MONTGOMERY WATSON

US EPA RECORDS CENTER REGION 5
462696

April 9, 1998

Ms. Sheri Bianchin, RPM
Mail Code SR-J6
U.S. EPA, Region V
77 West Jackson Blvd.
Chicago, IL 60604-3590

Re: Results of Analytical Testing of PVC tubing
American Chemical Service NPL Site
Griffith, Indiana

Dear Ms. Bianchin:

As you recall, we met with the U.S. EPA and IDEM on February 12, 1998, to discuss the Baseline Groundwater Monitoring results for the American Chemical Service (NPL) Site and plan for revising the groundwater monitoring plan.

During our meeting, we described an anomaly regarding the detections of phenol and bis(2-ethylhexyl)phthalate in some of the groundwater samples particularly from the deepest monitoring wells on the Site. The detections of these compounds did not correlate with the detections of other known site contaminants, but instead seemed to be related to the sampling methodology. Therefore, we proposed an investigation to test the hypoethesis that detections of phenol and, perhaps, other semi-volatile compounds were related to the tubing used in sampling, rather than related to the Site. You agreed with the concept and we sent you a plan for the investigation on March 13th, 1998.

We have completed the investigation and evaluated the results. They confirm that the tubing we used in the sampling can release phenol at concentrations in excess of 100 ug/L when used to collect samples from deep monitoring wells using the low-flow sampling protocol. The results also indicate that the tubing could be a source of some low concentrations of bis(2-ethylhexyl)phthalate. Because of these results, and because the sampling plan would include a full TCL/TAL scan once a year, we feel that it will be unnecessary to include either phenols or bis(2-ethylhexyl)phthalate in the indicator's list for the second annual sampling event. We also tested polyethylene tubing and found that it does not contribute target compounds to water passing through it, so we can use that tubing for future sampling events.

2100 Corporate Drive
Addison, Illinois
60101

Tel: 630 691 5000
Fax: 630 691 5133

Serving the World's Environmental Needs

A report of the tubing investigation and findings is attached for your review and consideration. It includes the complete validated analytical results. Please don't hesitate to call if I can provide any further information.

Sincerely,

MONTGOMERY WATSON INC.

Peter J. Vagt, Ph.D., CPG
Project Manager

Enclosures: As stated

cc: Luanne Vanderpool
Steve Mrkvika
Vince Epps
Barbara Magel

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Summary of Test Results

Evaluation of PVC tubing as a source phenol
in groundwater samples collected at the
American Chemical Service NPL Site, Griffith, Indiana
Blackwell Landfill NPL Site, DuPage County, Illinois

BACKGROUND

Phenols and phthalates were detected in groundwater samples collected from a number of monitoring wells at the American Chemical Service (ACS) and the Blackwell Landfill NPL Sites during routine monitoring in 1997. However, the distributions and concentrations are anomalous because they do not correlate with the distribution of known organic contaminants at the sites, which have well defined plumes of contamination. Phthalates and phenols were detected in samples collected both upgradient and downgradient locations at the sites. In addition, the highest detected phenols concentrations were found in samples collected from the deepest wells (as high as 340 ppb), while concentrations in shallow wells were much lower, and were not detected in field blanks.

We evaluated whether sampling procedures could account for the anomalies between deep and shallow wells. We noted that the approved sampling SOP required replacing the PVC tubing with a new length of tubing between each well. Also, we noted that the water flows through the tubing at a rate of about ten feet per minute when pumped at the rates specified by the low flow sampling protocol. It was evident that water drawn from deeper wells has a longer contact time with the tubing than water drawn from shallow wells. Furthermore, we noted that when collecting the field blank, the field technician used a very short piece of tubing, generally one to two feet in length. We hypothesized that if new, previously unused PVC tubing contained low levels of phenols and/or phthalates, it could explain the anomalous sampling results at the ACS and Blackwell Sites.

Therefore, a test was developed to evaluate whether the 0.5 ID., flexible, reinforced PVC, Grundfos tubing used for Low Flow Sampling could be introducing the phenols (and other compounds) into the sample volume. A proposed testing procedure was submitted to U.S. EPA and IDEM on March 13th, 1998 (Attachment 1). In order to avoid having a repeat of the problem, we expanded the test to include samples passed through the polyethylene tubing that we are planning to use during the next sampling event, scheduled for later this month.

TEST PROCEDURE

The tubing test was conducted by Montgomery Watson on March 17, 1998. Three minor modifications were made to the planned procedure. 1) The plan specified testing the PVC tubing first and the polyethylene tubing second. The order of testing was changed as an additional precaution to eliminate the possibility of any carryover from PVC Grundfos tubing. 2) 0.5 inch O.D. polyethylene tubing was used rather than 0.5 I.D. tubing. 3) 1 liter sample bottles were used instead of 500 ml bottles to contain the water for analysis. Although the order of testing was reversed, the matrix spike/matrix spike duplicate

(MS/MSD) sample was still collected from the PVC Grundfos tubing. Larger sample volumes were collected for analysis because the laboratory supplied 1 liter bottles.

RESULTS

Two investigative samples, a deionized water blank and an MS/MSD were collected during the test and submitted to CompuChem Environmental, Cary, North Carolina for CLP analysis of semi-volatile organic compounds (SVOCs) following the 3/90 Statement of Work (SOW) (document OLM03.2). The investigative samples were designated "PVC-1" to indicate water collected from new PVC Grundfos tubing, and "POLY-1" to indicate water collected from 0.5 in. O.D. polyethylene tubing that had been decontaminated by sequential alconox® and deionized water rinses. The sample of deionized water used for the test was designated "BLANK-1." A summary of the analytical results for these three samples, as well as the MS/MSD (PVC-1MS and PVC-1MSD) and the laboratory method blank for the sample delivery group are included in Attachment 2. The full laboratory data package and the results of data validation are contained in Attachment 3.

Following the test procedure, each water sample had approximately a ten minute contact time with the inside of each section of tubing. Phenol was reported in investigative sample PVC-1 from the new PVC Grundfos tubing at an estimated concentration of 380 µg/L; dilution and reanalysis of this sample indicated a phenol concentration of 440 µg/L. These results indicate that new PVC Grundfos tubing contributes phenol to water. The other two investigative samples, BLANK-1 or POLY-1, did not contain detectable phenol. The absence of phenol in sample POLY-1 indicates that the tested, decontaminated, polyethylene tubing does not release phenol to water at detectable levels.

Bis(2-ethylhexyl)phthalate was reported at concentrations of 74 and 78 µg/L in PVC-1 and the diluted sample of PVC-1, respectively. Higher concentrations of 480 and 110 µg/L were reported for the MS/MSD analyses. Much lower estimated concentrations of 1 µg/L were measured in POLY-1 and BLANK-1. This compound was also detected in the method blank at a concentration of 12 µg/L and, as result, all the bis(2-ethylhexyl)phthalate concentrations are qualified with a "B". The relatively low levels of bis(2-ethylhexyl) phthalate reported in POLY-1, BLANK-1 and the method blank probably reflect experimental and/or laboratory artifacts; this compound is a common artifact because it is associated with plastics. However, the much higher levels measured in the PVC-1 and MS/MSD samples suggest that new PVC Grundfos tubing also releases bis(2-ethylhexyl)phthalate.

Tentatively identified compounds (TICs) were reported in all the samples including the method blank. Three TICs, cyclohexenol (BC), cyclohexanone, and cyclohexenone (BC), were reported in the method blank and, also, in some of the samples. These detections appear to be laboratory artifacts. BLANK-1 included several additional (mostly unknown) compounds, all at relatively low estimated concentrations. These additional compounds were probably present in the deionized water used for the test. POLY-1 and PVC-1 showed a larger number of TICs. The estimated concentrations of TICs in POLY-1 were typically low (less than about 25 µg/L) and similar to those for BLANK-1. In contrast, two different

TICs, 2-(2-butoxyethoxy)-ethanol and dehydroacetic acid, were measured in PVC-1 at higher estimated concentrations of 200 and 56 µg/L. These TICs, if actually present, may reflect contributions from new PVC Grundfos tubing.

CONCLUSIONS

The results of the test to simulate Low Flow Sampling indicate that the specific PVC Grundfos tubing used to collect recent samples at the ACS and Blackwell NPL Sites releases phenol when new. In addition, it appears that the PVC Grundfos tubing contributes bis(2-ethylhexyl)phthalate, and, possibly, several TICs to water. In contrast to the Grundfos tubing, the tested, decontaminated, polyethylene tubing does not release phenol. In addition, if the polyethylene tubing releases bis(2-ethylhexyl)phthalate or TICs, the levels are very low. Therefore, it will be reasonable to use the polyethylene tubing for future sampling events.

The concentrations of phenol and bis(2-ethylhexyl)phthalate measured in the investigative and MS/MSD samples from PVC Grundfos tubing are higher than the levels of these compounds reported during routine sampling of groundwater at the ACS site. For example, during the September 1997 sampling event, phenol and bis(2-ethylhexyl)phthalate were measured at concentrations up to 340 and 76 µg/L, respectively. These concentration relationships indicate that leaching from PVC Grundfos tubing during routine sampling can account for the detections of phenol and bis(2-ethylhexyl)phthalate in monitoring well samples from the ACS and Blackwell sites. The typical pattern of higher concentrations of both of these compounds in the deep wells also suggests that PVC Grundfos tubing is the source. Again as an example, during the September 1997 sampling event, phenol was measured at concentrations up to 130 µg/L in shallow wells and 340 µg/L in deep wells; bis(2-ethylhexyl)phthalate was measured at concentrations up to 15 µg/L in shallow wells and 76 µg/L in deep wells. Higher concentrations in deeper wells are consistent with a source in the tubing because longer sections of new PVC Grundfos tubing are used in these wells during routine sampling.

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TEST PROCEDURE

SIMULATION OF LOW FLOW SAMPLING OF GROUNDWATER

SCOPE AND RATIONALE

Evaluation of historic routine groundwater monitoring data has suggested that the 0.5 in. I. D., flexible, reinforced, PVC, Grundfos tubing (Grundfos tubing) used for Low Flow Sampling may be introducing some semi-volatile organic compounds (SVOCs) to groundwater samples. A preliminary, simple leach test of the tubing was previously conducted to evaluate this possibility. In this test, about one foot of Grundfos tubing was placed in a 500 ml, laboratory-supplied sample jar filled with deionized water. The jar containing the tubing and deionized water was sealed, allowed to sit overnight, and submitted to the laboratory for analysis. The laboratory reported a phenol concentration of about 9 mg/L, indicating that phenol is released from the tubing; the analysis program did not include measurement of other SVOCs. Based on these preliminary results, a more representative test procedure has been developed to confirm whether the Grundfos tubing may contribute SVOCs to routine groundwater samples and, also, to evaluate the leaching potential of alternative polyethylene tubing.

The test procedure simulates the collection of groundwater samples according to the following scenario:

1. 60 foot deep monitoring well (measured from the top of internal casing)
2. static water level 25 feet below the top of internal casing
3. purging rate of 300 ml per minute

EQUIPMENT

1. Note book
2. Three 5-gallon containers of deionized water
3. Peristaltic pump
4. Four (4) foot length of new, 0.5 in. I. D., decontaminated polyethylene tubing, with hose clamps
5. 75 feet of Grundfos tubing (suspected source of the phenols)
6. 75 feet of new, 0.5 in. I. D., decontaminated polyethylene tubing (alternative tubing for future sampling)
7. Sample bottles
8. Sample labels and tags
9. Cooler(s) with ice
10. Packing material
11. Chain-of-custody forms

TEST PROCEDURE

1. Place one end of the 4 foot length of polyethylene tubing into a container of deionized water, and connect the other end to the inlet hose of the peristaltic pump.
2. Connect one end of the 75 foot length of Grundfos tubing to the discharge hose of the peristaltic pump.
3. Operate the peristaltic pump at maximum rate and pump about 1,350 ml of water into the Grundfos tubing (the approximate volume of water contained in 35 feet of 0.5 inch (1.27 cm) inside diameter tubing (i.e., $3.14/4 \times (1.27)^2 \times 30.48 \times 35$)).
4. Slow the pumping rate to 300 ml per minute.
5. Collect an approximately 500 ml sample of deionized water from the end of the Grundfos tubing, beginning when the first water discharges from the tubing. Collect a second sample for matrix spike/matrix spike duplicate (MS/MSD) analysis.
6. Repeat the preceding steps, except for collection of the MS/MSD sample, substituting the 75 foot length of polyethylene tubing for the Grundfos tubing.
7. Samples obtained during pumping from the Grundfos and polyethylene tubing shall be sealed and labeled, and placed in an iced cooler immediately after collection for storage and shipment to the analytical laboratory under chain-of-custody for analysis of SVOCs by CLP. A sample of the deionized water will also be included for analysis.

In summary, four samples will be submitted for laboratory analysis:

1. a sample of deionized water exposed to Grundfos tubing, the suspected phenol source
2. a sample of deionized water exposed to alternative tubing for future sampling
3. an MS/MSD sample
4. a blank deionized water sample.

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BLANK-1

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885404

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085404A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BLANK-1

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885404

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085404A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	JB
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BLANK-1

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885404

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085404A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 12

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CYCLOHEXENOL (BC)	6.24	12	JB
2.	CYCLOHEXENONE (BC)	6.89	22	JB
3. 533-60-8	CYCLOHEXANONE, 2-HYDROXY-	7.82	3	NJ
4.	UNKNOWN	8.14	4	J
5.	UNKNOWN	8.50	2	J
6.	CYCLOHEXANEDIOL	8.81	5	J
7.	UNKNOWN	9.06	3	J
8.	UNKNOWN	11.85	3	J
9.	UNKNOWN	12.21	2	J
10. 99-93-4	ACETOPHENONE, 4'-HYDROXY-	12.62	2	NJ
11. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYLI	18.61	6	NJ
12.	UNKNOWN (BC)	22.21	10	JB
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PVC-1

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885405

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085405A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	380	E
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

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Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085405A68

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% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	74	B
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F
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TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

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Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 24

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CYCLOHEXENOL (BC)	6.25	12	JB
2. 108-94-1	CYCLOHEXANONE	6.36	3	NJB
3.	CYCLOHEXENONE (BC)	6.94	12	JB
4.	TRICHLOROPROPENE	7.09	2	J
5.	HYDROXYCYCLOHEXANONE	7.84	3	J
6.	UNKNOWN	8.47	7	J
7.	UNKNOWN	8.69	3	J
8.	UNKNOWN CARBOXYLIC ACID	9.10	3	J
9.	UNKNOWN	9.72	3	J
10. 112-34-5	ETHANOL, 2-(2-BUTOXYETHOXY)-	10.04	200	NJ
11.	UNKNOWN	10.43	22	J
12.	UNKNOWN	10.52	13	J
13.	UNKNOWN	10.65	12	J
14.	UNKNOWN	10.82	30	J
15.	UNKNOWN	10.93	8	J
16.	UNKNOWN	11.05	3	J
17.	UNKNOWN	11.75	2	J
18. 520-45-6	DEHYDROACETIC ACID	12.02	56	NJ
19.	UNKNOWN	12.18	4	J
20. 118-93-4	ETHANONE, 1-(2-HYDROXYPHENYL	12.61	2	NJ
21.	UNKNOWN	15.39	2	J
22.	UNKNOWN	18.49	15	J
23. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYLI	18.60	13	NJ
24.	UNKNOWN AMIDE	22.21	4	J
25.				
26.				
27.				
28.				
29.				
30.				

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PVC-1DL

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885405

Sample wt/vol: 500 (g/mL) mL Lab File ID: GJD85405B68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 7.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	440	D
111-44-4	bis(2-Chloroethyl)ether	70	U
95-57-8	2-Chlorophenol	70	U
541-73-1	1,3-Dichlorobenzene	70	U
106-46-7	1,4-Dichlorobenzene	70	U
95-50-1	1,2-Dichlorobenzene	70	U
95-48-7	2-Methylphenol	70	U
108-60-1	2,2'-oxybis(1-Chloropropane)	70	U
106-44-5	4-Methylphenol	70	U
621-64-7	N-Nitroso-di-n-propylamine	70	U
67-72-1	Hexachloroethane	70	U
98-95-3	Nitrobenzene	70	U
78-59-1	Isophorone	70	U
88-75-5	2-Nitrophenol	70	U
105-67-9	2,4-Dimethylphenol	70	U
111-91-1	bis(2-Chloroethoxy)methane	70	U
120-83-2	2,4-Dichlorophenol	70	U
120-82-1	1,2,4-Trichlorobenzene	70	U
91-20-3	Naphthalene	70	U
106-47-8	4-Chloroaniline	70	U
87-68-3	Hexachlorobutadiene	70	U
59-50-7	4-Chloro-3-methylphenol	70	U
91-57-6	2-Methylnaphthalene	70	U
77-47-4	Hexachlorocyclopentadiene	70	U
88-06-2	2,4,6-Trichlorophenol	70	U
95-95-4	2,4,5-Trichlorophenol	180	U
91-58-7	2-Chloronaphthalene	70	U
88-74-4	2-Nitroaniline	180	U
131-11-3	Dimethylphthalate	70	U
208-96-8	Acenaphthylene	70	U
606-20-2	2,6-Dinitrotoluene	70	U
99-09-2	3-Nitroaniline	180	U
83-32-9	Acenaphthene	70	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PVC-1DL

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885405

Sample wt/vol: 500 (g/mL) mL Lab File ID: GJD85405B68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 7.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
51-28-5	2,4-Dinitrophenol	180	U
100-02-7	4-Nitrophenol	180	U
132-64-9	Dibenzofuran	70	U
121-14-2	2,4-Dinitrotoluene	70	U
84-66-2	Diethylphthalate	70	U
7005-72-3	4-Chlorophenyl-phenylether	70	U
86-73-7	Fluorene	70	U
100-01-6	4-Nitroaniline	180	U
534-52-1	4,6-Dinitro-2-methylphenol	180	U
86-30-6	N-nitrosodiphenylamine (1)	70	U
101-55-3	4-Bromophenyl-phenylether	70	U
118-74-1	Hexachlorobenzene	70	U
87-86-5	Pentachlorophenol	180	U
85-01-8	Phenanthrene	70	U
120-12-7	Anthracene	70	U
86-74-8	Carbazole	70	U
84-74-2	Di-n-butylphthalate	70	U
206-44-0	Fluoranthene	70	U
129-00-0	Pyrene	70	U
85-68-7	Butylbenzylphthalate	70	U
91-94-1	3,3'-Dichlorobenzidine	70	U
56-55-3	Benzo(a)anthracene	70	U
218-01-9	Chrysene	70	U
117-81-7	bis(2-Ethylhexyl)phthalate	78	DB
117-84-0	Di-n-octylphthalate	70	U
205-99-2	Benzo(b)fluoranthene	70	U
207-08-9	Benzo(k)fluoranthene	70	U
50-32-8	Benzo(a)pyrene	70	U
193-39-5	Indeno(1,2,3-cd)pyrene	70	U
53-70-3	Dibenzo(a,h)anthracene	70	U
191-24-2	Benzo(g,h,i)perylene	70	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

PVC-1DL

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885405

Sample wt/vol: 500 (g/mL) mL Lab File ID: GJD85405B68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 7.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 5

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CYCLOHEXENONE (BC)	6.89	15	JBD
2. 112-34-5	ETHANOL, 2-(2-BUTOXYETHOXY)-	9.99	270	NJD
3.	UNKNOWN	10.34	17	JD
4.	UNKNOWN	10.45	17	JD
5.	UNKNOWN	10.77	26	JD
6.				
7.				
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PVC-1MS

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885402

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085402A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	360	E
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	49	
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	29	
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	38	
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	31	
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	46	
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	38	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PVC-1MS

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885402

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085402A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	47	
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	33	
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	64	
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	31	
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	480	EB
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PVC-1MSD

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885403

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085403A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	530	E
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	44	
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	27	
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	31	
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	29	
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	48	
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	34	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PVC-1MSD

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885403

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085403A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	51	
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	34	
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	56	
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	29	
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	110	EB
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

POLY-1

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885401

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085401A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

POLY-1

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885401

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085401A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	JB
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

POLY-1

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885401

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085401A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 21

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CYCLOHEXENOL (BC)	6.24	21	JB
2. 108-94-1	CYCLOHEXANONE	6.35	2	NJB
3.	UNKNOWN	6.41	4	J
4. 2441-97-6	CYCLOHEXENE, 3-CHLORO-	6.57	2	NJ
5.	CYCLOHEXENONE (BC)	6.89	23	JB
6.	TRICHLOROPROPENE	7.10	3	J
7.	UNKNOWN CARBOXYLIC ACID	7.28	6	J
8.	UNKNOWN	7.81	7	J
9.	UNKNOWN	8.18	5	J
10.	UNKNOWN	8.46	16	J
11.	UNKNOWN	8.74	3	J
12.	UNKNOWN	8.81	3	J
13.	UNKNOWN CARBOXYLIC ACID	9.04	5	J
14.	UNKNOWN (BC)	9.71	3	JB
15.	UNKNOWN	10.75	3	J
16.	UNKNOWN	11.03	3	J
17.	UNKNOWN ACID ESTER	11.86	3	J
18.	UNKNOWN	12.17	2	J
19. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYLI	18.61	3	NJ
20.	UNKNOWN (BC)	22.21	19	JB
21.	UNKNOWN	22.40	3	J
22.				
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKLD

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885412

Sample wt/vol: 1000 (g/mL) mL Lab File ID: GH085412A68

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 1000(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKLD

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885412

Sample wt/vol: 1000 (g/mL) mL Lab File ID: GH085412A68

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 1000(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	12	
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLKLD

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885412

Sample wt/vol: 1000 (g/mL) mL Lab File ID: GH085412A68

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 1000(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 5

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CYCLOHEXENOL (BC)	6.24	6	J
2. 108-94-1	CYCLOHEXANONE	6.37	27	NJ
3.	CYCLOHEXENONE (BC)	6.89	9	J
4.	UNKNOWN (BC)	9.71	2	J
5.	UNKNOWN (BC)	22.21	14	J
6.				
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VALIDATION NARRATIVE

Project: ACS
Number: 1252042.221602

Analysis: SVOCs
Matrix: Tubing test

Validated By: JAH

Date: April 7, 1998

This narrative covers the validation of three water samples from a tubing contamination test for CLP SVOC organic analysis by CompuChem laboratories using CLP methodologies. Validation was performed using the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Analysis Review* (2/94). The data is validated as acceptable for use in site evaluation with the following comments:

Hold Times Samples were collected on March 31, 1998 and extracted on March 19. All hold times were met.

Instrument Performance All SVOC instrument DFTPP tuning criteria was acceptable.

Calibration All SVOC calibration criteria was acceptable, although 4-chloroanaline and 2,4-dichlorophenol exceeded the percent difference criteria. These compounds were not detected in the samples, which were qualified as estimated (UJ).

Blanks One SVOC method blank and one field blank were analyzed. Sample results were qualified using the 5x/10x rule as undetected at the sample result or the CRQL, whichever was greater. Bis(2-ethylhexyl)phthalate (BEHP) was detected in the method blank at 12 ug/L, and in the field blank at 1 ug/L. The PVC and poly samples contained 74 and 1 ug/L BEHP respectively. It is likely that the PVC result is a combination of both blank contamination and actual sample result, however, by the data validation guidelines, this result would be qualified as undetected at 74 ug/L.

Surrogates All SVOC surrogate recoveries were within QC limits.

Matrix Spikes All matrix spike recoveries and RPDs were within acceptable QC limits, with the exception of phenol, which was masked by a sample concentration that exceeded the spike concentration by a factor of greater than 4. Therefore, no qualification of the data should be made based on this criteria.

Field Duplicates Field duplicates are limited to a comparison of the matrix spike samples, which showed the sample aliquots in the two jars were not similar. For example, BEHP was detected at 74 ug/L and 110 ug/L in PVC-1 and PVC-1MSD, respectively, which were taken from sample bottle 2 of 2; and 480 ug/L from PVC-1MS, which was taken from bottle 1 of 2. This appears to indicate that the BEHP concentrations in bottle 1 of 2 were greater than those in bottle 2 of 2. A similar pattern is evident with phenol, however, the results are more ambiguous due to the phenol spike that was added to the MS/MSD.

Internal Standards All SVOC internal standard results were within acceptable validation limits.

Compound Identification SVOC target compound qualitative identification criteria, including RRTs and mass spectra confirmation criteria was acceptable.

System Performance SVOC system performance, including RIC baseline, resolution, and peak shape was acceptable.

Sample Results Overall data quality by the laboratory was good, with no significant instrument related problems observed. The data packages were well organized and very thorough, containing all information needed to easily back-calculate results.

J:\1252\042\Dec_97_sampling_rpt\DV-tubing.doc
JAH/jah/PJV

COMPUCHEM

a division of Liberty Analytical Corp.

23/MAR/98

MONTGOMERY WATSON
ATTN: RON PATTERSON
2100 CORPORATE DR.
ADDISON, IL 60101

Subject: Report of Data - Account Number# 501164 Order# 33472

ATTN: RON PATTERSON

Enclosed are the results of analytical work performed in accordance with the referenced account number.

This report covers 3 sample(s) appearing on the attached listing.

Thank you for selecting CompuChem Environmental for your sample analysis. If you should have questions or require additional analytical services please contact your representative at 1-800-833-5097.

Sincerely,

Diane Ellmore

CompuChem Environmental
a division of Liberty Analytical

Attachment

501 Madison Avenue ■ Cary, N.C. 27513 ■ Tel: 919-379-4100 ■ Fax: 919-379-4050

COMPUCHEM

a division of Liberty Analytical Corp.

23/MAR/98

MONTGOMERY WATSON
ATTN: RON PATTERSON
2100 CORPORATE DR.
ADDISON, IL 60101

ACCOUNT #: 501164

CC#	SAMPLE-ID	RECEIPT DATE
885401	POLY-1	3/18/98
885404	BLANK-1	3/18/98
885405	PVC-1	3/18/98

TOTAL NUMBER OF SAMPLES = 3

501 Madison Avenue ■ Cary, N.C. 27513 ■ Tel: 919-379-4100 ■ Fax: 919-379-4050

CompuChem Environmental

I. SAMPLE DATA SUMMARY PACKAGE

DOCUMENT OLM03.2

The sample data summary package shall contain data for all samples in one Sample Delivery Group (SDG) of the Case, as follows:

A. SDG Narrative

B. Tabulated target compound results (Form I)
Tentatively identified compounds (Form I, TIC) (VOA & SV only)
In order by fraction (VOA, SV, PEST) and by sample within each fraction.

C. System monitoring compound results (Form II - VOA only)
Surrogate spike analysis results (Form II - SV & PEST only)
By fraction (VOA, SV, PEST), matrix (Water or Soil), and by concentration (Low or Medium)

D. Matrix Spike / Matrix Spike Duplicate results (Form III)
By fraction (VOA, SV, PEST)

E. Blank data (Form IV)
Tabulated blank results (Form I)
Tentatively identified compounds (Form I, TIC)
By fraction (VOA, SV, PEST)

F. Internal standard area response and retention time data (Form VIII)
By fraction (VOA & SV only)

LAB CODE : COMPU

CONTRACT # : OLM03-REVS

CASE # : 33472

SDG # : MWTT1

A. SDG Narrative

COMPUCHEM
A division of Liberty Analytical Corporation
501 Madison Ave.
Cary, NC 27513

SDG NARRATIVE

CASE #33472
SDG #MWTT1
CONTRACT #OLM03-REVS

SAMPLES: BLANK-1, POLY-1, PVC-1

The three (3) water samples listed above were received intact, properly refrigerated, with proper documentation, in a sealed shipping container, on March 18, 1998. The samples were scheduled for the requested analyses of the semivolatile fractions. These samples were analyzed following the 3/90 Statement of Work (SOW) (document OLM03.2) protocol.

All pertinent Quality Assurance notices are included in the narrative section and all pertinent Laboratory notices for Case #33472, SDG # MWTT1 are included in the sample data sections.

SEMIVOLATILE

The semivolatile fractions were extracted and analyzed within the required holding time. Two Target Compound List (TCL) analytes were detected with concentrations above the Contract Required Quantitation Limit (CRQL) in sample PVC-1. These analytes were phenol and bis(2-ethylhexyl)phthalate.

In the analysis of sample PVC-1, the amount of phenol exceeded the instrument's upper analytical range as defined by the highest level standard in the Initial Calibration. The sample was reanalyzed at a 1 in 7 dilution in order to bring the amount within the range. The undiluted and diluted analyses are reported.

Twelve to twenty-four Tentatively Identified Compounds (TIC) were detected in the samples. These TICs were assessed as cyclohexanol, unknowns, substituted phenols, trichloropropene, cyclohexanediol, unknown carboxylic acids, cyclohexenone, acetophenone, unknown acid ester, substituted ethanol and substituted ethanone.

Other TICs were detected and assessed as unknown alkanes in the associated method blank. The TICs that were characterized as alkanes have been summarized on the Form 1FAs that are located in the narrative section of the data package. The TIC spectra for the alkanes are located in the data section for the individual samples.

QC SUMMARY

The surrogates met recovery criteria for the semivolatile fractions. The duplicate matrix spikes met recovery and relative percent difference criteria, with some exceptions. The recoveries of phenol failed acceptance criteria in the MS and MSD. The relative percent difference value for phenol also failed acceptance criteria in the comparison of the duplicate matrix spikes.

The associated blank met Quality Control criteria. Bis(2-ethylhexyl)phthalate was detected in SBLKLD at a level above the CRQL, but within contractual acceptance limits.

The Initial Calibrations and Continuing Calibrations met Quality Control criteria. In the analyses of the Initial and Continuing Calibration standards and two of the samples, the operator performed manual integrations and/or manual edits of one or more of the TCL analytes. These manual integrations or edits are indicated by the "M", "H" or the "MH" flag present on the quantitation report. An Extracted Ion Current Profile (EICP) has been provided for each analyte requiring a manual integration or manual edit. As noted on the quantitation reports by number, the manual edits and/or manual integrations were required for the following reasons: 1) TCL analytes were initially not found by the automatic integration routine, 2) TCL analytes were incorrectly integrated by the automatic integration routine, 3) the operator selected an alternate peak within the retention time window for a particular TCL analyte than that chosen by the computer software. The explanations for the manual integrations and/or manual edits are summarized in a Quality Assurance notice which is located in the narrative section of the data package.

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

Patricia B. Hopkins

Patricia B. Hopkins
Final Technical Review
23 March 1998

Note: This report is paginated for reference and accountability in numerical sequence.

1FA
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
ALKANE SERIES REPORT

EPA SAMPLE NO.

SBLKLD

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885412

Sample wt/vol: 1000 (g/mL) mL Lab File ID: GH085412A68

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 1000(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALKANE (BC)	24.53	3	J
2.	UNKNOWN ALKANE (BC)	27.70	4	J
3.				
4.				
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GC and GC/MS Column and Trap Specifications Table

COLUMNS

Brand Name	Coating Material	ID (mm)	Film Thickness (um)	Length (m)
GC Laboratory				
Restek	RTX-70+	0.53	0.5	30
J & W	DB-608	0.53	0.83	30
GC/MS Volatiles Laboratory				
J & W	DB-624	0.53	3.0	30/75
Supelco	SPB-624	0.53	3.0	75
GC/MS Semivolatiles Laboratory				
J & W	DB-5	0.32	1.0	30

TRAP

GC/MS Volatiles Laboratory	
	* 15 cm of 2,6-diphenylene oxide polymer (Tenax) * 1 cm of methyl silicone packing (OV-1 coating) * 8 cm of silica gel * 0.5 cm of glass wool at each end

DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL), or reporting limit, will be adjusted to reflect any dilution and, for soils, the percent moisture.

J : This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1.0 is assumed for the TIC analyte,

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL but greater than zero, and

3. When the retention time data indicate the presence of a compound that meets the pesticide/Aroclor or other GC or HPLC identification criteria, and the result is less than the CRQL but greater than zero. For example, if the sample quantitation limit is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search. For generic characterization of a TIC such as 'chlorinated hydrocarbon', the N flag is not used.

P : This flag is used for a pesticide/Aroclor target analyte, and other GC or HPLC analytes, when there is greater than 25% difference for detected concentrations between the two GC or HPLC columns. The lower of the two values is reported on Form I and flagged with a P.

C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.)

DATA REPORTING QUALIFIERS (continued)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a response greater than the upper level of the calibration range will have the concentration flagged with an E on Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL and the U flag.

NOTE 2: Separate Form Is are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses <u>are not combined</u> on a single Form I.

A : This flag indicates that a TIC is a suspected aldol-condensation product.

X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y and Z.

CompuChem

a division of Liberty Analytical Corporation

CompuChem's Pagination Convention

As required by the current EPA CLP Statement of Work (SOW) (Document Number OLM03.0, plus revisions), data to be delivered must be paginated (by machine or hand). In the event that the initial numbering is incorrect (a page numbered twice or a page skipped, for example), it is CompuChem's policy to add in an alphabetic suffix to a page number when necessary (e.g., 100A, 100B, etc.).

Form DC-2 presents an inventory of the contents of the CSF, including the page number locations for the indexed items. There are concurrent delivery requirements for the Sample Data Packages and the CSF. Because of this and the time required for the final technical review process, we have instituted a policy to expedite assembly of the CSF. Items 2-6 on the Organic Form DC-2 and items 2-26 on the Inorganic Form DC-2 contain those items which are part of the Sample Data Packages. Those items will be paginated in ascending order. However, while Sample Data Packages receive a final technical review, items 7-10 on the Organic Form DC-2 and items 27-32 on the Inorganic Form DC-2 will be assembled and paginated. The first page number for the first entry for item 7 on the Organic Form DC-2 and for item 27 on the Inorganic Form DC-2 will always begin with page number 10,000.

Notification Regarding Manual Editing/Integration Flags

In some instances, manual adjustments to the software output are necessary to provide accurate data. These adjustments are performed by the data reviewer, GC/MS operator, or GC chemist. An Extracted Ion Current Profile (EICP) or a GC chromatographic peak has been provided for the manual integration of each compound to demonstrate the accuracy of that process. Adjustments are flagged on the quantitation report in the far right column beyond the FINAL concentration for GC/MS analysis, and in the "Flags" column for GC analysis. The manual editing/integration flags are:

M - Denotes that a manual integration has been performed for this compound. The manual integration was performed in order to provide the most accurate area count as possible for the peak.

H - Denotes that the data reviewer, GC/MS operator, or GC Chemist has chosen an alternate peak within the retention time window from that chosen by the software for that compound. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

MH - Denotes that an alternate peak has been chosen within the retention time window from that chosen by the software for that compound and also a manual integration of the chosen peak has been performed. The manual integration was performed in order to provide the most accurate area count possible for the peak.

L - Denotes that the data reviewer or GC MS operator has selected an alternate library search. This is typically done when an additional tentatively identified compound (TIC) has been added to the number of peaks searched. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

ML - Denotes that an alternate library search has been selected and a manual integration has also been performed. This is typically done when an additional TIC has been added and the TIC peak also required a manual integration.

With the introduction of the current EPA CLP SOW (Document Number OLM03.0, plus revisions) additional explanations for manual editing integration are required. In the accompanying raw data packages, additional codes have been applied to the "M" flag and carry the following meanings:

M1 - The compound was not found by the automatic integration routine.

M2 - The compound was incorrectly integrated by the automatic integration routine.

M3 - The co-eluting compounds were incorrectly integrated by the automatic integration routine.

These codes will appear in the GC/MS and GC data packages.

Robert E. Meierer

Robert E. Meierer
Vice President

Revision 4 (10/8/97)

CompuChem
a division of Liberty Analytical Corporation

Quality Assurance Notice

The EPA CLP SOW (Document Number OLM03.0, plus revisions) requires, for tentatively identified compound (TIC) assessment, that certain items should not be reported. These include, for volatile organics, carbon dioxide and semivolatile TCL analytes and, for semivolatile organics, volatile organics listed in Exhibit C.

In order to assist the data review/validation process by our clients, if we detect carbon dioxide or semivolatile TCL analytes at or above 10% of the closest internal standard we will report them on the Form I VOA-TIC but not include them as part of the thirty (30) TICs required. Similarly, if we detect volatile TCL analytes from Exhibit C at or above 10% of the closest internal standard during the TIC assessment of the semivolatile analysis, we will report them on the Form I SV-TIC but not include them as part of the thirty (30) TICs required. The library search raw data for these TICs are also included. The total number of TICs listed on the Form I in the Number of TICs field will include these items.

We feel this approach will aid the data review/validation process by our clients, since we will be accounting for all peaks required to be searched as well as any other comparably sized peaks present on the reconstructed ion chromatogram (RIC).

Robert E. Meierer

Robert E. Meierer
Vice President

B. Form I and Form I - TIC

Organic Analysis Data Sheet (OADS) and Tentatively Identified Compounds (TICs)

- All samples by fraction (VOA, SV, PEST)
    - alphanumeric order within each fraction

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BLANK-1

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885404

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085404A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BLANK-1

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885404

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085404A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	JB
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BLANK-1

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885404

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085404A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 12

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CYCLOHEXENOL (BC)	6.24	12	JB
2.	CYCLOHEXENONE (BC)	6.89	22	JB
3. 533-60-8	CYCLOHEXANONE, 2-HYDROXY-	7.82	3	NJ
4.	UNKNOWN	8.14	4	J
5.	UNKNOWN	8.50	2	J
6.	CYCLOHEXANEDIOL	8.81	5	J
7.	UNKNOWN	9.06	3	J
8.	UNKNOWN	11.85	3	J
9.	UNKNOWN	12.21	2	J
10. 99-93-4	ACETOPHENONE, 4'-HYDROXY-	12.62	2	NJ
11. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYLI	18.61	6	NJ
12.	UNKNOWN (BC)	22.21	10	JB
13.				
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

POLY-1

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885401

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085401A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

POLY-1

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885401

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085401A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	JB
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

POLY-1

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885401

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085401A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 21

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CYCLOHEXENOL (BC)	6.24	21	JB
2. 108-94-1	CYCLOHEXANONE	6.35	2	NJB
3.	UNKNOWN	6.41	4	J
4. 2441-97-6	CYCLOHEXENE, 3-CHLORO-	6.57	2	NJ
5.	CYCLOHEXENONE (BC)	6.89	23	JB
6.	TRICHLOROPROPENE	7.10	3	J
7.	UNKNOWN CARBOXYLIC ACID	7.28	6	J
8.	UNKNOWN	7.81	7	J
9.	UNKNOWN	8.18	5	J
10.	UNKNOWN	8.46	16	J
11.	UNKNOWN	8.74	3	J
12.	UNKNOWN	8.81	3	J
13.	UNKNOWN CARBOXYLIC ACID	9.04	5	J
14.	UNKNOWN (BC)	9.71	3	JB
15.	UNKNOWN	10.75	3	J
16.	UNKNOWN	11.03	3	J
17.	UNKNOWN ACID ESTER	11.86	3	J
18.	UNKNOWN	12.17	2	J
19. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYLI	18.61	3	NJ
20.	UNKNOWN (BC)	22.21	19	JB
21.	UNKNOWN	22.40	3	J
22.				
23.				
24.				
25.				
26.				
27.				
28.				
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PVC-1

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885405

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085405A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	380	E
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PVC-1

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885405

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085405A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	74	B
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

PVC-1

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885405

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085405A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 24

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CYCLOHEXENOL (BC)	6.25	12	JB
2. 108-94-1	CYCLOHEXANONE	6.36	3	NJB
3.	CYCLOHEXENONE (BC)	6.94	12	JB
4.	TRICHLOROPROPENE	7.09	2	J
5.	HYDROXYCYCLOHEXANONE	7.84	3	J
6.	UNKNOWN	8.47	7	J
7.	UNKNOWN	8.69	3	J
8.	UNKNOWN CARBOXYLIC ACID	9.10	3	J
9.	UNKNOWN	9.72	3	J
10. 112-34-5	ETHANOL, 2-(2-BUTOXYETHOXY)-	10.04	200	NJ
11.	UNKNOWN	10.43	22	J
12.	UNKNOWN	10.52	13	J
13.	UNKNOWN	10.65	12	J
14.	UNKNOWN	10.82	30	J
15.	UNKNOWN	10.93	8	J
16.	UNKNOWN	11.05	3	J
17.	UNKNOWN	11.75	2	J
18. 520-45-6	DEHYDROACETIC ACID	12.02	56	NJ
19.	UNKNOWN	12.18	4	J
20. 118-93-4	ETHANONE, 1-(2-HYDROXYPHENYL	12.61	2	NJ
21.	UNKNOWN	15.39	2	J
22.	UNKNOWN	18.49	15	J
23. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYLI	18.60	13	NJ
24.	UNKNOWN AMIDE	22.21	4	J
25.				
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PVC-1DL

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885405

Sample wt/vol: 500 (g/mL) mL Lab File ID: GJD85405B68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 7.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	440	D
111-44-4	bis(2-Chloroethyl)ether	70	U
95-57-8	2-Chlorophenol	70	U
541-73-1	1,3-Dichlorobenzene	70	U
106-46-7	1,4-Dichlorobenzene	70	U
95-50-1	1,2-Dichlorobenzene	70	U
95-48-7	2-Methylphenol	70	U
108-60-1	2,2'-oxybis(1-Chloropropane)	70	U
106-44-5	4-Methylphenol	70	U
621-64-7	N-Nitroso-di-n-propylamine	70	U
67-72-1	Hexachloroethane	70	U
98-95-3	Nitrobenzene	70	U
78-59-1	Isophorone	70	U
88-75-5	2-Nitrophenol	70	U
105-67-9	2,4-Dimethylphenol	70	U
111-91-1	bis(2-Chloroethoxy)methane	70	U
120-83-2	2,4-Dichlorophenol	70	U
120-82-1	1,2,4-Trichlorobenzene	70	U
91-20-3	Naphthalene	70	U
106-47-8	4-Chloroaniline	70	U
87-68-3	Hexachlorobutadiene	70	U
59-50-7	4-Chloro-3-methylphenol	70	U
91-57-6	2-Methylnaphthalene	70	U
77-47-4	Hexachlorocyclopentadiene	70	U
88-06-2	2,4,6-Trichlorophenol	70	U
95-95-4	2,4,5-Trichlorophenol	180	U
91-58-7	2-Chloronaphthalene	70	U
88-74-4	2-Nitroaniline	180	U
131-11-3	Dimethylphthalate	70	U
208-96-8	Acenaphthylene	70	U
606-20-2	2,6-Dinitrotoluene	70	U
99-09-2	3-Nitroaniline	180	U
83-32-9	Acenaphthene	70	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PVC-1DL

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885405

Sample wt/vol: 500 (g/mL) mL Lab File ID: GJD85405B68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 7.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
51-28-5	2,4-Dinitrophenol	180	U
100-02-7	4-Nitrophenol	180	U
132-64-9	Dibenzofuran	70	U
121-14-2	2,4-Dinitrotoluene	70	U
84-66-2	Diethylphthalate	70	U
7005-72-3	4-Chlorophenyl-phenylether	70	U
86-73-7	Fluorene	70	U
100-01-6	4-Nitroaniline	180	U
534-52-1	4,6-Dinitro-2-methylphenol	180	U
86-30-6	N-nitrosodiphenylamine (1)	70	U
101-55-3	4-Bromophenyl-phenylether	70	U
118-74-1	Hexachlorobenzene	70	U
87-86-5	Pentachlorophenol	180	U
85-01-8	Phenanthrene	70	U
120-12-7	Anthracene	70	U
86-74-8	Carbazole	70	U
84-74-2	Di-n-butylphthalate	70	U
206-44-0	Fluoranthene	70	U
129-00-0	Pyrene	70	U
85-68-7	Butylbenzylphthalate	70	U
91-94-1	3,3'-Dichlorobenzidine	70	U
56-55-3	Benzo(a)anthracene	70	U
218-01-9	Chrysene	70	U
117-81-7	bis(2-Ethylhexyl)phthalate	78	DB
117-84-0	Di-n-octylphthalate	70	U
205-99-2	Benzo(b)fluoranthene	70	U
207-08-9	Benzo(k)fluoranthene	70	U
50-32-8	Benzo(a)pyrene	70	U
193-39-5	Indeno(1,2,3-cd)pyrene	70	U
53-70-3	Dibenzo(a,h)anthracene	70	U
191-24-2	Benzo(g,h,i)perylene	70	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PVC-1MS

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885402

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085402A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	360	E
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	49	
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	29	
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	38	
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	31	
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	46	
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	38	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PVC-1MS

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885402

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085402A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	47	
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	33	
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	64	
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	31	
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	480	EB
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PVC-1MSD

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885403

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085403A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	530	E
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	44	
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	27	
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	31	
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	29	
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	48	
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	34	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PVC-1MSD

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885403

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085403A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	51	
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	34	
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	56	
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	29	
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	110	EB
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

C. Form II

System Monitoring Compound summary (VOA)
and Surrogate spike analysis (SV & PEST)
- By fraction (VOA, SV, PEST) -
- By level (low, medium) -

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
01	SBLKLD	75	69	90	69	65	69	70	47	0
02	POLY-1	82	71	99	82	66	72	77	46	0
03	PVC-1	84	72	100	77	61	84	75	66	0
04	PVC-1MS	78	82	84	65	57	84	70	63	0
05	PVC-1MSD	69	64	70	52	50	73	58	54	0
06	BLANK-1	82	70	114	82	66	77	76	71	0
07	PVC-1DL	77	67	90	66	62	61	68	60	0
08										
09										
10										
11										
12										
13										
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30										

		QC LIMITS	
S1 (NBZ)	= Nitrobenzene-d5	(35-114)	
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)	
S3 (TPH)	= Terphenyl-d14	(33-141)	
S4 (PHL)	= Phenol-d5	(10-110)	
S5 (2FP)	= 2-Fluorophenol	(21-110)	
S6 (TBP)	= 2,4,6-Tribromophenol	(10-123)	
S7 (2CP)	= 2-Chlorophenol-d4	(33-110)	(advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(16-110)	(advisory)

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

D. Form III

Matrix Spike/Matrix Spike Duplicate results

- By fraction (VOA, SV, PEST) -

- By level (low, medium) -

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix Spike - EPA Sample No.: PVC-1

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Phenol	75.00	381.3	365.2	-21*	12-110
2-Chlorophenol	75.00	0.000	48.96	65	27-123
1,4-Dichlorobenzene	50.00	0.000	28.92	58	36- 97
N-Nitroso-di-n-prop.(1)	50.00	0.000	37.94	76	41-116
1,2,4-Trichlorobenzene	50.00	0.000	31.25	62	39- 98
4-Chloro-3-methylphenol	75.00	0.000	45.51	61	23- 97
Acenaphthene	50.00	0.000	38.17	76	46-118
4-Nitrophenol	75.00	0.000	46.71	62	10- 80
2,4-Dinitrotoluene	50.00	0.000	33.44	67	24- 96
Pentachlorophenol	75.00	0.000	64.56	86	9-103
Pyrene	50.00	0.000	30.69	61	26-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	75.00	530.2	198*	247*	42	12-110
2-Chlorophenol	75.00	43.51	58	11	40	27-123
1,4-Dichlorobenzene	50.00	26.77	54	7	28	36- 97
N-Nitroso-di-n-prop.(1)	50.00	31.06	62	20	38	41-116
1,2,4-Trichlorobenzene	50.00	29.16	58	7	28	39- 98
4-Chloro-3-methylphenol	75.00	48.21	64	5	42	23- 97
Acenaphthene	50.00	33.99	68	11	31	46-118
4-Nitrophenol	75.00	51.39	68	9	50	10- 80
2,4-Dinitrotoluene	50.00	34.27	68	1	38	24- 96
Pentachlorophenol	75.00	56.17	75	14	50	9-103
Pyrene	50.00	29.41	59	3	31	26-127

(1) N-Nitroso-di-n-propylamine
Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 1 out of 11 outside limits
Spike Recovery: 2 out of 22 outside limits

COMMENTS: _____

E. Form IV

Method Blank Results

Form IV, Form I, and Form I - TIC

Method blank summary, OADS, and TICs

- All blanks by fraction (VOA, SV, PEST) -

- By analysis date & time within each fraction -

4B
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLKLD

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Lab File ID: GH085412A68 Lab Sample ID: 885412

Instrument ID: 5972HP68 Date Extracted: 03/19/98

Matrix: (soil/water) WATER Date Analyzed: 03/21/98

Level:(low/med) LOW Time Analyzed: 0420

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	POLY-1	885401	GH085401A68	03/21/98
02	PVC-1	885405	GH085405A68	03/21/98
03	PVC-1MS	885402	GH085402A68	03/21/98
04	PVC-1MSD	885403	GH085403A68	03/21/98
05	BLANK-1	885404	GH085404A68	03/21/98
06	PVC-1DL	885405	GJD85405B68	03/21/98
07				
08				
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COMMENTS:

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKLD

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885412

Sample wt/vol: 1000 (g/mL) mL Lab File ID: GH085412A68

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 1000(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKLD

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885412

Sample wt/vol: 1000 (g/mL) mL Lab File ID: GH085412A68

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 1000(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	12	
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLKLD

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885412

Sample wt/vol: 1000 (g/mL) mL Lab File ID: GH085412A68

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 1000(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 5

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CYCLOHEXENOL (BC)	6.24	6	J
2. 108-94-1	CYCLOHEXANONE	6.37	27	NJ
3.	CYCLOHEXENONE (BC)	6.89	9	J
4.	UNKNOWN (BC)	9.71	2	J
5.	UNKNOWN (BC)	22.21	14	J
6.				
7.				
8.				
9.				
10.				
11.				
12.				
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30.				

F. Form VIII

Internal standard area and retention time data

- By fraction (VOA and SV only) -

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Lab File ID (Standard): HG980320B68 Date Analyzed: 03/20/98

Instrument ID: 5972HP68 Time Analyzed: 2032

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	675530	8.05	2223321	10.21	1089608	13.33
	UPPER LIMIT	1351060	8.55	4446642	10.71	2179216	13.83
	LOWER LIMIT	337765	7.55	1111660	9.71	544804	12.83
	EPA SAMPLE NO.						
01	SBLKLD	539041	8.03	1883271	10.21	926296	13.33
02							
03							
04							
05							
06							
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19							
20							
21							
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: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Lab File ID (Standard): HG980320B68 Date Analyzed: 03/20/98

Instrument ID: 5972HP68 Time Analyzed: 2032

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	1643440	16.02	1111672	20.79	1108091	24.08
	UPPER LIMIT	3286880	16.52	2223344	21.29	2216182	24.58
	LOWER LIMIT	821720	15.52	555836	20.29	554046	23.58
	EPA SAMPLE NO.						
01	SBLKLD	1281058	16.02	906629	20.77	938247	24.06
02							
03							
04							
05							
06							
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20							
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.

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Lab File ID (Standard): HG980321A68 Date Analyzed: 03/21/98

Instrument ID: 5972HP68 Time Analyzed: 0807

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	581091	8.04	1893064	10.21	831217	13.32
	UPPER LIMIT	1162182	8.54	3786128	10.71	1662434	13.82
	LOWER LIMIT	290546	7.54	946532	9.71	415608	12.82
	EPA SAMPLE NO.						
01	POLY-1	827874	8.03	3069775	10.19	1626529	13.33
02	PVC-1	814469	8.04	2938980	10.21	1521042	13.32
03	PVC-1MS	804749	8.05	2603221	10.21	979225	13.33
04	PVC-1MSD	657404	8.04	2041522	10.21	916764	13.32
05	BLANK-1	725921	8.03	2686530	10.21	1417148	13.33
06							
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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: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Lab File ID (Standard): HG980321A68 Date Analyzed: 03/21/98

Instrument ID: 5972HP68 Time Analyzed: 0807

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	1243774	16.01	865562	20.79	939440	24.07
	UPPER LIMIT	2487548	16.51	1731124	21.29	1878880	24.57
	LOWER LIMIT	621887	15.51	432781	20.29	469720	23.57
	EPA SAMPLE NO.						
01	POLY-1	2452228	16.02	1456510	20.78	1251309	24.06
02	PVC-1	1969009	16.01	1435590	20.79	1361415	24.07
03	PVC-1MS	1184945	16.02	900341	20.78	981731	24.08
04	PVC-1MSD	1235164	16.01	881128	20.79	963921	24.07
05	BLANK-1	1956449	16.02	1110197	20.77	1007140	24.06
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20							
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.

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Lab File ID (Standard): HG980321B68 Date Analyzed: 03/21/98

Instrument ID: 5972HP68 Time Analyzed: 2105

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	904871	8.04	3354056	10.21	1735842	13.32
	UPPER LIMIT	1809742	8.54	6708112	10.71	3471684	13.82
	LOWER LIMIT	452436	7.54	1677028	9.71	867921	12.82
	EPA SAMPLE NO.						
01	PVC-1DL	820545	8.03	2887695	10.21	1460368	13.33
02							
03							
04							
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20							
21							
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: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Lab File ID (Standard): HG980321B68 Date Analyzed: 03/21/98

Instrument ID: 5972HP68 Time Analyzed: 2105

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	2140803	16.01	1401756	20.79	1193673	24.07
	UPPER LIMIT	4281606	16.51	2803512	21.29	2387346	24.57
	LOWER LIMIT	1070402	15.51	700878	20.29	596836	23.57
	EPA SAMPLE NO.						
01	PVC-1DL	1979280	16.02	1154094	20.77	1055521	24.06
02							
03							
04							
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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.

CompuChem Environmental

I. SAMPLE DATA PACKAGE

DOCUMENT OLM03.2

The sample data package shall include data for all analyses of all samples in one Sample Delivery Group (SDG), including field samples, dilutions, reanalyses, blanks, matrix spikes, and matrix spike duplicates. The sample data package consists of the following:

A. SDG Narrative

B. Chain-of-Custodies

C. Volatile Data

D. Semivolatile Data

E. Pesticide / Aroclor Data

LAB CODE : COMPU

CONTRACT # : OLM03-REVS

CASE # : 33472

SDG # : NWTT1

A. SDG Narrative

COMPUCHEM
A division of Liberty Analytical Corporation
501 Madison Ave.
Cary, NC 27513

SDG NARRATIVE

CASE #33472
SDG #MWTT1
CONTRACT #OLM03-REVS

SAMPLES: BLANK-1, POLY-1, PVC-1

The three (3) water samples listed above were received intact, properly refrigerated, with proper documentation, in a sealed shipping container, on March 18, 1998. The samples were scheduled for the requested analyses of the semivolatile fractions. These samples were analyzed following the 3/90 Statement of Work (SOW) (document OLM03.2) protocol.

All pertinent Quality Assurance notices are included in the narrative section and all pertinent Laboratory notices for Case #33472, SDG # MWTT1 are included in the sample data sections.

SEMIVOLATILE
The semivolatile fractions were extracted and analyzed within the required holding time. Two Target Compound List (TCL) analytes were detected with concentrations above the Contract Required Quantitation Limit (CRQL) in sample PVC-1. These analytes were phenol and bis(2-ethylhexyl)phthalate.

In the analysis of sample PVC-1, the amount of phenol exceeded the instrument's upper analytical range as defined by the highest level standard in the Initial Calibration. The sample was reanalyzed at a 1 in 7 dilution in order to bring the amount within the range. The undiluted and diluted analyses are reported.

Twelve to twenty-four Tentatively Identified Compounds (TIC) were detected in the samples. These TICs were assessed as cyclohexanol, unknowns, substituted phenols, trichloropropene, cyclohexanediol, unknown carboxylic acids, cyclohexenone, acetophenone, unknown acid ester, substituted ethanol and substituted ethanone.

Other TICs were detected and assessed as unknown alkanes in the associated method blank. The TICs that were characterized as alkanes have been summarized on the Form 1FAs that are located in the narrative section of the data package. The TIC spectra for the alkanes are located in the data section for the individual samples.

QC SUMMARY
The surrogates met recovery criteria for the semivolatile fractions. The duplicate matrix spikes met recovery and relative percent difference criteria, with some exceptions. The recoveries of phenol failed acceptance criteria in the MS and MSD. The relative percent difference value for phenol also failed acceptance criteria in the comparison of the duplicate matrix spikes.

GC and GC/MS Column and Trap Specifications Table

COLUMNS

Brand Name	Coating Material	ID (mm)	Film Thickness (um)	Length (m)
GC Laboratory				
Restek	RTX-1701	0.53	0.5	30
J & W	DB-608	0.53	0.83	30
GC/MS Volatiles Laboratory				
J & W	DB-624	0.53	3.0	30/75
Supelco	SPB-624	0.53	3.0	75
GC/MS Semivolatiles Laboratory				
J & W	DB-5	0.32	1.0	30

TRAP

GC/MS Volatiles Laboratory	
	* 15 cm of 2,6-diphenylene oxide polymer (Tenax) * 1 cm of methyl silicone packing (OV-1 coating) * 8 cm of silica gel * 0.5 cm of glass wool at each end

DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL), or reporting limit, will be adjusted to reflect any dilution and, for soils, the percent moisture.

J : This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1.0 is assumed for the TIC analyte.

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL but greater than zero, and

3. When the retention time data indicate the presence of a compound that meets the pesticide/Aroclor or other GC or HPLC identification criteria, and the result is less than the CRQL but greater than zero. For example, if the sample quantitation limit is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search. For generic characterization of a TIC such as 'chlorinated hydrocarbon', the N flag is not used.

P : This flag is used for a pesticide/Aroclor target analyte, and other GC or HPLC analytes, when there is greater than 25% difference for detected concentrations between the two GC or HPLC columns. The lower of the two values is reported on Form I and flagged with a P.

C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X,Y,Z qualifier.)

DATA REPORTING QUALIFIERS (continued)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a response greater than the upper level of the calibration range will have the concentration flagged with an E on Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL and the U flag.

NOTE 2: Separate Form Is are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses <u>are not combined</u> on a single Form I.

A : This flag indicates that a TIC is a suspected aldol-condensation product.

X Y Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y and Z.

CompuChem

a division of Liberty Analytical Corporation

CompuChem's Pagination Convention

As required by the current EPA CLP Statement of Work (SOW) (Document Number OLM03.0, plus revisions), data to be delivered must be paginated (by machine or hand). In the event that the initial numbering is incorrect (a page numbered twice or a page skipped, for example), it is CompuChem's policy to add in an alphabetic suffix to a page number when necessary (e.g., 100A, 100B, etc.).

Form DC-2 presents an inventory of the contents of the CSF, including the page number locations for the indexed items. There are concurrent delivery requirements for the Sample Data Packages and the CSF. Because of this and the time required for the final technical review process, we have instituted a policy to expedite assembly of the CSF. Items 2-6 on the Organic Form DC-2 and items 2-26 on the Inorganic Form DC-2 contain those items which are part of the Sample Data Packages. Those items will be paginated in ascending order. However, while Sample Data Packages receive a final technical review, items 7-10 on the Organic Form DC-2 and items 27-32 on the Inorganic Form DC-2 will be assembled and paginated. The first page number for the first entry for item 7 on the Organic Form DC-2 and for item 27 on the Inorganic Form DC-2 will always begin with page number 10,000.

Notification Regarding Manual Editing/Integration Flags

In some instances, manual adjustments to the software output are necessary to provide accurate data. These adjustments are performed by the data reviewer, GC MS operator, or GC chemist. An Extracted Ion Current Profile (EICP) or a GC chromatographic peak has been provided for the manual integration of each compound to demonstrate the accuracy of that process. Adjustments are flagged on the quantitation report in the far right column beyond the FINAL concentration for GC MS analysis, and in the "Flags" column for GC analysis. The manual editing integration flags are:

M - Denotes that a manual integration has been performed for this compound. The manual integration was performed in order to provide the most accurate area count as possible for the peak.

H - Denotes that the data reviewer, GC MS operator, or GC Chemist has chosen an alternate peak within the retention time window from that chosen by the software for that compound. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

MH - Denotes that an alternate peak has been chosen within the retention time window from that chosen by the software for that compound and also a manual integration of the chosen peak has been performed. The manual integration was performed in order to provide the most accurate area count possible for the peak.

L - Denotes that the data reviewer or GC MS operator has selected an alternate library search. This is typically done when an additional tentatively identified compound (TIC) has been added to the number of peaks searched. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

ML - Denotes that an alternate library search has been selected and a manual integration has also been performed. This is typically done when an additional TIC has been added and the TIC peak also required a manual integration.

With the introduction of the current EPA CLP SOW (Document Number OLM03.0, plus revisions) additional explanations for manual editing integration are required. In the accompanying raw data packages, additional codes have been applied to the "M" flag and carry the following meanings:

M1 - The compound was not found by the automatic integration routine.

M2 - The compound was incorrectly integrated by the automatic integration routine.

M3 - The co-eluting compounds were incorrectly integrated by the automatic integration routine.

These codes will appear in the GC MS and GC data packages

Robert E. Meierer

Robert E. Meierer
Vice President

Revision 4 (10 8 97)

Quality Assurance Notice

The EPA CLP SOW (Document Number OLM03.0, plus revisions) requires, for tentatively identified compound (TIC) assessment, that certain items should not be reported. These include, for volatile organics, carbon dioxide and semivolatile TCL analytes and, for semivolatile organics, volatile organics listed in Exhibit C.

In order to assist the data review validation process by our clients, if we detect carbon dioxide or semivolatile TCL analytes at or above 10% of the closest internal standard we will report them on the Form I VOA-TIC but not include them as part of the thirty (30) TICs required. Similarly, if we detect volatile TCL analytes from Exhibit C at or above 10% of the closest internal standard during the TIC assessment of the semivolatile analysis, we will report them on the Form I SV-TIC but not include them as part of the thirty (30) TICs required. The library search raw data for these TICs are also included. The total number of TICs listed on the Form I in the Number of TICs field will include these items.

We feel this approach will aid the data review validation process by our clients, since we will be accounting for all peaks required to be searched as well as any other comparably sized peaks present on the reconstructed ion chromatogram (RIC).

Robert E. Meierer

Robert E. Meierer
Vice President

B. Chain-of-Custodies

The laboratory shall include a copy of the Chain-of-Custodies (CoCs) for all of the samples in the SDG. The CoCs shall be arranged in increasing Client Sample ID number order, considering both letters and numbers.

D. Semivolatile Data

1. Q C Summary
2. Sample Data
3. Standards Data
4. Raw Q C Data

LAB CODE : COMPU

CONTRACT # : OLM03-REVS

CASE # : 33472

SDG # : MWTT1

1. Q C Summary

a. Surrogate Percent Recovery Summary (Form II SV)

b. Matrix Spike/Matrix Spike Duplicate Summary (Form III SV)

c. Method Blank Summary (Form IV SV)

d. GC/MS Instrument Performance Check (Form V SV)

e. Internal Standard Area and RT Summary (Form VIII SV)

a. Surrogate Percent Recovery Summary

(Form II SV)

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
01	SBLKLD	75	69	90	69	65	69	70	47	0
02	POLY-1	82	71	99	82	66	72	77	46	0
03	PVC-1	84	72	100	77	61	84	75	66	0
04	PVC-1MS	78	82	84	65	57	84	70	63	0
05	PVC-1MSD	69	64	70	52	50	73	58	54	0
06	BLANK-1	82	70	114	82	66	77	76	71	0
07	PVC-1DL	77	67	90	66	62	61	68	60	0
08										
09										
10										
11										
12										
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29										
30										

		QC LIMITS	
S1 (NBZ)	= Nitrobenzene-d5	(35-114)	
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)	
S3 (TPH)	= Terphenyl-d14	(33-141)	
S4 (PHL)	= Phenol-d5	(10-110)	
S5 (2FP)	= 2-Fluorophenol	(21-110)	
S6 (TBP)	= 2,4,6-Tribromophenol	(10-123)	
S7 (2CP)	= 2-Chlorophenol-d4	(33-110)	(advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(16-110)	(advisory)

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

b. Matrix Spike/Matrix Spike Duplicate Summary
(Form III SV)

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix Spike - EPA Sample No.: PVC-1

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Phenol	75.00	381.3	365.2	-21*	12-110
2-Chlorophenol	75.00	0.000	48.96	65	27-123
1,4-Dichlorobenzene	50.00	0.000	28.92	58	36- 97
N-Nitroso-di-n-prop.(1)	50.00	0.000	37.94	76	41-116
1,2,4-Trichlorobenzene	50.00	0.000	31.25	62	39- 98
4-Chloro-3-methylphenol	75.00	0.000	45.51	61	23- 97
Acenaphthene	50.00	0.000	38.17	76	46-118
4-Nitrophenol	75.00	0.000	46.71	62	10- 80
2,4-Dinitrotoluene	50.00	0.000	33.44	67	24- 96
Pentachlorophenol	75.00	0.000	64.56	86	9-103
Pyrene	50.00	0.000	30.69	61	26-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	75.00	530.2	198*	247*	42	12-110
2-Chlorophenol	75.00	43.51	58	11	40	27-123
1,4-Dichlorobenzene	50.00	26.77	54	7	28	36- 97
N-Nitroso-di-n-prop.(1)	50.00	31.06	62	20	38	41-116
1,2,4-Trichlorobenzene	50.00	29.16	58	7	28	39- 98
4-Chloro-3-methylphenol	75.00	48.21	64	5	42	23- 97
Acenaphthene	50.00	33.99	68	11	31	46-118
4-Nitrophenol	75.00	51.39	68	9	50	10- 80
2,4-Dinitrotoluene	50.00	34.27	68	1	38	24- 96
Pentachlorophenol	75.00	56.17	75	14	50	9-103
Pyrene	50.00	29.41	59	3	31	26-127

(1) N-Nitroso-di-n-propylamine
Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 1 out of 11 outside limits
Spike Recovery: 2 out of 22 outside limits

COMMENTS: _____

c. Method Blank Summary (Form IV SV)

If more than a single form is necessary, forms shall be arranged in chronological order by date of analysis of the blanks and by instrument.

4B
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLKLD

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Lab File ID: GH085412A68 Lab Sample ID: 885412

Instrument ID: 5972HP68 Date Extracted: 03/19/98

Matrix: (soil/water) WATER Date Analyzed: 03/21/98

Level:(low/med) LOW Time Analyzed: 0420

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	POLY-1	885401	GH085401A68	03/21/98
02	PVC-1	885405	GH085405A68	03/21/98
03	PVC-1MS	885402	GH085402A68	03/21/98
04	PVC-1MSD	885403	GH085403A68	03/21/98
05	BLANK-1	885404	GH085404A68	03/21/98
06	PVC-1DL	885405	GJD85405B68	03/21/98
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30				

COMMENTS:

d. GC/MS Instrument Performance Check (Form V SV)

If more than a single form is necessary, forms shall be arranged in chronological order, by instrument.

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Lab File ID: DF980319B68 DFTPP Injection Date: 03/19/98

Instrument ID: 5972HP68 DFTPP Injection Time: 2059

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	38.0
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	54.1
70	Less than 2.0% of mass 69	0.4 (0.7)1
127	25.0 - 75.0% of mass 198	53.0
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	7.0
275	10.0 - 30.0% of mass 198	22.0
365	Greater than 0.75% of mass 198	3.36
441	Present, but less than mass 443	8.4
442	40.0 - 110.0% of mass 198	58.5
443	15.0 - 24.0% of mass 442	11.4 (19.4)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	SSTD050W6	SSTD050W6	HG980319B68	03/19/98	2124
02	SSTD160W6	SSTD160W6	HH980319B68	03/19/98	2210
03	SSTD120W6	SSTD120W6	HJ980319B68	03/19/98	2338
04	SSTD020W6	SSTD020W6	HK980320C68	03/20/98	0021
05	SSTD080W6	SSTD080W6	HL980320C68	03/20/98	0210
06					
07					
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5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Lab File ID: DF980320B68 DFTPP Injection Date: 03/20/98

Instrument ID: 5972HP68 DFTPP Injection Time: 2010

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	35.3
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	50.7
70	Less than 2.0% of mass 69	0.3 (0.7)1
127	25.0 - 75.0% of mass 198	52.0
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	7.1
275	10.0 - 30.0% of mass 198	23.8
365	Greater than 0.75% of mass 198	3.36
441	Present, but less than mass 443	11.0
442	40.0 - 110.0% of mass 198	67.7
443	15.0 - 24.0% of mass 442	13.1 (19.4)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	SSTD050T2	SSTD050T2	HG980320B68	03/20/98	2032
02	SBLKLD	885412	GH085412A68	03/21/98	0420
03					
04					
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5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Lab File ID: DF980321A68 DFTPP Injection Date: 03/21/98

Instrument ID: 5972HP68 DFTPP Injection Time: 0745

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	37.3
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	53.9
70	Less than 2.0% of mass 69	0.2 (0.4)1
127	25.0 - 75.0% of mass 198	50.6
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	6.4
275	10.0 - 30.0% of mass 198	20.7
365	Greater than 0.75% of mass 198	2.64
441	Present, but less than mass 443	10.8
442	40.0 - 110.0% of mass 198	65.1
443	15.0 - 24.0% of mass 442	12.5 (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	SSTD050DU	SSTD050DU	HG980321A68	03/21/98	0807
02	POLY-1	885401	GH085401A68	03/21/98	0932
03	PVC-1	885405	GH085405A68	03/21/98	1014
04	PVC-1MS	885402	GH085402A68	03/21/98	1057
05	PVC-1MSD	885403	GH085403A68	03/21/98	1140
06	BLANK-1	885404	GH085404A68	03/21/98	1222
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5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Lab File ID: DF980321B68 DFTPP Injection Date: 03/21/98

Instrument ID: 5972HP68 DFTPP Injection Time: 2044

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	40.7
68	Less than 2.0% of mass 69	0.4 (0.6)1
69	Mass 69 relative abundance	58.6
70	Less than 2.0% of mass 69	0.1 (0.2)1
127	25.0 - 75.0% of mass 198	52.5
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	6.2
275	10.0 - 30.0% of mass 198	22.2
365	Greater than 0.75% of mass 198	4.04
441	Present, but less than mass 443	8.4
442	40.0 - 110.0% of mass 198	59.7
443	15.0 - 24.0% of mass 442	12.1 (20.2)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	SSTD050TW	SSTD050TW	HG980321B68	03/21/98	2105
02	PVC-1DL	885405	GJD85405B68	03/21/98	2355
03					
04					
05					
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e. Internal Standard Area and RT Summary (Form VIII SV)

If more than a single form is necessary, forms shall be arranged in chronological order, by instrument.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Lab File ID (Standard): HG980320B68 Date Analyzed: 03/20/98

Instrument ID: 5972HP68 Time Analyzed: 2032

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	675530	8.05	2223321	10.21	1089608	13.33
	UPPER LIMIT	1351060	8.55	4446642	10.71	2179216	13.83
	LOWER LIMIT	337765	7.55	1111660	9.71	544804	12.83
	EPA SAMPLE NO.						
01	SBLKLD	539041	8.03	1883271	10.21	926296	13.33
02							
03							
04							
05							
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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: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Lab File ID (Standard): HG980320B68 Date Analyzed: 03/20/98

Instrument ID: 5972HP68 Time Analyzed: 2032

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	1643440	16.02	1111672	20.79	1108091	24.08
	UPPER LIMIT	3286880	16.52	2223344	21.29	2216182	24.58
	LOWER LIMIT	821720	15.52	555836	20.29	554046	23.58
	EPA SAMPLE NO.						
01	SBLKLD	1281058	16.02	906629	20.77	938247	24.06
02							
03							
04							
05							
06							
07							
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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.

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Lab File ID (Standard): HG980321A68 Date Analyzed: 03/21/98

Instrument ID: 5972HP68 Time Analyzed: 0807

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	581091	8.04	1893064	10.21	831217	13.32
	UPPER LIMIT	1162182	8.54	3786128	10.71	1662434	13.82
	LOWER LIMIT	290546	7.54	946532	9.71	415608	12.82
	EPA SAMPLE NO.						
01	POLY-1	827874	8.03	3069775	10.19	1626529	13.33
02	PVC-1	814469	8.04	2938980	10.21	1521042	13.32
03	PVC-1MS	804749	8.05	2603221	10.21	979225	13.33
04	PVC-1MSD	657404	8.04	2041522	10.21	916764	13.32
05	BLANK-1	725921	8.03	2686530	10.21	1417148	13.33
06							
07							
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21							
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: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Lab File ID (Standard): HG980321A68 Date Analyzed: 03/21/98

Instrument ID: 5972HP68 Time Analyzed: 0807

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	1243774	16 01	865562	20.79	939440	24.07
	UPPER LIMIT	2487548	16.51	1731124	21.29	1878880	24.57
	LOWER LIMIT	621887	15.51	432781	20.29	469720	23.57
	EPA SAMPLE NO.						
01	POLY-1	2452228	16.02	1456510	20.78	1251309	24.06
02	PVC-1	1969009	16.01	1435590	20.79	1361415	24.07
03	PVC-1MS	1184945	16.02	900341	20.78	981731	24.08
04	PVC-1MSD	1235164	16.01	881128	20.79	963921	24.07
05	BLANK-1	1956449	16.02	1110197	20.77	1007140	24.06
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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.

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Lab File ID (Standard): HG980321B68 Date Analyzed: 03/21/98

Instrument ID: 5972HP68 Time Analyzed: 2105

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	904871	8.04	3354056	10.21	1735842	13.32
	UPPER LIMIT	1809742	8.54	6708112	10.71	3471684	13.82
	LOWER LIMIT	452436	7.54	1677028	9.71	867921	12.82
	EPA SAMPLE NO.						
01	PVC-1DL	820545	8.03	2887695	10.21	1460368	13.33
02							
03							
04							
05							
06							
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19							
20							
21							
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: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Lab File ID (Standard): HG980321B68 Date Analyzed: 03/21/98

Instrument ID: 5972HP68 Time Analyzed: 2105

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	2140803	16.01	1401756	20.79	1193673	24.07
	UPPER LIMIT	4281606	16.51	2803512	21.29	2387346	24.57
	LOWER LIMIT	1070402	15.51	700878	20.29	596836	23.57
	EPA SAMPLE NO.						
01	PVC-1DL	1979280	16.02	1154094	20.77	1055521	24.06
02							
03							
04							
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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.

2. Sample Data

Sample date shall be arranged in packets with the Organic Analysis Data Sheet (Form I SV-1, SV-2, and Form I SV-TIC), followed by the raw data for semivolatile samples. These sample packets shall be placed in increasing Client Sample ID number order, considering both letters and numbers.

a. Target Compound List (TCL) Analyte Results (Form I SV-1, SV-2)
Tabulated results (identification and quantitation) shall be included.

b. Tentatively Identified Compounds (Form I SV-TIC)
Lists up to 30 organic compounds that are non-surrogate/non-internal standard compounds and are not listed on the target compound list. This form shall be included even if no compounds are found.

c. Reconstructed Total Ion Chromatograms
Include for each sample or sample extract, including dilutions and reanalyses. The RIC shall contain the following header information: Client Sample ID number, date and time of analysis, GC/MS instrument identifier, lab file identifier, and analyst ID.

d. Quantitation Report showing calculations for TCL analytes
- Include a printout of the EICP for all manual changes to all compounds, internal standards, and surrogate compounds.

e. Copies of raw spectra and copies of background-subtracted mass spectra of TCL analytes identified in the sample.
- The spectra shall include the following information: Client Sample ID number, Lab file ID, date and time of analysis, and instrument ID.
- The compound name must be clearly marked.

f. Quantitation Report showing calculations for TICs

g. Copies of mass spectra of organic compounds not listed on the target compound list (TICs) with associated best-match spectra.
Spectra shall be labeled as follows: Client Sample ID number, lab file ID, date and time of analysis, and instrument ID. The compound name must be clearly marked.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BLANK-1

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885404

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085404A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BLANK-1

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885404

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085404A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	JB
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BLANK-1

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885404

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085404A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 12

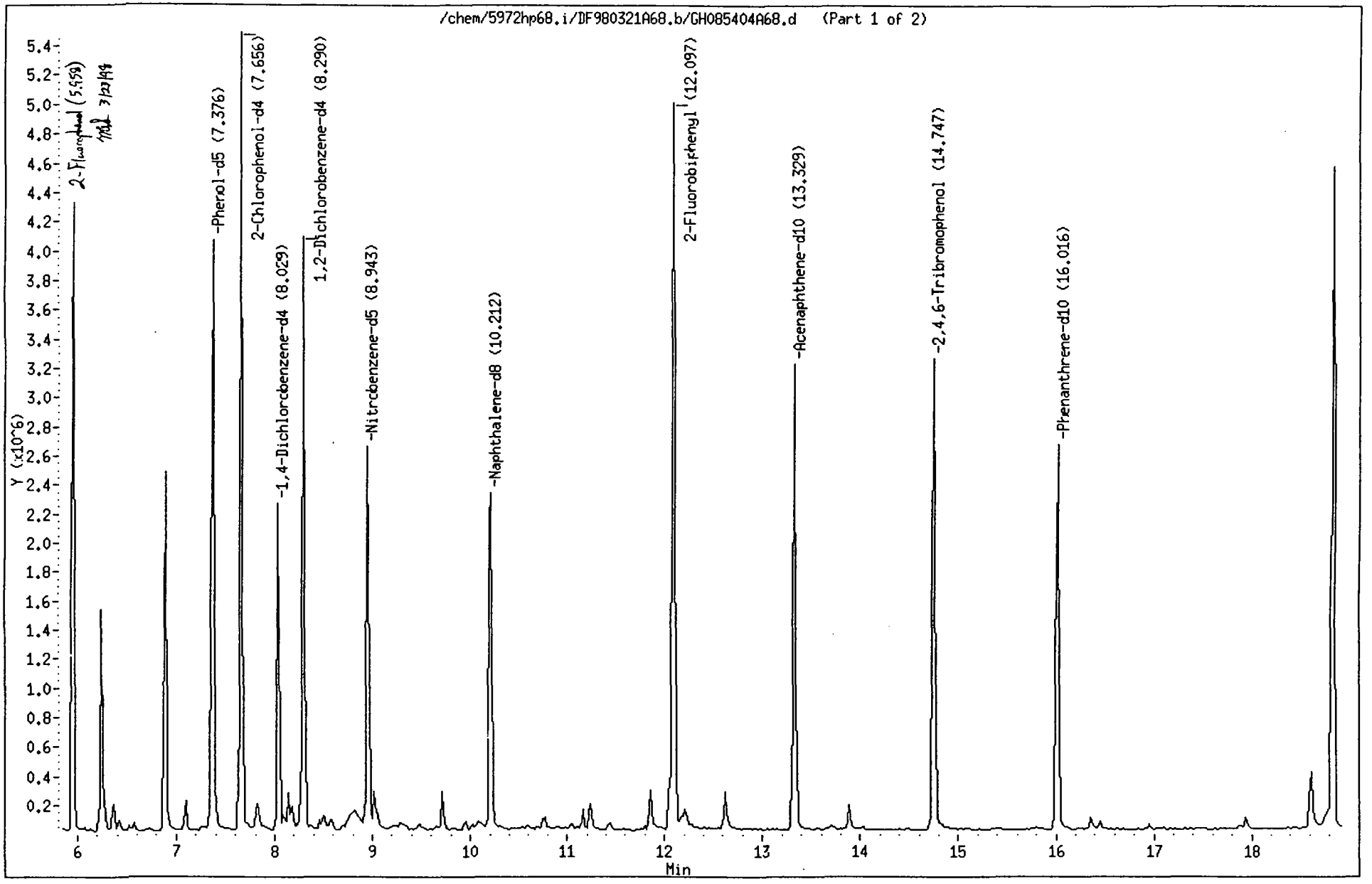
CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CYCLOHEXENOL (BC)	6.24	12	JB
2.	CYCLOHEXENONE (BC)	6.89	22	JB
3. 533-60-8	CYCLOHEXANONE, 2-HYDROXY-	7.82	3	NJ
4.	UNKNOWN	8.14	4	J
5.	UNKNOWN	8.50	2	J
6.	CYCLOHEXANEDIOL	8.81	5	J
7.	UNKNOWN	9.06	3	J
8.	UNKNOWN	11.85	3	J
9.	UNKNOWN	12.21	2	J
10. 99-93-4	ACETOPHENONE, 4'-HYDROXY-	12.62	2	NJ
11. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYLI	18.61	6	NJ
12.	UNKNOWN (BC)	22.21	10	JB
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Data File: /chem/5972hp68.i/DF980321A68.b/GH085404A68.d
Date : 21-MAR-1998 12:22
Client ID: BLANK-1
Sample Info:
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

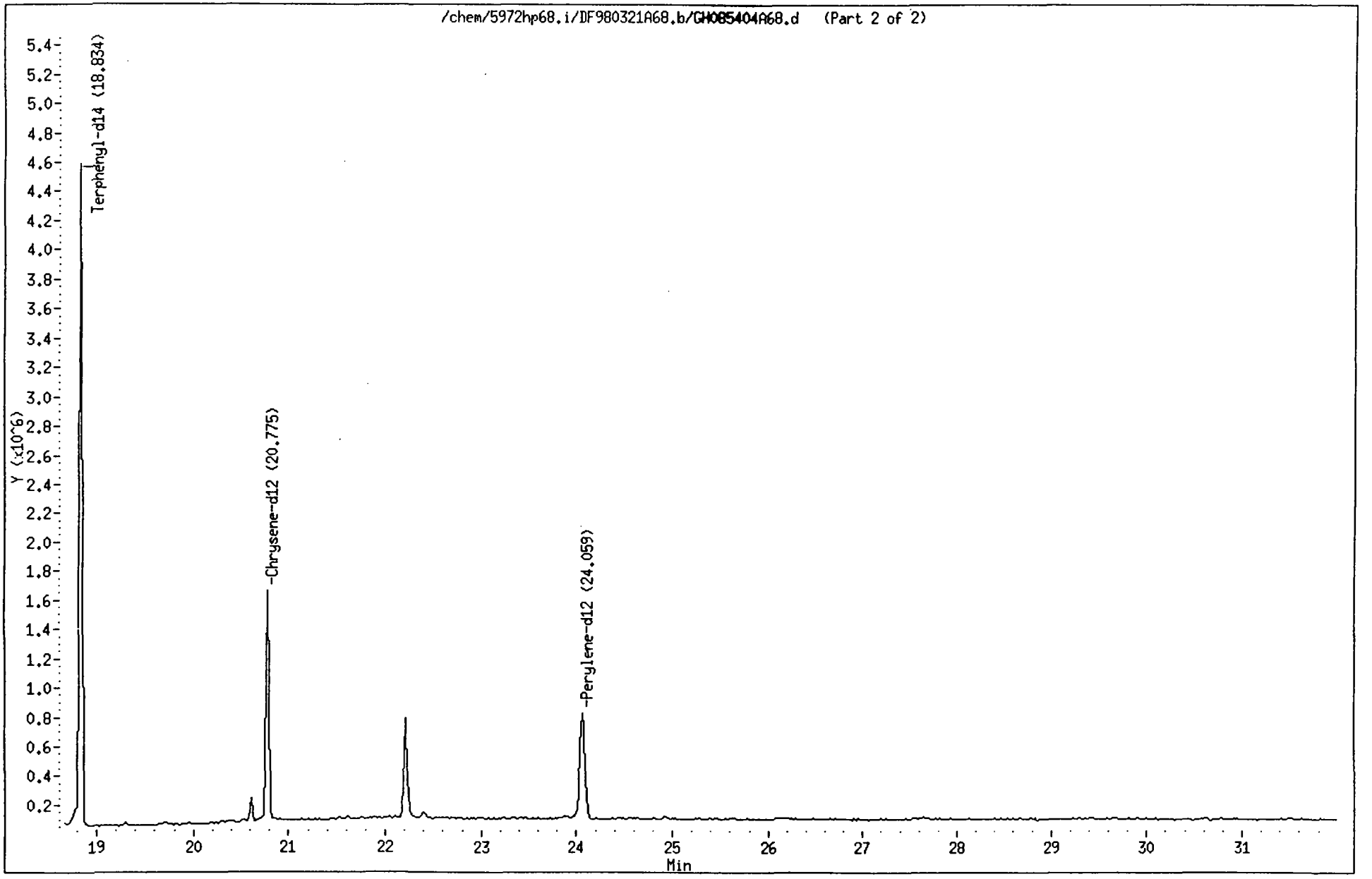
Operator: 2242
Column diameter: 0.32



Data File: /chem/5972hp68.i/DF980321A68.b/GH085404A68.d
Date : 21-MAR-1998 12:22
Client ID: BLANK-1
Sample Info:
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32



Data File: /chem/5972hp68.i/DF980321A68.b/GH085404A68.d
Report Date: 23-Mar-1998 09:57

CompuChem Environmental Corp.

OLM03.0 + REVISIONS QUANT AND RATIO REPORT

Data file : /chem/5972hp68.i/DF980321A68.b/GH085404A68.d
Lab Smp Id: 885404 Client Smp ID: BLANK-1
Inj Date : 21-MAR-1998 12:22
Operator : 2242 Inst ID: 5972hp68.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp68.i/DF980321A68.b/OLM03.m
Meth Date : 23-Mar-1998 09:00 mss Quant Type: ISTD
Cal Date : 21-MAR-98 08:07 Cal File: HG980321A68.d
Als bottle: 8
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.12
Concentration Formula: Vt/(Vo * Vi)

Name	Value	Description
Vt	500.000	Volume of final extract (uL)
Vo	500.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152.00	8.029	8.042	(1.000)	725921	40.00		
* 2 Naphthalene-d8	136.00	10.212	10.206	(1.000)	2686530	40.00		8398
* 3 Acenaphthene-d10	164.00	13.329	13.323	(1.000)	1417148	40.00		9292
* 4 Phenanthrene-d10	188.00	16.016	16.010	(1.000)	1956449	40.00		9383
* 5 Chrysene-d12	240.00	20.775	20.788	(1.000)	1110197	40.00		9672
* 6 Perylene-d12	264.00	24.059	24.072	(1.000)	1007140	40.00		8603
$ 7 2-Fluorophenol	112.00	5.958	5.952	(0.742)	2369413	99.40	49.70	
$ 8 Phenol-d5	99.00	7.376	7.370	(0.919)	3078106	123.3	61.63	8118
$ 9 2-Chlorophenol-d4	132.00	7.656	7.650	(0.954)	2705422	114.4	57.22	8861
$ 10 1,2-Dichlorobenzene-d4	152.00	8.290	8.303	(1.033)	1110134	70.71	35.35	(M)
$ 11 Nitrobenzene-d5	82.00	8.943	8.956	(0.876)	1663007	82.58	41.29	8734
$ 12 2-Fluorobiphenyl	172.00	12.097	12.091	(0.908)	3149479	69.54	34.77	8766
$ 13 2,4,6-Tribromophenol	329.60	14.747	14.741	(0.921)	827808	115.2	57.61	
$ 14 Terphenyl-d14	244.00	18.834	18.828	(0.907)	3294075	114.4	57.22	8814
15 Phenol	94.00		7.389	Compound Not Detected.				
16 bis(2-Chloroethyl)ether	93.00		7.575	Compound Not Detected.				
17 2-Chlorophenol	128.00		7.687	Compound Not Detected.				
18 1,3-Dichlorobenzene	146.00		7.948	Compound Not Detected.				
19 1,4-Dichlorobenzene	146.00		8.060	Compound Not Detected.				
20 1,2-Dichlorobenzene	146.00		8.322	Compound Not Detected.				
21 2-Methylphenol	108.00		8.378	Compound Not Detected.				

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3/23/98

Data File: /chem/5972hp68.i/DF980321A68.b/GH085404A68.d
Report Date: 23-Mar-1998 09:57

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY
22 2,2'-oxybis(1-Chloropropane)	45.00		8.452	Compound Not Detected.				
23 4-Methylphenol	108.00		8.639	Compound Not Detected.				
24 N-Nitroso-di-n-propylamine	70.00		8.658	Compound Not Detected.				
25 Hexachloroethane	117.00		8.900	Compound Not Detected.				
26 Nitrobenzene	77.00		8.975	Compound Not Detected.				
27 Isophorone	82.00		9.367	Compound Not Detected.				
28 2-Nitrophenol	139.00		9.535	Compound Not Detected.				
29 2,4-Dimethylphenol	107.00		9.553	Compound Not Detected.				
30 bis(2-Chloroethoxy)methane	93.00		9.721	Compound Not Detected.				
31 2,4-Dichlorophenol	162.00		9.927	Compound Not Detected.				
32 1,2,4-Trichlorobenzene	180.00		10.095	Compound Not Detected.				
33 Naphthalene	128.00		10.244	Compound Not Detected.				
34 4-Chloroaniline	127.00		10.300	Compound Not Detected.				
35 Hexachlorobutadiene	225.00		10.430	Compound Not Detected.				
36 4-Chloro-3-methylphenol	107.00		11.121	Compound Not Detected.				
37 2-Methylnaphthalene	142.00		11.457	Compound Not Detected.				
38 Hexachlorocyclopentadiene	237.00		11.737	Compound Not Detected.				
39 2,4,6-Trichlorophenol	196.00		11.942	Compound Not Detected.				
40 2,4,5-Trichlorophenol	196.00		11.998	Compound Not Detected.				
41 2-Chloronaphthalene	162.00		12.334	Compound Not Detected.				
42 2-Nitroaniline	65.00		12.483	Compound Not Detected.				
43 Dimethylphthalate	163.00		12.782	Compound Not Detected.				
44 2,6-Dinitrotoluene	165.00		12.912	Compound Not Detected.				
45 Acenaphthylene	152.00		13.080	Compound Not Detected.				
46 3-Nitroaniline	138.00		13.211	Compound Not Detected.				
47 Acenaphthene	153.00		13.398	Compound Not Detected.				
48 2,4-Dinitrophenol	184.00		13.416	Compound Not Detected.				
49 4-Nitrophenol	109.00		13.472	Compound Not Detected.				
50 2,4-Dinitrotoluene	165.00		13.640	Compound Not Detected.				
51 Dibenzofuran	168.00		13.696	Compound Not Detected.				
52 Diethylphthalate	149.00		14.032	Compound Not Detected.				
53 4-Chlorophenyl-phenylether	204.00		14.293	Compound Not Detected.				
54 Fluorene	166.00		14.312	Compound Not Detected.				
55 4-Nitroaniline	138.00		14.312	Compound Not Detected.				
56 4,6-Dinitro-2-methylphenol	198.00		14.368	Compound Not Detected.				
57 N-nitrosodiphenylamine	169.00		14.480	Compound Not Detected.				
58 4-Bromophenyl-phenylether	248.00		15.171	Compound Not Detected.				
59 Hexachlorobenzene	283.90		15.301	Compound Not Detected.				
60 Pentachlorophenol	266.00		15.656	Compound Not Detected.				
61 Phenanthrene	178.00		16.066	Compound Not Detected.				
62 Anthracene	178.00		16.160	Compound Not Detected.				
63 Carbazole	167.00		16.421	Compound Not Detected.				
64 Di-n-butylphthalate	149.00		16.962	Compound Not Detected.				
65 Fluoranthene	202.00		18.212	Compound Not Detected.				
66 Pyrene	202.00		18.623	Compound Not Detected.				
67 Butylbenzylphthalate	149.00		19.649	Compound Not Detected.				
68 3,3'-Dichlorobenzidine	252.00		20.657	Compound Not Detected.				
69 bis(2-Ethylhexyl)phthalate	149.00	20.607	20.620	(0.992)	82514	2.62	1.31	8420(a)
70 Benzo(a)anthracene	228.00		20.769	Compound Not Detected.				

Data File: /chem/5972hp68.i/DF980321A68.b/GH085404A68.d
Report Date: 23-Mar-1998 09:57

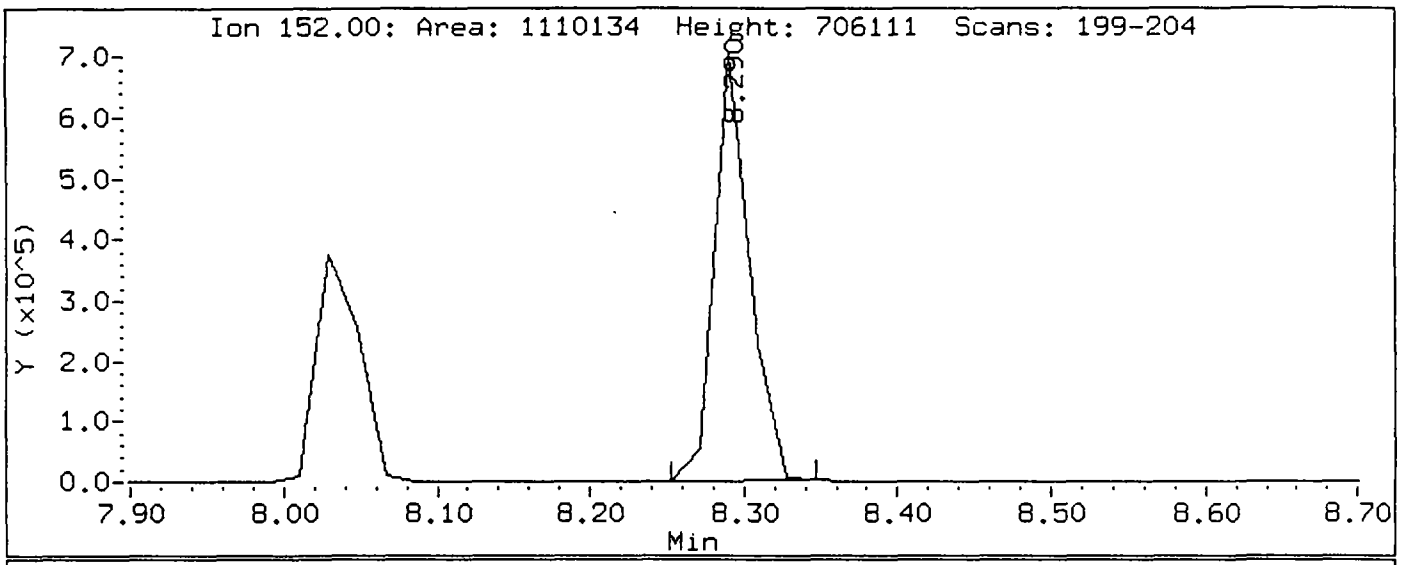
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY
71 Chrysene	228.00		20.825		Compound Not Detected.			
72 Di-n-octylphthalate	149.00		21.833		Compound Not Detected.			
73 Benzo(b)fluoranthene	252.00		23.027		Compound Not Detected.			
74 Benzo(k)fluoranthene	252.00		23.102		Compound Not Detected.			
75 Benzo(a)pyrene	252.00		23.923		Compound Not Detected.			
76 Indeno(1,2,3-cd)pyrene	276.00		27.674		Compound Not Detected.			
77 Dibenzo(a,h)anthracene	278.00		27.692		Compound Not Detected.			
78 Benzo(g,h,i)perylene	276.00		28.794		Compound Not Detected.			

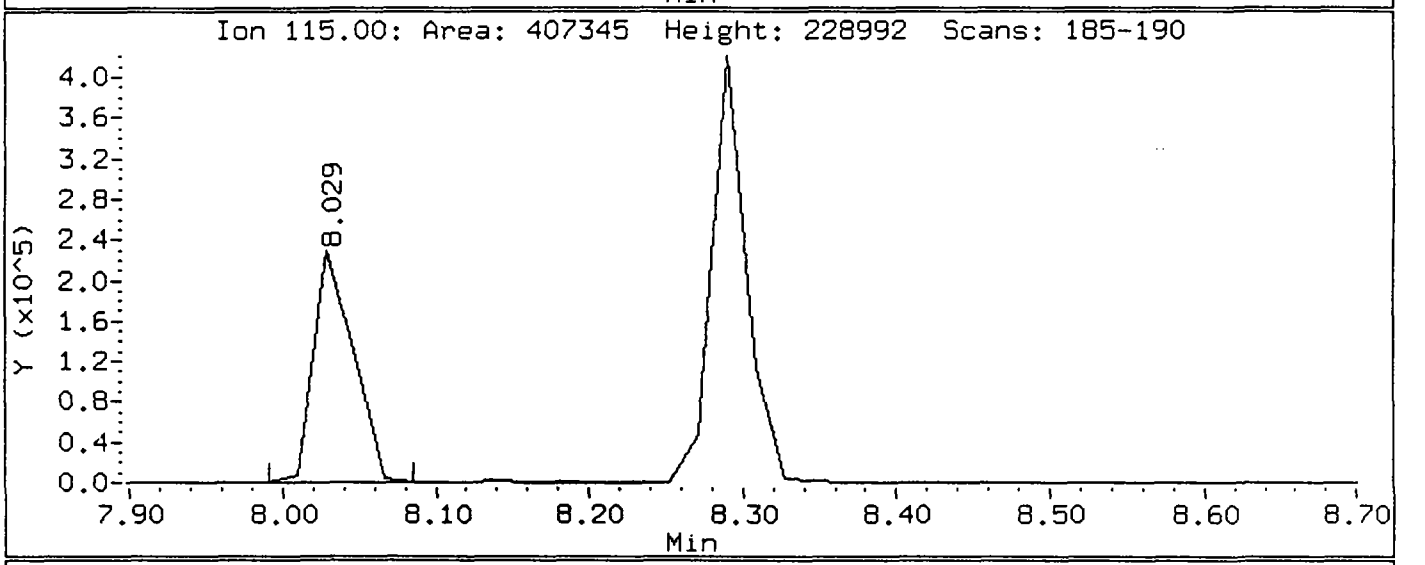
QC Flag Legend

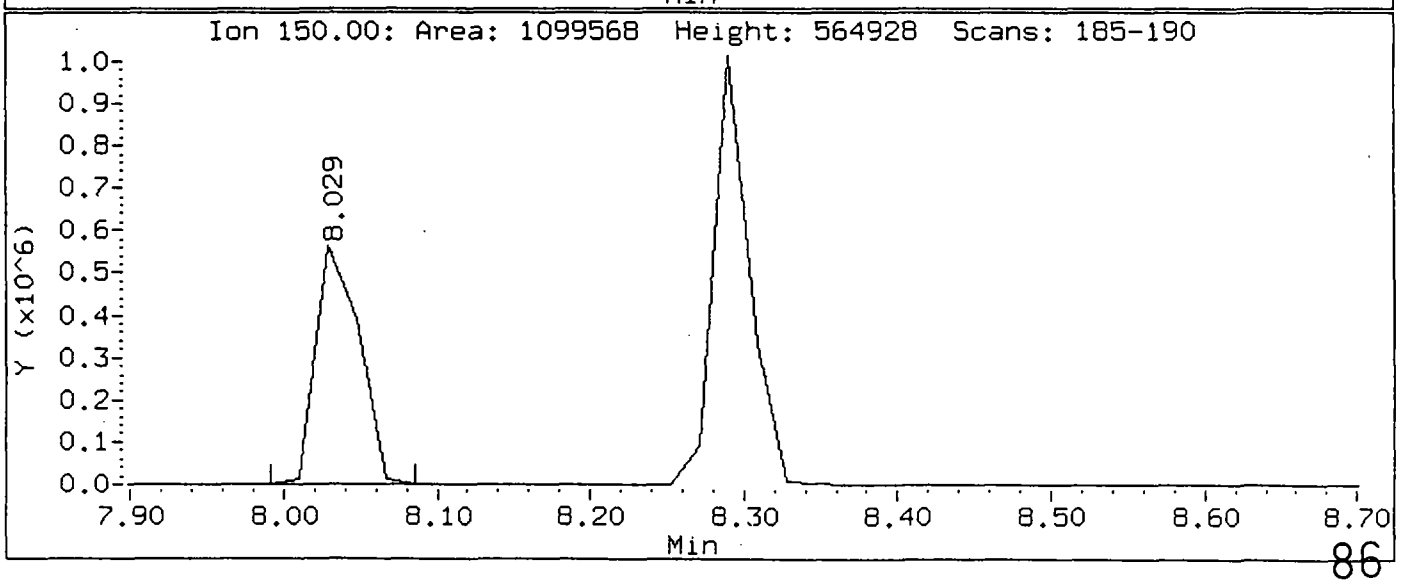
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/5972hp68.i/DF980321A68.b/GH085404A68.d
Injection Date: 21-MAR-98 12:22
Instrument: 5972hp68.i
Client Sample ID: BLANK-1

Compound: 1,2-Dichlorobenzene-d4
CAS Number: 2199-69-1







Data File: /chem/5972hp68.i/DF980321A68.b/GH085404A68.d

Date : 21-MAR-1998 12:22

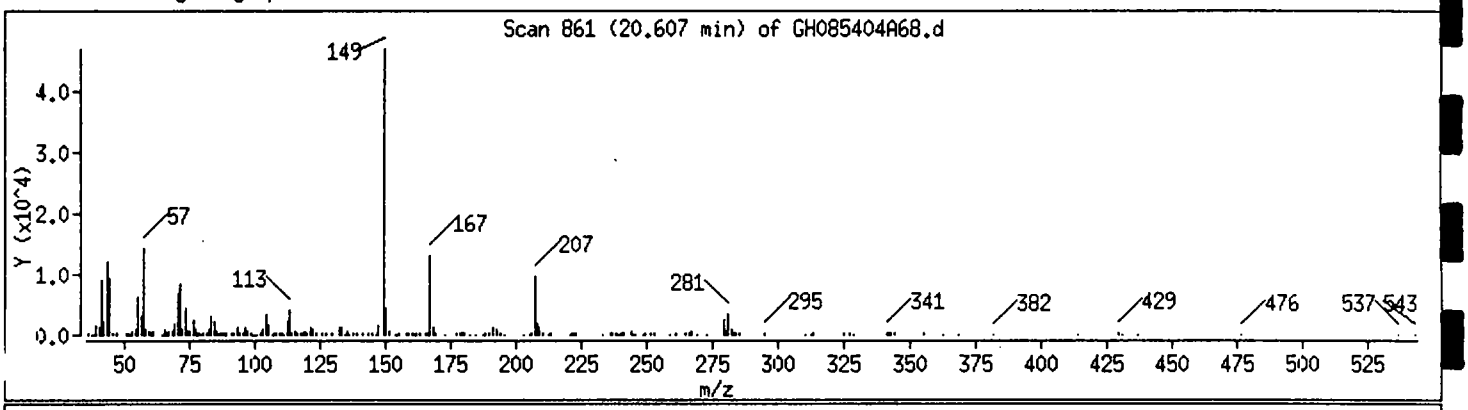
Client ID: BLANK-1 Instrument: 5972hp68.i

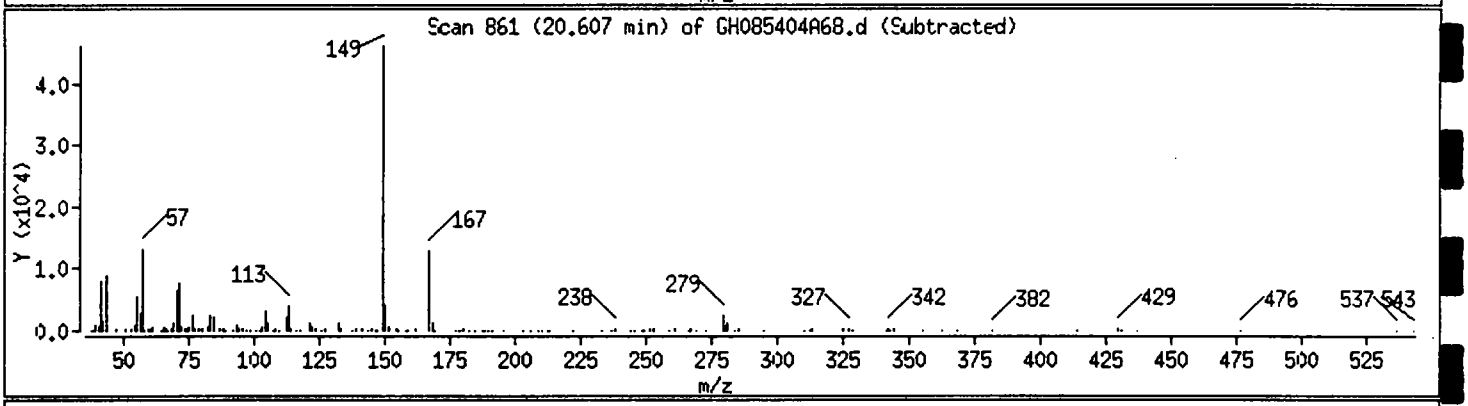
Sample Info:

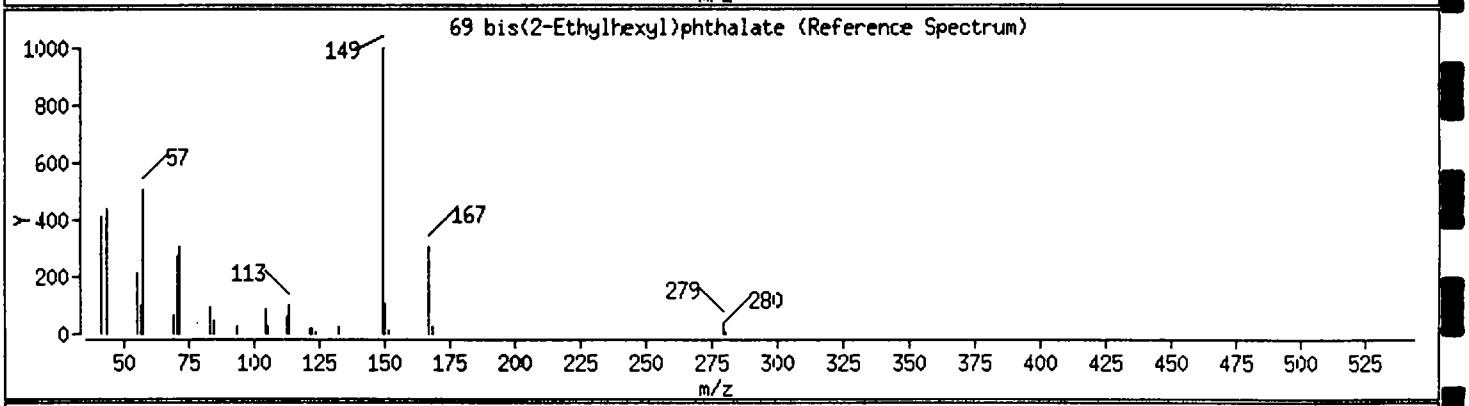
Volume Injected (uL): 2.0 Operator: 2242

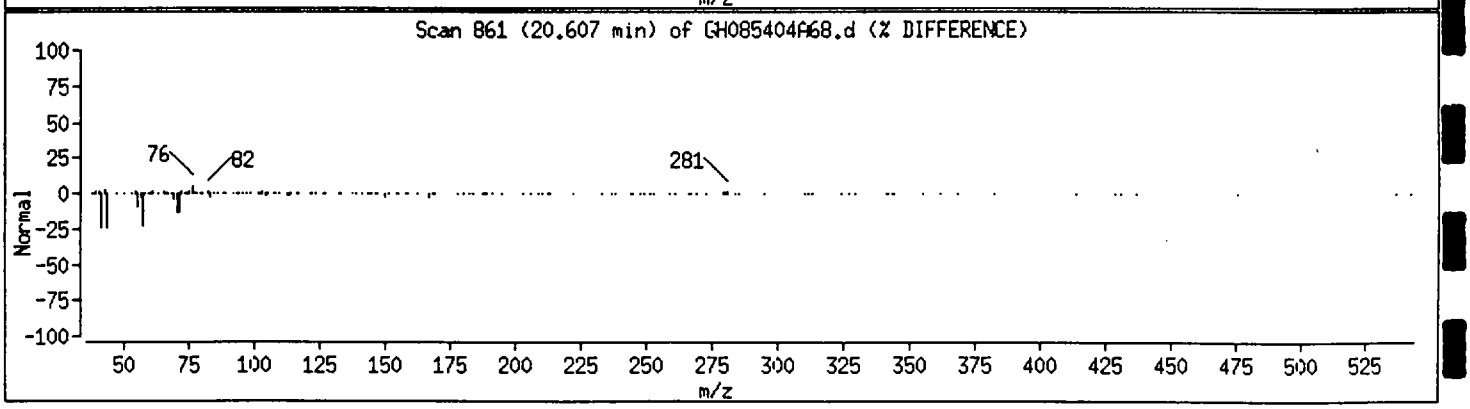
Column phase: DB-5 Column diameter: 0.32

69 bis(2-Ethylhexyl)phthalate









Data File: /chem/5972hp68.i/DF980321A68.b/GH085404A68.d
Report Date: 23-Mar-1998 09:57

CompuChem Environmental Corp.

Unknown Compounds Quantitation Report

Data file : /chem/5972hp68.i/DF980321A68.b/GH085404A68.d
Lab Smp Id: 885404 Client Smp ID: BLANK-1
Inj Date : 21-MAR-1998 12:22
Operator : 2242 Inst ID: 5972hp68.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp68.i/DF980321A68.b/OLMO3.m
Meth Date : 23-Mar-1998 09:00 mss
Cal Date : 21-MAR-98 08:07 Cal File: HG980321A68.d
Als bottle: 8
Dil Factor: 1.000 Target Version: 3.12
Integrator: HP RTE Compound Sublist: all.sub
Sample Matrix: WATER
Quantitative Mode : Use RF of Nearest Std
Concentration Formula: Vt/(Vo * Vi)

Name	Value	Description
Vt	500.000	Volume of final extract (uL)
Vo	500.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)

ISTD	RT	AREA	AMOUNT
* 1 1,4-Dichlorobenzene-d4	8.029	4068023	40.000
* 3 Acenaphthene-d10	13.329	5592360	40.000
* 5 Chrysene-d12	20.775	3383975	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(NG)	FINAL(ug/L)	QUAL	LIBRARY	LIB ENTRY	CPND #
Cyclohexenol (BC)				CAS #:			
6.238	2520004	24.78	12.39	0		0	1
Cyclohexenone (BC)				CAS #:			
6.891	4545580	44.70	22.35	0		0	1
Cyclohexanone, 2-hydroxy-				CAS #: 533-60-8			
7.824	672391	6.61	3.30	59	NBS75K.1	2902	1

Data File: /chem/5972hp68.i/DF980321A68.b/GH085404A68.d
Report Date: 23-Mar-1998 09:57

RT	AREA	CONCENTRATIONS ON-COL(NG)	FINAL(ug/L)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
8.141	785719	7.72	3.86	0		0	1
Unknown					CAS #:		
8.496	515295	5.07	2.53	0		0	1
Cyclohexanediol					CAS #:		
8.813	944528	9.29	4.64	0		0	1
Unknown					CAS #:		
9.055	686200	6.75	3.37	0		0	1
Unknown					CAS #:		
11.855	832397	5.95	2.98	0		0	3
Unknown					CAS #:		
12.209	635081	4.54	2.27	0		0	3
Acetophenone, 4'-hydroxy-					CAS #: 99-93-4		
12.620	622258	4.45	2.22	95	NBS75K.l	6469	3
Phenol, 4,4'-(1-methylethylidene)bis-					CAS #: 80-05-7		
18.610	951375	11.24	5.62	95	NBS75K.l	70845	5
Unknown (BC)					CAS #:		
22.212	1727706	20.42	10.21	0		0	5

Data File: /chem/5972hp68.i/DF980321A68.b/GH085404A68.d

Date : 21-MAR-1998 12:22

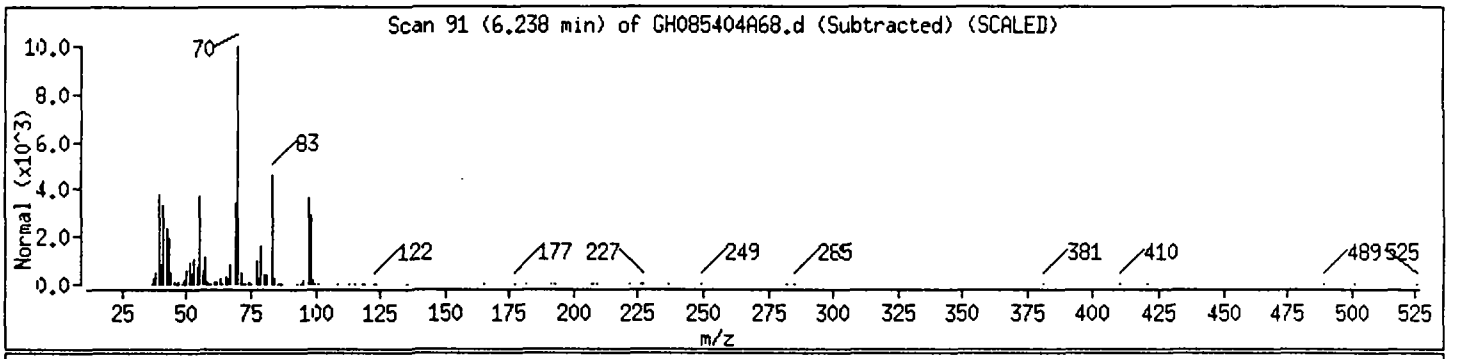
Client ID: BLANK-1 Instrument: 5972hp68.i

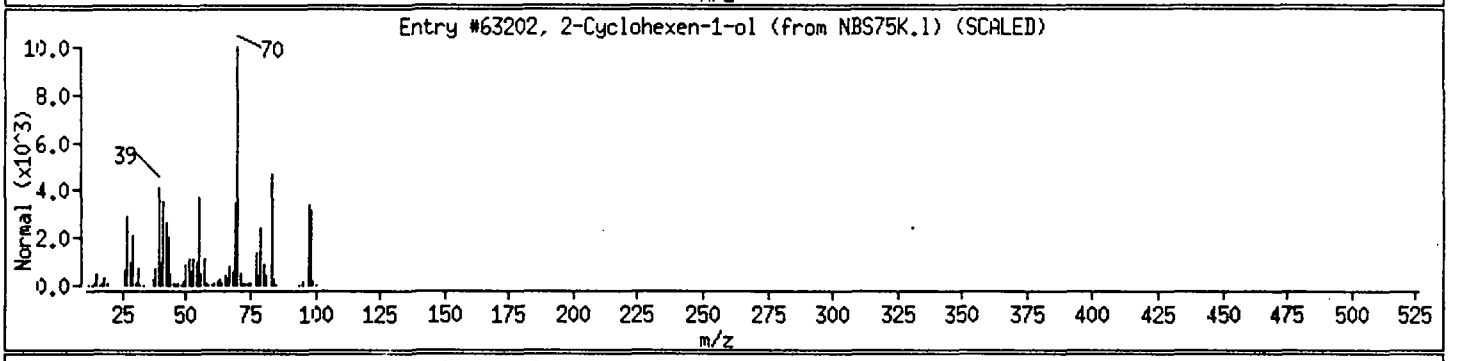
Sample Info:

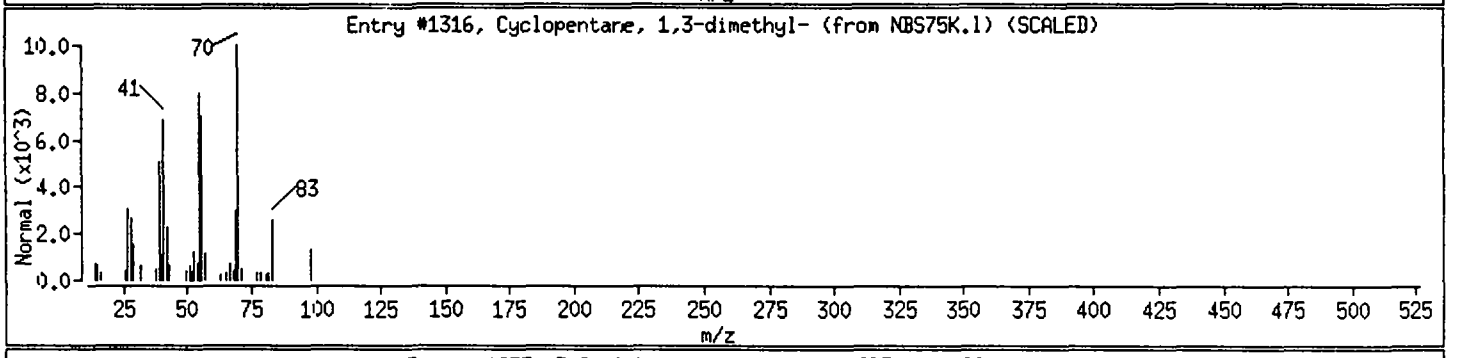
Volume Injected (uL): 2.0 Operator: 2242

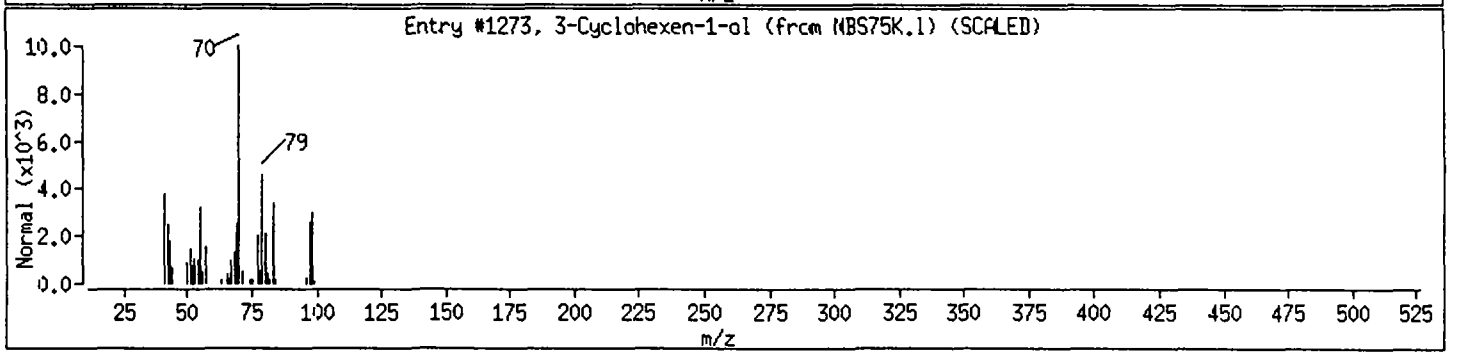
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexenol (BC)						
2-Cyclohexen-1-ol	822-67-3	NBS75K.l	63202	91	C6H10O	98
Cyclopentane, 1,3-dimethyl-	2453-00-1	NBS75K.l	1316	53	C7H14	98
3-Cyclohexen-1-ol	822-66-2	NBS75K.l	1273	37	C6H10O	98









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Date : 21-MAR-1998 12:22

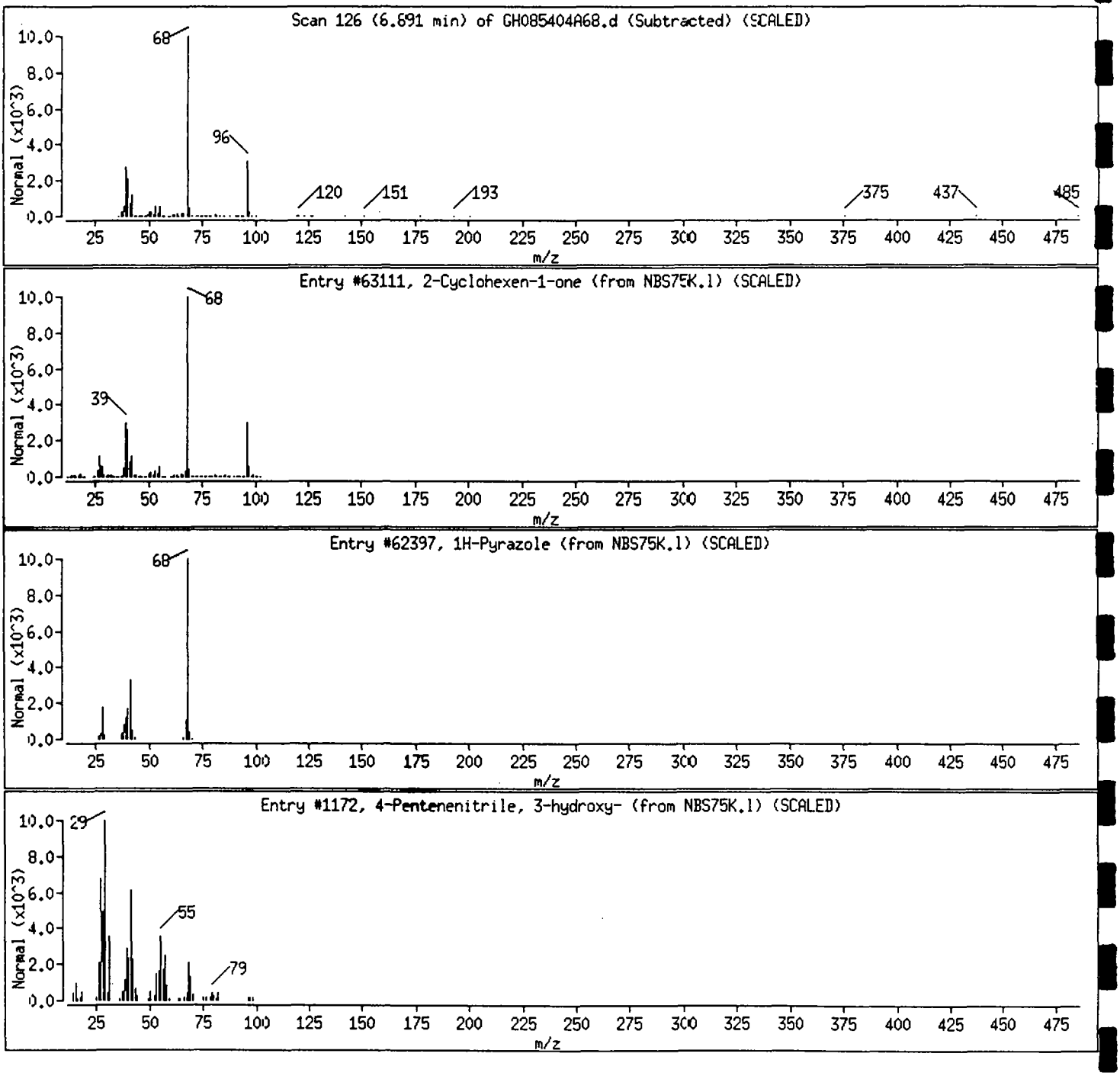
Client ID: BLANK-1 Instrument: 5972hp68.i

Sample Info:

Volume Injected (uL): 2.0 Operator: 2242

Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexenone (BC)						
2-Cyclohexen-1-one	930-68-7	NBS75K.l	63111	91	C6H8O	96
1H-Pyrazole	288-13-1	NBS75K.l	62397	9	C3H4N2	68
4-Pentenenitrile, 3-hydroxy-	27451-36-1	NBS75K.l	1172	9	C5H7NO	97



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Date : 21-MAR-1998 12:22

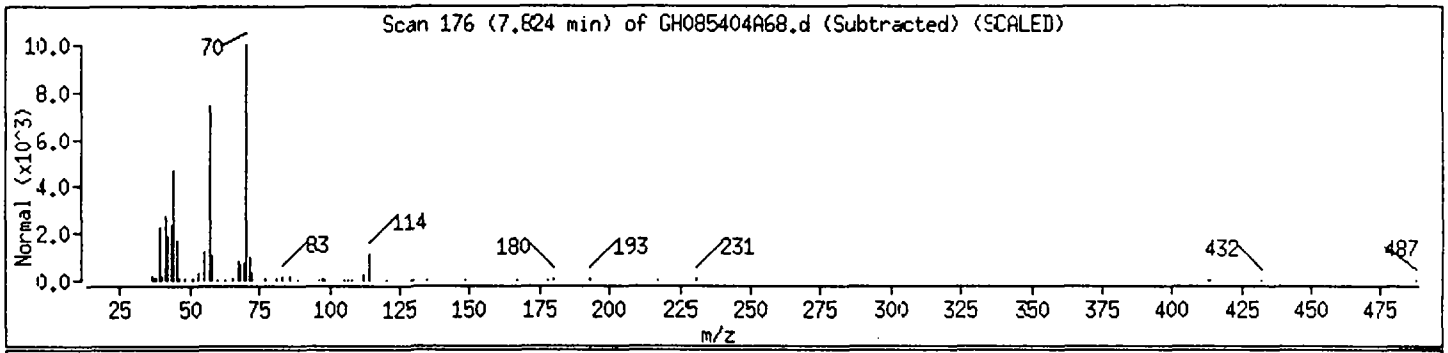
Client ID: BLANK-1 Instrument: 5972hp68.i

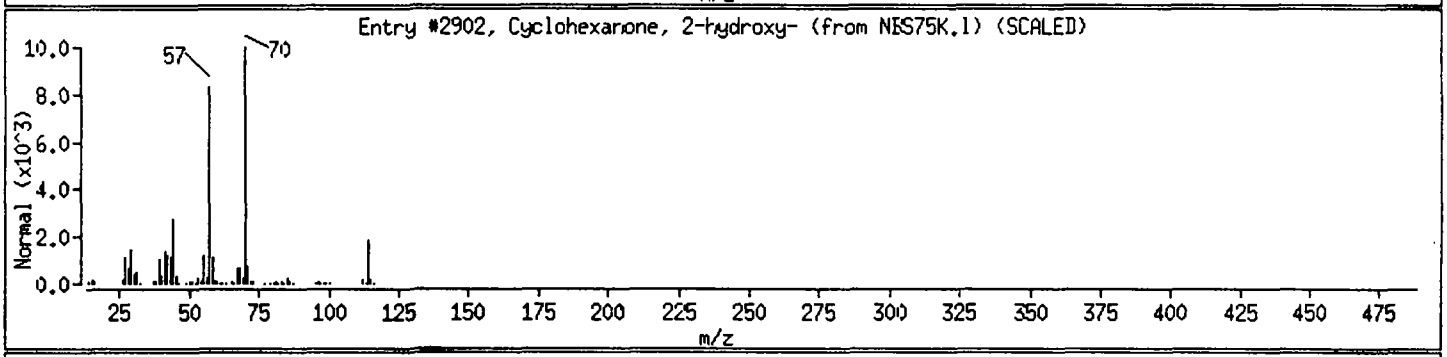
Sample Info:

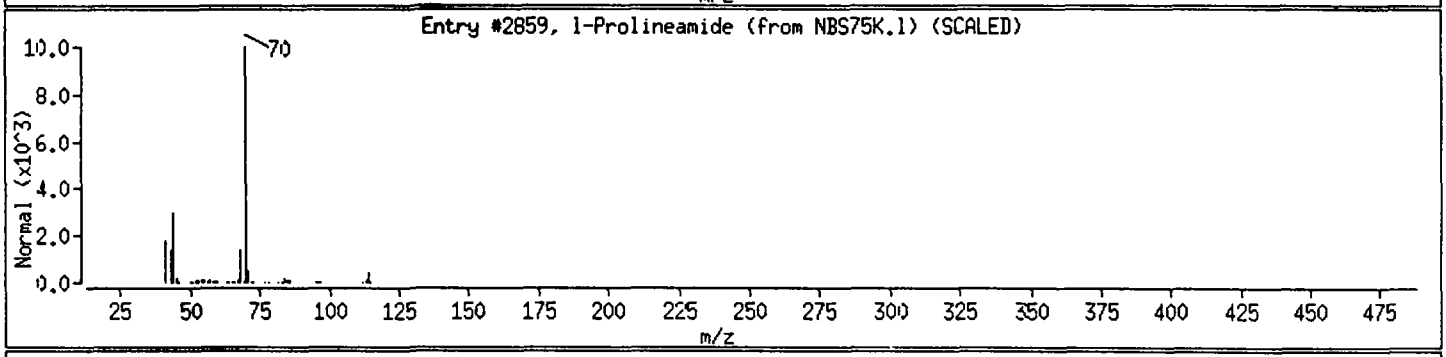
Volume Injected (uL): 2.0 Operator: 2242

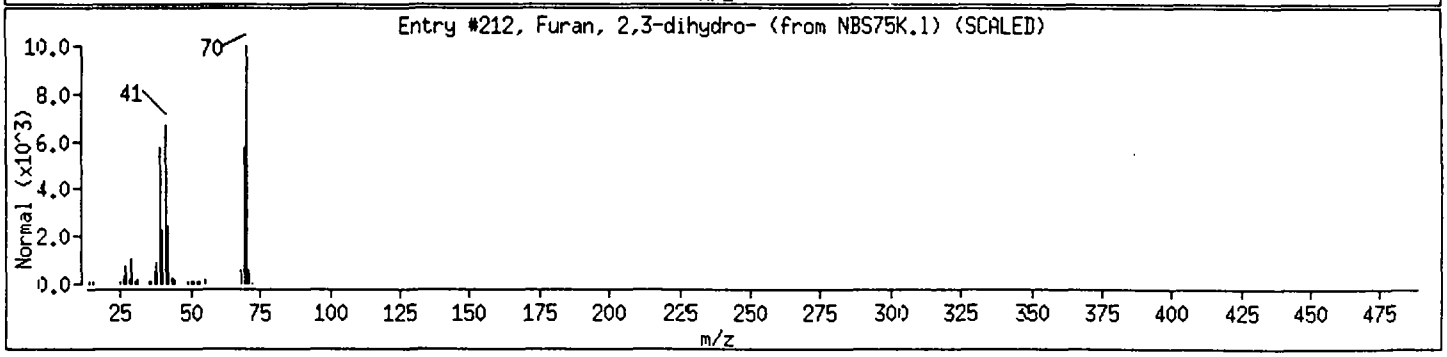
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexanone, 2-hydroxy-	533-60-8	NBS75K.l	2902	59	C6H10O2	114
l-Prolineamide	0-00-0	NBS75K.l	2859	9	C5H10N2O	114
Furan, 2,3-dihydro-	1191-99-7	NBS75K.l	212	9	C4H6O	70









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Date : 21-MAR-1998 12:22

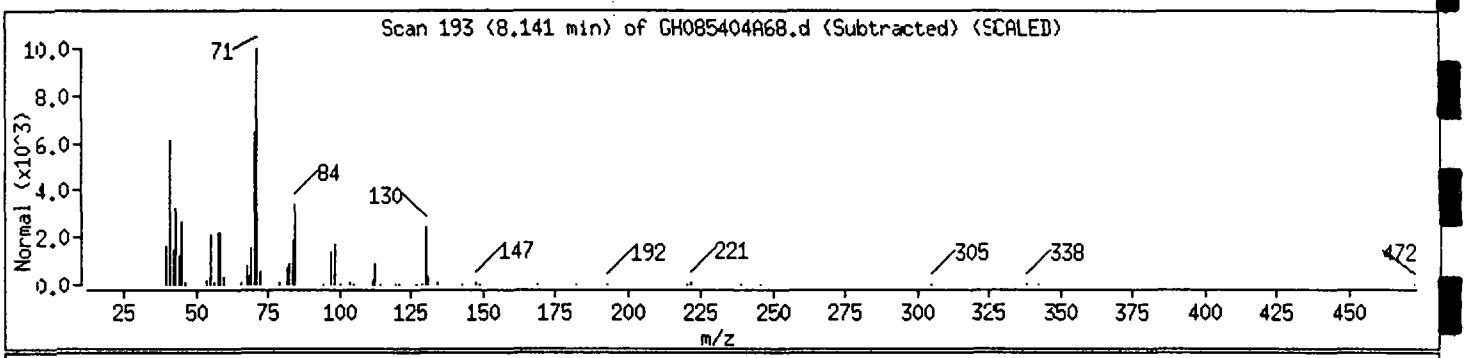
Client ID: BLANK-1 Instrument: 5972hp68.i

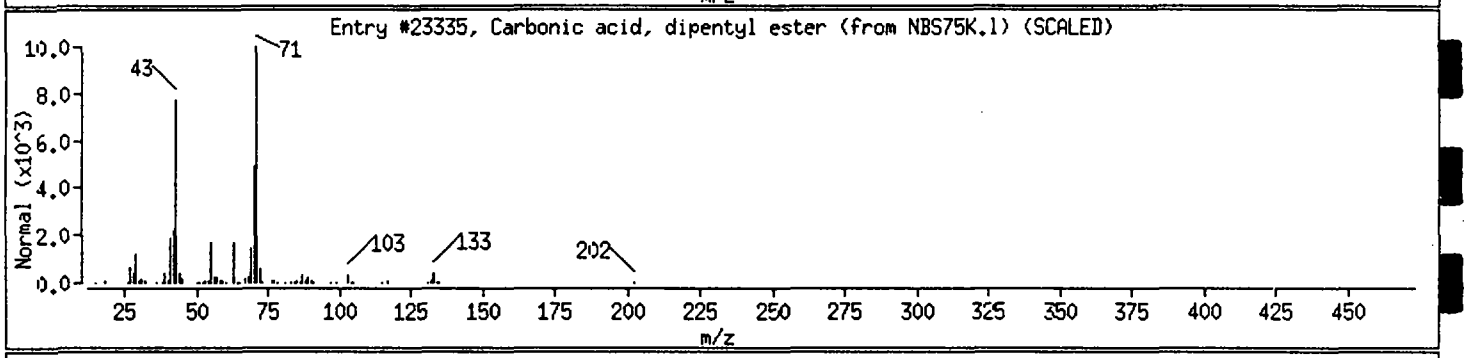
Sample Info:

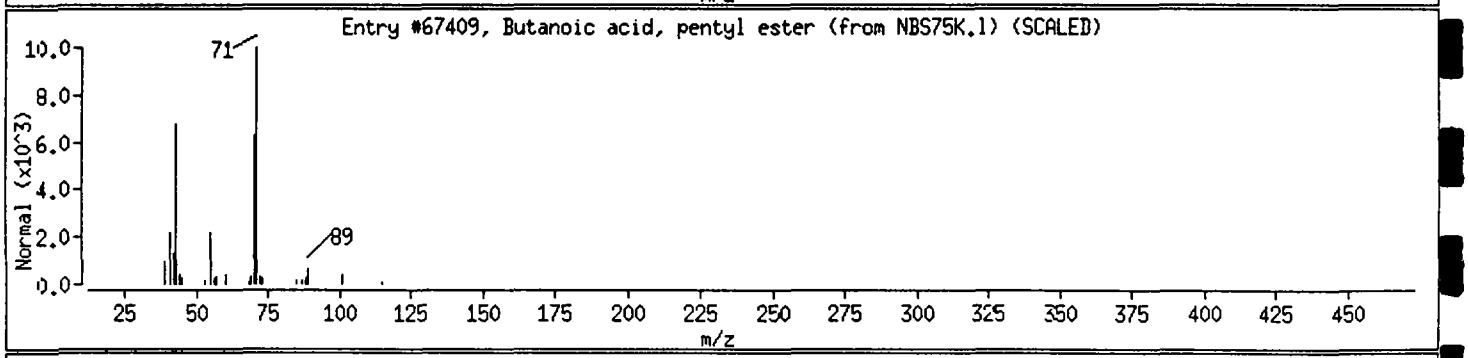
Volume Injected (uL): 2.0 Operator: 2242

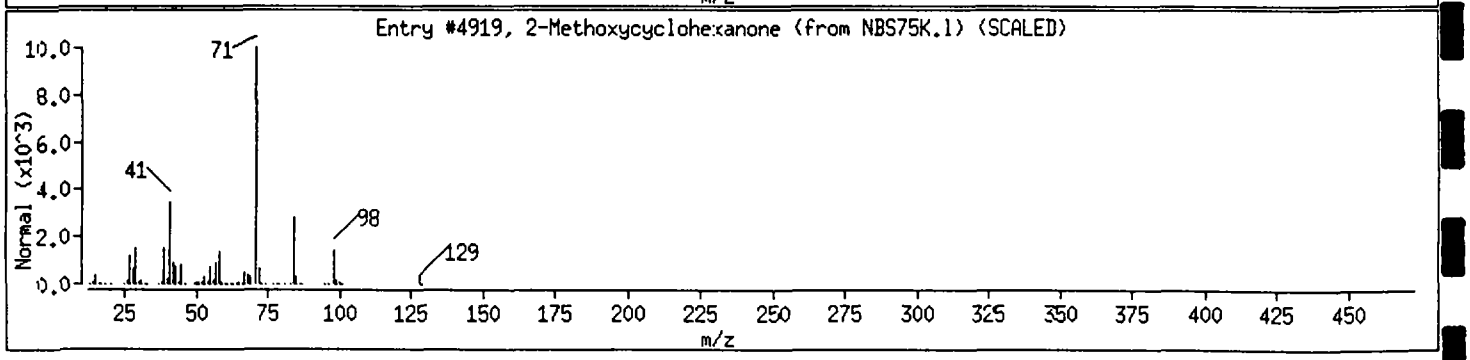
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Carbonic acid, dipentyl ester	2050-94-4	NBS75K.l	23335	38	C11H2203	202
Butanoic acid, pentyl ester	540-18-1	NBS75K.l	67409	32	C9H1802	158
2-Methoxycyclohexanone	7429-44-9	NBS75K.l	4919	32	C7H1202	128









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Date : 21-MAR-1998 12:22

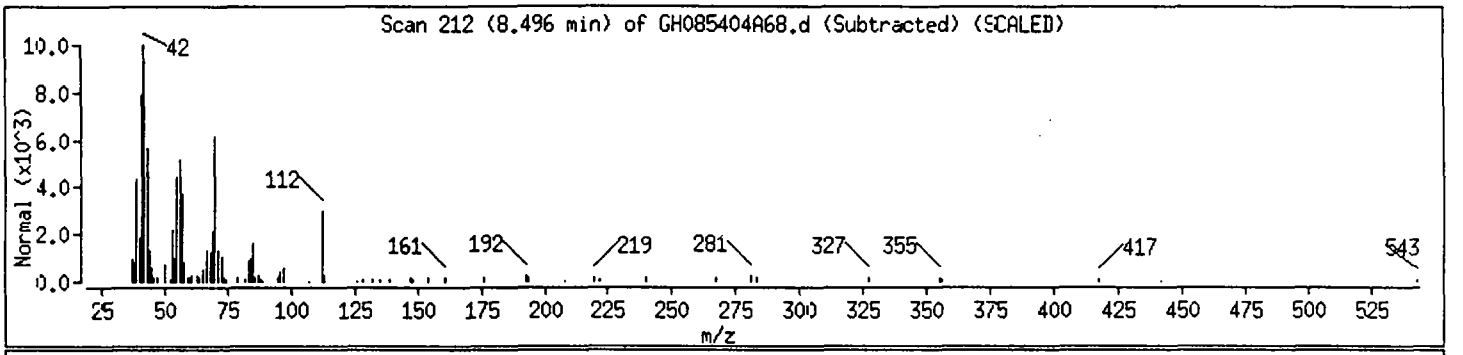
Client ID: BLANK-1 Instrument: 5972hp68.i

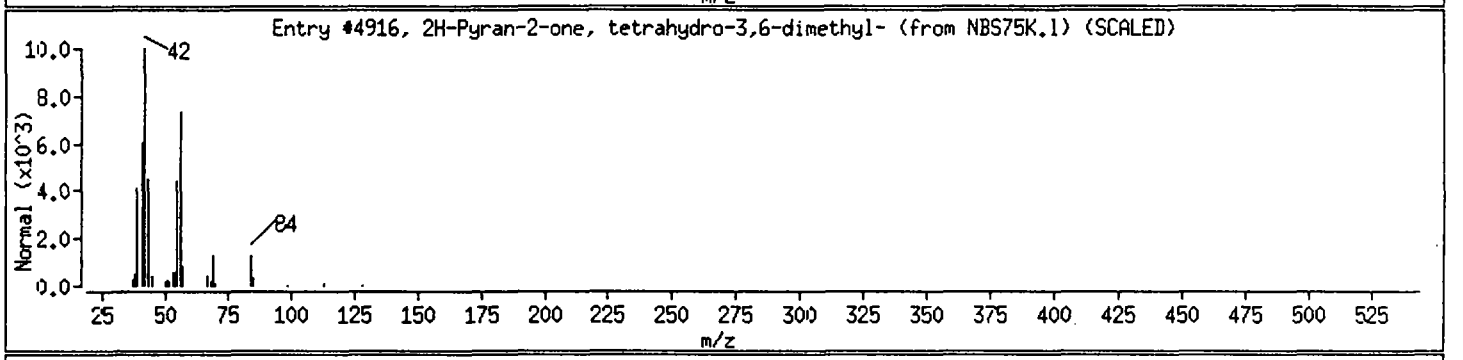
Sample Info:

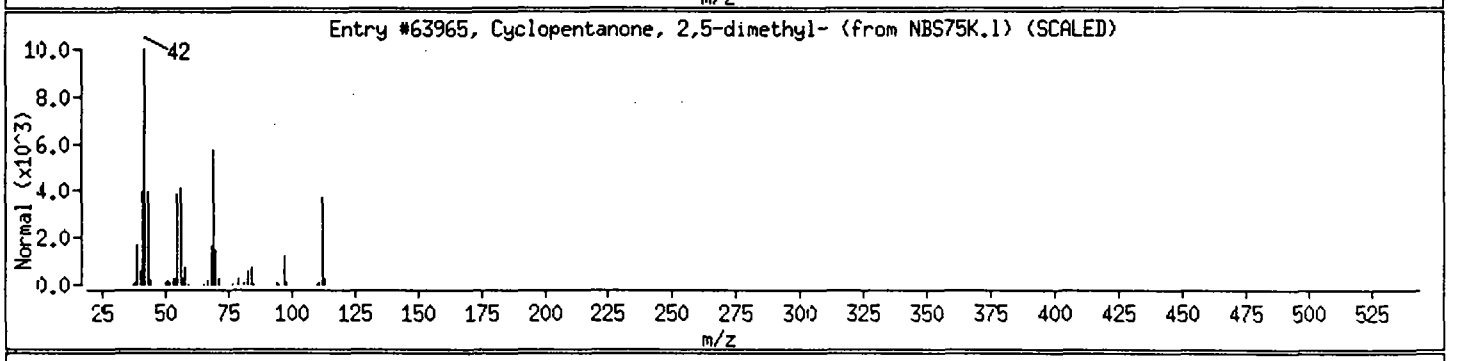
Volume Injected (uL): 2.0 Operator: 2242

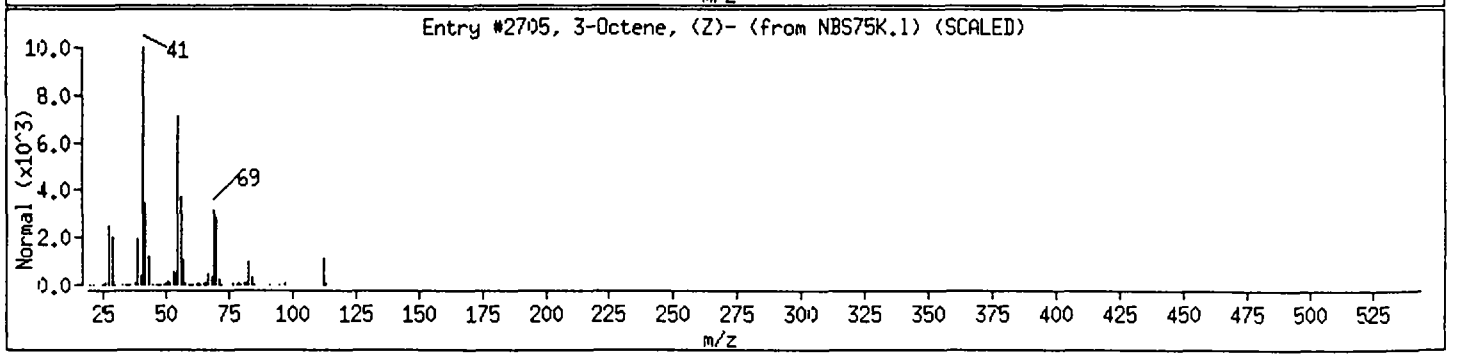
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2H-Pyran-2-one, tetrahydro-3,6-dimethyl-	3720-22-7	NBS75K.l	4916	43	C7H12O2	128
Cyclopentanone, 2,5-dimethyl-	4041-09-2	NBS75K.l	63965	43	C7H12O	112
3-Octene, (Z)-	14850-22-7	NBS75K.l	2705	43	C8H16	112









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Date : 21-MAR-1998 12:22

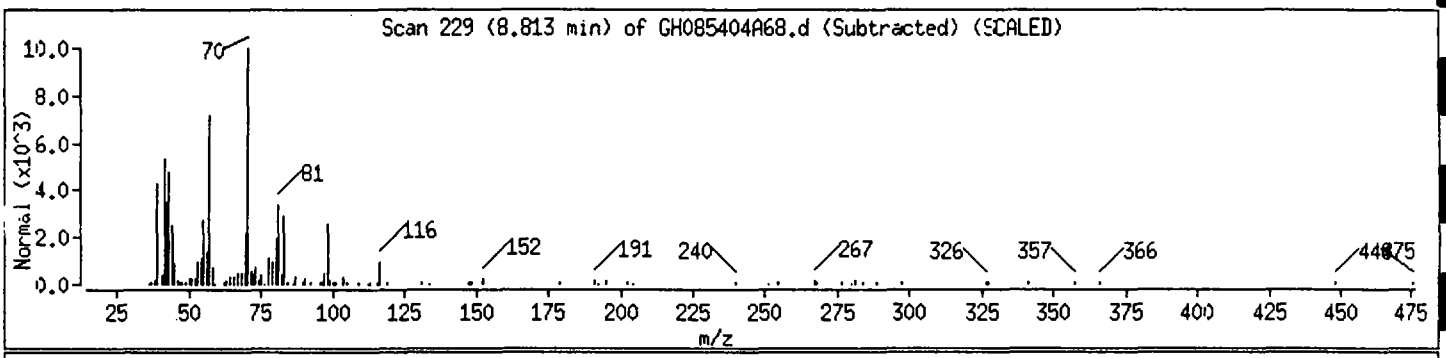
Client ID: BLANK-1 Instrument: 5972hp68.i

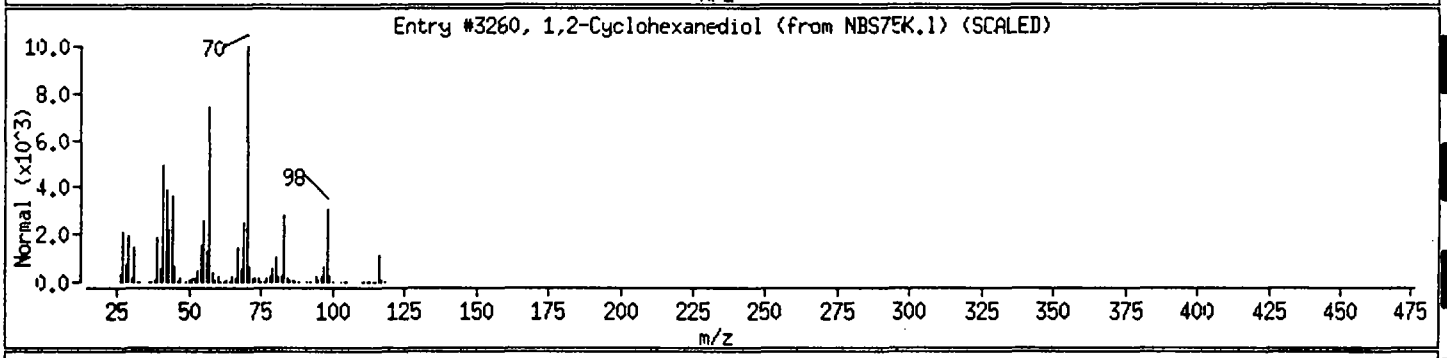
Sample Info:

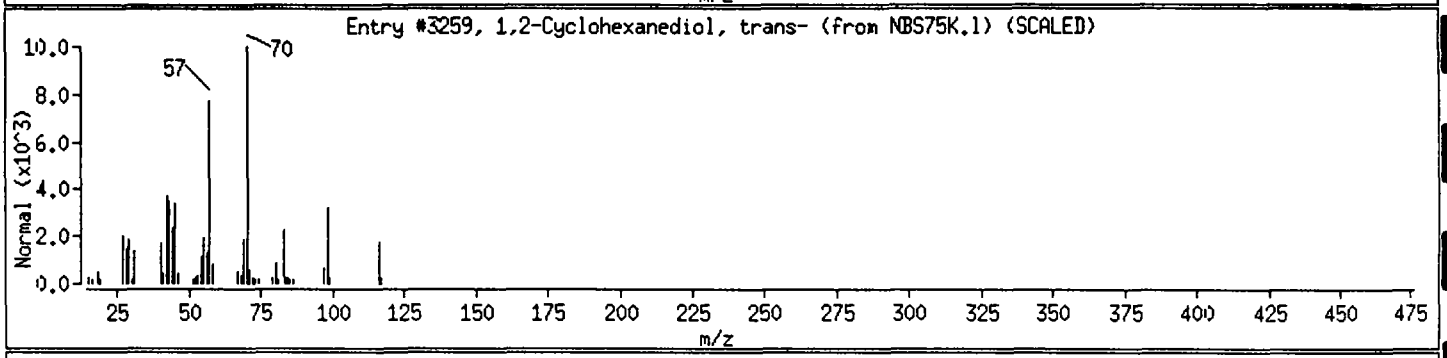
Volume Injected (uL): 2.0 Operator: 2242

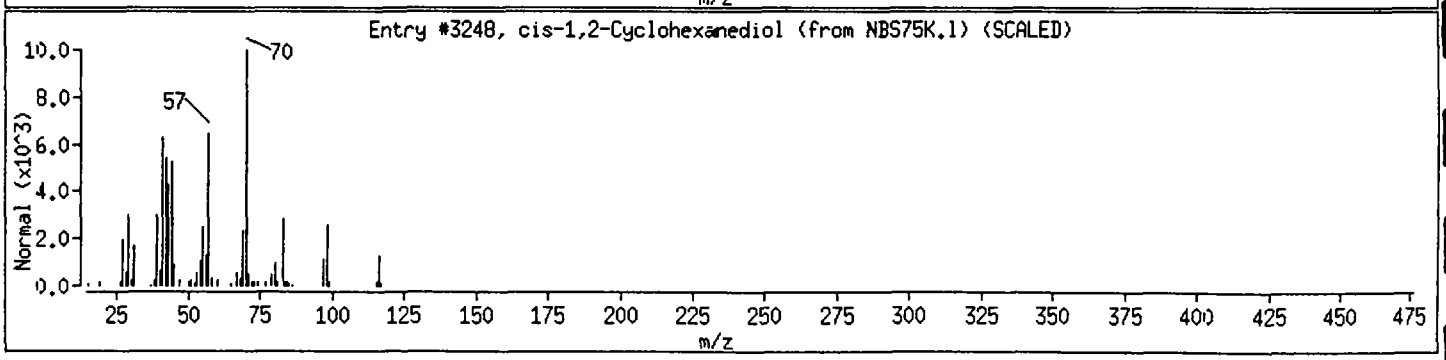
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexanediol						
1,2-Cyclohexanediol	931-17-9	NBS75K.l	3260	87	C6H12O2	116
1,2-Cyclohexanediol, trans-	1460-57-7	NBS75K.l	3259	72	C6H12O2	116
cis-1,2-Cyclohexanediol	1792-81-0	NBS75K.l	3248	72	C6H12O2	116









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Date : 21-MAR-1998 12:22

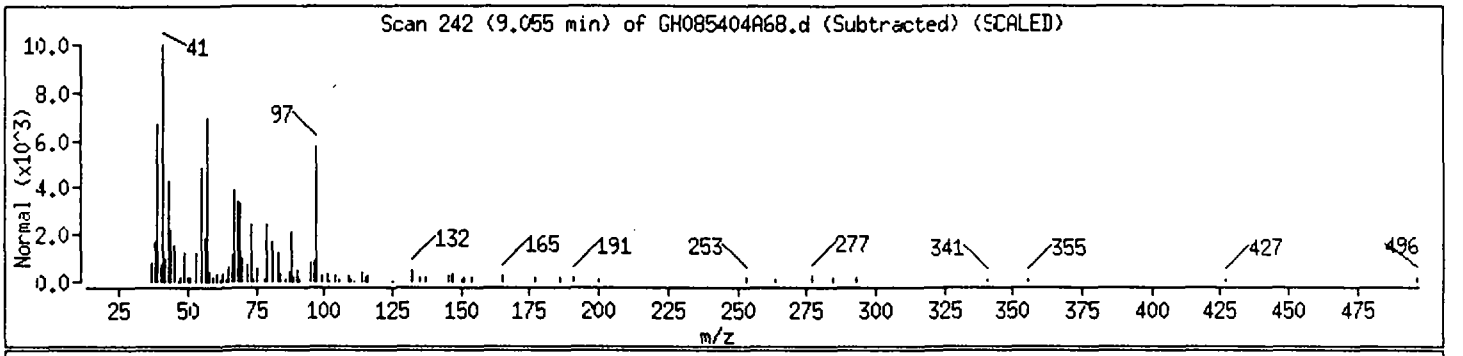
Client ID: BLANK-1 Instrument: 5972hp68.i

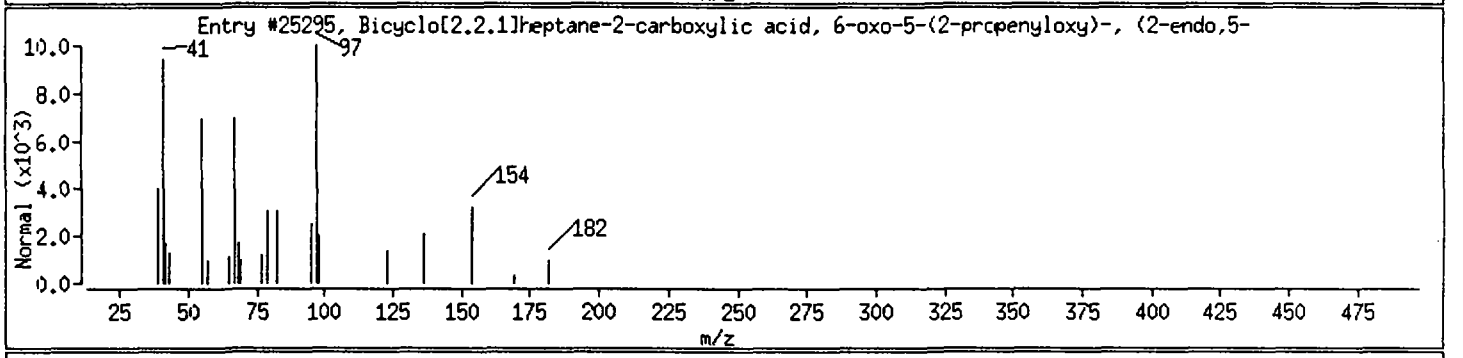
Sample Info:

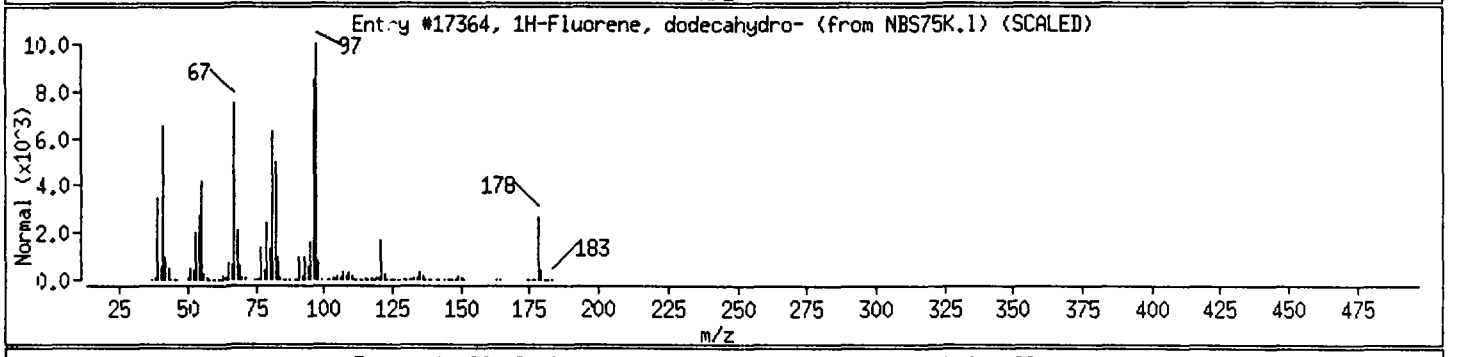
Volume Injected (uL): 2.0 Operator: 2242

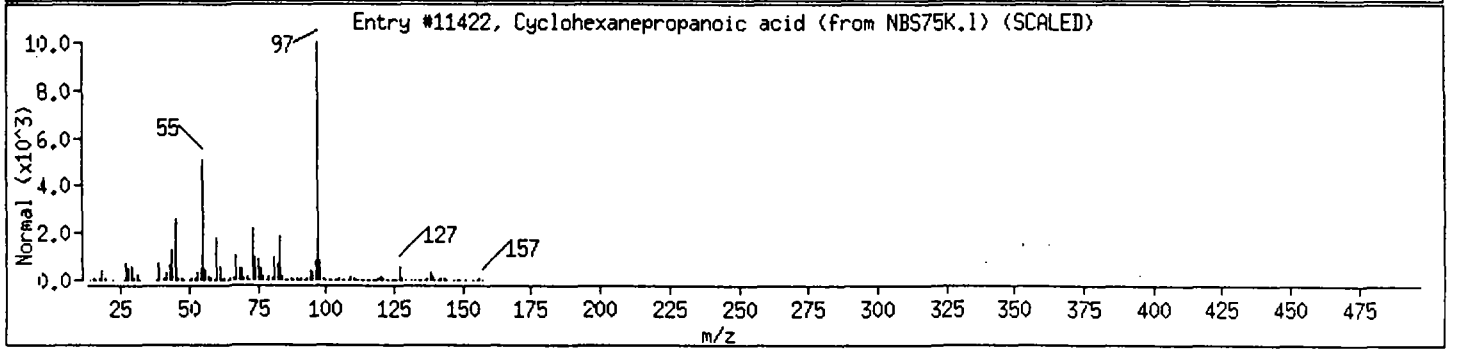
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Bicyclo[2.2.1]heptane-2-carboxylic acid,	111509-63-8	NBS75K.l	25295	37	C11H14O4	210
1H-Fluorene, dodecahydro-	5744-03-6	NBS75K.l	17364	23	C13H22	178
Cyclohexanepropanoic acid	701-97-3	NBS75K.l	11422	10	C9H16O2	156









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Date : 21-MAR-1998 12:22

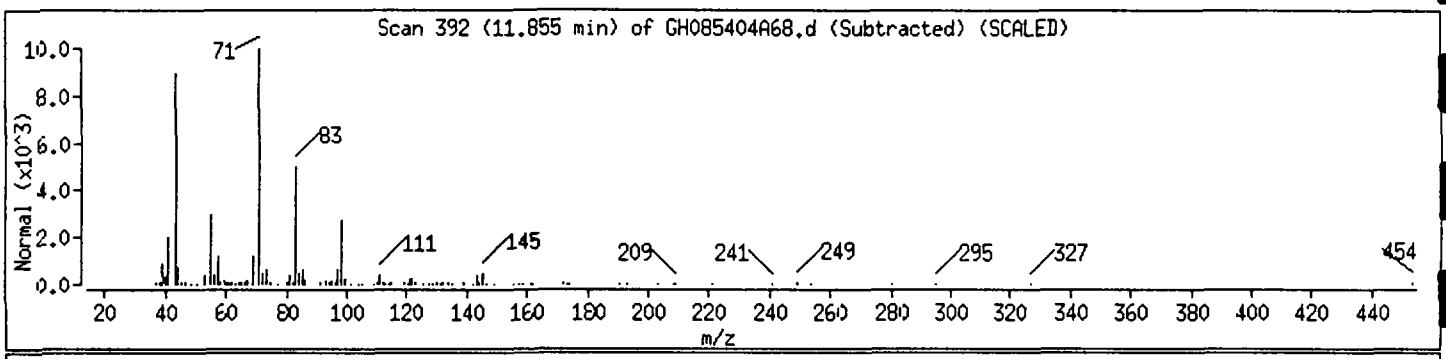
Client ID: BLANK-1 Instrument: 5972hp68.i

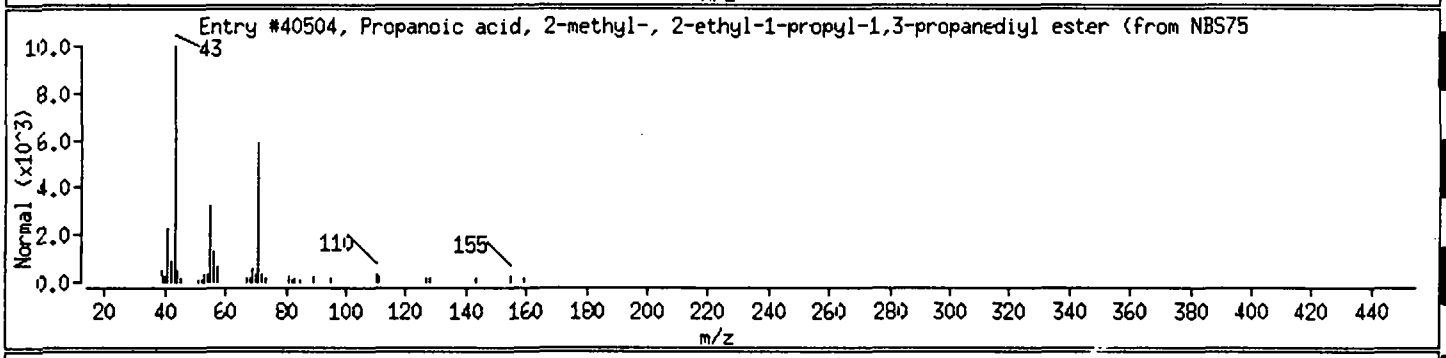
Sample Info:

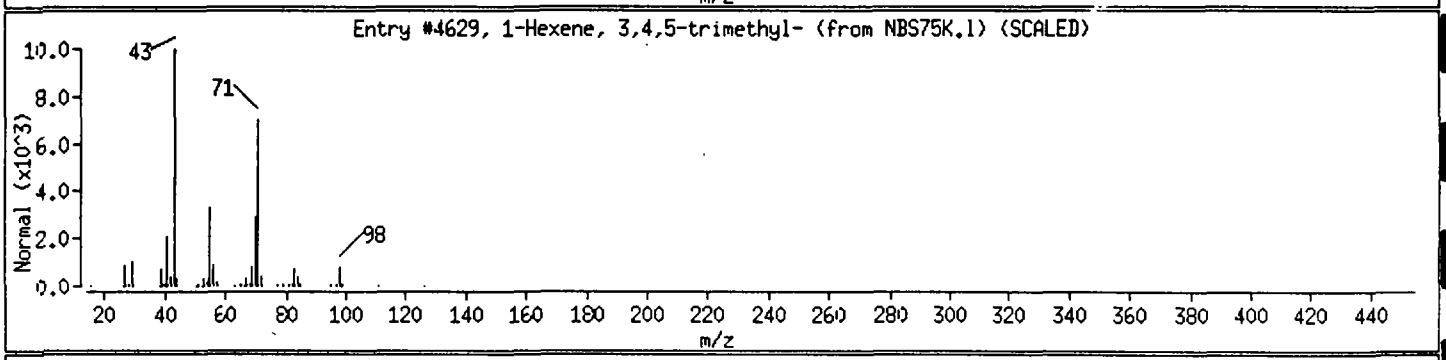
Volume Injected (uL): 2.0 Operator: 2242

