID: 046-BF-S-0619-02
Sample Info: 20206200201*CH2*@8270
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: MSSV3.i

Operator: rlw
Column diameter: 0.25



Data File: /var/chem/MSSV3.i/2020620.s.b/t1426.d

Date : 20-JUN-2002 15:56

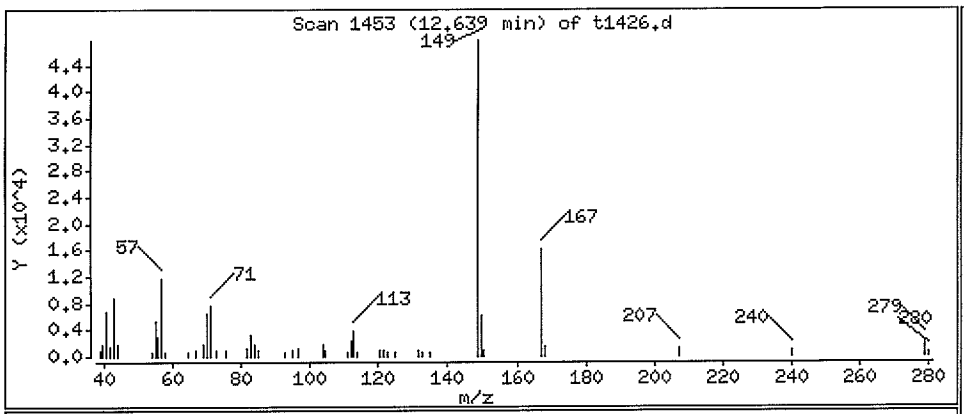
Client ID: 046-BF-S-0619-02 Instrument: MSSV3.i

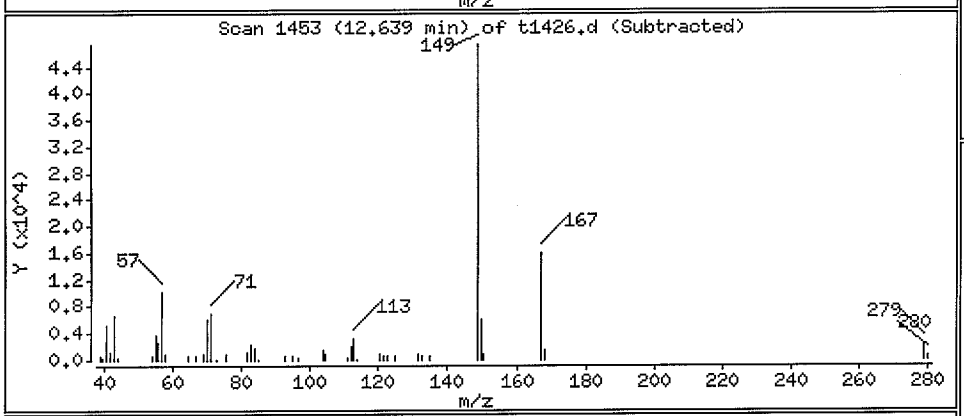
Sample Info: 20206200201*CH2*@8270

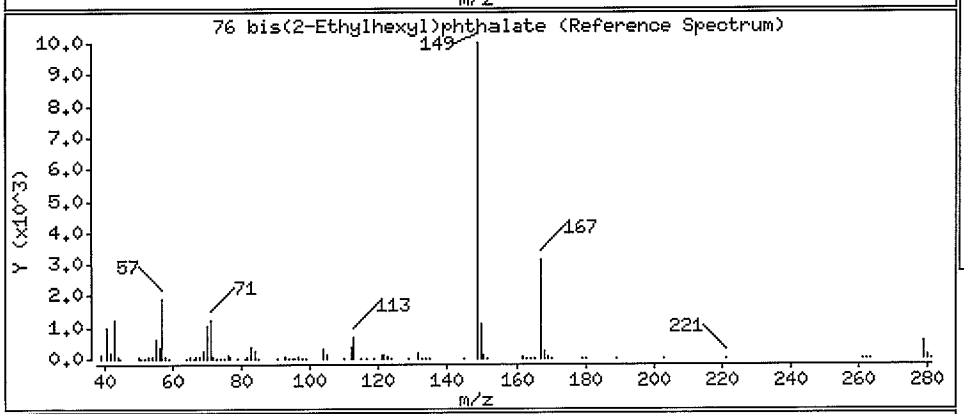
Volume Injected (uL): 1.0 Operator: rlw

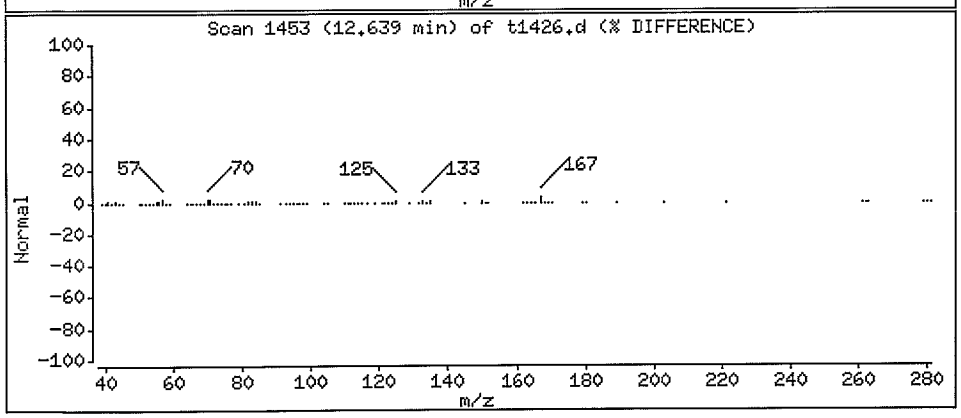
Column phase: DB-5MS-30M Column diameter: 0.25

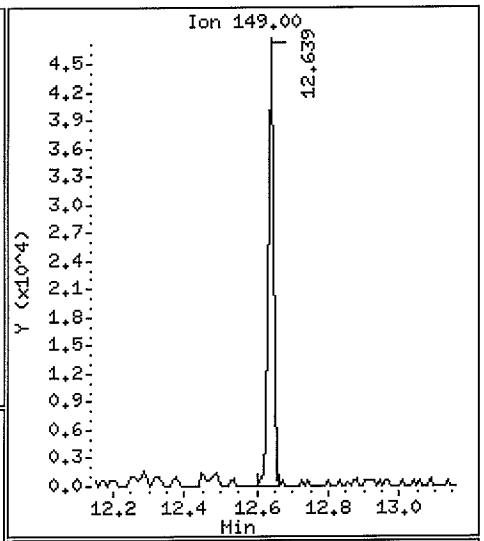
76 bis(2-Ethylhexyl)phthalate Concentration: 50.8 ug/Kg

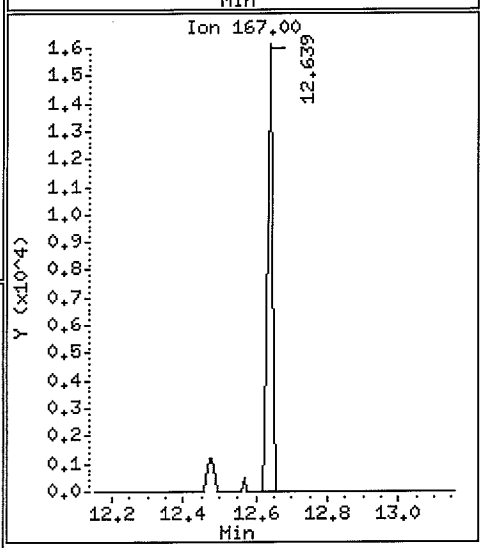












GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200202	046-RB-S-0619-02	Solid	06/19/2002 11:00	06/20/2002 09:05	06/27/2002 08:58

8270C, SemiVolatiles, Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/20/2002 10:30	145849	3540C	1	06/20/2002 17:14	RLW	145931

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
95-95-4	2,4,5-Trichlorophenol	ND	362	25.2	ug/Kg
88-06-2	2,4,6-Trichlorophenol	ND	362	9.82	ug/Kg
120-83-2	2,4-Dichlorophenol	ND	362	11.2	ug/Kg
105-67-9	2,4-Dimethylphenol	ND	362	42.8	ug/Kg
51-28-5	2,4-Dinitrophenol	ND	1810	6.61	ug/Kg
121-14-2	2,4-Dinitrotoluene	ND	362	17.5	ug/Kg
606-20-2	2,6-Dinitrotoluene	ND	362	20.0	ug/Kg
91-58-7	2-Chloronaphthalene	ND	362	29.2	ug/Kg
95-57-8	2-Chlorophenol	ND	362	59.3	ug/Kg
91-57-6	2-Methylnaphthalene	ND	362	38.8	ug/Kg
88-74-4	2-Nitroaniline	ND	1810	37.5	ug/Kg
88-75-5	2-Nitrophenol	ND	362	39.7	ug/Kg
91-94-1	3,3'-Dichlorobenzidine	ND	724	339	ug/Kg
99-09-2	3-Nitroaniline	ND	1810	31.2	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	ND	1810	22.8	ug/Kg
101-55-3	4-Bromophenyl phenyl ether	ND	362	17.9	ug/Kg
59-50-7	4-Chloro-3-methylphenol	ND	362	23.9	ug/Kg
106-47-8	4-Chloroaniline	ND	362	25.4	ug/Kg
7005-72-3	4-Chlorophenyl phenyl ether	ND	362	8.88	ug/Kg
100-01-6	4-Nitroaniline	ND	1810	20.8	ug/Kg
100-02-7	4-Nitrophenol	ND	1810	7.00	ug/Kg
83-32-9	Acenaphthene	ND	362	20.4	ug/Kg
208-96-8	Acenaphthylene	ND	362	19.8	ug/Kg
98-86-2	Acetophenone	ND	362	362	ug/Kg
120-12-7	Anthracene	ND	362	6.84	ug/Kg
1912-24-9	Atrazine (Aatrex)	ND	724	362	ug/Kg
100-52-7	Benzaldehyde	ND	724	362	ug/Kg
56-55-3	Benzo(a)anthracene	ND	362	19.7	ug/Kg
50-32-8	Benzo(a)pyrene	ND	362	114	ug/Kg
205-99-2	Benzo(b)fluoranthene	ND	362	13.9	ug/Kg
191-24-2	Benzo(g,h,i)perylene	ND	362	5.86	ug/Kg
207-08-9	Benzo(k)fluoranthene	ND	362	12.4	ug/Kg
92-52-4	Biphenyl	ND	362	362	ug/Kg
111-91-1	Bis(2-Chloroethoxy)methane	ND	362	29.2	ug/Kg
111-44-4	Bis(2-Chloroethyl)ether	ND	362	22.1	ug/Kg
108-60-1	Bis(2-Chloroisopropyl)ether	ND	362	17.1	ug/Kg
117-81-7	Bis(2-Ethylhexyl)phthalate	ND	362	12.7	ug/Kg

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200202	046-RB-S-0619-02	Solid	06/19/2002 11:00	06/20/2002 09:05	06/27/2002 08:58

8270C, SemiVolatiles, Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/20/2002 10:30	145849	3540C	1	06/20/2002 17:14	RLW	145931

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
85-68-7	Butyl benzyl phthalate	ND	362	10.0	ug/Kg
105-60-2	Caprolactam	ND	362	362	ug/Kg
86-74-8	Carbazole	ND	362	7.11	ug/Kg
218-01-9	Chrysene	ND	362	20.0	ug/Kg
84-74-2	Di-n-butyl phthalate	ND	362	33.3	ug/Kg
117-84-0	Di-n-octyl phthalate	ND	362	140	ug/Kg
53-70-3	Dibenz(a,h)anthracene	ND	362	6.75	ug/Kg
132-64-9	Dibenzofuran	ND	362	9.76	ug/Kg
84-66-2	Diethyl phthalate	ND	362	19.2	ug/Kg
131-11-3	Dimethyl phthalate	ND	362	6.65	ug/Kg
206-44-0	Fluoranthene	ND	362	7.73	ug/Kg
86-73-7	Fluorene	ND	362	9.14	ug/Kg
118-74-1	Hexachlorobenzene	ND	362	6.75	ug/Kg
87-68-3	Hexachlorobutadiene	ND	362	22.5	ug/Kg
77-47-4	Hexachlorocyclopentadiene	ND	362	35.4	ug/Kg
67-72-1	Hexachloroethane	ND	362	30.7	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	ND	362	6.56	ug/Kg
78-59-1	Isophorone	ND	362	9.57	ug/Kg
91-20-3	Naphthalene	ND	362	15.2	ug/Kg
98-95-3	Nitrobenzene	ND	362	13.2	ug/Kg
87-86-5	Pentachlorophenol	ND	1810	14.9	ug/Kg
85-01-8	Phenanthrene	ND	362	19.4	ug/Kg
108-95-2	Phenol	ND	362	9.19	ug/Kg
129-00-0	Pyrene	ND	362	45.2	ug/Kg
1319-77-3MP	m,p-Cresol	ND	362	13.5	ug/Kg
621-64-7	n-Nitrosodi-n-propylamine	ND	362	49.7	ug/Kg
86-30-6	n-Nitrosodiphenylamine	ND	362	12.1	ug/Kg
95-48-7	o-Cresol	ND	362	14.9	ug/Kg

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200202	046-RB-S-0619-02	Solid	06/19/2002 11:00	06/20/2002 09:05	06/27/2002 08:58

8270C, SemiVolatiles, Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/20/2002 10:30	145849	3540C	1	06/20/2002 17:14	RLW	145931

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
4165-60-0	Nitrobenzene-d5	1670	1290 ug/Kg	77	46 - 116
321-60-8	2-Fluorobiphenyl	1670	1160 ug/Kg	70	39 - 116
1718-51-0	Terphenyl-d14	1670	1470 ug/Kg	88	24 - 137
4165-62-2	Phenol-d5	3330	2690 ug/Kg	81	34 - 113
367-12-4	2-Fluorophenol	3330	2400 ug/Kg	72	44 - 106

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200202	046-RB-S-0619-02	Solid	06/19/2002 11:00	06/20/2002 09:05	06/27/2002 08:58

8270C, SemiVolatiles, Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	06/20/2002 17:14	RLW	146064

CAS #	TENTATIVELY IDENTIFIED COMP	RETENTION	RESULT	PQL	MDL	UNITS
	|No tics detected					ug/Kg

RESULTS REPORTED ON A DRY WEIGHT BASIS

Gulf Coast Analytical Laboratories, Inc.

BNA QUANT AND RATIO REPORT

Data file : /var/chem/MSSV3.i/2020620.s.b/t1429.d
Lab Smp Id: 20206200202 Client Smp ID: 046-RB-S-0619-02
Inj Date : 20-JUN-2002 17:14
Operator : rlw Inst ID: MSSV3.i
Smp Info : 20206200202*CH2*@8270
Misc Info : 20206200202*MSSV~1414~*062002*30-1.0
Comment :
Method : /var/chem/MSSV3.i/2020620.s.b/8270C_03.m
Meth Date : 26-Jun-2002 18:51 rlw Quant Type: ISTD
Cal Date : 03-JUN-2002 14:44 Cal File: t1206.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270C.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula:
Amt * DF * (Uf * Vt/(Vi * Ws * (100 - M)/100)) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vt	1000.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppm)	FINAL (ug/Kg)
$ 3 2-Fluorophenol	112	3.324	3.297	(0.759)	2034590	71.9945	2400
$ 4 Phenol-d5	99	4.082	4.096	(0.932)	2421338	80.6998	2690
* 10 1,4-Dichlorobenzene-d4	152	4.378	4.335	(1.000)	793907	40.0000	
$ 19 Nitrobenzene-d5	82	4.889	4.910	(0.872)	796790	38.6275	1290
* 28 Naphthalene-d8	136	5.607	5.629	(1.000)	2983011	40.0000	
$ 37 2-Fluorobiphenyl	172	6.813	6.834	(0.898)	1707896	34.7071	1160
* 44 Acenaphthene-d10	164	7.587	7.609	(1.000)	1404065	40.0000	
$ 57 2,4,6-Tribromophenol	332	8.538	8.551	(1.125)	400307	78.8759	2630
* 61 Phenanthrene-d10	188	9.368	9.381	(1.000)	2042645	40.0000	
$ 70 Terphenyl-d14	244	11.324	11.330	(0.901)	1535981	44.0708	1470
* 74 Chrysene-d12	240	12.570	12.583	(1.000)	1360526	40.0000	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppm)	FINAL (ug/Kg)
* 81 Perylene-d12	264	14.175	14.180	(1.000)	905523	40.0000	

Gulf Coast Analytical Laboratories, Inc.

BNA QUANT AND RATIO REPORT

Data file : /var/chem/MSSV3.i/2020620.s.b/t1429.d
Lab Smp Id: 20206200202 Client Smp ID: 046-RB-S-0619-02
Inj Date : 20-JUN-2002 17:14
Operator : rlw Inst ID: MSSV3.i
Smp Info : 20206200202*CH2*@8270
Misc Info : 20206200202*MSSV~1414~*062002*30-1.0
Comment :
Method : /var/chem/MSSV3.i/2020620.s.b/8270C_03.m
Meth Date : 26-Jun-2002 18:58 rlw Quant Type: ISTD
Cal Date : 03-JUN-2002 14:44 Cal File: t1206.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270C.sub
Target Version: 3.50
Processing Host: hpcs2

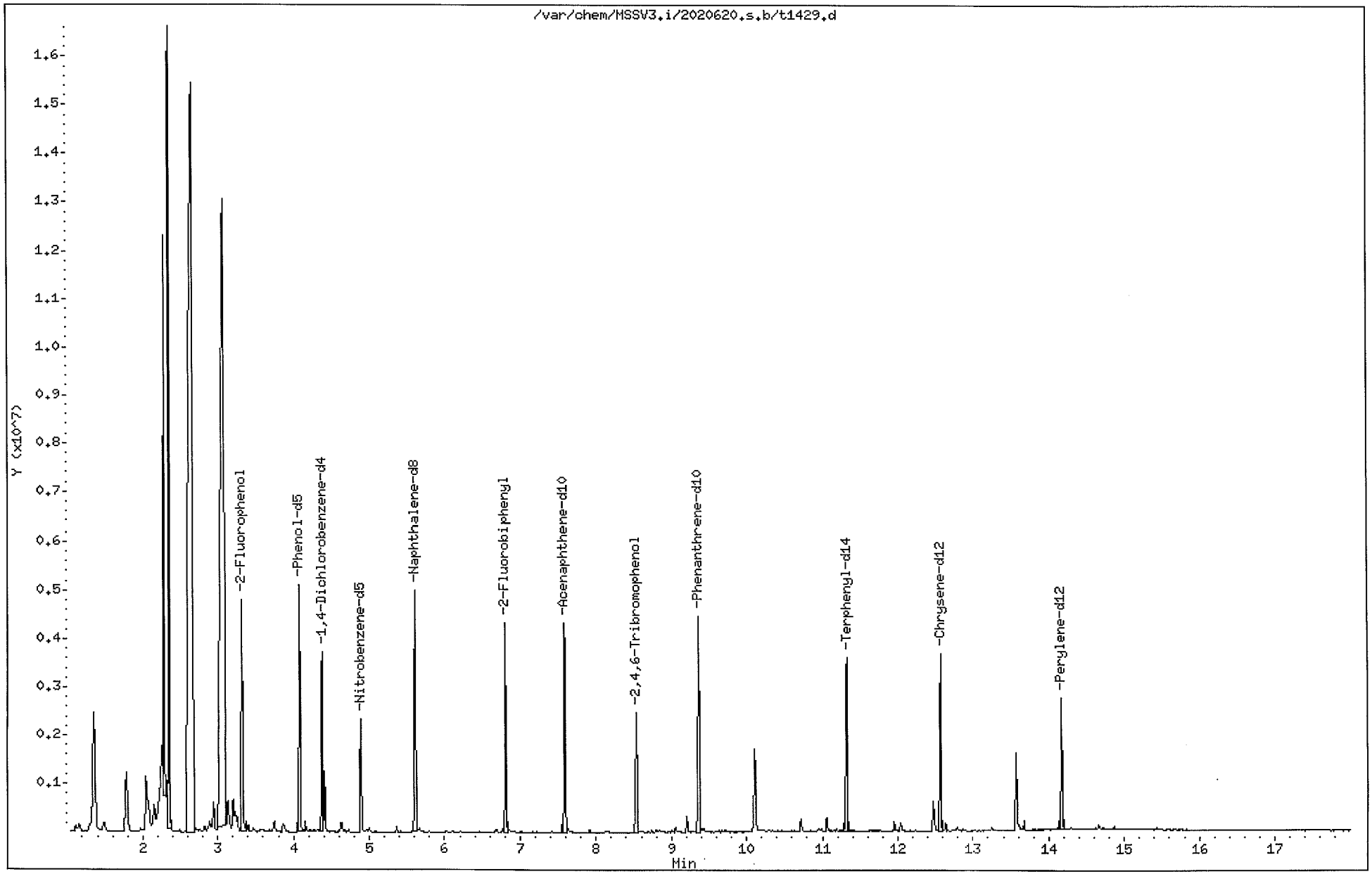
- NO TENTATIVELY IDENTIFIED COMPOUNDS -

000207

Data File: /var/chem/MSSV3.i/2020620.s.b/t1429.d
Date : 20-JUN-2002 17:14
Client ID: 046-RB-S-0619-02
Sample Info: 20206200202*CH2*@8270
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: MSSV3.i

Operator: rlw
Column diameter: 0.25



6B

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Instrument ID: MSSV3 Calibration Date(s): 06/03/02 06/03/02

Calibration Time(s): 1231 1536

LAB FILE ID: RRF10 =T1202 RRF50 =T1201
RRF80 =T1203 RRF120=T1204 RRF160=T1205

COMPOUND	RRF10	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Phenol + *	2.016	1.622	1.501	1.429	1.394		*
bis(-2-Chloroethyl)Ether *	1.065	0.965	0.940	0.946	0.931		*
2-Chlorophenol *	1.792	1.579	1.523	1.531	1.476		*
1,3-Dichlorobenzene *	1.995	1.703	1.611	1.573	1.477		*
1,4-Dichlorobenzene + *	1.982	1.674	1.577	1.513	1.385		*
1,2-Dichlorobenzene *	1.896	1.558	1.422	1.336	1.229		*
2-Methylphenol *	1.463	1.211	1.142	1.123	1.059		*
Bis(2-chloroisopropyl)ether *	3.032	2.468	2.358	2.255	2.094		*
3- & 4-Methylphenol *	1.456	1.066	0.984	0.988	0.941		*
N-Nitroso-di-n-propylamine++ *	0.842	0.672	0.650	0.675	0.640		*
Hexachloroethane *	0.605	0.526	0.503	0.486	0.451		*
Nitrobenzene *	0.307	0.261	0.258	0.253	0.248		*
Isophorone *	0.661	0.588	0.587	0.582	0.548		*
2-Nitrophenol + *	0.274	0.240	0.236	0.236	0.216		*
2,4-Dimethyphenol *	0.366	0.292	0.299	0.286	0.283		*
2,4-Dichlorophenol + *	0.330	0.291	0.286	0.278	0.254		*
1,2,4-Trichlorobenzene *	0.335	0.286	0.278	0.271	0.264		*
Naphthalene *	1.323	1.091	1.029	0.990	0.927		*
4-Chloroaniline *	0.505	0.386	0.382	0.361	0.340		*
bis(-2-Chloroethoxy)methane *	0.481	0.398	0.396	0.383	0.369		*
Hexachlorobutadiene + *	0.159	0.139	0.130	0.126	0.120		*
4-Chloro-3-Methylphenol + *	0.293	0.256	0.249	0.245	0.227		*
2-Methylnaphthalene *	0.857	0.696	0.648	0.614	0.580		*
Hexachlorocyclopentadiene ++ *	0.346	0.340	0.335	0.341	0.339		*
2,4,6-Trichlorophenol + *	0.401	0.370	0.360	0.373	0.372		*
2,4,5-Trichlorphenol *	0.427	0.407	0.392	0.394	0.361		*
2-Chloronaphthalene *	1.593	1.295	1.225	1.195	1.134		*
2-Nitroaniline *	0.648	0.582	0.572	0.579	0.578		*
Dimethylphthalate *	1.668	1.438	1.402	1.428	1.417		*
Acenaphthylene *	2.661	2.240	2.130	2.114	2.065		*
2,6-Dinitrotoluene *	0.434	0.388	0.380	0.386	0.377		*
3-Nitroaniline *	0.515	0.423	0.400	0.407	0.385		*
Acenaphthene + *	1.692	1.376	1.296	1.292	1.242		*
2,4-Dinitrophenol ++ *		0.116	0.145	0.175	0.199		*
4-Nitrophenol ++ *	0.072	0.087	0.086	0.088	0.084		*
Dibenzofuran *	2.076	1.694	1.618	1.606	1.517		*
2,4-Dinitrotoluene *	0.549	0.466	0.449	0.457	0.446		*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

6C
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Instrument ID: MSSV3 Calibration Date(s): 06/03/02 06/03/02

Calibration Time(s): 1231 1536

LAB FILE ID: RRF10 =T1202 RRF50 =T1201
RRF80 =T1203 RRF120=T1204 RRF160=T1205

COMPOUND	RRF10	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Diethylphthalate *	1.684	1.434	1.367	1.378	1.357		*
4-Chlorophenyl-phenylether *	0.657	0.509	0.462	0.433	0.396		*
Fluorene *	1.660	1.292	1.188	1.131	1.052		*
4-Nitroaniline *	0.423	0.412	0.405	0.410	0.395		*
4,6-Dinitro-o-cresol *	0.063	0.165	0.176	0.191	0.194		*
N-nitrosodiphenylamine (1)+ *	0.828	0.717	0.673	0.664	0.645		*
4-Bromophenyl-phenylether *	0.242	0.213	0.204	0.201	0.196		*
Hexachlorobenzene *	0.300	0.252	0.238	0.232	0.224		*
Pentachlorophenol + *	0.113	0.163	0.156	0.160	0.162		*
Phenanthrene *	1.444	1.231	1.173	1.132	1.078		*
Anthracene *	1.469	1.241	1.169	1.140	1.068		*
Di-n-butylphthalate *	1.953	1.706	1.583	1.549	1.522		*
Fluoranthene + *	1.242	1.054	1.010	0.986	0.946		*
Pyrene *	1.858	1.597	1.471	1.451	1.387		*
Butylbenzylphthalate *	1.065	0.986	0.940	0.926	0.900		*
3,3'-Dichlorobenzidine *	0.557	0.477	0.423	0.383	0.339		*
Benzo(a)anthracene *	1.493	1.315	1.231	1.205	1.178		*
Chrysene *	1.499	1.314	1.191	1.104	0.992		*
bis(2-Ethylhexyl)phthalate *	1.410	1.313	1.189	1.012	0.916		*
Di-n-octylphthalate + *	2.375	2.290	2.185	2.221	2.134		*
Benzo(b)fluoranthene *	1.975	1.567	1.729	1.639	1.851		*
Benzo(k)fluoranthene *	1.881	1.661	1.421	1.390	0.987		*
Benzo(a)pyrene + *	1.743	1.495	1.420	1.385	1.350		*
Indeno(1,2,3-cd)pyrene *	2.410	2.059	1.986	1.925	1.842		*
Dibenzo(a,h)anthracene *	2.043	1.665	1.522	1.469	1.443		*
Benzo(g,h,i)perylene *	2.046	1.810	1.763	1.730	1.699		*
Pyridine *	1.498	1.344	1.396	1.492	1.424		*
n-Nitrosodimethylamine *	0.508	0.513	0.521	0.530	0.516		*
Aniline *	2.064	1.464	1.478	1.398	1.261		*
Benzyl alcohol *	1.024	0.868	0.793	0.780	0.760		*
Benzidine *		0.147	0.199	0.138	0.071		*
Azobenzene *	1.975	1.698	1.586	1.705	1.523		*
Benzoic Acid *		1.218	0.322	0.487	0.512		*
Total Methylphenol *	2.919	2.277	2.126	2.111	2.000		*
Carbazole *	1.351	1.148	1.110	1.105	1.069		*
Acetophenone *	0.928	1.421	1.348	1.364	1.302		*
1-Methylnaphthalene *	0.857	0.697	0.648	0.614	0.580		*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

6C
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Instrument ID: MSSV3 Calibration Date(s): 06/03/02 06/03/02

Calibration Time(s): 1231 1536

LAB FILE ID: RRF10 =T1202 RRF50 =T1201
RRF80 =T1203 RRF120=T1204 RRF160=T1205

COMPOUND	RRF10	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Benzaldehyde *	0.856	0.603	0.465	0.335	0.251		*
Caprolactam *	0.114	0.104	0.110	0.109	0.102		*
Biphenyl *	3.362	2.745	2.445	2.369	2.031		*
Atrazine *	0.200	0.141	0.148	0.148	0.137		*
Nitrobenzene-d5	0.309	0.272	0.269	0.270	0.261		*
2-Fluorobiphenyl *	1.555	1.333	1.297	1.279	1.252		*
Terphenyl-d14 *	1.210	1.027	0.935	0.912	0.892		*
Phenol-d5 *	1.843	1.567	1.483	1.433	1.322		*
2-Fluorophenol *	1.610	1.430	1.403	1.412	1.383		*
2,4,6-Tribromophenol *	0.176	0.160	0.152	0.148	0.143		*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

6C
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Instrument ID: MSSV3 Calibration Date(s): 06/03/02 06/03/02

Calibration Time(s): 1231 1536

LAB FILE ID: RRF200=T1206 RRF25 =
RRF1 =T1207 RRF0.2=T1208

COMPOUND	RRF200	RRF25	RRF1	RRF0.2		$\overline{RRF}$	% RSD
Phenol +	* 1.424		1.976	1.828		1.649	15.5*
bis(-2-Chloroethyl)Ether	* 0.954		1.092	1.213		1.013	10.0*
2-Chlorophenol	* 1.492					1.566	7.4*
1,3-Dichlorobenzene	* 1.469					1.638	11.9*
1,4-Dichlorobenzene +	* 1.331					1.577	14.9*
1,2-Dichlorobenzene	* 1.212					1.442	17.8*
2-Methylphenol	* 1.087					1.181	12.5*
Bis(2-chloroisopropyl)ether	* 2.077					2.381	14.8*
3- & 4-Methylphenol	* 0.928					1.060	18.8*
N-Nitroso-di-n-propylamine++	* 0.596					0.679	12.5*
Hexachloroethane	* 0.404					0.496	13.8*
Nitrobenzene	* 0.243					0.262	8.8*
Isophorone	* 0.539		0.696	0.630		0.604	9.0*
2-Nitrophenol +	* 0.223		0.218			0.235	8.3*
2,4-Dimethyphenol	* 0.288					0.302	10.5*
2,4-Dichlorophenol +	* 0.251		0.309			0.286	9.9*
1,2,4-Trichlorobenzene	* 0.265					0.283	9.4*
Naphthalene	* 0.886					1.041	15.0*
4-Chloroaniline	* 0.344					0.386	15.8*
bis(-2-Chloroethoxy)methane	* 0.365					0.399	10.7*
Hexachlorobutadiene +	* 0.117		0.169	0.119		0.135	14.4*
4-Chloro-3-Methylphenol +	* 0.228		0.256			0.250	8.8*
2-Methylnaphthalene	* 0.555					0.658	16.6*
Hexachlorocyclopentadiene ++	* 0.333		0.220			0.322	14.0*
2,4,6-Trichlorophenol +	* 0.384		0.313			0.368	7.4*
2,4,5-Trichlorphenol	* 0.384		0.313			0.382	9.6*
2-Chloronaphthalene	* 1.074		1.623	1.608		1.343	17.0*
2-Nitroaniline	* 0.576		0.514			0.578	6.7*
Dimethylphthalate	* 1.425		1.726	1.659		1.520	9.0*
Acenaphthylene	* 1.973					2.197	11.1*
2,6-Dinitrotoluene	* 0.377		0.380			0.389	5.2*
3-Nitroaniline	* 0.381					0.418	11.9*
Acenaphthene +	* 1.203					1.350	13.1*
2,4-Dinitrophenol ++	* 0.212					0.169	23.1*
4-Nitrophenol ++	* 0.082					0.083	7.0*
Dibenzofuran	* 1.433					1.657	13.5*
2,4-Dinitrotoluene	* 0.444		0.472			0.469	7.8*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

6C
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Instrument ID: MSSV3 Calibration Date(s): 06/03/02 06/03/02

Calibration Time(s): 1231 1536

LAB FILE ID: RRF200=T1206 RRF25 =
RRF1 =T1207 RRF0.2=T1208

COMPOUND	RRF200	RRF25	RRF1	RRF0.2		$\overline{RRF}$	% RSD
Diethylphthalate *	1.335					1.426	9.2*
4-Chlorophenyl-phenylether *	0.368					0.471	22.0*
Fluorene *	1.009					1.222	19.4*
4-Nitroaniline *	0.380					0.404	3.7*
4,6-Dinitro-o-cresol *	0.188					0.163	30.7*
N-nitrosodiphenylamine (1)+ *	0.619		0.852	0.702		0.712	11.9*
4-Bromophenyl-phenylether *	0.192					0.208	8.6*
Hexachlorobenzene *	0.220		0.320	0.346		0.266	18.2*
Pentachlorophenol + *	0.157					0.152	12.6*
Phenanthrene *	1.073		1.656			1.255	17.3*
Anthracene *	1.042		1.669	1.511		1.289	18.0*
Di-n-butylphthalate *	1.396		1.906	1.728		1.668	11.6*
Fluoranthene + *	0.932					1.028	11.0*
Pyrene *	1.435					1.533	11.3*
Butylbenzylphthalate *	0.938		0.996	0.818		0.946	7.7*
3,3'-Dichlorobenzidine *	0.313					0.415	21.9*
Benzo(a)anthracene *	1.157		1.741	2.211		1.441	25.6*
Chrysene *	0.988		1.648	1.641		1.297	21.0*
bis(2-Ethylhexyl)phthalate *	0.799		1.555	1.606		1.225	24.3*
Di-n-octylphthalate + *	2.147		2.494	2.170		2.252	5.6*
Benzo(b)fluoranthene *	1.774		2.287	2.025		1.856	12.6*
Benzo(k)fluoranthene *	0.980		2.287	2.025		1.579	30.0*
Benzo(a)pyrene + *	1.330		1.926	1.554		1.525	13.8*
Indeno(1,2,3-cd)pyrene *	1.643		2.330	1.903		2.012	12.6*
Dibenzo(a,h)anthracene *	1.450		2.041	1.488		1.640	15.7*
Benzo(g,h,i)perylene *	1.669		1.932	1.597		1.781	8.2*
Pyridine *	1.489					1.440	4.4*
n-Nitrosodimethylamine *	0.516					0.517	1.5*
Aniline *	1.067					1.455	23.1*
Benzyl alcohol *	0.758					0.830	12.4*
Benzidine *	0.047					0.120	50.8*
Azobenzene *	1.479					1.661	10.8*
Benzoic Acid *	0.497					0.607	57.6*
Total Methylphenol *	2.015					2.241	15.5*
Carbazole *	1.060					1.140	9.4*
Acetophenone *				1.702		1.344	18.5*
1-Methylnaphthalene *	0.555					0.658	16.6*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Instrument ID: MSSV3 Calibration Date(s): 06/03/02 06/03/02

Calibration Time(s): 1231 1536

LAB FILE ID: RRF200=T1206 RRF25 =
RRF1 =T1207 RRF0.2=T1208

COMPOUND	RRF200	RRF25	RRF1	RRF0.2		$\overline{RRF}$	% RSD
Benzaldehyde	* 0.186					0.449	55.5*
Caprolactam	* 0.111					0.108	4.5*
Biphenyl	* 2.004					2.493	20.4*
Atrazine	* 0.136					0.152	16.0*
Nitrobenzene-d5	0.261		0.312	0.259		0.277	7.8*
2-Fluorobiphenyl	* 1.173		1.683	1.644		1.402	13.9*
Terphenyl-d14	* 0.881		1.258	1.081		1.024	14.3*
Phenol-d5	* 1.317		1.816	1.312		1.512	14.3*
2-Fluorophenol	* 1.462		1.484	1.206		1.424	7.9*
2,4,6-Tribromophenol	* 0.140		0.093			0.144	17.8*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

Data File: /var/chem/MSSV3.i/2020603.s.b/t1200.d

Date : 03-JUN-2002 11:47

Client ID: 3-18-4

Instrument: MSSV3.i

Sample Info: DFTPP*3-18-4

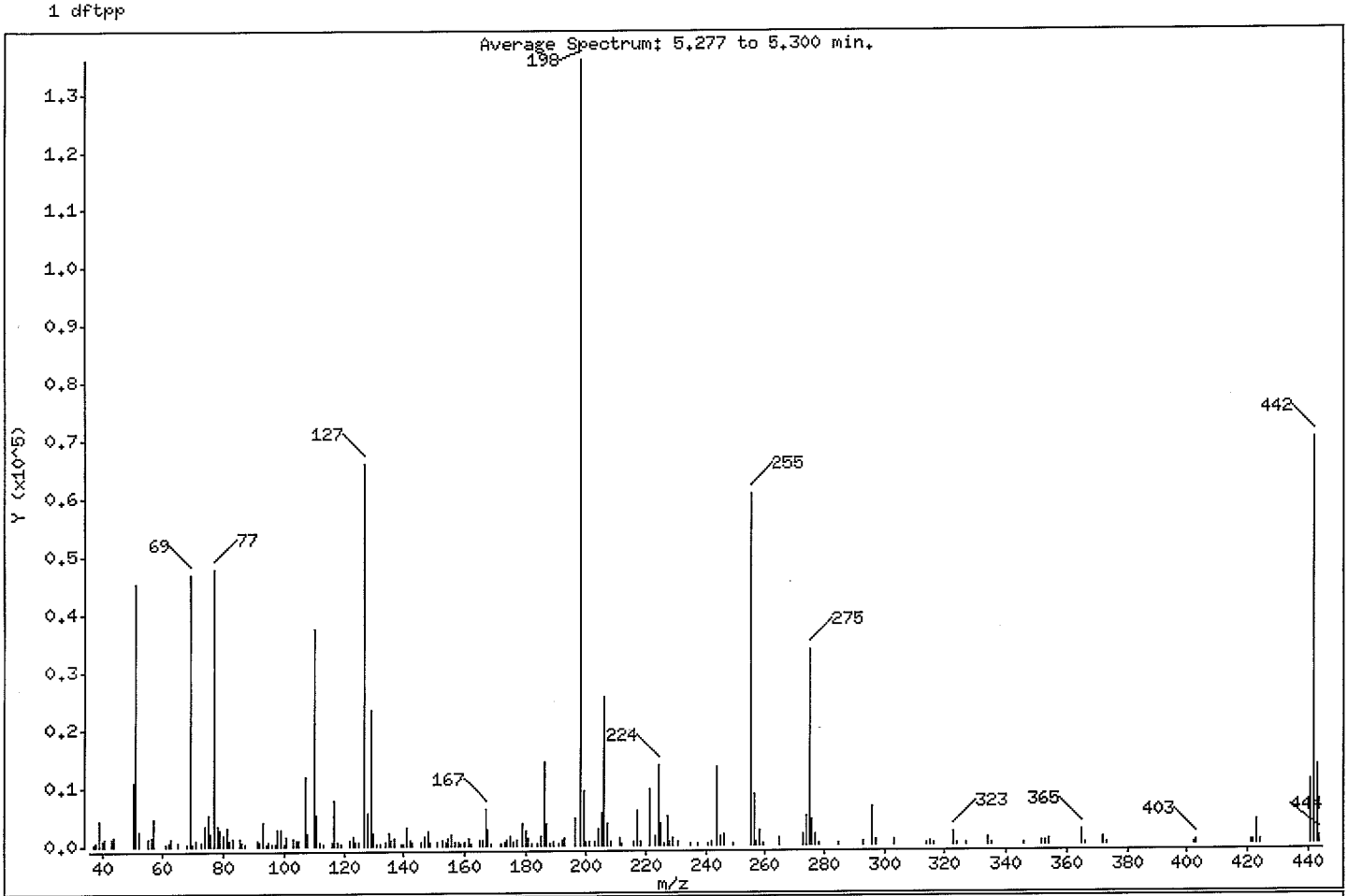
Volume Injected (uL): 1.0

Operator: rlw

Column phase:

Column diameter: 2.00

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	33.34
68	Less than 2.00% of mass 69	0.15 (0.45)
69	Mass 69 relative abundance	34.46
70	Less than 2.00% of mass 69	0.16 (0.48)
127	40.00 - 60.00% of mass 198	48.62
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.92
275	10.00 - 30.00% of mass 198	24.82
365	Greater than 1.00% of mass 198	1.88
441	Present, but less than mass 443	8.05
442	40.00 - 100.00% of mass 198	51.66
443	17.00 - 23.00% of mass 442	9.90 (19.17)

Data File: /var/chem/MSSV3.i/2020603.s.b/t1200.d

Date : 03-JUN-2002 11:47

Client ID: 3-18-4

Instrument: MSSV3.i

Sample Info: DFTPP*3-18-4

Volume Injected (uL): 1.0

Operator: rlw

Column phase:

Column diameter: 2.00

Data File: t1200.d
Spectrum: Average Spectrum: 5.277 to 5.300 min.
Location of Maximum: 198.00
Number of points: 193

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	175	107.00	11976	172.00	458	245.00	1706
38.00	624	108.00	2184	173.00	482	246.00	1822
39.00	4353	110.00	37672	174.00	1031	249.00	466
40.00	877	111.00	5246	175.00	1615	255.00	60568
41.00	1170	112.00	564	176.00	779	256.00	8860
43.00	1259	113.00	170	177.00	979	257.00	592
44.00	1574	116.00	716	179.00	3876	258.00	2614
50.00	10958	117.00	7886	180.00	2534	259.00	378
51.00	45280	118.00	663	181.00	1131	265.00	1107
52.00	2372	119.00	193	182.00	176	273.00	1908
55.00	1097	122.00	994	184.00	199	274.00	4991
56.00	1510	123.00	1472	185.00	1644	275.00	33704
57.00	4592	124.00	734	186.00	14442	276.00	4412
61.00	211	125.00	739	187.00	3861	277.00	1890
62.00	499	127.00	66040	188.00	376	278.00	184
63.00	1387	128.00	5497	189.00	754	285.00	383
65.00	752	129.00	23472	191.00	250	293.00	486
68.00	210	130.00	2036	192.00	960	296.00	6435
69.00	46808	131.00	372	193.00	1109	297.00	823
70.00	223	132.00	173	196.00	4638	303.00	826
71.00	1070	134.00	628	198.00	135808	314.00	177
73.00	500	135.00	2051	199.00	9404	315.00	645
74.00	3415	136.00	807	200.00	544	316.00	205
75.00	5449	137.00	1228	201.00	704	323.00	2310
76.00	2124	139.00	180	203.00	536	324.00	420
77.00	47984	140.00	208	204.00	2937	327.00	403
78.00	3409	141.00	2993	205.00	5611	334.00	1325
79.00	2739	142.00	1048	206.00	25632	335.00	391
80.00	1947	143.00	663	207.00	3698	346.00	335
81.00	3045	146.00	543	208.00	694	352.00	627
82.00	901	147.00	1470	211.00	1352	353.00	521
83.00	1182	148.00	2640	212.00	189	354.00	807
85.00	1295	149.00	717	216.00	518	365.00	2558
86.00	765	151.00	482	217.00	5857	366.00	235
87.00	193	153.00	945	218.00	767	372.00	1256

Data File: /var/chem/MSSV3.i/2020603.s.b/t1200.d

Date : 03-JUN-2002 11:47

Client ID: 3-18-4

Instrument: MSSV3.i

Sample Info: DFTPP*3-18-4

Volume Injected (uL): 1.0

Operator: rlw

Column phase:

Column diameter: 2.00

Data File: t1200.d
Spectrum: Average Spectrum: 5.277 to 5.300 min.
Location of Maximum: 198.00
Number of points: 193

m/z	Y	m/z	Y	m/z	Y	m/z	Y
91.00	1010	154.00	638	221.00	9557	373.00	181
92.00	681	155.00	1345	223.00	1448	402.00	288
93.00	4043	156.00	2025	224.00	13673	403.00	615
94.00	215	157.00	535	225.00	3827	421.00	578
95.00	606	158.00	566	226.00	373	422.00	609
96.00	180	159.00	400	227.00	5018	423.00	4042
97.00	429	160.00	748	228.00	643	424.00	766
98.00	2891	161.00	1132	229.00	1184	441.00	10934
99.00	2838	162.00	194	231.00	602	442.00	70168
100.00	182	165.00	984	235.00	392	443.00	13450
101.00	1698	166.00	916	237.00	450	444.00	1341
103.00	1101	167.00	6357	241.00	351		
104.00	920	168.00	2719	242.00	650		
105.00	950	169.00	389	244.00	13373		

Data File: /var/chem/MSSV3.i/2020603.s.b/t1200.d

Date : 03-JUN-2002 11:47

Client ID: 3-18-4

Instrument: MSSV3.i

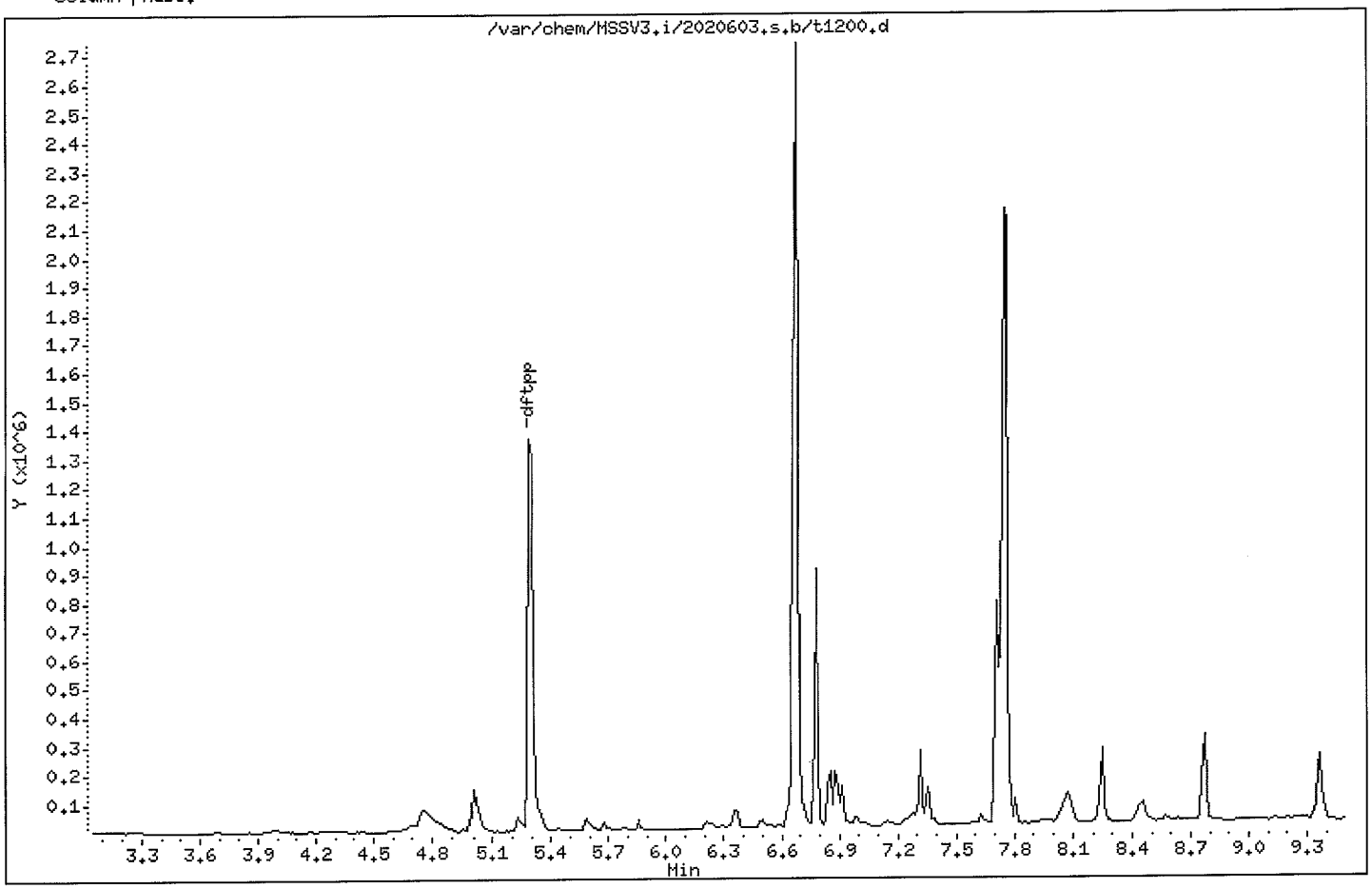
Sample Info: DFTPP*3-18-4

Volume Injected (uL): 1.0

Operator: rlw

Column phase:

Column diameter: 2.00



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/MSSV3.i/2020603.s.b/t1200C.d
Lab Smp Id: DFTPP
Client Smp ID: 3-18-4
Inj Date : 03-JUN-2002 11:47
Operator : rlw
Inst ID: MSSV3.i
Smp Info : DFTPP*3-18-4
Misc Info : DFTPP*3-18-4
Comment :
Method : /var/chem/MSSV3.i/2020603.s.b/dftppc_03.m
Meth Date : 22-Mar-2002 15:26 dlb
Quant Type: AREA%
Cal Date :
Cal File:
Als bottle: 1
QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE
Compound Sublist: all.sub
Target Version: 3.50
Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable
Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
4.755	564533	72613	0.129	3.65	
5.004	326077	145274	0.446	2.11	
5.289	2388609	1340606	0.561	15.46	
6.675	4038410	2687245	0.665	26.14	
6.782	1067880	890512	0.834	6.91	
6.877	738801	186938	0.253	4.78	
7.351	118547	96882	0.817	0.77	
7.742	5110129	2135004	0.418	33.07	5 4,4DDD
8.074	309929	97211	0.314	2.01	
8.252	360534	258284	0.716	2.33	
8.773	428408	298304	0.696	2.77	
	15451857	8208873		100.000	

Total unknown % area = 67

Gulf Coast Analytical Laboratories, Inc.

BNA QUANT AND RATIO REPORT

Data file : /var/chem/MSSV3.i/2020603.s.b/t1208.d
Lab Smp Id: SSTD00.2 Client Smp ID: SSTD00.2
Inj Date : 03-JUN-2002 15:36
Operator : rlw Inst ID: MSSV3.i
Smp Info : SSTD00.2*3-29-8
Misc Info : SSTD00.2*3-29-8
Comment :
Method : /var/chem/MSSV3.i/2020603.s.b/8270C_03.m
Meth Date : 26-Jun-2002 19:15 rlw Quant Type: ISTD
Cal Date : 03-JUN-2002 15:36 Cal File: t1208.d
Als bottle: 9 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270C.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	1.00000	ng unit correction factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
$ 3 2-Fluorophenol	112	3.459	3.459	(0.761)	3928	0.20000	0.169(a)
$ 4 Phenol-d5	99	4.242	4.242	(0.933)	4273	0.20000	0.174(a)
5 Aniline	93	4.274	4.274	(0.940)	4645	0.20000	0.196(a)
6 Phenol +	94	4.258	4.258	(0.937)	5953	0.20000	0.222(a)
7 bis(-2-Chloroethyl)Ether	63	4.313	4.313	(0.949)	3948	0.20000	0.239(a)
8 2-Chlorophenol	128	4.369	4.369	(0.961)	4752	0.20000	0.186(a)
9 1,3-Dichlorobenzene	146	4.497	4.497	(0.989)	6363	0.20000	0.239(a)
* 10 1,4-Dichlorobenzene-d4	152	4.545	4.545	(1.000)	651130	40.0000	
11 1,4-Dichlorobenzene +	146	4.561	4.561	(1.004)	6467	0.20000	0.252(a)
13 1,2-Dichlorobenzene	146	4.705	4.705	(1.035)	5515	0.20000	0.235(a)
14 Bis(2-chloroisopropyl)ether	45	4.793	4.793	(1.054)	9527	0.20000	0.246(a)
15 2-Methylphenol	108	4.785	4.785	(1.053)	4198	0.20000	0.218(a)
17 3- & 4-Methylphenol	108	4.936	4.936	(1.086)	3648	0.20000	0.211(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
$	19 Nitrobenzene-d5	82	5.072	5.072	(0.875)	3017	0.20000	0.188(a)
	21 Isophorone	82	5.328	5.328	(0.919)	7335	0.20000	0.209(a)
	23 2,4-Dimethyphenol	107	5.455	5.455	(0.941)	3476	0.20000	0.198(a)
	24 bis(-2-Chloroethoxy)methane	93	5.543	5.543	(0.956)	5094	0.20000	0.220(a)
	27 1,2,4-Trichlorobenzene	180	5.743	5.743	(0.990)	4099	0.20000	0.249(a)
*	28 Naphthalene-d8	136	5.799	5.799	(1.000)	2326829	40.0000	
	29 Naphthalene	128	5.823	5.823	(1.004)	16559	0.20000	0.273(a)
	30 4-Chloroaniline	127	5.894	5.894	(1.017)	4436	0.20000	0.197(a)
	31 Hexachlorobutadiene +	225	5.950	5.950	(1.026)	1389	0.20000	0.177(a)
	32 4-Chloro-3-Methylphenol +	107	6.437	6.437	(1.110)	2045	0.20000	0.140(a)
	33 2-Methylnaphthalene	142	6.581	6.581	(1.135)	9740	0.20000	0.254(a)
	35 2,4,6-Trichlorophenol +	196	6.916	6.916	(0.887)	775	0.20000	0.0849(a)
	36 2,4,5-Trichlorphenol	196	6.916	6.916	(0.887)	775	0.20000	0.0816(a)
$	37 2-Fluorobiphenyl	172	7.004	7.004	(0.899)	8166	0.20000	0.235(a)
	38 2-Chloronaphthalene	162	7.140	7.140	(0.916)	7986	0.20000	0.239(a)
	40 Dimethylphthalate	163	7.491	7.491	(0.961)	8242	0.20000	0.218(aM)
	42 Acenaphthylene	152	7.619	7.619	(0.977)	13300	0.20000	0.244(a)
*	44 Acenaphthene-d10	164	7.795	7.795	(1.000)	993516	40.0000	
	45 Acenaphthene +	153	7.827	7.827	(1.004)	8534	0.20000	0.254(a)
	47 Dibenzofuran	168	8.034	8.034	(1.031)	11418	0.20000	0.277(a)
	50 Diethylphthalate	149	8.330	8.330	(1.069)	8005	0.20000	0.226(a)
	51 Fluorene	166	8.441	8.441	(1.083)	8326	0.20000	0.274(a)
	52 4-Chlorophenyl-phenylether	204	8.457	8.457	(1.085)	3643	0.20000	0.311(a)
	55 N-nitrosodiphenylamine (1)+	169	8.601	8.601	(0.898)	5058	0.20000	0.197(aM)
	56 Azobenzene	77	8.641	8.641	(1.901)	6041	0.20000	0.223(a)
	58 4-Bromophenyl-phenylether	248	9.040	9.040	(0.944)	1745	0.20000	0.233(a)
	59 Hexachlorobenzene	284	9.104	9.104	(0.951)	2492	0.20000	0.259(a)
*	61 Phenanthrene-d10	188	9.575	9.575	(1.000)	1441217	40.0000	
	62 Phenanthrene	178	9.599	9.599	(1.002)	13223	0.20000	0.292(a)
	63 Anthracene	178	9.663	9.663	(1.009)	10891	0.20000	0.235(a)
	64 Carbazole	167	9.871	9.871	(1.031)	9468	0.20000	0.230(a)
	65 Di-n-butylphthalate	149	10.310	10.310	(1.077)	12454	0.20000	0.207(a)
M	66 Total Methylphenol	108				7846	0.20000	0.215(a)
	67 Fluoranthene +	202	11.036	11.036	(1.153)	9277	0.20000	0.250(a)
	69 Pyrene	202	11.308	11.308	(0.885)	9492	0.20000	0.249(a)
$	70 Terphenyl-d14	244	11.516	11.516	(0.901)	5379	0.20000	0.211(a)
	71 Butylbenzylphthalate	149	12.130	12.130	(0.949)	4069	0.20000	0.173(aM)
	72 Benzo(a)anthracene	228	12.761	12.761	(0.999)	11001	0.20000	0.307(a)
	73 3,3'-Dichlorobenzidine	252	12.753	12.753	(0.998)	3916	0.20000	0.379(a)
*	74 Chrysene-d12	240	12.777	12.777	(1.000)	995138	40.0000	
	75 Chrysene	228	12.809	12.809	(1.002)	8167	0.20000	0.253(a)
	76 bis(2-Ethylhexyl)phthalate	149	12.833	12.833	(1.004)	7993	0.20000	0.262(a)
	77 Di-n-octylphthalate +	149	13.584	13.584	(1.063)	10798	0.20000	0.193(a)
	78 Benzo(b)fluoranthene	252	14.015	14.015	(0.974)	8881	0.20000	0.218(a)
	79 Benzo(k)fluoranthene	252	14.015	14.015	(0.974)	8881	0.20000	0.257(a)
	80 Benzo(a)pyrene +	252	14.326	14.326	(0.996)	6816	0.20000	0.204(a)
*	81 Perylene-d12	264	14.382	14.382	(1.000)	876941	40.0000	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
82 Indeno(1,2,3-cd)pyrene	276	15.540	15.540	(1.080)	8345	0.20000	0.189(a)
83 Dibenzo(a,h)anthracene	278	15.556	15.556	(1.082)	6525	0.20000	0.181(a)
84 Benzo(g,h,i)perylene	276	15.859	15.859	(1.103)	7001	0.20000	0.179(a)
91 Acetophenone	105	4.928	4.928	(1.084)	5543	0.20000	0.253(aM)
158 Biphenyl	154	7.124	7.124	(1.567)	10886	0.20000	0.268(aM)
145 1-Methylnaphthalene	142	6.581	6.581	(1.135)	9740	0.20000	0.254(a)
159 Atrazine	200	9.256	9.256	(0.967)	724	0.20000	0.132(aM)

QC Flag Legend

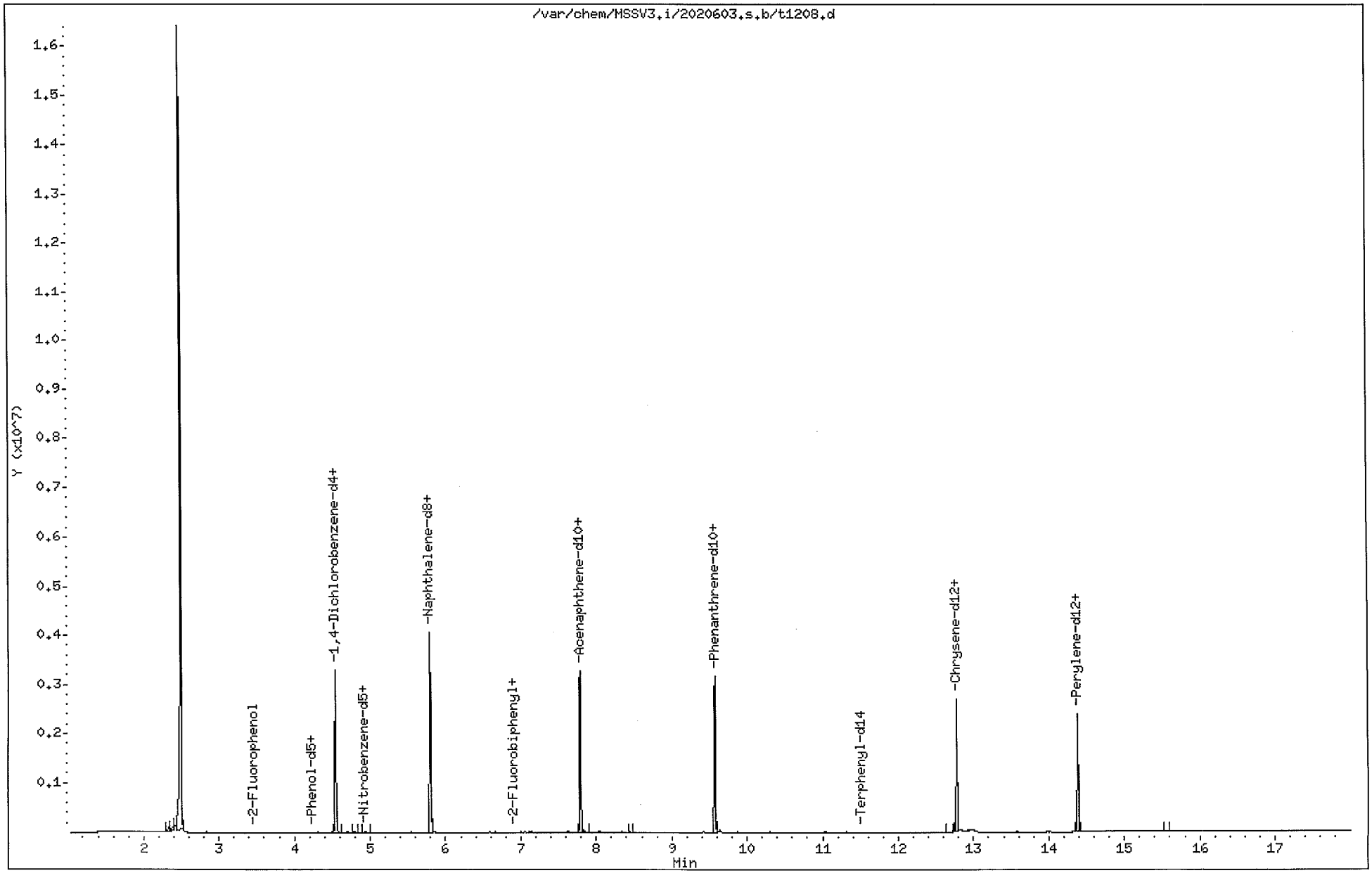
a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

000222

Data File: /var/chem/MSSV3.i/2020603.s.b/t1208.d
Date : 03-JUN-2002 15:36
Client ID: SSTD00.2
Sample Info: SSTD00.2*3-29-8
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: MSSV3.i

Operator: rlw
Column diameter: 0.25



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BNA QUANT AND RATIO REPORT

Data file : /var/chem/MSSV3.i/2020603.s.b/t1207.d
Lab Smp Id: SSTD001 Client Smp ID: SSTD001
Inj Date : 03-JUN-2002 15:10
Operator : rlw Inst ID: MSSV3.i
Smp Info : SSTD001*3-29-7
Misc Info : SSTD001*3-29-7
Comment :
Method : /var/chem/MSSV3.i/2020603.s.b/8270C_03.m
Meth Date : 26-Jun-2002 19:15 rlw Quant Type: ISTD
Cal Date : 03-JUN-2002 15:10 Cal File: t1207.d
Als bottle: 8 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270C.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	1.00000	ng unit correction factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
$ 3 2-Fluorophenol	112	3.449	3.449	(0.759)	25106	1.00000	1.04(a)
$ 4 Phenol-d5	99	4.239	4.239	(0.933)	30723	1.00000	1.20(a)
5 Aniline	93	4.263	4.263	(0.938)	27052	1.00000	1.10(a)
6 Phenol +	94	4.247	4.247	(0.935)	33428	1.00000	1.20(a)
7 bis(-2-Chloroethyl)Ether	63	4.311	4.311	(0.949)	18484	1.00000	1.08(a)
8 2-Chlorophenol	128	4.367	4.367	(0.961)	29395	1.00000	1.11(a)
9 1,3-Dichlorobenzene	146	4.495	4.495	(0.989)	33254	1.00000	1.20(a)
* 10 1,4-Dichlorobenzene-d4	152	4.543	4.543	(1.000)	676716	40.0000	
11 1,4-Dichlorobenzene +	146	4.558	4.558	(1.004)	34877	1.00000	1.31(a)
13 1,2-Dichlorobenzene	146	4.702	4.702	(1.035)	32215	1.00000	1.32(a)
14 Bis(2-chloroisopropyl)ether	45	4.790	4.790	(1.054)	54097	1.00000	1.34(a)
15 2-Methylphenol	108	4.782	4.782	(1.053)	24674	1.00000	1.24(a)
16 N-Nitroso-di-n-propylamine++	70	4.918	4.918	(1.083)	14091	1.00000	1.23(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
	17 3- & 4-Methylphenol	108	4.926	4.926	(1.084)	24320	1.00000	1.36(a)
	18 Hexachloroethane	117	5.014	5.014	(1.104)	10241	1.00000	1.22(a)
$	19 Nitrobenzene-d5	82	5.069	5.069	(0.875)	18743	1.00000	1.13(a)
	20 Nitrobenzene	77	5.085	5.085	(0.877)	18930	1.00000	1.20(a)
	21 Isophorone	82	5.325	5.325	(0.919)	41812	1.00000	1.15(a)
	22 2-Nitrophenol +	139	5.405	5.405	(0.932)	13131	1.00000	0.931(a)
	23 2,4-Dimethyphenol	107	5.445	5.445	(0.939)	20990	1.00000	1.16(a)
	24 bis(-2-Chloroethoxy)methane	93	5.541	5.541	(0.956)	29729	1.00000	1.24(a)
	26 2,4-Dichlorophenol +	162	5.660	5.660	(0.977)	18559	1.00000	1.08(a)
	27 1,2,4-Trichlorobenzene	180	5.740	5.740	(0.990)	20816	1.00000	1.22(a)
*	28 Naphthalene-d8	136	5.796	5.796	(1.000)	2403687	40.0000	
	29 Naphthalene	128	5.820	5.820	(1.004)	88538	1.00000	1.42(a)
	30 4-Chloroaniline	127	5.892	5.892	(1.017)	24965	1.00000	1.07(a)
	31 Hexachlorobutadiene +	225	5.948	5.948	(1.026)	10169	1.00000	1.25(a)
	32 4-Chloro-3-Methylphenol +	107	6.427	6.427	(1.109)	15363	1.00000	1.02(a)
	33 2-Methylnaphthalene	142	6.579	6.579	(1.135)	53346	1.00000	1.35(a)
	34 Hexachlorocyclopentadiene ++	237	6.754	6.754	(0.867)	5830	1.00000	0.683(aM)
	35 2,4,6-Trichlorophenol +	196	6.914	6.914	(0.887)	8299	1.00000	0.851(a)
	36 2,4,5-Trichlorphenol	196	6.914	6.914	(0.887)	8299	1.00000	0.818(a)
$	37 2-Fluorobiphenyl	172	7.002	7.002	(0.899)	44628	1.00000	1.20(a)
	38 2-Chloronaphthalene	162	7.138	7.138	(0.916)	43027	1.00000	1.21(a)
	39 2-Nitroaniline	138	7.273	7.273	(0.933)	13629	1.00000	0.888(a)
	40 Dimethylphthalate	163	7.489	7.489	(0.961)	45763	1.00000	1.14(aM)
	41 2,6-Dinitrotoluene	165	7.561	7.561	(0.970)	10088	1.00000	0.978(a)
	42 Acenaphthylene	152	7.625	7.625	(0.978)	71619	1.00000	1.23(a)
	43 3-Nitroaniline	138	7.808	7.808	(1.002)	933	1.00000	0.0840(a)
*	44 Acenaphthene-d10	164	7.792	7.792	(1.000)	1060674	40.0000	
	45 Acenaphthene +	153	7.824	7.824	(1.004)	46597	1.00000	1.30(a)
	47 Dibenzofuran	168	8.032	8.032	(1.031)	59310	1.00000	1.35(a)
	48 2,4-Dinitrotoluene	165	8.040	8.040	(1.032)	12513	1.00000	1.01(a)
	50 Diethylphthalate	149	8.327	8.327	(1.069)	47003	1.00000	1.24(a)
	51 Fluorene	166	8.439	8.439	(1.083)	44001	1.00000	1.36(a)
	52 4-Chlorophenyl-phenylether	204	8.455	8.455	(1.085)	18655	1.00000	1.49(a)
	53 4-Nitroaniline	138	8.487	8.487	(1.089)	8185	1.00000	0.764(a)
	55 N-nitrosodiphenylamine (1)+	169	8.599	8.599	(0.898)	30690	1.00000	1.20(aM)
	56 Azobenzene	77	8.639	8.639	(1.902)	35118	1.00000	1.25(a)
$	57 2,4,6-Tribromophenol	332	8.734	8.734	(1.121)	2457	1.00000	0.641(a)
	58 4-Bromophenyl-phenylether	248	9.038	9.038	(0.944)	8509	1.00000	1.14(a)
	59 Hexachlorobenzene	284	9.102	9.102	(0.951)	11542	1.00000	1.20(a)
*	61 Phenanthrene-d10	188	9.573	9.573	(1.000)	1440690	40.0000	
	62 Phenanthrene	178	9.597	9.597	(1.002)	59642	1.00000	1.32(a)
	63 Anthracene	178	9.661	9.661	(1.009)	60109	1.00000	1.29(a)
	64 Carbazole	167	9.868	9.868	(1.031)	51360	1.00000	1.25(a)
	65 Di-n-butylphthalate	149	10.315	10.315	(1.078)	68641	1.00000	1.14(a)
M	66 Total Methylphenol	108				48994	1.00000	1.29(a)
	67 Fluoranthene +	202	11.034	11.034	(1.153)	46691	1.00000	1.26(a)
	68 Benzidine	184	11.234	11.234	(0.879)	7616	1.00000	2.64(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
	69 Pyrene	202	11.305	11.305	(0.884)	46857	1.00000	1.27(a)
$	70 Terphenyl-d14	244	11.521	11.521	(0.901)	30217	1.00000	1.23(a)
	71 Butylbenzylphthalate	149	12.128	12.128	(0.949)	23924	1.00000	1.05(a)
	72 Benzo(a)anthracene	228	12.767	12.767	(0.999)	41809	1.00000	1.21(a)
	73 3,3'-Dichlorobenzidine	252	12.751	12.751	(0.998)	16637	1.00000	1.67(a)
*	74 Chrysene-d12	240	12.783	12.783	(1.000)	960468	40.0000	
	75 Chrysene	228	12.807	12.807	(1.002)	39579	1.00000	1.27(a)
	76 bis(2-Ethylhexyl)phthalate	149	12.831	12.831	(1.004)	37332	1.00000	1.27(a)
	77 Di-n-octylphthalate +	149	13.581	13.581	(1.062)	59891	1.00000	1.11(a)
	78 Benzo(b)fluoranthene	252	14.012	14.012	(0.974)	49699	1.00000	1.23(a)
	79 Benzo(k)fluoranthene	252	14.012	14.012	(0.974)	49699	1.00000	1.45(a)
	80 Benzo(a)pyrene +	252	14.324	14.324	(0.996)	41860	1.00000	1.26(a)
*	81 Perylene-d12	264	14.387	14.387	(1.000)	869373	40.0000	
	82 Indeno(1,2,3-cd)pyrene	276	15.529	15.529	(1.079)	50636	1.00000	1.16(a)
	83 Dibenzo(a,h)anthracene	278	15.545	15.545	(1.080)	44369	1.00000	1.24(a)
	84 Benzo(g,h,i)perylene	276	15.849	15.849	(1.102)	41989	1.00000	1.08(a)
	91 Acetophenone	105	4.926	4.926	(1.084)	31870	1.00000	1.40(aM)
	156 Benzaldehyde	77	4.175	4.175	(0.919)	4094	1.00000	0.539(aM)
	158 Biphenyl	154	7.122	7.122	(1.568)	58083	1.00000	1.38(aM)
	145 1-Methylnaphthalene	142	6.579	6.579	(1.135)	53346	1.00000	1.35(a)
	159 Atrazine	200	9.253	9.253	(0.967)	6722	1.00000	1.23(aM)

QC Flag Legend

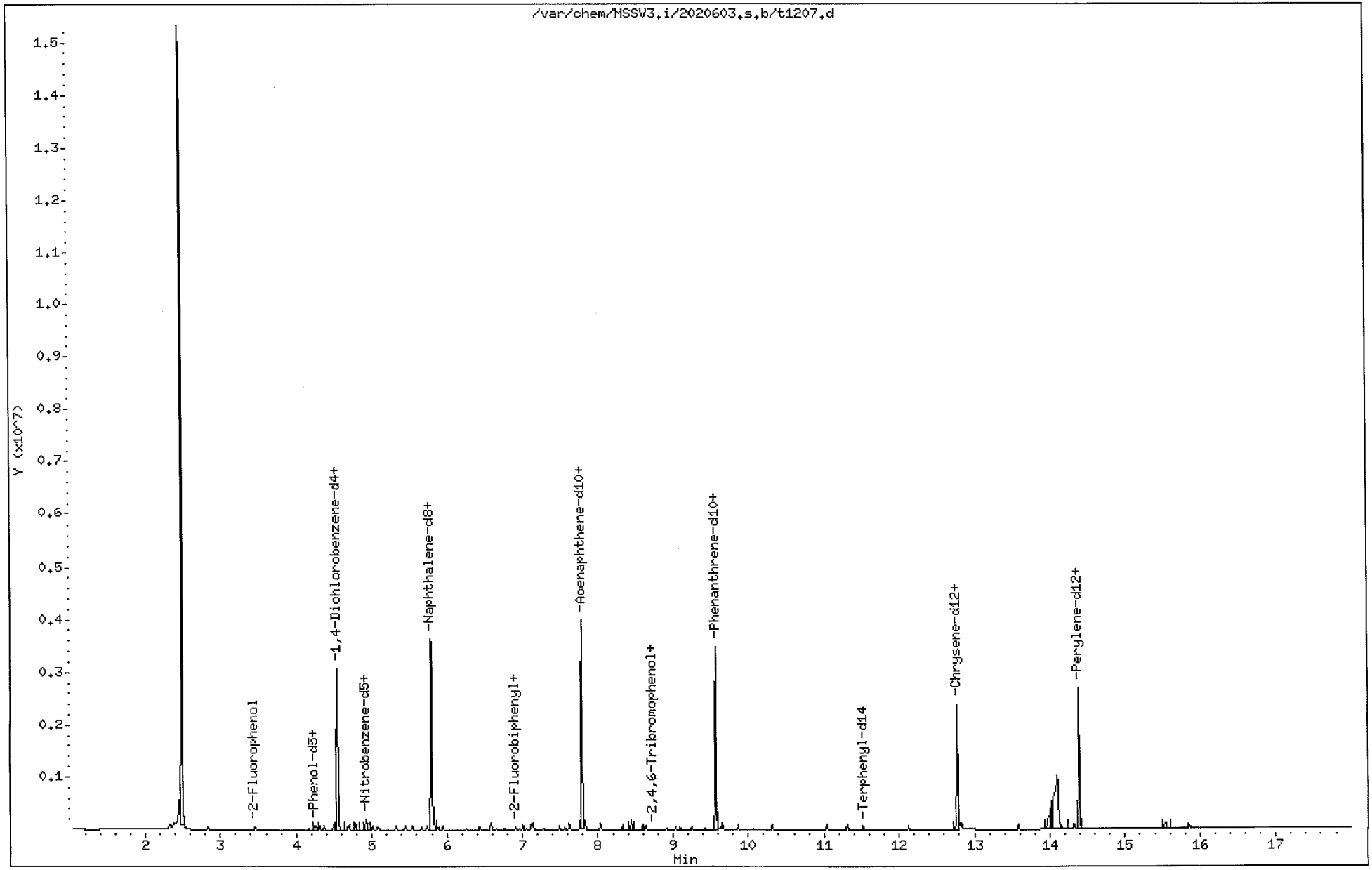
a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

000226

Data File: /var/chem/MSSV3.i/2020603.s.b/t1207.d
Date : 03-JUN-2002 15:10
Client ID: SSTD001
Sample Info: SSTD001*3-29-7
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: MSSV3.i

Operator: rlw
Column diameter: 0.25



Gulf Coast Analytical Laboratories, Inc.

BNA QUANT AND RATIO REPORT

Data file : /var/chem/MSSV3.i/2020603.s.b/t1202.d
Lab Smp Id: SSTD010 Client Smp ID: SSTD010
Inj Date : 03-JUN-2002 12:59
Operator : rlw Inst ID: MSSV3.i
Smp Info : SSTD010*3-29-1
Misc Info : SSTD010*3-29-1
Comment :
Method : /var/chem/MSSV3.i/2020603.s.b/8270C_03.m
Meth Date : 26-Jun-2002 19:14 rlw Quant Type: ISTD
Cal Date : 03-JUN-2002 12:59 Cal File: t1202.d
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270C.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	1.00000	ng unit correction factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
	1 n-Nitrosodimethylamine	42	2.078	2.078	(0.457)	89366	10.0000	9.81(a)
	2 Pyridine	79	2.150	2.150	(0.473)	263797	10.0000	10.4
$	3 2-Fluorophenol	112	3.444	3.444	(0.758)	283510	10.0000	11.3
$	4 Phenol-d5	99	4.234	4.234	(0.931)	324521	10.0000	12.2
	5 Aniline	93	4.258	4.258	(0.937)	363452	10.0000	14.2
	6 Phenol +	94	4.242	4.242	(0.933)	355038	10.0000	12.2
	7 bis(-2-Chloroethyl)Ether	63	4.314	4.314	(0.949)	187545	10.0000	10.5
	8 2-Chlorophenol	128	4.362	4.362	(0.960)	315566	10.0000	11.4
	9 1,3-Dichlorobenzene	146	4.498	4.498	(0.989)	351284	10.0000	12.2
*	10 1,4-Dichlorobenzene-d4	152	4.545	4.545	(1.000)	704353	40.0000	
	11 1,4-Dichlorobenzene +	146	4.561	4.561	(1.004)	349078	10.0000	12.6
	12 Benzyl alcohol	108	4.681	4.681	(1.030)	180332	10.0000	12.3
	13 1,2-Dichlorobenzene	146	4.697	4.697	(1.033)	333889	10.0000	13.1

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
	14 Bis(2-chloroisopropyl)ether	45	4.793	4.793	(1.054)	533878	10.0000	12.7
	15 2-Methylphenol	108	4.785	4.785	(1.053)	257642	10.0000	12.4
	16 N-Nitroso-di-n-propylamine++	70	4.921	4.921	(1.083)	148256	10.0000	12.4
	17 3- & 4-Methylphenol	108	4.921	4.921	(1.083)	256409	10.0000	13.7
	18 Hexachloroethane	117	5.017	5.017	(1.104)	106522	10.0000	12.2
$	19 Nitrobenzene-d5	82	5.072	5.072	(0.875)	199108	10.0000	11.2
	20 Nitrobenzene	77	5.088	5.088	(0.877)	197535	10.0000	11.7
	21 Isophorone	82	5.328	5.328	(0.919)	425571	10.0000	10.9
	22 2-Nitrophenol +	139	5.408	5.408	(0.933)	176177	10.0000	11.7
	23 2,4-Dimethyphenol	107	5.448	5.448	(0.939)	235774	10.0000	12.1
	24 bis(-2-Chloroethoxy)methane	93	5.544	5.544	(0.956)	309838	10.0000	12.1
	25 Benzoic Acid	122	5.448	5.448	(1.198)	256806	10.0000	24.0(a)
	26 2,4-Dichlorophenol +	162	5.663	5.663	(0.977)	212573	10.0000	11.6
	27 1,2,4-Trichlorobenzene	180	5.743	5.743	(0.990)	215798	10.0000	11.8
*	28 Naphthalene-d8	136	5.799	5.799	(1.000)	2575109	40.0000	
	29 Naphthalene	128	5.823	5.823	(1.004)	851915	10.0000	12.7
	30 4-Chloroaniline	127	5.887	5.887	(1.015)	325002	10.0000	13.1
	31 Hexachlorobutadiene +	225	5.951	5.951	(1.026)	102197	10.0000	11.8
	32 4-Chloro-3-Methylphenol +	107	6.430	6.430	(1.109)	188629	10.0000	11.7
	33 2-Methylnaphthalene	142	6.582	6.582	(1.135)	551838	10.0000	13.0
	34 Hexachlorocyclopentadiene ++	237	6.757	6.757	(0.867)	97296	10.0000	10.7(M)
	35 2,4,6-Trichlorophenol +	196	6.917	6.917	(0.887)	112954	10.0000	10.9
	36 2,4,5-Trichlorphenol	196	6.965	6.965	(0.893)	120168	10.0000	11.2
$	37 2-Fluorobiphenyl	172	7.005	7.005	(0.899)	437914	10.0000	11.1
	38 2-Chloronaphthalene	162	7.140	7.140	(0.916)	448585	10.0000	11.9
	39 2-Nitroaniline	138	7.268	7.268	(0.932)	182439	10.0000	11.2
	40 Dimethylphthalate	163	7.492	7.492	(0.961)	469480	10.0000	11.0(M)
	41 2,6-Dinitrotoluene	165	7.564	7.564	(0.970)	122077	10.0000	11.1
	42 Acenaphthylene	152	7.620	7.620	(0.977)	749145	10.0000	12.1
	43 3-Nitroaniline	138	7.763	7.763	(0.996)	145047	10.0000	12.3
*	44 Acenaphthene-d10	164	7.795	7.795	(1.000)	1126143	40.0000	
	45 Acenaphthene +	153	7.827	7.827	(1.004)	476278	10.0000	12.5
	46 2,4-Dinitrophenol ++	184	7.899	7.899	(1.013)	3338	10.0000	0.699(aM)
	47 Dibenzofuran	168	8.035	8.035	(1.031)	584488	10.0000	12.5
	48 2,4-Dinitrotoluene	165	8.043	8.043	(1.032)	154620	10.0000	11.7
	49 4-Nitrophenol ++	109	7.995	7.995	(1.026)	20328	10.0000	8.67(a)
	50 Diethylphthalate	149	8.338	8.338	(1.070)	474029	10.0000	11.8
	51 Fluorene	166	8.442	8.442	(1.083)	467390	10.0000	13.6
	52 4-Chlorophenyl-phenylether	204	8.458	8.458	(1.085)	185002	10.0000	14.0
	53 4-Nitroaniline	138	8.490	8.490	(1.089)	119149	10.0000	10.5
	54 4,6-Dinitro-o-cresol	198	8.530	8.530	(0.891)	24406	10.0000	3.88(a)
	55 N-nitrosodiphenylamine (1)+	169	8.602	8.602	(0.898)	319283	10.0000	11.6(M)
	56 Azobenzene	77	8.642	8.642	(1.901)	347774	10.0000	11.9
$	57 2,4,6-Tribromophenol	332	8.737	8.737	(1.121)	49440	10.0000	12.1
	58 4-Bromophenyl-phenylether	248	9.041	9.041	(0.944)	93137	10.0000	11.6
	59 Hexachlorobenzene	284	9.105	9.105	(0.951)	115846	10.0000	11.3
	60 Pentachlorophenol +	266	9.352	9.352	(0.977)	43627	10.0000	7.45(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
*	61 Phenanthrene-d10	188	9.576	9.576	(1.000)	1542110	40.0000	
	62 Phenanthrene	178	9.600	9.600	(1.002)	556544	10.0000	11.5
	63 Anthracene	178	9.664	9.664	(1.009)	566501	10.0000	11.4
	64 Carbazole	167	9.871	9.871	(1.031)	520733	10.0000	11.8
	65 Di-n-butylphthalate	149	10.318	10.318	(1.078)	753118	10.0000	11.7
M	66 Total Methylphenol	108				514051	10.0000	13.0
	67 Fluoranthene +	202	11.037	11.037	(1.153)	478907	10.0000	12.1
	68 Benzidine	184	11.221	11.221	(0.878)	96607	10.0000	30.5(a)
	69 Pyrene	202	11.308	11.308	(0.884)	488706	10.0000	12.1
$	70 Terphenyl-d14	244	11.516	11.516	(0.901)	318294	10.0000	11.8
	71 Butylbenzylphthalate	149	12.131	12.131	(0.949)	280250	10.0000	11.3
	72 Benzo(a)anthracene	228	12.762	12.762	(0.998)	392619	10.0000	10.4
	73 3,3'-Dichlorobenzidine	252	12.754	12.754	(0.998)	146548	10.0000	13.4(a)
*	74 Chrysene-d12	240	12.786	12.786	(1.000)	1052131	40.0000	
	75 Chrysene	228	12.809	12.809	(1.002)	394307	10.0000	11.6
	76 bis(2-Ethylhexyl)phthalate	149	12.833	12.833	(1.004)	370837	10.0000	11.5
	77 Di-n-octylphthalate +	149	13.584	13.584	(1.062)	624686	10.0000	10.5
	78 Benzo(b)fluoranthene	252	13.983	13.983	(0.972)	446088	10.0000	10.6
	79 Benzo(k)fluoranthene	252	14.007	14.007	(0.974)	424785	10.0000	11.9
	80 Benzo(a)pyrene +	252	14.319	14.319	(0.996)	393593	10.0000	11.4
*	81 Perylene-d12	264	14.382	14.382	(1.000)	903387	40.0000	
	82 Indeno(1,2,3-cd)pyrene	276	15.532	15.532	(1.080)	544185	10.0000	12.0
	83 Dibenzo(a,h)anthracene	278	15.548	15.548	(1.081)	461425	10.0000	12.5
	84 Benzo(g,h,i)perylene	276	15.860	15.860	(1.103)	462061	10.0000	11.5
	91 Acetophenone	105	4.929	4.929	(1.084)	326740	20.0000	13.8(M)
	156 Benzaldehyde	77	4.170	4.170	(0.917)	150694	10.0000	19.0(M)
	157 Caprolactam	113	6.270	6.270	(1.081)	73717	10.0000	10.6(M)
	158 Biphenyl	154	7.124	7.124	(1.567)	592037	10.0000	13.5(M)
	145 1-Methylnaphthalene	142	6.582	6.582	(1.135)	551838	10.0000	13.0
	159 Atrazine	200	9.264	9.264	(0.967)	77331	10.0000	13.2(M)

QC Flag Legend

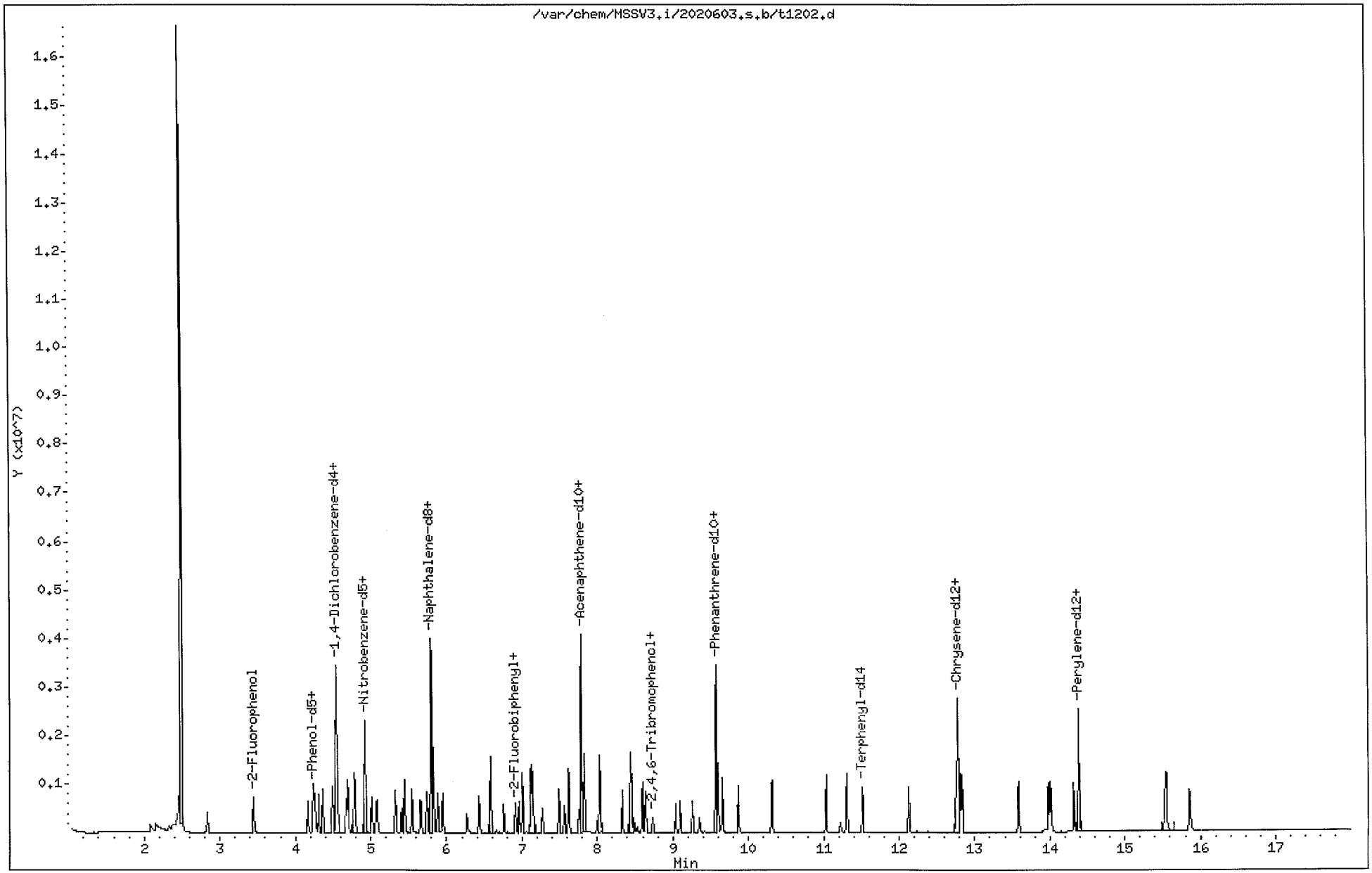
a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

000230

Data File: /var/chem/MSSV3.i/2020603.s.b/t1202.d
Date : 03-JUN-2002 12:59
Client ID: SSTD010
Sample Info: SSTD010*3-29-1
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: MSSV3.i

Operator: rlw
Column diameter: 0.25



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BNA QUANT AND RATIO REPORT

Data file : /var/chem/MSSV3.i/2020603.s.b/t1201.d
Lab Smp Id: SSTD050 Client Smp ID: SSTD050
Inj Date : 03-JUN-2002 12:31
Operator : rlw Inst ID: MSSV3.i
Smp Info : SSTD050*3-29-2
Misc Info : SSTD050*3-29-2
Comment :
Method : /var/chem/MSSV3.i/2020603.s.b/8270C_03.m
Meth Date : 26-Jun-2002 19:14 rlw Quant Type: ISTD
Cal Date : 03-JUN-2002 12:31 Cal File: t1201.d
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270C.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	1.00000	ng unit correction factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
	1 n-Nitrosodimethylamine	42	2.077	2.077	(0.456)	464019	50.0000	49.6
	2 Pyridine	79	2.101	2.101	(0.462)	1215265	50.0000	46.6
$	3 2-Fluorophenol	112	3.451	3.451	(0.758)	1293632	50.0000	50.2
$	4 Phenol-d5	99	4.249	4.249	(0.933)	1416819	50.0000	51.8
	5 Aniline	93	4.273	4.273	(0.939)	1323829	50.0000	50.3
	6 Phenol +	94	4.257	4.257	(0.935)	1466686	50.0000	49.2
	7 bis(-2-Chloroethyl)Ether	63	4.321	4.321	(0.949)	872786	50.0000	47.6
	8 2-Chlorophenol	128	4.369	4.369	(0.960)	1428092	50.0000	50.4
	9 1,3-Dichlorobenzene	146	4.497	4.497	(0.988)	1539967	50.0000	52.0
*	10 1,4-Dichlorobenzene-d4	152	4.552	4.552	(1.000)	723483	40.0000	
	11 1,4-Dichlorobenzene +	146	4.568	4.568	(1.004)	1514064	50.0000	53.1
	12 Benzyl alcohol	108	4.688	4.688	(1.030)	785002	50.0000	52.3
	13 1,2-Dichlorobenzene	146	4.704	4.704	(1.033)	1408645	50.0000	54.0

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
	14 Bis(2-chloroisopropyl)ether	45	4.800	4.800	(1.054)	2232248	50.0000	51.8
	15 2-Methylphenol	108	4.792	4.792	(1.053)	1095088	50.0000	51.3
	16 N-Nitroso-di-n-propylamine++	70	4.944	4.944	(1.086)	607990	50.0000	49.5
	17 3- & 4-Methylphenol	108	4.944	4.944	(1.086)	964332	50.0000	50.3
	18 Hexachloroethane	117	5.016	5.016	(1.102)	475353	50.0000	53.0
$	19 Nitrobenzene-d5	82	5.079	5.079	(0.875)	916589	50.0000	49.2
	20 Nitrobenzene	77	5.103	5.103	(0.879)	878089	50.0000	49.8
	21 Isophorone	82	5.343	5.343	(0.920)	1982074	50.0000	48.7
	22 2-Nitrophenol +	139	5.415	5.415	(0.933)	807615	50.0000	51.1
	23 2,4-Dimethyphenol	107	5.463	5.463	(0.941)	983440	50.0000	48.3
	24 bis(-2-Chloroethoxy)methane	93	5.558	5.558	(0.957)	1342151	50.0000	50.0
	25 Benzoic Acid	122	5.463	5.463	(1.200)	1101167	50.0000	100
	26 2,4-Dichlorophenol +	162	5.670	5.670	(0.977)	981589	50.0000	51.0
	27 1,2,4-Trichlorobenzene	180	5.742	5.742	(0.989)	963458	50.0000	50.5
*	28 Naphthalene-d8	136	5.806	5.806	(1.000)	2694605	40.0000	
	29 Naphthalene	128	5.830	5.830	(1.004)	3674407	50.0000	52.4
	30 4-Chloroaniline	127	5.894	5.894	(1.015)	1301741	50.0000	50.0
	31 Hexachlorobutadiene +	225	5.950	5.950	(1.025)	468242	50.0000	51.5
	32 4-Chloro-3-Methylphenol +	107	6.445	6.445	(1.110)	861046	50.0000	51.0
	33 2-Methylnaphthalene	142	6.588	6.588	(1.135)	2344172	50.0000	52.9
	34 Hexachlorocyclopentadiene ++	237	6.764	6.764	(0.868)	500576	50.0000	52.8(M)
	35 2,4,6-Trichlorophenol +	196	6.924	6.924	(0.888)	544905	50.0000	50.3
	36 2,4,5-Trichlorphenol	196	6.972	6.972	(0.894)	599156	50.0000	53.2
$	37 2-Fluorobiphenyl	172	7.012	7.012	(0.900)	1961650	50.0000	47.5
	38 2-Chloronaphthalene	162	7.147	7.147	(0.917)	1905914	50.0000	48.2
	39 2-Nitroaniline	138	7.283	7.283	(0.934)	857056	50.0000	50.3
	40 Dimethylphthalate	163	7.507	7.507	(0.963)	2117005	50.0000	47.3
	41 2,6-Dinitrotoluene	165	7.579	7.579	(0.972)	571679	50.0000	49.9
	42 Acenaphthylene	152	7.634	7.634	(0.980)	3297028	50.0000	51.0
	43 3-Nitroaniline	138	7.778	7.778	(0.998)	622060	50.0000	50.5
*	44 Acenaphthene-d10	164	7.794	7.794	(1.000)	1177376	40.0000	
	45 Acenaphthene +	153	7.842	7.842	(1.006)	2025607	50.0000	51.0
	46 2,4-Dinitrophenol ++	184	7.898	7.898	(1.013)	171508	50.0000	34.4(aM)
	47 Dibenzofuran	168	8.042	8.042	(1.032)	2493013	50.0000	51.1
	48 2,4-Dinitrotoluene	165	8.058	8.058	(1.034)	686273	50.0000	49.7
	49 4-Nitrophenol ++	109	8.010	8.010	(1.028)	128310	50.0000	52.3
	50 Diethylphthalate	149	8.345	8.345	(1.071)	2110684	50.0000	50.3
	51 Fluorene	166	8.449	8.449	(1.084)	1901971	50.0000	52.9
	52 4-Chlorophenyl-phenylether	204	8.465	8.465	(1.086)	749145	50.0000	54.0
	53 4-Nitroaniline	138	8.513	8.513	(1.092)	606504	50.0000	51.0
	54 4,6-Dinitro-o-cresol	198	8.545	8.545	(0.892)	324758	50.0000	50.6
	55 N-nitrosodiphenylamine (1)+	169	8.617	8.617	(0.900)	1411228	50.0000	50.3(M)
	56 Azobenzene	77	8.648	8.648	(1.900)	1536020	50.0000	51.1
$	57 2,4,6-Tribromophenol	332	8.744	8.744	(1.122)	235513	50.0000	55.3
	58 4-Bromophenyl-phenylether	248	9.048	9.048	(0.945)	419209	50.0000	51.2
	59 Hexachlorobenzene	284	9.112	9.112	(0.952)	496444	50.0000	47.3
	60 Pentachlorophenol +	266	9.359	9.359	(0.977)	320255	50.0000	53.5

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
*	61 Phenanthrene-d10	188	9.575	9.575	(1.000)	1574860	40.0000	
	62 Phenanthrene	178	9.607	9.607	(1.003)	2422702	50.0000	49.0
	63 Anthracene	178	9.671	9.671	(1.010)	2443725	50.0000	48.2
	64 Carbazole	167	9.878	9.878	(1.032)	2259253	50.0000	50.3
	65 Di-n-butylphthalate	149	10.325	10.325	(1.078)	3358303	50.0000	51.1
M	66 Total Methylphenol	108				2059420	50.0000	50.8
	67 Fluoranthene +	202	11.044	11.044	(1.153)	2075541	50.0000	51.3
	68 Benzidine	184	11.227	11.227	(0.878)	193491	50.0000	61.2
	69 Pyrene	202	11.315	11.315	(0.885)	2099588	50.0000	52.1
$	70 Terphenyl-d14	244	11.523	11.523	(0.901)	1349879	50.0000	50.1
	71 Butylbenzylphthalate	149	12.138	12.138	(0.949)	1295686	50.0000	52.1
	72 Benzo(a)anthracene	228	12.777	12.777	(0.999)	1728417	50.0000	45.6
	73 3,3'-Dichlorobenzidine	252	12.761	12.761	(0.998)	627226	50.0000	57.4
*	74 Chrysene-d12	240	12.792	12.792	(1.000)	1051466	40.0000	
	75 Chrysene	228	12.824	12.824	(1.002)	1727811	50.0000	50.7
	76 bis(2-Ethylhexyl)phthalate	149	12.840	12.840	(1.004)	1726257	50.0000	53.6
	77 Di-n-octylphthalate +	149	13.591	13.591	(1.062)	3009671	50.0000	50.8
	78 Benzo(b)fluoranthene	252	13.990	13.990	(0.972)	1917326	50.0000	42.2
	79 Benzo(k)fluoranthene	252	14.030	14.030	(0.975)	2031966	50.0000	52.6
	80 Benzo(a)pyrene +	252	14.333	14.333	(0.996)	1829049	50.0000	49.0
*	81 Perylene-d12	264	14.389	14.389	(1.000)	978748	40.0000	
	82 Indeno(1,2,3-cd)pyrene	276	15.555	15.555	(1.081)	2518600	50.0000	51.2
	83 Dibenzo(a,h)anthracene	278	15.579	15.579	(1.083)	2036737	50.0000	50.7
	84 Benzo(g,h,i)perylene	276	15.890	15.890	(1.104)	2215003	50.0000	50.8
	91 Acetophenone	105	4.936	4.936	(1.084)	1285349	50.0000	52.9(M)
	156 Benzaldehyde	77	4.169	4.169	(0.916)	545599	50.0000	67.1(M)
	157 Caprolactam	113	6.341	6.341	(1.092)	349856	50.0000	47.9(M)
	158 Biphenyl	154	7.131	7.131	(1.567)	2482373	50.0000	55.1(M)
	145 1-Methylnaphthalene	142	6.588	6.588	(1.135)	2348056	50.0000	52.9(M)
	159 Atrazine	200	9.279	9.279	(0.969)	277778	50.0000	46.4(M)

QC Flag Legend

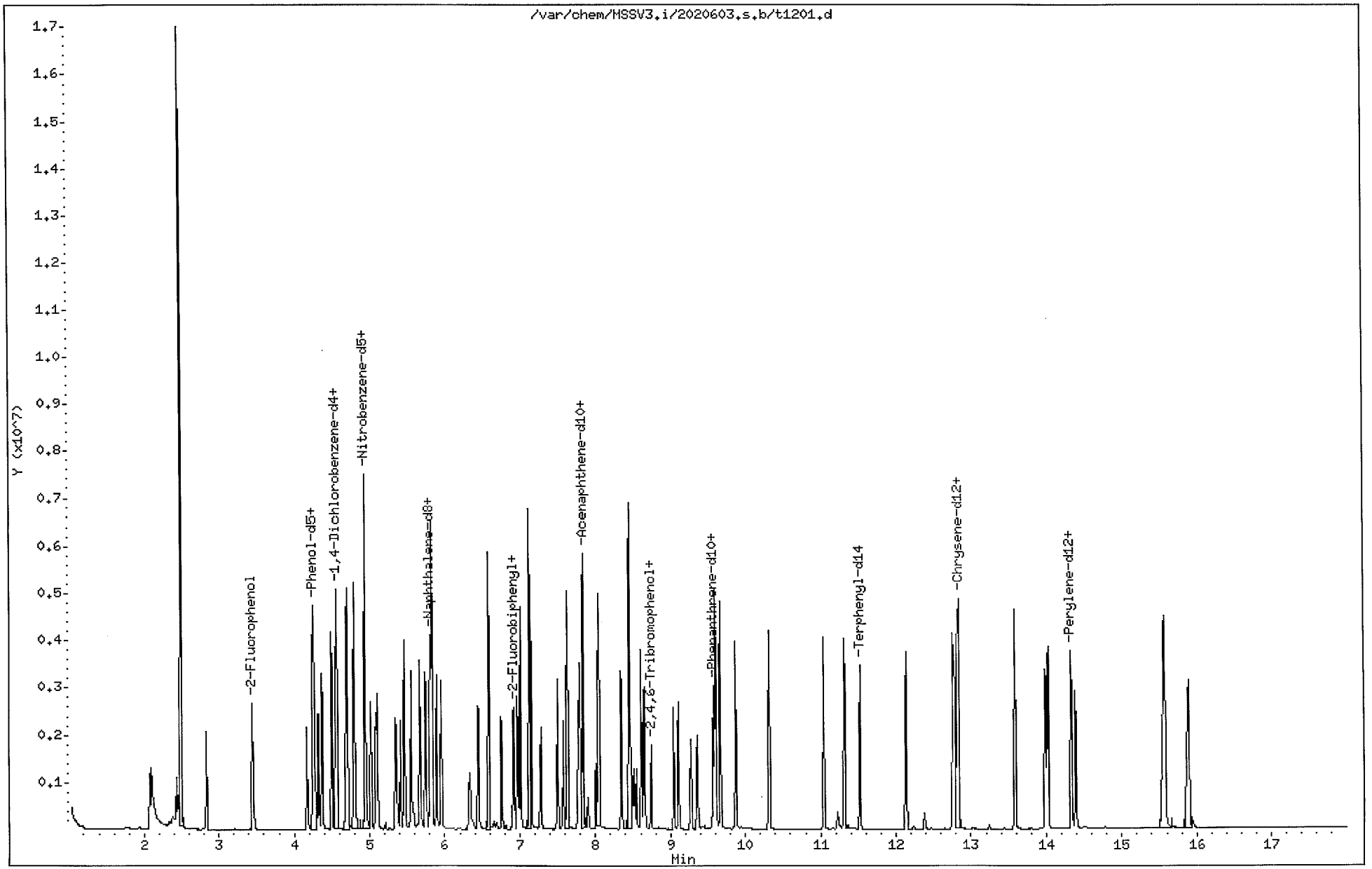
a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

000234

Data File: /var/chem/MSSV3.i/2020603.s.b/t1201.d
Date : 03-JUN-2002 12:31
Client ID: SSTD050
Sample Info: SSTD050*3-29-2
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: MSSV3.i

Operator: rlw
Column diameter: 0.25



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BNA QUANT AND RATIO REPORT

Data file : /var/chem/MSSV3.i/2020603.s.b/t1203.d
Lab Smp Id: SSTD080 Client Smp ID: SSTD080
Inj Date : 03-JUN-2002 13:25
Operator : rlw Inst ID: MSSV3.i
Smp Info : SSTD080*3-29-3
Misc Info : SSTD080*3-29-3
Comment :
Method : /var/chem/MSSV3.i/2020603.s.b/8270C_03.m
Meth Date : 26-Jun-2002 19:14 rlw Quant Type: ISTD
Cal Date : 03-JUN-2002 13:25 Cal File: t1203.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270C.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	1.00000	ng unit correction factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
1 n-Nitrosodimethylamine	42	2.082	2.082	(0.457)	675594	80.0000	80.6
2 Pyridine	79	2.098	2.098	(0.460)	1810020	80.0000	77.5
$ 3 2-Fluorophenol	112	3.448	3.448	(0.756)	1818364	80.0000	78.8
$ 4 Phenol-d5	99	4.254	4.254	(0.933)	1922876	80.0000	78.5
5 Aniline	93	4.270	4.270	(0.937)	1916203	80.0000	81.3
6 Phenol +	94	4.270	4.270	(0.937)	1945997	80.0000	72.8
7 bis(-2-Chloroethyl)Ether	63	4.326	4.326	(0.949)	1218451	80.0000	74.2
8 2-Chlorophenol	128	4.374	4.374	(0.960)	1974646	80.0000	77.8
9 1,3-Dichlorobenzene	146	4.502	4.502	(0.988)	2088314	80.0000	78.7
* 10 1,4-Dichlorobenzene-d4	152	4.550	4.550	(1.000)	648173	40.0000	
11 1,4-Dichlorobenzene +	146	4.574	4.574	(1.004)	2044346	80.0000	80.0
12 Benzyl alcohol	108	4.693	4.693	(1.030)	1028152	80.0000	76.4
13 1,2-Dichlorobenzene	146	4.709	4.709	(1.033)	1843023	80.0000	78.9

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
	14 Bis(2-chloroisopropyl)ether	45	4.805	4.805	(1.054)	3057445	80.0000	79.3
	15 2-Methylphenol	108	4.797	4.797	(1.053)	1479989	80.0000	77.3
	16 N-Nitroso-di-n-propylamine++	70	4.957	4.957	(1.088)	842636	80.0000	76.6
	17 3- & 4-Methylphenol	108	4.949	4.949	(1.086)	1276381	80.0000	74.3
	18 Hexachloroethane	117	5.021	5.021	(1.102)	651946	80.0000	81.2
$	19 Nitrobenzene-d5	82	5.093	5.093	(0.876)	1272788	80.0000	77.7
	20 Nitrobenzene	77	5.109	5.109	(0.879)	1224587	80.0000	79.0
	21 Isophorone	82	5.356	5.356	(0.922)	2781892	80.0000	77.8
	22 2-Nitrophenol +	139	5.420	5.420	(0.933)	1120458	80.0000	80.6
	23 2,4-Dimethyphenol	107	5.468	5.468	(0.941)	1415421	80.0000	79.1
	24 bis(-2-Chloroethoxy)methane	93	5.564	5.564	(0.957)	1874388	80.0000	79.4
	25 Benzoic Acid	122	5.620	5.620	(1.233)	417825	80.0000	42.4(aH)
	26 2,4-Dichlorophenol +	162	5.676	5.676	(0.977)	1352785	80.0000	80.0
	27 1,2,4-Trichlorobenzene	180	5.747	5.747	(0.989)	1316370	80.0000	78.5
*	28 Naphthalene-d8	136	5.811	5.811	(1.000)	2369043	40.0000	
	29 Naphthalene	128	5.835	5.835	(1.004)	4875046	80.0000	79.1
	30 4-Chloroaniline	127	5.899	5.899	(1.015)	1811903	80.0000	79.2
	31 Hexachlorobutadiene +	225	5.955	5.955	(1.025)	615926	80.0000	77.1
	32 4-Chloro-3-Methylphenol +	107	6.458	6.458	(1.111)	1179952	80.0000	79.5
	33 2-Methylnaphthalene	142	6.594	6.594	(1.135)	3072729	80.0000	78.8
	34 Hexachlorocyclopentadiene ++	237	6.761	6.761	(0.867)	687312	80.0000	83.3(M)
	35 2,4,6-Trichlorophenol +	196	6.929	6.929	(0.888)	738785	80.0000	78.4
	36 2,4,5-Trichlorphenol	196	6.977	6.977	(0.895)	803542	80.0000	82.0
$	37 2-Fluorobiphenyl	172	7.017	7.017	(0.900)	2657572	80.0000	74.0
	38 2-Chloronaphthalene	162	7.153	7.153	(0.917)	2510494	80.0000	73.0
	39 2-Nitroaniline	138	7.288	7.288	(0.934)	1172591	80.0000	79.1
	40 Dimethylphthalate	163	7.512	7.512	(0.963)	2873925	80.0000	73.8
	41 2,6-Dinitrotoluene	165	7.584	7.584	(0.972)	778909	80.0000	78.2
	42 Acenaphthylene	152	7.632	7.632	(0.978)	4365828	80.0000	77.6
	43 3-Nitroaniline	138	7.783	7.783	(0.998)	820945	80.0000	76.5
*	44 Acenaphthene-d10	164	7.799	7.799	(1.000)	1024667	40.0000	
	45 Acenaphthene +	153	7.847	7.847	(1.006)	2656713	80.0000	76.8
	46 2,4-Dinitrophenol ++	184	7.903	7.903	(1.013)	297005	80.0000	68.4(M)
	47 Dibenzofuran	168	8.047	8.047	(1.032)	3316147	80.0000	78.1
	48 2,4-Dinitrotoluene	165	8.063	8.063	(1.034)	920240	80.0000	76.6
	49 4-Nitrophenol ++	109	8.015	8.015	(1.028)	175719	80.0000	82.3
	50 Diethylphthalate	149	8.358	8.358	(1.072)	2802281	80.0000	76.7
	51 Fluorene	166	8.454	8.454	(1.084)	2435058	80.0000	77.8
	52 4-Chlorophenyl-phenylether	204	8.462	8.462	(1.085)	947859	80.0000	78.6
	53 4-Nitroaniline	138	8.526	8.526	(1.093)	829717	80.0000	80.1
	54 4,6-Dinitro-o-cresol	198	8.558	8.558	(0.893)	487428	80.0000	86.6
	55 N-nitrosodiphenylamine (1)+	169	8.622	8.622	(0.900)	1858839	80.0000	75.6(M)
	56 Azobenzene	77	8.654	8.654	(1.899)	2055492	80.0000	76.4
$	57 2,4,6-Tribromophenol	332	8.750	8.750	(1.122)	311948	80.0000	84.2
	58 4-Bromophenyl-phenylether	248	9.053	9.053	(0.945)	564041	80.0000	78.6
	59 Hexachlorobenzene	284	9.117	9.117	(0.952)	657368	80.0000	71.4
	60 Pentachlorophenol +	266	9.364	9.364	(0.977)	431699	80.0000	82.3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
*	61 Phenanthrene-d10	188	9.580	9.580	(1.000)	1380739	40.0000	
	62 Phenanthrene	178	9.612	9.612	(1.003)	3238986	80.0000	74.8
	63 Anthracene	178	9.676	9.676	(1.010)	3227468	80.0000	72.5
	64 Carbazole	167	9.883	9.883	(1.032)	3065675	80.0000	77.9
	65 Di-n-butylphthalate	149	10.323	10.323	(1.077)	4372360	80.0000	75.9
M	66 Total Methylphenol	108				2756370	80.0000	75.9
	67 Fluoranthene +	202	11.049	11.049	(1.153)	2788954	80.0000	78.6
	68 Benzidine	184	11.225	11.225	(0.878)	382642	80.0000	132
	69 Pyrene	202	11.321	11.321	(0.885)	2833392	80.0000	76.8
$	70 Terphenyl-d14	244	11.528	11.528	(0.901)	1800607	80.0000	73.0
	71 Butylbenzylphthalate	149	12.143	12.143	(0.949)	1810049	80.0000	79.5
	72 Benzo(a)anthracene	228	12.782	12.782	(0.999)	2370820	80.0000	68.3
	73 3,3'-Dichlorobenzidine	252	12.766	12.766	(0.998)	814091	80.0000	81.4
*	74 Chrysene-d12	240	12.790	12.790	(1.000)	962788	40.0000	
	75 Chrysene	228	12.830	12.830	(1.003)	2294273	80.0000	73.5
	76 bis(2-Ethylhexyl)phthalate	149	12.846	12.846	(1.004)	2289268	80.0000	77.6
	77 Di-n-octylphthalate +	149	13.596	13.596	(1.063)	4207117	80.0000	77.6
	78 Benzo(b)fluoranthene	252	14.003	14.003	(0.973)	3209334	80.0000	74.5
	79 Benzo(k)fluoranthene	252	14.035	14.035	(0.975)	2637230	80.0000	72.0(H)
	80 Benzo(a)pyrene +	252	14.347	14.347	(0.997)	2634868	80.0000	74.5
*	81 Perylene-d12	264	14.395	14.395	(1.000)	927855	40.0000	
	82 Indeno(1,2,3-cd)pyrene	276	15.568	15.568	(1.082)	3685012	80.0000	79.0
	83 Dibenzo(a,h)anthracene	278	15.592	15.592	(1.083)	2825130	80.0000	74.2
	84 Benzo(g,h,i)perylene	276	15.912	15.912	(1.105)	3272402	80.0000	79.2
	91 Acetophenone	105	4.949	4.949	(1.086)	1748034	80.0000	80.2(M)
	156 Benzaldehyde	77	4.174	4.174	(0.916)	602792	80.0000	82.8(M)
	157 Caprolactam	113	6.362	6.362	(1.095)	521732	80.0000	81.2(M)
	158 Biphenyl	154	7.137	7.137	(1.566)	3169648	80.0000	78.5(M)
	145 1-Methylnaphthalene	142	6.594	6.594	(1.135)	3072729	80.0000	78.8
	159 Atrazine	200	9.285	9.285	(0.969)	410110	80.0000	78.1(M)

QC Flag Legend

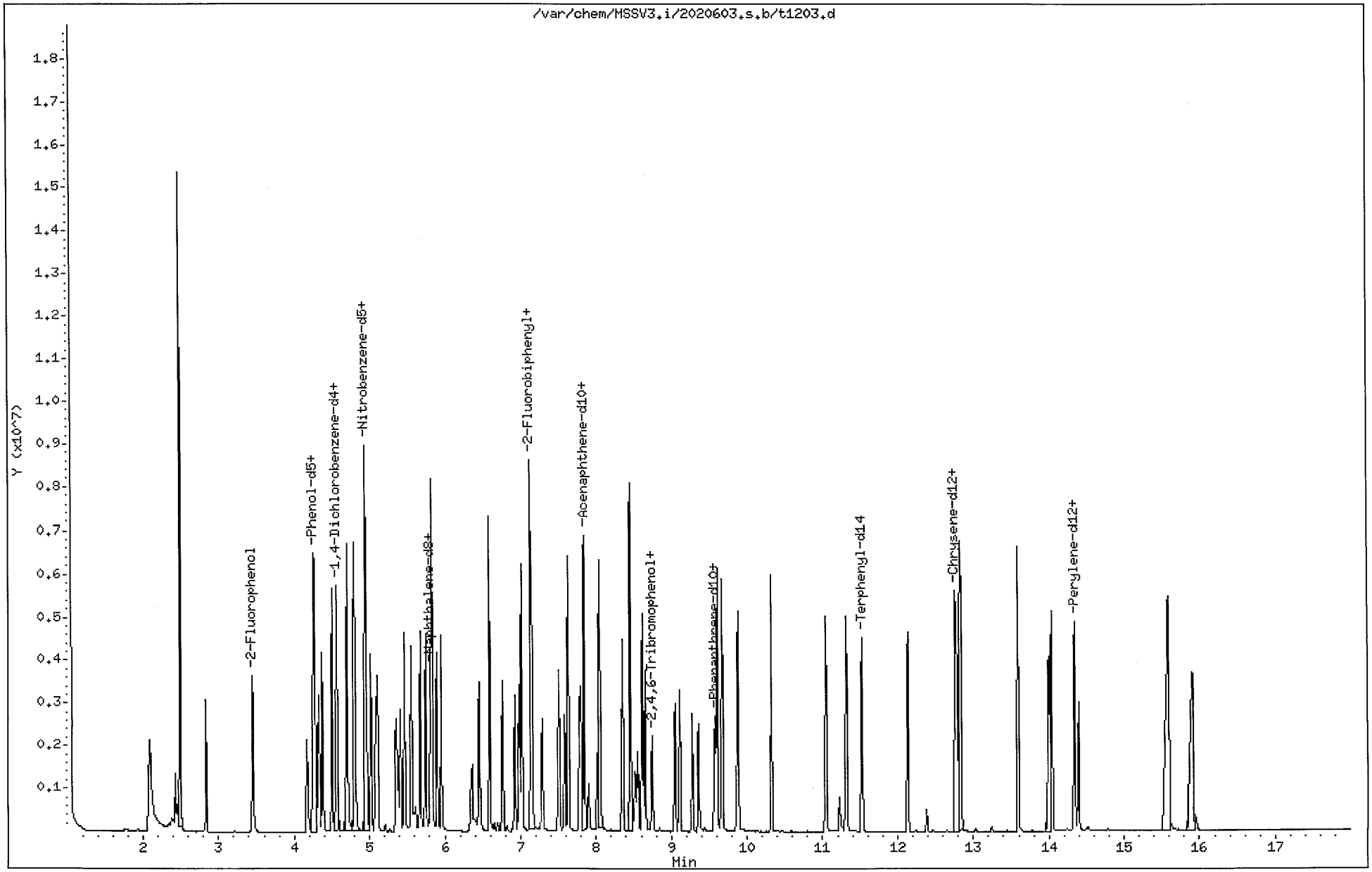
a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

000238

Data File: /var/chem/MSSV3.i/2020603.s.b/t1203.d
Date : 03-JUN-2002 13:25
Client ID: SSTD080
Sample Info: SSTD080*3-29-3
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: MSSV3.i

Operator: rlw
Column diameter: 0.25



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BNA QUANT AND RATIO REPORT

Data file : /var/chem/MSSV3.i/2020603.s.b/t1204.d
Lab Smp Id: SSTD120 Client Smp ID: SSTD120
Inj Date : 03-JUN-2002 13:51
Operator : rlw Inst ID: MSSV3.i
Smp Info : SSTD120*3-29-4
Misc Info : SSTD120*3-29-5
Comment :
Method : /var/chem/MSSV3.i/2020603.s.b/8270C_03.m
Meth Date : 26-Jun-2002 19:15 rlw Quant Type: ISTD
Cal Date : 03-JUN-2002 13:51 Cal File: t1204.d
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270C.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	1.00000	ng unit correction factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
	1 n-Nitrosodimethylamine	42	2.107	2.107	(0.462)	955434	120.000	123
	2 Pyridine	79	2.107	2.107	(0.462)	2689986	120.000	124
$	3 2-Fluorophenol	112	3.456	3.456	(0.758)	2547100	120.000	119
$	4 Phenol-d5	99	4.263	4.263	(0.935)	2584469	120.000	114
	5 Aniline	93	4.279	4.279	(0.939)	2520168	120.000	115
	6 Phenol +	94	4.279	4.279	(0.939)	2577302	120.000	104
	7 bis(-2-Chloroethyl)Ether	63	4.335	4.335	(0.951)	1706271	120.000	112
	8 2-Chlorophenol	128	4.382	4.382	(0.961)	2760415	120.000	117
	9 1,3-Dichlorobenzene	146	4.510	4.510	(0.989)	2836177	120.000	115
*	10 1,4-Dichlorobenzene-d4	152	4.558	4.558	(1.000)	601100	40.0000	
	11 1,4-Dichlorobenzene +	146	4.574	4.574	(1.004)	2728418	120.000	115
	12 Benzyl alcohol	108	4.718	4.718	(1.035)	1406192	120.000	113
	13 1,2-Dichlorobenzene	146	4.710	4.710	(1.033)	2410209	120.000	111

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
	14 Bis(2-chloroisopropyl)ether	45	4.806	4.806	(1.054)	4066358	120.000	114
	15 2-Methylphenol	108	4.806	4.806	(1.054)	2025670	120.000	114
	16 N-Nitroso-di-n-propylamine++	70	4.981	4.981	(1.093)	1216734	120.000	119(M)
	17 3- & 4-Methylphenol	108	4.965	4.965	(1.089)	1781827	120.000	112
	18 Hexachloroethane	117	5.021	5.021	(1.102)	876752	120.000	118
$	19 Nitrobenzene-d5	82	5.101	5.101	(0.878)	1817442	120.000	117
	20 Nitrobenzene	77	5.117	5.117	(0.880)	1703896	120.000	116
	21 Isophorone	82	5.373	5.373	(0.924)	3919859	120.000	116
	22 2-Nitrophenol +	139	5.428	5.428	(0.934)	1589509	120.000	121
	23 2,4-Dimethyphenol	107	5.484	5.484	(0.944)	1928603	120.000	114
	24 bis(-2-Chloroethoxy)methane	93	5.572	5.572	(0.959)	2582821	120.000	115
	25 Benzoic Acid	122	5.660	5.660	(1.242)	878890	120.000	96.3(H)
	26 2,4-Dichlorophenol +	162	5.684	5.684	(0.978)	1873743	120.000	117
	27 1,2,4-Trichlorobenzene	180	5.756	5.756	(0.990)	1826665	120.000	115
*	28 Naphthalene-d8	136	5.812	5.812	(1.000)	2245967	40.0000	
	29 Naphthalene	128	5.844	5.844	(1.005)	6670439	120.000	114
	30 4-Chloroaniline	127	5.908	5.908	(1.016)	2432794	120.000	112
	31 Hexachlorobutadiene +	225	5.963	5.963	(1.026)	850155	120.000	112
	32 4-Chloro-3-Methylphenol +	107	6.474	6.474	(1.114)	1652253	120.000	117
	33 2-Methylnaphthalene	142	6.602	6.602	(1.136)	4134798	120.000	112
	34 Hexachlorocyclopentadiene ++	237	6.770	6.770	(0.868)	968225	120.000	127(M)
	35 2,4,6-Trichlorophenol +	196	6.938	6.938	(0.889)	1058925	120.000	122
	36 2,4,5-Trichlorphenol	196	6.993	6.993	(0.897)	1120076	120.000	124
$	37 2-Fluorobiphenyl	172	7.025	7.025	(0.901)	3632272	120.000	109
	38 2-Chloronaphthalene	162	7.161	7.161	(0.918)	3394561	120.000	107
	39 2-Nitroaniline	138	7.297	7.297	(0.936)	1644645	120.000	120
	40 Dimethylphthalate	163	7.520	7.520	(0.964)	4057335	120.000	113
	41 2,6-Dinitrotoluene	165	7.600	7.600	(0.974)	1095285	120.000	119
	42 Acenaphthylene	152	7.640	7.640	(0.980)	6004375	120.000	115
	43 3-Nitroaniline	138	7.800	7.800	(1.000)	1157327	120.000	117
*	44 Acenaphthene-d10	164	7.800	7.800	(1.000)	946882	40.0000	
	45 Acenaphthene +	153	7.856	7.856	(1.007)	3671575	120.000	115
	46 2,4-Dinitrophenol ++	184	7.920	7.920	(1.015)	498302	120.000	124
	47 Dibenzofuran	168	8.055	8.055	(1.033)	4560806	120.000	116
	48 2,4-Dinitrotoluene	165	8.071	8.071	(1.035)	1299330	120.000	117
	49 4-Nitrophenol ++	109	8.031	8.031	(1.030)	250588	120.000	127
	50 Diethylphthalate	149	8.367	8.367	(1.073)	3913168	120.000	116
	51 Fluorene	166	8.463	8.463	(1.085)	3212605	120.000	111
	52 4-Chlorophenyl-phenylether	204	8.471	8.471	(1.086)	1230583	120.000	110
	53 4-Nitroaniline	138	8.550	8.550	(1.096)	1165794	120.000	122
	54 4,6-Dinitro-o-cresol	198	8.574	8.574	(0.895)	745256	120.000	141
	55 N-nitrosodiphenylamine (1)+	169	8.630	8.630	(0.901)	2587304	120.000	112(M)
	56 Azobenzene	77	8.670	8.670	(1.902)	3075077	120.000	123
$	57 2,4,6-Tribromophenol	332	8.758	8.758	(1.123)	421449	120.000	123
	58 4-Bromophenyl-phenylether	248	9.061	9.061	(0.946)	781176	120.000	116
	59 Hexachlorobenzene	284	9.125	9.125	(0.952)	905119	120.000	105
	60 Pentachlorophenol +	266	9.373	9.373	(0.978)	622314	120.000	126

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
*	61 Phenanthrene-d10	188	9.580	9.580	(1.000)	1298028	40.0000	
	62 Phenanthrene	178	9.620	9.620	(1.004)	4407832	120.000	108
	63 Anthracene	178	9.684	9.684	(1.011)	4439351	120.000	106
	64 Carbazole	167	9.892	9.892	(1.032)	4302888	120.000	116
	65 Di-n-butylphthalate	149	10.331	10.331	(1.078)	6032950	120.000	111
M	66 Total Methylphenol	108				3807497	120.000	113
	67 Fluoranthene +	202	11.058	11.058	(1.154)	3840138	120.000	115
	68 Benzidine	184	11.233	11.233	(0.878)	374398	120.000	137
	69 Pyrene	202	11.329	11.329	(0.885)	3942410	120.000	114
$	70 Terphenyl-d14	244	11.537	11.537	(0.901)	2479702	120.000	107
	71 Butylbenzylphthalate	149	12.143	12.143	(0.949)	2515537	120.000	117
	72 Benzo(a)anthracene	228	12.790	12.790	(0.999)	3274521	120.000	100
	73 3,3'-Dichlorobenzidine	252	12.774	12.774	(0.998)	1040200	120.000	111
*	74 Chrysene-d12	240	12.798	12.798	(1.000)	905910	40.0000	
	75 Chrysene	228	12.838	12.838	(1.003)	3000198	120.000	102
	76 bis(2-Ethylhexyl)phthalate	149	12.846	12.846	(1.004)	2751255	120.000	99.2
	77 Di-n-octylphthalate +	149	13.605	13.605	(1.063)	6037158	120.000	118
	78 Benzo(b)fluoranthene	252	14.020	14.020	(0.973)	4580920	120.000	106
	79 Benzo(k)fluoranthene	252	14.052	14.052	(0.976)	3885526	120.000	106(H)
	80 Benzo(a)pyrene +	252	14.355	14.355	(0.997)	3870225	120.000	109
*	81 Perylene-d12	264	14.403	14.403	(1.000)	931396	40.0000	
	82 Indeno(1,2,3-cd)pyrene	276	15.601	15.601	(1.083)	5377801	120.000	115
	83 Dibenzo(a,h)anthracene	278	15.617	15.617	(1.084)	4104883	120.000	107
	84 Benzo(g,h,i)perylene	276	15.936	15.936	(1.106)	4835022	120.000	117
	91 Acetophenone	105	4.957	4.957	(1.088)	2459570	120.000	122(M)
	156 Benzaldehyde	77	4.175	4.175	(0.916)	604070	120.000	89.5(M)
	157 Caprolactam	113	6.395	6.395	(1.100)	735800	120.000	121(M)
	158 Biphenyl	154	7.145	7.145	(1.568)	4271550	120.000	114(M)
	145 1-Methylnaphthalene	142	6.602	6.602	(1.136)	4134798	120.000	112
	159 Atrazine	200	9.293	9.293	(0.970)	578336	120.000	117(M)

QC Flag Legend

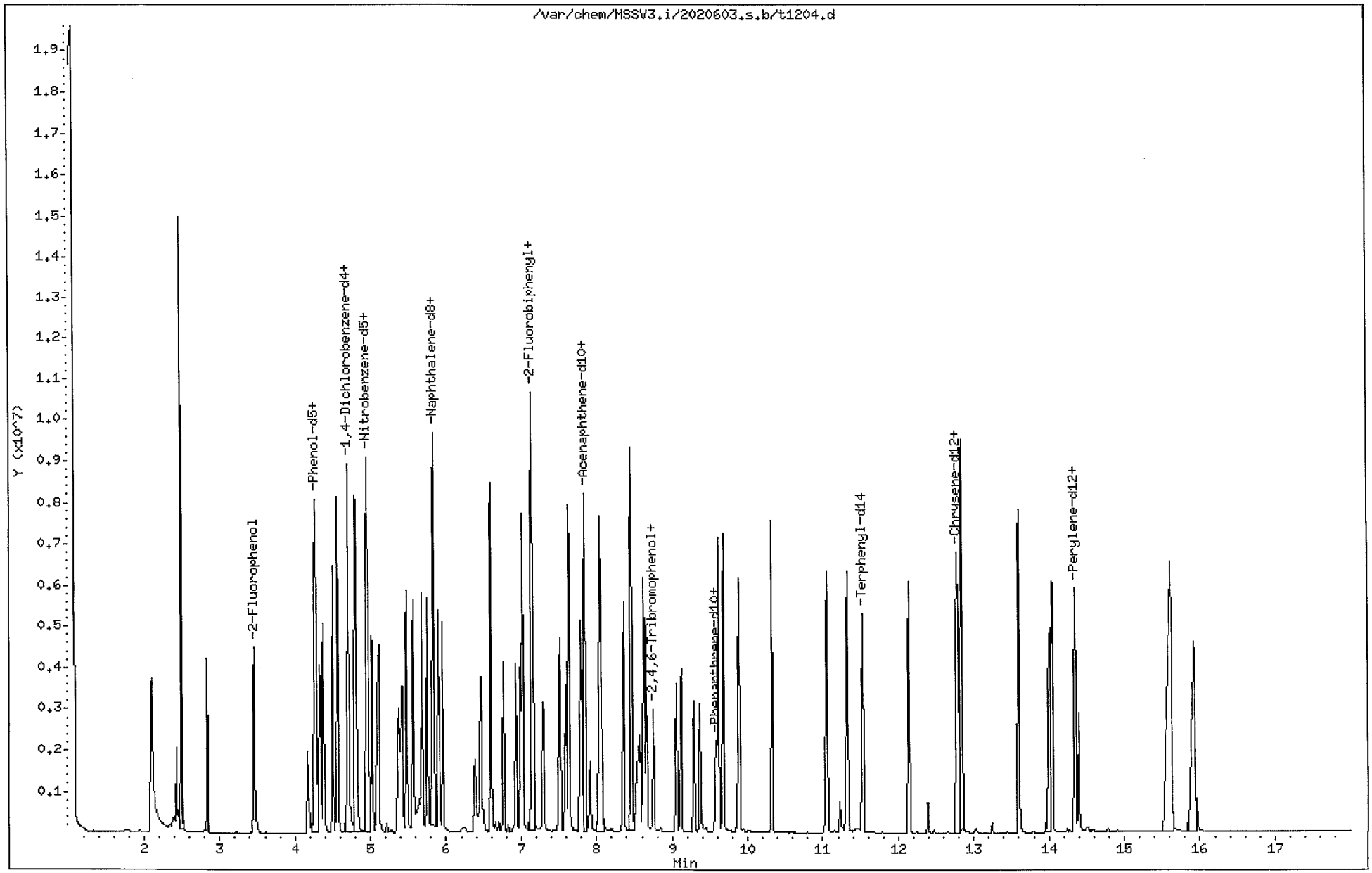
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

000242

Data File: /var/chem/MSSV3.i/2020603.s.b/t1204.d
Date : 03-JUN-2002 13:51
Client ID: SSTD120
Sample Info: SSTD120*3-29-4
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: MSSV3.i

Operator: rlw
Column diameter: 0.25



Gulf Coast Analytical Laboratories, Inc.

BNA QUANT AND RATIO REPORT

Data file : /var/chem/MSSV3.i/2020603.s.b/t1205.d
Lab Smp Id: SSTD160 Client Smp ID: SSTD160
Inj Date : 03-JUN-2002 14:18
Operator : rlw Inst ID: MSSV3.i
Smp Info : SSTD160*3-29-5
Misc Info : SSTD160*3-29-5
Comment :
Method : /var/chem/MSSV3.i/2020603.s.b/8270C_03.m
Meth Date : 26-Jun-2002 19:15 rlw Quant Type: ISTD
Cal Date : 03-JUN-2002 14:18 Cal File: t1205.d
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270C.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	1.00000	ng unit correction factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
1 n-Nitrosodimethylamine	42	2.132	2.132	(0.468)	1295551	160.000	160
2 Pyridine	79	2.124	2.124	(0.466)	3574510	160.000	158
$ 3 2-Fluorophenol	112	3.465	3.465	(0.760)	3469924	160.000	155
$ 4 Phenol-d5	99	4.279	4.279	(0.939)	3318954	160.000	140
5 Aniline	93	4.295	4.295	(0.942)	3164593	160.000	139
6 Phenol +	94	4.295	4.295	(0.942)	3498788	160.000	135
7 bis(-2-Chloroethyl)Ether	63	4.351	4.351	(0.954)	2337265	160.000	147
8 2-Chlorophenol	128	4.391	4.391	(0.963)	3705384	160.000	151
9 1,3-Dichlorobenzene	146	4.511	4.511	(0.989)	3707592	160.000	144
* 10 1,4-Dichlorobenzene-d4	152	4.559	4.559	(1.000)	627368	40.0000	
11 1,4-Dichlorobenzene +	146	4.583	4.583	(1.005)	3476232	160.000	141
12 Benzyl alcohol	108	4.735	4.735	(1.039)	1907621	160.000	146(M)
13 1,2-Dichlorobenzene	146	4.719	4.719	(1.035)	3084642	160.000	136

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
	14 Bis(2-chloroisopropyl)ether	45	4.814	4.814	(1.056)	5254831	160.000	141
	15 2-Methylphenol	108	4.822	4.822	(1.058)	2657649	160.000	144
	16 N-Nitroso-di-n-propylamine++	70	4.998	4.998	(1.096)	1607218	160.000	151(M)
	17 3- & 4-Methylphenol	108	4.982	4.982	(1.093)	2361760	160.000	142
	18 Hexachloroethane	117	5.030	5.030	(1.103)	1131407	160.000	146
$	19 Nitrobenzene-d5	82	5.110	5.110	(0.878)	2403849	160.000	151
	20 Nitrobenzene	77	5.126	5.126	(0.881)	2289705	160.000	152
	21 Isophorone	82	5.389	5.389	(0.926)	5051070	160.000	145
	22 2-Nitrophenol +	139	5.429	5.429	(0.933)	1991140	160.000	147
	23 2,4-Dimethyphenol	107	5.493	5.493	(0.944)	2603592	160.000	150
	24 bis(-2-Chloroethoxy)methane	93	5.581	5.581	(0.959)	3396541	160.000	148
	25 Benzoic Acid	122	5.701	5.701	(1.250)	1286273	160.000	135(H)
	26 2,4-Dichlorophenol +	162	5.693	5.693	(0.978)	2345179	160.000	143
	27 1,2,4-Trichlorobenzene	180	5.757	5.757	(0.989)	2433716	160.000	149
*	28 Naphthalene-d8	136	5.821	5.821	(1.000)	2302878	40.0000	
	29 Naphthalene	128	5.844	5.844	(1.004)	8536960	160.000	142
	30 4-Chloroaniline	127	5.916	5.916	(1.016)	3137197	160.000	141
	31 Hexachlorobutadiene +	225	5.964	5.964	(1.025)	1103910	160.000	142
	32 4-Chloro-3-Methylphenol +	107	6.475	6.475	(1.112)	2094472	160.000	145
	33 2-Methylnaphthalene	142	6.603	6.603	(1.134)	5346084	160.000	141
	34 Hexachlorocyclopentadiene ++	237	6.771	6.771	(0.867)	1270257	160.000	169(M)
	35 2,4,6-Trichlorophenol +	196	6.946	6.946	(0.890)	1393129	160.000	162
	36 2,4,5-Trichlorphenol	196	7.002	7.002	(0.897)	1350410	160.000	151
$	37 2-Fluorobiphenyl	172	7.034	7.034	(0.901)	4685720	160.000	143
	38 2-Chloronaphthalene	162	7.170	7.170	(0.918)	4243032	160.000	135
	39 2-Nitroaniline	138	7.306	7.306	(0.936)	2162340	160.000	160
	40 Dimethylphthalate	163	7.529	7.529	(0.964)	5304345	160.000	149
	41 2,6-Dinitrotoluene	165	7.609	7.609	(0.974)	1411031	160.000	155
	42 Acenaphthylene	152	7.649	7.649	(0.980)	7730026	160.000	150
	43 3-Nitroaniline	138	7.809	7.809	(1.000)	1440245	160.000	147
*	44 Acenaphthene-d10	164	7.809	7.809	(1.000)	935807	40.0000	
	45 Acenaphthene +	153	7.857	7.857	(1.006)	4650279	160.000	147
	46 2,4-Dinitrophenol ++	184	7.928	7.928	(1.015)	743451	160.000	187
	47 Dibenzofuran	168	8.064	8.064	(1.033)	5679070	160.000	146
	48 2,4-Dinitrotoluene	165	8.080	8.080	(1.035)	1670563	160.000	152
	49 4-Nitrophenol ++	109	8.048	8.048	(1.031)	315684	160.000	162
	50 Diethylphthalate	149	8.376	8.376	(1.073)	5080082	160.000	152
	51 Fluorene	166	8.471	8.471	(1.085)	3938204	160.000	138
	52 4-Chlorophenyl-phenylether	204	8.479	8.479	(1.086)	1481480	160.000	134
	53 4-Nitroaniline	138	8.575	8.575	(1.098)	1477200	160.000	156
	54 4,6-Dinitro-o-cresol	198	8.591	8.591	(0.896)	999097	160.000	190
	55 N-nitrosodiphenylamine (1)+	169	8.639	8.639	(0.901)	3322854	160.000	145(M)
	56 Azobenzene	77	8.671	8.671	(1.902)	3821102	160.000	147
$	57 2,4,6-Tribromophenol	332	8.767	8.767	(1.123)	534170	160.000	158
	58 4-Bromophenyl-phenylether	248	9.062	9.062	(0.945)	1010538	160.000	151
	59 Hexachlorobenzene	284	9.134	9.134	(0.953)	1155919	160.000	135
	60 Pentachlorophenol +	266	9.374	9.374	(0.978)	835382	160.000	171

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
*	61 Phenanthrene-d10	188	9.589	9.589	(1.000)	1287071	40.0000	
	62 Phenanthrene	178	9.629	9.629	(1.004)	5551128	160.000	137
	63 Anthracene	178	9.693	9.693	(1.011)	5499063	160.000	133
	64 Carbazole	167	9.893	9.893	(1.032)	5503012	160.000	150
	65 Di-n-butylphthalate	149	10.332	10.332	(1.077)	7833237	160.000	146
M	66 Total Methylphenol	108				5019409	160.000	143
	67 Fluoranthene +	202	11.066	11.066	(1.154)	4871211	160.000	147
	68 Benzidine	184	11.242	11.242	(0.878)	248147	160.000	93.9
	69 Pyrene	202	11.338	11.338	(0.885)	4874191	160.000	145
$	70 Terphenyl-d14	244	11.537	11.537	(0.901)	3133520	160.000	139
	71 Butylbenzylphthalate	149	12.152	12.152	(0.949)	3163086	160.000	152
	72 Benzo(a)anthracene	228	12.791	12.791	(0.999)	4137653	160.000	131
	73 3,3'-Dichlorobenzidine	252	12.783	12.783	(0.998)	1192286	160.000	131
*	74 Chrysene-d12	240	12.807	12.807	(1.000)	878262	40.0000	
	75 Chrysene	228	12.847	12.847	(1.003)	3484208	160.000	122
	76 bis(2-Ethylhexyl)phthalate	149	12.855	12.855	(1.004)	3219393	160.000	120
	77 Di-n-octylphthalate +	149	13.605	13.605	(1.062)	7495334	160.000	152
	78 Benzo(b)fluoranthene	252	14.037	14.037	(0.974)	6881720	160.000	160
	79 Benzo(k)fluoranthene	252	14.061	14.061	(0.976)	3670143	160.000	100(H)
	80 Benzo(a)pyrene +	252	14.364	14.364	(0.997)	5018034	160.000	142
*	81 Perylene-d12	264	14.404	14.404	(1.000)	929553	40.0000	
	82 Indeno(1,2,3-cd)pyrene	276	15.634	15.634	(1.085)	6848683	160.000	146
	83 Dibenzo(a,h)anthracene	278	15.642	15.642	(1.086)	5365377	160.000	141
	84 Benzo(g,h,i)perylene	276	15.953	15.953	(1.108)	6318274	160.000	153
	91 Acetophenone	105	4.974	4.974	(1.091)	3267744	160.000	155(M)
	156 Benzaldehyde	77	4.176	4.176	(0.916)	629186	160.000	89.3(M)
	157 Caprolactam	113	6.419	6.419	(1.103)	935653	160.000	150(M)
	158 Biphenyl	154	7.154	7.154	(1.569)	5096096	160.000	130(M)
	145 1-Methylnaphthalene	142	6.603	6.603	(1.134)	5346084	160.000	141
	159 Atrazine	200	9.302	9.302	(0.970)	706587	160.000	144(M)

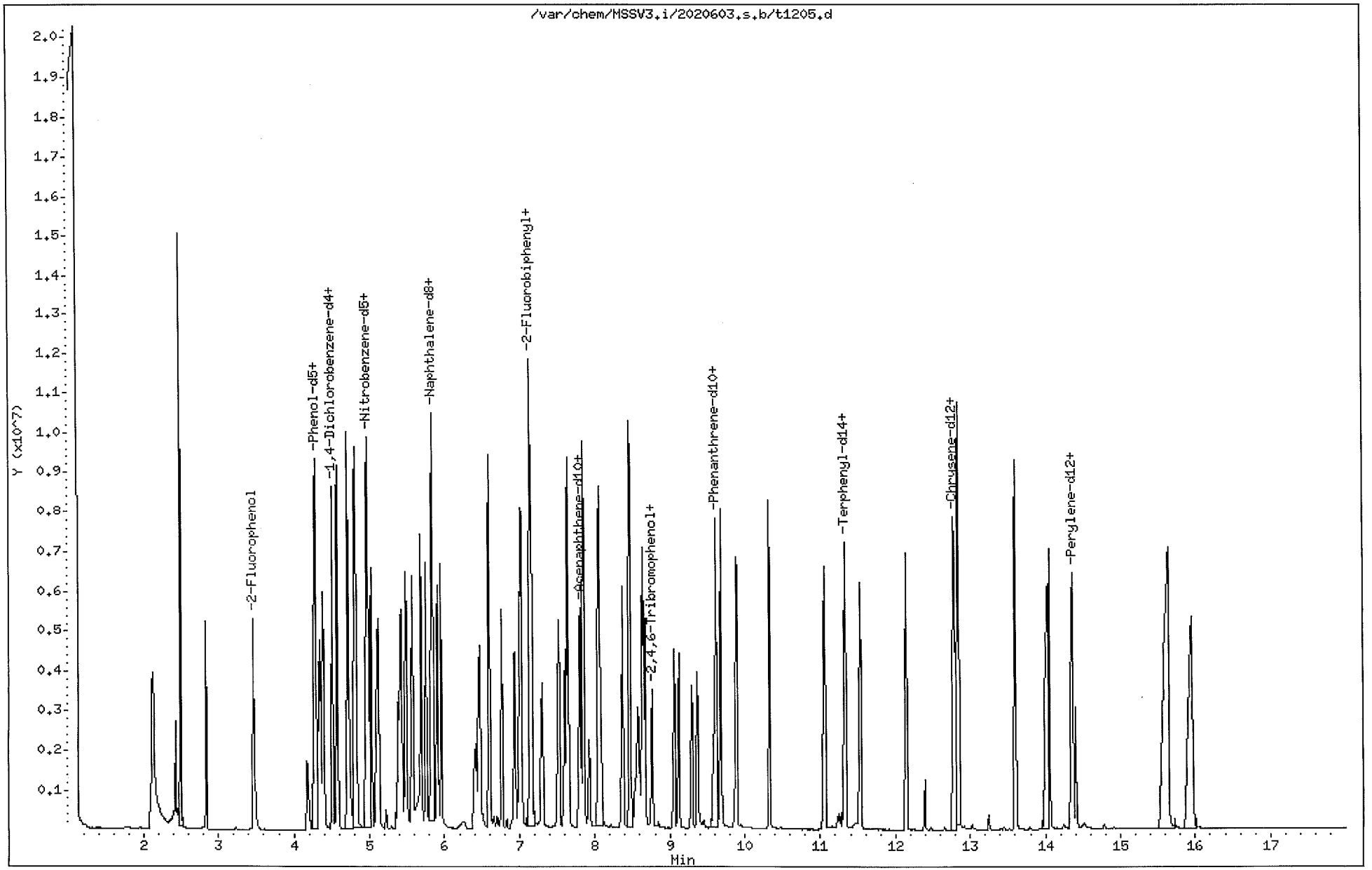
QC Flag Legend

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

000246

Data File: /var/chem/MSSV3.i/2020603.s.b/t1205.d
Date : 03-JUN-2002 14:18
Client ID: SSTD160
Sample Info: SSTD160*3-29-5
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: MSSV3.i
Operator: rlw
Column diameter: 0.25



Gulf Coast Analytical Laboratories, Inc.

