Cambridge Analytical Associates
1106 Commonwealth Avenue / Boston, Massachusetts 02215 / (617) 232-2207

December 14, 1988

Mr. Stefan Sokol
Balsam Environmental Consultants, Inc.
59 Stiles Road
Salem, NH 03079

RE: Data Package for Soil Samples Collected 11/88.

Dear Stefan:

Enclosed are the Volatiles and ABN data packages for soil samples collected at the Mottolo PRP Site during November, 1988. The Inorganics and Pesticide/PCB data will follow shortly. The compound-specific searches for THF and MTBE will also follow shortly. These searches will be paginated for easy insertion into the attached VOA package.

There were no unusual problems encountered during sample analysis. Should you require any additional information, please do not hesitate to call me.

Sincerely,

Edward A. Lawler
Project Manager

Enclosure

Cambridge Analytical Associates

CLP 7/87 Organics Deliverables Inventory

Case: Mottolo - 11/86 Soils

CAA Project Number: 88-11-138

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Cambridge Analytical Associates

CLP 7/87 Organics Deliverables Inventory (cont'd)

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88/11/D05

CHAIN-OF-CUSTODY RECORD

BALSAM ENVIRONMENTAL CONSULTANTS, INC.
59 STILES RD.
SALEM N.H., 03079

PROJECT NAME			
PROJECT ADDRESS	PROJECT NO. 6185	SAMPLERS (SIGNATURES) 92 Mobile field	Stefan C. Sobol

I.D. NUMBER	SAMPLING LOCATION	DATE	TIME	SAMPLE TYPE: SOIL	WATER	OIL	AIR	BULK	NO. OF CONTAINERS	ANALYSES	COMMENTS
MTL-SS-D5-001		11/9/88	835	X					3	Full HSL (VOA, BNA, Pest/PCBs), THF and MBTE	HNu: 230 ppm
										Determine total organic content	
MTL-SS-F5-006		11/8/88	1140	X					3	Full HSL (VOA, BNA, Pest/PCBs), THF and MBTE	HNu: 75 ppm
										Determine total organic content	
MTL-SS-E6.5-002		11/8/88	1358	X					3	Full HSL (VOA, BNA Pest/PCBs), THF and MTBE	HNu 40 ppm
										Determine total organic content	
Trip Blanks		11/4/88			X				2		

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
Stefan C. Sobol	11/9/88	2:00 PM	CAMPBELL Analytical	11/9/88	11/9/88
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
C	11/9/88	4:00 PM		11/9/88	16:00 (AD)
RELINQUISHED BY:	DATE:	TIME:	RECEIVED FOR LABORATORY BY:	DATE:	TIME:
METHOD OF SHIPMENT:			AIRBILL (OR SHIPPING INVOICE) NUMBER:		

10001

CAA

BALSAM
ENVIRONMENTAL CONSULTANTS, INC.

SAMPLE DATA SHEET

PROJECT NAME: _____
PROJECT NUMBER: 6185
DATE COLLECTED: 11/8/88
TIME COLLECTED: 1358
COLLECTED BY: G. Garfield
DATE RECEIVED BY/SHIPPED TO LAB: _____
LABORATORY: _____

SAMPLE NUMBER: MTL-SS-E6.5-002
SAMPLE TYPE:
GRAB ~~✓~~ 11/8/88 OTHER _____
COMPOSITE ✓ _____
ANALYSES REQUESTED:
ORGANICS ✓ INORGANICS ✓
VOA ONLY _____ OTHER MTBE
EXTRACTABLES ✓ THF
PRESERVATIVES: _____

SAMPLE MEDIUM (circle or fill in appropriate catagories):

SOIL (circled)

DEVICE	SOIL TYPE
AUGER	ROCK
CORE	GRAVEL
SPLIT SPOON (circled)	SAND
SPADE	CLAY
OTHER: _____	SILT
	MUCK
DEPTH Ft. or In. 2 0 to 4 0 Ft. or In.	LOAM
	PEAT
	OTHER: _____
	COLOR: _____

GROUND WATER

DEVICE		SOURCE
BAILER	WATER TABLE DEPTH ____ Ft.	MONITORING WELL
POND SAMPLER	SAMPLE DEPTH ____ Ft.	RESIDENTIAL WELL
TAP		DUG WELL
SAMPLE JAR		SEEP
OTHER: _____	COLOR: _____	TEST PIT
_____	ODOR: _____	PIEZOMETER
_____	TEMP (C°): _____	OTHER: _____
	pH: _____	_____
	CONDUCTIVITY: _____	_____

SEDIMENT

DEVICE	SEDIMENT TYPE
AUGER	OOZE
TROWEL	SAND
SAMPLE JAR	GRAVEL
DREDGE	CLAY
OTHER: _____	RUBBLE
DEPTH Ft. or In.	ROCK
	SHELL
	ORGANIC
	OTHER: _____
	COLOR: _____

SURFACE WATER

DEVICE		STATUS
KEMMERER	STREAM WIDTH ____ Ft.	CLEAN
PETERSEN	DEPTH ____ Ft. or In.	OIL
BUCKET	VELOCITY ____ Ft/Sec	GARBAGE
SAMPLE JAR		BUBBLES
OTHER: _____	COLOR: _____	SEWAGE
_____	ODOR: _____	IND. WASTE
_____	TEMP (C°): _____	SUSP. SOLIDS
	pH: _____	OTHER: _____
	CONDUCTIVITY: _____	_____
		_____

REMARKS: HNu: 40ppm above background

SAMPLE LOCATION MAP:

SAMPDA

20002

BALSAM
ENVIRONMENTAL CONSULTANTS, INC.

SAMPLE DATA SHEET

PROJECT NAME: ___
PROJECT NUMBER: 0151
DATE COLLECTED: 11/15/88
TIME COLLECTED: 1140
COLLECTED BY: G. Garfield
DATE RECEIVED BY/SHIPPED TO LAB: ___
LABORATORY: ___

SAMPLE NUMBER: MTL-SS-FS-0006
SAMPLE TYPE:
GRAB ✓ 11/15/88 OTHER ___
COMPOSITE ✓
ANALYSES REQUESTED:
ORGANICS ✓ INORGANICS ✓
VOA ONLY ___ OTHER MTBE
EXTRACTABLES ✓ THF
PRESERVATIVES: ___

SAMPLE MEDIUM (circle or fill in appropriate catagories):

SOIL

DEVICE	SOIL TYPE
AUGER	ROCK
CORE	GRAVEL
(SPLIT SPOON)	SAND
SPADE	CLAY
OTHER: ___	SILT
	MUCK
DEPTH Ft. or In.	LOAM
10 0 to	PEAT
12 0 Ft. or In.	OTHER: ___
	COLOR: ___

GROUND WATER

DEVICE		SOURCE
BAILER	WATER TABLE DEPTH ____ Ft.	MONITORING WELL
POND SAMPLER	SAMPLE DEPTH ____ Ft.	RESIDENTIAL WELL
TAP		DUG WELL
SAMPLE JAR		SEEP
OTHER: ___	COLOR: ___	TEST PIT
	ODOR: ___	PIEZOMETER
	TEMP (C°): ___	OTHER: ___
	pH: ___	
	CONDUCTIVITY: ___	

SEDIMENT

DEVICE	SEDIMENT TYPE
AUGER	OOZE
TROWEL	SAND
SAMPLE JAR	GRAVEL
DREDGE	CLAY
OTHER: ___	RUBBLE
DEPTH Ft. or In.	ROCK
	SHELL
	ORGANIC
	OTHER: ___
	COLOR: ___

SURFACE WATER

DEVICE		STATUS
KEMMERER	STREAM WIDTH ____ Ft.	CLEAN
PETERSEN	DEPTH ____ Ft. or In.	OIL
BUCKET	VELOCITY ____ Ft/Sec	GARBAGE
SAMPLE JAR		BUBBLES
OTHER: ___	COLOR: ___	SEWAGE
	ODOR: ___	IND. WASTE
	TEMP (C°): ___	SUSP. SOLIDS
	pH: ___	OTHER: ___
	CONDUCTIVITY: ___	

REMARKS: HNu: 75 ppm above background

SAMPLE LOCATION MAP:

SAMPDATA

20003

BALSAM
ENVIRONMENTAL CONSULTANTS, INC.

SAMPLE DATA SHEET

MTL-SS-D5-001
~~ESA~~

PROJECT NAME: _____
PROJECT NUMBER: 6185
DATE COLLECTED: 11/9/88
TIME COLLECTED: 835
COLLECTED BY: D. Seiken
DATE RECEIVED BY/SHIPPED TO LAB: _____
LABORATORY: _____

SAMPLE NUMBER: ~~MTL-SS-D5-001~~ SS 11/7/88
SAMPLE TYPE:
GRAB ✓ SS 11/9/88 OTHER _____
COMPOSITE ✓
ANALYSES REQUESTED:
ORGANICS ✓ INORGANICS ✓
VOA ONLY ~~✓~~ OTHER MTBE THF
EXTRACTABLES ✓
PRESERVATIVES: _____

SAMPLE MEDIUM (circle or fill in appropriate catagories):

SOIL

DEVICE	SOIL TYPE
AUGER	ROCK
CORE	GRAVEL
(SPLIT SPOON)	SAND
SPADE	CLAY
OTHER: _____	SILT
DEPTH Ft. or In. 4 0	MUCK
to Ft. or In. 6 0	LOAM
	PEAT
	OTHER: _____
	COLOR: _____

GROUND WATER

DEVICE		SOURCE
BAILER	WATER TABLE DEPTH ____ Ft.	MONITORING WELL
POND SAMPLER	SAMPLE DEPTH ____ Ft.	RESIDENTIAL WELL
TAP		DUG WELL
SAMPLE JAR		SEEP
OTHER: _____	COLOR: _____	TEST PIT
	ODOR: _____	PIEZOMETER
	TEMP (C°): _____	OTHER: _____
	pH: _____	
	CONDUCTIVITY: _____	

SEDIMENT

DEVICE	SEDIMENT TYPE
AUGER	OOZE
TROWEL	SAND
SAMPLE JAR	GRAVEL
DREDGE	CLAY
OTHER: _____	RUBBLE
DEPTH Ft. or In.	ROCK
	SHELL
	ORGANIC
	OTHER: _____
	COLOR: _____

SURFACE WATER

DEVICE		STATUS
KEMMERER	STREAM WIDTH ____ Ft.	CLEAN
PETERSEN	DEPTH ____ Ft. or In.	OIL
BUCKET	VELOCITY ____ Ft/Sec	GARBAGE
SAMPLE JAR	COLOR: _____	BUBBLES
OTHER: _____	ODOR: _____	SEWAGE
	TEMP (C°): _____	IND. WASTE
	pH: _____	SUSP. SOLIDS
	CONDUCTIVITY: _____	OTHER: _____

REMARKS: Blows 6-11-12-27
Rec 10/24
wet, grey f-c SAND and SILT some Gravel

HNu Reading 230 ppm
wind background
SS 11/9/88

SAMPLE LOCATION MAP:

SAMPDAT

20004

ORGANICS FLAGS

The seven EPA-defined qualifiers to be used are as follows:

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

B - This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified TCL compound.

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides $\geq$10 ng/ul in the final extract shall be confirmed by GC/MS.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and all concentration values reported on that Form I are flagged with the "D" flag.

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and re-analyzed according to the specifications in Exhibit D. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I for the original analysis. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses shall be reported on separate Forms I. The Form I for the diluted sample shall have the "DL" suffix appended to the sample number.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identificatior criteria but the result is less than the sample quantitation limit but greater than zero. For example, if the sample quantitation limit is 10 ug/L, but a concentration of 3 ug/L is calculated, report it as 3J. The sample quantitation limit must be adjusted for both dilution and percent moisture as discussed for the U flag, so that if a sample with 24% moisture and a 1 to 10 dilution factor has a calculated concentration of 300 ug/L and a sample quantitation limit of 430 ug/kg, report the concentration as 300J on Form I.

ORGANICS FLAGS (cont'd)

U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture. For example, 10 U for phenol in water if the sample final volume is the protocol-specified final volume. If a 1 to 10 dilution of extract is necessary, the reported limit is 100 U. For a soil sample, the value must <u>also</u> be adjusted for percent moisture. For example, if the sample had 24% moisture <u>and</u> a 1 to 10 dilution factor, the sample quantitation limit for phenol (330 U) would be corrected to:

$$\frac{(330\ U)}{D} \times df \qquad \text{where } D = \frac{100 - \%\ \text{moisture}}{100}$$

and df = dilution factor

$$\text{at 24\% moisture, } D = \frac{100-24}{100} = 0.76$$

$$\frac{(330\ U)}{.76} \times 10 = 4300\ U$$ rounded to the appropriate number of significant figures

For soil samples subjected to GPC clean-up procedures, the CRQL is also multiplied by 2, to account for the fact that only half of the extract is recovered.

X - This flag signifies that the Formaster computer system has been over-ridden by a manual calculation of compound concentration.

Y - This flag signifies that the Formaster computer system has been over-ridden by a manual integration of peak area, and a manual calculation of compound concentration.

ORGANICS FLAGS

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ORGANICS FLAGS (cont'd)

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3. VOLATILES DATA

Bulsara
8811138

3A. QC SUMMARY

BAISAM

4. SEMIVOLATILES DATA

SB11138

4A. QC SUMMARY

2B

SOIL VOLATILE SURROGATE RECOVERY

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	OTHER	TOT OUT
01	MTLSSF5006	99	106	105		0
02	SSF5006MS	101	105	102		0
03	SSF5006MSD	99	104	102		0
04	VBLK1118L	102	107	102		0

	QC LIMITS
S1 (TOL) = Toluene-d8	(81-117)
S2 (BFB) = Bromofluorobenzene	(74-121)
S3 (DCE) = 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

2B
SOIL VOLATILE SURROGATE RECOVERY

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Level: (low/med) MED

	EPA SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	OTHER	TOT OUT
01	MTLSSD5001	101	101	96		0
02	MTLSSE6_5002	102	104	102		0
03	SSE6_5002MS	103	105	101		0
04	SSE6_5002MSD	102	104	103		0
05	VBLK1117M	100	101	96		0
06	VBLK1118M	103	106	102		0

		QC LIMITS
S1 (TOL)	= Toluene-d8	(81-117)
S2 (BFB)	= Bromofluorobenzene	(74-121)
S3 (DCE)	= 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: MTLSSF5006 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	#	QC LIMITS REC.
1,1-Dichloroethene	284	0	235	83		59-172
Trichloroethene	284	0	236	83		62-137
Benzene	284	0	303	107		66-142
Toluene	284	0	267	94		59-139
Chlorobenzene	284	0	281	99		60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	#	% RPD	#	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	284	234	82		1		22	59-172
Trichloroethene	284	240	85		-2		24	62-137
Benzene	284	303	107		0		21	66-142
Toluene	284	266	94		0		21	59-139
Chlorobenzene	284	286	101		-2		21	60-133

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

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: 8811138-02,V,,BALSAM
CLP,,,MTLSSF5006,L,S, JUNE ALS 9 1.0G

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: MTLSSE6 5002 Level: (low/med) MED

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	7530	0	6100	81	59-172
Trichloroethene	7530	0	6400	85	62-137
Benzene	7530	0	8060	107	66-142
Toluene	7530	1210	8730	100	59-139
Chlorobenzene	7530	0	7640	102	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	7530	6160	82	-1	22	59-172
Trichloroethene	7530	6430	85	0	24	62-137
Benzene	7530	8270	110	-3	21	66-142
Toluene	7530	8510	97	3	21	59-139
Chlorobenzene	7530	7560	100	2	21	60-133

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

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: 8811138-03,V,,BALSAM
CLP,,,MTLSSE6.5002,M,S, JUNE ALS10 1:125

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Lab File ID: H5727 Lab Sample ID: 6306-111588

Date Analyzed: 11/17/88 Time Analyzed: 1935

Matrix: (soil/water) SOIL Level: (low/med) MED

Instrument ID: HP5970H

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	MTLSSD5001	8811138-01	H5728	2050

COMMENTS: 6306-111588, V, BLANK
CLP, 7000, , VBLK1117, L, M, JPM ALS 5 50UL

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Lab File ID: H5742 Lab Sample ID: 6306 111488

Date Analyzed: 11/18/88 Time Analyzed: 1334

Matrix: (soil/water) SOIL Level: (low/med) LOW

Instrument ID: HP5970H

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	MTLSSF5006	8811138-02	H5744	1458
02	SSF5006MS	11138-02MS	H5747	1717
03	SSF5006MSD	11138-02MSD	H5748	1759

COMMENTS: 6306_111488, V, BLANK,
CLP, 7000, , VBLK1118L, L, S, JUNE ALS 7 5.0G

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Lab File ID: H5743 Lab Sample ID: 6306 111488

Date Analyzed: 11/18/88 Time Analyzed: 1416

Matrix: (soil/water) SOIL Level: (low/med) MED

Instrument ID: HP5970H

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	MTLSSE6_5002	8811138-03	H5745	1539
02	SSE6_5002MS	11138-03MS	H5749	1841
03	SSE6_5002MSD	11138-03MSD	H5750	1937

COMMENTS: 6306_111488, V, BLANK,
CLP, 7000, , VBLK1118M, M, S, JUNE ALS 8 50UL

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Lab File ID: H5701 BFB Injection Date: 11/16/88

Instrument ID: HP5970H BFB Injection Time: 1539

Matrix: (soil/water) ~~WATER~~ SAS Level: (low/med) LOW/MED Column: (pack/cap) PACK

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	31.3
75	30.0 - 60.0% of mass 95	59.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	60.3
175	5.0 - 9.0% of mass 174	4.0 (6.6)1
176	Greater than 95.0%, but less than 101.0% of mass 174	60.4 (100.2)1
177	5.0 - 9.0% of mass 176	6.5 (6.5)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD100	6302_111688	H5704	11/16/88	1739
02	VSTD200	6302_111688	H5706	11/16/88	1903
03	VSTD050	6302_111688	H5707	11/16/88	1944
04	VSTD020	6302_111688	H5708	11/16/88	2026
05	VSTD150	6302_111688	H5710	11/16/88	2150

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Lab File ID: H5725 BFB Injection Date: 11/17/88

Instrument ID: HP5970H BFB Injection Time: 1832

Matrix: (soil/water) SOIL Level: (low/med) ~~LOW~~ MED JAS Column: (pack/cap) PACK

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	29.9
75	30.0 - 60.0% of mass 95	55.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	64.2
175	5.0 - 9.0% of mass 174	3.5 (5.5)1
176	Greater than 95.0%, but less than 101.0% of mass 174	63.9 (99.5)1
177	5.0 - 9.0% of mass 176	5.1 (5.1)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	6302-111688	H5726	11/17/88	1854
02	VBLK1117M	6306-111588	H5727	11/17/88	1935
03	MTLSSD5001	8811138-01	H5728	11/17/88	2050

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Lab File ID: H5736 BFB Injection Date: 11/18/88

Instrument ID: HP5970H BFB Injection Time: 0907

Matrix: (soil/water) ~~WATER~~ SOIL SAS Level: (low/med) LOW/MED Column: (pack/cap) PACK

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	29.1
75	30.0 - 60.0% of mass 95	58.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	64.8
175	5.0 - 9.0% of mass 174	4.7 (7.3)1
176	Greater than 95.0%, but less than 101.0% of mass 174	64.3 (99.2)1
177	5.0 - 9.0% of mass 176	6.3 (6.4)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	6302_111688	H5737	11/18/88	0954
02	VBLK1118L	6306_111488	H5742	11/18/88	1334
03	VBLK1118M	6306_111488	H5743	11/18/88	1416
04	MTLSSF5006	8811138-02	H5744	11/18/88	1458
05	MTLSSE6_5002	8811138-03	H5745	11/18/88	1539
06	SSF5006MS	11138-02MS	H5747	11/18/88	1717
07	SSF5006MSD	11138-02MSD	H5748	11/18/88	1759
08	SSE6_5002MS	11138-03MS	H5749	11/18/88	1841
09	SSE6_5002MSD	11138-03MSD	H5750	11/18/88	1937

3B. SAMPLE DATA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MTLSSD5001

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 8811138-01

Sample wt/vol: 4.0 (g/mL) G Lab File ID: H5728

Level: (low/med) MED Date Received: 11/10/88

% Moisture: not dec. 18 Date Analyzed: 11/17/88

Column: (pack/cap) PACK Dilution Factor: 10

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12000	U
74-83-9	Bromomethane	12000	U
75-01-4	Vinyl Chloride	12000	U
75-00-3	Chloroethane	12000	U
75-09-2	Methylene Chloride	9600	B
67-64-1	Acetone	12000	U
75-15-0	Carbon Disulfide	6100	U
75-35-4	1,1-Dichloroethene	6100	U
75-34-3	1,1-Dichloroethane	6100	U
540-59-0	1,2-Dichloroethene (total)	6100	U
67-66-3	Chloroform	6100	U
107-06-2	1,2-Dichloroethane	6100	U
78-93-3	2-Butanone	12000	U
71-55-6	1,1,1-Trichloroethane	6100	U
56-23-5	Carbon Tetrachloride	6100	U
108-05-4	Vinyl Acetate	12000	U
75-27-4	Bromodichloromethane	6100	U
78-87-5	1,2-Dichloropropane	6100	U
10061-01-5	cis-1,3-Dichloropropene	6100	U
79-01-6	Trichloroethene	6100	U
124-48-1	Dibromochloromethane	6100	U
79-00-5	1,1,2-Trichloroethane	6100	U
71-43-2	Benzene	6100	U
10061-02-6	Trans-1,3-Dichloropropene	6100	U
75-25-2	Bromoform	6100	U
108-10-1	4-Methyl-2-Pentanone	12000	U
591-78-6	2-Hexanone	12000	U
127-18-4	Tetrachloroethene	6100	U
79-34-5	1,1,2,2-Tetrachloroethane	12000	U
108-88-3	Toluene	28000	
108-90-7	Chlorobenzene	6100	U
100-41-4	Ethylbenzene	22000	
100-42-5	Styrene	6100	U
1330-20-7	Total Xylenes	110000	Y

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MTLSSD5001

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 8811138-01

Sample wt/vol: 4.0 (g/mL) G Lab File ID: H5728

Level: (low/med) MED Date Received: 11/10/88

% Moisture: not dec. 18 Date Analyzed: 11/17/88

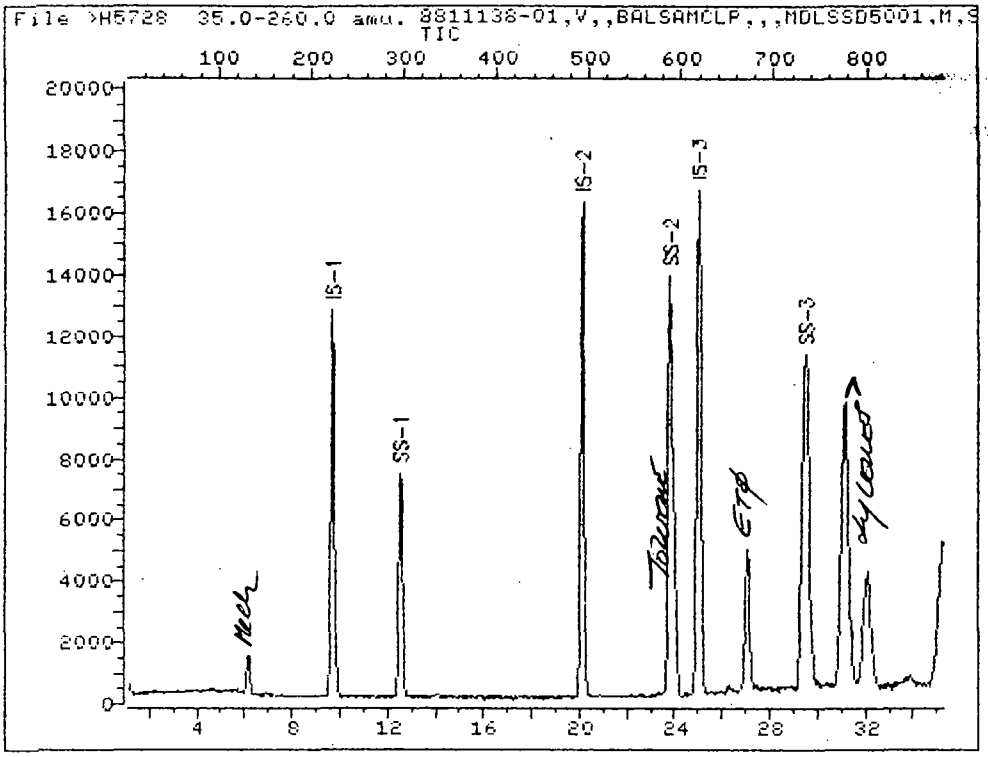
Column (pack/cap) PACK Dilution Factor: 10

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

TOTAL ION CHROMATOGRAM



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Misc: CLP,,,MDLSSD5001,M,S, JUNE ALS 6 1:1250

Id File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881117 19:59

Operator ID: SABRINA
Quant Time: 881117 21:31
Injected at: 881117 20:50

11138
MTLSSD5001

QUANT REPORT

Operator ID: SABRINA Quant Rev: 6 Quant Time: 881117 21:31
Output File: ^H5728::QU Injected at: 881117 20:50
Data File: >H5728::H1 Dilution Factor: 1.00000
Name: 8811138-01,V,,BALSAM
Misc: CLP,,,MDLSSD5001,M,S, JUNE ALS 6 1:1250

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881117 19:59

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	9.71	128.0	15311	50.00	UG/L	94
6)	C030 METHYLENE CHLORIDE	6.14	84.0	2900	6.27	UG/L	70
14)	CS15 D4-1,2-DICHLOROETHANE SS1	12.54	65.0	28569	95.63	UG/L	87
15)	*CI10 1,4-DIFLUOROBENZENE IS-2	20.14	114.0	61645	50.00	UG/L	100
30)	*CI20 D5-CHLOROBENZENE IS-3	25.02	117.0	49302	50.00	UG/L	100
35)	CS05 D-8 TOLUENE (SS-2)	23.82	98.0	52100	101.45	UG/L	87
36)	C230 TOLUENE	24.01	92.0	12733	18.06	UG/L	96
38)	C240 ETHYL BENZENE	27.04	106.0	6414	14.60	UG/L	99
39)	CS10 BROMOFLUOROBENZENE (SS-3)	29.52	95.1	37530	100.54	UG/L	100
41)	C250 TOTAL XYLENES	31.15	106.2	27043	51.03	UG/L	91
41)	C250 TOTAL XYLENES	32.08	106.2	11393	21.50	UG/L	86

* Compound is ISTD

QUANT REPORT

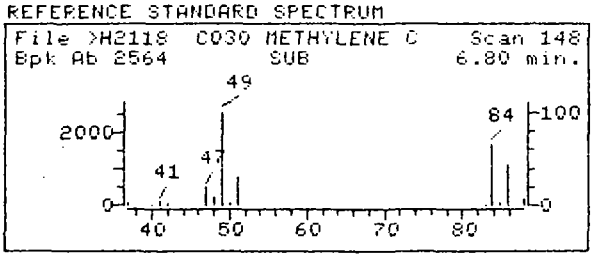
Operator ID: SABRINA Quant Rev: 6 Quant Time: 881117 21:31
Output File: ^H5728::QU Injected at: 881117 20:50
Data File: >H5728::H1 Dilution Factor: 1.00000
Name: 8811138-01,V,,BALSAM
Misc: CLP,,,MDLSSD5001,M,S, JUNE ALS 6 1:1250

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881117 19:59

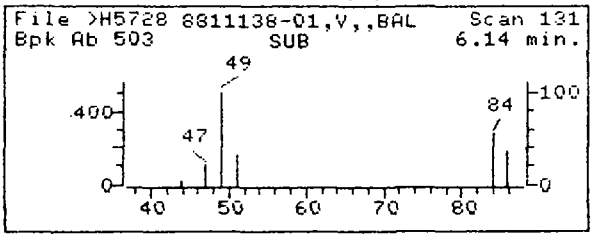
	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	9.71	223	15311	50.00	UG/L	94
6)	C030 METHYLENE CHLORIDE	6.14	131	2900	6.27	UG/L ✓	70
14)	CS15 D4-1,2-DICHLOROETHANE SS1	12.54	296	28569	95.63	UG/L	87
15)	*CI10 1,4-DIFLUOROBENZENE IS-2	20.14	492	61645	50.00	UG/L	100
30)	*CI20 D5-CHLOROBENZENE IS-3	25.02	618	49302	50.00	UG/L	100
35)	CS05 D-8 TOLUENE (SS-2)	23.82	587	52100	101.45	UG/L	87
36)	C230 TOLUENE	24.01	592	12733	18.06	UG/L ✓	96
38)	C240 ETHYL BENZENE	27.04	670	6414	14.60	UG/L ✓	99
39)	CS10 BROMOFLUOROBENZENE (SS-3)	29.52	734	37530	100.54	UG/L	100
41)	C250 TOTAL XYLENES	31.15	776	38432M	72.52	UG/L ✓	86

* Compound is ISTD

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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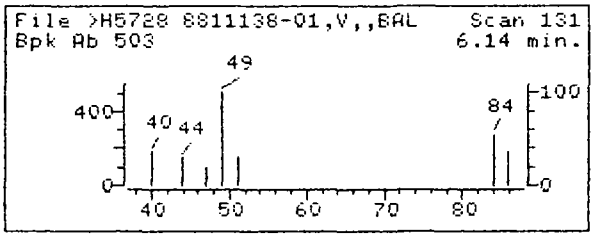
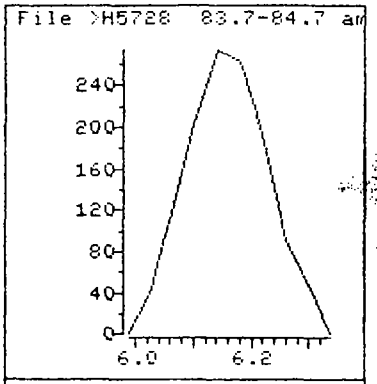
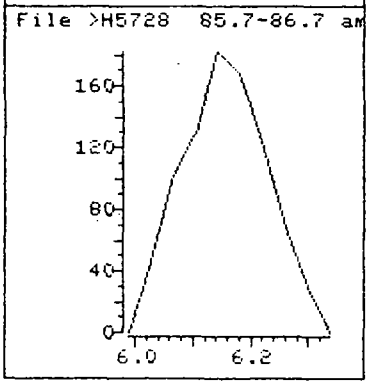




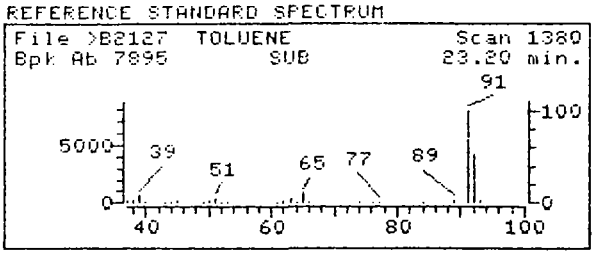


Data File: >H5728::H1 Quant Output File: ^H5728::QU
Name: 8811138-01,V,,BALSAM
Misc: CLP,,,MDLSSD5001,M,S, JUNE ALS 6 1:1250
Quant Time: 881117 21:31 Quant ID File: HVOAID::P1
Injected at: 881117 20:50 Last Calibration: 881117 19:59

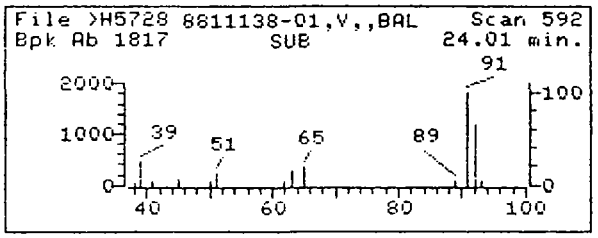
Compound No: 6
Compound Name: C030 METHYLENE CHLORIDE
Scan Number: 131
Retention Time: 6.14 min.
Quant Ion: 84.0
Area: 2900
Concentration: 6.27 UG/L
q-value: 70

✓

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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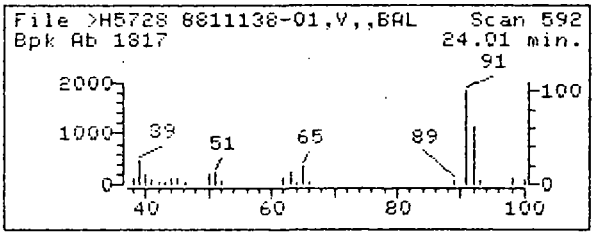
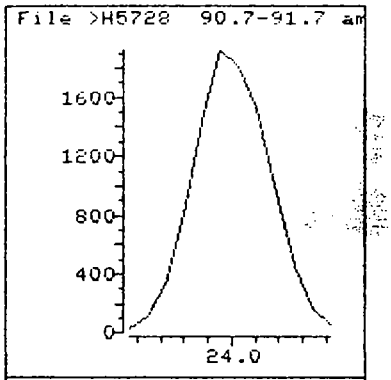
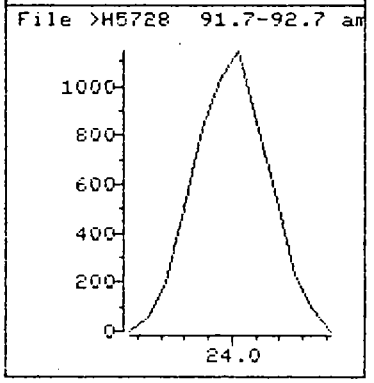


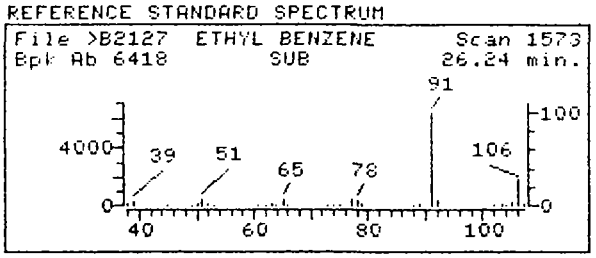




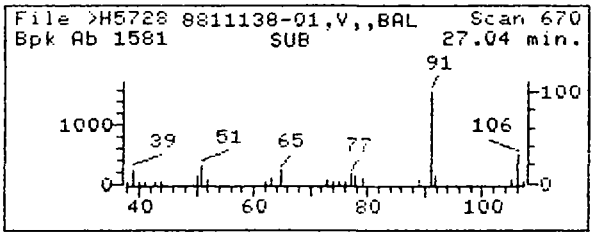
Data File: >H5728::H1 Quant Output File: ^H5728::QU
Name: 8811138-01,V,,BALSAM
Misc: CLP,,,MDLSSD5001,M,S, JUNE ALS 6 1:1250
Quant Time: 881117 21:31 Quant ID File: HVOAID::P1
Injected at: 881117 20:50 Last Calibration: 881117 19:59

Compound No: 36
Compound Name: C230 TOLUENE
Scan Number: 592
Retention Time: 24.01 min.
Quant Ion: 92.0
Area: 12733
Concentration: 18.06 UG/L
q-value: 96

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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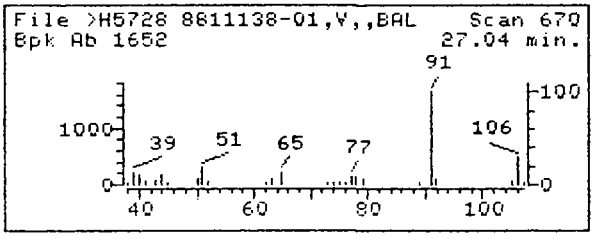
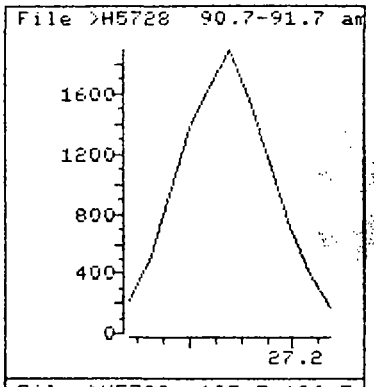
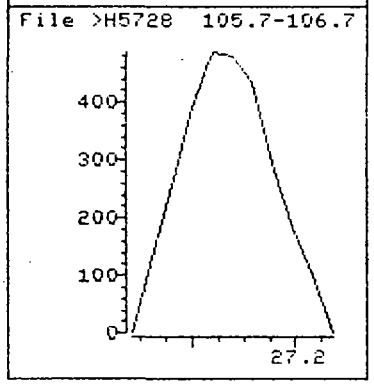




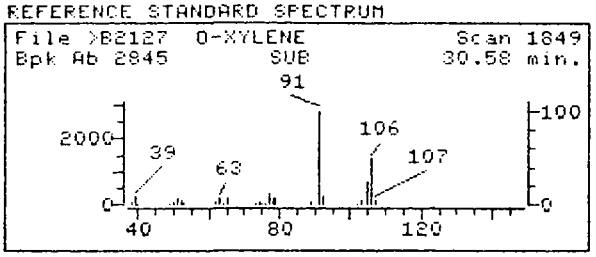


Data File: >H5728::H1 Quant Output File: ^H5728::QU
Name: 8811138-01,V,,BALSAM
Misc: CLP,,,MDLSSD5001,M,S, JUNE ALS 6 1:1250
Quant Time: 881117 21:31 Quant ID File: HVOAID::P1
Injected at: 881117 20:50 Last Calibration: 881117 19:59

Compound No: 38
Compound Name: C240 ETHYL BENZENE
Scan Number: 670
Retention Time: 27.04 min.
Quant Ion: 106.0
Area: 6414
Concentration: 14.60 UG/L
q-value: 99

✓

REFERENCE STANDARD SPECTRUM



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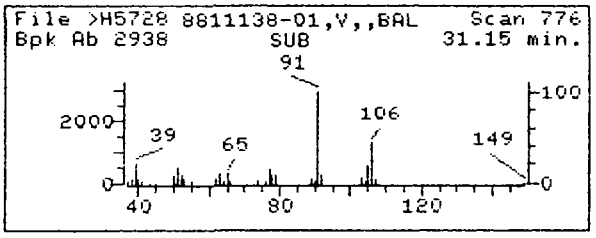

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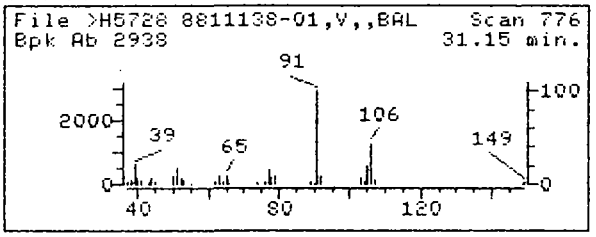
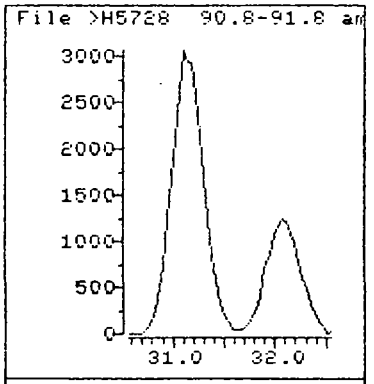
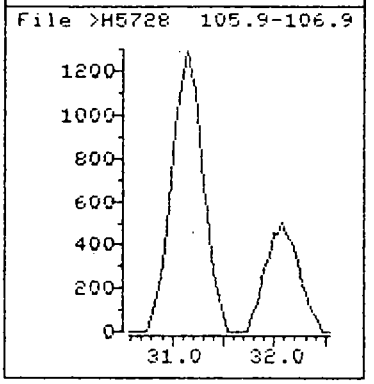






Data File: >H5728::H1 Quant Output File: ^H5728::QU
Name: 8811138-01,V,,BALSAM
Misc: CLP,,,MDLSSD5001,M,S, JUNE ALS 6 1:1250
Quant Time: 881117 21:31 Quant ID File: HVOAID::P1
Injected at: 881117 20:50 Last Calibration: 881117 19:59

Compound No: 41
Compound Name: C250 TOTAL XYLENES
Scan Number: 776
Retention Time: 31.15 min.
Quant Ion: 106.2
Area: 38432M
Concentration: 72.52 UG/L
q-value: 86

✓

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MTLSSF5006

Lab Name: CAMBRG ANALYTL Contract:

Lab Code: CAMBRDG Case No.: 11138 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 8811138-02

Sample wt/vol: 1.0 (g/mL) G Lab File ID: H5744

Level: (low/med) LOW Date Received: 11/10/88

% Moisture: not dec. 12 Date Analyzed: 11/18/88

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	57	U
74-83-9	Bromomethane	57	U
75-01-4	Vinyl Chloride	57	U
75-00-3	Chloroethane	57	U
75-09-2	Methylene Chloride	460	B
67-64-1	Acetone	260	B
75-15-0	Carbon Disulfide	28	U
75-35-4	1,1-Dichloroethene	28	U
75-34-3	1,1-Dichloroethane	28	U
540-59-0	1,2-Dichloroethene (total)	28	U
67-66-3	Chloroform	28	U
107-06-2	1,2-Dichloroethane	28	U
78-93-3	2-Butanone	57	U
71-55-6	1,1,1-Trichloroethane	28	U
56-23-5	Carbon Tetrachloride	28	U
108-05-4	Vinyl Acetate	57	U
75-27-4	Bromodichloromethane	28	U
78-87-5	1,2-Dichloropropane	28	U
10061-01-5	cis-1,3-Dichloropropene	28	U
79-01-6	Trichloroethene	28	U
124-48-1	Dibromochloromethane	28	U
79-00-5	1,1,2-Trichloroethane	28	U
71-43-2	Benzene	28	U
10061-02-6	Trans-1,3-Dichloropropene	28	U
75-25-2	Bromoform	28	U
108-10-1	4-Methyl-2-Pentanone	57	U
591-78-6	2-Hexanone	57	U
127-18-4	Tetrachloroethene	28	U
79-34-5	1,1,2,2-Tetrachloroethane	57	U
108-88-3	Toluene	28	U
108-90-7	Chlorobenzene	28	U
100-41-4	Ethylbenzene	28	U
100-42-5	Styrene	28	U
1330-20-7	Total Xylenes	28	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MTLSSF5006

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 8811138-02

Sample wt/vol: 1.0 (g/mL) G Lab File ID: H5744

Level: (low/med) LOW Date Received: 11/10/88

% Moisture: not dec. 12 Date Analyzed: 11/18/88

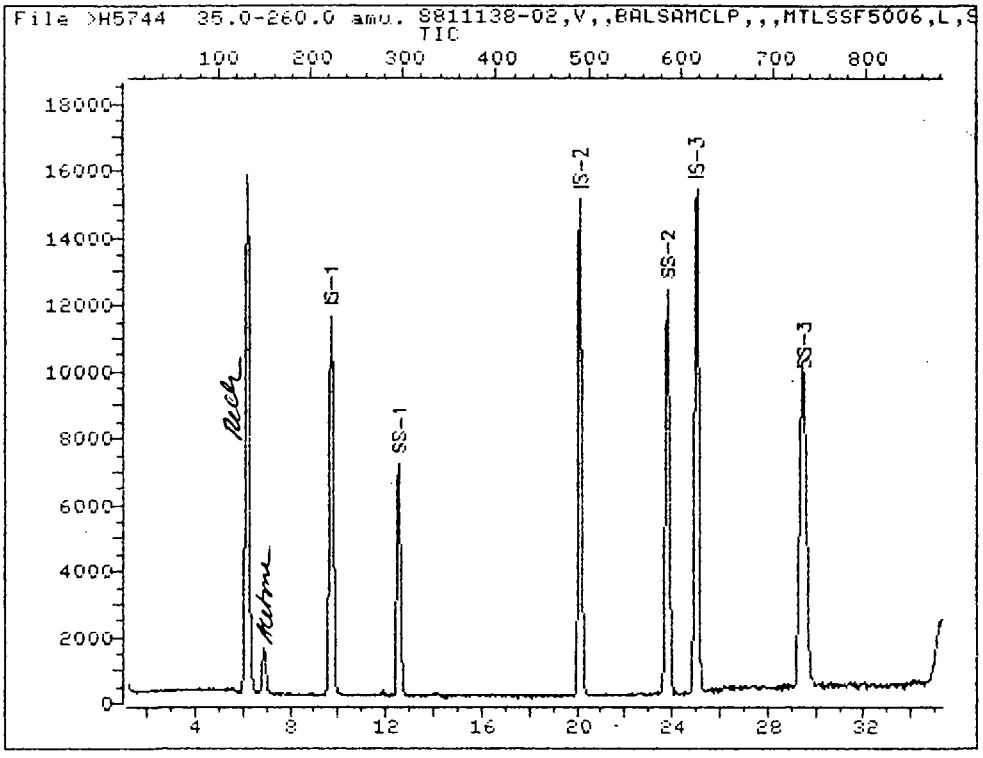
Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

TOTAL ION CHROMATOGRAM



Data File: >H5744::H2 Quant Output File: ^H5744::QU
Name: 8811138-02,V,,BALSAM
Misc: CLP,,,MTLSSF5006,L,S, JUNE ALS 9 1.06

Id File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881118 10:42

Operator ID: SABRINA
Quant Time: 881118 15:38
Injected at: 881118 14:58

111138
MTLSSFS006

QUANT REPORT

Operator ID: SABRINA Quant Rev: 6 Quant Time: 881118 15:38
Output File: ^H5744::QU Injected at: 881118 14:58
Data File: >H5744::H2 Dilution Factor: 1.00000
Name: 8811138-02,V,,BALSAM
Misc: CLP,,,MTLSSF5006,L,S, JUNE ALS 9 1.0G

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881118 10:42

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	9.69	128.0	13740	50.00	UG/L	89
6)	C030 METHYLENE CHLORIDE	6.16	84.0	34485	80.60	UG/L	72
7)	C035 ACETONE	6.90	43.0	11757	46.62	UG/L	81
14)	CS15 D4-1,2-DICHLOROETHANE SS1	12.56	65.0	27072	105.07	UG/L	92
15)	*CI10 1,4-DIFLUOROBENZENE IS-2	20.12	114.0	57350	50.00	UG/L	100
30)	*CI20 D5-CHLOROBENZENE IS-3	25.04	117.0	45978	50.00	UG/L	100
35)	CS05 D-8 TOLUENE (SS-2)	23.80	98.0	46914	98.87	UG/L	86
39)	CS10 BROMOFLUOROBENZENE (SS-3)	29.50	95.1	35774	105.75	UG/L	100

* Compound is ISTD

QUANT REPORT

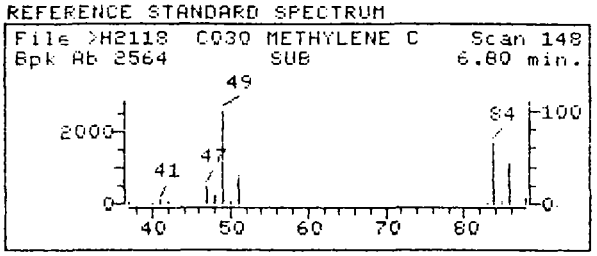
Operator ID: SABRINA Quant Rev: 6 Quant Time: 881118 15:38
Output File: ^H5744::QU Injected at: 881118 14:58
Data File: >H5744::H2 Dilution Factor: 1.00000
Name: 8811138-02,V,,BALSAM
Misc: CLP,,,MTLSSF5006,L,S, JUNE ALS 9 1.0G

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881118 10:42

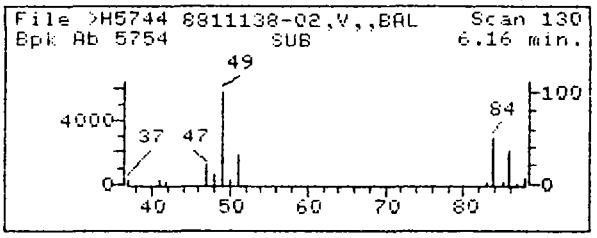
	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	9.69	221	13740	50.00	UG/L	89
6)	C030 METHYLENE CHLORIDE	6.16	130	34485	80.60	UG/L	72
7)	C035 ACETONE	6.90	149	11757	46.62	UG/L	81
14)	CS15 D4-1,2-DICHLOROETHANE SS1	12.56	295	27072	105.07	UG/L	92
15)	*CI10 1,4-DIFLUOROBENZENE IS-2	20.12	490	57350	50.00	UG/L	100
30)	*CI20 D5-CHLOROBENZENE IS-3	25.04	617	45978	50.00	UG/L	100
35)	CS05 D-8 TOLUENE (SS-2)	23.80	585	46914	98.87	UG/L	86
39)	CS10 BROMOFLUOROBENZENE (SS-3)	29.50	732	35774	105.75	UG/L	100

* Compound is ISTD

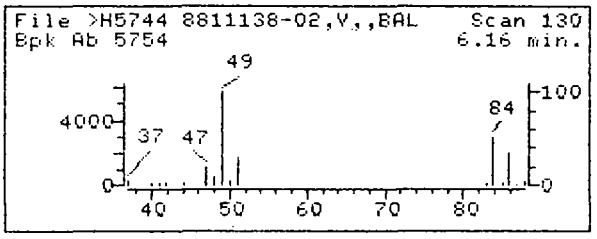
REFERENCE STANDARD SPECTRUM

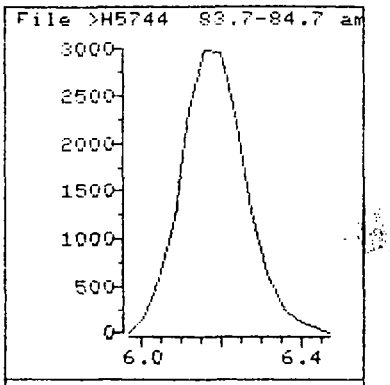


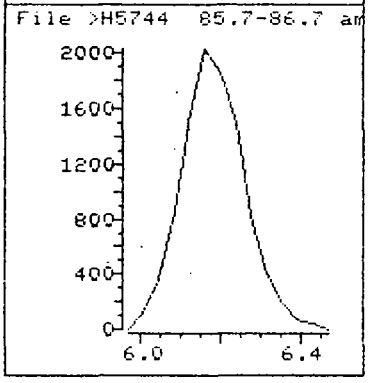
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





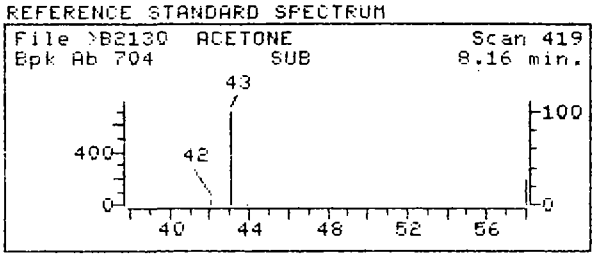


Data File: >H5744::H2 Quant Output File: ^H5744::QU
Name: 8811138-02,V,,BALSAM
Misc: CLP,,,MTLSSF5006,L,S, JUNE ALS 9 1.06
Quant Time: 881118 15:38 Quant ID File: HVOAID::P1
Injected at: 881118 14:58 Last Calibration: 881118 10:42

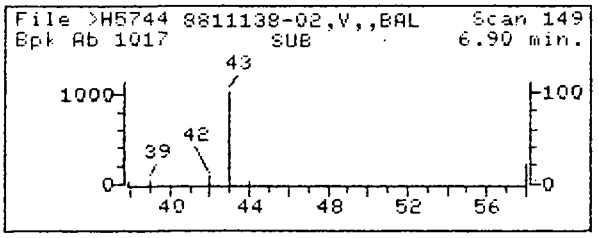
Compound No: 6
Compound Name: C030 METHYLENE CHLORIDE
Scan Number: 130
Retention Time: 6.16 min.
Quant Ion: 84.0
Area: 34485
Concentration: 80.60 UG/L
q-value: 72

✓

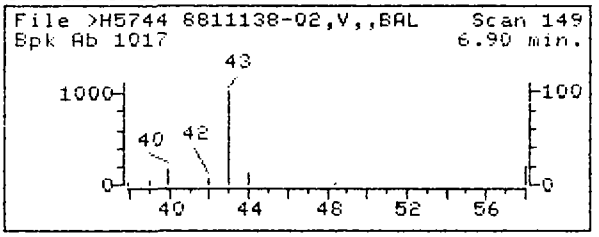
REFERENCE STANDARD SPECTRUM

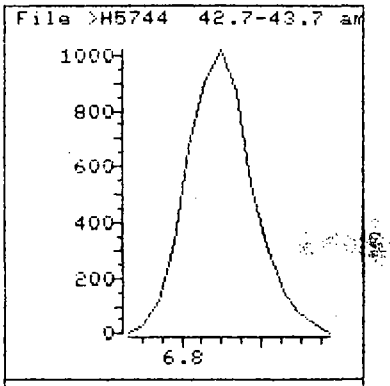


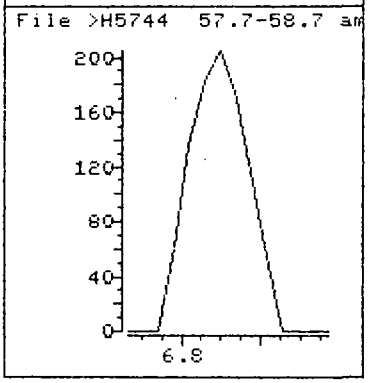
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >H5744::H2 Quant Output File: ^H5744::QU
Name: 8811138-02,V,,BALSAM
Misc: CLP,,,MTLSSF5006,L,S, JUNE ALS 9 1.0G
Quant Time: 881118 15:38 Quant ID File: HVOAID::P1
Injected at: 881118 14:58 Last Calibration: 881118 10:42

Compound No: 7
Compound Name: C035 ACETONE
Scan Number: 149
Retention Time: 6.90 min.
Quant Ion: 43.0
Area: 11757
Concentration: 46.62 UG/L
q-value: 81

✓

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MTLSSE6_5002

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 8811138-03

Sample wt/vol: 4.0 (g/mL) G Lab File ID: H5745

Level: (low/med) MED Date Received: 11/10/88

% Moisture: not dec. 17 Date Analyzed: 11/18/88

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1200	U
74-83-9	Bromomethane	1200	U
75-01-4	Vinyl Chloride	1200	U
75-00-3	Chloroethane	1200	U
75-09-2	Methylene Chloride	8700	B
67-64-1	Acetone	1200	U
75-15-0	Carbon Disulfide	600	U
75-35-4	1,1-Dichloroethene	600	U
75-34-3	1,1-Dichloroethane	600	U
540-59-0	1,2-Dichloroethene (total)	600	U
67-66-3	Chloroform	600	U
107-06-2	1,2-Dichloroethane	600	U
78-93-3	2-Butanone	1200	U
71-55-6	1,1,1-Trichloroethane	600	U
56-23-5	Carbon Tetrachloride	600	U
108-05-4	Vinyl Acetate	1200	U
75-27-4	Bromodichloromethane	600	U
78-87-5	1,2-Dichloropropane	600	U
10061-01-5	cis-1,3-Dichloropropene	600	U
79-01-6	Trichloroethene	600	U
124-48-1	Dibromochloromethane	600	U
79-00-5	1,1,2-Trichloroethane	600	U
71-43-2	Benzene	600	U
10061-02-6	Trans-1,3-Dichloropropene	600	U
75-25-2	Bromoform	600	U
108-10-1	4-Methyl-2-Pentanone	1200	U
591-78-6	2-Hexanone	1200	U
127-18-4	Tetrachloroethene	600	U
79-34-5	1,1,2,2-Tetrachloroethane	1200	U
108-88-3	Toluene	1200	
108-90-7	Chlorobenzene	600	U
100-41-4	Ethylbenzene	3500	
100-42-5	Styrene	600	U
1330-20-7	Total Xylenes	8200	Y

1E

EPA SAMPLE NO.

MTLSSE6_5002

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: CAMBRG ANALYTL Contract:

Lab Code: CAMBRDG Case No.: 11138 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 8811138-03

Sample wt/vol: 4.0 (g/mL) G Lab File ID: H5745

Level: (low/med) MED Date Received: 11/10/88

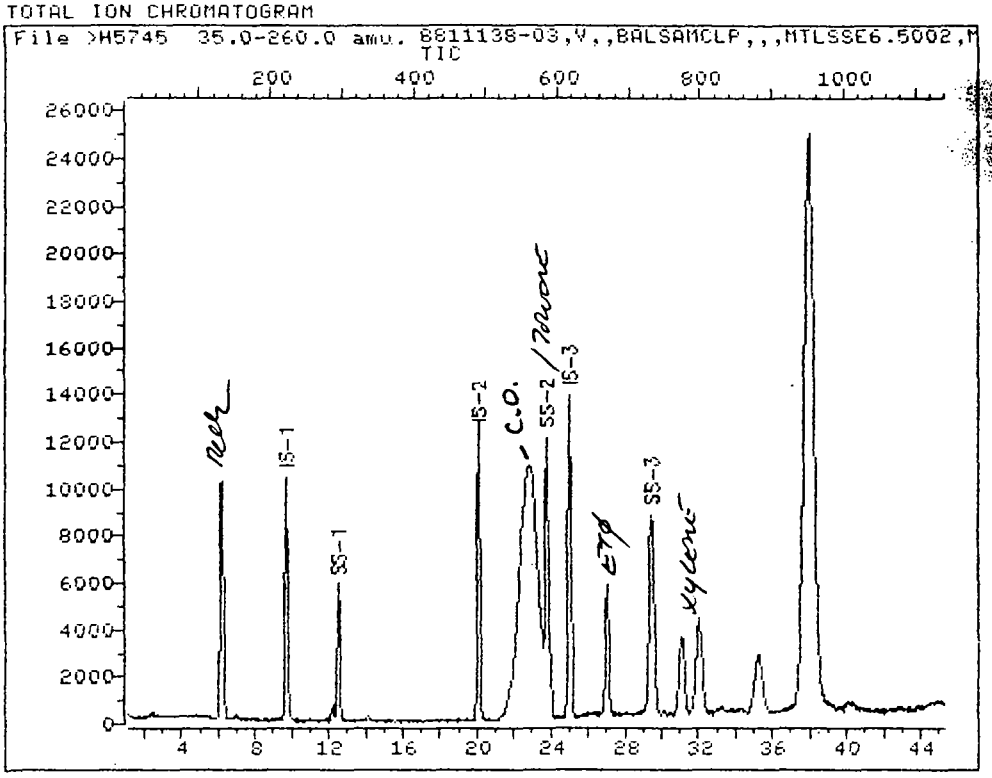
% Moisture: not dec. 17 Date Analyzed: 11/18/88

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 2 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	35.27	3500	J
2.	108838	4-Heptanone, 2,6-dimethyl- (	38.02	42000	J

TOTAL ION CHROMATOGRAM



Data File: >H5745::H2 Quant Output File: ^H5745::QU
Name: 8811138-03,V,,BALSAM
Misc: CLP,,,MTLSSE6.5002,M,S, JUNE ALS10 1:125

Id File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881118 10:42

Operator ID: SABRINA
Quant Time: 881118 16:30
Injected at: 881118 15:39

111380
MTLSSE6.5002

QUANT REPORT

Operator ID: SABRINA Quant Rev: 6 Quant Time: 881118 16:30
Output File: ^H5745::QU Injected at: 881118 15:39
Data File: >H5745::H2 Dilution Factor: 1.00000
Name: 8811138-03,V,,BALSAM
Misc: CLP,,,MTLSSE6.5002,M,S, JUNE ALS10 1:125

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881118 10:42

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	9.71	128.0	12134	50.00	UG/L	97
6)	C030 METHYLENE CHLORIDE	6.18	84.0	21924	58.02	UG/L	69
14)	CS15 D4-1,2-DICHLOROETHANE SS1	12.54	65.0	23231	102.09	UG/L	94
15)	*CI10 1,4-DIFLUOROBENZENE IS-2	20.10	114.0	50577	50.00	UG/L	100
30)	*CI20 D5-CHLOROBENZENE IS-3	25.02	117.0	40711	50.00	UG/L	100
32)	C210 2-HEXANONE (MPK)	22.73	43.0	22835	56.87	UG/L	28
35)	CS05 D-8 TOLUENE (SS-2)	23.78	98.0	42900	102.11	UG/L	87
36)	C230 TOLUENE	23.97	92.0	4765	8.06	UG/L	98
38)	C240 ETHYL BENZENE	27.07	106.0	8510	23.45	UG/L	97
39)	CS10 BROMOFLUOROBENZENE (SS-3)	29.48	95.1	31199	104.16	UG/L	100
41)	C250 TOTAL XYLENES	31.11	106.2	9146	22.49	UG/L	88
41)	C250 TOTAL XYLENES	32.04	106.2	13001	31.97	UG/L	86

* Compound is ISTD

QUANT REPORT

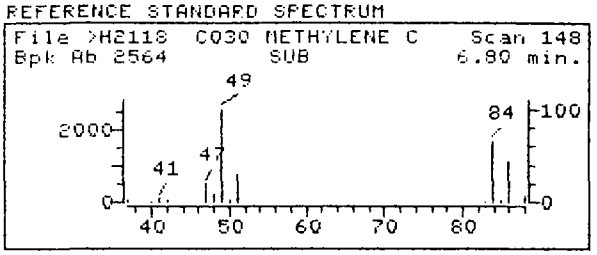
Operator ID: SABRINA Quant Rev: 6 Quant Time: 881118 16:30
Output File: ^H5745::QU Injected at: 881118 15:39
Data File: >H5745::H2 Dilution Factor: 1.00000
Name: 8811138-03,V,,BALSAM
Misc: CLP,,,MTLSSE6.5002,M,S, JUNE ALS10 1:125

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881118 10:42

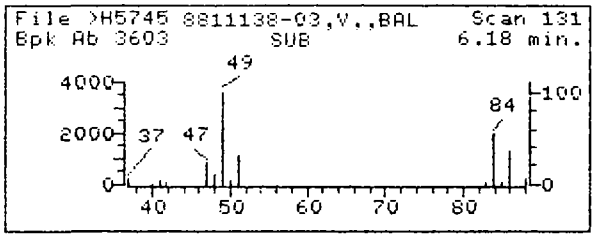
	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	9.71	222	12134	50.00	UG/L	97
6)	C030 METHYLENE CHLORIDE	6.18	131	21924	58.02	UG/L	69
14)	CS15 D4-1,2-DICHLOROETHANE SS1	12.54	295	23231	102.09	UG/L	94
15)	*CI10 1,4-DIFLUOROBENZENE IS-2	20.10	490	50577	50.00	UG/L	100
30)	*CI20 D5-CHLOROBENZENE IS-3	25.02	617	40711	50.00	UG/L	100
32)	C210 2-HEXANONE (MPK)	22.73	558	22835	56.87	UG/L	28
35)	CS05 D-8 TOLUENE (SS-2)	23.78	585	42900	102.11	UG/L	87
36)	C230 TOLUENE	23.97	590	4765	8.06	UG/L	98
38)	C240 ETHYL BENZENE	27.07	670	8510	23.45	UG/L	97
39)	CS10 BROMOFLUOROBENZENE (SS-3)	29.48	732	31199	104.16	UG/L	100
41)	C250 TOTAL XYLENES	32.04	798	22145M	54.46	UG/L	86

* Compound is ISTD

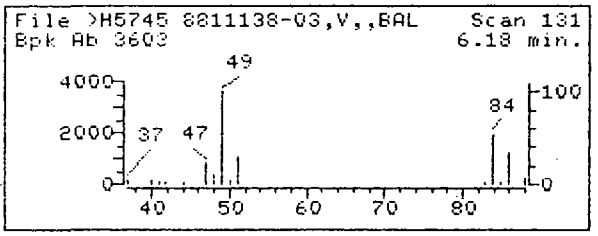
REFERENCE STANDARD SPECTRUM

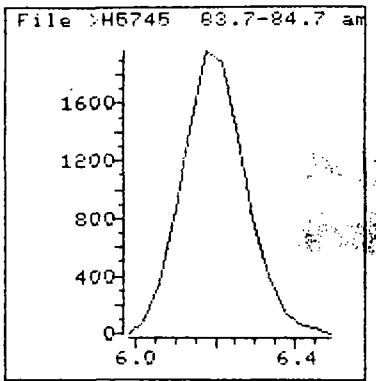


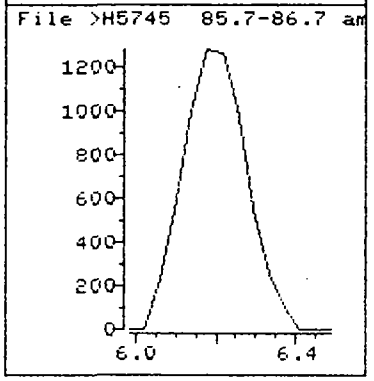
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



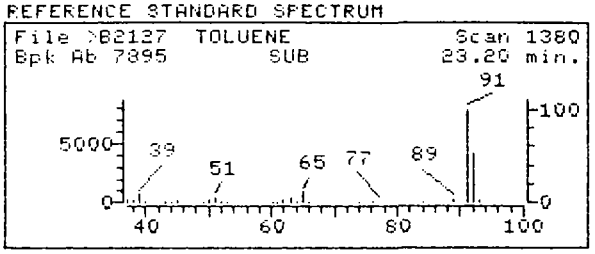




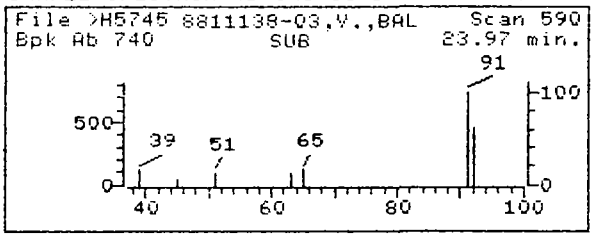
Data File: >H5745::H2 Quant Output File: ^H5745::QU
Name: 8811138-03,V,,BALSAM
Misc: CLP,,,MTLSSE6.5002,M,S, JUNE ALS10 1:125
Quant Time: 881118 16:30 Quant ID File: HVOAID::P1
Injected at: 881118 15:39 Last Calibration: 881118 10:42

Compound No: 6
Compound Name: C030 METHYLENE CHLORIDE
Scan Number: 131
Retention Time: 6.18 min.
Quant Ion: 84.0
Area: 21924
Concentration: 58.02 UG/L
q-value: 69

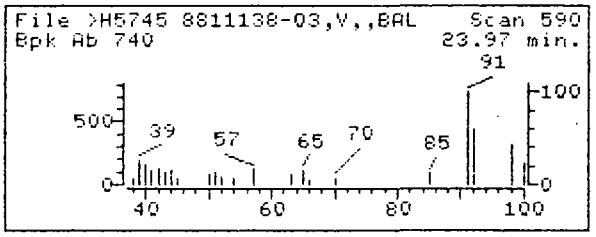
REFERENCE STANDARD SPECTRUM

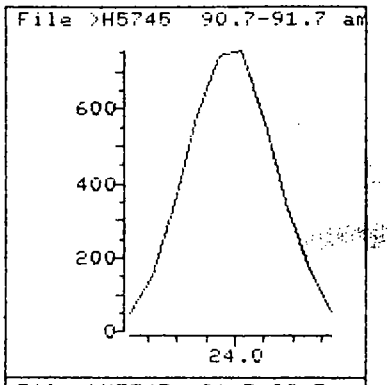


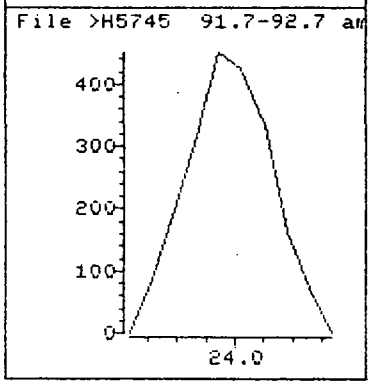
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





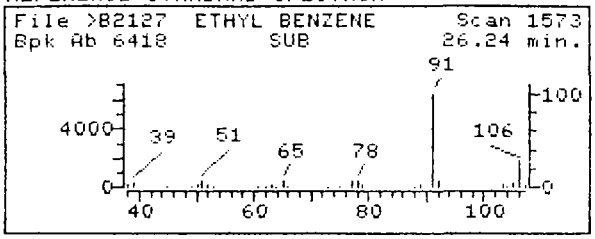


Data File: >H5745::H2 Quant Output File: ^H5745::QU
Name: 8811138-03,V,,BALSAM
Misc: CLP,,,MTLSSE6.5002,M,S, JUNE ALS10 1:125
Quant Time: 881118 16:30 Quant ID File: HVOAID::P1
Injected at: 881118 15:39 Last Calibration: 881118 10:42

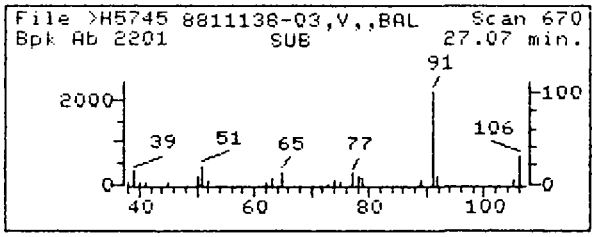
Compound No: 36
Compound Name: C230 TOLUENE
Scan Number: 590
Retention Time: 23.97 min.
Quant Ion: 92.0
Area: 4765
Concentration: 8.06 UG/L
q-value: 98

✓

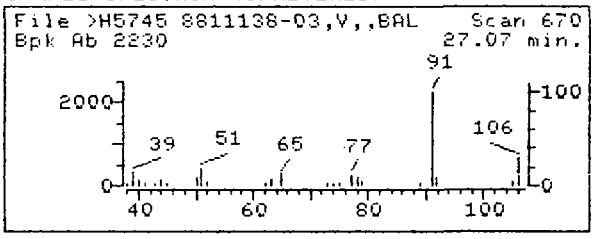
REFERENCE STANDARD SPECTRUM

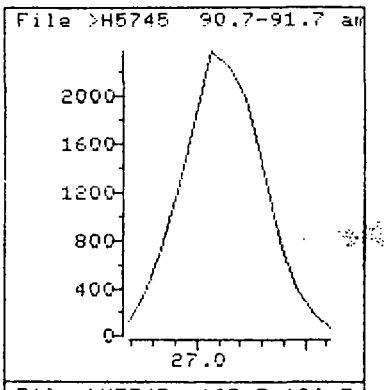


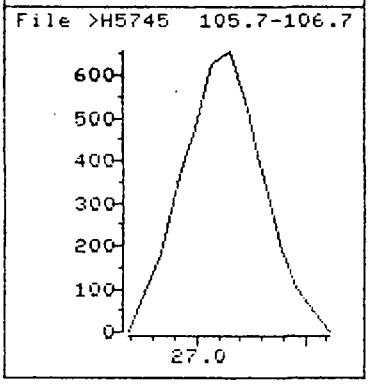
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





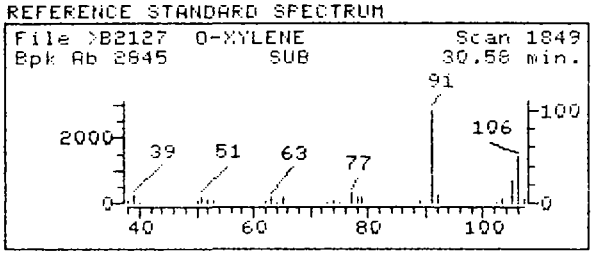


Data File: >H5745::H2 Quant Output File: ^H5745::QU
Name: 8811138-03,V,,BALSAM
Misc: CLP,,,MTLSSE6.5002,M,S, JUNE ALS10 1:125
Quant Time: 881118 16:30 Quant ID File: HVOAID::P1
Injected at: 881118 15:39 Last Calibration: 881118 10:42

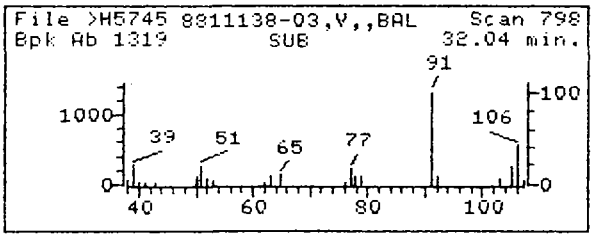
Compound No: 38
Compound Name: C240 ETHYL BENZENE
Scan Number: 670
Retention Time: 27.07 min.
Quant Ion: 106.0
Area: 8510
Concentration: 23.45 UG/L
q-value: 97

✓

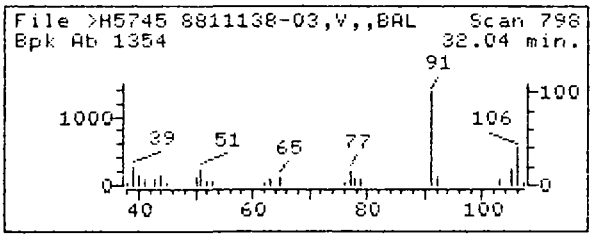
REFERENCE STANDARD SPECTRUM

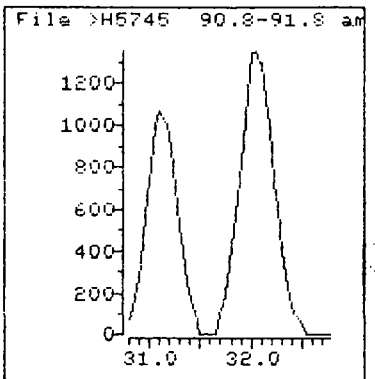


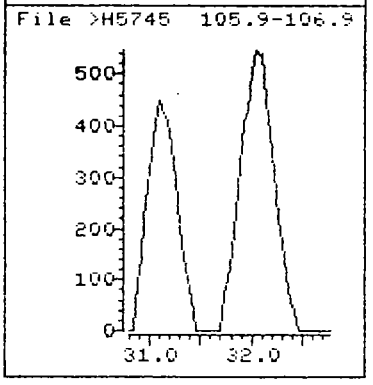
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >H5745::H2 Quant Output File: ^H5745::QU
Name: 8811138-03,V,,BALSAM
Misc: CLP,,,MTLSSE6.5002,M,S, JUNE ALS10 1:125
Quant Time: 881118 16:30 Quant ID File: HVOAID::P1
Injected at: 881118 15:39 Last Calibration: 881118 10:42

Compound No: 41
Compound Name: C250 TOTAL XYLENES
Scan Number: 798
Retention Time: 32.04 min.
Quant Ion: 106.2
Area: 22145M
Concentration: 54.46 UG/L
q-value: 86

MS data file header from : >H5745

Sample: 8811138-03,V,,BALSAM Operator: SABRINA MS 11/18/88 15:39
Misc : CLP,,,MTLSSE6.5002,M,S, JUNE ALS10 1:125
Sys. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: HVOAX Tuning file: MT8602 No. of extra records: 2
Source temp.: 0 Analyzer temp.: 220 Transfer line temp. : 0

Chromatographic temperatures :	50.	50.	220.	0.	0.
Chromatographic times, min. :	.0	3.9	20.0	0.0	0.0
Chromatographic rate, deg/min:	1.0	8.0	0.0	.3	0.0

>H5745 8811138-03,V,,BALSAMCLP,,,MTLSSE6.5002,M,S, JUNE ALS10 1:125

35.0 260.0 CLP ADC TIC
Upslope: .20 Area Reject: 11033. Max Peaks: 3 Bunching: 1
Dnslope: 0.00 Results File IH5745 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
~~1~~	~~22.81~~	~~558~~	~~560~~	~~561~~	~~10269~~	~~50680~~	~~47520~~	~~5.43~~	~~4.773~~
2	35.26	867	881	894	2441	101282	72701	8.31	7.303
3	38.01	931	952	973	24293	947163	875337	100.00	87.924

carryover

Sum of corrected areas: 995558.