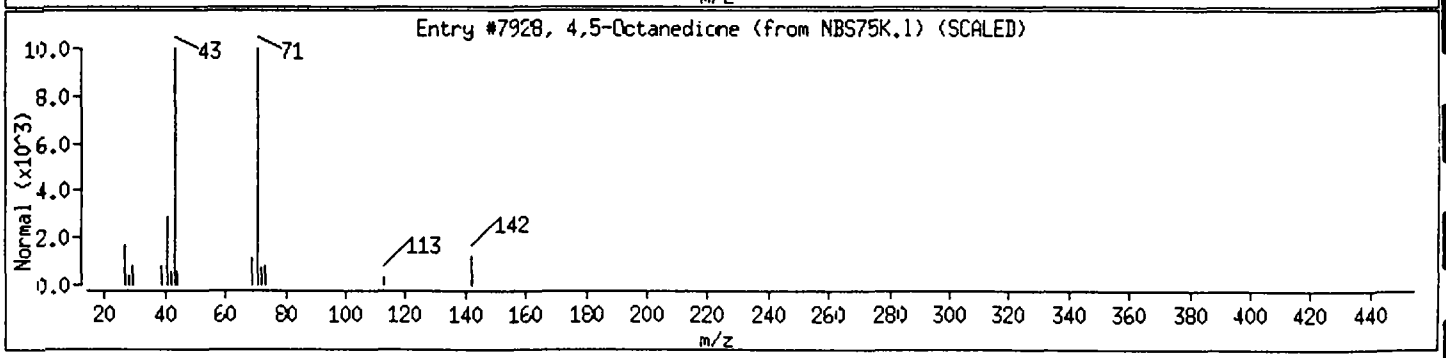
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propanoic acid, 2-methyl-, 2-ethyl-1-pro	74367-30-9	NBS75K.l	40504	38	C16H3004	286
1-Hexene, 3,4,5-trimethyl-	56728-10-0	NBS75K.l	4629	38	C9H18	126
4,5-Octanedione	5455-24-3	NBS75K.l	7928	35	C8H1402	142









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Date : 21-MAR-1998 12:22

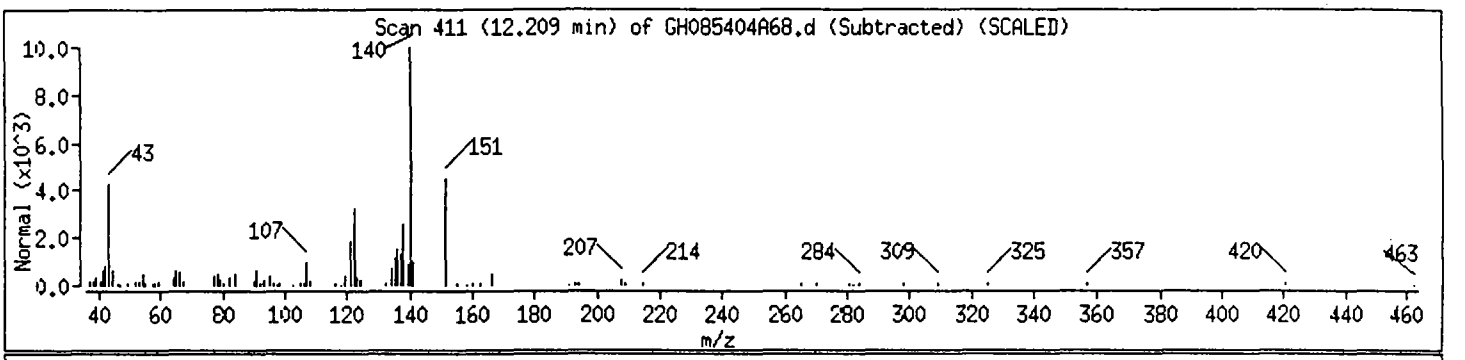
Client ID: BLANK-1 Instrument: 5972hp68.i

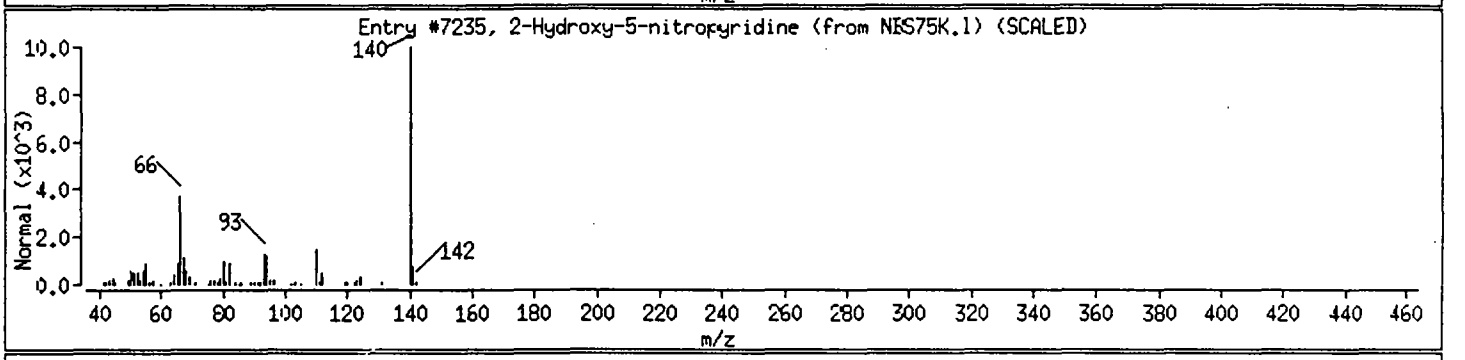
Sample Info:

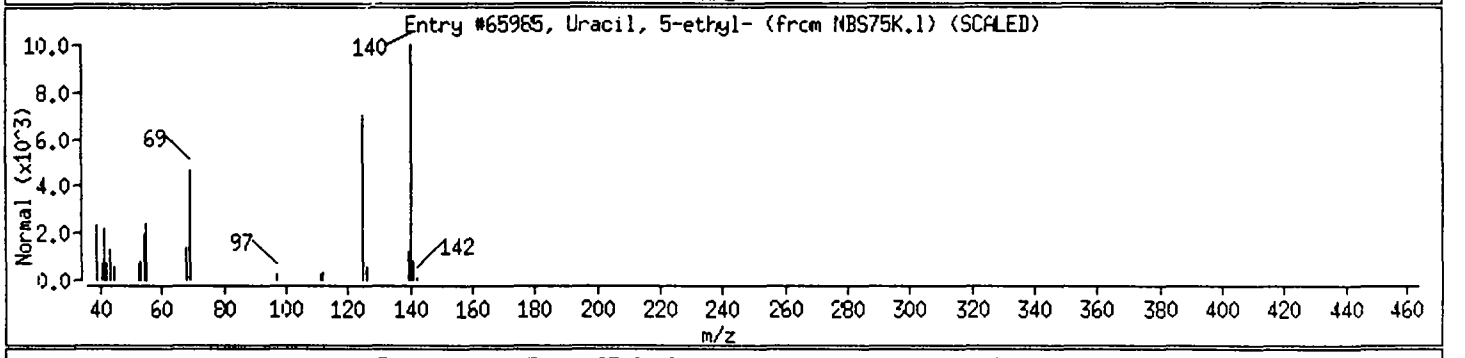
Volume Injected (uL): 2.0 Operator: 2242

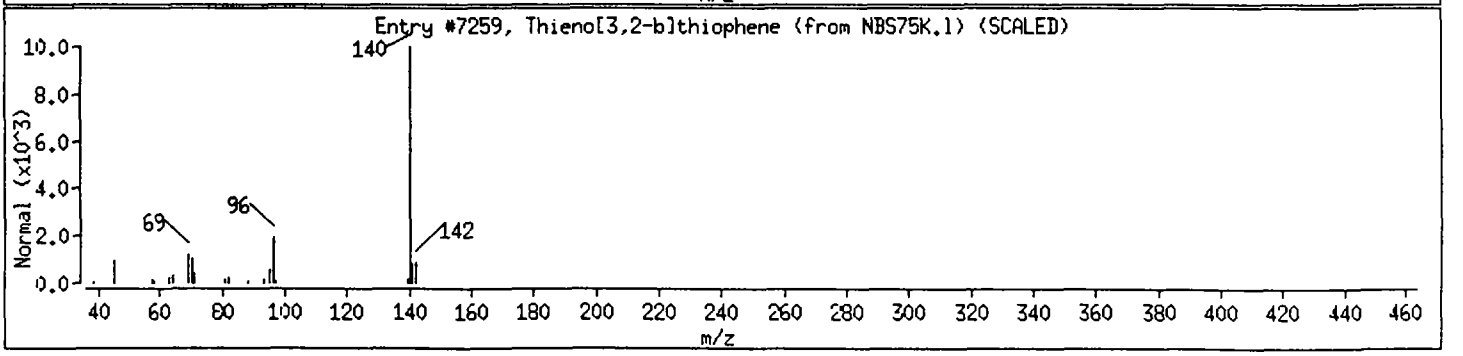
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Hydroxy-5-nitropyridine	5418-51-9	NBS75K.l	7235	30	C5H4N2O3	140
Uracil, 5-ethyl-	4212-49-1	NBS75K.l	65985	17	C6H8N2O2	140
Thieno[3,2-b]thiophene	251-41-2	NBS75K.l	7259	12	C6H4S2	140









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Date : 21-MAR-1998 12:22

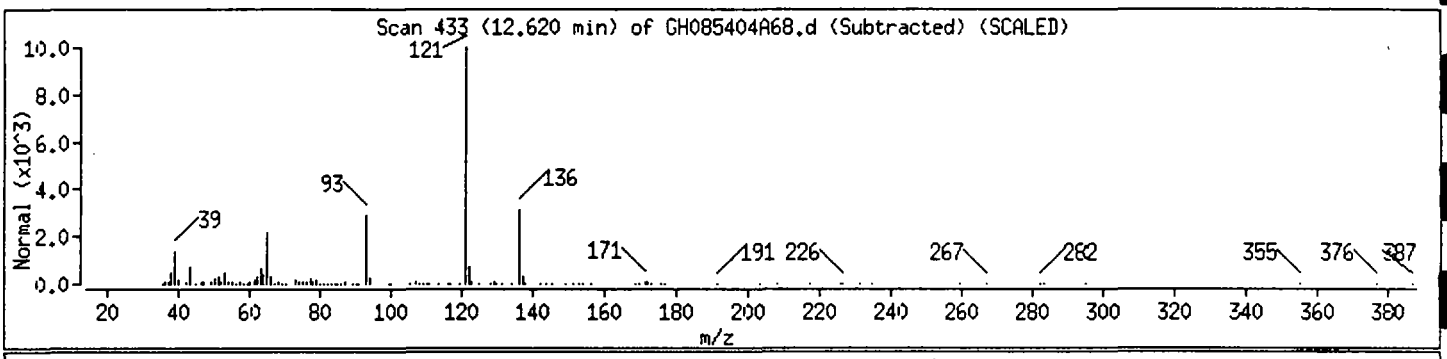
Client ID: BLANK-1 Instrument: 5972hp68.i

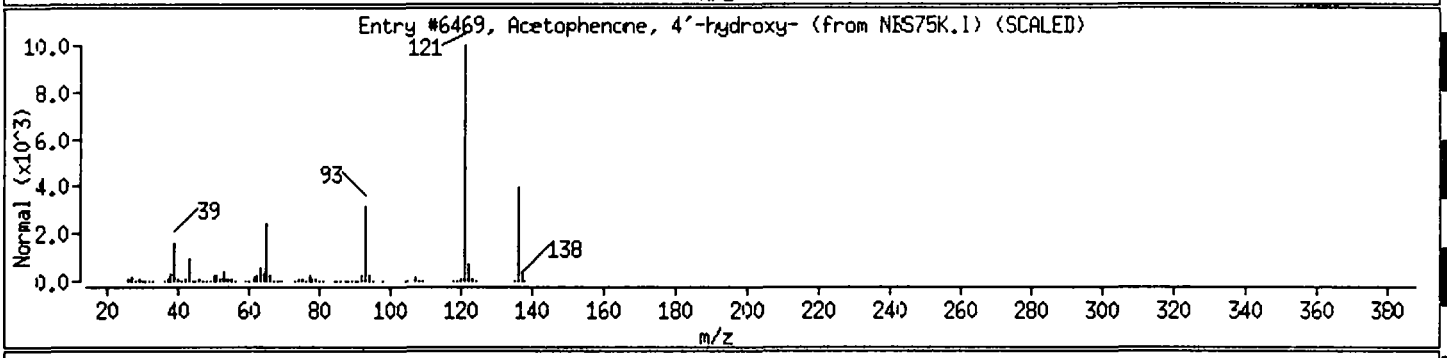
Sample Info:

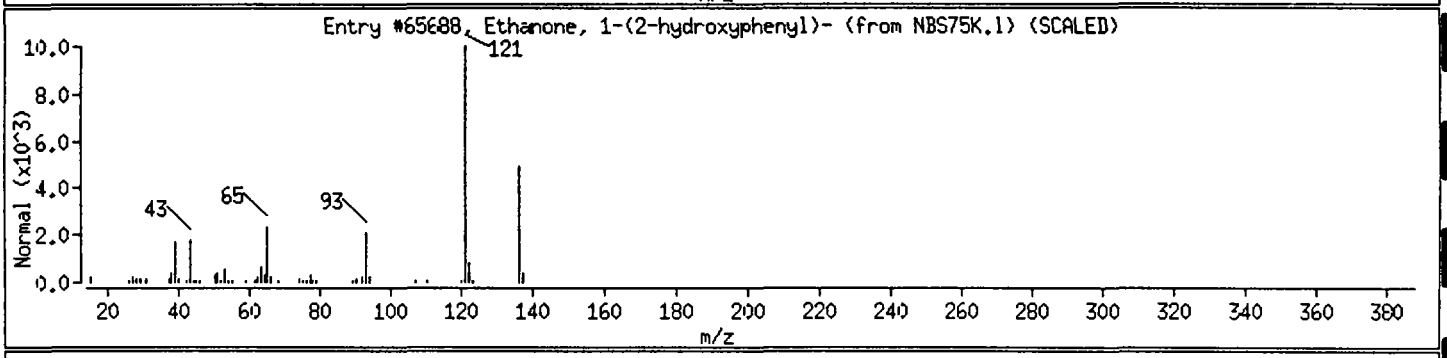
Volume Injected (uL): 2.0 Operator: 2242

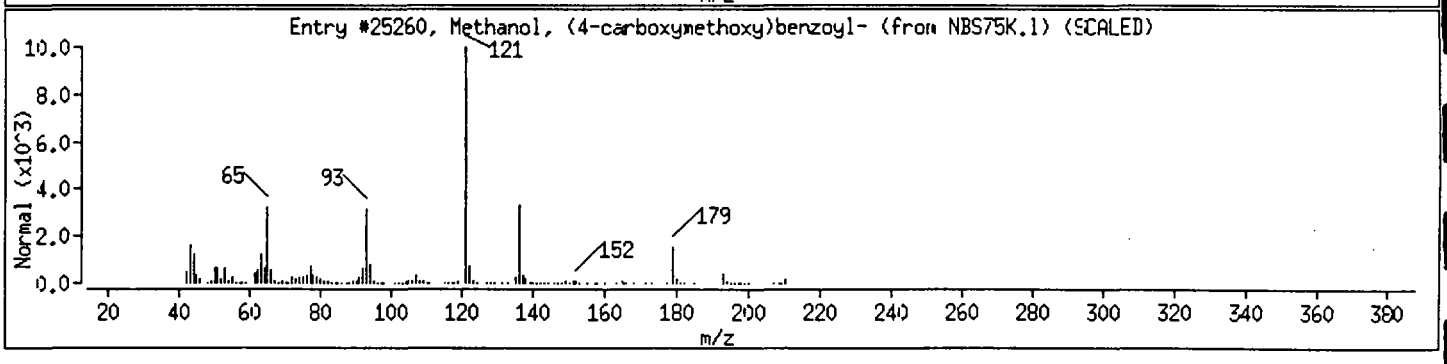
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Acetophenone, 4'-hydroxy-	99-93-4	NBS75K.l	6469	95	C8H8O2	136
Ethanone, 1-(2-hydroxyphenyl)-	118-93-4	NBS75K.l	65688	91	C8H8O2	136
Methanol, (4-carboxymethoxy)benzoyl-	0-00-0	NBS75K.l	25260	74	C10H10O5	210









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Date : 21-MAR-1998 12:22

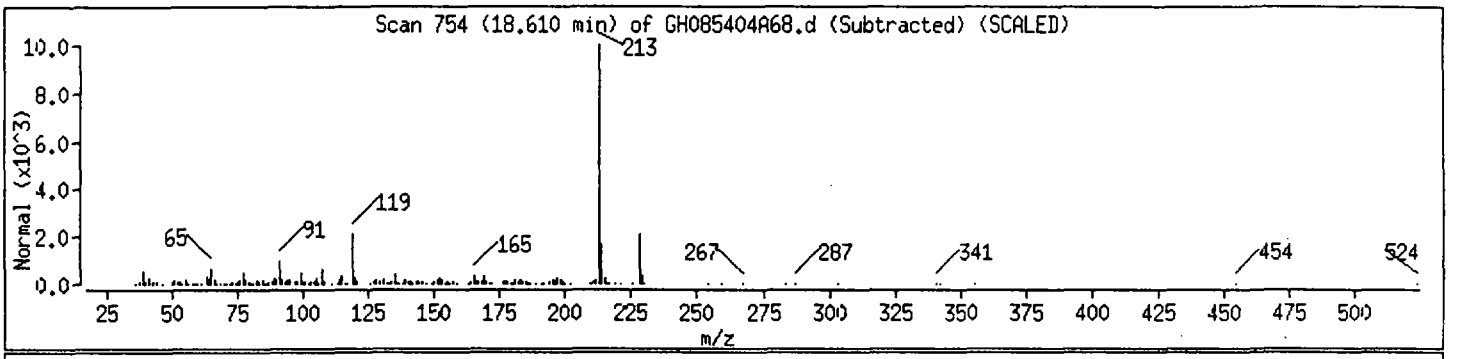
Client ID: BLANK-1 Instrument: 5972hp68.i

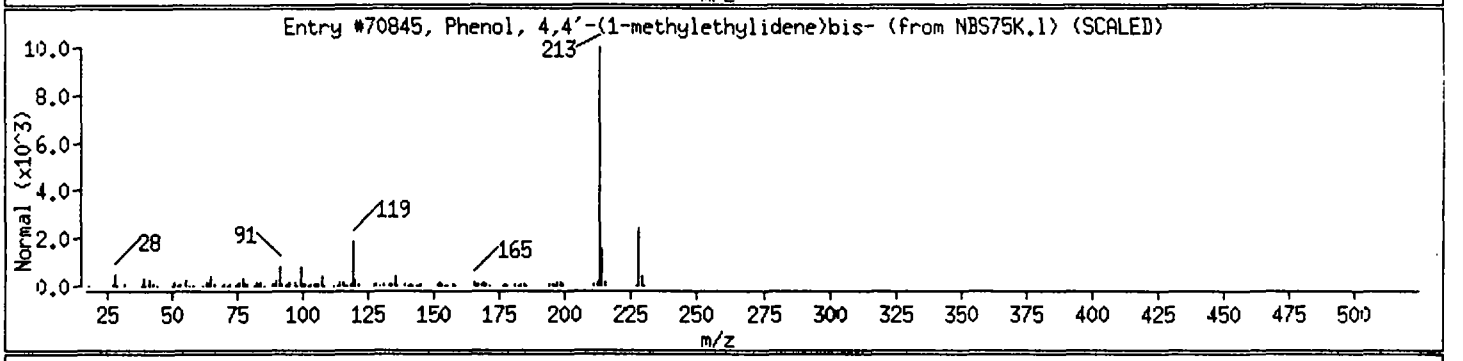
Sample Info:

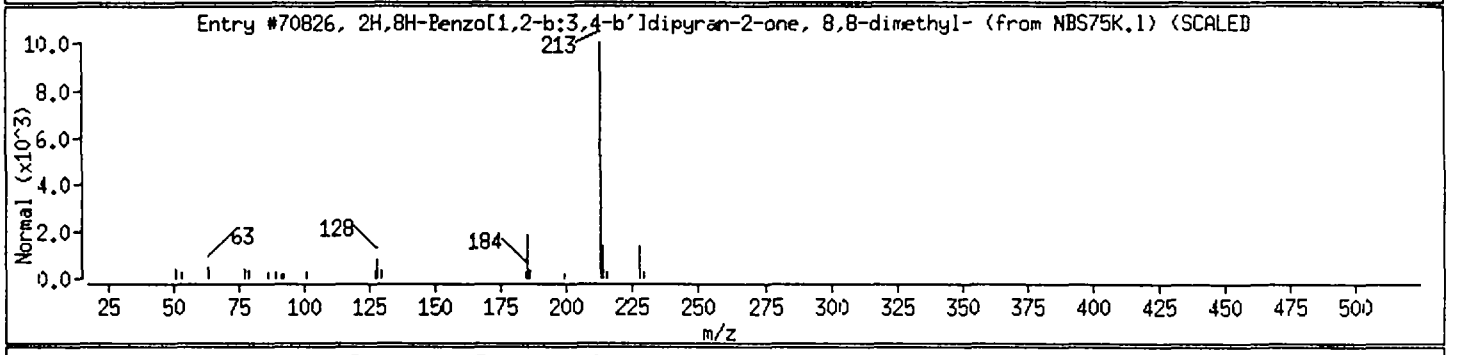
Volume Injected (uL): 2.0 Operator: 2242

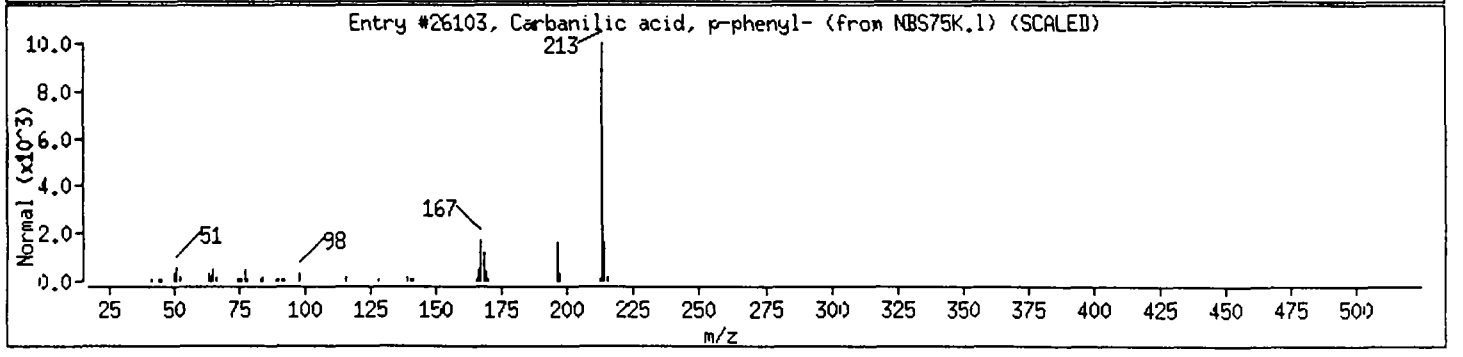
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenol, 4,4'-(1-methylethylidene)bis-	80-05-7	NBS75K.l	70845	95	C15H16O2	228
2H,8H-Benzo[1,2-b:3,4-b']dipyran-2-one,	523-59-1	NBS75K.l	70826	59	C14H12O3	228
Carbanilic acid, p-phenyl-	4474-53-7	NBS75K.l	26103	43	C13H11NO2	213









Data File: /chem/5972hp68.i/DF980321A68.b/GH085404A68.d

Date : 21-MAR-1998 12:22

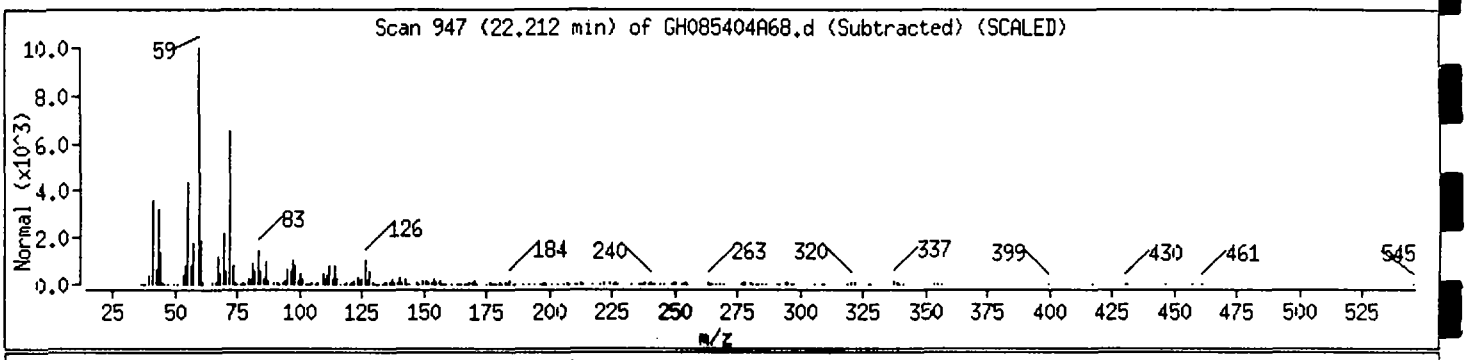
Client ID: BLANK-1 Instrument: 5972hp68.i

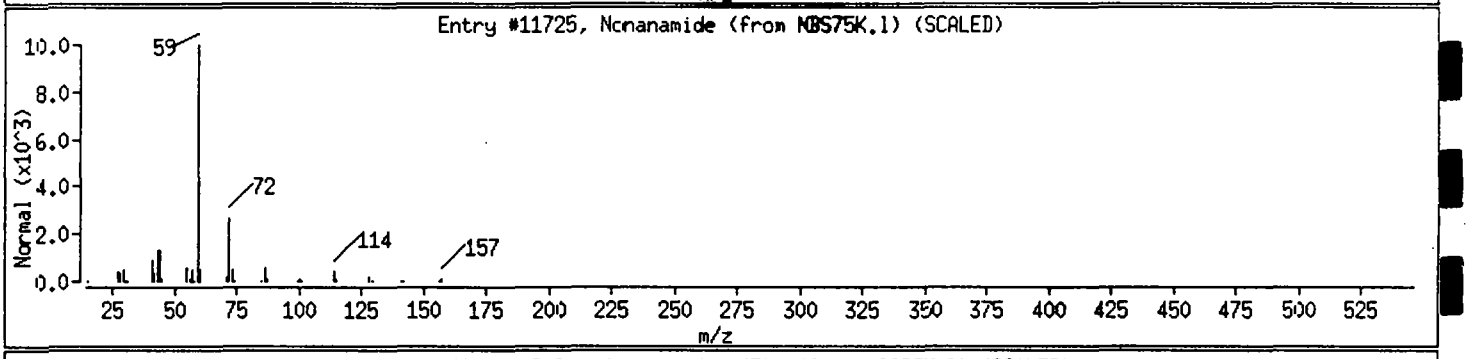
Sample Info:

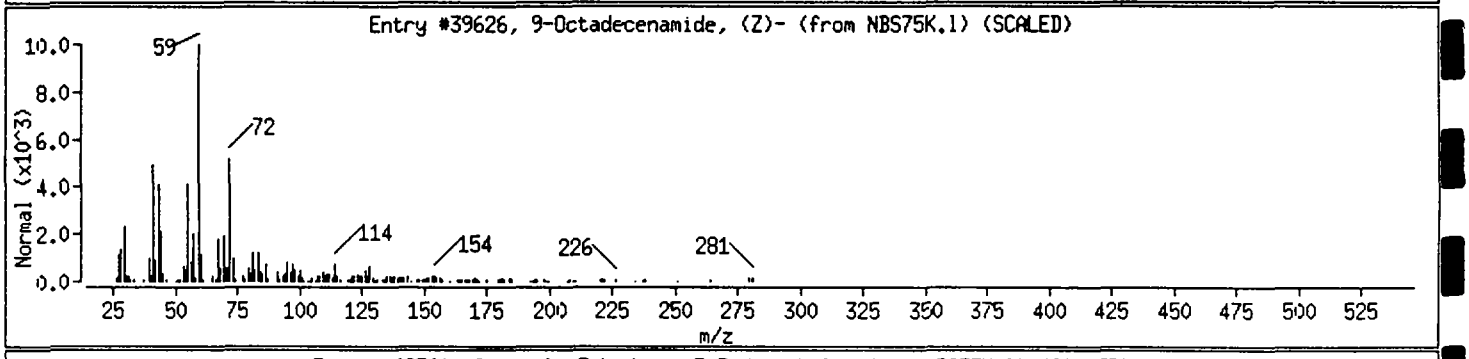
Volume Injected (uL): 2.0 Operator: 2242

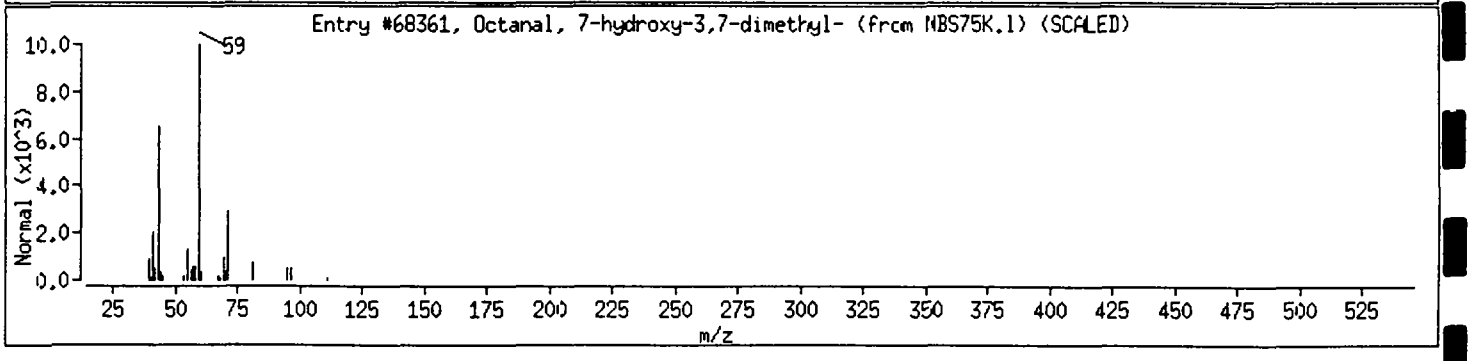
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown (BC)						
Nonanamide	1120-07-6	NBS75K.l	11725	42	C9H19NO	157
9-Octadecenamide, (Z)-	301-02-0	NBS75K.l	39626	35	C18H35NO	281
Octanal, 7-hydroxy-3,7-dimethyl-	107-75-5	NBS75K.l	68361	35	C10H20O2	172









LAB INSTRUCTIONS: PPS#: _____
NO PPS/FULL CLP/USE 500ML IN EXTRACTION

RECEIPT DATE: 03/18/98 CASE#: 33472 MWTT1 DUE DATE: 03/24/98

SEMI-VOLATILE J[ ] J3[ ] D[ ] { :1}
GC/MS WORKSHEET COMPUCHEM#: 885404
J2[ ] J4[ ] D2[ ] { :1}

GC/MS; TCL SV; WATER; SOW OLMO3.1

Sample Prep Code--- -1015
Instrument Code---- 463
Compound List------ 804
Surrogate Std------ 431
Internal Std------- 50

Sample date: 031798 Report type: 0

==========

SAMPLE ID#: BLANK-1

==========

GC/MS ANALYSIS
Volumes mixed: BN _____ ul Acid 300 _____ ul
Internal Standard Volume Added 5 ul
Mixed Sample Volume Injected 2 ul
Date Sample Bottle Analyzed 3/19/98
DFTPP Filename DF980321A68 Disk ( )
Standard Filename HG980321A68 Disk ( )
Sample Filename GH085404A68 Disk ( )

ANALYST(S): Injection 224 Work-up 224

==========

GC/MS REVIEW

CONDITION CODE: OK

Disposition: [✓] Complete
[ ] Reinjection required
[ ] Reextraction required
[ ] Dilute (:1)
[ ] Reinject Neat
[ ] Send to QA

Extraneous Peak Search Results:

# of Peaks Found: 12

# of Hits: 1

# of Surrogate Outliers: Ø

Quality Assurance Notice(s):

Notices Required Ø

COMMENTS:

#GC/MS Review [signature] Date 3/23/98 Auditor_____ Date____/____/____

==========

REPORT INTEGRATION Total # of Injections: _____
Final Reportable Package(s): GH085404A68 /_____

==========

QA COMMENTS:

Initials_____ Date____/____/____

==========

FINAL REVIEW: Initials_____ Date____/____/____

AC1350

S3/17 R3/18 ~3/24 ~~3/24

3-20-1

Batch: 1015-980319-0712 COMPUCHEM ENVIRONMENTAL CORP. Date Extracted/Posted: 3/19/98

Assigned to Carrie/Jeremy EXTRACTION WORKSHEET

Emp.ID number: 2330/2331 EPA CLP SOW

Semi Volatile Waters EPA CLP SOW Continuous Extraction Queue #51

CASE/SDG: 33234.009ZW 33472.MWITI Proc: -1015 Manual counter: ~~934~~ 1344/948

CONTRACT: DUE DATE: 03/24/98

Auto Counter 1343 / 788

Original Entered for SS's 885405

Initials / Date J.S. / 3/19/98

	CompuChem Sample Number	Client ID#		Bottle #	Sample Volume (mL)	Final Volume (mL)	Initial PH	Adj. PH ACID	Final Volume	Comments
1	885413	SLCSLD	03/19	D.I.	1000	1.0	7.0	1.6		
2	885412	SBLKLD	03/19	D.I.	1000	1.0	7.0	1.6		
3	885357	BS	03/18	D.I.	1000	1.0	7.0	1.6		1343/797 PPSS85
4	885356	U4G00907	03/18	7 of 8	1000	1.0	6.5	1.6		
5	885358	BSD	03/18	D.I.	1000	1.0	7.0	1.6		
6	885405 *	PVC-1	03/18	2 of 2	500	.5	7.0	1.6		USE 885405 FOR 885402 & 885403.
7	885401 *	POLY-1	03/18	1 of 1	500	.5	7.0	1.6		
8	885402 *	SS	03/18	2 of 2	500	.5	7.0	1.6		1343/788
9	885403 *	SS	03/18	1 of 2	500	.5	7.0	1.6		
10	885404 *	BLANK-1	03/18	1 of 1	500	.5	7.0	1.6		

*USE 500ml of sample volume + add 0.25ml #43 Final volume=0.5 Add 0.25ml #8000 to SS's.

	ID#	AMT	LOT#
Surrogate	431	0.5 mL	46796
Spike	8000	0.5 mL	47062

Final Volume Verified:

Reviewed By :

POSTED 2331

CM added

Verif. Surr/Spike Addition:

Initials J.S. / Date 3/19/98

QC:	CompuChem Samp#	Client ID#	QC Type

Extracts relinq. by: _____ Date: _____ Extracts rec'd by: _____ Date: _____

Extracts relinq. by: _____ Date: _____ Extracts rec'd by: _____ Date: _____

1015-980319-0712, Case: OPEN Case size: 33 Nbr other batch: 0 (Client Specific QC)

Methanol
Sodium Sulfate
$MeCl_2$ B0908

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

POLY-1

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885401

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085401A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

POLY-1

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885401

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085401A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	JB
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

POLY-1

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885401

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085401A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 21

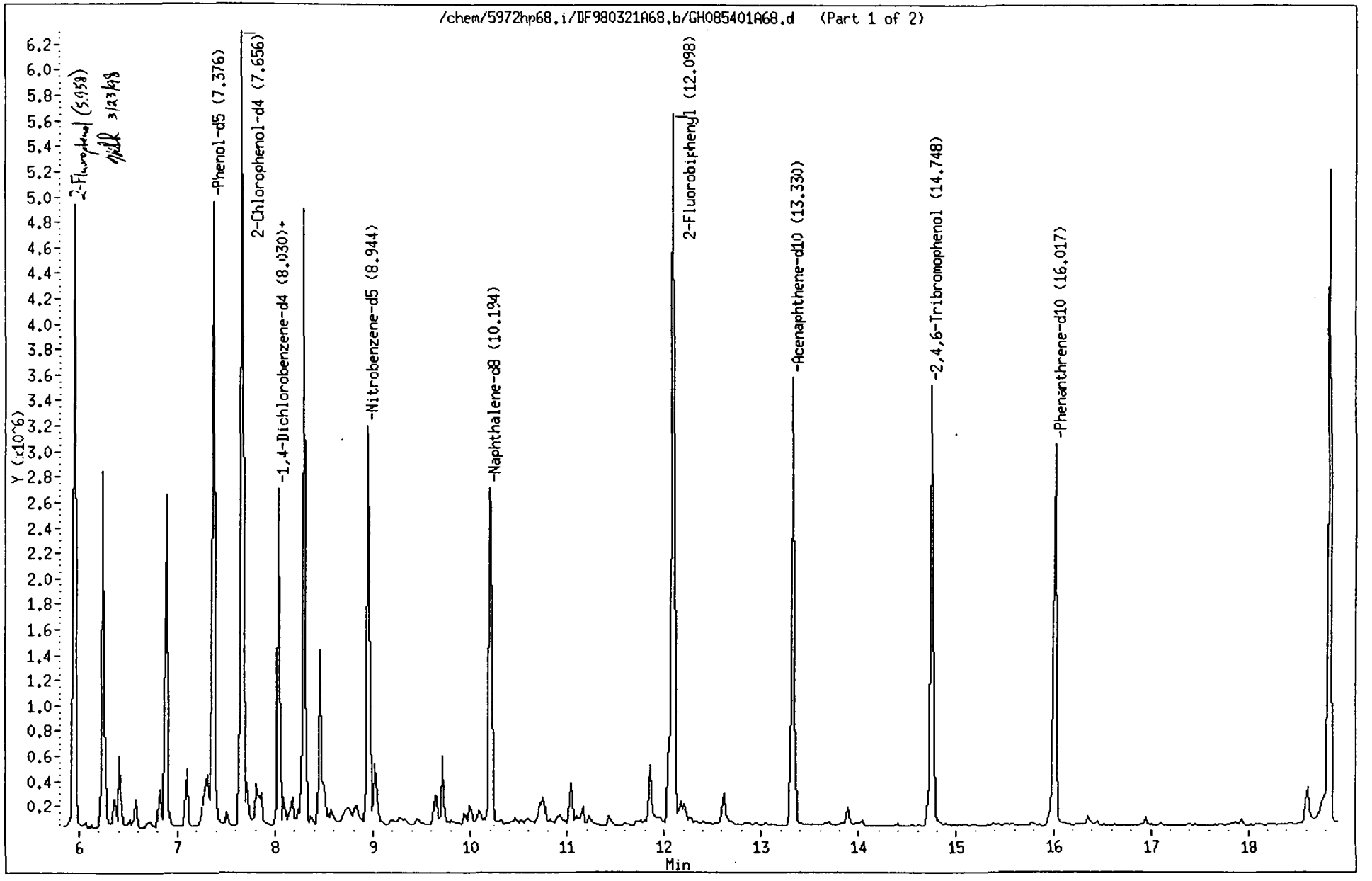
CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		CYCLOHEXENOL (BC)	6.24	21	JB
2.	108-94-1	CYCLOHEXANONE	6.35	2	NJB
3.		UNKNOWN	6.41	4	J
4.	2441-97-6	CYCLOHEXENE, 3-CHLORO-	6.57	2	NJ
5.		CYCLOHEXENONE (BC)	6.89	23	JB
6.		TRICHLOROPROPENE	7.10	3	J
7.		UNKNOWN CARBOXYLIC ACID	7.28	6	J
8.		UNKNOWN	7.81	7	J
9.		UNKNOWN	8.18	5	J
10.		UNKNOWN	8.46	16	J
11.		UNKNOWN	8.74	3	J
12.		UNKNOWN	8.81	3	J
13.		UNKNOWN CARBOXYLIC ACID	9.04	5	J
14.		UNKNOWN (BC)	9.71	3	JB
15.		UNKNOWN	10.75	3	J
16.		UNKNOWN	11.03	3	J
17.		UNKNOWN ACID ESTER	11.86	3	J
18.		UNKNOWN	12.17	2	J
19.	80-05-7	PHENOL, 4,4'-(1-METHYLETHYLI	18.61	3	NJ
20.		UNKNOWN (BC)	22.21	19	JB
21.		UNKNOWN	22.40	3	J
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Data File: /chem/5972hp68.i/DF980321A68.b/GH085401A68.d
Date : 21-MAR-1998 09:32
Client ID: POLY-1
Sample Info:
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

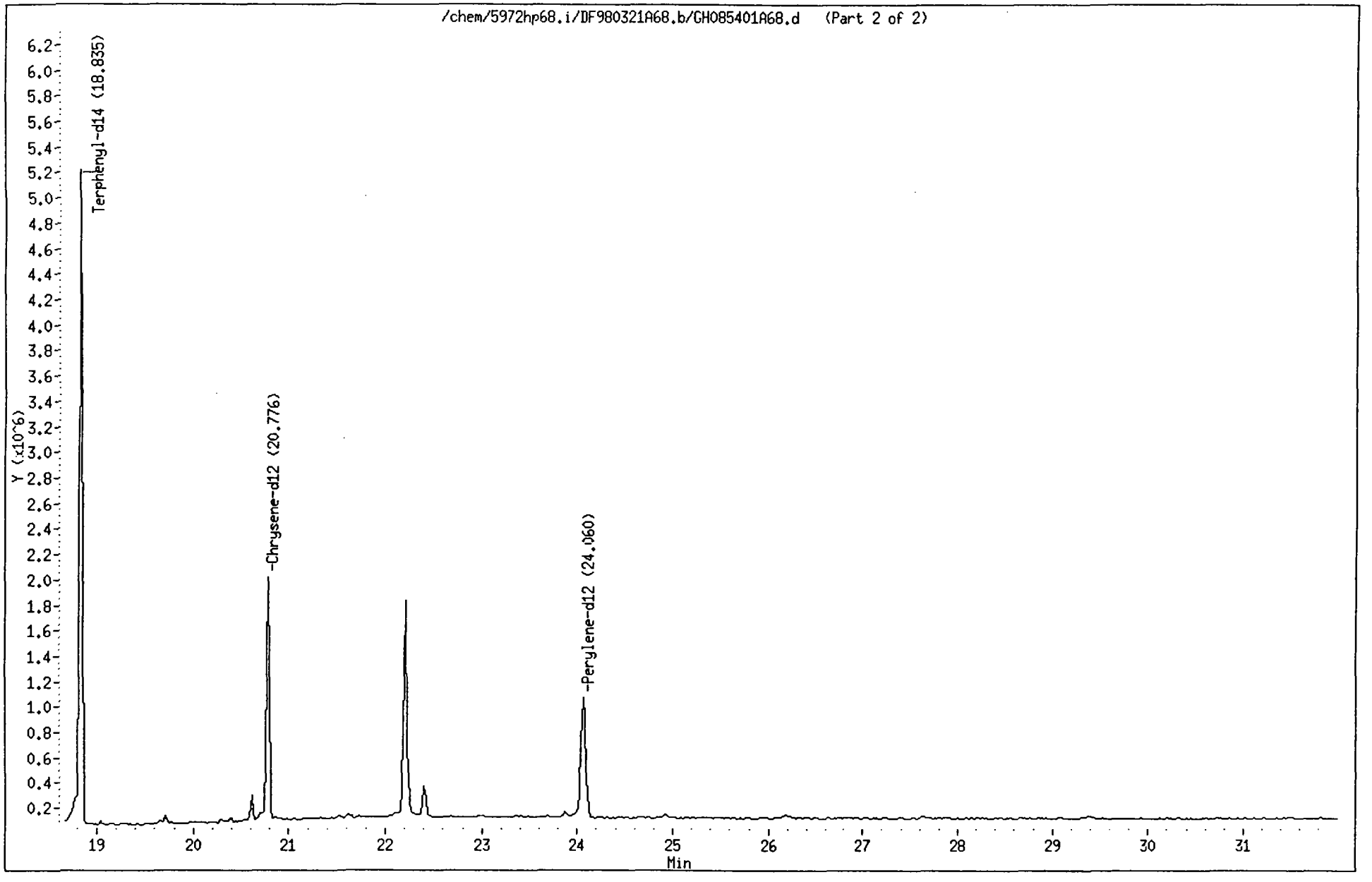
Operator: 2242
Column diameter: 0.32



Data File: /chem/5972hp68.i/DF980321A68.b/GH085401A68.d
Date : 21-MAR-1998 09:32
Client ID: POLY-1
Sample Info:
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32



Data File: /chem/5972hp68.i/DF980321A68.b/GH085401A68.d
Report Date: 23-Mar-1998 09:43

CompuChem Environmental Corp.

OLM03.0 + REVISIONS QUANT AND RATIO REPORT

Data file : /chem/5972hp68.i/DF980321A68.b/GH085401A68.d
Lab Smp Id: 885401 Client Smp ID: POLY-1
Inj Date : 21-MAR-1998 09:32
Operator : 2242 Inst ID: 5972hp68.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp68.i/DF980321A68.b/OLMO3.m
Meth Date : 23-Mar-1998 09:00 mss Quant Type: ISTD
Cal Date : 21-MAR-98 08:07 Cal File: HG980321A68.d
Als bottle: 4
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.12
Concentration Formula: Vt/(Vo * Vi)

Name	Value	Description
Vt	500.000	Volume of final extract (uL)
Vo	500.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152.00	8.030	8.042	(1.000)	827874	40.00		
* 2 Naphthalene-d8	136.00	10.194	10.206	(1.000)	3069775	40.00		8669
* 3 Acenaphthene-d10	164.00	13.330	13.323	(1.000)	1626529	40.00		9312
* 4 Phenanthrene-d10	188.00	16.017	16.010	(1.000)	2452228	40.00		9329
* 5 Chrysene-d12	240.00	20.776	20.788	(1.000)	1456510	40.00		9625
* 6 Perylene-d12	264.00	24.060	24.072	(1.000)	1251309	40.00		8626
$ 7 2-Fluorophenol	112.00	5.958	5.952	(0.742)	2689212	98.93	49.46	
$ 8 Phenol-d5	99.00	7.376	7.370	(0.919)	3489622	122.5	61.27	8095
$ 9 2-Chlorophenol-d4	132.00	7.656	7.650	(0.954)	3127852	116.0	58.00	8812
$ 10 1,2-Dichlorobenzene-d4	152.00	8.030	8.303	(1.000)	827874	46.24	23.12	
$ 11 Nitrobenzene-d5	82.00	8.944	8.956	(0.877)	1890572	82.16	41.08	8722
$ 12 2-Fluorobiphenyl	172.00	12.098	12.091	(0.908)	3707984	71.34	35.67	8717
$ 13 2,4,6-Tribromophenol	329.60	14.748	14.741	(0.921)	980535	108.9	54.44	
$ 14 Terphenyl-d14	244.00	18.835	18.828	(0.907)	3723894	98.62	49.31	8836
15 Phenol	94.00		7.389	Compound Not Detected.				
16 bis(2-Chloroethyl)ether	93.00		7.575	Compound Not Detected.				
17 2-Chlorophenol	128.00		7.687	Compound Not Detected.				
18 1,3-Dichlorobenzene	146.00		7.948	Compound Not Detected.				
19 1,4-Dichlorobenzene	146.00		8.060	Compound Not Detected.				
20 1,2-Dichlorobenzene	146.00		8.322	Compound Not Detected.				
21 2-Methylphenol	108.00		8.378	Compound Not Detected.				

Data File: /chem/5972hp68.i/DF980321A68.b/GH085401A68.d
Report Date: 23-Mar-1998 09:43

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY
22 2,2'-oxybis(1-Chloropropane)	45.00		8.452		Compound Not Detected.			
23 4-Methylphenol	108.00		8.639		Compound Not Detected.			
24 N-Nitroso-di-n-propylamine	70.00		8.658		Compound Not Detected.			
25 Hexachloroethane	117.00		8.900		Compound Not Detected.			
26 Nitrobenzene	77.00		8.975		Compound Not Detected.			
27 Isophorone	82.00		9.367		Compound Not Detected.			
28 2-Nitrophenol	139.00		9.535		Compound Not Detected.			
29 2,4-Dimethylphenol	107.00		9.553		Compound Not Detected.			
30 bis(2-Chloroethoxy)methane	93.00		9.721		Compound Not Detected.			
31 2,4-Dichlorophenol	162.00		9.927		Compound Not Detected.			
32 1,2,4-Trichlorobenzene	180.00		10.095		Compound Not Detected.			
33 Naphthalene	128.00		10.244		Compound Not Detected.			
34 4-Chloroaniline	127.00		10.300		Compound Not Detected.			
35 Hexachlorobutadiene	225.00		1[illegible].30		Compound Not Detected.			
36 4-Chloro-3-methylphenol	107.00		11.121		Compound Not Detected.			
37 2-Methylnaphthalene	142.00		11.457		Compound Not Detected.			
38 Hexachlorocyclopentadiene	237.00		11.737		Compound Not Detected.			
39 2,4,6-Trichlorophenol	196.00		11.942		Compound Not Detected.			
40 2,4,5-Trichlorophenol	196.00		11.998		Compound Not Detected.			
41 2-Chloronaphthalene	162.00		12.334		Compound Not Detected.			
42 2-Nitroaniline	65.00		12.483		Compound Not Detected.			
43 Dimethylphthalate	163.00		12.782		Compound Not Detected.			
44 2,6-Dinitrotoluene	165.00		12.912		Compound Not Detected.			
45 Acenaphthylene	152.00		13.080		Compound Not Detected.			
46 3-Nitroaniline	138.00		13.211		Compound Not Detected.			
47 Acenaphthene	153.00		13.398		Compound Not Detected.			
48 2,4-Dinitrophenol	184.00		13.416		Compound Not Detected.			
49 4-Nitrophenol	109.00		13.472		Compound Not Detected.			
50 2,4-Dinitrotoluene	165.00		13.640		Compound Not Detected.			
51 Dibenzofuran	168.00		13.696		Compound Not Detected.			
52 Diethylphthalate	149.00		14.032		Compound Not Detected.			
53 4-Chlorophenyl-phenylether	204.00		14.293		Compound Not Detected.			
54 Fluorene	166.00		14.312		Compound Not Detected.			
55 4-Nitroaniline	138.00		14.312		Compound Not Detected.			
56 4,6-Dinitro-2-methylphenol	198.00		14.368		Compound Not Detected.			
57 N-nitrosodiphenylamine	169.00		14.480		Compound Not Detected.			
58 4-Bromophenyl-phenylether	248.00		15.171		Compound Not Detected.			
59 Hexachlorobenzene	283.90		15.301		Compound Not Detected.			
60 Pentachlorophenol	266.00		15.656		Compound Not Detected.			
61 Phenanthrene	178.00		16.066		Compound Not Detected.			
62 Anthracene	178.00		16.160		Compound Not Detected.			
63 Carbazole	167.00		16.421		Compound Not Detected.			
64 Di-n-butylphthalate	149.00		16.962		Compound Not Detected.			
65 Fluoranthene	202.00		18.212		Compound Not Detected.			
66 Pyrene	202.00		18.623		Compound Not Detected.			
67 Butylbenzylphthalate	149.00		19.649		Compound Not Detected.			
68 3,3'-Dichlorobenzidine	252.00		20.657		Compound Not Detected.			
69 bis(2-Ethylhexyl)phthalate	149.00	20.608	20.620	(0.992)	111669	2.71	1.35	8465(a)
70 Benzo(a)anthracene	228.00		20.769		Compound Not Detected.			

Data File: /chem/5972hp68.i/DF980321A68.b/GH085401A68.d
Report Date: 23-Mar-1998 09:43

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY
71 Chrysene	228.00		20.825		Compound Not Detected.			
72 Di-n-octylphthalate	149.00		21.833		Compound Not Detected.			
73 Benzo(b)fluoranthene	252.00		23.027		Compound Not Detected.			
74 Benzo(k)fluoranthene	252.00		23.102		Compound Not Detected.			
75 Benzo(a)pyrene	252.00		23.923		Compound Not Detected.			
76 Indeno(1,2,3-cd)pyrene	276.00		27.674		Compound Not Detected.			
77 Dibenzo(a,h)anthracene	278.00		27.692		Compound Not Detected.			
78 Benzo(g,h,i)perylene	276.00		28.794		Compound Not Detected.			

QC Flag Legend

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

Data File: /chem/5972hp68.i/DF980321A68.b/GH085401A68.d

Date : 21-MAR-1998 09:32

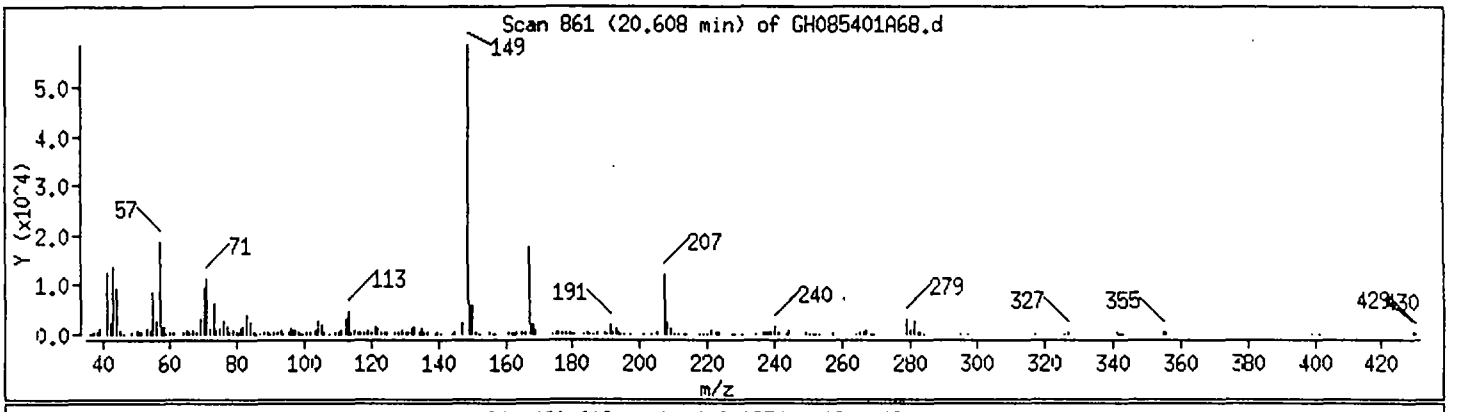
Client ID: POLY-1 Instrument: 5972hp68.i

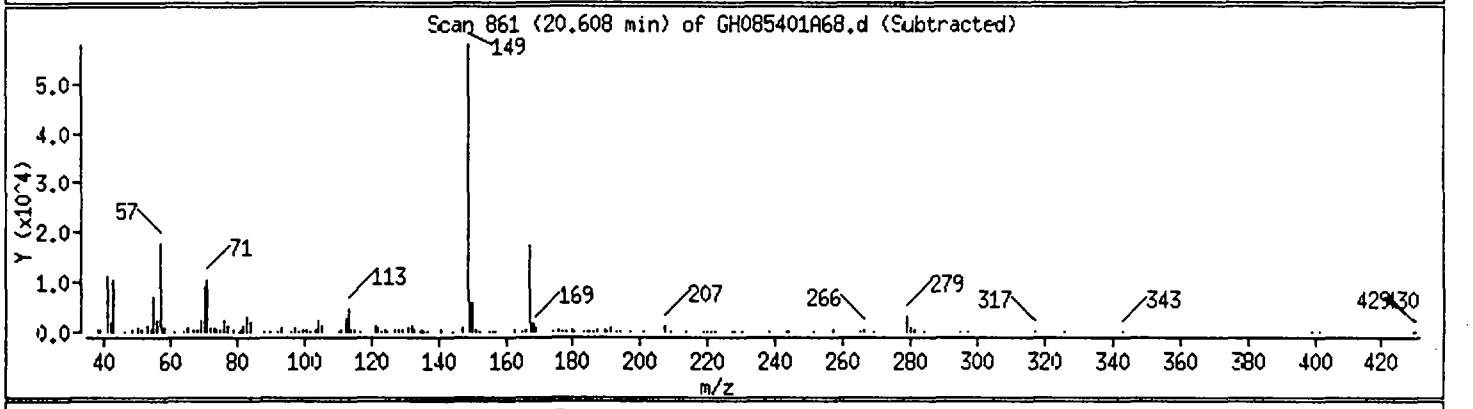
Sample Info:

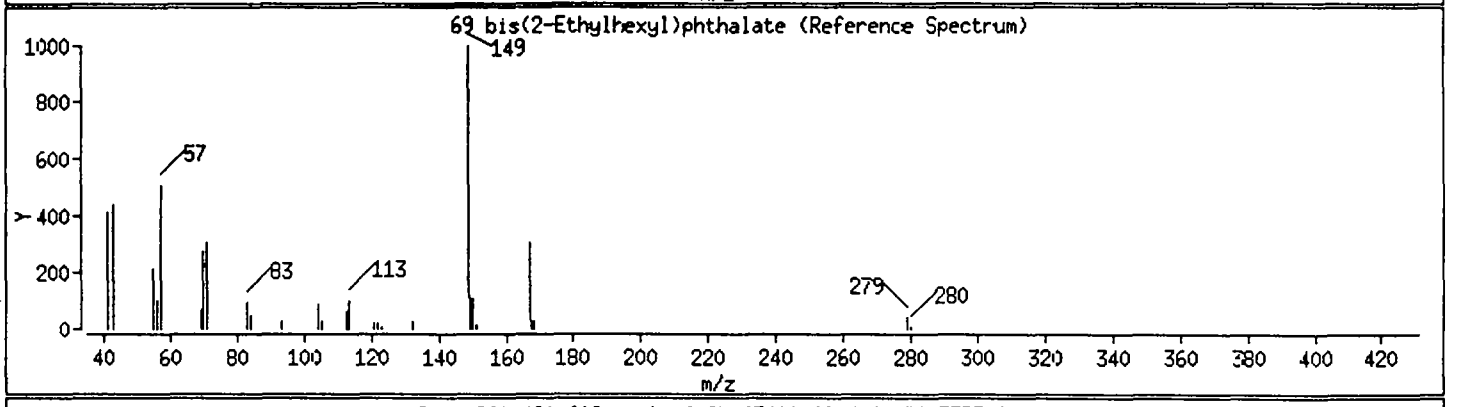
Volume Injected (uL): 2.0 Operator: 2242

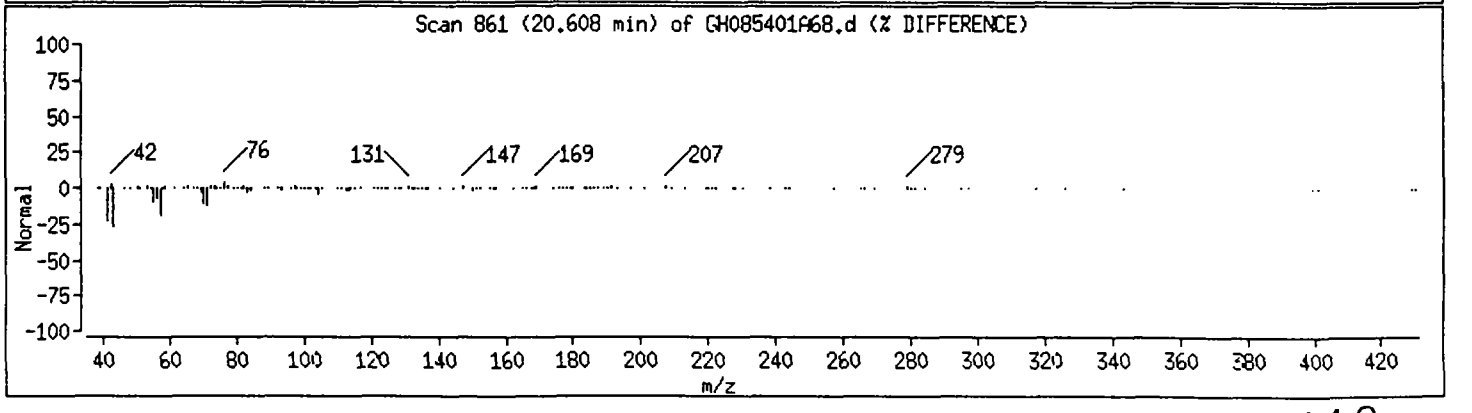
Column phase: DB-5 Column diameter: 0.32

69 bis(2-Ethylhexyl)phthalate









Data File: /chem/5972hp68.i/DF980321A68.b/GH085401A68.d
Report Date: 23-Mar-1998 09:43

CompuChem Environmental Corp.

Unknown Compounds Quantitation Report

Data file : /chem/5972hp68.i/DF980321A68.b/GH085401A68.d
Lab Smp Id: 885401 Client Smp ID: POLY-1
Inj Date : 21-MAR-1998 09:32
Operator : 2242 Inst ID: 5972hp68.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp68.i/DF980321A68.b/OLMO3.m
Meth Date : 23-Mar-1998 09:00 mss
Cal Date : 21-MAR-98 08:07 Cal File: HG980321A68.d
Als bottle: 4
Dil Factor: 1.000 Target Version: 3.12
Integrator: HP RTE Compound Sublist: all.sub
Sample Matrix: WATER
Quantitative Mode : Use RF of Nearest Std
Concentration Formula: Vt/(Vo * Vi)

Name	Value	Description
Vt	500.000	Volume of final extract (uL)
Vo	500.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)

ISTD	RT	AREA	AMOUNT
* 1 1,4-Dichlorobenzene-d4	8.030	4639397	40.000
* 2 Naphthalene-d8	10.194	6190732	40.000
* 3 Acenaphthene-d10	13.330	6491175	40.000
* 5 Chrysene-d12	20.776	4396491	40.000

RT	AREA	CONCENTRATIONS ON-COL(NG)	FINAL(ug/L)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Cyclohexenol (BC)					CAS #:		
6.238	4784939	41.25	20.63	0		0	1
Cyclohexanone					CAS #: 108-94-1		
6.350	587950	5.07	2.53	49	NBS75K.1	63197	1

Data File: /chem/5972hp68.i/DF980321A68.b/GH085401A68.d
Report Date: 23-Mar-1998 09:43

RT	AREA	CONCENTRATIONS ON-COL(NG)	FINAL(ug/L)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
6.406	1009230	8.70	4.35	0		0	1
Cyclohexene, 3-chloro-					CAS #: 2441-97-6		
6.574	498526	4.30	2.15	94	NBS75K.l	64266	1
Cyclohexenone (BC)					CAS #:		
6.891	5288482	45.60	22.80	0		0	1
Trichloropropene					CAS #:		
7.097	723779	6.24	3.12	0		0	1
Unknown Carboxylic Acid					CAS #:		
7.283	1403169	12.10	6.05	0		0	1
Unknown					CAS #:		
7.806	1586690	13.68	6.84	0		0	1
Unknown					CAS #:		
8.179	1081360	9.32	4.66	0		0	1
Unknown					CAS #:		
8.459	3668138	31.62	15.81	0		0	1
Unknown					CAS #:		
8.739	744130	6.42	3.21	0		0	1
Unknown					CAS #:		
8.813	716894	6.18	3.09	0		0	1
Unknown Carboxylic Acid					CAS #:		
9.037	1182780	10.20	5.10	0		0	1
Unknown (BC)					CAS #:		
9.709	975036	6.30	3.15	0		0	2
Unknown					CAS #:		
10.754	970342	6.27	3.13	0		0	2
Unknown					CAS #:		
11.034	839173	5.42	2.71	0		0	2
Unknown Acid Ester					CAS #:		
11.855	1135201	7.00	3.50	0		0	3
Unknown					CAS #:		
12.173	761591	4.69	2.35	0		0	3

Data File: /chem/5972hp68.i/DF980321A68.b/GH085401A68.d
Report Date: 23-Mar-1998 09:43

RT	AREA	CONCENTRATIONS ON-COL(NG)	FINAL(ug/L)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Phenol, 4,4'-(1-methylethylidene)bis-					CAS #: 80-05-7		
18.611	767205	6.98	3.49	94	NBS75K.1	70845	5
Unknown (BC)					CAS #:		
22.212	4136688	37.64	18.82	0		0	5
Unknown					CAS #:		
22.399	660609	6.01	3.00	0		0	5

Data File: /chem/5972hp68.i/DF980321A68.b/GH085401A68.d

Date : 21-MAR-1998 09:32

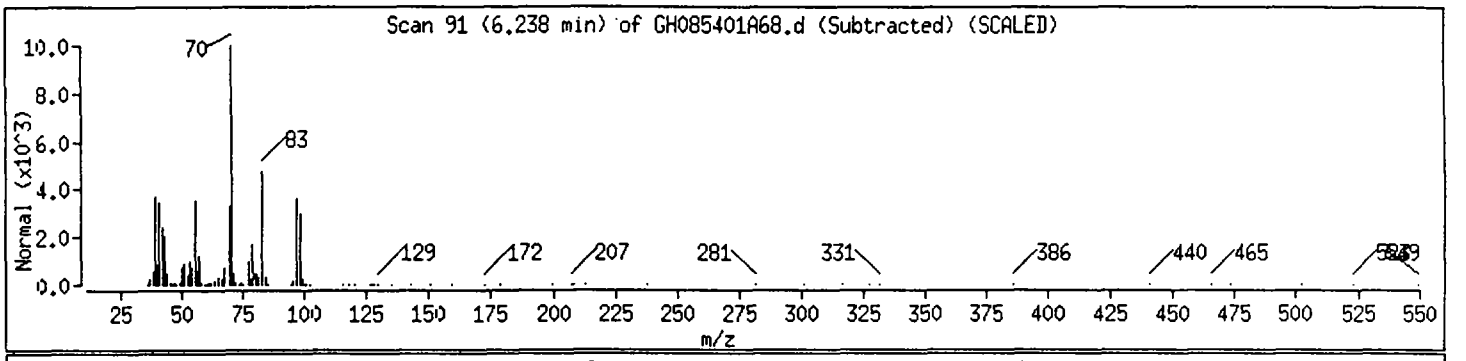
Client ID: POLY-1 Instrument: 5972hp68.i

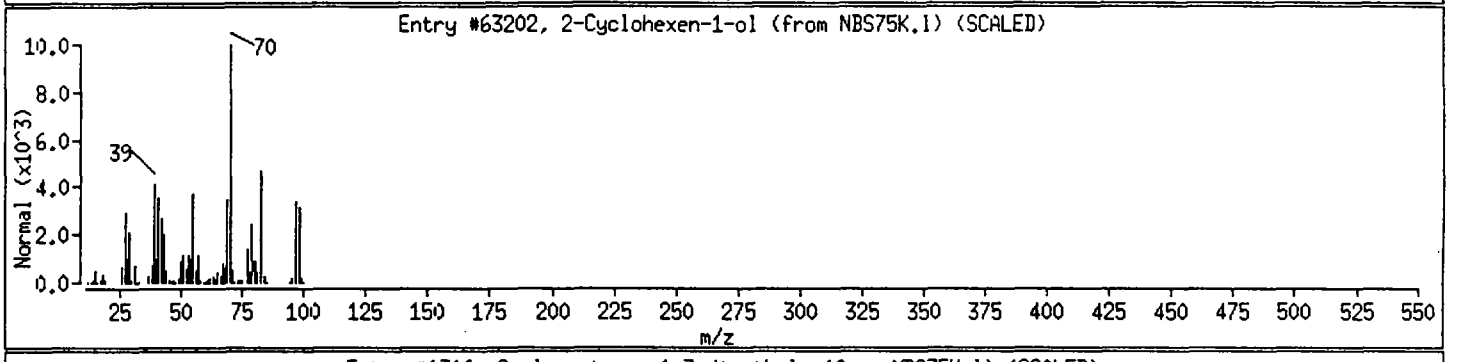
Sample Info:

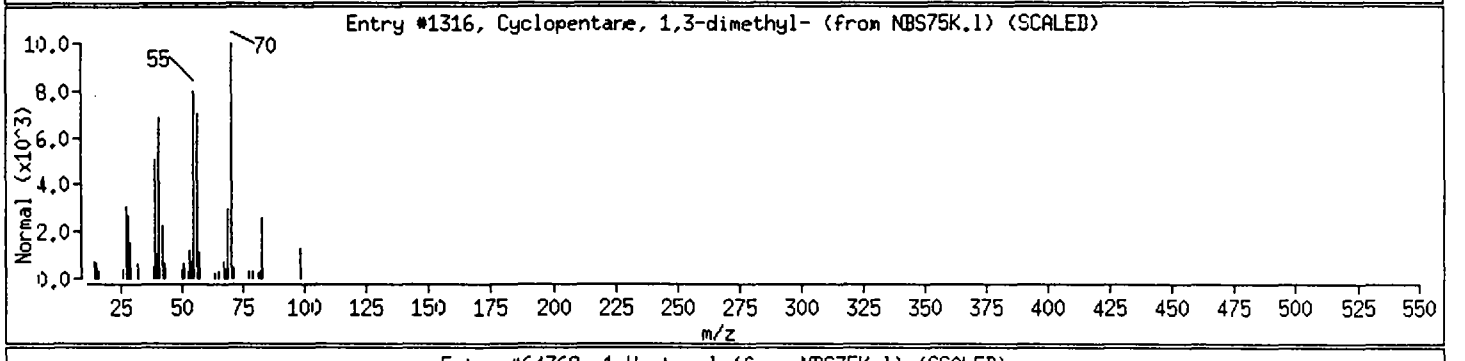
Volume Injected (uL): 2.0 Operator: 2242

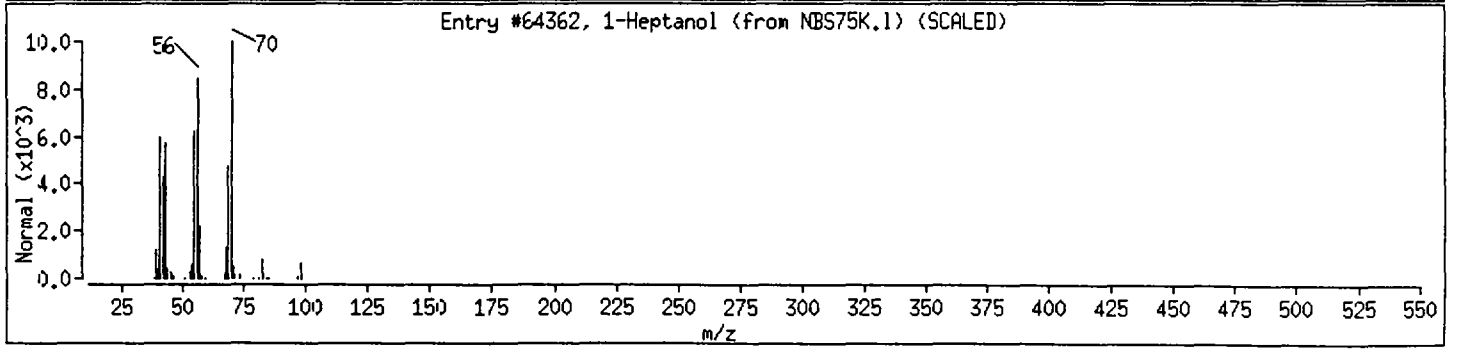
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexenol (BC)						
2-Cyclohexen-1-ol	822-67-3	NBS75K.l	63202	80	C6H10O	98
Cyclopentane, 1,3-dimethyl-	2453-00-1	NBS75K.l	1316	53	C7H14	98
1-Heptanol	111-70-6	NBS75K.l	64362	47	C7H16O	116









Data File: /chem/5972hp68.i/DF980321A68.b/GH085401A68.d

Date : 21-MAR-1998 09:32

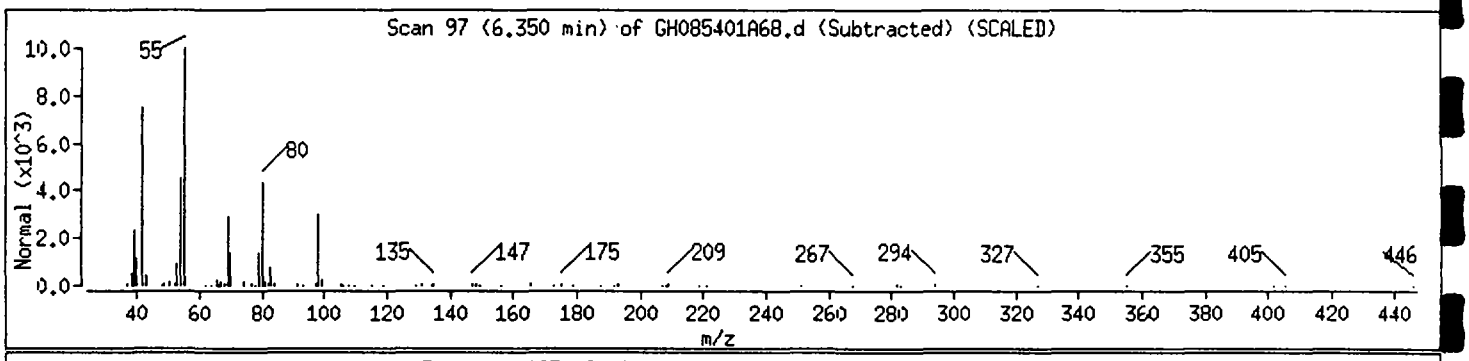
Client ID: POLY-1 Instrument: 5972hp68.i

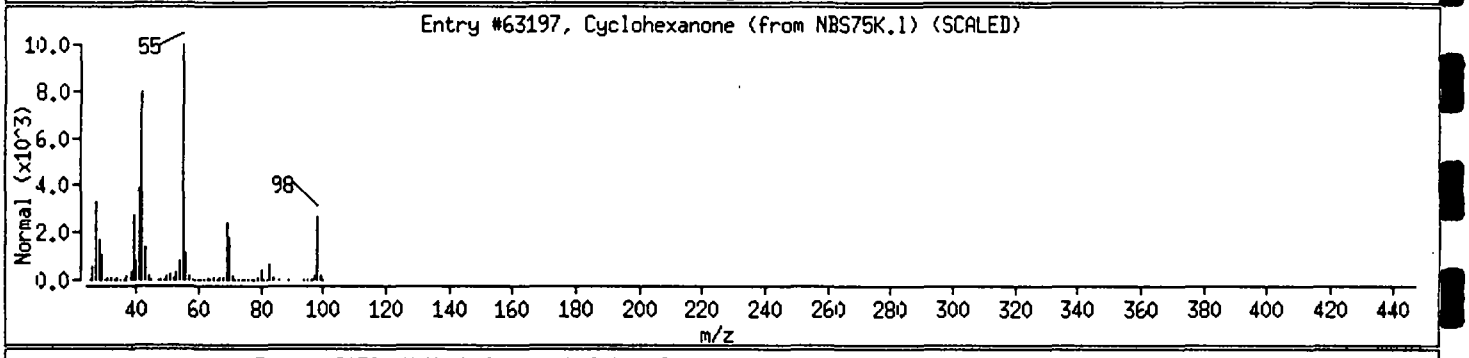
Sample Info:

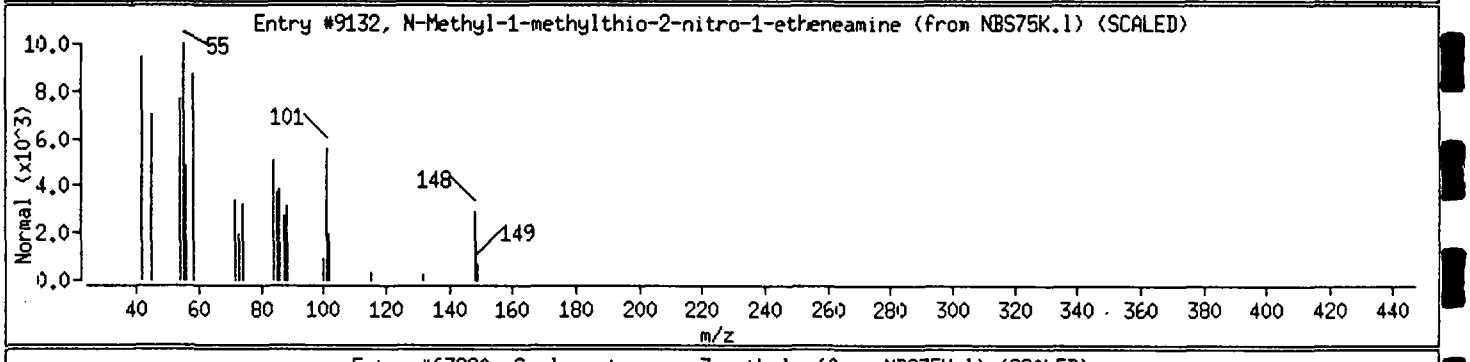
Volume Injected (uL): 2.0 Operator: 2242

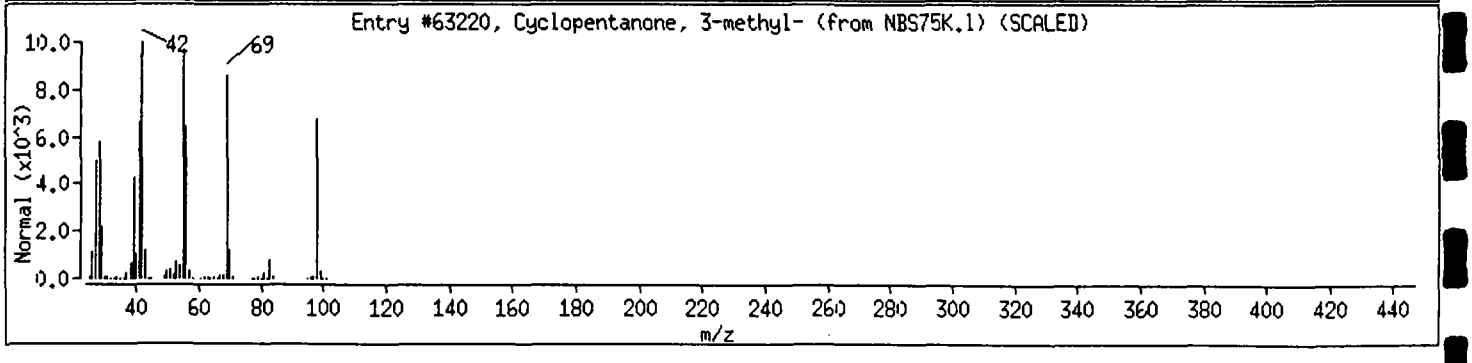
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexanone	108-94-1	NBS75K.l	63197	49	C6H10O	98
N-Methyl-1-methylthio-2-nitro-1-etheneam	0-00-0	NBS75K.l	9132	37	C4H8N2O2S	148
Cyclopentanone, 3-methyl-	1757-42-2	NBS75K.l	63220	37	C6H10O	98









Data File: /chem/5972hp68.i/DF980321A68.b/GH085401A68.d

Date : 21-MAR-1998 09:32

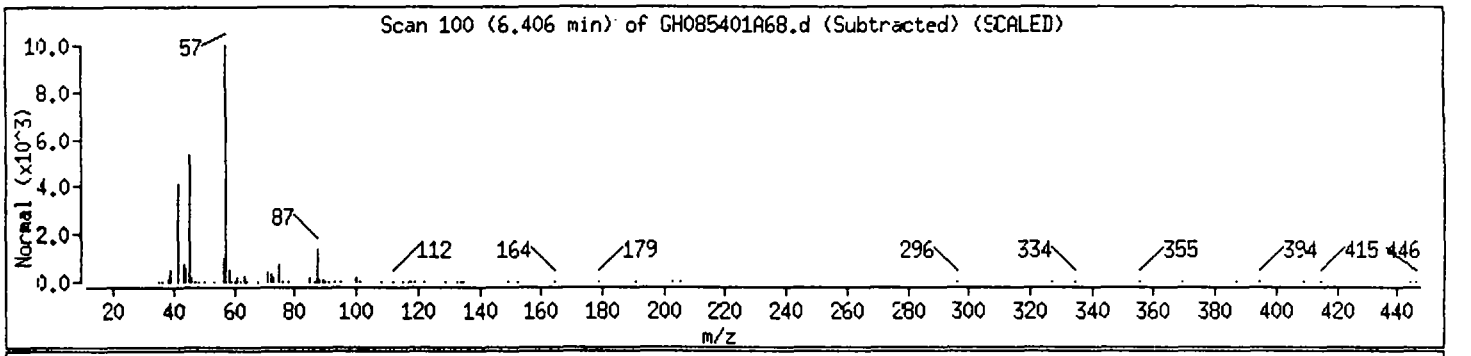
Client ID: POLY-1 Instrument: 5972hp68.i

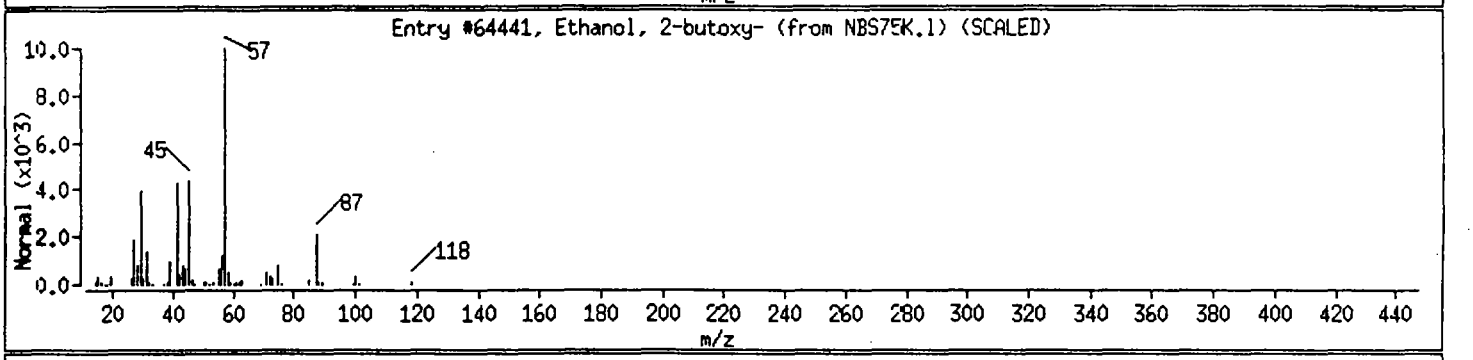
Sample Info:

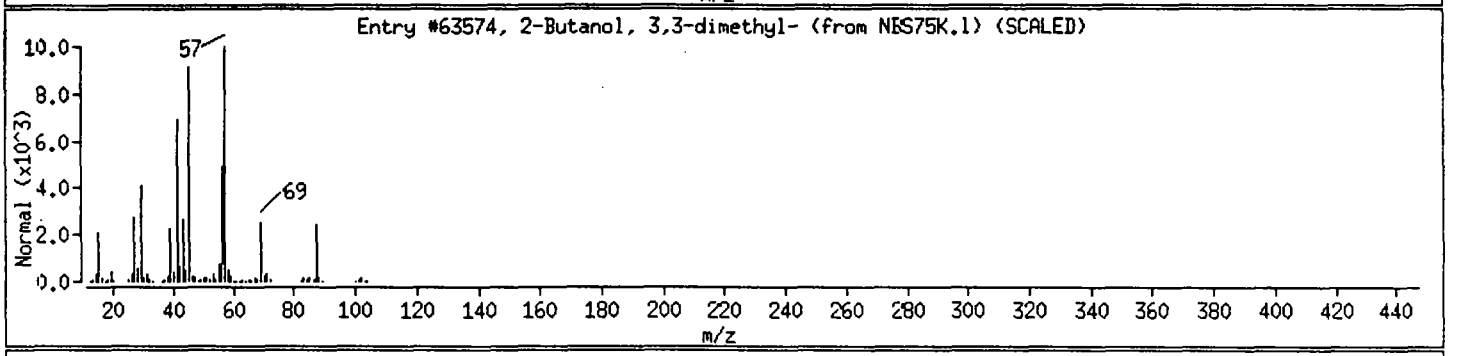
Volume Injected (uL): 2.0 Operator: 2242

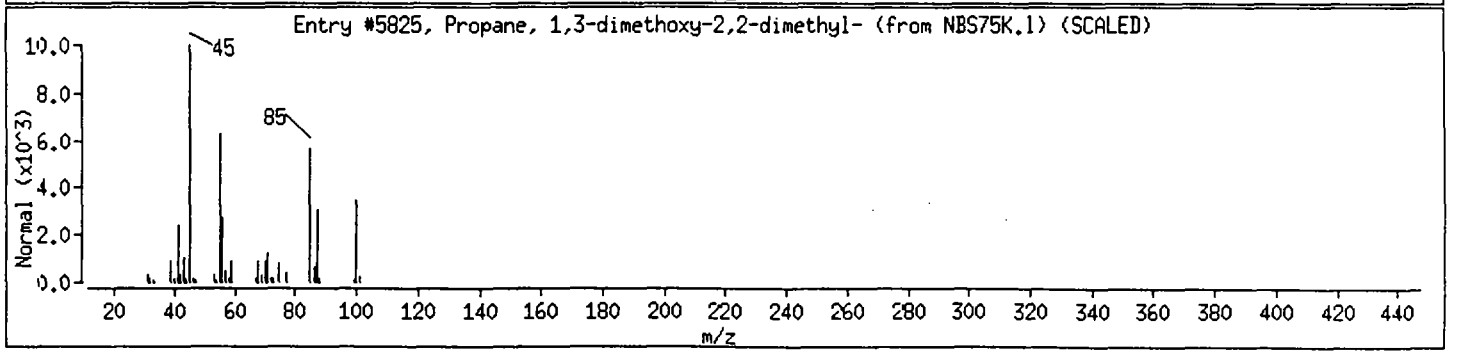
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ethanol, 2-butoxy-	111-76-2	NBS75K.l	64441	59	C6H14O2	118
2-Butanol, 3,3-dimethyl-	464-07-3	NBS75K.l	63574	59	C6H14O	102
Propane, 1,3-dimethoxy-2,2-dimethyl-	20637-32-5	NBS75K.l	5825	33	C7H16O2	132









Data File: /chem/5972hp68.i/DF980321A68.b/GH085401A68.d

Date : 21-MAR-1998 09:32

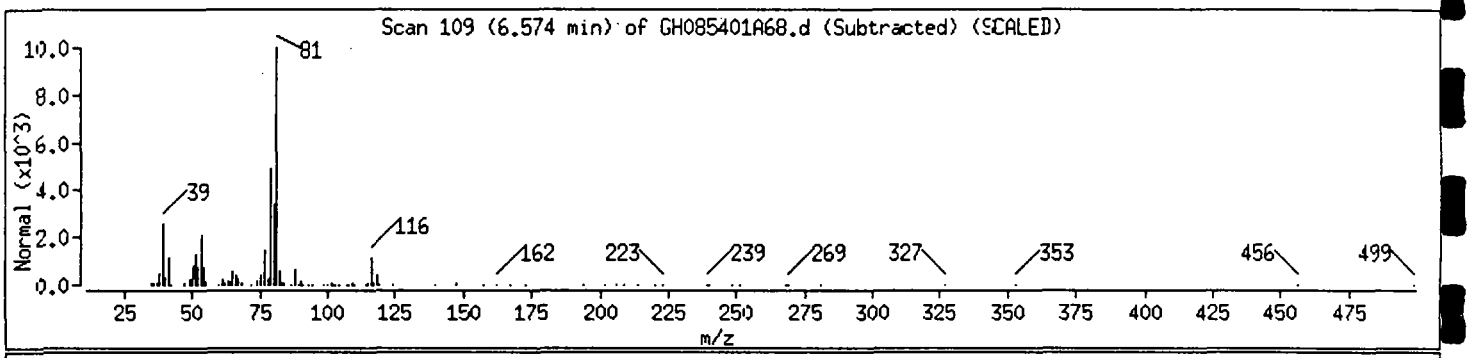
Client ID: POLY-1 Instrument: 5972hp68.i

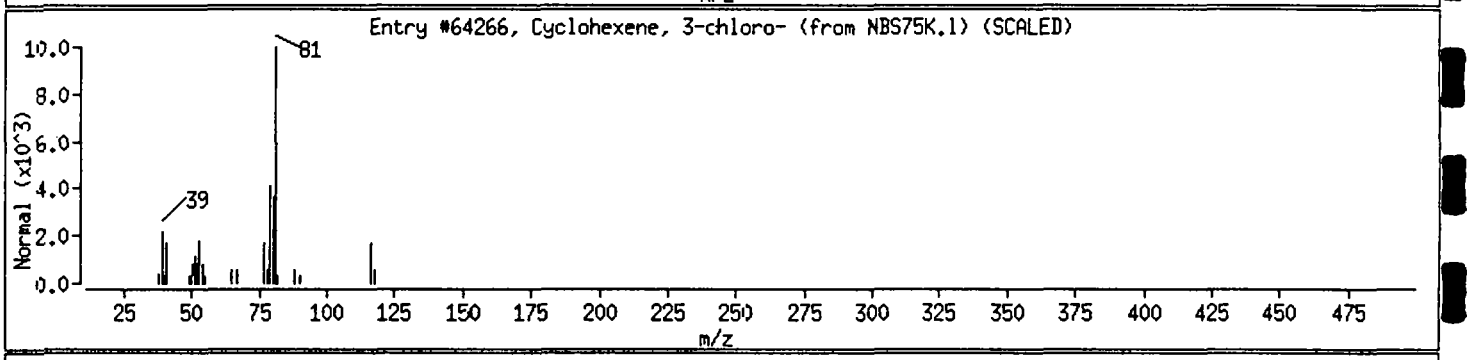
Sample Info:

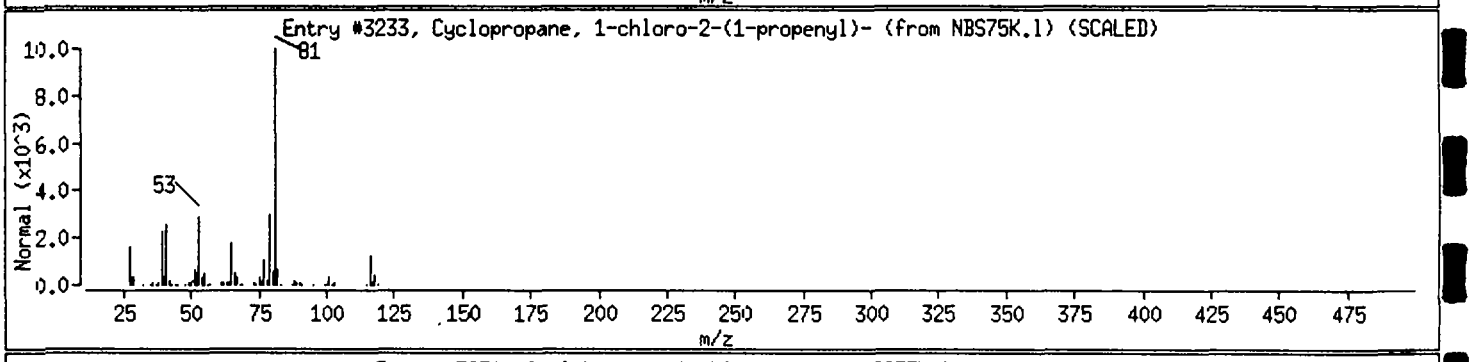
Volume Injected (uL): 2.0 Operator: 2242

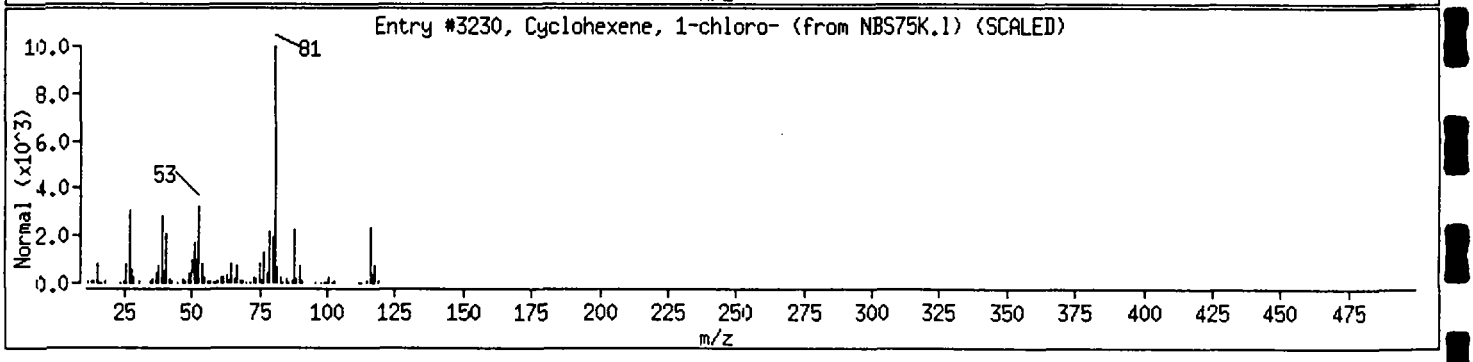
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexene, 3-chloro-	2441-97-6	NBS75K.l	64266	94	C6H9Cl	116
Cyclopropane, 1-chloro-2-(1-propenyl)-	74752-94-6	NBS75K.l	3233	72	C6H9Cl	116
Cyclohexene, 1-chloro-	930-66-5	NBS75K.l	3230	58	C6H9Cl	116









Data File: /chem/5972hp68.i/DF980321A68.b/GH085401A68.d

Date : 21-MAR-1998 09:32

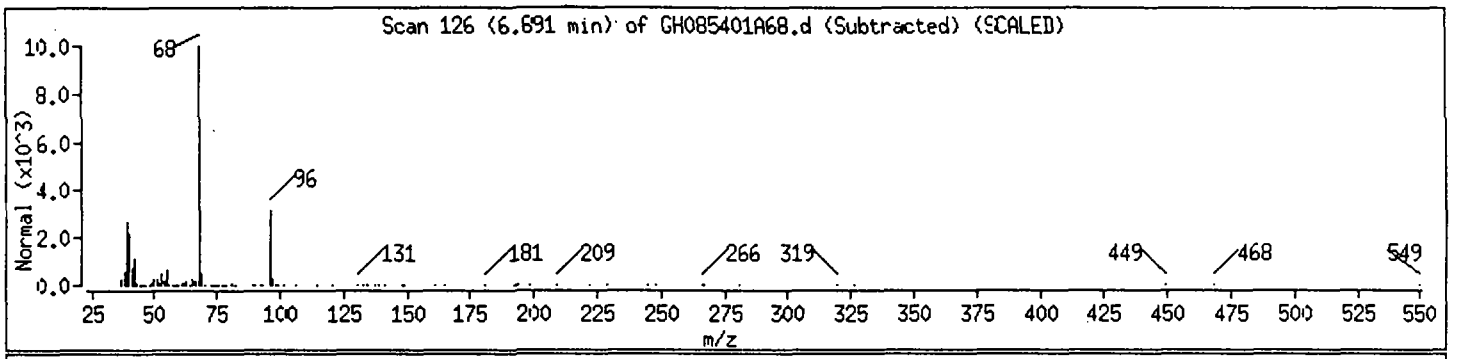
Client ID: POLY-1 Instrument: 5972hp68.i

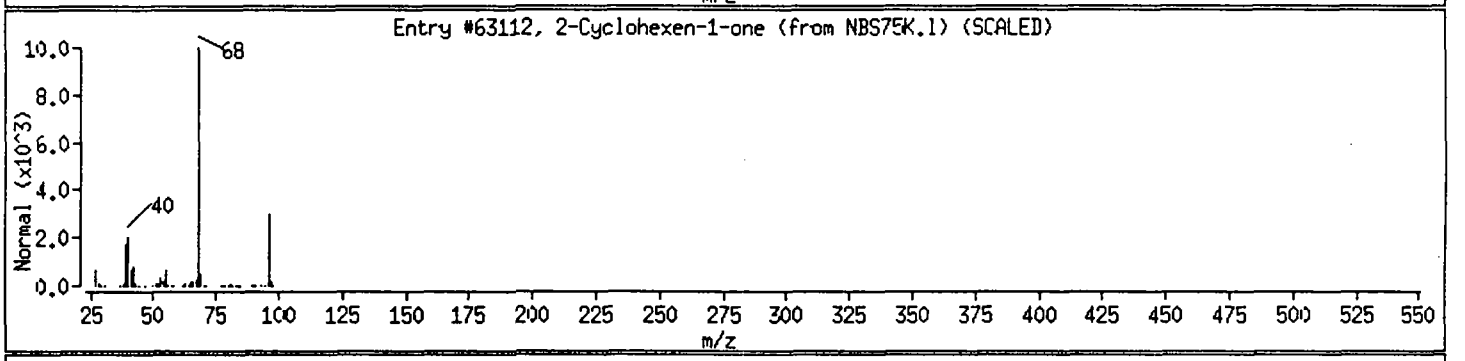
Sample Info:

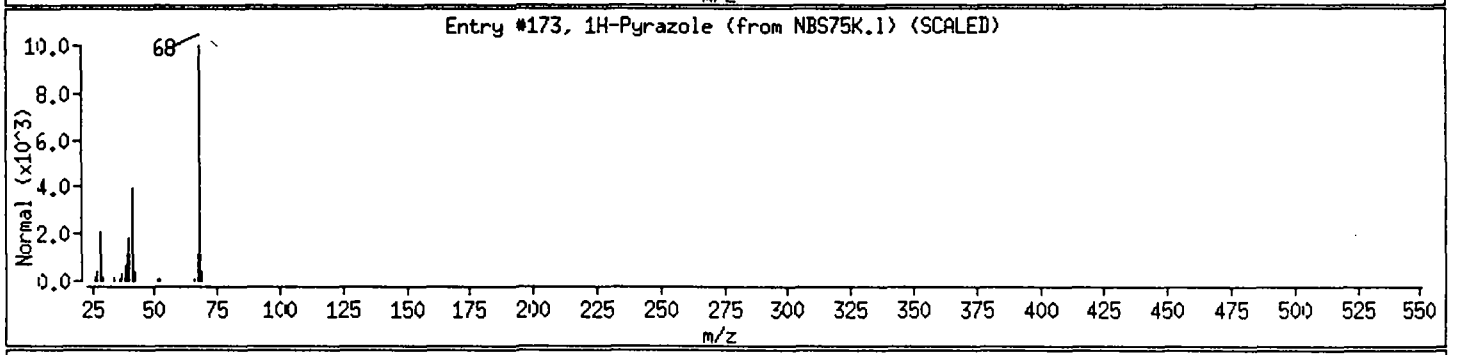
Volume Injected (uL): 2.0 Operator: 2242

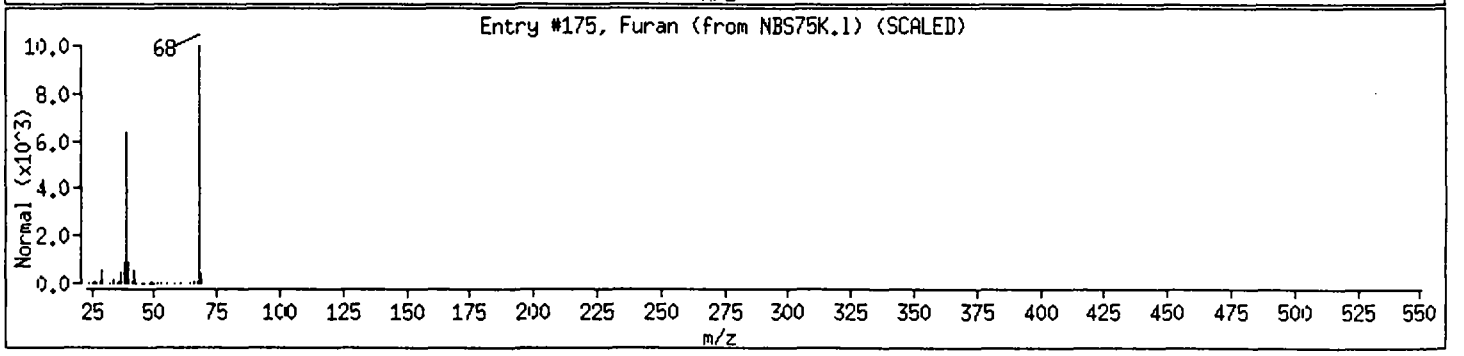
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexenone (BC)						
2-Cyclohexen-1-one	930-68-7	NBS75K.l	63112	91	C6H8O	96
1H-Pyrazole	288-13-1	NBS75K.l	173	40	C3H4N2	68
Furan	110-00-9	NBS75K.l	175	9	C4H4O	68









Data File: /chem/5972hp68.i/DF980321A68.b/GH085401A68.d

Date : 21-MAR-1998 09:32

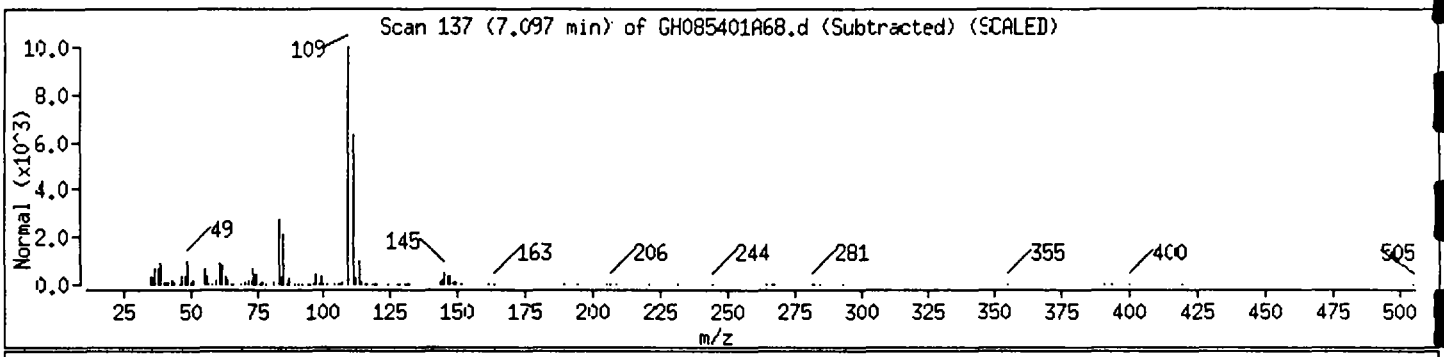
Client ID: POLY-1 Instrument: 5972hp68.i

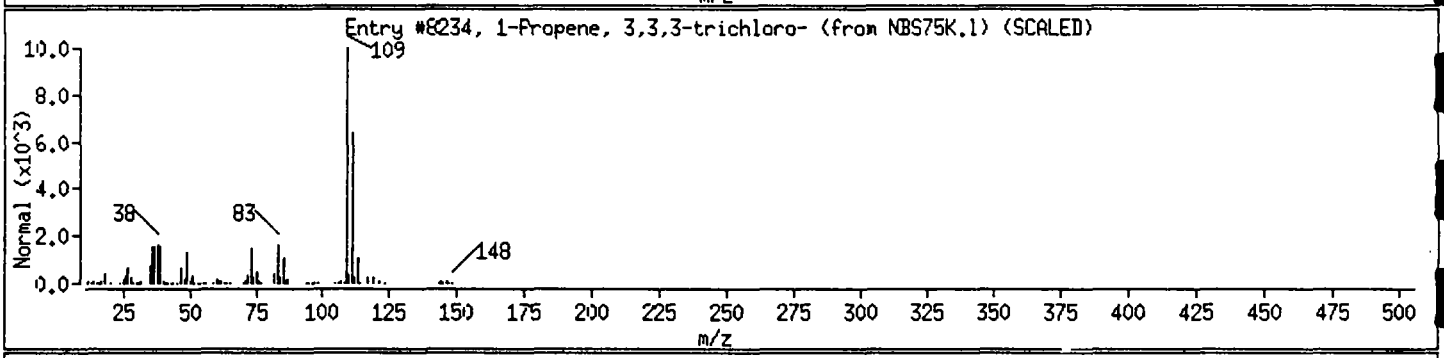
Sample Info:

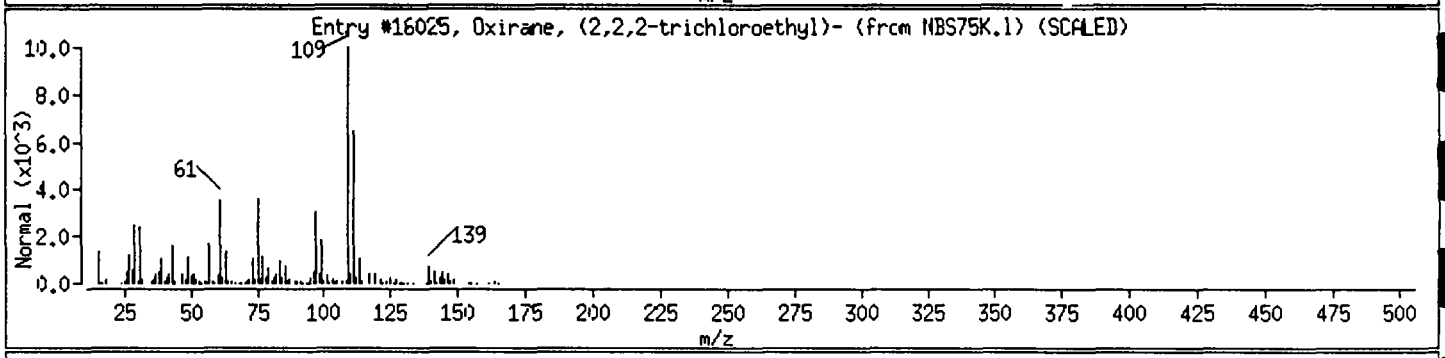
Volume Injected (uL): 2.0 Operator: 2242

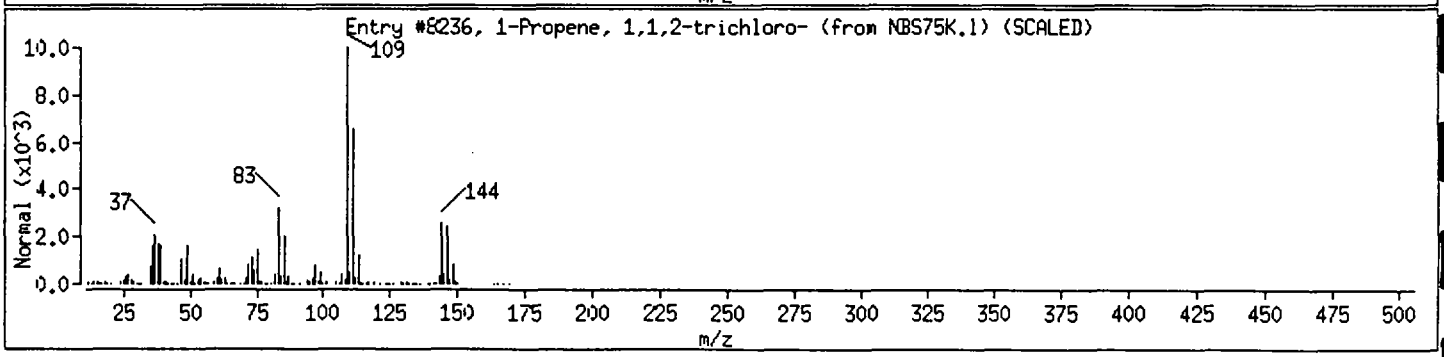
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Trichloropropene						
1-Propene, 3,3,3-trichloro-	2233-00-3	NBS75K.l	8234	40	C3H3Cl3	144
Oxirane, (2,2,2-trichloroethyl)-	3083-25-8	NBS75K.l	16025	38	C4H5Cl3O	174
1-Propene, 1,1,2-trichloro-	21400-25-9	NBS75K.l	8236	37	C3H3Cl3	144









Data File: /chem/5972hp68.i/DF980321A68.b/GH085401A68.d

Date : 21-MAR-1998 09:32

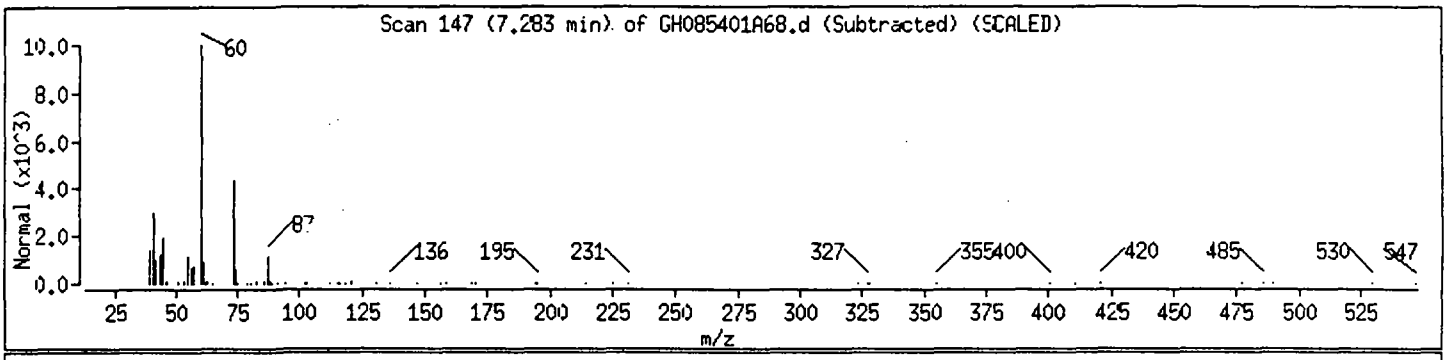
Client ID: POLY-1 Instrument: 5972hp68.i

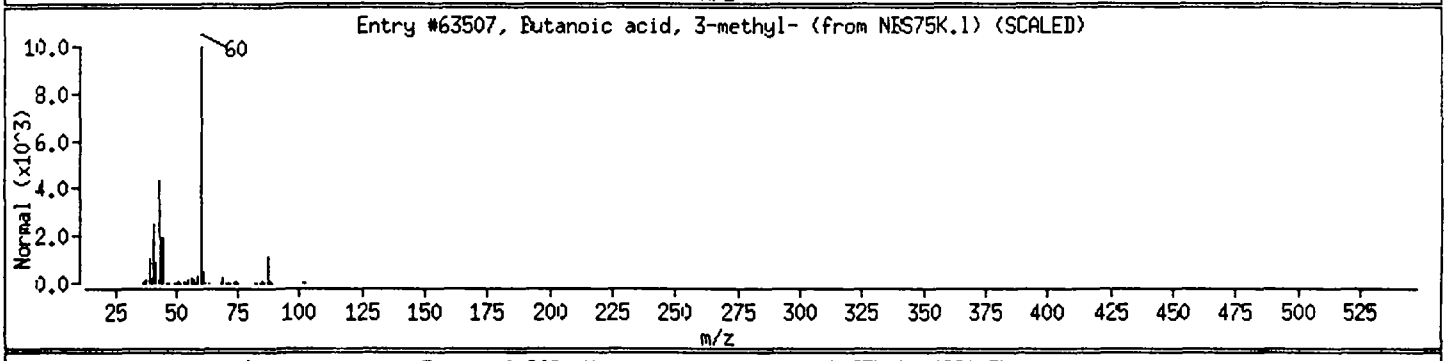
Sample Info:

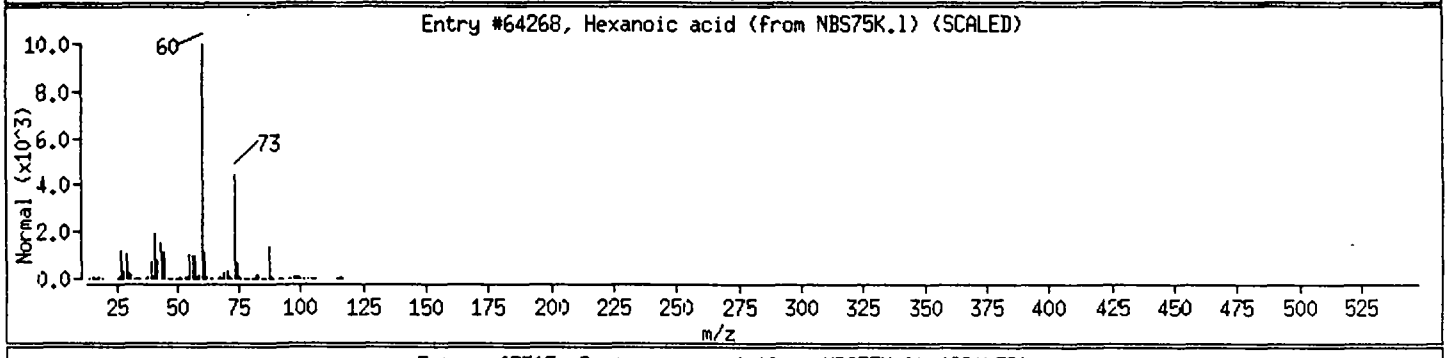
Volume Injected (uL): 2.0 Operator: 2242

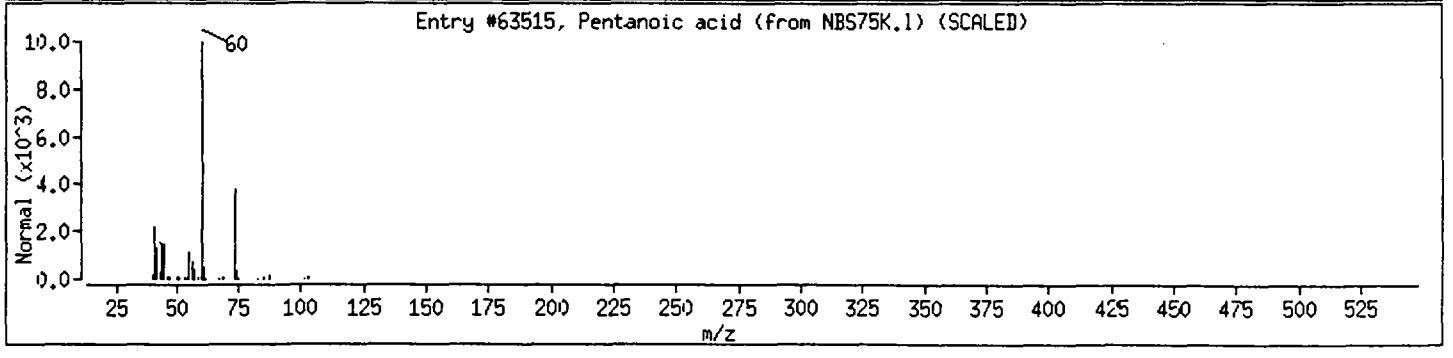
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Carboxylic Acid						
Butanoic acid, 3-methyl-	503-74-2	NBS75K.1	63507	80	C5H10O2	102
Hexanoic acid	142-62-1	NBS75K.1	64268	78	C6H12O2	116
Pentanoic acid	109-52-4	NBS75K.1	63515	64	C5H10O2	102









Data File: /chem/5972hp68.i/DF980321A68.b/GH085401A68.d

Date : 21-MAR-1998 09:32

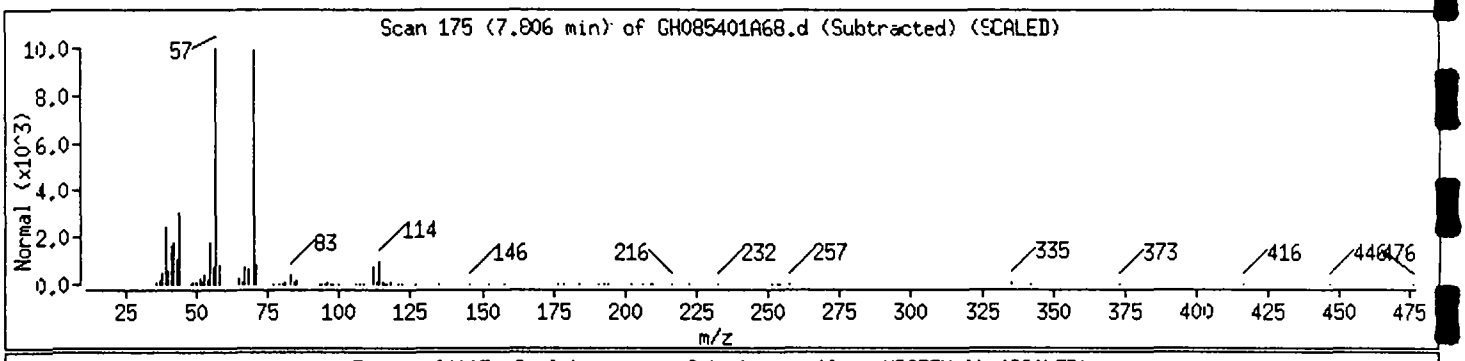
Client ID: POLY-1 Instrument: 5972hp68.i

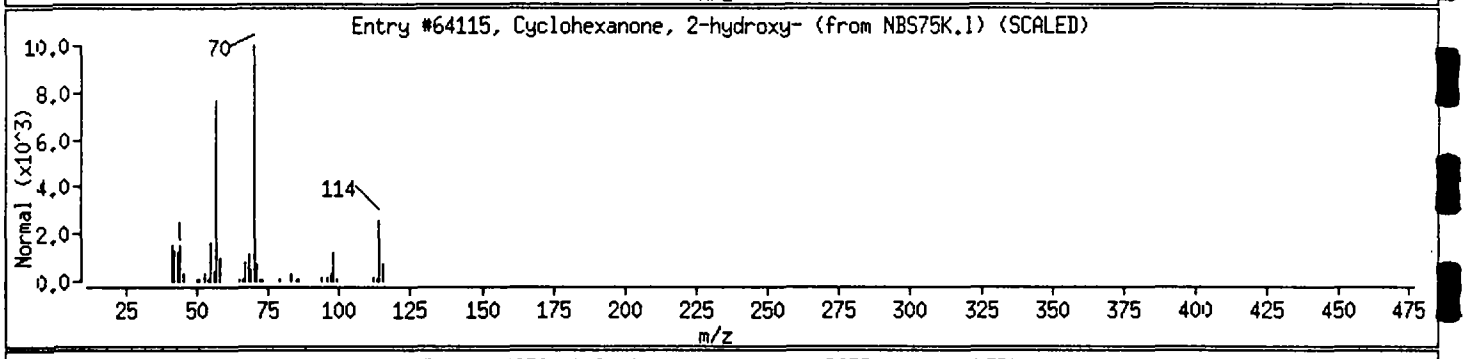
Sample Info:

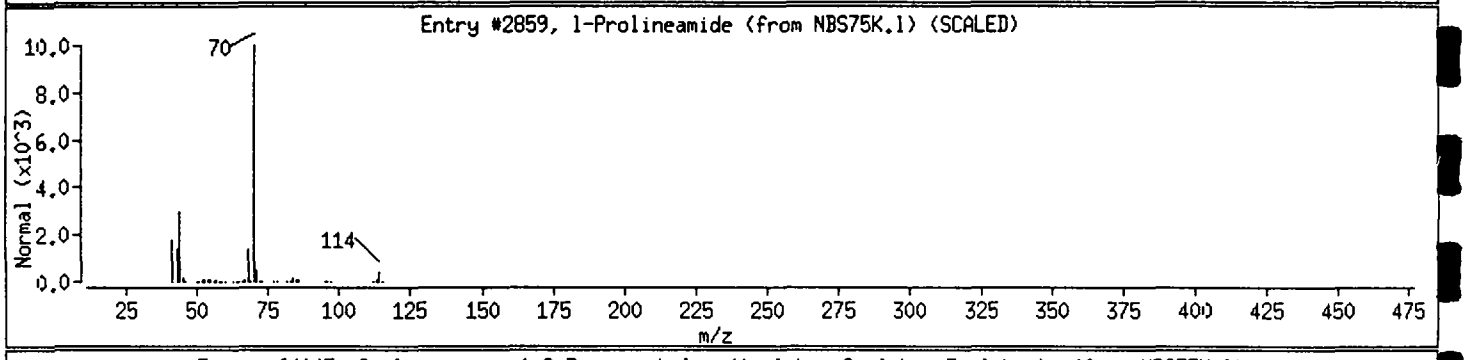
Volume Injected (uL): 2.0 Operator: 2242

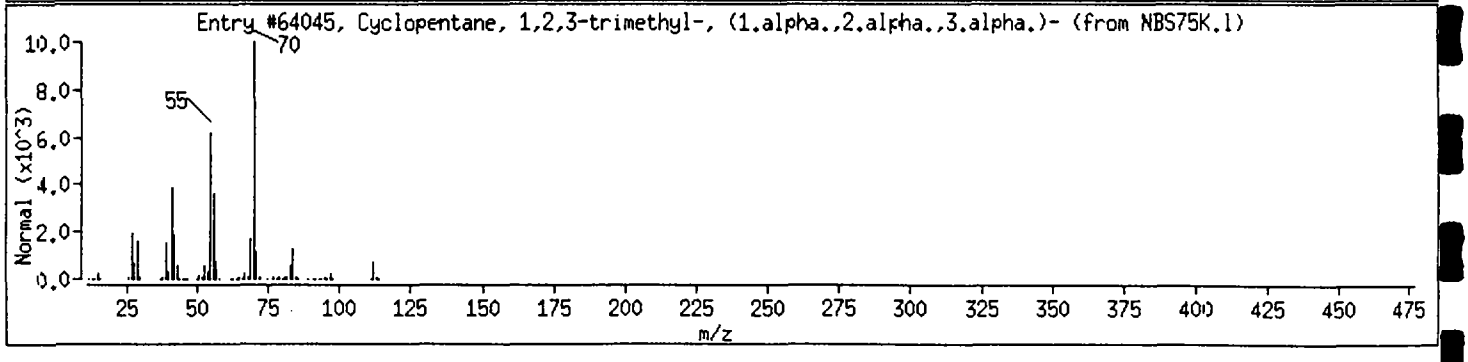
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclohexanone, 2-hydroxy-	533-60-8	NBS75K.l	64115	64	C6H10O2	114
l-Prolineamide	0-00-0	NBS75K.l	2859	53	C5H10N2O	114
Cyclopentane, 1,2,3-trimethyl-, (1.alpha	2613-69-6	NBS75K.l	64045	50	C6H16	112









Data File: /chem/5972hp68.i/DF980321A68.b/GH085401A68.d

Date : 21-MAR-1998 09:32

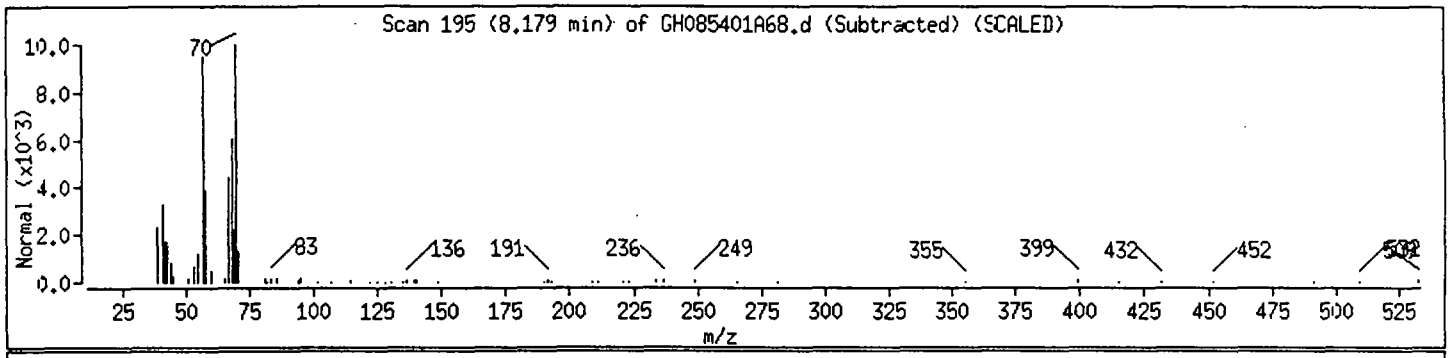
Client ID: POLY-1 Instrument: 5972hp68.i

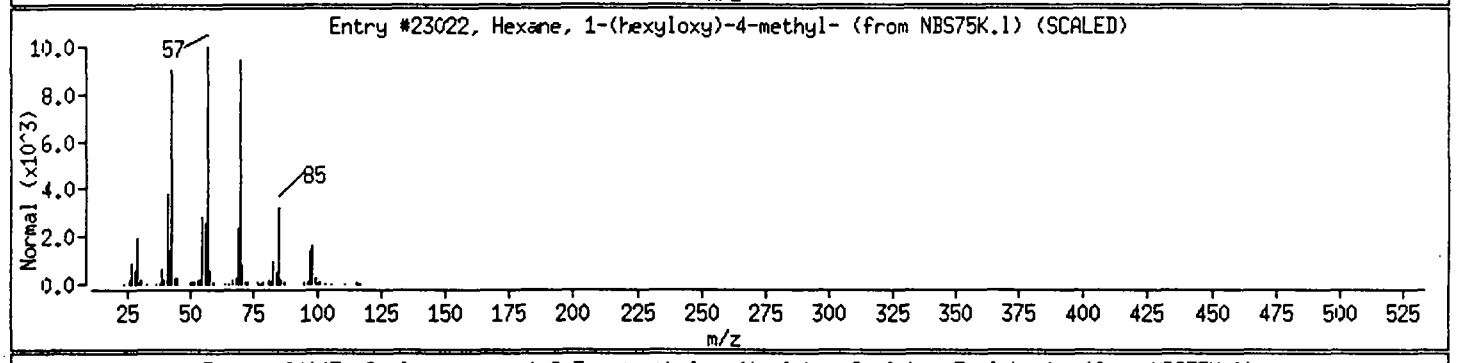
Sample Info:

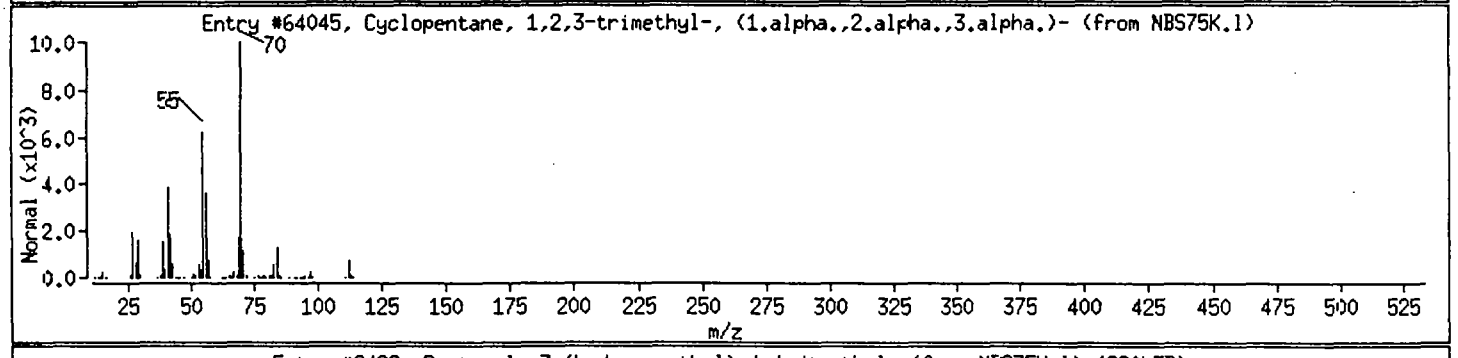
Volume Injected (uL): 2.0 Operator: 2242

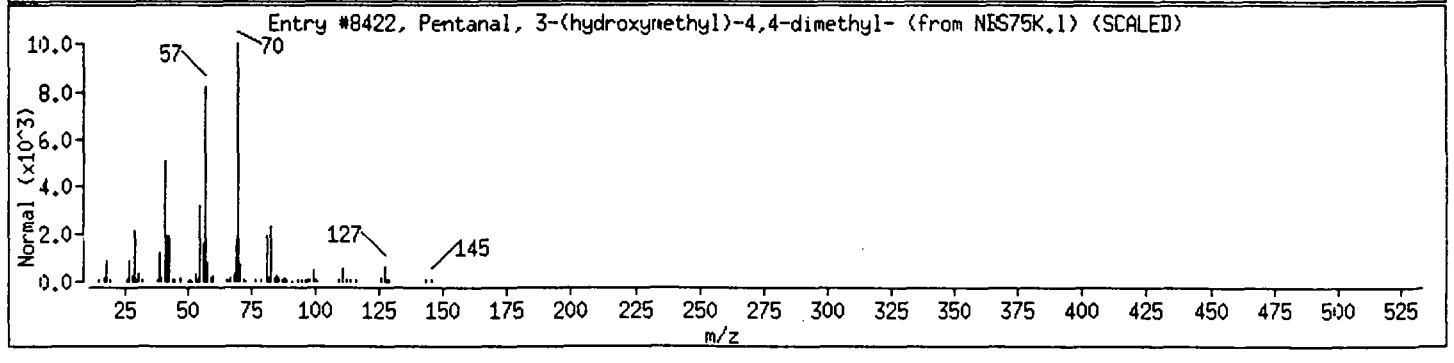
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Hexane, 1-(hexyloxy)-4-methyl-	74421-20-8	NBS75K.l	23022	17	C13H28O	200
Cyclopentane, 1,2,3-trimethyl-, (1.alpha	2613-69-6	NBS75K.l	64045	12	C8H16	112
Pentanal, 3-(hydroxymethyl)-4,4-dimethyl	56805-31-3	NBS75K.l	8422	12	C8H16O2	144









Data File: /chem/5972hp68.i/DF980321A68.b/GH085401A68.d

Date : 21-MAR-1998 09:32

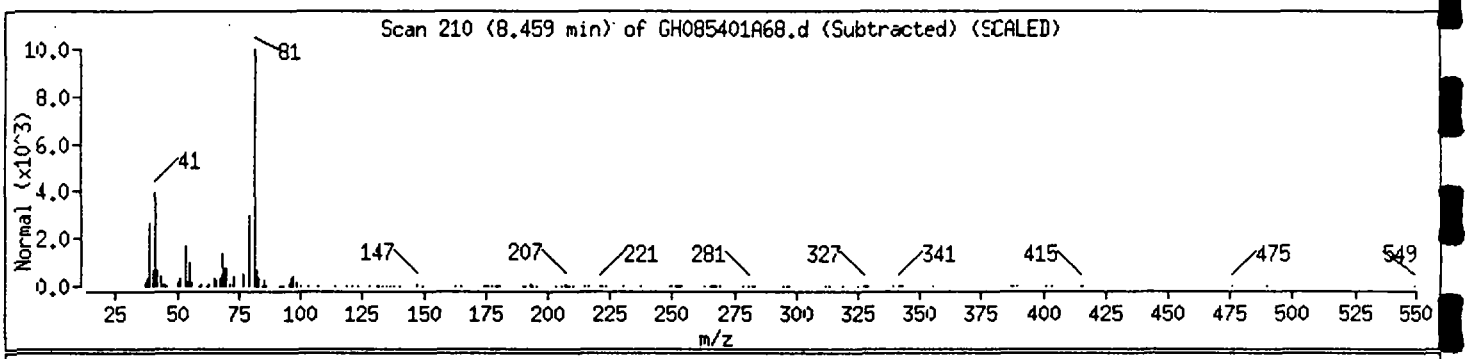
Client ID: POLY-1 Instrument: 5972hp68.i

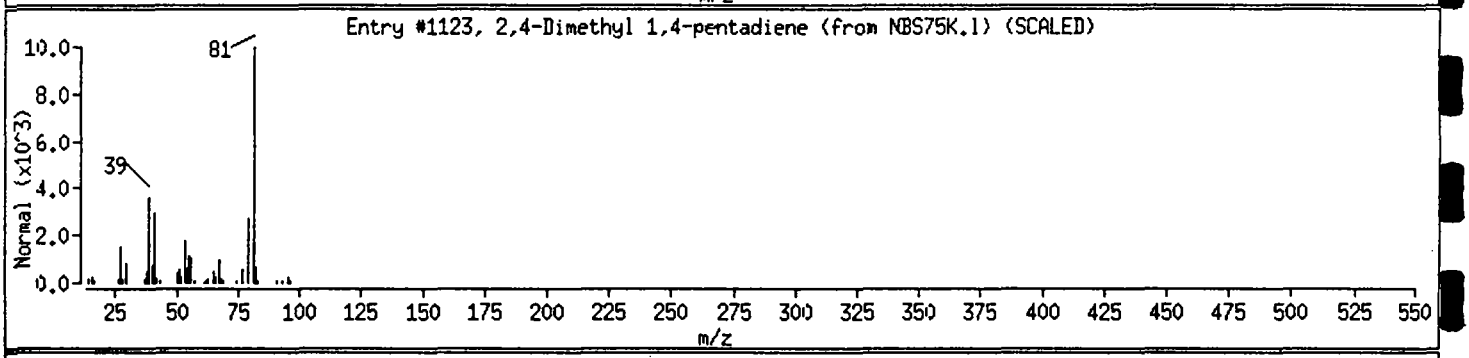
Sample Info:

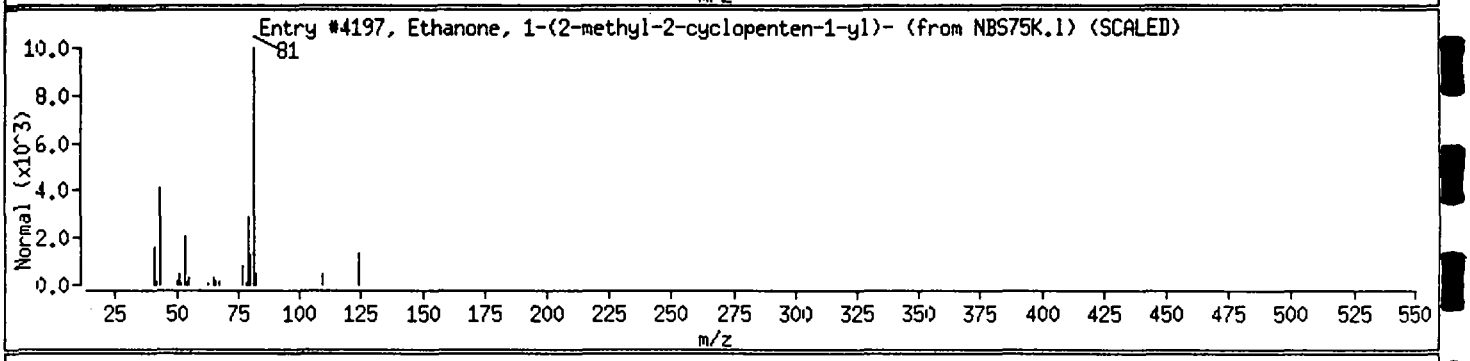
Volume Injected (uL): 2.0 Operator: 2242

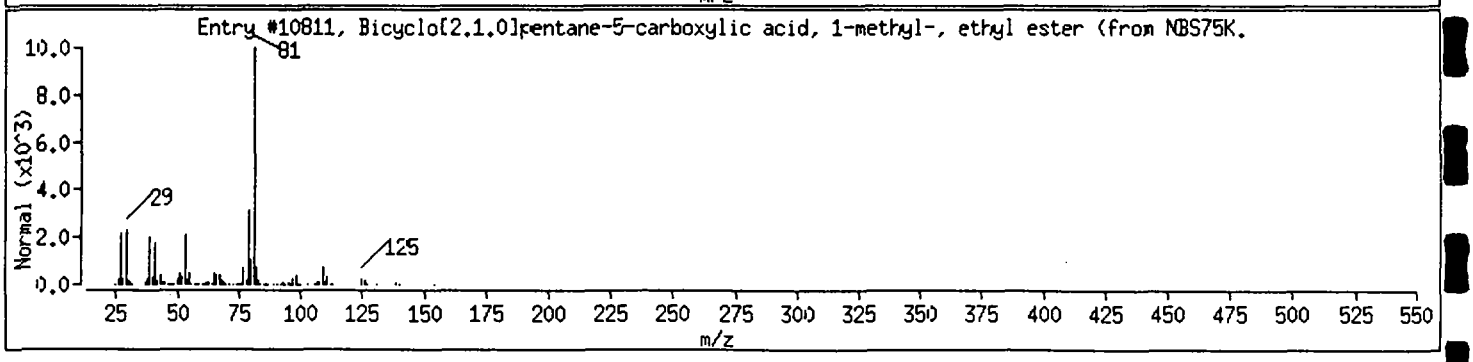
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,4-Dimethyl 1,4-pentadiene	4161-65-3	NBS75K.l	1123	59	C7H12	96
Ethanone, 1-(2-methyl-2-cyclopenten-1-yl	1767-84-6	NBS75K.l	4197	59	C8H12O	124
Bicyclo[2.1.0]pentane-5-carboxylic acid,	74810-55-2	NBS75K.l	10811	50	C9H14O2	154









Data File: /chem/5972hp68.i/DF980321A68.b/GH085401A68.d

Date : 21-MAR-1998 09:32

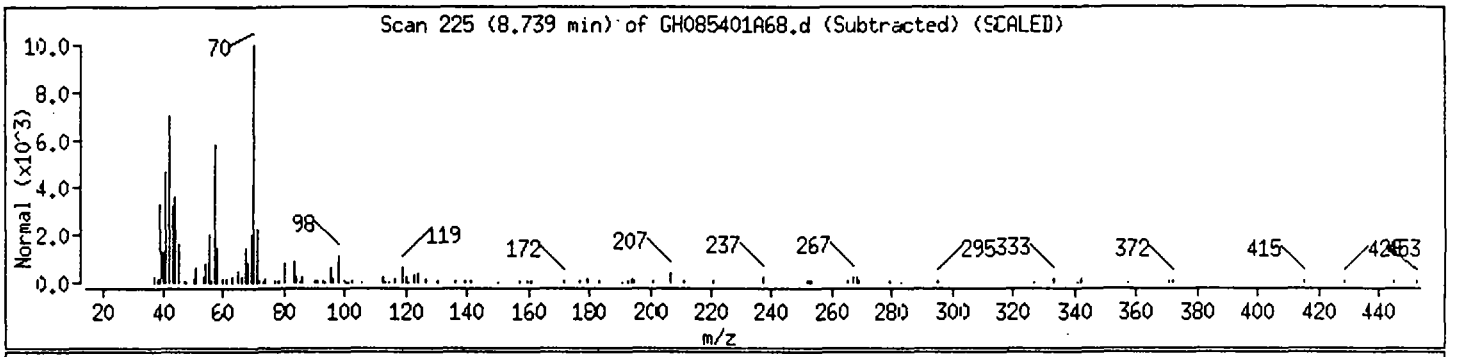
Client ID: POLY-1 Instrument: 5972hp68.i

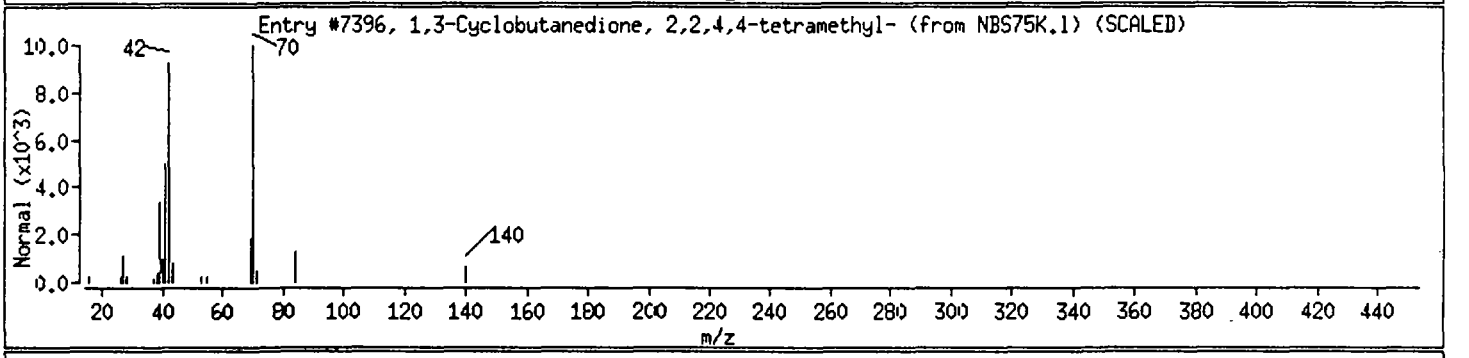
Sample Info:

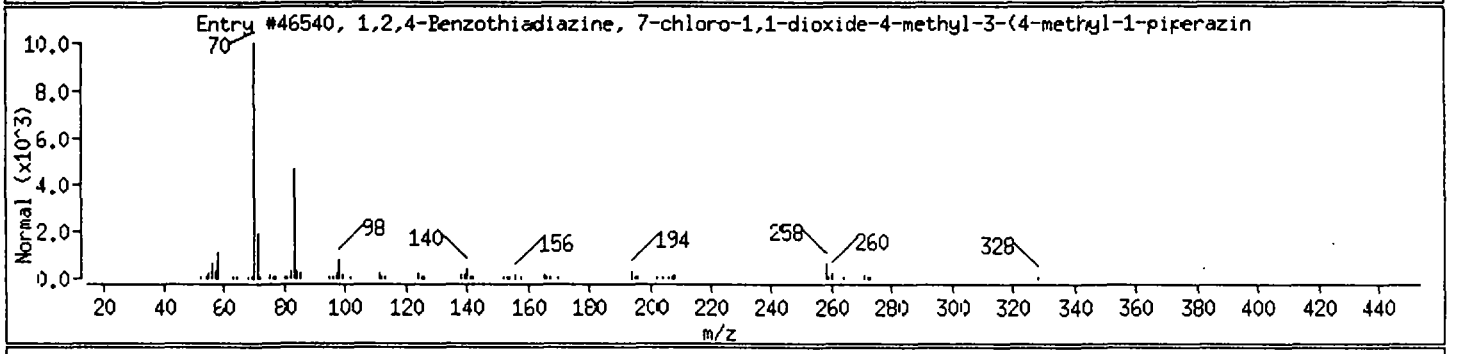
Volume Injected (uL): 2.0 Operator: 2242

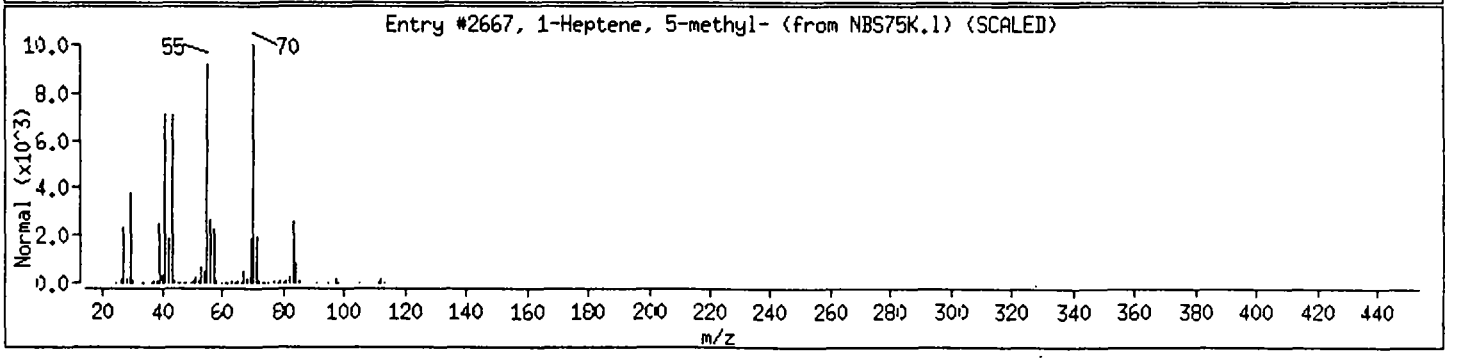
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,3-Cyclobutanedione, 2,2,4,4-tetramethy	933-52-8	NBS75K.l	7396	50	C8H12O2	140
1,2,4-Benzothiadiazine, 7-chloro-1,1-dio	70443-35-5	NBS75K.l	46540	43	C13H17ClN4O2S	328
1-Heptene, 5-methyl-	13151-04-7	NBS75K.l	2667	38	C8H16	112









Data File: /chem/5972hp68.i/DF980321A68.b/GH085401A68.d

Date : 21-MAR-1998 09:32

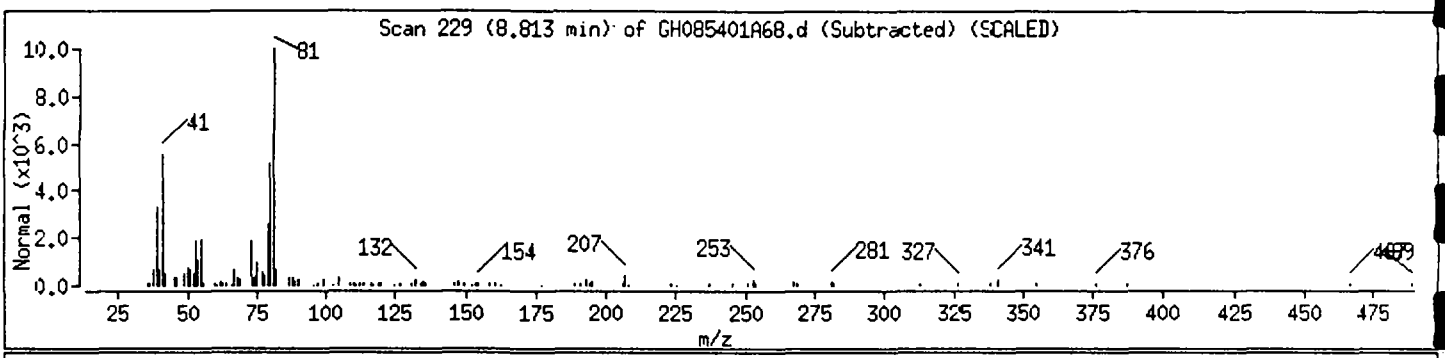
Client ID: POLY-1 Instrument: 5972hp68.i

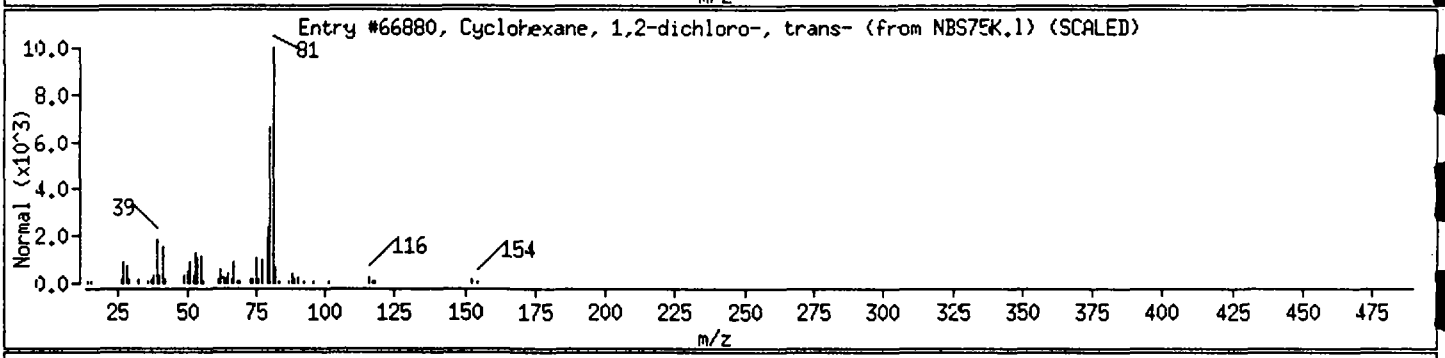
Sample Info:

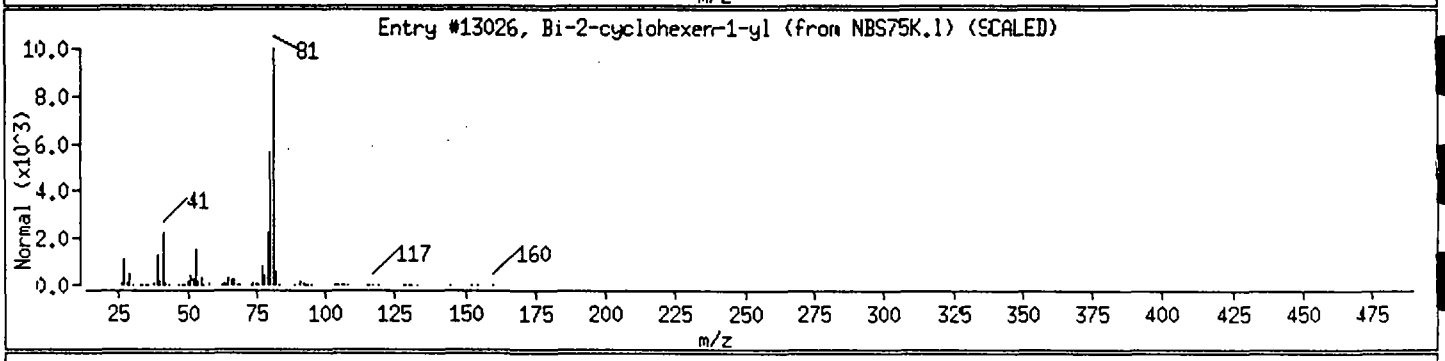
Volume Injected (uL): 2.0 Operator: 2242

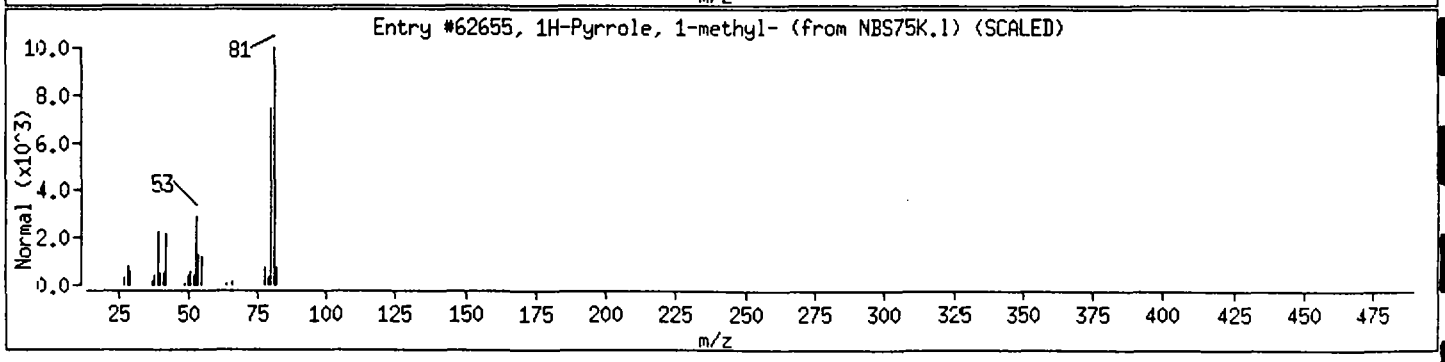
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclohexane, 1,2-dichloro-, trans-	822-86-6	NBS75K.l	66880	64	C6H10Cl2	152
Bi-2-cyclohexen-1-yl	1541-20-4	NBS75K.l	13026	64	C12H18	162
1H-Pyrrole, 1-methyl-	96-54-8	NBS75K.l	62655	53	C5H7N	81









Data File: /chem/5972hp68.i/DF980321A68.b/GH085401A68.d

Date : 21-MAR-1998 09:32

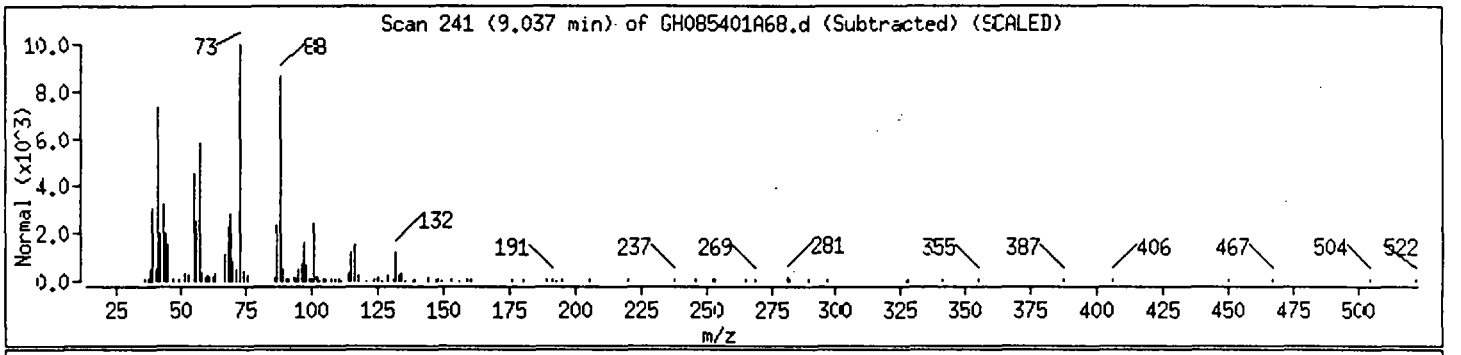
Client ID: POLY-1 Instrument: 5972hp68.i

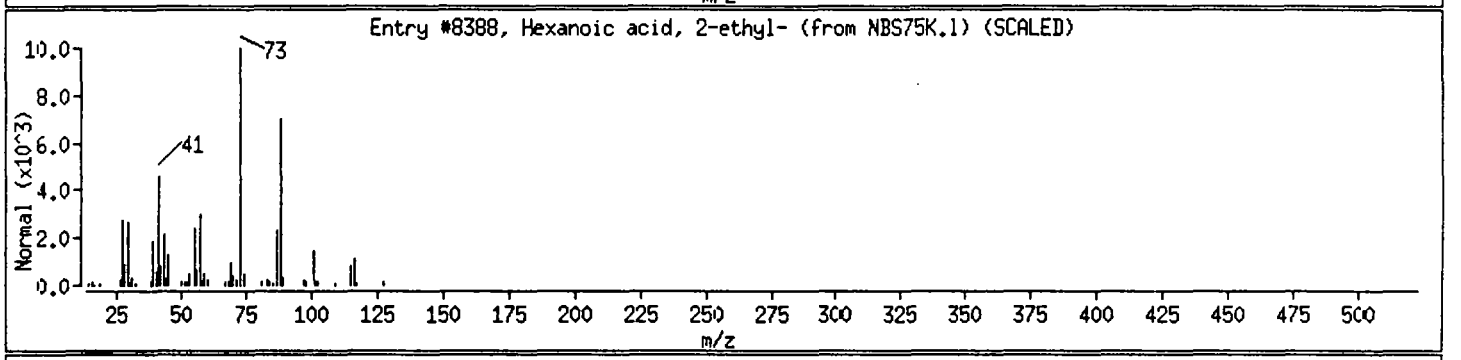
Sample Info:

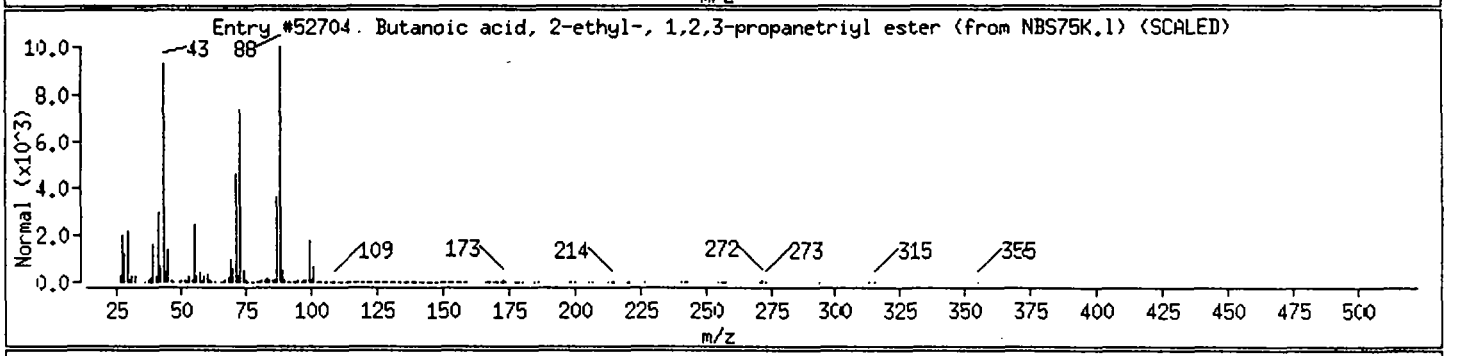
Volume Injected (uL): 2.0 Operator: 2242

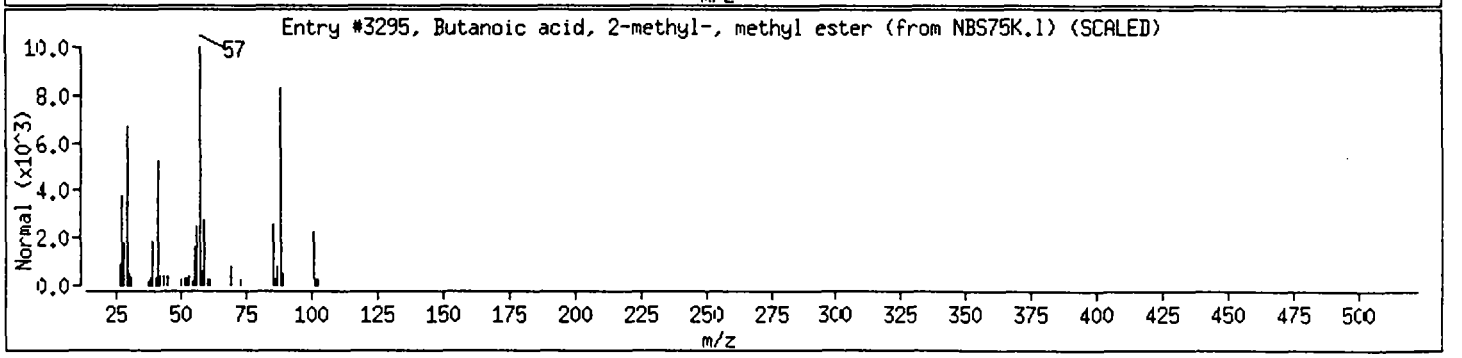
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Carboxylic Acid						
Hexanoic acid, 2-ethyl-	149-57-5	NBS75K.l	8388	59	C8H16O2	144
Butanoic acid, 2-ethyl-, 1,2,3-propanetr	56554-54-2	NBS75K.l	52704	43	C21H38O6	386
Butanoic acid, 2-methyl-, methyl ester	868-57-5	NBS75K.l	3295	37	C6H12O2	116









Data File: /chem/5972hp68.i/DF980321A68.b/GH085401A68.d

Date : 21-MAR-1998 09:32

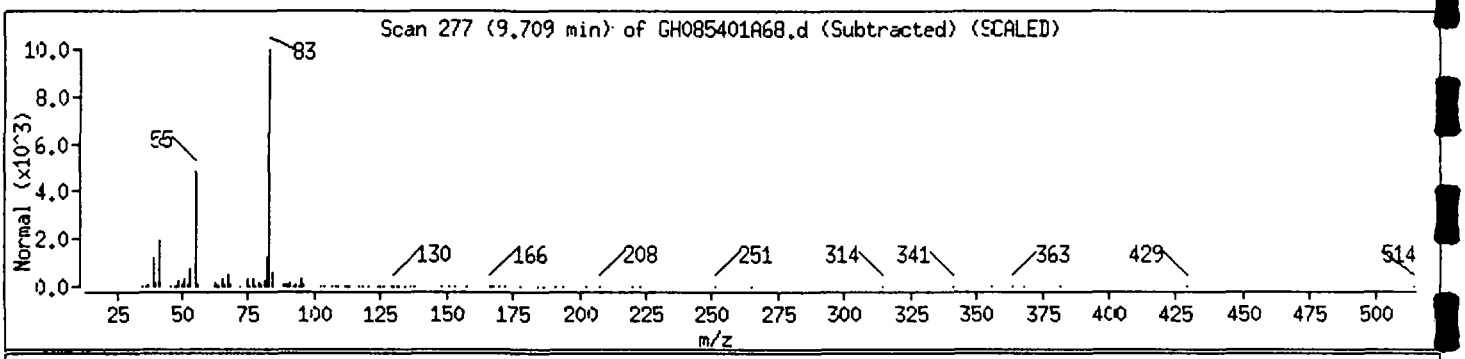
Client ID: POLY-1 Instrument: 5972hp68.i

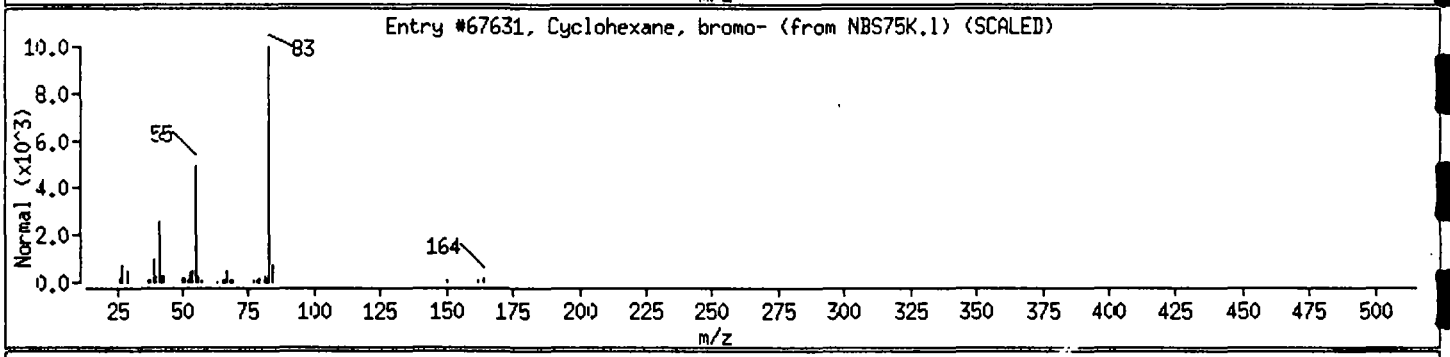
Sample Info:

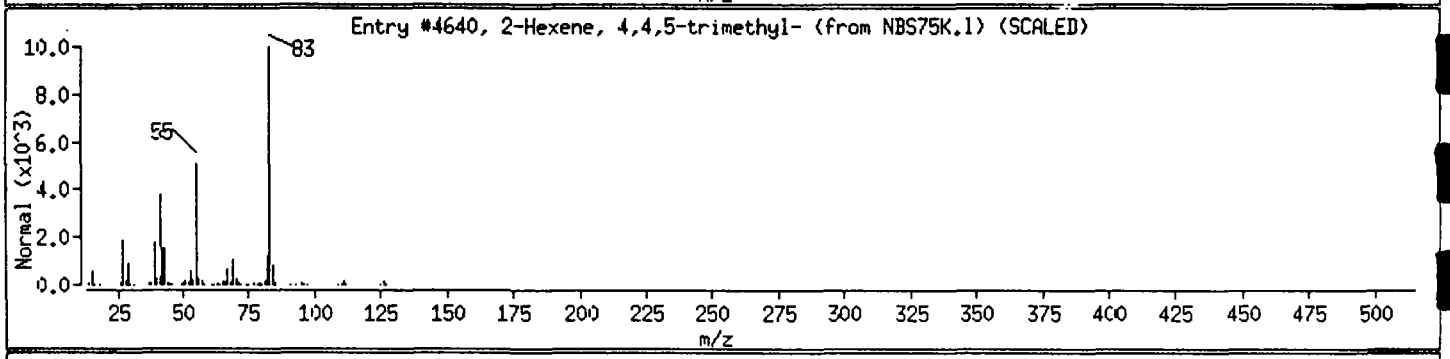
Volume Injected (uL): 2.0 Operator: 2242