BNA QUANT AND RATIO REPORT

Data file : /var/chem/MSSV3.i/2020603.s.b/t1206.d
Lab Smp Id: SSTD200 Client Smp ID: SSTD200
Inj Date : 03-JUN-2002 14:44
Operator : rlw Inst ID: MSSV3.i
Smp Info : SSTD200*3-29-6
Misc Info : SSTD200*3-29-6
Comment :
Method : /var/chem/MSSV3.i/2020603.s.b/8270C_03.m
Meth Date : 26-Jun-2002 19:15 rlw Quant Type: ISTD
Cal Date : 03-JUN-2002 14:44 Cal File: t1206.d
Als bottle: 7 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270C.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	1.00000	ng unit correction factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
	1 n-Nitrosodimethylamine	42	2.156	2.156	(0.472)	1576102	200.000	200(MH)
	2 Pyridine	79	2.148	2.148	(0.470)	4548423	200.000	207(A)
$	3 2-Fluorophenol	112	3.465	3.465	(0.759)	4465194	200.000	205(A)
$	4 Phenol-d5	99	4.279	4.279	(0.937)	4021222	200.000	174(A)
	5 Aniline	93	4.319	4.319	(0.946)	3259921	200.000	147(M)
	6 Phenol +	94	4.295	4.295	(0.941)	4350761	200.000	173
	7 bis(-2-Chloroethyl)Ether	63	4.351	4.351	(0.953)	2913177	200.000	188
	8 2-Chlorophenol	128	4.391	4.391	(0.962)	4555948	200.000	191
	9 1,3-Dichlorobenzene	146	4.511	4.511	(0.988)	4485902	200.000	179
*	10 1,4-Dichlorobenzene-d4	152	4.567	4.567	(1.000)	610828	40.0000	
	11 1,4-Dichlorobenzene +	146	4.583	4.583	(1.003)	4063959	200.000	169
	12 Benzyl alcohol	108	4.743	4.743	(1.038)	2313986	200.000	182(M)
	13 1,2-Dichlorobenzene	146	4.719	4.719	(1.033)	3701798	200.000	168

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
	14 Bis(2-chloroisopropyl)ether	45	4.814	4.814	(1.054)	6343082	200.000	174
	15 2-Methylphenol	108	4.830	4.830	(1.058)	3318636	200.000	184(M)
	16 N-Nitroso-di-n-propylamine++	70	5.014	5.014	(1.098)	1819714	200.000	175
	17 3- & 4-Methylphenol	108	4.990	4.990	(1.093)	2834914	200.000	175
	18 Hexachloroethane	117	5.030	5.030	(1.101)	1233636	200.000	163
$	19 Nitrobenzene-d5	82	5.118	5.118	(0.879)	2954163	200.000	189(A)
	20 Nitrobenzene	77	5.134	5.134	(0.882)	2751186	200.000	186
	21 Isophorone	82	5.397	5.397	(0.927)	6107619	200.000	179
	22 2-Nitrophenol +	139	5.437	5.437	(0.934)	2526347	200.000	190
	23 2,4-Dimethyphenol	107	5.509	5.509	(0.946)	3258070	200.000	190
	24 bis(-2-Chloroethoxy)methane	93	5.589	5.589	(0.960)	4130611	200.000	183
	25 Benzoic Acid	122	5.733	5.733	(1.255)	1519105	200.000	164(M)
	26 2,4-Dichlorophenol +	162	5.701	5.701	(0.979)	2843876	200.000	176
	27 1,2,4-Trichlorobenzene	180	5.765	5.765	(0.990)	3001349	200.000	187
*	28 Naphthalene-d8	136	5.820	5.820	(1.000)	2265095	40.0000	
	29 Naphthalene	128	5.852	5.852	(1.005)	10031730	200.000	170(A)
	30 4-Chloroaniline	127	5.924	5.924	(1.018)	3892138	200.000	178
	31 Hexachlorobutadiene +	225	5.964	5.964	(1.025)	1329028	200.000	174
	32 4-Chloro-3-Methylphenol +	107	6.483	6.483	(1.114)	2580740	200.000	182
	33 2-Methylnaphthalene	142	6.611	6.611	(1.136)	6283686	200.000	169
	34 Hexachlorocyclopentadiene ++	237	6.771	6.771	(0.867)	1558983	200.000	207(AM)
	35 2,4,6-Trichlorophenol +	196	6.954	6.954	(0.891)	1798770	200.000	209(A)
	36 2,4,5-Trichlorphenol	196	6.954	6.954	(0.891)	1798770	200.000	201(A)
$	37 2-Fluorobiphenyl	172	7.034	7.034	(0.901)	5493337	200.000	167(A)
	38 2-Chloronaphthalene	162	7.178	7.178	(0.919)	5033403	200.000	160
	39 2-Nitroaniline	138	7.322	7.322	(0.938)	2700414	200.000	199
	40 Dimethylphthalate	163	7.537	7.537	(0.965)	6673871	200.000	187
	41 2,6-Dinitrotoluene	165	7.617	7.617	(0.975)	1767843	200.000	194
	42 Acenaphthylene	152	7.657	7.657	(0.981)	9240617	200.000	180
	43 3-Nitroaniline	138	7.817	7.817	(1.001)	1786553	200.000	182
*	44 Acenaphthene-d10	164	7.809	7.809	(1.000)	936858	40.0000	
	45 Acenaphthene +	153	7.865	7.865	(1.007)	5634265	200.000	178
	46 2,4-Dinitrophenol ++	184	7.944	7.944	(1.017)	993821	200.000	250(A)
	47 Dibenzofuran	168	8.072	8.072	(1.034)	6710979	200.000	173
	48 2,4-Dinitrotoluene	165	8.096	8.096	(1.037)	2080766	200.000	189
	49 4-Nitrophenol ++	109	8.056	8.056	(1.032)	385096	200.000	197
	50 Diethylphthalate	149	8.392	8.392	(1.075)	6252887	200.000	187
	51 Fluorene	166	8.471	8.471	(1.085)	4725450	200.000	165
	52 4-Chlorophenyl-phenylether	204	8.479	8.479	(1.086)	1724516	200.000	156
	53 4-Nitroaniline	138	8.591	8.591	(1.100)	1781811	200.000	188
	54 4,6-Dinitro-o-cresol	198	8.607	8.607	(0.897)	1216659	200.000	231(A)
	55 N-nitrosodiphenylamine (1)+	169	8.655	8.655	(0.902)	3995410	200.000	174(M)
	56 Azobenzene	77	8.679	8.679	(1.900)	4517198	200.000	178
$	57 2,4,6-Tribromophenol	332	8.775	8.775	(1.124)	658204	200.000	194(A)
	58 4-Bromophenyl-phenylether	248	9.070	9.070	(0.945)	1238448	200.000	185
	59 Hexachlorobenzene	284	9.134	9.134	(0.952)	1422052	200.000	165
	60 Pentachlorophenol +	266	9.382	9.382	(0.978)	1015405	200.000	207(A)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
*	61 Phenanthrene-d10	188	9.597	9.597	(1.000)	1290437	40.0000	
	62 Phenanthrene	178	9.637	9.637	(1.004)	6924104	200.000	171
	63 Anthracene	178	9.701	9.701	(1.011)	6724359	200.000	162
	64 Carbazole	167	9.901	9.901	(1.032)	6841137	200.000	186
	65 Di-n-butylphthalate	149	10.340	10.340	(1.077)	9007102	200.000	167
M	66 Total Methylphenol	108				6153550	200.000	180
	67 Fluoranthene +	202	11.066	11.066	(1.153)	6015725	200.000	181
	68 Benzidine	184	11.250	11.250	(0.878)	196977	200.000	78.7
	69 Pyrene	202	11.346	11.346	(0.885)	5971320	200.000	187
$	70 Terphenyl-d14	244	11.545	11.545	(0.901)	3666686	200.000	172(A)
	71 Butylbenzylphthalate	149	12.152	12.152	(0.948)	3903695	200.000	198
	72 Benzo(a)anthracene	228	12.799	12.799	(0.999)	4813948	200.000	161
	73 3,3'-Dichlorobenzidine	252	12.791	12.791	(0.998)	1303650	200.000	151
*	74 Chrysene-d12	240	12.815	12.815	(1.000)	832072	40.0000	
	75 Chrysene	228	12.855	12.855	(1.003)	4111902	200.000	152
	76 bis(2-Ethylhexyl)phthalate	149	12.855	12.855	(1.003)	3323002	200.000	130
	77 Di-n-octylphthalate +	149	13.605	13.605	(1.062)	8932142	200.000	191
	78 Benzo(b)fluoranthene	252	14.045	14.045	(0.974)	8188478	200.000	191
	79 Benzo(k)fluoranthene	252	14.069	14.069	(0.976)	4524130	200.000	124(H)
	80 Benzo(a)pyrene +	252	14.372	14.372	(0.997)	6140597	200.000	174
*	81 Perylene-d12	264	14.412	14.412	(1.000)	923117	40.0000	
	82 Indeno(1,2,3-cd)pyrene	276	15.649	15.649	(1.086)	7581905	200.000	163
	83 Dibenzo(a,h)anthracene	278	15.657	15.657	(1.086)	6695203	200.000	177
	84 Benzo(g,h,i)perylene	276	15.961	15.961	(1.107)	7701579	200.000	187
	91 Acetophenone	105	4.982	4.982	(1.091)	3993949	200.000	195(M)
	156 Benzaldehyde	77	4.176	4.176	(0.914)	568107	200.000	82.8(M)
	157 Caprolactam	113	6.451	6.451	(1.108)	1261067	200.000	205(M)
	158 Biphenyl	154	7.162	7.162	(1.568)	6122020	200.000	161(M)
	145 1-Methylnaphthalene	142	6.611	6.611	(1.136)	6283686	200.000	168
	159 Atrazine	200	9.318	9.318	(0.971)	879730	200.000	179(M)

QC Flag Legend

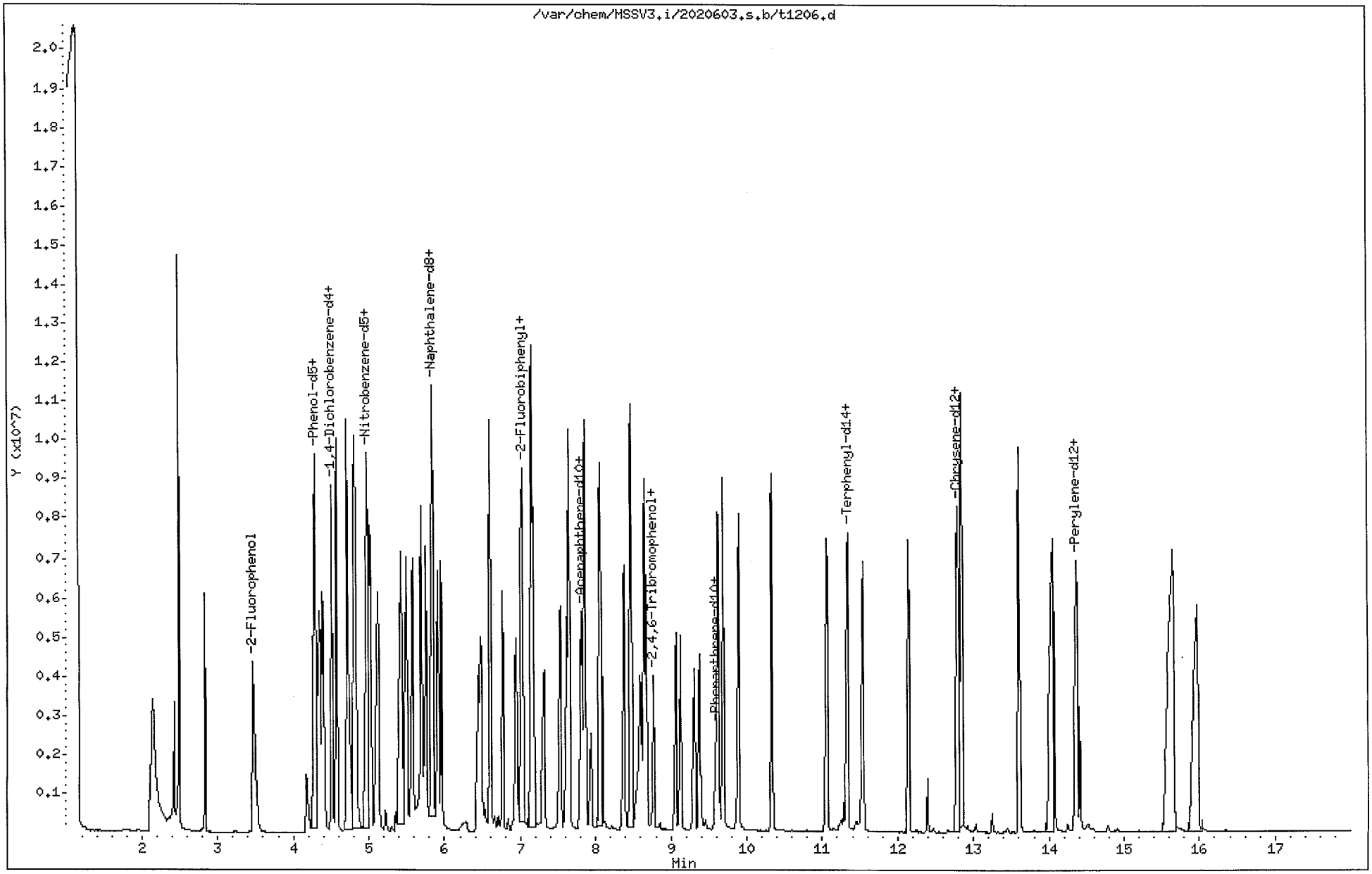
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

000250

Data File: /var/chem/MSSV3.i/2020603.s.b/t1206.d
Date : 03-JUN-2002 14:44
Client ID: SSTD200
Sample Info: SSTD200*3-29-6
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: MSSV3.i

Operator: rlw
Column diameter: 0.25



7B
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Instrument ID: MSSV3 Calibration Date: 06/20/02 Time: 1434

Lab File ID: T1423 Init. Calib. Date(s): 06/03/02 06/03/02

Init. Calib. Times: 1231 1536

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Phenol +	1.649	1.682	0.050	-2.0	20.0
bis(-2-Chloroethyl)Ether	1.013	1.040	0.050	-2.7	50.0
2-Chlorophenol	1.566	1.576	0.050	-0.6	50.0
1,3-Dichlorobenzene	1.638	1.672	0.050	-2.1	50.0
1,4-Dichlorobenzene +	1.577	1.672	0.050	-6.0	20.0
1,2-Dichlorobenzene	1.442	1.555	0.050	-7.8	50.0
2-Methylphenol	1.181	1.207	0.050	-2.2	50.0
Bis(2-chloroisopropyl)ether	2.381	2.727	0.050	-14.5	50.0
3- & 4-Methylphenol	1.060	1.167	0.050	-10.1	50.0
N-Nitroso-di-n-propylamine++	0.679	0.739	0.050	-8.8	50.0
Hexachloroethane	0.496	0.533	0.050	-7.4	50.0
Nitrobenzene	0.262	0.291	0.050	-11.1	50.0
Isophorone	0.604	0.637	0.050	-5.5	50.0
2-Nitrophenol +	0.235	0.246	0.050	-4.7	20.0
2,4-Dimethyphenol	0.302	0.317	0.050	-5.0	50.0
2,4-Dichlorophenol +	0.286	0.297	0.050	-3.8	20.0
1,2,4-Trichlorobenzene	0.283	0.290	0.050	-2.5	50.0
Naphthalene	1.041	1.130	0.050	-8.5	50.0
4-Chloroaniline	0.386	0.424	0.050	-9.8	50.0
bis(-2-Chloroethoxy)methane	0.399	0.428	0.050	-7.3	50.0
Hexachlorobutadiene +	0.135	0.136	0.050	-0.7	20.0
4-Chloro-3-Methylphenol +	0.250	0.264	0.050	-5.6	20.0
2-Methylnaphthalene	0.658	0.702	0.050	-6.7	50.0
Hexachlorocyclopentadiene ++	0.321	0.345	0.050	-7.5	50.0
2,4,6-Trichlorophenol +	0.368	0.369	0.050	-0.3	20.0
2,4,5-Trichlorphenol	0.382	0.392	0.050	-2.6	50.0
2-Chloronaphthalene	1.343	1.325	0.050	1.3	50.0
2-Nitroaniline	0.578	0.567	0.050	1.9	50.0
Dimethylphthalate	1.520	1.476	0.050	2.9	50.0
Acenaphthylene	2.197	2.273	0.050	-3.4	50.0
2,6-Dinitrotoluene	0.389	0.391	0.050	-0.5	50.0
3-Nitroaniline	0.418	0.412	0.050	1.4	50.0
Acenaphthene +	1.350	1.393	0.050	-3.2	20.0
2,4-Dinitrophenol ++	0.169	0.141	0.050	16.6	50.0
4-Nitrophenol ++	0.083	0.092	0.050	-10.8	50.0
Dibenzofuran	1.657	1.772	0.050	-6.9	50.0
2,4-Dinitrotoluene	0.469	0.489	0.050	-4.3	50.0

All other compounds must meet a minimum RRF of 0.010.

7C
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Instrument ID: MSSV3 Calibration Date: 06/20/02 Time: 1434

Lab File ID: T1423 Init. Calib. Date(s): 06/03/02 06/03/02

Init. Calib. Times: 1231 1536

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Diethylphthalate	1.426	1.463	0.050	-2.6	50.0
4-Chlorophenyl-phenylether	0.471	0.528	0.050	-12.1	50.0
Fluorene	1.222	1.353	0.050	-10.7	50.0
4-Nitroaniline	0.404	0.387	0.050	4.2	50.0
4,6-Dinitro-o-cresol	0.163	0.174	0.050	-6.7	50.0
N-nitrosodiphenylamine (1)+	0.713	0.712	0.050	0.1	20.0
4-Bromophenyl-phenylether	0.208	0.204	0.050	1.9	50.0
Hexachlorobenzene	0.266	0.243	0.050	8.6	50.0
Pentachlorophenol +	0.152	0.159	0.050	-4.6	20.0
Phenanthrene	1.255	1.259	0.050	-0.3	50.0
Anthracene	1.289	1.288	0.050	0.1	50.0
Di-n-butylphthalate	1.668	1.807	0.050	-8.3	50.0
Fluoranthene +	1.028	1.092	0.050	-6.2	20.0
Pyrene	1.533	1.650	0.050	-7.6	50.0
Butylbenzylphthalate	0.946	1.068	0.050	-12.9	50.0
3,3'-Dichlorobenzidine	0.415	0.417	0.050	-0.5	50.0
Benzo(a)anthracene	1.441	1.317	0.050	8.6	50.0
Chrysene	1.297	1.335	0.050	-2.9	50.0
bis(2-Ethylhexyl)phthalate	1.225	1.489	0.050	-21.6	50.0
Di-n-octylphthalate +	2.252	2.427	0.050	-7.8	20.0
Benzo(b)fluoranthene	1.856	1.736	0.050	6.5	50.0
Benzo(k)fluoranthene	1.579	1.613	0.050	-2.2	50.0
Benzo(a)pyrene +	1.525	1.551	0.050	-1.7	20.0
Indeno(1,2,3-cd)pyrene	2.012	1.998	0.050	0.7	50.0
Dibenzo(a,h)anthracene	1.640	1.640	0.050	0.0	50.0
Benzo(g,h,i)perylene	1.781	1.732	0.050	2.8	50.0
Pyridine	1.440	1.540	0.050	-6.9	50.0
n-Nitrosodimethylamine	0.517	0.506	0.050	2.1	50.0
Aniline	1.455	1.776	0.050	-22.1	50.0
Benzyl alcohol	0.830	0.872	0.050	-5.1	50.0
Benzidine	0.120	0.150	0.050	-25.0	50.0
Azobenzene	1.661	1.788	0.050	-7.6	50.0
Benzoic Acid	0.415	0.451	0.050	-8.7	50.0
Total Methylphenol	2.241	2.374	0.050	-5.9	50.0
Carbazole	1.140	1.156	0.050	-1.4	50.0
Acetophenone	1.349	1.524	0.050	-13.0	50.0

(1) Cannot be separated from Diphenylamine
All other compounds must meet a minimum RRF of 0.010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Instrument ID: MSSV3 Calibration Date: 06/20/02 Time: 1434

Lab File ID: T1423 Init. Calib. Date(s): 06/03/02 06/03/02

Init. Calib. Times: 1231 1536

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
1-Methylnaphthalene	0.658	0.702	0.050	-6.7	50.0
Benzaldehyde	0.459	0.256	0.050	44.2	50.0
Caprolactam	0.096	0.110	0.050	-14.6	50.0
Biphenyl	2.485	2.685	0.050	-8.0	50.0
Atrazine	0.152	0.176	0.050	-15.8	50.0
Nitrobenzene-d5	0.277	0.295	0.050	-6.5	50.0
2-Fluorobiphenyl	1.402	1.366	0.050	2.6	50.0
Terphenyl-d14	1.024	1.027	0.050	-0.3	50.0
Phenol-d5	1.512	1.585	0.050	-4.8	50.0
2-Fluorophenol	1.424	1.438	0.050	-1.0	50.0
2,4,6-Tribromophenol	0.144	0.153	0.050	-6.2	50.0

All other compounds must meet a minimum RRF of 0.010.

Data File: /var/chem/MSSV3.i/2020620.s.b/t1422.d

Date : 20-JUN-2002 14:17

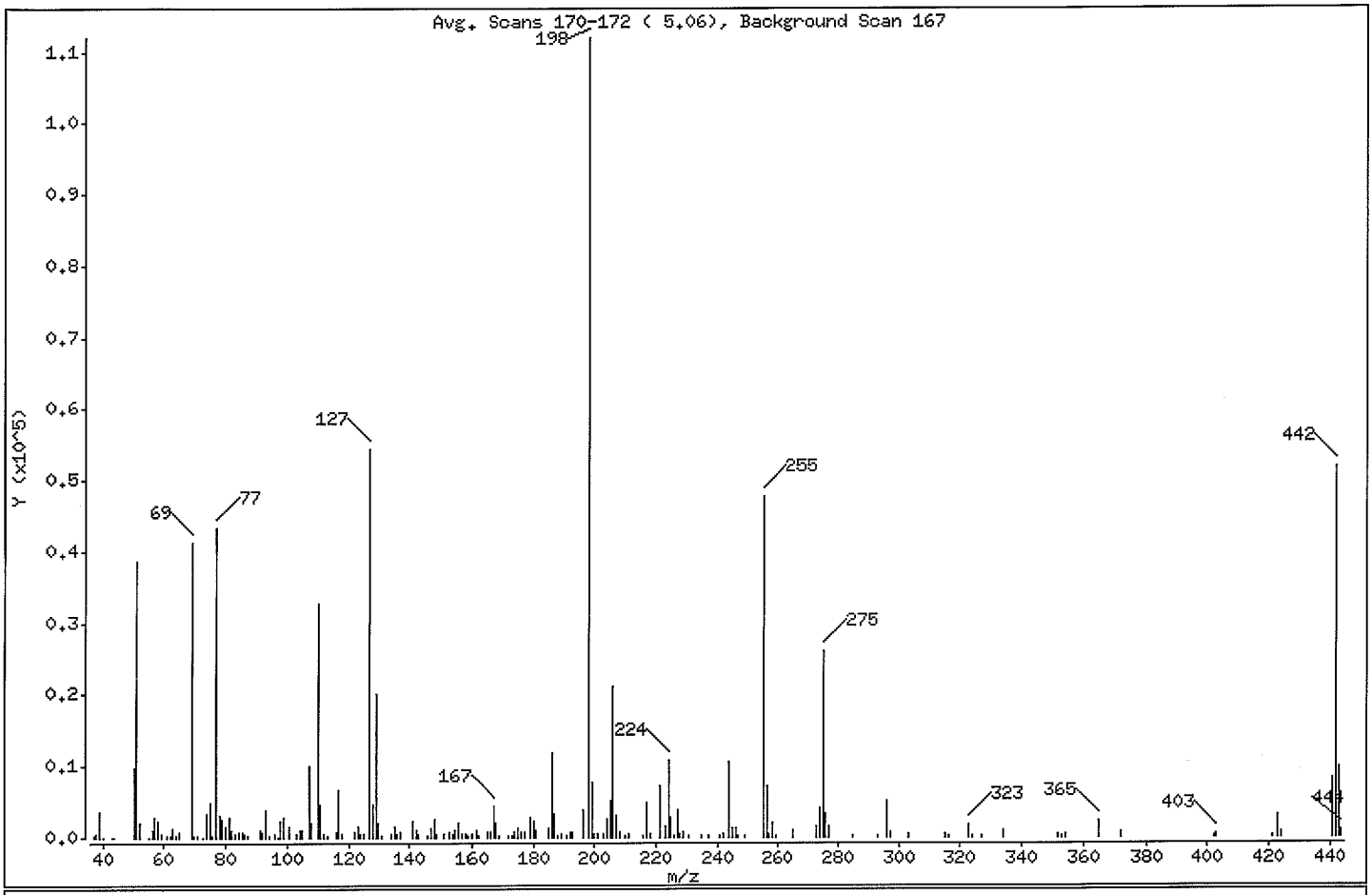
Client ID: 3-18-4 Instrument: MSSV3.i

Sample Info: DFTPP*3-18-4

Volume Injected (uL): 1.0 Operator: rlw

Column phase: Column diameter: 2.00

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	34.67
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	36.94
70	Less than 2.00% of mass 69	0.16 (0.42)
127	40.00 - 60.00% of mass 198	48.66
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.87
275	10.00 - 30.00% of mass 198	23.19
365	Greater than 1.00% of mass 198	1.97
441	Present, but less than mass 443	7.41
442	40.00 - 100.00% of mass 198	46.26
443	17.00 - 23.00% of mass 442	8.82 (19.06)

Data File: /var/chem/MSSV3.i/2020620.s.b/t1422.d

Date : 20-JUN-2002 14:17

Client ID: 3-18-4 Instrument: MSSV3.i

Sample Info: DFTPP*3-18-4

Volume Injected (uL): 1.0 Operator: rlw

Column phase: Column diameter: 2.00

Data File: t1422.d
Spectrum: Avg. Scans 170-172 (5.06), Background Scan 167
Location of Maximum: 198.00
Number of points: 181

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	194	103.00	567	168.00	2082	241.00	167
38.00	625	104.00	930	169.00	203	242.00	490
39.00	3683	105.00	958	172.00	204	244.00	10543
40.00	14	107.00	10184	173.00	213	245.00	1338
43.00	30	108.00	1949	174.00	798	246.00	1276
44.00	111	110.00	32776	175.00	1347	247.00	171
50.00	9686	111.00	4631	176.00	683	249.00	228
51.00	38816	112.00	549	177.00	772	255.00	47816
52.00	2092	113.00	337	179.00	2768	256.00	7333
55.00	5	116.00	654	180.00	2248	257.00	501
56.00	1049	117.00	6761	181.00	926	258.00	2190
57.00	2867	118.00	414	185.00	1412	259.00	225
58.00	2426	122.00	843	186.00	11933	265.00	948
59.00	434	123.00	1420	187.00	3293	273.00	1466
61.00	286	124.00	634	188.00	240	274.00	4107
62.00	296	125.00	614	189.00	634	275.00	25960
63.00	1298	127.00	54488	191.00	229	276.00	3478
64.00	179	128.00	4653	192.00	843	277.00	1661
65.00	704	129.00	20064	193.00	831	285.00	190
69.00	41360	130.00	1986	196.00	3796	293.00	185
70.00	174	131.00	222	198.00	111968	296.00	5065
71.00	192	134.00	586	199.00	7697	297.00	737
73.00	26	135.00	1576	200.00	556	303.00	623
74.00	3345	136.00	625	201.00	626	315.00	525
75.00	4924	137.00	742	203.00	552	316.00	358
76.00	305	141.00	2425	204.00	2641	323.00	1858
77.00	43352	142.00	1072	205.00	5154	324.00	178
78.00	2970	143.00	542	206.00	21184	327.00	202
79.00	2537	146.00	281	207.00	3084	334.00	979
80.00	1599	147.00	1401	208.00	664	352.00	501
81.00	2744	148.00	2461	210.00	357	353.00	272
82.00	975	149.00	576	211.00	464	354.00	610
83.00	395	151.00	536	216.00	258	365.00	2210
84.00	645	153.00	681	217.00	4856	372.00	869
85.00	855	154.00	570	218.00	555	402.00	214

Data File: /var/chem/MSSV3.i/2020620.s.b/t1422.d

Date : 20-JUN-2002 14:17

Client ID: 3-18-4

Instrument: MSSV3.i

Sample Info: DFTPP*3-18-4

Volume Injected (uL): 1.0

Operator: rlw

Column phase:

Column diameter: 2.00

Data File: t1422.d
Spectrum: Avg. Scans 170-172 (5.06), Background Scan 167
Location of Maximum: 198.00
Number of points: 181

m/z	Y	m/z	Y	m/z	Y	m/z	Y
86.00	595	155.00	1109	221.00	7308	403.00	472
87.00	210	156.00	1965	223.00	1444	421.00	239
91.00	985	157.00	517	224.00	10798	423.00	3103
92.00	687	158.00	493	225.00	2923	424.00	714
93.00	3763	159.00	208	226.00	201	441.00	8296
94.00	201	160.00	624	227.00	3968	442.00	51800
96.00	463	161.00	976	228.00	563	443.00	9872
97.00	10	162.00	225	229.00	839	444.00	935
98.00	2241	165.00	840	231.00	243		
99.00	2714	166.00	687	235.00	184		
101.00	1676	167.00	4274	237.00	185		

Data File: /var/chem/MSSV3.i/2020620.s.b/t1422.d

Date : 20-JUN-2002 14:17

Client ID: 3-18-4

Instrument: MSSV3.i

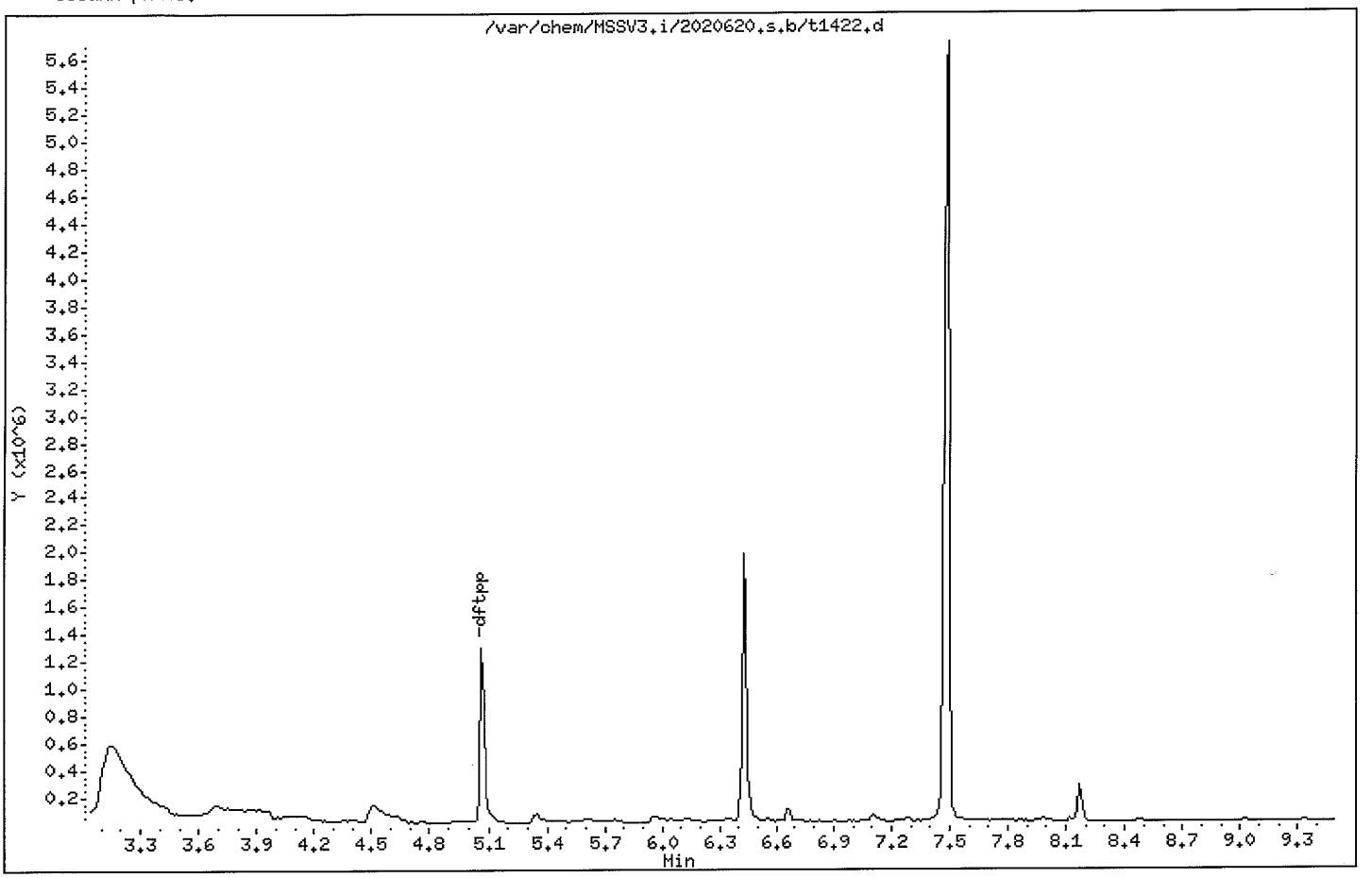
Sample Info: DFTPP*3-18-4

Volume Injected (uL): 1.0

Operator: rlw

Column phase:

Column diameter: 2.00



Gulf Coast Analytical Laboratories, Inc.

Data file : /var/chem/MSSV3.i/2020620.s.b/t1422c.d
Lab Smp Id: DFTPP
Client Smp ID: 3-18-4
Inj Date : 20-JUN-2002 14:17
Operator : rlw
Inst ID: MSSV3.i
Smp Info : DFTPP*3-18-4
Misc Info : DFTPP*3-18-4
Comment :
Method : /var/chem/MSSV3.i/2020620.s.b/dftppc_03.m
Meth Date : 07-Jun-2002 07:02 rlw
Quant Type: AREA%
Cal Date :
Cal File:
Als bottle: 1
QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE
Compound Sublist: all.sub
Target Version: 3.50
Sample Matrix: WATER
Processing Host: hpcs2

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
3.153	5430255	506427	0.093	23.07	
3.698	1478569	91228	0.062	6.28	
4.504	873148	134641	0.154	3.71	
5.061	2146746	1282351	0.597	9.12	
6.424	3266577	1948550	0.597	13.88	3 Benzidine
7.490	10345890	5692394	0.550	43.94	6 4,4DDT
	23541185	9655591		100.000	

Total unknown % area = 42

Gulf Coast Analytical Laboratories, Inc.

BNA QUANT AND RATIO REPORT

Data file : /var/chem/MSSV3.i/2020620.s.b/t1423.d
Lab Smp Id: SSTD050 Client Smp ID: SSTD050
Inj Date : 20-JUN-2002 14:34
Operator : rlw Inst ID: MSSV3.i
Smp Info : SSTD050*3-29-2
Misc Info : SSTD050*3-29-2
Comment :
Method : /var/chem/MSSV3.i/2020620.s.b/8270C_03.m
Meth Date : 21-Jun-2002 13:12 rlw Quant Type: ISTD
Cal Date : 03-JUN-2002 14:44 Cal File: t1206.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270C.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	1.00000	ng unit correction factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
1 n-Nitrosodimethylamine	42	1.876	1.876	(0.433)	421247	50.0000	48.9
2 Pyridine	79	1.908	1.908	(0.440)	1280989	50.0000	53.5
$ 3 2-Fluorophenol	112	3.297	3.297	(0.761)	1196319	50.0000	50.5
$ 4 Phenol-d5	99	4.096	4.096	(0.945)	1318291	50.0000	52.4
5 Aniline	93	4.104	4.104	(0.947)	1477357	50.0000	61.0
6 Phenol +	94	4.104	4.104	(0.947)	1398765	50.0000	51.0
7 bis(-2-Chloroethyl)Ether	63	4.167	4.167	(0.961)	865432	50.0000	51.3(H)
8 2-Chlorophenol	128	4.207	4.207	(0.971)	1311193	50.0000	50.3
9 1,3-Dichlorobenzene	146	4.335	4.335	(1.000)	1390444	50.0000	51.0
* 10 1,4-Dichlorobenzene-d4	152	4.383	4.383	(1.000)	665413	40.0000	
11 1,4-Dichlorobenzene +	146	4.335	4.335	(1.000)	1390444	50.0000	53.0
12 Benzyl alcohol	108	4.527	4.527	(1.044)	725015	50.0000	52.5
13 1,2-Dichlorobenzene	146	4.535	4.535	(1.046)	1293129	50.0000	53.9

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
	14 Bis(2-chloroisopropyl)ether	45	4.639	4.639	(1.070)	2268293	50.0000	57.3
	15 2-Methylphenol	108	4.631	4.631	(1.068)	1004233	50.0000	51.1
	16 N-Nitroso-di-n-propylamine++	70	4.774	4.774	(1.101)	614432	50.0000	54.4
	17 3- & 4-Methylphenol	108	4.774	4.774	(1.101)	970763	50.0000	55.0
	18 Hexachloroethane	117	4.846	4.846	(1.118)	443536	50.0000	53.8
$	19 Nitrobenzene-d5	82	4.910	4.910	(0.872)	887196	50.0000	53.3
	20 Nitrobenzene	77	4.934	4.934	(0.877)	876867	50.0000	55.7
	21 Isophorone	82	5.173	5.173	(0.919)	1917715	50.0000	52.7
	22 2-Nitrophenol +	139	5.237	5.237	(0.930)	742169	50.0000	52.5
	23 2,4-Dimethyphenol	107	5.293	5.293	(0.940)	953821	50.0000	52.4
	24 bis(-2-Chloroethoxy)methane	93	5.389	5.389	(0.957)	1287448	50.0000	53.6
	25 Benzoic Acid	122	5.445	5.445	(1.256)	375500	50.0000	54.3
	26 2,4-Dichlorophenol +	162	5.493	5.493	(0.976)	894274	50.0000	52.0
	27 1,2,4-Trichlorobenzene	180	5.573	5.573	(0.990)	873785	50.0000	51.2
*	28 Naphthalene-d8	136	5.629	5.629	(1.000)	2408001	40.0000	
	29 Naphthalene	128	5.653	5.653	(1.004)	3401957	50.0000	54.3
	30 4-Chloroaniline	127	5.716	5.716	(1.016)	1275463	50.0000	54.8
	31 Hexachlorobutadiene +	225	5.772	5.772	(1.026)	409517	50.0000	50.4
	32 4-Chloro-3-Methylphenol +	107	6.275	6.275	(1.115)	793481	50.0000	52.6
	33 2-Methylnaphthalene	142	6.403	6.403	(1.138)	2113430	50.0000	53.3
	34 Hexachlorocyclopentadiene ++	237	6.579	6.579	(0.865)	455595	50.0000	53.7
	35 2,4,6-Trichlorophenol +	196	6.738	6.738	(0.886)	488087	50.0000	50.2
	36 2,4,5-Trichlorphenol	196	6.794	6.794	(0.893)	517275	50.0000	51.2
$	37 2-Fluorobiphenyl	172	6.834	6.834	(0.898)	1804923	50.0000	48.7
	38 2-Chloronaphthalene	162	6.962	6.962	(0.915)	1751206	50.0000	49.3
	39 2-Nitroaniline	138	7.098	7.098	(0.933)	749180	50.0000	49.0
	40 Dimethylphthalate	163	7.321	7.321	(0.962)	1949808	50.0000	48.5
	41 2,6-Dinitrotoluene	165	7.393	7.393	(0.972)	516189	50.0000	50.2
	42 Acenaphthylene	152	7.441	7.441	(0.978)	3003003	50.0000	51.7
	43 3-Nitroaniline	138	7.593	7.593	(0.998)	544209	50.0000	49.2
*	44 Acenaphthene-d10	164	7.609	7.609	(1.000)	1056976	40.0000	
	45 Acenaphthene +	153	7.649	7.649	(1.005)	1840995	50.0000	51.6
	46 2,4-Dinitrophenol ++	184	7.721	7.721	(1.015)	186302	50.0000	41.7(aM)
	47 Dibenzofuran	168	7.856	7.856	(1.033)	2341324	50.0000	53.5
	48 2,4-Dinitrotoluene	165	7.872	7.872	(1.035)	646112	50.0000	52.1
	49 4-Nitrophenol ++	109	7.832	7.832	(1.029)	122204	50.0000	55.5
	50 Diethylphthalate	149	8.168	8.168	(1.073)	1932658	50.0000	51.3
	51 Fluorene	166	8.264	8.264	(1.086)	1787507	50.0000	55.4
	52 4-Chlorophenyl-phenylether	204	8.271	8.271	(1.087)	698023	50.0000	56.1
	53 4-Nitroaniline	138	8.327	8.327	(1.094)	511406	50.0000	47.9
	54 4,6-Dinitro-o-cresol	198	8.359	8.359	(0.891)	310003	50.0000	53.3
	55 N-nitrosodiphenylamine (1)+	169	8.423	8.423	(0.898)	1270053	50.0000	49.9
	56 Azobenzene	77	8.463	8.463	(1.952)	1486893	50.0000	53.8(H)
$	57 2,4,6-Tribromophenol	332	8.551	8.551	(1.124)	201901	50.0000	52.8
	58 4-Bromophenyl-phenylether	248	8.854	8.854	(0.944)	364269	50.0000	49.1
	59 Hexachlorobenzene	284	8.918	8.918	(0.951)	434005	50.0000	45.6
	60 Pentachlorophenol +	266	9.166	9.166	(0.977)	283557	50.0000	52.3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
*	61 Phenanthrene-d10	188	9.381	9.381	(1.000)	1426880	40.0000	
	62 Phenanthrene	178	9.413	9.413	(1.003)	2245763	50.0000	50.2
	63 Anthracene	178	9.477	9.477	(1.010)	2297784	50.0000	50.0
	64 Carbazole	167	9.685	9.685	(1.032)	2061742	50.0000	50.7
	65 Di-n-butylphthalate	149	10.140	10.140	(1.081)	3223085	50.0000	54.2
M	66 Total Methylphenol	108				1974996	50.0000	53.0
	67 Fluoranthene +	202	10.851	10.851	(1.157)	1948398	50.0000	53.1
	68 Benzidine	184	11.034	11.034	(0.877)	181821	50.0000	62.4
	69 Pyrene	202	11.114	11.114	(0.883)	1996903	50.0000	53.8
$	70 Terphenyl-d14	244	11.330	11.330	(0.900)	1242886	50.0000	50.1
	71 Butylbenzylphthalate	149	11.944	11.944	(0.949)	1293369	50.0000	56.5
	72 Benzo(a)anthracene	228	12.575	12.575	(0.999)	1594627	50.0000	45.7
	73 3,3'-Dichlorobenzidine	252	12.559	12.559	(0.998)	504372	50.0000	50.1
*	74 Chrysene-d12	240	12.583	12.583	(1.000)	968359	40.0000	
	75 Chrysene	228	12.623	12.623	(1.003)	1616101	50.0000	51.5
	76 bis(2-Ethylhexyl)phthalate	149	12.655	12.655	(1.006)	1802582	50.0000	60.8
	77 Di-n-octylphthalate +	149	13.398	13.398	(1.065)	2937370	50.0000	53.9
	78 Benzo(b)fluoranthene	252	13.789	13.789	(0.972)	1758420	50.0000	46.8
	79 Benzo(k)fluoranthene	252	13.821	13.821	(0.975)	1633911	50.0000	51.1
	80 Benzo(a)pyrene +	252	14.132	14.132	(0.997)	1571536	50.0000	50.8
*	81 Perylene-d12	264	14.180	14.180	(1.000)	810521	40.0000	
	82 Indeno(1,2,3-cd)pyrene	276	15.290	15.290	(1.078)	2023948	50.0000	49.6
	83 Dibenzo(a,h)anthracene	278	15.306	15.306	(1.079)	1661767	50.0000	50.0
	84 Benzo(g,h,i)perylene	276	15.593	15.593	(1.100)	1755217	50.0000	48.6
	91 Acetophenone	105	4.766	4.766	(1.099)	1268057	50.0000	56.5
	156 Benzaldehyde	77	4.008	4.008	(0.924)	212661	50.0000	27.9
	157 Caprolactam	113	6.164	6.164	(1.095)	330108	50.0000	57.1
	158 Biphenyl	154	6.946	6.946	(1.602)	2233609	50.0000	54.0
	145 1-Methylnaphthalene	142	6.403	6.403	(1.138)	2113430	50.0000	53.3
	159 Atrazine	200	9.094	9.094	(0.969)	314272	50.0000	57.9(M)

QC Flag Legend

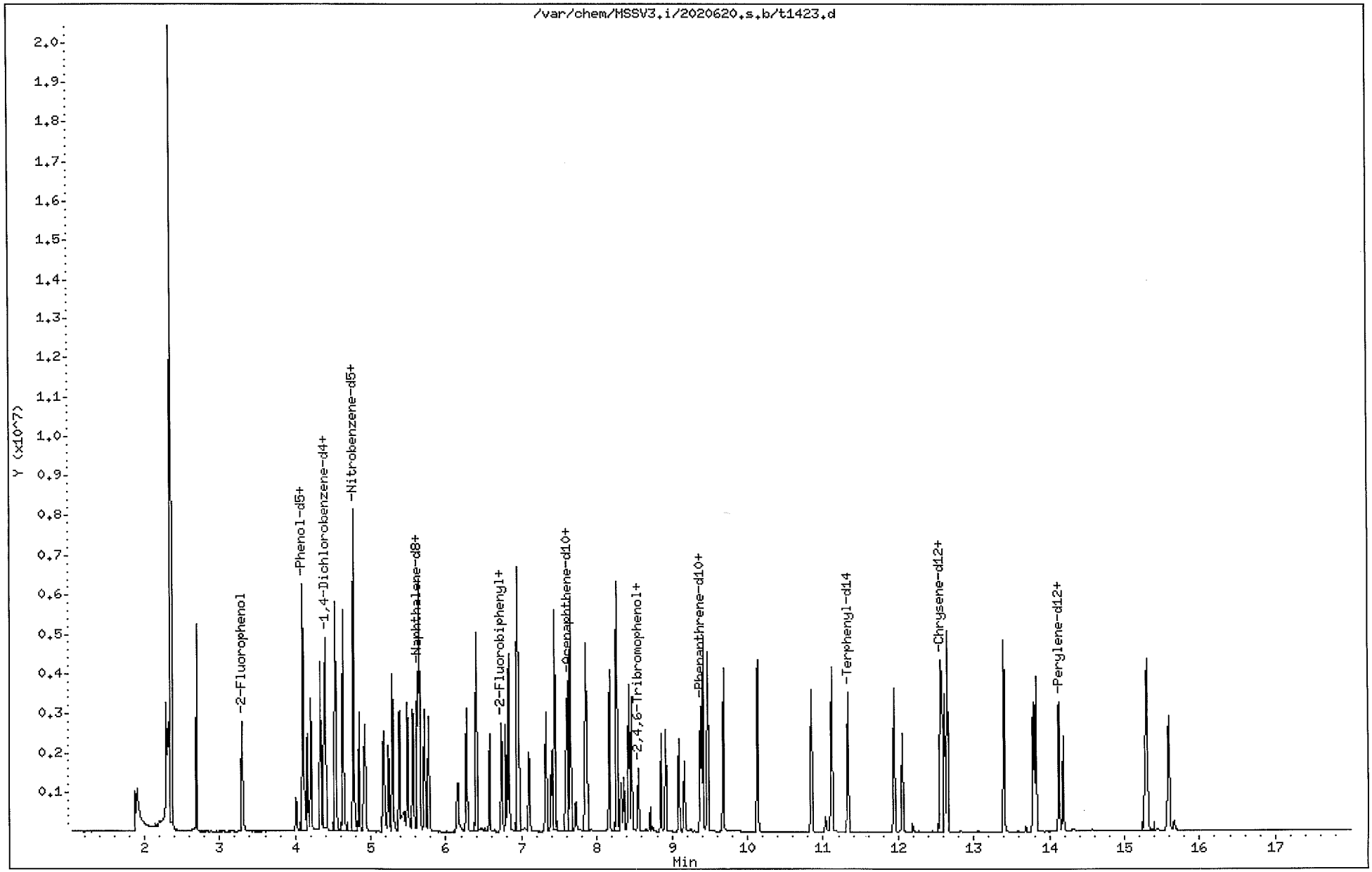
a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

000262

Data File: /var/chem/MSSV3.i/2020620.s.b/t1423.d
Date : 20-JUN-2002 14:34
Client ID: SSTD050
Sample Info: SSTD050*3-29-2
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: MSSV3.i

Operator: rlw
Column diameter: 0.25



QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46410	Method Blank	Solid	06/21/2002 16:59

SW-846 8270C

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/20/2002 10:30	145849	3540C	1	06/20/2002 15:04	RLW	145931

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
95-95-4	2,4,5-Trichlorophenol	ND	330		ug/Kg
88-06-2	2,4,6-Trichlorophenol	ND	330		ug/Kg
120-83-2	2,4-Dichlorophenol	ND	330		ug/Kg
105-67-9	2,4-Dimethylphenol	ND	330		ug/Kg
51-28-5	2,4-Dinitrophenol	ND	1650		ug/Kg
121-14-2	2,4-Dinitrotoluene	ND	330		ug/Kg
606-20-2	2,6-Dinitrotoluene	ND	330		ug/Kg
91-58-7	2-Chloronaphthalene	ND	330		ug/Kg
95-57-8	2-Chlorophenol	ND	330		ug/Kg
91-57-6	2-Methylnaphthalene	ND	330		ug/Kg
88-74-4	2-Nitroaniline	ND	1650		ug/Kg
88-75-5	2-Nitrophenol	ND	330		ug/Kg
91-94-1	3,3'-Dichlorobenzidine	ND	660		ug/Kg
99-09-2	3-Nitroaniline	ND	1650		ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	ND	1650		ug/Kg
101-55-3	4-Bromophenyl phenyl ether	ND	330		ug/Kg
59-50-7	4-Chloro-3-methylphenol	ND	330		ug/Kg
106-47-8	4-Chloroaniline	ND	330		ug/Kg
7005-72-3	4-Chlorophenyl phenyl ether	ND	330		ug/Kg
100-01-6	4-Nitroaniline	ND	1650		ug/Kg
100-02-7	4-Nitrophenol	ND	1650		ug/Kg
83-32-9	Acenaphthene	ND	330		ug/Kg
208-96-8	Acenaphthylene	ND	330		ug/Kg
98-86-2	Acetophenone	ND	330		ug/Kg
120-12-7	Anthracene	ND	330		ug/Kg
1912-24-9	Atrazine (Aatrex)	ND	660		ug/Kg
100-52-7	Benzaldehyde	ND	660		ug/Kg
56-55-3	Benzo(a)anthracene	ND	330		ug/Kg
50-32-8	Benzo(a)pyrene	ND	330		ug/Kg
205-99-2	Benzo(b)fluoranthene	ND	330		ug/Kg
191-24-2	Benzo(g,h,i)perylene	ND	330		ug/Kg
207-08-9	Benzo(k)fluoranthene	ND	330		ug/Kg
92-52-4	Biphenyl	ND	330		ug/Kg
111-91-1	Bis(2-Chloroethoxy)methane	ND	330		ug/Kg
111-44-4	Bis(2-Chloroethyl)ether	ND	330		ug/Kg
108-60-1	Bis(2-Chloroisopropyl)ether	ND	330		ug/Kg
117-81-7	Bis(2-Ethylhexyl)phthalate	ND	330		ug/Kg
85-68-7	Butyl benzyl phthalate	ND	330		ug/Kg
105-60-2	Caprolactam	ND	330		ug/Kg
86-74-8	Carbazole	ND	330		ug/Kg

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46410	Method Blank	Solid	06/21/2002 16:59

SW-846 8270C

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/20/2002 10:30	145849	3540C	1	06/20/2002 15:04	RLW	145931

218-01-9	Chrysene	ND	330	ug/Kg
84-74-2	Di-n-butyl phthalate	ND	330	ug/Kg
117-84-0	Di-n-octyl phthalate	ND	330	ug/Kg
53-70-3	Dibenz(a,h)anthracene	ND	330	ug/Kg
132-64-9	Dibenzofuran	ND	330	ug/Kg
84-66-2	Diethyl phthalate	ND	330	ug/Kg
131-11-3	Dimethyl phthalate	ND	330	ug/Kg
206-44-0	Fluoranthene	ND	330	ug/Kg
86-73-7	Fluorene	ND	330	ug/Kg
118-74-1	Hexachlorobenzene	ND	330	ug/Kg
87-68-3	Hexachlorobutadiene	ND	330	ug/Kg
77-47-4	Hexachlorocyclopentadiene	ND	330	ug/Kg
67-72-1	Hexachloroethane	ND	330	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	ND	330	ug/Kg
78-59-1	Isophorone	ND	330	ug/Kg
91-20-3	Naphthalene	ND	330	ug/Kg
98-95-3	Nitrobenzene	ND	330	ug/Kg
87-86-5	Pentachlorophenol	ND	1650	ug/Kg
85-01-8	Phenanthrene	ND	330	ug/Kg
108-95-2	Phenol	ND	330	ug/Kg
129-00-0	Pyrene	ND	330	ug/Kg
1319-77-3	m,p-Cresol	ND	330	ug/Kg
621-64-7	n-Nitrosodi-n-propylamine	ND	330	ug/Kg
86-30-6	n-Nitrosodiphenylamine	ND	330	ug/Kg
95-48-7	o-Cresol	ND	330	ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
4165-60-0	Nitrobenzene-d5	1670	1350 ug/Kg	81	46 - 116
321-60-8	2-Fluorobiphenyl	1670	1240 ug/Kg	74	39 - 116
1718-51-0	Terphenyl-d14	1670	1400 ug/Kg	84	24 - 137
4165-62-2	Phenol-d5	3330	2770 ug/Kg	83	34 - 113
367-12-4	2-Fluorophenol	3330	2470 ug/Kg	74	44 - 106

Gulf Coast Analytical Laboratories, Inc.

BNA QUANT AND RATIO REPORT

Data file : /var/chem/MSSV3.i/2020620.s.b/t1424.d
Lab Smp Id: 46410 Client Smp ID: 46410
Inj Date : 20-JUN-2002 15:04
Operator : rlw Inst ID: MSSV3.i
Smp Info : 46410*BLK*@8270
Misc Info : 0620SBLK*MSSV~1414~*BLK*30-1.0
Comment :
Method : /var/chem/MSSV3.i/2020620.s.b/8270C_03.m
Meth Date : 26-Jun-2002 18:58 rlw Quant Type: ISTD
Cal Date : 03-JUN-2002 14:44 Cal File: t1206.d
Als bottle: 3 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270C.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula:
Amt * DF * (Uf * Vt/(Vi * Ws * (100 - M)/100)) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vt	1000.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppm)	FINAL (ug/Kg)
$ 3 2-Fluorophenol	112	3.337	3.297	(0.761)	2198413	74.0065	2470
$ 4 Phenol-d5	99	4.095	4.096	(0.934)	2621183	83.1099	2770
* 10 1,4-Dichlorobenzene-d4	152	4.383	4.335	(1.000)	834510	40.0000	(H)
$ 19 Nitrobenzene-d5	82	4.902	4.910	(0.872)	864385	40.5727	1350
* 28 Naphthalene-d8	136	5.620	5.629	(1.000)	3080923	40.0000	
$ 37 2-Fluorobiphenyl	172	6.818	6.834	(0.897)	1802466	37.2596	1240
* 44 Acenaphthene-d10	164	7.601	7.609	(1.000)	1380298	40.0000	
$ 57 2,4,6-Tribromophenol	332	8.543	8.551	(1.124)	358093	71.7730	2390
* 61 Phenanthrene-d10	188	9.373	9.381	(1.000)	1833899	40.0000	
$ 70 Terphenyl-d14	244	11.321	11.330	(0.900)	1248186	42.1022	1400
* 74 Chrysene-d12	240	12.575	12.583	(1.000)	1157301	40.0000	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppm)	FINAL (ug/Kg)
* 81 Perylene-d12	264	14.172	14.180	(1.000)	864034	40.0000	

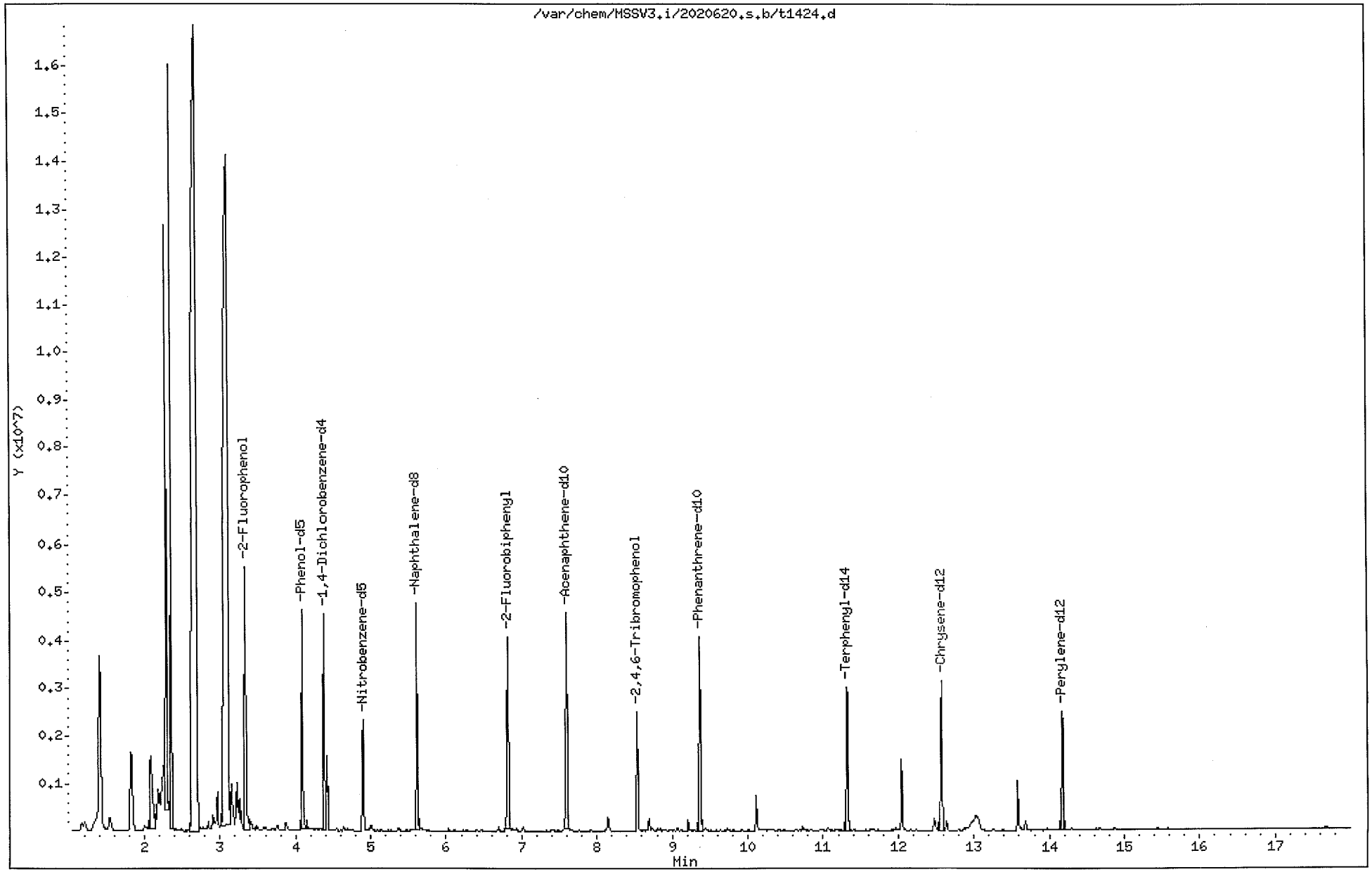
QC Flag Legend

H - Operator selected an alternate compound hit.

000267

Data File: /var/chem/MSSV3.i/2020620.s.b/t1424.d
Date : 20-JUN-2002 15:04
Client ID: 46410
Sample Info: 46410*BLK*@8270
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: MSSV3.i
Operator: rlw
Column diameter: 0.25



QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46411	Lab Control Sample	Solid	06/21/2002 16:59

SW-846 8270C

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/20/2002 10:30	145849	3540C	1	06/20/2002 15:30	RLW	145931

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
95-95-4	2,4,5-Trichlorophenol	2730	330		ug/Kg
88-06-2	2,4,6-Trichlorophenol	2690	330		ug/Kg
120-83-2	2,4-Dichlorophenol	2630	330		ug/Kg
105-67-9	2,4-Dimethylphenol	2750	330		ug/Kg
51-28-5	2,4-Dinitrophenol	2590	1650		ug/Kg
121-14-2	2,4-Dinitrotoluene	2700	330		ug/Kg
606-20-2	2,6-Dinitrotoluene	2670	330		ug/Kg
91-58-7	2-Chloronaphthalene	2520	330		ug/Kg
95-57-8	2-Chlorophenol	2550	330		ug/Kg
91-57-6	2-Methylnaphthalene	2730	330		ug/Kg
88-74-4	2-Nitroaniline	2630	1650		ug/Kg
88-75-5	2-Nitrophenol	2720	330		ug/Kg
91-94-1	3,3'-Dichlorobenzidine	1770	660		ug/Kg
99-09-2	3-Nitroaniline	1700	1650		ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	3170	1650		ug/Kg
101-55-3	4-Bromophenyl phenyl ether	2630	330		ug/Kg
59-50-7	4-Chloro-3-methylphenol	2740	330		ug/Kg
106-47-8	4-Chloroaniline	1370	330		ug/Kg
7005-72-3	4-Chlorophenyl phenyl ether	2780	330		ug/Kg
100-01-6	4-Nitroaniline	2450	1650		ug/Kg
100-02-7	4-Nitrophenol	2890	1650		ug/Kg
83-32-9	Acenaphthene	2700	330		ug/Kg
208-96-8	Acenaphthylene	2660	330		ug/Kg
98-86-2	Acetophenone	3060	330		ug/Kg
120-12-7	Anthracene	2620	330		ug/Kg
1912-24-9	Atrazine (Aatrex)	3610	660		ug/Kg
100-52-7	Benzaldehyde	1330	660		ug/Kg
56-55-3	Benzo(a)anthracene	2590	330		ug/Kg
50-32-8	Benzo(a)pyrene	2670	330		ug/Kg
205-99-2	Benzo(b)fluoranthene	2710	330		ug/Kg
191-24-2	Benzo(g,h,i)perylene	2520	330		ug/Kg
207-08-9	Benzo(k)fluoranthene	2650	330		ug/Kg
92-52-4	Biphenyl	2720	330		ug/Kg
111-91-1	Bis(2-Chloroethoxy)methane	2800	330		ug/Kg
111-44-4	Bis(2-Chloroethyl)ether	2600	330		ug/Kg
108-60-1	Bis(2-Chloroisopropyl)ether	2830	330		ug/Kg
117-81-7	Bis(2-Ethylhexyl)phthalate	3220	330		ug/Kg
85-68-7	Butyl benzyl phthalate	3100	330		ug/Kg
105-60-2	Caprolactam	2830	330		ug/Kg
86-74-8	Carbazole	2900	330		ug/Kg

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46411	Lab Control Sample	Solid	06/21/2002 16:59

SW-846 8270C

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/20/2002 10:30	145849	3540C	1	06/20/2002 15:30	RLW	145931

218-01-9	Chrysene	2760	330	ug/Kg
84-74-2	Di-n-butyl phthalate	2780	330	ug/Kg
117-84-0	Di-n-octyl phthalate	2900	330	ug/Kg
53-70-3	Dibenz(a,h)anthracene	2510	330	ug/Kg
132-64-9	Dibenzofuran	2750	330	ug/Kg
84-66-2	Diethyl phthalate	2640	330	ug/Kg
131-11-3	Dimethyl phthalate	2550	330	ug/Kg
206-44-0	Fluoranthene	2740	330	ug/Kg
86-73-7	Fluorene	2790	330	ug/Kg
118-74-1	Hexachlorobenzene	2480	330	ug/Kg
87-68-3	Hexachlorobutadiene	2610	330	ug/Kg
77-47-4	Hexachlorocyclopentadiene	2740	330	ug/Kg
67-72-1	Hexachloroethane	2620	330	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	2580	330	ug/Kg
78-59-1	Isophorone	2890	330	ug/Kg
91-20-3	Naphthalene	2750	330	ug/Kg
98-95-3	Nitrobenzene	2960	330	ug/Kg
87-86-5	Pentachlorophenol	2730	1650	ug/Kg
85-01-8	Phenanthrene	2690	330	ug/Kg
108-95-2	Phenol	2510	330	ug/Kg
129-00-0	Pyrene	2930	330	ug/Kg
1319-77-3	m,p-Cresol	2750	330	ug/Kg
621-64-7	n-Nitrosodi-n-propylamine	2830	330	ug/Kg
86-30-6	n-Nitrosodiphenylamine	2730	330	ug/Kg
95-48-7	o-Cresol	2510	330	ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
4165-60-0	Nitrobenzene-d5	1670	1440 ug/Kg	86	46 - 116
321-60-8	2-Fluorobiphenyl	1670	1380 ug/Kg	83	39 - 116
1718-51-0	Terphenyl-d14	1670	1500 ug/Kg	90	24 - 137
4165-62-2	Phenol-d5	3330	2580 ug/Kg	77	34 - 113
367-12-4	2-Fluorophenol	3330	2540 ug/Kg	76	44 - 106

Gulf Coast Analytical Laboratories, Inc.

BNA QUANT AND RATIO REPORT

Data file : /var/chem/MSSV3.i/2020620.s.b/t1425.d
Lab Smp Id: 46411 Client Smp ID: 46411
Inj Date : 20-JUN-2002 15:30
Operator : rlw Inst ID: MSSV3.i
Smp Info : 46411*LCS*@8270
Misc Info : 0620LCS*MSSV~1414~*LCS*30-1.0
Comment :
Method : /var/chem/MSSV3.i/2020620.s.b/8270C_03.m
Meth Date : 26-Jun-2002 18:51 rlw Quant Type: ISTD
Cal Date : 03-JUN-2002 14:44 Cal File: t1206.d
Als bottle: 4 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270C.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula:
Amt * DF * (Uf * Vt/(Vi * Ws * (100 - M)/100)) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vt	1000.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppm)	FINAL (ug/Kg)
	1 n-Nitrosodimethylamine	42	2.006	1.876	(0.457)	786661	79.4504	2650(R)
	2 Pyridine	79	1.998	1.908	(0.456)	1439959	52.2247	1740
$	3 2-Fluorophenol	112	3.331	3.297	(0.760)	2079177	76.2937	2540
$	4 Phenol-d5	99	4.098	4.096	(0.934)	2236412	77.2936	2580
	5 Aniline	93	4.106	4.104	(0.936)	1734144	62.2569	2080
	6 Phenol +	94	4.114	4.104	(0.938)	2375246	75.2603	2510
	7 bis(-2-Chloroethyl)Ether	63	4.170	4.167	(0.951)	1510278	77.8694	2600(H)
	8 2-Chlorophenol	128	4.210	4.207	(0.960)	2292613	76.5102	2550
	9 1,3-Dichlorobenzene	146	4.401	4.335	(1.004)	2264835	72.2439	2410
*	10 1,4-Dichlorobenzene-d4	152	4.385	4.335	(1.000)	765588	40.0000	
	11 1,4-Dichlorobenzene +	146	4.401	4.335	(1.004)	2264835	75.0320	2500

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppm)	FINAL (ug/Kg)
	12 Benzyl alcohol	108	4.537	4.527	(1.035)	1257660	79.1227	2640
	13 1,2-Dichlorobenzene	146	4.529	4.535	(1.033)	2069499	74.9722	2500
	14 Bis(2-chloroisopropyl)ether	45	4.633	4.639	(1.056)	3869501	84.9189	2830
	15 2-Methylphenol	108	4.641	4.631	(1.058)	1701469	75.2871	2510
	16 N-Nitroso-di-n-propylamine++	70	4.777	4.774	(1.089)	1103383	84.8767	2830
	17 3- & 4-Methylphenol	108	4.785	4.774	(1.091)	1674277	82.4667	2750(R)
	18 Hexachloroethane	117	4.840	4.846	(1.104)	746069	78.6302	2620
$	19 Nitrobenzene-d5	82	4.904	4.910	(0.872)	817882	43.1392	1440
	20 Nitrobenzene	77	4.928	4.934	(0.876)	1592076	88.7460	2960
	21 Isophorone	82	5.176	5.173	(0.920)	3583919	86.5621	2890
	22 2-Nitrophenol +	139	5.240	5.237	(0.932)	1314041	81.6498	2720
	23 2,4-Dimethyphenol	107	5.296	5.293	(0.942)	1711026	82.5895	2750
	24 bis(-2-Chloroethoxy)methane	93	5.383	5.389	(0.957)	2292918	83.9053	2800
	25 Benzoic Acid	122	5.487	5.445	(1.251)	987335	124.099	4140(R)
	26 2,4-Dichlorophenol +	162	5.495	5.493	(0.977)	1544183	78.8591	2630
	27 1,2,4-Trichlorobenzene	180	5.567	5.573	(0.990)	1561932	80.4552	2680
*	28 Naphthalene-d8	136	5.623	5.629	(1.000)	2741742	40.0000	
	29 Naphthalene	128	5.647	5.653	(1.004)	5876737	82.3654	2750
	30 4-Chloroaniline	127	5.711	5.716	(1.016)	1087710	41.0576	1370
	31 Hexachlorobutadiene +	225	5.767	5.772	(1.026)	723903	78.2505	2610
	32 4-Chloro-3-Methylphenol +	107	6.286	6.275	(1.118)	1410050	82.1083	2740
	33 2-Methylnaphthalene	142	6.405	6.403	(1.139)	3692506	81.8184	2730
	34 Hexachlorocyclopentadiene ++	237	6.573	6.579	(0.865)	775127	82.0690	2740
	35 2,4,6-Trichlorophenol +	196	6.741	6.738	(0.887)	873278	80.7310	2690
	36 2,4,5-Trichlorphenol	196	6.797	6.794	(0.894)	922116	81.9291	2730
$	37 2-Fluorobiphenyl	172	6.829	6.834	(0.898)	1704272	41.3238	1380
	38 2-Chloronaphthalene	162	6.964	6.962	(0.916)	2992366	75.7194	2520
	39 2-Nitroaniline	138	7.100	7.098	(0.934)	1341534	78.8245	2630
	40 Dimethylphthalate	163	7.324	7.321	(0.963)	3427339	76.6245	2550
	41 2,6-Dinitrotoluene	165	7.404	7.393	(0.974)	917909	80.2246	2670
	42 Acenaphthylene	152	7.435	7.441	(0.978)	5158176	79.8013	2660
	43 3-Nitroaniline	138	7.587	7.593	(0.998)	628870	51.0580	1700
*	44 Acenaphthene-d10	164	7.603	7.609	(1.000)	1176745	40.0000	
	45 Acenaphthene +	153	7.643	7.649	(1.005)	3212618	80.8708	2700
	46 2,4-Dinitrophenol ++	184	7.723	7.721	(1.016)	385980	77.5532	2590
	47 Dibenzofuran	168	7.851	7.856	(1.033)	4017347	82.4000	2750
	48 2,4-Dinitrotoluene	165	7.875	7.872	(1.036)	1119936	81.1374	2700
	49 4-Nitrophenol ++	109	7.835	7.832	(1.030)	212812	86.8258	2890
	50 Diethylphthalate	149	8.170	8.168	(1.075)	3317337	79.0871	2640
	51 Fluorene	166	8.258	8.264	(1.086)	3006609	83.6281	2790
	52 4-Chlorophenyl-phenylether	204	8.274	8.271	(1.088)	1156341	83.4592	2780
	53 4-Nitroaniline	138	8.338	8.327	(1.097)	872801	73.3880	2450
	54 4,6-Dinitro-o-cresol	198	8.370	8.359	(0.893)	585628	95.2217	3170
	55 N-nitrosodiphenylamine (1)+	169	8.426	8.423	(0.899)	2198498	81.7603	2730
	56 Azobenzene	77	8.465	8.463	(1.930)	2849791	89.6410	2990
$	57 2,4,6-Tribromophenol	332	8.553	8.551	(1.125)	340181	79.9772	2670
	58 4-Bromophenyl-phenylether	248	8.857	8.854	(0.945)	617524	78.7730	2630

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppm)	FINAL (ug/Kg)
	59 Hexachlorobenzene	284	8.913	8.918	(0.951)	747080	74.2756	2480
	60 Pentachlorophenol +	266	9.168	9.166	(0.978)	469882	82.0315	2730
*	61 Phenanthrene-d10	188	9.376	9.381	(1.000)	1508011	40.0000	
	62 Phenanthrene	178	9.408	9.413	(1.003)	3824755	80.8247	2690
	63 Anthracene	178	9.472	9.477	(1.010)	3820198	78.6262	2620
	64 Carbazole	167	9.687	9.685	(1.033)	3735166	86.8741	2900
	65 Di-n-butylphthalate	149	10.134	10.140	(1.081)	5251514	83.5137	2780
M	66 Total Methylphenol	108				3375746	78.6846	2620
	67 Fluoranthene +	202	10.845	10.851	(1.157)	3187542	82.2043	2740
	68 Benzidine	184	11.036	11.034	(0.877)	30921	10.6755	356
	69 Pyrene	202	11.116	11.114	(0.883)	3240789	87.8069	2930
$	70 Terphenyl-d14	244	11.324	11.330	(0.900)	1113158	45.1330	1500
	71 Butylbenzylphthalate	149	11.947	11.944	(0.949)	2115071	92.8673	3100
	72 Benzo(a)anthracene	228	12.570	12.575	(0.999)	2696299	77.7181	2590
	73 3,3'-Dichlorobenzidine	252	12.562	12.559	(0.998)	530459	53.0482	1770
*	74 Chrysene-d12	240	12.585	12.583	(1.000)	962796	40.0000	
	75 Chrysene	228	12.617	12.623	(1.003)	2583979	82.7470	2760
	76 bis(2-Ethylhexyl)phthalate	149	12.649	12.655	(1.005)	2845149	96.4852	3220
	77 Di-n-octylphthalate +	149	13.400	13.398	(1.065)	4712539	86.9385	2900
	78 Benzo(b)fluoranthene	252	13.791	13.789	(0.972)	3112533	81.3648	2710
	79 Benzo(k)fluoranthene	252	13.823	13.821	(0.975)	2591183	79.6152	2650
	80 Benzo(a)pyrene +	252	14.127	14.132	(0.996)	2521929	80.2153	2670
*	81 Perylene-d12	264	14.182	14.180	(1.000)	824427	40.0000	
	82 Indeno(1,2,3-cd)pyrene	276	15.292	15.290	(1.078)	3205953	77.3095	2580
	83 Dibenzo(a,h)anthracene	278	15.316	15.306	(1.080)	2546937	75.3357	2510
	84 Benzo(g,h,i)perylene-	276	15.604	15.593	(1.100)	2776402	75.6426	2520
	91 Acetophenone	105	4.769	4.766	(1.087)	2367509	91.6700	3060(H)
	156 Benzaldehyde	77	4.010	4.008	(0.914)	349999	39.8633	1330(H)
	157 Caprolactam	113	6.190	6.164	(1.101)	559857	85.0221	2830(H)
	158 Biphenyl	154	6.940	6.946	(1.583)	3877279	81.5082	2720(H)
	145 1-Methylnaphthalene	142	6.405	6.403	(1.139)	3692506	81.8184	2730(H)
	159 Atrazine	200	9.104	9.094	(0.971)	620318	108.195	3610(M)

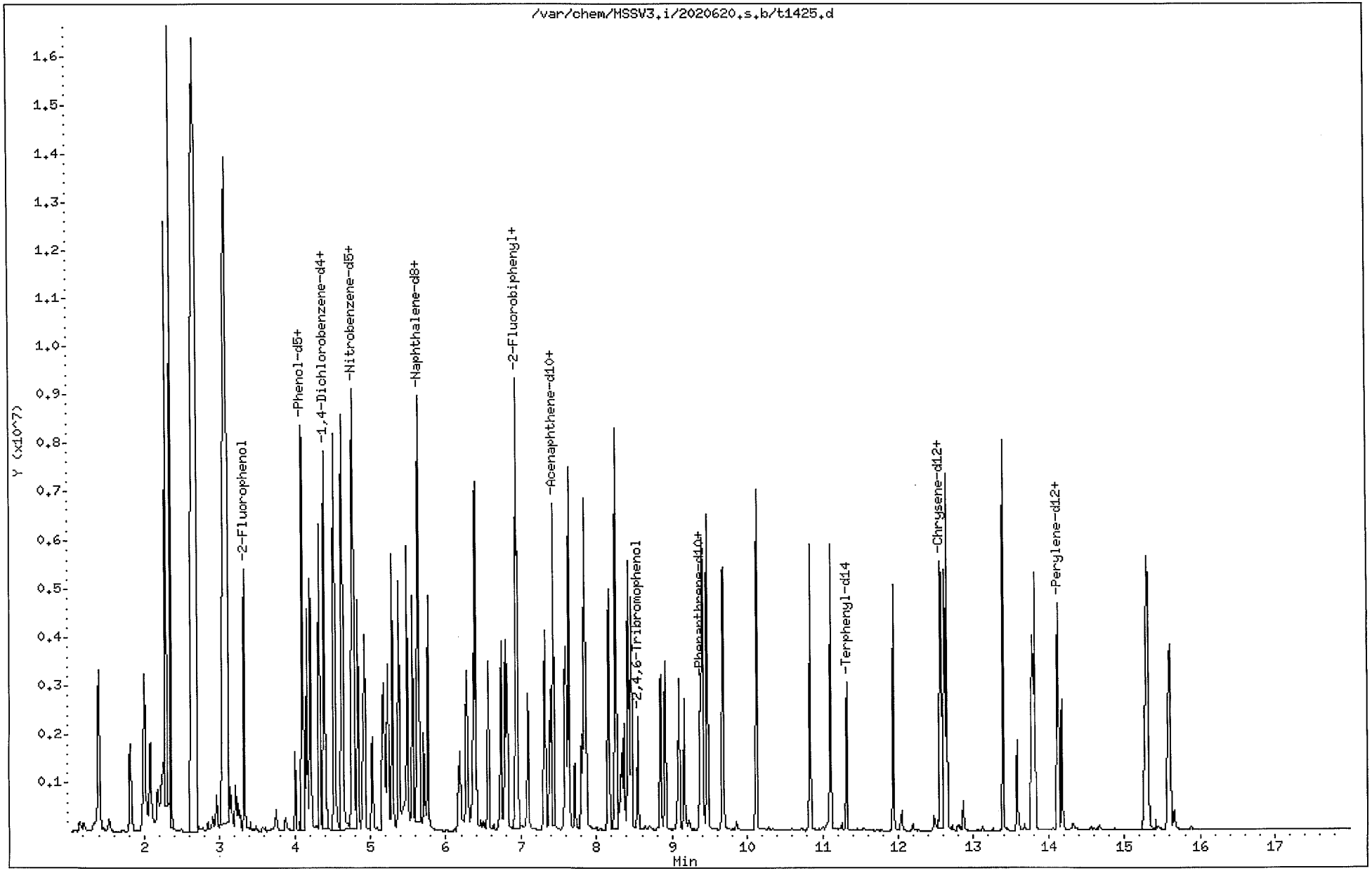
QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

000273

Data File: /var/chem/MSSV3.i/2020620.s.b/t1425.d
Date : 20-JUN-2002 15:30
Client ID: 46411
Sample Info: 46411*LCS*@8270
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: MSSV3.i
Operator: rlw
Column diameter: 0.25



QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	COLLECTED	RECEIVED	REPORTED
46412	Matrix Spike	Solid	06/19/2002 09:	06/20/2002 09:05	06/23/2002 09:05

SW-846 8270C

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/20/2002 10:30	145849	3540C	1	06/20/2002 16:22	RLW	145931

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
95-95-4	2,4,5-Trichlorophenol	2800	383		ug/Kg
88-06-2	2,4,6-Trichlorophenol	2750	383		ug/Kg
120-83-2	2,4-Dichlorophenol	2740	383		ug/Kg
105-67-9	2,4-Dimethylphenol	2680	383		ug/Kg
51-28-5	2,4-Dinitrophenol	3730	1920		ug/Kg
121-14-2	2,4-Dinitrotoluene	2810	383		ug/Kg
606-20-2	2,6-Dinitrotoluene	2760	383		ug/Kg
91-58-7	2-Chloronaphthalene	2500	383		ug/Kg
95-57-8	2-Chlorophenol	2670	383		ug/Kg
91-57-6	2-Methylnaphthalene	2800	383		ug/Kg
88-74-4	2-Nitroaniline	2680	1920		ug/Kg
88-75-5	2-Nitrophenol	2720	383		ug/Kg
91-94-1	3,3'-Dichlorobenzidine	1170	767		ug/Kg
99-09-2	3-Nitroaniline	1600J	1920		ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	3480	1920		ug/Kg
101-55-3	4-Bromophenyl phenyl ether	2670	383		ug/Kg
59-50-7	4-Chloro-3-methylphenol	2940	383		ug/Kg
106-47-8	4-Chloroaniline	941	383		ug/Kg
7005-72-3	4-Chlorophenyl phenyl ether	2850	383		ug/Kg
100-01-6	4-Nitroaniline	2110	1920		ug/Kg
100-02-7	4-Nitrophenol	2930	1920		ug/Kg
83-32-9	Acenaphthene	2710	383		ug/Kg
208-96-8	Acenaphthylene	2640	383		ug/Kg
98-86-2	Acetophenone	3300	383		ug/Kg
120-12-7	Anthracene	2590	383		ug/Kg
1912-24-9	Atrazine (Aatrex)	3460	767		ug/Kg
100-52-7	Benzaldehyde	4400	767		ug/Kg
56-55-3	Benzo(a)anthracene	2600	383		ug/Kg
50-32-8	Benzo(a)pyrene	2710	383		ug/Kg
205-99-2	Benzo(b)fluoranthene	2720	383		ug/Kg
191-24-2	Benzo(g,h,i)perylene	2660	383		ug/Kg
207-08-9	Benzo(k)fluoranthene	2850	383		ug/Kg
92-52-4	Biphenyl	3100	383		ug/Kg
111-91-1	Bis(2-Chloroethoxy)methane	2830	383		ug/Kg
111-44-4	Bis(2-Chloroethyl)ether	2720	383		ug/Kg
108-60-1	Bis(2-Chloroisopropyl)ether	3020	383		ug/Kg
117-81-7	Bis(2-Ethylhexyl)phthalate	3470	383		ug/Kg
85-68-7	Butyl benzyl phthalate	3240	383		ug/Kg
105-60-2	Caprolactam	3050	383		ug/Kg
86-74-8	Carbazole	2760	383		ug/Kg

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	COLLECTED	RECEIVED	REPORTED
46412	Matrix Spike	Solid	06/19/2002 09:	06/20/2002 09:05	06/23/2002 09:05

SW-846 8270C

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/20/2002 10:30	145849	3540C	1	06/20/2002 16:22	RLW	145931

218-01-9	Chrysene	2800	383	ug/Kg
84-74-2	Di-n-butyl phthalate	2830	383	ug/Kg
117-84-0	Di-n-octyl phthalate	3000	383	ug/Kg
53-70-3	Dibenz(a,h)anthracene	2590	383	ug/Kg
132-64-9	Dibenzofuran	2780	383	ug/Kg
84-66-2	Diethyl phthalate	2760	383	ug/Kg
131-11-3	Dimethyl phthalate	2650	383	ug/Kg
206-44-0	Fluoranthene	2720	383	ug/Kg
86-73-7	Fluorene	2830	383	ug/Kg
118-74-1	Hexachlorobenzene	2490	383	ug/Kg
87-68-3	Hexachlorobutadiene	2520	383	ug/Kg
77-47-4	Hexachlorocyclopentadiene	2640	383	ug/Kg
67-72-1	Hexachloroethane	2600	383	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	2690	383	ug/Kg
78-59-1	Isophorone	2920	383	ug/Kg
91-20-3	Naphthalene	2720	383	ug/Kg
98-95-3	Nitrobenzene	2960	383	ug/Kg
87-86-5	Pentachlorophenol	3040	1920	ug/Kg
85-01-8	Phenanthrene	2640	383	ug/Kg
108-95-2	Phenol	2800	383	ug/Kg
129-00-0	Pyrene	3210	383	ug/Kg
1319-77-3	m,p-Cresol	2980	383	ug/Kg
621-64-7	n-Nitrosodi-n-propylamine	3120	383	ug/Kg
86-30-6	n-Nitrosodiphenylamine	2710	383	ug/Kg
95-48-7	o-Cresol	2820	383	ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
4165-60-0	Nitrobenzene-d5	1670	1220 ug/Kg	73	46 - 116
321-60-8	2-Fluorobiphenyl	1670	1130 ug/Kg	68	39 - 116
1718-51-0	Terphenyl-d14	1670	1410 ug/Kg	85	24 - 137
4165-62-2	Phenol-d5	3330	2500 ug/Kg	75	34 - 113
367-12-4	2-Fluorophenol	3330	2310 ug/Kg	69	44 - 106

Gulf Coast Analytical Laboratories, Inc.

BNA QUANT AND RATIO REPORT

Data file : /var/chem/MSSV3.i/2020620.s.b/t1427.d
Lab Smp Id: 46412 Client Smp ID: 46412
Inj Date : 20-JUN-2002 16:22
Operator : rlw Inst ID: MSSV3.i
Smp Info : 46412*CH2*@8270
Misc Info : 20206200201*MSSV~1414~*062002*30-1.0
Comment :
Method : /var/chem/MSSV3.i/2020620.s.b/8270C_03.m
Meth Date : 26-Jun-2002 18:51 rlw Quant Type: ISTD
Cal Date : 03-JUN-2002 14:44 Cal File: t1206.d
Als bottle: 6 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270C.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula:
Amt * DF * (Uf * Vt/(Vi * Ws * (100 - M)/100)) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vt	1000.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppm)	FINAL (ug/Kg)
	1 n-Nitrosodimethylamine	42	1.995	1.876	(0.460)	707163	67.8162	2260
	2 Pyridine	79	2.114	1.908	(0.488)	41146	1.41696	47.2(R)
$	3 2-Fluorophenol	112	3.328	3.297	(0.768)	1985554	69.1806	2310
$	4 Phenol-d5	99	4.103	4.096	(0.947)	2287316	75.0625	2500
	5 Aniline	93	4.166	4.104	(0.961)	2143195	73.0583	2440(M)
	6 Phenol +	94	4.110	4.104	(0.948)	2405066	72.3586	2410
	7 bis(-2-Chloroethyl)Ether	63	4.166	4.167	(0.961)	1433132	70.1619	2340
	8 2-Chlorophenol	128	4.214	4.207	(0.972)	2179857	69.0752	2300
	9 1,3-Dichlorobenzene	146	4.326	4.335	(0.998)	2090046	63.3032	2110
*	10 1,4-Dichlorobenzene-d4	152	4.382	4.335	(1.000)	806287	40.0000	
	11 1,4-Dichlorobenzene +	146	4.326	4.335	(0.998)	2090046	65.7463	2190

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppm)	FINAL (ug/Kg)
	12 Benzyl alcohol	108	4.542	4.527	(1.048)	1250442	74.6977	2490
	13 1,2-Dichlorobenzene	146	4.534	4.535	(1.046)	1937265	66.6391	2220
	14 Bis(2-chloroisopropyl)ether	45	4.629	4.639	(1.068)	3746722	78.0740	2600
	15 2-Methylphenol	108	4.637	4.631	(1.070)	1738254	73.0323	2430
	16 N-Nitroso-di-n-propylamine++	70	4.773	4.774	(1.101)	1105823	80.7706	2690
	17 3- & 4-Methylphenol	108	4.781	4.774	(1.103)	1647115	77.0337	2570
	18 Hexachloroethane	117	4.837	4.846	(1.116)	671093	67.1581	2240
$	19 Nitrobenzene-d5	82	4.909	4.910	(0.874)	790252	36.7491	1220
	20 Nitrobenzene	77	4.925	4.934	(0.876)	1554426	76.3933	2550
	21 Isophorone	82	5.180	5.173	(0.922)	3542782	75.4421	2510
	22 2-Nitrophenol +	139	5.236	5.237	(0.932)	1280944	70.1741	2340
	23 2,4-Dimethyphenol	107	5.292	5.293	(0.942)	1628723	69.3132	2310
	24 bis(-2-Chloroethoxy)methane	93	5.380	5.389	(0.957)	2270250	73.2444	2440
	25 Benzoic Acid	122	5.508	5.445	(1.271)	1188059	141.790	4730(R)
	26 2,4-Dichlorophenol +	162	5.492	5.493	(0.977)	1571430	70.7536	2360
	27 1,2,4-Trichlorobenzene	180	5.564	5.573	(0.990)	1502443	68.2323	2270
*	28 Naphthalene-d8	136	5.620	5.629	(1.000)	3109757	40.0000	
	29 Naphthalene	128	5.644	5.653	(1.004)	5676994	70.1499	2340
	30 4-Chloroaniline	127	5.644	5.716	(1.004)	730236	24.3021	810(H)
	31 Hexachlorobutadiene +	225	5.763	5.772	(1.026)	682217	65.0174	2170
	32 4-Chloro-3-Methylphenol +	107	6.282	6.275	(1.118)	1476267	75.7910	2530
	33 2-Methylnaphthalene	142	6.402	6.403	(1.139)	3699820	72.2787	2410
	34 Hexachlorocyclopentadiene ++	237	6.570	6.579	(0.864)	768398	68.0691	2270
	35 2,4,6-Trichlorophenol +	196	6.737	6.738	(0.887)	918049	71.0086	2370
	36 2,4,5-Trichlorphenol	196	6.793	6.794	(0.894)	972503	72.2938	2410
$	37 2-Fluorobiphenyl	172	6.825	6.834	(0.898)	1675302	33.9869	1130
	38 2-Chloronaphthalene	162	6.961	6.962	(0.916)	3044576	64.4580	2150
	39 2-Nitroaniline	138	7.105	7.098	(0.935)	1406821	69.1601	2310
	40 Dimethylphthalate	163	7.328	7.321	(0.964)	3656170	68.3903	2280
	41 2,6-Dinitrotoluene	165	7.400	7.393	(0.974)	975469	71.3311	2380
	42 Acenaphthylene	152	7.440	7.441	(0.979)	5252225	67.9852	2270
	43 3-Nitroaniline	138	7.584	7.593	(0.998)	608850	41.3591	1380
*	44 Acenaphthene-d10	164	7.600	7.609	(1.000)	1406452	40.0000	
	45 Acenaphthene +	153	7.648	7.649	(1.006)	3312229	69.7606	2330
	46 2,4-Dinitrophenol ++	184	7.720	7.721	(1.016)	573381	96.3909	3210
	47 Dibenzofuran	168	7.847	7.856	(1.033)	4178870	71.7140	2390
	48 2,4-Dinitrotoluene	165	7.871	7.872	(1.036)	1197847	72.6084	2420
	49 4-Nitrophenol ++	109	7.839	7.832	(1.032)	221606	75.6470	2520
	50 Diethylphthalate	149	8.167	8.168	(1.075)	3586324	71.5357	2380
	51 Fluorene	166	8.262	8.264	(1.087)	3150188	73.3110	2440
	52 4-Chlorophenyl-phenylether	204	8.270	8.271	(1.088)	1218036	73.5539	2450
	53 4-Nitroaniline	138	8.342	8.327	(1.098)	777911	54.7265	1820
	54 4,6-Dinitro-o-cresol	198	8.366	8.359	(0.892)	686043	89.9276	3000
	55 N-nitrosodiphenylamine (1)+	169	8.430	8.423	(0.899)	2335391	70.0171	2330
	56 Azobenzene	77	8.462	8.463	(1.952)	2827388	84.4470	2810
$	57 2,4,6-Tribromophenol	332	8.550	8.551	(1.125)	367697	72.3275	2410
	58 4-Bromophenyl-phenylether	248	8.853	8.854	(0.944)	670639	68.9669	2300

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppm)	FINAL (ug/Kg)
	59 Hexachlorobenzene	284	8.917	8.918	(0.951)	802801	64.3450	2140
	60 Pentachlorophenol +	266	9.165	9.166	(0.977)	558713	78.6336	2620
*	61 Phenanthrene-d10	188	9.380	9.381	(1.000)	1870581	40.0000	
	62 Phenanthrene	178	9.412	9.413	(1.003)	3999762	68.1401	2270
	63 Anthracene	178	9.476	9.477	(1.010)	4038543	67.0091	2230
	64 Carbazole	167	9.684	9.685	(1.032)	3799983	71.2508	2380
	65 Di-n-butylphthalate	149	10.131	10.140	(1.080)	5719943	73.3319	2440
M	66 Total Methylphenol	108				3385369	74.9259	2500
	67 Fluoranthene +	202	10.849	10.851	(1.157)	3379674	70.2653	2340
	68 Benzidine	184	11.321	11.034	(0.900)	11046	3.47382	116
	69 Pyrene	202	11.113	11.114	(0.883)	3357299	82.8583	2760
$	70 Terphenyl-d14	244	11.321	11.330	(0.900)	1147817	42.3914	1410
	71 Butylbenzylphthalate	149	11.943	11.944	(0.949)	2094810	83.7820	2790
	72 Benzo(a)anthracene	228	12.566	12.575	(0.999)	2559801	67.2092	2240
	73 3,3'-Dichlorobenzidine	252	12.558	12.559	(0.998)	333754	30.4028	1010
*	74 Chrysene-d12	240	12.582	12.583	(1.000)	1056978	40.0000	
	75 Chrysene	228	12.614	12.623	(1.003)	2479499	72.3262	2410
	76 bis(2-Ethylhexyl)phthalate	149	12.646	12.655	(1.005)	2901749	89.6363	2990
	77 Di-n-octylphthalate +	149	13.397	13.398	(1.065)	4607071	77.4195	2580
	78 Benzo(b)fluoranthene	252	13.788	13.789	(0.972)	2720361	70.2462	2340
	79 Benzo(k)fluoranthene	252	13.820	13.821	(0.975)	2422700	73.5311	2450
	80 Benzo(a)pyrene +	252	14.131	14.132	(0.997)	2220652	69.7716	2330
*	81 Perylene-d12	264	14.179	14.180	(1.000)	834600	40.0000	
	82 Indeno(1,2,3-cd)pyrene	276	15.281	15.290	(1.078)	2926042	69.6996	2320
	83 Dibenzo(a,h)anthracene	278	15.313	15.306	(1.080)	2290250	66.9175	2230
	84 Benzo(g,h,i)perylene	276	15.600	15.593	(1.100)	2555434	68.7737	2290
	91 Acetophenone	105	4.765	4.766	(1.099)	2321317	85.3445	2840(H)
	156 Benzaldehyde	77	4.015	4.008	(0.926)	1052297	113.802	3790(H)
	157 Caprolactam	113	6.186	6.164	(1.101)	589287	78.9009	2630(H)
	158 Biphenyl	154	6.945	6.946	(1.602)	4008902	80.0212	2670(H)
	145 1-Methylnaphthalene	142	6.402	6.403	(1.139)	3699820	72.2787	2410(H)
	159 Atrazine	200	9.101	9.094	(0.970)	635377	89.3411	2980(M)

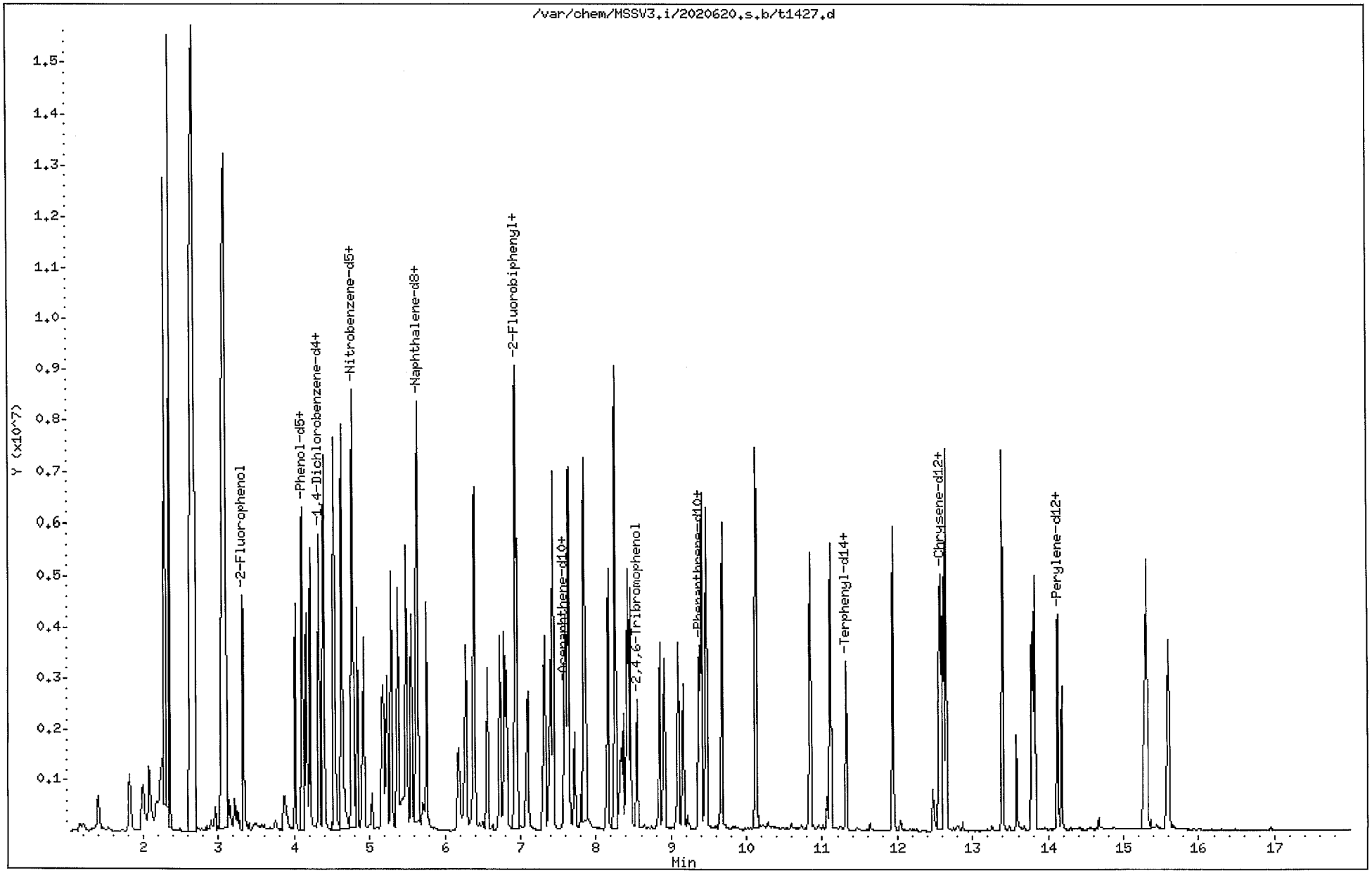
QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

000279

Data File: /var/chem/MSSV3.i/2020620.s.b/t1427.d
Date : 20-JUN-2002 16:22
Client ID: 46412
Sample Info: 46412*CH2*@8270
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: MSSV3.i
Operator: rlw
Column diameter: 0.25



QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	COLLECTED	RECEIVED	REPORTED
46413	Matrix Spike Duplicate	Solid	06/19/2002 09:	06/20/2002 09:05	06/23/2002 09:05

SW-846 8270C

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/20/2002 10:30	145849	3540C	1	06/20/2002 16:48	RLW	145931

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
95-95-4	2,4,5-Trichlorophenol	2850	383		ug/Kg
88-06-2	2,4,6-Trichlorophenol	2810	383		ug/Kg
120-83-2	2,4-Dichlorophenol	2900	383		ug/Kg
105-67-9	2,4-Dimethylphenol	2280	383		ug/Kg
51-28-5	2,4-Dinitrophenol	3830	1920		ug/Kg
121-14-2	2,4-Dinitrotoluene	2920	383		ug/Kg
606-20-2	2,6-Dinitrotoluene	2860	383		ug/Kg
91-58-7	2-Chloronaphthalene	2560	383		ug/Kg
95-57-8	2-Chlorophenol	2670	383		ug/Kg
91-57-6	2-Methylnaphthalene	2960	383		ug/Kg
88-74-4	2-Nitroaniline	2800	1920		ug/Kg
88-75-5	2-Nitrophenol	2830	383		ug/Kg
91-94-1	3,3'-Dichlorobenzidine	1180	767		ug/Kg
99-09-2	3-Nitroaniline	1700J	1920		ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	3650	1920		ug/Kg
101-55-3	4-Bromophenyl phenyl ether	2760	383		ug/Kg
59-50-7	4-Chloro-3-methylphenol	3090	383		ug/Kg
106-47-8	4-Chloroaniline	616	383		ug/Kg
7005-72-3	4-Chlorophenyl phenyl ether	2930	383		ug/Kg
100-01-6	4-Nitroaniline	2280	1920		ug/Kg
100-02-7	4-Nitrophenol	3150	1920		ug/Kg
83-32-9	Acenaphthene	2790	383		ug/Kg
208-96-8	Acenaphthylene	2750	383		ug/Kg
98-86-2	Acetophenone	3330	383		ug/Kg
120-12-7	Anthracene	2730	383		ug/Kg
1912-24-9	Atrazine (Aatrex)	3650	767		ug/Kg
100-52-7	Benzaldehyde	4610	767		ug/Kg
56-55-3	Benzo(a)anthracene	2710	383		ug/Kg
50-32-8	Benzo(a)pyrene	2800	383		ug/Kg
205-99-2	Benzo(b)fluoranthene	2750	383		ug/Kg
191-24-2	Benzo(g,h,i)perylene	2830	383		ug/Kg
207-08-9	Benzo(k)fluoranthene	2950	383		ug/Kg
92-52-4	Biphenyl	3190	383		ug/Kg
111-91-1	Bis(2-Chloroethoxy)methane	2960	383		ug/Kg
111-44-4	Bis(2-Chloroethyl)ether	2690	383		ug/Kg
108-60-1	Bis(2-Chloroisopropyl)ether	3030	383		ug/Kg
117-81-7	Bis(2-Ethylhexyl)phthalate	3650	383		ug/Kg
85-68-7	Butyl benzyl phthalate	3440	383		ug/Kg
105-60-2	Caprolactam	3280	383		ug/Kg
86-74-8	Carbazole	2890	383		ug/Kg

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	COLLECTED	RECEIVED	REPORTED
46413	Matrix Spike Duplicate	Solid	06/19/2002 09:	06/20/2002 09:05	06/23/2002 09:05

SW-846 8270C

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/20/2002 10:30	145849	3540C	1	06/20/2002 16:48	RLW	145931

218-01-9	Chrysene	2900	383	ug/Kg
84-74-2	Di-n-butyl phthalate	3030	383	ug/Kg
117-84-0	Di-n-octyl phthalate	3120	383	ug/Kg
53-70-3	Dibenz(a,h)anthracene	2690	383	ug/Kg
132-64-9	Dibenzofuran	2860	383	ug/Kg
84-66-2	Diethyl phthalate	2890	383	ug/Kg
131-11-3	Dimethyl phthalate	2730	383	ug/Kg
206-44-0	Fluoranthene	2850	383	ug/Kg
86-73-7	Fluorene	2940	383	ug/Kg
118-74-1	Hexachlorobenzene	2570	383	ug/Kg
87-68-3	Hexachlorobutadiene	2580	383	ug/Kg
77-47-4	Hexachlorocyclopentadiene	2540	383	ug/Kg
67-72-1	Hexachloroethane	2600	383	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	2860	383	ug/Kg
78-59-1	Isophorone	3050	383	ug/Kg
91-20-3	Naphthalene	2810	383	ug/Kg
98-95-3	Nitrobenzene	3090	383	ug/Kg
87-86-5	Pentachlorophenol	3110	1920	ug/Kg
85-01-8	Phenanthrene	2780	383	ug/Kg
108-95-2	Phenol	2800	383	ug/Kg
129-00-0	Pyrene	3340	383	ug/Kg
1319-77-3	m,p-Cresol	2970	383	ug/Kg
621-64-7	n-Nitrosodi-n-propylamine	3170	383	ug/Kg
86-30-6	n-Nitrosodiphenylamine	2800	383	ug/Kg
95-48-7	o-Cresol	2740	383	ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
4165-60-0	Nitrobenzene-d5	1670	1270 ug/Kg	76	46 - 116
321-60-8	2-Fluorobiphenyl	1670	1170 ug/Kg	70	39 - 116
1718-51-0	Terphenyl-d14	1670	1480 ug/Kg	89	24 - 137
4165-62-2	Phenol-d5	3330	2530 ug/Kg	76	34 - 113
367-12-4	2-Fluorophenol	3330	2300 ug/Kg	69	44 - 106

Gulf Coast Analytical Laboratories, Inc.

BNA QUANT AND RATIO REPORT

Data file : /var/chem/MSSV3.i/2020620.s.b/t1428.d
Lab Smp Id: 46413 Client Smp ID: 46413
Inj Date : 20-JUN-2002 16:48
Operator : rlw Inst ID: MSSV3.i
Smp Info : 46413*CH2*@8270
Misc Info : 20206200201*MSSV~1414~*062002*30-1.0
Comment :
Method : /var/chem/MSSV3.i/2020620.s.b/8270C_03.m
Meth Date : 26-Jun-2002 18:51 rlw Quant Type: ISTD
Cal Date : 03-JUN-2002 14:44 Cal File: t1206.d
Als bottle: 7 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270C.sub
Target Version: 3.50
Processing Host: hpcs2

Concentration Formula:
Amt * DF * (Uf * Vt/(Vi * Ws * (100 - M)/100)) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vt	1000.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppm)	FINAL (ug/Kg)
	1 n-Nitrosodimethylamine	42	1.979	1.876	(0.452)	659712	65.4192	2180
	2 Pyridine	79	2.090	1.908	(0.477)	119823	4.26686	142(R)
$	3 2-Fluorophenol	112	3.328	3.297	(0.759)	1913155	68.9270	2300
$	4 Phenol-d5	99	4.103	4.096	(0.936)	2240446	76.0270	2530
	5 Aniline	93	4.166	4.104	(0.951)	1949239	68.7084	2290
	6 Phenol +	94	4.110	4.104	(0.938)	2321473	72.2209	2410
	7 bis(-2-Chloroethyl)Ether	63	4.166	4.167	(0.951)	1372101	69.4605	2320(H)
	8 2-Chlorophenol	128	4.214	4.207	(0.962)	2103146	68.9128	2300
	9 1,3-Dichlorobenzene	146	4.398	4.335	(1.004)	1976287	61.8951	2060
*	10 1,4-Dichlorobenzene-d4	152	4.382	4.335	(1.000)	779746	40.0000	
	11 1,4-Dichlorobenzene +	146	4.398	4.335	(1.004)	1976287	64.2839	2140

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppm)	FINAL (ug/Kg)
	12 Benzyl alcohol	108	4.534	4.527	(1.035)	1234198	76.2368	2540
	13 1,2-Dichlorobenzene	146	4.534	4.535	(1.035)	1850445	65.8193	2190
	14 Bis(2-chloroisopropyl)ether	45	4.629	4.639	(1.056)	3634599	78.3155	2610
	15 2-Methylphenol	108	4.637	4.631	(1.058)	1629169	70.7790	2360
	16 N-Nitroso-di-n-propylamine++	70	4.773	4.774	(1.089)	1082916	81.7897	2730
	17 3- & 4-Methylphenol	108	4.781	4.774	(1.091)	1586100	76.7050	2560
	18 Hexachloroethane	117	4.837	4.846	(1.104)	648873	67.1448	2240
$	19 Nitrobenzene-d5	82	4.909	4.910	(0.874)	779465	38.1883	1270
	20 Nitrobenzene	77	4.925	4.934	(0.876)	1543341	79.9096	2660
	21 Isophorone	82	5.180	5.173	(0.922)	3510255	78.7518	2630
	22 2-Nitrophenol +	139	5.236	5.237	(0.932)	1270688	73.3394	2440
	23 2,4-Dimethyphenol	107	5.292	5.293	(0.942)	1311252	58.7904	1960
	24 bis(-2-Chloroethoxy)methane	93	5.380	5.389	(0.957)	2254455	76.6292	2550
	25 Benzoic Acid	122	5.508	5.445	(1.257)	1177713	145.340	4840(R)
	26 2,4-Dichlorophenol +	162	5.492	5.493	(0.977)	1578195	74.8628	2500
	27 1,2,4-Trichlorobenzene	180	5.564	5.573	(0.990)	1467935	70.2345	2340
*	28 Naphthalene-d8	136	5.620	5.629	(1.000)	2951715	40.0000	
	29 Naphthalene	128	5.644	5.653	(1.004)	5578763	72.6270	2420
	30 4-Chloroaniline	127	5.644	5.716	(1.004)	712804	24.9921	833(H)
	31 Hexachlorobutadiene +	225	5.763	5.772	(1.026)	664109	66.6804	2220
	32 4-Chloro-3-Methylphenol +	107	6.282	6.275	(1.118)	1477353	79.9078	2660
	33 2-Methylnaphthalene	142	6.402	6.403	(1.139)	3717724	76.5172	2550
	34 Hexachlorocyclopentadiene ++	237	6.570	6.579	(0.864)	723454	65.6604	2190
	35 2,4,6-Trichlorophenol +	196	6.737	6.738	(0.887)	914382	72.4605	2420
	36 2,4,5-Trichlorphenol	196	6.793	6.794	(0.894)	965718	73.5511	2450
$	37 2-Fluorobiphenyl	172	6.825	6.834	(0.898)	1690092	35.1283	1170
	38 2-Chloronaphthalene	162	6.961	6.962	(0.916)	3048850	66.1324	2200
	39 2-Nitroaniline	138	7.105	7.098	(0.935)	1432718	72.1616	2410
	40 Dimethylphthalate	163	7.328	7.321	(0.964)	3674785	70.4253	2350
	41 2,6-Dinitrotoluene	165	7.400	7.393	(0.974)	983352	73.6721	2460
	42 Acenaphthylene	152	7.440	7.441	(0.979)	5353197	70.9926	2370
	43 3-Nitroaniline	138	7.592	7.593	(0.999)	628181	43.7194	1460
*	44 Acenaphthene-d10	164	7.600	7.609	(1.000)	1372765	40.0000	
	45 Acenaphthene +	153	7.648	7.649	(1.006)	3334830	71.9602	2400
	46 2,4-Dinitrophenol ++	184	7.720	7.721	(1.016)	575475	99.1169	3300
	47 Dibenzofuran	168	7.847	7.856	(1.033)	4190305	73.6749	2460
	48 2,4-Dinitrotoluene	165	7.871	7.872	(1.036)	1214856	75.4465	2510
	49 4-Nitrophenol ++	109	7.839	7.832	(1.032)	232323	81.2514	2710
	50 Diethylphthalate	149	8.167	8.168	(1.075)	3656221	74.7196	2490
	51 Fluorene	166	8.262	8.264	(1.087)	3181602	75.8590	2530
	52 4-Chlorophenyl-phenylether	204	8.270	8.271	(1.088)	1222704	75.6477	2520
	53 4-Nitroaniline	138	8.334	8.327	(1.097)	817603	58.9303	1960
	54 4,6-Dinitro-o-cresol	198	8.366	8.359	(0.892)	700050	94.1662	3140
	55 N-nitrosodiphenylamine (1)+	169	8.430	8.423	(0.899)	2351625	72.3497	2410
	56 Azobenzene	77	8.462	8.463	(1.931)	2976792	91.9357	3060
$	57 2,4,6-Tribromophenol	332	8.550	8.551	(1.125)	365419	73.6433	2450
	58 4-Bromophenyl-phenylether	248	8.853	8.854	(0.944)	677190	71.4639	2380

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppm)	FINAL (ug/Kg)
	59 Hexachlorobenzene	284	8.917	8.918	(0.951)	806475	66.3318	2210
	60 Pentachlorophenol +	266	9.165	9.166	(0.977)	556923	80.4339	2680
*	61 Phenanthrene-d10	188	9.380	9.381	(1.000)	1822856	40.0000	
	62 Phenanthrene	178	9.412	9.413	(1.003)	4102693	71.7235	2390
	63 Anthracene	178	9.476	9.477	(1.010)	4142899	70.5404	2350
	64 Carbazole	167	9.684	9.685	(1.032)	3884922	74.7506	2490
	65 Di-n-butylphthalate	149	10.139	10.140	(1.081)	5944452	78.2055	2610
M	66 Total Methylphenol	108				3215269	73.5833	2450
	67 Fluoranthene +	202	10.849	10.851	(1.157)	3439146	73.3738	2450
	68 Benzidine	184	11.321	11.034	(0.900)	11025	3.51627	117
	69 Pyrene	202	11.113	11.114	(0.883)	3448220	86.3064	2880
$	70 Terphenyl-d14	244	11.321	11.330	(0.900)	1181992	44.2713	1480
	71 Butylbenzylphthalate	149	11.943	11.944	(0.949)	2188027	88.7484	2960
	72 Benzo(a)anthracene	228	12.566	12.575	(0.999)	2627979	69.9756	2330
	73 3,3'-Dichlorobenzidine	252	12.558	12.559	(0.998)	331673	30.6408	1020
*	74 Chrysene-d12	240	12.582	12.583	(1.000)	1042231	40.0000	
	75 Chrysene	228	12.614	12.623	(1.003)	2540315	75.1486	2500
	76 bis(2-Ethylhexyl)phthalate	149	12.646	12.655	(1.005)	3010367	94.3074	3140
	77 Di-n-octylphthalate +	149	13.397	13.398	(1.065)	4734897	80.6934	2690
	78 Benzo(b)fluoranthene	252	13.788	13.789	(0.972)	2823619	71.1718	2370
	79 Benzo(k)fluoranthene	252	13.820	13.821	(0.975)	2572740	76.2207	2540
	80 Benzo(a)pyrene +	252	14.131	14.132	(0.997)	2359339	72.3592	2410
*	81 Perylene-d12	264	14.179	14.180	(1.000)	855014	40.0000	
	82 Indeno(1,2,3-cd)pyrene	276	15.289	15.290	(1.078)	3176434	73.8575	2460
	83 Dibenzo(a,h)anthracene	278	15.313	15.306	(1.080)	2443114	69.6796	2320
	84 Benzo(g,h,i)perylene	276	15.600	15.593	(1.100)	2785263	73.1694	2440
	91 Acetophenone	105	4.765	4.766	(1.087)	2262226	86.0030	2870(H)
	156 Benzaldehyde	77	4.015	4.008	(0.916)	1065221	119.121	3970(H)
	157 Caprolactam	113	6.194	6.164	(1.102)	599417	84.5544	2820(H)
	158 Biphenyl	154	6.945	6.946	(1.585)	3996980	82.4989	2750(H)
	145 1-Methylnaphthalene	142	6.402	6.403	(1.139)	3717724	76.5172	2550(H)
	159 Atrazine	200	9.101	9.094	(0.970)	652236	94.1128	3140(M)

QC Flag Legend

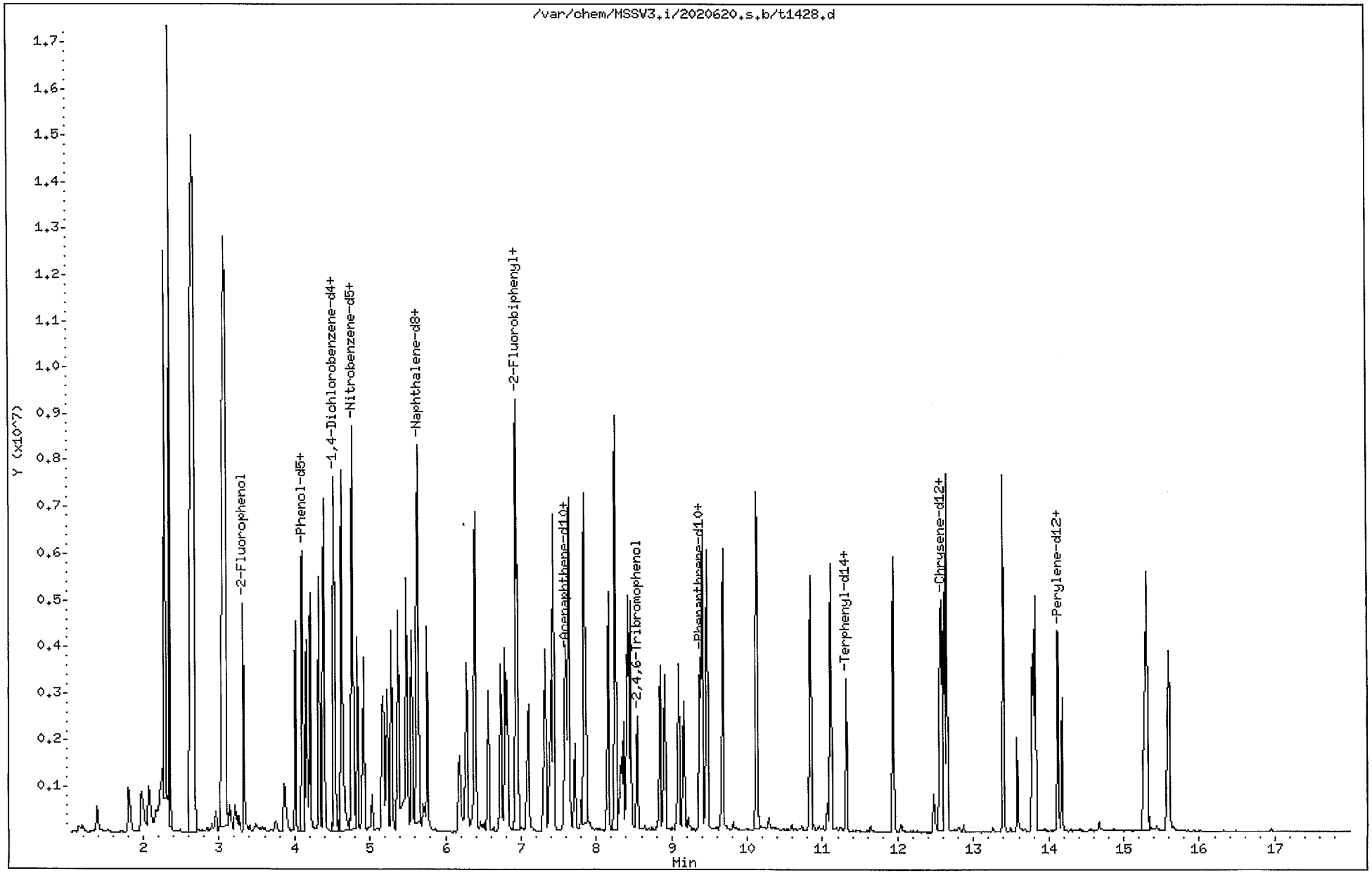
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

000285

Data File: /var/chem/MSSV3.i/2020620.s.b/t1428.d
Date : 20-JUN-2002 16:48
Client ID: 46413
Sample Info: 46413*CH2*@8270
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: MSSV3.i

Operator: rlw
Column diameter: 0.25



BASE NEUTRAL/ACID SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME: 06/20/02 10:30

MATRIX: _____ WATER ✓ SOIL _____ OTHER

LEVEL: ✓ LOW _____ MEDIUM

BATCH #: 145849

	CLIENT & GROUP #	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	BN pH	ACID pH	COMMENTS
1	46410	0620SBLK	30.0	1.0			
2	46411	0620LCS	30.0	1.0			625
3	CH2M HILL	20206200201	30.0	1.0			
4	46412	20206200201MS	30.0	1.0			
5	46413	20206200201MSD	30.0	1.0			
6		20206200202	30.0	1.0			
7							
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METHOD

_____ LIQUID LIQUID/3520 EXTRACTION

_____ SEPARATIORY FUNNEL/3510 EXTRACTION

✓ SONICATOR/3550

_____ SOXHLET/3540

_____ GPC CLEANUP/3640

_____ WASTE DILUTION/3580

TCLP EXTRACTION FLUID #1

TCLP EXTRACTION FLUID #2

MECL2/Acetone No: 1-45-2

ACETONE LOT NO: 023046

MeCL2 Lot No: 013600

Sodium Sulfate Lot No: 020966

SKB 06/20/02

COMMENTS: SAMPLE PREPARATION INCLUDES DETERMINATION OF SAMPLE VOLUME/WEIGHT, SOLVENT EXTRACTION AND EVAPORATION OF SOLVENT TO FINAL VOLUME

SURROGATE ID 8-133-1
VOLUME 0.5mL
CONCENTRATION 100/200 ug/ml
NaOH _____

8270 SPIKE ID _____
VOLUME _____
CONCENTRATION _____
ACID _____

625 SPIKE ID 8-131-1
VOLUME 1.0mL
ONCENTRATION 100 ug/ml

SPIKE WITNESS Wes

TECHNICIAN _____ DATE _____

SUPERVISOR John Bailey DATE 06/20/02

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	3-29-1	Q3392	NSI	030402-03/03-04-03	50ul	1.0ml	10ppm	DCM/013600	RCW	05-08-02	03-04-03
50	3-29-2				250ul		50ppm				
80	3-29-3				400ul		80ppm				
120	3-29-4				600ul		120ppm				
160	3-29-5				800ul		160ppm				
200	3-29-6				1000ul		200ppm				
RCW 05-08-02 ~~1.0~~ 5.0	3-29-7				25ul		5.0ppm				
1.0	3-29-8 RCW 05-08-02				5ul		1.0ppm				
0.4	3-29-9				2ul		0.4ppm				
0.2	3-29-10	Q3392	NSI	030402-03/03-04-03	1ul	1.0ml	0.2ppm	DCM/013600	RCW	05-08-02	03-04-03
8270 IS	3-29-11	US108N	Ultra	S-0694/08/04	1.0ml	1.0ml	4000	N/A	RCW	05-14-02	05-14-03
5/24/02 Dates		5/3/02 - 5/14/02		Reviewed By		QA/QC					
0.01037% H_3PO_4	3-29-12	Concentrated H_3PO_4	JT Baker	E11821 / NA	103ul	1000ml	0.01032	HPLC H_2O 011614	JDT	5/28/02	11/28/02
Acrylic Acid Spiking Soln.	3-29-13	Acrylic Acid 99%	Aldrich	05905mu / NA	0.500g	100ml	5000ppm	HPLC H_2O 011614	JDT	5/28/02	11/28/02
AA. 20mg/L	3-29-14	Acrylic Acid 99%	Aldrich	05905mu / NA	0.002g	100ml	20ppm				
A.A. 10mg/L	3-29-15	AA 20mg/L	In House	3-29-14 / 11/28/02	5ml	10ml	10ppm				
A.A. 5.0mg/L	3-29-16				2.5ml	10ml	5.0ppm				
A.A. 1.0mg/L	3-29-17				500ul	10ml	1.0ppm				
A.A. 0.5mg/L	3-29-18				250ul	10ml	0.5ppm				
A.A. 0.1 mg/L	3-29-19				100ul	10ml	0.1ppm				
AA ICV	3-29-20	AA Spiking Soln	In House	3-29-13 / 11/28/02	100ul	100ml	5.0ppm	HPLC H_2O 011614	JDT	5/28/02	11/28/02
				RCW 05-28-02							

LABORATORY CHRONICLE: GC-MS DEPARTMENT

Date: 03-JUN-2002
Instrument: MSSV3.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
DFTPP	3-18-4	t1200.d	0.00 ml	03-JUN-2002 11:47	1.000	1	
SSTD050	3-29-2	t1201.d	1000.00 ml	03-JUN-2002 12:31	1.000	2	
SSTD010	3-29-1	t1202.d	1000.00 ml	03-JUN-2002 12:59	1.000	3	
SSTD080	3-29-3	t1203.d	1000.00 ml	03-JUN-2002 13:25	1.000	4	
SSTD120	3-29-4	t1204.d	1000.00 ml	03-JUN-2002 13:51	1.000	5	
SSTD160	3-29-5	t1205.d	1000.00 ml	03-JUN-2002 14:18	1.000	6	
SSTD200	3-29-6	t1206.d	1000.00 ml	03-JUN-2002 14:44	1.000	7	
SSTD001	3-29-7	t1207.d	1000.00 ml	03-JUN-2002 15:10	1.000	8	
SSTD00.2	3-29-8	t1208.d	1000.00 ml	03-JUN-2002 15:36	1.000	9	
42216	BLK	t1210.d	1000.00 ml	03-JUN-2002 16:28	1.000	11	
42217	LCS	t1211.d	1000.00 ml	03-JUN-2002 16:54	1.000	12	
42218	LCSD	t1212.d	1000.00 ml	03-JUN-2002 17:20	1.000	13	
20205301101	BFI	t1213.d	1000.00 ml	03-JUN-2002 17:46	1.000	14	
20205301102	BFI	t1214.d	1000.00 ml	03-JUN-2002 18:12	1.000	15	
20205301103	BFI	t1215.d	1000.00 ml	03-JUN-2002 18:38	1.000	16	
20205301104	BFI	t1216.d	1000.00 ml	03-JUN-2002 19:04	1.000	17	
20205301105	BFI	t1217.d	1000.00 ml	03-JUN-2002 19:30	1.000	18	
20205301106	BFI	t1218.d	1000.00 ml	03-JUN-2002 19:56	1.000	19	
20205301107	BFI	t1219.d	1000.00 ml	03-JUN-2002 20:22	1.000	20	
20205301108	BFI	t1220.d	1000.00 ml	03-JUN-2002 20:49	1.000	21	
20205301109	BFI	t1221.d	1000.00 ml	03-JUN-2002 21:14	1.000	22	
20205301110	BFI	t1222.d	1000.00 ml	03-JUN-2002 21:40	1.000	23	
20205301111	BFI	t1223.d	1000.00 ml	03-JUN-2002 22:08	1.000	24	
20205301112	BFI	t1224.d	1000.00 ml	03-JUN-2002 22:35	1.000	25	
20205301114	BFI	t1225.d	1000.00 ml	03-JUN-2002 23:01	1.000	26	

REVISED 6-1-95 Supervisor Review: QA Review:

LABORATORY CHRONICLE: GC-MS DEPARTMENT

Date: 20-JUN-2002
Instrument: MSSV3.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
DFTPP	3-18-4	t1422.d	0.00 ml	20-JUN-2002 14:17	1.000	1	
DFTPP	3-18-4	t1422c.d	0.00 ml	20-JUN-2002 14:17	1.000	1	
SSTD050	3-29-2	t1423.d	1000.00 ml	20-JUN-2002 14:34	1.000	2	
46410	BLK	t1424.d	30.00 g	20-JUN-2002 15:04	1.000	3	
46411	LCS	t1425.d	30.00 g	20-JUN-2002 15:30	1.000	4	
20206200201	CH2	t1426.d	30.00 g	20-JUN-2002 15:56	1.000	5	
46412	CH2	t1427.d	30.00 g	20-JUN-2002 16:22	1.000	6	
46413	CH2	t1428.d	30.00 g	20-JUN-2002 16:48	1.000	7	
20206200202	CH2	t1429.d	30.00 g	20-JUN-2002 17:14	1.000	8	
45565	BLK	t1430.d	30.00 g	20-JUN-2002 17:40	1.000	9	
45566	LCS	t1431.d	30.00 g	20-JUN-2002 18:05	1.000	10	
45567	LCSD	t1432.d	30.00 g	20-JUN-2002 18:31	1.000	11	
20206132003	WASH	t1433.d	30.00 g	20-JUN-2002 18:57	1.000	12	
45568	WASH	t1434.d	30.00 g	20-JUN-2002 19:23	1.000	13	
45569	WASH	t1435.d	30.00 g	20-JUN-2002 19:49	1.000	14	
45928	BLK	t1436.d	1.00 g	20-JUN-2002 20:15	1.000	15	
45929	LCS	t1437.d	1.00 g	20-JUN-2002 20:41	1.000	16	
20206180701	RFW	t1438.d	1.00 g	20-JUN-2002 21:07	10.000	17	
20206180702	RFW	t1439.d	1.00 g	20-JUN-2002 21:32	10.000	18	
20206180703	RFW	t1440.d	1.00 g	20-JUN-2002 21:58	10.000	19	
20206180704	RFW	t1441.d	1.00 g	20-JUN-2002 22:24	10.000	20	
20206180705	RFW	t1442.d	1.00 g	20-JUN-2002 22:51	10.000	21	
20206180706	RFW	t1443.d	1.00 g	20-JUN-2002 23:17	10.000	22	
20206180707	RFW	t1444.d	1.00 g	20-JUN-2002 23:42	10.000	23	
20206180708	RFW	t1445.d	1.00 g	21-JUN-2002 00:09	10.000	24	
20206180709	RFW	t1446.d	1.00 g	21-JUN-2002 00:35	10.000	25	
45930	RFW	t1447.d	1.00 g	21-JUN-2002 01:01	10.000	26	
45931	RFW	t1448.d	1.00 g	21-JUN-2002 01:28	10.000	27	

REVISED 6-1-95 Supervisor Review: QA Review:

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: GCAL Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	46425	86	37*							1
02	46426	94	44							0
03	BF-S-0619	65	56							0
04	RB-S-0619	55	49							0
05										
06										
07										
08										
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28										
29										
30										

		QC LIMITS
S1	= O-TERPHENYL	(50-150)
S2	= Nonatriacontane	(40-150)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

QUALITY CONTROL SUMMARY

LCS ID: 46426	ORIGINAL LAB ID:	PREP BATCH: 145852
	MATRIX Solid	ANALYTICAL BATCH: 146070

Florida PRO

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
FLPRO-01	Petroleum Hydrocarbons	68000 ug/Kg	65800	97	50 - 150

LCS ID: 46416	ORIGINAL LAB ID:	PREP BATCH: 145850
	MATRIX Solid	ANALYTICAL BATCH: 146072

SW-846 8081A

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
319-84-6	alpha-BHC	16.7 ug/Kg	23.2	139 *	37 - 134
319-85-7	beta-BHC	16.7 ug/Kg	17.7	106	17 - 147
319-86-8	delta-BHC	16.7 ug/Kg	17.8	107	19 - 140
1024-57-3	Heptachlor epoxide	16.7 ug/Kg	18.6	112	37 - 142
959-98-8	Endosulfan I	16.7 ug/Kg	21.6	130	45 - 153
72-55-9	4,4'-DDE	16.7 ug/Kg	17	102	30 - 145
33213-65-9	Endosulfan II	16.7 ug/Kg	17.8	107	0 - 202
72-54-8	4,4'-DDD	16.7 ug/Kg	21.6	130	31 - 141
1031-07-8	Endosulfan sulfate	16.7 ug/Kg	21.3	128	26 - 144
72-43-5	Methoxychlor	16.7 ug/Kg	18.5	111	26 - 144
53494-70-5	Endrin ketone	16.7 ug/Kg	22.8	137	26 - 144
7421-93-4	Endrin aldehyde	16.7 ug/Kg	28.4	170	0 - 202
5103-71-9	alpha-Chlordane	16.7 ug/Kg	16.6	100	45 - 119
5103-74-2	gamma-Chlordane	16.7 ug/Kg	18.3	110	45 - 119
58-89-9	gamma-BHC (Lindane)	16.7 ug/Kg	20.1	121	46 - 127
76-44-8	Heptachlor	16.7 ug/Kg	21.3	128	35 - 130
309-00-2	Aldrin	16.7 ug/Kg	18	108	35 - 132
60-57-1	Dieldrin	16.7 ug/Kg	25.4	152 *	31 - 134
72-20-8	Endrin	16.7 ug/Kg	23.5	141 *	42 - 139
50-29-3	4,4'-DDT	16.7 ug/Kg	23	138 *	23 - 134

MS LAB ID: 46417	ORIGINAL LAB ID: 20206200201	PREP BATCH: 145850
	MATRIX Solid	ANALYTICAL BATCH: 146072

SW-846 8081A

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
319-84-6	alpha-BHC	0	16.7 ug/Kg	19.9	119	37 - 134
319-85-7	beta-BHC	0	16.7 ug/Kg	15.9	95	17 - 147
319-86-8	delta-BHC	0	16.7 ug/Kg	15.1	91	19 - 140
1024-57-3	Heptachlor epoxide	0	16.7 ug/Kg	15.8	95	37 - 142
959-98-8	Endosulfan I	0	16.7 ug/Kg	16.7	100	45 - 153
72-55-9	4,4'-DDE	0	16.7 ug/Kg	15.5	93	30 - 145
33213-65-9	Endosulfan II	0	16.7 ug/Kg	15.3	92	0 - 202
72-54-8	4,4'-DDD	0	16.7 ug/Kg	18.6	112	31 - 141

4B
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

46425

Lab Name: GCAL Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Lab File ID: SV2AD003 Lab Sample ID: 46425

Instrument ID: GCSV2AD Date Extracted:06/20/02

Matrix: (soil/water) SOIL Date Analyzed: 06/20/02

Level:(low/med) LOW Time Analyzed: 1900

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	46426	46426	SV2AD004S	06/20/02
02	BF-S-0619	20206200201	SV2AD005S	06/20/02
03	RB-S-0619	20206200202	SV2AD006S	06/20/02
04				
05				
06				
07				
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30				

COMMENTS:

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200201	046-BF-S-0619-02	Solid	06/19/2002 09:40	06/20/2002 09:05	06/27/2002 08:58

Florida PRO

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/20/2002 10:30	145852	Florida PRO	1	06/20/2002 20:49	TNT	146070

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
FLPRO-01	Petroleum Hydrocarbons	ND	9290	5810	ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
84-15-1	o-Terphenyl	4000	2590 ug/Kg	65	50 - 150
7194-86-7	Nonatriacontane	24000	13600 ug/Kg	57	40 - 150

RESULTS REPORTED ON A DRY WEIGHT BASIS

Gulf Coast Analytical Services

Data file : /var/chem/gcsv2ad.i/2020619.b/SV2ad005.d
Lab Smp Id: 20206200201 Client Smp ID: 1.0
Inj Date : 20-JUN-2002 20:49
Operator : tnt Inst ID: gcsv2ad.i
Smp Info : 20206200201-1.0-GCSV~17XX~-
Misc Info :
Comment :
Method : /var/chem/gcsv2ad.i/2020619.b/flpro.m
Meth Date : 20-Jun-2002 16:52 tnt Quant Type: ESTD
Cal Date : 25-APR-2002 13:07 Cal File: SV2ad006.d
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PRO.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100)*1000 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.00000	Volume of final extract (mL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	25.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	FINAL (ug/Kg)
20 Total PRO	17.503	6.790	10.713	34559769	114.276	9142.0786(M)

QC Flag Legend

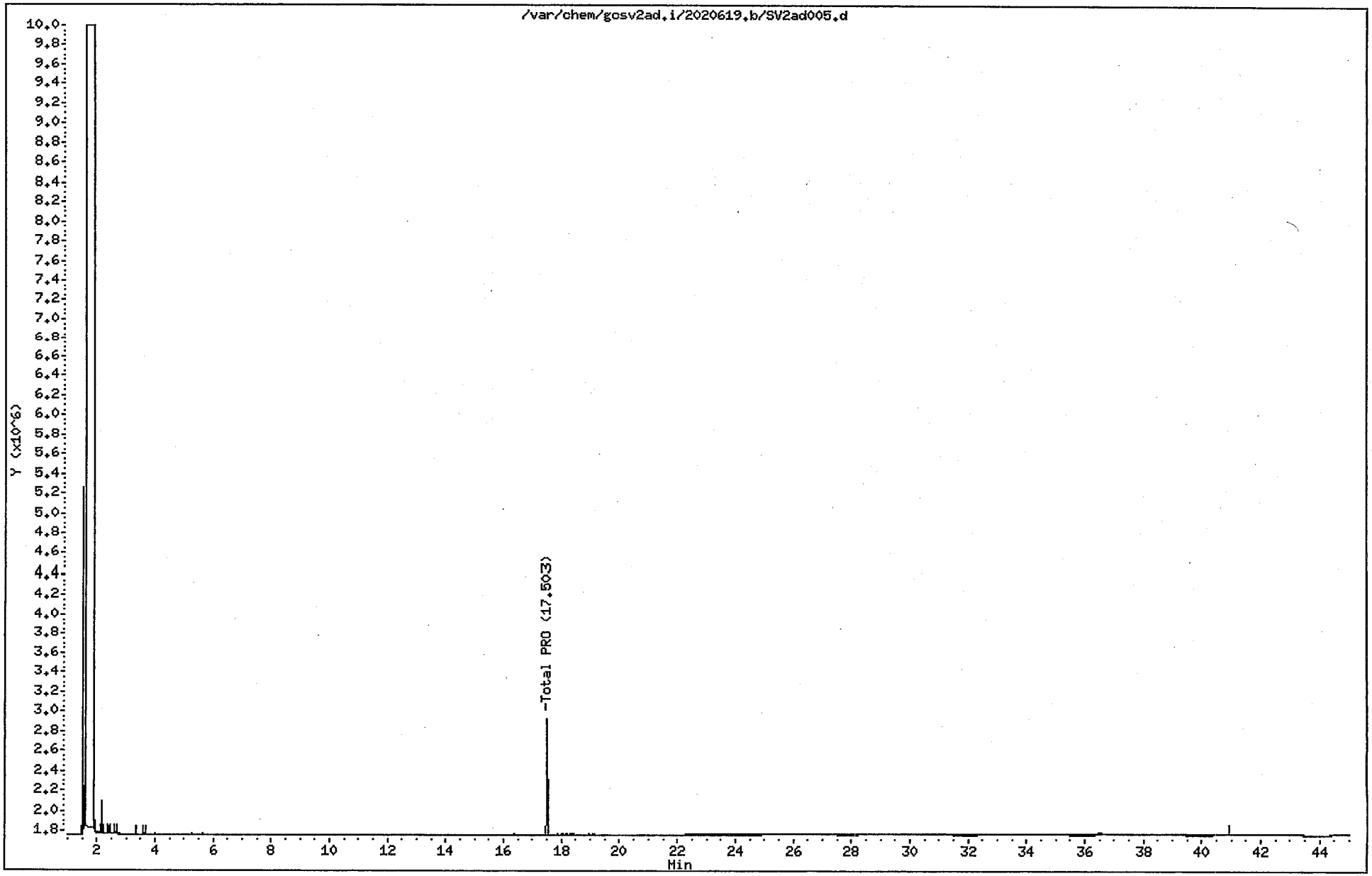
M - Compound response manually integrated.

$$\frac{34559769 - 24284500}{302424} \cdot \frac{2}{25} \cdot 1000 = 2720 \text{ ppb}$$

000295

Data File: /var/chem/gcsv2ad.i/2020619.b/SV2ad005.d
Date : 20-JUN-2002 20:49
Client ID: 1.0
Sample Info: 20206200201-1.0-GCSV"17XX"-
Volume Injected (uL): 1.0
Column phase: DB-1

Instrument: gcsv2ad.i
Operator: tnt
Column diameter: 0.53



Gulf Coast Analytical Services

Data file : /var/chem/gcsv2ad.i/2020619.b/SV2ad005s.d
Lab Smp Id: 20206200201
Inj Date : 20-JUN-2002 20:49
Operator : tnt Inst ID: gcsv2ad.i
Smp Info : 20206200201-1.0-GCSV~17XX~-
Misc Info :
Comment :
Method : /var/chem/gcsv2ad.i/2020619.b/flsurr.m
Meth Date : 20-Jun-2002 16:52 tnt Quant Type: ESTD
Cal Date : 25-APR-2002 10:15 Cal File: SV2ad003s.d
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: flsurr.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100)*1000 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.00000	Volume of final extract (mL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	25.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	FINAL (ug/Kg)
$ 7 O-TERPHENYL	17.502	17.535	-0.033	22624435	32.3202	2585.6176
$ 18 Nonatriacontane	36.503	36.568	-0.065	1660065	169.612	13568.9636

TNT 6/21/02 ~~240~~ 24284500

Data File: /var/chem/gcsv2ad.i/2020619.b/SV2ad005s.d

Date: 20-JUN-2002 20:49

Client Id:

Sample Info: 20206200201-1.0-GCSV~17XX~-

Volume Injected (uL): 1

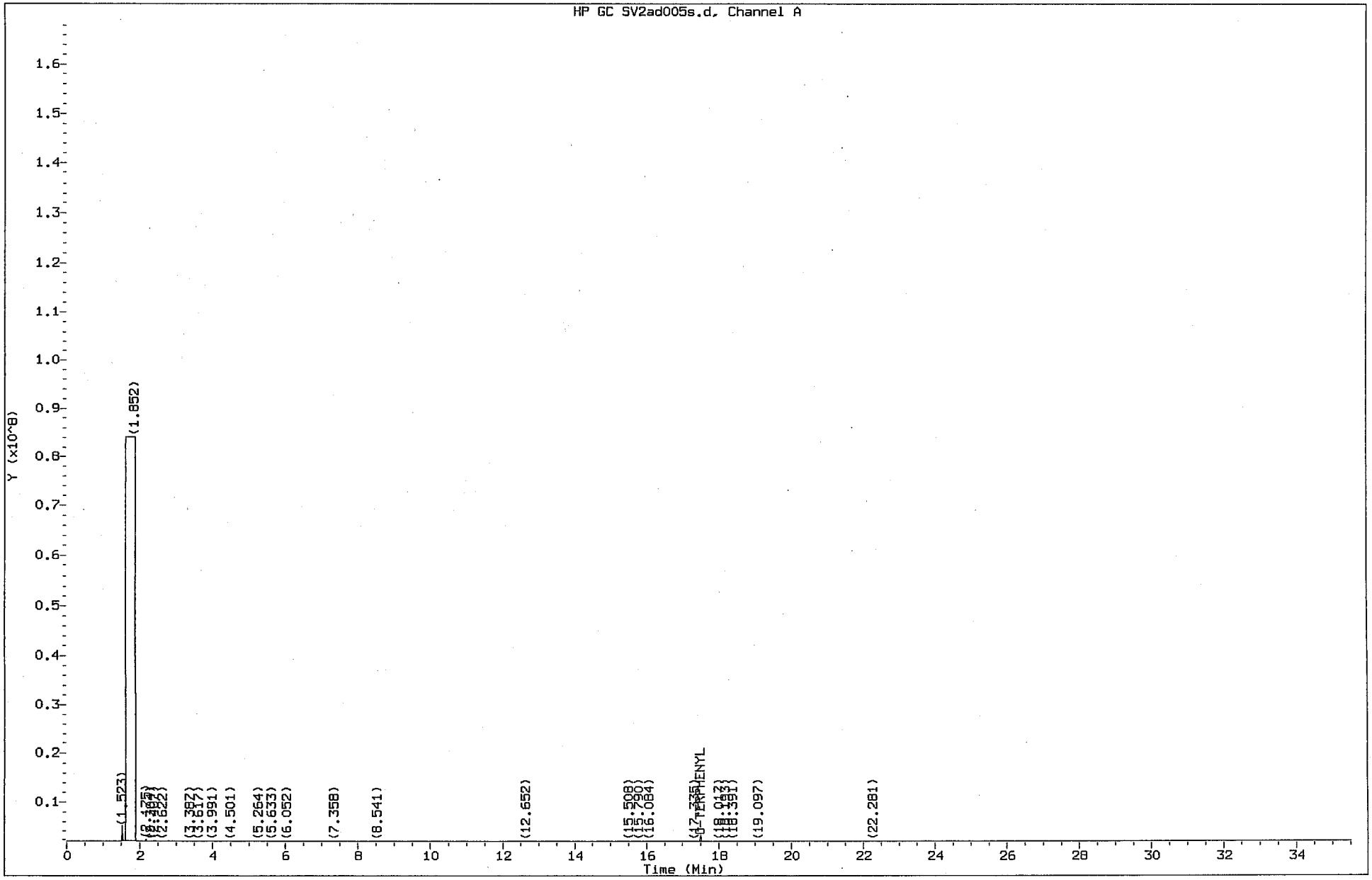
Column phase: DB-1

Instrument: gcsv2ad.i

Operator: tnt

Column diameter: 0.53

0002097



GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200202	046-RB-S-0619-02	Solid	06/19/2002 11:00	06/20/2002 09:05	06/20/2002 09:05

Florida PRO

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/20/2002 10:30	145852	Florida PRO	1	06/20/2002 21:44	TNT	146070

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
FLPRO-01	Petroleum Hydrocarbons	ND	8770	5480	ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
84-15-1	o-Terphenyl	4000	2210 ug/Kg	55	50 - 150
7194-86-7	Nonatriacontane	24000	11700 ug/Kg	49	40 - 150

RESULTS REPORTED ON A DRY WEIGHT BASIS

Gulf Coast Analytical Services

Data file : /var/chem/gcsv2ad.i/2020619.b/SV2ad006.d
Lab Smp Id: 20206200202 Client Smp ID: 1.0
Inj Date : 20-JUN-2002 21:44
Operator : tnt Inst ID: gcsv2ad.i
Smp Info : 20206200202-1.0-GCSV~17XX~-
Misc Info :
Comment :
Method : /var/chem/gcsv2ad.i/2020619.b/flpro.m
Meth Date : 20-Jun-2002 16:52 tnt Quant Type: ESTD
Cal Date : 25-APR-2002 13:07 Cal File: SV2ad006.d
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PRO.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100)*1000 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.00000	Volume of final extract (mL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	25.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	FINAL (ug/Kg)
20 Total PRO	17.500	6.790	10.710	24138161	79.8157	6385.2558(M)

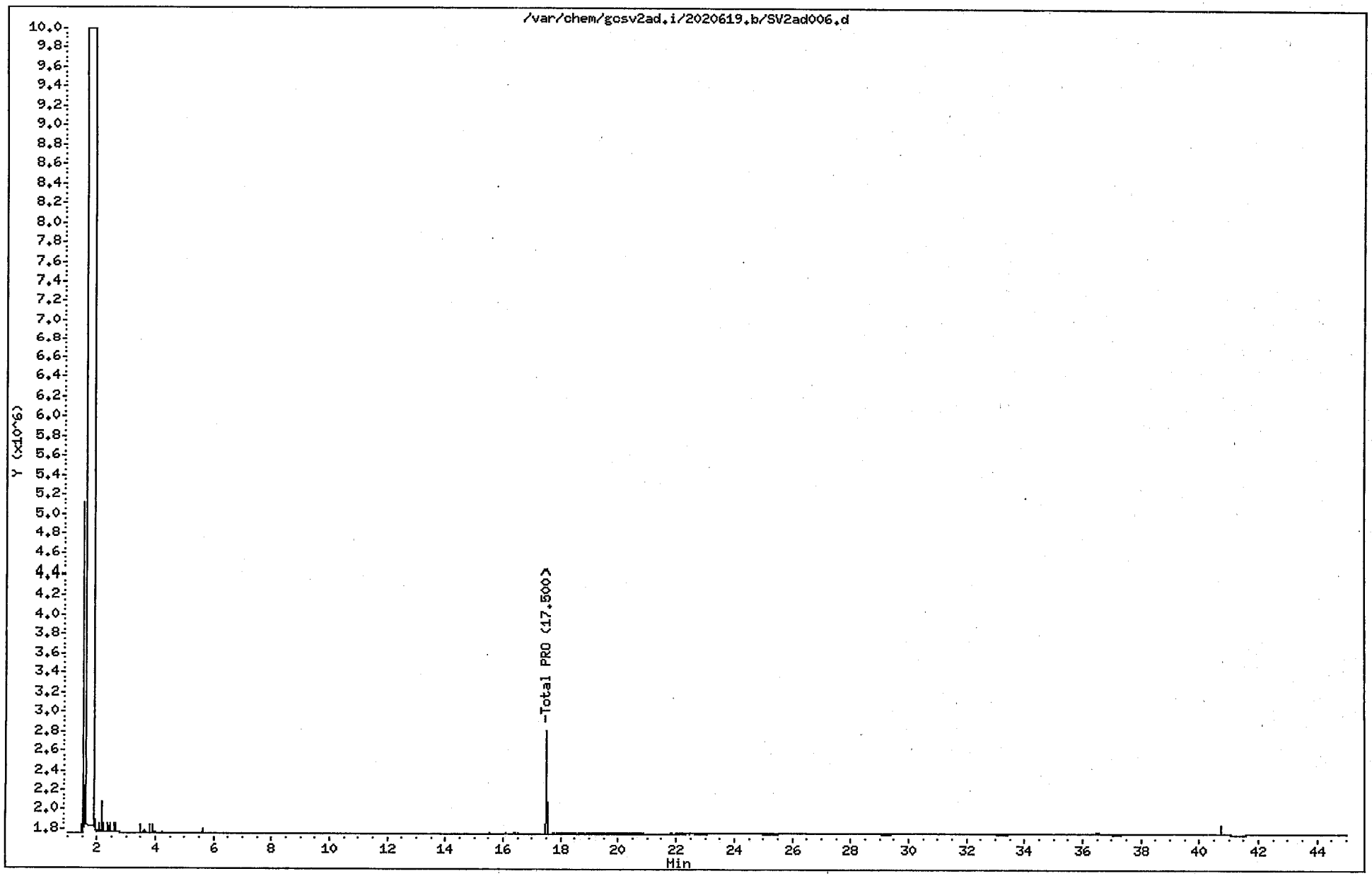
QC Flag Legend

M - Compound response manually integrated.

$$\frac{24138161 - 20804383}{302424} = ND$$

Data File: /var/chem/gcsv2ad.i/2020619.b/SV2ad006.d
Date : 20-JUN-2002 21:44
Client ID: 1.0
Sample Info: 20206200202-1.0-GCSV^17XX^-
Volume Injected (uL): 1.0
Column phase: DB-1

Instrument: gcsv2ad.i
Operator: tnt
Column diameter: 0.53



000300

Gulf Coast Analytical Services

Data file : /var/chem/gcsv2ad.i/2020619.b/SV2ad006s.d
Lab Smp Id: 20206200202
Inj Date : 20-JUN-2002 21:44
Operator : tnt Inst ID: gcsv2ad.i
Smp Info : 20206200202-1.0-GCSV~17XX~-
Misc Info :
Comment :
Method : /var/chem/gcsv2ad.i/2020619.b/flsurr.m
Meth Date : 20-Jun-2002 16:52 tnt Quant Type: ESTD
Cal Date : 25-APR-2002 10:15 Cal File: SV2ad003s.d
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: flsurr.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100)*1000 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.00000	Volume of final extract (mL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	25.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

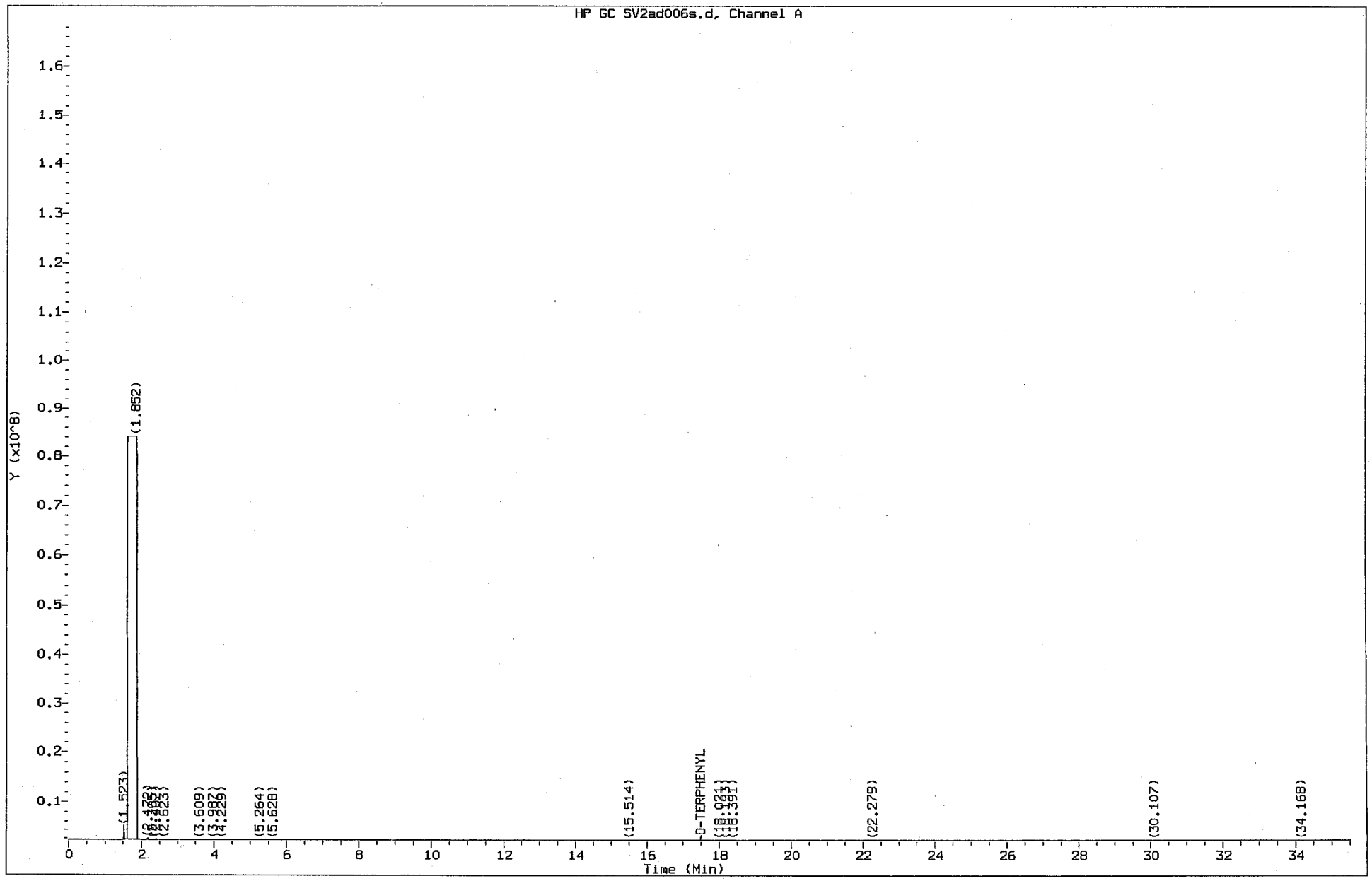
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	FINAL (ug/Kg)
$ 7 O-TERPHENYL	17.500	17.535	-0.035	19372328	27.6744	2213.9528
$ 18 Nonatriacontane	36.499	36.568	-0.069	1432055	146.316	11705.2658

20804383

Data File: /var/chem/gcsv2ad.i/2020619.b/SV2ad006s.d
Date: 20-JUN-2002 21:44
Client Id:
Sample Info: 20206200202-1.0-GCSV~17XX~-
Volume Injected (uL): 1
Column phase: DB-1

Instrument: gcsv2ad.i
Operator: tnt
Column diameter: 0.53



Gulf Coast Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 25-APR-2002 09:17
End Cal Date : 25-APR-2002 13:07
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /var/chem/gcsv2ad.i/2020515.b/flprosur.m
Cal Date : 15-May-2002 10:05 tls
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcsv2ad.i/2020425.b/SV2ad003s.d
Level 2: /var/chem/gcsv2ad.i/2020425.b/SV2ad002s.d
Level 3: /var/chem/gcsv2ad.i/2020425.b/SV2ad004s.d
Level 4: /var/chem/gcsv2ad.i/2020425.b/SV2ad005s.d
Level 6: /var/chem/gcsv2ad.i/2020425.b/SV2ad006s.d

Compound	5.000 Level 1	50.000 Level 2	150.000 Level 3	250.000 Level 4	500.000 Level 6	RRF	% RSD
1 C-8	++++++	++++++	++++++	++++++	++++++	++++++	++++++
2 C-10	++++++	++++++	++++++	++++++	++++++	++++++	++++++
3 C-12	++++++	++++++	++++++	++++++	++++++	++++++	++++++
4 C-14	++++++	++++++	++++++	++++++	++++++	++++++	++++++
5 C-16	++++++	++++++	++++++	++++++	++++++	++++++	++++++
6 C-18	++++++	++++++	++++++	++++++	++++++	++++++	++++++
8 C-20	++++++	++++++	++++++	++++++	++++++	++++++	++++++
9 C-22	++++++	++++++	++++++	++++++	++++++	++++++	++++++
10 C-24	++++++	++++++	++++++	++++++	++++++	++++++	++++++
11 C-26	++++++	++++++	++++++	++++++	++++++	++++++	++++++
12 C-28	++++++	++++++	++++++	++++++	++++++	++++++	++++++
13 C-30	++++++	++++++	++++++	++++++	++++++	++++++	++++++
14 C-32	++++++	++++++	++++++	++++++	++++++	++++++	++++++
15 C-34	++++++	++++++	++++++	++++++	++++++	++++++	++++++
16 C-36	++++++	++++++	++++++	++++++	++++++	++++++	++++++
17 C-38	++++++	++++++	++++++	++++++	++++++	++++++	++++++
19 C-40	++++++	++++++	++++++	++++++	++++++	++++++	++++++
20 Total PRO	305008	359383	301362	286435	259930	302424	12.052
$ 7 O-TERPHENYL	657233	835587	692726	676855	637643	700009	11.223
$ 18 Nonatriacontane	10277	9198	10127	9261	10075	9787	5.266

Gulf Coast Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 25-APR-2002 09:17
End Cal Date : 25-APR-2002 13:07
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /var/chem/gcsv2ad.i/2020515.b/flprosur.m
Cal Date : 15-May-2002 10:05 tls
Curve Type : Average

```
|Average %RSD Results.                                |
|=====================================================|
|Calculated Average %RSD = 8.24476909                 |
|Maximun Average %RSD    =         20                 |
|* Passed Average %RSD Test.                          |
|_____________________________________________________|
```

Gulf Coast Analytical Services

Data file : /var/chem/gcsv2ad.i/2020425.b/SV2ad003.d
Lab Smp Id: 5 PPM FLPRO
Inj Date : 25-APR-2002 10:15
Operator : tnt Inst ID: gcsv2ad.i
Smp Info : 5 PPM FLPRO
Misc Info :
Comment :
Method : /var/chem/gcsv2ad.i/2020425.b/flpro.m
Meth Date : 25-Apr-2002 14:17 tnt Quant Type: ESTD
Cal Date : 25-APR-2002 10:15 Cal File: SV2ad003.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PRO.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100)*1000 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.00000	Volume of final extract (mL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	25.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
20 Total PRO	17.587	17.587	0.000	61870326	85.0000	108.5760(M)

QC Flag Legend

M - Compound response manually integrated.