Summary of Unknowns PBM Library Search and Quantitation

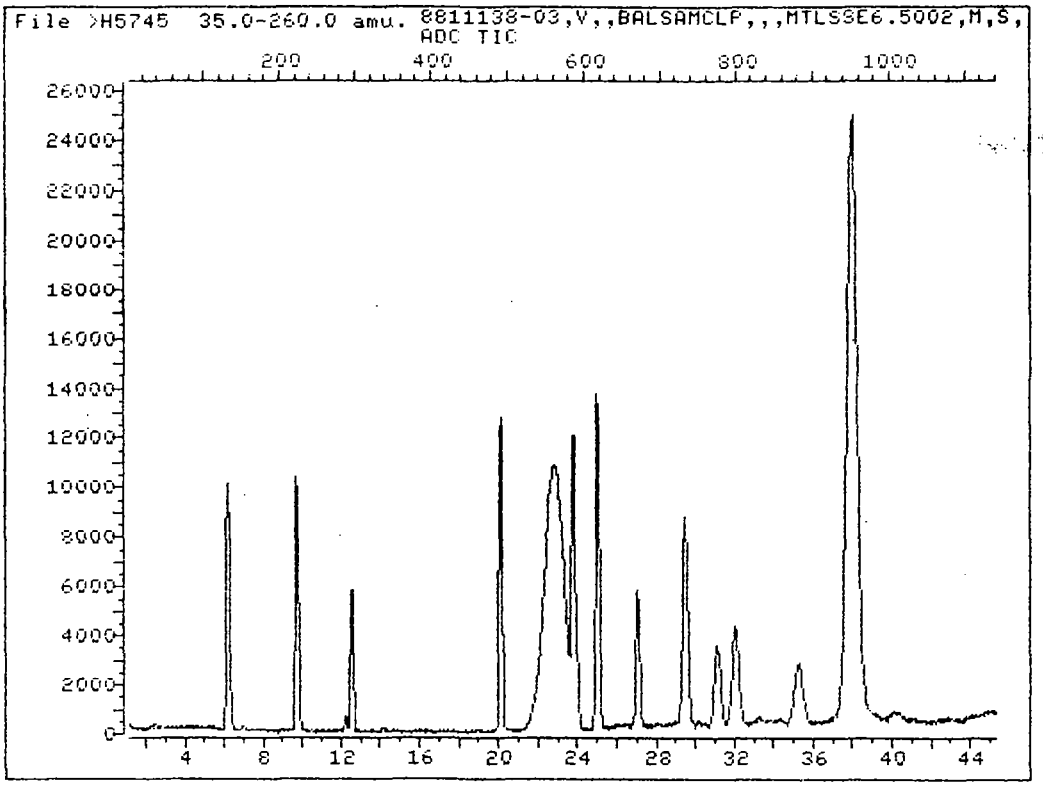
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	110326.	9.71	1.14 - 14.90
2	50.0	134689.	20.10	14.90 - 22.56
3	50.0	156352.	25.02	22.56 - 45.30

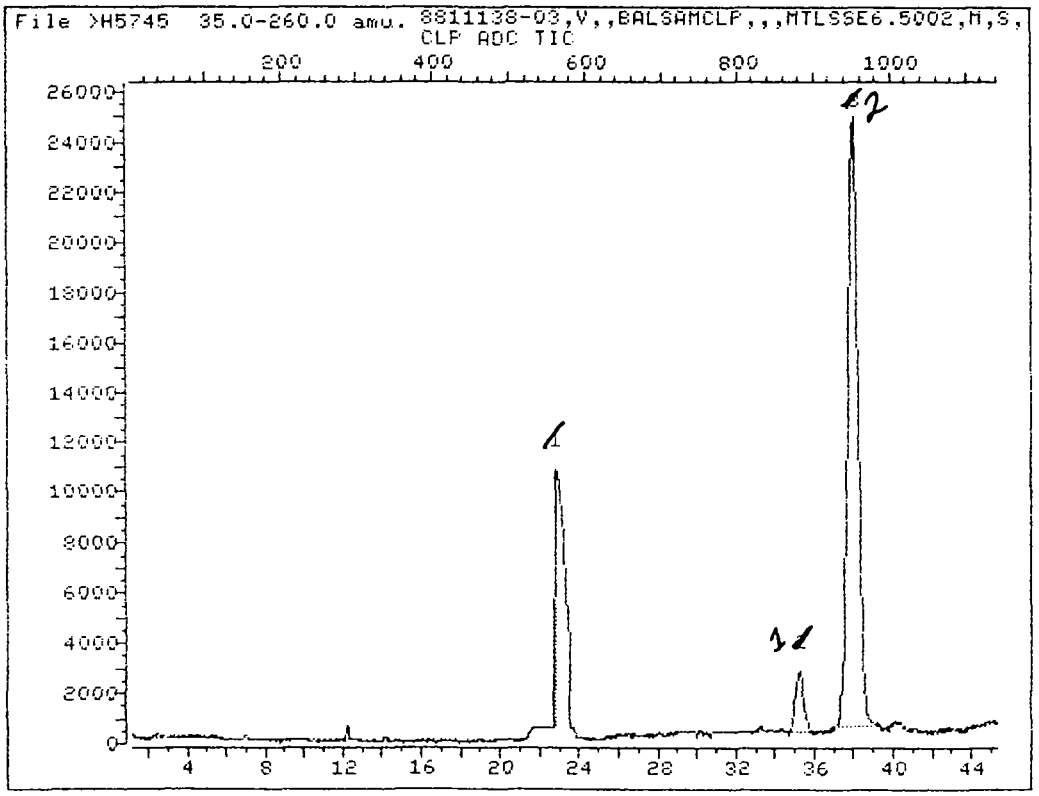
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1.00 Amount Used (AU) = 1.00

Correction Factor = 1.00 = (AM / AU) / (DF * FS)

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unk} * \text{Correction Factor}$$

3:38 PM MON., 28 NOV., 1988


File >H5745 35.0-260.0 amu. 8811138-03,V,,BALSAMCLP,,,MTLSSE6.5002,M,S,
ADC TIC
200
400
600
800
1000
26000
24000
22000
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
4
8
12
16
20
24
28
32
36
40
44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CLP ADC TIC
200
400
600
800
1000
26000
24000
22000
20000
18000
16000
14000
12000
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8000
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2000
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4
8
12
16
20
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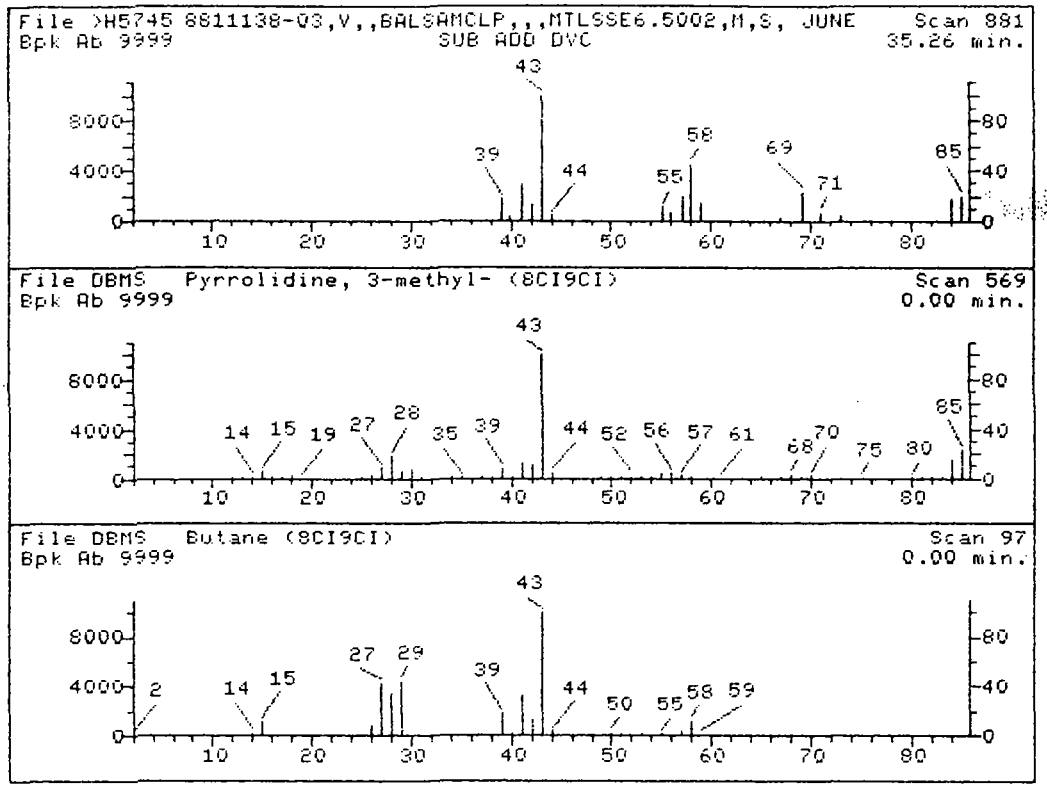
32
36
40
44
1
2
3



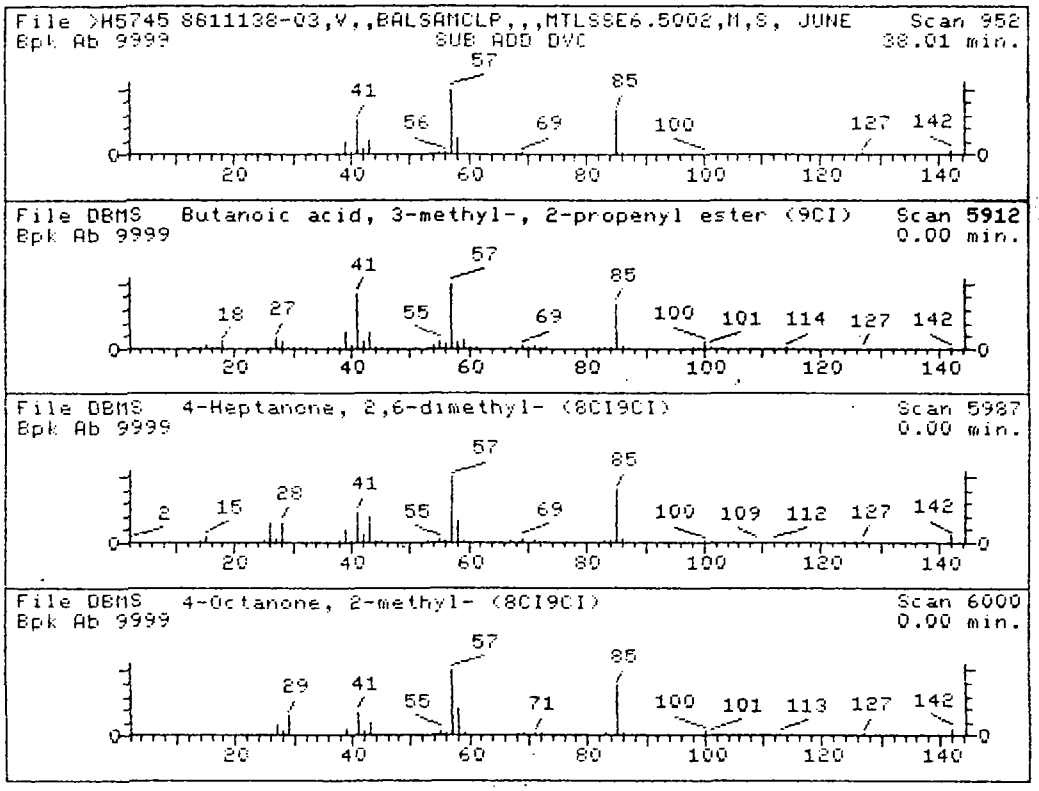
Unknown # 1

Area = 72701.00 Tentative Concentration is 23.00

1. Pyrrolidine, 3-methyl- (8CI9CI) 85 C5H11N
2. Butane (8CI9CI) 58 C4H10

Sample file: >H5745 Spectrum #: 881
Search speed: 1 Tilting option: N No. of ion ranges searched: 43

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	30*	34375898	5981	DBMS	37	43	2	0	85	42	8	18
2.	20*	106978	1283	DBMS	21	58	1	0	90	51	5	14



Unknown # 12

Area = 875337.0 Tentative Concentration is 280.00

1.	Butanoic acid, 3-methyl-, 2-propenyl ester (9CI)	142	C8H14O2
2.	4-Heptanone, 2,6-dimethyl- (8CI9CI)	142	C9H18O
3.	4-Octanone, 2-methyl- (8CI9CI)	142	C9H18O
4.	3-Pentanone, 2,2,4,4-tetramethyl- (8CI9CI)	142	C9H18O
5.	2-Propen-1-ol (9CI)	58	C3H6O
6.	5-Nonanone (9CI9CI)	142	C9H18O

Sample file: >H5745 Spectrum #: 952
Search speed: 1 Tilting option: N No. of ion ranges searched: 42

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	60*	2835394	6110	DBMS	22	73	3	0	97	12	30	12
2.	54*	108838	6116	DBMS	57	42	2	0	60	29	24	34
3.	46*	7492388	6119	DBMS	45	47	2	0	65	26	19	24
4.	36*	815247	6118	DBMS	37	56	1	0	53	33	12	19
5.	29*	107186	1279	DBMS	27	57	1	0	86	36	10	15
6.	25*	502567	6117	DBMS	26	58	2	0	31	50	7	14

3C. STANDARDS DATA

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Instrument ID: HP5970H Calibration Date(s): 11/16/88 11/16/88

Matrix: (soil/water) ~~WATER~~ SOIL JAS Level: (low/med) LOW/MED Column: (pack/cap) PACK

Min $\overline{RRF}$ for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = H5708 RRF50 = H5707
RRF100= H5704 RRF150= H5710 RRF200= H5706

COMPOUND	RRF20	RRF50	RRF100	RRF150	RRF200	$\overline{RRF}$	% RSD
Chloromethane #	0.859	1.031	0.921	0.780	0.729	0.864	13.8#
Bromomethane	1.179	1.140	1.179	1.104	0.958	1.112	8.2
Vinyl Chloride *	0.994	1.064	1.090	1.058	1.067	1.055	3.4*
Chloroethane	0.628	0.664	0.713	0.706	0.723	0.687	5.8
Methylene Chloride	1.721	1.521	1.470	1.453	1.483	1.530	7.2
Acetone	0.662	0.612	0.551	0.482	0.527	0.567	12.5
Carbon Disulfide	3.600	3.622	3.877	3.946	4.228	3.855	6.7
1,1-Dichloroethene *	1.091	1.087	1.163	1.169	1.222	1.146	5.0*
1,1-Dichloroethane #	3.060	3.046	3.074	3.099	3.265	3.109	2.9#
1,2-Dichloroethene (total)	1.173	1.220	1.236	1.256	1.292	1.235	3.6
Chloroform *	3.185	3.224	3.236	3.292	3.397	3.267	2.5*
1,2-Dichloroethane	2.536	2.563	2.525	2.614	2.668	2.581	2.3
2-Butanone	0.040	0.047	0.038	0.037	0.040	0.040	9.8
1,1,1-Trichloroethane	0.570	0.598	0.614	0.635	0.667	0.617	6.0
Carbon Tetrachloride	0.590	0.608	0.629	0.632	0.675	0.627	5.1
Vinyl Acetate	0.731	1.074	0.954	1.059	1.153	0.994	16.4
Bromodichloromethane	0.823	0.850	0.888	0.907	0.928	0.879	4.8
1,2-Dichloropropane *	0.501	0.508	0.518	0.535	0.541	0.521	3.3*
cis-1,3-Dichloropropene	0.867	0.894	0.932	0.961	0.989	0.929	5.3
Trichloroethene	0.381	0.368	0.382	0.382	0.394	0.381	2.4
Dibromochloromethane	0.632	0.668	0.678	0.697	0.724	0.680	5.0
1,1,2-Trichloroethane	0.357	0.381	0.374	0.375	0.379	0.373	2.5
Benzene	0.929	0.912	0.941	0.962	0.985	0.946	3.0
Trans-1,3-Dichloropropene	0.321	0.336	0.356	0.354	0.363	0.346	5.0
Bromoform #	0.452	0.482	0.487	0.507	0.517	0.489	5.1#
4-Methyl-2-Pentanone	1.242	1.460	0.829	0.850	0.927	1.062	26.1
2-Hexanone	1.044	1.237	0.613	0.610	0.673	0.835	34.5
Tetrachloroethene	0.377	0.368	0.380	0.388	0.395	0.382	2.7
1,1,2,2-Tetrachloroethane #	0.793	0.930	0.838	0.848	0.877	0.857	5.9#
Toluene *	0.689	0.679	0.700	0.714	0.732	0.703	3.0*
Chlorobenzene #	0.890	0.884	0.924	0.939	0.960	0.919	3.5#
Ethylbenzene *	0.413	0.418	0.444	0.445	0.464	0.437	4.8*
Styrene	0.994	0.936	0.987	0.983	1.058	0.992	4.4
Total Xylenes	0.504	0.470	0.518	0.512	0.553	0.511	5.8
Toluene-d8	0.528	0.532	0.531	0.526	0.526	0.529	0.5
BFB	0.395	0.390	0.400	0.390	0.396	0.394	1.1
1,2-Dichloroethane-d4	0.984	1.000	1.030	1.119	1.150	1.057	7.0

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Instrument ID: HP5970H Calibration date: 11/17/88 Time: 1854

Lab File ID: H5726 Init. Calib. Date(s): 11/16/88 11/16/88

Matrix: (soil/water) ~~WATER~~ SOIL JAS Level: (low/med) ~~LOW~~ MED JAS Column: (pack/cap) PACK

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) = 25.0%

	COMPOUND	RRF	RRF50	%D	
	Chloromethane	0.864	1.275	-47.6	#
	Bromomethane	1.112	1.279	-15.0	
*	Vinyl Chloride	1.055	1.218	-15.5	*
	Chloroethane	0.687	0.739	-7.6	
	Methylene Chloride	1.530	1.510	1.3	
	Acetone	0.567	0.407	28.2	
	Carbon Disulfide	3.855	4.098	-6.3	
*	1,1-Dichloroethene	1.146	1.228	-7.2	*
#	1,1-Dichloroethane	3.109	3.136	-0.9	#
	1,2-Dichloroethene (total)	1.235	1.314	-6.4	
*	Chloroform	3.267	3.396	-3.9	*
	1,2-Dichloroethane	2.581	2.485	3.7	
	2-Butanone	0.040	0.023	42.5	
	1,1,1-Trichloroethane	0.617	0.623	-1.0	
	Carbon Tetrachloride	0.627	0.649	-3.5	
	Vinyl Acetate	0.994	0.873	12.2	
	Bromodichloromethane	0.879	0.827	5.9	
*	1,2-Dichloropropane	0.521	0.488	6.3	*
	cis-1,3-Dichloropropene	0.929	0.901	3.0	
	Trichloroethene	0.381	0.393	-3.2	
	Dibromochloromethane	0.680	0.624	8.2	
	1,1,2-Trichloroethane	0.373	0.338	9.4	
	Benzene	0.946	0.930	1.7	
	Trans-1,3-Dichloropropene	0.346	0.344	0.6	
#	Bromoform	0.489	0.399	18.4	#
	4-Methyl-2-Pentanone	1.062	0.551	48.1	
	2-Hexanone	0.835	0.377	54.9	
	Tetrachloroethene	0.382	0.412	-7.9	
#	1,1,2,2-Tetrachloroethane	0.857	0.673	21.5	#
*	Toluene	0.703	0.715	-1.7	*
#	Chlorobenzene	0.919	0.926	-0.8	#
*	Ethylbenzene	0.437	0.446	-2.1	*
	Styrene	0.992	0.975	1.7	
	Total Xylenes	0.511	0.538	-5.3	
	Toluene-d8	0.529	0.521	1.5	
	BFB	0.394	0.378	4.1	
	1,2-Dichloroethane-d4	1.057	0.976	7.7	

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Instrument ID: HP5970H Calibration date: 11/18/88 Time: 0954

Lab File ID: H5737 Init. Calib. Date(s): 11/16/88 11/16/88

Matrix: (soil/water) ~~WATER~~ SOIL SAS Level: (low/med) LOW/MED Column: (pack/cap) PACK

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) = 25.0%

COMPOUND		RRF	RRF50	%D	
Chloromethane	#	0.864	1.134	-31.3	#
Bromomethane		1.112	1.285	-15.6	
Vinyl Chloride	*	1.055	1.181	-11.9	*
Chloroethane		0.687	0.746	-8.6	
Methylene Chloride		1.530	1.557	-1.8	
Acetone		0.567	0.918	-61.9	
Carbon Disulfide		3.855	4.178	-8.4	
1,1-Dichloroethene	*	1.146	1.251	-9.2	*
1,1-Dichloroethane	#	3.109	3.100	0.3	#
1,2-Dichloroethene (total)		1.235	1.327	-7.4	
Chloroform	*	3.267	3.380	-3.5	*
1,2-Dichloroethane		2.581	2.394	7.2	
2-Butanone		0.040	0.035	12.5	
1,1,1-Trichloroethane		0.617	0.638	-3.4	
Carbon Tetrachloride		0.627	0.650	-3.7	
Vinyl Acetate		0.994	0.920	7.4	
Bromodichloromethane		0.879	0.864	1.7	
1,2-Dichloropropane	*	0.521	0.491	5.8	*
cis-1,3-Dichloropropene		0.929	0.922	0.8	
Trichloroethene		0.381	0.409	-7.3	
Dibromochloromethane		0.680	0.641	5.7	
1,1,2-Trichloroethane		0.373	0.342	8.3	
Benzene		0.946	0.941	0.5	
Trans-1,3-Dichloropropene		0.346	0.346	0.0	
Bromoform	#	0.489	0.429	12.3	#
4-Methyl-2-Pentanone		1.062	0.582	45.2	
2-Hexanone		0.835	0.493	41.0	
Tetrachloroethene		0.382	0.415	-8.6	
1,1,2,2-Tetrachloroethane	#	0.857	0.725	15.4	#
Toluene	*	0.703	0.726	-3.3	*
Chlorobenzene	#	0.919	0.947	-3.0	#
Ethylbenzene	*	0.437	0.445	-1.8	*
Styrene		0.992	0.933	5.9	
Total Xylenes		0.511	0.499	2.3	
Toluene-d8		0.529	0.516	2.5	
BFB		0.394	0.368	6.6	
1,2-Dichloroethane-d4		1.057	0.938	11.3	

VOLATILE INTERNAL STANDARD AREA SUMMARY

3 047

Lab Name: CAMBRG ANALYTL. Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Lab File ID (Standard): H5726 Date Analyzed: 11/17/88

Instrument ID: HP5970H Time Analyzed: 1854

Matrix: (soil/water) ~~WATER~~ SOIL SAS Level: (low/med) ~~LOW~~ MED SAS Column: (pack/cap) PACK

	IS1(BCM) AREA	#	RT	IS2(DFB) AREA	#	RT	IS3(CBZ) AREA	#	RT
12 HOUR STD	14900		9.70	61500		20.09	50200		25.02
UPPER LIMIT	29800			123000			100400		
LOWER LIMIT	7450			30750			25100		
	EPA SAMPLE NO.								
01	MTLSSD5001		15300	9.72	61600		20.14	49300		25.02
02	VBLK1117M		14300	9.72	56900		20.10	44800		24.99

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Lab File ID (Standard): H5737 Date Analyzed: 11/18/88

Instrument ID: HP5970H Time Analyzed: 0954

Matrix: (soil/water) ~~WATER~~ SOIL SAS Level: (low/med) LOW/MED Column: (pack/cap) PACK

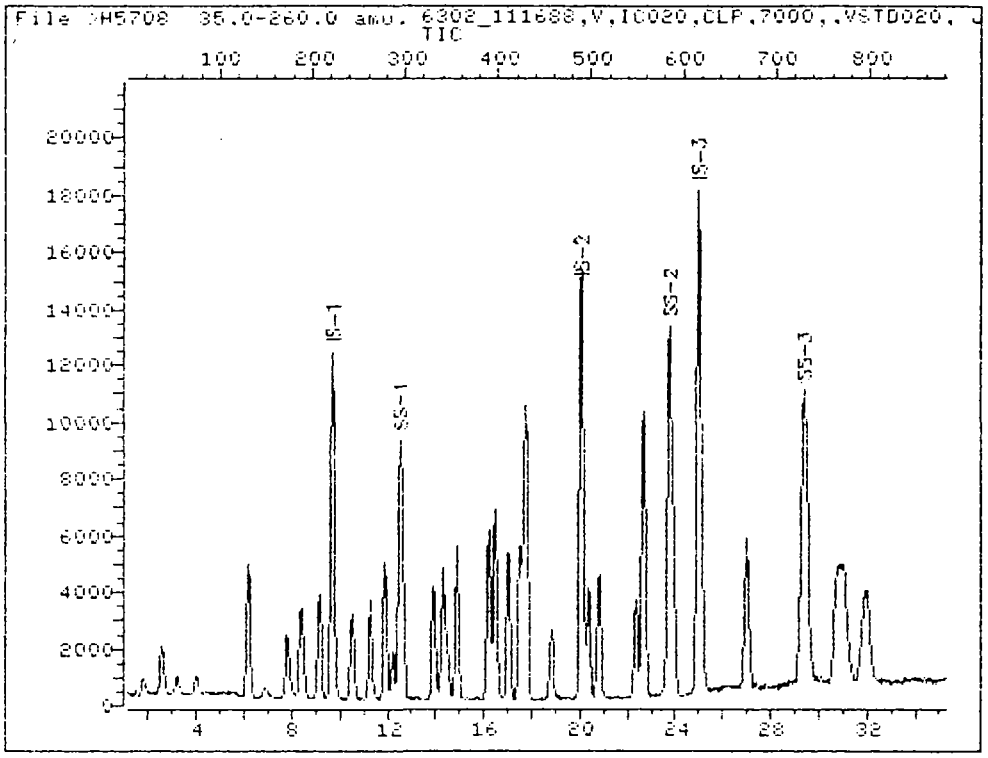
		IS1(BCM) AREA	#	RT	IS2(DFB) AREA	#	RT	IS3(CBZ) AREA	#	RT
	12 HOUR STD	16200		9.69	64900		20.12	52800		25.01
	UPPER LIMIT	32400			129800			105600		
	LOWER LIMIT	8100			32450			26400		
	EPA SAMPLE NO.									
01	MTLSSE6_5002	12100		9.72	50600		20.10	40700		25.02
02	MTLSSF5006	13700		9.69	57400		20.12	46000		25.04
03	SSE6_5002MS	11300		9.69	47100		20.12	38000		25.02
04	SSE6_5002MSD	12100		9.72	49700		20.10	40000		25.02
05	SSF5006MS	14100		9.72	59500		20.10	47500		25.04
06	SSF5006MSD	14400		9.72	59000		20.10	47800		25.04
07	VBLK1118L	14500		9.74	59000		20.12	47900		25.04
08	VBLK1118M	14800		9.69	60400		20.12	48600		25.02

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

TOTAL ION CHROMATOGRAM



Data File: >H5708::H1 Quant Output File: ^H5708::QU
Name: 6302_111688,V,IC020,
Misc: CLP,7000,,VSTD020, JUNE ALS 2 2UL

Id File: HVOAID::F1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881116 17:10

Operator ID: SABRINA
Quant Time: 881116 21:07
Injected at: 881116 20:26

1138

QUANT REPORT

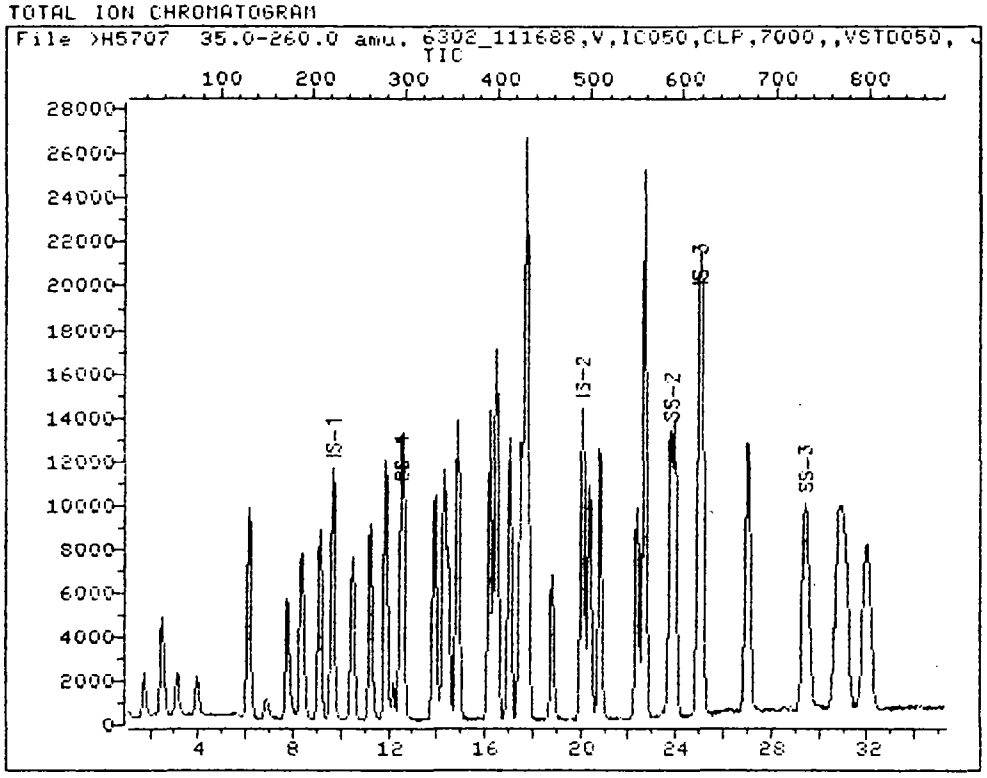
Operator ID: SABRINA Quant Rev: 6 Quant Time: 881116 21:07
Output File: ^H5708::QU Injected at: 881116 20:26
Data File: >H5708::H1 Dilution Factor: 1.00000
Name: 6302_111688,V,IC020,
Misc: CLP,7000,,VSTD020, JUNE ALS 2 2UL

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881116 17:10

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	9.69	128.0	14491	50.00	UG/L	96
2)	C010 CHLOROMETHANE	1.79	50.0	4982	14.29	UG/L	100
3)	C015 BROMOMETHANE	2.52	94.0	6838	18.51	UG/L	99
4)	C020 VINYL CHLORIDE	3.18	62.0	5763	16.75	UG/L	100
5)	C025 CHLOROETHANE	4.00	64.0	3644	17.27	UG/L	100
6)	C030 METHYLENE CHLORIDE	6.17	84.0	9979	22.53	UG/L	71
7)	C035 ACETONE	6.90	43.0	3840	24.33	UG/L	76
8)	C040 CARBON DISULFIDE	7.79	76.0	20882	17.47	UG/L	100
9)	C045 1,1-DICHLOROETHENE	9.15	96.0	6327	17.99	UG/L	95
10)	C050 1,1-DICHLOROETHANE	10.51	63.0	17745	19.94	UG/L	97
11)	C053 TRANS-1,2,DICHLOROETHENE	11.25	96.0	6806	18.39	UG/L	89
12)	C060 CHLOROFORM	11.90	83.0	18472	19.24	UG/L	95
13)	C065 1,2-DICHLOROETHANE	12.64	62.0	14707	20.44	UG/L	95
14)	CS15 D4-1,2-DICHLOROETHANE SS1	12.52	65.0	28524	102.67	UG/L	89
15)	*CI10 1,4-DIFLUOROBENZENE IS-2	20.05	114.0	57389	50.00	UG/L	100
16)	C110 2-BUTANONE (MEK)	12.56	72.0	917	20.46	UG/L	93
17)	C115 1,1,1-TRICHLOROETHANE	13.92	97.0	13092	17.74	UG/L	90
18)	C120 CARBON TETRACHLORIDE	14.31	117.0	13543	17.51	UG/L	87
19)	C125 VINYL ACETATE	14.50	43.0	16777M	14.86	UG/L	
20)	C130 BROMODICHLOROMETHANE	14.89	83.0	18903	18.93	UG/L	95
21)	C140 1,2-DICHLOROPROPANE	16.21	63.0	11497	19.89	UG/L	98
22)	C143 CIS-1,3-DICHLOROPROPENE	16.48	75.0	19904	18.00	UG/L	92
23)	C150 TRICHLOROETHENE	17.06	130.0	8738	18.78	UG/L	96
24)	C155 DIBROMOCHLOROMETHANE	17.68	129.0	14518	18.88	UG/L	94
25)	C160 1,1,2-TRICHLOROETHANE	17.76	97.0	8199	19.76	UG/L	95
26)	C165 BENZENE	17.53	78.0	21319	19.16	UG/L	100
27)	C172 TRANS-1,3-DICHLOROPROPENE	17.76	75.0	7375	18.51	UG/L	100
28)	C175 2-CHLOROETHYLVINYLETHER	18.85	63.0	6071	19.65	UG/L	90
29)	C180 BROMOFORM	20.36	173.0	10372	19.22	UG/L	79
30)	*CI20 D5-CHLOROBENZENE IS-3	24.97	117.0	46877	50.00	UG/L	100
31)	C205 4-METHYL-2-PENTANONE	20.82	43.0	23292	19.49	UG/L	76
32)	C210 2-HEXANONE (MPK)	22.37	43.0	19585	19.87	UG/L	87
33)	C220 TETRACHLOROETHYLENE	22.68	164.0	7072	17.19	UG/L	88
34)	C225 1,1,2,2-TETRACHLOROETHANE	22.64	83.0	14872	18.12	UG/L	93
35)	CS05 D-8 TOLUENE (SS-2)	23.77	98.0	49527	100.03	UG/L	84
36)	C230 TOLUENE	23.92	92.0	12931	18.69	UG/L	98
37)	C235 CHLOROBENZENE	25.09	112.1	16705	18.14	UG/L	71
38)	C240 ETHYL BENZENE	27.03	106.0	7755	17.83	UG/L	95
39)	CS10 BROMOFLUOROBENZENE (SS-3)	29.39	95.1	37046	99.27	UG/L	100
40)	C245 STYRENE	30.79	104.1	18640	19.49	UG/L	53
41)	C250 TOTAL XYLENES	31.91	106.2	18927M	35.73	UG/L	90

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >H5707::H1 Quant Output File: ^H5707::QU
Name: 6302_111688,V,IC050,
Misc: CLP,7000,,VSTD050, JUNE ALS 1 5UL

Id File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881116 17:10

Operator ID: SABRINA
Quant Time: 881116 20:25
Injected at: 881116 19:44

11138

QUANT REPORT

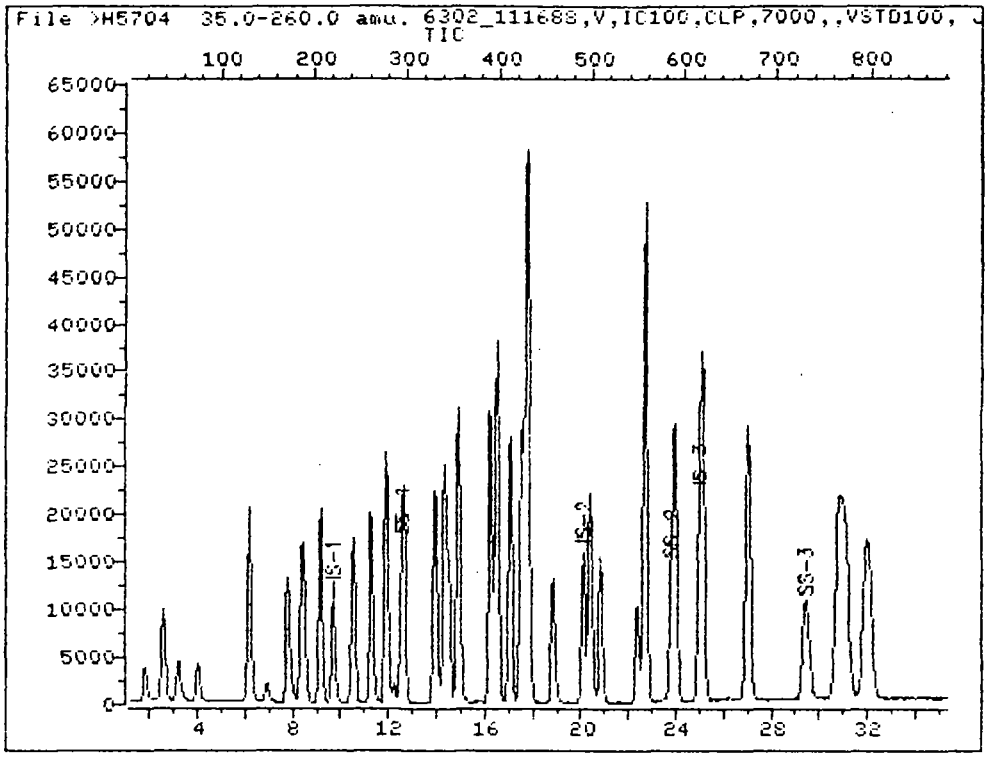
Operator ID: SABRINA Quant Rev: 6 Quant Time: 881116 20:25
Output File: ^H5707::QU Injected at: 881116 19:44
Data File: >H5707::H1 Dilution Factor: 1.00000
Name: 6302_111688,V,IC050,
Misc: CLP,7000,,VSTD050, JUNE ALS 1 5UL

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881116 17:10

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	9.69	128.0	13827	50.00	UG/L	97
2)	C010 CHLOROMETHANE	1.78	50.0	14221	42.75	UG/L	100
3)	C015 BROMOMETHANE	2.52	94.0	15735	44.63	UG/L	93
4)	C020 VINYL CHLORIDE	3.14	62.0	14680	44.72	UG/L	100
5)	C025 CHLOROETHANE	3.99	64.0	9169	45.55	UG/L	100
6)	C030 METHYLENE CHLORIDE	6.16	84.0	20987	49.65	UG/L	64
7)	C035 ACETONE	6.90	43.0	8445	56.09	UG/L	86
8)	C040 CARBON DISULFIDE	7.79	76.0	49985	43.82	UG/L	100
9)	C045 1,1-DICHLOROETHENE	9.15	96.0	15003	44.71	UG/L	94
10)	C050 1,1-DICHLOROETHANE	10.55	63.0	42039	49.51	UG/L	98
11)	C053 TRANS-1,2,DICHLOROETHENE	11.28	96.0	16831	47.65	UG/L	93
12)	C060 CHLOROFORM	11.90	83.0	44492	48.58	UG/L	99
13)	C065 1,2-DICHLOROETHANE	12.64	62.0	35364	51.50	UG/L	95
14)	CS15 D4-1,2-DICHLOROETHANE SS1	12.52	65.0	27597	104.11	UG/L	91
15)	*CI10 1,4-DIFLUOROBENZENE IS-2	20.08	114.0	55232	50.00	UG/L	100
16)	C110 2-BUTANONE (MEK)	12.56	72.0	2603	60.35	UG/L	88
17)	C115 1,1,1-TRICHLOROETHANE	13.96	97.0	33035	46.51	UG/L	86
18)	C120 CARBON TETRACHLORIDE	14.35	117.0	33544	45.07	UG/L	98
19)	C125 VINYL ACETATE	14.50	43.0	59262	54.55	UG/L	88
20)	C130 BROMODICHLOROMETHANE	14.89	83.0	46917	48.82	UG/L	98
21)	C140 1,2-DICHLOROPROPANE	16.24	63.0	28032	50.39	UG/L	97
22)	C143 CIS-1,3-DICHLOROPROPENE	16.52	75.0	49352	46.37	UG/L	98
23)	C150 TRICHLOROETHENE	17.06	130.0	20320	45.39	UG/L	85
24)	C155 DIBROMOCHLOROMETHANE	17.72	129.0	36893	49.86	UG/L	97
25)	C160 1,1,2-TRICHLOROETHANE	17.80	97.0	21040	52.70	UG/L	97
26)	C165 BENZENE	17.52	78.0	50323	47.00	UG/L	100
27)	C172 TRANS-1,3-DICHLOROPROPENE	17.80	75.0	16544	48.37	UG/L	100
28)	C175 2-CHLOROETHYLVINYLETHER	18.84	63.0	15433	51.91	UG/L	99
29)	C180 BROMOFORM	20.39	173.0	26627	51.26	UG/L	87
30)	*CI20 DS-CHLOROBENZENE IS-3	25.01	117.0	44043	50.00	UG/L	100
31)	C205 4-METHYL-2-PENTANONE	20.82	43.0	64257	57.21	UG/L	75
32)	C210 2-HEXANONE (MBK)	22.41	43.0	54423	58.76	UG/L	84
33)	C220 TETRACHLOROETHYLENE	22.72	164.0	16190	41.89	UG/L	91
34)	C225 1,1,2,2-TETRACHLOROETHANE	22.68	83.0	40935	53.08	UG/L	99
35)	CS05 D-8 TOLUENE (SS-2)	23.81	98.0	46755	100.51	UG/L	82
36)	C230 TOLUENE	23.96	92.0	29886	45.96	UG/L	97
37)	C235 CHLOROBENZENE	25.12	112.1	38885	44.93	UG/L	86
38)	C240 ETHYL BENZENE	27.02	106.0	18404	45.03	UG/L	95
39)	CS10 BROMOFLUOROBENZENE (SS-3)	29.43	95.1	34383	98.06	UG/L	100
40)	C245 STYRENE	30.79	104.1	41194	45.84	UG/L	53
41)	C250 TOTAL XYLENES	32.03	106.2	41398M	83.17	UG/L	86

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >H5704::H1 Quant Output File: ^H5704::QU
Name: 6302_111688,V,IC100,
Misc: CLP,7000,,VSTD100, JUNE ALS 8 10UL

Id File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881116 17:10

Operator ID: SABRINA
Quant Time: 881116 18:20
Injected at: 881116 17:39

11138

QUANT REPORT

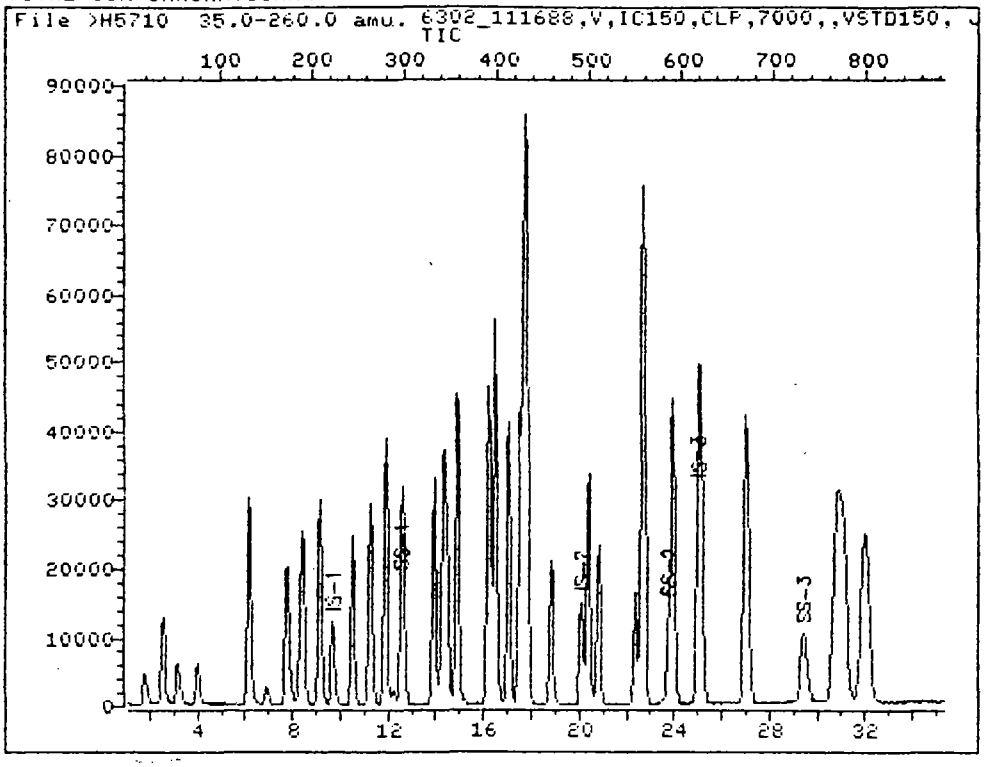
Operator ID: SABRINA Quant Rev: 6 Quant Time: 881116 18:20
Output File: ^H5704::QU Injected at: 881116 17:39
Data File: >H5704::H1 Dilution Factor: 1.00000
Name: 6302_111688,V,IC100,
Misc: CLP,7000,,VSTD100, JUNE ALS & 10UL

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881116 17:10

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	9.67	128.0	15238	50.00	UG/L	96
2)	C010 CHLOROMETHANE	1.80	50.0	27997	76.37	UG/L	100
3)	C015 BROMOMETHANE	2.57	94.0	35854	92.28	UG/L	97
4)	C020 VINYL CHLORIDE	3.19	62.0	33145	91.61	UG/L	100
5)	C025 CHLOROETHANE	4.01	64.0	21670	97.68	UG/L	100
6)	C030 METHYLENE CHLORIDE	6.18	84.0	44672	95.90	UG/L	69
7)	C035 ACETONE	6.92	43.0	16758	100.99	UG/L	84
8)	C040 CARBON DISULFIDE	7.77	76.0	117864	93.76	UG/L	100
9)	C045 1,1-DICHLOROETHENE	9.16	96.0	35349	95.59	UG/L	93
10)	C050 1,1-DICHLOROETHANE	10.52	63.0	93450	99.86	UG/L	98
11)	C053 TRANS-1,2,DICHLOROETHENE	11.26	96.0	37576	96.53	UG/L	90
12)	C060 CHLOROFORM	11.92	83.0	98378	97.46	UG/L	98
13)	C065 1,2-DICHLOROETHANE	12.65	62.0	76748	101.42	UG/L	94
14)	CS15 D4-1,2-DICHLOROETHANE SS1	12.54	65.0	31296	107.13	UG/L	83
15)	*CI10 1,4-DIFLUOROBENZENE IS-2	20.10	114.0	58533	50.00	UG/L	100
16)	C110 2-BUTANONE (MEK)	12.58	72.0	4451	97.38	UG/L	87
17)	C115 1,1,1-TRICHLOROETHANE	13.93	97.0	71848	95.45	UG/L	88
18)	C120 CARBON TETRACHLORIDE	14.32	117.0	73547	93.24	UG/L	95
19)	C125 VINYL ACETATE	14.52	43.0	111643	96.97	UG/L	88
20)	C130 BROMODICHLOROMETHANE	14.90	83.0	103861	101.97	UG/L	97
21)	C140 1,2-DICHLOROPROPANE	16.22	63.0	60573	102.74	UG/L	94
22)	C143 CIS-1,3-DICHLOROPROPENE	16.49	75.0	109065	96.70	UG/L	95
23)	C150 TRICHLOROETHENE	17.07	130.0	44645	94.09	UG/L	98
24)	C155 DIBROMOCHLOROMETHANE	17.70	129.0	79275	101.10	UG/L	99
25)	C160 1,1,2-TRICHLOROETHANE	17.81	97.0	43782	103.48	UG/L	96
26)	C165 BENZENE	17.54	78.0	110107	97.04	UG/L	100
27)	C172 TRANS-1,3-DICHLOROPROPENE	17.77	75.0	41709	102.65	UG/L	100
28)	C175 2-CHLOROETHYLVINYLETHER	18.86	63.0	31023	98.46	UG/L	97
29)	C180 BROMOFORM	20.37	173.0	56969	103.49	UG/L	86
30)	*CI20 D5-CHLOROBENZENE IS-3	24.99	117.0	47423	50.00	UG/L	100
31)	C205 4-METHYL-2-PENTANONE	20.84	43.0	78555	64.96	UG/L	77
32)	C210 2-HEXANONE (MPK)	22.39	43.0	58157	58.31	UG/L	88
33)	C220 TETRACHLOROETHYLENE	22.70	164.0	36048	86.63	UG/L	89
34)	C225 1,1,2,2-TETRACHLOROETHANE	22.70	83.0	79401	95.62	UG/L	93
35)	CS05 D-8 TOLUENE (SS-2)	23.78	98.0	50319	100.46	UG/L	83
36)	C230 TOLUENE	23.98	92.0	66369	94.80	UG/L	99
37)	C235 CHLOROBENZENE	25.10	112.1	87618	94.02	UG/L	87
38)	C240 ETHYL BENZENE	27.04	106.0	42112	95.70	UG/L	94
39)	CS10 BROMOFLUOROBENZENE (SS-3)	29.41	95.1	37953	100.53	UG/L	100
40)	C245 STYRENE	30.80	104.1	93607	96.75	UG/L	48
41)	C250 TOTAL XYLENES	31.07	106.2	98248M	183.32	UG/L	84

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Name: 6302_111688,V,IC150,
Misc: CLP,7000,,VSTD150, JUNE ALS 4 15UL

Id File: HVOAID::F1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881116 17:10

Operator ID: SABRINA
Quant Time: 881116 22:31
Injected at: 881116 21:50

11138

QUANT REPORT

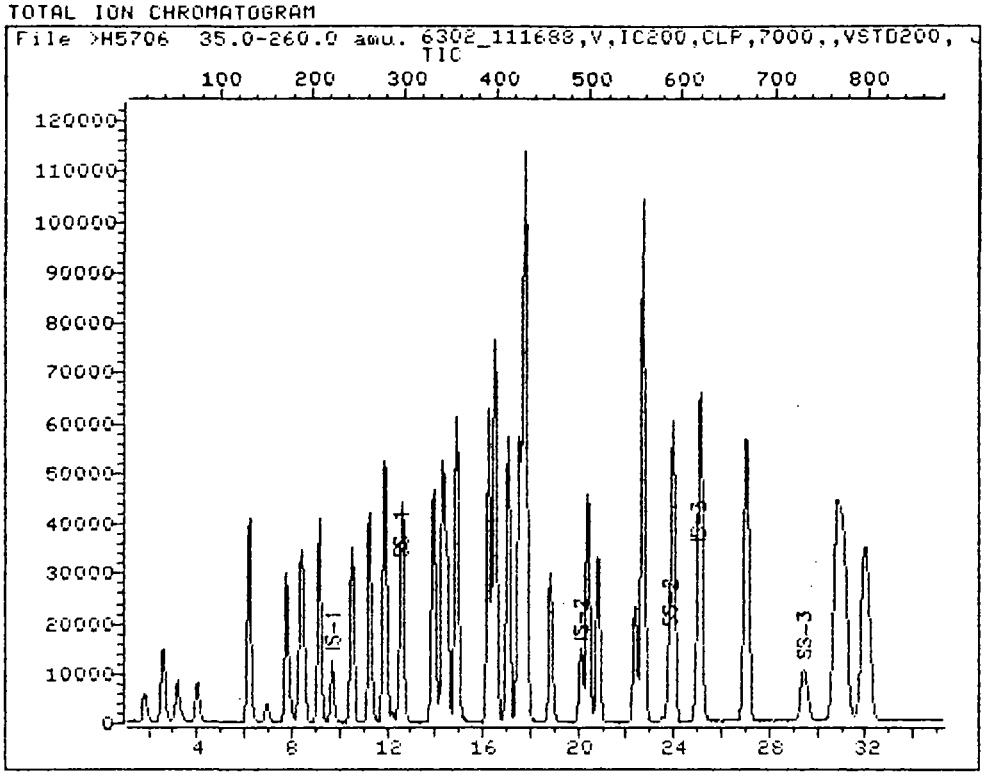
Operator ID: SABRINA Quant Rev: 6 Quant Time: 881116 22:31
Output File: ^H5710::QU Injected at: 881116 21:50
Data File: >H5710::H1 Dilution Factor: 1.00000
Name: 6302_!11688,V,IC150,
Misc: CLP,7000,,VSTD150, JUNE ALS 4 15UL

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881116 17:10

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	9.70	128.0	14657	50.00	UG/L	99
2)	C010 CHLOROMETHANE	1.79	50.0	34393	97.53	UG/L	100
3)	C015 BROMOMETHANE	2.60	94.0	48682	130.26	UG/L	96
4)	C020 VINYL CHLORIDE	3.18	62.0	46636	134.01	UG/L	100
5)	C025 CHLOROETHANE	4.00	64.0	31140	145.94	UG/L	100
6)	C030 METHYLENE CHLORIDE	6.17	84.0	64087	143.03	UG/L	75
7)	C035 ACETONE	6.91	43.0	21245	133.10	UG/L	87
8)	C040 CARBON DISULFIDE	7.80	76.0	174023	143.92	UG/L	100
9)	C045 1,1-DICHLOROETHENE	9.15	96.0	51549	144.92	UG/L	92
10)	C050 1,1-DICHLOROETHANE	10.51	63.0	136657	151.82	UG/L	99
11)	C053 TRANS-1,2,DICHLOROETHENE	11.29	96.0	55370	147.88	UG/L	92
12)	C060 CHLOROFORM	11.91	83.0	145188	149.54	UG/L	97
13)	C065 1,2-DICHLOROETHANE	12.64	62.0	115288	158.38	UG/L	95
14)	CS15 D4-1,2-DICHLOROETHANE SS1	12.53	65.0	32894	117.06	UG/L	88
15)	*CI10 1,4-DIFLUOROBENZENE IS-2	20.09	114.0	57138	50.00	UG/L	100
16)	C110 3-BUTANONE (MEK)	12.57	72.0	6318	141.61	UG/L	89
17)	C115 1,1,1-TRICHLOROETHANE	13.96	97.0	108771	148.03	UG/L	85
18)	C120 CARBON TETRACHLORIDE	14.31	117.0	108254	140.58	UG/L	97
19)	C125 VINYL ACETATE	14.51	43.0	181354	161.37	UG/L	90
20)	C130 BROMODICHLOROMETHANE	14.89	83.0	155289	156.18	UG/L	98
21)	C140 1,2-DICHLOROPROPANE	16.21	63.0	91673	159.29	UG/L	99
22)	C143 CIS-1,3-DICHLOROPROPENE	16.48	75.0	164602	149.51	UG/L	95
23)	C150 TRICHLOROETHENE	17.07	130.0	65429	141.26	UG/L	99
24)	C155 DIBROMOCHLOROMETHANE	17.69	129.0	119403	156.00	UG/L	99
25)	C160 1,1,2-TRICHLOROETHANE	17.80	97.0	64243	155.54	UG/L	98
26)	C165 BENZENE	17.53	78.0	164740	148.74	UG/L	100
27)	C172 TRANS-1,3-DICHLOROPROPENE	17.80	75.0	60583	152.74	UG/L	100
28)	C175 2-CHLOROETHYLVINYLETHER	18.85	63.0	48287	157.00	UG/L	96
29)	C180 BROMOFORM	20.40	173.0	86866	161.65	UG/L	86
30)	*CI20 DS-CHLOROBENZENE IS-3	25.01	117.0	46128	50.00	UG/L	100
31)	C205 4-METHYL-2-PENTANONE	20.83	43.0	117557	99.94	UG/L	76
32)	C210 2-HEXANONE (MPK)	22.38	43.0	84313	86.91	UG/L	67
33)	C220 TETRACHLOROETHYLENE	22.69	164.0	53618	132.47	UG/L	90
34)	C225 1,1,2,2-TETRACHLOROETHANE	22.69	83.0	117224	145.13	UG/L	99
35)	CS05 D-8 TOLUENE (SS-2)	23.77	98.0	48501	99.55	UG/L	91
36)	C230 TOLUENE	23.97	92.0	98803	145.09	UG/L	98
37)	C235 CHLOROBENZENE	25.13	112.1	129924	143.34	UG/L	81
38)	C240 ETHYL BENZENE	27.03	106.0	61529	143.75	UG/L	92
39)	CS10 BROMOFLUOROBENZENE (SS-3)	29.44	95.1	35896	97.75	UG/L	100
40)	C245 STYRENE	30.79	104.1	135913	144.42	UG/L	50
41)	C250 TOTAL XYLENES	32.00	106.2	141438M	271.32	UG/L	87

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Name: 6302_111688,V,IC200,
Misc: CLP,7000,,VSTD200, JUNE ALS10 20UL

Id File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881116 17:10

Operator ID: SABRINA
Quant Time: 881116 19:44
Injected at: 881116 19:03

11130

QUANT REPORT

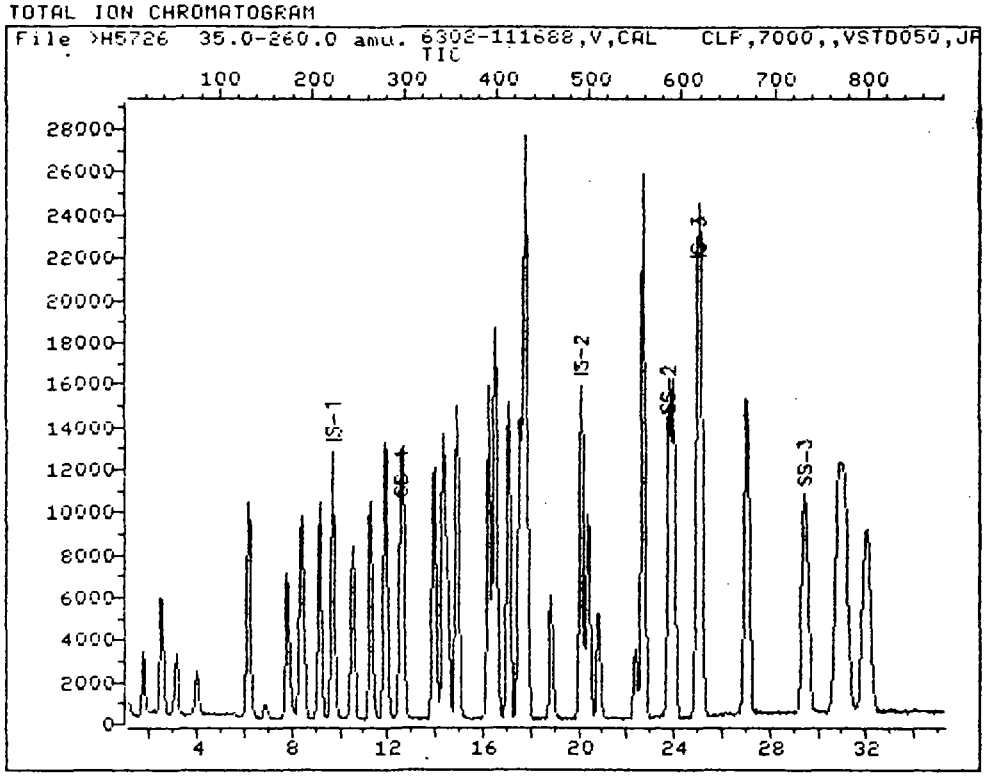
Operator ID: SABRINA Quant Rev: 6 Quant Time: 881116 19:44
Output File: ^H5706::QU Injected at: 881116 19:03
Data File: >H5706::H1 Dilution Factor: 1.00000
Name: 6302_111688,V,IC200,
Misc: CLP,7000,,VSTD200, JUNE ALS10 20UL

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881116 17:10

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	9.69	128.0	14778	50.00	UG/L	95
2)	C010 CHLOROMETHANE	1.82	50.0	43150	121.37	UG/L	100
3)	C015 BROMOMETHANE	2.60	94.0	56706	150.48	UG/L	92
4)	C020 VINYL CHLORIDE	3.18	62.0	63163	180.02	UG/L	100
5)	C025 CHLOROETHANE	3.99	64.0	42796	198.92	UG/L	100
6)	C030 METHYLENE CHLORIDE	6.16	84.0	87794	194.34	UG/L	69
7)	C035 ACETONE	6.94	43.0	31200	193.87	UG/L	86
8)	C040 CARBON DISULFIDE	7.79	76.0	250275	205.29	UG/L	100
9)	C045 1,1-DICHLOROETHENE	9.15	96.0	72358	201.76	UG/L	96
10)	C050 1,1-DICHLOROETHANE	10.54	63.0	193272	212.97	UG/L	97
11)	C053 TRANS-1,2,DICHLOROETHENE	11.28	96.0	76473	202.57	UG/L	92
12)	C060 CHLOROFORM	11.90	83.0	201092	205.43	UG/L	99
13)	C065 1,2-DICHLOROETHANE	12.64	62.0	157945	215.21	UG/L	97
14)	CS15 D4-1,2-DICHLOROETHANE SS1	12.58	65.0	34069	120.25	UG/L	74
15)	*CI10 1,4-DIFLUOROBENZENE IS-2	20.08	114.0	56601	50.00	UG/L	100
16)	C110 2-BUTANONE (MEK)	12.56	72.0	9165	207.36	UG/L	88
17)	C115 1,1,1-TRICHLOROETHANE	13.96	97.0	150976	207.42	UG/L	88
18)	C120 CARBON TETRACHLORIDE	14.34	117.0	152844	200.37	UG/L	93
19)	C125 VINYL ACETATE	14.50	43.0	260923	234.37	UG/L	89
20)	C130 BROMODICHLOROMETHANE	14.93	83.0	209995	213.21	UG/L	97
21)	C140 1,2-DICHLOROPROPANE	16.24	63.0	122525	214.92	UG/L	97
22)	C143 CIS-1,3-DICHLOROPROPENE	16.51	75.0	223933	205.33	UG/L	98
23)	C150 TRICHLOROETHENE	17.06	130.0	89111	194.22	UG/L	82
24)	C155 DIBROMOCHLOROMETHANE	17.72	129.0	163906	216.17	UG/L	90
25)	C160 1,1,2-TRICHLOROETHANE	17.80	97.0	85757	209.60	UG/L	99
26)	C165 BENZENE	17.52	78.0	222984	203.24	UG/L	100
27)	C172 TRANS-1,3-DICHLOROPROPENE	17.80	75.0	82245	209.32	UG/L	100
28)	C175 2-CHLOROETHYLVINYLETHER	18.84	63.0	71023	233.11	UG/L	97
29)	C180 BROMOFORM	20.39	173.0	117014	219.82	UG/L	92
30)	*CI20 DS-CHLOROBENZENE IS-3	25.01	117.0	45754	50.00	UG/L	100
31)	C205 4-METHYL-2-PENTANONE	20.86	43.0	169864	145.59	UG/L	76
32)	C210 2-HEXANONE (MPK)	22.37	43.0	123291	128.13	UG/L	89
33)	C220 TETRACHLOROETHYLENE	22.72	164.0	72366	180.25	UG/L	90
34)	C225 1,1,2,2-TETRACHLOROETHANE	22.68	83.0	160724	200.62	UG/L	93
35)	CS05 D-8 TOLUENE (SS-2)	23.81	98.0	48141	99.61	UG/L	83
36)	C230 TOLUENE	23.98	92.0	134050	198.45	UG/L	94
37)	C235 CHLOROBENZENE	25.12	112.1	175947	195.70	UG/L	78
38)	C240 ETHYL BENZENE	27.02	106.0	84993	200.19	UG/L	96
39)	CS10 BROMOFLUOROBENZENE (SS-3)	29.43	95.1	36334	99.75	UG/L	100
40)	C245 STYRENE	30.79	104.1	193854	207.67	UG/L	50
41)	C250 TOTAL XYLENES	31.95	106.2	202608M	391.83	UG/L	87

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Misc: CLP,7000,,VSTD050,JPM ALS 4 5UL

Id File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881117 10:27

Operator ID: MANAGER
Quant Time: 881117 19:35
Injected at: 881117 18:54

11138

QUANT REPORT

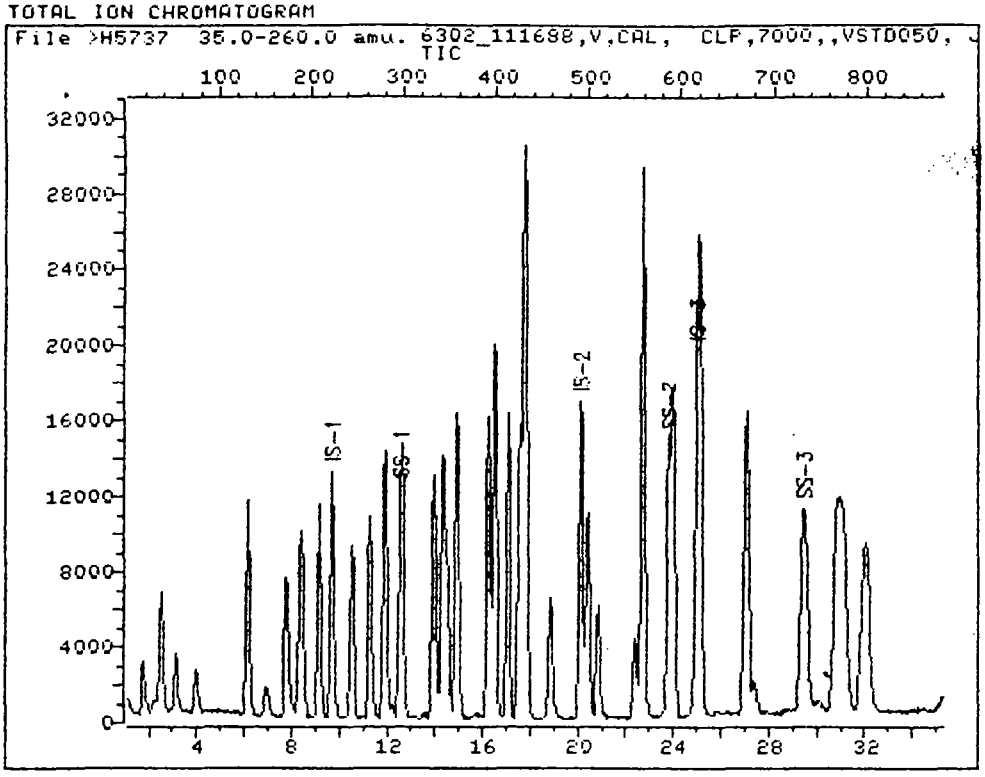
Operator ID: MANAGER Quant Rev: 6 Quant Time: 881117 19:35
Output File: ^H5726::QU Injected at: 881117 18:54
Data File: >H5726::H1 Dilution Factor: 1.00000
Name: 6302-111688,V,CAL
Misc: CLP,7000,,VSTD050,JPM ALS 4 5UL

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881117 10:27

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	9.70	128.0	14904	50.00	UG/L	93
2)	C010 CHLOROMETHANE	1.75	50.0	18995	74.10	UG/L	100
3)	C015 BROMOMETHANE	2.49	94.0	19057	51.09	UG/L	96
4)	C020 VINYL CHLORIDE	3.11	62.0	18145	53.65	UG/L	100
5)	C025 CHLOROETHANE	4.00	64.0	11006	51.10	UG/L	100
6)	C030 METHYLENE CHLORIDE	6.17	84.0	22502	48.32	UG/L	67
7)	C035 ACETONE	6.87	43.0	6070	25.00	UG/L	84
8)	C040 CARBON DISULFIDE	7.80	76.0	61055	50.22	UG/L	100
9)	C045 1,1-DICHLOROETHENE	9.16	96.0	18300	51.49	UG/L	93
10)	C050 1,1-DICHLOROETHANE	10.51	63.0	46729	53.53	UG/L	95
11)	C053 TRANS-1,2,DICHLOROETHENE	11.29	96.0	19583	50.35	UG/L	90
12)	C060 CHLOROFORM	11.91	83.0	50594	52.52	UG/L	98
13)	C065 1,2-DICHLOROETHANE	12.65	62.0	37032	53.22	UG/L	93
14)	CS15 D4-1,2-DICHLOROETHANE SSI	12.53	65.0	29081	106.15	UG/L	89
15)	*CI10 1,4-DIFLUOROBENZENE IS-2	20.09	114.0	61537	50.00	UG/L	100
16)	C110 2-BUTANONE (MEK)	12.57	72.0	1442	24.61	UG/L	86
17)	C115 1,1,1-TRICHLOROETHANE	13.93	97.0	38343	50.20	UG/L	86
18)	C120 CARBON TETRACHLORIDE	14.35	117.0	39910	49.77	UG/L	96
19)	C125 VINYL ACETATE	14.51	43.0	53709	47.74	UG/L	90
20)	C130 BROMODICHLOROMETHANE	14.90	83.0	50850	49.51	UG/L	94
21)	C140 1,2-DICHLOROPROPANE	16.25	63.0	30011	50.13	UG/L	92
22)	C143 CIS-1,3-DICHLOROPROPENE	16.52	75.0	55439	49.47	UG/L	96
23)	C150 TRICHLOROETHENE	17.07	130.0	24175	49.90	UG/L	87
24)	C155 DIBROMOCHLOROMETHANE	17.69	129.0	38361	47.11	UG/L	96
25)	C160 1,1,2-TRICHLOROETHANE	17.80	97.0	20758	47.78	UG/L	98
26)	C165 BENZENE	17.53	78.0	57214	50.65	UG/L	100
27)	C172 TRANS-1,3-DICHLOROPROPENE	17.80	75.0	21185	52.22	UG/L	100
28)	C175 2-CHLOROETHYLVINYLETHER	18.85	63.0	13452	46.63	UG/L	95
29)	C180 BROMOFORM	20.40	173.0	24554	41.81	UG/L	83
30)	*CI20 D5-CHLOROBENZENE IS-3	25.02	117.0	50223	50.00	UG/L	100
31)	C205 4-METHYL-2-PENTANONE	20.87	43.0	27639	22.40	UG/L	73
32)	C210 2-HEXANONE (MPK)	22.38	43.0	18949	18.40	UG/L	87
33)	C220 TETRACHLOROETHYLENE	22.73	164.0	20673	49.38	UG/L	97
34)	C225 1,1,2,2-TETRACHLOROETHANE	22.73	83.0	33797	40.12	UG/L	99
35)	CS05 D-8 TOLUENE (SS-2)	23.78	98.0	52312	100.36	UG/L	94
36)	C230 TOLUENE	23.97	92.0	35911	50.27	UG/L	99
37)	C235 CHLOROBENZENE	25.13	112.1	46485	48.76	UG/L	78
38)	C240 ETHYL BENZENE	27.03	106.0	22377	50.78	UG/L	95
39)	CS10 BROMOFLUOROBENZENE (SS-3)	29.44	95.1	38025	100.22	UG/L	100
40)	C245 STYRENE	30.83	104.1	48921	49.23	UG/L	50
41)	C250 TOTAL XYLENES	31.10	106.2	53985M	98.16	UG/L	87

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Misc: CLP,7000,,VSTD050, JUNE ALS 2 5UL

Id File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881117 19:59

Operator ID: MANAGER
Quant Time: 881118 10:31
Injected at: 881118 09:54

11138

QUANT REPORT

Operatbr ID: MANAGER Quant Rev: 6 Quant Time: 881118 10:31
Output File: ^H5737::QU Injected at: 881118 09:54
Data File: >H5737::H1 Dilution Factor: 1.00000
Name: 6302_111688,V,CAL,
Misc: CLP,7000,,VSTD050, JUNE ALS 2 SUL

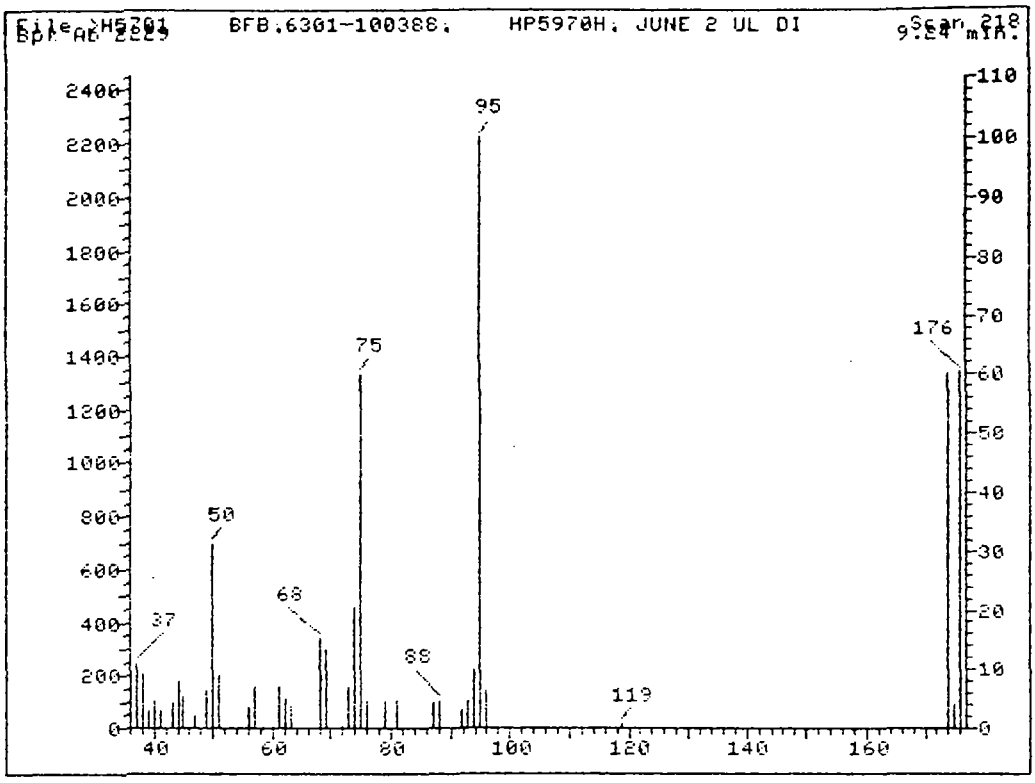
ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881117 19:59

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	9.69	128.0	16202	50.00	UG/L	88
2)	C010 CHLOROMETHANE	1.78	50.0	18366	44.47	UG/L	100
3)	C015 BROMOMETHANE	2.52	94.0	20815	50.24	UG/L	97
4)	C020 VINYL CHLORIDE	3.14	62.0	19131	48.49	UG/L	100
5)	C025 CHLOROETHANE	3.99	64.0	12088	50.52	UG/L	100
6)	C030 METHYLENE CHLORIDE	6.16	84.0	25226	51.56	UG/L	65
7)	C035 ACETONE	6.94	43.0	14870	112.67	UG/L	83
8)	C040 CARBON DISULFIDE	7.79	76.0	67681	50.99	UG/L	100
9)	C045 1,1-DICHLOROETHENE	9.18	96.0	20271	50.95	UG/L	96
10)	C050 1,1-DICHLOROETHANE	10.54	63.0	50221M	49.43	UG/L	97
11)	C053 TRANS-1,2,DICHLOROETHENE	11.28	96.0	21489	50.47	UG/L	85
12)	C060 CHLOROFORM	11.94	83.0	54757	49.78	UG/L	99
13)	C065 1,2-DICHLOROETHANE	12.67	62.0	38783	48.17	UG/L	94
14)	CS15 D4-1,2-DICHLOROETHANE SS1	12.56	65.0	30383	96.11	UG/L	86
15)	*CI10 1,4-DIFLUOROBENZENE IS-2	20.12	114.0	64888	50.00	UG/L	100
16)	C110 2-BUTANONE (MEK)	12.56	72.0	2278	74.91	UG/L	92
17)	C115 1,1,1-TRICHLOROETHANE	13.95	97.0	41402	51.20	UG/L	86
18)	C120 CARBON TETRACHLORIDE	14.34	117.0	42206	50.15	UG/L	96
19)	C125 VINYL ACETATE	14.53	43.0	59709	52.72	UG/L	90
20)	C130 BROMODICHLOROMETHANE	14.92	83.0	56048	52.27	UG/L	99
21)	C140 1,2-DICHLOROPROPANE	16.24	63.0	31860	50.34	UG/L	97
22)	C143 CIS-1,3-DICHLOROPROPENE	16.51	75.0	59847	51.19	UG/L	93
23)	C150 TRICHLOROETHENE	17.09	130.0	26526	52.03	UG/L	94
24)	C155 DIBROMOCHLOROMETHANE	17.71	129.0	41627	51.45	UG/L	95
25)	C160 1,1,2-TRICHLOROETHANE	17.83	97.0	22184	50.68	UG/L	98
26)	C165 BENZENE	17.56	78.0	61064	50.61	UG/L	100
27)	C172 TRANS-1,3-DICHLOROPROPENE	17.83	75.0	22462	50.28	UG/L	100
28)	C175 2-CHLOROETHYLVINYLETHER	18.88	63.0	15072	53.13	UG/L	98
29)	C180 BROMOFORM	20.39	173.0	27857	53.80	UG/L	82
30)	*CI20 D5-CHLOROBENZENE IS-3	25.00	117.0	52780	50.00	UG/L	100
31)	C205 4-METHYL-2-PENTANONE	20.86	43.0	30731	52.90	UG/L	76
32)	C210 2-HEXANONE (MPK)	22.41	43.0	26026M	65.35	UG/L	85
33)	C220 TETRACHLOROETHYLENE	22.72	164.0	21894	50.39	UG/L	96
34)	C225 1,1,2,2-TETRACHLOROETHANE	22.72	83.0	38267	53.87	UG/L	98
35)	CS05 D-8 TOLUENE (SS-2)	23.80	98.0	54470	99.08	UG/L	88
36)	C230 TOLUENE	24.00	92.0	38326	50.78	UG/L	99
37)	C235 CHLOROBENZENE	25.16	112.1	49992	51.17	UG/L	89
38)	C240 ETHYL BENZENE	27.06	106.0	23521	50.01	UG/L	95
39)	CS10 BROMOFLUOROBENZENE (SS-3)	29.46	95.1	38832	97.17	UG/L	100
40)	C245 STYRENE	30.86	104.1	49267	47.91	UG/L	49
41)	C250 TOTAL XYLENES	31.13	106.2	52714M	92.91	UG/L	87

* Compound is ISTD

3D. RAW QC DATA

3D(1). BFB TUNES



GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	31.31	31.31	Ok
75	30-60% of mass 95	59.89	59.89	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.42	6.42	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	60.30	60.30	Ok
175	5-9% of mass 174	3.99	6.62	Ok
176	95-101% of mass 174	60.43	100.22	Ok
177	5-9% of mass 176	3.95	6.53	Ok