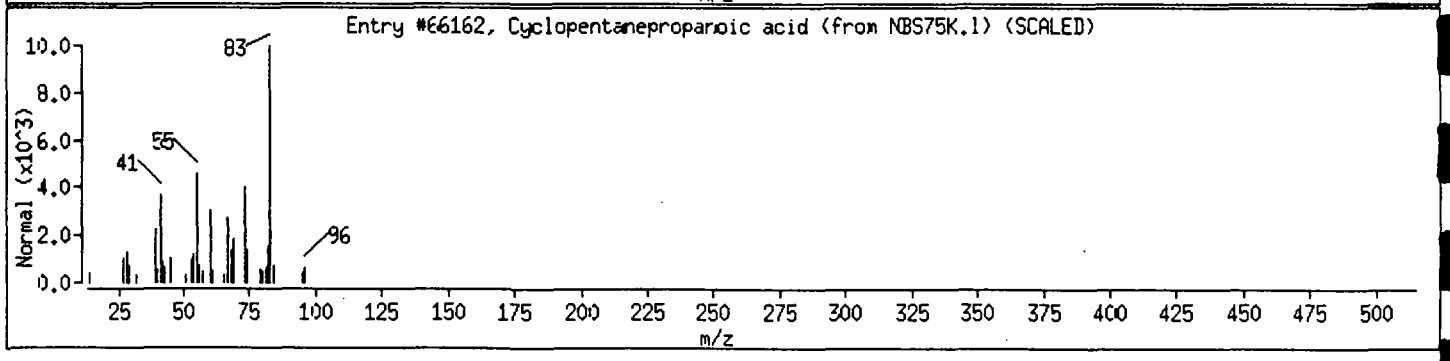
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown (BC)						
Cyclohexane, bromo-	108-85-0	NBS75K.l	67631	50	C6H11Br	162
2-Hexene, 4,4,5-trimethyl-	55702-61-9	NBS75K.l	4640	43	C9H18	126
Cyclopentanepropanoic acid	140-77-2	NBS75K.l	66162	40	C8H14O2	142









Data File: /chem/5972hp68.i/DF980321A68.b/GH085401A68.d

Date : 21-MAR-1998 09:32

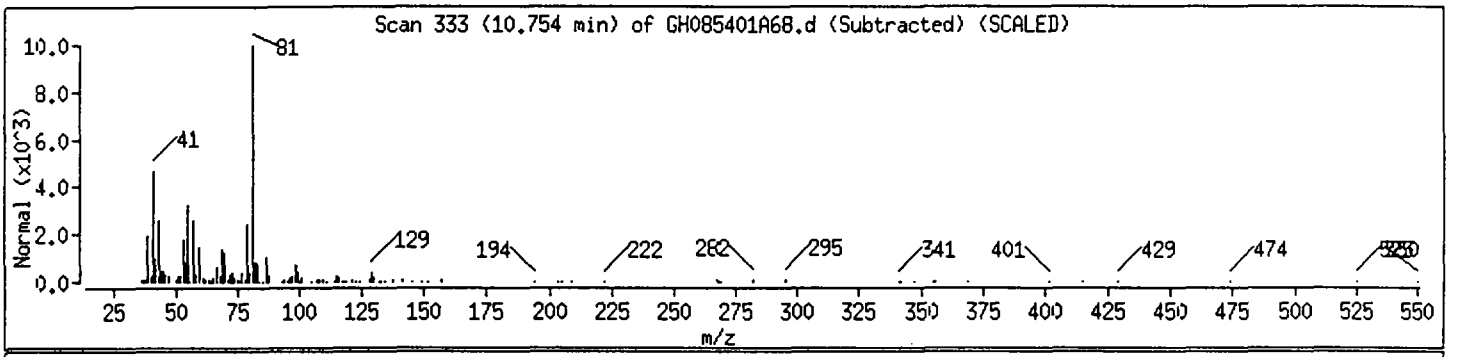
Client ID: POLY-1 Instrument: 5972hp68.i

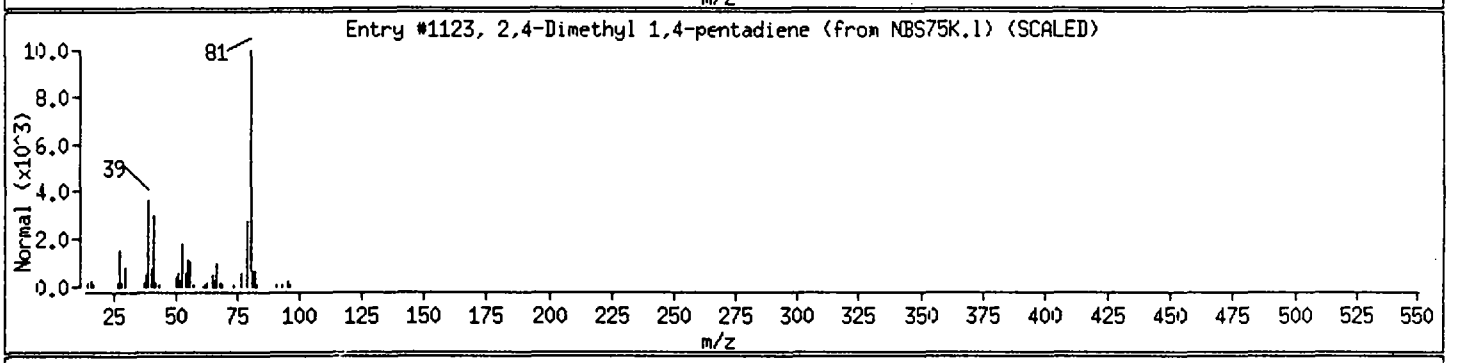
Sample Info:

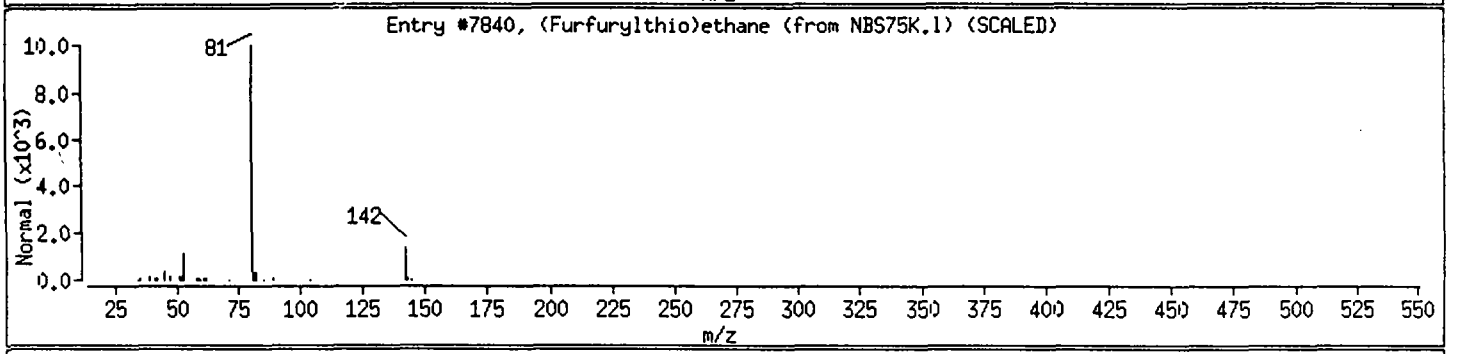
Volume Injected (uL): 2.0 Operator: 2242

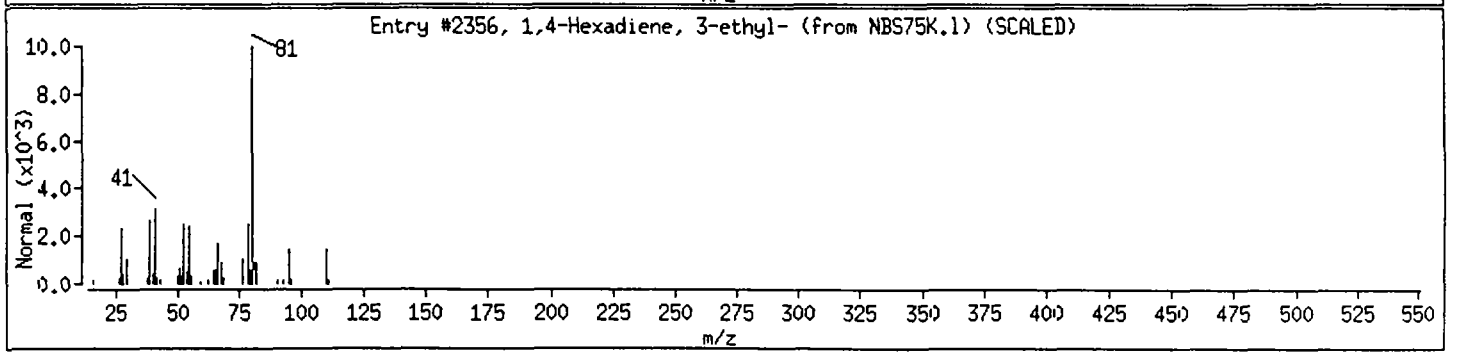
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,4-Dimethyl 1,4-pentadiene	4161-65-3	NBS75K.l	1123	42	C7H12	96
(Furfurylthio)ethane	0-00-0	NBS75K.l	7840	37	C7H10OS	142
1,4-Hexadiene, 3-ethyl-	2080-89-9	NBS75K.l	2356	36	C8H14	110









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Date : 21-MAR-1998 09:32

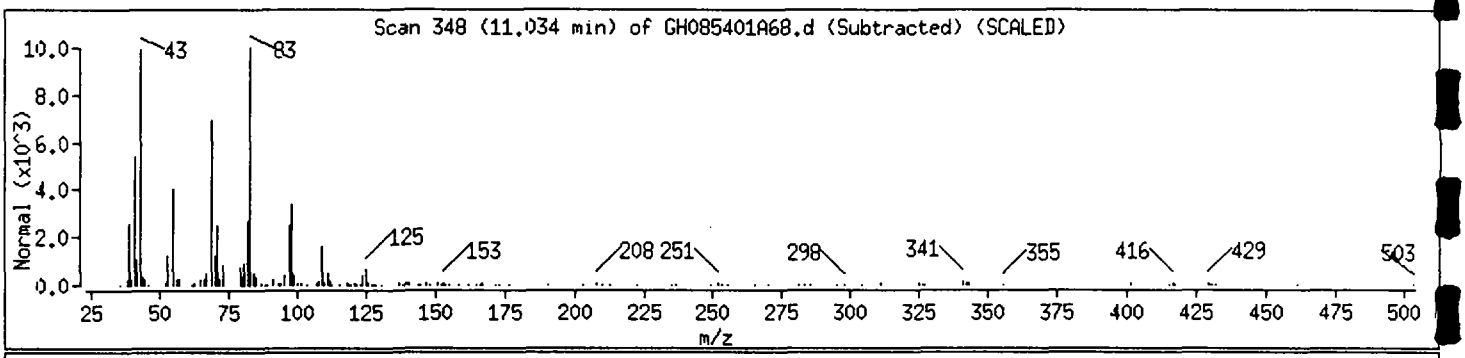
Client ID: POLY-1 Instrument: 5972hp68.i

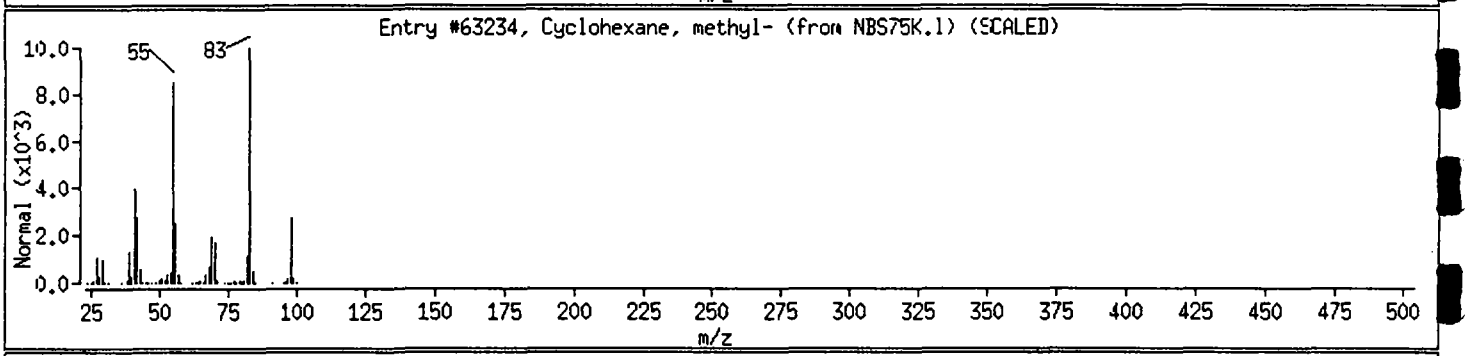
Sample Info:

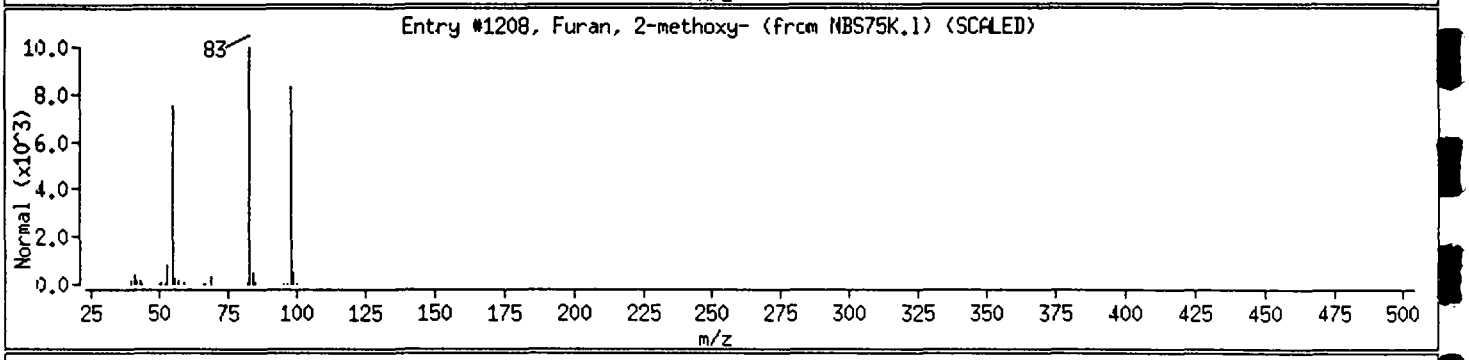
Volume Injected (uL): 2.0 Operator: 2242

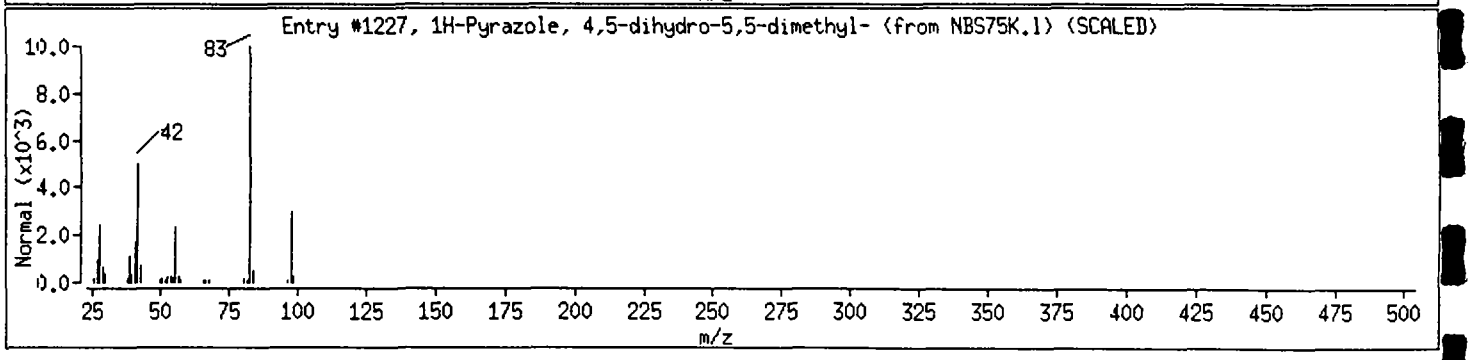
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclohexane, methyl-	108-87-2	NBS75K.l	63234	47	C7H14	98
Furan, 2-methoxy-	25414-22-6	NBS75K.l	1208	46	C5H6O2	98
1H-Pyrazole, 4,5-dihydro-5,5-dimethyl-	4320-85-8	NBS75K.l	1227	43	C5H10N2	98









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Date : 21-MAR-1998 09:32

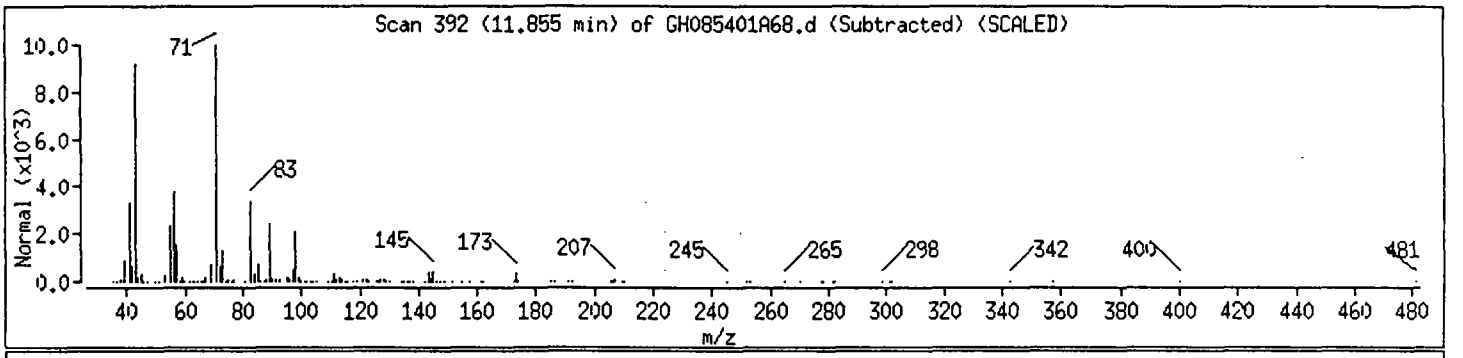
Client ID: POLY-1 Instrument: 5972hp68.i

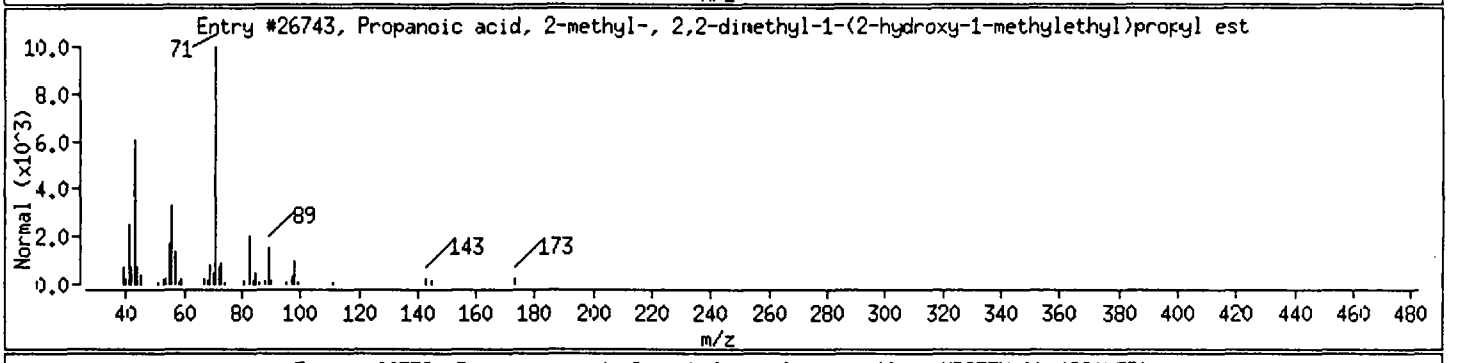
Sample Info:

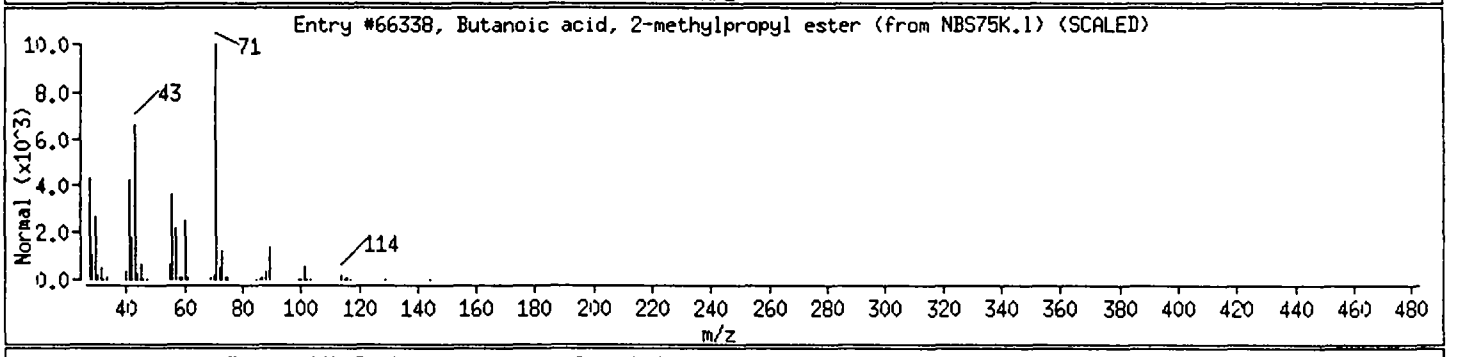
Volume Injected (uL): 2.0 Operator: 2242

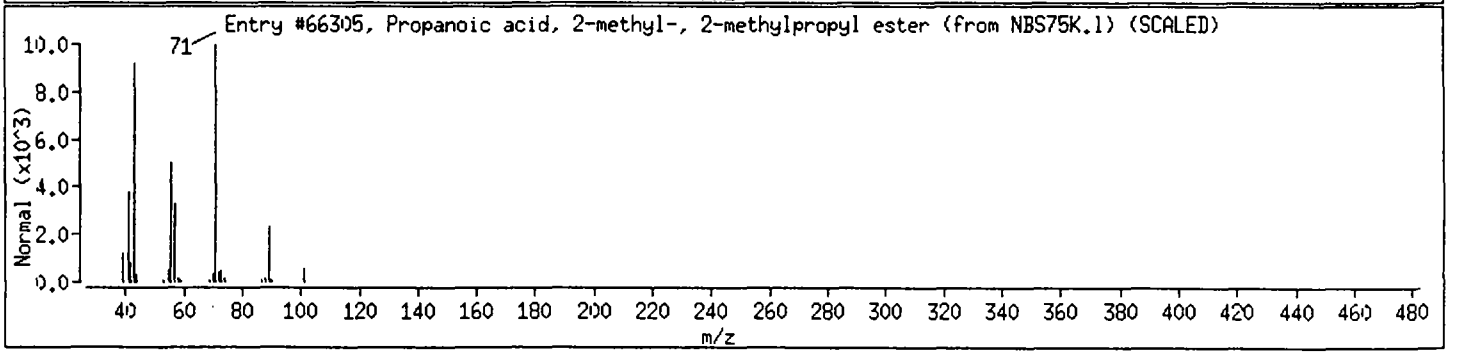
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Acid Ester						
Propanoic acid, 2-methyl-, 2,2-dimethyl-	74367-33-2	NBS75K.l	26743	64	C12H2403	216
Butanoic acid, 2-methylpropyl ester	539-90-2	NBS75K.l	66338	47	C8H1602	144
Propanoic acid, 2-methyl-, 2-methylpropy	97-85-8	NBS75K.l	66305	40	C8H1602	144









Data File: /chem/5972hp68.i/DF980321A68.b/GH085401A68.d

Date : 21-MAR-1998 09:32

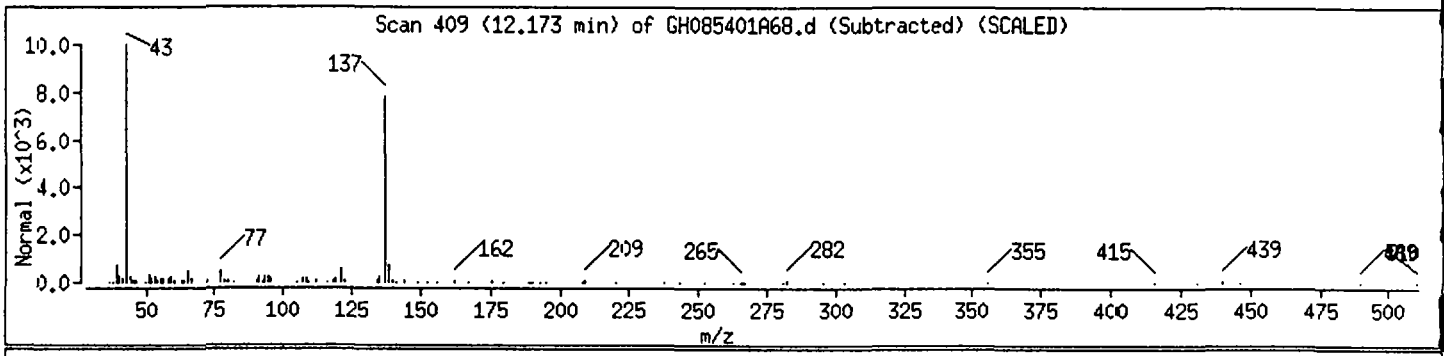
Client ID: POLY-1 Instrument: 5972hp68.i

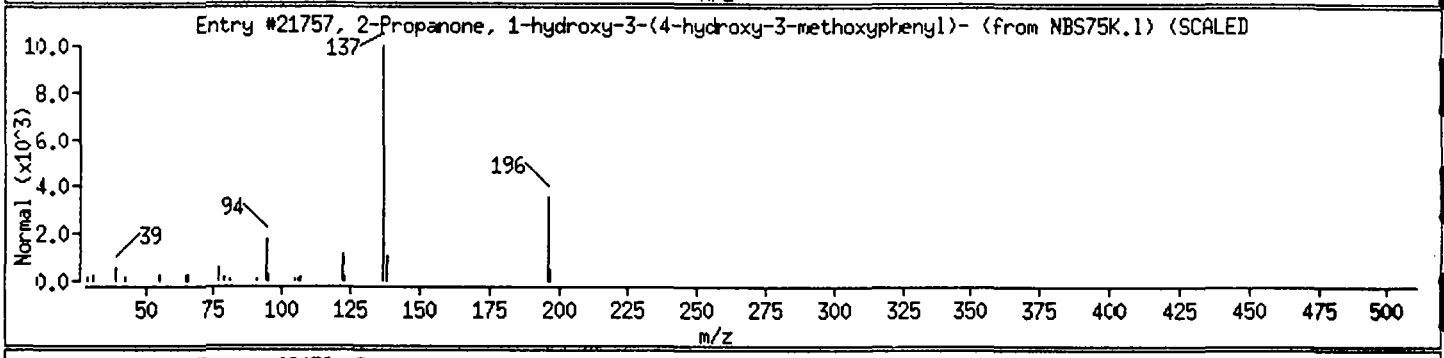
Sample Info:

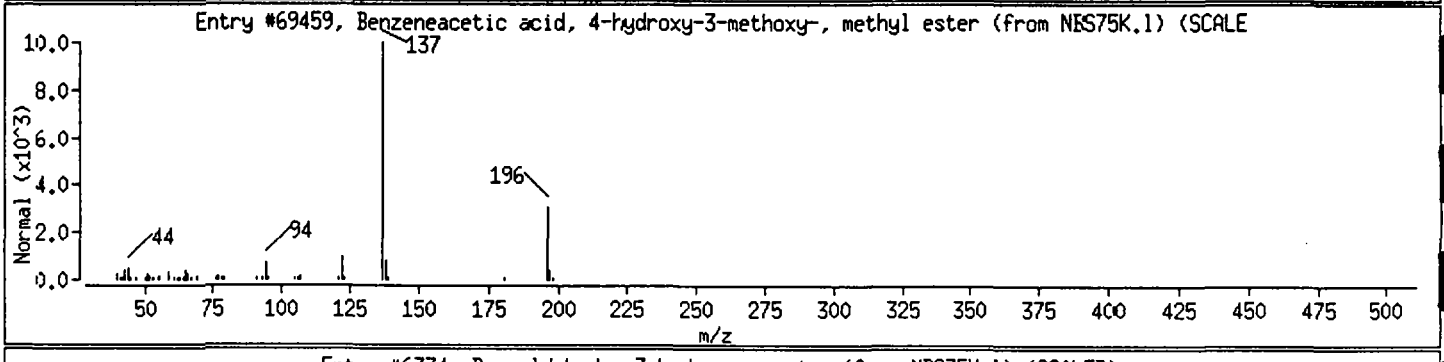
Volume Injected (uL): 2.0 Operator: 2242

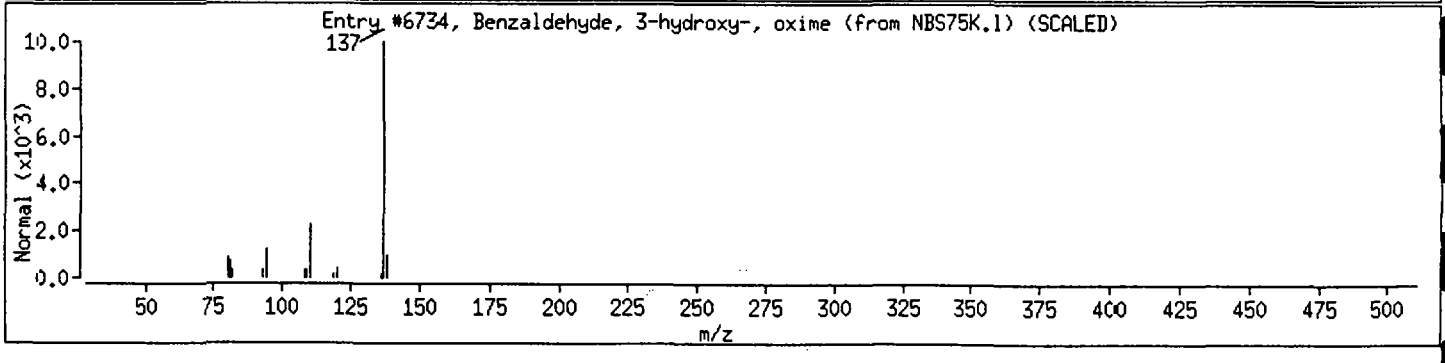
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Propanone, 1-hydroxy-3-(4-hydroxy-3-me	4899-74-5	NBS75K.l	21757	50	C10H1204	196
Benzeneacetic acid, 4-hydroxy-3-methoxy-	15964-80-4	NBS75K.l	69459	40	C10H1204	196
Benzaldehyde, 3-hydroxy-, oxime	22241-18-5	NBS75K.l	6734	39	C7H7NO2	137









Data File: /chem/5972hp68.i/DF980321A68.b/GH085401A68.d

Date : 21-MAR-1998 09:32

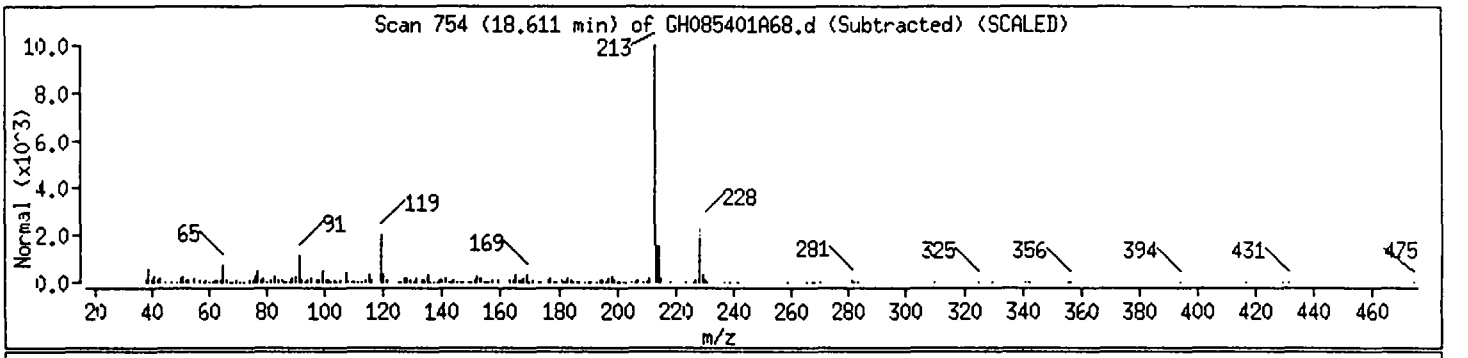
Client ID: POLY-1 Instrument: 5972hp68.i

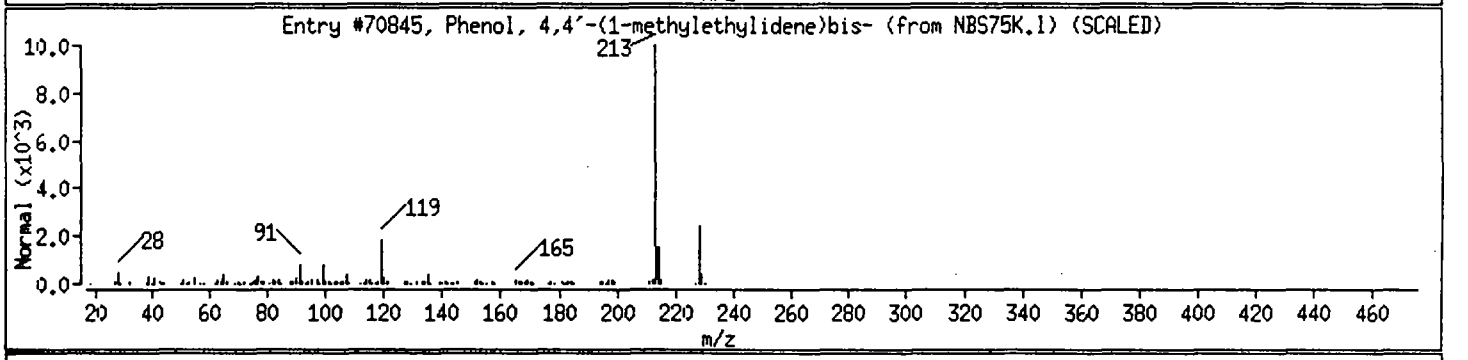
Sample Info:

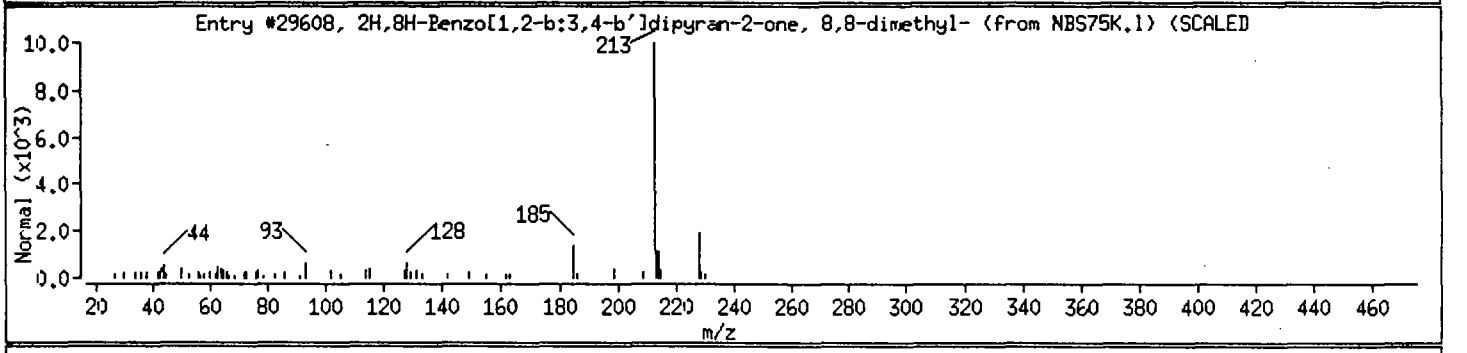
Volume Injected (uL): 2.0 Operator: 2242

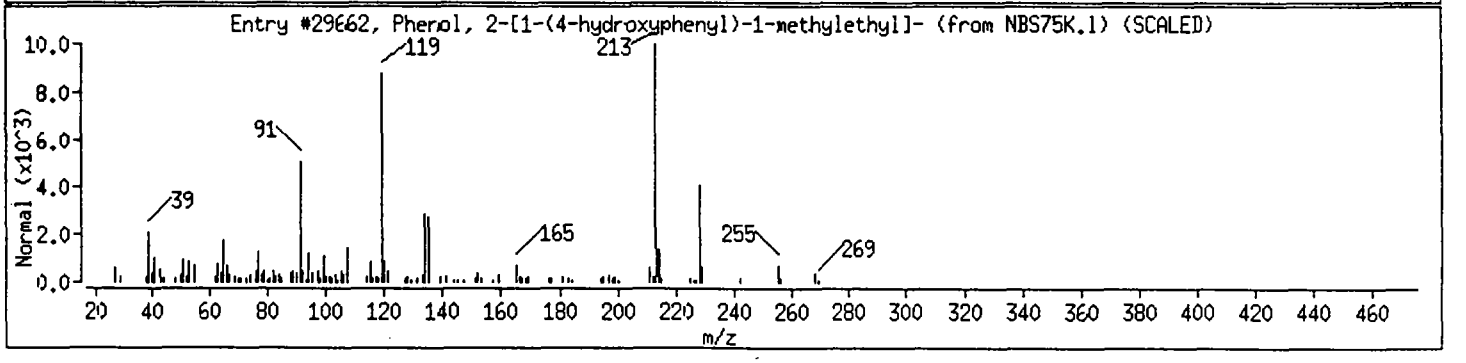
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenol, 4,4'-(1-methylethylidene)bis-	80-05-7	NBS75K.l	70845	94	C15H1602	228
2H,8H-Benzo[1,2-b:3,4-b']dipyran-2-one,	523-59-1	NBS75K.l	29608	42	C14H1203	228
Phenol, 2-[1-(4-hydroxyphenyl)-1-methyle	837-08-1	NBS75K.l	29662	38	C15H1602	228









Data File: /chem/5972hp68.i/DF980321A68.b/GH085401A68.d

Date : 21-MAR-1998 09:32

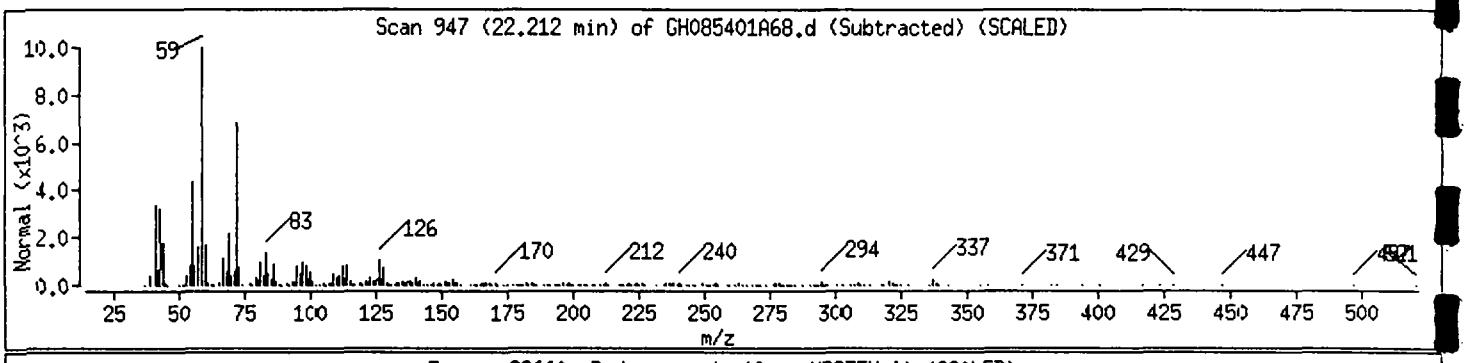
Client ID: POLY-1 Instrument: 5972hp68.i

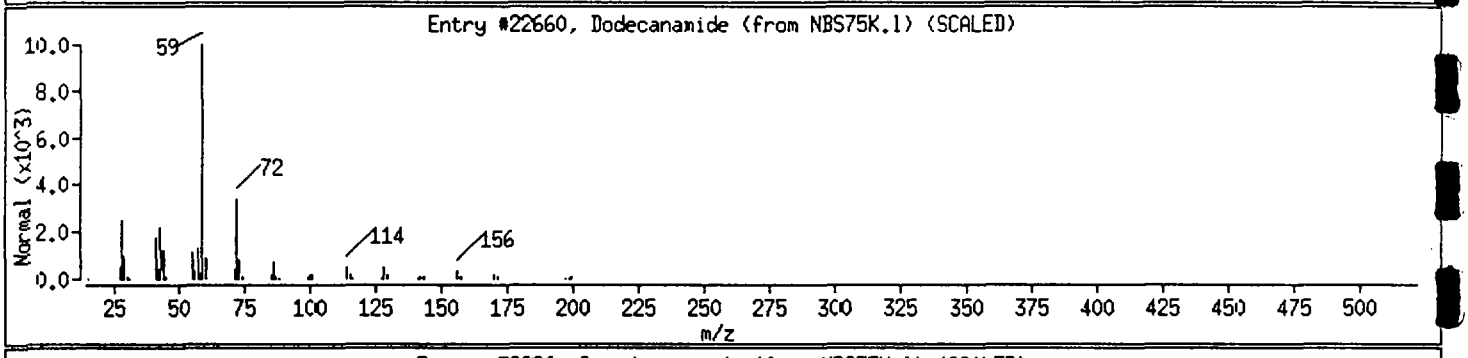
Sample Info:

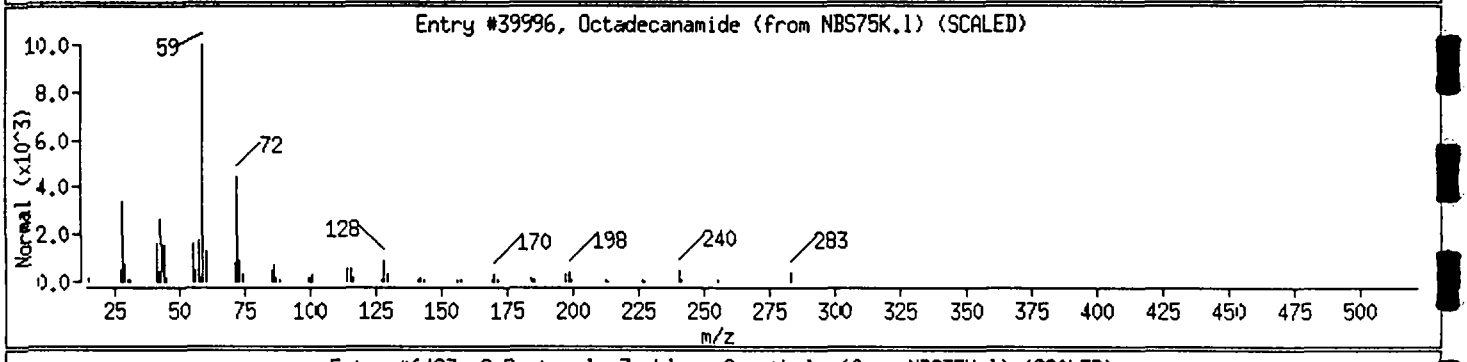
Volume Injected (uL): 2.0 Operator: 2242

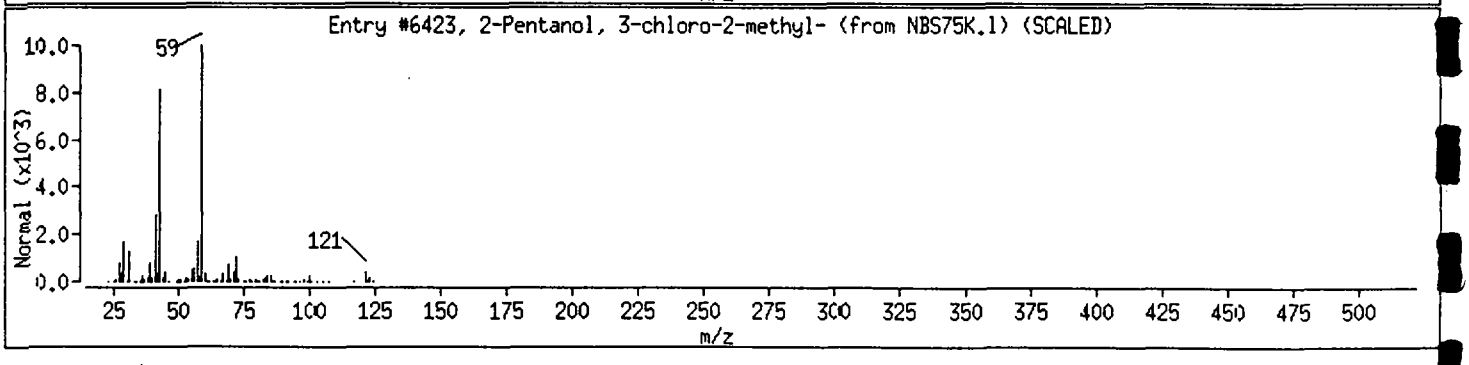
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown (BC)						
Dodecanamide	1120-16-7	NBS75K.l	22660	53	C12H25NO	199
Octadecanamide	124-26-5	NBS75K.l	39996	42	C18H37NO	283
2-Pentanol, 3-chloro-2-methyl-	74685-49-7	NBS75K.l	6423	38	C6H13ClO	136









Data File: /chem/5972hp68.i/DF980321A68.b/GH085401A68.d

Date : 21-MAR-1998 09:32

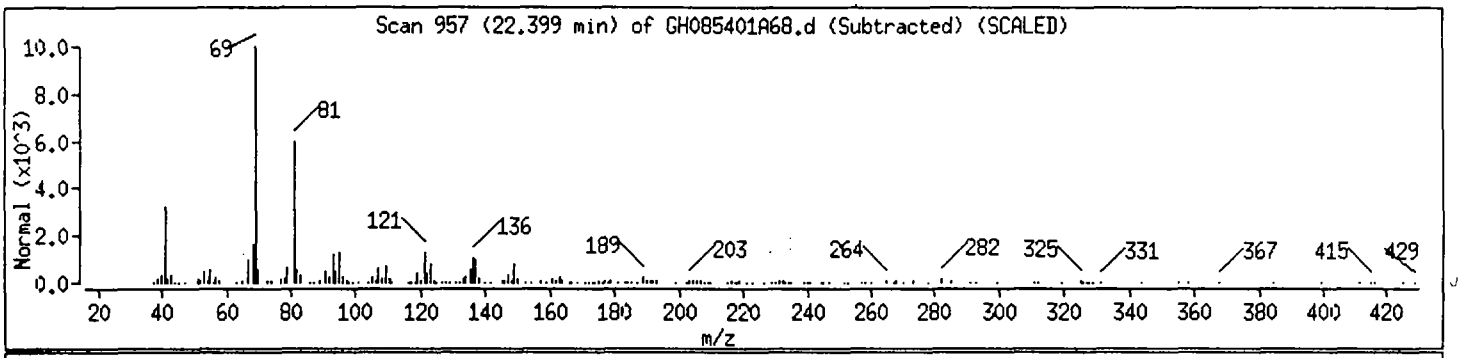
Client ID: POLY-1 Instrument: 5972hp68.i

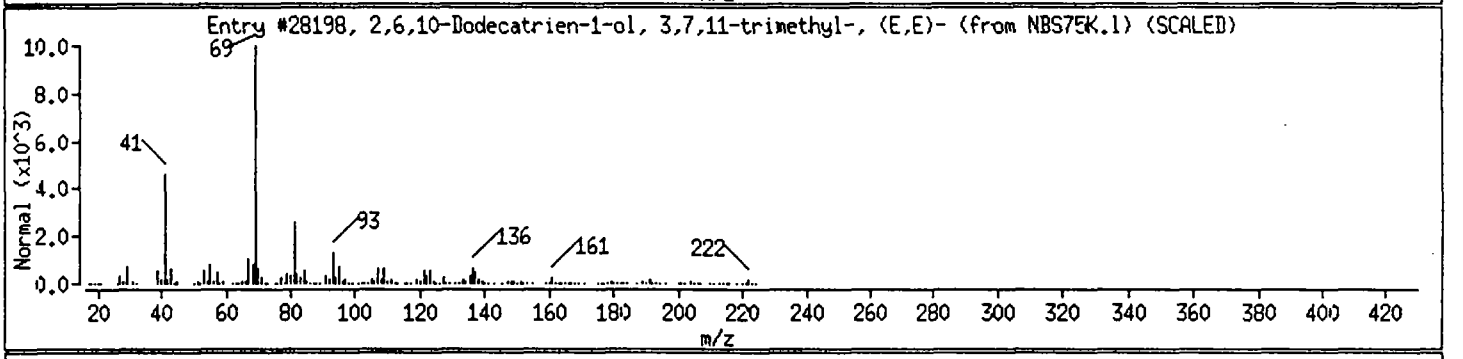
Sample Info:

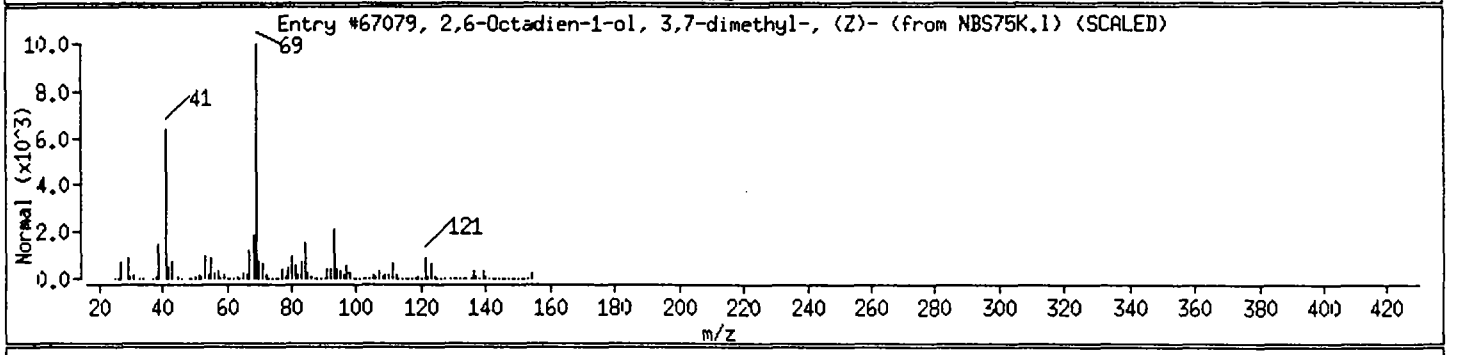
Volume Injected (uL): 2.0 Operator: 2242

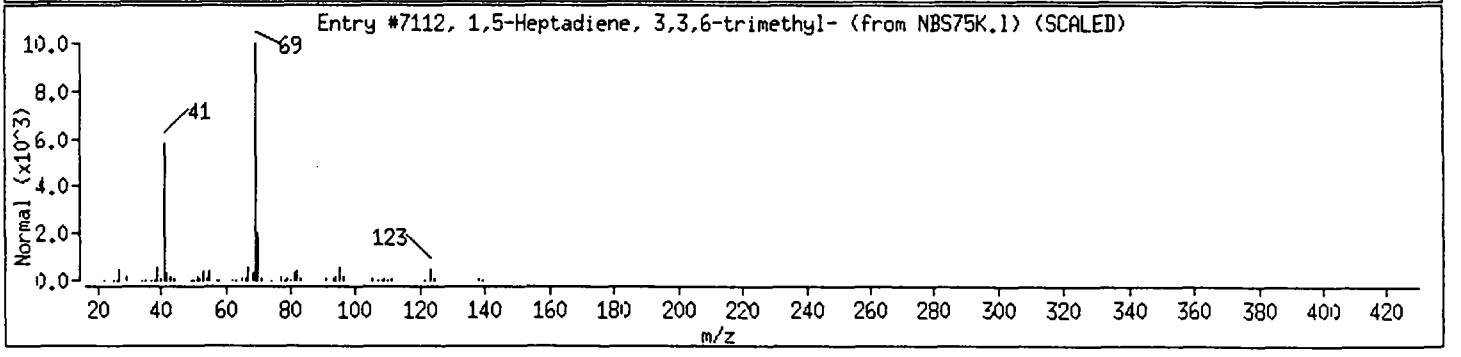
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,6,10-Dodecatrien-1-ol, 3,7,11-trimethy	106-28-5	NBS75K.l	28198	53	C15H260	222
2,6-Octadien-1-ol, 3,7-dimethyl-, (Z)-	106-25-2	NBS75K.l	67079	53	C10H180	154
1,5-Heptadiene, 3,3,6-trimethyl-	35387-63-4	NBS75K.l	7112	52	C10H18	138









LAB INSTRUCTIONS: PPS#: _____
NO PPS/FULL CLP/USE 500ML IN EXTRACTION

RECEIPT DATE: 03/18/98 CASE#: 33472 MWTT1 DUE DATE: 03/24/98

SEMI-VOLATILE
GC/MS WORKSHEET COMPUCHEM#: 885401

J[ ] J3[ ] D[ ] { :1}
J2[ ] J4[ ] D2[ ] { :1}

GC/MS; TCL SV; WATER; SOW OLMO3.1

Sample date: 031798 Report type: 0

Sample Prep Code--- -1015
Instrument Code---- 463
Compound List------ 804
Surrogate Std------ 431
Internal Std------- 50

==========

SAMPLE ID#: POLY-1

==========

GC/MS ANALYSIS

Volumes mixed: BN _____ ul Acid 200 ul
Internal Standard Volume Added 5 ul
Mixed Sample Volume Injected 2 ul
Date Sample Bottle Analyzed 3/20/98
DFTPP Filename DF980321A68 Disk ( )
Standard Filename HG980321A61 Disk ( )
Sample Filename GH085401A68 Disk ( )

ANALYST(S): Injection ZZYL Work-up ZZYL

==========

GC/MS REVIEW

CONDITION CODE OK

Disposition:
[✓] Complete
[ ] Reinjection required
[ ] Reextraction required
[ ] Dilute (:1)
[ ] Reinject Neat
[ ] Send to QA

Extraneous Peak Search Results:

# of Peaks Found: 21

# of Hits: ~~2~~ 1 mll 3/23/98

# of Surrogate Outliers: Ø

Quality Assurance Notice(s):

Notices Required Ø

COMMENTS:

#GC/MS Review [signature] Date 3/23/98 Auditor_____ Date____/____/____

==========

REPORT INTEGRATION Total # of Injections: _____
Final Reportable Package(s): GH085401A68 /

==========

QA COMMENTS:

Initials_____ Date____/____/____

==========

FINAL REVIEW: Initials_____ Date____/____/____

AC1350

S3/17 R3/18 D3/24 HT 3/24

3-20-1

Batch: 1015-980319-0712 COMPUCHEM ENVIRONMENTAL CORP. Date Extracted/Posted: 3/19/98

Assigned to Carrie/Jeremy EXTRACTION WORKSHEET

Emp.ID number: 2330/2331 EPA CLP SOW

Semi Volatile Waters EPA CLP SOW Continuous Extraction Queue #51

CASE/SDG: 33234.009ZW 33472.MWTT Proc: -1015 Manual counter: ~~934~~ 1344/948

CONTRACT: DUE DATE: 03/24/98

Auto Counter 1343 / 788

Original Entered for SS's 885405

Initials / Date J.S. / 3/19/98

	CompuChem Sample Number	Client ID#		Bottle #	Sample Volume (mL)	Final Volume (mL)	Initial PH	Adj. PH ACID	Final Volume	Comments
1	885413	SLCSLD	03/19	D.I.	1000	1.0	7.0	1.6		
2	885412	SBLKLD	03/19	D.I.	1000	1.0	7.0	1.6		
3	885357	BS	03/18	D.I.	1000	1.0	7.0	1.6		1343/787 PPS585
4	885356	U4G00907	03/18	7 of 8	1000	1.0	6.5	1.6		
5	885358	BSD	03/18	D.I.	1000	1.0	7.0	1.6		
6	885405 *	PVC-1	03/18	2 of 2	500	.5	7.0	1.6		USE 885405 FOR 885402 & 885403.
7	885401 *	POLY-1	03/18	1 of 1	500	.5	7.0	1.6		
8	885402 *	SS	03/18	2 of 2	500	.5	7.0	1.6		1343/788
9	885403 *	SS	03/18	1 of 2	500	.5	7.0	1.6		
10	885404 *	BLANK-1	03/18	1 of 1	500	.5	7.0	1.6		

*USE 500ml of sample volume + add 0.25ml #431. Final volume = 0.5ml Add 0.25ml #8000 to SS's.

	ID#	AMT	LOT#
Surrogate	431	0.5 mL	46796
Spike	8000	0.5 mL	47062

Final Volume Verified:

Reviewed By :

	CompuChem Samp#	Client ID#	QC Type
QC:			

POSTED 2331

CM added

Verif. Surr/Spike Addition:

Initials J.S. / Date 3/19/98

Extracts relinq. by: _____ Date: _____ Extracts rec'd by: _____ Date: _____

Extracts relinq. by: _____ Date: _____ Extracts rec'd by: _____ Date: _____

1015-980319-0712, Case: OPEN Case size: 33 Nbr other batch: 0 (Client Specific QC)

Methanol
Sodium Sulfate
$MeCl_2$ B0908

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PVC-1

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885405

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085405A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	380	E
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PVC-1

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885405

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085405A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	74	B
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

PVC-1

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885405

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085405A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 24

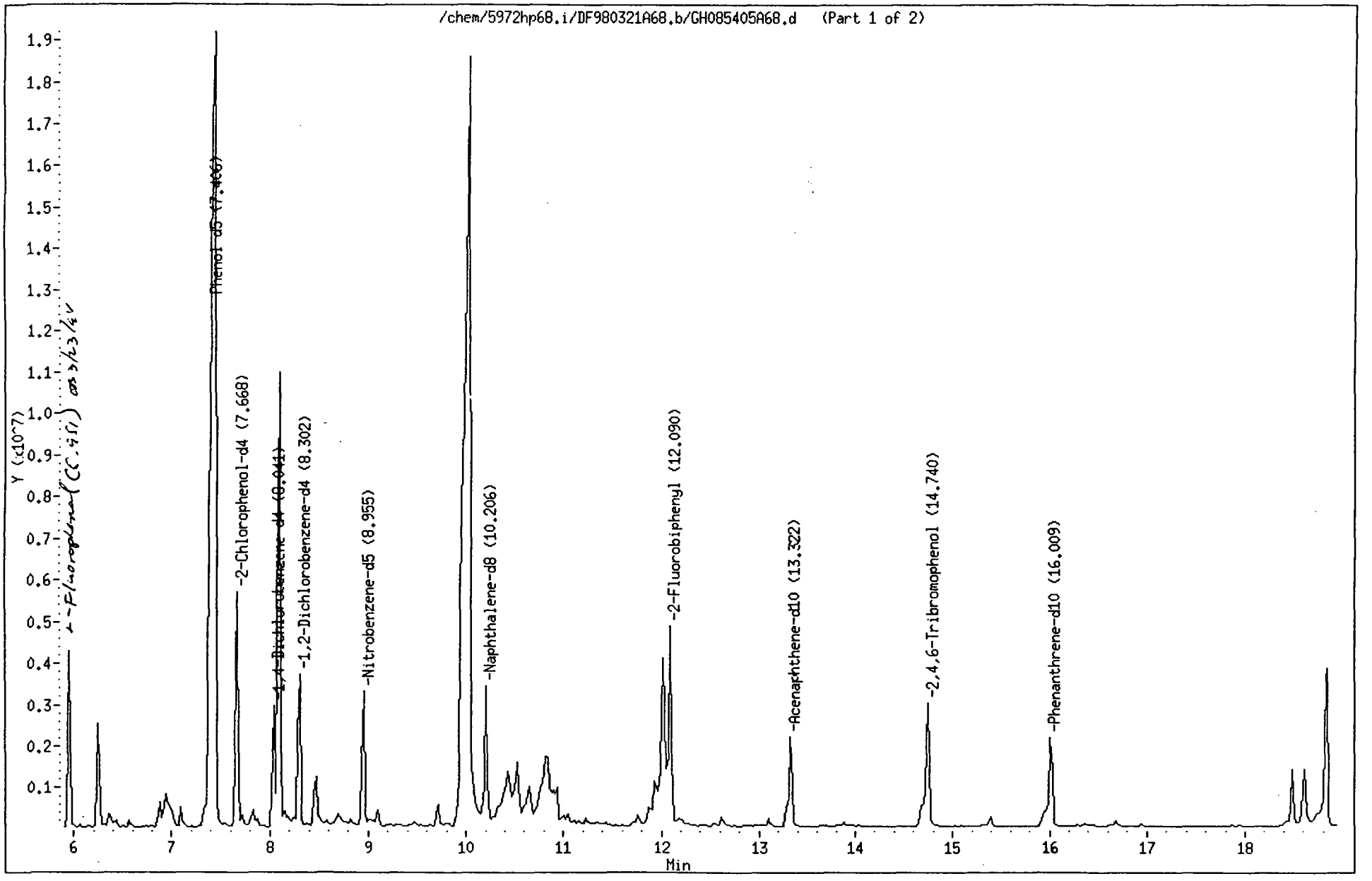
CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CYCLOHEXENOL (BC)	6.25	12	JB
2. 108-94-1	CYCLOHEXANONE	6.36	3	NJB
3.	CYCLOHEXENONE (BC)	6.94	12	JB
4.	TRICHLOROPROPENE	7.09	2	J
5.	HYDROXYCYCLOHEXANONE	7.84	3	J
6.	UNKNOWN	8.47	7	J
7.	UNKNOWN	8.69	3	J
8.	UNKNOWN CARBOXYLIC ACID	9.10	3	J
9.	UNKNOWN	9.72	3	J
10. 112-34-5	ETHANOL, 2-(2-BUTOXYETHOXY)-	10.04	200	NJ
11.	UNKNOWN	10.43	22	J
12.	UNKNOWN	10.52	13	J
13.	UNKNOWN	10.65	12	J
14.	UNKNOWN	10.82	30	J
15.	UNKNOWN	10.93	8	J
16.	UNKNOWN	11.05	3	J
17.	UNKNOWN	11.75	2	J
18. 520-45-6	DEHYDROACETIC ACID	12.02	56	NJ
19.	UNKNOWN	12.18	4	J
20. 118-93-4	ETHANONE, 1-(2-HYDROXYPHENYL	12.61	2	NJ
21.	UNKNOWN	15.39	2	J
22.	UNKNOWN	18.49	15	J
23. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYLI	18.60	13	NJ
24.	UNKNOWN AMIDE	22.21	4	J
25.				
26.				
27.				
28.				
29.				
30.				

Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d
Date : 21-MAR-1998 10:14
Client ID: PVC-1
Sample Info:
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32

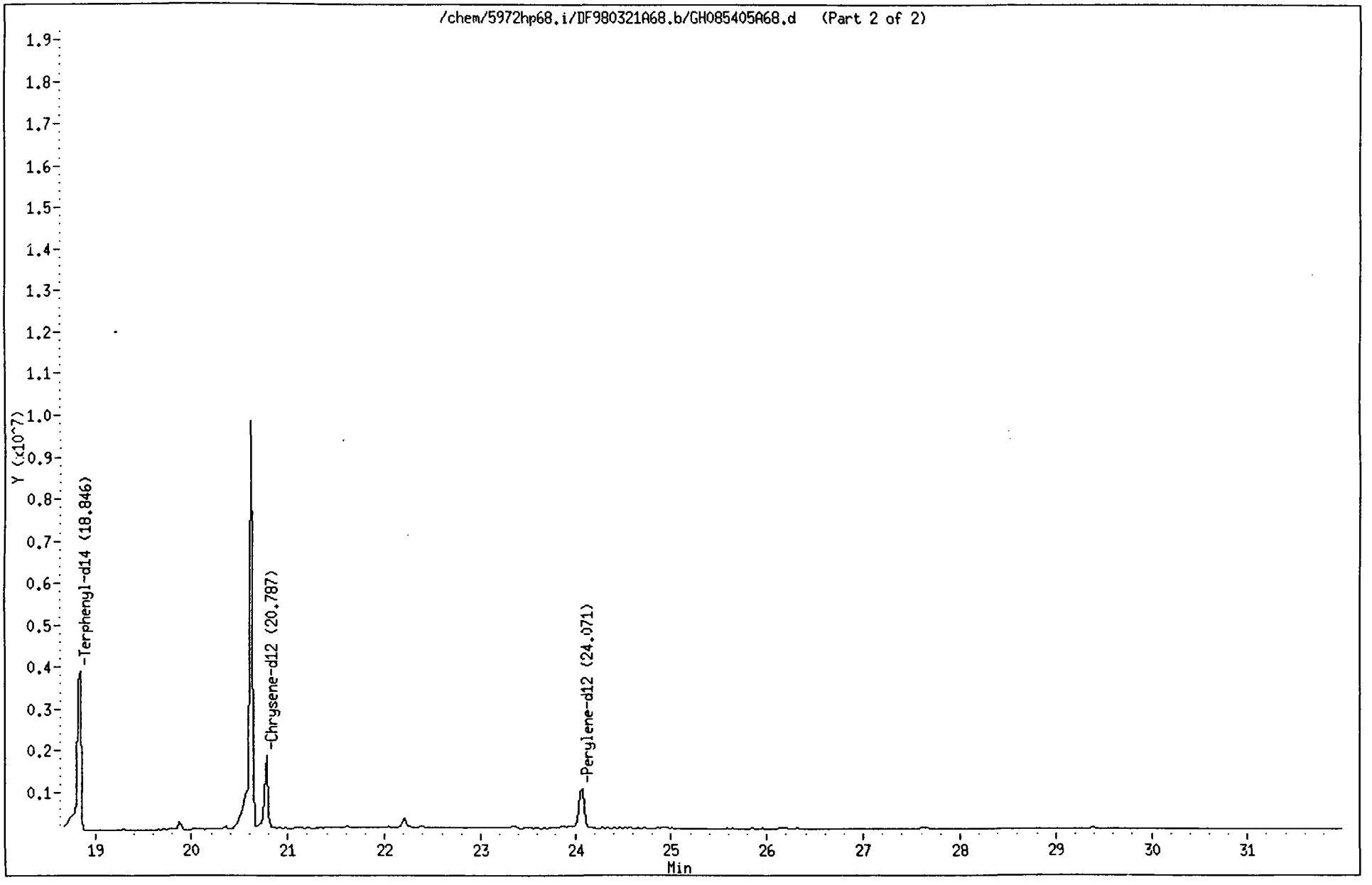


Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d
Date : 21-MAR-1998 10:14
Client ID: PVC-1
Sample Info:
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32

143



Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d
Report Date: 23-Mar-1998 10:10

CompuChem Environmental Corp.

OLM03.0 + REVISIONS QUANT AND RATIO REPORT

Data file : /chem/5972hp68.i/DF980321A68.b/GH085405A68.d
Lab Smp Id: 885405 Client Smp ID: PVC-1
Inj Date : 21-MAR-1998 10:14
Operator : 2242 Inst ID: 5972hp68.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp68.i/DF980321A68.b/OLM03.m
Meth Date : 23-Mar-1998 09:00 mss Quant Type: ISTD
Cal Date : 21-MAR-98 08:07 Cal File: HG980321A68.d
Als bottle: 5
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.12
Concentration Formula: Vt/(Vo * Vi)

Name	Value	Description
Vt	500.000	Volume of final extract (uL)
Vo	500.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152.00	8.041	8.042	(1.000)	814469	40.00		
* 2 Naphthalene-d8	136.00	10.206	10.206	(1.000)	2938980	40.00		8659
* 3 Acenaphthene-d10	164.00	13.322	13.323	(1.000)	1521042	40.00		9425
* 4 Phenanthrene-d10	188.00	16.009	16.010	(1.000)	1969009	40.00		9570
* 5 Chrysene-d12	240.00	20.787	20.788	(1.000)	1435590	40.00		9552
* 6 Perylene-d12	264.00	24.071	24.072	(1.000)	1361415	40.00		8489
$ 7 2-Fluorophenol	112.00	5.951	5.952	(0.740)	2435954	91.09	45.54	
$ 8 Phenol-d5	99.00	7.406	7.370	(0.921)	3248927	116.0	57.98	0(M)
$ 9 2-Chlorophenol-d4	132.00	7.668	7.650	(0.954)	2992317	112.8	56.40	8734
$ 10 1,2-Dichlorobenzene-d4	152.00	8.302	8.303	(1.032)	1171699	66.52	33.26	
$ 11 Nitrobenzene-d5	82.00	8.955	8.956	(0.877)	1863075	84.57	42.29	8459
$ 12 2-Fluorobiphenyl	172.00	12.090	12.091	(0.908)	3481331	71.62	35.81	8980
$ 13 2,4,6-Tribromophenol	329.60	14.740	14.741	(0.921)	916169	126.7	63.36	
$ 14 Terphenyl-d14	244.00	18.846	18.828	(0.907)	3703557	99.51	49.75	8244
15 Phenol	94.00	7.444	7.389	(0.926)	19933467	762.6	381.3	(A)
16 bis(2-Chloroethyl)ether	93.00		7.575	Compound Not Detected.				
17 2-Chlorophenol	128.00		7.687	Compound Not Detected.				
18 1,3-Dichlorobenzene	146.00		7.948	Compound Not Detected.				
19 1,4-Dichlorobenzene	146.00		8.060	Compound Not Detected.				
20 1,2-Dichlorobenzene	146.00		8.322	Compound Not Detected.				
21 2-Methylphenol	108.00		8.378	Compound Not Detected.				

Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d
Report Date: 23-Mar-1998 10:10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY
22 2,2'-oxybis(1-Chloropropane)	45.00		8.452	Compound Not Detected.				
23 4-Methylphenol	108.00		8.639	Compound Not Detected.				
24 N-Nitroso-di-n-propylamine	70.00		8.658	Compound Not Detected.				
25 Hexachloroethane	117.00		8.900	Compound Not Detected.				
26 Nitrobenzene	77.00		8.975	Compound Not Detected.				
27 Isophorone	82.00		9.367	Compound Not Detected.				
28 2-Nitrophenol	139.00		9.535	Compound Not Detected.				
29 2,4-Dimethylphenol	107.00		9.553	Compound Not Detected.				
30 bis(2-Chloroethoxy)methane	93.00		9.721	Compound Not Detected.				
31 2,4-Dichlorophenol	162.00		9.927	Compound Not Detected.				
32 1,2,4-Trichlorobenzene	180.00		10.095	Compound Not Detected.				
33 Naphthalene	128.00		10.244	Compound Not Detected.				
34 4-Chloroaniline	127.00		10.300	Compound Not Detected.				
35 Hexachlorobutadiene	225.00		10.430	Compound Not Detected.				
36 4-Chloro-3-methylphenol	107.00		11.121	Compound Not Detected.				
37 2-Methylnaphthalene	142.00		11.457	Compound Not Detected.				
38 Hexachlorocyclopentadiene	237.00		11.737	Compound Not Detected.				
39 2,4,6-Trichlorophenol	196.00		11.942	Compound Not Detected.				
40 2,4,5-Trichlorophenol	196.00		11.998	Compound Not Detected.				
41 2-Chloronaphthalene	162.00		12.334	Compound Not Detected.				
42 2-Nitroaniline	65.00		12.483	Compound Not Detected.				
43 Dimethylphthalate	163.00		12.782	Compound Not Detected.				
44 2,6-Dinitrotoluene	165.00		12.912	Compound Not Detected.				
45 Acenaphthylene	152.00		13.080	Compound Not Detected.				
46 3-Nitroaniline	138.00		13.211	Compound Not Detected.				
47 Acenaphthene	153.00		13.398	Compound Not Detected.				
48 2,4-Dinitrophenol	184.00		13.416	Compound Not Detected.				
49 4-Nitrophenol	109.00		13.472	Compound Not Detected.				
50 2,4-Dinitrotoluene	165.00		13.640	Compound Not Detected.				
51 Dibenzofuran	168.00		13.696	Compound Not Detected.				
52 Diethylphthalate	149.00		14.032	Compound Not Detected.				
53 4-Chlorophenyl-phenylether	204.00		14.293	Compound Not Detected.				
54 Fluorene	166.00		14.312	Compound Not Detected.				
55 4-Nitroaniline	138.00		14.312	Compound Not Detected.				
56 4,6-Dinitro-2-methylphenol	198.00		14.368	Compound Not Detected.				
57 N-nitrosodiphenylamine	169.00		14.480	Compound Not Detected.				
58 4-Bromophenyl-phenylether	248.00		15.171	Compound Not Detected.				
59 Hexachlorobenzene	283.90		15.301	Compound Not Detected.				
60 Pentachlorophenol	266.00		15.656	Compound Not Detected.				
61 Phenanthrene	178.00		16.066	Compound Not Detected.				
62 Anthracene	178.00		16.160	Compound Not Detected.				
63 Carbazole	167.00		16.421	Compound Not Detected.				
64 Di-n-butylphthalate	149.00		16.962	Compound Not Detected.				
65 Fluoranthene	202.00		18.212	Compound Not Detected.				
66 Pyrene	202.00		18.623	Compound Not Detected.				
67 Butylbenzylphthalate	149.00		19.649	Compound Not Detected.				
68 3,3'-Dichlorobenzidine	252.00		20.657	Compound Not Detected.				
69 bis(2-Ethylhexyl)phthalate	149.00	20.619	20.620	(0.992)	6022044	148.2	74.09	7732
70 Benzo(a)anthracene	228.00		20.769	Compound Not Detected.				

Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d
Report Date: 23-Mar-1998 10:10

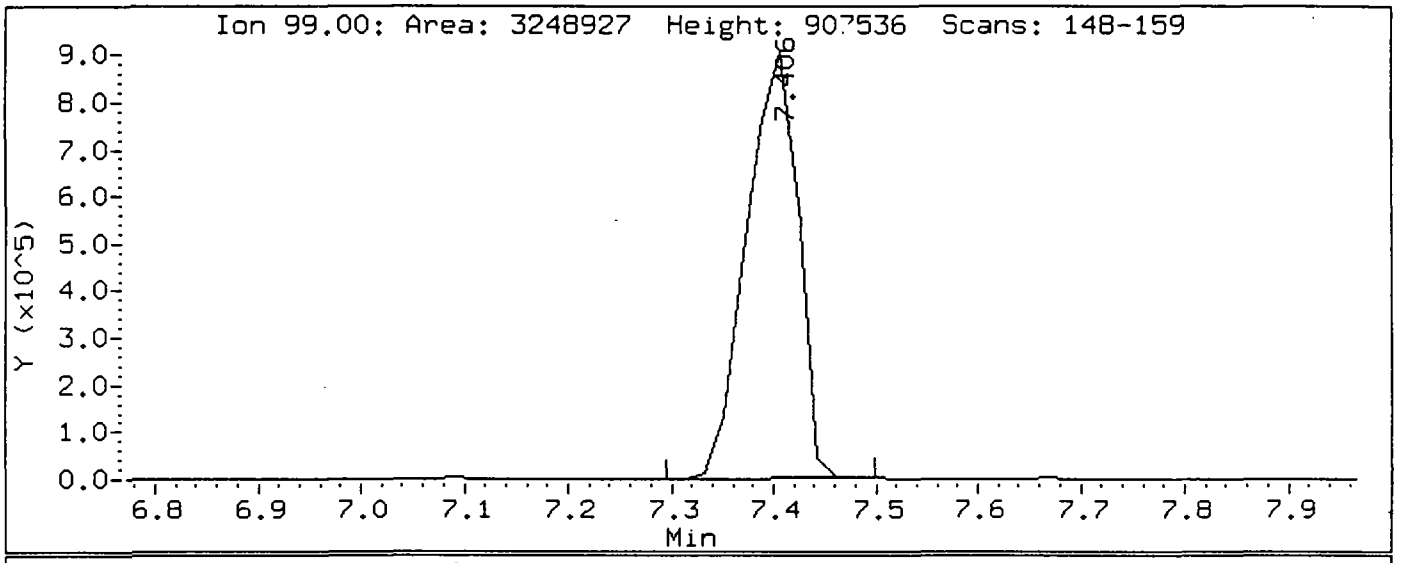
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY
71 Chrysene	228.00		20.825	Compound Not Detected.				
72 Di-n-octylphthalate	149.00		21.833	Compound Not Detected.				
73 Benzo(b)fluoranthene	252.00		23.027	Compound Not Detected.				
74 Benzo(k)fluoranthene	252.00		23.102	Compound Not Detected.				
75 Benzo(a)pyrene	252.00		23.923	Compound Not Detected.				
76 Indeno(1,2,3-cd)pyrene	276.00		27.674	Compound Not Detected.				
77 Dibenzo(a,h)anthracene	278.00		27.692	Compound Not Detected.				
78 Benzo(g,h,i)perylene	276.00		28.794	Compound Not Detected.				

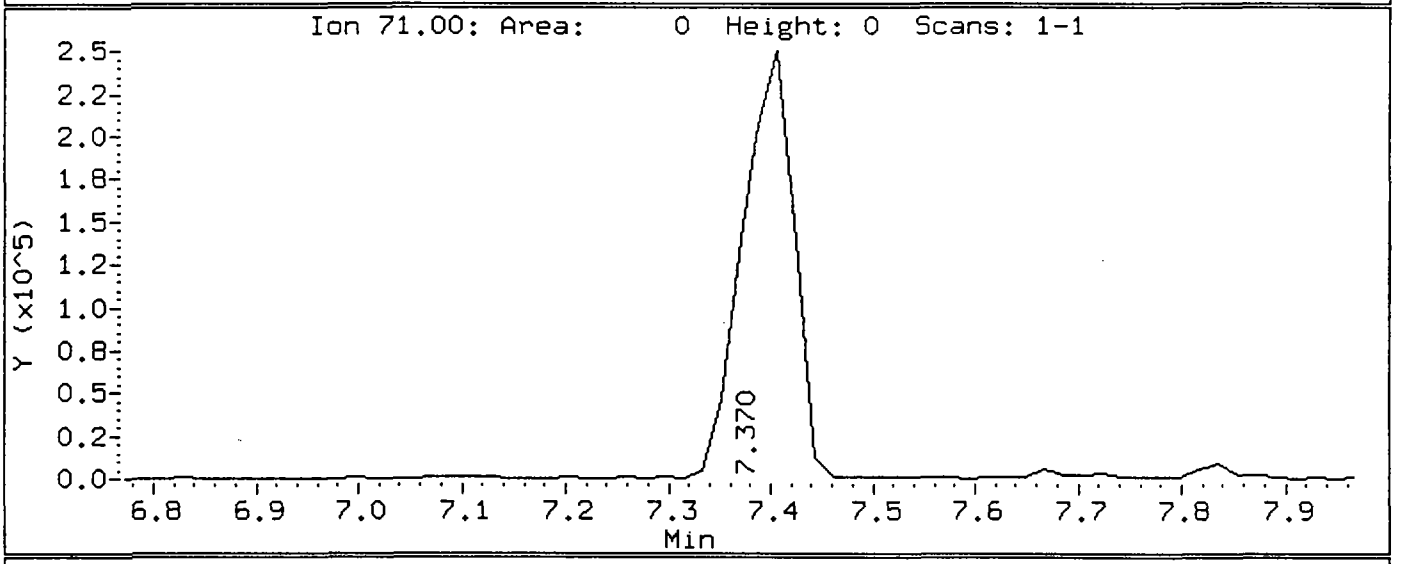
QC Flag Legend

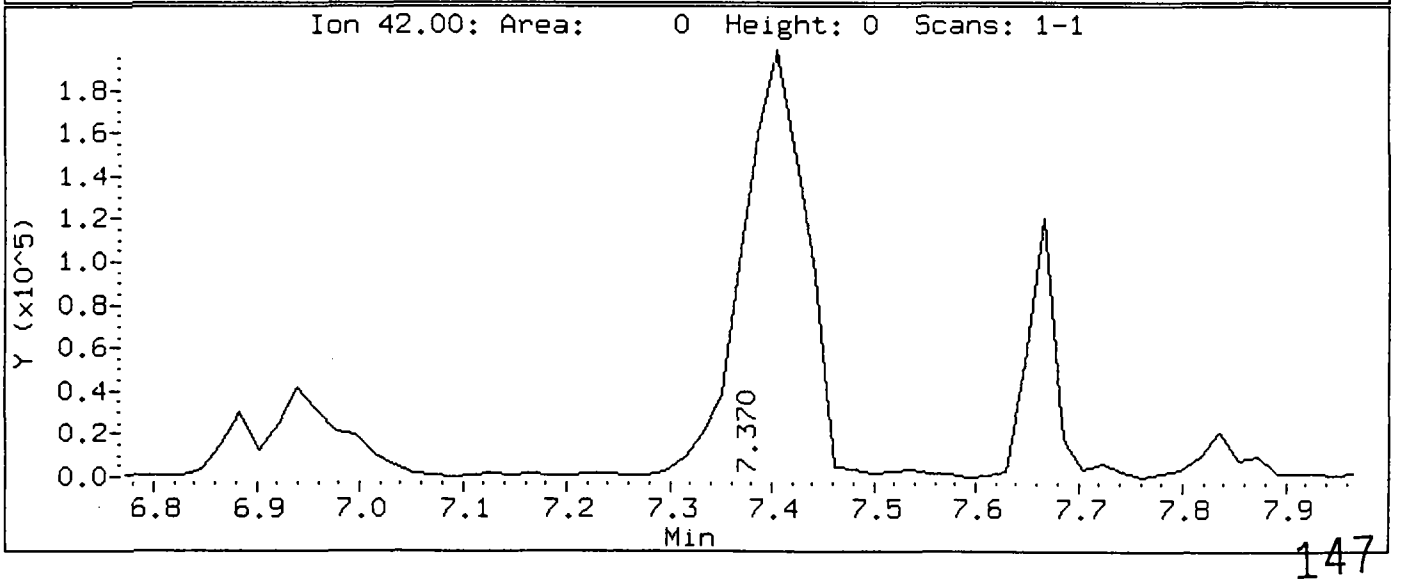
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d
Injection Date: 21-MAR-98 10:14
Instrument: 5972hp68.i
Client Sample ID: PVC-1

Compound: Phenol-d5
CAS Number: 4165-62-2







Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d

Date : 21-MAR-1998 10:14

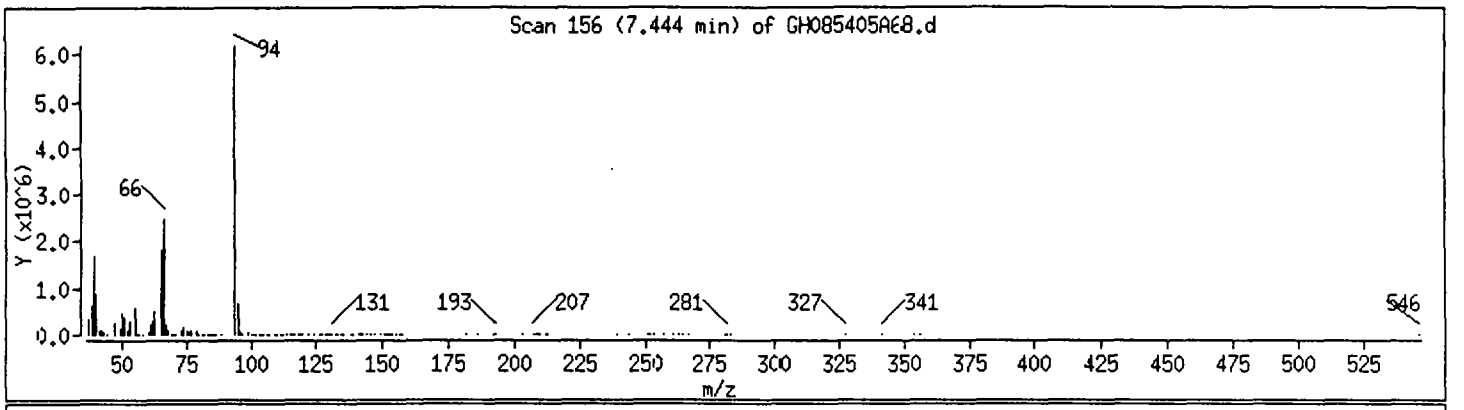
Client ID: PVC-1 Instrument: 5972hp68.i

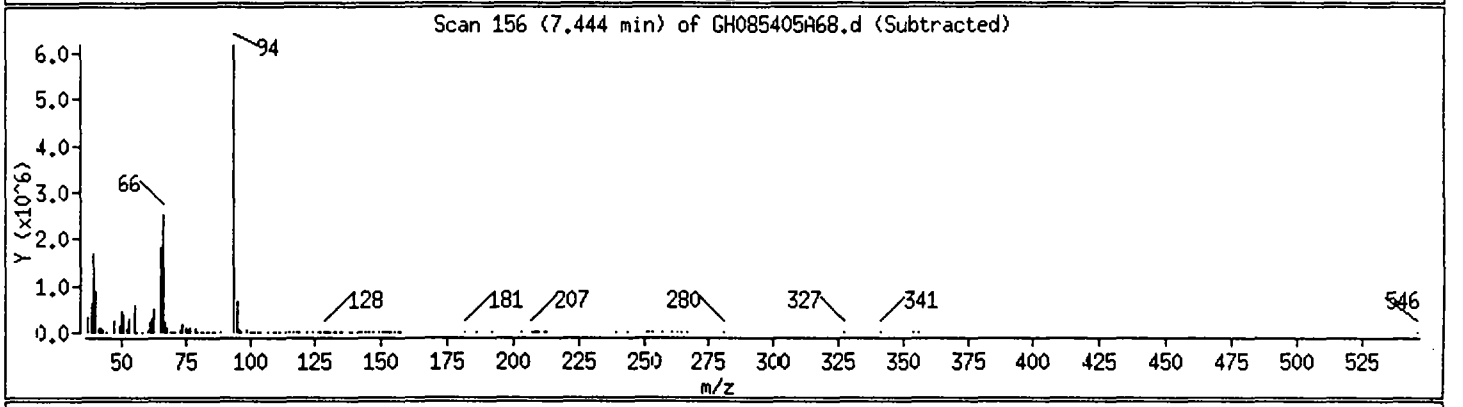
Sample Info:

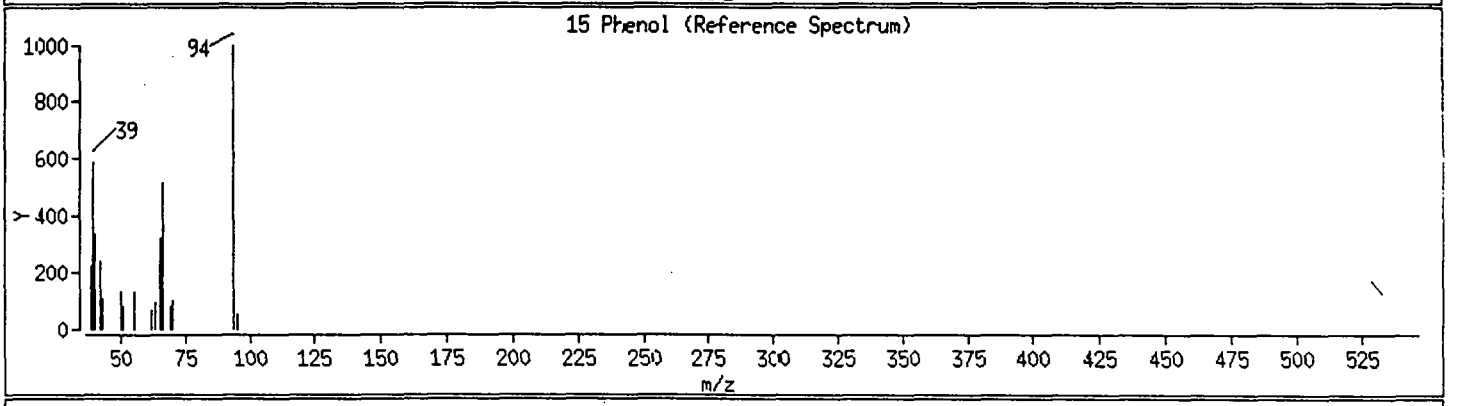
Volume Injected (uL): 2.0 Operator: 2242

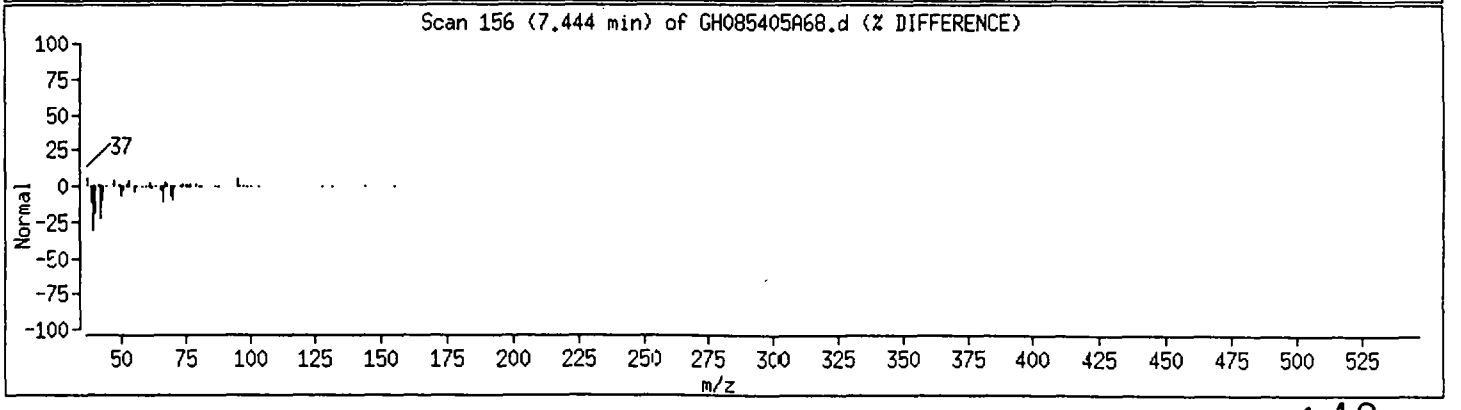
Column phase: DB-5 Column diameter: 0.32

15 Phenol









Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d

Date : 21-MAR-1998 10:14

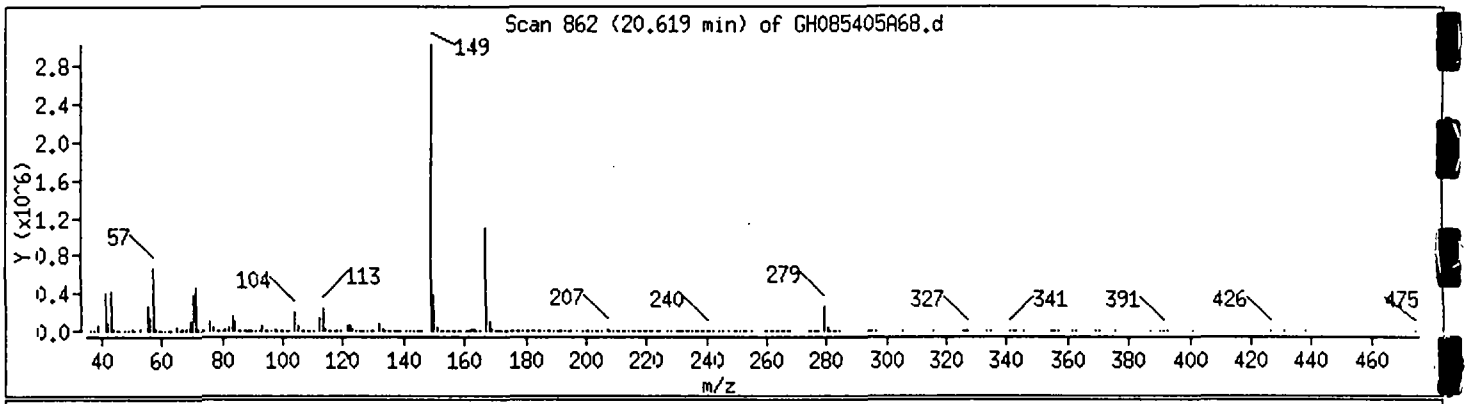
Client ID: PVC-1 Instrument: 5972hp68.i

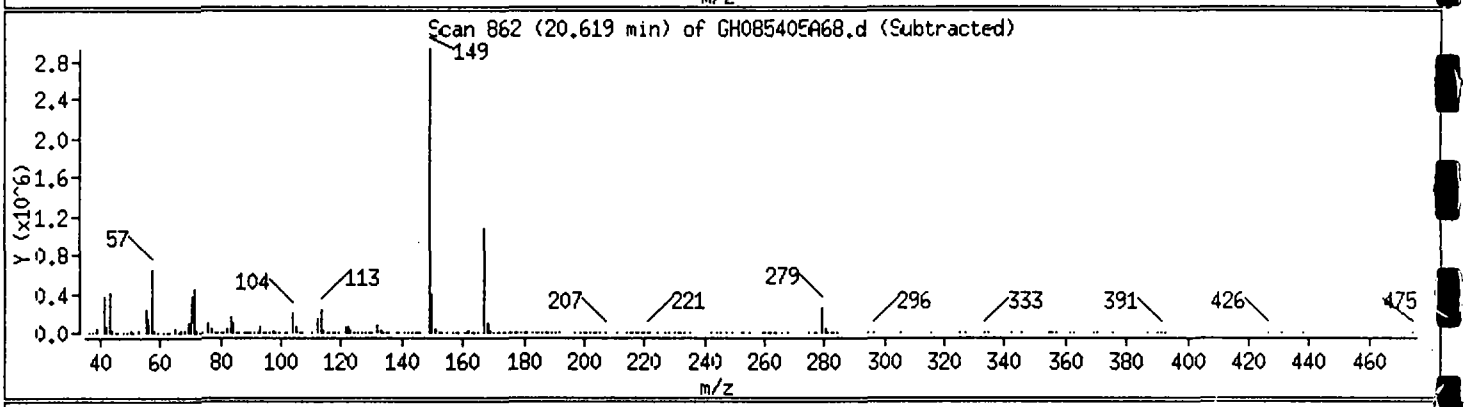
Sample Info:

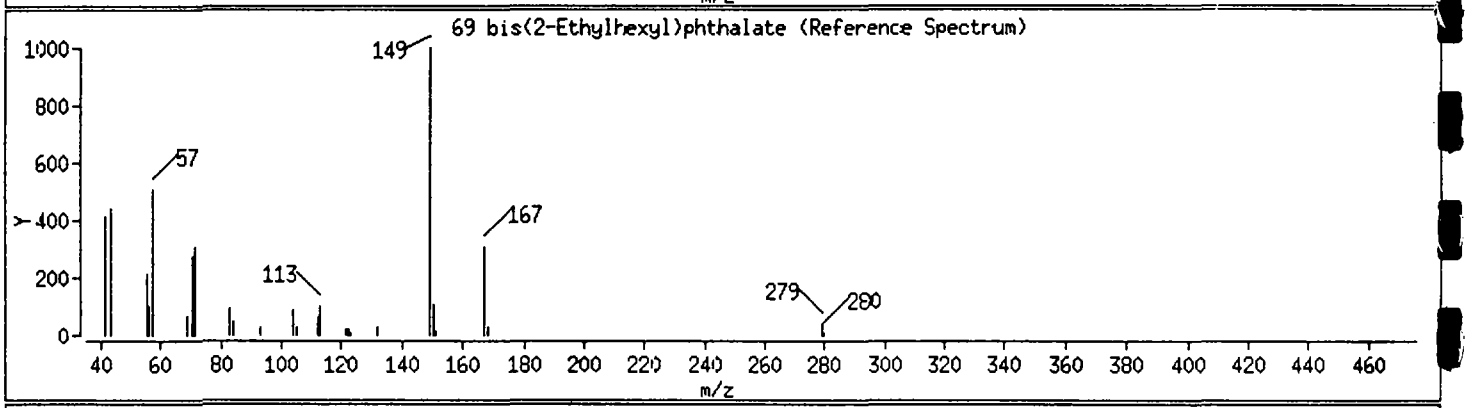
Volume Injected (uL): 2.0 Operator: 2242

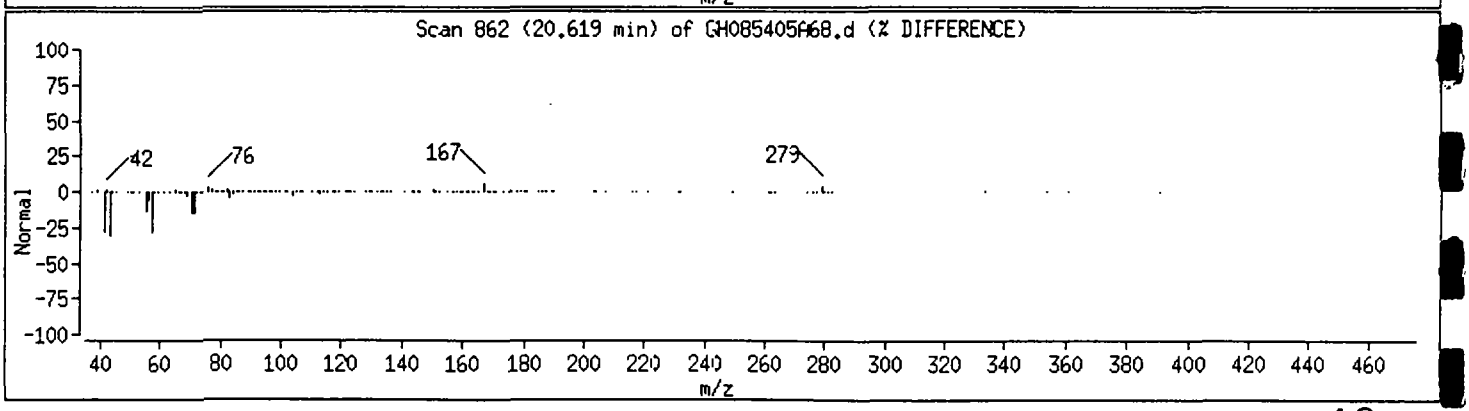
Column phase: DB-5 Column diameter: 0.32

69 bis(2-Ethylhexyl)phthalate









Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d
Report Date: 23-Mar-1998 10:10

CompuChem Environmental Corp.

Unknown Compounds Quantitation Report

Data file : /chem/5972hp68.i/DF980321A68.b/GH085405A68.d
Lab Smp Id: 885405 Client Smp ID: PVC-1
Inj Date : 21-MAR-1998 10:14
Operator : 2242 Inst ID: 5972hp68.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp68.i/DF980321A68.b/OLMO3.m
Meth Date : 23-Mar-1998 09:00 mss
Cal Date : 21-MAR-98 08:07 Cal File: HG980321A68.d
Als bottle: 5
Dil Factor: 1.000 Target Version: 3.12
Integrator: HP RTE Compound Sublist: all.sub
Sample Matrix: WATER
Quantitative Mode : Use RF of Nearest Std
Concentration Formula: Vt/(Vo * Vi)

Name	Value	Description
Vt	500.000	Volume of final extract (uL)
Vo	500.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)

ISTD	RT	AREA	AMOUNT
* 2 Naphthalene-d8	10.206	8118867	40.000
* 3 Acenaphthene-d10	13.322	6088813	40.000
* 4 Phenanthrene-d10	16.009	5875488	40.000
* 5 Chrysene-d12	20.787	4452498	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(NG)	FINAL(ug/L)	QUAL	LIBRARY	LIB ENTRY	CPND #
Cyclohexenol (BC)					CAS #:		
6.249	4831873	23.80	11.90	0		0	2
Cyclohexanone					CAS #: 108-94-1		
6.361	1284707	6.33	3.16	72	NBS75K.1	63194	2

Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d
Report Date: 23-Mar-1998 10:10

RT	AREA	CONCENTRATIONS ON-COL(NG)	FINAL(ug/L)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Cyclohexenone (BC)					CAS #:		
6.940	5078093	25.02	12.51	0		0	2
Trichloropropene					CAS #:		
7.089	876614	4.32	2.16	0		0	2
Hydroxycyclohexanone					CAS #:		
7.836	1304271	6.42	3.21	0		0	2
Unknown					CAS #:		
8.470	2822444	13.90	6.95	0		0	2
Unknown					CAS #:		
8.694	1333673	6.57	3.28	0		0	2
Unknown Carboxylic Acid					CAS #:		
9.105	1383425	6.82	3.41	0		0	2
Unknown					CAS #:		
9.720	1282936	6.32	3.16	0		0	2
Ethanol, 2-(2-butoxyethoxy)-					CAS #: 112-34-5		
10.038	81422573	401.2	200.6	90	NBS75K.l	12864	2
Unknown					CAS #:		
10.430	9053537	44.60	22.30	0		0	2
Unknown					CAS #:		
10.523	5323018	26.22	13.11	0		0	2
Unknown					CAS #:		
10.654	5106252	25.16	12.58	0		0	2
Unknown					CAS #:		
10.822	12210389	60.16	30.08	0		0	2
Unknown					CAS #:		
10.933	3242684	15.98	7.99	0		0	2
Unknown					CAS #:		
11.045	1399429	6.89	3.45	0		0	2
Unknown					CAS #:		
11.755	918382	4.52	2.26	0		0	2
Dehydroacetic Acid					CAS #: 520-45-6		
12.016	16902887	111.0	55.52	94	NBS75K.l	68072	3

Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d
Report Date: 23-Mar-1998 10:10

RT	AREA	CONCENTRATIONS ON-COL(NG)	FINAL(ug/L)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
12.184	1073899	7.05	3.53	0		0	3
Ethanone, 1-(2-hydroxyphenyl)-					CAS #: 118-93-4		
12.613	617747	4.06	2.03	90	NBS75K.l	65688	3
Unknown					CAS #:		
15.394	695789	4.74	2.37	0		0	4
Unknown					CAS #:		
18.491	3296482	29.61	14.81	0		0	5
Phenol, 4,4'-(1-methylethylidene)bis-					CAS #: 80-05-7		
18.603	2882818	25.90	12.95	94	NBS75K.l	70845	5
Unknown Amide					CAS #:		
22.205	804059	7.22	3.61	0		0	5

Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d

Date : 21-MAR-1998 10:14

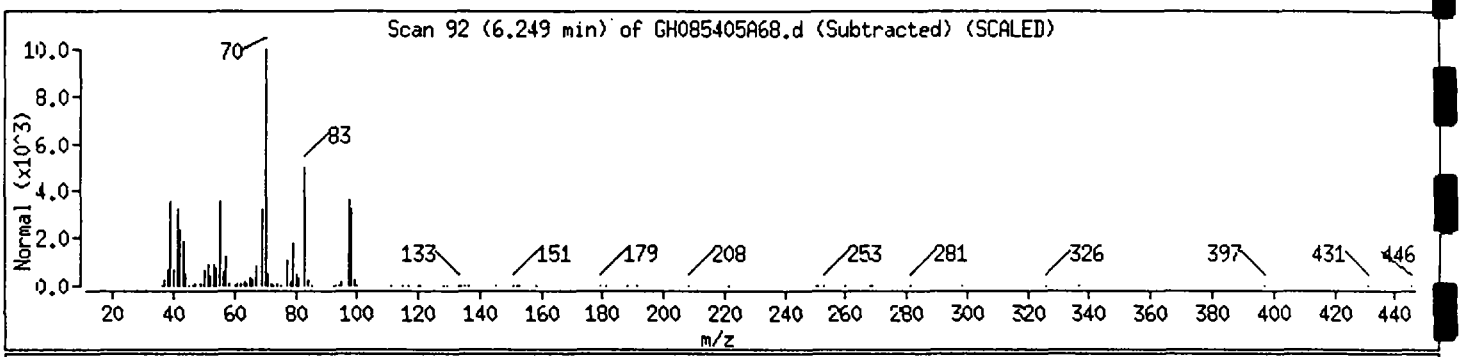
Client ID: PVC-1 Instrument: 5972hp68.i

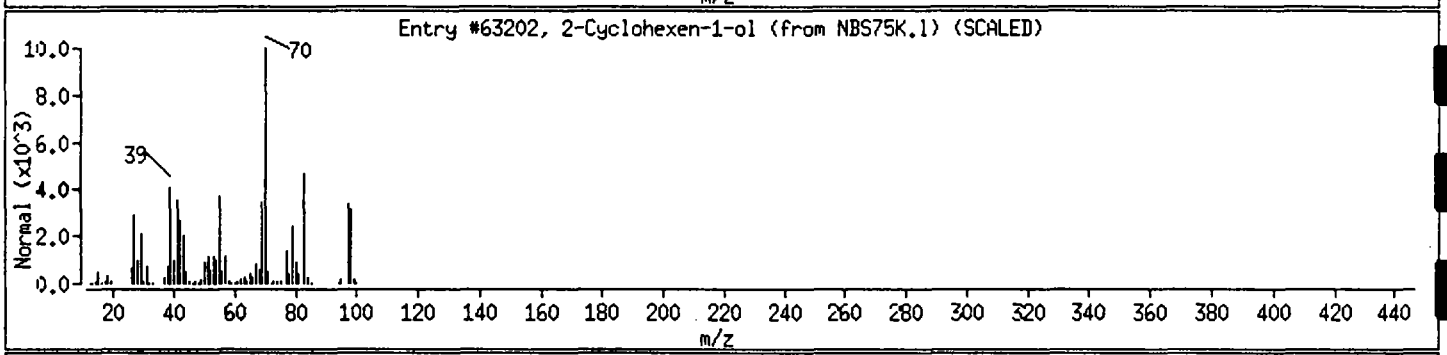
Sample Info:

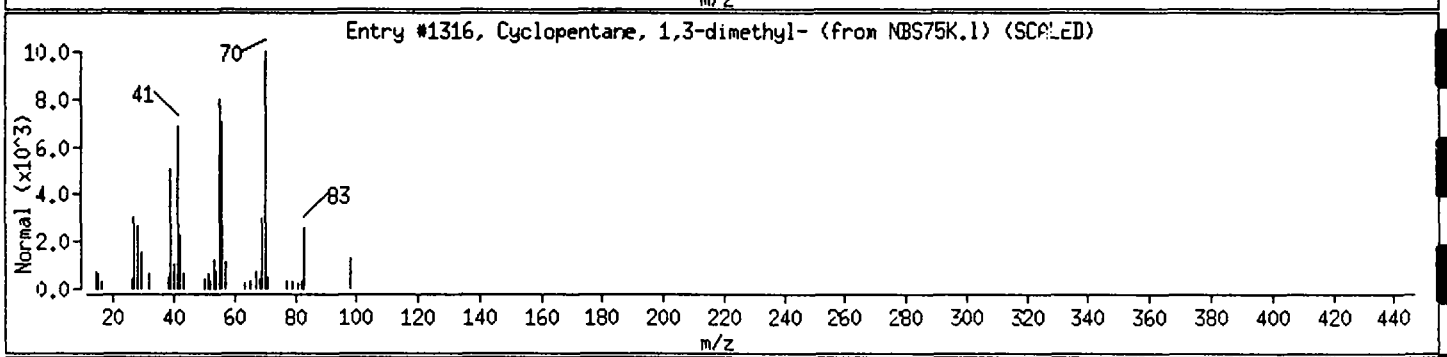
Volume Injected (uL): 2.0 Operator: 2242

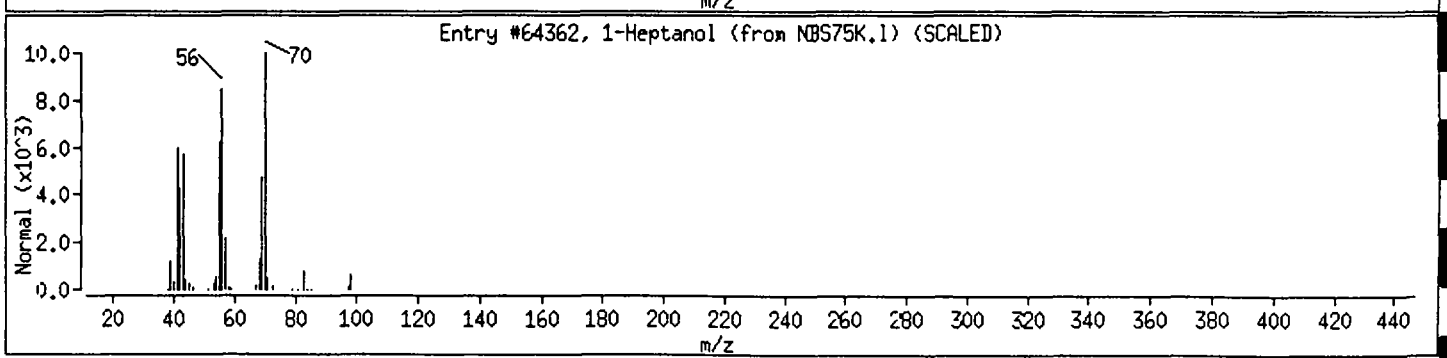
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexenol (BC)						
2-Cyclohexen-1-ol	822-67-3	NBS75K.l	63202	83	C6H10O	98
Cyclopentane, 1,3-dimethyl-	2453-00-1	NBS75K.l	1316	53	C7H14	98
1-Heptanol	111-70-6	NBS75K.l	64362	47	C7H16O	116









Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d

Date : 21-MAR-1998 10:14

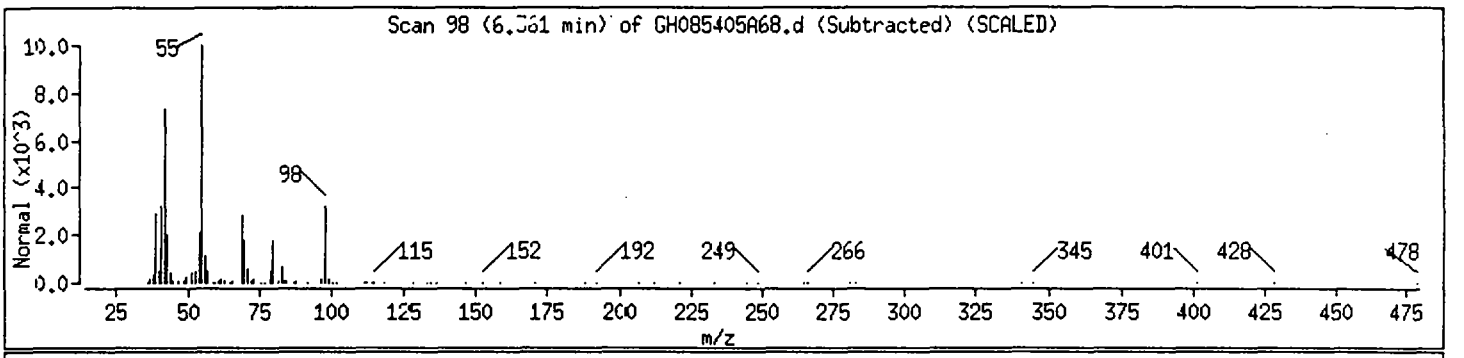
Client ID: PVC-1 Instrument: 5972hp68.i

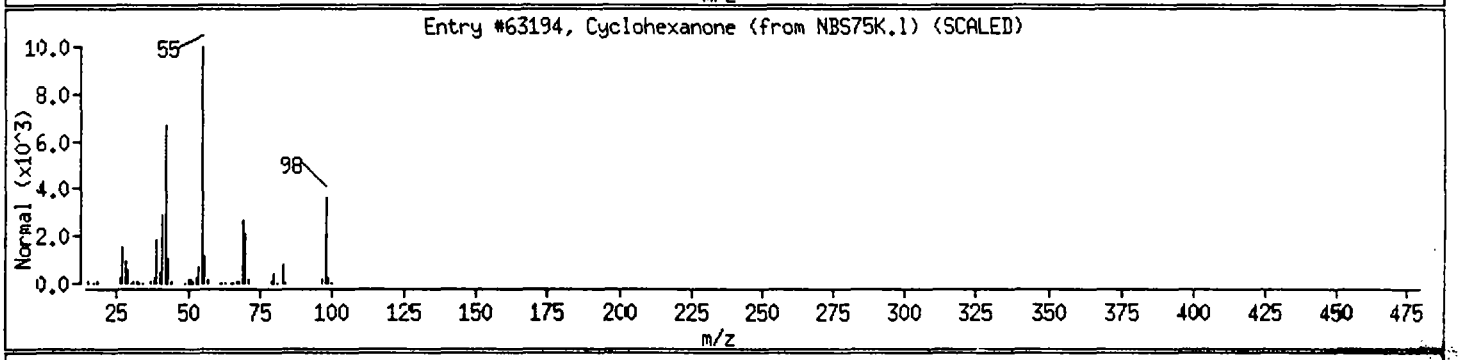
Sample Info:

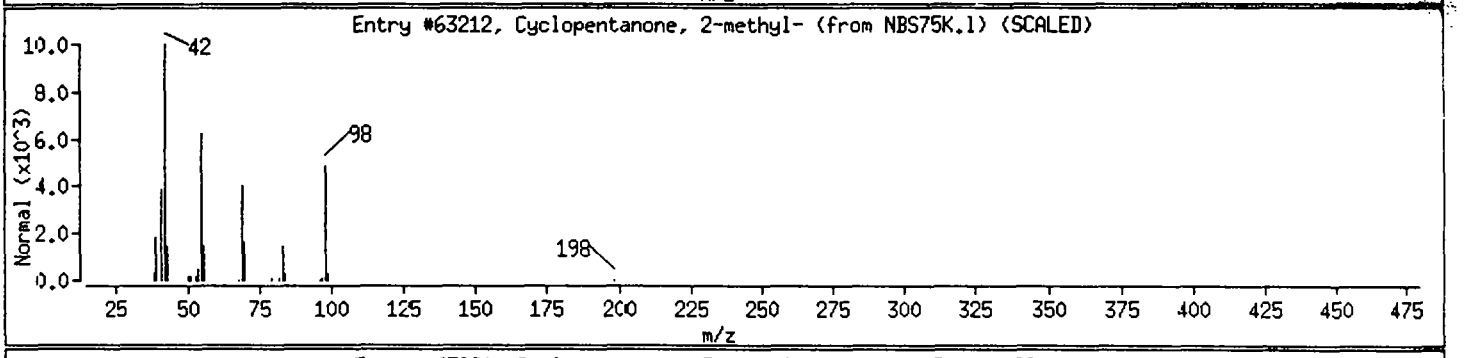
Volume Injected (uL): 2.0 Operator: 2242

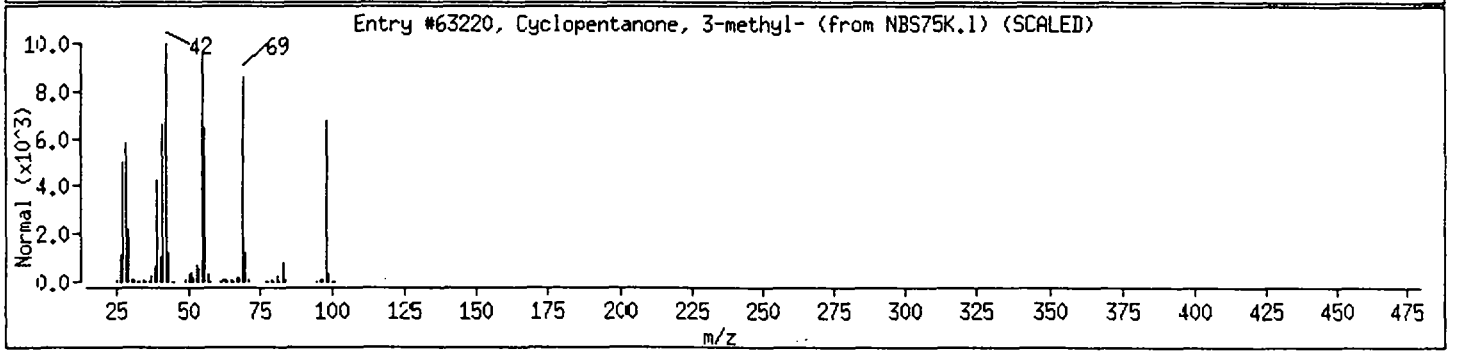
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexanone	108-94-1	NBS75K.l	63194	72	C6H10O	98
Cyclopentanone, 2-methyl-	1120-72-5	NBS75K.l	63212	53	C6H10O	98
Cyclopentanone, 3-methyl-	1757-42-2	NBS75K.l	63220	45	C6H10O	98









Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d

Date : 21-MAR-1998 10:14

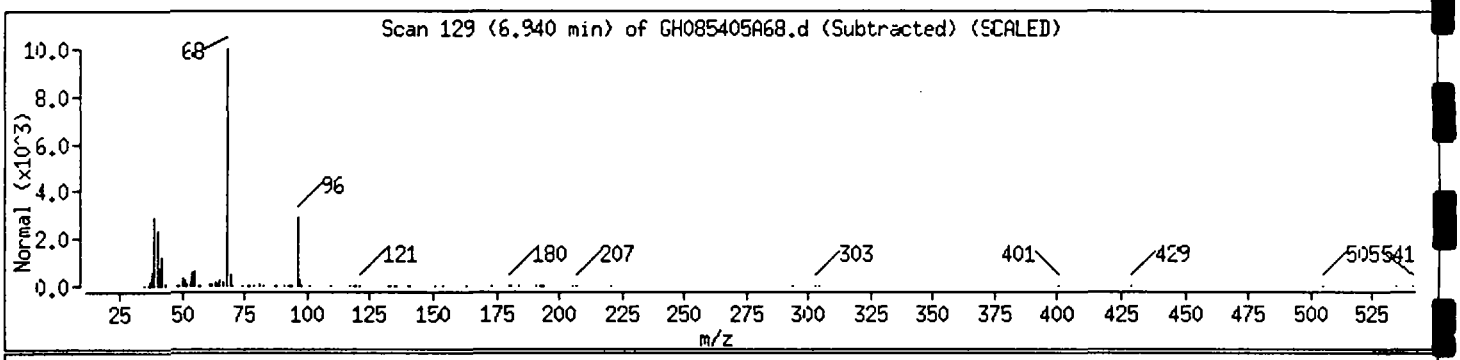
Client ID: PVC-1 Instrument: 5972hp68.i

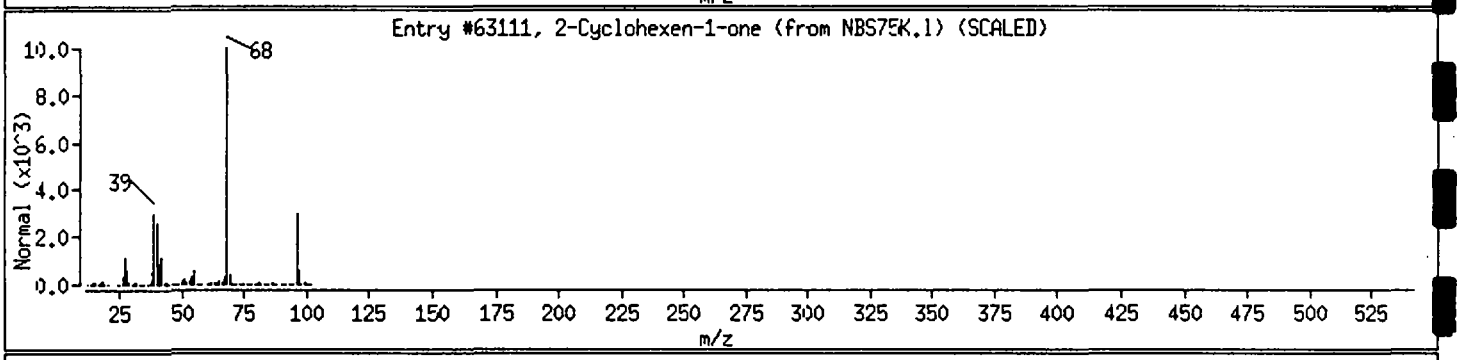
Sample Info:

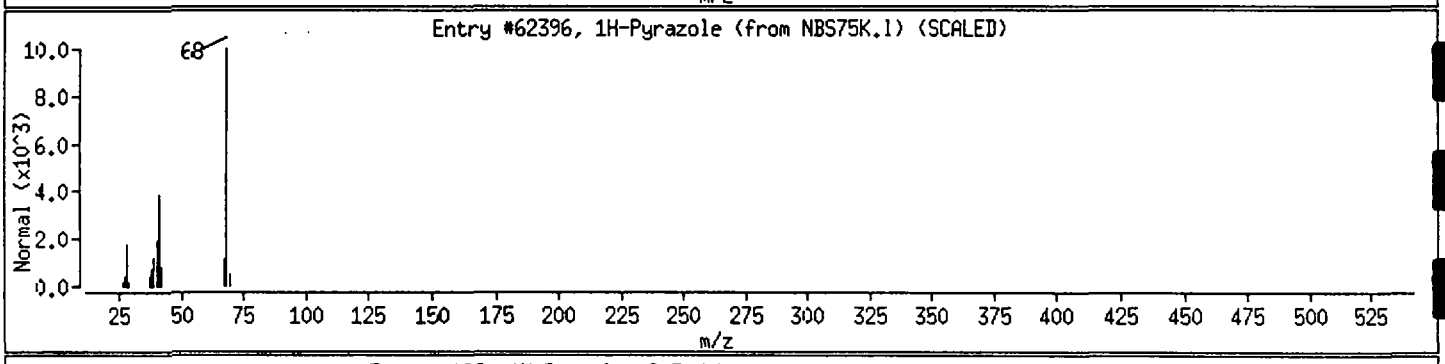
Volume Injected (uL): 2.0 Operator: 2242

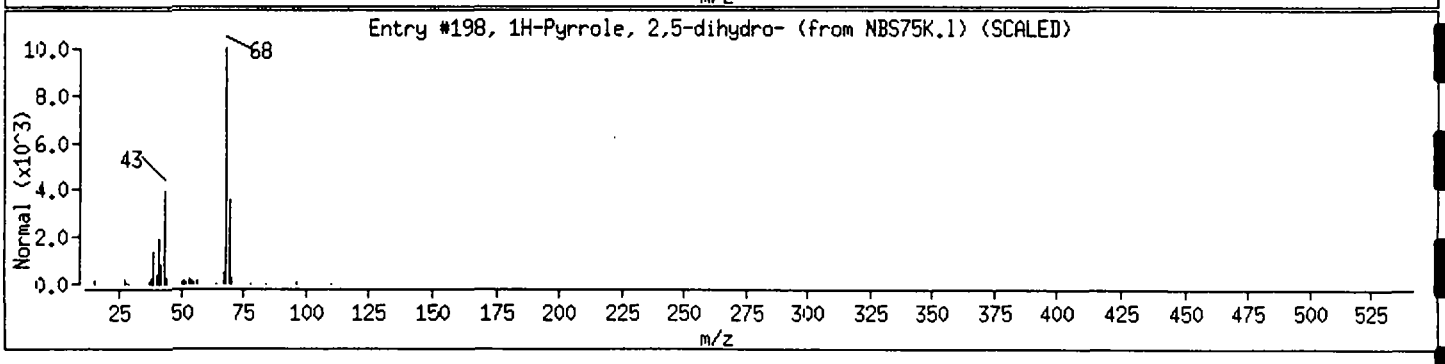
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexenone (BC)						
2-Cyclohexen-1-one	930-68-7	NBS75K.l	63111	91	C6H8O	96
1H-Pyrazole	288-13-1	NBS75K.l	62396	9	C3H4N2	68
1H-Pyrrole, 2,5-dihydro-	109-96-6	NBS75K.l	198	9	C4H7N	69









Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d

Date : 21-MAR-1998 10:14

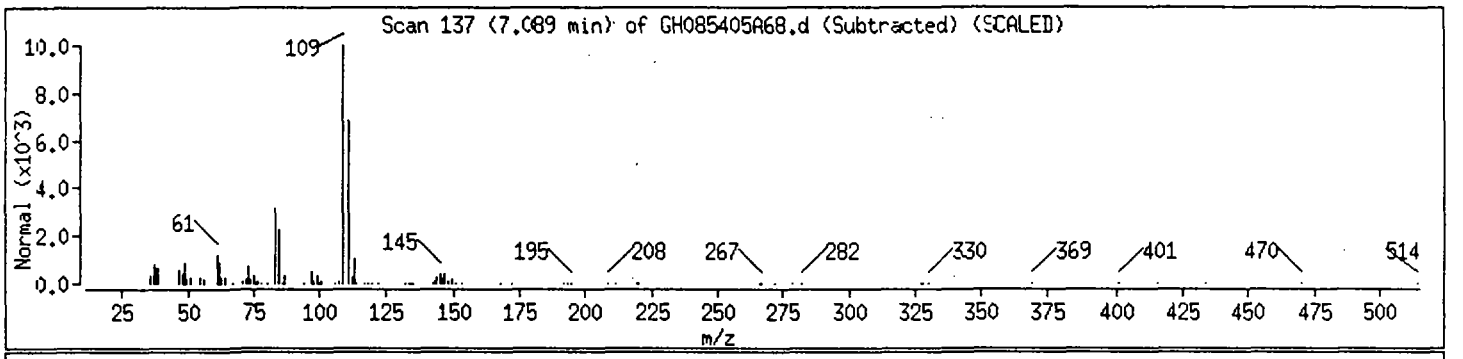
Client ID: PVC-1 Instrument: 5972hp68.i

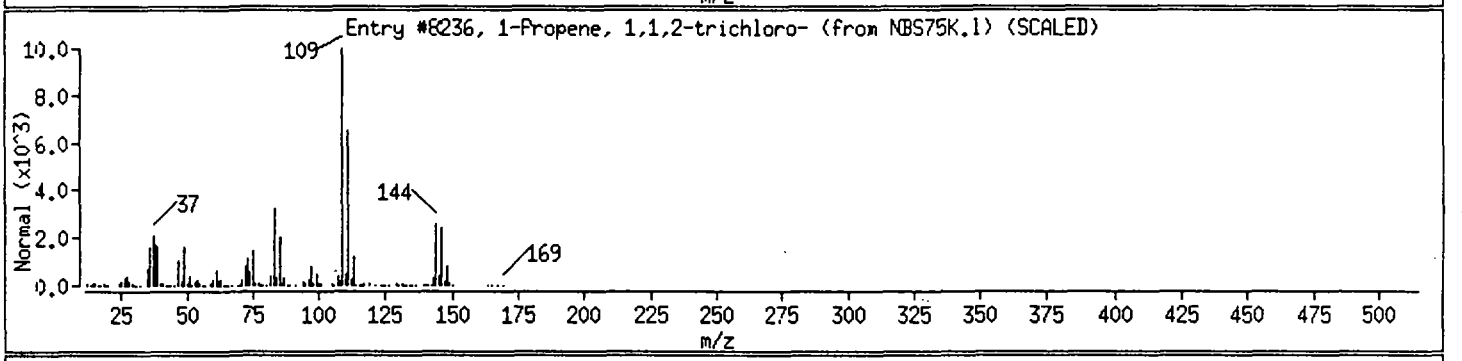
Sample Info:

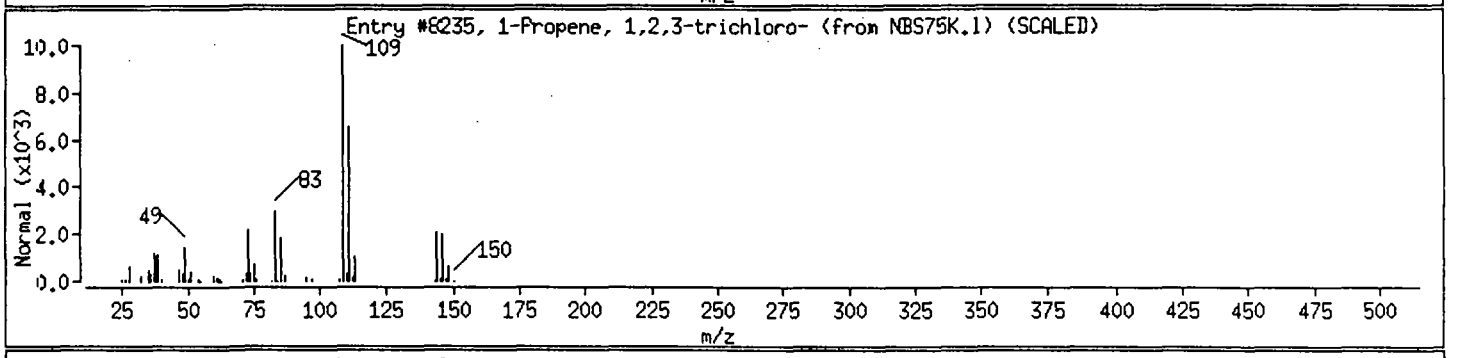
Volume Injected (uL): 2.0 Operator: 2242

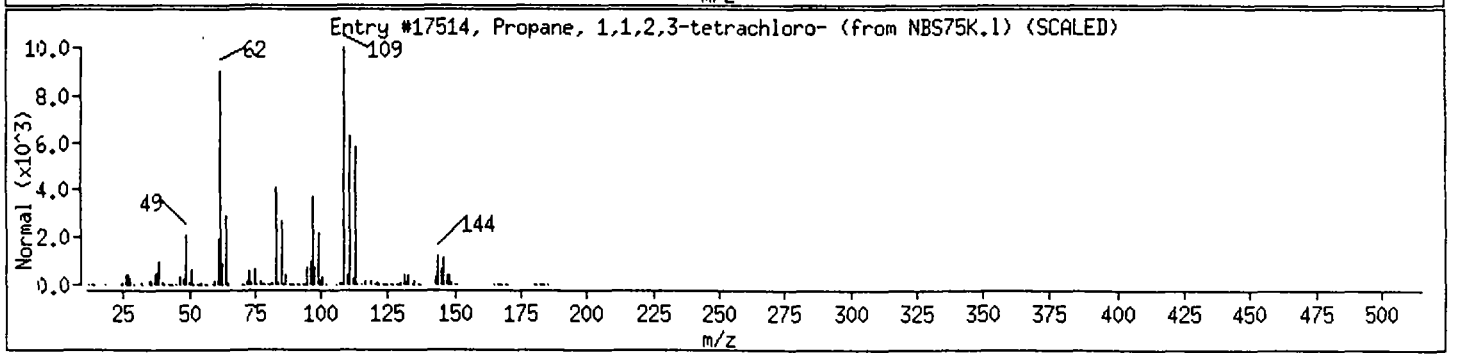
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Trichloropropene						
1-Propene, 1,1,2-trichloro-	21400-25-9	NBS75K.l	8236	64	C3H3Cl3	144
1-Propene, 1,2,3-trichloro-	96-19-5	NBS75K.l	8235	64	C3H3Cl3	144
Propane, 1,1,2,3-tetrachloro-	18495-30-2	NBS75K.l	17514	50	C3H4Cl4	180









Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d

Date : 21-MAR-1998 10:14

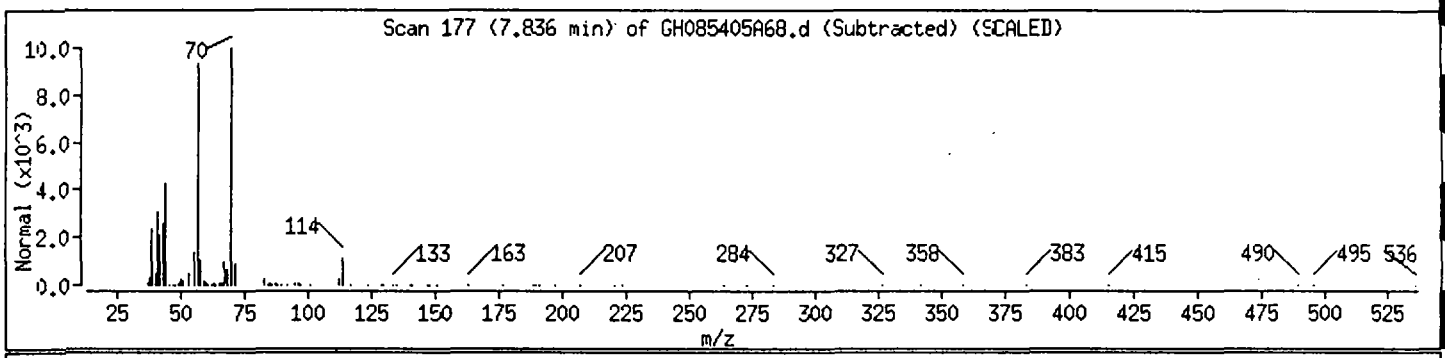
Client ID: PVC-1 Instrument: 5972hp68.i

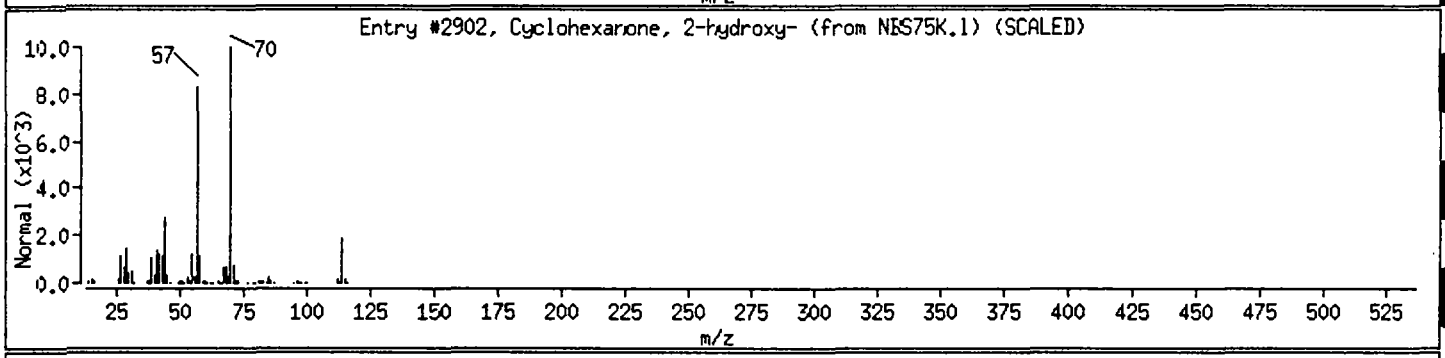
Sample Info:

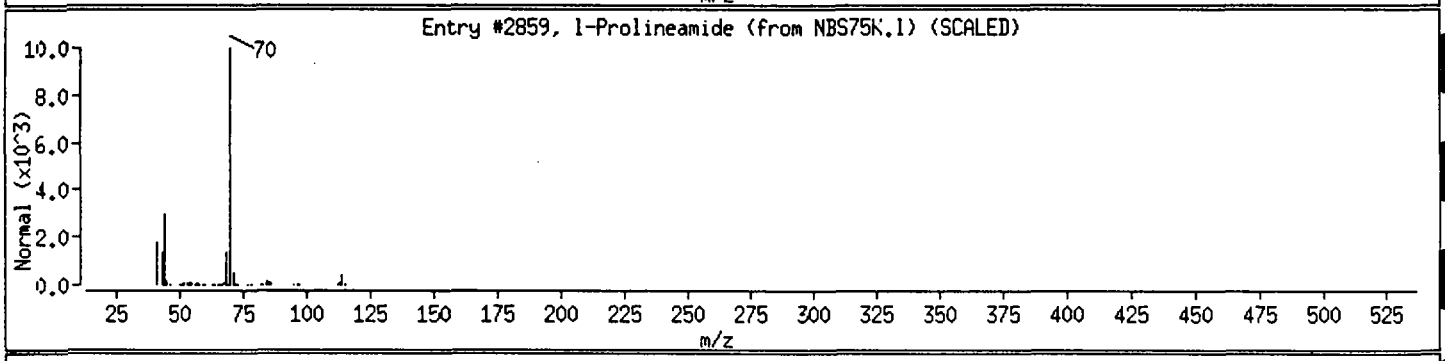
Volume Injected (uL): 2.0 Operator: 2242

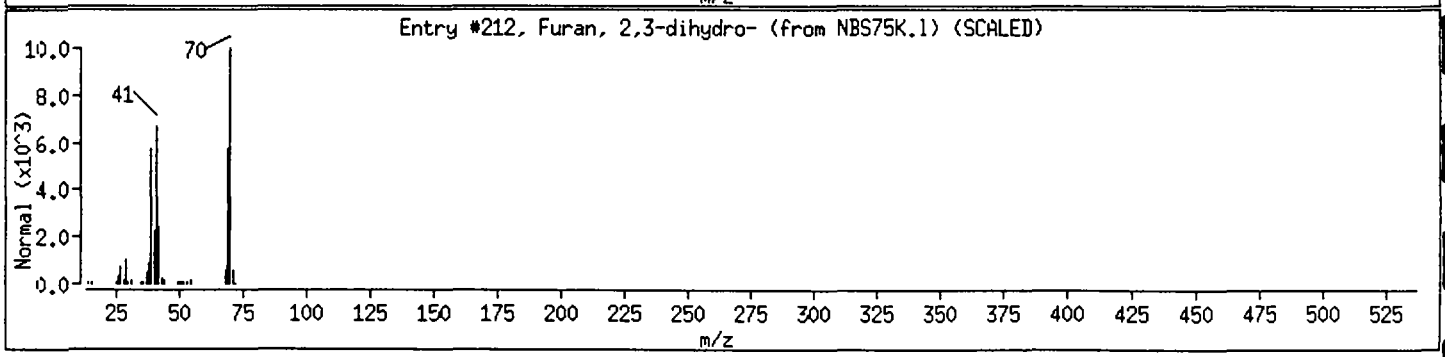
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hydroxycyclohexanone						
Cyclohexanone, 2-hydroxy-	533-60-8	NBS75K.l	2902	86	C6H10O2	114
1-Prolineamide	0-00-0	NBS75K.l	2859	40	C5H10N2O	114
Furan, 2,3-dihydro-	1191-99-7	NBS75K.l	212	25	C4H6O	70









Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d

Date : 21-MAR-1998 10:14

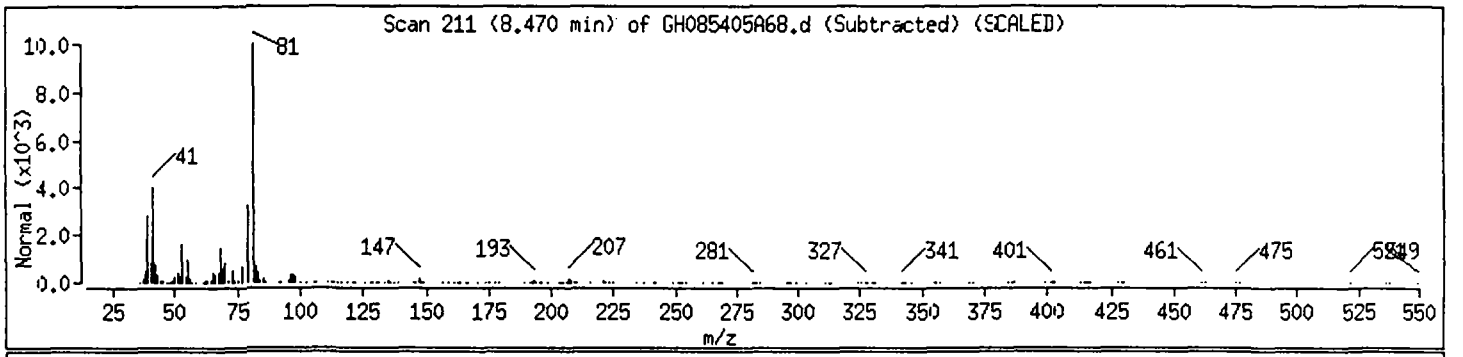
Client ID: PVC-1 | Instrument: 5972hp68.i

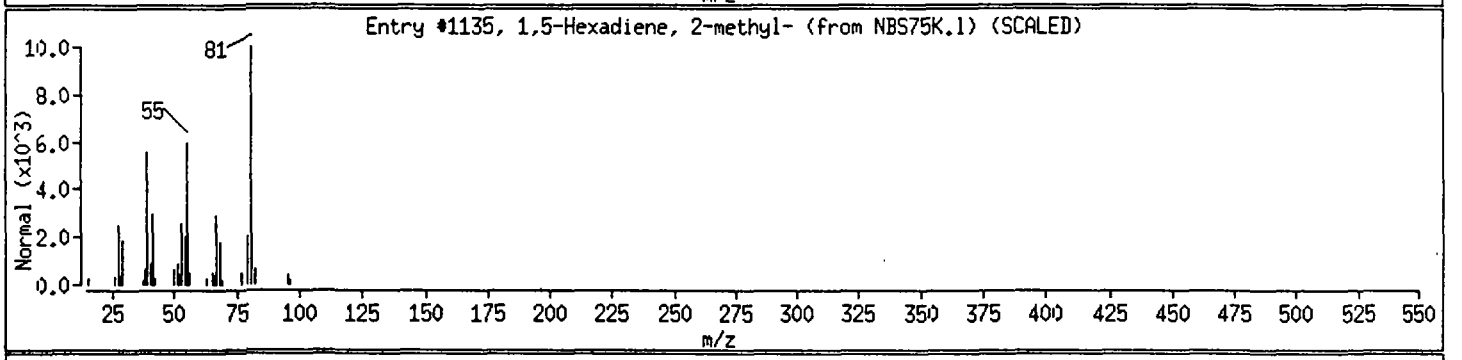
Sample Info:

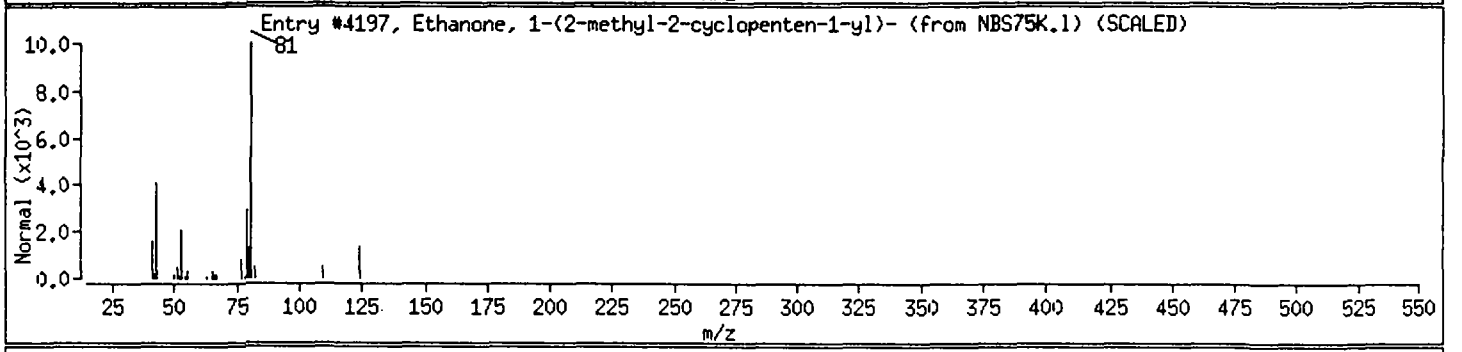
Volume Injected (uL): 2.0 | Operator: 2242

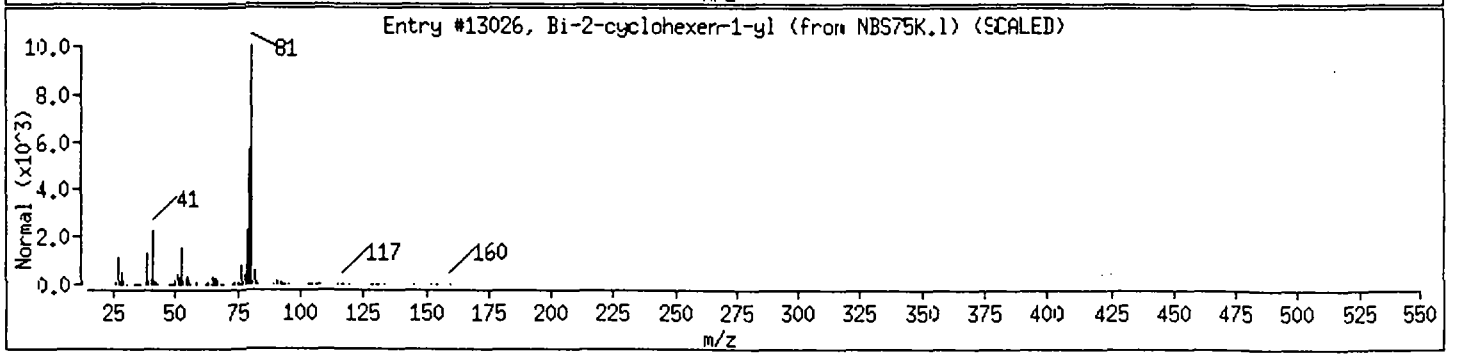
Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,5-Hexadiene, 2-methyl-	4049-81-4	NBS75K.l	1135	59	C7H12	96
Ethanone, 1-(2-methyl-2-cyclopenten-1-yl	1767-84-6	NBS75K.l	4197	59	C8H120	124
Bi-2-cyclohexen-1-yl	1541-20-4	NBS75K.l	13026	59	C12H18	162









Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d

Date : 21-MAR-1998 10:14

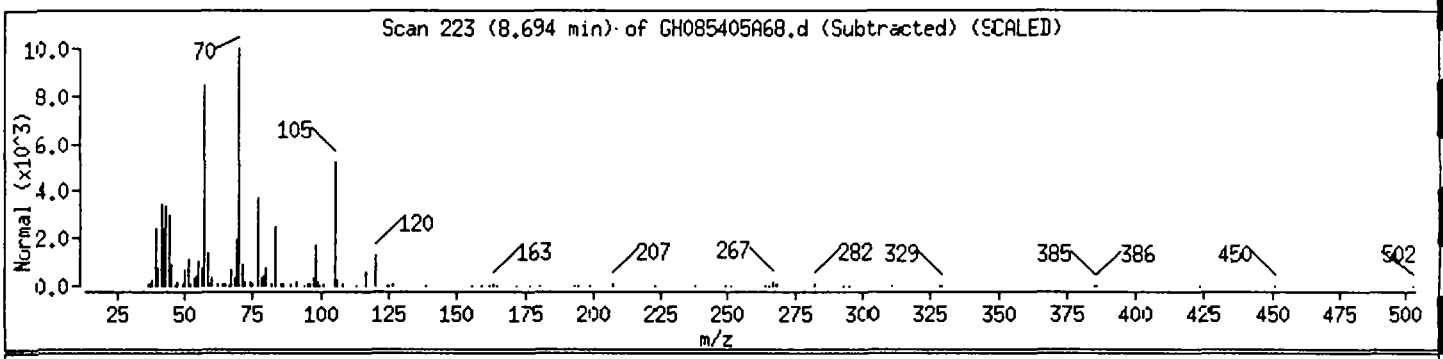
Client ID: PVC-1 Instrument: 5972hp68.i

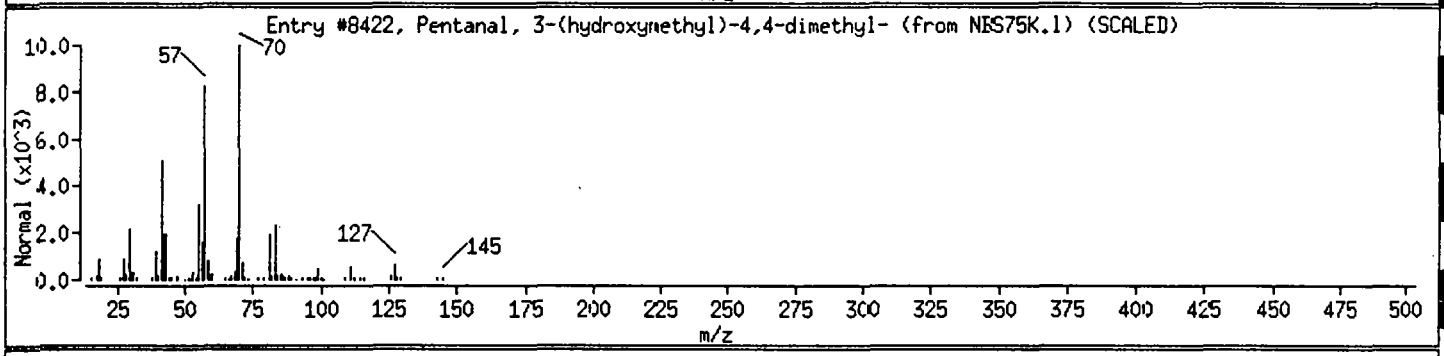
Sample Info:

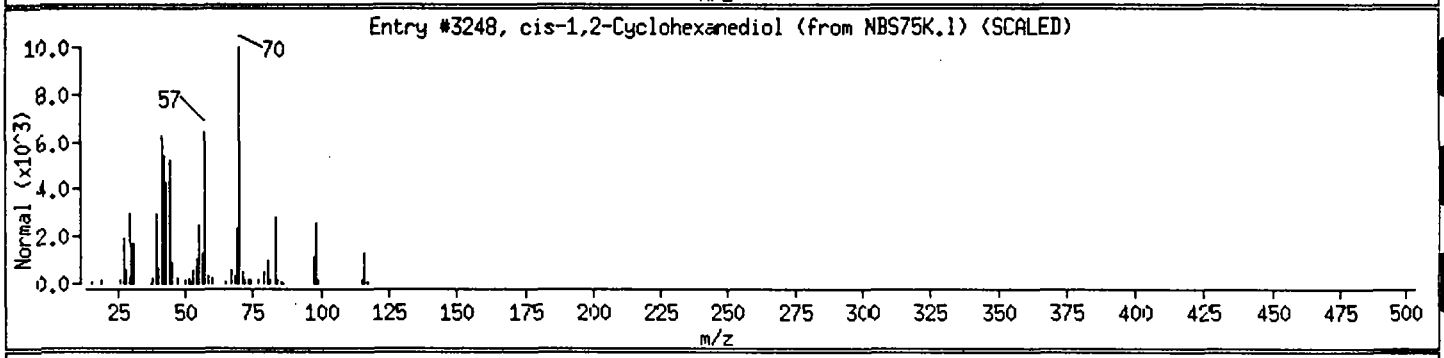
Volume Injected (uL): 2.0 Operator: 2242

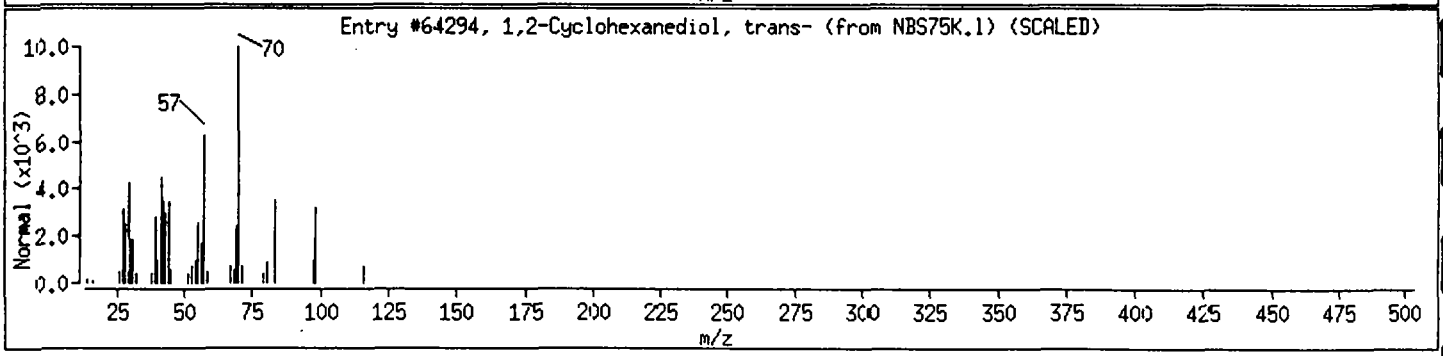
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Pentanal, 3-(hydroxymethyl)-4,4-dimethyl	56805-31-3	NBS75K.l	8422	50	C6H16O2	144
cis-1,2-Cyclohexanediol	1792-81-0	NBS75K.l	3248	45	C6H12O2	116
1,2-Cyclohexanediol, trans-	1460-57-7	NBS75K.l	64294	42	C6H12O2	116









Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d

Date : 21-MAR-1998 10:14

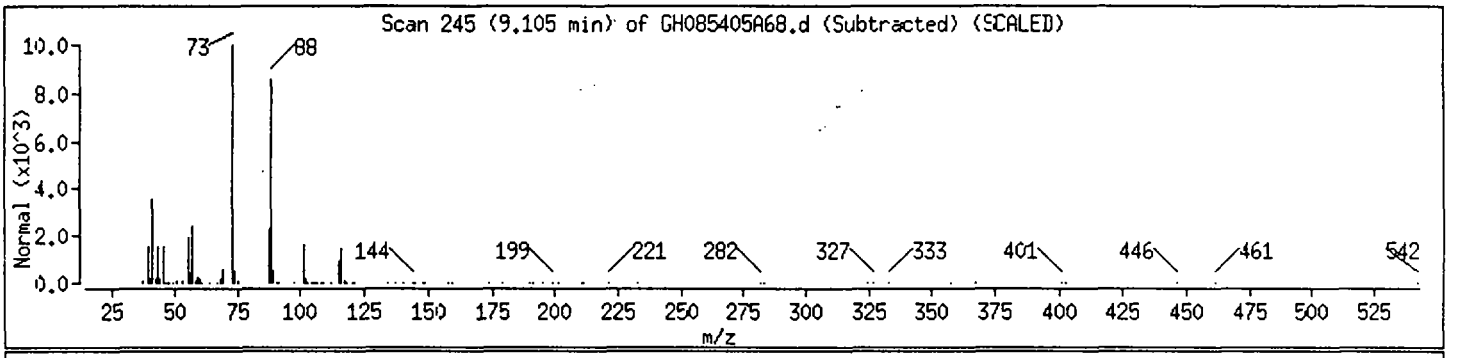
Client ID: PVC-1 Instrument: 5972hp68.i

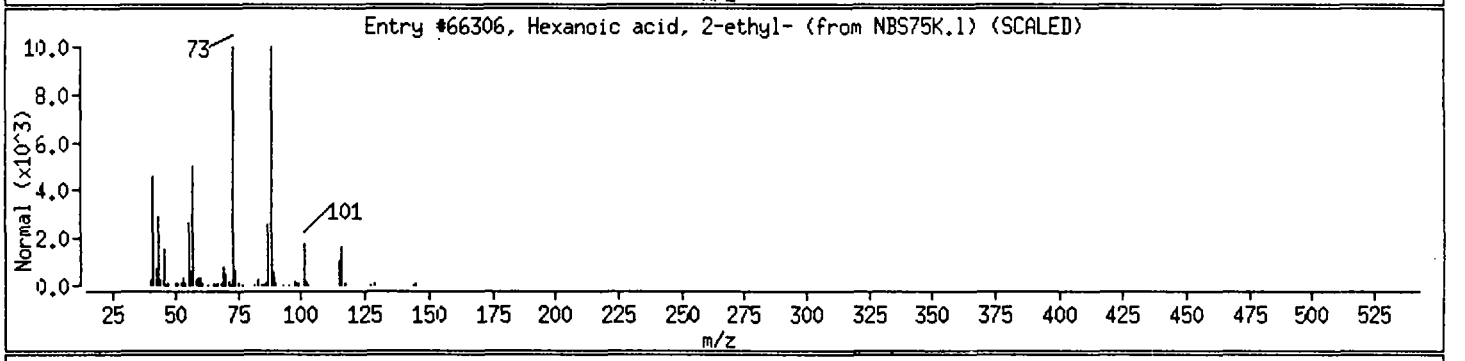
Sample Info:

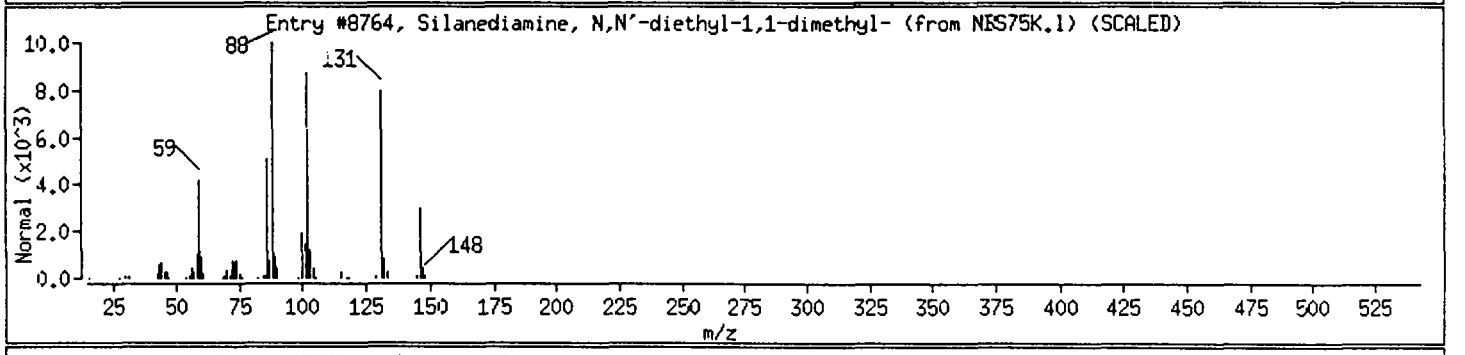
Volume Injected (uL): 2.0 Operator: 2242

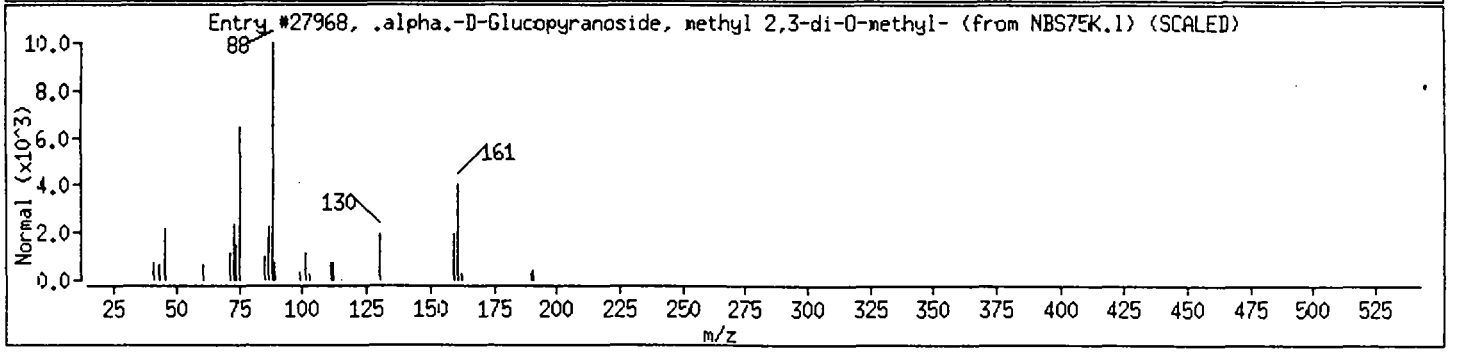
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Carboxylic Acid						
Hexanoic acid, 2-ethyl-	149-57-5	NBS75K.l	66306	91	C8H16O2	144
Silanediamine, N,N'-diethyl-1,1-dimethyl	6143-68-6	NBS75K.l	8764	47	C6H18N2Si	146
.alpha.-D-Glucopyranoside, methyl 2,3-di	14048-30-7	NBS75K.l	27968	39	C9H18O6	222









Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d

Date : 21-MAR-1998 10:14

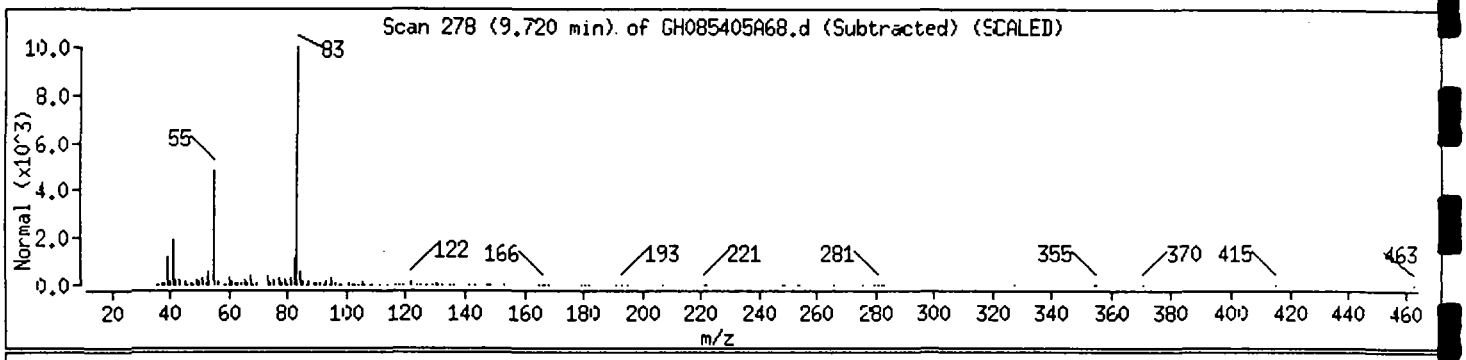
Client ID: PVC-1 Instrument: 5972hp68.i

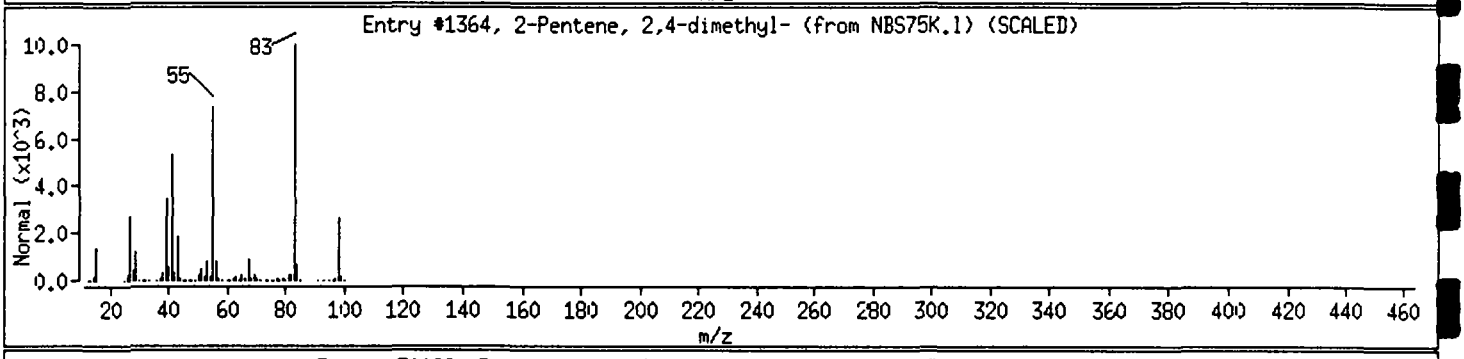
Sample Info:

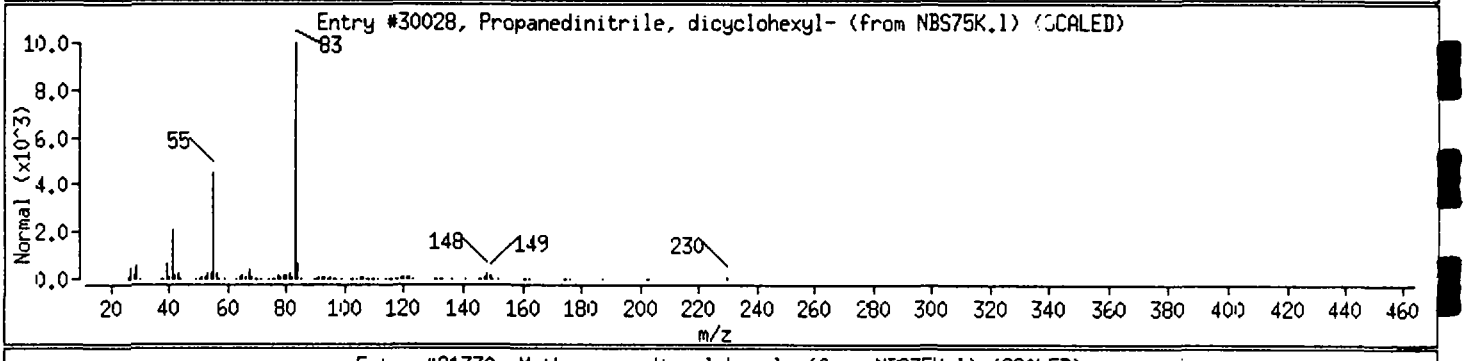
Volume Injected (uL): 2.0 Operator: 2242

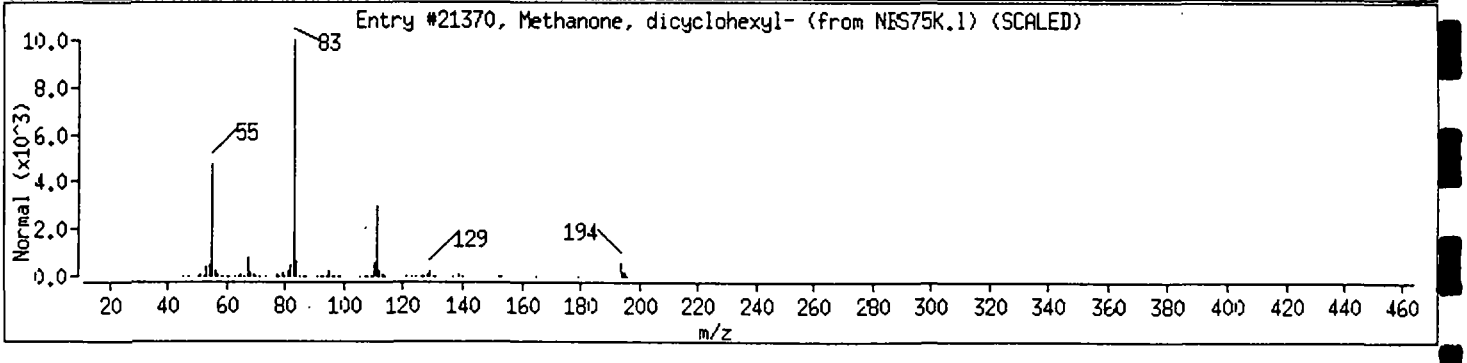
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Pentene, 2,4-dimethyl-	625-65-0	NBS75K.l	1364	59	C7H14	98
Propanedinitrile, dicyclohexyl-	74764-28-6	NBS75K.l	30028	59	C15H22N2	230
Methanone, dicyclohexyl-	119-60-8	NBS75K.l	21370	56	C13H220	194









Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d

Date : 21-MAR-1998 10:14

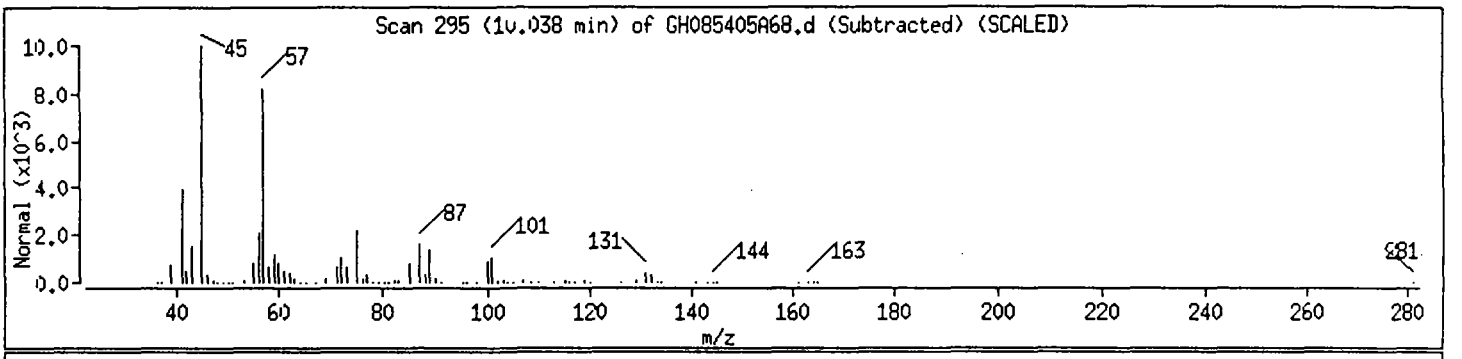
Client ID: PVC-1 Instrument: 5972hp68.i

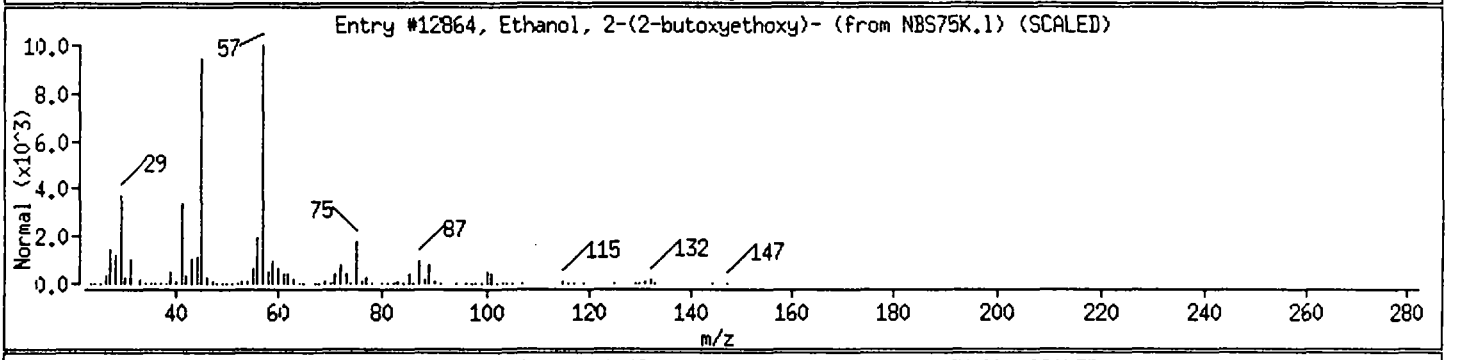
Sample Info:

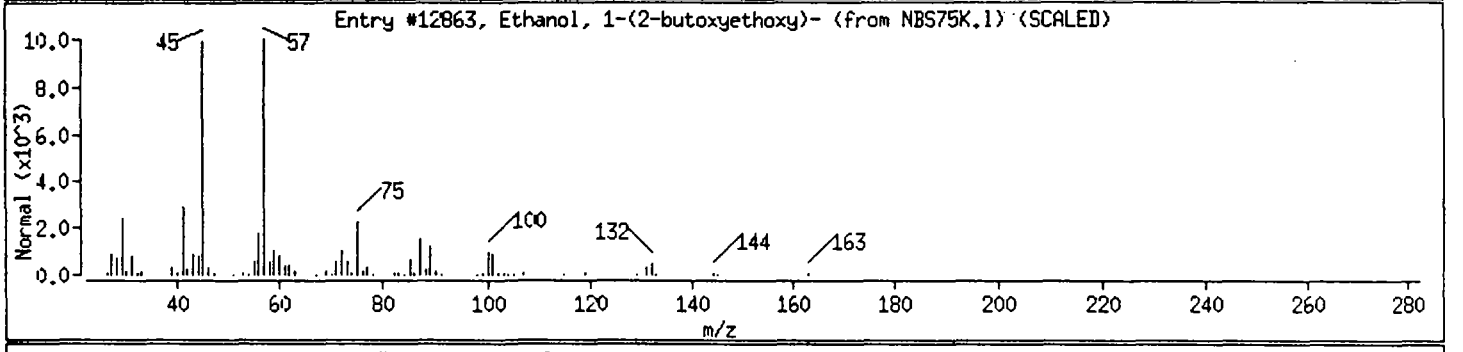
Volume Injected (uL): 2.0 Operator: 2242

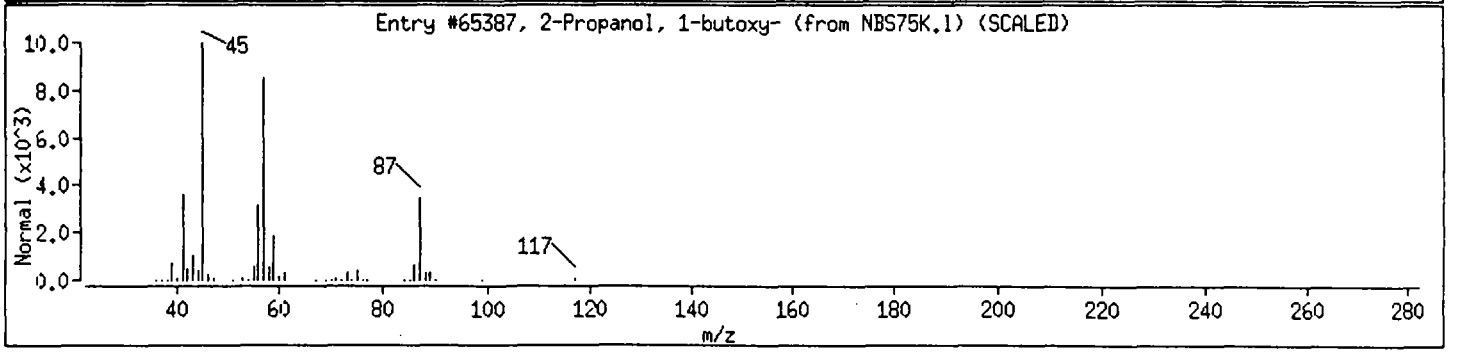
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Ethanol, 2-(2-butoxyethoxy)-	112-34-5	NBS75K.l	12864	90	C6H1803	162
Ethanol, 1-(2-butoxyethoxy)-	54446-78-5	NBS75K.l	12863	86	C6H1803	162
2-Propanol, 1-butoxy-	5131-66-8	NBS75K.l	65387	59	C7H1602	132









Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d

Date : 21-MAR-1998 10:14

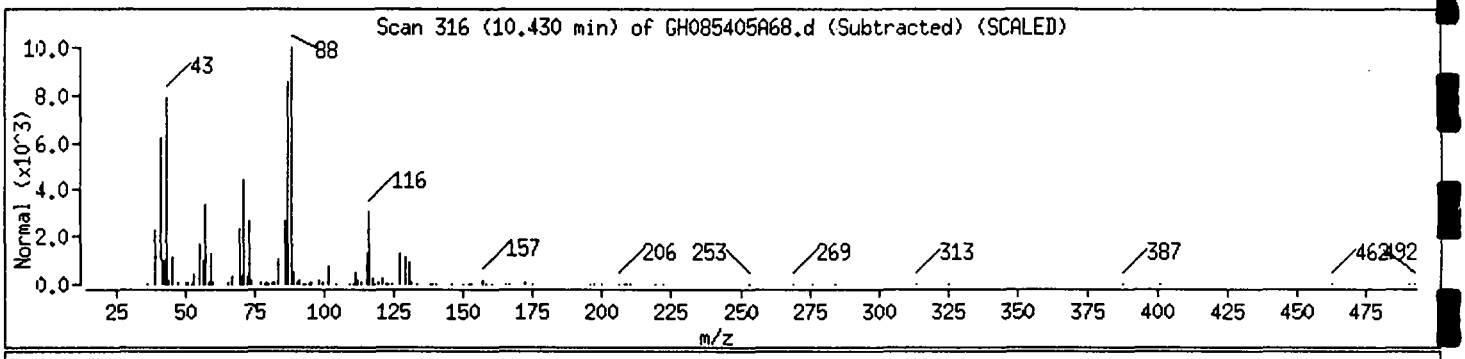
Client ID: PVC-1 Instrument: 5972hp68.i

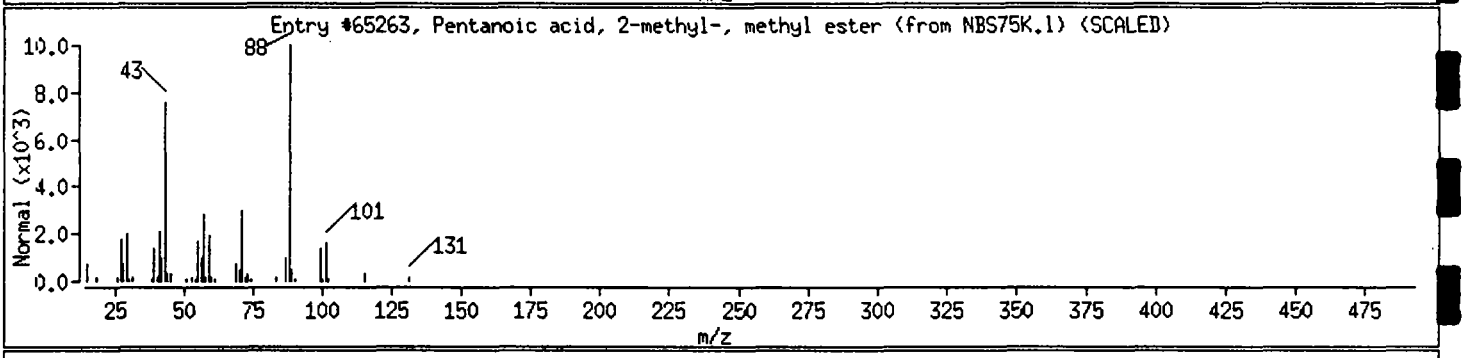
Sample Info:

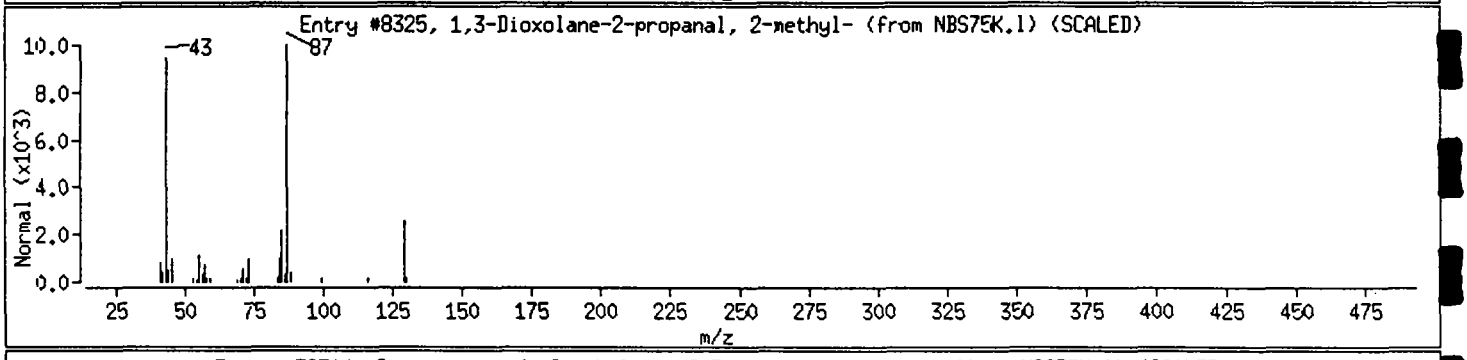
Volume Injected (uL): 2.0 Operator: 2242

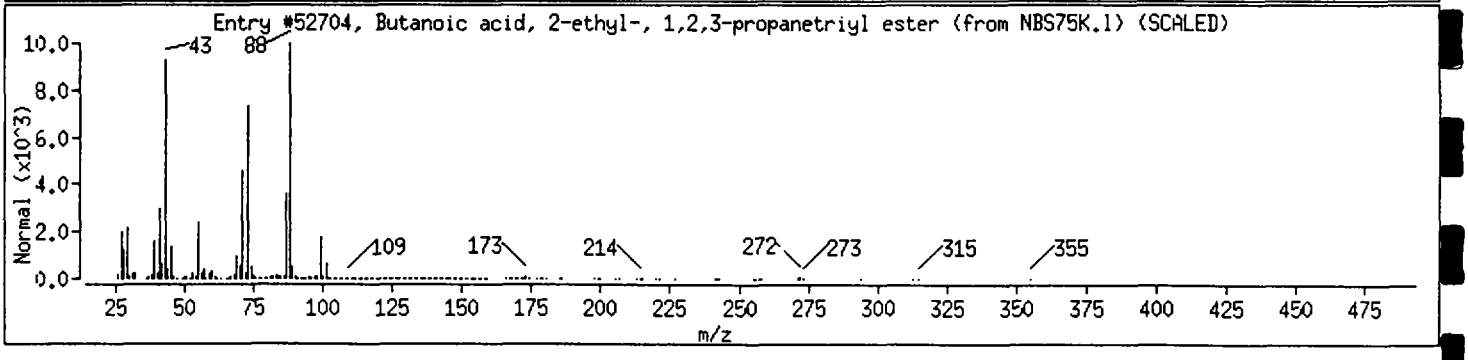
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Pentanoic acid, 2-methyl-, methyl ester	2177-77-7	NBS75K.l	65263	35	C7H1402	130
1,3-Dioxolane-2-propanal, 2-methyl-	24108-29-0	NBS75K.l	8325	35	C7H1203	144
Butanoic acid, 2-ethyl-, 1,2,3-propanetr	56554-54-2	NBS75K.l	52704	35	C21H3806	386









Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d

Date : 21-MAR-1998 10:14

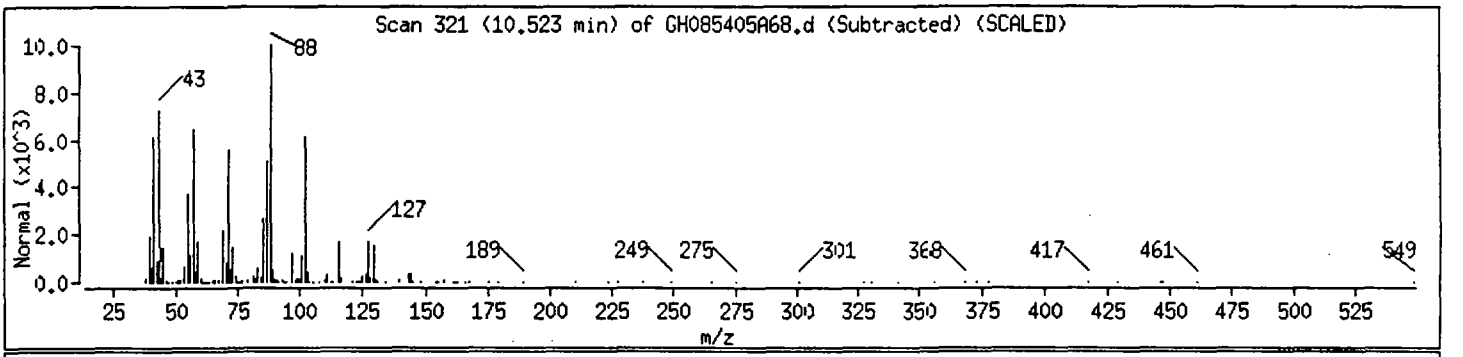
Client ID: PVC-1 Instrument: 5972hp68.i

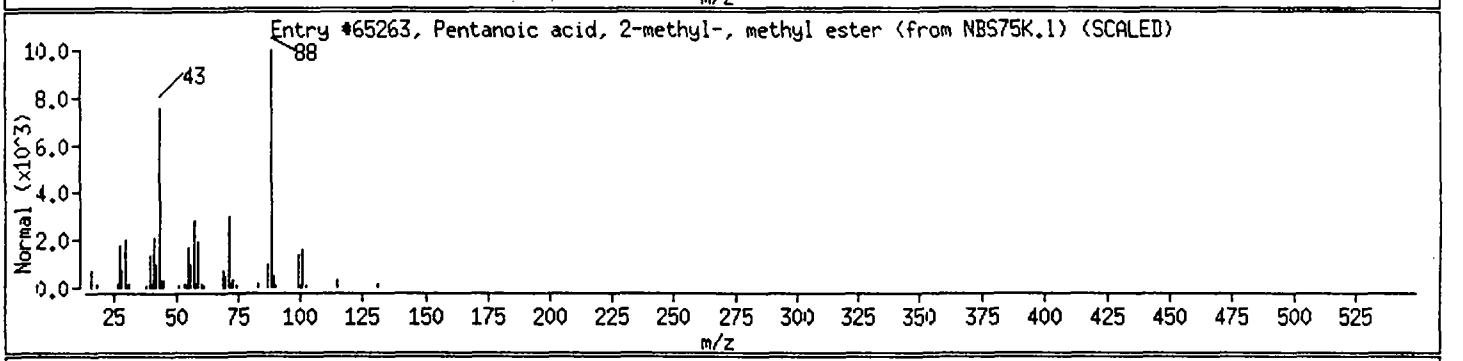
Sample Info:

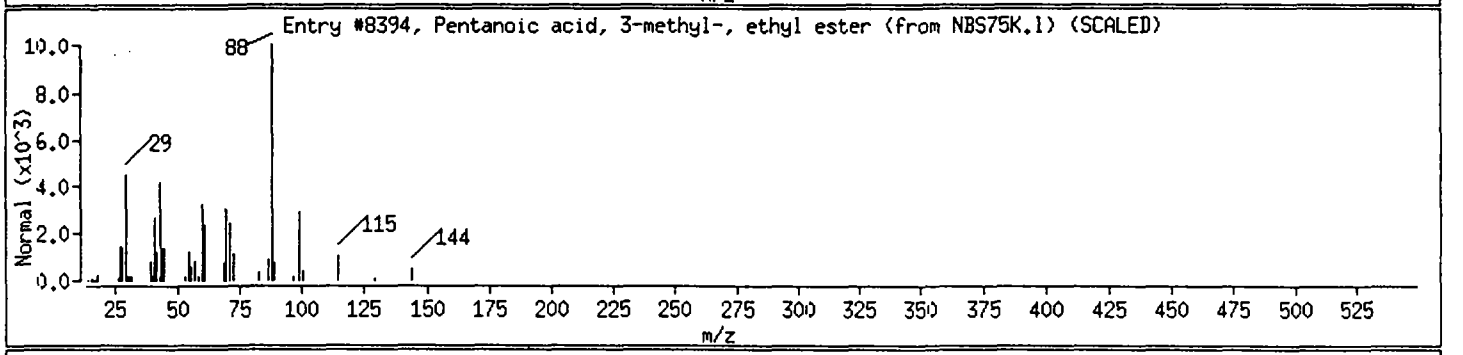
Volume Injected (uL): 2.0 Operator: 2242

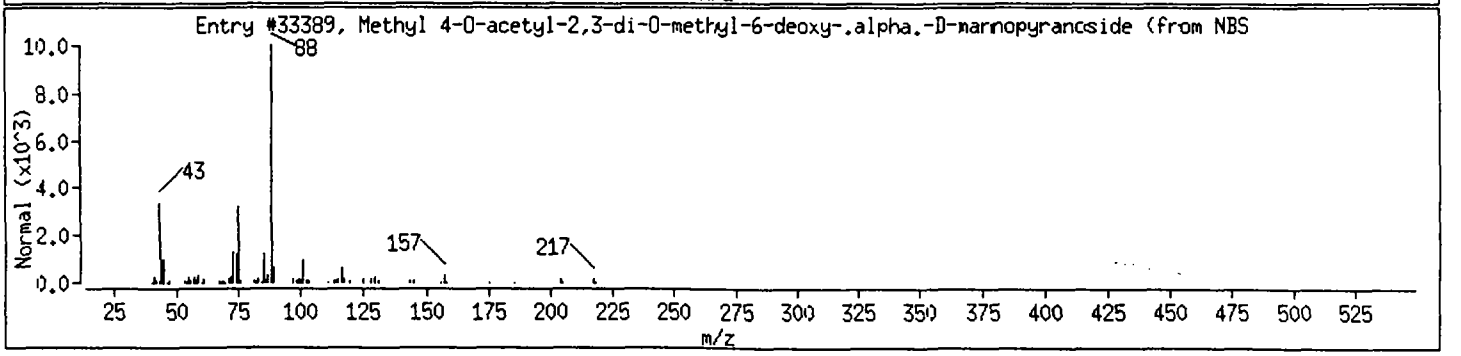
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Pentanoic acid, 2-methyl-, methyl ester	2177-77-7	NBS75K.l	65263	32	C7H14O2	130
Pentanoic acid, 3-methyl-, ethyl ester	5870-68-8	NBS75K.l	8394	27	C8H16O2	144
Methyl 4-O-acetyl-2,3-di-O-methyl-6-deox	72945-56-3	NBS75K.l	33389	27	C11H20O6	248









Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d

Date : 21-MAR-1998 10:14

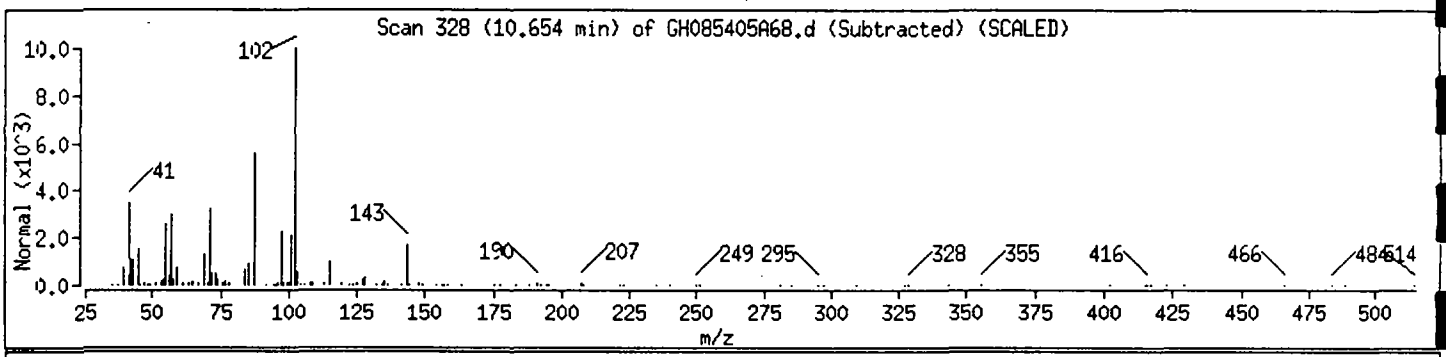
Client ID: PVC-1 Instrument: 5972hp68.i

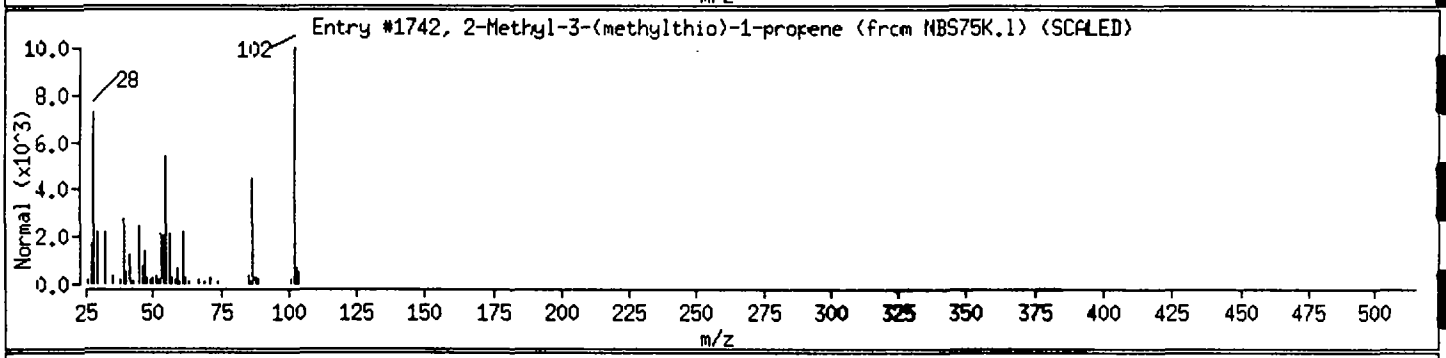
Sample Info:

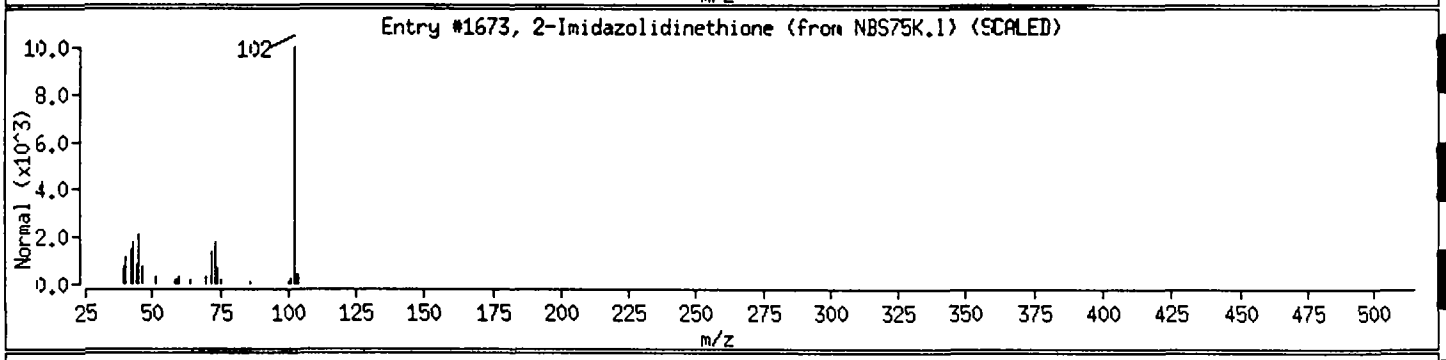
Volume Injected (uL): 2.0 Operator: 2242

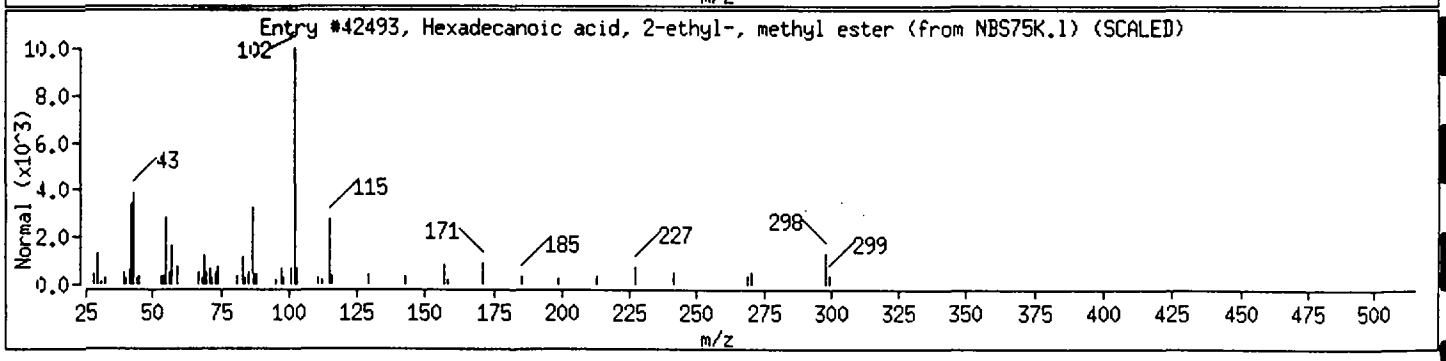
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Methyl-3-(methylthio)-1-propene	52326-10-0	NBS75K.l	1742	37	C5H10S	102
2-Imidazolidinethione	96-45-7	NBS75K.l	1673	27	C3H6N2S	102
Hexadecanoic acid, 2-ethyl-, methyl este	54833-54-4	NBS75K.l	42493	25	C19H38O2	298









Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d

Date : 21-MAR-1998 10:14

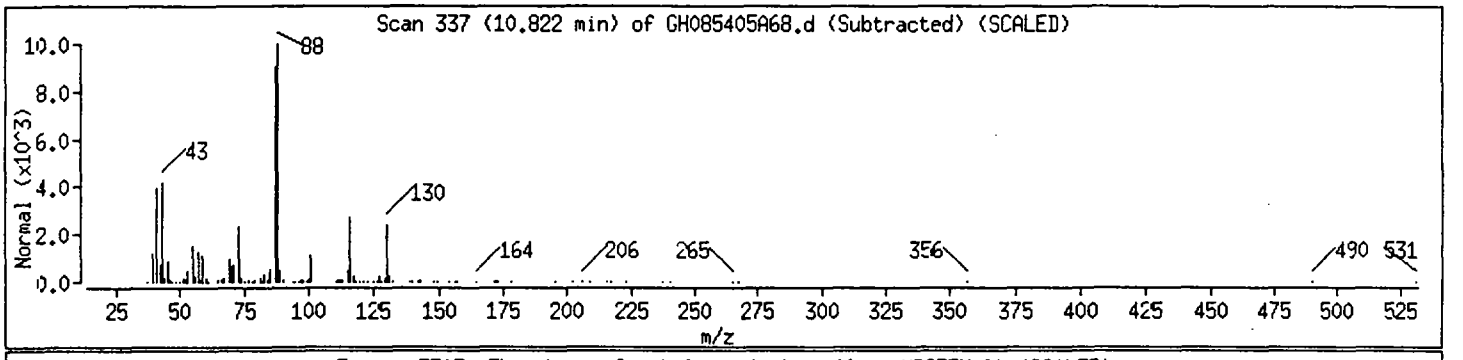
Client ID: PVC-1 Instrument: 5972hp68.i

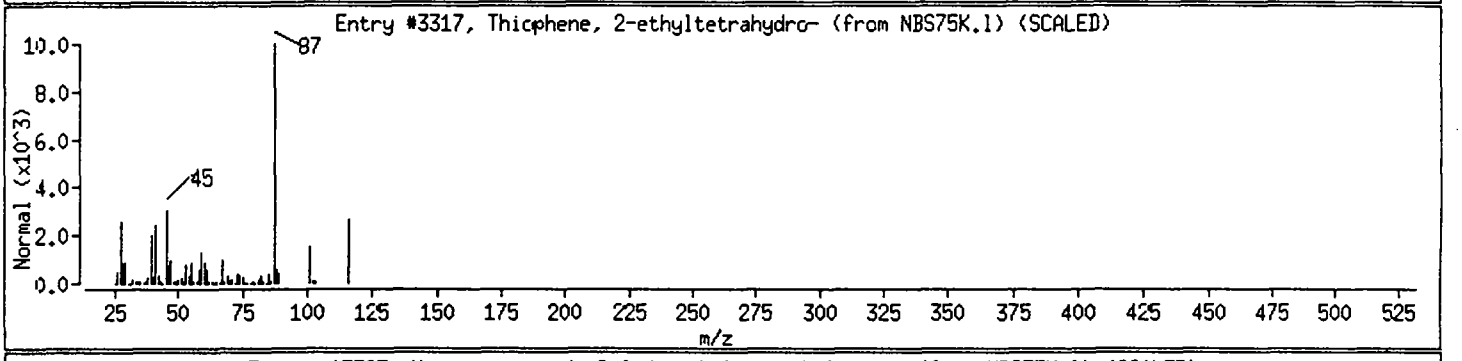
Sample Info:

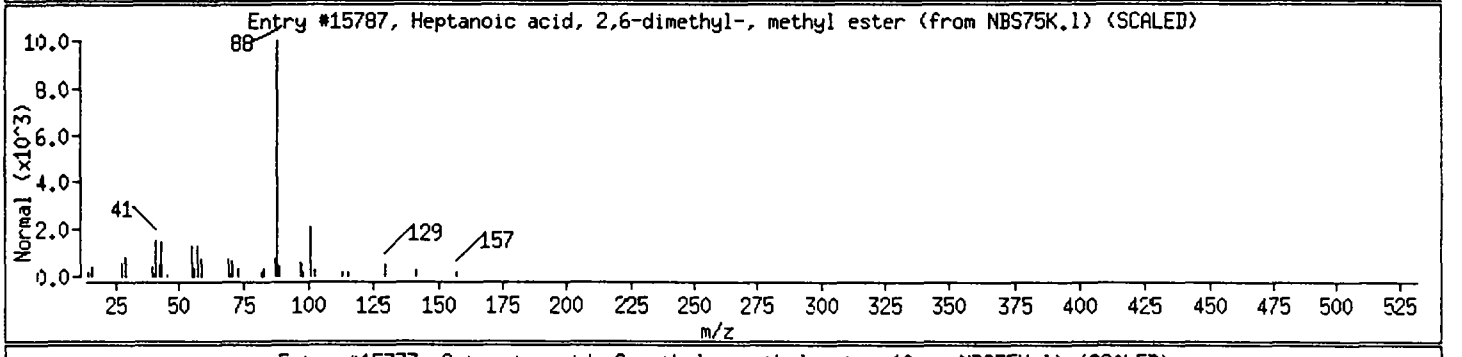
Volume Injected (uL): 2.0 Operator: 2242

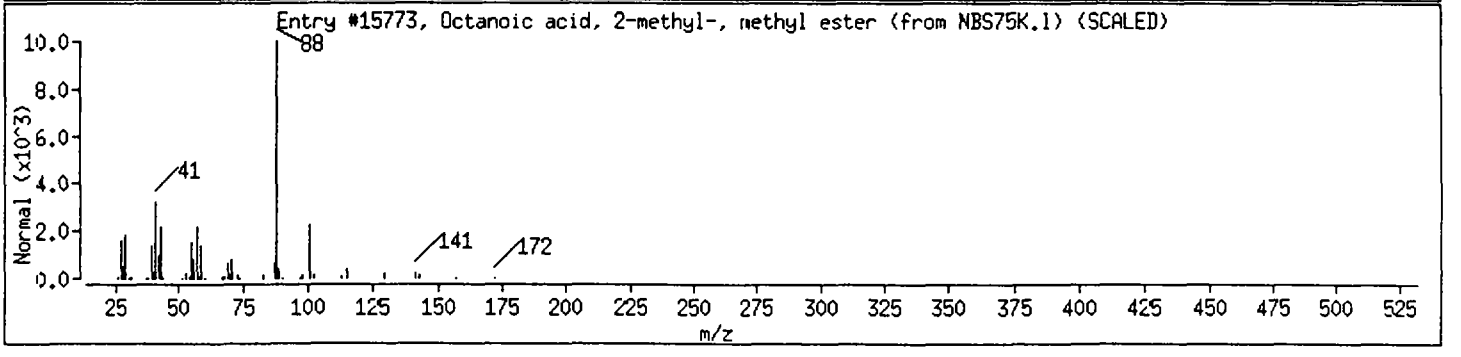
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Thiophene, 2-ethyltetrahydro-	1551-32-2	NBS75K.l	3317	38	C6H12S	116
Heptanoic acid, 2,6-dimethyl-, methyl es	33315-72-9	NBS75K.l	15787	35	C10H2002	172
Octanoic acid, 2-methyl-, methyl ester	2177-86-8	NBS75K.l	15773	27	C10H2002	172









Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d

Date : 21-MAR-1998 10:14

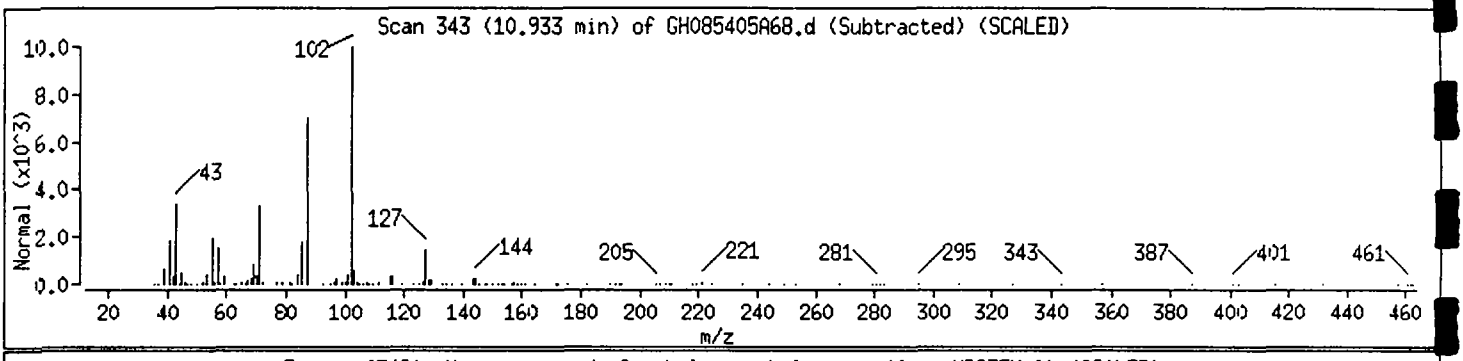
Client ID: PVC-1 Instrument: 5972hp68.i

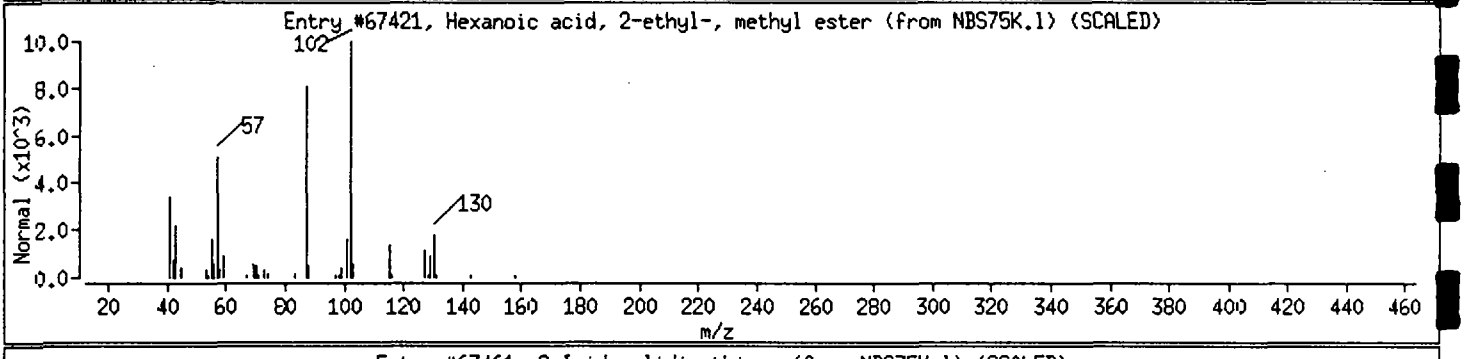
Sample Info:

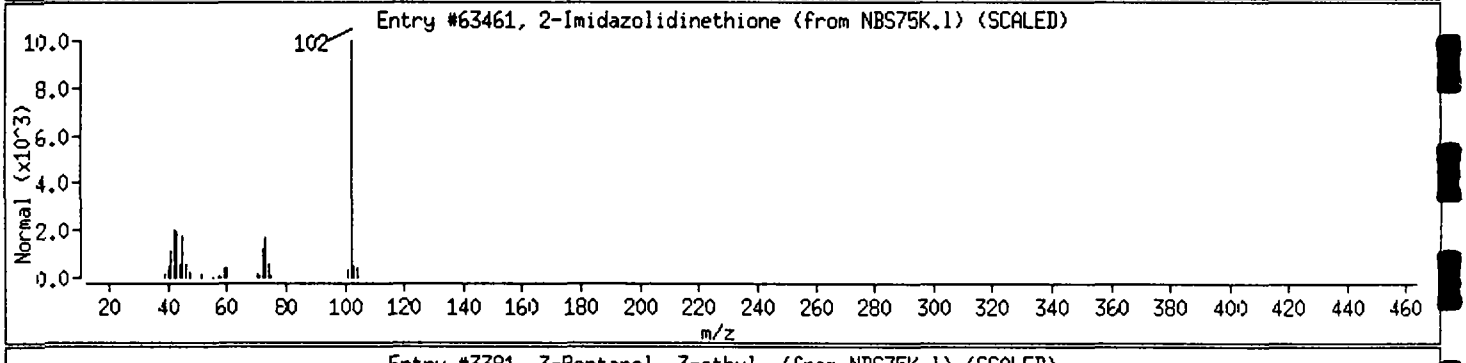
Volume Injected (uL): 2.0 Operator: 2242

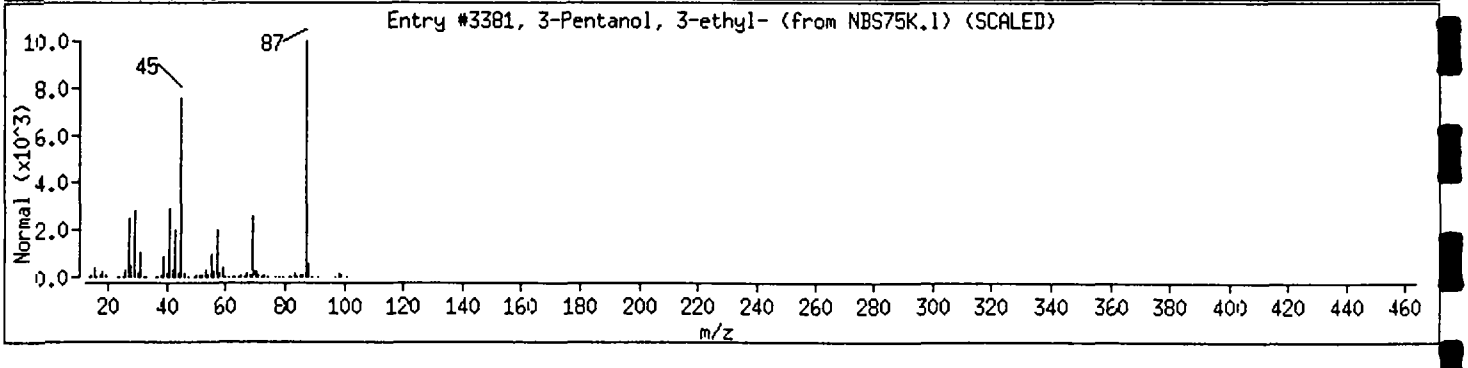
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Hexanoic acid, 2-ethyl-, methyl ester	816-19-3	NBS75K.l	67421	45	C9H18O2	158
2-Imidazolidinethione	96-45-7	NBS75K.l	63461	17	C3H6N2S	102
3-Pentanol, 3-ethyl-	597-49-9	NBS75K.l	3381	9	C7H16O	116









Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d

Date : 21-MAR-1998 10:14

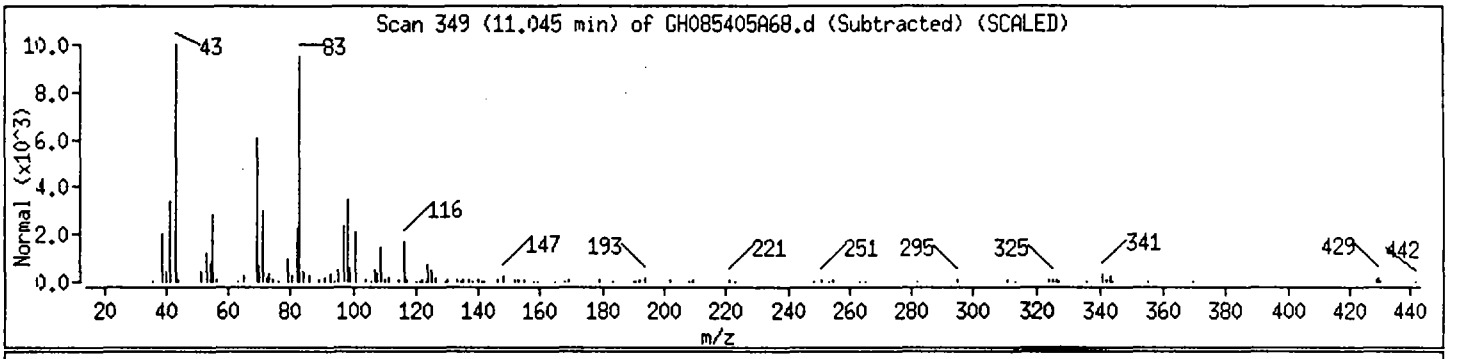
Client ID: PVC-1 Instrument: 5972hp68.i

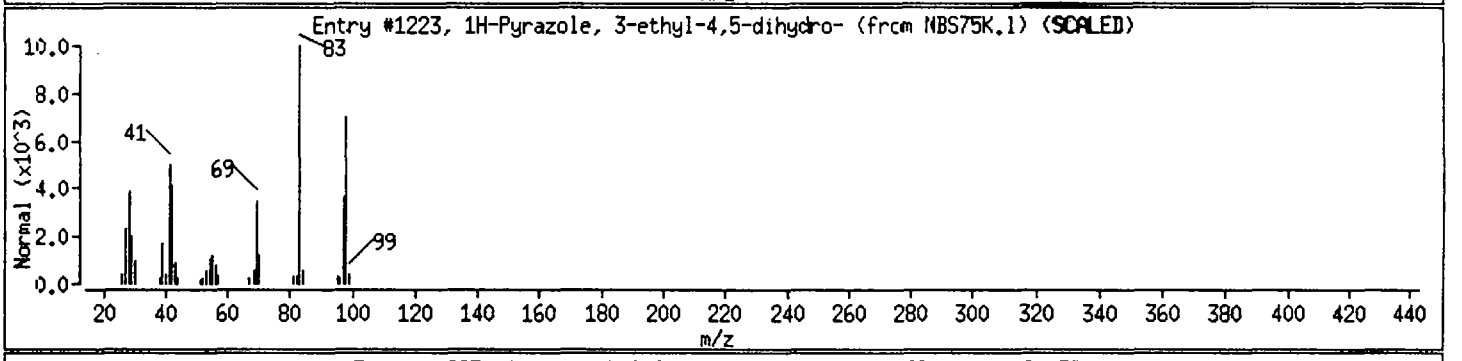
Sample Info:

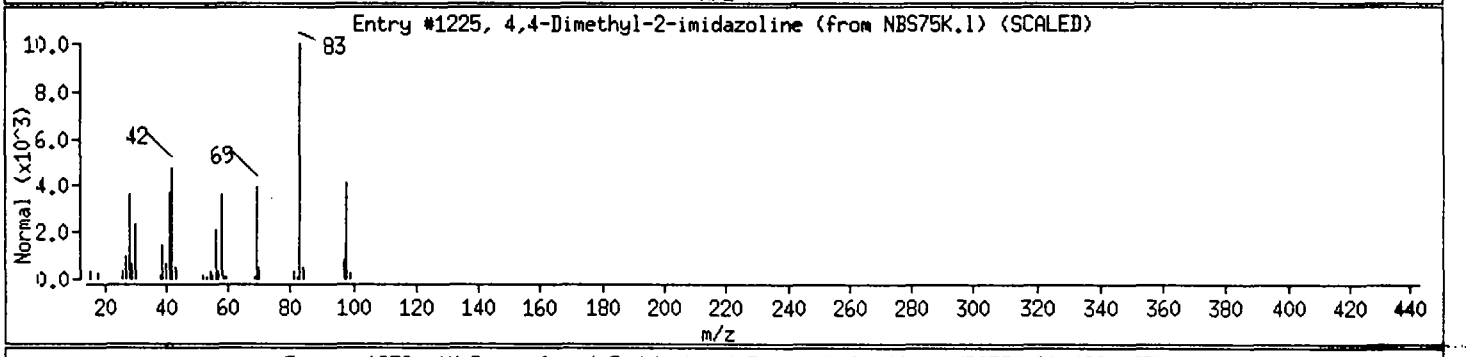
Volume Injected (uL): 2.0 Operator: 2242

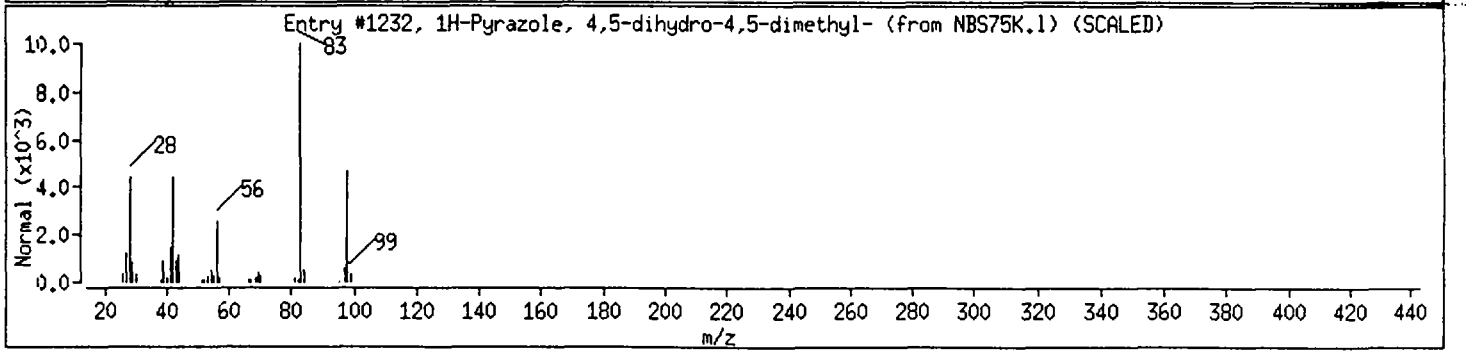
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-Pyrazole, 3-ethyl-4,5-dihydro-	5920-29-6	NBS75K.l	1223	37	C5H10N2	98
4,4-Dimethyl-2-imidazoline	2305-59-1	NBS75K.l	1225	32	C5H10N2	98
1H-Pyrazole, 4,5-dihydro-4,5-dimethyl-	28019-94-5	NBS75K.l	1232	32	C5H10N2	98









Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d

Date : 21-MAR-1998 10:14

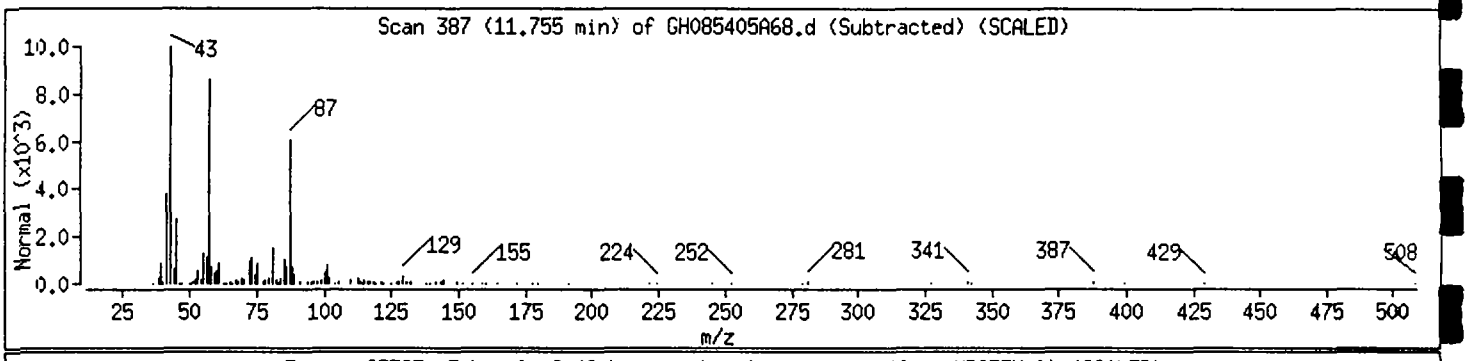
Client ID: PVC-1 Instrument: 5972hp68.i

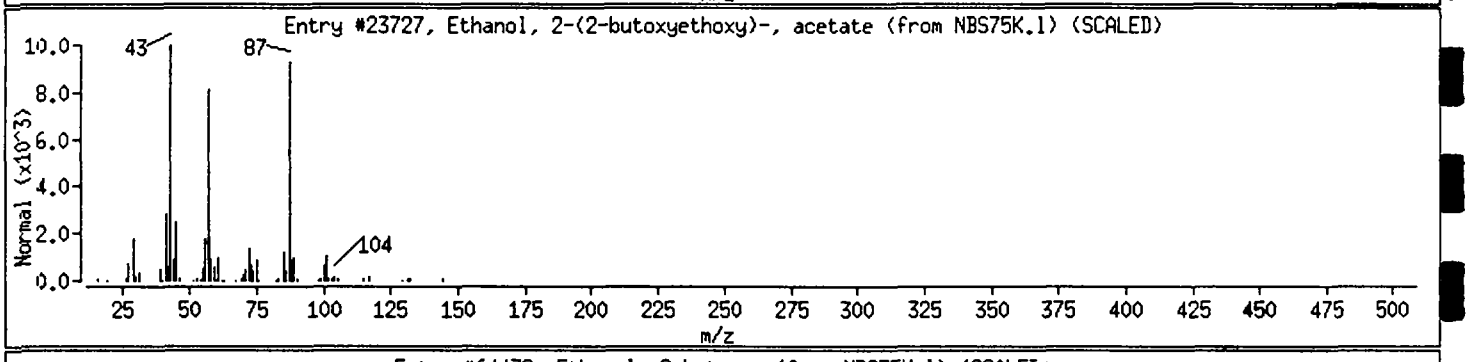
Sample Info:

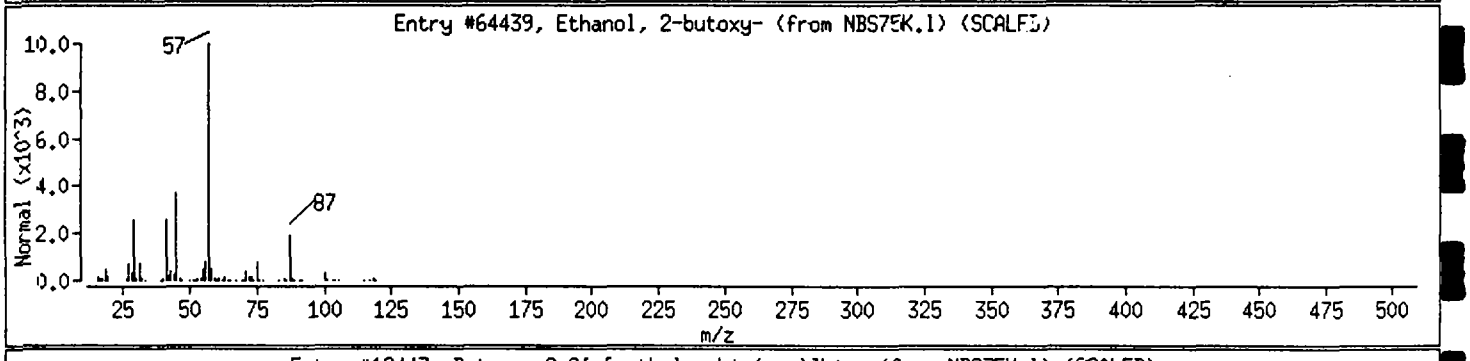
Volume Injected (uL): 2.0 Operator: 2242

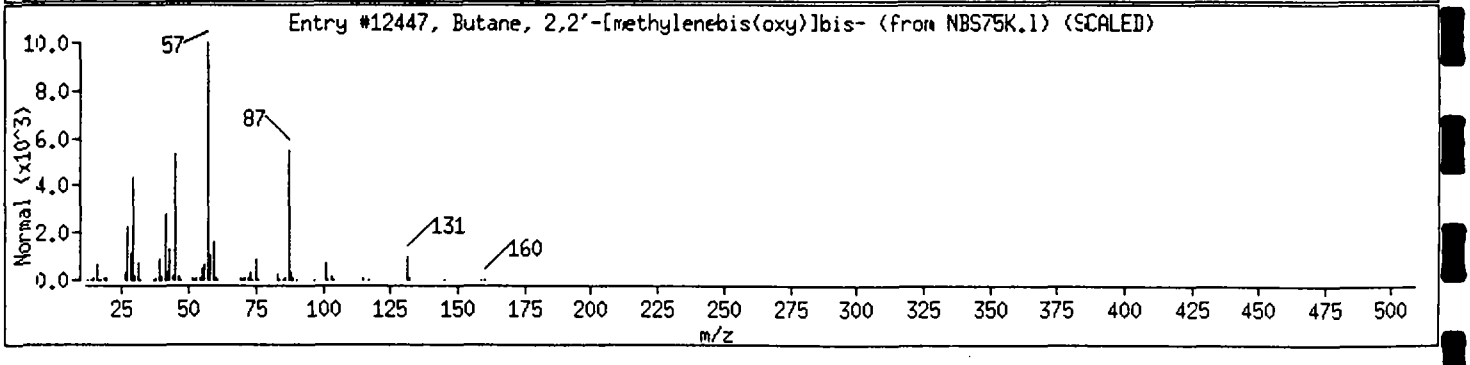
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ethanol, 2-(2-butoxyethoxy)-, acetate	124-17-4	NBS75K.l	23727	53	C10H2004	204
Ethanol, 2-butoxy-	111-76-2	NBS75K.l	64439	35	C6H1402	118
Butane, 2,2'-[methylenebis(oxy)]bis-	2568-92-5	NBS75K.l	12447	33	C9H2002	160









Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d

Date : 21-MAR-1998 10:14

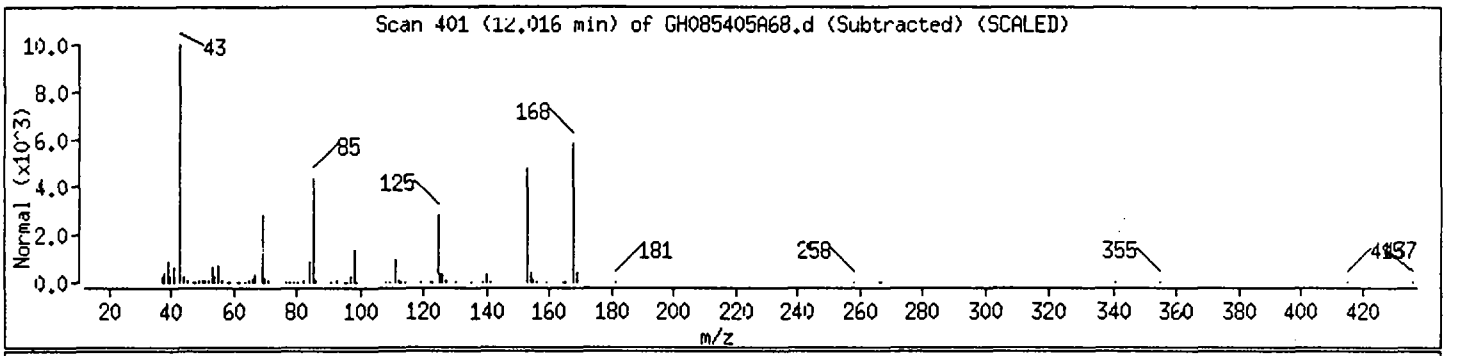
Client ID: PVC-1 Instrument: 5972hp68.i

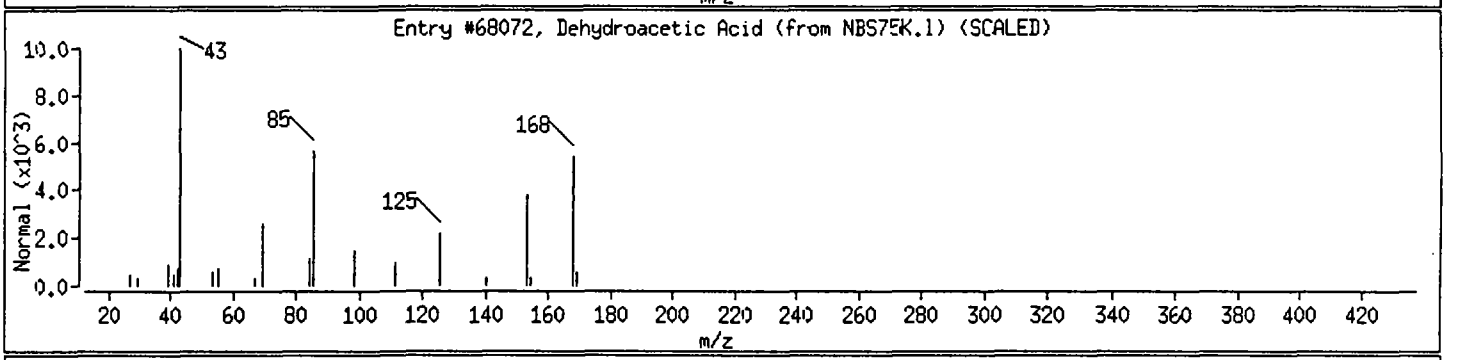
Sample Info:

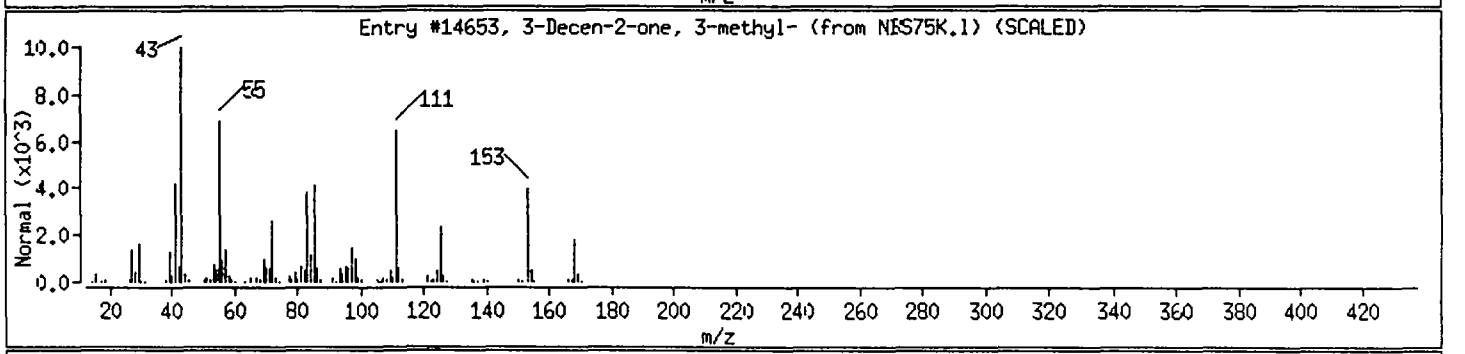
Volume Injected (uL): 2.0 Operator: 2242

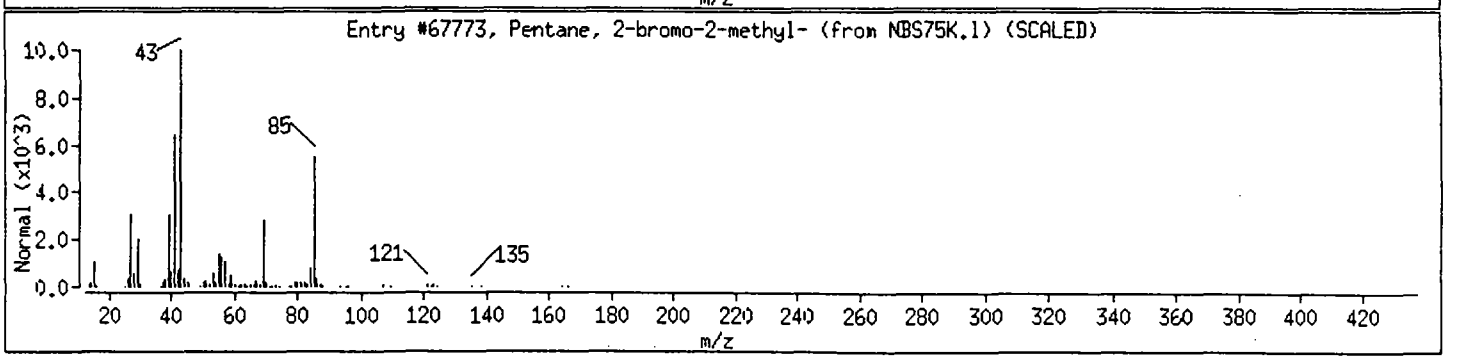
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Dehydroacetic Acid	520-45-6	NBS75K.l	68072	94	C8H8O4	168
3-Decen-2-one, 3-methyl-	54411-03-9	NBS75K.l	14653	36	C11H20O	168
Pentane, 2-bromo-2-methyl-	4283-80-1	NBS75K.l	67773	10	C6H13Br	164









Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d

Date : 21-MAR-1998 10:14

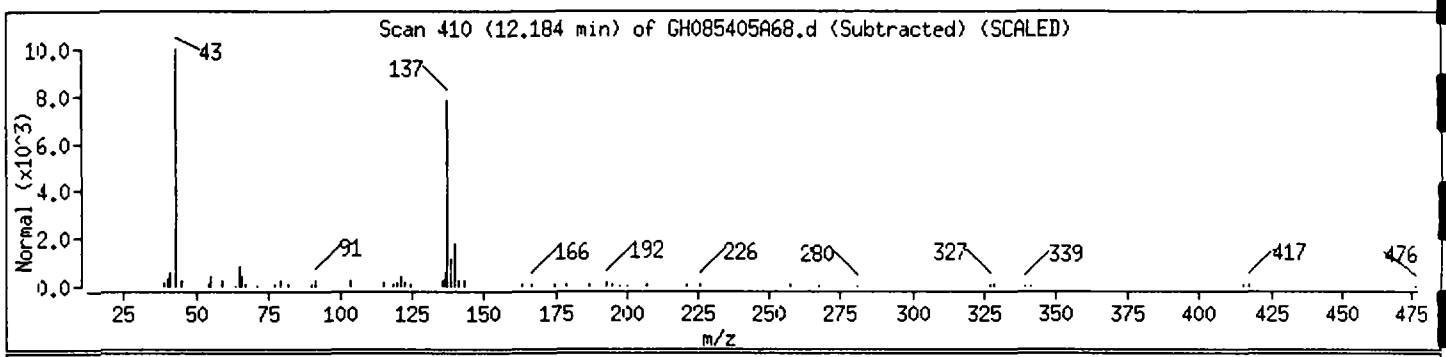
Client ID: PVC-1 Instrument: 5972hp68.i

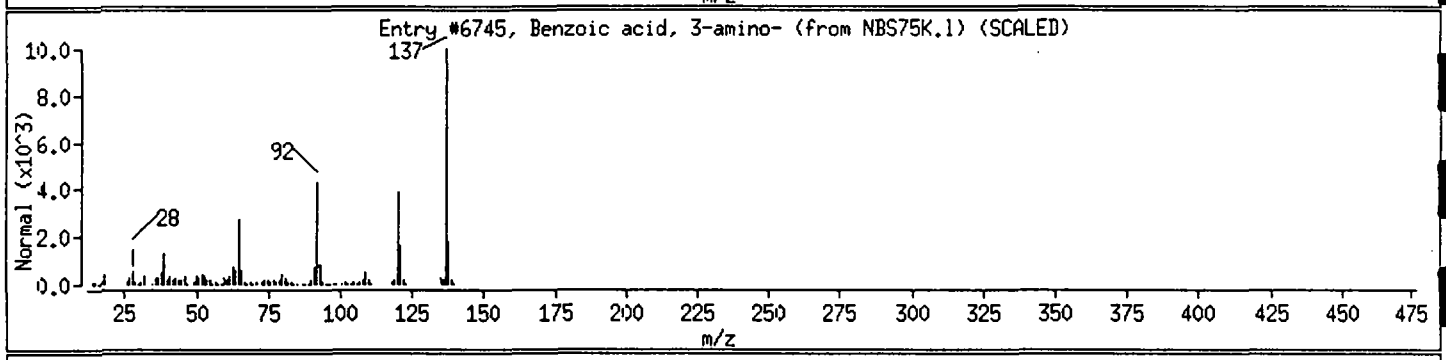
Sample Info:

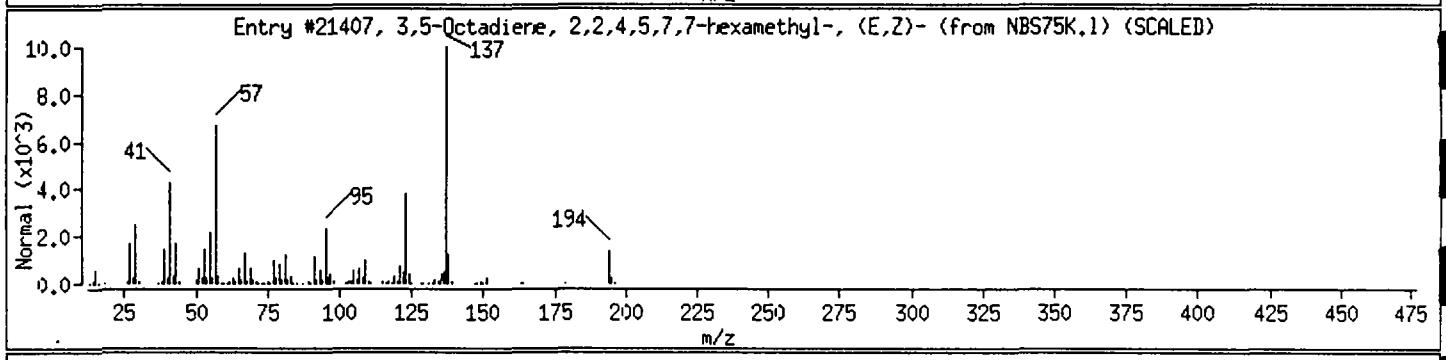
Volume Injected (uL): 2.0 Operator: 2242

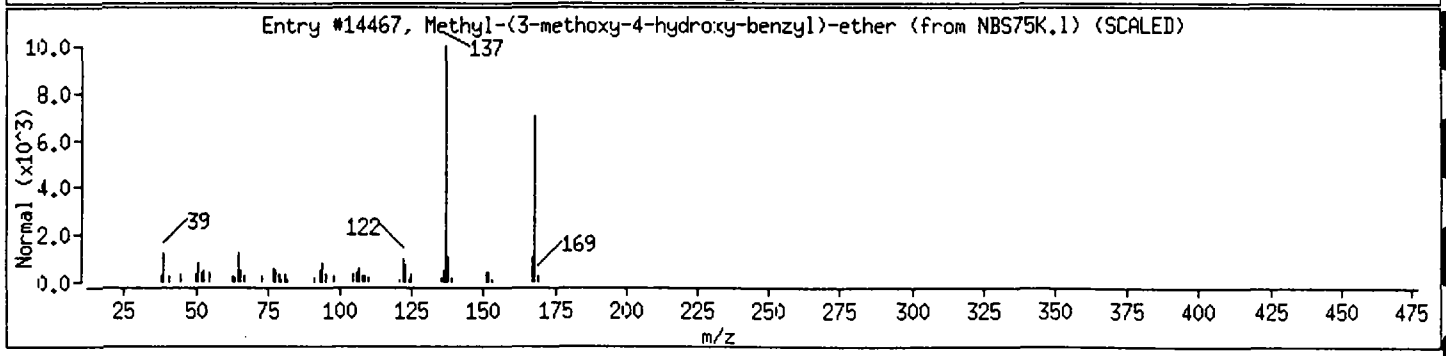
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Benzoic acid, 3-amino-	99-05-8	NBS75K.l	6745	45	C7H7NO2	137
3,5-Octadiene, 2,2,4,5,7,7-hexamethyl-,	55712-52-2	NBS75K.l	21407	39	C14H26	194
Methyl-(3-methoxy-4-hydroxy-benzyl)-ethe	0-00-0	NBS75K.l	14467	39	C9H12O3	168









Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d

Date : 21-MAR-1998 10:14

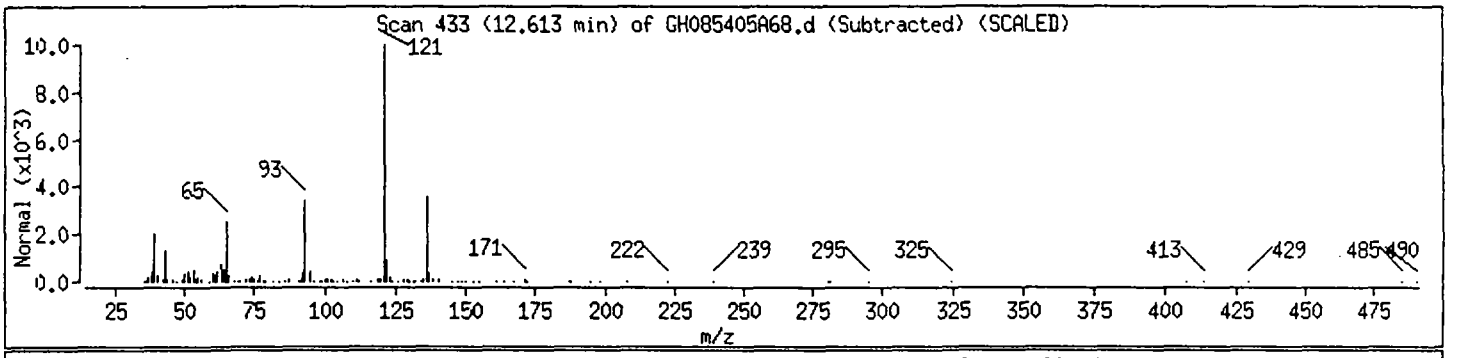
Client ID: PVC-1 Instrument: 5972hp68.i

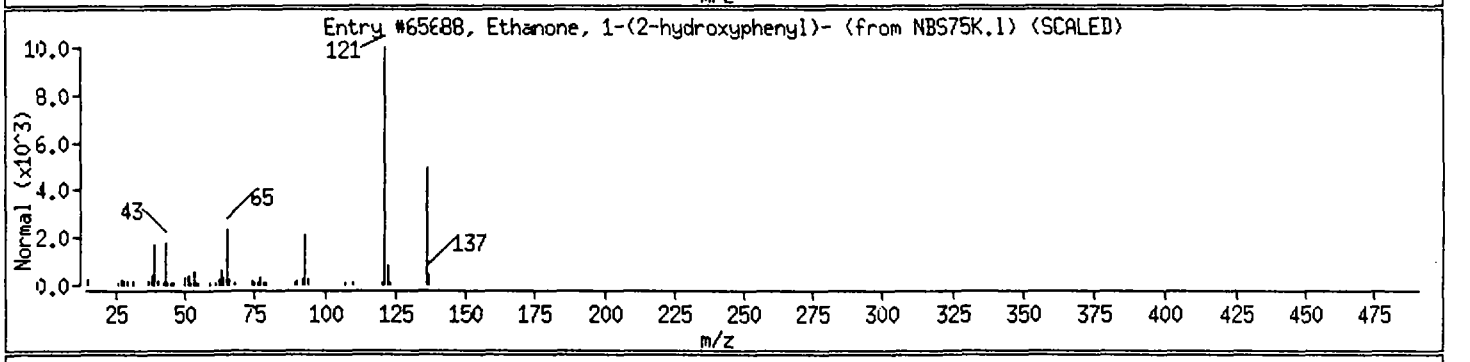
Sample Info:

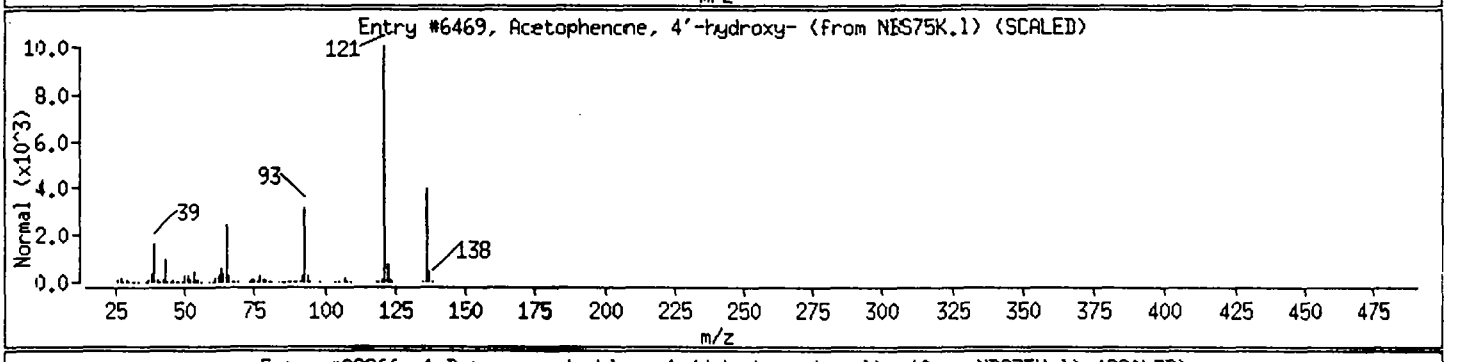
Volume Injected (uL): 2.0 Operator: 2242

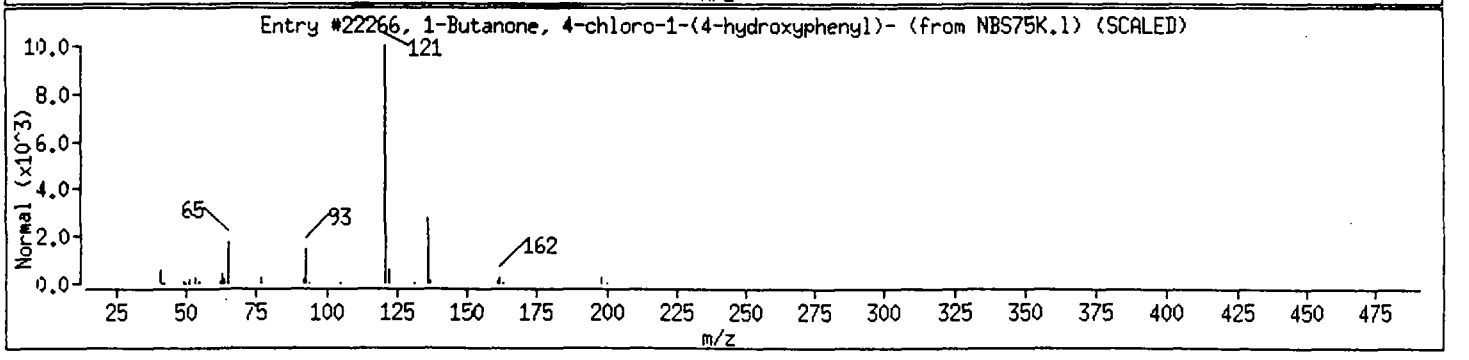
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Ethanone, 1-(2-hydroxyphenyl)-	118-93-4	NBS75K.l	65688	90	C8H8O2	136
Acetophenone, 4'-hydroxy-	99-93-4	NBS75K.l	6469	90	C8H8O2	136
1-Butanone, 4-chloro-1-(4-hydroxyphenyl)	7150-55-2	NBS75K.l	22266	72	C10H11ClO2	198









Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d

Date : 21-MAR-1998 10:14

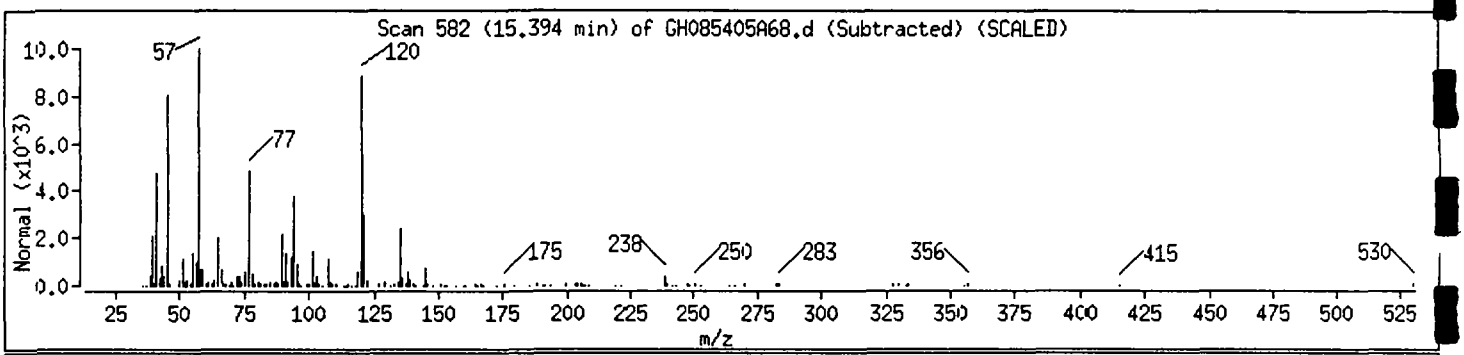
Client ID: PVC-1 Instrument: 5972hp68.i

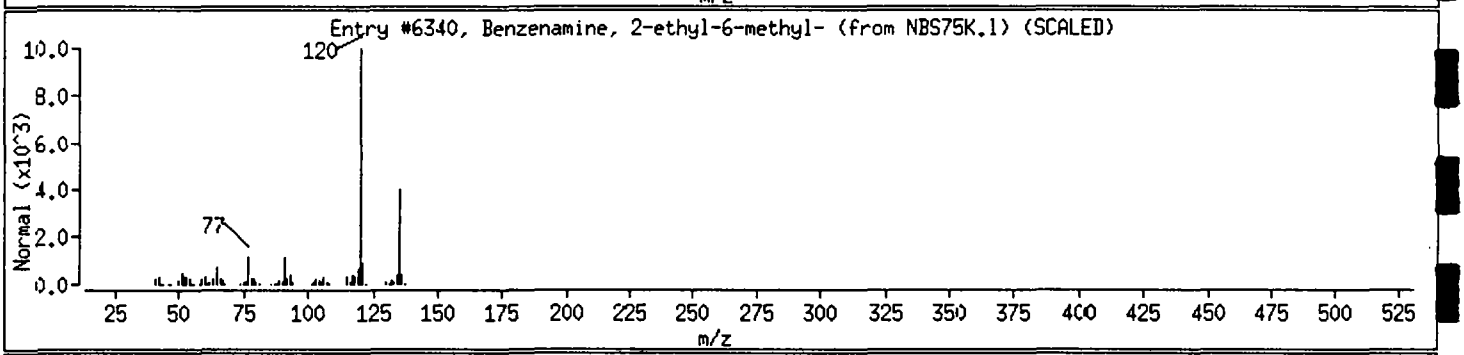
Sample Info:

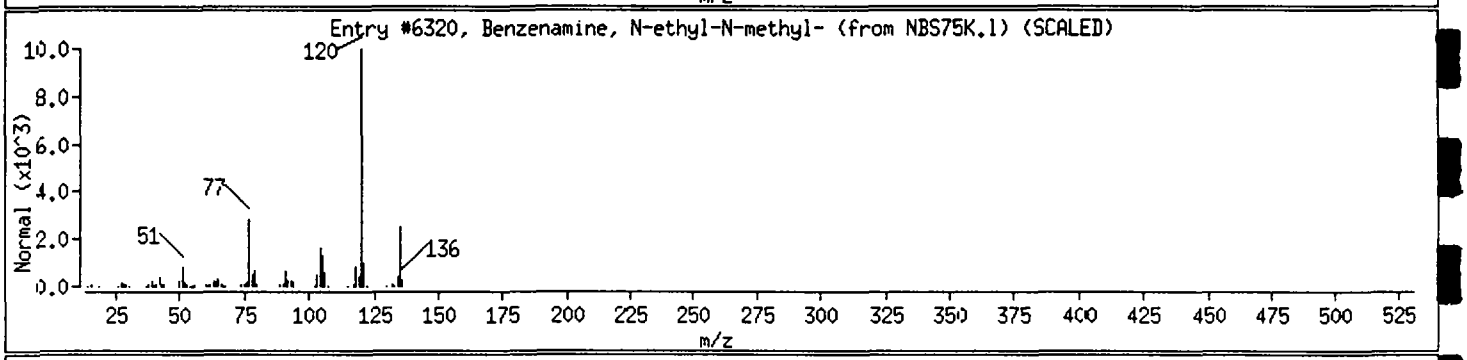
Volume Injected (uL): 2.0 Operator: 2242

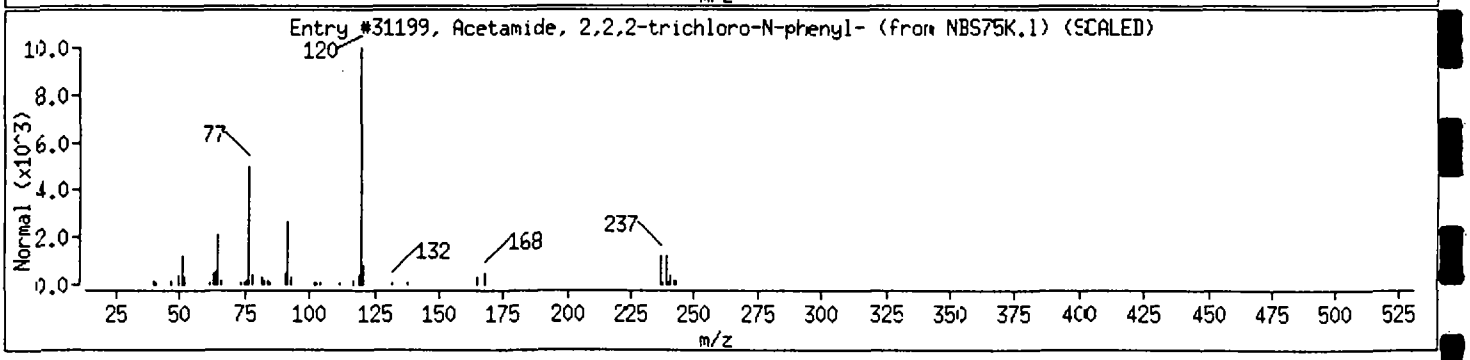
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Benzenamine, 2-ethyl-6-methyl-	24549-06-2	NBS75K.l	6340	35	C9H13N	135
Benzenamine, N-ethyl-N-methyl-	613-97-8	NBS75K.l	6320	27	C9H13N	135
Acetamide, 2,2,2-trichloro-N-phenyl-	2563-97-5	NBS75K.l	31199	27	C8H6Cl3NO	237









Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d

Date : 21-MAR-1998 10:14

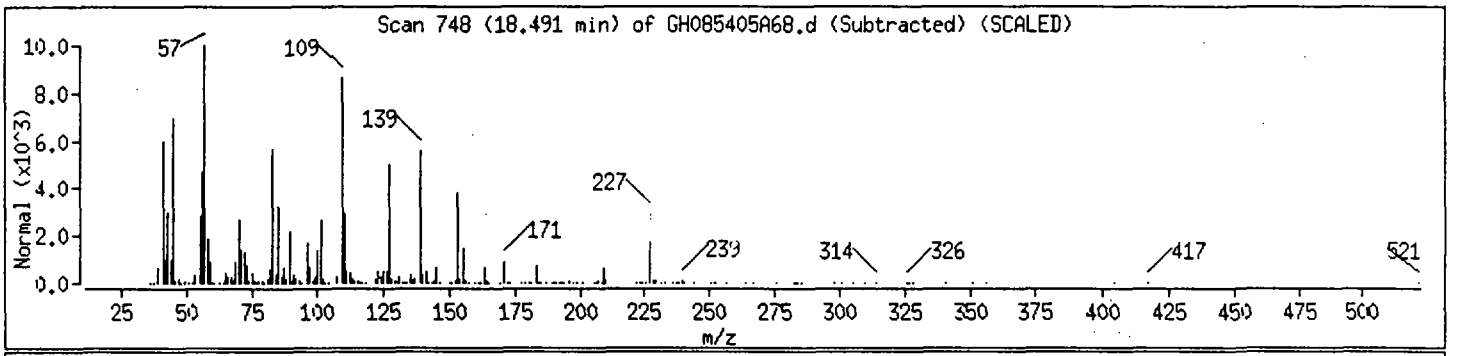
Client ID: PVC-1 | Instrument: 5972hp68.i

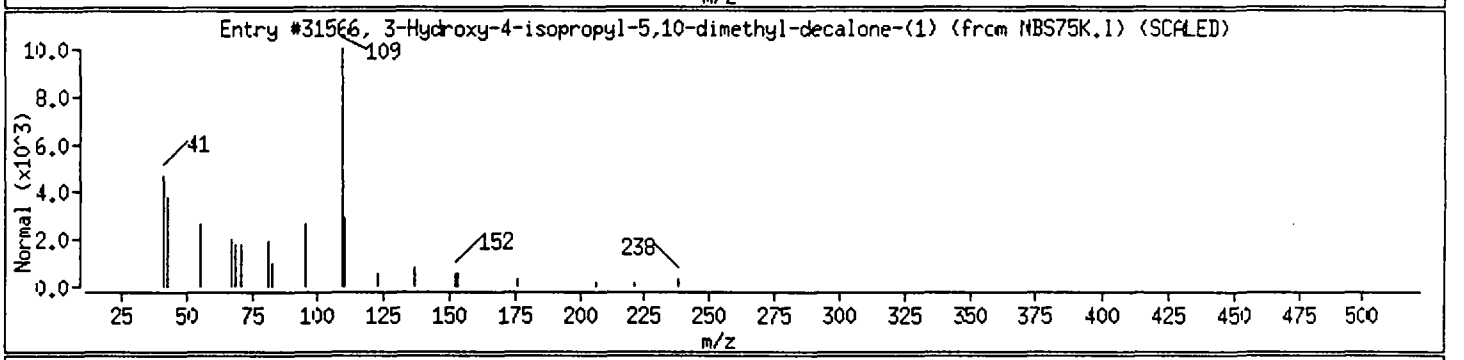
Sample Info:

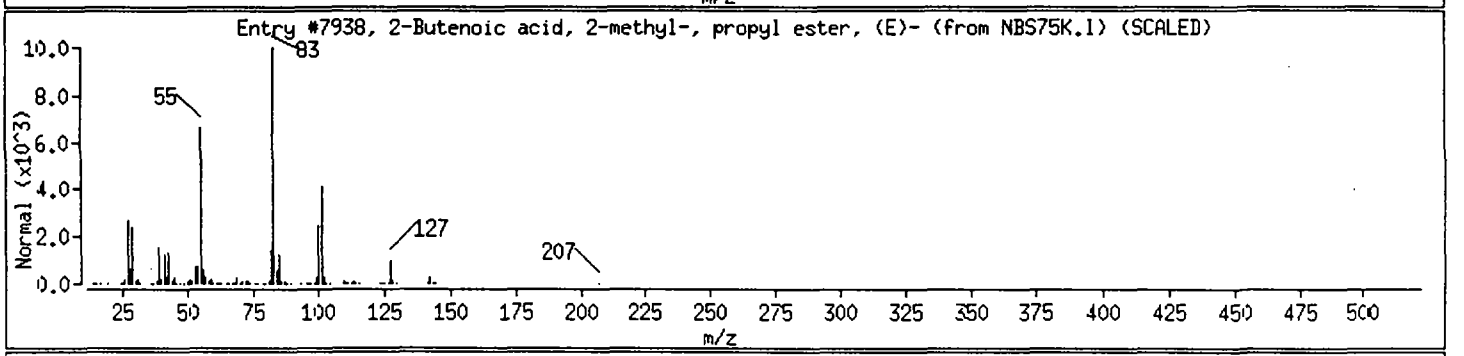
Volume Injected (uL): 2.0 | Operator: 2242

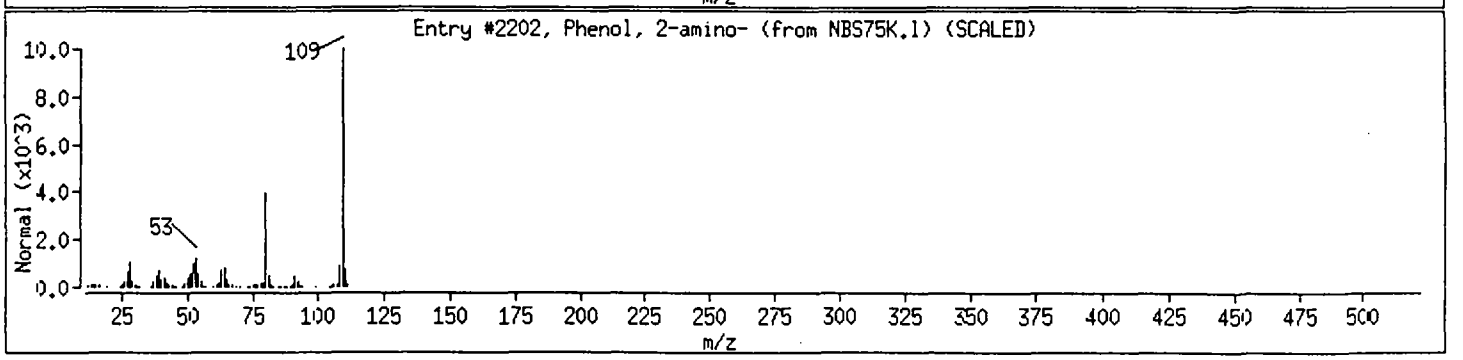
Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
3-Hydroxy-4-isopropyl-5,10-dimethyl-deca	0-00-0	NBS75K.l	31566	10	C15H26O2	238
2-Butenoic acid, 2-methyl-, propyl ester	61692-83-9	NBS75K.l	7938	10	C8H14O2	142
Phenol, 2-amino-	95-55-6	NBS75K.l	2202	9	C6H7NO	109









Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d

Date : 21-MAR-1998 10:14

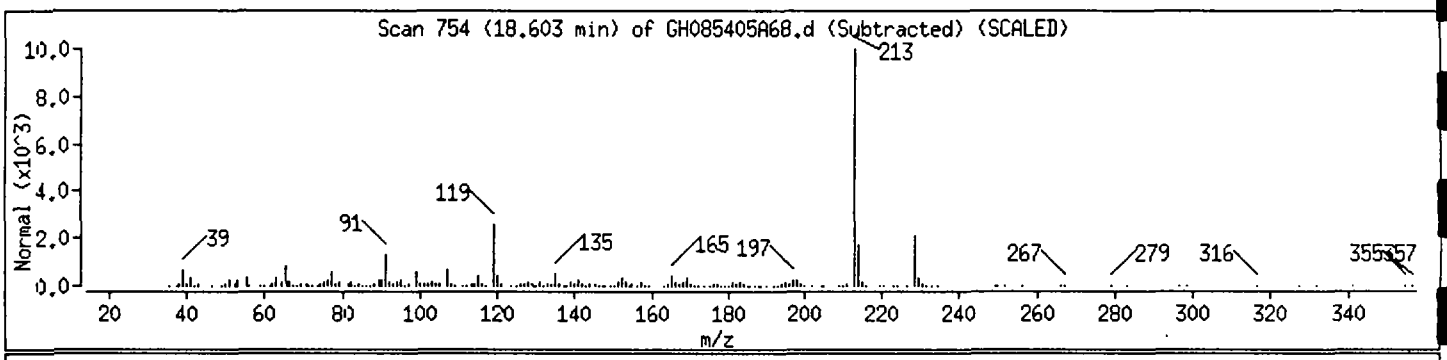
Client ID: PVC-1 Instrument: 5972hp68.i

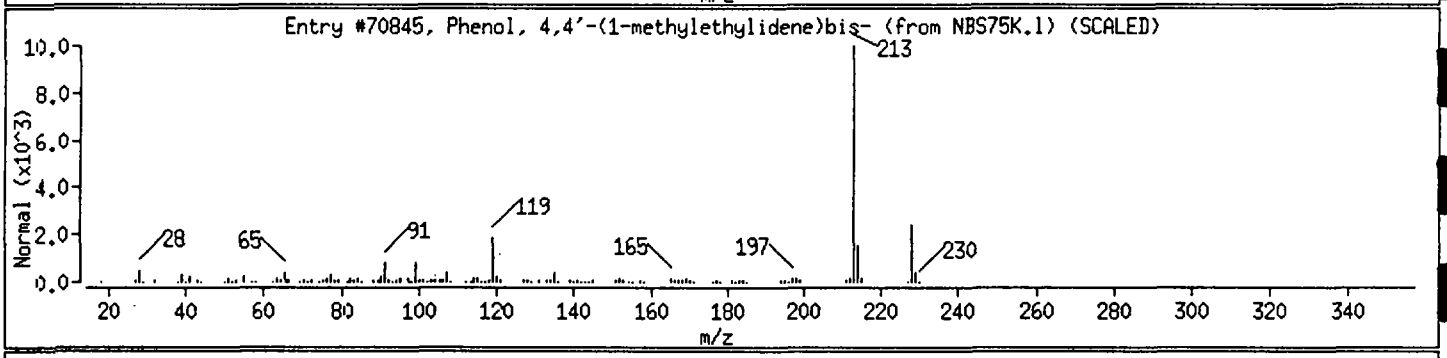
Sample Info:

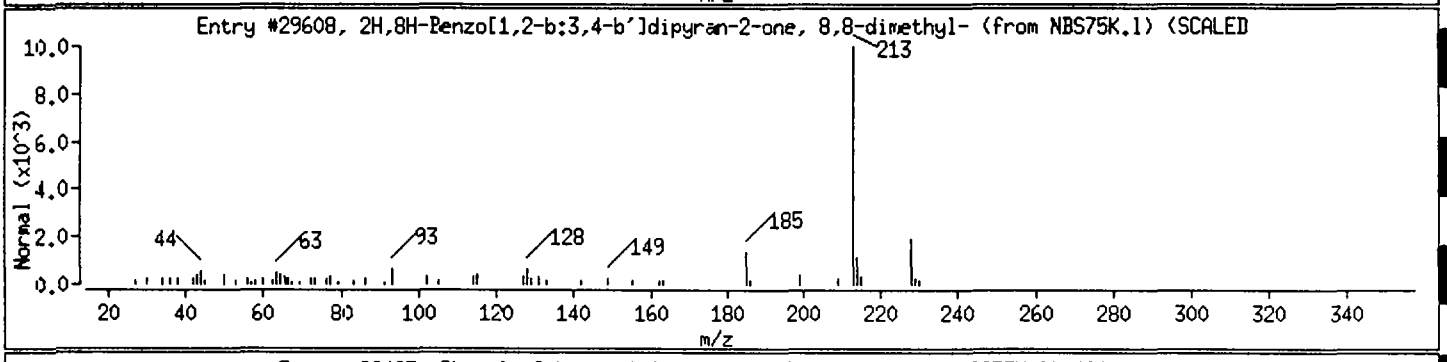
Volume Injected (uL): 2.0 Operator: 2242

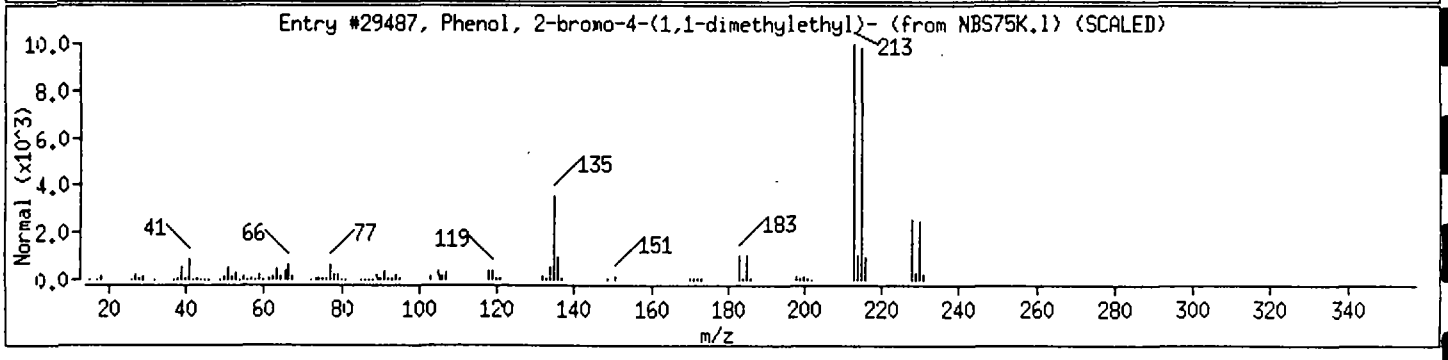
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenol, 4,4'-(1-methylethylidene)bis-	80-05-7	NBS75K.l	70845	94	C15H16O2	228
2H,8H-Benzo[1,2-b:3,4-b']dipyran-2-one,	523-59-1	NBS75K.l	29608	64	C14H12O3	228
Phenol, 2-bromo-4-(1,1-dimethylethyl)-	2198-66-5	NBS75K.l	29487	59	C10H13BrO	228









Data File: /chem/5972hp68.i/DF980321A68.b/GH085405A68.d

Date : 21-MAR-1998 10:14

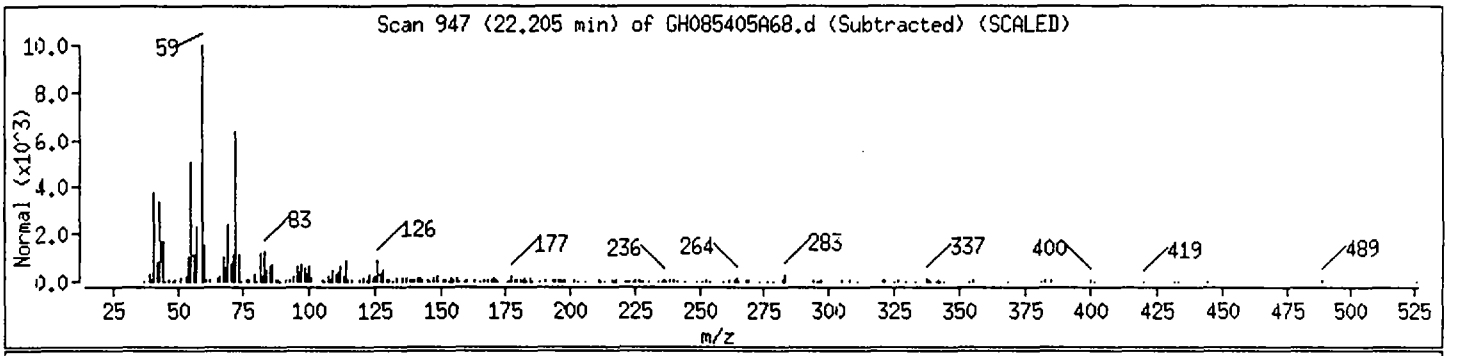
Client ID: PVC-1 Instrument: 5972hp68.i

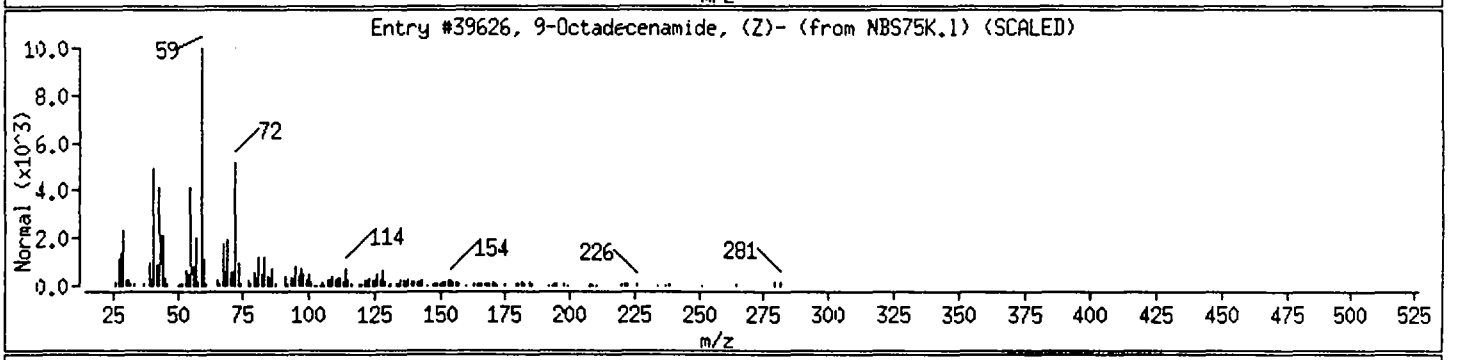
Sample Info:

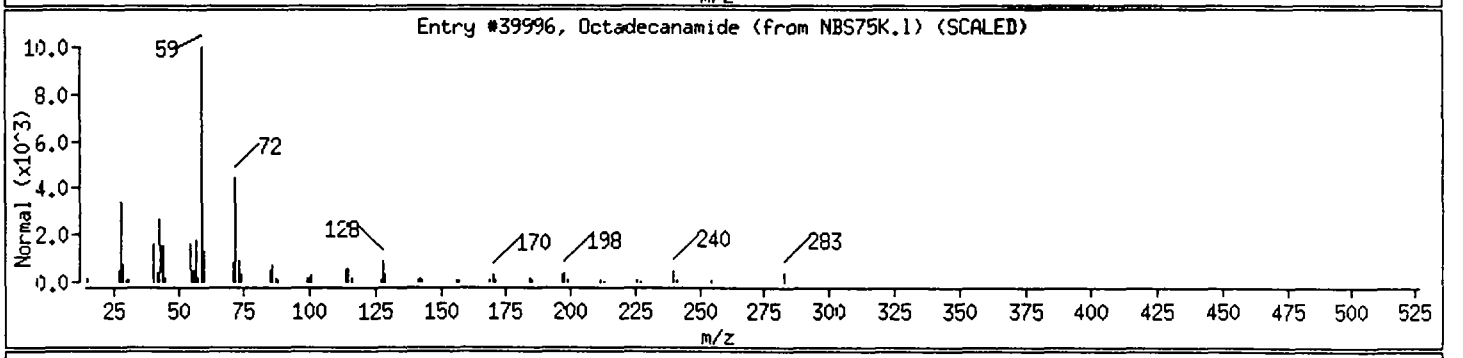
Volume Injected (uL): 2.0 Operator: 2242

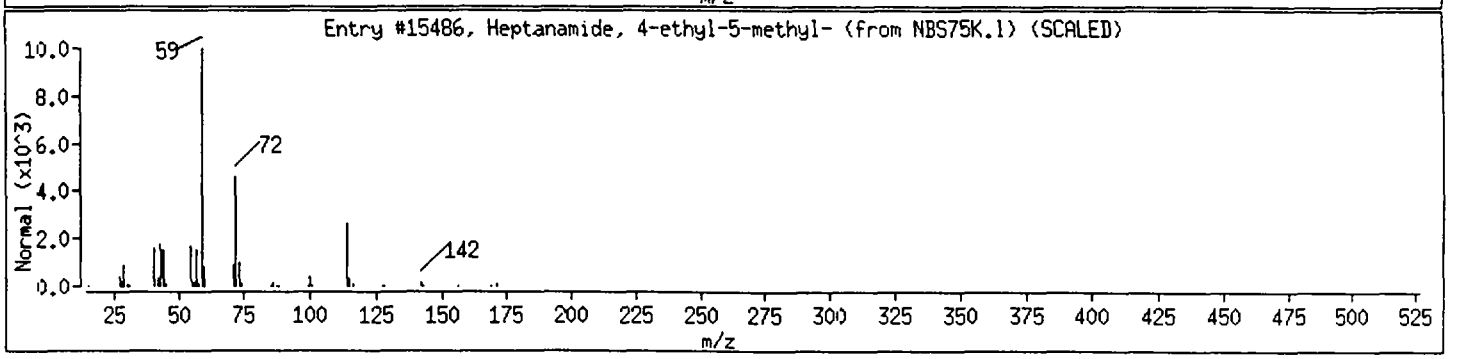
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Amide						
9-Octadecenamide, (Z)-	301-02-0	NBS75K.l	39626	87	C18H35NO	281
Octadecanamide	124-26-5	NBS75K.l	39996	72	C18H37NO	283
Heptanamide, 4-ethyl-5-methyl-	54789-40-1	NBS75K.l	15486	72	C10H21NO	171









LAB INSTRUCTIONS: PPS#: _____
NO PPS/MUST USE FOR QC/USE 500ML IN EXTRACTION/FULL CLP

RECEIPT DATE: 03/18/98 CASE#: 33472 MWTT1 DUE DATE: 03/24/98

SEMI-VOLATILE
GC/MS WORKSHEET COMPUCHEM#: 885405

J[ ] J3[ ] D[ ] { :1}
J2[ ] J4[ ] D2[ ] { :1}

GC/MS; TCL SV; WATER; SOW OLMO3.1

Sample date: 031798 Report type: 0

Sample Prep Code--- -1015
Instrument Code---- 463
Compound List------ 804
Surrogate Std------ 431
Internal Std------- 50

==========

SAMPLE ID#: PVC-1

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GC/MS ANALYSIS
Volumes mixed: BN _____ ul Acid 800 _____ ul
Internal Standard Volume Added 5 ul
Mixed Sample Volume Injected 2 ul
Date Sample Bottle Analyzed 3/19/98
DFTPP Filename DF980321A68 Disk ( )
Standard Filename HG980321A68 Disk ( )
Sample Filename GH015405A68 Disk ( )

ANALYST(S): Injection ZLK Work-up ZLK

==========

GC/MS REVIEW

CONDITION CODE ~~01~~ DI

Disposition:
[ ] Complete
[ ] Reinjection required
[ ] Reextraction required
[✓] Dilute (6 :1)
[ ] Reinject Neat
[ ] Send to QA

Extraneous Peak Search Results:

# of Peaks Found: 24

# of Hits: 2

# of Surrogate Outliers: ∅

Quality Assurance Notice(s):

Notices Required ∅

COMMENTS:

#GC/MS Review [illegible] Date 3/23/98 Auditor_____ Date___/___/___

==========

REPORT INTEGRATION Total # of Injections: _____
Final Reportable Package(s): GJD85405A68 / GH085405A68

==========

QA COMMENTS:

Initials_____ Date___/___/___

==========

FINAL REVIEW: Initials_____ Date___/___/___

AC1350

CompuChem

a division of Liberty Analytical Corp

Chain-of-Custody

BATCH # 3-20-1

178

#	Relinquished by	Date	Received by	Date	Reason/Remark
1	[illegible]	3/20/98	GC/MS Refrig #2	3/20/98	Temp Storage
2	GC/MS REF #2	3/20/98	Kelli Bellamy	3/20/98	Analysis
3	Kelli Bellamy	3/20/98	GC/MS REF #2	3/20/98	Temp Storage
4					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PVC-1DL

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885405

Sample wt/vol: 500 (g/mL) mL Lab File ID: GJD85405B68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 7.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	440	D
111-44-4	bis(2-Chloroethyl)ether	70	U
95-57-8	2-Chlorophenol	70	U
541-73-1	1,3-Dichlorobenzene	70	U
106-46-7	1,4-Dichlorobenzene	70	U
95-50-1	1,2-Dichlorobenzene	70	U
95-48-7	2-Methylphenol	70	U
108-60-1	2,2'-oxybis(1-Chloropropane)	70	U
106-44-5	4-Methylphenol	70	U
621-64-7	N-Nitroso-di-n-propylamine	70	U
67-72-1	Hexachloroethane	70	U
98-95-3	Nitrobenzene	70	U
78-59-1	Isophorone	70	U
88-75-5	2-Nitrophenol	70	U
105-67-9	2,4-Dimethylphenol	70	U
111-91-1	bis(2-Chloroethoxy)methane	70	U
120-83-2	2,4-Dichlorophenol	70	U
120-82-1	1,2,4-Trichlorobenzene	70	U
91-20-3	Naphthalene	70	U
106-47-8	4-Chloroaniline	70	U
87-68-3	Hexachlorobutadiene	70	U
59-50-7	4-Chloro-3-methylphenol	70	U
91-57-6	2-Methylnaphthalene	70	U
77-47-4	Hexachlorocyclopentadiene	70	U
88-06-2	2,4,6-Trichlorophenol	70	U
95-95-4	2,4,5-Trichlorophenol	180	U
91-58-7	2-Chloronaphthalene	70	U
88-74-4	2-Nitroaniline	180	U
131-11-3	Dimethylphthalate	70	U
208-96-8	Acenaphthylene	70	U
606-20-2	2,6-Dinitrotoluene	70	U
99-09-2	3-Nitroaniline	180	U
83-32-9	Acenaphthene	70	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PVC-1DL

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885405

Sample wt/vol: 500 (g/mL) mL Lab File ID: GJD85405B68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 7.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
51-28-5	2,4-Dinitrophenol	180	U
100-02-7	4-Nitrophenol	180	U
132-64-9	Dibenzofuran	70	U
121-14-2	2,4-Dinitrotoluene	70	U
84-66-2	Diethylphthalate	70	U
7005-72-3	4-Chlorophenyl-phenylether	70	U
86-73-7	Fluorene	70	U
100-01-6	4-Nitroaniline	180	U
534-52-1	4,6-Dinitro-2-methylphenol	180	U
86-30-6	N-nitrosodiphenylamine (1)	70	U
101-55-3	4-Bromophenyl-phenylether	70	U
118-74-1	Hexachlorobenzene	70	U
87-86-5	Pentachlorophenol	180	U
85-01-8	Phenanthrene	70	U
120-12-7	Anthracene	70	U
86-74-8	Carbazole	70	U
84-74-2	Di-n-butylphthalate	70	U
206-44-0	Fluoranthene	70	U
129-00-0	Pyrene	70	U
85-68-7	Butylbenzylphthalate	70	U
91-94-1	3,3'-Dichlorobenzidine	70	U
56-55-3	Benzo(a)anthracene	70	U
218-01-9	Chrysene	70	U
117-81-7	bis(2-Ethylhexyl)phthalate	78	DB
117-84-0	Di-n-octylphthalate	70	U
205-99-2	Benzo(b)fluoranthene	70	U
207-08-9	Benzo(k)fluoranthene	70	U
50-32-8	Benzo(a)pyrene	70	U
193-39-5	Indeno(1,2,3-cd)pyrene	70	U
53-70-3	Dibenzo(a,h)anthracene	70	U
191-24-2	Benzo(g,h,i)perylene	70	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

PVC-1DL

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885405

Sample wt/vol: 500 (g/mL) mL Lab File ID: GJD85405B68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 7.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 5

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CYCLOHEXENONE (BC)	6.89	15	JBD
2. 112-34-5	ETHANOL, 2-(2-BUTOXYETHOXY)-	9.99	270	NJD
3.	UNKNOWN	10.34	17	JD
4.	UNKNOWN	10.45	17	JD
5.	UNKNOWN	10.77	26	JD
6.				
7.				
8.				
9.				
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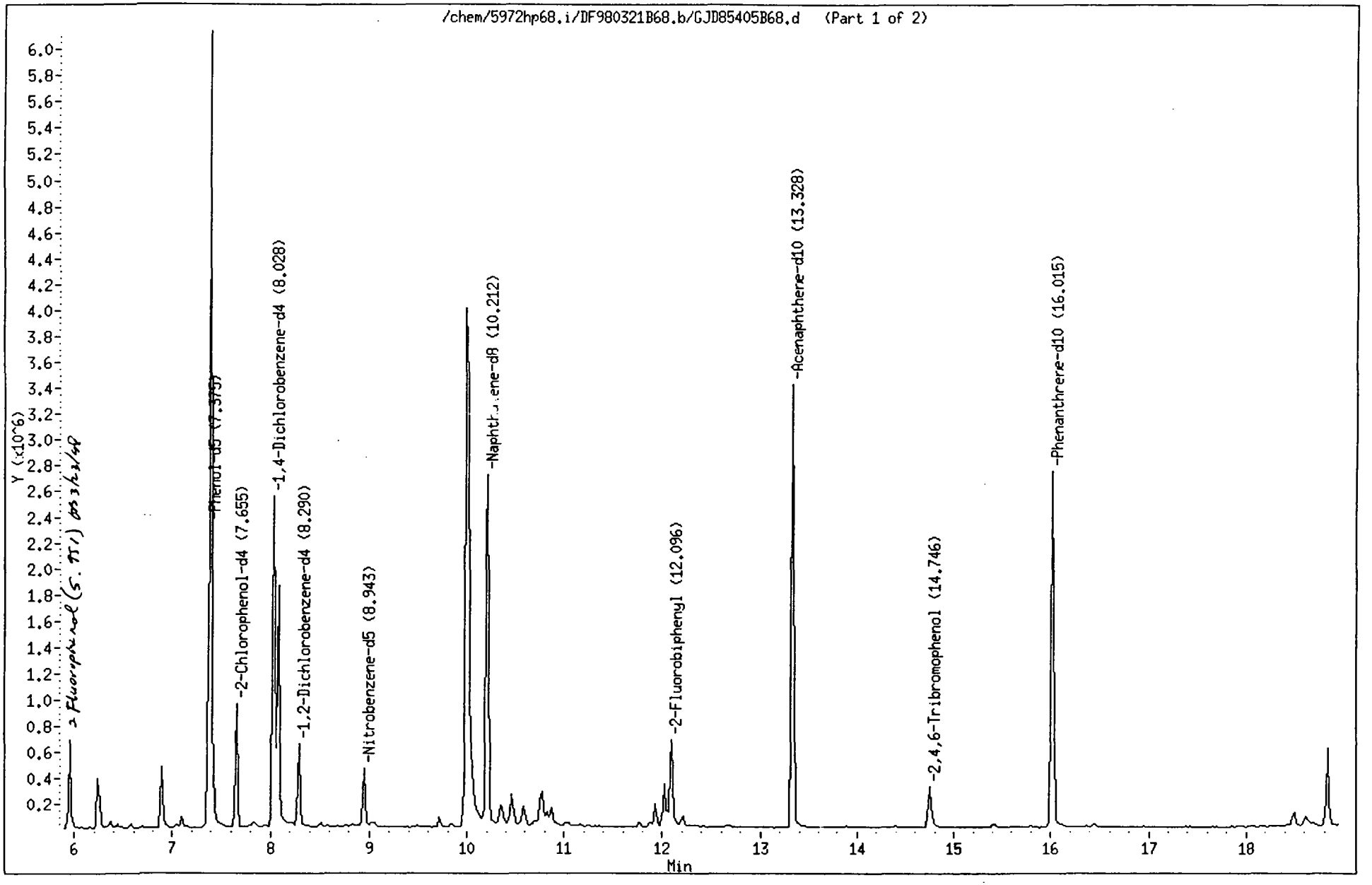
29.				
30.				

Data File: /chem/5972hp68.i/DF980321B68.b/GJD85405B68.d
Date : 21-MAR-1998 23:55
Client ID: PVC-1DL
Sample Info:
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32

182

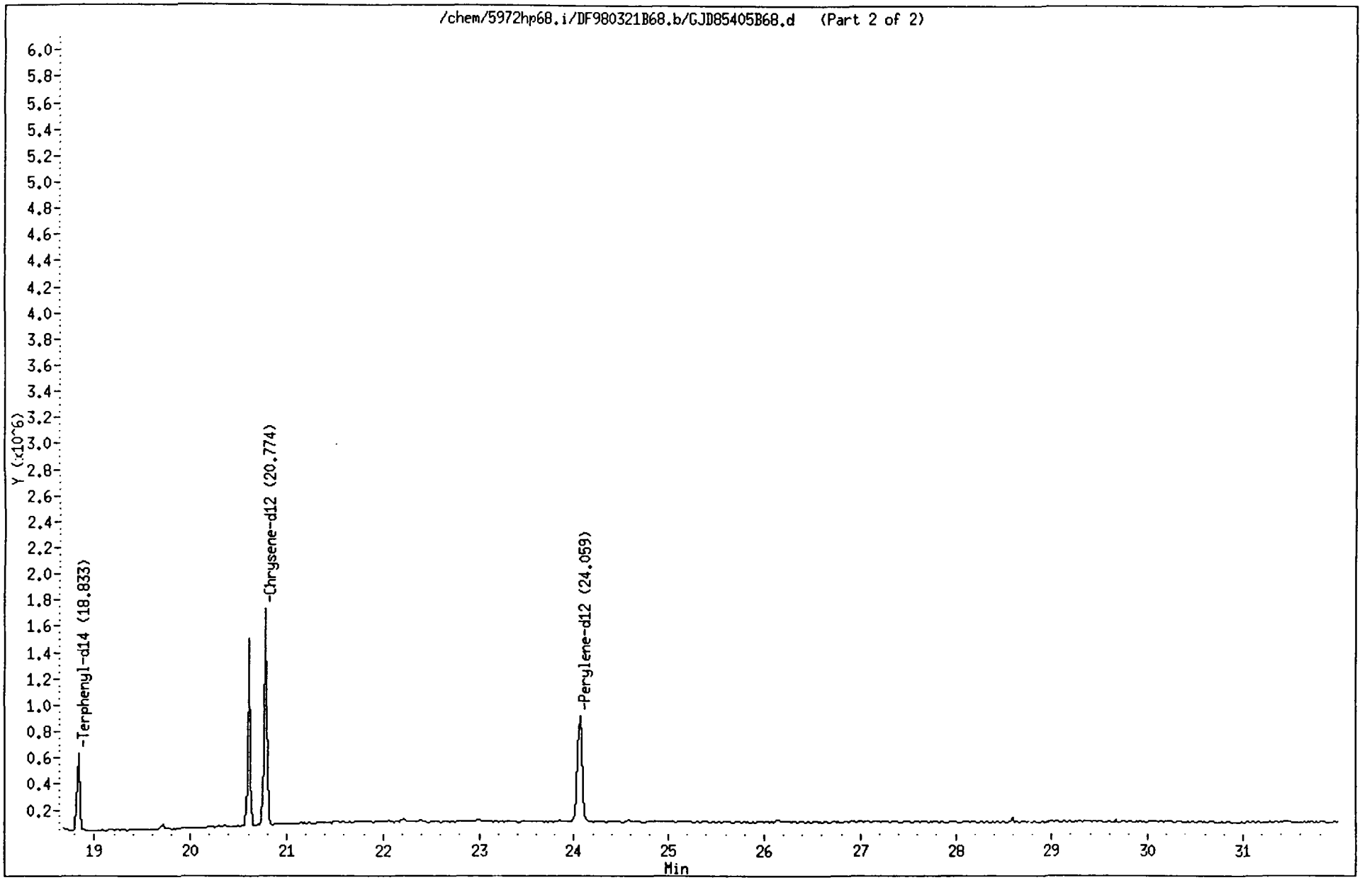


Data File: /chem/5972hp68.i/DF980321B68.b/GJD85405B68.d
Date : 21-MAR-1998 23:55
Client ID: PVC-1DL
Sample Info:
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32

183



Data File: /chem/5972hp68.i/DF980321B68.b/GJD85405B68.d
Report Date: 23-Mar-1998 09:55

CompuChem Environmental Corp.

OLM03.0 + REVISIONS QUANT AND RATIO REPORT

Data file : /chem/5972hp68.i/DF980321B68.b/GJD85405B68.d
Lab Smp Id: 885405 Client Smp ID: PVC-1DL
Inj Date : 21-MAR-1998 23:55
Operator : 2242 Inst ID: 5972hp68.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp68.i/DF980321B68.b/OLM03.m
Meth Date : 22-Mar-1998 07:26 bellamy Quant Type: ISTD
Cal Date : 21-MAR-98 21:05 Cal File: HG980321B68.d
Als bottle: 36
Dil Factor: 7.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.12
Concentration Formula: Vt/(Vo * Vi)

Name	Value	Description
Vt	500.000	Volume of final extract (uL)
Vo	500.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152.00	8.028	8.042	(1.000)	820545	40.00		
* 2 Naphthalene-d8	136.00	10.212	10.206	(1.000)	2887695	40.00		8509
* 3 Acenaphthene-d10	164.00	13.328	13.323	(1.000)	1460368	40.00		9324
* 4 Phenanthrene-d10	188.00	16.015	16.010	(1.000)	1979280	40.00		9406
* 5 Chrysene-d12	240.00	20.774	20.787	(1.000)	1154094	40.00		9676
* 6 Perylene-d12	264.00	24.059	24.072	(1.000)	1055521	40.00		8555
$ 7 2-Fluorophenol	112.00	5.957	5.951	(0.742)	345795	13.21	46.24	(a)
$ 8 Phenol-d5	99.00	7.375	7.370	(0.919)	449386	14.12	49.43	0(aM)
$ 9 2-Chlorophenol-d4	132.00	7.655	7.668	(0.954)	417044	14.67	51.34	9188(a)
$ 10 1,2-Dichlorobenzene-d4	152.00	8.290	8.303	(1.033)	157570	8.66	30.29	(a)
$ 11 Nitrobenzene-d5	82.00	8.943	8.956	(0.876)	255735	10.95	38.32	8865(a)
$ 12 2-Fluorobiphenyl	172.00	12.096	12.091	(0.908)	427013	9.59	33.56	8572(a)
$ 13 2,4,6-Tribromophenol	329.60	14.746	14.741	(0.921)	95044	13.04	45.62	(a)
$ 14 Terphenyl-d14	244.00	18.833	18.828	(0.907)	395427	12.90	45.16	8832(a)
15 Phenol	94.00	7.394	7.388	(0.921)	3611161	125.2	438.2	
16 bis(2-Chloroethyl)ether	93.00		7.575	Compound Not Detected.				
17 2-Chlorophenol	128.00		7.687	Compound Not Detected.				
18 1,3-Dichlorobenzene	146.00		7.948	Compound Not Detected.				
19 1,4-Dichlorobenzene	146.00		8.060	Compound Not Detected.				
20 1,2-Dichlorobenzene	146.00		8.321	Compound Not Detected.				
21 2-Methylphenol	108.00		8.396	Compound Not Detected.				

3/23/98

Data File: /chem/5972hp68.i/DF980321B68.b/GJD85405B68.d
Report Date: 23-Mar-1998 09:55

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY
22 2,2'-oxybis(1-Chloropropane)	45.00		8.452		Compound Not Detected.			
23 4-Methylphenol	108.00		8.639		Compound Not Detected.			
24 N-Nitroso-di-n-propylamine	70.00		8.676		Compound Not Detected.			
25 Hexachloroethane	117.00		8.900		Compound Not Detected.			
26 Nitrobenzene	77.00		8.993		Compound Not Detected.			
27 Isophorone	82.00		9.385		Compound Not Detected.			
28 2-Nitrophenol	139.00		9.534		Compound Not Detected.			
29 2,4-Dimethylphenol	107.00		9.553		Compound Not Detected.			
30 bis(2-Chloroethoxy)methane	93.00		9.721		Compound Not Detected.			
31 2,4-Dichlorophenol	162.00		9.945		Compound Not Detected.			
32 1,2,4-Trichlorobenzene	180.00		10.094		Compound Not Detected.			
33 Naphthalene	128.00		10.244		Compound Not Detected.			
34 4-Chloroaniline	127.00		10.318		Compound Not Detected.			
35 Hexachlorobutadiene	225.00		10.430		Compound Not Detected.			
36 4-Chloro-3-methylphenol	107.00		11.121		Compound Not Detected.			
37 2-Methylnaphthalene	142.00		11.457		Compound Not Detected.			
38 Hexachlorocyclopentadiene	237.00		11.737		Compound Not Detected.			
39 2,4,6-Trichlorophenol	196.00		11.942		Compound Not Detected.			
40 2,4,5-Trichlorophenol	196.00		12.016		Compound Not Detected.			
41 2-Chloronaphthalene	162.00		12.334		Compound Not Detected.			
42 2-Nitroaniline	65.00		12.483		Compound Not Detected.			
43 Dimethylphthalate	163.00		12.782		Compound Not Detected.			
44 2,6-Dinitrotoluene	165.00		12.912		Compound Not Detected.			
45 Acenaphthylene	152.00		13.080		Compound Not Detected.			
46 3-Nitroaniline	138.00		13.229		Compound Not Detected.			
47 Acenaphthene	153.00		13.397		Compound Not Detected.			
48 2,4-Dinitrophenol	184.00		13.416		Compound Not Detected.			
49 4-Nitrophenol	109.00		13.491		Compound Not Detected.			
50 2,4-Dinitrotoluene	165.00		13.640		Compound Not Detected.			
51 Dibenzofuran	168.00		13.696		Compound Not Detected.			
52 Diethylphthalate	149.00		14.032		Compound Not Detected.			
53 4-Chlorophenyl-phenylether	204.00		14.293		Compound Not Detected.			
54 Fluorene	166.00		14.312		Compound Not Detected.			
55 4-Nitroaniline	138.00		14.312		Compound Not Detected.			
56 4,6-Dinitro-2-methylphenol	198.00		14.368		Compound Not Detected.			
57 N-nitrosodiphenylamine	169.00		14.498		Compound Not Detected.			
58 4-Bromophenyl-phenylether	248.00		15.170		Compound Not Detected.			
59 Hexachlorobenzene	283.90		15.301		Compound Not Detected.			
60 Pentachlorophenol	266.00		15.655		Compound Not Detected.			
61 Phenanthrene	178.00		16.066		Compound Not Detected.			
62 Anthracene	178.00		16.159		Compound Not Detected.			
63 Carbazole	167.00		16.421		Compound Not Detected.			
64 Di-n-butylphthalate	149.00		16.943		Compound Not Detected.			
65 Fluoranthene	202.00		18.212		Compound Not Detected.			
66 Pyrene	202.00		18.623		Compound Not Detected.			
67 Butylbenzylphthalate	149.00		19.649		Compound Not Detected.			
68 3,3'-Dichlorobenzidine	252.00		20.657		Compound Not Detected.			
69 bis(2-Ethylhexyl)phthalate	149.00	20.606	20.620	(0.992)	729809	22.19	77.66	8268
70 Benzo(a)anthracene	228.00		20.769		Compound Not Detected.			

Data File: /chem/5972hp68.i/DF980321B68.b/GJD85405B68.d
Report Date: 23-Mar-1998 09:55

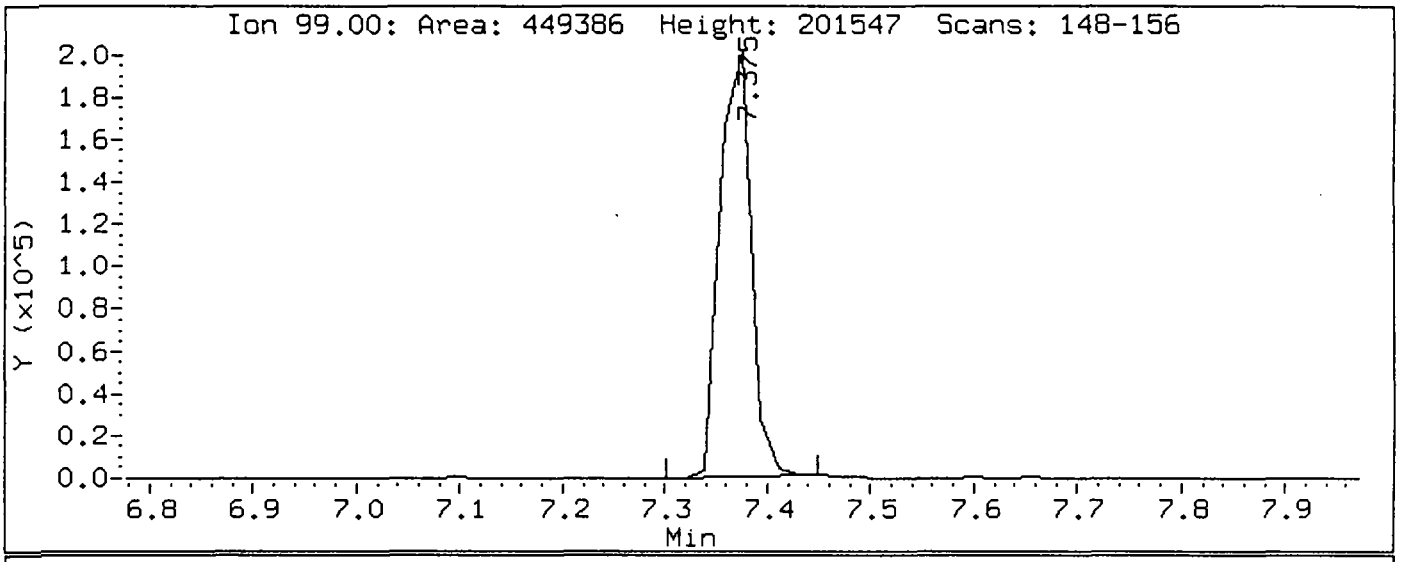
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY
71 Chrysene	228.00		20.825		Compound Not Detected.			
72 Di-n-octylphthalate	149.00		21.833		Compound Not Detected.			
73 Benzo(b)fluoranthene	252.00		23.027		Compound Not Detected.			
74 Benzo(k)fluoranthene	252.00		23.102		Compound Not Detected.			
75 Benzo(a)pyrene	252.00		23.923		Compound Not Detected.			
76 Indeno(1,2,3-cd)pyrene	276.00		27.674		Compound Not Detected.			
77 Dibenzo(a,h)anthracene	278.00		27.692		Compound Not Detected.			
78 Benzo(g,h,i)perylene	276.00		28.793		Compound Not Detected.			

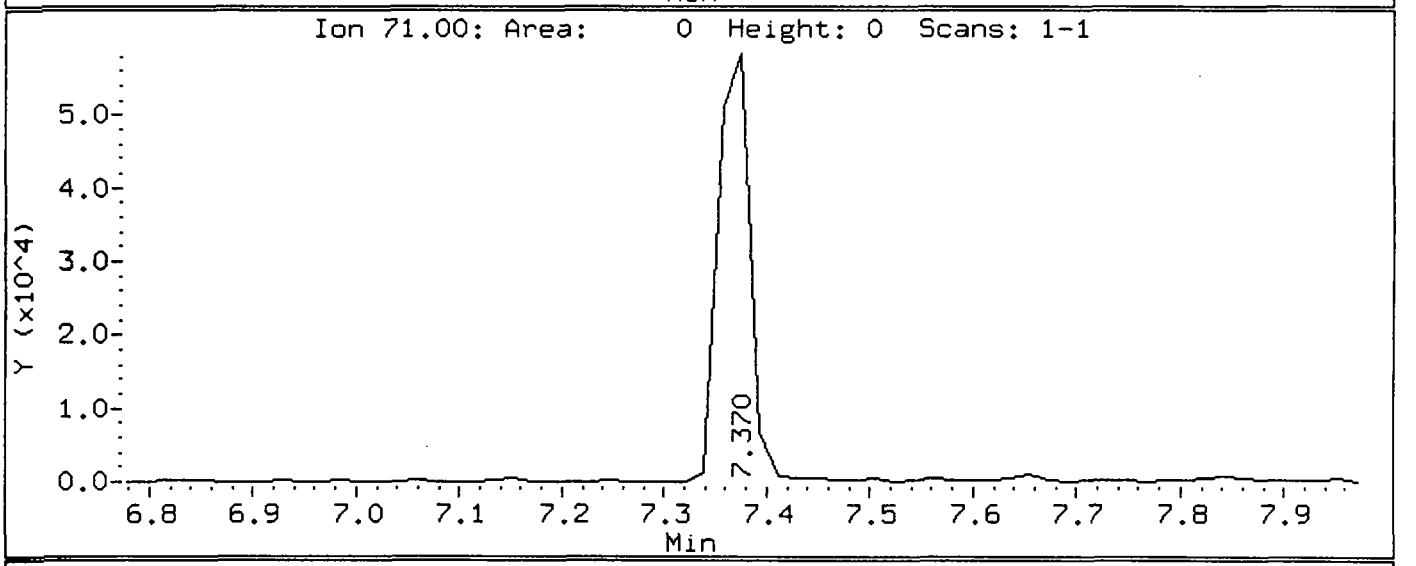
QC Flag Legend

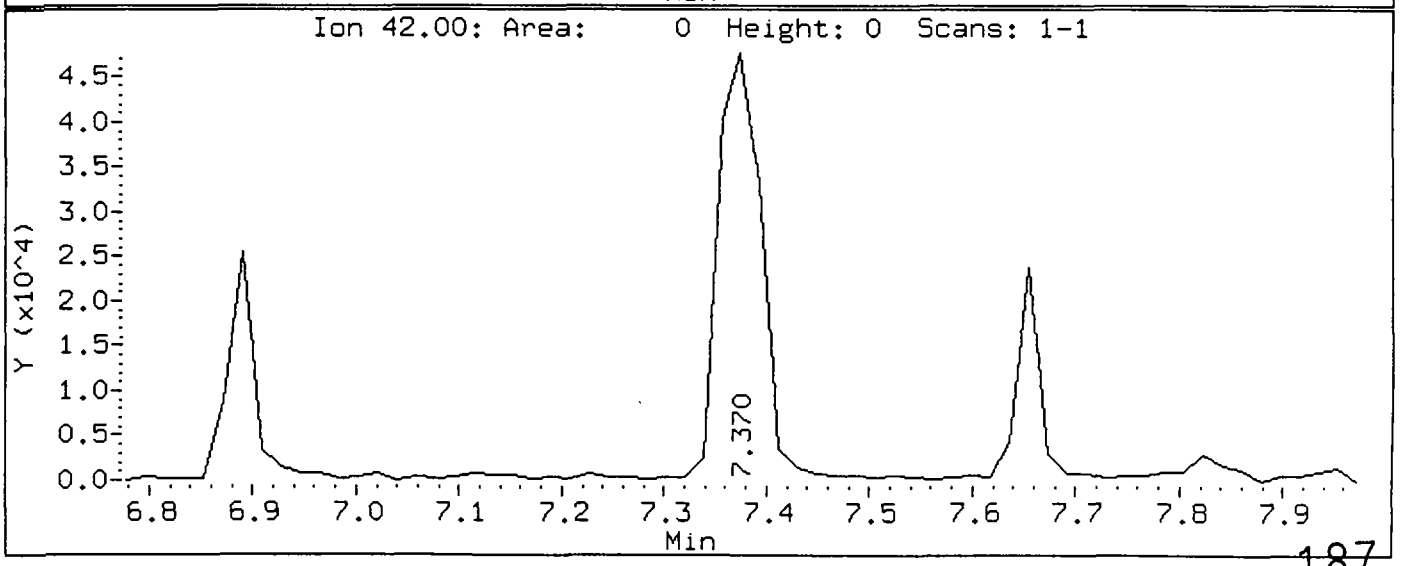
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/5972hp68.i/DF980321B68.b/GJD85405B68.d
Injection Date: 21-MAR-98 23:55
Instrument: 5972hp68.i
Client Sample ID: PVC-1DL

Compound: Phenol-d5
CAS Number: 4165-62-2







Data File: /chem/5972hp68.i/DF980321B68.b/GJD85405B68.d

Date : 21-MAR-1998 23:55

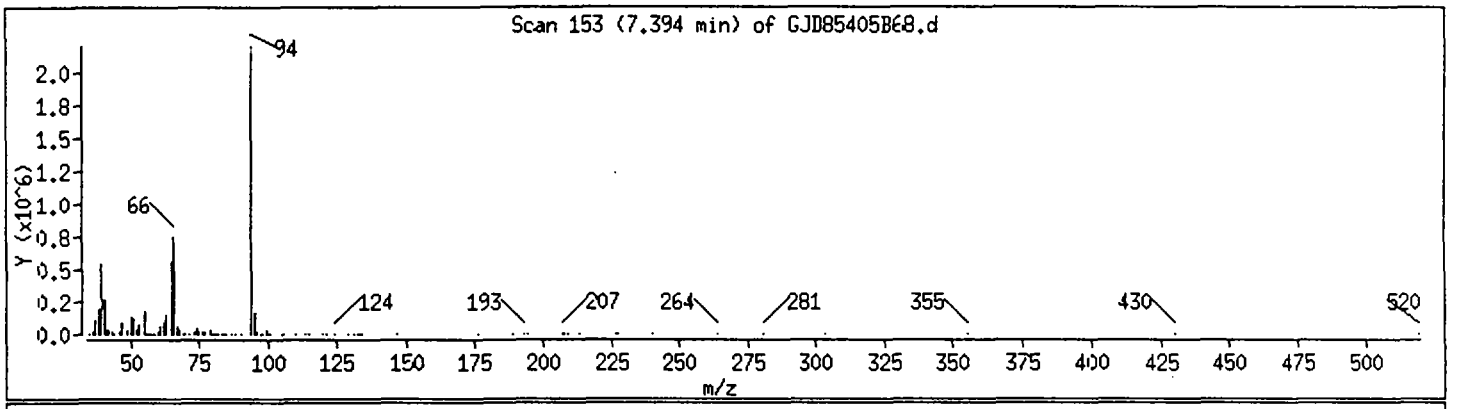
Client ID: PVC-1DL | Instrument: 5972hp68.i

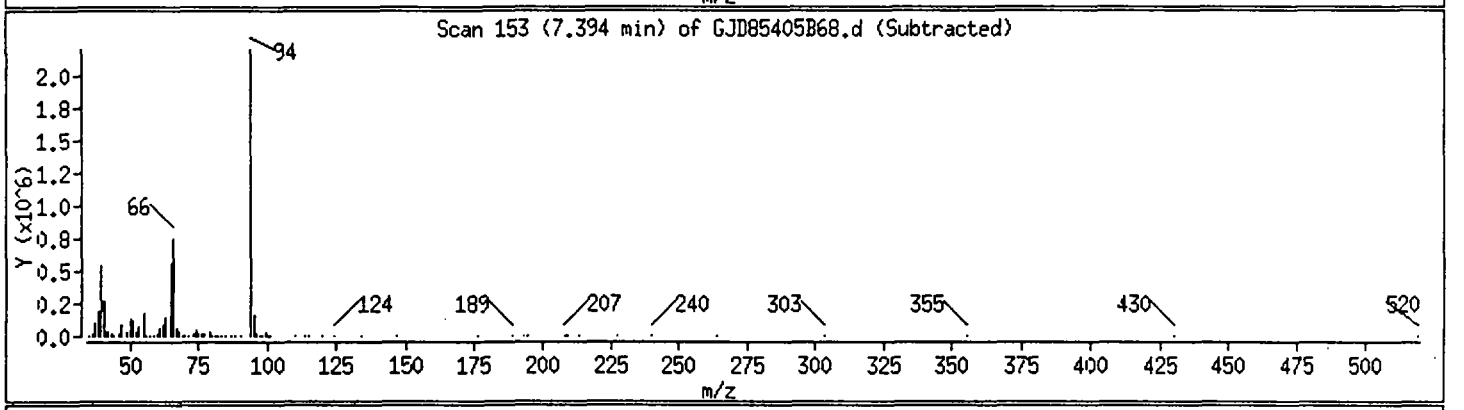
Sample Info:

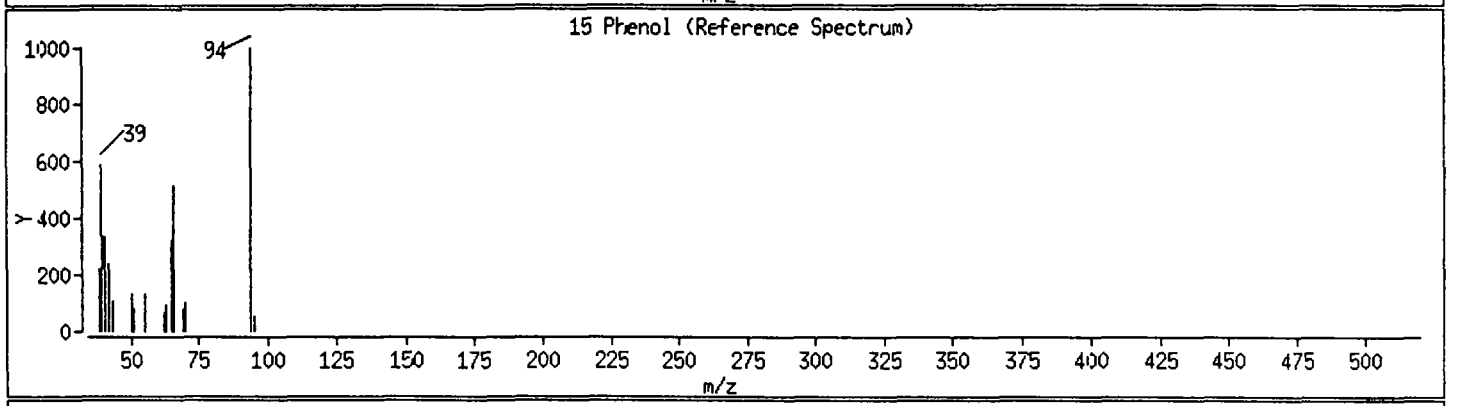
Volume Injected (uL): 2.0 | Operator: 2242

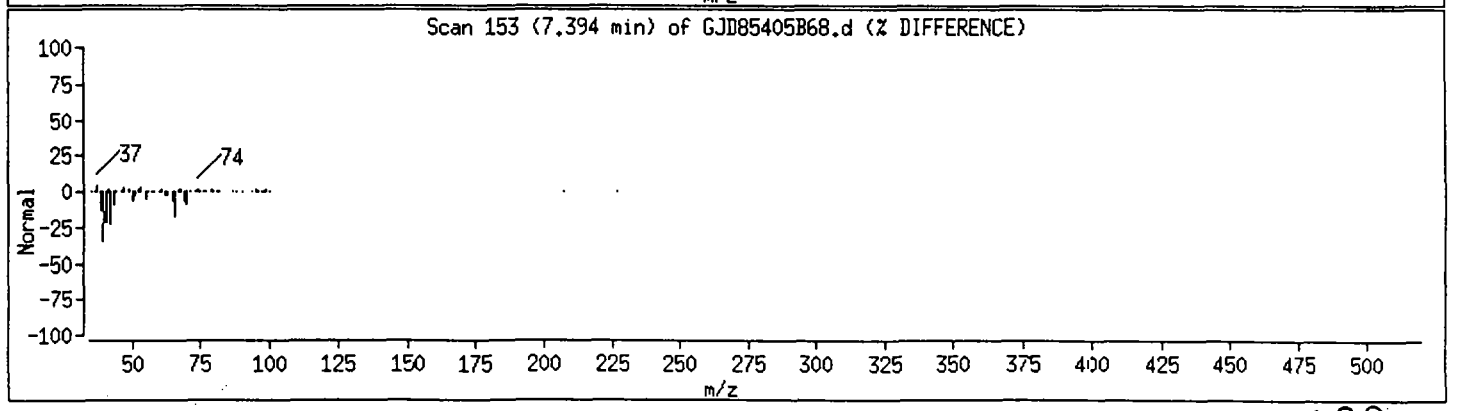
Column phase: DB-5 | Column diameter: 0.32

15 Phenol









Data File: /chem/5972hp68.i/DF980321B68.b/GJD85405B68.d

Date : 21-MAR-1998 23:55

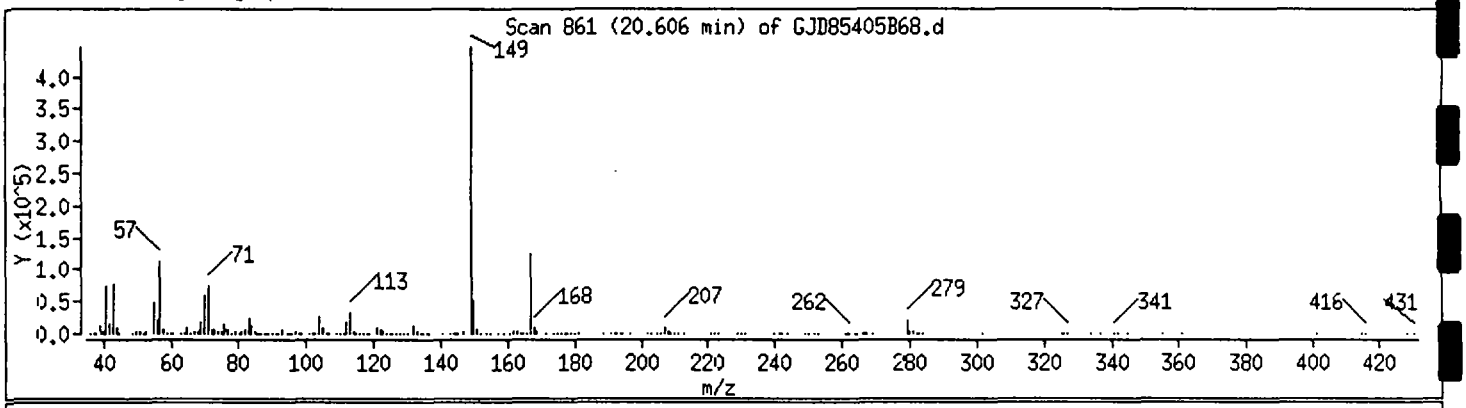
Client ID: PVC-1DL | Instrument: 5972hp68.i

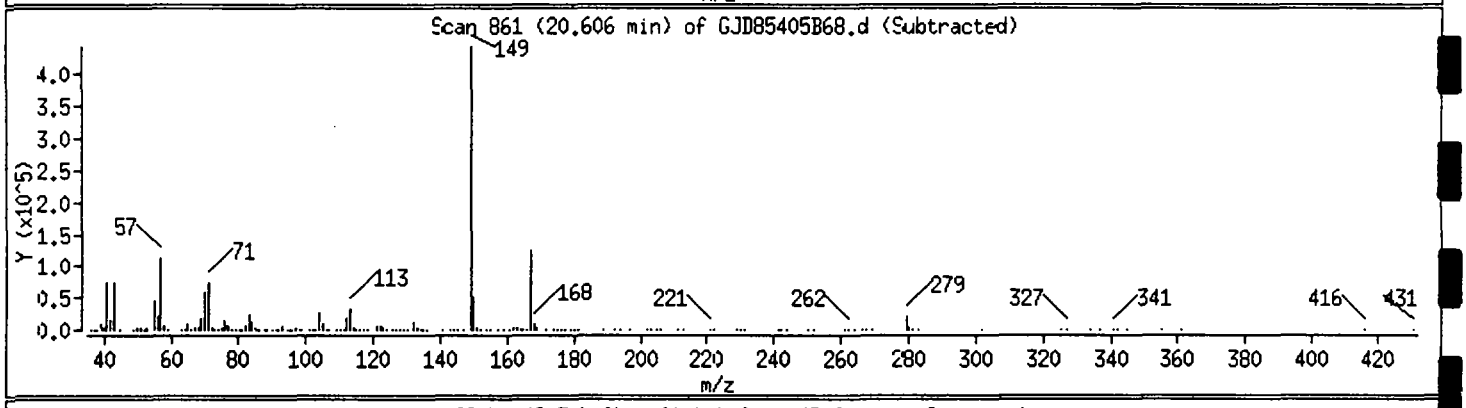
Sample Info:

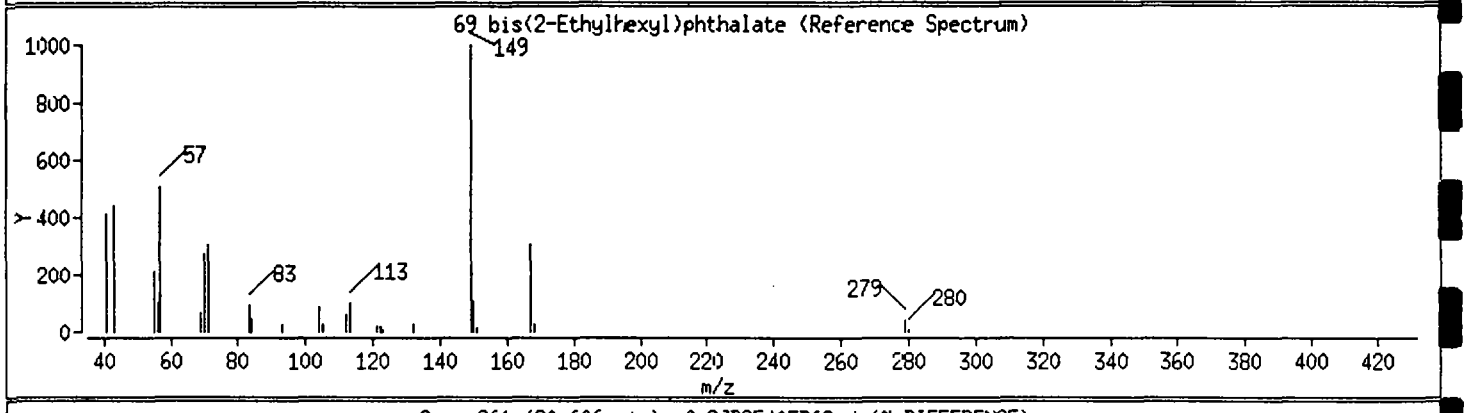
Volume Injected (uL): 2.0 | Operator: 2242

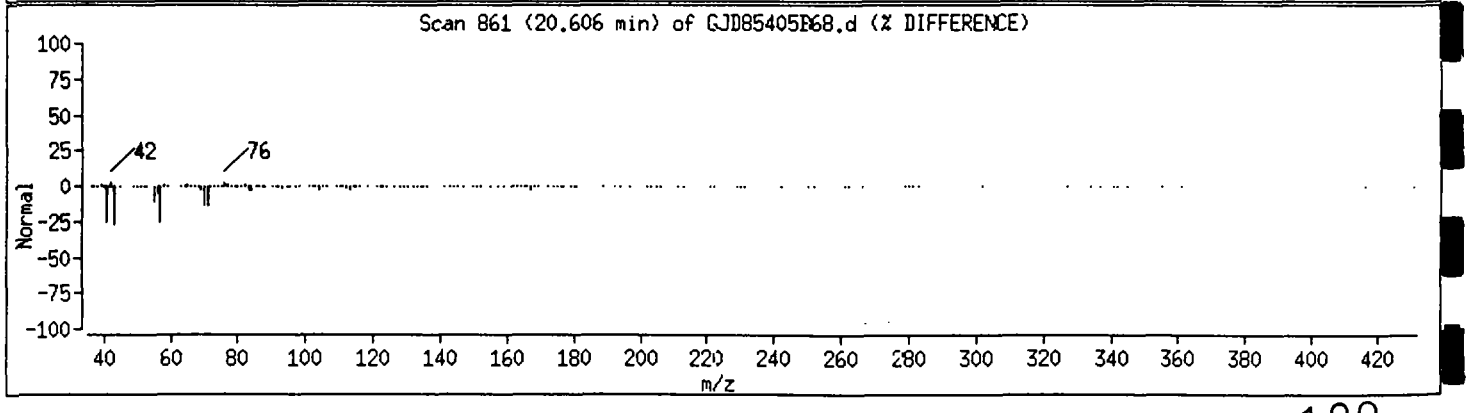
Column phase: DB-5 | Column diameter: 0.32

69 bis(2-Ethylhexyl)phthalate









Data File: /chem/5972hp68.i/DF980321B68.b/GJD85405B68.d
Report Date: 23-Mar-1998 09:55

CompuChem Environmental Corp.