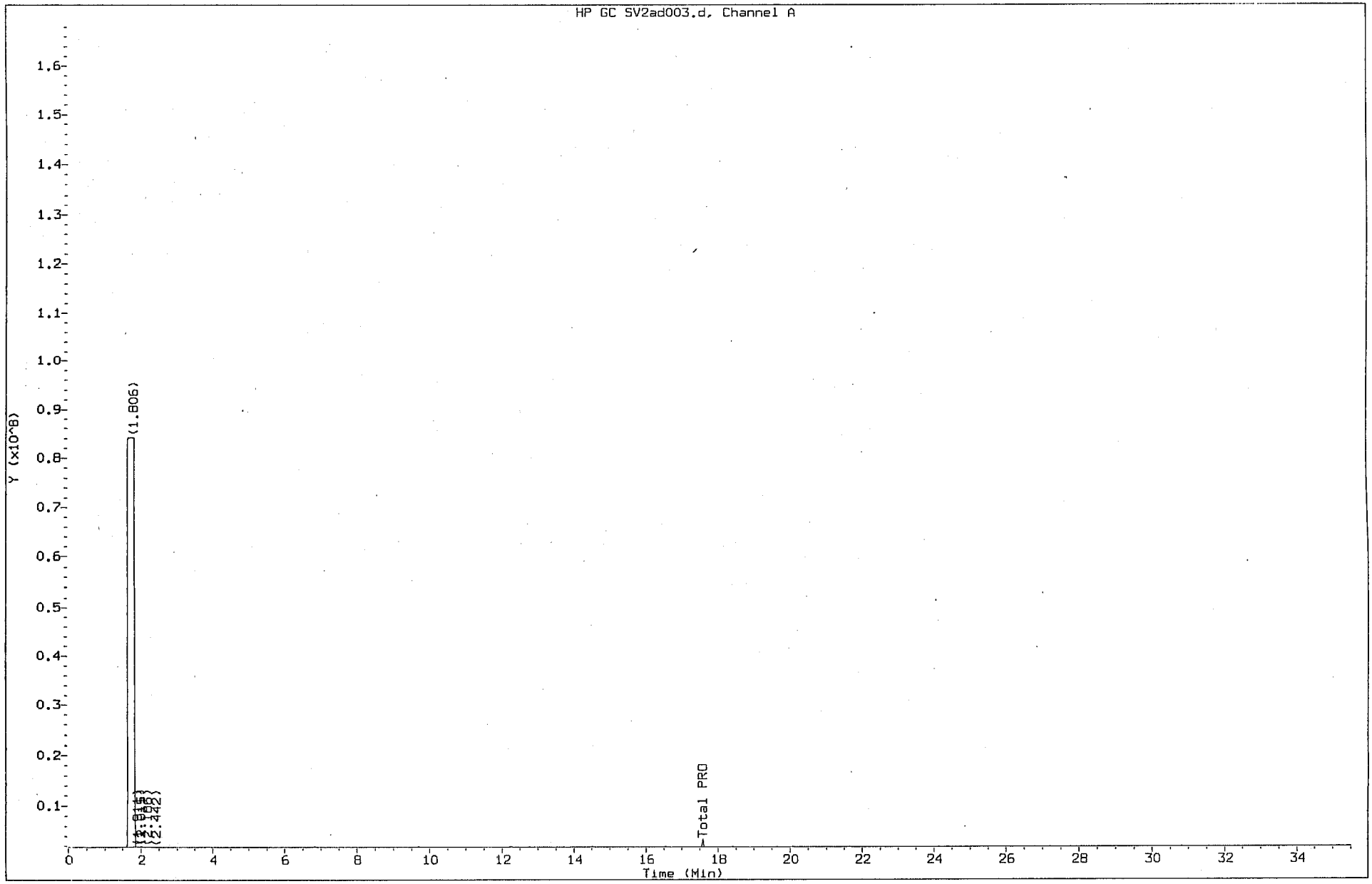
25925681

$$\frac{61870326 - 35944645}{85} = 305{,}008$$

000306

Data File: /var/chem/gcsv2ad.i/2020425.b/SV2ad003.d
Date: 25-APR-2002 10:15
Client Id:
Sample Info: 5 PPM FLPRO
Volume Injected (uL): 1
Column phase: DB-1

Instrument: gcsv2ad.i
Operator: tnt
Column diameter: 0.53



Gulf Coast Analytical Services

Data file : /var/chem/gcsv2ad.i/2020425.b/SV2ad003s.d
Lab Smp Id: 5 PPM FLPRO
Inj Date : 25-APR-2002 10:15
Operator : tnt Inst ID: gcsv2ad.i
Smp Info : 5 PPM FLPRO
Misc Info :
Comment :
Method : /var/chem/gcsv2ad.i/2020425.b/flprosur.m
Meth Date : 22-May-2002 11:09 tnt Quant Type: ESTD
Cal Date : 25-APR-2002 10:15 Cal File: SV2ad003s.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: flsurr.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100)*1000 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.00000	Volume of final extract (mL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	25.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
$ 7 O-TERPHENYL	17.586	17.585	0.001	32861630	50.0000	46.9446
$ 18 Nonatriacontane	36.954	36.954	0.000	3083015	300.000	314.9975(M)

QC Flag Legend

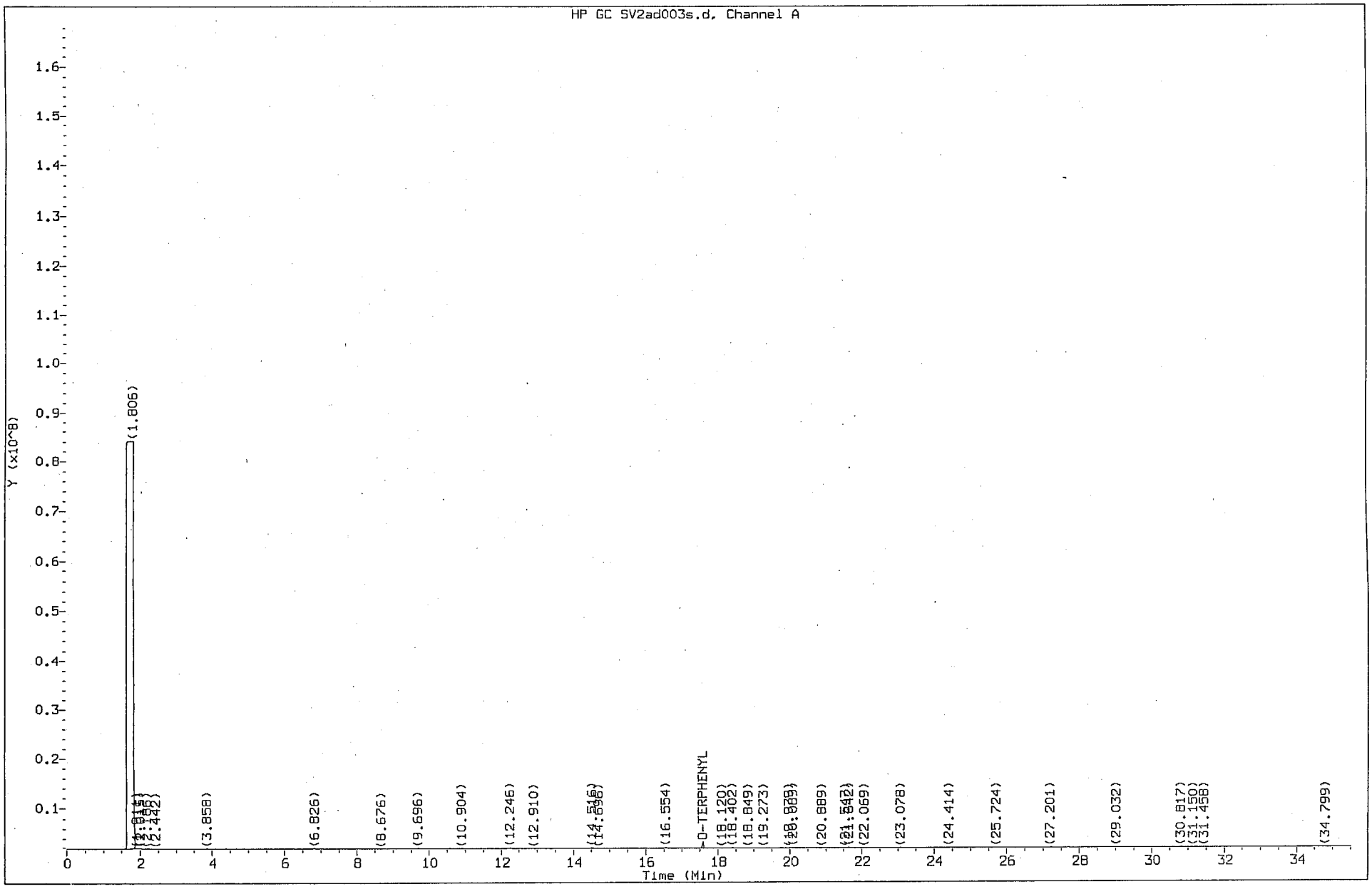
M - Compound response manually integrated.

Surr Area = 35944645

000308

Data File: /var/chem/gcsv2ad.i/2020425.b/SV2ad003s.d
Date: 25-APR-2002 10:15
Client Id:
Sample Info: 5 PPM FLPRO
Volume Injected (uL): 1
Column phase: DB-1

Instrument: gcsv2ad.i
Operator: tnt
Column diameter: 0.53



Gulf Coast Analytical Services

Data file : /var/chem/gcsv2ad.i/2020425.b/SV2ad002.d
Lab Smp Id: 50 PPM FLPRO
Inj Date : 25-APR-2002 09:17
Operator : tnt Inst ID: gcsv2ad.i
Smp Info : 50 PPM FLPRO
Misc Info :
Comment :
Method : /var/chem/gcsv2ad.i/2020425.b/flpro.m
Meth Date : 25-Apr-2002 11:02 tnt Quant Type: ESTD
Cal Date : 12-MAR-2002 20:25 Cal File: SV2ad004s.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PRO.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100)*1000 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.00000	Volume of final extract (mL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	25.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
20 Total PRO	9.717	14.274	-4.557	350014556	850.000	1575.5359(M)

QC Flag Legend

M - Compound response manually integrated.

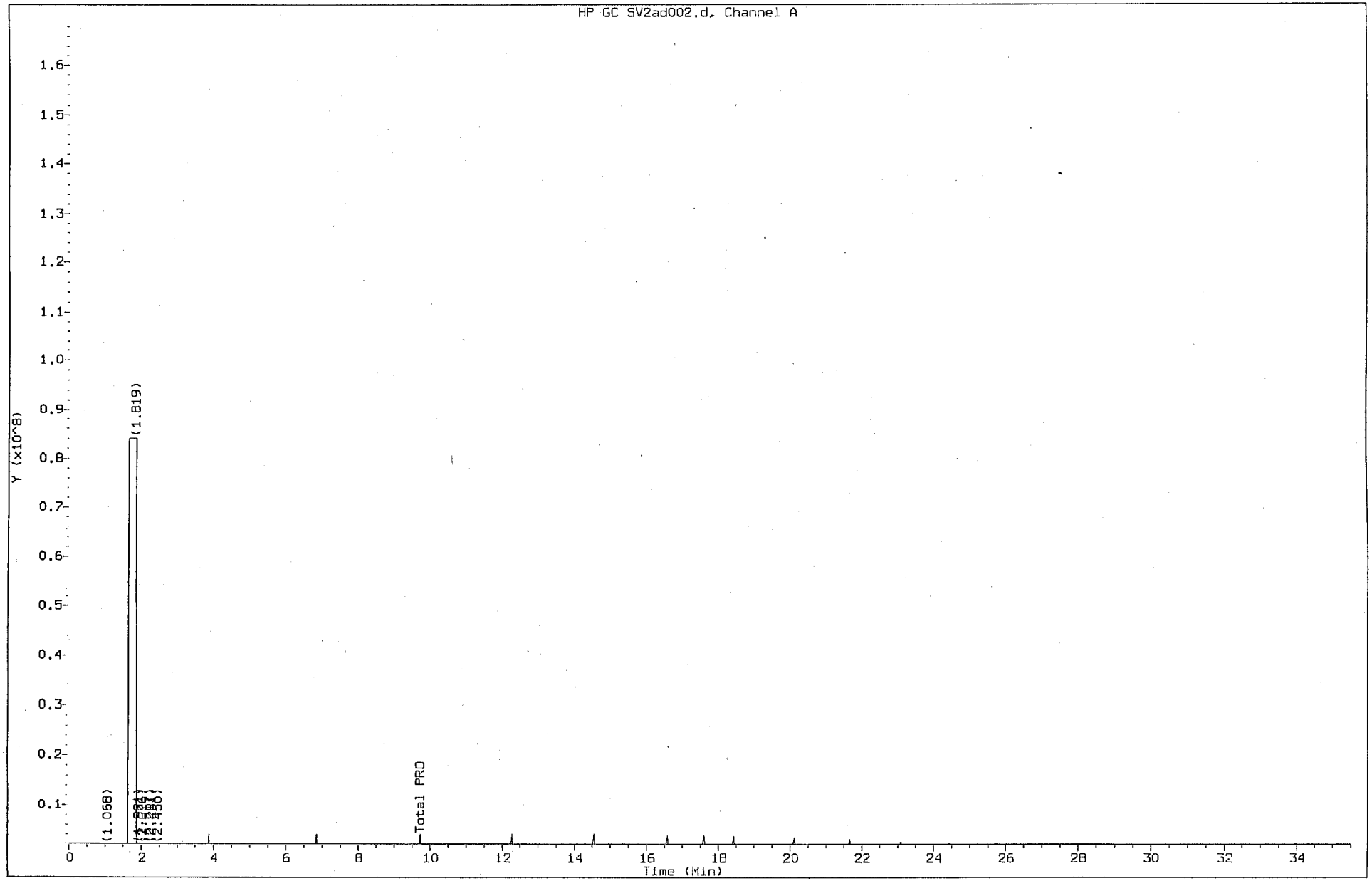
350014556 - 44538629 = 305475927

RF = 359,383

000310

Data File: /var/chem/gcsv2ad.i/2020425.b/SV2ad002.d
Date: 25-APR-2002 09:17
Client Id:
Sample Info: 50 PPM FLPRO
Volume Injected (uL): 1
Column phase: DB-1

Instrument: gcsv2ad.i
Operator: tnt
Column diameter: 0.53



Gulf Coast Analytical Services

Data file : /var/chem/gcsv2ad.i/2020425.b/SV2ad002s.d
Lab Smp Id: 50 PPM FLPRO
Inj Date : 25-APR-2002 09:17
Operator : tnt
Smp Info : 50 PPM FLPRO
Misc Info :
Comment :
Method : /var/chem/gcsv2ad.i/2020425.b/flpro.m
Meth Date : 25-Apr-2002 11:02 tnt
Cal Date : 12-MAR-2002 20:25
Als bottle: 3
Dil Factor: 1.00000
Integrator: HP Genie
Target Version: 3.50
Processing Host: hpchem

Inst ID: gcsv2ad.i

Quant Type: ESTD
Cal File: SV2ad004s.d
Continuing Calibration Sample

Compound Sublist: flsurr.sub

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100)*1000 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.00000	Volume of final extract (mL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	25.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
$ 7 O-TERPHENYL	17.598	17.598	0.000	41779341	50.0000	83.7616
$ 18 Nonatriacontane	36.968	36.968	0.000	2759288	300.000	301.5051

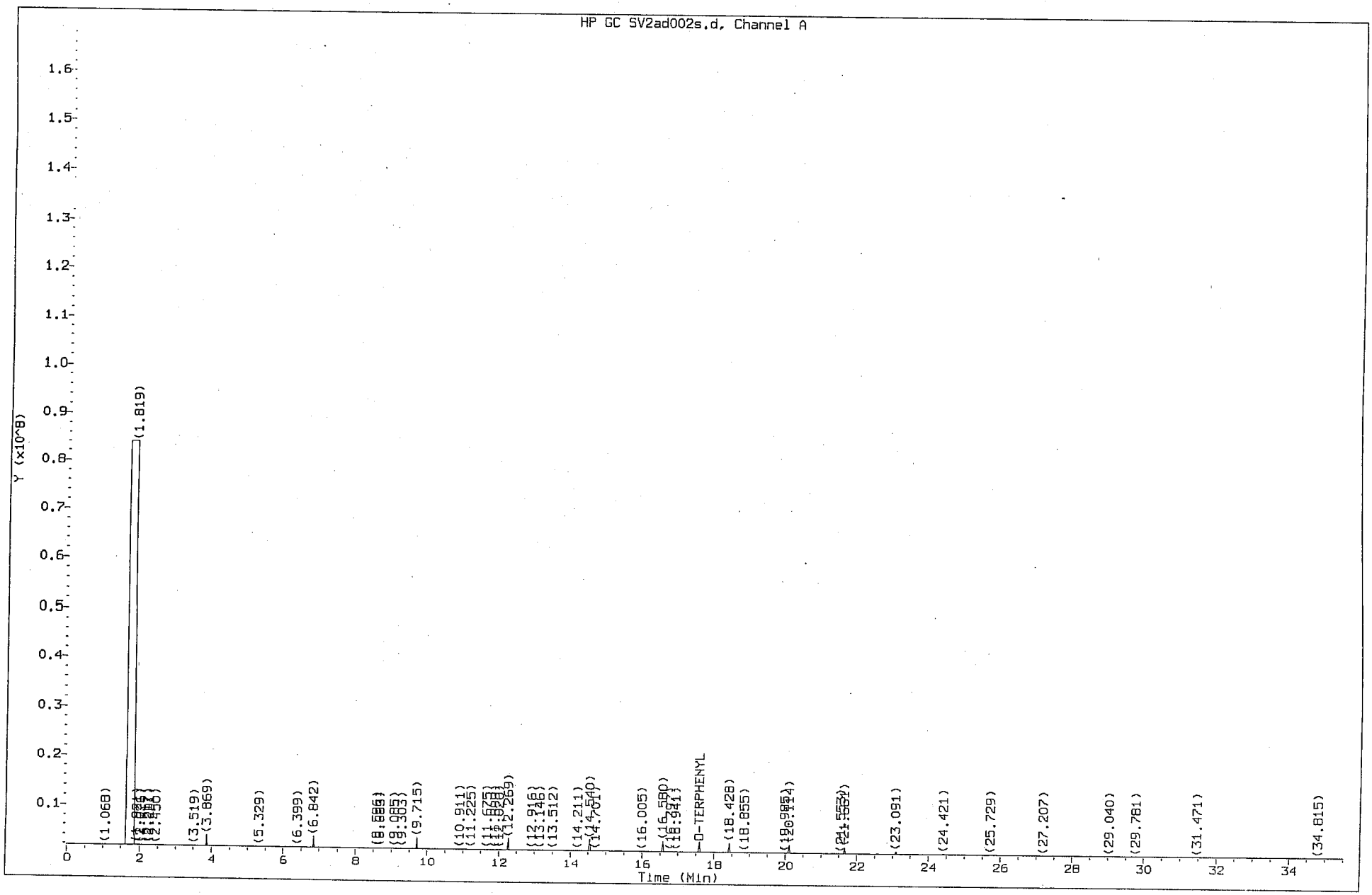
44538629

Data File: /var/chem/gcsv2ad.i/2020425.b/SV2ad002s.d
Date: 25-APR-2002 09:17
Client Id:
Sample Info: 50 PPM FLPRO
Volume Injected (uL): 1
Column phase: DB-1

Instrument: gcsv2ad.i

Operator: tnt
Column diameter: 0.53

000312



Gulf Coast Analytical Services

Data file : /var/chem/gcsv2ad.i/2020425.b/SV2ad004.d
Lab Smp Id: 150 PPM FLPRO
Inj Date : 25-APR-2002 11:17
Operator : tnt Inst ID: gcsv2ad.i
Smp Info : 150 PPM FLPRO
Misc Info :
Comment :
Method : /var/chem/gcsv2ad.i/2020425.b/flpro.m
Meth Date : 25-Apr-2002 11:11 tnt Quant Type: ESTD
Cal Date : 25-APR-2002 10:15 Cal File: SV2ad003.d
Als bottle: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PRO.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100)*1000 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.00000	Volume of final extract (mL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	25.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	FINAL (ug/Kg)
20 Total PRO	3.863	17.587	-13.724	806147735	1393.14	111451.5467(M)

QC Flag Legend

M - Compound response manually integrated.

768473444

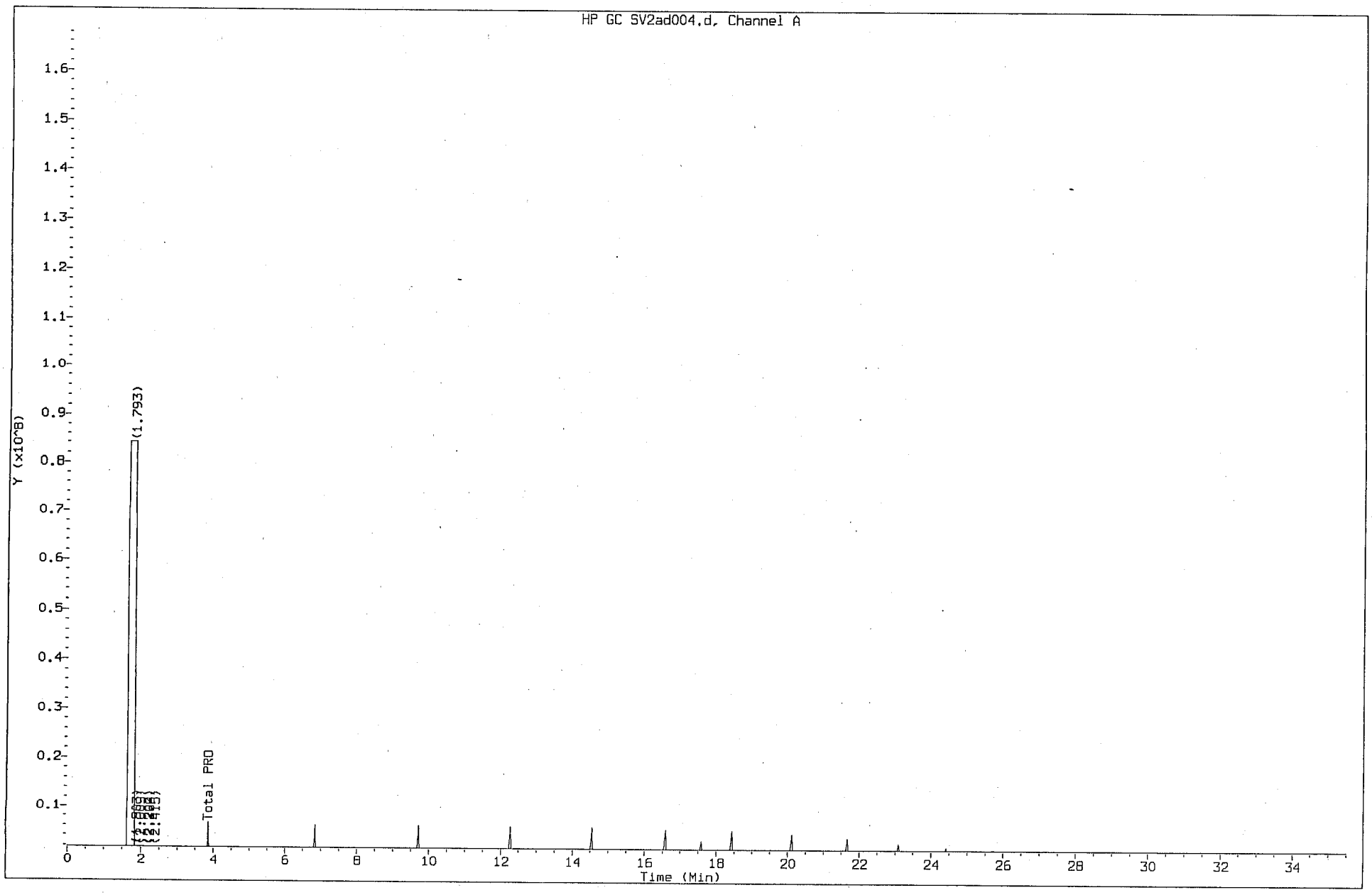
$$\frac{806147735 - 37674291}{2550} = 301,362$$

Data File: /var/chem/gcsv2ad.i/2020425.b/SV2ad004.d
Date: 25-APR-2002 11:17
Client Id:
Sample Info: 150 PPM FLPRO
Volume Injected (uL): 1
Column phase: DB-1

Instrument: gcsv2ad.i

Operator: tnt
Column diameter: 0.53

000314



Gulf Coast Analytical Services

Data file : /var/chem/gcsv2ad.i/2020425.b/SV2ad004s.d
Lab Smp Id: 150 PPM FLPRO
Inj Date : 25-APR-2002 11:17
Operator : tnt Inst ID: gcsv2ad.i
Smp Info : 150 PPM FLPRO
Misc Info :
Comment :
Method : /var/chem/gcsv2ad.i/2020425.b/flprosur.m
Meth Date : 25-Apr-2002 12:11 tnt Quant Type: ESTD
Cal Date : 25-APR-2002 11:17 Cal File: SV2ad004s.d
Als bottle: 2 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: flsurr.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100)*1000 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.00000	Volume of final extract (mL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	25.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

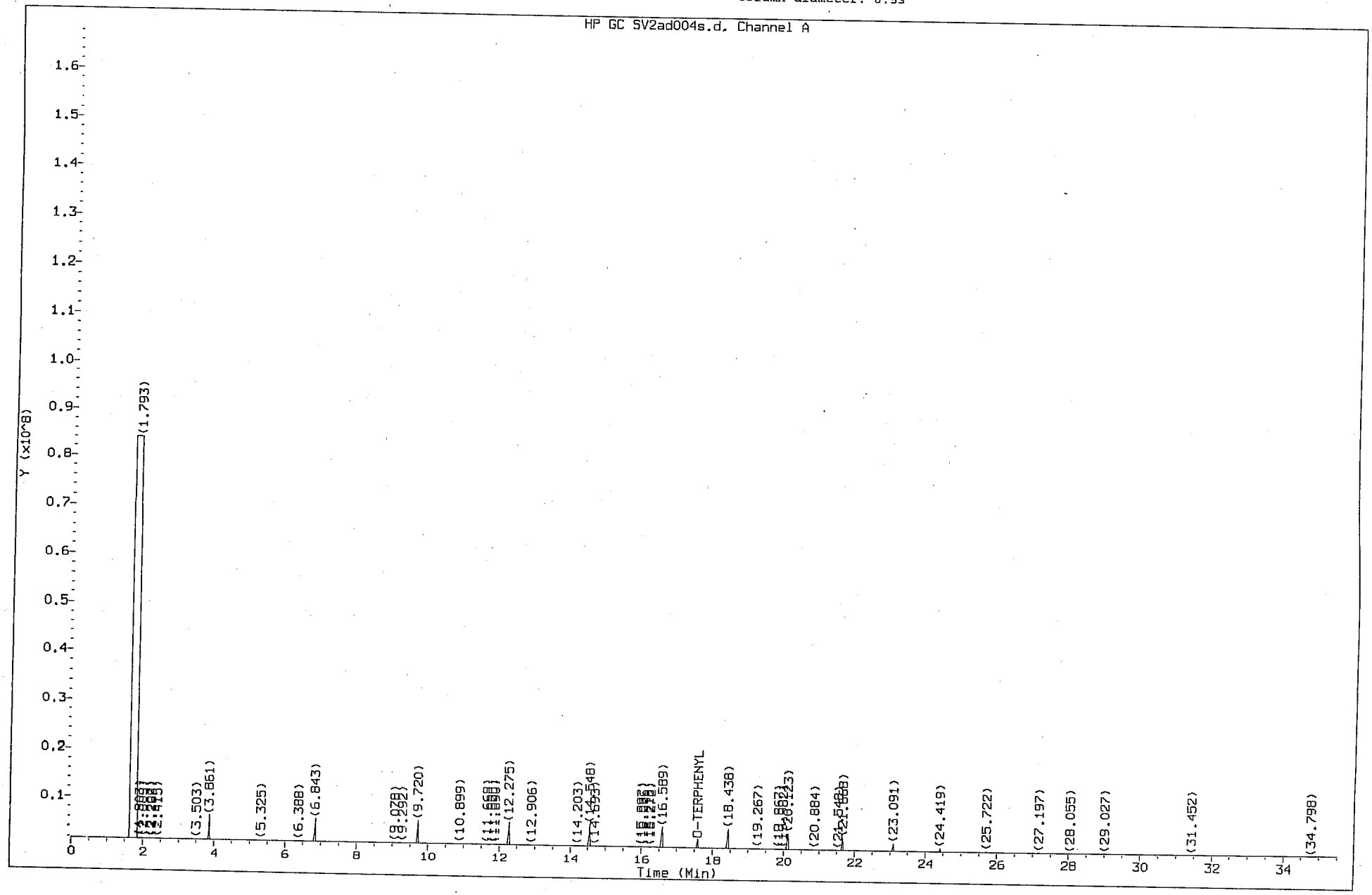
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
$ 7 O-TERPHENYL	17.585	17.585	0.000	34636284	50.0000	66.0443
$ 18 Nonatriacontane	36.949	36.949	0.000	3038007	300.000	325.4379

Data File: /var/chem/gcsv2ad.i/2020425.b/SV2ad004s.d
Date: 25-APR-2002 11:17
Client Id:
Sample Info: 150 PPM FLPRO
Volume Injected (uL): 1
Column phase: DB-1

Instrument: gcsv2ad.i

Operator: tnt
Column diameter: 0.53

000316



Gulf Coast Analytical Services

Data file : /var/chem/gcsv2ad.i/2020425.b/SV2ad005.d
Lab Smp Id: 250 PPM FLPRO
Inj Date : 25-APR-2002 12:12
Operator : tnt Inst ID: gcsv2ad.i
Smp Info : 250 PPM FLPRO
Misc Info :
Comment :
Method : /var/chem/gcsv2ad.i/2020425.b/flpro.m
Meth Date : 25-Apr-2002 11:11 tnt Quant Type: ESTD
Cal Date : 25-APR-2002 10:15 Cal File: SV2ad003.d
Als bottle: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PRO.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100)*1000 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.00000	Volume of final extract (mL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	25.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	FINAL (ug/Kg)
20 Total PRO	3.865	17.587	-13.722	1253971341	2167.05	173364.0614(M)

QC Flag Legend

M - Compound response manually integrated.

1217350344

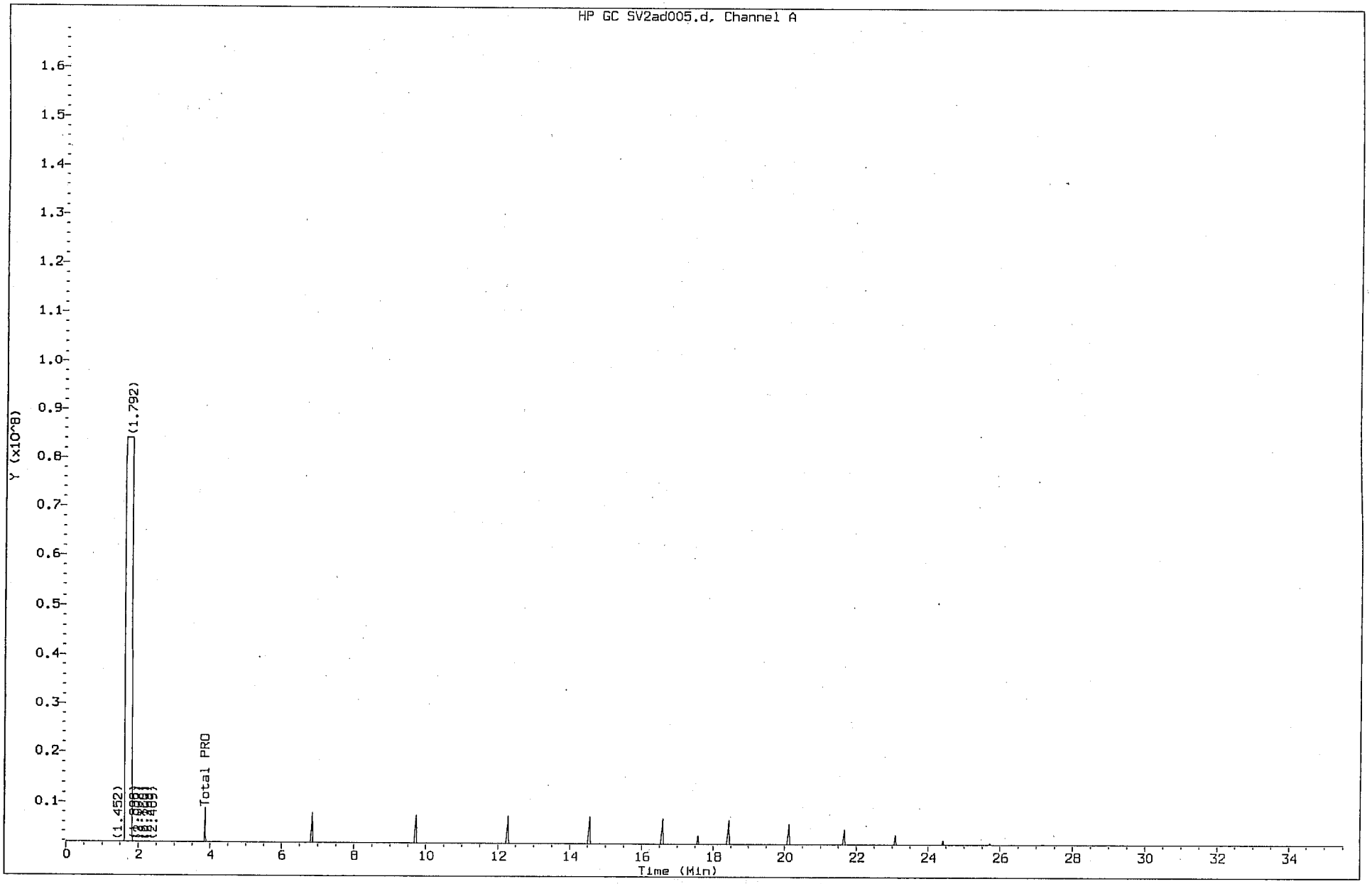
$$\frac{1253971341 - 36620997}{4250} = 286,435$$

Data File: /var/chem/gcsv2ad.i/2020425.b/SV2ad005.d
Date: 25-APR-2002 12:12
Client Id:
Sample Info: 250 PPM FLPRO
Volume Injected (uL): 1
Column phase: DB-1

Instrument: gcsv2ad.i

Operator: tnt
Column diameter: 0.53

000318



Gulf Coast Analytical Services

Data file : /var/chem/gcsv2ad.i/2020425.b/SV2ad005s.d
Lab Smp Id: 250 PPM FLPRO
Inj Date : 25-APR-2002 12:12
Operator : tnt Inst ID: gcsv2ad.i
Smp Info : 250 PPM FLPRO
Misc Info :
Comment :
Method : /var/chem/gcsv2ad.i/2020425.b/flprosur.m
Meth Date : 25-Apr-2002 13:02 tnt Quant Type: ESTD
Cal Date : 25-APR-2002 12:12 Cal File: SV2ad005s.d
Als bottle: 3 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: flsurr.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100)*1000 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.00000	Volume of final extract (mL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	25.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
$ 7 O-TERPHENYL	17.580	17.585	-0.005	33842766	50.0000	60.0480
$ 18 Nonatriacontane	36.918	36.918	0.000	2778231	300.000	293.6280

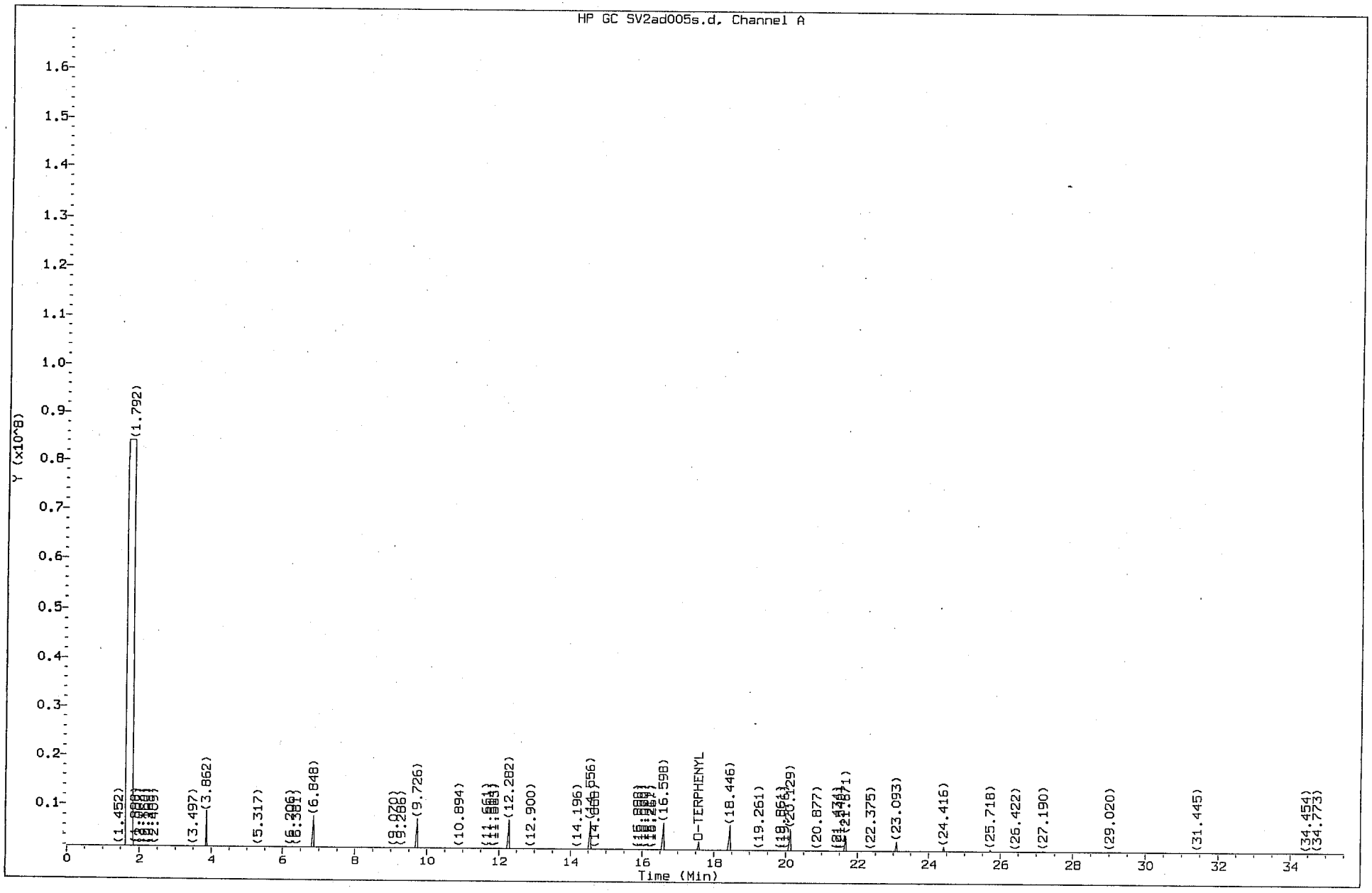
36620997

Data File: /var/chem/gcsv2ad.i/2020425.b/SV2ad005s.d
Date: 25-APR-2002 12:12
Client Id:
Sample Info: 250 PPM FLPRO
Volume Injected (uL): 1
Column phase: DB-1

Instrument: gcsv2ad.i

Operator: tnt
Column diameter: 0.53

0000320



Gulf Coast Analytical Services

Data file : /var/chem/gcsv2ad.i/2020425.b/SV2ad006.d
Lab Smp Id: 500 PPM FLPRO
Inj Date : 25-APR-2002 13:07
Operator : tnt Inst ID: gcsv2ad.i
Smp Info : 500 PPM FLPRO
Misc Info :
Comment :
Method : /var/chem/gcsv2ad.i/2020425.b/flpro.m
Meth Date : 25-Apr-2002 11:11 tnt Quant Type: ESTD
Cal Date : 25-APR-2002 10:15 Cal File: SV2ad003.d
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PRO.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100)*1000 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.00000	Volume of final extract (mL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	25.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	FINAL (ug/Kg)
20 Total PRO	3.877	17.587	-13.710	2244307043	3878.50	310279.9652(M)

QC Flag Legend

M - Compound response manually integrated.

2209402298

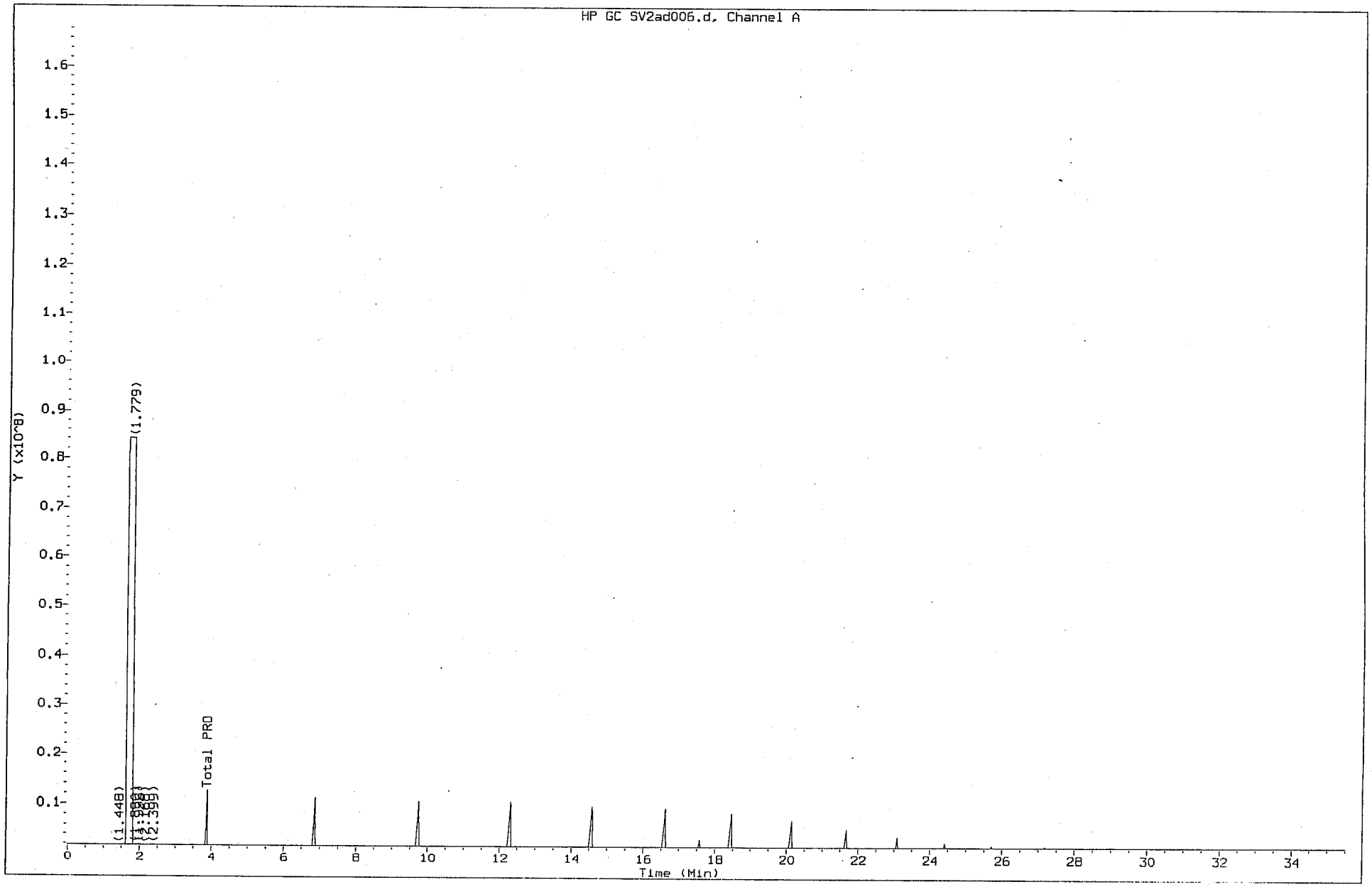
$$\frac{2244307043 - 34904745}{8500} = 259,930$$

Data File: /var/chem/gcsv2ad.i/2020425.b/SV2ad006.d
Date: 25-APR-2002 13:07
Client Id:
Sample Info: 500 PPM FLPRO
Volume Injected (uL): 1
Column phase: DB-1

Instrument: gcsv2ad.i

Operator: tnt
Column diameter: 0.53

0003222



Gulf Coast Analytical Services

Data file : /var/chem/gcsv2ad.i/2020425.b/SV2ad006s.d
Lab Smp Id: 500 PPM FLPRO
Inj Date : 25-APR-2002 13:07
Operator : tnt Inst ID: gcsv2ad.i
Smp Info : 500 PPM FLPRO
Misc Info :
Comment :
Method : /var/chem/gcsv2ad.i/2020425.b/flprosur.m
Meth Date : 25-Apr-2002 13:59 tnt Quant Type: ESTD
Cal Date : 25-APR-2002 13:07 Cal File: SV2ad006s.d
Als bottle: 4 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: flsurr.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100)*1000 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.00000	Volume of final extract (mL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	25.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
$ 7 O-TERPHENYL	17.577	17.585	-0.008	31882150	50.0000	52.6848
$ 18 Nonatriacontane	36.917	36.918	-0.001	3022595	300.000	311.0994

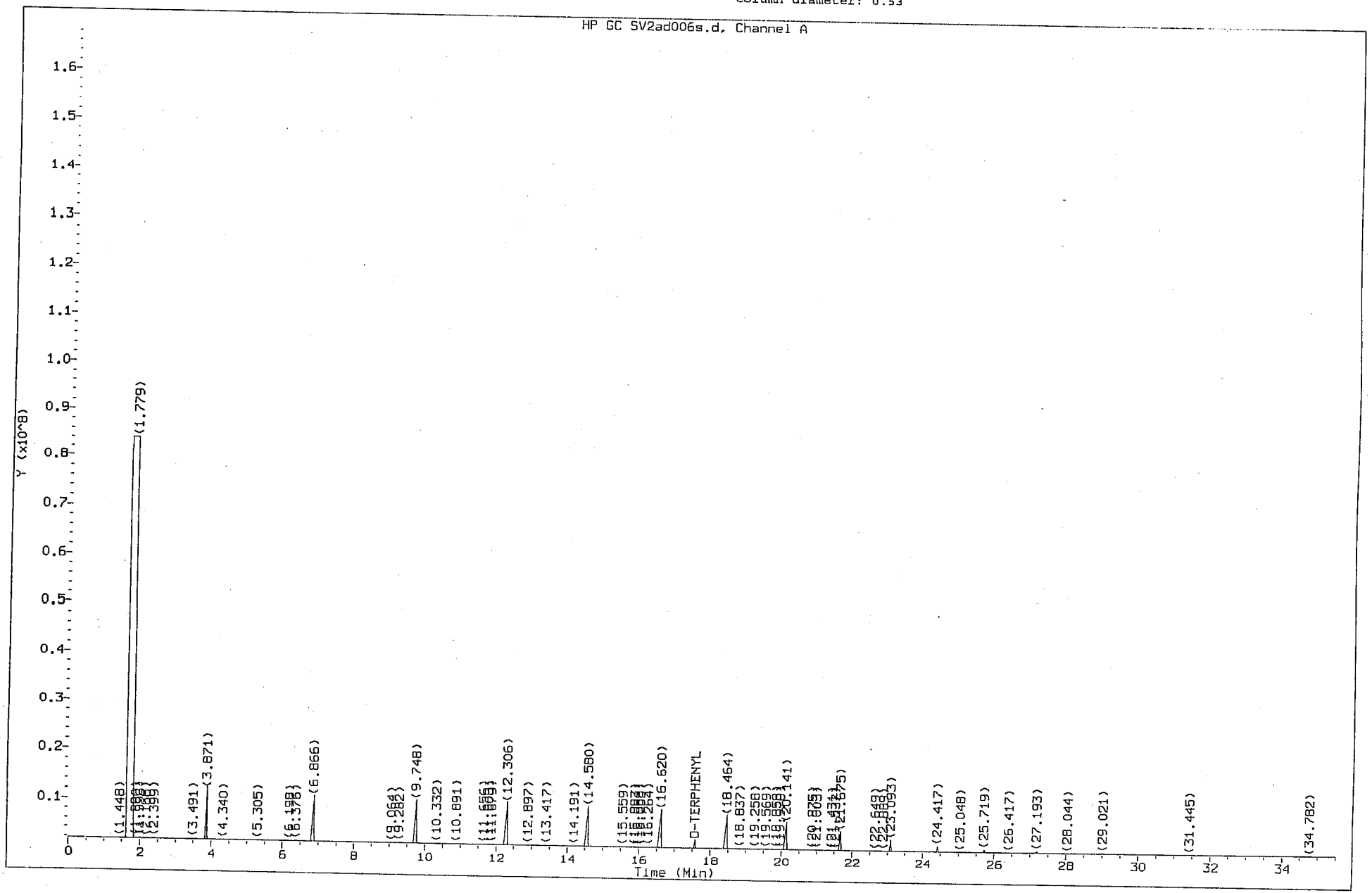
Surr Area = 34904745

Data File: /var/chem/gcsv2ad.i/2020425.b/SV2ad006s.d
Date: 25-APR-2002 13:07
Client Id:
Sample Info: 500 PPM FLPRO
Volume Injected (uL): 1
Column phase: DB-1

Instrument: gcsv2ad.i

Operator: tnt
Column diameter: 0.53

0003244



Gulf Coast Analytical Services

Data file : /var/chem/gcsv2ad.i/2020425.b/SV2ad008.d
Lab Smp Id: 250 PPM ICV
Inj Date : 25-APR-2002 14:58
Operator : tls Inst ID: gcsv2ad.i
Smp Info : 250 PPM ICV
Misc Info :
Comment :
Method : /var/chem/gcsv2ad.i/2020425.b/flpro.m
Meth Date : 25-Apr-2002 14:17 tnt Quant Type: ESTD
Cal Date : 25-APR-2002 10:15 Cal File: SV2ad003.d
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PRO.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100)*1000 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.00000	Volume of final extract (mL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	25.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	FINAL (ug/Kg)
20 Total PRO	3.885	17.587	-13.702	1201172703	2107.93	168634.7509(M)

QC Flag Legend

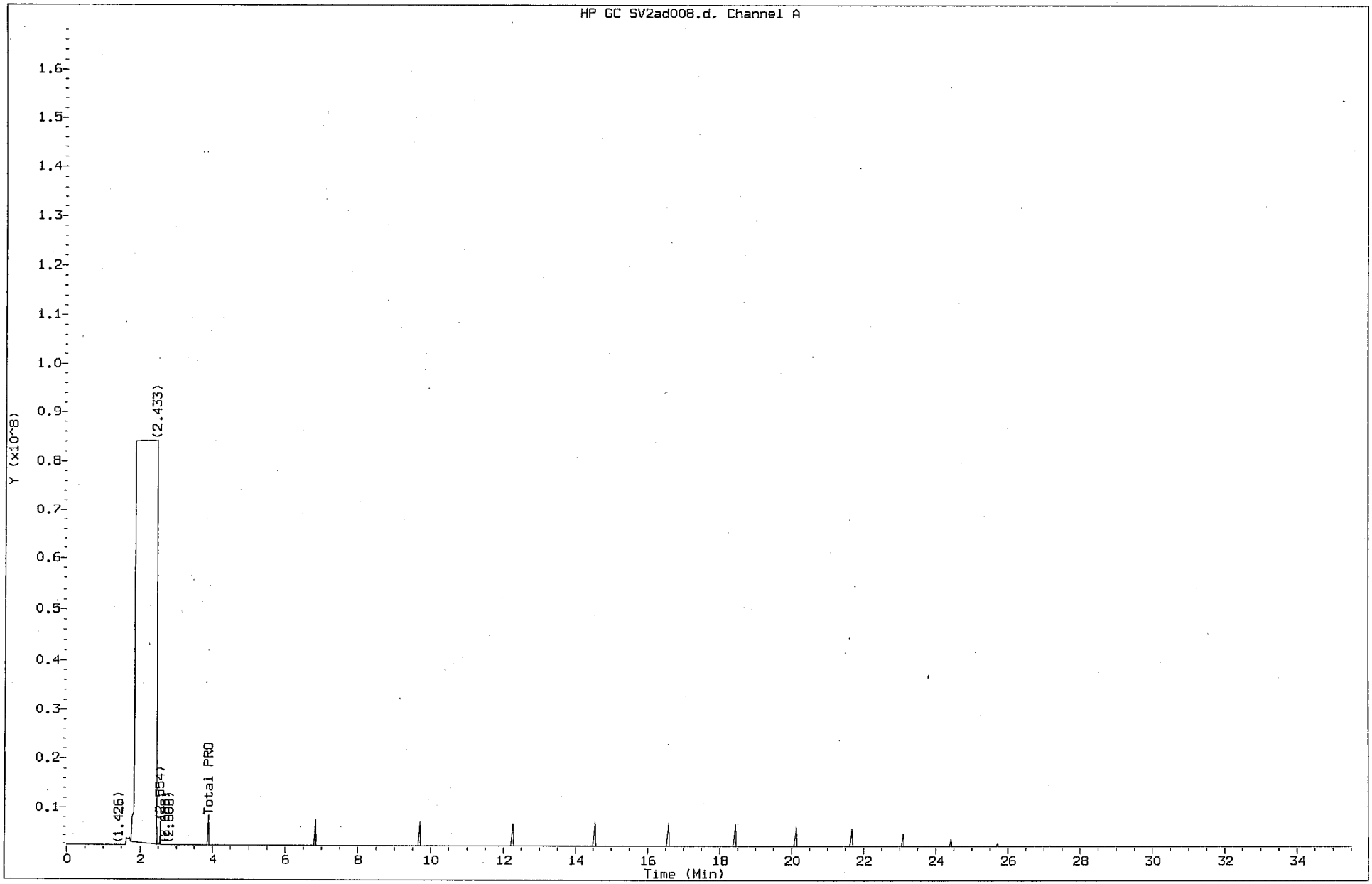
M - Compound response manually integrated.

$\frac{1201172703}{4250} = \frac{282,629}{362,424} = 6.5\%$

000326

Data File: /var/chem/gcsv2ad.i/2020425.b/SV2ad008.d
Date: 25-APR-2002 14:58
Client Id:
Sample Info: 250 PPM ICV
Volume Injected (uL): 1
Column phase: DB-1

Instrument: gcsv2ad.i
Operator: tls
Column diameter: 0.53



7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GCAL Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Instrument ID: GCSV2AD Calibration Date: 06/20/02 Time: 1457

Lab File ID: SV2AD001 Init. Calib. Date(s): 04/25/02 04/25/02

Init. Calib. Times: 0917 1307

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Total PRO	302424	288384		5	
O-TERPHENYL	700009	555216		20.7	
Nonatriacontane	9787.5	7660.8		21.7	

All other compounds must meet a minimum RRF of 0.010.

Gulf Coast Analytical Services

Data file : /var/chem/gcsv2ad.i/2020619.b/SV2ad001.d
Lab Smp Id: 50 PPM CCV
Inj Date : 20-JUN-2002 14:57
Operator : tnt Inst ID: gcsv2ad.i
Smp Info : 50 PPM CCV
Misc Info :
Comment :
Method : /var/chem/gcsv2ad.i/2020619.b/flpro.m
Meth Date : 20-Jun-2002 16:52 tnt Quant Type: ESTD
Cal Date : 25-APR-2002 13:07 Cal File: SV2ad006.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PRO.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100)*1000 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.00000	Volume of final extract (mL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	25.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
20 Total PRO	6.803	6.790	0.013	275185768	850.000	909.9344(M)

QC Flag Legend

M - Compound response manually integrated.

$$\frac{275185768 - 30059050}{\cancel{302424}} = \frac{288384}{302424} = 5\%$$

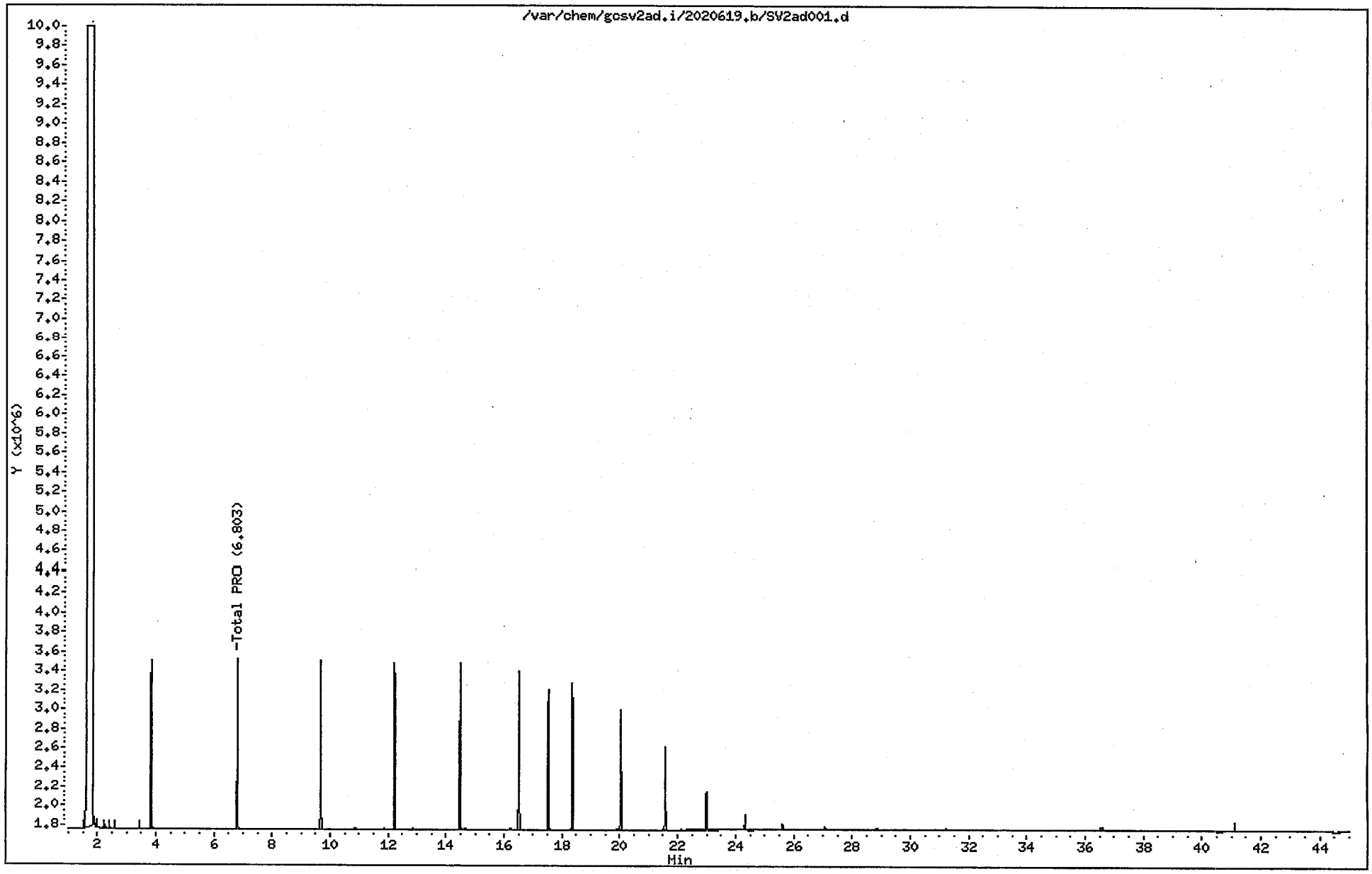
BTO

06/21/02
~~tnt~~

000329

Data File: /var/chem/gcsv2ad.i/2020619.b/SV2ad001.d
Date : 20-JUN-2002 14:57
Client ID:
Sample Info: 50 PPM CCV
Volume Injected (uL): 1.0
Column phase: DB-1

Instrument: gcsv2ad.i
Operator: tnt
Column diameter: 0.53



Gulf Coast Analytical Services

Data file : /var/chem/gcsv2ad.i/2020619.b/SV2ad001s.d
Lab Smp Id: 50 PPM CCV
Inj Date : 20-JUN-2002 14:57
Operator : tnt Inst ID: gcsv2ad.i
Smp Info : 50 PPM CCV
Misc Info :
Comment :
Method : /var/chem/gcsv2ad.i/2020619.b/flsurr.m
Meth Date : 20-Jun-2002 16:52 tnt Quant Type: ESTD
Cal Date : 25-APR-2002 10:15 Cal File: SV2ad003s.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: flsurr.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100)*1000 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.00000	Volume of final extract (mL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	25.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

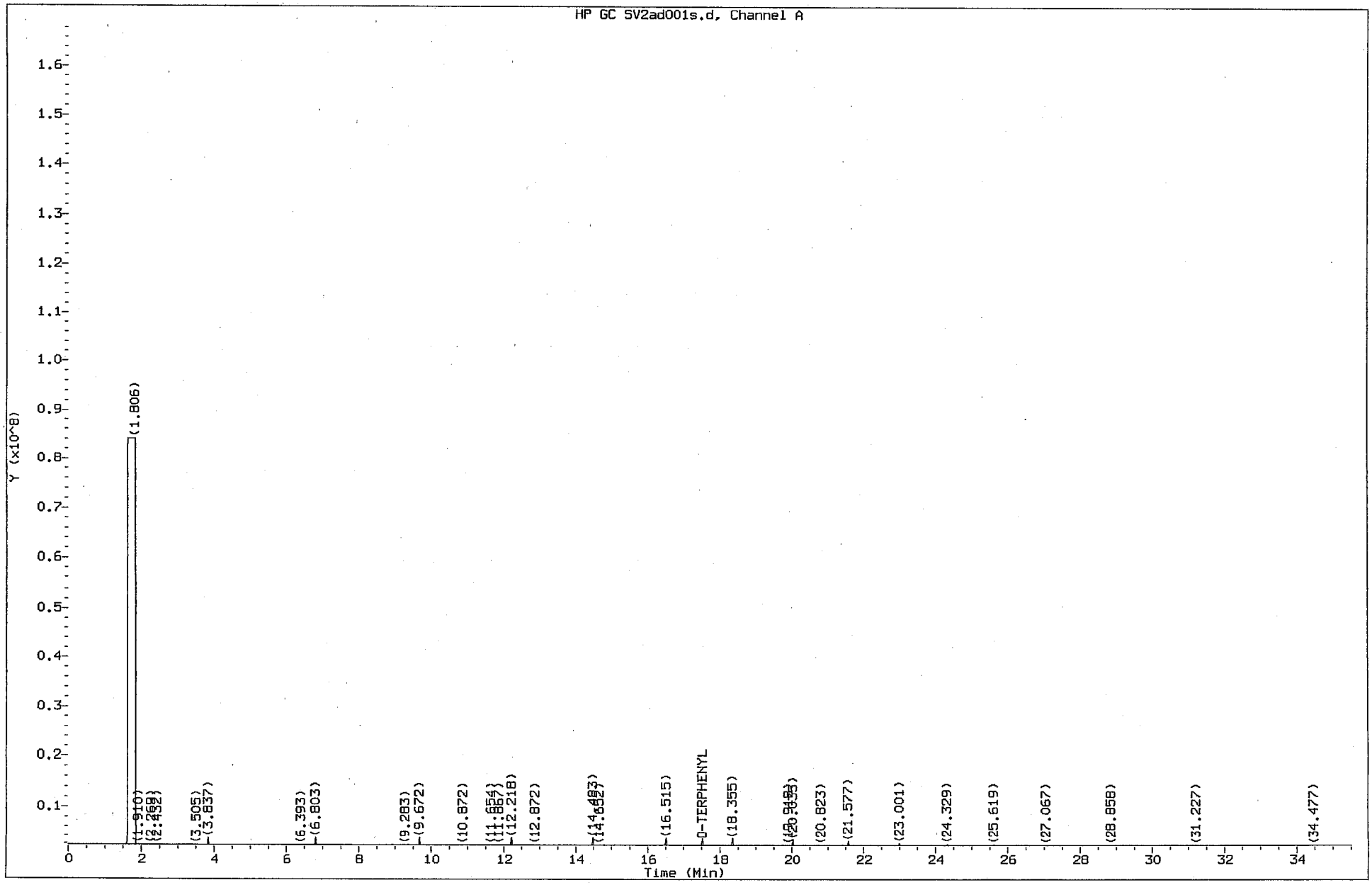
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
$ 7 O-TERPHENYL	17.522	17.535	-0.013	27760811	50.0000	39.6578
$ 18 Nonatriacontane	36.568	36.568	0.000	2298239	300.000	234.8155

30059050

000331

Data File: /var/chem/gcsv2ad.i/2020619.b/SV2ad001s.d
Date: 20-JUN-2002 14:57
Client Id:
Sample Info: 50 PPM CCV
Volume Injected (uL): 1
Column phase: DB-1

Instrument: gcsv2ad.i
Operator: tnt
Column diameter: 0.53



7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GCAL Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Instrument ID: GCSV2AD Calibration Date: 06/21/02 Time: 0405

Lab File ID: SV2AD013 Init. Calib. Date(s): 04/25/02 04/25/02

Init. Calib. Times: 0917 1307

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Total PRO	302424	256780		15.3	
O-TERPHENYL	700009	593680		15.2	
Nonatriacontane	9787.5	9143.5		6.6	

All other compounds must meet a minimum RRF of 0.010.

Gulf Coast Analytical Services

Data file : /var/chem/gcsv2ad.i/2020619.b/SV2ad013.d
Lab Smp Id:
Inj Date : 21-JUN-2002 04:05
Operator : tnt Inst ID: gcsv2ad.i
Smp Info : 50 PPM PRO
Misc Info :
Comment :
Method : /var/chem/gcsv2ad.i/2020619.b/flpro.m
Meth Date : 20-Jun-2002 16:52 tnt Quant Type: ESTD
Cal Date : 25-APR-2002 13:07 Cal File: SV2ad006.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PRO.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100)*1000 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.00000	Volume of final extract (mL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	25.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	FINAL (ug/Kg)
20 Total PRO	6.795	6.790	0.005	250264938	827.531	66202.4606(M)

QC Flag Legend

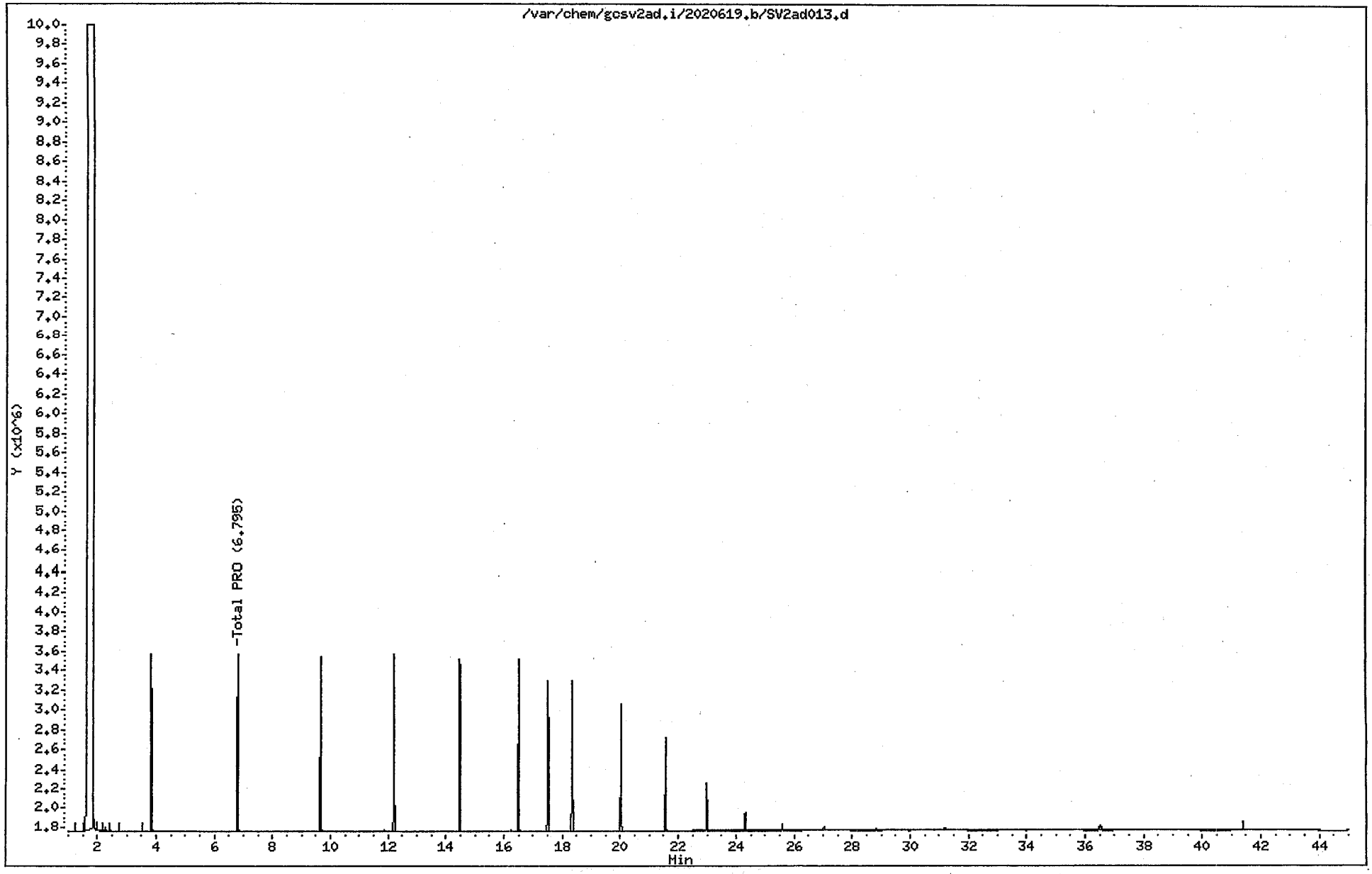
M - Compound response manually integrated.

$$\frac{250264938 - 32427038}{850} = \frac{356280}{352424} = 15.3\%$$

000334

Data File: /var/chem/gcsv2ad.i/2020619.b/SV2ad013.d
Date : 21-JUN-2002 04:05
Client ID:
Sample Info: 50 PPM PRO
Volume Injected (uL): 1.0
Column phase: DB-1

Instrument: gcsv2ad.i
Operator: tnt
Column diameter: 0.53



Gulf Coast Analytical Services

Data file : /var/chem/gcsv2ad.i/2020619.b/SV2ad013s.d
Lab Smp Id: 50 PPM PRO
Inj Date : 21-JUN-2002 04:05
Operator : tnt Inst ID: gcsv2ad.i
Smp Info : 50 PPM PRO
Misc Info :
Comment :
Method : /var/chem/gcsv2ad.i/2020619.b/flsurr.m
Meth Date : 20-Jun-2002 16:52 tnt Quant Type: ESTD
Cal Date : 25-APR-2002 10:15 Cal File: SV2ad003s.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: flsurr.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100)*1000 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.00000	Volume of final extract (mL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	25.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	FINAL (ug/Kg)
$ 7 O-TERPHENYL	17.508	17.535	-0.027	29683988	42.4052	3392.4136
$ 18 Nonatriacontane	36.521	36.568	-0.047	2743050	280.263	22421.0170

32427038

Data File: /var/chem/gcsv2ad.i/2020619.b/SV2ad013s.d

Date: 21-JUN-2002 04:05

Client Id:

Sample Info: 50 PPM PRO

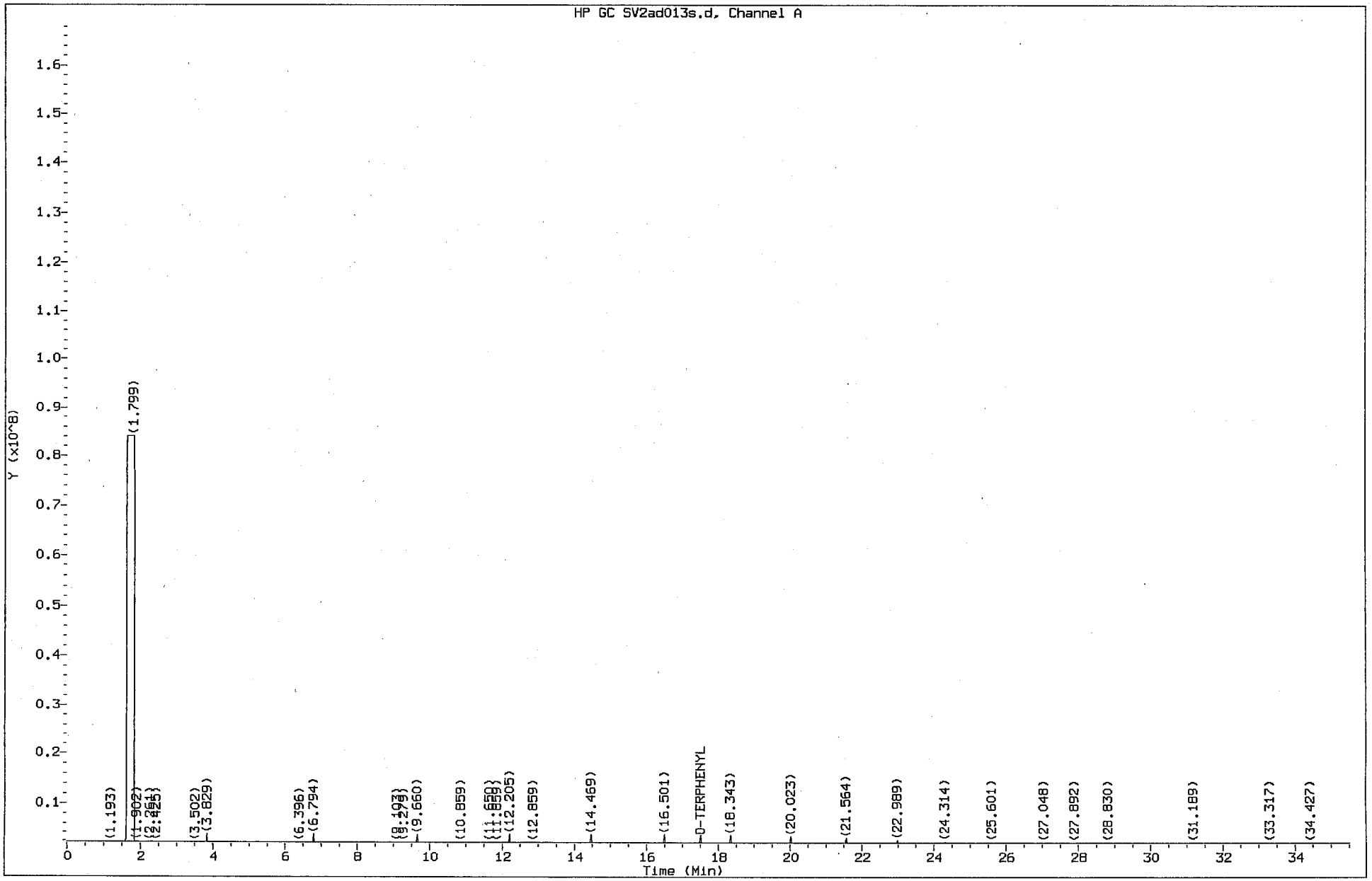
Volume Injected (uL): 1

Column phase: DB-1

Instrument: gcsv2ad.i

Operator: tnt

Column diameter: 0.53



000336

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46425	Method Blank	Solid	06/21/2002 16:59

Florida PRO

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/20/2002 10:30	145852	Florida PRO	1	06/20/2002 19:00	TNT	146070

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
FLPRO-01	Petroleum Hydrocarbons	ND	8000		ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
84-15-1	o-Terphenyl	4000	3450 ug/Kg	86	50 - 150
7194-86-7	Nonatriacontane	24000	8950 ug/Kg	37 *	40 - 150

Gulf Coast Analytical Services

Data file : /var/chem/gcsv2ad.i/2020619.b/SV2ad003.d
Lab Smp Id: 46425 Client Smp ID: 1.0
Inj Date : 20-JUN-2002 19:00
Operator : tnt Inst ID: gcsv2ad.i
Smp Info : 46425-1.0-GCSV~17XX~-
Misc Info :
Comment :
Method : /var/chem/gcsv2ad.i/2020619.b/flpro.m
Meth Date : 20-Jun-2002 16:52 tnt Quant Type: ESTD
Cal Date : 25-APR-2002 13:07 Cal File: SV2ad006.d
Als bottle: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PRO.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100)*1000 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.00000	Volume of final extract (mL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	25.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	FINAL (ug/Kg)
20 Total PRO	17.510	6.790	10.720	32545882	107.617	8609.3461(M)

QC Flag Legend

M - Compound response manually integrated.

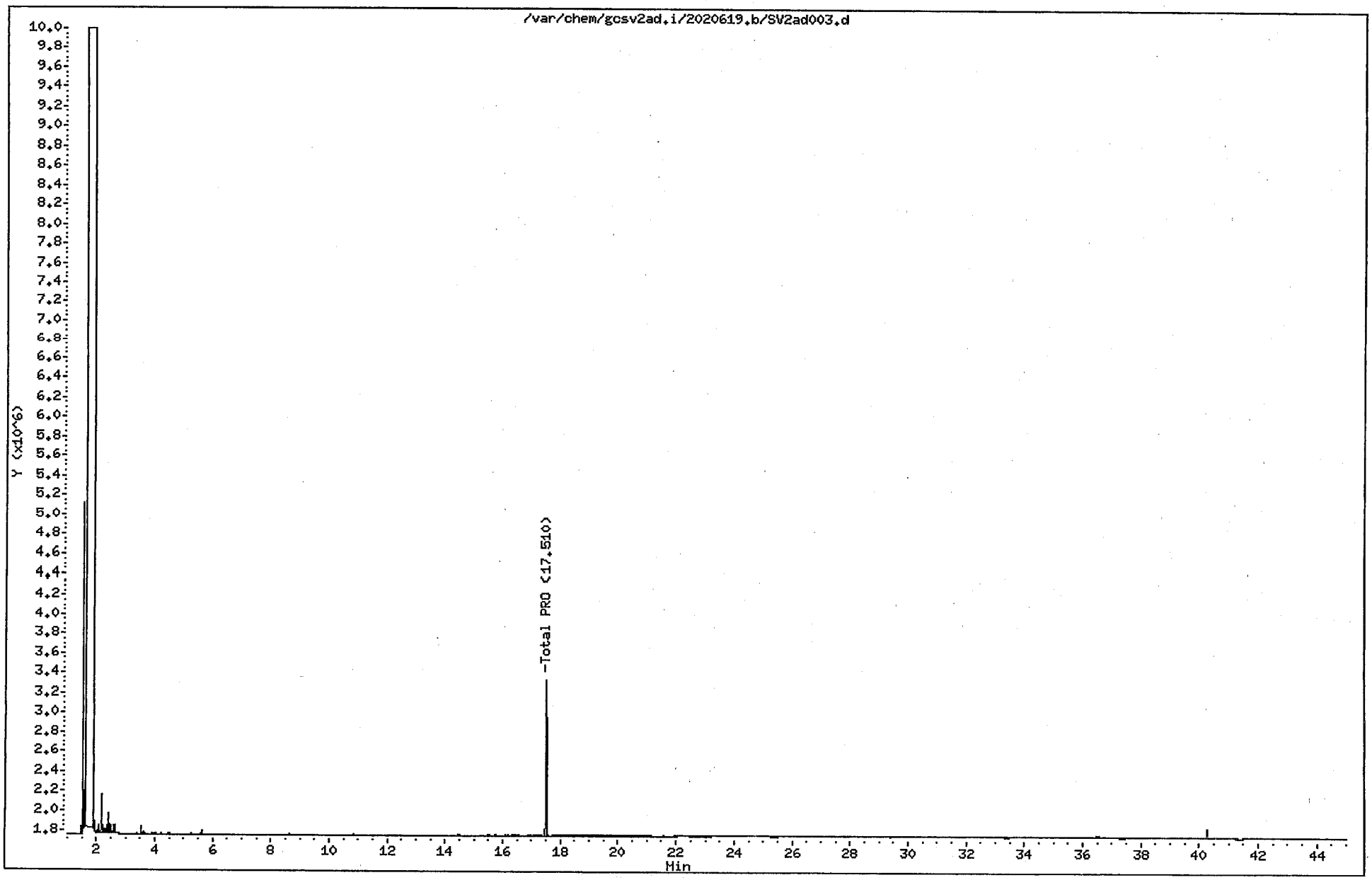
$$\frac{32545882 - 31276201}{302424} \cdot \frac{2}{25} \cdot 1000 = 336\,ppb$$

Data File: /var/chem/gcsv2ad.i/2020619.b/SV2ad003.d
Date : 20-JUN-2002 19:00
Client ID: 1.0
Sample Info: 46425-1.0-GCSV^17XX^-
Volume Injected (uL): 1.0
Column phase: DB-1

Instrument: gcsv2ad.i

Operator: tnt
Column diameter: 0.53

000339



Gulf Coast Analytical Services

Data file : /var/chem/gcsv2ad.i/2020619.b/SV2ad003s.d
Lab Smp Id: 46425
Inj Date : 20-JUN-2002 19:00
Operator : tnt Inst ID: gcsv2ad.i
Smp Info : 46425-1.0-GCSV~17XX~-
Misc Info :
Comment :
Method : /var/chem/gcsv2ad.i/2020619.b/flsurr.m
Meth Date : 20-Jun-2002 16:52 tnt Quant Type: ESTD
Cal Date : 25-APR-2002 10:15 Cal File: SV2ad003s.d
Als bottle: 2 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: flsurr.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100)*1000 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.00000	Volume of final extract (mL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	25.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	FINAL (ug/Kg)
$ 7 O-TERPHENYL	17.508	17.535	-0.027	30181576	43.1160	3449.2801
$ 18 Nonatriacontane	36.505	36.568	-0.063	1094625	111.840	8947.1959(R)

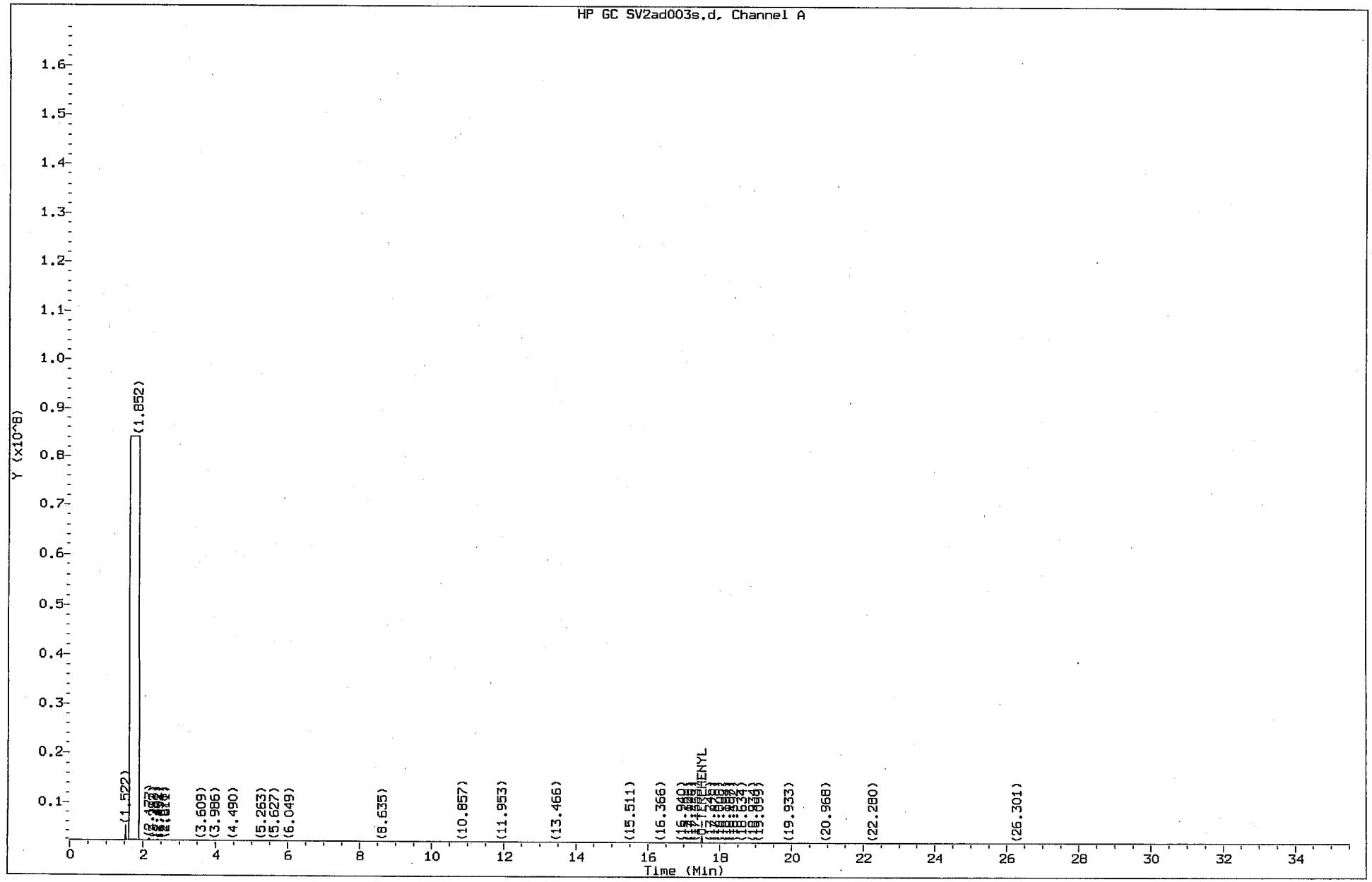
QC Flag Legend 31276201

R - Spike/Surrogate failed recovery limits.

000341

Data File: /var/chem/gcsv2ad.i/2020619.b/SV2ad003s.d
Date: 20-JUN-2002 19:00
Client Id:
Sample Info: 46425-1.0-GCSV~17XX~-
Volume Injected (uL): 1
Column phase: DB-1

Instrument: gcsv2ad.i
Operator: tnt
Column diameter: 0.53



QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46426	Lab Control Sample	Solid	06/21/2002 16:59

Florida PRO

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/20/2002 10:30	145852	Florida PRO	1	06/20/2002 19:55	TNT	146070

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
FLPRO-01	**Petroleum Hydrocarbons**	**65800**	**8000**		**ug/Kg**

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
84-15-1	**o-Terphenyl**	4000	3760 ug/Kg	94	50 - 150
7194-86-7	**Nonatriacontane**	24000	10500 ug/Kg	44	40 - 150

Gulf Coast Analytical Services

Data file : /var/chem/gcsv2ad.i/2020619.b/SV2ad004.d
Lab Smp Id: 46426 Client Smp ID: 1.0
Inj Date : 20-JUN-2002 19:55
Operator : tnt Inst ID: gcsv2ad.i
Smp Info : 46426-1.0-GCSV~17XX~-
Misc Info :
Comment :
Method : /var/chem/gcsv2ad.i/2020619.b/flpro.m
Meth Date : 20-Jun-2002 16:52 tnt Quant Type: ESTD
Cal Date : 25-APR-2002 13:07 Cal File: SV2ad006.d
Als bottle: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: PRO.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100)*1000 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.00000	Volume of final extract (mL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	25.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	FINAL (ug/Kg)
20 Total PRO	12.207	6.790	5.417	282978786	935.703	74856.2386(M)

QC Flag Legend

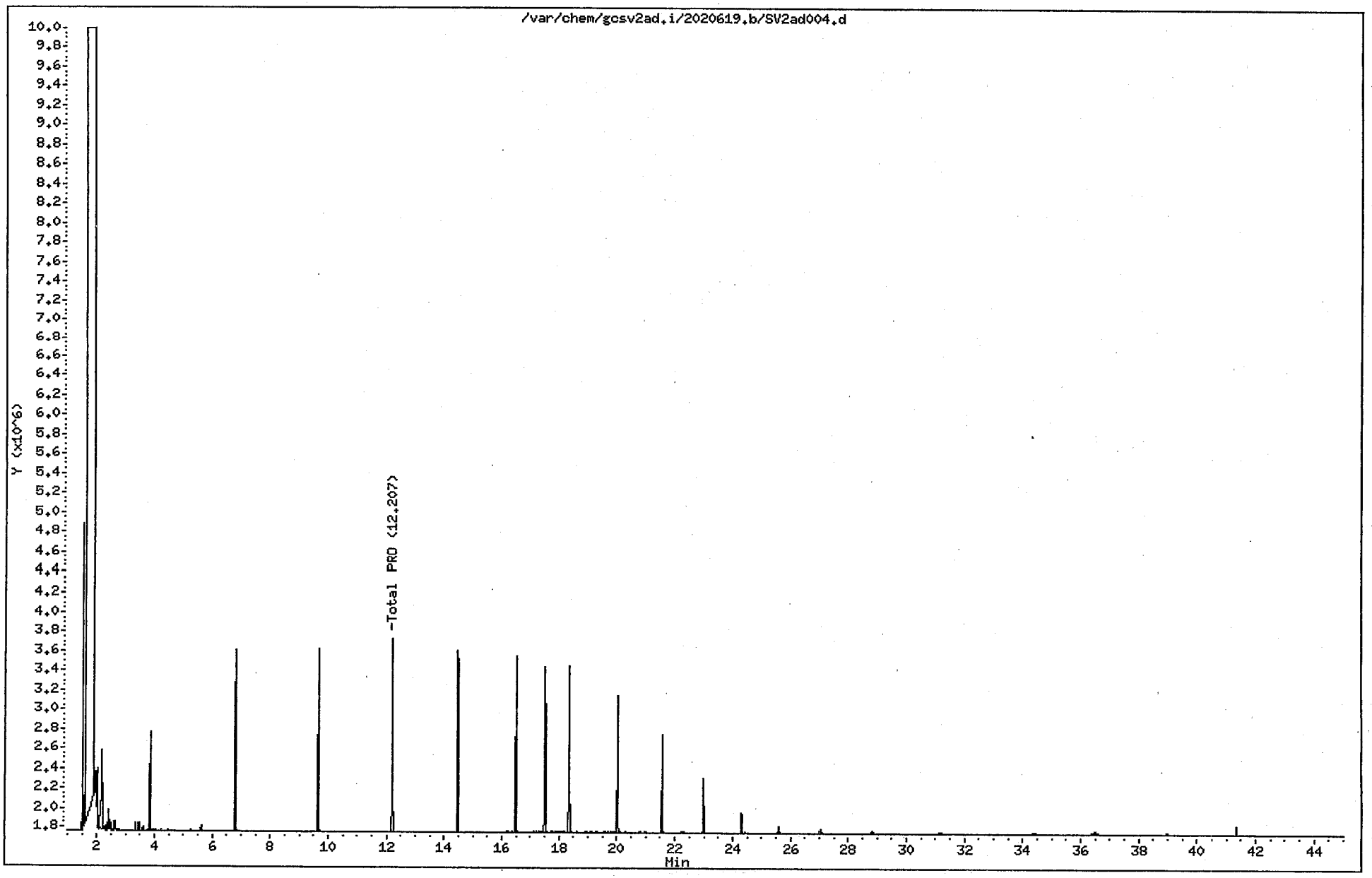
M - Compound response manually integrated.

$$\frac{282978786 - 34212524}{302424} \cdot \frac{2}{25} \cdot 1000 = \frac{65,800}{68,000} = 97$$

0003441

Data File: /var/chem/gcsv2ad.i/2020619.b/SV2ad004.d
Date : 20-JUN-2002 19:55
Client ID: 1.0
Sample Info: 46426-1.0-GCSV^17XX^-
Volume Injected (uL): 1.0
Column phase: DB-1

Instrument: gcsv2ad.i
Operator: tnt
Column diameter: 0.53



Gulf Coast Analytical Services

Data file : /var/chem/gcsv2ad.i/2020619.b/SV2ad004s.d
Lab Smp Id: 46426
Inj Date : 20-JUN-2002 19:55
Operator : tnt Inst ID: gcsv2ad.i
Smp Info : 46426-1.0-GCSV~17XX~-
Misc Info :
Comment :
Method : /var/chem/gcsv2ad.i/2020619.b/flsurr.m
Meth Date : 20-Jun-2002 16:52 tnt Quant Type: ESTD
Cal Date : 25-APR-2002 10:15 Cal File: SV2ad003s.d
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: flsurr.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100)*1000 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.00000	Volume of final extract (mL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	25.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	FINAL (ug/Kg)
$ 7 O-TERPHENYL	17.508	17.535	-0.027	32927728	47.0390	3763.1222
$ 18 Nonatriacontane	36.506	36.568	-0.062	1284796	131.270	10501.6069

342/2524

Data File: /var/chem/gcsv2ad.i/2020619.b/SV2ad004s.d

Date: 20-JUN-2002 19:55

Client Id:

Sample Info: 46426-1.0-GCSV~17XX~-

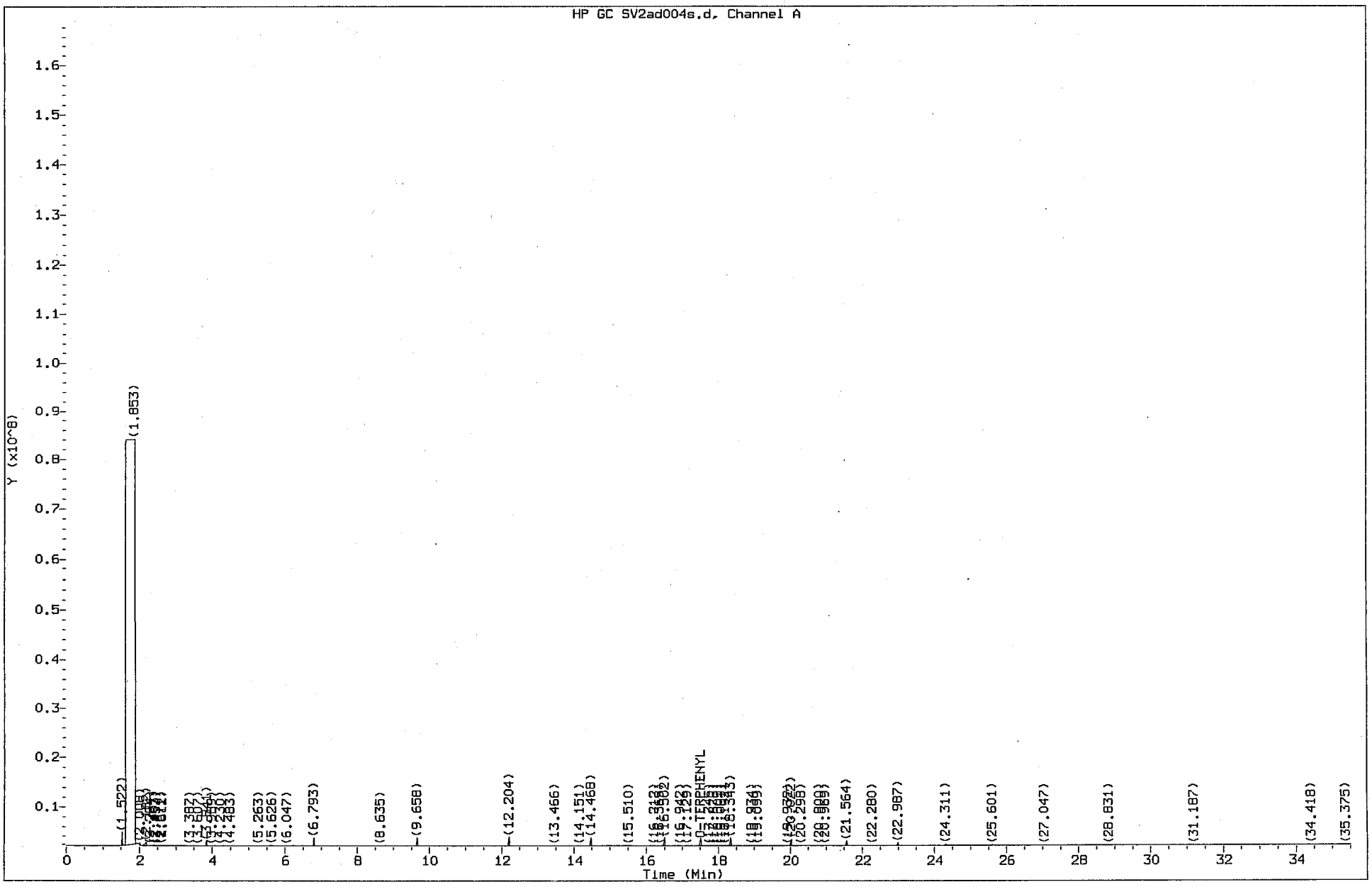
Volume Injected (uL): 1

Column phase: DB-1

Instrument: gcsv2ad.i

Operator: tnt

Column diameter: 0.53



000346

PESTICIDE SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME: 06/20/02 10:30

MATRIX: _____ WATER ✓ SOIL _____ OTHER

LEVEL: ✓ LOW _____ MEDIUM

BATCH# 145852

FIPRO

	CLIENT & GROUP #	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	Initial pH	COMMENTS	METHOD
1	46425	0620 BLK	25	2.0			
2	46426	0620 LCS	25	2.0			_____ LIQUID LIQUID/3520
3	Chzm Hill	20206190201	25	2.0			
4		20206190202	25	2.0			_____ SEPARATIORY FUNNEL/3510
5		20206190203	25	2.0			
6		20206190204	25	2.0			_____ GPC CLEANUP/3640
7		20206190205	25	2.0			
8		20206190206	25	2.0			✓ SONICATOR/3550
9		20206190207	25	2.0			
10		20206200201	25	2.0			_____ FLORISIL CLEANUP/3620
11		20206200202	25	2.0			
12							_____ PCB SULFURIC ACID/3665A
13							CLEAN UP
14							_____ WASTE DILUTION/3580
15							TCLP EXTRACTION FLUID #1
16							
17							
18							TCLP EXTRACTION FLUID #2
19							
20							MECL2/Acetone No:
21							
22							ACETONE LOT NO:
23							
24							MeCL2 Lot No: 013600
25							
26							HEXANE Lot No:
27							
28							Sodium Sulfate Lot No:

SKB 06/21/02

COMMENTS: SAMPLE PREPARATION INCLUDES DETERMINATION OF SAMPLE VOLUME/WEIGHT, SOLVENT EXTRACTION AND EVAPORATION OF SOLVENT TO FINAL VOLUME

SURROGATE ID 8-126-2 ~~8081~~ FIPRO SPIKE ID 8-126-1 608 SPIKE ID _____ Willie Sanford 6-20-02

VOLUME 1.0 mL VOLUME 200ul VOLUME _____ TECHNICIAN DATE

CONCENTRATION 100 / 200 ug/mL CONCENTRATION 500 ug/mL CONCENTRATION _____

ACID _____ John Bailey 06/21/02

SPIKE WITNESS JJR SUPERVISOR DATE

LABORATORY CHRONICLE: GCSV DEPARTMENT

Date: 06/26/2002
Instrument: gcsv2ad.i
Method File: /var/chem/gcsv2ad.i/2020619.b/flpro.m
Batch: /var/chem/gcsv2ad.i/2020619.b
Column-Detector: DB-1

Sample ID	ClientName	DataFile	Injection Time	DilFactor	Anal	Comments
50 PPM CCV	50 PPM CCV	SV2ad001.d	20-JUN-2002 14:57	1.000	tnt	
50 PPM CCV	50 PPM CCV	SV2ad001s.d	20-JUN-2002 14:57	1.000	tnt	
DCM	DCM	SV2ad002.d	20-JUN-2002 18:05	1.000	tnt	
DCM		SV2ad002s.d	20-JUN-2002 18:05	1.000	tnt	
46425	46425	SV2ad003.d	20-JUN-2002 19:00	1.000	tnt	
46425	46425	SV2ad003s.d	20-JUN-2002 19:00	1.000	tnt	
46426	46426	SV2ad004.d	20-JUN-2002 19:55	1.000	tnt	
46426	46426	SV2ad004s.d	20-JUN-2002 19:55	1.000	tnt	
20206200201	BF-S-0619	SV2ad005.d	20-JUN-2002 20:49	1.000	tnt	
20206200201	BF-S-0619	SV2ad005s.d	20-JUN-2002 20:49	1.000	tnt	
20206200202	RB-S-0619	SV2ad006.d	20-JUN-2002 21:44	1.000	tnt	
20206200202	RB-S-0619	SV2ad006s.d	20-JUN-2002 21:44	1.000	tnt	
20206190203MS		SV2ad007.d	20-JUN-2002 22:39	1.000	tnt	
20206190203MS		SV2ad007s.d	20-JUN-2002 22:39	1.000	tnt	
20206190204MSD		SV2ad008.d	20-JUN-2002 23:33	1.000	tnt	
20206190204MSD		SV2ad008s.d	20-JUN-2002 23:33	1.000	tnt	
46403		SV2ad009.d	21-JUN-2002 00:27	1.000	tnt	
46404		SV2ad010.d	21-JUN-2002 01:22	1.000	tnt	
46405		SV2ad011.d	21-JUN-2002 02:16	1.000	tnt	
20206190208		SV2ad012.d	21-JUN-2002 03:11	1.000	tnt	
50 PPM PRO		SV2ad013.d	21-JUN-2002 04:05	1.000	tnt	
50 PPM PRO		SV2ad013s.d	21-JUN-2002 04:05	1.000	tnt	
50 PPM PRO		SV2ad014.d	21-JUN-2002 04:59	1.000	tnt	
blk		SV2ad015.d	21-JUN-2002 10:44	1.000	tnt	

REVISED 6-1-95 Supervisor Review: QA Review:

STANDARD PREPARATION LOGBOOK

STANDARD NAME	STD#	STOCK STD CONC	SUPPLIER	LOT#/ EXP DATE	WT/VOL G/ML	FINAL VOL(ML)	FINAL CONC	SOLVENT/ LOT#	INITIAL	DATE PREPARED	EXP DATE
meoH	51-49-1	Neat	mallinckrodt	V073	0.25gm	25mL	10,000 ppm	Di H2O	TLS	01/22/02	07/22/02
DEG Standard	51-49-2	0.2ug/mL	Accu Standard	B011043b Nov29,2002	40ul	100 mL	80ppb	Hexane	TLS	02/18/02	08/02/02
1016/1260 III	51-49-3	100ug/mL 100ug/mL 200ug/mL	ultra 1016 " 1260 ultra pest surrogate	S-1672 9/2005 S-0793 7/2005 S-0624 6/2004	400ul 400ul 20ul	100mL	40/400 ppb	Hexane	TLS	02/18/02	08/18/02
methanol ~~ISS~~ INT 2/25/02	51-49-4	Neat	Aldrich	HO D1247HO	0.1gm.	100mL	1,000 ppm	Di H2O	TLS	02/18/02	08/18/02
Internal standard for meoH Cyclohexanol	51-49-5	Neat	Aldrich	DO 10206CO	0.3gm	100mL	3,000ppm	Di H2O	TLS	02/18/02	08/18/02
Dates	1/22/02 - 2/18/02		Reviewed	By QA/QC			on 2/21/02				
TPP	51-49-6 500ug/mL	PPS-110 Triphenyl Phosphate Solution	ultra	M-428B 1/2003	500ul	50mL	5000ppb	Hexane	TLS	2/21/02	8/21/02
PHENOL MIX	51-49-7	EPA-1155 5000ug/ml ATS-180 2000ug/ml 7/07-31-02 PH-150 1000ug/ml	ultra ultra ultra	M-1513 11/02 A-0737 8/03 P-0108 2/03	0.4ml 1.0ml 2.0ml	10ml	200ppm	DCM	TNT	3/7/02	9/7/02
PRO Standard 5 ppm	51-49-8	C-443-09 2000ug/ml T-0130 2000ug/ml P-1550 2000ug/ml	NSI ultra ultra	10/03 02/07 11/03	2.5ul 150ul 25ul	1.0ml	5ppm 300 ppm 50 ppm	DCM	SAB	02/13/02	08/13/02
PRO Standard 50ppm	51-49-9	See 51-49-8	—	—	25ul 150ul 25ul	1.0ml	50 ppm 300ppm 50 ppm	DCM	SAB	02/13/02	08/13/02

STANDARD NAME	STD#	STOCK STD CONC	SUPPLIER	LOT#/ EXP DATE	WT/VOL G/ML	FINAL VOL(ML)	FINAL CONC	SOLVENT/ LOT#	INITIAL	DATE PREPARED	EXP DATE
PRO Standard 150ppm	51-50-1	See 51-49-8	—	—	75ul 150ul 25ul	1.0ml	150 ppm 300 ppm 50 ppm	DCM	SAB	03/13/02	08/13/02
PRO Standard 250 ppm	51-50-2	See 51-49-8	—	—	125ul 150ul 25ul	1.0ml	250 ppm 300 ppm 50 ppm	DCM	SAB	03/13/02	08/13/02
PRO Standard 350ppm	51-50-3	See 51-49-8	—	—	175ul 150ul 25ul	1.0ml	350 ppm 300 ppm 50 ppm	DCM	SAB	03/13/02	08/13/02
PRO Standard 500ppm	51-50-4	See 51-49-8	—	—	250 ul 150 ul 25 ul	1.0 ml	500 ppm 300 ppm 50 ppm	DCM	SAB	03/13/02	08/13/02
IND A III	51-50-5	5/10ppm CIP 216	ultrA	P-7012 10/2003	600ul	50mL	60/120 ppb	Hexane	TLS	03/14/02	08/14/02
IND B III	51-50-6	5/10ppm	ultrA CIP226B	S-0470 5/2003	3-19-02 TLS ~~400ul~~ 600ul	50mL	60/120 ppb	Hexane	TLS	3/19/02	9/19/02
Chlor V	51-50-7	100ug/mL	ultrA PP-151	P-1507 11-2003	200ul	50mL	400 ppb	Hexane	TLS	3/19/02	9/19/02
TOX V	51-50-8	1000ug/mL	ultrA EPA1161	M-0109 2-2004	250ul	50 mL	5000ppb	Hexane	TLS	3/19/02	9-19-02
			3-20 TLS								
			3-20 TLS								

Dates 3/13/02 – 3/19/02 Reviewed by QA/QC on 3/25/02

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: GCAL Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (TCX)#	S2 (DCB)#	S3 #	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	46415	124	118							0
02	46416	144	148							0
03	BF-S-0619	101	103							0
04	BF-S-0619MS	147	118							0
05	BF-S-0619MSD	96	79							0
06	RB-S-0619	129	115							0
07										
08										
09										
10										
11										
12										
13										
14										
15										
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		QC LIMITS	
S1 (TCX)	= Tetrachloro-m-xylene	(60-150)	
S2 (DCB)	= Decachlorobiphenyl	(60-150)	(advisory)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

QUALITY CONTROL SUMMARY

LCS ID: 46426 | ORIGINAL LAB ID: | PREP BATCH: 145852
MATRIX Solid | ANALYTICAL BATCH: 146070

Florida PRO

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
FLPRO-01	Petroleum Hydrocarbons	68000 ug/Kg	65800	97	50 - 150

LCS ID: 46416 | ORIGINAL LAB ID: | PREP BATCH: 145850
MATRIX Solid | ANALYTICAL BATCH: 146072

SW-846 8081A

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
319-84-6	alpha-BHC	16.7 ug/Kg	23.2	139 *	37 - 134
319-85-7	beta-BHC	16.7 ug/Kg	17.7	106	17 - 147
319-86-8	delta-BHC	16.7 ug/Kg	17.8	107	19 - 140
1024-57-3	Heptachlor epoxide	16.7 ug/Kg	18.6	112	37 - 142
959-98-8	Endosulfan I	16.7 ug/Kg	21.6	130	45 - 153
72-55-9	4,4'-DDE	16.7 ug/Kg	17	102	30 - 145
33213-65-9	Endosulfan II	16.7 ug/Kg	17.8	107	0 - 202
72-54-8	4,4'-DDD	16.7 ug/Kg	21.6	130	31 - 141
1031-07-8	Endosulfan sulfate	16.7 ug/Kg	21.3	128	26 - 144
72-43-5	Methoxychlor	16.7 ug/Kg	18.5	111	26 - 144
53494-70-5	Endrin ketone	16.7 ug/Kg	22.8	137	26 - 144
7421-93-4	Endrin aldehyde	16.7 ug/Kg	28.4	170	0 - 202
5103-71-9	alpha-Chlordane	16.7 ug/Kg	16.6	100	45 - 119
5103-74-2	gamma-Chlordane	16.7 ug/Kg	18.3	110	45 - 119
58-89-9	gamma-BHC (Lindane)	16.7 ug/Kg	20.1	121	46 - 127
76-44-8	Heptachlor	16.7 ug/Kg	21.3	128	35 - 130
309-00-2	Aldrin	16.7 ug/Kg	18	108	35 - 132
60-57-1	Dieldrin	16.7 ug/Kg	25.4	152 *	31 - 134
72-20-8	Endrin	16.7 ug/Kg	23.5	141 *	42 - 139
50-29-3	4,4'-DDT	16.7 ug/Kg	23	138 *	23 - 134

MS LAB ID: 46417 | ORIGINAL LAB ID: 20206200201 | PREP BATCH: 145850
MATRIX Solid | ANALYTICAL BATCH: 146072

SW-846 8081A

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
319-84-6	alpha-BHC	0	16.7 ug/Kg	19.9	119	37 - 134
319-85-7	beta-BHC	0	16.7 ug/Kg	15.9	95	17 - 147
319-86-8	delta-BHC	0	16.7 ug/Kg	15.1	91	19 - 140
1024-57-3	Heptachlor epoxide	0	16.7 ug/Kg	15.8	95	37 - 142
959-98-8	Endosulfan I	0	16.7 ug/Kg	16.7	100	45 - 153
72-55-9	4,4'-DDE	0	16.7 ug/Kg	15.5	93	30 - 145
33213-65-9	Endosulfan II	0	16.7 ug/Kg	15.3	92	0 - 202
72-54-8	4,4'-DDD	0	16.7 ug/Kg	18.6	112	31 - 141

QUALITY CONTROL SUMMARY

1031-07-8	Endosulfan sulfate	0	16.7 ug/Kg	19.5	117	26 - 144
72-43-5	Methoxychlor	0	16.7 ug/Kg	14.2	85	26 - 144
53494-70-5	Endrin ketone	0	16.7 ug/Kg	18.5	111	26 - 144
7421-93-4	Endrin aldehyde	0	16.7 ug/Kg	25.5	153	0 - 202
5103-71-9	alpha-Chlordane	0	16.7 ug/Kg	15.1	91	45 - 119
5103-74-2	gamma-Chlordane	0	16.7 ug/Kg	15	90	45 - 119
58-89-9	gamma-BHC (Lindane)	0	16.7 ug/Kg	17.1	103	46 - 127
76-44-8	Heptachlor	0	16.7 ug/Kg	18.1	109	35 - 130
309-00-2	Aldrin	0	16.7 ug/Kg	14	84	35 - 132
60-57-1	Dieldrin	0	16.7 ug/Kg	20.7	124	31 - 134
72-20-8	Endrin	0	16.7 ug/Kg	21.3	128	42 - 139
50-29-3	4,4'-DDT	0	16.7 ug/Kg	21.5	129	23 - 134

MSD LAB ID: 46418 ORIGINAL LAB ID: 20206200201 PREP BATCH: 145850
MATRIX Solid ANALYTICAL BATCH: 146072

SW-846 8081A

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
319-84-6	alpha-BHC	16.7 ug/Kg	12.1	73	37 - 134	48 *	0 - 40
319-85-7	beta-BHC	16.7 ug/Kg	8.96	54	17 - 147	55 *	0 - 40
319-86-8	delta-BHC	16.7 ug/Kg	9.67	58	19 - 140	44 *	0 - 40
1024-57-3	Heptachlor epoxide	16.7 ug/Kg	9.74	58	37 - 142	48 *	0 - 40
959-98-8	Endosulfan I	16.7 ug/Kg	12.3	74	45 - 153	30	0 - 40
72-55-9	4,4'-DDE	16.7 ug/Kg	11.1	67	30 - 145	33	0 - 40
33213-65-9	Endosulfan II	16.7 ug/Kg	10	60	0 - 202	42 *	0 - 40
72-54-8	4,4'-DDD	16.7 ug/Kg	12.2	73	31 - 141	42 *	0 - 40
1031-07-8	Endosulfan sulfate	16.7 ug/Kg	11.2	67	26 - 144	54 *	0 - 40
72-43-5	Methoxychlor	16.7 ug/Kg	9.07	54	26 - 144	45 *	0 - 40
53494-70-5	Endrin ketone	16.7 ug/Kg	11.7	70	26 - 144	45 *	0 - 40
7421-93-4	Endrin aldehyde	16.7 ug/Kg	14.6	88	0 - 202	54 *	0 - 40
5103-71-9	alpha-Chlordane	16.7 ug/Kg	9.46	57	45 - 119	46 *	0 - 40
5103-74-2	gamma-Chlordane	16.7 ug/Kg	9.47	57	45 - 119	45 *	0 - 40
58-89-9	gamma-BHC (Lindane)	16.7 ug/Kg	10.6	64	46 - 127	47 *	0 - 40
76-44-8	Heptachlor	16.7 ug/Kg	11.4	68	35 - 130	46 *	0 - 40
309-00-2	Aldrin	16.7 ug/Kg	9.19	55	35 - 132	42 *	0 - 40
60-57-1	Dieldrin	16.7 ug/Kg	15	90	31 - 134	32	0 - 40
72-20-8	Endrin	16.7 ug/Kg	14.5	87	42 - 139	38	0 - 40
50-29-3	4,4'-DDT	16.7 ug/Kg	12	72	23 - 134	57 *	0 - 40

LCS ID: 46421 ORIGINAL LAB ID: PREP BATCH: 145851
MATRIX Solid ANALYTICAL BATCH: 146073

SW-846 8082

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
12674-11-2	Aroclor-1016	133 ug/Kg	115	86	60 - 127
11096-82-5	Aroclor-1260	133 ug/Kg	125	94	61 - 132

4B
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

46415

Lab Name: GCAL Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Lab File ID: SV8087 Lab Sample ID: 46415

Instrument ID: GCSV8 Date Extracted: 06/21/02

Matrix: (soil/water) SOIL Date Analyzed: 06/21/02

Level:(low/med) LOW Time Analyzed: 1158

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	46416	46416	SV8088	06/21/02
02	BF-S-0619	20206200201	SV8089	06/21/02
03	BF-S-0619MS	46417	SV8090	06/21/02
04	BF-S-0619MSD	46418	SV8091	06/21/02
05	RB-S-0619	20206200202	SV8092	06/21/02
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COMMENTS:

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200201	046-BF-S-0619-02	Solid	06/19/2002 09:40	06/20/2002 09:05	06/27/2002 08:58

8081A,Pesticides, Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/21/2002 08:00	145850	3540C	1	06/21/2002 12:58	TNT	146072

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
72-54-8	4,4'-DDD	ND	4.65	1.64	ug/Kg
72-55-9	4,4'-DDE	ND	4.65	0.406	ug/Kg
50-29-3	4,4'-DDT	ND	4.65	0.476	ug/Kg
309-00-2	Aldrin	ND	2.32	1.49	ug/Kg
60-57-1	Dieldrin	ND	4.65	0.894	ug/Kg
959-98-8	Endosulfan I	ND	2.32	0.209	ug/Kg
33213-65-9	Endosulfan II	ND	4.65	0.662	ug/Kg
1031-07-8	Endosulfan sulfate	ND	4.65	0.883	ug/Kg
72-20-8	Endrin	ND	4.65	1.31	ug/Kg
7421-93-4	Endrin aldehyde	ND	4.65	0.488	ug/Kg
53494-70-5	Endrin ketone	ND	4.65	0.418	ug/Kg
76-44-8	Heptachlor	ND	2.32	0.395	ug/Kg
1024-57-3	Heptachlor epoxide	ND	2.32	0.314	ug/Kg
72-43-5	Methoxychlor	ND	23.2	1.59	ug/Kg
8001-35-2	Toxaphene	ND	232	232	ug/Kg
319-84-6	alpha-BHC	ND	2.32	0.453	ug/Kg
5103-71-9	alpha-Chlordane	ND	2.32	0.186	ug/Kg
319-85-7	beta-BHC	ND	4.65	0.581	ug/Kg
319-86-8	delta-BHC	ND	2.32	0.163	ug/Kg
58-89-9	gamma-BHC (Lindane)	ND	2.32	0.314	ug/Kg
5103-74-2	gamma-Chlordane	ND	2.32	0.197	ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
877-09-8	Tetrachloro-m-xylene	16.7	16.8 ug/Kg	101	60 - 150
2051-24-3	Decachlorobiphenyl	16.7	17.2 ug/Kg	103	60 - 150

RESULTS REPORTED ON A DRY WEIGHT BASIS

Data File: /var/chem/gcsv8.i/2020617.b/SV8089.d
Report Date: 26-Jun-2002 09:36

Gulf Coast Analytical Services

Data file : /var/chem/gcsv8.i/2020617.b/SV8089.d
Lab Smp Id: 20206200201 Client Smp ID: BF-S-0619
Inj Date : 21-JUN-2002 12:58
Operator : tnt Inst ID: gcsv8.i
Smp Info : 20206200201
Misc Info :
Comment :
Method : /var/chem/gcsv8.i/2020617.b/pest608.m
Meth Date : 26-Jun-2002 09:34 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 17:49 Cal File: SV8028.d
Als bottle: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

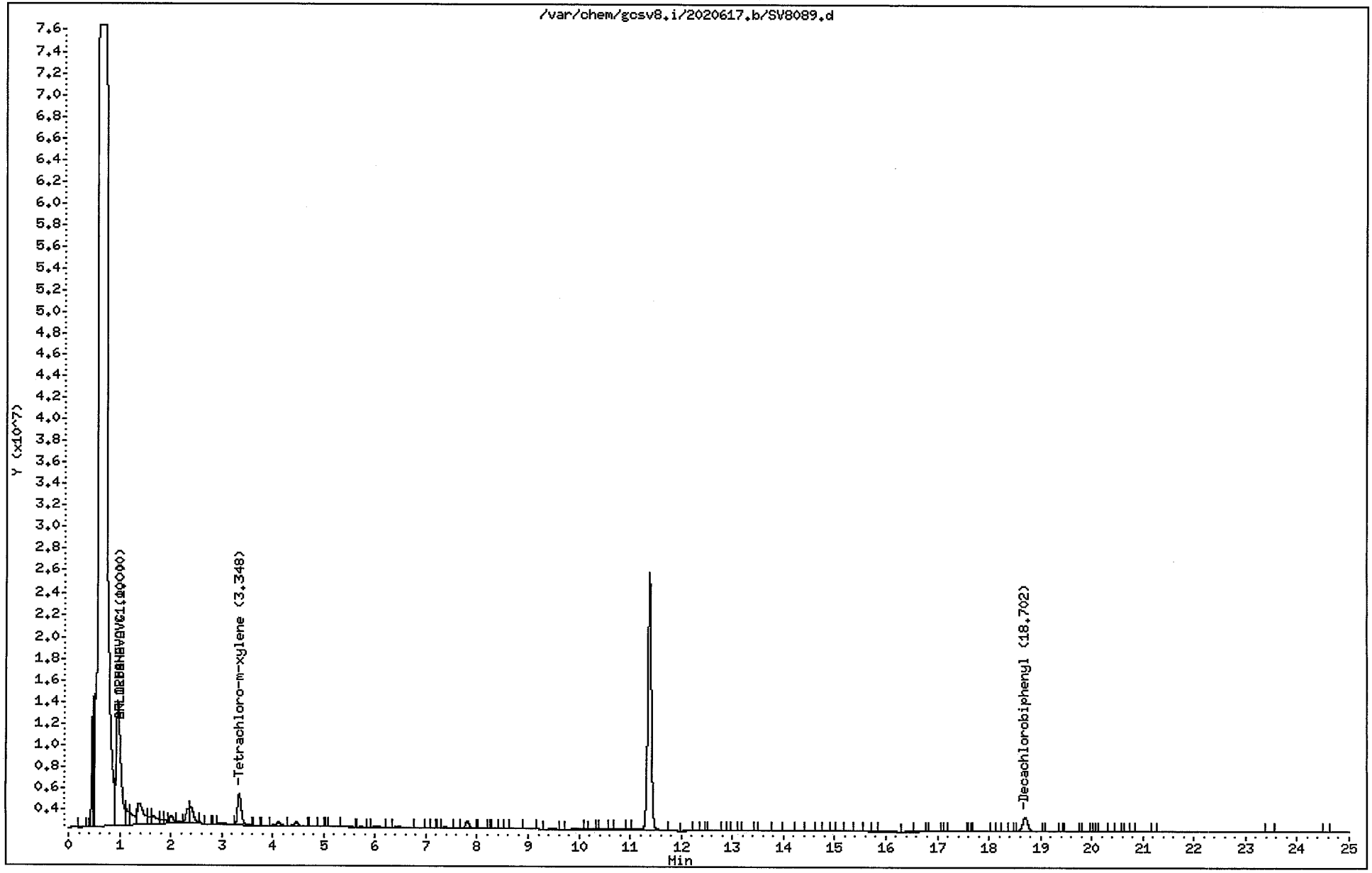
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/L)	FINAL (UG/KG)
$ 1 Tetrachloro-m-xylene	3.348	3.346	0.002	15045339	50.3612	16.7870
$ 22 Decachlorobiphenyl	18.702	18.696	0.006	8781554	51.6050	17.2016

Data File: /var/chem/gcsv8.i/2020617.b/SV8089.d
Date : 21-JUN-2002 12:58
Client ID: BF-S-0619
Sample Info: 20206200201
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv8.i

Operator: tnt
Column diameter: 0.53

000357



GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200202	046-RB-S-0619-02	Solid	06/19/2002 11:00	06/20/2002 09:05	06/27/2002 08:58

8081A,Pesticides, Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/21/2002 08:00	145850	3540C	1	06/21/2002 14:27	TNT	146072

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
72-54-8	4,4'-DDD	ND	4.38	1.55	ug/Kg
72-55-9	4,4'-DDE	ND	4.38	0.384	ug/Kg
50-29-3	4,4'-DDT	ND	4.38	0.449	ug/Kg
309-00-2	Aldrin	ND	2.19	1.40	ug/Kg
60-57-1	Dieldrin	ND	4.38	0.844	ug/Kg
959-98-8	Endosulfan I	ND	2.19	0.197	ug/Kg
33213-65-9	Endosulfan II	ND	4.38	0.625	ug/Kg
1031-07-8	Endosulfan sulfate	ND	4.38	0.833	ug/Kg
72-20-8	Endrin	ND	4.38	1.24	ug/Kg
7421-93-4	Endrin aldehyde	ND	4.38	0.460	ug/Kg
53494-70-5	Endrin ketone	ND	4.38	0.395	ug/Kg
76-44-8	Heptachlor	ND	2.19	0.373	ug/Kg
1024-57-3	Heptachlor epoxide	ND	2.19	0.296	ug/Kg
72-43-5	Methoxychlor	ND	21.9	1.50	ug/Kg
8001-35-2	Toxaphene	ND	219	219	ug/Kg
319-84-6	alpha-BHC	ND	2.19	0.428	ug/Kg
5103-71-9	alpha-Chlordane	ND	2.19	0.175	ug/Kg
319-85-7	beta-BHC	ND	4.38	0.548	ug/Kg
319-86-8	delta-BHC	ND	2.19	0.153	ug/Kg
58-89-9	gamma-BHC (Lindane)	ND	2.19	0.296	ug/Kg
5103-74-2	gamma-Chlordane	ND	2.19	0.186	ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
877-09-8	Tetrachloro-m-xylene	16.7	21.5 ug/Kg	129	60 - 150
2051-24-3	Decachlorobiphenyl	16.7	19.2 ug/Kg	115	60 - 150