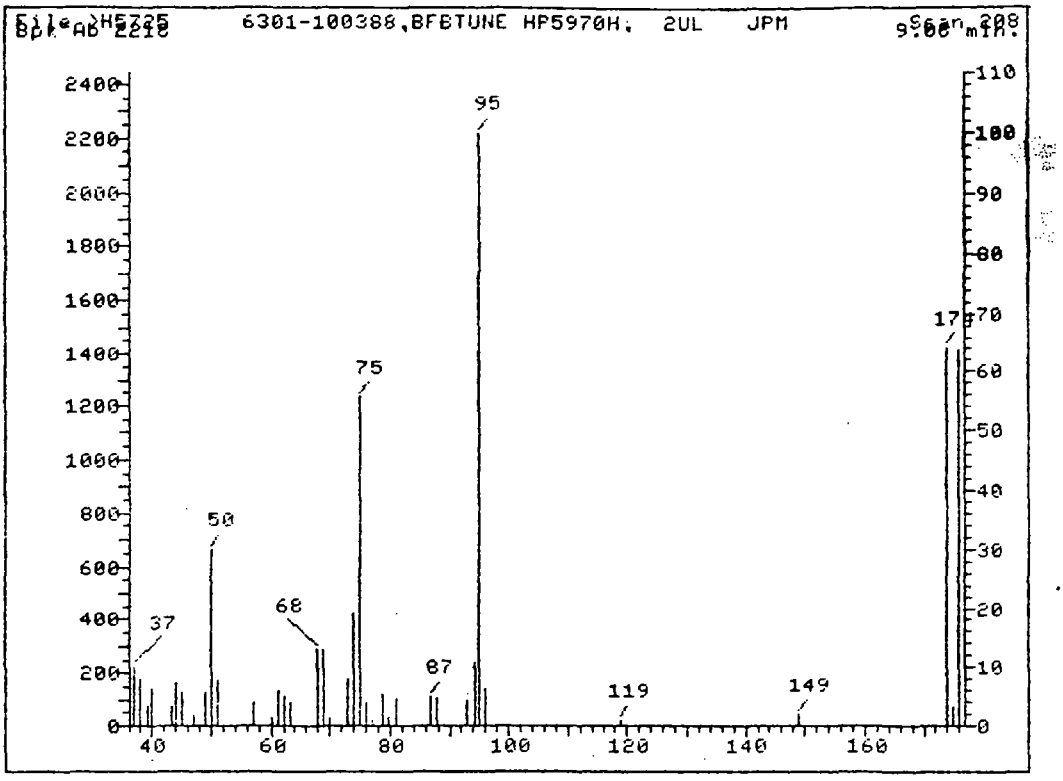
Injection Date: 11/16/88
Injection Time: 15:39
Data File: >H5701
Scan: 218

11138

>H5701 BFB,6301_100388, HP5970H, JUNE 2 UL DI
218 NRM

File: >H5701 Scan #: 218 Retn. time: 9.24

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
35.90	1.256	45.00	5.384	62.00	5.159	75.95	4.800	94.95	100.000
37.00	11.036	47.00	1.974	63.00	3.724	78.95	4.576	95.95	6.415
38.00	9.376	49.00	6.371	68.00	15.343	80.95	4.576	118.95	.808
39.00	3.006	50.00	31.314	69.00	13.459	86.95	4.441	173.95	60.296
40.00	4.890	51.00	9.152	72.00	.493	87.95	4.890	174.95	3.993
41.00	2.961	56.00	3.589	73.00	7.044	91.95	2.961	175.95	60.431
43.00	4.262	57.10	7.088	74.00	20.368	92.95	4.711	176.95	3.948
44.00	8.165	61.00	7.088	75.00	59.892	93.95	10.274		



GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	29.85	29.85	Ok
75	30-60% of mass 95	55.73	55.73	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.40	6.40	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	64.20	64.20	Ok
175	5-9% of mass 174	3.52	5.48	Ok
176	95-101% of mass 174	63.89	99.51	Ok
177	5-9% of mass 176	3.25	5.08	Ok

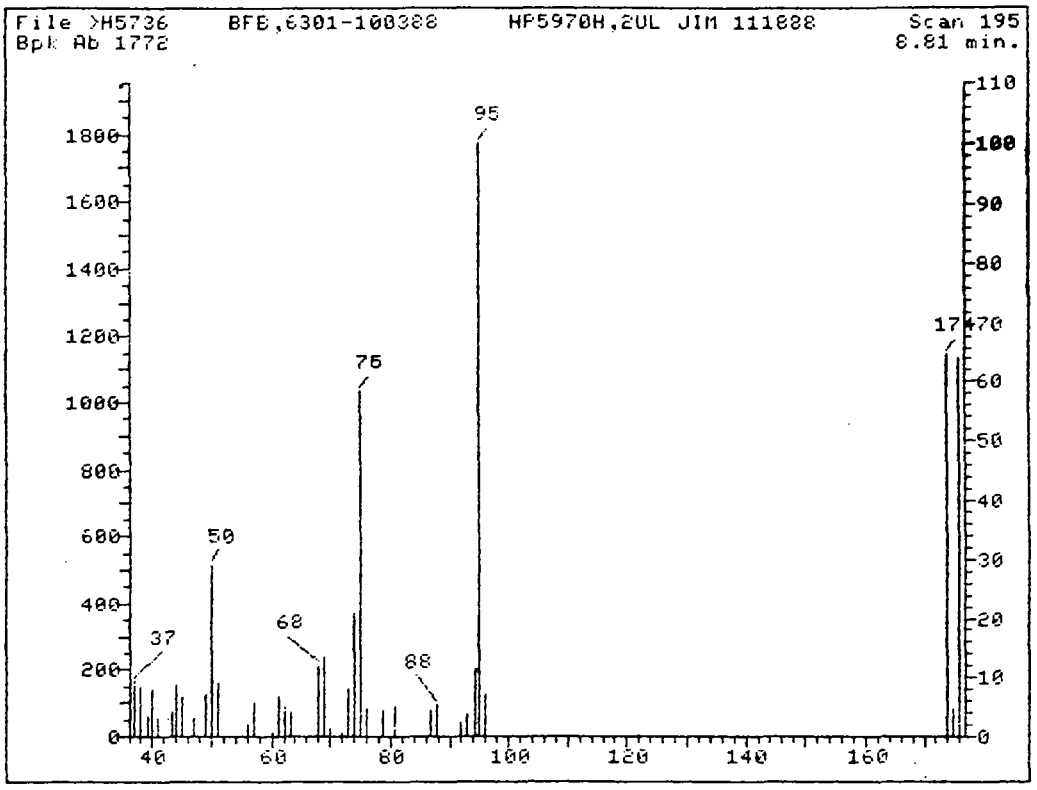
Injection Date: 11/17/88
Injection Time: 18:32
Data File: >H5725
Scan: 208

11138

>H5725 6301-100388,BFBTUNE HP5970H, 2UL JPM
208 NRM

File: >H5725 Scan #: 208 Retn. time: 9.06

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.00	1.488	47.00	1.849	63.10	4.013	76.95	.992	94.95	100.000
37.00	10.099	49.00	5.726	68.00	12.985	78.85	5.546	96.05	6.402
38.00	8.206	50.00	29.847	69.00	13.210	79.85	1.533	118.85	.902
39.10	3.517	51.00	7.800	70.00	1.262	80.95	4.689	149.05	1.939
39.90	6.447	57.00	4.148	73.00	8.070	86.95	5.005	173.95	64.202
43.10	3.427	60.00	1.443	74.00	19.342	87.85	4.599	174.95	3.517
44.00	7.439	61.10	5.996	75.00	55.726	92.95	4.283	175.95	63.886
45.00	5.591	62.00	5.005	76.05	4.193	94.05	10.685	176.95	3.246



GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	29.06	29.06	Ok
75	30-60% of mass 95	58.41	58.41	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	7.05	7.05	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	64.79	64.79	Ok
175	5-9% of mass 174	4.74	7.32	Ok
176	95-101% of mass 174	64.26	99.22	Ok
177	5-9% of mass 176	4.12	6.41	Ok

Injection Date: 11/18/88
Injection Time: 09:07
Data File: >H5736
Scan: 195

11138

>H5736 BFB,6301-100388 HP5970H,2UL JIM 111888
195 NRM

File: >H5736 Scan #: 195 Retn. time: 8.81

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.00	1.524	45.00	6.885	61.00	6.828	74.00	20.767	92.95	3.725
37.00	9.312	47.00	3.047	62.10	5.192	75.00	58.409	94.05	11.569
38.00	8.578	49.00	6.998	63.00	4.063	75.95	4.684	94.95	100.000
39.10	3.499	50.00	29.063	68.00	11.851	78.85	4.402	96.05	7.054
40.00	7.957	51.00	9.142	69.00	13.488	80.85	5.079	173.95	64.786
41.00	2.991	56.00	2.088	69.90	1.298	86.95	4.402	174.95	4.740
43.10	4.176	57.00	5.756	72.00	.790	87.95	5.361	175.95	64.278
44.00	8.804	60.00	.790	73.00	7.957	91.95	2.314	176.95	4.120

3D(2). BLANK DATA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1117M

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6306-111588

Sample wt/vol: 4.0 (g/mL) G Lab File ID: H5727

Level: (low/med) MED Date Received: N/A

% Moisture: not dec. 0 Date Analyzed: 11/17/88

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1000	U
74-83-9	Bromomethane	1000	U
75-01-4	Vinyl Chloride	1000	U
75-00-3	Chloroethane	1000	U
75-09-2	Methylene Chloride	340	J
67-64-1	Acetone	1000	U
75-15-0	Carbon Disulfide	500	U
75-35-4	1,1-Dichloroethene	500	U
75-34-3	1,1-Dichloroethane	500	U
540-59-0	1,2-Dichloroethene (total)	500	U
67-66-3	Chloroform	500	U
107-06-2	1,2-Dichloroethane	500	U
78-93-3	2-Butanone	1000	U
71-55-6	1,1,1-Trichloroethane	500	U
56-23-5	Carbon Tetrachloride	500	U
108-05-4	Vinyl Acetate	1000	U
75-27-4	Bromodichloromethane	500	U
78-87-5	1,2-Dichloropropane	500	U
10061-01-5	cis-1,3-Dichloropropene	500	U
79-01-6	Trichloroethene	500	U
124-48-1	Dibromochloromethane	500	U
79-00-5	1,1,2-Trichloroethane	500	U
71-43-2	Benzene	500	U
10061-02-6	Trans-1,3-Dichloropropene	500	U
75-25-2	Bromoform	500	U
108-10-1	4-Methyl-2-Pentanone	1000	U
591-78-6	2-Hexanone	1000	U
127-18-4	Tetrachloroethene	500	U
79-34-5	1,1,2,2-Tetrachloroethane	1000	U
108-88-3	Toluene	500	U
108-90-7	Chlorobenzene	500	U
100-41-4	Ethylbenzene	500	U
100-42-5	Styrene	500	U
1330-20-7	Total Xylenes	500	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK1117M

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6306-111588

Sample wt/vol: 4.0 (g/mL) G Lab File ID: H5727

Level: (low/med) MED Date Received: N/A

% Moisture: not dec. 0 Date Analyzed: 11/17/88

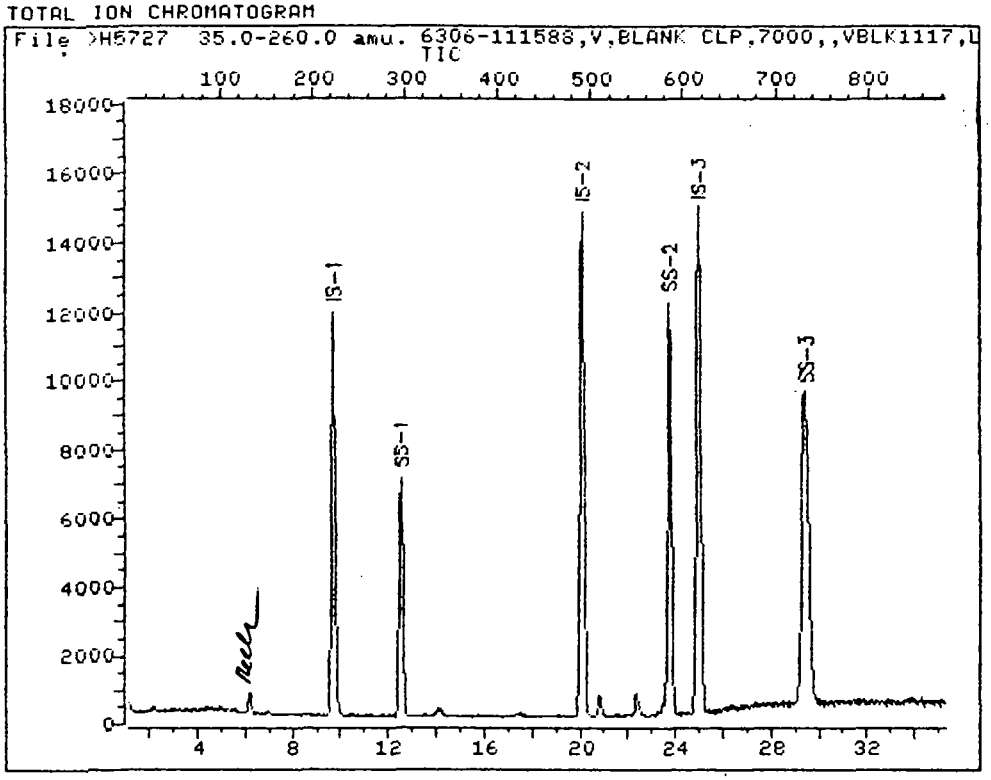
Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

TOTAL ION CHROMATOGRAM



Data File: >H5727::H1 Quant Output File: ^H5727::QU
Name: 6306-111588,V,BLANK
Misc: CLP,7000,,VBLK1117~~L~~,M, JPM ALS 5 50UL
M,S vAS
Id File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881117 19:59

Operator ID: MANAGER
Quant Time: 881117 20:16
Injected at: 881117 19:35

11138
VBLK1117M

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 881117 20:16
Output File: ^H5727::QU Injected at: 881117 19:35
Data File: >H5727::H1 Dilution Factor: 1.00000
Name: 6306-111588,V,BLANK
Misc: CLP,7000,,VBLK1117,L,M, JPM ALS 5 50UL

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881117 19:59

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	9.71	128.0	14349	50.00	UG/L	94
6)	C030 METHYLENE CHLORIDE	6.18	84.0	1172	2.70	UG/L	61
14)	CS15 D4-1,2-DICHLOROETHANE SS1	12.54	65.0	26840	95.86	UG/L	91
15)	*CI10 1,4-DIFLUOROBENZENE IS-2	20.10	114.0	56895	50.00	UG/L	100
30)	*CI20 D5-CHLOROBENZENE IS-3	24.98	117.0	44766	50.00	UG/L	100
35)	CS05 D-8 TOLUENE (SS-2)	23.78	98.0	46714	100.18	UG/L	84
39)	CS10 BROMOFLUOROBENZENE (SS-3)	29.48	95.1	34074	100.53	UG/L	100

* Compound is ISTD

QUANT REPORT

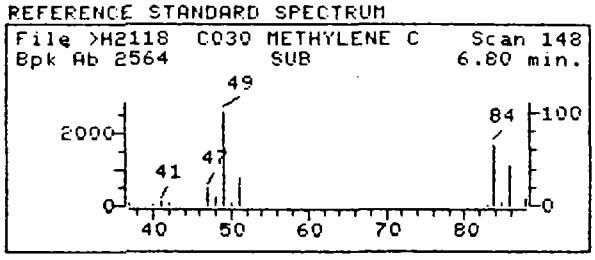
Operator ID: MANAGER Quant Rev: 6 Quant Time: 881117 20:16
Output File: ^H5727::QU Injected at: 881117 19:35
Data File: >H5727::H1 Dilution Factor: 1.00000
Name: 6306-111588,V,BLANK
Misc: CLP,7000,,VBLK1117,L,M, JPM ALS 5 50UL

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881117 19:59

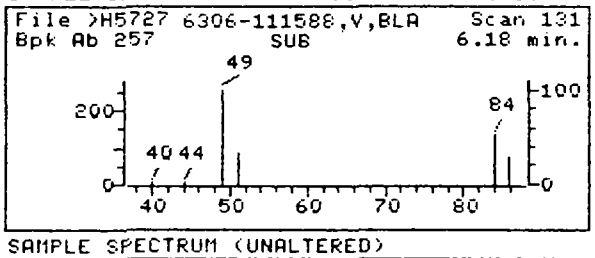
	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	9.71	222	14349	50.00	UG/L	94
6)	C030 METHYLENE CHLORIDE	6.18	131	1172	2.70	UG/L✓	61
14)	CS15 D4-1,2-DICHLOROETHANE SS1	12.54	295	26840	95.86	UG/L	91
15)	*CI10 1,4-DIFLUOROBENZENE IS-2	20.10	490	56895	50.00	UG/L	100
30)	*CI20 D5-CHLOROBENZENE IS-3	24.98	616	44766	50.00	UG/L	100
35)	CS05 D-8 TOLUENE (SS-2)	23.78	585	46714	100.18	UG/L	84
39)	CS10 BROMOFLUOROBENZENE (SS-3)	29.48	732	34074	100.53	UG/L	100

* Compound is ISTD

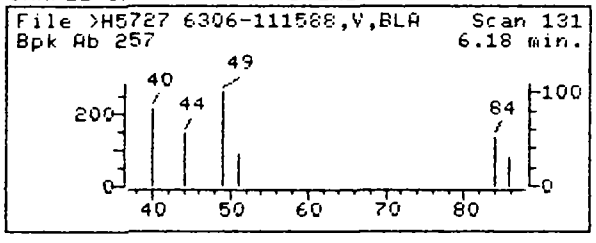
REFERENCE STANDARD SPECTRUM

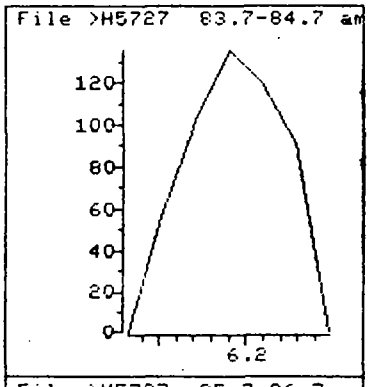


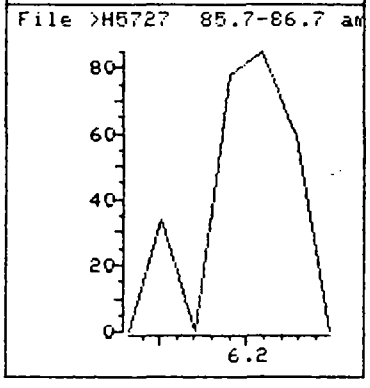
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >H5727::H1 Quant Output File: ^H5727::QU
Name: 6306-111588,V,BLANK
Misc: CLP,7000,,VBLK1117,L,M, JPM ALS 5 50UL
Quant Time: 881117 20:16 Quant ID File: HVOAID::P1
Injected at: 881117 19:35 Last Calibration: 881117 19:59

Compound No: 6
Compound Name: C030 METHYLENE CHLORIDE
Scan Number: 131
Retention Time: 6.18 min.
Quant Ion: 84.0
Area: 1172
Concentration: 2.70 UG/L
q-value: 61

✓

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
VBLK1118L

Lab Name: CAMBRG ANALYTL Contract:

Lab Code: CAMBRDG Case No.: 11138 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 6306 111488

Sample wt/vol: 5.0 (g/mL) G Lab File ID: H5742

Level: (low/med) LOW Date Received: N/A

% Moisture: not dec. 0 Date Analyzed: 11/18/88

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	J
67-64-1	Acetone	33	
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK1118L

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6306 111488

Sample wt/vol: 5.0 (g/mL) G Lab File ID: H5742

Level: (low/med) LOW Date Received: N/A

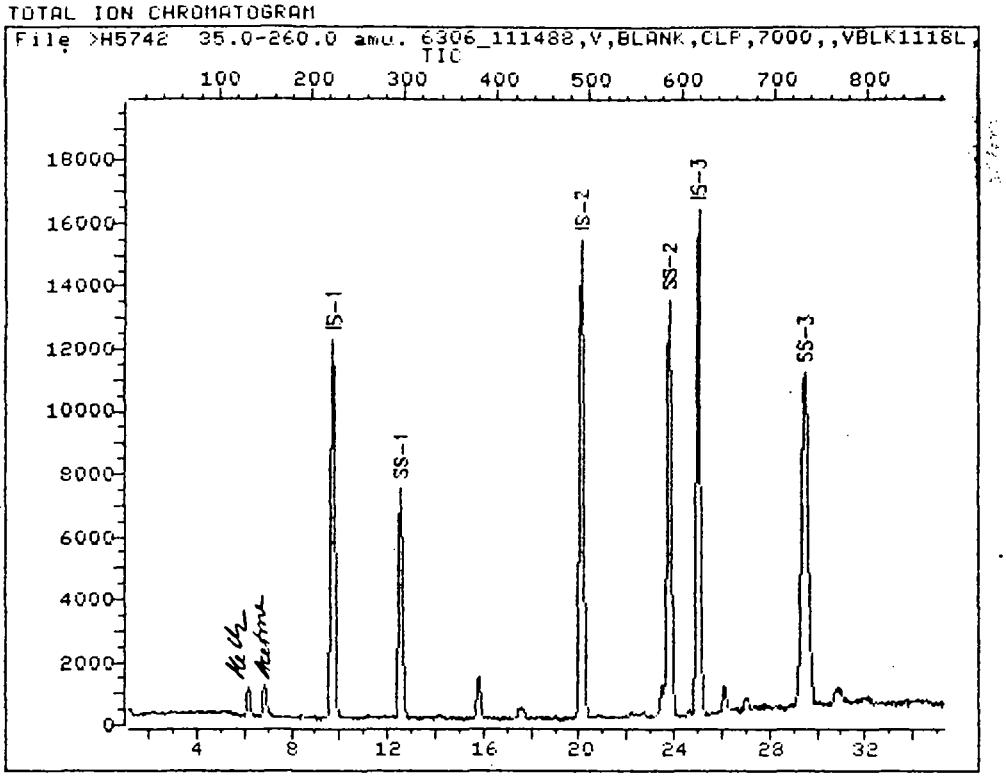
% Moisture: not dec. 0 Date Analyzed: 11/18/88

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

TOTAL ION CHROMATOGRAM



Data File: >H5742::H2 Quant Output File: ^H5742::QU
Name: 6306_111488,V,BLANK,
Misc: CLP,7000,,VBLK1118L,L,5, JUNE ALS 7 5.0G

Id File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881118 10:42

Operator ID: SABRINA
Quant Time: 881118 14:15
Injected at: 881118 13:34

11138
VBLK1118L

QUANT REPORT

Operator ID: SABRINA Quant Rev: 6 Quant Time: 881118 14:15
Output File: ^H5742::QU Injected at: 881118 13:34
Data File: >H5742::H2 Dilution Factor: 1.00000
Name: 6306_111488,V,BLANK,
Misc: CLP,7000,,VBLK1118L,L,S, JUNE ALS 7 5.06

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881118 10:42

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	9.73	128.0	14547	50.00	UG/L	99
6)	C030 METHYLENE CHLORIDE	6.16	84.0	2025	4.47	UG/L	62
7)	C035 ACETONE	6.90	43.0	8831	33.07	UG/L	82
14)	CS15 D4-1,2-DICHLOROETHANE SS1	12.56	65.0	27774	101.81	UG/L	90
15)	*CI10 1,4-DIFLUOROBENZENE IS-2	20.12	114.0	59014	50.00	UG/L	100
30)	*CI20 D5-CHLOROBENZENE IS-3	25.04	117.0	47939	50.00	UG/L	100
35)	CS05 D-8 TOLUENE (SS-2)	23.80	98.0	50445	101.96	UG/L	84
36)	C230 TOLUENE	24.00	92.0	390	.56	UG/L	88
38)	C240 ETHYL BENZENE	27.06	106.0	174	.41	UG/L	85
39)	CS10 BROMOFLUOROBENZENE (SS-3)	29.50	95.1	37566	106.51	UG/L	100

* Compound is ISTD

QUANT REPORT

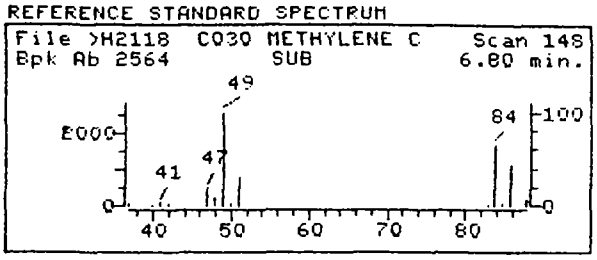
Operator ID: SABRINA Quant Rev: 6 Quant Time: 881118 14:15
Output File: ^H5742::QU Injected at: 881118 13:34
Data File: >H5742::H2 Dilution Factor: 1.00000
Name: 6306_111488,V,BLANK,
Misc: CLP,7000,,VBLK1118L,L,S, JUNE ALS 7 5.0G

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881118 10:42

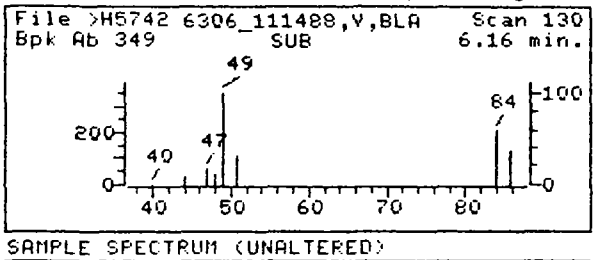
	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	9.73	222	14547	50.00	UG/L	99
6)	C030 METHYLENE CHLORIDE	6.16	130	2025	4.47	UG/L ✓	62
7)	C035 ACETONE	6.90	149	8831	33.07	UG/L ✓	82
14)	CS15 D4-1,2-DICHLOROETHANE SS1	12.56	295	27774	101.81	UG/L	90
15)	*CI10 1,4-DIFLUOROBENZENE IS-2	20.12	490	59014	50.00	UG/L	100
30)	*CI20 D5-CHLOROBENZENE IS-3	25.04	617	47939	50.00	UG/L	100
35)	CS05 D-8 TOLUENE (SS-2)	23.80	585	50445	101.96	UG/L	84
39)	CS10 BROMOFLUOROBENZENE (SS-3)	29.50	732	37566	106.51	UG/L	100

* Compound is ISTD

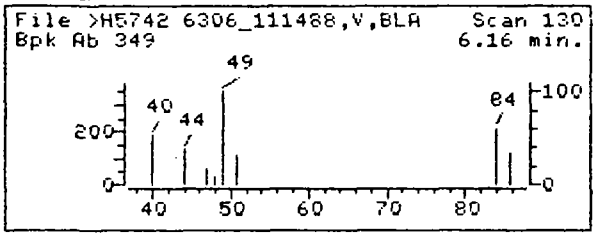
REFERENCE STANDARD SPECTRUM

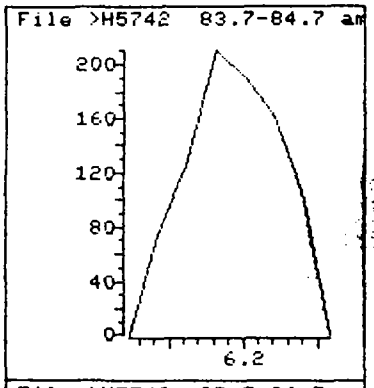


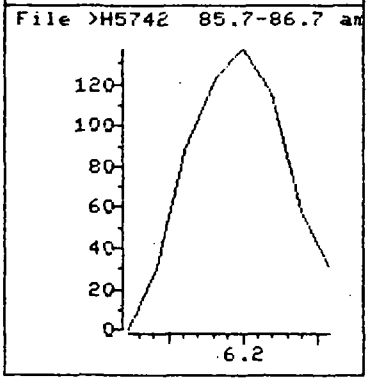
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





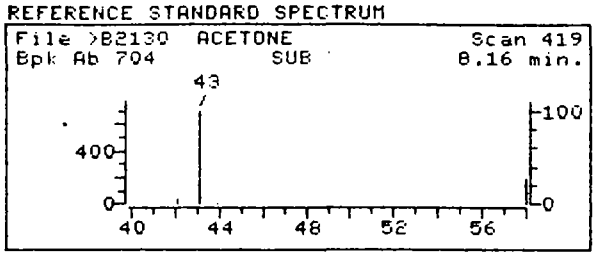


Data File: >H5742::H2 Quant Output File: ^H5742::QU
Name: 6306_111488,V,BLANK,
Misc: CLP,7000,,VBLK1118L,L,S, JUNE ALS 7 5.0G
Quant Time: 881118 14:15 Quant ID File: HVOAID::P1
Injected at: 881118 13:34 Last Calibration: 881118 10:42

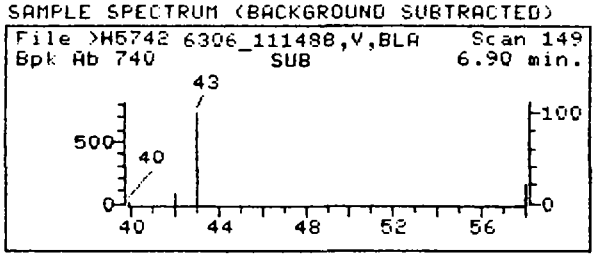
Compound No: 6
Compound Name: C030 METHYLENE CHLORIDE
Scan Number: 130
Retention Time: 6.16 min.
Quant Ion: 84.0
Area: 2025
Concentration: 4.47 UG/L
q-value: 62

✓

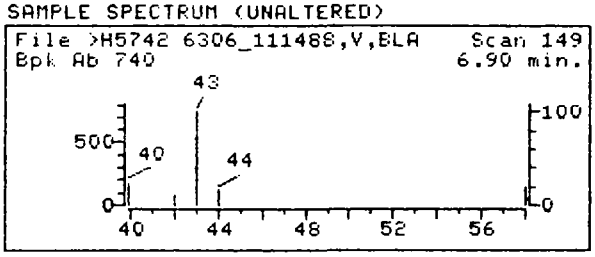
REFERENCE STANDARD SPECTRUM

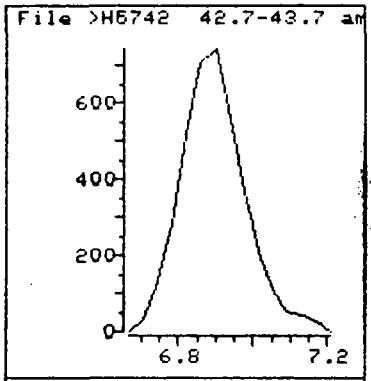


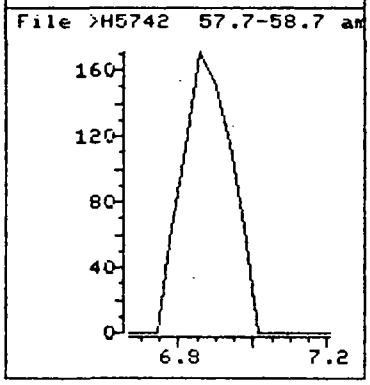
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >H5742::H2 Quant Output File: ^H5742::QU
Name: 6306_111488,V,BLANK,
Misc: CLP,7000,,VBLK1118L,L,S, JUNE ALS 7 5.0G
Quant Time: 881118 14:15 Quant ID File: HVOAID::P1
Injected at: 881118 13:34 Last Calibration: 881118 10:42

Compound No: 7
Compound Name: C035 ACETONE
Scan Number: 149
Retention Time: 6.90 min.
Quant Ion: 43.0
Area: 8831
Concentration: 33.07 UG/L
q-value: 82

✓

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1118M

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6306 111488

Sample wt/vol: 4.0 (g/mL) G Lab File ID: H5743

Level: (low/med) MED Date Received: N/A

% Moisture: not dec. 0 Date Analyzed: 11/18/88

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1000	U
74-83-9	Bromomethane	1000	U
75-01-4	Vinyl Chloride	1000	U
75-00-3	Chloroethane	1000	U
75-09-2	Methylene Chloride	530	
67-64-1	Acetone	1000	U
75-15-0	Carbon Disulfide	500	U
75-35-4	1,1-Dichloroethene	500	U
75-34-3	1,1-Dichloroethane	500	U
540-59-0	1,2-Dichloroethene (total)	500	U
67-66-3	Chloroform	500	U
107-06-2	1,2-Dichloroethane	500	U
78-93-3	2-Butanone	1000	U
71-55-6	1,1,1-Trichloroethane	500	U
56-23-5	Carbon Tetrachloride	500	U
108-05-4	Vinyl Acetate	1000	U
75-27-4	Bromodichloromethane	500	U
78-87-5	1,2-Dichloropropane	500	U
10061-01-5	cis-1,3-Dichloropropene	500	U
79-01-6	Trichloroethene	500	U
124-48-1	Dibromochloromethane	500	U
79-00-5	1,1,2-Trichloroethane	500	U
71-43-2	Benzene	500	U
10061-02-6	Trans-1,3-Dichloropropene	500	U
75-25-2	Bromoform	500	U
108-10-1	4-Methyl-2-Pentanone	1000	U
591-78-6	2-Hexanone	1000	U
127-18-4	Tetrachloroethene	500	U
79-34-5	1,1,2,2-Tetrachloroethane	1000	U
108-88-3	Toluene	500	U
108-90-7	Chlorobenzene	500	U
100-41-4	Ethylbenzene	500	U
100-42-5	Styrene	500	U
1330-20-7	Total Xylenes	500	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK1118M

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6306 111488

Sample wt/vol: 4.0 (g/mL) G Lab File ID: H5743

Level: (low/med) MED Date Received: N/A

% Moisture: not dec. 0 Date Analyzed: 11/18/88

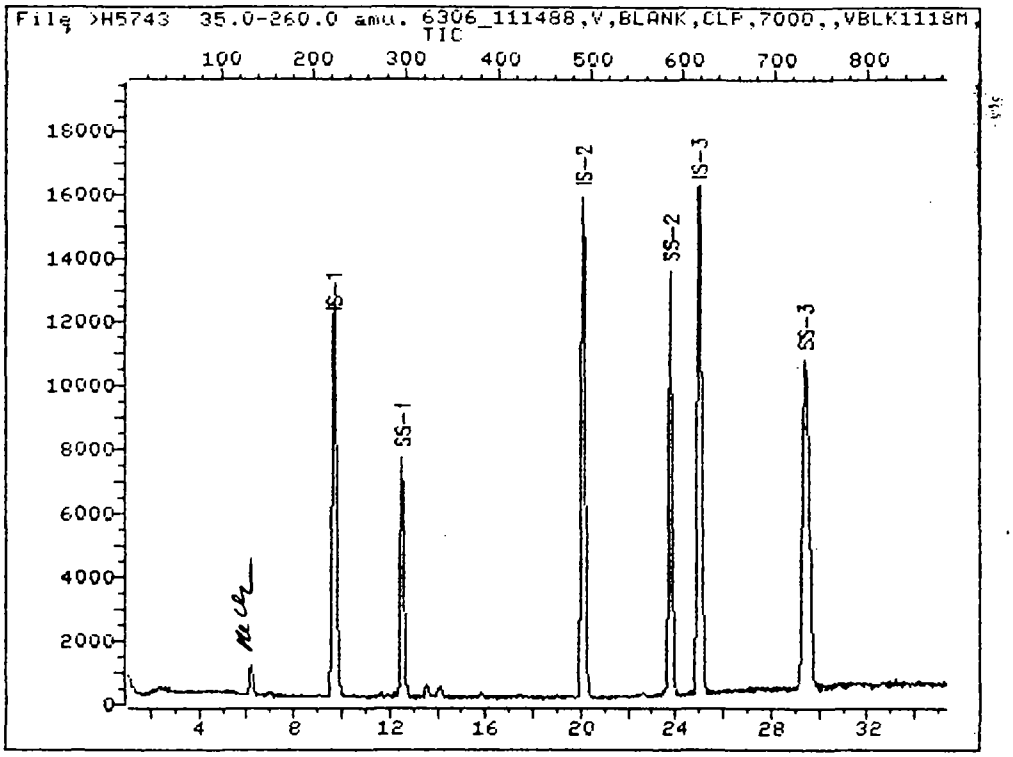
Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

TOTAL ION CHROMATOGRAM



Data File: >H5743::H2 Quant Output File: ^H5743::QU
Name: 6306_111488,V,BLANK,
Misc: CLP,7000,,VBLK1118M,M,S, JUNE ALS 8 50UL

Id File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881118 10:42

Operator ID: SABRINA
Quant Time: 881118 14:57
Injected at: 881118 14:16

11138
VBLK 1118M

QUANT REPORT

Operator ID: SABRINA Quant Rev: 6 Quant Time: 881118 14:57
Output File: ^H5743::QU Injected at: 881118 14:16
Data File: >H5743::H2 Dilution Factor: 1.00000
Name: 6306_111488,V,BLANK,
Misc: CLP,7000,,VBLK1118M,M,S, JUNE ALS 8 50UL

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881118 10:42

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	9.69	128.0	14823	50.00	UG/L	94
6)	C030 METHYLENE CHLORIDE	6.20	84.0	1942	4.21	UG/L	62
12)	C060 CHLOROFORM	11.94	83.0	423	.42	UG/L	89
14)	CS15 D4-1,2-DICHLOROETHANE SS1	12.56	65.0	28306	101.83	UG/L	89
15)	*CI10 1,4-DIFLUOROBENZENE IS-2	20.12	114.0	60401	50.00	UG/L	100
30)	*CI20 D5-CHLOROBENZENE IS-3	25.01	117.0	48618	50.00	UG/L	100
35)	CS05 D-8 TOLUENE (SS-2)	23.80	98.0	51826	103.29	UG/L	85
39)	CS10 BROMOFLUOROBENZENE (SS-3)	29.46	95.1	37750	105.54	UG/L	100

* Compound is ISTD

QUANT REPORT

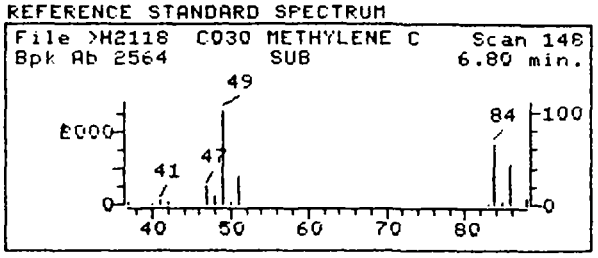
Operator ID: SABRINA Quant Rev: 6 Quant Time: 881118 14:57
Output File: ^H5743::QU Injected at: 881118 14:16
Data File: >H5743::H2 Dilution Factor: 1.00000
Name: 6306_111488,V,BLANK,
Misc: CLP,7000,,VBLK1118M,M,S, JUNE ALS 8 50UL

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881118 10:42

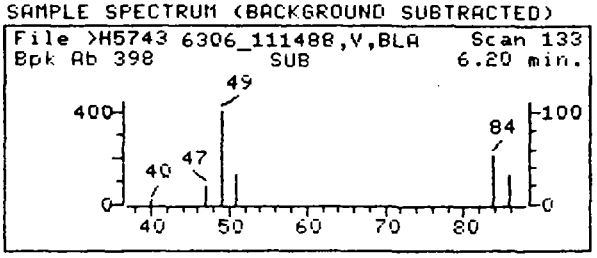
	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	9.69	223	14823	50.00	UG/L	94
6)	C030 METHYLENE CHLORIDE	6.20	133	1942	4.21	UG/L	62
14)	CS15 D4-1,2-DICHLOROETHANE SS1	12.56	297	28306	101.83	UG/L	89
15)	*CI10 1,4-DIFLUOROBENZENE IS-2	20.12	492	60401	50.00	UG/L	100
30)	*CI20 D5-CHLOROBENZENE IS-3	25.01	618	48618	50.00	UG/L	100
35)	CS05 D-8 TOLUENE (SS-2)	23.80	587	51826	103.29	UG/L	85
39)	CS10 BROMOFLUOROBENZENE (SS-3)	29.46	733	37750	105.54	UG/L	100

* Compound is ISTD

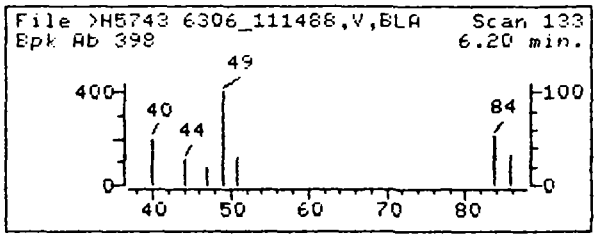
REFERENCE STANDARD SPECTRUM

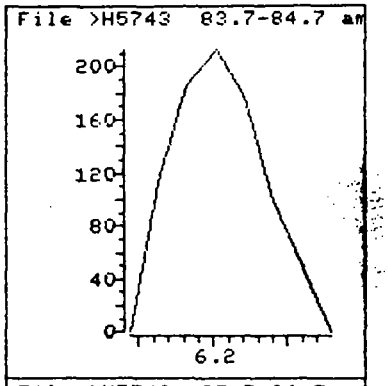


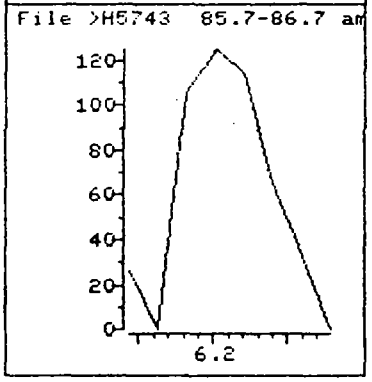
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >H5743::H2 Quant Output File: ^H5743::QU
Name: 6306_111488,V,BLANK,
Misc: CLP,7000,,VBLK1118M,M,S, JUNE ALS 8 50UL
Quant Time: 881118 14:57 Quant ID File: HVOAID::P1
Injected at: 881118 14:16 Last Calibration: 881118 10:42

Compound No: 6
Compound Name: C030 METHYLENE CHLORIDE
Scan Number: 133
Retention Time: 6.20 min.
Quant Ion: 84.0
Area: 1942
Concentration: 4.21 UG/L
q-value: 62

✓

3D(3). MATRIX SPIKE DATA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSF5006MS

Lab Name: CAMBRG ANALYTL Contract:

Lab Code: CAMBRDG Case No.: 11138 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 11138-02MS

Sample wt/vol: 1.0 (g/mL) G Lab File ID: H5747

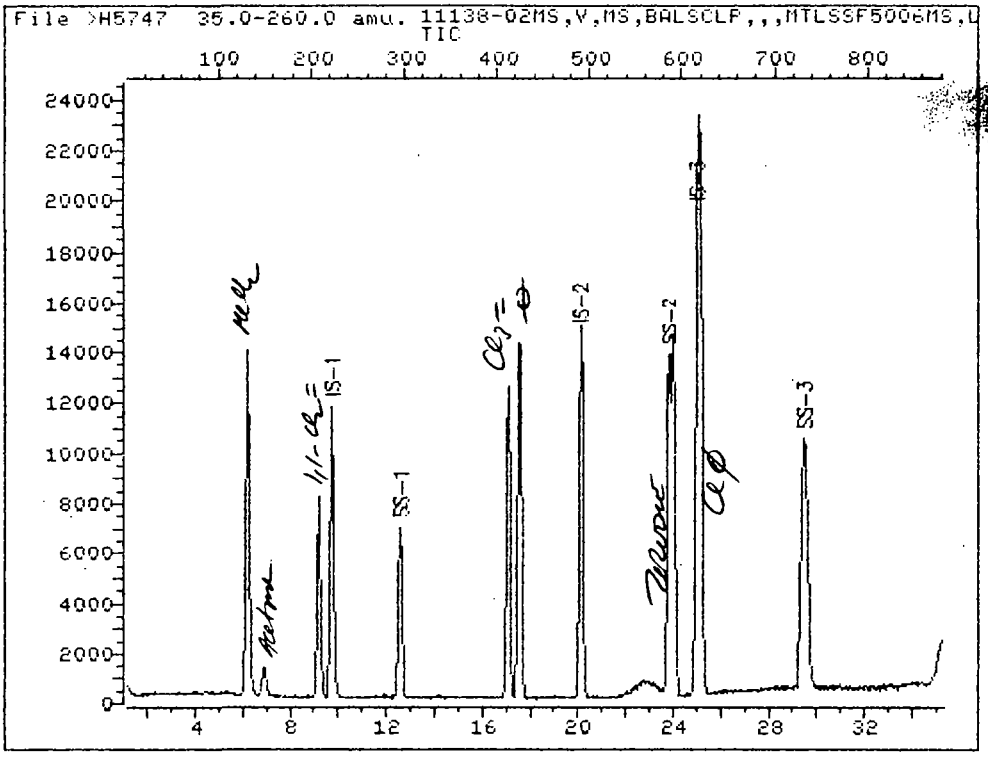
Level: (low/med) LOW Date Received: 11/10/88

% Moisture: not dec. 12 Date Analyzed: 11/18/88

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	57	U
74-83-9	Bromomethane	57	U
75-01-4	Vinyl Chloride	57	U
75-00-3	Chloroethane	57	U
75-09-2	Methylene Chloride	390	B
67-64-1	Acetone	230	B
75-15-0	Carbon Disulfide	28	U
75-35-4	1,1-Dichloroethene	28	U
75-34-3	1,1-Dichloroethane	28	U
540-59-0	1,2-Dichloroethene (total)	28	U
67-66-3	Chloroform	28	U
107-06-2	1,2-Dichloroethane	28	U
78-93-3	2-Butanone	57	U
71-55-6	1,1,1-Trichloroethane	28	U
56-23-5	Carbon Tetrachloride	28	U
108-05-4	Vinyl Acetate	57	U
75-27-4	Bromodichloromethane	28	U
78-87-5	1,2-Dichloropropane	28	U
10061-01-5	cis-1,3-Dichloropropene	28	U
79-01-6	Trichloroethene	28	U
124-48-1	Dibromochloromethane	28	U
79-00-5	1,1,2-Trichloroethane	28	U
71-43-2	Benzene	28	U
10061-02-6	Trans-1,3-Dichloropropene	28	U
75-25-2	Bromoform	28	U
108-10-1	4-Methyl-2-Pentanone	57	U
591-78-6	2-Hexanone	57	U
127-18-4	Tetrachloroethene	28	U
79-34-5	1,1,2,2-Tetrachloroethane	57	U
108-88-3	Toluene	28	U
108-90-7	Chlorobenzene	28	U
100-41-4	Ethylbenzene	28	U
100-42-5	Styrene	28	U
1330-20-7	Total Xylenes	28	U

TOTAL ION CHROMATOGRAM



Data File: >H5747::H2 Quant Output File: ^H5747::QU
Name: 11138-02MS,V,MS,BALS
Misc: CLP,,,MTLSSF5006MS,L,S, JUNE ALS 2 1.0G

Id File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881118 10:42

Operator ID: SABRINA
Quant Time: 881118 17:58
Injected at: 881118 17:17

11138
SSF5006MS

QUANT REPORT

Operator ID: SABRINA Quant Rev: 6 Quant Time: 881118 17:58
Output File: ^H5747::QU Injected at: 881118 17:17
Data File: >H5747::H2 Dilution Factor: 1.00000
Name: 11138-02MS,V,MS,BALS
Misc: CLP,,,MTLSSF5006MS,L,S, JUNE ALS 2 1.06

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881118 10:42

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	9.71	128.0	14083	50.00	UG/L	95
6)	C030 METHYLENE CHLORIDE	6.19	84.0	30180	68.82	UG/L	72
7)	C035 ACETONE	6.88	43.0	10273	39.74	UG/L	87
9)	C045 1,1-DICHLOROETHENE	9.17	96.0	14568	41.34	UG/L	95
12)	C060 CHLOROFORM	11.92	83.0	272	.29	UG/L	90
14)	CS15 D4-1,2-DICHLOROETHANE SS1	12.58	65.0	26851	101.67	UG/L	90
15)	*CI10 1,4-DIFLUOROBENZENE IS-2	20.10	114.0	59486	50.00	UG/L	100
23)	C150 TRICHLOROETHENE	17.08	130.0	20222	41.58	UG/L	93
25)	C160 1,1,2-TRICHLOROETHANE	17.08	97.0	15271	37.54	UG/L	37
26)	C165 BENZENE	17.55	78.0	59764	53.38	UG/L	100
27)	C172 TRANS-1,3-DICHLOROPROPENE	17.58	75.0	774	1.88	UG/L	100
30)	*CI20 D5-CHLOROBENZENE IS-3	25.03	117.0	47530	50.00	UG/L	100
35)	CS05 D-8 TOLUENE (SS-2)	23.83	98.0	49511	100.94	UG/L	84
36)	C230 TOLUENE	24.02	92.0	32417	46.96	UG/L	97
37)	C235 CHLOROBENZENE	25.14	112.1	44572	49.50	UG/L	88
39)	CS10 BROMOFLUOROBENZENE (SS-3)	29.49	95.1	36765	105.13	UG/L	100

* Compound is ISTD

QUANT REPORT

Operator ID: SABRINA Quant Rev: 6 Quant Time: 881118 17:58
Output File: ^H5747::QU Injected at: 881118 17:17
Data File: >H5747::H2 Dilution Factor: 1.00000
Name: 11138-02MS,V,MS,BALS
Misc: CLP,,,MTLSSF5006MS,L,S, JUNE ALS 2 1.06

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881118 10:42

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	9.71	222	14083	50.00	UG/L	95
6)	C030 METHYLENE CHLORIDE	6.19	131	30180	68.82	UG/L	72
7)	C035 ACETONE	6.88	149	10273	39.74	UG/L	87
9)	C045 1,1-DICHLOROETHENE	9.17	208	14568	41.34	UG/L	95
14)	CS15 D4-1,2-DICHLOROETHANE SS1	12.58	296	26851	101.67	UG/L	90
15)	*CI10 1,4-DIFLUOROBENZENE IS-2	20.10	490	59486	50.00	UG/L	100
23)	C150 TRICHLOROETHENE	17.08	412	20222	41.58	UG/L	93
25)	C160 1,1,2-TRICHLOROETHANE	17.08	412	15271	37.54	UG/L	37
26)	C165 BENZENE	17.55	424	59764	53.38	UG/L	100
27)	C172 TRANS-1,3-DICHLOROPROPENE	17.58	425	774	1.88	UG/L	100
30)	*CI20 D5-CHLOROBENZENE IS-3	25.03	617	47530	50.00	UG/L	100
35)	CS05 D-8 TOLUENE (SS-2)	23.83	586	49511	100.94	UG/L	84
36)	C230 TOLUENE	24.02	591	32417	46.96	UG/L	97
37)	C235 CHLOROBENZENE	25.14	620	44572	49.50	UG/L	88
39)	CS10 BROMOFLUOROBENZENE (SS-3)	29.49	732	36765	105.13	UG/L	100

* Compound is ISTD

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSE6_5002MS

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 11138-03MS

Sample wt/vol: 4.0 (g/mL) G Lab File ID: H5749

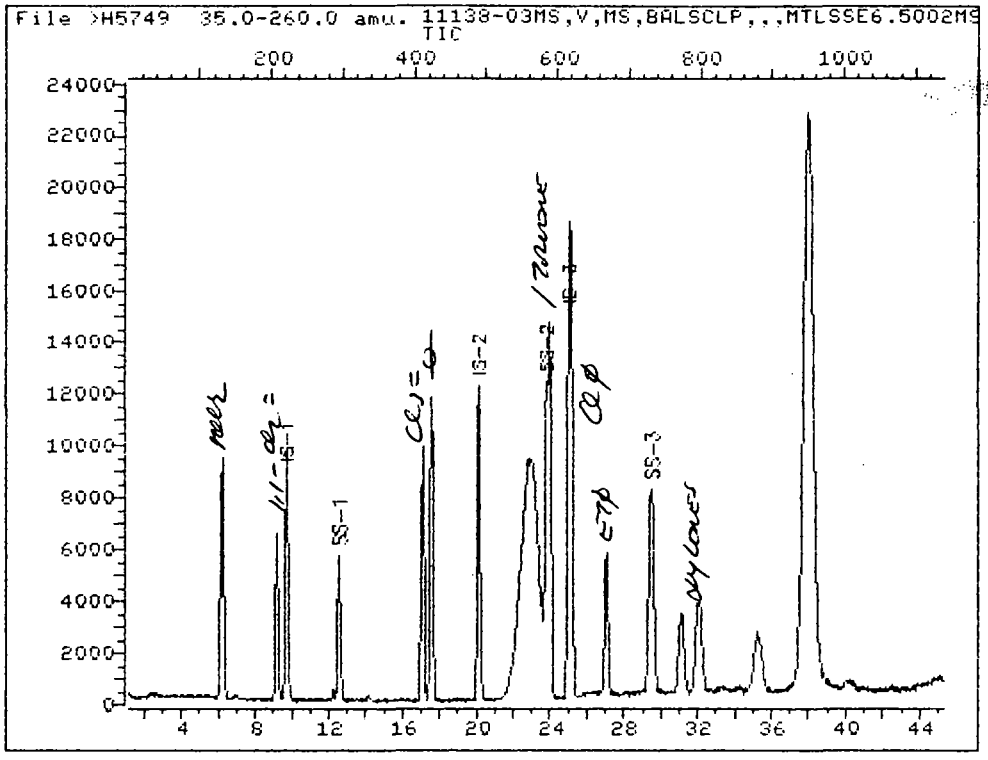
Level: (low/med) MED Date Received: 11/10/88

% Moisture: not dec. 17 Date Analyzed: 11/18/88

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1200	U
74-83-9	Bromomethane	1200	U
75-01-4	Vinyl Chloride	1200	U
75-00-3	Chloroethane	1200	U
75-09-2	Methylene Chloride	8500	B
67-64-1	Acetone	1200	U
75-15-0	Carbon Disulfide	600	U
75-35-4	1,1-Dichloroethene	600	U
75-34-3	1,1-Dichloroethane	600	U
540-59-0	1,2-Dichloroethene (total)	600	U
67-66-3	Chloroform	600	U
107-06-2	1,2-Dichloroethane	600	U
78-93-3	2-Butanone	1200	U
71-55-6	1,1,1-Trichloroethane	600	U
56-23-5	Carbon Tetrachloride	600	U
108-05-4	Vinyl Acetate	1200	U
75-27-4	Bromodichloromethane	600	U
78-87-5	1,2-Dichloropropane	600	U
10061-01-5	cis-1,3-Dichloropropene	600	U
79-01-6	Trichloroethene	600	U
124-48-1	Dibromochloromethane	600	U
79-00-5	1,1,2-Trichloroethane	600	U
71-43-2	Benzene	600	U
10061-02-6	Trans-1,3-Dichloropropene	600	U
75-25-2	Bromoform	600	U
108-10-1	4-Methyl-2-Pentanone	1200	U
591-78-6	2-Hexanone	1200	U
127-18-4	Tetrachloroethene	600	U
79-34-5	1,1,2,2-Tetrachloroethane	1200	U
108-88-3	Toluene	600	U
108-90-7	Chlorobenzene	600	U
100-41-4	Ethylbenzene	3600	
100-42-5	Styrene	600	U
1330-20-7	Total Xylenes	8000	Y

TOTAL ION CHROMATOGRAM



Data File: >H5749::H2 Quant Output File: ^H5749::QU
Name: 11138-03MS,V,MS,BALS
Misc: CLP,,,MTLSSE6.5002MS,M,S, JUNE ALS 4 1:125

Id File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881118 10:42

Operator ID: SABRINA
Quant Time: 881118 19:32
Injected at: 881118 18:41

11138
SSE6.5002MS

QUANT REPORT

Operator ID: SABRINA Quant Rev: 6 Quant Time: 881118 19:32
Output File: ^H5749::QU Injected at: 881118 18:41
Data File: >H5749::H2 Dilution Factor: 1.00000
Name: 11138-03MS,V,MS,BALS
Misc: CLP,,,MTLSSE6.5002MS,M,S, JUNE ALS 4 1:125

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881118 10:42

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	9.69	128.0	11337	50.00	UG/L	97
6)	C030 METHYLENE CHLORIDE	6.20	84.0	19897	56.36	UG/L	71
9)	C045 1,1-DICHLOROETHENE	9.19	96.0	11500	40.54	UG/L	93
14)	CS15 D4-1,2-DICHLOROETHANE SS1	12.56	65.0	21559	101.41	UG/L	87
15)	*CI10 1,4-DIFLUOROBENZENE IS-2	20.12	114.0	47053	50.00	UG/L	100
23)	C150 TRICHLOROETHENE	17.06	130.0	16336	42.46	UG/L	96
25)	C160 1,1,2-TRICHLOROETHANE	17.10	97.0	12063	37.49	UG/L	37
26)	C165 BENZENE	17.56	78.0	47400	53.52	UG/L	100
27)	C172 TRANS-1,3-DICHLOROPROPENE	17.48	75.0	123	.38	UG/L	100
27)	C172 TRANS-1,3-DICHLOROPROPENE	17.56	75.0	421	1.29	UG/L	100
30)	*CI20 D5-CHLOROBENZENE IS-3	25.01	117.0	37994	50.00	UG/L	100
35)	CS05 D-8 TOLUENE (SS-2)	23.80	98.0	40330	102.85	UG/L	86
36)	C230 TOLUENE	24.00	92.0	31982	57.96	UG/L	98
37)	C235 CHLOROBENZENE	25.16	112.1	36464	50.66	UG/L	86
38)	C240 ETHYL BENZENE	27.06	106.0	7982	23.57	UG/L	92
39)	CS10 BROMOFLUOROBENZENE (SS-3)	29.50	95.1	29250	104.64	UG/L	100
41)	C250 TOTAL XYLENES	31.13	106.2	8220	21.66	UG/L	99
41)	C250 TOTAL XYLENES	32.06	106.2	11821	31.15	UG/L	89

* Compound is ISTD

QUANT REPORT

Operator ID: SABRINA Quant Rev: 6 Quant Time: 881118 19:32
Output File: ^H5749::QU Injected at: 881118 18:41
Data File: >H5749::H2 Dilution Factor: 1.00000
Name: 11138-03MS,V,MS,BALS
Misc: CLP,,,MTLSSE6.5002MS,M,S, JUNE ALS 4 1:125

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881118 10:42

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	9.69	221	11337	50.00	UG/L	97
6)	C030 METHYLENE CHLORIDE	6.20	131	19897	56.36	UG/L	71
9)	C045 1,1-DICHLOROETHENE	9.19	208	11500	40.54	UG/L	93
14)	CS15 D4-1,2-DICHLOROETHANE SS1	12.56	295	21559	101.41	UG/L	87
15)	*CI10 1,4-DIFLUOROBENZENE IS-2	20.12	490	47053	50.00	UG/L	100
23)	C150 TRICHLOROETHENE	17.06	411	16336	42.46	UG/L	96
25)	C160 1,1,2-TRICHLOROETHANE	17.10	412	12063	37.49	UG/L	37
26)	C165 BENZENE	17.56	424	47400	53.52	UG/L	100
27)	C172 TRANS-1,3-DICHLOROPROPENE	17.56	424	421	1.29	UG/L	100
30)	*CI20 D5-CHLOROBENZENE IS-3	25.01	616	37994	50.00	UG/L	100
35)	CS05 D-8 TOLUENE (SS-2)	23.80	585	40330	102.85	UG/L	86
36)	C230 TOLUENE	24.00	590	31982	57.96	UG/L	98
37)	C235 CHLOROBENZENE	25.16	620	36464	50.66	UG/L	86
38)	C240 ETHYL BENZENE	27.06	669	7982	23.57	UG/L	92
39)	CS10 BROMOFLUOROBENZENE (SS-3)	29.50	732	29250	104.64	UG/L	100
41)	C250 TOTAL XYLENES	32.06	798	20040M	52.81	UG/L	89

* Compound is ISTD

3D(4). MATRIX SPIKE DUPL.DATA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 3 100

SSF5006MSD

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 11138-02MSD

Sample wt/vol: 1.0 (g/mL) G Lab File ID: H5748

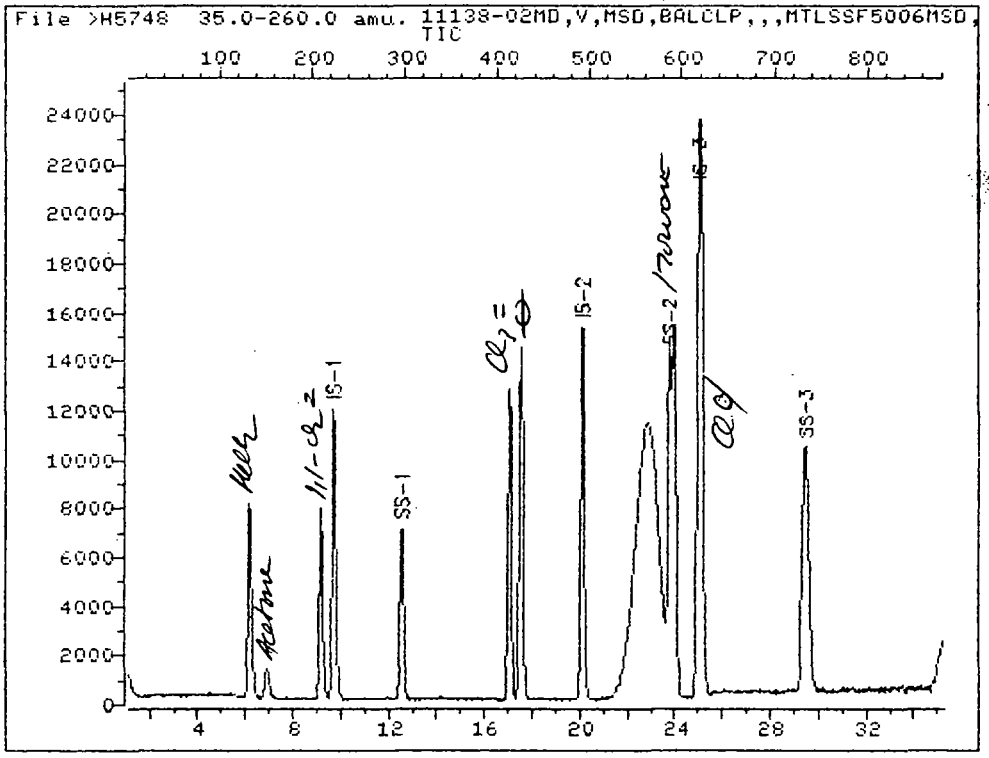
Level: (low/med) LOW Date Received: 11/10/88

% Moisture: not dec. 12 Date Analyzed: 11/18/88

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	57	U
74-83-9	Bromomethane	57	U
75-01-4	Vinyl Chloride	57	U
75-00-3	Chloroethane	57	U
75-09-2	Methylene Chloride	210	B
67-64-1	Acetone	240	B
75-15-0	Carbon Disulfide	28	U
75-35-4	1,1-Dichloroethene	28	U
75-34-3	1,1-Dichloroethane	28	U
540-59-0	1,2-Dichloroethene (total)	28	U
67-66-3	Chloroform	28	U
107-06-2	1,2-Dichloroethane	28	U
78-93-3	2-Butanone	57	U
71-55-6	1,1,1-Trichloroethane	28	U
56-23-5	Carbon Tetrachloride	28	U
108-05-4	Vinyl Acetate	57	U
75-27-4	Bromodichloromethane	28	U
78-87-5	1,2-Dichloropropane	28	U
10061-01-5	cis-1,3-Dichloropropene	28	U
79-01-6	Trichloroethene	28	U
124-48-1	Dibromochloromethane	28	U
79-00-5	1,1,2-Trichloroethane	28	U
71-43-2	Benzene	28	U
10061-02-6	Trans-1,3-Dichloropropene	28	U
75-25-2	Bromoform	28	U
108-10-1	4-Methyl-2-Pentanone	57	U
591-78-6	2-Hexanone	57	U
127-18-4	Tetrachloroethene	28	U
79-34-5	1,1,2,2-Tetrachloroethane	57	U
108-88-3	Toluene	28	U
108-90-7	Chlorobenzene	28	U
100-41-4	Ethylbenzene	28	U
100-42-5	Styrene	28	U
1330-20-7	Total Xylenes	28	U

TOTAL ION CHROMATOGRAM



Data File: >H5748::H2 Quant Output File: ^H5748::QU
Name: 11138-02MD,V,MSD,BAL
Misc: CLP,,,MTLSSF5006MSD,L,5, JUNE ALS 3 1.0G

Id File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881118 10:42

Operator ID: SABRINA
Quant Time: 881118 18:40
Injected at: 881118 17:59

11138
SSF5006MSD

QUANT REPORT

Operator ID: SABRINA Quant Rev: 6 Quant Time: 881118 18:40
Output File: ^H5748::QU Injected at: 881118 17:59
Data File: >H5748::H2 Dilution Factor: 1.00000
Name: 11138-02MD,V,MSD,BAL
Misc: CLP,,,MTLSSF5006MSD,L,S, JUNE ALS 3 1.06

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881118 10:42

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	9.71	128.0	14420	50.00	UG/L	99
6)	C030 METHYLENE CHLORIDE	6.19	84.0	16908	37.65	UG/L	69
7)	C035 ACETONE	6.92	43.0	11039	41.71	UG/L	82
9)	C045 1,1-DICHLOROETHENE	9.17	96.0	14824	41.08	UG/L	93
12)	C060 CHLOROFORM	11.92	83.0	246	.25	UG/L	85
14)	CS15 D4-1,2-DICHLOROETHANE SS1	12.54	65.0	27596	102.05	UG/L	90
15)	*CI10 1,4-DIFLUOROBENZENE IS-2	20.10	114.0	58962	50.00	UG/L	100
23)	C150 TRICHLOROETHENE	17.08	130.0	20413	42.34	UG/L	97
25)	C160 1,1,2-TRICHLOROETHANE	17.08	97.0	15123	37.51	UG/L	38
26)	C165 BENZENE	17.54	78.0	59248	53.39	UG/L	100
27)	C172 TRANS-1,3-DICHLOROPROPENE	17.58	75.0	879	2.15	UG/L	100
30)	*CI20 D5-CHLOROBENZENE IS-3	25.03	117.0	47826	50.00	UG/L	100
32)	C210 2-HEXANONE (MPK)	22.78	43.0	30192	64.01	UG/L	28
35)	CS05 D-8 TOLUENE (SS-2)	23.79	98.0	48881	99.03	UG/L	91
36)	C230 TOLUENE	23.98	92.0	32539	46.85	UG/L	99
37)	C235 CHLOROBENZENE	25.14	112.1	45638	50.37	UG/L	85
39)	CS10 BROMOFLUOROBENZENE (SS-3)	29.49	95.1	36757	104.46	UG/L	100

* Compound is ISTD

QUANT REPORT

Operator ID: SABRINA Quant Rev: 6 Quant Time: 881118 18:40
Output File: ^H5748::QU Injected at: 881118 17:59
Data File: >H5748::H2 Dilution Factor: 1.00000
Name: 11138-02MD,V,MSD,BAL
Misc: CLP,,,MTLSSF5006MSD,L,S, JUNE ALS 3 1.0G

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881118 10:42

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	9.71	223	14420	50.00	UG/L	99
6)	C030 METHYLENE CHLORIDE	6.19	132	16908	37.65	UG/L	69
7)	C035 ACETONE	6.92	151	11039	41.71	UG/L	82
9)	C045 1,1-DICHLOROETHENE	9.17	209	14824	41.08	UG/L	93
14)	CS15 D4-1,2-DICHLOROETHANE SS1	12.54	296	27596	102.05	UG/L	90
15)	*CI10 1,4-DIFLUOROBENZENE IS-2	20.10	491	58962	50.00	UG/L	100
23)	C150 TRICHLOROETHENE	17.08	413	20413	42.34	UG/L	97
25)	C160 1,1,2-TRICHLOROETHANE	17.08	413	15123	37.51	UG/L	38
26)	C165 BENZENE	17.54	425	59248	53.39	UG/L	100
27)	C172 TRANS-1,3-DICHLOROPROPENE	17.58	426	879	2.15	UG/L	100
30)	*CI20 D5-CHLOROBENZENE IS-3	25.03	618	47826	50.00	UG/L	100
32)	C210 2-HEXANONE (MPK)	22.78	560	30192	64.01	UG/L	28
35)	CS05 D-8 TOLUENE (SS-2)	23.79	586	48881	99.03	UG/L	91
36)	C230 TOLUENE	23.98	591	32539	46.85	UG/L	99
37)	C235 CHLOROBENZENE	25.14	621	45638	50.37	UG/L	85
39)	CS10 BROMOFLUOROBENZENE (SS-3)	29.49	733	36757	104.46	UG/L	100

* Compound is ISTD

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSE6_5002MSD

Lab Name: CAMBRG ANALYTL Contract:

Lab Code: CAMBRDG Case No.: 11138 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 11138-03MSD

Sample wt/vol: 4.0 (g/mL) G Lab File ID: H5750

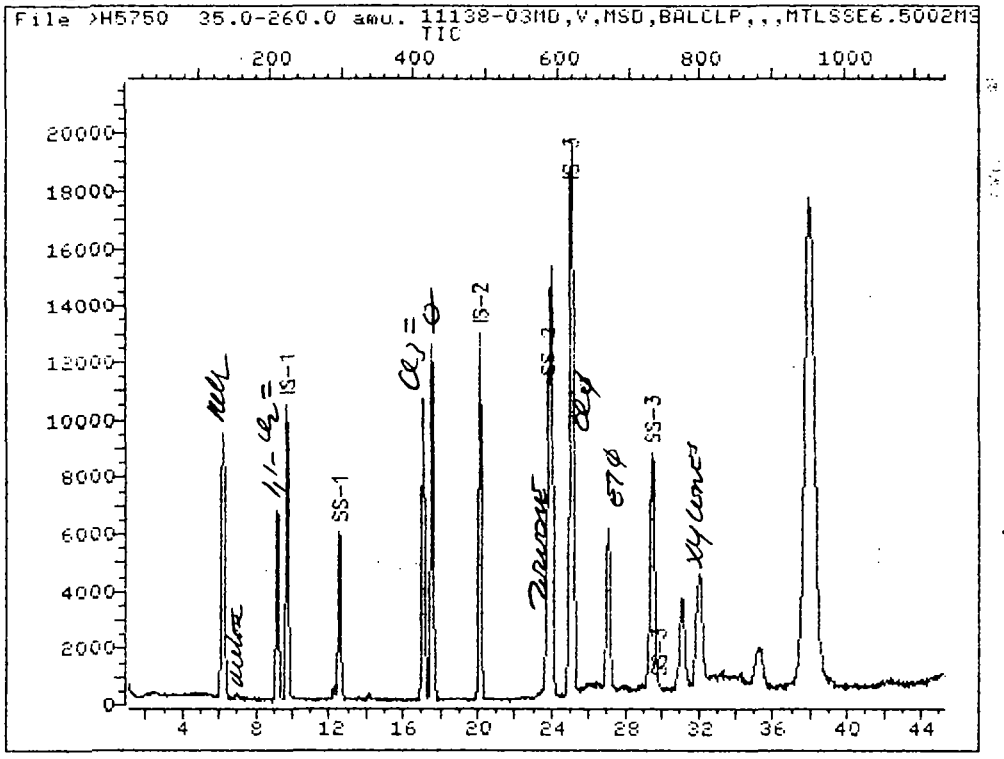
Level: (low/med) MED Date Received: 11/10/88

% Moisture: not dec. 17 Date Analyzed: 11/18/88

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1200	U
74-83-9	Bromomethane	1200	U
75-01-4	Vinyl Chloride	1200	U
75-00-3	Chloroethane	1200	U
75-09-2	Methylene Chloride	8300	B
67-64-1	Acetone	1000	J
75-15-0	Carbon Disulfide	600	U
75-35-4	1,1-Dichloroethene	600	U
75-34-3	1,1-Dichloroethane	600	U
540-59-0	1,2-Dichloroethene (total)	600	U
67-66-3	Chloroform	600	U
107-06-2	1,2-Dichloroethane	600	U
78-93-3	2-Butanone	1200	U
71-55-6	1,1,1-Trichloroethane	600	U
56-23-5	Carbon Tetrachloride	600	U
108-05-4	Vinyl Acetate	1200	U
75-27-4	Bromodichloromethane	600	U
78-87-5	1,2-Dichloropropane	600	U
10061-01-5	cis-1,3-Dichloropropene	600	U
79-01-6	Trichloroethene	600	U
124-48-1	Dibromochloromethane	600	U
79-00-5	1,1,2-Trichloroethane	600	U
71-43-2	Benzene	600	U
10061-02-6	Trans-1,3-Dichloropropene	600	U
75-25-2	Bromoform	600	U
108-10-1	4-Methyl-2-Pentanone	1200	U
591-78-6	2-Hexanone	1200	U
127-18-4	Tetrachloroethene	600	U
79-34-5	1,1,2,2-Tetrachloroethane	1200	U
108-88-3	Toluene	600	U
108-90-7	Chlorobenzene	600	U
100-41-4	Ethylbenzene	3500	
100-42-5	Styrene	600	U
1330-20-7	Total Xylenes	8000	Y

TOTAL ION CHROMATOGRAM



Data File: >H5750::H2 Quant Output File: ^H5750::QU
Name: 11138-03MD,V,MSD,BAL
Misc: CLP,,,MTLSSE6.5002MSD,M,S, JUNE ALS 5 1:125

Id File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881118 10:42

Operator ID: SABRINA
Quant Time: 881118 20:28
Injected at: 881118 19:37

11138
SSE6.5002MSD

QUANT REPORT

Operator ID: SABRINA Quant Rev: 6 Quant Time: 881118 20:28
Output File: ^H5750::QU Injected at: 881118 19:37
Data File: >H5750::H2 Dilution Factor: 1.00000
Name: 11138-03MD,V,MSD,BAL
Misc: CLP,,,MTLSSE6.5002MSD,M,5, JUNE ALS 5 1:125

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881118 10:42

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	9.71	128.0	12144	50.00	UG/L	96
6)	C030 METHYLENE CHLORIDE	6.18	84.0	20792	54.98	UG/L	67
7)	C035 ACETONE	6.96	43.0	1542	6.92	UG/L	78
9)	C045 1,1-DICHLOROETHENE	9.21	96.0	12417	40.86	UG/L	96
14)	CS15 D4-1,2-DICHLOROETHANE SS1	12.54	65.0	23488	103.14	UG/L	94
15)	*CI10 1,4-DIFLUOROBENZENE IS-2	20.10	114.0	49725	50.00	UG/L	100
23)	C150 TRICHLOROETHENE	17.08	130.0	17341	42.65	UG/L	94
25)	C160 1,1,2-TRICHLOROETHANE	17.08	97.0	12724	37.42	UG/L	38
26)	C165 BENZENE	17.54	78.0	51363	54.88	UG/L	100
26)	C165 BENZENE	17.89	78.0	39	.04	UG/L	100
27)	C172 TRANS-1,3-DICHLOROPROPENE	17.54	75.0	679	1.97	UG/L	100
30)	*CI20 D5-CHLOROBENZENE IS-3	25.02	117.0	40004	50.00	UG/L	100
35)	CS05 D-8 TOLUENE (SS-2)	23.78	98.0	42096	101.96	UG/L	86
36)	C230 TOLUENE	23.98	92.0	32836	56.52	UG/L	96
37)	C235 CHLOROBENZENE	25.14	112.1	38041	50.20	UG/L	76
38)	C240 ETHYL BENZENE	27.04	106.0	8197	22.99	UG/L	95
39)	CS10 BROMOFLUOROBENZENE (SS-3)	29.48	95.1	30693	104.28	UG/L	100
39)	CS10 BROMOFLUOROBENZENE (SS-3)	29.83	95.1	176	.60	UG/L	100
41)	C250 TOTAL XYLENES	31.15	106.2	8969	22.45	UG/L	91
41)	C250 TOTAL XYLENES	32.04	106.2	12153	30.42	UG/L	87

* Compound is ISTD

QUANT REPORT

Operator ID: SABRINA Quant Rev: 6 Quant Time: 881118 20:28
Output File: ^H5750::QU Injected at: 881118 19:37
Data File: >H5750::H2 Dilution Factor: 1.00000
Name: 11138-03MD,V,MSD,BAL
Misc: CLP,,,MTLSSE6.5002MSD,M,S, JUNE ALS 5 1:125

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, INST=HP5970H
Last Calibration: 881118 10:42

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	9.71	223	12144	50.00	UG/L	96
6)	C030 METHYLENE CHLORIDE	6.18	132	20792	54.98	UG/L ✓	67
7)	C035 ACETONE	6.96	152	1542	6.92	UG/L ✓	78
9)	C045 1,1-DICHLOROETHENE	9.21	210	12417	40.86	UG/L *	96
14)	CS15 D4-1,2-DICHLOROETHANE SS1	12.54	296	23488	103.14	UG/L	94
15)	*CI10 1,4-DIFLUOROBENZENE IS-2	20.10	491	49725	50.00	UG/L	100
23)	C150 TRICHLOROETHENE	17.08	413	17341	42.65	UG/L *	94
25)	C160 1,1,2-TRICHLOROETHANE	17.08	413	12724	37.42	UG/L	38
26)	C165 BENZENE	17.54	425	51363	54.88	UG/L *	100
27)	C172 TRANS-1,3-DICHLOROPROPENE	17.54	425	679	1.97	UG/L	100
30)	*CI20 D5-CHLOROBENZENE IS-3	25.02	618	40004	50.00	UG/L	100
35)	CS05 D-8 TOLUENE (SS-2)	23.78	586	42096	101.96	UG/L	86
36)	C230 TOLUENE	23.98	591	32836	56.52	UG/L *	96
37)	C235 CHLOROBENZENE	25.14	621	38041	50.20	UG/L *	76
38)	C240 ETHYL BENZENE	27.04	670	8197	22.99	UG/L ✓	95
39)	CS10 BROMOFLUOROBENZENE (SS-3)	29.48	733	30693	104.28	UG/L	100
41)	C250 TOTAL XYLENES	32.04	799	21121M	52.86	UG/L ✓	87

* Compound is ISTD

2D

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
01	MTL-SS-D5-00	53	66	68	62	55	54		0
02	MTL-SS-E6_5	90	83	73	91	90	77		0
03	MTL-SS-F5-00	86	78	69	85	80	68		0
04	MTL-SS-E6_5M	83	79	84	90	86	77		0
05	MTL-SS-E6_5S	82	77	80	83	84	73		0
06	SBLK111488	90	81	77	83	75	33		0