Unknown Compounds Quantitation Report

Data file : /chem/5972hp68.i/DF980321B68.b/GJD85405B68.d
Lab Smp Id: 885405 Client Smp ID: PVC-1DL
Inj Date : 21-MAR-1998 23:55
Operator : 2242 Inst ID: 5972hp68.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp68.i/DF980321B68.b/OLMO3.m
Meth Date : 22-Mar-1998 07:26 bellamy
Cal Date : 21-MAR-98 21:05 Cal File: HG980321B68.d
Als bottle: 36
Dil Factor: 7.000 Target Version: 3.12
Integrator: HP RTE Compound Sublist: all.sub
Sample Matrix: WATER
Quantitative Mode : Use RF of Nearest Std
Concentration Formula: Vt/(Vo * Vi)

Name	Value	Description
Vt	500.000	Volume of final extract (uL)
Vo	500.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)

ISTD	RT	AREA	AMOUNT
* 1 1,4-Dichlorobenzene-d4	8.028	7955602	40.000
* 2 Naphthalene-d8	10.212	6028818	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(NG)	FINAL(ug/L)	QUAL	LIBRARY	LIB ENTRY	CPND #
Cyclohexenone (BC)					CAS #:		
6.890	837492	4.21	14.74	0		0	1
Ethanol, 2-(2-butoxyethoxy)-					CAS #: 112-34-5		
9.988	11632449	77.18	270.1	90	NBS75K.1	12864	2
Unknown					CAS #:		
10.342	714946	4.74	16.60	0		0	2

Data File: /chem/5972hp68.i/DF980321B68.b/GJD85405B68.d
Report Date: 23-Mar-1998 09:55

RT	AREA	CONCENTRATIONS ON-COL(NG)	FINAL(ug/L)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
10.454	725075	4.81	16.84	0		0	2
Unknown					CAS #:		
10.771	1116924	7.41	25.94	0		0	2

Data File: /chem/5972hp68.i/DF980321B68.b/GJD85405B68.d

Date : 21-MAR-1998 23:55

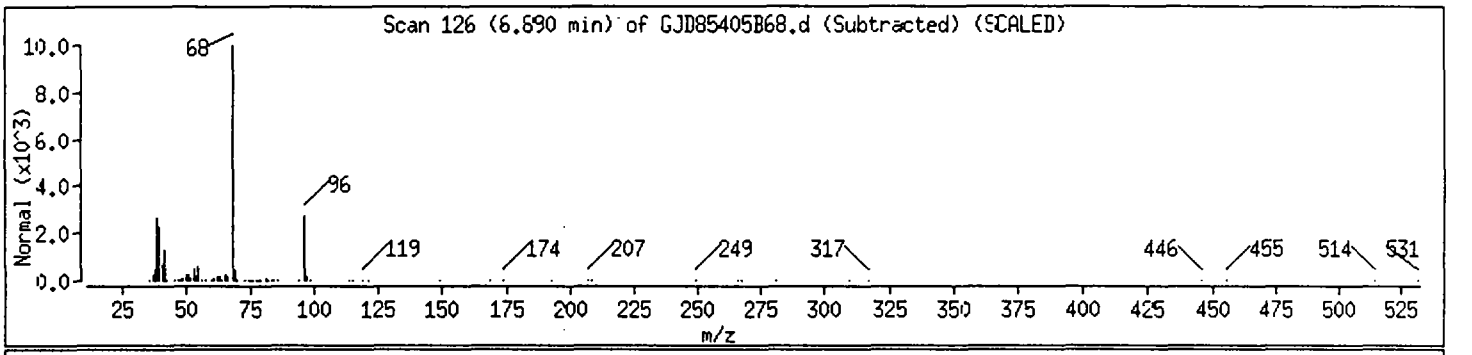
Client ID: PVC-1DL | Instrument: 5972hp68.i

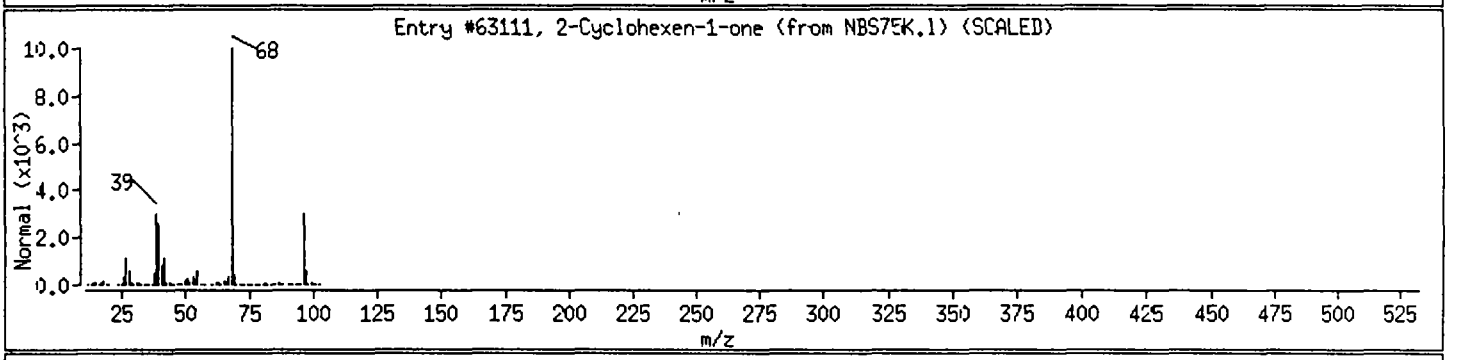
Sample Info:

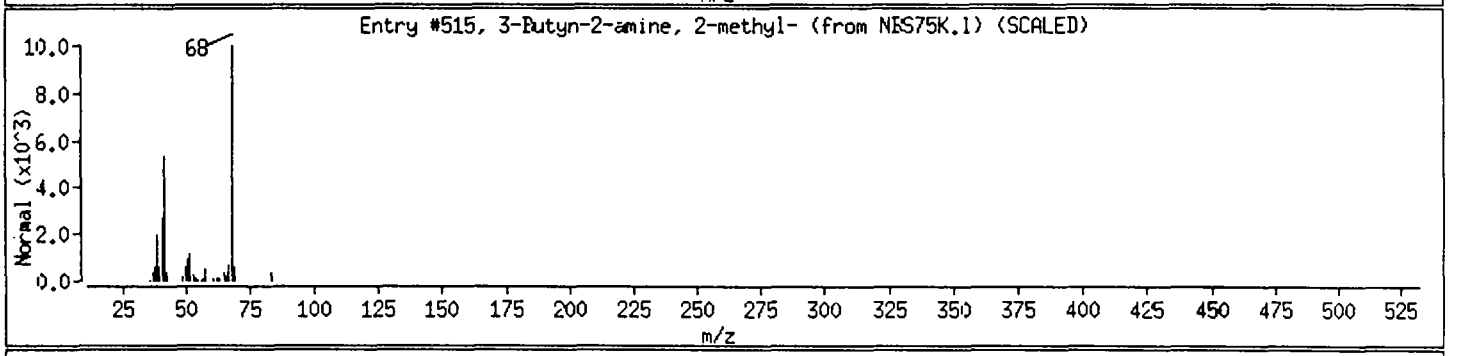
Volume Injected (uL): 2.0 | Operator: 2242

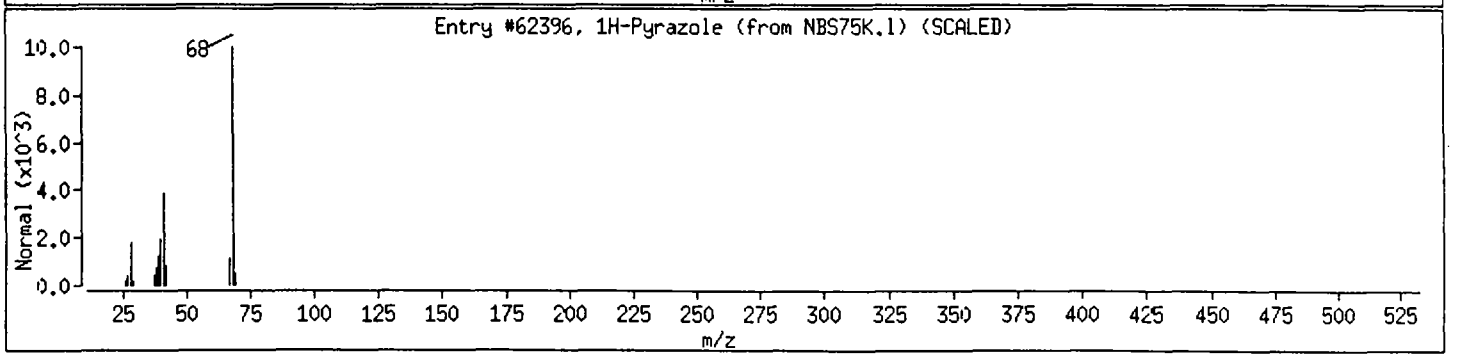
Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexenone (BC)						
2-Cyclohexen-1-one	930-68-7	NBS75K.l	63111	91	C6H8O	96
3-Butyn-2-amine, 2-methyl-	2978-58-7	NBS75K.l	515	45	C5H9N	83
1H-Pyrazole	288-13-1	NBS75K.l	62396	9	C3H4N2	68









Data File: /chem/5972hp68.i/DF980321B68.b/GJD85405B68.d

Date : 21-MAR-1998 23:55

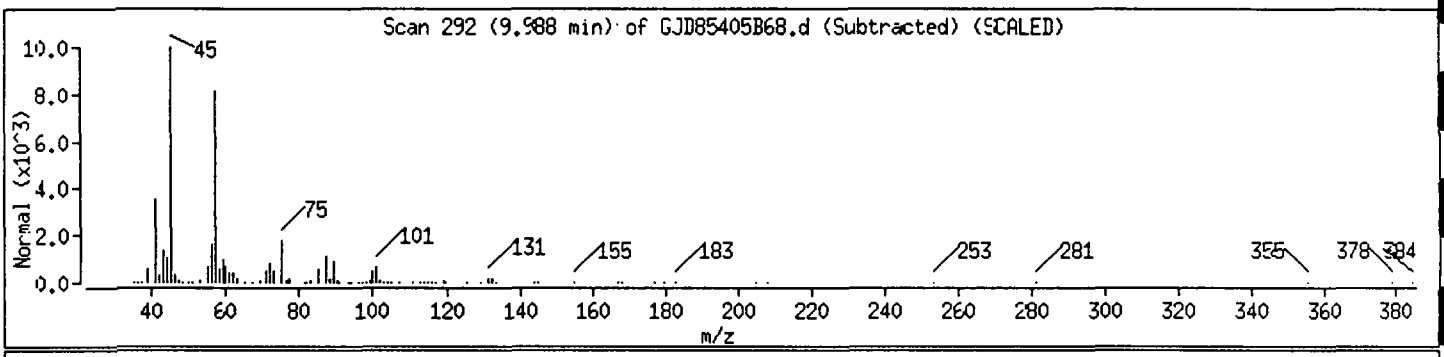
Client ID: PVC-1DL | Instrument: 5972hp68.i

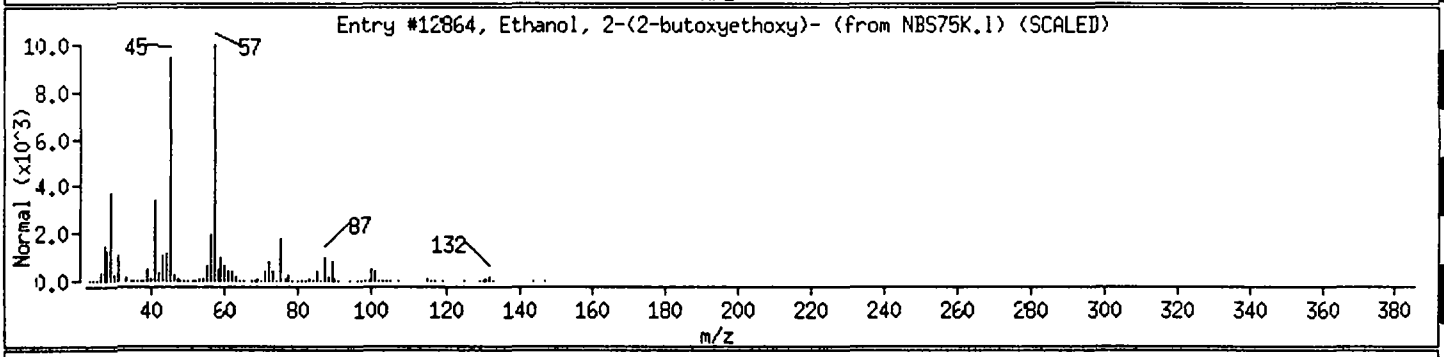
Sample Info:

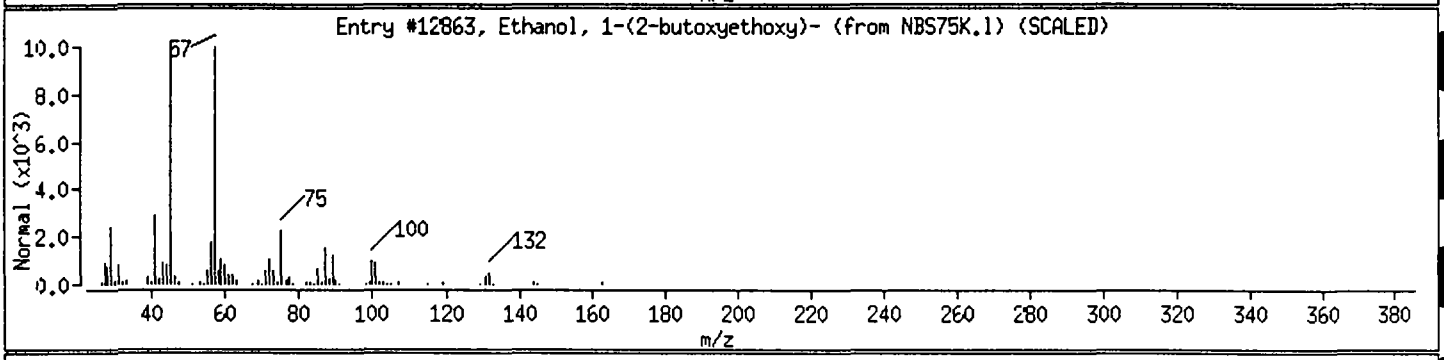
Volume Injected (uL): 2.0 | Operator: 2242

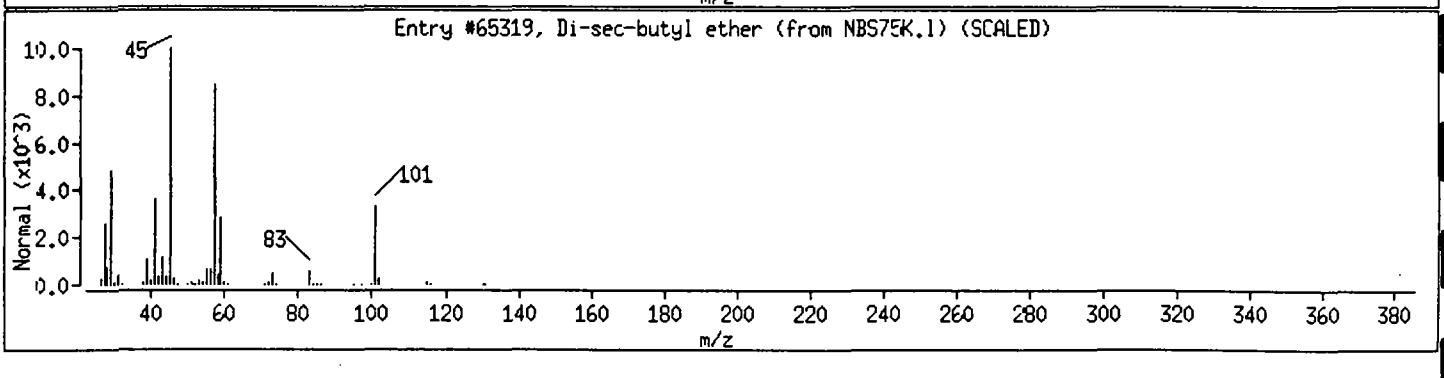
Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Ethanol, 2-(2-butoxyethoxy)-	112-34-5	NBS75K.l	12864	90	C6H1803	162
Ethanol, 1-(2-butoxyethoxy)-	54446-78-5	NBS75K.l	12863	83	C6H1803	162
Di-sec-butyl ether	6863-58-7	NBS75K.l	65319	50	C8H180	130









Data File: /chem/5972hp68.i/DF980321B68.b/GJD85405B68.d

Date : 21-MAR-1998 23:55

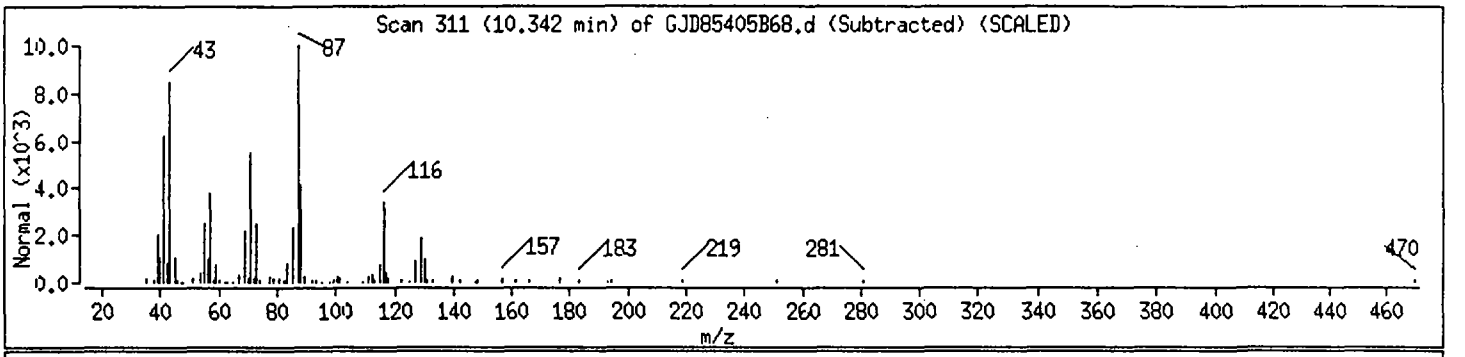
Client ID: PVC-1DL | Instrument: 5972hp68.i

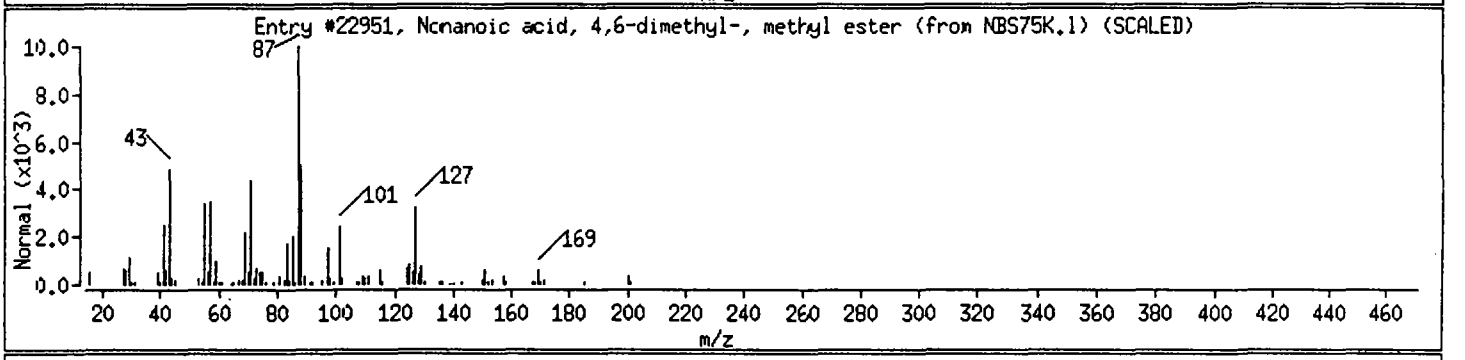
Sample Info:

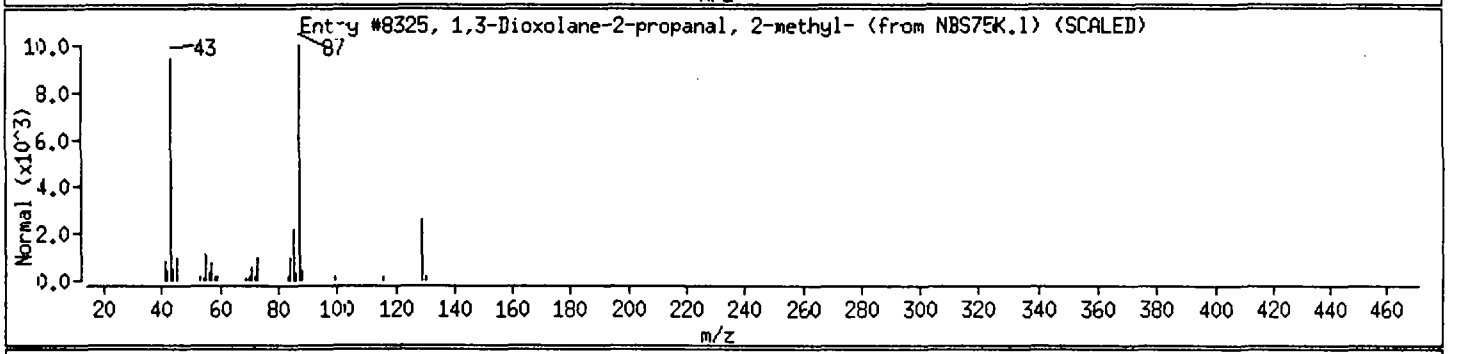
Volume Injected (uL): 2.0 | Operator: 2242

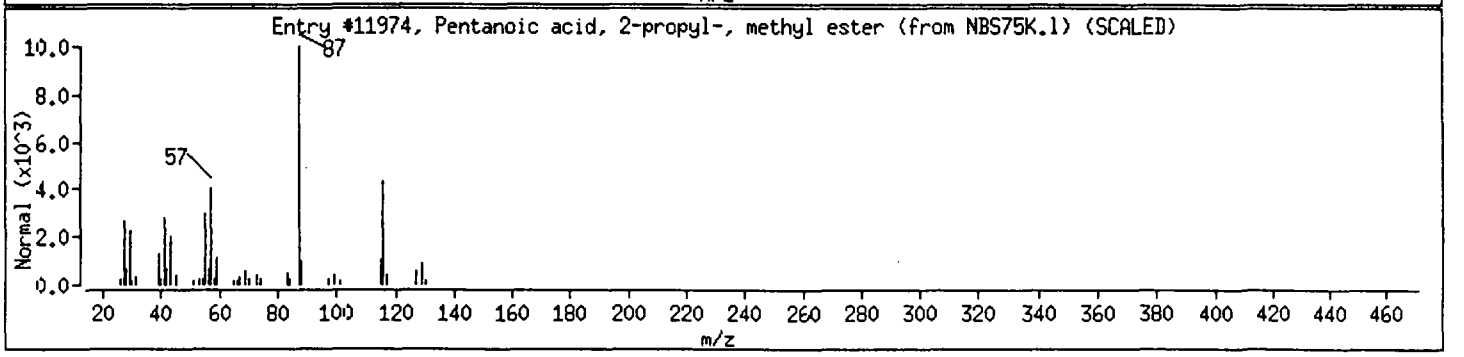
Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Nonanoic acid, 4,6-dimethyl-, methyl est	55955-66-3	NBS75K.l	22951	38	C12H2402	200
1,3-Dioxolane-2-propanal, 2-methyl-	24108-29-0	NBS75K.l	8325	38	C7H1203	144
Pentanoic acid, 2-propyl-, methyl ester	22632-59-3	NBS75K.l	11974	35	C9H1802	158









Data File: /chem/5972hp68.i/DF980321B68.b/GJD85405B68.d

Date : 21-MAR-1998 23:55

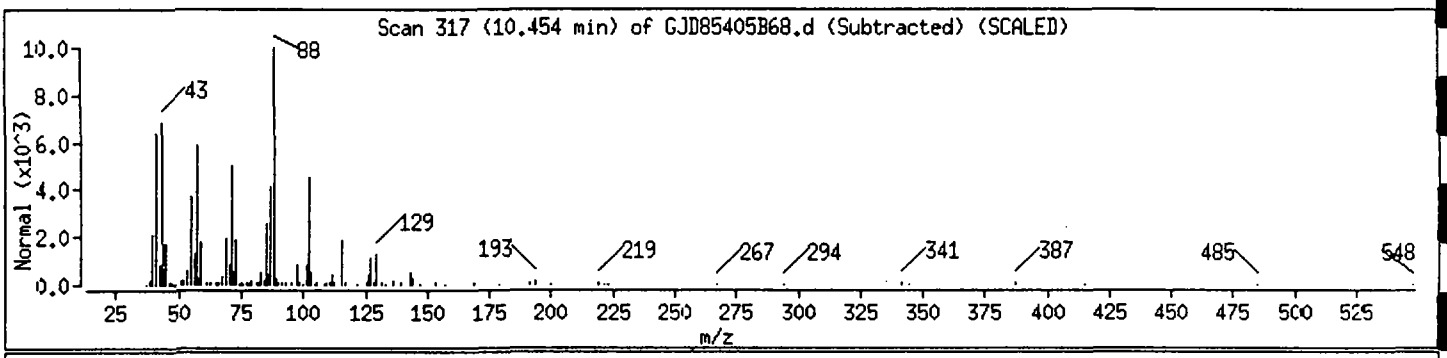
Client ID: PVC-1DL | Instrument: 5972hp68.i

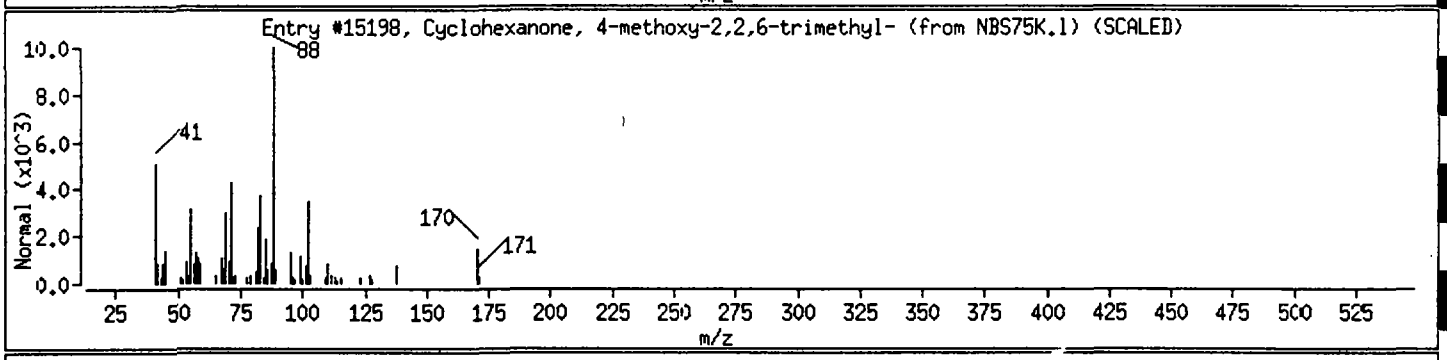
Sample Info:

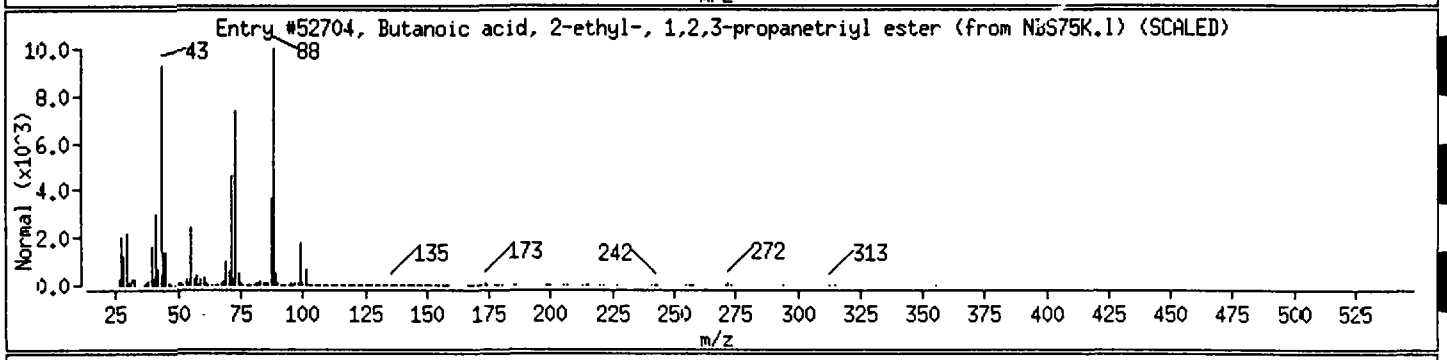
Volume Injected (uL): 2.0 | Operator: 2242

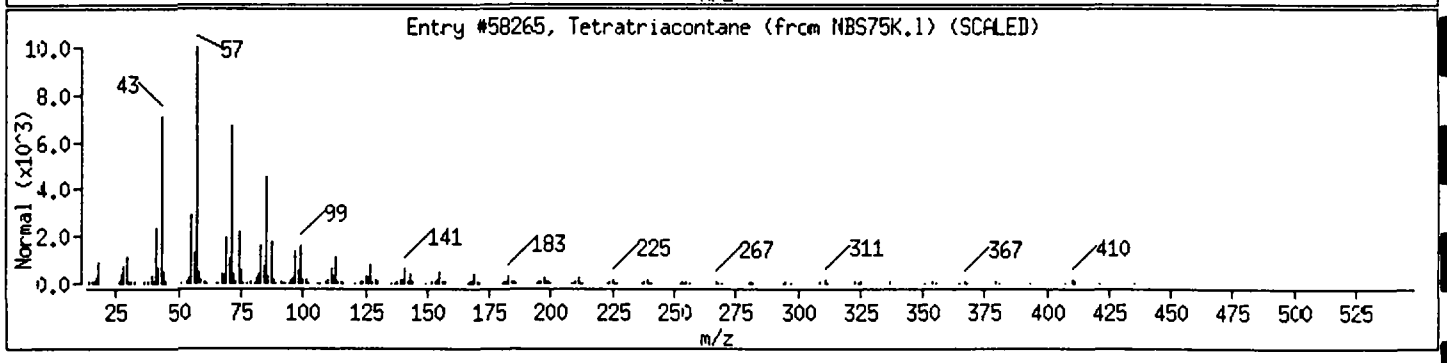
Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclohexanone, 4-methoxy-2,2,6-trimethyl	17429-03-7	NBS75K.l	15198	40	C10H18O2	170
Butanoic acid, 2-ethyl-, 1,2,3-propanetr	56554-54-2	NBS75K.l	52704	38	C21H38O6	386
Tetratriacontane	14167-59-0	NBS75K.l	58265	10	C34H70	479









Data File: /chem/5972hp68.i/DF980321B68.b/GJD85405B68.d

Date : 21-MAR-1998 23:55

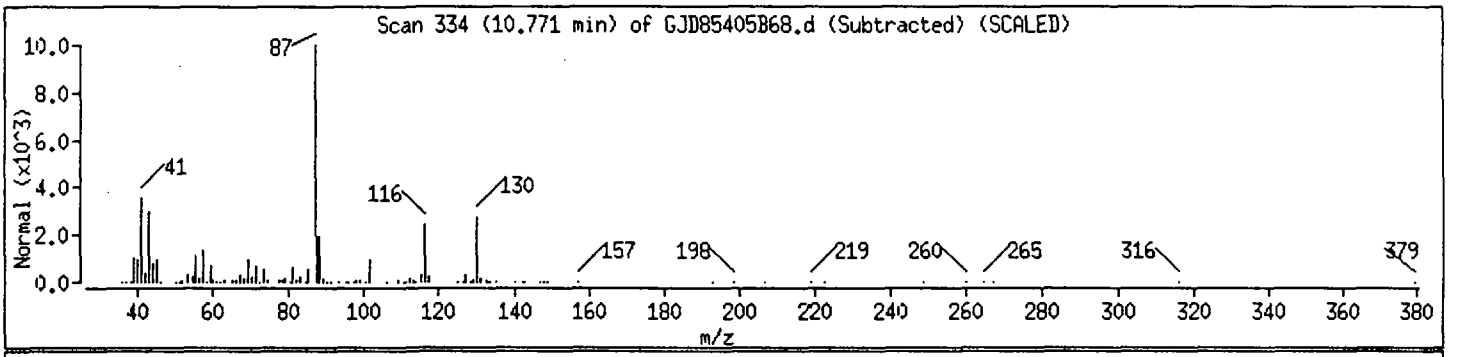
Client ID: PVC-1DL | Instrument: 5972hp68.i

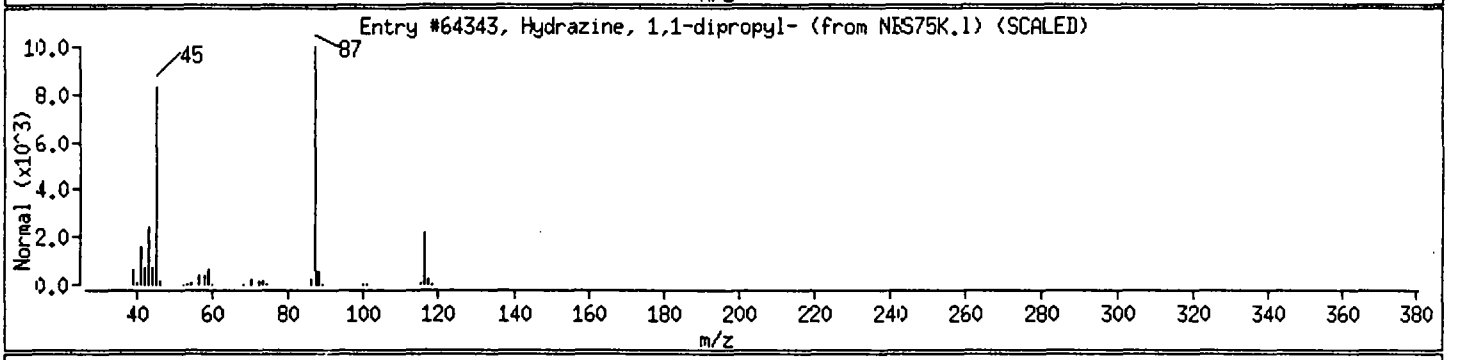
Sample Info:

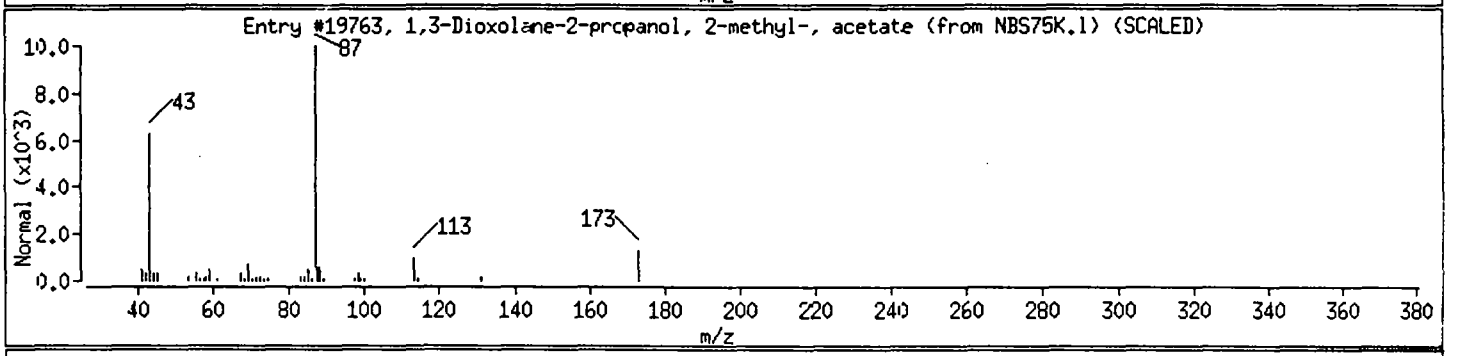
Volume Injected (uL): 2.0 | Operator: 2242

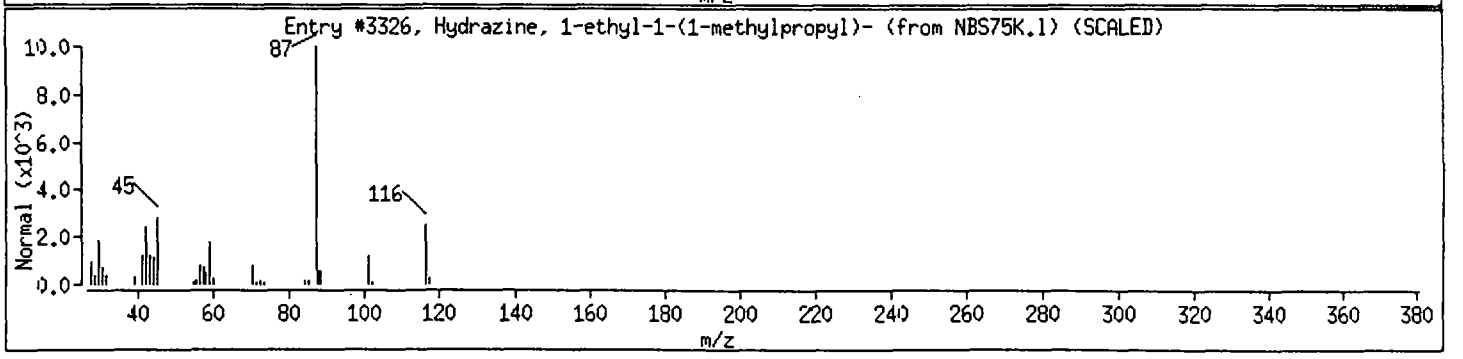
Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Hydrazine, 1,1-dipropyl-	4986-50-9	NBS75K.l	64343	47	C6H16N2	116
1,3-Dioxolane-2-propanol, 2-methyl-, ace	29021-95-2	NBS75K.l	19763	43	C9H16O4	188
Hydrazine, 1-ethyl-1-(1-methylpropyl)-	20325-97-7	NBS75K.l	3326	40	C6H16N2	116









LAB INSTRUCTIONS PPS: _____

RECEIPT DATE: CASE: 33472-MNTT1 DUE DATE:

SEMI-VOLATILE
GC/MS WORKSHEET COMPUCHEM: 885405

J[ ] J3[ ] D[ ] (X)
J2[ ] J4[ ] 2D[ ] (X)

GC/MS; TCL SV; WATER; SOW OLM03.2

Sample Prep Code	-1015
Instrument Code	463
Compound List	805
Surrogate Std	431

SAMPLE DATE: Report Type: A

==========

SAMPLE ID: PVC-1

==========

GC/MS ANALYSIS

Volume Used:	1IN 7	uL
Internal Standard Volume Added	5	uL
Mixed Sample Volume Injected	2	uL
Date Sample Bottle Extracted	3/19/98	
DFTPP Filename	DF980321B68	
Standard Filename	HG980321B68	
Sample Filename	GJD85405B68	

ANALYST(S): Injection: 224L Workup: 224L

==========

GC/MS DATA REVIEW

CONDITION CODE: DA

Disposition:
[✓] Complete
[ ] Re-injection required
[ ] Re-extraction required
[ ] Dilute (X)
[ ] Re-inject Neat

Extraneous Peak Search Result:

Number of Peaks Found: 5

Number of Hits: 2

Number of Surrogate Outliers: Ø

Quality Assurance Notice(s)

No. of Notices Required: Ø

COMMENTS:

GC/MS REVIEW [signature] DATE 3/23/98 AUDITOR _____ DATE __/__/__

==========

REPORT INTEGRATION

Final Reportable Package(s): GJD85405B68 / GHD85405B68

_____ / _____

==========

S3/17 R3/18 D3/24 MT 3/24

3-20-1

Batch: 1015-980319-0712 COMPUCHEM ENVIRONMENTAL CORP. Date Extracted/Posted: 3/19/98

Assigned to Carrie/Jeremy EXTRACTION WORKSHEET

Emp.ID number: 2330/2331 EPA CLP SOW

Semi Volatile Waters EPA CLP SOW Continuous Extraction Queue #51

CASE/SDG: 33234.0092W 33472.MWTT Proc: -1015 Manual counter: ~~934~~ 1344/948

CONTRACT: _____ DUE DATE: 03/24/98

Auto Counter 1343 / 788

Original Entered for SS's 885405

Initials / Date J.S. / 3/19/98

	CompuChem Sample Number	Client ID#		Bottle #	Sample Volume (mL)	Final Volume (mL)	Initial PH	Adj. PH ACID	Final Volume	Comments
1	885413	SLCSLD	03/19	D.I.	1000	1.0	7.0	1.6		
2	885412	SBLKLD	03/19	D.I.	1000	1.0	7.0	1.6		
3	885357	BS	03/18	D.I.	1000	1.0	7.0	1.6		1343/787 PPS585
4	885356	U4G00907	03/18	7 of 8	1000	1.0	6.5	1.6		
5	885358	BSD	03/18	D.I.	1000	1.0	7.0	1.6		
6	885405 *	PVC-1	03/18	2 of 2	500	.5	7.0	1.6		USE 885405 FOR 885402 & 885403.
7	885401 *	POLY-1	03/18	1 of 1	500	.5	7.0	1.6		
8	885402 *	SS	03/18	2 of 2	500	.5	7.0	1.6		1343/788
9	885403 *	SS	03/18	1 of 2	500	.5	7.0	1.6		
10	885404 *	BLANK-1	03/18	1 of 1	500	.5	7.0	1.6		

*USE 500ml of sample volume + add 0.25ml #431. Final volume=0.5ml Add 0.25ml #8000 to SS's.

	ID#	AMT	LOT#
Surrogate	431	0.5 mL	46796
Spike	8000	0.5 mL	47062

Final Volume Verified: _____

Reviewed By : _____

	CompuChem Samp#	Client ID#	QC Type
QC:			

POSTED 2331

CM added

Verif. Surr/Spike Addition:

Initials J.S. / Date 3/19/98

Extracts relinq. by: _____ Date: _____ Extracts rec'd by: _____ Date: _____

Extracts relinq. by: _____ Date: _____ Extracts rec'd by: _____ Date: _____

1015-980319-0712, Case: OPEN Case size: 33 Nbr other batch: 0 (Client Specific QC)

Methanol
Sodium Sulfate
$MeCl_2$ B0908

3. Standards Data

a. Initial Calibration Data (Form VI SV-1, SV-2)

b. Continuing Calibration Data (Form VII SV-1, SV-2)

a. Initial Calibration Data (Form VI SV-1, SV-2)

If more than one instrument is used, forms shall be arranged in order by instrument. Multiple initial calibrations from the same instrument shall be in chronological order. Data shall be included for initial calibrations pertaining to samples in the SDG, regardless of when it was performed and for which SDG.

(1) Reconstructed Ion Chromatograms and quantitation reports for the initial (five-point) calibration. Spectra not required.

(2) EICPs displaying each manual integration.

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Instrument ID: 5972HP68 Calibration Date(s): 03/19/98 03/20/98

Calibration Time(s): 2124 0210

LAB FILE ID: RRF20 =HK980320C68 RRF50 =HG980319B68
RRF80 =HL980320C68 RRF120=HJ980319B68 RRF160=HH980319B68

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Phenol *	1.450	1.302	1.165	1.216	1.112	1.249	10.6*
bis(2-Chloroethyl)ether *	1.183	1.088	1.011	0.965	0.945	1.038	9.4*
2-Chlorophenol *	1.442	1.299	1.240	1.172	1.137	1.258	9.6*
1,3-Dichlorobenzene *	1.532	1.374	1.354	1.220	1.264	1.349	8.9*
1,4-Dichlorobenzene *	1.455	1.358	1.331	1.223	1.228	1.319	7.3*
1,2-Dichlorobenzene *	1.388	1.258	1.212	1.139	1.150	1.229	8.2*
2-Methylphenol *	1.185	1.113	0.970	1.100	0.933	1.060	9.9*
2,2'-oxybis(1-Chloropropane)	1.732	1.627	1.398	1.437	1.398	1.518	10.0
4-Methylphenol *	1.271	1.201	1.031	1.134	0.997	1.127	10.2*
N-Nitroso-di-n-propylamine *	0.801	0.688	0.567	0.563	0.535	0.631	17.7*
Hexachloroethane *	0.652	0.589	0.574	0.526	0.543	0.577	8.5*
Nitrobenzene *	0.300	0.295	0.264	0.260	0.268	0.277	6.8*
Isophorone *	0.588	0.554	0.503	0.521	0.486	0.530	7.7*
2-Nitrophenol *	0.212	0.213	0.200	0.210	0.197	0.206	3.6*
2,4-Dimethylphenol *	0.320	0.294	0.276	0.270	0.268	0.286	7.6*
bis(2-Chloroethoxy)methane *	0.396	0.379	0.349	0.335	0.334	0.359	7.8*
2,4-Dichlorophenol *	0.282	0.266	0.258	0.253	0.247	0.261	5.3*
1,2,4-Trichlorobenzene *	0.297	0.279	0.286	0.256	0.267	0.277	5.8*
Naphthalene *	1.015	0.938	0.908	0.845	0.854	0.912	7.6*
4-Chloroaniline	0.268	0.199	0.164	0.142	0.067	0.168	44.0
Hexachlorobutadiene	0.185	0.177	0.184	0.164	0.178	0.178	4.6
4-Chloro-3-methylphenol *	0.281	0.270	0.247	0.275	0.232	0.261	7.9*
2-Methylnaphthalene *	0.692	0.630	0.605	0.615	0.578	0.624	6.8*
Hexachlorocyclopentadiene	0.271	0.354	0.349	0.338	0.392	0.341	12.9
2,4,6-Trichlorophenol *	0.372	0.421	0.370	0.470	0.414	0.409	10.0*
2,4,5-Trichlorophenol *	0.387	0.358	0.374	0.278	0.366	0.353	12.2*
2-Chloronaphthalene *	1.110	1.109	1.061	0.995	1.081	1.071	4.4*
2-Nitroaniline	0.307	0.305	0.276	0.288	0.278	0.291	5.0
Dimethylphthalate	1.303	1.202	1.090	1.198	1.170	1.193	6.4
Acenaphthylene *	1.836	1.746	1.679	1.582	1.654	1.699	5.7*
2,6-Dinitrotoluene *	0.322	0.290	0.303	0.321	0.293	0.306	5.0*
3-Nitroaniline	0.359	0.312	0.316	0.282	0.246	0.303	13.9
Acenaphthene *	1.108	1.042	1.044	0.983	1.016	1.039	4.4*
2,4-Dinitrophenol	0.069	0.088	0.092	0.163	0.123	0.107	34.3
4-Nitrophenol	0.139	0.113	0.117	0.161	0.142	0.134	14.7
Dibenzofuran *	1.534	1.451	1.420	1.412	1.399	1.443	3.8*
2,4-Dinitrotoluene *	0.409	0.362	0.379	0.384	0.340	0.375	6.8*

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

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Instrument ID: 5972HP68 Calibration Date(s): 03/19/98 03/20/98

Calibration Time(s): 2124 0210

LAB FILE ID: RRF20 =HK980320C68 RRF50 =HG980319B68
RRF80 =HL980320C68 RRF120=HJ980319B68 RRF160=HH980319B68

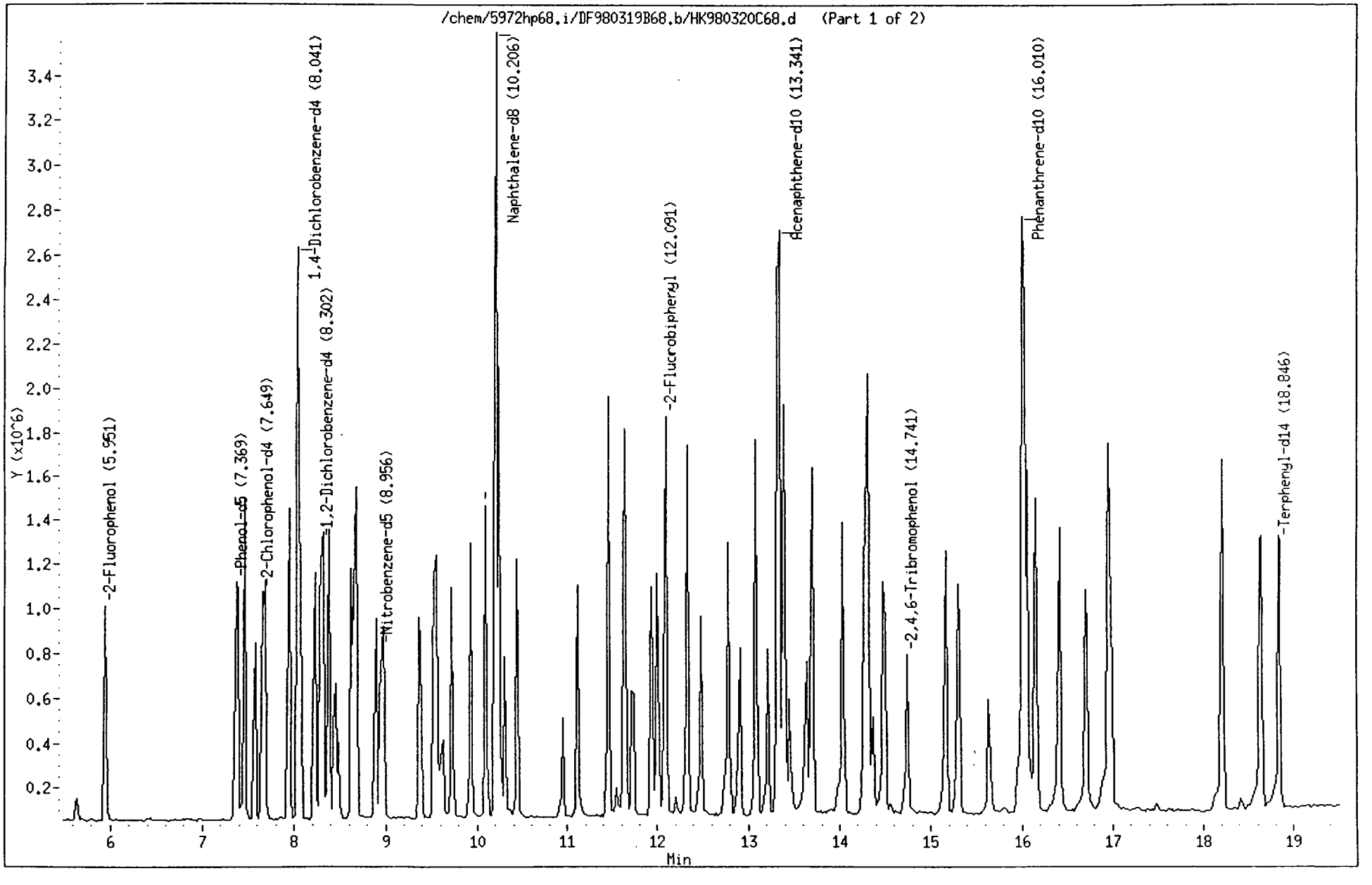
COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Diethylphthalate	1.333	1.106	1.117	0.953	1.204	1.143	12.2
4-Chlorophenyl-phenylether *	0.588	0.554	0.564	0.462	0.501	0.534	9.6*
Fluorene *	1.206	1.124	1.116	1.124	1.112	1.136	3.5*
4-Nitroaniline	0.310	0.250	0.272	0.283	0.259	0.275	8.5
4,6-Dinitro-2-methylphenol	0.102	0.118	0.135	0.143	0.145	0.129	14.3
N-nitrosodiphenylamine (1)	0.554	0.564	0.503	0.454	0.488	0.513	8.9
4-Bromophenyl-phenylether *	0.269	0.258	0.277	0.243	0.261	0.262	4.8*
Hexachlorobenzene *	0.296	0.317	0.314	0.222	0.328	0.295	14.5*
Pentachlorophenol *	0.117	0.126	0.132	0.163	0.180	0.144	18.4*
Phenanthrene *	0.835	0.893	0.796	1.172	0.846	0.908	16.7*
Anthracene *	0.990	0.999	0.972	0.759	0.972	0.938	10.8*
Carbazole	0.886	0.734	0.757	0.753	0.808	0.788	7.8
Di-n-butylphthalate	1.448	1.313	1.448	1.280	1.588	1.415	8.7
Fluoranthene *	1.013	0.880	1.036	0.793	1.046	0.954	11.7*
Pyrene *	1.472	1.433	1.225	1.392	1.132	1.331	10.9*
Butylbenzylphthalate	0.886	0.830	0.779	0.789	0.679	0.793	9.6
3,3'-Dichlorobenzidine	0.359	0.248	0.249	0.214	0.185	0.251	26.2
Benzo(a)anthracene *	1.402	1.400	1.051	1.403	1.260	1.303	11.8*
Chrysene *	1.112	1.085	1.034	0.974	1.110	1.063	5.5*
bis(2-Ethylhexyl)phthalate	1.220	1.107	1.006	0.844	0.932	1.022	14.4
Di-n-octylphthalate	2.019	1.655	1.459	1.392	1.446	1.594	16.1
Benzo(b)fluoranthene *	1.295	1.194	1.398	1.348	1.145	1.276	8.2*
Benzo(k)fluoranthene *	1.296	1.210	1.020	1.088	1.033	1.129	10.6*
Benzo(a)pyrene *	0.944	0.923	0.958	0.954	0.897	0.935	2.7*
Indeno(1,2,3-cd)pyrene *	1.017	1.092	1.100	1.062	1.050	1.064	3.1*
Dibenzo(a,h)anthracene *	0.823	0.882	0.896	0.901	0.874	0.875	3.6*
Benzo(g,h,i)perylene *	0.874	0.945	0.954	0.929	0.903	0.921	3.5*
Nitrobenzene-d5	0.302	0.305	0.273	0.293	0.286	0.292	4.4*
2-Fluorobiphenyl *	1.233	1.226	1.168	1.094	1.232	1.191	5.1*
Terphenyl-d14 *	1.117	1.057	0.917	1.085	0.856	1.006	11.3*
Phenol-d5 *	1.514	1.414	1.272	1.332	1.193	1.345	9.3*
2-Fluorophenol *	1.285	1.177	1.198	1.052	1.110	1.164	7.6*
2,4,6-Tribromophenol	0.168	0.178	0.180	0.161	0.193	0.176	6.8
2-Chlorophenol-d4 *	1.447	1.331	1.265	1.237	1.164	1.289	8.3*
1,2-Dichlorobenzene-d4 *	0.935	0.866	0.853	0.828	0.819	0.860	5.3*

(1) Cannot be seperated from Diphenylamine
* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

Data File: /chem/5972hp68.i/DF980319B68.b/HK980320C68.d
Date : 20-MAR-1998 00:21
Client ID: SSTD020W6
Sample Info:
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32

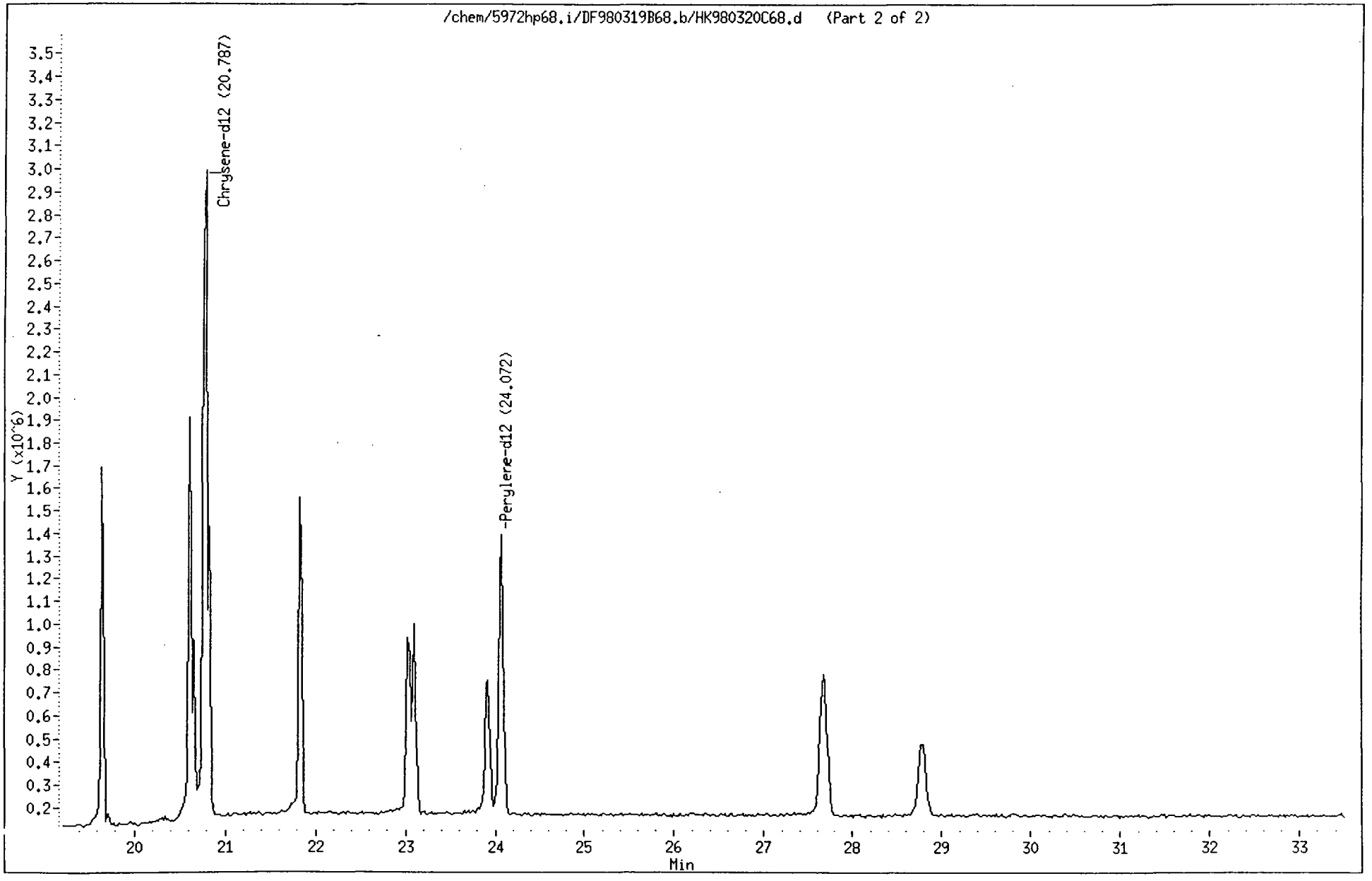


Data File: /chem/5972hp68.i/DF980319B68.b/HK980320C68.d
Date : 20-MAR-1998 00:21
Client ID: SSTD020W6
Sample Info:
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32

204



Data File: /chem/5972hp68.i/DF980319B68.b/HK980320C68.d
Report Date: 20-Mar-1998 14:19

CompuChem Environmental Corp.

OLM03.0 + REVISIONS QUANT AND RATIO REPORT

Data file : /chem/5972hp68.i/DF980319B68.b/HK980320C68.d
Lab Smp Id: SSTD020W6 Client Smp ID: SSTD020W6
Inj Date : 20-MAR-1998 00:21
Operator : 2242 Inst ID: 5972hp68.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp68.i/DF980319B68.b/OLMO3.m
Meth Date : 20-Mar-1998 14:19 harris Quant Type: ISTD
Cal Date : 19-MAR-1998 21:24 Cal File: HG980319B68.d
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.12
Concentration Formula: Vt/(Vo * Vi)

Name	Value	Description
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152.00	8.041	8.041	(1.000)	801304	40.00		
* 2 Naphthalene-d8	136.00	10.206	10.206	(1.000)	3094288	40.00		8219
* 3 Acenaphthene-d10	164.00	13.341	13.341	(1.000)	1711625	40.00		8915
* 4 Phenanthrene-d10	188.00	16.010	16.028	(1.000)	2686196	40.00		9449
* 5 Chrysene-d12	240.00	20.787	20.787	(1.000)	1886389	40.00		9539
* 6 Perylene-d12	264.00	24.072	24.071	(1.000)	1738790	40.00		8461
$ 7 2-Fluorophenol	112.00	5.951	5.951	(0.740)	514705	20.00	22.22	
$ 8 Phenol-d5	99.00	7.369	7.369	(0.916)	606742	20.00	22.22	8026
$ 9 2-Chlorophenol-d4	132.00	7.649	7.668	(0.951)	579608	20.00	22.35	9087
$ 10 1,2-Dichlorobenzene-d4	152.00	8.302	8.302	(1.032)	374536	20.00	21.69	
$ 11 Nitrobenzene-d5	82.00	8.956	8.955	(0.877)	467746	20.00	20.40	8306
$ 12 2-Fluorobiphenyl	172.00	12.091	12.091	(0.906)	1055544	20.00	20.62	8699
$ 13 2,4,6-Tribromophenol	329.60	14.741	14.741	(0.921)	226390	20.00	19.27	(a)
$ 14 Terphenyl-d14	244.00	18.846	18.846	(0.907)	1053240	20.00	21.71	7842
15 Phenol	94.00	7.388	7.388	(0.919)	581036	20.00	22.84	
16 bis(2-Chloroethyl)ether	93.00	7.575	7.574	(0.942)	474040	20.00	22.64	8717
17 2-Chlorophenol	128.00	7.687	7.686	(0.956)	577929	20.00	22.85	7866
18 1,3-Dichlorobenzene	146.00	7.948	7.948	(0.988)	613860	20.00	22.74	
19 1,4-Dichlorobenzene	146.00	8.060	8.078	(1.002)	582970	20.00	22.11	
20 1,2-Dichlorobenzene	146.00	8.321	8.321	(1.035)	556184	20.00	22.50	
21 2-Methylphenol	108.00	8.377	8.396	(1.042)	474832	20.00	21.89	

Data File: /chem/5972hp68.i/DF980319B68.b/HK980320C68.d
Report Date: 20-Mar-1998 14:19

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
22 2,2'-oxybis(1-Chloropropane)	45.00	8.452	8.452	(1.051)	693820	20.00	22.37	
23 4-Methylphenol	108.00	8.620	8.638	(1.072)	509383	20.00	22.09	
24 N-Nitroso-di-n-propylamine	70.00	8.657	8.676	(1.077)	320803	20.00	24.76	8515
25 Hexachloroethane	117.00	8.900	8.899	(1.107)	261229	20.00	22.58	7810
26 Nitrobenzene	77.00	8.974	8.993	(0.879)	465007	20.00	21.39	8583
27 Isophorone	82.00	9.366	9.385	(0.918)	909908	20.00	21.89	9049
28 2-Nitrophenol	139.00	9.534	9.534	(0.934)	327939	20.00	20.39	0(M)
29 2,4-Dimethylphenol	107.00	9.553	9.553	(0.936)	495231	20.00	22.22	8064
30 bis(2-Chloroethoxy)methane	93.00	9.721	9.721	(0.952)	613203	20.00	21.95	9078
31 2,4-Dichlorophenol	162.00	9.926	9.926	(0.973)	437074	20.00	21.55	
32 1,2,4-Trichlorobenzene	180.00	10.094	10.094	(0.989)	458936	20.00	21.60	8325
33 Naphthalene	128.00	10.243	10.243	(1.004)	1569845	20.00	22.23	8352
34 4-Chloroaniline	127.00	10.299	10.299	(1.009)	414972	20.00	31.71	8158
35 Hexachlorobutadiene	225.00	10.430	10.448	(1.022)	286476	20.00	21.04	
36 4-Chloro-3-methylphenol	107.00	11.120	11.120	(1.090)	434354	20.00	21.23	7855
37 2-Methylnaphthalene	142.00	11.456	11.456	(1.123)	1070259	20.00	22.02	
38 Hexachlorocyclopentadiene	237.00	11.736	11.736	(0.880)	231910	20.00	16.00	0(aM)
39 2,4,6-Trichlorophenol	196.00	11.941	11.941	(0.895)	318821	20.00	17.76	(a)
40 2,4,5-Trichlorophenol	196.00	11.997	11.997	(0.899)	331130	20.00	22.29	(a)
41 2-Chloronaphthalene	162.00	12.333	12.333	(0.924)	949632	20.00	20.67	8609
42 2-Nitroaniline	65.00	12.483	12.483	(0.936)	262857	20.00	20.84	8537(a)
43 Dimethylphthalate	163.00	12.781	12.781	(0.958)	1114936	20.00	21.39	8747
44 2,6-Dinitrotoluene	165.00	12.912	12.912	(0.968)	275908	20.00	21.02	8212
45 Acenaphthylene	152.00	13.080	13.080	(0.980)	1571345	20.00	21.54	8744
46 3-Nitroaniline	138.00	13.210	13.229	(0.990)	307238	20.00	23.94	8447(a)
47 Acenaphthene	153.00	13.397	13.397	(1.004)	947851	20.00	21.36	8920
48 2,4-Dinitrophenol	184.00	13.397	13.416	(1.004)	59314	20.00	12.52	(a)
49 4-Nitrophenol	109.00	13.453	13.472	(1.008)	119154	20.00	20.04	(a)
50 2,4-Dinitrotoluene	165.00	13.640	13.640	(1.022)	350315	20.00	21.90	0(M)
51 Dibenzofuran	168.00	13.696	13.696	(1.027)	1312927	20.00	21.18	8705
52 Diethylphthalate	149.00	14.032	14.031	(1.052)	1141057	20.00	23.20	
53 4-Chlorophenyl-phenylether	204.00	14.293	14.293	(1.071)	503714	20.00	22.36	8119
54 Fluorene	166.00	14.312	14.311	(1.073)	1032222	20.00	21.13	9254
55 4-Nitroaniline	138.00	14.312	14.311	(1.073)	265643	20.00	22.51	(a)
56 4,6-Dinitro-2-methylphenol	198.00	14.367	14.367	(0.897)	136606	20.00	16.04	(a)
57 N-nitrosodiphenylamine	169.00	14.479	14.498	(0.904)	744193	20.00	21.52	8427
58 4-Bromophenyl-phenylether	248.00	15.170	15.170	(0.948)	360893	20.00	20.84	7857
59 Hexachlorobenzene	283.90	15.319	15.319	(0.957)	397194	20.00	20.34	
60 Pentachlorophenol	266.00	15.655	15.655	(0.978)	157781	20.00	16.04	7309(a)
61 Phenanthrene	178.00	16.066	16.066	(1.003)	1120988	20.00	17.82	(a)
62 Anthracene	178.00	16.159	16.159	(1.009)	1330356	20.00	21.30	
63 Carbazole	167.00	16.420	16.420	(1.026)	1189849	20.00	22.28	9253
64 Di-n-butylphthalate	149.00	16.961	16.961	(1.059)	1944893	20.00	20.58	
65 Fluoranthene	202.00	18.212	18.212	(1.138)	1361225	20.00	21.72	
66 Pyrene	202.00	18.641	18.641	(0.897)	1388268	20.00	21.69	
67 Butylbenzylphthalate	149.00	19.649	19.649	(0.945)	835909	20.00	22.26	8557
68 3,3'-Dichlorobenzidine	252.00	20.657	20.656	(0.994)	338306	20.00	28.51	7813
69 bis(2-Ethylhexyl)phthalate	149.00	20.619	20.619	(0.992)	1150999	20.00	23.79	7448
70 Benzo(a)anthracene	228.00	20.768	20.768	(0.999)	1322051	20.00	20.52	

Data File: /chem/5972hp68.i/DF980319B68.b/HK980320C68.d
Report Date: 20-Mar-1998 14:19

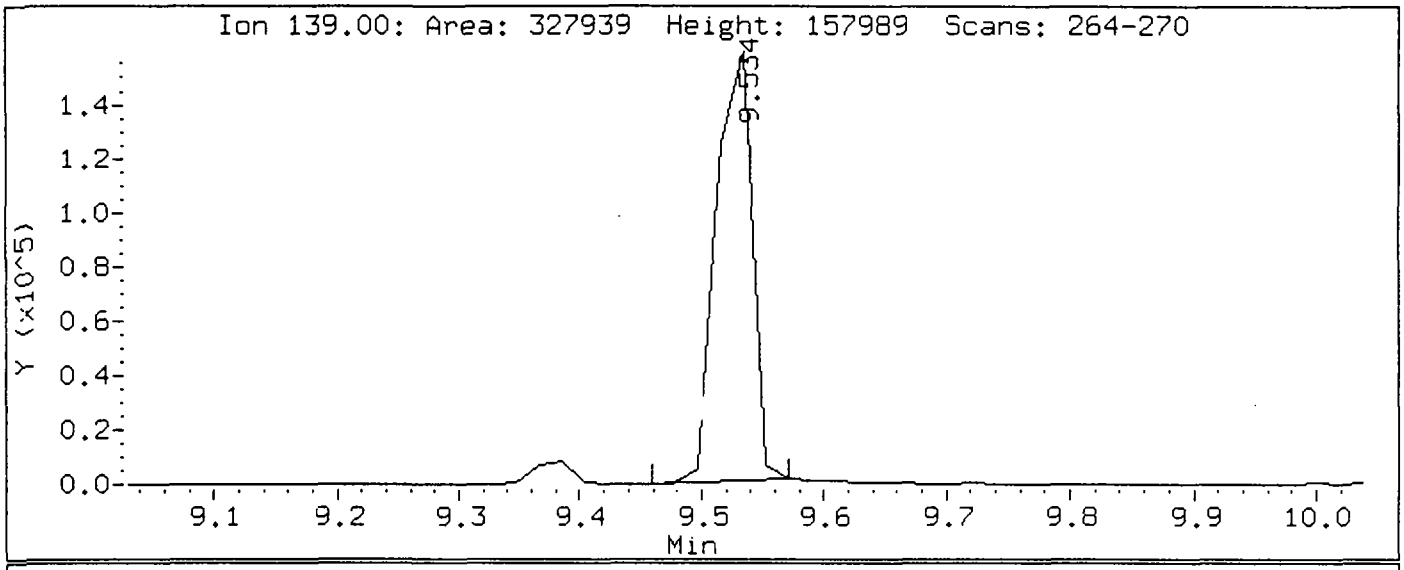
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
71 Chrysene	228.00	20.824	20.824	(1.002)	1049148	20.00	20.78	
72 Di-n-octylphthalate	149.00	21.832	21.832	(0.907)	1755547	20.00	24.80	8434
73 Benzo(b)fluoranthene	252.00	23.027	23.045	(0.957)	1125832	20.00	20.79	
74 Benzo(k)fluoranthene	252.00	23.101	23.101	(0.960)	1126744	20.00	22.40	
75 Benzo(a)pyrene	252.00	23.922	23.922	(0.994)	821093	20.00	20.32	
76 Indeno(1,2,3-cd)pyrene	276.00	27.655	27.673	(1.149)	884495	20.00	19.28	9591(a)
77 Dibenzo(a,h)anthracene	278.00	27.692	27.692	(1.150)	715355	20.00	18.92	7376(a)
78 Benzo(g,h,i)perylene	276.00	28.793	28.793	(1.196)	760178	20.00	19.16	9140(a)

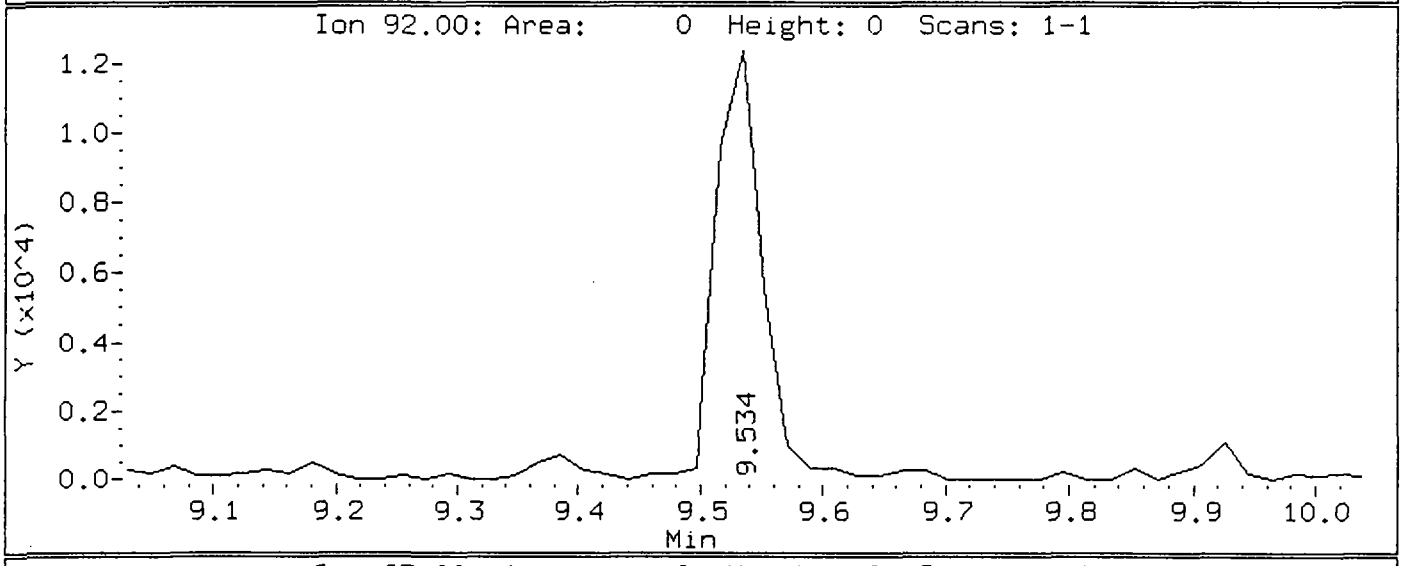
QC Flag Legend

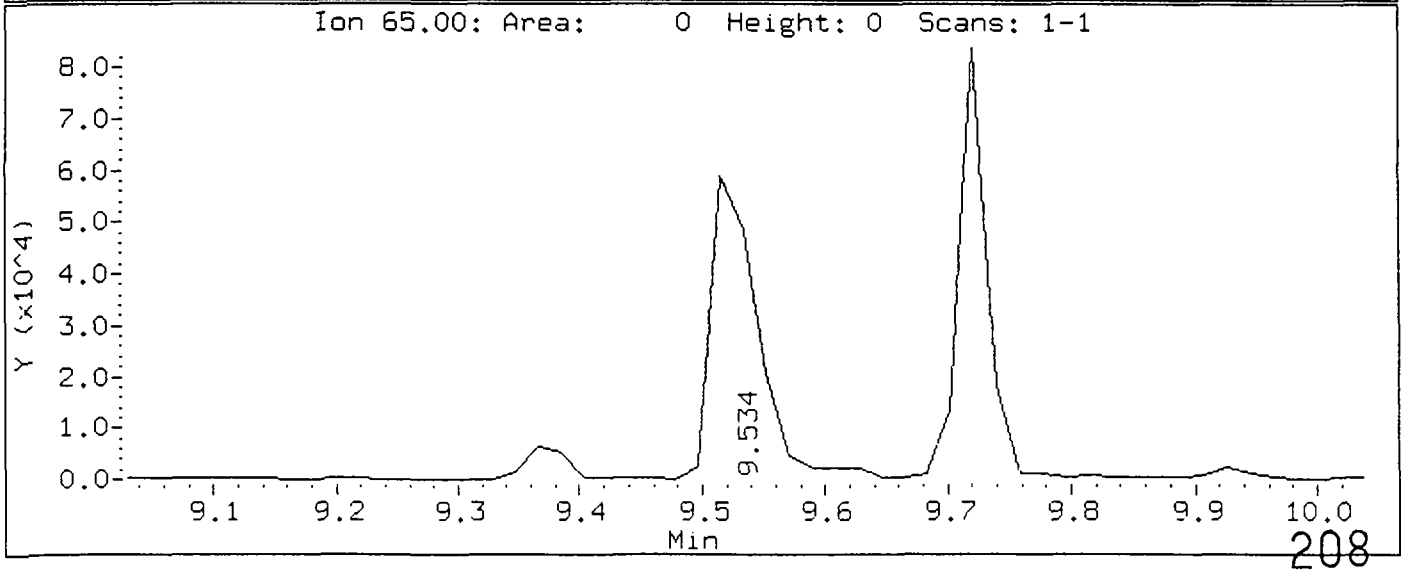
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/5972hp68.i/DF980319B68.b/HK980320C68.d
Injection Date: 20-MAR-98 00:21
Instrument: 5972hp68.i
Client Sample ID: SSTD020W6

Compound: 2-Nitrophenol
CAS Number: 88-75-5







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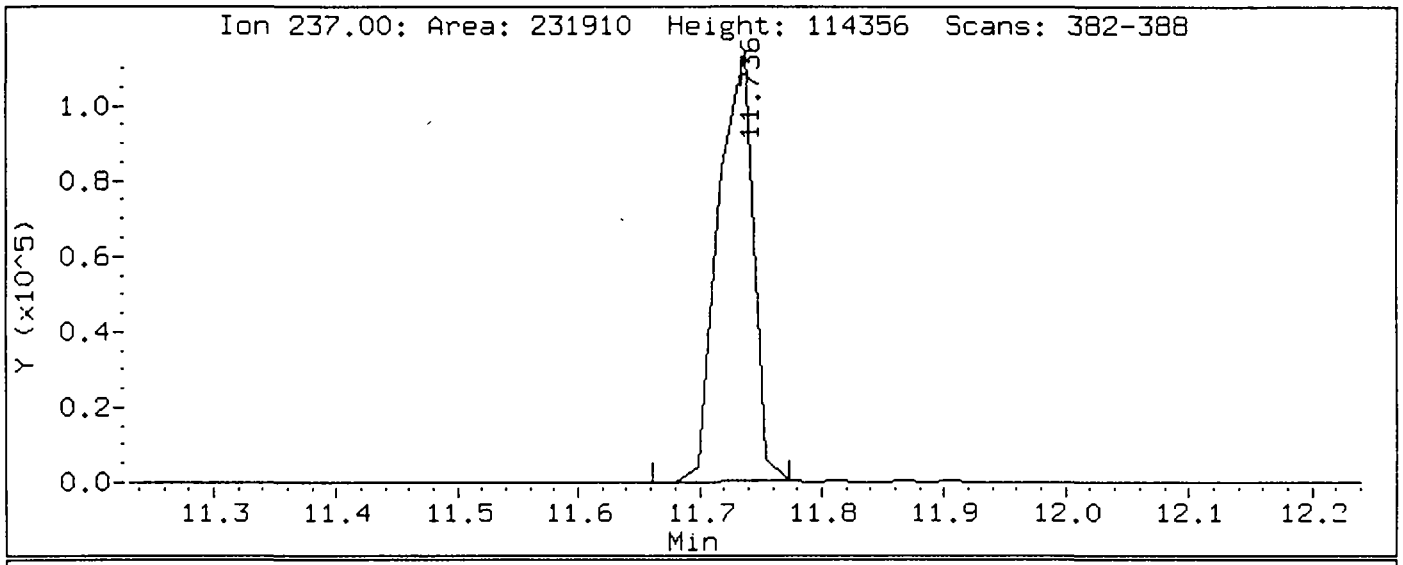
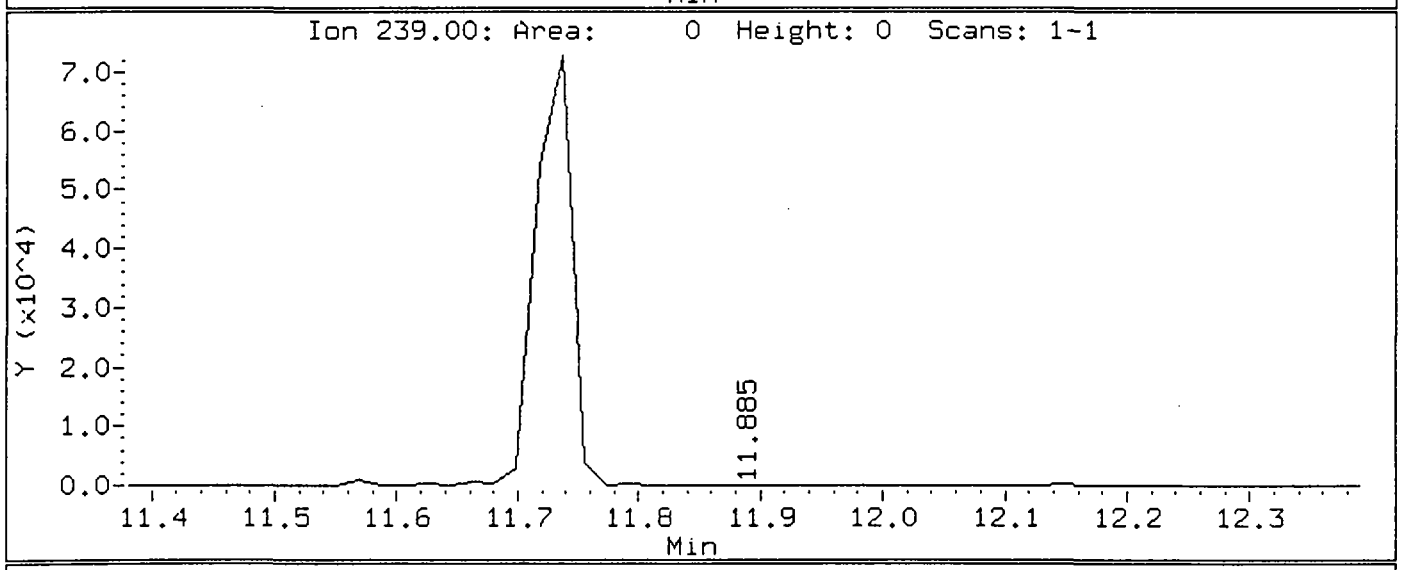
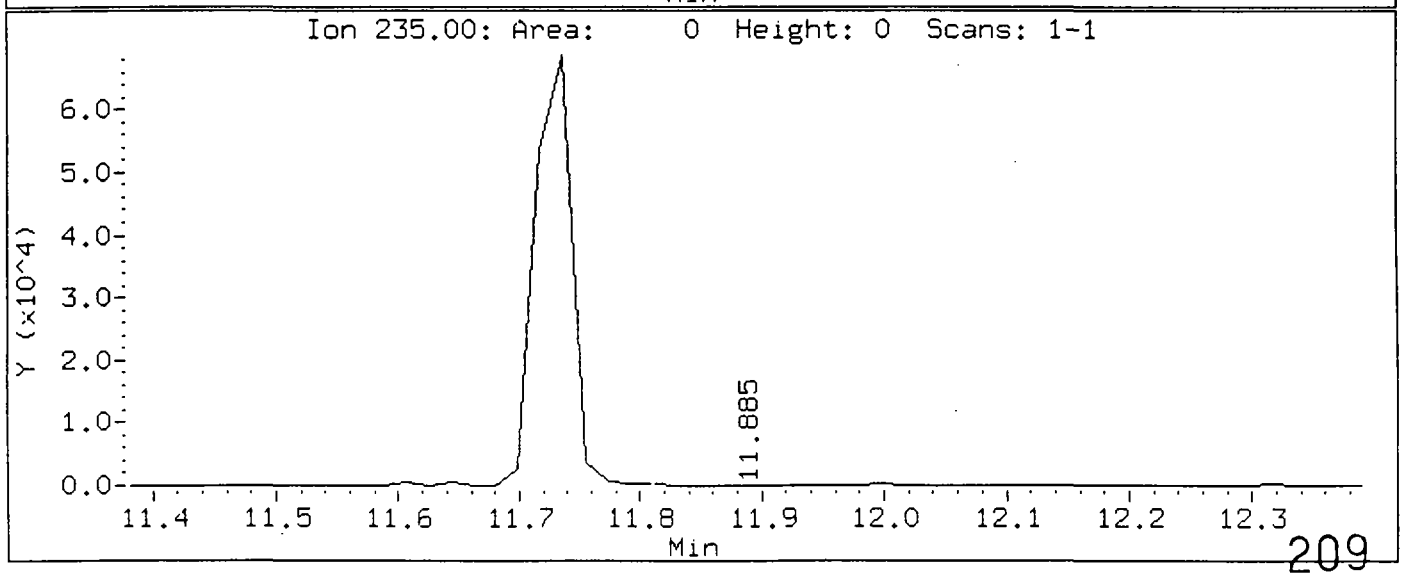
Injection Date: 20-MAR-98 00:21
Instrument: 5972hp68.i
Client Sample ID: SSTD020W6

Compound: Hexachlorocyclopentadiene
CAS Number: 77-47-4







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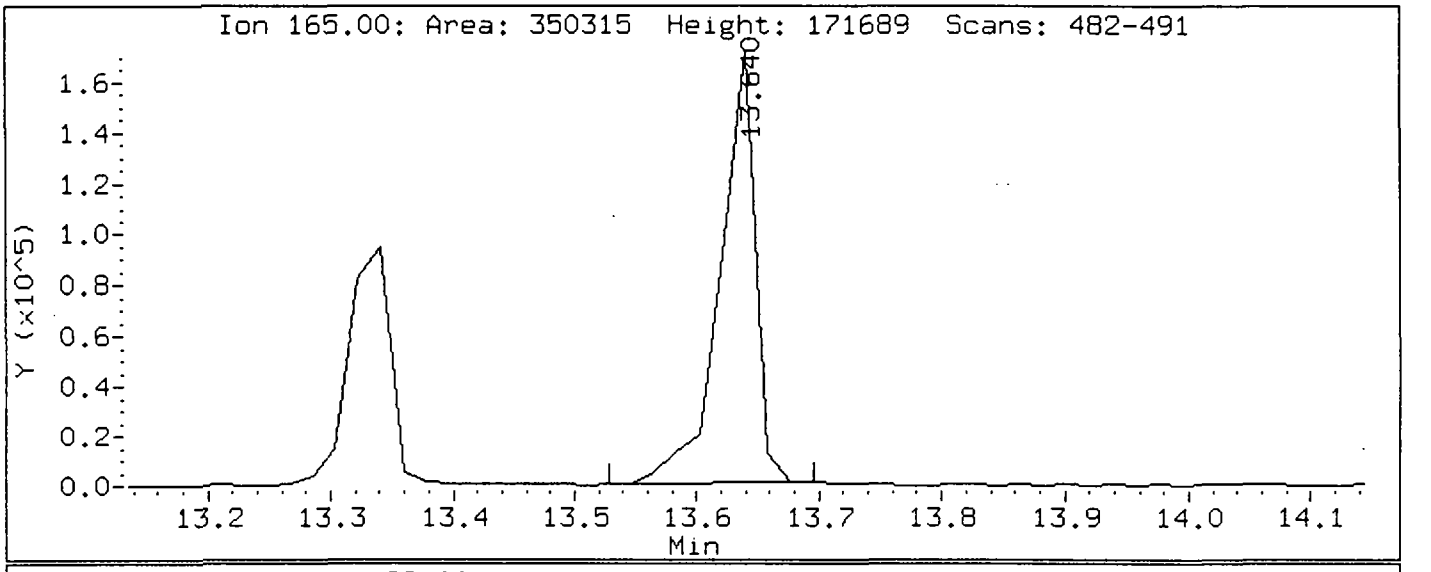
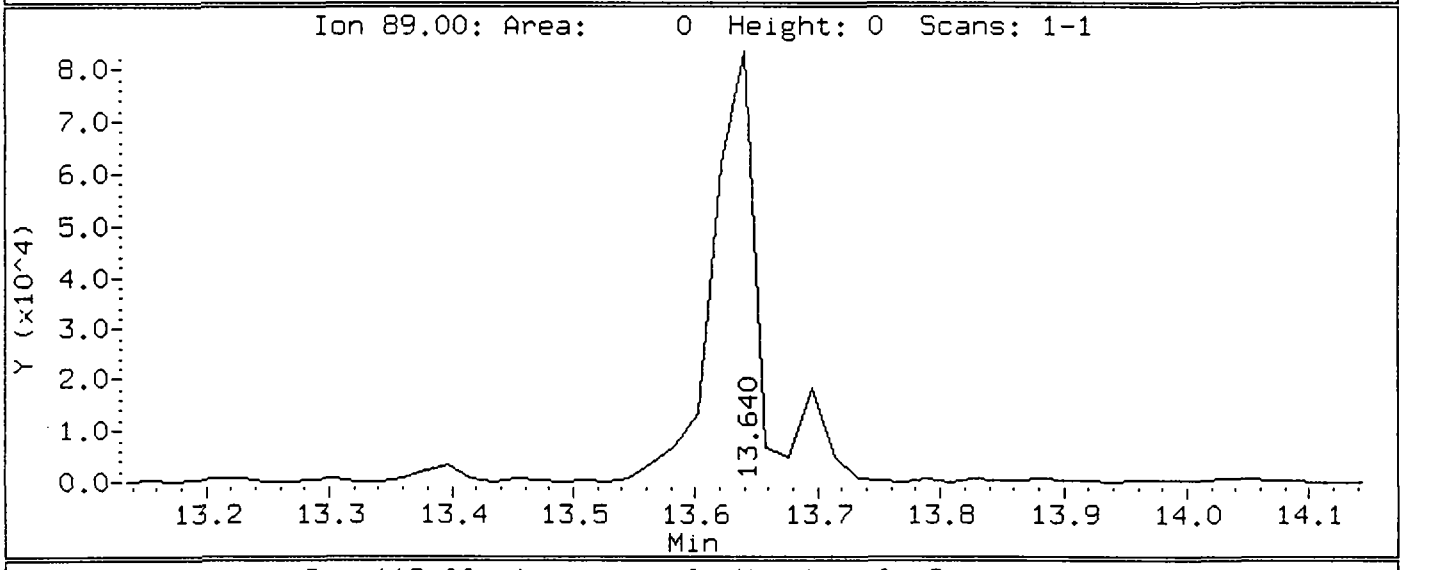
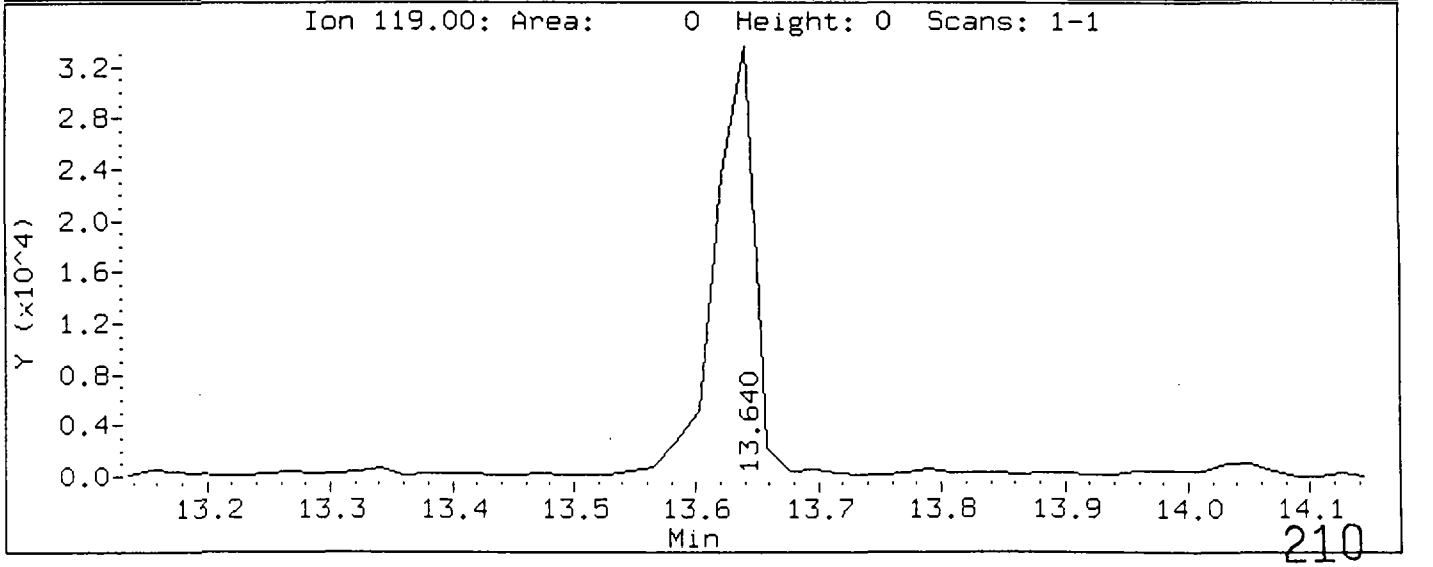
Injection Date: 20-MAR-98 00:21
Instrument: 5972hp68.i
Client Sample ID: SSTD020W6

Compound: 2,4-Dinitrotoluene
CAS Number: 121-14-2





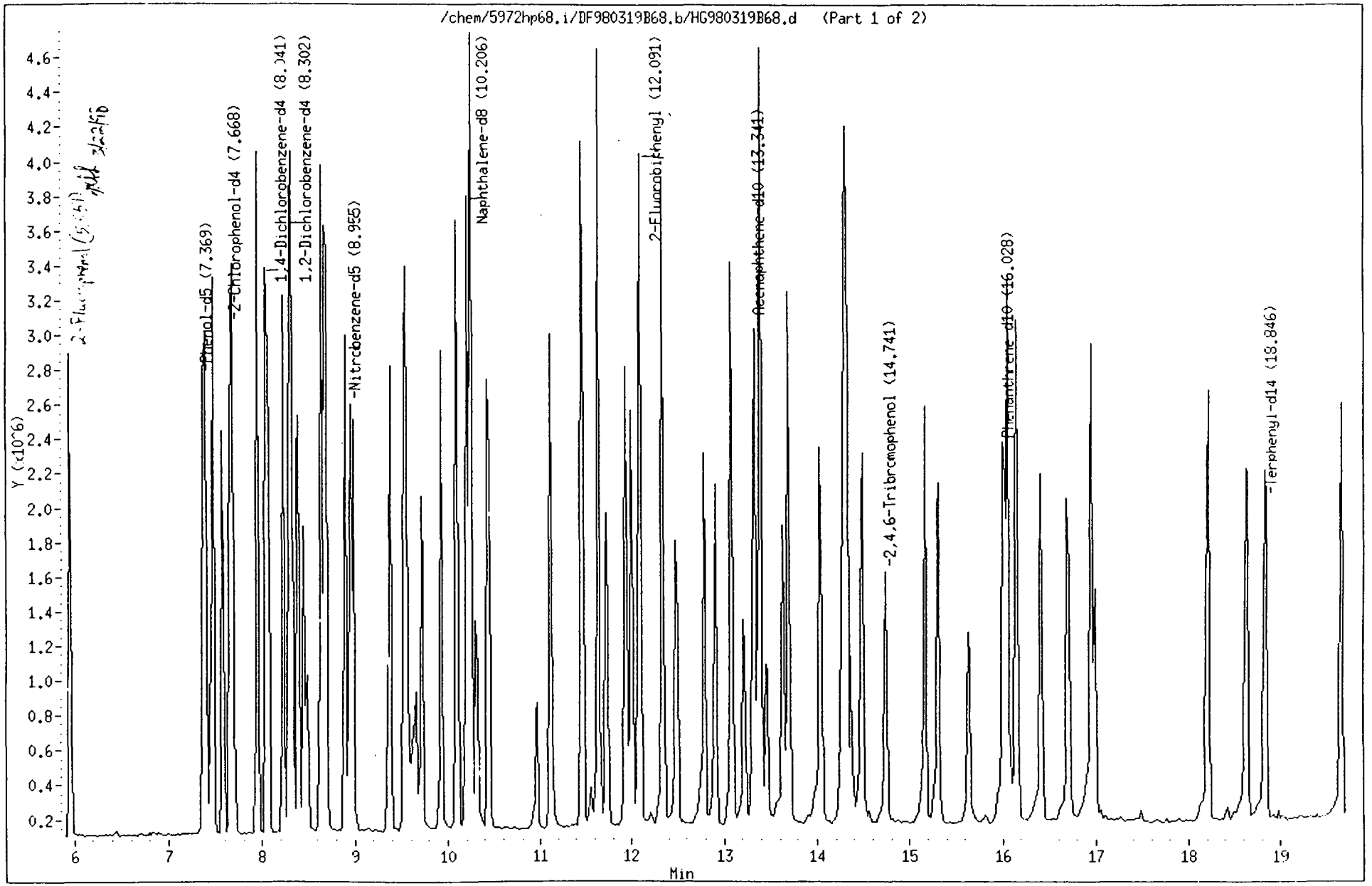


Data File: /chem/5972hp68.i/DF980319B68.b/HG980319B68.d
Date : 19-MAR-1998 21:24
Client ID: SSTD050W6
Sample Info:
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32

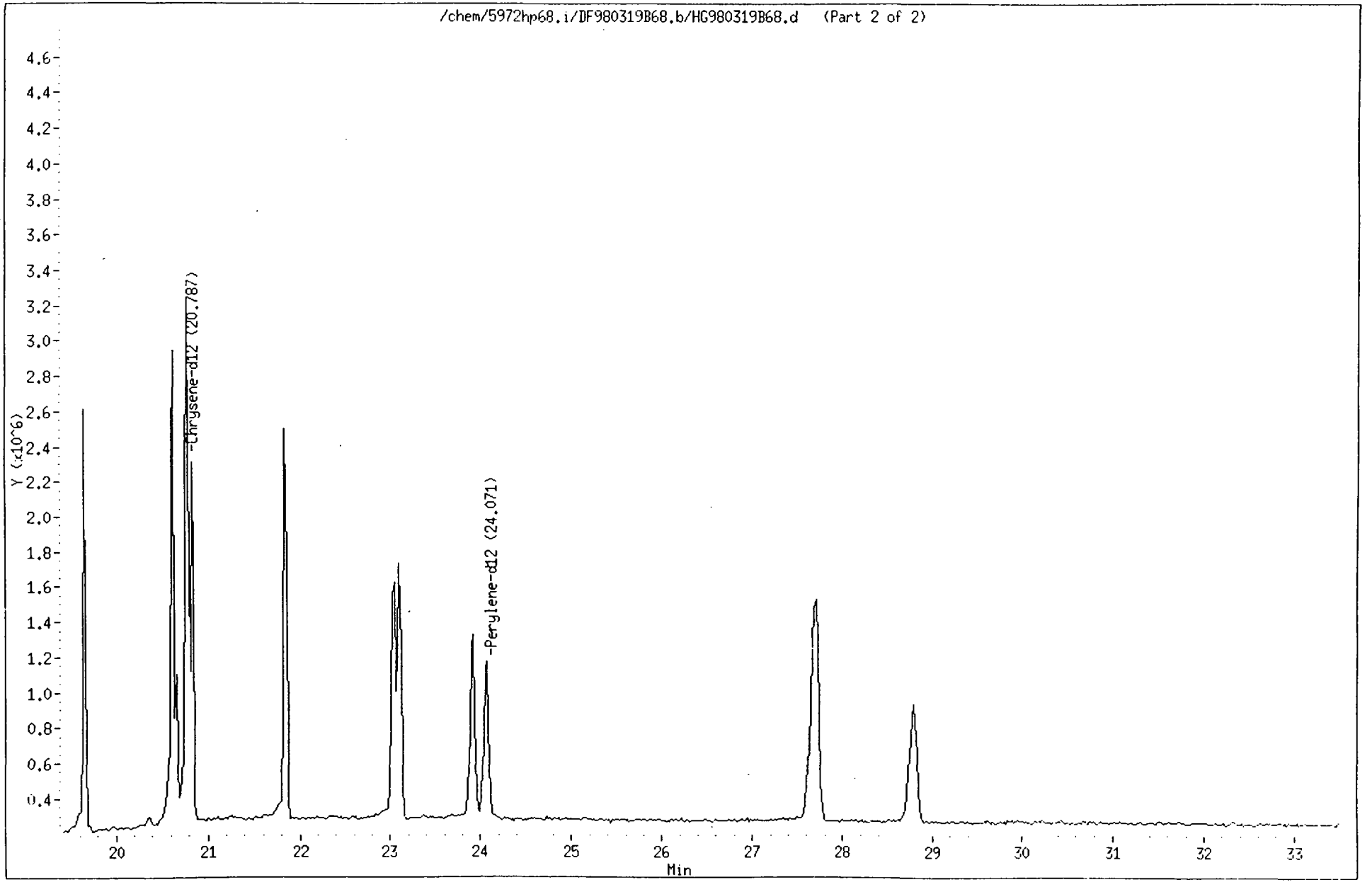
211



Data File: /chem/5972hp68.i/DF980319B68.b/HG980319B68.d
Date : 19-MAR-1998 21:24
Client ID: SSTD050W6
Sample Info:
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32



Data File: /chem/5972hp68.i/DF980319B68.b/HG980319B68.d
Report Date: 22-Mar-1998 08:04

CompuChem Environmental Corp.

OLM03.0 + REVISIONS QUANT AND RATIO REPORT

Data file : /chem/5972hp68.i/DF980319B68.b/HG980319B68.d
Lab Smp Id: SSTD050W6 Client Smp ID: SSTD050W6
Inj Date : 19-MAR-1998 21:24
Operator : 2242 Inst ID: 5972hp68.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp68.i/DF980319B68.b/OLM03.m
Meth Date : 22-Mar-1998 08:02 mss Quant Type: ISTD
Cal Date : 19-MAR-1998 21:24 Cal File: HG980319B68.d
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.12
Concentration Formula: Vt/(Vo * Vi)

Name	Value	Description
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152.00	8.041	8.041	(1.000)	928082	40.00		(H)
* 2 Naphthalene-d8	136.00	10.206	10.206	(1.000)	3310303	40.00		8371
* 3 Acenaphthene-d10	164.00	13.341	13.341	(1.000)	1620459	40.00		9048
* 4 Phenanthrene-d10	188.00	16.028	16.028	(1.000)	2037491	40.00		8967
* 5 Chrysene-d12	240.00	20.787	20.787	(1.000)	1266931	40.00		9463
* 6 Perylene-d12	264.00	24.071	24.071	(1.000)	1310194	40.00		8433
$ 7 2-Fluorophenol	112.00	5.951	5.951	(0.717)	1365608	50.00	50.54	(H)
$ 8 Phenol-d5	99.00	7.369	7.369	(0.888)	1640081	50.00	52.55	8160
$ 9 2-Chlorophenol-d4	132.00	7.668	7.668	(0.924)	1543766	50.00	51.63	8472
$ 10 1,2-Dichlorobenzene-d4	152.00	8.302	8.302	(1.000)	1004637	50.00	50.34	(H)
$ 11 Nitrobenzene-d5	82.00	8.955	8.955	(0.877)	1261481	50.00	52.24	8519
$ 12 2-Fluorobiphenyl	172.00	12.091	12.091	(0.906)	2483273	50.00	51.48	8920
$ 13 2,4,6-Tribromophenol	329.60	14.741	14.741	(0.920)	452096	50.00	50.42	
$ 14 Terphenyl-d14	244.00	18.846	18.846	(0.907)	1673354	50.00	52.50	7965
15 Phenol	94.00	7.388	7.388	(0.890)	1510951	50.00	52.13	(H)
16 bis(2-Chloroethyl)ether	93.00	7.574	7.574	(0.912)	1262860	50.00	52.41	8853
17 2-Chlorophenol	128.00	7.686	7.686	(0.926)	1507532	50.00	51.64	8292
18 1,3-Dichlorobenzene	146.00	7.948	7.948	(0.957)	1594017	50.00	50.92	(H)
19 1,4-Dichlorobenzene	146.00	8.078	8.078	(0.973)	1574994	50.00	51.46	(H)
20 1,2-Dichlorobenzene	146.00	8.321	8.321	(1.002)	1459626	50.00	51.17	(H)
21 2-Methylphenol	108.00	8.396	8.396	(1.011)	1290746	50.00	52.47	(H)

Data File: /chem/5972hp68.i/DF980319B68.b/HG980319B68.d
Report Date: 22-Mar-1998 08:04

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
22 2,2'-oxybis(1-Chloropropane)	45.00	8.452	8.452	(1.051)	1887077	50.00	53.57	(MH)
23 4-Methylphenol	108.00	8.638	8.638	(1.040)	1393198	50.00	53.28	(H)
24 N-Nitroso-di-n-propylamine	70.00	8.676	8.676	(1.045)	798536	50.00	54.56	8385
25 Hexachloroethane	117.00	8.899	8.899	(1.072)	683231	50.00	51.05	8092
26 Nitrobenzene	77.00	8.993	8.993	(0.881)	1221163	50.00	53.15	8232
27 Isophorone	82.00	9.385	9.385	(0.920)	2293239	50.00	52.22	8744
28 2-Nitrophenol	139.00	9.534	9.534	(0.934)	880096	50.00	51.53	7591
29 2,4-Dimethylphenol	107.00	9.553	9.553	(0.936)	1217998	50.00	51.50	8192
30 bis(2-Chloroethoxy)methane	93.00	9.721	9.721	(0.952)	1568471	50.00	52.85	9022
31 2,4-Dichlorophenol	162.00	9.926	9.926	(0.973)	1102567	50.00	50.97	
32 1,2,4-Trichlorobenzene	180.00	10.094	10.094	(0.989)	1154653	50.00	50.38	8480
33 Naphthalene	128.00	10.243	10.243	(1.004)	3881677	50.00	51.43	8731
34 4-Chloroaniline	127.00	10.299	10.299	(1.009)	823625	50.00	59.19	8256
35 Hexachlorobutadiene	225.00	10.448	10.448	(1.024)	731159	50.00	49.76	
36 4-Chloro-3-methylphenol	107.00	11.120	11.120	(1.090)	1119280	50.00	51.81	6058
37 2-Methylnaphthalene	142.00	11.456	11.456	(1.123)	2605186	50.00	50.47	
38 Hexachlorocyclopentadiene	237.00	11.736	11.736	(0.880)	716307	50.00	51.87	0(M)
39 2,4,6-Trichlorophenol	196.00	11.941	11.941	(0.895)	853269	50.00	51.43	
40 2,4,5-Trichlorophenol	196.00	11.997	11.997	(0.899)	724966	50.00	50.78	
41 2-Chloronaphthalene	162.00	12.333	12.333	(0.924)	2246255	50.00	51.76	8748
42 2-Nitroaniline	65.00	12.483	12.483	(0.936)	618030	50.00	52.43	8284
43 Dimethylphthalate	163.00	12.781	12.781	(0.958)	2434339	50.00	50.38	9028
44 2,6-Dinitrotoluene	165.00	12.912	12.912	(0.968)	587815	50.00	47.42	8575
45 Acenaphthylene	152.00	13.080	13.080	(0.980)	3536819	50.00	51.37	8890
46 3-Nitroaniline	138.00	13.229	13.229	(0.992)	632859	50.00	51.54	7495
47 Acenaphthene	153.00	13.397	13.397	(1.004)	2110455	50.00	50.17	9143
48 2,4-Dinitrophenol	184.00	13.416	13.416	(1.006)	177452	50.00	40.90	(a)
49 4-Nitrophenol	109.00	13.472	13.472	(1.010)	229193	50.00	42.04	(a)
50 2,4-Dinitrotoluene	165.00	13.640	13.640	(1.022)	733667	50.00	48.31	7123
51 Dibenzofuran	168.00	13.696	13.696	(1.027)	2938584	50.00	50.26	8879
52 Diethylphthalate	149.00	14.031	14.031	(1.052)	2241391	50.00	48.41	
53 4-Chlorophenyl-phenylether	204.00	14.293	14.293	(1.071)	1122738	50.00	51.90	8009
54 Fluorene	166.00	14.311	14.311	(1.073)	2277352	50.00	49.46	9290
55 4-Nitroaniline	138.00	14.311	14.311	(1.073)	507562	50.00	45.55	(a)
56 4,6-Dinitro-2-methylphenol	198.00	14.367	14.367	(0.896)	300126	50.00	45.88	(a)
57 N-nitrosodiphenylamine	169.00	14.498	14.498	(0.905)	1435170	50.00	54.96	8303
58 4-Bromophenyl-phenylether	248.00	15.170	15.170	(0.946)	658026	50.00	49.36	8152
59 Hexachlorobenzene	283.90	15.319	15.319	(0.956)	807828	50.00	53.67	
60 Pentachlorophenol	266.00	15.655	15.655	(0.977)	321056	50.00	43.92	7291(a
61 Phenanthrene	178.00	16.066	16.066	(1.002)	2275063	50.00	49.16	
62 Anthracene	178.00	16.159	16.159	(1.008)	2543813	50.00	53.21	
63 Carbazole	167.00	16.420	16.420	(1.024)	1869066	50.00	46.59	9318
64 Di-n-butylphthalate	149.00	16.961	16.961	(1.058)	3343605	50.00	46.38	
65 Fluoranthene	202.00	18.212	18.212	(1.136)	2241884	50.00	46.14	
66 Pyrene	202.00	18.641	18.641	(0.897)	2268933	50.00	53.83	
67 Butylbenzylphthalate	149.00	19.649	19.649	(0.945)	1315065	50.00	52.37	8660
68 3,3'-Dichlorobenzidine	252.00	20.656	20.656	(0.994)	393587	50.00	49.48	7844
69 bis(2-Ethylhexyl)phthalate	149.00	20.619	20.619	(0.992)	1753197	50.00	54.17	7543
70 Benzo(a)anthracene	228.00	20.768	20.768	(0.999)	2217925	50.00	53.74	

Data File: /chem/5972hp68.i/DF980319B68.b/HG980319B68.d
Report Date: 22-Mar-1998 08:04

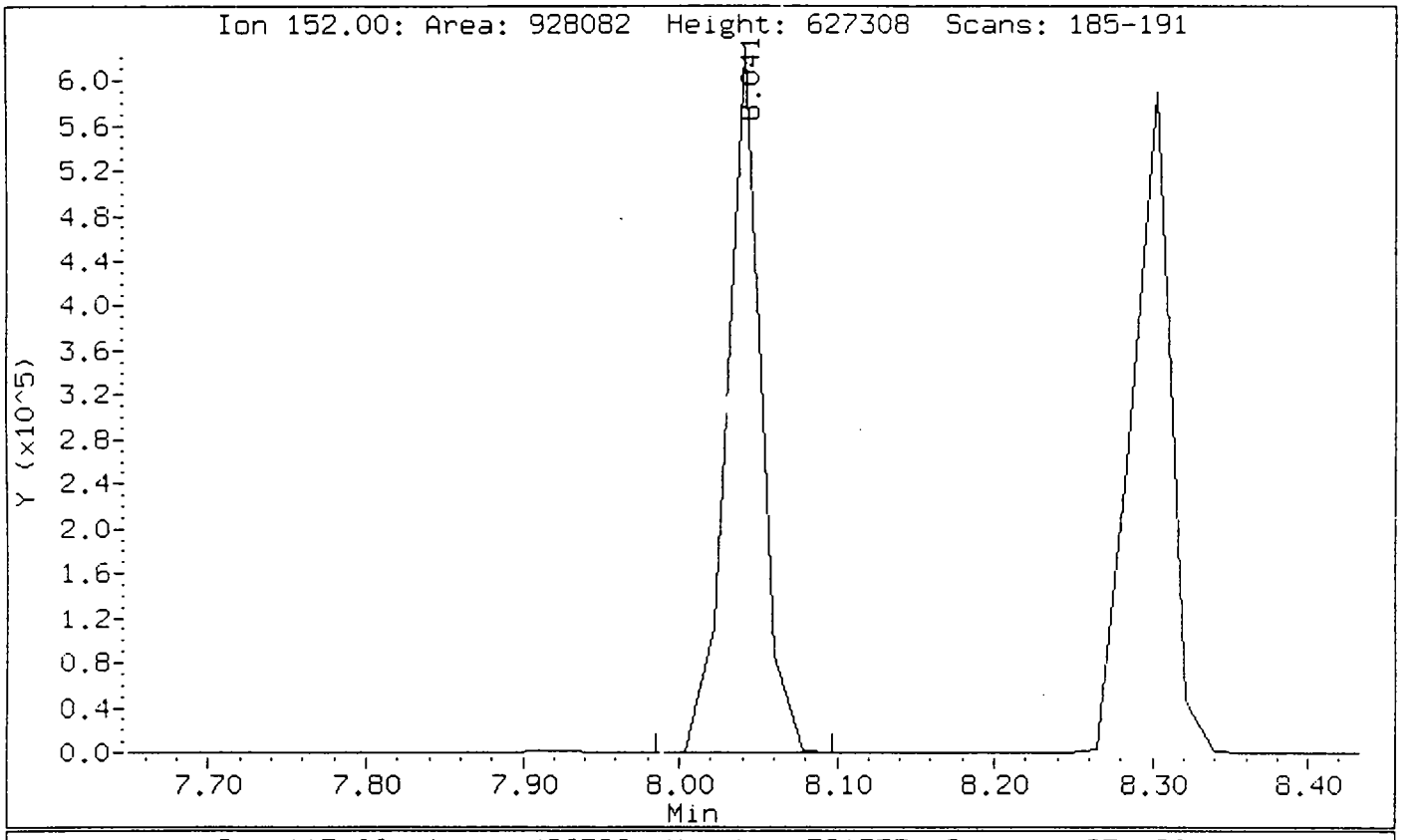
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
71 Chrysene	228.00	20.824	20.824	(1.002)	1718120	50.00	51.03	
72 Di-n-octylphthalate	149.00	21.832	21.832	(0.907)	2711203	50.00	51.91	8594
73 Benzo(b)fluoranthene	252.00	23.045	23.045	(0.957)	1955890	50.00	46.80	
74 Benzo(k)fluoranthene	252.00	23.101	23.101	(0.960)	1980999	50.00	53.54	
75 Benzo(a)pyrene	252.00	23.922	23.922	(0.994)	1512129	50.00	49.36	
76 Indeno(1,2,3-cd)pyrene	276.00	27.673	27.673	(1.150)	1787739	50.00	51.29	9611
77 Dibenzo(a,h)anthracene	278.00	27.692	27.692	(1.150)	1443888	50.00	50.38	7197
78 Benzo(g,h,i)perylene	276.00	28.793	28.793	(1.196)	1547177	50.00	51.26	9166

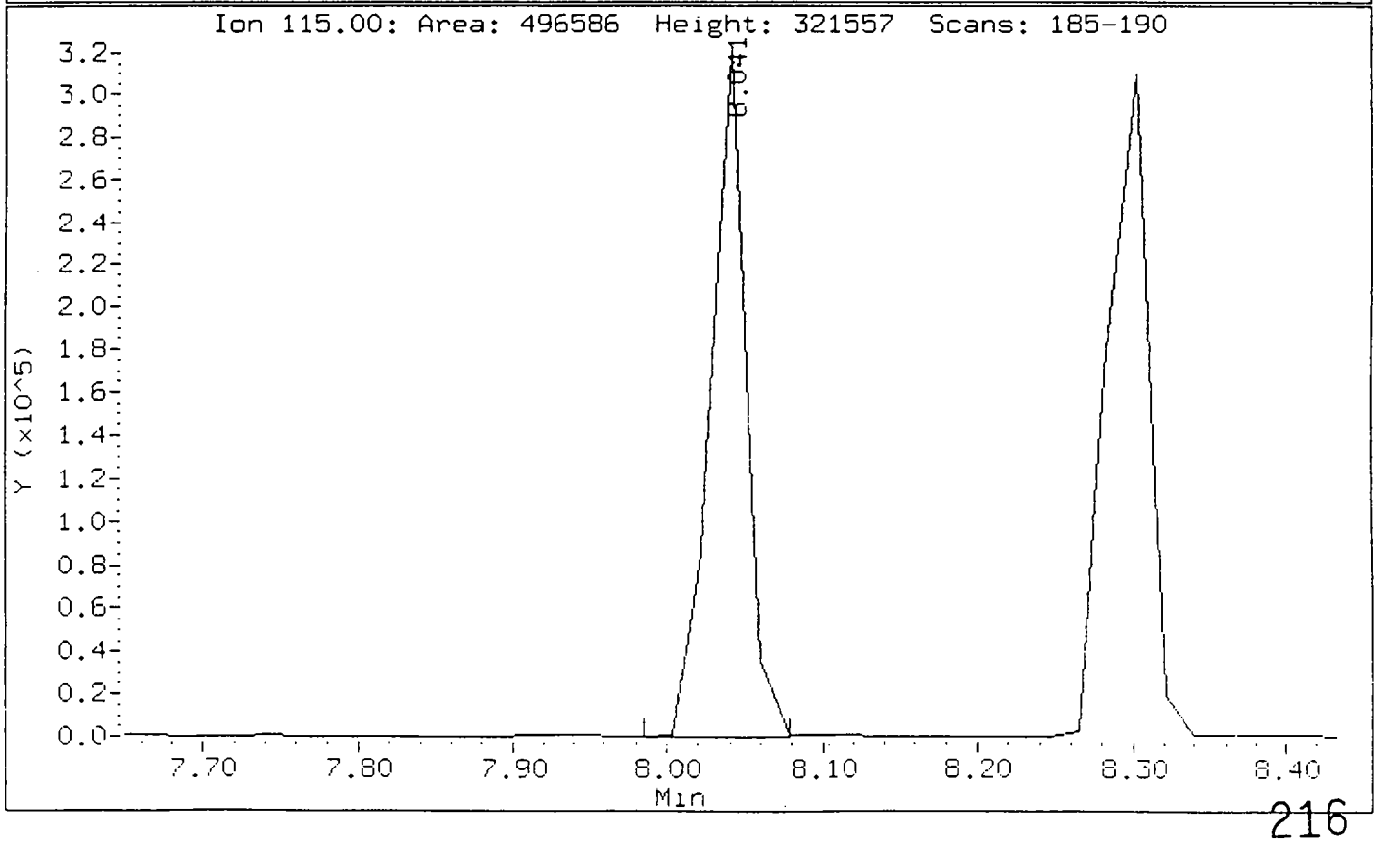
QC Flag Legend

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

Data File: /chem/5972hp68.i/DF980319B68.b/HG980319B68.d
Injection Date: 19-MAR-98 21:24
Instrument: 5972hp68.i
Client Sample ID: SSTD050W6

Compound: 1,4-Dichlorobenzene-d4
CAS Number: 3855-82-1





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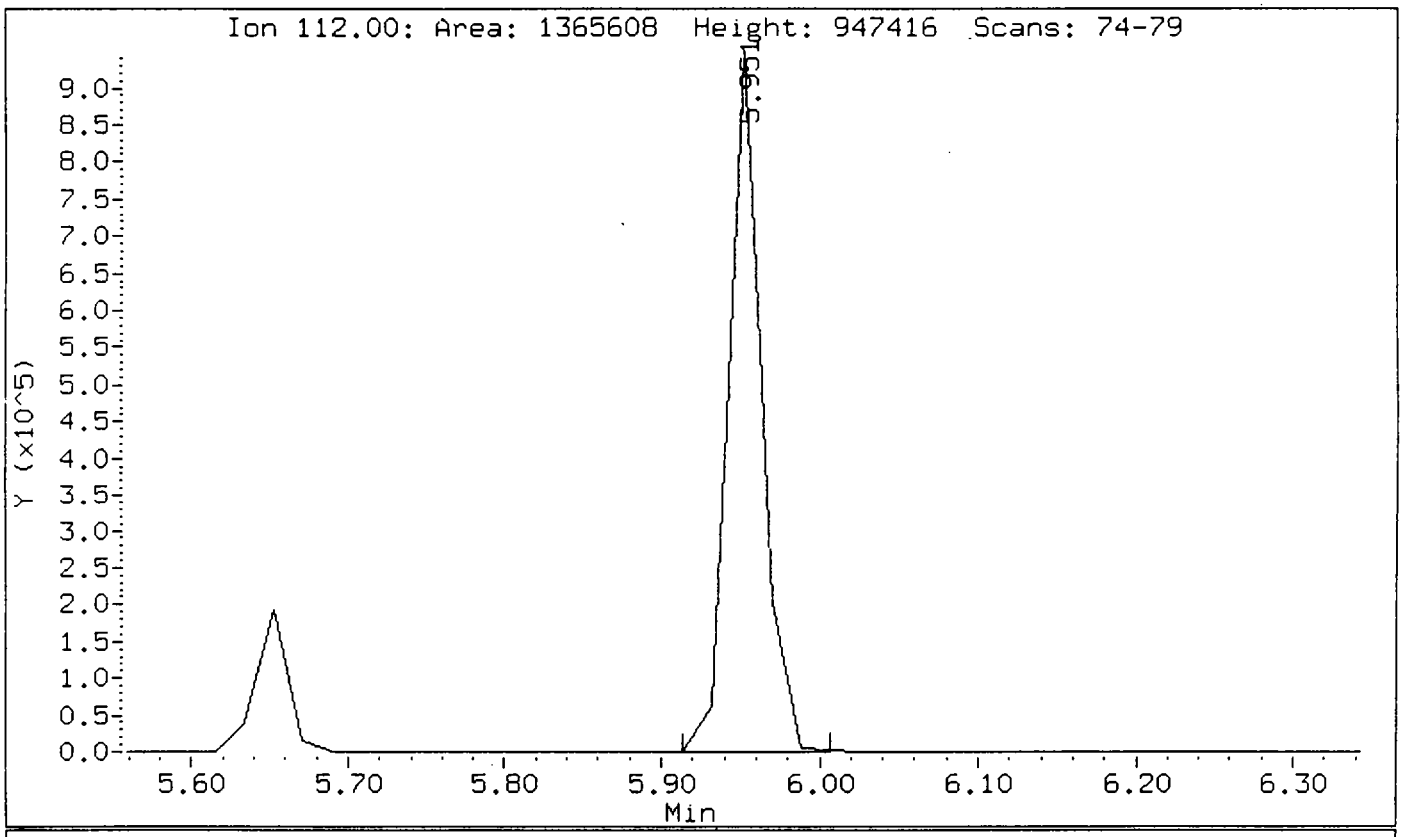
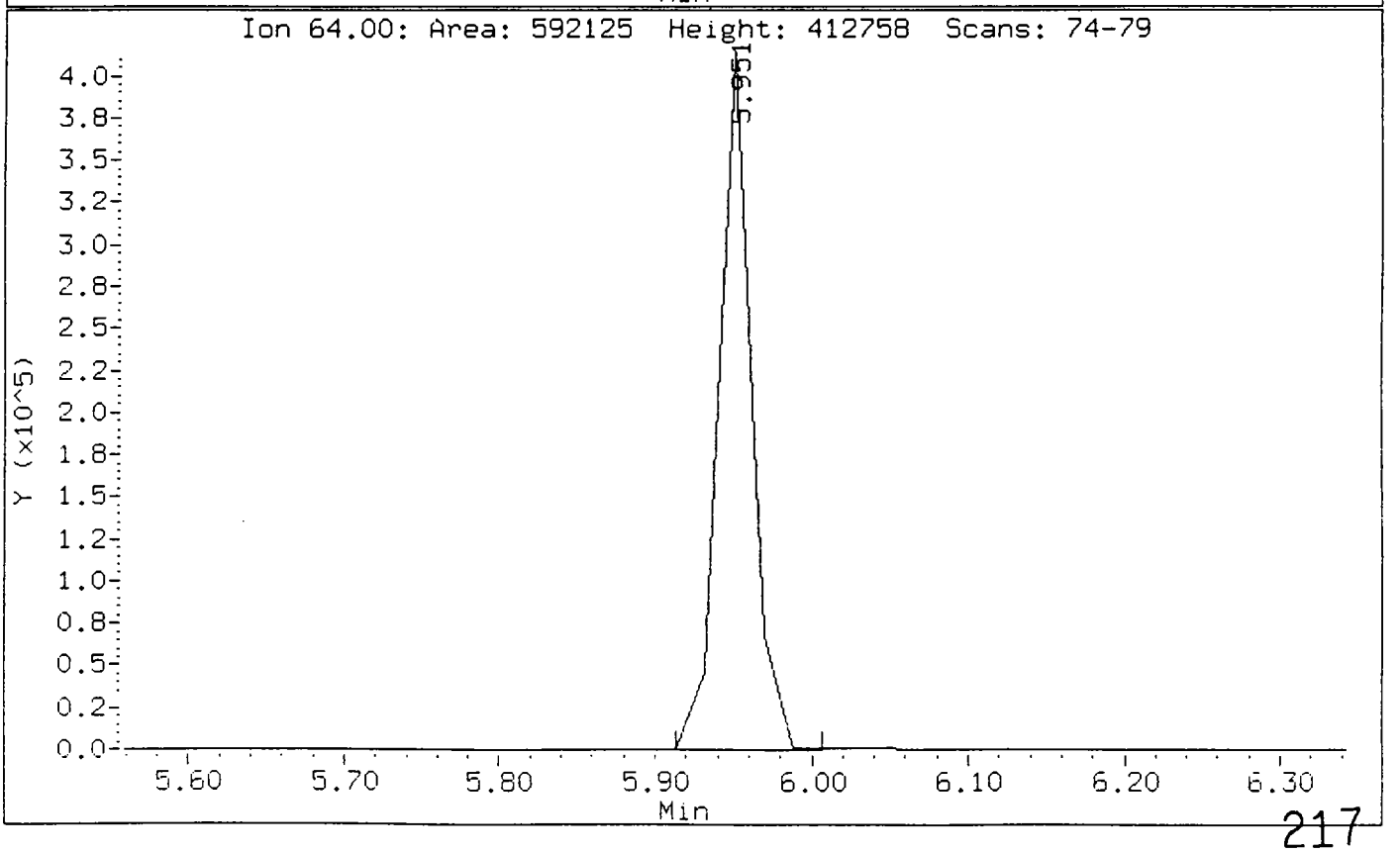
Injection Date: 19-MAR-98 21:24
Instrument: 5972hp68.i
Client Sample ID: SSTD050W6

Compound: 2-Fluorophenol
CAS Number: 367-12-4





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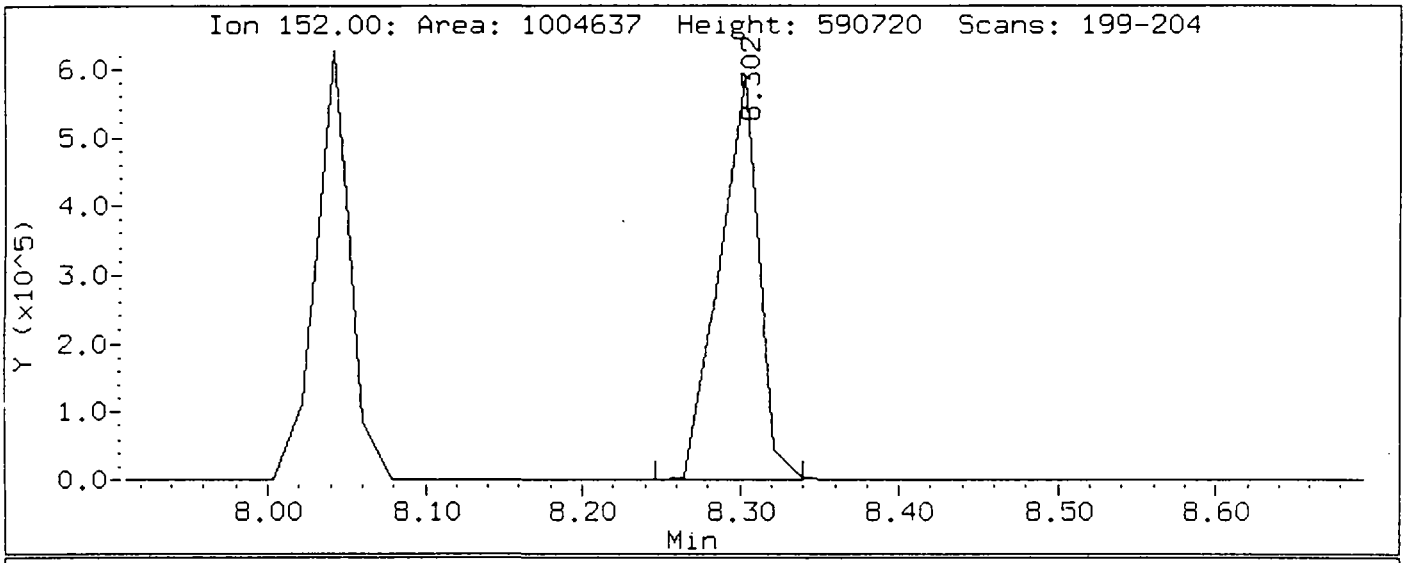
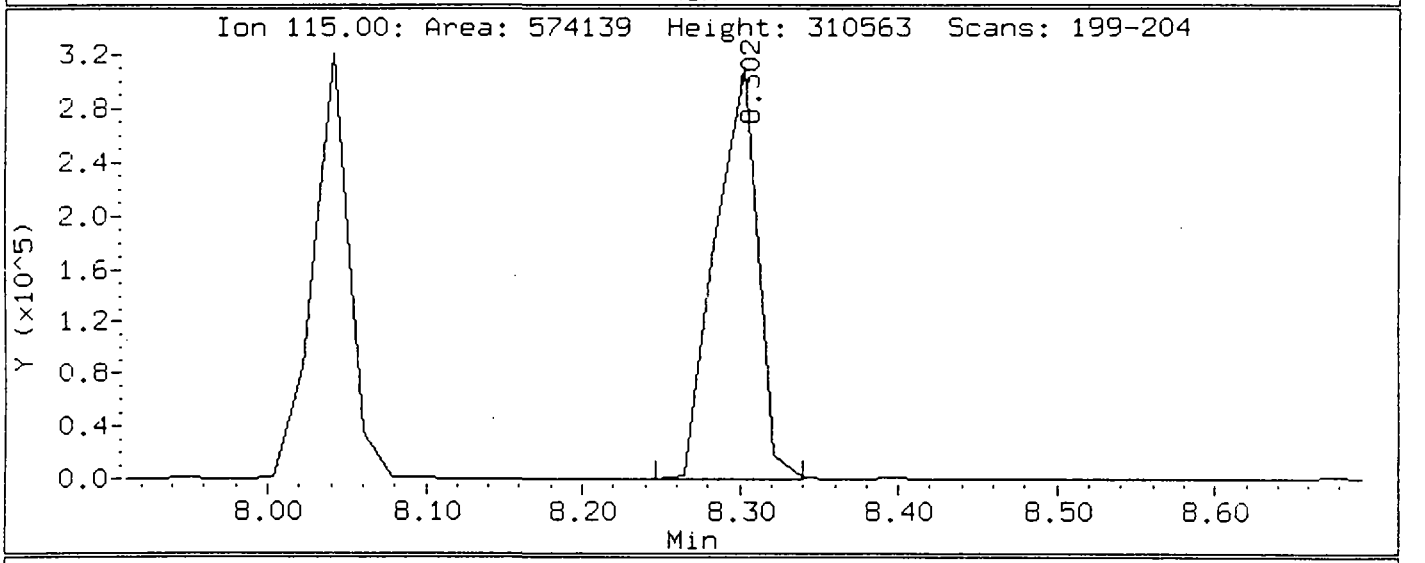
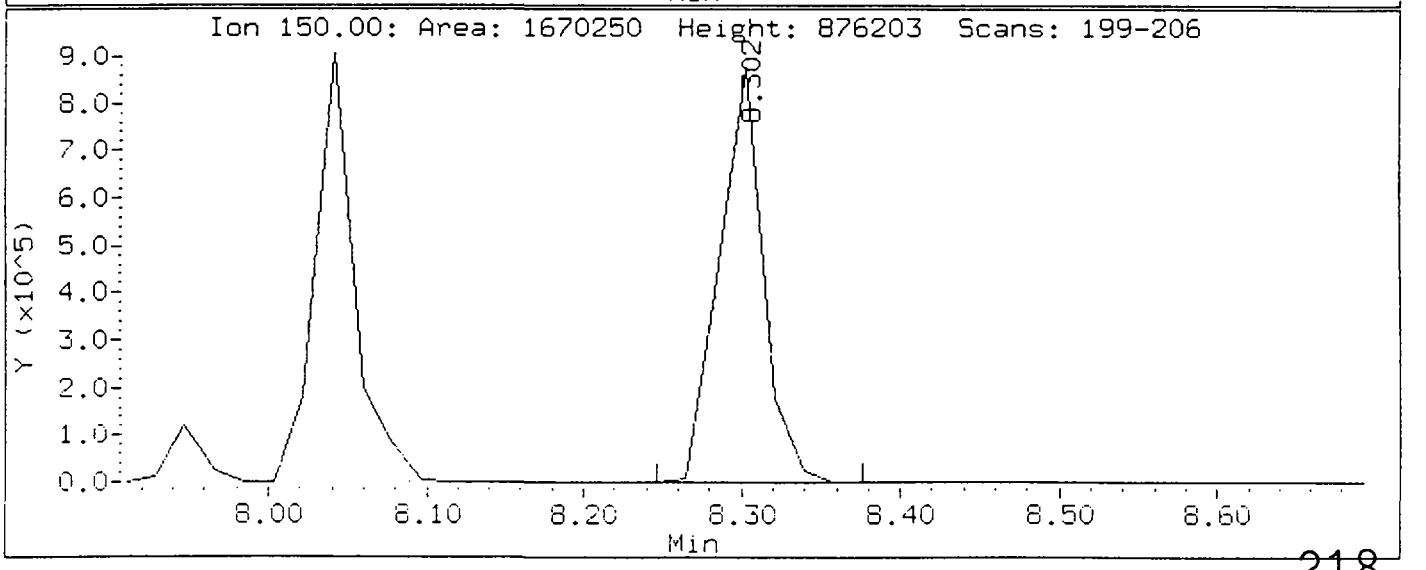
Injection Date: 19-MAR-98 21:24
Instrument: 5972hp68.i
Client Sample ID: SSTD050W6

Compound: 1,2-Dichlorobenzene-d4
CAS Number: 2199-69-1







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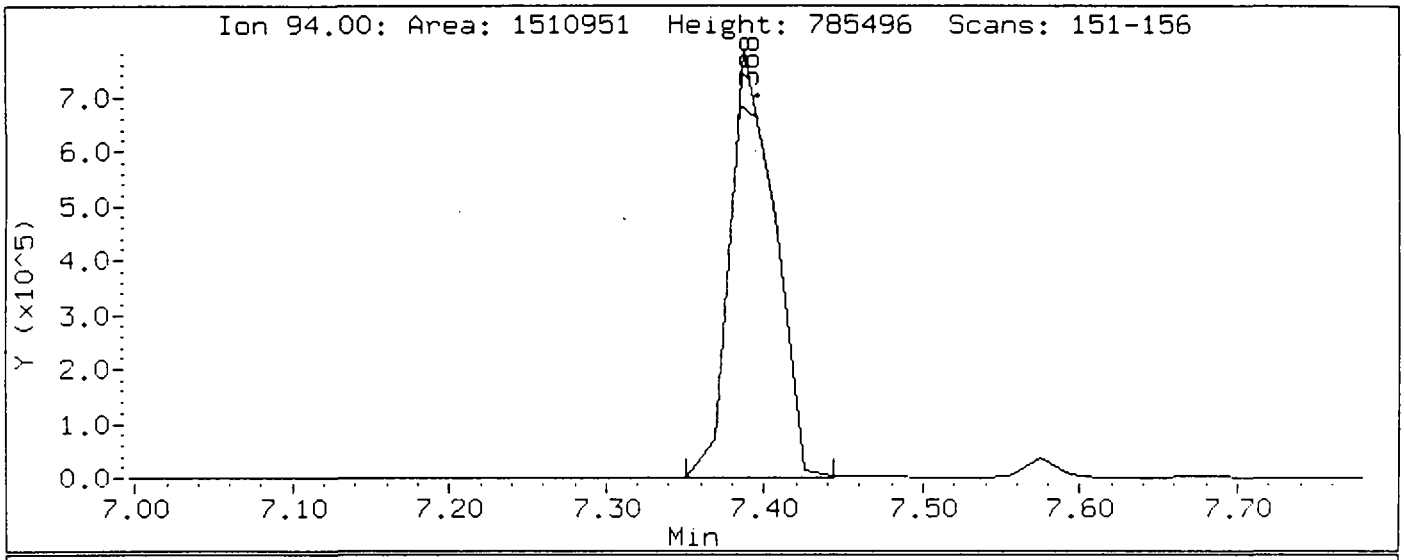
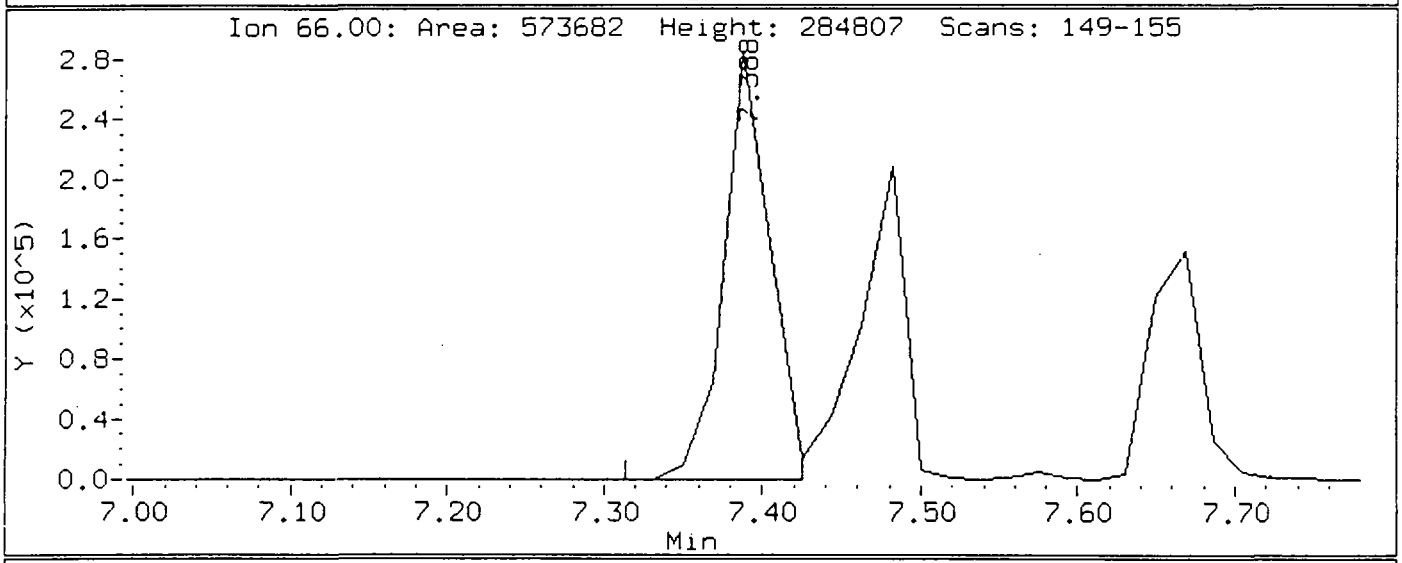
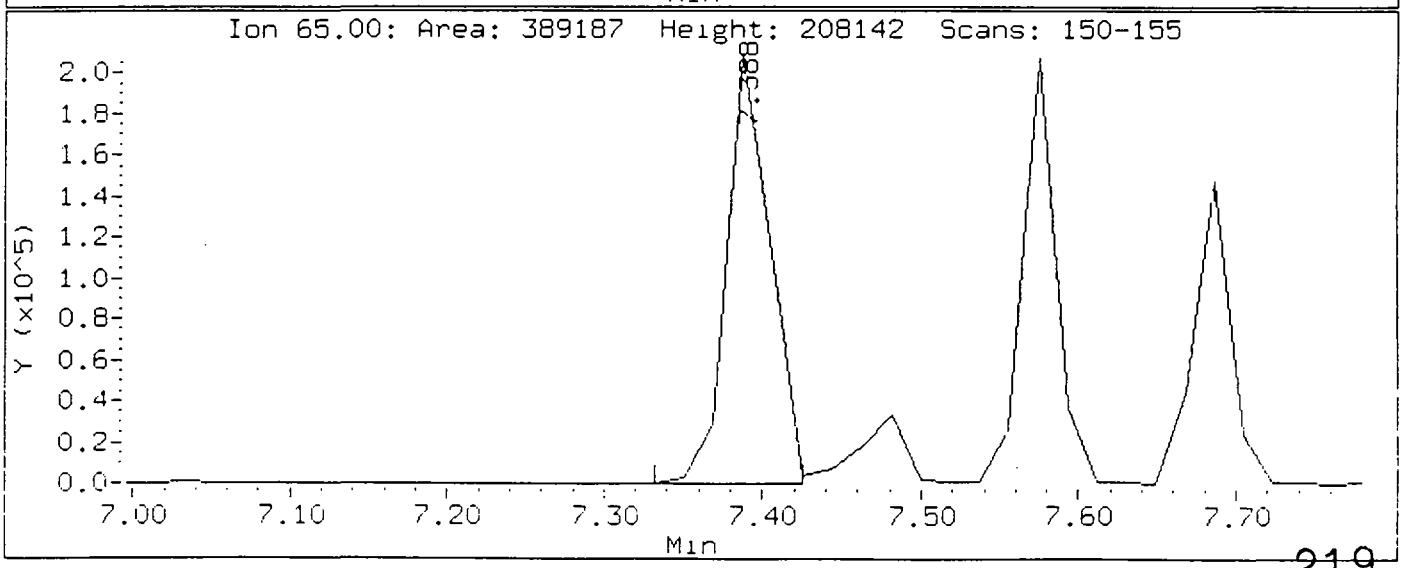
Injection Date: 19-MAR-98 21:24
Instrument: 5972hp68.i
Client Sample ID: SSTD050W6

Compound: Phenol
CAS Number: 108-95-2







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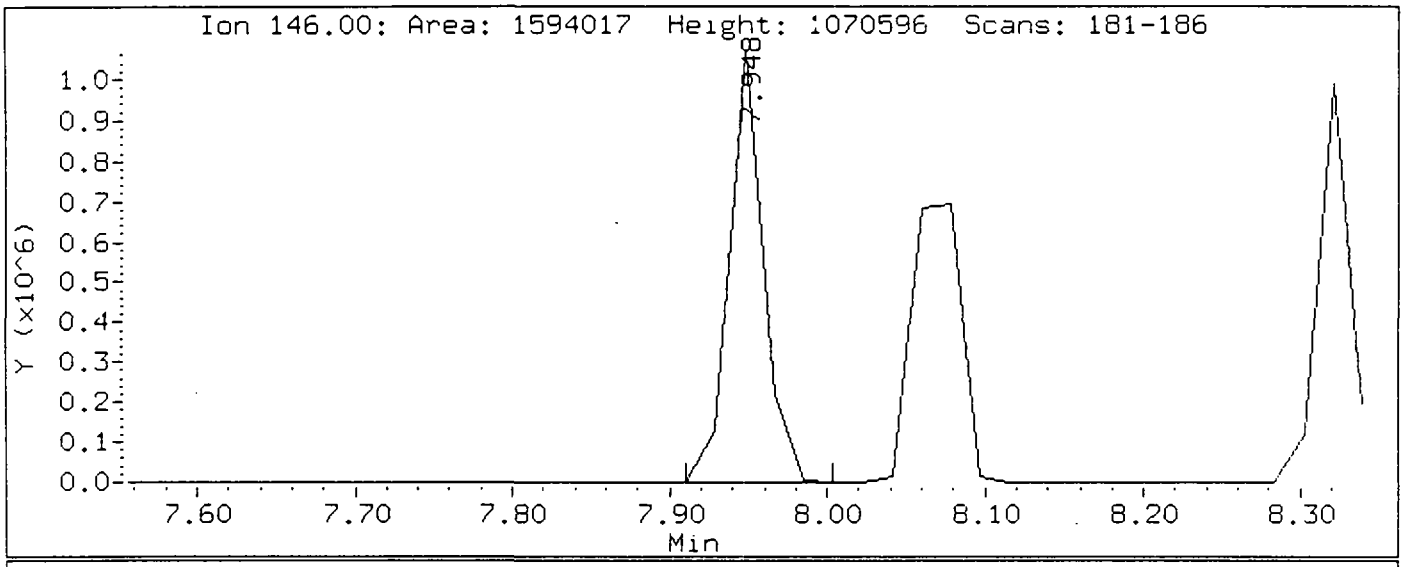
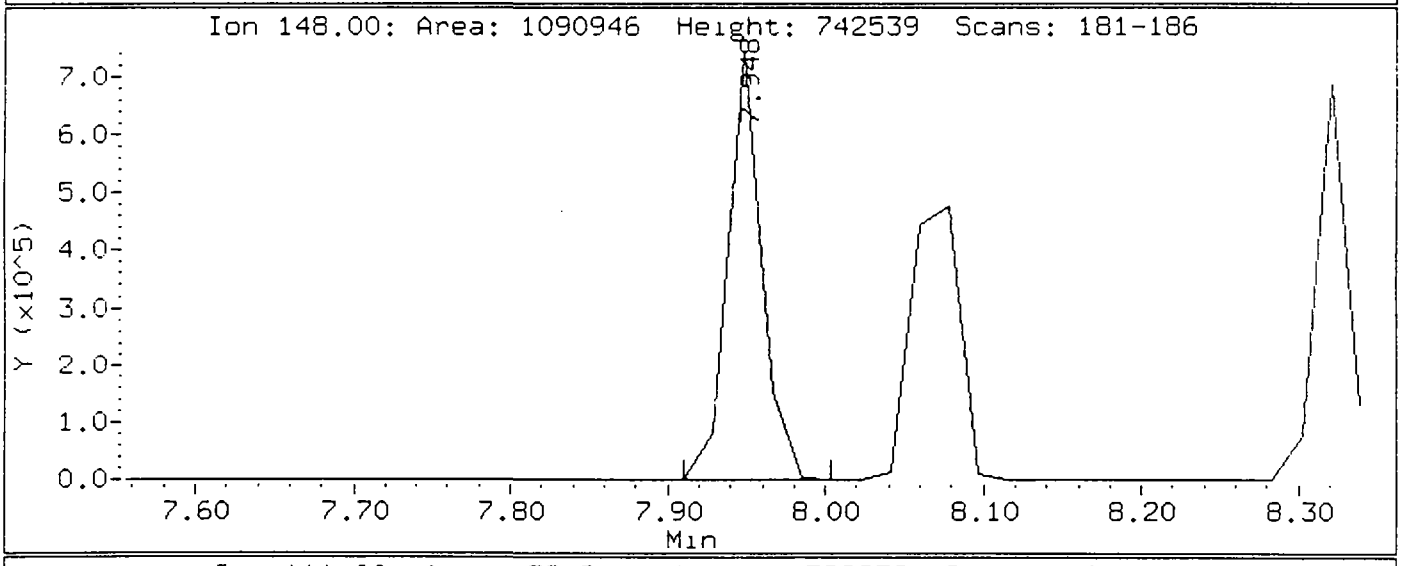
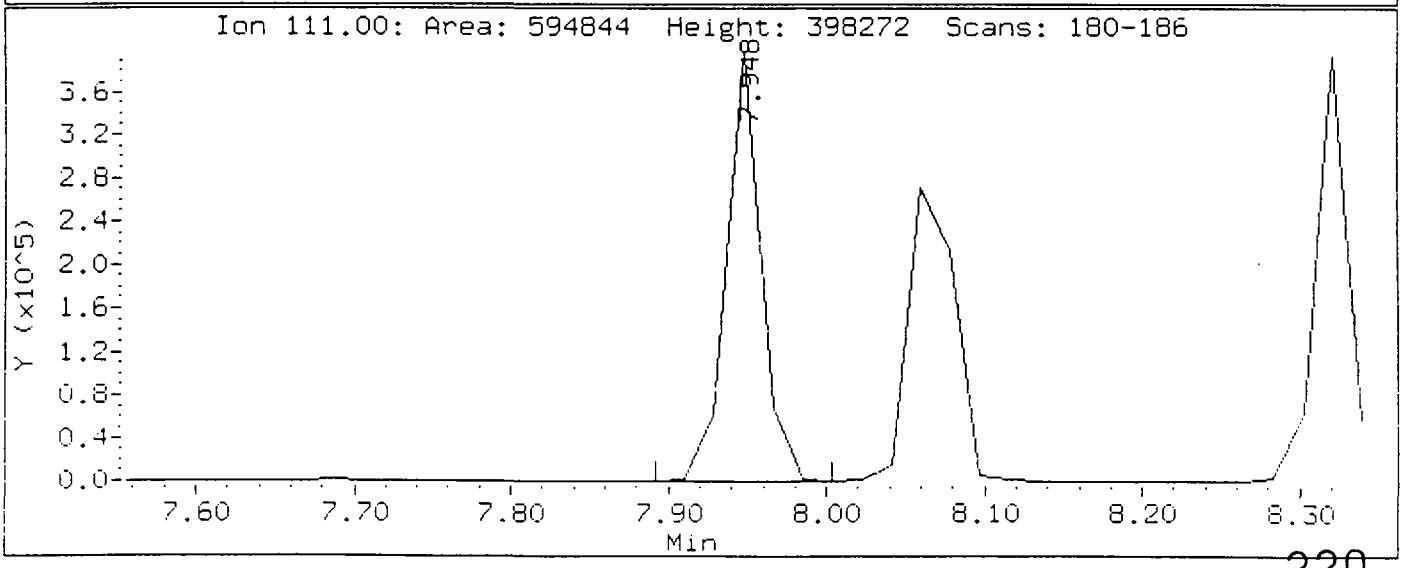
Injection Date: 19-MAR-98 21:24
Instrument: 5972hp68.i
Client Sample ID: SSTD050W6

Compound: 1,3-Dichlorobenzene
CAS Number: 541-73-1







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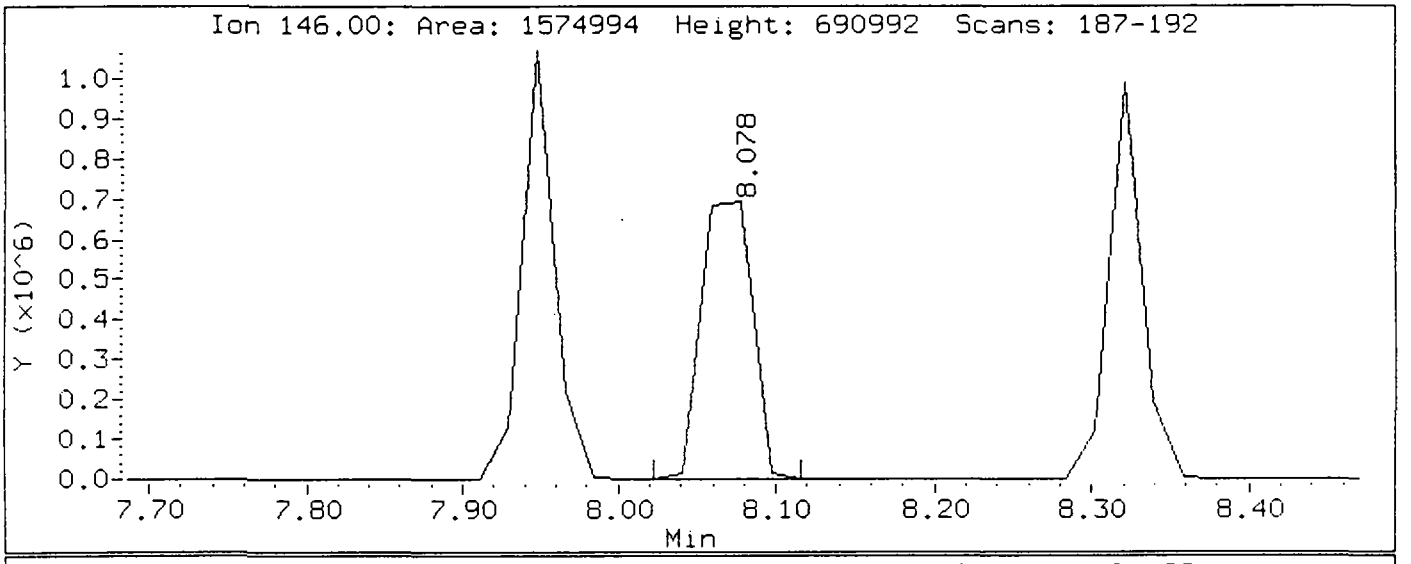
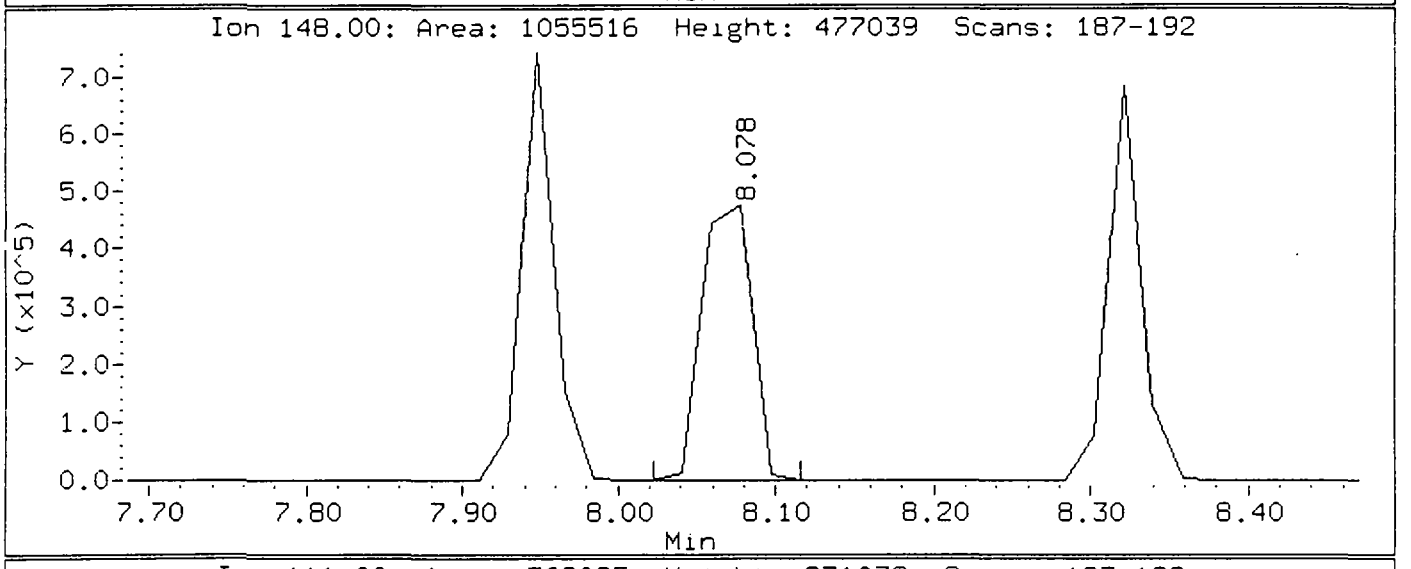
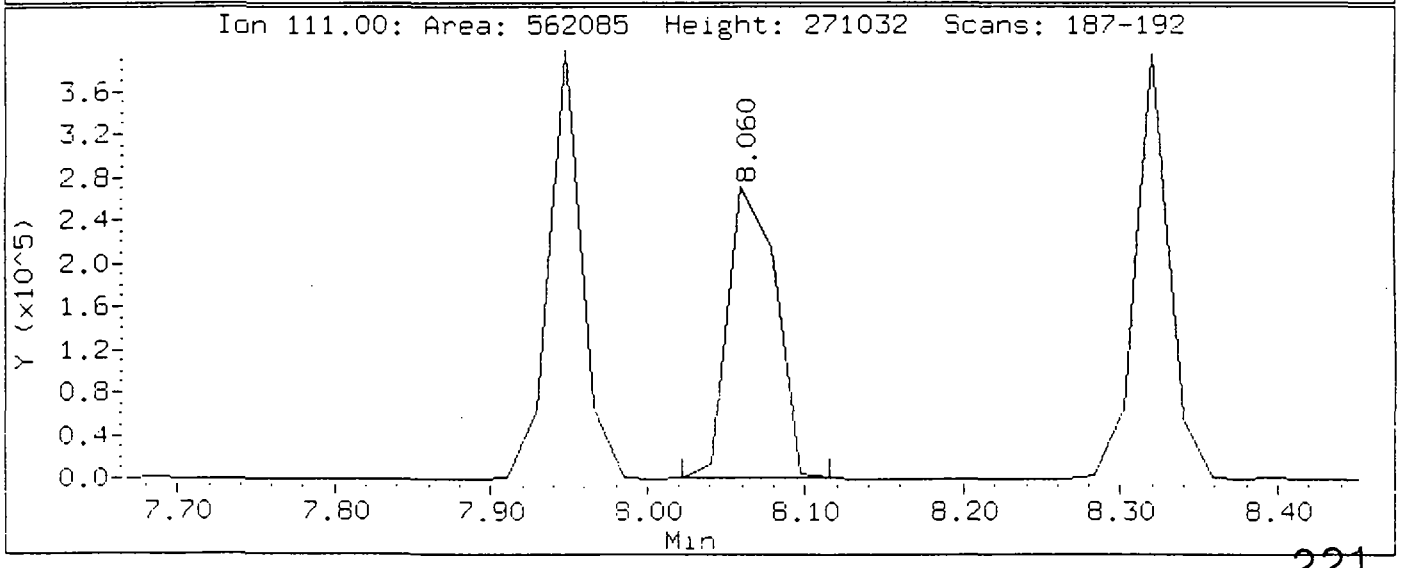
Injection Date: 19-MAR-98 21:24
Instrument: 5972hp68.i
Client Sample ID: SSTD050W6

Compound: 1,4-Dichlorobenzene
CAS Number: 106-46-7







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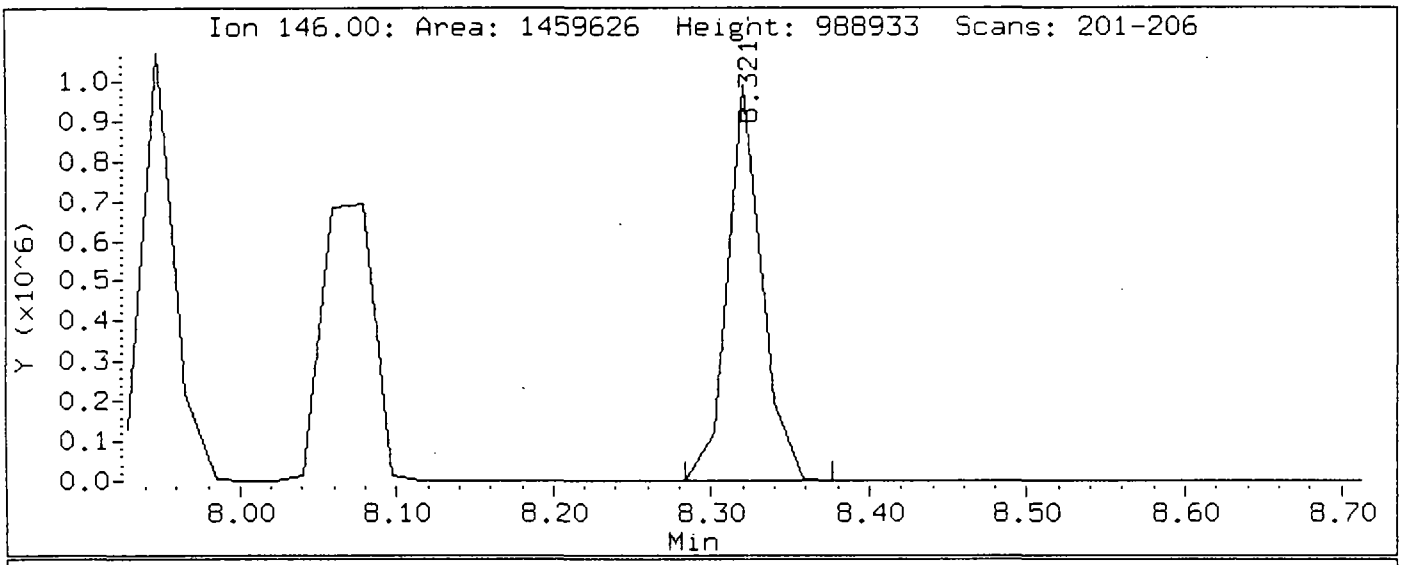
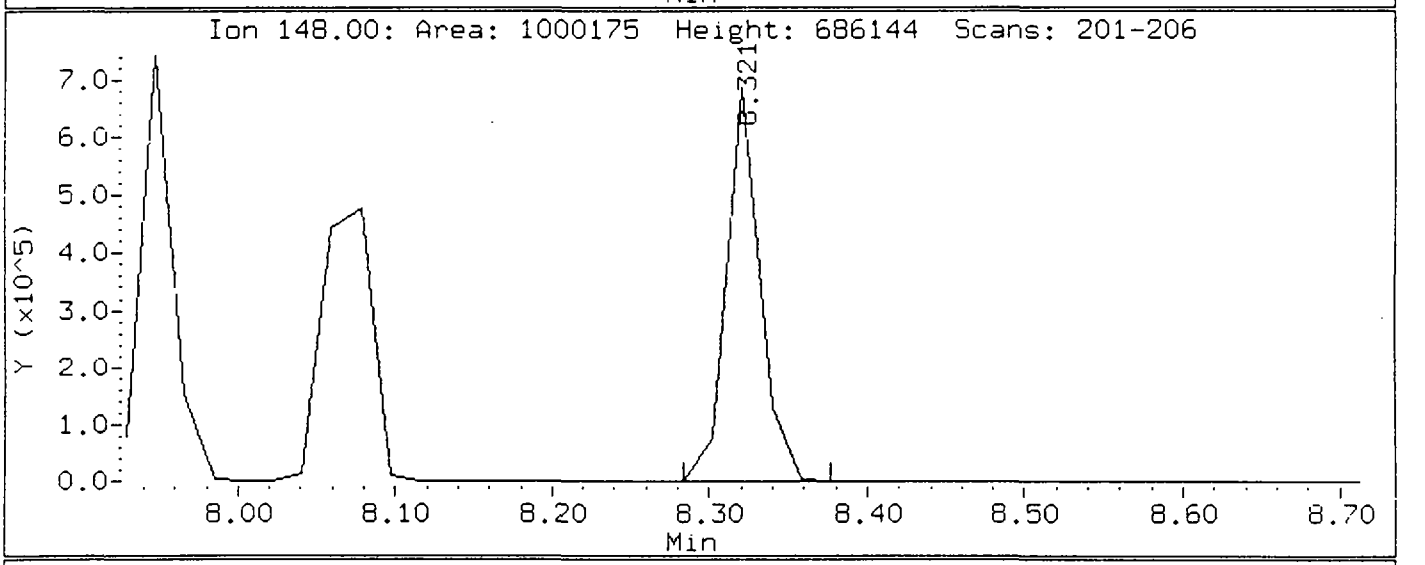
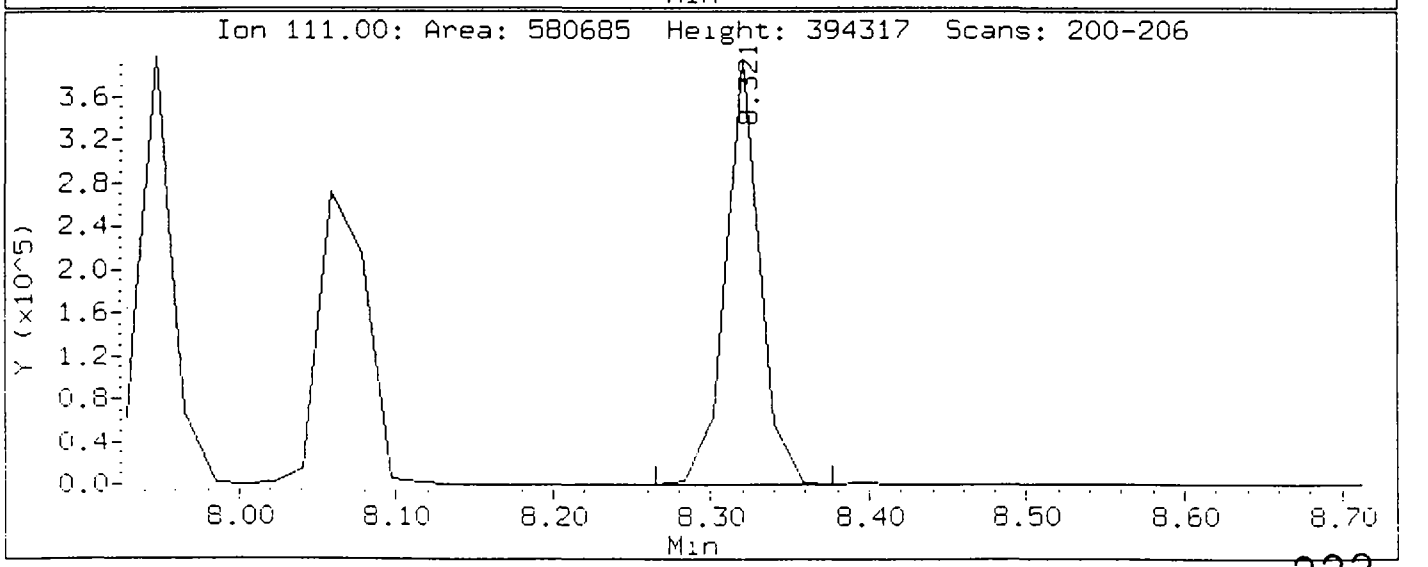
Injection Date: 19-MAR-98 21:24
Instrument: 5972hp68.i
Client Sample ID: SSTD050W6