RESULTS REPORTED ON A DRY WEIGHT BASIS

Data File: /var/chem/gcsv8.i/2020617.b/SV8092.d
Report Date: 26-Jun-2002 09:36

Gulf Coast Analytical Services

Data file : /var/chem/gcsv8.i/2020617.b/SV8092.d
Lab Smp Id: 20206200202 Client Smp ID: RB-S-0619
Inj Date : 21-JUN-2002 14:27
Operator : tnt Inst ID: gcsv8.i
Smp Info : 20206200202
Misc Info :
Comment :
Method : /var/chem/gcsv8.i/2020617.b/pest608.m
Meth Date : 26-Jun-2002 09:34 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 17:49 Cal File: SV8028.d
Als bottle: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

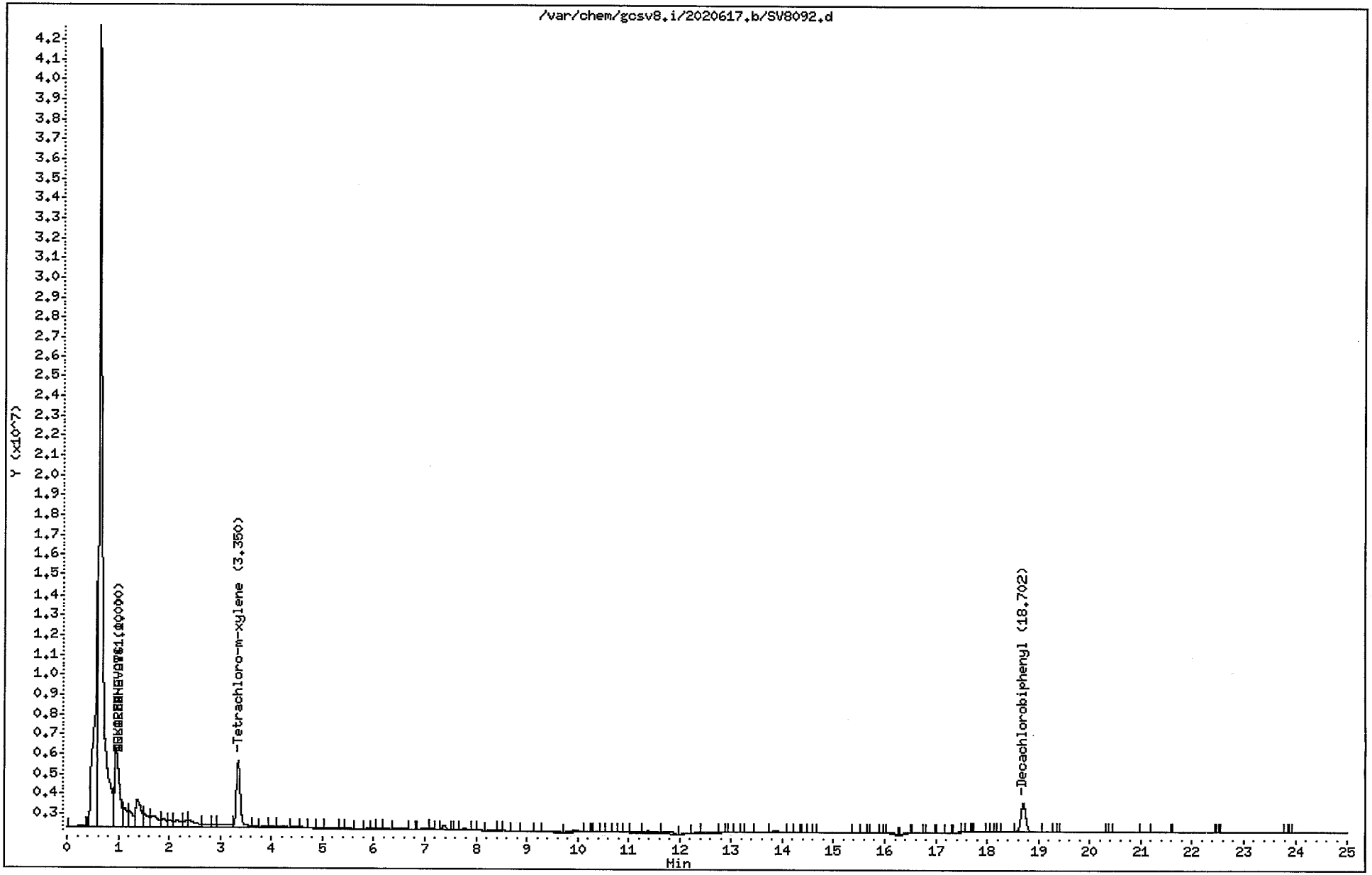
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/L)	FINAL (UG/KG)
$ 1 Tetrachloro-m-xylene	3.350	3.346	0.004	19280812	64.5386	21.5128
$ 22 Decachlorobiphenyl	18.702	18.696	0.006	9804316	57.6153	19.2050

Data File: /var/chem/gcsv8.i/2020617.b/SV8092.d
Date : 21-JUN-2002 14:27
Client ID: RB-S-0619
Sample Info: 20206200202
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv8.i

Operator: tnt
Column diameter: 0.53

0000360



Report Date : 01-Jul-2002 12:34

Gulf Coast Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 17-JUN-2002 21:04
End Cal Date : 18-JUN-2002 17:49
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/gcsv8.i/2020617.b/pest608.m
Cal Date : 26-Jun-2002 15:12 sab
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcsv8.i/2020617.b/SV8023.d
Level 2: /var/chem/gcsv8.i/2020617.b/SV8024.d
Level 3: /var/chem/gcsv8.i/2020617.b/SV8025.d
Level 4: /var/chem/gcsv8.i/2020617.b/SV8027.d
Level 5: /var/chem/gcsv8.i/2020617.b/SV8028.d

	Compound	5.000 Level 1	40.000 Level 2	60.000 Level 3	80.000 Level 4	100.000 Level 5	___ RRF	% RSD
	2 alpha-BHC	348309	376766	411375	401284	398601	387267	6.499
	3 gamma-BHC (Lindane)	342791	361835	385168	383997	375469	369852	4.804
	4 Heptachlor	272545	282691	304119	302456	296174	291597	4.658
	5 Aldrin	345360	432579	366776	390111	342033	375372	9.946
	6 beta-BHC	218195	259011	209318	216685	190773	218796	11.420
	7 delta-BHC	369131	479089	404938	431544	379765	412893	10.699
	8 Heptachlor epoxide	277777	341325	297556	313603	277700	301592	8.893
	9 Endosulfan I	222482	225346	243765	240790	240813	234639	4.226
	10 gamma-Chlordane	284782	354887	317302	330757	293454	316236	8.964
	11 alpha-Chlordane	282907	348928	299564	313706	277994	304620	9.360
	12 4,4'-DDE	245460	306391	272483	283063	250168	271513	9.180
	13 Dieldrin	205677	216225	235889	235281	231569	224928	5.955
	14 Endrin	190628	186434	203765	202641	198443	196382	3.861
	15 4,4'-DDD	178913	173018	189625	189667	184041	183053	3.918
	16 Endosulfan II	214100	242242	208597	235388	210771	222219	6.960
	17 4,4'-DDT	132478	135566	156048	161692	159419	149040	9.326
	18 Endrin aldehyde	114637	138071	114437	137510	118454	124622	9.733
	19 Methoxychlor	69219	67046	73750	72439	72879	71067	3.976
	20 Endosulfan sulfate	170816	201199	194465	205274	181993	190750	7.451
	21 Endrin ketone	175443	202469	192960	206226	184028	192225	6.633
M	23 AR 1016-AVG	64400	59665	59032	52461	43810	55874	14.268
	24 AR 1016-PEAK1	7972	7679	7291	6516	5427	6977	14.678
	25 AR 1016-PEAK2	16564	15573	14631	12848	10505	14024	17.094
	26 AR 1016-PEAK3	29541	27254	26830	23771	19951	25470	14.552
	27 AR 1016-PEAK4	10323	9159	10279	9325	7927	9403	10.446
M	28 AR 1260-AVG	61773	64075	61079	57510	50588	59005	8.917

Report Date : 01-Jul-2002 12:34

Gulf Coast Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 17-JUN-2002 21:04
End Cal Date : 18-JUN-2002 17:49
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/gcsv8.i/2020617.b/pest608.m
Cal Date : 26-Jun-2002 15:12 sab
Curve Type : Average

	Compound	5.000 Level 1	40.000 Level 2	60.000 Level 3	80.000 Level 4	100.000 Level 5	RRF	% RSD
	29 AR 1260-PEAK1	8684	8623	8260	7653	6617	7968	10.784
	30 AR 1260-PEAK2	13511	13655	13120	12294	10646	12645	9.778
	31 AR 1260-PEAK3	14172	14205	13363	12550	10933	13044	10.443
	32 AR 1260-PEAK4	25406	27592	26335	25013	22393	25348	7.603
M	33 AR 1260-AVGII	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	34 AR 1260-PEAK5	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	35 AR 1260-PEAK6	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	36 AR 1260-PEAK7	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M	37 AR 1221-AVG	+++++	+++++	17789	+++++	+++++	17789	0.000
	38 AR 1221-PEAK1	+++++	+++++	4475	+++++	+++++	4475	0.000
	39 AR 1221-PEAK2	+++++	+++++	2813	+++++	+++++	2813	0.000
	40 AR 1221-PEAK3	+++++	+++++	8984	+++++	+++++	8984	0.000
	41 AR 1221-PEAK4	+++++	+++++	1517	+++++	+++++	1517	0.000
M	42 AR 1232-AVG	+++++	+++++	34940	+++++	+++++	34940	0.000
	43 AR 1232-PEAK1	+++++	+++++	8583	+++++	+++++	8583	0.000
	44 AR 1232-PEAK2	+++++	+++++	7701	+++++	+++++	7701	0.000
	45 AR 1232-PEAK3	+++++	+++++	13449	+++++	+++++	13449	0.000
	46 AR 1232-PEAK4	+++++	+++++	5208	+++++	+++++	5208	0.000
M	47 AR 1242-AVG	+++++	+++++	46094	+++++	+++++	46094	0.000
	48 AR 1242-PEAK1	+++++	+++++	5618	+++++	+++++	5618	0.000
	49 AR 1242-PEAK2	+++++	+++++	11363	+++++	+++++	11363	0.000
	50 AR 1242-PEAK3	+++++	+++++	21054	+++++	+++++	21054	0.000
	51 AR 1242-PEAK4	+++++	+++++	8059	+++++	+++++	8059	0.000
M	52 AR 1248-AVG	+++++	+++++	49256	+++++	+++++	49256	0.000
	53 AR 1248-PEAK1	+++++	+++++	6496	+++++	+++++	6496	0.000
	54 AR 1248-PEAK2	+++++	+++++	15210	+++++	+++++	15210	0.000
	55 AR 1248-PEAK3	+++++	+++++	12551	+++++	+++++	12551	0.000
	56 AR 1248-PEAK4	+++++	+++++	14999	+++++	+++++	14999	0.000
M	57 AR 1254-AVG	+++++	+++++	22040	+++++	+++++	22040	0.000
	58 AR 1254-PEAK1	+++++	+++++	4899	+++++	+++++	4899	0.000
	59 AR 1254-PEAK2	+++++	+++++	4433	+++++	+++++	4433	0.000
	60 AR 1254-PEAK3	+++++	+++++	4768	+++++	+++++	4768	0.000
	61 AR 1254-PEAK4	+++++	+++++	7940	+++++	+++++	7940	0.000

Report Date : 01-Jul-2002 12:34

Gulf Coast Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 17-JUN-2002 21:04
End Cal Date : 18-JUN-2002 17:49
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/gcsv8.i/2020617.b/pest608.m
Cal Date : 26-Jun-2002 15:12 sab
Curve Type : Average

	Compound	5.000 Level 1	40.000 Level 2	60.000 Level 3	80.000 Level 4	100.000 Level 5	___ RRF	% RSD
M	62 TOXAPHENE-AVG	+++++	+++++	+++++	+++++	9237	9237	0.000
	63 TOXAPHENE-PEAK1	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	64 TOXAPHENE-PEAK2	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	65 TOXAPHENE-PEAK3	+++++	+++++	+++++	+++++	6276	6276	0.000
	66 TOXAPHENE-PEAK4	+++++	+++++	+++++	+++++	2962	2962	0.000
	67 TOXAPHENE-PEAK5	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M	68 CHLORDANE-AVG	+++++	+++++	+++++	+++++	118993	118993	0.000
	69 CHLORDANE-PEAK1	+++++	+++++	+++++	+++++	14478	14478	0.000
	70 CHLORDANE-PEAK2	+++++	+++++	+++++	+++++	19576	19576	0.000
	71 CHLORDANE-PEAK3	+++++	+++++	+++++	+++++	48577	48577	0.000
	72 CHLORDANE-PEAK4	+++++	+++++	+++++	+++++	26063	26063	0.000
	73 CHLORDANE-PEAK5	+++++	+++++	+++++	+++++	10299	10299	0.000
M	74 AR 1268-AVG	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	75 AR 1268-PEAK1	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	76 AR 1268-PEAK2	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	77 AR 1268-PEAK3	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	78 AR 1268 PEAK4	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$	1 Tetrachloro-m-xylene	305329	299428	304286	296341	288360	298749	2.296
$	22 Decachlorobiphenyl	163774	189593	167857	160972	168647	170169	6.638

Report Date : 01-Jul-2002 12:34

Gulf Coast Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date	: 17-JUN-2002 21:04
End Cal Date	: 18-JUN-2002 17:49
Quant Method	: ESTD
Origin	: Disabled
Target Version	: 3.50
Integrator	: Falcon
Method file	: /var/chem/gcsv8.i/2020617.b/pest608.m
Cal Date	: 26-Jun-2002 15:12 sab
Curve Type	: Average

```
|Average %RSD Results.                                |
|=====================================================|
|Calculated Average %RSD = 8.56134128                 |
|Maximun Average %RSD    =         20                 |
|* Passed Average %RSD Test.                          |
|_____________________________________________________|
```

Data File: /var/chem/gcsv8.i/2020617.b/SV8003.d
Report Date: 26-Jun-2002 09:37

Gulf Coast Analytical Services

Data file : /var/chem/gcsv8.i/2020617.b/SV8003.d
Lab Smp Id: DEG STD
Inj Date : 17-JUN-2002 20:34
Operator : tnt Inst ID: gcsv8.i
Smp Info : DEG STD
Misc Info :
Comment :
Method : /var/chem/gcsv8.i/2020617.b/pest608.m
Meth Date : 26-Jun-2002 09:34 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 17:49 Cal File: SV8028.d
Als bottle: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: deg.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/L)	FINAL (UG/L)
12 4,4'-DDE	10.737	10.749	-0.012	47529	0.17505	0.0017
15 4,4'-DDD	12.280	12.277	0.003	604422	3.30190	0.0330
17 4,4'-DDT	13.072	13.071	0.001	12301432	82.5376	0.8253
21 Endrin ketone	15.598	15.596	0.002	560792	2.91737	0.0291
14 Endrin	11.793	11.793	0.000	17721558	90.2401	0.9024

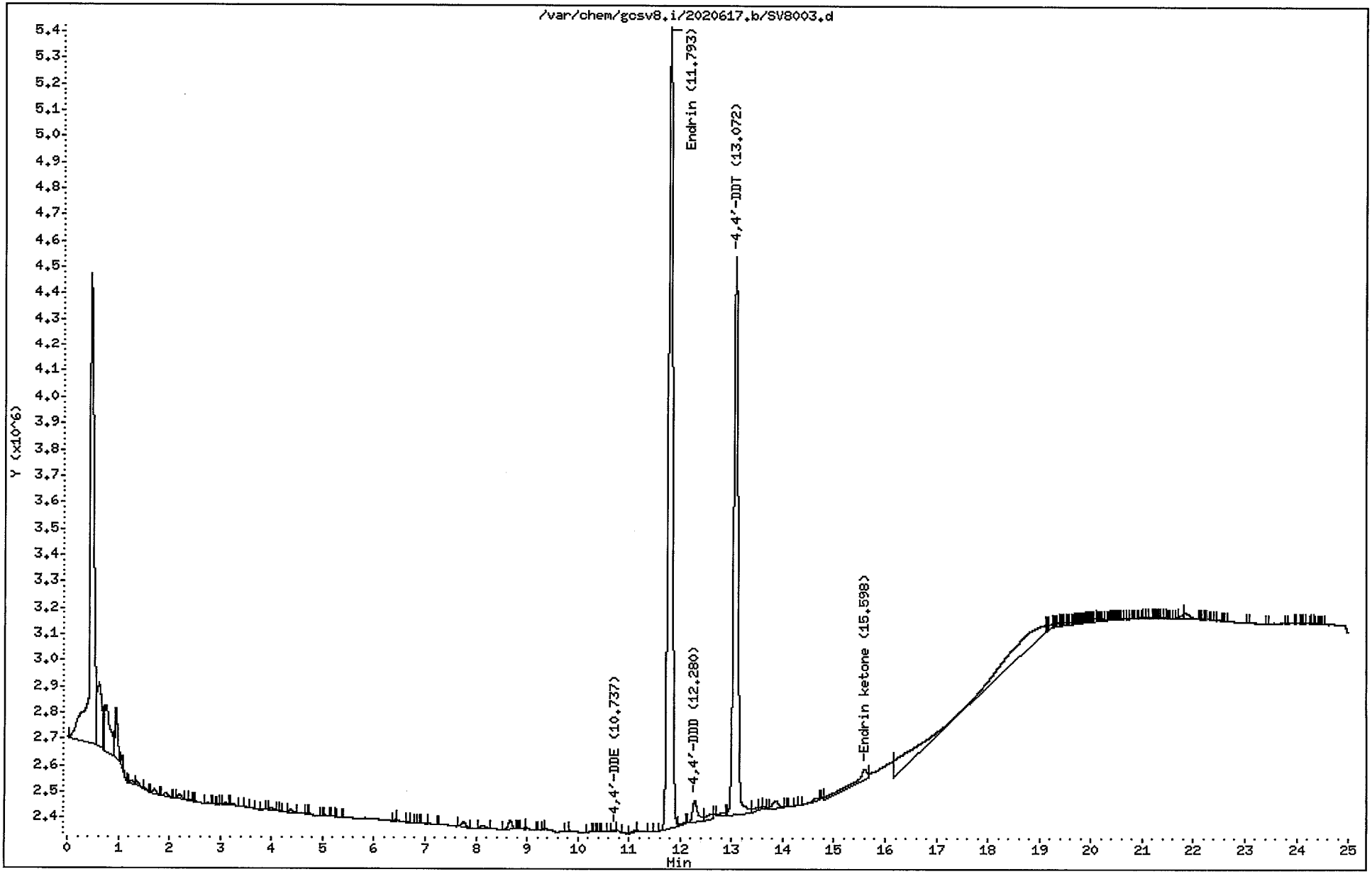
DDT: $\frac{651951}{12953383} \cdot 100 = 5\%$

Endrin $\frac{560792}{18282350} \cdot 100 = 3\%$

Data File: /var/chem/gcsv8.i/2020617.b/SV8003.d
Date : 17-JUN-2002 20:34
Client ID:
Sample Info: DEG STD
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv8.i

Operator: tnt
Column diameter: 0.53



000366

Data File: /var/chem/gcsv8.i/2020617.b/SV8004.d
Report Date: 26-Jun-2002 09:37

Gulf Coast Analytical Services

Data file : /var/chem/gcsv8.i/2020617.b/SV8004.d
Lab Smp Id: IND A I
Inj Date : 17-JUN-2002 21:04
Operator : tnt Inst ID: gcsv8.i
Smp Info : IND A I
Misc Info :
Comment :
Method : /var/chem/gcsv8.i/2020617.b/pest608.m
Meth Date : 26-Jun-2002 09:34 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 15:21 Cal File: SV8023.d
Als bottle: 4 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: inda.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
$ 1 Tetrachloro-m-xylene	3.345	3.346	-0.001	1526646	5.00000	5.1101
2 alpha-BHC	4.913	4.914	-0.001	1741544	5.00000	4.4970
3 gamma-BHC (Lindane)	5.883	5.884	-0.001	1713956	5.00000	4.6341
4 Heptachlor	6.682	6.682	0.000	1362725	5.00000	4.6733
9 Endosulfan I	9.975	9.976	-0.001	1112408	5.00000	4.7409
13 Dieldrin	10.813	10.815	-0.002	2056774	10.0000	9.1441
14 Endrin	11.790	11.793	-0.003	1906280	10.0000	9.7069
15 4,4'-DDD	12.275	12.277	-0.002	1789131	10.0000	9.7738
17 4,4'-DDT	13.070	13.071	-0.001	1324775	10.0000	8.8887
19 Methoxychlor	15.515	15.516	-0.001	3460967	50.0000	48.7002
$ 22 Decachlorobiphenyl	18.697	18.696	0.001	1637741	10.0000	9.6242(M)

Data File: /var/chem/gcsv8.i/2020617.b/SV8004.d
Report Date: 26-Jun-2002 09:37

QC Flag Legend

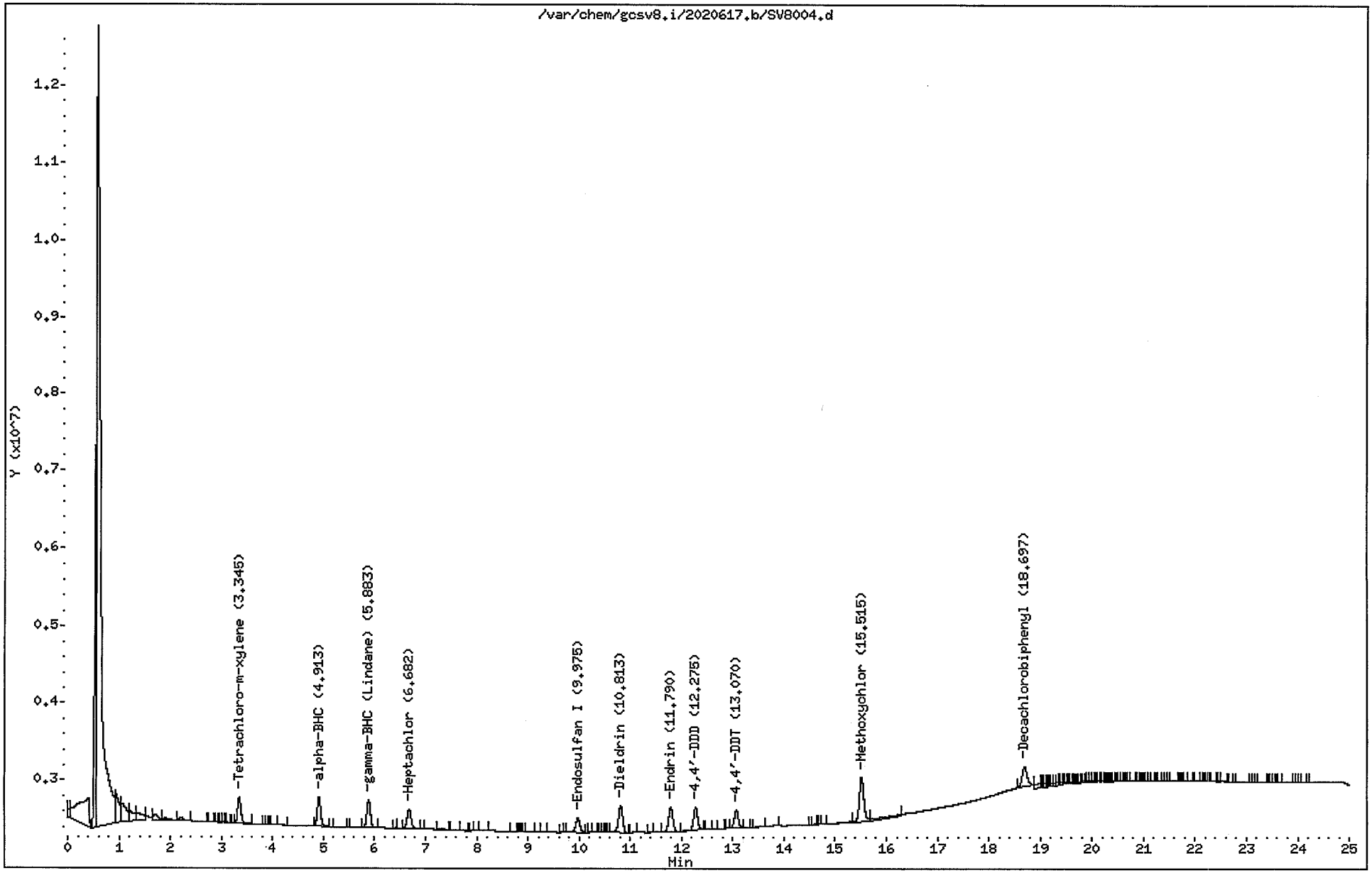
M - Compound response manually integrated.

Data File: /var/chem/gcsv8.i/2020617.b/SV8004.d
Date : 17-JUN-2002 21:04
Client ID:
Sample Info: IND A I
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv8.i

Operator: tnt
Column diameter: 0.53

000369



Data File: /var/chem/gcsv8.i/2020617.b/SV8005.d
Report Date: 26-Jun-2002 09:37

Gulf Coast Analytical Services

Data file : /var/chem/gcsv8.i/2020617.b/SV8005.d
Lab Smp Id: IND A II
Inj Date : 17-JUN-2002 21:34
Operator : tnt Inst ID: gcsv8.i
Smp Info : IND A II
Misc Info :
Comment :
Method : /var/chem/gcsv8.i/2020617.b/pest608.m
Meth Date : 26-Jun-2002 09:34 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 15:50 Cal File: SV8024.d
Als bottle: 5 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: inda.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

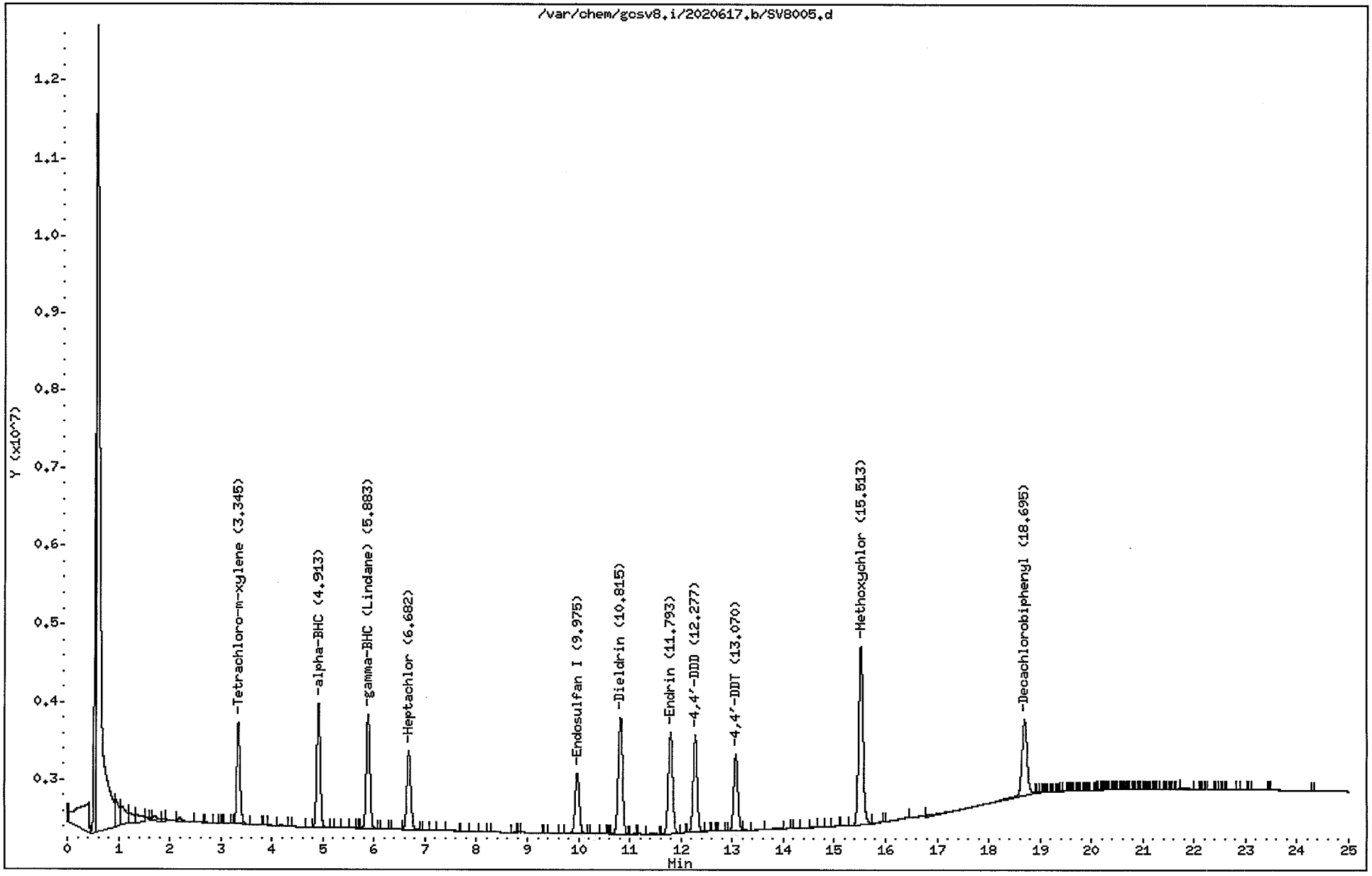
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
$ 1 Tetrachloro-m-xylene	3.345	3.346	-0.001	5988553	20.0000	20.0454
2 alpha-BHC	4.913	4.914	-0.001	7535323	20.0000	19.4576
3 gamma-BHC (Lindane)	5.883	5.884	-0.001	7236699	20.0000	19.5664
4 Heptachlor	6.682	6.682	0.000	5653820	20.0000	19.3891
9 Endosulfan I	9.975	9.976	-0.001	4506928	20.0000	19.2079
13 Dieldrin	10.815	10.815	0.000	8648997	40.0000	38.4522
14 Endrin	11.793	11.793	0.000	7457369	40.0000	37.9737
15 4,4'-DDD	12.277	12.277	0.000	6920700	40.0000	37.8071
17 4,4'-DDT	13.070	13.071	-0.001	5422621	40.0000	36.3835
19 Methoxychlor	15.513	15.516	-0.003	13409292	200.000	188.6859
$ 22 Decachlorobiphenyl	18.695	18.696	-0.001	7583720	40.0000	44.5659

Data File: /var/chem/gosv8.i/2020617.b/SV8005.d
Date : 17-JUN-2002 21:34
Client ID:
Sample Info: IND A II
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gosv8.i

Operator: tnt
Column diameter: 0.53



000371

Data File: /var/chem/gcsv8.i/2020617.b/SV8006.d
Report Date: 26-Jun-2002 09:37

Gulf Coast Analytical Services

Data file : /var/chem/gcsv8.i/2020617.b/SV8006.d
Lab Smp Id: IND A III
Inj Date : 17-JUN-2002 22:03
Operator : tnt Inst ID: gcsv8.i
Smp Info : IND A III
Misc Info :
Comment :
Method : /var/chem/gcsv8.i/2020617.b/pest608.m
Meth Date : 26-Jun-2002 09:34 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 16:20 Cal File: SV8025.d
Als bottle: 6 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: inda.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

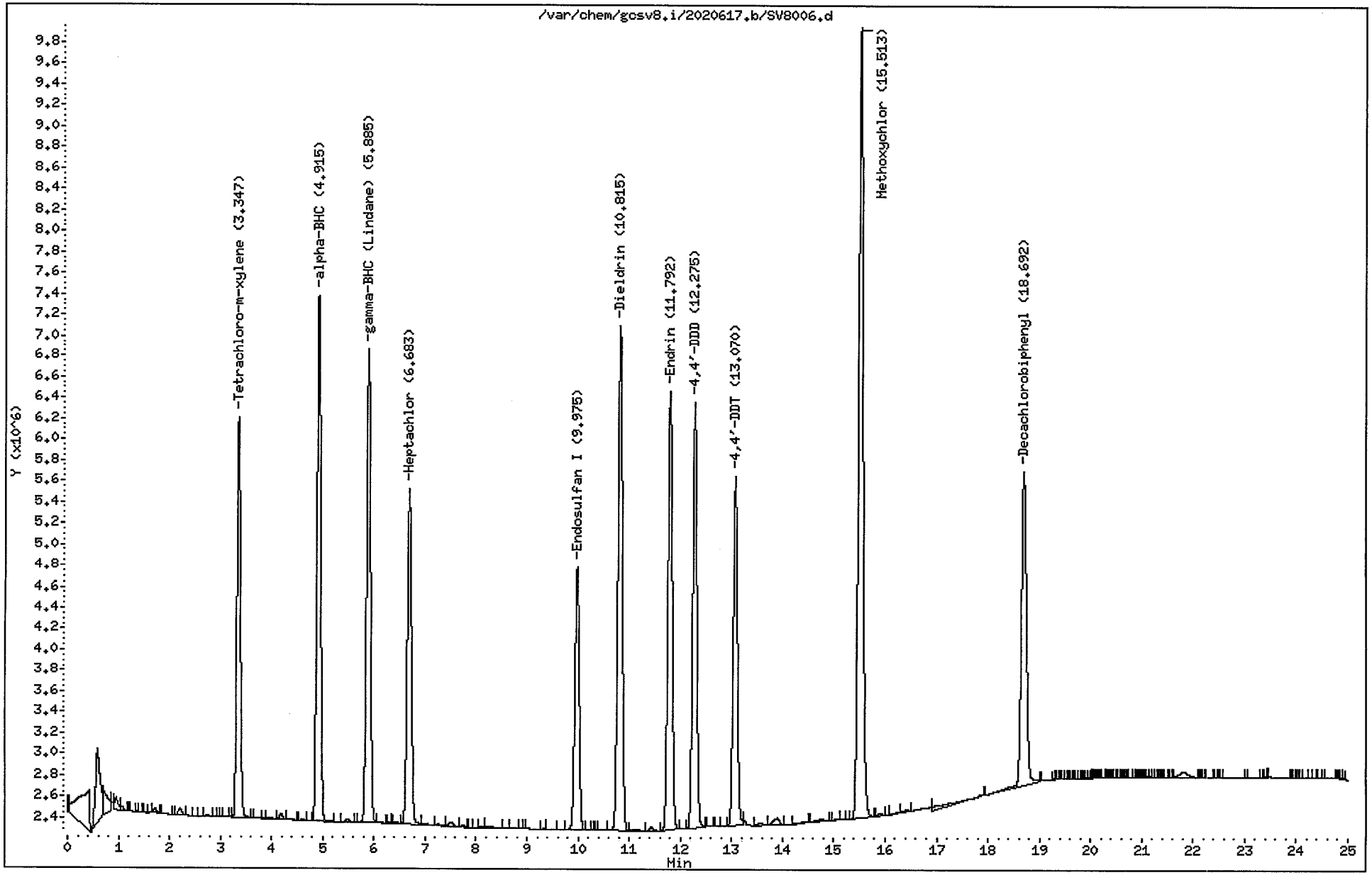
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
$ 1 Tetrachloro-m-xylene	3.347	3.346	0.001	18257141	60.0000	61.1120
2 alpha-BHC	4.915	4.914	0.001	24682491	60.0000	63.7350
3 gamma-BHC (Lindane)	5.885	5.884	0.001	23110102	60.0000	62.4847
4 Heptachlor	6.683	6.682	0.001	18247114	60.0000	62.5764
9 Endosulfan I	9.975	9.976	-0.001	14625883	60.0000	62.3335
13 Dieldrin	10.815	10.815	0.000	28306672	120.000	125.8475
14 Endrin	11.792	11.793	-0.001	24451772	120.000	124.5111
15 4,4'-DDD	12.275	12.277	-0.002	22755039	120.000	124.3087
17 4,4'-DDT	13.070	13.071	-0.001	18725703	120.000	125.6418
19 Methoxychlor	15.513	15.516	-0.003	44249750	600.000	622.6507
$ 22 Decachlorobiphenyl	18.692	18.696	-0.004	20142812	120.000	118.3696

Data File: /var/chem/gcsv8.i/2020617.b/SV8006.d
Date : 17-JUN-2002 22:03
Client ID:
Sample Info: IND A III
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv8.i

Operator: tnt
Column diameter: 0.53

000373



Data File: /var/chem/gcsv8.i/2020617.b/SV8008.d
Report Date: 26-Jun-2002 09:37

Gulf Coast Analytical Services

Data file : /var/chem/gcsv8.i/2020617.b/SV8008.d
Lab Smp Id: IND A IV
Inj Date : 17-JUN-2002 23:02
Operator : tnt Inst ID: gcsv8.i
Smp Info : IND A IV
Misc Info :
Comment :
Method : /var/chem/gcsv8.i/2020617.b/pest608.m
Meth Date : 26-Jun-2002 09:34 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 17:19 Cal File: SV8027.d
Als bottle: 8 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: inda.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
$ 1 Tetrachloro-m-xylene	3.345	3.346	-0.001	23707278	80.0000	79.3552
2 alpha-BHC	4.913	4.914	-0.001	32102739	80.0000	82.8956(M)
3 gamma-BHC (Lindane)	5.883	5.884	-0.001	30719735	80.0000	83.0595
4 Heptachlor	6.682	6.682	0.000	24196503	80.0000	82.9792
9 Endosulfan I	9.977	9.976	0.001	19263186	80.0000	82.0970(M)
13 Dieldrin	10.815	10.815	0.000	37644977	160.000	167.3643
14 Endrin	11.792	11.793	-0.001	32422596	160.000	165.0994
15 4,4'-DDD	12.275	12.277	-0.002	30346643	160.000	165.7809
17 4,4'-DDT	13.070	13.071	-0.001	25870766	160.000	173.5823
19 Methoxychlor	15.513	15.516	-0.003	57951305	800.000	815.4492
$ 22 Decachlorobiphenyl	18.692	18.696	-0.004	25755533	160.000	151.3529

Data File: /var/chem/gcsv8.i/2020617.b/SV8008.d
Report Date: 26-Jun-2002 09:37

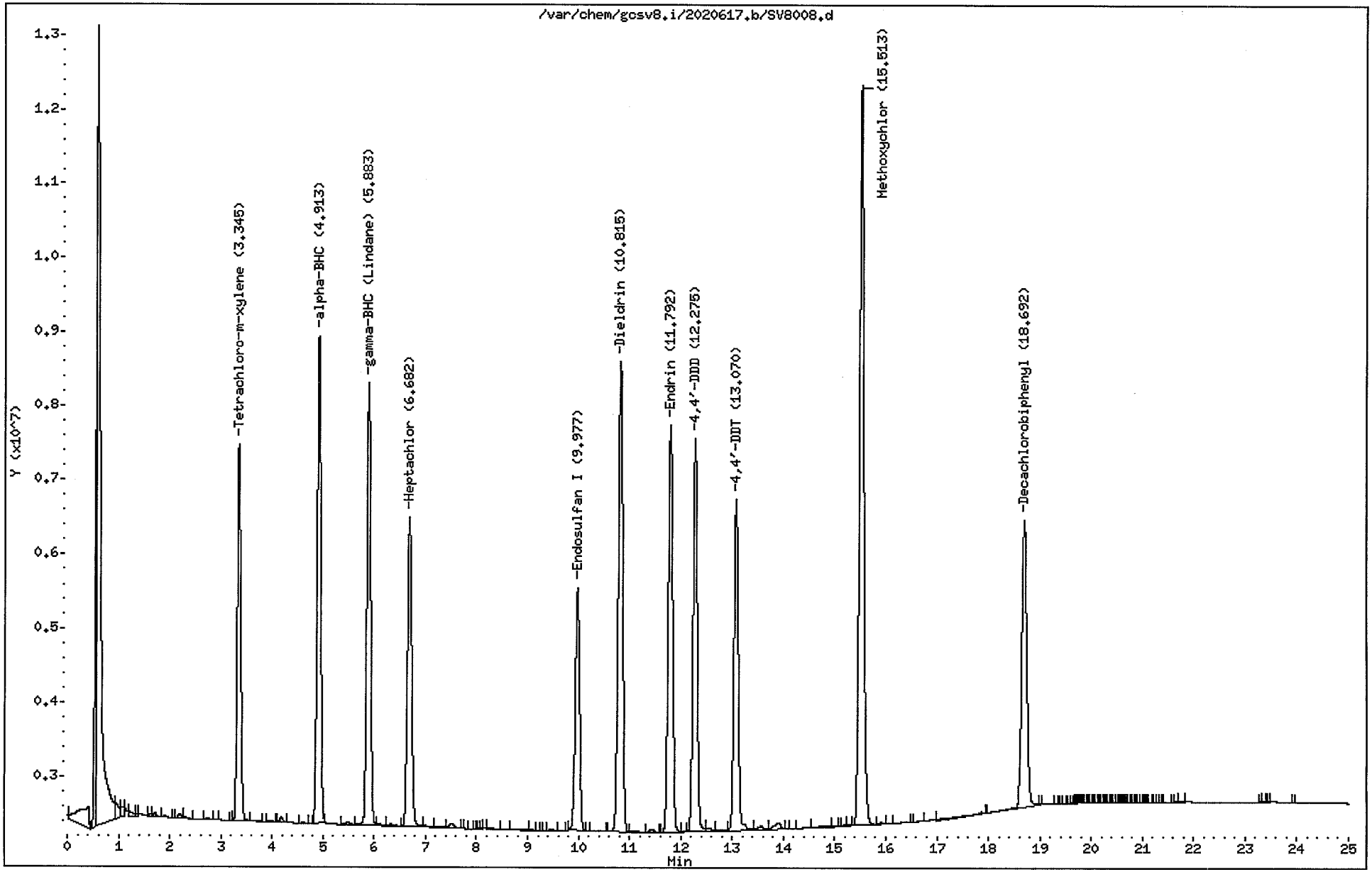
QC Flag Legend

M - Compound response manually integrated.

Data File: /var/chem/gcsv8.i/2020617.b/SV8008.d
Date : 17-JUN-2002 23:02
Client ID:
Sample Info: IND A IV
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv8.i

Operator: tnt
Column diameter: 0.53



0003376

Data File: /var/chem/gcsv8.i/2020617.b/SV8009.d
Report Date: 26-Jun-2002 09:37

Gulf Coast Analytical Services

Data file : /var/chem/gcsv8.i/2020617.b/SV8009.d
Lab Smp Id: IND A V
Inj Date : 17-JUN-2002 23:32
Operator : tnt Inst ID: gcsv8.i
Smp Info : IND A V
Misc Info :
Comment :
Method : /var/chem/gcsv8.i/2020617.b/pest608.m
Meth Date : 26-Jun-2002 09:34 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 17:49 Cal File: SV8028.d
Als bottle: 9 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: inda.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
$ 1 Tetrachloro-m-xylene	3.345	3.346	-0.001	28836028	100.000	96.5226
2 alpha-BHC	4.915	4.914	0.001	39860091	100.000	102.9266(A)
3 gamma-BHC (Lindane)	5.885	5.884	0.001	37546862	100.000	101.5186(A)
4 Heptachlor	6.683	6.682	0.001	29617431	100.000	101.5697(A)
9 Endosulfan I	9.977	9.976	0.001	24081307	100.000	102.6312(A)
13 Dieldrin	10.815	10.815	0.000	46313821	200.000	205.9048(A)
14 Endrin	11.792	11.793	-0.001	39688563	200.000	202.0985(A)
15 4,4'-DDD	12.275	12.277	-0.002	36808136	200.000	201.0795(A)
17 4,4'-DDT	13.070	13.071	-0.001	31883751	200.000	213.9270(A)
19 Methoxychlor	15.515	15.516	-0.001	72879116	1000.00	1025.5026(A)
$ 22 Decachlorobiphenyl	18.693	18.696	-0.003	33729469	200.000	198.2119

Data File: /var/chem/gcsv8.i/2020617.b/SV8009.d
Report Date: 26-Jun-2002 09:37

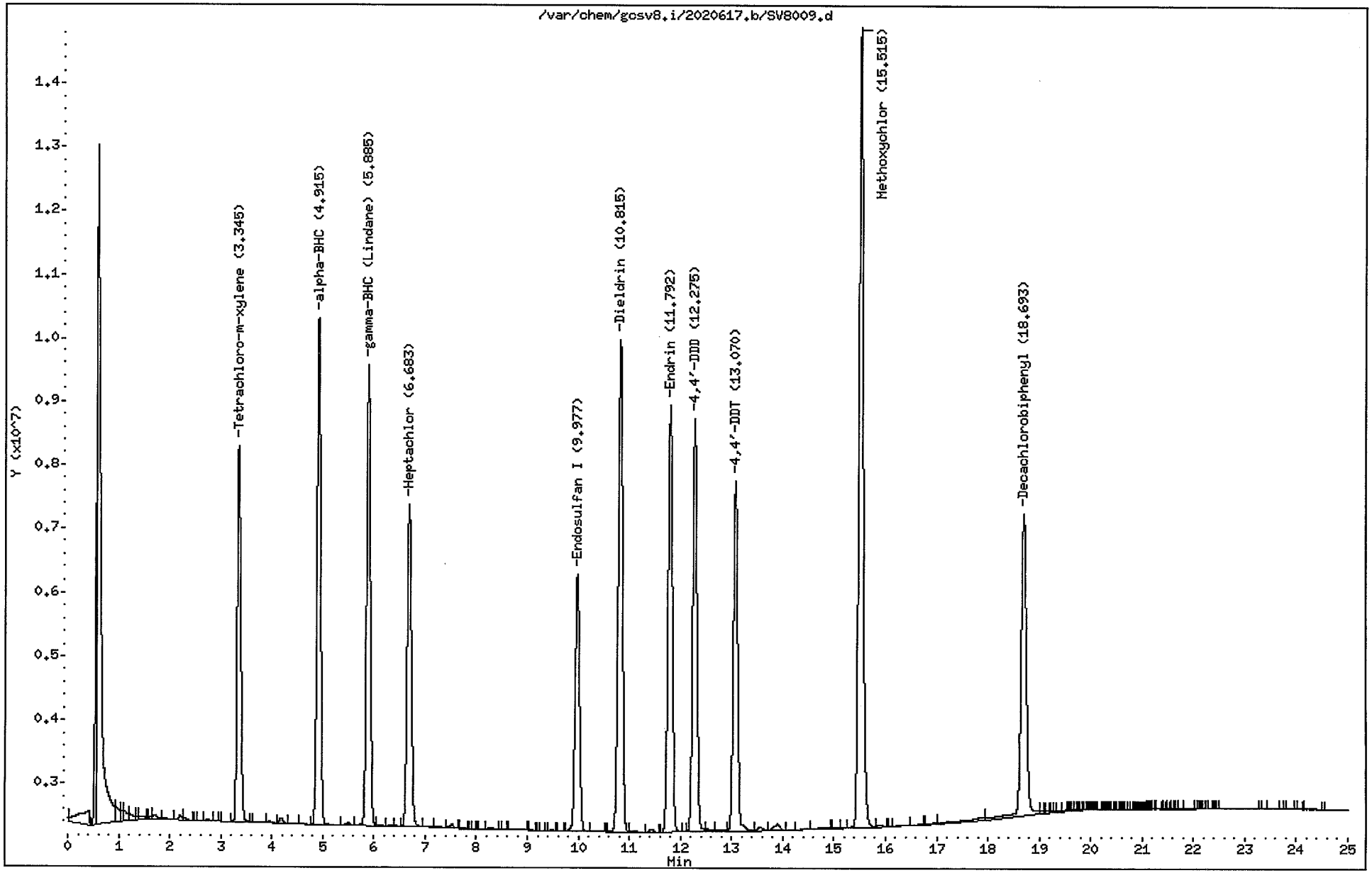
QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /var/chem/gcsv8.i/2020617.b/SV8009.d
Date : 17-JUN-2002 23:32
Client ID:
Sample Info: IND A V
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv8.i

Operator: tnt
Column diameter: 0.53



000379

Data File: /var/chem/gcsv8.i/2020617.b/SV8010.d
Report Date: 26-Jun-2002 09:37

Gulf Coast Analytical Services

Data file : /var/chem/gcsv8.i/2020617.b/SV8010.d
Lab Smp Id: IND B I
Inj Date : 18-JUN-2002 00:02
Operator : tnt Inst ID: gcsv8.i
Smp Info : IND B I
Misc Info :
Comment :
Method : /var/chem/gcsv8.i/2020617.b/pest608.m
Meth Date : 26-Jun-2002 09:34 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 15:21 Cal File: SV8023.d
Als bottle: 10 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indb.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

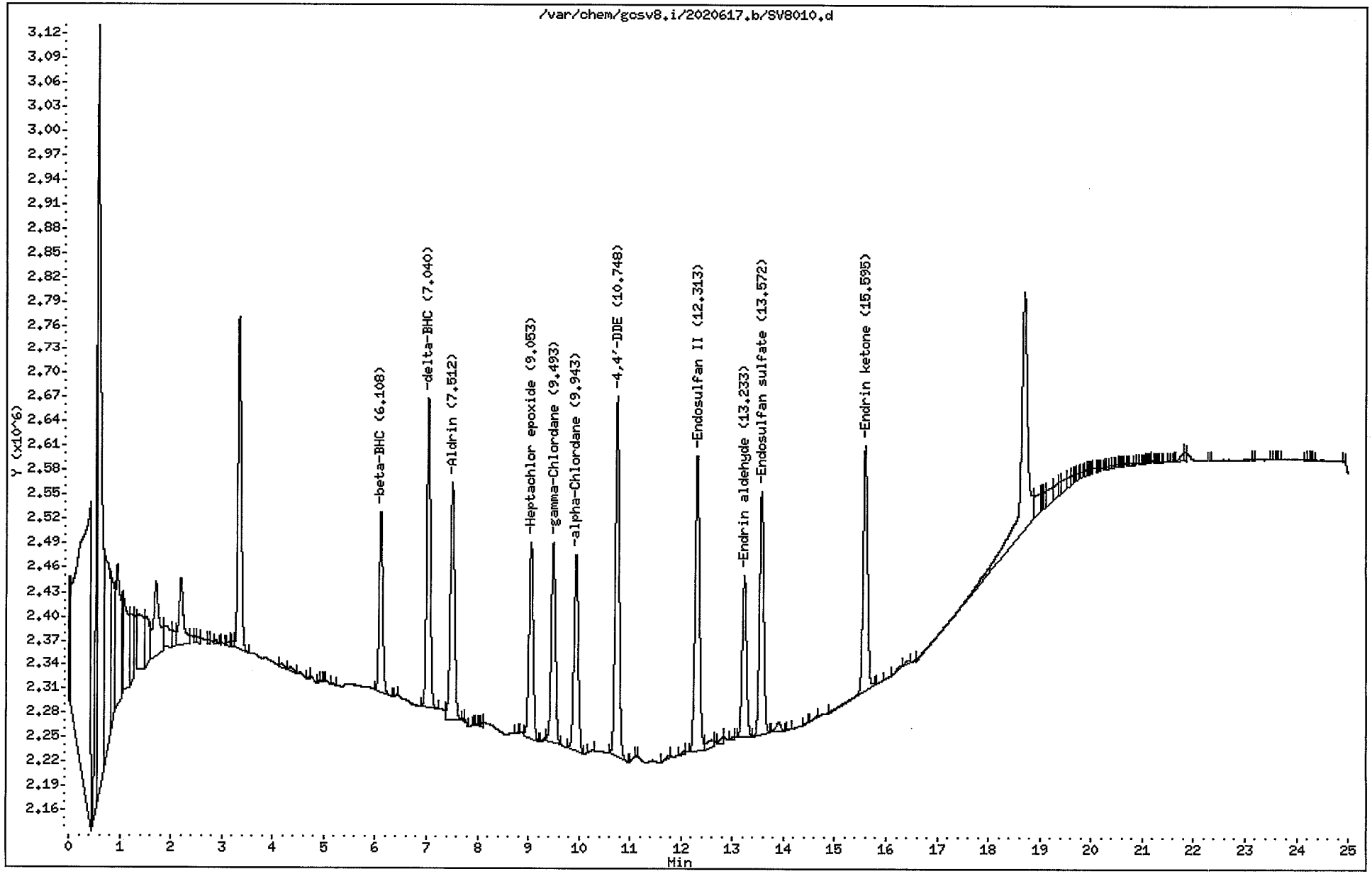
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
5 Aldrin	7.512	7.511	0.001	1726799	5.00000	4.6002
6 beta-BHC	6.108	6.108	0.000	1090974	5.00000	4.9862
7 delta-BHC	7.040	7.039	0.001	1845655	5.00000	4.4700
8 Heptachlor epoxide	9.053	9.053	0.000	1388887	5.00000	4.6051
10 gamma-Chlordane	9.493	9.494	-0.001	1423912	5.00000	4.5026
11 alpha-Chlordane	9.943	9.944	-0.001	1414536	5.00000	4.6436
12 4,4'-DDE	10.748	10.749	-0.001	2454595	10.0000	9.0404
16 Endosulfan II	12.313	12.312	0.001	2140996	10.0000	9.6346
18 Endrin aldehyde	13.233	13.232	0.001	1146374	10.0000	9.1988
20 Endosulfan sulfate	13.572	13.572	0.000	1708164	10.0000	8.9550
21 Endrin ketone	15.595	15.596	-0.001	1754428	10.0000	9.1269

Data File: /var/chem/gcsv8.i/2020617.b/SV8010.d
Date : 18-JUN-2002 00:02
Client ID:
Sample Info: IND B I
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv8.i

Operator: tnt
Column diameter: 0.53

000381



Data File: /var/chem/gcsv8.i/2020617.b/SV8011.d
Report Date: 26-Jun-2002 09:37

Gulf Coast Analytical Services

Data file : /var/chem/gcsv8.i/2020617.b/SV8011.d
Lab Smp Id: IND B II
Inj Date : 18-JUN-2002 09:26
Operator : tls Inst ID: gcsv8.i
Smp Info : IND B II
Misc Info :
Comment :
Method : /var/chem/gcsv8.i/2020617.b/pest608.m
Meth Date : 26-Jun-2002 09:34 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 15:50 Cal File: SV8024.d
Als bottle: 11 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indb.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

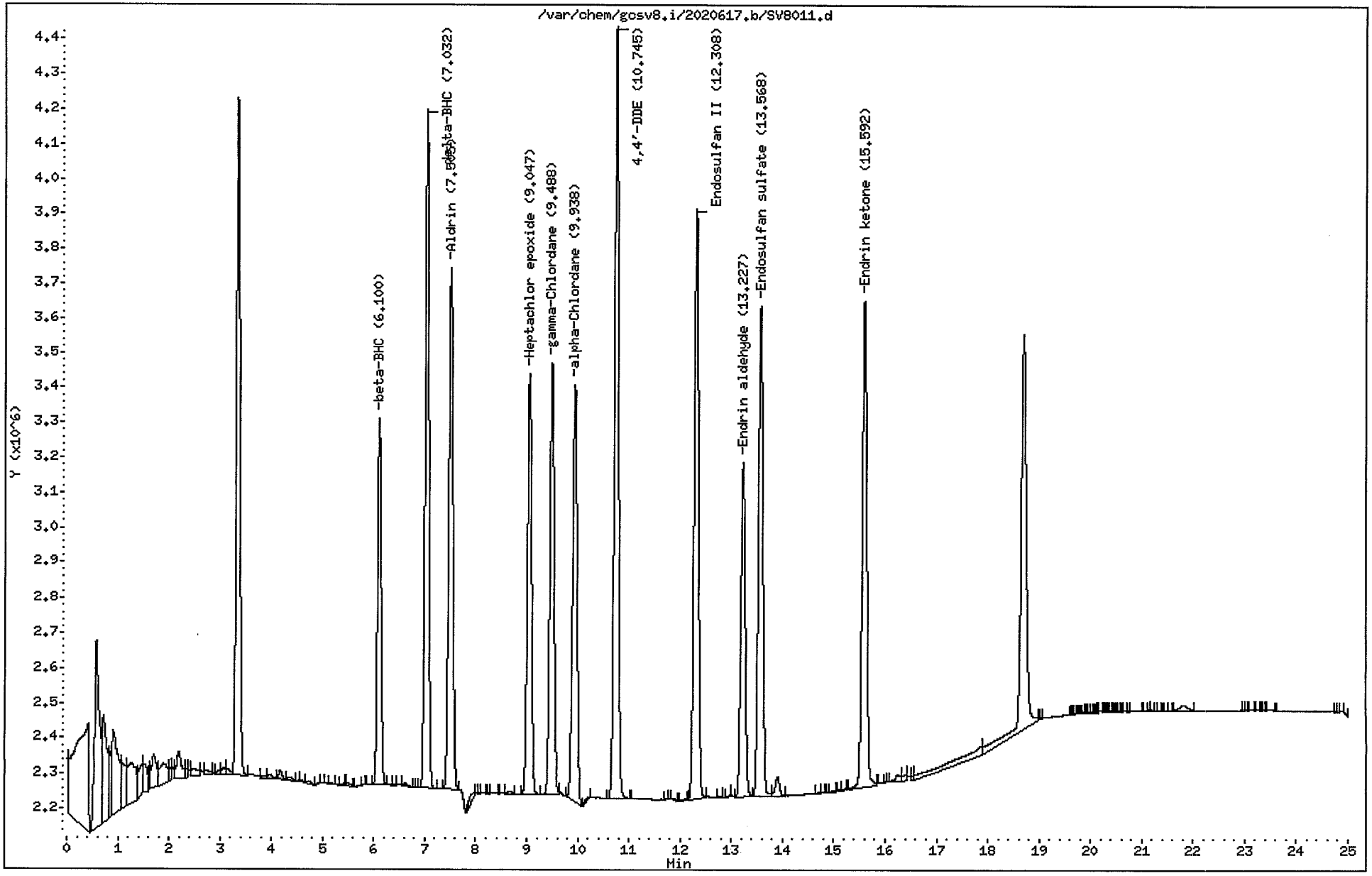
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
5 Aldrin	7.505	7.511	-0.006	8651578	20.0000	23.0480
6 beta-BHC	6.100	6.108	-0.008	5180222	20.0000	23.6759
7 delta-BHC	7.032	7.039	-0.007	9581774	20.0000	23.2064
8 Heptachlor epoxide	9.047	9.053	-0.006	6826507	20.0000	22.6348
10 gamma-Chlordane	9.488	9.494	-0.006	7097745	20.0000	22.4444
11 alpha-Chlordane	9.938	9.944	-0.006	6978556	20.0000	22.9090
12 4,4'-DDE	10.745	10.749	-0.004	12255644	40.0000	45.1383
16 Endosulfan II	12.308	12.312	-0.004	9689665	40.0000	43.6040
18 Endrin aldehyde	13.227	13.232	-0.005	5522850	40.0000	44.3168
20 Endosulfan sulfate	13.568	13.572	-0.004	8047942	40.0000	42.1911
21 Endrin ketone	15.592	15.596	-0.004	8098772	40.0000	42.1316

Data File: /var/chem/gcsv8.i/2020617.b/SV8011.d
Date : 18-JUN-2002 09:26
Client ID:
Sample Info: IND B II
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv8.i

Operator: tls
Column diameter: 0.53

0000383



Data File: /var/chem/gcsv8.i/2020617.b/SV8012.d
Report Date: 26-Jun-2002 09:37

Gulf Coast Analytical Services

Data file : /var/chem/gcsv8.i/2020617.b/SV8012.d
Lab Smp Id: IND B III
Inj Date : 18-JUN-2002 09:55
Operator : tls Inst ID: gcsv8.i
Smp Info : IND B III
Misc Info :
Comment :
Method : /var/chem/gcsv8.i/2020617.b/pest608.m
Meth Date : 26-Jun-2002 09:34 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 16:20 Cal File: SV8025.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indb.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

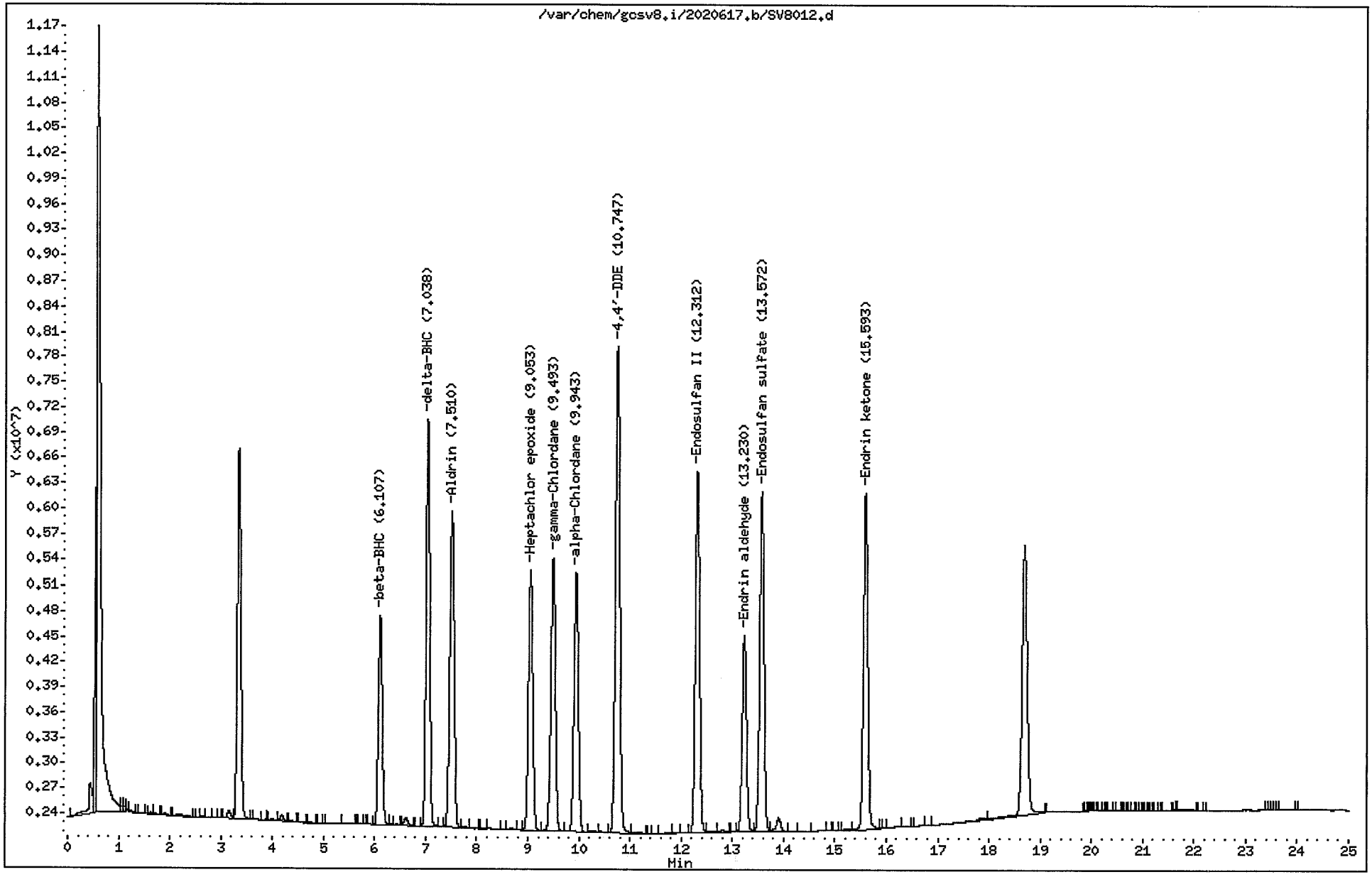
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
5 Aldrin	7.510	7.511	-0.001	22006580	60.0000	58.6260
6 beta-BHC	6.107	6.108	-0.001	12559082	60.0000	57.4007
7 delta-BHC	7.038	7.039	-0.001	24296284	60.0000	58.8439
8 Heptachlor epoxide	9.053	9.053	0.000	17853362	60.0000	59.1970
10 gamma-Chlordane	9.493	9.494	-0.001	19038114	60.0000	60.2021
11 alpha-Chlordane	9.943	9.944	-0.001	17973821	60.0000	59.0041
12 4,4'-DDE	10.747	10.749	-0.002	32697976	120.000	120.4288
16 Endosulfan II	12.312	12.312	0.000	25031630	120.000	112.6437
18 Endrin aldehyde	13.230	13.232	-0.002	13732439	120.000	110.1927
20 Endosulfan sulfate	13.572	13.572	0.000	23335825	120.000	122.3375
21 Endrin ketone	15.593	15.596	-0.003	23155259	120.000	120.4589

Data File: /var/chem/gcsv8.i/2020617.b/SV8012.d
Date : 18-JUN-2002 09:55
Client ID:
Sample Info: IND B III
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv8.i

Operator: tls
Column diameter: 0.53

000385



Data File: /var/chem/gcsv8.i/2020617.b/SV8014.d
Report Date: 26-Jun-2002 09:37

Gulf Coast Analytical Services

Data file : /var/chem/gcsv8.i/2020617.b/SV8014.d
Lab Smp Id: IND B IV
Inj Date : 18-JUN-2002 10:54
Operator : tls Inst ID: gcsv8.i
Smp Info : IND B IV
Misc Info :
Comment :
Method : /var/chem/gcsv8.i/2020617.b/pest608.m
Meth Date : 26-Jun-2002 09:34 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 17:19 Cal File: SV8027.d
Als bottle: 14 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indb.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

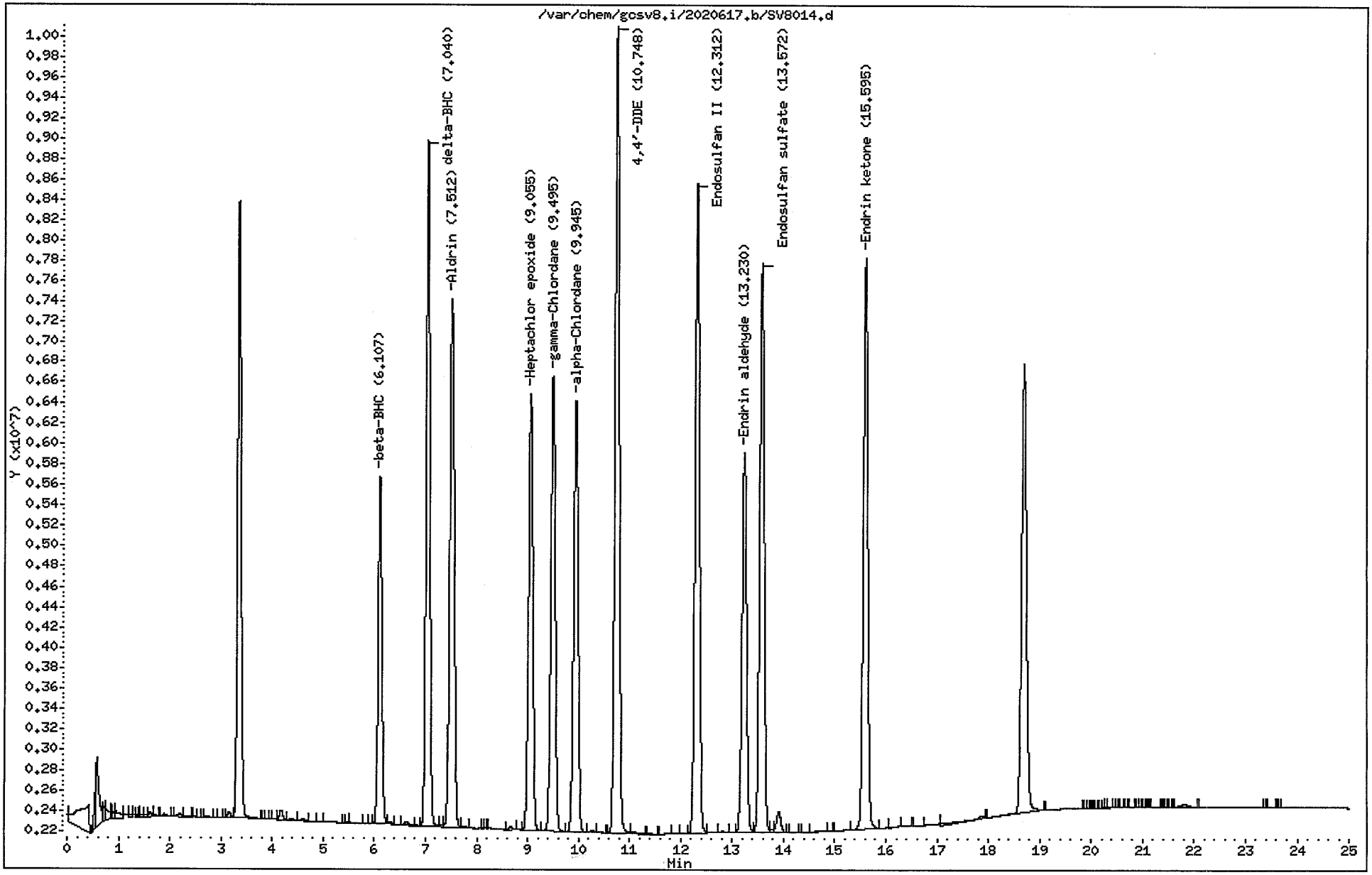
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
5 Aldrin	7.512	7.511	0.001	31208918	80.0000	83.1413
6 beta-BHC	6.107	6.108	-0.001	17334830	80.0000	79.2281
7 delta-BHC	7.040	7.039	0.001	34523510	80.0000	83.6136
8 Heptachlor epoxide	9.055	9.053	0.002	25088252	80.0000	83.1859
10 gamma-Chlordane	9.495	9.494	0.001	26460563	80.0000	83.6733
11 alpha-Chlordane	9.945	9.944	0.001	25096504	80.0000	82.3863
12 4,4'-DDE	10.748	10.749	-0.001	45290073	160.000	166.8063
16 Endosulfan II	12.312	12.312	0.000	37662045	160.000	169.4814
18 Endrin aldehyde	13.230	13.232	-0.002	22001644	160.000	176.5470
20 Endosulfan sulfate	13.572	13.572	0.000	32843837	160.000	172.1830
21 Endrin ketone	15.595	15.596	-0.001	32996207	160.000	171.6538

Data File: /var/chem/gcsv8.i/2020617.b/SV8014.d
Date : 18-JUN-2002 10:54
Client ID:
Sample Info: IND B IV
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv8.i

Operator: tls
Column diameter: 0.53

0003187



Data File: /var/chem/gcsv8.i/2020617.b/SV8015.d
Report Date: 26-Jun-2002 09:37

Gulf Coast Analytical Services

Data file : /var/chem/gcsv8.i/2020617.b/SV8015.d
Lab Smp Id: IND B V
Inj Date : 18-JUN-2002 11:24
Operator : tls Inst ID: gcsv8.i
Smp Info : IND B V
Misc Info :
Comment :
Method : /var/chem/gcsv8.i/2020617.b/pest608.m
Meth Date : 26-Jun-2002 09:34 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 17:49 Cal File: SV8028.d
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indb.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

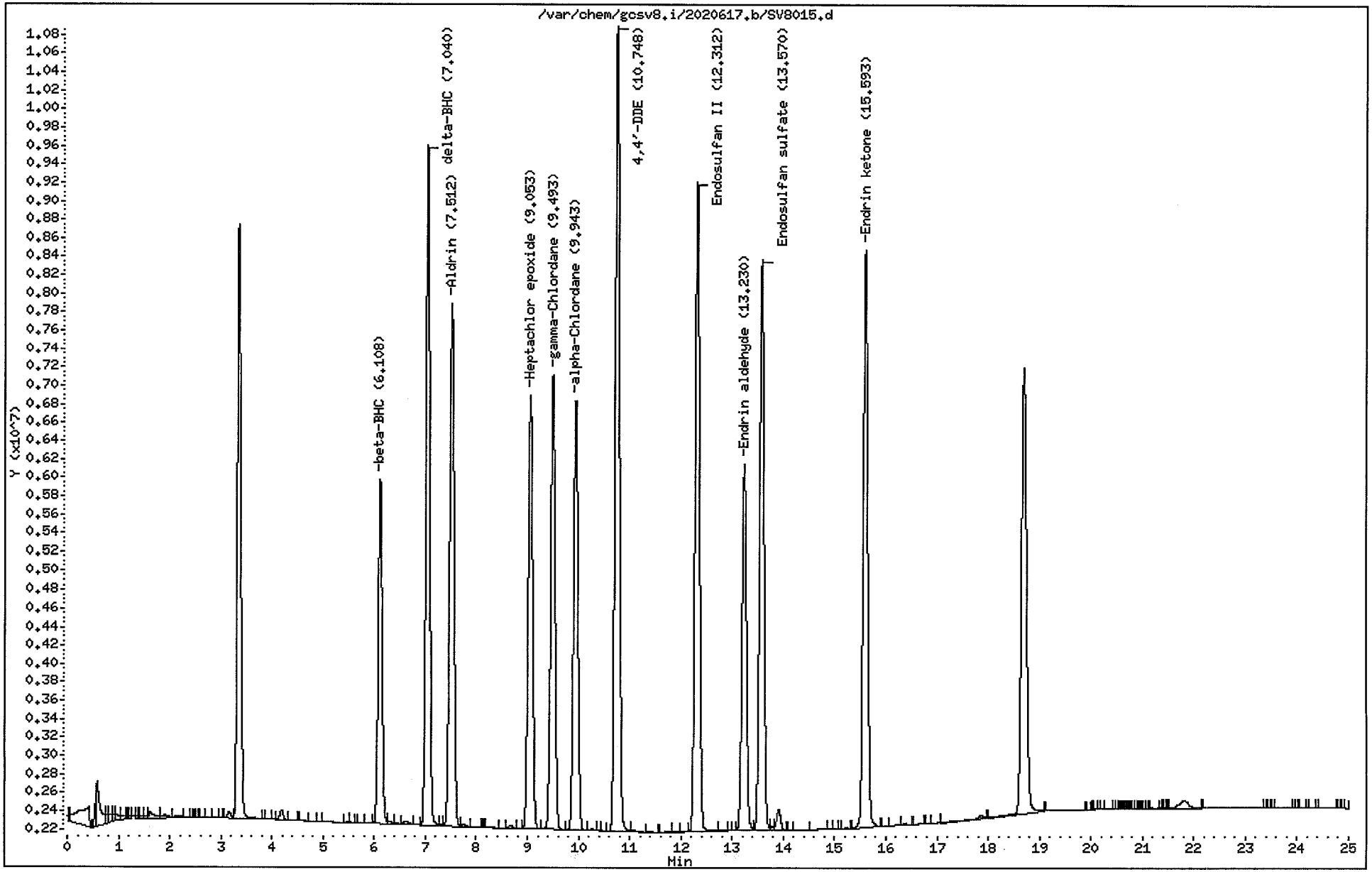
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
5 Aldrin	7.512	7.511	0.001	34203265	100.000	91.1183
6 beta-BHC	6.108	6.108	0.000	19077290	100.000	87.1919
7 delta-BHC	7.040	7.039	0.001	37976458	100.000	91.9764
8 Heptachlor epoxide	9.053	9.053	0.000	27769973	100.000	92.0778
10 gamma-Chlordane	9.493	9.494	-0.001	29345362	100.000	92.7956
11 alpha-Chlordane	9.943	9.944	-0.001	27799428	100.000	91.2594
12 4,4'-DDE	10.748	10.749	-0.001	50033576	200.000	184.2769
16 Endosulfan II	12.312	12.312	0.000	42154155	200.000	189.6961
18 Endrin aldehyde	13.230	13.232	-0.002	23690834	200.000	190.1015
20 Endosulfan sulfate	13.570	13.572	-0.002	36398681	200.000	190.8192
21 Endrin ketone	15.593	15.596	-0.003	36805536	200.000	191.4708

Data File: /var/chem/gcsv8.i/2020617.b/SV8015.d
Date : 18-JUN-2002 11:24
Client ID:
Sample Info: IND B V
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv8.i

Operator: tls
Column diameter: 0.53

000389



Data File: /var/chem/gcsv8.i/2020617.b/SV8016.d
Report Date: 26-Jun-2002 09:38

Gulf Coast Analytical Services

Data file : /var/chem/gcsv8.i/2020617.b/SV8016.d
Lab Smp Id: CHLORDANE V
Inj Date : 18-JUN-2002 11:54
Operator : tls Inst ID: gcsv8.i
Smp Info : CHLORDANE V
Misc Info :
Comment :
Method : /var/chem/gcsv8.i/2020617.b/pest608.m
Meth Date : 26-Jun-2002 09:34 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 17:49 Cal File: SV8028.d
Als bottle: 16 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLOR.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

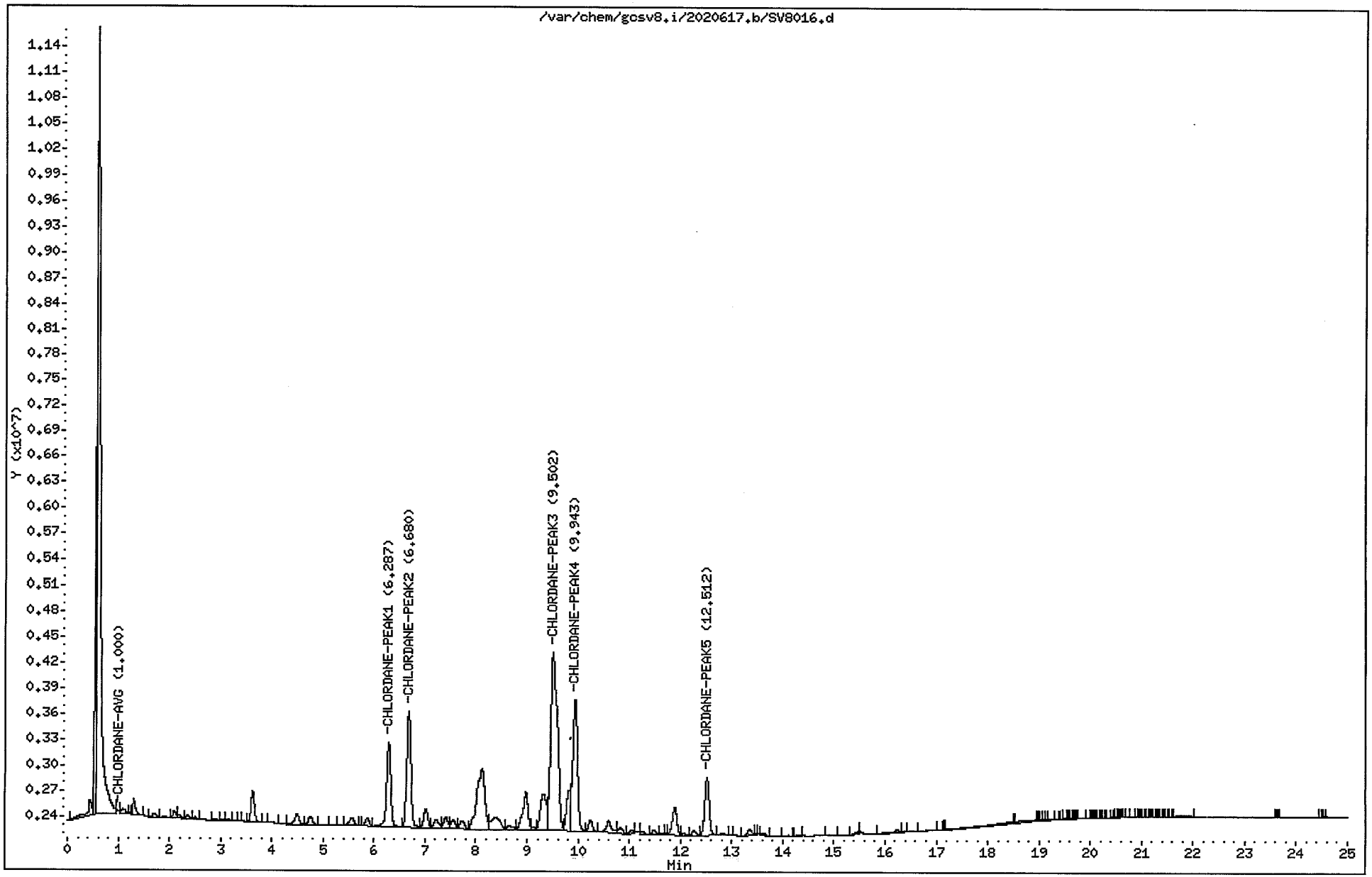
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
M 68 CHLORDANE-AVG				47597096	400.000	400.0000
69 CHLORDANE-PEAK1	6.287	6.287	0.000	5791167	400.000	400.0000
70 CHLORDANE-PEAK2	6.680	6.680	0.000	7830376	400.000	400.0000
71 CHLORDANE-PEAK3	9.502	9.502	0.000	19430727	400.000	400.0000
72 CHLORDANE-PEAK4	9.943	9.943	0.000	10425329	400.000	400.0000
73 CHLORDANE-PEAK5	12.512	12.512	0.000	4119497	400.000	400.0000

Data File: /var/chem/gcsv8.i/2020617.b/SV8016.d
Date : 18-JUN-2002 11:54
Client ID:
Sample Info: CHLORDANE V
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv8.i

Operator: tls
Column diameter: 0.53

000391



Data File: /var/chem/gcsv8.i/2020617.b/SV8017.d
Report Date: 26-Jun-2002 09:38

Gulf Coast Analytical Services

Data file : /var/chem/gcsv8.i/2020617.b/SV8017.d
Lab Smp Id: TOXAPHENE V
Inj Date : 18-JUN-2002 12:23
Operator : tls Inst ID: gcsv8.i
Smp Info : TOXAPHENE V
Misc Info :
Comment :
Method : /var/chem/gcsv8.i/2020617.b/pest608.m
Meth Date : 26-Jun-2002 09:34 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 17:49 Cal File: SV8028.d
Als bottle: 17 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOX.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

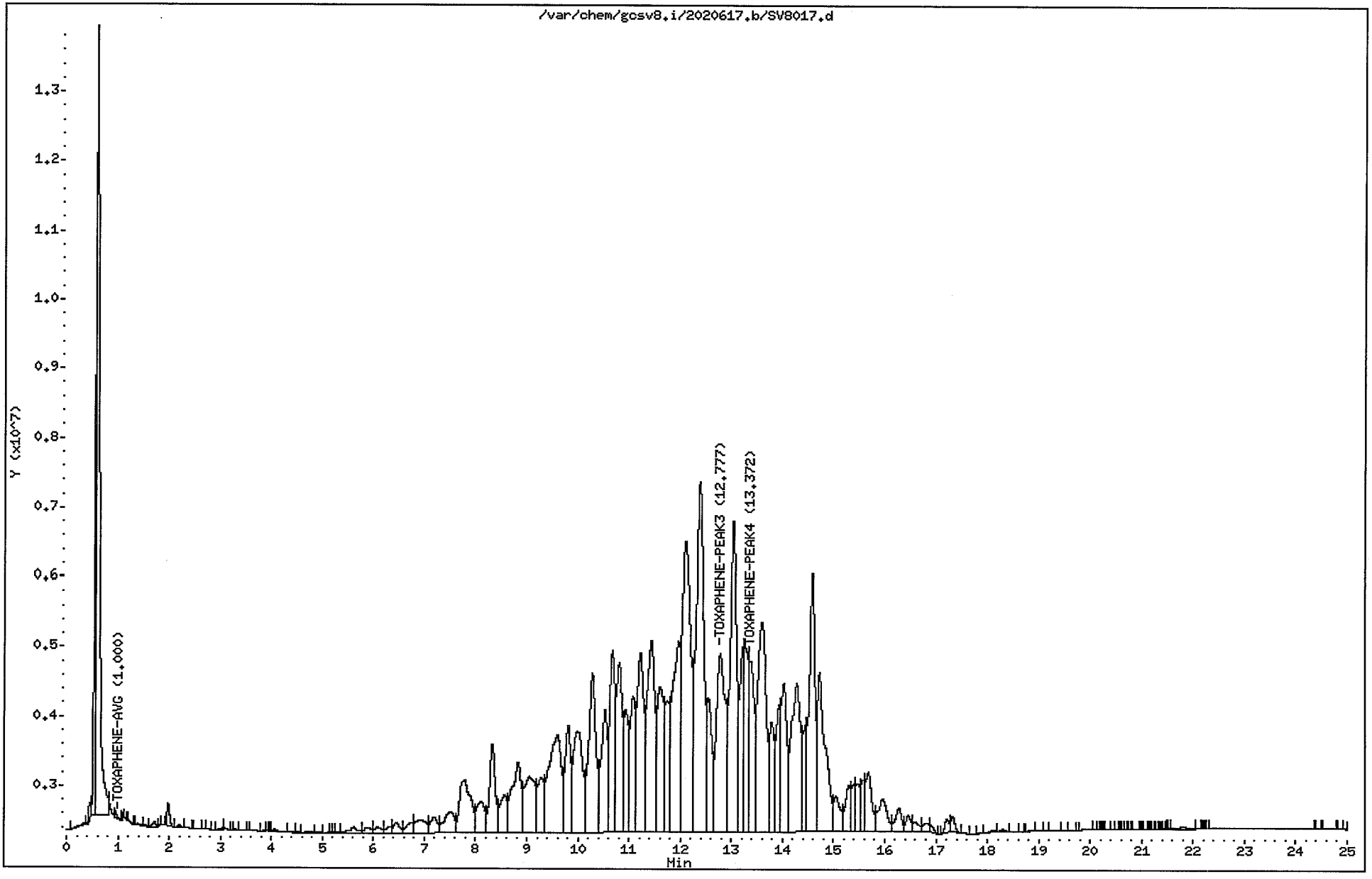
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
M 62 TOXAPHENE-AVG				46185697	5000.00	5000.0000
65 TOXAPHENE-PEAK3	12.777	12.778	-0.001	31378161	5000.00	5000.0000
66 TOXAPHENE-PEAK4	13.372	13.371	0.001	14807536	5000.00	5000.0000

Data File: /var/chem/gcsv8.i/2020617.b/SV8017.d
Date : 18-JUN-2002 12:23
Client ID:
Sample Info: TOXAPHENE V
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv8.i

Operator: tls
Column diameter: 0.53

000393



Data File: /var/chem/gcsv8.i/2020617.b/SV8007.d
Report Date: 26-Jun-2002 09:37

Gulf Coast Analytical Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv8.i Injection Date: 17-JUN-2002 22:33
Lab File ID: SV8007.d Init. Cal. Date(s): 17-JUN-2002 18-JUN-2002
Analysis Type: WATER Init. Cal. Times: 21:04 17:49
Lab Sample ID: IND A III ICV Quant Type: ESTD
Method: /var/chem/gcsv8.i/2020617.b/pest608.m

COMPOUND	RRF / AMOUNT	RF60	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 1 Tetrachloro-m-xylene	298749	327369	0.010	-9.58003	15.00000	Averaged
2 alpha-BHC	387267	438373	0.010	-13.19660	15.00000	Averaged
3 gamma-BHC (Lindane)	369852	411307	0.010	-11.20848	15.00000	Averaged
4 Heptachlor	291597	325454	0.010	-11.61101	15.00000	Averaged
9 Endosulfan I	234639	259549	0.010	-10.61643	15.00000	Averaged
13 Dieldrin	224928	251690	0.010	-11.89788	15.00000	Averaged
14 Endrin	196382	216746	0.010	-10.36944	15.00000	Averaged
15 4,4'-DDD	183053	202084	0.010	-10.39656	15.00000	Averaged
17 4,4'-DDT	149040	167936	0.010	-12.67856	15.00000	Averaged
19 Methoxychlor	71067	78752	0.010	-10.81399	15.00000	Averaged
$ 22 Decachlorobiphenyl	170169	181560	0.010	-6.69431	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 17.92978
Maximun Average %D/Drift = 15.00000
* Failed Average %D/Drift Test.

Data File: /var/chem/gcsv8.i/2020617.b/SV8007.d
Report Date: 26-Jun-2002 09:37

Gulf Coast Analytical Services

Data file : /var/chem/gcsv8.i/2020617.b/SV8007.d
Lab Smp Id: IND A III ICV
Inj Date : 17-JUN-2002 22:33
Operator : tnt Inst ID: gcsv8.i
Smp Info : IND A III ICV
Misc Info :
Comment :
Method : /var/chem/gcsv8.i/2020617.b/pest608.m
Meth Date : 26-Jun-2002 09:34 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 16:20 Cal File: SV8025.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: inda.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
$ 1 Tetrachloro-m-xylene	3.347	3.346	0.001	19642138	60.0000	65.7480
2 alpha-BHC	4.915	4.914	0.001	26302385	60.0000	67.9179
3 gamma-BHC (Lindane)	5.885	5.884	0.001	24678404	60.0000	66.7250(M)
4 Heptachlor	6.685	6.682	0.003	19527264	60.0000	66.9666
9 Endosulfan I	9.977	9.976	0.001	15572965	60.0000	66.3698(M)
13 Dieldrin	10.817	10.815	0.002	30202798	120.000	134.2774
14 Endrin	11.793	11.793	0.000	26009512	120.000	132.4433
15 4,4'-DDD	12.275	12.277	-0.002	24250056	120.000	132.4758
17 4,4'-DDT	13.070	13.071	-0.001	20152379	120.000	135.2142
19 Methoxychlor	15.513	15.516	-0.003	47251124	600.000	664.8839
$ 22 Decachlorobiphenyl	18.692	18.696	-0.004	21787234	120.000	128.0331

Data File: /var/chem/gcsv8.i/2020617.b/SV8007.d
Report Date: 26-Jun-2002 09:37

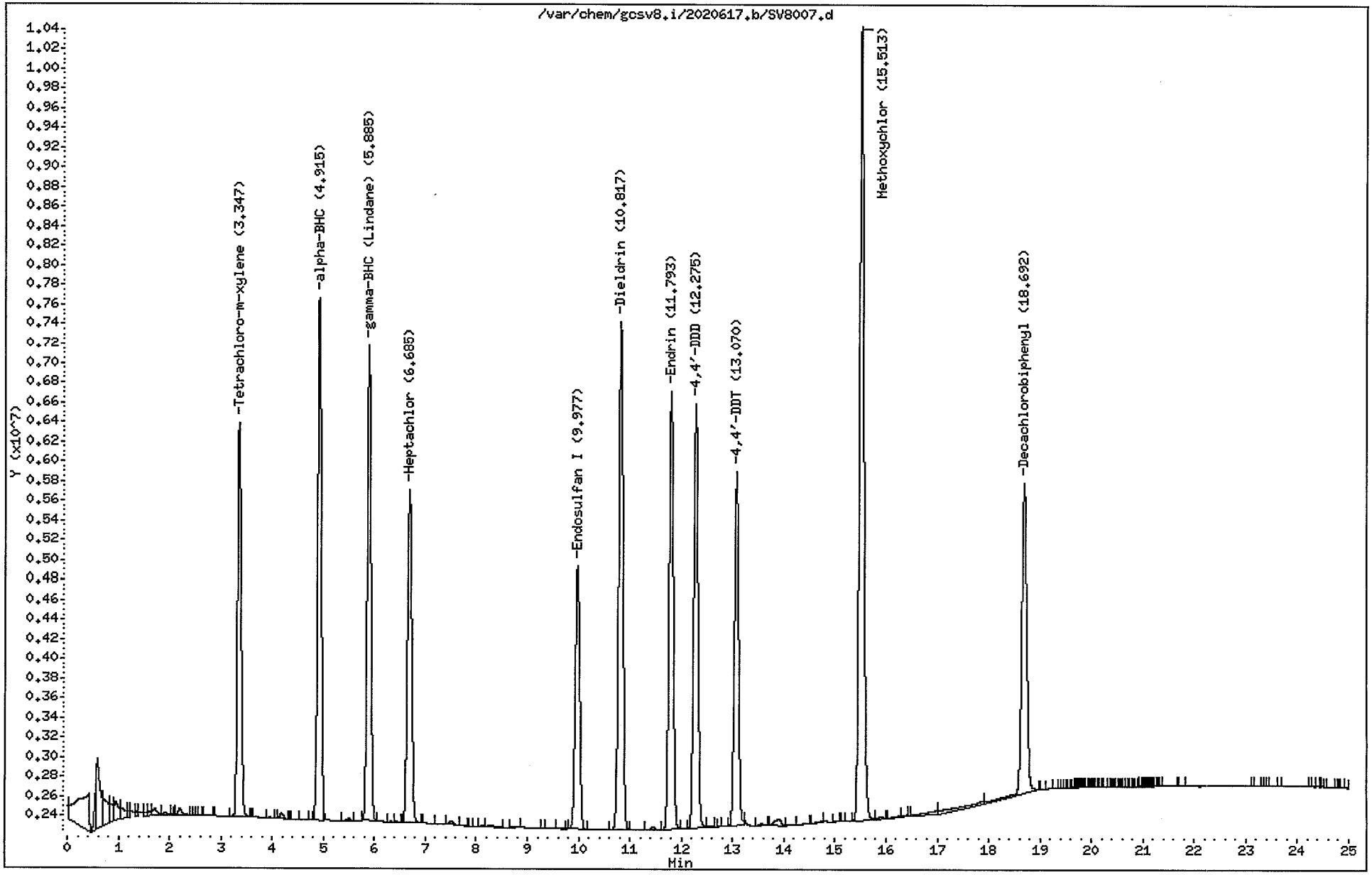
QC Flag Legend

M - Compound response manually integrated.

Data File: /var/chem/gcsv8.i/2020617.b/SV8007.d
Date : 17-JUN-2002 22:33
Client ID:
Sample Info: IND A III ICV
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv8.i

Operator: tnt
Column diameter: 0.53



0003397

Data File: /var/chem/gcsv8.i/2020617.b/SV8013.d
Report Date: 26-Jun-2002 09:37

Gulf Coast Analytical Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv8.i
Lab File ID: SV8013.d
Analysis Type: WATER
Lab Sample ID: IND B III ICV
Method: /var/chem/gcsv8.i/2020617.b/pest608.m

Injection Date: 18-JUN-2002 10:25
Init. Cal. Date(s): 17-JUN-2002 18-JUN-2002
Init. Cal. Times: 21:04 17:49
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF60	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
5 Aldrin	375372	360483	0.010	3.96652	15.00000	Averaged
6 beta-BHC	218796	205946	0.010	5.87324	15.00000	Averaged
7 delta-BHC	412893	396855	0.010	3.88445	15.00000	Averaged
8 Heptachlor epoxide	301592	295138	0.010	2.14004	15.00000	Averaged
10 gamma-Chlordane	316236	314097	0.010	0.67664	15.00000	Averaged
11 alpha-Chlordane	304620	294788	0.010	3.22773	15.00000	Averaged
12 4,4'-DDE	271513	267888	0.010	1.33521	15.00000	Averaged
16 Endosulfan II	222219	207810	0.010	6.48409	15.00000	Averaged
18 Endrin aldehyde	124622	114286	0.010	8.29386	15.00000	Averaged
20 Endosulfan sulfate	190750	194221	0.010	-1.81973	15.00000	Averaged
21 Endrin ketone	192225	191136	0.010	0.56681	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 17.92978
Maximun Average %D/Drift = 15.00000
* Failed Average %D/Drift Test.

Data File: /var/chem/gcsv8.i/2020617.b/SV8013.d
Report Date: 26-Jun-2002 09:37

Gulf Coast Analytical Services

Data file : /var/chem/gcsv8.i/2020617.b/SV8013.d
Lab Smp Id: IND B III ICV
Inj Date : 18-JUN-2002 10:25
Operator : tls Inst ID: gcsv8.i
Smp Info : IND B III ICV
Misc Info :
Comment :
Method : /var/chem/gcsv8.i/2020617.b/pest608.m
Meth Date : 26-Jun-2002 09:34 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 16:20 Cal File: SV8025.d
Als bottle: 13 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indb.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

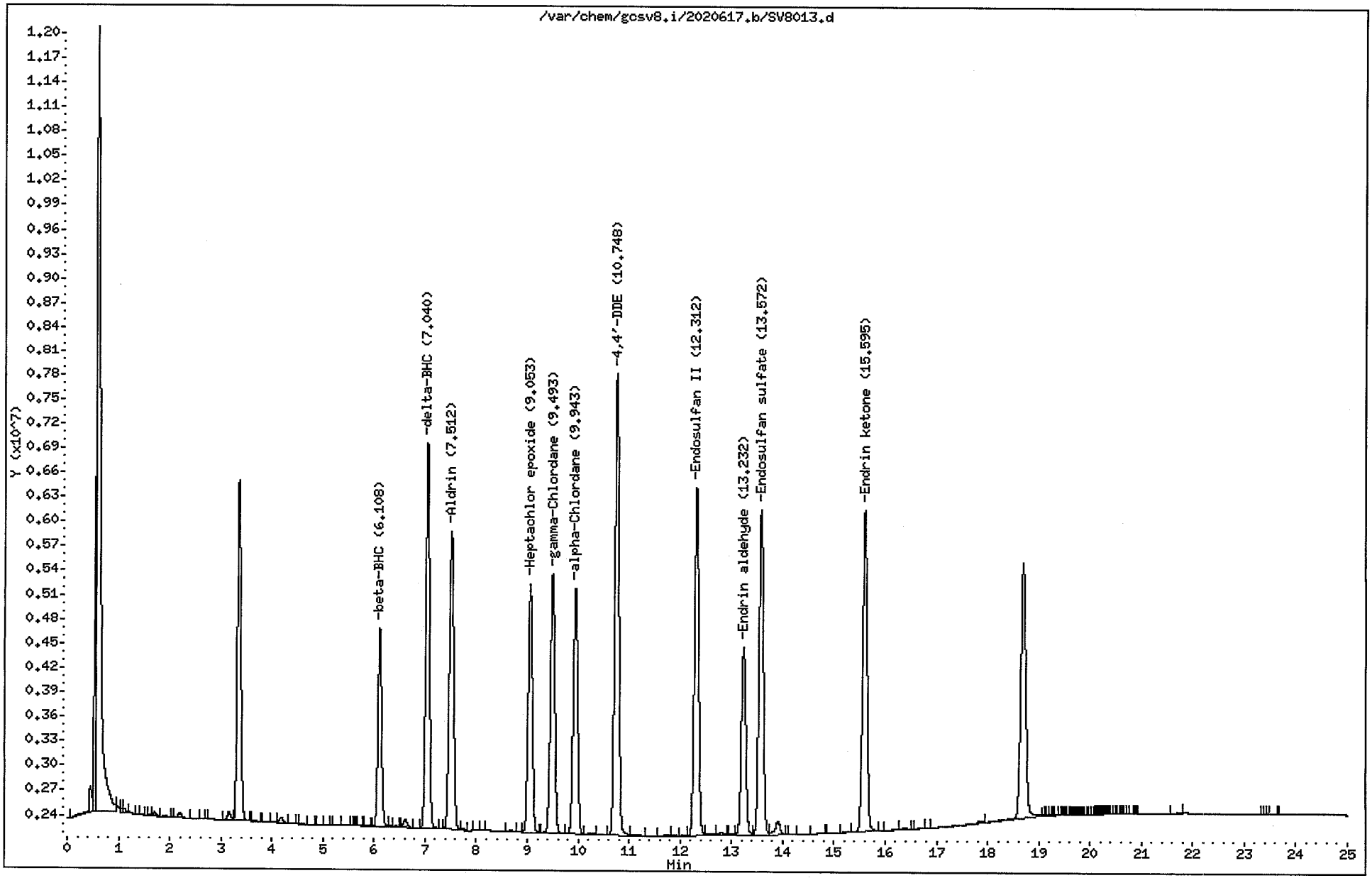
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
5 Aldrin	7.512	7.511	0.001	21628958	60.0000	57.6200
6 beta-BHC	6.108	6.108	0.000	12356760	60.0000	56.4760
7 delta-BHC	7.040	7.039	0.001	23811276	60.0000	57.6693
8 Heptachlor epoxide	9.053	9.053	0.000	17708289	60.0000	58.7159
10 gamma-Chlordane	9.493	9.494	-0.001	18845799	60.0000	59.5940
11 alpha-Chlordane	9.943	9.944	-0.001	17687252	60.0000	58.0633
12 4,4'-DDE	10.748	10.749	-0.001	32146519	120.000	118.3977
16 Endosulfan II	12.312	12.312	0.000	24937253	120.000	112.2190
18 Endrin aldehyde	13.232	13.232	0.000	13714325	120.000	110.0473
20 Endosulfan sulfate	13.572	13.572	0.000	23306477	120.000	122.1836
21 Endrin ketone	15.595	15.596	-0.001	22936292	120.000	119.3198

Data File: /var/chem/gcsv8.i/2020617.b/SV8013.d
Date : 18-JUN-2002 10:25
Client ID:
Sample Info: IND B III ICV
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv8.i

Operator: tls
Column diameter: 0.53



Data File: /var/chem/gcsv8.i/2020617.b/SV8084.d
Report Date: 26-Jun-2002 09:36

Gulf Coast Analytical Services

Data file : /var/chem/gcsv8.i/2020617.b/SV8084.d
Lab Smp Id: DEG STD Client Smp ID: DEG STD
Inj Date : 21-JUN-2002 10:14
Operator : tnt Inst ID: gcsv8.i
Smp Info : DEG STD
Misc Info :
Comment :
Method : /var/chem/gcsv8.i/2020617.b/pest608.m
Meth Date : 26-Jun-2002 09:34 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 17:49 Cal File: SV8028.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: deg.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/L)	CONCENTRATIONS FINAL (UG/L)
12 4,4'-DDE	10.808	10.749	0.059	221645	0.81633	0.0081
15 4,4'-DDD	12.275	12.277	-0.002	553544	3.02396	0.0302
17 4,4'-DDT	13.073	13.071	0.002	13472218	90.3931	0.9039
21 Endrin ketone	15.593	15.596	-0.003	469380	2.44182	0.0244
14 Endrin	11.793	11.793	0.000	22147961	112.780	1.1277

DDT : $\frac{775189}{14247407} \cdot 100 = 5\%$

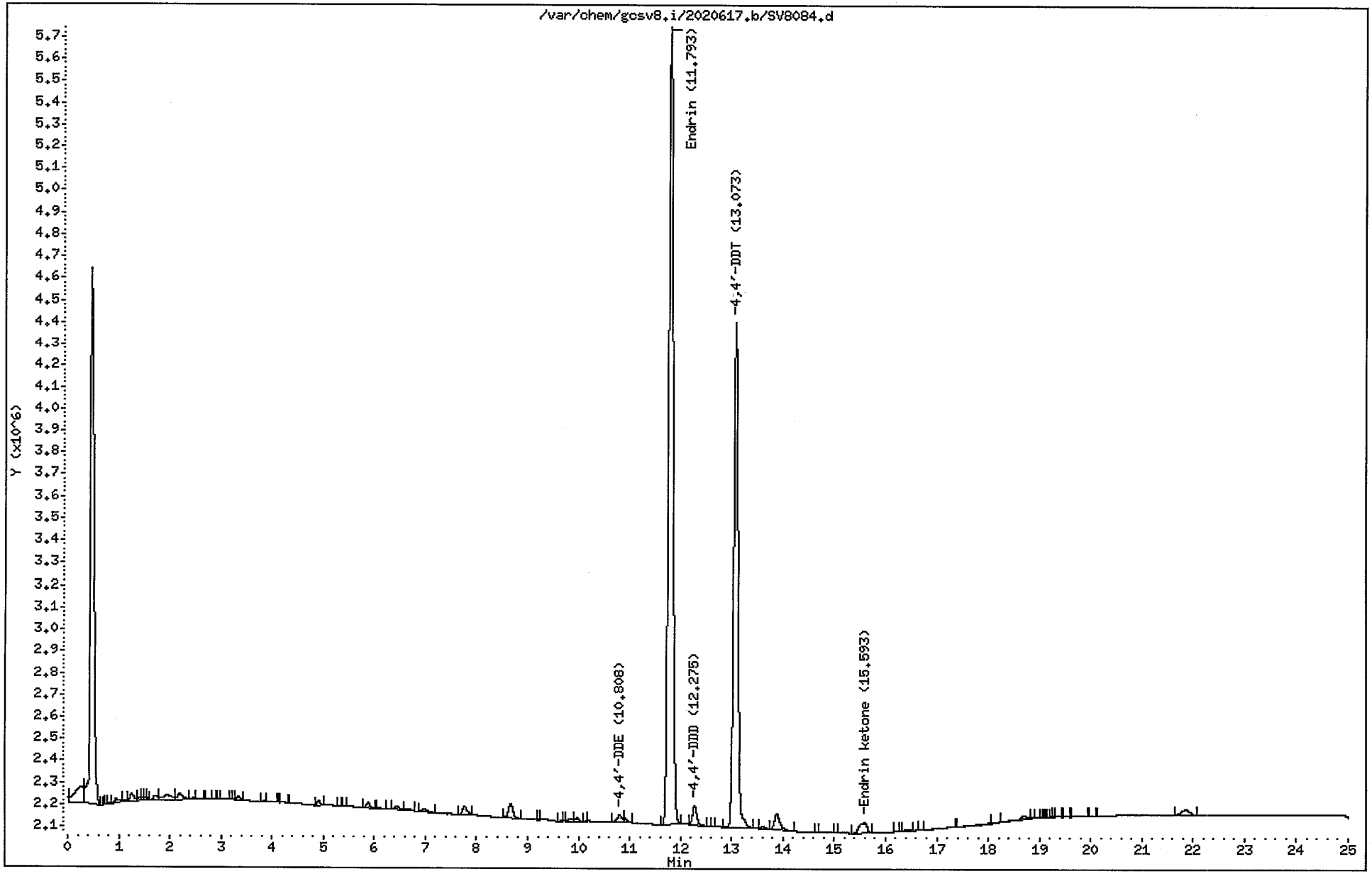
Endrin $\frac{469380}{22617341} \cdot 100 = 2\%$

Data File: /var/chem/gcsv8.i/2020617.b/SV8084.d
Date : 21-JUN-2002 10:14
Client ID: DEG STD
Sample Info: DEG STD
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv8.i

Operator: tnt
Column diameter: 0.53

0004402



Data File: /var/chem/gcsv8.i/2020617.b/SV8085.d
Report Date: 26-Jun-2002 09:34

Gulf Coast Analytical Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv8.i
Lab File ID: SV8085.d
Analysis Type: WATER
Lab Sample ID: IND A III
Method: /var/chem/gcsv8.i/2020617.b/pest608.m

Injection Date: 21-JUN-2002 10:44
Init. Cal. Date(s): 17-JUN-2002 18-JUN-2002
Init. Cal. Times: 21:04 17:49
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF60	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 1 Tetrachloro-m-xylene	298749	355626	0.010	-19.03839	15.00000	Averaged	<-
2 alpha-BHC	387267	470084	0.010	-21.38497	15.00000	Averaged	<-
3 gamma-BHC (Lindane)	369852	425728	0.010	-15.10777	15.00000	Averaged	<-
4 Heptachlor	291597	298407	0.010	-2.33532	15.00000	Averaged	
9 Endosulfan I	234639	255056	0.010	-8.70130	15.00000	Averaged	
13 Dieldrin	224928	243429	0.010	-8.22534	15.00000	Averaged	
14 Endrin	196382	189423	0.010	3.54379	15.00000	Averaged	
15 4,4'-DDD	183053	170045	0.010	7.10613	15.00000	Averaged	
17 4,4'-DDT	149040	148415	0.010	0.41928	15.00000	Averaged	
19 Methoxychlor	71067	62582	0.010	11.93915	15.00000	Averaged	
$ 22 Decachlorobiphenyl	170169	169843	0.010	0.19115	15.00000	Averaged	

Average %D / Drift Results.

Calculated Average %D/Drift = 8.90842
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Data File: /var/chem/gcsv8.i/2020617.b/SV8085.d
Report Date: 26-Jun-2002 09:36

Gulf Coast Analytical Services

Data file : /var/chem/gcsv8.i/2020617.b/SV8085.d
Lab Smp Id: IND A III Client Smp ID: IND A III
Inj Date : 21-JUN-2002 10:44
Operator : tnt Inst ID: gcsv8.i
Smp Info : IND A III
Misc Info :
Comment :
Method : /var/chem/gcsv8.i/2020617.b/pest608.m
Meth Date : 26-Jun-2002 09:34 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 17:49 Cal File: SV8028.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: inda.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
$ 1 Tetrachloro-m-xylene	3.347	3.346	0.001	21337542	60.0000	71.4230
2 alpha-BHC	4.915	4.914	0.001	28205034	60.0000	72.8309
3 gamma-BHC (Lindane)	5.885	5.884	0.001	25543702	60.0000	69.0646(M)
4 Heptachlor	6.683	6.682	0.001	17904405	60.0000	61.4011
9 Endosulfan I	9.980	9.976	0.004	15303347	60.0000	65.2207
13 Dieldrin	10.820	10.815	0.005	29211530	120.000	129.8704
14 Endrin	11.795	11.793	0.002	22730741	120.000	115.7474
15 4,4'-DDD	12.280	12.277	0.003	20405360	120.000	111.4726
17 4,4'-DDT	13.075	13.071	0.004	17809851	120.000	119.4968
19 Methoxychlor	15.522	15.516	0.006	37549176	600.000	528.3650
$ 22 Decachlorobiphenyl	18.703	18.696	0.007	20381205	120.000	119.7706

Data File: /var/chem/gcsv8.i/2020617.b/SV8085.d
Report Date: 26-Jun-2002 09:36

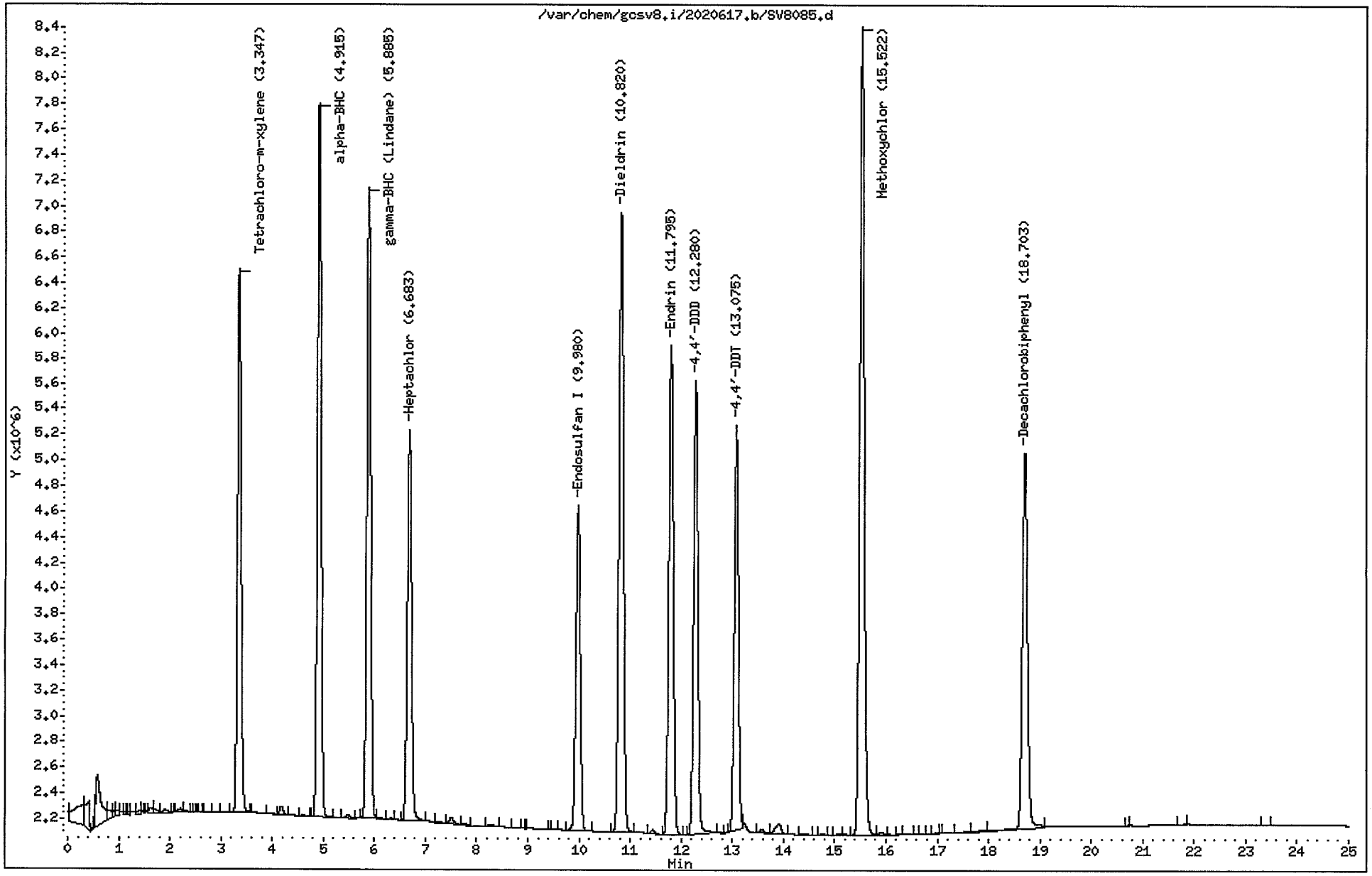
QC Flag Legend

M - Compound response manually integrated.

Data File: /var/chem/gcsv8.i/2020617.b/SV8085.d
Date : 21-JUN-2002 10:44
Client ID: IND A III
Sample Info: IND A III
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv8.i
Operator: tnt
Column diameter: 0.53

000406



Data File: /var/chem/gcsv8.i/2020617.b/SV8086.d
Report Date: 26-Jun-2002 09:34

Gulf Coast Analytical Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv8.i
Lab File ID: SV8086.d
Analysis Type: WATER
Lab Sample ID: IND B III
Method: /var/chem/gcsv8.i/2020617.b/pest608.m

Injection Date: 21-JUN-2002 11:13
Init. Cal. Date(s): 17-JUN-2002 18-JUN-2002
Init. Cal. Times: 21:04 17:49
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF60	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
5 Aldrin	375372	400821	0.010	-6.77980	15.00000	Averaged	
6 beta-BHC	218796	229332	0.010	-4.81539	15.00000	Averaged	
7 delta-BHC	412893	434273	0.010	-5.17794	15.00000	Averaged	
8 Heptachlor epoxide	301592	327695	0.010	-8.65490	15.00000	Averaged	
10 gamma-Chlordane	316236	348326	0.010	-10.14736	15.00000	Averaged	
11 alpha-Chlordane	304620	326451	0.010	-7.16681	15.00000	Averaged	
12 4,4'-DDE	271513	290277	0.010	-6.91104	15.00000	Averaged	
16 Endosulfan II	222219	195036	0.010	12.23251	15.00000	Averaged	
18 Endrin aldehyde	124622	108092	0.010	13.26447	15.00000	Averaged	
20 Endosulfan sulfate	190750	225128	0.010	-18.02260	15.00000	Averaged	<-
21 Endrin ketone	192225	218136	0.010	-13.47941	15.00000	Averaged	

Average %D / Drift Results.

Calculated Average %D/Drift = 9.69566
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Data File: /var/chem/gcsv8.i/2020617.b/SV8086.d
Report Date: 26-Jun-2002 09:36

Gulf Coast Analytical Services

Data file : /var/chem/gcsv8.i/2020617.b/SV8086.d
Lab Smp Id: IND B III Client Smp ID: IND B III
Inj Date : 21-JUN-2002 11:13
Operator : tnt Inst ID: gcsv8.i
Smp Info : IND B III
Misc Info :
Comment :
Method : /var/chem/gcsv8.i/2020617.b/pest608.m
Meth Date : 26-Jun-2002 09:34 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 17:49 Cal File: SV8028.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indb.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

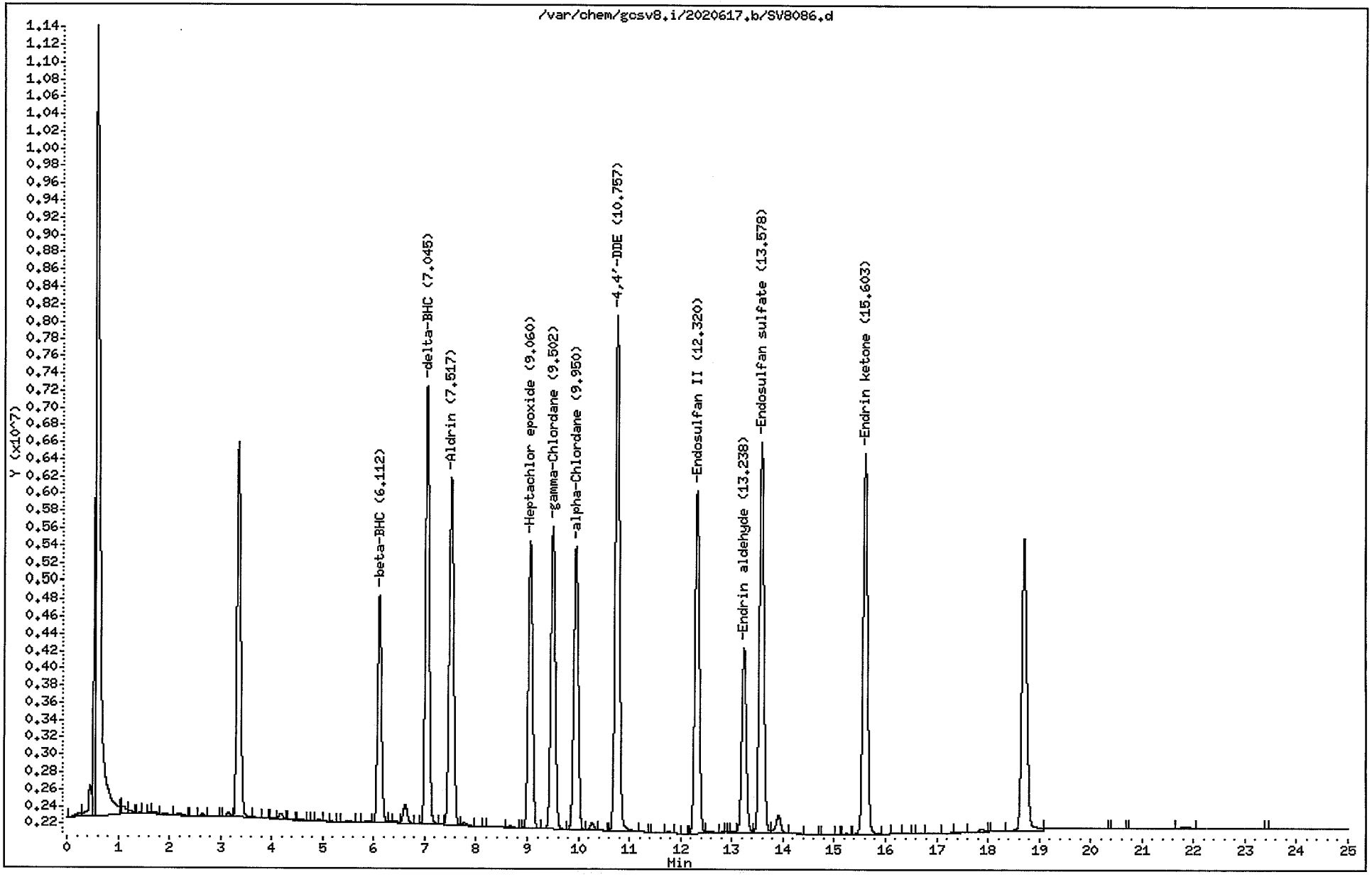
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
5 Aldrin	7.517	7.511	0.006	24049277	60.0000	64.0678
6 beta-BHC	6.112	6.108	0.004	13759940	60.0000	62.8892
7 delta-BHC	7.045	7.039	0.006	26056356	60.0000	63.1067
8 Heptachlor epoxide	9.060	9.053	0.007	19661691	60.0000	65.1929
10 gamma-Chlordane	9.502	9.494	0.008	20899565	60.0000	66.0884
11 alpha-Chlordane	9.950	9.944	0.006	19587082	60.0000	64.3000
12 4,4'-DDE	10.757	10.749	0.008	34833272	120.000	128.2932
16 Endosulfan II	12.320	12.312	0.008	23404360	120.000	105.3209
18 Endrin aldehyde	13.238	13.232	0.006	12970988	120.000	104.0826
20 Endosulfan sulfate	13.578	13.572	0.006	27015304	120.000	141.6271
21 Endrin ketone	15.603	15.596	0.007	26176339	120.000	136.1752

Data File: /var/chem/gcsv8.i/2020617.b/SV8086.d
Date : 21-JUN-2002 11:13
Client ID: IND B III
Sample Info: IND B III
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv8.i

Operator: tnt
Column diameter: 0.53

000409



Data File: /var/chem/gcsv8.i/2020617.b/SV8093.d
Report Date: 26-Jun-2002 09:34

Gulf Coast Analytical Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv8.i
Lab File ID: SV8093.d
Analysis Type: WATER
Lab Sample ID: IND A III
Method: /var/chem/gcsv8.i/2020617.b/pest608.m

Injection Date: 21-JUN-2002 14:56
Init. Cal. Date(s): 17-JUN-2002 18-JUN-2002
Init. Cal. Times: 21:04 17:49
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF60	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 1 Tetrachloro-m-xylene	298749	373096	0.010	-24.88609	15.00000	Averaged	<-
2 alpha-BHC	387267	495643	0.010	-27.98491	15.00000	Averaged	<-
3 gamma-BHC (Lindane)	369852	461748	0.010	-24.84684	15.00000	Averaged	<-
4 Heptachlor	291597	355839	0.010	-22.03099	15.00000	Averaged	<-
9 Endosulfan I	234639	272552	0.010	-16.15794	15.00000	Averaged	<-
13 Dieldrin	224928	263331	0.010	-17.07341	15.00000	Averaged	<-
14 Endrin	196382	213772	0.010	-8.85527	15.00000	Averaged	
15 4,4'-DDD	183053	197939	0.010	-8.13244	15.00000	Averaged	
17 4,4'-DDT	149040	188461	0.010	-26.44988	15.00000	Averaged	<-
19 Methoxychlor	71067	80871	0.010	-13.79601	15.00000	Averaged	
$ 22 Decachlorobiphenyl	170169	182104	0.010	-7.01378	15.00000	Averaged	

Average %D / Drift Results.

Calculated Average %D/Drift = 17.92978
Maximun Average %D/Drift = 15.00000
* Failed Average %D/Drift Test.

Data File: /var/chem/gcsv8.i/2020617.b/SV8093.d
Report Date: 26-Jun-2002 09:36

Gulf Coast Analytical Services

Data file : /var/chem/gcsv8.i/2020617.b/SV8093.d
Lab Smp Id: IND A III Client Smp ID: IND A III
Inj Date : 21-JUN-2002 14:56
Operator : tnt Inst ID: gcsv8.i
Smp Info : IND A III
Misc Info :
Comment :
Method : /var/chem/gcsv8.i/2020617.b/pest608.m
Meth Date : 26-Jun-2002 09:34 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 17:49 Cal File: SV8028.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: inda.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

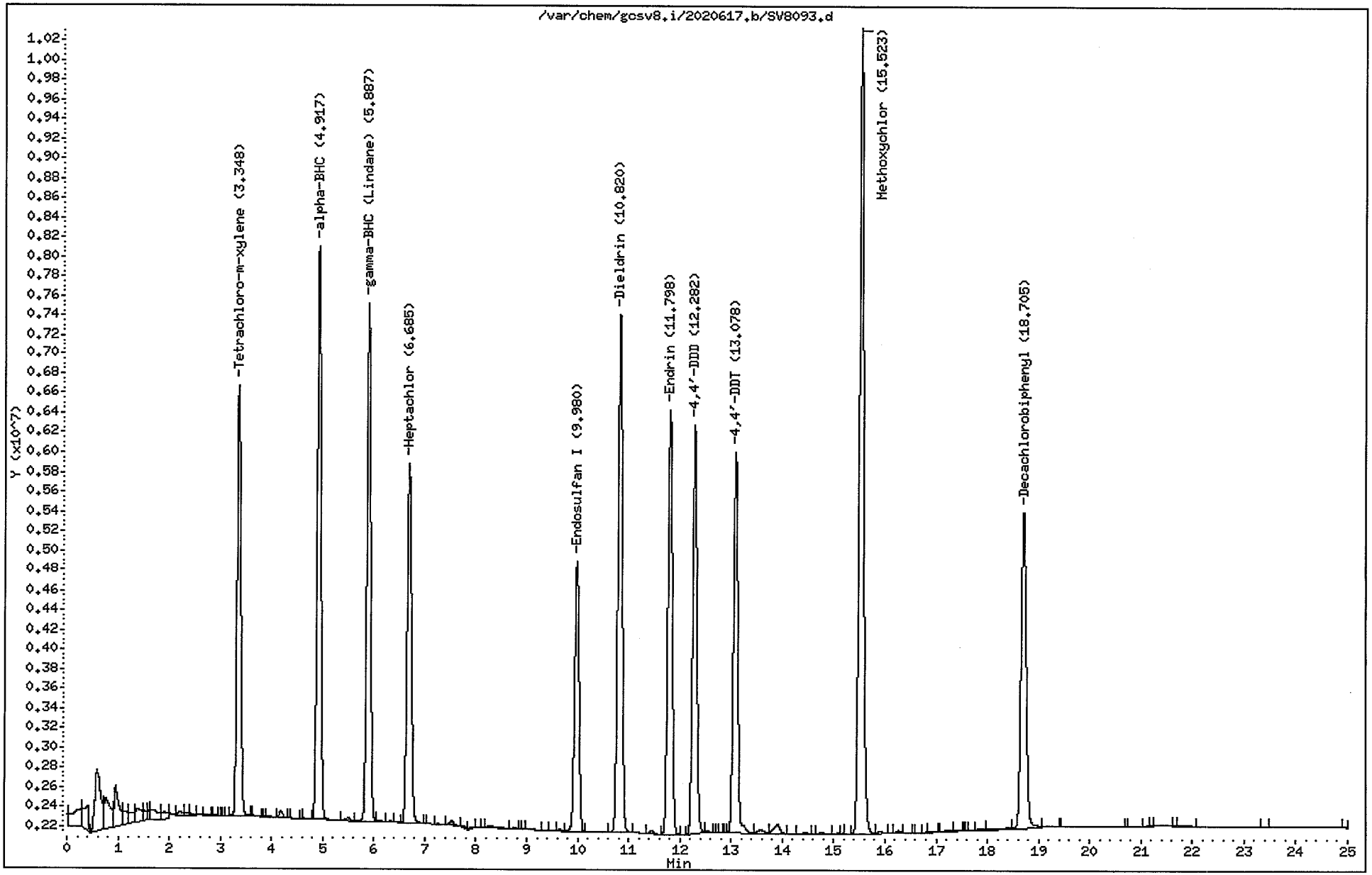
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
$ 1 Tetrachloro-m-xylene	3.348	3.346	0.002	22385739	60.0000	74.9316
2 alpha-BHC	4.917	4.914	0.003	29738599	60.0000	76.7909
3 gamma-BHC (Lindane)	5.887	5.884	0.003	27704909	60.0000	74.9081
4 Heptachlor	6.685	6.682	0.003	21350324	60.0000	73.2185
9 Endosulfan I	9.980	9.976	0.004	16353118	60.0000	69.6947
13 Dieldrin	10.820	10.815	0.005	31599747	120.000	140.4880
14 Endrin	11.798	11.793	0.005	25652686	120.000	130.6263
15 4,4'-DDD	12.282	12.277	0.005	23752712	120.000	129.7589
17 4,4'-DDT	13.078	13.071	0.007	22615357	120.000	151.7398
19 Methoxychlor	15.523	15.516	0.007	48522660	600.000	682.7760
$ 22 Decachlorobiphenyl	18.705	18.696	0.009	21852470	120.000	128.4165

Data File: /var/chem/gcsv8.i/2020617.b/SV8093.d
Date : 21-JUN-2002 14:56
Client ID: IND A III
Sample Info: IND A III
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv8.i
Operator: tnt
Column diameter: 0.53



000412

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46415	Method Blank	Solid	06/21/2002 17:25

SW-846 8081A

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/21/2002 08:00	145850	3540C	1	06/21/2002 11:58	SAB	146072

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
72-54-8	4,4'-DDD	ND	4.00		ug/Kg
72-55-9	4,4'-DDE	ND	4.00		ug/Kg
50-29-3	4,4'-DDT	ND	4.00		ug/Kg
309-00-2	Aldrin	ND	2.00		ug/Kg
60-57-1	Dieldrin	ND	4.00		ug/Kg
959-98-8	Endosulfan I	ND	2.00		ug/Kg
33213-65-	Endosulfan II	ND	4.00		ug/Kg
1031-07-8	Endosulfan sulfate	ND	4.00		ug/Kg
72-20-8	Endrin	ND	4.00		ug/Kg
7421-93-4	Endrin aldehyde	ND	4.00		ug/Kg
53494-70-	Endrin ketone	ND	4.00		ug/Kg
76-44-8	Heptachlor	ND	2.00		ug/Kg
1024-57-3	Heptachlor epoxide	ND	2.00		ug/Kg
72-43-5	Methoxychlor	ND	20.0		ug/Kg
8001-35-2	Toxaphene	ND	200		ug/Kg
319-84-6	alpha-BHC	ND	2.00		ug/Kg
5103-71-9	alpha-Chlordane	ND	2.00		ug/Kg
319-85-7	beta-BHC	ND	4.00		ug/Kg
319-86-8	delta-BHC	ND	2.00		ug/Kg
58-89-9	gamma-BHC (Lindane)	ND	2.00		ug/Kg
5103-74-2	gamma-Chlordane	ND	2.00		ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
877-09-8	Tetrachloro-m-xylene	16.7	20.7 ug/Kg	124	60 - 150
2051-24-3	Decachlorobiphenyl	16.7	19.7 ug/Kg	118	60 - 150

Data File: /var/chem/gcsv8.i/2020617.b/SV8087.d
Report Date: 26-Jun-2002 09:36

Gulf Coast Analytical Services

Data file : /var/chem/gcsv8.i/2020617.b/SV8087.d
Lab Smp Id: 46415 Client Smp ID: 46415
Inj Date : 21-JUN-2002 11:58
Operator : tnt Inst ID: gcsv8.i
Smp Info : 46415
Misc Info :
Comment :
Method : /var/chem/gcsv8.i/2020617.b/pest608.m
Meth Date : 26-Jun-2002 09:34 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 17:49 Cal File: SV8028.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/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

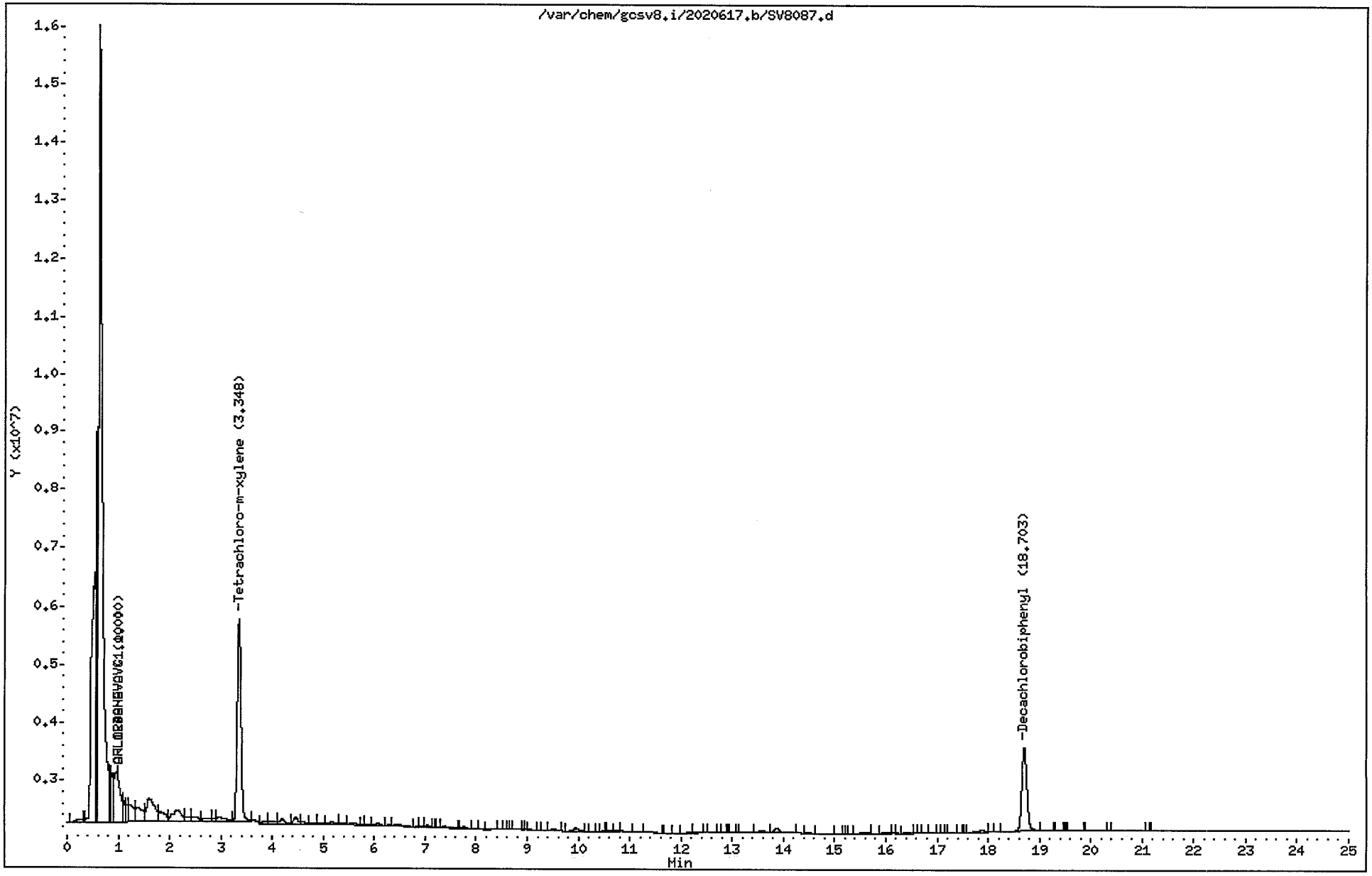
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/L)	FINAL (UG/KG)
$ 1 Tetrachloro-m-xylene	3.348	3.346	0.002	18520108	61.9923	20.6640
$ 22 Decachlorobiphenyl	18.703	18.696	0.007	10055735	59.0928	19.6975

Data File: /var/chem/gcsv8.i/2020617.b/SV8087.d
Date : 21-JUN-2002 11:58
Client ID: 46415
Sample Info: 46415
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv8.i
Operator: tnt
Column diameter: 0.53

000415



QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46416	Lab Control Sample	Solid	06/21/2002 17:25

SW-846 8081A

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/21/2002 08:00	145850	3540C	1	06/21/2002 12:28	SAB	146072

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
72-54-8	**4,4'-DDD**	**21.6**	**4.00**		**ug/Kg**
72-55-9	**4,4'-DDE**	**17.0**	**4.00**		**ug/Kg**
50-29-3	**4,4'-DDT**	**23.0**	**4.00**		**ug/Kg**
309-00-2	**Aldrin**	**18.0**	**2.00**		**ug/Kg**
60-57-1	**Dieldrin**	**25.4**	**4.00**		**ug/Kg**
959-98-8	**Endosulfan I**	**21.6**	**2.00**		**ug/Kg**
33213-65-	**Endosulfan II**	**17.8**	**4.00**		**ug/Kg**
1031-07-8	**Endosulfan sulfate**	**21.3**	**4.00**		**ug/Kg**
72-20-8	**Endrin**	**23.5**	**4.00**		**ug/Kg**
7421-93-4	**Endrin aldehyde**	**28.4**	**4.00**		**ug/Kg**
53494-70-	**Endrin ketone**	**22.8**	**4.00**		**ug/Kg**
76-44-8	**Heptachlor**	**21.3**	**2.00**		**ug/Kg**
1024-57-3	**Heptachlor epoxide**	**18.6**	**2.00**		**ug/Kg**
72-43-5	Methoxychlor	18.5J	20.0		ug/Kg
8001-35-2	Toxaphene	ND	200		ug/Kg
319-84-6	**alpha-BHC**	**23.2**	**2.00**		**ug/Kg**
5103-71-9	**alpha-Chlordane**	**16.6**	**2.00**		**ug/Kg**
319-85-7	**beta-BHC**	**17.7**	**4.00**		**ug/Kg**
319-86-8	**delta-BHC**	**17.8**	**2.00**		**ug/Kg**
58-89-9	**gamma-BHC (Lindane)**	**20.1**	**2.00**		**ug/Kg**
5103-74-2	**gamma-Chlordane**	**18.3**	**2.00**		**ug/Kg**

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
877-09-8	**Tetrachloro-m-xylene**	16.7	24.1 ug/Kg	145	60 - 150
2051-24-3	**Decachlorobiphenyl**	16.7	24.7 ug/Kg	148	60 - 150

Data File: /var/chem/gcsv8.i/2020617.b/SV8088.d
Report Date: 26-Jun-2002 09:50

Gulf Coast Analytical Services

Data file : /var/chem/gcsv8.i/2020617.b/SV8088.d
Lab Smp Id: 46416 Client Smp ID: 46416
Inj Date : 21-JUN-2002 12:28
Operator : tnt Inst ID: gcsv8.i
Smp Info : 46416
Misc Info :
Comment :
Method : /var/chem/gcsv8.i/2020617.b/pest608.m
Meth Date : 26-Jun-2002 09:34 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 17:49 Cal File: SV8028.d
Als bottle: 2 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/L)	FINAL (UG/KG)
$ 1 Tetrachloro-m-xylene	3.345	3.346	-0.001	21590909	72.2711	24.0903
2 alpha-BHC	4.915	4.914	0.001	26902165	69.4667	23.1555
3 gamma-BHC (Lindane)	5.885	5.884	0.001	22335863	60.3914	20.1304
4 Heptachlor	6.685	6.682	0.003	18598359	63.7810	21.2603
5 Aldrin	7.515	7.511	0.004	20228951	53.8904	17.9634
6 beta-BHC	6.112	6.108	0.004	11607798	53.0530	17.6843
7 delta-BHC	7.043	7.039	0.004	22086701	53.4925	17.8308
8 Heptachlor epoxide	9.060	9.053	0.007	16812387	55.7454	18.5818
9 Endosulfan I	9.965	9.976	-0.011	15215434	64.8461	21.6153(M)
10 gamma-Chlordane	9.500	9.494	0.006	17358057	54.8895	18.2964
11 alpha-Chlordane	9.965	9.944	0.021	15215434	49.9489	16.6496(M)
12 4,4'-DDE	10.783	10.749	0.034	13857668	51.0387	17.0129(M)
13 Dieldrin	10.785	10.815	-0.030	17127218	76.1452	25.3817(M)

Data File: /var/chem/gcsv8.i/2020617.b/SV8088.d
Report Date: 26-Jun-2002 09:50

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/L)	FINAL (UG/KG)
14 Endrin	11.798	11.793	0.005	13852437	70.5381	23.5127
15 4,4'-DDD	12.303	12.277	0.026	11874372	64.8686	21.6228(M)
16 Endosulfan II	12.303	12.312	-0.009	11874372	53.4354	17.8117(M)
17 4,4'-DDT	13.078	13.071	0.007	10275654	68.9455	22.9818
18 Endrin aldehyde	13.240	13.232	0.008	10611883	85.1526	28.3841
19 Methoxychlor	15.543	15.516	0.027	3954051	55.6386	18.5461(M)
20 Endosulfan sulfate	13.580	13.572	0.008	12236306	64.1486	21.3828
21 Endrin ketone	15.602	15.596	0.006	13133250	68.3222	22.7740(M)
$ 22 Decachlorobiphenyl	18.703	18.696	0.007	12597187	74.0277	24.6758

QC Flag Legend

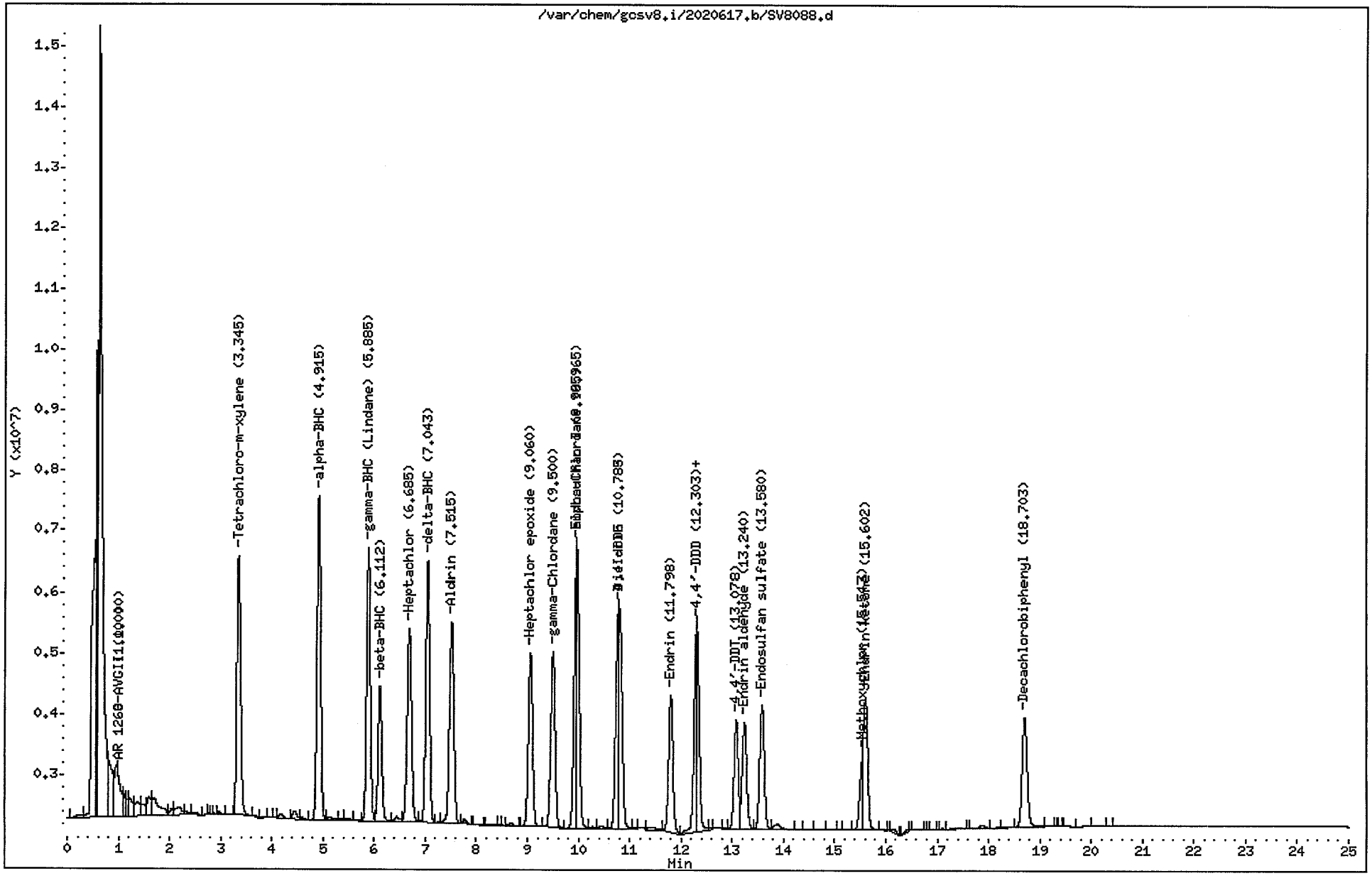
M - Compound response manually integrated.