		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(23-120)
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)
S3 (TPH)	= Terphenyl	(18-137)
S4 (PHL)	= Phenol-d5	(24-113)
S5 (2FP)	= 2-Fluorophenol	(25-121)
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)

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

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: MTL-SS-E6 5 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	#	QC LIMITS REC.
Phenol	3810	0	2260	59		26- 90
2-Chlorophenol	3810	0	2380	62		25-102
1,4-Dichlorobenzene	1900	0	1120	59		28 104
N-Nitroso-di-n-prop. (1)	1900	0	1480	78		41 126
1,2,4-Trichlorobenzene	1900	0	1280	67		38 107
4-Chloro-3-methylphenol	3810	0	2470	65		26 103
Acenaphthene	1900	0	1280	67		31-137
4-Nitrophenol	3810	0	1990	52		11-114
2,4-Dinitrotoluene	1900	0	1250	66		28- 89
Pentachlorophenol	3810	0	2950	77		17-109
Pyrene	1900	0	1330	70		35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	#	% RPD	#	QC LIMITS RPD	QC LIMITS REC.
Phenol	6480	4250	66		-11		35	26- 90
2-Chlorophenol	6480	4280	66		-6		50	25-102
1,4-Dichlorobenzene	3240	2100	65		-10		27	28 104
N-Nitroso-di-n-prop. (1)	3240	2750	85		-9		38	41 126
1,2,4-Trichlorobenzene	3240	2530	78		-15		23	38 107
4-Chloro-3-methylphenol	6480	4800	74		-13		33	26 103
Acenaphthene	3240	2400	74		-10		19	31-137
4-Nitrophenol	6480	4310	67		-25		50	11-114
2,4-Dinitrotoluene	3240	2630	81		-20		47	28- 89
Pentachlorophenol	6480	5220	81		-5		47	17-109
Pyrene	3240	2470	76		-8		36	35-142

(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: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

COMMENTS: 8811138-03BX,S,,
CLP,11138,,MTL-SS-F6.5-002,L,S, HP5970F

4B
SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Lab File ID: F7264 Lab Sample ID: 8811138-BLK

Date Extracted: 11/14/88 Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 12/07/88 Time Analyzed: 1754

Matrix: (soil/water) SOIL Level: (low/med) LOW

Instrument ID: HP5970F

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	MTL-SS-D5-00	8811138-01BX	F7290	12/09/88
02	MTL-SS-E6_5	8811138-03BX	F7261	12/07/88
03	MTL-SS-F5-00	8811138-02BX	F7260	12/07/88
04	MTL-SS-E6_5M	8811138-03FS	F7262	12/07/88
05	MTL-SS-E6_5S	8811138-03GD	F7263	12/07/88

COMMENTS: 8811138-BLK, S, BLANK
CLP, 11138, , SBLK_111488, L, S, HP5970F

5B

SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Lab File ID: F6959 DFTPP Injection Date: 11/08/88

Instrument ID: HP5970F DFTPP Injection Time: 1405

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	60.0
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	77.8
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	48.6
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	19.0
365	Greater than 1.00% of mass 198	1.81
441	Present, but less than mass 443	9.5
442	Greater than 40.0% of mass 198	65.7
443	17.0 - 23.0% of mass 442	12.7 (19.3)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD020	3306_110488	F6960	11/08/88	1447
02	SSTD050	3305_110488	F6961	11/08/88	1541
03	SSTD080	3304_110588	F6962	11/08/88	1636
04	SSTD120	3303_110488	F6963	11/08/88	1731
05	SSTD160	3302_110488	F6964	11/08/88	1826

5B

SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Lab File ID: F7257 DFTPP Injection Date: 12/07/88

Instrument ID: HP5970F DFTPP Injection Time: 1041

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	59.4
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	74.4
70	Less than 2.0% of mass 69	0.2 (0.3)1
127	40.0 - 60.0% of mass 198	45.4
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	5.8
275	10.0 - 30.0% of mass 198	18.7
365	Greater than 1.00% of mass 198	1.68
441	Present, but less than mass 443	6.7
442	Greater than 40.0% of mass 198	43.4
443	17.0 - 23.0% of mass 442	8.3 (19.1)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	3305_110488	F7258	12/07/88	1127
02	MTL-SS-F5-00	8811138-02BX	F7260	12/07/88	1353
03	MTL-SS-E6_5	8811138-03BX	F7261	12/07/88	1448
04	MTL-SS-E6_5M	8811138-03FS	F7262	12/07/88	1542
05	MTL-SS-E6_5S	8811138-03GD	F7263	12/07/88	1637
06	SBLK111488	8811138-BLK	F7264	12/07/88	1754

5B

SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Lab File ID: F7279 DFTPP Injection Date: 12/08/88

Instrument ID: HP5970F DFTPP Injection Time: 0958

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	58.9
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	74.8
70	Less than 2.0% of mass 69	0.4 (0.5)1
127	40.0 - 60.0% of mass 198	45.6
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	19.7
365	Greater than 1.00% of mass 198	2.05
441	Present, but less than mass 443	9.1
442	Greater than 40.0% of mass 198	62.2
443	17.0 - 23.0% of mass 442	11.1 (17.9)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	3305_110488	F7280	12/08/88	1337
02	MTL-SS-D5-00	8811138-01BX	F7290	12/09/88	0001

4B. SAMPLE DATA

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MTL-SS-D5-001

Lab Name: CAMBRG ANALYTL Contract:

Lab Code: CAMBRDG Case No.: 11138 SAS No.: SDG No.: 4 010

Matrix: (soil/water) SOIL Lab Sample ID: B811138-01BX

Sample wt/vol: 31.2 (g/mL) G Lab File ID: F7290

Level: (low/med) LOW Date Received: 11/10/88

% Moisture: not dec. 18 dec. 18 Date Extracted: 11/14/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/09/88

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	390	U
111-44-4	bis(2-Chloroethyl)Ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
100-51-6	Benzyl Alcohol	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	440	
108-60-1	bis(2-Chloroisopropyl)Ether	390	U
106-44-5	4-Methylphenol	150	J
621-64-7	N-Nitroso-Di-n-Propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	81	J
65-85-0	Benzoic Acid	390	J
111-91-1	bis(2-Chloroethoxy)Methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	76	J
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-Methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethyl Phthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MTL-SS-D5-001

Lab Name: CAMBRG ANALYTL Contract:

Lab Code: CAMBRDG Case No.: 11138 SAS No.: SDG No.: 4011

Matrix: (soil/water) SOIL Lab Sample ID: B811138-01BX

Sample wt/vol: 31.2 (g/mL) G Lab File ID: F7290

Level: (low/med) LOW Date Received: 11/10/88

% Moisture: not dec. 18 dec. 18 Date Extracted: 11/14/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/09/88

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	390	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-Methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
84-74-2	Di-n-Butylphthalate	97	BJ
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	770	U
56-55-3	Benzo(a)Anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1300	
117-84-0	Di-n-Octyl Phthalate	390	U
205-99-2	Benzo(b)Fluoranthene	390	U
207-08-9	Benzo(k)Fluoranthene	390	U
50-32-8	Benzo(a)Pyrene	390	U
193-39-5	Indeno(1,2,3-cd)Pyrene	390	U
53-70-3	Dibenz(a,h)Anthracene	390	U
191-24-2	Benzo(g,h,i)Perylene	390	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MTL-SS-D5-001

Lab Name: CAMBRG ANALYTL Contract:

Lab Code: CAMBRDG Case No.: 11138 SAS No.: SDG No.: 4 012

Matrix: (soil/water) SOIL Lab Sample ID: BB11138-01BX

Sample wt/vol: 31.2 (g/mL) G Lab File ID: F7290

Level: (low/med) LOW Date Received: 11/10/88

% Moisture: not dec. 18 dec. 18 Date Extracted: 11/14/88

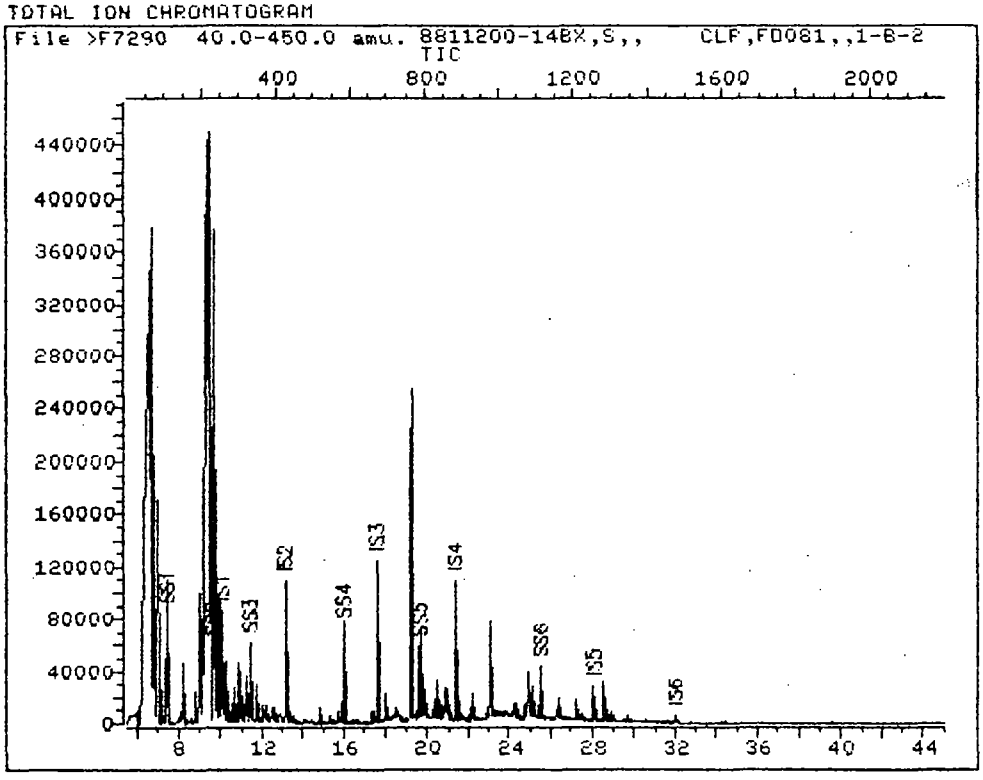
Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/09/88

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

Number TICs found: 17 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.60	31000	J
2.	100414	Benzene, ethyl	6.60	850	J
3.		Benzene, dimethyl isomer	6.90	4200	J
4.		Unknown	8.10	650	J
5.	103651	Benzene, propyl	8.70	450	J
6.		Benzene, trimethyl isomer	9.00	2400	J
7.		Unknown acid	9.40	29000	J
8.		Unknown	9.70	6600	J
9.		Unknown	9.80	1400	J
10.		Benzene, trimethyl isomer	10.20	570	J
11.	105055	Benzene, 1,4-diethyl	10.70	320	J
12.		Unknown	11.00	300	J
13.		Unknown	12.20	350	J
14.		Unknown phenolic compound	19.10	1600	J
15.		Unknown	19.80	160	J
16.		Unknown acid	23.00	210	J
17.		Unknown	24.90	180	J

TOTAL ION CHROMATOGRAM



4 013

Data File: >F7290::F2 Quant Output File: ^F7290::QT
Name: 8811200-14BX,S,,
Misc: CLP,FD081,,1-B-2 ,L,S, HP5970F BTL#12

Id File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F)
Last Calibration: 881208 15:49

Operator ID: MANAGER
Quant Time: 881209 00:48
Injected at: 881209 00:01

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 881209 00:48
Output File: ^F7290::QT Injected at: 881209 00:01
Data File: >F7290::F2 Dilution Factor: 1.00000
Name: 8811~~200-14BX,S~~,,13 & 01B
Misc: CLP,FD081,,1-B-2 ,L,S, HPS970F BTL#12

4 014

ID File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HPS970F)
Last Calibration: 881208 15:49

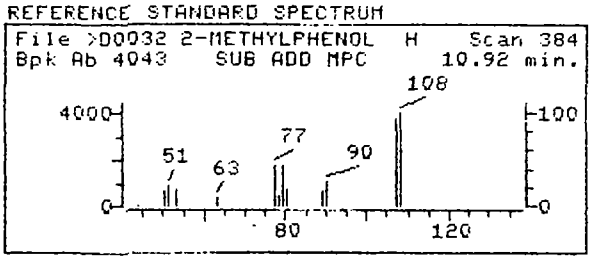
	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 D4-DICHLOROBENZENE	10.01	152.0	22714	40.00	UG/ML	100
2)	CS50 2-FLUOROPHENOL	7.41	112.0	44643	54.52	UG/ML	100
3)	CS45 D5-PHENOL	9.56	99.0	46791	61.57	UG/ML	100
4)	C315 PHENOL F1	9.60	94.1	3580	2.95	UG/ML	62
11)	C355 2-METHYLPHENOL F1	10.86	108.0	9052	11.24	UG/ML	87
13)	C365 4-METHYLPHENOL	11.22	108.0	2946	3.79	UG/ML	95
16)	*CI40 D8-NAPHTHALENE	13.11	136.0	95832	40.00	UG/ML	100
17)	CS20 D5-NITROBENZENE	11.40	82.0	32230	26.72	UG/ML	100
21)	C425 2,4-DIMETHYLPHENOL F1	12.49	107.0	1936	2.08	UG/ML	93
22)	C430 BENZOIC ACID	12.84	122.0	2946	9.90	UG/ML	83
26)	C450 NAPHTHALENE	13.14	128.1	4669	1.93	UG/ML	92
31)	*CI50 D10-ACENAPHTHENE	17.60	164.0	56218	40.00	UG/ML	93
32)	CS25 2-FLUOROBIPHENYL	15.94	172.0	60060	32.76	UG/ML	100
33)	CS55 2,4,6-TRIBROMOPHENOL	19.61	329.8	16642	53.54	UG/ML	100
52)	*CI60 D10-PHENANTHRENE	21.32	188.0	96418	40.00	UG/ML	100
60)	C650 DI-N-BUTYLPHTHALATE	23.16	149.0	8995	2.47	UG/ML	97
62)	*CI70 D12-CHRYSENE	28.07	240.3	19310	40.00	UG/ML	91
63)	CS30 D14-P-TERPHENYL	25.50	244.0	31350	34.12	UG/ML	100
68)	C745 BIS 2-ETHYLHEXYLPHTHALATE	28.52	149.0	17195	32.47	UG/ML	96
70)	*CI75 D12-PERYLENE	31.99	264.2	7254	40.00	UG/ML	100

* Compound is ISTD

F+ Conf Glenn SA

4 015

REFERENCE STANDARD SPECTRUM



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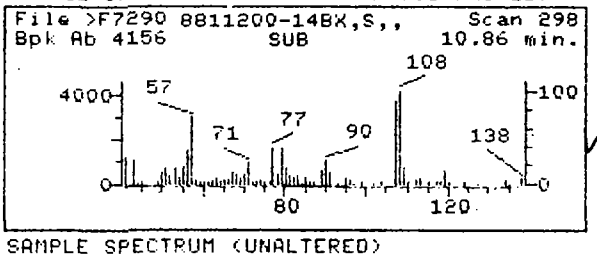

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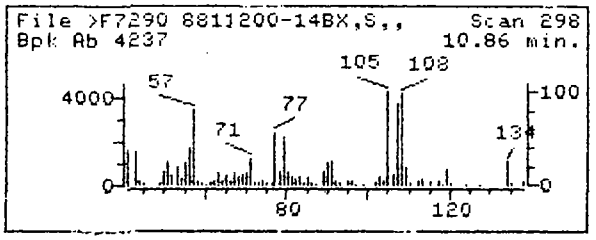

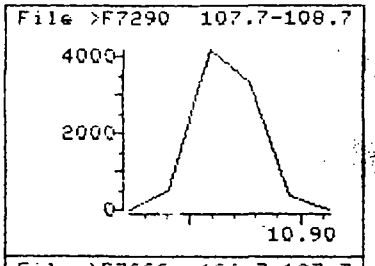

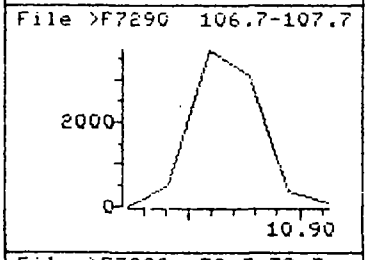

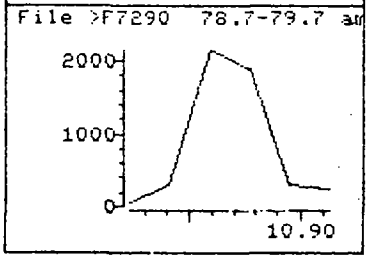

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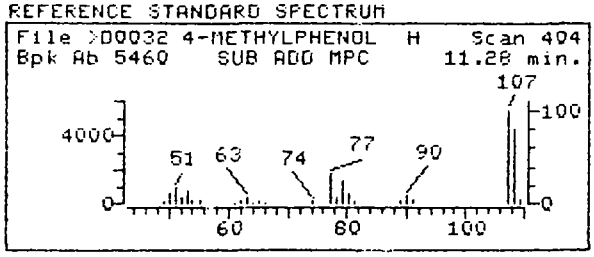
Misc: CLP,FD081,,1-D-2 ,L,S, HP5970F BTL#12
Quant Time: 881209 00:48 Quant ID File: FBNAID::QT
Injected at: 881209 00:01 Last Calibration: 881208 15:49

Compound No: 11
Compound Name: C355 2-METHYLPHENOL
Scan Number: 298
Retention Time: 10.86 min.
Quant Ion: 108.0
Area: 9052
Concentration: 11.24 UG/ML
q-value: 87

√ OK SBL

M/e 57 hydrocarbon

REFERENCE STANDARD SPECTRUM



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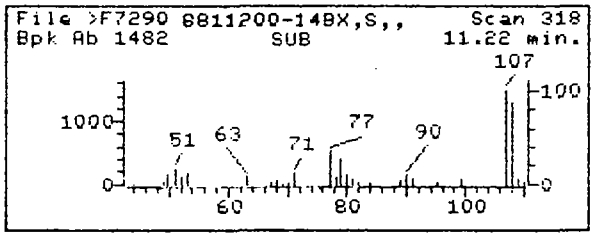

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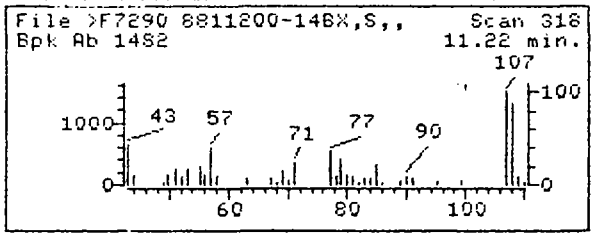
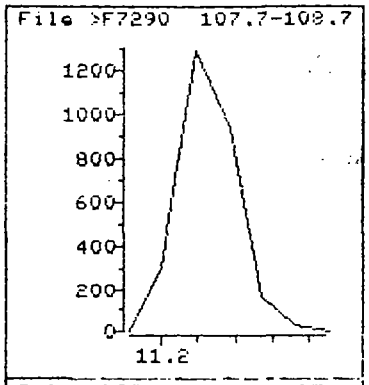
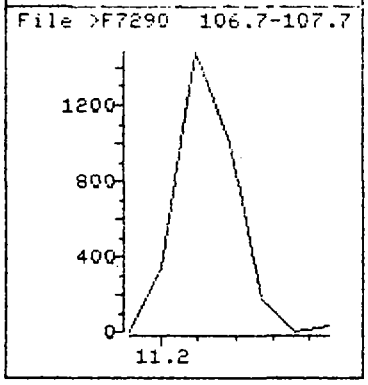






Data File: >F7290::F2 Quant Output File: ^F7290::QT
Name: 8811200-14BX,S,,
Misc: CLP,FD081,,1-B-2 ,L,S, HP5970F BTL#12
Quant Time: 881209 00:48 Quant ID File: FBNAID::QT
Injected at: 881209 00:01 Last Calibration: 881208 15:49

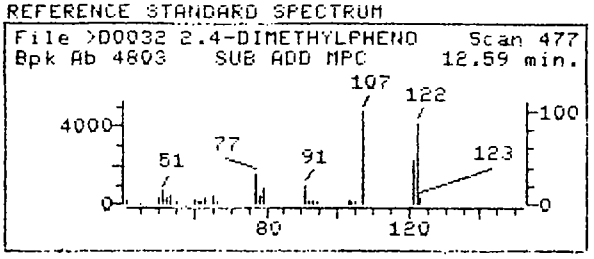
Compound No: 13
Compound Name: C365 4-METHYLPHENOL
Scan Number: 318
Retention Time: 11.22 min.
Quant Ion: 108.0
Area: 2946
Concentration: 3.79 UG/ML
q-value: 95

✓

Ft Cent Cleanup

4 017

REFERENCE STANDARD SPECTRUM



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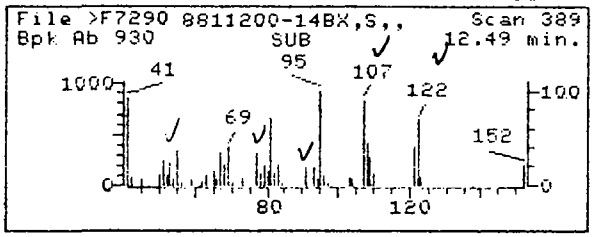
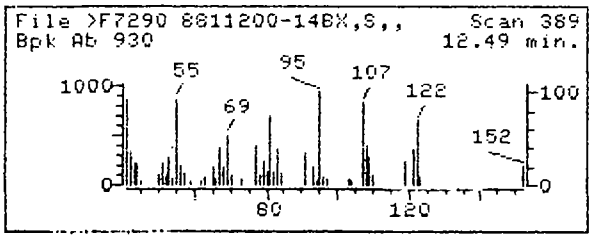
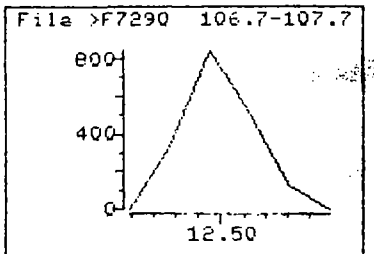
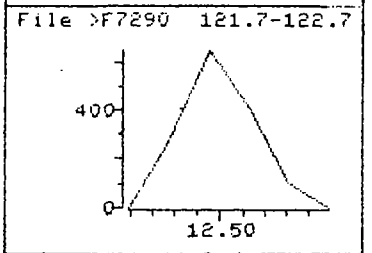
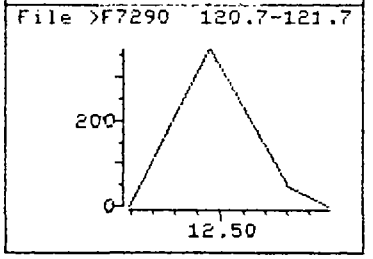


SAMPLE SPECTRUM (UNALTERED)







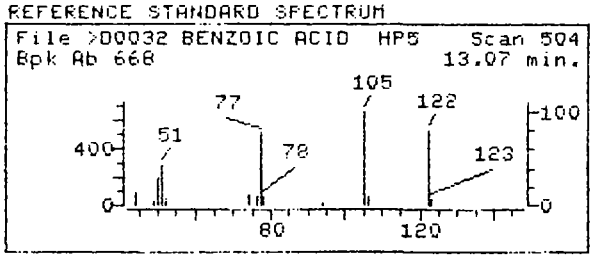


Data File: >F7290::F2 Quant Output File: ^F7290::QT
Name: 8811200-14BX,S,,
Misc: CLP,FD081,,1-B 2 ,L,S, HP5970F BTL#12
Quant Time: 881209 00:48 Quant ID File: FBNAID::QT
Injected at: 881209 00:01 Last Calibration: 881208 15:49

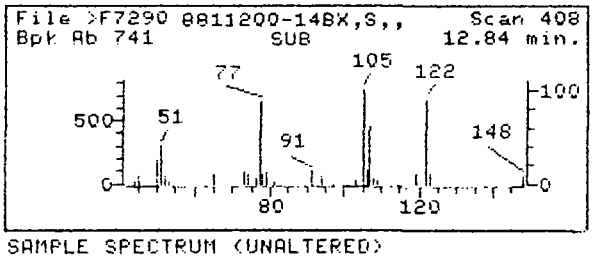
Compound No: 21
Compound Name: C425 2,4-DIMETHYLPHENOL
Scan Number: 389
Retention Time: 12.49 min.
Quant Ion: 107.0
Area: 1936
Concentration: 2.08 UG/ML
q-value: 93

OK
hydrocarbon co-elution SBL

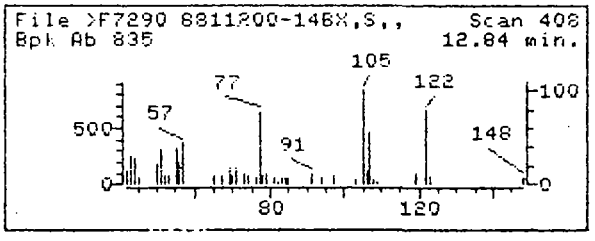
REFERENCE STANDARD SPECTRUM

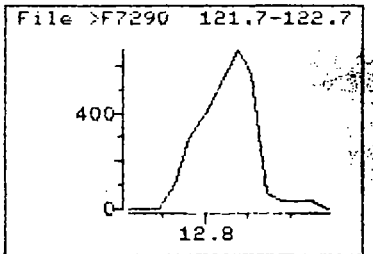


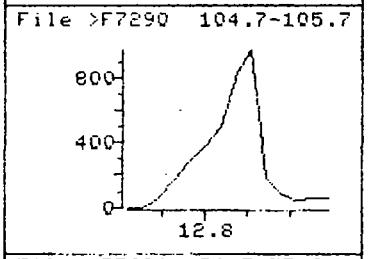
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

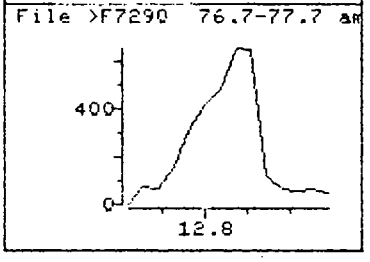


SAMPLE SPECTRUM (UNALTERED)





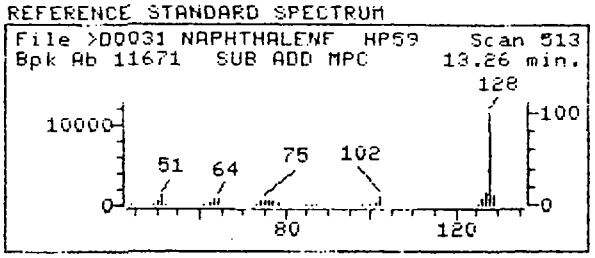




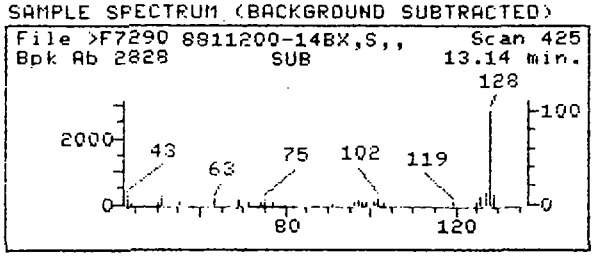
Data File: >F7290::F2 Quant Output File: ^F7290::QT
Name: 8811200-14BX,S,,
Misc: CLP,FD081,,1-B-2 ,L,S, HP5970F BTL#12
Quant Time: 881209 00:48 Quant ID File: FBNAID::QT
Injected at: 881209 00:01 Last Calibration: 881208 15:49

Compound No: 22
Compound Name: C430 BENZOIC ACID
Scan Number: 408
Retention Time: 12.84 min.
Quant Ion: 122.0
Area: 2946
Concentration: 9.90 UG/ML
q-value: 83

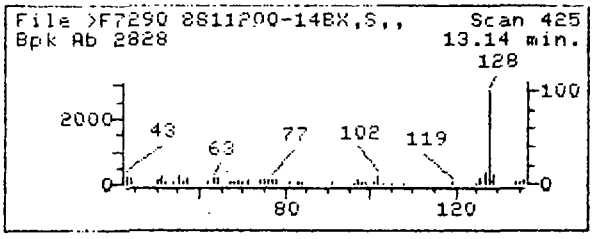
REFERENCE STANDARD SPECTRUM

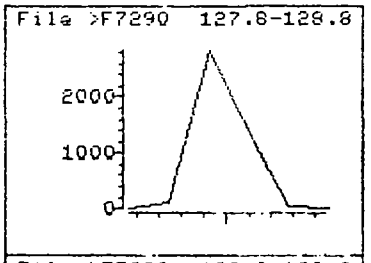


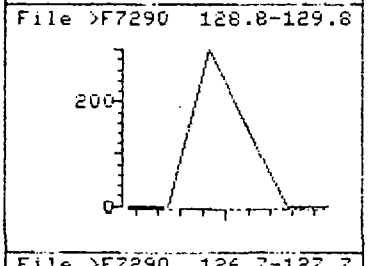
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

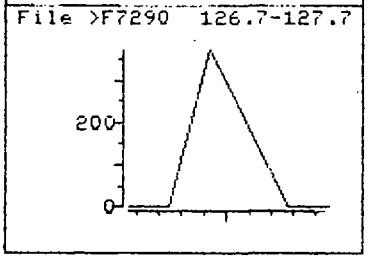


SAMPLE SPECTRUM (UNALTERED)





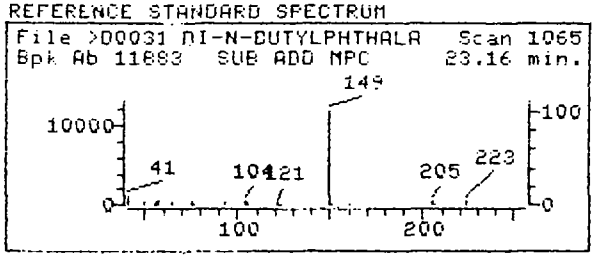




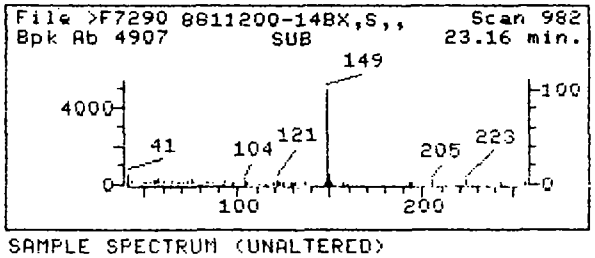
Data File: >F7290::F2 Quant Output File: ^F7290::QT
Name: 8811200-14BX,S,,
Misc: CLP,FD081,,1-B-2 ,L,S, HP5970F BTL#12
Quant Time: 881209 00:48 Quant ID File: FBNAID::QT
Injected at: 881209 00:01 Last Calibration: 881208 15:49

Compound No: 26
Compound Name: C450 NAPHTHALENE
Scan Number: 425
Retention Time: 13.14 min.
Quant Ion: 128.1
Area: 4669
Concentration: 1.93 UG/ML
q-value: 92

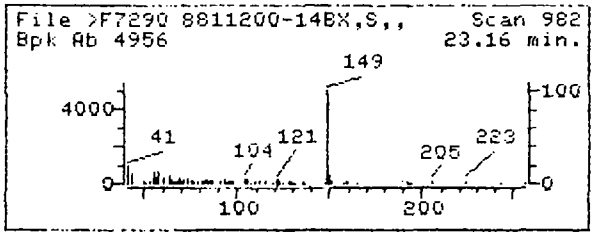
REFERENCE STANDARD SPECTRUM

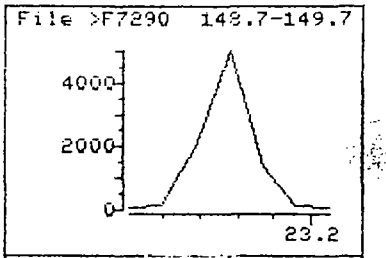


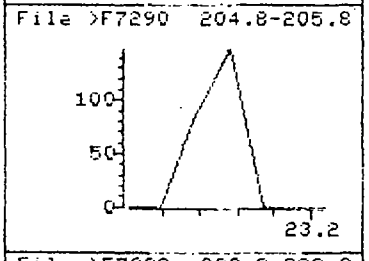
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

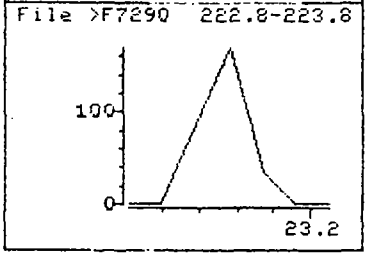


SAMPLE SPECTRUM (UNALTERED)







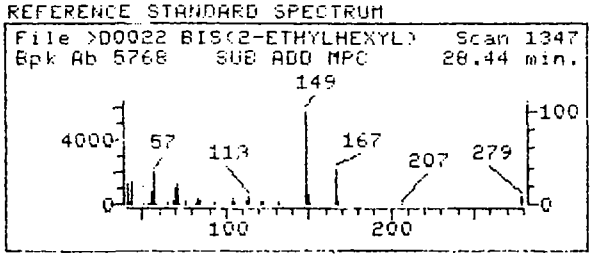


4 020

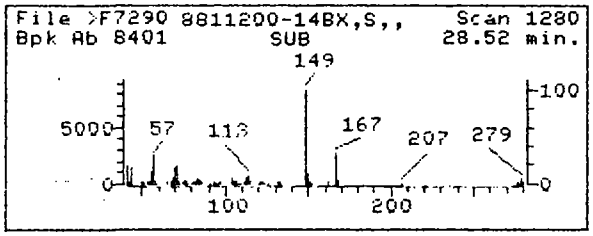
Data File: >F7290::F2 Quant Output File: ^F7290::QT
Name: 8811200-14BX,S,,
Misc: CLP,FD081,,1-B-2 ,L,S, HPS970F BTL#12
Quant Time: 881209 00:48 Quant ID File: FBNAID::QT
Injected at: 881209 00:01 Last Calibration: 881208 15:49

Compound No: 60
Compound Name: C650 DI-N-BUTYLPHTHALATE
Scan Number: 982
Retention Time: 23.16 min.
Quant Ion: 149.0
Area: 8995
Concentration: 2.47 UG/ML
q-value: 97

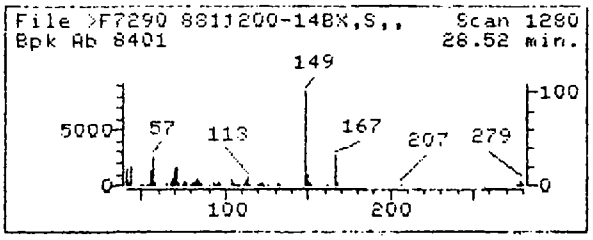
REFERENCE STANDARD SPECTRUM

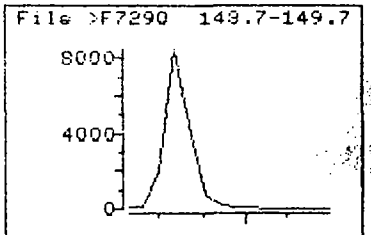


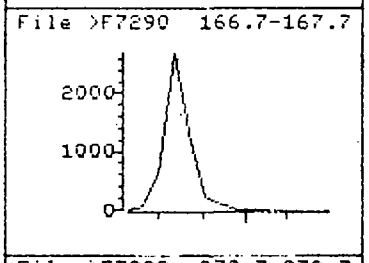
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

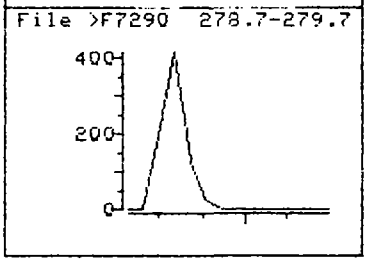


SAMPLE SPECTRUM (UNALTERED)









4 021

Data File: >F7290::F2 Quant Output File: ^F7290::QT
Name: 8811200-14BX,S,,
Misc: CLP,FD081,,1-B-2 ,L,S, HP5970F BTL#12
Quant Time: 881209 00:48 Quant ID File: FBNAID::QT
Injected at: 881209 00:01 Last Calibration: 881208 15:49

Compound No: 68
Compound Name: C745 BIS 2-ETHYLHEXYLPHTHALATE
Scan Number: 1280
Retention Time: 28.52 min.
Quant Ion: 149.0
Area: 17195
Concentration: 32.47 UG/ML
q-value: 96

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 881209 00:48
Output File: ^F7290::QT Injected at: 881209 00:01
Data File: >F7290::F2 Dilution Factor: 1.00000
Name: 8811200-14BX,S,,
Misc: CLP,FD081,,1-B-2 ,L,S, HP5970F BTL#12

ID File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F) 4 022
Last Calibration: 881208 15:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*CI30 D4-DICHLOROBENZENE	10.01	251	22714	40.00	UG/ML	100
2)	CS50 2-FLUOROPHENOL	7.41	106	44643	54.52	UG/ML	100
3)	CS45 D5-PHENOL	9.56	226	46791	61.57	UG/ML	100
4)	C315 PHENOL	9.60	228	3580	2.95	UG/ML	62
11)	C355 2-METHYLPHENOL	10.86	298	9052	11.24	UG/ML	87
13)	C365 4-METHYLPHENOL	11.22	318	2946	3.79	UG/ML	95
16)	*CI40 D8-NAPHTHALENE	13.11	423	95832	40.00	UG/ML	100
17)	CS20 D5-NITROBENZENE	11.40	328	32230	26.72	UG/ML	100
21)	C425 2,4-DIMETHYLPHENOL	12.49	389	1936	2.08	UG/ML	93
22)	C430 BENZOIC ACID	12.84	408	2946	9.90	UG/ML	83
26)	C450 NAPHTHALENE	13.14	425	4669	1.93	UG/ML	92
31)	*CI50 D10-ACENAPHTHENE	17.60	673	56218	40.00	UG/ML	93
32)	CS25 2-FLUOROBIPHENYL	15.94	581	60060	32.76	UG/ML	100
33)	CS55 2,4,6-TRIBROMOPHENOL	19.61	785	16642	53.54	UG/ML	100
52)	*CI60 D10-PHENANTHRENE	21.32	880	96418	40.00	UG/ML	100
60)	C650 DI-N-BUTYLPHTHALATE	23.16	982	8995	2.47	UG/ML	97
62)	*CI70 D12-CHRYSENE	28.07	1255	19310	40.00	UG/ML	91
63)	CS30 D14-P-TERPHENYL	25.50	1112	31350	34.12	UG/ML	100
68)	C745 BIS 2-ETHYLHEXYLPHTHALATE	28.52	1280	17195	32.47	UG/ML	96
70)	*CI75 D12-PERYLENE	31.99	1473	7254	40.00	UG/ML	100

* Compound is ISTD

MS data file header from : >F7290

Sample: 8811200-14BX,S,, Operator: MANAGER MS 12/09/88 0:01
Misc : CLP,FD081,,1-B-2 ,L,S, HP5970F BTL#12
Sys. #: 1 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: FBNA Tuning file: MT7701 No. of extra records: 2
Source temp.: 0 Analyzer temp.: 280 Transfer line temp. : 0

Chromatographic temperatures :	40.	290.	0.	0.	0.
Chromatographic times, min. :	4.0	16.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	10.0	0.0	0.0	.1	0.0

>F7290 8811200-14BX,S,, CLP,FD081,,1-B-2 ,L,S, 4 023
40.0 450.0 CLP ADC TIC
Upslope: .20 Area Reject: 33351. Max Peaks: 20 Bunching: 1
Dnslope: 0.00 Results File IF7290 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	6.63	33	63	64	377872	6565052	6547433	100.00	36.564
2	6.69	64	66	69	41457	203069	181735	2.78	1.015
3	6.90	72	78	83	166844	960621	904536	13.82	5.051
4	8.16	144	148	153	46455	146983	139238	2.13	.778
5	8.79	180	183	188	23797	103512	95905	1.46	.536
6	9.01	188	195	199	98390	526909	511425	7.81	2.856
7	9.42	199	218	221	439939	6430360	6252606	95.50	34.917
8	9.73	230	235	237	368110	1473745	1398763	21.36	7.811
9	9.82	237	240	244	135412	325335	288650	4.41	1.612
10	10.25	262	264	268	46446	130913	121933	1.86	.681
11	10.77	290	293	295	18132	77803	67981	1.04	.380
12	11.06	306	309	312	17807	71891	64403	.98	.360
13	12.23	365	374	376	11529	103972	74006	1.13	.413
14	19.18	754	761	763	251953	811232	784955	11.99	4.384
15	19.85	792	798	804	21559	137096	80535	1.23	.450
16	22.15	923	926	933	19961	97680	72728	1.11	.406
17	23.08	973	978	979	49854	129947	104872	1.60	.586
18	24.87	1073	1077	1078	23824	95852	66130	1.01	.369
19	24.92	1078	1080	1085	34387	132354	87919	1.34	.491
20	25.06	1085	1088	1093	23259	114314	61226	.94	.342

Sum of corrected areas: 17906988.

Summary of Unknowns PBM Library Search and Quantitation

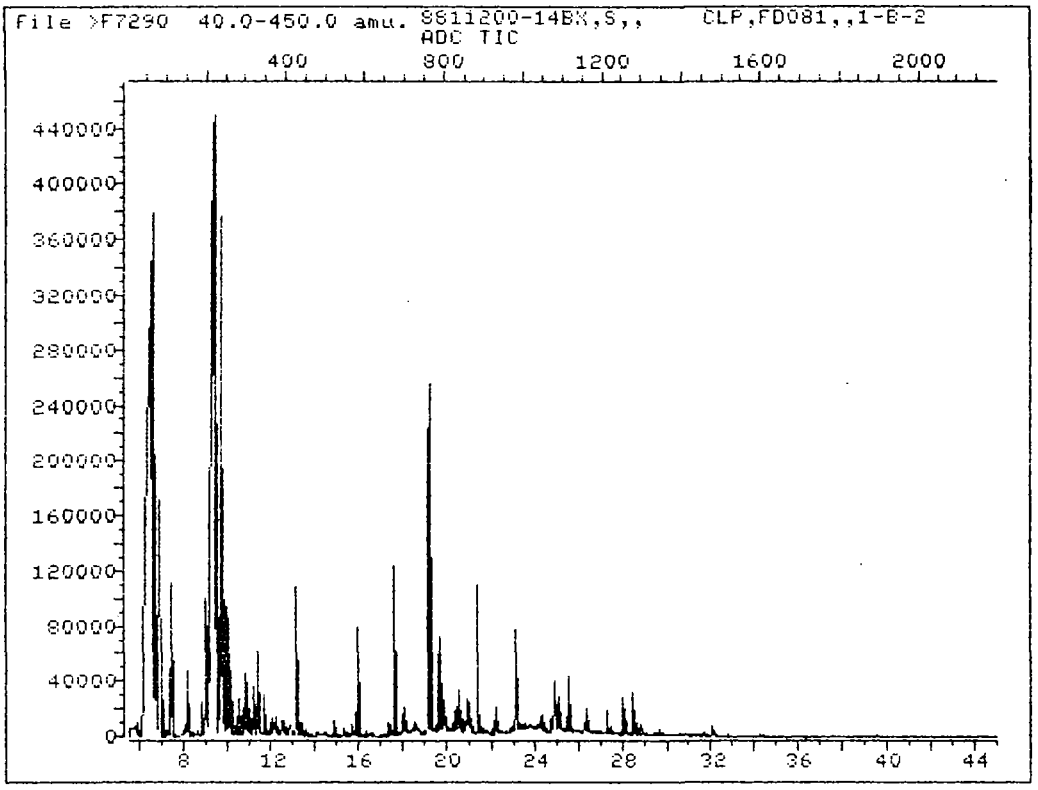
Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	333512.	10.01	5.52 - 11.56
2	40.0	333512.	13.11	11.56 - 15.35
3	40.0	784955.	17.60	15.35 - 19.46
4	40.0	784955.	21.32	19.46 - 24.69
5	40.0	784955.	28.07	24.69 - 30.03
6	40.0	784955.	31.99	30.03 - 45.02

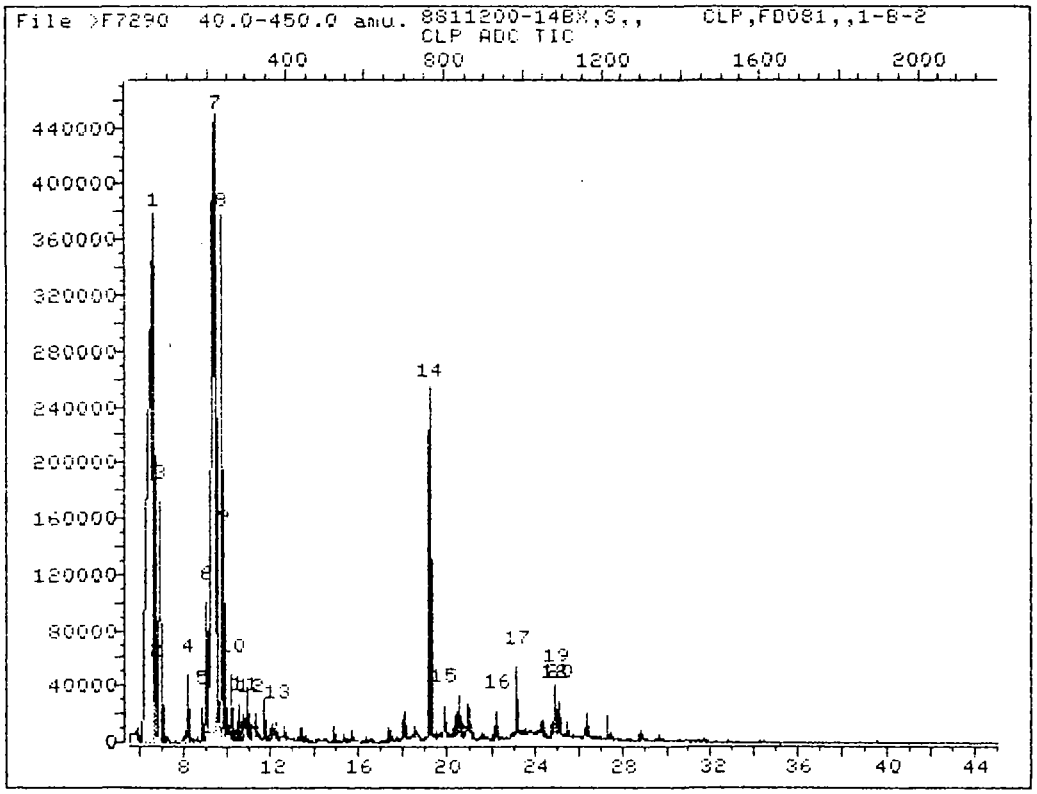
Amount Method (AM) 1.00 Amount Used (AU) = 1.00

Correction Factor = 1.00 = (AM / AU) / (DF * FS)

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unk} * \text{Correction Factor}$$

2:04 PM WED., 14 DEC., 1988


File >F7290 40.0-450.0 amu. 8811200-14BX,S,, CLP,FD081,,1-B-2
ADC TIC
400
800
1200
1600
2000
440000
400000
360000
320000
280000
240000
200000
160000
120000
80000
40000
0
8
12
16
20
24
28
32
36
40
44


File >F7290 40.0-450.0 amu. 8811200-14BX,S,, CLP,FD081,,1-B-2
CLP ADC TIC
400
800
1200
1600
2000
440000
400000
360000
320000
280000
240000
200000
160000
120000
80000
40000
0
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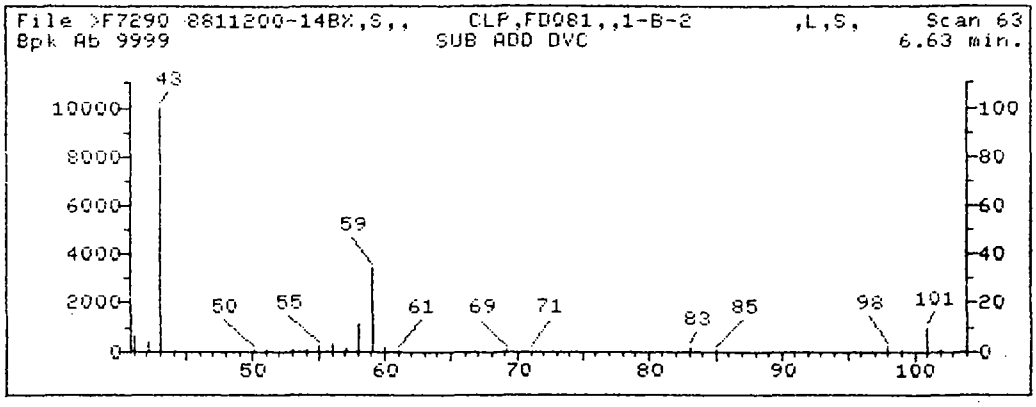
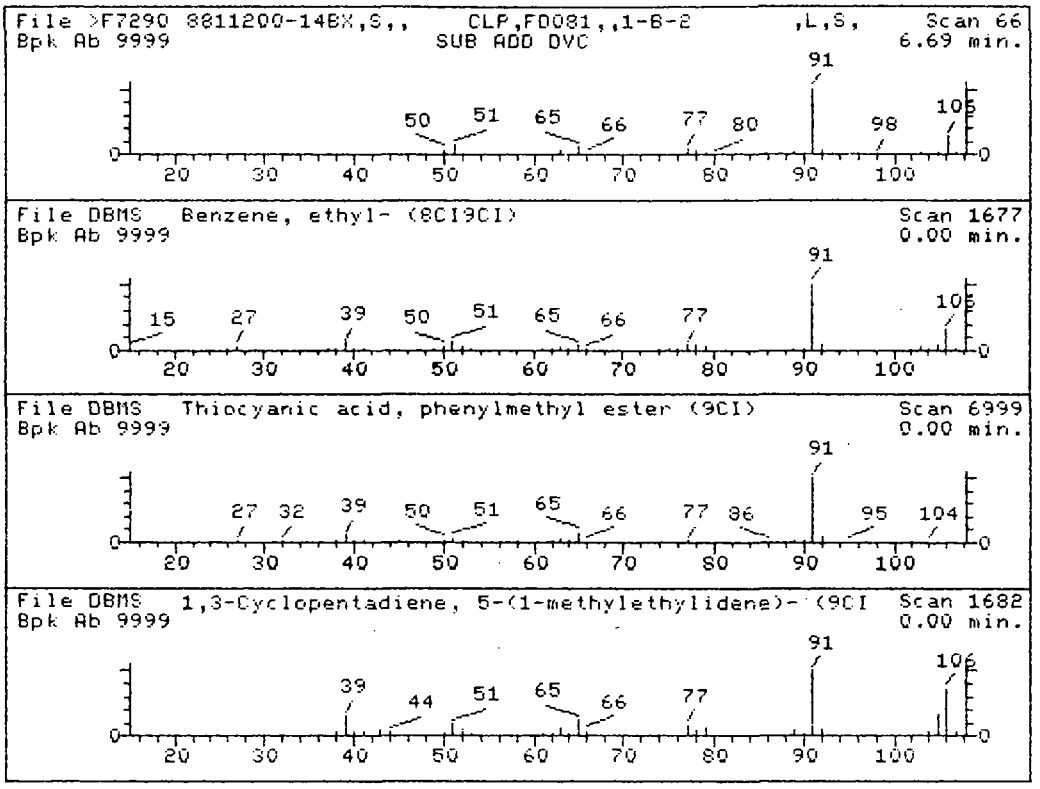


. Unknown #,1
Area = 6547433. Tentative Concentration is 785.00

Sample file: >F7290 Spectrum #: 63

No data base entries were retrieved.

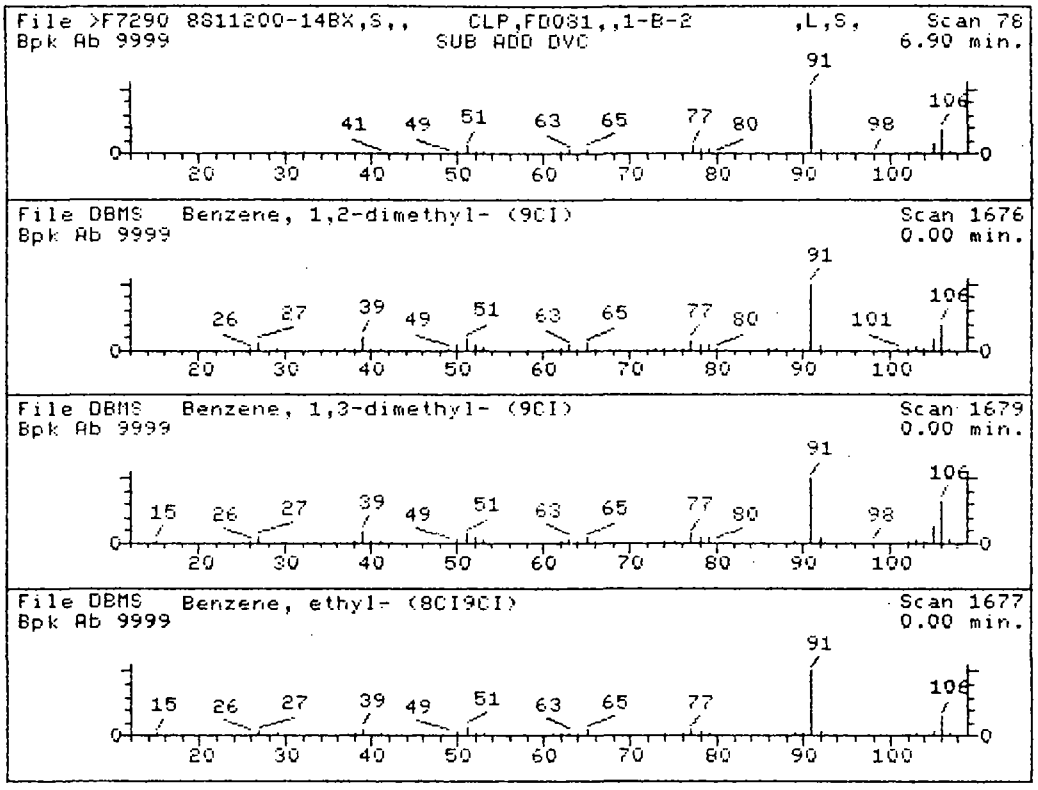


. Unknown #,2
Area = 181735.0 Tentative Concentration is 21.80

1.	Benzene, ethyl- (8CI9CI)	106	C8H10
2.	Thiocyanic acid, phenylmethyl ester (9CI)	149	C8H7NS
3.	1,3-Cyclopentadiene, 5-(1-methylethylidene)- (9CI)	106	C8H10
4.	Benzene, 1,2-dimethyl- (9CI)	106	C8H10
5.	Benzene, 1,4-dimethyl- (9CI)	106	C8H10
6.	Benzene, 1,3-dimethyl- (9CI)	106	C8H10
7.	1,7-Octadiyne (8CI9CI)	106	C8H10

Sample file: >F7290 Spectrum #: 66
Search speed: 1 Tilting option: N No. of ion ranges searched: 53

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	69*	100414	10638	DBMS	64	20	1	0	65	37	28	73
2.	42	3012371	7566	DBMS	38	40	2	0	77	25	17	13
3.	41*	2175919	10641	DBMS	49	39	2	0	38	43	14	30
4.	41*	95476	10637	DBMS	49	43	2	0	65	43	14	30
5.	31*	106423	10639	DBMS	39	39	2	0	44	43	8	19
6.	30*	108383	10640	DBMS	29	48	1	0	41	39	10	16
7.	15*	871841	141	DBMS	21	81	2	0	44	56	3	13

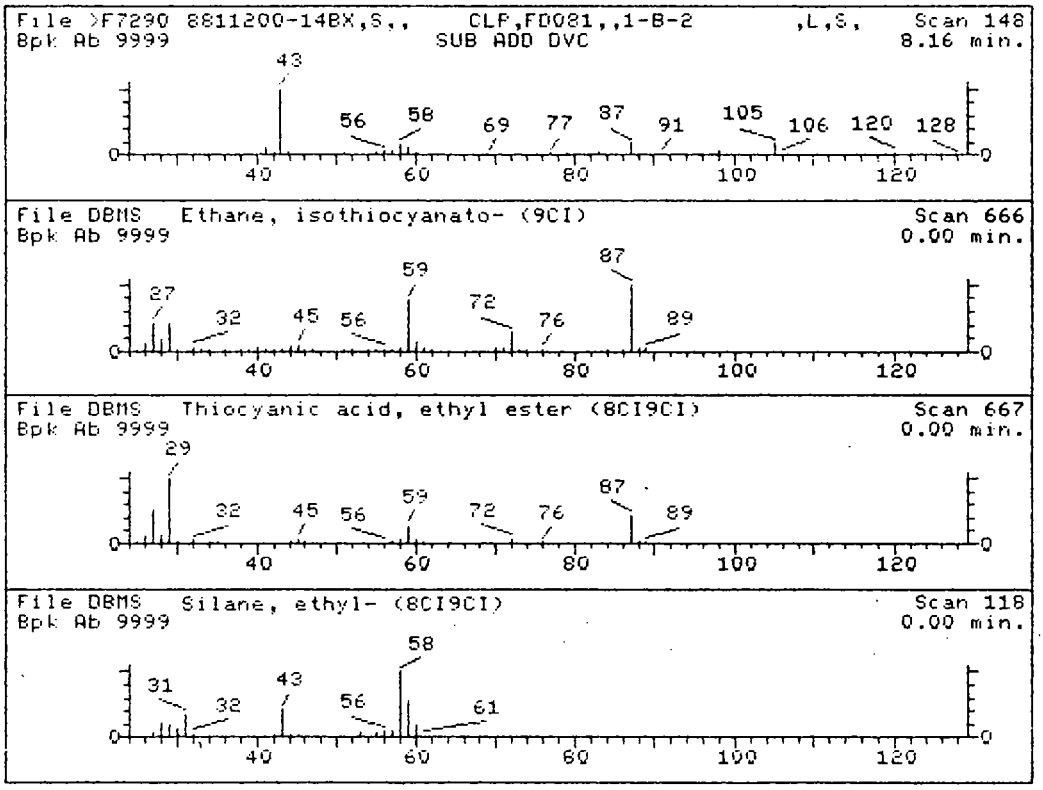


. Unknown #,3
Area = 904536.0 Tentative Concentration is 108.00

1.	Benzene, 1,2-dimethyl- (9CI)	106 C8H10
2.	Benzene, 1,3-dimethyl- (9CI)	106 C8H10
3.	Benzene, ethyl- (8CI9CI)	106 C8H10
4.	Benzene, 1,4-dimethyl- (9CI)	106 C8H10
5.	Cyclopentene, 1-ethenyl-3-methylene- (9CI)	106 C8H10
6.	1,3-Cyclopentadiene, 5-(1-methylethylidene)- (9CI)	106 C8H10
7.	Benzeneethanol, 3-methyl- (9CI)	136 C9H12O

Sample file: >F7290 Spectrum #: 78
Search speed: 1 Tilting option: N No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	95*	95476	10637	DBMS	79	13	1	0	71	4	72	93
2.	91*	108383	10640	DBMS	75	17	0	0	56	29	57	93
3.	83*	100414	10638	DBMS	63	21	2	0	90	8	54	50
4.	67*	106423	10639	DBMS	61	32	1	0	59	29	27	57
5.	47*	61142072	10642	DBMS	50	40	2	0	48	34	20	31
6.	41*	2175919	10641	DBMS	53	50	2	0	54	36	14	28
7.	20	1875894	10668	DBMS	39	45	2	0	58	54	5	13



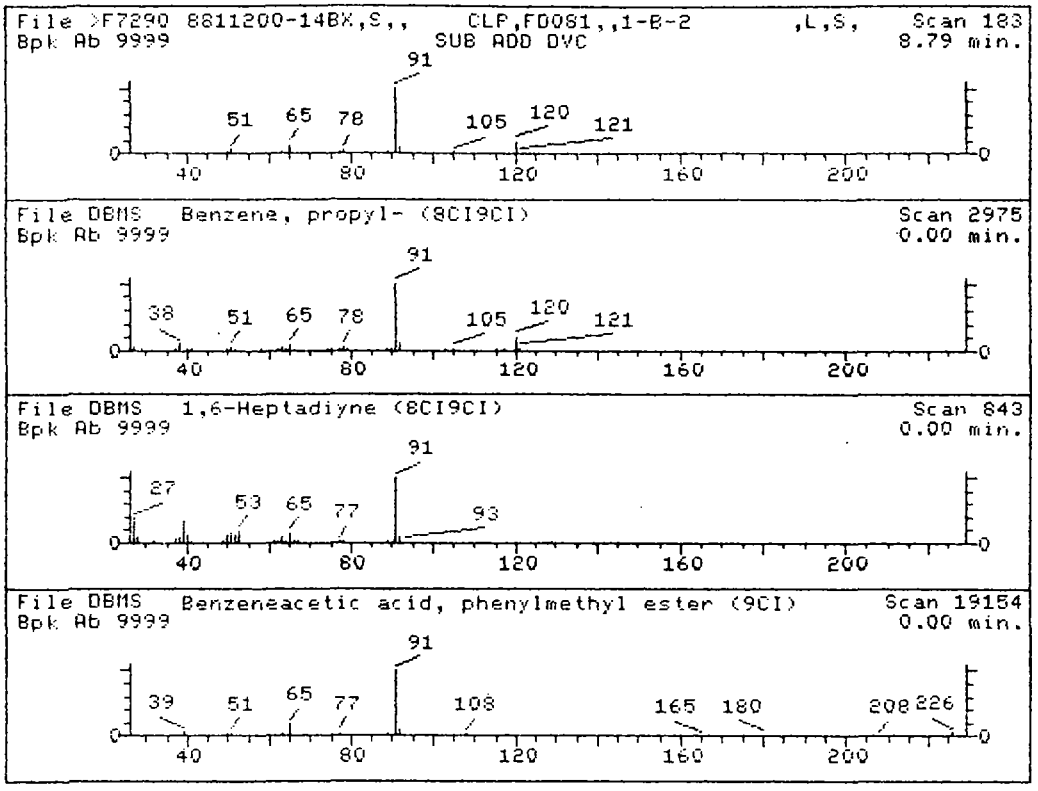
4 029

. Unknown #,4
Area = 139238.0 Tentative Concentration is 16.70

1.	Ethane, isothiocyanato- (9CI)	87 C3H5NS
2.	Thiocyanic acid, ethyl ester (8CI9CI)	87 C3H5NS
3.	Silane, ethyl- (8CI9CI)	60 C2H8Si

Sample file: >F7290 Spectrum #: 148
Search speed: 1 Tilting option: N No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	15*	542858	6740	DBMS	27	49	2	0	16	58	3	14
2.	15*	542905	6741	DBMS	23	63	1	0	43	58	3	14
3.	11*	2814791	1558	DBMS	21	37	0	0	17	62	2	15



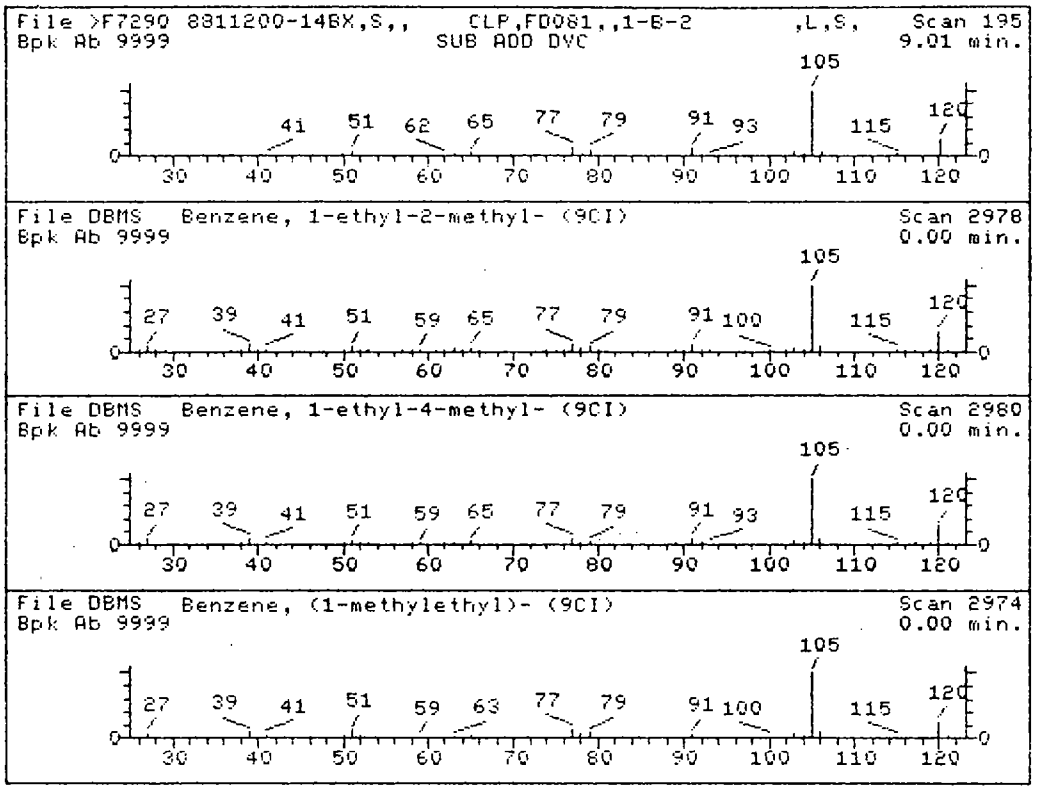
4 030

. Unknown #,5
Area = 95905.00 Tentative Concentration is 11.50

1.	Benzene, propyl- (8CI9CI)	120 C9H12
2.	1,6-Heptadiyne (8CI9CI)	92 C7H8
3.	Benzeneacetic acid, phenylmethyl ester (9CI)	226 C15H14O2
4.	Benzene, (phenoxymethyl)- (9CI)	184 C13H12O
5.	Benzene, (iodomethyl)- (9CI)	218 C7H7I
6.	Tricyclo[4.2.0.02,4]oct-7-en-5-one (9CI)	120 C8H8O
7.	Benzeneacetaldehyde (9CI)	120 C8H8O

Sample file: >F7290 Spectrum #: 183
Search speed: 1 Tilting option: N No. of ion ranges searched: 53

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	87*	103651	13482	DBMS	58	27	2	0	94	3	63	44
2.	52*	2396636	7597	DBMS	24	72	2	0	86	19	20	14
3.	52	102169	7578	DBMS	51	44	2	0	73	19	20	14
4.	43	946805	7570	DBMS	43	35	2	0	100	21	17	14
5.	42	620053	7576	DBMS	38	46	2	0	100	21	17	13
6.	38*	56666785	13479	DBMS	41	48	2	0	83	33	16	21
7.	24*	122781	13474	DBMS	47	32	2	0	32	55	7	27



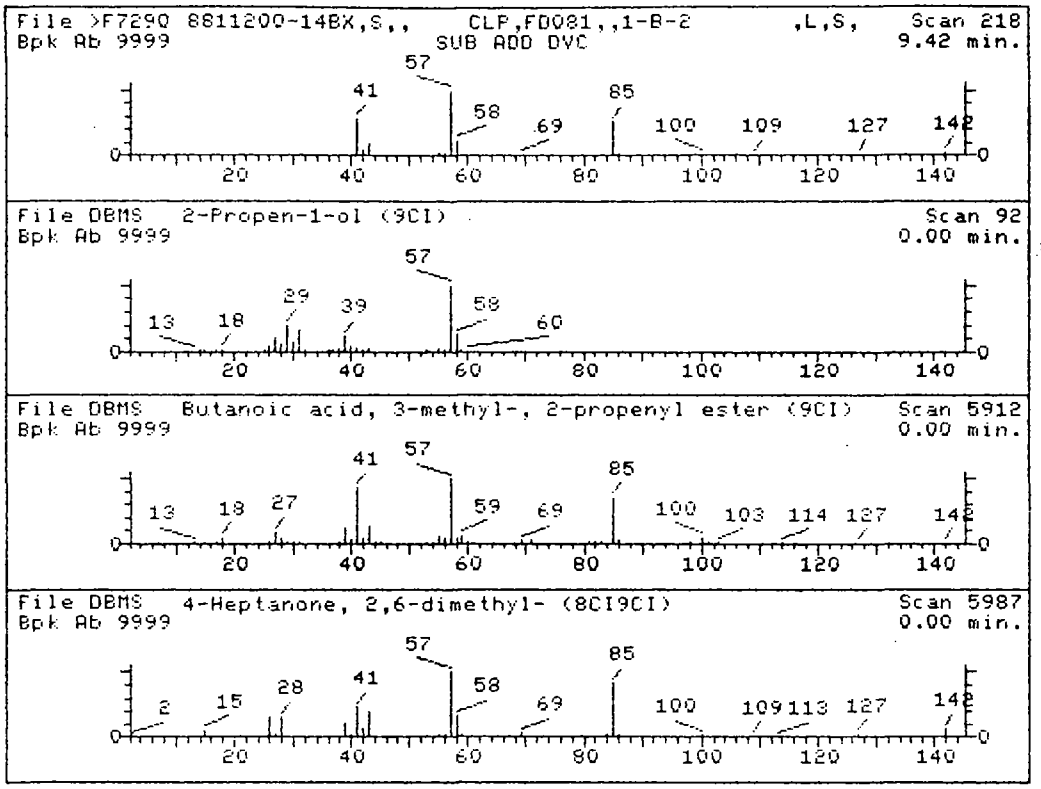
4 031

. Unknown #,6
Area = 511425.0 Tentative Concentration is 61.30

1.	Benzene, 1-ethyl-2-methyl- (9CI)	120	C9H12
2.	Benzene, 1-ethyl-4-methyl- (9CI)	120	C9H12
3.	Benzene, (1-methylethyl)- (9CI)	120	C9H12
4.	Benzene, 1-ethyl-3-methyl- (9CI)	120	C9H12
5.	Benzene, 1,2,3-trimethyl- (8CI9CI)	120	C9H12
6.	Benzene, 1,1'-(1-methyl-1,2-ethanediyl)bis- (9CI)	196	C15H16
7.	Benzeneethanol, .beta.-methyl-, (S)- (9CI)	136	C9H12O

Sample file: >F7290 Spectrum #: 195
Search speed: 1 Tilting option: N No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	97*	611143	13485	DBMS	83	2	0	0	84	3	72	97
2.	95*	622968	13487	DBMS	72	13	0	0	74	8	68	95
3.	94*	98828	13481	DBMS	74	13	1	0	94	5	72	92
4.	93*	620144	13486	DBMS	74	13	1	0	77	7	68	92
5.	71*	526738	13484	DBMS	73	27	1	0	53	32	32	72
6.	58	5814857	10589	DBMS	65	34	2	0	100	16	25	23
7.	52	37778997	10669	DBMS	54	41	2	0	72	17	20	17



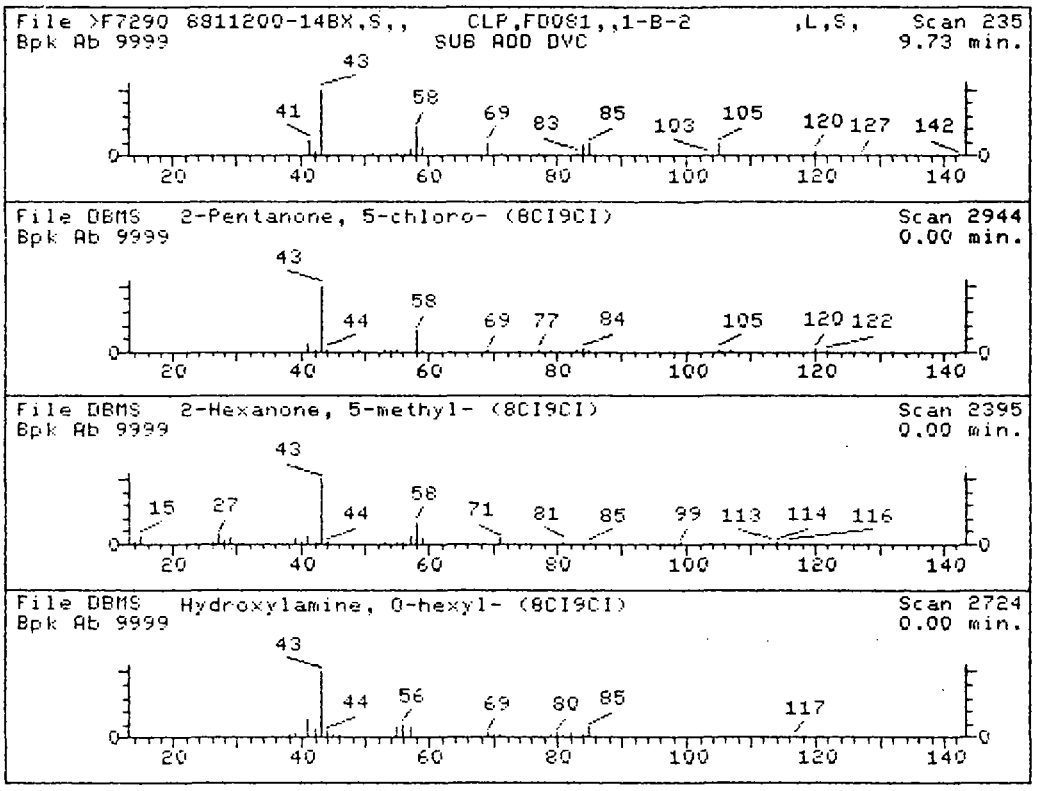
4 032

. Unknown #,7
Area = 5252606. Tentative Concentration is 750.00

1.	2-Propen-1-ol (9CI)	58 C3H6O
2.	Butanoic acid, 3-methyl-, 2-propenyl ester (9CI)	142 C8H14O2
3.	4-Heptanone, 2,6-dimethyl- (8CI9CI)	142 C9H18O
4.	3-Pentanone, 2,2,4,4-tetramethyl- (8CI9CI)	142 C9H18O

Sample file: >F7290 Spectrum #: 218
Search speed: 1 Tilting option: N No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	31*	107186	1279	DBMS	22	62	1	0	87	35	12	14
2.	27*	2835394	6110	DBMS	20	75	2	0	66	40	10	13
3.	18*	108838	6116	DBMS	40	44	1	0	37	59	4	23
4.	15*	815247	6118	DBMS	25	53	0	0	36	57	3	18

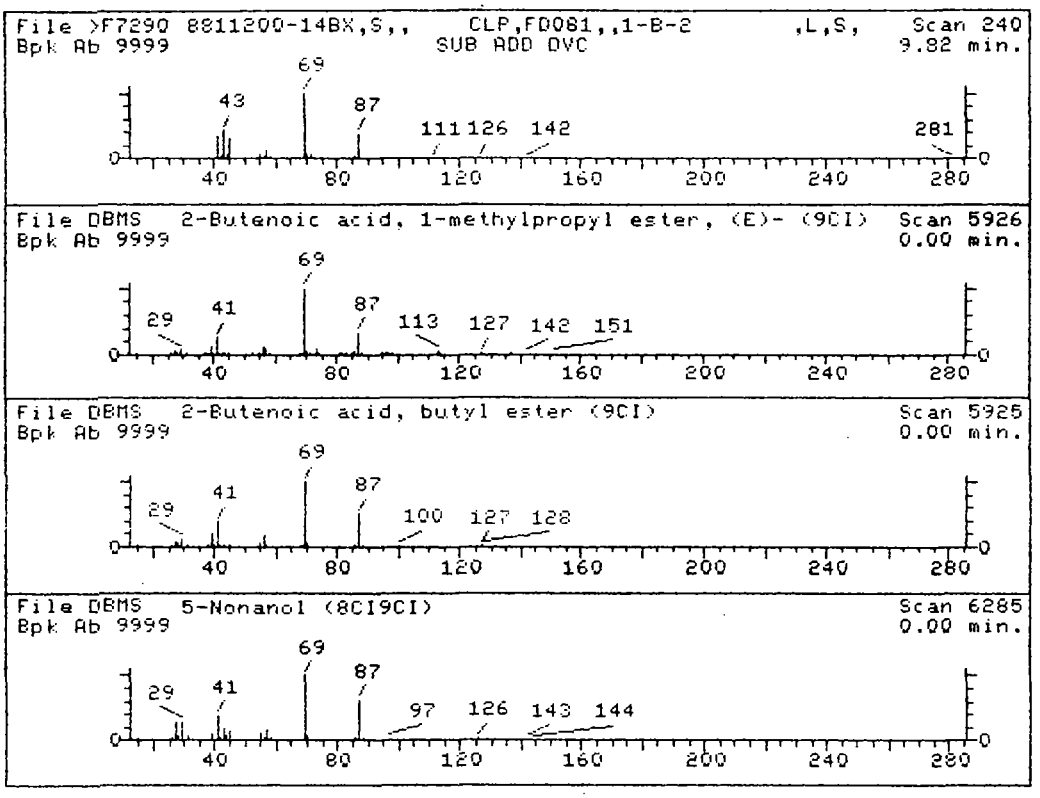


Unknown #,8
Area = 1398763. Tentative Concentration is 168.00

1.	2-Pentanone, 5-chloro- (8CI9CI)	120 C5H9ClO
2.	2-Hexanone, 5-methyl- (8CI9CI)	114 C7H14O
3.	Hydroxylamine, O-hexyl- (8CI9CI)	117 C6H15NO
4.	2-Hexanone, 3,3-dimethyl- (8CI9CI)	128 C8H16O
5.	Pyrrolidine, 3-methyl- (8CI9CI)	85 C5H11N
6.	2-Hexanone, 4-methyl- (8CI9CI)	114 C7H14O
7.	Pentanal, 2,2-dimethyl- (9CI)	114 C7H14O