Compound: 1,2-Dichlorobenzene
CAS Number: 95-50-1







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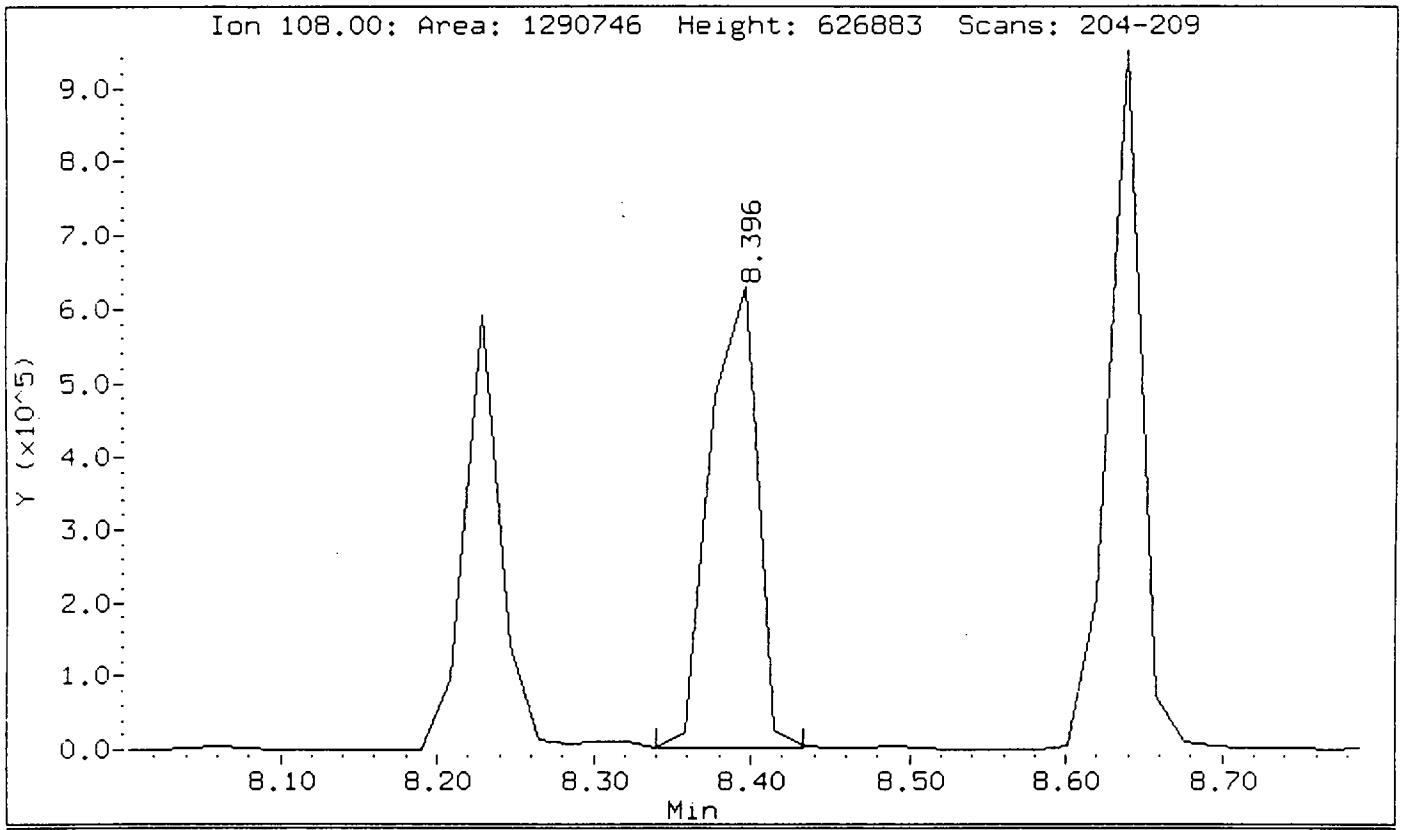
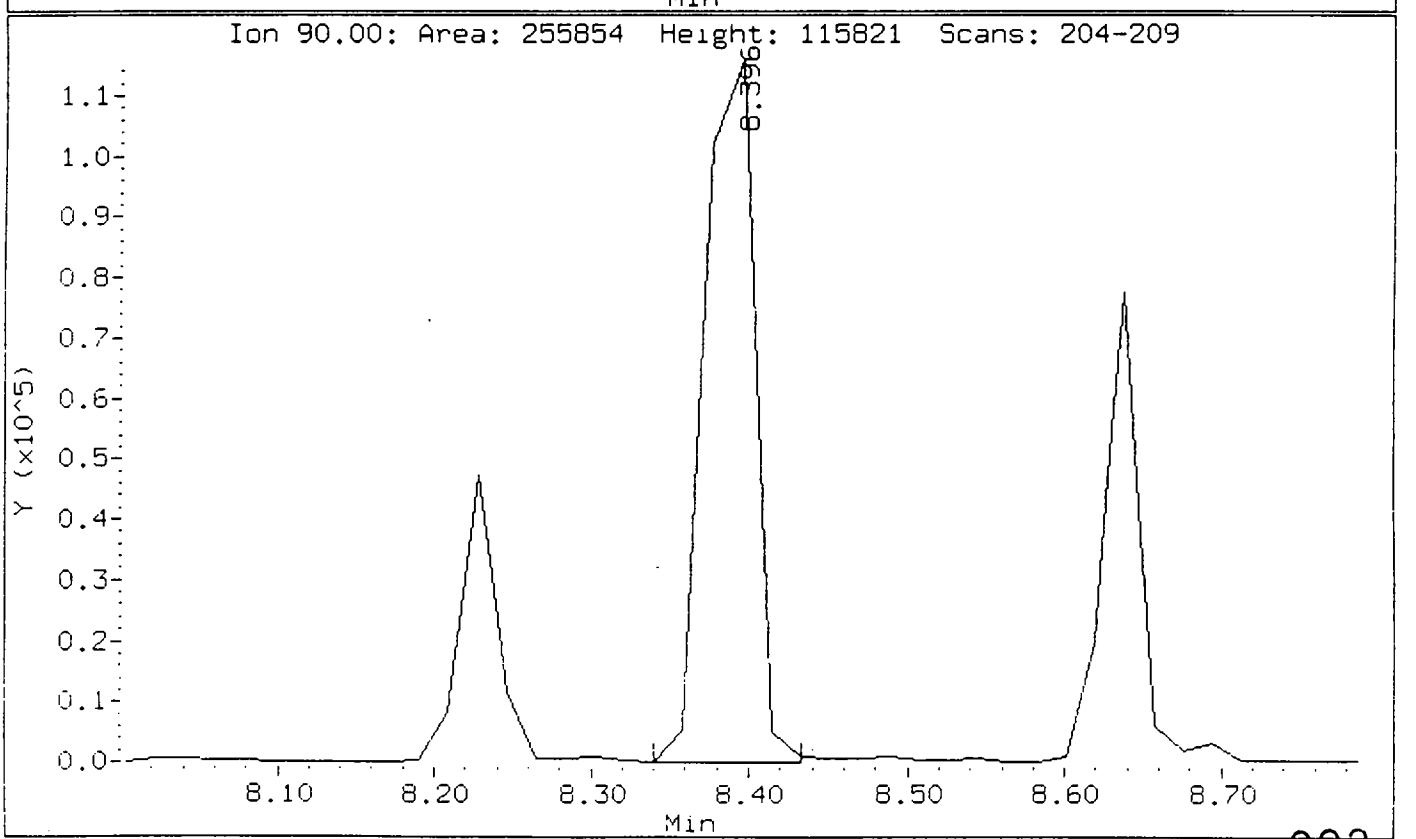
Injection Date: 19-MAR-98 21:24
Instrument: 5972hp68.i
Client Sample ID: SSTD050W6

Compound: 2-Methylphenol
CAS Number: 95-48-7





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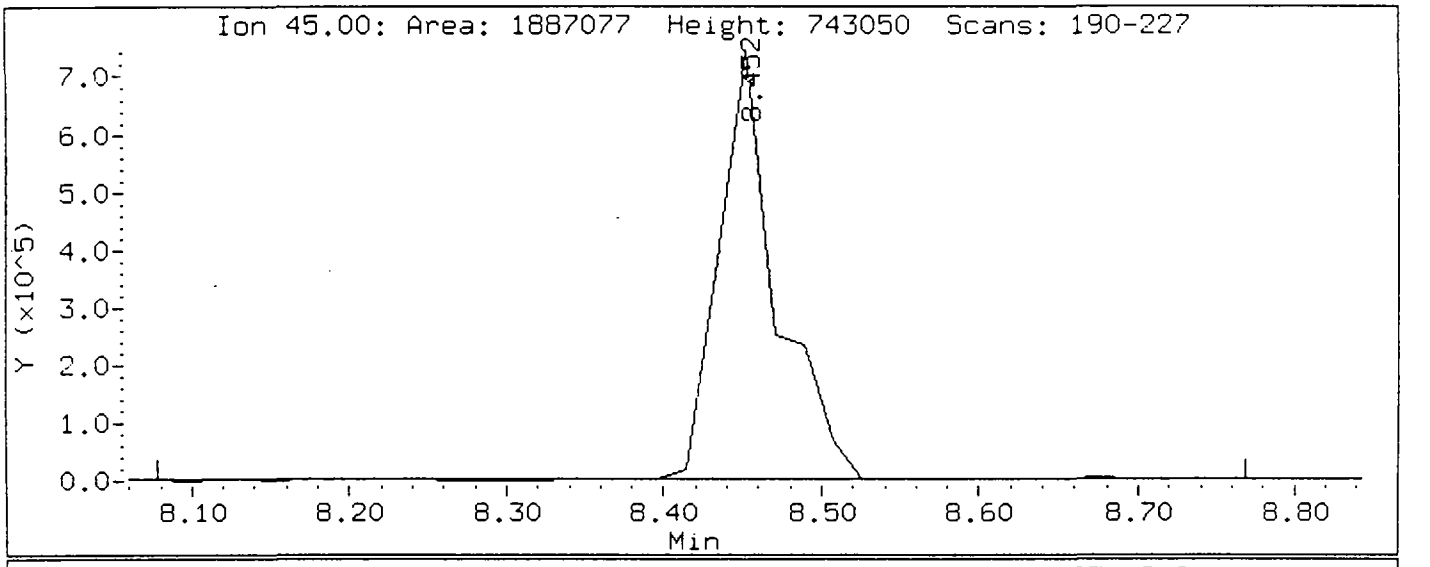
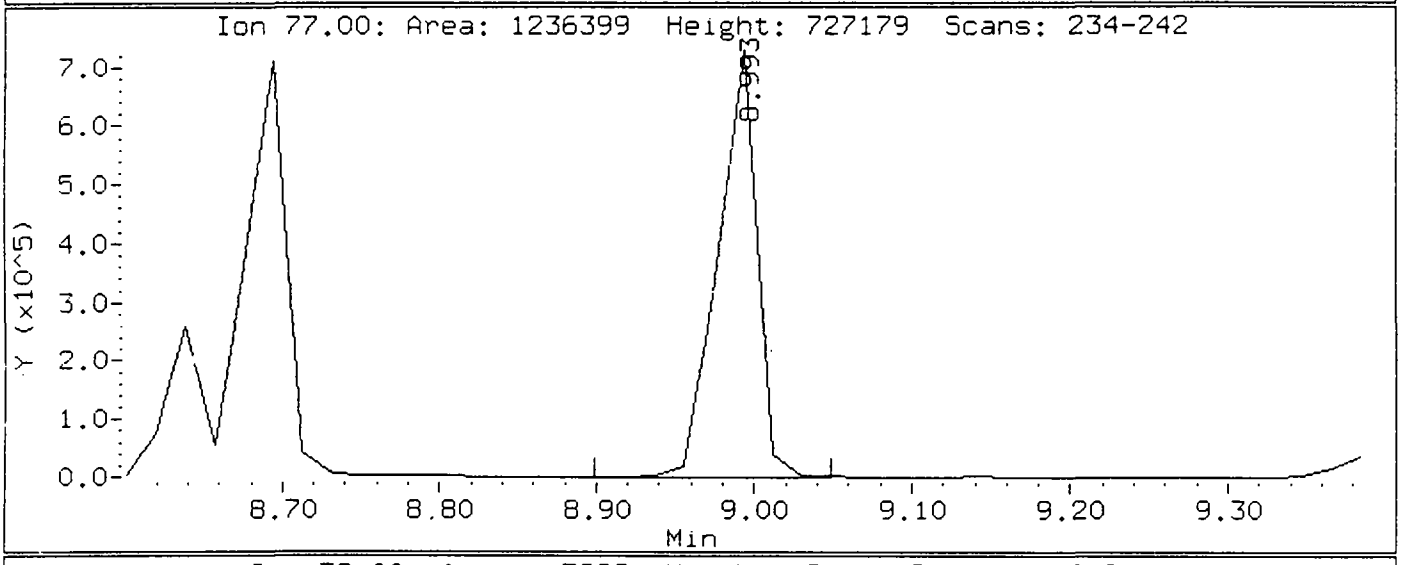
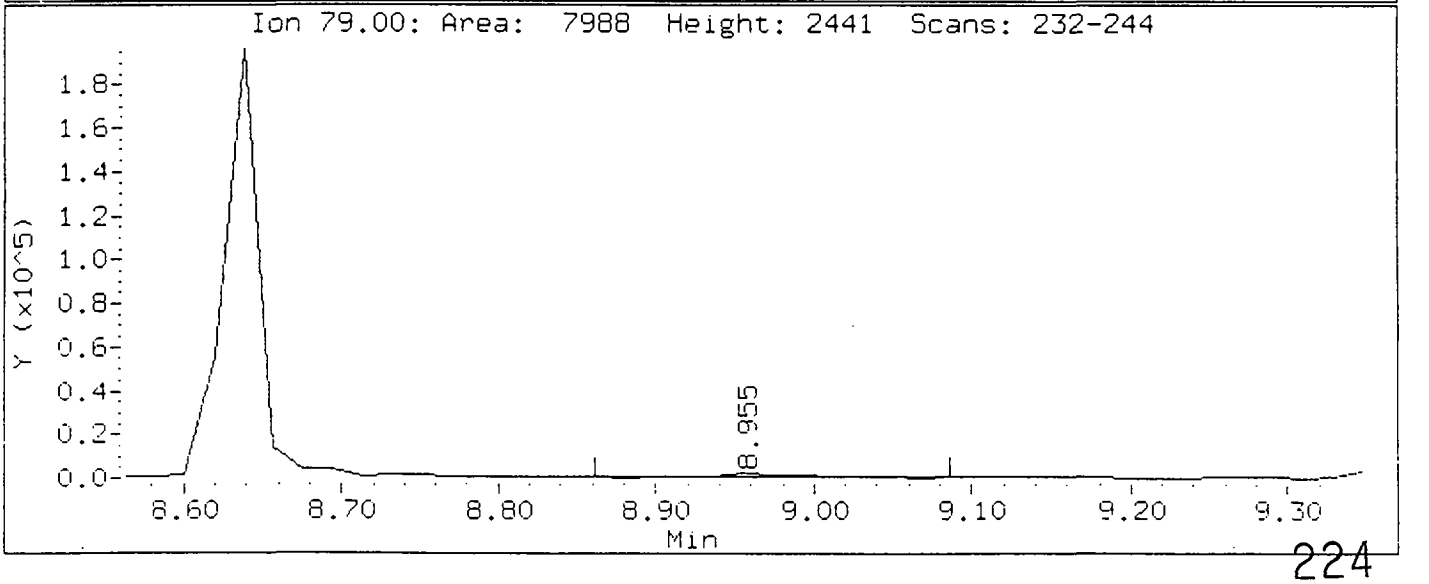
Injection Date: 19-MAR-98 21:24
Instrument: 5972hp68.i
Client Sample ID: SSTD050W6

Compound: 2,2'-oxybis(1-Chloropropane)
CAS Number: 108-60-1







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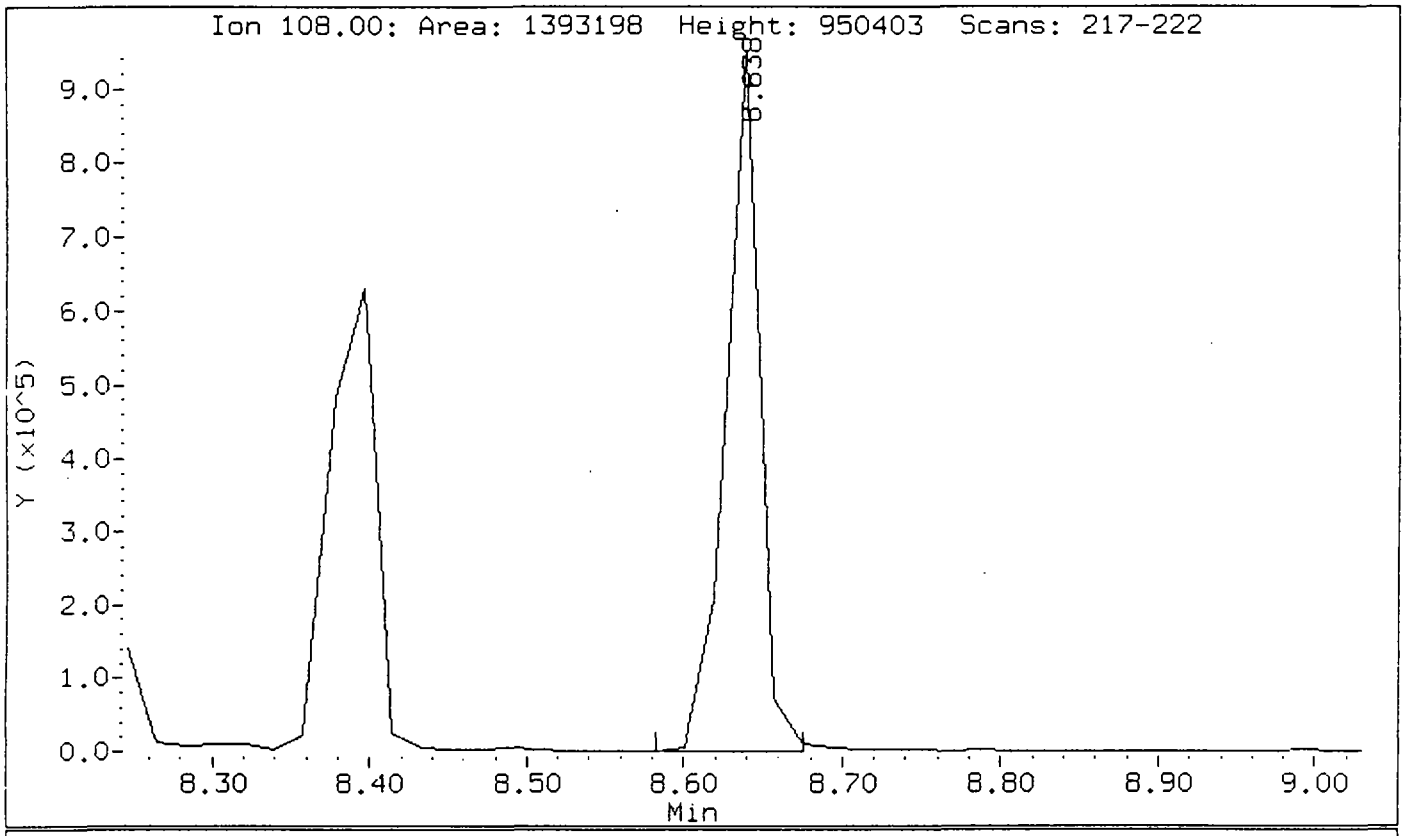
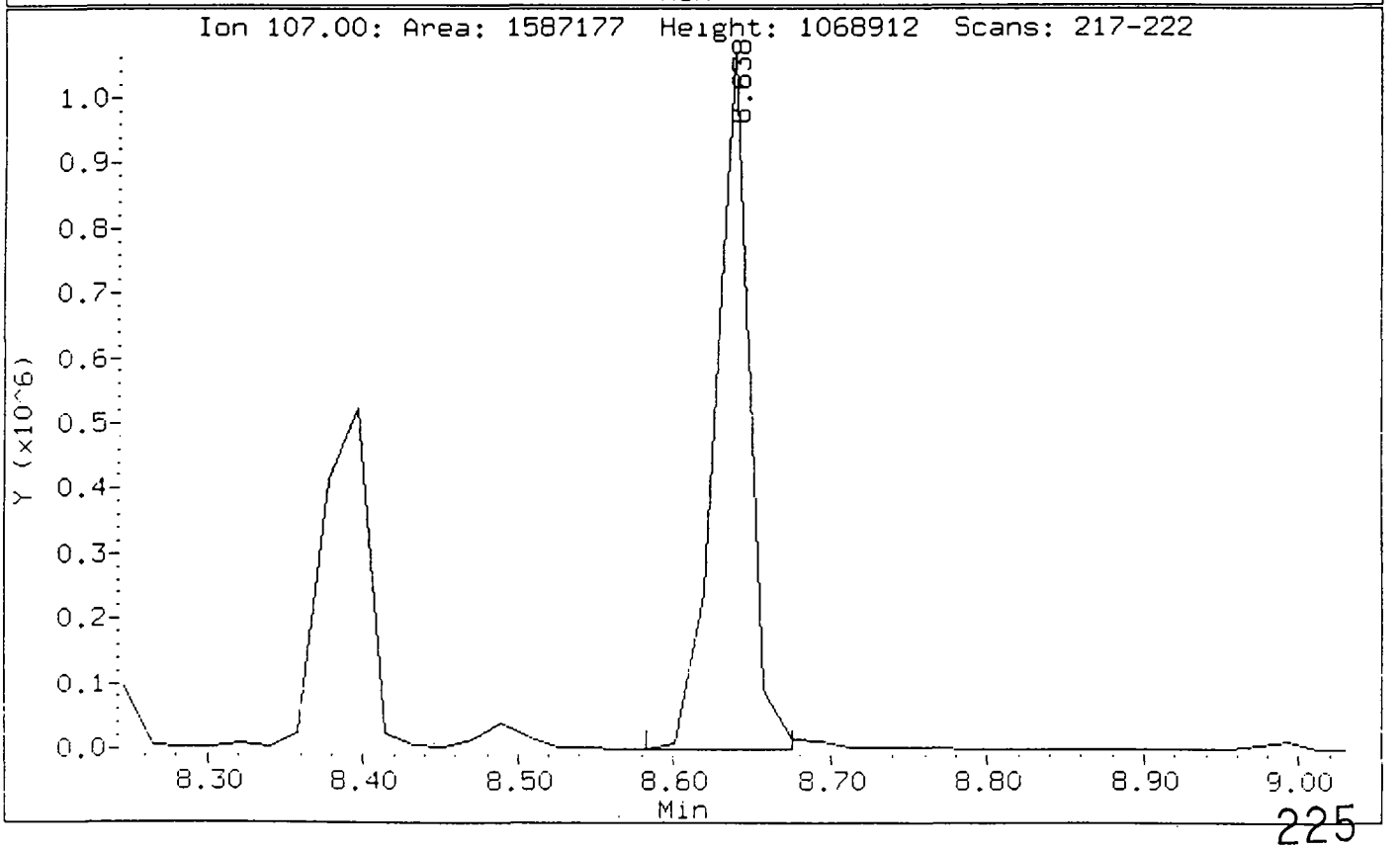
Injection Date: 19-MAR-98 21:24
Instrument: 5972hp68.i
Client Sample ID: SSTD050W6

Compound: 4-Methylphenol
CAS Number: 106-44-5





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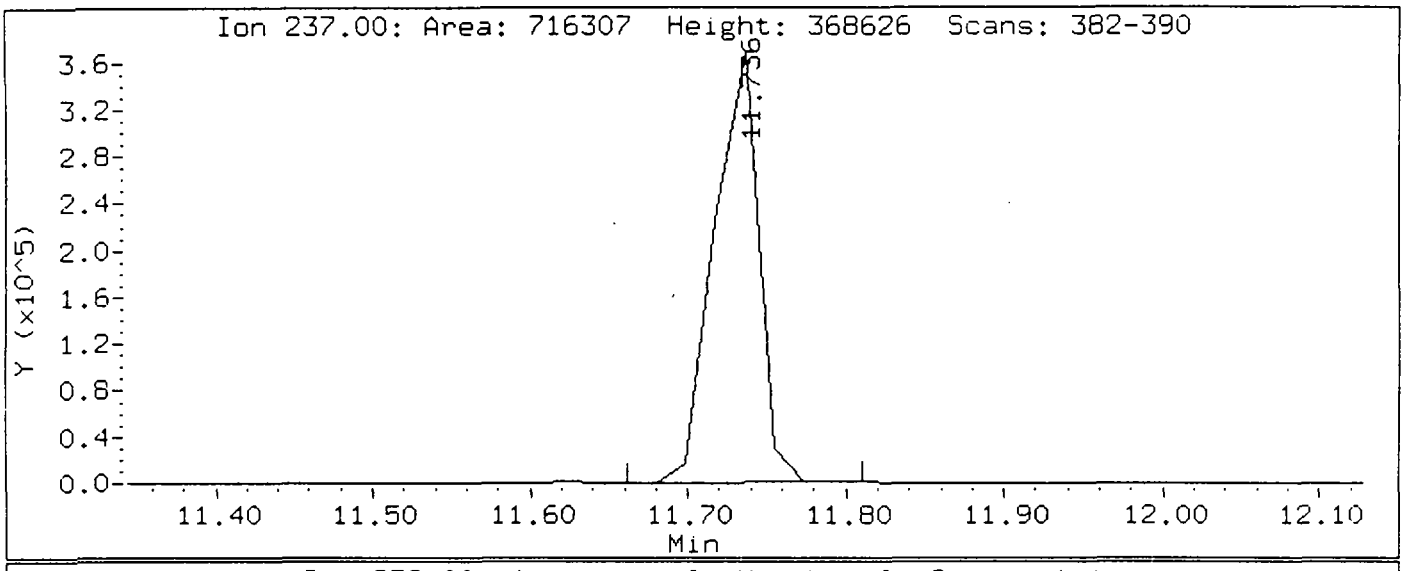
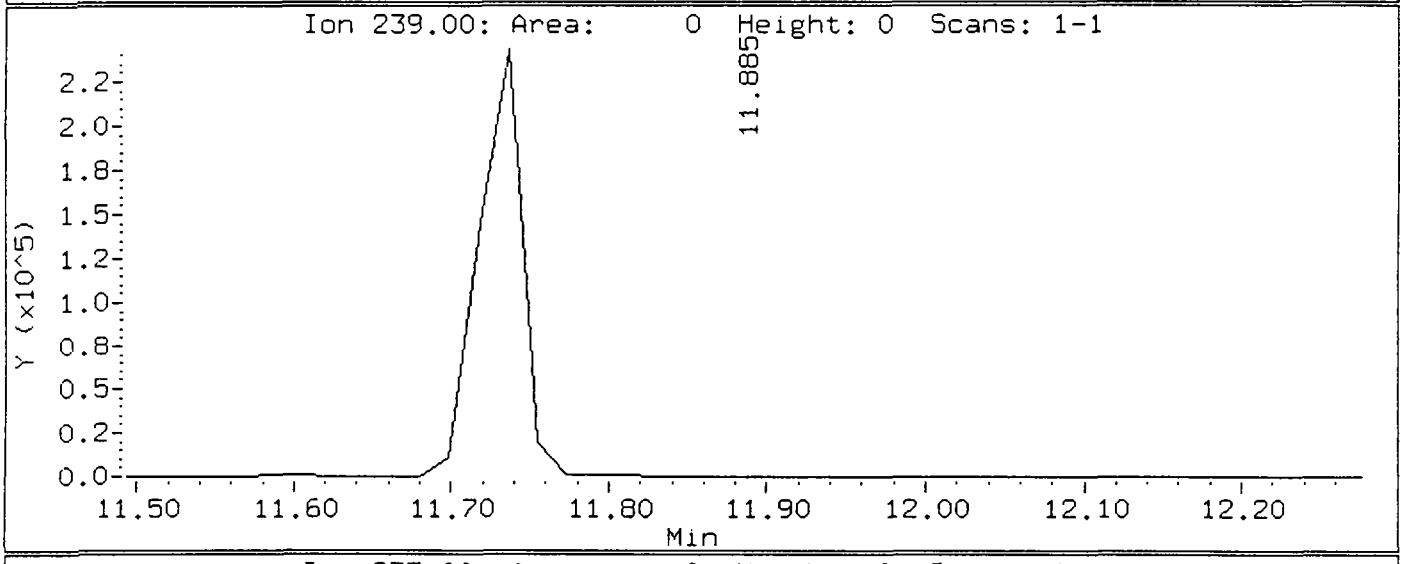
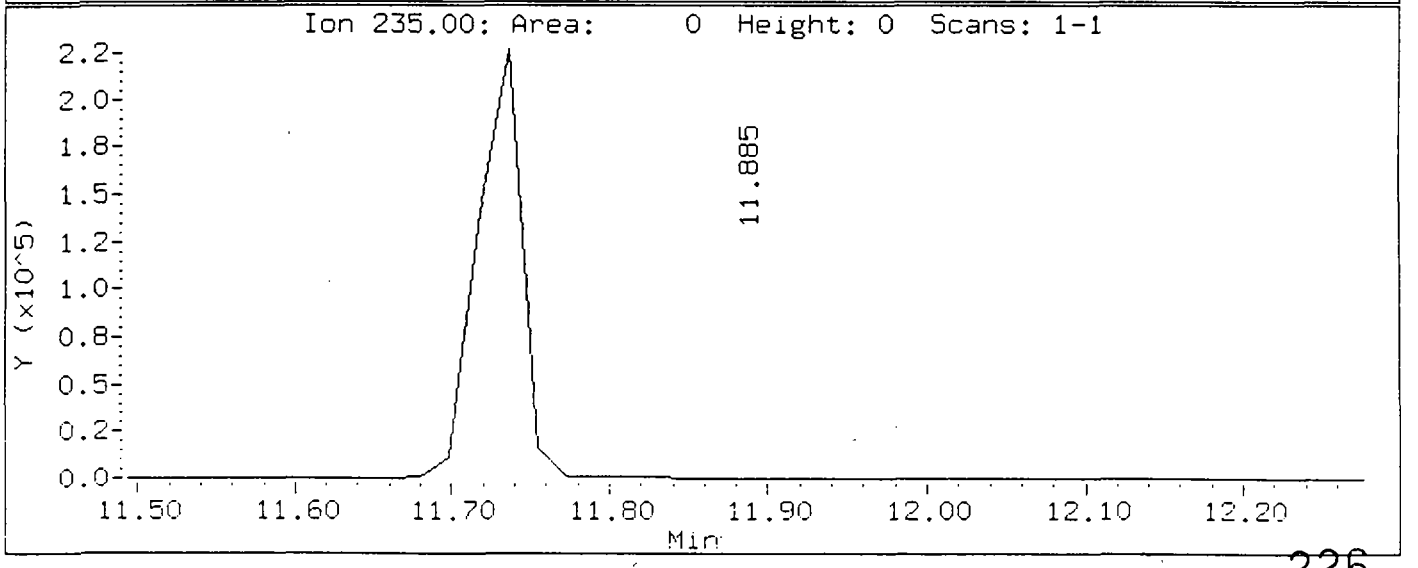
Injection Date: 19-MAR-98 21:24
Instrument: 5972hp68.i
Client Sample ID: SSTD050W6

Compound: Hexachlorocyclopentadiene
CAS Number: 77-47-4







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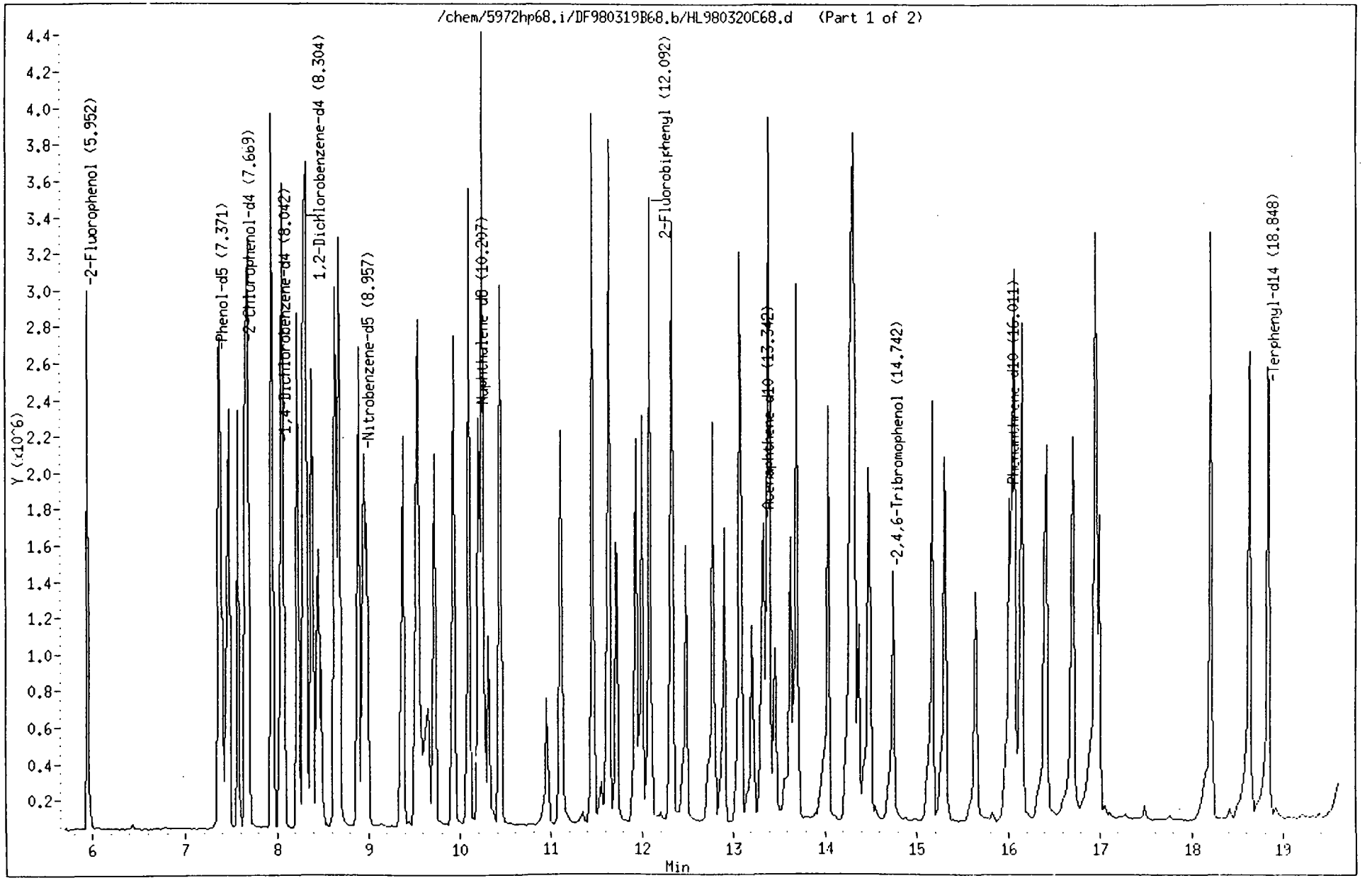
Date : 20-MAR-1998 02:10
Client ID: SSTD080W6
Sample Info:
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32

227



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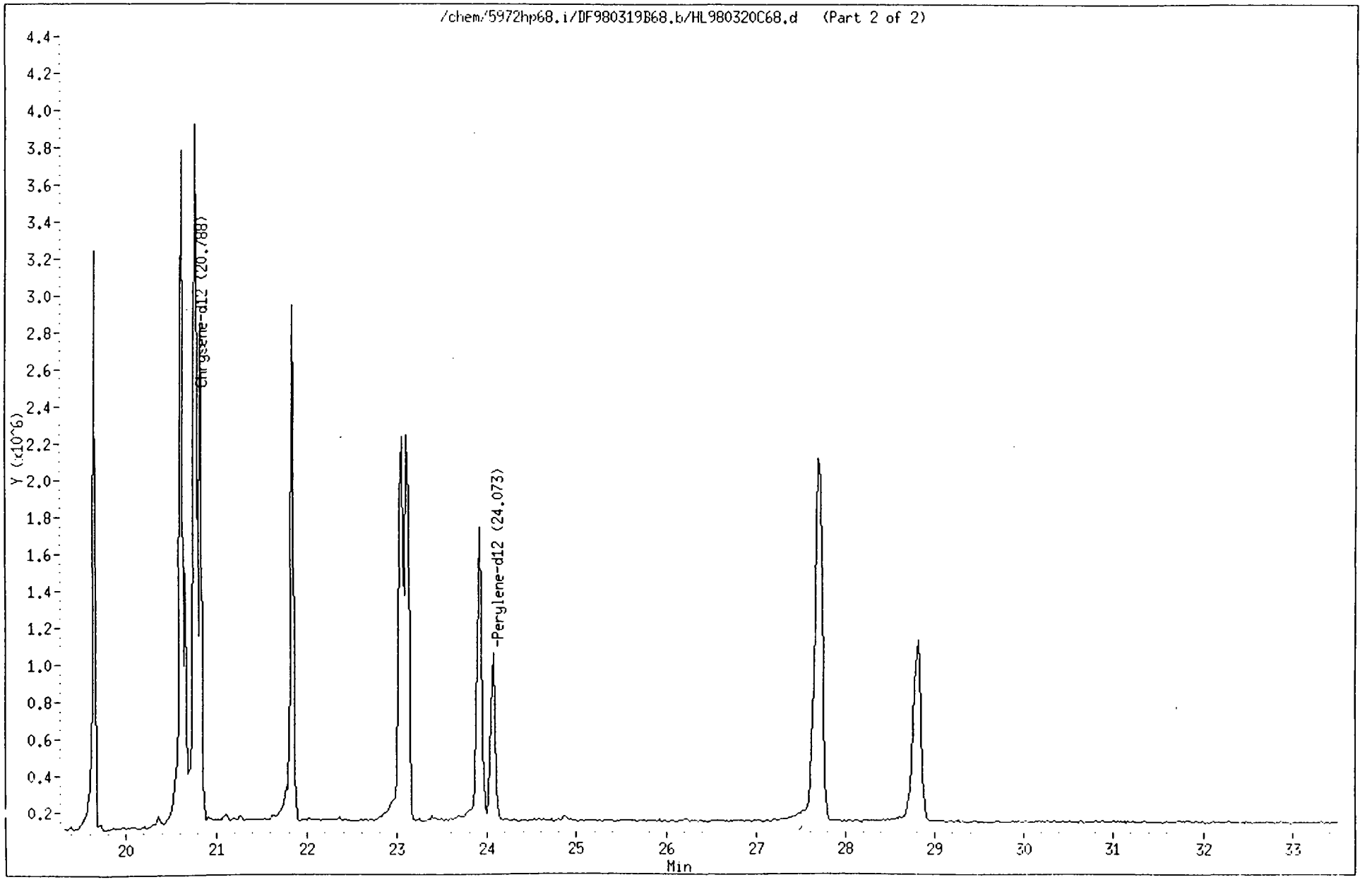
Date : 20-MAR-1998 02:10
Client ID: SSTD080W6
Sample Info:
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32

228



Data File: /chem/5972hp68.i/DF980319B68.b/HL980320C68.d
Report Date: 22-Mar-1998 08:29

CompuChem Environmental Corp.

OLM03.0 + REVISIONS QUANT AND RATIO REPORT

Data file : /chem/5972hp68.i/DF980319B68.b/HL980320C68.d
Lab Smp Id: SSTD080W6 Client Smp ID: SSTD080W6
Inj Date : 20-MAR-1998 02:10
Operator : 2242 Inst ID: 5972hp68.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp68.i/DF980319B68.b/OLMO3.m
Meth Date : 22-Mar-1998 08:29 mss Quant Type: ISTD
Cal Date : 19-MAR-1998 21:24 Cal File: HG980319B68.d
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.12
Concentration Formula: Vt/(Vo * Vi)

Name	Value	Description
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152.00	8.042	8.041	(1.000)	611964	40.00		
* 2 Naphthalene-d8	136.00	10.207	10.206	(1.000)	2014220	40.00		9189
* 3 Acenaphthene-d10	164.00	13.342	13.341	(1.000)	985870	40.00		8521
* 4 Phenanthrene-d10	188.00	16.011	16.028	(1.000)	1377281	40.00		9482
* 5 Chrysene-d12	240.00	20.788	20.787	(1.000)	1184357	40.00		9579
* 6 Perylene-d12	264.00	24.073	24.071	(1.000)	1271219	40.00		9484
S 7 2-Fluorophenol	112.00	5.952	5.951	(0.740)	1466110	80.00	82.30	
S 8 Phenol-d5	99.00	7.371	7.369	(0.916)	1557254	80.00	75.68	7998
S 9 2-Chlorophenol-d4	132.00	7.669	7.668	(0.954)	1548384	80.00	78.53	8238
S 10 1,2-Dichlorobenzene-d4	152.00	8.304	8.302	(1.032)	1043957	80.00	79.33	
S 11 Nitrobenzene-d5	82.00	8.957	8.955	(0.877)	1101293	80.00	74.95	8373
S 12 2-Fluorobiphenyl	172.00	12.092	12.091	(0.906)	2302753	80.00	78.46	8675
S 13 2,4,6-Tribromophenol	329.60	14.742	14.741	(0.921)	496698	80.00	81.94	
S 14 Terphenyl-d14	244.00	18.848	18.846	(0.907)	2173263	80.00	72.94	7846
15 Phenol	94.00	7.389	7.388	(0.919)	1426359	80.00	74.64	
16 bis(2-Chloroethyl)ether	93.00	7.576	7.574	(0.942)	1237268	80.00	77.87	8709
17 2-Chlorophenol	128.00	7.688	7.686	(0.956)	1518123	80.00	78.87	7992
18 1,3-Dichlorobenzene	146.00	7.949	7.948	(0.988)	1657470	80.00	80.30	
19 1,4-Dichlorobenzene	146.00	8.061	8.078	(1.002)	1628706	80.00	80.71	
20 1,2-Dichlorobenzene	146.00	8.322	8.321	(1.035)	1482849	80.00	78.84	
21 2-Methylphenol	108.00	8.375	8.396	(1.042)	1187157	80.00	73.19	

Data File: /chem/5972hp68.i/DF980319B68.b/HL980320C68.d
Report Date: 22-Mar-1998 08:29

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
22 2,2'-oxybis(1-Chloropropane)	45.00	8.453	8.452	(1.051)	1710954	80.00	73.66	
23 4-Methylphenol	108.00	8.640	8.638	(1.074)	1261582	80.00	73.18	
24 N-Nitroso-di-n-propylamine	70.00	8.677	8.676	(1.079)	694328	80.00	71.95	8372
25 Hexachloroethane	117.00	8.901	8.899	(1.107)	702444	80.00	79.59	7849
26 Nitrobenzene	77.00	8.994	8.993	(0.881)	1064052	80.00	76.11	8120
27 Isophorone	82.00	9.386	9.385	(0.920)	2027609	80.00	75.89	8640
28 2-Nitrophenol	139.00	9.535	9.534	(0.934)	806766	80.00	77.63	7076
29 2,4-Dimethylphenol	107.00	9.554	9.553	(0.936)	1113784	80.00	77.40	7979
30 bis(2-Chloroethoxy)methane	93.00	9.722	9.721	(0.952)	1404443	80.00	77.77	9067
31 2,4-Dichlorophenol	162.00	9.927	9.926	(0.973)	1040648	80.00	79.06	
32 1,2,4-Trichlorobenzene	180.00	10.095	10.094	(0.989)	1152237	80.00	82.63	8187
33 Naphthalene	128.00	10.245	10.243	(1.004)	3660182	80.00	79.70	8598
34 4-Chloroaniline	127.00	10.301	10.299	(1.009)	661083	80.00	78.08	8152
35 Hexachlorobutadiene	225.00	10.431	10.448	(1.022)	739756	80.00	82.74	
36 4-Chloro-3-methylphenol	107.00	11.122	11.120	(1.090)	996100	80.00	75.78	7872
37 2-Methylnaphthalene	142.00	11.458	11.456	(1.122)	2436719	80.00	77.58	
38 Hexachlorocyclopentadiene	237.00	11.737	11.736	(0.880)	689016	80.00	82.01	0(M)
39 2,4,6-Trichlorophenol	196.00	11.943	11.941	(0.895)	729385	80.00	72.26	
40 2,4,5-Trichlorophenol	196.00	11.999	11.997	(0.899)	736930	80.00	84.84	
41 2-Chloronaphthalene	162.00	12.335	12.333	(0.924)	2092627	80.00	79.26	8605
42 2-Nitroaniline	65.00	12.484	12.483	(0.936)	544422	80.00	75.91	8450
43 Dimethylphthalate	163.00	12.783	12.781	(0.958)	2149525	80.00	73.13	8760
44 2,6-Dinitrotoluene	165.00	12.913	12.912	(0.968)	597440	80.00	79.22	8397
45 Acenaphthylene	152.00	13.081	13.080	(0.980)	3311424	80.00	79.06	8755
46 3-Nitroaniline	138.00	13.212	13.229	(0.990)	623119	80.00	83.42	8121
47 Acenaphthene	153.00	13.398	13.397	(1.004)	2057798	80.00	80.40	9004
48 2,4-Dinitrophenol	184.00	13.417	13.416	(1.006)	182262	80.00	69.05	
49 4-Nitrophenol	109.00	13.454	13.472	(1.008)	230749	80.00	69.57	
50 2,4-Dinitrotoluene	165.00	13.641	13.640	(1.022)	746961	80.00	80.84	7048
51 Dibenzofuran	168.00	13.697	13.696	(1.027)	2800090	80.00	78.73	8654
52 Diethylphthalate	149.00	14.033	14.031	(1.052)	2202254	80.00	78.18	
53 4-Chlorophenyl-phenylether	204.00	14.294	14.293	(1.071)	1111369	80.00	84.44	7922
54 Fluorene	166.00	14.313	14.311	(1.073)	2200713	80.00	78.57	9164
55 4-Nitroaniline	138.00	14.313	14.311	(1.073)	536616	80.00	79.16	
56 4,6-Dinitro-2-methylphenol	198.00	14.369	14.367	(0.897)	370915	80.00	83.86	
57 N-nitrosodiphenylamine	169.00	14.499	14.498	(0.906)	1385226	80.00	78.48	8133
58 4-Bromophenyl-phenylether	248.00	15.171	15.170	(0.948)	762823	80.00	84.66	7759
59 Hexachlorobenzene	283.90	15.321	15.319	(0.957)	866207	80.00	85.14	
60 Pentachlorophenol	266.00	15.656	15.655	(0.978)	362575	80.00	73.38	7084
61 Phenanthrene	178.00	16.067	16.066	(1.003)	2193269	80.00	70.10	
62 Anthracene	178.00	16.160	16.159	(1.009)	2678848	80.00	82.90	
63 Carbazole	167.00	16.422	16.420	(1.026)	2084604	80.00	76.88	9219
64 Di-n-butylphthalate	149.00	16.963	16.961	(1.059)	3988235	80.00	81.84	
65 Fluoranthene	202.00	18.213	18.212	(1.138)	2853002	80.00	86.87	
66 Pyrene	202.00	18.642	18.641	(0.897)	2901366	80.00	73.54	
67 Butylbenzylphthalate	149.00	19.650	19.649	(0.945)	1845220	80.00	78.64	8574
68 3,3'-Dichlorobenzidine	252.00	20.658	20.656	(0.994)	590174	80.00	79.37	7722
69 bis(2-Ethylhexyl)phthalate	149.00	20.620	20.619	(0.992)	2383429	80.00	78.78	7436(H)
70 Benzo(a)anthracene	228.00	20.770	20.768	(0.999)	2488799	80.00	64.50	

Data File: /chem/5972hp68.i/DF980319B68.b/HL980320C68.d
Report Date: 22-Mar-1998 08:29

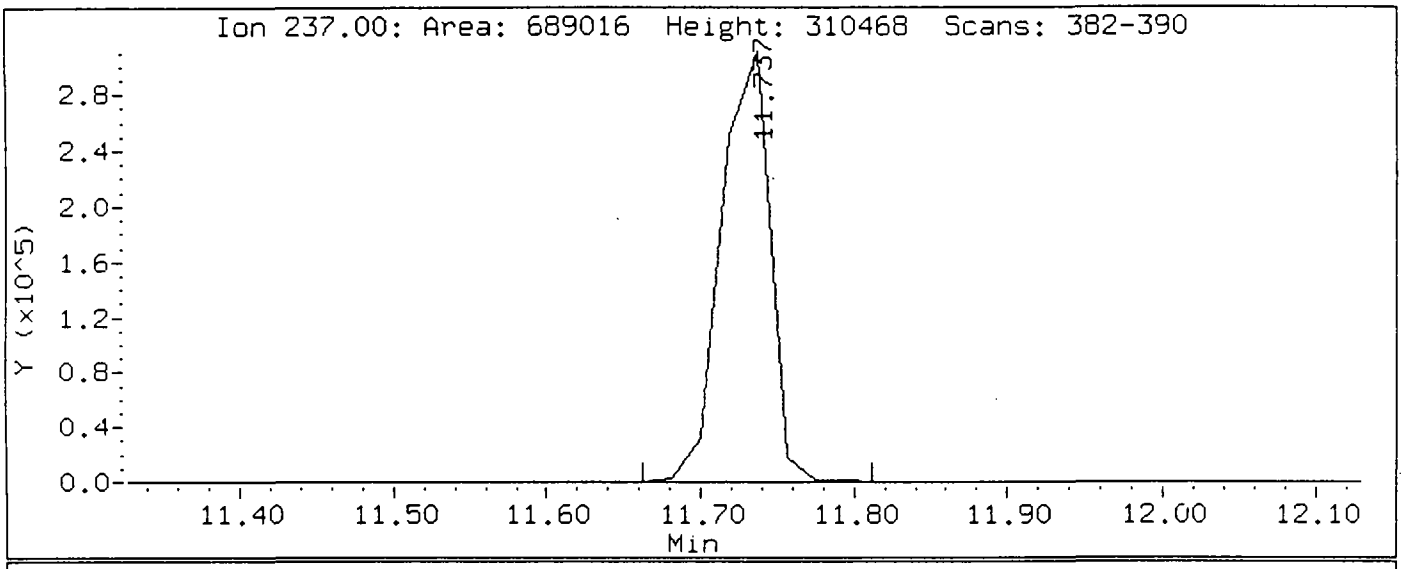
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
71 Chrysene	228.00	20.826	20.824	(1.002)	2448876	80.00	77.80	
72 Di-n-octylphthalate	149.00	21.833	21.832	(0.907)	3710358	80.00	73 22	8536
73 Benzo(b)fluoranthene	252.00	23.046	23.045	(0.957)	3553298	80.00	87.63	
74 Benzo(k)fluoranthene	252.00	23.102	23.101	(0.960)	2593408	80.00	72.25	
75 Benzo(a)pyrene	252.00	23.924	23.922	(0.994)	2435017	80.00	81.91	
76 Indeno(1,2,3-cd)pyrene	276.00	27.693	27.673	(1.150)	2796267	80.00	82.69	9624
77 Dibenzo(a,h)anthracene	278.00	27.712	27.692	(1.151)	2277787	80.00	81.91	7376
78 Benzo(g,h,i)perylene	276.00	28.813	28.793	(1.197)	2425869	80.00	82.86	9067

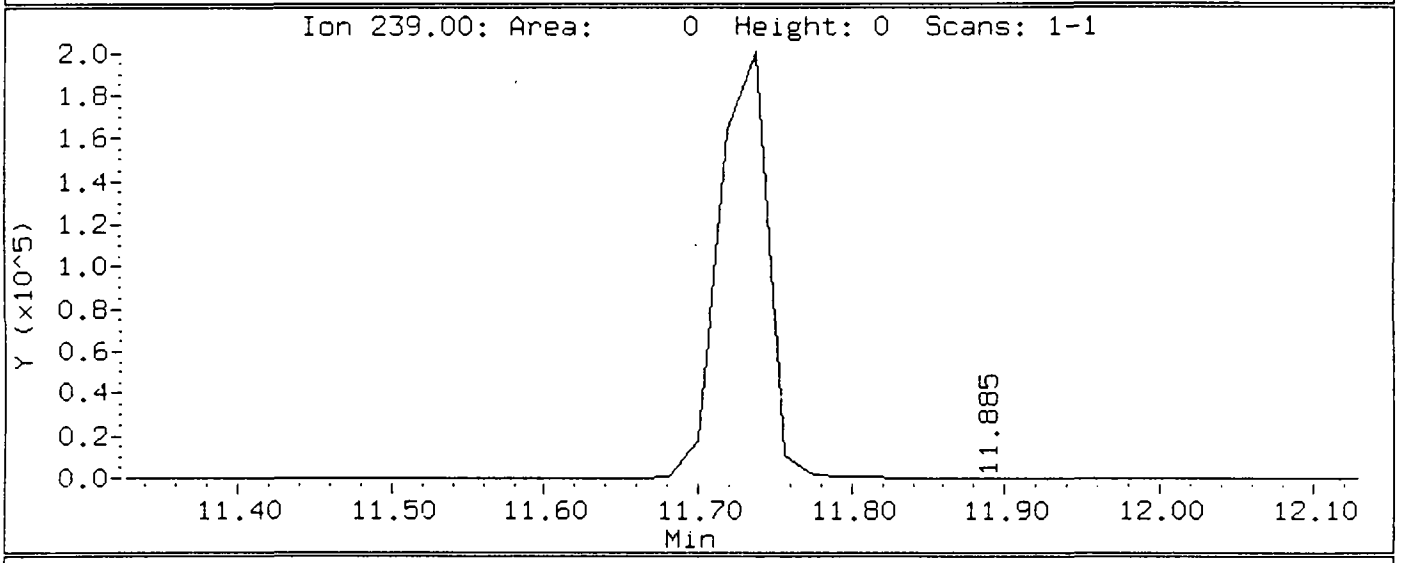
QC Flag Legend

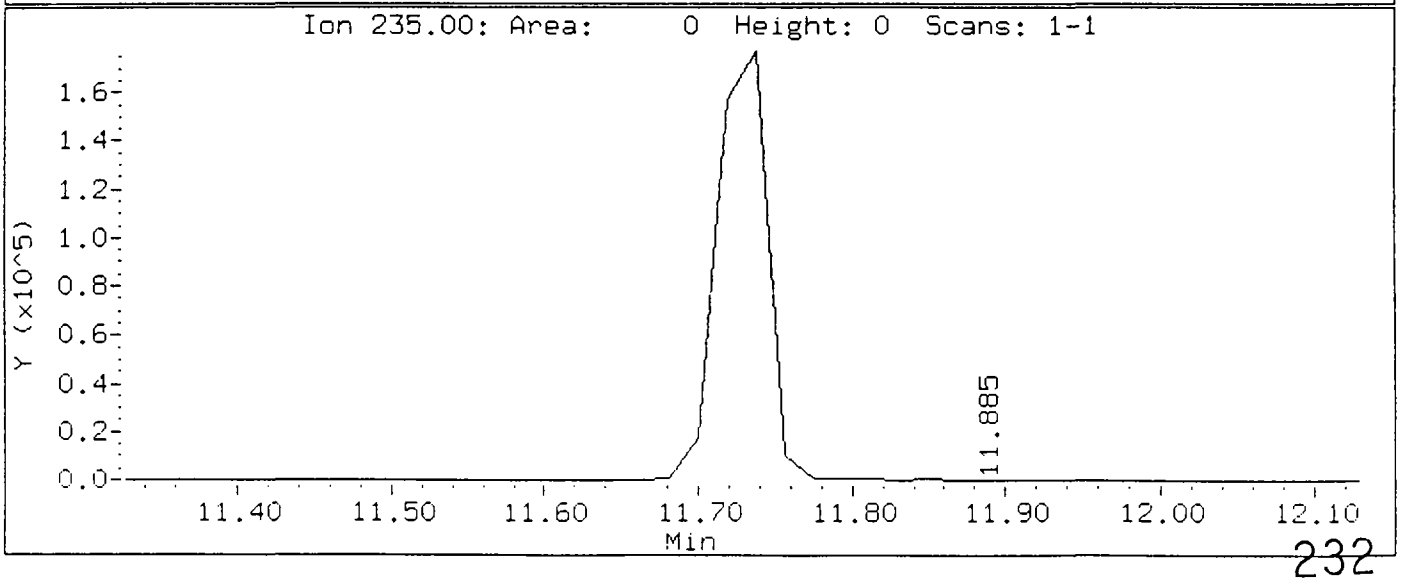
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /chem/5972hp68.i/DF980319B68.b/HL980320C68.d
Injection Date: 20-MAR-98 02:10
Instrument: 5972hp68.i
Client Sample ID: SSTD080W6

Compound: Hexachlorocyclopentadiene
CAS Number: 77-47-4







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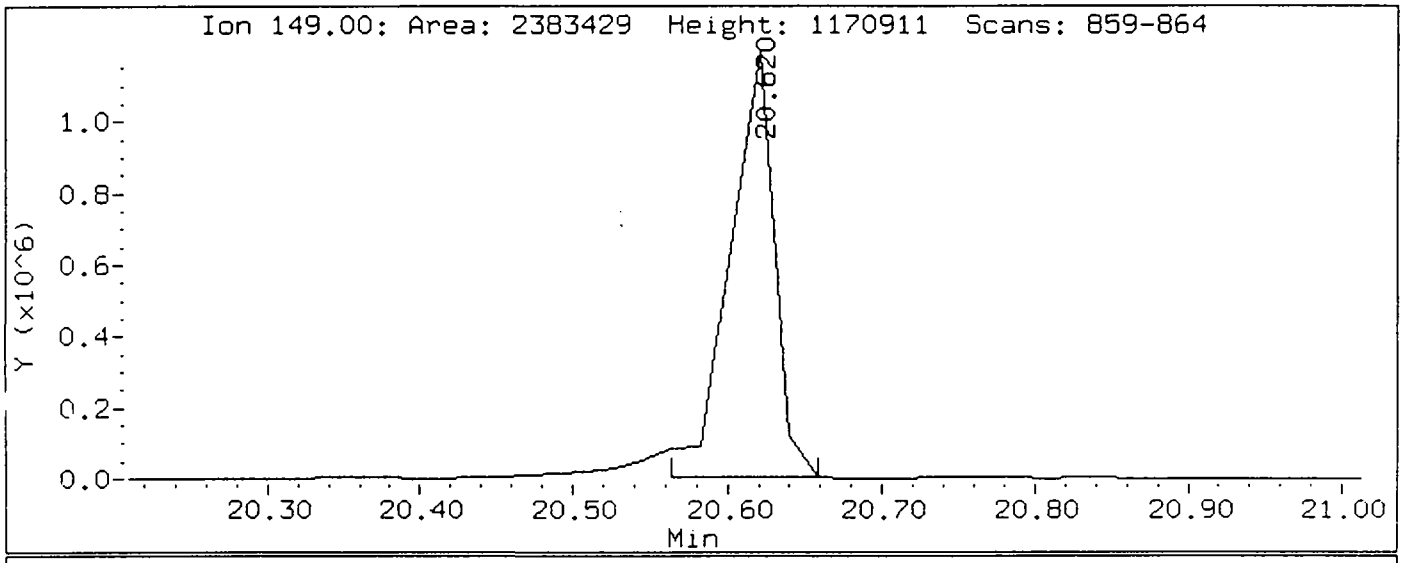
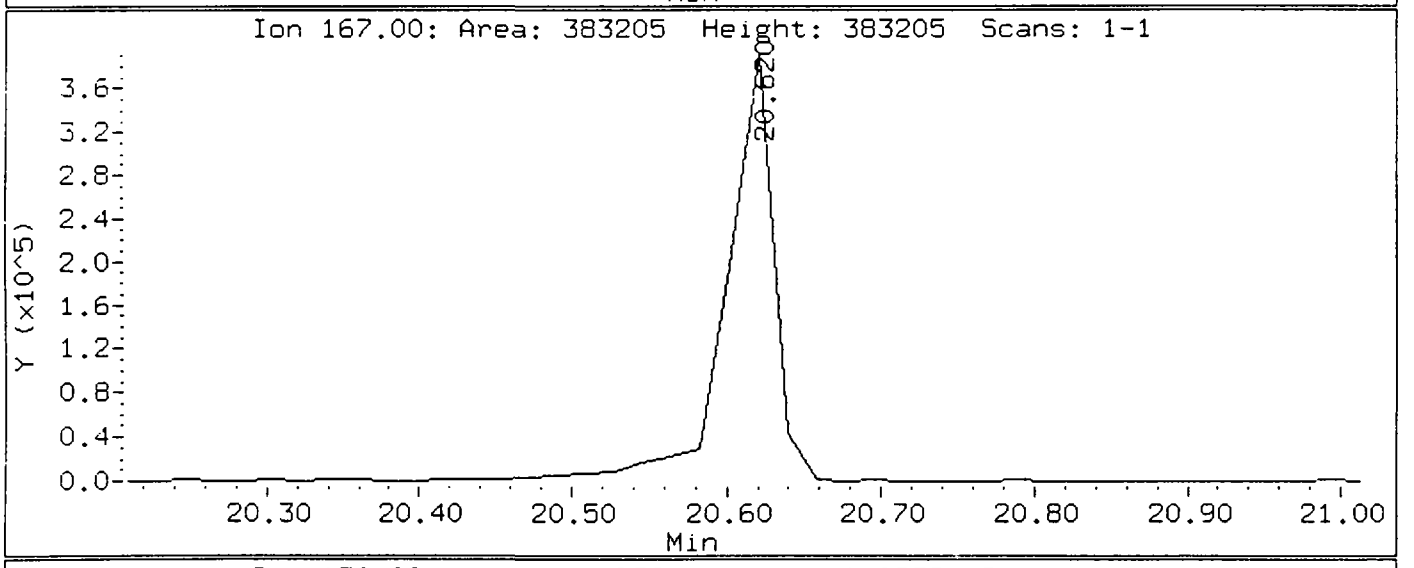
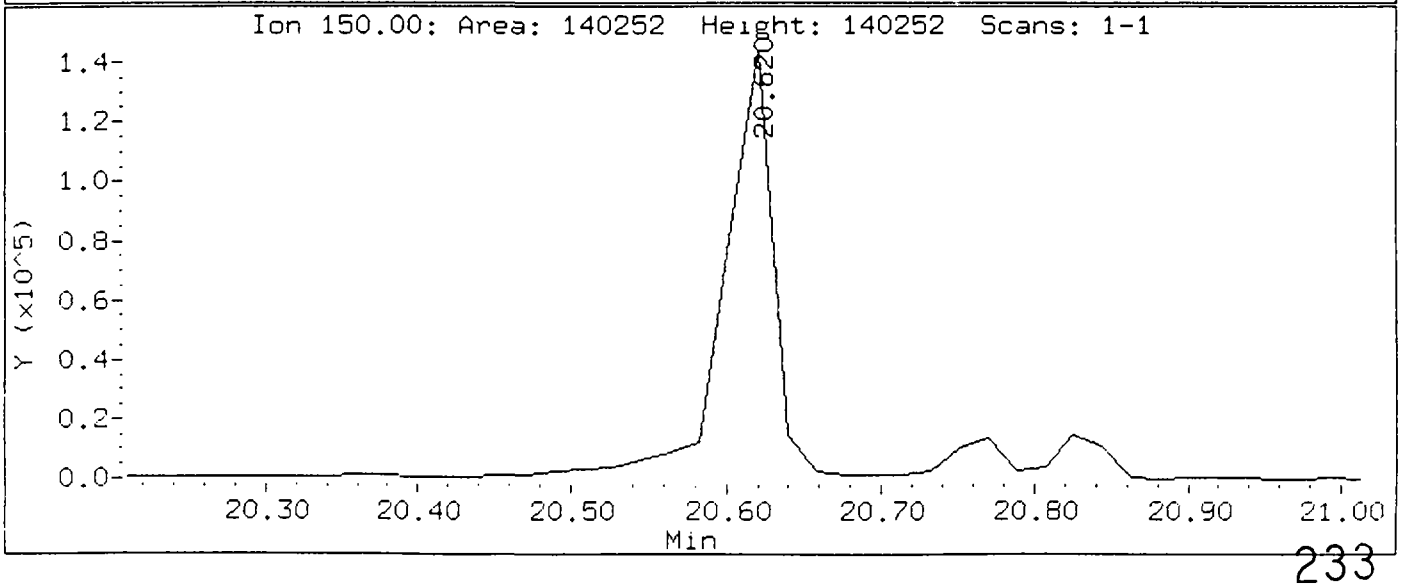
Injection Date: 20-MAR-98 02:10
Instrument: 5972hp68.i
Client Sample ID: SSTD080W6

Compound: bis(2-Ethylhexyl)phthalate
CAS Number: 117-81-7





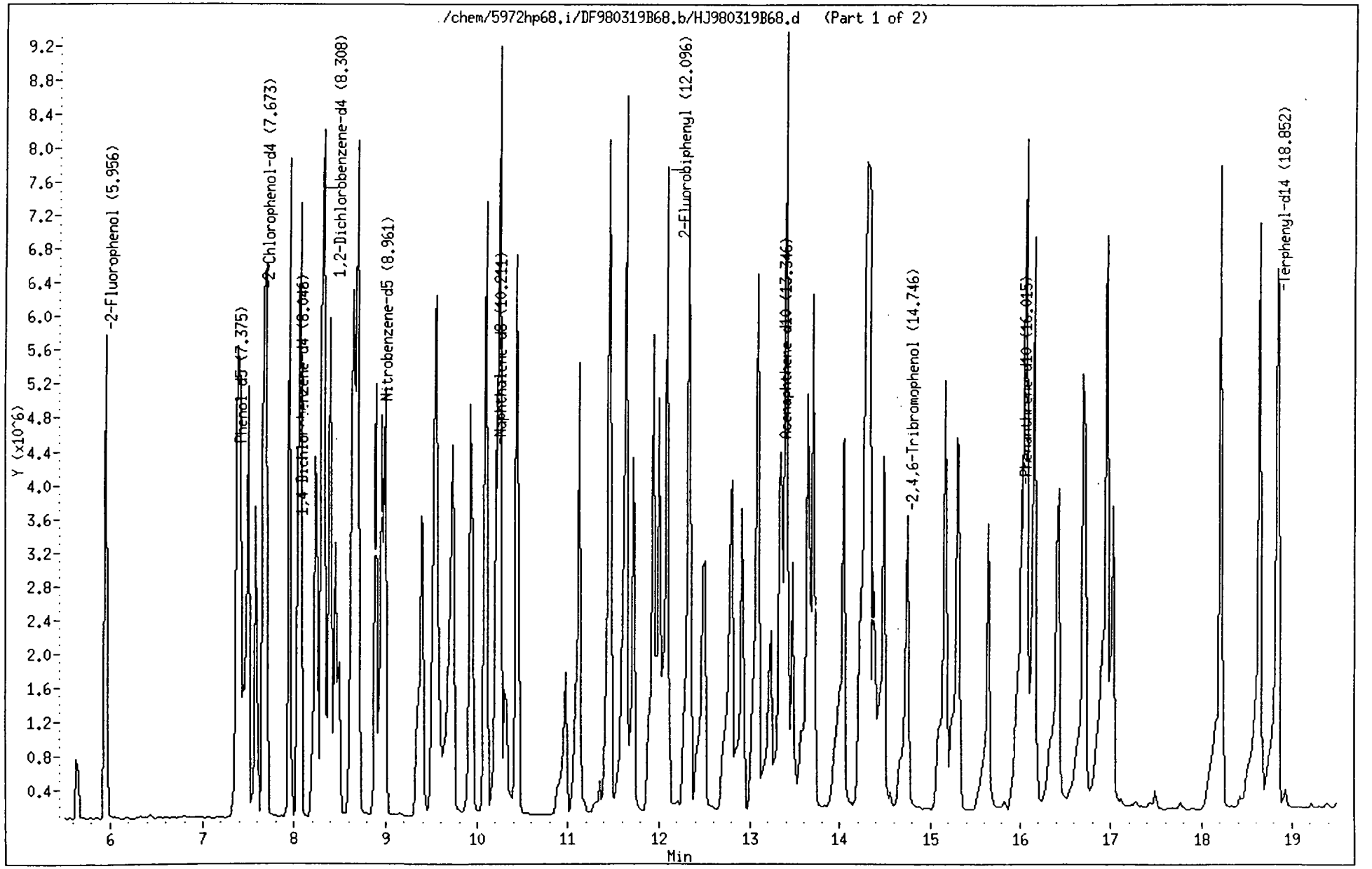


Data File: /chem/5972hp68.i/DF980319B68.b/HJ980319B68.d
Date : 19-MAR-1998 23:38
Client ID: SSTD120W6
Sample Info:
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32

234



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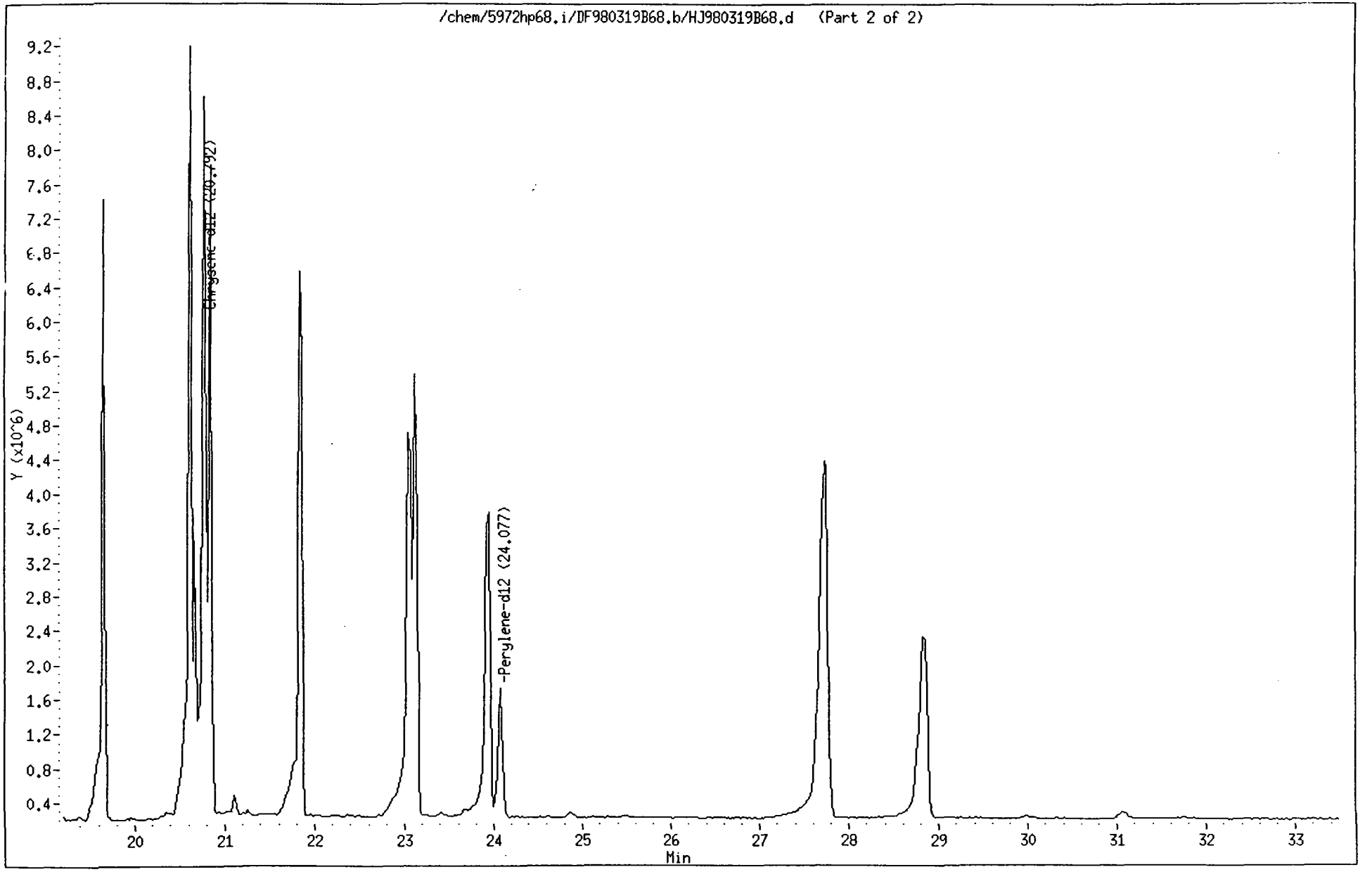
Date : 19-MAR-1998 23:38
Client ID: SSTD120W6
Sample Info:
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32

235



Data File: /chem/5972hp68.i/DF980319B68.b/HJ980319B68.d
Report Date: 20-Mar-1998 14:19

CompuChem Environmental Corp.

OLM03.0 + REVISIONS QUANT AND RATIO REPORT

Data file : /chem/5972hp68.i/DF980319B68.b/HJ980319B68.d
Lab Smp Id: SSTD120W6 Client Smp ID: SSTD120W6
Inj Date : 19-MAR-1998 23:38
Operator : 2242 Inst ID: 5972hp68.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp68.i/DF980319B68.b/OLM03.m
Meth Date : 20-Mar-1998 14:19 harris Quant Type: ISTD
Cal Date : 19-MAR-1998 21:24 Cal File: HG980319B68.d
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.12
Concentration Formula: Vt/(Vo * Vi)

Name	Value	Description
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152.00	8.046	8.041	(1.000)	939046	40.00		
* 2 Naphthalene-d8	136.00	10.211	10.206	(1.000)	3558520	40.00		8039
* 3 Acenaphthene-d10	164.00	13.346	13.341	(1.000)	1948307	40.00		8665
* 4 Phenanthrene-d10	188.00	16.015	16.028	(1.000)	3091004	40.00		9424
* 5 Chrysene-d12	240.00	20.792	20.787	(1.000)	2180389	40.00		9637
* 6 Perylene-d12	264.00	24.077	24.071	(1.000)	2135064	40.00		8387
$ 7 2-Fluorophenol	112.00	5.956	5.951	(0.740)	2964080	120.0	113.4	
$ 8 Phenol-d5	99.00	7.375	7.369	(0.916)	3751646	120.0	121.7	8092
$ 9 2-Chlorophenol-d4	132.00	7.673	7.668	(0.954)	3484538	120.0	119.3	8345
$ 10 1,2-Dichlorobenzene-d4	152.00	8.308	8.302	(1.032)	2331758	120.0	118.6	
$ 11 Nitrobenzene-d5	82.00	8.961	8.955	(0.878)	3123818	120.0	119.3	8437
$ 12 2-Fluorobiphenyl	172.00	12.096	12.091	(0.906)	6395960	120.0	110.9	8888
$ 13 2,4,6-Tribromophenol	329.60	14.746	14.741	(0.921)	1495189	120.0	109.2	
$ 14 Terphenyl-d14	244.00	18.852	18.846	(0.907)	7096871	120.0	130.3	7920
15 Phenol	94.00	7.412	7.388	(0.921)	3424646	120.0	120.6	
16 bis(2-Chloroethyl)ether	93.00	7.580	7.574	(0.942)	2719010	120.0	115.9	8534
17 2-Chlorophenol	128.00	7.692	7.686	(0.956)	3300679	120.0	116.9	8242
18 1,3-Dichlorobenzene	146.00	7.953	7.948	(0.988)	3438299	120.0	113.8	
19 1,4-Dichlorobenzene	146.00	8.065	8.078	(1.002)	3445686	120.0	115.6	
20 1,2-Dichlorobenzene	146.00	8.326	8.321	(1.035)	3208450	120.0	115.6	
21 2-Methylphenol	108.00	8.401	8.396	(1.044)	3100091	120.0	125.9	

Data File: /chem/5972hp68.i/DF980319B68.b/HJ980319B68.d
Report Date: 20-Mar-1998 14:19

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
22 2,2'-oxybis(1-Chloropropane)	45.00	8.457	8.452	(1.051)	4047270	120.0	115.9	
23 4-Methylphenol	108.00	8.644	8.638	(1.074)	3195436	120.0	122.5	
24 N-Nitroso-di-n-propylamine	70.00	8.681	8.676	(1.079)	1585548	120.0	113.4	8450
25 Hexachloroethane	117.00	8.905	8.899	(1.107)	1481773	120.0	114.2	7789
26 Nitrobenzene	77.00	8.998	8.993	(0.881)	2773541	120.0	113.6	8282
27 Isophorone	82.00	9.390	9.385	(0.920)	5560244	120.0	120.1	8915
28 2-Nitrophenol	139.00	9.539	9.534	(0.934)	2244984	120.0	122.2	7171
29 2,4-Dimethylphenol	107.00	9.558	9.553	(0.936)	2878521	120.0	116.6	8272
30 bis(2-Chloroethoxy)methane	93.00	9.726	9.721	(0.952)	3572854	120.0	115.0	8908
31 2,4-Dichlorophenol	162.00	9.931	9.926	(0.973)	2700333	120.0	118.8	
32 1,2,4-Trichlorobenzene	180.00	10.099	10.094	(0.989)	2729074	120.0	114.8	8222
33 Naphthalene	128.00	10.248	10.243	(1.004)	9019027	120.0	115.3	8923
34 4-Chloroaniline	127.00	10.323	10.299	(1.011)	1520449	120.0	125.5	7528
35 Hexachlorobutadiene	225.00	10.435	10.448	(1.022)	1753702	120.0	114.0	
36 4-Chloro-3-methylphenol	107.00	11.126	11.120	(1.090)	2932529	120.0	127.2	8262
37 2-Methylnaphthalene	142.00	11.461	11.456	(1.122)	6561256	120.0	121.4	
38 Hexachlorocyclopentadiene	237.00	11.723	11.736	(0.878)	1977386	120.0	112.4	7626
39 2,4,6-Trichlorophenol	196.00	11.947	11.941	(0.895)	2748153	120.0	129.7	
40 2,4,5-Trichlorophenol	196.00	12.003	11.997	(0.899)	1624708	120.0	99.92	
41 2-Chloronaphthalene	162.00	12.339	12.333	(0.924)	5817024	120.0	112.5	8586
42 2-Nitroaniline	65.00	12.488	12.483	(0.936)	1683912	120.0	119.0	8160
43 Dimethylphthalate	163.00	12.805	12.781	(0.959)	7004695	120.0	120.8	8208
44 2,6-Dinitrotoluene	165.00	12.917	12.912	(0.968)	1877197	120.0	127.8	8748
45 Acenaphthylene	152.00	13.085	13.080	(0.980)	9245863	120.0	114.3	8714
46 3-Nitroaniline	138.00	13.234	13.229	(0.992)	1647092	120.0	120.7	7779
47 Acenaphthene	153.00	13.402	13.397	(1.004)	5746634	120.0	116.4	9073
48 2,4-Dinitrophenol	184.00	13.421	13.416	(1.006)	951442	120.0	156.8	
49 4-Nitrophenol	109.00	13.477	13.472	(1.010)	943189	120.0	139.4	
50 2,4-Dinitrotoluene	165.00	13.645	13.640	(1.022)	2242190	120.0	127.1	0(M)
51 Dibenzofuran	168.00	13.701	13.696	(1.027)	8251321	120.0	119.3	8730
52 Diethylphthalate	149.00	14.055	14.031	(1.053)	5572867	120.0	105.2	
53 4-Chlorophenyl-phenylether	204.00	14.298	14.293	(1.071)	2700608	120.0	109.6	7715
54 Fluorene	166.00	14.335	14.311	(1.074)	6567647	120.0	120.4	8974
55 4-Nitroaniline	138.00	14.335	14.311	(1.074)	1653190	120.0	128.5	
56 4,6-Dinitro-2-methylphenol	198.00	14.373	14.367	(0.897)	1325039	120.0	126.8	
57 N-nitrosodiphenylamine	169.00	14.503	14.498	(0.906)	4215214	120.0	108.7	0(M)
58 4-Bromophenyl-phenylether	248.00	15.175	15.170	(0.948)	2253042	120.0	114.7	7677
59 Hexachlorobenzene	283.90	15.324	15.319	(0.957)	2057874	120.0	92.12	
60 Pentachlorophenol	266.00	15.660	15.655	(0.978)	1509774	120.0	125.1	7141
61 Phenanthrene	178.00	16.071	16.066	(1.003)	10871834	120.0	144.9	
62 Anthracene	178.00	16.164	16.159	(1.009)	7037424	120.0	100.1	
63 Carbazole	167.00	16.426	16.420	(1.026)	6981193	120.0	118.1	9053
64 Di-n-butylphthalate	149.00	16.967	16.961	(1.059)	11867837	120.0	110.2	
65 Fluoranthene	202.00	18.217	18.212	(1.137)	7357690	120.0	105.0	
66 Pyrene	202.00	18.646	18.641	(0.897)	9105983	120.0	126.6	
67 Butylbenzylphthalate	149.00	19.654	19.649	(0.945)	5159025	120.0	123.5	8571
68 3,3'-Dichlorobenzidine	252.00	20.662	20.656	(0.994)	1401376	120.0	119.0	7945
69 bis(2-Ethylhexyl)phthalate	149.00	20.624	20.619	(0.992)	5519588	120.0	105.4	7312(H)
70 Benzo(a)anthracene	228.00	20.774	20.768	(0.999)	9175789	120.0	124.3	

237

Data File: /chem/5972hp68.i/DF980319B68.b/HJ980319B68.d
Report Date: 20-Mar-1998 14:19

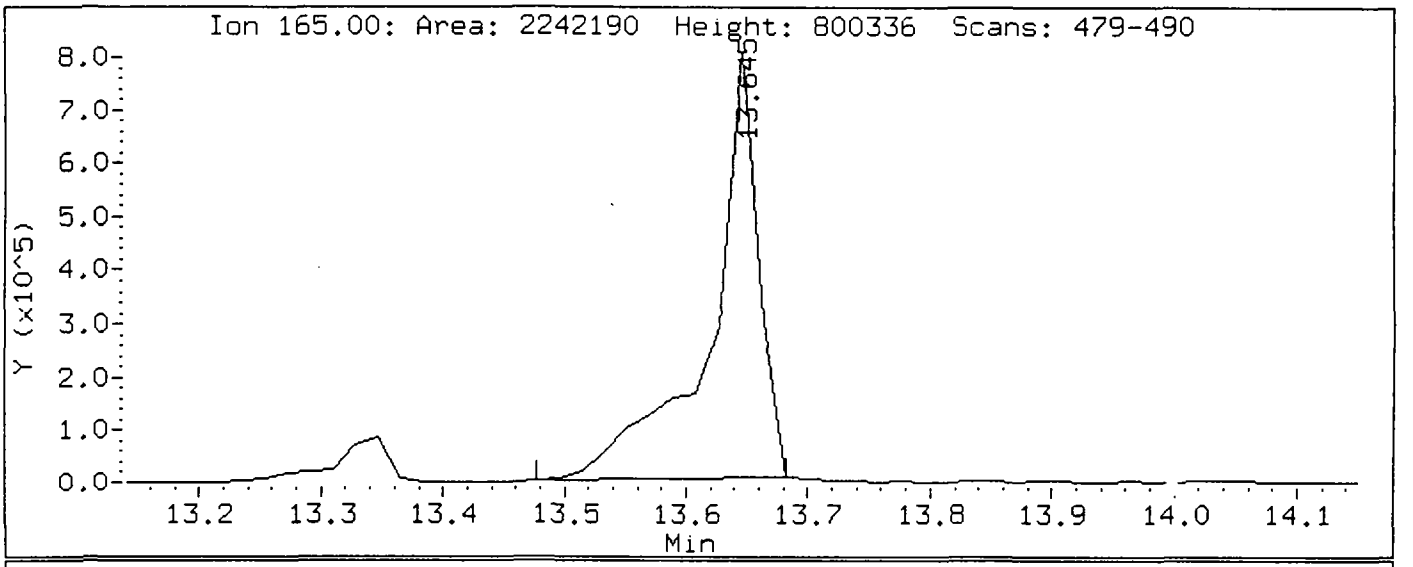
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
71 Chrysene	228.00	20.848	20.824	(1.003)	6371776	120.0	110.7	
72 Di-n-octylphthalate	149.00	21.837	21.832	(0.907)	8919604	120.0	111.5	8547
73 Benzo(b)fluoranthene	252.00	23.050	23.045	(0.957)	8634567	120.0	131.6	
74 Benzo(k)fluoranthene	252.00	23.125	23.101	(0.960)	6972612	120.0	117.6	
75 Benzo(a)pyrene	252.00	23.946	23.922	(0.995)	6111779	120.0	123.8	
76 Indeno(1,2,3-cd)pyrene	276.00	27.735	27.673	(1.152)	6799777	120.0	119.3	9650
77 Dibenzo(a,h)anthracene	278.00	27.753	27.692	(1.153)	5768548	120.0	122.1	7690
78 Benzo(g,h,i)perylene	276.00	28.836	28.793	(1.198)	5951740	120.0	120.4	9117

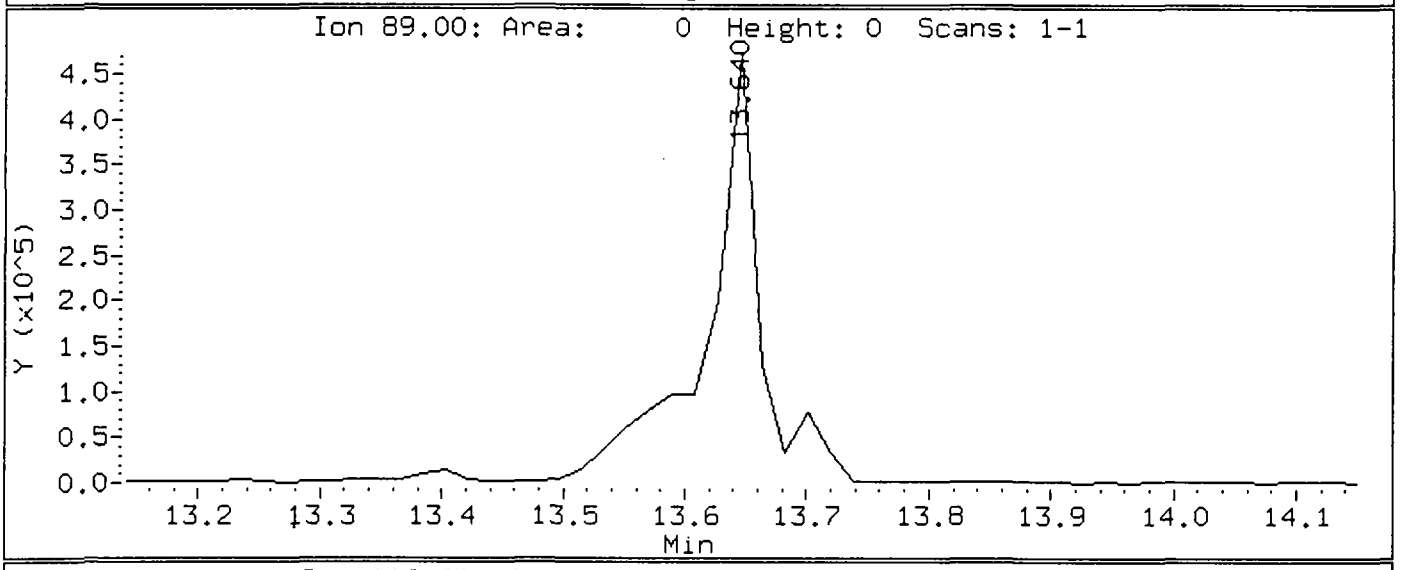
QC Flag Legend

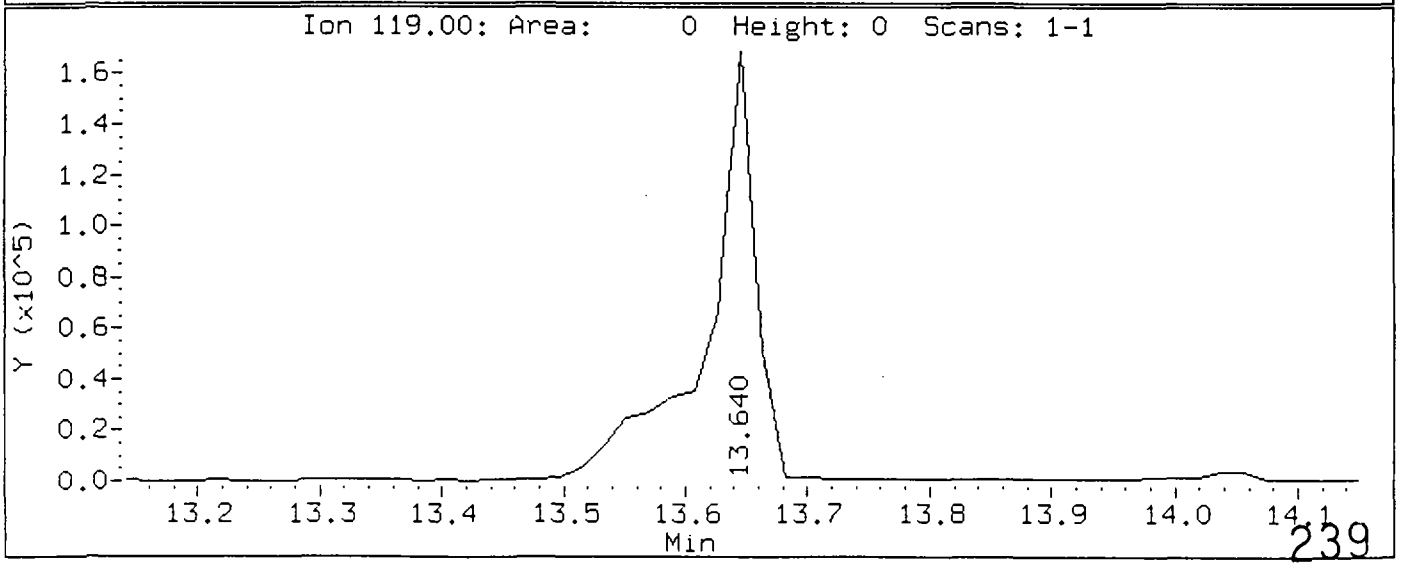
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /chem/5972hp68.i/DF980319B68.b/HJ980319B68.d
Injection Date: 19-MAR-98 23:38
Instrument: 5972hp68.i
Client Sample ID: SSTD120W6

Compound: 2,4-Dinitrotoluene
CAS Number: 121-14-2

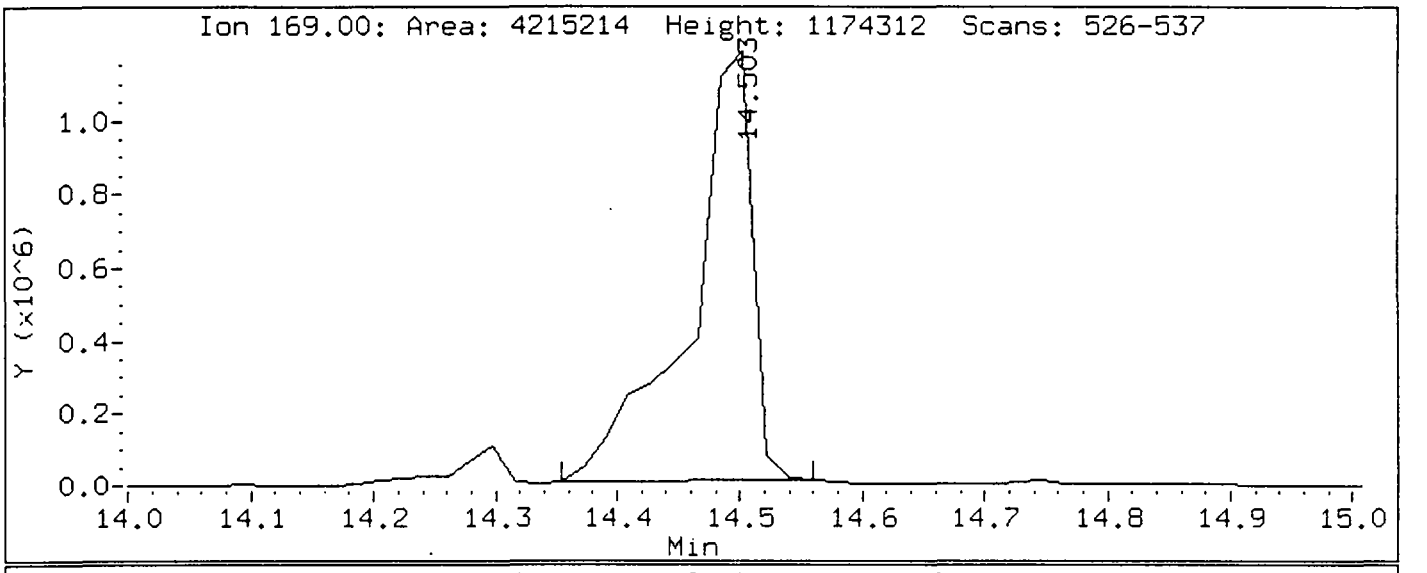


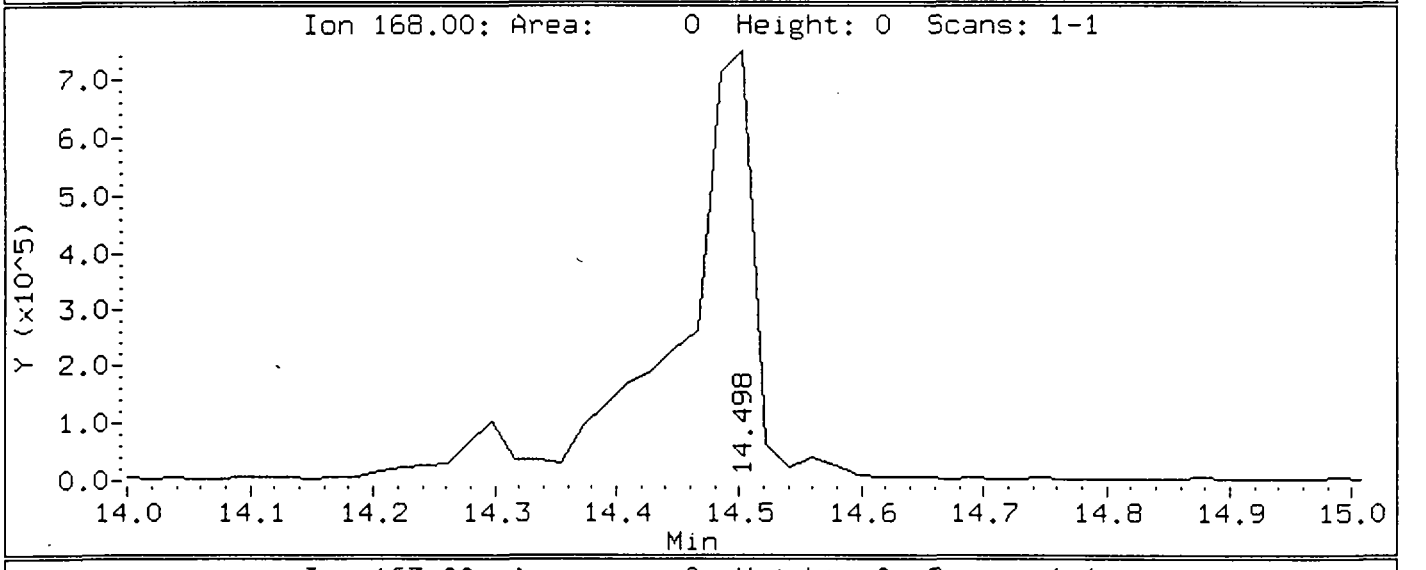


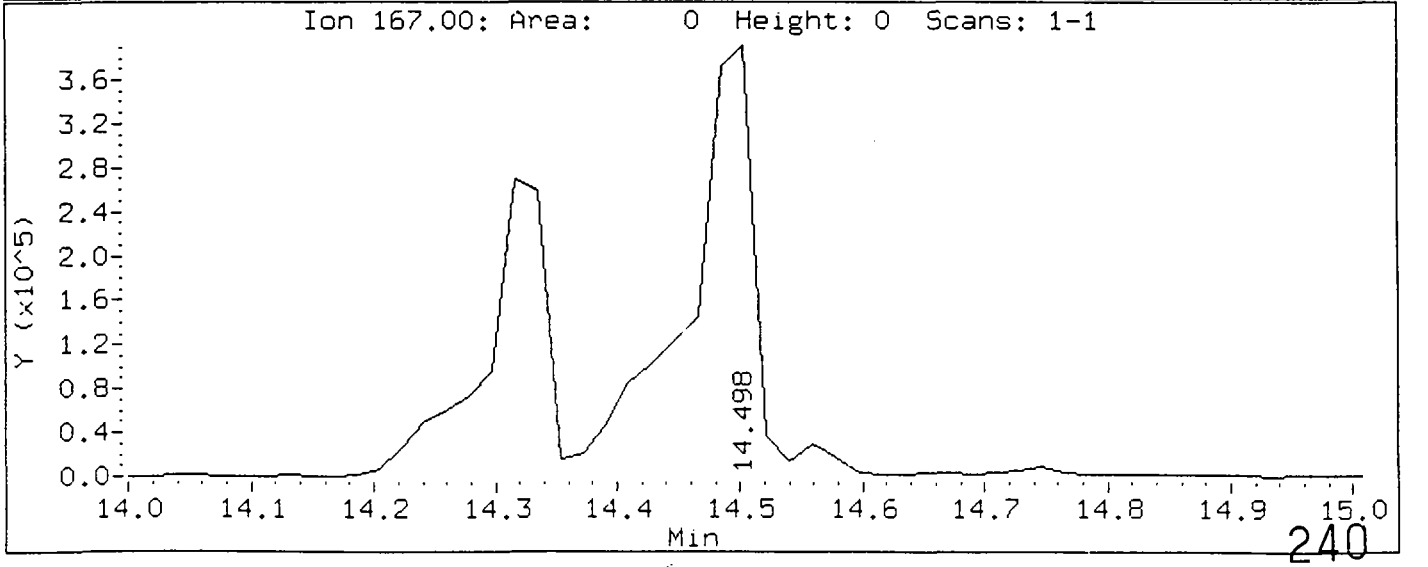


Data File: /chem/5972hp68.i/DF980319B68.b/HJ980319B68.d
Injection Date: 19-MAR-98 23:38
Instrument: 5972hp68.i
Client Sample ID: SSTD120W6

Compound: N-nitrosodiphenylamine
CAS Number: 86-30-6







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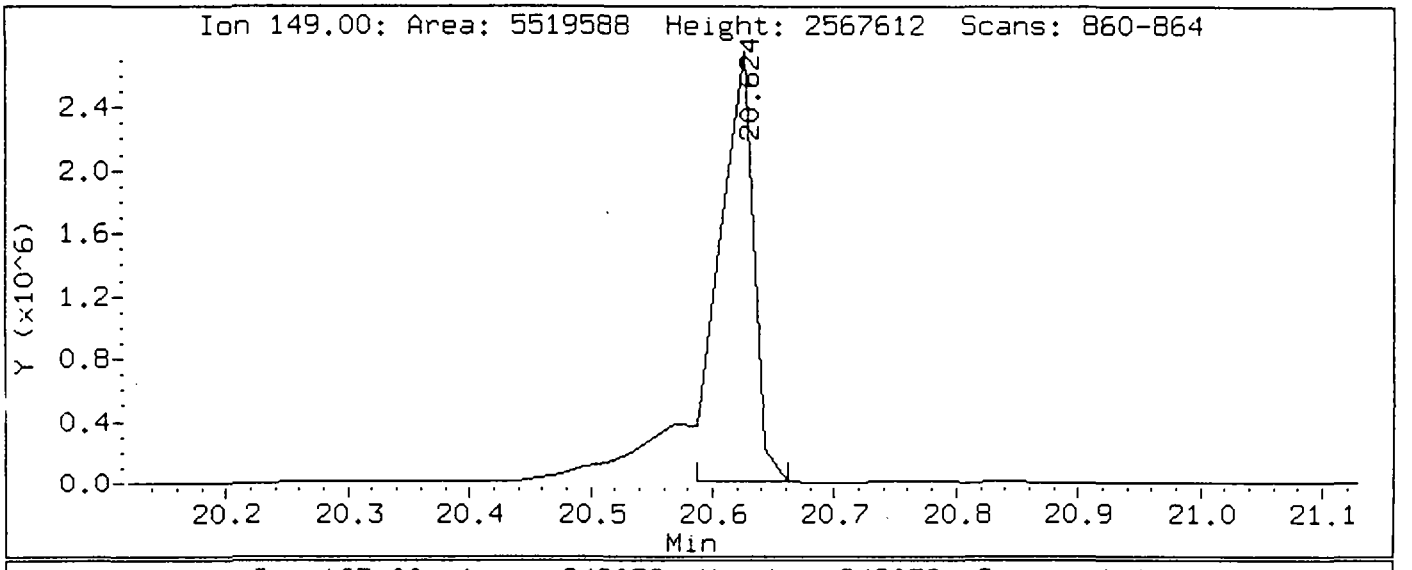
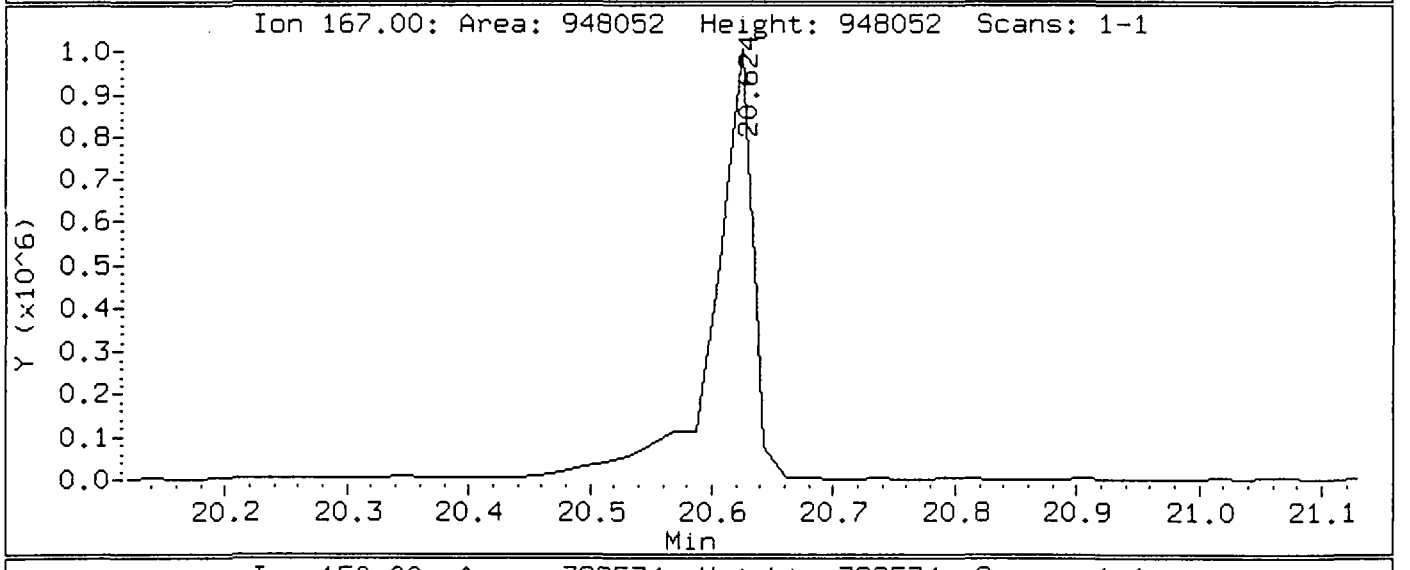
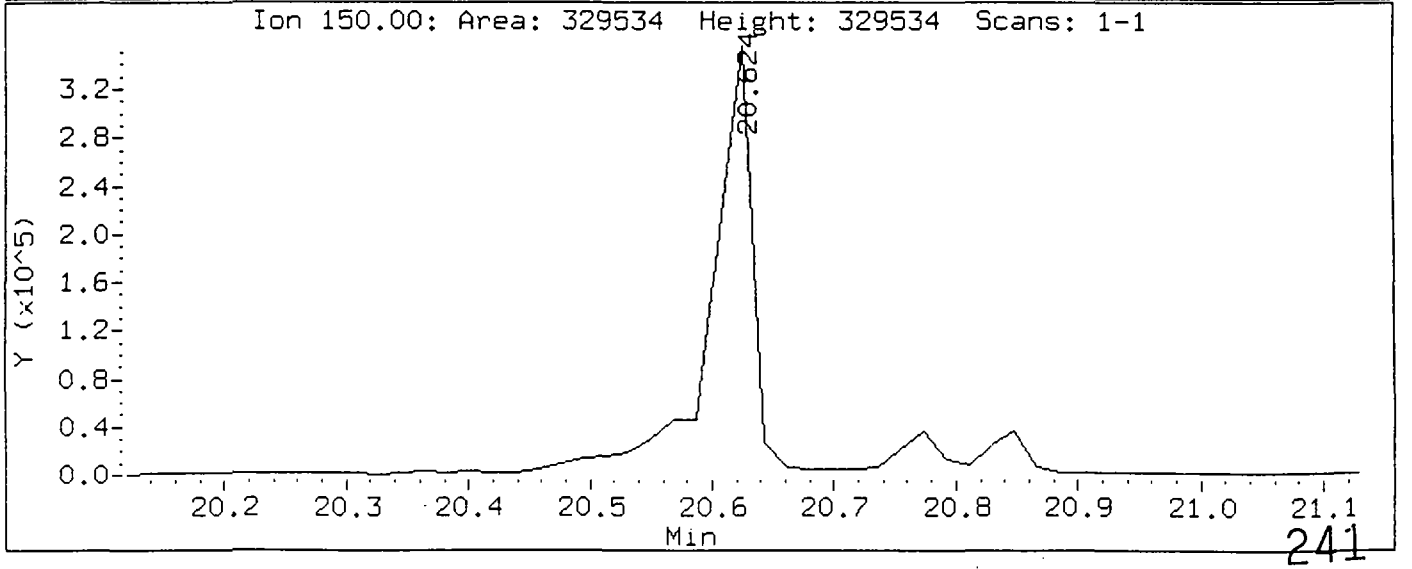
Injection Date: 19-MAR-98 23:38
Instrument: 5972hp68.i
Client Sample ID: SSTD120W6

Compound: bis(2-Ethylhexyl)phthalate
CAS Number: 117-81-7



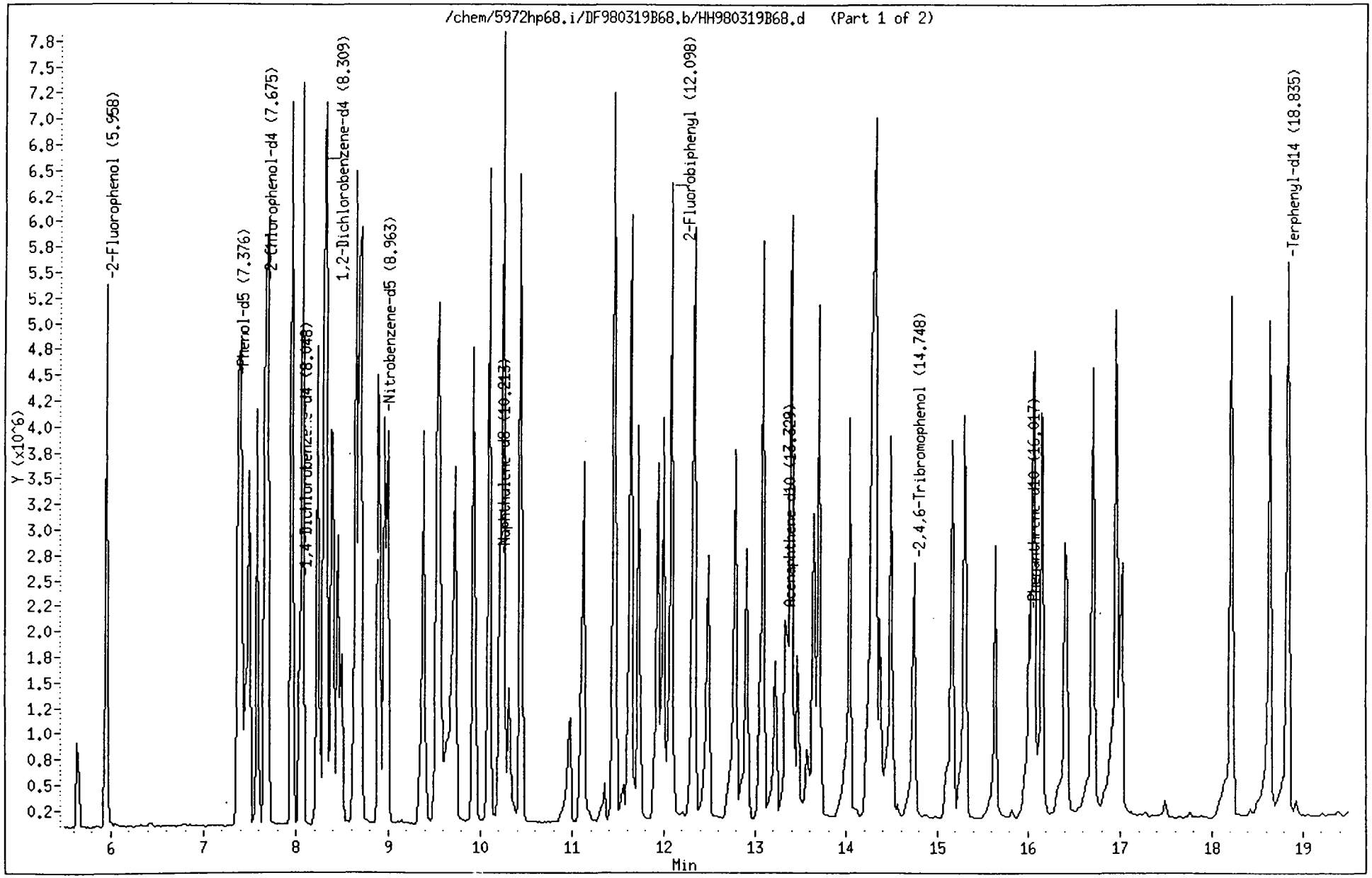




Data File: /chem/5972hp68.i/DF980319B68.b/HH980319B68.d
Date : 19-MAR-1998 22:10
Client ID: SSTD160W6
Sample Info:
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32

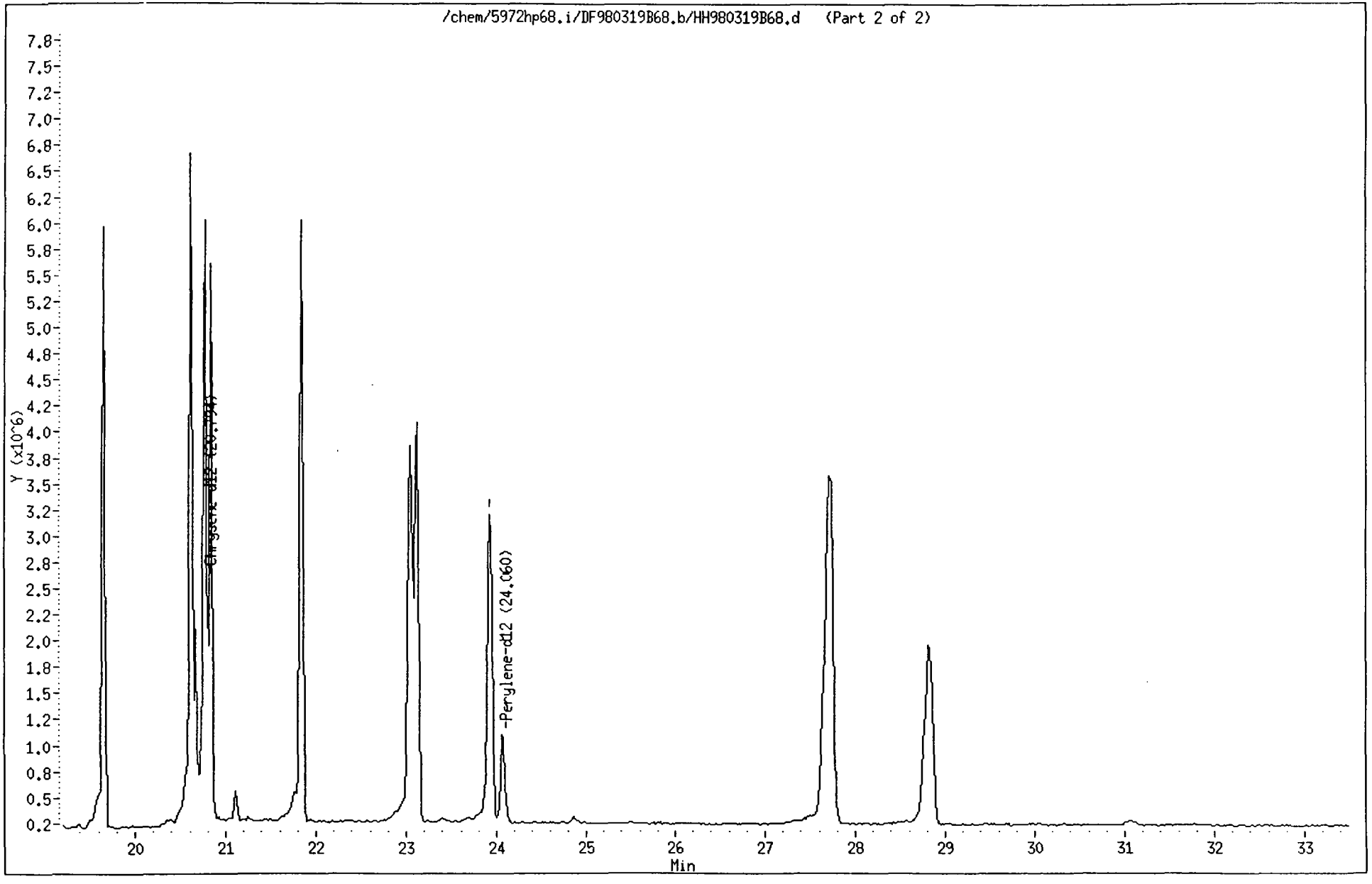


Data File: /chem/5972hp68.i/DF980319B68.b/HH980319B68.d
Date : 19-MAR-1998 22:10
Client ID: SSTD160W6
Sample Info:
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32

243



Data File: /chem/5972hp68.i/DF980319B68.b/HH980319B68.d
Report Date: 20-Mar-1998 14:19

CompuChem Environmental Corp.

OLM03.0 + REVISIONS QUANT AND RATIO REPORT

Data file : /chem/5972hp68.i/DF980319B68.b/HH980319B68.d
Lab Smp Id: SSTD160W6 Client Smp ID: SSTD160W6
Inj Date : 19-MAR-1998 22:10
Operator : 2242 Inst ID: 5972hp68.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp68.i/DF980319B68.b/OLM03.m
Meth Date : 20-Mar-1998 14:19 harris Quant Type: ISTD
Cal Date : 19-MAR-1998 21:24 Cal File: HG980319B68.d
Als bottle: 3 Calibration Sample, Level: 5
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.12
Concentration Formula: Vt/(Vo * Vi)

Name	Value	Description
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152.00	8.048	8.041	(1.000)	624690	40.00		
* 2 Naphthalene-d8	136.00	10.213	10.206	(1.000)	2043986	40.00		8463
* 3 Acenaphthene-d10	164.00	13.329	13.341	(1.000)	917936	40.00		8851
* 4 Phenanthrene-d10	188.00	16.017	16.028	(1.000)	1159939	40.00		9425
* 5 Chrysene-d12	240.00	20.794	20.787	(1.000)	1140701	40.00		9502
* 6 Perylene-d12	264.00	24.060	24.071	(1.000)	1202524	40.00		8637
$ 7 2-Fluorophenol	112.00	5.958	5.951	(0.740)	2774828	160.0	155.3	
$ 8 Phenol-d5	99.00	7.376	7.369	(0.917)	2980946	160.0	146.4	8113
$ 9 2-Chlorophenol-d4	132.00	7.675	7.668	(0.954)	2909412	160.0	149.3	8411
$ 10 1,2-Dichlorobenzene-d4	152.00	8.309	8.302	(1.032)	2046907	160.0	155.6	
$ 11 Nitrobenzene-d5	82.00	8.963	8.955	(0.878)	2336780	160.0	154.8	8498
$ 12 2-Fluorobiphenyl	172.00	12.098	12.091	(0.908)	4525355	160.0	160.4	8747(A)
$ 13 2,4,6-Tribromophenol	329.60	14.748	14.741	(0.921)	893631	160.0	166.5	(A)
$ 14 Terphenyl-d14	244.00	18.8[illegible]5	18.846	(0.906)	3905158	160.0	143.2	8646
15 Phenol	94.00	7.395	7.388	(0.919)	2778580	160.0	147.4	
16 bis(2-Chloroethyl)ether	93.00	7.582	7.574	(0.942)	2360568	160.0	148.7	8474
17 2-Chlorophenol	128.00	7.694	7.686	(0.956)	2840360	160.0	149.3	8089
18 1,3-Dichlorobenzene	146.00	7.955	7.948	(0.988)	3159723	160.0	153.4	
19 1,4-Dichlorobenzene	146.00	8.067	8.078	(1.002)	3069684	160.0	152.0	
20 1,2-Dichlorobenzene	146.00	8.328	8.321	(1.035)	2873221	160.0	152.8	
21 2-Methylphenol	108.00	8.403	8.396	(1.044)	2331569	160.0	146.0	(H)

Data File: /chem/5972hp68.i/DF980319B68.b/HH980319B68.d
Report Date: 20-Mar-1998 14:19

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
22 2,2'-oxybis(1-Chloropropane)	45.00	8.459	8.452	(1.051)	3492822	160.0	147.9	
23 4-Methylphenol	108.00	8.645	8.638	(1.074)	2491493	160.0	145.2	
24 N-Nitroso-di-n-propylamine	70.00	8.683	8.676	(1.079)	1336167	160.0	139.9	8460
25 Hexachloroethane	117.00	8.888	8.899	(1.104)	1357885	160.0	153.6	8307
26 Nitrobenzene	77.00	9.000	8.993	(0.881)	2195590	160.0	152.4	8087
27 Isophorone	82.00	9.392	9.385	(0.920)	3978090	160.0	149.6	8792
28 2-Nitrophenol	139.00	9.541	9.534	(0.934)	1607667	160.0	153.7	0(M
29 2,4-Dimethylphenol	107.00	9.560	9.553	(0.936)	2193147	160.0	152.6	8112(H)
30 bis(2-Chloroethoxy)methane	93.00	9.728	9.721	(0.952)	2733842	160.0	150.0	8973
31 2,4-Dichlorophenol	162.00	9.933	9.926	(0.973)	2017260	160.0	153.8	
32 1,2,4-Trichlorobenzene	180.00	10.101	10.094	(0.989)	2185568	160.0	156.6	8131
33 Naphthalene	128.00	10.250	10.243	(1.004)	6981254	160.0	152.5	8765
34 4-Chloroaniline	127.00	10.306	10.299	(1.009)	547445	160.0	80.55	0(M
35 Hexachlorobutadiene	225.00	10.437	10.448	(1.022)	1455197	160.0	160.6	(A
36 4-Chloro-3-methylphenol	107.00	11.127	11.120	(1.090)	1896855	160.0	147.7	7847
37 2-Methylnaphthalene	142.00	11.463	11.456	(1.122)	4724196	160.0	153.1	
38 Hexachlorocyclopentadiene	237.00	11.725	11.736	(0.880)	1439246	160.0	168.2	7190(A
39 2,4,6-Trichlorophenol	196.00	11.949	11.941	(0.896)	1519064	160.0	158.6	
40 2,4,5-Trichlorophenol	196.00	12.005	11.997	(0.901)	1342567	160.0	161.7	(A)
41 2-Chloronaphthalene	162.00	12.340	12.333	(0.926)	3968892	160.0	158.0	8525
42 2-Nitroaniline	65.00	12.490	12.483	(0.937)	1022225	160.0	152.7	8159
43 Dimethylphthalate	163.00	12.788	12.781	(0.959)	4296077	160.0	157.8	8709
44 2,6-Dinitrotoluene	165.00	12.919	12.912	(0.969)	1076159	160.0	160.8	7808(A)
45 Acenaphthylene	152.00	13.087	13.080	(0.982)	6071815	160.0	155.6	8705
46 3-Nitroaniline	138.00	13.218	13.229	(0.992)	903815	160.0	141.0	8182
47 Acenaphthene	153.00	13.404	13.397	(1.006)	3729116	160.0	158.0	9043
48 2,4-Dinitrophenol	184.00	13.404	13.416	(1.006)	452873	160.0	187.1	(A)
49 4-Nitrophenol	109.00	13.460	13.472	(1.010)	521812	160.0	178.2	(A)
50 2,4-Dinitrotoluene	165.00	13.647	13.640	(1.024)	1249797	160.0	155.0	7105
51 Dibenzofuran	168.00	13.703	13.696	(1.028)	5135522	160.0	157.1	8666
52 Diethylphthalate	149.00	14.039	14.031	(1.053)	4420445	160.0	166.7	(A
53 4-Chlorophenyl-phenylether	204.00	14.300	14.293	(1.073)	1840726	160.0	152.0	7603
54 Fluorene	166.00	14.319	14.311	(1.074)	4083683	160.0	159.1	9187
55 4-Nitroaniline	138.00	14.319	14.311	(1.074)	951734	160.0	162.7	(A)
56 4,6-Dinitro-2-methylphenol	198.00	14.375	14.367	(0.897)	672725	160.0	176.5	(A
57 N-nitrosodiphenylamine	169.00	14.487	14.498	(0.904)	2263948	160.0	148.5	8673
58 4-Bromophenyl-phenylether	248.00	15.177	15.170	(0.948)	1213192	160.0	161.0	7388(A)
59 Hexachlorobenzene	283.90	15.308	15.319	(0.956)	1522455	160.0	162.7	(A
60 Pentachlorophenol	266.00	15.644	15.655	(0.977)	832944	160.0	188.0	8243(A
61 Phenanthrene	178.00	16.073	16.066	(1.003)	3927720	160.0	155.7	
62 Anthracene	178.00	16.166	16.159	(1.009)	4509049	160.0	157.8	
63 Carbazole	167.00	16.409	16.420	(1.024)	3749945	160.0	167.7	9520(A
64 Di-n-butylphthalate	149.00	16.950	16.961	(1.058)	7369218	160.0	175.2	(A
65 Fluoranthene	202.00	18.219	18.212	(1.137)	4853683	160.0	173.8	(A)
66 Pyrene	202.00	18.629	18.641	(0.896)	5164859	160.0	141.2	
67 Butylbenzylphthalate	149.00	19.656	19.649	(0.945)	3100404	160.0	144.0	8430
68 3,3'-Dichlorobenzidine	252.00	20.664	20.656	(0.994)	844544	160.0	136.6	7492
69 bis(2-Ethylhexyl)phthalate	149.00	20.608	20.619	(0.991)	4251381	160.0	146.2	8154
70 Benzo(a)anthracene	228.00	20.776	20.768	(0.999)	5748804	160.0	151.5	

Data File: /chem/5972hp68.i/DF980319B68.b/HH980319B68.d
Report Date: 20-Mar-1998 14:19

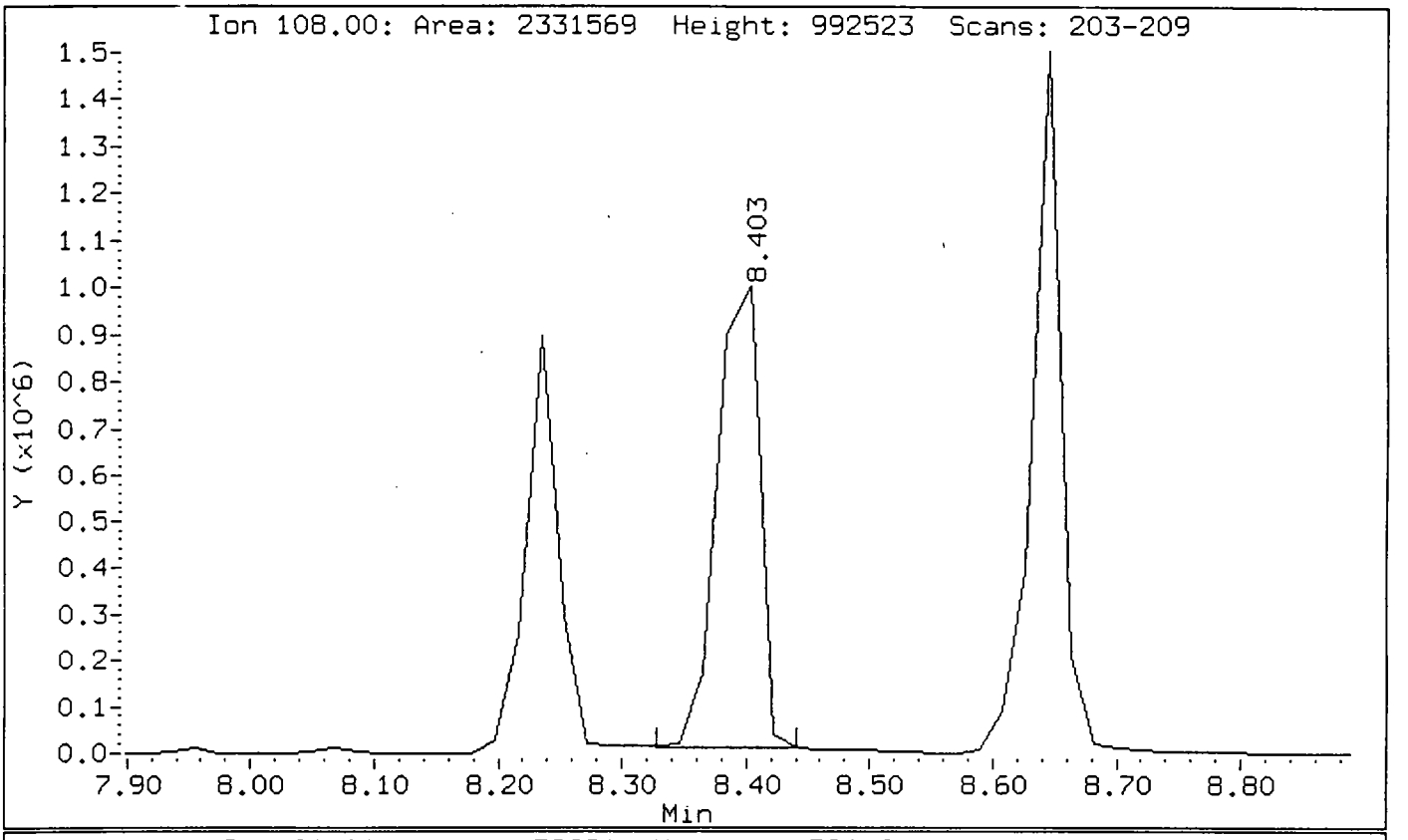
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY	
71 Chrysene	228.00	20.831	20.824	(1.002)	5064248	160.0	161.8		(A)
72 Di-n-octylphthalate	149.00	21.839	21.832	(0.908)	6956893	160.0	149.2	8430	
73 Benzo(b)fluoranthene	252.00	23.052	23.045	(0.958)	5507118	160.0	156.6		
74 Benzo(k)fluoranthene	252.00	23.127	23.101	(0.961)	4970154	160.0	147.4		
75 Benzo(a)pyrene	252.00	23.929	23.922	(0.995)	4315244	160.0	157.7		
76 Indeno(1,2,3-cd)pyrene	276.00	27.718	27.673	(1.152)	5050045	160.0	156.9	9659	
77 Dibenzo(a,h)anthracene	278.00	27.736	27.692	(1.153)	4203490	160.0	159.3	7644	
78 Benzo(g,h,i)perylene	276.00	28.837	28.793	(1.199)	4345084	160.0	156.4	8996	

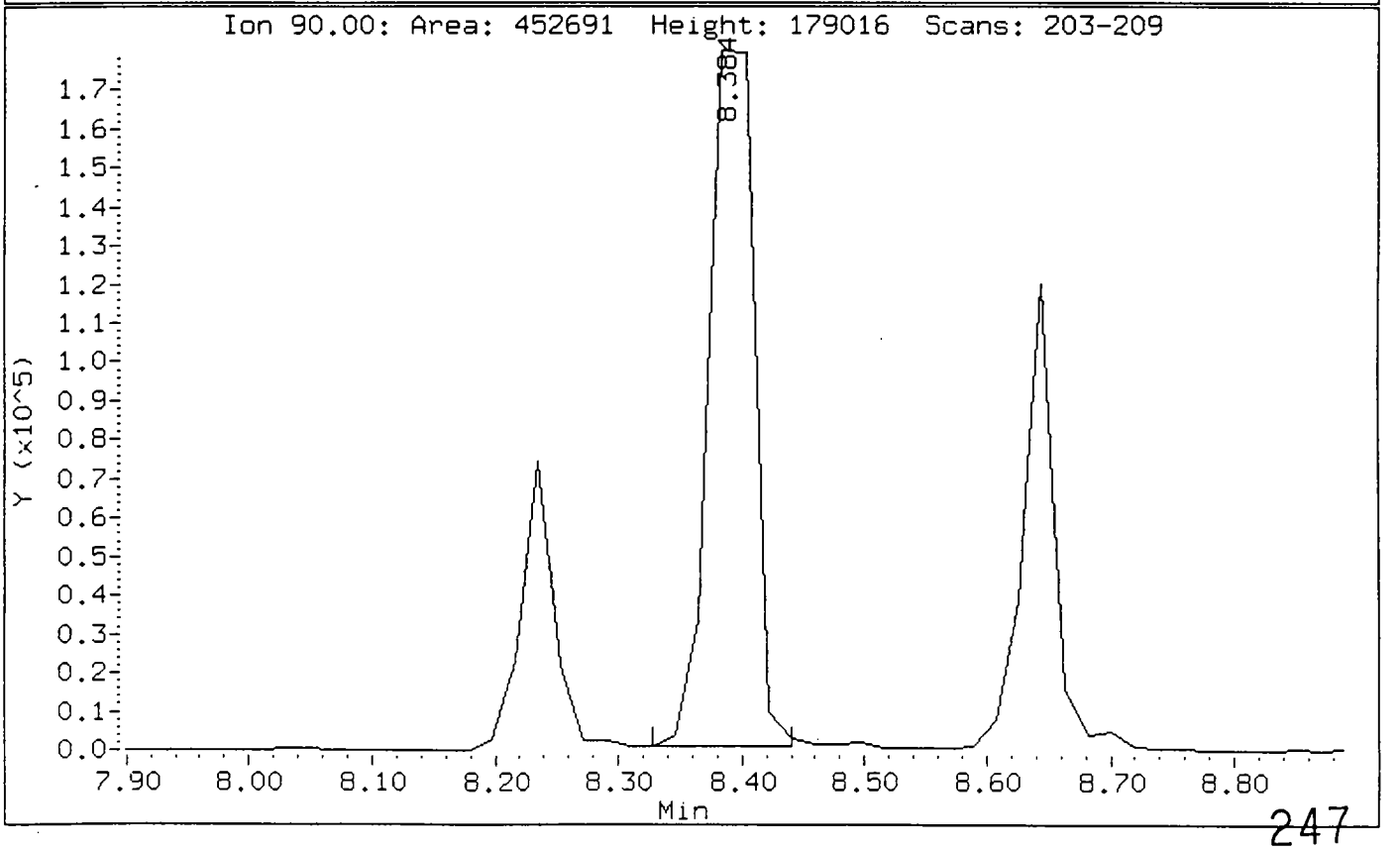
QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /chem/5972hp68.i/DF980319B68.b/HH980319B68.d
Injection Date: 19-MAR-98 22:10
Instrument: 5972hp68.i
Client Sample ID: SSTD160W6

Compound: 2-Methylphenol
CAS Number: 95-48-7





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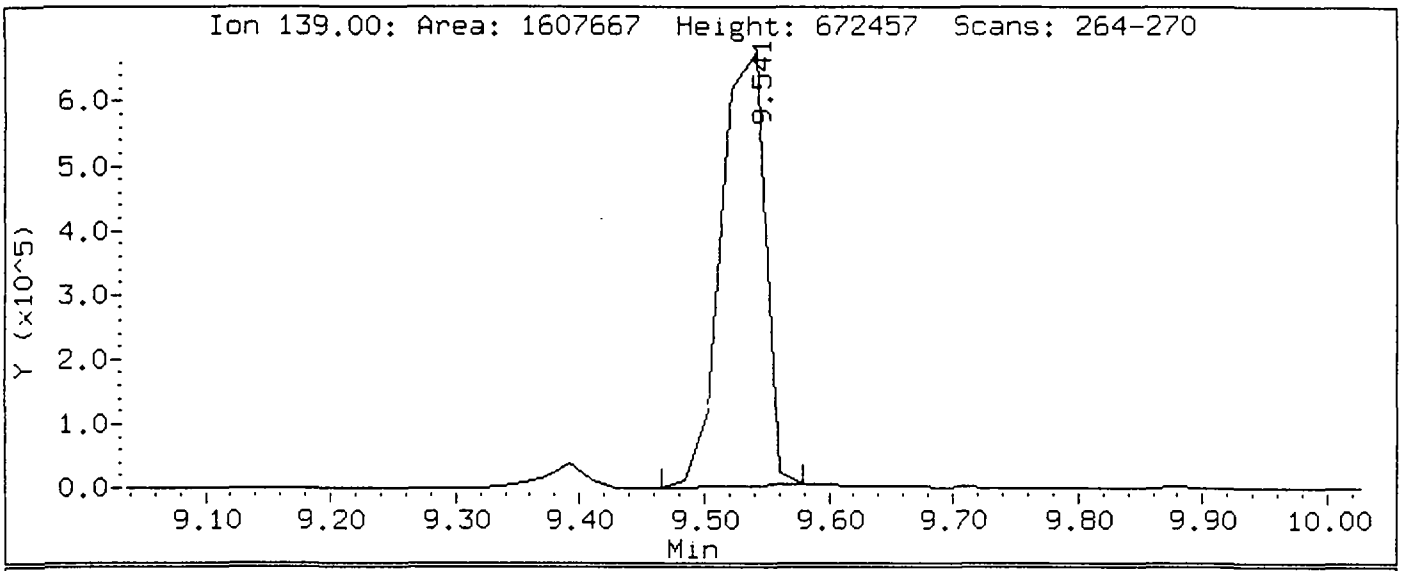
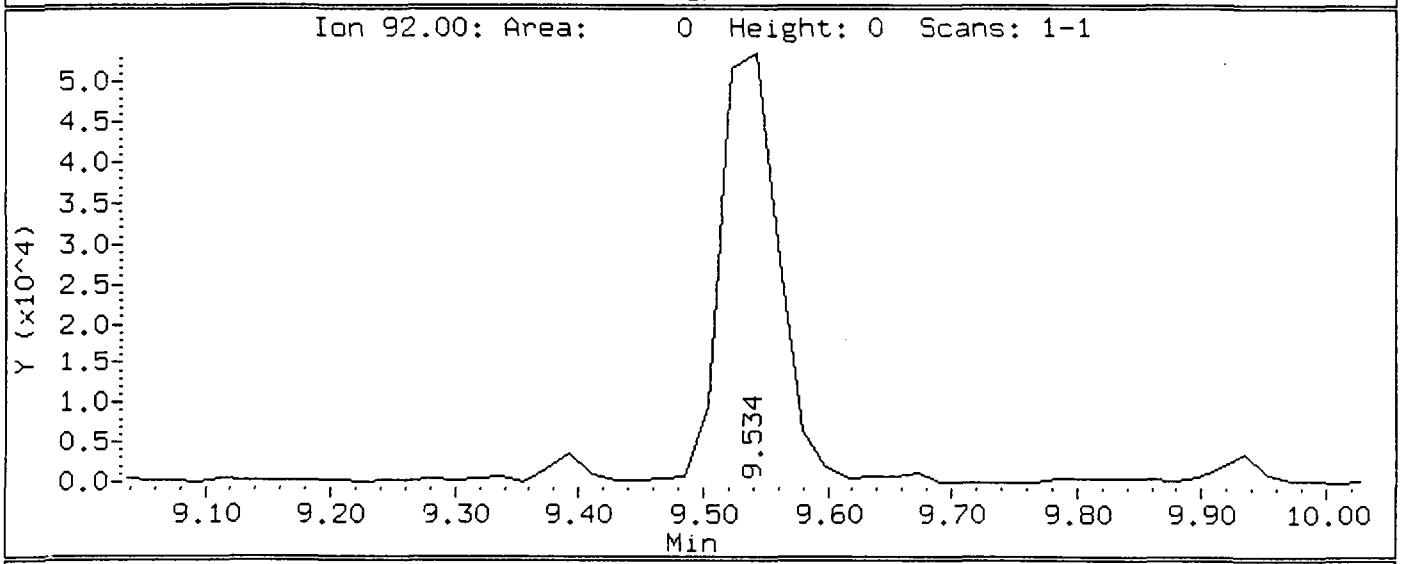
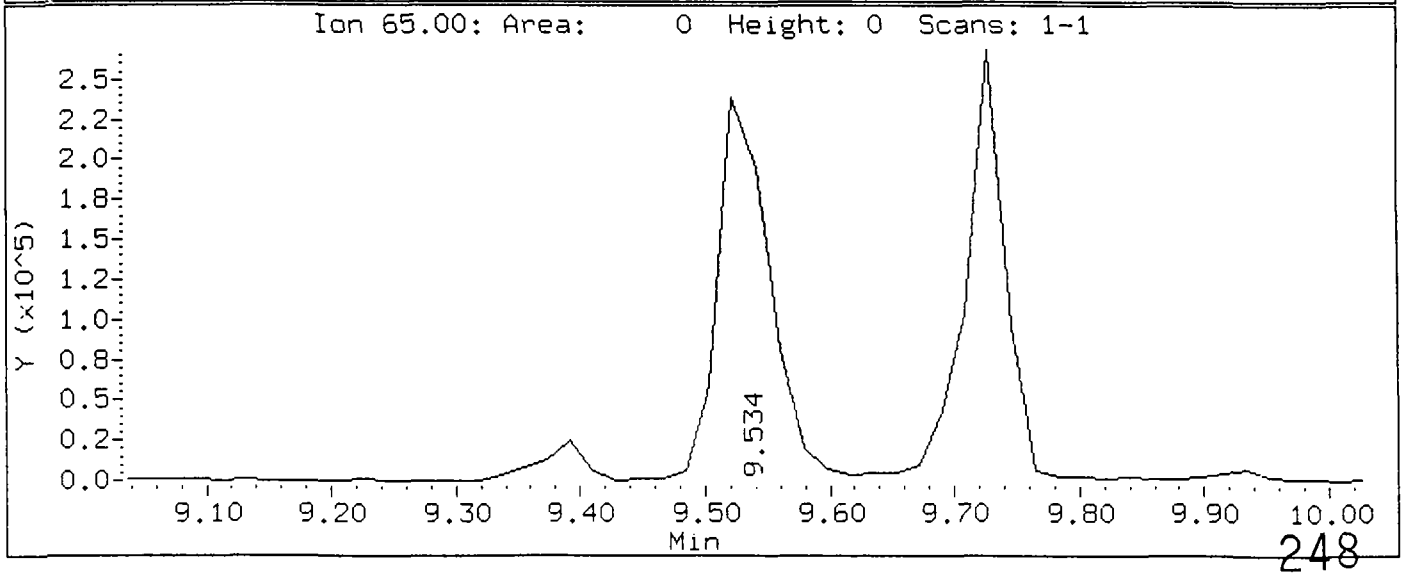
Injection Date: 19-MAR-98 22:10
Instrument: 5972hp68.i
Client Sample ID: SSTD160W6

Compound: 2-Nitrophenol
CAS Number: 88-75-5

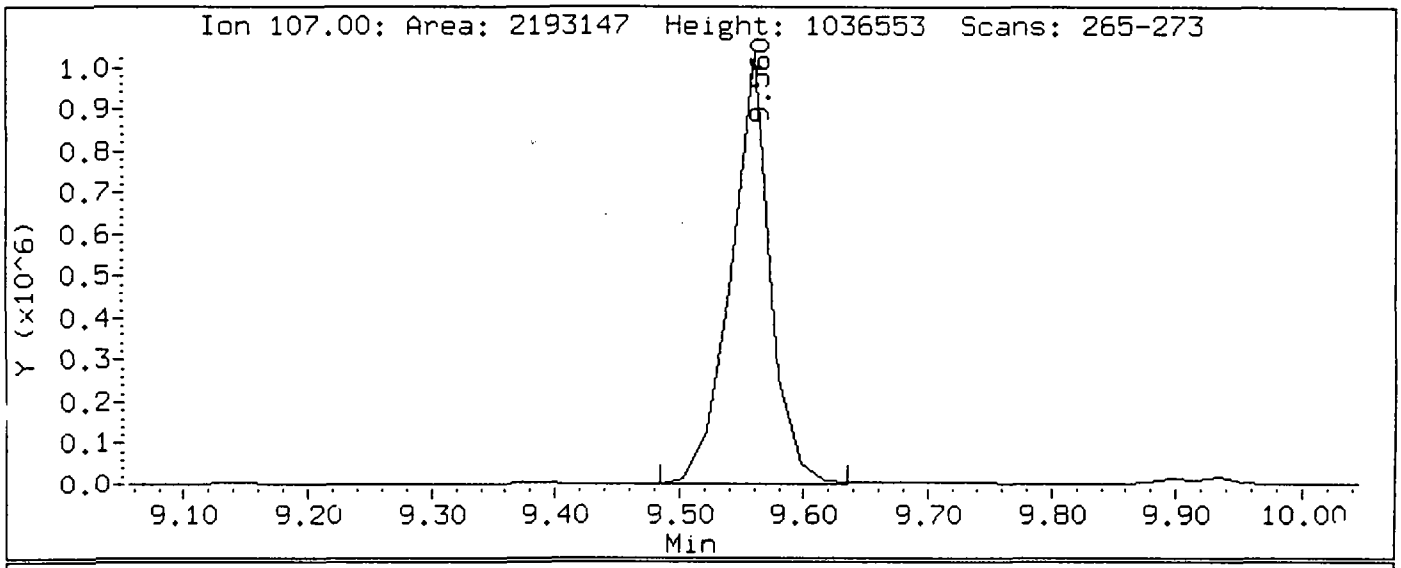


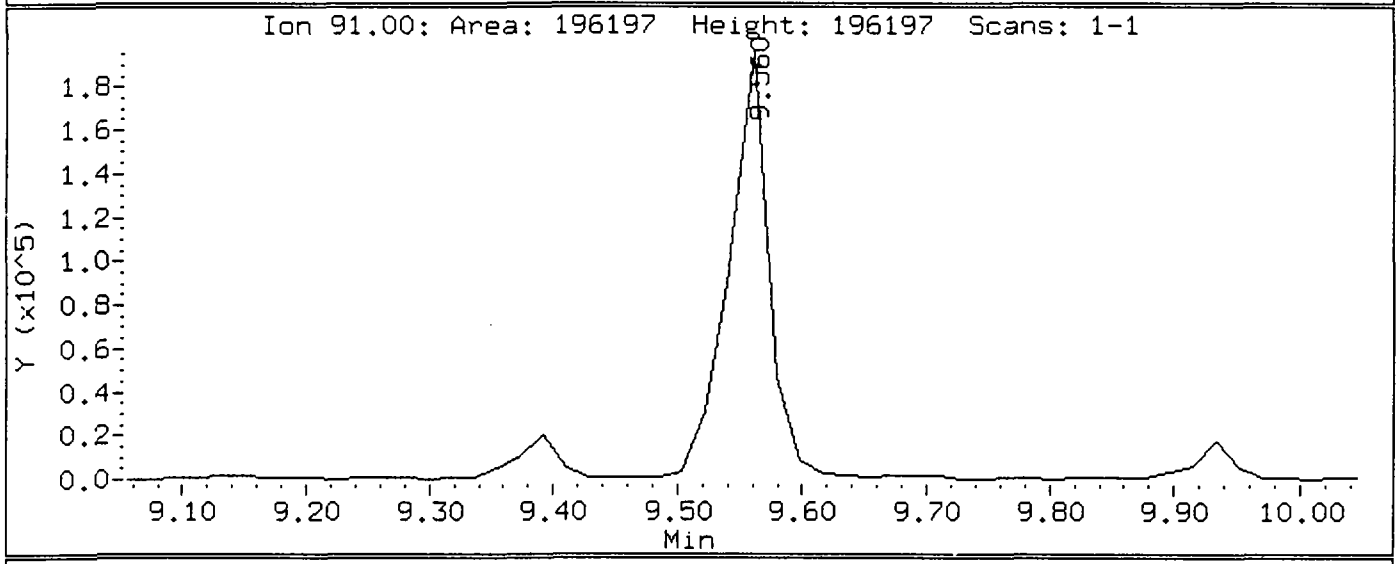


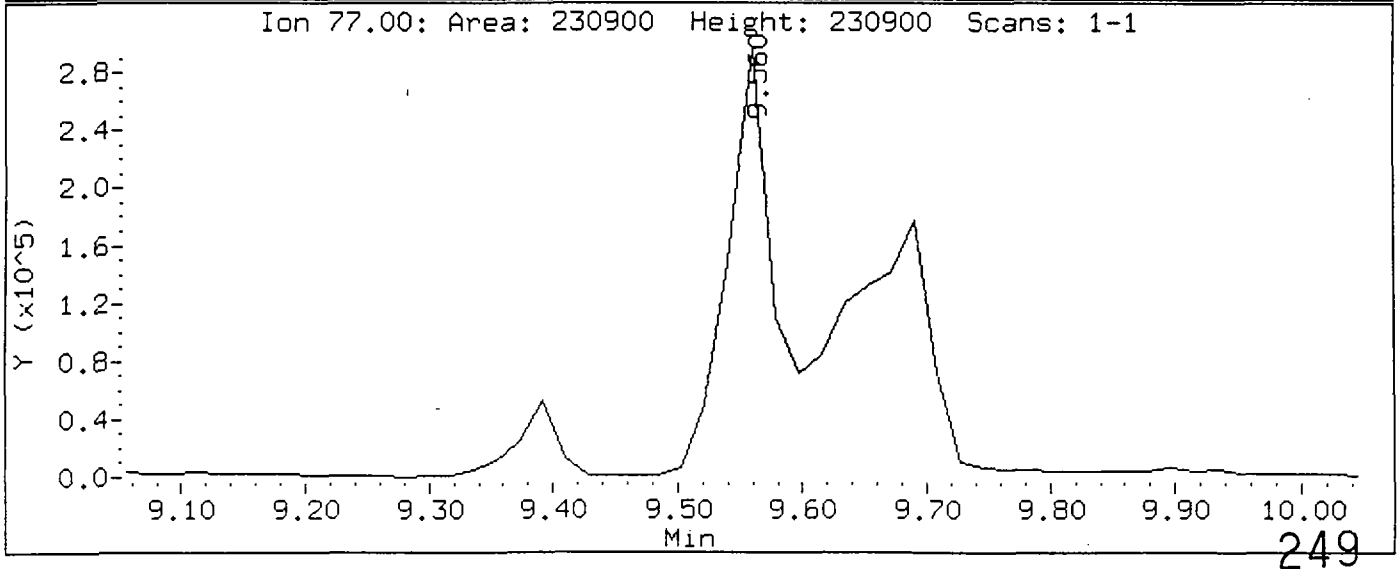


Data File: /chem/5972hp68.i/DF980319B68.b/HH980319B68.d
Injection Date: 19-MAR-98 22:10
Instrument: 5972hp68.i
Client Sample ID: SSTD160W6

Compound: 2,4-Dimethylphenol
CAS Number: 105-67-9

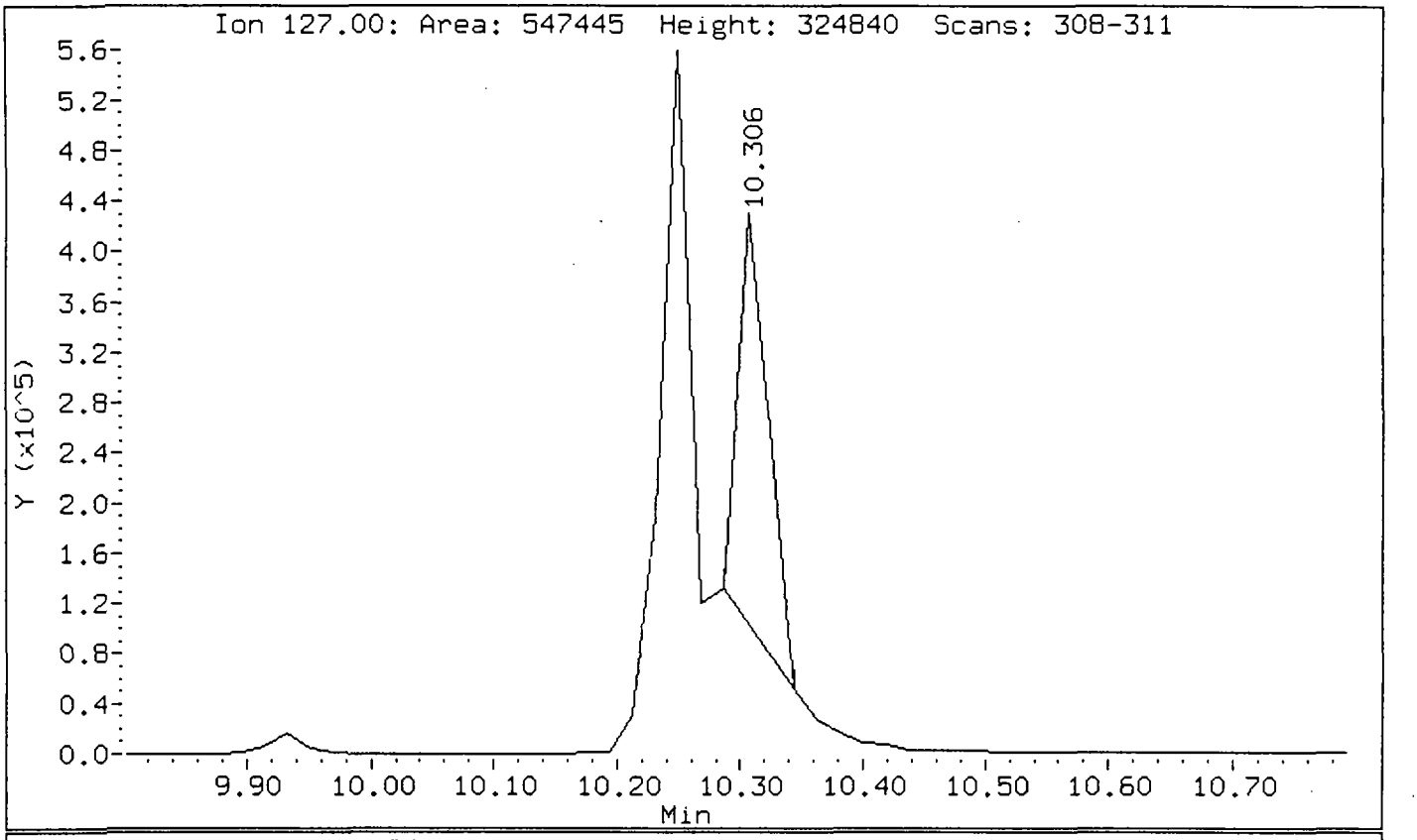


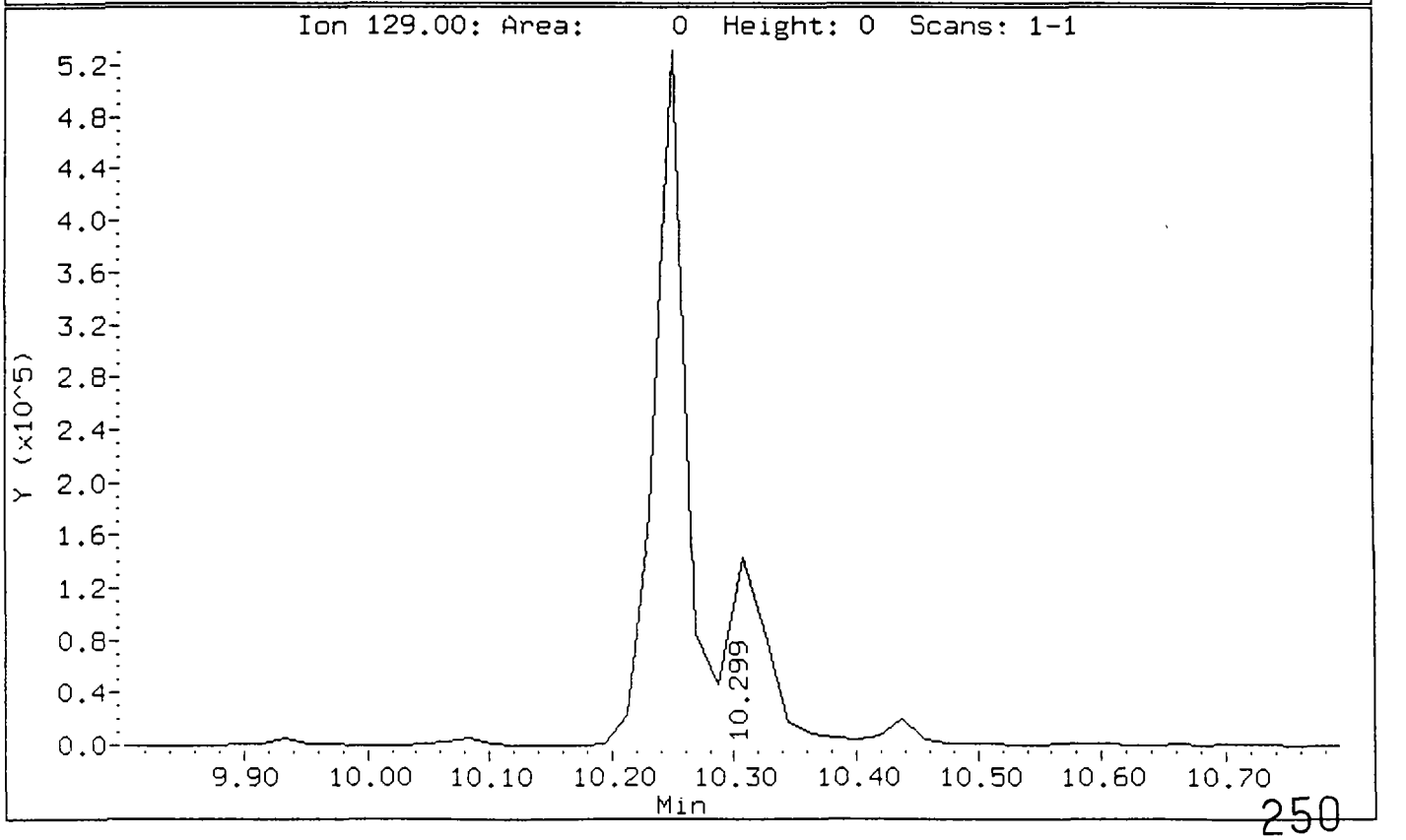




Data File: /chem/5972hp68.i/DF980319B68.b/HH980319B68.d
Injection Date: 19-MAR-98 22:10
Instrument: 5972hp68.i
Client Sample ID: SSTD160W6

Compound: 4-Chloroaniline
CAS Number: 106-47-8





COMPUCHEM a division of Liberty Analytical Corp DATE 3 / 19 / 98 INITIAL TIME OF TUNE 2059 SHIFT/S(A) ✓ (B)____ (C)____

SEMIVOLATILE GC/MS RUN LOG TIME TUNE EXPIRES 0859 LINKER /METHOD 01M03

COMPUCHEM .LOGBOOK 11 CC 2(5972hp68)

PREVENTIVE MAINTENANCE Cleaned Source changed liner / septa

		FILE NAME		DATE	TIME	CLIENT ID#	CASE/SDG#	AMOUNT INJECTED	CHEMIST	COMMENTS(ETC)/DISPOSITION
1		DF980319B68	/	3 / 19 / 98	2059	DFTPP	—	2ul	2242	LC-SC
2		HG980319 B68	/	/ /	2124	SSTD050W6	—			
3		HH980319 B68	/	/ /	2210	SSTD160W6	—			
4		HI980319 B68	/	/ /	2253	SSTD005W6	—			
5		HJ980319B68	/	/ /	2338	SSTD120W6	—			
6		HK980320B68	/	3 / 20 / 98	0021	SSTD020W6	—			
7		HL980320B68	/	/ /	0210	SSTD080W6	—			
8				/ /						
9				/ /	M.P	Good				
10				/ /						
11				/ /						
12				/ /						
13				/ /						
14				/ /						
15				/ /						
16				/ /						
17				/ /						
18				/ /						
19				/ /						
20				/ /						
21				/ /						
22				/ /						
23				/ /						
24				/ /						

pm H 3-20-98

STANDARDS

	Tune	Analytical	Int. Std.
Std. ID #	7055	N.A	N.A
[illegible]	[illegible]		

SUPERVISOR APPROVAL [signature]

105
251

b. Continuing Calibration Data (Form VII SV-1, SV-2)

If more than one instrument is used, forms shall be arranged in order by instrument. If multiple continuing calibrations from the same instrument are used, they shall be in chronological order.

(1) Reconstructed Ion Chromatograms and quantitation reports for all continuing (12-hour) calibrations. Spectra not required.

(2) EICPs displaying each manual integration.

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Instrument ID: 5972HP68 Calibration Date: 03/20/98 Time: 2032

Lab File ID: HG980320B68 Init. Calib. Date(s): 03/19/98 03/20/98

Init. Calib. Times: 2124 0210

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Phenol	1.249	1.263	0.800	1.1	25.0
bis(2-Chloroethyl)ether	1.038	1.058	0.700	1.9	25.0
2-Chlorophenol	1.258	1.294	0.800	2.9	25.0
1,3-Dichlorobenzene	1.349	1.417	0.600	5.0	25.0
1,4-Dichlorobenzene	1.319	1.376	0.500	4.3	25.0
1,2-Dichlorobenzene	1.229	1.260	0.400	2.5	25.0
2-Methylphenol	1.060	1.020	0.700	-3.8	25.0
2,2'-oxybis(1-Chloropropane)	1.518	1.544		1.7	
4-Methylphenol	1.127	1.031	0.600	-8.5	25.0
N-Nitroso-di-n-propylamine	0.631	0.617	0.500	-2.2	25.0
Hexachloroethane	0.577	0.610	0.300	5.7	25.0
Nitrobenzene	0.277	0.278	0.200	0.4	25.0
Isophorone	0.530	0.541	0.400	2.1	25.0
2-Nitrophenol	0.206	0.201	0.100	-2.4	25.0
2,4-Dimethylphenol	0.286	0.288	0.200	0.7	25.0
bis(2-Chloroethoxy)methane	0.359	0.378	0.300	5.3	25.0
2,4-Dichlorophenol	0.261	0.266	0.200	1.9	25.0
1,2,4-Trichlorobenzene	0.277	0.293	0.200	5.8	25.0
Naphthalene	0.912	0.942	0.700	3.3	25.0
4-Chloroaniline	0.168	0.214		27.4	
Hexachlorobutadiene	0.178	0.188		5.6	
4-Chloro-3-methylphenol	0.261	0.255	0.200	-2.3	25.0
2-Methylnaphthalene	0.624	0.642	0.400	2.9	25.0
Hexachlorocyclopentadiene	0.341	0.318		-6.7	
2,4,6-Trichlorophenol	0.409	0.362	0.200	-11.5	25.0
2,4,5-Trichlorophenol	0.353	0.391	0.200	10.8	25.0
2-Chloronaphthalene	1.071	1.090	0.800	1.8	25.0
2-Nitroaniline	0.291	0.297		2.1	
Dimethylphthalate	1.193	1.273		6.7	
Acenaphthylene	1.699	1.745	0.900	2.7	25.0
2,6-Dinitrotoluene	0.306	0.308	0.200	0.7	25.0
3-Nitroaniline	0.303	0.340		12.2	
Acenaphthene	1.039	1.057	0.900	1.7	25.0
2,4-Dinitrophenol	0.107	0.100		-6.5	
4-Nitrophenol	0.134	0.134		0.0	
Dibenzofuran	1.443	1.446	0.800	0.2	25.0
2,4-Dinitrotoluene	0.375	0.393	0.200	4.8	25.0

All other compounds must meet a minimum RRF of 0.010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Instrument ID: 5972HP68 Calibration Date: 03/20/98 Time: 2032

Lab File ID: HG980320B68 Init. Calib. Date(s): 03/19/98 03/20/98

Init. Calib. Times: 2124 0210

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Diethylphthalate	1.143	1.333		16.6	
4-Chlorophenyl-phenylether	0.534	0.579	0.400	8.4	25.0
Fluorene	1.136	1.151	0.900	1.3	25.0
4-Nitroaniline	0.275	0.286		4.0	
4,6-Dinitro-2-methylphenol	0.129	0.121		-6.2	
N-nitrosodiphenylamine(1)	0.513	0.535		4.3	
4-Bromophenyl-phenylether	0.262	0.257	0.100	-1.9	25.0
Hexachlorobenzene	0.295	0.273	0.100	-7.5	25.0
Pentachlorophenol	0.144	0.134	0.050	-6.9	25.0
Phenanthrene	0.908	0.855	0.700	-5.8	25.0
Anthracene	0.938	0.921	0.700	-1.8	25.0
Carbazole	0.788	0.829		5.2	
Di-n-butylphthalate	1.415	1.439		1.7	
Fluoranthene	0.954	0.938	0.600	-1.7	25.0
Pyrene	1.331	1.417	0.600	6.5	25.0
Butylbenzylphthalate	0.793	0.816		2.9	
3,3'-Dichlorobenzidine	0.251	0.308		22.7	
Benzo(a)anthracene	1.303	1.111	0.800	-14.7	25.0
Chrysene	1.063	1.139	0.700	7.1	25.0
bis(2-Ethylhexyl)phthalate	1.022	1.115		9.1	
Di-n-octylphthalate	1.594	1.750		9.8	
Benzo(b)fluoranthene	1.276	1.154	0.700	-9.6	25.0
Benzo(k)fluoranthene	1.129	1.232	0.700	9.1	25.0
Benzo(a)pyrene	0.935	0.944	0.700	1.0	25.0
Indeno(1,2,3-cd)pyrene	1.064	1.086	0.500	2.1	25.0
Dibenzo(a,h)anthracene	0.875	0.867	0.400	-0.9	25.0
Benzo(g,h,i)perylene	0.921	0.932	0.500	1.2	25.0
Nitrobenzene-d5	0.292	0.299	0.200	2.4	25.0
2-Fluorobiphenyl	1.191	1.229	0.700	3.2	25.0
Terphenyl-d14	1.006	1.030	0.500	2.4	25.0
Phenol-d5	1.345	1.353	0.800	0.6	25.0
2-Fluorophenol	1.164	1.256	0.600	7.9	25.0
2,4,6-Tribromophenol	0.176	0.154		-12.5	
2-Chlorophenol-d4	1.289	1.313	0.800	1.9	25.0
1,2-Dichlorobenzene-d4	0.860	0.851	0.400	-1.0	25.0

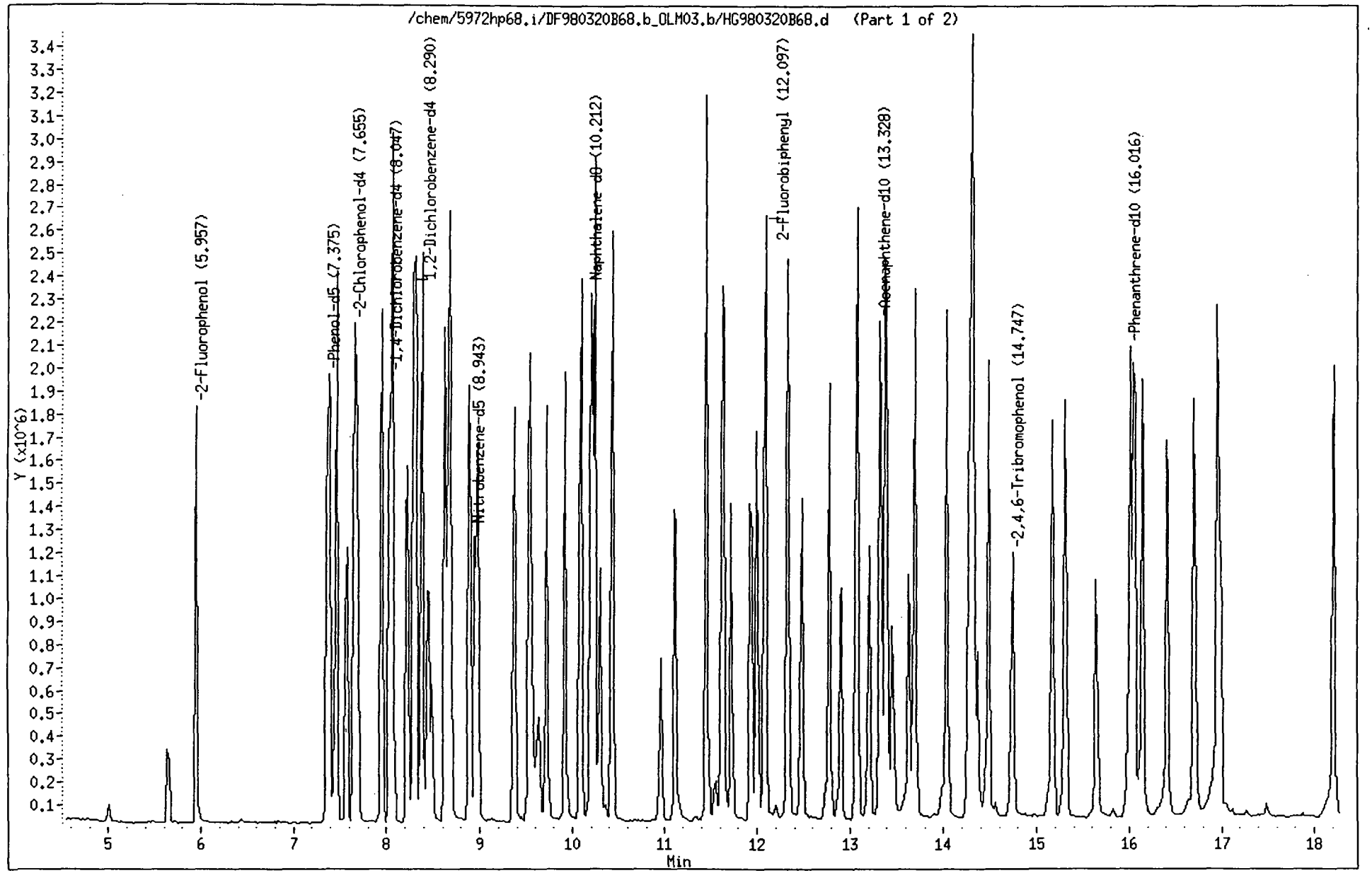
(1) Cannot be separated from Diphenylamine

All other compounds must meet a minimum RRF of 0.010.