Data File: /var/chem/gcsv8.i/2020617.b/SV8088.d
Date : 21-JUN-2002 12:28
Client ID: 46416
Sample Info: 46416
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv8.i

Operator: tnt
Column diameter: 0.53

000419



QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	COLLECTED	RECEIVED	REPORTED
46417	Matrix Spike	Solid	06/19/2002 09:	06/20/2002 09:05	06/23/2002 09:05

SW-846 8081A

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/21/2002 08:00	145850	3540C	1	06/21/2002 13:27	TNT	146072

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
72-54-8	**4,4'-DDD**	**21.6**	**4.65**		**ug/Kg**
72-55-9	**4,4'-DDE**	**18.0**	**4.65**		**ug/Kg**
50-29-3	**4,4'-DDT**	**25.0**	**4.65**		**ug/Kg**
309-00-2	**Aldrin**	**16.3**	**2.32**		**ug/Kg**
60-57-1	**Dieldrin**	**24.0**	**4.65**		**ug/Kg**
959-98-8	**Endosulfan I**	**19.4**	**2.32**		**ug/Kg**
33213-65-	**Endosulfan II**	**17.8**	**4.65**		**ug/Kg**
1031-07-8	**Endosulfan sulfate**	**22.6**	**4.65**		**ug/Kg**
72-20-8	**Endrin**	**24.7**	**4.65**		**ug/Kg**
7421-93-4	**Endrin aldehyde**	**29.6**	**4.65**		**ug/Kg**
53494-70-	**Endrin ketone**	**21.5**	**4.65**		**ug/Kg**
76-44-8	**Heptachlor**	**21.0**	**2.32**		**ug/Kg**
1024-57-3	**Heptachlor epoxide**	**18.4**	**2.32**		**ug/Kg**
72-43-5	Methoxychlor	16.5J	23.2		ug/Kg
8001-35-2	Toxaphene	ND	232		ug/Kg
319-84-6	**alpha-BHC**	**23.1**	**2.32**		**ug/Kg**
5103-71-9	**alpha-Chlordane**	**17.5**	**2.32**		**ug/Kg**
319-85-7	**beta-BHC**	**18.5**	**4.65**		**ug/Kg**
319-86-8	**delta-BHC**	**17.5**	**2.32**		**ug/Kg**
58-89-9	**gamma-BHC (Lindane)**	**19.9**	**2.32**		**ug/Kg**
5103-74-2	**gamma-Chlordane**	**17.4**	**2.32**		**ug/Kg**

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
877-09-8	**Tetrachloro-m-xylene**	16.7	24.6 ug/Kg	148	60 - 150
2051-24-3	**Decachlorobiphenyl**	16.7	19.7 ug/Kg	118	60 - 150

Data File: /var/chem/gcsv8.i/2020617.b/SV8090.d
Report Date: 26-Jun-2002 09:36

Gulf Coast Analytical Services

Data file : /var/chem/gcsv8.i/2020617.b/SV8090.d
Lab Smp Id: 46417 Client Smp ID: BF-S-0619MS
Inj Date : 21-JUN-2002 13:27
Operator : tnt Inst ID: gcsv8.i
Smp Info : 46417
Misc Info :
Comment :
Method : /var/chem/gcsv8.i/2020617.b/pest608.m
Meth Date : 26-Jun-2002 09:34 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 17:49 Cal File: SV8028.d
Als bottle: 4 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/L)	FINAL (UG/KG)
$ 1 Tetrachloro-m-xylene	3.348	3.346	0.002	22032614	73.7496	24.5832
2 alpha-BHC	4.917	4.914	0.003	23166807	59.8213	19.9404
3 gamma-BHC (Lindane)	5.887	5.884	0.003	18922769	51.1631	17.0543
4 Heptachlor	6.685	6.682	0.003	15847685	54.3479	18.1159
5 Aldrin	7.517	7.511	0.006	15718479	41.8744	13.9581
6 beta-BHC	6.112	6.108	0.004	10447523	47.7500	15.9166
7 delta-BHC	7.045	7.039	0.006	18656794	45.1855	15.0618
8 Heptachlor epoxide	9.060	9.053	0.007	14270734	47.3180	15.7726
9 Endosulfan I	9.962	9.976	-0.014	11774735	50.1823	16.7274(M)
10 gamma-Chlordane	9.500	9.494	0.006	14208056	44.9286	14.9761
11 alpha-Chlordane	9.965	9.944	0.021	13820433	45.3694	15.1231(M)
12 4,4'-DDE	10.788	10.749	0.039	12589891	46.3694	15.4564(M)
13 Dieldrin	10.792	10.815	-0.023	13954473	62.0397	20.6798(M)

Data File: /var/chem/gcsv8.i/2020617.b/SV8090.d
Report Date: 26-Jun-2002 09:36

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/L)	CONCENTRATIONS FINAL (UG/KG)
14 Endrin	11.798	11.793	0.005	12535864	63.8340	21.2780
15 4,4'-DDD	12.303	12.277	0.026	10207558	55.7630	18.5876(M)
16 Endosulfan II	12.303	12.312	-0.009	10207558	45.9346	15.3115(M)
17 4,4'-DDT	13.077	13.071	0.006	9608265	64.4676	21.4891
18 Endrin aldehyde	13.242	13.232	0.010	9547019	76.6078	25.5359
19 Methoxychlor	15.540	15.516	0.024	3017257	42.4567	14.1522(M)
20 Endosulfan sulfate	13.580	13.572	0.008	11184572	58.6349	19.5449
21 Endrin ketone	15.600	15.596	0.004	10694994	55.6378	18.5459(M)
$ 22 Decachlorobiphenyl	18.703	18.696	0.007	10062194	59.1307	19.7102

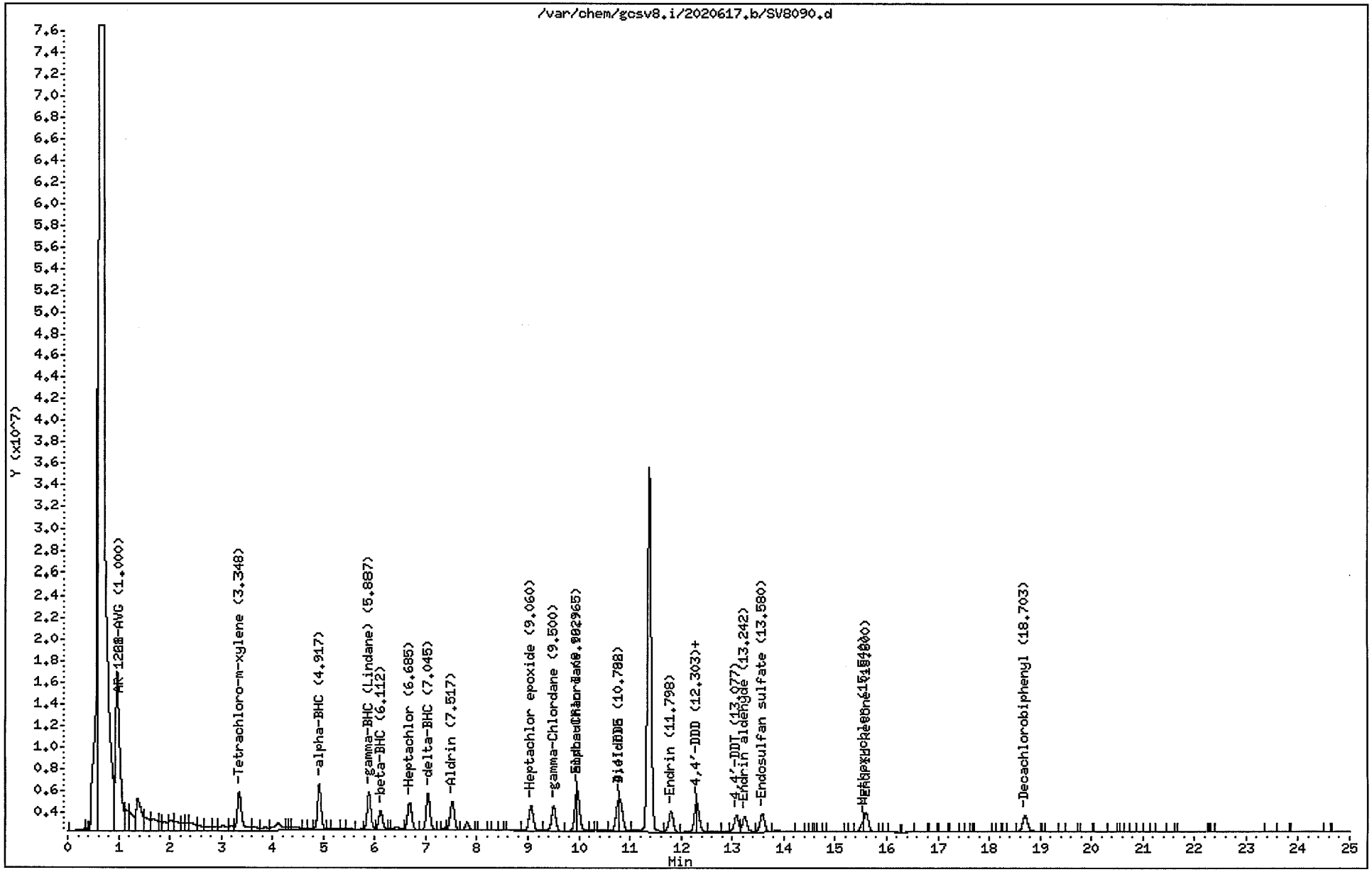
QC Flag Legend

M - Compound response manually integrated.

Data File: /var/chem/gcsv8.i/2020617.b/SV8090.d
Date : 21-JUN-2002 13:27
Client ID: BF-S-0619MS
Sample Info: 46417
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv8.i
Operator: tnt
Column diameter: 0.53

000423



QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	COLLECTED	RECEIVED	REPORTED
46418	Matrix Spike Duplicate	Solid	06/19/2002 09:	06/20/2002 09:05	06/23/2002 09:05

SW-846 8081A

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/21/2002 08:00	145850	3540C	1	06/21/2002 13:57	TNT	146072

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
72-54-8	4,4'-DDD	14.2	4.65		ug/Kg
72-55-9	4,4'-DDE	12.9	4.65		ug/Kg
50-29-3	4,4'-DDT	13.9	4.65		ug/Kg
309-00-2	Aldrin	10.7	2.32		ug/Kg
60-57-1	Dieldrin	17.4	4.65		ug/Kg
959-98-8	Endosulfan I	14.3	2.32		ug/Kg
33213-65-	Endosulfan II	11.6	4.65		ug/Kg
1031-07-8	Endosulfan sulfate	13.0	4.65		ug/Kg
72-20-8	Endrin	16.8	4.65		ug/Kg
7421-93-4	Endrin aldehyde	17.0	4.65		ug/Kg
53494-70-	Endrin ketone	13.6	4.65		ug/Kg
76-44-8	Heptachlor	13.2	2.32		ug/Kg
1024-57-3	Heptachlor epoxide	11.3	2.32		ug/Kg
72-43-5	Methoxychlor	10.5J	23.2		ug/Kg
8001-35-2	Toxaphene	ND	232		ug/Kg
319-84-6	alpha-BHC	14.1	2.32		ug/Kg
5103-71-9	alpha-Chlordane	11.0	2.32		ug/Kg
319-85-7	beta-BHC	10.4	4.65		ug/Kg
319-86-8	delta-BHC	11.2	2.32		ug/Kg
58-89-9	gamma-BHC (Lindane)	12.3	2.32		ug/Kg
5103-74-2	gamma-Chlordane	11.0	2.32		ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
877-09-8	Tetrachloro-m-xylene	16.7	16.1 ug/Kg	97	60 - 150
2051-24-3	Decachlorobiphenyl	16.7	13.2 ug/Kg	79	60 - 150

Data File: /var/chem/gcsv8.i/2020617.b/SV8091.d
Report Date: 26-Jun-2002 09:36

Gulf Coast Analytical Services

Data file : /var/chem/gcsv8.i/2020617.b/SV8091.d
Lab Smp Id: 46418 Client Smp ID: BF-S-0619MSD
Inj Date : 21-JUN-2002 13:57
Operator : tnt Inst ID: gcsv8.i
Smp Info : 46418
Misc Info :
Comment :
Method : /var/chem/gcsv8.i/2020617.b/pest608.m
Meth Date : 26-Jun-2002 09:34 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 17:49 Cal File: SV8028.d
Als bottle: 5 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/L)	FINAL (UG/KG)
$ 1 Tetrachloro-m-xylene	3.348	3.346	0.002	14408735	48.2303	16.0767
2 alpha-BHC	4.917	4.914	0.003	14006316	36.1671	12.0556
3 gamma-BHC (Lindane)	5.887	5.884	0.003	11734879	31.7286	10.5761
4 Heptachlor	6.685	6.682	0.003	9978500	34.2202	11.4067
5 Aldrin	7.517	7.511	0.006	10354143	27.5837	9.1945
6 beta-BHC	6.112	6.108	0.004	5882301	26.8848	8.9616
7 delta-BHC	7.043	7.039	0.004	11976528	29.0064	9.6687
8 Heptachlor epoxide	9.060	9.053	0.007	8816321	29.2326	9.7441
9 Endosulfan I	9.965	9.976	-0.011	8647576	36.8548	12.2849(M)
10 gamma-Chlordane	9.500	9.494	0.006	8988648	28.4238	9.4746(M)
11 alpha-Chlordane	9.965	9.944	0.021	8647576	28.3881	9.4626(M)
12 4,4'-DDE	10.787	10.749	0.038	9015098	33.2032	11.0677(M)
13 Dieldrin	10.788	10.815	-0.027	10155298	45.1490	15.0496(M)

Data File: /var/chem/gcsv8.i/2020617.b/SV8091.d
Report Date: 26-Jun-2002 09:36

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/L)	FINAL (UG/KG)
	14 Endrin	11.800	11.793	0.007	8551188	43.5436	14.5145
	15 4,4'-DDD	12.303	12.277	0.026	6696441	36.5821	12.1940(M)
	16 Endosulfan II	12.303	12.312	-0.009	6696441	30.1344	10.0447(M)
	17 4,4'-DDT	13.077	13.071	0.006	5368465	36.0202	12.0067
	18 Endrin aldehyde	13.240	13.232	0.008	5476686	43.9464	14.6487
	19 Methoxychlor	15.540	15.516	0.024	1934336	27.2186	9.0728(M)
	20 Endosulfan sulfate	13.580	13.572	0.008	6417576	33.6440	11.2146
	21 Endrin ketone	15.600	15.596	0.004	6763539	35.1855	11.7284(M)
$	22 Decachlorobiphenyl	18.702	18.696	0.006	6729983	39.5489	13.1829
M	33 AR 1260-AVGII				427068		(a)
	35 AR 1260-PEAK6	16.103	16.160	-0.057	419623		(a)
	36 AR 1260-PEAK7	16.712	16.757	-0.045	7445		(a)
M	37 AR 1221-AVG				246712	13.8688	4.6229
	40 AR 1221-PEAK3	4.787	4.822	-0.035	246712	27.4625	9.1541
M	52 AR 1248-AVG				6472	0.13139	0.0437
	56 AR 1248-PEAK4	8.437	8.482	-0.045	6472	0.43150	0.1438
M	57 AR 1254-AVG				1414898	64.1980	21.3993
	59 AR 1254-PEAK2	10.483	10.450	0.033	1414898	319.150	106.3832
	67 TOXAPHENE-PEAK5	14.938	14.960	-0.022	28144		(a)
M	68 CHLORDANE-AVG				9016792	75.7760	25.2586
	71 CHLORDANE-PEAK3	9.500	9.502	-0.002	8988648	185.040	61.6799
M	74 AR 1268-AVG				34194		(a)
	76 AR 1268-PEAK2	15.240	15.245	-0.005	21257		(a)
	78 AR 1268 PEAK4	17.505	17.522	-0.017	12937		(a)

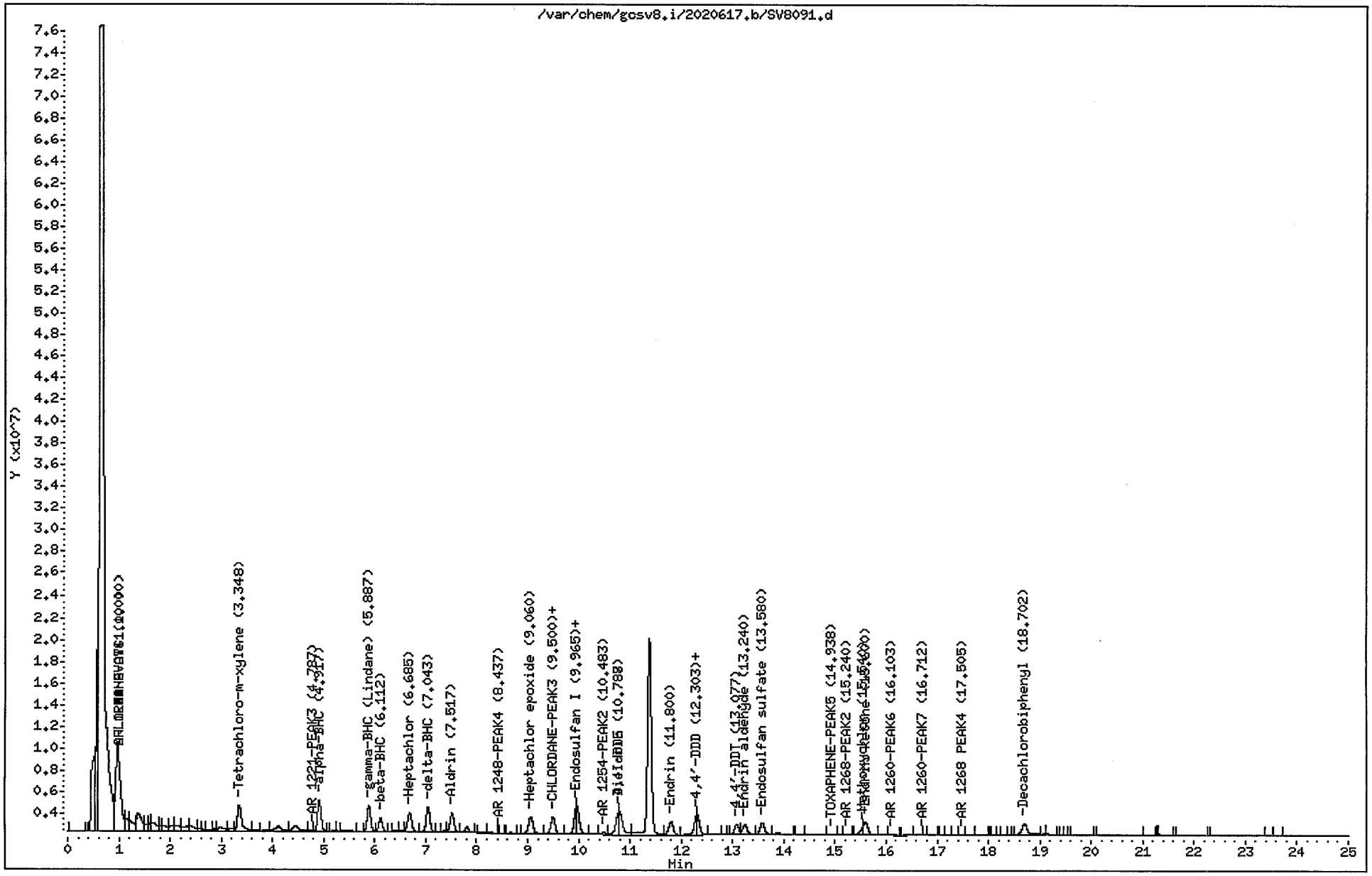
QC Flag Legend

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

Data File: /var/chem/gcsv8.i/2020617.b/SV8091.d
Date : 21-JUN-2002 13:57
Client ID: BF-S-0619MSD
Sample Info: 46418
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv8.i
Operator: tnt
Column diameter: 0.53

0004227



PESTICIDE SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME: 06/21/02 08:00

MATRIX: _____ WATER ✓ SOIL _____ OTHER

LEVEL: ✓ LOW _____ MEDIUM

BATCH# 145850 145851

	CLIENT & GROUP #	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	Initial pH	COMMENTS	METHOD
1	46415 46420	0621PBLK	30.0	10.0			
2	46416	0621LCS	30.0	10.0		608	_____ LIQUID LIQUID/3520
3	CH2M 14:11	20206200201	30.0	10.0			
4	46417	20206200201MS	30.0	10.0		608	_____ SEPARATIORY FUNNEL/3510
5	46418	20206200201MSD	30.0	10.0			
6		20206200202	30.0	10.0			_____ GPC CLEANUP/3640
[redacted]		20206201101	30.0	10.0			
8	46422 ~~46422~~ SKB 06/21/02	20206201101MS	30.0	10.0		PCB	✓ SONICATOR/3550
9	46423	20206201101MSD	30.0	10.0			
10	46421	0621LCS	30.0	10.0			_____ FLORISIL CLEANUP/3620
11	46671	0621LCSD	30.0	10.0			
12							✓ PCB SULFURIC ACID/3665A
13							CLEAN UP
14							_____ WASTE DILUTION/3580
15							TCLP EXTRACTION FLUID #1
16							
17							
18							TCLP EXTRACTION FLUID #2
19							
20							MECL2/Acetone No: 1-45-2
21							
22							ACETONE LOT NO: 012684
23							
24							MeCL2 Lot No: 013600
25							
26							HEXANE Lot No: 029497
27							
28							Sodium Sulfate Lot No: 020966

SKB 06/24/02

COMMENTS: SAMPLE PREPARATION INCLUDES DETERMINATION OF SAMPLE VOLUME/WEIGHT, SOLVENT EXTRACTION AND EVAPORATION OF SOLVENT TO FINAL VOLUME

SURROGATE ID 8-131-3
VOLUME 1.0 mL
CONCENTRATION 0.5 ug/mL

BB SOIL SPIKE ID 8-130-3
VOLUME 1.0 mL
CONCENTRATION 4.0 ug/mL

608 SPIKE ID 8-124-3
VOLUME 0.5 mL
CONCENTRATION 1.0 ug/mL

ACID _____

SPIKE WITNESS WES

TECHNICIAN _____ DATE _____

SUPERVISOR John Bailey DATE 06/21/02

LABORATORY CHRONICLE: GCSV DEPARTMENT

Date: 06/25/2002
Instrument: gcsv8.i
Method File: /var/chem/gcsv8.i/2020617.b/pest2.m
Batch: /var/chem/gcsv8.i/2020617.b
Column-Detector: DB-608-30M

Sample ID	ClientName	DataFile	Injection Time	DilFactor	Anal	Comments
		SV8001.d	17-JUN-2002 19:35	1.000	tnt	
		SV8002.d	17-JUN-2002 20:05	1.000	tnt	
DEG STD		SV8003.d	17-JUN-2002 20:34	1.000	tnt	
IND A I		SV8004.d	17-JUN-2002 21:04	1.000	tnt	
IND A II		SV8005.d	17-JUN-2002 21:34	1.000	tnt	
IND A III		SV8006.d	17-JUN-2002 22:03	1.000	tnt	
IND A III ICV		SV8007.d	17-JUN-2002 22:33	1.000	tnt	
IND A IV		SV8008.d	17-JUN-2002 23:02	1.000	tnt	
IND A V		SV8009.d	17-JUN-2002 23:32	1.000	tnt	
IND B I		SV8010.d	18-JUN-2002 00:02	1.000	tnt	
IND B II		SV8011.d	18-JUN-2002 09:26	1.000	tls	
IND B III		SV8012.d	18-JUN-2002 09:55	1.000	tls	
IND B III ICV		SV8013.d	18-JUN-2002 10:25	1.000	tls	
IND B IV		SV8014.d	18-JUN-2002 10:54	1.000	tls	
IND B V		SV8015.d	18-JUN-2002 11:24	1.000	tls	
CHLORDANE V		SV8016.d	18-JUN-2002 11:54	1.000	tls	
TOXAPHENE V		SV8017.d	18-JUN-2002 12:23	1.000	tls	
AR 1221 III		SV8018.d	18-JUN-2002 12:53	1.000	tls	
AR 1232 III		SV8019.d	18-JUN-2002 13:22	1.000	tls	
AR 1242 III		SV8020.d	18-JUN-2002 13:52	1.000	tls	
AR 1248 III		SV8021.d	18-JUN-2002 14:22	1.000	tls	
AR 1254 III		SV8022.d	18-JUN-2002 14:51	1.000	tls	
AR 1016/1260 I		SV8023.d	18-JUN-2002 15:21	1.000	tls	
AR 1016/1260 II		SV8024.d	18-JUN-2002 15:50	1.000	tls	
AR 1016/1260 III		SV8025.d	18-JUN-2002 16:20	1.000	tls	
AR 1016/1260 III I		SV8026.d	18-JUN-2002 16:50	1.000	tls	
AR 1016/1260 IV		SV8027.d	18-JUN-2002 17:19	1.000	tls	
AR 1016/1260 V		SV8028.d	18-JUN-2002 17:49	1.000	tls	
DEG STD		SV8029.d	18-JUN-2002 18:18	1.000	tls	
DEG STD		SV8030.d	19-JUN-2002 10:24	1.000	tnt	
IND A III		SV8031.d	19-JUN-2002 14:16	1.000	tnt	
IND B III		SV8032.d	19-JUN-2002 11:23	1.000	tnt	
AR 1016/1260 III		SV8033.d	19-JUN-2002 15:45	1.000	tnt	
43679		SV8034.d	19-JUN-2002 18:15	1.000	tnt	
43680		SV8035.d	19-JUN-2002 18:44	1.000	tnt	
20206041001		SV8036.d	19-JUN-2002 19:14	1.000	tnt	

REVISED 6-1-95 Supervisor Review: QA Review:

LABORATORY CHRONICLE: GCSV DEPARTMENT

Date: 06/25/2002
Instrument: gcsv8.i
Method File: /var/chem/gcsv8.i/2020617.b/pest2.m
Batch: /var/chem/gcsv8.i/2020617.b
Column-Detector: DB-608-30M

Sample ID	ClientName	DataFile	Injection Time	DilFactor	Anal	Comments
20206041002		SV8037.d	19-JUN-2002 19:44	5.000	tnt	
20206041003		SV8038.d	19-JUN-2002 20:13	1.000	tnt	
20206041004		SV8039.d	19-JUN-2002 20:43	1.000	tnt	
20206041005		SV8040.d	19-JUN-2002 21:12	1.000	tnt	
20206041008		SV8041.d	19-JUN-2002 21:42	10.000	tnt	
20206041009		SV8042.d	19-JUN-2002 22:12	10.000	tnt	
20206041010		SV8043.d	19-JUN-2002 22:41	1.000	tnt	
HEXANE		SV8044.d	19-JUN-2002 23:11	1.000	tnt	
AR 1016/1260 III		SV8045.d	19-JUN-2002 23:40	1.000	tnt	
AR 1016/1260 III		SV8046.d	20-JUN-2002 00:10	1.000	tnt	
20206041011		SV8047.d	20-JUN-2002 00:40	1.000	tnt	
20206041012		SV8048.d	20-JUN-2002 01:09	1.000	tnt	
20206041013		SV8049.d	20-JUN-2002 01:39	1.000	tnt	
20206041014		SV8050.d	20-JUN-2002 02:08	1.000	tnt	
20206041015		SV8051.d	20-JUN-2002 02:38	5.000	tnt	
HEXANE		SV8052.d	20-JUN-2002 03:08	1.000	tnt	
AR 1016/1260 III		SV8053.d	20-JUN-2002 03:38	1.000	tnt	
AR 1016/1260 III		SV8054.d	20-JUN-2002 04:07	1.000	tnt	
DEG STD		SV8055.d	20-JUN-2002 09:18	1.000	tnt	
IND A III		SV8056.d	20-JUN-2002 09:48	1.000	tnt	
IND B III		SV8057.d	20-JUN-2002 10:17	1.000	tnt	
AR 1016/1260 III		SV8058.d	20-JUN-2002 10:47	1.000	tnt	
46415		SV8059.d	20-JUN-2002 12:40	1.000	tnt	
46416		SV8060.d	20-JUN-2002 13:09	1.000	tnt	
20206200201		SV8061.d	20-JUN-2002 13:39	1.000	tnt	
20206200201MS		SV8062.d	20-JUN-2002 14:08	1.000	tnt	
20206200201MSD		SV8063.d	20-JUN-2002 14:38	1.000	tnt	
20206200202		SV8064.d	20-JUN-2002 15:08	1.000	tnt	
IND A III		SV8065.d	20-JUN-2002 15:37	1.000	tnt	
DEG STD		SV8066.d	20-JUN-2002 18:29	1.000	tnt	
45781		SV8067.d	20-JUN-2002 18:59	1.000	tnt	
45782		SV8068.d	20-JUN-2002 19:28	1.000	tnt	
45783		SV8069.d	20-JUN-2002 19:58	1.000	tnt	
TBLK		SV8070.d	20-JUN-2002 20:27	1.000	tnt	
20206141201		SV8071.d	20-JUN-2002 20:57	1.000	tnt	
46505		SV8072.d	20-JUN-2002 21:27	1.000	tnt	

REVISED 6-1-95 Supervisor Review: QA Review:

LABORATORY CHRONICLE: GCSV DEPARTMENT

Date: 06/25/2002
Instrument: gcsv8.i
Method File: /var/chem/gcsv8.i/2020617.b/pest2.m
Batch: /var/chem/gcsv8.i/2020617.b
Column-Detector: DB-608-30M

Sample ID	ClientName	DataFile	Injection Time	DilFactor	Anal	Comments
46506		SV8073.d	20-JUN-2002 21:56	1.000	tnt	
TBLK		SV8074.d	20-JUN-2002 22:26	1.000	tnt	
20206181201		SV8075.d	20-JUN-2002 22:56	1.000	tnt	
TBLK		SV8076.d	20-JUN-2002 23:25	1.000	tnt	
IND B III		SV8077.d	20-JUN-2002 23:55	1.000	tnt	
IND B III		SV8078.d	21-JUN-2002 00:24	1.000	tnt	
20206190301		SV8079.d	21-JUN-2002 00:54	1.000	tnt	
46507		SV8080.d	21-JUN-2002 01:24	1.000	tnt	
46508		SV8081.d	21-JUN-2002 01:53	1.000	tnt	
IND A III		SV8082.d	21-JUN-2002 02:23	1.000	tnt	
IND A III		SV8083.d	21-JUN-2002 02:52	1.000	tnt	
DEG STD		SV8084.d	21-JUN-2002 10:14	1.000	tnt	
IND A III		SV8085.d	21-JUN-2002 10:44	1.000	tnt	
IND B III		SV8086.d	21-JUN-2002 11:13	1.000	tnt	
46415		SV8087.d	21-JUN-2002 11:58	1.000	tnt	
46416		SV8088.d	21-JUN-2002 12:28	1.000	tnt	
20206200201		SV8089.d	21-JUN-2002 12:58	1.000	tnt	
46417		SV8090.d	21-JUN-2002 13:27	1.000	tnt	
46418		SV8091.d	21-JUN-2002 13:57	1.000	tnt	
20206200202		SV8092.d	21-JUN-2002 14:27	1.000	tnt	
IND A III		SV8093.d	21-JUN-2002 14:56	1.000	tnt	

REVISED 6-1-95 Supervisor Review: QA Review:

STANDARD PREPARATION LOGBOOK

STANDARD NAME	STD#	STOCK STD CONC	SUPPLIER	LOT#/ EXP DATE	WT/VOL g/ml	FINAL VOL(ml)	FINAL CONC	SOLVENT/ LOT#	INITIAL	DATE PREPARED	EXP DATE
IND A ICU	S8-3-1	4.8796 S/10	Supelco	LA-98040 5/2004	0.6mL	50mL	60/120 ppb	Hexane BL110	TLS	5/30/02	11/30/02
Glycol STD (Fish)	S8-3-2	Neat Neat	Aldrich Aldrich	~~SS 03057 PR~~ 04761DZ INT 6/3/02 LU07323DU	0.25g 0.25g	25mls 25mls	10,000ppm	DI Water	TNT	5/30/02	5/30/03
IND A I	S8-3-3	clp 216 S/10ppb	ultra	P-7012 10/2003	50uL	50mLs	S/10 ppb	Hexane BL110	TLS	5/31/02	11-31-02
IND A II	S8-3-4	clp 216 S/10 ppb	ultra	P-7012 10/2003	200uL	50mLs	20/40 ppb	Hexane BL110	TLS	5/31/02	11-31-02
IND A IV	S8-3-5	clp 216 S/10ppb	ultra	P-7012 10/2003	800uL	50mLs	80/160 ppb	Hexane BL110	TLS	5/31/02	11-31-02
IND A V	S8-3-6	clp 216 S/10ppb	ultra	P-7012 10-2003	1.0mL	50mLs	100/200 ppb	Hexane BL110	TLS	5/31/02	11-31-02
IND B I	S8-3-7	clp 226B S/10ppm	ultra	S-0470 5/2003	50uL	50mLs	S/10 ppb	Hexane 024497	TLS	5/31/02	11-31-02
IND B II	S8-3-8	clp 226B S/10 ppm	ultra	S-0470 5/2003	200uL	50mLs	20/40 ppb	Hexane 024497	TLS	5/31/02	11-31-02
IND B IV	S8-3-9	clp 226B S/10 ppm	ultra	S-0470 5-2003	800uL	50mLs	80/160 ppb	Hexane 024497	TLS	5/31/02	11-31-02
IND B V	S8-3-10	clp 226B S/10ppm	ultra	S-0470 5-2003	1.0mL	50mLs	100/200 ppb	Hexane 024497	TLS	5/31/02	11-31-02

STANDARD PREPARATION LOGBOOK

STANDARD NAME	STD#	STOCK STD CONC	SUPPLIER	LOT#/ EXP DATE	WT/VOL g/ml	FINAL VOL(ml)	FINAL CONC	SOLVENT/ LOT#	INITIAL	DATE PREPARED	EXP DATE
ex mix Spike	58-2-1	100ug/mL	NSI	11/01 01 11/02	1.0mL	10mL	10,000ppb	Hexane BL110	TLS	4-15-02	10-15-02
Cnd A III	58-2-2	5/10 ppm Clp 216	ultra	P 7012 10/2003	600uL	50mL	60/120 ppm	Hexane BL110	TLS	4-23-02	10-23-02
Date 3/25/02 - 4/23/02 Reviewed by QA/QC on 4/23/02 (one)											
VOCASI 99.01 STD.	58-2-3	NEAT (meOH) NEAT (Acetaldehyde) NEAT (2-butanol) NEAT (Propion.)	Aldrich Aldrich Aldrich Aldrich	HO 0124 HO 07348 KI ED183 86 EO 80K 3728	0.64 mls 64 uL 62 uL 62 uL	50ml	16,000 ppm 1000 ppm 1000 ppm 1000 ppm	DI WATER	TNT	5/1/02	6/1/03
016/1260 V	58-2-4	100ug-1016 100ug-1260 200-Post Surrogate	ultra	S-1072 9/2005 S-6793 7/2005 S-0624 6/2004	800uL 800uL 40uL	50mL	160/1600 ppb	Hexane BL110	TLS	5/9/02	11-9-02 TLS
Acetone	58-2-5	Neat	Fisher	972630	0.1g	10ml	10,000ppm	CS2	TNT	5/9/02	5/9/03
CND B III	58-2-6	5/10ppm	ultra Clp-226B	S-0470 5/2003	600uL	50mL	60/120 ppb	Hexane BL110	TLS	5/14/02	11-14-02
TX 1005	58-2-7	Neat GAS Neat Diesel	Circle K Texaco	NA	0.1g 0.1g	10ml	10,000ppm ~~007516~~ TNT 5/21/02	DCM 007516	TNT	5/21/02	5/21/03

000433

STANDARD PREPARATION LOGBOOK

STANDARD NAME	STD#	STOCK STD CONC	SUPPLIER	LOT#/ EXP DATE	WT/VOL G/ML	FINAL VOL(ML)	FINAL CONC	SOLVENT/ LOT#	INITIAL	DATE PREPARED	EXP DATE
PRO Standard 150ppm	51-50-1	See 51-49-8	—	—	75ml 150ml 25ml	1.0ml	150 ppm 300 ppm 50 ppm	DCM	SAB	02/13/02	08/13/02
PRO Standard 250 ppm	51-50-2	See 51-49-8	—	—	125ml 150ml 25ml	1.0ml	250 ppm 300 ppm 50 ppm	DCM	SAB	02/13/02	08/13/02
PRO Standard 350ppm	51-50-3	See 51-49-8	—	—	175ml 150ml 25ml	1.0ml	350 ppm 300 ppm 50 ppm	DCM	SAB	02/13/02	08/13/02
PRO Standard 500ppm	51-50-4	See 51-49-8	—	—	250 ml 150 ml 25 ml	1.0 ml	500 ppm 300 ppm 50 ppm	DCM	SAB	02/13/02	08/13/02
IND A III	51-50-5	5/10ppm CIP 216	ultrA	P-7012 10/2003	600ul	50mL	60/120 ppb	Hexane	TLS	02/14/02	08/14/02
IND B III	51-50-6	5/10ppm	ultrA CIP226B	S-0470 5/2003	3-19-02 TLS ~~400ul~~ 600ul	50mL	60/120 ppb	Hexane	TLS	3/19/02	9/19/02
Chlor II	51-50-7	1000ug/mL	ultrA PP-151	P-1507 11-2003	200ul	50mL	400 ppb	Hexane	TLS	3/19/02	9/19/02
TOX II	51-50-8	1000ug/mL	ultrA EPA1161	M-0169 2-2004	250ul	50 mL	5000ppb	Hexane	TLS	3/19/02	9-19-02
				3-20 TLS							
				3-20 TLS							

Dates 3/13/02 – 3/19/02 Reviewed By [illegible] on 3/25/02 [illegible]

STANDARD PREPARATION LOGBOOK

STANDARD NAME	STD#	STOCK STD CONC	SUPPLIER	LOT#/ EXP DATE	WT/VOL G/ML	FINAL VOL(ML)	FINAL CONC	SOLVENT/ LOT#	INITIAL	DATE PREPARED	EXP DATE
meoH	51-49-1	Neat	mallinckrodt	V073	0.25gm	25mL	10,000 ppm	Di H2O	TLS	01/22/02	07/22/02
DEG Standard	51-49-2	0.2ug/mL	Accu Standard	B011043b NOV29,2002	40ul	100 mL	80ppb	Hexane	TLS	02/18/02	08/02/02
1016/1260 III	51-49-3	100ug/mL 100ug/mL 200ug/mL	ultra 1016 " 1260 ultra pest-Surrogate	S-1672 9/2005 S-0793 7/2005 S-0624 6/2004	400ul 400ul 20ul	100mL	40/400 ppb	Hexane	TLS	02/18/02	08/18/02
methanol ~~ESS~~ TNT 2/25/02	51-49-4	Neat	Aldrich	HO D247110	0.1gm.	100mL	1,000 ppm	Di H2O	TLS	02/18/02	08/18/02
Internal standard meoH for Cyclohexanol	51-49-5	Neat	Aldrich	DO 16206CO	0.3gm	100mL	3,000ppm	Di H2O	TLS	02/18/02	08/18/02
Data	1/22/02 — 2/18/02			Reviewed	By QA/QC		on 2/21/02				
TPP	51-49-6 500ug/mL	PPS-110 Triphenyl Phosphine Solution	ultra	m-428B 1/2003	500ul	50mL	5000ppb	Hexane	TLS	2/21/02	8/21/02
PHENOL MIX	51-49-7	EPA-1155 500ug/ml ATS-180 2000ug/ml PH-150 1000ug/ml	ultra ultra ultra	M-1513 11/02 A0737 8/03 P-0108 2/03	0.4ml 1.0ml 2.0ml	10ml	200ppm	DCM	TNT	3/7/02	9/7/02
PRO Standard 5 ppm	51-49-8	C-443-09 2000ug/ml T-0130 2000ug/ml P-1550 2000ug/ml	NSI ultra ultra	10/03 02/07 11/03	2.5ml 150ul 25ul	1.0ml	5ppm 300 ppm 50 ppm	DCM	SAB	02/13/02	08/13/02
PRO Standard 50ppm	51-49-9	See 51-49-8	—	—	25ul 150ul 25ul	1.0ml	50 ppm 300ppm 50 ppm	DCM	SAB	02/13/02	08/13/02

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: GCAL Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	46601	96								0
02	46602	124								0
03	46603	104								0
04	RB-S-0619	71								0
05	RB-S-0619MS	67								0
06	RB-S-0619MSD	70								0
07	46789	96								0
08	46790	90								0
09	46791	90								0
10	BF-S-0619	49								0
11										
12										
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S1 = DCAA QC LIMITS (37-140)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

QUALITY CONTROL SUMMARY

LCSD LAB ID: 46671 | ORIGINAL LAB ID: | PREP BATCH: 145851
MATRIX Solid | ANALYTICAL BATCH: 146073

SW-846 8082

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
12674-11-2	Aroclor-1016	133 ug/Kg	116	87	60 - 127	1	0 - 40
11096-82-5	Aroclor-1260	133 ug/Kg	126	95	61 - 132	1	0 - 40

LCS ID: 46602 | ORIGINAL LAB ID: | PREP BATCH: 146039
MATRIX Solid | ANALYTICAL BATCH: 146074

SW-846 8151A

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
94-75-7	2,4'-D	66.7 ug/Kg	60.4	91	10 - 126
93-76-5	2,4,5-T	66.7 ug/Kg	66.8	100	32 - 130
93-72-1	2,4,5-TP (Silvex)	66.7 ug/Kg	70.6	106	34 - 124

LCSD LAB ID: 46603 | ORIGINAL LAB ID: | PREP BATCH: 146039
MATRIX Solid | ANALYTICAL BATCH: 146074

SW-846 8151A

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
94-75-7	2,4'-D	66.7 ug/Kg	51	77	10 - 126	17	0 - 40
93-76-5	2,4,5-T	66.7 ug/Kg	59.1	89	32 - 130	12	0 - 40
93-72-1	2,4,5-TP (Silvex)	66.7 ug/Kg	63.9	96	34 - 124	10	0 - 40

MS LAB ID: 46604 | ORIGINAL LAB ID: 20206200202 | PREP BATCH: 146039
MATRIX Solid | ANALYTICAL BATCH: 146074

SW-846 8151A

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
94-75-7	2,4'-D	0	66.7 ug/Kg	36.9	55	10 - 126
93-76-5	2,4,5-T	0	66.7 ug/Kg	52.2	78	32 - 130
93-72-1	2,4,5-TP (Silvex)	0	66.7 ug/Kg	52.2	78	34 - 124

MSD LAB ID: 46605 | ORIGINAL LAB ID: 20206200202 | PREP BATCH: 146039
MATRIX Solid | ANALYTICAL BATCH: 146074

SW-846 8151A

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
94-75-7	2,4'-D	66.7 ug/Kg	38.3	57	10 - 126	4	0 - 40
93-76-5	2,4,5-T	66.7 ug/Kg	55.5	83	32 - 130	6	0 - 40
93-72-1	2,4,5-TP (Silvex)	66.7 ug/Kg	56.4	85	34 - 124	9	0 - 40

MS LAB ID: 20206212806 | ORIGINAL LAB ID: 20206212805 | PREP BATCH: 146100
MATRIX Solid | ANALYTICAL BATCH: 146136

SW-846 8151A

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS

QUALITY CONTROL SUMMARY

94-75-7	2,4'-D	0	66.7 ug/Kg	65.9	99	10 - 126
93-76-5	2,4,5-T	0	66.7 ug/Kg	61.4	92	32 - 130
93-72-1	2,4,5-TP (Silvex)	0	66.7 ug/Kg	47.2	71	34 - 124

MSD LAB ID: 20206212807 ORIGINAL LAB ID: 20206212805 PREP BATCH: 146100
MATRIX Solid ANALYTICAL BATCH: 146136

SW-846 8151A

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
94-75-7	2,4'-D	66.7 ug/Kg	68.7	103	10 - 126	4	0 - 40
93-76-5	2,4,5-T	66.7 ug/Kg	53.9	81	32 - 130	13	0 - 40
93-72-1	2,4,5-TP (Silvex)	66.7 ug/Kg	46.9	70	34 - 124	1	0 - 40

LCS ID: 46790 ORIGINAL LAB ID: PREP BATCH: 146100
MATRIX Solid ANALYTICAL BATCH: 146136

SW-846 8151A

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
94-75-7	2,4'-D	66.7 ug/Kg	52	78	10 - 126
93-76-5	2,4,5-T	66.7 ug/Kg	63	95	32 - 130
93-72-1	2,4,5-TP (Silvex)	66.7 ug/Kg	64.5	97	34 - 124

LCSD LAB ID: 46791 ORIGINAL LAB ID: PREP BATCH: 146100
MATRIX Solid ANALYTICAL BATCH: 146136

SW-846 8151A

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
94-75-7	2,4'-D	66.7 ug/Kg	51.6	77	10 - 126	1	0 - 40
93-76-5	2,4,5-T	66.7 ug/Kg	67.6	101	32 - 130	6	0 - 40
93-72-1	2,4,5-TP (Silvex)	66.7 ug/Kg	69.2	104	34 - 124	7	0 - 40

4B
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

46601

Lab Name: GCAL Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Lab File ID: SV6011 Lab Sample ID: 46601

Instrument ID: GCSV6 Date Extracted: 06/20/02

Matrix: (soil/water) SOIL Date Analyzed: 06/21/02

Level:(low/med) LOW Time Analyzed: 1128

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	46602	46602	SV6012	06/21/02
02	46603	46603	SV6013	06/21/02
03	RB-S-0619	20206200202	SV6015	06/21/02
04	RB-S-0619MS	46604	SV6016	06/21/02
05	RB-S-0619MSD	46605	SV6017	06/21/02
06				
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COMMENTS:

4B
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

46789

Lab Name: GCAL Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Lab File ID: SV6002 Lab Sample ID: 46789

Instrument ID: GCSV6 Date Extracted: 06/21/02

Matrix: (soil/water) SOIL Date Analyzed: 06/22/02

Level:(low/med) LOW Time Analyzed: 1716

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	46790	46790	SV6003	06/22/02
02	46791	46791	SV6004	06/22/02
03	BF-S-0619	20206200201	SV6005	06/22/02
04				
05				
06				
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COMMENTS:

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200201	046-BF-S-0619-02	Solid	06/19/2002 09:40	06/20/2002 09:05	06/27/2002 08:58

8151A, Herbicides, Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/21/2002 17:00	146100	3540C	1	06/22/2002 18:37	TNT	146136

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
94-75-7	2,4'-D	ND	194	16.1	ug/Kg
93-76-5	2,4,5-T	ND	19.7	11.6	ug/Kg
93-72-1	2,4,5-TP (Silvex)	ND	19.7	17.9	ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
19719-28-9	DCAA	133	65.5 ug/Kg	49	37 - 140

RESULTS REPORTED ON A DRY WEIGHT BASIS

Data File: /var/chem/gcsv6.i/2020622.b/SV6005.d
Report Date: 26-Jun-2002 10:51

Gulf Coast Analytical Services

Data file : /var/chem/gcsv6.i/2020622.b/SV6005.d
Lab Smp Id: 20206200201 Client Smp ID: BF-S-0619
Inj Date : 22-JUN-2002 18:37
Operator : tnt Inst ID: gcsv6.i
Smp Info : 20206200201-1.0-GCSV~1777~-
Misc Info :
Comment :
Method : /var/chem/gcsv6.i/2020622.b/M8151.m
Meth Date : 26-Jun-2002 10:51 sab Quant Type: ESTD
Cal Date : 10-JUN-2002 13:19 Cal File: SV6006.d
Als bottle: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

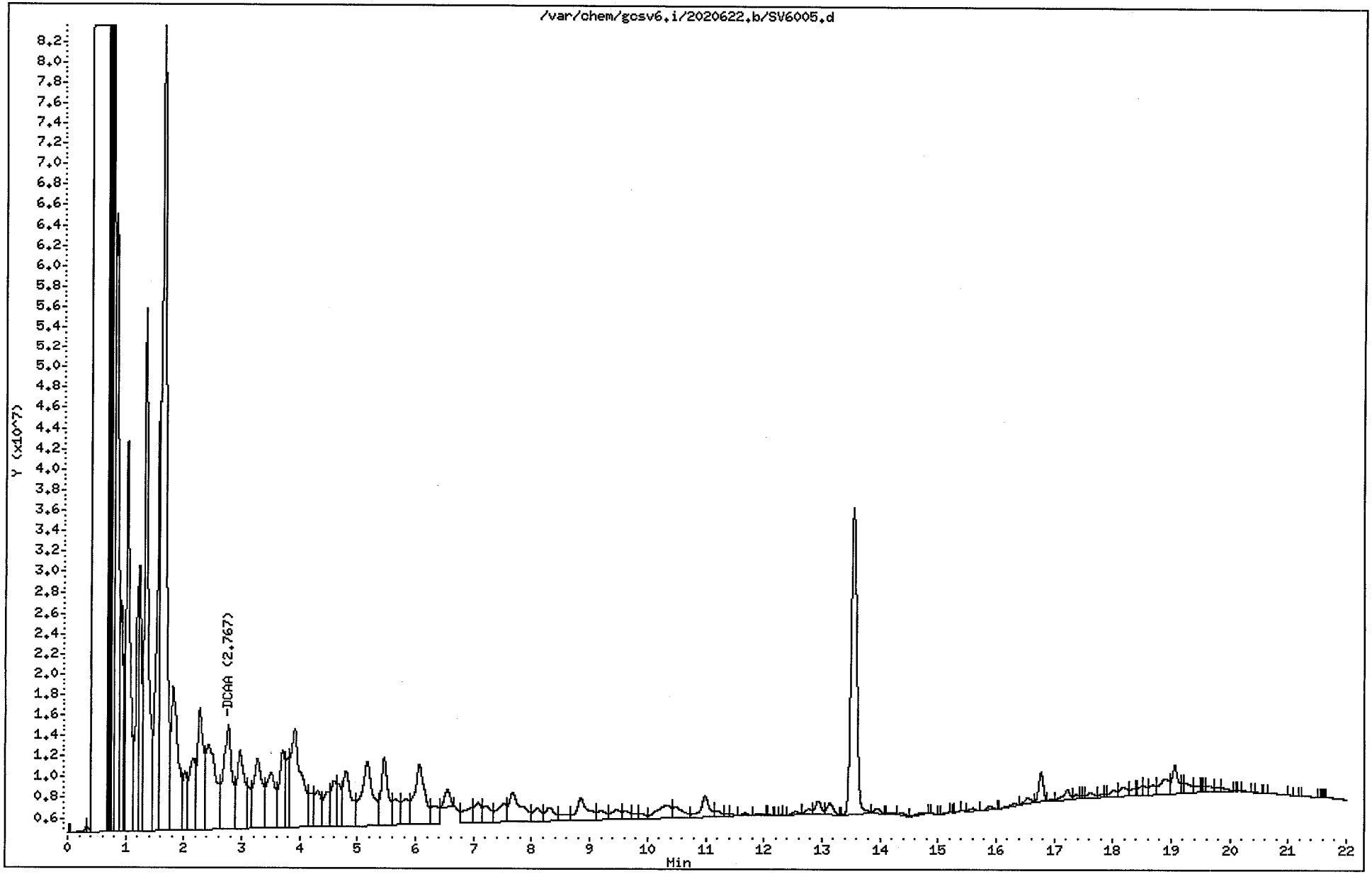
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/L)	FINAL (UG/KG)
$ 2 DCAA	2.767	2.780	-0.013	97242278	196.389	65.5

Data File: /var/chem/gcsv6.i/2020622.b/SV6005.d
Date : 22-JUN-2002 18:37
Client ID: BF-S-0619
Sample Info: 20206200201-1.0-GCSV^1777^-
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv6.i

Operator: tnt
Column diameter: 0.53



0004413

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200202	046-RB-S-0619-02	Solid	06/19/2002 11:00	06/20/2002 09:05	06/27/2002 08:58

8151A, Herbicides, Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/20/2002 15:00	146039	3540C	1	06/21/2002 13:16	SAB	146074

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
94-75-7	2,4'-D	ND	183	15.2	ug/Kg
93-76-5	2,4,5-T	ND	18.6	11.0	ug/Kg
93-72-1	2,4,5-TP (Silvex)	ND	18.6	16.9	ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
19719-28-9	DCAA	133	95 ug/Kg	71	37 - 140

RESULTS REPORTED ON A DRY WEIGHT BASIS

Data File: /var/chem/gcsv6.i/2020620.b/SV6015.d
Report Date: 26-Jun-2002 10:45

Gulf Coast Analytical Services

Data file : /var/chem/gcsv6.i/2020620.b/SV6015.d
Lab Smp Id: 20206200202 Client Smp ID: RB-S-0619
Inj Date : 21-JUN-2002 13:16
Operator : tnt Inst ID: gcsv6.i
Smp Info : 20206200202-1.0-GCSV~17XX~-
Misc Info :
Comment :
Method : /var/chem/gcsv6.i/2020620.b/M8151.m
Meth Date : 26-Jun-2002 10:45 sab Quant Type: ESTD
Cal Date : 10-JUN-2002 13:19 Cal File: SV6006.d
Als bottle: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

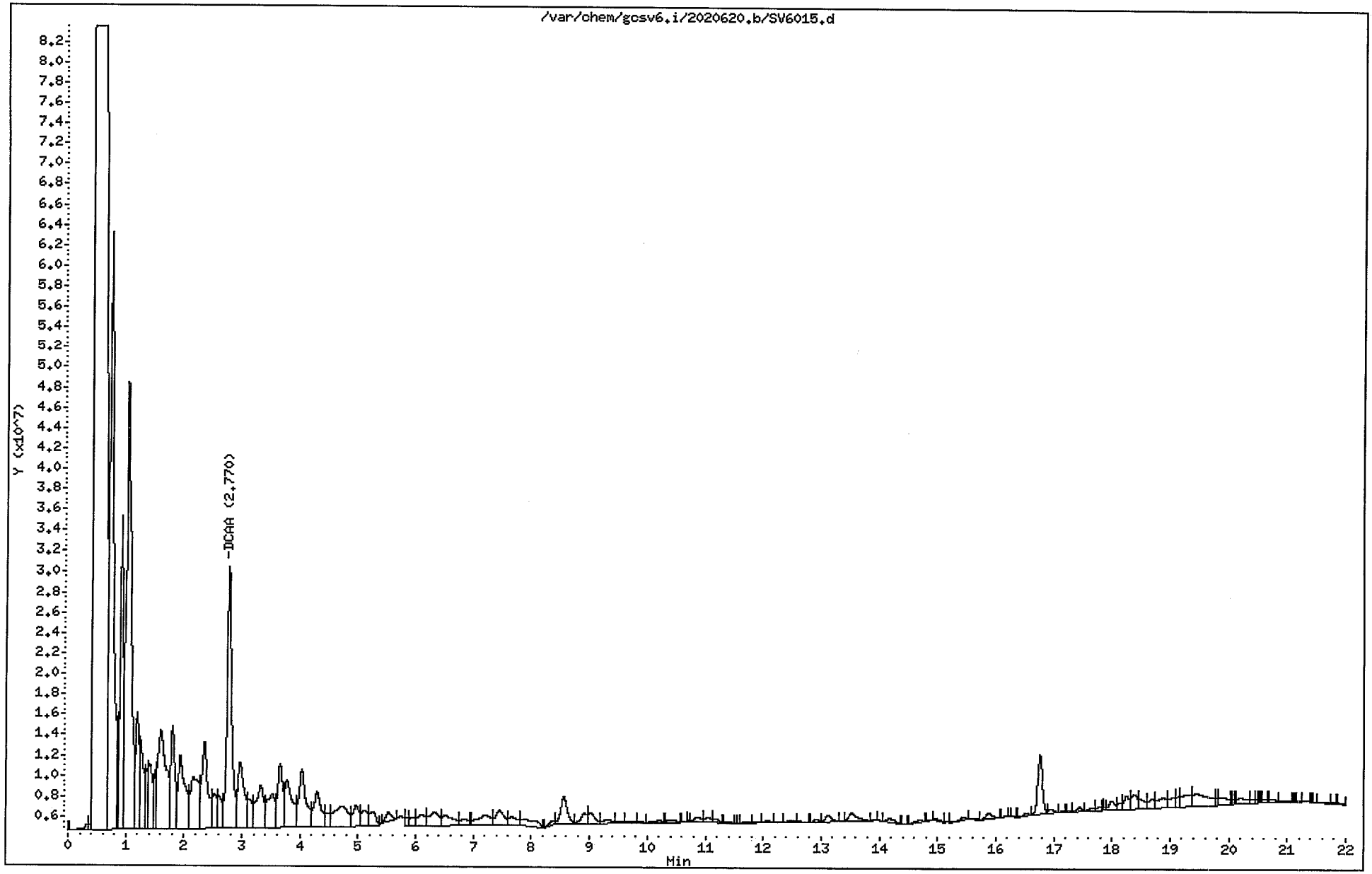
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/L)	CONCENTRATIONS FINAL (UG/KG)
$ 2 DCAA	2.770	2.780	-0.010	141113243	284.990	95.0

Data File: /var/chem/gcsv6.i/2020620.b/SV6015.d
Date : 21-JUN-2002 13:16
Client ID: RB-S-0619
Sample Info: 20206200202-1.0-GCSV^17XX^-
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv6.i

Operator: tnt
Column diameter: 0.53

000446



Report Date : 26-Jun-2002 10:46

Gulf Coast Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2002 11:05
End Cal Date : 10-JUN-2002 13:19
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/gcsv6.i/2020620.b/M8151.m
Cal Date : 26-Jun-2002 10:45 sab
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcsv6.i/2020610.b/SV6001.d
Level 2: /var/chem/gcsv6.i/2020610.b/SV6002.d
Level 3: /var/chem/gcsv6.i/2020610.b/SV6003.d
Level 4: /var/chem/gcsv6.i/2020610.b/SV6004.d
Level 5: /var/chem/gcsv6.i/2020610.b/SV6005.d
Level 6: /var/chem/gcsv6.i/2020610.b/SV6006.d

Compound	6.250 Level 1	12.500 Level 2	25.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD
7 2,4-D	591079	523433	467805	474523	420623	360097	472927	16.917
8 2,4,5-TP	1765678	1723352	1563627	1602832	1452795	1272198	1563414	11.622
9 2,4,5-T	1535994	1534066	1388072	1470004	1352384	1202333	1413809	9.042
$ 2 DCAA	610818	575948	513462	488126	440540	342017	495152	19.523

Report Date : 26-Jun-2002 10:46

Gulf Coast Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date	: 10-JUN-2002 11:05
End Cal Date	: 10-JUN-2002 13:19
Quant Method	: ESTD
Origin	: Disabled
Target Version	: 3.50
Integrator	: Falcon
Method file	: /var/chem/gcsv6.i/2020620.b/M8151.m
Cal Date	: 26-Jun-2002 10:45 sab
Curve Type	: Average

```
|Average %RSD Results.                                |
|=====================================================|
|Calculated Average %RSD = 14.2761850                 |
|Maximun Average %RSD    =         20                 |
|* Passed Average %RSD Test.                          |
|_____________________________________________________|
```

Data File: /var/chem/gcsv6.i/2020610.b/SV6001.d
Report Date: 26-Jun-2002 10:48

Gulf Coast Analytical Services

Data file : /var/chem/gcsv6.i/2020610.b/SV6001.d
Lab Smp Id: 6.25 PPB HERB Client Smp ID: 6.25 PPB HERB
Inj Date : 10-JUN-2002 11:05
Operator : tls Inst ID: gcsv6.i
Smp Info : 6.25 PPB HERB
Misc Info :
Comment :
Method : /var/chem/gcsv6.i/2020610.b/M8151.m
Meth Date : 26-Jun-2002 10:48 sab Quant Type: ESTD
Cal Date : 10-JUN-2002 11:05 Cal File: SV6001.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

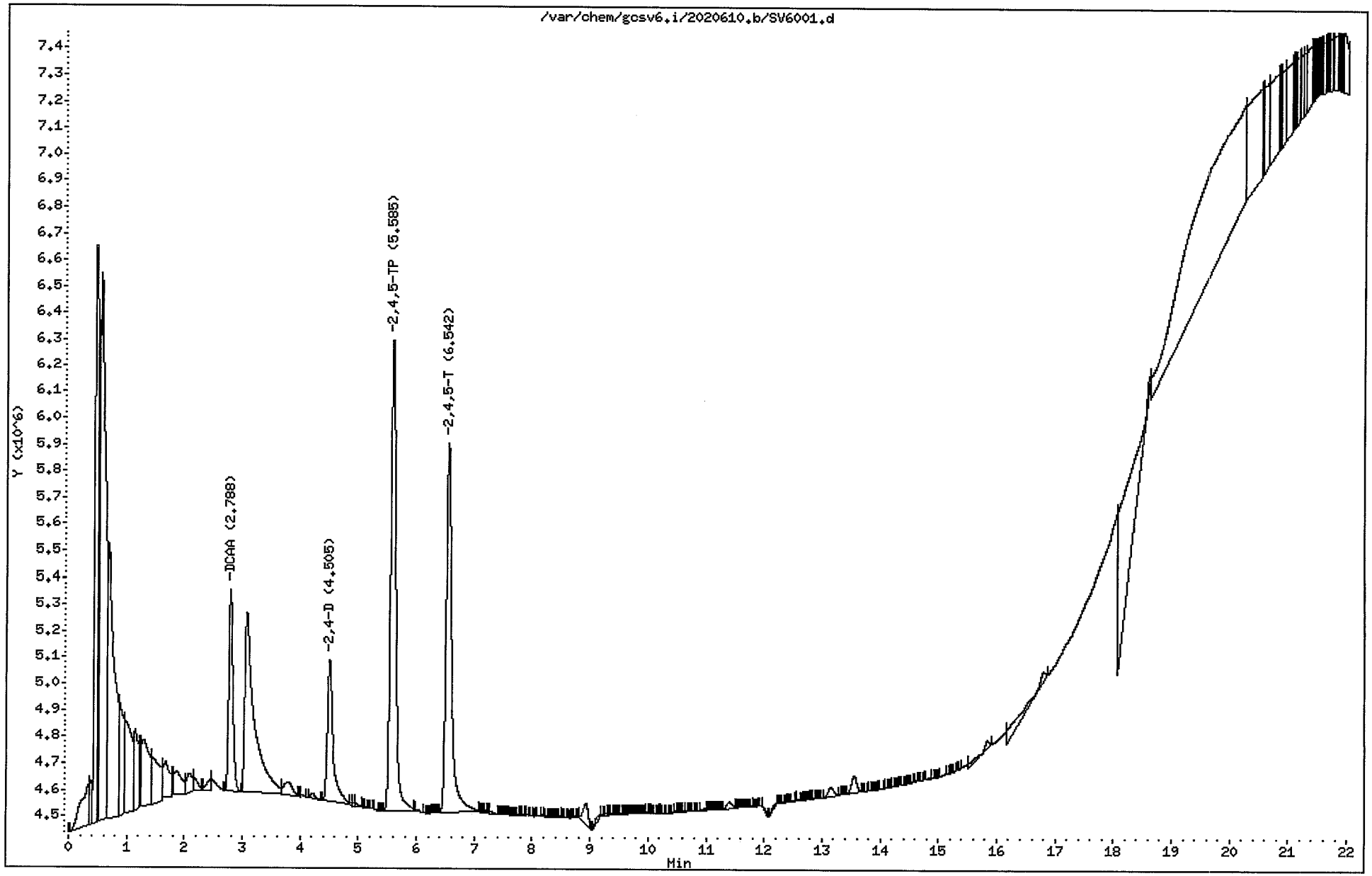
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
$ 2 DCAA	2.788	2.780	0.008	3817614	6.25000	7.71
7 2,4-D	4.505	4.493	0.012	3694243	6.25000	7.81
8 2,4,5-TP	5.585	5.575	0.010	11035490	6.25000	7.06
9 2,4,5-T	6.542	6.530	0.012	9599961	6.25000	6.79

Data File: /var/chem/gcsv6.i/2020610.b/SV6001.d
Date : 10-JUN-2002 11:05
Client ID: 6.25 PPB HERB
Sample Info: 6.25 PPB HERB
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv6.i

Operator: tls
Column diameter: 0.53

000450



Data File: /var/chem/gcsv6.i/2020610.b/SV6002.d
Report Date: 26-Jun-2002 10:48

Gulf Coast Analytical Services

Data file : /var/chem/gcsv6.i/2020610.b/SV6002.d
Lab Smp Id: 12.5 PPB HERB Client Smp ID: 12.5 PPB HERB
Inj Date : 10-JUN-2002 11:32
Operator : tls Inst ID: gcsv6.i
Smp Info : 12.5 PPB HERB
Misc Info :
Comment :
Method : /var/chem/gcsv6.i/2020610.b/M8151.m
Meth Date : 26-Jun-2002 10:48 sab Quant Type: ESTD
Cal Date : 10-JUN-2002 11:32 Cal File: SV6002.d
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

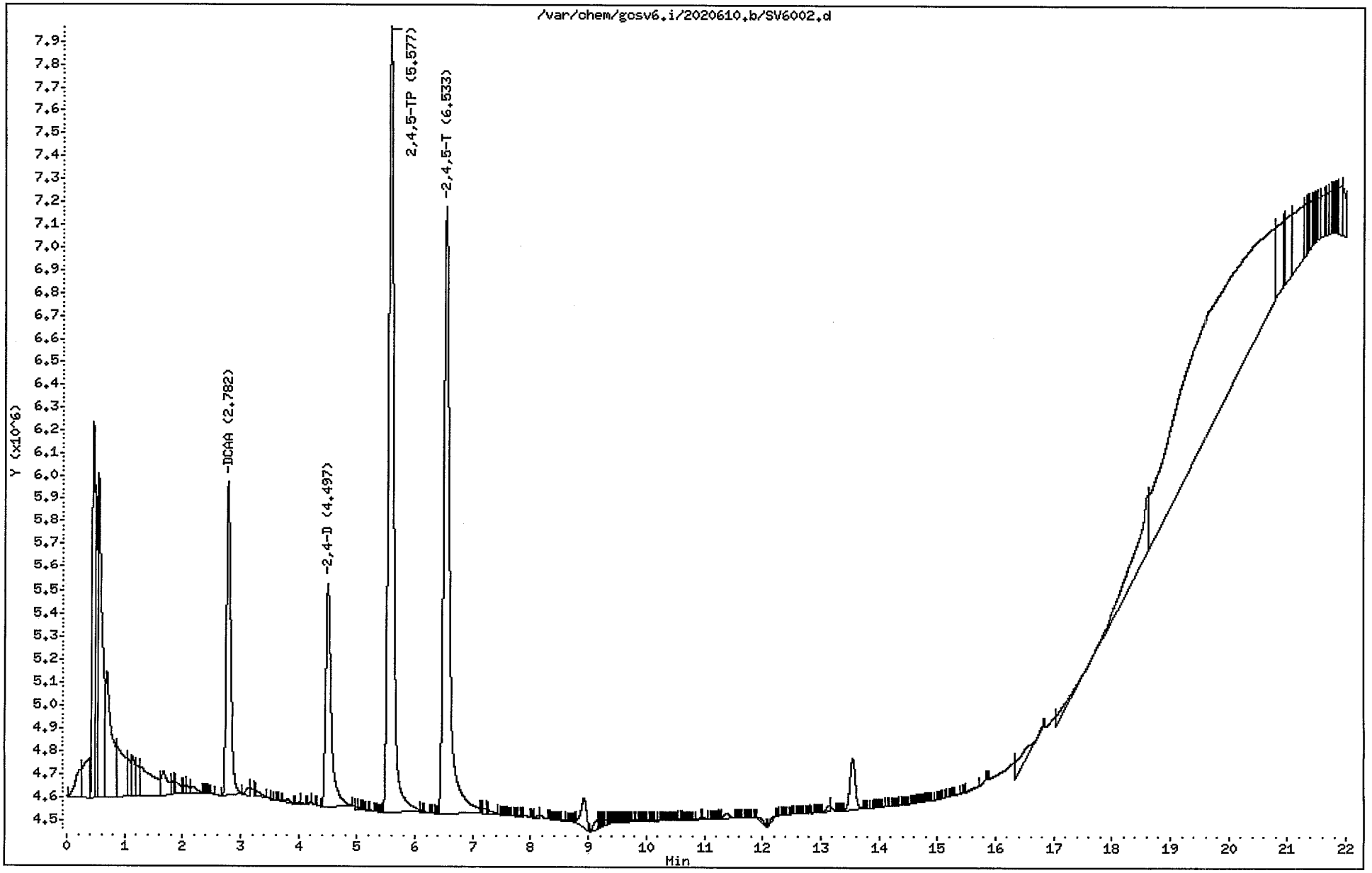
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
$ 2 DCAA	2.782	2.780	0.002	7199348	12.5000	14.5
7 2,4-D	4.497	4.493	0.004	6542916	12.5000	13.8
8 2,4,5-TP	5.577	5.575	0.002	21541902	12.5000	13.8
9 2,4,5-T	6.533	6.530	0.003	19175820	12.5000	13.6

Data File: /var/chem/gcsv6.i/2020610.b/SV6002.d
Date : 10-JUN-2002 11:32
Client ID: 12.5 PPB HERB
Sample Info: 12.5 PPB HERB
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv6.i

Operator: tls
Column diameter: 0.53



Data File: /var/chem/gcsv6.i/2020610.b/SV6003.d
Report Date: 26-Jun-2002 10:48

Gulf Coast Analytical Services

Data file : /var/chem/gcsv6.i/2020610.b/SV6003.d
Lab Smp Id: 25 PPB HERB Client Smp ID: 25 PPB HERB
Inj Date : 10-JUN-2002 11:59
Operator : tls Inst ID: gcsv6.i
Smp Info : 25 PPB HERB
Misc Info :
Comment :
Method : /var/chem/gcsv6.i/2020610.b/M8151.m
Meth Date : 26-Jun-2002 10:48 sab Quant Type: ESTD
Cal Date : 10-JUN-2002 11:59 Cal File: SV6003.d
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

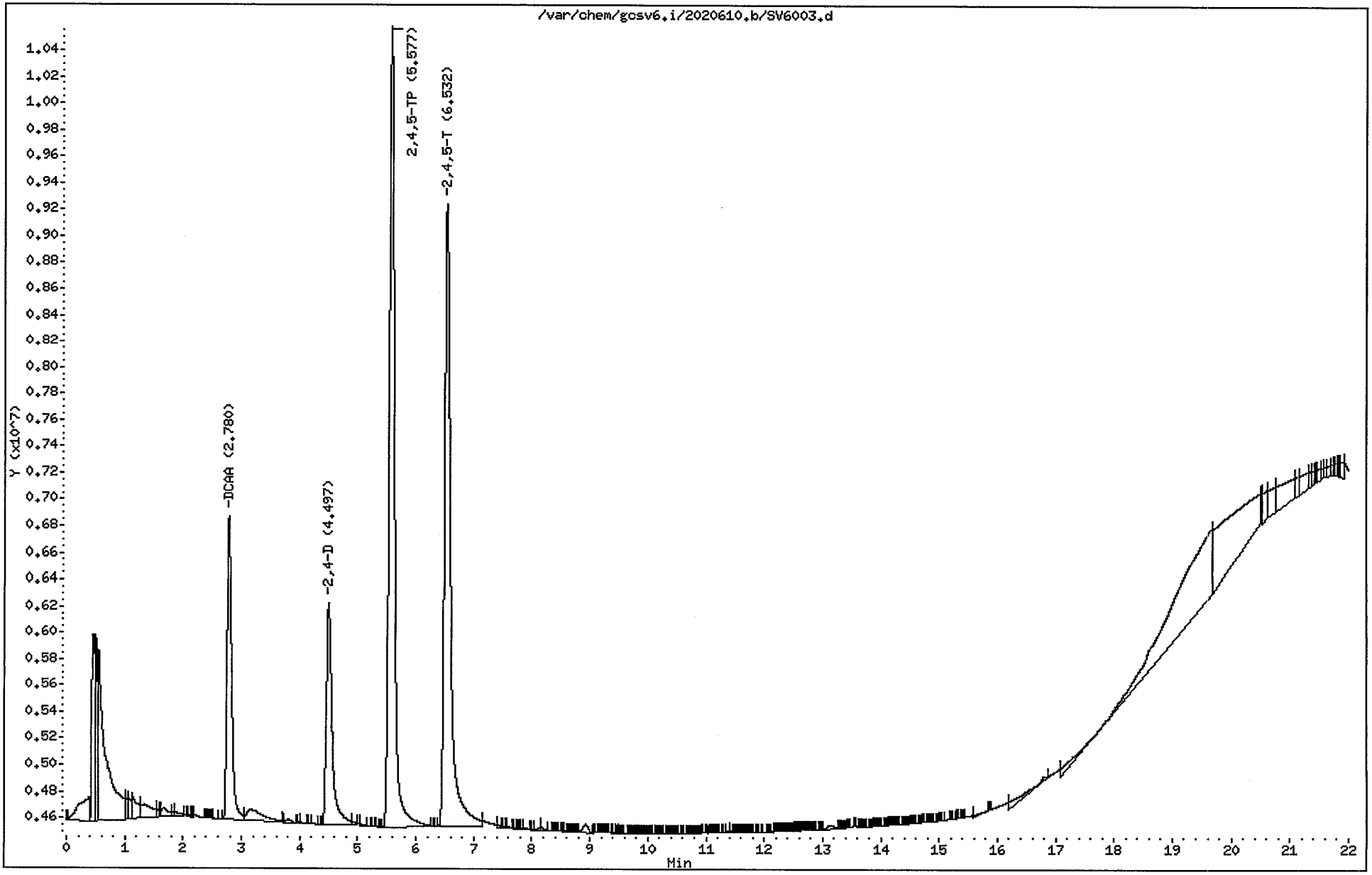
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
$ 2 DCAA	2.780	2.780	0.000	12836552	25.0000	25.9
7 2,4-D	4.497	4.493	0.004	11695117	25.0000	24.7
8 2,4,5-TP	5.577	5.575	0.002	39090664	25.0000	25.0
9 2,4,5-T	6.532	6.530	0.002	34701788	25.0000	24.5

Data File: /var/chem/gcsv6.i/2020610.b/SV6003.d
Date : 10-JUN-2002 11:59
Client ID: 25 PPB HERB
Sample Info: 25 PPB HERB
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv6.i

Operator: tls
Column diameter: 0.53

000454



Data File: /var/chem/gcsv6.i/2020610.b/SV6004.d
Report Date: 26-Jun-2002 10:48

Gulf Coast Analytical Services

Data file : /var/chem/gcsv6.i/2020610.b/SV6004.d
Lab Smp Id: 50 PPB HERB Client Smp ID: 50 PPB HERB
Inj Date : 10-JUN-2002 12:25
Operator : tls Inst ID: gcsv6.i
Smp Info : 50 PPB HERB
Misc Info :
Comment :
Method : /var/chem/gcsv6.i/2020610.b/M8151.m
Meth Date : 26-Jun-2002 10:48 sab Quant Type: ESTD
Cal Date : 10-JUN-2002 12:25 Cal File: SV6004.d
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

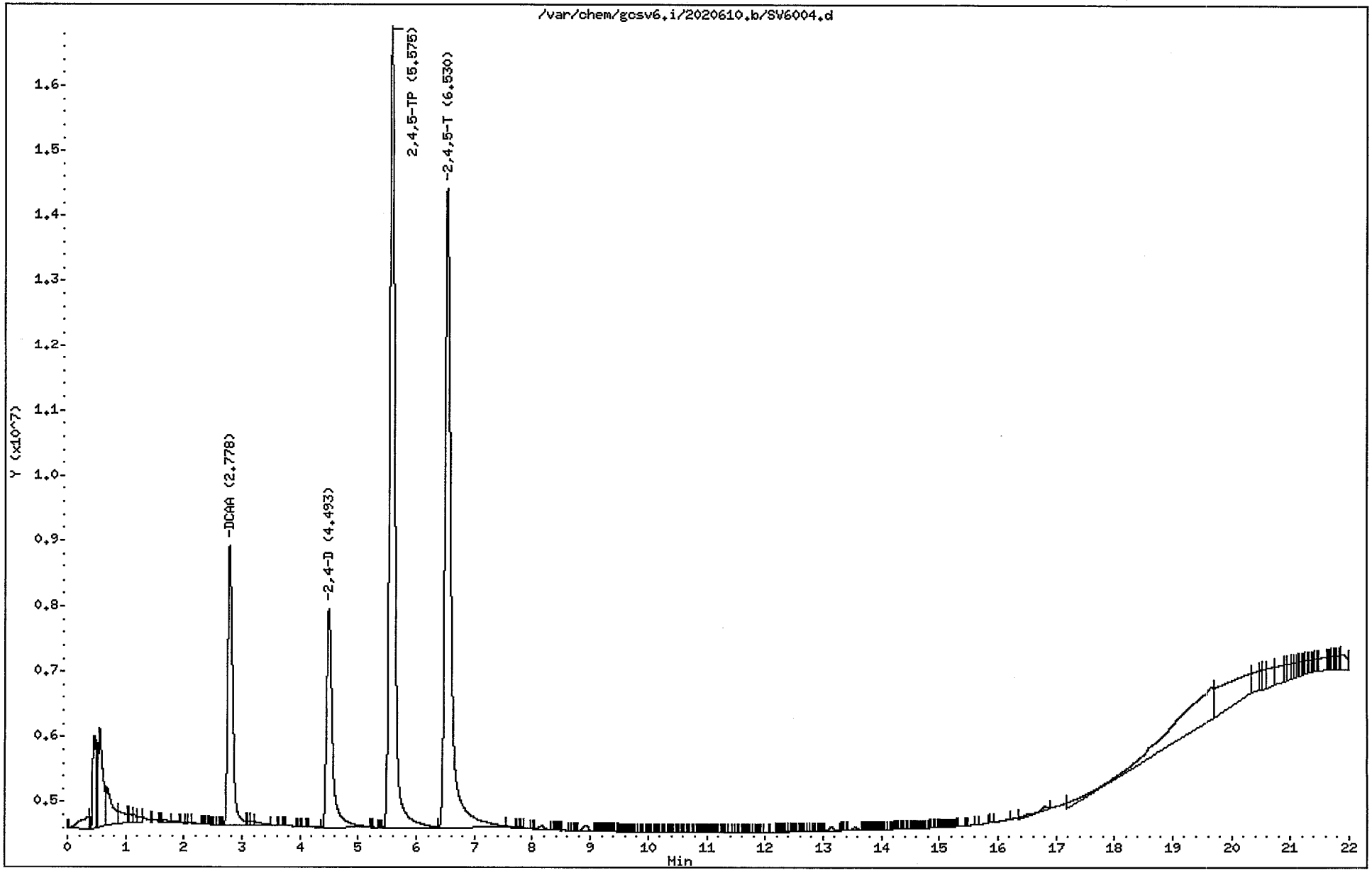
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
$ 2 DCAA	2.778	2.780	-0.002	24406296	50.0000	49.3
7 2,4-D	4.493	4.494	-0.001	23726146	50.0000	50.2
8 2,4,5-TP	5.575	5.575	0.000	80141607	50.0000	51.3
9 2,4,5-T	6.530	6.530	0.000	73500206	50.0000	52.0

Data File: /var/chem/gcsv6.i/2020610.b/SV6004.d
Date : 10-JUN-2002 12:25
Client ID: 50 PPB HERB
Sample Info: 50 PPB HERB
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv6.i

Operator: tls
Column diameter: 0.53



000456

Data File: /var/chem/gcsv6.i/2020610.b/SV6005.d
Report Date: 26-Jun-2002 10:48

Gulf Coast Analytical Services

Data file : /var/chem/gcsv6.i/2020610.b/SV6005.d
Lab Smp Id: 100 PPB HERB Client Smp ID: 100 PPB HERB
Inj Date : 10-JUN-2002 12:52
Operator : tls Inst ID: gcsv6.i
Smp Info : 100 PPB HERB
Misc Info :
Comment :
Method : /var/chem/gcsv6.i/2020610.b/M8151.m
Meth Date : 26-Jun-2002 10:48 sab Quant Type: ESTD
Cal Date : 10-JUN-2002 12:52 Cal File: SV6005.d
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

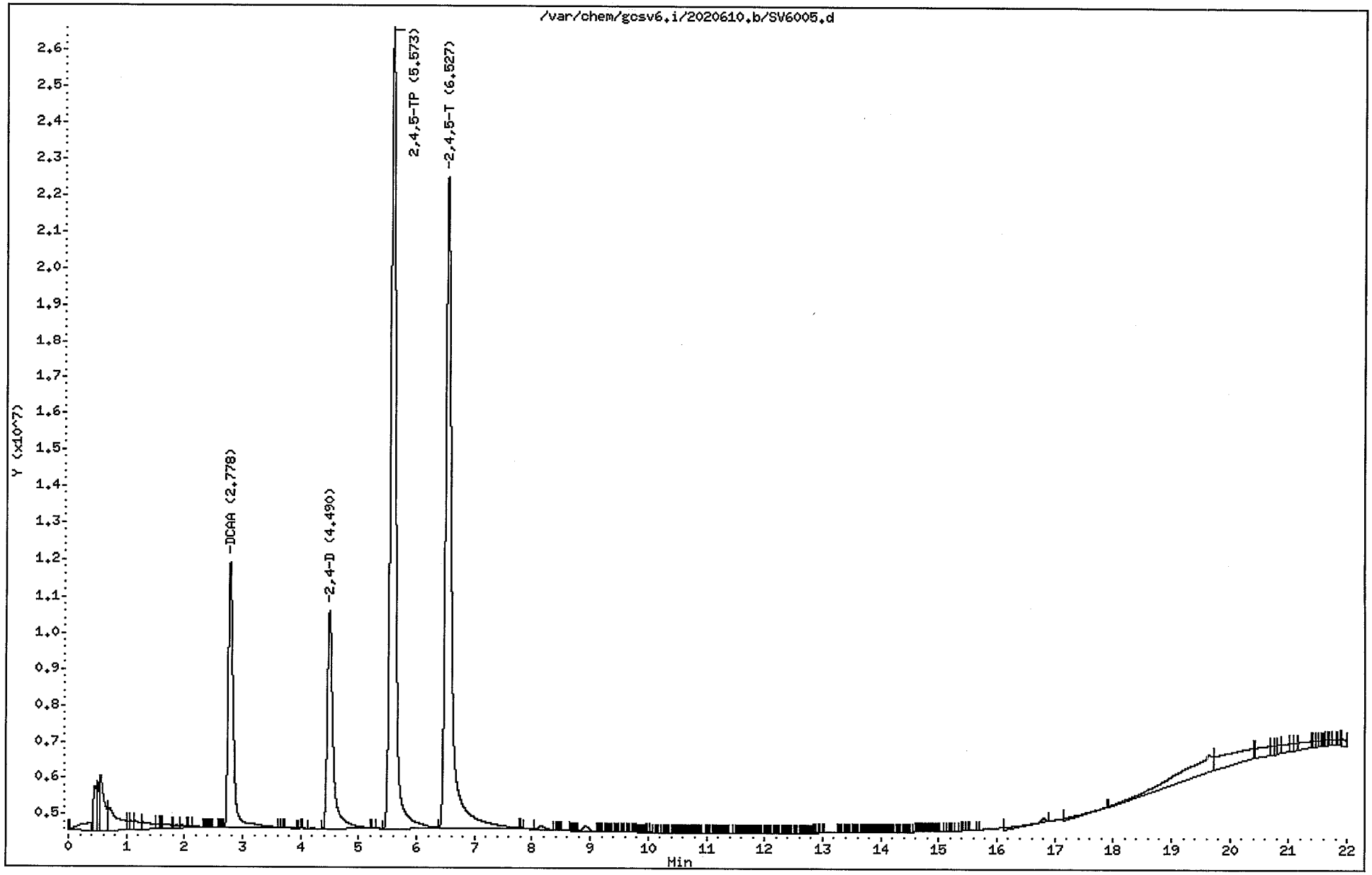
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
$ 2 DCAA	2.778	2.780	-0.002	44054017	100.000	89.0
7 2,4-D	4.490	4.494	-0.004	42062283	100.000	88.9
8 2,4,5-TP	5.573	5.575	-0.002	145279485	100.000	92.9
9 2,4,5-T	6.527	6.530	-0.003	135238378	100.000	95.6

Data File: /var/chem/gcsv6.i/2020610.b/SV6005.d
Date : 10-JUN-2002 12:52
Client ID: 100 PPB HERB
Sample Info: 100 PPB HERB
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv6.i

Operator: tls
Column diameter: 0.53



000458

Data File: /var/chem/gcsv6.i/2020610.b/SV6006.d
Report Date: 26-Jun-2002 10:48

Gulf Coast Analytical Services

Data file : /var/chem/gcsv6.i/2020610.b/SV6006.d
Lab Smp Id: 200 PPB HERB Client Smp ID: 200 PPB HERB
Inj Date : 10-JUN-2002 13:19
Operator : tls Inst ID: gcsv6.i
Smp Info : 200 PPB HERB
Misc Info :
Comment :
Method : /var/chem/gcsv6.i/2020610.b/M8151.m
Meth Date : 26-Jun-2002 10:48 sab Quant Type: ESTD
Cal Date : 10-JUN-2002 13:19 Cal File: SV6006.d
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

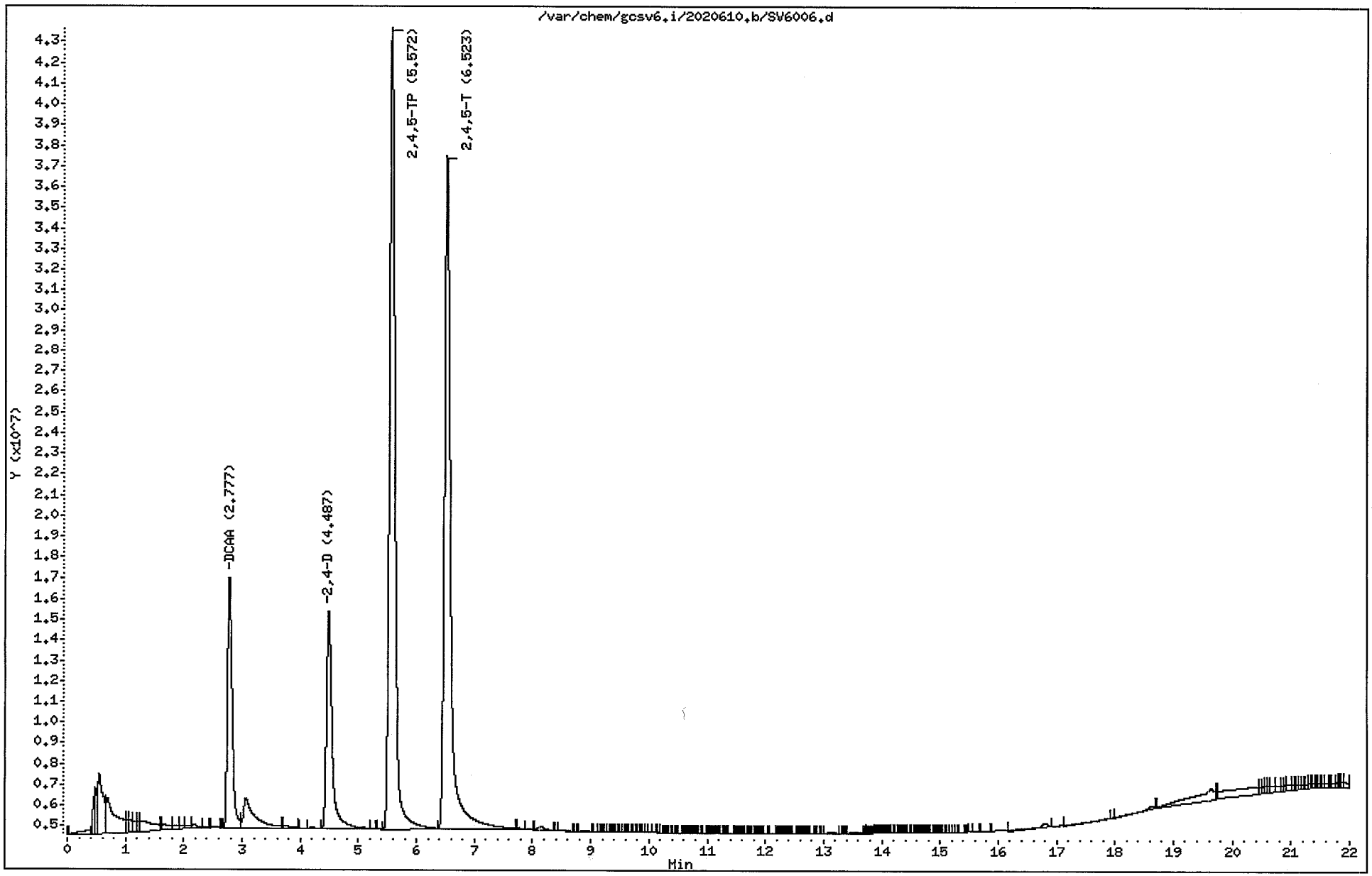
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
$ 2 DCAA	2.777	2.780	-0.003	68403391	200.000	138
7 2,4-D	4.487	4.494	-0.007	72019454	200.000	152
8 2,4,5-TP	5.572	5.575	-0.003	254439548	200.000	163
9 2,4,5-T	6.523	6.530	-0.007	240466506	200.000	170

Data File: /var/chem/gcsv6.i/2020610.b/SV6006.d
Date : 10-JUN-2002 13:19
Client ID: 200 PPB HERB
Sample Info: 200 PPB HERB
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv6.i

Operator: tls
Column diameter: 0.53



000460

Data File: /var/chem/gcsv6.i/2020610.b/SV6007.d
Report Date: 10-Jun-2002 14:13

Gulf Coast Analytical Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv6.i Injection Date: 10-JUN-2002 13:46
Lab File ID: SV6007.d Init. Cal. Date(s): 10-JUN-2002 10-JUN-2002
Analysis Type: WATER Init. Cal. Times: 11:05 13:19
Lab Sample ID: 50 PPB HERB ICV Quant Type: ESTD
Method: /var/chem/gcsv6.i/2020610.b/M8151.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
7 2,4-D	472927	439237	0.010	7.12373	15.00000	Averaged
8 2,4,5-TP	1563414	1551175	0.010	0.78282	15.00000	Averaged
9 2,4,5-T	1413809	1483430	0.010	-4.92441	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 4.27699
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Data File: /var/chem/gcsv6.i/2020610.b/SV6007.d
Report Date: 10-Jun-2002 14:13

Gulf Coast Analytical Services

Data file : /var/chem/gcsv6.i/2020610.b/SV6007.d
Lab Smp Id: 50 PPB HERB ICV
Inj Date : 10-JUN-2002 13:46
Operator : tls Inst ID: gcsv6.i
Smp Info : 50 PPB HERB ICV
Misc Info :
Comment :
Method : /var/chem/gcsv6.i/2020610.b/M8151.m
Meth Date : 10-Jun-2002 14:13 tls Quant Type: ESTD
Cal Date : 10-JUN-2002 13:19 Cal File: SV6006.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

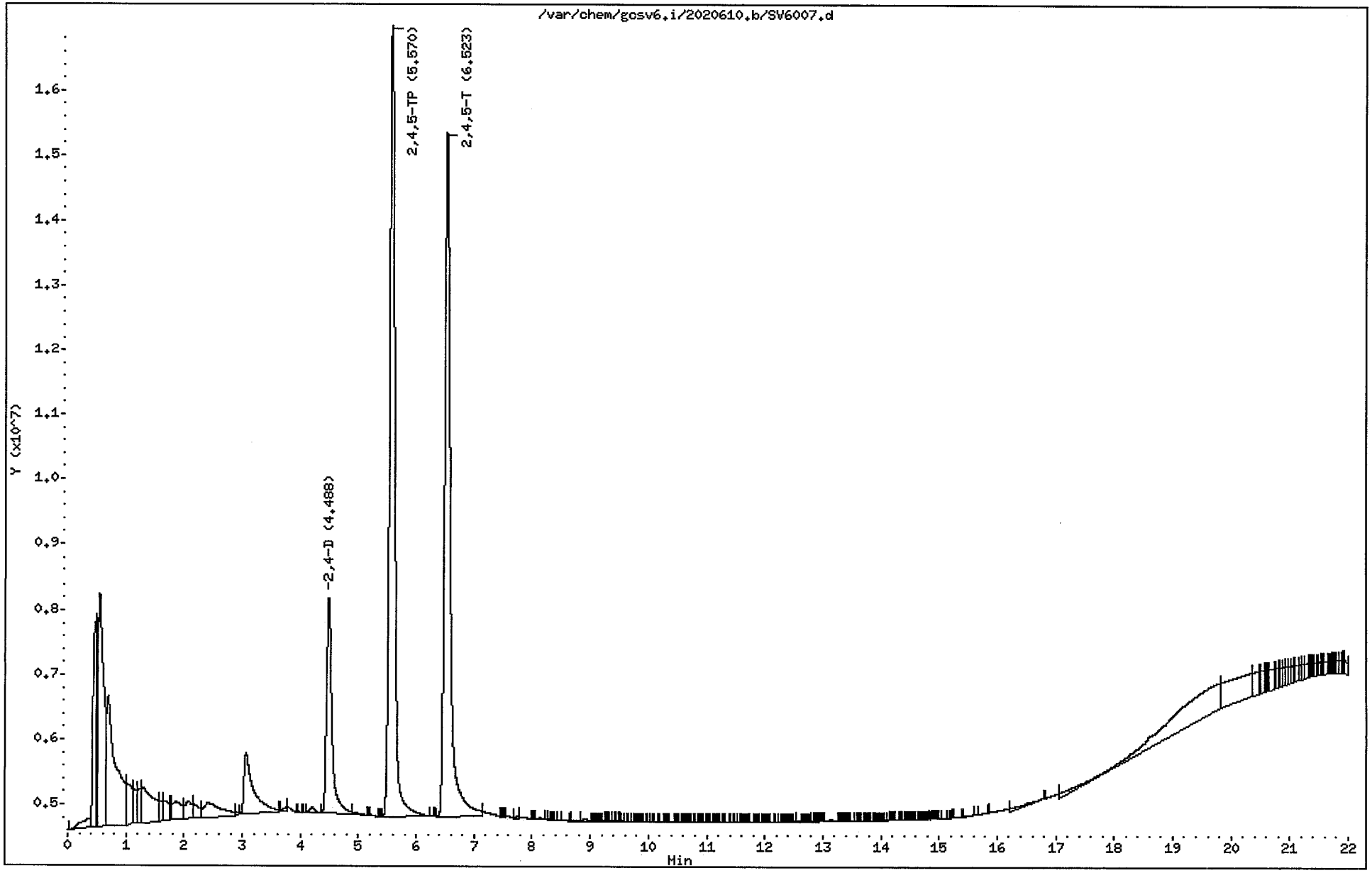
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
7 2,4-D	4.488	4.493	-0.005	21961831	50.0000	46.4
8 2,4,5-TP	5.570	5.575	-0.005	77558746	50.0000	49.6
9 2,4,5-T	6.523	6.529	-0.006	74171512	50.0000	52.5

Data File: /var/chem/gcsv6.i/2020610.b/SV6007.d
Date : 10-JUN-2002 13:46
Client ID:
Sample Info: 50 PPB HERB ICV
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv6.i

Operator: tls
Column diameter: 0.53

000463



Data File: /var/chem/gcsv6.i/2020620.b/SV6010.d
Report Date: 26-Jun-2002 10:45

Gulf Coast Analytical Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv6.i
Lab File ID: SV6010.d
Analysis Type: WATER
Lab Sample ID: 50 PPB HERB
Method: /var/chem/gcsv6.i/2020620.b/M8151.m

Injection Date: 21-JUN-2002 10:45
Init. Cal. Date(s): 10-JUN-2002 10-JUN-2002
Init. Cal. Times: 11:05 13:19
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 2 DCAA	495152	532370	0.010	-7.51653	15.00000	Averaged
7 2,4-D	472927	536265	0.010	-13.39284	15.00000	Averaged
8 2,4,5-TP	1563414	1699196	0.010	-8.68502	15.00000	Averaged
9 2,4,5-T	1413809	1510156	0.010	-6.81471	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 9.10227
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Data File: /var/chem/gcsv6.i/2020620.b/SV6010.d
Report Date: 26-Jun-2002 10:45

Gulf Coast Analytical Services

Data file : /var/chem/gcsv6.i/2020620.b/SV6010.d
Lab Smp Id: 50 PPB HERB
Inj Date : 21-JUN-2002 10:45
Operator : tnt Inst ID: gcsv6.i
Smp Info : 50 PPB HERB
Misc Info :
Comment :
Method : /var/chem/gcsv6.i/2020620.b/M8151.m
Meth Date : 26-Jun-2002 10:45 sab Quant Type: ESTD
Cal Date : 10-JUN-2002 13:19 Cal File: SV6006.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
$ 2 DCAA	2.782	2.780	0.002	26618506	50.0000	53.8
7 2,4-D	4.493	4.494	-0.001	26813247	50.0000	56.7
8 2,4,5-TP	5.578	5.576	0.002	84959819	50.0000	54.3(M)
9 2,4,5-T	6.532	6.530	0.002	75507777	50.0000	53.4(M)

QC Flag Legend

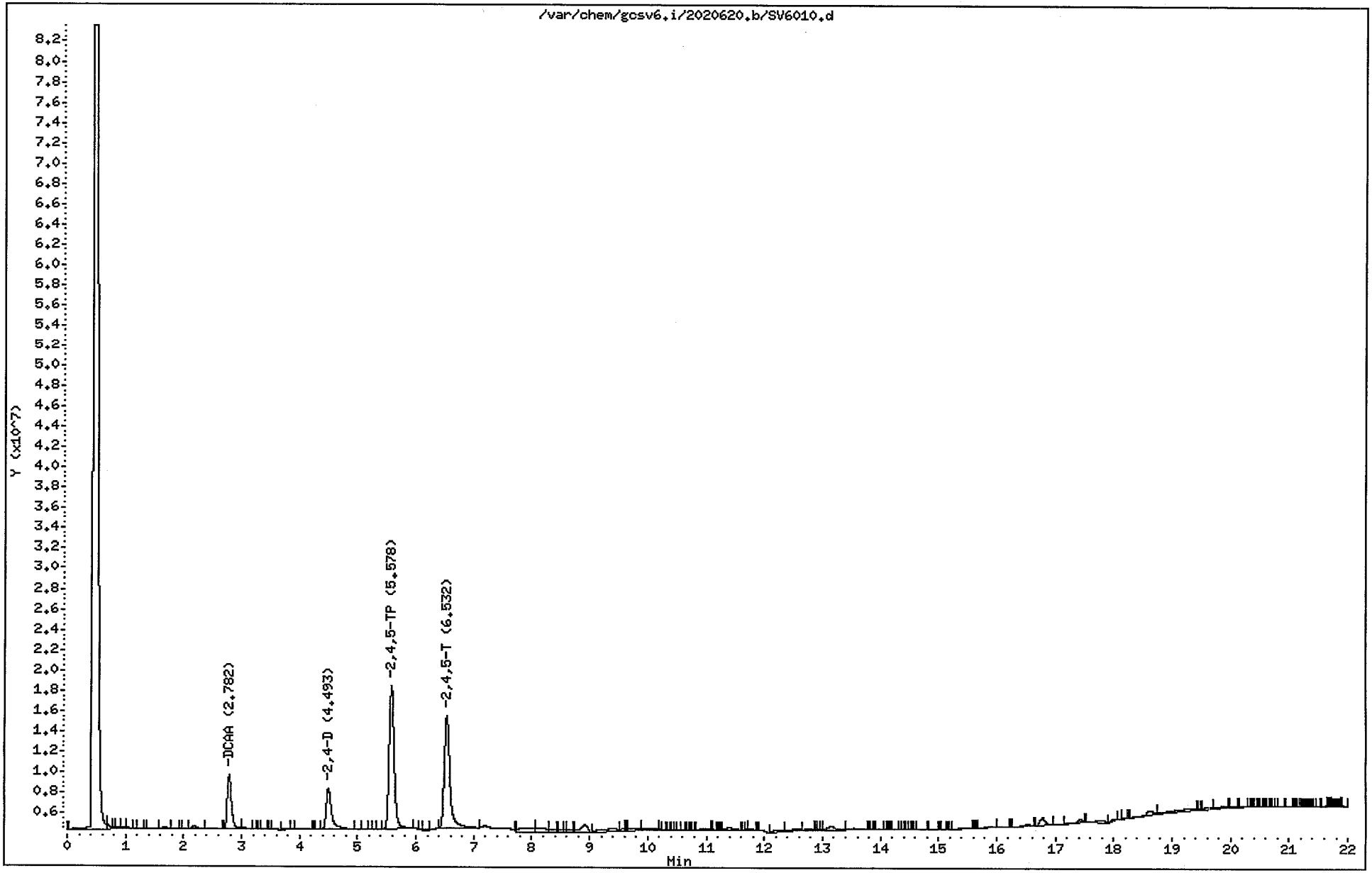
M - Compound response manually integrated.

Data File: /var/chem/gcsv6.i/2020620.b/SV6010.d
Date : 21-JUN-2002 10:45
Client ID:
Sample Info: 50 PPB HERB
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv6.i

Operator: tnt
Column diameter: 0.53

000466



Data File: /var/chem/gcsv6.i/2020620.b/SV6018.d
Report Date: 26-Jun-2002 10:45

Gulf Coast Analytical Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv6.i
Lab File ID: SV6018.d
Analysis Type: WATER
Lab Sample ID: 50 PPB HERB
Method: /var/chem/gcsv6.i/2020620.b/M8151.m

Injection Date: 21-JUN-2002 14:36
Init. Cal. Date(s): 10-JUN-2002 10-JUN-2002
Init. Cal. Times: 11:05 13:19
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 2 DCAA	495152	502717	0.010	-1.52774	15.00000	Averaged	
7 2,4-D	472927	557717	0.010	-17.92889	15.00000	Averaged	<-
8 2,4,5-TP	1563414	1766842	0.010	-13.01181	15.00000	Averaged	
9 2,4,5-T	1413809	1701206	0.010	-20.32787	15.00000	Averaged	<-

Average %D / Drift Results.

Calculated Average %D/Drift = 13.19908
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Data File: /var/chem/gcsv6.i/2020620.b/SV6018.d
Report Date: 26-Jun-2002 10:45

Gulf Coast Analytical Services

Data file : /var/chem/gcsv6.i/2020620.b/SV6018.d
Lab Smp Id: 50 PPB HERB Client Smp ID: 50 PPB HERB
Inj Date : 21-JUN-2002 14:36
Operator : tnt Inst ID: gcsv6.i
Smp Info : 50 PPB HERB
Misc Info :
Comment :
Method : /var/chem/gcsv6.i/2020620.b/M8151.m
Meth Date : 26-Jun-2002 10:45 sab Quant Type: ESTD
Cal Date : 10-JUN-2002 13:19 Cal File: SV6006.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

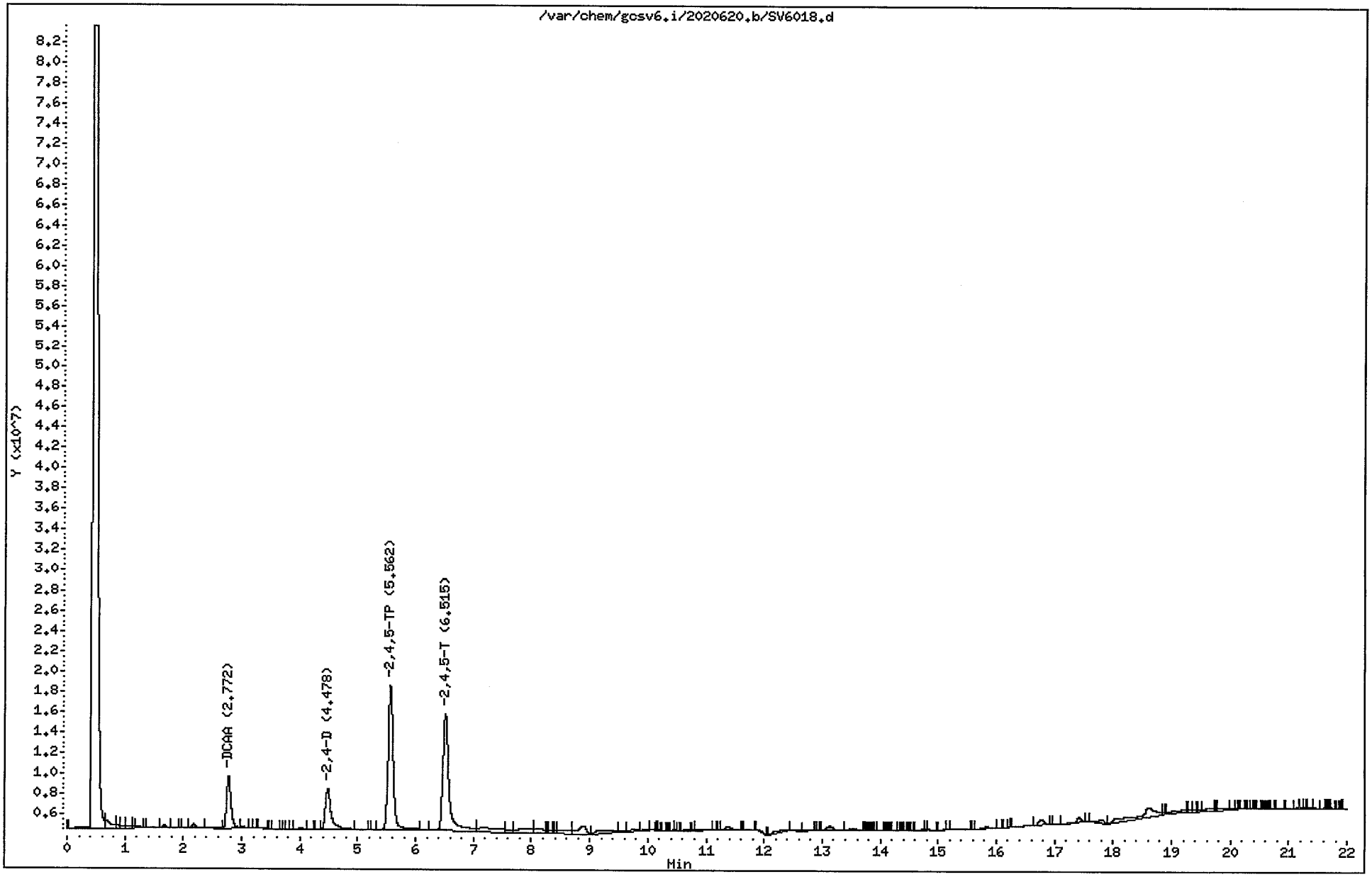
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
$ 2 DCAA	2.772	2.779	-0.007	25135826	50.0000	50.8
7 2,4-D	4.478	4.492	-0.014	27885856	50.0000	59.0
8 2,4,5-TP	5.562	5.574	-0.012	88342102	50.0000	56.5
9 2,4,5-T	6.515	6.528	-0.013	85060289	50.0000	60.2

Data File: /var/chem/gcsv6.i/2020620.b/SV6018.d
Date : 21-JUN-2002 14:36
Client ID: 50 PPB HERB
Sample Info: 50 PPB HERB
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv6.i

Operator: tnt
Column diameter: 0.53

000469



Data File: /var/chem/gcsv6.i/2020622.b/SV6001.d
Report Date: 26-Jun-2002 10:51

Gulf Coast Analytical Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv6.i
Lab File ID: SV6001.d
Analysis Type: WATER
Lab Sample ID: 50 PPB HERB
Method: /var/chem/gcsv6.i/2020622.b/M8151.m

Injection Date: 22-JUN-2002 11:36
Init. Cal. Date(s): 10-JUN-2002 10-JUN-2002
Init. Cal. Times: 11:05 13:19
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 2 DCAA	495152	575438	0.010	-16.21444	15.00000	Averaged	<-
7 2,4-D	472927	537793	0.010	-13.71585	15.00000	Averaged	
8 2,4,5-TP	1563414	1762525	0.010	-12.73565	15.00000	Averaged	
9 2,4,5-T	1413809	1588993	0.010	-12.39096	15.00000	Averaged	

Average %D / Drift Results.

Calculated Average %D/Drift = 13.76423
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Data File: /var/chem/gcsv6.i/2020622.b/SV6001.d
Report Date: 26-Jun-2002 10:51

Gulf Coast Analytical Services

Data file : /var/chem/gcsv6.i/2020622.b/SV6001.d
Lab Smp Id: 50 PPB HERB
Client Smp ID: 50 PPB HERB
Inj Date : 22-JUN-2002 11:36
Operator : tls
Inst ID: gcsv6.i
Smp Info : 50 PPB HERB
Misc Info :
Comment :
Method : /var/chem/gcsv6.i/2020622.b/M8151.m
Meth Date : 26-Jun-2002 10:51 sab
Quant Type: ESTD
Cal Date : 10-JUN-2002 13:19
Cal File: SV6006.d
Als bottle: 1
Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon
Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

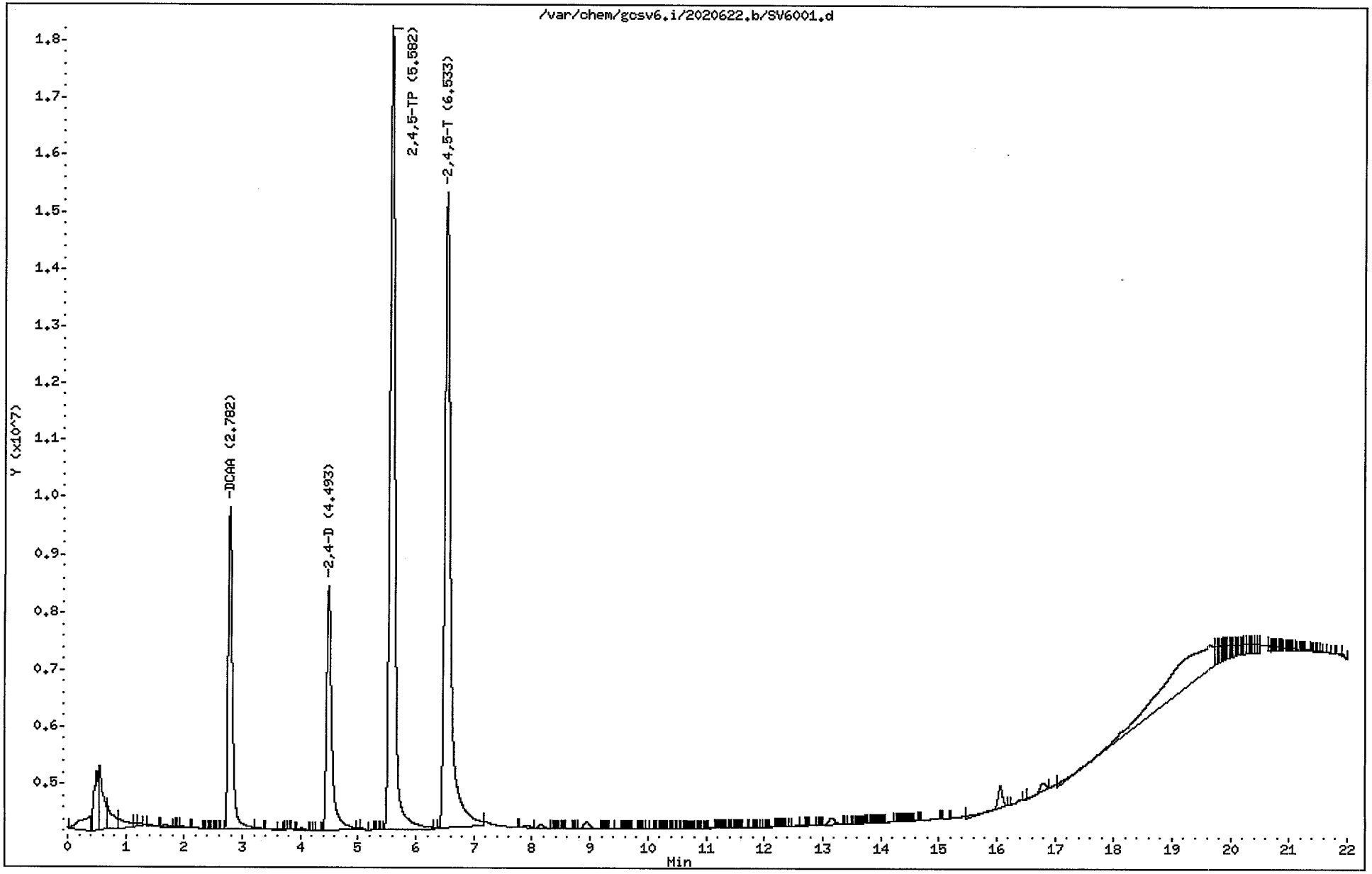
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
$ 2 DCAA	2.782	2.780	0.002	28771899	50.0000	58.1
7 2,4-D	4.493	4.494	-0.001	26889628	50.0000	56.8
8 2,4,5-TP	5.582	5.576	0.006	88126230	50.0000	56.4
9 2,4,5-T	6.533	6.531	0.002	79449647	50.0000	56.2

Data File: /var/chem/gcsv6.i/2020622.b/SV6001.d
Date : 22-JUN-2002 11:36
Client ID: 50 PPB HERB
Sample Info: 50 PPB HERB
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv6.i

Operator: tls
Column diameter: 0.53

000472



Data File: /var/chem/gcsv6.i/2020622.b/SV6015.d
Report Date: 26-Jun-2002 10:51

Gulf Coast Analytical Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv6.i
Lab File ID: SV6015.d
Analysis Type: WATER
Lab Sample ID: 50 PPB HERB
Method: /var/chem/gcsv6.i/2020622.b/M8151.m

Injection Date: 22-JUN-2002 23:06
Init. Cal. Date(s): 10-JUN-2002 10-JUN-2002
Init. Cal. Times: 11:05 13:19
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 2 DCAA	495152	465137	0.010	6.06181	15.00000	Averaged
7 2,4-D	472927	449885	0.010	4.87223	15.00000	Averaged
8 2,4,5-TP	1563414	1573797	0.010	-0.66413	15.00000	Averaged
9 2,4,5-T	1413809	1489669	0.010	-5.36568	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 4.24096
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Data File: /var/chem/gcsv6.i/2020622.b/SV6015.d
Report Date: 26-Jun-2002 10:51

Gulf Coast Analytical Services

Data file : /var/chem/gcsv6.i/2020622.b/SV6015.d
Lab Smp Id: 50 PPB HERB Client Smp ID: 50 PPB HERB
Inj Date : 22-JUN-2002 23:06
Operator : tnt Inst ID: gcsv6.i
Smp Info : 50 PPB HERB
Misc Info :
Comment :
Method : /var/chem/gcsv6.i/2020622.b/M8151.m
Meth Date : 26-Jun-2002 10:51 sab Quant Type: ESTD
Cal Date : 10-JUN-2002 13:19 Cal File: SV6006.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

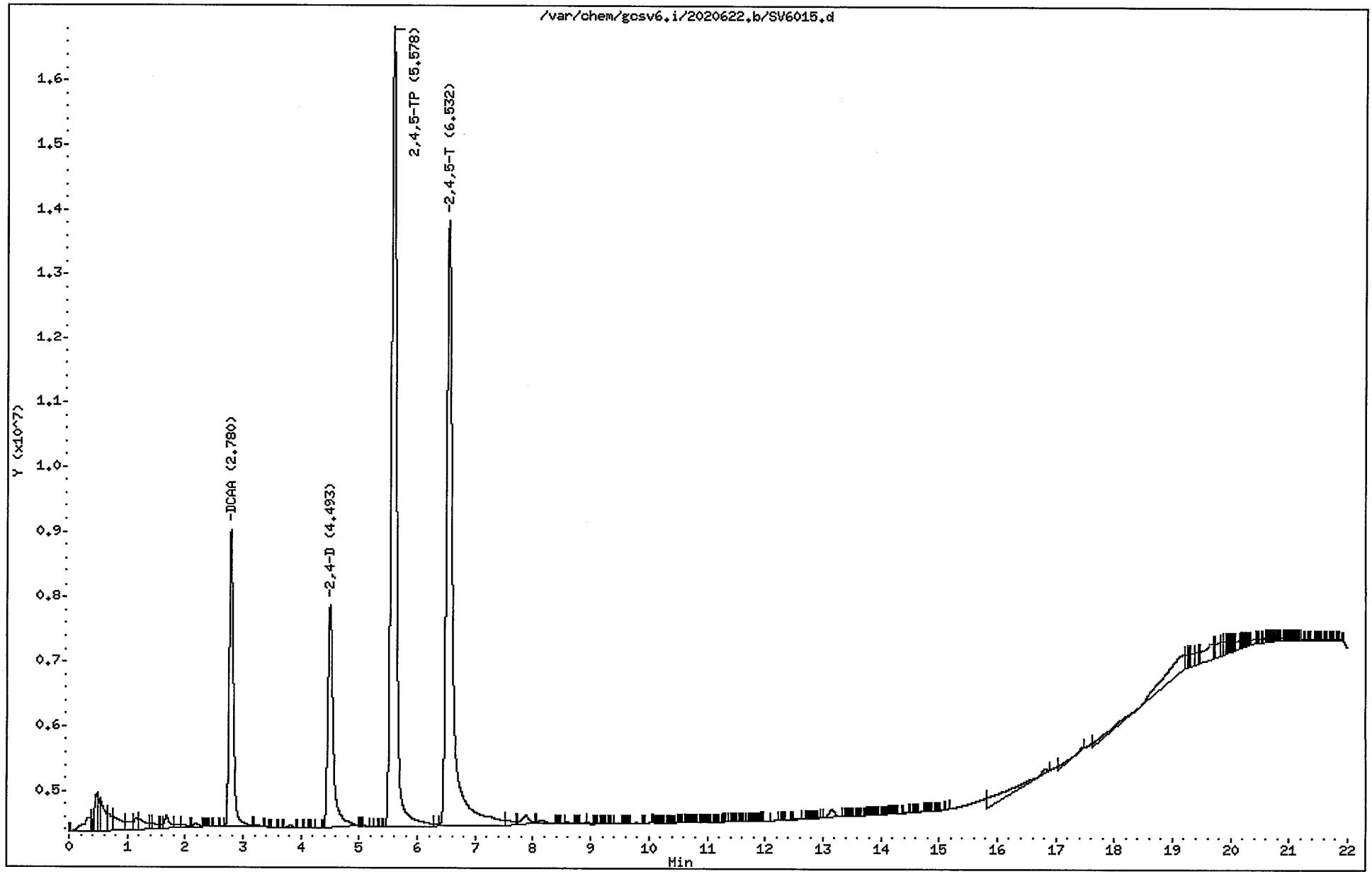
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
$ 2 DCAA	2.780	2.780	0.000	23256834	50.0000	47.0
7 2,4-D	4.493	4.494	-0.001	22494228	50.0000	47.6
8 2,4,5-TP	5.578	5.576	0.002	78689835	50.0000	50.3
9 2,4,5-T	6.532	6.530	0.002	74483449	50.0000	52.7

Data File: /var/chem/gcsv6.i/2020622.b/SV6015.d
Date : 22-JUN-2002 23:06
Client ID: 50 PPB HERB
Sample Info: 50 PPB HERB
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv6.i

Operator: tnt
Column diameter: 0.53

0004475



QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46601	Method Blank	Solid	06/21/2002 17:25

SW-846 8151A

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/20/2002 15:00	146039	3540C	1	06/21/2002 11:28	SAB	146074

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
94-75-7	2,4'-D	ND	167		ug/Kg
93-76-5	2,4,5-T	ND	17.0		ug/Kg
93-72-1	2,4,5-TP (Silvex)	ND	17.0		ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
19719-28-	DCAA	133	128 ug/Kg	96	37 - 140

Data File: /var/chem/gcsv6.i/2020620.b/SV6011.d
Report Date: 26-Jun-2002 11:01

Gulf Coast Analytical Services

Data file : /var/chem/gcsv6.i/2020620.b/SV6011.d
Lab Smp Id: 46601 Client Smp ID: 46601
Inj Date : 21-JUN-2002 11:28
Operator : tnt Inst ID: gcsv6.i
Smp Info : 46601-1.0-GCSV~17XX~-
Misc Info :
Comment :
Method : /var/chem/gcsv6.i/2020620.b/M8151.m
Meth Date : 26-Jun-2002 10:45 sab Quant Type: ESTD
Cal Date : 10-JUN-2002 13:19 Cal File: SV6006.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

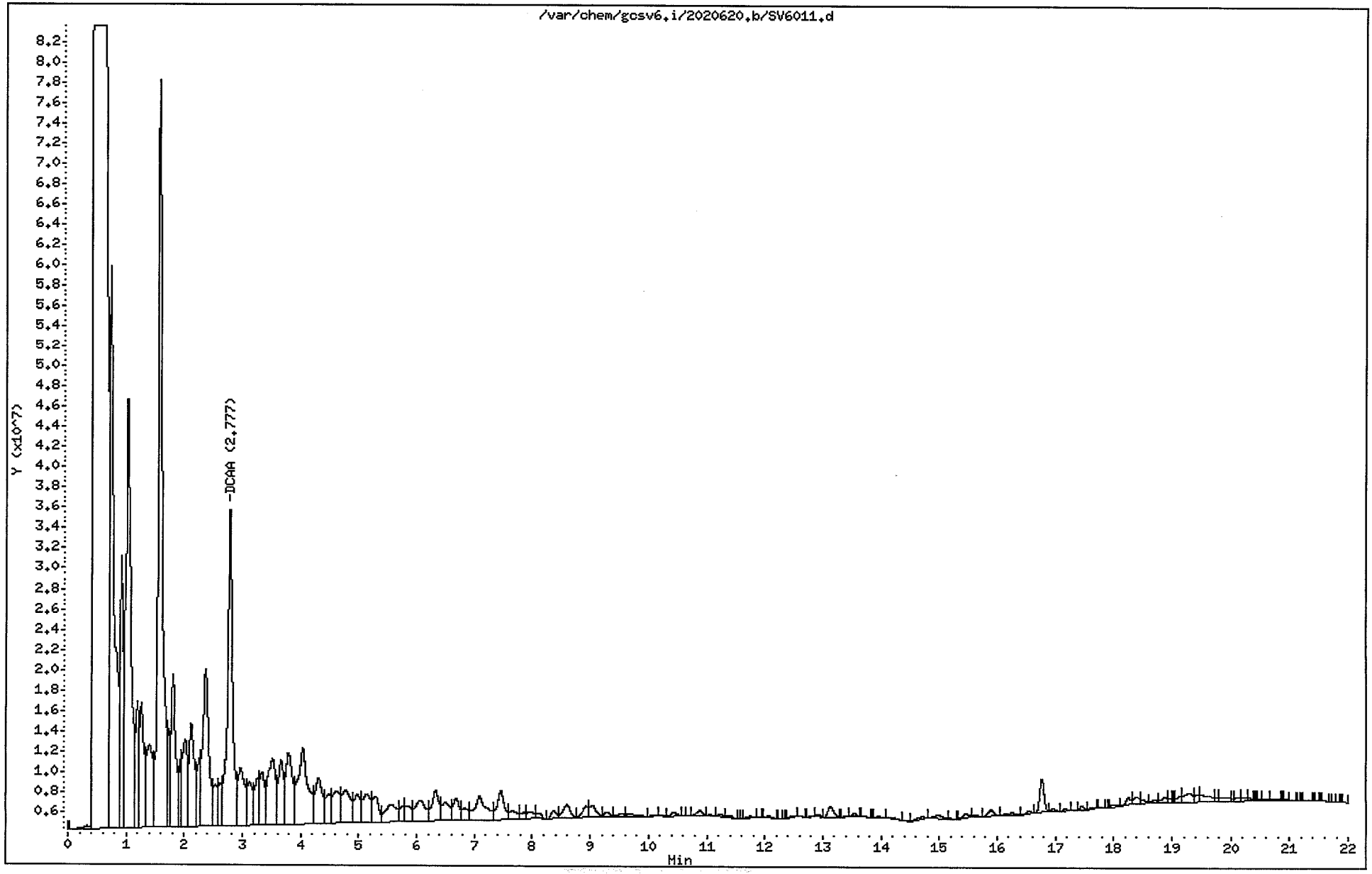
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/L)	FINAL (UG/KG)
$ 2 DCAA	2.777	2.779	-0.002	190187396	384.099	128

Data File: /var/chem/gcsv6.i/2020620.b/SV6011.d
Date : 21-JUN-2002 11:28
Client ID: 46601
Sample Info: 46601-1.0-GCSV^17XX^-
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv6.i
Operator: tnt
Column diameter: 0.53

0004178



QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46789	Method Blank	Solid	06/24/2002 14:40

SW-846 8151A

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/21/2002 17:00	146100	3540C	1	06/22/2002 17:16	TNT	146136

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
94-75-7	2,4'-D	ND	167		ug/Kg
93-76-5	2,4,5-T	ND	17.0		ug/Kg
93-72-1	2,4,5-TP (Silvex)	ND	17.0		ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
19719-28-	DCAA	133	128 ug/Kg	96	37 - 140

Data File: /var/chem/gcsv6.i/2020622.b/SV6002.d
Report Date: 26-Jun-2002 11:01

Gulf Coast Analytical Services

Data file : /var/chem/gcsv6.i/2020622.b/SV6002.d
Lab Smp Id: 46789 Client Smp ID: 46789
Inj Date : 22-JUN-2002 17:16
Operator : tnt Inst ID: gcsv6.i
Smp Info : 46789-1.0-GCSV~1777~-
Misc Info :
Comment :
Method : /var/chem/gcsv6.i/2020622.b/M8151.m
Meth Date : 26-Jun-2002 10:51 sab Quant Type: ESTD
Cal Date : 10-JUN-2002 13:19 Cal File: SV6006.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

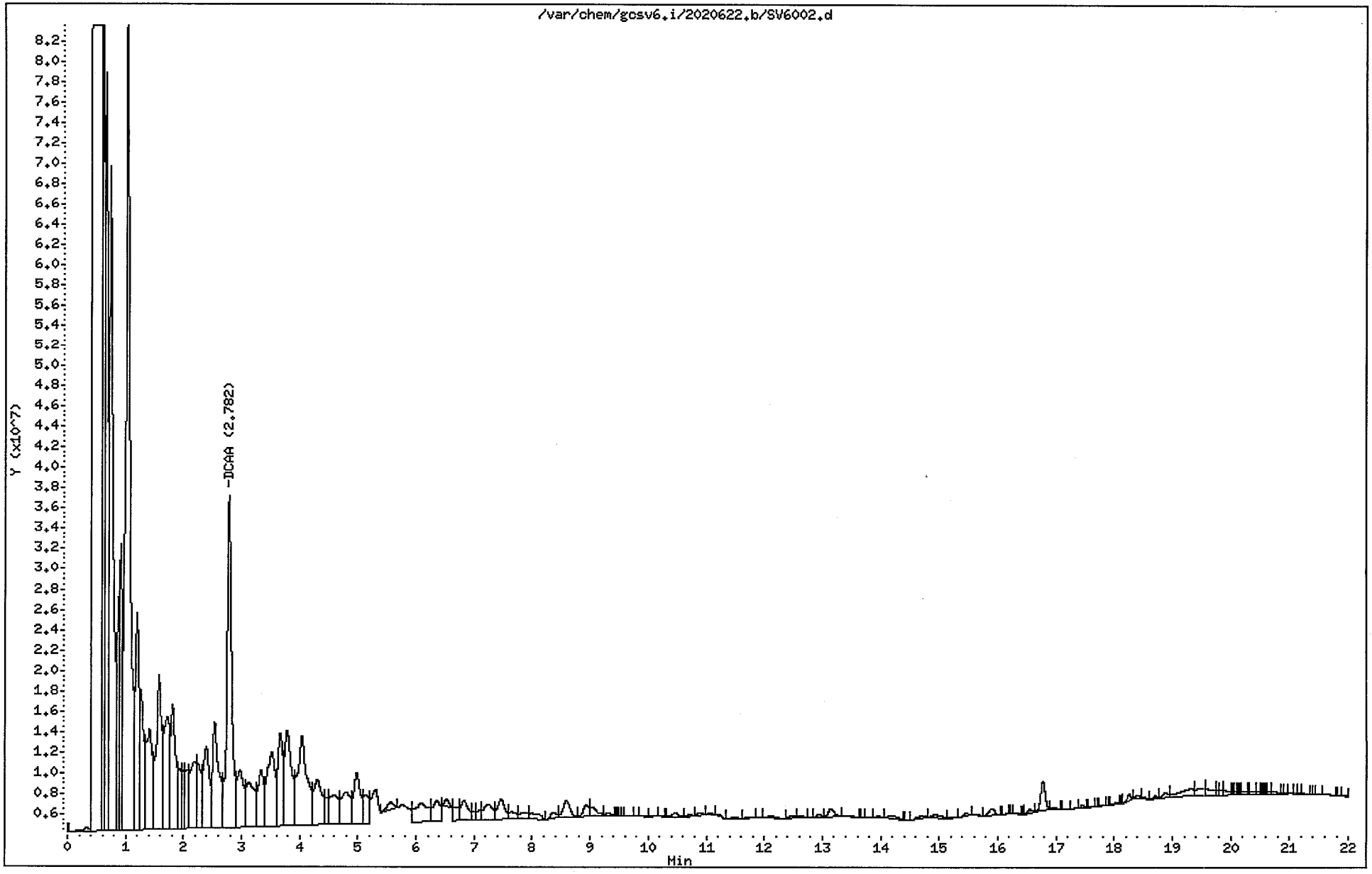
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/L)	FINAL (UG/KG)
$ 2 DCAA	2.782	2.780	0.002	190842569	385.422	128

Data File: /var/chem/gcsv6.i/2020622.b/SV6002.d
Date : 22-JUN-2002 17:16
Client ID: 46789
Sample Info: 46789-1.0-GCSV^1777^-
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv6.i
Operator: tnt
Column diameter: 0.53

000481



QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46602	Lab Control Sample	Solid	06/21/2002 17:25

SW-846 8151A

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/20/2002 15:00	146039	3540C	1	06/21/2002 11:55	SAB	146074

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
94-75-7	2,4'-D	60.4J	167		ug/Kg
93-76-5	**2,4,5-T**	**66.8**	**17.0**		**ug/Kg**
93-72-1	**2,4,5-TP (Silvex)**	**70.6**	**17.0**		**ug/Kg**

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
19719-28-	**DCAA**	133	166 ug/Kg	125	37 - 140

Data File: /var/chem/gcsv6.i/2020620.b/SV6012.d
Report Date: 26-Jun-2002 10:45

Gulf Coast Analytical Services

Data file : /var/chem/gcsv6.i/2020620.b/SV6012.d
Lab Smp Id: 46602 Client Smp ID: 46602
Inj Date : 21-JUN-2002 11:55
Operator : tnt Inst ID: gcsv6.i
Smp Info : 46602-1.0-GCSV~17XX~-
Misc Info :
Comment :
Method : /var/chem/gcsv6.i/2020620.b/M8151.m
Meth Date : 26-Jun-2002 10:45 sab Quant Type: ESTD
Cal Date : 10-JUN-2002 13:19 Cal File: SV6006.d
Als bottle: 2 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/L)	FINAL (UG/KG)
$ 2 DCAA	2.768	2.780	-0.012	246502154	497.831	166
7 2,4-D	4.477	4.494	-0.017	85634350	181.073	60.4
8 2,4,5-TP	5.563	5.576	-0.013	331220612	211.857	70.6(A)
9 2,4,5-T	6.515	6.530	-0.015	283342767	200.411	66.8(A)

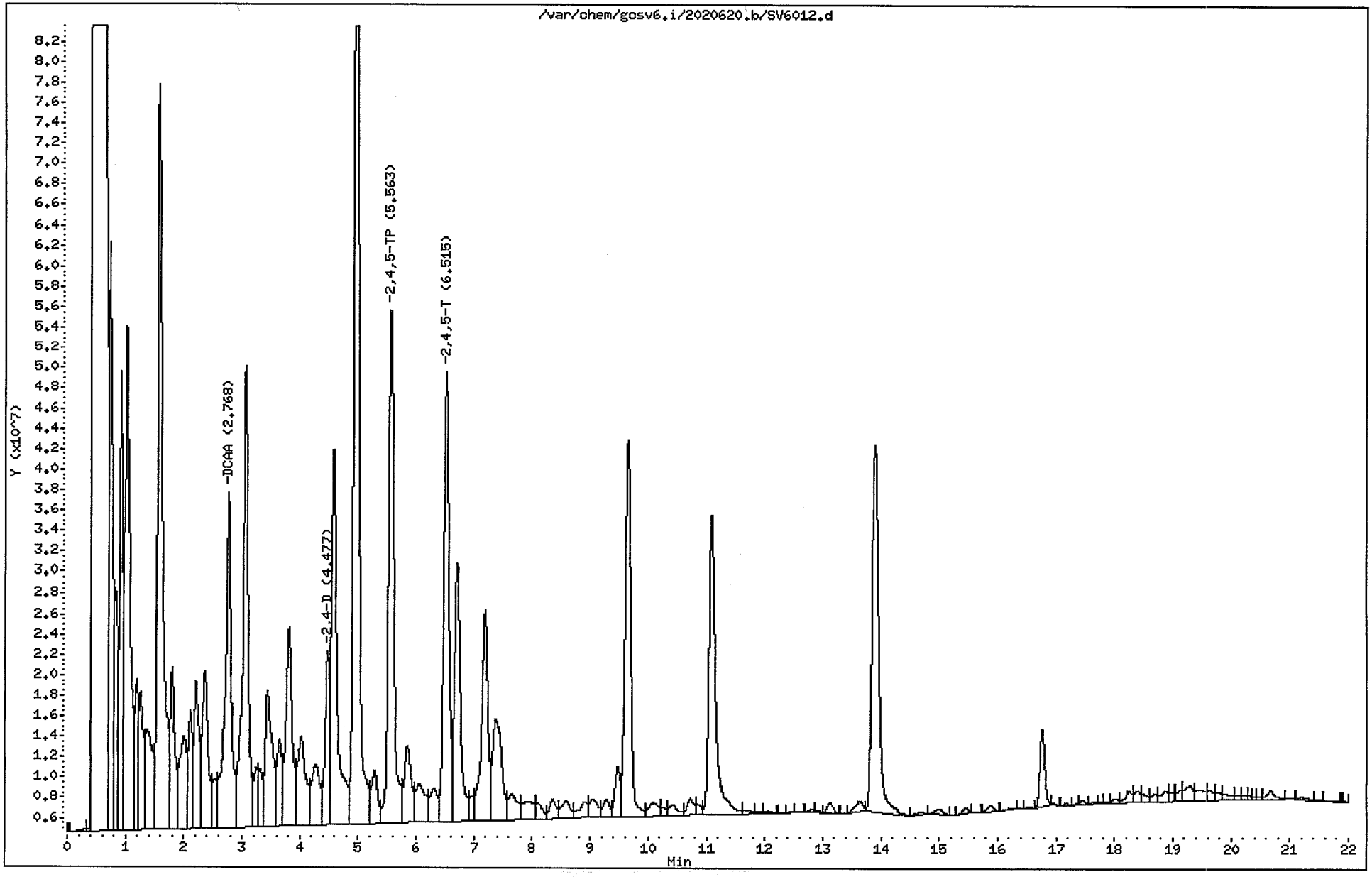
QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /var/chem/gcsv6.i/2020620.b/SV6012.d
Date : 21-JUN-2002 11:55
Client ID: 46602
Sample Info: 46602-1.0-GCSV~17XX~-
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv6.i

Operator: tnt
Column diameter: 0.53



000484

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46603	Lab Control Sample Duplicate	Solid	06/21/2002 17:25

SW-846 8151A

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/20/2002 15:00	146039	3540C	1	06/21/2002 12:22	SAB	146074

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
94-75-7	2,4'-D	51.0J	167		ug/Kg
93-76-5	**2,4,5-T**	**59.1**	**17.0**		**ug/Kg**
93-72-1	**2,4,5-TP (Silvex)**	**63.9**	**17.0**		**ug/Kg**

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
19719-28-	DCAA	133	138 ug/Kg	104	37 - 140

Data File: /var/chem/gcsv6.i/2020620.b/SV6013.d
Report Date: 26-Jun-2002 10:45

Gulf Coast Analytical Services

Data file : /var/chem/gcsv6.i/2020620.b/SV6013.d
Lab Smp Id: 46603 Client Smp ID: 46603
Inj Date : 21-JUN-2002 12:22
Operator : tnt Inst ID: gcsv6.i
Smp Info : 46603-1.0-GCSV~17XX~-
Misc Info :
Comment :
Method : /var/chem/gcsv6.i/2020620.b/M8151.m
Meth Date : 26-Jun-2002 10:45 sab Quant Type: ESTD
Cal Date : 10-JUN-2002 13:19 Cal File: SV6006.d
Als bottle: 3 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

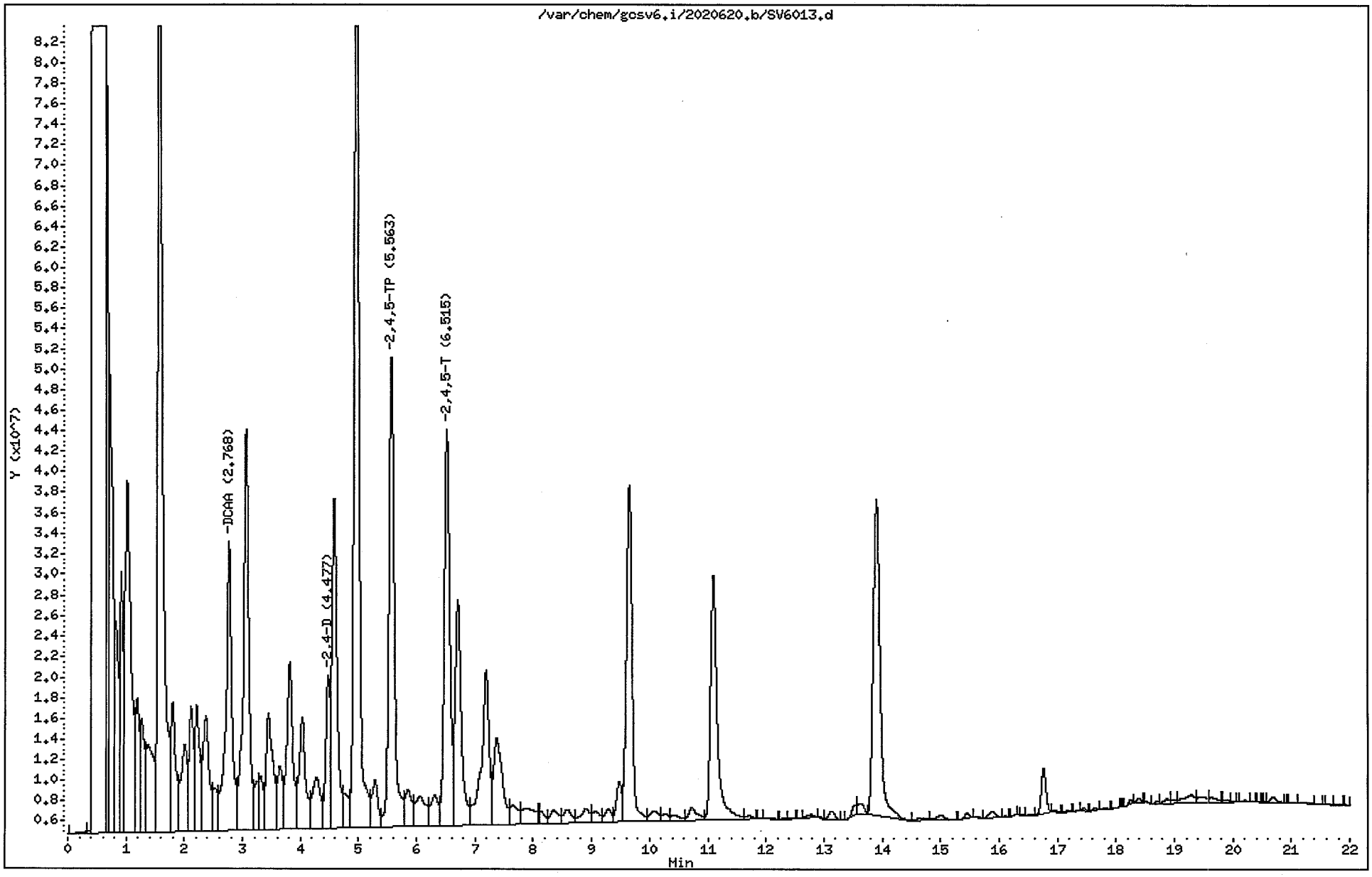
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/L)	FINAL (UG/KG)
$ 2 DCAA	2.768	2.780	-0.012	205484784	414.993	138
7 2,4-D	4.477	4.494	-0.017	72381095	153.049	51.0
8 2,4,5-TP	5.563	5.576	-0.013	299840223	191.786	63.9
9 2,4,5-T	6.515	6.530	-0.015	250704726	177.326	59.1

Data File: /var/chem/gcsv6.i/2020620.b/SV6013.d
Date : 21-JUN-2002 12:22
Client ID: 46603
Sample Info: 46603-1.0-GCSV^17XX^-
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv6.i

Operator: tnt
Column diameter: 0.53



0004187

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46790	Lab Control Sample	Solid	06/24/2002 14:40

SW-846 8151A

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/21/2002 17:00	146100	3540C	1	06/22/2002 17:43	TNT	146136