Sample file: >F7290 Spectrum #: 235
Search speed: 1 Tilting option: N No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	38*	5891214	1374	DBMS	30	44	2	0	100	27	14	15
2.	37	110123	1351	DBMS	43	38	2	0	99	26	14	14
3.	26*	4665683	6042	DBMS	24	59	2	0	74	43	8	14
4.	25	26118387	6063	DBMS	36	45	2	0	77	46	7	12
5.	25*	34375898	5981	DBMS	31	49	2	0	81	46	7	15
6.	25	105420	1350	DBMS	34	52	1	0	66	47	7	12
7.	24	14250885	6021	DBMS	35	43	2	0	73	44	8	12

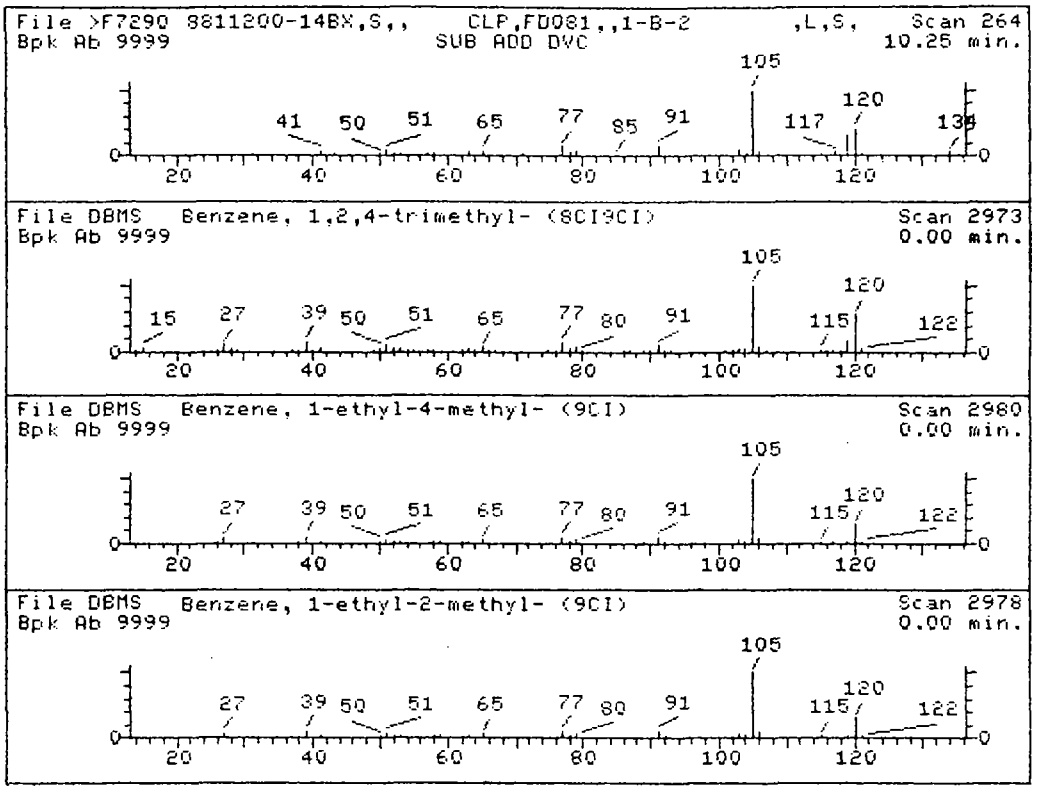


. Unknown #,9
Area = 288650.0 Tentative Concentration is 34.60

1.	2-Butenoic acid, 1-methylpropyl ester, (E)- (9CI)	142 C8H14O2
2.	2-Butenoic acid, butyl ester (9CI)	142 C8H14O2
3.	5-Nonanol (8CI9CI)	144 C9H20O
4.	3-Butyn-2-ol, 2-methyl- (8CI9CI)	84 C5H8O

Sample file: >F7290 Spectrum #: 240
Search speed: 1 Tilting option: N No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	52*	10371456	3251	DBMS	34	48	2	0	100	19	20	17
2.	43	7299914	6824	DBMS	43	42	2	0	75	21	17	14
3.	36	623938	6842	DBMS	41	35	0	0	48	37	14	23
4.	25*	115195	3132	DBMS	27	52	2	0	75	48	7	14



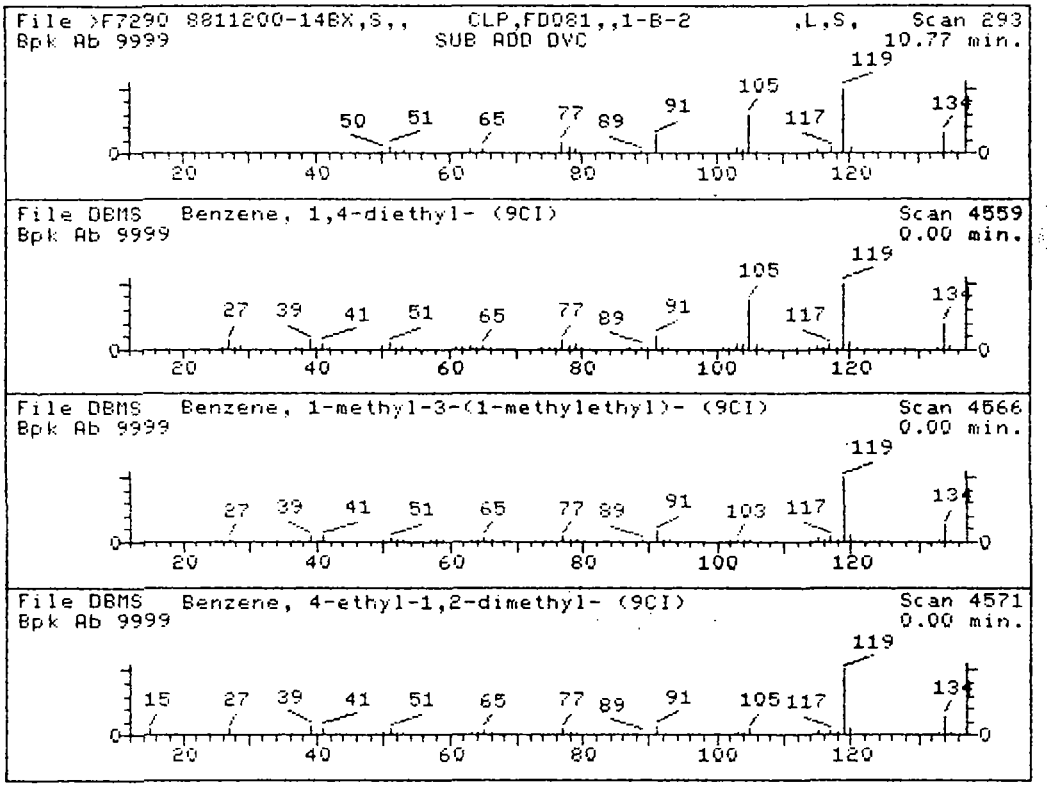
4 035

. Unknown #,10
Area = 121933.0 Tentative Concentration is 14.60

1.	Benzene, 1,2,4-trimethyl- (8CI9CI)	120	C9H12
2.	Benzene, 1-ethyl-4-methyl- (9CI)	120	C9H12
3.	Benzene, 1-ethyl-2-methyl- (9CI)	120	C9H12
4.	Benzene, (1-methylethyl)- (9CI)	120	C9H12
5.	Benzene, 1-ethyl-3-methyl- (9CI)	120	C9H12
6.	1,3-Cyclopentadiene, 5-(1-methylpropylidene)- (9CI)	120	C9H12
7.	Benzene, 1,3,5-trimethyl- (9CI)	120	C9H12

Sample file: >F7290 Spectrum #: 264
Search speed: 1 Tilting option: N No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	87*	95636	13480	DBMS	67	28	0	0	73	14	55	80
2.	81*	622968	13487	DBMS	61	24	0	0	100	22	41	77
3.	72*	611143	13485	DBMS	59	26	0	0	81	34	32	73
4.	71*	98828	13481	DBMS	66	21	1	0	100	35	32	72
5.	70*	620144	13486	DBMS	56	31	1	0	100	20	32	53
6.	52*	3141024	13489	DBMS	48	56	3	0	67	19	20	13
7.	40*	108678	13483	DBMS	45	43	1	0	62	40	14	27



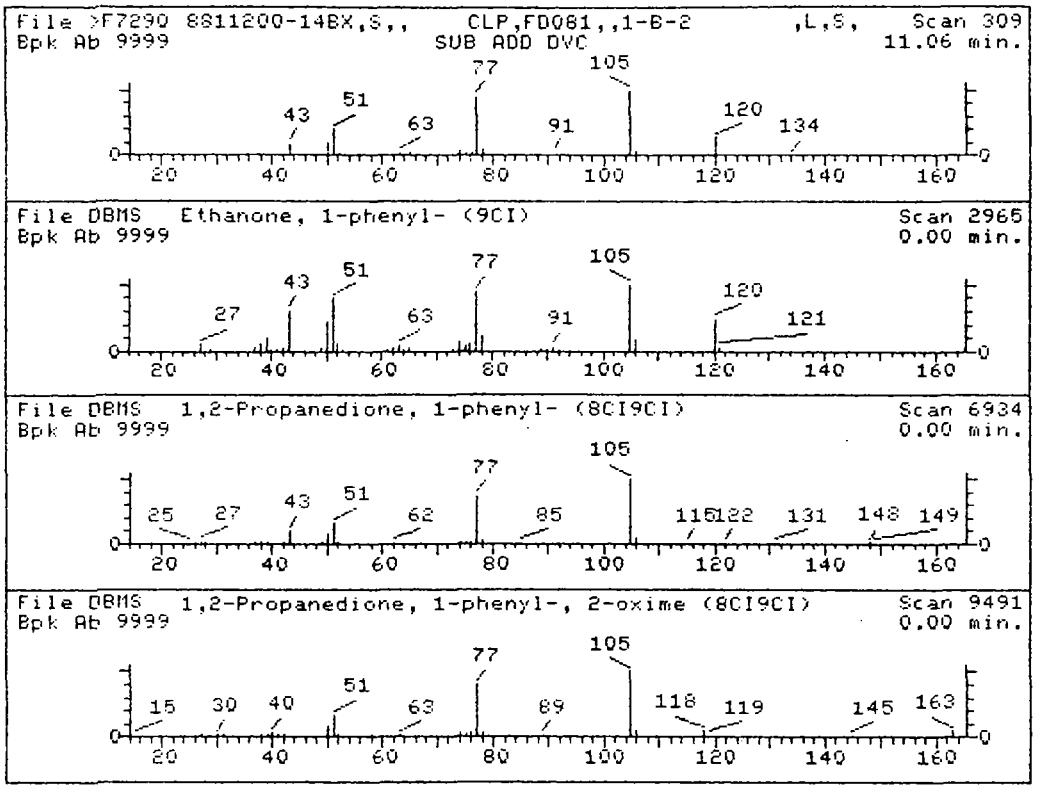
4 036

. Unknown #,11
Area = 67981.00 Tentative Concentration is 8.15

1.	Benzene, 1,4-diethyl- (9CI)	134 C10H14
2.	Benzene, 1-methyl-3-(1-methylethyl)- (9CI)	134 C10H14
3.	Benzene, 4-ethyl-1,2-dimethyl- (9CI)	134 C10H14
4.	Benzene, 1,2-diethyl- (9CI)	134 C10H14
5.	Benzene, methyl(1-methylethyl)- (9CI)	134 C10H14
6.	Benzene, 2-ethyl-1,4-dimethyl- (9CI)	134 C10H14
7.	Benzene, 1-ethyl-2,3-dimethyl- (9CI)	134 C10H14

Sample file: >F7290 Spectrum #: 293
Search speed: 1 Tilting option: N No. of ion ranges searched: 54

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	83*	105055	13220	DBMS	79	21	1	0	76	14	51	76
2.	71*	535773	13226	DBMS	51	38	2	0	90	14	38	33
3.	67*	934805	13230	DBMS	46	47	2	0	94	14	34	26
4.	67*	135013	13221	DBMS	71	35	1	0	54	37	28	71
5.	67*	25155151	13234	DBMS	48	42	2	0	96	14	34	28
6.	67*	1758889	13231	DBMS	48	46	2	0	91	14	34	27
7.	67*	933982	13228	DBMS	46	45	2	0	97	14	34	26



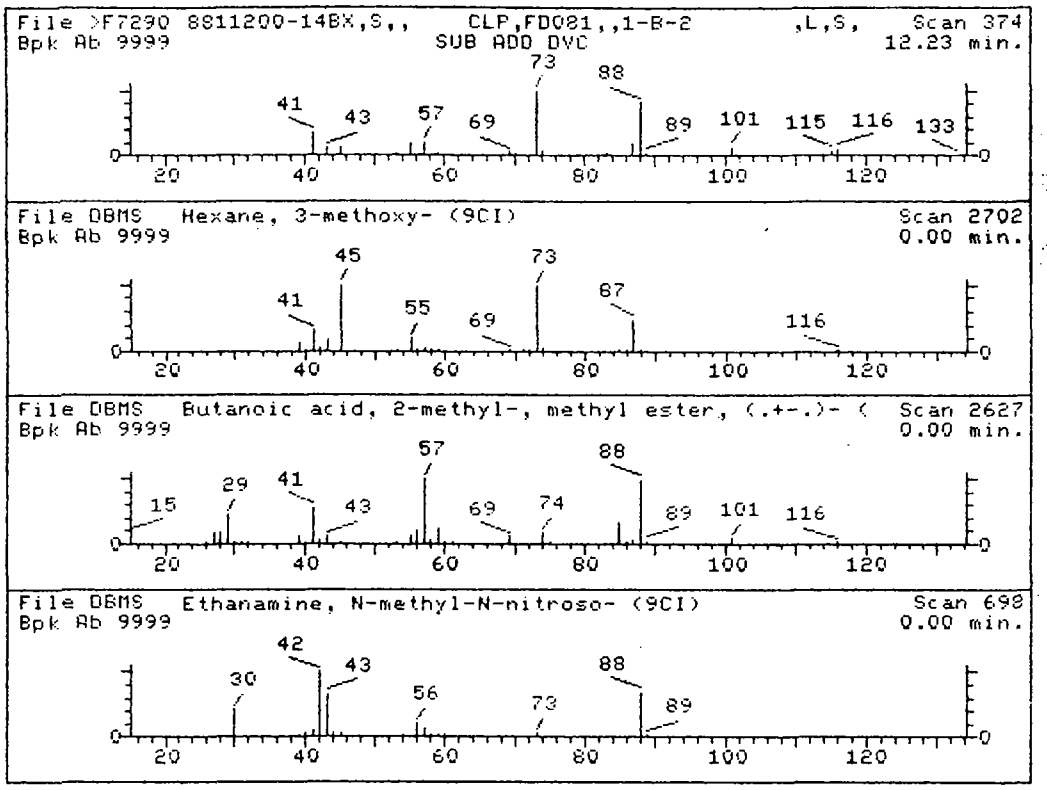
4 037

. Unknown #,12
Area = 64403.00 Tentative Concentration is 7.72

1.	Ethanone, 1-phenyl- (9CI)	120 C8H8O
2.	1,2-Propanedione, 1-phenyl- (8CI9CI)	148 C9H8O2
3.	1,2-Propanedione, 1-phenyl-, 2-oxime (8CI9CI)	163 C9H9NO2
4.	Benzoic acid, hydrazide (8CI9CI)	136 C7H8N2O
5.	Benzeneacetic acid, .alpha.-oxo-, methyl ester (9CI)	164 C9H8O3
6.	1,3,4-Oxadiazolium, 5-hydroxy-2-methyl-3-phenyl-, hydroxide, inner salt (8CI9CI)	176 C9H8N2O2
7.	Benzene, 1-ethyl-3-methyl- (9CI)	120 C9H12

Sample file: >F7290 Spectrum #: 309
Search speed: 1 Tilting option: N No. of ion ranges searched: 50

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	85*	98862	365	DBMS	76	27	0	0	37	45	43	93
2.	79	579077	4712	DBMS	65	20	1	0	100	7	48	31
3.	70	119517	4724	DBMS	45	43	2	0	100	8	42	15
4.	60	613945	4703	DBMS	41	46	2	0	100	13	30	13
5.	60	15206550	4725	DBMS	49	33	2	0	100	12	30	17
6.	52	24660535	4730	DBMS	35	22	2	0	94	16	20	12
7.	15*	620144	13486	DBMS	20	67	2	0	85	57	3	13



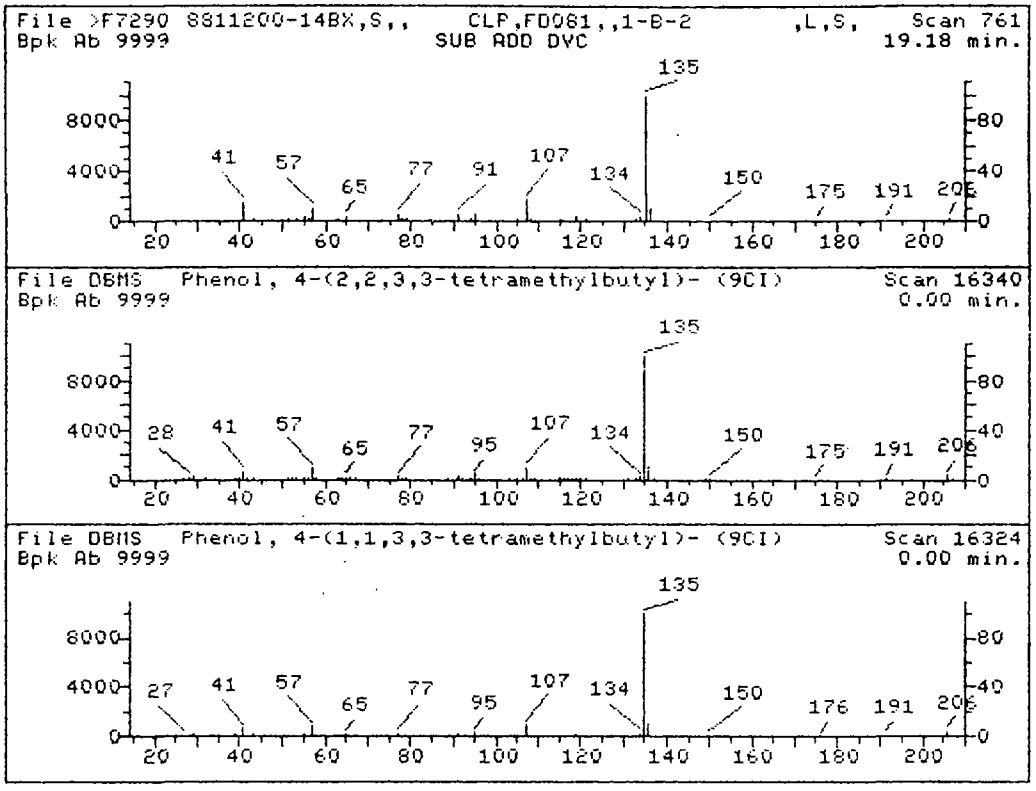
4 038

. Unknown #,13
Area = 74006.00 Tentative Concentration is 8.88

1.	Hexane, 3-methoxy- (9CI)	116 C7H16O
2.	Butanoic acid, 2-methyl-, methyl ester, (.+-.)- (9CI	116 C6H12O2
3.	Ethanamine, N-methyl-N-nitroso- (9CI)	88 C3H8N2O
4.	1,4-Dioxane (9CI)	88 C4H8O2

Sample file: >F7290 Spectrum #: 374
Search speed: 1 Tilting option: N No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	25*	54658014	6782	DBMS	27	58	3	0	101	48	7	13
2.	25*	53955810	7102	DBMS	25	78	3	0	84	50	7	13
3.	15*	10595956	7081	DBMS	29	63	3	0	120	57	3	13
4.	15*	123911	7086	DBMS	26	86	2	0	100	59	3	14

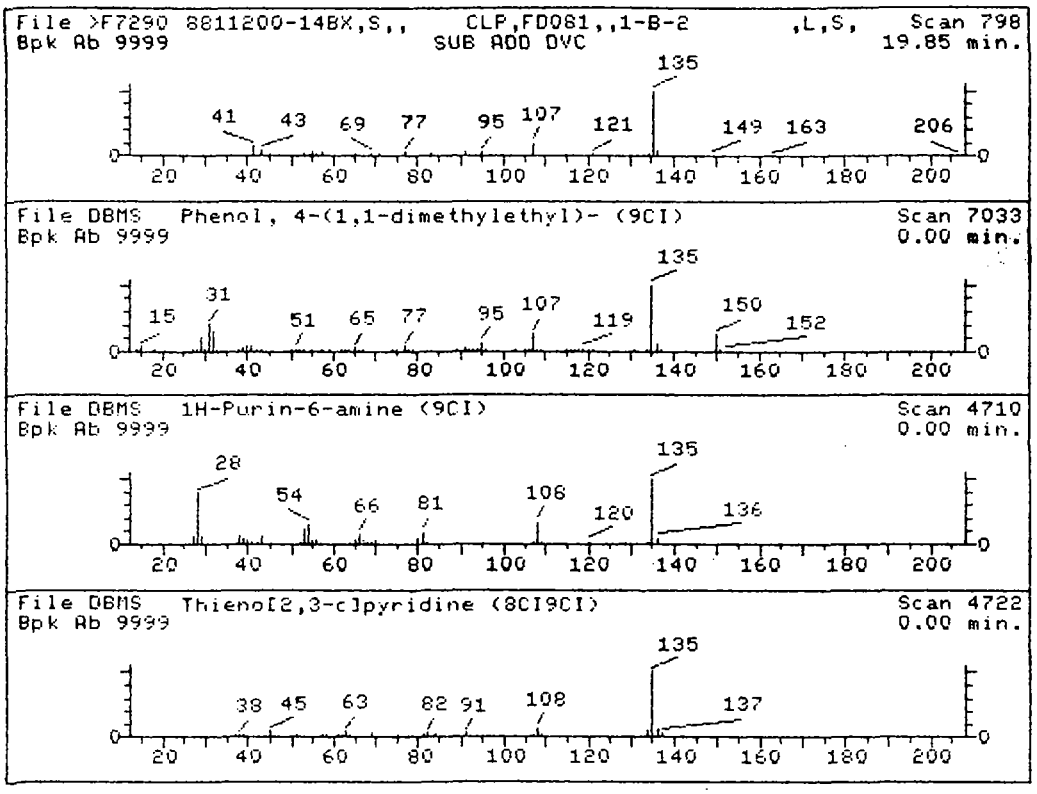


. Unknown #,14
Area = 784955.0 Tentative Concentration is 40.00

1. Phenol, 4-(2,2,3,3-tetramethylbutyl)- (9CI) 206 C14H22O
2. Phenol, 4-(1,1,3,3-tetramethylbutyl)- (9CI) 206 C14H22O

Sample file: >F7290 Spectrum #: 761
Search speed: 1 Tilting option: N No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	78	54932784	16324	DBMS	47	44	1	0	85	4	55	17
2.	78	140669	16323	DBMS	46	44	1	0	89	4	55	16



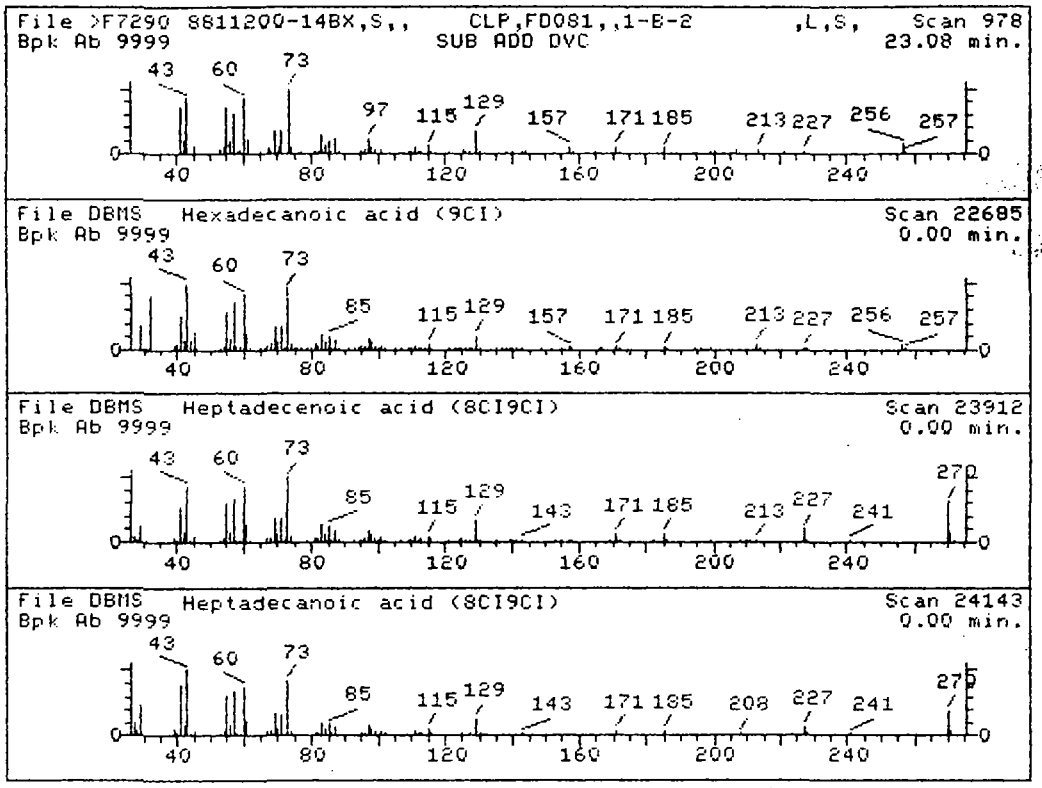
4 040

. Unknown #,15
Area = 80535.00 Tentative Concentration is 4.10

1.	Phenol, 4-(1,1-dimethylethyl)- (9CI)	150 C10H14O
2.	1H-Purin-6-amine (9CI)	135 C5H5N5
3.	Thieno[2,3-c]pyridine (8CI9CI)	135 C7H5NS
4.	1,2-Benzisothiazole (8CI9CI)	135 C7H5NS
5.	Thieno[3,2-c]pyridine (8CI9CI)	135 C7H5NS
6.	Thiocyanic acid, phenyl ester (8CI9CI)	135 C7H5NS

Sample file: >F7290 Spectrum #: 798
Search speed: 1 Tilting option: N No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	60	98544	16252	DBMS	54	43	2	0	77	15	30	15
2.	41*	73245	16217	DBMS	22	81	3	0	100	24	17	12
3.	37*	272128	16225	DBMS	26	63	2	0	75	26	14	14
4.	36*	272162	16227	DBMS	20	70	2	0	100	26	14	13
5.	36*	272140	16226	DBMS	21	78	2	0	81	26	14	13
6.	35*	5285870	16228	DBMS	24	75	3	0	100	28	14	12

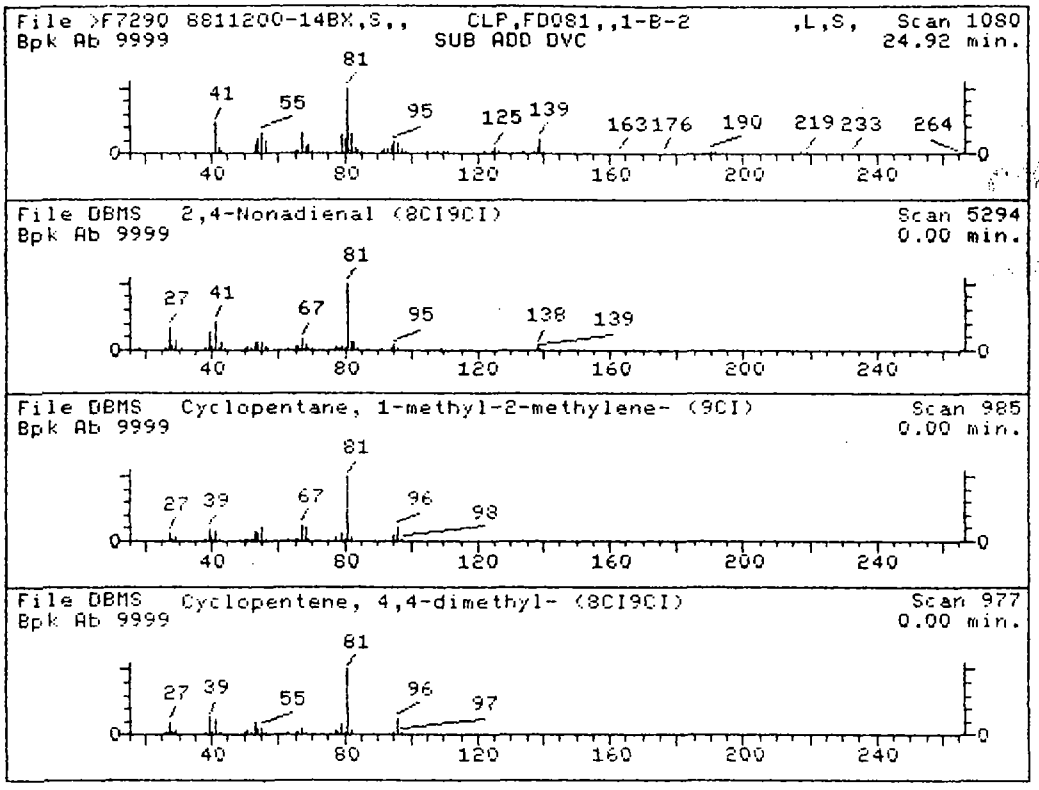


. Unknown #,17
Area = 104872.0 Tentative Concentration is 5.34

1.	Hexadecanoic acid (9CI)	256 C16H32O2
2.	Heptadecenoic acid (8CI9CI)	268 C17H32O2
3.	Heptadecanoic acid (8CI9CI)	270 C17H34O2
4.	Nonanoic acid (8CI9CI)	158 C9H18O2
5.	Octadecanoic acid (9CI)	284 C18H36O2
6.	Pentadecanoic acid (8CI9CI)	242 C15H30O2
7.	Pentanoic acid (9CI)	102 C5H10O2

Sample file: >F7290 Spectrum #: 978
Search speed: 1 Tilting option: N No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	64*	57103	2072	DBMS	65	86	2	0	85	23	28	44
2.	51	26265996	2074	DBMS	95	63	2	0	76	26	19	29
3.	49	506127	2076	DBMS	80	69	2	0	85	23	22	21
4.	47*	112050	2026	DBMS	55	49	1	0	85	41	16	42
5.	46	57114	2080	DBMS	88	77	3	0	84	23	17	17
6.	42	1002842	2067	DBMS	62	88	2	0	85	23	17	13
7.	41*	109524	1976	DBMS	31	57	0	0	79	35	16	24



. Unknown #,19
Area = 87919.00 Tentative Concentration is 4.48

1.	2,4-Nonadienal (8CI9CI)	138	C9H14O
2.	Cyclopentane, 1-methyl-2-methylene- (9CI)	96	C7H12
3.	Cyclopentene, 4,4-dimethyl- (8CI9CI)	96	C7H12
4.	Ethanone, 1-(1-methyl-2-cyclopenten-1-yl)- (9CI)	124	C8H12O
5.	Bicyclo[2.1.0]pentane-5-carboxylic acid, 1-methyl-, ethyl ester (9CI)	154	C9H14O2
6.	2-Cyclopentene-1-carboxylic acid, 1-methyl-, methyl ester (9CI)	140	C8H12O2
7.	Cyclopentene, 1,5-dimethyl- (8CI9CI)	96	C7H12

Sample file: >F7290 Spectrum #: 1080
Search speed: 1 Tilting option: N No. of ion ranges searched: 49

	Prob.	CAS #	CON #	ROOT	k	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	26*	6750034	5274	DBMS	27	66	2	0	100	42	8	14
2.	25*	41158412	5240	DBMS	33	64	1	0	82	49	7	18
3.	24*	19037720	5237	DBMS	39	52	1	0	69	54	7	22
4.	24*	68752169	5264	DBMS	40	39	1	0	93	53	7	23
5.	20	74810552	5305	DBMS	45	47	1	0	69	51	5	15
6.	20*	68317737	5276	DBMS	37	42	1	0	87	51	5	19
7.	20*	16491159	5236	DBMS	33	56	1	0	86	53	5	18

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MTL-SS-F5-006

Lab Name: CAMBRG ANALYTL Contract:

Lab Code: CAMBRDG Case No.: 11138 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: B811138-02BX

Sample wt/vol: 33.3 (g/mL) G Lab File ID: F7260

Level: (low/med) LOW Date Received: 11/10/88

% Moisture: not dec. 12 dec. 12 Date Extracted: 11/14/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/07/88

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	340	U
111-44-4	bis(2-Chloroethyl)Ether	340	U
95-57-8	2-Chlorophenol	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
100-51-6	Benzyl Alcohol	340	U
95-50-1	1,2-Dichlorobenzene	340	U
95-48-7	2-Methylphenol	340	U
108-60-1	bis(2-Chloroisopropyl)Ether	340	U
106-44-5	4-Methylphenol	340	U
621-64-7	N-Nitroso-Di-n-Propylamine	340	U
67-72-1	Hexachloroethane	340	U
98-95-3	Nitrobenzene	340	U
78-59-1	Isophorone	340	U
88-75-5	2-Nitrophenol	340	U
105-67-9	2,4-Dimethylphenol	340	U
65-85-0	Benzoic Acid	1600	U
111-91-1	bis(2-Chloroethoxy)Methane	340	U
120-83-2	2,4-Dichlorophenol	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
91-20-3	Naphthalene	340	U
106-47-8	4-Chloroaniline	340	U
87-68-3	Hexachlorobutadiene	340	U
59-50-7	4-Chloro-3-Methylphenol	340	U
91-57-6	2-Methylnaphthalene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
88-06-2	2,4,6-Trichlorophenol	340	U
95-95-4	2,4,5-Trichlorophenol	1600	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethyl Phthalate	340	U
208-96-8	Acenaphthylene	340	U
606-20-2	2,6-Dinitrotoluene	340	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MTL-SS-F5-006

4 044

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: BB11138-02BX

Sample wt/vol: 33.3 (g/mL) G Lab File ID: F7260

Level: (low/med) LOW Date Received: 11/10/88

% Moisture: not dec. 12 dec. 12 Date Extracted: 11/14/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/07/88

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1600	U
83-32-9	Acenaphthene	340	U
51-28-5	2,4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	340	U
121-14-2	2,4-Dinitrotoluene	340	U
84-66-2	Diethylphthalate	340	U
7005-72-3	4-Chlorophenyl-phenylether	340	U
86-73-7	Fluorene	340	U
100-01-6	4-Nitroaniline	1600	U
534-52-1	4,6-Dinitro-2-Methylphenol	1600	U
86-30-6	N-Nitrosodiphenylamine (1)	340	U
101-55-3	4-Bromophenyl-phenylether	340	U
118-74-1	Hexachlorobenzene	340	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	340	U
120-12-7	Anthracene	340	U
84-74-2	Di-n-Butylphthalate	200	BJ
206-44-0	Fluoranthene	340	U
129-00-0	Pyrene	340	U
85-68-7	Butylbenzylphthalate	340	U
91-94-1	3,3'-Dichlorobenzidine	680	U
56-55-3	Benzo(a)Anthracene	340	U
218-01-9	Chrysene	340	U
117-81-7	bis(2-Ethylhexyl)Phthalate	70	J
117-84-0	Di-n-Octyl Phthalate	340	U
205-99-2	Benzo(b)Fluoranthene	340	U
207-08-9	Benzo(k)Fluoranthene	340	U
50-32-8	Benzo(a)Pyrene	340	U
193-39-5	Indeno(1,2,3-cd)Pyrene	340	U
53-70-3	Dibenz(a,h)Anthracene	340	U
191-24-2	Benzo(g,h,i)Perylene	340	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MTL-SS-F5-006

Lab Name: CAMBRG ANALYTL Contract:

Lab Code: CAMBRDG Case No.: 11138 SAS No.: SDG No.: 4 045

Matrix: (soil/water) SOIL Lab Sample ID: 8811138-02BX

Sample wt/vol: 33.3 (g/mL) G Lab File ID: F7260

Level: (low/med) LOW Date Received: 11/10/88

% Moisture: not dec. 12 dec. 12 Date Extracted: 11/14/88

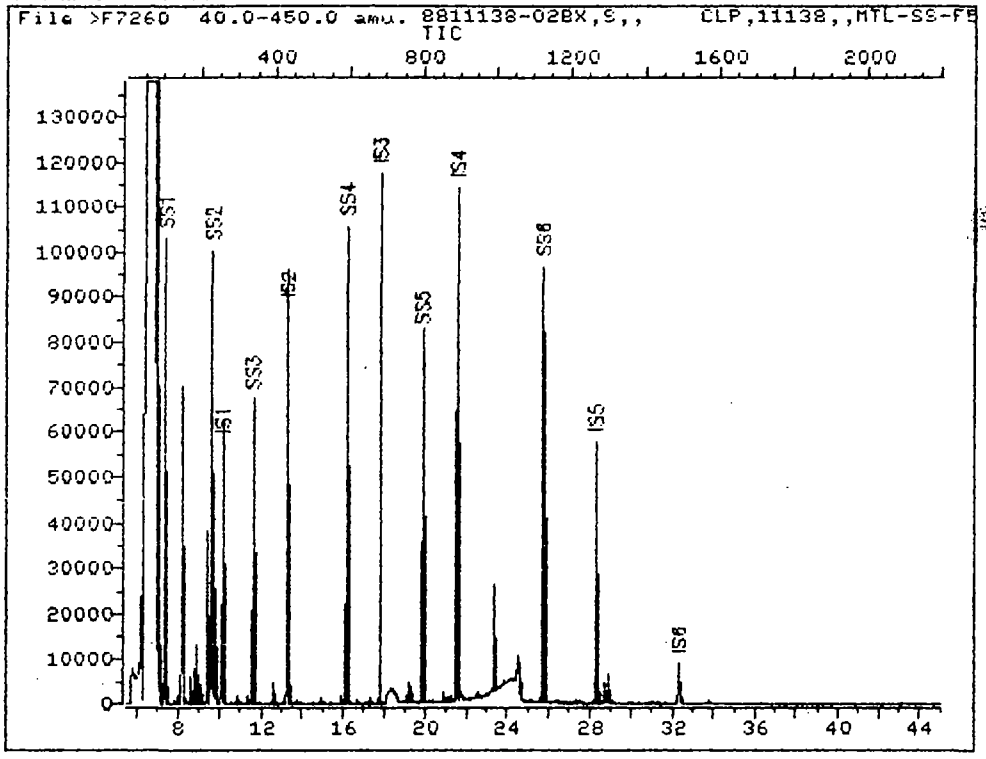
Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/07/88

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

Number TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.70	1400	J

TOTAL ION CHROMATOGRAM



4 046

Data File: >F7260::F2 Quant Output File: ^F7260::QT
Name: 8811138-02BX,S,,
Misc: CLP,11138,,MTL-SS-F5-006,L,S, HP5970F BTL# 4

Id File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F)
Last Calibration: 881207 12:55

Operator ID: MANAGER
Quant Time: 881207 14:41
Injected at: 881207 13:53

QUANT REPORT

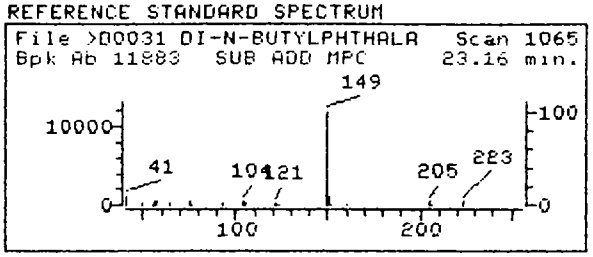
Operator ID: MANAGER Quant Rev: 6 Quant Time: 881207 14:41
Output File: ^F7260::QT Injected at: 881207 13:53
Data File: >F7260::F2 Dilution Factor: 1.00000
Name: 8811138-02BX,S,,
Misc: CLP,11138,,MTL-SS-FS-006,L,S, HP5970F BTL# 4

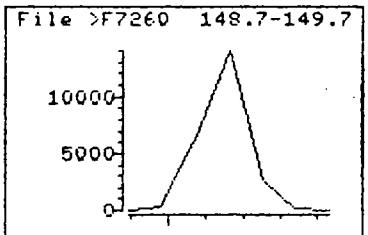
ID File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F)
Last Calibration: 881207 12:55

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*CI30 D4-DICHLOROBENZENE	10.10	256	24767	40.00	UG/ML	100
2)	CS50 2-FLUOROPHENOL	7.35	103	71168	79.98	UG/ML	100
3)	CS45 D5-PHENOL	9.62	229	68479	85.43	UG/ML	100
16)	*CI40 D8-NAPHTHALENE	13.26	432	96704	40.00	UG/ML	100
17)	CS20 D5-NITROBENZENE	11.55	337	50334	43.23	UG/ML	100
31)	*CI50 D10-ACENAPHTHENE	17.77	683	56314	40.00	UG/ML	96
32)	CS25 2-FLUOROBIPHENYL	16.13	592	76849	38.92	UG/ML	100
33)	CS55 2,4,6-TRIBROMOPHENOL	19.79	796	25123	67.75	UG/ML	100
52)	*CI60 D10-PHENANTHRENE	21.50	891	116217	40.00	UG/ML	100
60)	C650 DI-N-BUTYLPHTHALATE	23.33	993	25198	5.88	UG/ML	97
62)	*CI70 D12-CHRYSENE	28.29	1269	53319	40.00	UG/ML	92
63)	CS30 D14-P-TERPHENYL	25.70	1125	87598	34.25	UG/ML	100
68)	C745 BIS 2-ETHYLHEXYLPHTHALATE	28.70	1292	3320	2.05	UG/ML	95
70)	*CI75 D12-PERYLENE	32.31	1493	11616	40.00	UG/ML	100

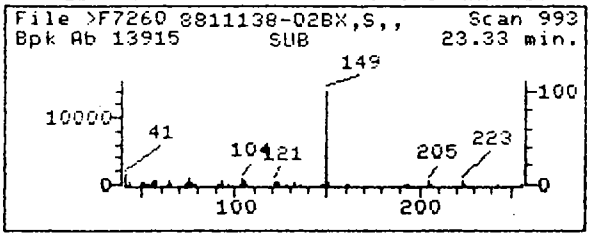
* Compound is ISTD

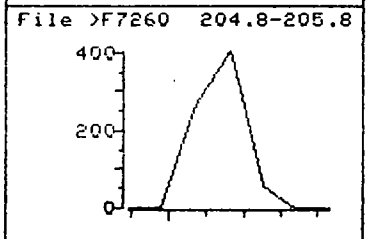
REFERENCE STANDARD SPECTRUM





SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





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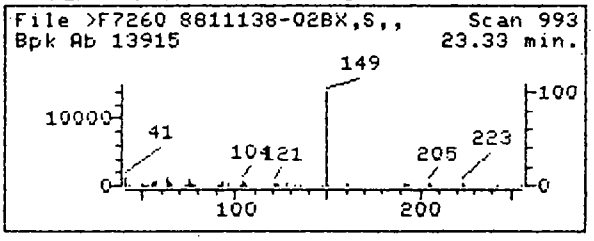
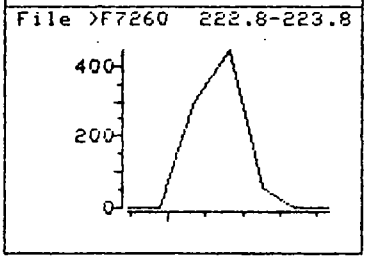
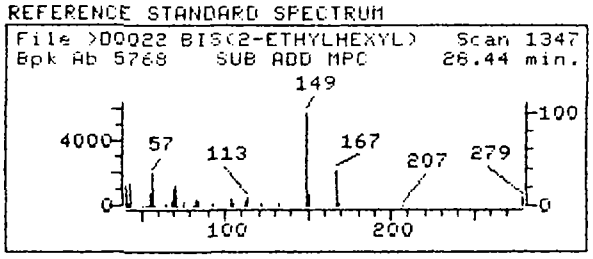




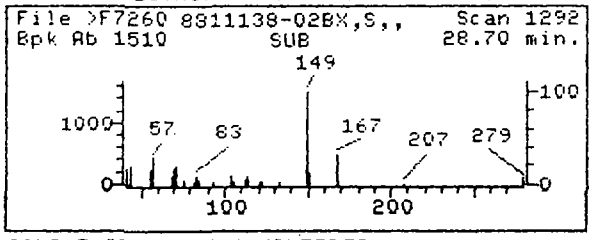
Data File: >F7260::F2 Quant Output File: ^F7260::QT
Name: 8811138-02BX,S,,
Misc: CLP,11138,,MTL-SS-FS-006,L,S, HP5970F BTL# 4
Quant Time: 881207 14:41 Quant ID File: FBNAID::QT
Injected at: 881207 13:53 Last Calibration: 881207 12:55

Compound No: 60
Compound Name: C650 DI-N-BUTYLPHTHALATE
Scan Number: 993
Retention Time: 23.33 min.
Quant Ion: 149.0
Area: 25198
Concentration: 5.88 UG/ML
q-value: 97

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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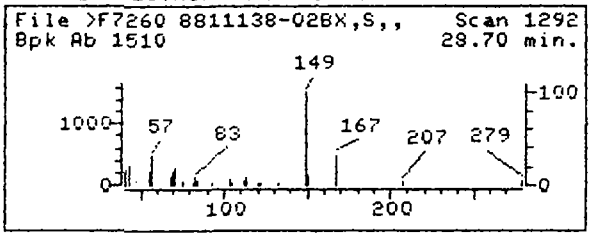
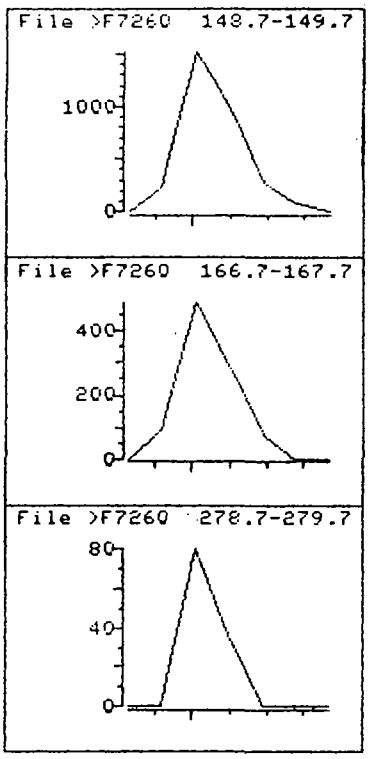




Data File: >F7260::F2 Quant Output File: ^F7260::QT
Name: 8811138-02BX,S,,
Misc: CLP,11138,,MTL-SS-FS-006,L,S, HP5970F BTL# 4
Quant Time: 881207 14:41 Quant ID File: FBNAID::QT
Injected at: 881207 13:53 Last Calibration: 881207 12:55

Compound No: 68
Compound Name: C745 BIS 2-ETHYLHEXYLPHTHALATE
Scan Number: 1292
Retention Time: 28.70 min.
Quant Ion: 149.0
Area: 3320
Concentration: 2.05 UG/ML
q-value: 95

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 881207 14:41
Output File: ^F7260::QT Injected at: 881207 13:53
Data File: >F7260::F2 Dilution Factor: 1.00000
Name: 8811138-02BX,S,,
Misc: CLP,11138,,MTL-SS-FS-006,L,S, HP5970F BTL# 4

ID File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F)
Last Calibration: 881207 12:55

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 D4-DICHLOROBENZENE	10.10	152.0	24767	40.00	UG/ML	100
2)	CS50 2-FLUOROPHENOL	7.35	112.0	71168	79.98	UG/ML	100
3)	CS45 D5-PHENOL	9.62	99.0	68479	85.43	UG/ML	100
16)	*CI40 D8-NAPHTHALENE	13.26	136.0	96704	40.00	UG/ML	100
17)	CS20 D5-NITROBENZENE	11.55	82.0	50334	43.23	UG/ML	100
31)	*CI50 D10-ACENAPHTHENE	17.77	164.0	56314	40.00	UG/ML	96
32)	CS25 2-FLUOROBIPHENYL	16.13	172.0	76849	38.92	UG/ML	100
33)	CS55 2,4,6-TRIBROMOPHENOL	19.79	329.8	25123	67.75	UG/ML	100
48)	C580 DIETHYLPHTHALATE	19.13	149.1	1131	.46	UG/ML	93
52)	*CI60 D10-PHENANTHRENE	21.50	188.0	116217	40.00	UG/ML	100
60)	C650 DI-N-BUTYLPHTHALATE	23.33	149.0	25198	5.88	UG/ML	97
62)	*CI70 D12-CHRYSENE	28.29	240.3	53319	40.00	UG/ML	92
63)	CS30 D14-P-TERPHENYL	25.70	244.0	87598	34.25	UG/ML	100
68)	C745 BIS 2-ETHYLHEXYLPHTHALATE	28.70	149.0	3320	2.05	UG/ML	95
70)	*CI75 D12-PERYLENE	32.31	264.2	11616	40.00	UG/ML	100

* Compound is ISTD

MS data file header from : >F7260

Sample: 8811138-02BX,S,, Operator: MANAGER MS 12/07/88 13:53
Misc : CLP,11138,,MTL-SS-FS-006,L,S, HP5970F BTL# 4
Sys. #: 1 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: FBNA Tuning file: MT7701 No. of extra records: 2
Source temp.: 0 Analyzer temp.: 280 Transfer line temp.: 0

Chromatographic temperatures : 40. 290. 0. 0. 0.
Chromatographic times, min. : 4.0 16.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 10.0 0.0 0.0 .1 0.0

4 051

>F7260 8811138-02BX,S,, CLP,11138,,MTL-SS-FS-006,L,S, HP5

40.0 450.0 CLP ADC TIC
Upslope: .20 Area Reject: 799339. Max Peaks: 1 Bunching: 1
Dnslope: 0.00 Results File IF7260 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	6.74	41	69	70	440287	8016634	7993394	100.00	100.000

Sum of corrected areas: 7993394.

Summary of Unknowns PBM Library Search and Quantitation

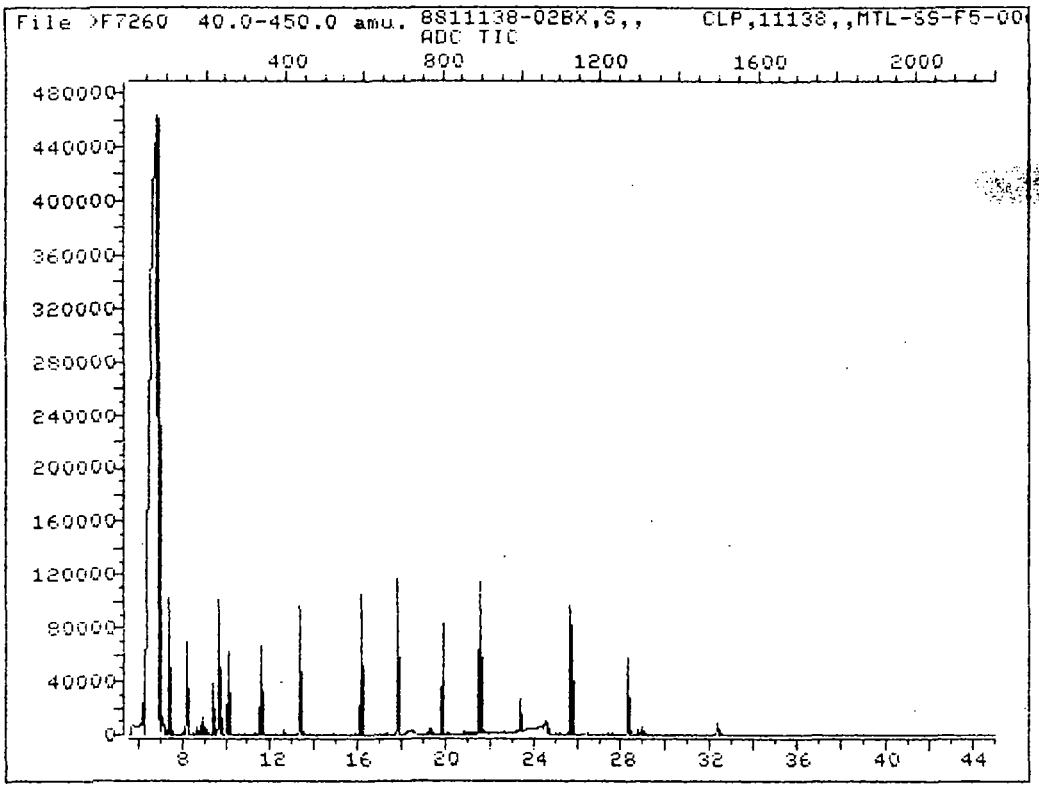
Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	7993394.	10.10	5.52 - 11.68
2	40.0	7993394.	13.26	11.68 - 15.51
3	40.0	7993394.	17.77	15.51 - 19.63
4	40.0	7993394.	21.50	19.63 - 24.89
5	40.0	7993394.	28.29	24.89 - 30.30
6	40.0	7993394.	32.31	30.30 - 45.04

Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1.00 Amount Used (AU) = 1.00

Correction Factor = 1.00 = (AM / AU) / (DF * FS)

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unk} * \text{Correction Factor}$$

11:53 AM WED., 14 DEC., 1988


File >F7260 40.0-450.0 amu. 8811138-02BX,S,, CLP,11138,,MTL-SS-F5-00
ADC TIC
400
800
1200
1600
2000
480000
440000
400000
360000
320000
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240000
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32
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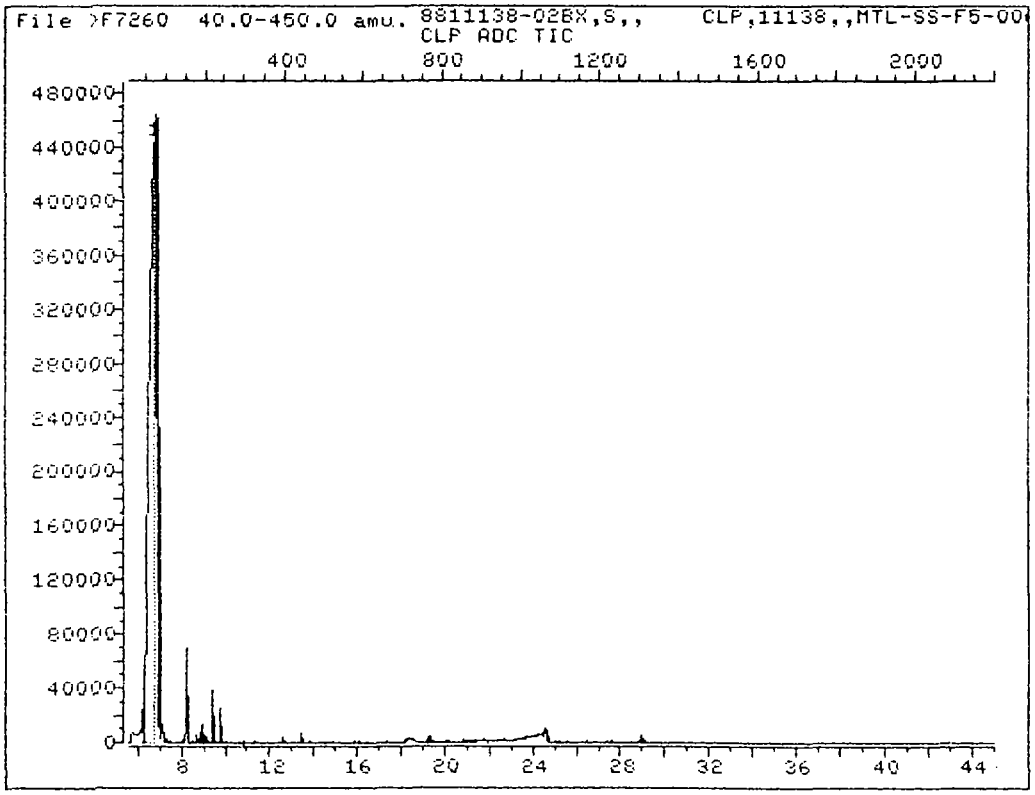
40
44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CLP ADC TIC
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800
1200
1600
2000
480000
440000
400000
360000
320000
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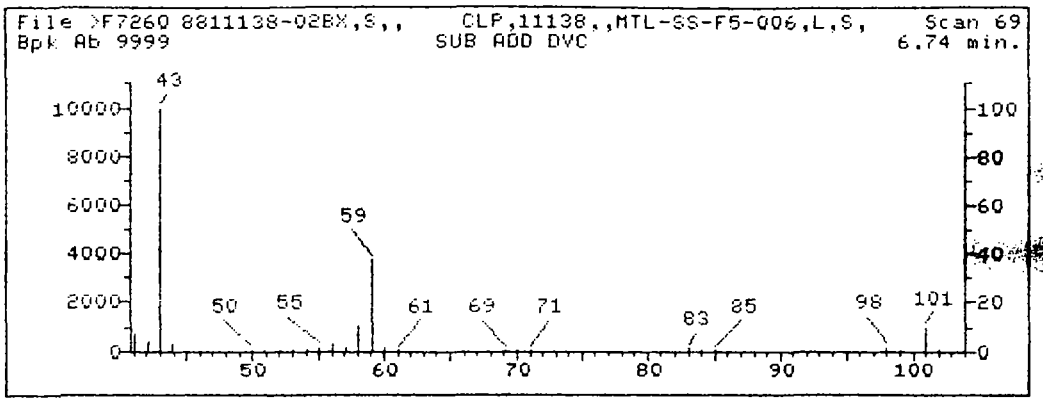


. Unknown #,1
Area = 7993394. Tentative Concentration is 40.00

Sample file: >F7260 Spectrum #: 69

No data base entries were retrieved.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MTL-SS-E6_5

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: 4 054

Matrix: (soil/water) SOIL Lab Sample ID: [redacted]11138-03BX

Sample wt/vol: 32.0 (g/mL) G Lab File ID: F7261

Level: (low/med) LOW Date Received: 11/10/88

% Moisture: not dec. 17 dec. 17 Date Extracted: 11/14/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/07/88

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370	U
111-44-4	bis(2-Chloroethyl)Ether	370	U
95-57-8	2-Chlorophenol	370	U
541-73-1	1,3-Dichlorobenzene	370	U
106-46-7	1,4-Dichlorobenzene	370	U
100-51-6	Benzyl Alcohol	370	U
95-50-1	1,2-Dichlorobenzene	370	U
95-48-7	2-Methylphenol	370	U
108-60-1	bis(2-Chloroisopropyl)Ether	370	U
106-44-5	4-Methylphenol	370	U
621-64-7	N-Nitroso-Di-n-Propylamine	370	U
67-72-1	Hexachloroethane	370	U
98-95-3	Nitrobenzene	370	U
78-59-1	Isophorone	370	U
88-75-5	2-Nitrophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
65-85-0	Benzoic Acid	1800	U
111-91-1	bis(2-Chloroethoxy)Methane	370	U
120-83-2	2,4-Dichlorophenol	370	U
120-82-1	1,2,4-Trichlorobenzene	370	U
91-20-3	Naphthalene	370	U
106-47-8	4-Chloroaniline	370	U
87-68-3	Hexachlorobutadiene	370	U
59-50-7	4-Chloro-3-Methylphenol	370	U
91-57-6	2-Methylnaphthalene	370	U
77-47-4	Hexachlorocyclopentadiene	370	U
88-06-2	2,4,6-Trichlorophenol	370	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	370	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethyl Phthalate	370	U
208-96-8	Acenaphthylene	370	U
606-20-2	2,6-Dinitrotoluene	370	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MTL-SS-E6_5

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: 4 055

Matrix: (soil/water) SOIL Lab Sample ID: BB11138-03BX

Sample wt/vol: 32.0 (g/mL) G Lab File ID: F7261

Level: (low/med) LOW Date Received: 11/10/88

% Moisture: not dec. 17 dec. 17 Date Extracted: 11/14/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/07/88

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	370	U
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	370	U
121-14-2	2,4-Dinitrotoluene	370	U
84-66-2	Diethylphthalate	370	U
7005-72-3	4-Chlorophenyl-phenylether	370	U
86-73-7	Fluorene	370	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-Methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	370	U
101-55-3	4-Bromophenyl-phenylether	370	U
118-74-1	Hexachlorobenzene	370	U
87-86-5	Pentachlorophenol	1800	U
85-01-8	Phenanthrene	370	U
120-12-7	Anthracene	370	U
84-74-2	Di-n-Butylphthalate	220	BJ
206-44-0	Fluoranthene	370	U
129-00-0	Pyrene	370	U
85-68-7	Butylbenzylphthalate	40	J
91-94-1	3,3'-Dichlorobenzidine	750	U
56-55-3	Benzo(a)Anthracene	370	U
218-01-9	Chrysene	370	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1300	
117-84-0	Di-n-Octyl Phthalate	370	U
205-99-2	Benzo(b)Fluoranthene	370	U
207-08-9	Benzo(k)Fluoranthene	370	U
50-32-8	Benzo(a)Pyrene	370	U
193-39-5	Indeno(1,2,3-cd)Pyrene	370	U
53-70-3	Dibenz(a,h)Anthracene	370	U
191-24-2	Benzo(g,h,i)Perylene	370	U

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MTL-SS-E6_5
4 056

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: [illegible]138-03BX

Sample wt/vol: 32.0 (g/mL) G Lab File ID: F7261

Level: (low/med) LOW Date Received: 11/10/88

% Moisture: not dec. 17 dec. 17 Date Extracted: 11/14/88

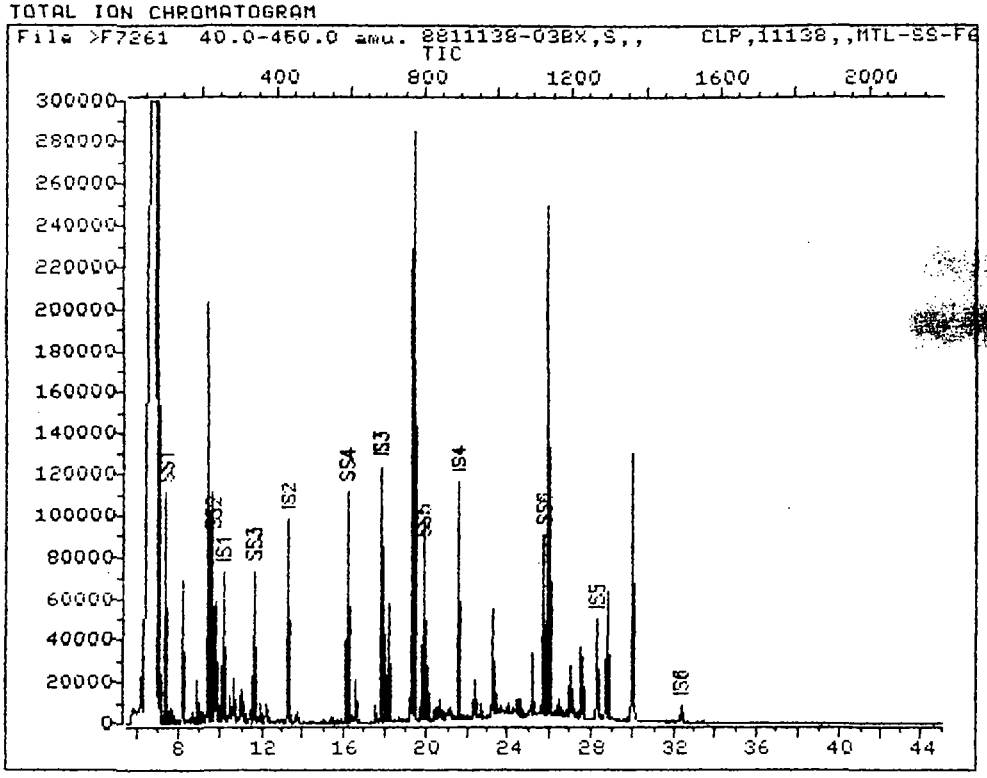
Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/07/88

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

Number TICs found: 9 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.80	1500	J
2.		Unknown	17.90	210	J
3.		Unknown	18.10	150	J
4.		Unknown phenolic compound	19.30	1500	J
5.		Unknown acid	23.20	180	J
6.		Unknown	25.91	1500	J
7.		Unknown	27.01	160	J
8.		Unknown	27.51	240	J
9.		Unknown	29.91	770	J

TOTAL ION CHROMATOGRAM



4 057

Data File: >F7261::F2 Quant Output File: ^F7261::QT
Name: 8811138-03BX,S,,
Misc: CLP,11138,,MTL-SS-F6.5-002,L,S, HP5970F BTL# 5

Id File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F)
Last Calibration: 881207 12:55

Operator ID: MANAGER
Quant Time: 881207 15:35
Injected at: 881207 14:48

QUANT REPORT

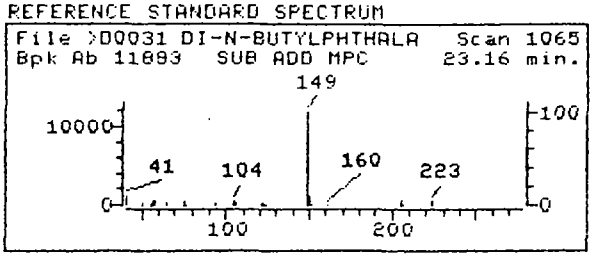
Operator ID: MANAGER Quant Rev: 6 Quant Time: 881207 15:35
Output File: ^F7261::QT Injected at: 881207 14:48
Data File: >F7261::F2 Dilution Factor: 1.00000
Name: 8811138-03BX,S,,
Misc: CLP,11138,,MTL-SS-F6.5-002,L,S, HP5970F BTL# 5

ID File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F)
Last Calibration: 881207 12:55

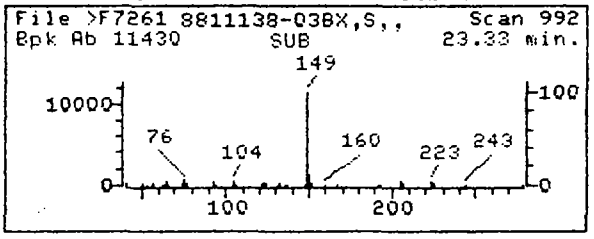
	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*CI30 D4-DICHLOROBENZENE	10.12	257	24559	40.00	UG/ML	100
2)	CS50 2-FLUOROPHENOL	7.37	104	79636	90.26	UG/ML	100
3)	CS45 D5-PHENOL	9.62	229	72266	90.92	UG/ML	100
16)	*CI40 D8-NAPHTHALENE	13.26	432	96965	40.00	UG/ML	100
17)	CS20 D5-NITROBENZENE	11.56	337	52263	44.76	UG/ML	100
31)	*CI50 D10-ACENAPHTHENE	17.77	683	55499	40.00	UG/ML	91
32)	CS25 2-FLUOROBIPHENYL	16.12	591	80434	41.34	UG/ML	100
33)	CS55 2,4,6-TRIBROMOPHENOL	19.80	796	28153	77.04	UG/ML	100
52)	*CI60 D10-PHENANTHRENE	21.51	891	103737	40.00	UG/ML	100
60)	C650 DI-N-BUTYLPHTHALATE	23.33	992	22210	5.81	UG/ML	98
62)	*CI70 D12-CHRYSENE	28.29	1268	37770	40.00	UG/ML	91
63)	CS30 D14-P-TERPHENYL	25.70	1124	65981	36.42	UG/ML	100
65)	C720 BUTYLBENZYLPHTHALATE	27.10	1202	1060	1.06	UG/ML	90
68)	C745 BIS 2-ETHYLHEXYLPHTHALATE	28.71	1291	38268	33.39	UG/ML	95
70)	*CI75 D12-PERYLENE	32.32	1492	9611	40.00	UG/ML	100

* Compound is ISTD

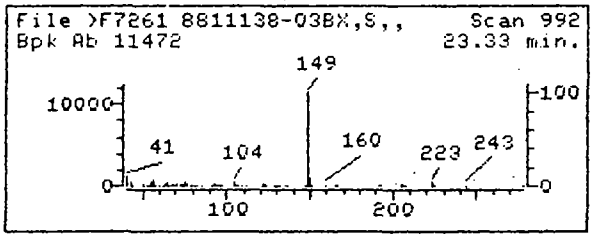
REFERENCE STANDARD SPECTRUM

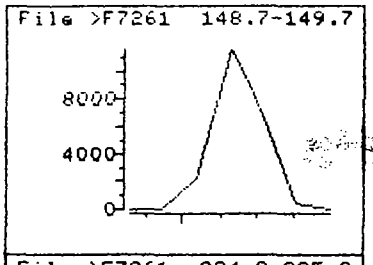


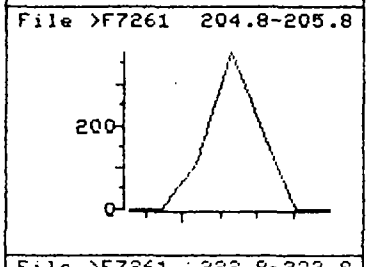
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

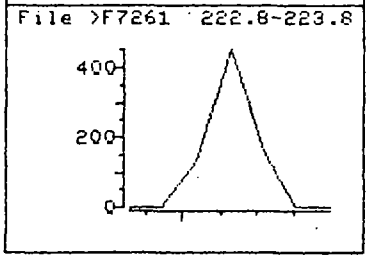


SAMPLE SPECTRUM (UNALTERED)





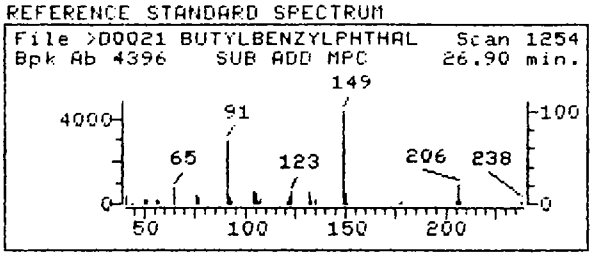


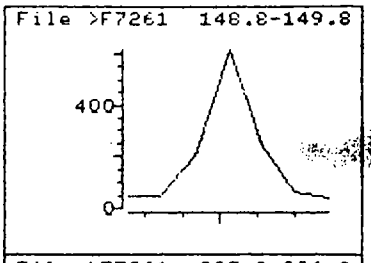


Data File: >F7261::F2 Quant Output File: ^F7261::QT
Name: 8811138-03BX,S,,
Misc: CLP,11138,,MTL-SS-F6.5-002,L,S, HP5970F BTL# 5
Quant Time: 881207 15:35 Quant ID File: FBNAID::QT
Injected at: 881207 14:48 Last Calibration: 881207 12:55

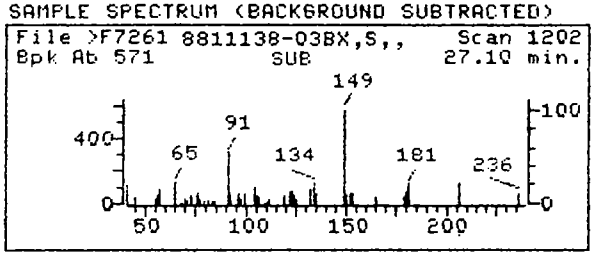
Compound No: 60
Compound Name: C650 DI-N-BUTYLPHTHALATE
Scan Number: 992
Retention Time: 23.33 min.
Quant Ion: 149.0
Area: 22210
Concentration: 5.81 UG/ML
q-value: 98

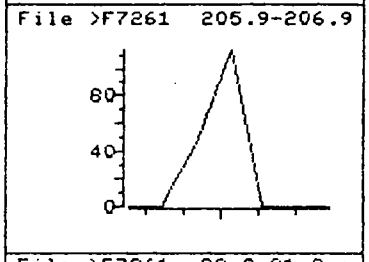
REFERENCE STANDARD SPECTRUM



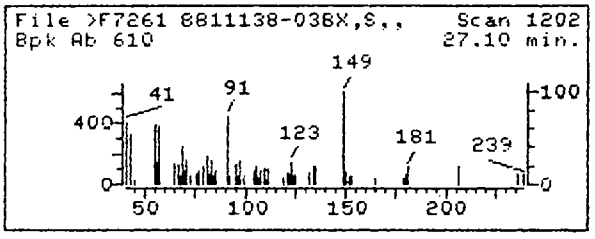


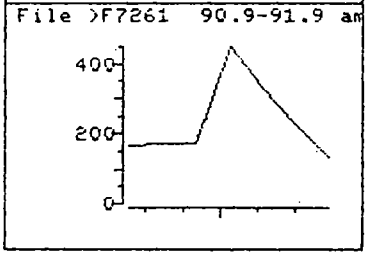
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)

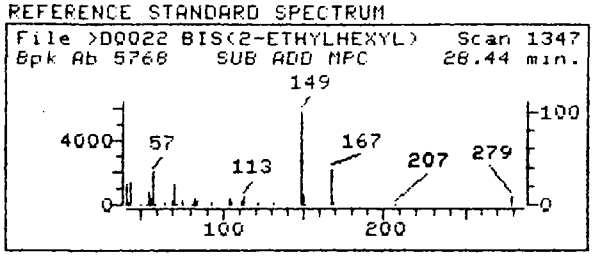




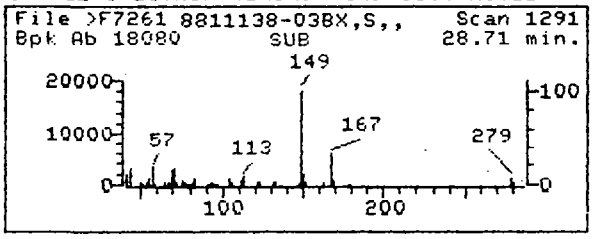
Data File: >F7261::F2 Quant Output File: ^F7261::QT
Name: 8811138-03BX,S,,
Misc: CLP,11138,,MTL-SS-F6.5-002,L,S, HP5970F BTL# 5
Quant Time: 881207 15:35 Quant ID File: FBNAID::QT
Injected at: 881207 14:48 Last Calibration: 881207 12:55

Compound No: 65
Compound Name: C720 BUTYLBENZYLPHTHALATE
Scan Number: 1202
Retention Time: 27.10 min.
Quant Ion: 149.1
Area: 1060
Concentration: 1.06 UG/ML
q-value: 90

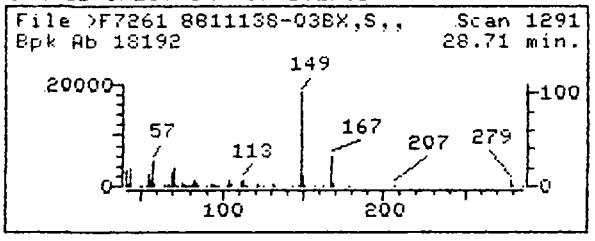
REFERENCE STANDARD SPECTRUM

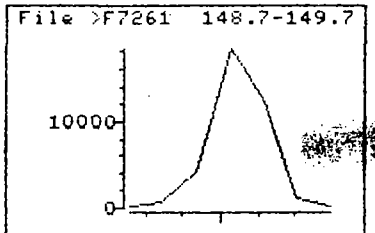


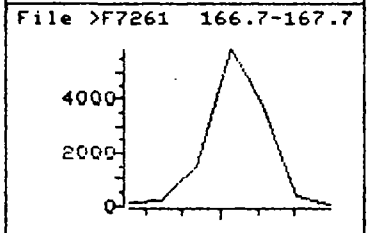
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

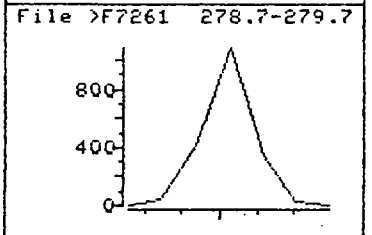


SAMPLE SPECTRUM (UNALTERED)









4 061

Data File: >F7261::F2 Quant Output File: ^F7261::QT
Name: 8811138-03BX,S,,
Misc: CLP,11138,,MTL-SS-F6.5-002,L,S, HP5970F BTL# 5
Quant Time: 881207 15:35 Quant ID File: FBNAID::QT
Injected at: 881207 14:48 Last Calibration: 881207 12:55

Compound No: 68
Compound Name: C745 BIS 2-ETHYLHEXYLPHTHALATE
Scan Number: 1291
Retention Time: 28.71 min.
Quant Ion: 149.0
Area: 38268
Concentration: 33.39 UG/ML
q-value: 95

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 881207 15:35
Output File: ^F7261::QT Injected at: 881207 14:48
Data File: >F7261::F2 Dilution Factor: 1.00000
Name: 8811138-03BX,S,,
Misc: CLP,11138,,MTL-SS-F6.S-002,L,S, HP5970F BTL# 5

4 062

ID File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F)
Last Calibration: 881207 12:55

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 D4-DICHLOROBENZENE	10.12	152.0	24559	40.00	UG/ML	100
2)	CS50 2-FLUOROPHENOL	7.37	112.0	79636	90.25	UG/ML	100
3)	CS45 D5-PHENOL	9.62	99.0	72266	90.92	UG/ML	100
16)	*CI40 D8-NAPHTHALENE	13.26	136.0	96965	40.00	UG/ML	100
17)	CS20 D5-NITROBENZENE	11.56	82.0	52263	44.76	UG/ML	100
26)	C450 NAPHTHALENE	13.30	128.1	1211	.48	UG/ML	95
31)	*CI50 D10-ACENAPHTHENE	17.77	164.0	55499	40.00	UG/ML	91
32)	CS25 2-FLUOROBIPHENYL	16.12	172.0	80434	41.34	UG/ML	100
33)	CS55 2,4,6-TRIBROMOPHENOL	19.80	329.8	28153	77.04	UG/ML	100
52)	*CI60 D10-PHENANTHRENE	21.51	188.0	103737	40.00	UG/ML	100
60)	C650 DI-N-BUTYLPHTHALATE	23.33	149.0	22210	5.81	UG/ML	98
62)	*CI70 D12-CHRYSENE	28.29	240.3	37770	40.00	UG/ML	91
63)	CS30 D14-P-TERPHENYL	25.70	244.0	65981	36.42	UG/ML	100
65)	C720 BUTYLBENZYLPHTHALATE	27.10	149.1	1060	1.06	UG/ML	90
68)	C745 BIS 2-ETHYLHEXYLPHTHALATE	28.71	149.0	38268	33.39	UG/ML	95
70)	*CI75 D12-PERYLENE	32.32	264.2	9611	40.00	UG/ML	100

* Compound is ISTD

MS data file header from : >F7261

Sample: 8811138-03BX,S,, Operator: MANAGER MS 12/07/88 14:48
Misc : CLP,11138,,MTL-SS-F6.5-002,L,S, HP5970F BTL# 5
Sys. #: 1 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: FBNA Tuning file: MT7701 No. of extra records: 2
Source temp.: 0 Analyzer temp.: 280 Transfer line temp. : 0

4 063

Chromatographic temperatures : 40. 290. 0. 0. 0.
Chromatographic times, min. : 4.0 16.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 10.0 0.0 0.0 .1 0.0

>F7261 8811138-03BX,S,, CLP,11138,,MTL-SS-F6.5-002,L,S, HP5

40.0: 450.0 CLP ADC TIC
Upslope: .20 Area Reject: 58585. Max Peaks: 17 Bunching: 1
Dnslope: 0.00 Results File IF7261 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	5.72	8	12	25	7424	102802	97985	.89	.658
2	6.24	35	41	43	21814	124250	73451	.67	.493
3	6.87	43	76	79	464955	11133992	10999456	100.00	73.823
4	7.08	83	88	95	23655	158786	155007	1.41	1.040
5	8.20	144	150	153	69311	200622	199177	1.81	1.337
6	9.37	211	215	217	201646	511390	498941	4.54	3.349
7	9.76	234	237	242	57490	156454	149509	1.36	1.003
8	17.97	691	694	696	84457	162674	160362	1.46	1.076
9	18.18	703	706	709	56143	121229	113597	1.03	.762
10	19.35	761	771	774	283329	1165150	1136085	10.33	7.625
11	20.02	803	808	814	26661	85973	74820	.68	.502
12	22.32	933	936	943	18817	93964	69633	.63	.467
13	23.25	983	988	989	51670	151366	133530	1.21	.896
14	25.90	1131	1135	1138	245788	612507	585849	5.33	3.932
15	27.00	1193	1196	1199	24651	82837	61485	.56	.413
16	27.52	1223	1225	1237	33653	131216	92636	.84	.622
17	29.91	1353	1358	1361	128426	311303	298193	2.71	2.001

Sum of corrected areas: 14899726.