Data File: /chem/5972hp68.i/DF980320B68.b_OLM03.b/HG980320B68.d
Date : 20-MAR-1998 20:32
Client ID: SSTD050TD
Sample Info: SSRD050TD:2242
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

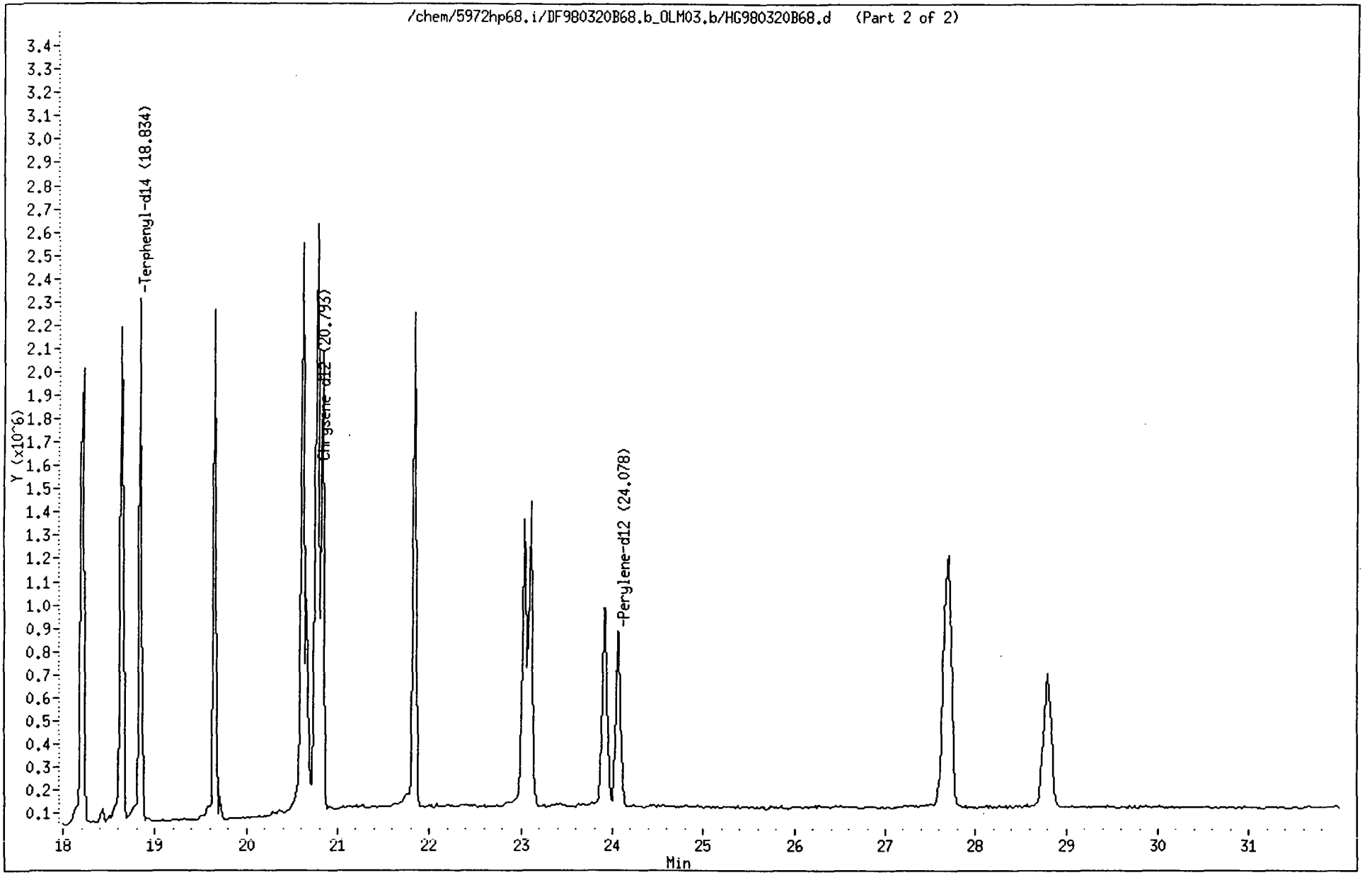
Operator: 2242
Column diameter: 0.32



Data File: /chem/5972hp68.i/DF980320B68.b_OLM03.b/HG980320B68.d
Date : 20-MAR-1998 20:32
Client ID: SSTD050TD
Sample Info: SSRD050TD:2242
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32



Data File: /chem/5972hp68.i/DF980320B68.b_OLM03.b/HG980320B68.d
Report Date: 21-Mar-1998 06:15

CompuChem Environmental Corp.

OLM03.0 + REVISIONS QUANT AND RATIO REPORT

Data file : /chem/5972hp68.i/DF980320B68.b_OLM03.b/HG980320B68.d
Lab Smp Id: SSTD050TD Client Smp ID: SSTD050TD
Inj Date : 20-MAR-98 20:32
Operator : 2242 Inst ID: 5972hp68.i
Smp Info : SSRD050TD:2242
Misc Info :
Comment :
Method : /chem/5972hp68.i/DF980320B68.b_OLM03.b/OLM03.m
Meth Date : 21-Mar-1998 06:14 Quant Type: ISTD
Cal Date : 20-MAR-98 20:32 Cal File: HG980320B68.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.12
Concentration Formula: Vt/(Vo * Vi)

Name	Value	Description
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152.00	8.047	8.047	(1.000)	675530	40.00		
* 2 Naphthalene-d8	136.00	10.212	10.212	(1.000)	2223321	40.00		8351
* 3 Acenaphthene-d10	164.00	13.328	13.328	(1.000)	1089608	40.00		9245
* 4 Phenanthrene-d10	188.00	16.016	16.016	(1.000)	1643440	40.00		9390
* 5 Chrysene-d12	240.00	20.793	20.793	(1.000)	1111672	40.00		9365
* 6 Perylene-d12	264.00	24.078	24.078	(1.000)	1108091	40.00		8496
$ 7 2-Fluorophenol	112.00	5.957	5.957	(0.740)	1061007	50.00	53.95	
$ 8 Phenol-d5	99.00	7.375	7.375	(0.916)	1142793	50.00	50.31	7900
$ 9 2-Chlorophenol-d4	132.00	7.655	7.655	(0.951)	1109083	50.00	50.96	8846
$ 10 1,2-Dichlorobenzene-d4	152.00	8.290	8.290	(1.030)	718553	50.00	49.47	
$ 11 Nitrobenzene-d5	82.00	8.943	8.943	(0.876)	830839	50.00	51.23	8801
$ 12 2-Fluorobiphenyl	172.00	12.097	12.097	(0.908)	1673968	50.00	51.60	8689
$ 13 2,4,6-Tribromophenol	329.60	14.747	14.747	(0.921)	317589	50.00	43.91	
$ 14 Terphenyl-d14	244.00	18.834	18.834	(0.906)	1430751	50.00	51.16	8662
15 Phenol	94.00	7.394	7.394	(0.919)	1066600	50.00	50.56	
16 bis(2-Chloroethyl)ether	93.00	7.581	7.581	(0.942)	893818	50.00	50.96	8572
17 2-Chlorophenol	128.00	7.693	7.693	(0.956)	1092512	50.00	51.42	7739
18 1,3-Dichlorobenzene	146.00	7.954	7.954	(0.988)	1196345	50.00	52.51	
19 1,4-Dichlorobenzene	146.00	8.066	8.066	(1.002)	1162194	50.00	52.17	
20 1,2-Dichlorobenzene	146.00	8.327	8.327	(1.035)	1064019	50.00	51.25	
21 2-Methylphenol	108.00	8.383	8.383	(1.042)	861274	50.00	48.10	

Data File: /chem/5972hp68.i/DF980320B68.b_OLM03.b/HG980320B68.d
Report Date: 21-Mar-1998 06:15

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
22 2,2'-oxybis(1-Chloropropane)	45.00	8.439	8.439	(1.049)	1306823	50.00	50.97	
23 4-Methylphenol	108.00	8.626	8.626	(1.072)	870818	50.00	45.76	
24 N-Nitroso-di-n-propylamine	70.00	8.663	8.663	(1.077)	520886	50.00	48.90	8516
25 Hexachloroethane	117.00	8.887	8.887	(1.104)	514882	50.00	52.85	8394
26 Nitrobenzene	77.00	8.980	8.980	(0.879)	771776	50.00	50.01	8619
27 Isophorone	82.00	9.372	9.372	(0.918)	1504041	50.00	51.00	9007
28 2-Nitrophenol	139.00	9.521	9.521	(0.932)	559206	50.00	48.75	8464
29 2,4-Dimethylphenol	107.00	9.540	9.540	(0.934)	801734	50.00	50.48	8850
30 bis(2-Chloroethoxy)methane	93.00	9.727	9.727	(0.952)	1051418	50.00	52.75	9004
31 2,4-Dichlorophenol	162.00	9.932	9.932	(0.973)	740471	50.00	50.96	
32 1,2,4-Trichlorobenzene	180.00	10.100	10.100	(0.989)	814150	50.00	52.89	8082
33 Naphthalene	128.00	10.249	10.249	(1.004)	2619346	50.00	51.67	8226
34 4-Chloroaniline	127.00	10.305	10.305	(1.009)	595680	50.00	63.73	7265
35 Hexachlorobutadiene	225.00	10.436	10.436	(1.022)	523394	50.00	53.06	
36 4-Chloro-3-methylphenol	107.00	11.108	11.108	(1.088)	707684	50.00	48.77	8692
37 2-Methylnaphthalene	142.00	11.462	11.462	(1.122)	1783272	50.00	51.44	
38 Hexachlorocyclopentadiene	237.00	11.724	11.724	(0.880)	432554	50.00	46.58	7704
39 2,4,6-Trichlorophenol	196.00	11.947	11.947	(0.896)	492539	50.00	44.15	
40 2,4,5-Trichlorophenol	196.00	12.003	12.003	(0.901)	532088	50.00	55.42	
41 2-Chloronaphthalene	162.00	12.339	12.339	(0.926)	1485319	50.00	50.90	8487
42 2-Nitroaniline	65.00	12.489	12.489	(0.937)	404869	50.00	51.08	8439
43 Dimethylphthalate	163.00	12.787	12.787	(0.959)	1733717	50.00	53.36	8598
44 2,6-Dinitrotoluene	165.00	12.918	12.918	(0.969)	419395	50.00	50.32	8275
45 Acenaphthylene	152.00	13.086	13.086	(0.982)	2377273	50.00	51.35	8615
46 3-Nitroaniline	138.00	13.216	13.216	(0.992)	462966	50.00	56.08	8331
47 Acenaphthene	153.00	13.384	13.384	(1.004)	1439973	50.00	50.91	9184
48 2,4-Dinitrophenol	184.00	13.403	13.403	(1.006)	136180	50.00	46.68	(a)
49 4-Nitrophenol	109.00	13.459	13.459	(1.010)	183212	50.00	49.98	(a)
50 2,4-Dinitrotoluene	165.00	13.646	13.646	(1.024)	533428	50.00	52.24	0(M)
51 Dibenzofuran	168.00	13.702	13.702	(1.028)	1968849	50.00	50.08	8574
52 Diethylphthalate	149.00	14.038	14.038	(1.053)	1815300	50.00	58.31	
53 4-Chlorophenyl-phenylether	204.00	14.280	14.280	(1.071)	788545	50.00	54.21	8772
54 Fluorene	166.00	14.318	14.318	(1.074)	1567972	50.00	50.65	9144
55 4-Nitroaniline	138.00	14.318	14.318	(1.074)	389962	50.00	52.05	
56 4,6-Dinitro-2-methylphenol	198.00	14.374	14.374	(0.897)	248774	50.00	47.15	(a)
57 N-nitrosodiphenylamine	169.00	14.486	14.486	(0.904)	1099499	50.00	52.21	8378
58 4-Bromophenyl-phenylether	248.00	15.176	15.176	(0.948)	527442	50.00	49.06	7524
59 Hexachlorobenzene	283.90	15.307	15.307	(0.956)	561077	50.00	46.22	
60 Pentachlorophenol	266.00	15.643	15.643	(0.977)	274325	50.00	46.53	8365(a)
61 Phenanthrene	178.00	16.072	16.072	(1.003)	1756984	50.00	47.06	
62 Anthracene	178.00	16.146	16.146	(1.008)	1892606	50.00	49.08	
63 Carbazole	167.00	16.408	16.408	(1.024)	1703100	50.00	52.64	9527
64 Di-n-butylphthalate	149.00	16.949	16.949	(1.058)	2956988	50.00	50.85	
65 Fluoranthene	202.00	18.218	18.218	(1.137)	1927966	50.00	49.20	
66 Pyrene	202.00	18.628	18.628	(0.896)	1969054	50.00	53.24	
67 Butylbenzylphthalate	149.00	19.655	19.655	(0.945)	1133680	50.00	51.45	8437
68 3,3'-Dichlorobenzidine	252.00	20.663	20.663	(0.994)	427558	50.00	61.26	7651
69 bis(2-Ethylhexyl)phthalate	149.00	20.607	20.607	(0.991)	1549616	50.00	54.57	8322
70 Benzo(a)anthracene	228.00	20.756	20.756	(0.998)	1543811	50.00	42.63	

1453/20/98

Data File: /chem/5972hp68.i/DF980320B68.b_OLM03.b/HG980320B68.d
Report Date: 21-Mar-1998 06:15

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
71 Chrysene	228.00	20.830	20.830	(1.002)	1582372	50.00	53.56	
72 Di-n-octylphthalate	149.00	21.838	21.838	(0.907)	2424094	50.00	54.88	8310
73 Benzo(b)fluoranthene	252.00	23.033	23.033	(0.957)	1598442	50.00	45.22	
74 Benzo(k)fluoranthene	252.00	23.107	23.107	(0.960)	1706717	50.00	54.54	
75 Benzo(a)pyrene	252.00	23.928	23.928	(0.994)	1307003	50.00	50.44	
76 Indeno(1,2,3-cd)pyrene	276.00	27.679	27.679	(1.150)	1504749	50.00	51.05	9607
77 Dibenzo(a,h)anthracene	278.00	27.698	27.698	(1.150)	1196568	50.00	49.37	0(M)
78 Benzo(g,h,i)perylene	276.00	28.799	28.799	(1.196)	1290787	50.00	50.58	9094

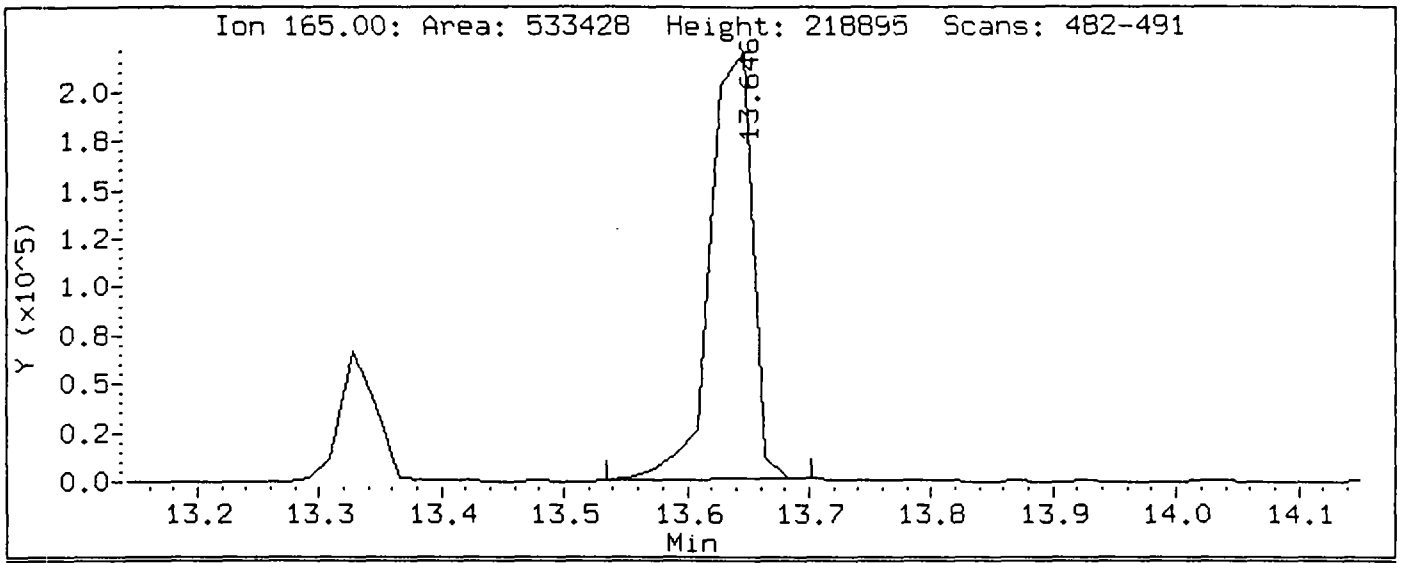
QC Flag Legend

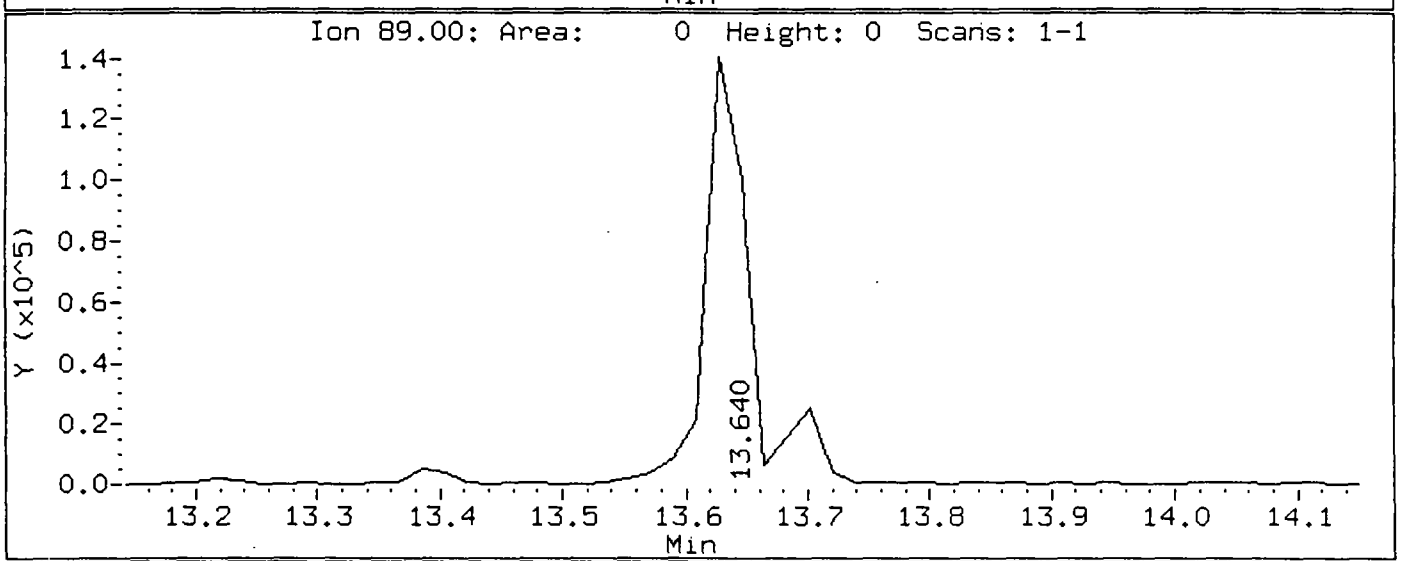
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

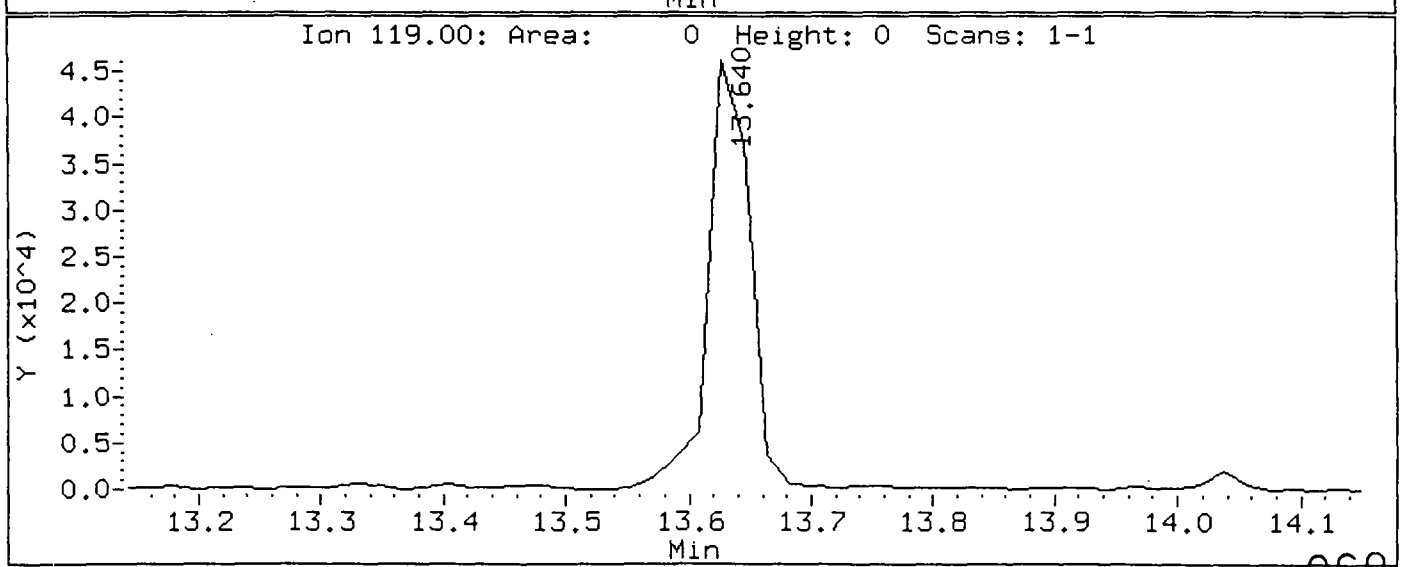
3/20/98

Data File: /chem/5972hp68.i/DF980320B68.b_OLM03.b/HG980320B68.d
Injection Date: 20-MAR-98 20:32
Instrument: 5972hp68.i
Client Sample ID: SSTD050TD

Compound: 2,4-Dinitrotoluene
CAS Number: 121-14-2

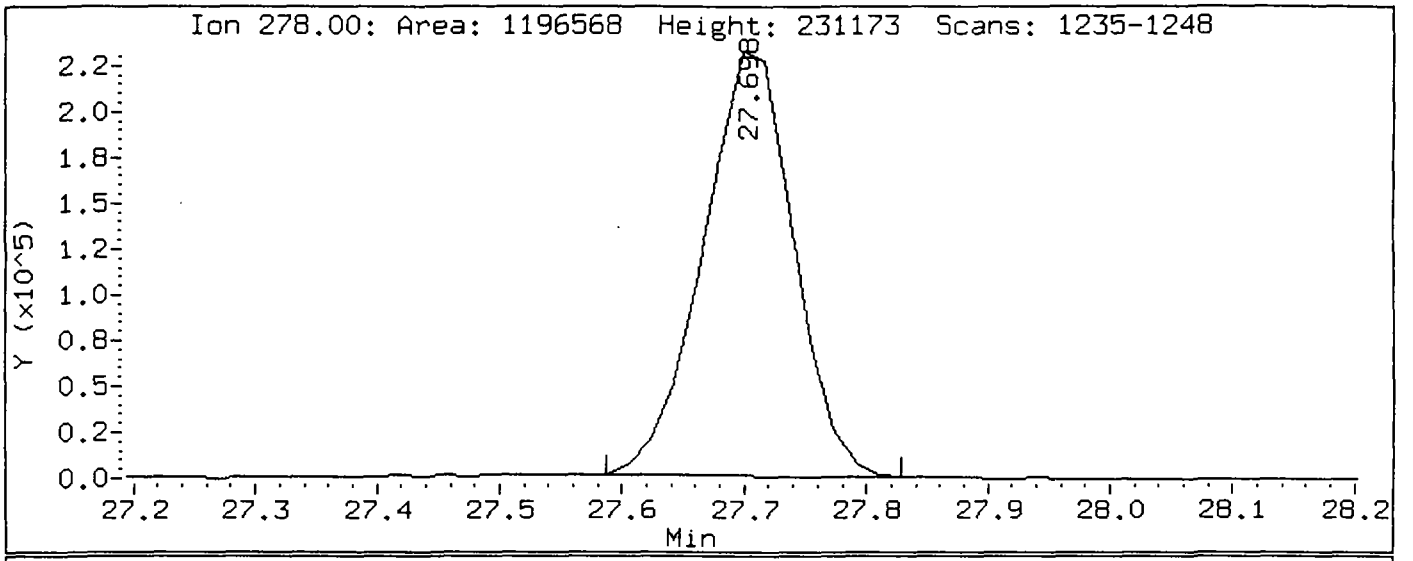


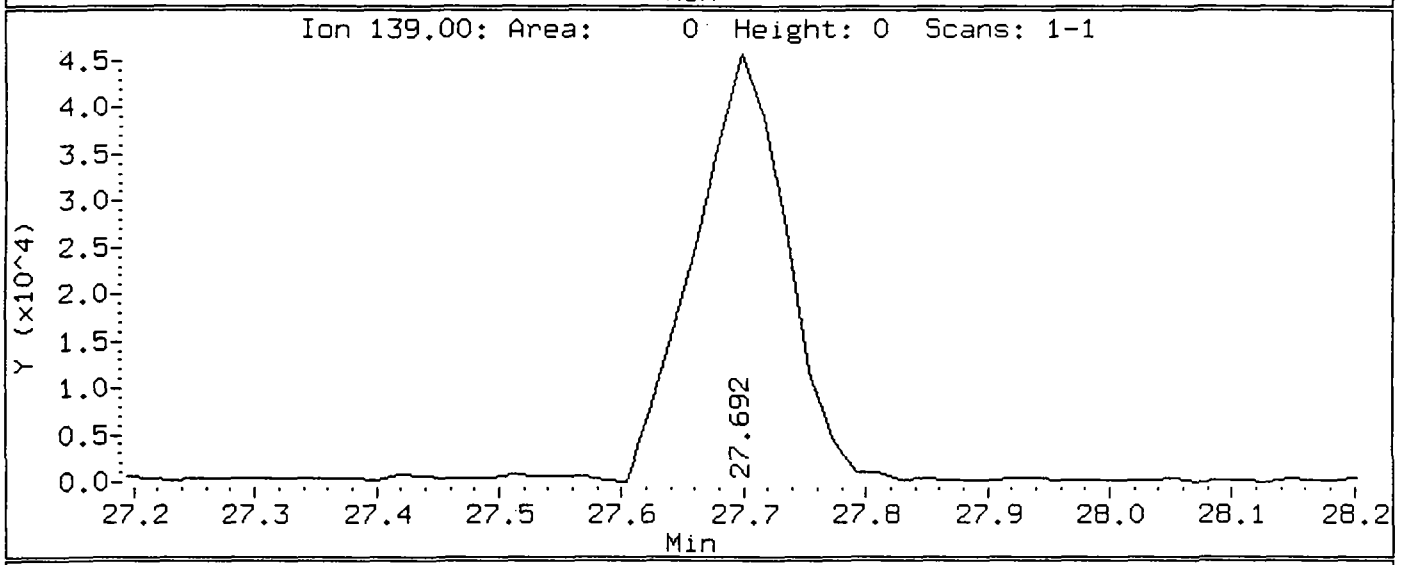


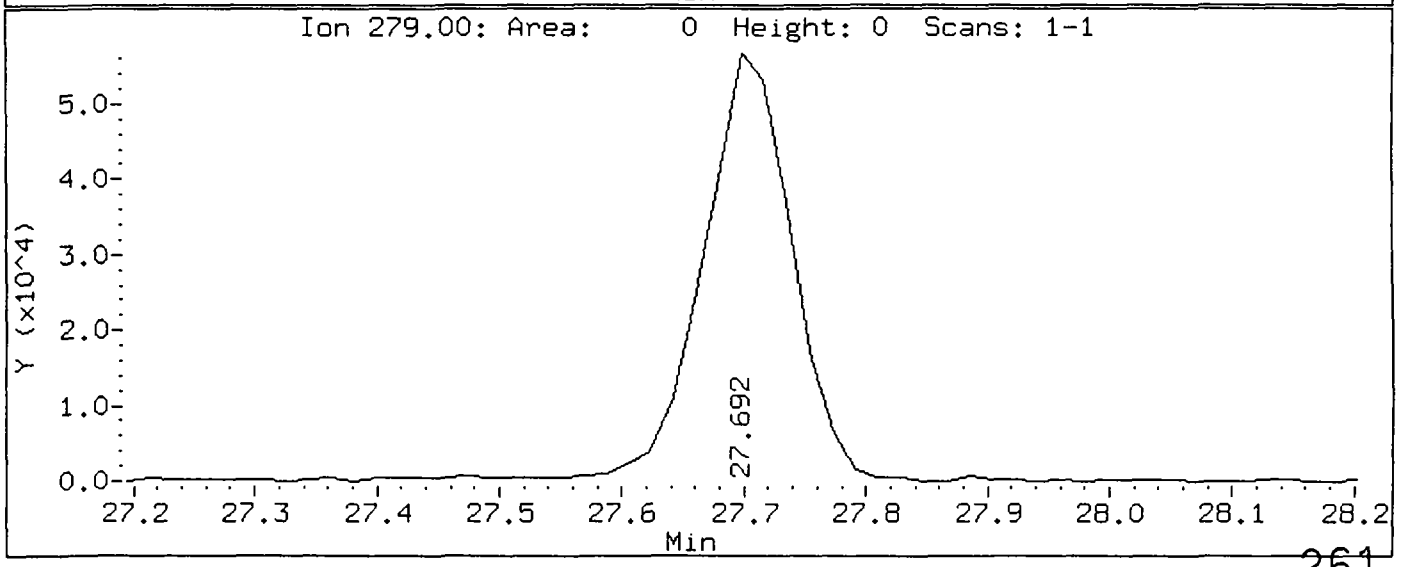


Data File: /chem/5972hp68.i/DF980320B68.b_OLM03.b/HG980320B68.d
Injection Date: 20-MAR-98 20:32
Instrument: 5972hp68.i
Client Sample ID: SSTD050TD

Compound: Dibenzo(a,h)anthracene
CAS Number: 53-70-3







)MPUCHEM a division of Liberty Analytical Corp DATE 3/20/98 INITIAL TIME OF TUNE 2010 SHIFT/S(A)____(B)✓(C)____

IIVOLATILE GC/MS RUN LOG TIME TUNE EXPIRES 810 LINKER /METHOD 0ch03

/PUCHEM .LOGBOOK 11 CC 2(5972hp68) 3/23/98

PREVENTIVE MAINTENANCE None KS 3/20/98

FILE NAME		DATE	TIME	CLIENT ID#	CASE/SDG#	AMOUNT INJECTED	CHEMIST	COMMENTS/CODE/DESCRIPTION
DF980320B68	/	3/20/98	2010	DFTPP	—	2uL	2242	SC=CC
HG980330B68	/	/ /	2032	SSTD050TD	—			
GH085125B68	/	/ /	2115	EBPD5	26040-EBPD0			
GH085121B68	/	/ /	2157	EBPD1				
GH085122B68	/	/ /	2240	EBPD2				
GH085124B68	/	/ /	2322	EBPD9				
GH085129B68	/	3/21/98	0005	EBPD0				
GH085127B68	/	/ /	0047	EBPD8				
GH085126B68	/	/ /	0130	EBPP6				
GH085133B68	/	/ /	0212	EBPE2	26040-EBPE1			
GH085134B68	/	/ /	0254	EBPE3				
GH085254B68	/	/ /	0337	BTG22	26066-BTE89			
GH085412B68	/	/ /	0420	SBLKLD	VARIOUS			
GH085413B68	/	/ /	0502	SLCSLD				
GH085357B68	/	/ /	0544	BS	33234-0092N			
GH085358B68	/	/ /	0627	BSD				
GH085130B68	/	/ /	0710	EBPE1	26040-EBPE1			
		/ /		OUT OF TUNE				
		/ /						
		/ /						
		/ /						
		/ /						
		/ /						
		/ /						

KS 3/20/98

STANDARDS

	Tune	Analytical	Int. Std.
I. ID #	7055	2437	800
#	46529	46836	46832

SUPERVISOR APPROVAL

107

262

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Instrument ID: 5972HP68 Calibration Date: 03/21/98 Time: 0807

Lab File ID: HG980321A68 Init. Calib. Date(s): 03/19/98 03/20/98

Init. Calib. Times: 2124 0210

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Phenol	1.249	1.284	0.800	2.8	25.0
bis(2-Chloroethyl)ether	1.038	1.112	0.700	7.1	25.0
2-Chlorophenol	1.258	1.268	0.800	0.8	25.0
1,3-Dichlorobenzene	1.349	1.447	0.600	7.3	25.0
1,4-Dichlorobenzene	1.319	1.388	0.500	5.2	25.0
1,2-Dichlorobenzene	1.229	1.300	0.400	5.8	25.0
2-Methylphenol	1.060	1.001	0.700	-5.6	25.0
2,2'-oxybis(1-Chloropropane)	1.518	1.632		7.5	
4-Methylphenol	1.127	1.008	0.600	-10.6	25.0
N-Nitroso-di-n-propylamine	0.631	0.607	0.500	-3.8	25.0
Hexachloroethane	0.577	0.624	0.300	8.1	25.0
Nitrobenzene	0.277	0.287	0.200	3.6	25.0
Isophorone	0.530	0.529	0.400	-0.2	25.0
2-Nitrophenol	0.206	0.198	0.100	-3.9	25.0
2,4-Dimethylphenol	0.286	0.284	0.200	-0.7	25.0
bis(2-Chloroethoxy)methane	0.359	0.365	0.300	1.7	25.0
2,4-Dichlorophenol	0.261	0.249	0.200	-4.6	25.0
1,2,4-Trichlorobenzene	0.277	0.290	0.200	4.7	25.0
Naphthalene	0.912	0.940	0.700	3.1	25.0
4-Chloroaniline	0.168	0.193		14.9	
Hexachlorobutadiene	0.178	0.187		5.1	
4-Chloro-3-methylphenol	0.261	0.243	0.200	-6.9	25.0
2-Methylnaphthalene	0.624	0.605	0.400	-3.0	25.0
Hexachlorocyclopentadiene	0.341	0.330		-3.2	
2,4,6-Trichlorophenol	0.409	0.386	0.200	-5.6	25.0
2,4,5-Trichlorophenol	0.353	0.378	0.200	7.1	25.0
2-Chloronaphthalene	1.071	1.146	0.800	7.0	25.0
2-Nitroaniline	0.291	0.293		0.7	
Dimethylphthalate	1.193	1.252		4.9	
Acenaphthylene	1.699	1.828	0.900	7.6	25.0
2,6-Dinitrotoluene	0.306	0.302	0.200	-1.3	25.0
3-Nitroaniline	0.303	0.316		4.3	
Acenaphthene	1.039	1.052	0.900	1.3	25.0
2,4-Dinitrophenol	0.107	0.078		-27.1	
4-Nitrophenol	0.134	0.119		-11.2	
Dibenzofuran	1.443	1.468	0.800	1.7	25.0
2,4-Dinitrotoluene	0.375	0.381	0.200	1.6	25.0

All other compounds must meet a minimum RRF of 0.010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Instrument ID: 5972HP68 Calibration Date: 03/21/98 Time: 0807

Lab File ID: HG980321A68 Init. Calib. Date(s): 03/19/98 03/20/98

Init. Calib. Times: 2124 0210

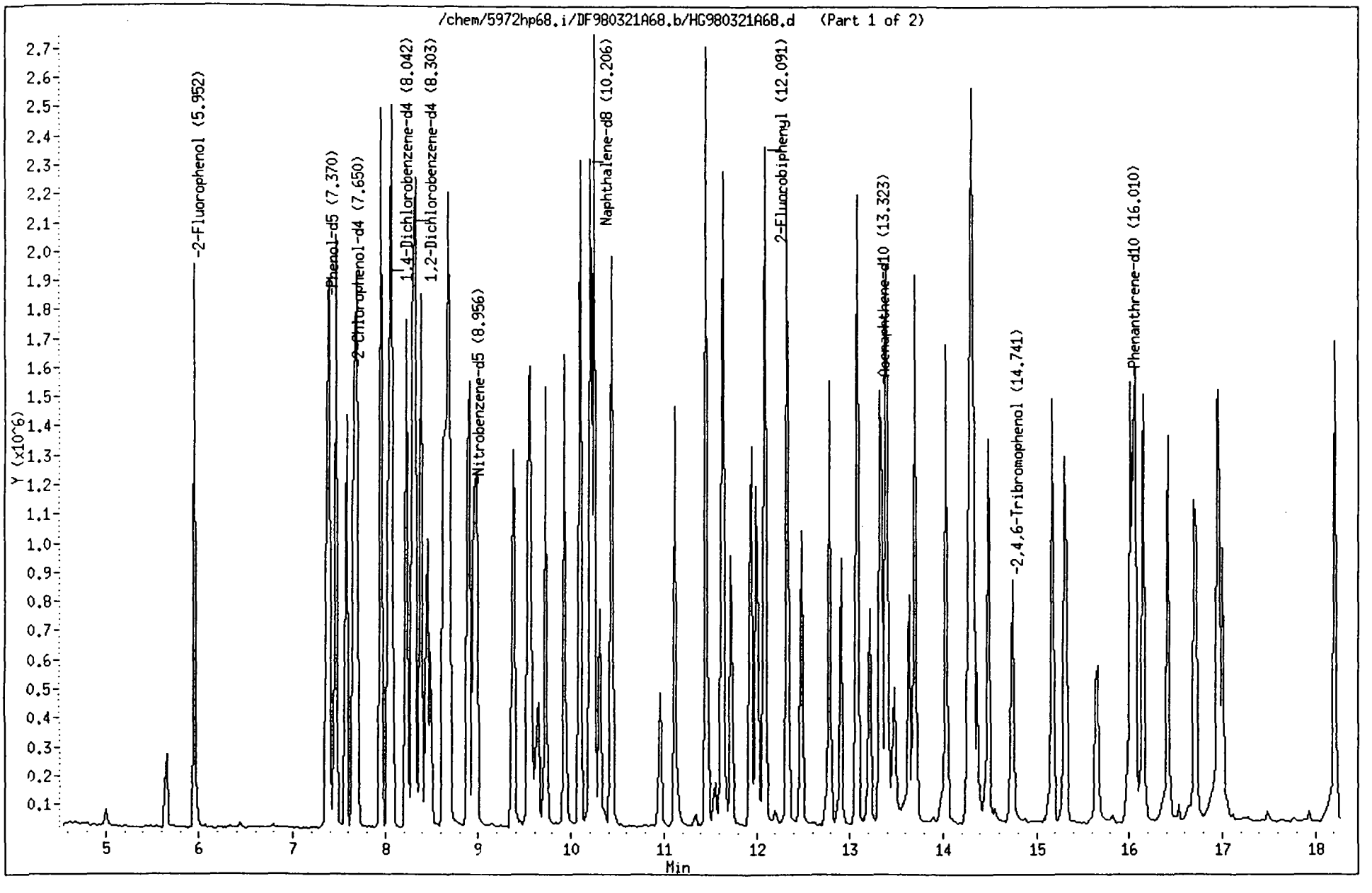
COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Diethylphthalate	1.143	1.320		15.5	
4-Chlorophenyl-phenylether	0.534	0.586	0.400	9.7	25.0
Fluorene	1.136	1.143	0.900	0.6	25.0
4-Nitroaniline	0.275	0.290		5.5	
4,6-Dinitro-2-methylphenol	0.129	0.108		-16.3	
N-nitrosodiphenylamine(1)	0.513	0.526		2.5	
4-Bromophenyl-phenylether	0.262	0.256	0.100	-2.3	25.0
Hexachlorobenzene	0.295	0.272	0.100	-7.8	25.0
Pentachlorophenol	0.144	0.131	0.050	-9.0	25.0
Phenanthrene	0.908	1.020	0.700	12.3	25.0
Anthracene	0.938	0.943	0.700	0.5	25.0
Carbazole	0.788	0.818		3.8	
Di-n-butylphthalate	1.415	1.370		-3.2	
Fluoranthene	0.954	0.969	0.600	1.6	25.0
Pyrene	1.331	1.542	0.600	15.9	25.0
Butylbenzylphthalate	0.793	0.860		8.4	
3,3'-Dichlorobenzidine	0.251	0.327		30.3	
Benzo(a)anthracene	1.303	1.135	0.800	-12.9	25.0
Chrysene	1.063	1.216	0.700	14.4	25.0
bis(2-Ethylhexyl)phthalate	1.022	1.132		10.8	
Di-n-octylphthalate	1.594	1.658		4.0	
Benzo(b)fluoranthene	1.276	1.223	0.700	-4.2	25.0
Benzo(k)fluoranthene	1.129	1.210	0.700	7.2	25.0
Benzo(a)pyrene	0.935	0.922	0.700	-1.4	25.0
Indeno(1,2,3-cd)pyrene	1.064	1.071	0.500	0.7	25.0
Dibenzo(a,h)anthracene	0.875	0.844	0.400	-3.5	25.0
Benzo(g,h,i)perylene	0.921	0.908	0.500	-1.4	25.0
Nitrobenzene-d5	0.292	0.300	0.200	2.7	25.0
2-Fluorobiphenyl	1.191	1.278	0.700	7.3	25.0
Terphenyl-d14	1.006	1.037	0.500	3.1	25.0
Phenol-d5	1.345	1.376	0.800	2.3	25.0
2-Fluorophenol	1.164	1.313	0.600	12.8	25.0
2,4,6-Tribromophenol	0.176	0.147		-16.5	
2-Chlorophenol-d4	1.289	1.303	0.800	1.1	25.0
1,2-Dichlorobenzene-d4	0.860	0.865	0.400	0.6	25.0

(1) Cannot be separated from Diphenylamine
All other compounds must meet a minimum RRF of 0.010.

Data File: /chem/5972hp68.i/DF980321A68.b/HG980321A68.d
Date : 21-MAR-1998 08:07
Client ID: SSTD050DU
Sample Info: SSTD050DU:2242
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

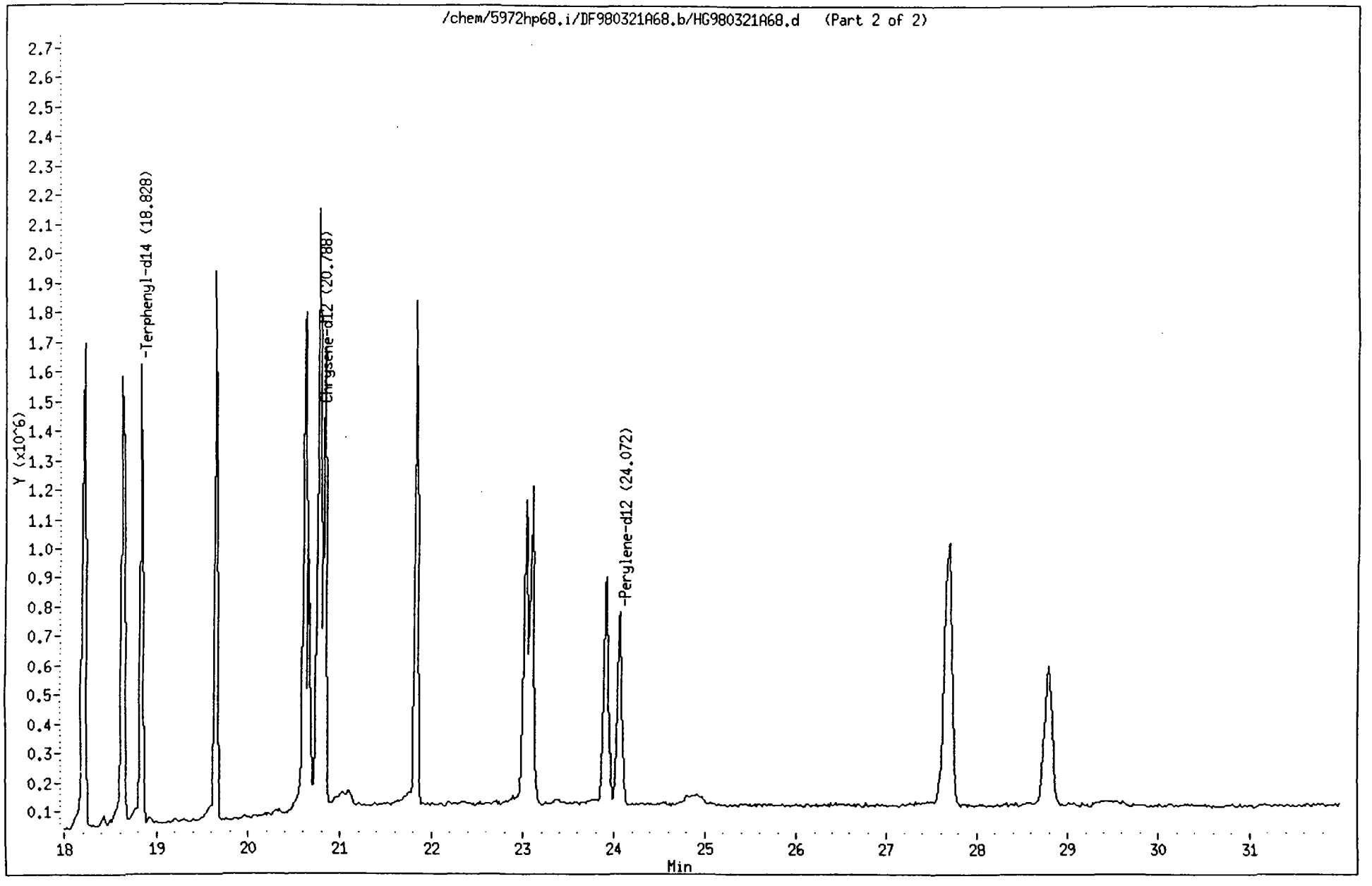
Operator: 2242
Column diameter: 0.32



Data File: /chem/5972hp68.i/DF980321A68.b/HG980321A68.d
Date : 21-MAR-1998 08:07
Client ID: SSTD050DU
Sample Info: SSTD050DU:2242
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32



Data File: /chem/5972hp68.i/DF980321A68.b/HG980321A68.d
Report Date: 21-Mar-1998 08:29

CompuChem Environmental Corp.

OLM03.0 + REVISIONS QUANT AND RATIO REPORT

Data file : /chem/5972hp68.i/DF980321A68.b/HG980321A68.d
Lab Smp Id: SSTD050DU Client Smp ID: SSTD050DU
Inj Date : 21-MAR-98 08:07
Operator : 2242 Inst ID: 5972hp68.i
Smp Info : SSTD050DU:2242
Misc Info :
Comment :
Method : /chem/5972hp68.i/DF980321A68.b/OLM03.m
Meth Date : 21-Mar-1998 08:28 Quant Type: ISTD
Cal Date : 21-MAR-98 08:07 Cal File: HG980321A68.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.12
Concentration Formula: Vt/(Vo * Vi)

Name	Value	Description
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152.00	8.042	8.042	(1.000)	581091	40.00		
* 2 Naphthalene-d8	136.00	10.206	10.206	(1.000)	1893064	40.00		8511
* 3 Acenaphthene-d10	164.00	13.323	13.323	(1.000)	831217	40.00		9358
* 4 Phenanthrene-d10	188.00	16.010	16.010	(1.000)	1243774	40.00		9471
* 5 Chrysene-d12	240.00	20.788	20.788	(1.000)	865562	40.00		9596
* 6 Perylene-d12	264.00	24.072	24.072	(1.000)	939440	40.00		8404
$ 7 2-Fluorophenol	112.00	5.952	5.952	(0.740)	954012	50.00	56.40	
$ 8 Phenol-d5	99.00	7.370	7.370	(0.916)	999432	50.00	51.15	8327
$ 9 2-Chlorophenol-d4	132.00	7.650	7.650	(0.951)	946278	50.00	50.54	9202
$ 10 1,2-Dichlorobenzene-d4	152.00	8.303	8.303	(1.032)	628398	50.00	50.29	
$ 11 Nitrobenzene-d5	82.00	8.956	8.956	(0.877)	709479	50.00	51.37	8368
$ 12 2-Fluorobiphenyl	172.00	12.091	12.091	(0.908)	1328165	50.00	53.67	8812
$ 13 2,4,6-Tribromophenol	329.60	14.741	14.741	(0.921)	228360	50.00	41.72	
$ 14 Terphenyl-d14	244.00	18.828	18.828	(0.906)	1122006	50.00	51.52	8935
15 Phenol	94.00	7.389	7.389	(0.919)	932453	50.00	51.38	
16 bis(2-Chloroethyl)ether	93.00	7.575	7.575	(0.942)	807579	50.00	53.53	8741
17 2-Chlorophenol	128.00	7.687	7.687	(0.956)	921334	50.00	50.41	8082
18 1,3-Dichlorobenzene	146.00	7.948	7.948	(0.988)	1051352	50.00	53.64	
19 1,4-Dichlorobenzene	146.00	8.060	8.060	(1.002)	1007858	50.00	52.60	
20 1,2-Dichlorobenzene	146.00	8.322	8.322	(1.035)	944118	50.00	52.86	
21 2-Methylphenol	108.00	8.378	8.378	(1.042)	727307	50.00	47.22	

Data File: /chem/5972hp68.i/DF980321A68.b/HG980321A68.d
Report Date: 21-Mar-1998 08:29

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
22 2,2'-oxybis(1-Chloropropane)	45.00	8.452	8.452	(1.051)	1185425	50.00	53.75	
23 4-Methylphenol	108.00	8.639	8.639	(1.074)	732029	50.00	44.72	
24 N-Nitroso-di-n-propylamine	70.00	8.658	8.658	(1.077)	440829	50.00	48.11	8681
25 Hexachloroethane	117.00	8.900	8.900	(1.107)	453132	50.00	54.07	7889
26 Nitrobenzene	77.00	8.975	8.975	(0.879)	678207	50.00	51.62	8838
27 Isophorone	82.00	9.367	9.367	(0.918)	1251631	50.00	49.84	9096
28 2-Nitrophenol	139.00	9.535	9.535	(0.934)	467533	50.00	47.87	7141
29 2,4-Dimethylphenol	107.00	9.553	9.553	(0.936)	672898	50.00	49.76	7996
30 bis(2-Chloroethoxy)methane	93.00	9.721	9.721	(0.952)	862787	50.00	50.84	9120
31 2,4-Dichlorophenol	162.00	9.927	9.927	(0.973)	589918	50.00	47.69	
32 1,2,4-Trichlorobenzene	180.00	10.095	10.095	(0.989)	685258	50.00	52.28	8338
33 Naphthalene	128.00	10.244	10.244	(1.004)	2224764	50.00	51.54	8579
34 4-Chloroaniline	127.00	10.300	10.300	(1.009)	455935	50.00	57.29	8303
35 Hexachlorobutadiene	225.00	10.430	10.430	(1.022)	442890	50.00	52.71	
36 4-Chloro-3-methylphenol	107.00	11.121	11.121	(1.090)	574730	50.00	46.52	8224
37 2-Methylnaphthalene	142.00	11.457	11.457	(1.123)	1431381	50.00	48.49	
38 Hexachlorocyclopentadiene	237.00	11.737	11.737	(0.881)	343008	50.00	48.42	0(M)
39 2,4,6-Trichlorophenol	196.00	11.942	11.942	(0.896)	400922	50.00	47.11	
40 2,4,5-Trichlorophenol	196.00	11.998	11.998	(0.901)	393216	50.00	53.69	
41 2-Chloronaphthalene	162.00	12.334	12.334	(0.926)	1190546	50.00	53.48	8705
42 2-Nitroaniline	65.00	12.483	12.483	(0.937)	304557	50.00	50.37	8673
43 Dimethylphthalate	163.00	12.782	12.782	(0.959)	1301187	50.00	52.50	8782
44 2,6-Dinitrotoluene	165.00	12.912	12.912	(0.969)	313282	50.00	49.27	8437
45 Acenaphthylene	152.00	13.080	13.080	(0.982)	1899232	50.00	53.78	8783
46 3-Nitroaniline	138.00	13.211	13.211	(0.992)	328654	50.00	52.18	8664
47 Acenaphthene	153.00	13.398	13.398	(1.006)	1092687	50.00	50.64	8872
48 2,4-Dinitrophenol	184.00	13.416	13.416	(1.007)	81357	50.00	36.56	(a)
49 4-Nitrophenol	109.00	13.472	13.472	(1.011)	123535	50.00	44.17	(a)
50 2,4-Dinitrotoluene	165.00	13.640	13.640	(1.024)	396269	50.00	50.87	7447
51 Dibenzofuran	168.00	13.696	13.696	(1.028)	1524837	50.00	50.85	8441
52 Diethylphthalate	149.00	14.032	14.032	(1.053)	1371341	50.00	57.74	
53 4-Chlorophenyl-phenylether	204.00	14.293	14.293	(1.073)	608790	50.00	54.86	8233
54 Fluorene	166.00	14.312	14.312	(1.074)	1187766	50.00	50.29	9285
55 4-Nitroaniline	138.00	14.312	14.312	(1.074)	301827	50.00	52.81	
56 4,6-Dinitro-2-methylphenol	198.00	14.368	14.368	(0.897)	168289	50.00	42.14	(a)
57 N-nitrosodiphenylamine	169.00	14.480	14.480	(0.904)	817118	50.00	51.26	8753
58 4-Bromophenyl-phenylether	248.00	15.171	15.171	(0.948)	397721	50.00	48.88	7907
59 Hexachlorobenzene	283.90	15.301	15.301	(0.956)	423056	50.00	46.04	
60 Pentachlorophenol	266.00	15.656	15.656	(0.978)	204040	50.00	45.73	7756(a)
61 Phenanthrene	178.00	16.066	16.066	(1.003)	1585792	50.00	56.13	
62 Anthracene	178.00	16.160	16.160	(1.009)	1465594	50.00	50.22	
63 Carbazole	167.00	16.421	16.421	(1.026)	1271846	50.00	51.94	9268
64 Di-n-butylphthalate	149.00	16.962	16.962	(1.059)	2130044	50.00	48.40	
65 Fluoranthene	202.00	18.212	18.212	(1.138)	1506650	50.00	50.80	
66 Pyrene	202.00	18.623	18.623	(0.896)	1668432	50.00	57.94	
67 Butylbenzylphthalate	149.00	19.649	19.649	(0.945)	930013	50.00	54.21	8674
68 3,3'-Dichlorobenzidine	252.00	20.657	20.657	(0.994)	354143	50.00	65.17	8050
69 bis(2-Ethylhexyl)phthalate	149.00	20.620	20.620	(0.992)	1225109	50.00	55.41	7422
70 Benzo(a)anthracene	228.00	20.769	20.769	(0.999)	1228027	50.00	43.55	

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Data File: /chem/5972hp68.i/DF980321A68.b/HG980321A68.d
Report Date: 21-Mar-1998 08:29

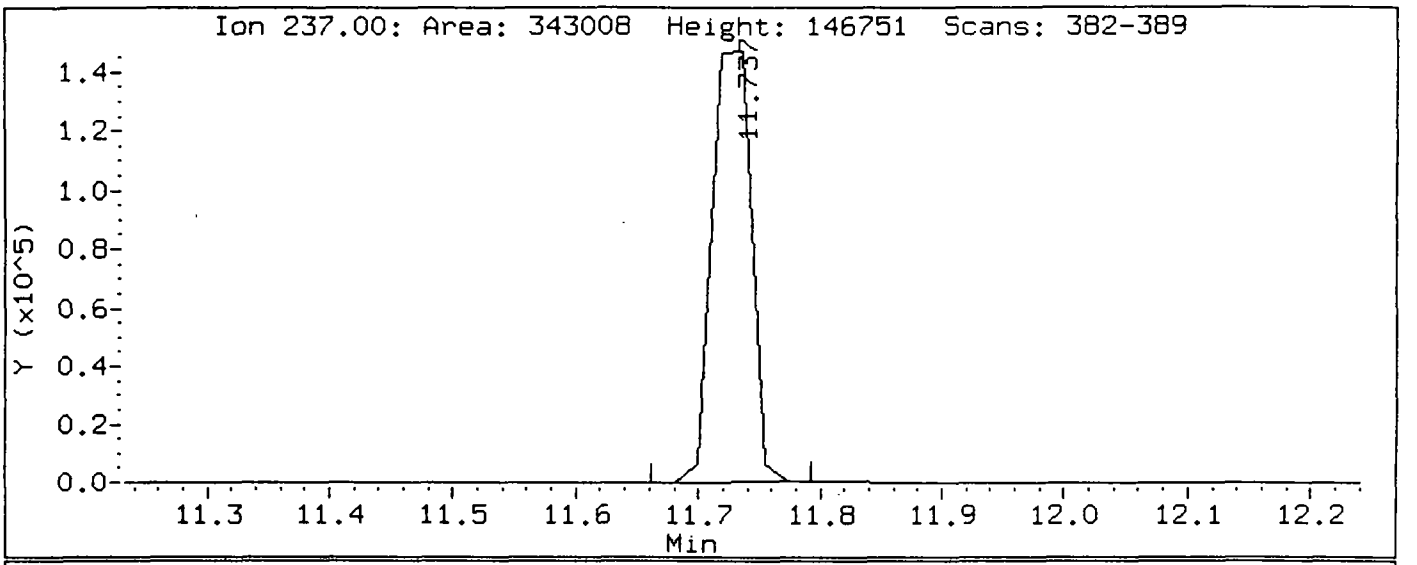
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
71 Chrysene	228.00	20.825	20.825	(1.002)	1315978	50.00	57.21	
72 Di-n-octylphthalate	149.00	21.833	21.833	(0.907)	1946543	50.00	51.98	8604
73 Benzo(b)fluoranthene	252.00	23.027	23.027	(0.957)	1435724	50.00	47.91	
74 Benzo(k)fluoranthene	252.00	23.102	23.102	(0.960)	1420593	50.00	53.55	
75 Benzo(a)pyrene	252.00	23.923	23.923	(0.994)	1083144	50.00	49.30	
76 Indeno(1,2,3-cd)pyrene	276.00	27.674	27.674	(1.150)	1257888	50.00	50.33	9571
77 Dibenzo(a,h)anthracene	278.00	27.692	27.692	(1.150)	990763	50.00	48.21	7088
78 Benzo(g,h,i)perylene	276.00	28.794	28.794	(1.196)	1066206	50.00	49.28	9288

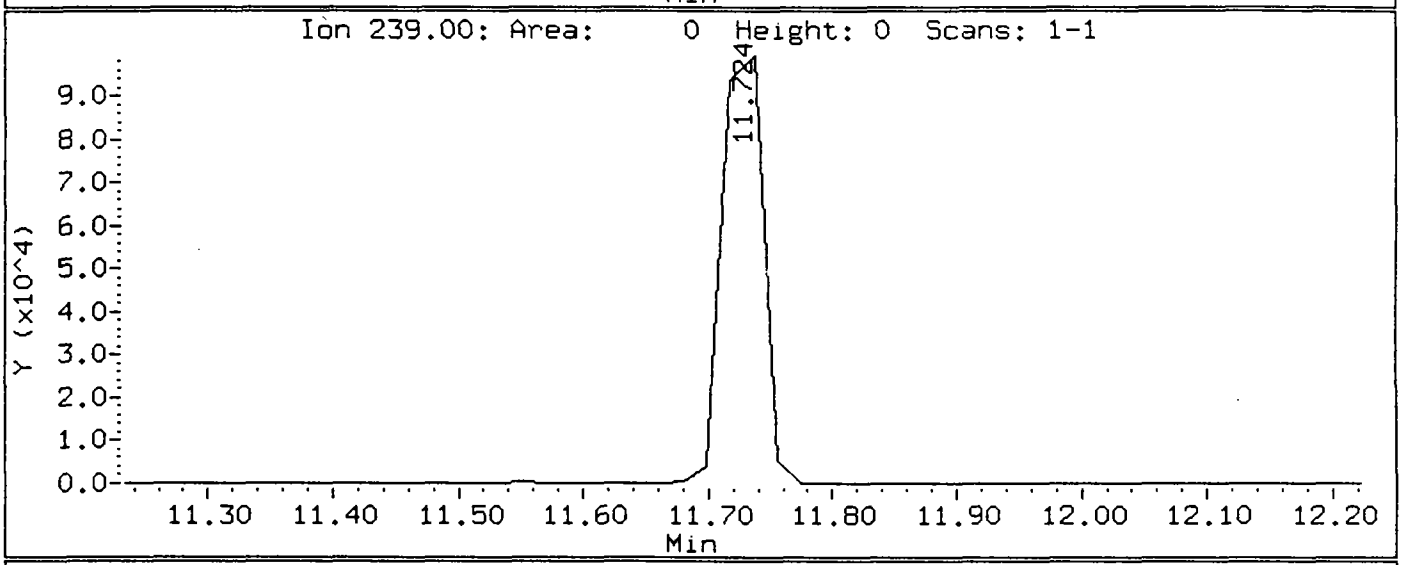
QC Flag Legend

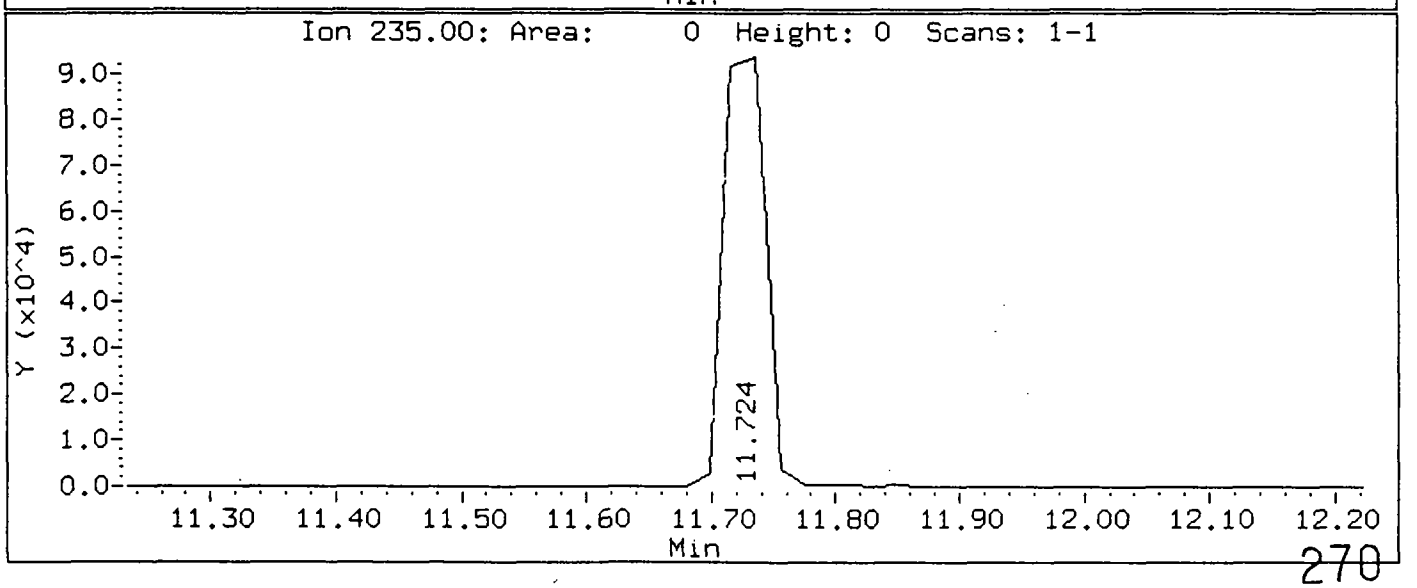
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/5972hp68.i/DF980321A68.b/HG980321A68.d
Injection Date: 21-MAR-98 08:07
Instrument: 5972hp68.i
Client Sample ID: SSTD050DU

Compound: Hexachlorocyclopentadiene
CAS Number: 77-47-4







OMPUCHEM a division of Liberty Analytical Corp DATE 3/21/98 INITIAL TIME OF TUNE 745 SHIFT/S(A) ✓ (B)____ (C)____

MIVOLATILE GC/MS RUN LOG TIME TUNE EXPIRES 1945 LINKER /METHOD OCM03

MPUCHEM .LOGBOOK 11 CC 2(5972hp68)

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PREVENTIVE MAINTENANCE None KB 3/21/98

FILE NAME		DATE	TIME	SAMPLE ID	CONTROL #			COMMENTS
DF980321A68	/	3/21/98	745	DFTPP	—	2uL	2242	SC=LC
HG980321A68	/	/ /	807	SSTD050DU	—			
GH085356A68	/	/ /	849	~~DGT~~ KB 3-21-98 VHG00907	33234-0092W			
GH085401A68	/	/ /	932	POLY-1	33472 MWTT1			
GH085405A68	/	/ /	1014	PVC-1				6x
GH085402A68	/	/ /	1057	PVC-1MS				
GH085403A68	/	/ /	1140	PVC-1MSD				
GH085404A68	/	/ /	1222	BLANK-1	33472 MWTT1			
GH085080A68	/	/ /	1310	SBLKKJ	VARIOUS			
GH085081A68	/	/ /	1353	SLCSKJ				
GH084908A68	/	/ /	1435	DNQ62				
GH085022A68	/	/ /	1518	DUP1	33433-00008			
GH085020A68	/	/ /	1600	MW6P MS				
GH085021A68	/	/ /	1643					
GH085018A68	/	/ /	1726	MW2P				
GH085019A68	/	/ /	1809	DUP1				
GH085026A68	/	/ /	1851	EB-5	33433-00012			
GH085027A68	/	/ /	1934	MW7P				
		/ /		OUT OF	TUNE			
		/ /						
		/ /						
		/ /						
		/ /						KB 3/21/98
		/ /						

	Tune	STANDARDS Analytical	Int. Std.
ID #	7055	2437	800
#	46529	46836	46832

SUPERVISOR APPROVAL [signature]

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Instrument ID: 5972HP68 Calibration Date: 03/21/98 Time: 2105

Lab File ID: HG980321B68 Init. Calib. Date(s): 03/19/98 03/20/98

Init. Calib. Times: 2124 0210

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Phenol	1.249	1.406	0.800	12.6	25.0
bis(2-Chloroethyl)ether	1.038	1.206	0.700	16.2	25.0
2-Chlorophenol	1.258	1.340	0.800	6.5	25.0
1,3-Dichlorobenzene	1.349	1.416	0.600	5.0	25.0
1,4-Dichlorobenzene	1.319	1.386	0.500	5.1	25.0
1,2-Dichlorobenzene	1.229	1.302	0.400	5.9	25.0
2-Methylphenol	1.060	1.160	0.700	9.4	25.0
2,2'-oxybis(1-Chloropropane)	1.518	1.870		23.2	
4-Methylphenol	1.127	1.287	0.600	14.2	25.0
N-Nitroso-di-n-propylamine	0.631	0.781	0.500	23.8	25.0
Hexachloroethane	0.577	0.598	0.300	3.6	25.0
Nitrobenzene	0.277	0.308	0.200	11.2	25.0
Isophorone	0.530	0.605	0.400	14.2	25.0
2-Nitrophenol	0.206	0.205	0.100	-0.5	25.0
2,4-Dimethylphenol	0.286	0.306	0.200	7.0	25.0
bis(2-Chloroethoxy)methane	0.359	0.381	0.300	6.1	25.0
2,4-Dichlorophenol	0.261	0.264	0.200	1.1	25.0
1,2,4-Trichlorobenzene	0.277	0.277	0.200	0.0	25.0
Naphthalene	0.912	0.929	0.700	1.9	25.0
4-Chloroaniline	0.168	0.228		35.7	
Hexachlorobutadiene	0.178	0.170		-4.5	
4-Chloro-3-methylphenol	0.261	0.276	0.200	5.7	25.0
2-Methylnaphthalene	0.624	0.643	0.400	3.0	25.0
Hexachlorocyclopentadiene	0.341	0.293		-14.1	
2,4,6-Trichlorophenol	0.409	0.391	0.200	-4.4	25.0
2,4,5-Trichlorophenol	0.353	0.346	0.200	-2.0	25.0
2-Chloronaphthalene	1.071	1.116	0.800	4.2	25.0
2-Nitroaniline	0.291	0.302		3.8	
Dimethylphthalate	1.193	1.108		-7.1	
Acenaphthylene	1.699	1.776	0.900	4.5	25.0
2,6-Dinitrotoluene	0.306	0.308	0.200	0.7	25.0
3-Nitroaniline	0.303	0.296		-2.3	
Acenaphthene	1.039	1.082	0.900	4.1	25.0
2,4-Dinitrophenol	0.107	0.067		-37.4	
4-Nitrophenol	0.134	0.119		-11.2	
Dibenzofuran	1.443	1.462	0.800	1.3	25.0
2,4-Dinitrotoluene	0.375	0.346	0.200	-7.7	25.0

All other compounds must meet a minimum RRF of 0.010.

7C
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Instrument ID: 5972HP68 Calibration Date: 03/21/98 Time: 2105

Lab File ID: HG980321B68 Init. Calib. Date(s): 03/19/98 03/20/98

Init. Calib. Times: 2124 0210

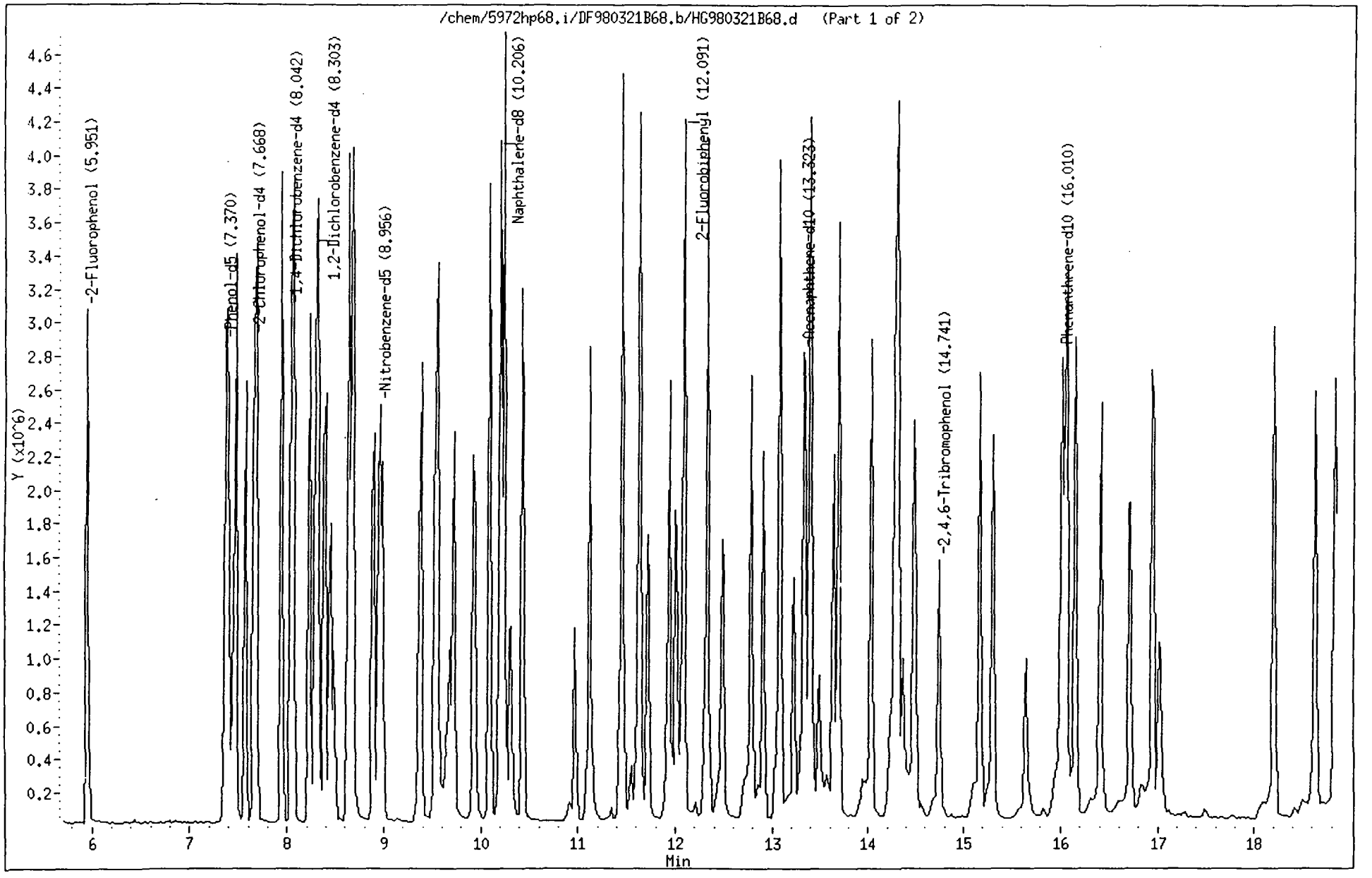
COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Diethylphthalate	1.143	1.079		-5.6	
4-Chlorophenyl-phenylether	0.534	0.488	0.400	-8.6	25.0
Fluorene	1.136	1.044	0.900	-8.1	25.0
4-Nitroaniline	0.275	0.220		-20.0	
4,6-Dinitro-2-methylphenol	0.129	0.108		-16.3	
N-nitrosodiphenylamine(1)	0.513	0.564		9.9	
4-Bromophenyl-phenylether	0.262	0.266	0.100	1.5	25.0
Hexachlorobenzene	0.295	0.281	0.100	-4.7	25.0
Pentachlorophenol	0.144	0.126	0.050	-12.5	25.0
Phenanthrene	0.908	0.974	0.700	7.3	25.0
Anthracene	0.938	0.994	0.700	6.0	25.0
Carbazole	0.788	0.831		5.5	
Di-n-butylphthalate	1.415	1.388		-1.9	
Fluoranthene	0.954	0.952	0.600	-0.2	25.0
Pyrene	1.331	1.450	0.600	8.9	25.0
Butylbenzylphthalate	0.793	0.837		5.5	
3,3'-Dichlorobenzidine	0.251	0.250		-0.4	
Benzo(a)anthracene	1.303	1.102	0.800	-15.4	25.0
Chrysene	1.063	1.180	0.700	11.0	25.0
bis(2-Ethylhexyl)phthalate	1.022	1.140		11.5	
Di-n-octylphthalate	1.594	1.913		20.0	
Benzo(b)fluoranthene	1.276	1.170	0.700	-8.3	25.0
Benzo(k)fluoranthene	1.129	1.269	0.700	12.4	25.0
Benzo(a)pyrene	0.935	0.954	0.700	2.0	25.0
Indeno(1,2,3-cd)pyrene	1.064	1.030	0.500	-3.2	25.0
Dibenzo(a,h)anthracene	0.875	0.826	0.400	-5.6	25.0
Benzo(g,h,i)perylene	0.921	0.865	0.500	-6.1	25.0
Nitrobenzene-d5	0.292	0.324	0.200	11.0	25.0
2-Fluorobiphenyl	1.191	1.220	0.700	2.4	25.0
Terphenyl-d14	1.006	1.062	0.500	5.6	25.0
Phenol-d5	1.345	1.551	0.800	15.3	25.0
2-Fluorophenol	1.164	1.276	0.600	9.6	25.0
2,4,6-Tribromophenol	0.176	0.147		-16.5	
2-Chlorophenol-d4	1.289	1.386	0.800	7.5	25.0
1,2-Dichlorobenzene-d4	0.860	0.887	0.400	3.1	25.0

(1) Cannot be separated from Diphenylamine
All other compounds must meet a minimum RRF of 0.010.

Data File: /chem/5972hp68.i/DF980321B68.b/HG980321B68.d
Date : 21-MAR-1998 21:05
Client ID: SSTD050TW
Sample Info:
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32



Data File: /chem/5972hp68.i/DF980321B68.b/HG980321B68.d
Date : 21-MAR-1998 21:05
Client ID: SSTD050TW
Sample Info:
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32

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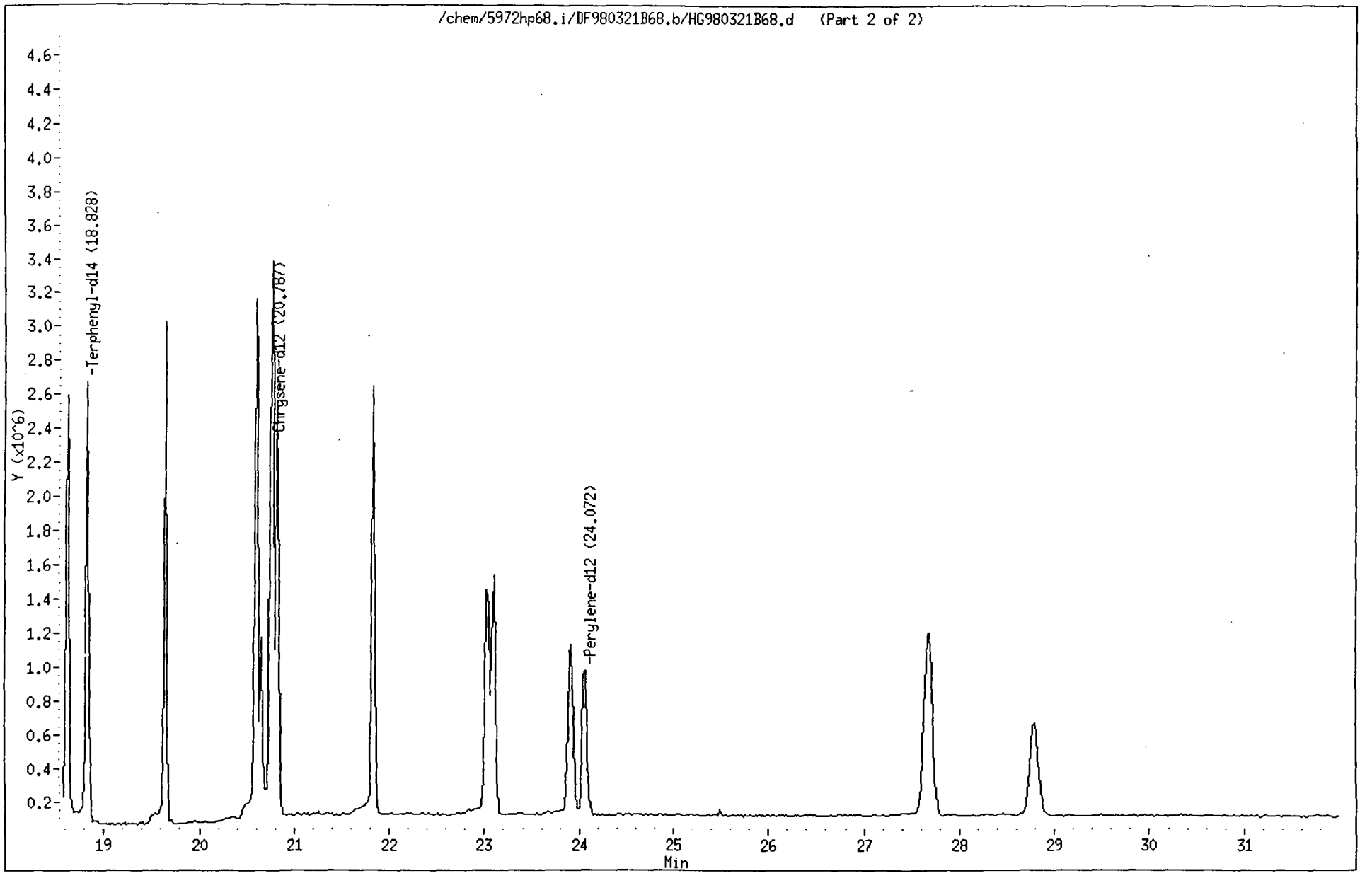


Data File: /chem/5972hp68.i/DF980321B68.b/HG980321B68.d
Report Date: 21-Mar-1998 21:27

CompuChem Environmental Corp.

OLM03.0 + REVISIONS QUANT AND RATIO REPORT

Data file : /chem/5972hp68.i/DF980321B68.b/HG980321B68.d
Lab Smp Id: SSTD050TW Client Smp ID: SSTD050TW
Inj Date : 21-MAR-98 21:05
Operator : 2242 Inst ID: 5972hp68.i
Smp Info : SSTD050TW:2242
Misc Info :
Comment :
Method : /chem/5972hp68.i/DF980321B68.b/OLM03.m
Meth Date : 21-Mar-1998 21:26 Quant Type: ISTD
Cal Date : 21-MAR-98 21:05 Cal File: HG980321B68.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.12
Concentration Formula: Vt/(Vo * Vi)

Name	Value	Description
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152.00	8.042	8.042	(1.000)	904871	40.00		
* 2 Naphthalene-d8	136.00	10.206	10.206	(1.000)	3354056	40.00		8676
* 3 Acenaphthene-d10	164.00	13.323	13.323	(1.000)	1735842	40.00		9366
* 4 Phenanthrene-d10	188.00	16.010	16.010	(1.000)	2140803	40.00		9456
* 5 Chrysene-d12	240.00	20.787	20.787	(1.000)	1401756	40.00		9573
* 6 Perylene-d12	264.00	24.072	24.072	(1.000)	1193673	40.00		8497
$ 7 2-Fluorophenol	112.00	5.951	5.951	(0.740)	1443275	50.00	54.79	
$ 8 Phenol-d5	99.00	7.370	7.370	(0.916)	1754424	50.00	57.66	8274
$ 9 2-Chlorophenol-d4	132.00	7.668	7.668	(0.954)	1567797	50.00	53.78	8564
$ 10 1,2-Dichlorobenzene-d4	152.00	8.303	8.303	(1.032)	1003820	50.00	51.59	
$ 11 Nitrobenzene-d5	82.00	8.956	8.956	(0.877)	1356502	50.00	55.44	8618
$ 12 2-Fluorobiphenyl	172.00	12.091	12.091	(0.908)	2646847	50.00	51.22	9026
$ 13 2,4,6-Tribromophenol	329.60	14.741	14.741	(0.921)	394323	50.00	41.85	
$ 14 Terphenyl-d14	244.00	18.828	18.828	(0.906)	1860965	50.00	52.77	8929
15 Phenol	94.00	7.388	7.388	(0.919)	1590332	50.00	56.28	
16 bis(2-Chloroethyl)ether	93.00	7.575	7.575	(0.942)	1364341	50.00	58.07	8969
17 2-Chlorophenol	128.00	7.687	7.687	(0.956)	1515384	50.00	53.24	8363
18 1,3-Dichlorobenzene	146.00	7.948	7.948	(0.988)	1602055	50.00	52.49	
19 1,4-Dichlorobenzene	146.00	8.060	8.060	(1.002)	1567885	50.00	52.55	
20 1,2-Dichlorobenzene	146.00	8.321	8.321	(1.035)	1473146	50.00	52.97	
21 2-Methylphenol	108.00	8.396	8.396	(1.044)	1311677	50.00	54.69	

Data File: /chem/5972hp68.i/DF980321B68.b/HG980321B68.d
Report Date: 21-Mar-1998 21:27

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
22 2,2'-oxybis(1-Chloropropane)	45.00	8.452	8.452	(1.051)	1114995	50.00	61.58	
23 4-Methylphenol	108.00	8.639	8.639	(1.074)	1455756	50.00	57.10	
24 N-Nitroso-di-n-propylamine	70.00	8.676	8.676	(1.079)	883010	50.00	61.88	8422
25 Hexachloroethane	117.00	8.900	8.900	(1.107)	676792	50.00	51.86	7960
26 Nitrobenzene	77.00	8.993	8.993	(0.881)	1290803	50.00	55.45	8328
27 Isophorone	82.00	9.385	9.385	(0.920)	2535406	50.00	56.98	8852
28 2-Nitrophenol	139.00	9.534	9.534	(0.934)	859849	50.00	49.69	7650
29 2,4-Dimethylphenol	107.00	9.553	9.553	(0.936)	1284637	50.00	53.61	8272
30 bis(2-Chloroethoxy)methane	93.00	9.721	9.721	(0.952)	1598120	50.00	53.14	9309
31 2,4-Dichlorophenol	162.00	9.945	9.945	(0.974)	1109000	50.00	50.60	
32 1,2,4-Trichlorobenzene	180.00	10.094	10.094	(0.989)	1161973	50.00	50.04	8471
33 Naphthalene	128.00	10.244	10.244	(1.004)	3896046	50.00	50.95	8829
34 4-Chloroaniline	127.00	10.318	10.318	(1.011)	956757	50.00	67.86	7832
35 Hexachlorobutadiene	225.00	10.430	10.430	(1.022)	714200	50.00	47.97	
36 4-Chloro-3-methylphenol	107.00	11.121	11.121	(1.090)	1156936	50.00	52.86	8534
37 2-Methylnaphthalene	142.00	11.457	11.457	(1.123)	2697218	50.00	51.57	
38 Hexachlorocyclopentadiene	237.00	11.737	11.737	(0.881)	635797	50.00	42.98	0(M)
39 2,4,6-Trichlorophenol	196.00	11.942	11.942	(0.896)	849313	50.00	47.79	
40 2,4,5-Trichlorophenol	196.00	12.016	12.016	(0.902)	750371	50.00	49.06	(a)
41 2-Chloronaphthalene	162.00	12.334	12.334	(0.926)	2422471	50.00	52.11	8746
42 2-Nitroaniline	65.00	12.483	12.483	(0.937)	656204	50.00	51.97	8808
43 Dimethylphthalate	163.00	12.782	12.782	(0.959)	2404240	50.00	46.45	9066
44 2,6-Dinitrotoluene	165.00	12.912	12.912	(0.969)	667685	50.00	50.28	8260
45 Acenaphthylene	152.00	13.080	13.080	(0.982)	3854584	50.00	52.27	8984
46 3-Nitroaniline	138.00	13.229	13.229	(0.993)	643411	50.00	48.92	8167(a)
47 Acenaphthene	153.00	13.397	13.397	(1.006)	2347142	50.00	52.09	9128
48 2,4-Dinitrophenol	184.00	13.416	13.416	(1.007)	144646	50.00	31.12	(a)
49 4-Nitrophenol	109.00	13.491	13.491	(1.013)	257574	50.00	44.10	(a)
50 2,4-Dinitrotoluene	165.00	13.640	13.640	(1.024)	750181	50.00	46.11	7776
51 Dibenzofuran	168.00	13.696	13.696	(1.028)	3173015	50.00	50.67	8892
52 Diethylphthalate	149.00	14.032	14.032	(1.053)	2342207	50.00	47.23	
53 4-Chlorophenyl-phenylether	204.00	14.293	14.293	(1.073)	1059590	50.00	45.73	8039
54 Fluorene	166.00	14.312	14.312	(1.074)	2266359	50.00	45.95	9279
55 4-Nitroaniline	138.00	14.312	14.312	(1.074)	477640	50.00	40.02	(a)
56 4,6-Dinitro-2-methylphenol	198.00	14.368	14.368	(0.897)	289306	50.00	42.09	(a)
57 N-nitrosodiphenylamine	169.00	14.498	14.498	(0.906)	1510777	50.00	55.07	8222
58 4-Bromophenyl-phenylether	248.00	15.170	15.170	(0.948)	712874	50.00	50.90	8031
59 Hexachlorobenzene	283.90	15.301	15.301	(0.956)	752360	50.00	47.57	
60 Pentachlorophenol	266.00	15.655	15.655	(0.978)	337050	50.00	43.89	7907(a)
61 Phenanthrene	178.00	16.066	16.066	(1.003)	2607700	50.00	53.62	
62 Anthracene	178.00	16.159	16.159	(1.009)	2660581	50.00	52.97	
63 Carbazole	167.00	16.421	16.421	(1.026)	2224123	50.00	52.77	9321
64 Di-n-butylphthalate	149.00	16.943	16.943	(1.058)	3714424	50.00	49.03	
65 Fluoranthene	202.00	18.212	18.212	(1.138)	2548738	50.00	49.93	
66 Pyrene	202.00	18.623	18.623	(0.896)	2541607	50.00	54.50	
67 Butylbenzylphthalate	149.00	19.649	19.649	(0.945)	1467300	50.00	52.81	8680
68 3,3'-Dichlorobenzidine	252.00	20.657	20.657	(0.994)	437596	50.00	49.72	7916
69 bis(2-Ethylhexyl)phthalate	149.00	20.620	20.620	(0.992)	1997442	50.00	55.78	7518(H)
70 Benzo(a)anthracene	228.00	20.769	20.769	(0.999	1930754	50.00	42.28	

3/31/98

Data File: /chem/5972hp68.i/DF980321B68.b/HG980321B68.d
Report Date: 21-Mar-1998 21:27

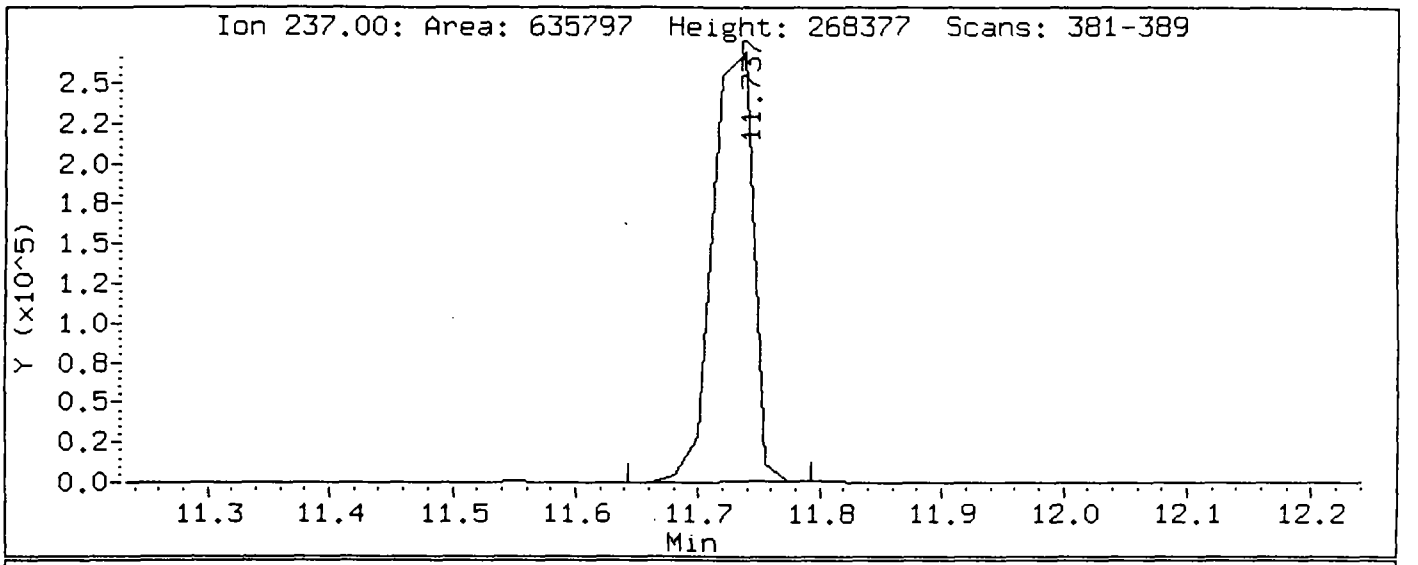
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
71 Chrysene	228.00	20.825	20.825	(1.002)	2068571	50.00	55.53	
72 Di-n-octylphthalate	149.00	21.833	21.833	(0.907)	2854010	50.00	59.98	8699
73 Benzo(b)fluoranthene	252.00	23.027	23.027	(0.957)	1746162	50.00	45.86	
74 Benzo(k)fluoranthene	252.00	23.102	23.102	(0.960)	1894205	50.00	56.20	
75 Benzo(a)pyrene	252.00	23.923	23.923	(0.994)	1423344	50.00	50.99	
76 Indeno(1,2,3-cd)pyrene	276.00	27.674	27.674	(1.150)	1536528	50.00	48.39	9668
77 Dibenzo(a,h)anthracene	278.00	27.692	27.692	(1.150)	1233002	50.00	47.22	7109
78 Benzo(g,h,i)perylene	276.00	28.793	28.793	(1.196)	1290259	50.00	46.94	9115

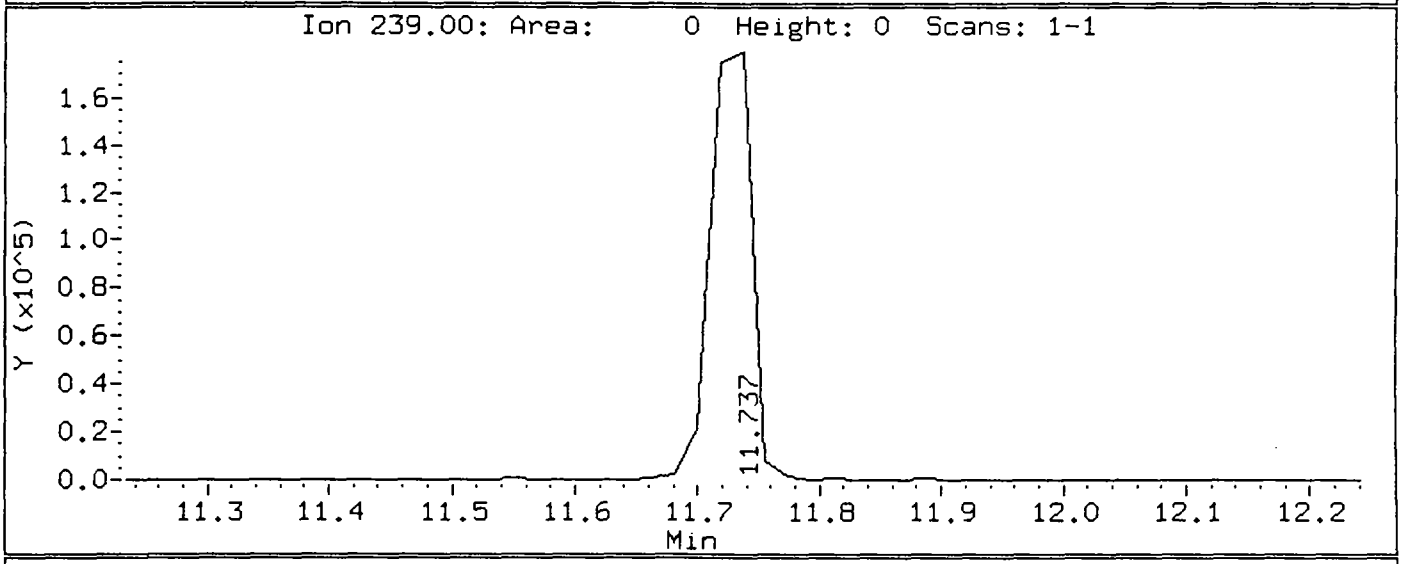
QC Flag Legend

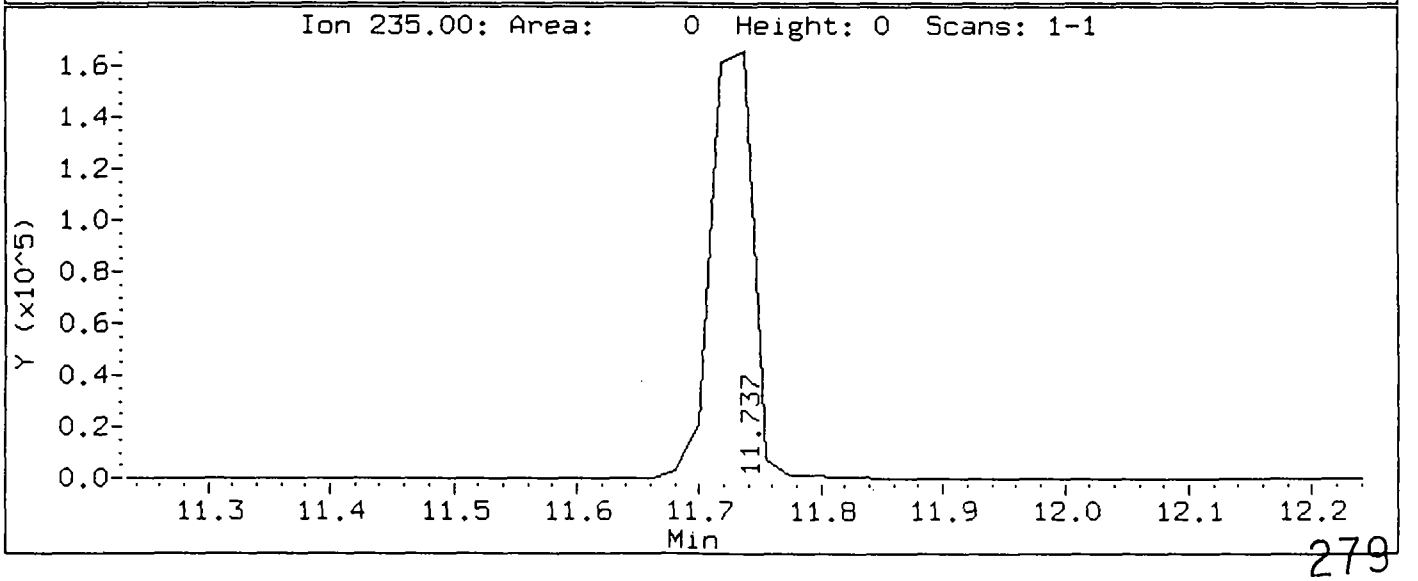
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /chem/5972hp68.i/DF980321B68.b/HG980321B68.d
Injection Date: 21-MAR-98 21:05
Instrument: 5972hp68.i
Client Sample ID: SSTD050TW

Compound: Hexachlorocyclopentadiene
CAS Number: 77-47-4

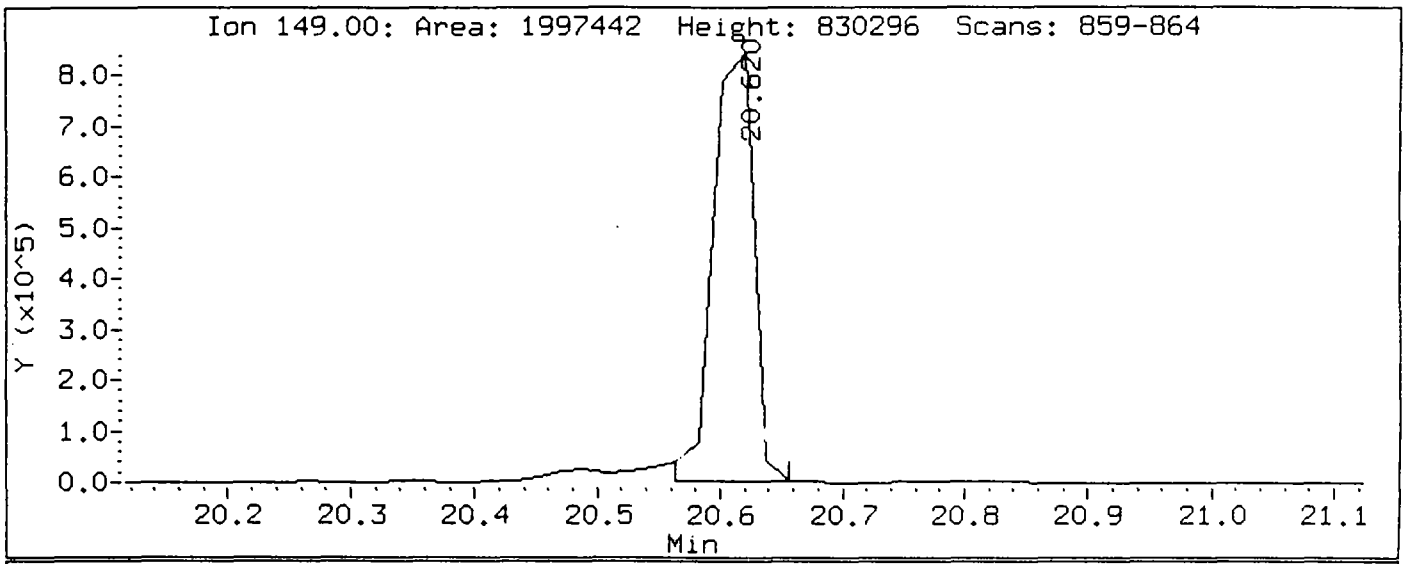


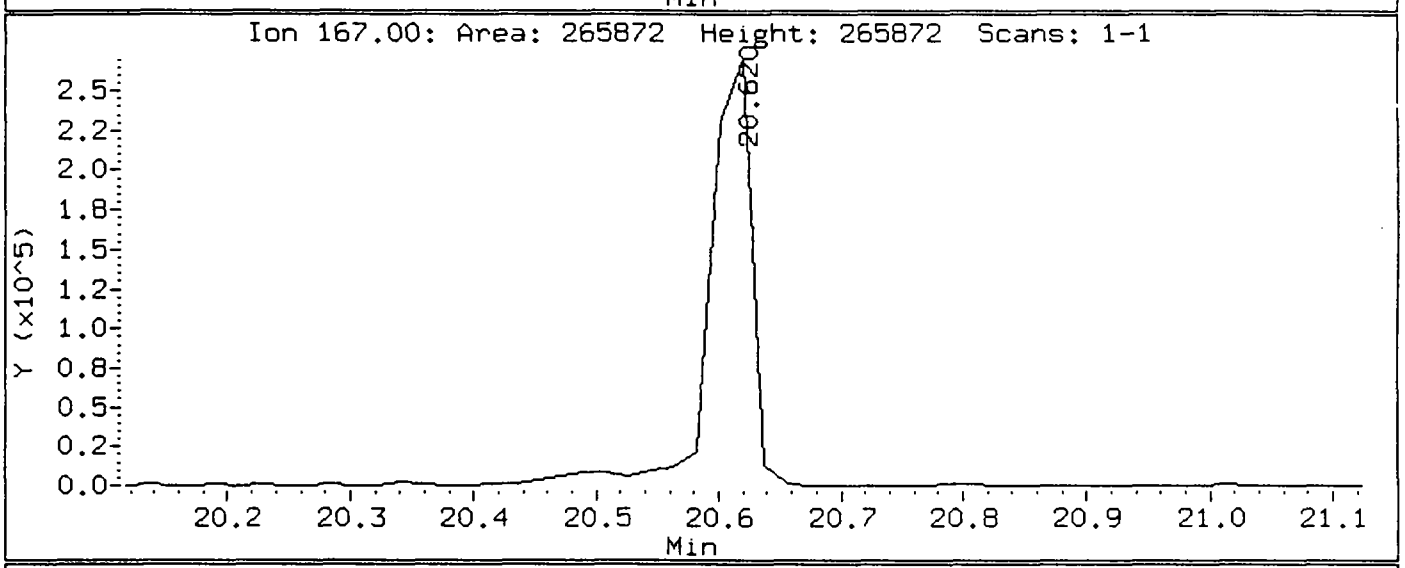


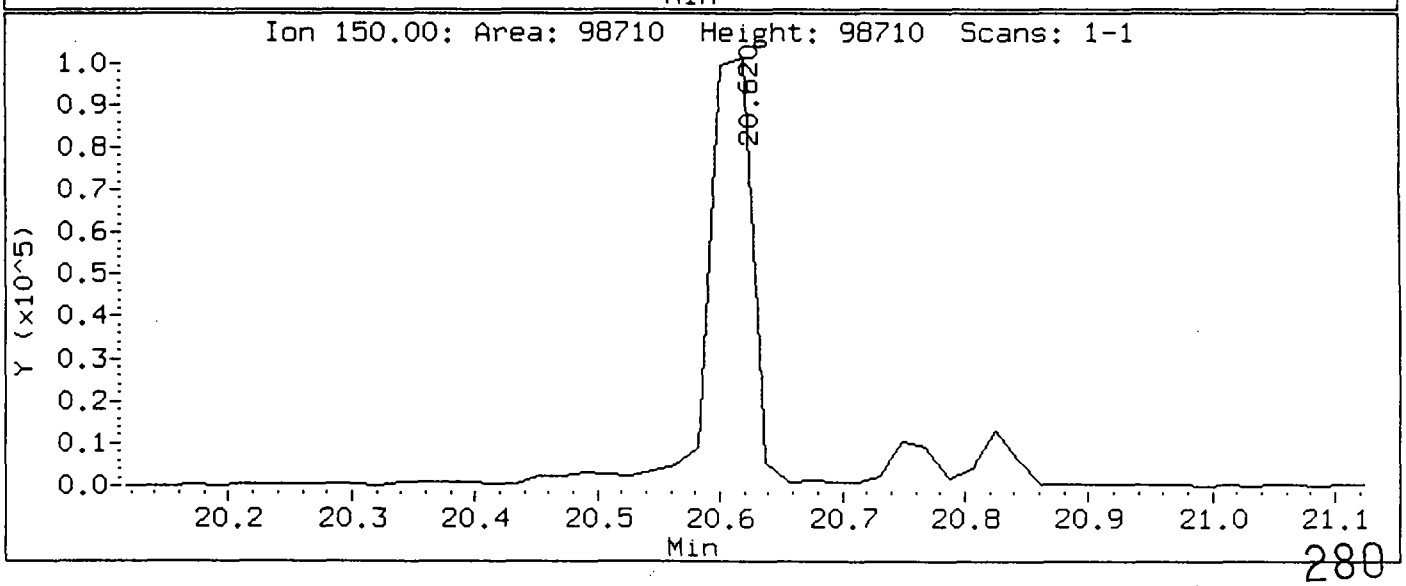


Data File: /chem/5972hp68.i/DF980321B68.b/HG980321B68.d
Injection Date: 21-MAR-98 21:05
Instrument: 5972hp68.i
Client Sample ID: SSTD050TW

Compound: bis(2-Ethylhexyl)phthalate
CAS Number: 117-81-7







COMPUCHEM a division of Liberty Analytical Corp DATE 3/21/98 INITIAL TIME OF TUNE 2044 SHIFT/S(A)____(B)✓(C)____

SEMIVOLATILE GC/MS RUN LOG TIME TUNE EXPIRES 844 LINKER /METHOD OLM03

COMPUCHEM .LOGBOOK 11 CC 2(5972hp68)

PREVENTIVE MAINTENANCE Non KS 3/21/98

28109

		FILE NAME		DATE	TIME	ORIGINAL ID	CASE/SDG	MOD	SEQ	COMMENTS
1		DF980321B68	/	3/21/98	2044	DFTPP	—	2uL	2242	SC-LC
2		HG980321B68	/	/ /	2105	SSTD050TW	—			
3		GH084936B68	/	/ /	2147	~~VARIOUS~~ SBKJV KS 3/21/98	VARIOUS			
4		~~GH0~~ GD085405B68	Ic	/ /	2230	DVC-1	33472-MWTT1			
5		GH084937B68	/	/ /	2312	SCCS JV	VARIOUS			
6		GD085405B68	/	/ /	2355	PVC-1	26047-DNQ91			
7		GH084611B68	/	3/22/98	0037	DNR01				
8		GH084604B68	/	/ /	0120	MS				
9		GH084605B68	/	/ /	0202	MSD				
10		GH084608B68	/	/ /	0245	DNQ94				
11		GH084609B68	/	/ /	0327	DNQ96				
12		GH084610B68	/	/ /	0409	DNQ97				
13		GH084599B68	/	/ /	0451	DNQ91				
14		GH084619B68	/	/ /	0534	DNR10				
15		GH084612B68	/	/ /	0617	DNR02				
16	/	GH084613B68	DI	/ /	0659	DNR03				
17	/	GH084615B68	DI	/ /	0742	DNR07				
18		GH084616B68	/	/ /	0824	DNR08				
19				/ /		OUT OF	TUNE			
20				/ /						
21				/ /						
22				/ /						
23				/ /						
24				/ /						

KS 3/21/98

	STANDARDS Tune	Analytical	Int. Std.
Std. ID #	7055	2437	800
Lot #	46529	46836	46837

SUPERVISOR APPROVAL P. S. Gruber

4. Raw QC Data

   a. DFTPP Data

   b. Blank Data

   c. Matrix Spike Data

   d. Matrix Spike Duplicate Data

   e. GPC Data

a. DFTPP Data

For each 12 hour period, per instrument utilized, include:

- Bar Graph spectrum and Tabulated Relative Abundances
- Mass listing
- Reconstructed total ion chromatogram

Data File: /chem/5972hp68.i/DF980319B68.b/DF980319B68.d

Date : 19-MAR-1998 20:59

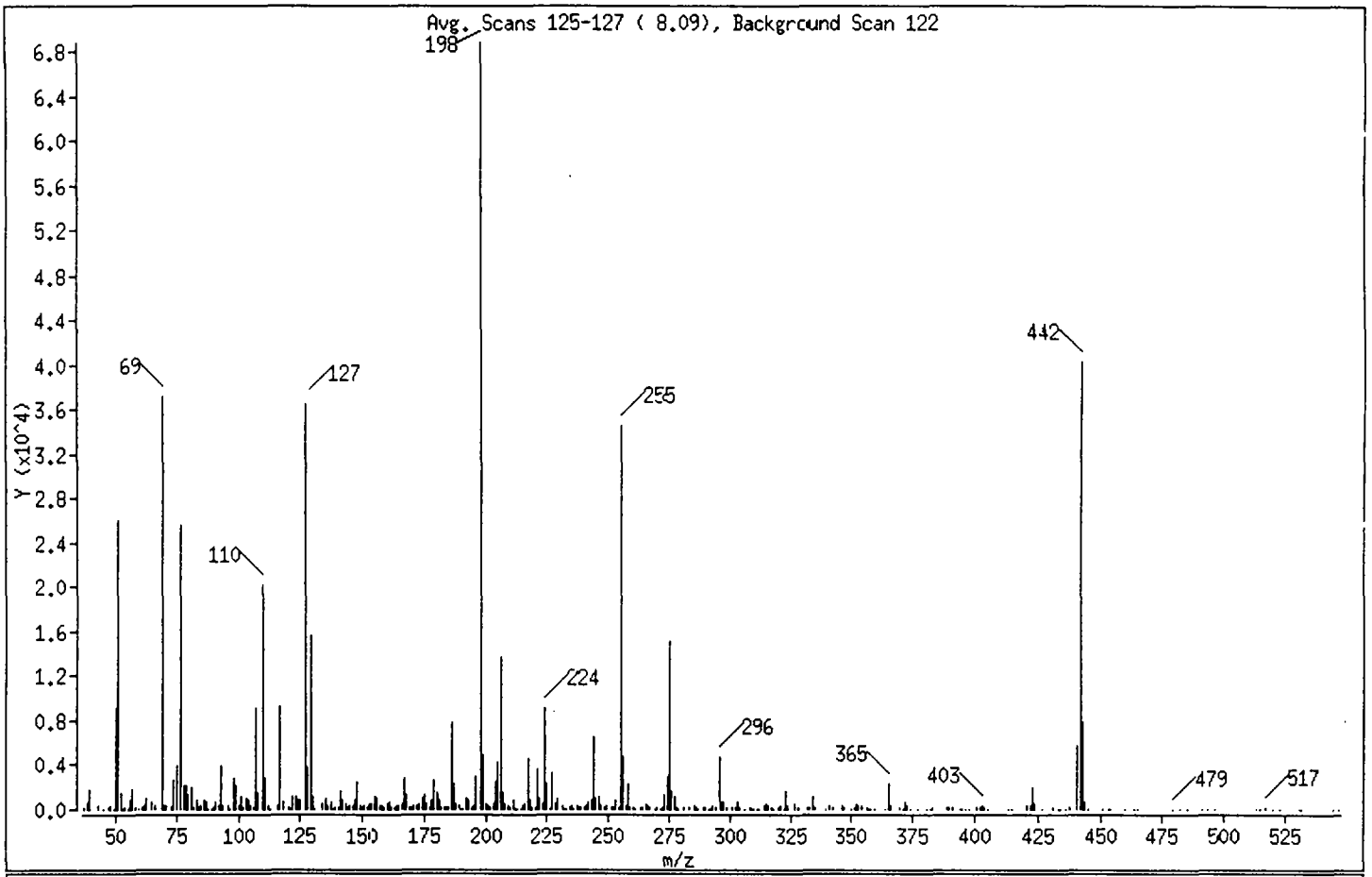
Client ID: DFTPP | Instrument: 5972hp68.i

Sample Info: DFTPP:2242

Volume Injected (uL): 2.0 | Operator: 2242

Column phase: DB-5 | Column diameter: 0.32

1 Decafluorotriphenylphosphine



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 80.00% of mass 198	38.02
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	54.08
70	Less than 2.00% of mass 69	0.37 (0.68)
127	25.00 - 75.00% of mass 198	52.98
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.04
275	10.00 - 30.00% of mass 198	22.04
365	Greater than 0.75% of mass 198	3.36
441	Present, but less than mass 443	8.36
442	40.00 - 110.00% of mass 198	58.48
443	15.00 - 24.00% of mass 442	11.37 (19.43)

Data File: /chem/5972hp68.i/DF980319B68.b/DF980319B68.d

Date : 19-MAR-1998 20:59

Client ID: DFTPP | Instrument: 5972hp68.i

Sample Info: DFTPP:2242

Volume Injected (uL): 2.0 | Operator: 2242

Column phase: DB-5 | Column diameter: 0.32

Data File: DF980319B68.d
Spectrum : Avg. Scans 125-127 (8.09), Background Scan 122
Largest m/z: 198.00
Number of peaks: 334

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	207	140.00	112	226.00	35	327.00	433
38.00	588	141.00	1564	227.00	3269	328.00	115
39.00	1864	142.00	805	228.00	522	332.00	84
43.00	250	143.00	438	229.00	907	333.00	119
45.00	39	144.00	94	231.00	262	334.00	1093
47.00	213	145.00	246	232.00	52	335.00	192
48.00	357	146.00	268	233.00	77	339.00	36
49.00	60	147.00	798	234.00	132	341.00	271
50.00	9149	148.00	2523	235.00	356	342.00	130
51.00	26168	149.00	249	236.00	65	346.00	367
52.00	1455	150.00	188	237.00	266	347.00	161
53.00	30	151.00	352	238.00	147	350.00	37
54.00	155	152.00	146	239.00	216	351.00	104
55.00	71	153.00	462	240.00	174	352.00	466
56.00	810	154.00	516	241.00	245	353.00	286
57.00	1793	155.00	1070	242.00	575	354.00	293
58.00	87	156.00	951	243.00	740	356.00	94
60.00	22	157.00	253	244.00	6526	357.00	62
61.00	161	158.00	270	245.00	1000	358.00	33
62.00	407	159.00	111	246.00	1091	359.00	35
63.00	981	160.00	467	247.00	288	364.00	39
65.00	620	161.00	690	248.00	96	365.00	2311
66.00	396	162.00	202	249.00	334	366.00	284
69.00	37224	163.00	193	251.00	201	370.00	152
70.00	254	164.00	255	252.00	218	371.00	68
71.00	264	165.00	351	253.00	763	372.00	634
73.00	223	166.00	553	254.00	185	373.00	386
74.00	2603	167.00	2792	255.00	34616	374.00	62
75.00	3940	168.00	1250	256.00	4762	377.00	46
77.00	25664	169.00	168	257.00	328	381.00	71
78.00	2084	170.00	89	258.00	2302	382.00	41
79.00	2165	171.00	392	259.00	221	383.00	125
80.00	1315	172.00	271	260.00	90	389.00	93
81.00	1885	173.00	435	261.00	56	390.00	148
82.00	240	174.00	917	263.00	241	391.00	115

Data File: /chem/5972hp68.i/DF980319B68.b/DF980319B68.d

Date : 19-MAR-1998 20:59

Client ID: DFTPP | Instrument: 5972hp68.i

Sample Info: DFTPP:2242

Volume Injected (uL): 2.0 | Operator: 2242

Column phase: DB-5 | Column diameter: 0.32

Data File: DF980319B68.d
Spectrum : Avg. Scans 125-127 (8.09), Background Scan 122
Largest m/z: 198.00
Number of peaks: 334

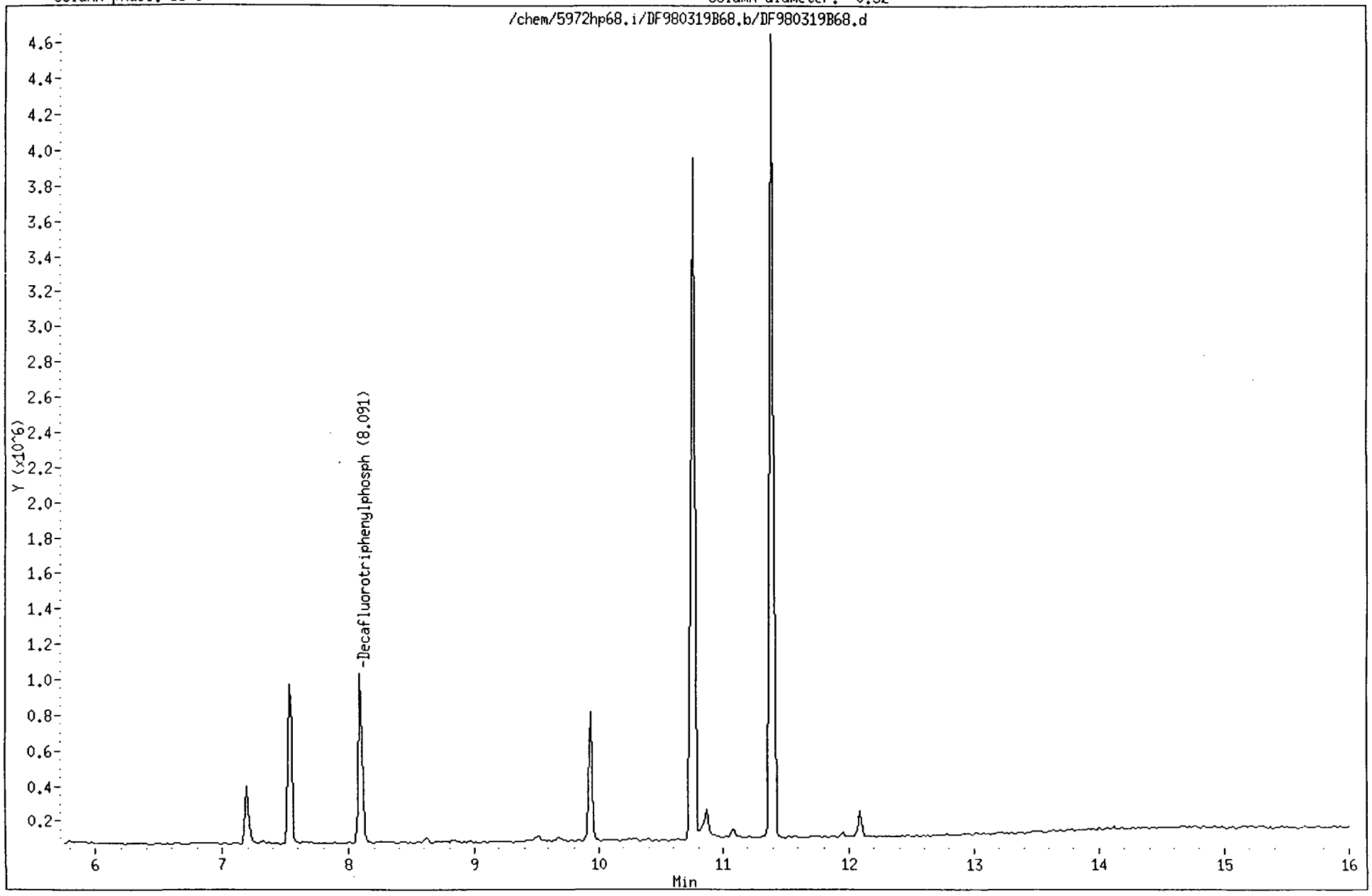
m/z	Y	m/z	Y	m/z	Y	m/z	Y
83.00	752	175.00	1269	264.00	109	394.00	47
84.00	131	176.00	458	265.00	557	395.00	38
85.00	338	177.00	830	266.00	265	396.00	37
86.00	788	178.00	203	267.00	84	398.00	42
87.00	605	179.00	2679	269.00	39	401.00	163
88.00	55	180.00	1430	270.00	187	402.00	224
89.00	32	181.00	742	271.00	77	403.00	311
90.00	181	182.00	241	272.00	144	404.00	167
91.00	632	183.00	119	273.00	1282	405.00	39
92.00	383	184.00	103	274.00	2936	413.00	79
93.00	3983	185.00	147	275.00	15174	415.00	33
94.00	364	186.00	7856	276.00	1712	421.00	284
96.00	336	187.00	2222	277.00	1133	422.00	289
97.00	38	188.00	447	278.00	193	423.00	1942
98.00	2769	189.00	387	279.00	48	424.00	455
99.00	2044	191.00	78	281.00	174	427.00	5
100.00	311	192.00	1048	283.00	200	431.00	85
101.00	1076	193.00	749	285.00	246	433.00	33
102.00	139	194.00	129	286.00	95	434.00	37
103.00	1032	195.00	400	287.00	44	436.00	35
104.00	777	196.00	2989	299.00	127	438.00	102
105.00	346	198.00	68832	290.00	160	441.00	5756
106.00	177	199.00	4847	291.00	63	442.00	40256
107.00	9058	200.00	487	292.00	39	443.00	7824
108.00	1545	201.00	403	293.00	355	444.00	683
110.00	20288	202.00	147	294.00	148	445.00	43
111.00	2777	203.00	508	296.00	4682	451.00	49
112.00	363	204.00	2375	297.00	730	453.00	37
113.00	27	205.00	4225	299.00	104	454.00	57
116.00	326	206.00	13680	301.00	128	460.00	46
117.00	9240	207.00	1388	302.00	157	464.00	34
118.00	643	208.00	430	303.00	679	465.00	36
120.00	96	209.00	263	304.00	203	479.00	53
121.00	31	210.00	167	306.00	51	482.00	37
122.00	1106	211.00	815	308.00	128	485.00	39

Data File: /chem/5972hp68.i/DF980319B68.b/DF980319B68.d
Date : 19-MAR-1998 20:59
Client ID: DFTPP
Sample Info: DFTPP:2242
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32

286A



Data File: /chem/5972hp68.i/DF980319B68.b/DF980319B68.d

Date : 19-MAR-1998 20:59

Client ID: DFTPP | Instrument: 5972hp68.i

Sample Info: DFTPP:2242

Volume Injected (uL): 2.0 | Operator: 2242

Column phase: DB-5 | Column diameter: 0.32

Data File: DF980319B68.d

Spectrum : Avg. Scans 125-127 (8.09), Background Scan 122

Largest m/z: 198.00

Number of peaks: 334

m/z	Y	m/z	Y	m/z	Y	m/z	Y
123.00	1076	212.00	40	309.00	60	491.00	39
124.00	882	213.00	78	310.00	43	493.00	43
125.00	807	214.00	42	311.00	44	496.00	41
127.00	36472	215.00	252	312.00	33	513.00	73
128.00	3703	216.00	461	314.00	254	515.00	47
129.00	15592	217.00	4552	31[illegible]0	431	517.00	90
130.00	1156	218.00	778	316.00	294	520.00	41
131.00	53	219.00	218	317.00	111	523.00	50
134.00	498	220.00	169	318.00	34	531.00	35
135.00	1039	221.00	3573	320.00	85	532.00	50
136.00	338	222.00	905	321.00	313	545.00	36
137.00	578	223.00	529	322.00	53	547.00	42
138.00	50	224.00	9100	323.00	1588		
139.00	207	225.00	2326	324.00	279		

Data File: /chem/5972hp68.i/DF980320B68.b_OLM03.b/DF980320B68.d

Date : 20-MAR-98 20:10

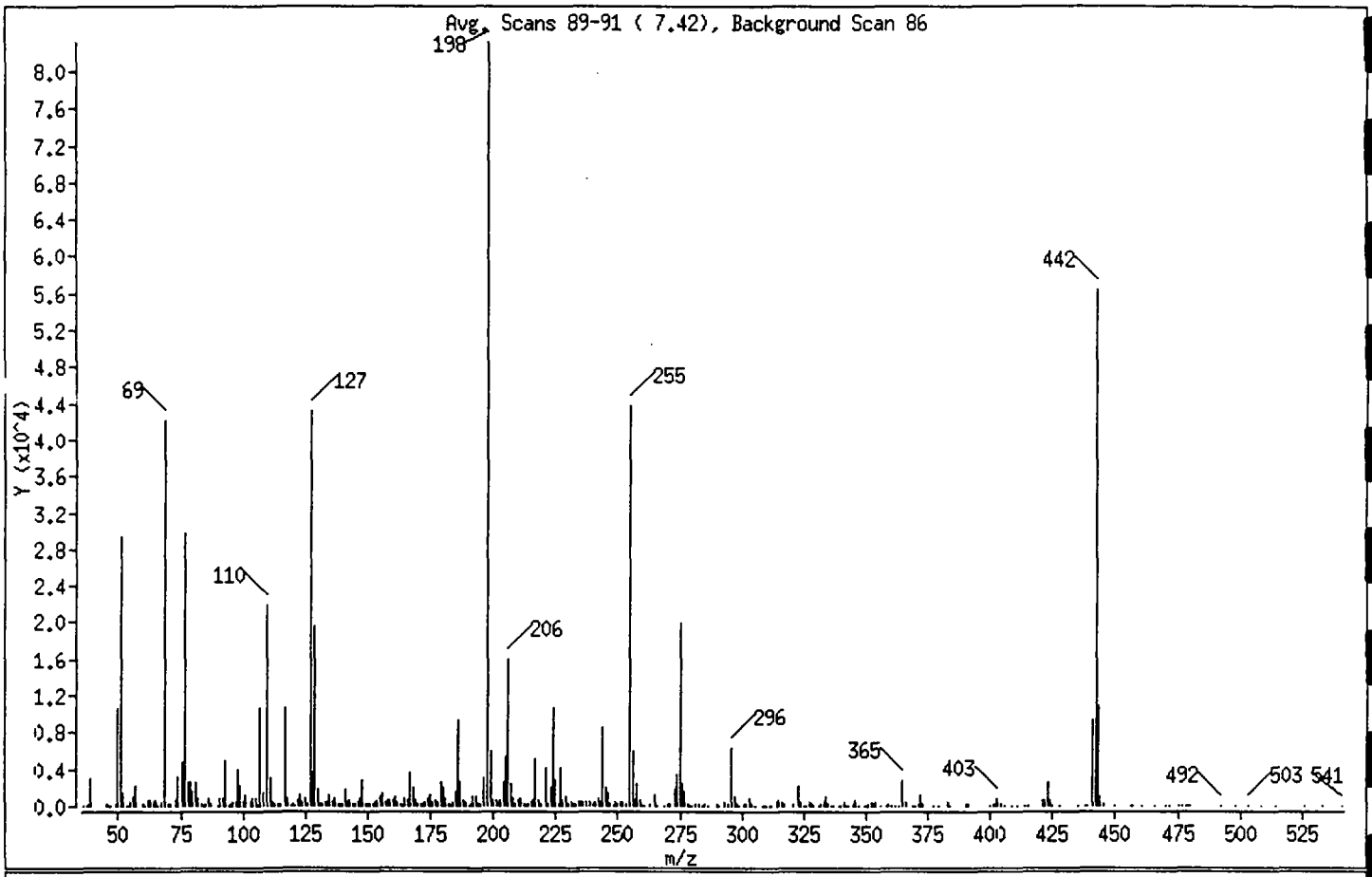
Client ID: DFTPP | Instrument: 5972hp68.i

Sample Info: DFTPP:2242

Volume Injected (uL): 2.0 | Operator: 2242

Column phase: DB-5 | Column diameter: 0.32

1 Decaflucrotriphenylphosphine



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 80.00% of mass 198	35.26
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	50.65
70	Less than 2.00% of mass 69	0.33 (0.65)
127	25.00 - 75.00% of mass 198	52.01
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.06
275	10.00 - 30.00% of mass 198	23.84
365	Greater than 0.75% of mass 198	3.36
441	Present, but less than mass 443	11.04
442	40.00 - 110.00% of mass 198	67.74
443	15.00 - 24.00% of mass 442	13.15 (19.41)

Data File: /chem/5972hp68.i/DF980320B68.b_OLM03.b/DF980320B68.d

Date : 20-MAR-98 20:10

Client ID: DFTPP | Instrument: 5972hp68.i

Sample Info: DFTPP:2242

Volume Injected (uL): 2.0 | Operator: 2242

Column phase: DB-5 | Column diameter: 0.32

Data File: DF980320B68.d
Spectrum : Avg. Scans 89-91 (7.42), Background Scan 86
Largest m/z: 198.00
Number of peaks: 339

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	68	137.00	755	224.00	10690	331.00	62
37.00	1	138.00	118	225.00	2797	332.00	190
38.00	227	139.00	111	226.00	106	333.00	424
39.00	2978	140.00	128	227.00	4191	334.00	954
45.00	277	141.00	1855	228.00	556	335.00	184
46.00	97	142.00	460	229.00	905	336.00	37
47.00	15	143.00	581	230.00	154	337.00	47
49.00	292	144.00	241	231.00	468	339.00	51
50.00	10620	145.00	152	232.00	154	340.00	58
51.00	29312	146.00	458	233.00	150	341.00	300
52.00	1348	147.00	727	234.00	305	342.00	40
53.00	59	148.00	2781	235.00	337	343.00	41
54.00	52	149.00	172	236.00	429	345.00	185
55.00	397	150.00	210	237.00	430	346.00	506
56.00	911	151.00	248	239.00	296	347.00	77
57.00	2128	152.00	281	240.00	247	349.00	33
60.00	212	153.00	329	241.00	387	350.00	52
61.00	54	154.00	509	242.00	715	351.00	121
62.00	600	155.00	1029	243.00	356	352.00	419
63.00	630	156.00	1464	244.00	8409	353.00	240
64.00	309	157.00	352	245.00	1939	354.00	363
65.00	643	158.00	677	246.00	1353	356.00	33
66.00	94	159.00	562	247.00	253	358.00	65
67.00	402	160.00	586	248.00	91	359.00	103
69.00	42112	161.00	904	249.00	433	360.00	46
70.00	275	162.00	366	250.00	211	362.00	38
71.00	166	163.00	187	251.00	298	363.00	34
73.00	502	164.00	72	252.00	370	365.00	2796
74.00	3072	165.00	754	253.00	246	366.00	391
75.00	4698	166.00	655	255.00	43824	368.00	39
77.00	29696	167.00	3501	256.00	6003	370.00	83
78.00	2559	168.00	1931	257.00	567	371.00	161
79.00	2581	169.00	503	258.00	2436	372.00	1230
80.00	1605	170.00	266	259.00	574	373.00	225
81.00	2499	171.00	272	260.00	35	377.00	37

Data File: /chem/5972hp68.i/DF980320B68.b_OLM03.b/DF980320B68.d

Date : 20-MAR-98 20:10

Client ID: DFTPP | Instrument: 5972hp68.i

Sample Info: DFTPP:2242

Volume Injected (uL): 2.0 | Operator: 2242

Column phase: DB-5 | Column diameter: 0.32

Data File: DF980320B68.d
Spectrum : Avg. Scans 89-91 (7.42), Background Scan 86
Largest m/z: 198.00
Number of peaks: 339

m/z	Y	m/z	Y	m/z	Y	m/z	Y
82.00	693	172.00	286	261.00	93	379.00	36
83.00	253	173.00	456	263.00	105	383.00	363
84.00	54	174.00	770	265.00	1115	384.00	36
85.00	110	175.00	1197	266.00	82	390.00	241
86.00	694	176.00	297	269.00	86	391.00	107
87.00	166	177.00	659	270.00	183	400.00	50
90.00	88	178.00	387	271.00	210	401.00	209
91.00	754	179.00	2608	273.00	1849	402.00	275
92.00	761	180.00	1874	274.00	3433	403.00	760
93.00	5012	181.00	822	275.00	19816	404.00	101
94.00	47	182.00	284	276.00	2461	406.00	33
95.00	259	183.00	26	277.00	1481	409.00	38
96.00	408	184.00	345	278.00	252	411.00	76
97.00	308	185.00	1635	279.00	59	414.00	41
98.00	3890	186.00	9266	280.00	60	415.00	38
99.00	2239	187.00	2512	281.00	146	421.00	593
100.00	399	188.00	570	283.00	167	422.00	551
101.00	1138	189.00	412	284.00	47	423.00	2590
103.00	447	190.00	83	285.00	279	424.00	625
104.00	882	191.00	253	286.00	95	425.00	36
105.00	706	192.00	900	290.00	196	428.00	53
106.00	61	193.00	1080	291.00	90	435.00	39
107.00	10597	194.00	159	293.00	414	438.00	38
108.00	1412	195.00	218	294.00	105	439.00	38
110.00	21944	196.00	2924	296.00	6400	441.00	9183
111.00	2984	198.00	83144	297.00	934	442.00	56320
112.00	471	199.00	5868	298.00	99	443.00	10930
113.00	227	200.00	538	299.00	60	444.00	1054
114.00	166	201.00	580	301.00	101	445.00	138
115.00	186	202.00	263	302.00	188	450.00	39
117.00	10652	203.00	513	303.00	718	456.00	41
118.00	854	204.00	2658	304.00	248	457.00	50
119.00	86	205.00	5235	305.00	60	461.00	34
120.00	223	206.00	15986	308.00	76	466.00	41
121.00	58	207.00	2268	309.00	96	470.00	49

Data File: /chem/5972hp68.i/DF980320B68.b_OLM03.b/DF980320B68.d

Date : 20-MAR-98 20:10

Client ID: DFTPP | Instrument: 5972hp68.i

Sample Info: DFTPP:2242

Volume Injected (uL): 2.0 | Operator: 2242

Column phase: DB-5 | Column diameter: 0.32

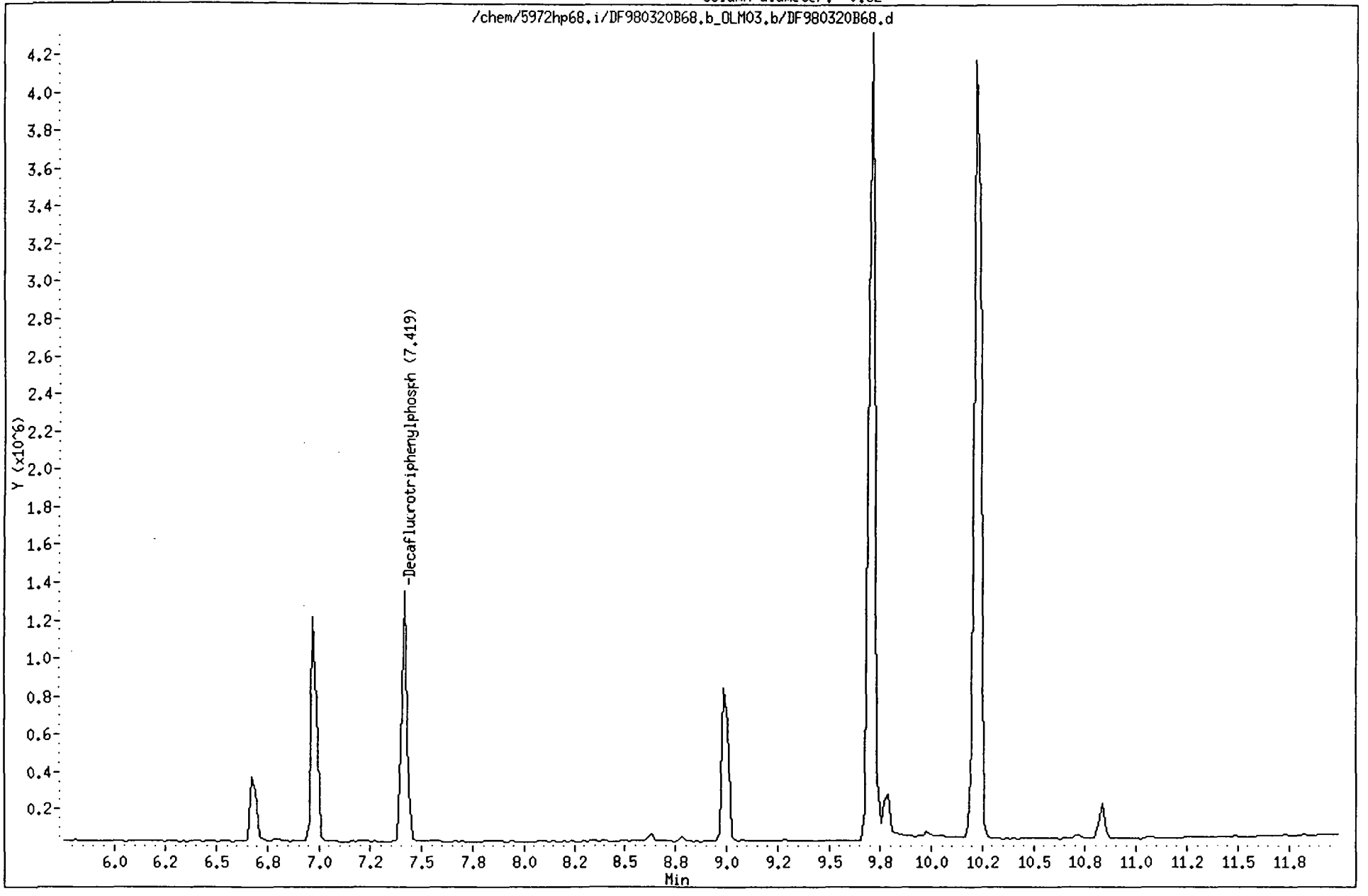
Data File: DF980320B68.d
Spectrum : Avg. Scans 89-91 (7.42), Background Scan 86
Largest m/z: 198.00
Number of peaks: 339

m/z	Y	m/z	Y	m/z	Y	m/z	Y
122.00	648	208.00	838	310.00	87	472.00	36
123.00	1188	209.00	256	311.00	81	475.00	35
124.00	394	210.00	581	312.00	52	477.00	36
125.00	752	211.00	727	314.00	319	478.00	51
126.00	123	212.00	166	315.00	645	479.00	36
127.00	43240	213.00	82	316.00	405	480.00	37
128.00	3610	214.00	108	317.00	115	492.00	92
129.00	19576	215.00	378	321.00	240	498.00	46
130.00	1864	216.00	592	323.00	2099	503.00	77
131.00	286	217.00	5132	324.00	479	508.00	43
132.00	151	218.00	617	325.00	44	514.00	36
133.00	367	219.00	144	326.00	91	526.00	38
134.00	313	221.00	4202	327.00	443	533.00	40
135.00	1185	222.00	204	328.00	141	541.00	48
136.00	305	223.00	1921	329.00	53		

Data File: /chem/5972hp68.i/DF980320B68.b_OLM03.b/DF980320B68.d
Date : 20-MAR-98 20:10
Client ID: DFTPP
Sample Info: DFTPP:2242
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32



Data File: /chem/5972hp68.i/DF980321A68.b/DF980321A68.d

Date : 21-MAR-98 07:45

Client ID: DFTPP

Instrument: 5972hp68.i

Sample Info: DFTPP:2242

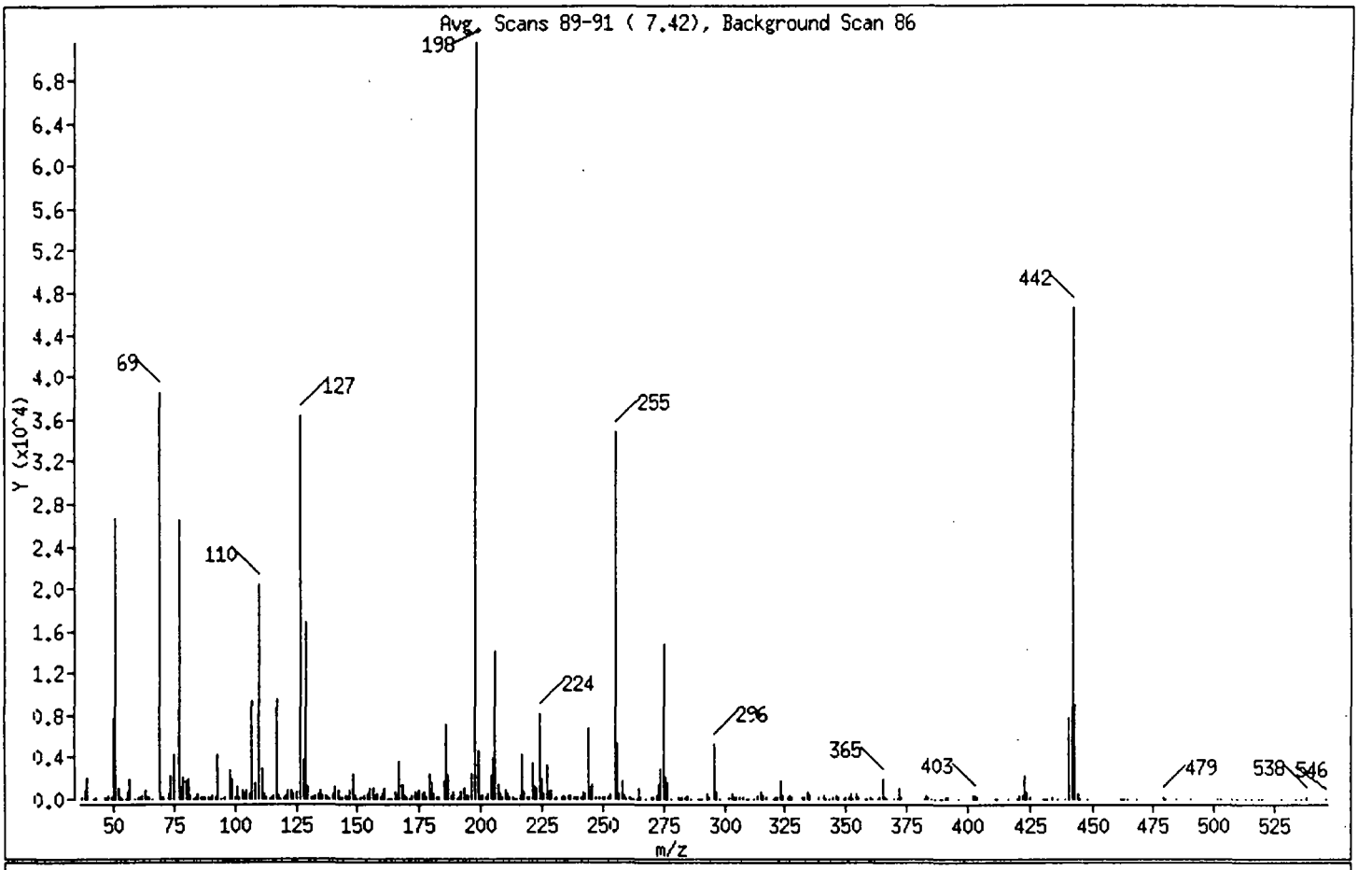
Volume Injected (uL): 2.0

Operator: 2242

Column phase: DB-5

Column diameter: 0.32

1 Decafluorotriphenylphosphine



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 80.00% of mass 198	37.30
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	53.85
70	Less than 2.00% of mass 69	0.21 (0.38)
127	25.00 - 75.00% of mass 198	50.63
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.39
275	10.00 - 30.00% of mass 198	20.68
365	Greater than 0.75% of mass 198	2.64
441	Present, but less than mass 443	10.79
442	40.00 - 110.00% of mass 198	65.12
443	15.00 - 24.00% of mass 442	12.52 (19.23)

Data File: /chem/5972hp68.i/DF980321A68.b/DF980321A68.d

Date : 21-MAR-98 07:45

Client ID: DFTPP | Instrument: 5972hp68.i

Sample Info: DFTPP:2242

Volume Injected (uL): 2.0 | Operator: 2242

Column phase: DB-5 | Column diameter: 0.32

Data File: DF980321A68.d

Spectrum : Avg. Scans 89-91 (7.42), Background Scan 86

Largest m/z: 198.00

Number of peaks: 343

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	128	136.00	384	225.00	1898	334.00	757
38.00	863	137.00	400	226.00	439	335.00	285
39.00	2022	138.00	134	227.00	3303	339.00	130
41.00	36	139.00	17	228.00	733	341.00	272
43.00	123	140.00	482	229.00	798	342.00	34
46.00	160	141.00	1134	230.00	55	343.00	56
47.00	77	142.00	786	231.00	244	345.00	86
48.00	317	143.00	77	233.00	140	346.00	405
49.00	250	144.00	112	234.00	284	347.00	136
50.00	7671	145.00	368	235.00	202	349.00	72
51.00	26704	146.00	100	236.00	264	350.00	103
52.00	1008	147.00	873	237.00	377	351.00	148
53.00	230	148.00	2445	238.00	144	352.00	527
54.00	52	149.00	380	239.00	111	353.00	43
55.00	77	150.00	6	240.00	174	354.00	433
56.00	657	151.00	235	241.00	124	355.00	204
57.00	1789	153.00	385	242.00	734	358.00	81
59.00	44	154.00	524	243.00	509	359.00	39
60.00	169	155.00	969	244.00	6724	360.00	87
61.00	138	156.00	949	245.00	1083	361.00	66
62.00	367	157.00	237	246.00	1349	363.00	45
63.00	839	158.00	439	247.00	251	364.00	172
64.00	178	159.00	187	249.00	252	365.00	1890
65.00	247	160.00	460	250.00	127	366.00	237
66.00	25	161.00	966	251.00	217	367.00	55
69.00	38552	162.00	84	252.00	171	370.00	66
70.00	148	163.00	74	253.00	458	371.00	73
71.00	141	164.00	42	255.00	34784	372.00	952
73.00	462	165.00	704	256.00	5220	373.00	221
74.00	2145	166.00	266	257.00	488	382.00	78
75.00	4292	167.00	3478	258.00	1744	383.00	266
77.00	26488	168.00	1366	259.00	386	384.00	140
78.00	985	169.00	279	260.00	33	385.00	44
79.00	2031	170.00	192	261.00	109	387.00	41
80.00	1760	171.00	61	262.00	54	389.00	67

Data File: /chem/5972hp68.i/DF980321A68.b/DF980321A68.d

Date : 21-MAR-98 07:45

Client ID: DFTPP | Instrument: 5972hp68.i

Sample Info: DFTPP:2242

Volume Injected (uL): 2.0 | Operator: 2242

Column phase: DB-5 | Column diameter: 0.32

Data File: DF980321A68.d

Spectrum : Avg. Scans 89-91 (7.42), Background Scan 86

Largest m/z: 198.00

Number of peaks: 343

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	1866	172.00	312	263.00	48	390.00	83
82.00	400	173.00	628	264.00	51	391.00	100
83.00	82	174.00	308	265.00	1034	392.00	208
84.00	177	175.00	922	266.00	180	396.00	43
85.00	460	176.00	432	268.00	51	402.00	261
86.00	203	177.00	600	270.00	101	403.00	422
87.00	133	178.00	170	271.00	144	404.00	231
88.00	182	179.00	2401	272.00	266	411.00	54
89.00	211	180.00	1456	273.00	1328	412.00	37
90.00	40	181.00	567	274.00	2801	416.00	37
91.00	392	182.00	125	275.00	14804	420.00	34
92.00	153	183.00	138	276.00	1978	421.00	315
93.00	4278	185.00	1736	277.00	1497	422.00	381
94.00	77	186.00	7150	278.00	63	423.00	2277
96.00	211	187.00	2206	281.00	226	424.00	633
98.00	2752	188.00	304	282.00	77	425.00	105
99.00	1897	189.00	657	283.00	163	430.00	37
100.00	198	190.00	18	284.00	145	431.00	56
101.00	1191	191.00	122	285.00	273	432.00	44
102.00	121	192.00	647	286.00	39	434.00	175
103.00	849	193.00	965	289.00	38	436.00	46
104.00	498	194.00	359	290.00	61	439.00	40
105.00	909	195.00	264	291.00	69	441.00	7721
106.00	481	196.00	2446	293.00	495	442.00	46616
107.00	9395	198.00	71584	294.00	92	443.00	8964
108.00	1524	199.00	4575	296.00	5211	444.00	578
110.00	20400	200.00	215	297.00	620	445.00	43
111.00	2965	201.00	260	298.00	70	448.00	39
112.00	465	202.00	159	302.00	85	461.00	40
113.00	126	203.00	486	303.00	431	462.00	33
114.00	43	204.00	2288	304.00	188	463.00	33
115.00	202	205.00	3953	305.00	118	464.00	56
116.00	385	206.00	14155	306.00	94	468.00	37
117.00	9521	207.00	1332	308.00	117	479.00	95
118.00	273	208.00	511	309.00	84	480.00	48

Data File: /chem/5972hp68.i/DF980321A68.b/DF980321A68.d

Date : 21-MAR-98 07:45

Client ID: DFTPP | Instrument: 5972hp68.i

Sample Info: DFTPP:2242

Volume Injected (uL): 2.0 | Operator: 2242

Column phase: DB-5 | Column diameter: 0.32

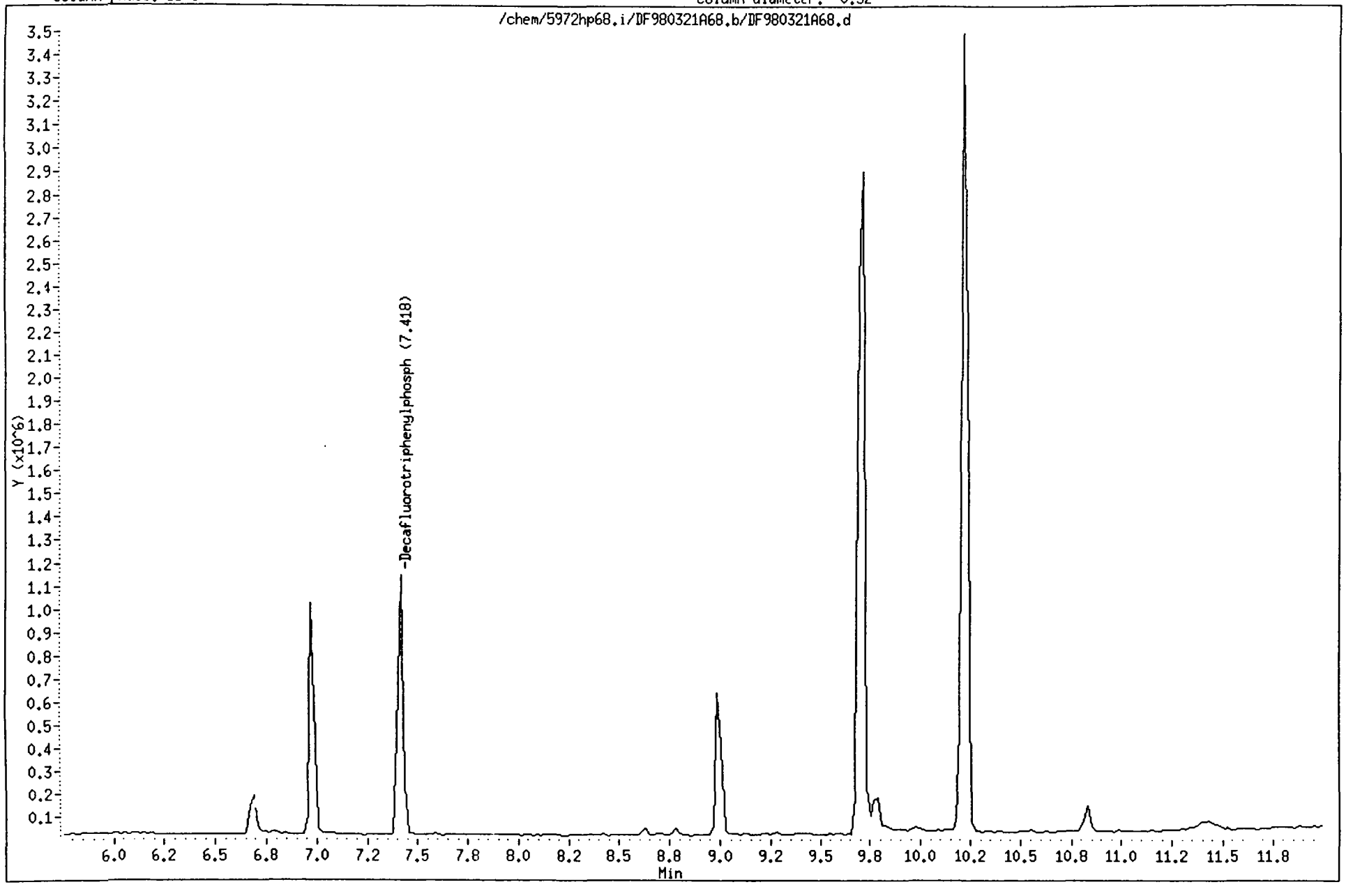
Data File: DF980321A68.d
Spectrum : Avg. Scans 89-91 (7.42), Background Scan 86
Largest m/z: 198.00
Number of peaks: 343

m/z	Y	m/z	Y	m/z	Y	m/z	Y
119.00	84	209.00	144	310.00	41	484.00	33
120.00	152	210.00	861	312.00	33	490.00	34
121.00	312	211.00	567	314.00	300	501.00	40
122.00	780	212.00	221	315.00	624	503.00	47
123.00	906	213.00	108	316.00	290	507.00	35
124.00	563	214.00	79	317.00	130	509.00	36
125.00	606	215.00	14	320.00	66	513.00	35
127.00	36240	216.00	359	321.00	149	515.00	44
128.00	3676	217.00	4204	322.00	116	518.00	66
129.00	16824	218.00	643	323.00	1729	520.00	45
130.00	1114	219.00	104	324.00	384	528.00	36
131.00	178	220.00	230	326.00	139	534.00	42
132.00	243	221.00	3423	327.00	399	536.00	37
133.00	263	222.00	1110	328.00	144	538.00	93
134.00	456	223.00	1067	332.00	196	546.00	63
135.00	768	224.00	8126	333.00	206		

Data File: /chem/5972hp68.i/DF980321A68.b/DF980321A68.d
Date : 21-MAR-98 07:45
Client ID: DFTPP
Sample Info: DFTPP;2242
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32



Data File: /chem/5972hp68.i/DF980321B68_REG5.b/DF980321B68.d

Date : 21-MAR-98 20:44

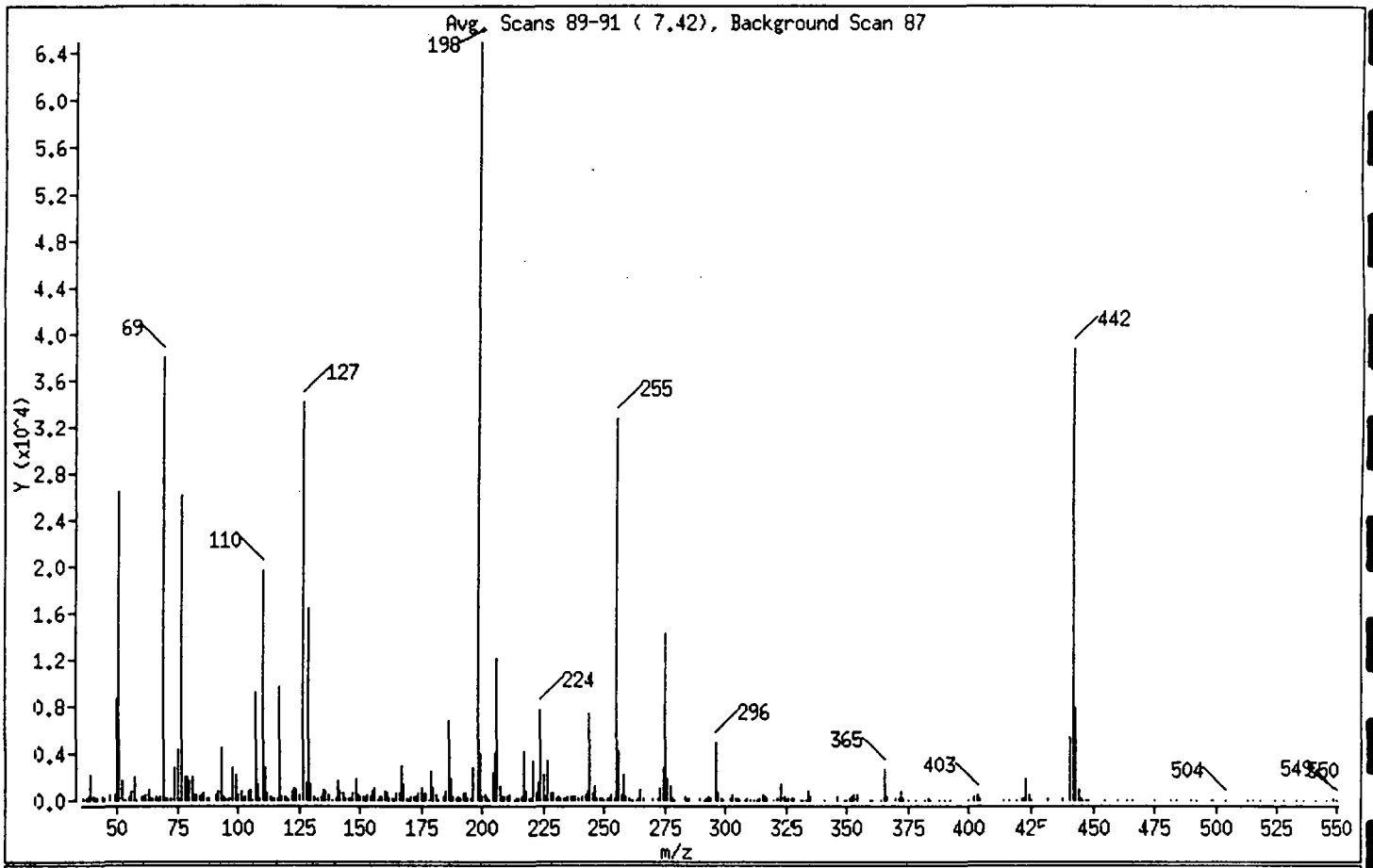
Client ID: DFTPP | Instrument: 5972hp68.i

Sample Info: DFTPP:2242

Volume Injected (uL): 2.0 | Operator: 2242

Column phase: DB-5 | Column diameter: 0.32

1 Decaflucrotriphenylphosphine



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 80.00% of mass 198	40.67
68	Less than 2.00% of mass 69	0.36 (0.62)
69	Mass 69 relative abundance	58.59
70	Less than 2.00% of mass 69	0.12 (0.21)
127	25.00 - 75.00% of mass 198	52.52
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.20
275	10.00 - 30.00% of mass 198	22.15
365	Greater than 0.75% of mass 198	4.04
441	Present, but less than mass 443	8.37
442	40.00 - 110.00% of mass 198	59.72
443	15.00 - 24.00% of mass 442	12.09 (20.24)

Data File: /chem/5972hp68.i/DF980321B68_REG5.b/DF980321B68.d

Date : 21-MAR-98 20:44

Client ID: DFTPP | Instrument: 5972hp68.i

Sample Info: DFTPP:2242

Volume Injected (uL): 2.0 | Operator: 2242

Column phase: DB-5 | Column diameter: 0.32

Data File: DF980321B68.d
Spectrum : Avg. Scans 89-91 (7.42), Background Scan 87
Largest m/z: 198.00
Number of peaks: 333

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	210	130.00	1319	219.00	170	323.00	1310
37.00	94	131.00	318	220.00	89	324.00	264
38.00	345	133.00	188	221.00	3391	325.00	35
39.00	2114	134.00	253	222.00	583	326.00	144
40.00	258	135.00	917	223.00	1600	327.00	219
41.00	98	136.00	729	224.00	7678	328.00	145
42.00	166	137.00	403	225.00	2082	331.00	35
44.00	253	139.00	4	226.00	292	332.00	72
45.00	155	140.00	205	227.00	3337	333.00	16
47.00	388	141.00	1714	228.00	565	334.00	756
49.00	531	142.00	749	229.00	680	335.00	353
50.00	8553	143.00	554	230.00	108	341.00	66
51.00	26408	144.00	78	231.00	306	346.00	324
52.00	1631	145.00	192	232.00	92	349.00	49
54.00	60	146.00	166	233.00	226	350.00	33
55.00	326	147.00	636	234.00	145	351.00	89
56.00	716	148.00	1848	235.00	245	352.00	318
57.00	1938	149.00	450	236.00	329	353.00	511
58.00	54	150.00	340	237.00	255	354.00	422
60.00	231	151.00	290	238.00	261	359.00	42
61.00	314	152.00	137	239.00	144	360.00	60
62.00	525	153.00	480	241.00	353	364.00	34
63.00	919	154.00	337	242.00	480	365.00	2625
64.00	161	155.00	792	243.00	805	366.00	309
65.00	111	156.00	1087	244.00	7371	370.00	90
66.00	270	157.00	73	245.00	674	371.00	120
67.00	66	158.00	329	246.00	1244	372.00	700
68.00	236	159.00	256	247.00	203	373.00	165
69.00	38048	160.00	743	248.00	141	375.00	61
70.00	80	161.00	622	249.00	154	378.00	34
71.00	93	162.00	213	250.00	47	382.00	42
72.00	123	163.00	84	251.00	183	383.00	210
74.00	2710	164.00	76	252.00	136	384.00	72
75.00	4256	165.00	567	253.00	450	388.00	39
76.00	68	166.00	652	254.00	114	390.00	42

Data File: /chem/5972hp68.i/DF980321B68_REG5.b/DF980321B68.d

Date : 21-MAR-98 20:44

Client ID: DFTPP | Instrument: 5972hp68.i

Sample Info: DFTPP:2242

Volume Injected (uL): 2.0 | Operator: 2242

Column phase: DB-5 | Column diameter: 0.32

Data File: DF980321B68.d
Spectrum : Avg. Scans 89-91 (7.42), Background Scan 87
Largest m/z: 198.00
Number of peaks: 333

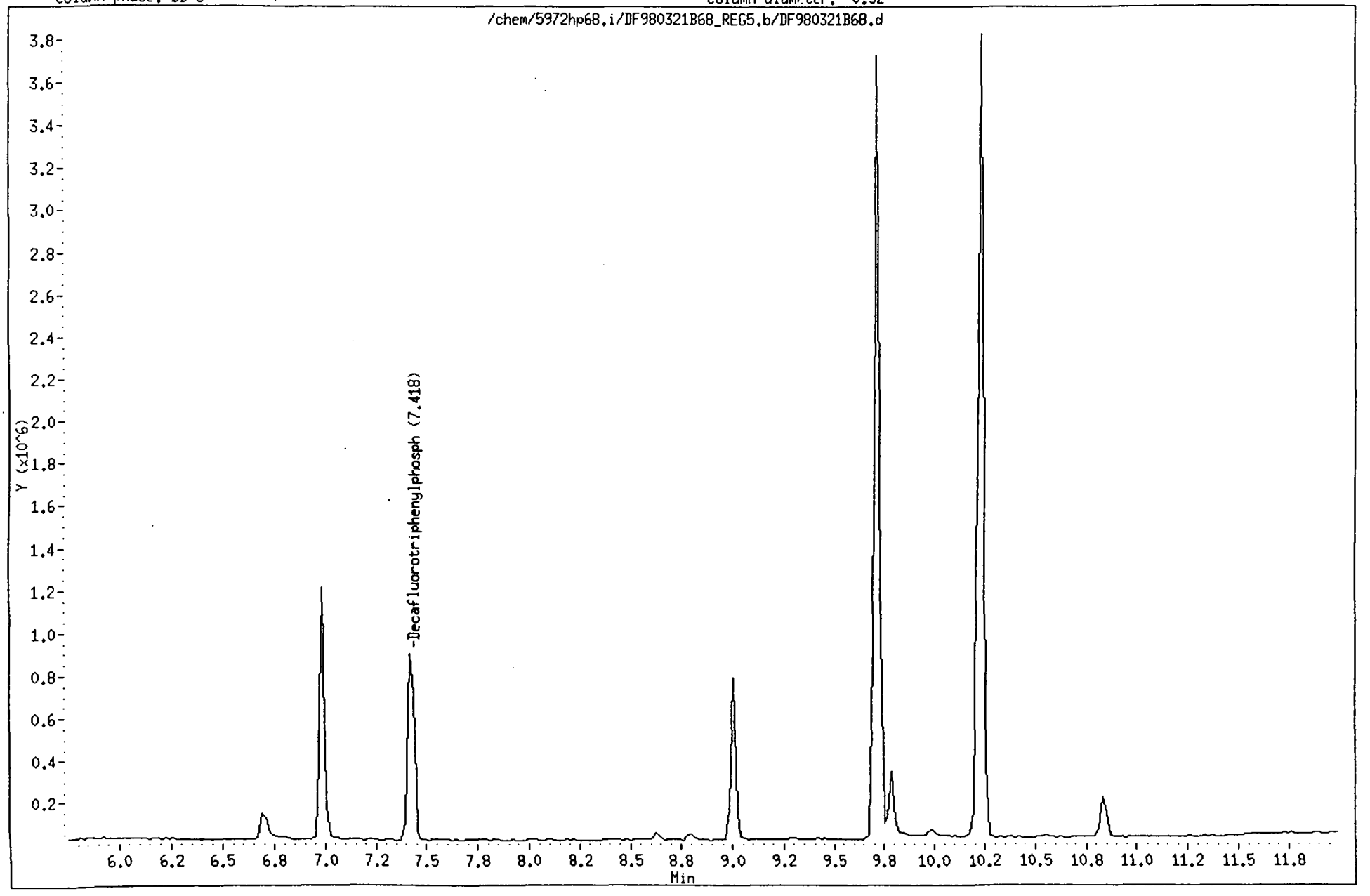
m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	26168	167.00	2943	255.00	32728	392.00	37
78.00	2040	168.00	1326	256.00	4214	400.00	41
79.00	1943	169.00	103	257.00	462	402.00	231
80.00	1657	170.00	46	258.00	2117	403.00	428
81.00	1940	171.00	342	259.00	383	404.00	226
82.00	446	172.00	242	260.00	92	414.00	34
83.00	512	173.00	291	261.00	69	416.00	50
84.00	251	174.00	556	262.00	14	419.00	57
85.00	469	175.00	1148	263.00	33	421.00	219
86.00	622	176.00	469	264.00	163	422.00	114
87.00	127	177.00	563	265.00	856	423.00	1905
88.00	98	178.00	74	266.00	106	424.00	499
91.00	437	179.00	2523	270.00	85	425.00	61
92.00	824	180.00	1046	272.00	93	432.00	78
93.00	4393	181.00	497	273.00	1095	438.00	133
94.00	272	182.00	58	274.00	2804	441.00	5434
95.00	171	184.00	271	275.00	14386	442.00	38776
96.00	208	185.00	805	276.00	1873	443.00	7851
98.00	2791	186.00	6796	277.00	1298	444.00	868
99.00	2118	187.00	1871	278.00	211	445.00	111
100.00	387	188.00	367	279.00	39	446.00	36
101.00	816	189.00	176	283.00	302	447.00	43
102.00	106	190.00	241	284.00	73	448.00	63
103.00	273	191.00	197	285.00	195	455.00	35
104.00	746	192.00	652	289.00	111	460.00	48
105.00	850	193.00	578	291.00	65	464.00	48
106.00	69	194.00	219	292.00	134	466.00	45
107.00	9251	195.00	218	293.00	310	475.00	39
108.00	1407	196.00	2826	294.00	139	482.00	70
109.00	82	198.00	64936	296.00	4923	484.00	37
110.00	19624	199.00	4025	297.00	665	490.00	47
111.00	2840	200.00	342	298.00	134	492.00	49
112.00	587	201.00	485	299.00	38	498.00	56
113.00	300	202.00	149	302.00	84	499.00	65
114.00	143	203.00	36	303.00	527	504.00	72

Data File: /chem/5972hp68.i/DF980321B68_REG5.b/DF980321B68.d
Date : 21-MAR-98 20:44
Client ID: DFTPP
Sample Info: DFTPP:2242
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32

300A



Data File: /chem/5972hp68.i/DF980321B68_REG5.b/DF980321B68.d

Date : 21-MAR-98 20:44

Client ID: DFTPP | Instrument: 5972hp68.i

Sample Info: DFTPP:2242

Volume Injected (uL): 2.0 | Operator: 2242

Column phase: DB-5 | Column diameter: 0.32

Data File: DF980321B68.d
Spectrum : Avg. Scans 89-91 (7.42), Background Scan 87
Largest m/z: 198.00
Number of peaks: 333

m/z	Y	m/z	Y	m/z	Y	m/z	Y
115.00	201	204.00	2351	304.00	211	513.00	39
116.00	119	205.00	3927	305.00	122	515.00	36
117.00	9705	206.00	12180	306.00	55	518.00	60
118.00	294	207.00	1175	308.00	43	524.00	48
119.00	253	208.00	154	309.00	128	528.00	51
120.00	106	209.00	283	310.00	38	533.00	36
121.00	70	210.00	250	312.00	48	536.00	35
122.00	745	211.00	504	313.00	54	541.00	67
123.00	1006	213.00	33	314.00	175	546.00	36
124.00	971	214.00	167	315.00	439	549.00	78
125.00	507	215.00	150	316.00	247	550.00	42
127.00	34104	216.00	254	317.00	81		
128.00	1495	217.00	4212	320.00	73		
129.00	16448	218.00	711	321.00	148		

b. Blank Data

Arranged in chronological order, by extraction date.