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
94-75-7	2,4'-D	52.0J	167		ug/Kg
93-76-5	**2,4,5-T**	**63.0**	**17.0**		**ug/Kg**
93-72-1	**2,4,5-TP (Silvex)**	**64.5**	**17.0**		**ug/Kg**

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
19719-28-	**DCAA**	133	121 ug/Kg	91	37 - 140

Data File: /var/chem/gcsv6.i/2020622.b/SV6003.d
Report Date: 26-Jun-2002 10:51

Gulf Coast Analytical Services

Data file : /var/chem/gcsv6.i/2020622.b/SV6003.d
Lab Smp Id: 46790 Client Smp ID: 46790
Inj Date : 22-JUN-2002 17:43
Operator : tnt Inst ID: gcsv6.i
Smp Info : 46790-1.0-GCSV~1777~-
Misc Info :
Comment :
Method : /var/chem/gcsv6.i/2020622.b/M8151.m
Meth Date : 26-Jun-2002 10:51 sab Quant Type: ESTD
Cal Date : 10-JUN-2002 13:19 Cal File: SV6006.d
Als bottle: 2 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

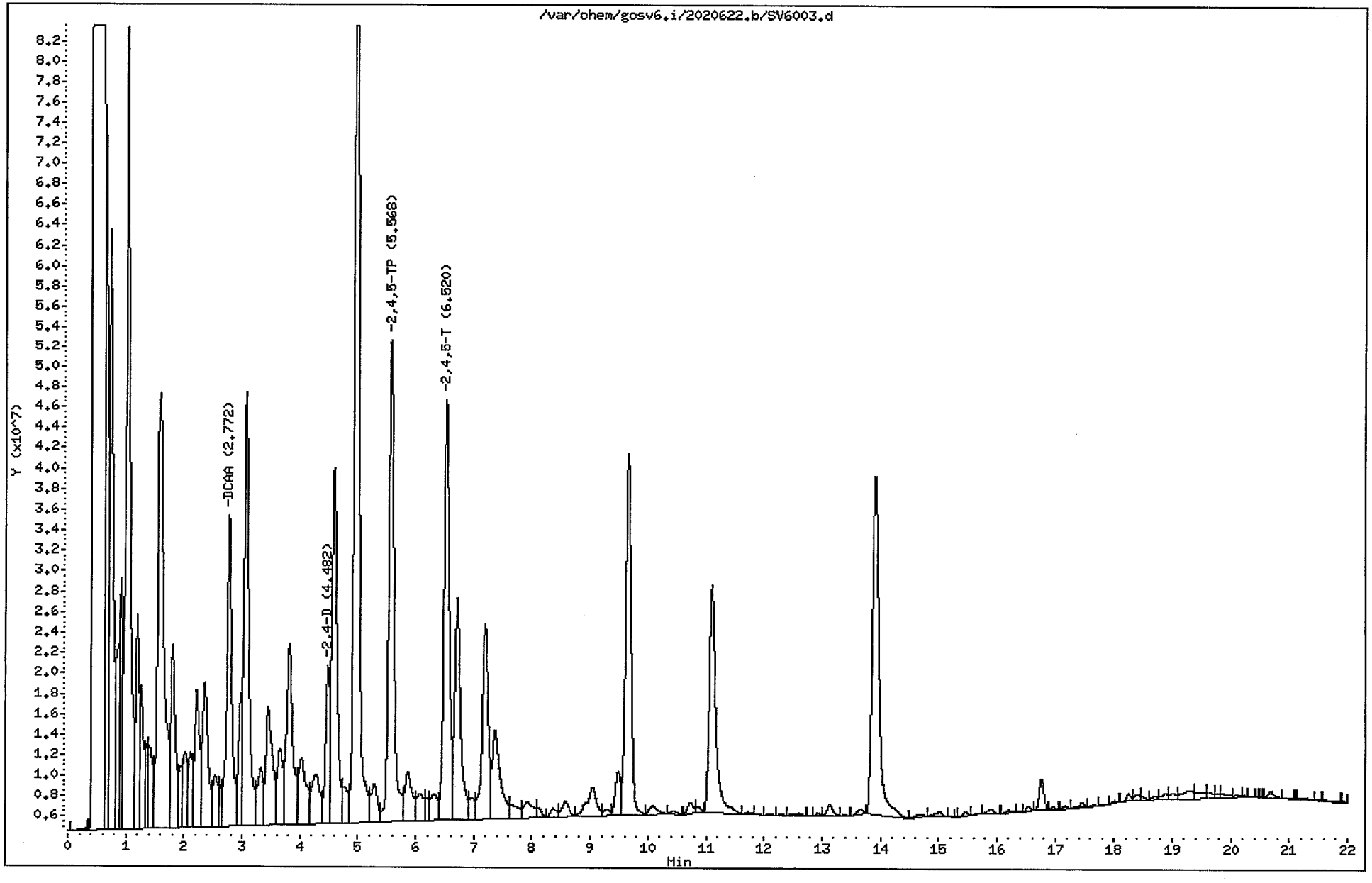
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/L)	FINAL (UG/KG)
$ 2 DCAA	2.772	2.780	-0.008	179163580	361.836	121
7 2,4-D	4.482	4.494	-0.012	73826115	156.105	52.0
8 2,4,5-TP	5.568	5.576	-0.008	302352649	193.393	64.5
9 2,4,5-T	6.520	6.531	-0.011	267177946	188.977	63.0

Data File: /var/chem/gcsv6.i/2020622.b/SV6003.d
Date : 22-JUN-2002 17:43
Client ID: 46790
Sample Info: 46790-1.0-GCSV^1777^-
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv6.i

Operator: tnt
Column diameter: 0.53

000490



QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46791	Lab Control Sample Duplicate	Solid	06/24/2002 14:40

SW-846 8151A

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/21/2002 17:00	146100	3540C	1	06/22/2002 18:10	TNT	146136

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
94-75-7	2,4'-D	51.6J	167		ug/Kg
93-76-5	**2,4,5-T**	**67.6**	**17.0**		**ug/Kg**
93-72-1	**2,4,5-TP (Silvex)**	**69.2**	**17.0**		**ug/Kg**

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
19719-28-	**DCAA**	133	120 ug/Kg	90	37 - 140

Data File: /var/chem/gcsv6.i/2020622.b/SV6004.d
Report Date: 26-Jun-2002 10:51

Gulf Coast Analytical Services

Data file : /var/chem/gcsv6.i/2020622.b/SV6004.d
Lab Smp Id: 46791 Client Smp ID: 46791
Inj Date : 22-JUN-2002 18:10
Operator : tnt Inst ID: gcsv6.i
Smp Info : 46791-1.0-GCSV~1777~-
Misc Info :
Comment :
Method : /var/chem/gcsv6.i/2020622.b/M8151.m
Meth Date : 26-Jun-2002 10:51 sab Quant Type: ESTD
Cal Date : 10-JUN-2002 13:19 Cal File: SV6006.d
Als bottle: 3 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/L)	FINAL (UG/KG)
$ 2 DCAA	2.772	2.780	-0.008	178990617	361.486	120
7 2,4-D	4.482	4.494	-0.012	73177136	154.733	51.6
8 2,4,5-TP	5.568	5.576	-0.008	324389680	207.488	69.2(A)
9 2,4,5-T	6.522	6.531	-0.009	286623357	202.731	67.6(A)

QC Flag Legend

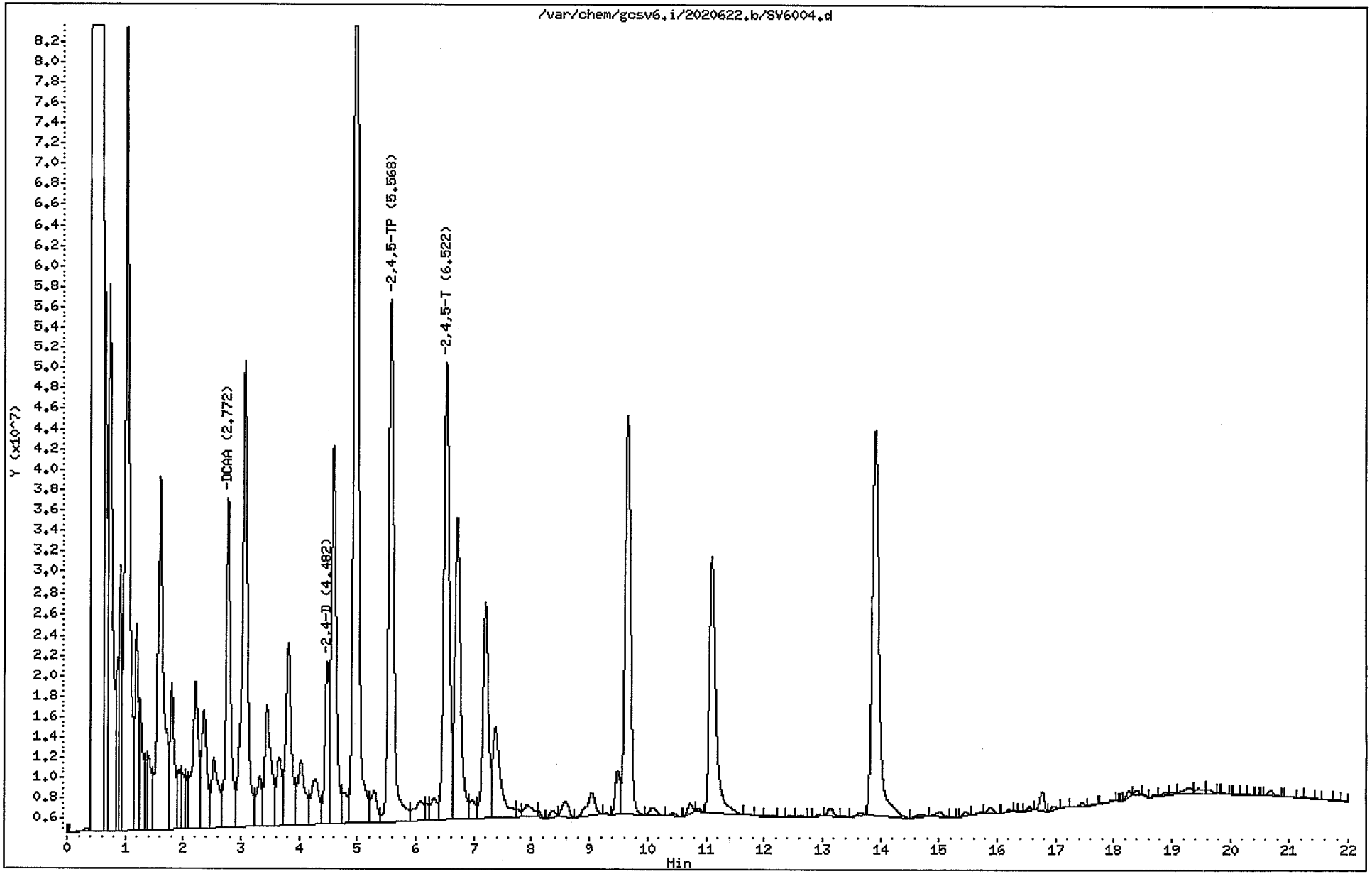
A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /var/chem/gcsv6.i/2020622.b/SV6004.d
Date : 22-JUN-2002 18:10
Client ID: 46791
Sample Info: 46791-1.0-GCSV^1777^-
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv6.i

Operator: tnt
Column diameter: 0.53

000493



QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	COLLECTED	RECEIVED	REPORTED
46604	Matrix Spike	Solid	06/19/2002 11:	06/20/2002 09:05	06/23/2002 09:05

SW-846 8151A

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/20/2002 15:00	146039	3540C	1	06/21/2002 13:43	SAB	146074

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
94-75-7	2,4'-D	40.5J	183		ug/Kg
93-76-5	**2,4,5-T**	**57.2**	**18.6**		**ug/Kg**
93-72-1	**2,4,5-TP (Silvex)**	**57.2**	**18.6**		**ug/Kg**

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
19719-28-	**DCAA**	133	89.3 ug/Kg	67	37 - 140

Data File: /var/chem/gcsv6.i/2020620.b/SV6016.d
Report Date: 26-Jun-2002 10:45

Gulf Coast Analytical Services

Data file : /var/chem/gcsv6.i/2020620.b/SV6016.d
Lab Smp Id: 46604 Client Smp ID: RB-S-0619MS
Inj Date : 21-JUN-2002 13:43
Operator : tnt Inst ID: gcsv6.i
Smp Info : 46604-1.0-GCSV~17XX~-
Misc Info :
Comment :
Method : /var/chem/gcsv6.i/2020620.b/M8151.m
Meth Date : 26-Jun-2002 10:45 sab Quant Type: ESTD
Cal Date : 10-JUN-2002 13:19 Cal File: SV6006.d
Als bottle: 6 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

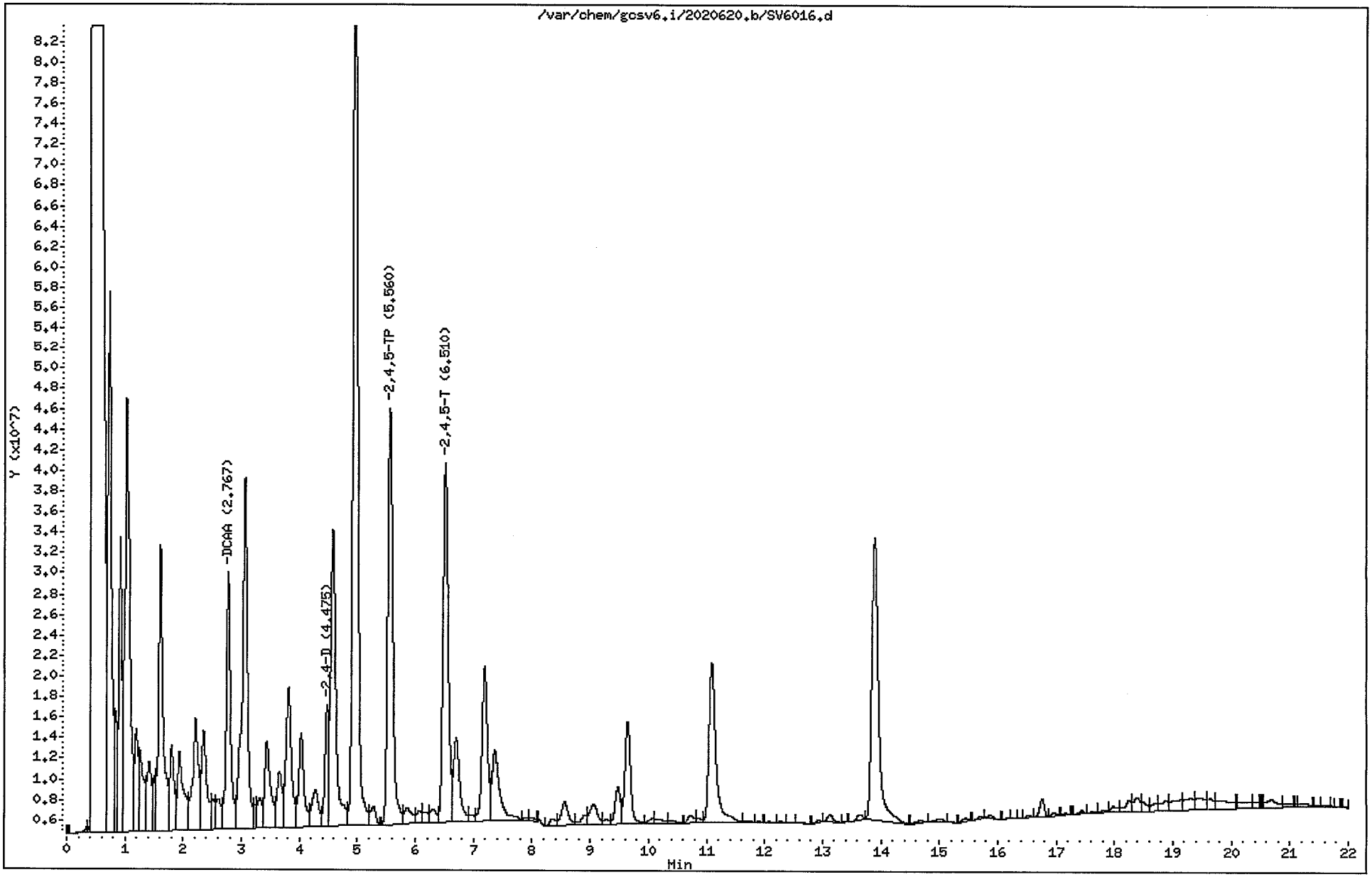
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/L)	FINAL (UG/KG)
$ 2 DCAA	2.767	2.780	-0.013	132720500	268.040	89.3
7 2,4-D	4.475	4.494	-0.019	52306426	110.602	36.9
8 2,4,5-TP	5.560	5.576	-0.016	244917817	156.656	52.2
9 2,4,5-T	6.510	6.530	-0.020	221432887	156.622	52.2

Data File: /var/chem/gcsv6.i/2020620.b/SV6016.d
Date : 21-JUN-2002 13:43
Client ID: RB-S-0619MS
Sample Info: 46604-1.0-GCSV^17XX^-
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv6.i

Operator: tnt
Column diameter: 0.53



000496

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	COLLECTED	RECEIVED	REPORTED
46605	Matrix Spike Duplicate	Solid	06/19/2002 11:	06/20/2002 09:05	06/23/2002 09:05

SW-846 8151A

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/20/2002 15:00	146039	3540C	1	06/21/2002 14:10	SAB	146074

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
94-75-7	2,4'-D	42.0J	183		ug/Kg
93-76-5	**2,4,5-T**	**60.8**	**18.6**		**ug/Kg**
93-72-1	**2,4,5-TP (Silvex)**	**61.8**	**18.6**		**ug/Kg**

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
19719-28-	**DCAA**	133	93.8 ug/Kg	70	37 - 140

Data File: /var/chem/gcsv6.i/2020620.b/SV6017.d
Report Date: 26-Jun-2002 10:45

Gulf Coast Analytical Services

Data file : /var/chem/gcsv6.i/2020620.b/SV6017.d
Lab Smp Id: 46605 Client Smp ID: RB-S-0619MSD
Inj Date : 21-JUN-2002 14:10
Operator : tnt Inst ID: gcsv6.i
Smp Info : 46605-1.0-GCSV~17XX~-
Misc Info :
Comment :
Method : /var/chem/gcsv6.i/2020620.b/M8151.m
Meth Date : 26-Jun-2002 10:45 sab Quant Type: ESTD
Cal Date : 10-JUN-2002 13:19 Cal File: SV6006.d
Als bottle: 7 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

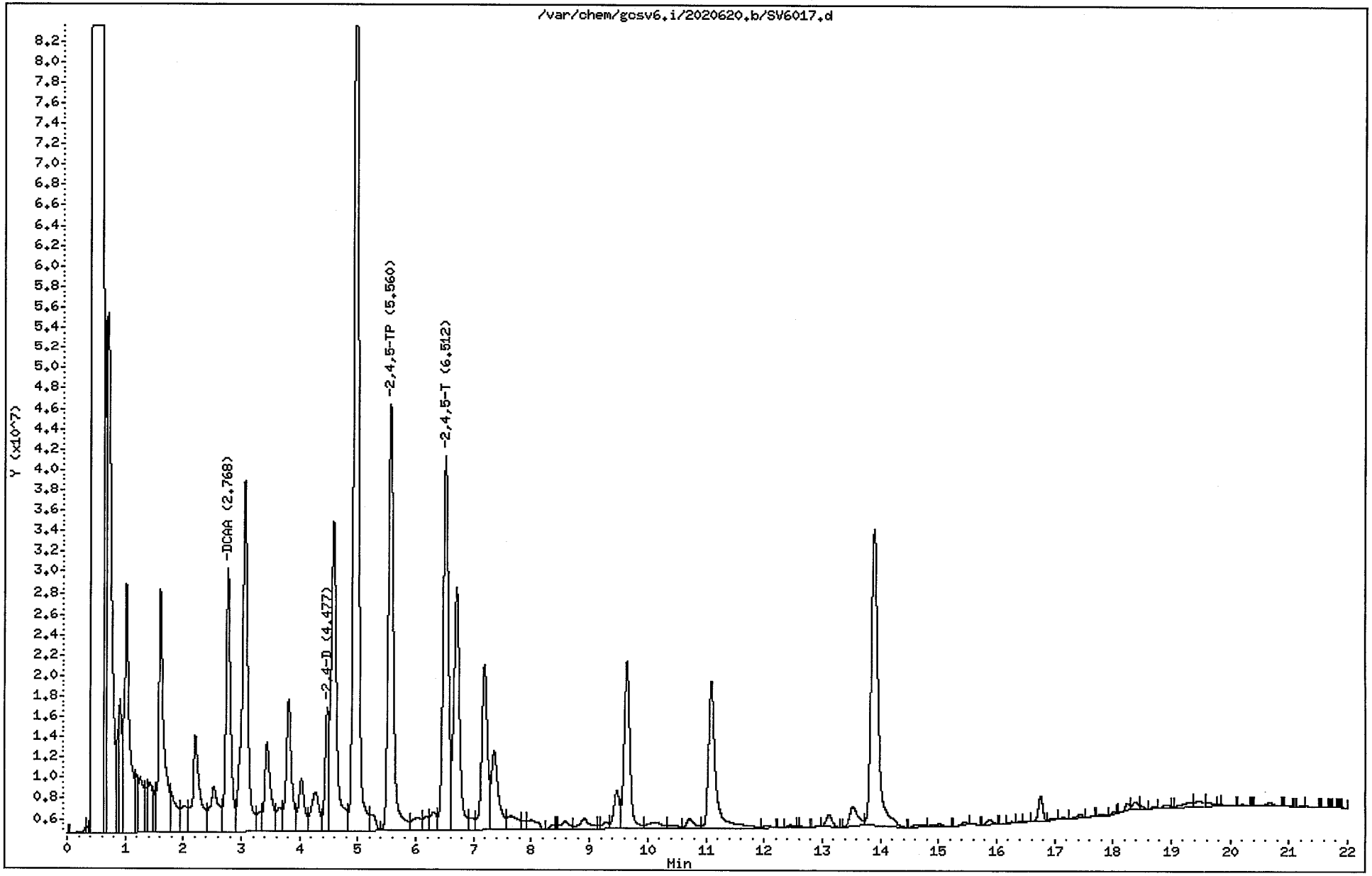
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/L)	CONCENTRATIONS FINAL (UG/KG)
$ 2 DCAA	2.768	2.780	-0.012	139402016	281.534	93.8
7 2,4-D	4.477	4.494	-0.017	54328787	114.878	38.3
8 2,4,5-TP	5.560	5.576	-0.016	264669976	169.290	56.4
9 2,4,5-T	6.512	6.530	-0.018	235423106	166.517	55.5

Data File: /var/chem/gcsv6.i/2020620.b/SV6017.d
Date : 21-JUN-2002 14:10
Client ID: RB-S-0619MSD
Sample Info: 46605-1.0-GCSV^17XX^-
Volume Injected (uL): 1.0
Column phase: DB-608-30M

Instrument: gcsv6.i

Operator: tnt
Column diameter: 0.53



0004499

HERBICIDE SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME: 6-20-2 1300

MATRIX: _____ WATER X SOIL _____ OTHER _____ BATCH#: 146039

LEVEL: X LOW _____ MEDIUM

	CLIENT & GROUP #	GCAL ID	INITIAL VOL/WT mL (g)	FINAL VOLUME (mL)	Initial pH	COMMENTS
1	46601	20206208LK	30	10		
2	46602	20206208LCS	30	10		
3	46603	20206208LCSD	30	10		
4	CH2H	20206200201	30	10		
5		20206200202	30	10		
6	46604	20206200202MS	30	10		
7	46605	20206200202MSD	30	10		
8						
9						
10						
11						
12						
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28						

CKB 06/21/02

METHOD

_____ LIQUID LIQUID/3520 EXTRACTION

_____ SEPARATIORY FUNNEL/3510 EXTRACTION

X SONICATOR/3550

_____ SHAKER

_____ WASTE DILUTION/3580

Diazomethane Log No: 1-58-3

Sodium Sulfate Lot No: 020966

ETHER 020670-12

METHYLENE CHLORIDE 013600

COMMENTS: SAMPLE PREPARATION INCLUDES DETERMINATION OF SAMPLE VOLUME/WEIGHT, SOLVENT EXTRACTION AND EVAPORATION OF SOLVENT TO FINAL VOLUME

HERBICIDE SURROGATE ID 8-135-2
VOLUME 200 ul
CONCENTRATION 20 ug/ml

MATRIX SPIKE ID 8-118-2
VOLUME 200 ul
CONCENTRATION 10 ug/ml

SPIKE WITNESS yes

Ivan Robertson 6-20-2
TECHNICIAN DATE

John Bailey 06/21/02
SUPERVISOR DATE

HERBICIDE SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME: 6-21-2 1700

MATRIX: _____ WATER X SOIL _____ OTHER _____ BATCH#: 146100

LEVEL: X LOW _____ MEDIUM

	CLIENT & GROUP #	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	Initial pH	COMMENTS
1	46789	20206213IK	30	10		
2	46790	20206213LCS	30	10		
3	46791	20206213LCSD	30	10		
4	Cliff M Hill	20206200201	30	10		
5	[redacted]	20206212801	30	10		
6		20206212802	30	10		
7		20206212803	30	10		
8		20206212804	30	10		
9		20206212805	30	10		
10		20206212806 MS	30	10		
11		20206212807 MSD	30	10		
12						
13						
14						
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25						
26						
27						
28						

METHOD

_____ LIQUID LIQUID/3520 EXTRACTION

IER 6-21-2

X SEPARATIORY FUNNEL/3510 EXTRACTION

X SONICATOR/3550

_____ SHAKER

_____ WASTE DILUTION/3580

SKB 06/24/02

Diazomethane Log No: 1-58-3

Sodium Sulfate Lot No: 020966

ETHER 020070-12

METHYLENE CHLORIDE 013600

COMMENTS: SAMPLE PREPARATION INCLUDES DETERMINATION OF SAMPLE VOLUME/WEIGHT, SOLVENT EXTRACTION AND EVAPORATION OF SOLVENT TO FINAL VOLUME

full List SPK

HERBICIDE SURROGATE ID 8-135-2
VOLUME 200 ul
CONCENTRATION 20 ug/ml

MATRIX SPIKE ID 8-118-2
VOLUME 200 ul
CONCENTRATION 10 ug/ml

SPIKE WITNESS yes

Ivan Robertson 6-21-2
TECHNICIAN DATE

John Bailey 06/24/02
SUPERVISOR DATE

LABORATORY CHRONICLE: GCSV DEPARTMENT

Date: 06/26/2002
Instrument: gcsv6.i
Method File: /var/chem/gcsv6.i/2020620.b/M8151.m
Batch: /var/chem/gcsv6.i/2020620.b
Column-Detector: DB-608-30M

Sample ID	ClientName	DataFile	Injection Time	DilFactor	Anal	Comments
50 PPB HERB		SV6001.d	20-JUN-2002 15:01	1.000	tnt	
45801		SV6002.d	20-JUN-2002 18:18	1.000	tnt	
45802		SV6003.d	20-JUN-2002 18:45	1.000	tnt	
TBLK		SV6004.d	20-JUN-2002 19:12	1.000	tnt	
20206141201		SV6005.d	20-JUN-2002 19:39	1.000	tnt	
45803		SV6006.d	20-JUN-2002 20:05	1.000	tnt	
45804		SV6007.d	20-JUN-2002 20:32	1.000	tnt	
50 PPB HERB		SV6008.d	20-JUN-2002 20:59	1.000	tnt	
50 PPB HERB		SV6009.d	20-JUN-2002 21:26	1.000	tnt	
50 PPB HERB		SV6010.d	21-JUN-2002 10:45	1.000	tnt	
46601		SV6011.d	21-JUN-2002 11:28	1.000	tnt	
46602		SV6012.d	21-JUN-2002 11:55	1.000	tnt	
46603		SV6013.d	21-JUN-2002 12:22	1.000	tnt	
20206200201		SV6014.d	21-JUN-2002 12:49	1.000	tnt	
20206200202		SV6015.d	21-JUN-2002 13:16	1.000	tnt	
46604		SV6016.d	21-JUN-2002 13:43	1.000	tnt	
46605		SV6017.d	21-JUN-2002 14:10	1.000	tnt	
50 PPB HERB		SV6018.d	21-JUN-2002 14:36	1.000	tnt	

REVISED 6-1-95 Supervisor Review: QA Review:

LABORATORY CHRONICLE: GCSV DEPARTMENT

Date: 06/26/2002
Instrument: gcsv6.i
Method File: /var/chem/gcsv6.i/2020622.b/M8151.m
Batch: /var/chem/gcsv6.i/2020622.b
Column-Detector: DB-608-30M

Sample ID	ClientName	DataFile	Injection Time	DilFactor	Anal	Comments
50 PPB HERB	50 PPB HERB	SV6001.d	22-JUN-2002 11:36	1.000	tls	
46789	46789	SV6002.d	22-JUN-2002 17:16	1.000	tnt	
46790	46790	SV6003.d	22-JUN-2002 17:43	1.000	tnt	
46791	46791	SV6004.d	22-JUN-2002 18:10	1.000	tnt	
20206200201	BF-S-0619	SV6005.d	22-JUN-2002 18:37	1.000	tnt	
20206212801		SV6006.d	22-JUN-2002 19:04	10.000	tnt	
20206212802		SV6007.d	22-JUN-2002 19:31	10.000	tnt	
20206212803		SV6008.d	22-JUN-2002 19:58	10.000	tnt	
HEXANE		SV6009.d	22-JUN-2002 20:25	1.000	tnt	
20206212804		SV6010.d	22-JUN-2002 20:52	10.000	tnt	
20206212805		SV6011.d	22-JUN-2002 21:19	10.000	tnt	
20206212806MS		SV6012.d	22-JUN-2002 21:45	10.000	tnt	
20206212807MSD		SV6013.d	22-JUN-2002 22:12	10.000	tnt	
HEXANE		SV6014.d	22-JUN-2002 22:39	1.000	tnt	
50 PPB HERB	50 PPB HERB	SV6015.d	22-JUN-2002 23:06	1.000	tnt	
50 PPB HERB		SV6016.d	22-JUN-2002 23:33	1.000	tnt	
50 PPB HERB		SV6017.d	23-JUN-2002 10:39	1.000	tls	
46795		SV6018.d	23-JUN-2002 18:37	1.000	tnt	
46796		SV6019.d	23-JUN-2002 19:04	1.000	tnt	
20206212809		SV6020.d	23-JUN-2002 19:31	1.000	tnt	
TBLK		SV6021.d	23-JUN-2002 19:58	1.000	tnt	
20206212805		SV6022.d	23-JUN-2002 20:25	1.000	tnt	
46797		SV6023.d	23-JUN-2002 20:52	1.000	tnt	
46798		SV6024.d	23-JUN-2002 21:19	1.000	tnt	
50 PPB HERB		SV6025.d	23-JUN-2002 21:46	1.000	tnt	
50 PPB HERB		SV6026.d	23-JUN-2002 22:13	1.000	tnt	
50 PPB HERB		SV6027.d	24-JUN-2002 11:09	1.000	tls	
46515		SV6028.d	24-JUN-2002 11:46	1.000	tls	
46516		SV6029.d	24-JUN-2002 12:13	1.000	tls	
46517		SV6030.d	24-JUN-2002 12:40	1.000	tls	
2020618TBLK 100		SV6031.d	24-JUN-2002 13:07	10.000	tls	
20206181201		SV6032.d	24-JUN-2002 13:34	1.000	tls	
2020619TBLK 100		SV6033.d	24-JUN-2002 14:01	10.000	tls	
20206190301		SV6034.d	24-JUN-2002 14:28	1.000	tls	
46518		SV6035.d	24-JUN-2002 14:55	1.000	tls	
46519		SV6036.d	24-JUN-2002 15:22	1.000	tls	

REVISED 6-1-95 Supervisor Review: QA Review:

LABORATORY CHRONICLE: GCSV DEPARTMENT

Date: 06/26/2002
Instrument: gcsv6.i
Method File: /var/chem/gcsv6.i/2020622.b/M8151.m
Batch: /var/chem/gcsv6.i/2020622.b
Column-Detector: DB-608-30M

Sample ID	ClientName	DataFile	Injection Time	DilFactor	Anal	Comments
50 PPB HERB		SV6037.d	24-JUN-2002 15:49	1.000	tls	

REVISED 6-1-95 Supervisor Review: QA Review:

STANDARD PREPARATION LOGBOOK

STANDARD NAME	STD#	STOCK STD CONC	SUPPLIER	LOT#/ EXP DATE	WT/VOL g/ml	FINAL VOL(ml)	FINAL CONC	SOLVENT/ LOT#	INITIAL	DATE PREPARED	EXP DATE
1016/1260 III	58-4-1	ultra 1016 p-281 ~~ultra 1260~~ p 361 ultra pest surrogate		5-31-02 voided				TLS			
1016/1260 III	58-4-2	100 ug/mL 100 ug/mL 200 ug/mL	ultra 1016 p-281 ultra 1260 p-361 ultra pest surrogate	S-1072 9/2005 S-2627 6/2004 S-0793 7/2005	400uL 400uL 200uL	100 mL	40/400 ppb	Hexane 024497	TLS	5-31-02	11-31-02
Herb mix	58-4-3	100 ppm methyl esters	NSI	072001-01 7/2002	100uL	50 mL	200ppb	Hexane 024497	TLS	6-03-02	7-30-02
Herb ICU	58-4-4	100 ug/mL HBM-815M	ultra HBM-815M Chlorinated Herb mix.	M-7301B 3/2004	100uL	50mL	200ppb	Hexane 024497	TLS	6-03-02	12-03-02
Ind A III	58-4-5	5/10ppm clp 216	ultra	P-7012 10/2003	600uL	50mL	60/120 ppm	Hexane 024497	TLS	6-07-02 TLS	6-07-03 TLS
Ind B III	58-4-6	5/10ppm	ultra Clp-226B	S-0470 5/2003	600uL	50mL	60/120 ppb	Hexane 024497	TLS	6-22-02 TLS	12-22-02 TLS
1221 III	6-24-TLS ~~58-5-7~~ 58-4-7	PP-291 100ug/mL	ultra	R-0547 5/2004	200uL	50mL	400ppb	Hexane 024497	TLS	6-24-02 TLS	12-24-02 TLS
1232 III	58-4-8	PP-301 100ug/mL	ultra	P-0533 5/2003	200uL	50mL	400ppb	Hexane 024497	TLS	6-24-02 TLS	12-24-02 TLS
1242 III	58-4-9	~~M-1600~~ 6-24 TLS PP-311 100ug/mL	ultra	M-1600 12/2002	200uL	50mL	400ppb	Hexane 024497	TLS	6-24-02	12-24-02
1248 III	58-4-10	PP 341	100ug/mL	P-1004 7/2003	200uL	50mL	400ppb	Hexane 024497	TLS	6-24-02	12-24-02

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: GCAL Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (TCX)#	S2 (DCB)#	S3 #	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	46420	138	143							0
02	46421	118	127							0
03	46671	120	128							0
04	BF-S-0619	133	150							0
05	RB-S-0619	130	145							0
06										
07										
08										
09										
10										
11										
12										
13										
14										
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29										
30										

		QC LIMITS	
S1 (TCX)	= Tetrachloro-m-xylene	(60-150)	
S2 (DCB)	= Decachlorobiphenyl	(60-150)	(advisory)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

QUALITY CONTROL SUMMARY

1031-07-8	Endosulfan sulfate	0	16.7 ug/Kg	19.5	117	26 - 144
72-43-5	Methoxychlor	0	16.7 ug/Kg	14.2	85	26 - 144
53494-70-5	Endrin ketone	0	16.7 ug/Kg	18.5	111	26 - 144
7421-93-4	Endrin aldehyde	0	16.7 ug/Kg	25.5	153	0 - 202
5103-71-9	alpha-Chlordane	0	16.7 ug/Kg	15.1	91	45 - 119
5103-74-2	gamma-Chlordane	0	16.7 ug/Kg	15	90	45 - 119
58-89-9	gamma-BHC (Lindane)	0	16.7 ug/Kg	17.1	103	46 - 127
76-44-8	Heptachlor	0	16.7 ug/Kg	18.1	109	35 - 130
309-00-2	Aldrin	0	16.7 ug/Kg	14	84	35 - 132
60-57-1	Dieldrin	0	16.7 ug/Kg	20.7	124	31 - 134
72-20-8	Endrin	0	16.7 ug/Kg	21.3	128	42 - 139
50-29-3	4,4'-DDT	0	16.7 ug/Kg	21.5	129	23 - 134

MSD LAB ID: 46418 ORIGINAL LAB ID: 20206200201 PREP BATCH: 145850
MATRIX Solid ANALYTICAL BATCH: 146072

SW-846 8081A

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
319-84-6	alpha-BHC	16.7 ug/Kg	12.1	73	37 - 134	48 *	0 - 40
319-85-7	beta-BHC	16.7 ug/Kg	8.96	54	17 - 147	55 *	0 - 40
319-86-8	delta-BHC	16.7 ug/Kg	9.67	58	19 - 140	44 *	0 - 40
1024-57-3	Heptachlor epoxide	16.7 ug/Kg	9.74	58	37 - 142	48 *	0 - 40
959-98-8	Endosulfan I	16.7 ug/Kg	12.3	74	45 - 153	30	0 - 40
72-55-9	4,4'-DDE	16.7 ug/Kg	11.1	67	30 - 145	33	0 - 40
33213-65-9	Endosulfan II	16.7 ug/Kg	10	60	0 - 202	42 *	0 - 40
72-54-8	4,4'-DDD	16.7 ug/Kg	12.2	73	31 - 141	42 *	0 - 40
1031-07-8	Endosulfan sulfate	16.7 ug/Kg	11.2	67	26 - 144	54 *	0 - 40
72-43-5	Methoxychlor	16.7 ug/Kg	9.07	54	26 - 144	45 *	0 - 40
53494-70-5	Endrin ketone	16.7 ug/Kg	11.7	70	26 - 144	45 *	0 - 40
7421-93-4	Endrin aldehyde	16.7 ug/Kg	14.6	88	0 - 202	54 *	0 - 40
5103-71-9	alpha-Chlordane	16.7 ug/Kg	9.46	57	45 - 119	46 *	0 - 40
5103-74-2	gamma-Chlordane	16.7 ug/Kg	9.47	57	45 - 119	45 *	0 - 40
58-89-9	gamma-BHC (Lindane)	16.7 ug/Kg	10.6	64	46 - 127	47 *	0 - 40
76-44-8	Heptachlor	16.7 ug/Kg	11.4	68	35 - 130	46 *	0 - 40
309-00-2	Aldrin	16.7 ug/Kg	9.19	55	35 - 132	42 *	0 - 40
60-57-1	Dieldrin	16.7 ug/Kg	15	90	31 - 134	32	0 - 40
72-20-8	Endrin	16.7 ug/Kg	14.5	87	42 - 139	38	0 - 40
50-29-3	4,4'-DDT	16.7 ug/Kg	12	72	23 - 134	57 *	0 - 40

LCS ID: 46421 ORIGINAL LAB ID: PREP BATCH: 145851
MATRIX Solid ANALYTICAL BATCH: 146073

SW-846 8082

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
12674-11-2	Aroclor-1016	133 ug/Kg	115	86	60 - 127
11096-82-5	Aroclor-1260	133 ug/Kg	125	94	61 - 132

QUALITY CONTROL SUMMARY

LCSD LAB ID: 46671 | ORIGINAL LAB ID: | PREP BATCH: 145851
MATRIX Solid | ANALYTICAL BATCH: 146073

SW-846 8082

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
12674-11-2	Aroclor-1016	133 ug/Kg	116	87	60 - 127	1	0 - 40
11096-82-5	Aroclor-1260	133 ug/Kg	126	95	61 - 132	1	0 - 40

LCS ID: 46602 | ORIGINAL LAB ID: | PREP BATCH: 146039
MATRIX Solid | ANALYTICAL BATCH: 146074

SW-846 8151A

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
94-75-7	2,4'-D	66.7 ug/Kg	60.4	91	10 - 126
93-76-5	2,4,5-T	66.7 ug/Kg	66.8	100	32 - 130
93-72-1	2,4,5-TP (Silvex)	66.7 ug/Kg	70.6	106	34 - 124

LCSD LAB ID: 46603 | ORIGINAL LAB ID: | PREP BATCH: 146039
MATRIX Solid | ANALYTICAL BATCH: 146074

SW-846 8151A

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
94-75-7	2,4'-D	66.7 ug/Kg	51	77	10 - 126	17	0 - 40
93-76-5	2,4,5-T	66.7 ug/Kg	59.1	89	32 - 130	12	0 - 40
93-72-1	2,4,5-TP (Silvex)	66.7 ug/Kg	63.9	96	34 - 124	10	0 - 40

MS LAB ID: 46604 | ORIGINAL LAB ID: 20206200202 | PREP BATCH: 146039
MATRIX Solid | ANALYTICAL BATCH: 146074

SW-846 8151A

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
94-75-7	2,4'-D	0	66.7 ug/Kg	36.9	55	10 - 126
93-76-5	2,4,5-T	0	66.7 ug/Kg	52.2	78	32 - 130
93-72-1	2,4,5-TP (Silvex)	0	66.7 ug/Kg	52.2	78	34 - 124

MSD LAB ID: 46605 | ORIGINAL LAB ID: 20206200202 | PREP BATCH: 146039
MATRIX Solid | ANALYTICAL BATCH: 146074

SW-846 8151A

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
94-75-7	2,4'-D	66.7 ug/Kg	38.3	57	10 - 126	4	0 - 40
93-76-5	2,4,5-T	66.7 ug/Kg	55.5	83	32 - 130	6	0 - 40
93-72-1	2,4,5-TP (Silvex)	66.7 ug/Kg	56.4	85	34 - 124	9	0 - 40

MS LAB ID: 20206212806 | ORIGINAL LAB ID: 20206212805 | PREP BATCH: 146100
MATRIX Solid | ANALYTICAL BATCH: 146136

SW-846 8151A

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS

4B
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

46420

Lab Name: GCAL Contract:

Lab Code: Case No.: 202062002 SAS No.: SDG No.: 202062002

Lab File ID: SV11067 Lab Sample ID: 46420

Instrument ID: GCSV11 Date Extracted: 06/21/02

Matrix: (soil/water) SOIL Date Analyzed: 06/21/02

Level:(low/med) LOW Time Analyzed: 1209

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	46421	46421	SV11068	06/21/02
02	46671	46671	SV11069	06/21/02
03	BF-S-0619	20206200201	SV11070	06/21/02
04	RB-S-0619	20206200202	SV11071	06/21/02
05				
06				
07				
08				
09				
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28				
29				
30				

COMMENTS:

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200201	046-BF-S-0619-02	Solid	06/19/2002 09:40	06/20/2002 09:05	06/27/2002 08:58

8082, PCBs, Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/21/2002 08:00	145851	3540C	1	06/21/2002 13:38	SAB	146073

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
12674-11-2	Aroclor-1016	ND	46.5	15.6	ug/Kg
11104-28-2	Aroclor-1221	ND	46.5	15.6	ug/Kg
11141-16-5	Aroclor-1232	ND	46.5	15.6	ug/Kg
53469-21-9	Aroclor-1242	ND	46.5	10.9	ug/Kg
12672-29-6	Aroclor-1248	ND	46.5	10.9	ug/Kg
11097-69-1	Aroclor-1254	ND	46.5	10.9	ug/Kg
11096-82-5	Aroclor-1260	ND	46.5	10.9	ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
877-09-8	Tetrachloro-m-xylene	16.7	22.2 ug/Kg	133	60 - 150
2051-24-3	Decachlorobiphenyl	16.7	25 ug/Kg	150	60 - 150

RESULTS REPORTED ON A DRY WEIGHT BASIS

Data File: /var/chem/gcsv11.i/2020617.b/SV11070.d
Report Date: 26-Jun-2002 10:31

Gulf Coast Analytical Services

Data file : /var/chem/gcsv11.i/2020617.b/SV11070.d
Lab Smp Id: 20206200201 Client Smp ID: BF-S-0619
Inj Date : 21-JUN-2002 13:38
Operator : tnt Inst ID: gcsv11.i
Smp Info : 20206200201
Misc Info :
Comment :
Method : /var/chem/gcsv11.i/2020617.b/pest1701a.m
Meth Date : 26-Jun-2002 10:31 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 07:16 Cal File: SV11025.d
Als bottle: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pcb.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/L)	FINAL (ug/Kg)
$ 1 Tetrachloro-m-xylene	3.522	3.524	-0.002	16648069	66.5871	22.1957(M)
$ 22 Decachlorobiphenyl	18.002	18.006	-0.004	13156952	74.8555	24.9518

QC Flag Legend

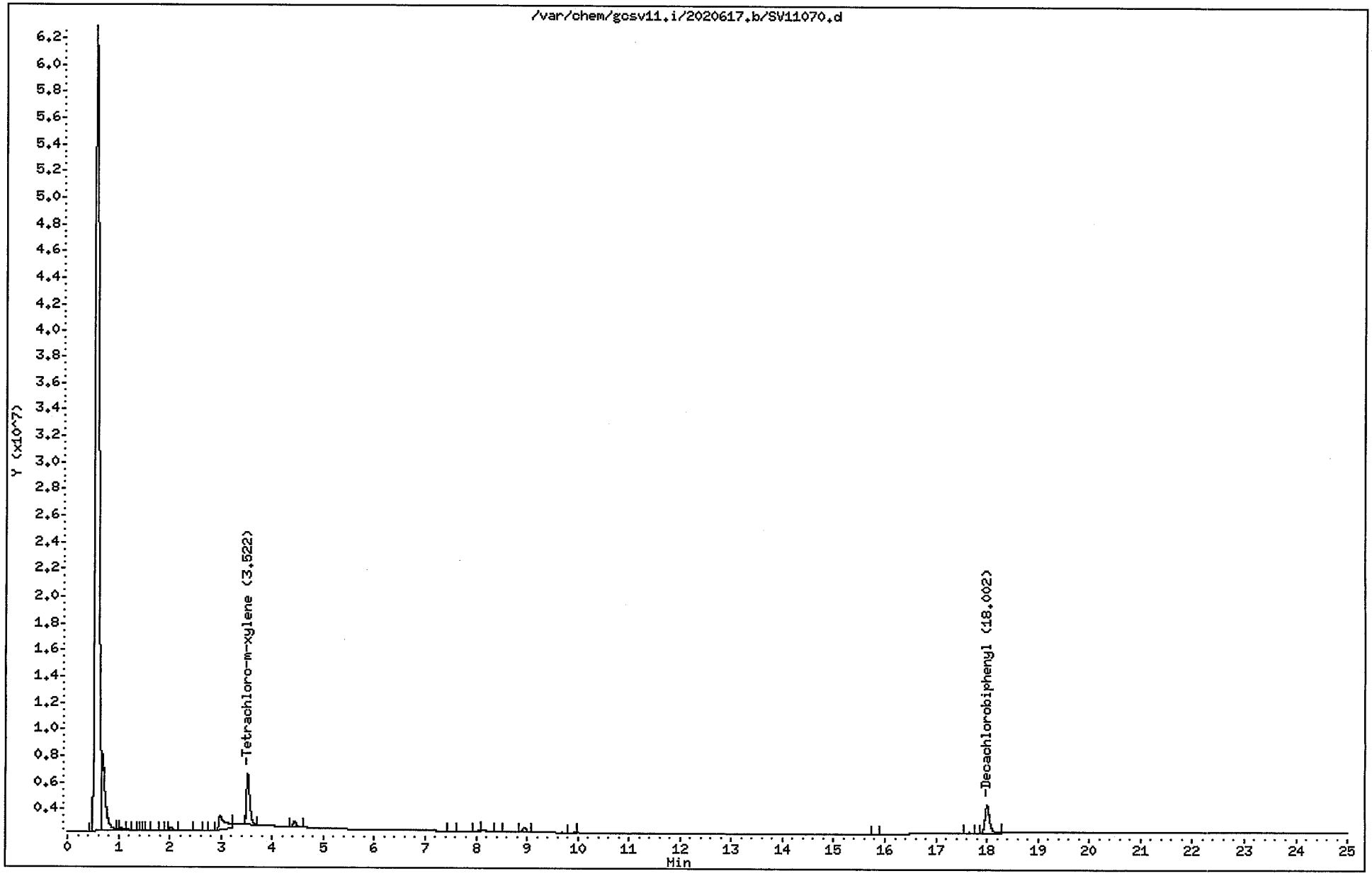
M - Compound response manually integrated.

Data File: /var/chem/gcsv11.i/2020617.b/SV11070.d
Date : 21-JUN-2002 13:38
Client ID: BF-S-0619
Sample Info: 20206200201
Volume Injected (uL): 1.0
Column phase: DB-1701-30M

Instrument: gcsv11.i

Operator: tnt
Column diameter: 0.53

000512



GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200202	046-RB-S-0619-02	Solid	06/19/2002 11:00	06/20/2002 09:05	06/27/2002 08:58

8082, PCBs, Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/21/2002 08:00	145851	3540C	1	06/21/2002 14:07	SAB	146073

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
12674-11-2	Aroclor-1016	ND	43.8	14.7	ug/Kg
11104-28-2	Aroclor-1221	ND	43.8	14.7	ug/Kg
11141-16-5	Aroclor-1232	ND	43.8	14.7	ug/Kg
53469-21-9	Aroclor-1242	ND	43.8	10.3	ug/Kg
12672-29-6	Aroclor-1248	ND	43.8	10.3	ug/Kg
11097-69-1	Aroclor-1254	ND	43.8	10.3	ug/Kg
11096-82-5	Aroclor-1260	ND	43.8	10.3	ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
877-09-8	Tetrachloro-m-xylene	16.7	21.7 ug/Kg	130	60 - 150
2051-24-3	Decachlorobiphenyl	16.7	24.1 ug/Kg	145	60 - 150

RESULTS REPORTED ON A DRY WEIGHT BASIS

Data File: /var/chem/gcsv11.i/2020617.b/SV11071.d
Report Date: 26-Jun-2002 10:31

Gulf Coast Analytical Services

Data file : /var/chem/gcsv11.i/2020617.b/SV11071.d
Lab Smp Id: 20206200202 Client Smp ID: RB-S-0619
Inj Date : 21-JUN-2002 14:07
Operator : tnt Inst ID: gcsv11.i
Smp Info : 20206200202
Misc Info :
Comment :
Method : /var/chem/gcsv11.i/2020617.b/pest1701a.m
Meth Date : 26-Jun-2002 10:31 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 07:16 Cal File: SV11025.d
Als bottle: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

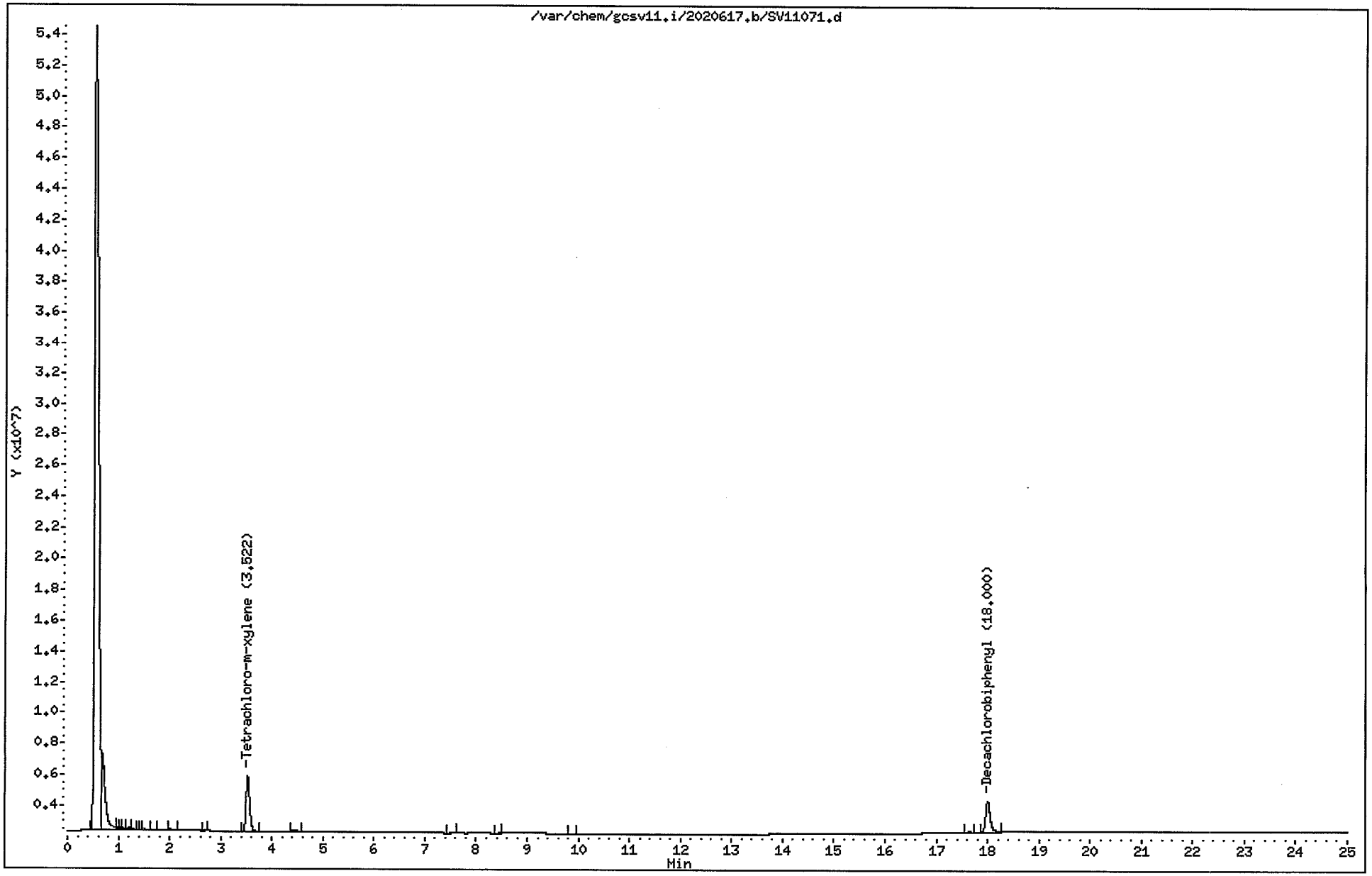
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/L)	FINAL (ug/Kg)
$ 1 Tetrachloro-m-xylene	3.522	3.524	-0.002	16255250	65.0160	21.6719
$ 22 Decachlorobiphenyl	18.000	18.006	-0.006	12737144	72.4670	24.1556

Data File: /var/chem/gcsv11.i/2020617.b/SV11071.d
Date : 21-JUN-2002 14:07
Client ID: RB-S-0619
Sample Info: 20206200202
Volume Injected (uL): 1.0
Column phase: DB-1701-30M

Instrument: gcsv11.i

Operator: tnt
Column diameter: 0.53

000515



Report Date : 26-Jun-2002 10:37

Gulf Coast Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 17-JUN-2002 20:55
End Cal Date : 18-JUN-2002 08:45
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/gcsv11.i/2020617.b/pest1701a.m
Cal Date : 26-Jun-2002 10:33 sab
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcsv11.i/2020617.b/SV11023.d
Level 2: /var/chem/gcsv11.i/2020617.b/SV11024.d
Level 3: /var/chem/gcsv11.i/2020617.b/SV11025.d
Level 4: /var/chem/gcsv11.i/2020617.b/SV11027.d
Level 5: /var/chem/gcsv11.i/2020617.b/SV11028.d

	Compound	5.000 Level 1	40.000 Level 2	60.000 Level 3	80.000 Level 4	100.000 Level 5	___ RRF	% RSD	
	2 alpha-BHC	284128	332014	339488	377710	394279	345524	12.450	
	3 gamma-BHC (Lindane)	286275	327573	323228	360449	374306	334366	10.315	
	4 Heptachlor	245284	280466	271949	308301	319981	285196	10.423	
	5 Aldrin	282410	321017	316669	341612	348429	322028	8.038	
	6 beta-BHC	176842	173246	156901	163701	165359	167210	4.740	
	7 delta-BHC	266215	312270	305493	336338	343836	312830	9.776	
	8 Heptachlor epoxide	236623	266046	266447	280496	286213	267165	7.188	
	9 Endosulfan I	191090	222081	221410	253265	262537	230077	12.390	
	10 gamma-Chlordane	236330	267726	271927	290028	299221	273046	8.879	
	11 alpha-Chlordane	246120	274115	275396	294303	301027	278192	7.697	
	12 4,4'-DDE	238488	267368	258475	273733	277236	263060	5.884	
	13 Dieldrin	182003	216460	213948	246332	255073	222763	13.046	
	14 Endrin	166856	193265	187351	217200	224399	197814	11.778	
	15 4,4'-DDD	123412	156114	157680	185465	193157	163166	16.943	
	16 Endosulfan II	170378	198620	185182	209960	212634	195355	9.049	
	17 4,4'-DDT	75641	101941	112636	144829	154397	117889	27.241	<-
	18 Endrin aldehyde	77414	99607	88648	112464	113486	98324	15.775	
	19 Methoxychlor	52871	61109	59300	73151	76906	64667	15.510	
	20 Endosulfan sulfate	150384	163244	163086	171324	172336	164075	5.365	
	21 Endrin ketone	146848	170212	168308	176754	177264	167877	7.385	
M	23 AR 1016-AVG	53425	51074	48955	44377	37328	47032	13.536	
	24 AR 1016-PEAK1	6174	5973	5873	5399	4488	5582	12.077	
	25 AR 1016-PEAK2	11601	11112	10639	9521	7864	10147	14.695	
	26 AR 1016-PEAK3	23922	22694	21782	19795	16822	21003	13.239	
	27 AR 1016-PEAK4	11728	11295	10662	9662	8154	10300	13.877	
M	28 AR 1260-AVG	67155	66758	68214	65596	58944	65334	5.652	

Report Date : 26-Jun-2002 10:37

Gulf Coast Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 17-JUN-2002 20:55
End Cal Date : 18-JUN-2002 08:45
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/gcsv11.i/2020617.b/pest1701a.m
Cal Date : 26-Jun-2002 10:33 sab
Curve Type : Average

	Compound	5.000 Level 1	40.000 Level 2	60.000 Level 3	80.000 Level 4	100.000 Level 5	RRF	% RSD
	29 AR 1260-PEAK1	7542	8038	9050	8729	7747	8221	7.847
	30 AR 1260-PEAK2	12323	11789	11404	10722	9373	11122	10.237
	31 AR 1260-PEAK3	16615	16878	16678	15678	13872	15944	7.823
	32 AR 1260-PEAK4	30675	30053	31083	30467	27952	30046	4.087
M	33 AR 1260-AVGII	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	34 AR 1260-PEAK5	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	35 AR 1260-PEAK6	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	36 AR 1260-PEAK7	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M	37 AR 1221-AVG	+++++	+++++	13472	+++++	+++++	13472	0.000
	38 AR 1221-PEAK1	+++++	+++++	3065	+++++	+++++	3065	0.000
	39 AR 1221-PEAK2	+++++	+++++	2019	+++++	+++++	2019	0.000
	40 AR 1221-PEAK3	+++++	+++++	7731	+++++	+++++	7731	0.000
	41 AR 1221-PEAK4	+++++	+++++	657	+++++	+++++	657	0.000
M	42 AR 1232-AVG	+++++	+++++	28293	+++++	+++++	28293	0.000
	43 AR 1232-PEAK1	+++++	+++++	7850	+++++	+++++	7850	0.000
	44 AR 1232-PEAK2	+++++	+++++	5069	+++++	+++++	5069	0.000
	45 AR 1232-PEAK3	+++++	+++++	10462	+++++	+++++	10462	0.000
	46 AR 1232-PEAK4	+++++	+++++	4913	+++++	+++++	4913	0.000
M	47 AR 1242-AVG	+++++	+++++	37722	+++++	+++++	37722	0.000
	48 AR 1242-PEAK1	+++++	+++++	4567	+++++	+++++	4567	0.000
	49 AR 1242-PEAK2	+++++	+++++	8243	+++++	+++++	8243	0.000
	50 AR 1242-PEAK3	+++++	+++++	16911	+++++	+++++	16911	0.000
	51 AR 1242-PEAK4	+++++	+++++	8002	+++++	+++++	8002	0.000
M	52 AR 1248-AVG	+++++	+++++	58488	+++++	+++++	58488	0.000
	53 AR 1248-PEAK1	+++++	+++++	11191	+++++	+++++	11191	0.000
	54 AR 1248-PEAK2	+++++	+++++	15852	+++++	+++++	15852	0.000
	55 AR 1248-PEAK3	+++++	+++++	11300	+++++	+++++	11300	0.000
	56 AR 1248-PEAK4	+++++	+++++	6447	+++++	+++++	6447	0.000
M	57 AR 1254-AVG	+++++	+++++	43347	+++++	+++++	43347	0.000
	58 AR 1254-PEAK1	+++++	+++++	9422	+++++	+++++	9422	0.000
	59 AR 1254-PEAK2	+++++	+++++	14375	+++++	+++++	14375	0.000
	60 AR 1254-PEAK3	+++++	+++++	7963	+++++	+++++	7963	0.000
	61 AR 1254-PEAK4	+++++	+++++	11588	+++++	+++++	11588	0.000

Report Date : 26-Jun-2002 10:37

Gulf Coast Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 17-JUN-2002 20:55
End Cal Date : 18-JUN-2002 08:45
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/gcsv11.i/2020617.b/pest1701a.m
Cal Date : 26-Jun-2002 10:33 sab
Curve Type : Average

	Compound	5.000 Level 1	40.000 Level 2	60.000 Level 3	80.000 Level 4	100.000 Level 5	___ RRF	% RSD
M	62 TOXAPHENE-AVG	+++++	+++++	+++++	+++++	10107	10107	0.000
	63 TOXAPHENE-PEAK1	+++++	+++++	+++++	+++++	1546	1546	0.000
	64 TOXAPHENE-PEAK2	+++++	+++++	+++++	+++++	2041	2041	0.000
	65 TOXAPHENE-PEAK3	+++++	+++++	+++++	+++++	2802	2802	0.000
	66 TOXAPHENE-PEAK4	+++++	+++++	+++++	+++++	3717	3717	0.000
	67 TOXAPHENE-PEAK5	+++++	+++++	+++++	+++++	104679	104679	0.000
M	68 CHLORDANE-AVG	+++++	+++++	+++++	+++++	93486	93486	0.000
	69 CHLORDANE-PEAK1	+++++	+++++	+++++	+++++	10272	10272	0.000
	70 CHLORDANE-PEAK2	+++++	+++++	+++++	+++++	17814	17814	0.000
	71 CHLORDANE-PEAK3	+++++	+++++	+++++	+++++	26976	26976	0.000
	72 CHLORDANE-PEAK4	+++++	+++++	+++++	+++++	38423	38423	0.000
	73 CHLORDANE-PEAK5	+++++	+++++	+++++	+++++	38192	38192	0.000
	164 Diallate	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	165 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	166 Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$	1 Tetrachloro-m-xylene	257817	256036	232167	248838	255239	250019	4.216
$	22 Decachlorobiphenyl	174470	175606	157420	184183	187144	175765	6.602

Report Date : 26-Jun-2002 10:37

Gulf Coast Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date	: 17-JUN-2002 20:55
End Cal Date	: 18-JUN-2002 08:45
Quant Method	: ESTD
Origin	: Disabled
Target Version	: 3.50
Integrator	: Falcon
Method file	: /var/chem/gcsv11.i/2020617.b/pest1701a.m
Cal Date	: 26-Jun-2002 10:33 sab
Curve Type	: Average

```
|Average %RSD Results.                                |
|=====================================================|
|Calculated Average %RSD = 10.4299144                 |
|Maximun Average %RSD    =         20                 |
|* Passed Average %RSD Test.                          |
|_____________________________________________________|
```

Data File: /var/chem/gcsv11.i/2020617.b/SV11023.d
Report Date: 26-Jun-2002 10:33

Gulf Coast Analytical Services

Data file : /var/chem/gcsv11.i/2020617.b/SV11023.d
Lab Smp Id: AR 1016/1260 I Client Smp ID: AR 1016/1260 I
Inj Date : 18-JUN-2002 06:17
Operator : tnt Inst ID: gcsv11.i
Smp Info : AR 1016/1260 I
Misc Info :
Comment :
Method : /var/chem/gcsv11.i/2020617.b/pest1701a.m
Meth Date : 26-Jun-2002 10:33 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 06:17 Cal File: SV11023.d
Als bottle: 23 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ARO1260.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

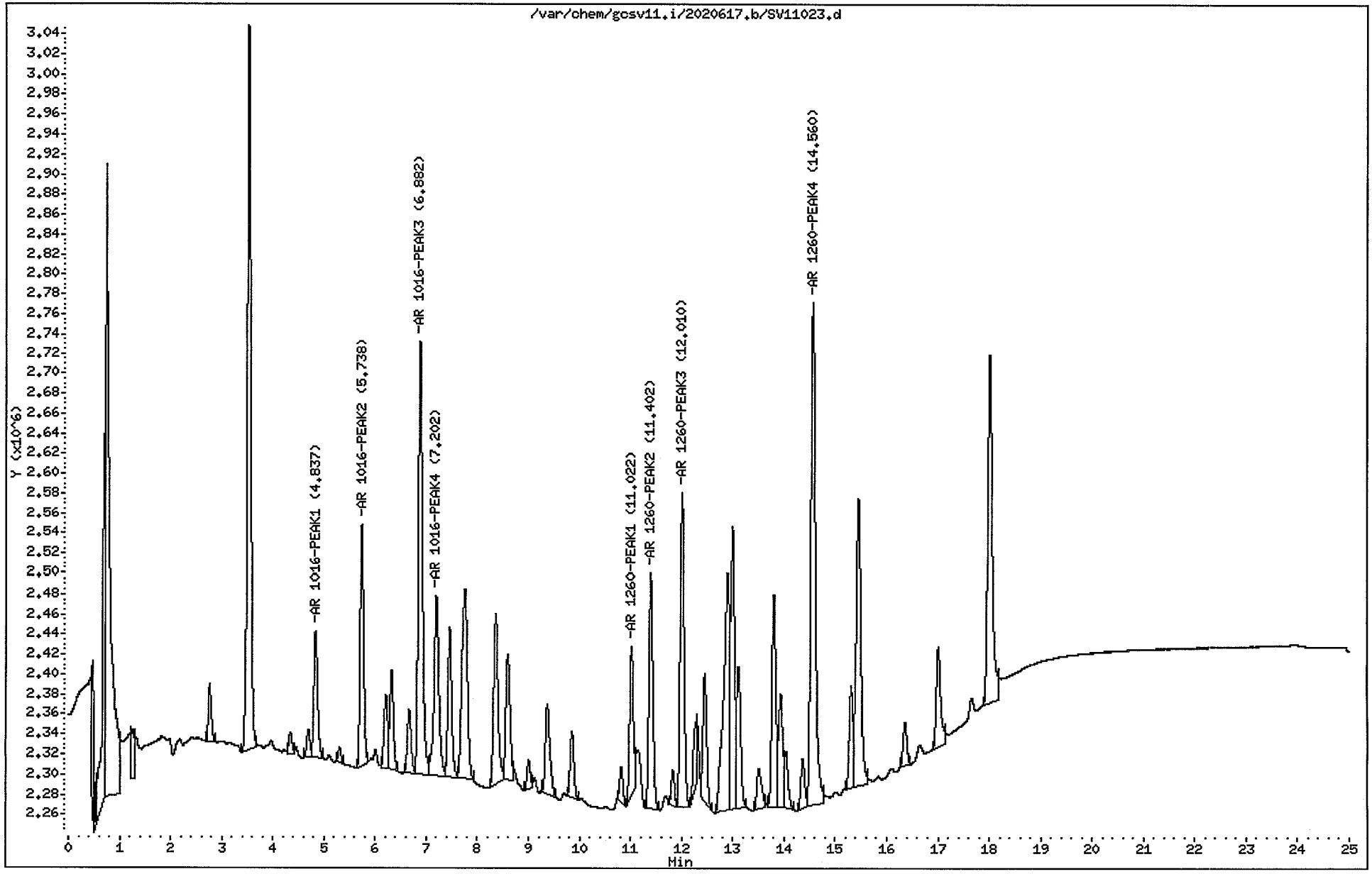
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
M 23 AR 1016-AVG				5342545	100.000	113.5939
24 AR 1016-PEAK1	4.837	4.835	0.002	617441	100.000	110.6219
25 AR 1016-PEAK2	5.738	5.737	0.001	1160142	100.000	114.3292
26 AR 1016-PEAK3	6.882	6.879	0.003	2392167	100.000	113.8971
27 AR 1016-PEAK4	7.202	7.198	0.004	1172795	100.000	113.8616
M 28 AR 1260-AVG				6715529	100.000	102.7883
29 AR 1260-PEAK1	11.022	11.018	0.004	754211	100.000	91.7383
30 AR 1260-PEAK2	11.402	11.400	0.002	1232346	100.000	110.7994
31 AR 1260-PEAK3	12.010	12.008	0.002	1661506	100.000	104.2071
32 AR 1260-PEAK4	14.560	14.558	0.002	3067466	100.000	102.0933

Data File: /var/chem/gcsv11.i/2020617.b/SV11023.d
Date : 18-JUN-2002 06:17
Client ID: AR 1016/1260 I
Sample Info: AR 1016/1260 I
Volume Injected (uL): 1.0
Column phase: DB-1701-30M

Instrument: gcsv11.i
Operator: tnt
Column diameter: 0.53

000521



Data File: /var/chem/gcsv11.i/2020617.b/SV11024.d
Report Date: 26-Jun-2002 10:33

Gulf Coast Analytical Services

Data file : /var/chem/gcsv11.i/2020617.b/SV11024.d
Lab Smp Id: AR 1016/1260 II Client Smp ID: AR 1016/1260 II
Inj Date : 18-JUN-2002 06:47
Operator : tnt Inst ID: gcsv11.i
Smp Info : AR 1016/1260 II
Misc Info :
Comment :
Method : /var/chem/gcsv11.i/2020617.b/pest1701a.m
Meth Date : 26-Jun-2002 10:33 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 06:47 Cal File: SV11024.d
Als bottle: 24 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ARO1260.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

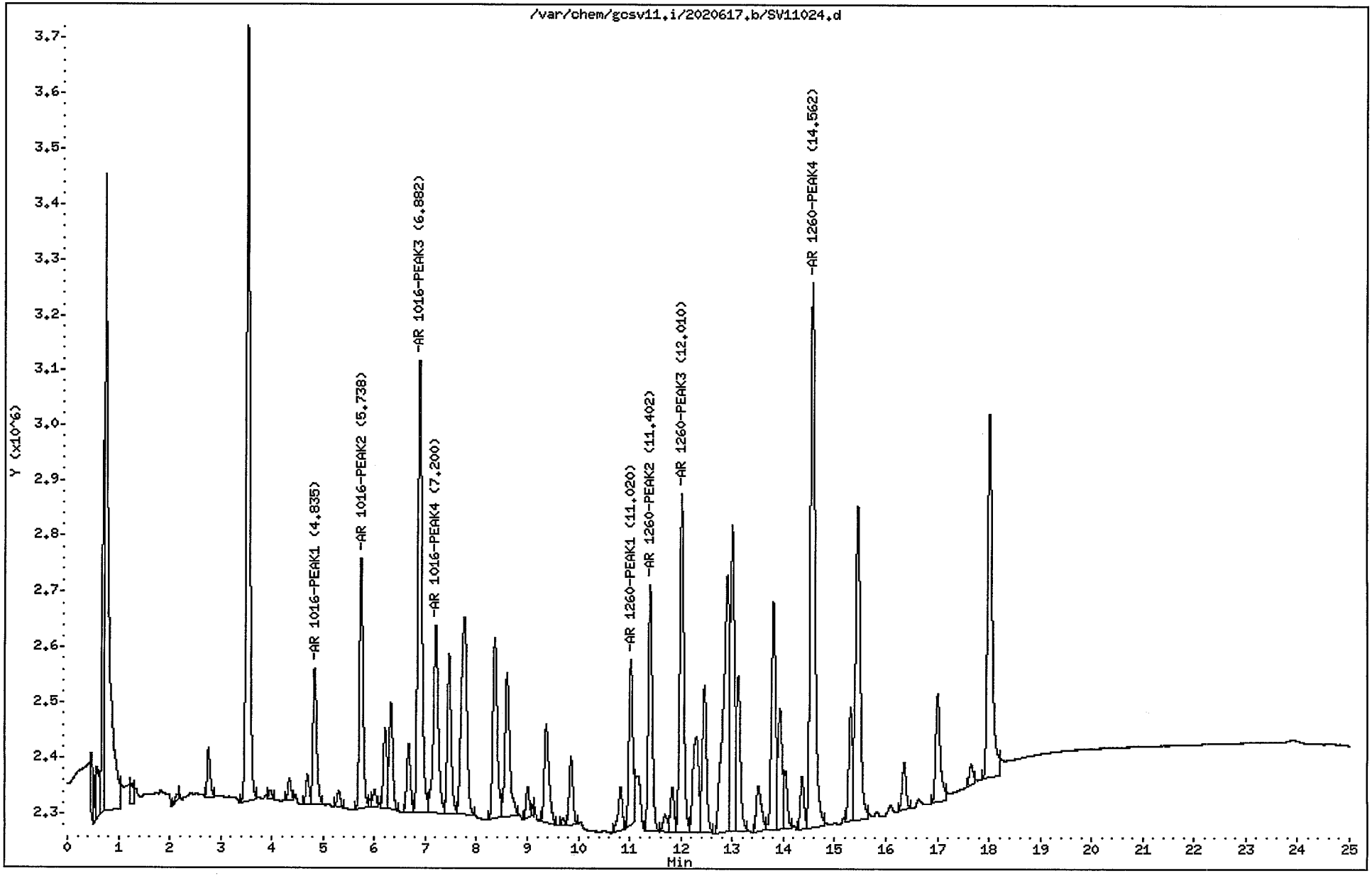
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
M 23 AR 1016-AVG				10214742	200.000	217.1872
24 AR 1016-PEAK1	4.835	4.835	0.000	1194567	200.000	214.0209
25 AR 1016-PEAK2	5.738	5.737	0.001	2222358	200.000	219.0082
26 AR 1016-PEAK3	6.882	6.879	0.003	4538811	200.000	216.1043
27 AR 1016-PEAK4	7.200	7.198	0.002	2259006	200.000	219.3171
M 28 AR 1260-AVG				13351562	200.000	204.3598
29 AR 1260-PEAK1	11.020	11.018	0.002	1607627	200.000	195.5434
30 AR 1260-PEAK2	11.402	11.400	0.002	2357784	200.000	211.9867
31 AR 1260-PEAK3	12.010	12.008	0.002	3375612	200.000	211.7133
32 AR 1260-PEAK4	14.562	14.558	0.004	6010539	200.000	200.0466

Data File: /var/chem/gcsv11.i/2020617.b/SV11024.d
Date : 18-JUN-2002 06:47
Client ID: AR 1016/1260 II
Sample Info: AR 1016/1260 II
Volume Injected (uL): 1.0
Column phase: DB-1701-30M

Instrument: gcsv11.i
Operator: tnt
Column diameter: 0.53

000523



Data File: /var/chem/gcsv11.i/2020617.b/SV11025.d
Report Date: 26-Jun-2002 10:33

Gulf Coast Analytical Services

Data file : /var/chem/gcsv11.i/2020617.b/SV11025.d
Lab Smp Id: AR 1016/1260 III Client Smp ID: AR 1016/1260 III
Inj Date : 18-JUN-2002 07:16
Operator : tnt Inst ID: gcsv11.i
Smp Info : AR 1016/1260 III
Misc Info :
Comment :
Method : /var/chem/gcsv11.i/2020617.b/pest1701a.m
Meth Date : 26-Jun-2002 10:33 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 07:16 Cal File: SV11025.d
Als bottle: 25 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ARO1260.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

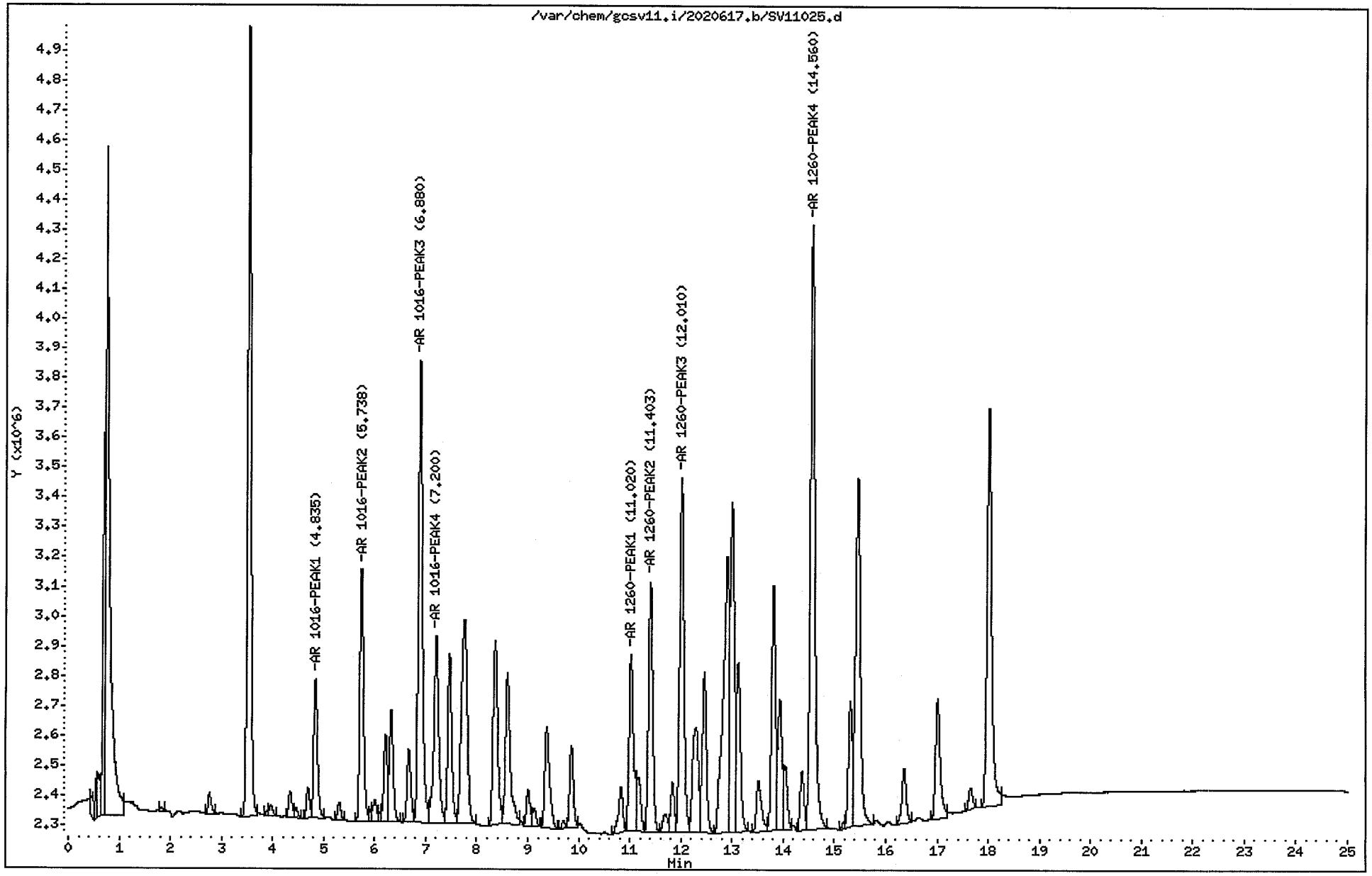
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
M 23 AR 1016-AVG				19582173	400.000	416.3588
24 AR 1016-PEAK1	4.835	4.835	0.000	2349080	400.000	420.8657
25 AR 1016-PEAK2	5.738	5.737	0.001	4255705	400.000	419.3898
26 AR 1016-PEAK3	6.880	6.880	0.000	8712615	400.000	414.8297
27 AR 1016-PEAK4	7.200	7.199	0.001	4264773	400.000	414.0485
M 28 AR 1260-AVG				27285701	400.000	417.6366
29 AR 1260-PEAK1	11.020	11.019	0.001	3620123	400.000	440.3330
30 AR 1260-PEAK2	11.403	11.401	0.002	4561521	400.000	410.1233
31 AR 1260-PEAK3	12.010	12.009	0.001	6671000	400.000	418.3952
32 AR 1260-PEAK4	14.560	14.559	0.001	12433057	400.000	413.8049

Data File: /var/chem/gcsv11.i/2020617.b/SV11025.d
Date : 18-JUN-2002 07:16
Client ID: AR 1016/1260 III
Sample Info: AR 1016/1260 III
Volume Injected (uL): 1.0
Column phase: DB-1701-30M

Instrument: gcsv11.i

Operator: tnt
Column diameter: 0.53

000525



Data File: /var/chem/gcsv11.i/2020617.b/SV11027.d
Report Date: 26-Jun-2002 10:33

Gulf Coast Analytical Services

Data file : /var/chem/gcsv11.i/2020617.b/SV11027.d
Lab Smp Id: AR 1016/1260 IV Client Smp ID: AR 1016/1260 IV
Inj Date : 18-JUN-2002 08:15
Operator : tnt Inst ID: gcsv11.i
Smp Info : AR 1016/1260 IV
Misc Info :
Comment :
Method : /var/chem/gcsv11.i/2020617.b/pest1701a.m
Meth Date : 26-Jun-2002 10:33 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 08:15 Cal File: SV11027.d
Als bottle: 27 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ARO1260.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

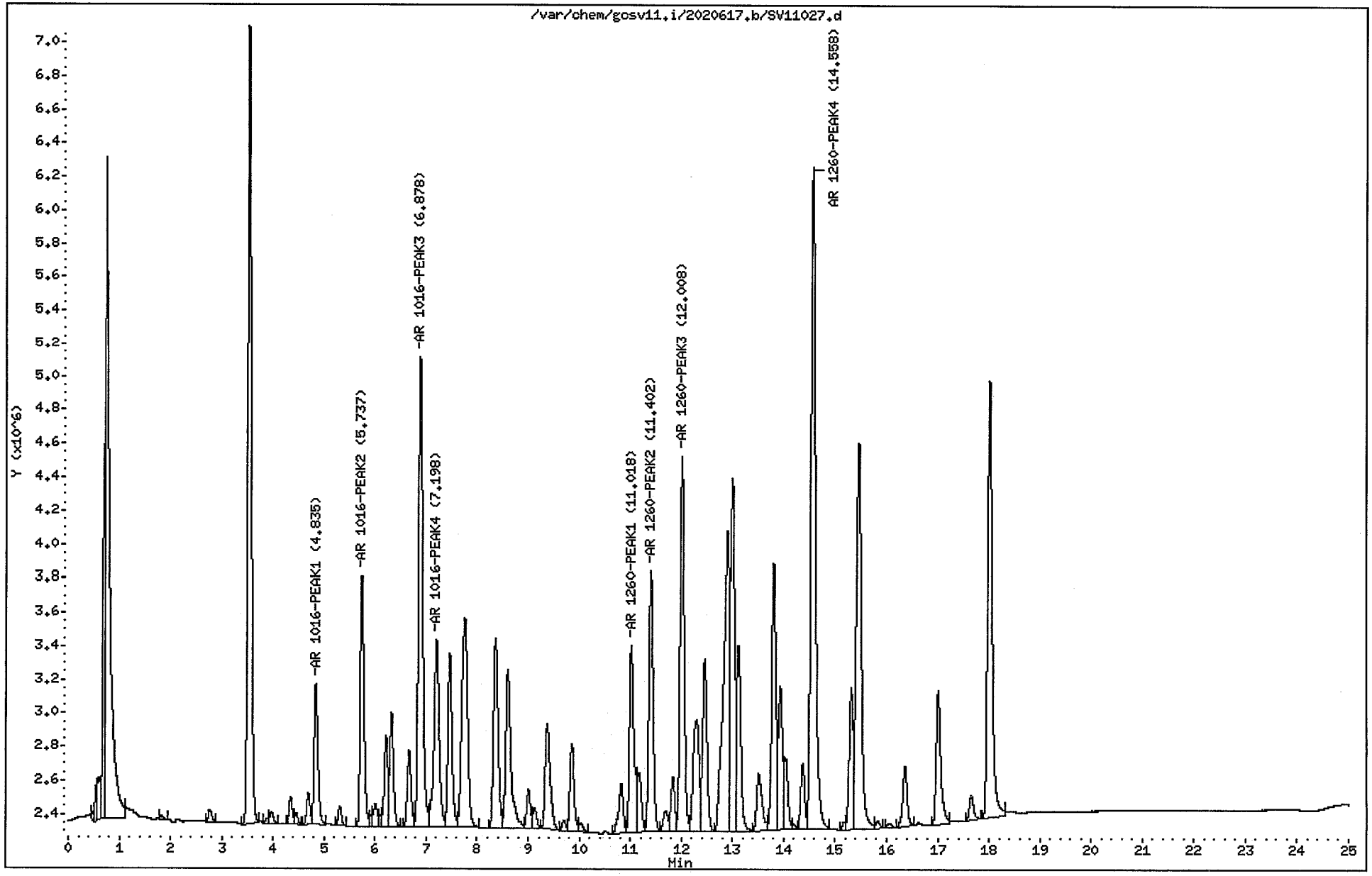
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
M 23 AR 1016-AVG				35501791	800.000	754.8439
24 AR 1016-PEAK1	4.835	4.835	0.000	4319503	800.000	773.8906
25 AR 1016-PEAK2	5.737	5.737	0.000	7616597	800.000	750.5978
26 AR 1016-PEAK3	6.878	6.880	-0.002	15836162	800.000	753.9999
27 AR 1016-PEAK4	7.198	7.199	-0.001	7729529	800.000	750.4268
M 28 AR 1260-AVG				52476902	800.000	803.2147
29 AR 1260-PEAK1	11.018	11.019	-0.001	6983214	800.000	849.4021
30 AR 1260-PEAK2	11.402	11.401	0.001	8577650	800.000	771.2108
31 AR 1260-PEAK3	12.008	12.009	-0.001	12542731	800.000	786.6614
32 AR 1260-PEAK4	14.558	14.559	-0.001	24373307	800.000	811.2080

Data File: /var/chem/gcsv11.i/2020617.b/SV11027.d
Date : 18-JUN-2002 08:15
Client ID: AR 1016/1260 IV
Sample Info: AR 1016/1260 IV
Volume Injected (uL): 1.0
Column phase: DB-1701-30M

Instrument: gcsv11.i

Operator: tnt
Column diameter: 0.53

000527



Data File: /var/chem/gcsv11.i/2020617.b/SV11028.d
Report Date: 26-Jun-2002 10:33

Gulf Coast Analytical Services

Data file : /var/chem/gcsv11.i/2020617.b/SV11028.d
Lab Smp Id: AR 1016/1260 V Client Smp ID: AR 1016/1260 V
Inj Date : 18-JUN-2002 08:45
Operator : tnt Inst ID: gcsv11.i
Smp Info : AR 1016/1260 V
Misc Info :
Comment :
Method : /var/chem/gcsv11.i/2020617.b/pest1701a.m
Meth Date : 26-Jun-2002 10:33 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 08:45 Cal File: SV11028.d
Als bottle: 28 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ARO1260.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

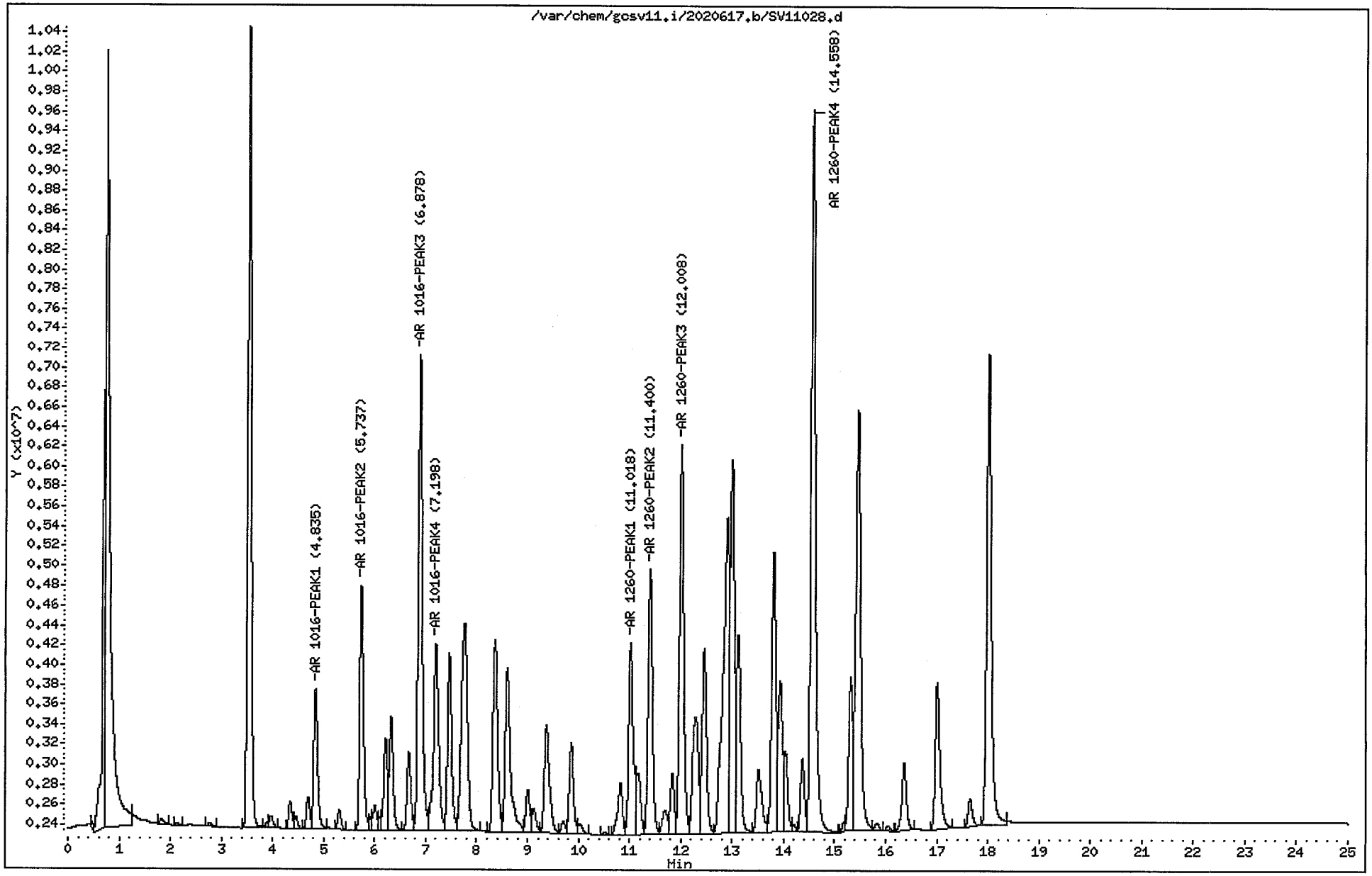
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
M 23 AR 1016-AVG				59724766	1600.00	1269.8761
24 AR 1016-PEAK1	4.835	4.835	0.000	7181417	1600.00	1286.6367
25 AR 1016-PEAK2	5.737	5.737	0.000	12581836	1600.00	1239.9106
26 AR 1016-PEAK3	6.878	6.880	-0.002	26915014	1600.00	1281.4922
27 AR 1016-PEAK4	7.198	7.199	-0.001	13046499	1600.00	1266.6286
M 28 AR 1260-AVG				94311165	1600.00	1443.5325
29 AR 1260-PEAK1	11.018	11.019	-0.001	12395316	1600.00	1507.7023
30 AR 1260-PEAK2	11.400	11.401	-0.001	14997330	1600.00	1348.4000
31 AR 1260-PEAK3	12.008	12.009	-0.001	22195587	1600.00	1392.0742
32 AR 1260-PEAK4	14.558	14.559	-0.001	44722932	1600.00	1488.4972

Data File: /var/chem/gcsv11.i/2020617.b/SV11028.d
Date : 18-JUN-2002 08:45
Client ID: AR 1016/1260 V
Sample Info: AR 1016/1260 V
Volume Injected (uL): 1.0
Column phase: DB-1701-30M

Instrument: gcsv11.i
Operator: tnt
Column diameter: 0.53

000529



Data File: /var/chem/gcsv11.i/2020617.b/SV11026.d
Report Date: 01-Jul-2002 12:39

Gulf Coast Analytical Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv11.i
Lab File ID: SV11026.d
Analysis Type: SOIL
Lab Sample ID: AR 1016/1260 III IC Quant Type: ESTD
Method: /var/chem/gcsv11.i/2020617.b/pest1701a.m

Injection Date: 18-JUN-2002 07:46
Init. Cal. Date(s): 17-JUN-2002 18-JUN-2002
Init. Cal. Times: 20:55 08:45

COMPOUND	RRF / AMOUNT	RF60	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
M 23 AR 1016-AVG	47032	44567	0.010	5.24181	15.00000	Averaged
24 AR 1016-PEAK1	5582	5257	0.010	5.81899	15.00000	Averaged
25 AR 1016-PEAK2	10147	9748	0.010	3.93896	15.00000	Averaged
26 AR 1016-PEAK3	21003	19899	0.010	5.25365	15.00000	Averaged
27 AR 1016-PEAK4	10300	9663	0.010	6.18841	15.00000	Averaged
M 28 AR 1260-AVG	65334	63401	0.010	2.95769	15.00000	Averaged
29 AR 1260-PEAK1	8221	8562	0.010	-4.14716	15.00000	Averaged
30 AR 1260-PEAK2	11122	10790	0.010	2.98387	15.00000	Averaged
31 AR 1260-PEAK3	15944	15455	0.010	3.07093	15.00000	Averaged
32 AR 1260-PEAK4	30046	28594	0.010	4.83198	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 4.44334
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Data File: /var/chem/gcsv11.i/2020617.b/SV11026.d
Report Date: 19-Jun-2002 11:16

Gulf Coast Analytical Services

Data file : /var/chem/gcsv11.i/2020617.b/SV11026.d
Lab Smp Id: AR 1016/1260 III IC
Inj Date : 18-JUN-2002 07:46
Operator : tnt Inst ID: gcsv11.i
Smp Info : AR 1016/1260 III ICV
Misc Info :
Comment :
Method : /chem/gcsv11.i/2020617.b/pest1701a.m
Meth Date : 19-Jun-2002 11:16 tnt Quant Type: ESTD
Cal Date : 18-JUN-2002 07:16 Cal File: SV11025.d
Als bottle: 26 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ARO1260.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

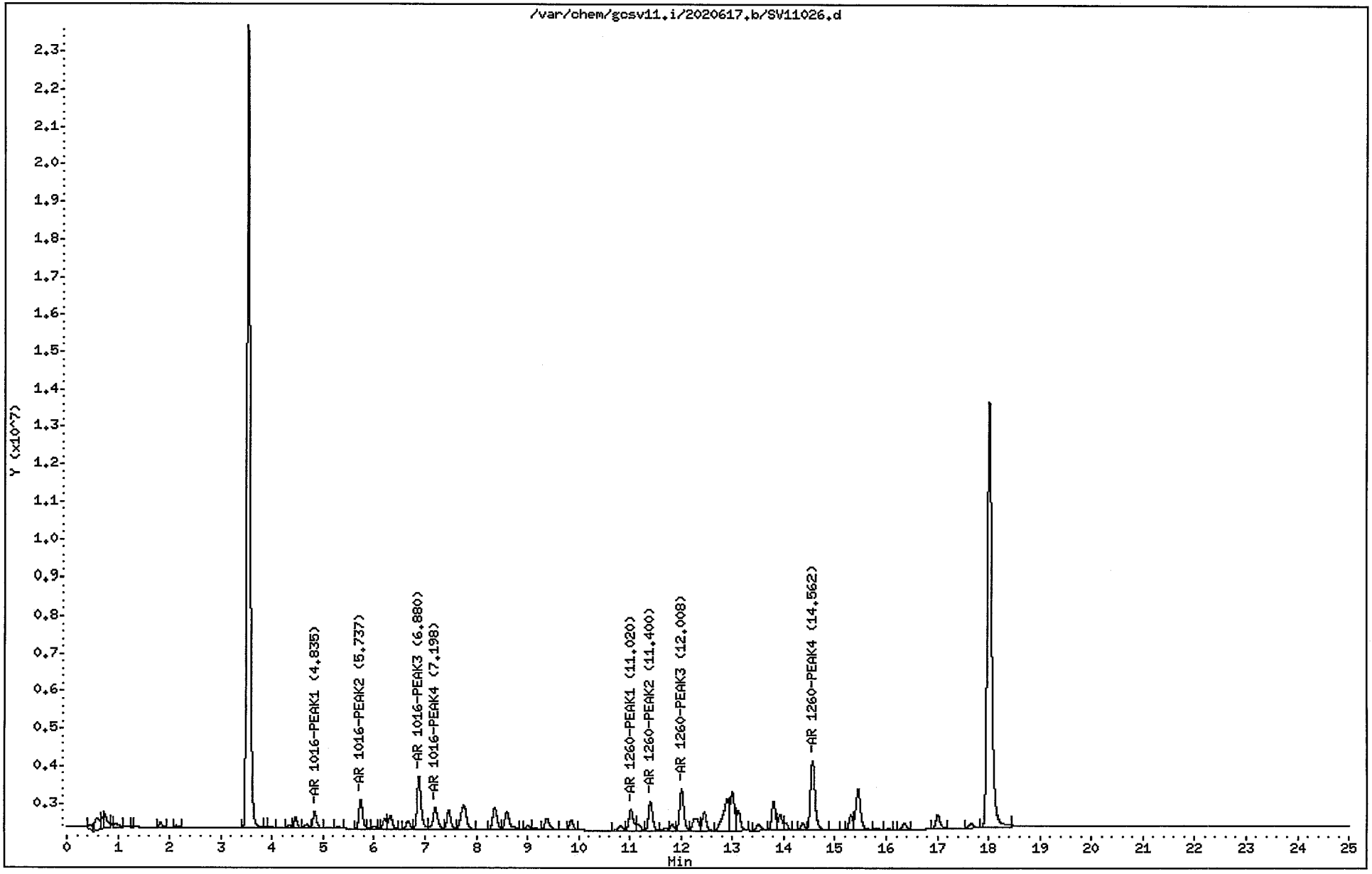
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
M 23 AR 1016-AVG				17826655	400.000	348.5067
24 AR 1016-PEAK1	4.835	4.835	0.000	2102701	400.000	350.0622
25 AR 1016-PEAK2	5.737	5.737	0.000	3899069	400.000	350.7148
26 AR 1016-PEAK3	6.880	6.880	0.000	7959781	400.000	349.1271
27 AR 1016-PEAK4	7.198	7.199	-0.001	3865104	400.000	344.2286
M 28 AR 1260-AVG				25360491	400.000	376.4036
29 AR 1260-PEAK1	11.020	11.019	0.001	3424912	400.000	417.1541
30 AR 1260-PEAK2	11.400	11.401	-0.001	4316176	400.000	364.5810
31 AR 1260-PEAK3	12.008	12.009	-0.001	6181847	400.000	369.6494
32 AR 1260-PEAK4	14.562	14.560	0.002	11437556	400.000	373.7356

Data File: /var/chem/gcsv11.i/2020617.b/SV11026.d
Date : 18-JUN-2002 07:46
Client ID:
Sample Info: AR 1016/1260 III ICV
Volume Injected (uL): 1.0
Column phase: DB-1701-30M

Instrument: gcsv11.i

Operator: tnt
Column diameter: 0.53

000532



Data File: /var/chem/gcsv11.i/2020617.b/SV11066.d
Report Date: 26-Jun-2002 10:31

Gulf Coast Analytical Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv11.i
Lab File ID: SV11066.d
Analysis Type: SOIL
Lab Sample ID: AR 1016/1260 III Quant Type: ESTD
Method: /var/chem/gcsv11.i/2020617.b/pest1701a.m

Injection Date: 21-JUN-2002 11:33
Init. Cal. Date(s): 17-JUN-2002 18-JUN-2002
Init. Cal. Times: 20:55 08:45

	COMPOUND	RRF / AMOUNT	RF60	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
M	23 AR 1016-AVG	47032	49149	0.010	-4.50228	15.00000	Averaged
	24 AR 1016-PEAK1	5582	6118	0.010	-9.61017	15.00000	Averaged
	25 AR 1016-PEAK2	10147	10820	0.010	-6.63242	15.00000	Averaged
	26 AR 1016-PEAK3	21003	21633	0.010	-2.99828	15.00000	Averaged
	27 AR 1016-PEAK4	10300	10579	0.010	-2.70265	15.00000	Averaged
M	28 AR 1260-AVG	65334	61684	0.010	5.58618	15.00000	Averaged
	29 AR 1260-PEAK1	8221	7454	0.010	9.33783	15.00000	Averaged
	30 AR 1260-PEAK2	11122	10494	0.010	5.65069	15.00000	Averaged
	31 AR 1260-PEAK3	15944	15334	0.010	3.82658	15.00000	Averaged
	32 AR 1260-PEAK4	30046	28402	0.010	5.46950	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 5.63166
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Data File: /var/chem/gcsv11.i/2020617.b/SV11066.d
Report Date: 26-Jun-2002 10:31

Gulf Coast Analytical Services

Data file : /var/chem/gcsv11.i/2020617.b/SV11066.d
Lab Smp Id: AR 1016/1260 III Client Smp ID: AR 1016/1260 III
Inj Date : 21-JUN-2002 11:33
Operator : tnt Inst ID: gcsv11.i
Smp Info : AR 1016/1260 III
Misc Info :
Comment :
Method : /var/chem/gcsv11.i/2020617.b/pest1701a.m
Meth Date : 26-Jun-2002 10:31 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 07:16 Cal File: SV11025.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ARO1260.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

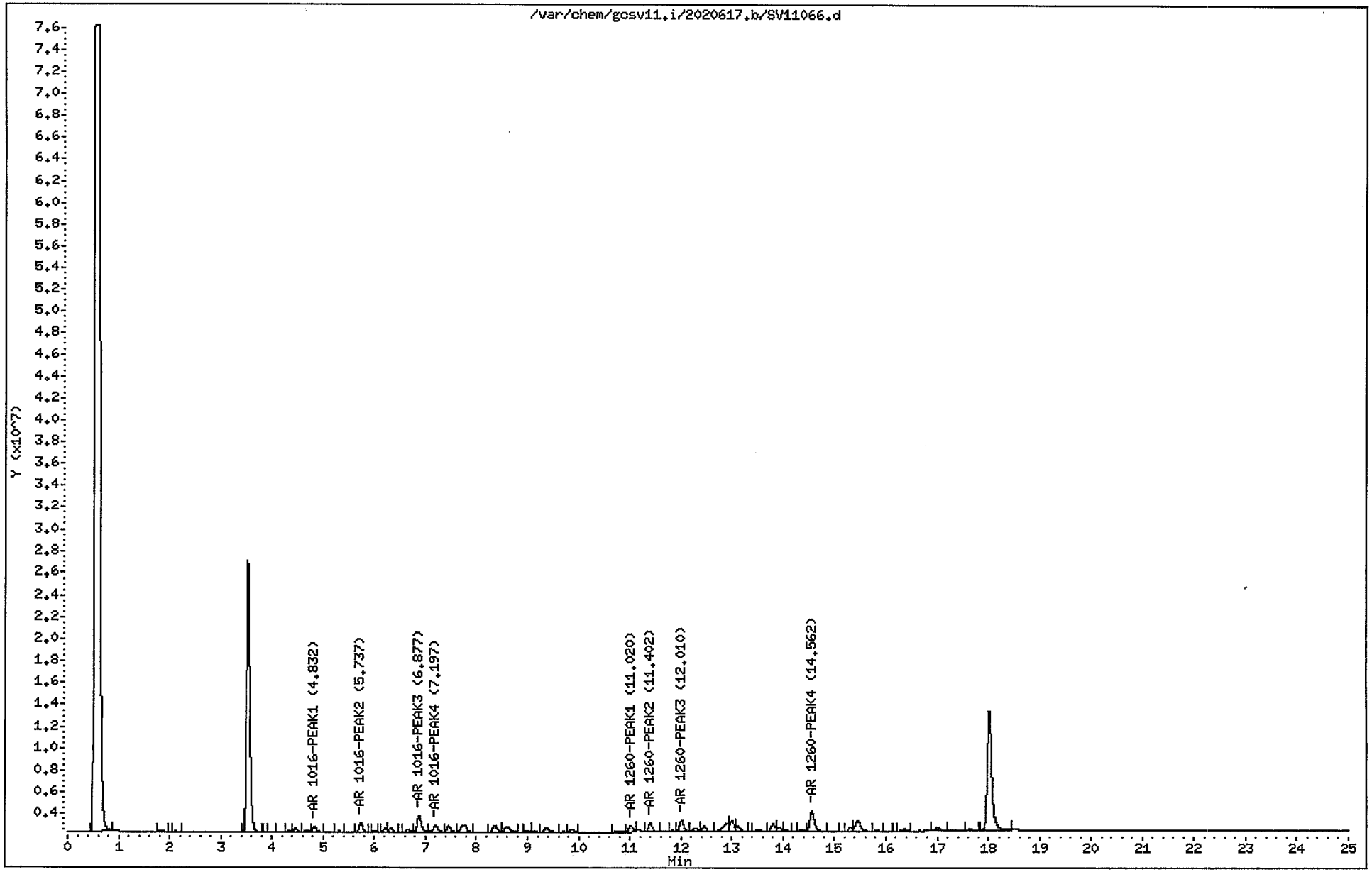
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
M 23 AR 1016-AVG				19659791	400.000	418.0091
24 AR 1016-PEAK1	4.832	4.835	-0.003	2447175	400.000	438.4406
25 AR 1016-PEAK2	5.737	5.737	0.000	4328156	400.000	426.5296
26 AR 1016-PEAK3	6.877	6.879	-0.002	8653038	400.000	411.9931
27 AR 1016-PEAK4	7.197	7.199	-0.002	4231422	400.000	410.8106
M 28 AR 1260-AVG				24673577	400.000	377.6552
29 AR 1260-PEAK1	11.020	11.019	0.001	2981454	400.000	362.6486
30 AR 1260-PEAK2	11.402	11.401	0.001	4197531	400.000	377.3972
31 AR 1260-PEAK3	12.010	12.009	0.001	6133654	400.000	384.6936
32 AR 1260-PEAK4	14.562	14.560	0.002	11360938	400.000	378.1220

Data File: /var/chem/gcsv11.i/2020617.b/SV11066.d
Date : 21-JUN-2002 11:33
Client ID: AR 1016/1260 III
Sample Info: AR 1016/1260 III
Volume Injected (uL): 1.0
Column phase: DB-1701-30M

Instrument: gcsv11.i
Operator: tnt
Column diameter: 0.53

000535



Data File: /var/chem/gcsv11.i/2020617.b/SV11078.d
Report Date: 26-Jun-2002 10:32

Gulf Coast Analytical Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv11.i
Lab File ID: SV11078.d
Analysis Type: SOIL
Lab Sample ID: AR 1016/1260

Injection Date: 21-JUN-2002 20:06
Init. Cal. Date(s): 17-JUN-2002 18-JUN-2002
Init. Cal. Times: 20:55 08:45
III Quant Type: ESTD

Method: /var/chem/gcsv11.i/2020617.b/pest1701a.m

	COMPOUND	RRF / AMOUNT	RF60	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
M	23 AR 1016-AVG	47032	46306	0.010	1.54420	15.00000	Averaged
	24 AR 1016-PEAK1	5582	5471	0.010	1.98273	15.00000	Averaged
	25 AR 1016-PEAK2	10147	10148	0.010	-0.01108	15.00000	Averaged
	26 AR 1016-PEAK3	21003	20524	0.010	2.28097	15.00000	Averaged
	27 AR 1016-PEAK4	10300	10163	0.010	1.33641	15.00000	Averaged
M	28 AR 1260-AVG	65334	65119	0.010	0.32878	15.00000	Averaged
	29 AR 1260-PEAK1	8221	8885	0.010	-8.07733	15.00000	Averaged
	30 AR 1260-PEAK2	11122	10864	0.010	2.31822	15.00000	Averaged
	31 AR 1260-PEAK3	15944	15941	0.010	0.02095	15.00000	Averaged
	32 AR 1260-PEAK4	30046	29428	0.010	2.05580	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 1.99565
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Data File: /var/chem/gcsv11.i/2020617.b/SV11078.d
Report Date: 26-Jun-2002 10:32

Gulf Coast Analytical Services

Data file : /var/chem/gcsv11.i/2020617.b/SV11078.d
Lab Smp Id: AR 1016/1260 III Client Smp ID: AR 1016/1260 III
Inj Date : 21-JUN-2002 20:06
Operator : tnt Inst ID: gcsv11.i
Smp Info : AR 1016/1260 III
Misc Info :
Comment :
Method : /var/chem/gcsv11.i/2020617.b/pest1701a.m
Meth Date : 26-Jun-2002 10:31 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 07:16 Cal File: SV11025.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ARO1260.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

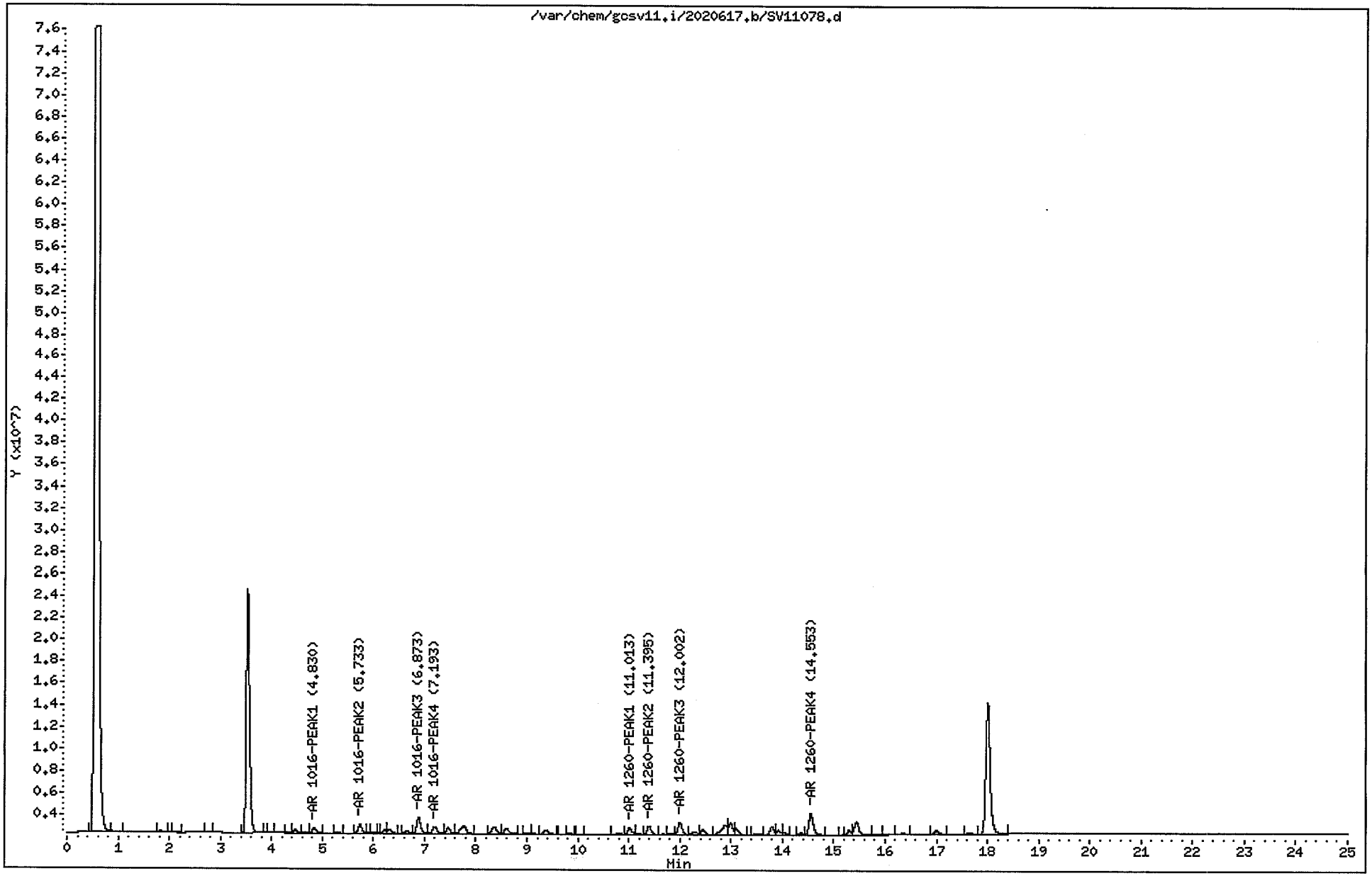
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/L)	AMOUNTS ON-COL (UG/L)
M 23 AR 1016-AVG				18522279	400.000	393.8231
24 AR 1016-PEAK1	4.830	4.835	-0.005	2188350	400.000	392.0690
25 AR 1016-PEAK2	5.733	5.737	-0.004	4059399	400.000	400.0443
26 AR 1016-PEAK3	6.873	6.879	-0.006	8209520	400.000	390.8761
27 AR 1016-PEAK4	7.193	7.198	-0.005	4065010	400.000	394.6543
M 28 AR 1260-AVG				26047518	400.000	398.6848
29 AR 1260-PEAK1	11.013	11.018	-0.005	3554157	400.000	432.3093
30 AR 1260-PEAK2	11.395	11.400	-0.005	4345790	400.000	390.7271
31 AR 1260-PEAK3	12.002	12.008	-0.006	6376366	400.000	399.9162
32 AR 1260-PEAK4	14.553	14.558	-0.005	11771205	400.000	391.7767

Data File: /var/chem/gcsv11.i/2020617.b/SV11078.d
Date : 21-JUN-2002 20:06
Client ID: AR 1016/1260 III
Sample Info: AR 1016/1260 III
Volume Injected (uL): 1.0
Column phase: DB-1701-30M

Instrument: gcsv11.i
Operator: tnt
Column diameter: 0.53



000538

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46420	Method Blank	Solid	06/21/2002 17:12

SW-846 8082

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/21/2002 08:00	145851	3540C	1	06/21/2002 12:09	SAB	146073

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
12674-11-	Aroclor-1016	ND	40.0		ug/Kg
11104-28-	Aroclor-1221	ND	40.0		ug/Kg
11141-16-	Aroclor-1232	ND	40.0		ug/Kg
53469-21-	Aroclor-1242	ND	40.0		ug/Kg
12672-29-	Aroclor-1248	ND	40.0		ug/Kg
11097-69-	Aroclor-1254	ND	40.0		ug/Kg
11096-82-	Aroclor-1260	ND	40.0		ug/Kg

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
877-09-8	Tetrachloro-m-xylene	16.7	23 ug/Kg	138	60 - 150
2051-24-3	Decachlorobiphenyl	16.7	23.8 ug/Kg	143	60 - 150

Data File: /var/chem/gcsv11.i/2020617.b/SV11067.d
Report Date: 26-Jun-2002 10:31

Gulf Coast Analytical Services

Data file : /var/chem/gcsv11.i/2020617.b/SV11067.d
Lab Smp Id: 46420 Client Smp ID: 46420
Inj Date : 21-JUN-2002 12:09
Operator : tnt Inst ID: gcsv11.i
Smp Info : 46420
Misc Info :
Comment :
Method : /var/chem/gcsv11.i/2020617.b/pest1701a.m
Meth Date : 26-Jun-2002 10:31 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 07:16 Cal File: SV11025.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pcb.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/L)	CONCENTRATIONS FINAL (ug/Kg)	
$ 1 Tetrachloro-m-xylene	3.522	3.524	-0.002	17295543	69.1768	23.0589	
$ 22 Decachlorobiphenyl	18.007	18.006	0.001	12552195	71.4148	23.8049	
M 33 AR 1260-AVGII				187348			(a)
34 AR 1260-PEAK5	0.982	1.001	-0.019	187348			(a)

QC Flag Legend

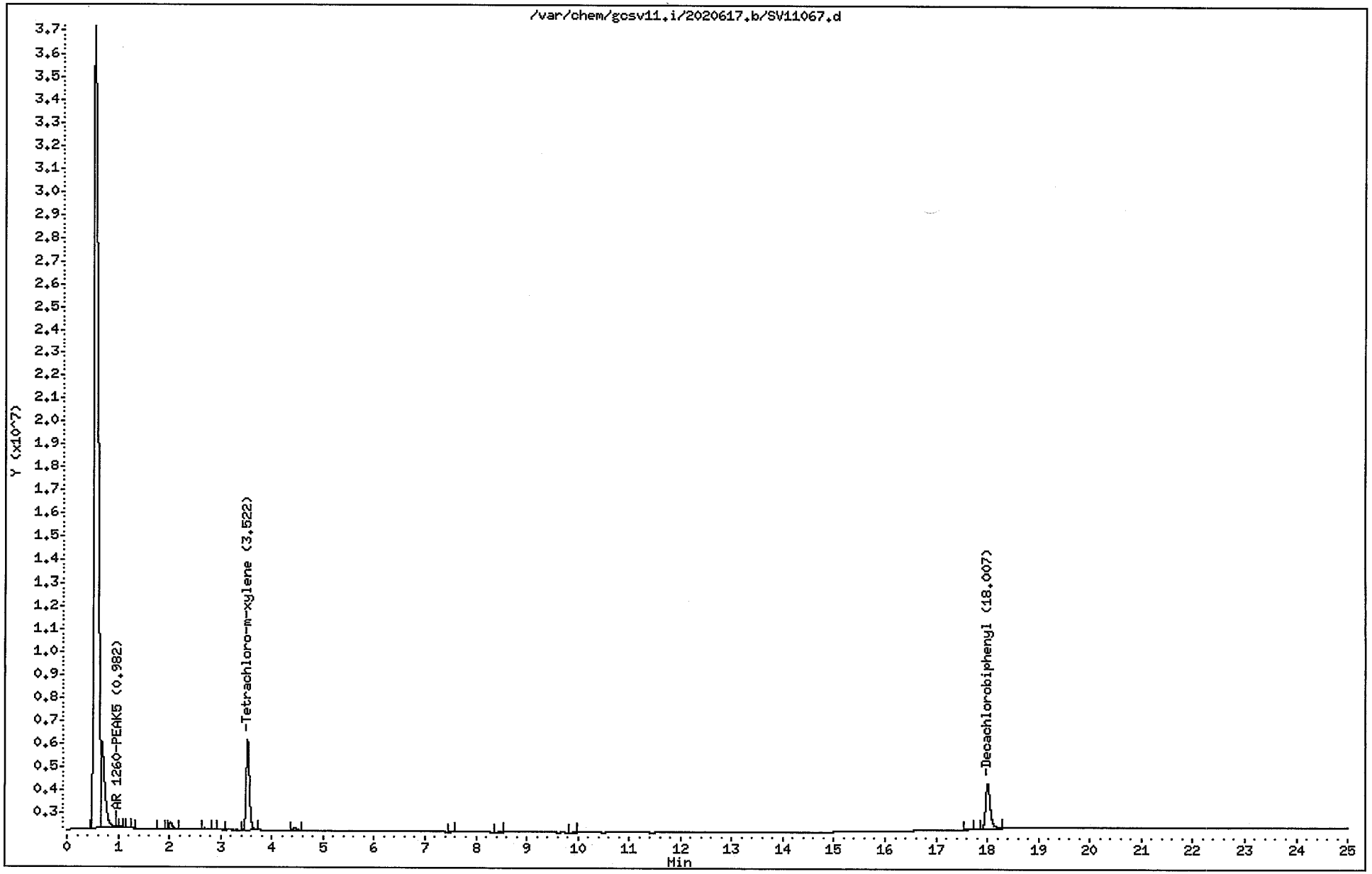
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /var/chem/gcsv11.i/2020617.b/SV11067.d
Date : 21-JUN-2002 12:09
Client ID: 46420
Sample Info: 46420
Volume Injected (uL): 1.0
Column phase: DB-1701-30M

Instrument: gcsv11.i

Operator: tnt
Column diameter: 0.53

000541



QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46421	Lab Control Sample	Solid	06/21/2002 17:12

SW-846 8082

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/20/2002 10:30	145851	3540C	1	06/21/2002 12:39	SAB	146073

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
12674-11-	**Aroclor-1016**	**115**	**40.0**		**ug/Kg**
11104-28-	Aroclor-1221	ND	40.0		ug/Kg
11141-16-	Aroclor-1232	ND	40.0		ug/Kg
53469-21-	Aroclor-1242	ND	40.0		ug/Kg
12672-29-	Aroclor-1248	ND	40.0		ug/Kg
11097-69-	Aroclor-1254	ND	40.0		ug/Kg
11096-82-	**Aroclor-1260**	**125**	**40.0**		**ug/Kg**

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
877-09-8	**Tetrachloro-m-xylene**	16.7	19.7 ug/Kg	118	60 - 150
2051-24-3	**Decachlorobiphenyl**	16.7	21.2 ug/Kg	127	60 - 150

Data File: /var/chem/gcsv11.i/2020617.b/SV11068.d
Report Date: 26-Jun-2002 10:31

Gulf Coast Analytical Services

Data file : /var/chem/gcsv11.i/2020617.b/SV11068.d
Lab Smp Id: 46421 Client Smp ID: 46421
Inj Date : 21-JUN-2002 12:39
Operator : tnt Inst ID: gcsv11.i
Smp Info : 46421
Misc Info :
Comment :
Method : /var/chem/gcsv11.i/2020617.b/pest1701a.m
Meth Date : 26-Jun-2002 10:31 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 07:16 Cal File: SV11025.d
Als bottle: 2 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pcb.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/L)	FINAL (ug/Kg)
$ 1 Tetrachloro-m-xylene	3.525	3.524	0.001	14781088	59.1198	19.7065
$ 22 Decachlorobiphenyl	18.005	18.006	-0.001	11178979	63.6020	21.2006
M 23 AR 1016-AVG				16225713	344.993	114.9977
24 AR 1016-PEAK1	4.832	4.835	-0.003	1976085	354.039	118.0130
25 AR 1016-PEAK2	5.733	5.737	-0.004	3548255	349.672	116.5574
26 AR 1016-PEAK3	6.875	6.879	-0.004	7333324	349.158	116.3860
27 AR 1016-PEAK4	7.195	7.199	-0.004	3368049	326.989	108.9964
M 28 AR 1260-AVG				24585273	376.304	125.4345
29 AR 1260-PEAK1	11.013	11.019	-0.006	3901861	474.602	158.2007
30 AR 1260-PEAK2	11.397	11.401	-0.004	4353962	391.462	130.4872
31 AR 1260-PEAK3	12.003	12.009	-0.006	6458112	405.043	135.0143
32 AR 1260-PEAK4	14.553	14.560	-0.007	9871338	328.544	109.5147

Data File: /var/chem/gcsv11.i/2020617.b/SV11068.d
Report Date: 26-Jun-2002 10:31

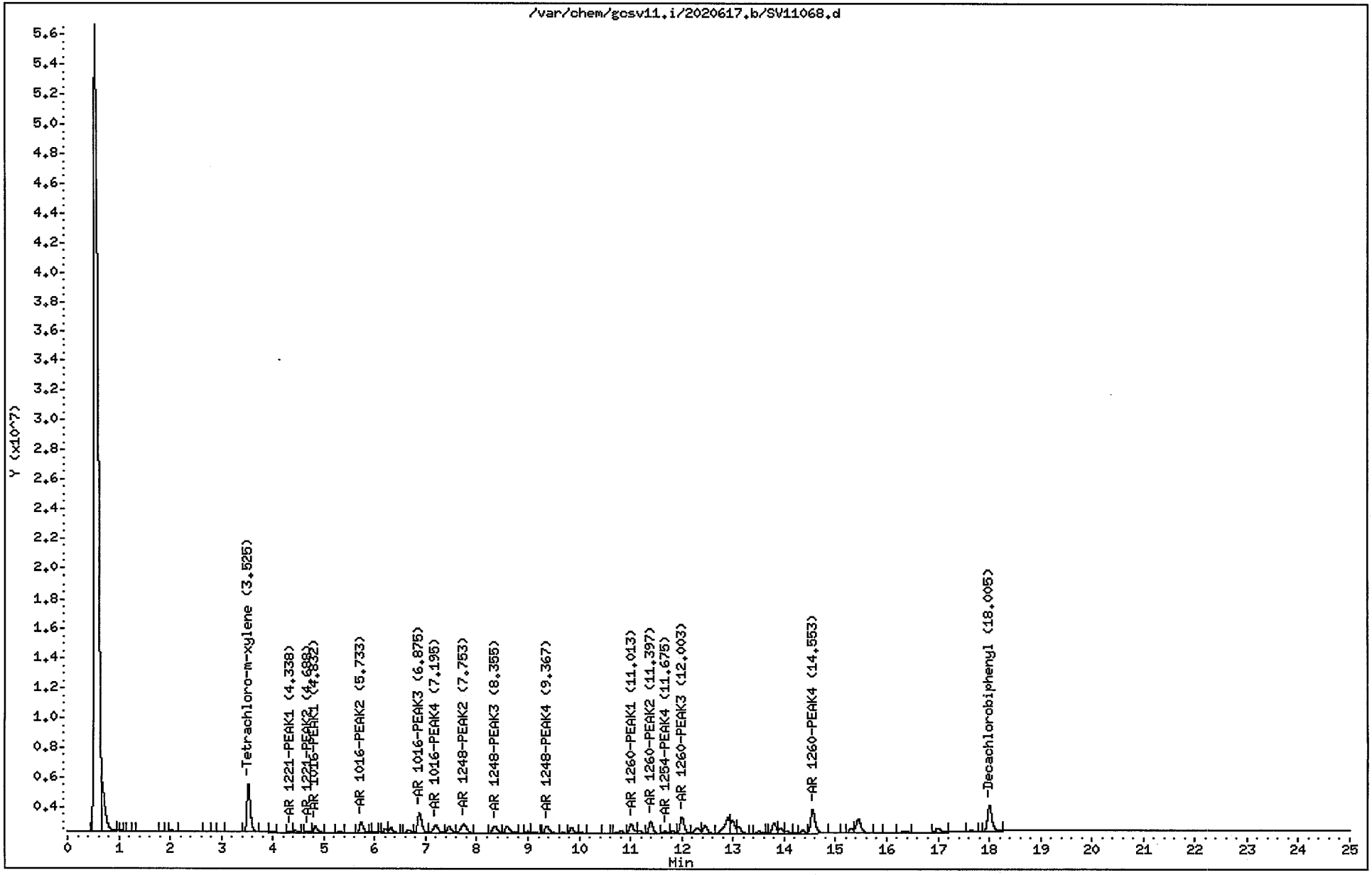
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/L)	FINAL (ug/Kg)
M 37 AR 1221-AVG				674659	50.0791	16.6930
38 AR 1221-PEAK1	4.338	4.338	0.000	312985	102.120	34.0401
39 AR 1221-PEAK2	4.688	4.690	-0.002	361674	179.133	59.7109
M 52 AR 1248-AVG				10658265	182.229	60.7430
54 AR 1248-PEAK2	7.753	7.752	0.001	4591960	289.684	96.5612
55 AR 1248-PEAK3	8.355	8.357	-0.002	2825108	250.002	83.3339
56 AR 1248-PEAK4	9.367	9.407	-0.040	3241197	502.782	167.5941
M 57 AR 1254-AVG				879752	20.2955	6.7651
61 AR 1254-PEAK4	11.675	11.675	0.000	879752	75.9209	25.3069

Data File: /var/chem/gcsv11.i/2020617.b/SV11068.d
Date : 21-JUN-2002 12:39
Client ID: 46421
Sample Info: 46421
Volume Injected (uL): 1.0
Column phase: DB-1701-30M

Instrument: gcsv11.i

Operator: tnt
Column diameter: 0.53

000545



QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
46671	Lab Control Sample Duplicate	Solid	06/21/2002 17:12

SW-846 8082

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/21/2002 08:00	145851	3540C	1	06/21/2002 13:08	SAB	146073

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
12674-11-	**Aroclor-1016**	**116**	**40.0**		**ug/Kg**
11104-28-	Aroclor-1221	ND	40.0		ug/Kg
11141-16-	Aroclor-1232	ND	40.0		ug/Kg
53469-21-	Aroclor-1242	ND	40.0		ug/Kg
12672-29-	Aroclor-1248	ND	40.0		ug/Kg
11097-69-	Aroclor-1254	ND	40.0		ug/Kg
11096-82-	**Aroclor-1260**	**126**	**40.0**		**ug/Kg**

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
877-09-8	**Tetrachloro-m-xylene**	16.7	20 ug/Kg	120	60 - 150
2051-24-3	**Decachlorobiphenyl**	16.7	21.2 ug/Kg	127	60 - 150

Data File: /var/chem/gcsv11.i/2020617.b/SV11069.d
Report Date: 26-Jun-2002 10:31

Gulf Coast Analytical Services

Data file : /var/chem/gcsv11.i/2020617.b/SV11069.d
Lab Smp Id: 46671 Client Smp ID: 46671
Inj Date : 21-JUN-2002 13:08
Operator : tnt Inst ID: gcsv11.i
Smp Info : 46671
Misc Info :
Comment :
Method : /var/chem/gcsv11.i/2020617.b/pest1701a.m
Meth Date : 26-Jun-2002 10:31 sab Quant Type: ESTD
Cal Date : 18-JUN-2002 07:16 Cal File: SV11025.d
Als bottle: 3 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pcb.sub
Target Version: 3.50
Processing Host: hpchem

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/L)	FINAL (ug/Kg)
$ 1 Tetrachloro-m-xylene	3.523	3.524	-0.001	14970568	59.8776	19.9592
$ 22 Decachlorobiphenyl	18.002	18.006	-0.004	11205664	63.7538	21.2512
M 23 AR 1016-AVG				16368685	348.033	116.0110
24 AR 1016-PEAK1	4.830	4.835	-0.005	1985752	355.771	118.5904
25 AR 1016-PEAK2	5.732	5.737	-0.005	3581500	352.948	117.6494
26 AR 1016-PEAK3	6.873	6.879	-0.006	7391936	351.949	117.3162
27 AR 1016-PEAK4	7.193	7.199	-0.006	3409497	331.013	110.3378
M 28 AR 1260-AVG				24638779	377.123	125.7075
29 AR 1260-PEAK1	11.012	11.019	-0.007	3919033	476.691	158.8969
30 AR 1260-PEAK2	11.393	11.401	-0.008	4346654	390.805	130.2682
31 AR 1260-PEAK3	12.002	12.009	-0.007	6459472	405.128	135.0428
32 AR 1260-PEAK4	14.553	14.560	-0.007	9913620	329.951	109.9838

Data File: /var/chem/gcsv11.i/2020617.b/SV11069.d
Report Date: 26-Jun-2002 10:31

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/L)	CONCENTRATIONS FINAL (ug/Kg)	
M 33 AR 1260-AVGII				1010074			(a)
34 AR 1260-PEAK5	1.043	1.001	0.042	707725			(a)
36 AR 1260-PEAK7	0.978	0.953	0.025	302349			(a)
M 37 AR 1221-AVG				664738	49.3427	16.4475	
38 AR 1221-PEAK1	4.337	4.338	-0.001	303871	99.1468	33.0489	
39 AR 1221-PEAK2	4.685	4.690	-0.005	360867	178.733	59.5776	
M 52 AR 1248-AVG				10672509	182.473	60.8242	
54 AR 1248-PEAK2	7.750	7.752	-0.002	4623697	291.686	97.2286	
55 AR 1248-PEAK3	8.352	8.357	-0.005	2822168	249.742	83.2472	
56 AR 1248-PEAK4	9.365	9.407	-0.042	3226644	500.525	166.8416	
M 57 AR 1254-AVG				880862	20.3211	6.7737	
61 AR 1254-PEAK4	11.673	11.675	-0.002	880862	76.0167	25.3389	

QC Flag Legend

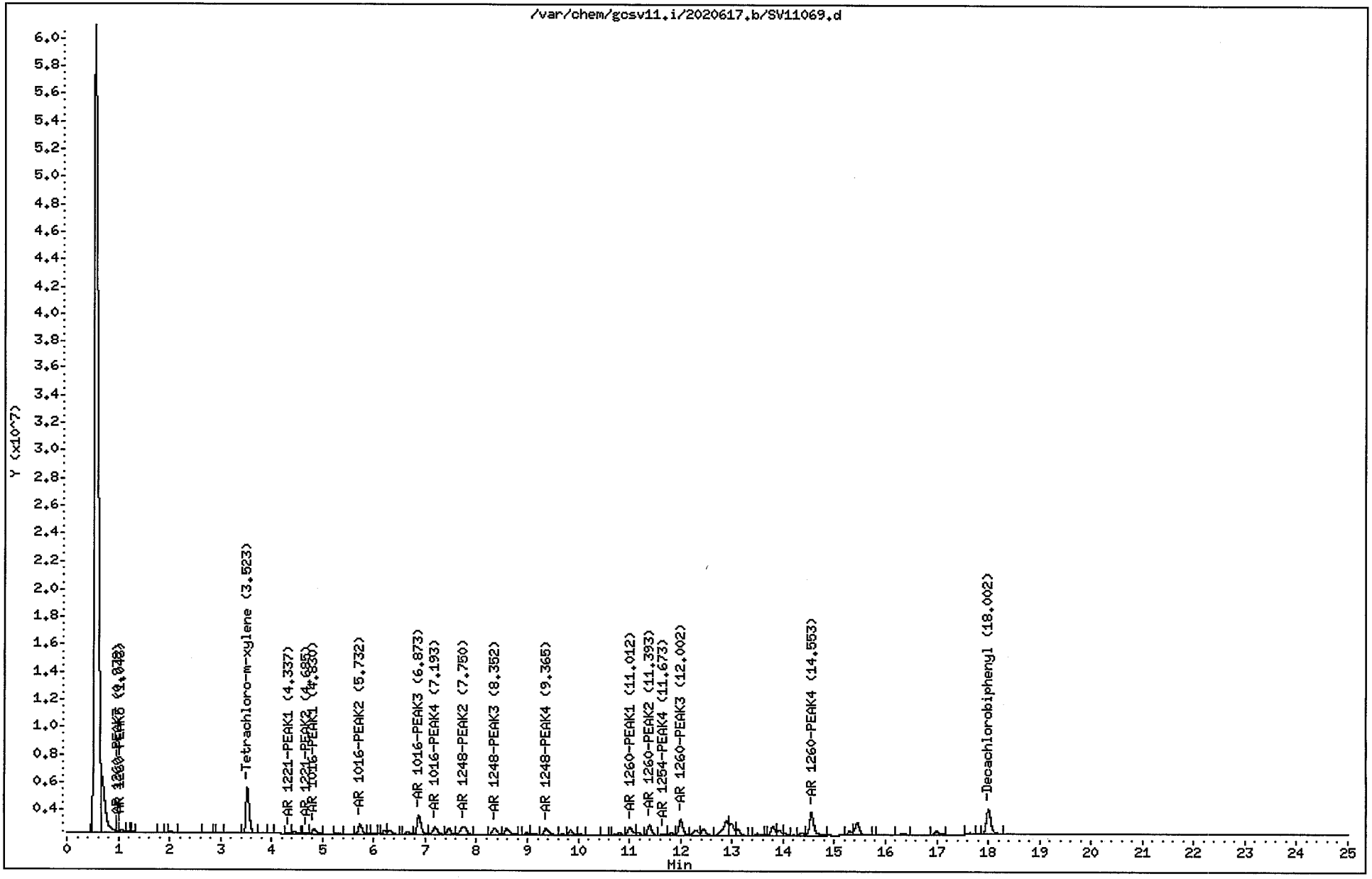
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /var/chem/gcsv11.i/2020617.b/SV11069.d
Date : 21-JUN-2002 13:08
Client ID: 46671
Sample Info: 46671
Volume Injected (uL): 1.0
Column phase: DB-1701-30M

Instrument: gcsv11.i

Operator: tnt
Column diameter: 0.53

000549



PCB

PESTICIDE SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME: 06/21/02 08:00

MATRIX: _____ WATER ✓ SOIL _____ OTHER

LEVEL: ✓ LOW _____ MEDIUM

BATCH# 145850 145851

	CLIENT & GROUP #	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	Initial pH	COMMENTS	METHOD
1	46415 46420	0621PBLK	30.0	10.0			
2	46416	0621LCS	30.0	10.0		608	LIQUID LIQUID/3520
3	CH2M HILL	20206200201	30.0	10.0			
4	46417	20206200201MS	30.0	10.0		608	SEPARATIORY FUNNEL/3510
5	46418	20206200201MSD	30.0	10.0			
6		20206200202	30.0	10.0			GPC CLEANUP/3640
7	[redacted]	20206201101	30.0	10.0			
8	46422 ~~46422~~ SKB 06/21/02	20206201101MS	30.0	10.0		PCB	✓ SONICATOR/3550
9	46423	20206201101MSD	30.0	10.0			
10	46421	0621LCS	30.0	10.0			FLORISIL CLEANUP/3620
11	46671	0621LCSD	30.0	10.0			
12							✓ PCB SULFURIC ACID/3665A CLEAN UP
13							
14							WASTE DILUTION/3580
15							TCLP EXTRACTION FLUID #1
16							
17							
18							TCLP EXTRACTION FLUID #2
19							
20							MECL2/Acetone No: 1-45-2
21							
22							ACETONE LOT NO: 012684
23							
24							MeCL2 Lot No: 013600
25							
26							HEXANE Lot No: 029497
27							
28							Sodium Sulfate Lot No: 020966

SKB 06/24/02

COMMENTS: SAMPLE PREPARATION INCLUDES DETERMINATION OF SAMPLE VOLUME/WEIGHT, SOLVENT EXTRACTION AND EVAPORATION OF SOLVENT TO FINAL VOLUME

SURROGATE ID 8-131-3
VOLUME 1.0 mL
CONCENTRATION 0.5 ug/mL

~~8081~~ PCB SPIKE ID 8-130-3
VOLUME 1.0 mL
CONCENTRATION 4.0 ug/mL

608 SPIKE ID 8-124-3
VOLUME 0.5 mL
CONCENTRATION 1.0 ug/mL

ACID _____

SPIKE WITNESS WES

TECHNICIAN _____ DATE _____

John Bailey 06/21/02

SUPERVISOR DATE

LABORATORY CHRONICLE: GCSV DEPARTMENT

Date: 06/26/2002
Instrument: gcsv11.i
Method File: /var/chem/gcsv11.i/2020617.b/pest1701a.m
Batch: /var/chem/gcsv11.i/2020617.b
Column-Detector: DB-1701-30M

Sample ID	ClientName	DataFile	Injection Time	DilFactor	Anal	Comments
		SV11001.d	17-JUN-2002 19:26	1.000	tnt	
		SV11002.d	17-JUN-2002 19:56	1.000	tnt	
DEG STD		SV11003.d	17-JUN-2002 20:25	1.000	tnt	
IND A I		SV11004.d	17-JUN-2002 20:55	1.000	tnt	
IND A II		SV11005.d	17-JUN-2002 21:24	1.000	tnt	
IND A III		SV11006.d	17-JUN-2002 21:54	1.000	tnt	
IND A III ICV		SV11007.d	17-JUN-2002 22:23	1.000	tnt	
IND A IV		SV11008.d	17-JUN-2002 22:53	1.000	tnt	
IND A V		SV11009.d	17-JUN-2002 23:23	1.000	tnt	
IND B I		SV11010.d	17-JUN-2002 23:52	1.000	tnt	
IND B II		SV11011.d	18-JUN-2002 00:22	1.000	tnt	
IND B III		SV11012.d	18-JUN-2002 00:51	1.000	tnt	
IND B III ICV		SV11013.d	18-JUN-2002 01:21	1.000	tnt	
IND B IV		SV11014.d	18-JUN-2002 01:51	1.000	tnt	
IND B V		SV11015.d	18-JUN-2002 02:20	1.000	tnt	
CHLORDANE V		SV11016.d	18-JUN-2002 02:50	1.000	tnt	
TOXAPHENE V		SV11017.d	18-JUN-2002 03:20	1.000	tnt	
AR 1221 III		SV11018.d	18-JUN-2002 03:49	1.000	tnt	
AR 1232 III		SV11019.d	18-JUN-2002 04:19	1.000	tnt	
AR 1242 III		SV11020.d	18-JUN-2002 04:49	1.000	tnt	
AR 1248 III		SV11021.d	18-JUN-2002 05:18	1.000	tnt	
AR 1254 III		SV11022.d	18-JUN-2002 05:48	1.000	tnt	
AR 1016/1260 I		SV11023.d	18-JUN-2002 06:17	1.000	tnt	
AR 1016/1260 II		SV11024.d	18-JUN-2002 06:47	1.000	tnt	
AR 1016/1260 III		SV11025.d	18-JUN-2002 07:16	1.000	tnt	
AR 1016/1260 III I		SV11026.d	18-JUN-2002 07:46	1.000	tnt	
AR 1016/1260 IV		SV11027.d	18-JUN-2002 08:15	1.000	tnt	
AR 1016/1260 V		SV11028.d	18-JUN-2002 08:45	1.000	tnt	
DEG STD		SV11029.d	18-JUN-2002 09:23	1.000	tnt	
DEG STD		SV11030.d	19-JUN-2002 10:24	1.000	tnt	
IND A III		SV11031.d	19-JUN-2002 10:53	1.000	tnt	
IND B III		SV11032.d	19-JUN-2002 11:23	1.000	tnt	
AR 1016/1260 III		SV11033.d	19-JUN-2002 14:18	1.000	tnt	
43671		SV11034.d	19-JUN-2002 18:09	1.000	tnt	
43672		SV11035.d	19-JUN-2002 18:39	1.000	tnt	
20206041001		SV11036.d	19-JUN-2002 19:08	5.000	tnt	

REVISED 6-1-95 Supervisor Review: QA Review:

LABORATORY CHRONICLE: GCSV DEPARTMENT

Date: 06/26/2002
Instrument: gcsv11.i
Method File: /var/chem/gcsv11.i/2020617.b/pest1701a.m
Batch: /var/chem/gcsv11.i/2020617.b
Column-Detector: DB-1701-30M