Summary of Unknowns PBM Library Search and Quantitation

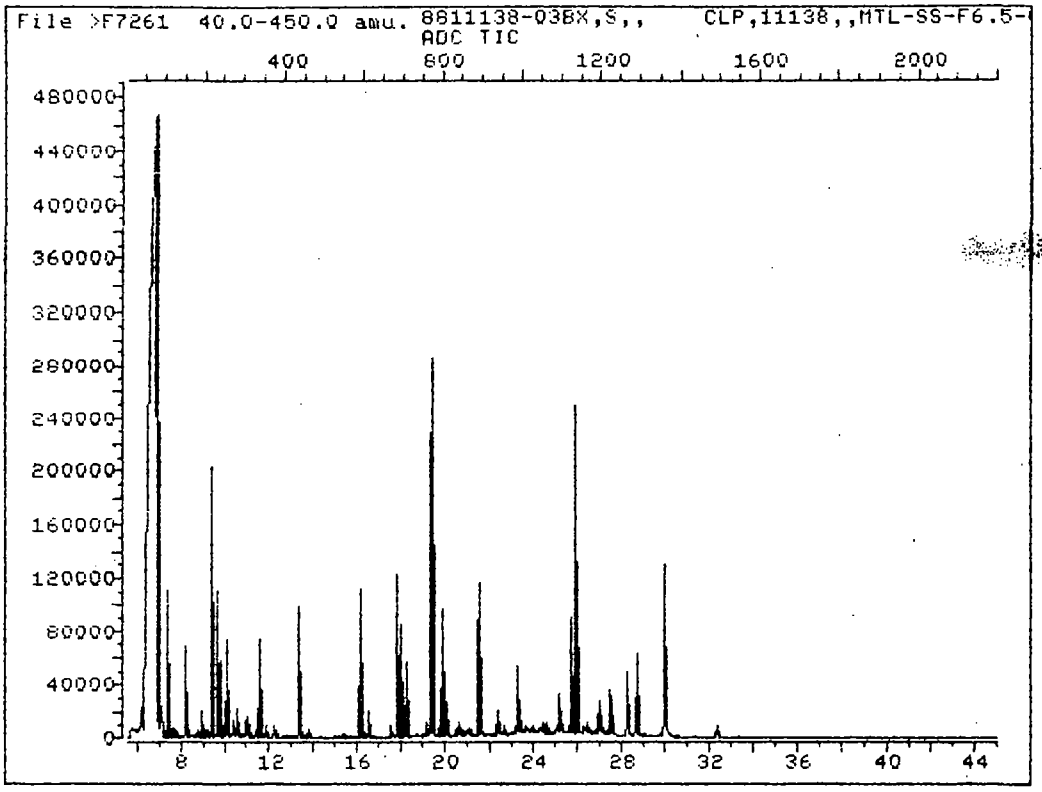
Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	10999456.	10.12	5.52 - 11.69
2	40.0	1136085.	13.26	11.69 - 15.52
3	40.0	1136085.	17.77	15.52 - 19.64
4	40.0	1136085.	21.51	19.64 - 24.90
5	40.0	585849.	28.29	24.90 - 30.30
6	40.0	585849.	32.32	30.30 - 45.02

Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1.00 Amount Used (AU) = 1.00

Correction Factor = 1.00 = (AM / AU) / (DF * FS)

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unk} * \text{Correction Factor}$$

6:16 PM MON., 12 DEC., 1988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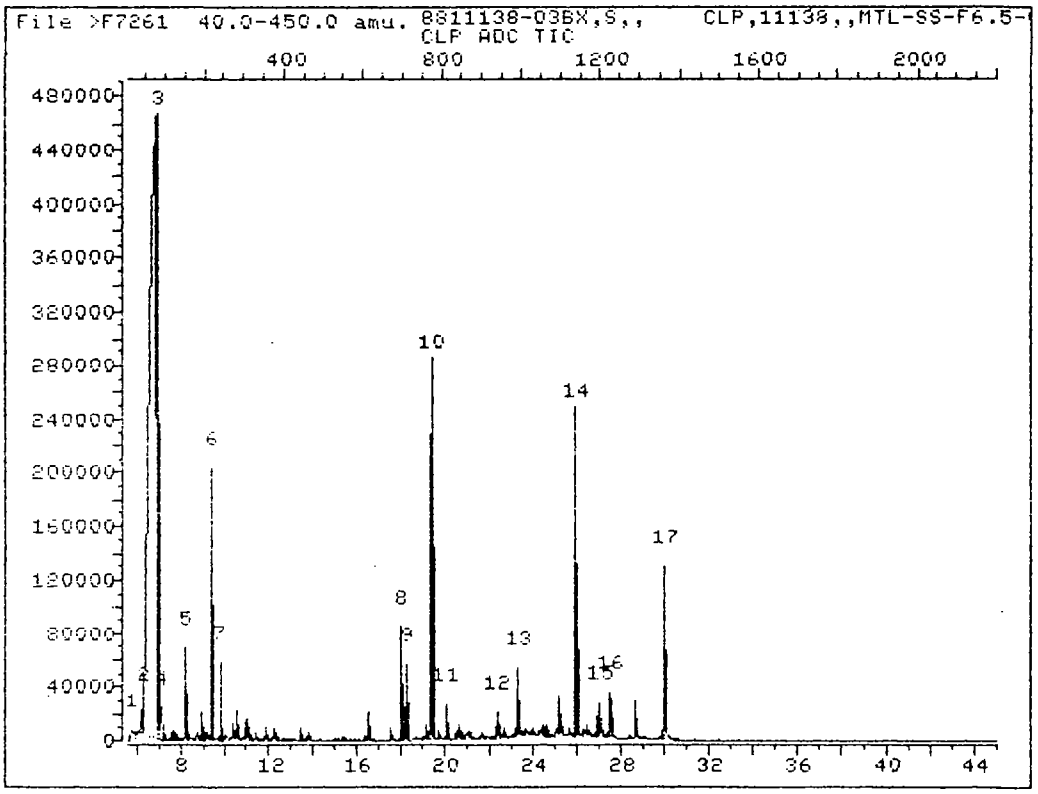
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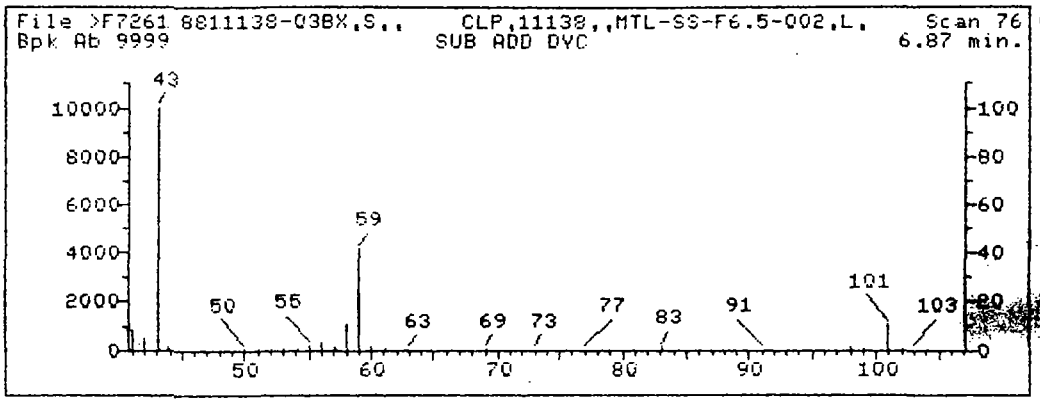

. Unknown #,3
Area = .11E+08 Tentative Concentration is 40.00

Sample file: >F7261 Spectrum #: 76

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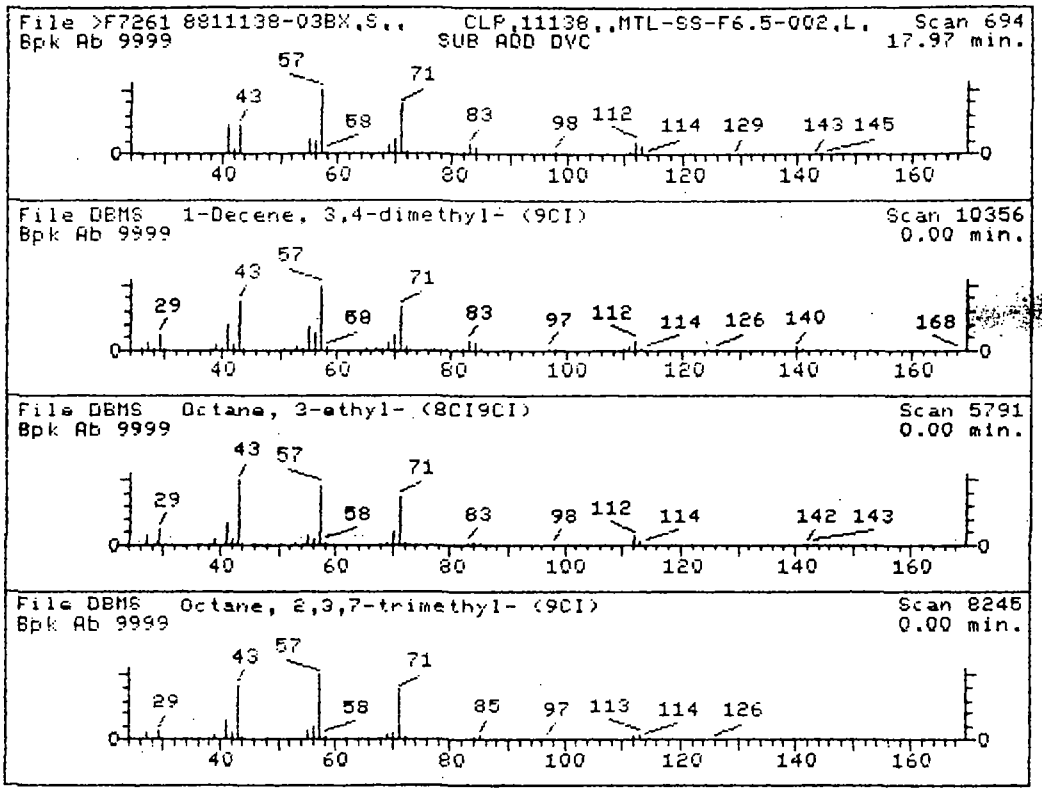


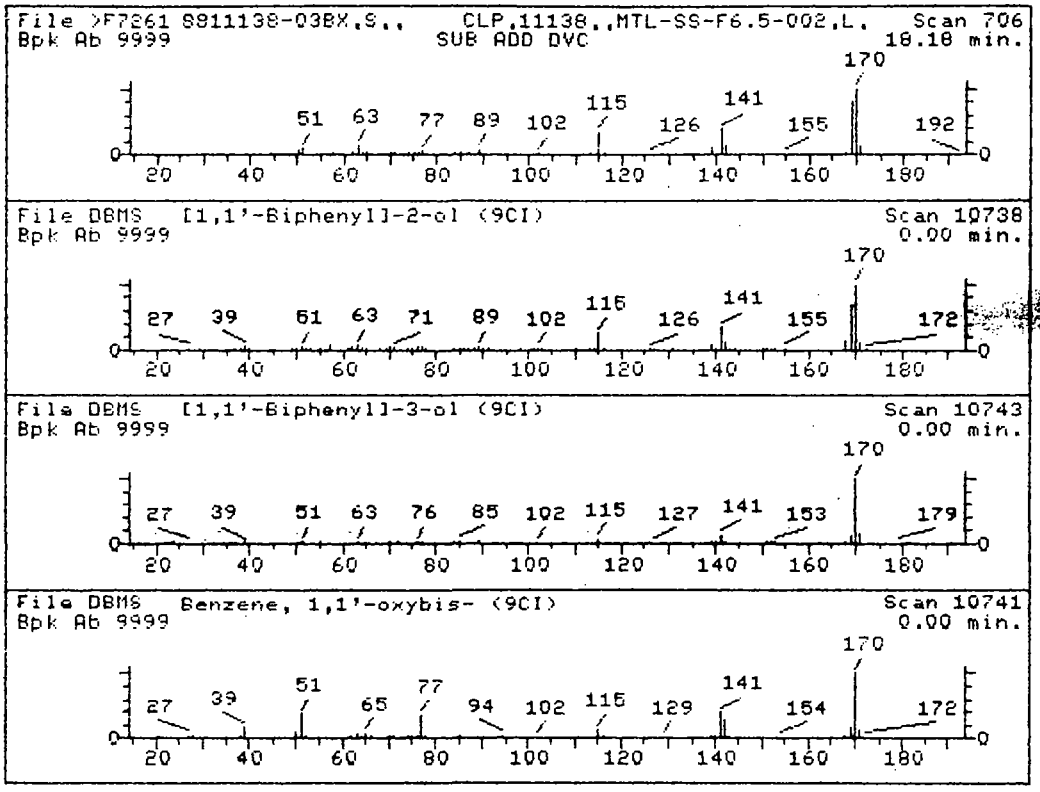
4 067

. Unknown #,8
Area = 160362.0 Tentative Concentration is 5.65

1.	1-Decene, 3,4-dimethyl- (9CI)	168 C12H24
2.	Octane, 3-ethyl- (8CI9CI)	142 C10H22
3.	Octane, 2,3,7-trimethyl- (9CI)	156 C11H24
4.	2-Undecene, 5-methyl- (9CI)	168 C12H24
5.	Octane, 2,3,6-trimethyl- (9CI)	156 C11H24
6.	Butane, 2,2-dimethyl- (8CI9CI)	86 C6H14
7.	Octane, 3,6-dimethyl- (8CI9CI)	142 C10H22

Sample file: >F7261 Spectrum #: 694
Search speed: 1 Tilting option: N No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	70	50871039	3830	DBMS	63	39	2	0	77	9	42	19
2.	70	5881174	3767	DBMS	53	40	2	0	103	10	42	17
3.	67	62016346	3807	DBMS	60	33	2	0	100	14	34	21
4.	60	56851344	3831	DBMS	48	49	2	0	95	14	30	12
5.	60	62016335	3806	DBMS	50	42	2	0	91	14	30	16
6.	42	75832	3684	DBMS	45	47	2	0	70	24	17	13
7.	30	15869940	3772	DBMS	43	46	2	0	86	34	12	13



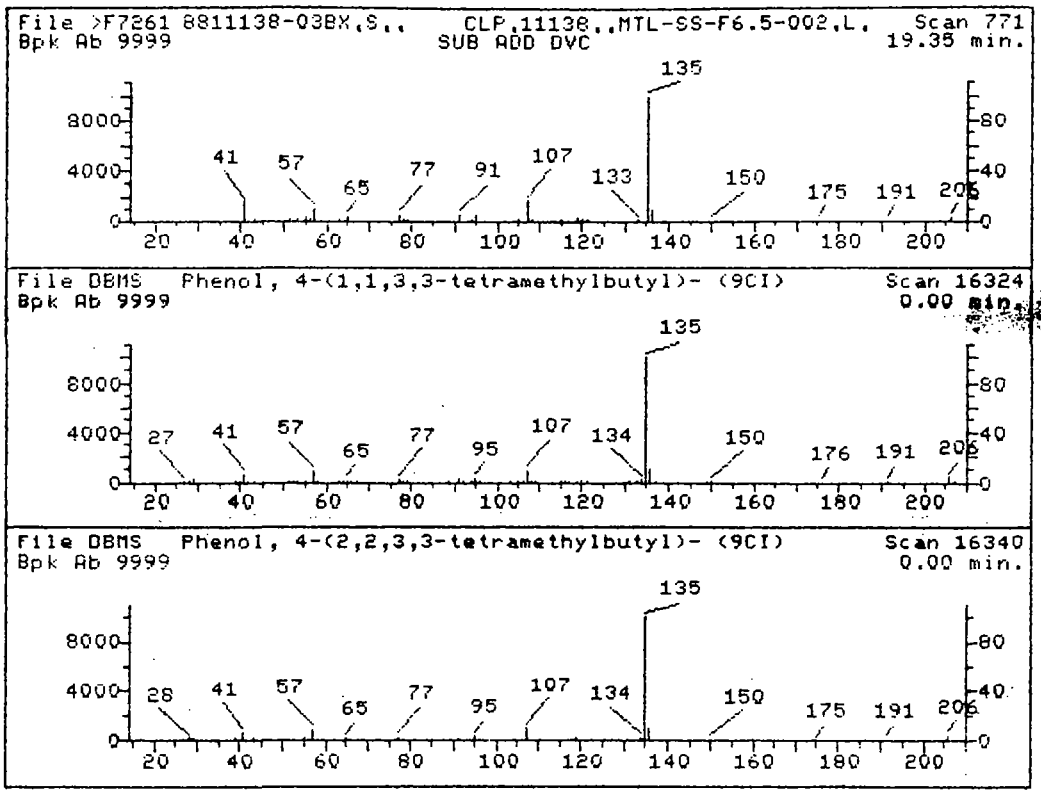
4 068

. Unknown #,9
Area = 113597.0 Tentative Concentration is 4.00

1.	[1,1'-Biphenyl]-2-ol (9CI)	170	C12H10O
2.	[1,1'-Biphenyl]-3-ol (9CI)	170	C12H10O
3.	Benzene, 1,1'-oxybis- (9CI)	170	C12H10O
4.	2(1H)-Pyridinethione, 1-ethyl-3-hydroxy-6-methyl- (8CI9CI)	169	C8H11NOS
5.	[1,1'-Biphenyl]-4-amine (9CI)	169	C12H11N
6.	[1,1'-Biphenyl]-4-ol (9CI)	170	C12H10O
7.	1-Isoquinolinecarbonitrile, 2-oxide (9CI)	170	C10H6N2O

Sample file: >F7261 Spectrum #: 706
Search speed: 1 Tilting option: N No. of ion ranges searched: 47

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	88*	90437	21467	DBMS	76	30	2	0	100	3	65	59
2.	40*	580518	21471	DBMS	49	41	0	0	94	52	10	59
3.	26*	101848	21470	DBMS	24	82	3	0	100	37	10	12
4.	25*	24207156	21375	DBMS	24	82	3	0	67	48	7	12
5.	25*	92671	21362	DBMS	20	87	2	0	81	45	8	13
6.	20*	92693	21468	DBMS	33	62	2	0	100	54	5	14
7.	20*	6969115	21458	DBMS	23	93	3	0	100	52	5	12



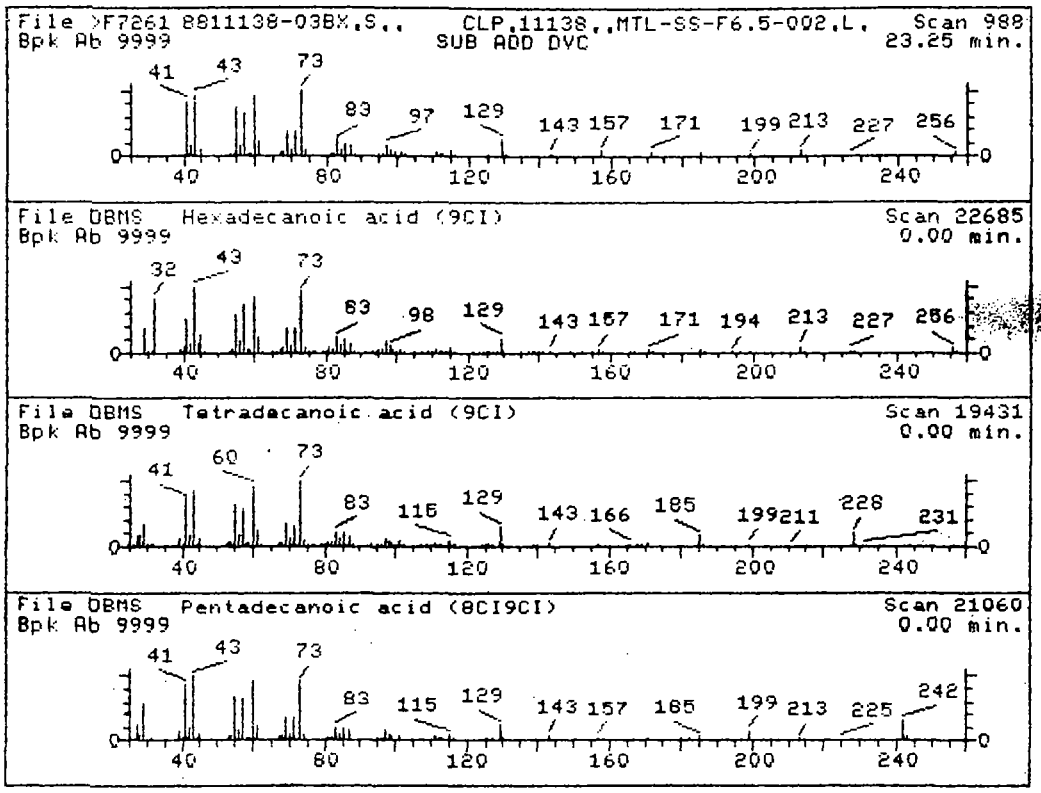
4 069

. Unknown #,10
Area = 1136085. Tentative Concentration is 40.00

1. Phenol, 4-(1,1,3,3-tetramethylbutyl)- (9CI) 206 C14H22O
2. Phenol, 4-(2,2,3,3-tetramethylbutyl)- (9CI) 206 C14H22O

Sample file: >F7261 Spectrum #: 771
Search speed: 1 Tilting option: N No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	29*	140669	16323	DBMS	27	63	1	0	65	38	10	15
2.	28*	54932784	16324	DBMS	23	68	1	0	63	38	10	14



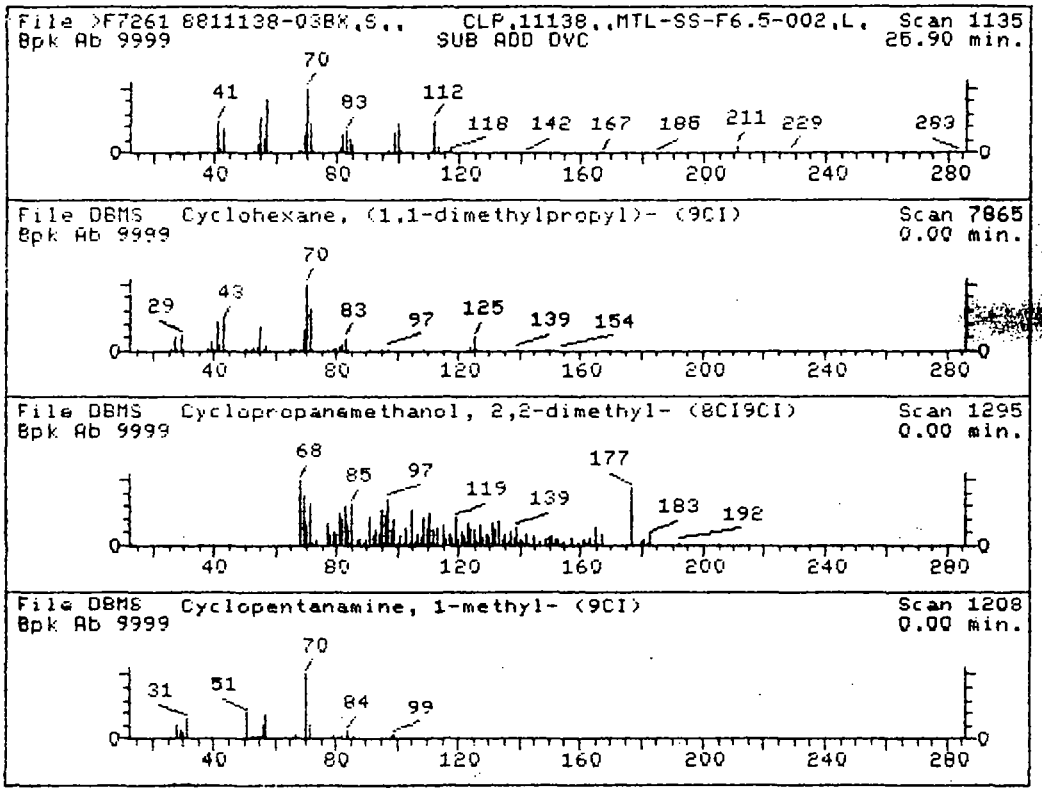
4 070

. Unknown #,13
Area = 133530.0 Tentative Concentration is 4.70

1.	Hexadecanoic acid (9CI)	256 C16H32O2
2.	Tetradecanoic acid (9CI)	228 C14H28O2
3.	Pentadecanoic acid (8CI9CI)	242 C15H30O2
4.	Undecanoic acid (8CI9CI)	186 C11H22O2
5.	Heptadecanoic acid (8CI9CI)	270 C17H34O2
6.	Octadecanoic acid (9CI)	284 C18H36O2
7.	Nonanoic acid (8CI9CI)	158 C9H18O2

Sample file: >F7261 Spectrum #: 988
Search speed: 1 Tilting option: N No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	96*	57103	2072	DBMS	111	40	1	0	74	8	68	96
2.	83	544638	2066	DBMS	115	31	2	0	89	10	54	55
3.	79	1002842	2067	DBMS	102	48	2	0	94	8	48	36
4.	76	112378	2045	DBMS	79	57	2	0	90	10	45	21
5.	76	506127	2076	DBMS	82	67	2	0	94	8	45	22
6.	70	57114	2080	DBMS	81	84	3	0	85	7	42	14
7.	47*	112050	2026	DBMS	55	49	1	0	84	43	16	42



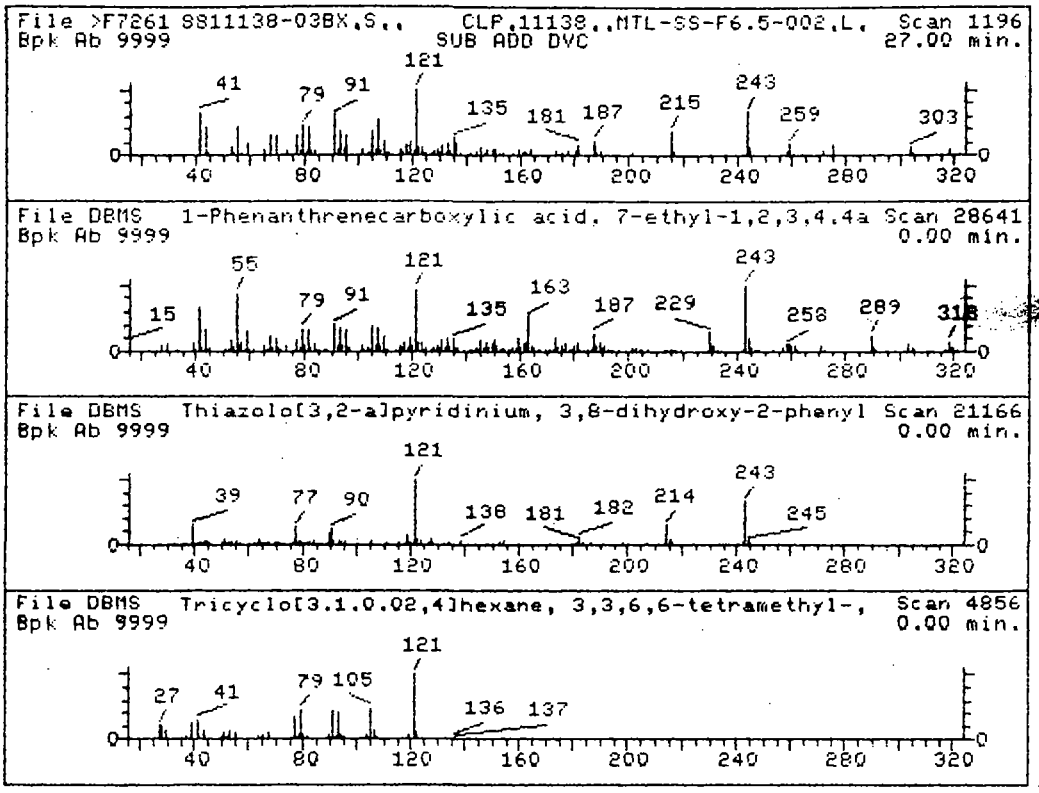
4 071

. Unknown #,14
Area = 585849.0 Tentative Concentration is 40.00

1.	Cyclohexane, (1,1-dimethylpropyl)- (9CI)	154	C11H22
2.	Cyclopropanemethanol, 2,2-dimethyl- (8CI9CI)	100	C6H12O
3.	Cyclopentanamine, 1-methyl- (9CI)	99	C6H13N
4.	Cyclohexanamine, N-methyl- (9CI)	113	C7H15N
5.	Cyclopentane, 1,2,3-trimethyl-, (1.alpha.,2.alpha.,3 .alpha.)- (9CI)	112	C8H16

Sample file: >F7261 Spectrum #: 1135
Search speed: 1 Tilting option: N No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	20*	31797645	3596	DBMS	32	60	2	0	73	54	5	15
2.	15*	930507	9505	DBMS	40	81	3	0	71	56	3	13
3.	15*	40571457	3486	DBMS	25	74	2	0	100	59	3	14
4.	11*	100607	3513	DBMS	26	55	1	0	68	62	2	14
5.	11*	2613696	3505	DBMS	30	65	2	0	89	62	2	14



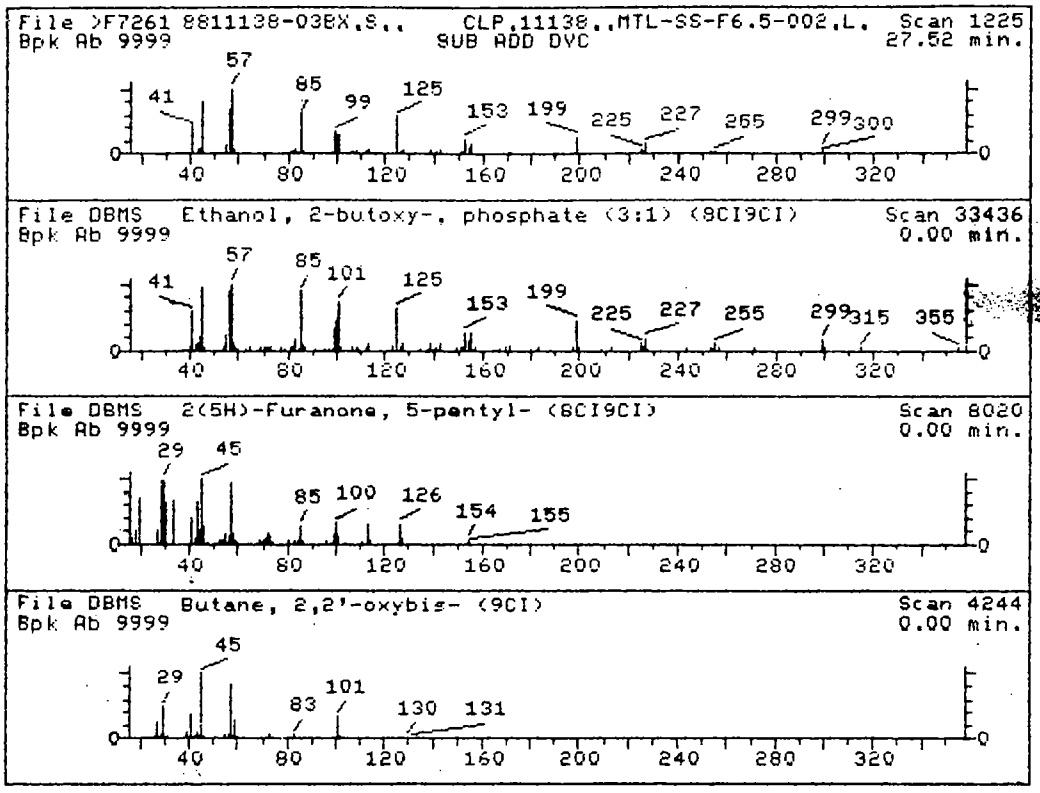
4 072

. Unknown #,15
Area = 61485.00 Tentative Concentration is 4.20

1.	1-Phenanthrenecarboxylic acid, 7-ethyl-1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydro-1,4a,7-trimethyl-, methyl ester, [1R-(1.alpha.,4a.beta.,4b.alpha.,7.beta.,7a.alpha.)]- (9CI)	318	C21H34O2
2.	Thiazolo[3,2-a]pyridinium, 3,8-dihydroxy-2-phenyl-, hydroxide, inner salt (9CI)	243	C13H9NO2S
3.	Tricyclo[3.1.0.02,4]hexane, 3,3,6,6-tetramethyl-, (1.alpha.,2.beta.,4.beta.,5.alpha.)- (9CI)	136	C10H16
4.	1,3-Cyclohexadiene, 1,5,5,6-tetramethyl- (8CI,9CI)	136	C10H16
5.	1,3-Cyclohexadiene, 1,2,6,6-tetramethyl- (8CI,9CI)	136	C10H16
6.	1,4-Cyclohexadiene, 3,3,6,6-tetramethyl- (8CI,9CI)	136	C10H16
7.	1-Propanone, 1-(4-hydroxyphenyl)- (9CI)	150	C9H10O2

Sample file: >F7261 Spectrum #: 1196
Search speed: 1 Tilting option: N No. of ion ranges searched: 48

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	26	3582272	28639	DBMS	76	120	3	0	67	45	8	14
2.	25*	35143578	13862	DBMS	42	110	3	0	100	43	8	13
3.	20*	58987012	13678	DBMS	62	45	0	0	74	65	8	74
4.	17*	514943	13665	DBMS	46	58	0	0	82	65	4	54
5.	17*	514965	13666	DBMS	45	60	0	0	89	65	4	53
6.	13*	2223543	13670	DBMS	37	55	0	0	99	65	3	38
7.	11*	70702	13710	DBMS	22	27	1	0	73	65	2	14

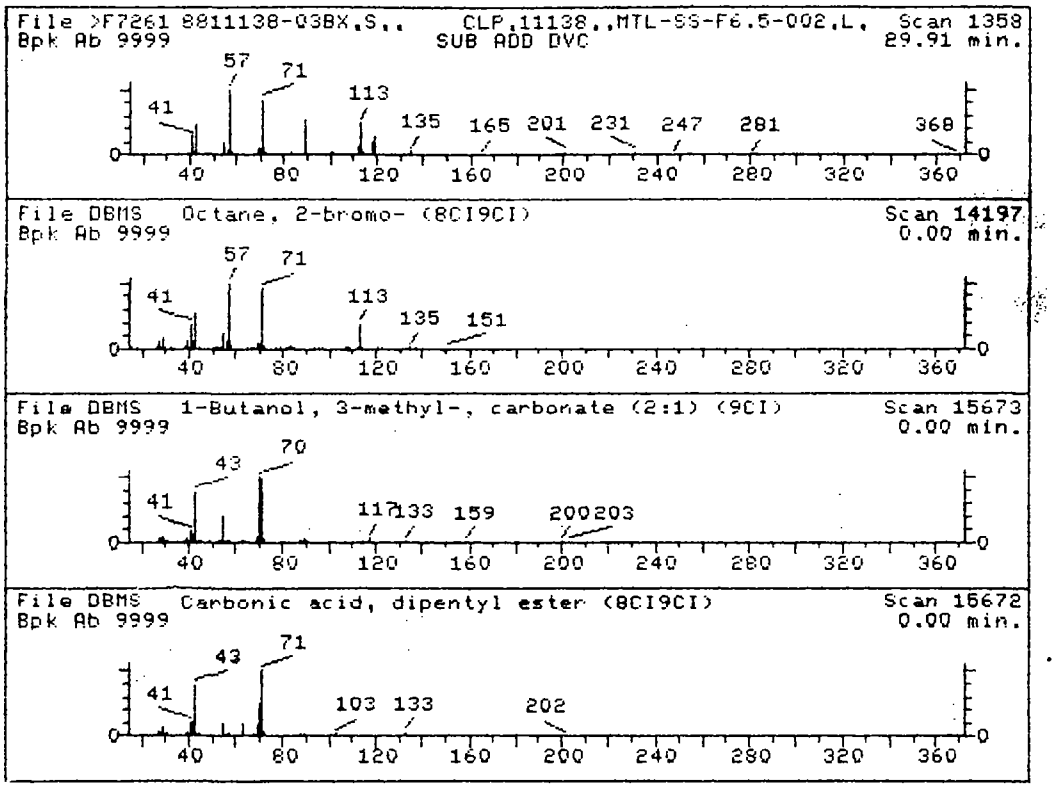


. Unknown #,16
Area = 92636.00 Tentative Concentration is 6.32

1.	Ethanol, 2-butoxy-, phosphate (3:1) (8CI9CI)	398 C18H3907P
2.	2(5H)-Furanone, 5-pentyl- (8CI9CI)	154 C9H1402
3.	Butane, 2,2'-oxybis- (9CI)	130 C8H180

Sample file: >F7261 Spectrum #: 1225
Search speed: 1 Tilting option: N No. of ion ranges searched: 50

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	70	78513	10132	DBMS	85	112	3	0	68	7	42	16
2.	20*	21963268	107	DBMS	29	102	2	0	79	53	5	14
3.	11	6863587	9939	DBMS	44	48	1	0	79	64	2	15



4 074

. Unknown #,17
Area = 298193.0 Tentative Concentration is 20.40

1.	Octane, 2-bromo- (8CI9CI)	192 C8H17Br
2.	1-Butanol, 3-methyl-, carbonate (2:1) (9CI)	202 C11H2203
3.	Carbonic acid, dipentyl ester (8CI9CI)	202 C11H2203
4.	Borinic acid, diethyl-, methyl ester (8CI9CI)	100 C5H13BO

Sample file: >F7261 Spectrum #: 1358
Search speed: 1 Tilting option: N No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	25	557357	3878	DBMS	57	46	2	0	90	43	8	13
2.	11*	2050955	3888	DBMS	40	64	3	0	61	62	2	13
3.	11*	2050944	3887	DBMS	30	71	3	0	60	62	2	13
4.	11*	7397468	3691	DBMS	23	66	3	0	76	63	2	12

4C. STANDARDS DATA

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

4 076

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Instrument ID: HP5970F Calibration Date(s): 11/08/88 11/08/88

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = F6960 RRF50 = F6961
RRF80 = F6962 RRF120= F6963 RRF160= F6964

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Phenol *	2.253	2.376	2.151	2.153	1.997	2.186	6.4*
bis(2-Chloroethyl)Ether	1.909	1.934	1.786	1.804	1.655	1.818	6.1
2-Chlorophenol	1.580	1.598	1.498	1.495	1.372	1.509	5.9
1,3-Dichlorobenzene	1.636	1.594	1.493	1.528	1.397	1.530	6.1
1,4-Dichlorobenzene *	1.645	1.629	1.459	1.427	1.332	1.498	9.0*
Benzyl Alcohol	1.083	1.140	1.047	0.979	0.925	1.035	8.2
1,2-Dichlorobenzene	1.650	1.591	1.395	1.226	1.092	1.391	17.0
2-Methylphenol	1.447	1.483	1.396	1.372	1.257	1.391	6.2
bis(2-Chloroisopropyl)Ether	2.819	3.307	3.248	3.451	3.222	3.209	7.3
4-Methylphenol	1.516	1.579	1.379	1.237	1.091	1.360	14.7
N-Nitroso-Di-n-Propylamine #	1.603	1.679	1.508	1.681	1.570	1.608	4.6#
Hexachloroethane	0.812	0.770	0.657	0.573	0.493	0.661	20.1
Nitrobenzene	0.516	0.520	0.483	0.519	0.456	0.499	5.7
Isophorone	1.023	1.063	0.557	1.049	0.963	0.931	22.8
2-Nitrophenol *	0.242	0.248	0.236	0.228	0.211	0.233	6.2*
2,4-Dimethylphenol	0.420	0.437	0.414	0.425	0.394	0.418	3.8
Benzoic Acid		0.137	0.167	0.193	0.202	0.175	16.7
bis(2-Chloroethoxy)Methane	0.582	0.579	0.543	0.544	0.488	0.547	6.9
2,4-Dichlorophenol *	0.324	0.328	0.312	0.293	0.281	0.308	6.5*
1,2,4-Trichlorobenzene	0.338	0.340	0.317	0.300	0.276	0.314	8.6
Naphthalene	1.112	1.044	0.931	0.884	0.861	0.966	11.2
4-Chloroaniline	0.496	0.514	0.462	0.466	0.418	0.471	7.8
Hexachlorobutadiene *	0.190	0.181	0.166	0.147	0.141	0.165	12.8*
4-Chloro-3-Methylphenol *	0.419	0.430	0.398	0.387	0.365	0.400	6.4*
2-Methylnaphthalene	0.692	0.670	0.586	0.538	0.512	0.600	13.2
Hexachlorocyclopentadiene #	0.273	0.289	0.291	0.293	0.282	0.286	2.9#
2,4,6-Trichlorophenol *	0.394	0.420	0.405	0.399	0.387	0.401	3.1*
2,4,5-Trichlorophenol		0.427	0.420	0.422	0.380	0.412	5.3
2-Chloronaphthalene	1.231	1.199	1.139	1.128	1.059	1.151	5.8
2-Nitroaniline		0.692	0.665	0.722	0.665	0.686	4.0
Dimethyl Phthalate	1.654	1.696	1.565	1.589	1.473	1.595	5.4
Acenaphthylene	1.998	1.963	1.845	1.773	1.654	1.847	7.6
2,6-Dinitrotoluene	0.396	0.417	0.389	0.405	0.367	0.395	4.7
3-Nitroaniline		0.460	0.418	0.415	0.371	0.416	8.7
Acenaphthene *	1.319	1.271	1.163	1.146	1.054	1.191	8.8*
2,4-Dinitrophenol #		0.107	0.142	0.171	0.175	0.149	21.1#
4-Nitrophenol #		0.208	0.202	0.199	0.184	0.198	5.2#

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Instrument ID: HP5970F Calibration Date(s): 11/08/88 11/08/88

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = F6960 RRF50 = F6961
RRF80 = F6962 RRF120= F6963 RRF160= F6964

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Dibenzofuran	1.821	1.787	1.609	1.578	1.449	1.649	9.4
2,4-Dinitrotoluene	0.556	0.588	0.525	0.533	0.491	0.539	6.7
Diethylphthalate	1.825	1.776	1.501	1.224	1.038	1.473	23.2
4-Chlorophenyl-phenylether	0.668	0.670	0.573	0.526	0.462	0.580	15.6
Fluorene	1.407	1.322	1.134	0.942	0.833	1.128	21.6
4-Nitroaniline		0.432	0.388	0.381	0.358	0.390	7.9
4,6-Dinitro-2-Methylphenol		0.116	0.124	0.126	0.127	0.123	4.1
N-Nitrosodiphenylamine (1) *	0.525	0.516	0.490	0.432	0.428	0.478	9.6*
4-Bromophenyl-phenylether	0.204	0.203	0.198	0.191	0.184	0.196	4.3
Hexachlorobenzene	0.244	0.238	0.222	0.220	0.221	0.229	4.9
Pentachlorophenol *		0.116	0.121	0.121	0.121	0.120	2.1*
Phenanthrene	1.014	0.953	0.864	0.824	0.779	0.887	10.8
Anthracene	1.066	0.978	0.903	0.829	0.784	0.912	12.4
Di-n-Butylphthalate	1.579	1.390	1.203	1.024	0.918	1.223	21.9
Fluoranthene *	1.028	0.875	0.734	0.628	0.562	0.765	24.7*
Pyrene	2.633	3.097	2.856	2.694	2.461	2.748	8.8
Butylbenzylphthalate	1.066	0.957	0.835	0.811	0.769	0.888	13.7
3,3'-Dichlorobenzidine	0.218	0.251	0.262	0.320	0.315	0.273	16.0
Benzo(a)Anthracene	1.180	1.155	1.042	1.055	0.980	1.082	7.7
Chrysene	0.960	1.015	0.938	0.961	0.915	0.958	3.9
bis(2-Ethylhexyl)Phthalate	1.216	1.116	0.919	0.967	0.936	1.031	12.6
Di-n-Octyl Phthalate *	3.576	3.477	3.330	3.340	3.450	3.435	3.0*
Benzo(b)Fluoranthene	1.776	1.847	1.772	1.736	1.778	1.782	2.3
Benzo(k)Fluoranthene	1.776	1.847	1.772	1.736	1.778	1.782	2.3
Benzo(a)Pyrene *	1.458	1.591	1.533	1.569	1.567	1.544	3.4*
Indeno(1,2,3-cd)Pyrene	1.107	1.281	1.243	1.292	1.324	1.249	6.8
Dibenz(a,h)Anthracene	0.987	1.190	1.115	1.109	1.279	1.136	9.5
Benzo(g,h,i)Perylene	1.084	1.209	1.163	1.237	1.309	1.200	7.0
Nitrobenzene-d5	0.504	0.526	0.526	0.514	0.480	0.510	3.8
2-Fluorobiphenyl	1.381	1.374	1.281	1.231	1.177	1.289	6.9
Terphenyl-d14	1.707	1.922	1.736	1.593	1.416	1.675	11.2
Phenol-d5	1.346	1.375	1.321	1.332	1.190	1.313	5.5
2-Fluorophenyl	1.480	1.526	1.517	1.535	1.407	1.493	3.5
2,4,6-Tribromophenol	0.238	0.250	0.249	0.248	0.215	0.240	6.2

(1) Cannot be separated from Diphenylamine

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Instrument ID: HP5970F Calibration date: 12/07/88 Time: 1127

Lab File ID: F7258 Init. Calib. Date(s): 11/08/88 11/08/88

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 25.0%

COMPOUND		RRF	RRF50	%D	
Phenol	*	2.186	2.041	6.6	*
bis(2-Chloroethyl)Ether		1.818	1.818	0.0	
2-Chlorophenol		1.509	1.555	-3.0	
1,3-Dichlorobenzene		1.530	1.627	-6.3	
1,4-Dichlorobenzene	*	1.498	1.618	-8.0	*
Benzyl Alcohol		1.035	0.928	10.3	
1,2-Dichlorobenzene		1.391	1.444	-3.8	
2-Methylphenol		1.391	1.339	3.7	
bis(2-Chloroisopropyl)Ether		3.209	2.594	19.2	
4-Methylphenol		1.360	1.425	-4.8	
N-Nitroso-Di-n-Propylamine	#	1.608	1.367	15.0	#
Hexachloroethane		0.661	0.707	-7.0	
Nitrobenzene		0.499	0.452	9.4	
Isophorone		0.931	0.963	-3.4	
2-Nitrophenol	*	0.233	0.238	-2.1	*
2,4-Dimethylphenol		0.418	0.413	1.2	
Benzoic Acid		0.175	0.133	24.0	
bis(2-Chloroethoxy)Methane		0.547	0.547	0.0	
2,4-Dichlorophenol	*	0.308	0.318	-3.2	*
1,2,4-Trichlorobenzene		0.314	0.348	-10.8	
Naphthalene		0.966	1.041	-7.8	
4-Chloroaniline		0.471	0.512	-8.7	
Hexachlorobutadiene	*	0.165	0.176	-6.7	*
4-Chloro-3-Methylphenol	*	0.400	0.388	3.0	*
2-Methylnaphthalene		0.600	0.670	-11.7	
Hexachlorocyclopentadiene	#	0.286	0.266	7.0	#
2,4,6-Trichlorophenol	*	0.401	0.424	-5.7	*
2,4,5-Trichlorophenol		0.412	0.451	-9.5	
2-Chloronaphthalene		1.151	1.250	-8.6	
2-Nitroaniline		0.686	0.608	11.4	
Dimethyl Phthalate		1.595	1.601	-0.4	
Acenaphthylene		1.847	1.904	-3.1	
2,6-Dinitrotoluene		0.395	0.414	-4.8	
3-Nitroaniline		0.416	0.418	-0.5	
Acenaphthene	*	1.191	1.253	-5.2	*
2,4-Dinitrophenol	#	0.149	0.037	75.2	#
4-Nitrophenol	#	0.198	0.180	9.1	#

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Instrument ID: HP5970F Calibration date: 12/07/88 Time: 1127

Lab File ID: F7258 Init. Calib. Date(s): 11/08/88 11/08/88

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 25.0%

COMPOUND	RRF	RRF50	%D	
Dibenzofuran	1.649	1.865	-13.1	
2,4-Dinitrotoluene	0.539	0.585	-8.5	
Diethylphthalate	1.473	1.746	-18.5	
4-Chlorophenyl-phenylether	0.580	0.678	-16.9	
Fluorene	1.128	1.402	-24.3	
4-Nitroaniline	0.390	0.436	-11.8	
4,6-Dinitro-2-Methylphenol	0.123	0.065	47.2	
N-Nitrosodiphenylamine (1)	0.478	0.491	-2.7	
4-Bromophenyl-phenylether	0.196	0.194	1.0	
Hexachlorobenzene	0.229	0.233	-1.7	
Pentachlorophenol	0.120	0.102	15.0	*
Phenanthrene	0.887	0.936	-5.5	
Anthracene	0.912	0.947	-3.8	
Di-n-Butylphthalate	1.223	1.468	-20.0	
Fluoranthene	0.765	0.886	-15.8	*
Pyrene	2.748	2.836	-3.2	
Butylbenzylphthalate	0.888	1.062	-19.6	
3,3'-Dichlorobenzidine	0.273	0.220	19.4	
Benzo(a)Anthracene	1.082	1.146	-5.9	
Chrysene	0.958	0.996	-4.0	
bis(2-Ethylhexyl)Phthalate	1.031	1.212	-17.6	
Di-n-Octyl Phthalate	3.435	4.234	-23.3	*
Benzo(b)Fluoranthene	1.782	1.908	-7.1	
Benzo(k)Fluoranthene	1.782	1.908	-7.1	
Benzo(a)Pyrene	1.544	1.604	-3.9	*
Indeno(1,2,3-cd)Pyrene	1.249	1.240	0.7	
Dibenz(a,h)Anthracene	1.136	1.202	-5.8	
Benzo(g,h,i)Perylene	1.200	1.247	-3.9	
Nitrobenzene-d5	0.510	0.480	5.9	
2-Fluorobiphenyl	1.289	1.402	-8.8	
Terphenyl-d14	1.675	1.916	-14.4	
Phenol-d5	1.313	1.293	1.5	
2-Fluorophenyl	1.493	1.435	3.9	
2,4,6-Tribromophenol	0.240	0.263	-9.6	

(1) Cannot be separated from Diphenylamine

SEMIVOLATILE CONTINUING CALIBRATION CHECK

4 080

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Instrument ID: HP5970F Calibration date: 12/08/88 Time: 1337

Lab File ID: F7280 Init. Calib. Date(s): 11/08/88 11/08/88

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 25.0%

COMPOUND		RRF	RRF50	%D	
Phenol	*	2.186	2.143	2.0	*
bis(2-Chloroethyl)Ether		1.818	1.890	-4.0	
2-Chlorophenol		1.509	1.588	-5.2	
1,3-Dichlorobenzene		1.530	1.643	-7.4	
1,4-Dichlorobenzene	*	1.498	1.601	-6.9	*
Benzyl Alcohol		1.035	0.994	4.0	
1,2-Dichlorobenzene		1.391	1.520	-9.3	
2-Methylphenol		1.391	1.421	-2.2	
bis(2-Chloroisopropyl)Ether		3.209	2.501	22.1	
4-Methylphenol		1.360	1.371	-0.8	
N-Nitroso-Di-n-Propylamine	#	1.608	1.438	10.6	#
Hexachloroethane		0.661	0.804	-21.6	
Nitrobenzene		0.499	0.457	8.4	
Isophorone		0.931	0.974	-4.6	
2-Nitrophenol	*	0.233	0.241	-3.4	*
2,4-Dimethylphenol		0.418	0.390	6.7	
Benzoic Acid		0.175	0.125	28.6	
bis(2-Chloroethoxy)Methane		0.547	0.585	-6.9	
2,4-Dichlorophenol	*	0.308	0.320	-3.9	*
1,2,4-Trichlorobenzene		0.314	0.341	-8.6	
Naphthalene		0.966	1.016	-5.2	
4-Chloroaniline		0.471	0.478	-1.5	
Hexachlorobutadiene	*	0.165	0.166	-0.6	*
4-Chloro-3-Methylphenol	*	0.400	0.385	3.8	*
2-Methylnaphthalene		0.600	0.690	-15.0	
Hexachlorocyclopentadiene	#	0.286	0.255	10.8	#
2,4,6-Trichlorophenol	*	0.401	0.402	-0.2	*
2,4,5-Trichlorophenol		0.412	0.427	-3.6	
2-Chloronaphthalene		1.151	1.252	-8.8	
2-Nitroaniline		0.686	0.560	18.4	
Dimethyl Phthalate		1.595	1.516	5.0	
Acenaphthylene		1.847	1.806	2.2	
2,6-Dinitrotoluene		0.395	0.431	-9.1	
3-Nitroaniline		0.416	0.425	-2.2	
Acenaphthene	*	1.191	1.248	-4.8	*
2,4-Dinitrophenol	#	0.149	0.100	32.9	#
4-Nitrophenol	#	0.198	0.196	1.0	#

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Instrument ID: HP5970F Calibration date: 12/08/88 Time: 1037

Lab File ID: F7280 Init. Calib. Date(s): 11/08/88 11/08/88

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 25.0%

COMPOUND		RRF	RRF50	%D	
Dibenzofuran		1.649	1.851	-12.3	
2,4-Dinitrotoluene		0.539	0.555	-3.0	
Diethylphthalate		1.473	1.662	-12.8	
4-Chlorophenyl-phenylether		0.580	0.616	-6.2	
Fluorene		1.128	1.363	-20.8	
4-Nitroaniline		0.390	0.445	-14.1	
4,6-Dinitro-2-Methylphenol		0.123	0.115	6.5	
N-Nitrosodiphenylamine (1)	*	0.478	0.505	-5.6	*
4-Bromophenyl-phenylether		0.196	0.197	-0.5	
Hexachlorobenzene		0.229	0.215	6.1	
Pentachlorophenol	*	0.120	0.127	-5.8	*
Phenanthrene		0.887	0.986	-11.2	
Anthracene		0.912	1.014	-11.2	
Di-n-Butylphthalate		1.223	1.510	-23.5	
Fluoranthene	*	0.765	0.928	-21.3	*
Pyrene		2.748	3.235	-17.7	
Butylbenzylphthalate		0.888	1.034	-16.4	
3,3'-Dichlorobenzidine		0.273	0.204	25.3	
Benzo(a)Anthracene		1.082	1.118	-3.3	
Chrysene		0.958	0.942	1.7	
bis(2-Ethylhexyl)Phthalate		1.031	1.098	-6.5	
Di-n-Octyl Phthalate	*	3.435	4.091	-19.1	*
Benzo(b)Fluoranthene		1.782	1.925	-8.0	
Benzo(k)Fluoranthene		1.782	1.925	-8.0	
Benzo(a)Pyrene	*	1.544	1.645	-6.5	*
Indeno(1,2,3-cd)Pyrene		1.249	1.245	0.3	
Dibenz(a,h)Anthracene		1.136	1.228	-8.1	
Benzo(g,h,i)Perylene		1.200	1.239	-3.3	
Nitrobenzene-d5		0.510	0.505	1.0	
2-Fluorobiphenyl		1.289	1.304	-1.2	
Terphenyl-d14		1.675	1.906	-13.8	
Phenol-d5		1.313	1.341	-2.1	
2-Fluorophenyl		1.493	1.445	3.2	
2,4,6-Tribromophenol		0.240	0.221	7.9	

(1) Cannot be separated from Diphenylamine

8B

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY 4 082

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Lab File ID (Standard): F7258 Date Analyzed: 12/07/88

Instrument ID: HP5970F Time Analyzed: 1127

	IS1(DCB) AREA #	RT	IS2(NPT) AREA #	RT	IS3(ANT) AREA #	RT
12 HOUR STD	25400	10.09	102000	13.27	54200	17.79
UPPER LIMIT	50800		204000		108400	
LOWER LIMIT	12700		51000		27100	
EPA SAMPLE NO.						
01 MTL-SS-E6_5	24600	10.12	97000	13.27	55500	17.77
02 MTL-SS-F5-00	24800	10.10	96700	13.27	56300	17.77
03 MTL-SS-E6_5M	26800	10.12	114000	13.29	63300	17.77
04 MTL-SS-E6_5S	27300	10.12	108000	13.29	64100	17.77
05 SBLK111488	27100	10.12	106000	13.27	60400	17.77

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

8B

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

4 083

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Lab File ID (Standard): F7280 Date Analyzed: 12/08/88

Instrument ID: HP5970F Time Analyzed: 1337

		IS1(DCB) AREA #	RT	IS2(NPT) AREA #	RT	IS3(ANT) AREA #	RT
	12 HOUR STD	24300	9.94	100000	13.12	55600	17.62
	UPPER LIMIT	48600		200000		111200	
	LOWER LIMIT	12150		50000		27800	
	EPA SAMPLE NO.						
01	MTL-SS-D5-00	22700	10.02	95800	13.12	56200	17.60

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

8C

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

4 084

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Lab File ID (Standard): F7258 Date Analyzed: 12/07/88

Instrument ID: HP5970F Time Analyzed: 1127

	IS4(PHN) AREA	#	RT	IS5(CRY) AREA	#	RT	IS6(PRY) AREA	#	RT
12 HOUR STD	115000		21.52	33000		28.31	8420		32.32
UPPER LIMIT	230000			66000			16840		
LOWER LIMIT	57500			16500			4210		
	EPA SAMPLE NO.								
01	MTL-SS-E6_5	104000	21.52	37800		28.29	9610		32.32
02	MTL-SS-F5-00	116000	21.50	53300		28.29	11600		32.32
03	MTL-SS-E6_5M	118000	21.52	31500		28.29	9900		32.32
04	MTL-SS-E6_5S	119000	21.52	34600		28.27	9090		32.29
05	SBLK111488	112000	21.49	40400		28.29	9930		32.31

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

8C

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

4 085

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Lab File ID (Standard): F7280 Date Analyzed: 12/08/88

Instrument ID: HP5970F Time Analyzed: 1337

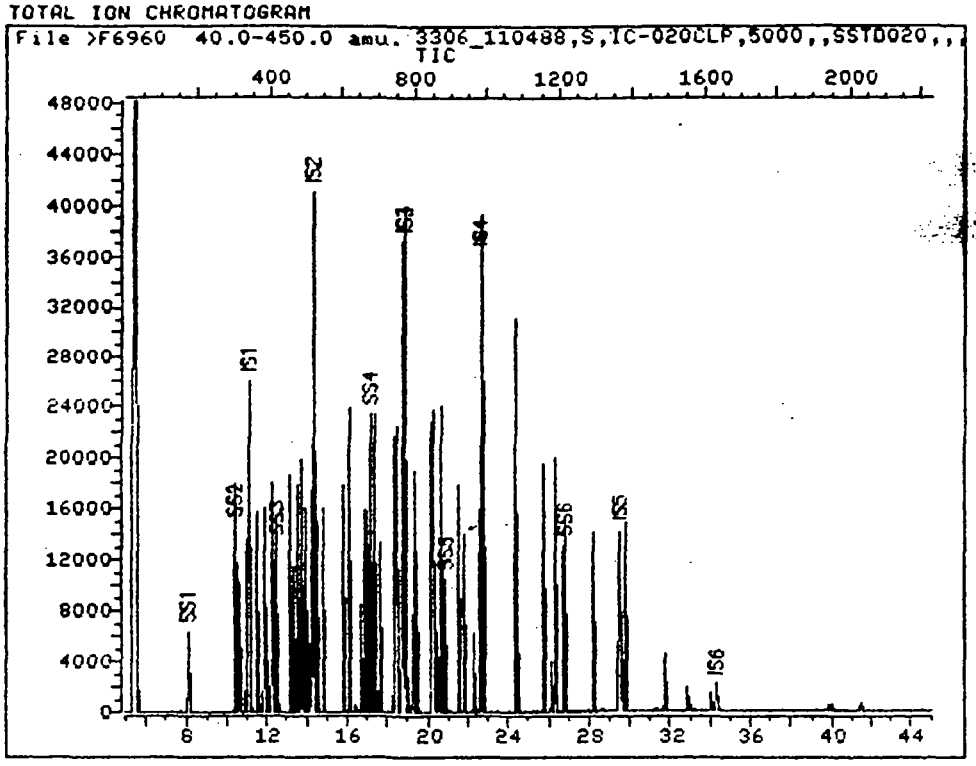
		IS4(PHN) AREA	#	RT	IS5(CRY) AREA	#	RT	IS6(PRY) AREA	#	RT
	12 HOUR STD	112000		21.34	28300		28.09	7030		32.01
	UPPER LIMIT	224000			56600			14060		
	LOWER LIMIT	56000			14150			3515		
	EPA SAMPLE NO.									
01	MTL-SS-D5-00	96400		21.32	19300		28.07	7250		31.99

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

TOTAL ION CHROMATOGRAM



4 IOL IIO 085a

Data File: >F6960::F2 Quant Output File: ^F6960::QT
Name: 3306_110488,S,IC-020
Misc: CLP,5000,,SSTD020,,,, HP5970F BTL# 3

Id File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F)
Last Calibration: 881109 08:18

Operator ID: STEVE
Quant Time: 881109 08:22
Injected at: 881108 14:47

QUANT REPORT

Operator ID: STEVE Quant Rev: 6 Quant Time: 881109 08:22
Output File: ^F6960::QT Injected at: 881108 14:47
Data File: >F6960::F2 Dilution Factor: 1.00000
Name: 3306_110488,S,IC-020
Misc: CLP,5000,,SSTD020,,,, HP5970F BTL# 3

4 086

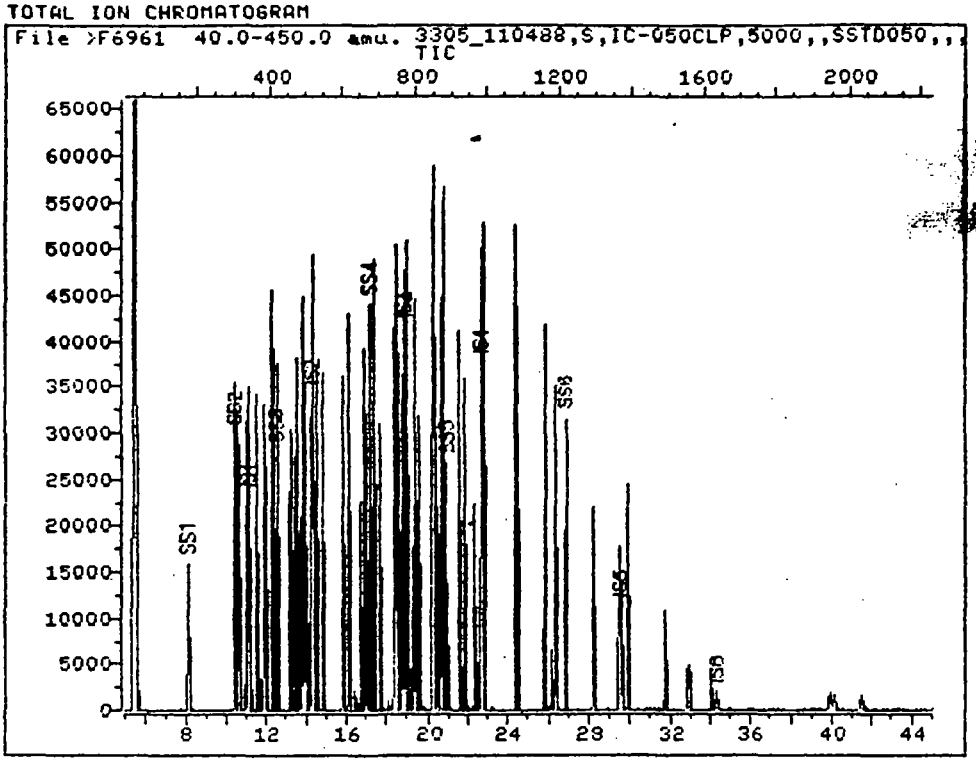
ID File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F)
Last Calibration: 881109 08:18

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 D4-DICHLOROBENZENE	11.02	152.0	9016	40.00	UG/ML	100
2)	CS50 2-FLUOROPHENOL	8.06	112.0	6676	19.41	UG/ML	100
3)	CS45 D5-PHENOL	10.35	99.0	6072	19.60	UG/ML	100
4)	C315 PHENOL	10.37	94.1	10162	18.98	UG/ML	84
5)	C325 BIS(2-CHLOROETHYL)ETHER	10.53	93.1	8609	19.75	UG/ML	96
6)	C330 2-CHLOROPHENOL	10.59	128.0	7124	19.79	UG/ML	92
7)	C335 1,3-DICHLOROBENZENE	10.93	146.0	7378	20.54	UG/ML	99
8)	C340 1,4-DICHLOROBENZENE	11.05	146.0	7420	20.22	UG/ML	93
9)	C345 BENZYL ALCOHOL	11.45	108.1	4884	19.02	UG/ML	98
10)	C350 1,2-DICHLOROBENZENE	11.50	146.0	7442	20.77	UG/ML	98
11)	C355 2-METHYLPHENOL	11.83	108.0	6526	19.54	UG/ML	95
12)	C360 BIS(CHLOROISOPROPYL)ETHER	11.88	45.0	12712	17.06	UG/ML	86
13)	C365 4-METHYLPHENOL	12.18	108.0	6837	19.22	UG/ML	95
14)	C370 NITROSO-DI-N-PROPYLAMINE	12.22	70.0	7229	19.11	UG/ML	96
15)	C375 HEXACHLOROETHANE	12.27	117.0	3660	21.09	UG/ML	95
16)	*CI40 D8-NAPHTHALENE	14.23	136.0	36438	40.00	UG/ML	100
17)	CS20 D5-NITROBENZENE	12.45	82.0	9173	19.12	UG/ML	100
18)	C410 NITROBENZENE	12.51	77.0	9387	19.80	UG/ML	75
19)	C415 ISOPHORONE	13.12	82.0	18625	19.21	UG/ML	92
20)	C420 2-NITROPHENOL	13.31	139.0	4402	19.46	UG/ML	89
21)	C425 2,4-DIMETHYLPHENOL	13.51	107.0	7643	19.16	UG/ML	94
23)	C435 BIS 2-CHLOROETHOXYMETHANE	13.76	93.0	10588	20.05	UG/ML	81
24)	C440 2,4-DICHLOROPHENOL	13.93	162.0	5905	19.71	UG/ML	98
25)	C445 1,2,4-TRICHLOROBENZENE	14.14	180.0	6146	19.82	UG/ML	95
26)	C450 NAPHTHALENE	14.28	128.1	20239	21.26	UG/ML	92
27)	C455 4-CHLOROANILINE	14.50	127.0	9021	19.26	UG/ML	99
28)	C460 HEXACHLOROBUTADIENE	14.81	224.9	3459	20.94	UG/ML	97
29)	C465 4-CHLORO-M-CRESOL	15.79	107.1	7624	19.43	UG/ML	88
30)	C470 2-METHYLNAPHTHALENE	16.06	142.0	12596	20.61	UG/ML	94
31)	*CI50 D10-ACENAPHTHENE	16.79	164.0	21227	40.00	UG/ML	94
32)	CS25 2-FLUOROBIPHENYL	17.10	172.0	14639	20.10	UG/ML	100
33)	CS55 2,4,6-TRIBROMOPHENOL	20.84	329.8	2527	19.07	UG/ML	100
34)	C510 HEXACHLOROCYCLOPENTADIENE	16.67	236.9	2893	18.88	UG/ML	98
35)	C515 2,4,6-TRICHLOROPHENOL	16.87	196.0	4180	18.75	UG/ML	98
37)	C525 2-CHLORONAPHTHALENE	17.30	162.1	13045	20.52	UG/ML	90
39)	C535 DIMETHYLPHTHALATE	18.29	163.0	17537	19.49	UG/ML	93
40)	C540 ACENAPHTHYLENE	18.38	152.1	21182	20.34	UG/ML	97
42)	C550 ACENAPHTHENE	18.88	153.2	13979	20.74	UG/ML	90
45)	C565 DIBENZOFURAN	19.28	168.0	19307	20.37	UG/ML	92
46)	C570 2,4-DINITROTOLUENE	19.40	165.1	5889	18.88	UG/ML	90
47)	C543 2,6-DINITROTOLUENE	18.42	165.1	4200	18.98	UG/ML	93
48)	C580 DIETHYLPHTHALATE	20.14	149.1	19345	20.54	UG/ML	90
49)	C585 4-CHLOROPHENYLPHENYLETHER	20.23	204.1	7082	19.94	UG/ML	98

		Compound	R.T.	Q ion	Area	Conc	Units	q
50)	C590	FLUORENE	20.18	166.2	14918	21.29	UG/ML	95
52)	*CI60	D10-PHENANTHRENE	22.58	188.0	41660	40.00	UG/ML	100
54)	C615	DIPHENYLAMINE	20.55	169.2	10941	20.36	UG/ML	92
55)	C625	4-BROMOPHENYLPHENYLETHER	21.47	248.1	4251	20.1[illegible]	UG/ML	98
56)	C630	HEXACHLOROBENZENE	21.81	283.9	5096	[illegible]	UG/ML	91
58)	C640	PHENANTHRENE	22.65	178.2	21135	21.29	UG/ML	100
59)	C645	ANTHRACENE	22.76	178.2	22234	21.84	UG/ML	100
60)	C650	DI-N-BUTYLPHTHALATE	24.36	149.0	32911	22.74	UG/ML	97
61)	C655	FLUORANTHENE	25.72	202.2	21431	23.51	UG/ML	100
62)	*CI70	D12-CHRYSENE	29.46	240.3	14866	40.00	UG/ML	93
63)	CS30	D14-P-TERPHENYL	26.78	244.0	12716	17.79	UG/ML	100
64)	C715	PYRENE	26.30	202.2	19618	17.04	UG/ML	100
65)	C720	BUTYLBENZYLPHTHALATE	28.18	149.1	7941	22.32	UG/ML	92
66)	C725	3,3'-DICHLOROBENZIDINE	29.41	252.1	1626	17.43	UG/ML	98
67)	C730	BENZO(A)ANTHRACENE	29.42	228.2	8790	20.47	UG/ML	99
68)	C745	BIS 2-ETHYLHEXYLPHTHALATE	29.80	149.0	9060	21.83	UG/ML	93
69)	C740	CHRYSENE	29.53	228.2	7155	18.96	UG/ML	94
70)	*CI75	D12-PERYLENE	34.27	264.2	3587	40.00	UG/ML	100
71)	C760	DI-N-OCTYLPHTHALATE	31.67	149.1	6418	20.60	UG/ML	99
72)	C765	BENZO(B)FLUORANTHENE	32.89	252.2	6374M	38.51	UG/ML	98
73)	C770	BENZO(K)FLUORANTHENE	32.89	252.2	6374M	38.51	UG/ML	98
74)	C775	BENZO(A)PYRENE	34.04	252.2	2617	18.36	UG/ML	97
75)	C780	INDENO(1,2,3-CD)PYRENE	39.82	276.0	1987	17.31	UG/ML	97
76)	C785	DIBENZO(A,H)ANTHRACENE	40.01	278.1	1771	16.60	UG/ML	98
77)	C790	BENZO(G,H,I)PERYLENE	41.43	276.0	1945M	17.95	UG/ML	

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Misc: CLP,5000,,SSTD050,,,, HP5970F BTL# 4

Id File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F)
Last Calibration: 881109 08:18

Operator ID: STEVE
Quant Time: 881109 08:19
Injected at: 881108 15:41

QUANT REPORT

Operator ID: STEVE Quant Rev: 6 Quant Time: 881109 08:19
Output File: ^F6961::QT Injected at: 881108 15:41
Data File: >F6961::F2 Dilution Factor: 1.00000
Name: 3305_110488,S,IC-050
Misc: CLP,5000.,,SSTD050,,,, HP5970F BTL# 4

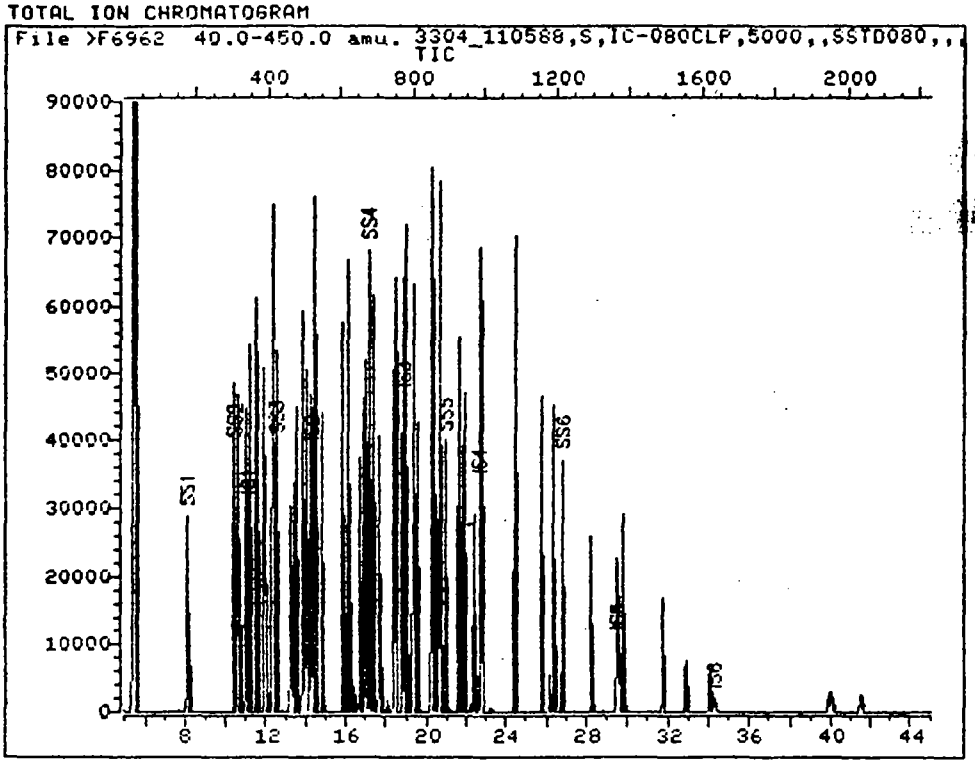
ID File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F)
Last Calibration: 881109 08:18