- Tabulated Results (Form I SV-1, SV-2)
- Tentatively Identified Compounds (Form I SV-TIC)
- Reconstructed Ion Chromatogram and quantitation report.
- Target compound spectra with lab-generated standard spectra.
- Quantitation/Calculation of TIC concentrations.
- GC/MS library search spectra for TICs.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKLD

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885412

Sample wt/vol: 1000 (g/mL) mL Lab File ID: GH085412A68

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 1000(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKLD

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885412

Sample wt/vol: 1000 (g/mL) mL Lab File ID: GH085412A68

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 1000(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	12	
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLKLD

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885412

Sample wt/vol: 1000 (g/mL) mL Lab File ID: GH085412A68

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 1000(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 5

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CYCLOHEXENOL (BC)	6.24	6	J
2. 108-94-1	CYCLOHEXANONE	6.37	27	NJ
3.	CYCLOHEXENONE (BC)	6.89	9	J
4.	UNKNOWN (BC)	9.71	2	J
5.	UNKNOWN (BC)	22.21	14	J
6.				
7.				
8.				
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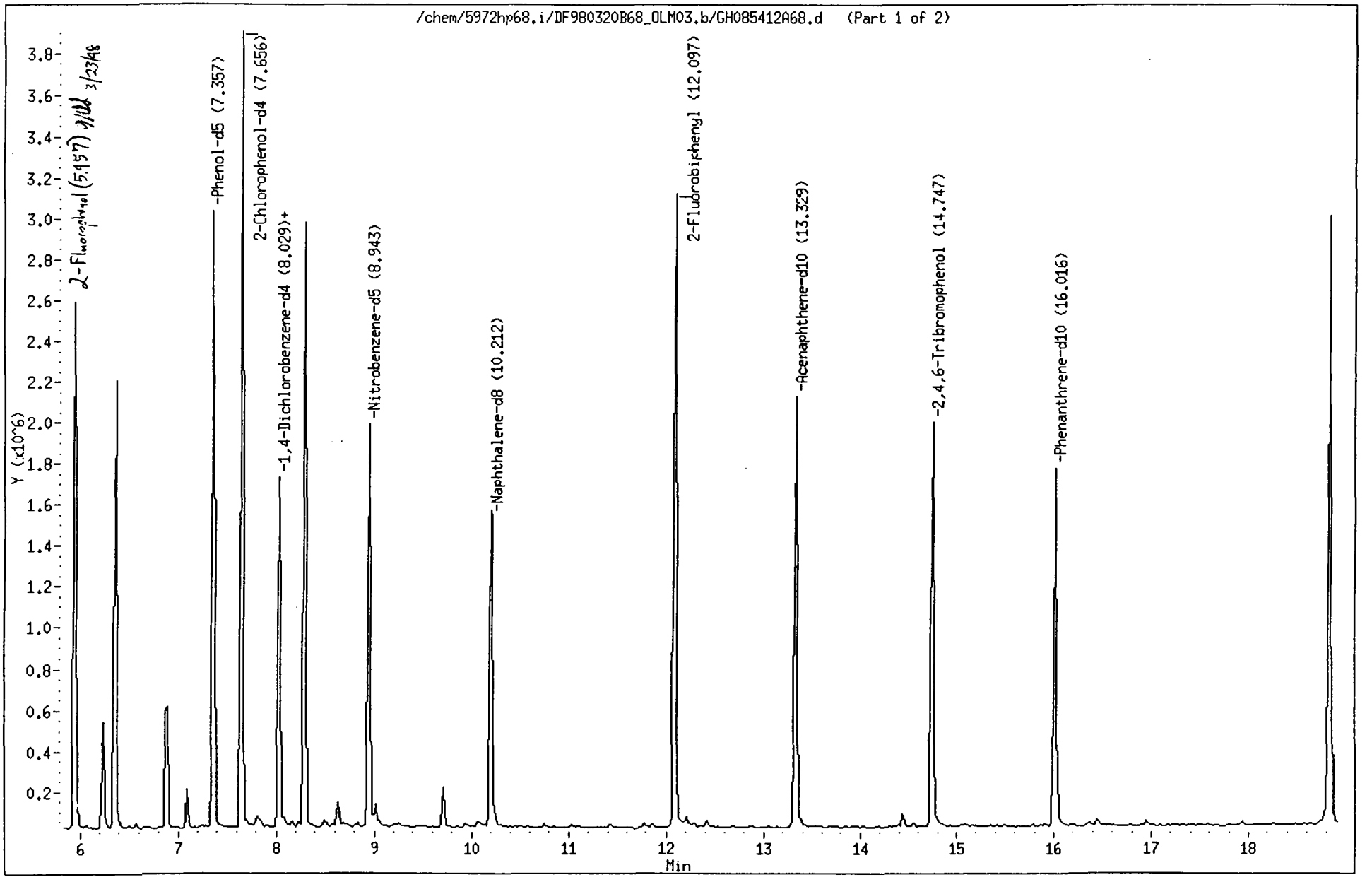
30.				

Data File: /chem/5972hp68.i/DF980320B68_OLM03.b/GH085412A68.d
Date : 21-MAR-1998 04:20
Client ID: SBLKLD
Sample Info:
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32

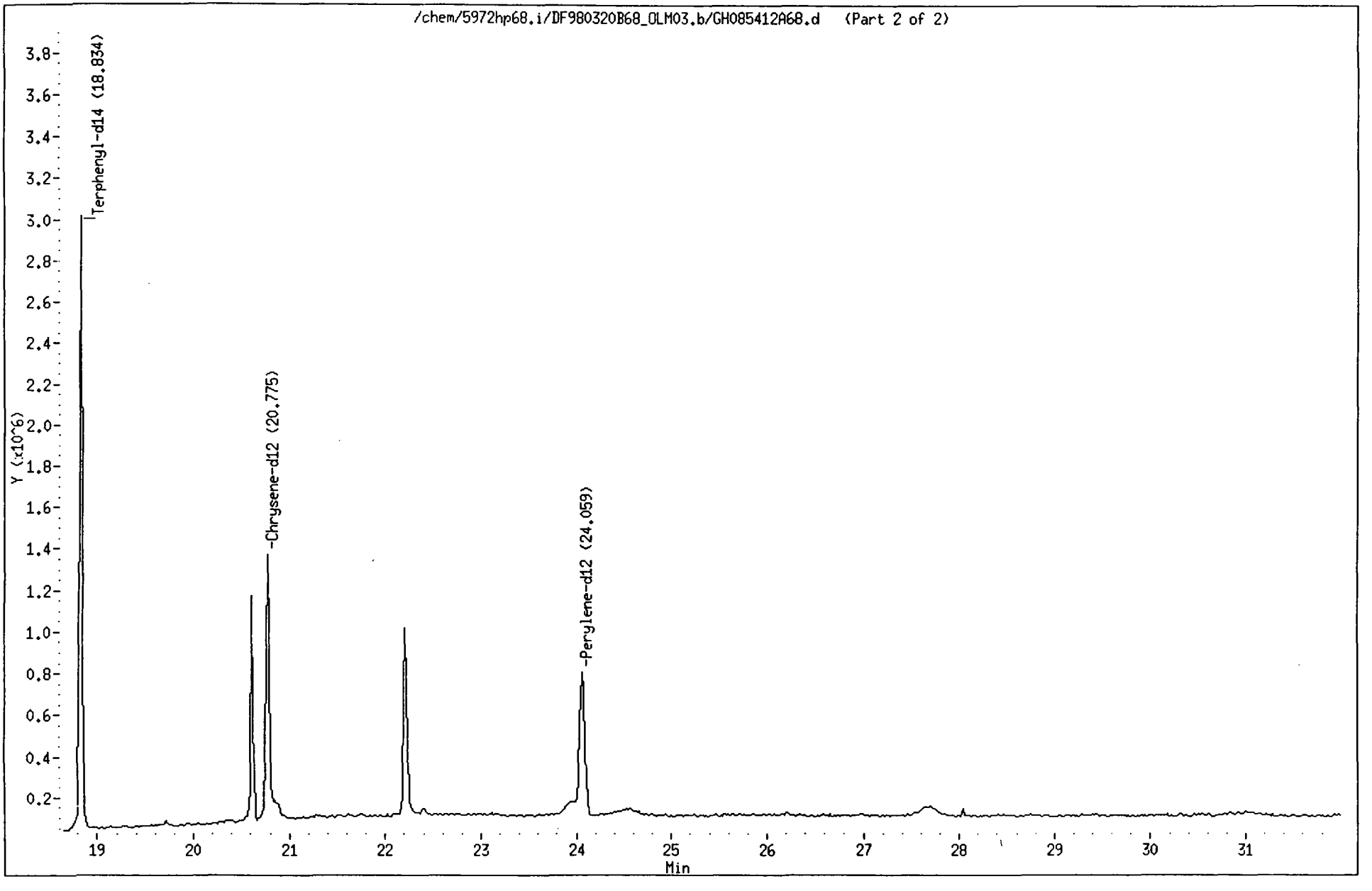


Data File: /chem/5972hp68.i/DF980320B68_OLM03.b/GH085412A68.d
Date : 21-MAR-1998 04:20
Client ID: SBLKLD
Sample Info:
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32

307



Data File: /chem/5972hp68.i/DF980320B68_OLM03.b/GH085412A68.d
Report Date: 23-Mar-1998 08:35

CompuChem Environmental Corp.

OLM03.0 + REVISIONS QUANT AND RATIO REPORT

Data file : /chem/5972hp68.i/DF980320B68_OLM03.b/GH085412A68.d
Lab Smp Id: 885412 Client Smp ID: SBLKLD
Inj Date : 21-MAR-1998 04:20
Operator : 2242 Inst ID: 5972hp68.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp68.i/DF980320B68_OLM03.b/OLMO3.m
Meth Date : 23-Mar-1998 08:25 mss Quant Type: ISTD
Cal Date : 20-MAR-98 20:32 Cal File: HG980320B68.d
Als bottle: 3 QC Sample: BLANK
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.12
Concentration Formula: Vt/(Vo * Vi)

Name	Value	Description
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152.00	8.029	8.047	(1.000)	539041	40.00		
* 2 Naphthalene-d8	136.00	10.212	10.212	(1.000)	1883271	40.00		8395
* 3 Acenaphthene-d10	164.00	13.329	13.328	(1.000)	926296	40.00		9288
* 4 Phenanthrene-d10	188.00	16.016	16.016	(1.000)	1281058	40.00		9330
* 5 Chrysene-d12	240.00	20.775	20.793	(1.000)	906629	40.00		9656
* 6 Perylene-d12	264.00	24.059	24.078	(1.000)	938247	40.00		8670
$ 7 2-Fluorophenol	112.00	5.957	5.957	(0.742)	1648207	97.34	48.67	
$ 8 Phenol-d5	99.00	7.357	7.375	(0.916)	1880643	103.1	51.56	8430
$ 9 2-Chlorophenol-d4	132.00	7.656	7.655	(0.954)	1862742	105.2	52.62	8659
$ 10 1,2-Dichlorobenzene-d4	152.00	8.029	8.290	(1.000)	539041	47.01	23.50	
$ 11 Nitrobenzene-d5	82.00	8.943	8.943	(0.876)	1055344	74.98	37.49	8645
$ 12 2-Fluorobiphenyl	172.00	12.097	12.097	(0.908)	1976380	69.44	34.72	8736
$ 13 2,4,6-Tribromophenol	329.60	14.747	14.747	(0.921)	512506	103.5	51.76	
$ 14 Terphenyl-d14	244.00	18.834	18.834	(0.907)	2106918	90.28	45.14	8677
15 Phenol	94.00		7.394	Compound Not Detected.				
16 bis(2-Chloroethyl)ether	93.00		7.581	Compound Not Detected.				
17 2-Chlorophenol	128.00		7.693	Compound Not Detected.				
18 1,3-Dichlorobenzene	146.00		7.954	Compound Not Detected.				
19 1,4-Dichlorobenzene	146.00		8.066	Compound Not Detected.				
20 1,2-Dichlorobenzene	146.00		8.327	Compound Not Detected.				
21 2-Methylphenol	108.00		8.383	Compound Not Detected.				

Data File: /chem/5972hp68.i/DF980320B68_OLM03.b/GH085412A68.d
Report Date: 23-Mar-1998 08:35

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY
22 2,2'-oxybis(1-Chloropropane)	45.00		8.439		Compound Not Detected.			
23 4-Methylphenol	108.00		8.626		Compound Not Detected.			
24 N-Nitroso-di-n-propylamine	70.00		8.663		Compound Not Detected.			
25 Hexachloroethane	117.00		8.887		Compound Not Detected.			
26 Nitrobenzene	77.00		8.980		Compound Not Detected.			
27 Isophorone	82.00		9.372		Compound Not Detected.			
28 2-Nitrophenol	139.00		9.521		Compound Not Detected.			
29 2,4-Dimethylphenol	107.00		9.540		Compound Not Detected.			
30 bis(2-Chloroethoxy)methane	93.00		9.727		Compound Not Detected.			
31 2,4-Dichlorophenol	162.00		9.932		Compound Not Detected.			
32 1,2,4-Trichlorobenzene	180.00		10.100		Compound Not Detected.			
33 Naphthalene	128.00		10.249		Compound Not Detected.			
34 4-Chloroaniline	127.00		10.305		Compound Not Detected.			
35 Hexachlorobutadiene	225.00		10.436		Compound Not Detected.			
36 4-Chloro-3-methylphenol	107.00		11.108		Compound Not Detected.			
37 2-Methylnaphthalene	142.00		11.462		Compound Not Detected.			
38 Hexachlorocyclopentadiene	237.00		11.724		Compound Not Detected.			
39 2,4,6-Trichlorophenol	196.00		11.947		Compound Not Detected.			
40 2,4,5-Trichlorophenol	196.00		12.003		Compound Not Detected.			
41 2-Chloronaphthalene	162.00		12.339		Compound Not Detected.			
42 2-Nitroaniline	65.00		12.489		Compound Not Detected.			
43 Dimethylphthalate	163.00		12.787		Compound Not Detected.			
44 2,6-Dinitrotoluene	165.00		12.918		Compound Not Detected.			
45 Acenaphthylene	152.00		13.086		Compound Not Detected.			
46 3-Nitroaniline	138.00		13.216		Compound Not Detected.			
47 Acenaphthene	153.00		13.384		Compound Not Detected.			
48 2,4-Dinitrophenol	184.00		13.403		Compound Not Detected.			
49 4-Nitrophenol	109.00		13.459		Compound Not Detected.			
50 2,4-Dinitrotoluene	165.00		13.646		Compound Not Detected.			
51 Dibenzofuran	168.00		13.702		Compound Not Detected.			
52 Diethylphthalate	149.00		14.038		Compound Not Detected.			
53 4-Chlorophenyl-phenylether	204.00		14.280		Compound Not Detected.			
54 Fluorene	166.00		14.318		Compound Not Detected.			
55 4-Nitroaniline	138.00		14.318		Compound Not Detected.			
56 4,6-Dinitro-2-methylphenol	198.00		14.374		Compound Not Detected.			
57 N-nitrosodiphenylamine	169.00		14.486		Compound Not Detected.			
58 4-Bromophenyl-phenylether	248.00		15.176		Compound Not Detected.			
59 Hexachlorobenzene	283.90		15.307		Compound Not Detected.			
60 Pentachlorophenol	266.00		15.643		Compound Not Detected.			
61 Phenanthrene	178.00		16.072		Compound Not Detected.			
62 Anthracene	178.00		16.146		Compound Not Detected.			
63 Carbazole	167.00		16.408		Compound Not Detected.			
64 Di-n-butylphthalate	149.00		16.949		Compound Not Detected.			
65 Fluoranthene	202.00		18.218		Compound Not Detected.			
66 Pyrene	202.00		18.628		Compound Not Detected.			
67 Butylbenzylphthalate	149.00		19.655		Compound Not Detected.			
68 3,3'-Dichlorobenzidine	252.00		20.663		Compound Not Detected.			
69 bis(2-Ethylhexyl)phthalate	149.00	20.607	20.607	(0.992)	607021	24.02	12.01	8464
70 Benzo(a)anthracene	228.00		20.756		Compound Not Detected.			

Data File: /chem/5972hp68.i/DF980320B68_OLM03.b/GH085412A68.d
Report Date: 23-Mar-1998 08:35

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY
71 Chrysene	228.00		20.830	Compound Not Detected.				
72 Di-n-octylphthalate	149.00		21.838	Compound Not Detected.				
73 Benzo(b)fluoranthene	252.00		23.033	Compound Not Detected.				
74 Benzo(k)fluoranthene	252.00		23.107	Compound Not Detected.				
75 Benzo(a)pyrene	252.00		23.928	Compound Not Detected.				
76 Indeno(1,2,3-cd)pyrene	276.00		27.679	Compound Not Detected.				
77 Dibenzo(a,h)anthracene	278.00		27.698	Compound Not Detected.				
78 Benzo(g,h,i)perylene	276.00		28.799	Compound Not Detected.				

Data File: /chem/5972hp68.i/DF980320B68_OLM03.b/GH085412A68.d

Date : 21-MAR-1998 04:20

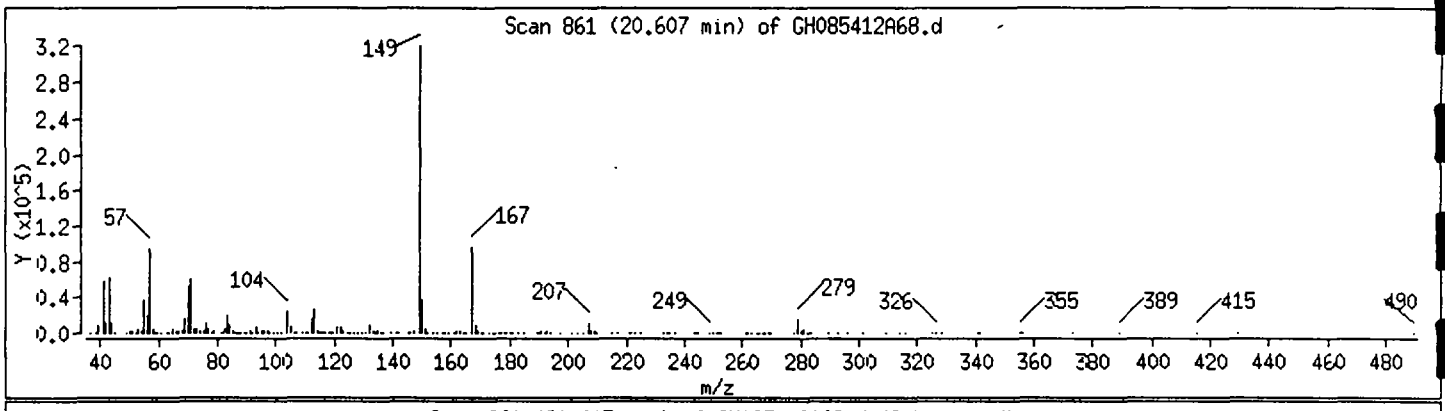
Client ID: SBLKLD | Instrument: 5972hp68.i

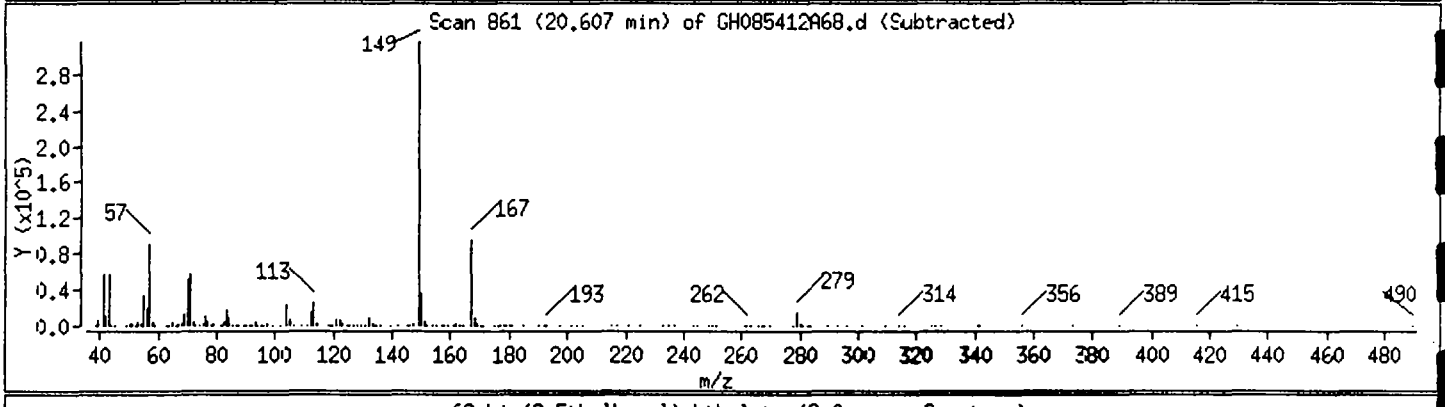
Sample Info:

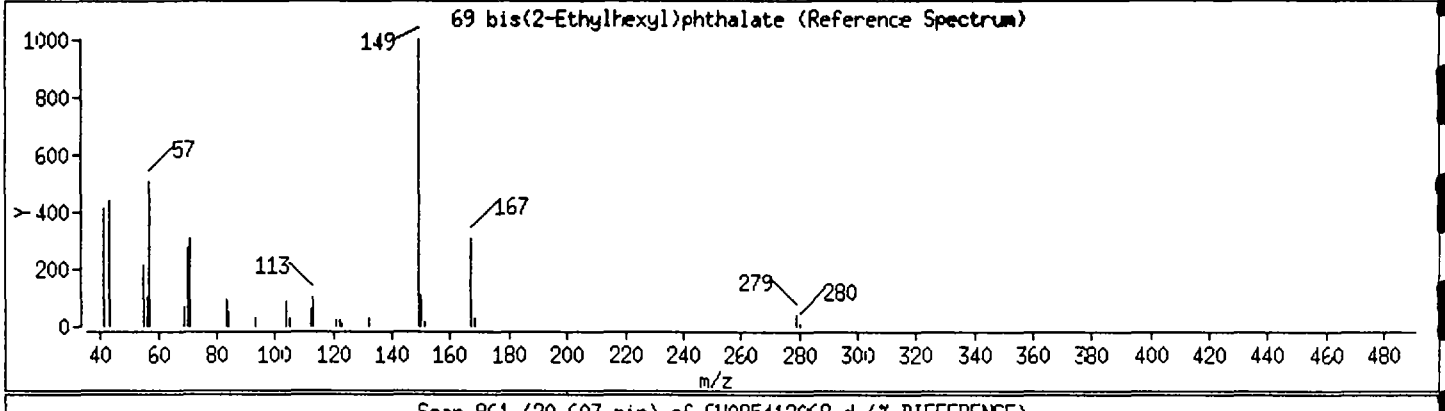
Volume Injected (uL): 2.0 | Operator: 2242

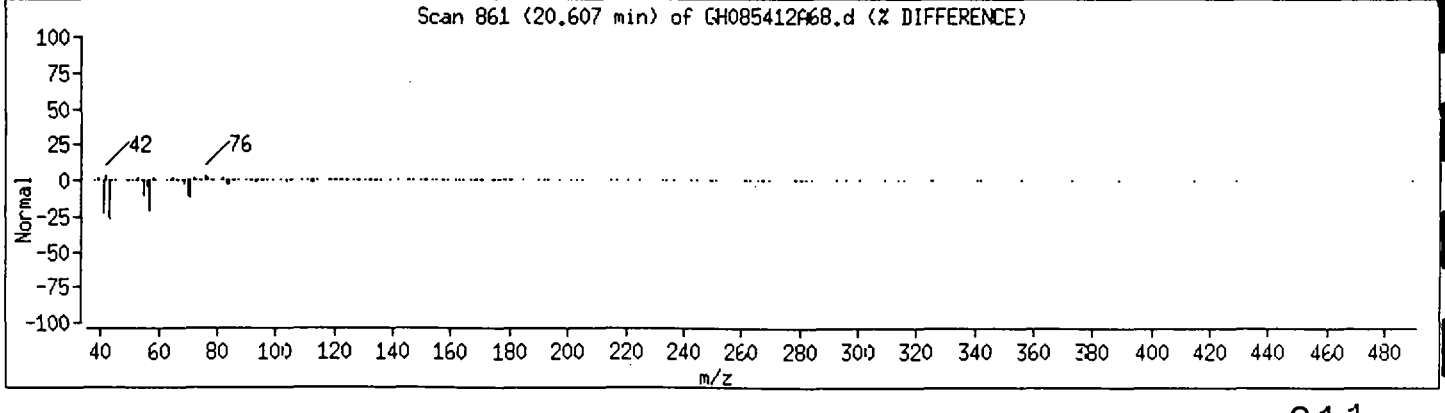
Column phase: DB-5 | Column diameter: 0.32

69 bis(2-Ethylhexyl)phthalate









Data File: /chem/5972hp68.i/DF980320B68_OLM03.b/GH085412A68.d
Report Date: 23-Mar-1998 08:35

CompuChem Environmental Corp.

Unknown Compounds Quantitation Report

Data file : /chem/5972hp68.i/DF980320B68_OLM03.b/GH085412A68.d
Lab Smp Id: 885412 Client Smp ID: SBLKLD
Inj Date : 21-MAR-1998 04:20
Operator : 2242 Inst ID: 5972hp68.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp68.i/DF980320B68_OLM03.b/OLMO3.m
Meth Date : 23-Mar-1998 08:25 mss
Cal Date : 20-MAR-98 20:32 Cal File: HG980320B68.d
Als bottle: 3 QC Sample: BLANK
Dil Factor: 1.000 Target Version: 3.12
Integrator: HP RTE Compound Sublist: all.sub
Sample Matrix: WATER
Quantitative Mode : Use RF of Nearest Std
Concentration Formula: Vt/(Vo * Vi)

Name	Value	Description
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)

ISTD	RT	AREA	AMOUNT
* 1 1,4-Dichlorobenzene-d4	8.029	3134613	40.000
* 5 Chrysene-d12	20.775	3243539	40.000
* 6 Perylene-d12	24.059	2824722	40.000

RT	AREA	CONCENTRATIONS ON-COL(NG)	FINAL(ug/L)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Cyclohexenol (BC)					CAS #:		
6.237	868016	11.08	5.54	0		0	1
Cyclohexanone					CAS #: 108-94-1		
6.368	4185888	53.42	26.71	94	NBS75K.1	63194	1
Cyclohexenone (BC)					CAS #:		
6.890	1350928	17.24	8.62	0		0	1

Data File: /chem/5972hp68.i/DF980320B68_OLM03.b/GH085412A68.d
Report Date: 23-Mar-1998 08:35

RT	AREA	CONCENTRATIONS ON-COL(NG)	FINAL(ug/L)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown (BC)					CAS #:		
9.708	339259	4.33	2.16	0		0	1
Unknown (BC)					CAS #:		
22.212	2234115	27.55	13.78	0		0	5
Unknown Alkane (BC)					CAS #:		
24.526	479298	6.79	3.39	0		0	6
Unknown Alkane (BC)					CAS #:		
27.698	619346	8.77	4.38	0		0	6

Data File: /chem/5972hp68.i/DF980320B68_OLM03.b/GH085412A68.d

Date : 21-MAR-1998 04:20

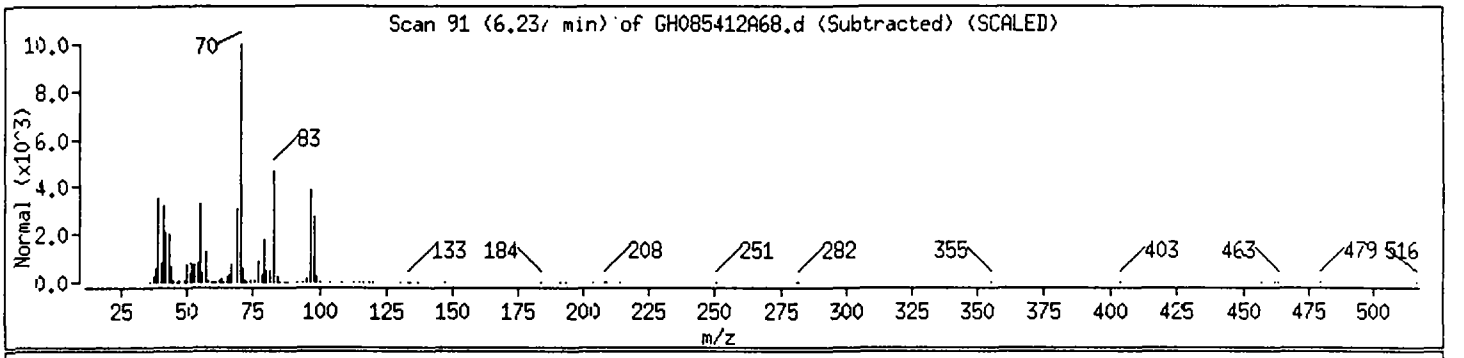
Client ID: SBLKLD | Instrument: 5972hp68.i

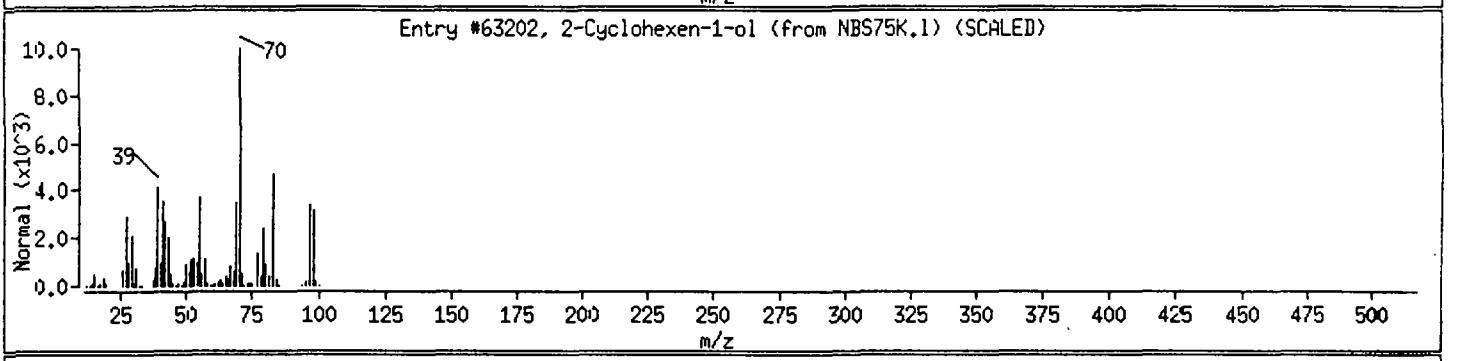
Sample Info:

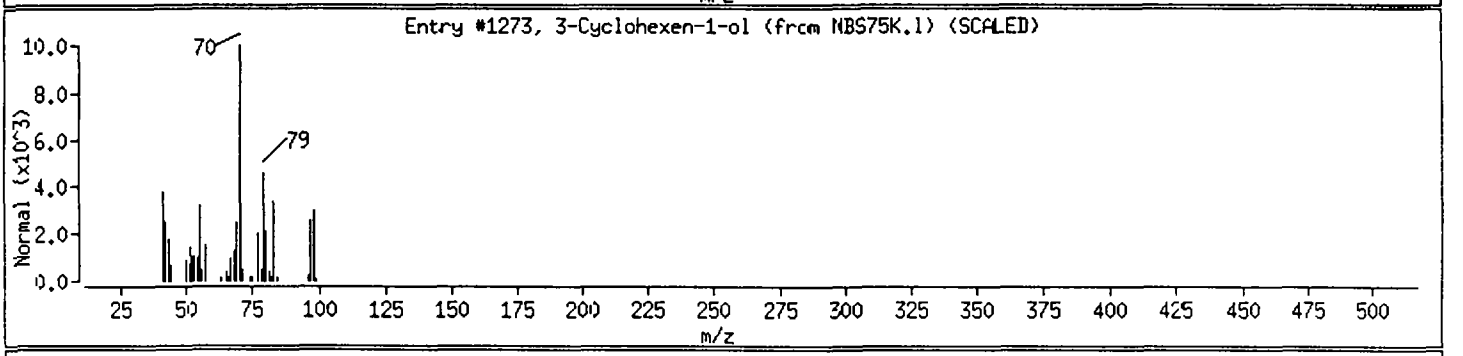
Volume Injected (uL): 2.0 | Operator: 2242

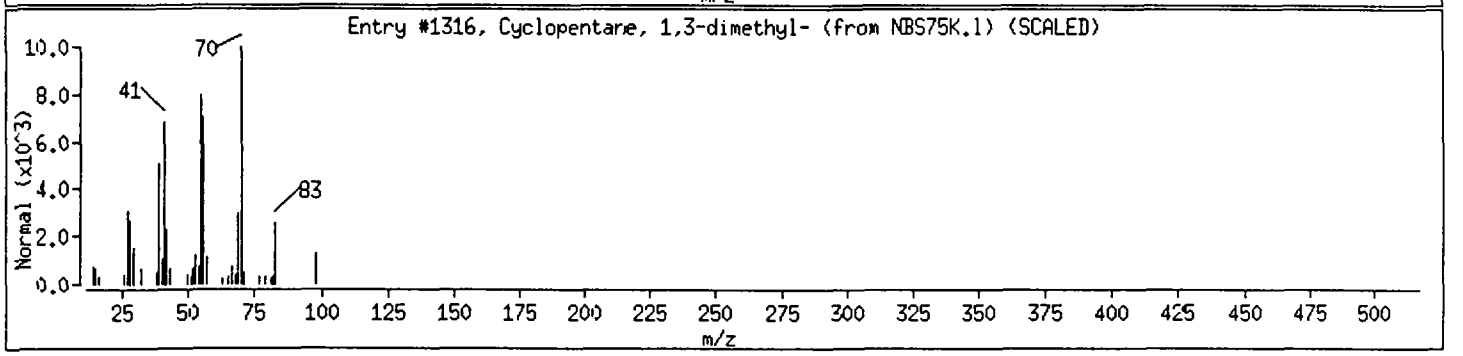
Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexenol (BC)						
2-Cyclohexen-1-ol	822-67-3	NBS75K.l	63202	86	C6H10O	98
3-Cyclohexen-1-ol	822-66-2	NBS75K.l	1273	58	C6H10O	98
Cyclopentane, 1,3-dimethyl-	2453-00-1	NBS75K.l	1316	50	C7H14	98









Data File: /chem/5972hp68.i/DF980320B68_OLM03.b/GH085412A68.d

Date : 21-MAR-1998 04:20

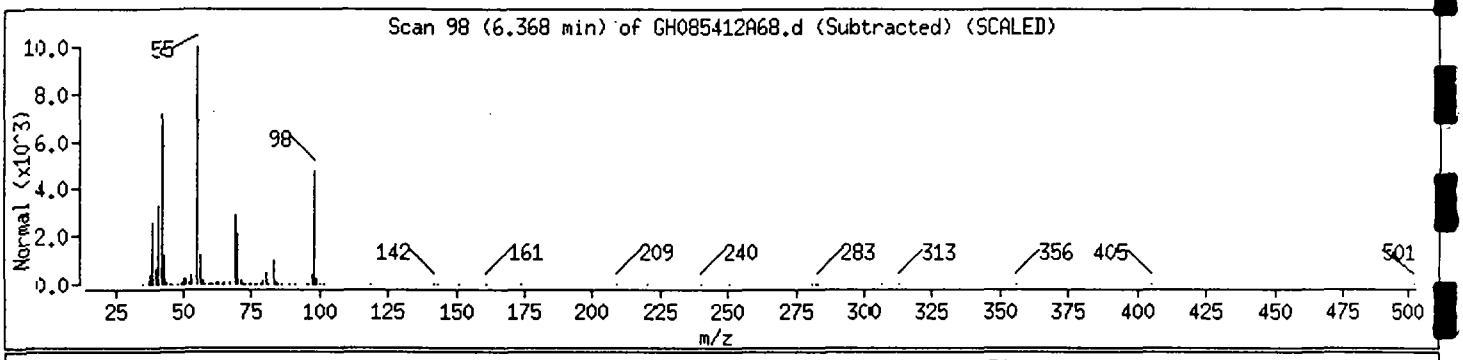
Client ID: SBLKLD | Instrument: 5972hp68.i

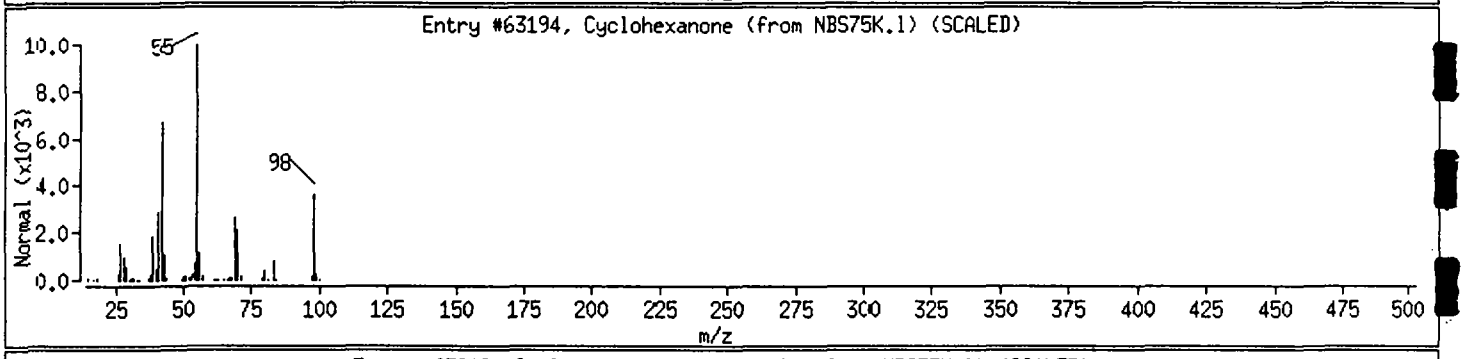
Sample Info:

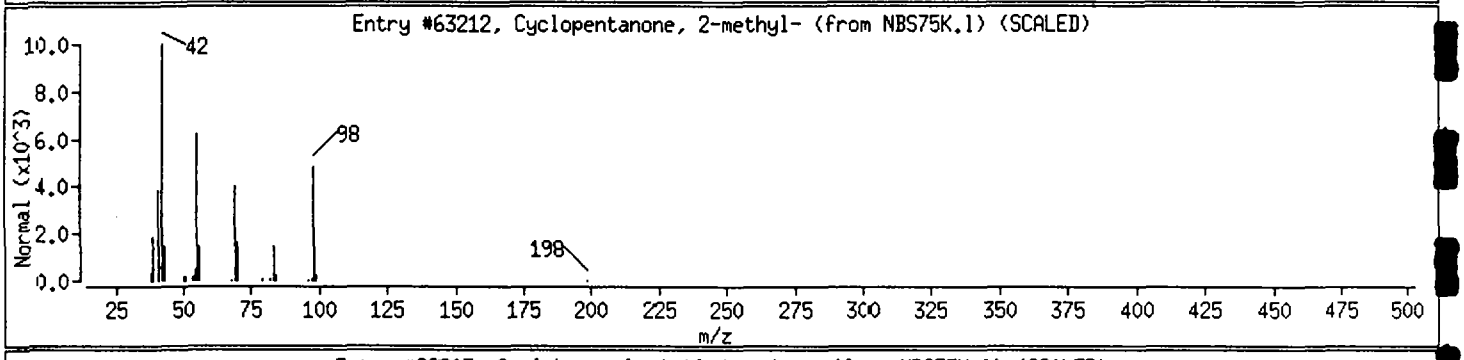
Volume Injected (uL): 2.0 | Operator: 2242

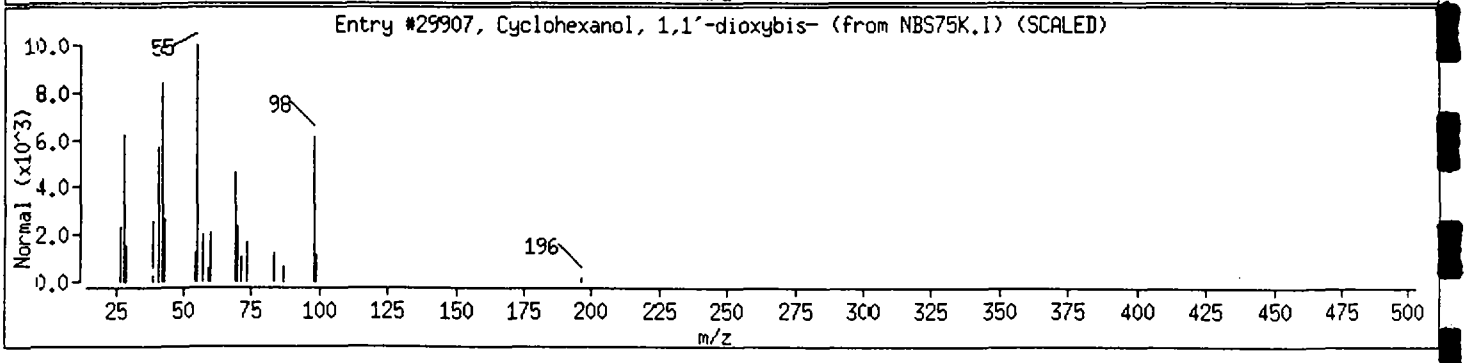
Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexanone	108-94-1	NBS75K.l	63194	94	C6H10O	98
Cyclopentanone, 2-methyl-	1120-72-5	NBS75K.l	63212	74	C6H10O	98
Cyclohexanol, 1,1'-dioxybis-	2407-94-5	NBS75K.l	29907	50	C12H22O4	230









Data File: /chem/5972hp68.i/DF980320B68_OLM03.b/GH085412A68.d

Date : 21-MAR-1998 04:20

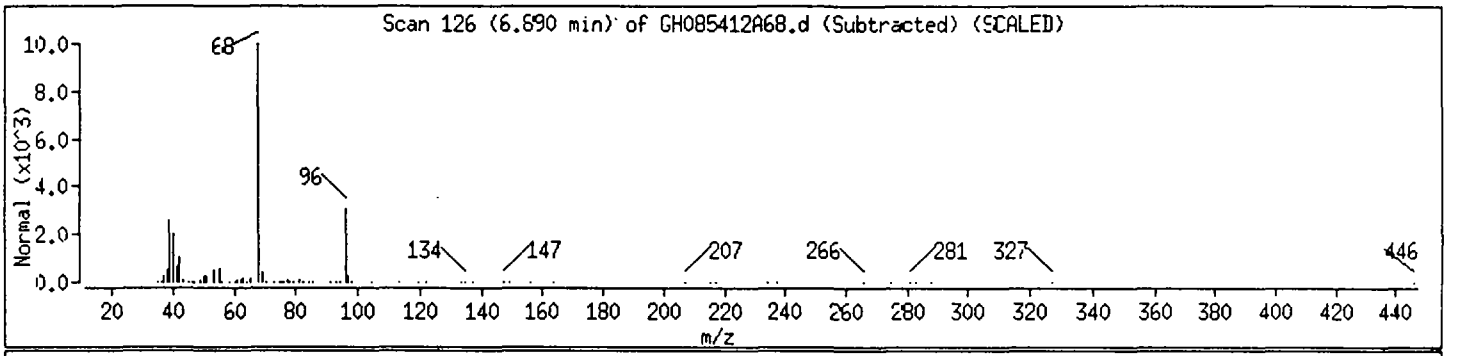
Client ID: SBLKLD | Instrument: 5972hp68.i

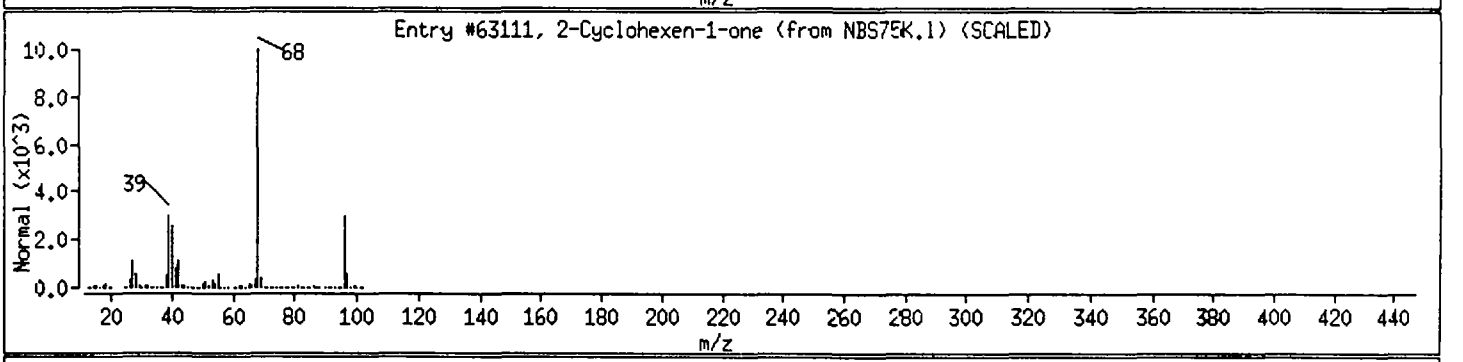
Sample Info:

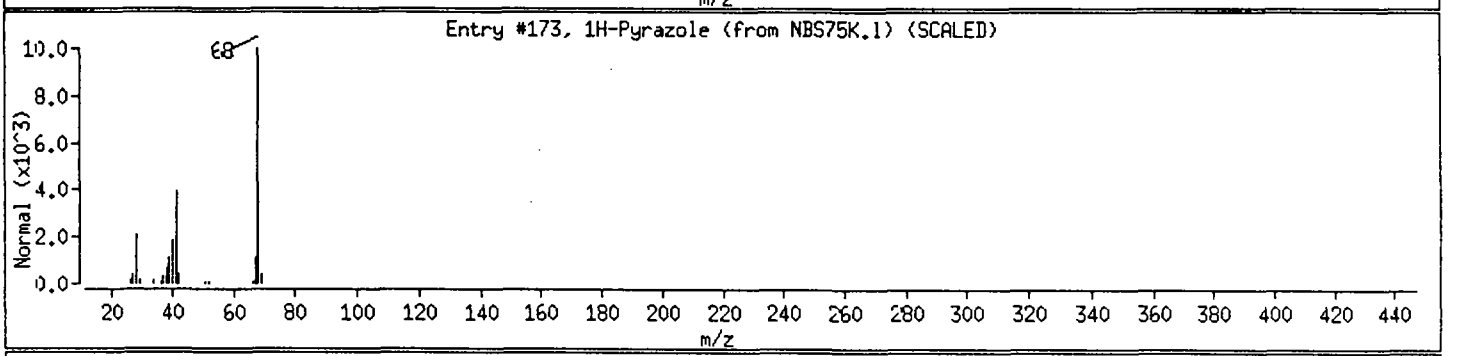
Volume Injected (uL): 2.0 | Operator: 2242

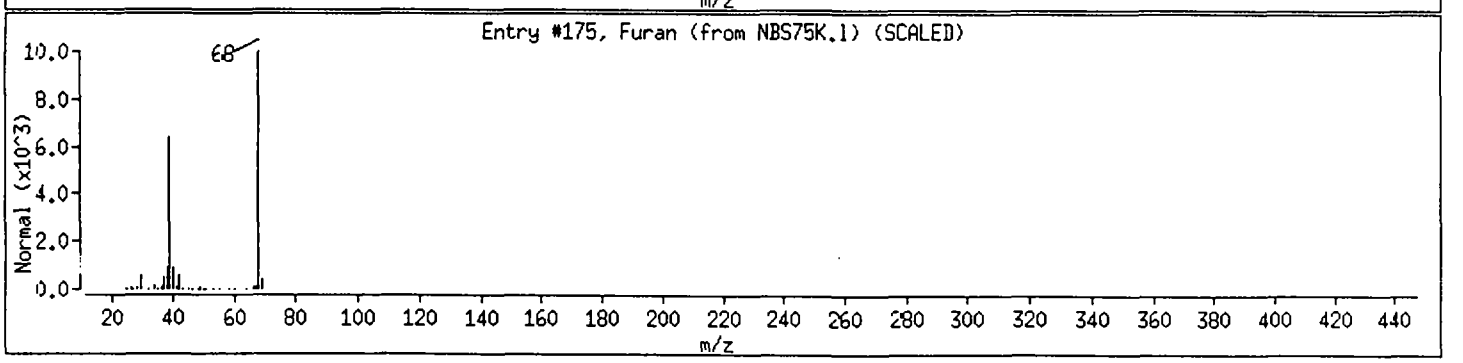
Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexenone (BC)						
2-Cyclohexen-1-one	930-68-7	NBS75K.l	63111	91	C6H8O	96
1H-Pyrazole	288-13-1	NBS75K.l	173	42	C3H4N2	68
Furan	110-00-9	NBS75K.l	175	9	C4H4O	68









Data File: /chem/5972hp68.i/DF980320B68_OLM03.b/GH085412A68.d

Date : 21-MAR-1998 04:20

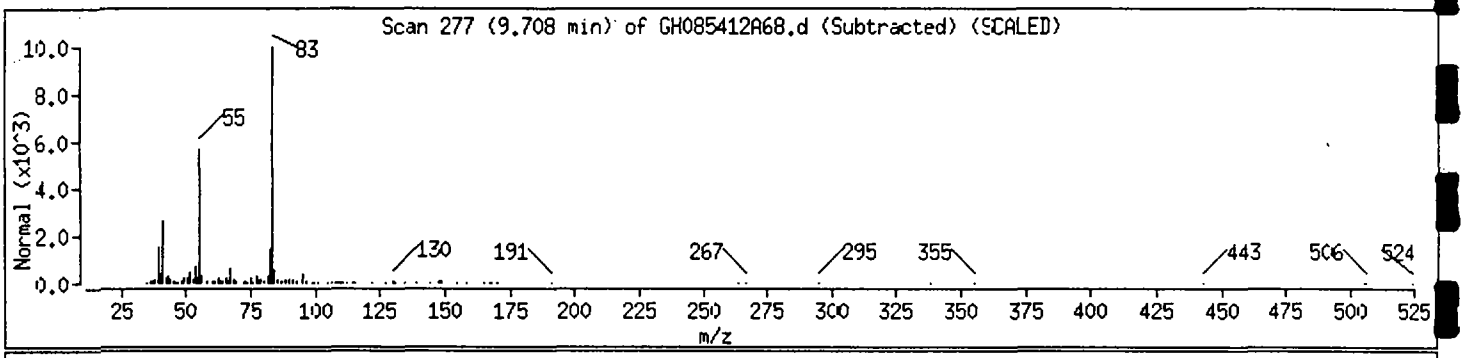
Client ID: SBLKLD | Instrument: 5972hp68.i

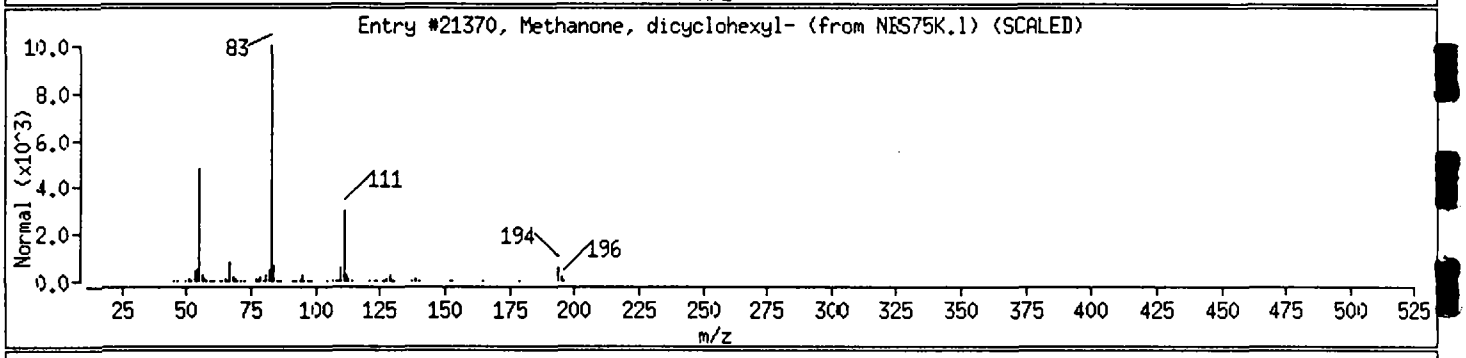
Sample Info:

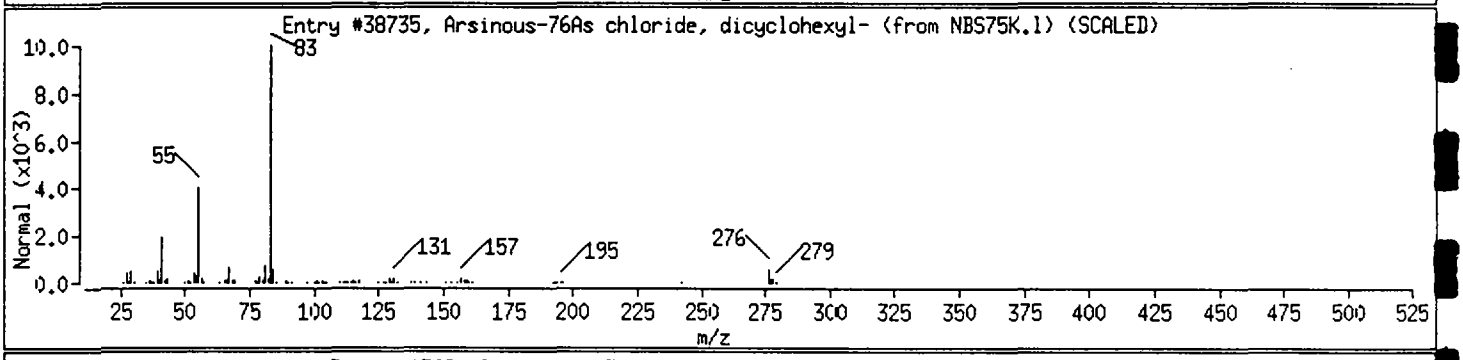
Volume Injected (uL): 2.0 | Operator: 2242

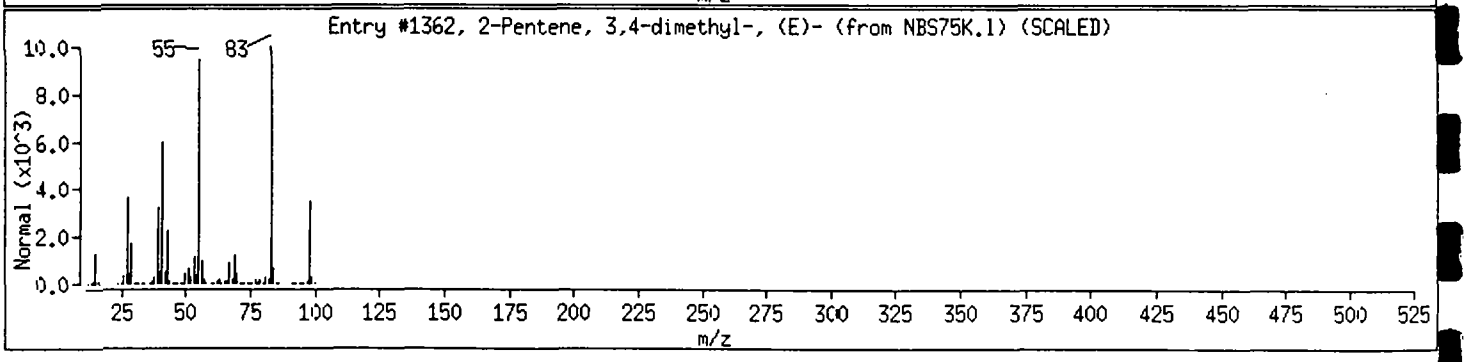
Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown (BC)						
Methanone, dicyclohexyl-	119-60-8	NBS75K.l	21370	78	C13H22O	194
Arsinous-76As chloride, dicyclohexyl-	3617-38-7	NBS75K.l	38735	64	C12H22AsCl	276
2-Pentene, 3,4-dimethyl-, (E)-	4914-92-5	NBS75K.l	1362	59	C7H14	98









Data File: /chem/5972hp68.i/DF980320B68_OLM03.b/GH085412A68.d

Date : 21-MAR-1998 04:20

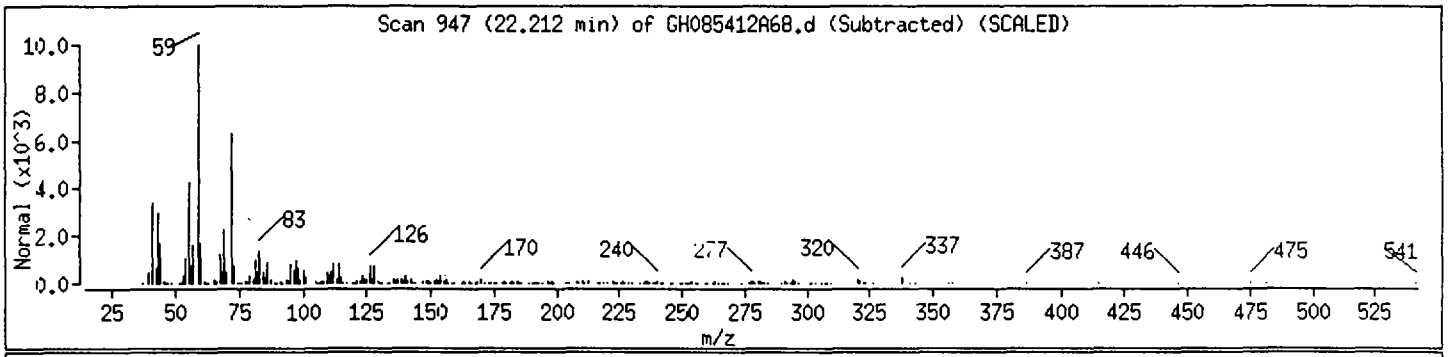
Client ID: SBLKLD | Instrument: 5972hp68.i

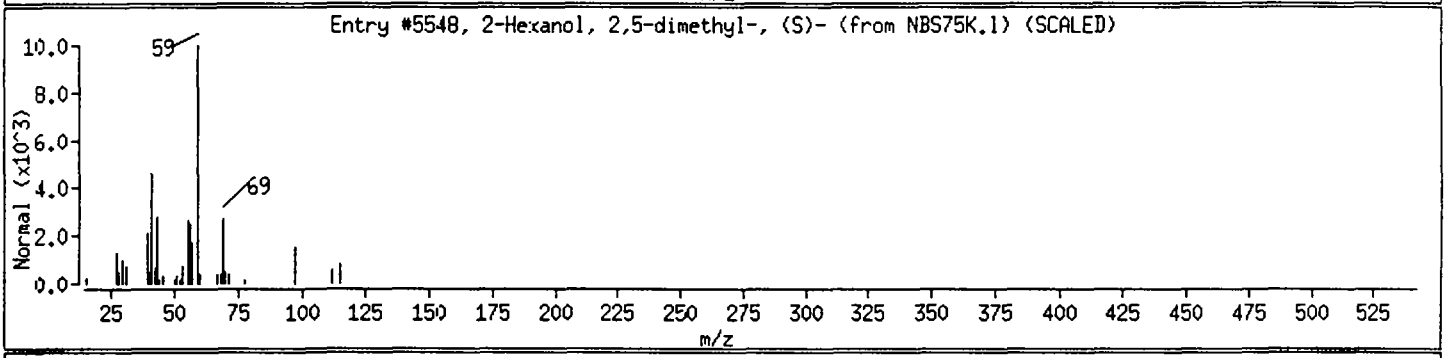
Sample Info:

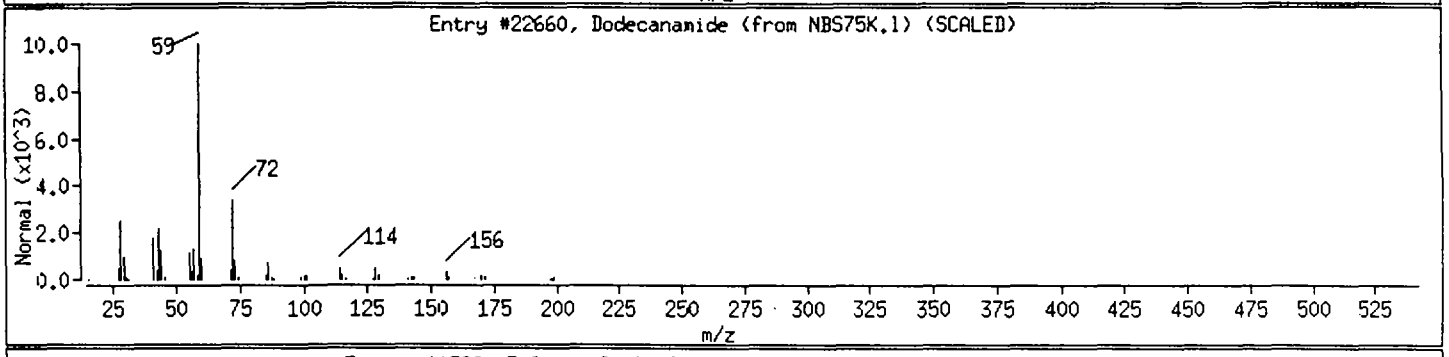
Volume Injected (uL): 2.0 | Operator: 2242

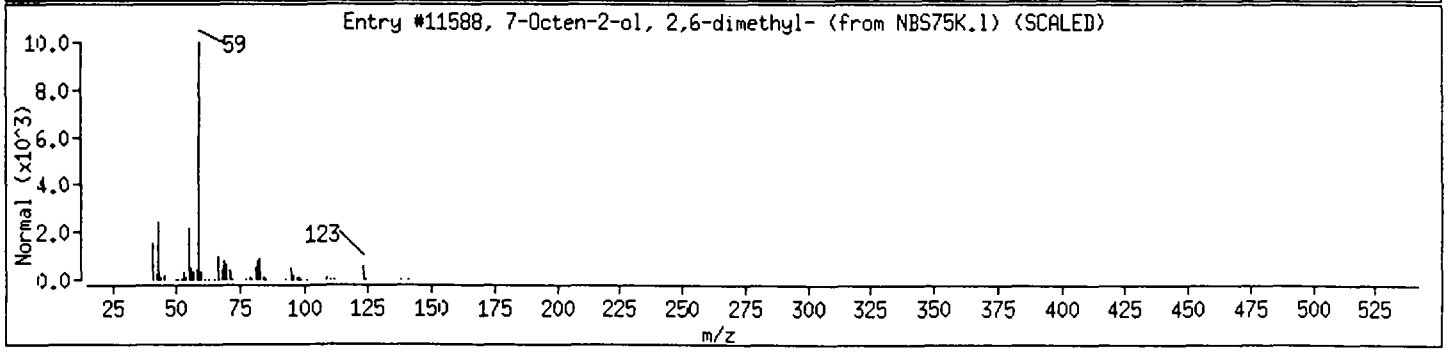
Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown (BC)						
2-Hexanol, 2,5-dimethyl-, (S)-	3730-60-7	NBS75K.l	5548	43	C8H18O	130
Dodecanamide	1120-16-7	NBS75K.l	22660	42	C12H25NO	199
7-Octen-2-ol, 2,6-dimethyl-	18479-58-8	NBS75K.l	11588	38	C10H20O	156









Data File: /chem/5972hp68.i/DF980320B68_OLM03.b/GH085412A68.d

Date : 21-MAR-1998 04:20

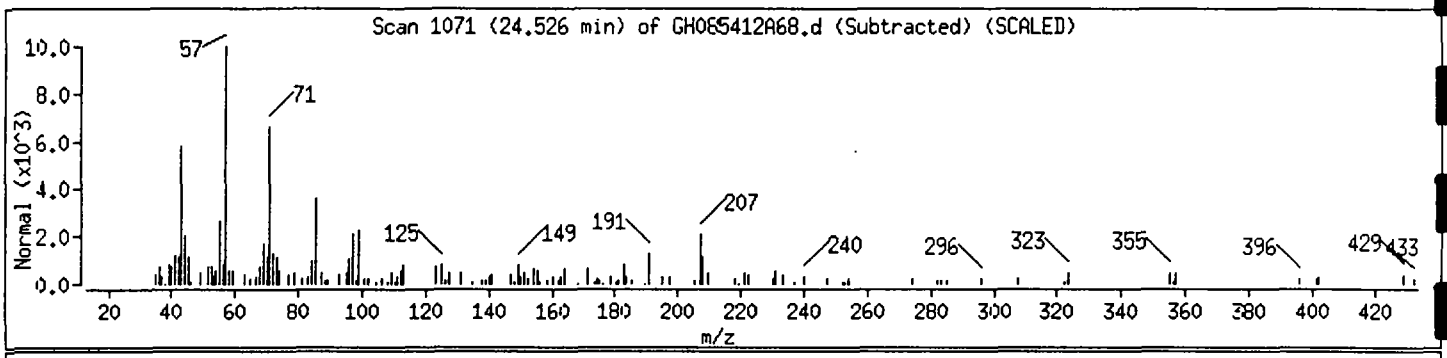
Client ID: SBLKLD | Instrument: 5972hp68.i

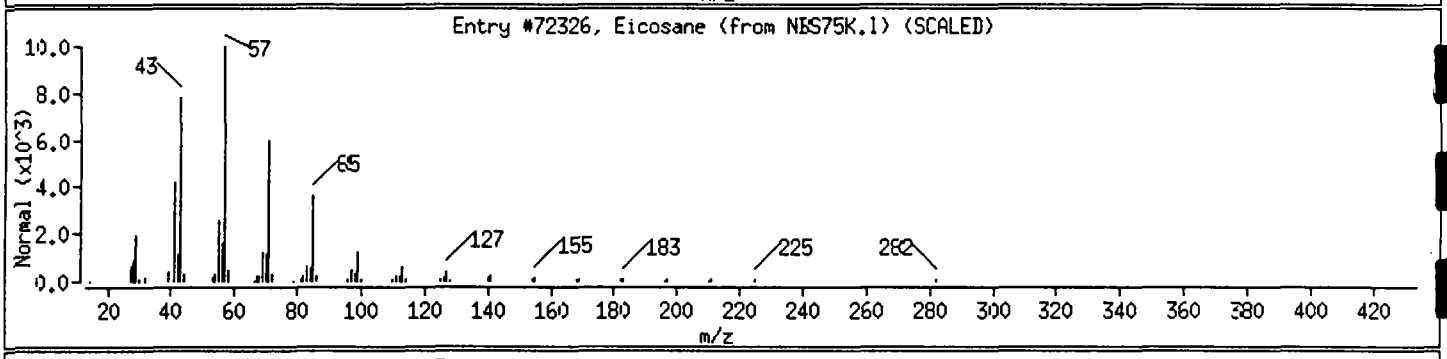
Sample Info:

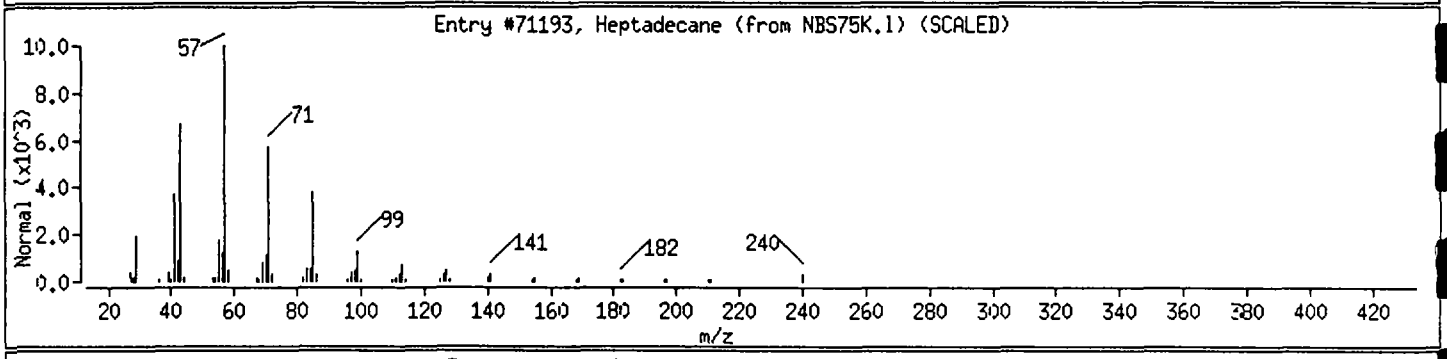
Volume Injected (uL): 2.0 | Operator: 2242

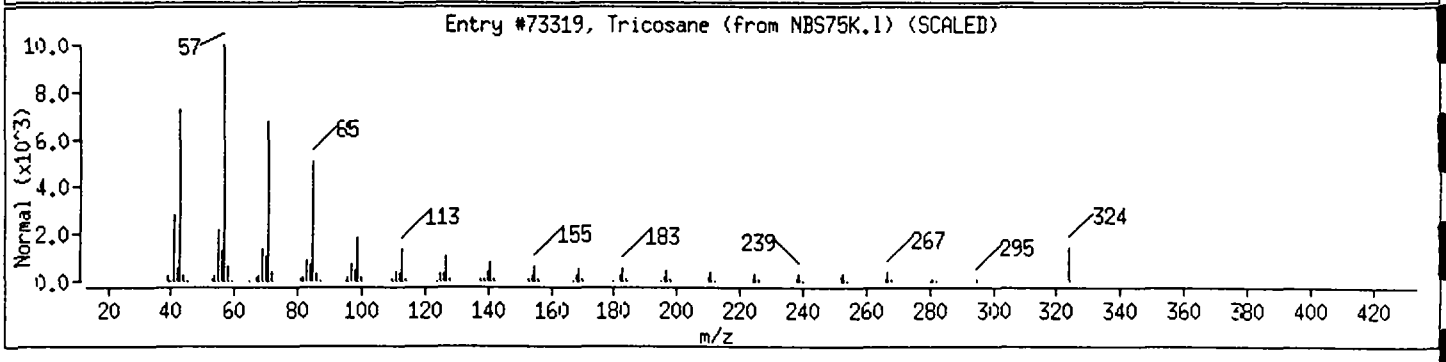
Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Alkane (BC)						
Eicosane	112-95-8	NBS75K.l	72326	64	C20H42	282
Heptadecane	629-78-7	NBS75K.l	71193	43	C17H36	240
Tricosane	638-67-5	NBS75K.l	73319	38	C23H48	324









Data File: /chem/5972hp68.i/DF980320B68_OLM03.b/GH085412A68.d

Date : 21-MAR-1998 04:20

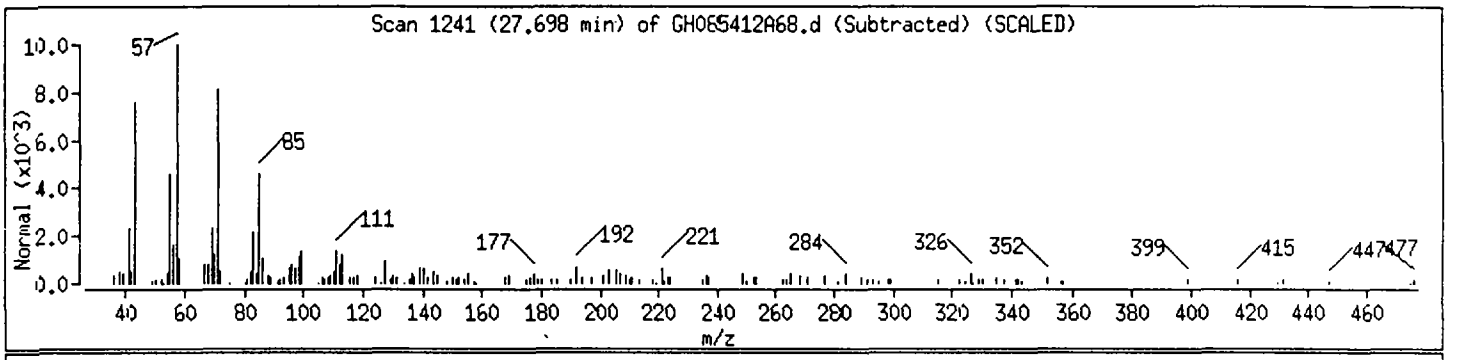
Client ID: SBLKLD | Instrument: 5972hp68.i

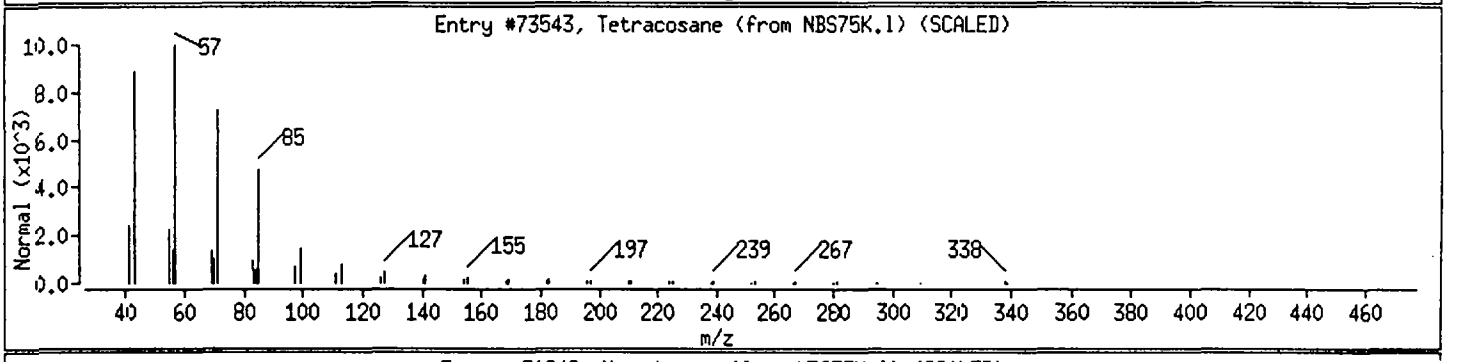
Sample Info:

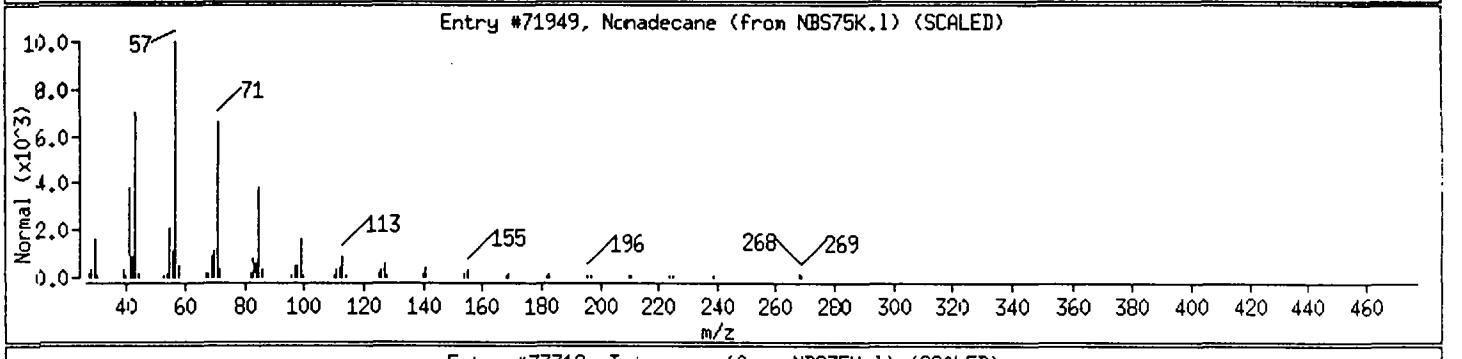
Volume Injected (uL): 2.0 | Operator: 2242

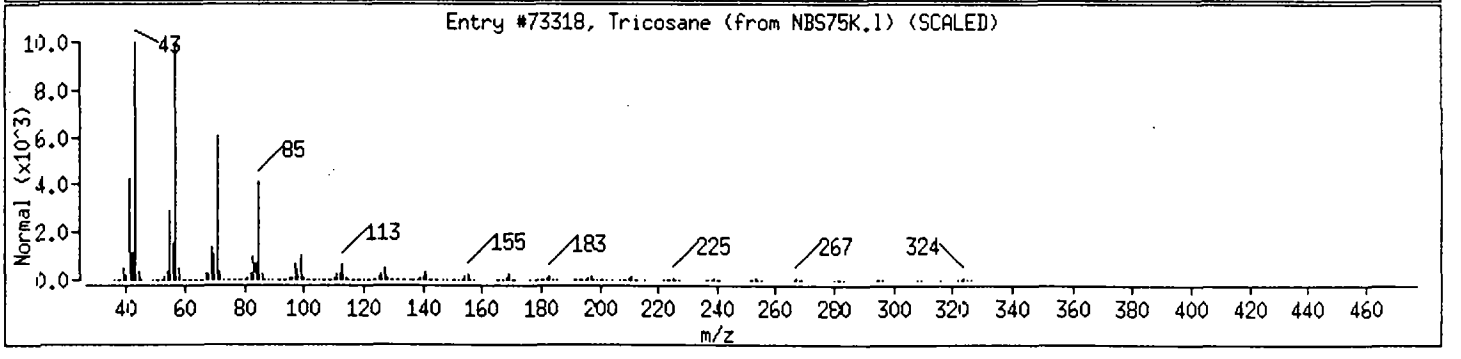
Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Alkane (BC)						
Tetracosane	646-31-1	NBS75K.l	73543	89	C24H50	338
Nonadecane	629-92-5	NBS75K.l	71949	89	C19H40	268
Tricosane	638-67-5	NBS75K.l	73318	89	C23H48	324









LAB INSTRUCTIONS: PPS#: _____
PPS585/BS+BSD(DUP)+LCS+BLK/NO MS+MSD/LL VOC/TAL+SB/PEST+PCBs

RECEIPT DATE: 03/19/98 CASE#: DUE DATE: 03/24/98

SEMI-VOLATILE
GC/MS WORKSHEET COMPUCHEM#: 885412

J[ ] J3[ ] D[ ] { :1}
J2[ ] J4[ ] D2[ ] { :1}

GC/MS; TCL SV; WATER; SOW OLMO3.1

Sample date: Report type: 0

Sample Prep Code--- -1015
Instrument Code---- 463
Compound List------ 804
Surrogate Std------ 431
Internal Std------- 50

==========

SAMPLE ID#: SBLKLD

==========

GC/MS ANALYSIS
Volumes mixed: BN _____ ul Acid 800 ul
Internal Standard Volume Added 5 ul
Mixed Sample Volume Injected 2 ul
Date Sample Bottle Analyzed 3/19/98
DFTPP Filename DF980320B68 Disk ( )
Standard Filename HC980320B68 Disk ( )
Sample Filename GH085412B68 Disk ( )

ANALYST(S): Injection ZLYC Work-up ZLYC

==========

GC/MS REVIEW

CONDITION CODE: OK

Disposition:
[✓] Complete
[ ] Reinjection required
[ ] Reextraction required
[ ] Dilute (:1)
[ ] Reinject Neat
[ ] Send to QA

Extraneous Peak Search Results:

# of Peaks Found: 6 (+1 alkane)

# of Hits: 1

# of Surrogate Outliers: Ø

Quality Assurance Notice(s):

Notices Required Ø

COMMENTS:

#GC/MS Review [signature] Date 3/23/98 Auditor_____ Date____/____/____

==========

REPORT INTEGRATION Total # of Injections: _____
Final Reportable Package(s): GH085412B68 /_____

==========

QA COMMENTS:

Initials_____ Date____/____/____

==========

FINAL REVIEW: Initials_____ Date____/____/____

AC1350

S3/17 K2/18 D3/24 HT 3/24

3-20-1

Batch: 1015-980319-0712 COMPUCHEM ENVIRONMENTAL CORP. Date Extracted/Posted: 3/19/98

Assigned to Carrie/Jeremy EXTRACTION WORKSHEET

Emp.ID number: 2330/2331 EPA CLP SOW

Semi Volatile Waters EPA CLP SOW Continuous Extraction Queue #51

CASE/SDG: 33234.0092W 33472.MWTT1 Proc: -1015 Manual counter: ~~934~~ 1344/948

CONTRACT: _____ DUE DATE: 03/24/98

Auto Counter 1343 / 788

Original Entered for SS's 885405

Initials / Date J.S. / 3/19/98

	CompuChem Sample Number	Client ID#		Bottle #	Sample Volume (mL)	Final Volume (mL)	Initial PH	Adj. PH ACID	Final Volume	Comments
1	885413	SLCSLD	03/19	D.I.	1000	1.0	7.0	1.6		
2	885412	SBLKLD	03/19	D.I.	1000	1.0	7.0	1.6		
3	885357	BS	03/18	D.I.	1000	1.0	7.0	1.6		1343/787 PPS585
4	885356	U4G00907	03/18	7 of 8	1000	1.0	6.5	1.6		
5	885358	BSD	03/18	D.I.	1000	1.0	7.0	1.6		
6	885405 *	PVC-1	03/18	2 of 2	500	.5	7.0	1.6		USE 885405 FOR 885402 & 885403.
7	885401 *	POLY-1	03/18	1 of 1	500	.5	7.0	1.6		
8	885402 *	SS	03/18	2 of 2	500	.5	7.0	1.6		1343/788
9	885403 *	SS	03/18	1 of 2	500	.5	7.0	1.6		
10	885404 *	BLANK-1	03/18	1 of 1	500	.5	7.0	1.6		

*USE 500ml of sample volume + add 0.25ml #431. Final volume=0.5ml Add 0.25ml #8000 to SS's.

	ID#	AMT	LOT#
Surrogate	431	0.5 mL	46796
Spike	8000	0.5 mL	47062

Final Volume Verified: _____

Reviewed By : _____

	CompuChem Samp#	Client ID#	QC Type
QC:			

POSTED 2331

CM added

Verif. Surr/Spike Addition:

Initials J.S. / Date 3/19/98

Extracts relinq. by: _____ Date: _____ Extracts rec'd by: _____ Date: _____

Extracts relinq. by: _____ Date: _____ Extracts rec'd by: _____ Date: _____

1015-980319-0712, Case: OPEN Case size: 33 Nbr other batch: 0 (Client Specific QC)

Methanol
Sodium Sulfate
$MeCl_2$ B0908

c. Matrix Spike Data

- Tabulated Results (Form I SV-1, SV-2)

- Reconstructed Ion Chromatogram and quantitation report

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PVC-1MS

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885402

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085402A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	360	E
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	49	
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	29	
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	38	
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	31	
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	46	
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	38	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PVC-1MS

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885402

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085402A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	47	
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	33	
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	64	
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	31	
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	480	EB
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

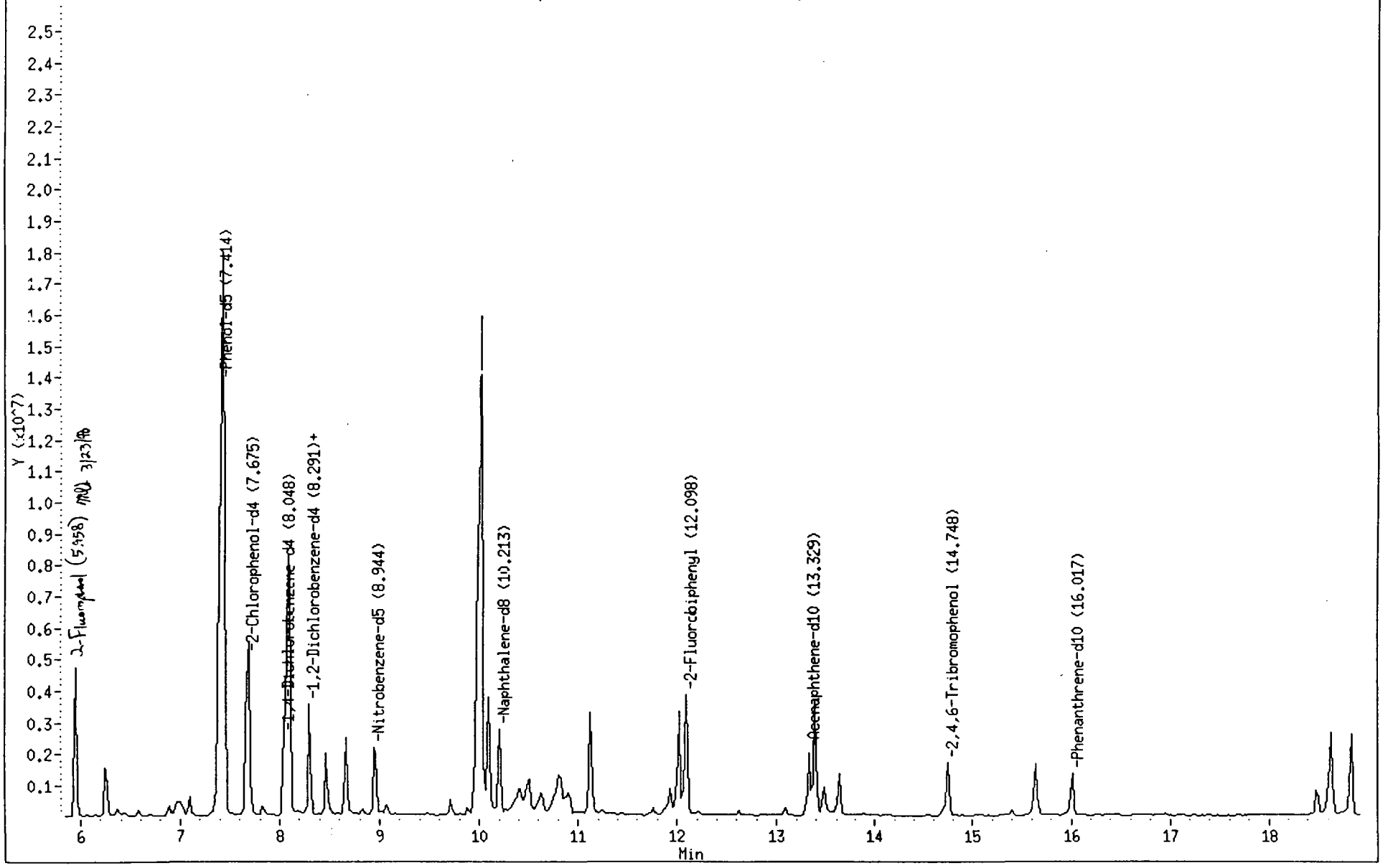
(1) - Cannot be separated from Diphenylamine

Data File: /chem/5972hp68.i/DF980321A68.b/GH085402A68.d
Date : 21-MAR-1998 10:57
Client ID: PVC-1MS
Sample Info:
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32

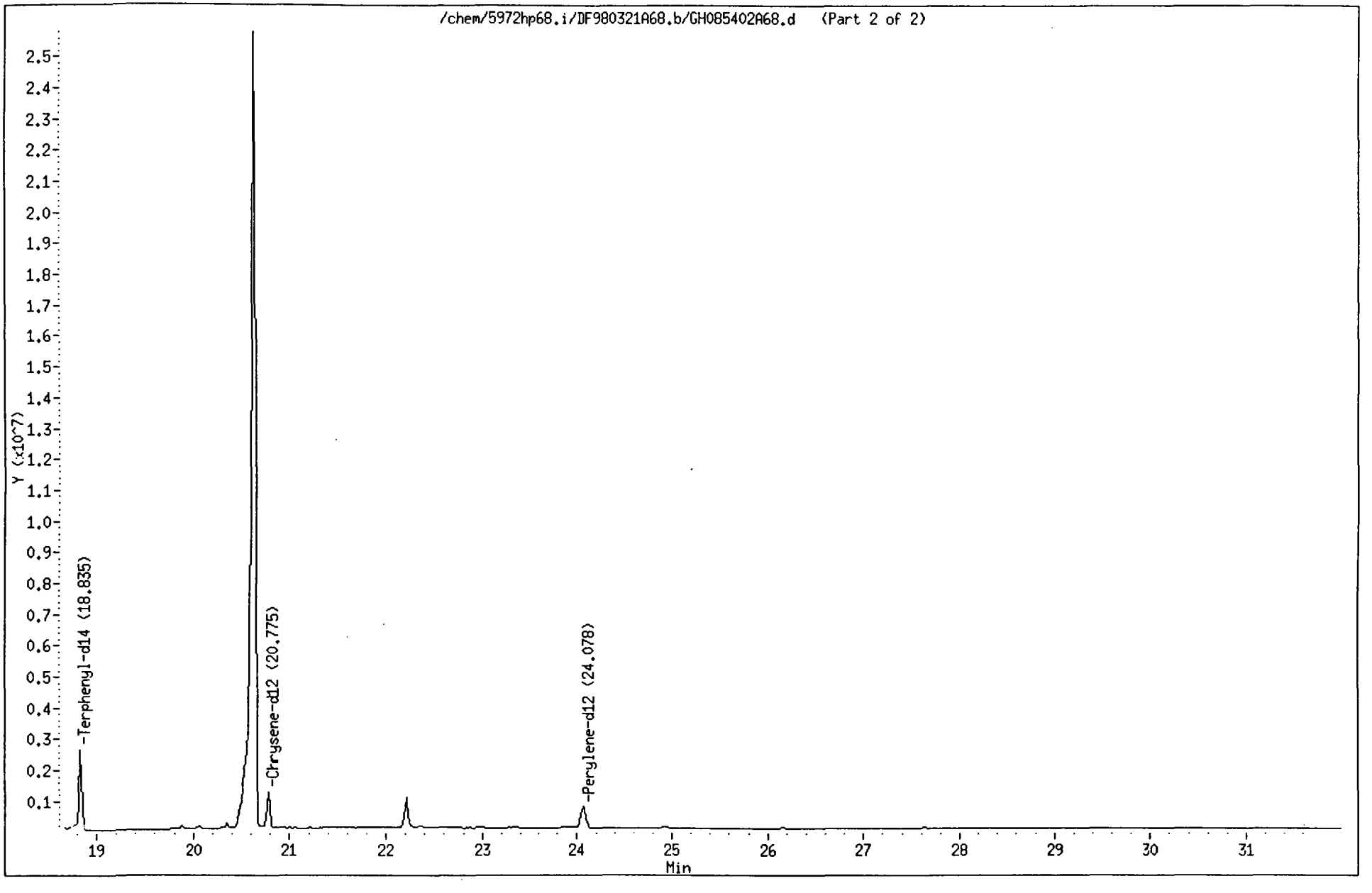
/chem/5972hp68.i/DF980321A68.b/GH085402A68.d (Part 1 of 2)



Data File: /chem/5972hp68.i/DF980321A68.b/GH085402A68.d
Date : 21-MAR-1998 10:57
Client ID: PVC-1MS
Sample Info:
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32



Data File: /chem/5972hp68.i/DF980321A68.b/GH085402A68.d
Report Date: 23-Mar-1998 10:05

CompuChem Environmental Corp.

OLM03.0 + REVISIONS QUANT AND RATIO REPORT

Data file : /chem/5972hp68.i/DF980321A68.b/GH085402A68.d
Lab Smp Id: 885402 Client Smp ID: PVC-1MS
Inj Date : 21-MAR-1998 10:57
Operator : 2242 Inst ID: 5972hp68.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp68.i/DF980321A68.b/OLM03.m
Meth Date : 23-Mar-1998 09:00 mss Quant Type: ISTD
Cal Date : 21-MAR-98 08:07 Cal File: HG980321A68.d
Als bottle: 6 QC Sample: MS
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.12
Concentration Formula: Vt/(Vo * Vi)

Name	Value	Description
Vt	500.000	Volume of final extract (uL)
Vo	500.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152.00	8.048	8.042	(1.000)	804749	40.00		
* 2 Naphthalene-d8	136.00	10.213	10.206	(1.000)	2603221	40.00		8455
* 3 Acenaphthene-d10	164.00	13.329	13.323	(1.000)	979225	40.00		9309
* 4 Phenanthrene-d10	188.00	16.017	16.010	(1.000)	1184945	40.00		9329
* 5 Chrysene-d12	240.00	20.775	20.788	(1.000)	900341	40.00		9680
* 6 Perylene-d12	264.00	24.078	24.072	(1.000)	981731	40.00		8407
$ 7 2-Fluorophenol	112.00	5.958	5.952	(0.740)	2278458	86.23	43.11	
$ 8 Phenol-d5	99.00	7.414	7.370	(0.921)	2718572	98.21	49.10	0 (M) 1
$ 9 2-Chlorophenol-d4	132.00	7.675	7.650	(0.954)	2742133	104.6	52.31	8612
$ 10 1,2-Dichlorobenzene-d4	152.00	8.291	8.303	(1.030)	1103579	63.40	31.70	(M) 2
$ 11 Nitrobenzene-d5	82.00	8.944	8.956	(0.876)	1533118	78.57	39.28	8865
$ 12 2-Fluorobiphenyl	172.00	12.098	12.091	(0.908)	2553068	81.58	40.79	8477
$ 13 2,4,6-Tribromophenol	329.60	14.748	14.741	(0.921)	545271	125.3	62.66	
$ 14 Terphenyl-d14	244.00	18.835	18.828	(0.907)	1952988	83.67	41.83	8777
15 Phenol	94.00	7.432	7.389	(0.923)	18866451	730.5	365.2	(AR)
16 bis(2-Chloroethyl)ether	93.00		7.575	Compound Not Detected.				
17 2-Chlorophenol	128.00	7.694	7.687	(0.956)	2498929	97.92	48.96	8398
18 1,3-Dichlorobenzene	146.00		7.948	Compound Not Detected.				
19 1,4-Dichlorobenzene	146.00	8.067	8.060	(1.002)	1614555	57.84	28.92	
20 1,2-Dichlorobenzene	146.00		8.322	Compound Not Detected.				
21 2-Methylphenol	108.00		8.378	Compound Not Detected.				

3/28/98

Data File: /chem/5972hp68.i/DF980321A68.b/GH085402A68.d
Report Date: 23-Mar-1998 10:05

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY
22 2,2'-oxybis(1-Chloropropane)	45.00		8.452	Compound Not Detected.				
23 4-Methylphenol	108.00		8.639	Compound Not Detected.				
24 N-Nitroso-di-n-propylamine	70.00	8.664	8.658	(1.077)	926555	75.88	37.94	8481
25 Hexachloroethane	117.00		8.900	Compound Not Detected.				
26 Nitrobenzene	77.00		8.975	Compound Not Detected.				
27 Isophorone	82.00		9.367	Compound Not Detected.				
28 2-Nitrophenol	139.00		9.535	Compound Not Detected.				
29 2,4-Dimethylphenol	107.00		9.553	Compound Not Detected.				
30 bis(2-Chloroethoxy)methane	93.00		9.721	Compound Not Detected.				
31 2,4-Dichlorophenol	162.00		9.927	Compound Not Detected.				
32 1,2,4-Trichlorobenzene	180.00	10.101	10.095	(0.989)	1178062	62.51	31.25	7581
33 Naphthalene	128.00		10.244	Compound Not Detected.				
34 4-Chloroaniline	127.00		10.300	Compound Not Detected.				
35 Hexachlorobutadiene	225.00		10.430	Compound Not Detected.				
36 4-Chloro-3-methylphenol	107.00	11.127	11.121	(1.090)	1438695	91.02	45.51	8338
37 2-Methylnaphthalene	142.00		11.457	Compound Not Detected.				
38 Hexachlorocyclopentadiene	237.00		11.737	Compound Not Detected.				
39 2,4,6-Trichlorophenol	196.00		11.942	Compound Not Detected.				
40 2,4,5-Trichlorophenol	196.00		11.998	Compound Not Detected.				
41 2-Chloronaphthalene	162.00		12.334	Compound Not Detected.				
42 2-Nitroaniline	65.00		12.483	Compound Not Detected.				
43 Dimethylphthalate	163.00		12.782	Compound Not Detected.				
44 2,6-Dinitrotoluene	165.00		12.912	Compound Not Detected.				
45 Acenaphthylene	152.00		13.080	Compound Not Detected.				
46 3-Nitroaniline	138.00		13.211	Compound Not Detected.				
47 Acenaphthene	153.00	13.385	13.398	(1.004)	1965193	76.33	38.17	9285
48 2,4-Dinitrophenol	184.00		13.416	Compound Not Detected.				
49 4-Nitrophenol	109.00	13.479	13.472	(1.011)	271929	93.42	46.71	
50 2,4-Dinitrotoluene	165.00	13.628	13.640	(1.022)	624393	66.88	33.44	7681
51 Dibenzofuran	168.00		13.696	Compound Not Detected.				
52 Diethylphthalate	149.00		14.032	Compound Not Detected.				
53 4-Chlorophenyl-phenylether	204.00		14.293	Compound Not Detected.				
54 Fluorene	166.00		14.312	Compound Not Detected.				
55 4-Nitroaniline	138.00		14.312	Compound Not Detected.				
56 4,6-Dinitro-2-methylphenol	198.00		14.368	Compound Not Detected.				
57 N-nitrosodiphenylamine	169.00		14.480	Compound Not Detected.				
58 4-Bromophenyl-phenylether	248.00		15.171	Compound Not Detected.				
59 Hexachlorobenzene	283.90		15.301	Compound Not Detected.				
60 Pentachlorophenol	266.00	15.643	15.656	(0.977)	502007	129.1	64.56	8351
61 Phenanthrene	178.00		16.066	Compound Not Detected.				
62 Anthracene	178.00		16.160	Compound Not Detected.				
63 Carbazole	167.00		16.421	Compound Not Detected.				
64 Di-n-butylphthalate	149.00		16.962	Compound Not Detected.				
65 Fluoranthene	202.00		18.212	Compound Not Detected.				
66 Pyrene	202.00	18.629	18.623	(0.897)	2130386	61.38	30.69	
67 Butylbenzylphthalate	149.00		19.649	Compound Not Detected.				
68 3,3'-Dichlorobenzidine	252.00		20.657	Compound Not Detected.				
69 bis(2-Ethylhexyl)phthalate	149.00	20.626	20.620	(0.993)	24491894	961.0	480.5	7635(AH)
70 Benzo(a)anthracene	228.00		20.769	Compound Not Detected.				

Data File: /chem/5972hp68.i/DF980321A68.b/GH085402A68.d
Report Date: 23-Mar-1998 10:05

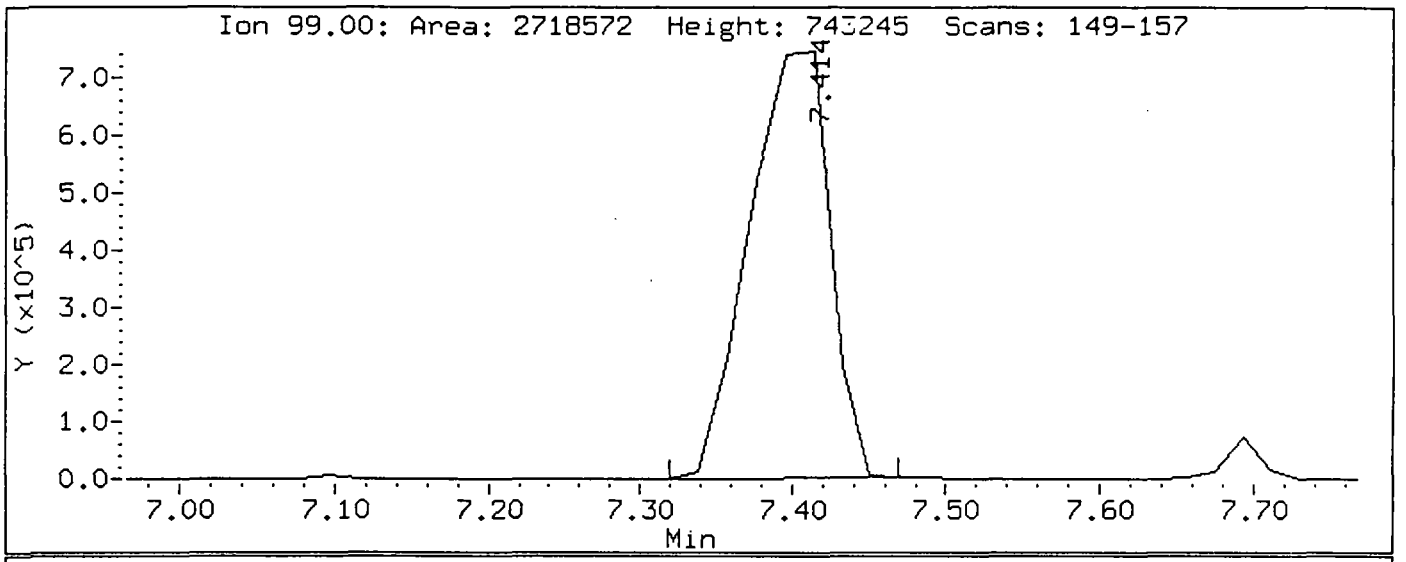
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY
71 Chrysene	228.00		20.825	Compound Not Detected.				
72 Di-n-octylphthalate	149.00		21.833	Compound Not Detected.				
73 Benzo(b)fluoranthene	252.00		23.027	Compound Not Detected.				
74 Benzo(k)fluoranthene	252.00		23.102	Compound Not Detected.				
75 Benzo(a)pyrene	252.00		23.923	Compound Not Detected.				
76 Indeno(1,2,3-cd)pyrene	276.00		27.674	Compound Not Detected.				
77 Dibenzo(a,h)anthracene	278.00		27.692	Compound Not Detected.				
78 Benzo(g,h,i)perylene	276.00		28.794	Compound Not Detected.				

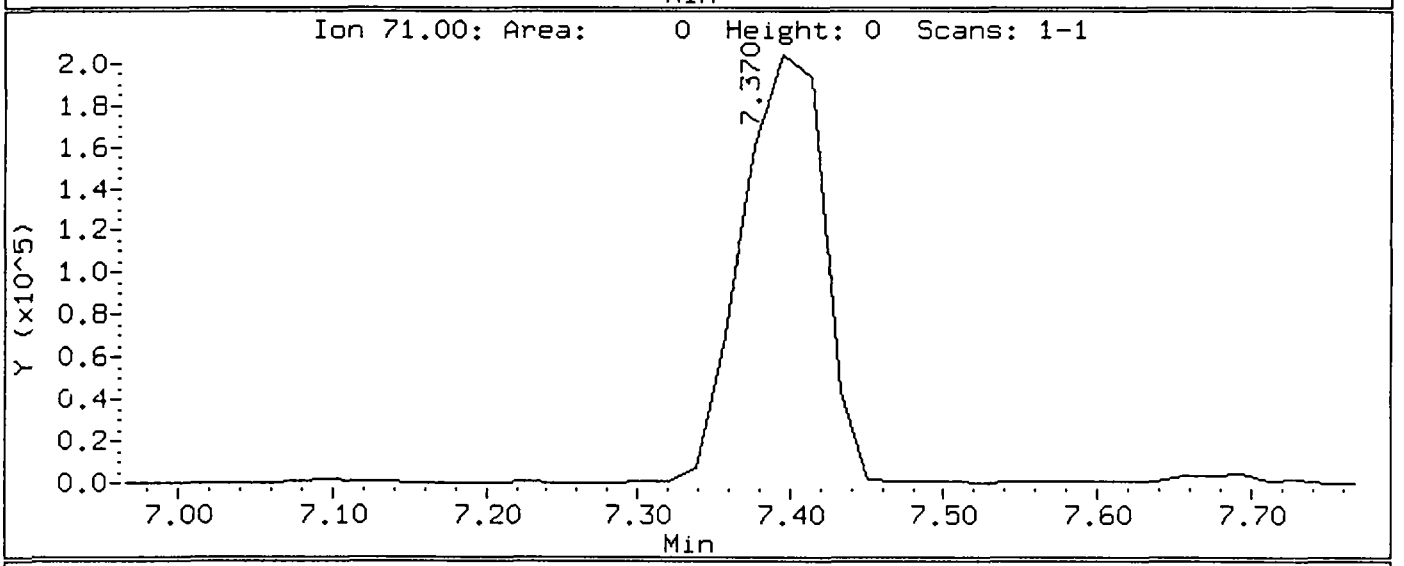
QC Flag Legend

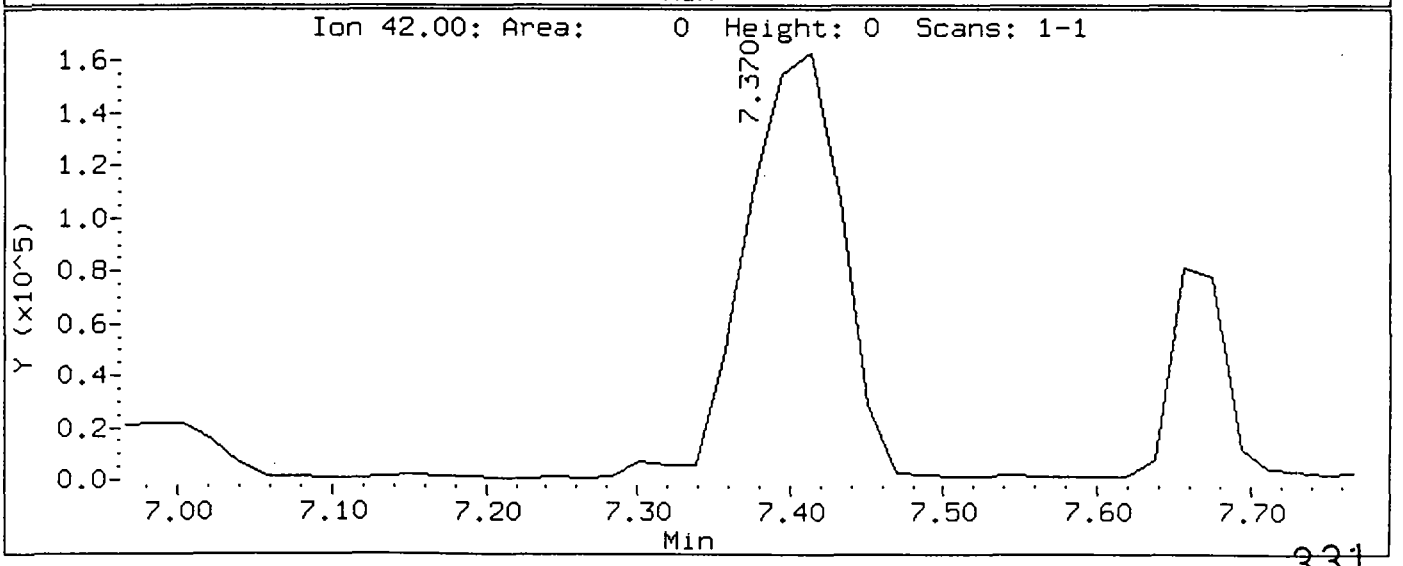
A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /chem/5972hp68.i/DF980321A68.b/GH085402A68.d
Injection Date: 21-MAR-98 10:57
Instrument: 5972hp68.i
Client Sample ID: PVC-1MS

Compound: Phenol-d5
CAS Number: 4165-62-2

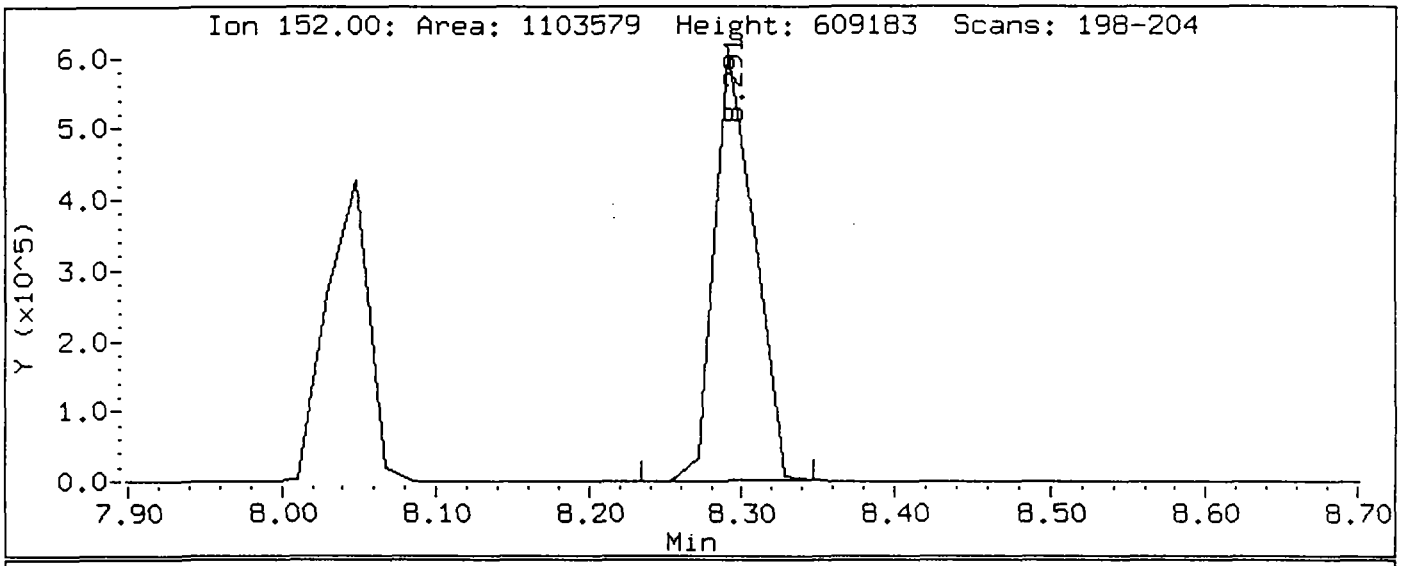


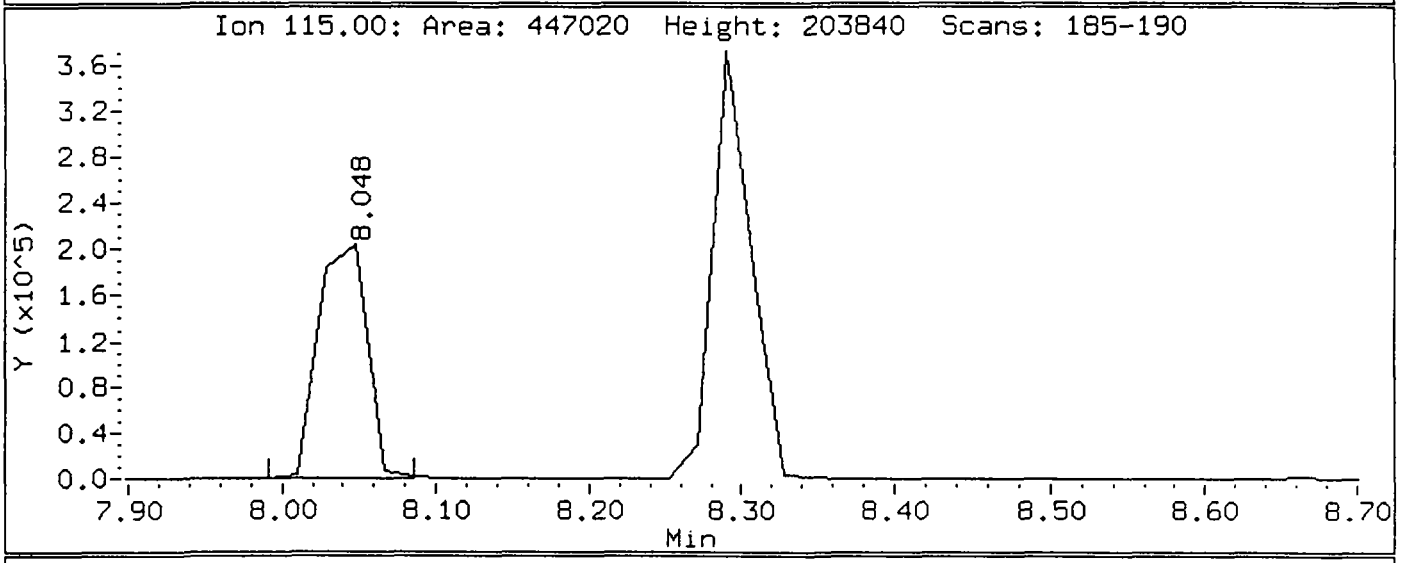


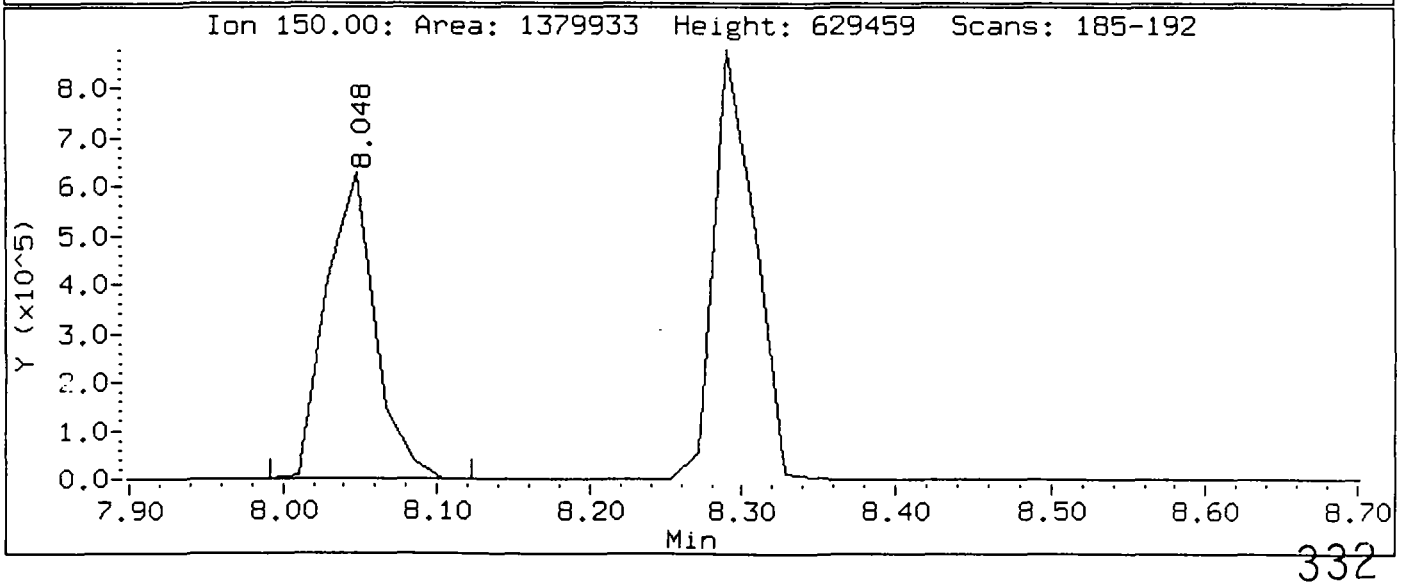


Data File: /chem/5972hp68.i/DF980321A68.b/GH085402A68.d
Injection Date: 21-MAR-98 10:57
Instrument: 5972hp68.i
Client Sample ID: PVC-1MS

Compound: 1,2-Dichlorobenzene-d4
CAS Number: 2199-69-1

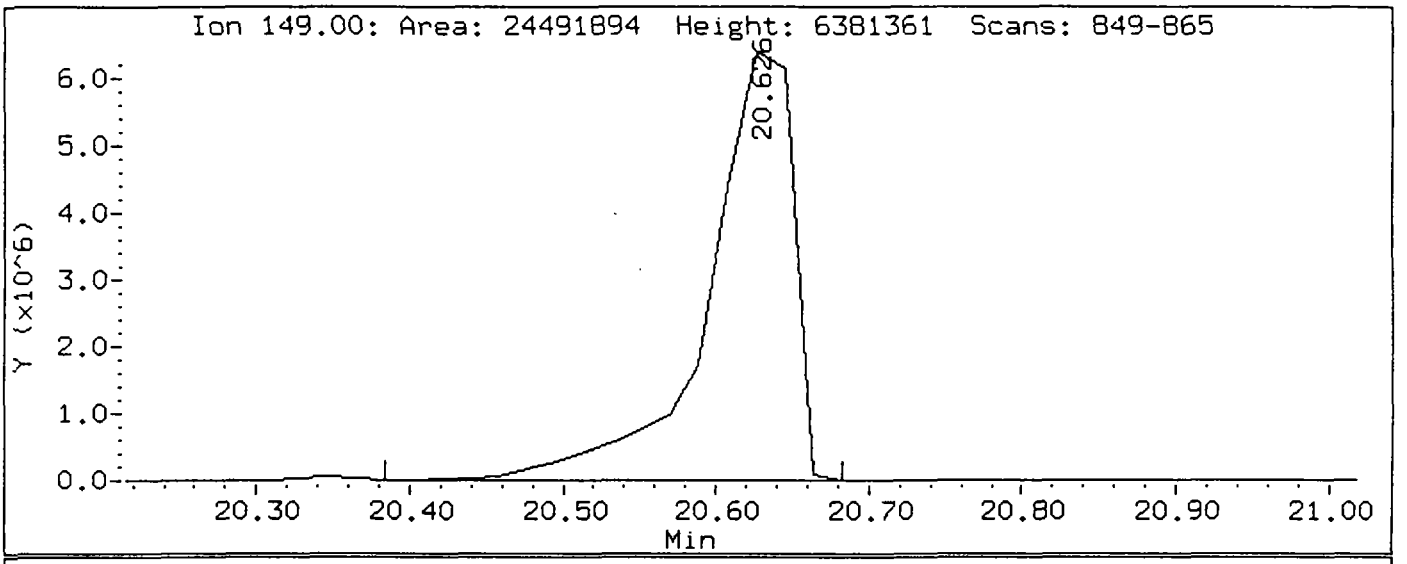


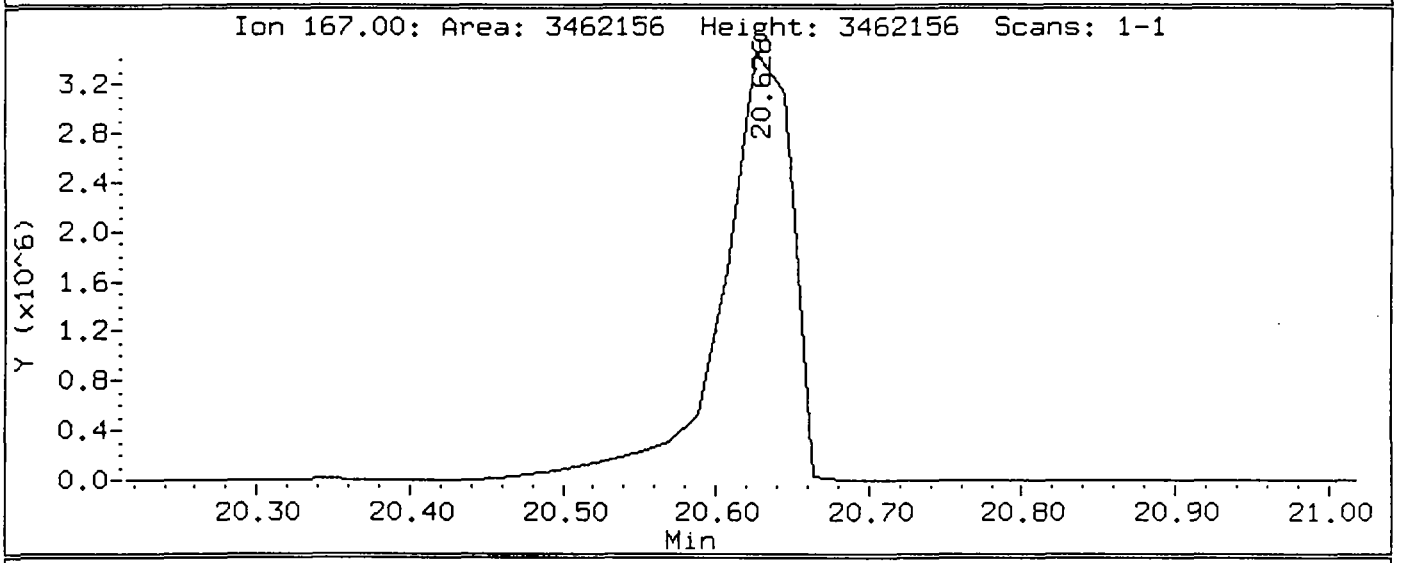


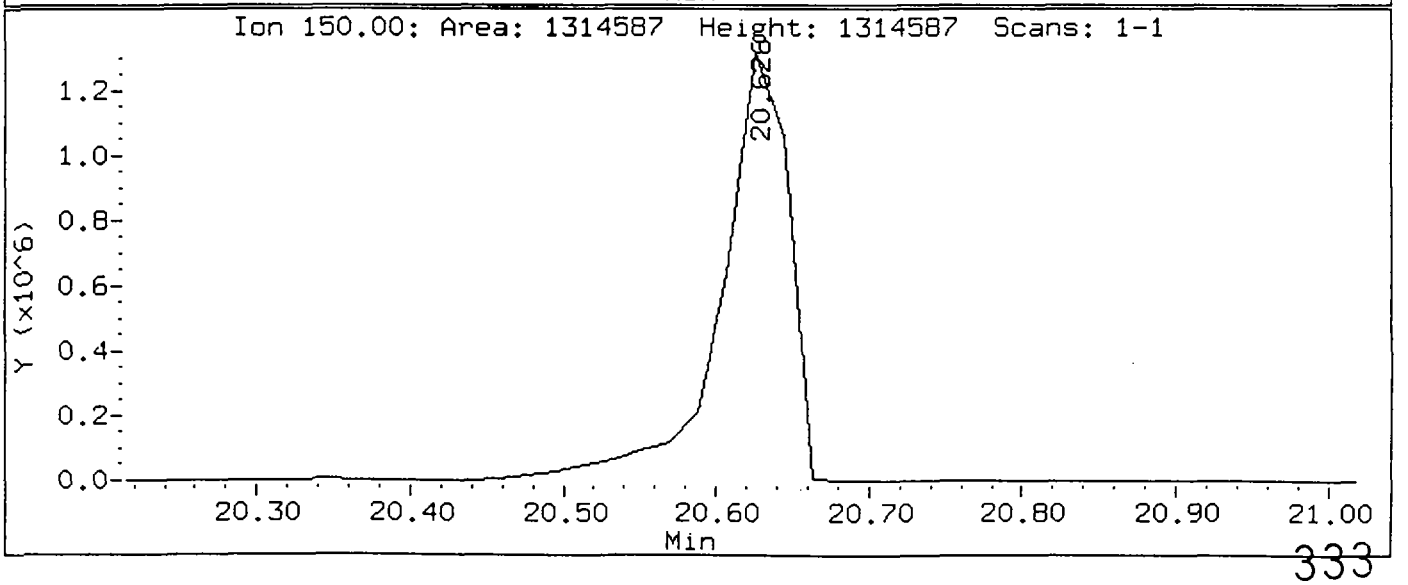


Data File: /chem/5972hp68.i/DF980321A68.b/GH085402A68.d
Injection Date: 21-MAR-98 10:57
Instrument: 5972hp68.i
Client Sample ID: PVC-1MS

Compound: bis(2-Ethylhexyl)phthalate
CAS Number: 117-81-7







LAB INSTRUCTIONS: PPS#: _____
NO PPS/FULL CLP/USE 500ML IN EXTRACTION

RECEIPT DATE: 03/18/98 CASE#: 33472 MWTT1 DUE DATE: 03/24/98

SEMI-VOLATILE J[ ] J3[ ] D[ ] { :1}
GC/MS WORKSHEET COMPUCHEM#: 885402
J2[ ] J4[ ] D2[ ] { :1}

GC/MS; TCL SV; WATER; SOW OLMO3.1

Sample Prep Code--- -1015
Instrument Code---- 463
Compound List------ 804
Surrogate Std------ 431
Internal Std------- 50

Sample date: Report type: 0

==========

SAMPLE ID#: AVC-1 MS

==========

GC/MS ANALYSIS
Volumes mixed: BN _____ ul Acid _____ ul
Internal Standard Volume Added 5 ul
Mixed Sample Volume Injected 2 ul
Date Sample Bottle Analyzed 3/19/98
DFTPP Filename DF980321A68 Disk ( )
Standard Filename HG980321ALP Disk ( )
Sample Filename GH085407ALC Disk ( )

ANALYST(S): Injection 7242 Work-up 7323

==========

GC/MS REVIEW

CONDITION CODE: OK

Disposition:
[✓] Complete
[ ] Reinjection required
[ ] Reextraction required
[ ] Dilute (:1)
[ ] Reinject Neat
[ ] Send to QA

Extraneous Peak Search Results:

# of Peaks Found: N/A

# of Hits: 12

# of Surrogate Outliers: ϕ

Quality Assurance Notice(s):

Notices Required ϕ

COMMENTS:

#GC/MS Review [signature] Date 3/23/98 Auditor_____ Date____/____/____

==========

REPORT INTEGRATION Total # of Injections: _____
Final Reportable Package(s): GH085402A68 /_____

==========

QA COMMENTS:

Initials_____ Date____/____/____

==========

FINAL REVIEW: Initials_____ Date____/____/____
AC1350

S3/1 R3/18 D3/24 HT 3/24

3-20-1

Batch: 1015-980319-0712 COMPUCHEM ENVIRONMENTAL CORP.

Date Extracted/Posted: 3/19/98

Assigned to Carrie/Jeremy EXTRACTION WORKSHEET

Emp.ID number: 2330/2331 EPA CLP SOW

Semi Volatile Waters EPA CLP SOW Continuous Extraction Queue #51

CASE/SDG: 33234.0092W 33472.MWCTI Proc: -1015 Manual counter: ~~934~~ 1344/948

CONTRACT: _____ DUE DATE: 03/24/98

Auto Counter 1343 / 788

Original Entered for SS's 885405

Initials / Date J.S. / 3/19/98

	CompuChem Sample Number	Client ID#		Bottle #	Sample Volume (mL)	Final Volume (mL)	Initial PH	Adj. PH ACID	Final Volume	Comments
1	885413	SLCSLD	03/19	D.I.	1000	1.0	7.0	1.6		
2	885412	SBLKLD	03/19	D.I.	1000	1.0	7.0	1.6		
3	885357	BS	03/18	D.I.	1000	1.0	7.0	1.6		1343/787 PPS585
4	885356	U4G00907	03/18	7 of 8	1000	1.0	6.5	1.6		
5	885358	BSD	03/18	D.I.	1000	1.0	7.0	1.6		
6	885405 *	PVC-1	03/18	2 of 2	500	.5	7.0	1.6		USE 885405 FOR 885402 & 885403.
7	885401 *	POLY-1	03/18	1 of 1	500	.5	7.0	1.6		
8	885402 *	SS	03/18	2 of 2	500	.5	7.0	1.6		1343/788
9	885403 *	SS	03/18	1 of 2	500	.5	7.0	1.6		
10	885404 *	BLANK-1	03/18	1 of 1	500	.5	7.0	1.6		

*USE 500ml of sample volume add 0.25ml #43 Final volume = 0.5ml. Add 0.25ml #8000 to SS's.

	ID#	AMT	LOT#
Surrogate	431	0.5 mL	46796
Spike	8000	0.5 mL	47062

QC:	CompuChem Samp#	Client ID#	QC Type

Final Volume Verified: _____

Reviewed By : _____

POSTED 2331

CM added

Verif. Surr/Spike Addition:

Initials J.S. / Date 3/19/98

Extracts relinq. by: _____ Date: _____ Extracts rec'd by: _____ Date: _____

Extracts relinq. by: _____ Date: _____ Extracts rec'd by: _____ Date: _____

1015-980319-0712, Case: OPEN Case size: 33 Nbr other batch: 0 (Client Specific QC)

Methanol
Sodium Sulfate
$MeCl_2$ B0908

d. Matrix Spike Duplicate Data

- Tabulated Results (Form I SV-1, SV-2)

- Reconstructed Ion Chromatogram and quantitation report

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PVC-1MSD

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885403

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085403A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	530	E
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	44	
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	27	
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	31	
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	29	
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	48	
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	34	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PVC-1MSD

Lab Name: COMPUCHEM Contract: OLM03-REVS

Lab Code: COMPU Case No.: 33472 SAS No.: SDG No.: MWTT1

Matrix: (soil/water) WATER Lab Sample ID: 885403

Sample wt/vol: 500 (g/mL) mL Lab File ID: GH085403A68

Level: (low/med) LOW Date Received: 03/18/98

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/19/98

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/21/98

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	51	
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	34	
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	56	
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	29	
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	110	EB
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

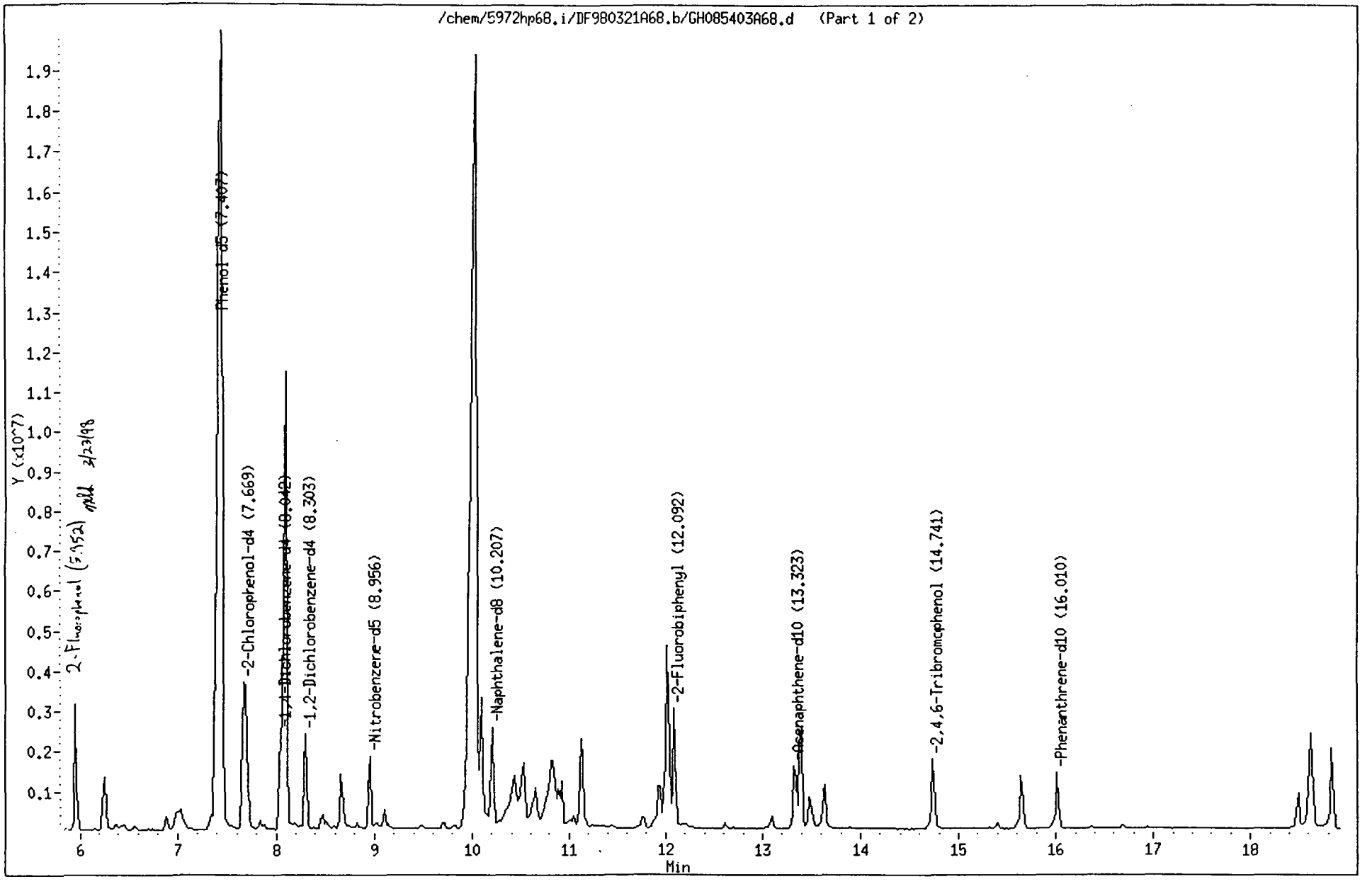
(1) - Cannot be separated from Diphenylamine

Data File: /chem/5972hp68.i/DF980321A68.b/GH085403A68.d
Date : 21-MAR-1998 11:40
Client ID: PVC-1MSD
Sample Info:
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32

339

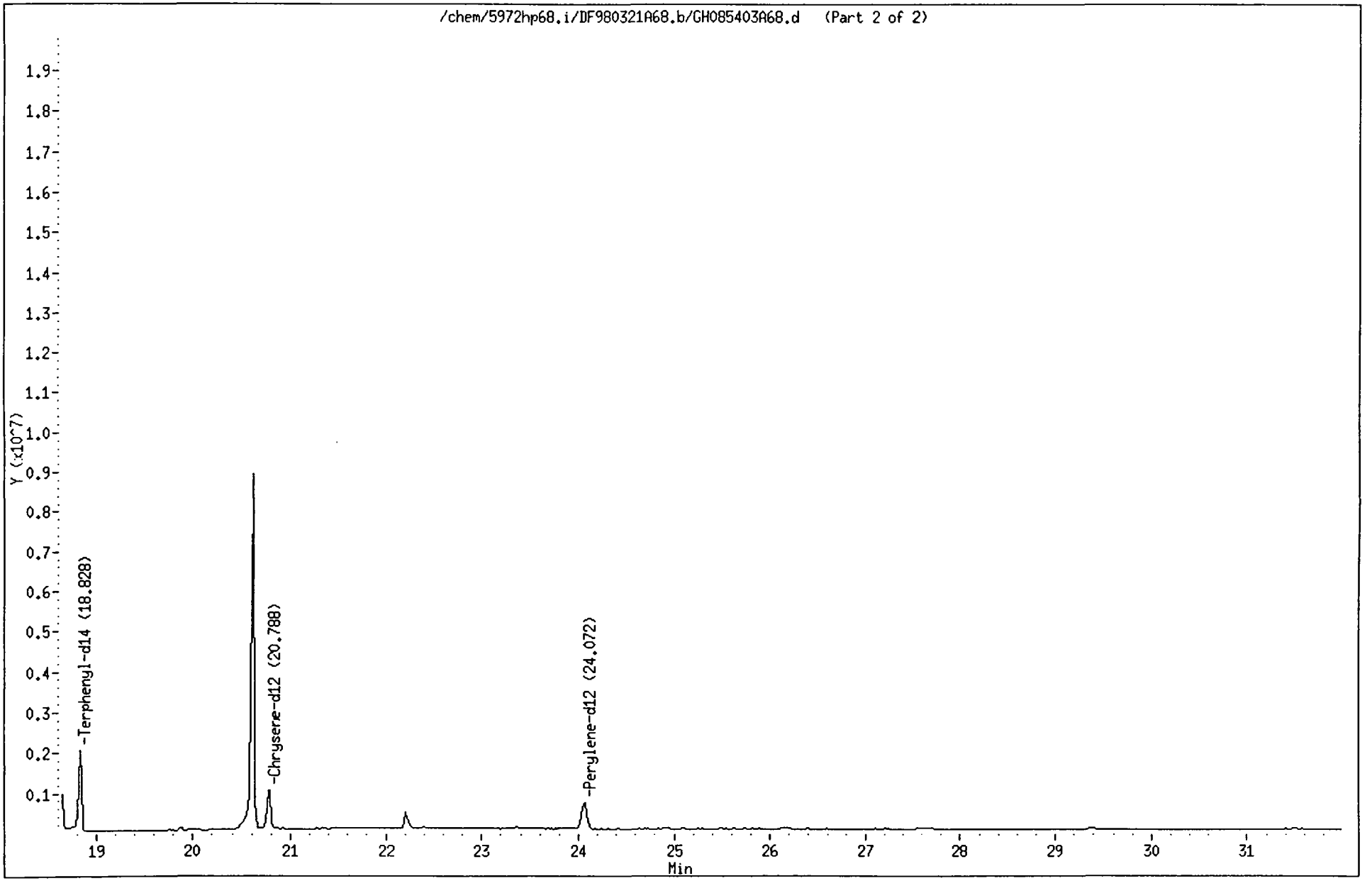


Data File: /chem/5972hp68.i/DF980321A68.b/GH085403A68.d
Date : 21-MAR-1998 11:40
Client ID: PVC-1MSD
Sample Info:
Volume Injected (uL): 2.0
Column phase: DB-5

Instrument: 5972hp68.i

Operator: 2242
Column diameter: 0.32

340



Data File: /chem/5972hp68.i/DF980321A68.b/GH085403A68.d
Report Date: 23-Mar-1998 10:14

CompuChem Environmental Corp.

OLM03.0 + REVISIONS QUANT AND RATIO REPORT

Data file : /chem/5972hp68.i/DF980321A68.b/GH085403A68.d
Lab Smp Id: 885403 Client Smp ID: PVC-1MSD
Inj Date : 21-MAR-1998 11:40
Operator : 2242 Inst ID: 5972hp68.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp68.i/DF980321A68.b/OLM03.m
Meth Date : 23-Mar-1998 09:00 mss Quant Type: ISTD
Cal Date : 21-MAR-98 08:07 Cal File: HG980321A68.d
Als bottle: 7 QC Sample: MSD
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.12
Concentration Formula: Vt/(Vo * Vi)

Name	Value	Description
Vt	500.000	Volume of final extract (uL)
Vo	500.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152.00	8.042	8.042	(1.000)	657404	40.00		
* 2 Naphthalene-d8	136.00	10.207	10.206	(1.000)	2041522	40.00		8613
* 3 Acenaphthene-d10	164.00	13.323	13.323	(1.000)	916764	40.00		9342
* 4 Phenanthrene-d10	188.00	16.010	16.010	(1.000)	1235164	40.00		9498
* 5 Chrysene-d12	240.00	20.788	20.788	(1.000)	881128	40.00		9468
* 6 Perylene-d12	264.00	24.072	24.072	(1.000)	963921	40.00		8386
$ 7 2-Fluorophenol	112.00	5.952	5.952	(0.740)	1614430	74.79	37.40	
$ 8 Phenol-d5	99.00	7.407	7.370	(0.921)	1781660	78.79	39.39	0(M)
$ 9 2-Chlorophenol-d4	132.00	7.669	7.650	(0.954)	1855572	86.66	43.33	8777
$ 10 1,2-Dichlorobenzene-d4	152.00	8.303	8.303	(1.032)	763786	53.72	26.86	
$ 11 Nitrobenzene-d5	82.00	8.956	8.956	(0.877)	1056509	69.04	34.52	8433
$ 12 2-Fluorobiphenyl	172.00	12.092	12.091	(0.908)	1874841	63.99	32.00	8927
$ 13 2,4,6-Tribromophenol	329.60	14.741	14.741	(0.921)	498272	109.8	54.93	
$ 14 Terphenyl-d14	244.00	18.828	18.828	(0.906)	1610509	70.50	35.25	9087
15 Phenol	94.00	7.445	7.389	(0.926)	22371988	1060	530.2	(AR)
16 bis(2-Chloroethyl)ether	93.00		7.575	Compound Not Detected.				
17 2-Chlorophenol	128.00	7.687	7.687	(0.956)	1814088	87.02	43.51	8812
18 1,3-Dichlorobenzene	146.00		7.948	Compound Not Detected.				
19 1,4-Dichlorobenzene	146.00	8.079	8.060	(1.005)	1221170	53.55	26.77	
20 1,2-Dichlorobenzene	146.00		8.322	Compound Not Detected.				
21 2-Methylphenol	108.00		8.378	Compound Not Detected.				

Data File: /chem/5972hp68.i/DF980321A68.b/GH085403A68.d
Report Date: 23-Mar-1998 10:14

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY
22 2,2'-oxybis(1-Chloropropane)	45.00		8.452	Compound Not Detected.				
23 4-Methylphenol	108.00		8.639	Compound Not Detected.				
24 N-Nitroso-di-n-propylamine	70.00	8.658	8.658	(1.077)	619523	62.11	31.06	8661
25 Hexachloroethane	117.00		8.900	Compound Not Detected.				
26 Nitrobenzene	77.00		8.975	Compound Not Detected.				
27 Isophorone	82.00		9.367	Compound Not Detected.				
28 2-Nitrophenol	139.00		9.535	Compound Not Detected.				
29 2,4-Dimethylphenol	107.00		9.553	Compound Not Detected.				
30 bis(2-Chloroethoxy)methane	93.00		9.721	Compound Not Detected.				
31 2,4-Dichlorophenol	162.00		9.927	Compound Not Detected.				
32 1,2,4-Trichlorobenzene	180.00	10.095	10.095	(0.989)	861907	58.32	29.16	7965
33 Naphthalene	128.00		10.244	Compound Not Detected.				
34 4-Chloroaniline	127.00		10.300	Compound Not Detected.				
35 Hexachlorobutadiene	225.00		10.430	Compound Not Detected.				
36 4-Chloro-3-methylphenol	107.00	11.121	11.121	(1.090)	1195176	96.42	48.21	8642
37 2-Methylnaphthalene	142.00		11.457	Compound Not Detected.				
38 Hexachlorocyclopentadiene	237.00		11.737	Compound Not Detected.				
39 2,4,6-Trichlorophenol	196.00		11.942	Compound Not Detected.				
40 2,4,5-Trichlorophenol	196.00		11.998	Compound Not Detected.				
41 2-Chloronaphthalene	162.00		12.334	Compound Not Detected.				
42 2-Nitroaniline	65.00		12.483	Compound Not Detected.				
43 Dimethylphthalate	163.00		12.782	Compound Not Detected.				
44 2,6-Dinitrotoluene	165.00		12.912	Compound Not Detected.				
45 Acenaphthylene	152.00		13.080	Compound Not Detected.				
46 3-Nitroaniline	138.00		13.211	Compound Not Detected.				
47 Acenaphthene	153.00	13.398	13.398	(1.006)	1638426	67.98	33.99	8963
48 2,4-Dinitrophenol	184.00		13.416	Compound Not Detected.				
49 4-Nitrophenol	109.00	13.472	13.472	(1.011)	280080	102.8	51.39	
50 2,4-Dinitrotoluene	165.00	13.640	13.640	(1.024)	599111	68.54	34.27	7632
51 Dibenzofuran	168.00		13.696	Compound Not Detected.				
52 Diethylphthalate	149.00		14.032	Compound Not Detected.				
53 4-Chlorophenyl-phenylether	204.00		14.293	Compound Not Detected.				
54 Fluorene	166.00		14.312	Compound Not Detected.				
55 4-Nitroaniline	138.00		14.312	Compound Not Detected.				
56 4,6-Dinitro-2-methylphenol	198.00		14.368	Compound Not Detected.				
57 N-nitrosodiphenylamine	169.00		14.480	Compound Not Detected.				
58 4-Bromophenyl-phenylether	248.00		15.171	Compound Not Detected.				
59 Hexachlorobenzene	283.90		15.301	Compound Not Detected.				
60 Pentachlorophenol	266.00	15.656	15.656	(0.978)	455278	112.3	56.17	7556
61 Phenanthrene	178.00		16.066	Compound Not Detected.				
62 Anthracene	178.00		16.160	Compound Not Detected.				
63 Carbazole	167.00		16.421	Compound Not Detected.				
64 Di-n-butylphthalate	149.00		16.962	Compound Not Detected.				
65 Fluoranthene	202.00		18.212	Compound Not Detected.				
66 Pyrene	202.00	18.623	18.623	(0.896)	1998380	58.83	29.41	
67 Butylbenzylphthalate	149.00		19.649	Compound Not Detected.				
68 3,3'-Dichlorobenzidine	252.00		20.657	Compound Not Detected.				
69 bis(2-Ethylhexyl)phthalate	149.00	20.620	20.620	(0.992)	5729223	229.7	114.8	7644(A)
70 Benzo(a)anthracene	228.00		20.769	Compound Not Detected.				

Data File: /chem/5972hp68.i/DF980321A68.b/GH085403A68.d
Report Date: 23-Mar-1998 10:14

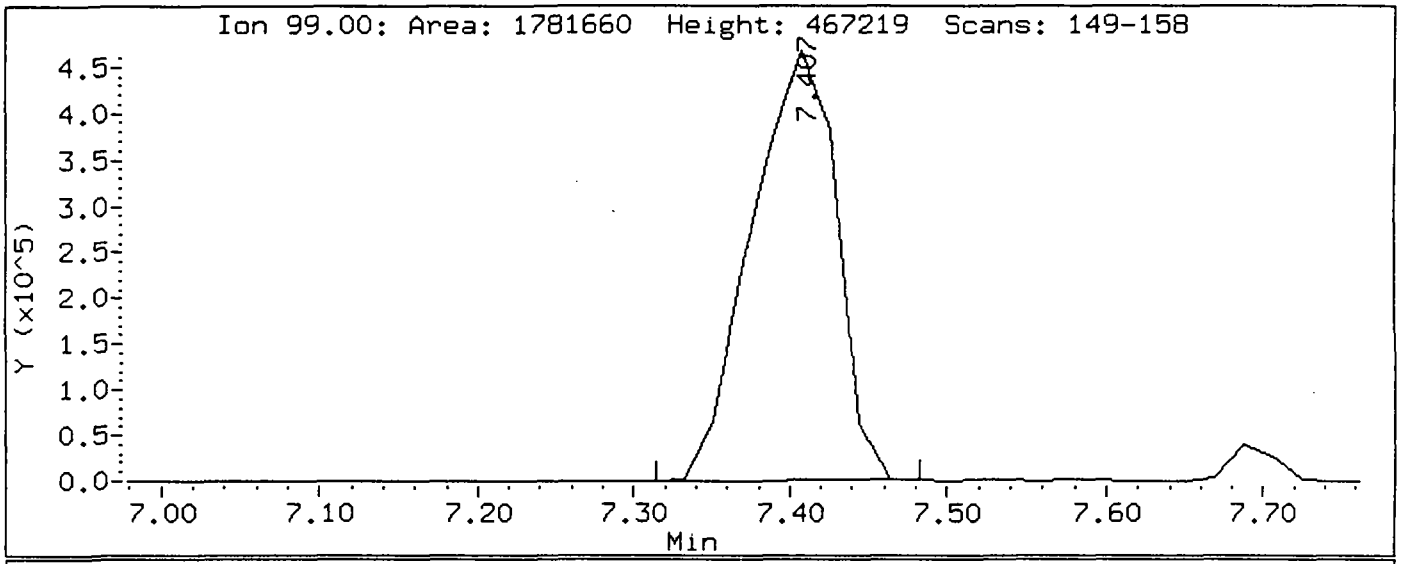
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY
71 Chrysene	228.00		20.825		Compound Not Detected.			
72 Di-n-octylphthalate	149.00		21.833		Compound Not Detected.			
73 Benzo(b)fluoranthene	252.00		23.027		Compound Not Detected.			
74 Benzo(k)fluoranthene	252.00		23.102		Compound Not Detected.			
75 Benzo(a)pyrene	252.00		23.923		Compound Not Detected.			
76 Indeno(1,2,3-cd)pyrene	276.00		27.674		Compound Not Detected.			
77 Dibenzo(a,h)anthracene	278.00		27.692		Compound Not Detected.			
78 Benzo(g,h,i)perylene	276.00		28.794		Compound Not Detected.			

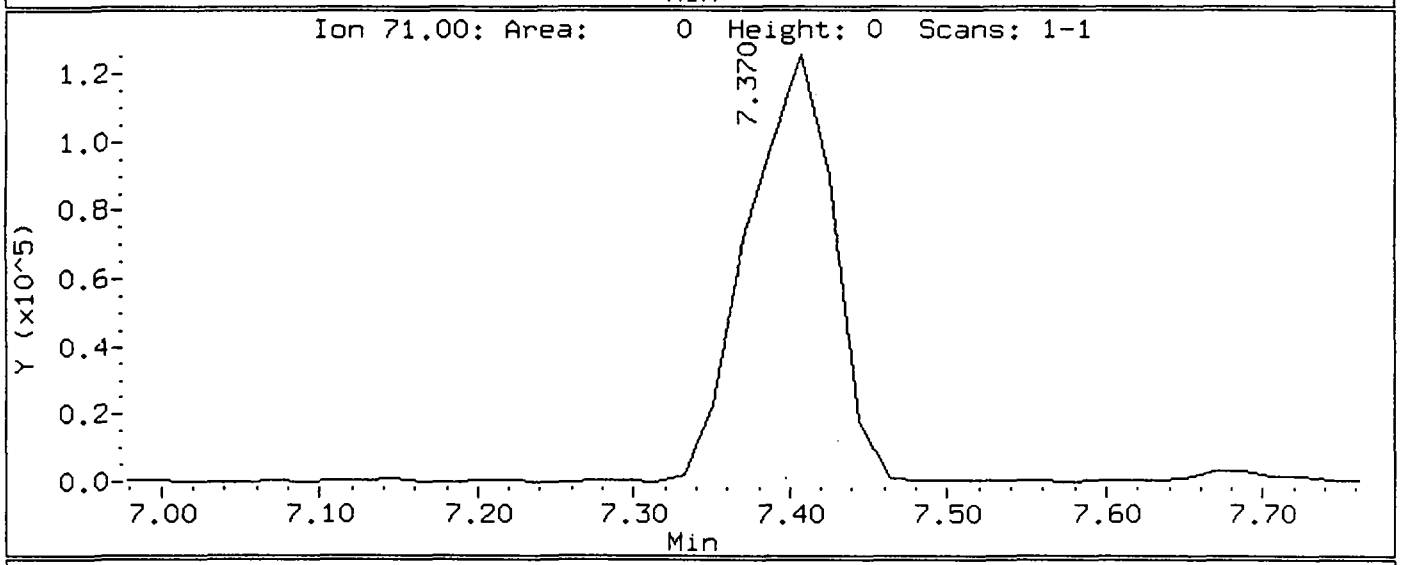
QC Flag Legend

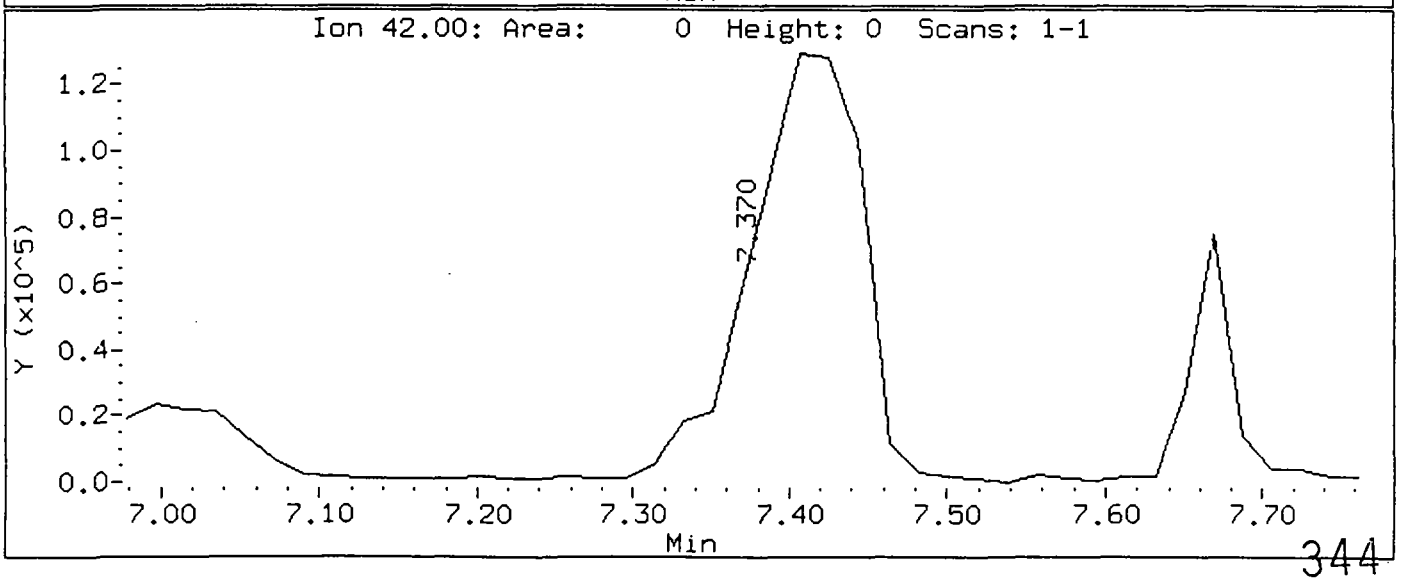
A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/5972hp68.i/DF980321A68.b/GH085403A68.d
Injection Date: 21-MAR-98 11:40
Instrument: 5972hp68.i
Client Sample ID: PVC-1MSD

Compound: Phenol-d5
CAS Number: 4165-62-2







LAB INSTRUCTIONS:
NO PPS/FULL CLP/USE 500ML IN EXTRACTION

PPS#: _____

RECEIPT DATE: 03/18/98 CASE#: 33472 MWTT1 DUE DATE: 03/24/98

SEMI-VOLATILE
GC/MS WORKSHEET COMPUCHEM#: 885403

J[ ] J3[ ] D[ ] { :1}
J2[ ] J4[ ] D2[ ] { :1}

GC/MS; TCL SV; WATER; SOW OLMO3.1

Sample date: Report type: 0

Sample Prep Code--- -1015
Instrument Code---- 463
Compound List------ 804
Surrogate Std------ 431
Internal Std------- 50

SAMPLE ID#: PVC-1 MSD

GC/MS ANALYSIS
Volumes mixed: BN _____ ul Acid _____ ul
Internal Standard Volume Added 5 ul
Mixed Sample Volume Injected 2 ul
Date Sample Bottle Analyzed 3/19/98
DFTPP Filename DF980321A68 Disk ( )
Standard Filename HC980321AC8 Disk ( )
Sample Filename GH085403AC8 Disk ( )

ANALYST(S): Injection 2242 Work-up 2323

GC/MS REVIEW

CONDITION CODE OK

Disposition:
[✓] Complete
[ ] Reinjection required
[ ] Reextraction required
[ ] Dilute (:1)
[ ] Reinject Neat
[ ] Send to QA

Extraneous Peak Search Results:

# of Peaks Found: N/A

# of Hits: 12

# of Surrogate Outliers: Ø

Quality Assurance Notice(s):

Notices Required Ø

COMMENTS:

#GC/MS Review [signature] Date 3/23/98 Auditor_____ Date____/____/____

REPORT INTEGRATION Total # of Injections: _____
Final Reportable Package(s): GHC85403A68 /_____

QA COMMENTS:

Initials_____ Date____/____/____

FINAL REVIEW: Initials_____ Date____/____/____
AC1350

53/17 53/18 53/19 53/20

5-20-1

Batch: 1015-980319-0712 COMPUCHEM ENVIRONMENTAL CORP. Date Extracted/Posted: 3/19/98

Assigned to Carrie/Jeremy EXTRACTION WORKSHEET

Emp. ID number: 2330/2331 EPA CLP SOW

Semi Volatile Waters EPA CLP SOW Continuous Extraction Queue #51

CASE/SDG: 33234.0092W 33472.MWTT Proc: -1015 Manual counter: ~~934~~ 1344/948

CONTRACT: _____ DUE DATE: 03/24/98

Auto Counter 1343 / 788

Original Entered for SS's 885405

Initials / Date J.S. / 3/19/98

	CompuChem Sample Number	Client ID#		Bottle #	Sample Volume (mL)	Final Volume (mL)	Initial PH	Adj. PH ACID	Final Volume	Comments
1	885413	SLCSLD	03/19	D.I.	1000	1.0	7.0	1.6		
2	885412	SBLKLD	03/19	D.I.	1000	1.0	7.0	1.6		
3	885357	BS	03/18	D.I.	1000	1.0	7.0	1.6		1343/787 PPS585
4	885356	U4G00907	03/18	7 of 8	1000	1.0	6.5	1.6		
5	885358	BSD	03/18	D.I.	1000	1.0	7.0	1.6		
6	885405 *	PVC-1	03/18	2 of 2	500	.5	7.0	1.6		USE 885405 FOR 885402 & 885403.
7	885401 *	POLY-1	03/18	1 of 1	500	.5	7.0	1.6		
8	885402 *	SS	03/18	2 of 2	500	.5	7.0	1.6		1343/788
9	885403 *	SS	03/18	1 of 2	500	.5	7.0	1.6		
10	885404 *	BLANK-1	03/18	1 of 1	500	.5	7.0	1.6		

*USE 500ml of sample volume + add 0.25ml #431. Final volume = 0.5ml Add 0.25ml #8000 to SS's.

	ID#	AMT	LOT#
Surrogate	431	0.5 mL	46796
Spike	8000	0.5 mL	47062

Final Volume Verified: _____

Reviewed By : _____

	CompuChem Samp#	Client ID#	QC Type
QC:			

POSTED 2331

CM added

Verif. Surr/Spike Addition:

Initials J.S. / Date 3/19/98

Extracts relinq. by: _____ Date: _____ Extracts rec'd by: _____ Date: _____

Extracts relinq. by: _____ Date: _____ Extracts rec'd by: _____ Date: _____

1015-980319-0712, Case: OPEN Case size: 33 Nbr other batch: 0 (Client Specific QC)

Methanol
Sodium Sulfate
$MeCl_2$ B0908

e. GPC Data

- UV traces labeled with the GPC column ID, date of calibration, and compound names.

- Reconstructed Ion Chromatogram and data system reports for the GPC blank analysis.

- Reconstructed Ion Chromatogram and data system reports for all standards used to quantify compounds in the GPC blank.

- If more than one GPC Blank is needed, they shall be in chronological order by date of preparation of the methylene chloride blank, and then by instrument.