Sample ID	ClientName	DataFile	Injection Time	DilFactor	Anal	Comments
20206041002		SV11037.d	19-JUN-2002 19:38	1.000	tnt	
20206041003		SV11038.d	19-JUN-2002 20:08	1.000	tnt	
20206041004		SV11039.d	19-JUN-2002 20:37	1.000	tnt	
20206041005		SV11040.d	19-JUN-2002 21:07	1.000	tnt	
20206041008		SV11041.d	19-JUN-2002 21:36	10.000	tnt	
20206041009		SV11042.d	19-JUN-2002 22:06	10.000	tnt	
20206041010		SV11043.d	19-JUN-2002 22:36	1.000	tnt	
IND A III		SV11044.d	19-JUN-2002 23:05	1.000	tnt	
IND A III		SV11045.d	19-JUN-2002 23:35	1.000	tnt	
IND A III		SV11046.d	20-JUN-2002 00:04	1.000	tnt	
20206041011		SV11047.d	20-JUN-2002 00:34	1.000	tnt	
20206041012		SV11048.d	20-JUN-2002 01:03	1.000	tnt	
20206041012MS		SV11049.d	20-JUN-2002 01:33	1.000	tnt	
20206041012MSD		SV11050.d	20-JUN-2002 02:03	1.000	tnt	
20206041013		SV11051.d	20-JUN-2002 02:32	1.000	tnt	
20206041014		SV11052.d	20-JUN-2002 03:02	1.000	tnt	
20206041015		SV11053.d	20-JUN-2002 03:31	1.000	tnt	
HEXANE		SV11054.d	20-JUN-2002 04:01	1.000	tnt	
DEG STD		SV11055.d	20-JUN-2002 09:19	1.000	tnt	
IND A III		SV11056.d	20-JUN-2002 09:48	1.000	tnt	
IND B III		SV11057.d	20-JUN-2002 10:18	1.000	tnt	
AR 1016/1260 III		SV11058.d	20-JUN-2002 12:36	1.000	tnt	
46420		SV11059.d	20-JUN-2002 13:27	1.000	tnt	
46421		SV11060.d	20-JUN-2002 13:56	1.000	tnt	
20206200201		SV11061.d	20-JUN-2002 14:26	1.000	tnt	
20206200202		SV11062.d	20-JUN-2002 14:55	1.000	tnt	
46422		SV11063.d	20-JUN-2002 15:25	1.000	tnt	
46423		SV11064.d	20-JUN-2002 15:55	1.000	tnt	
AR 1016/1260 III		SV11065.d	20-JUN-2002 16:24	1.000	tnt	
AR 1016/1260 III		SV11066.d	21-JUN-2002 11:33	1.000	tnt	
46420		SV11067.d	21-JUN-2002 12:09	1.000	tnt	
46421		SV11068.d	21-JUN-2002 12:39	1.000	tnt	
46671		SV11069.d	21-JUN-2002 13:08	1.000	tnt	
20206200201		SV11070.d	21-JUN-2002 13:38	1.000	tnt	
20206200202		SV11071.d	21-JUN-2002 14:07	1.000	tnt	
20206201101		SV11072.d	21-JUN-2002 15:52	1.000	tnt	

REVISED 6-1-95 Supervisor Review: QA Review:

LABORATORY CHRONICLE: GCSV DEPARTMENT

Date: 06/26/2002
Instrument: gcsv11.i
Method File: /var/chem/gcsv11.i/2020617.b/pest1701a.m
Batch: /var/chem/gcsv11.i/2020617.b
Column-Detector: DB-1701-30M

Sample ID	ClientName	DataFile	Injection Time	DilFactor	Anal	Comments
46672		SV11073.d	21-JUN-2002 16:22	1.000	tnt	
46673		SV11074.d	21-JUN-2002 16:51	1.000	tnt	
AR 1016/1260 III		SV11075.d	21-JUN-2002 18:08	1.000	tnt	
20206041006		SV11076.d	21-JUN-2002 19:07	1.000	tnt	
20206041007		SV11077.d	21-JUN-2002 19:37	1.000	tnt	
AR 1016/1260 III		SV11078.d	21-JUN-2002 20:06	1.000	tnt	

REVISED 6-1-95 Supervisor Review: QA Review:

STANDARD PREPARATION LOGBOOK

STANDARD NAME	STD#	STOCK STD CONC	SUPPLIER	LOT#/ EXP DATE	WT/VOL g/ml	FINAL VOL(ml)	FINAL CONC	SOLVENT/ LOT#	INITIAL	DATE PREPARED	EXP DATE
IND A ICU	58-3-1	4-8796 5/10	Supelco	LA-98040 5/2004	0.6mL	50mL	60/120 ppb	Hexane BL110	TLS	5/30/02	11/30/02
Glycol STD (Fish)	58-3-2	Neat Neat	Aldrich Aldrich	~~55 03051 PR~~ 04761DZ INT 6/13/02 LU07323DU	0.25g 0.25g	25mls 25mls	10,000ppm	DI water	TNT	5/30/02	5/30/03
IND A I	58-3-3	clp 216 5/10ppb	ultra	P-7012 10/2003	50uL	50mLs	5/10 ppb	Hexane BL110	TLS	5/31/02	11-31-02
IND A II	58-3-4	clp 216 5/10 ppb	ultra	P-7012 10/2003	200uL	50mLs	20/40 ppb	Hexane BL110	TLS	5/31/02	11-31-02
IND A IV	58-3-5	clp 216 5/10ppb	ultra	P-7012 10/2003	800uL	50mLs	80/160 ppb	Hexane BL110	TLS	5/31/02	11-31-02
IND A V	58-3-6	clp 216 5/10ppb	ultra	P-7012 10-2003	1.0mL	50mLs	100/200 ppb	Hexane BL110	TLS	5/31/02	11-31-02
IND B I	58-3-7	clp 226B 5/10 ppm	ultra	S-0470 5/2003	50uL	50mLs	5/10 ppb	Hexane 024497	TLS	5/31/02	11-31-02
IND B II	58-3-8	clp 226B 5/10 ppm	ultra	S-0470 5/2003	200uL	50mLs	20/40 ppb	Hexane 024497	TLS	5/31/02	11-31-02
IND B IV	58-3-9	clp 226B 5/10 ppm	ultra	S-0470 5-2003	800uL	50mLs	80/160 ppb	Hexane 024497	TLS	5/31/02	11-31-02
IND B V	58-3-10	clp 226B 5/10ppm	ultra	S-0470 5-2003	1.0mL	50mLs	100/200 ppb	Hexane 024497	TLS	5/31/02	11-31-02

STANDARD PREPARATION LOGBOOK

STANDARD NAME	STD#	STOCK STD CONC	SUPPLIER	LOT#/ EXP DATE	WT/VOL g/ml	FINAL VOL(ml)	FINAL CONC	SOLVENT/ LOT#	INITIAL	DATE PREPARED	EXP DATE
ex mix Spike	58-2-1	100ug/mL	NSI	110101 11/02	1.0mL	10mL	10,000ppb	Hexane BL110	TLS	4-15-02	10-15-02
nd A III	58-2-2	5/10 ppm Clp 216	ultra	P 7012 10/2003	600uL	50mL	60/120 ppm	Hexane BL110	TLS	4-23-02	10-23-02
Date 3/25/02 - 4/23/02 Reviewed by QA/QC on 4/23/02 [illegible]											
NCASI 99.01 STD.	58-2-3	NEAT(MeOH) NEAT(Acetaldehyde) NEAT(2-butanol) NEAT(Propanol)	Aldrich Aldrich Aldrich Aldrich	HO 0124 HO 07348 KI ED183 EG EO 80K3728	0.64 mls 64uL 62uL 62uL	50ml	16,000ppm 1000ppm 1000ppm 1000ppm	DI WATER	TNT	5/1/02	6/1/03
016/1260 IV	58-2-4	100ug-1016 100ug-1260 200-Post Surrogate	ultra	S-1072 9/2005 S-6793 7/2005 S-0624 6/2004	800uL 800uL 40uL	50mL	160/1600 ppb	Hexane BL110	TLS	5/9/02	11-9-02 TLS
Acetone	58-2-5	Neat	Fisher	972630	0.1g	10ml	10,000ppm	CS2	TNT	5/9/02	5/9/03
ND B III	58-2-6	5/10ppm	ultra Clp-226B	S-0470 5/2003	600uL	50mL	60/120 ppb	Hexane BL110	TLS	5/14/02	11-14-02
TX 1005	58-2-7	Neat GAS Neat Diesel	Circle K Texaco	NA	0.1g 0.1g	10ml	10,000ppm ~~0075Hg~~ TNT 5/21/02	DCM 007516	TNT	5/21/02	5/21/03

000555

STANDARD PREPARATION LOGBOOK

STANDARD NAME	STD#	STOCK STD CONC	SUPPLIER	LOT#/ EXP DATE	WT/VOL G/ML	FINAL VOL(ML)	FINAL CONC	SOLVENT/ LOT#	INITIAL	DATE PREPARED	EXP DATE
PRO Standard 150ppm	51-50-1	See 51-49-8	—	—	75ml 150ml 25ml	1.0ml	150 ppm 300 ppm 50 ppm	DCM	SAB	03/13/02	08/13/02
PRO Standard 250 ppm	51-50-2	See 51-49-8	—	—	125ml 150ml 25ml	1.0ml	250 ppm 300 ppm 50 ppm	DCM	SAB	03/13/02	08/13/02
PRO Standard 350ppm	51-50-3	See 51-49-8	—	—	175ml 150ml 25ml	1.0ml	350 ppm 300 ppm 50 ppm	DCM	SAB	03/13/02	08/13/02
PRO Standard 500ppm	51-50-4	See 51-49-8	—	—	250 ml 150 ml 25 ml	1.0 ml	500 ppm 300 ppm 50 ppm	DCM	SAB	03/13/02	08/13/02
IND A III	51-50-5	5/10ppm CIP 216	ultrA	P-7012 10/2003	600uL	50mL	60/120 ppb	Hexane	TLS	03/14/02	08/14/02
IND B III	51-50-6	5/10ppm	ultrA CIP226B	S-0470 5/2003	3-19-02 TLS ~~400uL~~ 600uL	50mL	60/120 ppb	Hexane	TLS	3/19/02	9/19/02
Chlor II	51-50-7	1000ug/mL	ultrA PP-151	P-1507 11-2003	200ul	50mL	400 ppb	Hexane	TLS	3/19/02	9/19/02
Tox II	51-50-8	1000ug/mL	ultrA EPA1161	M-0169 2-2004	250ul	50 mL	5000ppb	Hexane	TLS	3/19/02	9-19-02
				3-20 TLS							
				3-20 TLS							

Notes 3/13/02 – 3/19/02 Reviewed by QA/QC on 3/25/02 [illegible]

STANDARD PREPARATION LOGBOOK

STANDARD NAME	STD#	STOCK STD CONC	SUPPLIER	LOT#/ EXP DATE	WT/VOL G/ML	FINAL VOL(ML)	FINAL CONC	SOLVENT/ LOT#	INITIAL	DATE PREPARED	EXP DATE
meoH	51-49-1	Neat	mallinckrodt	V073	0.25gm	25mL	10,000 ppm	Di H2O	TLS	01/22/02	07/22/02
DEG Standard	51-49-2	0.2ug/mL	Accu Standard	B011043b Nov29,2002	40ul	100 mL	80ppb	Hexane	TLS	02/18/02	08/02/02
1016/1260 III	51-49-3	100ug/mL 100ug/mL 200ug/mL	ultra 1016 " 1260 ultra pest surrogate	S-1672 9/2005 S-0793 7/2005 S-0624 6/2004	400ul 400ul 20ul	100mL	40/400 ppb	Hexane	TLS	02/18/02	08/18/02
methanol ~~ISS~~ TNT 2/25/02	51-49-4	Neat	Aldrich	HO D127110	0.1gm.	100mL	1,000 ppm	Di H2O	TLS	02/18/02	08/18/02
Internal standard for meoH Cyclohexanol	51-49-5	Neat	Aldrich	DO 10206CO	0.3gm	100mL	3,000ppm	Di H2O	TLS	02/18/02	08/18/02
Dates	1/22/02 – 2/18/02			Reviewed	By	QA/QC	on	2/21/02	Qw		
TPP	51-49-6 500ug/mL	PPS-110 Triphenyl Phosphine Solution	ultra	m-428B 1/2003	500ul	50mL	5000ppb	Hexane	TLS	2/21/02	8/21/02
PHENOL MIX	51-49-7	EPA-1155 500ug/ml ATS-180 2000ug/ml PH-150 1000ug/ml	ultra ultra ultra	M-1513 11/02 A0737 4/03 P-0108 2/03	0.4ml 1.0ml 2.0ml	10ml	200ppm	DCM	TNT	3/7/02	9/7/02
PRO Standard 5 ppm	51-49-8	C-443-09 2000ug/ml T-0130 2000ug/ml P-1550 2000ug/ml	NSI ultra ultra	10/03 02/07 11/03	2.5ul 150ul 25ul	1.0ml	5ppm 300 ppm 50 ppm	DCM	SAB	02/13/02	08/13/02
PRO Standard 50ppm	51-49-9	See 51-49-8	—	—	25ul 150ul 25ul	1.0ml	50 ppm 300ppm 50 ppm	DCM	SAB	02/13/02	08/13/02

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 202062002

SOW No.:

EPA Sample No.	*Lab Sample ID.*
046-BF-S-0619-02	20206200201
046-RB-S-0619-02	20206200202

Were ICP interelement corrections applied ? Yes / No YES

Were ICP background corrections applied ? Yes / No YES

If yes-were raw data generated before application of background corrections ? Yes / No NO

U.S. EPA - CLP
INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL
Sample ID: 046-BF-S-0619-02
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Soil
SAS No.:
SDG No.: 202062002
Level: (low / med)
% Solids: 86.10
Lab Sample ID: 20206200201
Date Received: 06/20/02
Time: 0905
Date Collected: 06/19/02
Time: 0940

Analyte	Concentration	Units	C	Q	MDL	PQL	Method	Type
Aluminum	819	mg/kg		N,E	0.72	9.29	SW-846 6010B	P
Antimony	2.79	mg/kg	U	N	0.19	2.79	SW-846 6010B	P
Arsenic	0.27	mg/kg	B		0.18	1.86	SW-846 6010B	P
Barium	3.32	mg/kg			0.012	0.46	SW-846 6010B	P
Beryllium	0.081	mg/kg	B		0.0058	0.23	SW-846 6010B	P
Cadmium	0.016	mg/kg	B		0.0081	0.23	SW-846 6010B	P
Calcium	191	mg/kg		E	0.77	2.32	SW-846 6010B	P
Chromium	0.98	mg/kg		E	0.019	0.46	SW-846 6010B	P
Cobalt	0.39	mg/kg	B		0.020	0.46	SW-846 6010B	P
Copper	0.43	mg/kg	B		0.11	0.46	SW-846 6010B	P
Iron	823	mg/kg		N,E	0.46	2.32	SW-846 6010B	P
Lead	1.52	mg/kg			0.058	0.70	SW-846 6010B	P
Magnesium	37.4	mg/kg		E	0.72	2.32	SW-846 6010B	P
Manganese	2.93	mg/kg			0.012	0.70	SW-846 6010B	P
Mercury	0.0056	mg/kg	B		0.0012	0.012	SW-846 7471A	AV
Nickel	0.84	mg/kg	B		0.059	1.86	SW-846 6010B	P
Potassium	58.0	mg/kg			1.78	9.29	SW-846 6010B	P
Selenium	1.86	mg/kg	U		0.23	1.86	SW-846 6010B	P
Silver	0.46	mg/kg	U		0.021	0.46	SW-846 6010B	P
Sodium	46.5	mg/kg	U		4.65	46.5	SW-846 6010B	P
Thallium	0.93	mg/kg	U		0.082	0.93	SW-846 6010B	P
Vanadium	1.26	mg/kg			0.036	0.93	SW-846 6010B	P
Zinc	2.10	mg/kg			0.42	0.93	SW-846 6010B	P

U.S. EPA - CLP
INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL
Sample ID: 046-RB-S-0619-02
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Soil
SAS No.:
SDG No.: 202062002
Level: (low / med)
% Solids: 91.22
Lab Sample ID: 20206200202
Date Received: 06/20/02
Time: 0905
Date Collected: 06/19/02
Time: 1100

Analyte	Concentration	Units	C	Q	MDL	PQL	Method	Type
Aluminum	224	mg/kg		N,E	6.84	87.7	SW-846 6010B	P
Antimony	1.81	mg/kg	B	N	1.75	26.3	SW-846 6010B	P
Arsenic	23.3	mg/kg			1.68	17.5	SW-846 6010B	P
Barium	4.19	mg/kg	B		0.11	4.38	SW-846 6010B	P
Beryllium	2.19	mg/kg	U		0.055	2.19	SW-846 6010B	P
Cadmium	2.19	mg/kg	U		0.077	2.19	SW-846 6010B	P
Calcium	428000	mg/kg		E	7.26	21.9	SW-846 6010B	P
Chromium	6.26	mg/kg		E	0.18	4.38	SW-846 6010B	P
Cobalt	0.58	mg/kg	B		0.19	4.38	SW-846 6010B	P
Copper	4.38	mg/kg	U		1.07	4.38	SW-846 6010B	P
Iron	361	mg/kg		N,E	4.33	21.9	SW-846 6010B	P
Lead	6.58	mg/kg	U		0.55	6.58	SW-846 6010B	P
Magnesium	2790	mg/kg		E	6.75	21.9	SW-846 6010B	P
Manganese	24.4	mg/kg			0.11	6.58	SW-846 6010B	P
Mercury	0.0045	mg/kg	B		0.0011	0.011	SW-846 7471A	AV
Nickel	17.5	mg/kg	U		0.56	17.5	SW-846 6010B	P
Potassium	39.3	mg/kg	B		16.8	87.7	SW-846 6010B	P
Selenium	17.5	mg/kg	U		2.18	17.5	SW-846 6010B	P
Silver	4.38	mg/kg	U		0.20	4.38	SW-846 6010B	P
Sodium	263	mg/kg	B		43.8	438	SW-846 6010B	P
Thallium	1.71	mg/kg	B		0.78	8.77	SW-846 6010B	P
Vanadium	4.50	mg/kg	B		0.34	8.77	SW-846 6010B	P
Zinc	8.77	mg/kg	U		4.00	8.77	SW-846 6010B	P

U.S. EPA - CLP
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202062002
Calibration Source: 100-50-4
Instrument ID: ICP5 ICAL ID: 2
Date Analyzed: 06/21/02 Time: 0951

INITIAL CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Antimony	1.00	0.950	95	mg/L	SW-846 6010B	P
Arsenic	1.00	1.02	102	mg/L	SW-846 6010B	P
Beryllium	1.00	1.01	101	mg/L	SW-846 6010B	P
Cadmium	1.00	1.01	101	mg/L	SW-846 6010B	P
Calcium	1.00	1.04	104	mg/L	SW-846 6010B	P
Chromium	1.00	1.02	102	mg/L	SW-846 6010B	P
Cobalt	1.00	1.04	104	mg/L	SW-846 6010B	P
Copper	1.00	0.970	97	mg/L	SW-846 6010B	P
Iron	1.00	1.01	101	mg/L	SW-846 6010B	P
Lead	1.00	1.04	104	mg/L	SW-846 6010B	P
Magnesium	1.00	1.00	100	mg/L	SW-846 6010B	P
Manganese	1.00	1.04	104	mg/L	SW-846 6010B	P
Molybdenum	1.00	0.990	99	mg/L	SW-846 6010B	P
Nickel	1.00	1.04	104	mg/L	SW-846 6010B	P
Selenium	1.00	0.990	99	mg/L	SW-846 6010B	P
Silver	1.00	1.02	102	mg/L	SW-846 6010B	P
Thallium	1.00	1.01	101	mg/L	SW-846 6010B	P
Titanium	1.00	0.980	98	mg/L	SW-846 6010B	P
Vanadium	1.00	1.00	100	mg/L	SW-846 6010B	P
Zinc	1.00	1.00	100	mg/L	SW-846 6010B	P

ICV CONTROL LIMITS EPA 6010B = 90-100 EPA 200.7 = 95-105

U.S. EPA - CLP
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202062002
Calibration Source: 100-40-1
Instrument ID: ICP5 ICAL ID: 2
Date Analyzed: 06/21/02 Time: 0959

INITIAL CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	10.0	10.3	103	mg/L	SW-846 6010B	P
Barium	1.00	1.04	104	mg/L	SW-846 6010B	P
Boron	5.00	4.84	97	mg/L	SW-846 6010B	P
Potassium	10.0	10.2	102	mg/L	SW-846 6010B	P
Sodium	10.0	10.3	103	mg/L	SW-846 6010B	P
Zirconium	1.00	0.970	97	mg/L	SW-846 6010B	P

ICV CONTROL LIMITS EPA 6010B = 90-100 EPA 200.7 = 95-105

U.S. EPA - CLP
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code: LA024
Case No.:
SAS No.:
SDG No.: 202062002
Calibration Source: 1-1-1
Instrument ID: ICP5
ICAL ID: 2
Date Analyzed: 06/21/02
Time: 1026

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Aluminum	5.00	5.04	101	mg/L	SW-846 6010B	P
Arsenic	0.500	0.520	103	mg/L	SW-846 6010B	P
Barium	0.500	0.500	100	mg/L	SW-846 6010B	P
Beryllium	0.500	0.500	100	mg/L	SW-846 6010B	P
Cadmium	0.500	0.510	101	mg/L	SW-846 6010B	P
Calcium	5.00	5.13	103	mg/L	SW-846 6010B	P
Chromium	0.500	0.500	100	mg/L	SW-846 6010B	P
Cobalt	0.500	0.510	101	mg/L	SW-846 6010B	P
Copper	0.500	0.500	99	mg/L	SW-846 6010B	P
Iron	5.00	5.18	104	mg/L	SW-846 6010B	P
Lead	0.500	0.510	102	mg/L	SW-846 6010B	P
Magnesium	5.00	5.22	104	mg/L	SW-846 6010B	P
Manganese	0.500	0.510	102	mg/L	SW-846 6010B	P
Nickel	0.500	0.510	102	mg/L	SW-846 6010B	P
Potassium	10.0	10.1	101	mg/L	SW-846 6010B	P
Selenium	0.500	0.510	101	mg/L	SW-846 6010B	P
Silver	0.500	0.500	99	mg/L	SW-846 6010B	P
Sodium	20.0	19.9	99	mg/L	SW-846 6010B	P
Thallium	0.500	0.500	100	mg/L	SW-846 6010B	P
Vanadium	0.500	0.490	99	mg/L	SW-846 6010B	P
Zinc	0.500	0.510	101	mg/L	SW-846 6010B	P

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-100 EPA 7470/7471 AND 7XXX = 80-120

U.S. EPA - CLP
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202062002
Calibration Source: 1-1-1
Instrument ID: ICP5 ICAL ID: 2
Date Analyzed: 06/21/02 Time: 1034

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Antimony	0.500	0.500	100	mg/L	SW-846 6010B	P
Boron	2.50	2.47	99	mg/L	SW-846 6010B	P
Molybdenum	0.500	0.500	99	mg/L	SW-846 6010B	P
Titanium	0.500	0.500	100	mg/L	SW-846 6010B	P
Zirconium	0.500	0.490	97	mg/L	SW-846 6010B	P

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-100 EPA 7470/7471 AND 7XXX = 80-120

U.S. EPA - CLP
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202062002
Calibration Source: 1-1-1
Instrument ID: ICP5 ICAL ID: 2
Date Analyzed: 06/21/02 Time: 1231

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Aluminum	5.00	4.93	99	mg/L	SW-846 6010B	P
Arsenic	0.500	0.510	103	mg/L	SW-846 6010B	P
Barium	0.500	0.500	101	mg/L	SW-846 6010B	P
Beryllium	0.500	0.500	100	mg/L	SW-846 6010B	P
Cadmium	0.500	0.510	102	mg/L	SW-846 6010B	P
Calcium	5.00	4.96	99	mg/L	SW-846 6010B	P
Chromium	0.500	0.500	101	mg/L	SW-846 6010B	P
Cobalt	0.500	0.510	102	mg/L	SW-846 6010B	P
Copper	0.500	0.490	99	mg/L	SW-846 6010B	P
Iron	5.00	5.03	101	mg/L	SW-846 6010B	P
Lead	0.500	0.510	102	mg/L	SW-846 6010B	P
Magnesium	5.00	5.01	100	mg/L	SW-846 6010B	P
Manganese	0.500	0.510	102	mg/L	SW-846 6010B	P
Nickel	0.500	0.510	102	mg/L	SW-846 6010B	P
Potassium	10.0	9.99	100	mg/L	SW-846 6010B	P
Selenium	0.500	0.500	100	mg/L	SW-846 6010B	P
Silver	0.500	0.500	99	mg/L	SW-846 6010B	P
Sodium	20.0	19.8	99	mg/L	SW-846 6010B	P
Thallium	0.500	0.510	101	mg/L	SW-846 6010B	P
Vanadium	0.500	0.500	100	mg/L	SW-846 6010B	P
Zinc	0.500	0.500	101	mg/L	SW-846 6010B	P

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-100 EPA 7470/7471 AND 7XXX = 80-120

U.S. EPA - CLP
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202062002
Calibration Source: 1-1-1
Instrument ID: ICP5 ICAL ID: 2
Date Analyzed: 06/21/02 Time: 1238

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Antimony	0.500	0.490	97	mg/L	SW-846 6010B	P
Boron	2.50	2.45	98	mg/L	SW-846 6010B	P
Molybdenum	0.500	0.490	99	mg/L	SW-846 6010B	P
Titanium	0.500	0.490	98	mg/L	SW-846 6010B	P
Zirconium	0.500	0.490	97	mg/L	SW-846 6010B	P

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-100 EPA 7470/7471 AND 7XXX = 80-120

U.S. EPA - CLP
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202062002
Calibration Source: 100-57-3 Solutions Plus
Instrument ID: FIMS1 ICAL ID: 1
Date Analyzed: 06/20/02 Time: 1239

INITIAL CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Mercury	0.00500	0.00493	99	mg/L	SW-846 7471A	AV

ICV CONTROL LIMITS EPA 6010B = 90-100 EPA 200.7 = 95-105

U.S. EPA - CLP
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code: LA024
Case No.:
SAS No.:
SDG No.: 202062002
Calibration Source: 100-56-5 SPEX
Instrument ID: FIMS1
ICAL ID: 1
Date Analyzed: 06/20/02
Time: 1243

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Mercury	0.00500	0.00499	100	mg/L	SW-846 7471A	AV

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-100 EPA 7470/7471 AND 7XXX = 80-120

U.S. EPA - CLP
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202062002
Calibration Source: 100-56-5 SPEX
Instrument ID: FIMS1 ICAL ID: 1
Date Analyzed: 06/20/02 Time: 1303

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Mercury	0.00500	0.00496	99	mg/L	SW-846 7471A	AV

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-100 EPA 7470/7471 AND 7XXX = 80-120

U.S. EPA - CLP
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202062002
Calibration Source: 100-56-5 SPEX
Instrument ID: FIMS1 ICAL ID: 1
Date Analyzed: 06/20/02 Time: 1324

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Mercury	0.00500	0.00502	100	mg/L	SW-846 7471A	AV

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-100 EPA 7470/7471 AND 7XXX = 80-120

U.S. EPA - CLP
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202062002
Calibration Source: 100-56-5 SPEX
Instrument ID: FIMS1 ICAL ID: 1
Date Analyzed: 06/20/02 Time: 1345

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Mercury	0.00500	0.00494	99	mg/L	SW-846 7471A	AV

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-100 EPA 7470/7471 AND 7XXX = 80-120

U.S. EPA - CLP
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202062002
Calibration Source: 100-56-5 SPEX
Instrument ID: FIMS1 ICAL ID: 1
Date Analyzed: 06/20/02 Time: 1354

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Mercury	0.00500	0.00476	95	mg/L	SW-846 7471A	AV

CCV CONTROL LIMITS EPA 6010B AND 200.7 = 90-100 EPA 7470/7471 AND 7XXX = 80-120

U.S. EPA - CLP
BLANKS

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202062002
Lab Sample ID: ICB
ICAL ID: 2
Lab Sample DESC: ICB
Preparation Blank Matrix: (soil / water)
Instrument ID: ICP5
Date Analyzed: 06/21/02 Time: 0944

INITIAL CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*PQL*	*Method*	*Type*
Aluminum	0.20	U	mg/L	0.016	0.20	SW-846 6010B	P
Antimony	0.060	U	mg/L	0.0040	0.060	SW-846 6010B	P
Arsenic	0.040	U	mg/L	0.0039	0.040	SW-846 6010B	P
Barium	0.010	U	mg/L	0.00030	0.010	SW-846 6010B	P
Beryllium	0.0050	U	mg/L	0.00020	0.0050	SW-846 6010B	P
Cadmium	0.0050	U	mg/L	0.00020	0.0050	SW-846 6010B	P
Calcium	0.050	U	mg/L	0.017	0.050	SW-846 6010B	P
Chromium	0.010	U	mg/L	0.00040	0.010	SW-846 6010B	P
Cobalt	0.010	U	mg/L	0.00050	0.010	SW-846 6010B	P
Copper	0.010	U	mg/L	0.0025	0.010	SW-846 6010B	P
Iron	0.050	U	mg/L	0.0099	0.050	SW-846 6010B	P
Lead	0.015	U	mg/L	0.0013	0.015	SW-846 6010B	P
Magnesium	0.050	U	mg/L	0.015	0.050	SW-846 6010B	P
Manganese	0.015	U	mg/L	0.00030	0.015	SW-846 6010B	P
Nickel	0.040	U	mg/L	0.0013	0.040	SW-846 6010B	P
Potassium	0.20	U	mg/L	0.034	0.20	SW-846 6010B	P
Selenium	0.040	U	mg/L	0.0050	0.040	SW-846 6010B	P
Silver	0.0015	B	mg/L	0.00050	0.010	SW-846 6010B	P
Sodium	0.34	B	mg/L	0.14	1.00	SW-846 6010B	P
Thallium	0.020	U	mg/L	0.0018	0.020	SW-846 6010B	P
Vanadium	0.020	U	mg/L	0.00080	0.020	SW-846 6010B	P
Zinc	0.020	U	mg/L	0.0092	0.020	SW-846 6010B	P

U.S. EPA - CLP
BLANKS

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202062002
Lab Sample ID: CCB
ICAL ID: 2
Lab Sample DESC: CCB
Preparation Blank Matrix: (soil / water)
Instrument ID: ICP5
Date Analyzed: 06/21/02 Time: 1102

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	PQL	Method	Type
Aluminum	0.20	U	mg/L	0.016	0.20	SW-846 6010B	P
Antimony	0.060	U	mg/L	0.0040	0.060	SW-846 6010B	P
Arsenic	0.040	U	mg/L	0.0039	0.040	SW-846 6010B	P
Barium	0.010	U	mg/L	0.00030	0.010	SW-846 6010B	P
Beryllium	0.0050	U	mg/L	0.00020	0.0050	SW-846 6010B	P
Cadmium	0.0050	U	mg/L	0.00020	0.0050	SW-846 6010B	P
Calcium	0.050	U	mg/L	0.017	0.050	SW-846 6010B	P
Chromium	0.00045	B	mg/L	0.00040	0.010	SW-846 6010B	P
Cobalt	0.010	U	mg/L	0.00050	0.010	SW-846 6010B	P
Copper	0.0026	B	mg/L	0.0025	0.010	SW-846 6010B	P
Iron	0.050	U	mg/L	0.0099	0.050	SW-846 6010B	P
Lead	0.015	U	mg/L	0.0013	0.015	SW-846 6010B	P
Magnesium	0.050	U	mg/L	0.015	0.050	SW-846 6010B	P
Manganese	0.0013	B	mg/L	0.00030	0.015	SW-846 6010B	P
Nickel	0.040	U	mg/L	0.0013	0.040	SW-846 6010B	P
Potassium	0.20	U	mg/L	0.034	0.20	SW-846 6010B	P
Selenium	0.040	U	mg/L	0.0050	0.040	SW-846 6010B	P
Silver	0.00089	B	mg/L	0.00050	0.010	SW-846 6010B	P
Sodium	1.00	U	mg/L	0.14	1.00	SW-846 6010B	P
Thallium	0.020	U	mg/L	0.0018	0.020	SW-846 6010B	P
Vanadium	0.020	U	mg/L	0.00080	0.020	SW-846 6010B	P
Zinc	0.020	U	mg/L	0.0092	0.020	SW-846 6010B	P

U.S. EPA - CLP
BLANKS

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202062002
Lab Sample ID: 46445
ICAL ID: 2
Lab Sample DESC: MB FOR HBN 145858
Preparation Blank Matrix: (soil / water) Soil
Instrument ID: ICP5
Date Analyzed: 06/21/02 Time: 1109

PREPARATION BLANK

Analyte	Conc.	C	Units	MDL	PQL	Method	Type
Aluminum	8.00	U	mg/kg	0.62	8.00	SW-846 6010B	P
Antimony	2.40	U	mg/kg	0.16	2.40	SW-846 6010B	P
Arsenic	1.60	U	mg/kg	0.15	1.60	SW-846 6010B	P
Barium	0.40	U	mg/kg	0.010	0.40	SW-846 6010B	P
Beryllium	0.0080	B	mg/kg	0.0050	0.20	SW-846 6010B	P
Cadmium	0.20	U	mg/kg	0.0070	0.20	SW-846 6010B	P
Calcium	3.33		mg/kg	0.66	2.00	SW-846 6010B	P
Chromium	0.022	B	mg/kg	0.016	0.40	SW-846 6010B	P
Cobalt	0.40	U	mg/kg	0.017	0.40	SW-846 6010B	P
Copper	0.10	B	mg/kg	0.098	0.40	SW-846 6010B	P
Iron	2.00	U	mg/kg	0.40	2.00	SW-846 6010B	P
Lead	0.60	U	mg/kg	0.050	0.60	SW-846 6010B	P
Magnesium	2.00	U	mg/kg	0.62	2.00	SW-846 6010B	P
Manganese	0.048	B	mg/kg	0.010	0.60	SW-846 6010B	P
Nickel	0.054	B	mg/kg	0.051	1.60	SW-846 6010B	P
Potassium	8.00	U	mg/kg	1.53	8.00	SW-846 6010B	P
Selenium	1.60	U	mg/kg	0.20	1.60	SW-846 6010B	P
Silver	0.40	U	mg/kg	0.018	0.40	SW-846 6010B	P
Sodium	40.0	U	mg/kg	4.00	40.0	SW-846 6010B	P
Thallium	0.80	U	mg/kg	0.071	0.80	SW-846 6010B	P
Vanadium	0.80	U	mg/kg	0.031	0.80	SW-846 6010B	P
Zinc	0.80	U	mg/kg	0.37	0.80	SW-846 6010B	P

U.S. EPA - CLP
BLANKS

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202062002
Lab Sample ID: CCB
ICAL ID: 2
Lab Sample DESC: CCB
Preparation Blank Matrix: (soil / water)
Instrument ID: ICP5
Date Analyzed: 06/21/02 Time: 1245

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	PQL	Method	Type
Aluminum	0.20	U	mg/L	0.016	0.20	SW-846 6010B	P
Antimony	0.060	U	mg/L	0.0040	0.060	SW-846 6010B	P
Arsenic	0.040	U	mg/L	0.0039	0.040	SW-846 6010B	P
Barium	0.010	U	mg/L	0.00030	0.010	SW-846 6010B	P
Beryllium	0.0050	U	mg/L	0.00020	0.0050	SW-846 6010B	P
Cadmium	0.0050	U	mg/L	0.00020	0.0050	SW-846 6010B	P
Calcium	0.050	U	mg/L	0.017	0.050	SW-846 6010B	P
Chromium	0.00042	B	mg/L	0.00040	0.010	SW-846 6010B	P
Cobalt	0.010	U	mg/L	0.00050	0.010	SW-846 6010B	P
Copper	0.0031	B	mg/L	0.0025	0.010	SW-846 6010B	P
Iron	0.050	U	mg/L	0.0099	0.050	SW-846 6010B	P
Lead	0.015	U	mg/L	0.0013	0.015	SW-846 6010B	P
Magnesium	0.027	B	mg/L	0.015	0.050	SW-846 6010B	P
Manganese	0.0014	B	mg/L	0.00030	0.015	SW-846 6010B	P
Nickel	0.040	U	mg/L	0.0013	0.040	SW-846 6010B	P
Potassium	0.20	U	mg/L	0.034	0.20	SW-846 6010B	P
Selenium	0.040	U	mg/L	0.0050	0.040	SW-846 6010B	P
Silver	0.00093	B	mg/L	0.00050	0.010	SW-846 6010B	P
Sodium	0.16	B	mg/L	0.14	1.00	SW-846 6010B	P
Thallium	0.0019	B	mg/L	0.0018	0.020	SW-846 6010B	P
Vanadium	0.020	U	mg/L	0.00080	0.020	SW-846 6010B	P
Zinc	0.020	U	mg/L	0.0092	0.020	SW-846 6010B	P

U.S. EPA - CLP
BLANKS

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202062002
Lab Sample ID: ICB
ICAL ID: 1
Lab Sample DESC: ICB
Preparation Blank Matrix: (soil / water)
Instrument ID: FIMS1
Date Analyzed: 06/20/02 Time: 1241

INITIAL CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*PQL*	*Method*	*Type*
Mercury	0.00020	U	mg/L	0.000080	0.00020	SW-846 7471A	AV

FORM III - IN

U.S. EPA - CLP
BLANKS

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202062002
Lab Sample ID: CCB
ICAL ID: 1
Lab Sample DESC: CCB
Preparation Blank Matrix: (soil / water)
Instrument ID: FIMS1
Date Analyzed: 06/20/02 Time: 1245

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	PQL	Method	Type
Mercury	0.00011	B	mg/L	0.000080	0.00020	SW-846 7471A	AV

FORM III - IN

U.S. EPA - CLP
BLANKS

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202062002
Lab Sample ID: CCB
ICAL ID: 1
Lab Sample DESC: CCB
Preparation Blank Matrix: (soil / water)
Instrument ID: FIMS1
Date Analyzed: 06/20/02 Time: 1305

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	PQL	Method	Type
Mercury	0.00012	B	mg/L	0.000080	0.00020	SW-846 7471A	AV

FORM III - IN

U.S. EPA - CLP
BLANKS

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202062002
Lab Sample ID: CCB
ICAL ID: 1
Lab Sample DESC: CCB
Preparation Blank Matrix: (soil / water)
Instrument ID: FIMS1
Date Analyzed: 06/20/02 Time: 1326

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	PQL	Method	Type
Mercury	0.00012	B	mg/L	0.000080	0.00020	SW-846 7471A	AV

FORM III - IN

U.S. EPA - CLP
BLANKS

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202062002
Lab Sample ID: 46450
ICAL ID: 1
Lab Sample DESC: MB FOR HBN 145859
Preparation Blank Matrix: (soil / water) Soil
Instrument ID: FIMS1
Date Analyzed: 06/20/02 Time: 1334

PREPARATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*PQL*	*Method*	*Type*
Mercury	0.0011	B	mg/kg	0.0010	0.010	SW-846 7471A	AV

FORM III - IN

U.S. EPA - CLP
BLANKS

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202062002
Lab Sample ID: CCB
ICAL ID: 1
Lab Sample DESC: CCB
Preparation Blank Matrix: (soil / water)
Instrument ID: FIMS1
Date Analyzed: 06/20/02 Time: 1347

CONTINUING CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*PQL*	*Method*	*Type*
Mercury	0.000097	B	mg/L	0.000080	0.00020	SW-846 7471A	AV

FORM III - IN

U.S. EPA - CLP
BLANKS

Lab Name: GCAL
Contract:
Lab Code: LA024 Case No.:
SAS No.: SDG No.: 202062002
Lab Sample ID: CCB
ICAL ID: 1
Lab Sample DESC: CCB
Preparation Blank Matrix: (soil / water)
Instrument ID: FIMS1
Date Analyzed: 06/20/02 Time: 1355

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	PQL	Method	Type
Mercury	0.00011	B	mg/L	0.000080	0.00020	SW-846 7471A	AV

FORM III - IN

U.S. EPA - CLP
ICP INTERFERENCE CHECK SAMPLE

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 202062002

ICP ID Number: ICP5 ICS Source: 1-1-1 ~100-21-3

Concentration Units: mg/L

Analyte	True		Initial Found			Final Found		
	Sol. A	Sol. AB	Sol. A	Sol. AB	%R	Sol. A	Sol. AB	%R
Aluminum	200	200	227	203	102			
Antimony	0	1.00		0.94	94			
Arsenic	0	1.00		1.05	105			
Barium	0	0.50		0.51	102			
Beryllium	0	0.50		0.52	104			
Boron	0	1.00		1.04	104			
Cadmium	0	1.00		0.98	98			
Calcium	200	200	223	197	98			
Chromium	0	0.50		0.51	102			
Cobalt	0	0.50		0.49	98			
Copper	0	0.50		0.52	104			
Iron	80.0	80.0	86.6	77.6	97			
Lead	0	1.00		0.99	99			
Magnesium	200	200	220	197	98			
Manganese	0	0.50		0.51	102			
Molybdenum	0	1.00		0.99	99			
Nickel	0	1.00		0.95	95			
Selenium	0	1.00		1.03	103			
Silver	0	1.00		1.09	109			
Thallium	0	1.00		1.05	105			
Vanadium	0	0.50		0.51	102			
Zinc	0	1.00		1.00	100			

U.S. EPA - CLP
SPIKE SAMPLE RECOVERY

Lab Name: GCAL
Sample ID: 046-BF-S-0619-02MS
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Soil
SAS No.:
SDG No.: 202062002
Level: (low / med)
Lab Sample ID: 46448
Orig Lab Sample ID: 20206200201

Analyte	LL	UL	Spiked Sample Result	C	Sample Result	C	Spike Added	% R	Q	Units	Method	Type
Aluminum	75	125	2390		705		400	422	N	mg/kg	SW-846 6010B	P
Antimony	75	125	19.7		0	U	40.0	49	N	mg/kg	SW-846 6010B	P
Arsenic	75	125	39.1		0.23	B	40.0	97		mg/kg	SW-846 6010B	P
Barium	75	125	43.0		2.86		40.0	100		mg/kg	SW-846 6010B	P
Beryllium	75	125	39.4		0.069	B	40.0	98		mg/kg	SW-846 6010B	P
Cadmium	75	125	37.7		0.013	B	40.0	94		mg/kg	SW-846 6010B	P
Calcium	75	125	552		164		400	97		mg/kg	SW-846 6010B	P
Chromium	75	125	40.8		0.84		40.0	100		mg/kg	SW-846 6010B	P
Cobalt	75	125	39.5		0.33	B	40.0	98		mg/kg	SW-846 6010B	P
Copper	75	125	40.8		0.37	B	40.0	101		mg/kg	SW-846 6010B	P
Iron	75	125	1230		709		400	130	N	mg/kg	SW-846 6010B	P
Lead	75	125	39.5		1.31		40.0	95		mg/kg	SW-846 6010B	P
Magnesium	75	125	475		32.2		400	111		mg/kg	SW-846 6010B	P
Manganese	75	125	42.5		2.53		40.0	100		mg/kg	SW-846 6010B	P
Nickel	75	125	39.8		0.72	B	40.0	98		mg/kg	SW-846 6010B	P
Potassium	75	125	833		49.9		800	98		mg/kg	SW-846 6010B	P
Selenium	75	125	36.6		0	U	40.0	91		mg/kg	SW-846 6010B	P
Silver	75	125	38.7		0	U	40.0	97		mg/kg	SW-846 6010B	P
Sodium	75	125	1540		0	U	1600	97		mg/kg	SW-846 6010B	P
Thallium	75	125	37.7		0	U	40.0	94		mg/kg	SW-846 6010B	P
Vanadium	75	125	41.2		1.08		40.0	100		mg/kg	SW-846 6010B	P
Zinc	75	125	38.5		1.81		40.0	92		mg/kg	SW-846 6010B	P

U.S. EPA - CLP
SPIKE SAMPLE RECOVERY

Lab Name: GCAL
Sample ID: 046-BF-S-0619-02MS
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Soil
SAS No.:
SDG No.: 202062002
Level: (low / med)
Lab Sample ID: 46452
Orig Lab Sample ID: 20206200201

Analyte	LL	UL	Spiked Sample Result	C	Sample Result	C	Spike Added	% R	Q	Units	Method	Type
Mercury	75	125	0.23		0.0048	B	0.25	91		mg/kg	SW-846 7471A	AV

FORM V (PART 1) - IN

U.S. EPA - CLP
SPIKE SAMPLE RECOVERY

Lab Name: GCAL
Sample ID: 046-BF-S-0619-02MSD
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Soil
SAS No.:
SDG No.: 202062002
Level: (low / med)
Lab Sample ID: 46449
Orig Lab Sample ID: 20206200201

Analyte	LL	UL	Spiked Sample Result	C	Sample Result	C	Spike Added	% R	Q	Units	Method	Type
Aluminum	75	125	2150		705		400	362	N	mg/kg	SW-846 6010B	P
Antimony	75	125	21.9		0	U	40.0	55	N	mg/kg	SW-846 6010B	P
Arsenic	75	125	38.9		0.23	B	40.0	97		mg/kg	SW-846 6010B	P
Barium	75	125	41.9		2.86		40.0	98		mg/kg	SW-846 6010B	P
Beryllium	75	125	39.0		0.069	B	40.0	97		mg/kg	SW-846 6010B	P
Cadmium	75	125	36.9		0.013	B	40.0	92		mg/kg	SW-846 6010B	P
Calcium	75	125	539		164		400	94		mg/kg	SW-846 6010B	P
Chromium	75	125	39.7		0.84		40.0	97		mg/kg	SW-846 6010B	P
Cobalt	75	125	38.7		0.33	B	40.0	96		mg/kg	SW-846 6010B	P
Copper	75	125	40.3		0.37	B	40.0	100		mg/kg	SW-846 6010B	P
Iron	75	125	1190		709		400	121		mg/kg	SW-846 6010B	P
Lead	75	125	38.9		1.31		40.0	94		mg/kg	SW-846 6010B	P
Magnesium	75	125	458		32.2		400	107		mg/kg	SW-846 6010B	P
Manganese	75	125	41.5		2.53		40.0	98		mg/kg	SW-846 6010B	P
Nickel	75	125	39.0		0.72	B	40.0	96		mg/kg	SW-846 6010B	P
Potassium	75	125	818		49.9		800	96		mg/kg	SW-846 6010B	P
Selenium	75	125	36.2		0	U	40.0	90		mg/kg	SW-846 6010B	P
Silver	75	125	38.1		0	U	40.0	95		mg/kg	SW-846 6010B	P
Sodium	75	125	1510		0	U	1600	94		mg/kg	SW-846 6010B	P
Thallium	75	125	37.1		0	U	40.0	93		mg/kg	SW-846 6010B	P
Vanadium	75	125	40.3		1.08		40.0	98		mg/kg	SW-846 6010B	P
Zinc	75	125	37.8		1.81		40.0	90		mg/kg	SW-846 6010B	P

U.S. EPA - CLP
SPIKE SAMPLE RECOVERY

Lab Name: GCAL
Sample ID: 046-BF-S-0619-02MSD
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Soil
SAS No.:
SDG No.: 202062002
Level: (low / med)
Lab Sample ID: 46454
Orig Lab Sample ID: 20206200201

Analyte	LL	UL	Spiked Sample Result	C	Sample Result	C	Spike Added	% R	Q	Units	Method	Type
Mercury	75	125	0.24		0.0048	B	0.25	94		mg/kg	SW-846 7471A	AV

FORM V (PART 1) - IN

U.S. EPA - CLP
POST DIGEST SPIKE SAMPLE RECOVERY

Lab Name: GCAL
Sample ID: 046-BF-S-0619-02PDS
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Soil
SAS No.:
SDG No.: 202062002
Level: (low / med)
Lab Sample ID: 46583
Orig Lab Sample ID: 20206200201

Analyte	LL	UL	Spiked Sample Result	C	Sample Result	C	Spike Added	% R	Q	Units	Method	Type
Aluminum	75	125	1100		705		400	99		mg/kg	SW-846 6010B	P
Antimony	75	125	36.4		0	U	40.0	91		mg/kg	SW-846 6010B	P
Arsenic	75	125	39.7		0.23	B	40.0	99		mg/kg	SW-846 6010B	P
Barium	75	125	42.3		2.86		40.0	99		mg/kg	SW-846 6010B	P
Beryllium	75	125	38.9		0.069	B	40.0	97		mg/kg	SW-846 6010B	P
Cadmium	75	125	37.6		0.013	B	40.0	94		mg/kg	SW-846 6010B	P
Calcium	75	125	559		164		400	99		mg/kg	SW-846 6010B	P
Chromium	75	125	39.9		0.84		40.0	98		mg/kg	SW-846 6010B	P
Cobalt	75	125	39.7		0.33	B	40.0	98		mg/kg	SW-846 6010B	P
Copper	75	125	40.6		0.37	B	40.0	101		mg/kg	SW-846 6010B	P
Iron	75	125	1090		709		400	96		mg/kg	SW-846 6010B	P
Lead	75	125	39.0		1.31		40.0	94		mg/kg	SW-846 6010B	P
Magnesium	75	125	437		32.2		400	101		mg/kg	SW-846 6010B	P
Manganese	75	125	42.3		2.53		40.0	99		mg/kg	SW-846 6010B	P
Nickel	75	125	40.0		0.72	B	40.0	98		mg/kg	SW-846 6010B	P
Potassium	75	125	821		49.9		800	96		mg/kg	SW-846 6010B	P
Selenium	75	125	36.5		0	U	40.0	91		mg/kg	SW-846 6010B	P
Silver	75	125	38.4		0	U	40.0	96		mg/kg	SW-846 6010B	P
Sodium	75	125	1520		0	U	1600	95		mg/kg	SW-846 6010B	P
Thallium	75	125	37.9		0	U	40.0	95		mg/kg	SW-846 6010B	P
Vanadium	75	125	40.2		1.08		40.0	98		mg/kg	SW-846 6010B	P
Zinc	75	125	38.4		1.81		40.0	92		mg/kg	SW-846 6010B	P

U.S. EPA - CLP
DUPLICATES

Lab Name: GCAL
Sample ID: 046-BF-S-0619-02DUP
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Soil
SAS No.:
SDG No.: 202062002
% Solids for Sample:
Level: (low / med)
% Solids for Duplicate:
Lab Sample ID: 46447

Analyte	LL	UL	Sample	C	Duplicate	C	RPD	Q	Unit	Method	Type
Aluminum	0	20	705		727		3		mg/kg	SW-846 6010B	P
Antimony			0	U	0	U	0		mg/kg	SW-846 6010B	P
Arsenic			0.23	B	0.31	B	30		mg/kg	SW-846 6010B	P
Barium	0	20	2.86		2.87		.3		mg/kg	SW-846 6010B	P
Beryllium			0.069	B	0.073	B	6		mg/kg	SW-846 6010B	P
Cadmium			0.013	B	0.012	B	8		mg/kg	SW-846 6010B	P
Calcium	0	20	164		173		5		mg/kg	SW-846 6010B	P
Chromium			0.84		0.86		2		mg/kg	SW-846 6010B	P
Cobalt			0.33	B	0.36	B	9		mg/kg	SW-846 6010B	P
Copper			0.37	B	0.39	B	5		mg/kg	SW-846 6010B	P
Iron	0	20	709		786		10		mg/kg	SW-846 6010B	P
Lead			1.31		1.39		6		mg/kg	SW-846 6010B	P
Magnesium	0	20	32.2		35.7		10		mg/kg	SW-846 6010B	P
Manganese			2.53		2.73		8		mg/kg	SW-846 6010B	P
Nickel			0.72	B	0.77	B	7		mg/kg	SW-846 6010B	P
Potassium	0	20	49.9		58.5		16		mg/kg	SW-846 6010B	P
Selenium			0	U	0	U	0		mg/kg	SW-846 6010B	P
Silver			0	U	0	U	0		mg/kg	SW-846 6010B	P
Sodium			0	U	0	U	0		mg/kg	SW-846 6010B	P
Thallium			0	U	0	U	0		mg/kg	SW-846 6010B	P
Vanadium			1.08		1.17		8		mg/kg	SW-846 6010B	P
Zinc			1.81		2.38		27		mg/kg	SW-846 6010B	P

FORM VI - IN

U.S. EPA - CLP
DUPLICATES

Lab Name: GCAL
Sample ID: 046-BF-S-0619-02DUP
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Soil
SAS No.:
SDG No.: 202062002
% Solids for Sample:
Level: (low / med)
% Solids for Duplicate:
Lab Sample ID: 46453

Analyte	LL	UL	Sample	C	Duplicate	C	RPD	Q	Unit	Method	Type
Mercury			0.0048	B	0.0025	B	63		mg/kg	SW-846 7471A	AV

FORM VI - IN

U.S. EPA - CLP
LABORATORY CONTROL SAMPLE

Lab Name: GCAL
Sample ID: LCS FOR HBN 145858
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Soil
SAS No.:
SDG No.: 202062002
Lab Sample ID: 46446
LCS Source: 1-1-1 INORGANIC VENTURES

Analyte	True	Found	% R	LL	UL	Units	Method	Type
Aluminum	400	394	98	80	120	mg/kg	SW-846 6010B	P
Antimony	40.0	36.8	92	80	120	mg/kg	SW-846 6010B	P
Arsenic	40.0	39.8	99	80	120	mg/kg	SW-846 6010B	P
Barium	40.0	39.7	99	80	120	mg/kg	SW-846 6010B	P
Beryllium	40.0	39.2	98	80	120	mg/kg	SW-846 6010B	P
Cadmium	40.0	38.3	96	80	120	mg/kg	SW-846 6010B	P
Calcium	400	401	100	80	120	mg/kg	SW-846 6010B	P
Chromium	40.0	39.9	100	80	120	mg/kg	SW-846 6010B	P
Cobalt	40.0	39.7	99	80	120	mg/kg	SW-846 6010B	P
Copper	40.0	41.3	103	80	120	mg/kg	SW-846 6010B	P
Iron	400	403	101	80	120	mg/kg	SW-846 6010B	P
Lead	40.0	38.7	97	80	120	mg/kg	SW-846 6010B	P
Magnesium	400	405	101	80	120	mg/kg	SW-846 6010B	P
Manganese	40.0	40.1	100	80	120	mg/kg	SW-846 6010B	P
Nickel	40.0	39.7	99	80	120	mg/kg	SW-846 6010B	P
Potassium	800	781	98	80	120	mg/kg	SW-846 6010B	P
Selenium	40.0	37.4	93	80	120	mg/kg	SW-846 6010B	P
Silver	40.0	39.0	97	80	120	mg/kg	SW-846 6010B	P
Sodium	1600	1550	97	80	120	mg/kg	SW-846 6010B	P
Thallium	40.0	38.1	95	80	120	mg/kg	SW-846 6010B	P
Vanadium	40.0	39.9	100	80	120	mg/kg	SW-846 6010B	P
Zinc	40.0	37.0	93	80	120	mg/kg	SW-846 6010B	P

U.S. EPA - CLP
LABORATORY CONTROL SAMPLE

Lab Name: GCAL
Sample ID: LCS FOR HBN 145859
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Soil
SAS No.:
SDG No.: 202062002
Lab Sample ID: 46451
LCS Source: 100-56-5 SPEX

Analyte	True	Found	% R	LL	UL	Units	Method	Type
Mercury	0.25	0.24	95	80	120	mg/kg	SW-846 7471A	AV

FORM VII - IN

U.S. EPA - CLP
ICP SERIAL DILUTIONS

Lab Name: GCAL
Sample ID: 046-BF-S-0619-02SD
Lab Code: LA024
Case No.
Contract:
Matrix: (soil / water) Soil
SAS No.:
SDG No.: 202062002
Level: (low / med)
Org Lab Sample ID: 20206200201
Lab Sample ID: 46584

Analyte	LL	UL	Initial Sample Result	C	Serial Dilution Result	C	% Diff.	Q	Units	Method	Type
Aluminum	0	10	705		983		33	E	mg/kg	SW-846 6010B	P
Antimony			0	U	0	U	0		mg/kg	SW-846 6010B	P
Arsenic			0.23	B	0	U	200		mg/kg	SW-846 6010B	P
Barium	0	10	2.86		2.99		4		mg/kg	SW-846 6010B	P
Beryllium			0.069	B	0.10	B	37		mg/kg	SW-846 6010B	P
Cadmium			0.013	B	0	U	200		mg/kg	SW-846 6010B	P
Calcium	0	10	164		216		27	E	mg/kg	SW-846 6010B	P
Chromium	0	10	0.84		0.96		13	E	mg/kg	SW-846 6010B	P
Cobalt			0.33	B	0.36	B	9		mg/kg	SW-846 6010B	P
Copper			0.37	B	0.66		56		mg/kg	SW-846 6010B	P
Iron	0	10	709		958		30	E	mg/kg	SW-846 6010B	P
Lead			1.31		1.30		.8		mg/kg	SW-846 6010B	P
Magnesium	0	10	32.2		44.7		33	E	mg/kg	SW-846 6010B	P
Manganese	0	10	2.53		2.73		8		mg/kg	SW-846 6010B	P
Nickel			0.72	B	0.79	B	9		mg/kg	SW-846 6010B	P
Potassium			49.9		72.1		36		mg/kg	SW-846 6010B	P
Selenium			0	U	0	U	0		mg/kg	SW-846 6010B	P
Silver			0	U	0	U	0		mg/kg	SW-846 6010B	P
Sodium			0	U	0	U	0		mg/kg	SW-846 6010B	P
Thallium			0	U	0.28	B	200		mg/kg	SW-846 6010B	P
Vanadium			1.08		1.07		.9		mg/kg	SW-846 6010B	P
Zinc			1.81		1.79		1		mg/kg	SW-846 6010B	P

FORM IX - IN

U.S. EPA - CLP
PREPARATION LOG

Lab Name: GCAL Sample ID:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 202062002

Method: SW-846 6010B Method Type: P

EPA Sample No.	Preparation Date	Weight	Units	Volume	Units
046-BF-S-0619-02	06/20/02	2.5	g	100	mL
046-BF-S-0619-02DUP	06/20/02	2.5	g	100	mL
046-BF-S-0619-02MS	06/20/02	2.5	g	100	mL
046-BF-S-0619-02MSD	06/20/02	2.5	g	100	mL
046-RB-S-0619-02	06/20/02	2.5	g	100	mL
LCS FOR HBN 145858	06/20/02	2.5	g	100	mL
MB FOR HBN 145858	06/20/02	2.5	g	100	mL

FORM XIII - IN

U.S. EPA - CLP
PREPARATION LOG

Lab Name: GCAL Sample ID:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 202062002

Method: SW-846 7471A Method Type: AV

EPA Sample No.	Preparation Date	Weight	Units	Volume	Units
046-BF-S-0619-02	06/20/02	0.6	g	30	mL
046-BF-S-0619-02DUP	06/20/02	0.6	g	30	mL
046-BF-S-0619-02MS	06/20/02	0.6	g	30	mL
046-BF-S-0619-02MSD	06/20/02	0.6	g	30	mL
046-RB-S-0619-02	06/20/02	0.6	g	30	mL
LCS FOR HBN 145859	06/20/02	0.6	g	30	mL
MB FOR HBN 145859	06/20/02	0.6	g	30	mL

U.S. EPA - CLP
ANALYSIS RUN LOG

Lab Name: GCAL Contract: Start Date: 06/21/02

Lab Code: LA024 Case No.: SAS No.: SDG No.: 202062002 End Date: 06/22/02

Instrument ID Number: ICP5 Method: SW-846 6010B Method Type: P

				Analyte Symbols																														
Sample No.	PF	D/F	Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
ICB	*	1	0944	X	X	X	X	X		X	X	X	X	X	X	X		X	X			X	X	X		X	X		X			X	X	
ICV	*	1	0951		X	X		X		X	X	X	X	X	X	X		X	X			X		X		X			X			X	X	
ICV2	*	1	0959	X			X																X				X							
ICSA	*	1	1013	X	X	X	X	X		X	X	X	X	X	X	X		X	X			X	X	X		X	X		X			X	X	
ICSAB	*	1	1020	X	X	X	X	X		X	X	X	X	X	X	X		X	X			X	X	X		X	X		X			X	X	
CCV	*	1	1026	X		X	X	X		X	X	X	X	X	X	X		X	X			X	X	X		X	X		X			X	X	
CCV2	*	1	1034		X																													
CCB	*	1	1102	X	X	X	X	X		X	X	X	X	X	X	X		X	X			X	X	X		X	X		X			X	X	
MB FOR HBN 145858	*	1	1109	X	X	X	X	X		X	X	X	X	X	X	X		X	X			X	X	X		X	X		X			X	X	
LCS FOR HBN 145858	*	1	1116	X	X	X	X	X		X	X	X	X	X	X	X		X	X			X	X	X		X	X		X			X	X	
046-BF-S-0619-02	*	1	1123	X	X	X	X	X		X	X	X	X	X	X	X		X	X			X	X	X		X	X		X			X	X	
046-BF-S-0619-02DUP	*	1	1130	X	X	X	X	X		X	X	X	X	X	X	X		X	X			X	X	X		X	X		X			X	X	
046-BF-S-0619-02MS	*	1	1137	X	X	X	X	X		X	X	X	X	X	X	X		X	X			X	X	X		X	X		X			X	X	
046-BF-S-0619-02MSD	*	1	1144	X	X	X	X	X		X	X	X	X	X	X	X		X	X			X	X	X		X	X		X			X	X	
046-BF-S-0619-02PDS	*	1	1150	X	X	X	X	X		X	X	X	X	X	X	X		X	X			X	X	X		X	X		X			X	X	
046-BF-S-0619-02SD	*	5	1157	X	X	X	X	X		X	X	X	X	X	X	X		X	X			X	X	X		X	X		X			X	X	
046-RB-S-0619-02	*	10	1223	X	X	X	X	X		X	X	X	X	X	X	X		X	X			X	X	X		X	X		X			X	X	
CCV	*	1	1231	X		X	X	X		X	X	X	X	X	X	X		X	X			X	X	X		X	X		X			X	X	
CCV2	*	1	1238		X																													
CCB	*	1	1245	X	X	X	X	X		X	X	X	X	X	X	X		X	X			X	X	X		X	X		X			X	X	
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1253																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1301																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1308																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1315																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1323																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1330																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1337																															

0005997

U.S. EPA - CLP
ANALYSIS RUN LOG

Lab Name: GCAL Contract: Start Date: 06/20/02

Lab Code: LA024 Case No.: SAS No.: SDG No.: 202062002 End Date: 06/20/02

Instrument ID Number: FIMS1 Method: SW-846 7471A Method Type: AV

				Analyte Symbols																													
Sample No.	PF	D/F	Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
ICV	*	1	1239																	X														
ICB	*	1	1241																	X														
CCV	*	1	1243																	X														
CCB	*	1	1245																	X														
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1246																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1248																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1250																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1251																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1253																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1255																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1256																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1258																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1300																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1302																															
CCV	*	1	1303																	X														
CCB	*	1	1305																	X														
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1307																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1309																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1310																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1312																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1314																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1316																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1317																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1319																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1321																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1322																															
CCV	*	1	1324																	X														

FORM XIV - IN

000598

U.S. EPA - CLP
ANALYSIS RUN LOG

Lab Name: GCAL Contract: Start Date: 06/20/02

Lab Code: LA024 Case No.: SAS No.: SDG No.: 202062002 End Date: 06/20/02

Instrument ID Number: FIMS1 Method: SW-846 7471A Method Type: AV

Sample No.	PF	D/F	Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
				Analyte Symbols																														
CCB	*	1	1326																	X														
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1328																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1329																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1331																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1333																															
MB FOR HBN 145859	*	1	1334																	X														
LCS FOR HBN 145859	*	1	1336																	X														
046-BF-S-0619-02	*	1	1338																	X														
046-BF-S-0619-02DUP	*	1	1340																	X														
046-BF-S-0619-02MS	*	1	1341																	X														
046-BF-S-0619-02MSD	*	1	1343																	X														
CCV	*	1	1345																	X														
CCB	*	1	1347																	X														
046-RB-S-0619-02	*	1	1348																	X														
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1350																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1352																															
CCV	*	1	1354																	X														
CCB	*	1	1355																	X														

FORM XIV - IN

000599

ICP 5

ANALYST JAC
DATE 6-21-02
TIME 09:25

AS#	SAMPLE ID		DILUTION
1	CALIBRATION BLANK		
2	STANDARD 1	100-56-7	
3	STANDARD 2	100-56-8	
✓1	ICB		
✓12	ICV 200.7	100-57-1	
✓13	ICV 2 f: s n	100-54-4	
4	CRI		
✓5	ICSA	100-54-1	
✓6	ICSAB	100-55-3	
✓7	CCV 200.7		
✓8	CCV 2 200.7		
1	CCB		
17	46445 BIR 2020620 SI		
18	46446 2CS 2020620 SI		
19	CH2mHill 20206200201		
20	46447 20206200201 D		
21	46448 20206200201 MS		
22	46449 20206200201 MSD		
23	46583 20206200201 A		
24	46584 20206200201 L		5x
25	20206200202 R/R		
26	— 20206200202		10 X
✓7	CCV		
✓8	CCV 2		
✓1	CCB		
27	[redacted]		
28	[redacted]		
29	[redacted]		
30	[redacted]		
31	[redacted]		
32	[redacted]		
33	[redacted]		
34	[redacted]		
35	[redacted]		5x
36	[redacted]		
[redacted]			
37	[redacted]		
38	[redacted]		
39	[redacted]		
40	[redacted]		
41	[redacted]		
42	[redacted]		
43	[redacted]		
44	[redacted]		
45	[redacted]		
46	[redacted]		

AS#	SAMPLE ID	DILUTION	
[redacted]			
✓47	[redacted]	2x	
48	[redacted]	↓	
49	[redacted]		
50	[redacted]	↓	
51	[redacted]	5x 10x	
52	[redacted]	2x	
53	[redacted]		
54	[redacted]	↓	
55	[redacted]		
56	[redacted]		
57	[redacted]		
58	[redacted]		
59	[redacted]		
60	[redacted]		
61	[redacted]		
62	[redacted]		
63	[redacted]		
64	[redacted]		
65	[redacted]		
66	[redacted]	5x	
[redacted]			
NA 67	[redacted]		R/R
68	[redacted]		50x
69	[redacted]	10x	
70	[redacted]		
71	[redacted]		
72	[redacted]	↓	
73	[redacted]	50x	
74	[redacted]		R/R
75	[redacted]		
76	[redacted]		↓
[redacted]			

not Analyzed

QC REVIEW: JAC

QC CONTROL LIMITS:
ICV (200.7) 95%-105%
ICV (6010B) 90-110%
ICSAB 80-120%
CCV 90-110%

COMMENTS 1479

QC: all acceptable QC noted with a checkmark; failures as indicated.

Analysis Begun

Start Time: 06/21/2002 09:25:45
Logged In Analyst: met
Spectrometer Model: Optima 4300 DV

Plasma On Time: 06/21/2002 07:59:35
Technique: ICP Continuous
Autosampler Model: AS-91

Sample Information File: C:\Win32\Sample Information\1468.sif
Results Data Set: 2020621 A
Results Library: c:\win32\Results\Results.mdb

Sequence No.: 1
Sample ID: Calib Blank 1
Analyst:
Nebulizer Back Pressure: 150.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 06/21/2002 09:25:45

Nebulizer Flow: 0.52 L/min
Sample Prep Volume:
Data Type: Original

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Argon	7489613.8	18758.96	0.25%	100.00	%
Scandium-IS	4707298.1	11431.82	0.24%	100.00	%
Yttrium,7440-65-5A	2171402.6	1673.62	0.08%	100.00	%
Yttrium,7440-65-5R	126872.2	2828.71	2.23%	100.00	%
Aluminum,7429-90-5†	-454.8	24.91	5.48%	[0.00]	mg/L
Antimony,7440-36-0†	-70.2	7.32	10.42%	[0.00]	mg/L
Arsenic,7440-38-2†	-52.2	1.62	3.10%	[0.00]	mg/L
Barium,7440-39-3†	75.7	5.60	7.41%	[0.00]	mg/L
Beryllium,7440-41-7†	-10443.4	167.05	1.60%	[0.00]	mg/L
Boron,7440-42-8†	-507.9	13.74	2.70%	[0.00]	mg/L
Cadmium,7440-43-9†	-395.0	13.80	3.49%	[0.00]	mg/L
Calcium,7440-70-2†	-376.9	8.30	2.20%	[0.00]	mg/L
Cerium,7440-45-1†	8117.8	133.33	1.64%	[0.00]	mg/L
Chromium,7440-47-3†	1611.8	10.36	0.64%	[0.00]	mg/L
Cobalt,7440-48-4†	-37.2	5.20	13.98%	[0.00]	mg/L
Copper,7440-50-8†	5110.8	90.84	1.78%	[0.00]	mg/L
Iron,7439-89-6†	-298.9	4.37	1.46%	[0.00]	mg/L
Lead,7439-92-1†	-93.6	3.43	3.66%	[0.00]	mg/L
Lithium,7439-93-2†	1187.2	81.16	6.84%	[0.00]	mg/L
Magnesium,7439-95-4†	22.9	11.36	49.62%	[0.00]	mg/L
Manganese,7439-96-5†	-1256.5	28.30	2.25%	[0.00]	mg/L
Molybdenum,7439-98-7†	-155.8	8.19	5.26%	[0.00]	mg/L
Nickel,7440-02-0†	253.0	15.05	5.95%	[0.00]	mg/L
Phosphorus,7439-93-2†	-178.0	5.42	3.05%	[0.00]	mg/L
Potassium,7440-09-7†	-2404.3	83.41	3.47%	[0.00]	mg/L
Selenium,7782-49-2†	-143.8	8.27	5.75%	[0.00]	mg/L
Silicon,7440-21-3†	400.8	58.59	14.62%	[0.00]	mg/L
Silver,7440-22-4†	-12922.6	91.94	0.71%	[0.00]	mg/L
Sodium,7440-23-5†	6858.2	119.32	1.74%	[0.00]	mg/L
Strontium,7440-24-6†	-142.7	40.41	28.32%	[0.00]	mg/L
Thallium,7440-28-0†	2.6	2.66	101.22%	[0.00]	mg/L
Tin,7440-31-5†	-35.7	5.45	15.27%	[0.00]	mg/L
Titanium,7440-32-6†	570.4	94.97	16.65%	[0.00]	mg/L
Vanadium,7440-62-2†	8871.1	11.84	0.13%	[0.00]	mg/L
Zinc,7440-66-6†	-36.6	1.60	4.36%	[0.00]	mg/L
Zirconium,7440-67-7†	1307.2	85.93	6.57%	[0.00]	mg/L

Sequence No.: 2
Sample ID: Calib Std 1
Analyst:
Nebulizer Back Pressure: 149.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 06/21/2002 09:32:59

Nebulizer Flow: 0.52 L/min
Sample Prep Volume:
Data Type: Original

Mean Data: Calib Std 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units

Argon	7455760.6	15577.50	0.21%	99.548	%
Scandium-IS	4646411.3	20793.93	0.45%	98.707	%
Yttrium,7440-65-5A	2148663.9	43422.62	2.02%	98.953	%
Yttrium,7440-65-5R	121696.8	485.02	0.40%	95.921	%
Aluminum,7429-90-5†	6739.3	70.44	1.05%	[10.0]	mg/L
Arsenic,7440-38-2†	2120.2	37.10	1.75%	[1.00]	mg/L
Barium,7440-39-3†	170669.2	873.11	0.51%	[1.00]	mg/L
Beryllium,7440-41-7†	4040550.2	113621.17	2.81%	[1.00]	mg/L
Cadmium,7440-43-9†	169145.6	713.53	0.42%	[1.00]	mg/L
Calcium,7440-70-2†	35146.8	431.75	1.23%	[10.0]	mg/L
Cerium,7440-45-1†	102154.1	1134.26	1.11%	[1.00]	mg/L
Chromium,7440-47-3†	129474.1	855.61	0.66%	[1.00]	mg/L
Cobalt,7440-48-4†	61577.8	324.36	0.53%	[1.00]	mg/L
Copper,7440-50-8†	374469.0	2435.46	0.65%	[1.00]	mg/L
Iron,7439-89-6†	10033.7	102.45	1.02%	[10.0]	mg/L
Lead,7439-92-1†	16231.2	261.75	1.61%	[1.00]	mg/L
Lithium,7439-93-2†	58855.6	313.17	0.53%	[1.00]	mg/L
Magnesium,7439-95-4†	3069.3	28.50	0.93%	[10.0]	mg/L
Manganese,7439-96-5†	1079608.4	5972.14	0.55%	[1.00]	mg/L
Nickel,7440-02-0†	57825.4	188.28	0.33%	[1.00]	mg/L
Potassium,7440-09-7†	55483.0	147.50	0.27%	[20.0]	mg/L
Selenium,7782-49-2†	2199.6	34.28	1.56%	[1.00]	mg/L
Silver,7440-22-4†	305928.2	1925.27	0.63%	[1.00]	mg/L
Sodium,7440-23-5†	321373.7	286.55	0.09%	[40.0]	mg/L
Strontium,7440-24-6†	380560.7	554.26	0.15%	[1.00]	mg/L
Thallium,7440-28-0†	1730.5	35.21	2.03%	[1.00]	mg/L
Vanadium,7440-62-2†	235593.3	1451.58	0.62%	[1.00]	mg/L
Zinc,7440-66-6†	99964.6	581.21	0.58%	[1.00]	mg/L

Sequence No.: 3
Sample ID: Calib Std 2
Analyst:
Nebulizer Back Pressure: 149.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 06/21/2002 09:39:28
Nebulizer Flow: 0.52 L/min
Sample Prep Volume:
Data Type: Original

Mean Data: Calib Std 2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Argon	7480291.3	9985.59	0.13%	99.876	%
Scandium-IS	4727201.9	5682.99	0.12%	100.42	%
Yttrium,7440-65-5A	2187714.2	21658.67	0.99%	100.75	%
Yttrium,7440-65-5R	123961.4	540.97	0.44%	97.706	%
Antimony,7440-36-0†	3044.2	44.62	1.47%	[1.00]	mg/L
Boron,7440-42-8†	236904.8	293.68	0.12%	[5.00]	mg/L
Molybdenum,7439-98-7†	24532.4	248.63	1.01%	[1.00]	mg/L
Phosphorus,7439-93-2†	20546.3	217.54	1.06%	[10.0]	mg/L
Silicon,7440-21-3†	124164.1	539.42	0.43%	[10.0]	mg/L
Tin,7440-31-5†	6671.1	44.30	0.66%	[1.00]	mg/L
Titanium,7440-32-6†	613628.3	2069.29	0.34%	[1.00]	mg/L
Zirconium,7440-67-7†	497926.6	1879.64	0.38%	[1.00]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Aluminum,7429-90-5	1	Lin, Calc Int	0.0	673.9	0.00000	1.000000	
Antimony,7440-36-0	1	Lin, Calc Int	0.0	3044	0.00000	1.000000	
Arsenic,7440-38-2	1	Lin, Calc Int	0.0	2120	0.00000	1.000000	
Barium,7440-39-3	1	Lin, Calc Int	0.0	170700	0.00000	1.000000	
Beryllium,7440-41-7	1	Lin, Calc Int	0.0	4041000	0.00000	1.000000	
Boron,7440-42-8	1	Lin, Calc Int	0.0	47380	0.00000	1.000000	
Cadmium,7440-43-9	1	Lin, Calc Int	0.0	169100	0.00000	1.000000	
Calcium,7440-70-2	1	Lin, Calc Int	0.0	3515	0.00000	1.000000	
Cerium,7440-45-1	1	Lin, Calc Int	0.0	102200	0.00000	1.000000	
Chromium,7440-47-3	1	Lin, Calc Int	0.0	129500	0.00000	1.000000	
Cobalt,7440-48-4	1	Lin, Calc Int	0.0	61580	0.00000	1.000000	
Copper,7440-50-8	1	Lin, Calc Int	0.0	374500	0.00000	1.000000	
Iron,7439-89-6	1	Lin, Calc Int	0.0	1003	0.00000	1.000000	
Lead,7439-92-1	1	Lin, Calc Int	0.0	16230	0.00000	1.000000	
Lithium,7439-93-2	1	Lin, Calc Int	0.0	58860	0.00000	1.000000	

Magnesium,7439-95-4	1	Lin, Calc Int	0.0	306.9	0.00000	1.000000
Manganese,7439-96-5	1	Lin, Calc Int	0.0	1080000	0.00000	1.000000
Molybdenum,7439-98-7	1	Lin, Calc Int	0.0	24530	0.00000	1.000000
Nickel,7440-02-0	1	Lin, Calc Int	0.0	57830	0.00000	1.000000
Phosphorus,7439-93-2	1	Lin, Calc Int	0.0	2055	0.00000	1.000000
Potassium,7440-09-7	1	Lin, Calc Int	0.0	2774	0.00000	1.000000
Selenium,7782-49-2	1	Lin, Calc Int	0.0	2200	0.00000	1.000000
Silicon,7440-21-3	1	Lin, Calc Int	0.0	12420	0.00000	1.000000
Silver,7440-22-4	1	Lin, Calc Int	0.0	305900	0.00000	1.000000
Sodium,7440-23-5	1	Lin, Calc Int	0.0	8034	0.00000	1.000000
Strontium,7440-24-6	1	Lin, Calc Int	0.0	380600	0.00000	1.000000
Thallium,7440-28-0	1	Lin, Calc Int	0.0	1731	0.00000	1.000000
Tin,7440-31-5	1	Lin, Calc Int	0.0	6671	0.00000	1.000000
Titanium,7440-32-6	1	Lin, Calc Int	0.0	613600	0.00000	1.000000
Vanadium,7440-62-2	1	Lin, Calc Int	0.0	235600	0.00000	1.000000
Zinc,7440-66-6	1	Lin, Calc Int	0.0	99960	0.00000	1.000000
Zirconium,7440-67-7	1	Lin, Calc Int	0.0	497900	0.00000	1.000000

==========

Sequence No.: 4 **Autosampler Location: 1**
Sample ID: 1700 **Date Collected: 06/21/2002 09:44:45**
Analyst:
Nebulizer Back Pressure: 150.0 kPa **Nebulizer Flow: 0.52 L/min**
Sample Wt: **Sample Prep Volume:**
Dilution: **Data Type: Original**

Mean Data: 1700

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Argon	7429219.4	99.194	%	0.1788				0.18%
Scandium-IS	4657473.5	98.942	%	0.6861				0.69%
Yttrium,7440-65-5A	2186906.4	100.71	%	1.156				1.15%
Yttrium,7440-65-5R	124912.6	98.455	%	0.2244				0.23%
Aluminum,7429-90-5†	-7.2	-0.0107	mg/L	0.00704	-0.0107	mg/L	0.00704	66.09%
QC value within limits for Aluminum,7429-90-5 Recovery = Not calculated								
Antimony,7440-36-0†	5.2	0.0017	mg/L	0.00220	0.0017	mg/L	0.00220	128.32%
QC value within limits for Antimony,7440-36-0 Recovery = Not calculated								
Arsenic,7440-38-2†	3.4	0.0016	mg/L	0.00081	0.0016	mg/L	0.00081	51.85%
QC value within limits for Arsenic,7440-38-2 Recovery = Not calculated								
Barium,7440-39-3†	-16.2	-0.0001	mg/L	0.00004	-0.0001	mg/L	0.00004	45.98%
QC value within limits for Barium,7440-39-3 Recovery = Not calculated								
Beryllium,7440-41-7†	231.3	0.0001	mg/L	0.00006	0.0001	mg/L	0.00006	97.17%
QC value within limits for Beryllium,7440-41-7 Recovery = Not calculated								
Boron,7440-42-8†	1392.1	0.0294	mg/L	0.00340	0.0294	mg/L	0.00340	11.58%
QC value within limits for Boron,7440-42-8 Recovery = Not calculated								
Cadmium,7440-43-9†	18.0	0.0001	mg/L	0.00011	0.0001	mg/L	0.00011	100.80%
QC value within limits for Cadmium,7440-43-9 Recovery = Not calculated								
Calcium,7440-70-2†	-15.2	-0.0043	mg/L	0.00327	-0.0043	mg/L	0.00327	75.58%
QC value within limits for Calcium,7440-70-2 Recovery = Not calculated								
Cerium,7440-45-1†	-251.2	-0.0025	mg/L	0.00036	-0.0025	mg/L	0.00036	14.63%
QC value within limits for Cerium,7440-45-1 Recovery = Not calculated								
Chromium,7440-47-3†	-33.8	-0.0003	mg/L	0.00011	-0.0003	mg/L	0.00011	43.74%
QC value within limits for Chromium,7440-47-3 Recovery = Not calculated								
Cobalt,7440-48-4†	9.2	0.0001	mg/L	0.00010	0.0001	mg/L	0.00010	64.08%
QC value within limits for Cobalt,7440-48-4 Recovery = Not calculated								
Copper,7440-50-8†	488.4	0.0013	mg/L	0.00014	0.0013	mg/L	0.00014	11.00%
QC value within limits for Copper,7440-50-8 Recovery = Not calculated								
Iron,7439-89-6†	-8.7	-0.0087	mg/L	0.00240	-0.0087	mg/L	0.00240	27.54%
QC value within limits for Iron,7439-89-6 Recovery = Not calculated								
Lead,7439-92-1†	-9.0	-0.0006	mg/L	0.00036	-0.0006	mg/L	0.00036	65.42%
QC value within limits for Lead,7439-92-1 Recovery = Not calculated								
Lithium,7439-93-2†	68.9	0.0012	mg/L	0.00062	0.0012	mg/L	0.00062	52.98%
QC value within limits for Lithium,7439-93-2 Recovery = Not calculated								
Magnesium,7439-95-4†	-0.4	-0.0014	mg/L	0.01899	-0.0014	mg/L	0.01899	>999.9%
QC value within limits for Magnesium,7439-95-4 Recovery = Not calculated								
Manganese,7439-96-5†	23.0	0.0000	mg/L	0.00002	0.0000	mg/L	0.00002	102.42%
QC value within limits for Manganese,7439-96-5 Recovery = Not calculated								
Molybdenum,7439-98-7†	56.8	0.0023	mg/L	0.00021	0.0023	mg/L	0.00021	9.14%
QC value within limits for Molybdenum,7439-98-7 Recovery = Not calculated								
Nickel,7440-02-0†	-4.2	-0.0001	mg/L	0.00015	-0.0001	mg/L	0.00015	201.92%
QC value within limits for Nickel,7440-02-0 Recovery = Not calculated								
Phosphorus,7439-93-2†	8.0	0.0043	mg/L	0.00356	0.0043	mg/L	0.00356	83.34%

QC value within limits for Phosphorus,7439-93-2 Recovery = Not calculated
Potassium,7440-09-7† 81.8 0.0295 mg/L 0.04651 0.0295 mg/L 0.04651 157.67%
QC value within limits for Potassium,7440-09-7 Recovery = Not calculated
Selenium,7782-49-2† 2.7 0.0012 mg/L 0.00053 0.0012 mg/L 0.00053 42.91%
QC value within limits for Selenium,7782-49-2 Recovery = Not calculated
Silicon,7440-21-3† -9.5 -0.0008 mg/L 0.00127 -0.0008 mg/L 0.00127 165.15%
QC value within limits for Silicon,7440-21-3 Recovery = Not calculated
Silver,7440-22-4† 470.4 0.0015 mg/L 0.00017 0.0015 mg/L 0.00017 11.18%
QC value within limits for Silver,7440-22-4 Recovery = Not calculated
Sodium,7440-23-5† 2757.1 0.3432 mg/L 0.07768 0.3432 mg/L 0.07768 22.64%
QC value within limits for Sodium,7440-23-5 Recovery = Not calculated
Strontium,7440-24-6† -2.5 0.0000 mg/L 0.00006 0.0000 mg/L 0.00006 954.14%
QC value within limits for Strontium,7440-24-6 Recovery = Not calculated
Thallium,7440-28-0† 2.4 0.0014 mg/L 0.00193 0.0014 mg/L 0.00193 138.79%
QC value within limits for Thallium,7440-28-0 Recovery = Not calculated
Tin,7440-31-5† 0.3 0.0001 mg/L 0.00098 0.0001 mg/L 0.00098 >999.9%
QC value within limits for Tin,7440-31-5 Recovery = Not calculated
Titanium,7440-32-6† 70.2 0.0001 mg/L 0.00012 0.0001 mg/L 0.00012 100.72%
QC value within limits for Titanium,7440-32-6 Recovery = Not calculated
Vanadium,7440-62-2† -165.9 -0.0007 mg/L 0.00029 -0.0007 mg/L 0.00029 41.15%
QC value within limits for Vanadium,7440-62-2 Recovery = Not calculated
Zinc,7440-66-6† 65.0 0.0007 mg/L 0.00015 0.0007 mg/L 0.00015 22.80%
QC value within limits for Zinc,7440-66-6 Recovery = Not calculated
Zirconium,7440-67-7† 12.3 0.0000 mg/L 0.00011 0.0000 mg/L 0.00011 465.01%
QC value within limits for Zirconium,7440-67-7 Recovery = Not calculated
All analytes passed QC.

Sequence No.: 5
Sample ID: 1600
Analyst:
Nebulizer Back Pressure: 149.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 12
Date Collected: 06/21/2002 09:51:58
Nebulizer Flow: 0.52 L/min
Sample Prep Volume:
Data Type: Original

Mean Data: 1600

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Argon	7451594.8	99.492	%	0.0188				0.02%
Scandium-IS	4719995.5	100.27	%	0.908				0.91%
Yttrium,7440-65-5A	2189914.2	100.85	%	1.000				0.99%
Yttrium,7440-65-5R	123020.9	96.964	%	1.0452				1.08%
Aluminum,7429-90-5†	26.4	0.0148	mg/L	0.01370	0.0148	mg/L	0.01370	92.65%
Antimony,7440-36-0†	2967.0	0.9523	mg/L	0.00810	0.9523	mg/L	0.00810	0.85%
QC value within limits for Antimony,7440-36-0 Recovery = 95.23%								
Arsenic,7440-38-2†	2095.2	1.0208	mg/L	0.00590	1.0208	mg/L	0.00590	0.58%
QC value within limits for Arsenic,7440-38-2 Recovery = 102.08%								
Barium,7440-39-3†	-208.0	-0.0020	mg/L	0.00001	-0.0020	mg/L	0.00001	0.38%
Beryllium,7440-41-7†	4076964.7	1.0083	mg/L	0.02099	1.0083	mg/L	0.02099	2.08%
QC value within limits for Beryllium,7440-41-7 Recovery = 100.83%								
Boron,7440-42-8†	450.0	0.0100	mg/L	0.00057	0.0100	mg/L	0.00057	5.75%
Cadmium,7440-43-9†	171087.9	1.0115	mg/L	0.00799	1.0115	mg/L	0.00799	0.79%
QC value within limits for Cadmium,7440-43-9 Recovery = 101.15%								
Calcium,7440-70-2†	3648.8	1.0377	mg/L	0.02657	1.0377	mg/L	0.02657	2.56%
QC value within limits for Calcium,7440-70-2 Recovery = 103.77%								
Cerium,7440-45-1†	105886.9	1.0372	mg/L	0.00274	1.0372	mg/L	0.00274	0.26%
QC value within limits for Cerium,7440-45-1 Recovery = 103.72%								
Chromium,7440-47-3†	132553.6	1.0230	mg/L	0.00905	1.0230	mg/L	0.00905	0.88%
QC value within limits for Chromium,7440-47-3 Recovery = 102.30%								
Cobalt,7440-48-4†	64407.0	1.0433	mg/L	0.00857	1.0433	mg/L	0.00857	0.82%
QC value within limits for Cobalt,7440-48-4 Recovery = 104.33%								
Copper,7440-50-8†	365293.1	0.9717	mg/L	0.00036	0.9717	mg/L	0.00036	0.04%
QC value within limits for Copper,7440-50-8 Recovery = 97.17%								
Iron,7439-89-6†	1016.6	1.0137	mg/L	0.01072	1.0137	mg/L	0.01072	1.06%
QC value within limits for Iron,7439-89-6 Recovery = 101.37%								
Lead,7439-92-1†	16952.9	1.0444	mg/L	0.00846	1.0444	mg/L	0.00846	0.81%
QC value within limits for Lead,7439-92-1 Recovery = 104.44%								
Lithium,7439-93-2†	62523.3	1.0625	mg/L	0.01004	1.0625	mg/L	0.01004	0.94%
QC value within limits for Lithium,7439-93-2 Recovery = 106.25%								
Magnesium,7439-95-4†	307.8	1.0030	mg/L	0.02018	1.0030	mg/L	0.02018	2.01%
QC value within limits for Magnesium,7439-95-4 Recovery = 100.30%								
Manganese,7439-96-5†	1117175.5	1.0350	mg/L	0.00244	1.0350	mg/L	0.00244	0.24%

QC value within limits for Manganese,7439-96-5 Recovery = 103.50%

Molybdenum,7439-98-7†	24179.5	0.9857 mg/L	0.00724	0.9857 mg/L	0.00724	0.73%

QC value within limits for Molybdenum,7439-98-7 Recovery = 98.57%

Nickel,7440-02-0†	60097.2	1.0392 mg/L	0.00983	1.0392 mg/L	0.00983	0.95%

QC value within limits for Nickel,7440-02-0 Recovery = 103.92%

Phosphorus,7439-93-2†	-111.2	0.2527 mg/L	0.00109	0.2527 mg/L	0.00109	0.43%
Potassium,7440-09-7†	-80.9	-0.0250 mg/L	0.01231	-0.0250 mg/L	0.01231	49.16%
Selenium,7782-49-2†	2177.6	0.9898 mg/L	0.00803	0.9898 mg/L	0.00803	0.81%

QC value within limits for Selenium,7782-49-2 Recovery = 98.98%

Silicon,7440-21-3†	420.2	0.0151 mg/L	0.00016	0.0151 mg/L	0.00016	1.08%
Silver,7440-22-4†	312300.9	1.0208 mg/L	0.00995	1.0208 mg/L	0.00995	0.97%

QC value within limits for Silver,7440-22-4 Recovery = 102.08%

Sodium,7440-23-5†	-948.5	-0.1143 mg/L	0.00632	-0.1143 mg/L	0.00632	5.52%
Strontium,7440-24-6†	380511.2	0.9999 mg/L	0.00575	0.9999 mg/L	0.00575	0.58%

QC value within limits for Strontium,7440-24-6 Recovery = 99.99%

Thallium,7440-28-0†	1748.8	1.0106 mg/L	0.00959	1.0106 mg/L	0.00959	0.95%

QC value within limits for Thallium,7440-28-0 Recovery = 101.06%

Tin,7440-31-5†	-5.3	0.0057 mg/L	0.00126	0.0057 mg/L	0.00126	22.04%
Titanium,7440-32-6†	604023.6	0.9843 mg/L	0.00324	0.9843 mg/L	0.00324	0.33%

QC value within limits for Titanium,7440-32-6 Recovery = 98.43%

Vanadium,7440-62-2†	235914.5	1.0014 mg/L	0.00986	1.0014 mg/L	0.00986	0.98%

QC value within limits for Vanadium,7440-62-2 Recovery = 100.14%

Zinc,7440-66-6†	100917.9	1.0034 mg/L	0.00903	1.0034 mg/L	0.00903	0.90%

QC value within limits for Zinc,7440-66-6 Recovery = 100.34%

Zirconium,7440-67-7†	1074.2	0.0021 mg/L	0.00050	0.0021 mg/L	0.00050	23.41%

All analytes passed QC.

Sequence No.: 6
Sample ID: 1601
Analyst:
Nebulizer Back Pressure: 150.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 06/21/2002 09:59:22
Nebulizer Flow: 0.52 L/min
Sample Prep Volume:
Data Type: Original

Mean Data: 1601

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Argon	7426096.6	99.152	%	0.1002				0.10%
Scandium-IS	4607096.9	97.871	%	0.5050				0.52%
Yttrium,7440-65-5A	2136688.9	98.401	%	0.7280				0.74%
Yttrium,7440-65-5R	122706.9	96.717	%	1.0265				1.06%
Aluminum,7429-90-5†	6919.3	10.267	mg/L	0.0613	10.267	mg/L	0.0613	0.60%

QC value within limits for Aluminum,7429-90-5 Recovery = 102.67%

Antimony,7440-36-0†	4.2	0.0015	mg/L	0.00099	0.0015	mg/L	0.00099	66.19%
Arsenic,7440-38-2†	-6.5	-0.0005	mg/L	0.00249	-0.0005	mg/L	0.00249	522.03%
Barium,7440-39-3†	177516.8	1.0401	mg/L	0.02156	1.0401	mg/L	0.02156	2.07%

QC value within limits for Barium,7440-39-3 Recovery = 104.01%

Beryllium,7440-41-7†	817.7	0.0002	mg/L	0.00004	0.0002	mg/L	0.00004	20.07%
Boron,7440-42-8†	229183.6	4.8369	mg/L	0.07463	4.8369	mg/L	0.07463	1.54%

QC value within limits for Boron,7440-42-8 Recovery = 96.74%

Cadmium,7440-43-9†	-14.0	-0.0002	mg/L	0.00013	-0.0002	mg/L	0.00013	56.29%
Calcium,7440-70-2†	408.0	0.1153	mg/L	0.00188	0.1153	mg/L	0.00188	1.63%
Cerium,7440-45-1†	25.4	0.0003	mg/L	0.00070	0.0003	mg/L	0.00070	240.15%
Chromium,7440-47-3†	40.4	0.0003	mg/L	0.00003	0.0003	mg/L	0.00003	10.60%
Cobalt,7440-48-4†	-140.4	-0.0023	mg/L	0.00026	-0.0023	mg/L	0.00026	11.33%
Copper,7440-50-8†	2196.5	0.0058	mg/L	0.00084	0.0058	mg/L	0.00084	14.43%
Iron,7439-89-6†	-11.4	-0.0117	mg/L	0.00500	-0.0117	mg/L	0.00500	42.66%
Lead,7439-92-1†	-27.7	0.0004	mg/L	0.00058	0.0004	mg/L	0.00058	135.99%
Lithium,7439-93-2†	-26.4	-0.0004	mg/L	0.00184	-0.0004	mg/L	0.00184	505.62%
Magnesium,7439-95-4†	4.5	0.0145	mg/L	0.00881	0.0145	mg/L	0.00881	60.64%
Manganese,7439-96-5†	301.7	0.0004	mg/L	0.00003	0.0004	mg/L	0.00003	8.13%
Molybdenum,7439-98-7†	82.3	0.0034	mg/L	0.00059	0.0034	mg/L	0.00059	17.51%
Nickel,7440-02-0†	32.3	0.0005	mg/L	0.00034	0.0005	mg/L	0.00034	64.05%
Phosphorus,7439-93-2†	-16.9	0.0009	mg/L	0.00313	0.0009	mg/L	0.00313	365.97%
Potassium,7440-09-7†	28301.2	10.202	mg/L	0.0504	10.202	mg/L	0.0504	0.49%

QC value within limits for Potassium,7440-09-7 Recovery = 102.02%

Selenium,7782-49-2†	-10.0	-0.0012	mg/L	0.00027	-0.0012	mg/L	0.00027	22.87%
Silicon,7440-21-3†	2.6	-0.0006	mg/L	0.00077	-0.0006	mg/L	0.00077	126.21%
Silver,7440-22-4†	2663.7	0.0087	mg/L	0.00019	0.0087	mg/L	0.00019	2.20%
Sodium,7440-23-5†	82517.9	10.269	mg/L	0.0833	10.269	mg/L	0.0833	0.81%

QC value within limits for Sodium,7440-23-5 Recovery = 102.69%

Strontium,7440-24-6†	63.2	0.0002 mg/L	0.00019	0.0002 mg/L	0.00019	112.85%
Thallium,7440-28-0†	2.8	0.0016 mg/L	0.00079	0.0016 mg/L	0.00079	49.59%
Tin,7440-31-5†	3333.4	0.4999 mg/L	0.00425	0.4999 mg/L	0.00425	0.85%
QC value less than the lower limit for Tin,7440-31-5 Recovery = 49.99%						
Titanium,7440-32-6†	528.3	0.0009 mg/L	0.00013	0.0009 mg/L	0.00013	15.63%
Vanadium,7440-62-2†	83.3	0.0003 mg/L	0.00057	0.0003 mg/L	0.00057	178.82%
Zinc,7440-66-6†	578.4	0.0055 mg/L	0.00014	0.0055 mg/L	0.00014	2.48%
Zirconium,7440-67-7†	484439.8	0.9729 mg/L	0.00668	0.9729 mg/L	0.00668	0.69%
QC value within limits for Zirconium,7440-67-7 Recovery = 97.29%						

QC Failed. Continue with analysis.

Sequence No.: 7
Sample ID: 2300
Analyst:
Nebulizer Back Pressure: 150.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 06/21/2002 10:06:38
Nebulizer Flow: 0.52 L/min
Sample Prep Volume:
Data Type: Original

Mean Data: 2300

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Argon	7409331.8	98.928	%	0.1679				0.17%
Scandium-IS	4642559.0	98.625	%	1.3321				1.35%
Yttrium,7440-65-5A	2164587.6	99.686	%	0.8927				0.90%
Yttrium,7440-65-5R	121269.8	95.584	%	0.2982				0.31%
Aluminum,7429-90-5†	5.3	0.0077	mg/L	0.01073	0.0077	mg/L	0.01073	139.40%
Antimony,7440-36-0†	26.9	0.0087	mg/L	0.00035	0.0087	mg/L	0.00035	3.97%
Arsenic,7440-38-2†	4.4	0.0022	mg/L	0.00102	0.0022	mg/L	0.00102	46.22%
Barium,7440-39-3†	816.5	0.0048	mg/L	0.00013	0.0048	mg/L	0.00013	2.72%
Beryllium,7440-41-7†	20709.8	0.0051	mg/L	0.00006	0.0051	mg/L	0.00006	1.15%
Boron,7440-42-8†	3111.1	0.0657	mg/L	0.00480	0.0657	mg/L	0.00480	7.31%
Cadmium,7440-43-9†	833.6	0.0049	mg/L	0.00001	0.0049	mg/L	0.00001	0.28%
Calcium,7440-70-2†	105.6	0.0301	mg/L	0.00177	0.0301	mg/L	0.00177	5.90%
Cerium,7440-45-1†	398.0	0.0039	mg/L	0.00077	0.0039	mg/L	0.00077	19.73%
Chromium,7440-47-3†	650.1	0.0050	mg/L	0.00034	0.0050	mg/L	0.00034	6.81%
Cobalt,7440-48-4†	311.4	0.0050	mg/L	0.00020	0.0050	mg/L	0.00020	3.94%
Copper,7440-50-8†	2570.0	0.0068	mg/L	0.00043	0.0068	mg/L	0.00043	6.35%
Iron,7439-89-6†	37.0	0.0369	mg/L	0.00581	0.0369	mg/L	0.00581	15.73%
Lead,7439-92-1†	105.0	0.0065	mg/L	0.00108	0.0065	mg/L	0.00108	16.76%
Lithium,7439-93-2†	383.5	0.0065	mg/L	0.00066	0.0065	mg/L	0.00066	10.07%
Magnesium,7439-95-4†	12.9	0.0422	mg/L	0.01025	0.0422	mg/L	0.01025	24.29%
Manganese,7439-96-5†	5752.0	0.0053	mg/L	0.00006	0.0053	mg/L	0.00006	1.09%
Molybdenum,7439-98-7†	149.6	0.0061	mg/L	0.00013	0.0061	mg/L	0.00013	2.19%
Nickel,7440-02-0†	290.9	0.0050	mg/L	0.00036	0.0050	mg/L	0.00036	7.25%
Phosphorus,7439-93-2†	97.6	0.0496	mg/L	0.00252	0.0496	mg/L	0.00252	5.09%
Potassium,7440-09-7†	185.7	0.0670	mg/L	0.02633	0.0670	mg/L	0.02633	39.32%
Selenium,7782-49-2†	16.9	0.0077	mg/L	0.00171	0.0077	mg/L	0.00171	22.20%
Silicon,7440-21-3†	539.3	0.0433	mg/L	0.00059	0.0433	mg/L	0.00059	1.36%
Silver,7440-22-4†	1698.5	0.0056	mg/L	0.00064	0.0056	mg/L	0.00064	11.55%
Sodium,7440-23-5†	1152.1	0.1434	mg/L	0.00984	0.1434	mg/L	0.00984	6.86%
Strontium,7440-24-6†	1869.8	0.0049	mg/L	0.00014	0.0049	mg/L	0.00014	2.90%
Thallium,7440-28-0†	2.1	0.0012	mg/L	0.00164	0.0012	mg/L	0.00164	132.76%
Tin,7440-31-5†	41.1	0.0062	mg/L	0.00045	0.0062	mg/L	0.00045	7.34%
Titanium,7440-32-6†	3216.3	0.0052	mg/L	0.00009	0.0052	mg/L	0.00009	1.74%
QC value within limits for Titanium,7440-32-6 Recovery = 104.82%								
Vanadium,7440-62-2†	934.7	0.0040	mg/L	0.00006	0.0040	mg/L	0.00006	1.63%
Zinc,7440-66-6†	332.3	0.0033	mg/L	0.00008	0.0033	mg/L	0.00008	2.52%
Zirconium,7440-67-7†	5450.8	0.0109	mg/L	0.00124	0.0109	mg/L	0.00124	11.29%

All analytes passed QC.

Sequence No.: 8
Sample ID: 2000
Analyst:
Nebulizer Back Pressure: 150.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 06/21/2002 10:13:54
Nebulizer Flow: 0.52 L/min
Sample Prep Volume:
Data Type: Original

Mean Data: 2000

Mean Corrected Calib Sample

Analyte	Intensity	Conc.	Units	Std.Dev.	Conc.	Units	Std.Dev.	RSD
Argon	7057634.9	94.232	%	0.2278				0.24%
Scandium-IS	4381298.7	93.075	%	0.5795				0.62%
Yttrium,7440-65-5A	2059988.9	94.869	%	1.0380				1.09%
Yttrium,7440-65-5R	119280.4	94.016	%	1.0167				1.08%
Aluminum,7429-90-5†	152993.3	226.99	mg/L	0.401	226.99	mg/L	0.401	0.18%
QC value within limits for Aluminum,7429-90-5 Recovery = 113.49%								
Antimony,7440-36-0†	-71.5	-0.0176	mg/L	0.00221	-0.0176	mg/L	0.00221	12.55%
QC value within limits for Antimony,7440-36-0 Recovery = Not calculated								
Arsenic,7440-38-2†	-172.9	-0.0092	mg/L	0.00299	-0.0092	mg/L	0.00299	32.65%
QC value within limits for Arsenic,7440-38-2 Recovery = Not calculated								
Barium,7440-39-3†	545.8	0.0010	mg/L	0.00011	0.0010	mg/L	0.00011	11.75%
QC value within limits for Barium,7440-39-3 Recovery = Not calculated								
Beryllium,7440-41-7†	-306.2	-0.0001	mg/L	0.00004	-0.0001	mg/L	0.00004	55.80%
QC value within limits for Beryllium,7440-41-7 Recovery = Not calculated								
Boron,7440-42-8†	-982.6	-0.0017	mg/L	0.00307	-0.0017	mg/L	0.00307	184.18%
QC value within limits for Boron,7440-42-8 Recovery = Not calculated								
Cadmium,7440-43-9†	815.9	-0.0003	mg/L	0.00011	-0.0003	mg/L	0.00011	38.44%
QC value within limits for Cadmium,7440-43-9 Recovery = Not calculated								
Calcium,7440-70-2†	785081.0	223.34	mg/L	2.193	223.34	mg/L	2.193	0.98%
QC value within limits for Calcium,7440-70-2 Recovery = 111.67%								
Cerium,7440-45-1†	-522.1	-0.0030	mg/L	0.00163	-0.0030	mg/L	0.00163	54.81%
Chromium,7440-47-3†	384.5	0.0073	mg/L	0.00037	0.0073	mg/L	0.00037	5.09%
QC value within limits for Chromium,7440-47-3 Recovery = Not calculated								
Cobalt,7440-48-4†	91.7	0.0018	mg/L	0.00011	0.0018	mg/L	0.00011	6.06%
QC value within limits for Cobalt,7440-48-4 Recovery = Not calculated								
Copper,7440-50-8†	-4896.7	-0.0022	mg/L	0.00063	-0.0022	mg/L	0.00063	29.35%
QC value within limits for Copper,7440-50-8 Recovery = Not calculated								
Iron,7439-89-6†	86922.1	86.613	mg/L	0.0996	86.613	mg/L	0.0996	0.12%
QC value within limits for Iron,7439-89-6 Recovery = 108.27%								
Lead,7439-92-1†	-652.1	0.0011	mg/L	0.00170	0.0011	mg/L	0.00170	153.33%
QC value within limits for Lead,7439-92-1 Recovery = Not calculated								
Lithium,7439-93-2†	-50.4	0.0031	mg/L	0.00057	0.0031	mg/L	0.00057	18.39%
Magnesium,7439-95-4†	67607.8	220.34	mg/L	0.239	220.34	mg/L	0.239	0.11%
QC value within limits for Magnesium,7439-95-4 Recovery = 110.17%								
Manganese,7439-96-5†	-5242.3	-0.0010	mg/L	0.00010	-0.0010	mg/L	0.00010	9.65%
QC value within limits for Manganese,7439-96-5 Recovery = Not calculated								
Molybdenum,7439-98-7†	44.2	-0.0025	mg/L	0.00045	-0.0025	mg/L	0.00045	17.67%
QC value within limits for Molybdenum,7439-98-7 Recovery = Not calculated								
Nickel,7440-02-0†	33.3	0.0001	mg/L	0.00031	0.0001	mg/L	0.00031	234.62%
QC value within limits for Nickel,7440-02-0 Recovery = Not calculated								
Phosphorus,7439-93-2†	0.3	0.0763	mg/L	0.00053	0.0763	mg/L	0.00053	0.70%
Potassium,7440-09-7†	-212.4	-0.0362	mg/L	0.01864	-0.0362	mg/L	0.01864	51.43%
Selenium,7782-49-2†	-305.2	-0.0413	mg/L	0.00312	-0.0413	mg/L	0.00312	7.55%
QC value within limits for Selenium,7782-49-2 Recovery = Not calculated								
Silicon,7440-21-3†	186.6	0.0128	mg/L	0.00090	0.0128	mg/L	0.00090	7.04%
Silver,7440-22-4†	-1722.7	-0.0056	mg/L	0.00015	-0.0056	mg/L	0.00015	2.63%
QC value within limits for Silver,7440-22-4 Recovery = Not calculated								
Sodium,7440-23-5†	1984.6	0.2187	mg/L	0.01344	0.2187	mg/L	0.01344	6.14%
QC value within limits for Sodium,7440-23-5 Recovery = Not calculated								
Strontium,7440-24-6†	2138.5	0.0056	mg/L	0.00008	0.0056	mg/L	0.00008	1.44%
Thallium,7440-28-0†	16.9	0.0098	mg/L	0.00112	0.0098	mg/L	0.00112	11.48%
QC value within limits for Thallium,7440-28-0 Recovery = Not calculated								
Tin,7440-31-5†	67.1	0.0042	mg/L	0.00009	0.0042	mg/L	0.00009	2.20%
Titanium,7440-32-6†	453.9	0.0007	mg/L	0.00012	0.0007	mg/L	0.00012	15.56%
Vanadium,7440-62-2†	967.7	-0.0035	mg/L	0.00054	-0.0035	mg/L	0.00054	15.31%
QC value within limits for Vanadium,7440-62-2 Recovery = Not calculated								
Zinc,7440-66-6†	2619.8	-0.0087	mg/L	0.00020	-0.0087	mg/L	0.00020	2.26%
QC value within limits for Zinc,7440-66-6 Recovery = Not calculated								
Zirconium,7440-67-7†	967.7	0.0011	mg/L	0.00018	0.0011	mg/L	0.00018	15.51%

All analytes passed QC.

Sequence No.: 9
Sample ID: 2100
Analyst:
Nebulizer Back Pressure: 150.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 06/21/2002 10:20:21
Nebulizer Flow: 0.52 L/min
Sample Prep Volume:
Data Type: Original

Mean Data: 2100

Mean Corrected Calib Sample

Analyte	Intensity	Conc.	Units	Std.Dev.	Conc.	Units	Std.Dev.	RSD
Argon	7116348.4	95.016	%	0.1234				0.13%
Scandium-IS	4377391.7	92.992	%	0.8991				0.97%
Yttrium,7440-65-5A	2030716.2	93.521	%	0.5287				0.57%
Yttrium,7440-65-5R	119925.6	94.525	%	1.1948				1.26%
Aluminum,7429-90-5†	137138.0	203.45	mg/L	0.941	203.45	mg/L	0.941	0.46%
QC value within limits for Aluminum,7429-90-5 Recovery = 101.73%								
Antimony,7440-36-0†	2889.3	0.9441	mg/L	0.02757	0.9441	mg/L	0.02757	2.92%
QC value within limits for Antimony,7440-36-0 Recovery = 94.41%								
Arsenic,7440-38-2†	2055.4	1.0514	mg/L	0.00777	1.0514	mg/L	0.00777	0.74%
QC value within limits for Arsenic,7440-38-2 Recovery = 105.14%								
Barium,7440-39-3†	88183.0	0.5143	mg/L	0.00074	0.5143	mg/L	0.00074	0.14%
QC value within limits for Barium,7440-39-3 Recovery = 102.87%								
Beryllium,7440-41-7†	2116861.4	0.5240	mg/L	0.00409	0.5240	mg/L	0.00409	0.78%
QC value within limits for Beryllium,7440-41-7 Recovery = 104.80%								
Boron,7440-42-8†	48399.6	1.0387	mg/L	0.00440	1.0387	mg/L	0.00440	0.42%
QC value within limits for Boron,7440-42-8 Recovery = 103.87%								
Cadmium,7440-43-9†	167333.6	0.9847	mg/L	0.00221	0.9847	mg/L	0.00221	0.22%
QC value within limits for Cadmium,7440-43-9 Recovery = 98.47%								
Calcium,7440-70-2†	693929.3	197.41	mg/L	0.685	197.41	mg/L	0.685	0.35%
QC value within limits for Calcium,7440-70-2 Recovery = 98.70%								
Cerium,7440-45-1†	-237.6	0.0001	mg/L	0.00177	0.0001	mg/L	0.00177	>999.9%
Chromium,7440-47-3†	66084.8	0.5139	mg/L	0.00084	0.5139	mg/L	0.00084	0.16%
QC value within limits for Chromium,7440-47-3 Recovery = 102.78%								
Cobalt,7440-48-4†	30004.8	0.4873	mg/L	0.00209	0.4873	mg/L	0.00209	0.43%
QC value within limits for Cobalt,7440-48-4 Recovery = 97.46%								
Copper,7440-50-8†	190262.6	0.5160	mg/L	0.00124	0.5160	mg/L	0.00124	0.24%
QC value within limits for Copper,7440-50-8 Recovery = 103.19%								
Iron,7439-89-6†	77918.8	77.642	mg/L	0.3166	77.642	mg/L	0.3166	0.41%
QC value within limits for Iron,7439-89-6 Recovery = 97.05%								
Lead,7439-92-1†	15512.4	0.9926	mg/L	0.00387	0.9926	mg/L	0.00387	0.39%
QC value within limits for Lead,7439-92-1 Recovery = 99.26%								
Lithium,7439-93-2†	-72.6	0.0024	mg/L	0.00125	0.0024	mg/L	0.00125	51.60%
Magnesium,7439-95-4†	60424.8	196.93	mg/L	0.705	196.93	mg/L	0.705	0.36%
QC value within limits for Magnesium,7439-95-4 Recovery = 98.46%								
Manganese,7439-96-5†	543805.4	0.5072	mg/L	0.00056	0.5072	mg/L	0.00056	0.11%
QC value within limits for Manganese,7439-96-5 Recovery = 101.44%								
Molybdenum,7439-98-7†	24487.9	0.9944	mg/L	0.00605	0.9944	mg/L	0.00605	0.61%
QC value within limits for Molybdenum,7439-98-7 Recovery = 99.44%								
Nickel,7440-02-0†	54973.5	0.9503	mg/L	0.00332	0.9503	mg/L	0.00332	0.35%
QC value within limits for Nickel,7440-02-0 Recovery = 95.03%								
Phosphorus,7439-93-2†	-44.0	0.2108	mg/L	0.00327	0.2108	mg/L	0.00327	1.55%
Potassium,7440-09-7†	-143.8	-0.0139	mg/L	0.01842	-0.0139	mg/L	0.01842	132.57%
Selenium,7782-49-2†	2072.9	1.0296	mg/L	0.00650	1.0296	mg/L	0.00650	0.63%
QC value within limits for Selenium,7782-49-2 Recovery = 102.96%								
Silicon,7440-21-3†	1975.0	0.1580	mg/L	0.00294	0.1580	mg/L	0.00294	1.86%
Silver,7440-22-4†	333980.5	1.0917	mg/L	0.00056	1.0917	mg/L	0.00056	0.05%
QC value within limits for Silver,7440-22-4 Recovery = 109.17%								
Sodium,7440-23-5†	9933.2	1.2127	mg/L	0.01798	1.2127	mg/L	0.01798	1.48%
Strontium,7440-24-6†	1825.1	0.0048	mg/L	0.00009	0.0048	mg/L	0.00009	1.94%
Thallium,7440-28-0†	1821.9	1.0528	mg/L	0.00465	1.0528	mg/L	0.00465	0.44%
QC value within limits for Thallium,7440-28-0 Recovery = 105.28%								
Tin,7440-31-5†	67.8	0.0052	mg/L	0.00074	0.0052	mg/L	0.00074	14.38%
Titanium,7440-32-6†	123.8	0.0002	mg/L	0.00011	0.0002	mg/L	0.00011	72.26%
Vanadium,7440-62-2†	122396.6	0.5127	mg/L	0.00079	0.5127	mg/L	0.00079	0.15%
QC value within limits for Vanadium,7440-62-2 Recovery = 102.54%								
Zinc,7440-66-6†	104245.0	1.0049	mg/L	0.00654	1.0049	mg/L	0.00654	0.65%
QC value within limits for Zinc,7440-66-6 Recovery = 100.49%								
Zirconium,7440-67-7†	2259.2	0.0039	mg/L	0.00059	0.0039	mg/L	0.00059	15.26%

All analytes passed QC.

Sequence No.: 10
Sample ID: 1800
Analyst:
Nebulizer Back Pressure: 150.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 06/21/2002 10:26:38
Nebulizer Flow: 0.52 L/min
Sample Prep Volume:
Data Type: Original

Mean Data: 1800

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD

Argon	7518641.3	100.39 %	0.252			0.25%
Scandium-IS	4679994.1	99.420 %	0.3259			0.33%
Yttrium,7440-65-5A	2182137.9	100.49 %	1.857			1.85%
Yttrium,7440-65-5R	122358.0	96.442 %	0.4846			0.50%
Aluminum,7429-90-5†	3407.1	5.0437 mg/L	0.06773	5.0437 mg/L	0.06773	1.34%
QC value within limits for Aluminum,7429-90-5 Recovery = 100.87%						
Antimony,7440-36-0†	80.1	0.0162 mg/L	0.00271	0.0162 mg/L	0.00271	16.69%
Arsenic,7440-38-2†	1058.2	0.5170 mg/L	0.00839	0.5170 mg/L	0.00839	1.62%
QC value within limits for Arsenic,7440-38-2 Recovery = 103.39%						
Barium,7440-39-3†	85348.4	0.4996 mg/L	0.00702	0.4996 mg/L	0.00702	1.40%
QC value within limits for Barium,7440-39-3 Recovery = 99.92%						
Beryllium,7440-41-7†	2024636.0	0.5012 mg/L	0.01012	0.5012 mg/L	0.01012	2.02%
QC value within limits for Beryllium,7440-41-7 Recovery = 100.23%						
Boron,7440-42-8†	356.6	0.0090 mg/L	0.00114	0.0090 mg/L	0.00114	12.76%
Cadmium,7440-43-9†	85630.6	0.5060 mg/L	0.00648	0.5060 mg/L	0.00648	1.28%
QC value within limits for Cadmium,7440-43-9 Recovery = 101.21%						
Calcium,7440-70-2†	18032.6	5.1296 mg/L	0.06190	5.1296 mg/L	0.06190	1.21%
QC value within limits for Calcium,7440-70-2 Recovery = 102.59%						
Cerium,7440-45-1†	51980.1	0.5093 mg/L	0.01008	0.5093 mg/L	0.01008	1.98%
QC value within limits for Cerium,7440-45-1 Recovery = 101.86%						
Chromium,7440-47-3†	64826.9	0.5005 mg/L	0.00779	0.5005 mg/L	0.00779	1.56%
QC value within limits for Chromium,7440-47-3 Recovery = 100.10%						
Cobalt,7440-48-4†	31185.8	0.5063 mg/L	0.00711	0.5063 mg/L	0.00711	1.40%
QC value within limits for Cobalt,7440-48-4 Recovery = 101.26%						
Copper,7440-50-8†	186466.8	0.4969 mg/L	0.00734	0.4969 mg/L	0.00734	1.48%
QC value within limits for Copper,7440-50-8 Recovery = 99.37%						
Iron,7439-89-6†	5195.7	5.1780 mg/L	0.05354	5.1780 mg/L	0.05354	1.03%
QC value within limits for Iron,7439-89-6 Recovery = 103.56%						
Lead,7439-92-1†	8257.6	0.5093 mg/L	0.00747	0.5093 mg/L	0.00747	1.47%
QC value within limits for Lead,7439-92-1 Recovery = 101.86%						
Lithium,7439-93-2†	29814.0	0.5067 mg/L	0.00542	0.5067 mg/L	0.00542	1.07%
QC value within limits for Lithium,7439-93-2 Recovery = 101.35%						
Magnesium,7439-95-4†	1602.0	5.2218 mg/L	0.06193	5.2218 mg/L	0.06193	1.19%
QC value within limits for Magnesium,7439-95-4 Recovery = 104.44%						
Manganese,7439-96-5†	548760.4	0.5086 mg/L	0.00063	0.5086 mg/L	0.00063	0.12%
QC value within limits for Manganese,7439-96-5 Recovery = 101.72%						
Molybdenum,7439-98-7†	86.0	0.0035 mg/L	0.00087	0.0035 mg/L	0.00087	24.69%
Nickel,7440-02-0†	29393.2	0.5083 mg/L	0.00605	0.5083 mg/L	0.00605	1.19%
QC value within limits for Nickel,7440-02-0 Recovery = 101.66%						
Phosphorus,7439-93-2†	-63.2	0.1251 mg/L	0.00178	0.1251 mg/L	0.00178	1.42%
Potassium,7440-09-7†	28009.3	10.100 mg/L	0.1192	10.100 mg/L	0.1192	1.18%
QC value within limits for Potassium,7440-09-7 Recovery = 101.00%						
Selenium,7782-49-2†	1108.6	0.5068 mg/L	0.00788	0.5068 mg/L	0.00788	1.56%
QC value within limits for Selenium,7782-49-2 Recovery = 101.37%						
Silicon,7440-21-3†	-53.3	-0.0034 mg/L	0.00127	-0.0034 mg/L	0.00127	37.13%
Silver,7440-22-4†	151592.8	0.4955 mg/L	0.00686	0.4955 mg/L	0.00686	1.38%
QC value within limits for Silver,7440-22-4 Recovery = 99.10%						
Sodium,7440-23-5†	159540.6	19.859 mg/L	0.1969	19.859 mg/L	0.1969	0.99%
QC value within limits for Sodium,7440-23-5 Recovery = 99.29%						
Strontium,7440-24-6†	188512.2	0.4954 mg/L	0.00559	0.4954 mg/L	0.00559	1.13%
QC value within limits for Strontium,7440-24-6 Recovery = 99.07%						
Thallium,7440-28-0†	862.0	0.4981 mg/L	0.00675	0.4981 mg/L	0.00675	1.36%
QC value within limits for Thallium,7440-28-0 Recovery = 99.62%						
Tin,7440-31-5†	8.2	0.0012 mg/L	0.00023	0.0012 mg/L	0.00023	18.73%
Titanium,7440-32-6†	190.7	0.0003 mg/L	0.00021	0.0003 mg/L	0.00021	79.40%
Vanadium,7440-62-2†	116675.8	0.4949 mg/L	0.00737	0.4949 mg/L	0.00737	1.49%
QC value within limits for Vanadium,7440-62-2 Recovery = 98.97%						
Zinc,7440-66-6†	51079.8	0.5060 mg/L	0.00679	0.5060 mg/L	0.00679	1.34%
QC value within limits for Zinc,7440-66-6 Recovery = 101.21%						
Zirconium,7440-67-7†	228.9	0.0005 mg/L	0.00015	0.0005 mg/L	0.00015	32.97%

All analytes passed QC.

Sequence No.: 11
Sample ID: 1802
Analyst:
Nebulizer Back Pressure: 150.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 06/21/2002 10:34:03

Nebulizer Flow: 0.52 L/min
Sample Prep Volume:
Data Type: Original

Mean Data: 1802

	Mean Corrected	Calib	Sample

Analyte	Intensity	Conc.	Units	Std.Dev.	Conc.	Units	Std.Dev.	RSD
Argon	7469657.9	99.734	%	0.2331				0.23%
Scandium-IS	4682247.4	99.468	%	1.2927				1.30%
Yttrium,7440-65-5A	2192381.9	100.97	%	1.071				1.06%
Yttrium,7440-65-5R	122942.6	96.903	%	0.4226				0.44%
Aluminum,7429-90-5†	-1.8	-0.0035	mg/L	0.01149	-0.0035	mg/L	0.01149	329.74%
Antimony,7440-36-0†	1520.1	0.4987	mg/L	0.00508	0.4987	mg/L	0.00508	1.02%
QC value within limits for Antimony,7440-36-0 Recovery = 99.74%								
Arsenic,7440-38-2†	-7.3	-0.0035	mg/L	0.00186	-0.0035	mg/L	0.00186	53.36%
Barium,7440-39-3†	-162.8	-0.0010	mg/L	0.00006	-0.0010	mg/L	0.00006	6.39%
Beryllium,7440-41-7†	1481.5	-0.0001	mg/L	0.00008	-0.0001	mg/L	0.00008	118.57%
Boron,7440-42-8†	116942.8	2.4681	mg/L	0.02449	2.4681	mg/L	0.02449	0.99%
QC value within limits for Boron,7440-42-8 Recovery = 98.72%								
Cadmium,7440-43-9†	-12.6	-0.0001	mg/L	0.00005	-0.0001	mg/L	0.00005	62.44%
Calcium,7440-70-2†	-7.8	-0.0023	mg/L	0.00585	-0.0023	mg/L	0.00585	259.67%
Cerium,7440-45-1†	-175.4	-0.0018	mg/L	0.00057	-0.0018	mg/L	0.00057	31.20%
Chromium,7440-47-3†	7.0	0.0000	mg/L	0.00008	0.0000	mg/L	0.00008	238.90%
Cobalt,7440-48-4†	64.5	-0.0001	mg/L	0.00016	-0.0001	mg/L	0.00016	123.10%
Copper,7440-50-8†	1186.5	0.0031	mg/L	0.00043	0.0031	mg/L	0.00043	13.97%
Iron,7439-89-6†	-15.0	-0.0149	mg/L	0.00534	-0.0149	mg/L	0.00534	35.90%
Lead,7439-92-1†	-3.5	-0.0001	mg/L	0.00126	-0.0001	mg/L	0.00126	>999.9%
Lithium,7439-93-2†	-19.7	-0.0003	mg/L	0.00032	-0.0003	mg/L	0.00032	96.43%
Magnesium,7439-95-4†	-1.4	-0.0032	mg/L	0.01711	-0.0032	mg/L	0.01711	532.81%
Manganese,7439-96-5†	-55.0	-0.0001	mg/L	0.00001	-0.0001	mg/L	0.00001	28.54%
Molybdenum,7439-98-7†	12188.8	0.4968	mg/L	0.00204	0.4968	mg/L	0.00204	0.41%
QC value within limits for Molybdenum,7439-98-7 Recovery = 99.37%								
Nickel,7440-02-0†	-24.4	-0.0005	mg/L	0.00022	-0.0005	mg/L	0.00022	48.18%
Phosphorus,7439-93-2†	10165.0	4.9483	mg/L	0.02005	4.9483	mg/L	0.02005	0.41%
QC value within limits for Phosphorus,7439-93-2 Recovery = 98.97%								
Potassium,7440-09-7†	-176.5	-0.0635	mg/L	0.02858	-0.0635	mg/L	0.02858	45.02%
Selenium,7782-49-2†	12.9	0.0059	mg/L	0.00387	0.0059	mg/L	0.00387	65.16%
Silicon,7440-21-3†	61270.8	4.9243	mg/L	0.04357	4.9243	mg/L	0.04357	0.88%
QC value within limits for Silicon,7440-21-3 Recovery = 98.49%								
Silver,7440-22-4†	1637.9	0.0054	mg/L	0.00021	0.0054	mg/L	0.00021	3.91%
Sodium,7440-23-5†	-781.2	-0.0970	mg/L	0.01089	-0.0970	mg/L	0.01089	11.22%
Strontium,7440-24-6†	-28.9	-0.0001	mg/L	0.00008	-0.0001	mg/L	0.00008	108.55%
Thallium,7440-28-0†	-3.2	-0.0018	mg/L	0.00197	-0.0018	mg/L	0.00197	107.13%
Tin,7440-31-5†	3268.0	0.4931	mg/L	0.00366	0.4931	mg/L	0.00366	0.74%
QC value within limits for Tin,7440-31-5 Recovery = 98.62%								
Titanium,7440-32-6†	306055.7	0.4988	mg/L	0.00808	0.4988	mg/L	0.00808	1.62%
QC value within limits for Titanium,7440-32-6 Recovery = 99.75%								
Vanadium,7440-62-2†	-252.9	-0.0010	mg/L	0.00036	-0.0010	mg/L	0.00036	34.37%
Zinc,7440-66-6†	192.0	0.0029	mg/L	0.00009	0.0029	mg/L	0.00009	3.03%
Zirconium,7440-67-7†	242287.9	0.4865	mg/L	0.00518	0.4865	mg/L	0.00518	1.06%
QC value within limits for Zirconium,7440-67-7 Recovery = 97.31%								

All analytes passed QC.

Sequence No.: 12
Sample ID: 1900
Analyst:
Nebulizer Back Pressure: 149.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 06/21/2002 10:41:24
Nebulizer Flow: 0.52 L/min
Sample Prep Volume:
Data Type: Original

HR

Mean Data: 1900

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Argon	7789028.2	104.00	%	0.488				0.47%
Scandium-IS	4651356.2	98.812	%	0.7318				0.74%
Yttrium,7440-65-5A	2189089.5	100.81	%	0.330				0.33%
Yttrium,7440-65-5R	125506.5	98.924	%	1.2471				1.26%
Aluminum,7429-90-5†	-22.3	-0.0330	mg/L	0.01104	-0.0330	mg/L	0.01104	33.44%
QC value within limits for Aluminum,7429-90-5 Recovery = Not calculated								
Antimony,7440-36-0†	4.9	0.0016	mg/L	0.00038	0.0016	mg/L	0.00038	24.40%
QC value within limits for Antimony,7440-36-0 Recovery = Not calculated								
Arsenic,7440-38-2†	-0.4	-0.0002	mg/L	0.00154	-0.0002	mg/L	0.00154	715.27%
QC value within limits for Arsenic,7440-38-2 Recovery = Not calculated								
Barium,7440-39-3†	20.7	0.0001	mg/L	0.00011	0.0001	mg/L	0.00011	90.55%
QC value within limits for Barium,7440-39-3 Recovery = Not calculated								
Beryllium,7440-41-7†	613.9	0.0002	mg/L	0.00008	0.0002	mg/L	0.00008	53.21%
QC value within limits for Beryllium,7440-41-7 Recovery = Not calculated								

Boron,7440-42-8†	523.8	0.0110 mg/L	0.00215	0.0110 mg/L	0.00215	19.42%
QC value within limits for Boron,7440-42-8 Recovery = Not calculated						
Cadmium,7440-43-9†	42.3	0.0003 mg/L	0.00011	0.0003 mg/L	0.00011	43.63%
QC value within limits for Cadmium,7440-43-9 Recovery = Not calculated						
Calcium,7440-70-2†	-37.0	-0.0105 mg/L	0.00445	-0.0105 mg/L	0.00445	42.34%
QC value within limits for Calcium,7440-70-2 Recovery = Not calculated						
Cerium,7440-45-1†	95.9	0.0009 mg/L	0.00009	0.0009 mg/L	0.00009	9.23%
QC value within limits for Cerium,7440-45-1 Recovery = Not calculated						
Chromium,7440-47-3†	105.6	0.0008 mg/L	0.00012	0.0008 mg/L	0.00012	14.72%
QC value within limits for Chromium,7440-47-3 Recovery = Not calculated						
Cobalt,7440-48-4†	5.6	0.0001 mg/L	0.00021	0.0001 mg/L	0.00021	237.44%
QC value within limits for Cobalt,7440-48-4 Recovery = Not calculated						
Copper,7440-50-8†	789.6	0.0021 mg/L	0.00045	0.0021 mg/L	0.00045	21.26%
QC value within limits for Copper,7440-50-8 Recovery = Not calculated						
Iron,7439-89-6†	-22.5	-0.0224 mg/L	0.00923	-0.0224 mg/L	0.00923	41.21%
QC value within limits for Iron,7439-89-6 Recovery = Not calculated						
Lead,7439-92-1†	6.7	0.0004 mg/L	0.00130	0.0004 mg/L	0.00130	320.66%
QC value within limits for Lead,7439-92-1 Recovery = Not calculated						
Lithium,7439-93-2†	30.7	0.0005 mg/L	0.00115	0.0005 mg/L	0.00115	221.28%
QC value within limits for Lithium,7439-93-2 Recovery = Not calculated						
Magnesium,7439-95-4†	-2.6	-0.0085 mg/L	0.02401	-0.0085 mg/L	0.02401	282.31%
QC value within limits for Magnesium,7439-95-4 Recovery = Not calculated						
Manganese,7439-96-5†	-111.0	-0.0001 mg/L	0.00002	-0.0001 mg/L	0.00002	18.84%
QC value within limits for Manganese,7439-96-5 Recovery = Not calculated						
Molybdenum,7439-98-7†	49.2	0.0020 mg/L	0.00020	0.0020 mg/L	0.00020	10.06%
QC value within limits for Molybdenum,7439-98-7 Recovery = Not calculated						
Nickel,7440-02-0†	-5.0	-0.0001 mg/L	0.00033	-0.0001 mg/L	0.00033	379.10%
QC value within limits for Nickel,7440-02-0 Recovery = Not calculated						
Phosphorus,7439-93-2†	-5.3	-0.0019 mg/L	0.00638	-0.0019 mg/L	0.00638	329.97%
QC value within limits for Phosphorus,7439-93-2 Recovery = Not calculated						
Potassium,7440-09-7†	141.7	0.0511 mg/L	0.07166	0.0511 mg/L	0.07166	140.35%
QC value within limits for Potassium,7440-09-7 Recovery = Not calculated						
Selenium,7782-49-2†	3.8	0.0017 mg/L	0.00398	0.0017 mg/L	0.00398	233.78%
QC value within limits for Selenium,7782-49-2 Recovery = Not calculated						
Silicon,7440-21-3†	1.3	0.0001 mg/L	0.00041	0.0001 mg/L	0.00041	397.79%
QC value within limits for Silicon,7440-21-3 Recovery = Not calculated						
Silver,7440-22-4†	-0.2	0.0000 mg/L	0.00033	0.0000 mg/L	0.00033	>999.9%
QC value within limits for Silver,7440-22-4 Recovery = Not calculated						
Sodium,7440-23-5†	4369.5	0.5439 mg/L	0.11318	0.5439 mg/L	0.11318	20.81%
QC value within limits for Sodium,7440-23-5 Recovery = Not calculated						
Strontium,7440-24-6†	-21.6	-0.0001 mg/L	0.00022	-0.0001 mg/L	0.00022	394.43%
QC value within limits for Strontium,7440-24-6 Recovery = Not calculated						
Thallium,7440-28-0†	5.4	0.0031 mg/L	0.00145	0.0031 mg/L	0.00145	46.81%
QC value within limits for Thallium,7440-28-0 Recovery = Not calculated						
Tin,7440-31-5†	-3.7	-0.0005 mg/L	0.00104	-0.0005 mg/L	0.00104	188.75%
QC value within limits for Tin,7440-31-5 Recovery = Not calculated						
Titanium,7440-32-6†	53.5	0.0001 mg/L	0.00008	0.0001 mg/L	0.00008	92.61%
QC value within limits for Titanium,7440-32-6 Recovery = Not calculated						
Vanadium,7440-62-2†	-165.5	-0.0007 mg/L	0.00055	-0.0007 mg/L	0.00055	79.04%
QC value within limits for Vanadium,7440-62-2 Recovery = Not calculated						
Zinc,7440-66-6†	215.8	0.0022 mg/L	0.00050	0.0022 mg/L	0.00050	23.29%
QC value within limits for Zinc,7440-66-6 Recovery = Not calculated						
Zirconium,7440-67-7†	54.8	0.0001 mg/L	0.00003	0.0001 mg/L	0.00003	23.11%
QC value within limits for Zirconium,7440-67-7 Recovery = Not calculated						

All analytes passed QC.

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Analysis Begun

Start Time: 06/21/2002 10:51:28
Logged In Analyst: met
Spectrometer Model: Optima 4300 DV

Plasma On Time: 06/21/2002 07:59:35
Technique: ICP Continuous
Autosampler Model: AS-91

Sample Information File: C:\Win32\Sample Information\1468.sif
Results Data Set: 2020621 A
Results Library: c:\win32\Results\Results.mdb

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Sequence No.: 12
Sample ID: 1900
Analyst:
Nebulizer Back Pressure: 150.0 kPa
Sample Wt:

Autosampler Location: 1
Date Collected: 06/21/2002 10:51:28
Nebulizer Flow: 0.52 L/min
Sample Prep Volume:

Dilution: Data Type: Original

Mean Data: 1900

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Argon	7987682.0	106.65	%	1.127				1.06%
Scandium-IS	4616590.4	98.073	%	0.8174				0.83%
Yttrium,7440-65-5A	2151505.4	99.084	%	0.2213				0.22%
Yttrium,7440-65-5R	120550.0	95.017	%	1.3158				1.38%
Aluminum,7429-90-5†	-84.2	-0.1249	mg/L	0.01747	-0.1249	mg/L	0.01747	13.98%
QC value within limits for Aluminum,7429-90-5 Recovery = Not calculated								
Antimony,7440-36-0†	-6.8	-0.0023	mg/L	0.00143	-0.0023	mg/L	0.00143	63.01%
QC value within limits for Antimony,7440-36-0 Recovery = Not calculated								
Arsenic,7440-38-2†	-2.8	-0.0013	mg/L	0.00185	-0.0013	mg/L	0.00185	137.09%
QC value within limits for Arsenic,7440-38-2 Recovery = Not calculated								
Barium,7440-39-3†	103.0	0.0006	mg/L	0.00105	0.0006	mg/L	0.00105	173.94%
QC value within limits for Barium,7440-39-3 Recovery = Not calculated								
Beryllium,7440-41-7†	35.4	0.0000	mg/L	0.00003	0.0000	mg/L	0.00003	305.82%
QC value within limits for Beryllium,7440-41-7 Recovery = Not calculated								
Boron,7440-42-8†	9004.0	0.1900	mg/L	0.02834	0.1900	mg/L	0.02834	14.91%
QC value within limits for Boron,7440-42-8 Recovery = Not calculated								
Cadmium,7440-43-9†	-30.9	-0.0002	mg/L	0.00010	-0.0002	mg/L	0.00010	57.66%
QC value within limits for Cadmium,7440-43-9 Recovery = Not calculated								
Calcium,7440-70-2†	-92.6	-0.0263	mg/L	0.00220	-0.0263	mg/L	0.00220	8.35%
QC value within limits for Calcium,7440-70-2 Recovery = Not calculated								
Cerium,7440-45-1†	679.6	0.0067	mg/L	0.00086	0.0067	mg/L	0.00086	12.86%
QC value within limits for Cerium,7440-45-1 Recovery = Not calculated								
Chromium,7440-47-3†	177.7	0.0014	mg/L	0.00040	0.0014	mg/L	0.00040	29.25%
QC value within limits for Chromium,7440-47-3 Recovery = Not calculated								
Cobalt,7440-48-4†	-4.5	-0.0001	mg/L	0.00022	-0.0001	mg/L	0.00022	303.98%
QC value within limits for Cobalt,7440-48-4 Recovery = Not calculated								
Copper,7440-50-8†	919.4	0.0024	mg/L	0.00018	0.0024	mg/L	0.00018	7.53%
QC value within limits for Copper,7440-50-8 Recovery = Not calculated								
Iron,7439-89-6†	-65.6	-0.0654	mg/L	0.01027	-0.0654	mg/L	0.01027	15.71%
QC value less than the lower limit for Iron,7439-89-6 Recovery = Not calculated								
Lead,7439-92-1†	-15.7	-0.0010	mg/L	0.00086	-0.0010	mg/L	0.00086	86.90%
QC value within limits for Lead,7439-92-1 Recovery = Not calculated								
Lithium,7439-93-2†	251.6	0.0043	mg/L	0.00076	0.0043	mg/L	0.00076	17.77%
QC value within limits for Lithium,7439-93-2 Recovery = Not calculated								
Magnesium,7439-95-4†	7.7	0.0251	mg/L	0.01733	0.0251	mg/L	0.01733	69.14%
QC value within limits for Magnesium,7439-95-4 Recovery = Not calculated								
Manganese,7439-96-5†	-49.0	0.0000	mg/L	0.00001	0.0000	mg/L	0.00001	24.95%
QC value within limits for Manganese,7439-96-5 Recovery = Not calculated								
Molybdenum,7439-98-7†	9.4	0.0004	mg/L	0.00031	0.0004	mg/L	0.00031	80.25%
QC value within limits for Molybdenum,7439-98-7 Recovery = Not calculated								
Nickel,7440-02-0†	3.9	0.0001	mg/L	0.00012	0.0001	mg/L	0.00012	186.59%
QC value within limits for Nickel,7440-02-0 Recovery = Not calculated								
Phosphorus,7439-93-2†	-13.6	-0.0059	mg/L	0.00669	-0.0059	mg/L	0.00669	113.91%
QC value within limits for Phosphorus,7439-93-2 Recovery = Not calculated								
Potassium,7440-09-7†	-403.1	-0.1453	mg/L	0.03849	-0.1453	mg/L	0.03849	26.49%
QC value within limits for Potassium,7440-09-7 Recovery = Not calculated								
Selenium,7782-49-2†	-17.4	-0.0080	mg/L	0.00374	-0.0080	mg/L	0.00374	46.83%
QC value within limits for Selenium,7782-49-2 Recovery = Not calculated								
Silicon,7440-21-3†	70.6	0.0057	mg/L	0.00761	0.0057	mg/L	0.00761	133.74%
QC value within limits for Silicon,7440-21-3 Recovery = Not calculated								
Silver,7440-22-4†	-648.7	-0.0021	mg/L	0.00066	-0.0021	mg/L	0.00066	31.22%
QC value within limits for Silver,7440-22-4 Recovery = Not calculated								
Sodium,7440-23-5†	-442.4	-0.0551	mg/L	0.01221	-0.0551	mg/L	0.01221	22.19%
QC value within limits for Sodium,7440-23-5 Recovery = Not calculated								
Strontium,7440-24-6†	-39.7	-0.0001	mg/L	0.00005	-0.0001	mg/L	0.00005	45.50%
QC value within limits for Strontium,7440-24-6 Recovery = Not calculated								
Thallium,7440-28-0†	2.9	0.0017	mg/L	0.00175	0.0017	mg/L	0.00175	105.20%
QC value within limits for Thallium,7440-28-0 Recovery = Not calculated								
Tin,7440-31-5†	31.4	0.0047	mg/L	0.00038	0.0047	mg/L	0.00038	8.16%
QC value within limits for Tin,7440-31-5 Recovery = Not calculated								
Titanium,7440-32-6†	78.7	0.0001	mg/L	0.00013	0.0001	mg/L	0.00013	100.43%
QC value within limits for Titanium,7440-32-6 Recovery = Not calculated								
Vanadium,7440-62-2†	55.0	0.0002	mg/L	0.00042	0.0002	mg/L	0.00042	177.38%
QC value within limits for Vanadium,7440-62-2 Recovery = Not calculated								
Zinc,7440-66-6†	47.6	0.0005	mg/L	0.00004	0.0005	mg/L	0.00004	8.18%
QC value within limits for Zinc,7440-66-6 Recovery = Not calculated								
Zirconium,7440-67-7†	35.7	0.0001	mg/L	0.00010	0.0001	mg/L	0.00010	135.38%

QC value within limits for Zirconium,7440-67-7 Recovery = Not calculated
QC Failed. Retry.