	Compound	R.T.	Q ion	Area	Conc	Units	Q
1)	*CI30 D4-DICHLOROBENZENE	11.02	152.0	8884	40.00	UG/ML	100
2)	CS50 2-FLUOROPHENOL	8.06	112.0	16943	50.00	UG/ML	100
3)	CS45 DS-PHENOL	10.37	99.0	15260	50.00	UG/ML	100
4)	C315 PHENOL	10.41	94.1	26376	50.00	UG/ML	85
5)	C325 BIS(2-CHLOROETHYL)ETHER	10.55	93.1	21472	50.00	UG/ML	92
6)	C330 2-CHLOROPHENOL	10.59	128.0	17736	50.00	UG/ML	96
7)	C335 1,3-DICHLOROBENZENE	10.93	146.0	17696	50.00	UG/ML	99
8)	C340 1,4-DICHLOROBENZENE	11.07	146.0	18080	50.00	UG/ML	99
9)	C345 BENZYL ALCOHOL	11.47	108.1	12649	50.00	UG/ML	93
10)	C350 1,2-DICHLOROBENZENE	11.52	146.0	17654	50.00	UG/ML	95
11)	C355 2-METHYLPHENOL	11.83	108.0	16456	50.00	UG/ML	93
12)	C360 BIS(CHLOROISOPROPYL)ETHER	11.90	45.0	36703	50.00	UG/ML	79
13)	C365 4-METHYLPHENOL	12.22	108.0	17523	50.00	UG/ML	92
14)	C370 NITROSO-DI-N-PROPYLAMINE	12.26	70.0	18635	50.00	UG/ML	98
15)	C375 HEXACHLOROETHANE	12.30	117.0	8550	50.00	UG/ML	82
16)	*CI40 D8-NAPHTHALENE	14.23	136.0	36252	40.00	UG/ML	100
17)	CS20 DS-NITROBENZENE	12.47	82.0	23863	50.00	UG/ML	100
18)	C410 NITROBENZENE	12.53	77.0	23585	50.00	UG/ML	79
19)	C415 ISOPHORONE	13.16	82.0	48233	50.00	UG/ML	88
20)	C420 2-NITROPHENOL	13.34	139.0	11254	50.00	UG/ML	85
21)	C425 2,4-DIMETHYLPHENOL	13.53	107.0	19848	50.00	UG/ML	91
22)	C430 BENZOIC ACID	13.91	122.0	6203	50.00	UG/ML	94
23)	C435 BIS 2-CHLOROETHOXYMETHANE	13.79	93.0	26266	50.00	UG/ML	81
24)	C440 2,4-DICHLOROPHENOL	13.95	162.0	14900	50.00	UG/ML	97
25)	C445 1,2,4-TRICHLOROBENZENE	14.14	180.0	15429	50.00	UG/ML	92
26)	C450 NAPHTHALENE	14.29	128.1	47356	50.00	UG/ML	93
27)	C455 4-CHLOROANILINE	14.50	127.0	23302	50.00	UG/ML	98
28)	C460 HEXACHLOROBUTADIENE	14.81	224.9	8219	50.00	UG/ML	99
29)	C465 4-CHLORO-M-CRESOL	15.80	107.1	19519	50.00	UG/ML	91
30)	C470 2-METHYLNAPHTHALENE	16.07	142.0	30405	50.00	UG/ML	94
31)	*CI50 D10-ACENAPHTHENE	18.81	164.0	20513	40.00	UG/ML	90
32)	CS25 2-FLUOROBIPHENYL	17.11	172.0	35199	50.00	UG/ML	100
33)	CS55 2,4,6-TRIBROMOPHENOL	20.86	329.8	6403	50.00	UG/ML	100
34)	C510 HEXACHLOROCYCLOPENTADIENE	16.69	236.9	7404	50.00	UG/ML	99
35)	C515 2,4,6-TRICHLOROPHENOL	16.89	196.0	10772	50.00	UG/ML	97
36)	C520 2,4,5-TRICHLOROPHENOL	16.96	196.0	10935	50.00	UG/ML	96
37)	C525 2-CHLORONAPHTHALENE	17.32	162.1	30721	50.00	UG/ML	85
38)	C530 2-NITROANILINE	17.68	65.0	17732	50.00	UG/ML	85
39)	C535 DIMETHYLPHTHALATE	18.31	163.0	43469	50.00	UG/ML	94
40)	C540 ACENAPHTHYLENE	18.40	152.1	50310	50.00	UG/ML	98
41)	C545 3-NITROANILINE	18.76	138.1	11797	50.00	UG/ML	61
42)	C550 ACENAPHTHENE	18.90	153.2	32563	50.00	UG/ML	89
43)	C555 2,4-DINITROPHENOL	19.01	184.0	2750	50.00	UG/ML	89

		Compound	R.T.	Q ion	Area	Conc	Units	q
44)	C560	4-NITROPHENOL	19.24	109.0	5327	50.00	UG/ML	36
45)	C565	DIBENZOFURAN	19.30	168.0	45799	50.00	UG/ML	95
46)	C570	2,4-DINITROTOLUENE	19.44	165.1	15075	50.00	UG/ML	95
47)	C543	2,6-DINITROTOLUENE	18.45	165.1	10693	50.00	UG/ML	93
48)	C580	DIETHYLPHTHALATE	20.16	149.1	45503	50.00	UG/ML	90
49)	C585	4-CHLOROPHENYLPHENYLETHER	20.23	204.1	17157	50.00	UG/ML	96
50)	C590	FLUORENE	20.20	166.2	33864	50.00	UG/ML	93
51)	C595	4-NITROANILINE	20.38	138.0	11064	50.00	UG/ML	87
52)	*CI60	D10-PHENANTHRENE	22.60	188.0	40711	40.00	UG/ML	100
53)	C610	4,6-DINITRO-O-CRESOL	20.50	198.0	5916	50.00	UG/ML	100
54)	C615	DIPHENYLAMINE	20.57	169.2	26237	50.00	UG/ML	93
55)	C625	4-BROMOPHENYLPHENYLETHER	21.47	248.1	10303	50.00	UG/ML	99
56)	C630	HEXACHLOROBENZENE	21.83	283.9	12094	50.00	UG/ML	93
57)	C635	PENTACHLOROPHENOL	22.30	265.9	5895	50.00	UG/ML	92
58)	C640	PHENANTHRENE	22.66	178.2	48507	50.00	UG/ML	100
59)	C645	ANTHRACENE	22.78	178.2	49733	50.00	UG/ML	100
60)	C650	DI-N-BUTYLPHTHALATE	24.36	149.0	70714	50.00	UG/ML	98
61)	C655	FLUORANTHENE	25.75	202.2	44537M	50.00	UG/ML	100
62)	*CI70	D12-CHRYSENE	29.46	240.3	10495	40.00	UG/ML	91
63)	CS30	D14-P-TERPHENYL	26.80	244.0	25231	50.00	UG/ML	100
64)	C715	PYRENE	26.30	202.2	40642M	50.00	UG/ML	100
65)	C720	BUTYLBENZYLPHTHALATE	28.19	149.1	12559	50.00	UG/ML	94
66)	C725	3,3'-DICHLOROBENZIDINE	29.41	252.1	3292	50.00	UG/ML	93
67)	C730	BENZO(A)ANTHRACENE	29.43	228.2	15157	50.00	UG/ML	99
68)	C745	BIS 2-ETHYLHEXYLPHTHALATE	29.80	149.0	14648	50.00	UG/ML	92
69)	C740	CHRYSENE	29.53	228.2	13321	50.00	UG/ML	92
70)	*CI75	D12-PERYLENE	34.27	264.2	3292	40.00	UG/ML	100
71)	C760	DI-N-OCTYLPHTHALATE	31.67	149.1	14300	50.00	UG/ML	96
72)	C765	BENZO(B)FLUORANTHENE	32.89	252.2	15190M	100.00	UG/ML	97
73)	C770	BENZO(K)FLUORANTHENE	32.89	252.2	15190M	100.00	UG/ML	97
74)	C775	BENZO(A)PYRENE	34.04	252.2	6541	50.00	UG/ML	98
75)	C780	INDENO(1,2,3-CD)PYRENE	39.82	276.0	5256	50.00	UG/ML	98
76)	C785	DIBENZO(A,H)ANTHRACENE	40.02	278.1	4895	50.00	UG/ML	99
77)	C790	BENZO(G,H,I)PERYLENE	41.47	276.0	4971	50.00	UG/ML	96

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Misc: CLP,5000,,SSTD080,,,, HP5970F BTL# 5

Id File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F)
Last Calibration: 881109 08:18

Operator ID: STEVE
Quant Time: 881109 08:24
Injected at: 881108 16:36

QUANT REPORT

Operator ID: STEVE Quant Rev: 6 Quant Time: 881109 08:24
Output File: ^F6962::QT Injected at: 881108 16:36
Data File: >F6962::F2 Dilution Factor: 1.00000
Name: 3304_110588,S,IC-080
Misc: CLP,5000,,SSTD080,,,, HP5970F BTL# 5

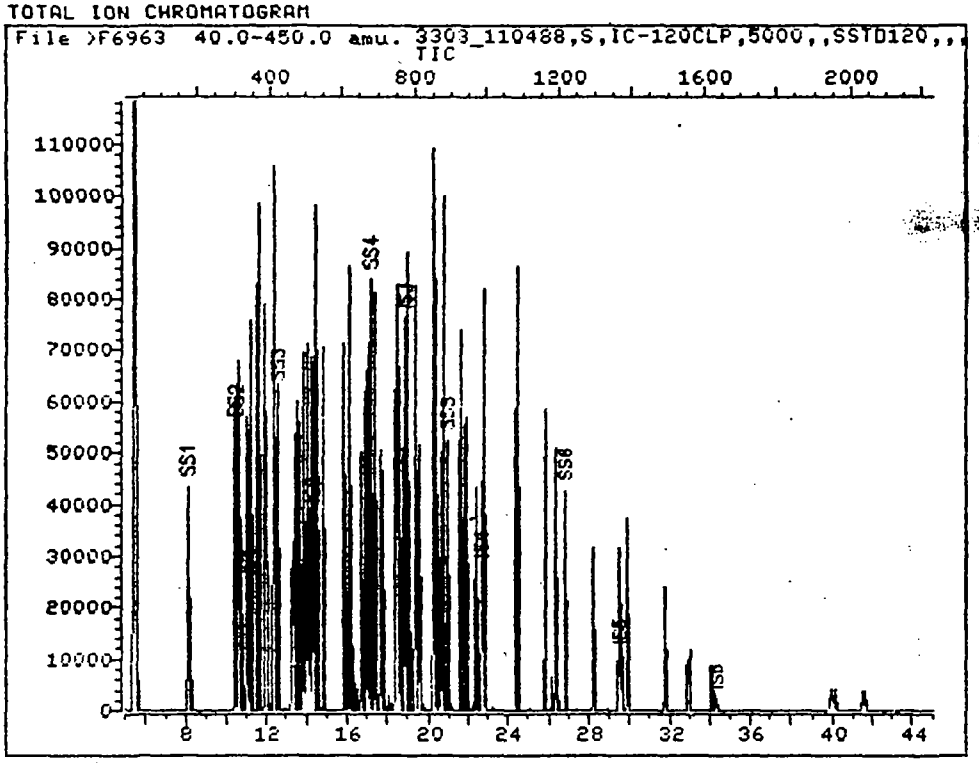
ID File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F)
Last Calibration: 881109 08:18

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 D4-DICHLOROBENZENE	11.04	152.0	9262	40.00	UG/ML	100
2)	CS50 2-FLUOROPHENOL	8.08	112.0	28087	79.50	UG/ML	100
3)	CS45 D5-PHENOL	10.39	99.0	24467	76.90	UG/ML	100
4)	C315 PHENOL	10.43	94.1	39828	72.42	UG/ML	91
5)	C325 BIS(2-CHLOROETHYL)ETHER	10.57	93.1	33083	73.89	UG/ML	87
6)	C330 2-CHLOROPHENOL	10.61	128.0	27743	75.02	UG/ML	93
7)	C335 1,3-DICHLOROBENZENE	10.95	146.0	27642	74.91	UG/ML	95
8)	C340 1,4-DICHLOROBENZENE	11.07	146.0	27021	71.68	UG/ML	95
9)	C345 BENZYL ALCOHOL	11.49	108.1	19386	73.50	UG/ML	93
10)	C350 1,2-DICHLOROBENZENE	11.52	146.0	25843	70.21	UG/ML	99
11)	C355 2-METHYLPHENOL	11.85	108.0	25857	75.36	UG/ML	93
12)	C360 BIS(CHLOROISOPROPYL)ETHER	11.90	45.0	60158	78.61	UG/ML	81
13)	C365 4-METHYLPHENOL	12.24	108.0	25534	69.89	UG/ML	94
14)	C370 NITROSO-DI-N-PROPYLAMINE	12.30	70.0	27922	71.86	UG/ML	95
15)	C375 HEXACHLOROETHANE	12.30	117.0	12169	68.26	UG/ML	90
16)	*CI40 D8-NAPHTHALENE	14.25	136.0	37570	40.00	UG/ML	100
17)	CS20 D5-NITROBENZENE	12.49	82.0	39521	79.90	UG/ML	100
18)	C410 NITROBENZENE	12.55	77.0	36338	74.33	UG/ML	80
19)	C415 ISOPHORONE	13.17	82.0	41873	41.88	UG/ML	87
20)	C420 2-NITROPHENOL	13.34	139.0	17722	75.97	UG/ML	88
21)	C425 2,4-DIMETHYLPHENOL	13.55	107.0	31152	75.72	UG/ML	91
22)	C430 BENZOIC ACID	14.04	122.0	12561M	97.70	UG/ML	
23)	C435 BIS 2-CHLOROETHOXYMETHANE	13.80	93.0	40828	74.99	UG/ML	81
24)	C440 2,4-DICHLOROPHENOL	13.97	162.0	23494	76.07	UG/ML	99
25)	C445 1,2,4-TRICHLOROBENZENE	14.16	180.0	23814	74.47	UG/ML	99
26)	C450 NAPHTHALENE	14.31	128.1	70010	71.33	UG/ML	92
27)	C455 4-CHLOROANILINE	14.52	127.0	34706	71.86	UG/ML	99
28)	C460 HEXACHLOROBUTADIENE	14.81	224.9	12486	73.29	UG/ML	97
29)	C465 4-CHLORO-M-CRESOL	15.82	107.1	29938	74.00	UG/ML	86
30)	C470 2-METHYLNAPHTHALENE	16.09	142.0	44056	69.91	UG/ML	95
31)	*CI50 D10-ACENAPHTHENE	18.81	164.0	20390	40.00	UG/ML	90
32)	CS25 2-FLUOROBIPHENYL	17.13	172.0	52245	74.66	UG/ML	100
33)	CS55 2,4,6-TRIBROMOPHENOL	20.88	329.8	10152	79.75	UG/ML	100
34)	C510 HEXACHLOROCYCLOPENTADIENE	16.69	236.9	11860	80.57	UG/ML	96
35)	C515 2,4,6-TRICHLOROPHENOL	16.89	196.0	16511	77.10	UG/ML	98
36)	C520 2,4,5-TRICHLOROPHENOL	16.98	196.0	17130	78.80	UG/ML	96
37)	C525 2-CHLORONAPHTHALENE	17.32	162.1	46473	76.09	UG/ML	90
38)	C530 2-NITROANILINE	17.70	65.0	27112	76.91	UG/ML	86
39)	C535 DIMETHYLPHTHALATE	18.33	163.0	63836	73.87	UG/ML	94
40)	C540 ACENAPHTHYLENE	18.40	152.1	75275	75.26	UG/ML	97
41)	C545 3-NITROANILINE	18.80	138.1	17054	72.72	UG/ML	43
42)	C550 ACENAPHTHENE	18.90	153.2	47441	73.28	UG/ML	92
43)	C555 2,4-DINITROPHENOL	19.03	184.0	5807	106.22	UG/ML	92

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	C560 4-NITROPHENOL	19.26	109.0	8241	77.82	UG/ML	48
45)	C565 DIBENZOFURAN	19.32	168.0	65647	72.10	UG/ML	92
46)	C570 2,4-DINITROTOLUENE	19.46	165.1	21417	71.46	UG/ML	98
47)	C543 2,6-DINITROTOLUENE	18.47	165.1	15871	74.66	UG/ML	95
48)	C580 DIETHYLPHTHALATE	20.18	149.1	61251	87.71	UG/ML	90
49)	C585 4-CHLOROPHENYLPHENYLETHER	20.25	204.1	23364	68.50	UG/ML	98
50)	C590 FLUORENE	20.22	166.2	46262	68.72	UG/ML	95
51)	C595 4-NITROANILINE	20.41	138.0	15832	71.98	UG/ML	92
52)	*CI60 D10-PHENANTHRENE	22.61	188.0	38875	40.00	UG/ML	100
53)	C610 4,6-DINITRO-O-CRESOL	20.52	198.0	9618	85.13	UG/ML	100
54)	C615 DIPHENYLAMINE	20.59	169.2	38097	76.03	UG/ML	96
55)	C625 4-BROMOPHENYLPHENYLETHER	21.49	248.1	15394	78.23	UG/ML	96
56)	C630 HEXACHLOROBENZENE	21.85	283.9	17293	74.87	UG/ML	90
57)	C635 PENTACHLOROPHENOL	22.30	265.9	9419	83.66	UG/ML	97
58)	C640 PHENANTHRENE	22.68	178.2	67229	72.57	UG/ML	100
59)	C645 ANTHRACENE	22.79	178.2	70255	73.97	UG/ML	100
60)	C650 DI-N-BUTYLPHTHALATE	24.38	149.0	93589	69.30	UG/ML	96
61)	C655 FLUORANTHENE	25.75	202.2	57093	67.12	UG/ML	100
62)	*CI70 D12-CHRYSENE	29.46	240.3	8974	40.00	UG/ML	90
63)	CS30 D14-P-TERPHENYL	26.81	244.0	31148	72.19	UG/ML	100
64)	C715 PYRENE	26.32	202.2	51233	73.71	UG/ML	100
65)	C720 BUTYLBENZYLPHTHALATE	28.19	149.1	14982	69.76	UG/ML	90
66)	C725 3,3'-DICHLOROBENZIDINE	29.41	252.1	4699	83.47	UG/ML	93
67)	C730 BENZO(A)ANTHRACENE	29.43	228.2	18687	72.09	UG/ML	98
68)	C745 BIS 2-ETHYLHEXYLPHTHALATE	29.81	149.0	16481	65.79	UG/ML	96
69)	C740 CHRYSENE	29.54	228.2	16828	73.87	UG/ML	93
70)	*CI75 D12-PERYLENE	34.28	264.2	3330	40.00	UG/ML	100
71)	C760 DI-N-OCTYLPHTHALATE	31.67	149.1	22176	76.65	UG/ML	97
72)	C765 BENZO(B)FLUORANTHENE	32.89	252.2	23598M	153.58	UG/ML	99
73)	C770 BENZO(K)FLUORANTHENE	32.89	252.2	23598M	153.58	UG/ML	99
74)	C775 BENZO(A)PYRENE	34.06	252.2	10212	77.17	UG/ML	97
75)	C780 INDENO(1,2,3-CD)PYRENE	39.86	276.0	8278	77.70	UG/ML	99
76)	C785 DIBENZO(A,H)ANTHRACENE	40.04	278.1	7428	74.99	UG/ML	97
77)	C790 BENZO(G,H,I)PERYLENE	41.49	276.0	7748	77.04	UG/ML	98

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Name: 3303_110488,S,IC-120
Misc: CLP,5000,,SSTD120,,,, HP5970F BTL# 6

Id File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F)
Last Calibration: 881109 09:18

Operator ID: STEVE
Quant Time: 881109 08:27
Injected at: 881108 17:31

QUANT REPORT

Operator ID: STEVE Quant Rev: 6 Quant Time: 881109 08:27
Output File: ^F6963::QT Injected at: 881108 17:31
Data File: >F6963::F2 Dilution Factor: 1.00000
Name: 3303_110488,S,IC-120
Misc: CLP,5000,,SSTD120,,,, HP5970F BTL# 6

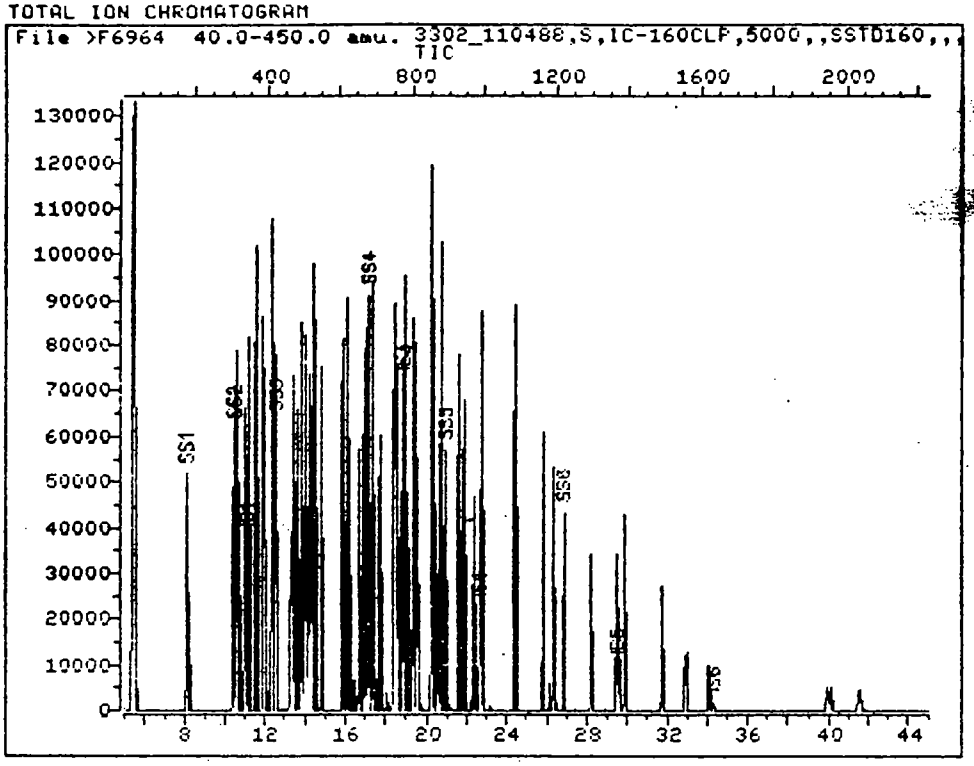
ID File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F) 4 095
Last Calibration: 881109 08:18

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 D4-DICHLOROBENZENE	11.04	152.0	9254	40.00	UG/ML	100
2)	CS50 2-FLUOROPHENOL	8.09	112.0	42584	120.64	UG/ML	100
3)	CS45 D5-PHENOL	10.43	99.0	36964	116.27	UG/ML	100
4)	C315 PHENOL	10.46	94.1	59739	108.72	UG/ML	86
5)	C325 BIS(2-CHLOROETHYL)ETHER	10.59	93.1	50046	111.88	UG/ML	88
6)	C330 2-CHLOROPHENOL	10.62	128.0	41498	112.31	UG/ML	96
7)	C335 1,3-DICHLOROBENZENE	10.95	146.0	42397	115.00	UG/ML	97
8)	C340 1,4-DICHLOROBENZENE	11.09	146.0	39588	105.10	UG/ML	97
9)	C345 BENZYL ALCOHOL	11.54	108.1	27160	103.07	UG/ML	93
10)	C350 1,2-DICHLOROBENZENE	11.54	146.0	34023	92.51	UG/ML	96
11)	C355 2-METHYLPHENOL	11.86	108.0	38065	111.03	UG/ML	93
12)	C360 BIS(CHLOROISOPROPYL)ETHER	11.92	45.0	95755	125.23	UG/ML	79
13)	C365 4-METHYLPHENOL	12.28	108.0	34325	94.03	UG/ML	91
14)	C370 NITROSO-DI-N-PROPYLAMINE	12.37	70.0	46651	120.17	UG/ML	87
15)	C375 HEXACHLOROETHANE	12.29	117.0	15892	89.22	UG/ML	99
16)	*CI40 D8-NAPHTHALENE	14.27	136.0	38470	40.00	UG/ML	100
17)	CS20 D5-NITROBENZENE	12.53	82.0	59343	117.17	UG/ML	100
18)	C410 NITROBENZENE	12.56	77.0	59890	119.65	UG/ML	79
19)	C415 ISOPHORONE	13.26	82.0	121126M	118.32	UG/ML	90
20)	C420 2-NITROPHENOL	13.35	139.0	26358	110.35	UG/ML	87
21)	C425 2,4-DIMETHYLPHENOL	13.59	107.0	49062	116.47	UG/ML	89
22)	C430 BENZOIC ACID	14.13	122.0	22261	169.09	UG/ML	93
23)	C435 BIS 2-CHLOROETHOXYMETHANE	13.82	93.0	62814	112.68	UG/ML	80
24)	C440 2,4-DICHLOROPHENOL	14.00	162.0	33876	107.12	UG/ML	98
25)	C445 1,2,4-TRICHLOROBENZENE	14.18	180.0	34691	105.94	UG/ML	96
26)	C450 NAPHTHALENE	14.32	128.1	102073	101.56	UG/ML	92
27)	C455 4-CHLOROANILINE	14.54	127.0	53830	108.85	UG/ML	97
28)	C460 HEXACHLOROBUTADIENE	14.83	224.9	16926	97.03	UG/ML	93
29)	C465 4-CHLORO-M-CRESOL	15.83	107.1	44745	108.01	UG/ML	88
30)	C470 2-METHYLNAPHTHALENE	16.10	142.0	62187	96.37	UG/ML	98
31)	*CI50 D10-ACENAPHTHENE	18.81	164.0	19848	40.00	UG/ML	94
32)	CS25 2-FLUOROBIPHENYL	17.14	172.0	73102	107.32	UG/ML	100
33)	CS55 2,4,6-TRIBROMOPHENOL	20.90	329.8	14726	118.85	UG/ML	100
34)	C510 HEXACHLOROCYCLOPENTADIENE	16.69	236.9	17403	121.46	UG/ML	98
35)	C515 2,4,6-TRICHLOROPHENOL	16.91	196.0	23681	113.60	UG/ML	96
36)	C520 2,4,5-TRICHLOROPHENOL	17.00	196.0	25094	118.59	UG/ML	98
37)	C525 2-CHLORONAPHTHALENE	17.34	162.1	66998	112.70	UG/ML	87
38)	C530 2-NITROANILINE	17.72	65.0	42890	124.99	UG/ML	85
39)	C535 DIMETHYLPHTHALATE	18.35	163.0	94393	112.21	UG/ML	93
40)	C540 ACENAPHTHYLENE	18.42	152.1	105337	108.20	UG/ML	99
41)	C545 3-NITROANILINE	18.81	138.1	24622	107.85	UG/ML	56
42)	C550 ACENAPHTHENE	18.92	153.2	68057	108.00	UG/ML	94
43)	C555 2,4-DINITROPHENOL	19.07	184.0	10150	190.73	UG/ML	96

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	C560 4-NITROPHENOL	19.30	109.0	11839	114.85	UG/ML	84
45)	C565 DIBENZOFURAN	19.34	168.0	93755	105.78	UG/ML	92
46)	C570 2,4-DINITROTOLUENE	19.50	165.1	31650	108.49	UG/ML	94
47)	C543 2,6-DINITROTOLUENE	18.51	165.1	24061	116.28	UG/ML	83
48)	C580 DIETHYLPHTHALATE	20.20	149.1	72701	82.56	UG/ML	90
49)	C585 4-CHLOROPHENYLPHENYLETHER	20.27	204.1	31251	94.13	UG/ML	99
50)	C590 FLUORENE	20.23	166.2	55949	85.38	UG/ML	91
51)	C595 4-NITROANILINE	20.45	138.0	22623	105.66	UG/ML	96
52)	*CI60 D10-PHENANTHRENE	22.61	188.0	37588	40.00	UG/ML	100
53)	C610 4,6-DINITRO-O-CRESOL	20.58	198.0	14256	130.50	UG/ML	100
54)	C615 DIPHENYLAMINE	20.63	169.2	48692	100.50	UG/ML	99
55)	C625 4-BROMOPHENYLPHENYLETHER	21.51	248.1	21582	113.44	UG/ML	98
56)	C630 HEXACHLOROBENZENE	21.85	283.9	24826	111.17	UG/ML	96
57)	C635 PENTACHLOROPHENOL	22.32	265.9	13661	125.50	UG/ML	97
58)	C640 PHENANTHRENE	22.70	178.2	92926	103.74	UG/ML	100
59)	C645 ANTHRACENE	22.80	178.2	93521	101.84	UG/ML	100
60)	C650 DI-N-BUTYLPHTHALATE	24.38	149.0	115551	88.49	UG/ML	97
61)	C655 FLUORANTHENE	25.77	202.2	70871	86.17	UG/ML	100
62)	*CI70 D12-CHRYSENE	29.46	240.3	7569	40.00	UG/ML	89
63)	CS30 D14-P-TERPHENYL	26.81	244.0	36166	99.38	UG/ML	100
64)	C715 PYRENE	26.32	202.2	61177	104.36	UG/ML	100
65)	C720 BUTYLBENZYLPHTHALATE	28.19	149.1	18410	101.63	UG/ML	95
66)	C725 3,3'-DICHLOROBENZIDINE	29.41	252.1	7265	153.00	UG/ML	99
67)	C730 BENZO(A)ANTHRACENE	29.43	228.2	23959	109.59	UG/ML	98
68)	C745 BIS 2-ETHYLHEXYLPHTHALATE	29.81	149.0	21971	103.99	UG/ML	92
69)	C740 CHRYSENE	29.54	228.2	21833	113.63	UG/ML	93
70)	*CI75 D12-PERYLENE	34.29	264.2	3314	40.00	UG/ML	100
71)	C760 DI-N-OCTYLPHTHALATE	31.67	149.1	33156	115.20	UG/ML	99
72)	C765 BENZO(B)FLUORANTHENE	32.91	252.2	34472M	225.43	UG/ML	98
73)	C770 BENZO(K)FLUORANTHENE	32.91	252.2	34472M	225.43	UG/ML	98
74)	C775 BENZO(A)PYRENE	34.06	252.2	15577	118.28	UG/ML	98
75)	C780 INDENO(1,2,3-CD)PYRENE	39.87	276.0	12832	121.03	UG/ML	98
76)	C785 DIBENZO(A,H)ANTHRACENE	40.05	278.1	11015	111.77	UG/ML	96
77)	C790 BENZO(G,H,I)PERYLENE	41.53	276.0	12280	122.70	UG/ML	97

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >F6964::F2 Quant Output File: ^F6964::QT
Name: 3302_110488,S,IC-160
Misc: CLP,5000,,SSTD160,,,, HP5970F BTL# 7

Id File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F)
Last Calibration: 881109 09:18

Operator ID: STEVE
Quant Time: 881109 08:30
Injected at: 881108 18:26

QUANT REPORT

Operator ID: STEVE Quant Rev: 6 Quant Time: 881109 08:30
Output File: ^F6964::QT Injected at: 881108 18:26
Data File: >F6964::F2 Dilution Factor: 1.00000
Name: 3302_110488,S,IC-160
Misc: CLP,5000,,SSTD160,,,, HP5970F BYL# 7

4 098

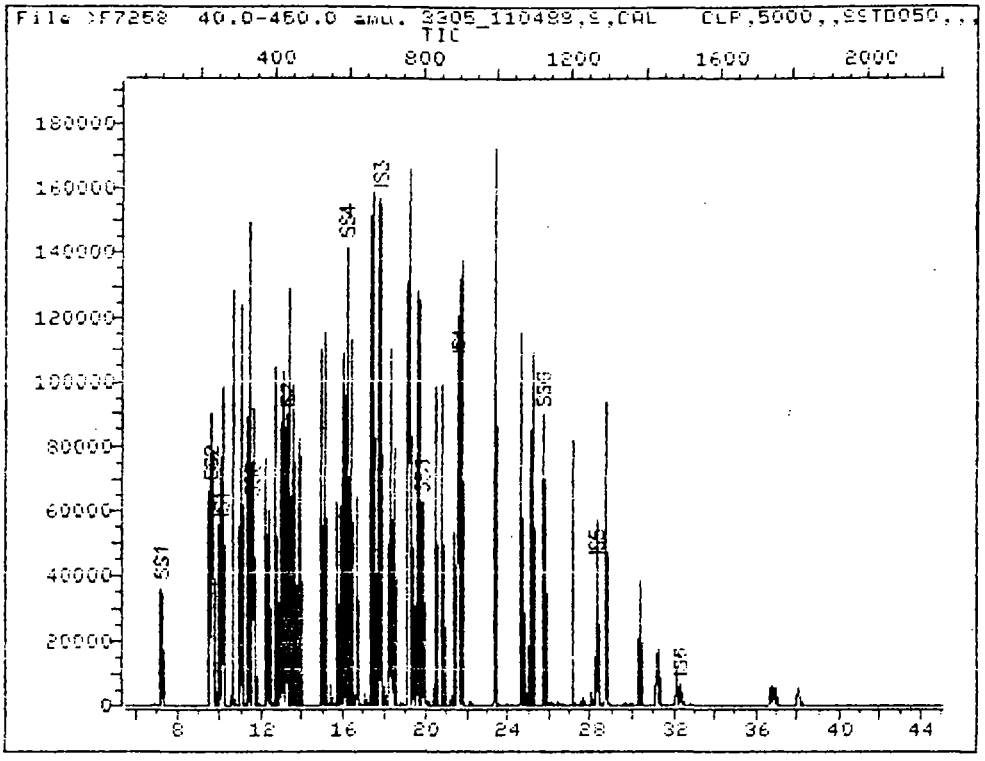
ID File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F)
Last Calibration: 881109 08:18

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 D4-DICHLOROBENZENE	11.06	152.0	8626	40.00	UG/ML	100
2)	CS50 2-FLUOROPHENOL	8.09	112.0	49707	147.65	UG/ML	100
3)	CS45 D5-PHENOL	10.45	99.0	42013	138.56	UG/ML	100
4)	C315 PHENOL	10.48	94.1	70535	134.59	UG/ML	84
5)	C325 BIS(2-CHLOROETHYL)ETHER	10.59	93.1	58442	136.98	UG/ML	88
6)	C330 2-CHLOROPHENOL	10.62	128.0	48454	137.50	UG/ML	94
7)	C335 1,3-DICHLOROBENZENE	10.97	146.0	49330	140.30	UG/ML	98
8)	C340 1,4-DICHLOROBENZENE	11.09	146.0	47059	131.00	UG/ML	99
9)	C345 BENZYL ALCOHOL	11.56	108.1	32682	130.04	UG/ML	95
10)	C350 1,2-DICHLOROBENZENE	11.54	146.0	38582	109.99	UG/ML	99
11)	C355 2-METHYLPHENOL	11.88	108.0	44394	135.77	UG/ML	96
12)	C360 BIS(CHLOROISOPROPYL)ETHER	11.94	45.0	113813	156.06	UG/ML	77
13)	C365 4-METHYLPHENOL	12.30	108.0	38528	110.66	UG/ML	91
14)	C370 NITROSO-DI-N-PROPYLAMINE	12.39	70.0	55441	149.73	UG/ML	95
15)	C375 HEXACHLOROETHANE	12.30	117.0	17427	102.58	UG/ML	92
16)	*CI40 D8-NAPHTHALENE	14.27	136.0	36780	40.00	UG/ML	100
17)	CS20 D5-NITROBENZENE	12.53	82.0	70671	145.95	UG/ML	100
18)	C410 NITROBENZENE	12.58	77.0	67137	140.29	UG/ML	79
19)	C415 ISOPHORONE	13.28	82.0	141703	144.79	UG/ML	89
20)	C420 2-NITROPHENOL	13.37	139.0	31050	135.97	UG/ML	83
21)	C425 2,4-DIMETHYLPHENOL	13.61	107.0	57983	143.97	UG/ML	91
22)	C430 BENZOIC ACID	14.24	122.0	29777M	236.58	UG/ML	96
23)	C435 BIS 2-CHLOROETHOXYMETHANE	13.84	93.0	71848	134.81	UG/ML	77
24)	C440 2,4-DICHLOROPHENOL	14.02	162.0	41403	136.94	UG/ML	98
25)	C445 1,2,4-TRICHLOROBENZENE	14.18	180.0	40622	129.75	UG/ML	97
26)	C450 NAPHTHALENE	14.33	128.1	126729	131.88	UG/ML	93
27)	C455 4-CHLOROANILINE	14.56	127.0	61515	130.10	UG/ML	99
28)	C460 HEXACHLOROBUTADIENE	14.83	224.9	20812	124.79	UG/ML	98
29)	C465 4-CHLORO-M-CRESOL	15.85	107.1	53662	135.49	UG/ML	82
30)	C470 2-METHYLNAPHTHALENE	16.10	142.0	75408	122.23	UG/ML	98
31)	*CI50 D10-ACENAPHTHENE	18.82	164.0	18733	40.00	UG/ML	92
32)	CS25 2-FLUOROBIPHENYL	17.18	172.0	86059	136.97	UG/ML	100
33)	CS55 2,4,6-TRIBROMOPHENOL	20.90	329.8	16086	137.55	UG/ML	100
34)	C510 HEXACHLOROCYCLOPENTADIENE	16.70	236.9	21092	155.97	UG/ML	97
35)	C515 2,4,6-TRICHLOROPHENOL	16.93	196.0	28958	147.19	UG/ML	97
36)	CS20 2,4,5-TRICHLOROPHENOL	17.02	196.0	28434	142.37	UG/ML	99
37)	C525 2-CHLORONAPHTHALENE	17.36	162.1	79174	141.10	UG/ML	88
38)	C530 2-NITROANILINE	17.74	65.0	49762	153.65	UG/ML	83
39)	C535 DIMETHYLPHTHALATE	18.35	163.0	110149	138.74	UG/ML	93
40)	C540 ACENAPHTHYLENE	18.42	152.1	123739	134.66	UG/ML	98
41)	C545 3-NITROANILINE	18.83	138.1	27767	128.87	UG/ML	52
42)	C550 ACENAPHTHENE	18.94	153.2	78812	132.51	UG/ML	93
43)	C555 2,4-DINITROPHENOL	19.07	184.0	13123	261.27	UG/ML	90

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	C560 4-NITROPHENOL	19.32	109.0	13755	141.37	UG/ML	97
45)	C565 DIBENZOFURAN	19.34	168.0	108410	129.60	UG/ML	91
46)	C570 2,4-DINITROTOLUENE	19.50	165.1	36694	133.27	UG/ML	95
47)	C543 2,6-DINITROTOLUENE	18.51	165.1	27428	140.44	UG/ML	95
48)	C580 DIETHYLPHTHALATE	20.22	149.1	77659	[illegible]	UG/ML	89
49)	C585 4-CHLOROPHENYLPHENYLETHER	20.27	204.1	34553	110.26	UG/ML	97
50)	C590 FLUORENE	20.24	166.2	62291	100.71	UG/ML	96
51)	C595 4-NITROANILINE	20.47	138.0	26759	132.42	UG/ML	93
52)	*CI60 D10-PHENANTHRENE	22.61	188.0	33079	40.00	UG/ML	100
53)	C610 4,6-DINITRO-O-CRESOL	20.58	198.0	16879	175.57	UG/ML	100
54)	C615 DIPHENYLAMINE	20.63	169.2	56649	132.86	UG/ML	96
55)	C625 4-BROMOPHENYLPHENYLETHER	21.51	248.1	24342	145.39	UG/ML	98
56)	C630 HEXACHLOROBENZENE	21.87	283.9	29225	148.70	UG/ML	91
57)	C635 PENTACHLOROPHENOL	22.32	265.9	16023	167.26	UG/ML	96
58)	C640 PHENANTHRENE	22.70	178.2	103138	130.84	UG/ML	100
59)	C645 ANTHRACENE	22.82	178.2	103769	128.40	UG/ML	100
60)	C650 DI-N-BUTYLPHTHALATE	24.39	149.0	121510	105.74	UG/ML	98
61)	C655 FLUORANTHENE	25.77	202.2	74446	102.86	UG/ML	100
62)	*CI70 D12-CHRYSENE	29.47	240.3	6500	40.00	UG/ML	91
63)	CS30 D14-P-TERPHENYL	26.81	244.0	36825	117.83	UG/ML	100
64)	C715 PYRENE	26.32	202.2	63995	127.12	UG/ML	100
65)	C720 BUTYLBENZYLPHTHALATE	28.19	149.1	19999	128.56	UG/ML	94
66)	C725 3,3'-DICHLOROBENZIDINE	29.41	252.1	8188	200.80	UG/ML	97
67)	C730 BENZO(A)ANTHRACENE	29.43	228.2	25481	135.72	UG/ML	98
68)	C745 BIS 2-ETHYLHEXYLPHTHALATE	29.81	149.0	24326	134.07	UG/ML	91
69)	C740 CHRYSENE	29.54	228.2	23790	144.18	UG/ML	98
70)	*CI75 D12-PERYLENE	34.30	264.2	2860	40.00	UG/ML	100
71)	C760 DI-N-OCTYLPHTHALATE	31.67	149.1	39469	158.85	UG/ML	97
72)	C765 BENZO(B)FLUORANTHENE	32.91	252.2	40673M	308.21	UG/ML	96
73)	C770 BENZO(K)FLUORANTHENE	32.91	252.2	40673M	308.21	UG/ML	96
74)	C775 BENZO(A)PYRENE	34.06	252.2	17923	157.70	UG/ML	97
75)	C780 INDENO(1,2,3-CD)PYRENE	39.88	276.0	15146	165.53	UG/ML	98
76)	C785 DIBENZO(A,H)ANTHRACENE	40.08	278.1	14634	172.06	UG/ML	98
77)	C790 BENZO(G,H,I)PERYLENE	41.53	276.0	14978	173.41	UG/ML	97

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Data File: >F7258::F2 Quant Output File: ^F7258::QT
Name: 3305_110488,S,CAL
Misc: CLP,5000,,SSTD050,,, HP5970F BTL# 2

Id File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F)
Last Calibration: 881207 12:55

Operator ID: MANAGER
Quant Time: 881207 12:56
Injected at: 881207 11:27

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 881207 12:56
Output File: ^F7258::QT Injected at: 881207 11:27
Data File: >F7258::F2 Dilution Factor: 1.00000
Name: 3305_110488,S,CAL
Misc: CLP,5000,,SSTD050,,, HP5970F BTL# 2

4 101

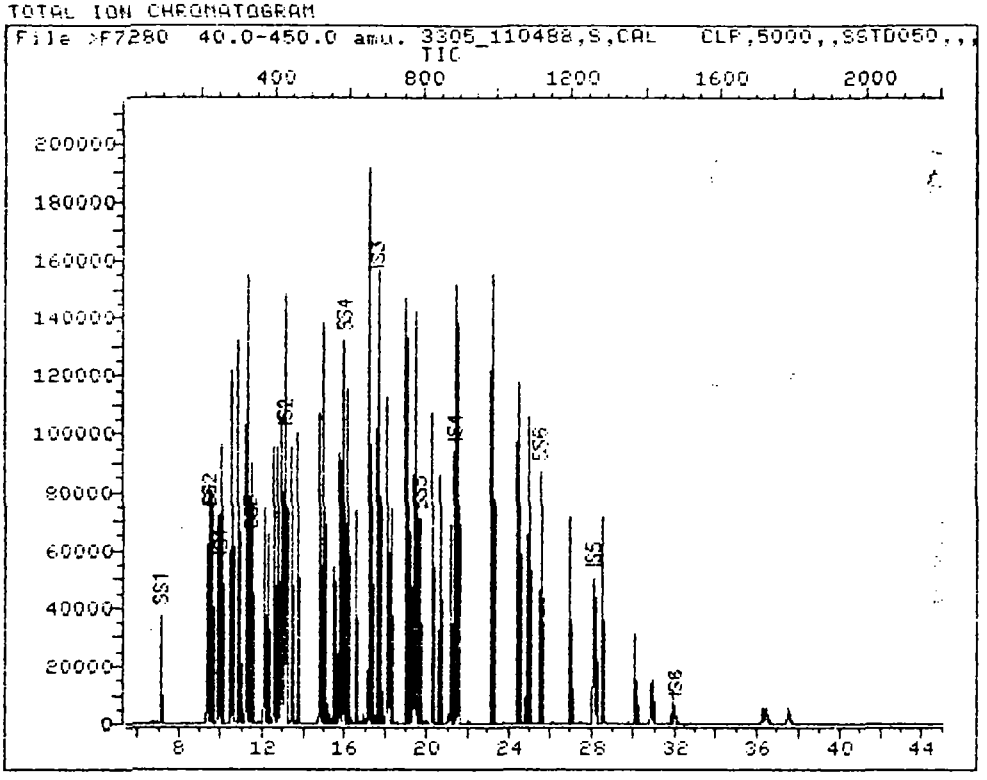
ID File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F)
Last Calibration: 881207 12:55

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 D4-DICHLOROBENZENE	10.09	152.0	25368	40.00	UG/ML	100
2)	CS50 2-FLUOROPHENOL	7.20	112.0	45572	50.00	UG/ML	100
3)	CS45 DS-PHENOL	9.57	99.0	41051	50.00	UG/ML	100
4)	C315 PHENOL	9.61	94.1	64797	50.00	UG/ML	95
5)	C325 BIS(2-CHLOROETHYL)ETHER	9.66	93.1	57726	50.00	UG/ML	98
6)	C330 2-CHLOROPHENOL	9.70	128.0	49385	50.00	UG/ML	98
7)	C335 1,3-DICHLOROBENZENE	10.00	146.0	51651	50.00	UG/ML	98
8)	C340 1,4-DICHLOROBENZENE	10.15	146.0	51379	50.00	UG/ML	97
9)	C345 BENZYL ALCOHOL	10.60	108.1	29453	50.00	UG/ML	96
10)	C350 1,2-DICHLOROBENZENE	10.58	146.0	45832	50.00	UG/ML	98
11)	C355 2-METHYLPHENOL	10.99	108.0	42516	50.00	UG/ML	97
12)	C360 BIS(CHLOROISOPROPYL)ETHER	10.99	45.0	82364	50.00	UG/ML	84
13)	C365 4-METHYLPHENOL	11.39	108.0	45248	50.00	UG/ML	94
14)	C370 NITROSO-DI-N-PROPYLAMINE	11.37	70.0	43411	50.00	UG/ML	96
15)	C375 HEXACHLOROETHANE	11.33	117.0	22437	50.00	UG/ML	95
16)	*CI40 D8-NAPHTHALENE	13.27	136.0	101622	40.00	UG/ML	100
17)	CS20 DS-NITROBENZENE	11.55	82.0	61181	50.00	UG/ML	100
18)	C410 NITROBENZENE	11.60	77.0	57667	50.00	UG/ML	86
19)	C415 ISOPHORONE	12.23	82.0	122735	50.00	UG/ML	94
20)	C420 2-NITROPHENOL	12.39	139.0	30383	50.00	UG/ML	91
21)	C425 2,4-DIMETHYLPHENOL	12.68	107.0	52665	50.00	UG/ML	93
22)	C430 BENZOIC ACID	13.11	122.0	16909	50.00	UG/ML	85
23)	C435 BIS 2-CHLOROETHOXYMETHANE	12.88	93.0	69761	50.00	UG/ML	87
24)	C440 2,4-DICHLOROPHENOL	13.04	162.0	40524	50.00	UG/ML	99
25)	C445 1,2,4-TRICHLOROBENZENE	13.20	180.0	44378	50.00	UG/ML	96
26)	C450 NAPHTHALENE	13.33	128.1	132658	50.00	UG/ML	92
27)	C455 4-CHLOROANILINE	13.58	127.0	65233	50.00	UG/ML	95
28)	C460 HEXACHLOROBUTADIENE	13.85	224.9	22434	50.00	UG/ML	99
29)	C465 4-CHLORO-M-CRESOL	14.92	107.1	49517	50.00	UG/ML	90
30)	C470 2-METHYLNAPHTHALENE	15.09	142.0	85406	50.00	UG/ML	93
31)	*CI50 D10-ACENAPHTHENE	17.78	164.0	54176	40.00	UG/ML	94
32)	CS25 2-FLUOROBIPHENYL	16.15	172.0	94968	50.00	UG/ML	100
33)	CS55 2,4,6-TRIBROMOPHENOL	19.81	329.8	17837	50.00	UG/ML	100
34)	C510 HEXACHLOROCYCLOPENTADIENE	15.70	236.9	18053	50.00	UG/ML	97
35)	C515 2,4,6-TRICHLOROPHENOL	15.93	196.0	25705	50.00	UG/ML	93
36)	C520 2,4,5-TRICHLOROPHENOL	16.02	196.0	30570	50.00	UG/ML	96
37)	C525 2-CHLORONAPHTHALENE	16.31	162.1	84693	50.00	UG/ML	92
38)	C530 2-NITROANILINE	16.72	65.0	41201	50.00	UG/ML	94
39)	C535 DIMETHYLPHTHALATE	17.35	163.0	108463	50.00	UG/ML	94
40)	C540 ACENAPHTHYLENE	17.37	152.1	128963	50.00	UG/ML	97
41)	C545 3-NITROANILINE	17.78	138.1	28320	50.00	UG/ML	76
42)	C550 ACENAPHTHENE	17.87	153.2	84881	50.00	UG/ML	97
43)	C555 2,4-DINITROPHENOL	18.01	184.0	2475	50.00	UG/ML	79

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	C560 4-NITROPHENOL	18.34	109.0	12220	50.00	UG/ML	59
45)	C565 DIBENZOFURAN	18.27	168.0	126332	50.00	UG/ML	98
46)	C570 2,4-DINITROTOLUENE	18.45	165.1	39640	50.00	UG/ML	88
47)	C543 2,6-DINITROTOLUENE	17.48	165.1	28056	50.00	UG/ML	90
48)	C580 DIETHYLPHTHALATE	19.18	149.1	118261	50.00	UG/ML	90
49)	C585 4-CHLOROPHENYLPHENYLETHER	19.22	204.1	45941	50.00	UG/ML	95
50)	C590 FLUORENE	19.15	166.2	94956	50.00	UG/ML	97
51)	C595 4-NITROANILINE	19.38	138.0	29522	50.00	UG/ML	94
52)	*CI60 D10-PHENANTHRENE	21.52	188.0	114505	40.00	UG/ML	100
53)	C610 4,6-DINITRO-O-CRESOL	19.49	198.0	9380	50.00	UG/ML	100
54)	C615 DIPHENYLAMINE	19.58	169.2	70628	50.00	UG/ML	95
55)	C625 4-BROMOPHENYLPHENYLETHER	20.44	248.1	27927	50.00	UG/ML	95
56)	C630 HEXACHLOROBENZENE	20.76	283.9	33471	50.00	UG/ML	97
57)	C635 PENTACHLOROPHENOL	21.25	265.9	14654	50.00	UG/ML	98
58)	C640 PHENANTHRENE	21.59	178.2	134590	50.00	UG/ML	100
59)	C645 ANTHRACENE	21.70	178.2	136135	50.00	UG/ML	100
60)	C650 DI-N-BUTYLPHTHALATE	23.35	149.0	210957	50.00	UG/ML	97
61)	C655 FLUORANTHENE	24.62	202.2	127327	50.00	UG/ML	100
62)	*CI70 D12-CHRYSENE	28.30	240.3	32956	40.00	UG/ML	91
63)	CS30 D14-P-TERPHENYL	25.70	244.0	79042	50.00	UG/ML	100
64)	C715 PYRENE	25.18	202.2	116994	50.00	UG/ML	100
65)	C720 BUTYLBENZYLPHTHALATE	27.12	149.1	43785	50.00	UG/ML	97
66)	C725 3,3'-DICHLOROBENZIDINE	28.27	252.1	9074	50.00	UG/ML	95
67)	C730 BENZO(A)ANTHRACENE	28.25	228.2	47265	50.00	UG/ML	96
68)	C745 BIS 2-ETHYLHEXYLPHTHALATE	28.72	149.0	50007	50.00	UG/ML	98
69)	C740 CHRYSENE	28.36	228.2	41085	50.00	UG/ML	96
70)	*CI75 D12-PERYLENE	32.31	264.2	8424	40.00	UG/ML	100
71)	C760 DI-N-OCTYLPHTHALATE	30.30	149.1	44563	50.00	UG/ML	97
72)	C765 BENZO(B)FLUORANTHENE	31.20	252.2	40199M	100.00	UG/ML	99
73)	C770 BENZO(K)FLUORANTHENE	31.20	252.2	40199M	100.00	UG/ML	99
74)	C775 BENZO(A)PYRENE	32.13	252.2	16885	50.00	UG/ML	97
75)	C780 INDENO(1,2,3-CD)PYRENE	36.76	276.0	13049	50.00	UG/ML	99
76)	C785 DIBENZO(A,H)ANTHRACENE	36.92	278.1	12650	50.00	UG/ML	99
77)	C790 BENZO(G,H,I)PERYLENE	38.05	276.0	13123	50.00	UG/ML	96

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Misc: CLP,5000,,SSTD050,,, HP5970F BTL# 2

Id File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F)
Last Calibration: 881208 14:46

Operator ID: MANAGER
Quant Time: 881208 14:48
Injected at: 881208 13:37

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 881208 14:48
Output File: ^F7280::QT Injected at: 881208 13:37
Data File: >F7280::F1 Dilution Factor: 1.00000
Name: 3305_110488,S,CAL
Misc: CLP,5000,,SSTD050,,, HP5970F BTL# 2

ID File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F)
Last Calibration: 881208 14:46

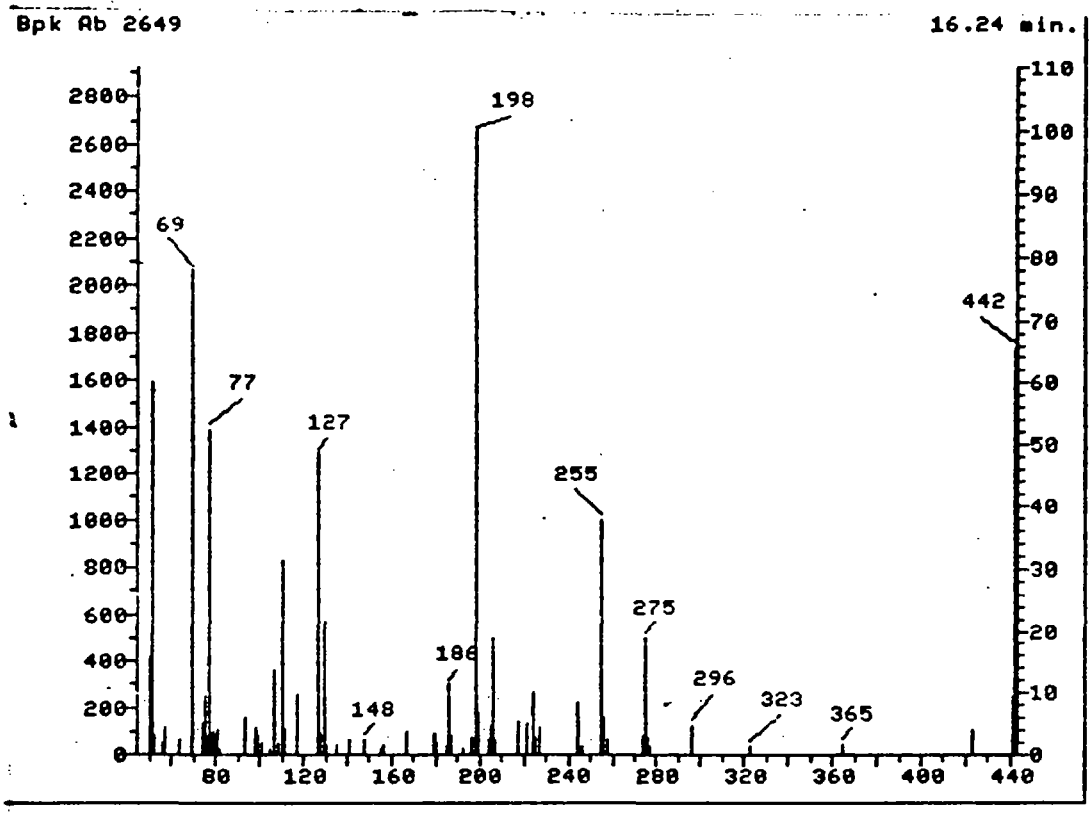
	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 D4-DICHLOROBENZENE	9.94	152.0	24341	40.00	UG/ML	100
2)	CS50 2-FLUOROPHENOL	7.07	112.0	43878	50.00	UG/ML	100
3)	CS45 D5-PHENOL	9.44	99.0	40722	50.00	UG/ML	100
4)	C315 PHENOL	9.48	94.1	65106	50.00	UG/ML	91
5)	C325 BIS(2-CHLOROETHYL)ETHER	9.51	93.1	57396	50.00	UG/ML	99
6)	C330 2-CHLOROPHENOL	9.55	128.0	48228	50.00	UG/ML	96
7)	C335 1,3-DICHLOROBENZENE	9.85	146.0	49903	50.00	UG/ML	98
8)	C340 1,4-DICHLOROBENZENE	10.00	146.0	48631	50.00	UG/ML	98
9)	C345 BENZYL ALCOHOL	10.46	108.1	30201	50.00	UG/ML	95
10)	C350 1,2-DICHLOROBENZENE	10.43	146.0	46180	50.00	UG/ML	99
11)	C355 2-METHYLPHENOL	10.86	108.0	43157	50.00	UG/ML	96
12)	C360 BIS(CHLOROISOPROPYL)ETHER	10.86	45.0	75979	50.00	UG/ML	83
13)	C365 4-METHYLPHENOL	11.24	108.0	41641	50.00	UG/ML	99
14)	C370 NITROSO-DI-N-PROPYLAMINE	11.24	70.0	43683	50.00	UG/ML	96
15)	C375 HEXACHLOROETHANE	11.18	117.0	24424	50.00	UG/ML	90
16)	*C140 D8-NAPHTHALENE	13.12	136.0	100349	40.00	UG/ML	100
17)	CS20 D5-NITROBENZENE	11.40	82.0	63159	50.00	UG/ML	100
18)	C410 NITROBENZENE	11.45	77.0	57154	50.00	UG/ML	93
19)	C415 ISOPHORONE	12.08	82.0	121705	50.00	UG/ML	95
20)	C420 2-NITROPHENOL	12.24	139.0	30070	50.00	UG/ML	90
21)	C425 2,4-DIMETHYLPHENOL	12.53	107.0	48726	50.00	UG/ML	97
22)	C430 BENZOIC ACID	12.98	122.0	15587	50.00	UG/ML	87
23)	C435 BIS 2-CHLOROETHOXYMETHANE	12.75	93.0	73091	50.00	UG/ML	80
24)	C440 2,4-DICHLOROPHENOL	12.89	162.0	39972	50.00	UG/ML	98
25)	C445 1,2,4-TRICHLOROBENZENE	13.05	180.0	42677	50.00	UG/ML	94
26)	C450 NAPHTHALENE	13.18	128.1	126969	50.00	UG/ML	91
27)	C455 4-CHLOROANILINE	13.43	127.0	59759	50.00	UG/ML	97
28)	C460 HEXACHLOROBUTADIENE	13.70	224.9	20701	50.00	UG/ML	97
29)	C465 4-CHLORO-M-CRESOL	14.78	107.1	48069	50.00	UG/ML	94
30)	C470 2-METHYLNAPHTHALENE	14.94	142.0	86243	50.00	UG/ML	92
31)	*CI50 D10-ACENAPHTHENE	17.61	164.0	55580	40.00	UG/ML	94
32)	CS25 2-FLUOROBIPHENYL	15.98	172.0	90639	50.00	UG/ML	100
33)	CS55 2,4,6-TRIBROMOPHENOL	19.64	329.8	15364	50.00	UG/ML	100
34)	C510 HEXACHLOROCYCLOPENTADIENE	15.53	236.9	17696	50.00	UG/ML	97
35)	C515 2,4,6-TRICHLOROPHENOL	15.76	196.0	27945	50.00	UG/ML	97
36)	C520 2,4,5-TRICHLOROPHENOL	15.85	196.0	29682	50.00	UG/ML	97
37)	C525 2-CHLORONAPHTHALENE	16.14	162.1	87021	50.00	UG/ML	96
38)	C530 2-NITROANILINE	16.55	65.0	38918	50.00	UG/ML	93
39)	C535 DIMETHYLPHTHALATE	17.18	163.0	105390	50.00	UG/ML	95
40)	C540 ACENAPHTHYLENE	17.20	152.1	125524	50.00	UG/ML	98
41)	C545 3-NITROANILINE	17.63	138.1	29506	50.00	UG/ML	80
42)	C550 ACENAPHTHENE	17.70	153.2	86732	50.00	UG/ML	95
43)	C555 2,4-DINITROPHENOL	17.87	184.0	6970	50.00	UG/ML	87

		Compound	R.T.	Q ion	Area	Conc	Units	q
44)	C560	4-NITROPHENOL	18.19	109.0	13656	**50.00**	UG/ML	55
45)	C565	DIBENZOFURAN	18.10	168.0	128672	**50.00**	UG/ML	97
46)	C570	2,4-DINITROTOLUENE	18.28	165.1	38539	**50.00**	UG/ML	91
47)	C543	2,6-DINITROTOLUENE	17.33	165.1	29972	**50.00**	UG/ML	96
48)	C580	DIETHYLPHTHALATE	19.02	149.1	115477	50.00	UG/ML	89
49)	C585	4-CHLOROPHENYLPHENYLETHER	19.05	204.1	42794	50.00	UG/ML	99
50)	C590	FLUORENE	18.98	166.2	94719	50.00	UG/ML	92
51)	C595	4-NITROANILINE	19.23	138.0	30956	50.00	UG/ML	97
52)	*C160	D10-PHENANTHRENE	21.33	188.0	111890M	40.00	UG/ML	100
53)	C610	4,6-DINITRO-O-CRESOL	19.32	198.0	16044	50.04	UG/ML	100
54)	C615	DIPHENYLAMINE	19.41	169.2	70684	50.04	UG/ML	96
55)	C625	4-BROMOPHENYLPHENYLETHER	20.27	248.1	27634	50.04	UG/ML	99
56)	C630	HEXACHLOROBENZENE	20.58	283.9	30137	50.04	UG/ML	98
57)	C635	PENTACHLOROPHENOL	21.08	265.9	17797	50.04	UG/ML	96
58)	C640	PHENANTHRENE	21.41	178.2	138043	50.04	UG/ML	100
59)	C645	ANTHRACENE	21.51	178.2	141918	50.04	UG/ML	100
60)	C650	DI-N-BUTYLPHTHALATE	23.18	149.0	211408	50.04	UG/ML	95
61)	C655	FLUORANTHENE	24.44	202.2	129897	50.04	UG/ML	100
62)	*C170	D12-CHRYSENE	28.09	240.3	28337	40.00	UG/ML	90
63)	CS30	D14-P-TERPHENYL	25.52	244.0	67411	50.00	UG/ML	100
64)	C715	PYRENE	24.98	202.2	114428	50.00	UG/ML	100
65)	C720	BUTYLBENZYLPHTHALATE	26.94	149.1	36571	50.00	UG/ML	91
66)	C725	3,3'-DICHLOROBENZIDINE	28.09	252.1	7231	50.00	UG/ML	98
67)	C730	BENZO(A)ANTHRACENE	28.05	228.2	39550	50.00	UG/ML	99
68)	C745	BIS 2-ETHYLHEXYLPHTHALATE	28.53	149.0	38854	50.00	UG/ML	98
69)	C740	CHRYSENE	28.16	228.2	33322	50.00	UG/ML	97
70)	*C175	D12-PERYLENE	32.00	264.2	7027	40.00	UG/ML	100
71)	C760	DI-N-OCTYLPHTHALATE	30.08	149.1	35952	50.00	UG/ML	98
72)	C765	BENZO(B)FLUORANTHENE	30.92	252.2	33841M	100.00	UG/ML	99
73)	C770	BENZO(K)FLUORANTHENE	30.92	252.2	33841M	100.00	UG/ML	99
74)	C775	BENZO(A)PYRENE	31.82	252.2	14454	50.00	UG/ML	98
75)	C780	INDENO(1,2,3-CD)PYRENE	36.27	276.0	10943	50.00	UG/ML	96
76)	C785	DIBENZO(A,H)ANTHRACENE	36.43	278.1	10794	50.00	UG/ML	97
77)	C790	BENZO(G,H,I)PERYLENE	37.51	276.0	10887	50.00	UG/ML	96

* Compound is ISTD

4D. RAW QC DATA

4D(1). DFTPP TUNES



4 108

GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	59.98	59.98	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	77.84	77.84	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	48.62	48.62	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.68	6.68	Ok
275	10-30% of mass 198	18.99	18.99	Ok
365	Greater than 1% of mass 198	1.81	1.81	Ok
441	0-100% of mass 443	9.51	75.00	Ok
442	Greater than 40% of mass 198	65.65	65.65	Ok
443	17-23% of mass 442	12.68	19.32	Ok

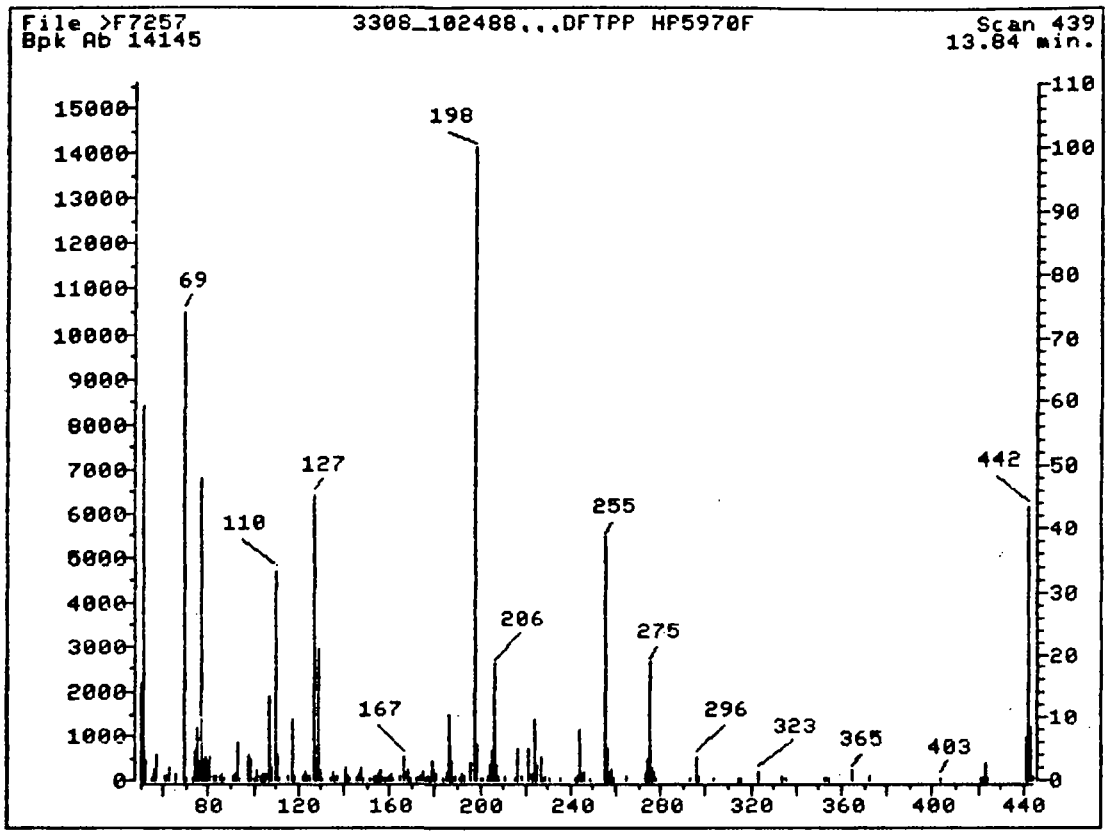
Injection Date: 11/08/88
Injection Time: 14:05
Data File: >F6959
Scan: 571

>F6959 3308_061088,,,DFTPP HP5970F
571 NRM

File: >F6959 Scan #: 571 Retn. time: 16.24

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
43.95	1.548	80.95	4.153	129.00	21.480	196.00	2.794	254.95	37.750
49.95	15.704	81.95	1.057	130.00	1.774	197.90	100.000	256.05	6.002
51.05	59.985	92.90	6.078	135.00	1.586	198.90	6.682	257.95	2.265
51.95	3.058	98.00	4.379	140.95	2.227	204.00	2.492	273.95	2.907
55.95	2.001	98.90	3.096	147.95	2.416	205.00	4.794	275.05	18.988
56.95	4.530	100.90	1.963	154.95	1.095	206.00	18.800	276.05	2.643
63.05	2.265	104.90	1.170	155.95	1.699	207.00	2.454	276.95	1.359
68.95	77.841	107.00	13.779	167.05	3.700	217.00	5.247	296.05	4.870
74.05	5.172	108.00	1.963	178.95	3.247	221.00	5.172	323.00	1.472
74.95	9.475	109.90	31.219	179.95	1.888	224.00	10.004	364.95	1.812
76.05	2.605	111.00	4.190	184.95	1.435	225.00	2.567	423.10	3.926
77.05	52.510	117.00	9.928	186.05	11.438	227.00	4.379	441.10	9.513
78.05	3.511	127.00	48.622	186.95	3.058	244.00	8.494	442.10	65.647
78.95	3.586	128.00	3.549	192.95	.944	245.90	1.397	443.10	12.684
79.95	2.982								

4 116



GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

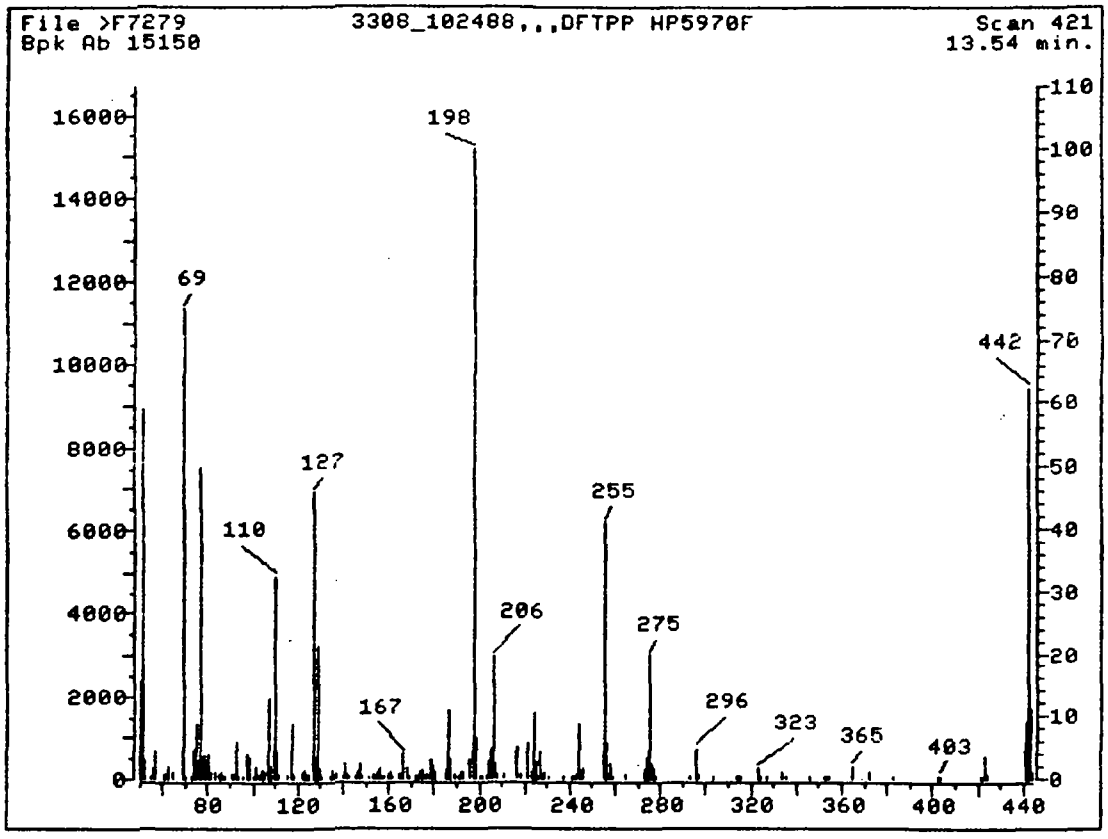
m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
51	30-60% of mass 198	59.35	59.35	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	74.39	74.39	Ok
70	Less than 2% of mass 69	.23	.31	Ok
127	40-60% of mass 198	45.39	45.39	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	5.80	5.80	Ok
275	10-30% of mass 198	18.71	18.71	Ok
365	Greater than 1% of mass 198	1.68	1.68	Ok
441	0-100% of mass 443	6.66	80.51	Ok
442	Greater than 40% of mass 198	43.41	43.41	Ok
443	17-23% of mass 442	8.27	19.06	Ok

Injection Date: 12/07/88
Injection Time: 10:41
Data File: >F7257
Scan: 439

>F7257 3308_102488,,,DFTPP HP5970F
439 NRM

File: >F7257 Scan #: 439 Retn. time: 13.84

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
49.95	15.518	103.00	.665	152.95	.629	193.05	.848	257.05	.382
51.05	59.350	104.00	1.166	153.95	.502	196.00	2.842	257.95	1.845
52.05	2.955	105.00	1.089	154.95	1.089	197.90	100.000	258.95	.332
54.95	.219	107.00	13.333	156.05	1.676	198.90	5.797	264.95	.827
55.95	1.810	108.00	2.100	157.05	.290	200.00	.382	272.95	1.096
56.95	4.206	110.00	33.305	157.85	.389	201.40	.410	273.95	3.344
61.05	.728	111.00	4.037	158.95	.283	203.00	.544	275.05	18.713
61.95	.742	112.00	.467	159.95	.629	204.00	2.538	275.95	2.206
63.05	2.064	116.00	.806	160.95	.954	205.00	4.673	276.95	1.322
65.05	1.004	117.00	9.841	161.95	.283	206.00	18.388	277.95	.219
68.95	74.387	118.00	.728	164.95	.700	207.00	2.361	293.05	.297
69.95	.233	122.00	.778	166.05	.665	208.00	.566	295.95	3.832
73.05	.332	123.00	1.315	166.95	3.803	210.90	.756	297.05	.566
74.05	4.793	124.00	.636	167.95	1.767	216.00	.452	303.05	.467
74.95	8.561	125.00	.551	168.95	.325	216.90	4.998	315.00	.417
76.05	2.715	127.00	45.394	171.95	.339	218.00	.594	316.00	.247
77.05	48.102	128.00	3.287	173.05	.445	221.00	5.203	323.10	1.393
78.05	3.181	129.00	20.771	174.05	.813	223.00	1.202	334.00	.806
78.95	3.627	130.00	1.676	175.05	1.336	224.00	9.883	335.00	.233
79.95	2.722	131.00	.318	176.05	.488	225.00	2.446	352.00	.403
80.95	3.853	134.00	.445	176.95	.721	227.00	3.867	353.00	.269
82.05	.870	135.00	1.329	177.95	.233	228.00	.509	354.00	.424
83.05	.841	136.00	.509	178.95	2.906	228.90	.785	364.95	1.676
85.00	.650	137.00	.629	179.95	1.746	231.00	.325	372.05	.679
86.00	.912	140.95	2.149	181.05	.919	235.00	.262	403.05	.410
87.00	.509	141.95	.714	183.95	.219	242.00	.502	421.00	.318
91.00	.841	142.95	.452	185.05	1.449	243.00	.544	422.00	.304
92.00	.905	145.95	.353	186.05	10.364	244.00	8.222	423.00	2.637
92.90	5.981	146.95	1.011	187.05	3.054	245.10	.983	424.00	.530
94.00	.403	147.95	2.121	188.05	.311	246.00	1.492	441.10	6.660
98.00	3.959	148.95	.495	188.95	.622	249.00	.283	442.00	43.408
99.00	3.316	151.05	.269	190.95	.304	254.95	38.494	443.10	8.271
100.00	.361	151.55	.163	191.95	.877	255.95	5.133	444.10	.735
100.90	1.881	151.75	.163						



GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	58.92	58.92	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	74.80	74.80	Ok
70	Less than 2% of mass 69	.35	.47	Ok
127	40-60% of mass 198	45.64	45.64	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.43	6.43	Ok
275	10-30% of mass 198	19.72	19.72	Ok
365	Greater than 1% of mass 198	2.05	2.05	Ok
441	0-100% of mass 443	9.10	81.64	Ok
442	Greater than 40% of mass 198	62.24	62.24	Ok
443	17-23% of mass 442	11.14	17.90	Ok

Injection Date: 12/08/88
Injection Time: 09:58
Data File: >F7279
Scan: 421

>F7279 3308_102488,,,DFTPP HP5970F
421 NRM

File: >F7279 Scan #: 421 Retn. time: 13.54

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
49.95	15.333	101.00	1.888	152.95	.634	201.50	.462	273.95	3.505
51.05	58.917	103.00	.620	153.95	.508	203.00	.515	274.95	19.716
52.05	2.944	104.00	1.221	154.95	1.096	204.00	2.766	275.95	2.535
55.05	.383	105.00	1.056	155.95	1.683	205.00	4.792	276.95	1.571
55.95	1.743	107.00	12.812	156.95	.356	206.00	19.485	277.95	.244
56.95	4.337	108.00	2.046	157.95	.370	207.00	2.376	292.95	.297
61.05	.739	110.00	32.343	159.95	.680	208.00	.568	295.95	4.858
62.05	.726	111.00	4.363	160.95	.977	211.00	.792	296.95	.653
63.05	2.139	112.00	.548	161.95	.224	216.10	.403	303.05	.528
64.95	.937	116.00	.818	164.95	.759	216.90	4.970	314.00	.224
68.95	74.799	117.00	8.792	165.95	.574	218.00	.634	315.00	.515
69.95	.350	118.00	.686	166.95	3.987	221.00	5.743	316.00	.271
73.05	.363	122.00	.884	167.95	1.617	223.00	1.188	323.00	1.551
74.05	4.719	123.00	1.300	168.95	.297	224.00	10.482	324.00	.271
74.95	8.832	124.00	.680	171.95	.370	225.00	2.766	326.90	.264
76.05	2.594	125.00	.548	172.95	.422	226.00	.244	334.00	.957
77.05	49.762	127.00	45.644	174.05	.904	227.00	4.317	335.00	.238
78.05	3.261	128.00	3.459	175.05	1.360	228.00	.554	346.00	.337
78.95	3.663	129.00	21.063	176.05	.521	229.00	.944	352.10	.488
79.95	2.686	130.00	1.670	176.95	.726	231.00	.370	353.00	.330
80.95	4.053	131.00	.337	178.05	.257	237.00	.304	354.00	.508
81.95	.950	134.00	.502	178.95	2.970	241.00	.231	364.95	2.053
83.05	.884	135.00	1.538	179.95	2.007	242.00	.535	372.05	.878
84.90	.667	136.00	.594	181.05	.970	243.10	.587	382.95	.231
85.90	1.017	137.00	.627	185.05	1.459	244.00	8.640	402.05	.317
87.00	.515	139.85	.211	186.05	10.832	245.00	1.122	403.05	.442
87.90	.277	140.95	2.244	187.05	2.931	246.00	1.584	421.00	.416
91.00	.865	141.95	.812	188.95	.660	254.95	40.845	422.00	.416
92.00	.825	142.95	.469	191.05	.330	255.95	5.842	423.00	3.690
92.90	6.000	145.95	.330	191.95	.957	256.95	.403	424.00	.660
93.90	.429	146.95	1.063	192.95	.931	257.95	2.257	441.10	9.096
96.00	.257	147.95	2.389	196.00	2.983	258.95	.337	442.00	62.244
98.00	3.921	148.95	.436	197.90	100.000	264.95	.871	443.00	11.142
98.90	3.320	150.95	.277	198.90	6.429	272.95	1.340	444.10	.924
100.00	.317	151.85	.165	200.00	.409				

4D(2). BLANK DATA

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK111488

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: BB11138-BLK

Sample wt/vol: 13.0 (g/mL) G Lab File ID: F7264

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

% Moisture: not dec. 0 dec. 0 Date Extracted: 11/14/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/07/88

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	760	U
111-44-4	bis(2-Chloroethyl)Ether	760	U
95-57-8	2-Chlorophenol	760	U
541-73-1	1,3-Dichlorobenzene	760	U
106-46-7	1,4-Dichlorobenzene	760	U
100-51-6	Benzyl Alcohol	760	U
95-50-1	1,2-Dichlorobenzene	760	U
95-48-7	2-Methylphenol	760	U
108-60-1	bis(2-Chloroisopropyl)Ether	760	U
106-44-5	4-Methylphenol	760	U
621-64-7	N-Nitroso-Di-n-Propylamine	760	U
67-72-1	Hexachloroethane	760	U
98-95-3	Nitrobenzene	760	U
78-59-1	Isophorone	760	U
88-75-5	2-Nitrophenol	760	U
105-67-9	2,4-Dimethylphenol	760	U
65-85-0	Benzoic Acid	3700	U
111-91-1	bis(2-Chloroethoxy)Methane	760	U
120-83-2	2,4-Dichlorophenol	760	U
120-82-1	1,2,4-Trichlorobenzene	760	U
91-20-3	Naphthalene	760	U
106-47-8	4-Chloroaniline	760	U
87-68-3	Hexachlorobutadiene	760	U
59-50-7	4-Chloro-3-Methylphenol	760	U
91-57-6	2-Methylnaphthalene	760	U
77-47-4	Hexachlorocyclopentadiene	760	U
88-06-2	2,4,6-Trichlorophenol	760	U
95-95-4	2,4,5-Trichlorophenol	3700	U
91-58-7	2-Chloronaphthalene	760	U
88-74-4	2-Nitroaniline	3700	U
131-11-3	Dimethyl Phthalate	760	U
208-96-8	Acenaphthylene	760	U
606-20-2	2,6-Dinitrotoluene	760	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK111488

Lab Name: CAMBRG ANALYTL Contract:

Lab Code: CAMBRDG Case No.: 11138 SAS No.: SDG No.: 4 116

Matrix: (soil/water) SOIL Lab Sample ID: SB811138-BLK

Sample wt/vol: 13.0 (g/mL) G Lab File ID: F7264

Level: (low/med) LOW Date Received:

% Moisture: not dec. 0 dec. 0 Date Extracted: 11/14/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/07/88

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3700	U
83-32-9	Acenaphthene	760	U
51-28-5	2,4-Dinitrophenol	3700	U
100-02-7	4-Nitrophenol	3700	U
132-64-9	Dibenzofuran	760	U
121-14-2	2,4-Dinitrotoluene	760	U
84-66-2	Diethylphthalate	760	U
7005-72-3	4-Chlorophenyl-phenylether	760	U
86-73-7	Fluorene	760	U
100-01-6	4-Nitroaniline	3700	U
534-52-1	4,6-Dinitro-2-Methylphenol	3700	U
86-30-6	N-Nitrosodiphenylamine (1)	760	U
101-55-3	4-Bromophenyl-phenylether	760	U
118-74-1	Hexachlorobenzene	760	U
87-86-5	Pentachlorophenol	3700	U
85-01-8	Phenanthrene	760	U
120-12-7	Anthracene	760	U
84-74-2	Di-n-Butylphthalate	300	J
206-44-0	Fluoranthene	760	U
129-00-0	Pyrene	760	U
85-68-7	Butylbenzylphthalate	760	U
91-94-1	3,3'-Dichlorobenzidine	1500	U
56-55-3	Benzo(a)Anthracene	760	U
218-01-9	Chrysene	760	U
117-81-7	bis(2-Ethylhexyl)Phthalate	760	U
117-84-0	Di-n-Octyl Phthalate	760	U
205-99-2	Benzo(b)Fluoranthene	760	U
207-08-9	Benzo(k)Fluoranthene	760	U
50-32-8	Benzo(a)Pyrene	760	U
193-39-5	Indeno(1,2,3-cd)Pyrene	760	U
53-70-3	Dibenz(a,h)Anthracene	760	U
191-24-2	Benzo(g,h,i)Perylene	760	U

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SBLK111488

4 117

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: CAMBRG ANALYTL Contract: _____

Lab Code: CAMBRDG Case No.: 11138 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: B811138-BLK

Sample wt/vol: 13.0 (g/mL) G Lab File ID: F7264

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

% Moisture: not dec. 0 dec. 0 Date Extracted: 11/14/88

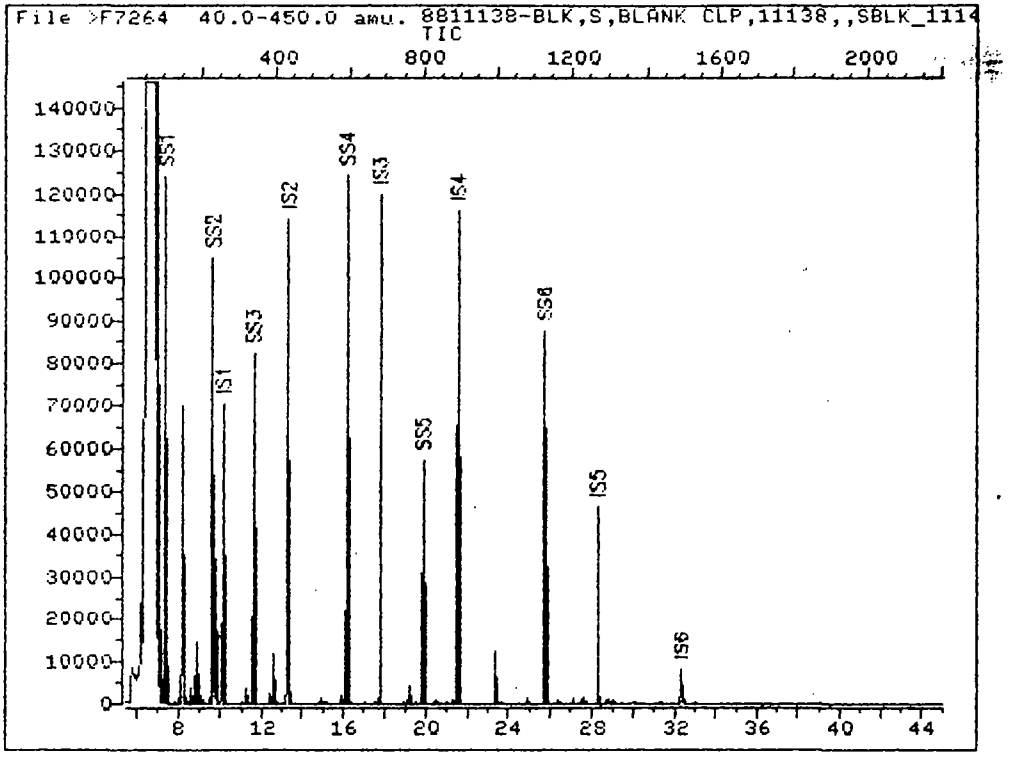
Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/07/88

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

Number TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	6.70	3100	J

TOTAL ION CHROMATOGRAM



Data File: >F7264::F2 Quant Output File: ^F7264::QT
Name: 8811138-BLK,S,BLANK
Misc: CLP,11138,,SBLK_111488,L,S, HP5970F BTL# 8

Id File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F)
Last Calibration: 881207 12:55

Operator ID: MANAGER
Quant Time: 881207 18:42
Injected at: 881207 17:54

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 881207 18:42
Output File: ^F7264::QT Injected at: 881207 17:54
Data File: >F7264::F2 Dilution Factor: 1.00000
Name: 8811138-BLK,S,BLANK
Misc: CLP,11138,,SBLK_111488,L,S, HP5970F BTL# 8

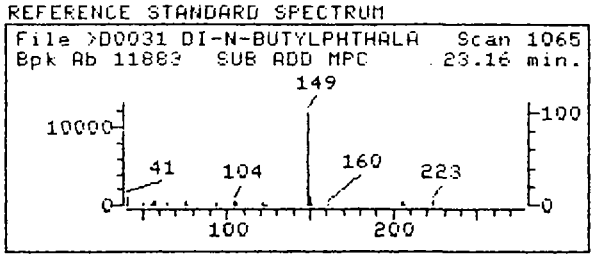
4 119

ID File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F)
Last Calibration: 881207 12:55

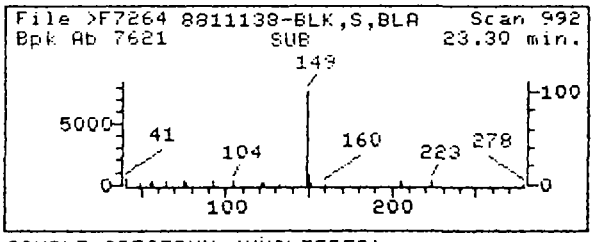
	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*CI30 D4-DICHLOROBENZENE	10.11	257	27061	40.00	UG/ML	100
2)	CS50 2-FLUOROPHENOL	7.36	104	72845	74.92	UG/ML	100
3)	CS45 D5-PHENOL	9.61	229	72929	83.27	UG/ML	100
16)	*CI40 D8-NAPHTHALENE	13.27	433	105882	40.00	UG/ML	100
17)	CS20 D5-NITROBENZENE	11.55	337	57580	45.16	UG/ML	100
31)	*CI50 D10-ACENAPHTHENE	17.76	683	60433	40.00	UG/ML	91
32)	CS25 2-FLUOROBIPHENYL	16.12	592	86102	40.64	UG/ML	100
33)	CS55 2,4,6-TRIBROMOPHENOL	19.79	796	13228	33.24	UG/ML	100
52)	*CI60 D10-PHENANTHRENE	21.49	891	112343	40.00	UG/ML	100
60)	C650 DI-N-BUTYLPHTHALATE	23.30	992	16369	3.95	UG/ML	99
62)	*CI70 D12-CHRYSENE	28.28	1269	40419	40.00	UG/ML	90
63)	CS30 D14-P-TERPHENYL	25.69	1125	74583	38.47	UG/ML	100
70)	*CI75 D12-PERYLENE	32.30	1493	9933	40.00	UG/ML	100

* Compound is ISTD

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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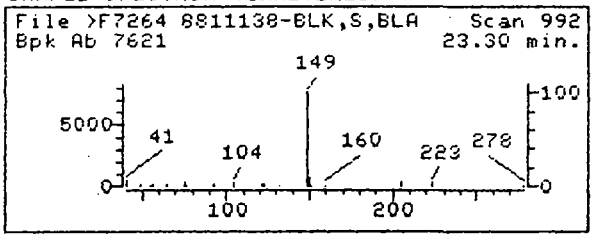
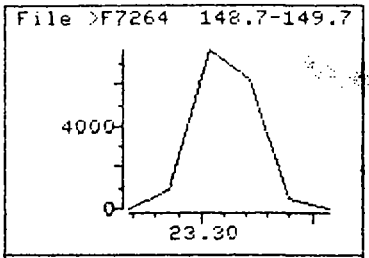
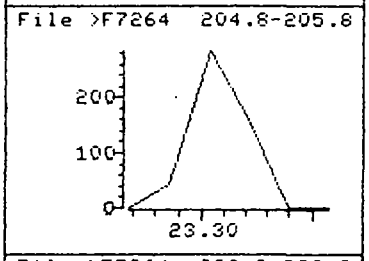
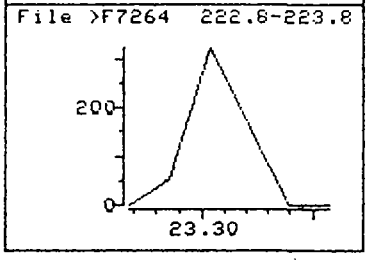








Data File: >F7264::F2 Quant Output File: ^F7264::QT
Name: 8811138-BLK,S,BLANK
Misc: CLP,11138,,SBLK_111488,L,S, HP5970F BTL# 8
Quant Time: 881207 18:42 Quant ID File: FBNAID::QT
Injected at: 881207 17:54 Last Calibration: 881207 12:55

Compound No: 60
Compound Name: C650 DI-N-BUTYLPHTHALATE
Scan Number: 992
Retention Time: 23.30 min.
Quant Ion: 149.0
Area: 16369
Concentration: 3.95 UG/ML
q-value: 99

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 881207 18:42
Output File: ^F7264::QT Injected at: 881207 17:54
Data File: >F7264::F2 Dilution Factor: 1.00000
Name: 8811138-BLK,S,BLANK
Misc: CLP,11138,,SBLK_111488,L,S, HP5970F BTL# 8

ID File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F)
Last Calibration: 881207 12:55

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 D4-DICHLOROBENZENE	10.11	152.0	27061	40.00	UG/ML	100
2)	CS50 2-FLUOROPHENOL	7.36	112.0	72845	74.92	UG/ML	100
3)	CS45 D5-PHENOL	9.61	99.0	72929	83.27	UG/ML	100
16)	*CI40 D8-NAPHTHALENE	13.27	136.0	105882	40.00	UG/ML	100
17)	CS20 D5-NITROBENZENE	11.55	82.0	57580	45.16	UG/ML	100
31)	*CI50 D10-ACENAPHTHENE	17.76	164.0	60433	40.00	UG/ML	91
32)	CS25 2-FLUOROBIPHENYL	16.12	172.0	86102	40.64	UG/ML	100
33)	CS55 2,4,6-TRIBROMOPHENOL	19.79	329.8	13228	33.24	UG/ML	100
48)	CS80 DIETHYLPHTHALATE	19.12	149.1	1033	.39	UG/ML	93
52)	*CI60 D10-PHENANTHRENE	21.49	188.0	112343	40.00	UG/ML	100
60)	C650 DI-N-BUTYLPHTHALATE	23.30	149.0	16369	3.95	UG/ML	99
62)	*CI70 D12-CHRYSENE	28.28	240.3	40419	40.00	UG/ML	90
63)	CS30 D14-P-TERPHENYL	25.69	244.0	74583	38.47	UG/ML	100
70)	*CI75 D12-PERYLENE	32.30	264.2	9933	40.00	UG/ML	100

* Compound is ISTD

MS data file header from : >F7264

Sample: 8811138-BLK,S,BLANK Operator: MANAGER MS 12/07/88 17:54
Misc : CLP,11138,,SBLK_111488,L,S, HP5970F BTL# 8
Sys. #: 1 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: FBNA Tuning file: MT7701 No. of extra records: 2
Source temp.: 0 Analyzer temp.: 280 Transfer line temp. : 0

Chromatographic temperatures :	40.	290.	0.	0.	0.
Chromatographic times, min. :	4.0	16.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	10.0	0.0	0.0	.1	0.0

>F7264 8811138-BLK,S,BLANK CLP,11138,,SBLK_111488,L,S,
40.0 450.0 CLP ADC TIC
Upslope: .20 Area Reject: 935350. Max Peaks: 1 Bunching: 1
Dnslope: 0.00 Results File IF7264 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	6.79	43	72	73	452198	9817412	9353504	100.00	100.000

Sum of corrected areas: 9353504.

Summary of Unknowns PBM Library Search and Quantitation

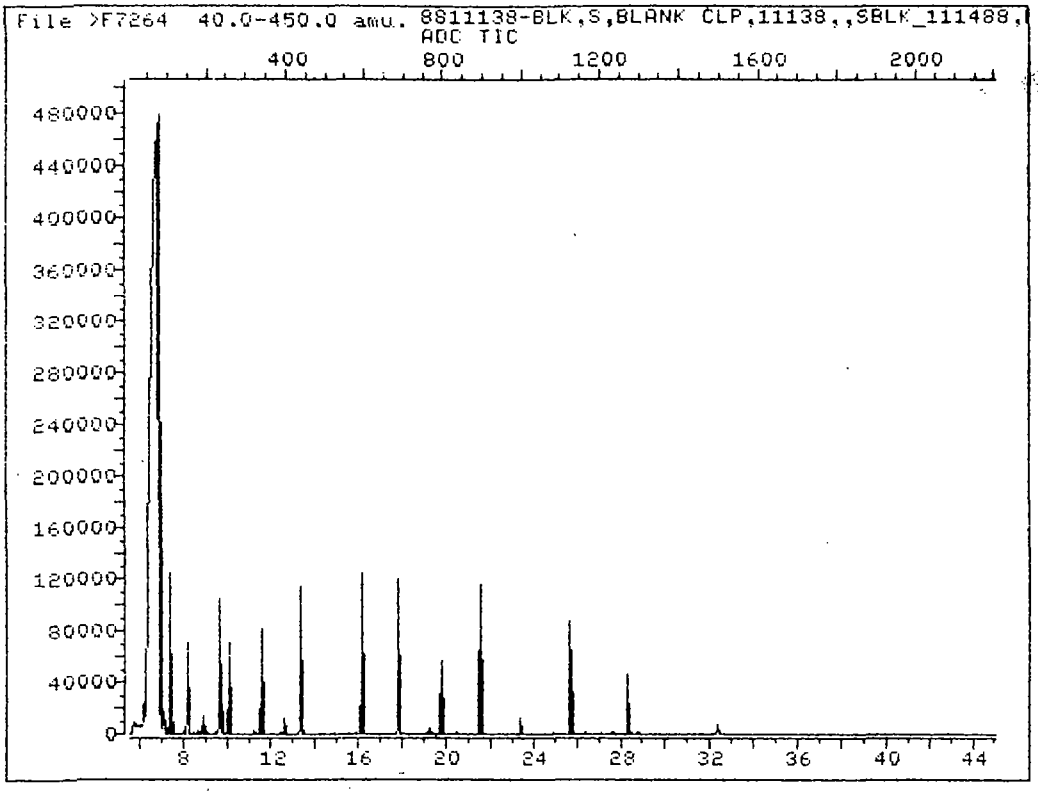
Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	9353504.	10.11	5.51 - 11.69
2	40.0	9353504.	13.27	11.69 - 15.51
3	40.0	9353504.	17.76	15.51 - 19.62
4	40.0	9353504.	21.49	19.62 - 24.88
5	40.0	9353504.	28.28	24.88 - 30.29
6	40.0	9353504.	32.30	30.29 - 45.04

Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1.00 Amount Used (AU) = 1.00

Correction Factor = 1.00 = (AM / AU) / (DF * FS)

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unk} * \text{Correction Factor}$$

12:04 PM WED., 14 DEC., 1988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1200
1600
2000
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440000
400000
360000
320000
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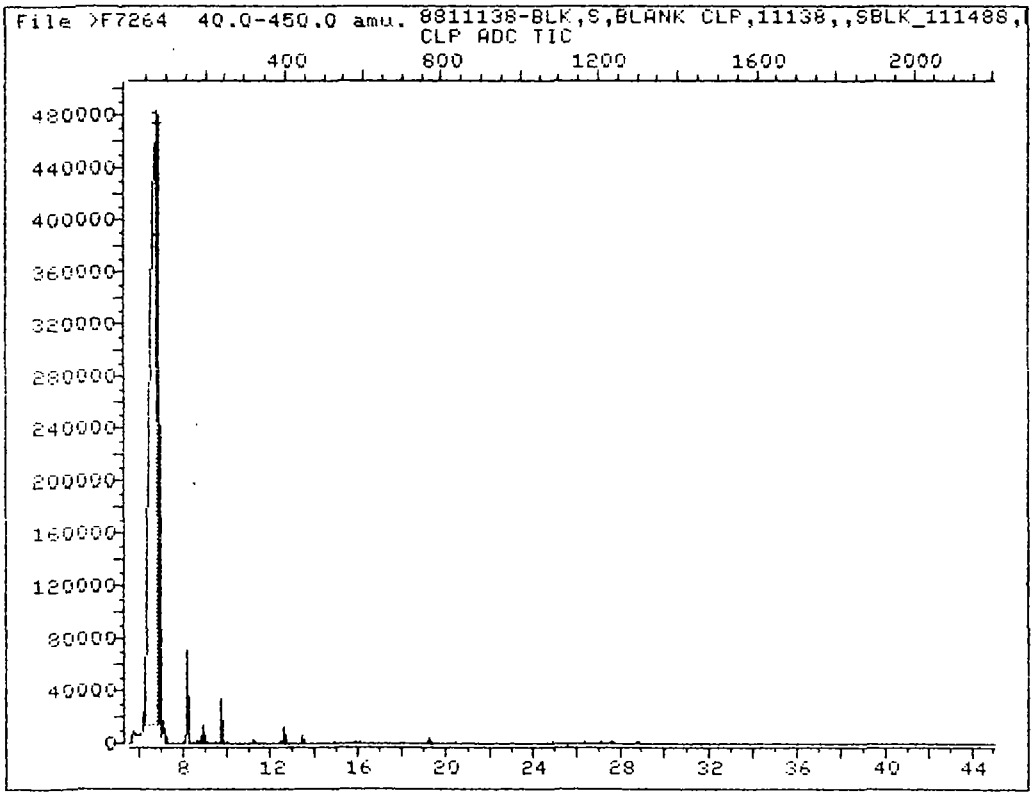
44


File >F7264 40.0-450.0 amu. 8811138-BLK,S,BLANK CLP,11138,,SBLK_111488,
CLP ADC TIC
400
800
1200
1600
2000
480000
440000
400000
360000
320000
280000
240000
200000
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120000
80000
40000
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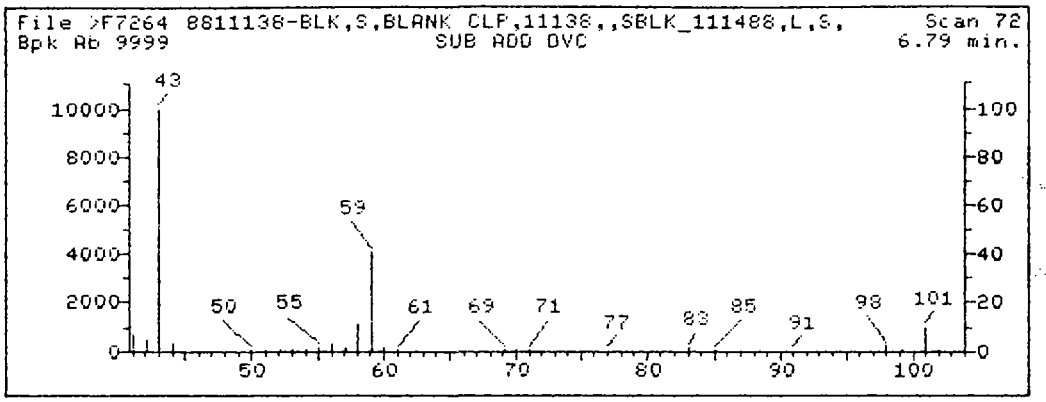
8
12
16
20
24
28
32
36
40
44



. Unknown #,1
Area = 9353504. Tentative Concentration is 40.00

Sample file: >F7264 Spectrum #: 72

No data base entries were retrieved.

4D(3). MATRIX SPIKE DATA

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MTL-SS-E6_5MS

Lab Name: CAMBRG ANALYTL Contract:

Lab Code: CAMBRDG Case No.: 11138 SAS No.: SDG No.: 4 126

Matrix: (soil/water) SOIL Lab Sample ID: SB11138-03FS

Sample wt/vol: 31.6 (g/mL) G Lab File ID: F7262

Level: (low/med) LOW Date Received: 11/10/88

% Moisture: not dec. 17 dec. 17 Date Extracted: 11/14/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/07/88

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	380	U
111-44-4	bis(2-Chloroethyl)Ether	380	U
95-57-8	2-Chlorophenol	380	U
541-73-1	1,3-Dichlorobenzene	380	U
106-46-7	1,4-Dichlorobenzene	380	U
100-51-6	Benzyl Alcohol	380	U
95-50-1	1,2-Dichlorobenzene	380	U
95-48-7	2-Methylphenol	380	U
108-60-1	bis(2-Chloroisopropyl)Ether	380	U
106-44-5	4-Methylphenol	49	J
621-64-7	N-Nitroso-Di-n-Propylamine	380	U
67-72-1	Hexachloroethane	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	U
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
65-85-0	Benzoic Acid	1800	U
111-91-1	bis(2-Chloroethoxy)Methane	380	U
120-83-2	2,4-Dichlorophenol	380	U
120-82-1	1,2,4-Trichlorobenzene	380	U
91-20-3	Naphthalene	380	U
106-47-8	4-Chloroaniline	380	U
87-68-3	Hexachlorobutadiene	380	U
59-50-7	4-Chloro-3-Methylphenol	380	U
91-57-6	2-Methylnaphthalene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2,4,6-Trichlorophenol	380	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethyl Phthalate	380	U
208-96-8	Acenaphthylene	380	U
606-20-2	2,6-Dinitrotoluene	380	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MTL-SS-E6_5MS

Lab Name: CAMBRG ANALYTL Contract:

Lab Code: CAMBRDG Case No.: 11138 SAS No.: SDG No.: 4 127

Matrix: (soil/water) SOIL Lab Sample ID: 8811138-03FS

Sample wt/vol: 31.6 (g/mL) G Lab File ID: F7262

Level: (low/med) LOW Date Received: 11/10/88

% Moisture: not dec. 17 dec. 17 Date Extracted: 11/14/88

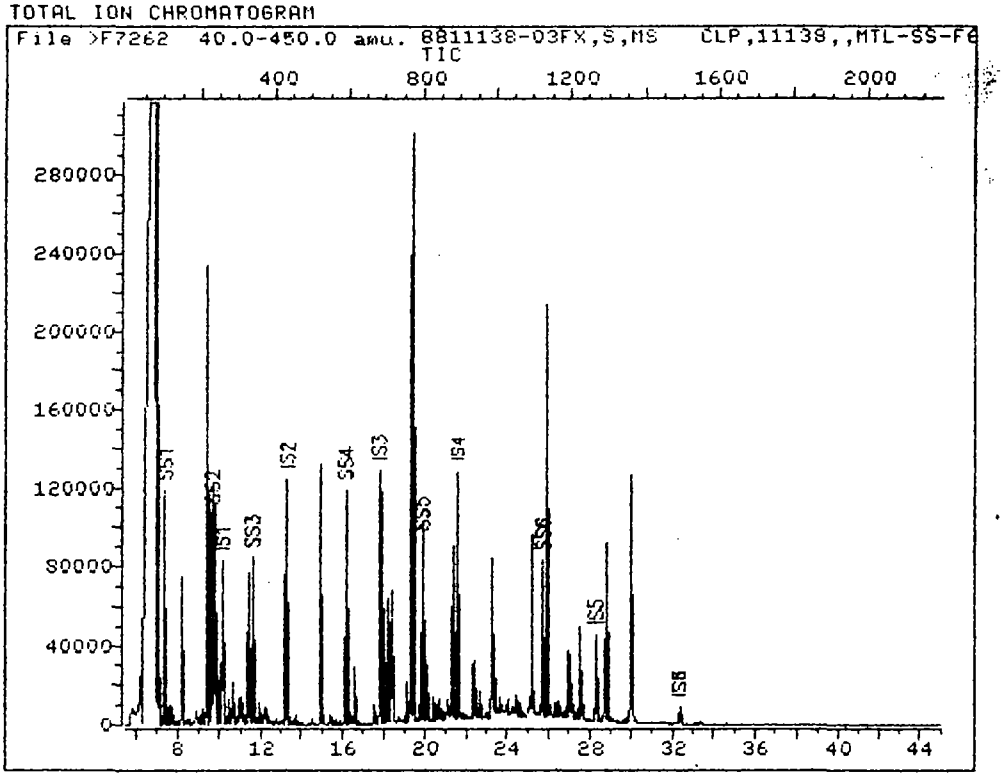
Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/07/88

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	380	U
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	380	U
121-14-2	2,4-Dinitrotoluene	380	U
84-66-2	Diethylphthalate	380	U
7005-72-3	4-Chlorophenyl-phenylether	380	U
86-73-7	Fluorene	380	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-Methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	380	U
101-55-3	4-Bromophenyl-phenylether	380	U
118-74-1	Hexachlorobenzene	380	U
87-86-5	Pentachlorophenol	1800	U
85-01-8	Phenanthrene	380	U
120-12-7	Anthracene	380	U
84-74-2	Di-n-Butylphthalate	310	BJ
206-44-0	Fluoranthene	380	U
129-00-0	Pyrene	380	U
85-68-7	Butylbenzylphthalate	78	J
91-94-1	3,3'-Dichlorobenzidine	750	U
56-55-3	Benzo(a)Anthracene	380	U
218-01-9	Chrysene	380	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1900	
117-84-0	Di-n-Octyl Phthalate	380	U
205-99-2	Benzo(b)Fluoranthene	380	U
207-08-9	Benzo(k)Fluoranthene	380	U
50-32-8	Benzo(a)Pyrene	380	U
193-39-5	Indeno(1,2,3-cd)Pyrene	380	U
53-70-3	Dibenz(a,h)Anthracene	380	U
191-24-2	Benzo(g,h,i)Perylene	380	U

(1) - Cannot be separated from Diphenylamine

TOTAL ION CHROMATOGRAM



Data File: >F7262::F2 Quant Output File: ^F7262::QT
Name: 8811138-03FX,S,MS
Misc: CLP,11138,,MTL-SS-F6.5-002MS,L,S, HP5970F BTL# 6

Id File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F)
Last Calibration: 881207 12:55

Operator ID: MANAGER
Quant Time: 881207 16:30
Injected at: 881207 15:42

only spiked w/ half of MS volume.

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 881207 16:30
Output File: ^F7262::QT Injected at: 881207 15:42
Data File: >F7262::F2 Dilution Factor: 1.00000
Name: 8811138-03FX,S,MS
Misc: CLP,11138,,MTL-SS-F6.5-002MS,L,S, HP5970F BTL# 6

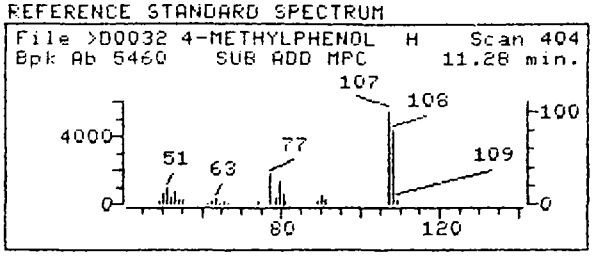
ID File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F)
Last Calibration: 881207 12:55

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*CI30 D4-DICHLOROBENZENE	10.12	257	26830	40.00	UG/ML	100
2)	CS50 2-FLUOROPHENOL	7.37	104	83023	86.13	UG/ML	100
3)	CS45 D5-PHENOL	9.63	230	78473	90.37	UG/ML	100
4)	C315 PHENOL	9.67	232	81350	59.35	UG/ML	94
6)	C330 2-CHLOROPHENOL	9.74	236	65265	62.48	UG/ML	93
8)	C340 1,4-DICHLOROBENZENE	10.16	259	32052	29.49	UG/ML	98
13)	C365 4-METHYLPHENOL Fr	11.38	327	1225	1.28	UG/ML	88
14)	C370 NITROSO-DI-N-PROPYLAMINE	11.36	326	35846	39.04	UG/ML	98
16)	*CI40 D8-NAPHTHALENE	13.28	433	113811	40.00	UG/ML	100
17)	CS20 D5-NITROBENZENE	11.56	337	56799	41.45	UG/ML	100
25)	C445 1,2,4-TRICHLOROBENZENE	13.19	428	33292	33.49	UG/ML	98
29)	C465 4-CHLORO-M-CRESOL	14.93	525	72075	64.98	UG/ML	86
31)	*CI50 D10-ACENAPHTHENE	17.77	683	63328	40.00	UG/ML	91
32)	CS25 2-FLUOROBIPHENYL	16.12	591	87837	39.56	UG/ML	100
33)	CS55 2,4,6-TRIBROMOPHENOL	19.80	796	32062	76.89	UG/ML	100
42)	C550 ACENAPHTHENE	17.84	687	66616	33.57	UG/ML	94
44)	C560 4-NITROPHENOL	18.35	715	14905	52.17	UG/ML	54
46)	C570 2,4-DINITROTOLUENE	18.42	719	30358	32.76	UG/ML	90
52)	*CI60 D10-PHENANTHRENE	21.51	891	118125	40.00	UG/ML	100
57)	C635 PENTACHLOROPHENOL	21.24	876	23428	77.49	UG/ML	96
60)	C650 DI-N-BUTYLPHTHALATE	23.33	992	35212	8.09	UG/ML	97
62)	*CI70 D12-CHRYSENE	28.28	1267	31467	40.00	UG/ML	91
63)	CS30 D14-P-TERPHENYL	25.71	1124	63352	41.97	UG/ML	100
64)	C715 PYRENE	25.17	1094	78121	34.97	UG/ML	100
65)	C720 BUTYLBENZYLPHTHALATE	27.11	1202	1715	2.05	UG/ML	94
68)	C745 BIS 2-ETHYLHEXYLPHTHALATE	28.71	1291	48826	51.13	UG/ML	97
70)	*CI75 D12-PERYLENE	32.31	1491	9896	40.00	UG/ML	100

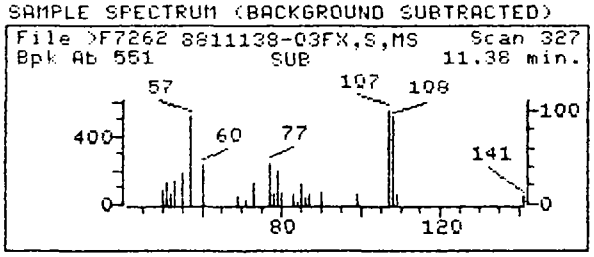
* Compound is ISTD

FR Cont Clean ✓

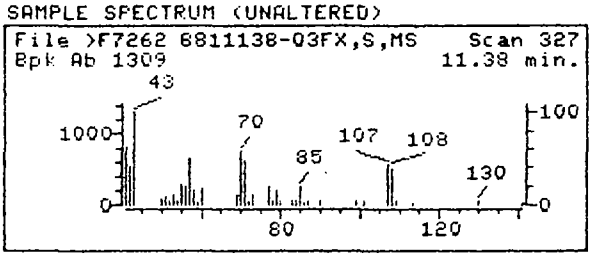
REFERENCE STANDARD SPECTRUM

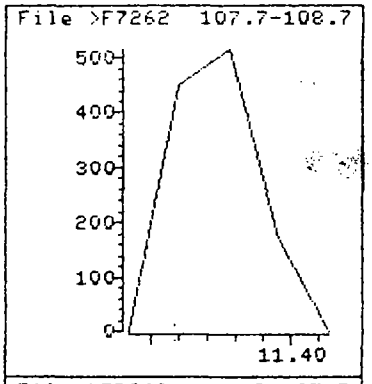


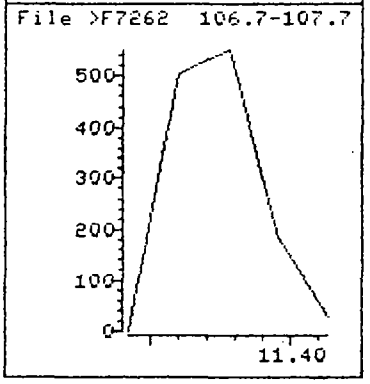
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





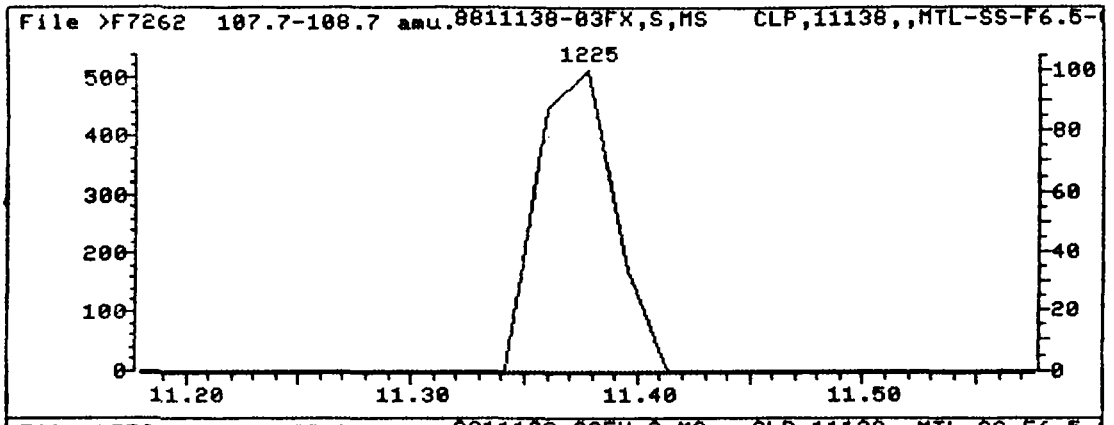


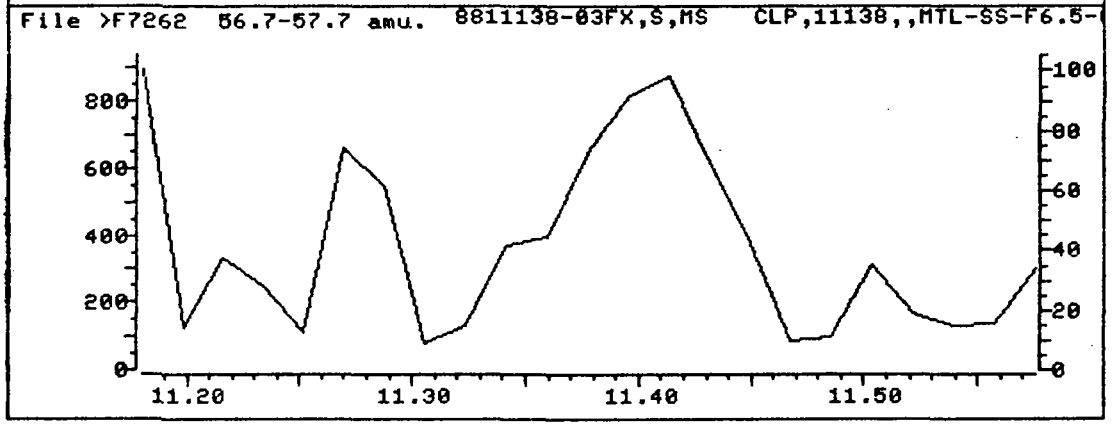
Data File: >F7262::F2 Quant Output File: ^F7262::QT
Name: 8811138-03FX,S,MS
Misc: CLP,11138,,MTL-SS-F6.5-002MS,L,S, HP5970F BTL# 6
Quant Time: 881207 16:30 Quant ID File: FBNAID::QT
Injected at: 881207 15:42 Last Calibration: 881207 12:55

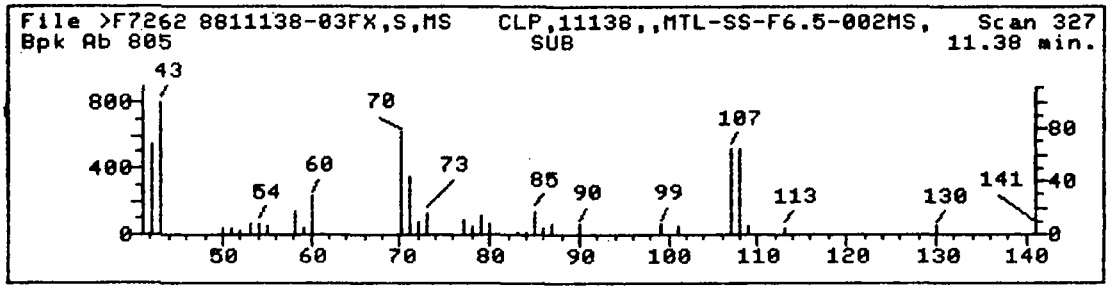
Compound No: 13
Compound Name: C365 4-METHYLPHENOL
Scan Number: 327
Retention Time: 11.38 min.
Quant Ion: 108.0
Area: 1225
Concentration: 1.28 UG/ML
q-value: 88

OK
SDL

>F7300::F2 881209 16:58 3305_110488,S,CAL CLP,5000,,SSTD050,,,

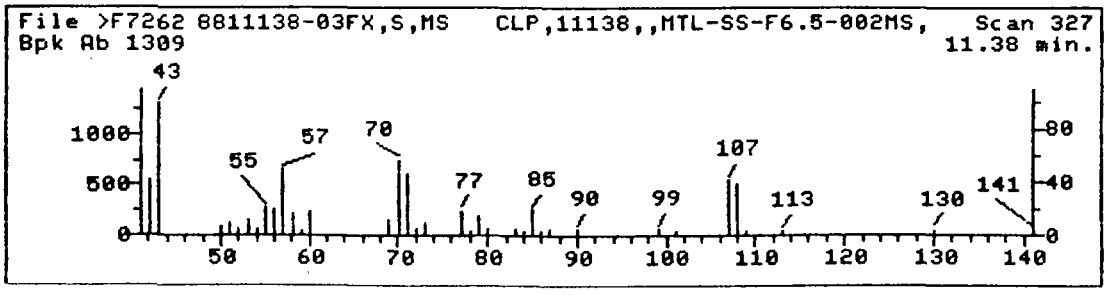




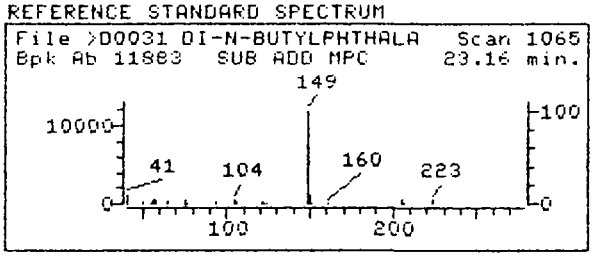


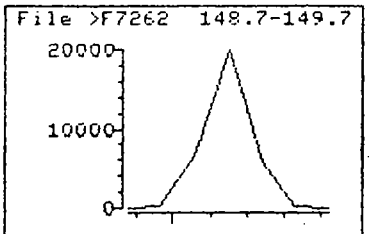
Sample Spectrum (background subtracted)

Sample Spectrum (unaltered)

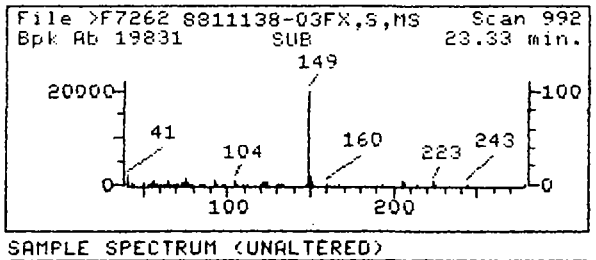


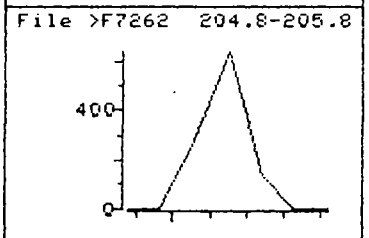
REFERENCE STANDARD SPECTRUM



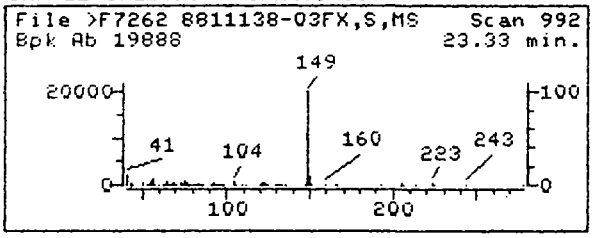


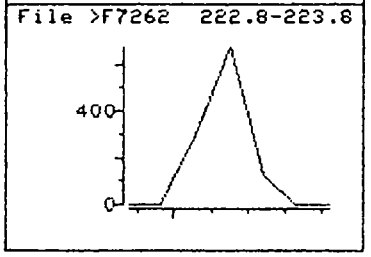
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)

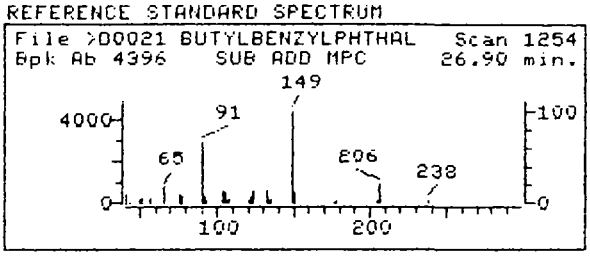


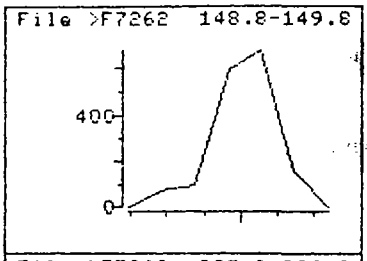


Data File: >F7262::F2 Quant Output File: ^F7262::QT
Name: 8811138-03FX,S,MS
Misc: CLP,11138,,MTL-SS-F6.5-002MS,L,S, HP5970F BTL# 6
Quant Time: 881207 16:30 Quant ID File: FBNAID::QT
Injected at: 881207 15:42 Last Calibration: 881207 12:55

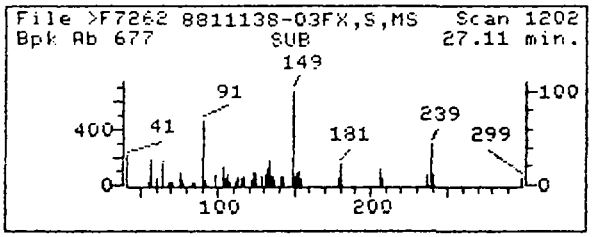
Compound No: 60
Compound Name: C650 DI-N-BUTYLPHTHALATE
Scan Number: 992
Retention Time: 23.33 min.
Quant Ion: 149.0
Area: 35212
Concentration: 8.09 UG/ML
q-value: 97

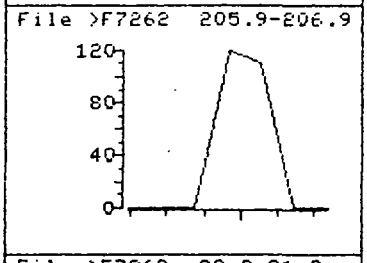
REFERENCE STANDARD SPECTRUM



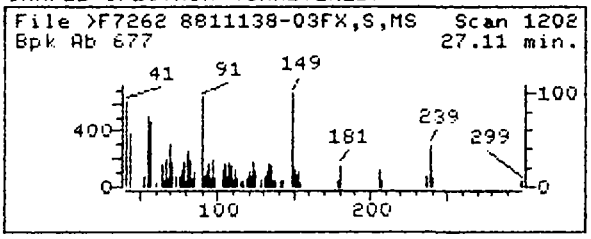


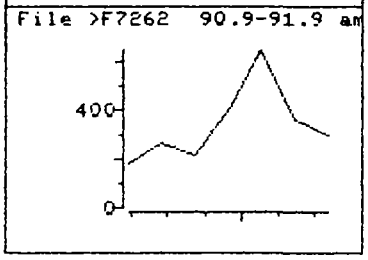
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)

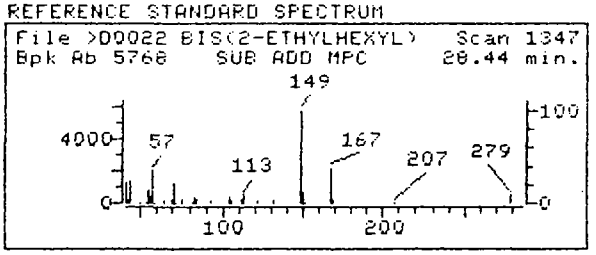




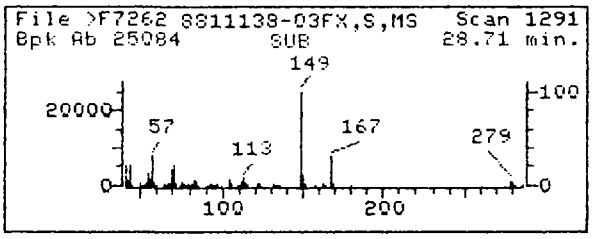
Data File: >F7262::F2 Quant Output File: ^F7262::QT
Name: 8811138-03FX,S,MS
Misc: CLP,11138,,MTL-SS-F6.5-002MS,L,S, HP5970F BTL# 6
Quant Time: 881207 16:30 Quant ID File: FBNAID::QT
Injected at: 881207 15:42 Last Calibration: 881207 12:55

Compound No: 65
Compound Name: C720 BUTYLBENZYLPHTHALATE
Scan Number: 1202
Retention Time: 27.11 min.
Quant Ion: 149.1
Area: 1715
Concentration: 2.05 UG/ML
q-value: 94

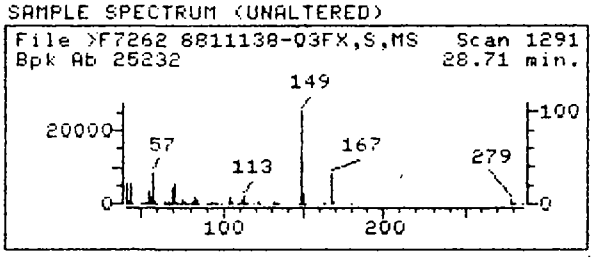
REFERENCE STANDARD SPECTRUM

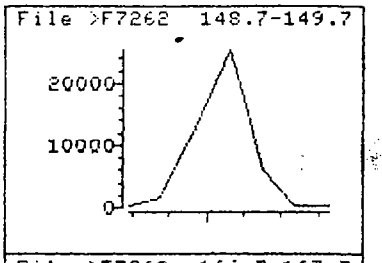


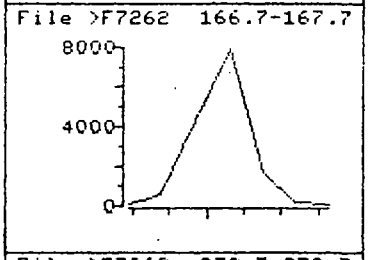
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

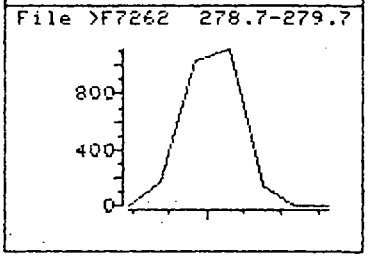


SAMPLE SPECTRUM (UNALTERED)









Data File: >F7262::F2 Quant Output File: ^F7262::QT
Name: 8811138-03FX,S,MS
Misc: CLP,11138,,MTL-SS-F6.5-002MS,L,S, HP5970F BTL# 6
Quant Time: 881207 16:30 Quant ID File: FBNAID::QT
Injected at: 881207 15:42 Last Calibration: 881207 12:55

Compound No: 68
Compound Name: C745 BIS 2-ETHYLHEXYLPHTHALATE
Scan Number: 1291
Retention Time: 28.71 min.
Quant Ion: 149.0
Area: 48826
Concentration: 51.13 UG/ML
q-value: 97

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 881207 16:30
Output File: ^F7262::QT Injected at: 881207 15:42
Data File: >F7262::F2 Dilution Factor: 1.00000
Name: 8811138-03FX,S,MS
Misc: CLP,11138,,MTL-SS-F6.5-002MS,L,S, HPS970F BTL# 6

ID File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HPS970F)
Last Calibration: 881207 12:55

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 D4-DICHLOROBENZENE	10.12	152.0	26830	40.00	UG/ML	100
2)	CS50 2-FLUOROPHENOL	7.37	112.0	83023	86.13	UG/ML	100
3)	CS45 D5-PHENOL	9.63	99.0	78473	90.37	UG/ML	100
4)	C315 PHENOL	9.67	94.1	81350	59.35	UG/ML	94
6)	C330 2-CHLOROPHENOL	9.74	128.0	65265	62.48	UG/ML	93
7)	C335 1,3-DICHLOROBENZENE fp	10.16	146.0	32052	29.34	UG/ML	98
8)	C340 1,4-DICHLOROBENZENE	10.16	146.0	32052	29.49	UG/ML	98
10)	C350 1,2-DICHLOROBENZENE fp	10.16	146.0	32052	33.06	UG/ML	98
11)	C355 2-METHYLPHENOL fp	11.38	108.0	1225	1.36	UG/ML	77
13)	C365 4-METHYLPHENOL	11.38	108.0	1225	1.28	UG/ML	88
14)	C370 NITROSO-DI-N-PROPYLAMINE	11.36	70.0	35846	39.04	UG/ML	98
16)	*CI40 D8-NAPHTHALENE	13.28	136.0	113811	40.00	UG/ML	100
17)	CS20 D5-NITROBENZENE	11.56	82.0	56799	41.45	UG/ML	100
25)	C445 1,2,4-TRICHLOROBENZENE	13.19	180.0	33292	33.49	UG/ML	98
26)	C450 NAPHTHALENE lf	13.32	128.1	2011	.68	UG/ML	95
29)	C465 4-CHLORO-M-CRESOL	14.93	107.1	72075	64.98	UG/ML	86
31)	*CI50 D10-ACENAPHTHENE	17.77	164.0	63328	40.00	UG/ML	91
32)	CS25 2-FLUOROBIPHENYL	16.12	172.0	87837	39.56	UG/ML	100
33)	CS55 2,4,6-TRIBROMOPHENOL	19.80	329.8	32062	76.89	UG/ML	100
40)	C540 ACENAPHTHYLENE f	17.84	152.1	31850	10.56	UG/ML	77
42)	C550 ACENAPHTHENE	17.84	153.2	66616	33.57	UG/ML	94
44)	C560 4-NITROPHENOL	18.35	109.0	14905	52.17	UG/ML	54
46)	C570 2,4-DINITROTOLUENE	18.42	165.1	30358	32.76	UG/ML	90
48)	C580 DIETHYLPHTHALATE lf	19.25	149.1	1136	.41	UG/ML	94
52)	*CI60 D10-PHENANTHRENE	21.51	188.0	118125	40.00	UG/ML	100
57)	C635 PENTACHLOROPHENOL	21.24	265.9	23428	77.49	UG/ML	96
60)	C650 DI-N-BUTYLPHTHALATE	23.33	149.0	35212	8.09	UG/ML	97
62)	*CI70 D12-CHRYSENE	28.28	240.3	31467	40.00	UG/ML	91
63)	CS30 D14-P-TERPHENYL	25.71	244.0	63352	41.97	UG/ML	100
64)	C715 PYRENE	25.17	202.2	78121	34.97	UG/ML	100
65)	C720 BUTYLBENZYLPHTHALATE	27.11	149.1	1715	2.05	UG/ML	94
68)	C745 BIS 2-ETHYLHEXYLPHTHALATE	28.71	149.0	48826	51.13	UG/ML	97
70)	*CI75 D12-PERYLENE	32.31	264.2	9896	40.00	UG/ML	100

* Compound is ISTD

4D(4). MATRIX SPIKE DUPL. DATA

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MTL-SS-E6_5SD

Lab Name: CAMBRG ANALYTL Contract:

Lab Code: CAMBRDG Case No.: 11138 SAS No.: SDG No.: 4 137

Matrix: (soil/water) SOIL Lab Sample ID: 8811138-03GD

Sample wt/vol: 37.2 (g/mL) G Lab File ID: F7263

Level: (low/med) LOW Date Received: 11/10/88

% Moisture: not dec. 17 dec. 17 Date Extracted: 11/14/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/07/88

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	320	U
111-44-4	bis(2-Chloroethyl)Ether	320	U
95-57-8	2-Chlorophenol	320	U
541-73-1	1,3-Dichlorobenzene	320	U
106-46-7	1,4-Dichlorobenzene	320	U
100-51-6	Benzyl Alcohol	320	U
95-50-1	1,2-Dichlorobenzene	320	U
95-48-7	2-Methylphenol	320	U
108-60-1	bis(2-Chloroisopropyl)Ether	320	U
106-44-5	4-Methylphenol	320	U
621-64-7	N-Nitroso-Di-n-Propylamine	320	U
67-72-1	Hexachloroethane	320	U
98-95-3	Nitrobenzene	320	U
78-59-1	Isophorone	320	U
88-75-5	2-Nitrophenol	320	U
105-67-9	2,4-Dimethylphenol	320	U
65-85-0	Benzoic Acid	1600	U
111-91-1	bis(2-Chloroethoxy)Methane	320	U
120-83-2	2,4-Dichlorophenol	320	U
120-82-1	1,2,4-Trichlorobenzene	320	U
91-20-3	Naphthalene	320	U
106-47-8	4-Chloroaniline	320	U
87-68-3	Hexachlorobutadiene	320	U
59-50-7	4-Chloro-3-Methylphenol	320	U
91-57-6	2-Methylnaphthalene	320	U
77-47-4	Hexachlorocyclopentadiene	320	U
88-06-2	2,4,6-Trichlorophenol	320	U
95-95-4	2,4,5-Trichlorophenol	1600	U
91-58-7	2-Chloronaphthalene	320	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethyl Phthalate	320	U
208-96-8	Acenaphthylene	320	U
606-20-2	2,6-Dinitrotoluene	320	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MTL-SS-E6_5SD

4 138

Lab Name: CAMBRG ANALYTL Contract:

Lab Code: CAMBRDG Case No.: 11138 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 8811138-03GD

Sample wt/vol: 37.2 (g/mL) G Lab File ID: F7263

Level: (low/med) LOW Date Received: 11/10/88

% Moisture: not dec. 17 dec. 17 Date Extracted: 11/14/88

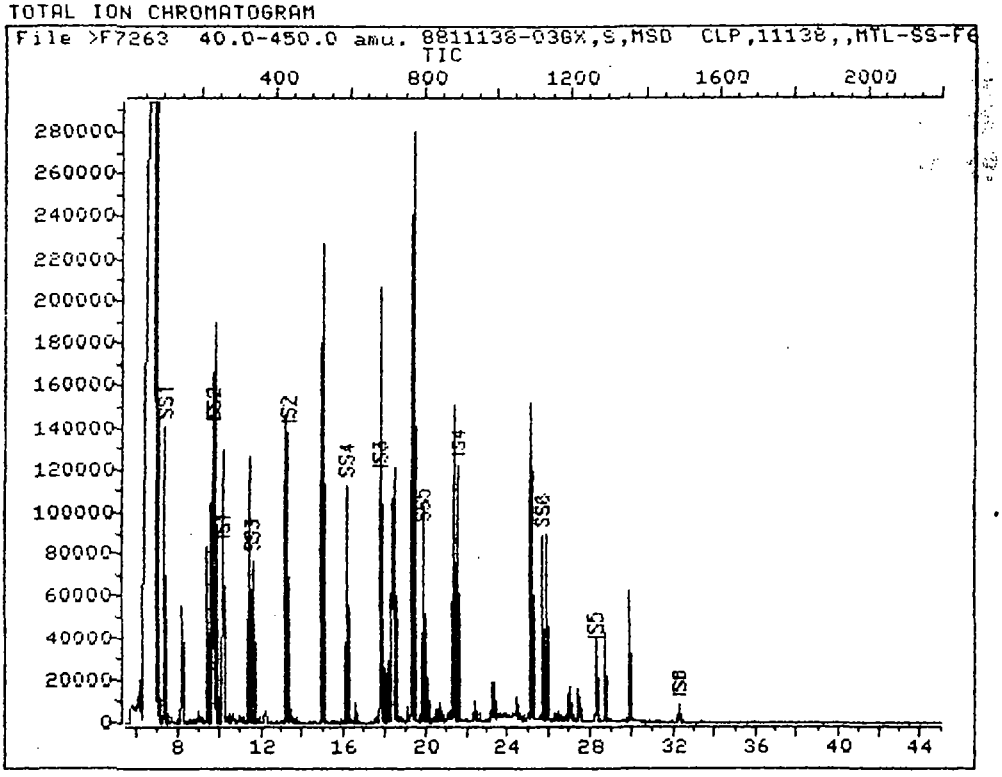
Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/07/88

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1600	U
83-32-9	Acenaphthene	320	U
51-28-5	2,4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	320	U
121-14-2	2,4-Dinitrotoluene	320	U
84-66-2	Diethylphthalate	320	U
7005-72-3	4-Chlorophenyl-phenylether	320	U
86-73-7	Fluorene	320	U
100-01-6	4-Nitroaniline	1600	U
534-52-1	4,6-Dinitro-2-Methylphenol	1600	U
86-30-6	N-Nitrosodiphenylamine (1)	320	U
101-55-3	4-Bromophenyl-phenylether	320	U
118-74-1	Hexachlorobenzene	320	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	320	U
120-12-7	Anthracene	320	U
84-74-2	Di-n-Butylphthalate	130	BJ
206-44-0	Fluoranthene	320	U
129-00-0	Pyrene	320	U
85-68-7	Butylbenzylphthalate	320	U
91-94-1	3,3'-Dichlorobenzidine	640	U
56-55-3	Benzo(a)Anthracene	320	U
218-01-9	Chrysene	320	U
117-81-7	bis(2-Ethylhexyl)Phthalate	740	
117-84-0	Di-n-Octyl Phthalate	320	U
205-99-2	Benzo(b)Fluoranthene	320	U
207-08-9	Benzo(k)Fluoranthene	320	U
50-32-8	Benzo(a)Pyrene	320	U
193-39-5	Indeno(1,2,3-cd)Pyrene	320	U
53-70-3	Dibenz(a,h)Anthracene	320	U
191-24-2	Benzo(g,h,i)Perylene	320	U

(1) - Cannot be separated from Diphenylamine

TOTAL ION CHROMATOGRAM



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Name: 8811138-036X,S,MSD
Misc: CLP,11138,,MTL-SS-F6.5-002MSD,L,S, HP5970F BTL# 7

Id File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F)
Last Calibration: 881207 12:55

Operator ID: MANAGER
Quant Time: 881207 17:25
Injected at: 881207 16:37

QUANT REPORT

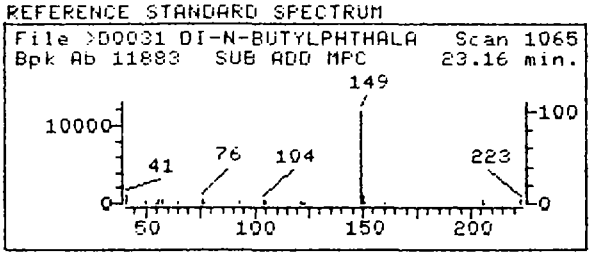
Operator ID: MANAGER Quant Rev: 6 Quant Time: 881207 17:25
Output File: ^F7263::QT Injected at: 881207 16:37
Data File: >F7263::F2 Dilution Factor: 1.00000
Name: 8811138-03GX,S,MSD
Misc: CLP,11138,,MTL-SS-F6.5-002MSD,L,S, HP5970F BTL# 7

ID File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F) 4 140
Last Calibration: 881207 12:55

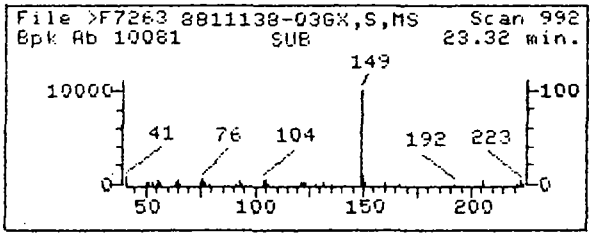
	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*CI30 D4-DICHLOROBENZENE	10.12	257	27268	40.00	UG/ML	100
2)	CS50 2-FLUOROPHENOL	7.37	104	82572	84.28	UG/ML	100
3)	CS45 D5-PHENOL	9.65	231	73462	83.24	UG/ML	100
4)	C315 PHENOL	9.69	233	183083	131.43	UG/ML	93
6)	C330 2-CHLOROPHENOL	9.76	237	139808	131.69	UG/ML	96
8)	C340 1,4-DICHLOROBENZENE	10.16	259	71671	64.89	UG/ML	97
14)	C370 NITROSO-DI-N-PROPYLAMINE	11.38	327	79061	84.72	UG/ML	97
16)	*CI40 D8-NAPHTHALENE	13.28	433	107883	40.00	UG/ML	100
17)	CS20 D5-NITROBENZENE	11.56	337	53524	41.20	UG/ML	100
25)	C445 1,2,4-TRICHLOROBENZENE	13.21	429	73455	77.96	UG/ML	99
29)	C465 4-CHLORO-M-CRESOL	14.95	526	155396	147.81	UG/ML	87
31)	*CI50 D10-ACENAPHTHENE	17.77	683	64146	40.00	UG/ML	94
32)	CS25 2-FLUOROBIPHENYL	16.12	591	86330	38.39	UG/ML	100
33)	CS55 2,4,6-TRIBROMOPHENOL	19.80	796	30816	72.96	UG/ML	100
42)	C550 ACENAPHTHENE	17.88	689	149006	74.13	UG/ML	94
44)	C560 4-NITROPHENOL	18.38	717	38565	133.27	UG/ML	51
46)	C570 2,4-DINITROTOLUENE	18.45	721	76230	81.21	UG/ML	92
52)	*CI60 D10-PHENANTHRENE	21.51	891	118726	40.00	UG/ML	100
57)	C635 PENTACHLOROPHENOL	21.26	877	48846	160.74	UG/ML	99
60)	C650 DI-N-BUTYLPHTHALATE	23.32	992	18213	4.16	UG/ML	98
62)	*CI70 D12-CHRYSENE	28.27	1267	34561	40.00	UG/ML	91
63)	CS30 D14-P-TERPHENYL	25.70	1124	66165	39.91	UG/ML	100
64)	C715 PYRENE	25.18	1095	187137	76.26	UG/ML	100
68)	C745 BIS 2-ETHYLHEXYLPHTHALATE	28.70	1291	24047	22.93	UG/ML	97
70)	*CI75 D12-PERYLENE	32.29	1491	9086	40.00	UG/ML	100

* Compound is ISTD

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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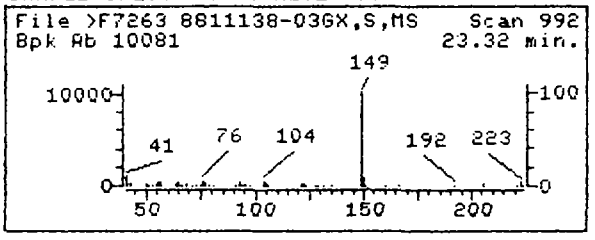
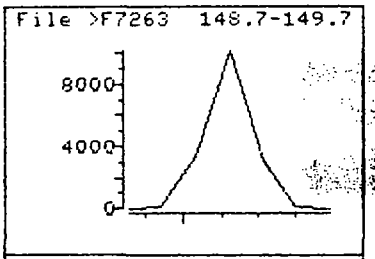
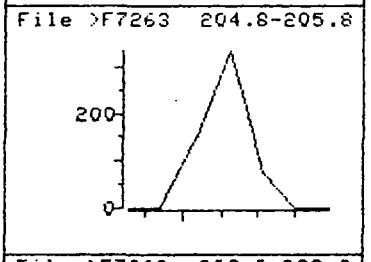
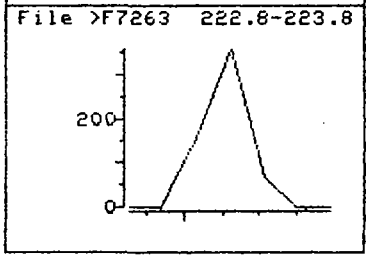




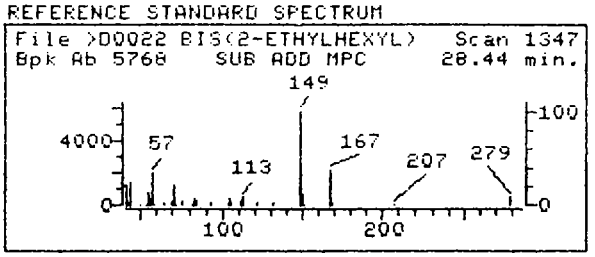




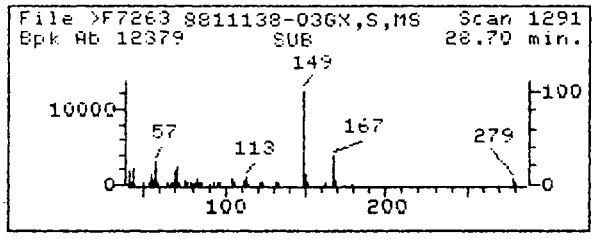
Data File: >F7263::F2 Quant Output File: ^F7263::QT
Name: 8811138-03GX,S,MSD
Misc: CLP,11138,,MTL-SS-F6.5-002MSD,L,S, HP5970F BTL# 7
Quant Time: 881207 17:25 Quant ID File: FBNAID::QT
Injected at: 881207 16:37 Last Calibration: 881207 12:55

Compound No: 60
Compound Name: C650 DI-N-BUTYLPHTHALATE
Scan Number: 992
Retention Time: 23.32 min.
Quant Ion: 149.0
Area: 18213
Concentration: 4.16 UG/ML
q-value: 98

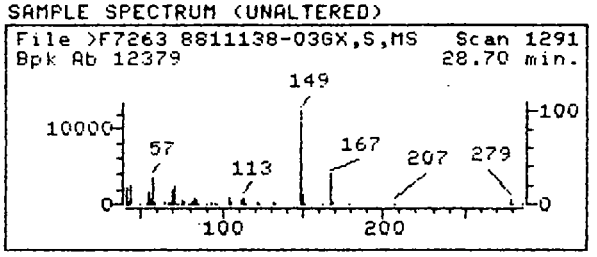
REFERENCE STANDARD SPECTRUM

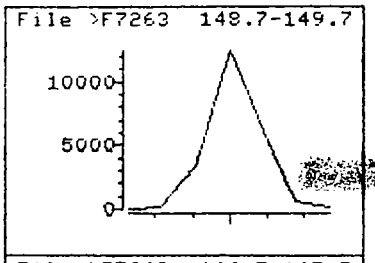


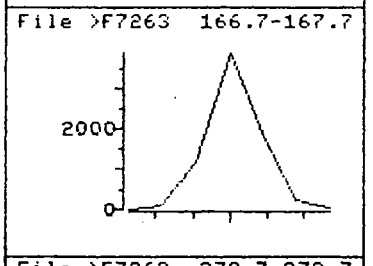
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

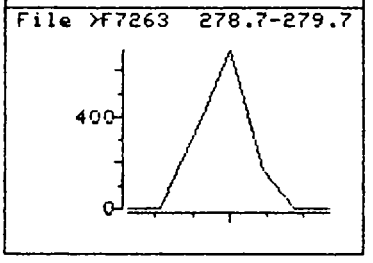


SAMPLE SPECTRUM (UNALTERED)









4 142

Data File: >F7263::F2 Quant Output File: ^F7263::QT
Name: 8811138-03GX,S,MSD
Misc: CLP,11138,,MTL-SS-F6.5-002MSD,L,S, HP5970F BTL# 7
Quant Time: 881207 17:25 Quant ID File: FBNAID::QT
Injected at: 881207 16:37 Last Calibration: 881207 12:55

Compound No: 68
Compound Name: C745 BIS 2-ETHYLHEXYLPHTHALATE
Scan Number: 1291
Retention Time: 28.70 min.
Quant Ion: 149.0
Area: 24047
Concentration: 22.93 UG/ML
q-value: 97

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 881207 17:25
Output File: ^F7263::QT Injected at: 881207 16:37
Data File: >F7263::F2 Dilution Factor: 1.00000
Name: 8811138-036X,S,MSD
Misc: CLP,11138,,MTL-SS-F6.5-002MSD,L,S, HP5970F BTL# 7

ID File: FBNAID::QT
Title: STANDARD HSL COMPOUNDS FOR CLP (INST=HP5970F)
Last Calibration: 881207 12:55

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 D4-DICHLOROBENZENE	10.12	152.0	27268	40.00	UG/ML	100
2)	CS50 2-FLUOROPHENOL	7.37	112.0	82572	84.28	UG/ML	100
3)	CS45 D5-PHENOL	9.65	99.0	73462	83.24	UG/ML	100
4)	C315 PHENOL	9.69	94.1	183083	131.43	UG/ML	93
6)	C330 2-CHLOROPHENOL	9.76	128.0	139808	131.69	UG/ML	96
7)	C335 1,3-DICHLOROBENZENE	10.16	146.0	71671	64.55	UG/ML	97
8)	C340 1,4-DICHLOROBENZENE	10.16	146.0	71671	64.89	UG/ML	97
10)	C350 1,2-DICHLOROBENZENE	10.16	146.0	71671	72.74	UG/ML	97
14)	C370 NITROSO-DI-N-PROPYLAMINE	11.38	70.0	79061	84.72	UG/ML	97
16)	*CI40 D8-NAPHTHALENE	13.28	136.0	107883	40.00	UG/ML	100
17)	CS20 D5-NITROBENZENE	11.56	82.0	53524	41.20	UG/ML	100
25)	C445 1,2,4-TRICHLOROBENZENE	13.21	180.0	73455	77.96	UG/ML	99
29)	C465 4-CHLORO-M-CRESOL	14.95	107.1	155396	147.81	UG/ML	87
31)	*CI50 D10-ACENAPHTHENE	17.77	164.0	64146	40.00	UG/ML	94
32)	CS25 2-FLUOROBIPHENYL	16.12	172.0	86330	38.39	UG/ML	100
33)	CS55 2,4,6-TRIBROMOPHENOL	19.80	329.8	30816	72.96	UG/ML	100
42)	C550 ACENAPHTHENE	17.88	153.2	149006	74.13	UG/ML	94
44)	C560 4-NITROPHENOL	18.38	109.0	38565	133.27	UG/ML	51
46)	C570 2,4-DINITROTOLUENE	18.45	165.1	76230	81.21	UG/ML	92
48)	C580 DIETHYLPHTHALATE	19.21	149.1	1020	.36	UG/ML	93
52)	*CI60 D10-PHENANTHRENE	21.51	188.0	118726	40.00	UG/ML	100
57)	C635 PENTACHLOROPHENOL	21.26	265.9	48846	160.74	UG/ML	99
60)	C650 DI-N-BUTYLPHTHALATE	23.32	149.0	18213	4.16	UG/ML	98
62)	*CI70 D12-CHRYSENE	28.27	240.3	34561	40.00	UG/ML	91
63)	CS30 D14-P-TERPHENYL	25.70	244.0	66165	39.91	UG/ML	100
64)	C715 PYRENE	25.18	202.2	187137	76.26	UG/ML	100
68)	C745 BIS 2-ETHYLHEXYLPHTHALATE	28.70	149.0	24047	22.93	UG/ML	97
70)	*CI75 D12-PERYLENE	32.29	264.2	9086	40.00	UG/ML	100

* Compound is ISTD