Sequence No.: 13
Sample ID: 1900
Analyst:
Nebulizer Back Pressure: 150.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 06/21/2002 10:56:36

Nebulizer Flow: 0.52 L/min
Sample Prep Volume:
Data Type: Original

Analysis Begun

Start Time: 06/21/2002 11:02:07
Logged In Analyst: met
Spectrometer Model: Optima 4300 DV

Plasma On Time: 06/21/2002 07:59:35
Technique: ICP Continuous
Autosampler Model: AS-91

Sample Information File: C:\Win32\Sample Information\1468.sif
Results Data Set: 2020621 A
Results Library: c:\win32\Results\Results.mdb

Sequence No.: 13
Sample ID: 1900
Analyst:
Nebulizer Back Pressure: 150.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 06/21/2002 11:02:07

Nebulizer Flow: 0.52 L/min
Sample Prep Volume:
Data Type: Original

Mean Data: 1900

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Argon	7519906.0	100.40	%	0.279				0.28%
Scandium-IS	4554179.4	96.747	%	1.7921				1.85%
Yttrium,7440-65-5A	2128221.7	98.011	%	1.0173				1.04%
Yttrium,7440-65-5R	122983.8	96.935	%	4.9215				5.08%
Aluminum,7429-90-5†	-36.8	-0.0547	mg/L	0.03756	-0.0547	mg/L	0.03756	68.72%
QC value within limits for Aluminum,7429-90-5 Recovery = Not calculated								
Antimony,7440-36-0†	0.5	0.0002	mg/L	0.00072	0.0002	mg/L	0.00072	475.69%
QC value within limits for Antimony,7440-36-0 Recovery = Not calculated								
Arsenic,7440-38-2†	-0.4	-0.0002	mg/L	0.00224	-0.0002	mg/L	0.00224	931.18%
QC value within limits for Arsenic,7440-38-2 Recovery = Not calculated								
Barium,7440-39-3†	-12.8	-0.0001	mg/L	0.00008	-0.0001	mg/L	0.00008	113.11%
QC value within limits for Barium,7440-39-3 Recovery = Not calculated								
Beryllium,7440-41-7†	365.0	0.0001	mg/L	0.00005	0.0001	mg/L	0.00005	55.11%
QC value within limits for Beryllium,7440-41-7 Recovery = Not calculated								
Boron,7440-42-8†	1966.4	0.0415	mg/L	0.00247	0.0415	mg/L	0.00247	5.94%
QC value within limits for Boron,7440-42-8 Recovery = Not calculated								
Cadmium,7440-43-9†	-33.5	-0.0002	mg/L	0.00010	-0.0002	mg/L	0.00010	53.08%
QC value within limits for Cadmium,7440-43-9 Recovery = Not calculated								
Calcium,7440-70-2†	-37.0	-0.0105	mg/L	0.00838	-0.0105	mg/L	0.00838	79.59%
QC value within limits for Calcium,7440-70-2 Recovery = Not calculated								
Cerium,7440-45-1†	116.9	0.0011	mg/L	0.00137	0.0011	mg/L	0.00137	119.66%
QC value within limits for Cerium,7440-45-1 Recovery = Not calculated								
Chromium,7440-47-3†	58.0	0.0004	mg/L	0.00006	0.0004	mg/L	0.00006	14.02%
QC value within limits for Chromium,7440-47-3 Recovery = Not calculated								
Cobalt,7440-48-4†	-1.1	0.0000	mg/L	0.00013	0.0000	mg/L	0.00013	721.10%
QC value within limits for Cobalt,7440-48-4 Recovery = Not calculated								
Copper,7440-50-8†	964.7	0.0026	mg/L	0.00045	0.0026	mg/L	0.00045	17.57%
QC value within limits for Copper,7440-50-8 Recovery = Not calculated								
Iron,7439-89-6†	-14.5	-0.0144	mg/L	0.01455	-0.0144	mg/L	0.01455	100.93%
QC value within limits for Iron,7439-89-6 Recovery = Not calculated								
Lead,7439-92-1†	11.8	0.0007	mg/L	0.00129	0.0007	mg/L	0.00129	180.55%
QC value within limits for Lead,7439-92-1 Recovery = Not calculated								
Lithium,7439-93-2†	474.7	0.0081	mg/L	0.00115	0.0081	mg/L	0.00115	14.31%
QC value within limits for Lithium,7439-93-2 Recovery = Not calculated								
Magnesium,7439-95-4†	-1.5	-0.0050	mg/L	0.01171	-0.0050	mg/L	0.01171	234.09%
QC value within limits for Magnesium,7439-95-4 Recovery = Not calculated								
Manganese,7439-96-5†	1414.8	0.0013	mg/L	0.00001	0.0013	mg/L	0.00001	0.71%
QC value within limits for Manganese,7439-96-5 Recovery = Not calculated								
Molybdenum,7439-98-7†	7.2	0.0003	mg/L	0.00017	0.0003	mg/L	0.00017	59.23%

QC value within limits for Molybdenum,7439-98-7 Recovery = Not calculated
Nickel,7440-02-0† 17.1 0.0003 mg/L 0.00014 0.0003 mg/L 0.00014 46.36%
QC value within limits for Nickel,7440-02-0 Recovery = Not calculated
Phosphorus,7439-93-2† -12.7 -0.0054 mg/L 0.00382 -0.0054 mg/L 0.00382 70.59%
QC value within limits for Phosphorus,7439-93-2 Recovery = Not calculated
Potassium,7440-09-7† -119.3 -0.0430 mg/L 0.02189 -0.0430 mg/L 0.02189 50.91%
QC value within limits for Potassium,7440-09-7 Recovery = Not calculated
Selenium,7782-49-2† -3.0 -0.0014 mg/L 0.00161 -0.0014 mg/L 0.00161 116.52%
QC value within limits for Selenium,7782-49-2 Recovery = Not calculated
Silicon,7440-21-3† -43.2 -0.0035 mg/L 0.00134 -0.0035 mg/L 0.00134 38.67%
QC value within limits for Silicon,7440-21-3 Recovery = Not calculated
Silver,7440-22-4† 272.5 0.0009 mg/L 0.00074 0.0009 mg/L 0.00074 83.19%
QC value within limits for Silver,7440-22-4 Recovery = Not calculated
Sodium,7440-23-5† -176.2 -0.0219 mg/L 0.02597 -0.0219 mg/L 0.02597 118.45%
QC value within limits for Sodium,7440-23-5 Recovery = Not calculated
Strontium,7440-24-6† -7.6 0.0000 mg/L 0.00017 0.0000 mg/L 0.00017 845.75%
QC value within limits for Strontium,7440-24-6 Recovery = Not calculated
Thallium,7440-28-0† -0.1 -0.0001 mg/L 0.00231 -0.0001 mg/L 0.00231 >999.9%
QC value within limits for Thallium,7440-28-0 Recovery = Not calculated
Tin,7440-31-5† 34.2 0.0051 mg/L 0.00055 0.0051 mg/L 0.00055 10.81%
QC value within limits for Tin,7440-31-5 Recovery = Not calculated
Titanium,7440-32-6† -3.4 0.0000 mg/L 0.00019 0.0000 mg/L 0.00019 >999.9%
QC value within limits for Titanium,7440-32-6 Recovery = Not calculated
Vanadium,7440-62-2† -274.7 -0.0012 mg/L 0.00049 -0.0012 mg/L 0.00049 42.15%
QC value within limits for Vanadium,7440-62-2 Recovery = Not calculated
Zinc,7440-66-6† 93.0 0.0009 mg/L 0.00023 0.0009 mg/L 0.00023 24.41%
QC value within limits for Zinc,7440-66-6 Recovery = Not calculated
Zirconium,7440-67-7† 157.3 0.0003 mg/L 0.00005 0.0003 mg/L 0.00005 16.03%
QC value within limits for Zirconium,7440-67-7 Recovery = Not calculated
All analytes passed QC.

Sequence No.: 14
Sample ID: 46445
Analyst:
Nebulizer Back Pressure: 150.0 kPa
Sample Wt: 2.5 g
Dilution: 1X

Autosampler Location: 17
Date Collected: 06/21/2002 11:09:20

Nebulizer Flow: 0.52 L/min
Sample Prep Volume: 100 mL
Data Type: Original

Mean Data: 46445

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Argon	7522136.7	100.43	%	0.039				0.04%
Scandium-IS	4565095.2	96.979	%	0.5455				0.56%
Yttrium,7440-65-5A	2120214.6	97.643	%	0.6844				0.70%
Yttrium,7440-65-5R	120268.0	94.795	%	1.8305				1.93%
Aluminum,7429-90-5†	-37.1	-0.0550	mg/L	0.02276	-2.2001	mg/kg	0.91053	41.39%
Antimony,7440-36-0†	3.2	0.0010	mg/L	0.00061	0.0407	mg/kg	0.02455	60.29%
Arsenic,7440-38-2†	-14.7	-0.0070	mg/L	0.00085	-0.2800	mg/kg	0.03387	12.10%
Barium,7440-39-3†	-70.8	-0.0004	mg/L	0.00003	-0.0165	mg/kg	0.00102	6.19%
Beryllium,7440-41-7†	808.4	0.0002	mg/L	0.00003	0.0080	mg/kg	0.00131	16.41%
Boron,7440-42-8†	1365.9	0.0288	mg/L	0.00090	1.1529	mg/kg	0.03608	3.13%
Cadmium,7440-43-9†	-43.2	-0.0003	mg/L	0.00004	-0.0102	mg/kg	0.00155	15.24%
Calcium,7440-70-2†	292.7	0.0833	mg/L	0.00328	3.3314	mg/kg	0.13140	3.94%
Cerium,7440-45-1†	468.7	0.0046	mg/L	0.00074	0.1835	mg/kg	0.02974	16.20%
Chromium,7440-47-3†	72.0	0.0006	mg/L	0.00012	0.0222	mg/kg	0.00466	20.95%
Cobalt,7440-48-4†	3.5	0.0001	mg/L	0.00022	0.0022	mg/kg	0.00884	403.07%
Copper,7440-50-8†	979.4	0.0026	mg/L	0.00041	0.1043	mg/kg	0.01627	15.60%
Iron,7439-89-6†	-22.2	-0.0221	mg/L	0.00836	-0.8846	mg/kg	0.33434	37.79%
Lead,7439-92-1†	0.4	0.0000	mg/L	0.00086	0.0005	mg/kg	0.03429	>999.9%
Lithium,7439-93-2†	158.2	0.0027	mg/L	0.00152	0.1076	mg/kg	0.06071	56.45%
Magnesium,7439-95-4†	1.7	0.0054	mg/L	0.01128	0.2173	mg/kg	0.45111	207.63%
Manganese,7439-96-5†	1284.7	0.0012	mg/L	0.00001	0.0475	mg/kg	0.00028	0.58%
Molybdenum,7439-98-7†	4.5	0.0002	mg/L	0.00018	0.0073	mg/kg	0.00734	100.01%
Nickel,7440-02-0†	77.5	0.0013	mg/L	0.00028	0.0536	mg/kg	0.01114	20.79%
Phosphorus,7439-93-2†	-8.5	-0.0034	mg/L	0.00396	-0.1345	mg/kg	0.15845	117.84%
Potassium,7440-09-7†	-253.1	-0.0912	mg/L	0.01203	-3.6494	mg/kg	0.48110	13.18%
Selenium,7782-49-2†	-5.5	-0.0025	mg/L	0.00145	-0.1011	mg/kg	0.05819	57.58%
Silicon,7440-21-3†	35.1	0.0028	mg/L	0.00068	0.1127	mg/kg	0.02706	24.00%
Silver,7440-22-4†	-324.8	-0.0011	mg/L	0.00029	-0.0425	mg/kg	0.01174	27.66%
Sodium,7440-23-5†	-1560.5	-0.1942	mg/L	0.01630	-7.7690	mg/kg	0.65213	8.39%
Strontium,7440-24-6†	10.4	0.0000	mg/L	0.00006	0.0011	mg/kg	0.00258	235.26%

Thallium,7440-28-0†	-1.2	-0.0007 mg/L	0.00117	-0.0267 mg/kg	0.04660	174.68%
Tin,7440-31-5†	118.7	0.0178 mg/L	0.00060	0.7116 mg/kg	0.02408	3.38%
Titanium,7440-32-6†	515.9	0.0008 mg/L	0.00021	0.0336 mg/kg	0.00828	24.61%
Vanadium,7440-62-2†	-411.1	-0.0017 mg/L	0.00024	-0.0697 mg/kg	0.00953	13.66%
Zinc,7440-66-6†	241.2	0.0024 mg/L	0.00006	0.0961 mg/kg	0.00248	2.58%
Zirconium,7440-67-7†	749.7	0.0015 mg/L	0.00018	0.0602 mg/kg	0.00734	12.18%

Sequence No.: 15
Sample ID: 46446
Analyst:
Nebulizer Back Pressure: 150.0 kPa
Sample Wt: 2.5 g
Dilution: 1X

Autosampler Location: 18
Date Collected: 06/21/2002 11:16:36

Nebulizer Flow: 0.52 L/min
Sample Prep Volume: 100 mL
Data Type: Original

Mean Data: 46446

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Argon	7503713.3	100.19	%	0.273				0.27%
Scandium-IS	4506348.5	95.731	%	0.6282				0.66%
Yttrium,7440-65-5A	2086169.4	96.075	%	0.5644				0.59%
Yttrium,7440-65-5R	117193.7	92.371	%	1.0919				1.18%
Aluminum,7429-90-5†	6654.4	9.8485	mg/L	0.22661	393.94	mg/kg	9.065	2.30%
Antimony,7440-36-0†	2864.0	0.9195	mg/L	0.00767	36.778	mg/kg	0.3066	0.83%
Arsenic,7440-38-2†	2032.8	0.9945	mg/L	0.00549	39.781	mg/kg	0.2196	0.55%
Barium,7440-39-3†	169568.4	0.9926	mg/L	0.00427	39.705	mg/kg	0.1709	0.43%
Beryllium,7440-41-7†	3964911.8	0.9806	mg/L	0.00907	39.223	mg/kg	0.3627	0.92%
Boron,7440-42-8†	217091.2	4.5845	mg/L	0.03358	183.38	mg/kg	1.343	0.73%
Cadmium,7440-43-9†	161996.5	0.9573	mg/L	0.00393	38.292	mg/kg	0.1574	0.41%
Calcium,7440-70-2†	35278.7	10.035	mg/L	0.2514	401.41	mg/kg	10.056	2.51%
Cerium,7440-45-1†	-29.7	0.0004	mg/L	0.00130	0.0162	mg/kg	0.05190	321.00%
Chromium,7440-47-3†	129287.0	0.9981	mg/L	0.00338	39.925	mg/kg	0.1353	0.34%
Cobalt,7440-48-4†	61226.8	0.9917	mg/L	0.00420	39.667	mg/kg	0.1679	0.42%
Copper,7440-50-8†	387424.1	1.0323	mg/L	0.00393	41.291	mg/kg	0.1573	0.38%
Iron,7439-89-6†	10121.4	10.087	mg/L	0.2591	403.49	mg/kg	10.365	2.57%
Lead,7439-92-1†	15670.1	0.9668	mg/L	0.00897	38.670	mg/kg	0.3590	0.93%
Lithium,7439-93-2†	59227.3	1.0067	mg/L	0.00213	40.267	mg/kg	0.0851	0.21%
Magnesium,7439-95-4†	3103.1	10.117	mg/L	0.2225	404.68	mg/kg	8.899	2.20%
Manganese,7439-96-5†	1081524.3	1.0024	mg/L	0.00355	40.096	mg/kg	0.1418	0.35%
Molybdenum,7439-98-7†	24031.4	0.9796	mg/L	0.00734	39.183	mg/kg	0.2936	0.75%
Nickel,7440-02-0†	57459.6	0.9936	mg/L	0.00372	39.744	mg/kg	0.1488	0.37%
Phosphorus,7439-93-2†	-93.6	0.2781	mg/L	0.00198	11.122	mg/kg	0.0791	0.71%
Potassium,7440-09-7†	54132.9	19.520	mg/L	0.0660	780.80	mg/kg	2.640	0.34%
Selenium,7782-49-2†	2042.2	0.9341	mg/L	0.00822	37.362	mg/kg	0.3287	0.88%
Silicon,7440-21-3†	631.6	0.0323	mg/L	0.00167	1.2922	mg/kg	0.06663	5.16%
Silver,7440-22-4†	297962.6	0.9740	mg/L	0.00491	38.959	mg/kg	0.1966	0.50%
Sodium,7440-23-5†	311533.4	38.778	mg/L	0.0199	1551.1	mg/kg	0.80	0.05%
Strontium,7440-24-6†	370195.2	0.9728	mg/L	0.00251	38.910	mg/kg	0.1003	0.26%
Thallium,7440-28-0†	1649.2	0.9530	mg/L	0.01105	38.121	mg/kg	0.4418	1.16%
Tin,7440-31-5†	6174.8	0.9318	mg/L	0.00907	37.274	mg/kg	0.3627	0.97%
Titanium,7440-32-6†	601590.4	0.9803	mg/L	0.00398	39.212	mg/kg	0.1592	0.41%
Vanadium,7440-62-2†	234870.7	0.9963	mg/L	0.00464	39.851	mg/kg	0.1857	0.47%
Zinc,7440-66-6†	93364.6	0.9261	mg/L	0.00290	37.045	mg/kg	0.1159	0.31%
Zirconium,7440-67-7†	488951.6	0.9819	mg/L	0.00441	39.274	mg/kg	0.1763	0.45%

Sequence No.: 16
Sample ID: 20206200201
Analyst:
Nebulizer Back Pressure: 150.0 kPa
Sample Wt: 2.5 g
Dilution: 1X

Autosampler Location: 19
Date Collected: 06/21/2002 11:23:09

Nebulizer Flow: 0.52 L/min
Sample Prep Volume: 100 mL
Data Type: Original

Mean Data: 20206200201

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Argon	7455519.4	99.545	%	0.1044				0.10%
Scandium-IS	4619849.6	98.142	%	0.1661				0.17%
Yttrium,7440-65-5A	2166819.1	99.789	%	0.8600				0.86%
Yttrium,7440-65-5R	119431.7	94.135	%	0.5239				0.56%
Aluminum,7429-90-5†	11875.3	17.619	mg/L	0.1173	704.76	mg/kg	4.693	0.67%

Antimony,7440-36-0†	2.2	0.0005 mg/L	0.00270	0.0195 mg/kg	0.10794	552.18%
Arsenic,7440-38-2†	-1.1	0.0058 mg/L	0.00391	0.2321 mg/kg	0.15628	67.32%
Barium,7440-39-3†	12261.1	0.0715 mg/L	0.00072	2.8603 mg/kg	0.02885	1.01%
Beryllium,7440-41-7†	8143.8	0.0017 mg/L	0.00004	0.0694 mg/kg	0.00142	2.04%
Boron,7440-42-8†	2415.4	0.0554 mg/L	0.00407	2.2157 mg/kg	0.16294	7.35%
Cadmium,7440-43-9†	216.0	0.0003 mg/L	0.00008	0.0135 mg/kg	0.00308	22.86%
Calcium,7440-70-2†	14430.4	4.1031 mg/L	0.00467	164.12 mg/kg	0.187	0.11%
Cerium,7440-45-1†	15605.7	0.1528 mg/L	0.00201	6.1127 mg/kg	0.08055	1.32%
Chromium,7440-47-3†	2666.3	0.0210 mg/L	0.00029	0.8402 mg/kg	0.01173	1.40%
Cobalt,7440-48-4†	558.7	0.0084 mg/L	0.00019	0.3344 mg/kg	0.00746	2.23%
Copper,7440-50-8†	2548.1	0.0092 mg/L	0.00023	0.3693 mg/kg	0.00914	2.48%
Iron,7439-89-6†	17780.1	17.720 mg/L	0.0857	708.79 mg/kg	3.429	0.48%
Lead,7439-92-1†	489.5	0.0327 mg/L	0.00111	1.3073 mg/kg	0.04449	3.40%
Lithium,7439-93-2†	421.3	0.0073 mg/L	0.00073	0.2940 mg/kg	0.02909	9.90%
Magnesium,7439-95-4†	243.2	0.8054 mg/L	0.02389	32.215 mg/kg	0.9556	2.97%
Manganese,7439-96-5†	67139.8	0.0631 mg/L	0.00059	2.5257 mg/kg	0.02362	0.94%
Molybdenum,7439-98-7†	245.4	0.0101 mg/L	0.00035	0.4041 mg/kg	0.01389	3.44%
Nickel,7440-02-0†	1031.0	0.0180 mg/L	0.00017	0.7192 mg/kg	0.00683	0.95%
Phosphorus,7439-93-2†	1112.1	0.5405 mg/L	0.00950	21.619 mg/kg	0.3800	1.76%
Potassium,7440-09-7†	3451.7	1.2474 mg/L	0.02748	49.898 mg/kg	1.0992	2.20%
Selenium,7782-49-2†	-18.9	0.0025 mg/L	0.00342	0.0994 mg/kg	0.13672	137.49%
Silicon,7440-21-3†	24275.0	1.9482 mg/L	0.02222	77.928 mg/kg	0.8890	1.14%
Silver,7440-22-4†	-110.1	-0.0004 mg/L	0.00081	-0.0144 mg/kg	0.03247	225.49%
Sodium,7440-23-5†	-912.6	-0.1139 mg/L	0.01475	-4.5542 mg/kg	0.58990	12.95%
Strontium,7440-24-6†	34772.1	0.0914 mg/L	0.00013	3.6548 mg/kg	0.00527	0.14%
Thallium,7440-28-0†	-2.8	-0.0016 mg/L	0.00037	-0.0637 mg/kg	0.01464	23.01%
Tin,7440-31-5†	122.3	0.0206 mg/L	0.00073	0.8233 mg/kg	0.02909	3.53%
Titanium,7440-32-6†	201064.9	0.3277 mg/L	0.00088	13.107 mg/kg	0.0353	0.27%
Vanadium,7440-62-2†	6668.4	0.0271 mg/L	0.00061	1.0836 mg/kg	0.02451	2.26%
Zinc,7440-66-6†	4706.3	0.0451 mg/L	0.00010	1.8051 mg/kg	0.00382	0.21%
Zirconium,7440-67-7†	7698.1	0.0153 mg/L	0.00088	0.6102 mg/kg	0.03531	5.79%

Sequence No.: 17
Sample ID: 46447
Analyst:
Nebulizer Back Pressure: 150.0 kPa
Sample Wt: 2.5 g
Dilution: 1X

Autosampler Location: 20
Date Collected: 06/21/2002 11:30:27

Nebulizer Flow: 0.52 L/min
Sample Prep Volume: 100 mL
Data Type: Original

Mean Data: 46447

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Argon	7475009.7	99.805	%	0.2322				0.23%
Scandium-IS	4618479.4	98.113	%	0.1446				0.15%
Yttrium,7440-65-5A	2173432.2	100.09	%	0.925				0.92%
Yttrium,7440-65-5R	119936.4	94.533	%	1.2823				1.36%
Aluminum,7429-90-5†	12251.4	18.177	mg/L	0.1396	727.07	mg/kg	5.583	0.77%
Antimony,7440-36-0†	-3.6	-0.0014	mg/L	0.00140	-0.0558	mg/kg	0.05583	100.08%
Arsenic,7440-38-2†	2.3	0.0077	mg/L	0.00231	0.3079	mg/kg	0.09249	30.04%
Barium,7440-39-3†	12327.8	0.0719	mg/L	0.00100	2.8746	mg/kg	0.04014	1.40%
Beryllium,7440-41-7†	8553.1	0.0018	mg/L	0.00003	0.0729	mg/kg	0.00138	1.89%
Boron,7440-42-8†	1366.5	0.0338	mg/L	0.00069	1.3505	mg/kg	0.02776	2.06%
Cadmium,7440-43-9†	225.3	0.0003	mg/L	0.00008	0.0124	mg/kg	0.00308	24.96%
Calcium,7440-70-2†	15192.7	4.3197	mg/L	0.08605	172.79	mg/kg	3.442	1.99%
Cerium,7440-45-1†	15338.1	0.1502	mg/L	0.00404	6.0080	mg/kg	0.16141	2.69%
Chromium,7440-47-3†	2707.8	0.0214	mg/L	0.00018	0.8551	mg/kg	0.00731	0.86%
Cobalt,7440-48-4†	601.9	0.0090	mg/L	0.00021	0.3612	mg/kg	0.00822	2.28%
Copper,7440-50-8†	2655.8	0.0098	mg/L	0.00018	0.3919	mg/kg	0.00726	1.85%
Iron,7439-89-6†	19710.0	19.643	mg/L	0.4402	785.73	mg/kg	17.607	2.24%
Lead,7439-92-1†	524.3	0.0348	mg/L	0.00116	1.3927	mg/kg	0.04659	3.35%
Lithium,7439-93-2†	372.9	0.0065	mg/L	0.00028	0.2614	mg/kg	0.01137	4.35%
Magnesium,7439-95-4†	269.2	0.8917	mg/L	0.01247	35.669	mg/kg	0.4989	1.40%
Manganese,7439-96-5†	72661.3	0.0683	mg/L	0.00090	2.7339	mg/kg	0.03612	1.32%
Molybdenum,7439-98-7†	250.4	0.0103	mg/L	0.00036	0.4128	mg/kg	0.01438	3.48%
Nickel,7440-02-0†	1108.5	0.0193	mg/L	0.00040	0.7737	mg/kg	0.01583	2.05%
Phosphorus,7439-93-2†	1121.1	0.5437	mg/L	0.00182	21.748	mg/kg	0.0729	0.34%
Potassium,7440-09-7†	4050.5	1.4636	mg/L	0.00066	58.545	mg/kg	0.0262	0.04%
Selenium,7782-49-2†	-30.9	-0.0022	mg/L	0.00185	-0.0881	mg/kg	0.07398	83.93%
Silicon,7440-21-3†	34722.6	2.7894	mg/L	0.03927	111.58	mg/kg	1.571	1.41%
Silver,7440-22-4†	-243.6	-0.0008	mg/L	0.00043	-0.0318	mg/kg	0.01738	54.57%
Sodium,7440-23-5†	-1356.0	-0.1689	mg/L	0.00870	-6.7570	mg/kg	0.34799	5.15%

Strontium,7440-24-6†	32332.7	0.0850	mg/L	0.00190	3.3984	mg/kg	0.07603	2.24%
Thallium,7440-28-0†	-3.5	-0.0020	mg/L	0.00082	-0.0802	mg/kg	0.03288	41.03%
Tin,7440-31-5†	116.3	0.0198	mg/L	0.00069	0.7913	mg/kg	0.02771	3.50%
Titanium,7440-32-6†	211274.4	0.3443	mg/L	0.00181	13.772	mg/kg	0.0722	0.52%
Vanadium,7440-62-2†	7184.1	0.0292	mg/L	0.00069	1.1661	mg/kg	0.02753	2.36%
Zinc,7440-66-6†	6157.6	0.0594	mg/L	0.00043	2.3778	mg/kg	0.01731	0.73%
Zirconium,7440-67-7†	7520.1	0.0149	mg/L	0.00029	0.5951	mg/kg	0.01162	1.95%

Sequence No.: 18
Sample ID: 46448
Analyst:
Nebulizer Back Pressure: 150.0 kPa
Sample Wt: 2.5 g
Dilution: 1X

Autosampler Location: 21
Date Collected: 06/21/2002 11:37:45
Nebulizer Flow: 0.52 L/min
Sample Prep Volume: 100 mL
Data Type: Original

Mean Data: 46448

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Argon	7435207.2	99.274	%	0.3053				0.31%
Scandium-IS	4515433.9	95.924	%	0.3414				0.36%
Yttrium,7440-65-5A	2107188.8	97.043	%	1.0806				1.11%
Yttrium,7440-65-5R	120205.4	94.745	%	0.2698				0.28%
Aluminum,7429-90-5†	40334.3	59.822	mg/L	0.5933	2392.9	mg/kg	23.73	0.99%
Antimony,7440-36-0†	1566.2	0.4935	mg/L	0.00556	19.739	mg/kg	0.2223	1.13%
Arsenic,7440-38-2†	1967.9	0.9786	mg/L	0.00638	39.145	mg/kg	0.2554	0.65%
Barium,7440-39-3†	183512.8	1.0739	mg/L	0.00222	42.956	mg/kg	0.0888	0.21%
Beryllium,7440-41-7†	3985138.2	0.9854	mg/L	0.00893	39.416	mg/kg	0.3573	0.91%
Boron,7440-42-8†	215413.5	4.5537	mg/L	0.03216	182.15	mg/kg	1.287	0.71%
Cadmium,7440-43-9†	159762.5	0.9426	mg/L	0.00425	37.704	mg/kg	0.1700	0.45%
Calcium,7440-70-2†	48509.2	13.794	mg/L	0.1688	551.77	mg/kg	6.753	1.22%
Cerium,7440-45-1†	14843.5	0.1462	mg/L	0.00078	5.8484	mg/kg	0.03119	0.53%
Chromium,7440-47-3†	132164.0	1.0207	mg/L	0.00180	40.829	mg/kg	0.0720	0.18%
Cobalt,7440-48-4†	61037.8	0.9881	mg/L	0.00183	39.525	mg/kg	0.0734	0.19%
Copper,7440-50-8†	381920.6	1.0204	mg/L	0.00326	40.816	mg/kg	0.1302	0.32%
Iron,7439-89-6†	30815.9	30.710	mg/L	0.4297	1228.4	mg/kg	17.19	1.40%
Lead,7439-92-1†	15853.3	0.9871	mg/L	0.00622	39.483	mg/kg	0.2488	0.63%
Lithium,7439-93-2†	59581.0	1.0131	mg/L	0.00286	40.525	mg/kg	0.1143	0.28%
Magnesium,7439-95-4†	3636.2	11.868	mg/L	0.1385	474.73	mg/kg	5.540	1.17%
Manganese,7439-96-5†	1143750.0	1.0615	mg/L	0.00200	42.458	mg/kg	0.0802	0.19%
Molybdenum,7439-98-7†	23047.9	0.9396	mg/L	0.00840	37.585	mg/kg	0.3358	0.89%
Nickel,7440-02-0†	57564.3	0.9955	mg/L	0.00102	39.820	mg/kg	0.0408	0.10%
Phosphorus,7439-93-2†	1245.3	0.9428	mg/L	0.00122	37.711	mg/kg	0.0487	0.13%
Potassium,7440-09-7†	57723.2	20.818	mg/L	0.0508	832.71	mg/kg	2.030	0.24%
Selenium,7782-49-2†	1949.3	0.9143	mg/L	0.00583	36.572	mg/kg	0.2331	0.64%
Silicon,7440-21-3†	71238.0	5.7115	mg/L	0.01414	228.46	mg/kg	0.566	0.25%
Silver,7440-22-4†	295610.9	0.9663	mg/L	0.00112	38.651	mg/kg	0.0448	0.12%
Sodium,7440-23-5†	310133.9	38.600	mg/L	0.0815	1544.0	mg/kg	3.26	0.21%
Strontium,7440-24-6†	408430.1	1.0732	mg/L	0.00257	42.929	mg/kg	0.1028	0.24%
Thallium,7440-28-0†	1629.7	0.9417	mg/L	0.00538	37.669	mg/kg	0.2150	0.57%
Tin,7440-31-5†	5971.0	0.9036	mg/L	0.00701	36.143	mg/kg	0.2805	0.78%
Titanium,7440-32-6†	745569.5	1.2149	mg/L	0.00185	48.597	mg/kg	0.0742	0.15%
Vanadium,7440-62-2†	243028.2	1.0294	mg/L	0.00180	41.175	mg/kg	0.0721	0.18%
Zinc,7440-66-6†	97262.2	0.9620	mg/L	0.00304	38.482	mg/kg	0.1215	0.32%
Zirconium,7440-67-7†	484911.2	0.9735	mg/L	0.00272	38.941	mg/kg	0.1087	0.28%

Sequence No.: 19
Sample ID: 46449
Analyst:
Nebulizer Back Pressure: 150.0 kPa
Sample Wt: 2.5 g
Dilution: 1X

Autosampler Location: 22
Date Collected: 06/21/2002 11:44:19
Nebulizer Flow: 0.52 L/min
Sample Prep Volume: 100 mL
Data Type: Original

Mean Data: 46449

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Argon	7404312.3	98.861	%	0.1276				0.13%
Scandium-IS	4505177.7	95.706	%	0.3387				0.35%
Yttrium,7440-65-5A	2076305.6	95.620	%	0.3815				0.40%
Yttrium,7440-65-5R	120426.1	94.919	%	0.7689				0.81%

Aluminum,7429-90-5†	36303.3	53.841 mg/L	0.1300	2153.6 mg/kg	5.20	0.24%
Antimony,7440-36-0†	1727.9	0.5471 mg/L	0.00597	21.884 mg/kg	0.2388	1.09%
Arsenic,7440-38-2†	1958.9	0.9721 mg/L	0.00889	38.885 mg/kg	0.3558	0.91%
Barium,7440-39-3†	178913.6	1.0470 mg/L	0.00023	41.880 mg/kg	0.0091	0.02%
Beryllium,7440-41-7†	3942968.1	0.9750 mg/L	0.00717	38.998 mg/kg	0.2869	0.74%
Boron,7440-42-8†	214569.7	4.5358 mg/L	0.00807	181.43 mg/kg	0.323	0.18%
Cadmium,7440-43-9†	156408.7	0.9229 mg/L	0.00112	36.916 mg/kg	0.0448	0.12%
Calcium,7440-70-2†	47368.0	13.470 mg/L	0.0171	538.80 mg/kg	0.685	0.13%
Cerium,7440-45-1†	14865.8	0.1464 mg/L	0.00060	5.8555 mg/kg	0.02413	0.41%
Chromium,7440-47-3†	128549.5	0.9928 mg/L	0.00120	39.713 mg/kg	0.0480	0.12%
Cobalt,7440-48-4†	59711.2	0.9666 mg/L	0.00053	38.665 mg/kg	0.0210	0.05%
Copper,7440-50-8†	376940.7	1.0071 mg/L	0.00053	40.282 mg/kg	0.0214	0.05%
Iron,7439-89-6†	29899.1	29.797 mg/L	0.0334	1191.9 mg/kg	1.33	0.11%
Lead,7439-92-1†	15654.9	0.9737 mg/L	0.00989	38.947 mg/kg	0.3955	1.02%
Lithium,7439-93-2†	58811.7	1.0000 mg/L	0.00298	40.000 mg/kg	0.1191	0.30%
Magnesium,7439-95-4†	3510.6	11.459 mg/L	0.0169	458.34 mg/kg	0.676	0.15%
Manganese,7439-96-5†	1118778.2	1.0382 mg/L	0.00073	41.529 mg/kg	0.0291	0.07%
Molybdenum,7439-98-7†	22849.3	0.9315 mg/L	0.00886	37.261 mg/kg	0.3545	0.95%
Nickel,7440-02-0†	56320.6	0.9740 mg/L	0.00087	38.961 mg/kg	0.0348	0.09%
Phosphorus,7439-93-2†	1316.5	0.9697 mg/L	0.00874	38.787 mg/kg	0.3498	0.90%
Potassium,7440-09-7†	56720.6	20.456 mg/L	0.0760	818.24 mg/kg	3.040	0.37%
Selenium,7782-49-2†	1933.5	0.9049 mg/L	0.01326	36.196 mg/kg	0.5302	1.46%
Silicon,7440-21-3†	69431.5	5.5667 mg/L	0.00129	222.67 mg/kg	0.052	0.02%
Silver,7440-22-4†	291453.7	0.9527 mg/L	0.00045	38.107 mg/kg	0.0181	0.05%
Sodium,7440-23-5†	303109.5	37.726 mg/L	0.0389	1509.1 mg/kg	1.55	0.10%
Strontium,7440-24-6†	397391.4	1.0442 mg/L	0.00044	41.769 mg/kg	0.0174	0.04%
Thallium,7440-28-0†	1605.4	0.9277 mg/L	0.00732	37.107 mg/kg	0.2929	0.79%
Tin,7440-31-5†	5958.5	0.9015 mg/L	0.00720	36.060 mg/kg	0.2881	0.80%
Titanium,7440-32-6†	735728.5	1.1989 mg/L	0.00195	47.956 mg/kg	0.0781	0.16%
Vanadium,7440-62-2†	237570.9	1.0063 mg/L	0.00061	40.252 mg/kg	0.0245	0.06%
Zinc,7440-66-6†	95534.1	0.9451 mg/L	0.00200	37.806 mg/kg	0.0801	0.21%
Zirconium,7440-67-7†	475579.7	0.9548 mg/L	0.00135	38.191 mg/kg	0.0539	0.14%

Sequence No.: 20
Sample ID: 20206200201 A
Analyst:
Nebulizer Back Pressure: 149.0 kPa
Sample Wt: 2.5 g
Dilution: 1X

Autosampler Location: 23
Date Collected: 06/21/2002 11:50:55

Nebulizer Flow: 0.52 L/min
Sample Prep Volume: 100 mL
Data Type: Original

Mean Data: 20206200201 A

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Argon	7432471.4	99.237	%	0.1190				0.12%
Scandium-IS	4562823.4	96.931	%	0.2065				0.21%
Yttrium,7440-65-5A	2131892.1	98.180	%	0.6182				0.63%
Yttrium,7440-65-5R	121451.8	95.728	%	0.6561				0.69%
Aluminum,7429-90-5†	18595.2	27.565	mg/L	0.1132	1102.6	mg/kg	4.53	0.41%
Antimony,7440-36-0†	2836.6	0.9107	mg/L	0.00663	36.427	mg/kg	0.2651	0.73%
Arsenic,7440-38-2†	2017.6	0.9931	mg/L	0.00824	39.724	mg/kg	0.3298	0.83%
Barium,7440-39-3†	180601.3	1.0570	mg/L	0.00246	42.279	mg/kg	0.0985	0.23%
Beryllium,7440-41-7†	3936655.2	0.9733	mg/L	0.00585	38.932	mg/kg	0.2339	0.60%
Boron,7440-42-8†	221400.5	4.6798	mg/L	0.02346	187.19	mg/kg	0.938	0.50%
Cadmium,7440-43-9†	159364.2	0.9408	mg/L	0.00484	37.633	mg/kg	0.1936	0.51%
Calcium,7440-70-2†	49108.7	13.968	mg/L	0.0830	558.70	mg/kg	3.320	0.59%
Cerium,7440-45-1†	14599.9	0.1437	mg/L	0.00106	5.7462	mg/kg	0.04255	0.74%
Chromium,7440-47-3†	129092.1	0.9970	mg/L	0.00157	39.881	mg/kg	0.0627	0.16%
Cobalt,7440-48-4†	61301.1	0.9921	mg/L	0.00306	39.685	mg/kg	0.1224	0.31%
Copper,7440-50-8†	380020.2	1.0149	mg/L	0.00172	40.595	mg/kg	0.0688	0.17%
Iron,7439-89-6†	27373.3	27.281	mg/L	0.2029	1091.2	mg/kg	8.12	0.74%
Lead,7439-92-1†	15767.8	0.9754	mg/L	0.00654	39.015	mg/kg	0.2616	0.67%
Lithium,7439-93-2†	58545.1	0.9953	mg/L	0.00310	39.811	mg/kg	0.1239	0.31%
Magnesium,7439-95-4†	3347.9	10.928	mg/L	0.0653	437.10	mg/kg	2.613	0.60%
Manganese,7439-96-5†	1138964.2	1.0565	mg/L	0.00207	42.262	mg/kg	0.0826	0.20%
Molybdenum,7439-98-7†	23752.3	0.9683	mg/L	0.00480	38.732	mg/kg	0.1922	0.50%
Nickel,7440-02-0†	57803.9	0.9997	mg/L	0.00229	39.988	mg/kg	0.0915	0.23%
Phosphorus,7439-93-2†	1060.5	0.8313	mg/L	0.00603	33.252	mg/kg	0.2413	0.73%
Potassium,7440-09-7†	56946.0	20.537	mg/L	0.0646	821.48	mg/kg	2.583	0.31%
Selenium,7782-49-2†	1968.0	0.9113	mg/L	0.00634	36.451	mg/kg	0.2537	0.70%
Silicon,7440-21-3†	57973.4	4.6434	mg/L	0.01295	185.74	mg/kg	0.518	0.28%
Silver,7440-22-4†	293400.6	0.9591	mg/L	0.00162	38.362	mg/kg	0.0648	0.17%

Sodium,7440-23-5†	306264.9	38.122 mg/L	0.0448	1524.9 mg/kg	1.79	0.12%
Strontium,7440-24-6†	395213.5	1.0385 mg/L	0.00106	41.540 mg/kg	0.0423	0.10%
Thallium,7440-28-0†	1638.4	0.9467 mg/L	0.00649	37.870 mg/kg	0.2595	0.69%
Tin,7440-31-5†	6226.4	0.9419 mg/L	0.00515	37.676 mg/kg	0.2062	0.55%
Titanium,7440-32-6†	809512.3	1.3191 mg/L	0.00433	52.765 mg/kg	0.1731	0.33%
Vanadium,7440-62-2†	237420.3	1.0059 mg/L	0.00210	40.236 mg/kg	0.0839	0.21%
Zinc,7440-66-6†	97038.1	0.9611 mg/L	0.00206	38.444 mg/kg	0.0823	0.21%
Zirconium,7440-67-7†	492002.8	0.9878 mg/L	0.00047	39.511 mg/kg	0.0187	0.05%

Sequence No.: 21
Sample ID: 20206200201 L
Analyst:
Nebulizer Back Pressure: 150.0 kPa
Sample Wt: 2.5 g
Dilution: 5X

Autosampler Location: 24
Date Collected: 06/21/2002 11:57:31
Nebulizer Flow: 0.52 L/min
Sample Prep Volume: 100 mL
Data Type: Original

Mean Data: 20206200201 L

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Argon	7500960.4	100.15	%	0.256				0.26%
Scandium-IS	4639594.5	98.562	%	0.7898				0.80%
Yttrium,7440-65-5A	2161186.8	99.530	%	1.5853				1.59%
Yttrium,7440-65-5R	123907.1	97.663	%	0.7599				0.78%
Aluminum,7429-90-5†	3311.6	4.9134	mg/L	0.34888	982.68	mg/kg	69.776	7.10%
Antimony,7440-36-0†	1.4	0.0004	mg/L	0.00169	0.0837	mg/kg	0.33728	402.85%
Arsenic,7440-38-2†	-2.7	0.0004	mg/L	0.00233	0.0838	mg/kg	0.46571	555.54%
Barium,7440-39-3†	2566.2	0.0149	mg/L	0.00126	2.9894	mg/kg	0.25216	8.44%
Beryllium,7440-41-7†	2301.5	0.0005	mg/L	0.00006	0.1003	mg/kg	0.01112	11.09%
Boron,7440-42-8†	3776.0	0.0809	mg/L	0.00508	16.177	mg/kg	1.0166	6.28%
Cadmium,7440-43-9†	34.7	-0.0001	mg/L	0.00009	-0.0103	mg/kg	0.01840	179.46%
Calcium,7440-70-2†	3796.0	1.0793	mg/L	0.08048	215.86	mg/kg	16.096	7.46%
Cerium,7440-45-1†	3566.4	0.0349	mg/L	0.00270	6.9852	mg/kg	0.53967	7.73%
Chromium,7440-47-3†	608.4	0.0048	mg/L	0.00040	0.9624	mg/kg	0.08052	8.37%
Cobalt,7440-48-4†	120.0	0.0018	mg/L	0.00029	0.3555	mg/kg	0.05756	16.19%
Copper,7440-50-8†	992.7	0.0033	mg/L	0.00048	0.6641	mg/kg	0.09618	14.48%
Iron,7439-89-6†	4803.9	4.7876	mg/L	0.32942	957.52	mg/kg	65.884	6.88%
Lead,7439-92-1†	94.3	0.0065	mg/L	0.00133	1.3041	mg/kg	0.26530	20.34%
Lithium,7439-93-2†	155.4	0.0027	mg/L	0.00094	0.5384	mg/kg	0.18858	35.02%
Magnesium,7439-95-4†	67.5	0.2236	mg/L	0.01082	44.712	mg/kg	2.1646	4.84%
Manganese,7439-96-5†	14433.9	0.0136	mg/L	0.00110	2.7258	mg/kg	0.21947	8.05%
Molybdenum,7439-98-7†	80.2	0.0033	mg/L	0.00040	0.6587	mg/kg	0.08023	12.18%
Nickel,7440-02-0†	225.3	0.0039	mg/L	0.00076	0.7875	mg/kg	0.15251	19.36%
Phosphorus,7439-93-2†	230.6	0.1124	mg/L	0.00849	22.472	mg/kg	1.6977	7.55%
Potassium,7440-09-7†	997.4	0.3604	mg/L	0.03273	72.076	mg/kg	6.5461	9.08%
Selenium,7782-49-2†	-5.8	0.0004	mg/L	0.00331	0.0842	mg/kg	0.66104	784.88%
Silicon,7440-21-3†	13633.2	1.0963	mg/L	0.09310	219.26	mg/kg	18.621	8.49%
Silver,7440-22-4†	10.0	0.0000	mg/L	0.00062	0.0066	mg/kg	0.12406	>999.9%
Sodium,7440-23-5†	-2123.4	-0.2644	mg/L	0.00759	-52.880	mg/kg	1.5186	2.87%
Strontium,7440-24-6†	9905.8	0.0260	mg/L	0.00175	5.2059	mg/kg	0.34970	6.72%
Thallium,7440-28-0†	2.4	0.0014	mg/L	0.00051	0.2831	mg/kg	0.10157	35.87%
Tin,7440-31-5†	19.3	0.0034	mg/L	0.00031	0.6890	mg/kg	0.06195	8.99%
Titanium,7440-32-6†	48867.2	0.0796	mg/L	0.00742	15.927	mg/kg	1.4836	9.31%
Vanadium,7440-62-2†	1335.7	0.0053	mg/L	0.00058	1.0681	mg/kg	0.11662	10.92%
Zinc,7440-66-6†	950.2	0.0090	mg/L	0.00089	1.7927	mg/kg	0.17771	9.91%
Zirconium,7440-67-7†	2102.6	0.0042	mg/L	0.00052	0.8337	mg/kg	0.10339	12.40%

Sequence No.: 22
Sample ID: 20206200202
Analyst:
Nebulizer Back Pressure: 150.0 kPa
Sample Wt: 2.5 g
Dilution: 1X

Autosampler Location: 25
Date Collected: 06/21/2002 12:04:43
Nebulizer Flow: 0.52 L/min
Sample Prep Volume: 100 mL
Data Type: Original

R/R diluted

Mean Data: 20206200202

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Argon	5840448.3	77.981	%	0.2448				0.31%
Scandium-IS	3552580.3	75.470	%	0.4999				0.66%
Yttrium,7440-65-5A	1736570.6	79.975	%	0.4981				0.62%

Yttrium,7440-65-5R	107051.6	84.378	%	0.4083				0.48%
Aluminum,7429-90-5†	3690.9	4.8485	mg/L	0.01906	193.94	mg/kg	0.762	0.39%
Antimony,7440-36-0†	-76.3	0.0333	mg/L	0.00572	1.3339	mg/kg	0.22891	17.16%
Arsenic,7440-38-2†	-91.6	0.4124	mg/L	0.00345	16.495	mg/kg	0.1378	0.84%
Barium,7440-39-3†	17704.6	0.0891	mg/L	0.00095	3.5621	mg/kg	0.03804	1.07%
Beryllium,7440-41-7†	-3403.0	-0.0009	mg/L	0.00002	-0.0348	mg/kg	0.00068	1.95%
Boron,7440-42-8†	2806.2	0.0611	mg/L	0.00308	2.4426	mg/kg	0.12309	5.04%
Cadmium,7440-43-9†	-510.6	-0.0030	mg/L	0.00014	-0.1208	mg/kg	0.00565	4.68%
Calcium,7440-70-2†	24166161.4	6875.8	mg/L	20.88	275030	mg/kg	835.3	0.30%
Cerium,7440-45-1†	2413.6	0.0241	mg/L	0.00192	0.9646	mg/kg	0.07681	7.96%
Chromium,7440-47-3†	16718.0	0.1181	mg/L	0.00155	4.7251	mg/kg	0.06215	1.32%
Cobalt,7440-48-4†	462.5	0.0074	mg/L	0.00051	0.2953	mg/kg	0.02036	6.89%
Copper,7440-50-8†	6460.7	-0.0061	mg/L	0.00041	-0.2420	mg/kg	0.01659	6.86%
Iron,7439-89-6†	6720.6	6.7458	mg/L	0.03021	269.83	mg/kg	1.208	0.45%
Lead,7439-92-1†	-1269.7	-0.0776	mg/L	0.00010	-3.1051	mg/kg	0.00381	0.12%
Lithium,7439-93-2†	772.1	0.0788	mg/L	0.00071	3.1506	mg/kg	0.02853	0.91%
Magnesium,7439-95-4†	14672.7	48.288	mg/L	0.4336	1931.5	mg/kg	17.34	0.90%
Manganese,7439-96-5†	518036.7	0.4797	mg/L	0.00030	19.188	mg/kg	0.0120	0.06%
Molybdenum,7439-98-7†	440.1	-0.1427	mg/L	0.00040	-5.7089	mg/kg	0.01601	0.28%
Nickel,7440-02-0†	1281.6	-0.0077	mg/L	0.00052	-0.3094	mg/kg	0.02064	6.67%
Phosphorus,7439-93-2†	17332.0	8.3069	mg/L	0.06829	332.27	mg/kg	2.732	0.82%
Potassium,7440-09-7†	2107.4	1.1003	mg/L	0.02171	44.013	mg/kg	0.8683	1.97%
Selenium,7782-49-2†	-329.9	0.1178	mg/L	0.00677	4.7102	mg/kg	0.27071	5.75%
Silicon,7440-21-3†	44739.6	3.8129	mg/L	0.00769	152.51	mg/kg	0.308	0.20%
Silver,7440-22-4†	-1884.1	-0.0062	mg/L	0.00038	-0.2464	mg/kg	0.01529	6.21%
Sodium,7440-23-5†	24428.9	3.1103	mg/L	0.05774	124.41	mg/kg	2.310	1.86%
Strontium,7440-24-6†	2836818.2	7.4543	mg/L	0.00582	298.17	mg/kg	0.233	0.08%
Thallium,7440-28-0†	14.1	0.0081	mg/L	0.00099	0.3251	mg/kg	0.03977	12.23%
Tin,7440-31-5†	674.4	-0.2247	mg/L	0.00335	-8.9860	mg/kg	0.13390	1.49%
Titanium,7440-32-6†	33262.7	0.0542	mg/L	0.00044	2.1678	mg/kg	0.01770	0.82%
Vanadium,7440-62-2†	27846.8	0.0944	mg/L	0.00056	3.7776	mg/kg	0.02241	0.59%
Zinc,7440-66-6†	9848.6	-0.2347	mg/L	0.00031	-9.3878	mg/kg	0.01222	0.13%
Zirconium,7440-67-7†	8396.1	0.0168	mg/L	0.00039	0.6721	mg/kg	0.01550	2.31%

Sequence No.: 23
Sample ID: ---------
Analyst:
Nebulizer Back Pressure: 149.0 kPa
Sample Wt:
Dilution: 1X

Autosampler Location: 26
Date Collected: 06/21/2002 12:11:32

Nebulizer Flow: 0.52 L/min
Sample Prep Volume:
Data Type: Original

Mean Data: ---------

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Argon	7481601.7	99.893	%	0.1146				0.11%
Scandium-IS	4666514.9	99.134	%	0.7801				0.79%
Yttrium,7440-65-5A	2190977.0	100.90	%	0.843				0.84%
Yttrium,7440-65-5R	121948.5	96.119	%	2.4905				2.59%
Aluminum,7429-90-5†	-25.6	-0.0380	mg/L	0.02071	-0.0380	mg/L	0.02071	54.45%
Antimony,7440-36-0†	-3.2	-0.0011	mg/L	0.00089	-0.0011	mg/L	0.00089	83.59%
Arsenic,7440-38-2†	-5.8	-0.0028	mg/L	0.00087	-0.0028	mg/L	0.00087	30.67%
Barium,7440-39-3†	-30.9	-0.0002	mg/L	0.00009	-0.0002	mg/L	0.00009	52.77%
Beryllium,7440-41-7†	836.0	0.0002	mg/L	0.00003	0.0002	mg/L	0.00003	13.68%
Boron,7440-42-8†	1103.4	0.0233	mg/L	0.00129	0.0233	mg/L	0.00129	5.54%
Cadmium,7440-43-9†	-25.4	-0.0001	mg/L	0.00012	-0.0001	mg/L	0.00012	80.92%
Calcium,7440-70-2†	820.1	0.2334	mg/L	0.03715	0.2334	mg/L	0.03715	15.92%
Cerium,7440-45-1†	-222.5	-0.0022	mg/L	0.00135	-0.0022	mg/L	0.00135	61.93%
Chromium,7440-47-3†	30.6	0.0002	mg/L	0.00009	0.0002	mg/L	0.00009	36.69%
Cobalt,7440-48-4†	2.1	0.0000	mg/L	0.00013	0.0000	mg/L	0.00013	395.14%
Copper,7440-50-8†	29.0	0.0001	mg/L	0.00039	0.0001	mg/L	0.00039	522.57%
Iron,7439-89-6†	-16.6	-0.0166	mg/L	0.00809	-0.0166	mg/L	0.00809	48.85%
Lead,7439-92-1†	3.3	0.0002	mg/L	0.00046	0.0002	mg/L	0.00046	236.65%
Lithium,7439-93-2†	-31.8	-0.0005	mg/L	0.00155	-0.0005	mg/L	0.00155	288.58%
Magnesium,7439-95-4†	4.6	0.0151	mg/L	0.02338	0.0151	mg/L	0.02338	155.16%
Manganese,7439-96-5†	-128.3	-0.0001	mg/L	0.00002	-0.0001	mg/L	0.00002	13.44%
Molybdenum,7439-98-7†	1.3	0.0000	mg/L	0.00006	0.0000	mg/L	0.00006	117.02%
Nickel,7440-02-0†	15.6	0.0003	mg/L	0.00026	0.0003	mg/L	0.00026	95.77%
Phosphorus,7439-93-2†	-10.5	-0.0051	mg/L	0.00136	-0.0051	mg/L	0.00136	26.53%
Potassium,7440-09-7†	-153.2	-0.0552	mg/L	0.00504	-0.0552	mg/L	0.00504	9.12%
Selenium,7782-49-2†	1.8	0.0008	mg/L	0.00603	0.0008	mg/L	0.00603	740.75%
Silicon,7440-21-3†	-44.8	-0.0036	mg/L	0.00057	-0.0036	mg/L	0.00057	15.89%

Silver,7440-22-4†	151.0	0.0005 mg/L	0.00080	0.0005 mg/L	0.00080	162.60%
Sodium,7440-23-5†	-334.6	-0.0416 mg/L	0.01654	-0.0416 mg/L	0.01654	39.70%
Strontium,7440-24-6†	61.8	0.0002 mg/L	0.00006	0.0002 mg/L	0.00006	36.21%
Thallium,7440-28-0†	1.2	0.0007 mg/L	0.00063	0.0007 mg/L	0.00063	89.54%
Tin,7440-31-5†	-2.8	-0.0004 mg/L	0.00081	-0.0004 mg/L	0.00081	187.19%
Titanium,7440-32-6†	45.3	0.0001 mg/L	0.00013	0.0001 mg/L	0.00013	173.84%
Vanadium,7440-62-2†	-521.5	-0.0022 mg/L	0.00050	-0.0022 mg/L	0.00050	22.43%
Zinc,7440-66-6†	-201.9	-0.0020 mg/L	0.00018	-0.0020 mg/L	0.00018	8.78%
Zirconium,7440-67-7†	-28.5	-0.0001 mg/L	0.00016	-0.0001 mg/L	0.00016	279.04%

Sequence No.: 24
Sample ID: 1800
Analyst:
Nebulizer Back Pressure: 150.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 06/21/2002 12:18:46
Nebulizer Flow: 0.52 L/min
Sample Prep Volume:
Data Type: Original

Analysis Begun

Start Time: 06/21/2002 12:23:22
Logged In Analyst: met
Spectrometer Model: Optima 4300 DV

Plasma On Time: 06/21/2002 07:59:35
Technique: ICP Continuous
Autosampler Model: AS-91

Sample Information File: C:\Win32\Sample Information\1468.sif
Results Data Set: 2020621 A
Results Library: c:\win32\Results\Results.mdb

Method Loaded
Method Name: ICP5
IEC File: 05-06 iec.iec
Method Description: ICP5

Method Last Saved: 06/21/2002 12:23:07
MSF File:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Aluminum,7429-90-5	Lin, Calc Int	Peak Area	Radial	Yttrium,7440-65-5R	Yes
Antimony,7440-36-0	Lin, Calc Int	Peak Area	Axial	Yttrium,7440-65-5A	Yes
Argon	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Arsenic,7440-38-2	Lin, Calc Int	Peak Area	Axial	Yttrium,7440-65-5A	Yes
Barium,7440-39-3	Lin, Calc Int	Peak Area	Axial	Yttrium,7440-65-5A	Yes
Beryllium,7440-41-7	Lin, Calc Int	Peak Area	Axial	Yttrium,7440-65-5A	Yes
Boron,7440-42-8	Lin, Calc Int	Peak Area	Axial	Yttrium,7440-65-5A	Yes
Cadmium,7440-43-9	Lin, Calc Int	Peak Area	Axial	Yttrium,7440-65-5A	Yes
Calcium,7440-70-2	Lin, Calc Int	Peak Area	Radial	Yttrium,7440-65-5R	Yes
Cerium,7440-45-1	Lin, Calc Int	Peak Area	Axial	Yttrium,7440-65-5A	Yes
Chromium,7440-47-3	Lin, Calc Int	Peak Area	Axial	Yttrium,7440-65-5A	Yes
Cobalt,7440-48-4	Lin, Calc Int	Peak Area	Axial	Yttrium,7440-65-5A	Yes
Copper,7440-50-8	Lin, Calc Int	Peak Area	Axial	Yttrium,7440-65-5A	Yes
Iron,7439-89-6	Lin, Calc Int	Peak Area	Radial	Yttrium,7440-65-5R	Yes
Lead,7439-92-1	Lin, Calc Int	Peak Area	Axial	Yttrium,7440-65-5A	Yes
Lithium,7439-93-2	Lin, Calc Int	Peak Area	Radial	Yttrium,7440-65-5R	Yes
Magnesium,7439-95-4	Lin, Calc Int	Peak Area	Radial	Yttrium,7440-65-5R	Yes
Manganese,7439-96-5	Lin, Calc Int	Peak Area	Axial	Yttrium,7440-65-5A	Yes
Molybdenum,7439-98-7	Lin, Calc Int	Peak Area	Axial	Yttrium,7440-65-5A	Yes
Nickel,7440-02-0	Lin, Calc Int	Peak Area	Axial	Yttrium,7440-65-5A	Yes
Phosphorus,7439-93-2	Lin, Calc Int	Peak Area	Axial	Yttrium,7440-65-5A	Yes
Potassium,7440-09-7	Lin, Calc Int	Peak Area	Radial	Yttrium,7440-65-5R	Yes
Scandium-IS	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Selenium,7782-49-2	Lin, Calc Int	Peak Area	Axial	Yttrium,7440-65-5A	Yes
Silicon,7440-21-3	Lin, Calc Int	Peak Area	Axial	Yttrium,7440-65-5A	Yes
Silver,7440-22-4	Lin, Calc Int	Peak Area	Axial	Yttrium,7440-65-5A	No
Sodium,7440-23-5	Lin, Calc Int	Peak Area	Radial	Yttrium,7440-65-5R	Yes
Strontium,7440-24-6	Lin, Calc Int	Peak Area	Radial	Yttrium,7440-65-5R	Yes
Thallium,7440-28-0	Lin, Calc Int	Peak Height	Axial	Yttrium,7440-65-5A	No
Tin,7440-31-5	Lin, Calc Int	Peak Area	Axial	Yttrium,7440-65-5A	Yes
Titanium,7440-32-6	Lin, Calc Int	Peak Area	Axial	Yttrium,7440-65-5A	Yes
Vanadium,7440-62-2	Lin, Calc Int	Peak Area	Axial	Yttrium,7440-65-5A	Yes
Yttrium,7440-65-5A	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Yttrium,7440-65-5R	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Zinc,7440-66-6	Lin, Calc Int	Peak Area	Axial	Yttrium,7440-65-5A	Yes
Zirconium,7440-67-7	Lin, Calc Int	Peak Area	Axial	Yttrium,7440-65-5A	Yes

Sequence No.: 1
Sample ID: 46445
Analyst:
Nebulizer Back Pressure: 150.0 kPa
Sample Wt: 2.5 g
Dilution: 1X

Autosampler Location: 17
Date Collected: 06/21/2002 12:23:22

Nebulizer Flow: 0.52 L/min
Sample Prep Volume: 100 mL
Data Type: Original

Analysis Begun

Start Time: 06/21/2002 12:23:48
Logged In Analyst: met
Spectrometer Model: Optima 4300 DV

Plasma On Time: 06/21/2002 07:59:35
Technique: ICP Continuous
Autosampler Model: AS-91

Sample Information File: C:\Win32\Sample Information\1468.sif
Results Data Set: 2020621 A

Results Library: c:\win32\Results\Results.mdb

Sequence No.: 10
Sample ID: 20206200202
Analyst:
Nebulizer Back Pressure: 150.0 kPa
Sample Wt: 2.5 g
Dilution: 10X

Autosampler Location: 26
Date Collected: 06/21/2002 12:23:49

Nebulizer Flow: 0.52 L/min
Sample Prep Volume: 100 mL
Data Type: Original

Mean Data: 20206200202

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Argon	6930061.1	92.529	%	0.2775				0.30%
Scandium-IS	4294271.6	91.226	%	1.0353				1.13%
Yttrium,7440-65-5A	2011418.1	92.632	%	1.1277				1.22%
Yttrium,7440-65-5R	114084.6	89.921	%	0.5927				0.66%
Aluminum,7429-90-5†	403.5	0.5098	mg/L	0.03278	203.93	mg/kg	13.111	6.43%
Antimony,7440-36-0†	-12.8	0.0041	mg/L	0.00140	1.6553	mg/kg	0.56146	33.92%
Arsenic,7440-38-2†	-24.2	0.0531	mg/L	0.00338	21.224	mg/kg	1.3505	6.36%
Barium,7440-39-3†	1985.7	0.0096	mg/L	0.00064	3.8228	mg/kg	0.25614	6.70%
Beryllium,7440-41-7†	-1149.6	-0.0003	mg/L	0.00003	-0.1149	mg/kg	0.01398	12.17%
Boron,7440-42-8†	696.4	0.0149	mg/L	0.00081	5.9687	mg/kg	0.32210	5.40%
Cadmium,7440-43-9†	-145.1	-0.0009	mg/L	0.00004	-0.3416	mg/kg	0.01675	4.90%
Calcium,7440-70-2†	3427312.5	975.14	mg/L	19.407	390060	mg/kg	7762.6	1.99%
Cerium,7440-45-1†	-439.1	-0.0042	mg/L	0.00060	-1.6951	mg/kg	0.24035	14.18%
Chromium,7440-47-3†	2051.2	0.0143	mg/L	0.00102	5.7117	mg/kg	0.40793	7.14%
Cobalt,7440-48-4†	82.6	0.0013	mg/L	0.00013	0.5305	mg/kg	0.05252	9.90%
Copper,7440-50-8†	1110.5	-0.0003	mg/L	0.00036	-0.1255	mg/kg	0.14425	114.95%
Iron,7439-89-6†	819.5	0.8235	mg/L	0.01699	329.41	mg/kg	6.796	2.06%
Lead,7439-92-1†	-139.1	-0.0085	mg/L	0.00048	-3.4040	mg/kg	0.19082	5.61%
Lithium,7439-93-2†	51.6	0.0102	mg/L	0.00015	4.0735	mg/kg	0.06085	1.49%
Magnesium,7439-95-4†	1935.0	6.3729	mg/L	0.12351	2549.2	mg/kg	49.41	1.94%
Manganese,7439-96-5†	60191.6	0.0557	mg/L	0.00351	22.292	mg/kg	1.4022	6.29%
Molybdenum,7439-98-7†	217.4	-0.0139	mg/L	0.00029	-5.5702	mg/kg	0.11776	2.11%
Nickel,7440-02-0†	186.5	-0.0010	mg/L	0.00042	-0.4059	mg/kg	0.16881	41.59%
Phosphorus,7439-93-2†	1859.2	0.8867	mg/L	0.05638	354.69	mg/kg	22.550	6.36%
Potassium,7440-09-7†	114.9	0.0896	mg/L	0.03351	35.854	mg/kg	13.4042	37.38%
Selenium,7782-49-2†	-109.2	-0.0117	mg/L	0.00072	-4.6969	mg/kg	0.28907	6.15%
Silicon,7440-21-3†	4437.4	0.3871	mg/L	0.02196	154.84	mg/kg	8.785	5.67%
Silver,7440-22-4†	81.8	0.0003	mg/L	0.00087	0.1069	mg/kg	0.34915	326.61%
Sodium,7440-23-5†	4739.4	0.5998	mg/L	0.02153	239.92	mg/kg	8.612	3.59%
Strontium,7440-24-6†	352740.0	0.9269	mg/L	0.01875	370.76	mg/kg	7.500	2.02%
Thallium,7440-28-0†	6.7	0.0039	mg/L	0.00191	1.5556	mg/kg	0.76348	49.08%
Tin,7440-31-5†	180.6	-0.0191	mg/L	0.00051	-7.6542	mg/kg	0.20324	2.66%
Titanium,7440-32-6†	3767.3	0.0061	mg/L	0.00018	2.4553	mg/kg	0.07108	2.89%
Vanadium,7440-62-2†	3209.6	0.0103	mg/L	0.00135	4.1057	mg/kg	0.54162	13.19%
Zinc,7440-66-6†	1935.6	-0.0279	mg/L	0.00004	-11.143	mg/kg	0.0168	0.15%
Zirconium,7440-67-7†	358.9	0.0007	mg/L	0.00015	0.2853	mg/kg	0.05898	20.67%

Sequence No.: 11
Sample ID: 1800
Analyst:
Nebulizer Back Pressure: 150.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 06/21/2002 12:31:07

Nebulizer Flow: 0.52 L/min
Sample Prep Volume:
Data Type: Original

Mean Data: 1800

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Argon	7451723.9	99.494	%	0.2481				0.25%
Scandium-IS	4545696.0	96.567	%	0.7489				0.78%
Yttrium,7440-65-5A	2119726.3	97.620	%	0.4726				0.48%
Yttrium,7440-65-5R	121249.0	95.568	%	1.2954				1.36%
Aluminum,7429-90-5†	3332.7	4.9333	mg/L	0.04127	4.9333	mg/L	0.04127	0.84%
QC value within limits for Aluminum,7429-90-5 Recovery = 98.67%								
Antimony,7440-36-0†	27.2	-0.0012	mg/L	0.00168	-0.0012	mg/L	0.00168	139.95%
Arsenic,7440-38-2†	1050.1	0.5132	mg/L	0.00218	0.5132	mg/L	0.00218	0.43%
QC value within limits for Arsenic,7440-38-2 Recovery = 102.63%								
Barium,7440-39-3†	86117.1	0.5041	mg/L	0.00949	0.5041	mg/L	0.00949	1.88%

QC value within limits for Barium,7440-39-3 Recovery = 100.83%

Beryllium,7440-41-7†	2015801.2	0.4990 mg/L	0.00477	0.4990 mg/L	0.00477	0.96%

QC value within limits for Beryllium,7440-41-7 Recovery = 99.79%

Boron,7440-42-8†	354.1	0.0089 mg/L	0.00033	0.0089 mg/L	0.00033	3.71%
Cadmium,7440-43-9†	85883.7	0.5075 mg/L	0.00961	0.5075 mg/L	0.00961	1.89%

QC value within limits for Cadmium,7440-43-9 Recovery = 101.51%

Calcium,7440-70-2†	17432.5	4.9588 mg/L	0.06373	4.9588 mg/L	0.06373	1.29%

QC value within limits for Calcium,7440-70-2 Recovery = 99.18%

Cerium,7440-45-1†	52415.6	0.5135 mg/L	0.01035	0.5135 mg/L	0.01035	2.02%

QC value within limits for Cerium,7440-45-1 Recovery = 102.71%

Chromium,7440-47-3†	65166.9	0.5031 mg/L	0.00937	0.5031 mg/L	0.00937	1.86%

QC value within limits for Chromium,7440-47-3 Recovery = 100.62%

Cobalt,7440-48-4†	31303.6	0.5082 mg/L	0.00875	0.5082 mg/L	0.00875	1.72%

QC value within limits for Cobalt,7440-48-4 Recovery = 101.64%

Copper,7440-50-8†	185158.6	0.4933 mg/L	0.00855	0.4933 mg/L	0.00855	1.73%

QC value within limits for Copper,7440-50-8 Recovery = 98.67%

Iron,7439-89-6†	5051.3	5.0342 mg/L	0.05529	5.0342 mg/L	0.05529	1.10%

QC value within limits for Iron,7439-89-6 Recovery = 100.68%

Lead,7439-92-1†	8296.1	0.5117 mg/L	0.00417	0.5117 mg/L	0.00417	0.81%

QC value within limits for Lead,7439-92-1 Recovery = 102.33%

Lithium,7439-93-2†	29571.9	0.5026 mg/L	0.00496	0.5026 mg/L	0.00496	0.99%

QC value within limits for Lithium,7439-93-2 Recovery = 100.53%

Magnesium,7439-95-4†	1538.0	5.0132 mg/L	0.05489	5.0132 mg/L	0.05489	1.09%

QC value within limits for Magnesium,7439-95-4 Recovery = 100.26%

Manganese,7439-96-5†	552431.3	0.5120 mg/L	0.00545	0.5120 mg/L	0.00545	1.06%

QC value within limits for Manganese,7439-96-5 Recovery = 102.40%

Molybdenum,7439-98-7†	1.2	0.0001 mg/L	0.00029	0.0001 mg/L	0.00029	560.02%
Nickel,7440-02-0†	29532.3	0.5107 mg/L	0.00912	0.5107 mg/L	0.00912	1.79%

QC value within limits for Nickel,7440-02-0 Recovery = 102.14%

Phosphorus,7439-93-2†	-62.7	0.1243 mg/L	0.00464	0.1243 mg/L	0.00464	3.73%
Potassium,7440-09-7†	27705.7	9.9902 mg/L	0.04245	9.9902 mg/L	0.04245	0.42%

QC value within limits for Potassium,7440-09-7 Recovery = 99.90%

Selenium,7782-49-2†	1089.9	0.4982 mg/L	0.00776	0.4982 mg/L	0.00776	1.56%

QC value within limits for Selenium,7782-49-2 Recovery = 99.65%

Silicon,7440-21-3†	-29.3	-0.0015 mg/L	0.00069	-0.0015 mg/L	0.00069	46.46%
Silver,7440-22-4†	151489.4	0.4952 mg/L	0.00788	0.4952 mg/L	0.00788	1.59%

QC value within limits for Silver,7440-22-4 Recovery = 99.04%

Sodium,7440-23-5†	159334.2	19.833 mg/L	0.1791	19.833 mg/L	0.1791	0.90%

QC value within limits for Sodium,7440-23-5 Recovery = 99.16%

Strontium,7440-24-6†	185872.8	0.4884 mg/L	0.00399	0.4884 mg/L	0.00399	0.82%

QC value within limits for Strontium,7440-24-6 Recovery = 97.68%

Thallium,7440-28-0†	875.4	0.5059 mg/L	0.00427	0.5059 mg/L	0.00427	0.84%

QC value within limits for Thallium,7440-28-0 Recovery = 101.17%

Tin,7440-31-5†	3.8	0.0006 mg/L	0.00074	0.0006 mg/L	0.00074	134.34%
Titanium,7440-32-6†	118.2	0.0001 mg/L	0.00015	0.0001 mg/L	0.00015	100.32%
Vanadium,7440-62-2†	117359.0	0.4978 mg/L	0.00923	0.4978 mg/L	0.00923	1.85%

QC value within limits for Vanadium,7440-62-2 Recovery = 99.56%

Zinc,7440-66-6†	50965.6	0.5049 mg/L	0.00898	0.5049 mg/L	0.00898	1.78%

QC value within limits for Zinc,7440-66-6 Recovery = 100.98%

Zirconium,7440-67-7†	108.3	0.0002 mg/L	0.00013	0.0002 mg/L	0.00013	58.78%

All analytes passed QC.

Sequence No.: 12
Sample ID: 1802
Analyst:
Nebulizer Back Pressure: 150.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 06/21/2002 12:38:28
Nebulizer Flow: 0.52 L/min
Sample Prep Volume:
Data Type: Original

Mean Data: 1802

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Argon	7486212.2	99.955	%	0.1493				0.15%
Scandium-IS	4658621.2	98.966	%	0.4876				0.49%
Yttrium,7440-65-5A	2166826.3	99.789	%	0.6925				0.69%
Yttrium,7440-65-5R	120860.7	95.262	%	0.6393				0.67%
Aluminum,7429-90-5†	-20.3	-0.0309	mg/L	0.00811	-0.0309	mg/L	0.00811	26.24%
Antimony,7440-36-0†	1482.0	0.4862	mg/L	0.00703	0.4862	mg/L	0.00703	1.45%

QC value within limits for Antimony,7440-36-0 Recovery = 97.24%

Arsenic,7440-38-2†	-9.6	-0.0046	mg/L	0.00191	-0.0046	mg/L	0.00191	41.40%
Barium,7440-39-3†	-168.3	-0.0010	mg/L	0.00005	-0.0010	mg/L	0.00005	4.63%

Beryllium,7440-41-7†	1528.0	0.0000 mg/L	0.00007	0.0000 mg/L	0.00007	149.95%
Boron,7440-42-8†	116103.5	2.4504 mg/L	0.00166	2.4504 mg/L	0.00166	0.07%
QC value within limits for Boron,7440-42-8 Recovery = 98.01%						
Cadmium,7440-43-9†	-22.5	-0.0001 mg/L	0.00011	-0.0001 mg/L	0.00011	82.05%
Calcium,7440-70-2†	-8.6	-0.0024 mg/L	0.00657	-0.0024 mg/L	0.00657	268.27%
Cerium,7440-45-1†	-64.9	-0.0007 mg/L	0.00042	-0.0007 mg/L	0.00042	56.97%
Chromium,7440-47-3†	43.1	0.0003 mg/L	0.00014	0.0003 mg/L	0.00014	45.91%
Cobalt,7440-48-4†	61.8	-0.0002 mg/L	0.00018	-0.0002 mg/L	0.00018	111.47%
Copper,7440-50-8†	447.3	0.0011 mg/L	0.00035	0.0011 mg/L	0.00035	31.88%
Iron,7439-89-6†	-26.2	-0.0260 mg/L	0.00258	-0.0260 mg/L	0.00258	9.90%
Lead,7439-92-1†	-18.0	-0.0010 mg/L	0.00067	-0.0010 mg/L	0.00067	67.37%
Lithium,7439-93-2†	10.6	0.0002 mg/L	0.00172	0.0002 mg/L	0.00172	955.85%
Magnesium,7439-95-4†	-3.7	-0.0106 mg/L	0.02174	-0.0106 mg/L	0.02174	204.75%
Manganese,7439-96-5†	-84.1	-0.0001 mg/L	0.00002	-0.0001 mg/L	0.00002	20.69%
Molybdenum,7439-98-7†	12140.6	0.4949 mg/L	0.00669	0.4949 mg/L	0.00669	1.35%
QC value within limits for Molybdenum,7439-98-7 Recovery = 98.98%						
Nickel,7440-02-0†	-18.5	-0.0004 mg/L	0.00030	-0.0004 mg/L	0.00030	84.54%
Phosphorus,7439-93-2†	10134.9	4.9331 mg/L	0.07077	4.9331 mg/L	0.07077	1.43%
QC value within limits for Phosphorus,7439-93-2 Recovery = 98.66%						
Potassium,7440-09-7†	-210.5	-0.0757 mg/L	0.01466	-0.0757 mg/L	0.01466	19.36%
Selenium,7782-49-2†	-4.7	-0.0021 mg/L	0.00262	-0.0021 mg/L	0.00262	125.01%
Silicon,7440-21-3†	61357.9	4.9315 mg/L	0.00490	4.9315 mg/L	0.00490	0.10%
QC value within limits for Silicon,7440-21-3 Recovery = 98.63%						
Silver,7440-22-4†	1287.9	0.0042 mg/L	0.00057	0.0042 mg/L	0.00057	13.46%
Sodium,7440-23-5†	173.8	0.0218 mg/L	0.01887	0.0218 mg/L	0.01887	86.40%
Strontium,7440-24-6†	20.1	0.0001 mg/L	0.00008	0.0001 mg/L	0.00008	143.65%
Thallium,7440-28-0†	-6.1	-0.0035 mg/L	0.00075	-0.0035 mg/L	0.00075	21.13%
Tin,7440-31-5†	3285.2	0.4956 mg/L	0.00578	0.4956 mg/L	0.00578	1.17%
QC value within limits for Tin,7440-31-5 Recovery = 99.12%						
Titanium,7440-32-6†	302200.4	0.4925 mg/L	0.00120	0.4925 mg/L	0.00120	0.24%
QC value within limits for Titanium,7440-32-6 Recovery = 98.50%						
Vanadium,7440-62-2†	-177.3	-0.0007 mg/L	0.00008	-0.0007 mg/L	0.00008	11.00%
Zinc,7440-66-6†	176.7	0.0027 mg/L	0.00004	0.0027 mg/L	0.00004	1.66%
Zirconium,7440-67-7†	241658.8	0.4853 mg/L	0.00083	0.4853 mg/L	0.00083	0.17%
QC value within limits for Zirconium,7440-67-7 Recovery = 97.05%						

All analytes passed QC.

Sequence No.: 13
Sample ID: 1900
Analyst:
Nebulizer Back Pressure: 150.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 06/21/2002 12:45:49
Nebulizer Flow: 0.52 L/min
Sample Prep Volume:
Data Type: Original

Mean Data: 1900

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Argon	7288322.2	97.312	%	0.3663				0.38%
Scandium-IS	4520476.1	96.031	%	1.2725				1.33%
Yttrium,7440-65-5A	2129112.7	98.052	%	0.4137				0.42%
Yttrium,7440-65-5R	121607.7	95.851	%	0.2925				0.31%
Aluminum,7429-90-5†	-16.2	-0.0240	mg/L	0.02159	-0.0240	mg/L	0.02159	90.03%
QC value within limits for Aluminum,7429-90-5 Recovery = Not calculated								
Antimony,7440-36-0†	4.6	0.0015	mg/L	0.00195	0.0015	mg/L	0.00195	131.52%
QC value within limits for Antimony,7440-36-0 Recovery = Not calculated								
Arsenic,7440-38-2†	-8.5	-0.0041	mg/L	0.00245	-0.0041	mg/L	0.00245	60.22%
QC value within limits for Arsenic,7440-38-2 Recovery = Not calculated								
Barium,7440-39-3†	-10.0	-0.0001	mg/L	0.00010	-0.0001	mg/L	0.00010	169.15%
QC value within limits for Barium,7440-39-3 Recovery = Not calculated								
Beryllium,7440-41-7†	464.3	0.0001	mg/L	0.00003	0.0001	mg/L	0.00003	22.43%
QC value within limits for Beryllium,7440-41-7 Recovery = Not calculated								
Boron,7440-42-8†	1307.4	0.0276	mg/L	0.00222	0.0276	mg/L	0.00222	8.06%
QC value within limits for Boron,7440-42-8 Recovery = Not calculated								
Cadmium,7440-43-9†	-17.7	-0.0001	mg/L	0.00013	-0.0001	mg/L	0.00013	127.05%
QC value within limits for Cadmium,7440-43-9 Recovery = Not calculated								
Calcium,7440-70-2†	24.6	0.0070	mg/L	0.00223	0.0070	mg/L	0.00223	31.91%
QC value within limits for Calcium,7440-70-2 Recovery = Not calculated								
Cerium,7440-45-1†	-121.8	-0.0012	mg/L	0.00107	-0.0012	mg/L	0.00107	89.73%
QC value within limits for Cerium,7440-45-1 Recovery = Not calculated								
Chromium,7440-47-3†	53.8	0.0004	mg/L	0.00015	0.0004	mg/L	0.00015	36.48%
QC value within limits for Chromium,7440-47-3 Recovery = Not calculated								

Cobalt,7440-48-4†	-2.1	0.0000 mg/L	0.00020	0.0000 mg/L	0.00020	566.87%
QC value within limits for Cobalt,7440-48-4 Recovery = Not calculated						
Copper,7440-50-8†	1159.6	0.0031 mg/L	0.00037	0.0031 mg/L	0.00037	11.95%
QC value within limits for Copper,7440-50-8 Recovery = Not calculated						
Iron,7439-89-6†	-12.1	-0.0120 mg/L	0.00752	-0.0120 mg/L	0.00752	62.58%
QC value within limits for Iron,7439-89-6 Recovery = Not calculated						
Lead,7439-92-1†	11.9	0.0007 mg/L	0.00065	0.0007 mg/L	0.00065	88.78%
QC value within limits for Lead,7439-92-1 Recovery = Not calculated						
Lithium,7439-93-2†	466.5	0.0079 mg/L	0.00100	0.0079 mg/L	0.00100	12.64%
QC value within limits for Lithium,7439-93-2 Recovery = Not calculated						
Magnesium,7439-95-4†	8.2	0.0267 mg/L	0.00607	0.0267 mg/L	0.00607	22.74%
QC value within limits for Magnesium,7439-95-4 Recovery = Not calculated						
Manganese,7439-96-5†	1465.2	0.0014 mg/L	0.00004	0.0014 mg/L	0.00004	2.99%
QC value within limits for Manganese,7439-96-5 Recovery = Not calculated						
Molybdenum,7439-98-7†	39.5	0.0016 mg/L	0.00017	0.0016 mg/L	0.00017	10.53%
QC value within limits for Molybdenum,7439-98-7 Recovery = Not calculated						
Nickel,7440-02-0†	13.6	0.0002 mg/L	0.00041	0.0002 mg/L	0.00041	174.64%
QC value within limits for Nickel,7440-02-0 Recovery = Not calculated						
Phosphorus,7439-93-2†	-8.1	-0.0030 mg/L	0.00428	-0.0030 mg/L	0.00428	143.26%
QC value within limits for Phosphorus,7439-93-2 Recovery = Not calculated						
Potassium,7440-09-7†	-140.4	-0.0506 mg/L	0.01924	-0.0506 mg/L	0.01924	38.00%
QC value within limits for Potassium,7440-09-7 Recovery = Not calculated						
Selenium,7782-49-2†	0.7	0.0003 mg/L	0.00558	0.0003 mg/L	0.00558	>999.9%
QC value within limits for Selenium,7782-49-2 Recovery = Not calculated						
Silicon,7440-21-3†	-19.7	-0.0016 mg/L	0.00160	-0.0016 mg/L	0.00160	101.30%
QC value within limits for Silicon,7440-21-3 Recovery = Not calculated						
Silver,7440-22-4†	283.8	0.0009 mg/L	0.00055	0.0009 mg/L	0.00055	59.16%
QC value within limits for Silver,7440-22-4 Recovery = Not calculated						
Sodium,7440-23-5†	1246.3	0.1551 mg/L	0.10764	0.1551 mg/L	0.10764	69.39%
QC value within limits for Sodium,7440-23-5 Recovery = Not calculated						
Strontium,7440-24-6†	13.6	0.0000 mg/L	0.00006	0.0000 mg/L	0.00006	173.97%
QC value within limits for Strontium,7440-24-6 Recovery = Not calculated						
Thallium,7440-28-0†	3.3	0.0019 mg/L	0.00264	0.0019 mg/L	0.00264	140.39%
QC value within limits for Thallium,7440-28-0 Recovery = Not calculated						
Tin,7440-31-5†	18.1	0.0027 mg/L	0.00099	0.0027 mg/L	0.00099	36.49%
QC value within limits for Tin,7440-31-5 Recovery = Not calculated						
Titanium,7440-32-6†	100.6	0.0002 mg/L	0.00009	0.0002 mg/L	0.00009	56.42%
QC value within limits for Titanium,7440-32-6 Recovery = Not calculated						
Vanadium,7440-62-2†	-235.5	-0.0010 mg/L	0.00047	-0.0010 mg/L	0.00047	47.20%
QC value within limits for Vanadium,7440-62-2 Recovery = Not calculated						
Zinc,7440-66-6†	76.3	0.0008 mg/L	0.00024	0.0008 mg/L	0.00024	31.50%
QC value within limits for Zinc,7440-66-6 Recovery = Not calculated						
Zirconium,7440-67-7†	109.4	0.0002 mg/L	0.00013	0.0002 mg/L	0.00013	59.60%
QC value within limits for Zirconium,7440-67-7 Recovery = Not calculated						

All analytes passed QC.

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Sequence No.: 14 **Autosampler Location: 27**
Sample ID: 20206190141 **Date Collected: 06/21/2002 12:53:02**
Analyst:
Nebulizer Back Pressure: 150.0 kPa **Nebulizer Flow: 0.52 L/min**
Sample Wt: 2.5 g **Sample Prep Volume: 100 mL**
Dilution: 1X **Data Type: Original**

Mean Data: 20206190141

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Argon	7347774.1	98.106	%	0.1297				0.13%
Scandium-IS	4604796.3	97.822	%	0.6759				0.69%
Yttrium,7440-65-5A	2135338.3	98.339	%	0.4278				0.44%
Yttrium,7440-65-5R	116948.2	92.178	%	1.6389				1.78%
Aluminum,7429-90-5†	-53.9	-0.0799	mg/L	0.00552	-3.1967	mg/kg	0.22100	6.91%
Antimony,7440-36-0†	-1.6	-0.0006	mg/L	0.00126	-0.0227	mg/kg	0.05040	222.51%
Arsenic,7440-38-2†	-22.6	-0.0108	mg/L	0.00072	-0.4307	mg/kg	0.02875	6.67%
Barium,7440-39-3†	-101.9	-0.0006	mg/L	0.00003	-0.0238	mg/kg	0.00100	4.22%
Beryllium,7440-41-7†	982.9	0.0002	mg/L	0.00001	0.0097	mg/kg	0.00043	4.42%
Boron,7440-42-8†	779.9	0.0165	mg/L	0.00099	0.6581	mg/kg	0.03953	6.01%
Cadmium,7440-43-9†	-58.0	-0.0003	mg/L	0.00006	-0.0136	mg/kg	0.00260	19.05%
Calcium,7440-70-2†	114.7	0.0326	mg/L	0.00280	1.3059	mg/kg	0.11216	8.59%
Cerium,7440-45-1†	-182.3	0.0018	mg/L	0.00050	0.0714	mg/kg	0.02012	28.19%
Chromium,7440-47-3†	45.6	0.0004	mg/L	0.00003	0.0141	mg/kg	0.00112	7.94%
Cobalt,7440-48-4†	-8.0	-0.0001	mg/L	0.00010	-0.0053	mg/kg	0.00383	71.95%

MERCURY

MATRIX: SOLID
SnCl2 ID: 102-4-13
NaCl2/(NH2OH)2 ID: 102-4-9
INSTRUMENT: FIMS1

ANALYST: PJO
DATE: 6-20-02
TIME: 1246

AS LOC	SAMPLE ID	HBN NO.	DILUTION	RESULT	UNITS	RECOVERY
5	QC			0.00534	mg/L	107
9	ICV			0.00493		99
1	ICB			<0.0002		
5	CCV			0.00499		100
1	CCB			<0.0002		
17	[redacted]	[redacted]		<0.010	mg/kg	
18	[redacted]	[redacted]		0.2313		113
19	[redacted]			<0.010		
20	[redacted]	[redacted]		<0.010		
21	[redacted]	[redacted]		0.2699		108
22	[redacted]			<0.010		
23	[redacted]			<0.010		
24	[redacted]			<0.010		
25	[redacted]			<0.010		
26	[redacted]			<0.010		
5	CCV			0.00496	mg/L	99
1	CCB			<0.0002		
27	[redacted]			<0.010	mg/kg	
28	[redacted]			<0.010		
29	[redacted]			<0.010		
30	[redacted]			<0.010		
31	[redacted]			<0.010		
32	[redacted]			<0.010		
33	[redacted]			<0.010		
34	[redacted]			<0.010		
35	[redacted]			<0.010		
36	[redacted]			<0.010		
5	CCV			0.00502	mg/L	100.4
1	CCB			<0.0002		
37	[redacted]			<0.010	mg/kg	
38	[redacted]			<0.010		
39	[redacted]			<0.010		
40	[redacted]			<0.010		
41	MB 20020620 S1	46450		<0.010		
42	LCS 20020620 S1	46451		0.2381		95
43	CH Hill 20020620001			<0.010		
44	20020620001 D	46453		<0.010		
45	20020620001 MS	46452		0.2322		93
46	20020620001 MSD	46454		0.2336		95
5	CCV			0.00494	mg/L	99
1	CCB			<0.0002		
47	20020620002			<0.010	mg/kg	
48	[redacted]			<0.010		
49	[redacted]			<0.010		
50						
51						
52						
53						
54						
55						
56						
5	CCV			0.00476	mg/L	
1	CCB			<0.0002		95

CONTROL LIMITS

QC: 95% - 105%
ICV: 90% - 110%
CCV: 80%-120%
LCS: 80%- 120%

COMMENTS: BATCH 1253

Calibration ID: 20020620 S

Secondary Review: SMB

Go to page 2

Seq. No.	1	AS Loc:	1	Date:	06/20/2002			
Sample ID:	Calib Blk 1							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg			0.0003	0.0013	62.6344	0.0003	4.1756	11:57:43
			0.0003	0.0014	62.6358	0.0003	4.1757	11:58:14
Auto-zero performed.								
Mean:			0.0003					
SD:			0.00001					
%RSD:			1.77					

Seq. No.	2	AS Loc:	2	Date:	06/20/2002			
Sample ID:	Standard 1							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg			0.0022	0.0141	62.6333	0.0025	4.1755	11:59:26
			0.0020	0.0122	62.6301	0.0023	4.1753	11:59:56
[Hg] Standard number 1 applied. [0.2000]								
Correlation Coefficient: 1.00000		Slope: 0.01054						
Intercept : 0.00000								
Mean:			0.0021					
SD:			0.00013					
%RSD:			6.28					

Seq. No.	3	AS Loc:	3	Date:	06/20/2002			
Sample ID:	Standard 2							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg			0.0052	0.0312	62.6289	0.0056	4.1753	12:01:09
			0.0049	0.0279	62.6243	0.0053	4.1749	12:01:39
[Hg] Standard number 2 applied. [0.5000]								
Correlation Coefficient: 0.99987		Slope: 0.01017						
Intercept : 0.00003								
Mean:			0.0051					
SD:			0.00022					
%RSD:			4.31					

Seq. No.	4	AS Loc:	4	Date:	06/20/2002			
Sample ID:	Standard 3							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg			0.0201	0.1140	62.6243	0.0204	4.1749	12:02:54
			0.0190	0.1026	62.6118	0.0193	4.1741	12:03:24
[Hg] Standard number 3 applied. [2.000]								
Correlation Coefficient: 0.99993		Slope: 0.00971						
Intercept : 0.00012								
Mean:			0.0195					
SD:			0.00077					
%RSD:			3.94					

Seq. No.	5	AS Loc:	5	Date:	06/20/2002			
Sample ID:	Standard 4							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg			0.0481	0.2694	62.6175	0.0484	4.1745	12:04:42
			0.0448	0.2403	62.5903	0.0451	4.1727	12:05:13
[Hg] Standard number 4 applied. [5.000]								
Correlation Coefficient: 0.99981		Slope: 0.00927						
Intercept : 0.00036								
Mean:			0.0465					

SD:		0.00236
%RSD:		5.09

Seq. No. 6 AS Loc: 6 Date: 06/20/2002
Sample ID: Standard 5

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg			0.0966	0.5390	62.6104	0.0969	4.1740	12:06:31
			0.0904	0.4815	62.5548	0.0907	4.1703	12:07:01

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99995 Slope: 0.00931
Intercept : 0.00031

Mean:			0.0935
SD:			0.00439
%RSD:			4.69

Seq. No. 7 AS Loc: 5 Date: 06/20/2002
Sample ID: QC

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00565mg/L	5.649µg/L	0.0529	0.2796	62.5788	0.0532	4.1719	12:37:44
	0.00504mg/L	5.040µg/L	0.0472	0.2483	62.5571	0.0475	4.1705	12:38:16

QC value within specified limits.

Mean:	0.00534mg/L	5.344µg/L	0.0501
SD:	0.00043mg/L	0.4306µg/L	0.00401
%RSD:	8.06		8.01

Seq. No. 8 AS Loc: 9 Date: 06/20/2002
Sample ID: 1600

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00521mg/L	5.206µg/L	0.0488	0.2700	62.5789	0.0491	4.1719	12:39:29
	0.00465mg/L	4.646µg/L	0.0436	0.2276	62.5490	0.0439	4.1699	12:39:58

QC value within specified limits.

Mean:	0.00493mg/L	4.926µg/L	0.0462
SD:	0.00040mg/L	0.3965µg/L	0.00369
%RSD:	8.05		7.99

Seq. No. 9 AS Loc: 1 Date: 06/20/2002
Sample ID: 1700

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00016mg/L	0.1591µg/L	0.0018	0.0127	62.5765	0.0021	4.1718	12:41:10
	-0.00003mg/L	-0.03195µg/L	0.0000	0.0014	62.5764	0.0003	4.1718	12:41:40

QC value within specified limits.

Mean:	0.00006mg/L	0.06360µg/L	0.0009
SD:	0.00014mg/L	0.1351µg/L	0.00126
%RSD:	212.46		138.89

Seq. No. 10 AS Loc: 5 Date: 06/20/2002
Sample ID: 1800

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00514mg/L	5.145µg/L	0.0482	0.2674	62.5783	0.0485	4.1719	12:42:53
	0.00484mg/L	4.842µg/L	0.0454	0.2397	62.5491	0.0457	4.1700	12:43:23

QC value within specified limits.

Mean:	0.00499mg/L	4.994µg/L	0.0468
SD:	0.00021mg/L	0.2141µg/L	0.00199
%RSD:	4.29		4.26

Seq. No.	11	AS Loc:	1	Date:	06/20/2002			
Sample ID:	1900							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00025mg/L	0.2501µg/L	0.0026	0.0181	62.5761	0.0030	4.1717	12:44:36
	-0.00003mg/L	-0.02864µg/L	0.0000	0.0014	62.5751	0.0004	4.1717	12:45:06
QC value within specified limits.								
Mean:	0.00011mg/L	0.1107µg/L	0.0013					
SD:	0.00020mg/L	0.1971µg/L	0.00183					
%RSD:	178.01		136.48					

Seq. No.	12	AS Loc:	17	Date:	06/20/2002			
Sample ID:	46313							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.2905mg/kg	5.810µg/L	0.0544	0.3040	62.5774	0.0547	4.1718	12:46:17
	0.2722mg/kg	5.444µg/L	0.0510	0.2725	62.5445	0.0513	4.1696	12:46:46
Mean:	0.2813mg/kg	5.627µg/L	0.0527					
SD:	0.01295mg/kg	0.2590µg/L	0.00241					
%RSD:	4.60		4.58					

Seq. No.	13	AS Loc:	18	Date:	06/20/2002			
Sample ID:	46314							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.01751mg/kg	0.3503µg/L	0.0036	0.0237	62.5737	0.0039	4.1716	12:47:58
	0.00190mg/kg	0.03798µg/L	0.0007	0.0047	62.5718	0.0010	4.1715	12:48:28
Mean:	0.00971mg/kg	0.1941µg/L	0.0021					
SD:	0.01104mg/kg	0.2208µg/L	0.00206					
%RSD:	113.76		96.93					

Seq. No.	14	AS Loc:	19	Date:	06/20/2002			
Sample ID:	20206190121							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00120mg/kg	0.02403µg/L	0.0005	0.0047	62.5751	0.0009	4.1717	12:49:39
	0.00071mg/kg	0.01417µg/L	0.0004	0.0037	62.5739	0.0008	4.1716	12:50:09
Mean:	0.00095mg/kg	0.01910µg/L	0.0005					
SD:	0.00035mg/kg	0.00698µg/L	0.00006					
%RSD:	36.53		13.22					

Seq. No.	15	AS Loc:	20	Date:	06/20/2002			
Sample ID:	46316							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00173mg/kg	0.03467µg/L	0.0006	0.0053	62.5740	0.0010	4.1716	12:51:20
	0.00127mg/kg	0.02546µg/L	0.0006	0.0046	62.5717	0.0009	4.1714	12:51:50
Mean:	0.00150mg/kg	0.03007µg/L	0.0006					
SD:	0.00033mg/kg	0.00651µg/L	0.00006					
%RSD:	21.66		10.21					

Seq. No.	16	AS Loc:	21	Date:	06/20/2002			
Sample ID:	46315							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.2732mg/kg	5.464µg/L	0.0512	0.2840	62.5706	0.0515	4.1714	12:53:03
	0.2665mg/kg	5.330µg/L	0.0499	0.2643	62.5397	0.0502	4.1693	12:53:32
Mean:	0.2699mg/kg	5.397µg/L	0.0506					
SD:	0.00474mg/kg	0.09472µg/L	0.00088					

%RSD: 1.75 1.74

Seq. No. 17 AS Loc: 22 Date: 06/20/2002
Sample ID: 20206190122

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.01675mg/kg	0.3349µg/L	0.0034	0.0227	62.5660	0.0037	4.1711	12:54:45
	0.00121mg/kg	0.02410µg/L	0.0005	0.0039	62.5648	0.0009	4.1710	12:55:16
Mean:	0.00898mg/kg	0.1795µg/L	0.0020					
SD:	0.01099mg/kg	0.2198µg/L	0.00205					
%RSD:	122.43		103.09					

Seq. No. 18 AS Loc: 23 Date: 06/20/2002
Sample ID: 20206190123

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00146mg/kg	0.02929µg/L	0.0006	0.0049	62.5674	0.0009	4.1712	12:56:29
	0.00096mg/kg	0.01926µg/L	0.0005	0.0041	62.5669	0.0008	4.1711	12:56:58
Mean:	0.00121mg/kg	0.02427µg/L	0.0005					
SD:	0.00035mg/kg	0.00710µg/L	0.00007					
%RSD:	29.24		12.24					

Seq. No. 19 AS Loc: 24 Date: 06/20/2002
Sample ID: 20206190124

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00111mg/kg	0.02218µg/L	0.0005	0.0045	62.5671	0.0008	4.1711	12:58:12
	0.00072mg/kg	0.01430µg/L	0.0004	0.0037	62.5661	0.0008	4.1711	12:58:42
Mean:	0.00091mg/kg	0.01824µg/L	0.0005					
SD:	0.00028mg/kg	0.00557µg/L	0.00005					
%RSD:	30.52		10.72					

Seq. No. 20 AS Loc: 25 Date: 06/20/2002
Sample ID: 20206190125

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00109mg/kg	0.02170µg/L	0.0005	0.0045	62.5660	0.0008	4.1711	12:59:57
	0.00081mg/kg	0.01618µg/L	0.0005	0.0040	62.5646	0.0008	4.1710	13:00:27
Mean:	0.00095mg/kg	0.01894µg/L	0.0005					
SD:	0.00020mg/kg	0.00390µg/L	0.00004					
%RSD:	20.59		7.41					

Seq. No. 21 AS Loc: 26 Date: 06/20/2002
Sample ID: 20206190126

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00138mg/kg	0.02754µg/L	0.0006	0.0049	62.5646	0.0009	4.1710	13:01:41
	0.00103mg/kg	0.02066µg/L	0.0005	0.0042	62.5637	0.0008	4.1709	13:02:11
Mean:	0.00120mg/kg	0.02410µg/L	0.0005					
SD:	0.00024mg/kg	0.00487µg/L	0.00005					
%RSD:	20.20		8.42					

Seq. No. 22 AS Loc: 5 Date: 06/20/2002
Sample ID: 1800

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00506mg/L	5.061µg/L	0.0474	0.2624	62.5659	0.0477	4.1710	13:03:27
	0.00486mg/L	4.855µg/L	0.0455	0.2388	62.5374	0.0458	4.1692	13:03:57
QC value within specified limits.								
Mean:	0.00496mg/L	4.958µg/L	0.0465					

SD:	0.00015mg/L	0.1458µg/L	0.00136
%RSD:	2.94		2.92

Seq. No. 23 AS Loc: 1 Date: 06/20/2002
Sample ID: 1900

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00028mg/L	0.2785µg/L	0.0029	0.0199	62.5625	0.0032	4.1708	13:05:11
	-0.00003mg/L	-0.03385µg/L	-0.0000	0.0009	62.5623	0.0003	4.1708	13:05:41

QC value within specified limits.

Mean:	0.00012mg/L	0.1223µg/L	0.0015
SD:	0.00022mg/L	0.2209µg/L	0.00206
%RSD:	180.56		141.57

Seq. No. 24 AS Loc: 27 Date: 06/20/2002
Sample ID: 20206190127

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00101mg/kg	0.02023µg/L	0.0005	0.0044	62.5671	0.0008	4.1711	13:06:53
	0.00047mg/kg	0.00936µg/L	0.0004	0.0035	62.5669	0.0007	4.1711	13:07:24

Mean:	0.00074mg/kg	0.01479µg/L	0.0005
SD:	0.00038mg/kg	0.00769µg/L	0.00007
%RSD:	51.97		15.86

Seq. No. 25 AS Loc: 28 Date: 06/20/2002
Sample ID: 20206190128

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00048mg/kg	0.00957µg/L	0.0004	0.0038	62.5692	0.0007	4.1713	13:08:39
	-0.00001mg/kg	-0.00023µg/L	0.0003	0.0029	62.5692	0.0006	4.1713	13:09:09

Mean:	0.00023mg/kg	0.00467µg/L	0.0004
SD:	0.00035mg/kg	0.00693µg/L	0.00006
%RSD:	148.39		18.06

Seq. No. 26 AS Loc: 29 Date: 06/20/2002
Sample ID: 20206190129

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00036mg/kg	0.00729µg/L	0.0004	0.0036	62.5720	0.0007	4.1715	13:10:26
	-0.00012mg/kg	-0.00249µg/L	0.0003	0.0027	62.5729	0.0006	4.1715	13:10:56

Mean:	0.00012mg/kg	0.00240µg/L	0.0003
SD:	0.00035mg/kg	0.00691µg/L	0.00006
%RSD:	288.09		19.15

Seq. No. 27 AS Loc: 30 Date: 06/20/2002
Sample ID: 20206190130

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00043mg/kg	0.00867µg/L	0.0004	0.0035	62.5775	0.0007	4.1718	13:12:12
	0.00013mg/kg	0.00266µg/L	0.0003	0.0030	62.5786	0.0007	4.1719	13:12:41

Mean:	0.00028mg/kg	0.00566µg/L	0.0004
SD:	0.00021mg/kg	0.00425µg/L	0.00004
%RSD:	75.09		10.80

Seq. No. 28 AS Loc: 31 Date: 06/20/2002
Sample ID: 20206190131

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	-0.00024mg/kg	-0.00475µg/L	0.0003	0.0030	62.5845	0.0006	4.1723	13:13:59
	-0.00034mg/kg	-0.00679µg/L	0.0003	0.0027	62.5855	0.0006	4.1724	13:14:29

Mean:	-0.00029mg/kg	-0.00577µg/L	0.0003
SD:	0.00007mg/kg	0.00144µg/L	0.00001
%RSD:	25.00		5.16

Seq. No. 29 AS Loc: 32 Date: 06/20/2002
Sample ID: 20206190132

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00042mg/kg	0.00848µg/L	0.0004	0.0037	62.5903	0.0007	4.1727	13:15:43
	0.00005mg/kg	0.00102µg/L	0.0003	0.0029	62.5912	0.0006	4.1727	13:16:13
Mean:	0.00024mg/kg	0.00475µg/L	0.0004					
SD:	0.00026mg/kg	0.00527µg/L	0.00005					
%RSD:	110.97		13.72					

Seq. No. 30 AS Loc: 33 Date: 06/20/2002
Sample ID: 20206190133

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00038mg/kg	0.00751µg/L	0.0004	0.0037	62.5949	0.0007	4.1730	13:17:22
	-0.00018mg/kg	-0.00361µg/L	0.0003	0.0028	62.5949	0.0006	4.1730	13:17:51
Mean:	0.00010mg/kg	0.00195µg/L	0.0003					
SD:	0.00039mg/kg	0.00786µg/L	0.00007					
%RSD:	403.62		22.06					

Seq. No. 31 AS Loc: 34 Date: 06/20/2002
Sample ID: 20206190134

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00119mg/kg	0.02379µg/L	0.0005	0.0046	62.5989	0.0009	4.1732	13:19:02
	0.00086mg/kg	0.01728µg/L	0.0005	0.0038	62.5980	0.0008	4.1732	13:19:31
Mean:	0.00103mg/kg	0.02054µg/L	0.0005					
SD:	0.00023mg/kg	0.00460µg/L	0.00004					
%RSD:	22.39		8.48					

Seq. No. 32 AS Loc: 35 Date: 06/20/2002
Sample ID: 20206190135

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00056mg/kg	0.01129µg/L	0.0004	0.0037	62.6012	0.0007	4.1734	13:20:43
	0.00029mg/kg	0.00574µg/L	0.0004	0.0032	62.6017	0.0007	4.1735	13:21:13
Mean:	0.00043mg/kg	0.00852µg/L	0.0004					
SD:	0.00020mg/kg	0.00392µg/L	0.00004					
%RSD:	46.04		9.29					

Seq. No. 33 AS Loc: 36 Date: 06/20/2002
Sample ID: 20206190136

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00095mg/kg	0.01902µg/L	0.0005	0.0043	62.6047	0.0008	4.1736	13:22:24
	0.00052mg/kg	0.01041µg/L	0.0004	0.0034	62.6040	0.0007	4.1736	13:22:55
Mean:	0.00074mg/kg	0.01471µg/L	0.0005					
SD:	0.00030mg/kg	0.00609µg/L	0.00006					
%RSD:	41.39		12.58					

Seq. No. 34 AS Loc: 5 Date: 06/20/2002
Sample ID: 1800

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00521mg/L	5.209µg/L	0.0488	0.2695	62.6061	0.0491	4.1737	13:24:09
	0.00483mg/L	4.828µg/L	0.0453	0.2320	62.5761	0.0456	4.1717	13:24:39

QC value within specified limits.

Mean:	0.00502mg/L	5.018µg/L	0.0470
SD:	0.00027mg/L	0.2697µg/L	0.00251
%RSD:	5.37		5.34

Seq. No. 35 AS Loc: 1 Date: 06/20/2002
Sample ID: 1900

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00027mg/L	0.2738µg/L	0.0029	0.0192	62.6046	0.0032	4.1736	13:25:52
	-0.00003mg/L	-0.03291µg/L	0.0000	0.0009	62.6038	0.0003	4.1736	13:26:22

QC value within specified limits.

Mean:	0.00012mg/L	0.1204µg/L	0.0014
SD:	0.00022mg/L	0.2169µg/L	0.00202
%RSD:	180.06		140.70

Seq. No. 36 AS Loc: 37 Date: 06/20/2002
Sample ID: 20206190137

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00033mg/kg	0.00660µg/L	0.0004	0.0035	62.6072	0.0007	4.1738	13:27:34
	-0.00004mg/kg	-0.00083µg/L	0.0003	0.0029	62.6073	0.0006	4.1738	13:28:04
Mean:	0.00014mg/kg	0.00288µg/L	0.0003					
SD:	0.00026mg/kg	0.00526µg/L	0.00005					
%RSD:	182.38		14.37					

Seq. No. 37 AS Loc: 38 Date: 06/20/2002
Sample ID: 20206190138

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00087mg/kg	0.01732µg/L	0.0005	0.0041	62.6106	0.0008	4.1740	13:29:17
	0.00044mg/kg	0.00878µg/L	0.0004	0.0034	62.6106	0.0007	4.1740	13:29:47
Mean:	0.00065mg/kg	0.01305µg/L	0.0004					
SD:	0.00030mg/kg	0.00604µg/L	0.00006					
%RSD:	46.28		12.92					

Seq. No. 38 AS Loc: 39 Date: 06/20/2002
Sample ID: 20206190139

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00069mg/kg	0.01389µg/L	0.0004	0.0041	62.6120	0.0008	4.1741	13:31:01
	0.00031mg/kg	0.00613µg/L	0.0004	0.0034	62.6109	0.0007	4.1741	13:31:30
Mean:	0.00050mg/kg	0.01001µg/L	0.0004					
SD:	0.00027mg/kg	0.00549µg/L	0.00005					
%RSD:	54.88		12.57					

Seq. No. 39 AS Loc: 40 Date: 06/20/2002
Sample ID: 20206190140

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00065mg/kg	0.01299µg/L	0.0004	0.0038	62.6128	0.0008	4.1742	13:32:44
	0.00062mg/kg	0.01242µg/L	0.0004	0.0034	62.6129	0.0007	4.1742	13:33:14
Mean:	0.00064mg/kg	0.01271µg/L	0.0004					
SD:	0.00002mg/kg	0.00041µg/L	0.00000					
%RSD:	3.22		0.88					

Seq. No.	40	AS Loc:	41	Date:	06/20/2002			
Sample ID:	45450							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00146mg/kg	0.02922µg/L	0.0006	0.0051	62.6150	0.0009	4.1743	13:34:28
	0.00081mg/kg	0.01612µg/L	0.0005	0.0037	62.6140	0.0008	4.1743	13:34:57
Mean:	0.00113mg/kg	0.02267µg/L	0.0005					
SD:	0.00046mg/kg	0.00926µg/L	0.00009					
%RSD:	40.86		16.43					

Seq. No.	41	AS Loc:	42	Date:	06/20/2002			
Sample ID:	46451							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.2481mg/kg	4.961µg/L	0.0465	0.2537	62.6164	0.0468	4.1744	13:36:11
	0.2282mg/kg	4.563µg/L	0.0428	0.2216	62.5877	0.0431	4.1725	13:36:41
Mean:	0.2381mg/kg	4.762µg/L	0.0446					
SD:	0.01407mg/kg	0.2815µg/L	0.00262					
%RSD:	5.91		5.87					

Seq. No.	42	AS Loc:	43	Date:	06/20/2002			
Sample ID:	20206200201							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00745mg/kg	0.1489µg/L	0.0017	0.0113	62.6178	0.0020	4.1745	13:37:57
	0.00218mg/kg	0.04359µg/L	0.0007	0.0048	62.6189	0.0010	4.1746	13:38:27
Mean:	0.00481mg/kg	0.09625µg/L	0.0012					
SD:	0.00372mg/kg	0.07447µg/L	0.00069					
%RSD:	77.37		57.31					

Seq. No.	43	AS Loc:	44	Date:	06/20/2002			
Sample ID:	46453							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00291mg/kg	0.05824µg/L	0.0009	0.0062	62.6267	0.0012	4.1751	13:39:42
	0.00204mg/kg	0.04080µg/L	0.0007	0.0046	62.6278	0.0010	4.1752	13:40:12
Mean:	0.00248mg/kg	0.04952µg/L	0.0008					
SD:	0.00062mg/kg	0.01233µg/L	0.00011					
%RSD:	24.90		14.82					

Seq. No.	44	AS Loc:	45	Date:	06/20/2002			
Sample ID:	46452							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.2382mg/kg	4.764µg/L	0.0447	0.2431	62.6324	0.0450	4.1755	13:41:28
	0.2262mg/kg	4.523µg/L	0.0424	0.2201	62.6049	0.0427	4.1737	13:41:58
Mean:	0.2322mg/kg	4.643µg/L	0.0435					
SD:	0.00850mg/kg	0.1701µg/L	0.00158					
%RSD:	3.66		3.64					

Seq. No.	45	AS Loc:	46	Date:	06/20/2002			
Sample ID:	46454							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.2523mg/kg	5.046µg/L	0.0473	0.2601	62.6312	0.0476	4.1754	13:43:14
	0.2248mg/kg	4.497µg/L	0.0422	0.2183	62.6026	0.0425	4.1735	13:43:44
Mean:	0.2386mg/kg	4.772µg/L	0.0447					
SD:	0.01942mg/kg	0.3883µg/L	0.00362					
%RSD:	8.14		8.08					

Seq. No.	46	AS Loc:	5	Date:	06/20/2002			
Sample ID:	1800							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00526mg/L	5.263µg/L	0.0493	0.2680	62.6347	0.0496	4.1757	13:45:00
	0.00462mg/L	4.623µg/L	0.0434	0.2226	62.6049	0.0437	4.1737	13:45:30
QC value within specified limits.								
Mean:	0.00494mg/L	4.943µg/L	0.0463					
SD:	0.00045mg/L	0.4526µg/L	0.00421					
%RSD:	9.16		9.09					

Seq. No.	47	AS Loc:	1	Date:	06/20/2002			
Sample ID:	1900							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00022mg/L	0.2212µg/L	0.0024	0.0160	62.6355	0.0027	4.1757	13:46:43
	-0.00003mg/L	-0.02705µg/L	0.0001	0.0013	62.6355	0.0004	4.1757	13:47:13
QC value within specified limits.								
Mean:	0.00010mg/L	0.09707µg/L	0.0012					
SD:	0.00018mg/L	0.1755µg/L	0.00163					
%RSD:	180.83		134.24					

Seq. No.	48	AS Loc:	47	Date:	06/20/2002			
Sample ID:	20206200202							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00429mg/kg	0.08571µg/L	0.0011	0.0076	62.6367	0.0014	4.1758	13:48:26
	0.00399mg/kg	0.07981µg/L	0.0011	0.0069	62.6355	0.0014	4.1757	13:48:56
Mean:	0.00414mg/kg	0.08276µg/L	0.0011					
SD:	0.00021mg/kg	0.00417µg/L	0.00004					
%RSD:	5.03		3.58					

Seq. No.	49	AS Loc:	48	Date:	06/20/2002			
Sample ID:	20206190141							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00088mg/kg	0.01768µg/L	0.0005	0.0043	62.6381	0.0008	4.1759	13:50:09
	0.00032mg/kg	0.00644µg/L	0.0004	0.0033	62.6360	0.0007	4.1757	13:50:39
Mean:	0.00060mg/kg	0.01206µg/L	0.0004					
SD:	0.00040mg/kg	0.00795µg/L	0.00007					
%RSD:	65.90		17.37					

Seq. No.	50	AS Loc:	49	Date:	06/20/2002			
Sample ID:	20206190142							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00060mg/kg	0.01198µg/L	0.0004	0.0038	62.6360	0.0007	4.1757	13:51:48
	0.00011mg/kg	0.00217µg/L	0.0003	0.0031	62.6356	0.0006	4.1757	13:52:18
Mean:	0.00035mg/kg	0.00707µg/L	0.0004					
SD:	0.00035mg/kg	0.00694µg/L	0.00006					
%RSD:	98.09		17.02					

Seq. No.	51	AS Loc:	5	Date:	06/20/2002			
Sample ID:	1800							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00478mg/L	4.778µg/L	0.0448	0.2415	62.6344	0.0451	4.1756	13:53:32
	0.00474mg/L	4.740µg/L	0.0444	0.2262	62.6026	0.0447	4.1735	13:54:01

QC value within specified limits.

Mean:	0.00476mg/L	4.759µg/L	0.0446
SD:	0.00003mg/L	0.02719µg/L	0.00025
%RSD:	0.57		0.57

Seq. No. 52 AS Loc: 1 Date: 06/20/2002

Sample ID: 1900

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.00026mg/L	0.2557µg/L	0.0027	0.0177	62.6338	0.0030	4.1756	13:55:15
	-0.00003mg/L	-0.02863µg/L	0.0000	0.0013	62.6344	0.0004	4.1756	13:55:44

QC value within specified limits.

Mean:	0.00011mg/L	0.1135µg/L	0.0014
SD:	0.00020mg/L	0.2010µg/L	0.00187
%RSD:	177.09		136.56

ACID DIGESTION OF SOLID SAMPLES

PREP METHOD: ICP 3050B
GFAA 3050B
HG 7471A

MOD BLOCK ID: A

DATE: 6-20-02
TIME: 10:15
ANALYST: AEL

CLIENT	GCAL ID	ICP INITIAL WEIGHT (g)	ICP FINAL VOLUME (ml)	GFAA INITIAL WEIGHT (g)	GFAA FINAL VOLUME (ml)	HG INITIAL WEIGHT (g)	HG FINAL VOLUME (ml)
		2513					2514
20020620 51	MB	2.50	100	2.50	100	0.60	30
20020620 51	LCS	2.50	100	2.50	100	0.60	30
CH2M Hill	20020620020 1	2.50				0.60	
	20020620020 1D	2.50				0.60	
	20020620020 1MS	2.50				0.60	
	20020620020 1MSD	2.50				0.60	
	20020620020 2	2.50				0.60	
[redacted]	[redacted]	2.50				0.60	
	[redacted]	2.50				0.60	

	ID/LOT NO.	VOLUME ADDED (uL)
ICP Spike	334-3-3	1000
GFAA Spike	—	1000
HG Spike	100-5C-5	150
HG ICV	—	
H2SO4	—	
KMNO4	334-4-12	
K2S2O6	—	
HCl	334-4-16	
HNO3	334-4-17	
H2O2	334-2-6	

MERCURY CALIBRATION ID: _____
0.1 ppm CCV working solution: _____
0.1 ppm ICV working solution: _____

Calib. Blk	Conc. (ug/L)	Spk. Added	Final volume
Standard 1	0.20	60 uL	30 mL
Standard 2	0.50	150 uL	30 mL
Standard 3	2.00	600 uL	30 mL
Standard 4	5.00	1500 uL	30 mL
Standard 5	10.0	3000 uL	30 mL
ICV	5.00	1500 uL	30 mL

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
ICSA	100-54-1	Int A	SPEX	20-162AS 11-15-02	8ml	200ml	Varied	102-3-6	PJO	6-6-02	7-6-02
ICSAB	100-54-2	Int A	SPEX	20-162AS 11-15-02	8ml	200ml	Varied	102-3-6	PJO	6-6-02	7-6-02
"	"	ANALYTE B	"	20-79AS 11-30-02	2ml	200ml	"	"	"	"	"
"	"	ALT ANALYTE B	"	17-144AS 2-28-03	2ml	200ml	"	"	"	"	"
ICV 1	100-54-3	21 Ele. mix CPI mix	CPI	0K5054 5-6-03	2ml	200ml	1.00ppm	102-3-16	JAC	6-7-02	7-7-02
↓	↓	1000ppm Ag	Spex	8-45AG-Y 6-15-03	200ml	↓	↓	↓	↓	↓	↓
↓	↓	1000ppm Ce	CPI	1LF042 6-12-03	200ml	↓	↓	↓	↓	↓	↓
ICV 2	100-54-4	1000 ppm Al	Spex	8-132AL 1-30-03	2ml	200ml	varied	102-3-16	JAC	6-7-02	7-7-02
↓	↓	B	↓	8-5B 9-15-02	1ml	↓	↓	↓	↓		
↓	↓	BA	↓	8-92BA 10-31-02	200ml	↓	↓	↓	↓		
↓	↓	NA	↓	8-165NA 3-30-03	2ml	↓	↓	↓	↓		
↓	↓	10,000 Sn	CPI	1FM085 4-18-03	20ml	↓	↓	↓	↓		
↓	↓	1000 Zr	Spex	8-175ZR 12-30-02	200ml	↓	↓	↓	↓		
↓	↓	K	↓	8-33K-Y 10-31-02	2ml	↓	↓	↓	↓		
STD 1	100-54-5 JAC 6-1-02	CCAL1-1	inorganic Ventures	5-MCB126044 5-1-03	2ml	200ml	Varied	102-3-16	JAC	6-7-02	7-7-02
↓	↓	1000 ppm Ce	CPI	1KM105 7-7-03	200ml	↓	↓	↓	↓	↓	↓

000639

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
STD 2	100-SS-1	GCALI-2	inorganic ventures	5-1-03 SMeB126045	2ml	200ml	varied	102-3-16	JAC	6-7-02	7-7-02
		1000ppm P	CPI	11M062 7-30-03	2ml						
		1000ppm Si	CPI	2AT145 7-30-03	2ml						
STD 1	100-SS-2	GCALI-1	inorganic ventures	6-1-03 SMeB126044	2ml	200ml	varied	102-3-16	JAC	6-7-02	7-7-02
		1000ppm Ce	CPI	1KM105 6-7-03	200ul						
ICSAB	100-SS-3	Int A	SPEX	20-167 AS 11-15-02	2ml	200ml	Varied	102-3-16	JAC	6-7-02	7-7-02
		Analyte B		20-79 AS 11-30-02	2ml						
		Alt. Analyte B		17-144 AS 2-28-03	2ml						
3020 Spk	100-SS-4	1000ppm AS	Spex	8-154 AS 10-31-02	200ul	50ml	4 ppm	102-3-16	JAC	6-10-02	7-10-02
		Se		8-44 Se 10-31-02	200 ul						
		Tl	Solutions	010508 5-03	250 ul		5 ppm				
TL STD	100-55-4	1000ppm Tl	Solutions	010508 5-03	100 ul ~~50 ul~~ PJO	100ml	1.0ppm	2% HNO3 102-215	PJO	6-11-02	7-11-02 PJO
ICP oil Spike	100-SS-5	Custom Blend	conostan	010205	1.0000	10.0026	1ppm	75 Baseoil Lot 44 mineral oil 010931	AEZ	6-11-02	7-11-02
As/Se oil Spike	100-SS-6	100 ppm As		17012	0.0999	10.0012					
		100 ppm Se		14013	0.0999						
Hg oil Spike	100-SS-7	100 ppm Hg		14916	0.1001	10.0000					
				VOID	JAC 6-12-02						

000640

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
STD 1	100-56-1	GCALI-1	inorganic Ventures	S-meB126044 2-1-03	2ml	200ml	varied	102-3-16	JAC	6-12-02	7-12-02
↓	↓	1000 ppm Ce	CPI	1km105 6-7-03	200ul	↓	↓	↓	↓	↓	↓
STD 2	100-56-2	GCALI-2	inorganic Ventures	SMeB126045 5-1-03	2ml	200ml	varied	102-3-16	JAC	6-12-02	7-12-02
↓	↓	1000 ppm P	CPI	11m062 7-30-03	↓	↓	↓	↓	↓	↓	↓
↓	↓	1000 ppm Si	CPI	2AT145 7-30-03	↓	↓	↓	↓	↓	↓	↓
STD 1	100-56-3	GCALI-1	IV	SMEB126044 2-1-03	2ml	200 ml	↓	↓	SMB2	6-14-02	7-14-02
↓	↓	1000 ppm Ce	CPI	1KM105 6-7-03	200uL	↓	↓	↓	↓	↓	↓
STD 2	100-56-4	GCALI-2	inorganic Ventures	S-meB126045 5-1-03	2ml	200ml	varied	102-4-10	JAC	6-18-02	7-18-02
↓	↓	1000 ppm P	CPI	11m062 7-30-03	↓	↓	↓	↓	↓	↓	
↓	↓	1000 ppm Si	CPI	2AT145 7-30-03	↓	↓	↓	↓	↓	↓	
Hg CCV	100-56-5	1000 ppm Hg	SPEX	8-179HG/ 1-15-03	100ul	100ml	1.00ppm	102-4-10	PJO	6-20-02	7-20-02
Hg ICV	100-56-6	1000ppm Hg	CPI	1JM110/ 12-10-03	100ul	100ml	1.00ppm	102-4-10	PJO	6-20-02	7-20-02
STD 1	100-56-7	GCALI-1	inorganic Ventures	S-meB126044 2-1-03	2ml	200ml	varied	102-4-10	JAC	6-20-02	7-20-02
↓	↓	1000 ppm Ce	CPI	1km105 7-7-03	200ul	↓	↓	↓	↓	↓	↓
STD 2	100-56-8	GCALI-2	inorganic Ventures	S-meB126045 5-1-03	2ml	200ml	varied	102-4-10	JAC	6-20-02	7-20-02
↓	↓	1000 ppm P	CPI	11m062 7-30-03	↓	↓	↓	↓	↓	↓	↓
↓	↓	1000 ppm Si	CPI	2AT145 7-30-03	↓	↓	↓	↓	↓	↓	↓
VOID ~~JAC 6-20-02~~											

000641

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
ICV 1	100-57-1	21 element mix	CPI	0K5054 5-8-03	2 ml	200 ml	1.00 ppm	102-4-10	JAC	6-20-02	7-20-02
↓	↓	1000 ppm Ag	Spex	8-45Ag-Y 1-15-03	200 ul	↓	↓	↓	↓	↓	↓
↓	↓	1000 ppm Ce	CPI	1LF042 6-12-03	200 ul	↓	↓	↓	↓	↓	↓
ICV 2	100-57-2	1000 ppm Al	Spex	8-132 Al 1-30-03	2 ml	200 ml	varied	102-4-10	JAC	6-22-02	7-22-02
↓	↓	B	↓	8-5 B 9-15-03	1 ml	↓	↓	↓	↓	↓	↓
↓	↓	BA	↓	8-92BA 10-31-02	200 ul	↓	↓	↓	↓	↓	↓
↓	↓	NA	↓	8-165NA 3-30-03	2 ml	↓	↓	↓	↓	↓	↓
↓	↓	10,000 Sn	CPI	1FM085 4-18-03	20 ul	↓	↓	↓	↓	↓	↓
↓	↓	1000 Zr	Spex	8-173Zr 12-30-02	200 ul	↓	↓	↓	↓	↓	↓
↓	↓	K	↓	8-33K-Y 10-31-02	2 ml	↓	↓	↓	↓	↓	↓
Hg ICV	100-57-3	1000 ppm Hg	CPI	1JM110/12-10-03	100 ul	100 ml	1.00 ppm	102-4-10	PJO	6-24-02	7-24-02
STD 1	100-57-4	GCAL1-1	inorganic ventures	S-Me3126044 2-1-03	2 ml	200 ml	varied	102-4-10	JAC	6-24-02	7-24-02
↓	↓	1000 ppm Ce	CPI	1KM105 6-7-03	200 ul	↓	↓	↓	↓	↓	↓
CIP spike 2	100-57-5	1000 ppm As	Spex	8-154As 10-31-02	400 ul	50 ml	8 ppm	102-4-10	JAC	6-25-02	7-25-02
↓	↓	Cd	↓	8-166CD 10-31-02	500 ul	↓	10	↓	↓	↓	↓
↓	↓	Pb	↓	8-73Pb 10-31-02	200 ul	↓	4	↓	↓	↓	↓
↓	↓	Se	↓	8-44Se 10-31-02	100 ul	↓	2	↓	↓	↓	↓
↓	↓	Tl	Solutions	010508 5-03	500 ul	↓	10	↓	↓	↓	↓

000642

000643

REAGENT LOGBOOK

STANDARD NAME	STD#	STOCK REAGENT	SUPPLIER	LOT#	WT/VOL g/ml	FINAL VOL(ml)	FINAL CONC	SOLVENT/ LOT#	INIT	DATE PREPARED	EXP DATE
Hno3	334-2-1	conc. Hno3	Fisher	1101090					AEZ	3-20-02	3-20-03
AP 3-21-02 ~~Kmno4~~ Kmno4	334-2-2	Potassium Permanganate	Fisher	015188	100g	2000ml			AEZ	3-21-02	3-21-03
Hg ccv cali	334-2-3	1ppm Hg	in House	100-35-3	1ml	10ml	.1ppm		AEZ	3-25-02	4-25-02
Hg ICV cali	334-2-4	1ppm Hg	in House	100-35-4	1ml	10ml	.1ppm		AEZ	3-25-02	4-25-02
Hno3	334-2-5	conc. Hno3	Fisher	1101090					AEZ	3-26-02	3-26-03
H2O2	334-2-6	Hydrogen Peroxide	Fisher	011435					AEZ	3-26-02	3-26-03
~~K2S2O6~~	~~334-2-7~~	Potassium Persulfate	~~Fisher~~	~~016400~~					~~AEZ~~	~~3-27-02~~	~~3-27-03~~
K2S2O6	334-2-8	Potassium Persulfate	Fisher	016400	100g	2000ml			AEZ	3-27-02	3-27-03
Hno3	334-2-9	conc. Hno3	Fisher	1101080					AEZ	4-3-02	4-3-03
Hno3	334-2-10	conc. Hno3	Fisher	1101090					AEZ	4-5-02	4-5-03
Hno3	334-2-11	conc. Hno3	Fisher	1101090					AEZ	4-9-02	4-9-03
Hg cali ccv	334-2-12	1ppm Hg	in House	100-35-3	1ml	10ml	.1ppm		AEZ	4-9-02	5-9-02
Hg cali ICV	334-2-13	1ppm Hg	in House	100-35-4	1ml	10ml	.1ppm		AEZ	4-9-02	5-9-02
Hno3	334-2-14	conc. Hno3	Fisher	1101090					AEZ	4-11-02	4-11-03
HCL	334-2-15	conc. HCL	Fisher	4101080					AEZ	4-11-02	4-11-03
Hno3	334-2-16	conc. Hno3	Fisher	1101090					AEZ	4-17-02	4-17-03
Hg cali ccv	334-2-17	1ppm Hg	in House	100-43-5	1ml	10ml	.1ppm		AEZ	4-19-02	5-19-02
Hg cali ICV	334-2-18	1ppm Hg	in House	100-43-6	1ml	10ml	.1ppm		AEZ	4-19-02	5-19-02
Kmno4	334-2-19	Potassium Permanganate	Fisher	005485	100g	2000ml			AEZ	4-22-02	4-22-03
Hg cali ccv	334-2-20	1ppm Hg	in House	100-43-5	1ml	10ml	.1ppm		AEZ	4-24-02	5-24-02
Hg cali ICV	334-2-21	1ppm Hg	in House	100-43-6	1ml	10ml	.1ppm		AEZ	4-24-02	5-24-02

REAG LOG 1-6-95

REAGENT LOGBOOK

STANDARD NAME	STD#	STOCK REAGENT	SUPPLIER	LOT#	WT/VOL g/ml	FINAL VOL(ml)	FINAL CONC	SOLVENT/ LOT#	INIT	DATE PREPARED	EXP DATE
Hg cali ccv	334-3-1	1ppm Hg	in House	100-43-5	1 ml	10 ml	.1ppm		AEL	4-30-02	5-30-02
Hg cali ICV	334-3-2	1ppm Hg	in House	100-43-6	1 ml	10 ml	.1ppm		AEL	4-30-02	5-30-02
Tspike Gcal-1	334-3-3	~~Inorganic~~ Inorganic ventures 3080 spike	Inorganic Ventures	S-MEB1260-14					AEL	5-2-02	5-1-03
Tspike Gcal-2	↓	↓		S-MEB1260-15					↓	↓	↓
Hg cali ccv 0.2	334-3-4	1ppm Hg	in House	100-43-5	20 ul	100 ml			AEL	5-3-02	6-3-02
0.5	334-3-5				50 ul	100 ml					
1.0	334-3-6				100 ul	100 ml					
5.0	334-3-7				500 ul	100 ml					
10.0	334-3-8			↓	1000 ul	100 ml					
Hg cali ICV 5.0	334-3-9	↓	↓	100-43-6	500 ul	100 ml			↓	↓	↓
Hno3	334-3-10	conc. Hno3	Fisher	1101110					AEL	5-6-02	5-6-03
Hno3	334-3-11	conc. Hno3	Fisher	1101110					AEL	5-8-02	5-8-03
Kmno4	334-3-12	Potassium Permanganate	Fisher	005485	100 g	2000 ml			AEL	5-9-02	5-9-03
HCL	334-3-13	conc. HCL	Fisher	4101080					AEL	5-14-02	5-14-03
Hno3	334-3-14	conc. Hno3	Fisher	1101090					AEL	5-14-02	5-14-03
Hg cali ccv	334-3-15	1ppm Hg	in House	100-43-5	1 ml	10 ml	.1ppm		AEL	5-14-02	6-14-02
Hg cali ICV	334-3-16	1ppm Hg	in House	100-43-6	1 ml	10 ml	.1ppm		AEL	5-14-02	6-14-02
Kmno4	334-3-17	Potassium Permanganate	Fisher	005485	100 g	2000 ml			AEL	5-17-02	5-17-03
Hno3	334-3-18	conc. Hno3	Fisher	1101110					AEL	5-22-02	5-22-03
Hno3	334-3-19	conc. Hno3	Fisher	1101090					AEL	5-23-02	5-23-03
HCL	334-3-20	conc. HCL	Fisher	4101100					AEL	5-28-02	5-28-03
Hno3	334-3-21	conc. Hno3	Fisher	1101090					AEL	5-28-02	5-28-03

REAG LOG 1-6-95

000644

REAGENT LOGBOOK

STANDARD NAME	STD#	STOCK REAGENT	SUPPLIER	LOT#	WT/VOL µ/ml	FINAL VOL(ml)	FINAL CONC	SOLVENT/ LOT#	INIT	DATE PREPARED	EXP DATE
H_2SO_4	334-4-1	conc. H_2SO_4	Fisher	3101070					AEL	5-28-02	5-28-03
$K_2S_2O_6$	334-4-2	Potassium Persulfate	Fisher	016400	100 g	2000 ml			AEL	6-3-02	6-3-03
HNO_3	334-4-3	conc. HNO_3	Fisher	1101110					AEL	6-4-02	6-4-03
Hg cali ccv	334-4-4	1ppm Hg	in House	100-50-5	1 ml	10 ml	.1ppm		AEL	6-5-02	7-5-02
Hg cali Icv	334-4-5	1ppm Hg	in House	100-50-6	1 ml	10 ml	.1ppm		AEL	6-5-02	7-5-02
HNO_3	334-4-6	conc HNO_3	Fisher	1101110					AEL	6-7-02	6-7-03
$KMnO_4$	334-4-7	Potassium Permanganate	Fisher	005485	100 g	2000 ml			AEL	6-7-02	6-7-03
HNO_3	334-4-8	conc. HNO_3	Fisher	1101110					AEL	6-12-02	6-12-03
HCL	334-4-9	conc. HCL	Fisher	4101100					AEL	6-12-02	6-12-03
HNO_3	334-4-10	conc. HNO_3	Fisher	1101110					AEL	6-13-02	6-13-03
HNO_3	334-4-11	conc. HNO_3	Fisher	1101110					AEL	6-14-02	6-14-03
$KMnO_4$	334-4-12	Potassium Permanganate	Fisher	005485	100 g	2000 ml			AEL	6-17-02	6-17-03
Hg cali ccv	334-4-13	1ppm Hg	in House	100-50-5	1 ml	10 ml			AEL	6-17-02	7-17-02
Hg cali Icv	334-4-14	1ppm Hg	in House	100-50-6	1 ml	10 ml			AEL	6-17-02	7-17-02
HNO_3	334-4-15	conc HNO_3	Fisher	1101090					AEL	6-18-02	6-18-03
HCL	334-4-16	conc. ~~HCL~~ HCL	Fisher	4101100					AEL	6-20-02	6-20-03
HNO_3	334-4-17	conc. HNO_3	Fisher	1102020					AEL	6-20-02	6-20-03
HNO_3	334-4-18	conc. HNO_3	Fisher	1102020					AEL	6-24-02	6-24-03
Hg cali ccv0.2	334-4-19	1ppm Hg	in House	100-56-5	20 ul	100 ml			AEL	6-25-02	7-25-02
0.5	334-4-20				50 ul	100 ml					
1.0	334-4-21				100 ul	100 ml					
5.0	334-4-22				500 ul	100 ml					

REAG LOG 1-6-95

000645

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200201	046-BF-S-0619-02	Solid	06/19/2002 09:40	06/20/2002 09:05	06/27/2002 08:58

2540 G Total Moisture - Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	06/20/2002 11:16	MDT	146053

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
WET-037	Total Moisture	13.9	0.010	0.010	%

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200201	046-BF-S-0619-02	Solid	06/19/2002 09:40	06/20/2002 09:05	06/27/2002 08:58

9045C Solid - pH

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	06/20/2002 10:30	OLT	145853

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
pH	pH	2.30	2.00		pH unit

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200202	046-RB-S-0619-02	Solid	06/19/2002 11:00	06/20/2002 09:05	06/27/2002 08:58

2540 G Total Moisture - Solid

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	06/20/2002 11:16	MDT	146053

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
WET-037	Total Moisture	8.80	0.010	0.010	%

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	CLIENT ID	MATRIX	COLLECTED	RECEIVED	REPORTED
20206200202	046-RB-S-0619-02	Solid	06/19/2002 11:00	06/20/2002 09:05	06/27/2002 08:58

9045C Solid - pH

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	06/20/2002 10:00	OLT	145853

CAS #	PARAMETER	RESULT	PQL	MDL	UNITS
pH	pH	**8.48**	**2.00**		**pH unit**

RESULTS REPORTED ON A DRY WEIGHT BASIS

QUALITY CONTROL SUMMARY

DUPLICATE SAMPLE ID: 46427	ORIGINAL LAB ID: 20206200201	PREP BATCH:
	MATRIX Solid	ANALYTICAL BATCH: 145853

SW-846 9045

CAS #	PARAMETER	Original Result	Result	RPD	RPD LIMITS
pH	pH	2.3	2.27	1.3	- 6

DUPLICATE SAMPLE ID: 46656	ORIGINAL LAB ID: 20206200201	PREP BATCH:
	MATRIX Solid	ANALYTICAL BATCH: 146053

2540 G (Dry Weight)

CAS #	PARAMETER	Original Result	Result	RPD	RPD LIMITS
WET-037	Total Moisture	13.9	14	0.72	0 - 25

TOTAL SOLIDS/TOTAL MOISTURE

METHODS 2540G/2540B

Date: 6/20/02
Time: 11:16
Analyst: MDT

Dry Weight 146052
TM 146053
TS 146051

Final Wt - Pan Wt

Samples Cancelled

Sample Identification	Matrix	Sample Vol/Wt.	Pan ID	Initial Pan Wt. (g)	Final Wt. (g) #1	Final Wt. (g) #2	Final Wt. (g) #3	Total Solids mg/L / %	Total Moisture %	% REC RPD
[redacted]	S	10.4892	201	1.2612						
~~[redacted]~~		10.2869	202	1.2645						
~~[redacted]~~		10.1944	203	1.2448						
~~[redacted]~~		10.7024	204	1.2656						
~~[redacted]~~		10.1983	205	1.2688						
~~[redacted]~~		10.0134	206	1.2569						
~~[redacted]~~		10.5255	207	1.2446						
~~[redacted]~~		10.7575	301	1.2470	8.9524		7.7054	71.6	28.4	
[redacted]		10.2763 / 10.7575	0030 / 301	1.3644 / 1.2470	10.6094		9.3450	90.9	9.1	
~~[redacted]~~		10.4231	302	1.2395	10.4953		9.2558	88.8	11.2	
~~[redacted]~~										
~~[redacted]~~	S	10.4796	304	1.2432	9.3130		8.0698	77.0	23.0	
CH2MHill 20206200201		10.1312	00201	1.2585	9.9816		8.7231	86.1	13.9	
20206200201 Dup		10.3894	Dup	1.2450	10.1817		8.9367	86.0	14.0	
20206200202		10.1046	00202	1.2380	10.4555		9.2175	91.2	8.8	
[redacted]		10.1144	303	1.2509	10.3986		9.1477	90.4	9.6	

UNITS: Water=mg/L
Solids=%

TS mg/L = [wt of sample + pan (g)] - [wt of pan (g)] x 1,000,000 / Sample Volume (ml)

TS % = [wt of sample + pan (g)] - [wt of pan (g)] x 100 / Sample Weight (g)

TM % = 100 - TS%

Analyst Review: SAB2 6-21-02

Secondary Review: 6/21/02 MDT

000651

pH LOGBOOK

Date: 6-20-2

Slope Limits: 92-108

	Calibration Time	Analyst	Calibration Levels 1	2	3	Slope	QC Check Actual	Found
1	7:57	OY	4.00	7.00	10.00	97.2	5.00	5.05
2	10:15		1.00	4.00	7.00	98.9	5.00	5.04
3								
4								
5								
6								

pH RESULTS

HBN #: 145853

	Client	Sample ID	Time	Analyst	Sample wt (g)	ml DI	Result
1	CH2M Hill	202061001	10:30	OY	20	20	2.30
2		DUP 202061001			20	20	2.27
3		202061002	10:00		20	20	8.48
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

OY 6-20-2

/ 4386 / 200606 0002 / Due 6/21/02

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
159772-003 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.):
F.I.S.C.	159772	Gulf Coast Labs. Dana Merril	Bill Canelos J.A. Jones Environmental Services	6219 Authority Ave. Building 1 Jacksonville, FL 32221 Ph:(904) 7774812 Fax: (904) 7774262
PROJECT PHASE/SITE/TASK:	CTO OR DO NUMBER:	LAB PO NUMBER:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	RECIPIENT 2 (Address, Tel No. , and Fax No.):
F.I.S.C. Fill Characterization Sampling	0046		Christelle Newsome / CH2M Hill Constuctors, Inc.	115 Perimeter Center Place, N.E. Suite 700 Atlanta, GA 30346 Ph:(770)604-9182 Ext.561 Fax:604-9282
PROJECT CONTACT:	PROJECT TEL NO AND FAX NO:	LAB TEL NO AND FAX NO:	FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	RECIPIENT 3 (Address, Tel No. , and Fax No.):
Bill Canelos J.A. Jones Environmental	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)	TCL Semi-Volatiles by 8260B	TCL Semi-Volatiles by 8270C, TRPH by FL-PRO, TCL pesticides by 8081A, Herbicides by 8151A, PCB's by 8082, TAL metals by 6010A/7471A, pH by 9045B									SAMPLE TYPE (see codes on back)	COMMENTS/ SCREENING READINGS	LAB ID
																			200606 0002	
1	046-BF-S-0619-02	Coxwell Backfill Sample	S	06/19/02	9:40	III/C	24-48 hr	3	1									Composite except Volatiles		1
2	046-RB-S-0619-02	Yelvington Road Base Fill Sample	S	06/19/02	11:00	III/C	24-48 hr	3	1									Composite except Volatiles		2
3	046-TB-W-0619-02	Trip Blank	W	06/19/02	NA	III/C	24-48 hr	3											Prepared by Lab	3
4																				
5																				
6																				
7																				
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 Tracking # 7904 5798 3616 .	3°C good

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
R. Dumaop	6/19/02	18:00	Federal Express	6/19/02	18:00
Printed Name and Signature:			Printed Name and Signature:		
FedEx# 7904 5798 3616	6/20/02	0905	Anna Kinchen	6/20/02	0905
Printed Name and Signature:			Printed Name and Signature:		

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

PRESERVATION CHECKLIST / COOLER RECEIPT

Gulf Coast Analytical Laboratories, Inc.

WO:	202062002	**Type:**	D
Desc:		**Report:**	REVIEW_RPT
Work ID:	FISC Jacksonville	**Status:**	WP
Project Seq:	6482	**Created:**	6/20/02 9:22
Client:	4380 - CH2M HILL Constructors Inc.	**QA:**	
Profile:	33090 - CTO 0046 - FISC Jacksonville	**PO:**	4242

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
20206200201-1	16	NONE			X			X	OK
20206200201-2	40	NONE			X			✓	OK

Container ID	Type	Preservative	A	U	N\A	A	U	N\A	CONTAINER CONDITION
20206200202-1	16	NONE			X			X	OK
20206200202-2	40	NONE			X			✓	OK

Container ID	Type	Preservative	A	U	N\A	A	U	N\A	CONTAINER CONDITION
20206200203-1	40	HCL+SS			✓	✓			OK

A = ACCEPTABLE
U = UNACCEPTABLE
N\A = NOT APPLICABLE

COOLER (S) TEMPERATURE (A) U LIMIT = 4C + \ - 2C

MAXIMUM VOLATILE HEADSPACE BUBBLE 4MM

Custody Seal
used ~~[ ] Yes~~ [ ] No
in tact ~~[ ] Yes~~ [ ] No

CUSTODIAN AWK